



ABSTRACT

This report discusses the results of the total ionizing dose (TID) testing for TPS7H5001-SP QMLP, Texas Instruments 4-V to 14-V, current mode, high speed radiation-tolerant PWM controller in plastic optimized for DC-DC converters in space applications. The study was done to determine TID effects under high dose rate (HDR) up to 100 krad(Si). The results show that all samples passed within the specified limits up to 100 krad(Si).

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1 Device Information

1.1 Product Description

The TPS7H5001-SP QMLP is a radiation hardness-assured, current mode, dual output PWM controller optimized for silicon (Si) and gallium nitride (GaN) based DC-DC converters in space applications. The switching frequency of the TPS7H5001-SP QMLP can be configured from 100 kHz to 2 MHz while still maintaining a very low current consumption, which makes it ideal for fully exploiting the area reduction and high efficiency benefits of GaN based DC-DC converters. The device features integrated synchronous rectifier control outputs and dead-time programmability in order to target high efficiency and high performance topologies. In addition, the TPS7H5001-SP QMLP supports single-ended converter topologies by providing the user flexibility to control the maximum duty cycle. The 0.613-V \pm 1% accurate internal reference allows design of high-current buck converters for FPGA core voltages.

The TPS7H5001-SP QMLP can be driven using an external clock through the SYNC pin or run using its internal oscillator at a frequency programmed by the user. Other programmable features include the UVLO threshold, soft start, and slope compensation. The TPS7H5001-SP QMLP is packaged in a very small 24-pin TSSOP (thin-shrink small outline package) package.

1.2 Device

[Table 1-1](#) lists the device information used in the initial TID HDR characterization.

Table 1-1. Device and Exposure Details

| TID Exposure Details | |
|-------------------------|---|
| TI Device | TPS7H5001-SP QMLP |
| TI Part Name | 5962R1822201PYE |
| Package | 24-pin TSSOP |
| Technology | LBC7 |
| Quantity Tested | 67 |
| Lot Accept/Reject | All levels tested and passed up to 100 krad(Si) |
| HDR Radiation Facility | Texas Instruments - Dallas, TX |
| HDR Dose Level | 3 krad(Si), 10 krad(Si), 30 krad(Si), 50 krad(Si), 100 krad(Si) |
| HDR Dose Rate | 203.32 rads(Si)/s |
| HDR Radiation Source | Gammacell (Hopewell, GR420) Co-60 |
| Irradiation Temperature | Ambient room temperature |

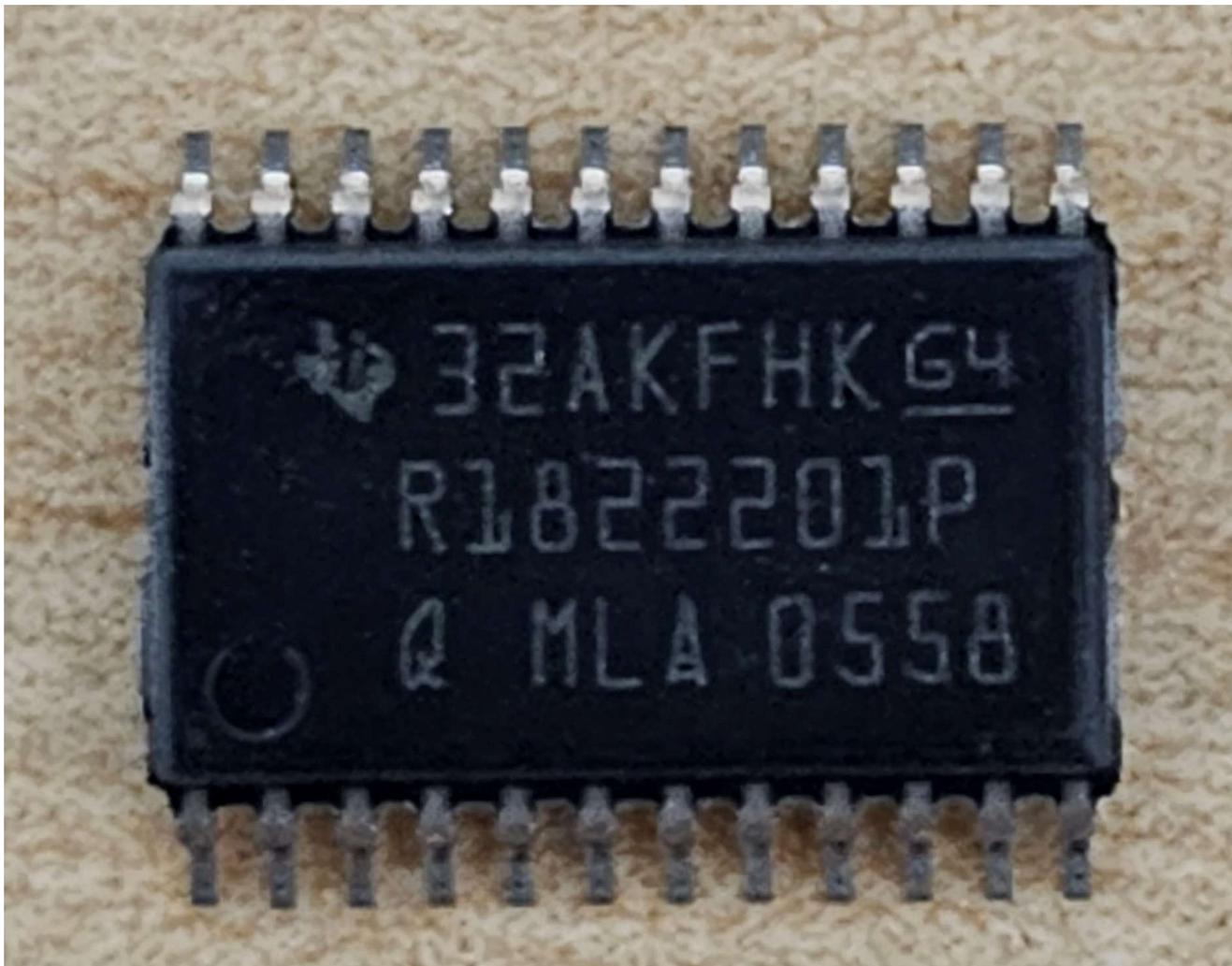


Figure 1-1. TPS7H5001-SP QMLP Device

2 Total Dose Test Setup

2.1 Test Overview

The TPS7H5001-SP QMLP was tested according to MIL-STD-883, Test Method 1019.9. For this testing, Condition A was used. The product was irradiated up to the target radiation level, and then put through full electrical parametric testing on the production automated test equipment (ATE). All devices remained functional passing all parametric test limits.

2.2 Test Description and Facilities

The TPS7H5001-SP QMLP HDR exposure was performed on biased and unbiased devices in a Co-60 Gamma cell at TI facility in Dallas, Texas. The un-attenuated dose rate of this cell is 203.32 rads(Si)/s. After exposure, the devices were packed in dry ice (per MIL-STD-883 Method 1019.9 section 3.10) and full post-radiation electrical evaluation using Texas Instruments ATE was conducted. ATE test limits are set per datasheet electrical limits based on qualification and characterization data. Post-radiation measurements were taken within 30 minutes of removing the devices from the dry ice container. The devices were allowed to reach room temperature prior to electrical post-radiation measurements.

2.3 Test Setup Details

The devices under HDR exposure were tested in two conditions, biased and unbiased, as described in the following.

2.3.1 Unbiased

For the unbiased HDR conditions, the exposure was performed with all pins grounded.

2.3.2 Biased

[Figure 2-1](#) shows the diagram for HDR exposure with biased condition.

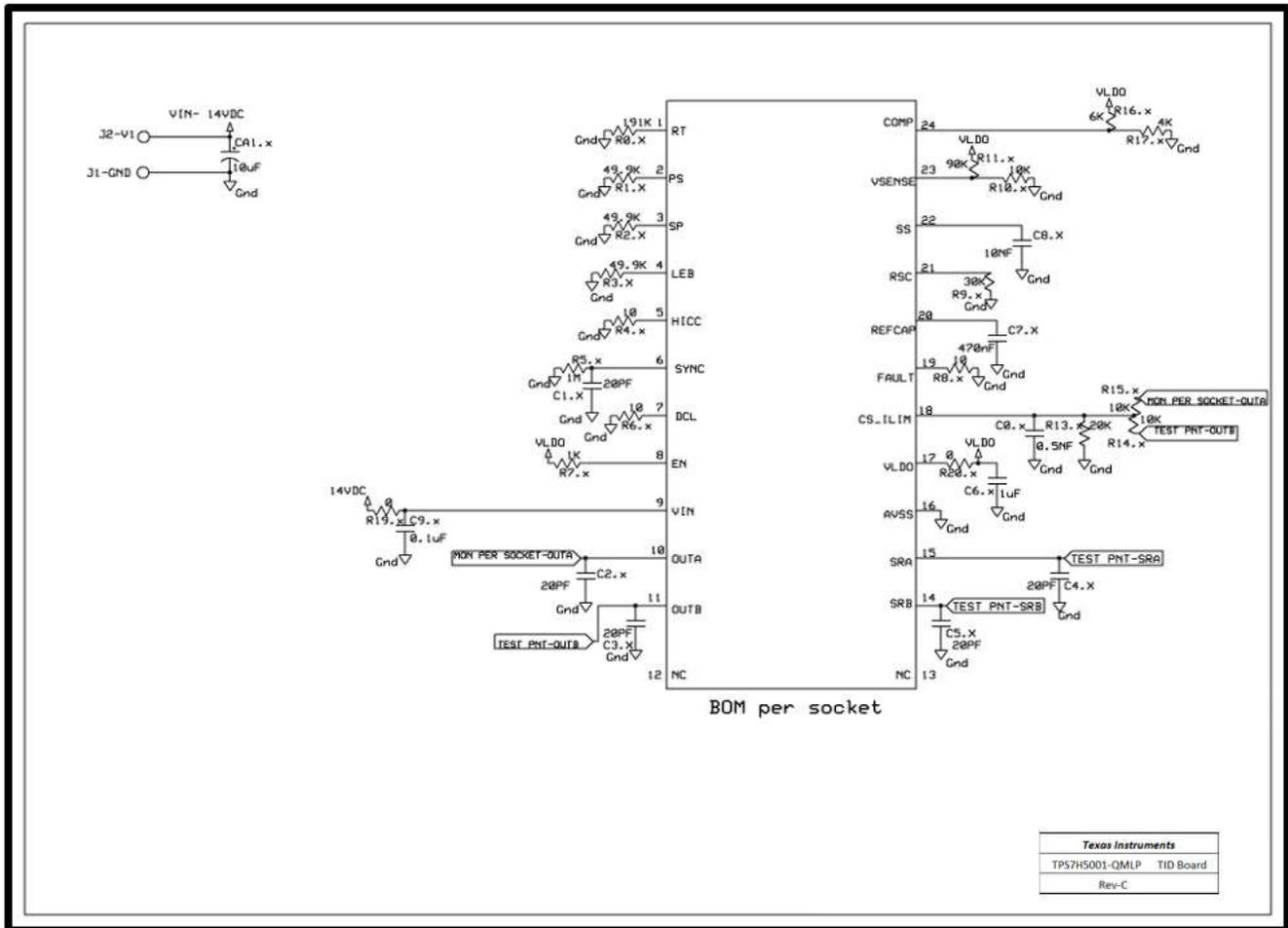


Figure 2-1. Bias Diagram Used in TID Exposure

2.4 Test Configuration and Condition

HDR devices were stressed at 3 krad(Si), 10 krad(Si), 30 krad(Si), 50 krad(Si), and 100 krad(Si) for biased and unbiased conditions.

Table 2-1. HDR: 3-krad(Si) to 100-krad(Si)/s Unbiased Device Information

| Total Samples: 25 | | | | |
|-------------------|--------------------|--------------------|--------------------|--------------------|
| Exposure Levels | | | | |
| 3 krad(Si) | 10 krad(Si) | 30 krad(Si) | 50 krad(Si) | 100 krad(Si) |
| 1, 2, 3, 4, 5 | 11, 12, 13, 14, 15 | 21, 22, 23, 24, 25 | 31, 32, 33, 34, 35 | 41, 42, 43, 44, 45 |

Table 2-2. HDR: 3-krad(Si) to 100-krad(Si)/s Biased Device Information

| Total Samples: 42 | | | | |
|-------------------|--------------------|--------------------|--------------------|---|
| Exposure Levels | | | | |
| 3 krad(Si) | 10 krad(Si) | 30 krad(Si) | 50 krad(Si) | 100 krad(Si) |
| 6, 7, 8, 9, 10 | 16, 17, 18, 19, 20 | 26, 27, 28, 29, 30 | 36, 37, 38, 39, 40 | 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67 |

3 TID Characterization Test Results

3.1 TID Characterization Summary Results

The parametric data for the TPS7H5001-SP QMLP passes up to 100-krad(Si) HDR TID irradiation. The drifts of the electrical parameters through HDR were within the data sheet limits.

Overall, the TPS7H5001-SP QMLP showed a strong degree of hardness to HDR TID irradiation up to 100 krad(Si) for both biased and unbiased exposure conditions. The measurements taken post-irradiation for each sample set showed a marginal shift for most parameters at each dose level for both biased and unbiased. The parameters that did show a greater degree of change between pre- and post-irradiation were still within the electrical performance characteristics specified in the data sheet electrical parameters. See ([TPS7H500x-SP Radiation-Hardness-Assured 2-MHz Current Mode PWM Controllers](#)) for the data sheet electrical parameters and associated tests.

See [Appendix A](#) for specifications requiring clarification.

3.2 Specification Compliance Matrix

Table 3-1. TPS7H5001-SP QMLP Electrical Parameters Table

| PARAMETER | TEST CONDITION | TPS7H5001-SP QMLP DATA SHEET | | | | TEST # |
|---|--|------------------------------|------|------|------|--|
| | | MIN | TYP | MAX | UNIT | |
| SUPPLY VOLTAGES AND CURRENTS | | | | | | |
| IDD Operating supply current | $f_{SW} = 500$ kHz, No load for OUTA, OUTB, SRA, and SRB | | 6.25 | 8 | mA | 5.24 __IDD_ACT_500K_NOLOAD_4V, 5.25 __IDD_ACT_500K_NOLOAD_5V, 5.26 __IDD_ACT_500K_NOLOAD_12V, 5.27 __IDD_ACT_500K_NOLOAD_14V |
| | $f_{SW} = 1$ MHz, No load for OUTA, OUTB, SRA, and SRB | | 6.75 | 9.5 | mA | 5.28 __IDD_ACT_1M_NOLOAD_4V, 5.29 __IDD_ACT_1M_NOLOAD_5V, 5.30 __IDD_ACT_1M_NOLOAD_12V, 5.31 __IDD_ACT_1M_NOLOAD_14V |
| | $f_{SW} = 2$ MHz, No load for OUTA, OUTB, SRA, and SRB | | 8.5 | 13.5 | mA | 5.36 __IDD_ACT_2M_NOLOAD_4V, 5.37 __IDD_ACT_2M_NOLOAD_5V, 5.38 __IDD_ACT_2M_NOLOAD_12V, 5.39 __IDD_ACT_2M_NOLOAD_14V |
| | $f_{SW} = 500$ kHz, $C_{LOAD} = 100$ pF for OUTA, OUTB, SRA, and SRB | | 7.5 | 9.5 | mA | 5.48 __IDD_ACT_500K_4V, 5.49 __IDD_ACT_500K_5V, 5.50 __IDD_ACT_500K_12V, 5.51 __IDD_ACT_500K_14V |
| | $f_{SW} = 1$ MHz, $C_{LOAD} = 100$ pF for OUTA, OUTB, SRA, and SRB | | 9 | 12 | mA | 5.52 __IDD_ACT_1M_4V, 5.53 __IDD_ACT_1M_5V, 5.54 __IDD_ACT_1M_12V, 5.55 __IDD_ACT_1M_14V |
| | $f_{SW} = 2$ MHz, $C_{LOAD} = 100$ pF for OUTA, OUTB, SRA, and SRB | | 14 | 19.5 | mA | 5.60 __IDD_ACT_2M_4V, 5.61 __IDD_ACT_2M_5V, 5.62 __IDD_ACT_2M_12V, 5.63 __IDD_ACT_2M_14V |
| I _{DD(dis)} Standby current | EN = 0 V | | | 3 | mA | 5.1 __IDD_DIS_4V, 5.2 __IDD_DIS_5V, 5.3 __IDD_DIS_12V, 5.4 __IDD_DIS_14V |
| VLDO Internal linear regulator output voltage | 5 V ≤ VIN ≤ 14 V, f _{sw} ≤ 1 MHz | 4.75 | 5 | 5.2 | V | 5.65 __V_LDO_100K_5V, 5.66 __V_LDO_100K_12V, 5.67 __V_LDO_100K_14V, 5.69 __V_LDO_200K_5V, 5.70 __V_LDO_200K_12V, 5.71 __V_LDO_200K_14V, 5.73 __V_LDO_500K_5V, 5.74 __V_LDO_500K_12V, 5.75 __V_LDO_500K_14V, 5.77 __V_LDO_1M_5V, 5.78 __V_LDO_1M_12V, 5.79 __V_LDO_1M_14V |
| | 5 V ≤ VIN ≤ 14 V, f _{sw} = 2 MHz | 4.65 | 5 | 5.2 | V | 5.85 __V_LDO_2M_5V, 5.86 __V_LDO_2M_12V, 5.87 __V_LDO_2M_14V |
| ENABLE AND UNDERVOLTAGE LOCKOUT | | | | | | |
| V _{ENR} EN threshold rising | | 0.57 | 0.6 | 0.65 | V | 6.5 __V_EN_RISE_4V, 6.8 __V_EN_RISE_5V, 6.11 __V_EN_RISE_12V, 6.14 __V_EN_RISE_14V |
| V _{ENF} EN threshold falling | | 0.47 | 0.5 | 0.55 | V | 6.6 __V_EN_FALL_4V, 6.9 __V_EN_FALL_5V, 6.12 __V_EN_FALL_12V, 6.15 __V_EN_FALL_14V |
| V _{ENH} EN hysteresis voltage | | 85 | 95 | 105 | mV | 6.7 __V_EN_HYS_4V, 6.10 __V_EN_HYS_5V, 6.13 __V_EN_HYS_12V, 6.16 __V_EN_HYS_14V |
| I _{EN} EN pin input leakage current | VIN = 14 V, EN = 5 V | | 5 | 50 | nA | 6.1 __I_EN_LEAK_4V, 6.2 __I_EN_LEAK_5V, 6.3 __I_EN_LEAK_12V, 6.4 __I_EN_LEAK_14V |
| VLDO _{UVLOR} VLDO UVLO rising | | 3.44 | 3.55 | 3.66 | V | 6.34 __UVLO_VLDO_RISE_1MHz, 6.37 __UVLO_VLDO_RISE_100kHz, 6.40 __UVLO_VLDO_RISE_200kHz, 6.43 __UVLO_VLDO_RISE_500kHz, 6.46 __UVLO_VLDO_RISE_2MHz |
| VLDO _{UVLOF} VLDO UVLO falling | | 3.29 | 3.4 | 3.51 | V | 6.35 __UVLO_VLDO_FALL_1MHz, 6.38 __UVLO_VLDO_FALL_100kHz, 6.41 __UVLO_VLDO_FALL_200kHz, 6.44 __UVLO_VLDO_FALL_500kHz, 6.47 __UVLO_VLDO_FALL_2MHz |
| VLDO _{UVLOH} VLDO UVLO hysteresis | | 115 | 135 | 160 | mV | 6.36 __UVLO_VLDO_HYS_1MHz, 6.39 __UVLO_VLDO_HYS_100kHz, 6.42 __UVLO_VLDO_HYS_200kHz, 6.45 __UVLO_VLDO_HYS_500kHz, 6.48 __UVLO_VLDO_HYS_2MHz |
| SOFT START | | | | | | |
| I _{SS} Soft-start current | SS = 0.3 V | 1.98 | 2.7 | 3.32 | μA | 7.1 __I_SS_4V, 7.3 __I_SS_5V, 7.5 __I_SS_12V, 7.7 __I_SS_14V |
| ERROR AMPLIFIER | | | | | | |
| EA _{gm} Transconductance | -2 μA < I _{COMP} < 2 μA, V _(COMP) = 1 V | 1150 | 1800 | 2500 | μA/V | 8.9 __EA_GM_4V, 8.10 __EA_GM_5V, 8.11 __EA_GM_12V, 8.12 __EA_GM_14V |

Table 3-1. TPS7H5001-SP QMLP Electrical Parameters Table (continued)

| PARAMETER | TEST CONDITION | TPS7H5001-SP QMLP DATA SHEET | | | | TEST # |
|---|---|------------------------------|-------|-------|------|---|
| | | MIN | TYP | MAX | UNIT | |
| EA _{ISRC} Error amplifier source current | V _(COMP) = 1 V, 100-mV input overdrive | 100 | | 190 | μA | 8.13 __EA_I_SOURCE_4V, 8.14 __EA_I_SOURCE_5V, 8.15 __EA_I_SOURCE_12V, 8.16 __EA_I_SOURCE_14V |
| EA _{ISNK} Error amplifier sink current | V _(COMP) = 1 V, 100-mV input overdrive | 100 | | 190 | μA | 8.17 __EA_I_SINK_4V, 8.18 __EA_I_SINK_5V, 8.19 __EA_I_SINK_12V, 8.20 __EA_I_SINK_14V |
| EA _{OS} Error amplifier offset voltage | | -2 | | 2 | mV | 8.5 __EA_OS_4V, 8.6 __EA_OS_5V, 8.7 __EA_OS_12V, 8.8 __EA_OS_14V |
| OSCILLATOR | | | | | | |
| SYNC _{RT} SYNC out low-to-high rise time (10%/90%) | C _{LOAD} = 25 pF | | 6 | 15 | ns | 9.1 __T_SYNC_RISE_100kHz_4V, 9.5 __T_SYNC_RISE_200kHz_4V, 9.9 __T_SYNC_RISE_500kHz_4V, 9.13 __T_SYNC_RISE_1MHz_4V, 9.17 __T_SYNC_RISE_1p5MHz_4V, 9.21 __T_SYNC_RISE_2MHz_4V, 9.25 __T_SYNC_RISE_100kHz_5V, 9.29 __T_SYNC_RISE_200kHz_5V, 9.33 __T_SYNC_RISE_500kHz_5V, 9.37 __T_SYNC_RISE_1MHz_5V, 9.41 __T_SYNC_RISE_1p5MHz_5V, 9.45 __T_SYNC_RISE_2MHz_5V, 9.49 __T_SYNC_RISE_100kHz_12V, 9.53 __T_SYNC_RISE_200kHz_12V, 9.57 __T_SYNC_RISE_500kHz_12V, 9.61 __T_SYNC_RISE_1MHz_12V, 9.65 __T_SYNC_RISE_1p5MHz_12V, 9.69 __T_SYNC_RISE_2MHz_12V, 9.73 __T_SYNC_RISE_100kHz_14V, 9.77 __T_SYNC_RISE_200kHz_14V, 9.81 __T_SYNC_RISE_500kHz_14V, 9.85 __T_SYNC_RISE_1MHz_14V, 9.89 __T_SYNC_RISE_1p5MHz_14V, 9.93 __T_SYNC_RISE_2MHz_14V |
| SYNC _{FT} SYNC out high-to-low fall time (10%/90%) | C _{LOAD} = 25 pF | | 6 | 17 | ns | 9.2 __T_SYNC_FALL_100kHz_4V, 9.14 __T_SYNC_FALL_1MHz_4V, 9.22 __T_SYNC_FALL_2MHz_4V, 9.26 __T_SYNC_FALL_100kHz_5V, 9.38 __T_SYNC_FALL_1MHz_5V, 9.46 __T_SYNC_FALL_2MHz_5V, 9.74 __T_SYNC_FALL_100kHz_14V, 9.86 __T_SYNC_FALL_1MHz_14V, 9.94 __T_SYNC_FALL_2MHz_14V |
| SYNC _{OL} SYNC out low level | I _{OL} = 10 mA | | | 500 | mV | 9.186 __SYNC_VOL_4V, 9.187 __SYNC_VOL_5V, 9.188 __SYNC_VOL_12V, 9.189 __SYNC_VOL_14V |
| EXT _{DT} Externally set frequency detection time | RT = Open, f = 200 kHz | | | 20 | μs | 9.185 __T_SYNC_DETECT |
| FSW _{EXT} Externally set frequency | RT = 1.07 MΩ | 95 | 105 | 115 | kHz | 9.4 __FSW_EXT_RT_100kHz_4V, 9.28 __FSW_EXT_RT_100kHz_5V, 9.52 __FSW_EXT_RT_100kHz_12V, 9.76 __FSW_EXT_RT_100kHz_14V |
| | RT = 511 kΩ | 190 | 210 | 230 | kHz | 9.8 __FSW_EXT_RT_200kHz_4V, 9.32 __FSW_EXT_RT_200kHz_5V, 9.56 __FSW_EXT_RT_200kHz_12V, 9.80 __FSW_EXT_RT_200kHz_14V |
| | RT = 90.9 kΩ | 900 | 1000 | 1100 | kHz | 9.16 __FSW_EXT_RT_1MHz_4V, 9.40 __FSW_EXT_RT_1MHz_5V, 9.64 __FSW_EXT_RT_1MHz_12V, 9.88 __FSW_EXT_RT_1MHz_14V |
| | RT = 34.8 kΩ | 1700 | 2000 | 2300 | kHz | 9.24 __FSW_EXT_RT_2MHz_4V, 9.48 __FSW_EXT_RT_2MHz_5V, 9.72 __FSW_EXT_RT_2MHz_12V, 9.96 __FSW_EXT_RT_2MHz_14V |
| VOLTAGE REFERENCE | | | | | | |
| VREF Internal voltage reference initial tolerance | Measured at COMP, 25°C | 0.609 | 0.613 | 0.615 | V | 8.1 __VREF_4V, 8.2 __VREF_5V, 8.3 __VREF_12V, 8.4 __VREF_14V |

Table 3-1. TPS7H5001-SP QMLP Electrical Parameters Table (continued)

| PARAMETER | TEST CONDITION | TPS7H5001-SP QMLP DATA SHEET | | | | TEST # |
|---|---|------------------------------|-------|-------|------|--|
| | | MIN | TYP | MAX | UNIT | |
| REFCAP REFCAP voltage | REFCAP = 470 nF | 1.213 | 1.225 | 1.237 | V | 5.88 __V_REFCAP_100K_4V, 5.89 __V_REFCAP_100K_5V, 5.90 __V_REFCAP_100K_12V, 5.91 __V_REFCAP_100K_14V, 5.92 __V_REFCAP_200K_4V, 5.93 __V_REFCAP_200K_5V, 5.94 __V_REFCAP_200K_12V, 5.95 __V_REFCAP_200K_14V, 5.96 __V_REFCAP_500K_4V, 5.97 __V_REFCAP_500K_5V, 5.98 __V_REFCAP_500K_12V, 5.99 __V_REFCAP_500K_14V, 5.100 __V_REFCAP_1M_4V, 5.101 __V_REFCAP_1M_5V, 5.102 __V_REFCAP_1M_12V, 5.103 __V_REFCAP_1M_14V, 5.104 __V_REFCAP_1P5M_4V, 5.105 __V_REFCAP_1P5M_5V, 5.106 __V_REFCAP_1P5M_12V, 5.107 __V_REFCAP_1P5M_14V, 5.108 __V_REFCAP_2M_4V, 5.109 __V_REFCAP_2M_5V, 5.110 __V_REFCAP_2M_12V, 5.111 __V_REFCAP_2M_14V |
| CURRENT SENSE, CURRENT LIMIT, AND HICCUF | | | | | | |
| CCSR | COMP to CS_ILIM ratio | 2.00 | 2.06 | 2.12 | | 10.49 __CCSR_Ratio |
| V _{CS_ILIM} Current limit (over-current) threshold | | | 1.05 | 1.09 | V | 10.1 __V_CS_ILIM_OC_Rise_4V, 10.3 __V_CS_ILIM_OC_Rise_5V, 10.5 __V_CS_ILIM_OC_Rise_12V, 10.7 __V_CS_ILIM_OC_Rise_14V |
| FAULT | | | | | | |
| V _{FLTR} FLT threshold rising | | 0.57 | 0.6 | 0.65 | V | 12.1 __V_FAULT_RISE_4V, 12.4 __V_FAULT_RISE_5V, 12.7 __V_FAULT_RISE_12V, 12.10 __V_FAULT_RISE_14V |
| V _{FLTF} FLT threshold falling | | 0.47 | 0.5 | 0.55 | V | 12.2 __V_FAULT_FALL_4V, 12.5 __V_FAULT_FALL_5V, 12.8 __V_FAULT_FALL_12V, 12.11 __V_FAULT_FALL_14V |
| V _{FLTH} FLT hysteresis voltage | | 90 | 100 | 110 | mV | 12.3 __V_FAULT_HYS_4V, 12.6 __V_FAULT_HYS_5V, 12.9 __V_FAULT_HYS_12V, 12.12 __V_FAULT_HYS_14V |
| T _{FLT} FLT minimum pulse width | V _{FLT} = 1 V | 0.4 | | 1.4 | μs | 12.14 __T_FAULT_MIN |
| t _{DFLT} FLT delay duration | f _{sw} = 100 kHz | 140 | 152 | 169 | μs | 12.15 __T_FAULT_DELAY_100kHz |
| | f _{sw} = 200 kHz | 66 | 78 | 86 | μs | 12.17 __T_FAULT_DELAY_200kHz |
| | f _{sw} = 1 MHz | 14 | 17 | 21 | μs | 12.21 __T_FAULT_DELAY_1MHz |
| | f _{sw} = 2 MHz | 7 | 11 | 14 | μs | 12.23 __T_FAULT_DELAY_2MHz |
| PRIMARY AND SYNCHRONOUS RECTIFIER OUTPUTS | | | | | | |
| Rise/fall time | R _{LOAD} = 50 kΩ, C _{LOAD} = 100 pF, 10% to 90% | | 10 | 17 | ns | 13.1 __OUTA_RISE_1MHz_4V, 13.9 __OUTA_RISE_1MHz_5V, 13.17 __OUTA_RISE_1MHz_12V, 13.25 __OUTA_RISE_1MHz_14V, 13.3 __OUTA_FALL_1MHz_4V, 13.11 __OUTA_FALL_1MHz_5V, 13.19 __OUTA_FALL_1MHz_12V, 13.27 __OUTA_FALL_1MHz_14V, 13.2 __OUTB_RISE_1MHz_4V, 13.10 __OUTB_RISE_1MHz_5V, 13.18 __OUTB_RISE_1MHz_12V, 13.26 __OUTB_RISE_1MHz_14V, 13.4 __OUTB_FALL_1MHz_4V, 13.12 __OUTB_FALL_1MHz_5V, 13.20 __OUTB_FALL_1MHz_12V, 13.28 __OUTB_FALL_1MHz_14V |
| t _{MIN} Minimum on-time LEB = 10 kΩ | LEB = 10 kΩ, 5 V ≤ VIN ≤ 14 V | | | 85 | ns | 13.145 __OUT_T_ON_MIN |

Table 3-1. TPS7H5001-SP QMLP Electrical Parameters Table (continued)

| PARAMETER | TEST CONDITION | TPS7H5001-SP QMLP DATA SHEET | | | | TEST # |
|--|--|------------------------------|-----|-----|------|--|
| | | MIN | TYP | MAX | UNIT | |
| TD _{PS} Primary off to secondary on dead time | PS = floating, 5 V ≤ VIN ≤ 14 V, 90% of OUTx falling edge to 10% of SRx rising edge with OUTx and SRx floating | 5 | 8 | 11 | ns | 13.37 __PSA_DT_0ns_1M_5V, 13.38 __PSB_DT_0ns_1M_5V, 13.41 __PSA_DT_0ns_1M_12V, 13.42 __PSB_DT_0ns_1M_12V, 13.45 __PSA_DT_0ns_1M_14V, 13.46 __PSB_DT_0ns_1M_14V |
| | PS = 49.9 kΩ, 5 V ≤ VIN ≤ 14 V, 90% of OUTx falling edge to 10% of SRx rising edge with OUTx and SRx floating | 43 | 50 | 55 | ns | 13.53 __PSA_DT_50ns_1M_5V, 13.54 __PSB_DT_50ns_1M_5V, 13.57 __PSA_DT_50ns_1M_12V, 13.58 __PSB_DT_50ns_1M_12V, 13.61 __PSA_DT_50ns_1M_14V, 13.62 __PSB_DT_50ns_1M_14V |
| | PS = 107 kΩ, 5 V ≤ VIN ≤ 14 V, 90% of OUTx falling edge to 10% of SRx rising edge with OUTx and SRx floating | 85 | 100 | 110 | ns | 13.69 __PSA_DT_100ns_1M_5V, 13.70 __PSB_DT_100ns_1M_5V, 13.73 __PSA_DT_100ns_1M_12V, 13.74 __PSB_DT_100ns_1M_12V, 13.77 __PSA_DT_100ns_1M_14V, 13.78 __PSB_DT_100ns_1M_14V |
| TD _{SP} Secondary off to primary on dead time | SP = floating, 5 V ≤ VIN ≤ 14 V, 90% of SRx falling edge to 10% of OUTx rising edge with OUTx and SRx floating | 5 | 8 | 11 | ns | 13.39 __SPA_DT_0ns_1M_5V, 13.40 __SPB_DT_0ns_1M_5V, 13.43 __SPA_DT_0ns_1M_12V, 13.44 __SPB_DT_0ns_1M_12V, 13.47 __SPA_DT_0ns_1M_14V, 13.48 __SPB_DT_0ns_1M_14V |
| | SP = 49.9 kΩ, 5 V ≤ VIN ≤ 14 V, 90% of SRx falling edge to 10% of OUTx rising edge with OUTx and SRx floating | 43 | 50 | 55 | ns | 13.55 __SPA_DT_50ns_1M_5V, 13.56 __SPB_DT_50ns_1M_5V, 13.59 __SPA_DT_50ns_1M_12V, 13.60 __SPB_DT_50ns_1M_12V, 13.63 __SPA_DT_50ns_1M_14V, 13.64 __SPB_DT_50ns_1M_14V |
| | SP = 100 kΩ, 5 V ≤ VIN ≤ 14 V, 90% of SRx falling edge to 10% of OUTx rising edge with OUTx and SRx floating | 85 | 100 | 110 | ns | 13.71 __SPA_DT_100ns_1M_5V, 13.72 __SPB_DT_100ns_1M_5V, 13.75 __SPA_DT_100ns_1M_12V, 13.76 __SPB_DT_100ns_1M_12V, 13.79 __SPA_DT_100ns_1M_14V, 13.80 __SPB_DT_100ns_1M_14V |
| DUTY CYCLE | | | | | | |
| D _{MAX} Maximum duty cycle | DCL = AVSS | 45 | 48 | 50 | % | 13.160 __MAX_DC_DCL_AVSS |
| | DCL = floating | 70 | 75 | 80 | % | 13.163 __MAX_DC_DCL_OPEN |
| | DCL =VLDO | | | 100 | % | 13.166 __MAX_DC_DCL_VLDO |

4 Applicable and Reference Documents

4.1 Applicable Documents

- Texas Instruments, [TPS7H500x-SP Radiation-Hardness-Assured 2-MHz Current Mode PWM Controllers](#)
- Texas Instruments, [TPS7H5005 evaluation module for 2-MHz dual-output PWM controller with synchronous rectification](#)

4.2 Reference Documents

Texas Instruments total ionizing dose radiation (total dose) test procedure follows the standards put forth in MIL-STD-883 TM 1019. The document can be found at the DLA website.

5 Revision History

| Changes from Revision * (September 2023) to Revision A (September 2023) | Page |
|--|--------------------|
| • Updated Applicable and Reference Documents section | 12 |

A Appendix: Specifications Requiring Clarification

Table A-1. Specifications Requiring Clarification - Set #1

Data sheet specifications for which parametric data is unavailable were not included in the TID report. Functionality assured by ATE testing.

| PARAMETER | TEST CONDITION | TPS7H5001-SP QMLP DATA SHEET | | | |
|---|------------------------------|------------------------------|-----|------|------|
| | | MIN | TYP | MAX | UNIT |
| V _{IN} Operating voltage | | 4 | | 14 | V |
| F _{SYNC} SYNC in frequency range | | 200 | | 4000 | kHz |
| D _{SYNC} SYNC in duty cycle | Duty cycle of external clock | 40 | | 60 | % |

Table A-2. Specifications Requiring Clarification - Set #2

Data sheet specifications verified by bench testing were not included in the TID report. TID testing was by ATE.

| PARAMETER | TEST CONDITION | TPS7H5001-SP QMLP DATA SHEET | | | |
|---|----------------------------|------------------------------|-------|-----|------|
| | | MIN | TYP | MAX | UNIT |
| E _{A_{DC}} DC gain | V _{SENSE} = 0.6 V | | 10000 | | V/V |
| E _{A_{r_o}} Error amplifier output resistance | | | 7 | | MΩ |
| E _{A_{I_B}} Error amplifier bias current | | | | 35 | nA |
| E _{A_{BW}} Bandwidth | | | 10 | | MHz |
| S _{Y_NC_{I_L}} SYNC in low-level | V _{IN} < 5 V | | | 0.8 | V |
| | V _{IN} ≥ 5 V | | | 0.8 | |
| S _{Y_NC_{I_H}} SYNC in high-level | V _{IN} < 5 V | | 3.5 | | V |
| | V _{IN} ≥ 5 V | | 3.5 | | |
| (V _{LDO} - S _{Y_NC_{O_H}}) SYNC out high level | I _{OH} = 10 mA | | | 0.5 | V |

Table A-3. Specifications Requiring Clarification - Set #3

Data sheet specifications for which *MIN* and *MAX* values are unavailable were not included in the TID report. Functionality assured by ATE testing.

| PARAMETER | TEST CONDITION | TPS7H5001-SP QMLP DATA SHEET | | | |
|---|--|------------------------------|-------|-----|------|
| | | MIN | TYP | MAX | UNIT |
| I _{HICC_DEL} Hiccup delay current | CS _{LIM} = 1.3 V, COMP = 3 V, V _{SENSE} = REFCAP/2 V, C _{HICC} = 3 nF, LEB = 49.9 kΩ, f _{SW} = 100 kHz | | 80 | | μA |
| I _{HICC_RST} Hiccup restart current | | | 1 | | μA |
| V _{HICC_PU} Hiccup pull-up threshold | | | 1.0 | | V |
| V _{HICC_SD} Hiccup shut-down threshold | | | 0.6 | | V |
| V _{HICC_RS} T Hiccup restart threshold | | | 0.3 | | V |
| Slope compensation | f _{SW} = 100 kHz, RSC = 1.18 MΩ | | 0.033 | | V/μs |
| | f _{SW} = 200 kHz, RSC = 562 kΩ | | 0.066 | | |
| | f _{SW} = 1000 kHz, RSC = 100 kΩ | | 0.333 | | |
| | f _{SW} = 2000 kHz, RSC = 49.9 kΩ | | 0.666 | | |

Table A-3. Specifications Requiring Clarification - Set #3 (continued)

Data sheet specifications for which *MIN* and *MAX* values are unavailable were not included in the TID report. Functionality assured by ATE testing.

| PARAMETER | TEST CONDITION | TPS7H5001-SP QMLP DATA SHEET | | | |
|--|-------------------------------------|------------------------------|-----|-----|----------|
| | | MIN | TYP | MAX | UNIT |
| PRIMARY AND SYNCHRONOUS RECTIFIER OUTPUTS | | | | | |
| Low-level threshold | $I_{\text{SINK}} = 10 \text{ mA}$ | | 0.5 | | V |
| High-level threshold | $I_{\text{SOURCE}} = 10 \text{ mA}$ | | 4.5 | | V |
| R _{SRC_P} Output source resistance | $I_{\text{OUT}} = 20 \text{ mA}$ | | 15 | | Ω |
| R _{SINK_P} Output sink resistance | $I_{\text{OUT}} = 20 \text{ mA}$ | | 15 | | Ω |

Table A-4. Specifications Requiring Clarification - Set #4

Data sheet specifications for which temperature condition was other than 25°C were not included in the TID report. TID testing was at 25°C only.

| PARAMETER | TEST CONDITION | TPS7H5001-SP QMLP DATA SHEET | | | |
|---------------------------------|--------------------------|------------------------------|-------|-------|------|
| | | MIN | TYP | MAX | UNIT |
| VREF Internal voltage reference | Measured at COMP, -55°C | 0.607 | 0.609 | 0.612 | V |
| | Measured at COMP, +125°C | 0.611 | 0.614 | 0.617 | |

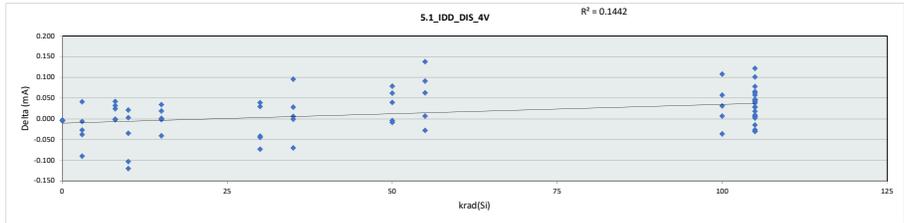
B Appendix: HDR TID Report Data

This appendix contains the HDR TID report data.

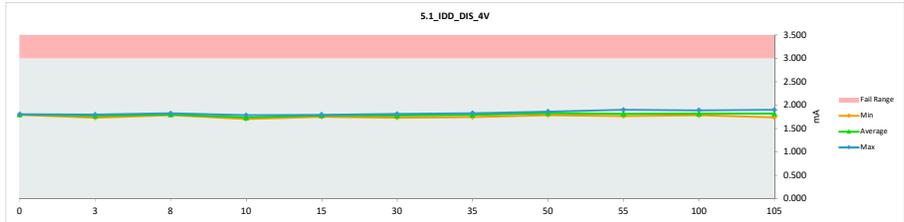
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.1 IDD_DIS_4V | | | | |
|----------------|----------|---------|----------|--------|
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.807 | 1.803 | -0.004 |
| 0 | 992 | 1.798 | 1.794 | -0.004 |
| 0 | 993 | 1.803 | 1.800 | -0.003 |
| 3 | 1 | 1.771 | 1.733 | -0.038 |
| 3 | 2 | 1.756 | 1.797 | 0.041 |
| 3 | 3 | 1.783 | 1.756 | -0.027 |
| 3 | 4 | 1.869 | 1.779 | -0.090 |
| 3 | 5 | 1.785 | 1.779 | -0.006 |
| 8 | 6 | 1.801 | 1.799 | -0.002 |
| 8 | 7 | 1.743 | 1.785 | 0.042 |
| 8 | 8 | 1.791 | 1.823 | 0.032 |
| 8 | 9 | 1.795 | 1.794 | -0.001 |
| 8 | 10 | 1.780 | 1.804 | 0.024 |
| 10 | 11 | 1.761 | 1.782 | 0.021 |
| 10 | 12 | 1.757 | 1.722 | -0.035 |
| 10 | 13 | 1.807 | 1.704 | -0.103 |
| 10 | 14 | 1.757 | 1.760 | 0.003 |
| 10 | 15 | 1.826 | 1.706 | -0.120 |
| 15 | 16 | 1.796 | 1.794 | -0.002 |
| 15 | 17 | 1.757 | 1.776 | 0.019 |
| 15 | 18 | 1.794 | 1.753 | -0.041 |
| 15 | 19 | 1.790 | 1.791 | 0.001 |
| 15 | 20 | 1.747 | 1.781 | 0.034 |
| 30 | 21 | 1.772 | 1.811 | 0.039 |
| 30 | 22 | 1.822 | 1.749 | -0.073 |
| 30 | 23 | 1.768 | 1.798 | 0.030 |
| 30 | 24 | 1.835 | 1.793 | -0.042 |
| 30 | 25 | 1.775 | 1.730 | -0.045 |
| 35 | 26 | 1.817 | 1.747 | -0.070 |
| 35 | 27 | 1.795 | 1.801 | 0.006 |
| 35 | 28 | 1.729 | 1.825 | 0.096 |
| 35 | 29 | 1.798 | 1.797 | -0.001 |
| 35 | 30 | 1.763 | 1.791 | 0.028 |
| 50 | 31 | 1.781 | 1.860 | 0.079 |
| 50 | 32 | 1.781 | 1.843 | 0.062 |
| 50 | 33 | 1.798 | 1.838 | 0.040 |
| 50 | 34 | 1.789 | 1.785 | -0.004 |
| 50 | 35 | 1.824 | 1.815 | -0.009 |
| 55 | 36 | 1.792 | 1.799 | 0.007 |
| 55 | 37 | 1.807 | 1.898 | 0.091 |
| 55 | 38 | 1.792 | 1.764 | -0.028 |
| 55 | 39 | 1.714 | 1.777 | 0.063 |
| 55 | 40 | 1.694 | 1.832 | 0.138 |
| 100 | 41 | 1.775 | 1.782 | 0.007 |
| 100 | 42 | 1.820 | 1.784 | -0.036 |
| 100 | 43 | 1.789 | 1.820 | 0.031 |
| 100 | 44 | 1.780 | 1.888 | 0.108 |
| 100 | 45 | 1.753 | 1.810 | 0.057 |
| 105 | 46 | 1.781 | 1.819 | 0.038 |
| 105 | 47 | 1.768 | 1.739 | -0.029 |
| 105 | 48 | 1.805 | 1.851 | 0.046 |
| 105 | 49 | 1.748 | 1.849 | 0.101 |
| 105 | 50 | 1.792 | 1.799 | 0.007 |
| 105 | 51 | 1.789 | 1.795 | 0.006 |
| 105 | 52 | 1.732 | 1.789 | 0.057 |
| 105 | 53 | 1.727 | 1.849 | 0.122 |
| 105 | 54 | 1.792 | 1.794 | 0.002 |
| 105 | 55 | 1.814 | 1.860 | 0.046 |
| 105 | 56 | 1.785 | 1.831 | 0.046 |
| 105 | 57 | 1.788 | 1.797 | 0.009 |
| 105 | 58 | 1.837 | 1.807 | -0.030 |
| 105 | 59 | 1.826 | 1.800 | -0.026 |
| 105 | 60 | 1.817 | 1.802 | -0.015 |
| 105 | 61 | 1.772 | 1.790 | 0.018 |
| 105 | 62 | 1.775 | 1.841 | 0.066 |
| 105 | 63 | 1.758 | 1.799 | 0.041 |
| 105 | 64 | 1.871 | 1.899 | 0.028 |
| 105 | 65 | 1.784 | 1.813 | 0.029 |
| 105 | 66 | 1.764 | 1.842 | 0.078 |
| 105 | 67 | 1.779 | 1.842 | 0.063 |
| Max | | 1.871 | 1.899 | 0.138 |
| Average | | 1.785 | 1.799 | 0.015 |
| Min | | 1.694 | 1.704 | -0.120 |
| Std Dev | | 0.032 | 0.040 | 0.050 |



| 5.1 IDD_DIS_4V | | | | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | | | | | | | | | | | |
| Min | 1.794 | 1.733 | 1.785 | 1.704 | 1.753 | 1.730 | 1.747 | 1.785 | 1.764 | 1.782 | 1.739 |
| Average | 1.799 | 1.769 | 1.801 | 1.735 | 1.779 | 1.776 | 1.792 | 1.828 | 1.814 | 1.817 | 1.819 |
| Max | 1.803 | 1.797 | 1.823 | 1.782 | 1.794 | 1.811 | 1.825 | 1.860 | 1.898 | 1.888 | 1.899 |
| UL | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 |

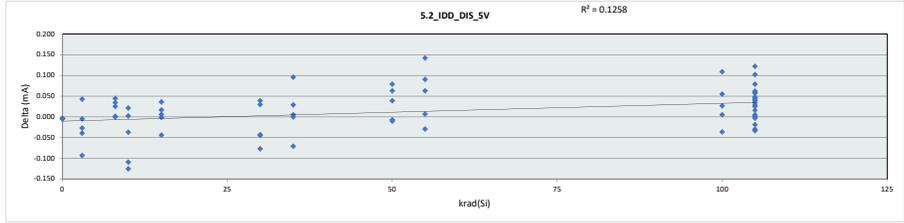


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

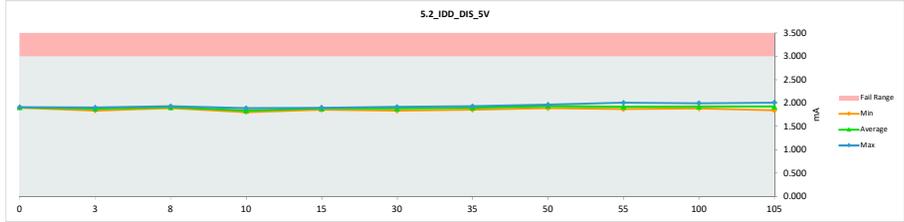
| 5.2 IDD_DIS_5V | |
|----------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | mA |
| Min Limit | 3 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.916 | 1.912 | -0.004 |
| 0 | 992 | 1.905 | 1.901 | -0.004 |
| 0 | 993 | 1.914 | 1.910 | -0.004 |
| 3 | 1 | 1.879 | 1.840 | -0.039 |
| 3 | 2 | 1.862 | 1.905 | 0.043 |
| 3 | 3 | 1.889 | 1.862 | -0.027 |
| 3 | 4 | 1.979 | 1.886 | -0.093 |
| 3 | 5 | 1.893 | 1.888 | -0.005 |
| 8 | 6 | 1.908 | 1.908 | 0.000 |
| 8 | 7 | 1.849 | 1.893 | 0.044 |
| 8 | 8 | 1.899 | 1.933 | 0.034 |
| 8 | 9 | 1.901 | 1.902 | 0.001 |
| 8 | 10 | 1.888 | 1.913 | 0.025 |
| 10 | 11 | 1.868 | 1.889 | 0.021 |
| 10 | 12 | 1.864 | 1.827 | -0.037 |
| 10 | 13 | 1.916 | 1.807 | -0.109 |
| 10 | 14 | 1.862 | 1.864 | 0.002 |
| 10 | 15 | 1.934 | 1.809 | -0.125 |
| 15 | 16 | 1.902 | 1.901 | -0.001 |
| 15 | 17 | 1.865 | 1.882 | 0.017 |
| 15 | 18 | 1.902 | 1.858 | -0.044 |
| 15 | 19 | 1.894 | 1.900 | 0.006 |
| 15 | 20 | 1.853 | 1.889 | 0.036 |
| 30 | 21 | 1.879 | 1.918 | 0.039 |
| 30 | 22 | 1.931 | 1.854 | -0.077 |
| 30 | 23 | 1.874 | 1.904 | 0.030 |
| 30 | 24 | 1.945 | 1.902 | -0.043 |
| 30 | 25 | 1.881 | 1.836 | -0.045 |
| 35 | 26 | 1.925 | 1.854 | -0.071 |
| 35 | 27 | 1.903 | 1.908 | 0.005 |
| 35 | 28 | 1.937 | 1.933 | 0.006 |
| 35 | 29 | 1.906 | 1.906 | 0.000 |
| 35 | 30 | 1.870 | 1.899 | 0.029 |
| 50 | 31 | 1.888 | 1.967 | 0.079 |
| 50 | 32 | 1.889 | 1.952 | 0.063 |
| 50 | 33 | 1.907 | 1.946 | 0.039 |
| 50 | 34 | 1.897 | 1.890 | -0.007 |
| 50 | 35 | 1.934 | 1.924 | -0.010 |
| 55 | 36 | 1.900 | 1.907 | 0.007 |
| 55 | 37 | 1.916 | 2.006 | 0.090 |
| 55 | 38 | 1.900 | 1.871 | -0.029 |
| 55 | 39 | 1.819 | 1.882 | 0.063 |
| 55 | 40 | 1.798 | 1.940 | 0.142 |
| 100 | 41 | 1.881 | 1.886 | 0.005 |
| 100 | 42 | 1.924 | 1.888 | -0.036 |
| 100 | 43 | 1.897 | 1.924 | 0.027 |
| 100 | 44 | 1.887 | 1.996 | 0.109 |
| 100 | 45 | 1.860 | 1.915 | 0.055 |
| 105 | 46 | 1.890 | 1.924 | 0.034 |
| 105 | 47 | 1.877 | 1.844 | -0.033 |
| 105 | 48 | 1.913 | 1.955 | 0.042 |
| 105 | 49 | 1.852 | 1.954 | 0.102 |
| 105 | 50 | 1.901 | 1.903 | 0.002 |
| 105 | 51 | 1.899 | 1.899 | 0.000 |
| 105 | 52 | 1.839 | 1.896 | 0.057 |
| 105 | 53 | 1.833 | 1.955 | 0.122 |
| 105 | 54 | 1.899 | 1.896 | -0.003 |
| 105 | 55 | 1.921 | 1.969 | 0.048 |
| 105 | 56 | 1.893 | 1.938 | 0.045 |
| 105 | 57 | 1.897 | 1.902 | 0.005 |
| 105 | 58 | 1.944 | 1.913 | -0.031 |
| 105 | 59 | 1.936 | 1.906 | -0.030 |
| 105 | 60 | 1.926 | 1.907 | -0.019 |
| 105 | 61 | 1.880 | 1.896 | 0.016 |
| 105 | 62 | 1.885 | 1.947 | 0.062 |
| 105 | 63 | 1.865 | 1.904 | 0.039 |
| 105 | 64 | 1.981 | 2.009 | 0.028 |
| 105 | 65 | 1.892 | 1.917 | 0.025 |
| 105 | 66 | 1.870 | 1.949 | 0.079 |
| 105 | 67 | 1.888 | 1.947 | 0.059 |
| Max | | 1.981 | 2.009 | 0.142 |
| Average | | 1.892 | 1.906 | 0.014 |
| Min | | 1.798 | 1.807 | -0.125 |
| Std Dev | | 0.033 | 0.040 | 0.051 |



| 5.2 IDD_DIS_5V | |
|----------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3 mA |
| Min Limit | 3 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 1.901 | 1.840 | 1.893 | 1.807 | 1.858 | 1.836 | 1.854 | 1.890 | 1.871 | 1.886 | 1.844 |
| Average | 1.908 | 1.876 | 1.910 | 1.839 | 1.886 | 1.883 | 1.900 | 1.936 | 1.921 | 1.922 | 1.924 |
| Max | 1.912 | 1.905 | 1.933 | 1.889 | 1.901 | 1.918 | 1.933 | 1.967 | 2.006 | 1.996 | 2.009 |
| UL | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 |

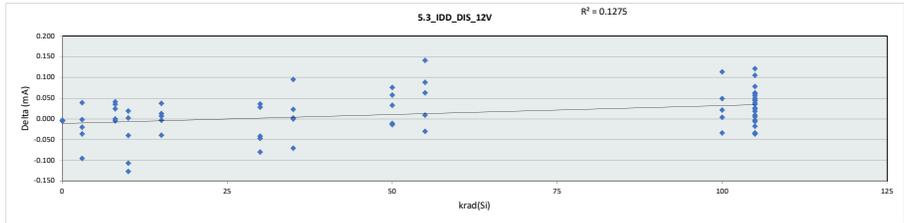


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

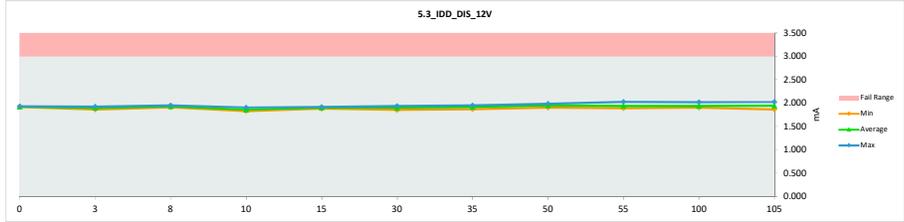
| 5.3 IDD_DIS_12V | |
|-----------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | mA mA |
| Min Limit | 1 3 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.935 | 1.931 | -0.004 |
| 0 | 992 | 1.922 | 1.917 | -0.005 |
| 0 | 993 | 1.928 | 1.924 | -0.004 |
| 3 | 1 | 1.895 | 1.859 | -0.036 |
| 3 | 2 | 1.882 | 1.921 | 0.039 |
| 3 | 3 | 1.904 | 1.884 | -0.020 |
| 3 | 4 | 1.998 | 1.903 | -0.095 |
| 3 | 5 | 1.909 | 1.907 | -0.002 |
| 8 | 6 | 1.928 | 1.928 | 0.000 |
| 8 | 7 | 1.868 | 1.909 | 0.041 |
| 8 | 8 | 1.917 | 1.952 | 0.035 |
| 8 | 9 | 1.922 | 1.917 | -0.005 |
| 8 | 10 | 1.908 | 1.932 | 0.024 |
| 10 | 11 | 1.887 | 1.906 | 0.019 |
| 10 | 12 | 1.883 | 1.843 | -0.040 |
| 10 | 13 | 1.933 | 1.826 | -0.107 |
| 10 | 14 | 1.878 | 1.880 | 0.002 |
| 10 | 15 | 1.955 | 1.828 | -0.127 |
| 10 | 16 | 1.921 | 1.918 | -0.003 |
| 15 | 17 | 1.886 | 1.899 | 0.013 |
| 15 | 18 | 1.918 | 1.879 | -0.039 |
| 15 | 19 | 1.909 | 1.916 | 0.007 |
| 15 | 20 | 1.870 | 1.907 | 0.037 |
| 30 | 21 | 1.899 | 1.935 | 0.036 |
| 30 | 22 | 1.869 | 1.869 | -0.000 |
| 30 | 23 | 1.892 | 1.920 | 0.028 |
| 30 | 24 | 1.964 | 1.922 | -0.042 |
| 30 | 25 | 1.898 | 1.851 | -0.047 |
| 35 | 26 | 1.941 | 1.870 | -0.071 |
| 35 | 27 | 1.922 | 1.924 | 0.002 |
| 35 | 28 | 1.866 | 1.951 | 0.085 |
| 35 | 29 | 1.923 | 1.923 | 0.000 |
| 35 | 30 | 1.892 | 1.915 | 0.023 |
| 50 | 31 | 1.906 | 1.982 | 0.076 |
| 50 | 32 | 1.909 | 1.966 | 0.057 |
| 50 | 33 | 1.927 | 1.960 | 0.033 |
| 50 | 34 | 1.915 | 1.904 | -0.011 |
| 50 | 35 | 1.953 | 1.939 | -0.014 |
| 55 | 36 | 1.915 | 1.924 | 0.009 |
| 55 | 37 | 1.935 | 2.023 | 0.088 |
| 55 | 38 | 1.917 | 1.887 | -0.030 |
| 55 | 39 | 1.835 | 1.898 | 0.063 |
| 55 | 40 | 1.816 | 1.957 | 0.141 |
| 100 | 41 | 1.898 | 1.902 | 0.004 |
| 100 | 42 | 1.940 | 1.906 | -0.034 |
| 100 | 43 | 1.915 | 1.936 | 0.021 |
| 100 | 44 | 1.903 | 2.016 | 0.113 |
| 100 | 45 | 1.881 | 1.930 | 0.049 |
| 105 | 46 | 1.907 | 1.942 | 0.035 |
| 105 | 47 | 1.895 | 1.860 | -0.035 |
| 105 | 48 | 1.931 | 1.975 | 0.044 |
| 105 | 49 | 1.869 | 1.974 | 0.105 |
| 105 | 50 | 1.917 | 1.922 | 0.005 |
| 105 | 51 | 1.919 | 1.916 | -0.003 |
| 105 | 52 | 1.855 | 1.911 | 0.056 |
| 105 | 53 | 1.849 | 1.970 | 0.121 |
| 105 | 54 | 1.914 | 1.908 | -0.006 |
| 105 | 55 | 1.939 | 1.989 | 0.050 |
| 105 | 56 | 1.910 | 1.955 | 0.045 |
| 105 | 57 | 1.914 | 1.923 | 0.009 |
| 105 | 58 | 1.961 | 1.927 | -0.034 |
| 105 | 59 | 1.953 | 1.917 | -0.036 |
| 105 | 60 | 1.941 | 1.923 | -0.018 |
| 105 | 61 | 1.894 | 1.912 | 0.018 |
| 105 | 62 | 1.900 | 1.963 | 0.063 |
| 105 | 63 | 1.882 | 1.920 | 0.038 |
| 105 | 64 | 1.998 | 2.024 | 0.026 |
| 105 | 65 | 1.909 | 1.933 | 0.024 |
| 105 | 66 | 1.887 | 1.965 | 0.078 |
| 105 | 67 | 1.905 | 1.965 | 0.060 |
| Max | | 1.998 | 2.024 | 0.141 |
| Average | | 1.910 | 1.923 | 0.013 |
| Min | | 1.816 | 1.826 | -0.127 |
| Std Dev | | 0.033 | 0.040 | 0.051 |



| 5.3 IDD_DIS_12V | |
|-----------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3 mA |
| Min Limit | 3 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 1.917 | 1.859 | 1.909 | 1.826 | 1.879 | 1.851 | 1.870 | 1.904 | 1.887 | 1.902 | 1.860 |
| Average | 1.924 | 1.895 | 1.928 | 1.857 | 1.904 | 1.899 | 1.917 | 1.950 | 1.938 | 1.938 | 1.941 |
| Max | 1.931 | 1.921 | 1.952 | 1.906 | 1.918 | 1.935 | 1.951 | 1.982 | 2.023 | 2.016 | 2.024 |
| UL | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 |

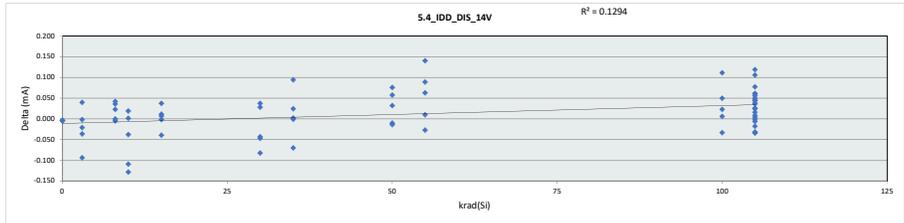


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

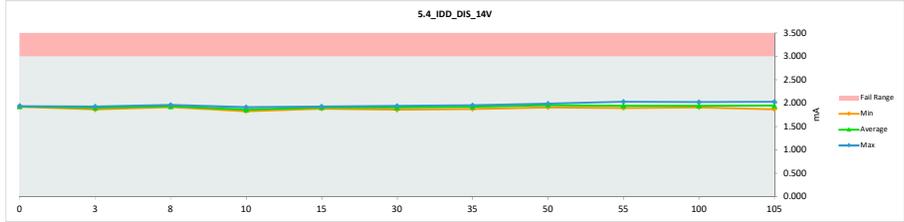
| 5.4 IDD_DIS_14V | |
|-----------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 3 |
| Min Limit | 1 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.939 | 1.934 | -0.005 |
| 0 | 992 | 1.926 | 1.922 | -0.004 |
| 0 | 993 | 1.932 | 1.929 | -0.003 |
| 3 | 1 | 1.899 | 1.863 | -0.036 |
| 3 | 2 | 1.886 | 1.926 | 0.040 |
| 3 | 3 | 1.908 | 1.887 | -0.021 |
| 3 | 4 | 2.002 | 1.908 | -0.094 |
| 3 | 5 | 1.913 | 1.911 | -0.002 |
| 8 | 6 | 1.932 | 1.932 | 0.000 |
| 8 | 7 | 1.872 | 1.914 | 0.042 |
| 8 | 8 | 1.921 | 1.957 | 0.036 |
| 8 | 9 | 1.926 | 1.921 | -0.005 |
| 8 | 10 | 1.912 | 1.935 | 0.023 |
| 10 | 11 | 1.891 | 1.910 | 0.019 |
| 10 | 12 | 1.885 | 1.847 | -0.038 |
| 10 | 13 | 1.938 | 1.829 | -0.109 |
| 10 | 14 | 1.882 | 1.883 | 0.001 |
| 10 | 15 | 1.959 | 1.831 | -0.128 |
| 15 | 16 | 1.925 | 1.923 | -0.002 |
| 15 | 17 | 1.891 | 1.902 | 0.011 |
| 15 | 18 | 1.921 | 1.882 | -0.039 |
| 15 | 19 | 1.913 | 1.920 | 0.007 |
| 15 | 20 | 1.874 | 1.911 | 0.037 |
| 30 | 21 | 1.903 | 1.940 | 0.037 |
| 30 | 22 | 1.854 | 1.872 | -0.082 |
| 30 | 23 | 1.896 | 1.924 | 0.028 |
| 30 | 24 | 1.968 | 1.925 | -0.043 |
| 30 | 25 | 1.902 | 1.855 | -0.047 |
| 35 | 26 | 1.944 | 1.874 | -0.070 |
| 35 | 27 | 1.926 | 1.928 | 0.002 |
| 35 | 28 | 1.850 | 1.954 | 0.094 |
| 35 | 29 | 1.927 | 1.926 | -0.001 |
| 35 | 30 | 1.895 | 1.919 | 0.024 |
| 50 | 31 | 1.910 | 1.986 | 0.076 |
| 50 | 32 | 1.913 | 1.970 | 0.057 |
| 50 | 33 | 1.932 | 1.964 | 0.032 |
| 50 | 34 | 1.918 | 1.908 | -0.010 |
| 50 | 35 | 1.957 | 1.943 | -0.014 |
| 55 | 36 | 1.919 | 1.929 | 0.010 |
| 55 | 37 | 1.938 | 2.027 | 0.089 |
| 55 | 38 | 1.920 | 1.893 | -0.027 |
| 55 | 39 | 1.839 | 1.902 | 0.063 |
| 55 | 40 | 1.821 | 1.961 | 0.140 |
| 100 | 41 | 1.901 | 1.907 | 0.006 |
| 100 | 42 | 1.945 | 1.912 | -0.033 |
| 100 | 43 | 1.918 | 1.941 | 0.023 |
| 100 | 44 | 1.908 | 2.019 | 0.111 |
| 100 | 45 | 1.885 | 1.935 | 0.050 |
| 105 | 46 | 1.911 | 1.947 | 0.036 |
| 105 | 47 | 1.899 | 1.867 | -0.032 |
| 105 | 48 | 1.935 | 1.979 | 0.044 |
| 105 | 49 | 1.872 | 1.978 | 0.106 |
| 105 | 50 | 1.922 | 1.926 | 0.004 |
| 105 | 51 | 1.923 | 1.921 | -0.002 |
| 105 | 52 | 1.859 | 1.915 | 0.056 |
| 105 | 53 | 1.854 | 1.973 | 0.119 |
| 105 | 54 | 1.918 | 1.912 | -0.006 |
| 105 | 55 | 1.943 | 1.993 | 0.050 |
| 105 | 56 | 1.914 | 1.959 | 0.045 |
| 105 | 57 | 1.918 | 1.926 | 0.008 |
| 105 | 58 | 1.965 | 1.932 | -0.033 |
| 105 | 59 | 1.957 | 1.923 | -0.034 |
| 105 | 60 | 1.945 | 1.927 | -0.018 |
| 105 | 61 | 1.900 | 1.916 | 0.016 |
| 105 | 62 | 1.905 | 1.966 | 0.061 |
| 105 | 63 | 1.887 | 1.925 | 0.038 |
| 105 | 64 | 2.002 | 2.028 | 0.026 |
| 105 | 65 | 1.913 | 1.937 | 0.024 |
| 105 | 66 | 1.891 | 1.968 | 0.077 |
| 105 | 67 | 1.909 | 1.969 | 0.060 |
| Max | | 2.002 | 2.028 | 0.140 |
| Average | | 1.914 | 1.927 | 0.013 |
| Min | | 1.821 | 1.829 | -0.128 |
| Std Dev | | 0.033 | 0.040 | 0.051 |



| 5.4 IDD_DIS_14V | |
|-----------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3 mA |
| Min Limit | 1 mA |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Min | 1.922 | 1.863 | 1.914 | 1.829 | 1.882 | 1.855 | 1.874 | 1.908 | 1.893 | 1.907 | 1.867 |
| Average | 1.928 | 1.899 | 1.932 | 1.860 | 1.908 | 1.903 | 1.920 | 1.954 | 1.942 | 1.943 | 1.945 |
| Max | 1.934 | 1.926 | 1.957 | 1.910 | 1.923 | 1.940 | 1.954 | 1.986 | 2.027 | 2.019 | 2.028 |
| UL | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 |

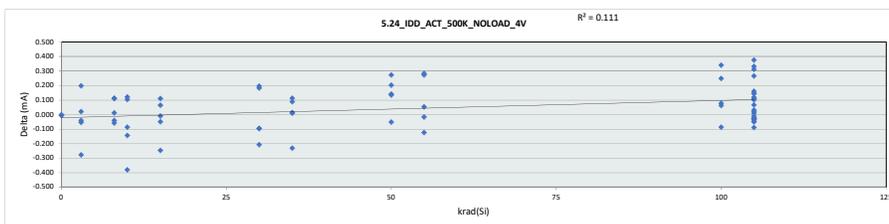


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

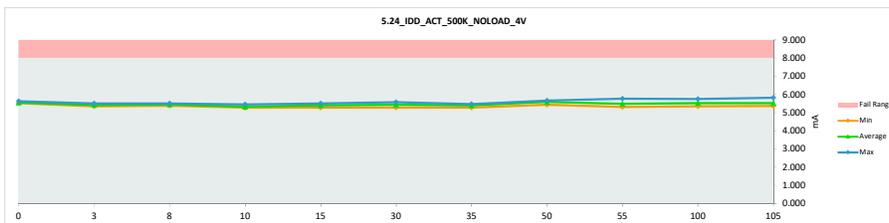
| 5.24 IDD_ACT_500K_NOLOAD_4V | |
|-----------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | mA |
| Min Limit | 8 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 5.558 | 5.552 | -0.006 |
| 0 | 992 | 5.522 | 5.518 | -0.004 |
| 0 | 993 | 5.631 | 5.628 | -0.003 |
| 3 | 1 | 5.411 | 5.356 | -0.055 |
| 3 | 2 | 5.258 | 5.456 | 0.198 |
| 3 | 3 | 5.427 | 5.385 | -0.042 |
| 3 | 4 | 5.667 | 5.390 | -0.277 |
| 3 | 5 | 5.480 | 5.501 | 0.021 |
| 8 | 6 | 5.476 | 5.418 | -0.058 |
| 8 | 7 | 5.366 | 5.378 | 0.012 |
| 8 | 8 | 5.540 | 5.499 | -0.041 |
| 8 | 9 | 5.384 | 5.495 | 0.111 |
| 8 | 10 | 5.380 | 5.490 | 0.110 |
| 10 | 11 | 5.330 | 5.451 | 0.121 |
| 10 | 12 | 5.373 | 5.285 | -0.088 |
| 10 | 13 | 5.413 | 5.268 | -0.145 |
| 10 | 14 | 5.286 | 5.389 | 0.103 |
| 10 | 15 | 5.654 | 5.273 | -0.381 |
| 15 | 16 | 5.513 | 5.503 | -0.010 |
| 15 | 17 | 5.321 | 5.384 | 0.063 |
| 15 | 18 | 5.533 | 5.285 | -0.248 |
| 15 | 19 | 5.454 | 5.403 | -0.051 |
| 15 | 20 | 5.322 | 5.432 | 0.110 |
| 30 | 21 | 5.387 | 5.570 | 0.183 |
| 30 | 22 | 5.506 | 5.297 | -0.209 |
| 30 | 23 | 5.366 | 5.562 | 0.196 |
| 30 | 24 | 5.542 | 5.445 | -0.097 |
| 30 | 25 | 5.376 | 5.280 | -0.096 |
| 35 | 26 | 5.514 | 5.283 | -0.231 |
| 35 | 27 | 5.337 | 5.424 | 0.087 |
| 35 | 28 | 5.334 | 5.445 | 0.111 |
| 35 | 29 | 5.450 | 5.463 | 0.013 |
| 35 | 30 | 5.395 | 5.405 | 0.010 |
| 50 | 31 | 5.392 | 5.664 | 0.272 |
| 50 | 32 | 5.490 | 5.630 | 0.140 |
| 50 | 33 | 5.425 | 5.627 | 0.202 |
| 50 | 34 | 5.399 | 5.533 | 0.134 |
| 50 | 35 | 5.493 | 5.441 | -0.052 |
| 55 | 36 | 5.490 | 5.473 | -0.017 |
| 55 | 37 | 5.495 | 5.767 | 0.272 |
| 55 | 38 | 5.463 | 5.339 | -0.124 |
| 55 | 39 | 5.264 | 5.316 | 0.052 |
| 55 | 40 | 5.242 | 5.524 | 0.282 |
| 100 | 41 | 5.408 | 5.470 | 0.062 |
| 100 | 42 | 5.433 | 5.346 | -0.087 |
| 100 | 43 | 5.481 | 5.557 | 0.076 |
| 100 | 44 | 5.403 | 5.744 | 0.341 |
| 100 | 45 | 5.284 | 5.533 | 0.249 |
| 105 | 46 | 5.386 | 5.531 | 0.145 |
| 105 | 47 | 5.413 | 5.362 | -0.051 |
| 105 | 48 | 5.561 | 5.580 | 0.019 |
| 105 | 49 | 5.317 | 5.582 | 0.265 |
| 105 | 50 | 5.495 | 5.472 | -0.023 |
| 105 | 51 | 5.456 | 5.422 | -0.034 |
| 105 | 52 | 5.307 | 5.407 | 0.100 |
| 105 | 53 | 5.251 | 5.583 | 0.332 |
| 105 | 54 | 5.423 | 5.453 | 0.030 |
| 105 | 55 | 5.425 | 5.801 | 0.376 |
| 105 | 56 | 5.454 | 5.598 | 0.144 |
| 105 | 57 | 5.430 | 5.402 | -0.028 |
| 105 | 58 | 5.575 | 5.642 | 0.067 |
| 105 | 59 | 5.515 | 5.489 | -0.026 |
| 105 | 60 | 5.522 | 5.432 | -0.090 |
| 105 | 61 | 5.462 | 5.470 | 0.008 |
| 105 | 62 | 5.380 | 5.498 | 0.118 |
| 105 | 63 | 5.328 | 5.489 | 0.161 |
| 105 | 64 | 5.708 | 5.818 | 0.110 |
| 105 | 65 | 5.469 | 5.421 | -0.048 |
| 105 | 66 | 5.311 | 5.622 | 0.311 |
| 105 | 67 | 5.431 | 5.421 | -0.010 |
| Max | | 5.708 | 5.818 | 0.376 |
| Average | | 5.433 | 5.477 | 0.044 |
| Min | | 5.242 | 5.268 | -0.381 |
| Std Dev | | 0.100 | 0.124 | 0.151 |



| 5.24 IDD_ACT_500K_NOLOAD | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | mA |
| Min Limit | mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 5.518 | 5.356 | 5.378 | 5.268 | 5.285 | 5.280 | 5.283 | 5.441 | 5.316 | 5.346 | 5.362 |
| Average | 5.566 | 5.418 | 5.456 | 5.333 | 5.401 | 5.431 | 5.404 | 5.579 | 5.484 | 5.530 | 5.523 |
| Max | 5.628 | 5.501 | 5.499 | 5.451 | 5.503 | 5.570 | 5.463 | 5.664 | 5.767 | 5.744 | 5.818 |
| UL | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 |

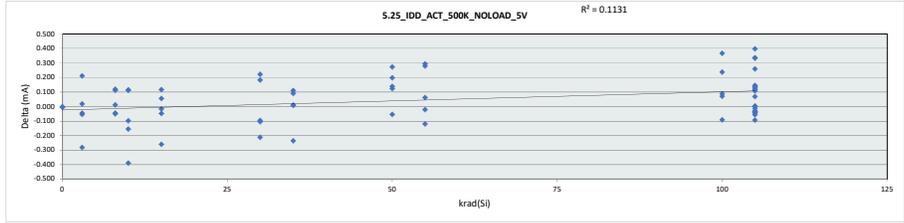


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

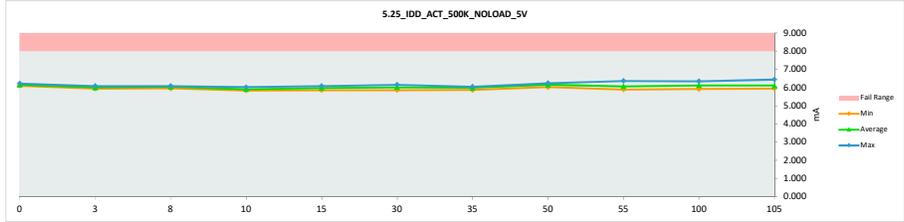
| 5.25 IDD ACT 500K NOLOAD 5V | |
|-----------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 8 |
| Min Limit | 7 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 6.144 | 6.142 | -0.002 |
| 0 | 992 | 6.105 | 6.100 | -0.005 |
| 0 | 993 | 6.224 | 6.219 | -0.005 |
| 3 | 1 | 5.991 | 5.936 | -0.055 |
| 3 | 2 | 5.830 | 6.040 | 0.210 |
| 3 | 3 | 6.006 | 5.961 | -0.045 |
| 3 | 4 | 6.252 | 5.970 | -0.282 |
| 3 | 5 | 6.065 | 6.083 | 0.018 |
| 8 | 6 | 6.052 | 6.002 | -0.050 |
| 8 | 7 | 5.941 | 5.952 | 0.011 |
| 8 | 8 | 6.121 | 6.076 | -0.045 |
| 8 | 9 | 5.958 | 6.076 | 0.118 |
| 8 | 10 | 5.963 | 6.074 | 0.111 |
| 10 | 11 | 5.907 | 6.020 | 0.113 |
| 10 | 12 | 5.951 | 5.852 | -0.099 |
| 10 | 13 | 5.992 | 5.837 | -0.155 |
| 10 | 14 | 5.851 | 5.966 | 0.115 |
| 10 | 15 | 6.234 | 5.844 | -0.390 |
| 15 | 16 | 6.099 | 6.081 | -0.018 |
| 15 | 17 | 5.899 | 5.955 | 0.056 |
| 15 | 18 | 6.115 | 5.855 | -0.260 |
| 15 | 19 | 6.032 | 5.985 | -0.047 |
| 15 | 20 | 5.901 | 6.017 | 0.116 |
| 30 | 21 | 5.962 | 6.144 | 0.182 |
| 30 | 22 | 6.081 | 5.868 | -0.213 |
| 30 | 23 | 5.930 | 6.152 | 0.222 |
| 30 | 24 | 6.129 | 6.025 | -0.104 |
| 30 | 25 | 5.952 | 5.856 | -0.096 |
| 35 | 26 | 6.097 | 5.861 | -0.236 |
| 35 | 27 | 5.912 | 6.002 | 0.090 |
| 35 | 28 | 5.917 | 6.026 | 0.109 |
| 35 | 29 | 6.033 | 6.042 | 0.009 |
| 35 | 30 | 5.973 | 5.981 | 0.008 |
| 50 | 31 | 5.970 | 6.241 | 0.271 |
| 50 | 32 | 6.072 | 6.210 | 0.138 |
| 50 | 33 | 6.008 | 6.205 | 0.197 |
| 50 | 34 | 5.972 | 6.095 | 0.123 |
| 50 | 35 | 6.075 | 6.020 | -0.055 |
| 55 | 36 | 6.070 | 6.049 | -0.021 |
| 55 | 37 | 6.079 | 6.357 | 0.278 |
| 55 | 38 | 6.035 | 5.915 | -0.120 |
| 55 | 39 | 5.829 | 5.891 | 0.062 |
| 55 | 40 | 5.813 | 6.106 | 0.293 |
| 100 | 41 | 5.984 | 6.054 | 0.070 |
| 100 | 42 | 6.008 | 5.917 | -0.091 |
| 100 | 43 | 6.059 | 6.146 | 0.087 |
| 100 | 44 | 5.977 | 6.343 | 0.366 |
| 100 | 45 | 5.859 | 6.095 | 0.236 |
| 105 | 46 | 5.969 | 6.110 | 0.141 |
| 105 | 47 | 5.993 | 5.937 | -0.056 |
| 105 | 48 | 6.144 | 6.146 | 0.002 |
| 105 | 49 | 5.887 | 6.146 | 0.259 |
| 105 | 50 | 6.087 | 6.050 | -0.037 |
| 105 | 51 | 6.040 | 6.000 | -0.040 |
| 105 | 52 | 5.879 | 5.987 | 0.108 |
| 105 | 53 | 5.826 | 6.160 | 0.334 |
| 105 | 54 | 6.000 | 6.068 | 0.068 |
| 105 | 55 | 6.003 | 6.401 | 0.398 |
| 105 | 56 | 6.032 | 6.177 | 0.145 |
| 105 | 57 | 6.010 | 5.979 | -0.031 |
| 105 | 58 | 6.151 | 6.269 | 0.118 |
| 105 | 59 | 6.098 | 6.065 | -0.033 |
| 105 | 60 | 6.106 | 6.012 | -0.094 |
| 105 | 61 | 6.038 | 6.040 | 0.002 |
| 105 | 62 | 5.957 | 6.075 | 0.118 |
| 105 | 63 | 5.904 | 6.033 | 0.129 |
| 105 | 64 | 6.295 | 6.433 | 0.138 |
| 105 | 65 | 6.047 | 6.004 | -0.043 |
| 105 | 66 | 5.884 | 6.220 | 0.336 |
| 105 | 67 | 6.012 | 5.999 | -0.013 |
| Max | | 6.295 | 6.433 | 0.398 |
| Average | | 6.011 | 6.056 | 0.045 |
| Min | | 5.813 | 5.837 | -0.390 |
| Std Dev | | 0.104 | 0.130 | 0.156 |



| 5.25 IDD ACT 500K NOLOAD | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 8 mA |
| Min Limit | 8 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 6.100 | 5.936 | 5.952 | 5.837 | 5.855 | 5.856 | 5.861 | 6.020 | 5.891 | 5.917 | 5.937 |
| Average | 6.154 | 5.998 | 6.036 | 5.904 | 5.979 | 6.009 | 5.982 | 6.154 | 6.064 | 6.111 | 6.105 |
| Max | 6.219 | 6.083 | 6.076 | 6.020 | 6.081 | 6.152 | 6.042 | 6.241 | 6.357 | 6.343 | 6.433 |
| UL | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 |

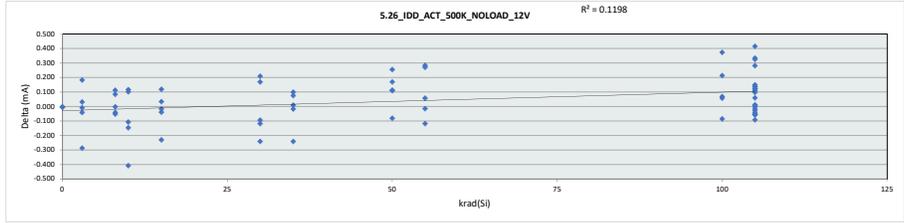


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

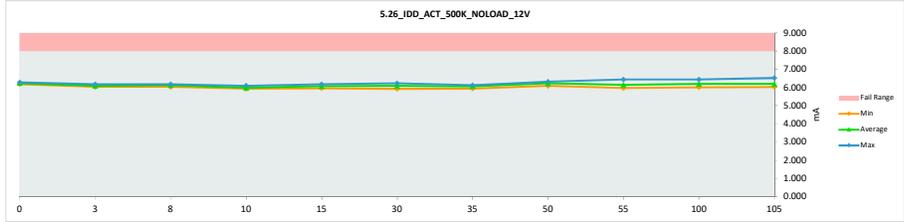
| 5.26 IDD_ACT_500K_NOLOAD_12V | |
|------------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | mA |
| Min Limit | 8 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 6.235 | 6.230 | -0.005 |
| 0 | 992 | 6.187 | 6.183 | -0.004 |
| 0 | 993 | 6.287 | 6.284 | -0.003 |
| 3 | 1 | 6.070 | 6.029 | -0.041 |
| 3 | 2 | 5.932 | 6.115 | 0.183 |
| 3 | 3 | 6.072 | 6.064 | -0.008 |
| 3 | 4 | 6.343 | 6.057 | -0.286 |
| 3 | 5 | 6.145 | 6.175 | 0.030 |
| 8 | 6 | 6.151 | 6.099 | -0.052 |
| 8 | 7 | 6.031 | 6.028 | -0.003 |
| 8 | 8 | 6.210 | 6.169 | -0.041 |
| 8 | 9 | 6.064 | 6.147 | 0.083 |
| 8 | 10 | 6.055 | 6.166 | 0.111 |
| 10 | 11 | 5.994 | 6.096 | 0.102 |
| 10 | 12 | 6.037 | 5.929 | -0.108 |
| 10 | 13 | 6.076 | 5.930 | -0.146 |
| 10 | 14 | 5.927 | 6.044 | 0.117 |
| 10 | 15 | 6.340 | 5.932 | -0.408 |
| 15 | 16 | 6.186 | 6.169 | -0.017 |
| 15 | 17 | 6.001 | 6.034 | 0.033 |
| 15 | 18 | 6.185 | 5.955 | -0.230 |
| 15 | 19 | 6.103 | 6.063 | -0.040 |
| 15 | 20 | 5.981 | 6.099 | 0.118 |
| 30 | 21 | 6.052 | 6.221 | 0.169 |
| 30 | 22 | 6.077 | 5.936 | -0.241 |
| 30 | 23 | 6.020 | 6.229 | 0.209 |
| 30 | 24 | 6.216 | 6.123 | -0.093 |
| 30 | 25 | 6.040 | 5.923 | -0.117 |
| 35 | 26 | 6.176 | 5.936 | -0.240 |
| 35 | 27 | 6.003 | 6.077 | 0.074 |
| 35 | 28 | 6.009 | 6.107 | 0.098 |
| 35 | 29 | 6.109 | 6.117 | 0.008 |
| 35 | 30 | 6.075 | 6.057 | -0.018 |
| 50 | 31 | 6.056 | 6.311 | 0.255 |
| 50 | 32 | 6.166 | 6.279 | 0.113 |
| 50 | 33 | 6.105 | 6.273 | 0.168 |
| 50 | 34 | 6.053 | 6.162 | 0.109 |
| 50 | 35 | 6.165 | 6.084 | -0.081 |
| 55 | 36 | 6.141 | 6.127 | -0.014 |
| 55 | 37 | 6.171 | 6.441 | 0.270 |
| 55 | 38 | 6.114 | 5.996 | -0.118 |
| 55 | 39 | 5.906 | 5.963 | 0.057 |
| 55 | 40 | 5.904 | 6.186 | 0.282 |
| 100 | 41 | 6.062 | 6.130 | 0.068 |
| 100 | 42 | 6.091 | 6.005 | -0.086 |
| 100 | 43 | 6.147 | 6.204 | 0.057 |
| 100 | 44 | 6.058 | 6.431 | 0.373 |
| 100 | 45 | 5.959 | 6.172 | 0.213 |
| 105 | 46 | 6.047 | 6.197 | 0.150 |
| 105 | 47 | 6.080 | 6.024 | -0.056 |
| 105 | 48 | 6.228 | 6.240 | 0.012 |
| 105 | 49 | 5.964 | 6.244 | 0.280 |
| 105 | 50 | 6.162 | 6.134 | -0.028 |
| 105 | 51 | 6.137 | 6.081 | -0.056 |
| 105 | 52 | 5.951 | 6.061 | 0.110 |
| 105 | 53 | 5.901 | 6.234 | 0.333 |
| 105 | 54 | 6.077 | 6.137 | 0.060 |
| 105 | 55 | 6.085 | 6.500 | 0.415 |
| 105 | 56 | 6.113 | 6.252 | 0.139 |
| 105 | 57 | 6.089 | 6.072 | -0.017 |
| 105 | 58 | 6.244 | 6.340 | 0.096 |
| 105 | 59 | 6.175 | 6.131 | -0.044 |
| 105 | 60 | 6.176 | 6.085 | -0.091 |
| 105 | 61 | 6.110 | 6.118 | 0.008 |
| 105 | 62 | 6.032 | 6.153 | 0.121 |
| 105 | 63 | 5.988 | 6.110 | 0.122 |
| 105 | 64 | 6.382 | 6.519 | 0.137 |
| 105 | 65 | 6.131 | 6.079 | -0.052 |
| 105 | 66 | 5.966 | 6.290 | 0.324 |
| 105 | 67 | 6.090 | 6.088 | -0.002 |
| Max | | 6.382 | 6.519 | 0.415 |
| Average | | 6.096 | 6.137 | 0.041 |
| Min | | 5.901 | 5.923 | -0.408 |
| Std Dev | | 0.104 | 0.130 | 0.154 |



| 5.26 IDD_ACT_500K_NOLOAD | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | mA |
| Min Limit | 8 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 6.183 | 6.029 | 6.028 | 5.929 | 5.955 | 5.923 | 5.936 | 6.084 | 5.963 | 6.005 | 6.024 |
| Average | 6.232 | 6.088 | 6.122 | 5.986 | 6.064 | 6.086 | 6.059 | 6.222 | 6.143 | 6.188 | 6.186 |
| Max | 6.284 | 6.175 | 6.169 | 6.096 | 6.169 | 6.229 | 6.117 | 6.311 | 6.441 | 6.431 | 6.519 |
| UL | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 |

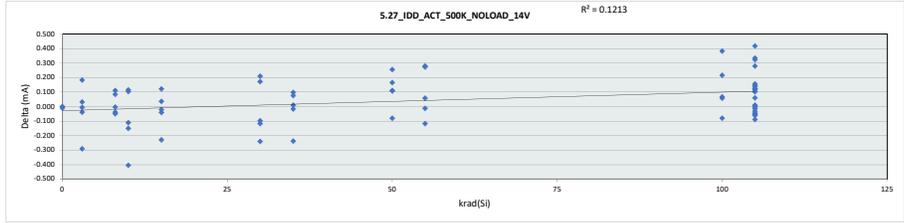


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

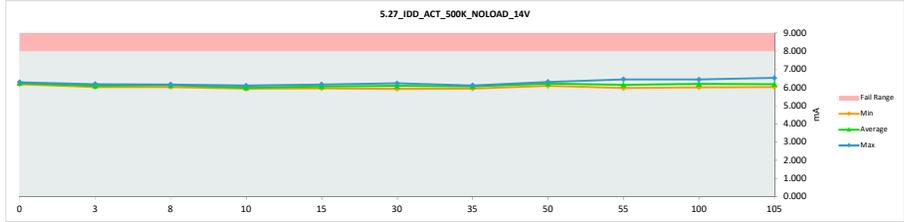
| 5.27 IDD_ACT_500K_NOLOAD_14V | |
|------------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 8 |
| Min Limit | 7 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 6.242 | 6.232 | -0.010 |
| 0 | 992 | 6.190 | 6.187 | -0.003 |
| 0 | 993 | 6.289 | 6.287 | -0.002 |
| 3 | 1 | 6.074 | 6.035 | -0.039 |
| 3 | 2 | 5.937 | 6.120 | 0.183 |
| 3 | 3 | 6.074 | 6.067 | -0.007 |
| 3 | 4 | 6.350 | 6.059 | -0.291 |
| 3 | 5 | 6.151 | 6.183 | 0.032 |
| 8 | 6 | 6.154 | 6.104 | -0.050 |
| 8 | 7 | 6.036 | 6.032 | -0.004 |
| 8 | 8 | 6.212 | 6.172 | -0.040 |
| 8 | 9 | 6.067 | 6.151 | 0.084 |
| 8 | 10 | 6.061 | 6.170 | 0.109 |
| 10 | 11 | 5.995 | 6.100 | 0.104 |
| 10 | 12 | 6.042 | 5.931 | -0.111 |
| 10 | 13 | 6.083 | 5.931 | -0.152 |
| 10 | 14 | 5.931 | 6.045 | 0.114 |
| 10 | 15 | 6.346 | 5.941 | -0.405 |
| 15 | 16 | 6.193 | 6.172 | -0.021 |
| 15 | 17 | 6.005 | 6.040 | 0.035 |
| 15 | 18 | 6.189 | 5.960 | -0.229 |
| 15 | 19 | 6.108 | 6.067 | -0.041 |
| 15 | 20 | 5.985 | 6.106 | 0.121 |
| 30 | 21 | 6.055 | 6.226 | 0.171 |
| 30 | 22 | 6.182 | 5.942 | -0.240 |
| 30 | 23 | 6.022 | 6.231 | 0.209 |
| 30 | 24 | 6.222 | 6.124 | -0.098 |
| 30 | 25 | 6.044 | 5.925 | -0.119 |
| 35 | 26 | 6.179 | 5.941 | -0.238 |
| 35 | 27 | 6.008 | 6.082 | 0.074 |
| 35 | 28 | 6.012 | 6.109 | 0.097 |
| 35 | 29 | 6.112 | 6.121 | 0.009 |
| 35 | 30 | 6.079 | 6.062 | -0.017 |
| 50 | 31 | 6.059 | 6.314 | 0.255 |
| 50 | 32 | 6.172 | 6.281 | 0.109 |
| 50 | 33 | 6.111 | 6.276 | 0.165 |
| 50 | 34 | 6.058 | 6.165 | 0.107 |
| 50 | 35 | 6.171 | 6.091 | -0.080 |
| 55 | 36 | 6.146 | 6.134 | -0.012 |
| 55 | 37 | 6.173 | 6.444 | 0.271 |
| 55 | 38 | 6.117 | 5.999 | -0.118 |
| 55 | 39 | 5.912 | 5.969 | 0.057 |
| 55 | 40 | 5.909 | 6.188 | 0.279 |
| 100 | 41 | 6.068 | 6.135 | 0.067 |
| 100 | 42 | 6.093 | 6.013 | -0.080 |
| 100 | 43 | 6.151 | 6.209 | 0.058 |
| 100 | 44 | 6.058 | 6.440 | 0.382 |
| 100 | 45 | 5.962 | 6.177 | 0.215 |
| 105 | 46 | 6.049 | 6.205 | 0.156 |
| 105 | 47 | 6.083 | 6.025 | -0.058 |
| 105 | 48 | 6.232 | 6.241 | 0.009 |
| 105 | 49 | 5.967 | 6.246 | 0.279 |
| 105 | 50 | 6.168 | 6.135 | -0.033 |
| 105 | 51 | 6.141 | 6.081 | -0.060 |
| 105 | 52 | 5.952 | 6.067 | 0.115 |
| 105 | 53 | 5.907 | 6.240 | 0.333 |
| 105 | 54 | 6.080 | 6.140 | 0.060 |
| 105 | 55 | 6.090 | 6.506 | 0.416 |
| 105 | 56 | 6.115 | 6.259 | 0.144 |
| 105 | 57 | 6.092 | 6.077 | -0.015 |
| 105 | 58 | 6.245 | 6.345 | 0.100 |
| 105 | 59 | 6.180 | 6.133 | -0.047 |
| 105 | 60 | 6.178 | 6.089 | -0.089 |
| 105 | 61 | 6.114 | 6.118 | 0.004 |
| 105 | 62 | 6.037 | 6.159 | 0.122 |
| 105 | 63 | 5.991 | 6.114 | 0.123 |
| 105 | 64 | 6.387 | 6.525 | 0.138 |
| 105 | 65 | 6.133 | 6.085 | -0.048 |
| 105 | 66 | 5.972 | 6.294 | 0.322 |
| 105 | 67 | 6.096 | 6.091 | -0.005 |
| Max | | 6.387 | 6.525 | 0.416 |
| Average | | 6.100 | 6.141 | 0.041 |
| Min | | 5.907 | 5.925 | -0.405 |
| Std Dev | | 0.104 | 0.130 | 0.155 |



| 5.27 IDD_ACT_500K_NOLOAD | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 8 mA |
| Min Limit | 7 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 6.187 | 6.035 | 6.032 | 5.931 | 5.960 | 5.925 | 5.941 | 6.091 | 5.969 | 6.013 | 6.025 |
| Average | 6.235 | 6.093 | 6.126 | 5.990 | 6.069 | 6.090 | 6.063 | 6.225 | 6.147 | 6.195 | 6.190 |
| Max | 6.287 | 6.183 | 6.172 | 6.100 | 6.172 | 6.231 | 6.121 | 6.314 | 6.444 | 6.440 | 6.525 |
| UL | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 | 8.000 |

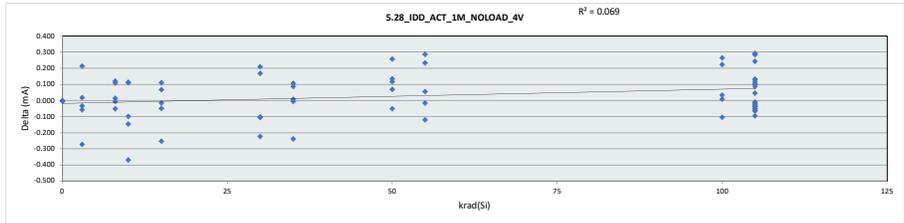


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

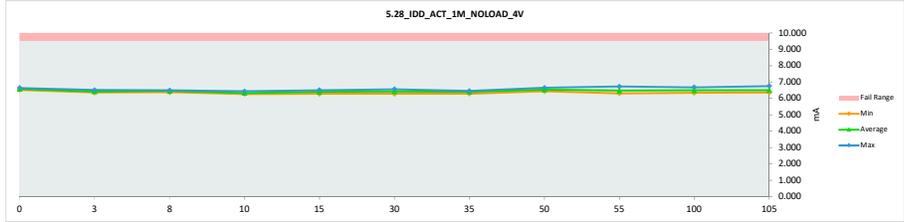
| 5.28 IDD_ACT_1M_NOLOAD_4V | |
|---------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 9.5 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 6.569 | 6.565 | -0.004 |
| 0 | 992 | 6.529 | 6.528 | -0.001 |
| 0 | 993 | 6.643 | 6.639 | -0.004 |
| 3 | 1 | 6.415 | 6.358 | -0.057 |
| 3 | 2 | 6.252 | 6.465 | 0.213 |
| 3 | 3 | 6.419 | 6.385 | -0.034 |
| 3 | 4 | 6.665 | 6.392 | -0.273 |
| 3 | 5 | 6.488 | 6.505 | 0.017 |
| 8 | 6 | 6.472 | 6.420 | -0.052 |
| 8 | 7 | 6.361 | 6.374 | 0.013 |
| 8 | 8 | 6.502 | 6.495 | -0.007 |
| 8 | 9 | 6.375 | 6.495 | 0.120 |
| 8 | 10 | 6.382 | 6.490 | 0.108 |
| 10 | 11 | 6.328 | 6.438 | 0.110 |
| 10 | 12 | 6.372 | 6.273 | -0.099 |
| 10 | 13 | 6.414 | 6.267 | -0.147 |
| 10 | 14 | 6.272 | 6.384 | 0.112 |
| 10 | 15 | 6.642 | 6.272 | -0.370 |
| 15 | 16 | 6.517 | 6.501 | -0.016 |
| 15 | 17 | 6.320 | 6.386 | 0.066 |
| 15 | 18 | 6.530 | 6.278 | -0.252 |
| 15 | 19 | 6.456 | 6.407 | -0.049 |
| 15 | 20 | 6.324 | 6.434 | 0.110 |
| 30 | 21 | 6.380 | 6.548 | 0.168 |
| 30 | 22 | 6.510 | 6.286 | -0.224 |
| 30 | 23 | 6.354 | 6.562 | 0.208 |
| 30 | 24 | 6.548 | 6.445 | -0.103 |
| 30 | 25 | 6.380 | 6.276 | -0.104 |
| 35 | 26 | 6.525 | 6.286 | -0.239 |
| 35 | 27 | 6.342 | 6.429 | 0.087 |
| 35 | 28 | 6.337 | 6.443 | 0.106 |
| 35 | 29 | 6.458 | 6.451 | -0.007 |
| 35 | 30 | 6.396 | 6.404 | 0.008 |
| 50 | 31 | 6.390 | 6.645 | 0.255 |
| 50 | 32 | 6.493 | 6.561 | 0.068 |
| 50 | 33 | 6.427 | 6.561 | 0.134 |
| 50 | 34 | 6.391 | 6.506 | 0.115 |
| 50 | 35 | 6.485 | 6.434 | -0.051 |
| 55 | 36 | 6.487 | 6.470 | -0.017 |
| 55 | 37 | 6.492 | 6.724 | 0.232 |
| 55 | 38 | 6.450 | 6.329 | -0.121 |
| 55 | 39 | 6.254 | 6.308 | 0.054 |
| 55 | 40 | 6.239 | 6.325 | 0.286 |
| 100 | 41 | 6.403 | 6.410 | 0.007 |
| 100 | 42 | 6.436 | 6.332 | -0.104 |
| 100 | 43 | 6.479 | 6.513 | 0.034 |
| 100 | 44 | 6.408 | 6.672 | 0.264 |
| 100 | 45 | 6.278 | 6.501 | 0.223 |
| 105 | 46 | 6.390 | 6.522 | 0.132 |
| 105 | 47 | 6.413 | 6.350 | -0.063 |
| 105 | 48 | 6.562 | 6.546 | -0.016 |
| 105 | 49 | 6.307 | 6.549 | 0.242 |
| 105 | 50 | 6.502 | 6.439 | -0.063 |
| 105 | 51 | 6.455 | 6.419 | -0.036 |
| 105 | 52 | 6.300 | 6.403 | 0.103 |
| 105 | 53 | 6.253 | 6.544 | 0.291 |
| 105 | 54 | 6.432 | 6.519 | 0.087 |
| 105 | 55 | 6.427 | 6.710 | 0.283 |
| 105 | 56 | 6.448 | 6.577 | 0.129 |
| 105 | 57 | 6.435 | 6.397 | -0.038 |
| 105 | 58 | 6.558 | 6.533 | -0.025 |
| 105 | 59 | 6.516 | 6.484 | -0.032 |
| 105 | 60 | 6.520 | 6.424 | -0.096 |
| 105 | 61 | 6.461 | 6.411 | -0.050 |
| 105 | 62 | 6.381 | 6.496 | 0.115 |
| 105 | 63 | 6.323 | 6.424 | 0.101 |
| 105 | 64 | 6.707 | 6.751 | 0.044 |
| 105 | 65 | 6.470 | 6.418 | -0.052 |
| 105 | 66 | 6.305 | 6.592 | 0.287 |
| 105 | 67 | 6.432 | 6.422 | -0.010 |
| Max | | 6.707 | 6.751 | 0.291 |
| Average | | 6.431 | 6.461 | 0.030 |
| Min | | 6.239 | 6.267 | -0.370 |
| Std Dev | | 0.101 | 0.110 | 0.142 |



| 5.28 IDD_ACT_1M_NOLOAD_4V | |
|---------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 9.5 mA |
| Min Limit | 4 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 6.528 | 6.358 | 6.374 | 6.267 | 6.278 | 6.276 | 6.286 | 6.434 | 6.308 | 6.332 | 6.350 |
| Average | 6.577 | 6.421 | 6.455 | 6.327 | 6.401 | 6.423 | 6.403 | 6.541 | 6.471 | 6.486 | 6.497 |
| Max | 6.639 | 6.505 | 6.495 | 6.438 | 6.501 | 6.562 | 6.451 | 6.645 | 6.724 | 6.672 | 6.751 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 |

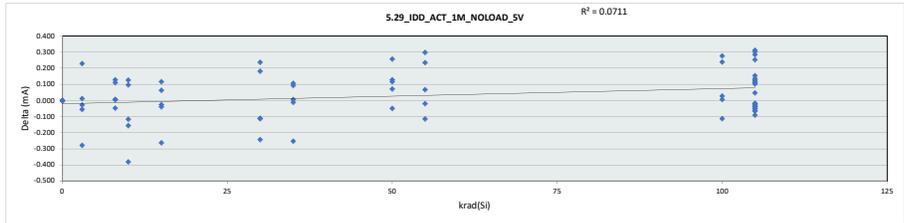


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

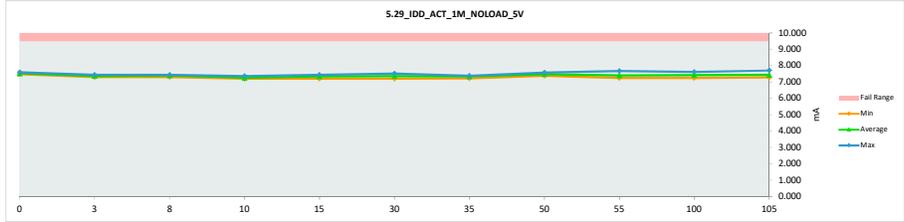
| 5.29 IDD_ACT_1M_NOLOAD_5V | |
|---------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 9.5 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.517 | 7.516 | -0.001 |
| 0 | 992 | 7.472 | 7.473 | 0.001 |
| 0 | 993 | 7.594 | 7.590 | -0.004 |
| 3 | 1 | 7.351 | 7.296 | -0.055 |
| 3 | 2 | 7.179 | 7.407 | 0.228 |
| 3 | 3 | 7.351 | 7.323 | -0.028 |
| 3 | 4 | 7.606 | 7.328 | -0.278 |
| 3 | 5 | 7.434 | 7.446 | 0.012 |
| 8 | 6 | 7.408 | 7.361 | -0.047 |
| 8 | 7 | 7.294 | 7.300 | 0.006 |
| 8 | 8 | 7.429 | 7.434 | 0.005 |
| 8 | 9 | 7.305 | 7.432 | 0.127 |
| 8 | 10 | 7.325 | 7.435 | 0.110 |
| 10 | 11 | 7.265 | 7.362 | 0.097 |
| 10 | 12 | 7.310 | 7.193 | -0.117 |
| 10 | 13 | 7.352 | 7.196 | -0.156 |
| 10 | 14 | 7.191 | 7.317 | 0.126 |
| 10 | 15 | 7.583 | 7.202 | -0.381 |
| 15 | 16 | 7.463 | 7.435 | -0.027 |
| 15 | 17 | 7.255 | 7.318 | 0.063 |
| 15 | 18 | 7.467 | 7.204 | -0.263 |
| 15 | 19 | 7.391 | 7.352 | -0.039 |
| 15 | 20 | 7.261 | 7.377 | 0.116 |
| 30 | 21 | 7.306 | 7.488 | 0.182 |
| 30 | 22 | 7.450 | 7.207 | -0.243 |
| 30 | 23 | 7.278 | 7.515 | 0.237 |
| 30 | 24 | 7.491 | 7.380 | -0.111 |
| 30 | 25 | 7.316 | 7.203 | -0.113 |
| 35 | 26 | 7.470 | 7.217 | -0.253 |
| 35 | 27 | 7.275 | 7.367 | 0.092 |
| 35 | 28 | 7.276 | 7.382 | 0.106 |
| 35 | 29 | 7.400 | 7.388 | -0.012 |
| 35 | 30 | 7.334 | 7.340 | 0.006 |
| 50 | 31 | 7.326 | 7.582 | 0.256 |
| 50 | 32 | 7.431 | 7.502 | 0.071 |
| 50 | 33 | 7.370 | 7.498 | 0.128 |
| 50 | 34 | 7.322 | 7.437 | 0.115 |
| 50 | 35 | 7.426 | 7.376 | -0.050 |
| 55 | 36 | 7.426 | 7.405 | -0.021 |
| 55 | 37 | 7.435 | 7.670 | 0.235 |
| 55 | 38 | 7.376 | 7.261 | -0.115 |
| 55 | 39 | 7.170 | 7.237 | 0.067 |
| 55 | 40 | 7.169 | 7.466 | 0.297 |
| 100 | 41 | 7.337 | 7.343 | 0.006 |
| 100 | 42 | 7.367 | 7.254 | -0.113 |
| 100 | 43 | 7.415 | 7.442 | 0.027 |
| 100 | 44 | 7.340 | 7.615 | 0.275 |
| 100 | 45 | 7.209 | 7.447 | 0.238 |
| 105 | 46 | 7.331 | 7.457 | 0.126 |
| 105 | 47 | 7.356 | 7.291 | -0.065 |
| 105 | 48 | 7.503 | 7.479 | -0.024 |
| 105 | 49 | 7.230 | 7.482 | 0.252 |
| 105 | 50 | 7.450 | 7.386 | -0.064 |
| 105 | 51 | 7.394 | 7.360 | -0.034 |
| 105 | 52 | 7.227 | 7.338 | 0.111 |
| 105 | 53 | 7.184 | 7.485 | 0.301 |
| 105 | 54 | 7.370 | 7.523 | 0.153 |
| 105 | 55 | 7.365 | 7.649 | 0.284 |
| 105 | 56 | 7.385 | 7.521 | 0.136 |
| 105 | 57 | 7.373 | 7.335 | -0.038 |
| 105 | 58 | 7.492 | 7.471 | -0.021 |
| 105 | 59 | 7.458 | 7.423 | -0.035 |
| 105 | 60 | 7.457 | 7.365 | -0.092 |
| 105 | 61 | 7.392 | 7.342 | -0.050 |
| 105 | 62 | 7.318 | 7.435 | 0.117 |
| 105 | 63 | 7.254 | 7.357 | 0.103 |
| 105 | 64 | 7.657 | 7.704 | 0.047 |
| 105 | 65 | 7.405 | 7.356 | -0.049 |
| 105 | 66 | 7.234 | 7.545 | 0.311 |
| 105 | 67 | 7.375 | 7.356 | -0.019 |
| Max | | 7.657 | 7.704 | 0.311 |
| Average | | 7.368 | 7.400 | 0.032 |
| Min | | 7.169 | 7.193 | -0.381 |
| Std Dev | | 0.106 | 0.116 | 0.148 |



| 5.29 IDD_ACT_1M_NOLOAD_5V | |
|---------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 9.5 mA |
| Min Limit | 4 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 7.473 | 7.296 | 7.300 | 7.193 | 7.204 | 7.203 | 7.217 | 7.376 | 7.237 | 7.254 | 7.291 |
| Average | 7.526 | 7.360 | 7.392 | 7.254 | 7.337 | 7.359 | 7.339 | 7.479 | 7.408 | 7.420 | 7.439 |
| Max | 7.590 | 7.446 | 7.435 | 7.362 | 7.436 | 7.515 | 7.388 | 7.582 | 7.670 | 7.615 | 7.704 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 |

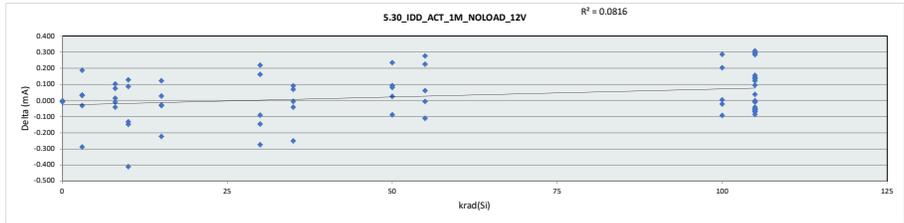


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

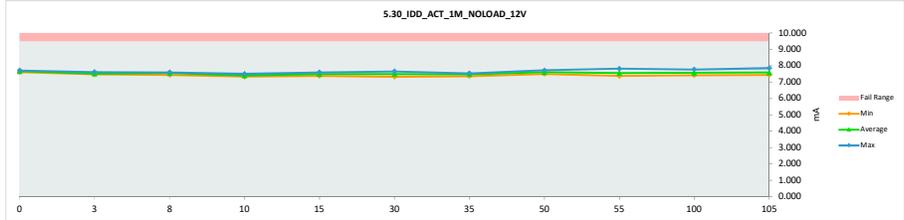
| 5.30 IDD_ACT_1M_NOLOAD_12V | |
|----------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 9.5 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.673 | 7.668 | -0.005 |
| 0 | 992 | 7.617 | 7.614 | -0.003 |
| 0 | 993 | 7.712 | 7.703 | -0.009 |
| 3 | 1 | 7.493 | 7.461 | -0.032 |
| 3 | 2 | 7.355 | 7.342 | 0.187 |
| 3 | 3 | 7.468 | 7.499 | 0.031 |
| 3 | 4 | 7.768 | 7.480 | -0.288 |
| 3 | 5 | 7.575 | 7.608 | 0.033 |
| 8 | 6 | 7.575 | 7.533 | -0.042 |
| 8 | 7 | 7.450 | 7.440 | -0.010 |
| 8 | 8 | 7.580 | 7.594 | 0.014 |
| 8 | 9 | 7.484 | 7.558 | 0.074 |
| 8 | 10 | 7.485 | 7.588 | 0.103 |
| 10 | 11 | 7.413 | 7.499 | 0.086 |
| 10 | 12 | 7.461 | 7.328 | -0.133 |
| 10 | 13 | 7.500 | 7.351 | -0.149 |
| 10 | 14 | 7.327 | 7.454 | 0.127 |
| 10 | 15 | 7.768 | 7.357 | -0.411 |
| 15 | 16 | 7.519 | 7.589 | -0.070 |
| 15 | 17 | 7.429 | 7.457 | 0.028 |
| 15 | 18 | 7.596 | 7.373 | -0.223 |
| 15 | 19 | 7.514 | 7.483 | -0.031 |
| 15 | 20 | 7.403 | 7.524 | 0.121 |
| 30 | 21 | 7.463 | 7.624 | 0.161 |
| 30 | 22 | 7.610 | 7.336 | -0.274 |
| 30 | 23 | 7.426 | 7.645 | 0.219 |
| 30 | 24 | 7.641 | 7.549 | -0.092 |
| 30 | 25 | 7.468 | 7.322 | -0.146 |
| 35 | 26 | 7.608 | 7.358 | -0.250 |
| 35 | 27 | 7.434 | 7.502 | 0.068 |
| 35 | 28 | 7.438 | 7.528 | 0.090 |
| 35 | 29 | 7.534 | 7.528 | -0.006 |
| 35 | 30 | 7.509 | 7.468 | -0.041 |
| 50 | 31 | 7.479 | 7.713 | 0.234 |
| 50 | 32 | 7.595 | 7.620 | 0.025 |
| 50 | 33 | 7.539 | 7.619 | 0.080 |
| 50 | 34 | 7.466 | 7.559 | 0.093 |
| 50 | 35 | 7.585 | 7.496 | -0.089 |
| 55 | 36 | 7.551 | 7.544 | -0.007 |
| 55 | 37 | 7.590 | 7.814 | 0.224 |
| 55 | 38 | 7.514 | 7.403 | -0.111 |
| 55 | 39 | 7.307 | 7.367 | 0.060 |
| 55 | 40 | 7.328 | 7.604 | 0.276 |
| 100 | 41 | 7.473 | 7.477 | 0.004 |
| 100 | 42 | 7.509 | 7.416 | -0.093 |
| 100 | 43 | 7.569 | 7.547 | -0.022 |
| 100 | 44 | 7.480 | 7.765 | 0.285 |
| 100 | 45 | 7.381 | 7.583 | 0.202 |
| 105 | 46 | 7.469 | 7.611 | 0.142 |
| 105 | 47 | 7.503 | 7.435 | -0.068 |
| 105 | 48 | 7.650 | 7.648 | -0.002 |
| 105 | 49 | 7.363 | 7.646 | 0.283 |
| 105 | 50 | 7.589 | 7.535 | -0.054 |
| 105 | 51 | 7.561 | 7.492 | -0.069 |
| 105 | 52 | 7.351 | 7.472 | 0.121 |
| 105 | 53 | 7.320 | 7.614 | 0.294 |
| 105 | 54 | 7.503 | 7.659 | 0.156 |
| 105 | 55 | 7.507 | 7.815 | 0.308 |
| 105 | 56 | 7.521 | 7.660 | 0.139 |
| 105 | 57 | 7.510 | 7.500 | -0.010 |
| 105 | 58 | 7.648 | 7.590 | -0.058 |
| 105 | 59 | 7.590 | 7.537 | -0.053 |
| 105 | 60 | 7.583 | 7.496 | -0.087 |
| 105 | 61 | 7.516 | 7.474 | -0.042 |
| 105 | 62 | 7.444 | 7.577 | 0.133 |
| 105 | 63 | 7.400 | 7.494 | 0.094 |
| 105 | 64 | 7.808 | 7.846 | 0.038 |
| 105 | 65 | 7.548 | 7.496 | -0.052 |
| 105 | 66 | 7.376 | 7.672 | 0.296 |
| 105 | 67 | 7.513 | 7.506 | -0.007 |
| Max | | 7.808 | 7.846 | 0.308 |
| Average | | 7.515 | 7.541 | 0.026 |
| Min | | 7.307 | 7.322 | -0.411 |
| Std Dev | | 0.107 | 0.115 | 0.147 |



| 5.30 IDD_ACT_1M_NOLOAD | |
|------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 9.5 |
| Min Limit | mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 7.614 | 7.461 | 7.440 | 7.328 | 7.373 | 7.322 | 7.358 | 7.496 | 7.367 | 7.416 | 7.435 |
| Average | 7.662 | 7.518 | 7.543 | 7.398 | 7.485 | 7.495 | 7.477 | 7.601 | 7.546 | 7.558 | 7.581 |
| Max | 7.703 | 7.608 | 7.594 | 7.499 | 7.589 | 7.645 | 7.528 | 7.713 | 7.814 | 7.765 | 7.846 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 |

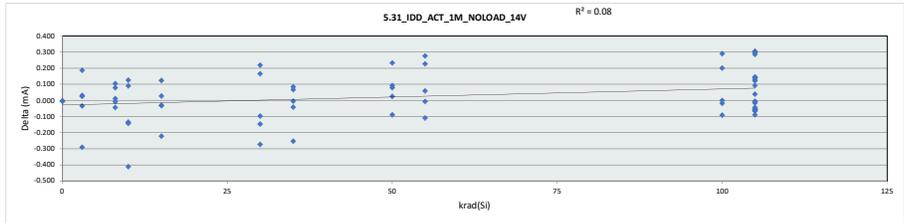


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

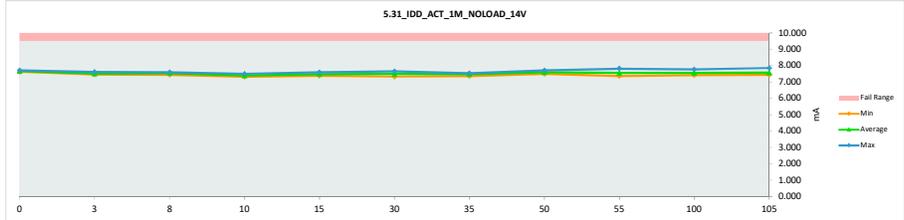
| 5.31 IDD_ACT_1M_NOLOAD_14V | |
|----------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 9.5 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.677 | 7.673 | -0.004 |
| 0 | 992 | 7.620 | 7.618 | -0.002 |
| 0 | 993 | 7.712 | 7.708 | -0.004 |
| 3 | 1 | 7.497 | 7.463 | -0.034 |
| 3 | 2 | 7.359 | 7.546 | 0.187 |
| 3 | 3 | 7.476 | 7.502 | 0.026 |
| 3 | 4 | 7.772 | 7.482 | -0.290 |
| 3 | 5 | 7.579 | 7.611 | 0.032 |
| 8 | 6 | 7.578 | 7.535 | -0.043 |
| 8 | 7 | 7.453 | 7.444 | -0.009 |
| 8 | 8 | 7.586 | 7.598 | 0.012 |
| 8 | 9 | 7.486 | 7.564 | 0.078 |
| 8 | 10 | 7.489 | 7.593 | 0.104 |
| 10 | 11 | 7.414 | 7.504 | 0.090 |
| 10 | 12 | 7.467 | 7.332 | -0.135 |
| 10 | 13 | 7.499 | 7.356 | -0.143 |
| 10 | 14 | 7.331 | 7.457 | 0.126 |
| 10 | 15 | 7.774 | 7.364 | -0.410 |
| 15 | 16 | 7.522 | 7.591 | -0.071 |
| 15 | 17 | 7.433 | 7.461 | 0.028 |
| 15 | 18 | 7.601 | 7.379 | -0.222 |
| 15 | 19 | 7.521 | 7.489 | -0.032 |
| 15 | 20 | 7.406 | 7.529 | 0.123 |
| 30 | 21 | 7.465 | 7.630 | 0.165 |
| 30 | 22 | 7.612 | 7.339 | -0.273 |
| 30 | 23 | 7.431 | 7.650 | 0.219 |
| 30 | 24 | 7.648 | 7.550 | -0.098 |
| 30 | 25 | 7.474 | 7.328 | -0.146 |
| 35 | 26 | 7.612 | 7.360 | -0.252 |
| 35 | 27 | 7.438 | 7.504 | 0.066 |
| 35 | 28 | 7.444 | 7.529 | 0.085 |
| 35 | 29 | 7.538 | 7.534 | -0.004 |
| 35 | 30 | 7.513 | 7.472 | -0.041 |
| 50 | 31 | 7.483 | 7.716 | 0.233 |
| 50 | 32 | 7.598 | 7.624 | 0.026 |
| 50 | 33 | 7.542 | 7.620 | 0.078 |
| 50 | 34 | 7.469 | 7.562 | 0.093 |
| 50 | 35 | 7.590 | 7.501 | -0.089 |
| 55 | 36 | 7.554 | 7.548 | -0.006 |
| 55 | 37 | 7.593 | 7.819 | 0.226 |
| 55 | 38 | 7.516 | 7.407 | -0.109 |
| 55 | 39 | 7.312 | 7.370 | 0.058 |
| 55 | 40 | 7.333 | 7.609 | 0.276 |
| 100 | 41 | 7.478 | 7.478 | 0.000 |
| 100 | 42 | 7.514 | 7.423 | -0.091 |
| 100 | 43 | 7.572 | 7.553 | -0.019 |
| 100 | 44 | 7.484 | 7.774 | 0.290 |
| 100 | 45 | 7.384 | 7.585 | 0.201 |
| 105 | 46 | 7.471 | 7.614 | 0.143 |
| 105 | 47 | 7.508 | 7.444 | -0.064 |
| 105 | 48 | 7.656 | 7.650 | -0.006 |
| 105 | 49 | 7.369 | 7.654 | 0.285 |
| 105 | 50 | 7.595 | 7.537 | -0.058 |
| 105 | 51 | 7.565 | 7.500 | -0.065 |
| 105 | 52 | 7.355 | 7.476 | 0.121 |
| 105 | 53 | 7.323 | 7.620 | 0.297 |
| 105 | 54 | 7.507 | 7.652 | 0.145 |
| 105 | 55 | 7.512 | 7.817 | 0.305 |
| 105 | 56 | 7.527 | 7.668 | 0.141 |
| 105 | 57 | 7.516 | 7.500 | -0.016 |
| 105 | 58 | 7.653 | 7.591 | -0.062 |
| 105 | 59 | 7.593 | 7.542 | -0.051 |
| 105 | 60 | 7.588 | 7.499 | -0.089 |
| 105 | 61 | 7.524 | 7.481 | -0.043 |
| 105 | 62 | 7.448 | 7.577 | 0.129 |
| 105 | 63 | 7.404 | 7.497 | 0.093 |
| 105 | 64 | 7.813 | 7.852 | 0.039 |
| 105 | 65 | 7.551 | 7.496 | -0.055 |
| 105 | 66 | 7.480 | 7.380 | -0.100 |
| 105 | 67 | 7.520 | 7.513 | -0.007 |
| Max | | 7.813 | 7.852 | 0.305 |
| Average | | 7.519 | 7.545 | 0.026 |
| Min | | 7.312 | 7.328 | -0.410 |
| Std Dev | | 0.107 | 0.115 | 0.147 |



| 5.31 IDD_ACT_1M_NOLOAD | |
|------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 9.5 |
| Min Limit | mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 7.618 | 7.463 | 7.444 | 7.332 | 7.379 | 7.328 | 7.360 | 7.501 | 7.370 | 7.423 | 7.444 |
| Average | 7.666 | 7.521 | 7.547 | 7.403 | 7.490 | 7.499 | 7.480 | 7.605 | 7.551 | 7.563 | 7.585 |
| Max | 7.708 | 7.611 | 7.598 | 7.504 | 7.591 | 7.650 | 7.534 | 7.716 | 7.819 | 7.774 | 7.852 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 |

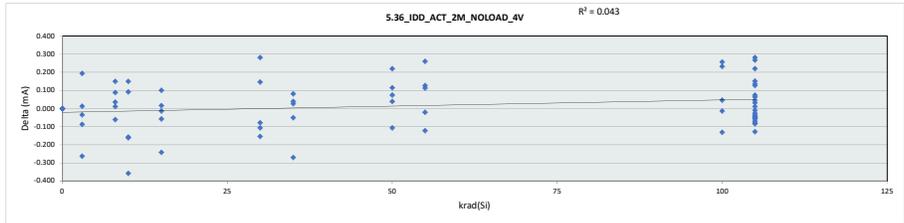


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

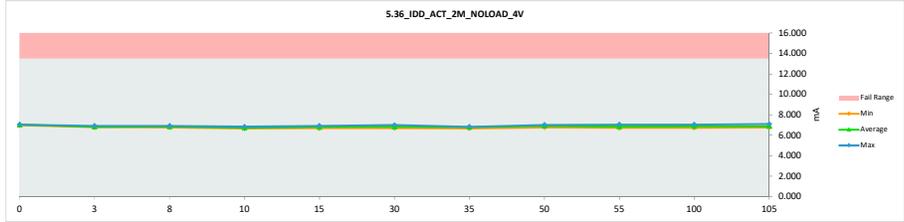
| 5.36 IDD_ACT_2M_NOLOAD_4V | |
|---------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 13.5 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.045 | 7.044 | -0.001 |
| 0 | 992 | 6.985 | 6.986 | 0.001 |
| 0 | 993 | 7.052 | 7.050 | -0.002 |
| 3 | 1 | 6.828 | 6.794 | -0.034 |
| 3 | 2 | 6.697 | 6.690 | 0.193 |
| 3 | 3 | 6.871 | 6.783 | -0.088 |
| 3 | 4 | 7.052 | 6.789 | -0.263 |
| 3 | 5 | 6.906 | 6.919 | 0.013 |
| 8 | 6 | 6.850 | 6.861 | 0.011 |
| 8 | 7 | 6.821 | 6.759 | -0.062 |
| 8 | 8 | 6.856 | 6.892 | 0.036 |
| 8 | 9 | 6.776 | 6.864 | 0.088 |
| 8 | 10 | 6.781 | 6.930 | 0.149 |
| 10 | 11 | 6.743 | 6.834 | 0.091 |
| 10 | 12 | 6.820 | 6.659 | -0.161 |
| 10 | 13 | 6.835 | 6.677 | -0.158 |
| 10 | 14 | 6.667 | 6.816 | 0.149 |
| 10 | 15 | 7.040 | 6.683 | -0.357 |
| 15 | 16 | 6.928 | 6.915 | -0.013 |
| 15 | 17 | 6.760 | 6.776 | 0.016 |
| 15 | 18 | 6.928 | 6.687 | -0.241 |
| 15 | 19 | 6.878 | 6.821 | -0.057 |
| 15 | 20 | 6.771 | 6.871 | 0.100 |
| 30 | 21 | 6.791 | 6.937 | 0.146 |
| 30 | 22 | 6.887 | 6.733 | -0.154 |
| 30 | 23 | 6.720 | 7.000 | 0.280 |
| 30 | 24 | 6.937 | 6.859 | -0.078 |
| 30 | 25 | 6.808 | 6.701 | -0.107 |
| 35 | 26 | 6.949 | 6.679 | -0.270 |
| 35 | 27 | 6.758 | 6.838 | 0.080 |
| 35 | 28 | 6.776 | 6.815 | 0.039 |
| 35 | 29 | 6.878 | 6.827 | -0.051 |
| 35 | 30 | 6.794 | 6.820 | 0.026 |
| 50 | 31 | 6.788 | 7.008 | 0.220 |
| 50 | 32 | 6.901 | 6.940 | 0.039 |
| 50 | 33 | 6.868 | 6.942 | 0.074 |
| 50 | 34 | 6.777 | 6.891 | 0.114 |
| 50 | 35 | 6.883 | 6.776 | -0.107 |
| 55 | 36 | 6.857 | 6.836 | -0.021 |
| 55 | 37 | 6.933 | 7.045 | 0.112 |
| 55 | 38 | 6.845 | 6.723 | -0.122 |
| 55 | 39 | 6.645 | 6.772 | 0.127 |
| 55 | 40 | 6.660 | 6.920 | 0.260 |
| 100 | 41 | 6.825 | 6.812 | -0.013 |
| 100 | 42 | 6.868 | 6.737 | -0.131 |
| 100 | 43 | 6.895 | 6.941 | 0.046 |
| 100 | 44 | 6.799 | 7.055 | 0.256 |
| 100 | 45 | 6.690 | 6.922 | 0.232 |
| 105 | 46 | 6.815 | 6.878 | 0.063 |
| 105 | 47 | 6.861 | 6.824 | -0.037 |
| 105 | 48 | 6.957 | 6.904 | -0.053 |
| 105 | 49 | 6.769 | 6.904 | 0.135 |
| 105 | 50 | 6.949 | 6.821 | -0.128 |
| 105 | 51 | 6.885 | 6.804 | -0.081 |
| 105 | 52 | 6.739 | 6.813 | 0.074 |
| 105 | 53 | 6.656 | 6.936 | 0.280 |
| 105 | 54 | 6.846 | 6.762 | -0.084 |
| 105 | 55 | 6.808 | 7.074 | 0.266 |
| 105 | 56 | 6.830 | 6.981 | 0.151 |
| 105 | 57 | 6.845 | 6.835 | -0.010 |
| 105 | 58 | 6.909 | 6.920 | 0.011 |
| 105 | 59 | 6.900 | 6.857 | -0.043 |
| 105 | 60 | 6.907 | 6.850 | -0.057 |
| 105 | 61 | 6.880 | 6.810 | -0.070 |
| 105 | 62 | 6.741 | 6.868 | 0.127 |
| 105 | 63 | 6.746 | 6.778 | 0.032 |
| 105 | 64 | 7.047 | 7.092 | 0.045 |
| 105 | 65 | 6.864 | 6.838 | -0.026 |
| 105 | 66 | 6.778 | 6.997 | 0.219 |
| 105 | 67 | 6.859 | 6.811 | -0.048 |
| Max | | 7.052 | 7.092 | 0.280 |
| Average | | 6.843 | 6.860 | 0.017 |
| Min | | 6.645 | 6.659 | -0.357 |
| Std Dev | | 0.096 | 0.103 | 0.136 |



| 5.36 IDD_ACT_2M_NOLOAD_4V | |
|---------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 13.5 mA |
| Min Limit | 4 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 6.986 | 6.783 | 6.759 | 6.659 | 6.687 | 6.701 | 6.679 | 6.776 | 6.723 | 6.737 | 6.762 |
| Average | 7.027 | 6.835 | 6.861 | 6.734 | 6.814 | 6.846 | 6.796 | 6.911 | 6.859 | 6.893 | 6.880 |
| Max | 7.050 | 6.919 | 6.930 | 6.834 | 6.915 | 7.000 | 6.838 | 7.008 | 7.045 | 7.055 | 7.092 |
| UL | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 |

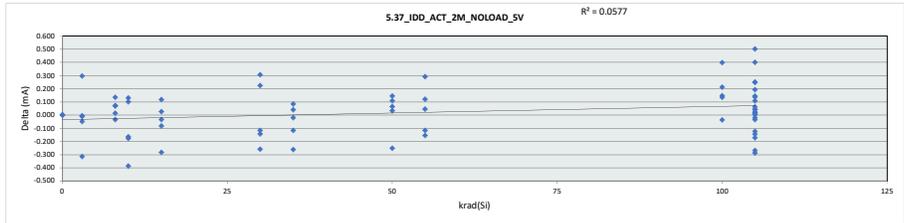


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

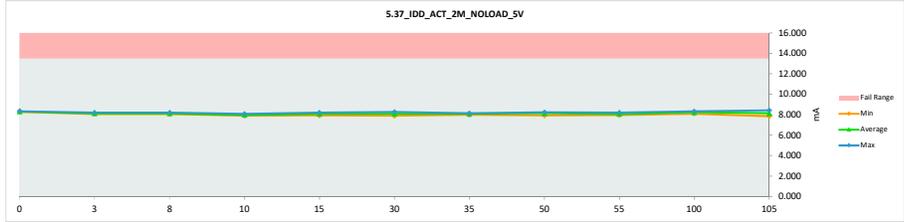
| 5.37 IDD_ACT_2M_NOLOAD_5V | |
|---------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 13.5 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.324 | 8.325 | 0.001 |
| 0 | 992 | 8.290 | 8.291 | 0.001 |
| 0 | 993 | 8.343 | 8.343 | 0.000 |
| 3 | 1 | 8.114 | 8.066 | -0.048 |
| 3 | 2 | 8.209 | 8.297 | 0.297 |
| 3 | 3 | 8.098 | 8.089 | -0.009 |
| 3 | 4 | 8.400 | 8.086 | -0.314 |
| 3 | 5 | 8.213 | 8.207 | -0.006 |
| 8 | 6 | 8.152 | 8.119 | -0.033 |
| 8 | 7 | 8.043 | 8.057 | 0.014 |
| 8 | 8 | 8.127 | 8.196 | 0.069 |
| 8 | 9 | 8.021 | 8.156 | 0.135 |
| 8 | 10 | 8.065 | 8.136 | 0.071 |
| 10 | 11 | 7.990 | 8.092 | 0.102 |
| 10 | 12 | 8.051 | 7.887 | -0.164 |
| 10 | 13 | 8.116 | 7.939 | -0.177 |
| 10 | 14 | 7.927 | 8.057 | 0.130 |
| 10 | 15 | 8.333 | 7.947 | -0.386 |
| 15 | 16 | 8.234 | 8.199 | -0.035 |
| 15 | 17 | 7.996 | 8.023 | 0.027 |
| 15 | 18 | 8.213 | 7.930 | -0.283 |
| 15 | 19 | 8.181 | 8.098 | -0.083 |
| 15 | 20 | 7.990 | 8.109 | 0.119 |
| 30 | 21 | 8.006 | 8.231 | 0.225 |
| 30 | 22 | 8.159 | 7.900 | -0.259 |
| 30 | 23 | 7.960 | 8.265 | 0.305 |
| 30 | 24 | 8.219 | 8.103 | -0.116 |
| 30 | 25 | 8.049 | 7.906 | -0.143 |
| 35 | 26 | 8.243 | 7.983 | -0.260 |
| 35 | 27 | 8.051 | 8.134 | 0.083 |
| 35 | 28 | 8.041 | 8.082 | 0.041 |
| 35 | 29 | 8.201 | 8.085 | -0.116 |
| 35 | 30 | 8.101 | 8.082 | -0.019 |
| 50 | 31 | 8.086 | 8.231 | 0.145 |
| 50 | 32 | 8.189 | 8.222 | 0.033 |
| 50 | 33 | 8.124 | 8.231 | 0.107 |
| 50 | 34 | 8.080 | 8.145 | 0.065 |
| 50 | 35 | 8.188 | 7.937 | -0.251 |
| 55 | 36 | 8.151 | 8.034 | -0.117 |
| 55 | 37 | 8.136 | 8.181 | 0.045 |
| 55 | 38 | 8.105 | 7.951 | -0.154 |
| 55 | 39 | 7.861 | 7.981 | 0.120 |
| 55 | 40 | 7.910 | 8.201 | 0.291 |
| 100 | 41 | 8.082 | 8.229 | 0.147 |
| 100 | 42 | 8.138 | 8.101 | -0.037 |
| 100 | 43 | 8.167 | 8.302 | 0.135 |
| 100 | 44 | 8.064 | 8.277 | 0.213 |
| 100 | 45 | 7.929 | 8.327 | 0.398 |
| 105 | 46 | 8.077 | 8.043 | -0.034 |
| 105 | 47 | 8.085 | 8.128 | 0.043 |
| 105 | 48 | 8.264 | 8.093 | -0.171 |
| 105 | 49 | 7.908 | 8.100 | 0.192 |
| 105 | 50 | 8.215 | 7.928 | -0.287 |
| 105 | 51 | 8.125 | 7.856 | -0.269 |
| 105 | 52 | 7.952 | 8.202 | 0.250 |
| 105 | 53 | 7.954 | 8.355 | 0.401 |
| 105 | 54 | 8.160 | 8.165 | 0.005 |
| 105 | 55 | 8.120 | 8.264 | 0.144 |
| 105 | 56 | 8.127 | 8.374 | 0.247 |
| 105 | 57 | 8.139 | 8.182 | 0.043 |
| 105 | 58 | 8.193 | 8.300 | 0.107 |
| 105 | 59 | 8.207 | 8.061 | -0.146 |
| 105 | 60 | 8.204 | 8.212 | 0.008 |
| 105 | 61 | 8.137 | 8.159 | 0.022 |
| 105 | 62 | 7.948 | 8.084 | 0.136 |
| 105 | 63 | 7.955 | 7.936 | -0.019 |
| 105 | 64 | 8.223 | 8.244 | 0.021 |
| 105 | 65 | 8.147 | 8.209 | 0.062 |
| 105 | 66 | 7.930 | 8.431 | 0.501 |
| 105 | 67 | 8.122 | 7.999 | -0.123 |
| Max | | 8.400 | 8.431 | 0.501 |
| Average | | 8.108 | 8.129 | 0.021 |
| Min | | 7.861 | 7.856 | -0.386 |
| Std Dev | | 0.117 | 0.132 | 0.179 |



| 5.37 IDD_ACT_2M_NOLOAD_5V | |
|---------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 13.5 mA |
| Min Limit | 4 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.291 | 8.066 | 8.057 | 7.887 | 7.930 | 7.900 | 7.983 | 7.937 | 7.951 | 8.101 | 7.856 |
| Average | 8.320 | 8.131 | 8.133 | 7.984 | 8.072 | 8.081 | 8.073 | 8.153 | 8.070 | 8.247 | 8.151 |
| Max | 8.343 | 8.209 | 8.196 | 8.092 | 8.199 | 8.265 | 8.134 | 8.231 | 8.201 | 8.327 | 8.431 |
| UL | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 |

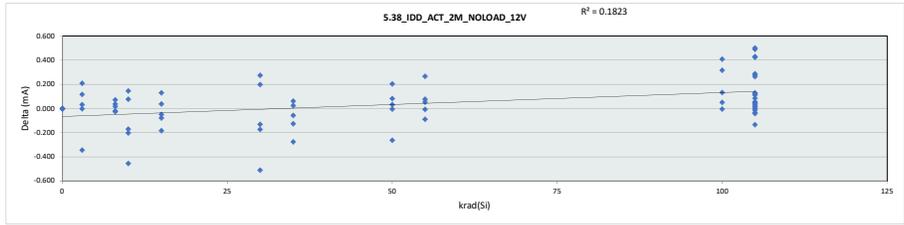


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

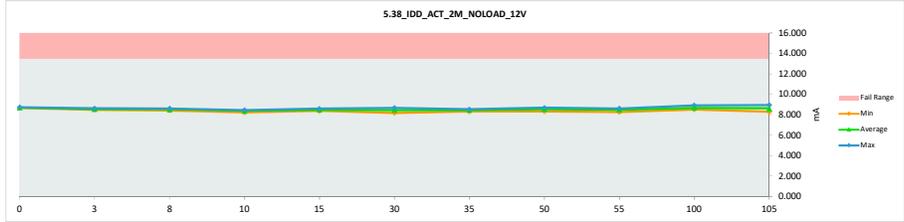
| 5.38 IDD_ACT_2M_NOLOAD_12V | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 13.5 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.727 | 8.727 | 0.000 |
| 0 | 992 | 8.660 | 8.660 | 0.000 |
| 0 | 993 | 8.728 | 8.723 | -0.005 |
| 3 | 1 | 8.490 | 8.489 | -0.001 |
| 3 | 2 | 8.362 | 8.571 | 0.209 |
| 3 | 3 | 8.434 | 8.551 | 0.117 |
| 3 | 4 | 8.826 | 8.481 | -0.345 |
| 3 | 5 | 8.586 | 8.619 | 0.033 |
| 8 | 6 | 8.571 | 8.550 | -0.021 |
| 8 | 7 | 8.450 | 8.424 | -0.026 |
| 8 | 8 | 8.587 | 8.602 | 0.015 |
| 8 | 9 | 8.476 | 8.514 | 0.038 |
| 8 | 10 | 8.470 | 8.541 | 0.071 |
| 10 | 11 | 8.376 | 8.452 | 0.076 |
| 10 | 12 | 8.445 | 8.244 | -0.201 |
| 10 | 13 | 8.506 | 8.336 | -0.170 |
| 10 | 14 | 8.288 | 8.433 | 0.145 |
| 10 | 15 | 8.803 | 8.348 | -0.455 |
| 15 | 16 | 8.540 | 8.590 | -0.050 |
| 15 | 17 | 8.444 | 8.480 | 0.036 |
| 15 | 18 | 8.553 | 8.369 | -0.184 |
| 15 | 19 | 8.527 | 8.449 | -0.078 |
| 15 | 20 | 8.362 | 8.492 | 0.130 |
| 30 | 21 | 8.407 | 8.605 | 0.198 |
| 30 | 22 | 8.868 | 8.170 | -0.510 |
| 30 | 23 | 8.384 | 8.659 | 0.275 |
| 30 | 24 | 8.662 | 8.530 | -0.132 |
| 30 | 25 | 8.446 | 8.273 | -0.173 |
| 35 | 26 | 8.613 | 8.336 | -0.277 |
| 35 | 27 | 8.452 | 8.476 | 0.024 |
| 35 | 28 | 8.868 | 8.528 | -0.340 |
| 35 | 29 | 8.562 | 8.505 | -0.057 |
| 35 | 30 | 8.562 | 8.435 | -0.127 |
| 50 | 31 | 8.478 | 8.681 | 0.203 |
| 50 | 32 | 8.601 | 8.596 | -0.005 |
| 50 | 33 | 8.560 | 8.593 | 0.033 |
| 50 | 34 | 8.451 | 8.534 | 0.083 |
| 50 | 35 | 8.592 | 8.330 | -0.262 |
| 55 | 36 | 8.510 | 8.503 | -0.007 |
| 55 | 37 | 8.536 | 8.612 | 0.076 |
| 55 | 38 | 8.472 | 8.382 | -0.090 |
| 55 | 39 | 8.220 | 8.274 | 0.054 |
| 55 | 40 | 8.319 | 8.584 | 0.265 |
| 100 | 41 | 8.457 | 8.589 | 0.132 |
| 100 | 42 | 8.522 | 8.517 | -0.005 |
| 100 | 43 | 8.565 | 8.614 | 0.049 |
| 100 | 44 | 8.511 | 8.918 | 0.407 |
| 100 | 45 | 8.377 | 8.692 | 0.315 |
| 105 | 46 | 8.440 | 8.703 | 0.263 |
| 105 | 47 | 8.472 | 8.460 | -0.012 |
| 105 | 48 | 8.642 | 8.753 | 0.111 |
| 105 | 49 | 8.266 | 8.756 | 0.490 |
| 105 | 50 | 8.584 | 8.632 | 0.048 |
| 105 | 51 | 8.562 | 8.577 | 0.015 |
| 105 | 52 | 8.296 | 8.572 | 0.276 |
| 105 | 53 | 8.309 | 8.734 | 0.425 |
| 105 | 54 | 8.500 | 8.499 | -0.001 |
| 105 | 55 | 8.520 | 8.948 | 0.428 |
| 105 | 56 | 8.494 | 8.782 | 0.288 |
| 105 | 57 | 8.497 | 8.619 | 0.122 |
| 105 | 58 | 8.632 | 8.646 | 0.014 |
| 105 | 59 | 8.559 | 8.426 | -0.133 |
| 105 | 60 | 8.535 | 8.565 | 0.030 |
| 105 | 61 | 8.482 | 8.525 | 0.043 |
| 105 | 62 | 8.399 | 8.484 | 0.085 |
| 105 | 63 | 8.341 | 8.306 | -0.035 |
| 105 | 64 | 8.710 | 8.667 | -0.043 |
| 105 | 65 | 8.524 | 8.579 | 0.055 |
| 105 | 66 | 8.306 | 8.805 | 0.499 |
| 105 | 67 | 8.500 | 8.628 | 0.128 |
| Max | | 8.826 | 8.948 | 0.499 |
| Average | | 8.504 | 8.546 | 0.042 |
| Min | | 8.220 | 8.170 | -0.510 |
| Std Dev | | 0.124 | 0.150 | 0.194 |



| 5.38 IDD_ACT_2M_NOLOAD | |
|------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 13.5 mA |
| Min Limit | 4 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.660 | 8.481 | 8.424 | 8.244 | 8.369 | 8.170 | 8.336 | 8.330 | 8.274 | 8.517 | 8.306 |
| Average | 8.703 | 8.542 | 8.526 | 8.363 | 8.476 | 8.447 | 8.456 | 8.547 | 8.471 | 8.666 | 8.621 |
| Max | 8.727 | 8.619 | 8.602 | 8.452 | 8.590 | 8.659 | 8.528 | 8.681 | 8.612 | 8.918 | 8.948 |
| UL | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 |

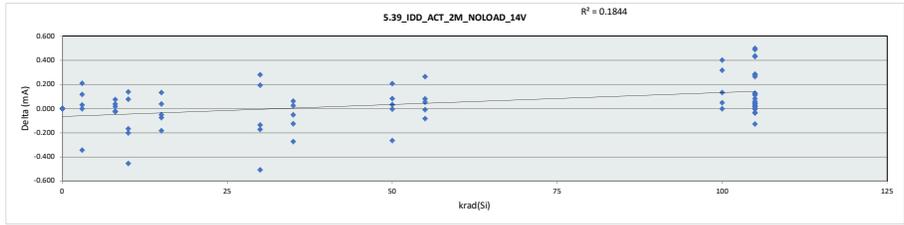


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

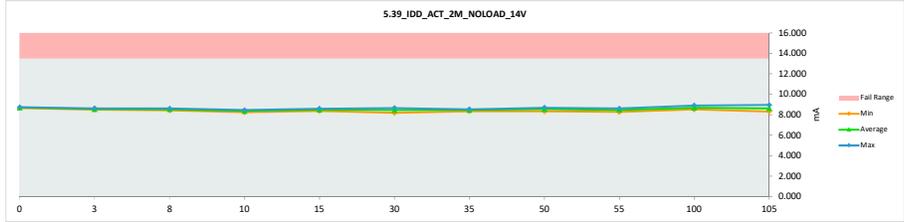
| 5.39 IDD_ACT_2M_NOLOAD_14V | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 13.5 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.733 | 8.734 | 0.001 |
| 0 | 992 | 8.664 | 8.663 | -0.001 |
| 0 | 993 | 8.729 | 8.730 | 0.001 |
| 3 | 1 | 8.494 | 8.491 | -0.003 |
| 3 | 2 | 8.367 | 8.575 | 0.208 |
| 3 | 3 | 8.440 | 8.556 | 0.116 |
| 3 | 4 | 8.829 | 8.485 | -0.344 |
| 3 | 5 | 8.593 | 8.623 | 0.030 |
| 8 | 6 | 8.577 | 8.553 | -0.024 |
| 8 | 7 | 8.455 | 8.429 | -0.026 |
| 8 | 8 | 8.590 | 8.607 | 0.017 |
| 8 | 9 | 8.480 | 8.518 | 0.038 |
| 8 | 10 | 8.474 | 8.547 | 0.073 |
| 10 | 11 | 8.381 | 8.457 | 0.076 |
| 10 | 12 | 8.447 | 8.244 | -0.203 |
| 10 | 13 | 8.510 | 8.342 | -0.168 |
| 10 | 14 | 8.297 | 8.434 | 0.137 |
| 10 | 15 | 8.607 | 8.353 | -0.454 |
| 15 | 16 | 8.544 | 8.592 | -0.052 |
| 15 | 17 | 8.447 | 8.485 | 0.038 |
| 15 | 18 | 8.557 | 8.372 | -0.185 |
| 15 | 19 | 8.533 | 8.457 | -0.076 |
| 15 | 20 | 8.367 | 8.500 | 0.133 |
| 30 | 21 | 8.412 | 8.605 | 0.193 |
| 30 | 22 | 8.695 | 8.178 | -0.507 |
| 30 | 23 | 8.389 | 8.667 | 0.278 |
| 30 | 24 | 8.668 | 8.532 | -0.136 |
| 30 | 25 | 8.451 | 8.278 | -0.173 |
| 35 | 26 | 8.618 | 8.346 | -0.272 |
| 35 | 27 | 8.458 | 8.481 | 0.023 |
| 35 | 28 | 8.470 | 8.532 | 0.062 |
| 35 | 29 | 8.566 | 8.513 | -0.053 |
| 35 | 30 | 8.566 | 8.440 | -0.126 |
| 50 | 31 | 8.482 | 8.687 | 0.205 |
| 50 | 32 | 8.606 | 8.601 | -0.005 |
| 50 | 33 | 8.563 | 8.595 | 0.032 |
| 50 | 34 | 8.456 | 8.539 | 0.083 |
| 50 | 35 | 8.597 | 8.333 | -0.264 |
| 55 | 36 | 8.517 | 8.507 | -0.010 |
| 55 | 37 | 8.541 | 8.620 | 0.079 |
| 55 | 38 | 8.472 | 8.387 | -0.085 |
| 55 | 39 | 8.223 | 8.276 | 0.053 |
| 55 | 40 | 8.326 | 8.590 | 0.264 |
| 100 | 41 | 8.459 | 8.592 | 0.133 |
| 100 | 42 | 8.524 | 8.522 | -0.002 |
| 100 | 43 | 8.568 | 8.616 | 0.048 |
| 100 | 44 | 8.517 | 8.916 | 0.399 |
| 100 | 45 | 8.379 | 8.694 | 0.315 |
| 105 | 46 | 8.445 | 8.709 | 0.264 |
| 105 | 47 | 8.474 | 8.474 | 0.000 |
| 105 | 48 | 8.647 | 8.758 | 0.111 |
| 105 | 49 | 8.272 | 8.759 | 0.487 |
| 105 | 50 | 8.591 | 8.636 | 0.045 |
| 105 | 51 | 8.564 | 8.584 | 0.020 |
| 105 | 52 | 8.300 | 8.576 | 0.276 |
| 105 | 53 | 8.312 | 8.740 | 0.428 |
| 105 | 54 | 8.504 | 8.499 | -0.005 |
| 105 | 55 | 8.521 | 8.954 | 0.433 |
| 105 | 56 | 8.499 | 8.784 | 0.285 |
| 105 | 57 | 8.503 | 8.623 | 0.120 |
| 105 | 58 | 8.635 | 8.651 | 0.016 |
| 105 | 59 | 8.563 | 8.435 | -0.128 |
| 105 | 60 | 8.543 | 8.569 | 0.026 |
| 105 | 61 | 8.486 | 8.526 | 0.040 |
| 105 | 62 | 8.402 | 8.485 | 0.083 |
| 105 | 63 | 8.345 | 8.312 | -0.033 |
| 105 | 64 | 8.710 | 8.673 | -0.037 |
| 105 | 65 | 8.528 | 8.585 | 0.057 |
| 105 | 66 | 8.311 | 8.809 | 0.498 |
| 105 | 67 | 8.504 | 8.630 | 0.126 |
| Max | | 8.829 | 8.954 | 0.498 |
| Average | | 8.508 | 8.551 | 0.043 |
| Min | | 8.223 | 8.178 | -0.507 |
| Std Dev | | 0.124 | 0.150 | 0.193 |



| 5.39 IDD_ACT_2M_NOLOAD | |
|------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 13.5 mA |
| Min Limit | 4 mA |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 8.663 | 8.485 | 8.429 | 8.244 | 8.372 | 8.178 | 8.346 | 8.333 | 8.276 | 8.522 | 8.312 |
| Average | 8.709 | 8.546 | 8.531 | 8.366 | 8.481 | 8.452 | 8.462 | 8.551 | 8.476 | 8.668 | 8.626 |
| Max | 8.734 | 8.623 | 8.607 | 8.457 | 8.592 | 8.667 | 8.532 | 8.687 | 8.620 | 8.916 | 8.954 |
| UL | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 | 13.500 |

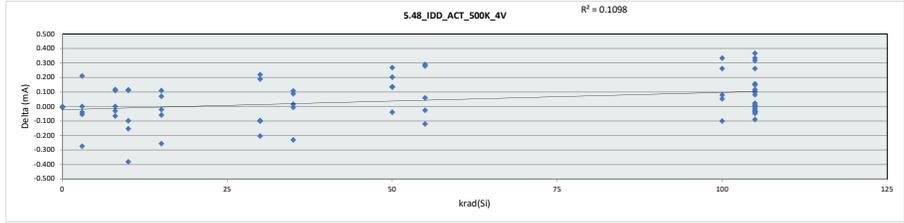


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

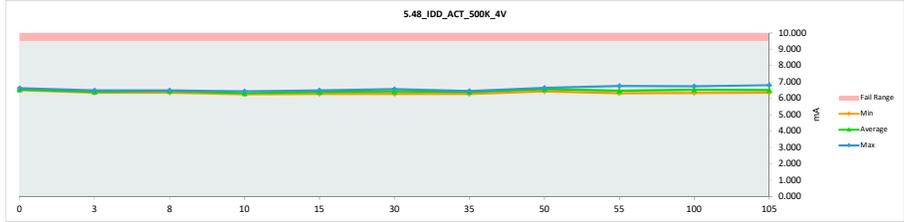
| 5.48 IDD_ACT_500K_4V | |
|----------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 9.5 |
| Min Limit | 7 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 6.548 | 6.541 | -0.007 |
| 0 | 992 | 6.505 | 6.502 | -0.003 |
| 0 | 993 | 6.620 | 6.618 | -0.002 |
| 3 | 1 | 6.404 | 6.350 | -0.054 |
| 3 | 2 | 6.244 | 6.454 | 0.210 |
| 3 | 3 | 6.413 | 6.373 | -0.040 |
| 3 | 4 | 6.655 | 6.381 | -0.274 |
| 3 | 5 | 6.485 | 6.486 | 0.001 |
| 8 | 6 | 6.469 | 6.404 | -0.065 |
| 8 | 7 | 6.354 | 6.355 | 0.001 |
| 8 | 8 | 6.511 | 6.480 | -0.031 |
| 8 | 9 | 6.372 | 6.488 | 0.116 |
| 8 | 10 | 6.371 | 6.481 | 0.110 |
| 10 | 11 | 6.319 | 6.434 | 0.115 |
| 10 | 12 | 6.365 | 6.267 | -0.098 |
| 10 | 13 | 6.408 | 6.254 | -0.154 |
| 10 | 14 | 6.269 | 6.381 | 0.112 |
| 10 | 15 | 6.637 | 6.257 | -0.380 |
| 15 | 16 | 6.508 | 6.487 | -0.021 |
| 15 | 17 | 6.306 | 6.376 | 0.070 |
| 15 | 18 | 6.524 | 6.267 | -0.257 |
| 15 | 19 | 6.452 | 6.394 | -0.058 |
| 15 | 20 | 6.312 | 6.421 | 0.109 |
| 30 | 21 | 6.369 | 6.558 | 0.189 |
| 30 | 22 | 6.489 | 6.285 | -0.204 |
| 30 | 23 | 6.342 | 6.561 | 0.219 |
| 30 | 24 | 6.533 | 6.436 | -0.097 |
| 30 | 25 | 6.374 | 6.273 | -0.101 |
| 35 | 26 | 6.508 | 6.278 | -0.230 |
| 35 | 27 | 6.331 | 6.420 | 0.089 |
| 35 | 28 | 6.300 | 6.437 | 0.107 |
| 35 | 29 | 6.446 | 6.440 | -0.006 |
| 35 | 30 | 6.384 | 6.399 | 0.015 |
| 50 | 31 | 6.382 | 6.650 | 0.268 |
| 50 | 32 | 6.477 | 6.614 | 0.137 |
| 50 | 33 | 6.411 | 6.613 | 0.202 |
| 50 | 34 | 6.377 | 6.511 | 0.134 |
| 50 | 35 | 6.472 | 6.433 | -0.039 |
| 55 | 36 | 6.482 | 6.456 | -0.026 |
| 55 | 37 | 6.485 | 6.764 | 0.279 |
| 55 | 38 | 6.444 | 6.324 | -0.120 |
| 55 | 39 | 6.246 | 6.306 | 0.060 |
| 55 | 40 | 6.225 | 6.514 | 0.289 |
| 100 | 41 | 6.402 | 6.455 | 0.053 |
| 100 | 42 | 6.426 | 6.326 | -0.100 |
| 100 | 43 | 6.467 | 6.546 | 0.079 |
| 100 | 44 | 6.398 | 6.732 | 0.334 |
| 100 | 45 | 6.269 | 6.530 | 0.261 |
| 105 | 46 | 6.377 | 6.526 | 0.149 |
| 105 | 47 | 6.402 | 6.354 | -0.048 |
| 105 | 48 | 6.552 | 6.561 | 0.009 |
| 105 | 49 | 6.304 | 6.564 | 0.260 |
| 105 | 50 | 6.496 | 6.454 | -0.042 |
| 105 | 51 | 6.448 | 6.414 | -0.034 |
| 105 | 52 | 6.294 | 6.396 | 0.102 |
| 105 | 53 | 6.241 | 6.575 | 0.334 |
| 105 | 54 | 6.420 | 6.443 | 0.023 |
| 105 | 55 | 6.416 | 6.782 | 0.366 |
| 105 | 56 | 6.432 | 6.587 | 0.155 |
| 105 | 57 | 6.423 | 6.389 | -0.034 |
| 105 | 58 | 6.556 | 6.637 | 0.081 |
| 105 | 59 | 6.502 | 6.485 | -0.017 |
| 105 | 60 | 6.511 | 6.422 | -0.089 |
| 105 | 61 | 6.449 | 6.444 | -0.005 |
| 105 | 62 | 6.371 | 6.487 | 0.116 |
| 105 | 63 | 6.312 | 6.466 | 0.154 |
| 105 | 64 | 6.702 | 6.805 | 0.103 |
| 105 | 65 | 6.454 | 6.424 | -0.030 |
| 105 | 66 | 6.300 | 6.616 | 0.316 |
| 105 | 67 | 6.417 | 6.422 | 0.005 |
| Max | | 6.702 | 6.805 | 0.366 |
| Average | | 6.421 | 6.465 | 0.044 |
| Min | | 6.225 | 6.254 | -0.380 |
| Std Dev | | 0.101 | 0.124 | 0.152 |



| 5.48 IDD_ACT_500K_4V | |
|----------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 9.5 mA |
| Min Limit | 7 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 6.502 | 6.350 | 6.355 | 6.254 | 6.267 | 6.273 | 6.278 | 6.433 | 6.306 | 6.326 | 6.354 |
| Average | 6.554 | 6.409 | 6.442 | 6.319 | 6.389 | 6.423 | 6.395 | 6.564 | 6.473 | 6.518 | 6.512 |
| Max | 6.618 | 6.486 | 6.488 | 6.434 | 6.487 | 6.561 | 6.440 | 6.650 | 6.764 | 6.732 | 6.805 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 |

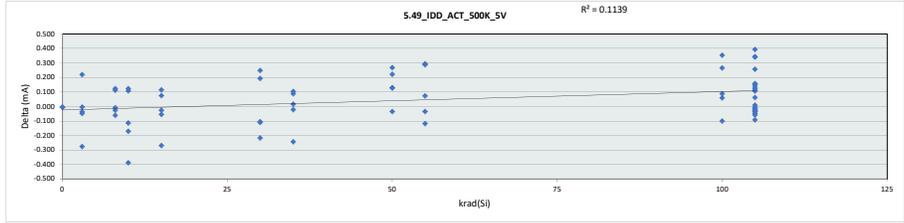


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

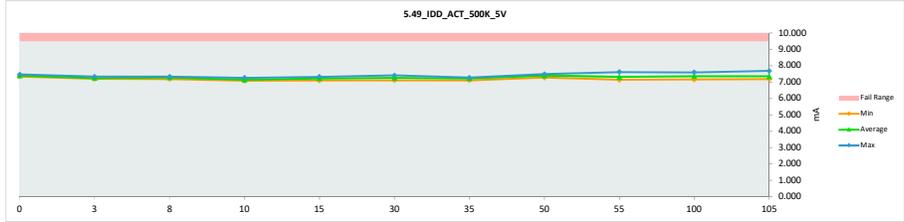
| 5.49 IDD_ACT_500K_5V | |
|----------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 9.5 |
| Min Limit | 7 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.386 | 7.382 | -0.004 |
| 0 | 992 | 7.340 | 7.335 | -0.005 |
| 0 | 993 | 7.470 | 7.465 | -0.005 |
| 3 | 1 | 7.239 | 7.190 | -0.049 |
| 3 | 2 | 7.074 | 7.293 | 0.219 |
| 3 | 3 | 7.244 | 7.206 | -0.038 |
| 3 | 4 | 7.492 | 7.216 | -0.276 |
| 3 | 5 | 7.332 | 7.328 | -0.004 |
| 8 | 6 | 7.305 | 7.244 | -0.061 |
| 8 | 7 | 7.190 | 7.181 | -0.009 |
| 8 | 8 | 7.340 | 7.315 | -0.025 |
| 8 | 9 | 7.202 | 7.326 | 0.124 |
| 8 | 10 | 7.210 | 7.322 | 0.112 |
| 10 | 11 | 7.151 | 7.259 | 0.108 |
| 10 | 12 | 7.201 | 7.087 | -0.114 |
| 10 | 13 | 7.246 | 7.076 | -0.170 |
| 10 | 14 | 7.090 | 7.214 | 0.124 |
| 10 | 15 | 7.472 | 7.085 | -0.387 |
| 15 | 16 | 7.348 | 7.322 | -0.026 |
| 15 | 17 | 7.137 | 7.211 | 0.074 |
| 15 | 18 | 7.362 | 7.093 | -0.269 |
| 15 | 19 | 7.286 | 7.231 | -0.055 |
| 15 | 20 | 7.146 | 7.260 | 0.114 |
| 30 | 21 | 7.196 | 7.390 | 0.194 |
| 30 | 22 | 7.324 | 7.108 | -0.216 |
| 30 | 23 | 7.162 | 7.410 | 0.248 |
| 30 | 24 | 7.374 | 7.269 | -0.105 |
| 30 | 25 | 7.210 | 7.100 | -0.110 |
| 35 | 26 | 7.350 | 7.107 | -0.243 |
| 35 | 27 | 7.162 | 7.251 | 0.089 |
| 35 | 28 | 7.169 | 7.272 | 0.103 |
| 35 | 29 | 7.286 | 7.265 | -0.021 |
| 35 | 30 | 7.216 | 7.232 | 0.016 |
| 50 | 31 | 7.218 | 7.485 | 0.267 |
| 50 | 32 | 7.314 | 7.442 | 0.128 |
| 50 | 33 | 7.250 | 7.471 | 0.221 |
| 50 | 34 | 7.203 | 7.333 | 0.130 |
| 50 | 35 | 7.305 | 7.271 | -0.034 |
| 55 | 36 | 7.321 | 7.287 | -0.034 |
| 55 | 37 | 7.326 | 7.613 | 0.287 |
| 55 | 38 | 7.273 | 7.156 | -0.117 |
| 55 | 39 | 7.063 | 7.136 | 0.073 |
| 55 | 40 | 7.051 | 7.345 | 0.294 |
| 100 | 41 | 7.233 | 7.293 | 0.060 |
| 100 | 42 | 7.255 | 7.154 | -0.101 |
| 100 | 43 | 7.298 | 7.387 | 0.089 |
| 100 | 44 | 7.232 | 7.586 | 0.354 |
| 100 | 45 | 7.096 | 7.362 | 0.266 |
| 105 | 46 | 7.213 | 7.366 | 0.153 |
| 105 | 47 | 7.239 | 7.188 | -0.051 |
| 105 | 48 | 7.390 | 7.384 | -0.006 |
| 105 | 49 | 7.129 | 7.385 | 0.256 |
| 105 | 50 | 7.343 | 7.284 | -0.059 |
| 105 | 51 | 7.284 | 7.252 | -0.032 |
| 105 | 52 | 7.123 | 7.231 | 0.108 |
| 105 | 53 | 7.069 | 7.411 | 0.342 |
| 105 | 54 | 7.253 | 7.315 | 0.062 |
| 105 | 55 | 7.252 | 7.644 | 0.392 |
| 105 | 56 | 7.260 | 7.417 | 0.157 |
| 105 | 57 | 7.257 | 7.219 | -0.038 |
| 105 | 58 | 7.388 | 7.536 | 0.148 |
| 105 | 59 | 7.341 | 7.318 | -0.023 |
| 105 | 60 | 7.346 | 7.255 | -0.091 |
| 105 | 61 | 7.280 | 7.267 | -0.013 |
| 105 | 62 | 7.208 | 7.317 | 0.109 |
| 105 | 63 | 7.144 | 7.264 | 0.120 |
| 105 | 64 | 7.546 | 7.677 | 0.131 |
| 105 | 65 | 7.287 | 7.260 | -0.027 |
| 105 | 66 | 7.125 | 7.467 | 0.342 |
| 105 | 67 | 7.249 | 7.259 | 0.010 |
| Max | | 7.546 | 7.677 | 0.392 |
| Average | | 7.255 | 7.301 | 0.046 |
| Min | | 7.051 | 7.076 | -0.387 |
| Std Dev | | 0.105 | 0.132 | 0.159 |



| 5.49 IDD_ACT_500K_5V | |
|----------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 9.5 mA |
| Min Limit | 7 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 7.335 | 7.190 | 7.181 | 7.076 | 7.093 | 7.100 | 7.107 | 7.271 | 7.136 | 7.154 | 7.188 |
| Average | 7.394 | 7.247 | 7.278 | 7.144 | 7.223 | 7.255 | 7.225 | 7.400 | 7.307 | 7.356 | 7.351 |
| Max | 7.465 | 7.328 | 7.326 | 7.259 | 7.322 | 7.410 | 7.272 | 7.485 | 7.613 | 7.586 | 7.677 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 |

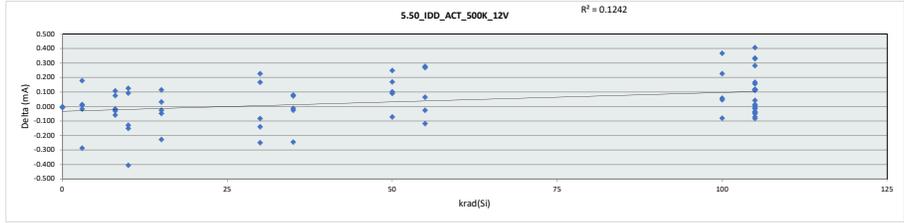


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

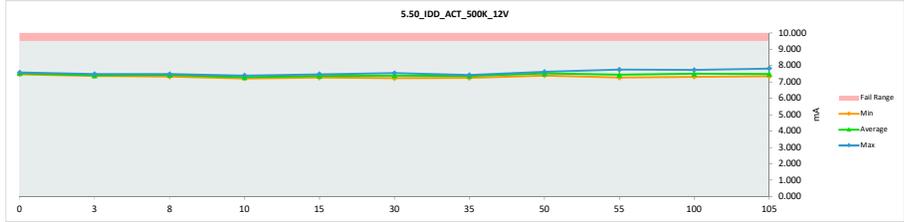
| 5.50 IDD_ACT_500K_12V | |
|-----------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | mA |
| Min Limit | mA |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.539 | 7.535 | -0.004 |
| 0 | 992 | 7.479 | 7.476 | -0.003 |
| 0 | 993 | 7.586 | 7.580 | -0.006 |
| 3 | 1 | 7.377 | 7.359 | -0.018 |
| 3 | 2 | 7.248 | 7.425 | 0.177 |
| 3 | 3 | 7.367 | 7.376 | 0.009 |
| 3 | 4 | 7.652 | 7.365 | -0.287 |
| 3 | 5 | 7.470 | 7.483 | 0.013 |
| 8 | 6 | 7.468 | 7.409 | -0.059 |
| 8 | 7 | 7.347 | 7.329 | -0.018 |
| 8 | 8 | 7.498 | 7.468 | -0.030 |
| 8 | 9 | 7.379 | 7.454 | 0.075 |
| 8 | 10 | 7.368 | 7.476 | 0.108 |
| 10 | 11 | 7.301 | 7.393 | 0.092 |
| 10 | 12 | 7.350 | 7.222 | -0.128 |
| 10 | 13 | 7.389 | 7.238 | -0.151 |
| 10 | 14 | 7.230 | 7.355 | 0.125 |
| 10 | 15 | 7.652 | 7.246 | -0.406 |
| 15 | 16 | 7.500 | 7.473 | -0.027 |
| 15 | 17 | 7.317 | 7.349 | 0.032 |
| 15 | 18 | 7.487 | 7.260 | -0.227 |
| 15 | 19 | 7.409 | 7.360 | -0.049 |
| 15 | 20 | 7.291 | 7.406 | 0.115 |
| 30 | 21 | 7.358 | 7.524 | 0.166 |
| 30 | 22 | 7.485 | 7.236 | -0.249 |
| 30 | 23 | 7.313 | 7.539 | 0.226 |
| 30 | 24 | 7.519 | 7.436 | -0.083 |
| 30 | 25 | 7.364 | 7.223 | -0.141 |
| 35 | 26 | 7.488 | 7.243 | -0.245 |
| 35 | 27 | 7.318 | 7.390 | 0.072 |
| 35 | 28 | 7.399 | 7.418 | 0.019 |
| 35 | 29 | 7.418 | 7.406 | -0.012 |
| 35 | 30 | 7.386 | 7.361 | -0.025 |
| 50 | 31 | 7.368 | 7.615 | 0.247 |
| 50 | 32 | 7.473 | 7.564 | 0.091 |
| 50 | 33 | 7.415 | 7.584 | 0.169 |
| 50 | 34 | 7.350 | 7.451 | 0.101 |
| 50 | 35 | 7.464 | 7.392 | -0.072 |
| 55 | 36 | 7.450 | 7.425 | -0.025 |
| 55 | 37 | 7.481 | 7.758 | 0.277 |
| 55 | 38 | 7.411 | 7.292 | -0.119 |
| 55 | 39 | 7.202 | 7.266 | 0.064 |
| 55 | 40 | 7.215 | 7.482 | 0.267 |
| 100 | 41 | 7.372 | 7.430 | 0.058 |
| 100 | 42 | 7.396 | 7.315 | -0.081 |
| 100 | 43 | 7.450 | 7.496 | 0.046 |
| 100 | 44 | 7.370 | 7.737 | 0.367 |
| 100 | 45 | 7.266 | 7.493 | 0.227 |
| 105 | 46 | 7.346 | 7.513 | 0.167 |
| 105 | 47 | 7.383 | 7.344 | -0.039 |
| 105 | 48 | 7.536 | 7.543 | 0.007 |
| 105 | 49 | 7.267 | 7.547 | 0.280 |
| 105 | 50 | 7.481 | 7.431 | -0.050 |
| 105 | 51 | 7.454 | 7.382 | -0.072 |
| 105 | 52 | 7.246 | 7.362 | 0.116 |
| 105 | 53 | 7.208 | 7.541 | 0.333 |
| 105 | 54 | 7.389 | 7.432 | 0.043 |
| 105 | 55 | 7.396 | 7.802 | 0.406 |
| 105 | 56 | 7.398 | 7.553 | 0.155 |
| 105 | 57 | 7.399 | 7.384 | -0.015 |
| 105 | 58 | 7.548 | 7.659 | 0.111 |
| 105 | 59 | 7.477 | 7.433 | -0.044 |
| 105 | 60 | 7.474 | 7.391 | -0.083 |
| 105 | 61 | 7.408 | 7.400 | -0.008 |
| 105 | 62 | 7.341 | 7.458 | 0.117 |
| 105 | 63 | 7.285 | 7.399 | 0.114 |
| 105 | 64 | 7.703 | 7.819 | 0.116 |
| 105 | 65 | 7.431 | 7.397 | -0.034 |
| 105 | 66 | 7.271 | 7.600 | 0.329 |
| 105 | 67 | 7.391 | 7.404 | 0.013 |
| Max | | 7.703 | 7.819 | 0.406 |
| Average | | 7.403 | 7.442 | 0.039 |
| Min | | 7.202 | 7.222 | -0.406 |
| Std Dev | | 0.104 | 0.130 | 0.155 |



| 5.50 IDD_ACT_500K_12V | |
|-----------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 9.5 mA |
| Min Limit | mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 7.476 | 7.359 | 7.329 | 7.222 | 7.260 | 7.223 | 7.243 | 7.392 | 7.266 | 7.315 | 7.344 |
| Average | 7.530 | 7.402 | 7.427 | 7.291 | 7.370 | 7.392 | 7.364 | 7.521 | 7.445 | 7.494 | 7.491 |
| Max | 7.580 | 7.483 | 7.476 | 7.393 | 7.473 | 7.539 | 7.418 | 7.615 | 7.758 | 7.737 | 7.819 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 |

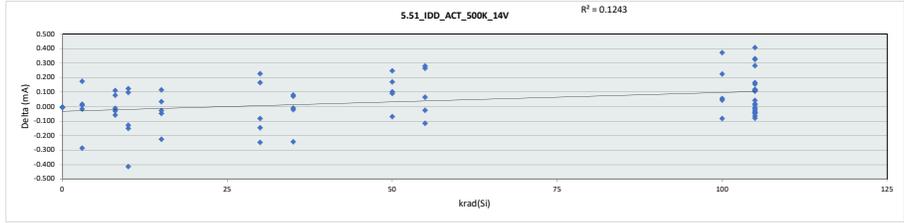


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

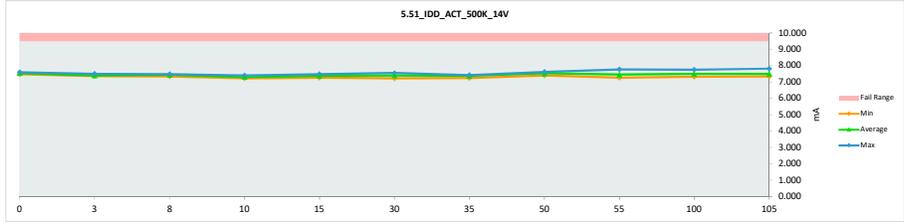
| 5.51 IDD_ACT_500K_14V | |
|-----------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA mA |
| Max Limit | 9.2 9.5 |
| Min Limit | 7 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.545 | 7.541 | -0.004 |
| 0 | 992 | 7.486 | 7.479 | -0.007 |
| 0 | 993 | 7.592 | 7.588 | -0.004 |
| 3 | 1 | 7.381 | 7.363 | -0.018 |
| 3 | 2 | 7.254 | 7.428 | 0.174 |
| 3 | 3 | 7.373 | 7.382 | 0.009 |
| 3 | 4 | 7.655 | 7.369 | -0.286 |
| 3 | 5 | 7.476 | 7.492 | 0.016 |
| 8 | 6 | 7.473 | 7.414 | -0.059 |
| 8 | 7 | 7.349 | 7.336 | -0.013 |
| 8 | 8 | 7.503 | 7.473 | -0.030 |
| 8 | 9 | 7.381 | 7.458 | 0.077 |
| 8 | 10 | 7.373 | 7.483 | 0.110 |
| 10 | 11 | 7.303 | 7.399 | 0.096 |
| 10 | 12 | 7.355 | 7.226 | -0.129 |
| 10 | 13 | 7.393 | 7.243 | -0.150 |
| 10 | 14 | 7.232 | 7.356 | 0.124 |
| 10 | 15 | 7.661 | 7.247 | -0.414 |
| 15 | 16 | 7.504 | 7.475 | -0.029 |
| 15 | 17 | 7.320 | 7.353 | 0.033 |
| 15 | 18 | 7.489 | 7.264 | -0.225 |
| 15 | 19 | 7.415 | 7.366 | -0.049 |
| 15 | 20 | 7.297 | 7.411 | 0.114 |
| 30 | 21 | 7.361 | 7.525 | 0.164 |
| 30 | 22 | 7.490 | 7.242 | -0.248 |
| 30 | 23 | 7.318 | 7.545 | 0.227 |
| 30 | 24 | 7.524 | 7.440 | -0.084 |
| 30 | 25 | 7.370 | 7.224 | -0.146 |
| 35 | 26 | 7.492 | 7.250 | -0.242 |
| 35 | 27 | 7.322 | 7.392 | 0.070 |
| 35 | 28 | 7.442 | 7.422 | 0.080 |
| 35 | 29 | 7.419 | 7.409 | -0.010 |
| 35 | 30 | 7.391 | 7.369 | -0.022 |
| 50 | 31 | 7.372 | 7.617 | 0.245 |
| 50 | 32 | 7.477 | 7.567 | 0.090 |
| 50 | 33 | 7.419 | 7.589 | 0.170 |
| 50 | 34 | 7.354 | 7.456 | 0.102 |
| 50 | 35 | 7.467 | 7.397 | -0.070 |
| 55 | 36 | 7.456 | 7.431 | -0.025 |
| 55 | 37 | 7.484 | 7.763 | 0.279 |
| 55 | 38 | 7.414 | 7.298 | -0.116 |
| 55 | 39 | 7.207 | 7.270 | 0.063 |
| 55 | 40 | 7.220 | 7.483 | 0.263 |
| 100 | 41 | 7.378 | 7.433 | 0.055 |
| 100 | 42 | 7.399 | 7.316 | -0.083 |
| 100 | 43 | 7.456 | 7.501 | 0.045 |
| 100 | 44 | 7.374 | 7.744 | 0.370 |
| 100 | 45 | 7.272 | 7.495 | 0.223 |
| 105 | 46 | 7.350 | 7.515 | 0.165 |
| 105 | 47 | 7.387 | 7.345 | -0.042 |
| 105 | 48 | 7.538 | 7.549 | 0.011 |
| 105 | 49 | 7.271 | 7.551 | 0.280 |
| 105 | 50 | 7.486 | 7.438 | -0.048 |
| 105 | 51 | 7.455 | 7.389 | -0.066 |
| 105 | 52 | 7.250 | 7.366 | 0.116 |
| 105 | 53 | 7.216 | 7.545 | 0.329 |
| 105 | 54 | 7.395 | 7.437 | 0.042 |
| 105 | 55 | 7.401 | 7.806 | 0.405 |
| 105 | 56 | 7.404 | 7.557 | 0.153 |
| 105 | 57 | 7.404 | 7.389 | -0.015 |
| 105 | 58 | 7.551 | 7.664 | 0.113 |
| 105 | 59 | 7.479 | 7.439 | -0.040 |
| 105 | 60 | 7.474 | 7.394 | -0.080 |
| 105 | 61 | 7.413 | 7.405 | -0.008 |
| 105 | 62 | 7.347 | 7.459 | 0.112 |
| 105 | 63 | 7.290 | 7.405 | 0.115 |
| 105 | 64 | 7.707 | 7.813 | 0.106 |
| 105 | 65 | 7.433 | 7.405 | -0.028 |
| 105 | 66 | 7.275 | 7.500 | 0.225 |
| 105 | 67 | 7.393 | 7.410 | 0.017 |
| Max | | 7.707 | 7.813 | 0.405 |
| Average | | 7.407 | 7.446 | 0.039 |
| Min | | 7.207 | 7.224 | -0.414 |
| Std Dev | | 0.104 | 0.130 | 0.154 |



| 5.51 IDD_ACT_500K_14V | |
|-----------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 9.5 mA |
| Min Limit | 7 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 7.479 | 7.363 | 7.336 | 7.226 | 7.264 | 7.224 | 7.250 | 7.397 | 7.270 | 7.316 | 7.345 |
| Average | 7.536 | 7.407 | 7.433 | 7.294 | 7.374 | 7.395 | 7.368 | 7.525 | 7.449 | 7.498 | 7.495 |
| Max | 7.588 | 7.492 | 7.483 | 7.399 | 7.475 | 7.545 | 7.422 | 7.617 | 7.763 | 7.744 | 7.813 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 | 9.500 |

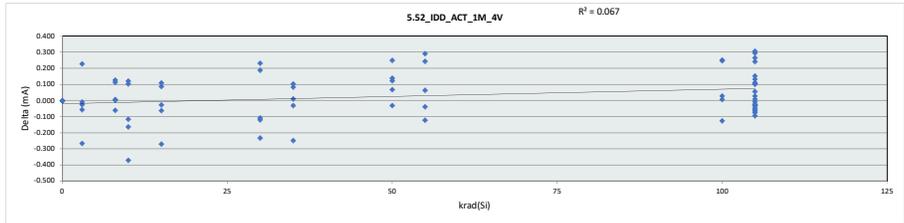


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

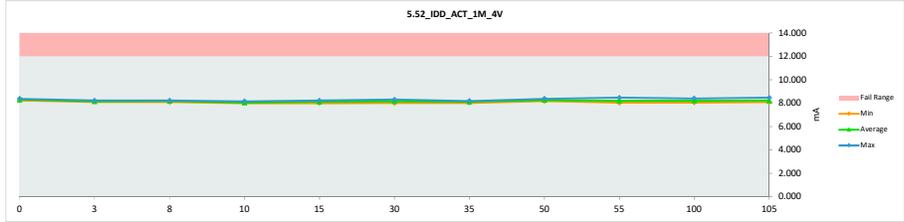
| 5.52 IDD_ACT_1M_4V | |
|--------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 12 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.290 | 8.287 | -0.003 |
| 0 | 992 | 8.242 | 8.240 | -0.002 |
| 0 | 993 | 8.368 | 8.366 | -0.002 |
| 3 | 1 | 8.147 | 8.090 | -0.057 |
| 3 | 2 | 7.971 | 8.226 | 0.226 |
| 3 | 3 | 8.134 | 8.107 | -0.027 |
| 3 | 4 | 8.384 | 8.118 | -0.266 |
| 3 | 5 | 8.234 | 8.223 | -0.011 |
| 8 | 6 | 8.199 | 8.138 | -0.061 |
| 8 | 7 | 8.079 | 8.084 | 0.005 |
| 8 | 8 | 8.206 | 8.207 | 0.001 |
| 8 | 9 | 8.093 | 8.219 | 0.126 |
| 8 | 10 | 8.103 | 8.215 | 0.112 |
| 10 | 11 | 8.049 | 8.151 | 0.102 |
| 10 | 12 | 8.103 | 7.987 | -0.116 |
| 10 | 13 | 8.144 | 7.980 | -0.164 |
| 10 | 14 | 7.991 | 8.111 | 0.120 |
| 10 | 15 | 8.358 | 7.987 | -0.371 |
| 15 | 16 | 8.249 | 8.220 | -0.029 |
| 15 | 17 | 8.038 | 8.125 | 0.087 |
| 15 | 18 | 8.256 | 7.985 | -0.271 |
| 15 | 19 | 8.191 | 8.127 | -0.064 |
| 15 | 20 | 8.046 | 8.155 | 0.109 |
| 30 | 21 | 8.087 | 8.273 | 0.186 |
| 30 | 22 | 8.233 | 8.000 | -0.233 |
| 30 | 23 | 8.060 | 8.290 | 0.230 |
| 30 | 24 | 8.268 | 8.159 | -0.109 |
| 30 | 25 | 8.116 | 7.996 | -0.120 |
| 35 | 26 | 8.260 | 8.011 | -0.249 |
| 35 | 27 | 8.079 | 8.162 | 0.083 |
| 35 | 28 | 8.068 | 8.171 | 0.103 |
| 35 | 29 | 8.188 | 8.156 | -0.032 |
| 35 | 30 | 8.118 | 8.128 | 0.010 |
| 50 | 31 | 8.117 | 8.366 | 0.249 |
| 50 | 32 | 8.210 | 8.277 | 0.067 |
| 50 | 33 | 8.139 | 8.277 | 0.138 |
| 50 | 34 | 8.105 | 8.227 | 0.122 |
| 50 | 35 | 8.197 | 8.165 | -0.032 |
| 55 | 36 | 8.215 | 8.175 | -0.040 |
| 55 | 37 | 8.214 | 8.456 | 0.242 |
| 55 | 38 | 8.166 | 8.043 | -0.123 |
| 55 | 39 | 7.965 | 8.028 | 0.063 |
| 55 | 40 | 7.954 | 8.244 | 0.290 |
| 100 | 41 | 8.130 | 8.135 | 0.005 |
| 100 | 42 | 8.164 | 8.038 | -0.126 |
| 100 | 43 | 8.197 | 8.224 | 0.027 |
| 100 | 44 | 8.146 | 8.393 | 0.247 |
| 100 | 45 | 7.992 | 8.242 | 0.250 |
| 105 | 46 | 8.110 | 8.242 | 0.132 |
| 105 | 47 | 8.132 | 8.074 | -0.058 |
| 105 | 48 | 8.288 | 8.259 | -0.029 |
| 105 | 49 | 8.022 | 8.263 | 0.241 |
| 105 | 50 | 8.232 | 8.157 | -0.075 |
| 105 | 51 | 8.173 | 8.142 | -0.031 |
| 105 | 52 | 8.021 | 8.125 | 0.104 |
| 105 | 53 | 7.977 | 8.271 | 0.294 |
| 105 | 54 | 8.167 | 8.222 | 0.055 |
| 105 | 55 | 8.154 | 8.418 | 0.264 |
| 105 | 56 | 8.150 | 8.302 | 0.152 |
| 105 | 57 | 8.160 | 8.113 | -0.047 |
| 105 | 58 | 8.259 | 8.251 | -0.008 |
| 105 | 59 | 8.238 | 8.213 | -0.025 |
| 105 | 60 | 8.237 | 8.141 | -0.096 |
| 105 | 61 | 8.182 | 8.116 | -0.066 |
| 105 | 62 | 8.107 | 8.218 | 0.111 |
| 105 | 63 | 8.036 | 8.136 | 0.100 |
| 105 | 64 | 8.440 | 8.467 | 0.027 |
| 105 | 65 | 8.183 | 8.150 | -0.033 |
| 105 | 66 | 8.025 | 8.331 | 0.306 |
| 105 | 67 | 8.150 | 8.157 | 0.007 |
| Max | | 8.440 | 8.467 | 0.306 |
| Average | | 8.153 | 8.182 | 0.029 |
| Min | | 7.954 | 7.980 | -0.371 |
| Std Dev | | 0.103 | 0.112 | 0.146 |



| 5.52 IDD_ACT_1M_4V | |
|--------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 12 mA |
| Min Limit | 4 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.240 | 8.090 | 8.084 | 7.980 | 7.985 | 7.996 | 8.011 | 8.165 | 8.028 | 8.038 | 8.074 |
| Average | 8.298 | 8.147 | 8.173 | 8.043 | 8.122 | 8.144 | 8.126 | 8.262 | 8.189 | 8.206 | 8.217 |
| Max | 8.366 | 8.223 | 8.219 | 8.151 | 8.220 | 8.290 | 8.171 | 8.366 | 8.456 | 8.393 | 8.467 |
| UL | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 |

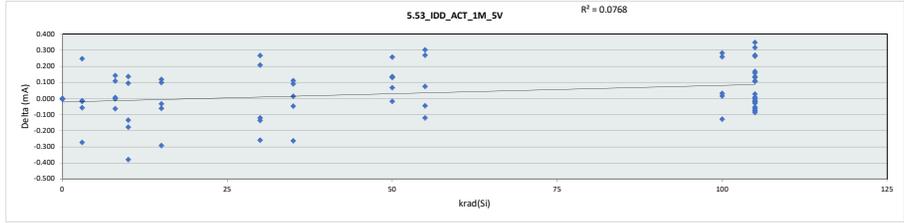


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

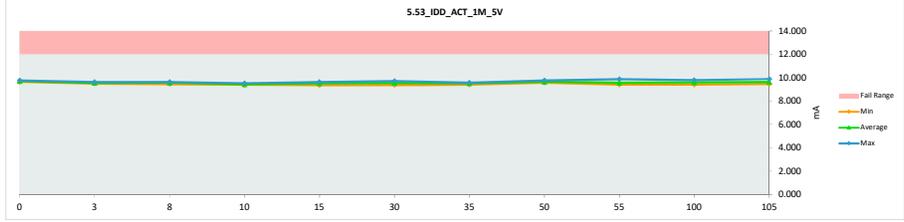
| 5.53 IDD_ACT_1M_5V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 11.7 |
| Min Limit | 12 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 9.685 | 9.684 | -0.001 |
| 0 | 992 | 9.635 | 9.633 | -0.002 |
| 0 | 993 | 9.777 | 9.772 | -0.005 |
| 3 | 1 | 9.541 | 9.483 | -0.058 |
| 3 | 2 | 9.585 | 9.585 | 0.246 |
| 3 | 3 | 9.514 | 9.495 | -0.019 |
| 3 | 4 | 9.784 | 9.511 | -0.273 |
| 3 | 5 | 9.637 | 9.622 | -0.015 |
| 8 | 6 | 9.595 | 9.531 | -0.064 |
| 8 | 7 | 9.467 | 9.465 | -0.002 |
| 8 | 8 | 9.589 | 9.594 | 0.005 |
| 8 | 9 | 9.475 | 9.617 | 0.142 |
| 8 | 10 | 9.498 | 9.607 | 0.109 |
| 10 | 11 | 9.435 | 9.530 | 0.095 |
| 10 | 12 | 9.493 | 9.358 | -0.135 |
| 10 | 13 | 9.541 | 9.364 | -0.177 |
| 10 | 14 | 9.366 | 9.501 | 0.135 |
| 10 | 15 | 9.753 | 9.373 | -0.380 |
| 10 | 16 | 9.647 | 9.613 | -0.034 |
| 15 | 17 | 9.421 | 9.520 | 0.099 |
| 15 | 18 | 9.653 | 9.361 | -0.292 |
| 15 | 19 | 9.585 | 9.523 | -0.062 |
| 15 | 20 | 9.434 | 9.551 | 0.117 |
| 30 | 21 | 9.463 | 9.670 | 0.207 |
| 30 | 22 | 9.629 | 9.370 | -0.259 |
| 30 | 23 | 9.433 | 9.699 | 0.266 |
| 30 | 24 | 9.671 | 9.550 | -0.121 |
| 30 | 25 | 9.510 | 9.373 | -0.137 |
| 35 | 26 | 9.664 | 9.402 | -0.262 |
| 35 | 27 | 9.466 | 9.557 | 0.091 |
| 35 | 28 | 9.469 | 9.571 | 0.111 |
| 35 | 29 | 9.588 | 9.541 | -0.047 |
| 35 | 30 | 9.508 | 9.522 | 0.014 |
| 50 | 31 | 9.508 | 9.764 | 0.256 |
| 50 | 32 | 9.603 | 9.669 | 0.066 |
| 50 | 33 | 9.535 | 9.671 | 0.136 |
| 50 | 34 | 9.490 | 9.619 | 0.129 |
| 50 | 35 | 9.585 | 9.566 | -0.019 |
| 55 | 36 | 9.610 | 9.564 | -0.046 |
| 55 | 37 | 9.607 | 9.874 | 0.267 |
| 55 | 38 | 9.545 | 9.424 | -0.121 |
| 55 | 39 | 9.332 | 9.407 | 0.075 |
| 55 | 40 | 9.337 | 9.639 | 0.302 |
| 100 | 41 | 9.517 | 9.532 | 0.015 |
| 100 | 42 | 9.547 | 9.418 | -0.129 |
| 100 | 43 | 9.583 | 9.615 | 0.032 |
| 100 | 44 | 9.541 | 9.798 | 0.257 |
| 100 | 45 | 9.368 | 9.649 | 0.281 |
| 105 | 46 | 9.503 | 9.638 | 0.135 |
| 105 | 47 | 9.526 | 9.464 | -0.062 |
| 105 | 48 | 9.683 | 9.653 | -0.030 |
| 105 | 49 | 9.395 | 9.656 | 0.261 |
| 105 | 50 | 9.635 | 9.557 | -0.078 |
| 105 | 51 | 9.562 | 9.539 | -0.023 |
| 105 | 52 | 9.395 | 9.524 | 0.129 |
| 105 | 53 | 9.363 | 9.679 | 0.316 |
| 105 | 54 | 9.566 | 9.724 | 0.158 |
| 105 | 55 | 9.550 | 9.818 | 0.268 |
| 105 | 56 | 9.534 | 9.702 | 0.168 |
| 105 | 57 | 9.556 | 9.502 | -0.054 |
| 105 | 58 | 9.646 | 9.645 | -0.001 |
| 105 | 59 | 9.629 | 9.616 | -0.013 |
| 105 | 60 | 9.627 | 9.540 | -0.087 |
| 105 | 61 | 9.566 | 9.492 | -0.074 |
| 105 | 62 | 9.506 | 9.613 | 0.107 |
| 105 | 63 | 9.417 | 9.525 | 0.108 |
| 105 | 64 | 9.854 | 9.882 | 0.028 |
| 105 | 65 | 9.572 | 9.551 | -0.021 |
| 105 | 66 | 9.399 | 9.745 | 0.346 |
| 105 | 67 | 9.544 | 9.552 | 0.008 |
| Max | | 9.854 | 9.882 | 0.346 |
| Average | | 9.543 | 9.577 | 0.034 |
| Min | | 9.332 | 9.358 | -0.380 |
| Std Dev | | 0.110 | 0.120 | 0.156 |



| 5.53 IDD_ACT_1M_5V | |
|--------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 12 mA |
| Min Limit | 12 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 9.633 | 9.483 | 9.465 | 9.358 | 9.361 | 9.370 | 9.402 | 9.566 | 9.407 | 9.418 | 9.464 |
| Average | 9.696 | 9.541 | 9.563 | 9.425 | 9.514 | 9.532 | 9.519 | 9.658 | 9.582 | 9.602 | 9.619 |
| Max | 9.772 | 9.622 | 9.617 | 9.530 | 9.613 | 9.699 | 9.571 | 9.764 | 9.874 | 9.798 | 9.882 |
| UL | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 |

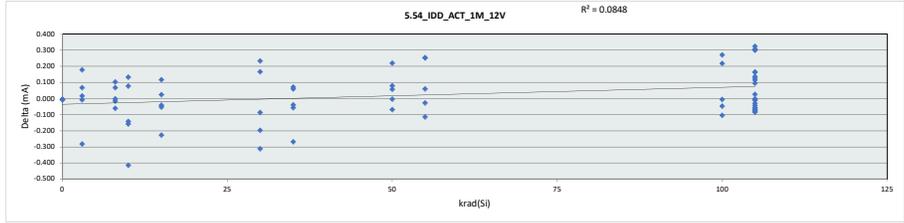


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

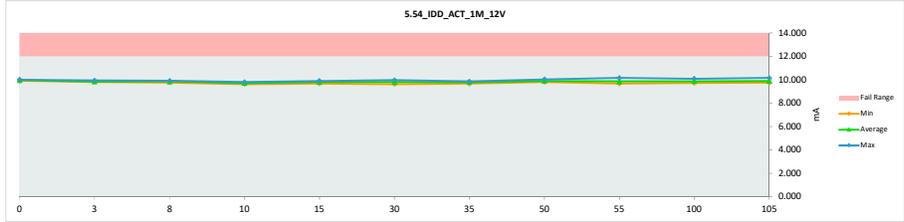
| 5.54 IDD_ACT_1M_12V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 11.7 |
| Min Limit | 12 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 9.985 | 9.977 | -0.008 |
| 0 | 992 | 9.910 | 9.906 | -0.004 |
| 0 | 993 | 10.015 | 10.008 | -0.007 |
| 3 | 1 | 9.813 | 9.804 | -0.009 |
| 3 | 2 | 9.679 | 9.856 | 0.177 |
| 3 | 3 | 9.756 | 9.823 | 0.067 |
| 3 | 4 | 10.087 | 9.804 | -0.283 |
| 3 | 5 | 9.914 | 9.930 | 0.016 |
| 8 | 6 | 9.905 | 9.843 | -0.062 |
| 8 | 7 | 9.768 | 9.752 | -0.016 |
| 8 | 8 | 9.896 | 9.893 | -0.003 |
| 8 | 9 | 9.807 | 9.874 | 0.067 |
| 8 | 10 | 9.804 | 9.906 | 0.102 |
| 10 | 11 | 9.719 | 9.796 | 0.077 |
| 10 | 12 | 9.782 | 9.623 | -0.159 |
| 10 | 13 | 9.819 | 9.677 | -0.142 |
| 10 | 14 | 9.641 | 9.773 | 0.132 |
| 10 | 15 | 10.097 | 9.682 | -0.415 |
| 15 | 16 | 9.941 | 9.900 | -0.041 |
| 15 | 17 | 9.762 | 9.786 | 0.024 |
| 15 | 18 | 9.907 | 9.679 | -0.228 |
| 15 | 19 | 9.831 | 9.777 | -0.054 |
| 15 | 20 | 9.715 | 9.830 | 0.115 |
| 30 | 21 | 9.772 | 9.937 | 0.165 |
| 30 | 22 | 9.940 | 9.627 | -0.313 |
| 30 | 23 | 9.723 | 9.956 | 0.233 |
| 30 | 24 | 9.953 | 9.865 | -0.088 |
| 30 | 25 | 9.816 | 9.619 | -0.197 |
| 35 | 26 | 9.935 | 9.666 | -0.269 |
| 35 | 27 | 9.767 | 9.825 | 0.058 |
| 35 | 28 | 9.781 | 9.852 | 0.071 |
| 35 | 29 | 9.847 | 9.807 | -0.040 |
| 35 | 30 | 9.835 | 9.777 | -0.058 |
| 50 | 31 | 9.803 | 10.021 | 0.218 |
| 50 | 32 | 9.910 | 9.906 | -0.004 |
| 50 | 33 | 9.850 | 9.906 | 0.056 |
| 50 | 34 | 9.776 | 9.855 | 0.079 |
| 50 | 35 | 9.883 | 9.813 | -0.070 |
| 55 | 36 | 9.865 | 9.836 | -0.029 |
| 55 | 37 | 9.903 | 10.155 | 0.252 |
| 55 | 38 | 9.812 | 9.698 | -0.114 |
| 55 | 39 | 9.606 | 9.664 | 0.058 |
| 55 | 40 | 9.653 | 9.905 | 0.252 |
| 100 | 41 | 9.789 | 9.783 | -0.006 |
| 100 | 42 | 9.823 | 9.719 | -0.104 |
| 100 | 43 | 9.878 | 9.830 | -0.048 |
| 100 | 44 | 9.812 | 10.081 | 0.269 |
| 100 | 45 | 9.693 | 9.909 | 0.216 |
| 105 | 46 | 9.766 | 9.930 | 0.164 |
| 105 | 47 | 9.806 | 9.748 | -0.058 |
| 105 | 48 | 9.966 | 9.964 | -0.002 |
| 105 | 49 | 9.663 | 9.969 | 0.306 |
| 105 | 50 | 9.906 | 9.837 | -0.069 |
| 105 | 51 | 9.883 | 9.797 | -0.086 |
| 105 | 52 | 9.644 | 9.779 | 0.135 |
| 105 | 53 | 9.636 | 9.935 | 0.299 |
| 105 | 54 | 9.830 | 9.944 | 0.114 |
| 105 | 55 | 9.831 | 10.132 | 0.301 |
| 105 | 56 | 9.805 | 9.968 | 0.163 |
| 105 | 57 | 9.829 | 9.818 | -0.011 |
| 105 | 58 | 9.959 | 9.884 | -0.075 |
| 105 | 59 | 9.890 | 9.847 | -0.043 |
| 105 | 60 | 9.877 | 9.795 | -0.082 |
| 105 | 61 | 9.819 | 9.759 | -0.060 |
| 105 | 62 | 9.765 | 9.891 | 0.126 |
| 105 | 63 | 9.698 | 9.793 | 0.095 |
| 105 | 64 | 10.157 | 10.148 | -0.009 |
| 105 | 65 | 9.853 | 9.822 | -0.031 |
| 105 | 66 | 9.675 | 9.998 | 0.323 |
| 105 | 67 | 9.817 | 9.842 | 0.025 |
| Max | 10.157 | 10.155 | 0.323 | |
| Average | 9.829 | 9.850 | 0.021 | |
| Min | 9.606 | 9.619 | -0.415 | |
| Std Dev | 0.110 | 0.118 | 0.152 | |



| 5.54 IDD_ACT_1M_12V | |
|---------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 12 mA |
| Min Limit | 12 mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 9.906 | 9.804 | 9.752 | 9.623 | 9.679 | 9.619 | 9.666 | 9.813 | 9.664 | 9.719 | 9.748 |
| Average | 9.964 | 9.843 | 9.854 | 9.710 | 9.794 | 9.801 | 9.785 | 9.900 | 9.852 | 9.864 | 9.891 |
| Max | 10.008 | 9.930 | 9.906 | 9.796 | 9.900 | 9.956 | 9.852 | 10.021 | 10.155 | 10.081 | 10.148 |
| UL | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 |

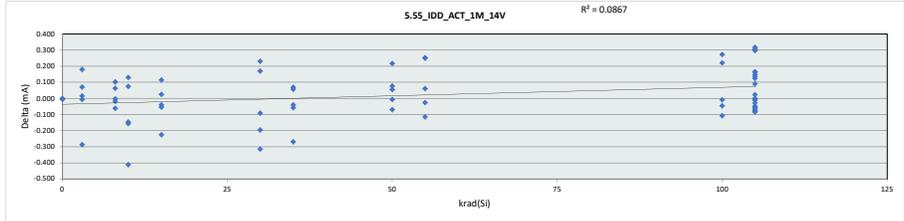


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

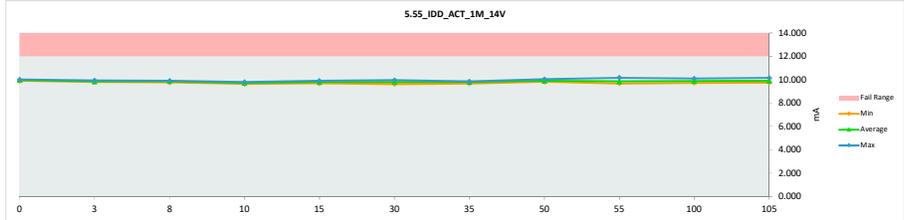
| 5.55 IDD_ACT_1M_14V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 11.7 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 9.988 | 9.984 | -0.004 |
| 0 | 992 | 9.914 | 9.910 | -0.004 |
| 0 | 993 | 10.018 | 10.017 | -0.001 |
| 3 | 1 | 9.815 | 9.808 | -0.007 |
| 3 | 2 | 9.685 | 9.864 | 0.179 |
| 3 | 3 | 9.760 | 9.830 | 0.070 |
| 3 | 4 | 10.094 | 9.807 | -0.287 |
| 3 | 5 | 9.917 | 9.933 | 0.016 |
| 8 | 6 | 9.908 | 9.847 | -0.061 |
| 8 | 7 | 9.775 | 9.756 | -0.019 |
| 8 | 8 | 9.901 | 9.899 | -0.002 |
| 8 | 9 | 9.812 | 9.875 | 0.063 |
| 8 | 10 | 9.810 | 9.912 | 0.102 |
| 10 | 11 | 9.725 | 9.799 | 0.074 |
| 10 | 12 | 9.786 | 9.630 | -0.156 |
| 10 | 13 | 9.825 | 9.678 | -0.147 |
| 10 | 14 | 9.646 | 9.776 | 0.130 |
| 10 | 15 | 10.101 | 9.690 | -0.411 |
| 15 | 16 | 9.944 | 9.905 | -0.039 |
| 15 | 17 | 9.764 | 9.789 | 0.025 |
| 15 | 18 | 9.911 | 9.686 | -0.225 |
| 15 | 19 | 9.838 | 9.785 | -0.053 |
| 15 | 20 | 9.718 | 9.832 | 0.114 |
| 30 | 21 | 9.775 | 9.944 | 0.169 |
| 30 | 22 | 9.944 | 9.629 | -0.315 |
| 30 | 23 | 9.728 | 9.958 | 0.230 |
| 30 | 24 | 9.959 | 9.868 | -0.091 |
| 30 | 25 | 9.818 | 9.622 | -0.196 |
| 35 | 26 | 9.940 | 9.671 | -0.269 |
| 35 | 27 | 9.773 | 9.830 | 0.057 |
| 35 | 28 | 9.785 | 9.854 | 0.069 |
| 35 | 29 | 9.851 | 9.812 | -0.039 |
| 35 | 30 | 9.839 | 9.781 | -0.058 |
| 50 | 31 | 9.809 | 10.026 | 0.217 |
| 50 | 32 | 9.917 | 9.910 | -0.007 |
| 50 | 33 | 9.854 | 9.909 | 0.055 |
| 50 | 34 | 9.782 | 9.859 | 0.077 |
| 50 | 35 | 9.887 | 9.818 | -0.069 |
| 55 | 36 | 9.868 | 9.841 | -0.027 |
| 55 | 37 | 9.909 | 10.162 | 0.253 |
| 55 | 38 | 9.817 | 9.703 | -0.114 |
| 55 | 39 | 9.609 | 9.669 | 0.060 |
| 55 | 40 | 9.659 | 9.909 | 0.250 |
| 100 | 41 | 9.795 | 9.786 | -0.009 |
| 100 | 42 | 9.828 | 9.722 | -0.106 |
| 100 | 43 | 9.882 | 9.836 | -0.046 |
| 100 | 44 | 9.816 | 10.088 | 0.272 |
| 100 | 45 | 9.696 | 9.917 | 0.221 |
| 105 | 46 | 9.770 | 9.934 | 0.164 |
| 105 | 47 | 9.808 | 9.751 | -0.057 |
| 105 | 48 | 9.971 | 9.970 | -0.001 |
| 105 | 49 | 9.667 | 9.973 | 0.306 |
| 105 | 50 | 9.911 | 9.843 | -0.068 |
| 105 | 51 | 9.885 | 9.801 | -0.084 |
| 105 | 52 | 9.650 | 9.786 | 0.136 |
| 105 | 53 | 9.642 | 9.940 | 0.298 |
| 105 | 54 | 9.834 | 9.982 | 0.148 |
| 105 | 55 | 9.834 | 10.133 | 0.299 |
| 105 | 56 | 9.807 | 9.972 | 0.165 |
| 105 | 57 | 9.833 | 9.822 | -0.011 |
| 105 | 58 | 9.964 | 9.886 | -0.078 |
| 105 | 59 | 9.896 | 9.849 | -0.047 |
| 105 | 60 | 9.881 | 9.802 | -0.079 |
| 105 | 61 | 9.821 | 9.766 | -0.055 |
| 105 | 62 | 9.768 | 9.892 | 0.124 |
| 105 | 63 | 9.702 | 9.793 | 0.091 |
| 105 | 64 | 10.161 | 10.156 | -0.005 |
| 105 | 65 | 9.855 | 9.826 | -0.029 |
| 105 | 66 | 9.683 | 10.000 | 0.317 |
| 105 | 67 | 9.821 | 9.845 | 0.024 |
| Max | | 10.161 | 10.162 | 0.317 |
| Average | | 9.834 | 9.855 | 0.021 |
| Min | | 9.609 | 9.622 | -0.411 |
| Std Dev | | 0.110 | 0.118 | 0.152 |



| 5.55 IDD_ACT_1M_14V | |
|---------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 12 mA |
| Min Limit | mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 9.910 | 9.807 | 9.756 | 9.630 | 9.686 | 9.622 | 9.671 | 9.818 | 9.669 | 9.722 | 9.751 |
| Average | 9.970 | 9.848 | 9.858 | 9.715 | 9.799 | 9.804 | 9.790 | 9.904 | 9.857 | 9.870 | 9.896 |
| Max | 10.017 | 9.933 | 9.912 | 9.799 | 9.905 | 9.958 | 9.854 | 10.026 | 10.162 | 10.088 | 10.156 |
| UL | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 | 12.000 |

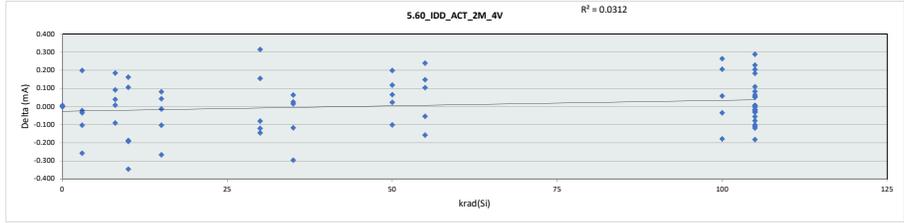


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

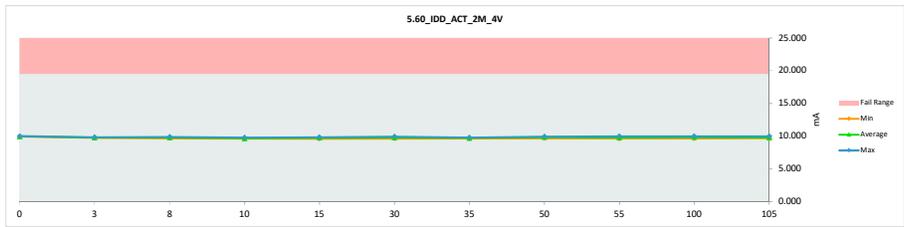
| 5.60 IDD ACT 2M 4V | |
|--------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA mA |
| Max Limit | 13 19.5 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 9.994 | 9.996 | 0.002 |
| 0 | 992 | 9.919 | 9.925 | 0.006 |
| 0 | 993 | 9.991 | 9.989 | -0.002 |
| 3 | 1 | 9.787 | 9.752 | -0.035 |
| 3 | 2 | 9.651 | 9.850 | 0.199 |
| 3 | 3 | 9.825 | 9.722 | -0.103 |
| 3 | 4 | 9.993 | 9.736 | -0.257 |
| 3 | 5 | 9.876 | 9.854 | -0.022 |
| 8 | 6 | 9.784 | 9.792 | 0.008 |
| 8 | 7 | 9.781 | 9.690 | -0.091 |
| 8 | 8 | 9.770 | 9.809 | 0.039 |
| 8 | 9 | 9.707 | 9.798 | 0.091 |
| 8 | 10 | 9.697 | 9.881 | 0.184 |
| 10 | 11 | 9.668 | 9.773 | 0.105 |
| 10 | 12 | 9.779 | 9.586 | -0.193 |
| 10 | 13 | 9.796 | 9.609 | -0.187 |
| 10 | 14 | 9.617 | 9.779 | 0.162 |
| 10 | 15 | 9.957 | 9.621 | -0.346 |
| 15 | 16 | 9.874 | 9.861 | -0.013 |
| 15 | 17 | 9.704 | 9.746 | 0.042 |
| 15 | 18 | 9.876 | 9.609 | -0.267 |
| 15 | 19 | 9.847 | 9.744 | -0.103 |
| 15 | 20 | 9.722 | 9.802 | 0.080 |
| 30 | 21 | 9.714 | 9.869 | 0.155 |
| 30 | 22 | 9.826 | 9.681 | -0.145 |
| 30 | 23 | 9.626 | 9.940 | 0.314 |
| 30 | 24 | 9.866 | 9.786 | -0.080 |
| 30 | 25 | 9.768 | 9.647 | -0.121 |
| 35 | 26 | 9.911 | 9.615 | -0.296 |
| 35 | 27 | 9.721 | 9.785 | 0.064 |
| 35 | 28 | 9.734 | 9.749 | 0.015 |
| 35 | 29 | 9.835 | 9.718 | -0.117 |
| 35 | 30 | 9.726 | 9.751 | 0.025 |
| 50 | 31 | 9.733 | 9.931 | 0.198 |
| 50 | 32 | 9.829 | 9.852 | 0.023 |
| 50 | 33 | 9.793 | 9.858 | 0.065 |
| 50 | 34 | 9.709 | 9.826 | 0.117 |
| 50 | 35 | 9.796 | 9.694 | -0.102 |
| 55 | 36 | 9.789 | 9.734 | -0.055 |
| 55 | 37 | 9.876 | 9.979 | 0.103 |
| 55 | 38 | 9.787 | 9.629 | -0.158 |
| 55 | 39 | 9.576 | 9.724 | 0.148 |
| 55 | 40 | 9.599 | 9.838 | 0.239 |
| 100 | 41 | 9.783 | 9.748 | -0.035 |
| 100 | 42 | 9.832 | 9.653 | -0.179 |
| 100 | 43 | 9.832 | 9.890 | 0.058 |
| 100 | 44 | 9.772 | 9.977 | 0.205 |
| 100 | 45 | 9.615 | 9.879 | 0.264 |
| 105 | 46 | 9.738 | 9.789 | 0.051 |
| 105 | 47 | 9.800 | 9.781 | -0.019 |
| 105 | 48 | 9.891 | 9.812 | -0.079 |
| 105 | 49 | 9.733 | 9.815 | 0.082 |
| 105 | 50 | 9.901 | 9.719 | -0.182 |
| 105 | 51 | 9.817 | 9.716 | -0.101 |
| 105 | 52 | 9.698 | 9.753 | 0.055 |
| 105 | 53 | 9.594 | 9.881 | 0.287 |
| 105 | 54 | 9.803 | 9.693 | -0.110 |
| 105 | 55 | 9.746 | 9.975 | 0.229 |
| 105 | 56 | 9.731 | 9.913 | 0.182 |
| 105 | 57 | 9.786 | 9.768 | -0.018 |
| 105 | 58 | 9.780 | 9.843 | 0.063 |
| 105 | 59 | 9.825 | 9.796 | -0.029 |
| 105 | 60 | 9.828 | 9.772 | -0.056 |
| 105 | 61 | 9.835 | 9.716 | -0.119 |
| 105 | 62 | 9.677 | 9.786 | 0.109 |
| 105 | 63 | 9.672 | 9.669 | -0.003 |
| 105 | 64 | 9.989 | 9.994 | 0.005 |
| 105 | 65 | 9.780 | 9.786 | 0.006 |
| 105 | 66 | 9.743 | 9.947 | 0.204 |
| 105 | 67 | 9.794 | 9.763 | -0.031 |
| Max | | 9.994 | 9.996 | 0.314 |
| Average | | 9.783 | 9.791 | 0.008 |
| Min | | 9.576 | 9.586 | -0.346 |
| Std Dev | | 0.097 | 0.103 | 0.143 |



| 5.60 IDD ACT 2M 4V | |
|--------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 19.5 mA |
| Min Limit | mA |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 9.925 | 9.722 | 9.690 | 9.586 | 9.609 | 9.647 | 9.615 | 9.694 | 9.629 | 9.653 | 9.669 |
| Average | 9.970 | 9.783 | 9.794 | 9.674 | 9.752 | 9.785 | 9.724 | 9.832 | 9.781 | 9.829 | 9.804 |
| Max | 9.996 | 9.854 | 9.881 | 9.779 | 9.861 | 9.940 | 9.785 | 9.931 | 9.979 | 9.977 | 9.994 |
| UL | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 |

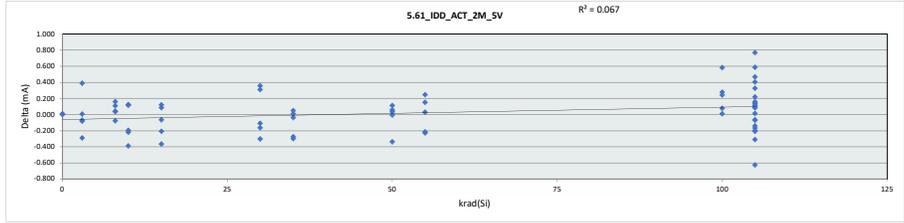


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

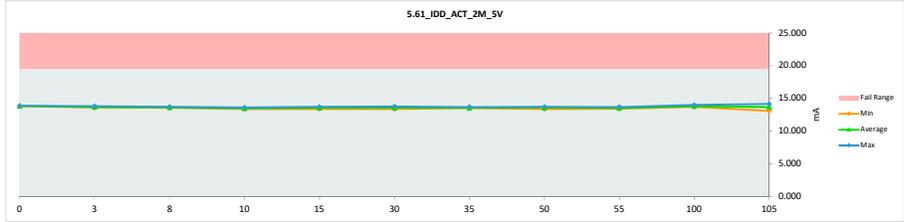
| 5.61 IDD_ACT_2M_5V | |
|--------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 18 |
| Min Limit | 6 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 13.827 | 13.828 | 0.001 |
| 0 | 992 | 13.827 | 13.835 | 0.008 |
| 0 | 993 | 13.843 | 13.847 | 0.004 |
| 3 | 1 | 13.666 | 13.586 | -0.080 |
| 3 | 2 | 13.398 | 13.786 | 0.388 |
| 3 | 3 | 13.610 | 13.616 | 0.006 |
| 3 | 4 | 13.936 | 13.644 | -0.292 |
| 3 | 5 | 13.791 | 13.720 | -0.071 |
| 8 | 6 | 13.666 | 13.589 | -0.077 |
| 8 | 7 | 13.534 | 13.571 | 0.037 |
| 8 | 8 | 13.600 | 13.707 | 0.107 |
| 8 | 9 | 13.504 | 13.663 | 0.159 |
| 8 | 10 | 13.544 | 13.587 | 0.043 |
| 10 | 11 | 13.479 | 13.594 | 0.115 |
| 10 | 12 | 13.548 | 13.353 | -0.195 |
| 10 | 13 | 13.666 | 13.446 | -0.220 |
| 10 | 14 | 13.456 | 13.579 | 0.123 |
| 10 | 15 | 13.948 | 13.461 | -0.387 |
| 15 | 16 | 13.778 | 13.713 | -0.065 |
| 15 | 17 | 13.487 | 13.570 | 0.083 |
| 15 | 18 | 13.753 | 13.389 | -0.364 |
| 15 | 19 | 13.789 | 13.580 | -0.209 |
| 15 | 20 | 13.440 | 13.560 | 0.120 |
| 30 | 21 | 13.446 | 13.756 | 0.310 |
| 30 | 22 | 13.659 | 13.357 | -0.302 |
| 30 | 23 | 13.406 | 13.762 | 0.356 |
| 30 | 24 | 13.710 | 13.600 | -0.110 |
| 30 | 25 | 13.563 | 13.400 | -0.163 |
| 35 | 26 | 13.797 | 13.498 | -0.299 |
| 35 | 27 | 13.623 | 13.673 | 0.050 |
| 35 | 28 | 13.567 | 13.578 | 0.011 |
| 35 | 29 | 13.782 | 13.507 | -0.275 |
| 35 | 30 | 13.620 | 13.582 | -0.038 |
| 50 | 31 | 13.635 | 13.691 | 0.056 |
| 50 | 32 | 13.701 | 13.696 | -0.005 |
| 50 | 33 | 13.599 | 13.712 | 0.113 |
| 50 | 34 | 13.596 | 13.629 | 0.033 |
| 50 | 35 | 13.690 | 13.352 | -0.338 |
| 55 | 36 | 13.656 | 13.440 | -0.216 |
| 55 | 37 | 13.581 | 13.612 | 0.031 |
| 55 | 38 | 13.622 | 13.397 | -0.225 |
| 55 | 39 | 13.329 | 13.482 | 0.153 |
| 55 | 40 | 13.426 | 13.674 | 0.248 |
| 100 | 41 | 13.624 | 13.903 | 0.279 |
| 100 | 42 | 13.690 | 13.701 | 0.011 |
| 100 | 43 | 13.674 | 13.915 | 0.241 |
| 100 | 44 | 13.625 | 13.700 | 0.075 |
| 100 | 45 | 13.399 | 13.980 | 0.581 |
| 105 | 46 | 13.566 | 13.365 | -0.201 |
| 105 | 47 | 13.540 | 13.684 | 0.144 |
| 105 | 48 | 13.802 | 13.493 | -0.309 |
| 105 | 49 | 13.339 | 13.499 | 0.160 |
| 105 | 50 | 13.719 | 13.092 | -0.627 |
| 105 | 51 | 13.620 | 13.478 | -0.142 |
| 105 | 52 | 13.458 | 13.863 | 0.405 |
| 105 | 53 | 13.472 | 14.057 | 0.585 |
| 105 | 54 | 13.711 | 13.843 | 0.132 |
| 105 | 55 | 13.636 | 13.648 | 0.012 |
| 105 | 56 | 13.578 | 14.046 | 0.468 |
| 105 | 57 | 13.684 | 13.794 | 0.110 |
| 105 | 58 | 13.625 | 13.952 | 0.327 |
| 105 | 59 | 13.694 | 13.525 | -0.169 |
| 105 | 60 | 13.696 | 13.782 | 0.086 |
| 105 | 61 | 13.651 | 13.741 | 0.090 |
| 105 | 62 | 13.419 | 13.528 | 0.109 |
| 105 | 63 | 13.393 | 13.323 | -0.070 |
| 105 | 64 | 13.689 | 13.625 | -0.064 |
| 105 | 65 | 13.620 | 13.837 | 0.217 |
| 105 | 66 | 13.371 | 14.138 | 0.767 |
| 105 | 67 | 13.617 | 13.409 | -0.208 |
| Max | | 13.936 | 14.138 | 0.767 |
| Average | | 13.613 | 13.636 | 0.023 |
| Min | | 13.329 | 13.092 | -0.627 |
| Std Dev | | 0.136 | 0.194 | 0.248 |



| 5.61 IDD_ACT_2M_5V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 19.5 |
| Min Limit | mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 13.828 | 13.586 | 13.571 | 13.353 | 13.389 | 13.357 | 13.498 | 13.352 | 13.397 | 13.700 | 13.092 |
| Average | 13.837 | 13.670 | 13.623 | 13.487 | 13.562 | 13.575 | 13.568 | 13.616 | 13.521 | 13.840 | 13.669 |
| Max | 13.847 | 13.786 | 13.707 | 13.594 | 13.713 | 13.762 | 13.673 | 13.712 | 13.674 | 13.980 | 14.138 |
| UL | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 |

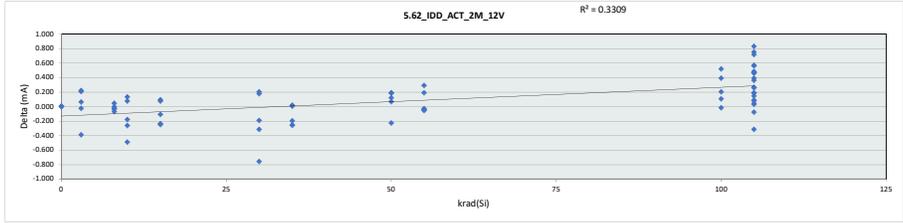


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

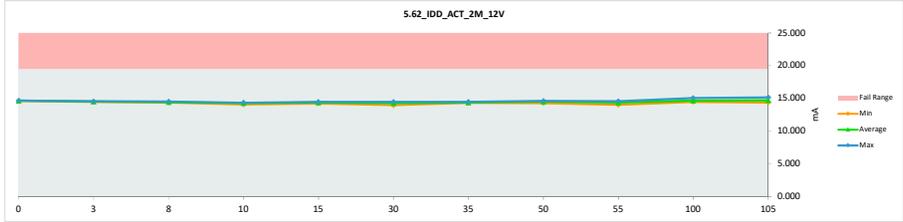
| 5.62 IDD_ACT_2M_12V | |
|---------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA |
| Max Limit | 18 |
| Min Limit | 6 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 14.644 | 14.648 | 0.004 |
| 0 | 992 | 14.582 | 14.589 | 0.007 |
| 0 | 993 | 14.671 | 14.669 | -0.002 |
| 3 | 1 | 14.418 | 14.478 | 0.060 |
| 3 | 2 | 14.314 | 14.535 | 0.221 |
| 3 | 3 | 14.329 | 14.535 | 0.206 |
| 3 | 4 | 14.838 | 14.448 | -0.390 |
| 3 | 5 | 14.563 | 14.539 | -0.024 |
| 8 | 6 | 14.524 | 14.453 | -0.071 |
| 8 | 7 | 14.381 | 14.357 | -0.024 |
| 8 | 8 | 14.545 | 14.509 | -0.036 |
| 8 | 9 | 14.400 | 14.446 | 0.046 |
| 8 | 10 | 14.401 | 14.395 | -0.006 |
| 10 | 11 | 14.264 | 14.339 | 0.075 |
| 10 | 12 | 14.357 | 14.094 | -0.263 |
| 10 | 13 | 14.448 | 14.271 | -0.177 |
| 10 | 14 | 14.225 | 14.355 | 0.130 |
| 10 | 15 | 14.779 | 14.290 | -0.489 |
| 15 | 16 | 14.595 | 14.487 | -0.108 |
| 15 | 17 | 14.403 | 14.476 | 0.073 |
| 15 | 18 | 14.485 | 14.237 | -0.248 |
| 15 | 19 | 14.524 | 14.288 | -0.236 |
| 15 | 20 | 14.225 | 14.319 | 0.094 |
| 30 | 21 | 14.286 | 14.487 | 0.201 |
| 30 | 22 | 14.714 | 13.956 | -0.758 |
| 30 | 23 | 14.265 | 14.441 | 0.176 |
| 30 | 24 | 14.598 | 14.407 | -0.191 |
| 30 | 25 | 14.399 | 14.084 | -0.315 |
| 35 | 26 | 14.568 | 14.313 | -0.255 |
| 35 | 27 | 14.452 | 14.456 | 0.004 |
| 35 | 28 | 14.467 | 14.484 | 0.017 |
| 35 | 29 | 14.538 | 14.342 | -0.196 |
| 35 | 30 | 14.556 | 14.299 | -0.257 |
| 50 | 31 | 14.439 | 14.625 | 0.186 |
| 50 | 32 | 14.524 | 14.591 | 0.067 |
| 50 | 33 | 14.466 | 14.584 | 0.118 |
| 50 | 34 | 14.397 | 14.586 | 0.189 |
| 50 | 35 | 14.492 | 14.264 | -0.228 |
| 55 | 36 | 14.450 | 14.393 | -0.057 |
| 55 | 37 | 14.391 | 14.581 | 0.190 |
| 55 | 38 | 14.376 | 14.348 | -0.028 |
| 55 | 39 | 14.081 | 14.042 | -0.039 |
| 55 | 40 | 14.286 | 14.578 | 0.292 |
| 100 | 41 | 14.407 | 14.610 | 0.203 |
| 100 | 42 | 14.482 | 14.467 | -0.015 |
| 100 | 43 | 14.476 | 14.583 | 0.107 |
| 100 | 44 | 14.528 | 15.046 | 0.518 |
| 100 | 45 | 14.273 | 14.662 | 0.389 |
| 105 | 46 | 14.294 | 14.775 | 0.481 |
| 105 | 47 | 14.320 | 15.151 | 0.831 |
| 105 | 48 | 14.592 | 14.851 | 0.259 |
| 105 | 49 | 14.104 | 14.852 | 0.748 |
| 105 | 50 | 14.489 | 14.676 | 0.187 |
| 105 | 51 | 14.518 | 14.605 | 0.087 |
| 105 | 52 | 14.191 | 14.581 | 0.390 |
| 105 | 53 | 14.224 | 14.791 | 0.567 |
| 105 | 54 | 14.486 | 14.527 | 0.041 |
| 105 | 55 | 14.485 | 15.046 | 0.561 |
| 105 | 56 | 14.352 | 14.812 | 0.460 |
| 105 | 57 | 14.451 | 14.637 | 0.186 |
| 105 | 58 | 14.602 | 14.633 | 0.031 |
| 105 | 59 | 14.454 | 14.716 | 0.262 |
| 105 | 60 | 14.426 | 14.349 | -0.077 |
| 105 | 61 | 14.370 | 14.450 | 0.080 |
| 105 | 62 | 14.392 | 14.858 | 0.466 |
| 105 | 63 | 14.179 | 14.650 | 0.471 |
| 105 | 64 | 14.808 | 14.492 | -0.316 |
| 105 | 65 | 14.428 | 14.572 | 0.144 |
| 105 | 66 | 14.359 | 14.872 | 0.713 |
| 105 | 67 | 14.389 | 14.749 | 0.360 |
| Max | | 14.838 | 15.151 | 0.831 |
| Average | | 14.436 | 14.523 | 0.087 |
| Min | | 14.081 | 13.956 | -0.758 |
| Std Dev | | 0.155 | 0.227 | 0.291 |



| 5.62 IDD_ACT_2M_12V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 19.5 |
| Min Limit | mA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 14.589 | 14.448 | 14.357 | 14.094 | 14.237 | 13.956 | 14.299 | 14.264 | 14.042 | 14.467 | 14.349 |
| Average | 14.635 | 14.507 | 14.432 | 14.270 | 14.361 | 14.275 | 14.379 | 14.530 | 14.388 | 14.674 | 14.711 |
| Max | 14.669 | 14.539 | 14.509 | 14.355 | 14.487 | 14.487 | 14.484 | 14.625 | 14.581 | 15.046 | 15.151 |
| UL | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 |

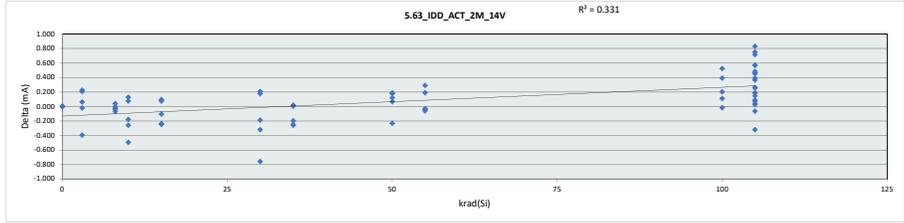


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

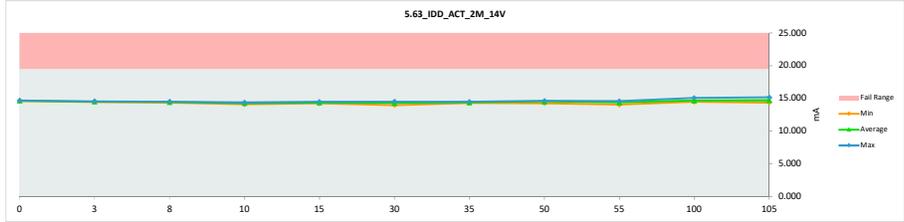
| 5.63 IDD_ACT_2M_14V | |
|---------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mA mA |
| Max Limit | 18 19.5 |
| Min Limit | 6 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 14.648 | 14.652 | 0.004 |
| 0 | 992 | 14.590 | 14.594 | 0.004 |
| 0 | 993 | 14.675 | 14.672 | -0.003 |
| 3 | 1 | 14.422 | 14.485 | 0.063 |
| 3 | 2 | 14.316 | 14.539 | 0.223 |
| 3 | 3 | 14.335 | 14.540 | 0.205 |
| 3 | 4 | 14.841 | 14.449 | -0.392 |
| 3 | 5 | 14.570 | 14.547 | -0.023 |
| 8 | 6 | 14.528 | 14.459 | -0.069 |
| 8 | 7 | 14.390 | 14.363 | -0.027 |
| 8 | 8 | 14.552 | 14.511 | -0.041 |
| 8 | 9 | 14.408 | 14.449 | 0.041 |
| 8 | 10 | 14.406 | 14.403 | -0.003 |
| 10 | 11 | 14.268 | 14.341 | 0.073 |
| 10 | 12 | 14.358 | 14.098 | -0.260 |
| 10 | 13 | 14.456 | 14.275 | -0.181 |
| 10 | 14 | 14.233 | 14.362 | 0.129 |
| 10 | 15 | 14.286 | 14.291 | -0.495 |
| 15 | 16 | 14.597 | 14.491 | -0.106 |
| 15 | 17 | 14.406 | 14.480 | 0.074 |
| 15 | 18 | 14.486 | 14.243 | -0.243 |
| 15 | 19 | 14.528 | 14.294 | -0.234 |
| 15 | 20 | 14.230 | 14.326 | 0.096 |
| 30 | 21 | 14.292 | 14.497 | 0.205 |
| 30 | 22 | 14.716 | 13.960 | -0.756 |
| 30 | 23 | 14.272 | 14.446 | 0.174 |
| 30 | 24 | 14.599 | 14.412 | -0.187 |
| 30 | 25 | 14.404 | 14.083 | -0.321 |
| 35 | 26 | 14.567 | 14.317 | -0.250 |
| 35 | 27 | 14.454 | 14.460 | 0.006 |
| 35 | 28 | 14.471 | 14.488 | 0.017 |
| 35 | 29 | 14.542 | 14.345 | -0.197 |
| 35 | 30 | 14.561 | 14.302 | -0.259 |
| 50 | 31 | 14.444 | 14.625 | 0.181 |
| 50 | 32 | 14.526 | 14.594 | 0.068 |
| 50 | 33 | 14.470 | 14.590 | 0.120 |
| 50 | 34 | 14.405 | 14.588 | 0.183 |
| 50 | 35 | 14.498 | 14.268 | -0.230 |
| 55 | 36 | 14.455 | 14.395 | -0.060 |
| 55 | 37 | 14.397 | 14.587 | 0.190 |
| 55 | 38 | 14.380 | 14.351 | -0.029 |
| 55 | 39 | 14.084 | 14.046 | -0.038 |
| 55 | 40 | 14.292 | 14.583 | 0.291 |
| 100 | 41 | 14.409 | 14.609 | 0.200 |
| 100 | 42 | 14.487 | 14.470 | -0.017 |
| 100 | 43 | 14.477 | 14.586 | 0.109 |
| 100 | 44 | 14.532 | 15.052 | 0.520 |
| 100 | 45 | 14.277 | 14.668 | 0.391 |
| 105 | 46 | 14.298 | 14.781 | 0.483 |
| 105 | 47 | 14.326 | 15.156 | 0.830 |
| 105 | 48 | 14.596 | 14.855 | 0.259 |
| 105 | 49 | 14.110 | 14.858 | 0.748 |
| 105 | 50 | 14.492 | 14.680 | 0.188 |
| 105 | 51 | 14.522 | 14.609 | 0.087 |
| 105 | 52 | 14.192 | 14.583 | 0.391 |
| 105 | 53 | 14.228 | 14.800 | 0.572 |
| 105 | 54 | 14.490 | 14.531 | 0.041 |
| 105 | 55 | 14.487 | 15.053 | 0.566 |
| 105 | 56 | 14.358 | 14.812 | 0.454 |
| 105 | 57 | 14.457 | 14.640 | 0.183 |
| 105 | 58 | 14.607 | 14.635 | 0.028 |
| 105 | 59 | 14.458 | 14.716 | 0.258 |
| 105 | 60 | 14.430 | 14.364 | -0.066 |
| 105 | 61 | 14.376 | 14.452 | 0.076 |
| 105 | 62 | 14.396 | 14.859 | 0.463 |
| 105 | 63 | 14.183 | 14.652 | 0.469 |
| 105 | 64 | 14.814 | 14.495 | -0.319 |
| 105 | 65 | 14.431 | 14.576 | 0.145 |
| 105 | 66 | 14.161 | 14.875 | 0.714 |
| 105 | 67 | 14.392 | 14.756 | 0.364 |
| Max | | 14.841 | 15.156 | 0.830 |
| Average | | 14.441 | 14.527 | 0.087 |
| Min | | 14.084 | 13.960 | -0.756 |
| Std Dev | | 0.154 | 0.227 | 0.291 |



| 5.63 IDD_ACT_2M_14V | |
|---------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 19.5 mA |
| Min Limit | 6 mA |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 14.594 | 14.449 | 14.363 | 14.098 | 14.243 | 13.960 | 14.302 | 14.268 | 14.046 | 14.470 | 14.364 |
| Average | 14.639 | 14.512 | 14.437 | 14.273 | 14.367 | 14.280 | 14.382 | 14.533 | 14.392 | 14.677 | 14.715 |
| Max | 14.672 | 14.547 | 14.511 | 14.362 | 14.491 | 14.497 | 14.488 | 14.625 | 14.587 | 15.052 | 15.156 |
| UL | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 | 19.500 |



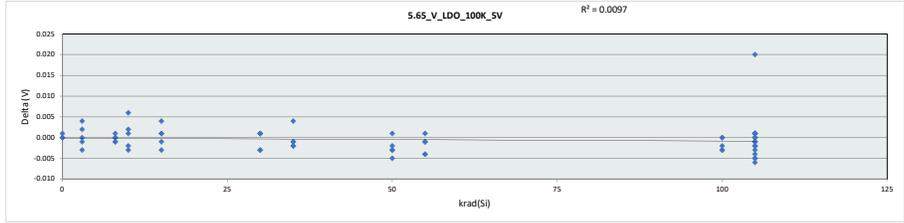
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.65 V_LDO_100K_5V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

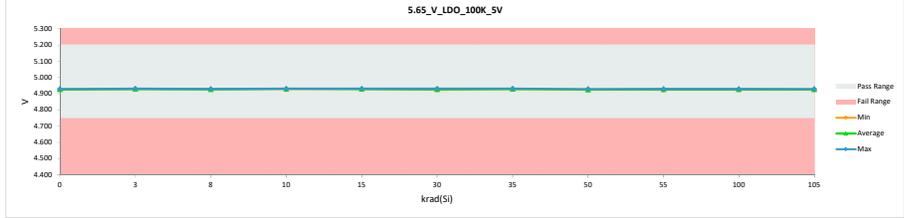
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 4.928 | 4.929 | 0.001 |
| 0 | 992 | 4.929 | 4.929 | 0.000 |
| 0 | 993 | 4.926 | 4.926 | 0.000 |
| 3 | 1 | 4.929 | 4.931 | 0.002 |
| 3 | 2 | 4.932 | 4.929 | -0.003 |
| 3 | 3 | 4.929 | 4.929 | 0.000 |
| 3 | 4 | 4.926 | 4.930 | 0.004 |
| 3 | 5 | 4.929 | 4.928 | -0.001 |
| 8 | 6 | 4.928 | 4.929 | 0.001 |
| 8 | 7 | 4.930 | 4.930 | 0.000 |
| 8 | 8 | 4.928 | 4.928 | 0.000 |
| 8 | 9 | 4.929 | 4.928 | -0.001 |
| 8 | 10 | 4.929 | 4.928 | -0.001 |
| 10 | 11 | 4.931 | 4.928 | -0.003 |
| 10 | 12 | 4.930 | 4.931 | 0.001 |
| 10 | 13 | 4.929 | 4.931 | 0.002 |
| 10 | 14 | 4.931 | 4.929 | -0.002 |
| 10 | 15 | 4.925 | 4.931 | 0.006 |
| 15 | 16 | 4.927 | 4.928 | 0.001 |
| 15 | 17 | 4.930 | 4.929 | -0.001 |
| 15 | 18 | 4.927 | 4.931 | 0.004 |
| 15 | 19 | 4.928 | 4.929 | 0.001 |
| 15 | 20 | 4.931 | 4.928 | -0.003 |
| 30 | 21 | 4.930 | 4.927 | -0.003 |
| 30 | 22 | 4.929 | 4.930 | 0.001 |
| 30 | 23 | 4.929 | 4.926 | -0.003 |
| 30 | 24 | 4.927 | 4.928 | 0.001 |
| 30 | 25 | 4.930 | 4.931 | 0.001 |
| 35 | 26 | 4.928 | 4.932 | 0.004 |
| 35 | 27 | 4.931 | 4.929 | -0.002 |
| 35 | 28 | 4.931 | 4.929 | -0.002 |
| 35 | 29 | 4.929 | 4.928 | -0.001 |
| 35 | 30 | 4.929 | 4.928 | -0.001 |
| 50 | 31 | 4.930 | 4.925 | -0.005 |
| 50 | 32 | 4.928 | 4.926 | -0.002 |
| 50 | 33 | 4.929 | 4.926 | -0.003 |
| 50 | 34 | 4.930 | 4.927 | -0.003 |
| 50 | 35 | 4.928 | 4.929 | 0.001 |
| 55 | 36 | 4.928 | 4.927 | -0.001 |
| 55 | 37 | 4.928 | 4.924 | -0.004 |
| 55 | 38 | 4.928 | 4.929 | 0.001 |
| 55 | 39 | 4.931 | 4.930 | -0.001 |
| 55 | 40 | 4.931 | 4.927 | -0.004 |
| 100 | 41 | 4.929 | 4.929 | 0.000 |
| 100 | 42 | 4.930 | 4.930 | 0.000 |
| 100 | 43 | 4.929 | 4.927 | -0.002 |
| 100 | 44 | 4.929 | 4.926 | -0.003 |
| 100 | 45 | 4.931 | 4.928 | -0.003 |
| 105 | 46 | 4.929 | 4.927 | -0.002 |
| 105 | 47 | 4.929 | 4.929 | 0.000 |
| 105 | 48 | 4.927 | 4.926 | -0.001 |
| 105 | 49 | 4.930 | 4.926 | -0.004 |
| 105 | 50 | 4.927 | 4.928 | 0.001 |
| 105 | 51 | 4.928 | 4.928 | 0.000 |
| 105 | 52 | 4.930 | 4.928 | -0.002 |
| 105 | 53 | 4.932 | 4.927 | -0.005 |
| 105 | 54 | 4.930 | 4.929 | -0.001 |
| 105 | 55 | 4.930 | 4.924 | -0.006 |
| 105 | 56 | 4.929 | 4.926 | -0.003 |
| 105 | 57 | 4.928 | 4.929 | 0.001 |
| 105 | 58 | 4.906 | 4.926 | 0.020 |
| 105 | 59 | 4.927 | 4.927 | 0.000 |
| 105 | 60 | 4.927 | 4.928 | 0.001 |
| 105 | 61 | 4.928 | 4.929 | 0.001 |
| 105 | 62 | 4.930 | 4.929 | -0.001 |
| 105 | 63 | 4.930 | 4.928 | -0.002 |
| 105 | 64 | 4.925 | 4.924 | -0.001 |
| 105 | 65 | 4.928 | 4.929 | 0.001 |
| 105 | 66 | 4.931 | 4.926 | -0.005 |
| 105 | 67 | 4.929 | 4.929 | 0.000 |

| | | | |
|---------|-------|-------|--------|
| Max | 4.932 | 4.932 | 0.020 |
| Average | 4.929 | 4.928 | 0.000 |
| Min | 4.906 | 4.924 | -0.006 |
| Std Dev | 0.003 | 0.002 | 0.003 |



| 5.65 V_LDO_100K_5V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.926 | 4.928 | 4.928 | 4.928 | 4.928 | 4.926 | 4.928 | 4.925 | 4.924 | 4.926 |
| Average | 4.928 | 4.929 | 4.929 | 4.929 | 4.929 | 4.929 | 4.929 | 4.927 | 4.927 | 4.928 |
| Max | 4.929 | 4.931 | 4.930 | 4.931 | 4.931 | 4.932 | 4.929 | 4.930 | 4.930 | 4.929 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

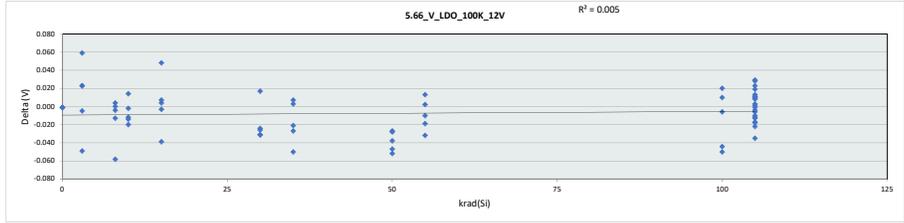


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

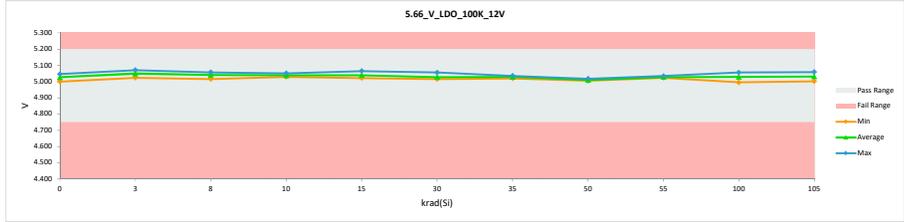
| 5.66 V_LDO_100K_12V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 5.047 | 5.046 | -0.001 |
| 0 | 992 | 5.034 | 5.033 | -0.001 |
| 0 | 993 | 5.001 | 5.000 | -0.001 |
| 3 | 1 | 5.033 | 5.056 | 0.023 |
| 3 | 2 | 5.072 | 5.023 | -0.049 |
| 3 | 3 | 5.011 | 5.070 | 0.059 |
| 3 | 4 | 5.050 | 5.045 | -0.005 |
| 3 | 5 | 5.028 | 5.051 | 0.023 |
| 8 | 6 | 5.057 | 5.057 | 0.000 |
| 8 | 7 | 5.048 | 5.035 | -0.013 |
| 8 | 8 | 5.046 | 5.050 | 0.004 |
| 8 | 9 | 5.073 | 5.015 | -0.058 |
| 8 | 10 | 5.050 | 5.046 | -0.004 |
| 10 | 11 | 5.041 | 5.029 | -0.012 |
| 10 | 12 | 5.043 | 5.029 | -0.014 |
| 10 | 13 | 5.037 | 5.051 | 0.014 |
| 10 | 14 | 5.032 | 5.030 | -0.002 |
| 10 | 15 | 5.071 | 5.051 | -0.020 |
| 15 | 16 | 5.046 | 5.043 | -0.003 |
| 15 | 17 | 5.070 | 5.031 | -0.039 |
| 15 | 18 | 5.017 | 5.065 | 0.048 |
| 15 | 19 | 5.015 | 5.022 | 0.007 |
| 15 | 20 | 5.033 | 5.037 | 0.004 |
| 30 | 21 | 5.050 | 5.026 | -0.024 |
| 30 | 22 | 5.052 | 5.021 | -0.031 |
| 30 | 23 | 5.045 | 5.019 | -0.026 |
| 30 | 24 | 5.039 | 5.056 | 0.017 |
| 30 | 25 | 5.046 | 5.015 | -0.031 |
| 35 | 26 | 5.028 | 5.031 | 0.003 |
| 35 | 27 | 5.052 | 5.025 | -0.027 |
| 35 | 28 | 5.056 | 5.035 | -0.021 |
| 35 | 29 | 5.023 | 5.030 | 0.007 |
| 35 | 30 | 5.069 | 5.019 | -0.050 |
| 50 | 31 | 5.045 | 5.017 | -0.028 |
| 50 | 32 | 5.052 | 5.005 | -0.047 |
| 50 | 33 | 5.057 | 5.005 | -0.052 |
| 50 | 34 | 5.037 | 5.010 | -0.027 |
| 50 | 35 | 5.051 | 5.013 | -0.038 |
| 55 | 36 | 5.016 | 5.029 | 0.013 |
| 55 | 37 | 5.045 | 5.026 | -0.019 |
| 55 | 38 | 5.032 | 5.034 | 0.002 |
| 55 | 39 | 5.033 | 5.023 | -0.010 |
| 55 | 40 | 5.056 | 5.024 | -0.032 |
| 100 | 41 | 5.030 | 5.024 | -0.006 |
| 100 | 42 | 5.036 | 5.056 | 0.020 |
| 100 | 43 | 5.045 | 4.995 | -0.050 |
| 100 | 44 | 5.032 | 5.042 | 0.010 |
| 100 | 45 | 5.067 | 5.023 | -0.044 |
| 105 | 46 | 5.026 | 5.045 | 0.019 |
| 105 | 47 | 5.038 | 5.039 | 0.001 |
| 105 | 48 | 5.036 | 5.059 | 0.023 |
| 105 | 49 | 5.029 | 5.058 | 0.029 |
| 105 | 50 | 5.026 | 5.037 | 0.011 |
| 105 | 51 | 5.059 | 5.024 | -0.035 |
| 105 | 52 | 5.019 | 5.022 | 0.003 |
| 105 | 53 | 5.030 | 5.020 | -0.010 |
| 105 | 54 | 5.023 | 5.011 | -0.012 |
| 105 | 55 | 5.037 | 5.050 | 0.013 |
| 105 | 56 | 5.030 | 5.029 | -0.001 |
| 105 | 57 | 5.030 | 5.058 | 0.028 |
| 105 | 58 | 5.024 | 5.007 | -0.017 |
| 105 | 59 | 5.024 | 5.002 | -0.022 |
| 105 | 60 | 5.012 | 5.021 | 0.009 |
| 105 | 61 | 5.018 | 5.026 | 0.008 |
| 105 | 62 | 5.021 | 5.031 | 0.010 |
| 105 | 63 | 5.037 | 5.031 | -0.006 |
| 105 | 64 | 5.039 | 5.026 | -0.013 |
| 105 | 65 | 5.033 | 5.029 | -0.004 |
| 105 | 66 | 5.035 | 5.017 | -0.018 |
| 105 | 67 | 5.032 | 5.043 | 0.011 |
| Max | | 5.073 | 5.070 | 0.059 |
| Average | | 5.039 | 5.031 | -0.007 |
| Min | | 5.001 | 4.995 | -0.058 |
| Std Dev | | 0.016 | 0.017 | 0.024 |



| 5.66 V_LDO_100K_12V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

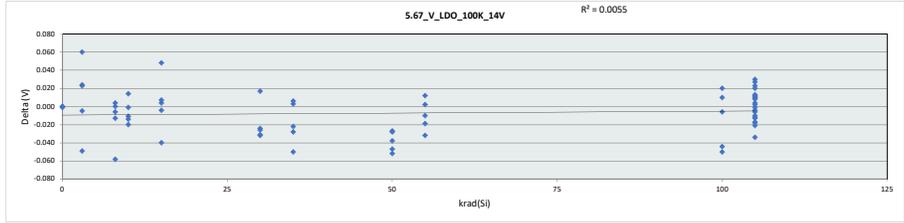
| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.000 | 5.023 | 5.015 | 5.029 | 5.022 | 5.015 | 5.019 | 5.005 | 5.023 | 4.995 |
| Average | 5.026 | 5.049 | 5.041 | 5.038 | 5.040 | 5.027 | 5.028 | 5.010 | 5.027 | 5.028 |
| Max | 5.046 | 5.070 | 5.057 | 5.051 | 5.065 | 5.056 | 5.035 | 5.017 | 5.034 | 5.056 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |



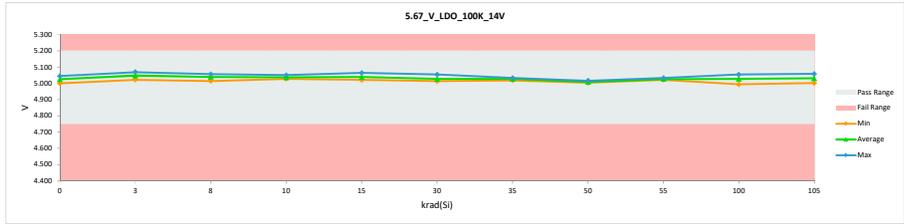
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.67_V_LDO_100K_14V | | | | |
|---------------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 5.046 | 5.046 | 0.000 |
| 0 | 992 | 5.033 | 5.033 | 0.000 |
| 0 | 993 | 5.001 | 5.000 | -0.001 |
| 3 | 1 | 5.032 | 5.056 | 0.024 |
| 3 | 2 | 5.072 | 5.023 | -0.049 |
| 3 | 3 | 5.010 | 5.070 | 0.060 |
| 3 | 4 | 5.050 | 5.045 | -0.005 |
| 3 | 5 | 5.028 | 5.051 | 0.023 |
| 8 | 6 | 5.057 | 5.057 | 0.000 |
| 8 | 7 | 5.048 | 5.035 | -0.013 |
| 8 | 8 | 5.046 | 5.050 | 0.004 |
| 8 | 9 | 5.073 | 5.015 | -0.058 |
| 8 | 10 | 5.051 | 5.045 | -0.006 |
| 10 | 11 | 5.040 | 5.029 | -0.011 |
| 10 | 12 | 5.043 | 5.029 | -0.014 |
| 10 | 13 | 5.037 | 5.051 | 0.014 |
| 10 | 14 | 5.031 | 5.030 | -0.001 |
| 10 | 15 | 5.071 | 5.051 | -0.020 |
| 15 | 16 | 5.046 | 5.042 | -0.004 |
| 15 | 17 | 5.070 | 5.030 | -0.040 |
| 15 | 18 | 5.017 | 5.065 | 0.048 |
| 15 | 19 | 5.015 | 5.022 | 0.007 |
| 15 | 20 | 5.033 | 5.037 | 0.004 |
| 30 | 21 | 5.050 | 5.026 | -0.024 |
| 30 | 22 | 5.052 | 5.021 | -0.031 |
| 30 | 23 | 5.045 | 5.019 | -0.026 |
| 30 | 24 | 5.039 | 5.056 | 0.017 |
| 30 | 25 | 5.046 | 5.014 | -0.032 |
| 35 | 26 | 5.028 | 5.031 | 0.003 |
| 35 | 27 | 5.052 | 5.024 | -0.028 |
| 35 | 28 | 5.056 | 5.034 | -0.022 |
| 35 | 29 | 5.023 | 5.029 | 0.006 |
| 35 | 30 | 5.069 | 5.019 | -0.050 |
| 50 | 31 | 5.045 | 5.017 | -0.028 |
| 50 | 32 | 5.052 | 5.005 | -0.047 |
| 50 | 33 | 5.057 | 5.005 | -0.052 |
| 50 | 34 | 5.037 | 5.010 | -0.027 |
| 50 | 35 | 5.051 | 5.013 | -0.038 |
| 55 | 36 | 5.016 | 5.028 | 0.012 |
| 55 | 37 | 5.045 | 5.026 | -0.019 |
| 55 | 38 | 5.032 | 5.034 | 0.002 |
| 55 | 39 | 5.033 | 5.023 | -0.010 |
| 55 | 40 | 5.056 | 5.024 | -0.032 |
| 100 | 41 | 5.030 | 5.024 | -0.006 |
| 100 | 42 | 5.036 | 5.056 | 0.020 |
| 100 | 43 | 5.045 | 4.995 | -0.050 |
| 100 | 44 | 5.032 | 5.042 | 0.010 |
| 100 | 45 | 5.067 | 5.023 | -0.044 |
| 105 | 46 | 5.025 | 5.045 | 0.020 |
| 105 | 47 | 5.037 | 5.039 | 0.002 |
| 105 | 48 | 5.036 | 5.059 | 0.023 |
| 105 | 49 | 5.029 | 5.059 | 0.030 |
| 105 | 50 | 5.025 | 5.037 | 0.012 |
| 105 | 51 | 5.058 | 5.024 | -0.034 |
| 105 | 52 | 5.018 | 5.022 | 0.004 |
| 105 | 53 | 5.030 | 5.020 | -0.010 |
| 105 | 54 | 5.023 | 5.011 | -0.012 |
| 105 | 55 | 5.037 | 5.050 | 0.013 |
| 105 | 56 | 5.030 | 5.029 | -0.001 |
| 105 | 57 | 5.030 | 5.057 | 0.027 |
| 105 | 58 | 5.024 | 5.007 | -0.017 |
| 105 | 59 | 5.024 | 5.003 | -0.021 |
| 105 | 60 | 5.012 | 5.021 | 0.009 |
| 105 | 61 | 5.017 | 5.025 | 0.008 |
| 105 | 62 | 5.021 | 5.031 | 0.010 |
| 105 | 63 | 5.037 | 5.031 | -0.006 |
| 105 | 64 | 5.039 | 5.026 | -0.013 |
| 105 | 65 | 5.033 | 5.029 | -0.004 |
| 105 | 66 | 5.035 | 5.017 | -0.018 |
| 105 | 67 | 5.032 | 5.043 | 0.011 |
| | Max | 5.073 | 5.070 | 0.060 |
| | Average | 5.039 | 5.031 | -0.007 |
| | Min | 5.001 | 4.995 | -0.058 |
| | Std Dev | 0.016 | 0.017 | 0.024 |



| 5.67_V_LDO_100K_14V | | | | | | | | | | |
|---------------------|--------|-------------|-------|-----------|-----------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | | | | | |
| | | | V | V | V | | | | | |
| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.000 | 5.023 | 5.015 | 5.029 | 5.022 | 5.014 | 5.019 | 5.005 | 5.023 | 4.995 |
| Average | 5.026 | 5.049 | 5.040 | 5.038 | 5.039 | 5.027 | 5.027 | 5.010 | 5.027 | 5.028 |
| Max | 5.046 | 5.070 | 5.057 | 5.051 | 5.065 | 5.056 | 5.034 | 5.017 | 5.034 | 5.056 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

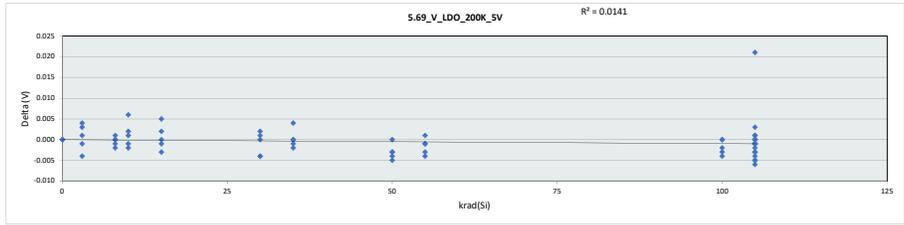


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

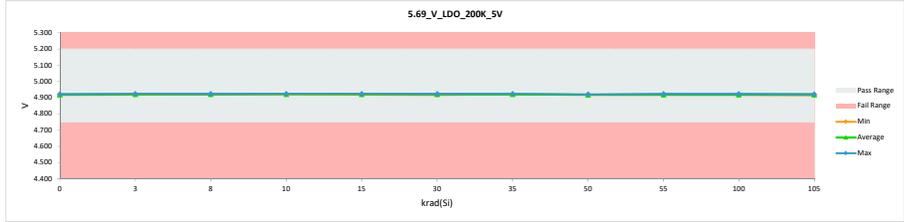
| 5.69 V_LDO_200K_5V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 4.921 | 4.921 | 0.000 |
| 0 | 992 | 4.922 | 4.922 | 0.000 |
| 0 | 993 | 4.918 | 4.918 | 0.000 |
| 3 | 1 | 4.921 | 4.924 | 0.003 |
| 3 | 2 | 4.925 | 4.921 | -0.004 |
| 3 | 3 | 4.921 | 4.922 | 0.001 |
| 3 | 4 | 4.918 | 4.922 | 0.004 |
| 3 | 5 | 4.921 | 4.920 | -0.001 |
| 8 | 6 | 4.921 | 4.922 | 0.001 |
| 8 | 7 | 4.923 | 4.923 | 0.000 |
| 8 | 8 | 4.921 | 4.921 | 0.000 |
| 8 | 9 | 4.922 | 4.921 | -0.001 |
| 8 | 10 | 4.922 | 4.920 | -0.002 |
| 10 | 11 | 4.923 | 4.921 | -0.002 |
| 10 | 12 | 4.922 | 4.924 | 0.002 |
| 10 | 13 | 4.922 | 4.923 | 0.001 |
| 10 | 14 | 4.923 | 4.922 | -0.001 |
| 10 | 15 | 4.917 | 4.923 | 0.006 |
| 15 | 16 | 4.919 | 4.921 | 0.002 |
| 15 | 17 | 4.923 | 4.922 | -0.001 |
| 15 | 18 | 4.919 | 4.924 | 0.005 |
| 15 | 19 | 4.921 | 4.921 | 0.000 |
| 15 | 20 | 4.923 | 4.920 | -0.003 |
| 30 | 21 | 4.923 | 4.919 | -0.004 |
| 30 | 22 | 4.922 | 4.923 | 0.001 |
| 30 | 23 | 4.922 | 4.918 | -0.004 |
| 30 | 24 | 4.919 | 4.921 | 0.002 |
| 30 | 25 | 4.923 | 4.923 | 0.000 |
| 35 | 26 | 4.920 | 4.924 | 0.004 |
| 35 | 27 | 4.923 | 4.922 | -0.001 |
| 35 | 28 | 4.924 | 4.922 | -0.002 |
| 35 | 29 | 4.921 | 4.921 | 0.000 |
| 35 | 30 | 4.921 | 4.921 | 0.000 |
| 50 | 31 | 4.922 | 4.917 | -0.005 |
| 50 | 32 | 4.920 | 4.917 | -0.003 |
| 50 | 33 | 4.922 | 4.918 | -0.004 |
| 50 | 34 | 4.922 | 4.919 | -0.003 |
| 50 | 35 | 4.921 | 4.921 | 0.000 |
| 55 | 36 | 4.921 | 4.920 | -0.001 |
| 55 | 37 | 4.920 | 4.917 | -0.003 |
| 55 | 38 | 4.921 | 4.922 | 0.001 |
| 55 | 39 | 4.924 | 4.923 | -0.001 |
| 55 | 40 | 4.924 | 4.920 | -0.004 |
| 100 | 41 | 4.921 | 4.921 | 0.000 |
| 100 | 42 | 4.923 | 4.923 | 0.000 |
| 100 | 43 | 4.921 | 4.919 | -0.002 |
| 100 | 44 | 4.922 | 4.918 | -0.004 |
| 100 | 45 | 4.923 | 4.920 | -0.003 |
| 105 | 46 | 4.922 | 4.919 | -0.003 |
| 105 | 47 | 4.921 | 4.922 | 0.001 |
| 105 | 48 | 4.919 | 4.918 | -0.001 |
| 105 | 49 | 4.923 | 4.918 | -0.005 |
| 105 | 50 | 4.920 | 4.920 | 0.000 |
| 105 | 51 | 4.921 | 4.921 | 0.000 |
| 105 | 52 | 4.923 | 4.921 | -0.002 |
| 105 | 53 | 4.924 | 4.919 | -0.005 |
| 105 | 54 | 4.922 | 4.921 | -0.001 |
| 105 | 55 | 4.922 | 4.916 | -0.006 |
| 105 | 56 | 4.921 | 4.918 | -0.003 |
| 105 | 57 | 4.921 | 4.921 | 0.000 |
| 105 | 58 | 4.897 | 4.918 | 0.021 |
| 105 | 59 | 4.920 | 4.919 | -0.001 |
| 105 | 60 | 4.918 | 4.921 | 0.003 |
| 105 | 61 | 4.920 | 4.921 | 0.001 |
| 105 | 62 | 4.922 | 4.921 | -0.001 |
| 105 | 63 | 4.923 | 4.920 | -0.003 |
| 105 | 64 | 4.917 | 4.916 | -0.001 |
| 105 | 65 | 4.921 | 4.921 | 0.000 |
| 105 | 66 | 4.923 | 4.919 | -0.004 |
| 105 | 67 | 4.922 | 4.921 | -0.001 |
| Max | | 4.925 | 4.924 | 0.021 |
| Average | | 4.921 | 4.921 | -0.001 |
| Min | | 4.897 | 4.916 | -0.006 |
| Std Dev | | 0.003 | 0.002 | 0.004 |



| 5.69 V_LDO_200K_5V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

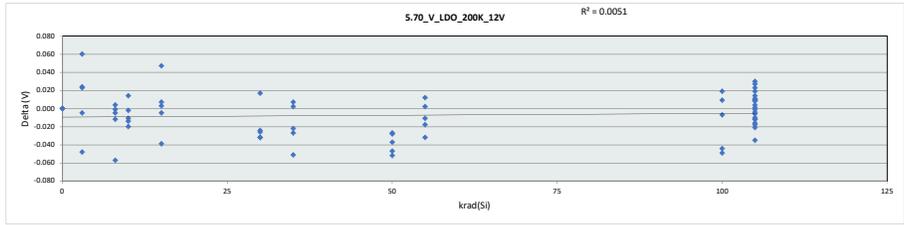
| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.918 | 4.920 | 4.920 | 4.921 | 4.920 | 4.918 | 4.921 | 4.917 | 4.917 | 4.916 |
| Average | 4.920 | 4.922 | 4.921 | 4.923 | 4.922 | 4.922 | 4.921 | 4.918 | 4.920 | 4.920 |
| Max | 4.922 | 4.924 | 4.923 | 4.924 | 4.924 | 4.923 | 4.924 | 4.921 | 4.923 | 4.923 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |



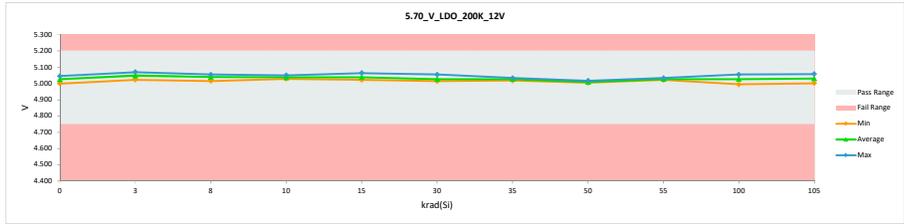
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.70 V_LDO_200K_12V | | | | |
|---------------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| | | | 5.15 | 5.2 |
| | | | 4.84 | 4.75 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 5.046 | 5.046 | 0.000 |
| 0 | 992 | 5.033 | 5.033 | 0.000 |
| 0 | 993 | 5.000 | 5.000 | 0.000 |
| 3 | 1 | 5.032 | 5.056 | 0.024 |
| 3 | 2 | 5.071 | 5.023 | -0.048 |
| 3 | 3 | 5.010 | 5.070 | 0.060 |
| 3 | 4 | 5.050 | 5.045 | -0.005 |
| 3 | 5 | 5.028 | 5.051 | 0.023 |
| 8 | 6 | 5.057 | 5.056 | -0.001 |
| 8 | 7 | 5.047 | 5.035 | -0.012 |
| 8 | 8 | 5.045 | 5.049 | 0.004 |
| 8 | 9 | 5.072 | 5.015 | -0.057 |
| 8 | 10 | 5.050 | 5.045 | -0.005 |
| 10 | 11 | 5.040 | 5.029 | -0.011 |
| 10 | 12 | 5.043 | 5.029 | -0.014 |
| 10 | 13 | 5.037 | 5.051 | 0.014 |
| 10 | 14 | 5.031 | 5.029 | -0.002 |
| 10 | 15 | 5.071 | 5.051 | -0.020 |
| 15 | 16 | 5.046 | 5.041 | -0.005 |
| 15 | 17 | 5.069 | 5.030 | -0.039 |
| 15 | 18 | 5.017 | 5.064 | 0.047 |
| 15 | 19 | 5.015 | 5.022 | 0.007 |
| 15 | 20 | 5.033 | 5.036 | 0.003 |
| 30 | 21 | 5.050 | 5.026 | -0.024 |
| 30 | 22 | 5.052 | 5.020 | -0.032 |
| 30 | 23 | 5.044 | 5.018 | -0.026 |
| 30 | 24 | 5.039 | 5.056 | 0.017 |
| 30 | 25 | 5.046 | 5.014 | -0.032 |
| 35 | 26 | 5.028 | 5.030 | 0.002 |
| 35 | 27 | 5.051 | 5.024 | -0.027 |
| 35 | 28 | 5.056 | 5.034 | -0.022 |
| 35 | 29 | 5.022 | 5.029 | 0.007 |
| 35 | 30 | 5.069 | 5.018 | -0.051 |
| 50 | 31 | 5.045 | 5.017 | -0.028 |
| 50 | 32 | 5.052 | 5.005 | -0.047 |
| 50 | 33 | 5.057 | 5.005 | -0.052 |
| 50 | 34 | 5.037 | 5.010 | -0.027 |
| 50 | 35 | 5.050 | 5.013 | -0.037 |
| 55 | 36 | 5.016 | 5.028 | 0.012 |
| 55 | 37 | 5.044 | 5.026 | -0.018 |
| 55 | 38 | 5.032 | 5.034 | 0.002 |
| 55 | 39 | 5.033 | 5.022 | -0.011 |
| 55 | 40 | 5.056 | 5.024 | -0.032 |
| 100 | 41 | 5.030 | 5.023 | -0.007 |
| 100 | 42 | 5.036 | 5.055 | 0.019 |
| 100 | 43 | 5.044 | 4.995 | -0.049 |
| 100 | 44 | 5.032 | 5.041 | 0.009 |
| 100 | 45 | 5.066 | 5.022 | -0.044 |
| 105 | 46 | 5.025 | 5.044 | 0.019 |
| 105 | 47 | 5.037 | 5.038 | 0.001 |
| 105 | 48 | 5.035 | 5.058 | 0.023 |
| 105 | 49 | 5.028 | 5.058 | 0.030 |
| 105 | 50 | 5.025 | 5.036 | 0.011 |
| 105 | 51 | 5.058 | 5.023 | -0.035 |
| 105 | 52 | 5.018 | 5.022 | 0.004 |
| 105 | 53 | 5.030 | 5.020 | -0.010 |
| 105 | 54 | 5.023 | 5.011 | -0.012 |
| 105 | 55 | 5.036 | 5.050 | 0.014 |
| 105 | 56 | 5.030 | 5.029 | -0.001 |
| 105 | 57 | 5.030 | 5.057 | 0.027 |
| 105 | 58 | 5.023 | 5.007 | -0.016 |
| 105 | 59 | 5.023 | 5.002 | -0.021 |
| 105 | 60 | 5.012 | 5.021 | 0.009 |
| 105 | 61 | 5.017 | 5.025 | 0.008 |
| 105 | 62 | 5.020 | 5.030 | 0.010 |
| 105 | 63 | 5.037 | 5.031 | -0.006 |
| 105 | 64 | 5.038 | 5.026 | -0.012 |
| 105 | 65 | 5.032 | 5.028 | -0.004 |
| 105 | 66 | 5.035 | 5.017 | -0.018 |
| 105 | 67 | 5.032 | 5.042 | 0.010 |
| Max | | 5.072 | 5.070 | 0.060 |
| Average | | 5.038 | 5.031 | -0.007 |
| Min | | 5.000 | 4.995 | -0.057 |
| Std Dev | | 0.016 | 0.017 | 0.024 |



| 5.70 V_LDO_200K_12V | | | | | | | | | | |
|---------------------|--------|-------------|-------|-----------|-----------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | | | | | |
| | | | V | V | V | | | | | |
| | | | 5.2 | 4.75 | 5.2 | | | | | |
| krad(Si) | LL | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| Min | 4.750 | 5.023 | 5.015 | 5.029 | 5.022 | 5.014 | 5.018 | 5.005 | 5.022 | 4.995 |
| Average | 5.026 | 5.049 | 5.040 | 5.038 | 5.039 | 5.027 | 5.027 | 5.010 | 5.027 | 5.027 |
| Max | 5.046 | 5.070 | 5.056 | 5.051 | 5.064 | 5.056 | 5.034 | 5.017 | 5.034 | 5.055 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

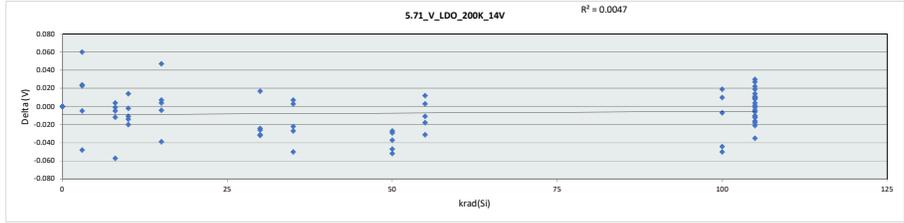


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

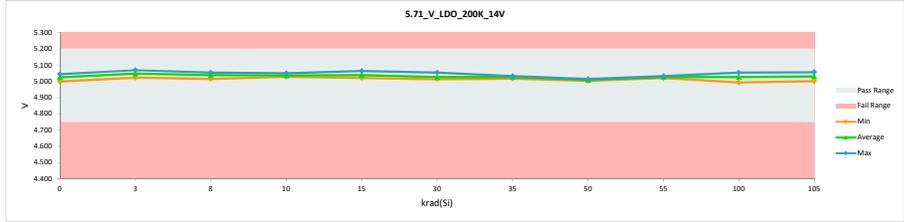
| 5.71 V_LDO_200K_14V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 5.046 | 5.046 | 0.000 |
| 0 | 992 | 5.033 | 5.033 | 0.000 |
| 0 | 993 | 5.000 | 5.000 | 0.000 |
| 3 | 1 | 5.032 | 5.056 | 0.024 |
| 3 | 2 | 5.071 | 5.023 | -0.048 |
| 3 | 3 | 5.010 | 5.070 | 0.060 |
| 3 | 4 | 5.050 | 5.045 | -0.005 |
| 3 | 5 | 5.028 | 5.051 | 0.023 |
| 8 | 6 | 5.057 | 5.056 | -0.001 |
| 8 | 7 | 5.047 | 5.035 | -0.012 |
| 8 | 8 | 5.045 | 5.049 | 0.004 |
| 8 | 9 | 5.072 | 5.015 | -0.057 |
| 8 | 10 | 5.050 | 5.045 | -0.005 |
| 10 | 11 | 5.040 | 5.029 | -0.011 |
| 10 | 12 | 5.043 | 5.029 | -0.014 |
| 10 | 13 | 5.037 | 5.051 | 0.014 |
| 10 | 14 | 5.031 | 5.029 | -0.002 |
| 10 | 15 | 5.071 | 5.051 | -0.020 |
| 15 | 16 | 5.046 | 5.042 | -0.004 |
| 15 | 17 | 5.069 | 5.030 | -0.039 |
| 15 | 18 | 5.017 | 5.064 | 0.047 |
| 15 | 19 | 5.015 | 5.022 | 0.007 |
| 15 | 20 | 5.032 | 5.036 | 0.004 |
| 30 | 21 | 5.050 | 5.026 | -0.024 |
| 30 | 22 | 5.052 | 5.020 | -0.032 |
| 30 | 23 | 5.044 | 5.018 | -0.026 |
| 30 | 24 | 5.039 | 5.056 | 0.017 |
| 30 | 25 | 5.045 | 5.014 | -0.031 |
| 35 | 26 | 5.027 | 5.030 | 0.003 |
| 35 | 27 | 5.051 | 5.024 | -0.027 |
| 35 | 28 | 5.056 | 5.034 | -0.022 |
| 35 | 29 | 5.022 | 5.029 | 0.007 |
| 35 | 30 | 5.068 | 5.018 | -0.050 |
| 50 | 31 | 5.045 | 5.016 | -0.029 |
| 50 | 32 | 5.052 | 5.005 | -0.047 |
| 50 | 33 | 5.057 | 5.005 | -0.052 |
| 50 | 34 | 5.037 | 5.010 | -0.027 |
| 50 | 35 | 5.050 | 5.013 | -0.037 |
| 55 | 36 | 5.016 | 5.028 | 0.012 |
| 55 | 37 | 5.044 | 5.026 | -0.018 |
| 55 | 38 | 5.031 | 5.034 | 0.003 |
| 55 | 39 | 5.033 | 5.022 | -0.011 |
| 55 | 40 | 5.055 | 5.024 | -0.031 |
| 100 | 41 | 5.030 | 5.023 | -0.007 |
| 100 | 42 | 5.036 | 5.055 | 0.019 |
| 100 | 43 | 5.044 | 4.994 | -0.050 |
| 100 | 44 | 5.031 | 5.041 | 0.010 |
| 100 | 45 | 5.066 | 5.022 | -0.044 |
| 105 | 46 | 5.025 | 5.044 | 0.019 |
| 105 | 47 | 5.037 | 5.038 | 0.001 |
| 105 | 48 | 5.035 | 5.057 | 0.022 |
| 105 | 49 | 5.028 | 5.058 | 0.030 |
| 105 | 50 | 5.025 | 5.036 | 0.011 |
| 105 | 51 | 5.058 | 5.023 | -0.035 |
| 105 | 52 | 5.018 | 5.022 | 0.004 |
| 105 | 53 | 5.030 | 5.020 | -0.010 |
| 105 | 54 | 5.023 | 5.011 | -0.012 |
| 105 | 55 | 5.036 | 5.050 | 0.014 |
| 105 | 56 | 5.030 | 5.029 | -0.001 |
| 105 | 57 | 5.030 | 5.057 | 0.027 |
| 105 | 58 | 5.023 | 5.007 | -0.016 |
| 105 | 59 | 5.023 | 5.002 | -0.021 |
| 105 | 60 | 5.012 | 5.021 | 0.009 |
| 105 | 61 | 5.017 | 5.025 | 0.008 |
| 105 | 62 | 5.020 | 5.030 | 0.010 |
| 105 | 63 | 5.037 | 5.031 | -0.006 |
| 105 | 64 | 5.038 | 5.026 | -0.012 |
| 105 | 65 | 5.032 | 5.028 | -0.004 |
| 105 | 66 | 5.035 | 5.017 | -0.018 |
| 105 | 67 | 5.032 | 5.042 | 0.010 |
| | Max | 5.072 | 5.070 | 0.060 |
| | Average | 5.038 | 5.031 | -0.007 |
| | Min | 5.000 | 4.994 | -0.057 |
| | Std Dev | 0.016 | 0.017 | 0.024 |



| 5.71 V_LDO_200K_14V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.000 | 5.023 | 5.015 | 5.029 | 5.022 | 5.014 | 5.018 | 5.005 | 5.022 | 4.994 |
| Average | 5.026 | 5.049 | 5.040 | 5.038 | 5.039 | 5.027 | 5.027 | 5.010 | 5.027 | 5.031 |
| Max | 5.046 | 5.070 | 5.056 | 5.051 | 5.064 | 5.056 | 5.034 | 5.016 | 5.034 | 5.055 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

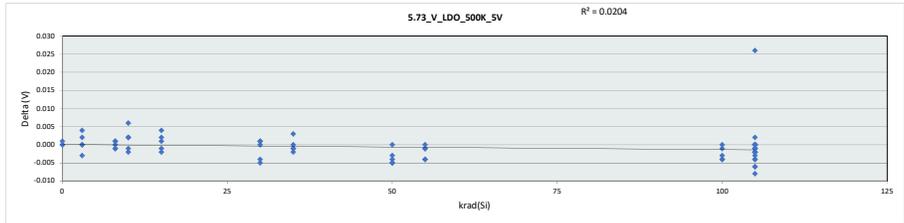


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

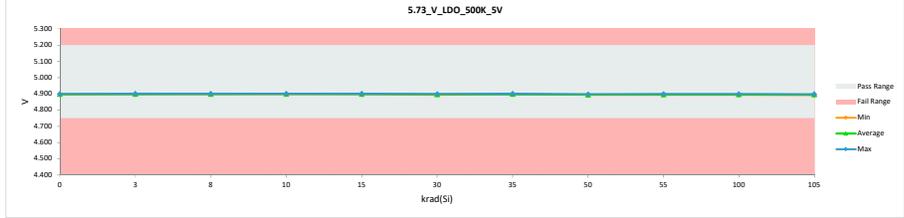
| 5.73 V_LDO_500K_5V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 4.898 | 4.898 | 0.000 |
| 0 | 992 | 4.899 | 4.899 | 0.000 |
| 0 | 993 | 4.895 | 4.896 | 0.001 |
| 3 | 1 | 4.898 | 4.900 | 0.002 |
| 3 | 2 | 4.901 | 4.898 | -0.003 |
| 3 | 3 | 4.898 | 4.898 | 0.000 |
| 3 | 4 | 4.895 | 4.899 | 0.004 |
| 3 | 5 | 4.897 | 4.897 | 0.000 |
| 8 | 6 | 4.897 | 4.898 | 0.001 |
| 8 | 7 | 4.899 | 4.900 | 0.001 |
| 8 | 8 | 4.897 | 4.897 | 0.000 |
| 8 | 9 | 4.898 | 4.897 | -0.001 |
| 8 | 10 | 4.898 | 4.897 | -0.001 |
| 10 | 11 | 4.899 | 4.898 | -0.001 |
| 10 | 12 | 4.898 | 4.900 | 0.002 |
| 10 | 13 | 4.898 | 4.900 | 0.002 |
| 10 | 14 | 4.900 | 4.898 | -0.002 |
| 10 | 15 | 4.894 | 4.900 | 0.006 |
| 15 | 16 | 4.896 | 4.895 | -0.001 |
| 15 | 17 | 4.899 | 4.898 | -0.001 |
| 15 | 18 | 4.896 | 4.900 | 0.004 |
| 15 | 19 | 4.897 | 4.898 | 0.001 |
| 15 | 20 | 4.899 | 4.897 | -0.002 |
| 30 | 21 | 4.899 | 4.895 | -0.004 |
| 30 | 22 | 4.898 | 4.899 | 0.001 |
| 30 | 23 | 4.899 | 4.894 | -0.005 |
| 30 | 24 | 4.896 | 4.897 | 0.001 |
| 30 | 25 | 4.899 | 4.899 | 0.000 |
| 35 | 26 | 4.897 | 4.900 | 0.003 |
| 35 | 27 | 4.899 | 4.898 | -0.001 |
| 35 | 28 | 4.900 | 4.898 | -0.002 |
| 35 | 29 | 4.898 | 4.898 | 0.000 |
| 35 | 30 | 4.898 | 4.897 | -0.001 |
| 50 | 31 | 4.899 | 4.894 | -0.005 |
| 50 | 32 | 4.897 | 4.894 | -0.003 |
| 50 | 33 | 4.898 | 4.893 | -0.005 |
| 50 | 34 | 4.899 | 4.895 | -0.004 |
| 50 | 35 | 4.897 | 4.897 | 0.000 |
| 55 | 36 | 4.897 | 4.896 | -0.001 |
| 55 | 37 | 4.897 | 4.893 | -0.004 |
| 55 | 38 | 4.898 | 4.898 | 0.000 |
| 55 | 39 | 4.900 | 4.899 | -0.001 |
| 55 | 40 | 4.900 | 4.896 | -0.004 |
| 100 | 41 | 4.898 | 4.897 | -0.001 |
| 100 | 42 | 4.899 | 4.899 | 0.000 |
| 100 | 43 | 4.898 | 4.895 | -0.003 |
| 100 | 44 | 4.898 | 4.894 | -0.004 |
| 100 | 45 | 4.900 | 4.896 | -0.004 |
| 105 | 46 | 4.898 | 4.896 | -0.002 |
| 105 | 47 | 4.898 | 4.898 | 0.000 |
| 105 | 48 | 4.896 | 4.895 | -0.001 |
| 105 | 49 | 4.899 | 4.895 | -0.004 |
| 105 | 50 | 4.896 | 4.896 | 0.000 |
| 105 | 51 | 4.897 | 4.897 | 0.000 |
| 105 | 52 | 4.899 | 4.897 | -0.002 |
| 105 | 53 | 4.901 | 4.895 | -0.006 |
| 105 | 54 | 4.898 | 4.897 | -0.001 |
| 105 | 55 | 4.899 | 4.891 | -0.008 |
| 105 | 56 | 4.898 | 4.894 | -0.004 |
| 105 | 57 | 4.897 | 4.897 | 0.000 |
| 105 | 58 | 4.867 | 4.893 | 0.026 |
| 105 | 59 | 4.896 | 4.895 | -0.001 |
| 105 | 60 | 4.895 | 4.897 | 0.002 |
| 105 | 61 | 4.897 | 4.897 | 0.000 |
| 105 | 62 | 4.899 | 4.898 | -0.001 |
| 105 | 63 | 4.899 | 4.897 | -0.002 |
| 105 | 64 | 4.894 | 4.891 | -0.003 |
| 105 | 65 | 4.897 | 4.897 | 0.000 |
| 105 | 66 | 4.900 | 4.894 | -0.006 |
| 105 | 67 | 4.899 | 4.897 | -0.002 |
| Max | | 4.901 | 4.900 | 0.026 |
| Average | | 4.897 | 4.897 | -0.001 |
| Min | | 4.867 | 4.891 | -0.008 |
| Std Dev | | 0.004 | 0.002 | 0.004 |



| 5.73 V_LDO_500K_5V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.896 | 4.897 | 4.897 | 4.898 | 4.897 | 4.894 | 4.897 | 4.893 | 4.893 | 4.894 |
| Average | 4.898 | 4.898 | 4.898 | 4.899 | 4.898 | 4.898 | 4.898 | 4.895 | 4.896 | 4.896 |
| Max | 4.899 | 4.900 | 4.900 | 4.900 | 4.900 | 4.899 | 4.900 | 4.897 | 4.899 | 4.899 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

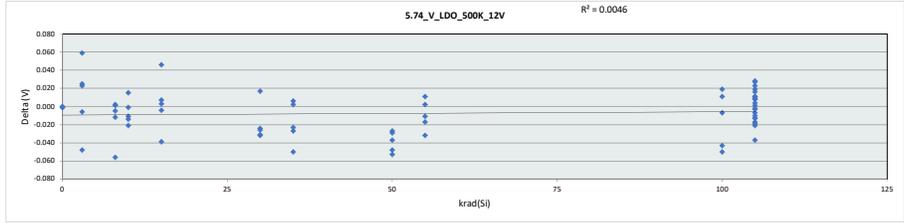


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

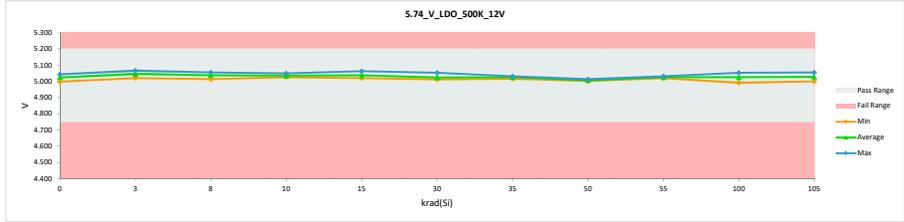
| 5.74 V_LDO_500K_12V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 5.045 | 5.044 | -0.001 |
| 0 | 992 | 5.032 | 5.031 | -0.001 |
| 0 | 993 | 4.999 | 4.999 | 0.000 |
| 3 | 1 | 5.030 | 5.055 | 0.025 |
| 3 | 2 | 5.068 | 5.021 | -0.048 |
| 3 | 3 | 5.008 | 5.067 | 0.059 |
| 3 | 4 | 5.049 | 5.043 | -0.006 |
| 3 | 5 | 5.027 | 5.050 | 0.023 |
| 8 | 6 | 5.054 | 5.055 | 0.001 |
| 8 | 7 | 5.045 | 5.033 | -0.012 |
| 8 | 8 | 5.045 | 5.047 | 0.002 |
| 8 | 9 | 5.070 | 5.014 | -0.056 |
| 8 | 10 | 5.049 | 5.044 | -0.005 |
| 10 | 11 | 5.038 | 5.027 | -0.011 |
| 10 | 12 | 5.041 | 5.027 | -0.014 |
| 10 | 13 | 5.034 | 5.049 | 0.015 |
| 10 | 14 | 5.029 | 5.028 | -0.001 |
| 10 | 15 | 5.071 | 5.050 | -0.021 |
| 15 | 16 | 5.044 | 5.040 | -0.004 |
| 15 | 17 | 5.067 | 5.028 | -0.039 |
| 15 | 18 | 5.017 | 5.063 | 0.046 |
| 15 | 19 | 5.013 | 5.020 | 0.007 |
| 15 | 20 | 5.031 | 5.034 | 0.003 |
| 30 | 21 | 5.048 | 5.024 | -0.024 |
| 30 | 22 | 5.050 | 5.019 | -0.031 |
| 30 | 23 | 5.042 | 5.016 | -0.026 |
| 30 | 24 | 5.037 | 5.054 | 0.017 |
| 30 | 25 | 5.044 | 5.012 | -0.032 |
| 35 | 26 | 5.026 | 5.028 | 0.002 |
| 35 | 27 | 5.050 | 5.023 | -0.027 |
| 35 | 28 | 5.055 | 5.032 | -0.023 |
| 35 | 29 | 5.021 | 5.027 | 0.006 |
| 35 | 30 | 5.067 | 5.017 | -0.050 |
| 50 | 31 | 5.043 | 5.014 | -0.029 |
| 50 | 32 | 5.051 | 5.003 | -0.048 |
| 50 | 33 | 5.056 | 5.003 | -0.053 |
| 50 | 34 | 5.035 | 5.008 | -0.027 |
| 50 | 35 | 5.048 | 5.011 | -0.037 |
| 55 | 36 | 5.015 | 5.026 | 0.011 |
| 55 | 37 | 5.043 | 5.026 | -0.017 |
| 55 | 38 | 5.030 | 5.032 | 0.002 |
| 55 | 39 | 5.032 | 5.021 | -0.011 |
| 55 | 40 | 5.054 | 5.022 | -0.032 |
| 100 | 41 | 5.028 | 5.021 | -0.007 |
| 100 | 42 | 5.034 | 5.053 | 0.019 |
| 100 | 43 | 5.042 | 4.992 | -0.050 |
| 100 | 44 | 5.029 | 5.040 | 0.011 |
| 100 | 45 | 5.064 | 5.021 | -0.043 |
| 105 | 46 | 5.023 | 5.042 | 0.019 |
| 105 | 47 | 5.035 | 5.036 | 0.001 |
| 105 | 48 | 5.033 | 5.056 | 0.023 |
| 105 | 49 | 5.027 | 5.055 | 0.028 |
| 105 | 50 | 5.023 | 5.034 | 0.011 |
| 105 | 51 | 5.057 | 5.020 | -0.037 |
| 105 | 52 | 5.016 | 5.020 | 0.004 |
| 105 | 53 | 5.028 | 5.018 | -0.010 |
| 105 | 54 | 5.022 | 5.009 | -0.013 |
| 105 | 55 | 5.034 | 5.050 | 0.016 |
| 105 | 56 | 5.029 | 5.027 | -0.002 |
| 105 | 57 | 5.028 | 5.055 | 0.027 |
| 105 | 58 | 5.022 | 5.005 | -0.017 |
| 105 | 59 | 5.021 | 5.000 | -0.021 |
| 105 | 60 | 5.010 | 5.018 | 0.008 |
| 105 | 61 | 5.015 | 5.023 | 0.008 |
| 105 | 62 | 5.018 | 5.029 | 0.011 |
| 105 | 63 | 5.035 | 5.028 | -0.007 |
| 105 | 64 | 5.038 | 5.025 | -0.013 |
| 105 | 65 | 5.030 | 5.027 | -0.003 |
| 105 | 66 | 5.034 | 5.015 | -0.019 |
| 105 | 67 | 5.031 | 5.040 | 0.009 |
| | Max | 5.071 | 5.067 | 0.059 |
| | Average | 5.037 | 5.029 | -0.007 |
| | Min | 4.999 | 4.992 | -0.056 |
| | Std Dev | 0.016 | 0.017 | 0.024 |



| 5.74 V_LDO_500K_12V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.999 | 5.021 | 5.014 | 5.027 | 5.020 | 5.020 | 5.012 | 5.017 | 5.003 | 5.021 | 4.992 |
| Average | 5.025 | 5.047 | 5.039 | 5.036 | 5.037 | 5.025 | 5.025 | 5.008 | 5.025 | 5.025 | 5.029 |
| Max | 5.044 | 5.067 | 5.055 | 5.050 | 5.063 | 5.054 | 5.032 | 5.014 | 5.032 | 5.053 | 5.056 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

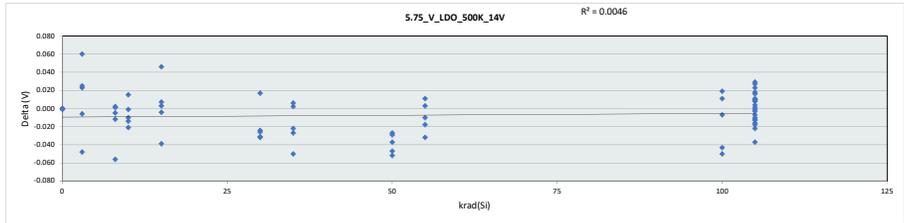


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

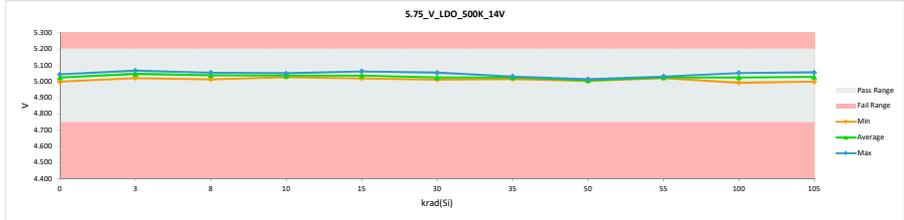
| 5.75 V_LDO_500K_14V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 5.044 | 5.044 | 0.000 |
| 0 | 992 | 5.032 | 5.031 | -0.001 |
| 0 | 993 | 4.999 | 4.999 | 0.000 |
| 3 | 1 | 5.030 | 5.055 | 0.025 |
| 3 | 2 | 5.069 | 5.021 | -0.048 |
| 3 | 3 | 5.007 | 5.067 | 0.060 |
| 3 | 4 | 5.049 | 5.043 | -0.006 |
| 3 | 5 | 5.027 | 5.050 | 0.023 |
| 8 | 6 | 5.054 | 5.055 | 0.001 |
| 8 | 7 | 5.045 | 5.033 | -0.012 |
| 8 | 8 | 5.045 | 5.047 | 0.002 |
| 8 | 9 | 5.070 | 5.014 | -0.056 |
| 8 | 10 | 5.049 | 5.044 | -0.005 |
| 10 | 11 | 5.037 | 5.027 | -0.010 |
| 10 | 12 | 5.041 | 5.027 | -0.014 |
| 10 | 13 | 5.034 | 5.049 | 0.015 |
| 10 | 14 | 5.029 | 5.028 | -0.001 |
| 10 | 15 | 5.071 | 5.050 | -0.021 |
| 15 | 16 | 5.044 | 5.040 | -0.004 |
| 15 | 17 | 5.067 | 5.028 | -0.039 |
| 15 | 18 | 5.016 | 5.062 | 0.046 |
| 15 | 19 | 5.013 | 5.020 | 0.007 |
| 15 | 20 | 5.031 | 5.034 | 0.003 |
| 30 | 21 | 5.048 | 5.024 | -0.024 |
| 30 | 22 | 5.050 | 5.019 | -0.031 |
| 30 | 23 | 5.042 | 5.016 | -0.026 |
| 30 | 24 | 5.037 | 5.054 | 0.017 |
| 30 | 25 | 5.044 | 5.012 | -0.032 |
| 35 | 26 | 5.026 | 5.028 | 0.002 |
| 35 | 27 | 5.050 | 5.023 | -0.027 |
| 35 | 28 | 5.054 | 5.032 | -0.022 |
| 35 | 29 | 5.021 | 5.027 | 0.006 |
| 35 | 30 | 5.066 | 5.016 | -0.050 |
| 50 | 31 | 5.043 | 5.014 | -0.029 |
| 50 | 32 | 5.050 | 5.003 | -0.047 |
| 50 | 33 | 5.055 | 5.003 | -0.052 |
| 50 | 34 | 5.035 | 5.008 | -0.027 |
| 50 | 35 | 5.048 | 5.011 | -0.037 |
| 55 | 36 | 5.015 | 5.026 | 0.011 |
| 55 | 37 | 5.043 | 5.025 | -0.018 |
| 55 | 38 | 5.029 | 5.032 | 0.003 |
| 55 | 39 | 5.031 | 5.021 | -0.010 |
| 55 | 40 | 5.054 | 5.022 | -0.032 |
| 100 | 41 | 5.028 | 5.021 | -0.007 |
| 100 | 42 | 5.034 | 5.053 | 0.019 |
| 100 | 43 | 5.042 | 4.992 | -0.050 |
| 100 | 44 | 5.029 | 5.040 | 0.011 |
| 100 | 45 | 5.064 | 5.021 | -0.043 |
| 105 | 46 | 5.023 | 5.041 | 0.018 |
| 105 | 47 | 5.035 | 5.036 | 0.001 |
| 105 | 48 | 5.033 | 5.056 | 0.023 |
| 105 | 49 | 5.026 | 5.055 | 0.029 |
| 105 | 50 | 5.023 | 5.034 | 0.011 |
| 105 | 51 | 5.057 | 5.020 | -0.037 |
| 105 | 52 | 5.016 | 5.020 | 0.004 |
| 105 | 53 | 5.028 | 5.018 | -0.010 |
| 105 | 54 | 5.021 | 5.009 | -0.012 |
| 105 | 55 | 5.034 | 5.050 | 0.016 |
| 105 | 56 | 5.028 | 5.027 | -0.001 |
| 105 | 57 | 5.028 | 5.055 | 0.027 |
| 105 | 58 | 5.021 | 5.005 | -0.016 |
| 105 | 59 | 5.021 | 4.999 | -0.022 |
| 105 | 60 | 5.010 | 5.018 | 0.008 |
| 105 | 61 | 5.015 | 5.023 | 0.008 |
| 105 | 62 | 5.018 | 5.028 | 0.010 |
| 105 | 63 | 5.035 | 5.028 | -0.007 |
| 105 | 64 | 5.038 | 5.025 | -0.013 |
| 105 | 65 | 5.030 | 5.027 | -0.003 |
| 105 | 66 | 5.033 | 5.015 | -0.018 |
| 105 | 67 | 5.030 | 5.040 | 0.010 |
| | Max | 5.071 | 5.067 | 0.060 |
| | Average | 5.036 | 5.029 | -0.007 |
| | Min | 4.999 | 4.992 | -0.056 |
| | Std Dev | 0.016 | 0.017 | 0.024 |



| 5.75 V_LDO_500K_14V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.999 | 5.021 | 5.014 | 5.027 | 5.020 | 5.012 | 5.016 | 5.003 | 5.021 | 4.992 |
| Average | 5.025 | 5.047 | 5.039 | 5.036 | 5.037 | 5.025 | 5.025 | 5.008 | 5.025 | 5.029 |
| Max | 5.044 | 5.067 | 5.055 | 5.050 | 5.062 | 5.054 | 5.032 | 5.014 | 5.032 | 5.053 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

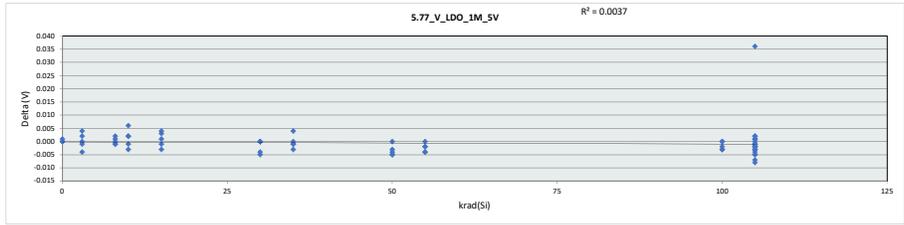


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

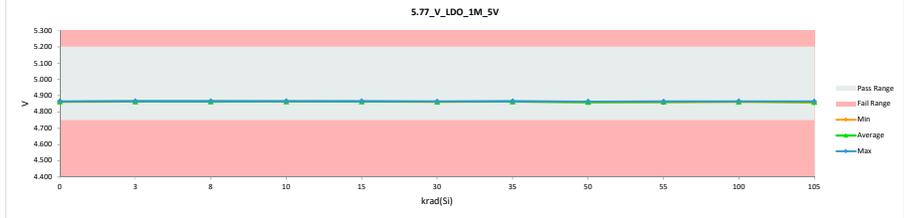
| 5.77_V_LDO_1M_5V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 4.865 | 4.865 | 0.000 |
| 0 | 992 | 4.865 | 4.866 | 0.001 |
| 0 | 993 | 4.861 | 4.861 | 0.000 |
| 3 | 1 | 4.865 | 4.867 | 0.002 |
| 3 | 2 | 4.868 | 4.864 | -0.004 |
| 3 | 3 | 4.865 | 4.864 | -0.001 |
| 3 | 4 | 4.862 | 4.866 | 0.004 |
| 3 | 5 | 4.863 | 4.863 | 0.000 |
| 8 | 6 | 4.863 | 4.865 | 0.002 |
| 8 | 7 | 4.866 | 4.867 | 0.001 |
| 8 | 8 | 4.865 | 4.864 | -0.001 |
| 8 | 9 | 4.864 | 4.864 | 0.000 |
| 8 | 10 | 4.864 | 4.863 | -0.001 |
| 10 | 11 | 4.865 | 4.864 | -0.001 |
| 10 | 12 | 4.865 | 4.867 | 0.002 |
| 10 | 13 | 4.864 | 4.866 | 0.002 |
| 10 | 14 | 4.867 | 4.864 | -0.003 |
| 10 | 15 | 4.860 | 4.866 | 0.006 |
| 15 | 16 | 4.861 | 4.864 | 0.003 |
| 15 | 17 | 4.865 | 4.864 | -0.001 |
| 15 | 18 | 4.863 | 4.867 | 0.004 |
| 15 | 19 | 4.863 | 4.864 | 0.001 |
| 15 | 20 | 4.866 | 4.863 | -0.003 |
| 30 | 21 | 4.866 | 4.862 | -0.004 |
| 30 | 22 | 4.865 | 4.865 | 0.000 |
| 30 | 23 | 4.866 | 4.861 | -0.005 |
| 30 | 24 | 4.863 | 4.863 | 0.000 |
| 30 | 25 | 4.865 | 4.865 | 0.000 |
| 35 | 26 | 4.863 | 4.867 | 0.004 |
| 35 | 27 | 4.865 | 4.864 | -0.001 |
| 35 | 28 | 4.867 | 4.864 | -0.003 |
| 35 | 29 | 4.864 | 4.864 | 0.000 |
| 35 | 30 | 4.864 | 4.863 | -0.001 |
| 50 | 31 | 4.865 | 4.860 | -0.005 |
| 50 | 32 | 4.863 | 4.860 | -0.003 |
| 50 | 33 | 4.864 | 4.860 | -0.004 |
| 50 | 34 | 4.866 | 4.861 | -0.005 |
| 50 | 35 | 4.864 | 4.864 | 0.000 |
| 55 | 36 | 4.864 | 4.862 | -0.002 |
| 55 | 37 | 4.863 | 4.859 | -0.004 |
| 55 | 38 | 4.865 | 4.865 | 0.000 |
| 55 | 39 | 4.867 | 4.865 | -0.002 |
| 55 | 40 | 4.866 | 4.862 | -0.004 |
| 100 | 41 | 4.864 | 4.864 | 0.000 |
| 100 | 42 | 4.866 | 4.866 | 0.000 |
| 100 | 43 | 4.865 | 4.862 | -0.003 |
| 100 | 44 | 4.863 | 4.861 | -0.002 |
| 100 | 45 | 4.866 | 4.863 | -0.003 |
| 105 | 46 | 4.864 | 4.862 | -0.002 |
| 105 | 47 | 4.864 | 4.865 | 0.001 |
| 105 | 48 | 4.862 | 4.861 | -0.001 |
| 105 | 49 | 4.866 | 4.861 | -0.005 |
| 105 | 50 | 4.862 | 4.862 | 0.000 |
| 105 | 51 | 4.863 | 4.862 | -0.001 |
| 105 | 52 | 4.865 | 4.863 | -0.002 |
| 105 | 53 | 4.868 | 4.861 | -0.007 |
| 105 | 54 | 4.865 | 4.862 | -0.003 |
| 105 | 55 | 4.866 | 4.858 | -0.008 |
| 105 | 56 | 4.864 | 4.860 | -0.004 |
| 105 | 57 | 4.863 | 4.864 | 0.001 |
| 105 | 58 | 4.825 | 4.861 | 0.036 |
| 105 | 59 | 4.863 | 4.861 | -0.002 |
| 105 | 60 | 4.861 | 4.863 | 0.002 |
| 105 | 61 | 4.863 | 4.865 | 0.002 |
| 105 | 62 | 4.865 | 4.864 | -0.001 |
| 105 | 63 | 4.866 | 4.863 | -0.003 |
| 105 | 64 | 4.861 | 4.858 | -0.003 |
| 105 | 65 | 4.863 | 4.864 | 0.001 |
| 105 | 66 | 4.866 | 4.861 | -0.005 |
| 105 | 67 | 4.865 | 4.863 | -0.002 |
| Max | | 4.868 | 4.867 | 0.036 |
| Average | | 4.864 | 4.863 | -0.001 |
| Min | | 4.825 | 4.858 | -0.008 |
| Std Dev | | 0.005 | 0.002 | 0.005 |



| 5.77_V_LDO_1M_5V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.861 | 4.863 | 4.863 | 4.864 | 4.863 | 4.861 | 4.863 | 4.860 | 4.859 | 4.861 | 4.858 |
| Average | 4.864 | 4.865 | 4.865 | 4.865 | 4.864 | 4.864 | 4.864 | 4.861 | 4.863 | 4.863 | 4.862 |
| Max | 4.866 | 4.867 | 4.867 | 4.867 | 4.867 | 4.865 | 4.867 | 4.864 | 4.865 | 4.866 | 4.865 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

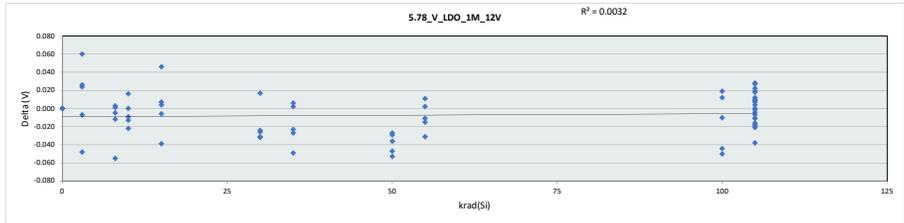


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

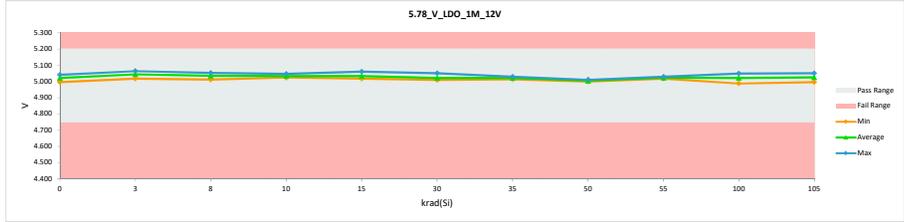
| 5.78 V_LDO_1M_12V | |
|-------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 5.041 | 5.041 | 0.000 |
| 0 | 992 | 5.028 | 5.028 | 0.000 |
| 0 | 993 | 4.996 | 4.996 | 0.000 |
| 3 | 1 | 5.026 | 5.052 | 0.026 |
| 3 | 2 | 5.066 | 5.018 | -0.048 |
| 3 | 3 | 5.004 | 5.064 | 0.060 |
| 3 | 4 | 5.047 | 5.040 | -0.007 |
| 3 | 5 | 5.024 | 5.048 | 0.024 |
| 8 | 6 | 5.050 | 5.053 | 0.003 |
| 8 | 7 | 5.042 | 5.030 | -0.012 |
| 8 | 8 | 5.043 | 5.044 | 0.001 |
| 8 | 9 | 5.067 | 5.012 | -0.055 |
| 8 | 10 | 5.046 | 5.041 | -0.005 |
| 10 | 11 | 5.033 | 5.024 | -0.009 |
| 10 | 12 | 5.037 | 5.024 | -0.013 |
| 10 | 13 | 5.031 | 5.047 | 0.016 |
| 10 | 14 | 5.026 | 5.026 | 0.000 |
| 10 | 15 | 5.070 | 5.048 | -0.022 |
| 15 | 16 | 5.042 | 5.036 | -0.006 |
| 15 | 17 | 5.063 | 5.024 | -0.039 |
| 15 | 18 | 5.014 | 5.060 | 0.046 |
| 15 | 19 | 5.010 | 5.017 | 0.007 |
| 15 | 20 | 5.027 | 5.031 | 0.004 |
| 30 | 21 | 5.045 | 5.021 | -0.024 |
| 30 | 22 | 5.047 | 5.016 | -0.031 |
| 30 | 23 | 5.038 | 5.012 | -0.026 |
| 30 | 24 | 5.034 | 5.051 | 0.017 |
| 30 | 25 | 5.041 | 5.009 | -0.032 |
| 35 | 26 | 5.023 | 5.025 | 0.002 |
| 35 | 27 | 5.047 | 5.020 | -0.027 |
| 35 | 28 | 5.052 | 5.029 | -0.023 |
| 35 | 29 | 5.018 | 5.024 | 0.006 |
| 35 | 30 | 5.063 | 5.014 | -0.049 |
| 50 | 31 | 5.040 | 5.011 | -0.029 |
| 50 | 32 | 5.048 | 5.001 | -0.047 |
| 50 | 33 | 5.053 | 5.000 | -0.053 |
| 50 | 34 | 5.032 | 5.005 | -0.027 |
| 50 | 35 | 5.044 | 5.008 | -0.036 |
| 55 | 36 | 5.012 | 5.023 | 0.011 |
| 55 | 37 | 5.040 | 5.025 | -0.015 |
| 55 | 38 | 5.027 | 5.029 | 0.002 |
| 55 | 39 | 5.029 | 5.018 | -0.011 |
| 55 | 40 | 5.051 | 5.020 | -0.031 |
| 100 | 41 | 5.026 | 5.016 | -0.010 |
| 100 | 42 | 5.031 | 5.050 | 0.019 |
| 100 | 43 | 5.038 | 4.988 | -0.050 |
| 100 | 44 | 5.025 | 5.037 | 0.012 |
| 100 | 45 | 5.062 | 5.018 | -0.044 |
| 105 | 46 | 5.020 | 5.038 | 0.018 |
| 105 | 47 | 5.032 | 5.032 | 0.000 |
| 105 | 48 | 5.030 | 5.052 | 0.022 |
| 105 | 49 | 5.024 | 5.052 | 0.028 |
| 105 | 50 | 5.019 | 5.031 | 0.012 |
| 105 | 51 | 5.054 | 5.016 | -0.038 |
| 105 | 52 | 5.013 | 5.017 | 0.004 |
| 105 | 53 | 5.025 | 5.014 | -0.011 |
| 105 | 54 | 5.019 | 5.008 | -0.011 |
| 105 | 55 | 5.030 | 5.049 | 0.019 |
| 105 | 56 | 5.025 | 5.024 | -0.001 |
| 105 | 57 | 5.024 | 5.051 | 0.027 |
| 105 | 58 | 5.018 | 5.002 | -0.016 |
| 105 | 59 | 5.017 | 4.996 | -0.021 |
| 105 | 60 | 5.007 | 5.014 | 0.007 |
| 105 | 61 | 5.012 | 5.020 | 0.008 |
| 105 | 62 | 5.015 | 5.025 | 0.010 |
| 105 | 63 | 5.032 | 5.025 | -0.007 |
| 105 | 64 | 5.037 | 5.020 | -0.017 |
| 105 | 65 | 5.027 | 5.023 | -0.004 |
| 105 | 66 | 5.031 | 5.012 | -0.019 |
| 105 | 67 | 5.028 | 5.037 | 0.009 |
| Max | | 5.070 | 5.064 | 0.060 |
| Average | | 5.033 | 5.026 | -0.007 |
| Min | | 4.996 | 4.988 | -0.055 |
| Std Dev | | 0.016 | 0.017 | 0.024 |



| 5.78 V_LDO_1M_12V | |
|-------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.996 | 5.018 | 5.012 | 5.024 | 5.017 | 5.009 | 5.014 | 5.000 | 5.018 | 4.988 |
| Average | 5.022 | 5.044 | 5.036 | 5.034 | 5.034 | 5.022 | 5.022 | 5.005 | 5.023 | 5.022 |
| Max | 5.041 | 5.064 | 5.053 | 5.048 | 5.060 | 5.051 | 5.029 | 5.011 | 5.029 | 5.050 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

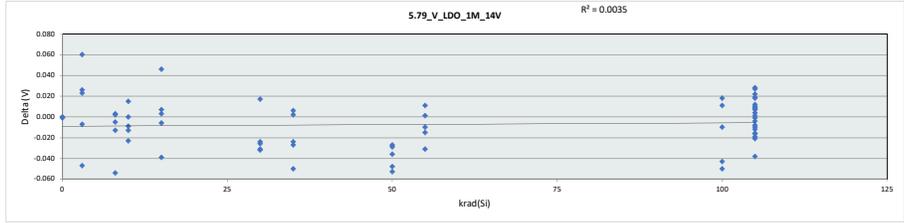


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

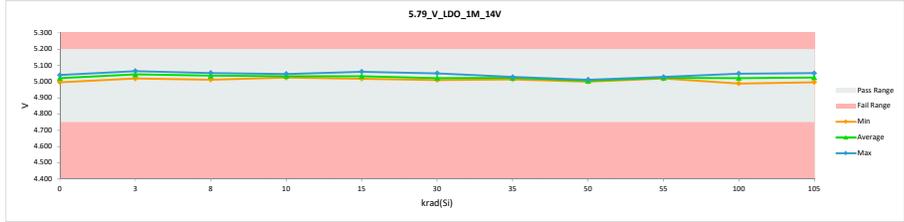
| 5.79 V_LDO_1M_14V | |
|-------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 5.041 | 5.040 | -0.001 |
| 0 | 992 | 5.028 | 5.028 | 0.000 |
| 0 | 993 | 4.996 | 4.996 | 0.000 |
| 3 | 1 | 5.026 | 5.052 | 0.026 |
| 3 | 2 | 5.065 | 5.018 | -0.047 |
| 3 | 3 | 5.004 | 5.064 | 0.060 |
| 3 | 4 | 5.047 | 5.040 | -0.007 |
| 3 | 5 | 5.024 | 5.047 | 0.023 |
| 8 | 6 | 5.050 | 5.053 | 0.003 |
| 8 | 7 | 5.042 | 5.029 | -0.013 |
| 8 | 8 | 5.042 | 5.044 | 0.002 |
| 8 | 9 | 5.066 | 5.012 | -0.054 |
| 8 | 10 | 5.046 | 5.041 | -0.005 |
| 10 | 11 | 5.033 | 5.024 | -0.009 |
| 10 | 12 | 5.037 | 5.024 | -0.013 |
| 10 | 13 | 5.031 | 5.046 | 0.015 |
| 10 | 14 | 5.026 | 5.026 | 0.000 |
| 10 | 15 | 5.070 | 5.047 | -0.023 |
| 15 | 16 | 5.042 | 5.036 | -0.006 |
| 15 | 17 | 5.063 | 5.024 | -0.039 |
| 15 | 18 | 5.014 | 5.060 | 0.046 |
| 15 | 19 | 5.010 | 5.017 | 0.007 |
| 15 | 20 | 5.027 | 5.030 | 0.003 |
| 30 | 21 | 5.045 | 5.021 | -0.024 |
| 30 | 22 | 5.047 | 5.016 | -0.031 |
| 30 | 23 | 5.038 | 5.012 | -0.026 |
| 30 | 24 | 5.034 | 5.051 | 0.017 |
| 30 | 25 | 5.041 | 5.009 | -0.032 |
| 35 | 26 | 5.023 | 5.025 | 0.002 |
| 35 | 27 | 5.047 | 5.020 | -0.027 |
| 35 | 28 | 5.052 | 5.028 | -0.024 |
| 35 | 29 | 5.018 | 5.024 | 0.006 |
| 35 | 30 | 5.063 | 5.013 | -0.050 |
| 50 | 31 | 5.040 | 5.011 | -0.029 |
| 50 | 32 | 5.048 | 5.000 | -0.048 |
| 50 | 33 | 5.053 | 5.000 | -0.053 |
| 50 | 34 | 5.032 | 5.005 | -0.027 |
| 50 | 35 | 5.044 | 5.008 | -0.036 |
| 55 | 36 | 5.012 | 5.023 | 0.011 |
| 55 | 37 | 5.040 | 5.025 | -0.015 |
| 55 | 38 | 5.027 | 5.028 | 0.001 |
| 55 | 39 | 5.028 | 5.018 | -0.010 |
| 55 | 40 | 5.051 | 5.020 | -0.031 |
| 100 | 41 | 5.026 | 5.016 | -0.010 |
| 100 | 42 | 5.031 | 5.049 | 0.018 |
| 100 | 43 | 5.038 | 4.988 | -0.050 |
| 100 | 44 | 5.025 | 5.036 | 0.011 |
| 100 | 45 | 5.061 | 5.018 | -0.043 |
| 105 | 46 | 5.020 | 5.038 | 0.018 |
| 105 | 47 | 5.031 | 5.032 | 0.001 |
| 105 | 48 | 5.029 | 5.051 | 0.022 |
| 105 | 49 | 5.024 | 5.052 | 0.028 |
| 105 | 50 | 5.019 | 5.031 | 0.012 |
| 105 | 51 | 5.054 | 5.016 | -0.038 |
| 105 | 52 | 5.013 | 5.017 | 0.004 |
| 105 | 53 | 5.024 | 5.014 | -0.010 |
| 105 | 54 | 5.019 | 5.007 | -0.012 |
| 105 | 55 | 5.030 | 5.049 | 0.019 |
| 105 | 56 | 5.025 | 5.024 | -0.001 |
| 105 | 57 | 5.024 | 5.051 | 0.027 |
| 105 | 58 | 5.018 | 5.002 | -0.016 |
| 105 | 59 | 5.017 | 4.996 | -0.021 |
| 105 | 60 | 5.007 | 5.014 | 0.007 |
| 105 | 61 | 5.012 | 5.020 | 0.008 |
| 105 | 62 | 5.015 | 5.025 | 0.010 |
| 105 | 63 | 5.032 | 5.024 | -0.008 |
| 105 | 64 | 5.036 | 5.020 | -0.016 |
| 105 | 65 | 5.027 | 5.023 | -0.004 |
| 105 | 66 | 5.031 | 5.012 | -0.019 |
| 105 | 67 | 5.028 | 5.037 | 0.009 |
| Max | | 5.070 | 5.064 | 0.006 |
| Average | | 5.033 | 5.026 | -0.007 |
| Min | | 4.996 | 4.988 | -0.008 |
| Std Dev | | 0.016 | 0.017 | 0.024 |



| 5.79 V_LDO_1M_14V | |
|-------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.75 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.996 | 5.018 | 5.012 | 5.024 | 5.017 | 5.009 | 5.013 | 5.000 | 5.018 | 4.988 | 4.996 |
| Average | 5.021 | 5.044 | 5.036 | 5.033 | 5.033 | 5.022 | 5.022 | 5.005 | 5.023 | 5.021 | 5.025 |
| Max | 5.040 | 5.064 | 5.053 | 5.047 | 5.060 | 5.051 | 5.028 | 5.011 | 5.028 | 5.049 | 5.052 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

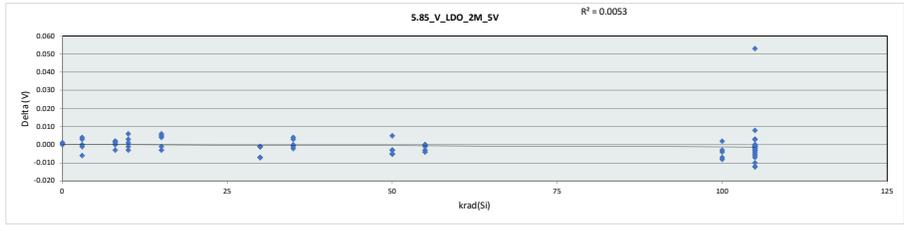


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

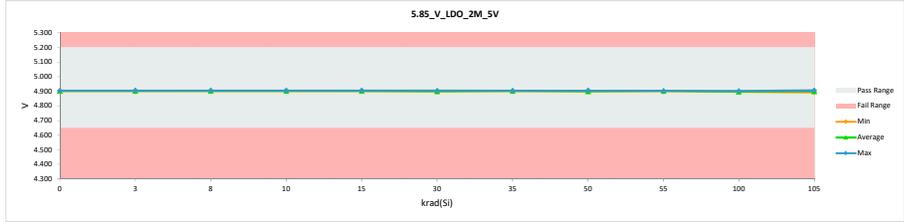
| 5.85 V_LDO_2M_5V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.65 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 4.902 | 4.903 | 0.001 |
| 0 | 992 | 4.903 | 4.904 | 0.001 |
| 0 | 993 | 4.899 | 4.899 | 0.000 |
| 3 | 1 | 4.901 | 4.905 | 0.004 |
| 3 | 2 | 4.900 | 4.900 | -0.006 |
| 3 | 3 | 4.901 | 4.900 | -0.001 |
| 3 | 4 | 4.899 | 4.902 | 0.003 |
| 3 | 5 | 4.900 | 4.900 | 0.000 |
| 8 | 6 | 4.900 | 4.902 | 0.002 |
| 8 | 7 | 4.903 | 4.905 | 0.002 |
| 8 | 8 | 4.904 | 4.901 | -0.003 |
| 8 | 9 | 4.901 | 4.901 | 0.000 |
| 8 | 10 | 4.901 | 4.902 | 0.001 |
| 10 | 11 | 4.903 | 4.902 | -0.001 |
| 10 | 12 | 4.902 | 4.905 | 0.003 |
| 10 | 13 | 4.901 | 4.902 | 0.001 |
| 10 | 14 | 4.904 | 4.901 | -0.003 |
| 10 | 15 | 4.896 | 4.902 | 0.006 |
| 15 | 16 | 4.897 | 4.902 | 0.005 |
| 15 | 17 | 4.902 | 4.901 | -0.001 |
| 15 | 18 | 4.899 | 4.905 | 0.006 |
| 15 | 19 | 4.897 | 4.901 | 0.004 |
| 15 | 20 | 4.904 | 4.901 | -0.003 |
| 30 | 21 | 4.905 | 4.898 | -0.007 |
| 30 | 22 | 4.904 | 4.903 | -0.001 |
| 30 | 23 | 4.904 | 4.897 | -0.007 |
| 30 | 24 | 4.900 | 4.899 | -0.001 |
| 30 | 25 | 4.903 | 4.902 | -0.001 |
| 35 | 26 | 4.900 | 4.904 | 0.004 |
| 35 | 27 | 4.901 | 4.900 | -0.001 |
| 35 | 28 | 4.905 | 4.903 | -0.002 |
| 35 | 29 | 4.900 | 4.903 | 0.003 |
| 35 | 30 | 4.899 | 4.899 | 0.000 |
| 50 | 31 | 4.902 | 4.899 | -0.003 |
| 50 | 32 | 4.900 | 4.897 | -0.003 |
| 50 | 33 | 4.902 | 4.897 | -0.005 |
| 50 | 34 | 4.903 | 4.898 | -0.005 |
| 50 | 35 | 4.900 | 4.905 | 0.005 |
| 55 | 36 | 4.901 | 4.901 | 0.000 |
| 55 | 37 | 4.902 | 4.901 | -0.001 |
| 55 | 38 | 4.902 | 4.902 | 0.000 |
| 55 | 39 | 4.905 | 4.902 | -0.003 |
| 55 | 40 | 4.903 | 4.899 | -0.004 |
| 100 | 41 | 4.901 | 4.897 | -0.004 |
| 100 | 42 | 4.903 | 4.900 | -0.003 |
| 100 | 43 | 4.903 | 4.896 | -0.007 |
| 100 | 44 | 4.900 | 4.902 | 0.002 |
| 100 | 45 | 4.904 | 4.896 | -0.008 |
| 105 | 46 | 4.901 | 4.904 | 0.003 |
| 105 | 47 | 4.901 | 4.899 | -0.002 |
| 105 | 48 | 4.898 | 4.901 | 0.003 |
| 105 | 49 | 4.905 | 4.901 | -0.004 |
| 105 | 50 | 4.898 | 4.906 | 0.008 |
| 105 | 51 | 4.900 | 4.899 | -0.001 |
| 105 | 52 | 4.902 | 4.895 | -0.007 |
| 105 | 53 | 4.905 | 4.893 | -0.012 |
| 105 | 54 | 4.902 | 4.897 | -0.005 |
| 105 | 55 | 4.904 | 4.898 | -0.006 |
| 105 | 56 | 4.902 | 4.892 | -0.010 |
| 105 | 57 | 4.898 | 4.896 | -0.002 |
| 105 | 58 | 4.841 | 4.894 | 0.053 |
| 105 | 59 | 4.900 | 4.899 | -0.001 |
| 105 | 60 | 4.898 | 4.897 | -0.001 |
| 105 | 61 | 4.899 | 4.899 | 0.000 |
| 105 | 62 | 4.905 | 4.904 | -0.001 |
| 105 | 63 | 4.904 | 4.903 | -0.001 |
| 105 | 64 | 4.902 | 4.899 | -0.003 |
| 105 | 65 | 4.900 | 4.897 | -0.003 |
| 105 | 66 | 4.905 | 4.893 | -0.012 |
| 105 | 67 | 4.903 | 4.903 | 0.000 |
| Max | | 4.906 | 4.906 | 0.053 |
| Average | | 4.901 | 4.900 | 0.000 |
| Min | | 4.841 | 4.892 | -0.012 |
| Std Dev | | 0.008 | 0.003 | 0.008 |



| 5.85 V_LDO_2M_5V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 |
| Min Limit | 4.65 |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 |
| Min | 4.899 | 4.900 | 4.901 | 4.901 | 4.901 | 4.897 | 4.899 | 4.897 | 4.899 | 4.896 |
| Average | 4.902 | 4.901 | 4.902 | 4.902 | 4.902 | 4.900 | 4.902 | 4.899 | 4.901 | 4.898 |
| Max | 4.904 | 4.905 | 4.905 | 4.905 | 4.905 | 4.903 | 4.904 | 4.905 | 4.902 | 4.906 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

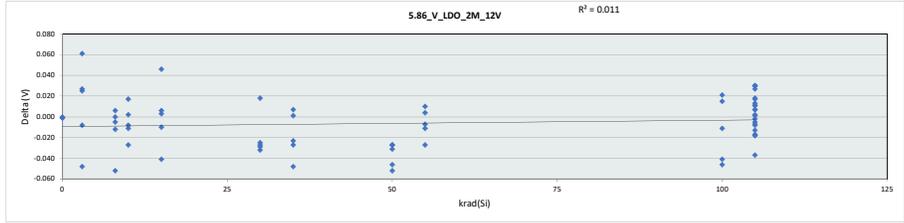


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

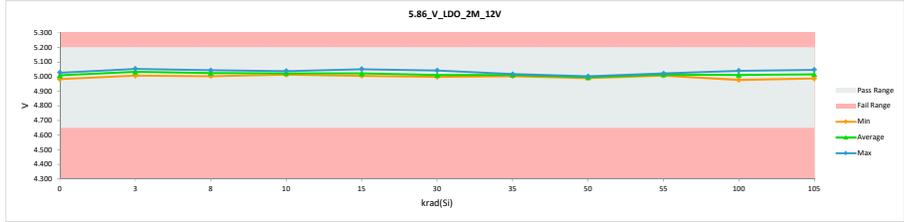
| 5.86 V_LDO_2M_12V | |
|-------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 5.2 |
| Min Limit | 4.65 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 5.029 | 5.028 | -0.001 |
| 0 | 992 | 5.016 | 5.016 | 0.000 |
| 0 | 993 | 4.984 | 4.983 | -0.001 |
| 3 | 1 | 5.014 | 5.041 | 0.027 |
| 3 | 2 | 5.055 | 5.007 | -0.048 |
| 3 | 3 | 4.992 | 5.053 | 0.061 |
| 3 | 4 | 5.037 | 5.029 | -0.008 |
| 3 | 5 | 5.014 | 5.039 | 0.025 |
| 8 | 6 | 5.038 | 5.044 | 0.006 |
| 8 | 7 | 5.030 | 5.018 | -0.012 |
| 8 | 8 | 5.033 | 5.033 | 0.000 |
| 8 | 9 | 5.066 | 5.004 | -0.062 |
| 8 | 10 | 5.035 | 5.030 | -0.005 |
| 10 | 11 | 5.021 | 5.013 | -0.008 |
| 10 | 12 | 5.025 | 5.014 | -0.011 |
| 10 | 13 | 5.019 | 5.036 | 0.017 |
| 10 | 14 | 5.015 | 5.017 | 0.002 |
| 10 | 15 | 5.065 | 5.038 | -0.027 |
| 15 | 16 | 5.033 | 5.023 | -0.010 |
| 15 | 17 | 5.052 | 5.011 | -0.041 |
| 15 | 18 | 5.005 | 5.051 | 0.046 |
| 15 | 19 | 5.000 | 5.006 | 0.006 |
| 15 | 20 | 5.015 | 5.018 | 0.003 |
| 30 | 21 | 5.034 | 5.009 | -0.025 |
| 30 | 22 | 5.035 | 5.006 | -0.029 |
| 30 | 23 | 5.027 | 5.000 | -0.027 |
| 30 | 24 | 5.024 | 5.042 | 0.018 |
| 30 | 25 | 5.030 | 4.998 | -0.032 |
| 35 | 26 | 5.013 | 5.014 | 0.001 |
| 35 | 27 | 5.036 | 5.009 | -0.027 |
| 35 | 28 | 5.041 | 5.018 | -0.023 |
| 35 | 29 | 5.007 | 5.014 | 0.007 |
| 35 | 30 | 5.051 | 5.003 | -0.048 |
| 50 | 31 | 5.029 | 5.002 | -0.027 |
| 50 | 32 | 5.038 | 4.992 | -0.046 |
| 50 | 33 | 5.043 | 4.991 | -0.052 |
| 50 | 34 | 5.022 | 4.995 | -0.027 |
| 50 | 35 | 5.031 | 5.000 | -0.031 |
| 55 | 36 | 5.004 | 5.014 | 0.010 |
| 55 | 37 | 5.029 | 5.022 | -0.007 |
| 55 | 38 | 5.015 | 5.019 | 0.004 |
| 55 | 39 | 5.019 | 5.008 | -0.011 |
| 55 | 40 | 5.040 | 5.013 | -0.027 |
| 100 | 41 | 5.017 | 5.006 | -0.011 |
| 100 | 42 | 5.020 | 5.041 | 0.021 |
| 100 | 43 | 5.024 | 4.978 | -0.046 |
| 100 | 44 | 5.013 | 5.028 | 0.015 |
| 100 | 45 | 5.052 | 5.011 | -0.041 |
| 105 | 46 | 5.010 | 5.028 | 0.018 |
| 105 | 47 | 5.020 | 5.022 | 0.002 |
| 105 | 48 | 5.017 | 5.044 | 0.027 |
| 105 | 49 | 5.013 | 5.043 | 0.030 |
| 105 | 50 | 5.006 | 5.023 | 0.017 |
| 105 | 51 | 5.043 | 5.006 | -0.037 |
| 105 | 52 | 5.002 | 5.009 | 0.007 |
| 105 | 53 | 5.013 | 5.006 | -0.007 |
| 105 | 54 | 5.008 | 5.000 | -0.008 |
| 105 | 55 | 5.017 | 5.047 | 0.030 |
| 105 | 56 | 5.015 | 5.016 | 0.001 |
| 105 | 57 | 5.012 | 5.042 | 0.030 |
| 105 | 58 | 5.006 | 4.993 | -0.013 |
| 105 | 59 | 5.005 | 4.987 | -0.018 |
| 105 | 60 | 4.997 | 5.004 | 0.007 |
| 105 | 61 | 5.001 | 5.012 | 0.011 |
| 105 | 62 | 5.004 | 5.017 | 0.013 |
| 105 | 63 | 5.021 | 5.016 | -0.005 |
| 105 | 64 | 5.030 | 5.012 | -0.018 |
| 105 | 65 | 5.017 | 5.015 | -0.002 |
| 105 | 66 | 5.021 | 5.004 | -0.017 |
| 105 | 67 | 5.018 | 5.029 | 0.011 |
| 105 | 68 | 5.065 | 5.053 | 0.061 |
| 105 | Average | 5.022 | 5.017 | -0.006 |
| 105 | Min | 4.984 | 4.978 | -0.052 |
| 105 | Std Dev | 0.016 | 0.017 | 0.024 |



| 5.86 V_LDO_2M_12V | |
|-------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 5.2 V |
| Min Limit | 4.65 V |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 |
| Min | 4.983 | 5.007 | 5.004 | 5.013 | 5.006 | 4.998 | 5.003 | 4.991 | 5.008 | 4.978 |
| Average | 5.009 | 5.034 | 5.026 | 5.024 | 5.022 | 5.011 | 5.012 | 4.996 | 5.015 | 5.013 |
| Max | 5.028 | 5.053 | 5.044 | 5.038 | 5.051 | 5.042 | 5.018 | 5.002 | 5.022 | 5.041 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |

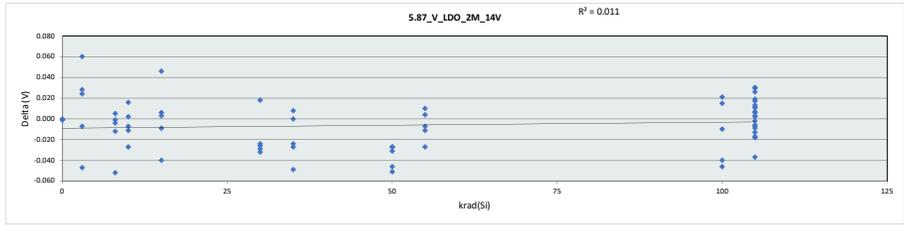


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

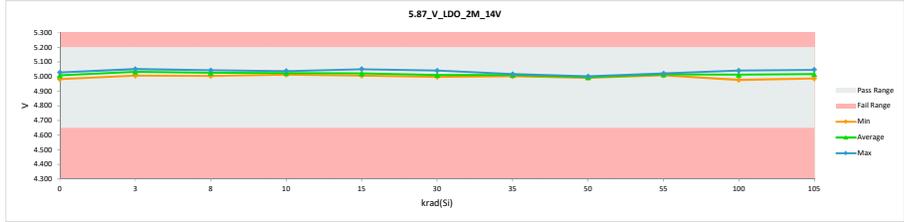
| Test Site | 5.87_V_LDO_2M_14V | |
|-------------|-------------------|------|
| Tester | | |
| Test Number | | |
| Unit | V | V |
| Max Limit | 5.15 | 5.2 |
| Min Limit | 4.8 | 4.65 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 5.028 | 5.028 | 0.000 |
| 0 | 992 | 5.016 | 5.015 | -0.001 |
| 0 | 993 | 4.984 | 4.983 | -0.001 |
| 3 | 1 | 5.013 | 5.041 | 0.028 |
| 3 | 2 | 5.054 | 5.007 | -0.047 |
| 3 | 3 | 4.992 | 5.052 | 0.060 |
| 3 | 4 | 5.036 | 5.029 | -0.007 |
| 3 | 5 | 5.014 | 5.038 | 0.024 |
| 8 | 6 | 5.038 | 5.043 | 0.005 |
| 8 | 7 | 5.030 | 5.018 | -0.012 |
| 8 | 8 | 5.033 | 5.032 | -0.001 |
| 8 | 9 | 5.056 | 5.004 | -0.052 |
| 8 | 10 | 5.034 | 5.030 | -0.004 |
| 10 | 11 | 5.020 | 5.013 | -0.007 |
| 10 | 12 | 5.025 | 5.014 | -0.011 |
| 10 | 13 | 5.019 | 5.035 | 0.016 |
| 10 | 14 | 5.015 | 5.017 | 0.002 |
| 10 | 15 | 5.065 | 5.038 | -0.027 |
| 15 | 16 | 5.032 | 5.023 | -0.009 |
| 15 | 17 | 5.051 | 5.011 | -0.040 |
| 15 | 18 | 5.005 | 5.051 | 0.046 |
| 15 | 19 | 5.000 | 5.006 | 0.006 |
| 15 | 20 | 5.015 | 5.018 | 0.003 |
| 30 | 21 | 5.033 | 5.009 | -0.024 |
| 30 | 22 | 5.035 | 5.006 | -0.029 |
| 30 | 23 | 5.026 | 5.000 | -0.026 |
| 30 | 24 | 5.023 | 5.041 | 0.018 |
| 30 | 25 | 5.030 | 4.998 | -0.032 |
| 35 | 26 | 5.013 | 5.013 | 0.000 |
| 35 | 27 | 5.036 | 5.009 | -0.027 |
| 35 | 28 | 5.041 | 5.017 | -0.024 |
| 35 | 29 | 5.006 | 5.014 | 0.008 |
| 35 | 30 | 5.051 | 5.002 | -0.049 |
| 50 | 31 | 5.029 | 5.002 | -0.027 |
| 50 | 32 | 5.037 | 4.991 | -0.046 |
| 50 | 33 | 5.042 | 4.991 | -0.051 |
| 50 | 34 | 5.022 | 4.995 | -0.027 |
| 50 | 35 | 5.031 | 5.000 | -0.031 |
| 55 | 36 | 5.004 | 5.014 | 0.010 |
| 55 | 37 | 5.029 | 5.022 | -0.007 |
| 55 | 38 | 5.015 | 5.019 | 0.004 |
| 55 | 39 | 5.019 | 5.008 | -0.011 |
| 55 | 40 | 5.040 | 5.013 | -0.027 |
| 100 | 41 | 5.016 | 5.006 | -0.010 |
| 100 | 42 | 5.020 | 5.041 | 0.021 |
| 100 | 43 | 5.024 | 4.978 | -0.046 |
| 100 | 44 | 5.013 | 5.028 | 0.015 |
| 100 | 45 | 5.051 | 5.011 | -0.040 |
| 105 | 46 | 5.009 | 5.028 | 0.019 |
| 105 | 47 | 5.019 | 5.022 | 0.003 |
| 105 | 48 | 5.017 | 5.043 | 0.026 |
| 105 | 49 | 5.013 | 5.043 | 0.030 |
| 105 | 50 | 5.006 | 5.023 | 0.017 |
| 105 | 51 | 5.043 | 5.006 | -0.037 |
| 105 | 52 | 5.002 | 5.008 | 0.006 |
| 105 | 53 | 5.013 | 5.006 | -0.007 |
| 105 | 54 | 5.008 | 4.999 | -0.009 |
| 105 | 55 | 5.017 | 5.047 | 0.030 |
| 105 | 56 | 5.014 | 5.016 | 0.002 |
| 105 | 57 | 5.012 | 5.042 | 0.030 |
| 105 | 58 | 5.006 | 4.993 | -0.013 |
| 105 | 59 | 5.005 | 4.987 | -0.018 |
| 105 | 60 | 4.996 | 5.003 | 0.007 |
| 105 | 61 | 5.001 | 5.012 | 0.011 |
| 105 | 62 | 5.003 | 5.016 | 0.013 |
| 105 | 63 | 5.021 | 5.015 | -0.006 |
| 105 | 64 | 5.030 | 5.013 | -0.017 |
| 105 | 65 | 5.016 | 5.014 | -0.002 |
| 105 | 66 | 5.021 | 5.003 | -0.018 |
| 105 | 67 | 5.018 | 5.029 | 0.011 |
| Max | | 5.065 | 5.052 | 0.060 |
| Average | | 5.022 | 5.016 | -0.006 |
| Min | | 4.984 | 4.978 | -0.052 |
| Std Dev | | 0.016 | 0.017 | 0.024 |



| Test Site | 5.87_V_LDO_2M_14V | |
|-------------|-------------------|---|
| Tester | | |
| Test Number | | |
| Max Limit | 5.2 | V |
| Min Limit | 4.65 | V |

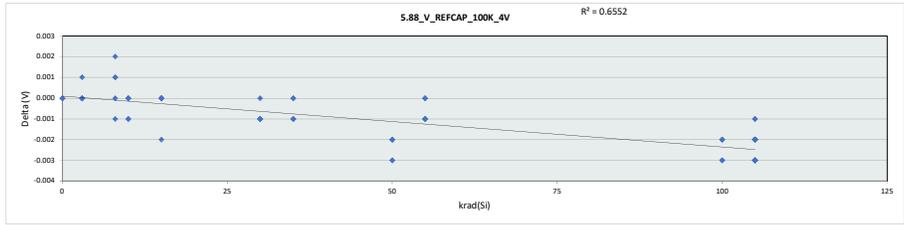
| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 | 4.650 |
| Min | 4.983 | 5.007 | 5.004 | 5.013 | 5.006 | 4.998 | 5.002 | 4.991 | 5.008 | 4.978 |
| Average | 5.009 | 5.033 | 5.025 | 5.023 | 5.022 | 5.011 | 5.011 | 4.996 | 5.015 | 5.013 |
| Max | 5.028 | 5.052 | 5.043 | 5.038 | 5.051 | 5.041 | 5.017 | 5.002 | 5.022 | 5.041 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 | 5.200 |



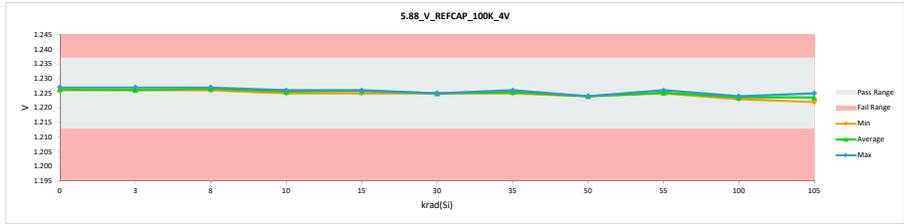
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.88 V_REFCAP_100K_4V | | | | | |
|-----------------------|----------|---------|----------|--------|--|
| Test Site | | | | | |
| Tester | | | | | |
| Test Number | | | | | |
| Unit | | | | | |
| Max Limit | V | | V | | |
| Min Limit | 1.237 | | 1.213 | | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta | |
| 0 | 991 | 1.226 | 1.226 | 0.000 | |
| 0 | 992 | 1.227 | 1.227 | 0.000 | |
| 0 | 993 | 1.226 | 1.226 | 0.000 | |
| 3 | 1 | 1.226 | 1.226 | 0.000 | |
| 3 | 2 | 1.226 | 1.226 | 0.000 | |
| 3 | 3 | 1.226 | 1.226 | 0.000 | |
| 3 | 4 | 1.226 | 1.226 | 0.000 | |
| 3 | 5 | 1.226 | 1.227 | 0.001 | |
| 8 | 6 | 1.226 | 1.227 | 0.001 | |
| 8 | 7 | 1.227 | 1.226 | -0.001 | |
| 8 | 8 | 1.225 | 1.227 | 0.002 | |
| 8 | 9 | 1.226 | 1.226 | 0.000 | |
| 8 | 10 | 1.226 | 1.227 | 0.001 | |
| 10 | 11 | 1.225 | 1.225 | 0.000 | |
| 10 | 12 | 1.226 | 1.226 | 0.000 | |
| 10 | 13 | 1.226 | 1.225 | -0.001 | |
| 10 | 14 | 1.226 | 1.226 | 0.000 | |
| 10 | 15 | 1.227 | 1.226 | -0.001 | |
| 15 | 16 | 1.226 | 1.226 | 0.000 | |
| 15 | 17 | 1.226 | 1.226 | 0.000 | |
| 15 | 18 | 1.227 | 1.225 | -0.002 | |
| 15 | 19 | 1.226 | 1.226 | 0.000 | |
| 15 | 20 | 1.226 | 1.226 | 0.000 | |
| 30 | 21 | 1.225 | 1.225 | 0.000 | |
| 30 | 22 | 1.226 | 1.225 | -0.001 | |
| 30 | 23 | 1.226 | 1.225 | -0.001 | |
| 30 | 24 | 1.226 | 1.225 | -0.001 | |
| 30 | 25 | 1.226 | 1.225 | -0.001 | |
| 35 | 26 | 1.226 | 1.226 | 0.000 | |
| 35 | 27 | 1.226 | 1.226 | 0.000 | |
| 35 | 28 | 1.226 | 1.225 | -0.001 | |
| 35 | 29 | 1.226 | 1.225 | -0.001 | |
| 35 | 30 | 1.226 | 1.225 | -0.001 | |
| 50 | 31 | 1.226 | 1.224 | -0.002 | |
| 50 | 32 | 1.227 | 1.224 | -0.003 | |
| 50 | 33 | 1.226 | 1.224 | -0.002 | |
| 50 | 34 | 1.227 | 1.224 | -0.003 | |
| 50 | 35 | 1.226 | 1.224 | -0.002 | |
| 55 | 36 | 1.226 | 1.225 | -0.001 | |
| 55 | 37 | 1.226 | 1.225 | -0.001 | |
| 55 | 38 | 1.225 | 1.225 | 0.000 | |
| 55 | 39 | 1.226 | 1.225 | -0.001 | |
| 55 | 40 | 1.226 | 1.226 | 0.000 | |
| 100 | 41 | 1.226 | 1.224 | -0.002 | |
| 100 | 42 | 1.226 | 1.223 | -0.003 | |
| 100 | 43 | 1.226 | 1.224 | -0.002 | |
| 100 | 44 | 1.226 | 1.223 | -0.003 | |
| 100 | 45 | 1.226 | 1.224 | -0.002 | |
| 105 | 46 | 1.226 | 1.224 | -0.002 | |
| 105 | 47 | 1.226 | 1.224 | -0.002 | |
| 105 | 48 | 1.226 | 1.223 | -0.003 | |
| 105 | 49 | 1.226 | 1.223 | -0.003 | |
| 105 | 50 | 1.226 | 1.225 | -0.001 | |
| 105 | 51 | 1.226 | 1.223 | -0.003 | |
| 105 | 52 | 1.226 | 1.225 | -0.001 | |
| 105 | 53 | 1.227 | 1.224 | -0.003 | |
| 105 | 54 | 1.226 | 1.223 | -0.003 | |
| 105 | 55 | 1.226 | 1.224 | -0.002 | |
| 105 | 56 | 1.226 | 1.223 | -0.003 | |
| 105 | 57 | 1.226 | 1.224 | -0.002 | |
| 105 | 58 | 1.226 | 1.223 | -0.003 | |
| 105 | 59 | 1.226 | 1.224 | -0.002 | |
| 105 | 60 | 1.225 | 1.223 | -0.002 | |
| 105 | 61 | 1.226 | 1.223 | -0.003 | |
| 105 | 62 | 1.225 | 1.222 | -0.003 | |
| 105 | 63 | 1.226 | 1.224 | -0.002 | |
| 105 | 64 | 1.226 | 1.223 | -0.003 | |
| 105 | 65 | 1.226 | 1.223 | -0.003 | |
| 105 | 66 | 1.226 | 1.224 | -0.002 | |
| 105 | 67 | 1.226 | 1.224 | -0.002 | |
| Max | | 1.227 | 1.227 | 0.002 | |
| Average | | 1.226 | 1.225 | -0.001 | |
| Min | | 1.225 | 1.222 | -0.003 | |
| Std Dev | | 0.000 | 0.001 | 0.001 | |



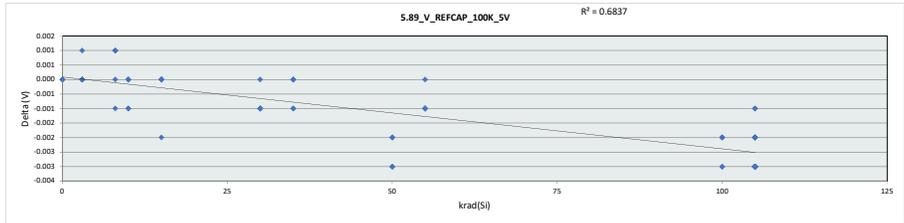
| 5.88 V_REFCAP_100K_4V | | | | | | | | | | | |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | | | | | | | | | | | |
| Tester | | | | | | | | | | | |
| Test Number | | | | | | | | | | | |
| Max Limit | 1.237 | V | | | | | | | | | |
| Min Limit | 1.213 | V | | | | | | | | | |
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.226 | 1.225 | 1.225 | 1.225 | 1.225 | 1.224 | 1.225 | 1.223 | 1.222 |
| Average | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.225 | 1.224 | 1.224 |
| Max | 1.227 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.225 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



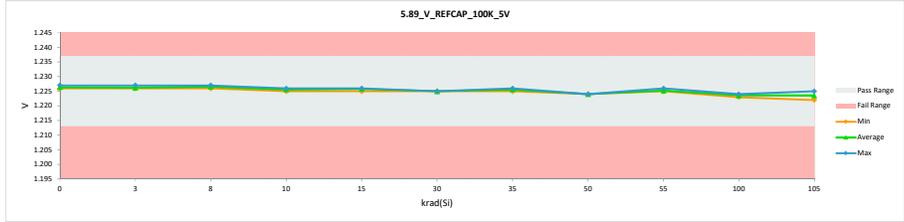
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.89_V_REFCAP_100K_5V | | | | |
|-----------------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| krad(Si) | Serial # | Pre HDR | Post HDR | Delta |
| 0 | 991 | 1.226 | 1.226 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.226 | 1.226 | 0.000 |
| 3 | 2 | 1.226 | 1.226 | 0.000 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.226 | 1.226 | 0.000 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.226 | -0.001 |
| 8 | 8 | 1.226 | 1.227 | 0.001 |
| 8 | 9 | 1.226 | 1.226 | 0.000 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.225 | 1.225 | 0.000 |
| 10 | 12 | 1.226 | 1.226 | 0.000 |
| 10 | 13 | 1.226 | 1.225 | -0.001 |
| 10 | 14 | 1.226 | 1.226 | 0.000 |
| 10 | 15 | 1.227 | 1.226 | -0.001 |
| 15 | 16 | 1.226 | 1.226 | 0.000 |
| 15 | 17 | 1.226 | 1.226 | 0.000 |
| 15 | 18 | 1.227 | 1.225 | -0.002 |
| 15 | 19 | 1.226 | 1.226 | 0.000 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.225 | 1.225 | 0.000 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.226 | 1.225 | -0.001 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.226 | 1.225 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.226 | 1.226 | 0.000 |
| 35 | 28 | 1.226 | 1.226 | 0.000 |
| 35 | 29 | 1.226 | 1.225 | -0.001 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.224 | -0.002 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.226 | 1.224 | -0.002 |
| 50 | 34 | 1.227 | 1.224 | -0.003 |
| 50 | 35 | 1.226 | 1.224 | -0.002 |
| 55 | 36 | 1.226 | 1.225 | -0.001 |
| 55 | 37 | 1.226 | 1.225 | -0.001 |
| 55 | 38 | 1.226 | 1.225 | -0.001 |
| 55 | 39 | 1.226 | 1.225 | -0.001 |
| 55 | 40 | 1.226 | 1.226 | 0.000 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.223 | -0.003 |
| 100 | 43 | 1.226 | 1.224 | -0.002 |
| 100 | 44 | 1.226 | 1.223 | -0.003 |
| 100 | 45 | 1.226 | 1.224 | -0.002 |
| 105 | 46 | 1.226 | 1.224 | -0.002 |
| 105 | 47 | 1.226 | 1.224 | -0.002 |
| 105 | 48 | 1.226 | 1.223 | -0.003 |
| 105 | 49 | 1.226 | 1.223 | -0.003 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.224 | -0.003 |
| 105 | 54 | 1.226 | 1.223 | -0.003 |
| 105 | 55 | 1.226 | 1.224 | -0.002 |
| 105 | 56 | 1.226 | 1.223 | -0.003 |
| 105 | 57 | 1.226 | 1.224 | -0.002 |
| 105 | 58 | 1.226 | 1.223 | -0.003 |
| 105 | 59 | 1.226 | 1.224 | -0.002 |
| 105 | 60 | 1.225 | 1.223 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.225 | 1.222 | -0.003 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.226 | 1.223 | -0.003 |
| 105 | 65 | 1.226 | 1.223 | -0.003 |
| 105 | 66 | 1.226 | 1.224 | -0.002 |
| 105 | 67 | 1.227 | 1.224 | -0.003 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.225 | 1.222 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



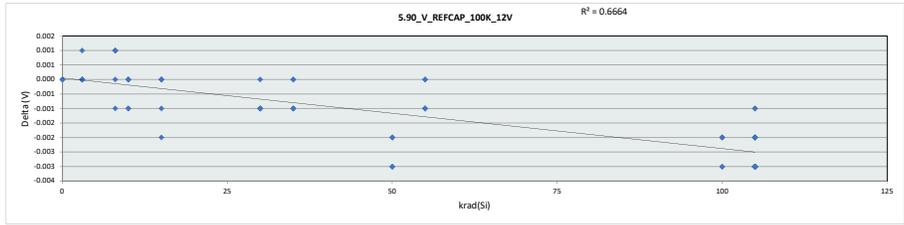
| 5.89_V_REFCAP_100K_5V | | | | | | | | | | | | | | | | |
|-----------------------|--------|-------------|------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | | | | 1.237 | V | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | | | | | | 1.226 | 1.226 | 1.226 | 1.226 | 1.225 | 1.225 | 1.225 | 1.224 | 1.225 | 1.223 | 1.222 |
| Average | | | | | | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.224 |
| Max | | | | | | 1.227 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.225 |
| UL | | | | | | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



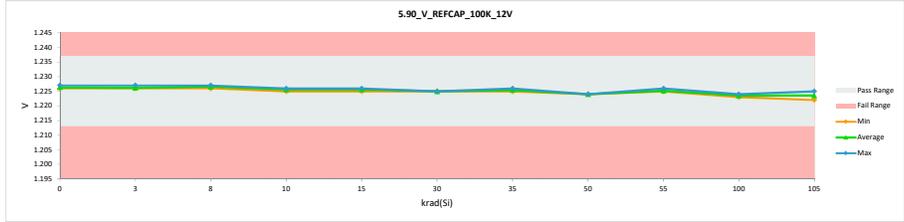
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.90 V_REFCAP_100K_12V | | | | |
|------------------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| | | | 1.237 | 1.237 |
| | | | 1.213 | 1.213 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.226 | 1.226 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.226 | 1.226 | 0.000 |
| 3 | 2 | 1.226 | 1.226 | 0.000 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.226 | 1.226 | 0.000 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.226 | -0.001 |
| 8 | 8 | 1.226 | 1.227 | 0.001 |
| 8 | 9 | 1.226 | 1.226 | 0.000 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.225 | 1.225 | 0.000 |
| 10 | 12 | 1.226 | 1.226 | 0.000 |
| 10 | 13 | 1.226 | 1.225 | -0.001 |
| 10 | 14 | 1.226 | 1.226 | 0.000 |
| 10 | 15 | 1.227 | 1.226 | -0.001 |
| 15 | 16 | 1.226 | 1.226 | 0.000 |
| 15 | 17 | 1.226 | 1.226 | 0.000 |
| 15 | 18 | 1.227 | 1.225 | -0.002 |
| 15 | 19 | 1.226 | 1.225 | -0.001 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.225 | 1.225 | 0.000 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.226 | 1.225 | -0.001 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.226 | 1.225 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.226 | 1.226 | 0.000 |
| 35 | 28 | 1.226 | 1.225 | -0.001 |
| 35 | 29 | 1.226 | 1.225 | -0.001 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.224 | -0.002 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.226 | 1.224 | -0.002 |
| 50 | 34 | 1.227 | 1.224 | -0.003 |
| 50 | 35 | 1.226 | 1.224 | -0.002 |
| 55 | 36 | 1.226 | 1.225 | -0.001 |
| 55 | 37 | 1.226 | 1.225 | -0.001 |
| 55 | 38 | 1.225 | 1.225 | 0.000 |
| 55 | 39 | 1.226 | 1.225 | -0.001 |
| 55 | 40 | 1.226 | 1.226 | 0.000 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.223 | -0.003 |
| 100 | 43 | 1.226 | 1.224 | -0.002 |
| 100 | 44 | 1.226 | 1.223 | -0.003 |
| 100 | 45 | 1.226 | 1.224 | -0.002 |
| 105 | 46 | 1.226 | 1.224 | -0.002 |
| 105 | 47 | 1.226 | 1.224 | -0.002 |
| 105 | 48 | 1.226 | 1.223 | -0.003 |
| 105 | 49 | 1.226 | 1.223 | -0.003 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.224 | -0.003 |
| 105 | 54 | 1.226 | 1.223 | -0.003 |
| 105 | 55 | 1.226 | 1.224 | -0.002 |
| 105 | 56 | 1.226 | 1.223 | -0.003 |
| 105 | 57 | 1.226 | 1.224 | -0.002 |
| 105 | 58 | 1.226 | 1.223 | -0.003 |
| 105 | 59 | 1.226 | 1.224 | -0.002 |
| 105 | 60 | 1.225 | 1.223 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.225 | 1.222 | -0.003 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.226 | 1.223 | -0.003 |
| 105 | 65 | 1.226 | 1.223 | -0.003 |
| 105 | 66 | 1.226 | 1.224 | -0.002 |
| 105 | 67 | 1.227 | 1.224 | -0.003 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.225 | 1.222 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



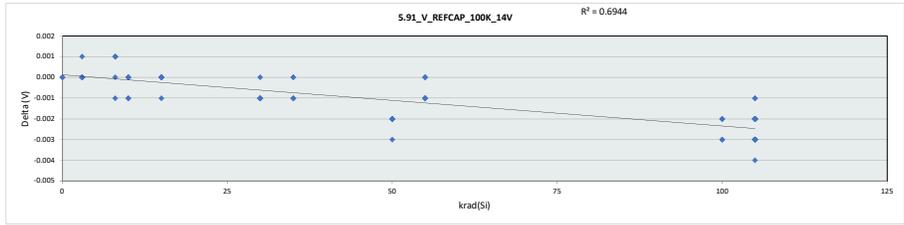
| 5.90 V_REFCAP_100K_12V | | | | | | | | | | | | | | | | |
|------------------------|--------|-------------|------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | | | | 1.237 | V | 1.213 | | | | | | | | | | |
| Min | | | | 1.226 | | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.225 | 1.224 | 1.224 |
| Max | | | | 1.227 | | 1.227 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.225 |
| UL | | | | 1.237 | V | 1.237 | | | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



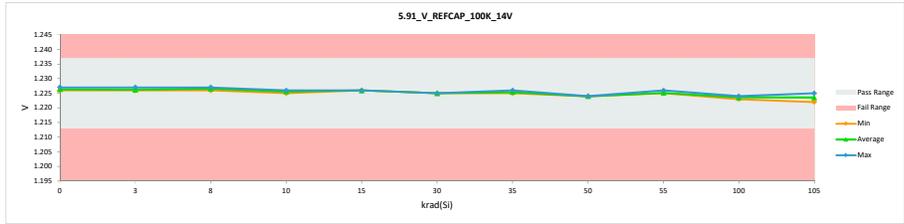
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.91 V_REFCAP_100K_14V | | | | |
|------------------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| | | | 1.237 | 1.237 |
| | | | 1.213 | 1.213 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.226 | 1.226 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.226 | 1.226 | 0.000 |
| 3 | 2 | 1.226 | 1.226 | 0.000 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.226 | 1.226 | 0.000 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.226 | -0.001 |
| 8 | 8 | 1.226 | 1.227 | 0.001 |
| 8 | 9 | 1.226 | 1.226 | 0.000 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.225 | 1.225 | 0.000 |
| 10 | 12 | 1.226 | 1.226 | 0.000 |
| 10 | 13 | 1.226 | 1.225 | -0.001 |
| 10 | 14 | 1.226 | 1.226 | 0.000 |
| 10 | 15 | 1.227 | 1.226 | -0.001 |
| 15 | 16 | 1.226 | 1.226 | 0.000 |
| 15 | 17 | 1.226 | 1.226 | 0.000 |
| 15 | 18 | 1.227 | 1.226 | -0.001 |
| 15 | 19 | 1.226 | 1.226 | 0.000 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.225 | 1.225 | 0.000 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.226 | 1.225 | -0.001 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.226 | 1.225 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.226 | 1.226 | 0.000 |
| 35 | 28 | 1.226 | 1.225 | -0.001 |
| 35 | 29 | 1.226 | 1.225 | -0.001 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.224 | -0.002 |
| 50 | 32 | 1.226 | 1.224 | -0.002 |
| 50 | 33 | 1.226 | 1.224 | -0.002 |
| 50 | 34 | 1.227 | 1.224 | -0.003 |
| 50 | 35 | 1.226 | 1.224 | -0.002 |
| 55 | 36 | 1.226 | 1.225 | -0.001 |
| 55 | 37 | 1.226 | 1.225 | -0.001 |
| 55 | 38 | 1.225 | 1.225 | 0.000 |
| 55 | 39 | 1.226 | 1.225 | -0.001 |
| 55 | 40 | 1.226 | 1.226 | 0.000 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.223 | -0.003 |
| 100 | 43 | 1.226 | 1.224 | -0.002 |
| 100 | 44 | 1.226 | 1.223 | -0.003 |
| 100 | 45 | 1.226 | 1.224 | -0.002 |
| 105 | 46 | 1.226 | 1.224 | -0.002 |
| 105 | 47 | 1.226 | 1.224 | -0.002 |
| 105 | 48 | 1.226 | 1.223 | -0.003 |
| 105 | 49 | 1.226 | 1.223 | -0.003 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.225 | 1.223 | -0.002 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.224 | -0.003 |
| 105 | 54 | 1.226 | 1.223 | -0.003 |
| 105 | 55 | 1.226 | 1.224 | -0.002 |
| 105 | 56 | 1.226 | 1.223 | -0.003 |
| 105 | 57 | 1.226 | 1.224 | -0.002 |
| 105 | 58 | 1.226 | 1.223 | -0.003 |
| 105 | 59 | 1.226 | 1.224 | -0.002 |
| 105 | 60 | 1.225 | 1.223 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.226 | 1.222 | -0.004 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.226 | 1.223 | -0.003 |
| 105 | 65 | 1.226 | 1.223 | -0.003 |
| 105 | 66 | 1.226 | 1.224 | -0.002 |
| 105 | 67 | 1.226 | 1.224 | -0.002 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.225 | 1.222 | -0.004 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



| 5.91 V_REFCAP_100K_14V | | | | | | | | | | | | | | | | |
|------------------------|--------|-------------|------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| | | | V | V | | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| LL | | | | | | 1.226 | 1.226 | 1.226 | 1.225 | 1.226 | 1.225 | 1.225 | 1.224 | 1.225 | 1.223 | 1.222 |
| Min | | | | | | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.225 | 1.224 | 1.224 |
| Average | | | | | | 1.227 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.225 |
| Max | | | | | | 1.227 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.225 |
| UL | | | | | | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |

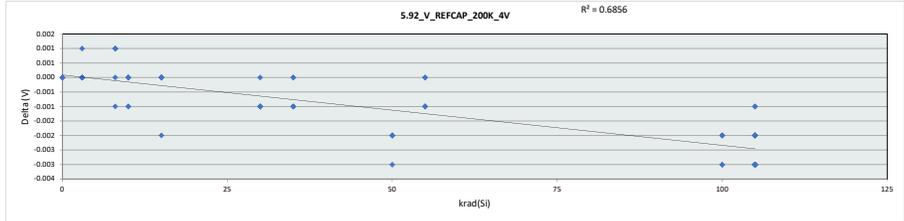


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

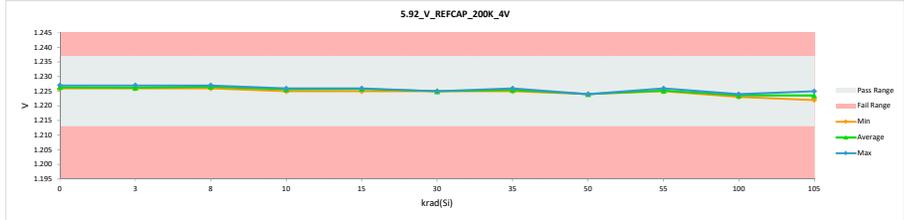
| 5.92_V_REFCAP_200K_4V | |
|-----------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | V |
| Min Limit | 1.237 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.226 | 1.226 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.226 | 1.226 | 0.000 |
| 3 | 2 | 1.226 | 1.226 | 0.000 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.226 | 1.226 | 0.000 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.226 | -0.001 |
| 8 | 8 | 1.226 | 1.227 | 0.001 |
| 8 | 9 | 1.226 | 1.226 | 0.000 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.225 | 1.225 | 0.000 |
| 10 | 12 | 1.226 | 1.226 | 0.000 |
| 10 | 13 | 1.226 | 1.225 | -0.001 |
| 10 | 14 | 1.226 | 1.226 | 0.000 |
| 10 | 15 | 1.227 | 1.226 | -0.001 |
| 15 | 16 | 1.226 | 1.226 | 0.000 |
| 15 | 17 | 1.226 | 1.226 | 0.000 |
| 15 | 18 | 1.227 | 1.225 | -0.002 |
| 15 | 19 | 1.226 | 1.226 | 0.000 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.225 | 1.225 | 0.000 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.226 | 1.225 | -0.001 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.226 | 1.225 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.226 | 1.226 | 0.000 |
| 35 | 28 | 1.226 | 1.225 | -0.001 |
| 35 | 29 | 1.226 | 1.225 | -0.001 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.224 | -0.002 |
| 50 | 32 | 1.226 | 1.224 | -0.002 |
| 50 | 33 | 1.226 | 1.224 | -0.002 |
| 50 | 34 | 1.227 | 1.224 | -0.003 |
| 50 | 35 | 1.226 | 1.224 | -0.002 |
| 55 | 36 | 1.226 | 1.225 | -0.001 |
| 55 | 37 | 1.226 | 1.225 | -0.001 |
| 55 | 38 | 1.225 | 1.225 | 0.000 |
| 55 | 39 | 1.226 | 1.225 | -0.001 |
| 55 | 40 | 1.226 | 1.226 | 0.000 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.223 | -0.003 |
| 100 | 43 | 1.226 | 1.224 | -0.002 |
| 100 | 44 | 1.226 | 1.223 | -0.003 |
| 100 | 45 | 1.226 | 1.224 | -0.002 |
| 105 | 46 | 1.226 | 1.224 | -0.002 |
| 105 | 47 | 1.226 | 1.224 | -0.002 |
| 105 | 48 | 1.226 | 1.223 | -0.003 |
| 105 | 49 | 1.226 | 1.223 | -0.003 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.224 | -0.003 |
| 105 | 54 | 1.226 | 1.223 | -0.003 |
| 105 | 55 | 1.226 | 1.224 | -0.002 |
| 105 | 56 | 1.226 | 1.223 | -0.003 |
| 105 | 57 | 1.226 | 1.224 | -0.002 |
| 105 | 58 | 1.226 | 1.223 | -0.003 |
| 105 | 59 | 1.226 | 1.224 | -0.002 |
| 105 | 60 | 1.225 | 1.223 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.225 | 1.222 | -0.003 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.226 | 1.223 | -0.003 |
| 105 | 65 | 1.226 | 1.223 | -0.003 |
| 105 | 66 | 1.226 | 1.224 | -0.002 |
| 105 | 67 | 1.226 | 1.224 | -0.002 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.225 | 1.222 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



| 5.92_V_REFCAP_200K_4V | |
|-----------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | V |
| Min Limit | 1.213 |

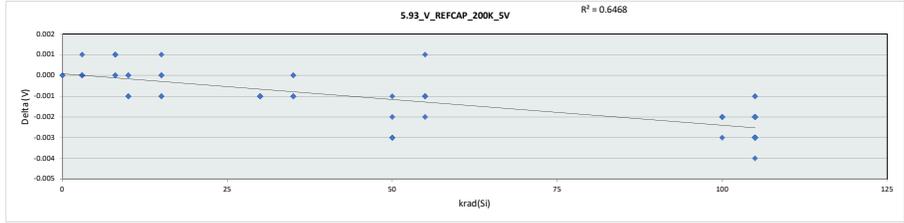
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.226 | 1.225 | 1.225 | 1.225 | 1.225 | 1.224 | 1.225 | 1.223 | 1.222 |
| Average | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.224 |
| Max | 1.227 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.225 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



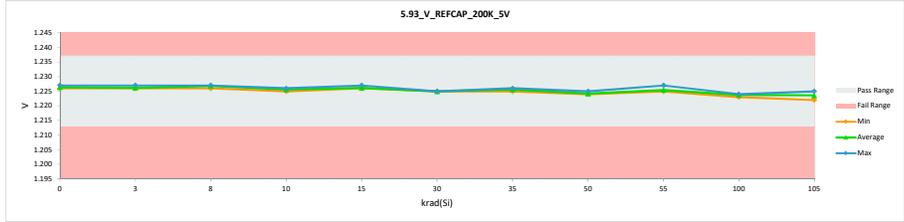
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.93 V_REFCAP_200K_5V | | | | |
|-----------------------|----------|---------|----------|--------|
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.226 | 1.226 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.226 | 1.226 | 0.000 |
| 3 | 2 | 1.226 | 1.226 | 0.000 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.226 | 1.226 | 0.000 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.227 | 0.001 |
| 8 | 9 | 1.226 | 1.226 | 0.000 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.226 | 1.225 | -0.001 |
| 10 | 12 | 1.226 | 1.226 | 0.000 |
| 10 | 13 | 1.226 | 1.225 | -0.001 |
| 10 | 14 | 1.226 | 1.226 | 0.000 |
| 10 | 15 | 1.227 | 1.226 | -0.001 |
| 15 | 16 | 1.226 | 1.227 | 0.001 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.227 | 1.226 | -0.001 |
| 15 | 19 | 1.226 | 1.226 | 0.000 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.226 | 1.225 | -0.001 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.226 | 1.225 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.226 | 1.226 | 0.000 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.226 | 1.225 | -0.001 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.225 | -0.001 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.227 | 1.224 | -0.003 |
| 50 | 34 | 1.227 | 1.224 | -0.003 |
| 50 | 35 | 1.226 | 1.224 | -0.002 |
| 55 | 36 | 1.226 | 1.225 | -0.001 |
| 55 | 37 | 1.226 | 1.225 | -0.001 |
| 55 | 38 | 1.226 | 1.225 | -0.001 |
| 55 | 39 | 1.227 | 1.225 | -0.002 |
| 55 | 40 | 1.226 | 1.227 | 0.001 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.223 | -0.003 |
| 100 | 43 | 1.226 | 1.224 | -0.002 |
| 100 | 44 | 1.226 | 1.224 | -0.002 |
| 100 | 45 | 1.226 | 1.224 | -0.002 |
| 105 | 46 | 1.226 | 1.224 | -0.002 |
| 105 | 47 | 1.226 | 1.224 | -0.002 |
| 105 | 48 | 1.226 | 1.223 | -0.003 |
| 105 | 49 | 1.226 | 1.223 | -0.003 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.224 | -0.003 |
| 105 | 54 | 1.226 | 1.224 | -0.002 |
| 105 | 55 | 1.226 | 1.224 | -0.002 |
| 105 | 56 | 1.226 | 1.223 | -0.003 |
| 105 | 57 | 1.226 | 1.224 | -0.002 |
| 105 | 58 | 1.226 | 1.223 | -0.003 |
| 105 | 59 | 1.227 | 1.224 | -0.003 |
| 105 | 60 | 1.225 | 1.223 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.226 | 1.222 | -0.004 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.226 | 1.223 | -0.003 |
| 105 | 65 | 1.226 | 1.223 | -0.003 |
| 105 | 66 | 1.226 | 1.224 | -0.002 |
| 105 | 67 | 1.227 | 1.224 | -0.003 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.225 | 1.222 | -0.004 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



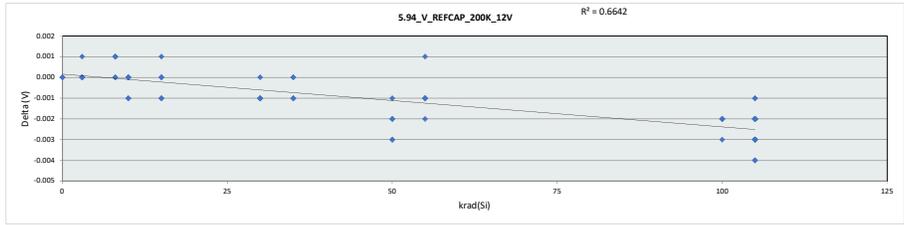
| 5.93 V_REFCAP_200K_5V | | | | | | | | | | | |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.226 | 1.225 | 1.226 | 1.225 | 1.225 | 1.224 | 1.225 | 1.223 | 1.222 |
| Average | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.225 | 1.224 | 1.224 |
| Max | 1.227 | 1.227 | 1.227 | 1.226 | 1.227 | 1.225 | 1.226 | 1.225 | 1.227 | 1.224 | 1.225 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



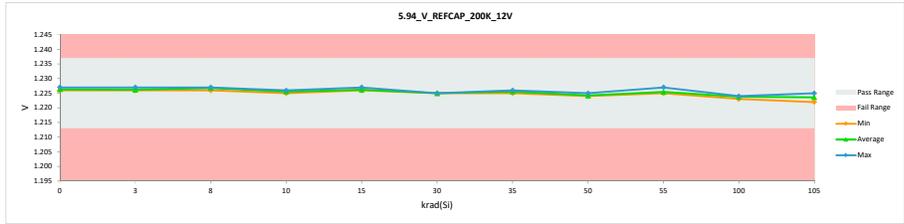
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.94 V_REFCAP_200K_12V | | | | |
|------------------------|----------|---------|----------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | | |
| Max Limit | 1.237 | 1.237 | | |
| Min Limit | 1.213 | 1.213 | | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.226 | 1.226 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.226 | 1.226 | 0.000 |
| 3 | 2 | 1.226 | 1.226 | 0.000 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.226 | 1.226 | 0.000 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.227 | 0.001 |
| 8 | 9 | 1.226 | 1.226 | 0.000 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.225 | 1.225 | 0.000 |
| 10 | 12 | 1.226 | 1.226 | 0.000 |
| 10 | 13 | 1.226 | 1.225 | -0.001 |
| 10 | 14 | 1.226 | 1.226 | 0.000 |
| 10 | 15 | 1.227 | 1.226 | -0.001 |
| 15 | 16 | 1.226 | 1.227 | 0.001 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.227 | 1.226 | -0.001 |
| 15 | 19 | 1.226 | 1.226 | 0.000 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.225 | 1.225 | 0.000 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.226 | 1.225 | -0.001 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.226 | 1.225 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.226 | 1.226 | 0.000 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.226 | 1.225 | -0.001 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.225 | -0.001 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.226 | 1.224 | -0.002 |
| 50 | 34 | 1.227 | 1.224 | -0.003 |
| 50 | 35 | 1.226 | 1.224 | -0.002 |
| 55 | 36 | 1.226 | 1.225 | -0.001 |
| 55 | 37 | 1.226 | 1.225 | -0.001 |
| 55 | 38 | 1.226 | 1.225 | -0.001 |
| 55 | 39 | 1.227 | 1.225 | -0.002 |
| 55 | 40 | 1.226 | 1.227 | 0.001 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.223 | -0.003 |
| 100 | 43 | 1.226 | 1.224 | -0.002 |
| 100 | 44 | 1.226 | 1.224 | -0.002 |
| 100 | 45 | 1.226 | 1.224 | -0.002 |
| 105 | 46 | 1.226 | 1.224 | -0.002 |
| 105 | 47 | 1.226 | 1.224 | -0.002 |
| 105 | 48 | 1.226 | 1.223 | -0.003 |
| 105 | 49 | 1.226 | 1.223 | -0.003 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.225 | -0.002 |
| 105 | 54 | 1.226 | 1.224 | -0.002 |
| 105 | 55 | 1.226 | 1.224 | -0.002 |
| 105 | 56 | 1.227 | 1.223 | -0.004 |
| 105 | 57 | 1.226 | 1.224 | -0.002 |
| 105 | 58 | 1.226 | 1.223 | -0.003 |
| 105 | 59 | 1.227 | 1.224 | -0.003 |
| 105 | 60 | 1.225 | 1.223 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.226 | 1.222 | -0.004 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.226 | 1.223 | -0.003 |
| 105 | 65 | 1.226 | 1.223 | -0.003 |
| 105 | 66 | 1.226 | 1.224 | -0.002 |
| 105 | 67 | 1.227 | 1.224 | -0.003 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.225 | 1.222 | -0.004 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



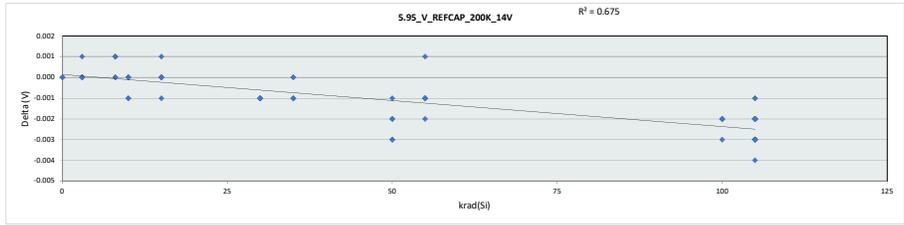
| 5.94 V_REFCAP_200K_12V | | | | | | | | | | | |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | | | | | | | | | | | |
| Tester | | | | | | | | | | | |
| Test Number | | | | | | | | | | | |
| Max Limit | 1.237 | V | | | | | | | | | |
| Min Limit | 1.213 | V | | | | | | | | | |
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.226 | 1.225 | 1.226 | 1.225 | 1.225 | 1.224 | 1.225 | 1.223 | 1.222 |
| Average | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.225 | 1.224 | 1.224 |
| Max | 1.227 | 1.227 | 1.227 | 1.226 | 1.227 | 1.225 | 1.226 | 1.225 | 1.227 | 1.224 | 1.225 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



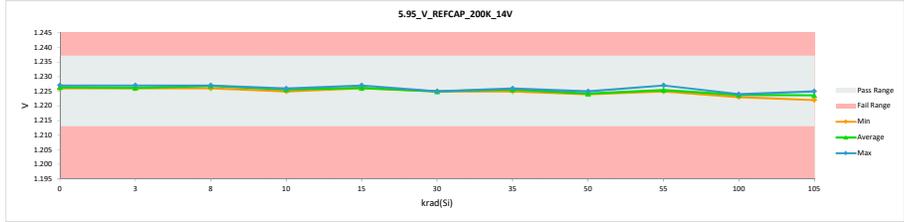
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.95 V_REFCAP_200K_14V | | | | |
|------------------------|----------|---------|----------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | | |
| Max Limit | 1.237 | 1.237 | | |
| Min Limit | 1.213 | 1.213 | | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.226 | 1.226 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.226 | 1.226 | 0.000 |
| 3 | 2 | 1.226 | 1.226 | 0.000 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.226 | 1.226 | 0.000 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.227 | 0.001 |
| 8 | 9 | 1.226 | 1.226 | 0.000 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.225 | 1.225 | 0.000 |
| 10 | 12 | 1.226 | 1.226 | 0.000 |
| 10 | 13 | 1.226 | 1.225 | -0.001 |
| 10 | 14 | 1.226 | 1.226 | 0.000 |
| 10 | 15 | 1.227 | 1.226 | -0.001 |
| 15 | 16 | 1.226 | 1.227 | 0.001 |
| 15 | 17 | 1.226 | 1.226 | 0.000 |
| 15 | 18 | 1.227 | 1.226 | -0.001 |
| 15 | 19 | 1.226 | 1.226 | 0.000 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.226 | 1.225 | -0.001 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.226 | 1.225 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.226 | 1.226 | 0.000 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.226 | 1.225 | -0.001 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.225 | -0.001 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.226 | 1.224 | -0.002 |
| 50 | 34 | 1.227 | 1.224 | -0.003 |
| 50 | 35 | 1.226 | 1.224 | -0.002 |
| 55 | 36 | 1.226 | 1.225 | -0.001 |
| 55 | 37 | 1.226 | 1.225 | -0.001 |
| 55 | 38 | 1.226 | 1.225 | -0.001 |
| 55 | 39 | 1.227 | 1.225 | -0.002 |
| 55 | 40 | 1.226 | 1.227 | 0.001 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.223 | -0.003 |
| 100 | 43 | 1.226 | 1.224 | -0.002 |
| 100 | 44 | 1.226 | 1.224 | -0.002 |
| 100 | 45 | 1.226 | 1.224 | -0.002 |
| 105 | 46 | 1.226 | 1.224 | -0.002 |
| 105 | 47 | 1.226 | 1.224 | -0.002 |
| 105 | 48 | 1.226 | 1.223 | -0.003 |
| 105 | 49 | 1.226 | 1.223 | -0.003 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.224 | -0.003 |
| 105 | 54 | 1.226 | 1.224 | -0.002 |
| 105 | 55 | 1.226 | 1.224 | -0.002 |
| 105 | 56 | 1.226 | 1.223 | -0.003 |
| 105 | 57 | 1.226 | 1.224 | -0.002 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.227 | 1.224 | -0.003 |
| 105 | 60 | 1.225 | 1.223 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.226 | 1.222 | -0.004 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.226 | 1.223 | -0.003 |
| 105 | 65 | 1.226 | 1.223 | -0.003 |
| 105 | 66 | 1.226 | 1.224 | -0.002 |
| 105 | 67 | 1.227 | 1.224 | -0.003 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.225 | 1.222 | -0.004 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



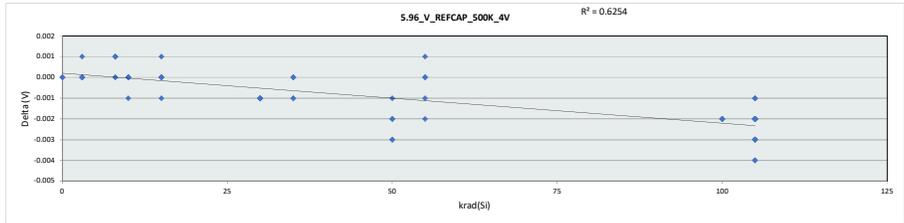
| 5.95 V_REFCAP_200K_14V | | | | | | | | | | | |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | | | | | | | | | | | |
| Tester | | | | | | | | | | | |
| Test Number | | | | | | | | | | | |
| Max Limit | 1.237 | V | | | | | | | | | |
| Min Limit | 1.213 | V | | | | | | | | | |
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.226 | 1.225 | 1.226 | 1.225 | 1.225 | 1.224 | 1.225 | 1.223 | 1.222 |
| Average | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.225 | 1.224 | 1.224 |
| Max | 1.227 | 1.227 | 1.227 | 1.226 | 1.227 | 1.225 | 1.226 | 1.225 | 1.227 | 1.224 | 1.225 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



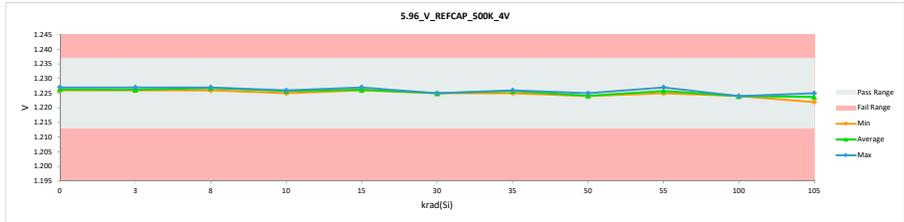
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.96 V_REFCAP_500K_4V | | | | |
|-----------------------|----------|---------|----------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | | |
| Max Limit | 1.237 | 1.237 | | |
| Min Limit | 1.213 | 1.213 | | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.226 | 1.226 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.226 | 1.226 | 0.000 |
| 3 | 2 | 1.226 | 1.226 | 0.000 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.226 | 1.226 | 0.000 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.227 | 0.001 |
| 8 | 9 | 1.226 | 1.226 | 0.000 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.225 | 1.225 | 0.000 |
| 10 | 12 | 1.226 | 1.226 | 0.000 |
| 10 | 13 | 1.226 | 1.226 | 0.000 |
| 10 | 14 | 1.226 | 1.226 | 0.000 |
| 10 | 15 | 1.227 | 1.226 | -0.001 |
| 15 | 16 | 1.227 | 1.227 | 0.001 |
| 15 | 17 | 1.226 | 1.226 | 0.000 |
| 15 | 18 | 1.227 | 1.226 | -0.001 |
| 15 | 19 | 1.226 | 1.226 | 0.000 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.226 | 1.225 | -0.001 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.226 | 1.225 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.226 | 1.226 | 0.000 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.226 | 1.226 | 0.000 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.225 | -0.001 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.226 | 1.224 | -0.002 |
| 50 | 34 | 1.227 | 1.224 | -0.003 |
| 50 | 35 | 1.226 | 1.224 | -0.002 |
| 55 | 36 | 1.226 | 1.225 | -0.001 |
| 55 | 37 | 1.226 | 1.226 | 0.000 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.227 | 1.225 | -0.002 |
| 55 | 40 | 1.226 | 1.227 | 0.001 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.224 | -0.002 |
| 100 | 43 | 1.226 | 1.224 | -0.002 |
| 100 | 44 | 1.226 | 1.224 | -0.002 |
| 100 | 45 | 1.226 | 1.224 | -0.002 |
| 105 | 46 | 1.226 | 1.224 | -0.002 |
| 105 | 47 | 1.226 | 1.224 | -0.002 |
| 105 | 48 | 1.226 | 1.223 | -0.003 |
| 105 | 49 | 1.226 | 1.223 | -0.003 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.225 | -0.002 |
| 105 | 54 | 1.226 | 1.224 | -0.002 |
| 105 | 55 | 1.226 | 1.224 | -0.002 |
| 105 | 56 | 1.227 | 1.223 | -0.004 |
| 105 | 57 | 1.226 | 1.224 | -0.002 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.226 | 1.224 | -0.002 |
| 105 | 60 | 1.225 | 1.224 | -0.001 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.226 | 1.222 | -0.004 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.226 | 1.223 | -0.003 |
| 105 | 65 | 1.226 | 1.223 | -0.003 |
| 105 | 66 | 1.226 | 1.224 | -0.002 |
| 105 | 67 | 1.227 | 1.225 | -0.002 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.225 | 1.222 | -0.004 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



| 5.96 V_REFCAP_500K_4V | | | | | | | | | | | |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | | | | | | | | | | | |
| Tester | | | | | | | | | | | |
| Test Number | | | | | | | | | | | |
| Max Limit | 1.237 | V | | | | | | | | | |
| Min Limit | 1.213 | V | | | | | | | | | |
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.226 | 1.225 | 1.226 | 1.225 | 1.225 | 1.224 | 1.225 | 1.224 | 1.222 |
| Average | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.224 |
| Max | 1.227 | 1.227 | 1.227 | 1.226 | 1.227 | 1.225 | 1.226 | 1.225 | 1.227 | 1.224 | 1.225 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |

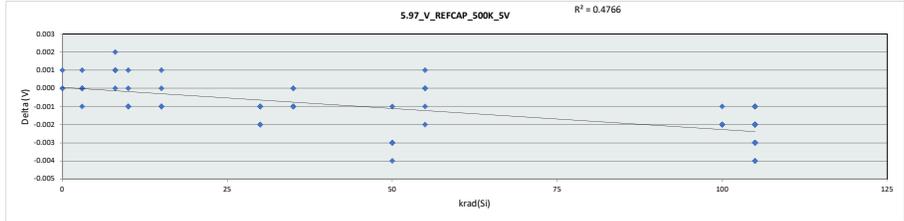


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

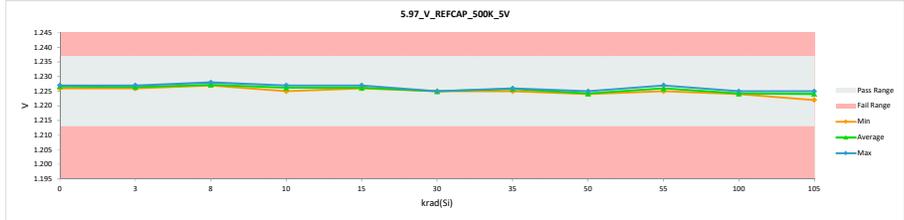
| 5.97 V_REFCAP_500K_5V | |
|-----------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | V |
| Min Limit | 1.237 |

| krad(Si) | Serial # | Pre HDR | Post HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.226 | 1.227 | 0.001 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.226 | 1.226 | 0.000 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.227 | 1.226 | -0.001 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.228 | 0.002 |
| 8 | 9 | 1.226 | 1.227 | 0.001 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.226 | 1.225 | -0.001 |
| 10 | 12 | 1.227 | 1.226 | -0.001 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.226 | 1.227 | 0.001 |
| 10 | 15 | 1.227 | 1.227 | 0.000 |
| 15 | 16 | 1.226 | 1.227 | 0.001 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.227 | 1.226 | -0.001 |
| 15 | 19 | 1.227 | 1.226 | -0.001 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.227 | 1.225 | -0.002 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.227 | 1.225 | -0.002 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.226 | -0.001 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.226 | 1.226 | 0.000 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.225 | -0.001 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.227 | 1.224 | -0.003 |
| 50 | 34 | 1.228 | 1.224 | -0.004 |
| 50 | 35 | 1.227 | 1.224 | -0.003 |
| 55 | 36 | 1.226 | 1.226 | 0.000 |
| 55 | 37 | 1.227 | 1.226 | -0.001 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.227 | 1.225 | -0.002 |
| 55 | 40 | 1.226 | 1.227 | 0.001 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.224 | -0.002 |
| 100 | 43 | 1.226 | 1.225 | -0.001 |
| 100 | 44 | 1.226 | 1.224 | -0.002 |
| 100 | 45 | 1.226 | 1.224 | -0.002 |
| 105 | 46 | 1.226 | 1.225 | -0.001 |
| 105 | 47 | 1.227 | 1.224 | -0.003 |
| 105 | 48 | 1.227 | 1.223 | -0.004 |
| 105 | 49 | 1.226 | 1.224 | -0.002 |
| 105 | 50 | 1.227 | 1.225 | -0.002 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.225 | -0.002 |
| 105 | 54 | 1.227 | 1.224 | -0.003 |
| 105 | 55 | 1.226 | 1.225 | -0.001 |
| 105 | 56 | 1.227 | 1.223 | -0.004 |
| 105 | 57 | 1.226 | 1.225 | -0.001 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.226 | 1.222 | -0.004 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.227 | 1.224 | -0.003 |
| 105 | 65 | 1.226 | 1.224 | -0.002 |
| 105 | 66 | 1.227 | 1.224 | -0.003 |
| 105 | 67 | 1.227 | 1.225 | -0.002 |
| Max | | 1.228 | 1.228 | 0.002 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.226 | 1.222 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.97 V_REFCAP_500K_5V | |
|-----------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | V |
| Min Limit | 1.213 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.227 | 1.225 | 1.226 | 1.225 | 1.225 | 1.224 | 1.225 | 1.224 | 1.222 |
| Average | 1.227 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.224 |
| Max | 1.227 | 1.227 | 1.228 | 1.227 | 1.227 | 1.225 | 1.226 | 1.225 | 1.227 | 1.225 | 1.225 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |

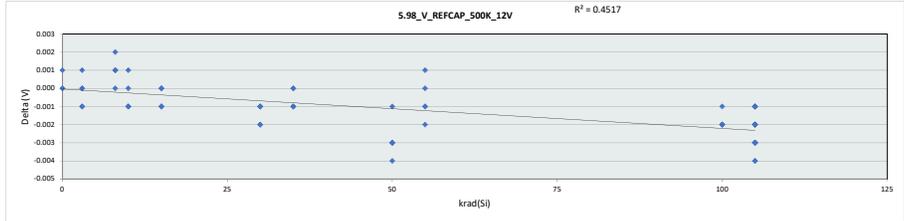


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

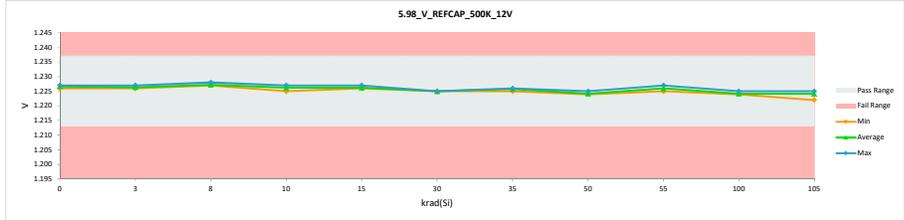
| 5.98 V_REFCAP_500K_12V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | V |
| Min Limit | 1.237 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.226 | 1.227 | 0.001 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.226 | -0.001 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.227 | 1.226 | -0.001 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.228 | 0.002 |
| 8 | 9 | 1.226 | 1.227 | 0.001 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.226 | 1.225 | -0.001 |
| 10 | 12 | 1.227 | 1.226 | -0.001 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.226 | 1.227 | 0.001 |
| 10 | 15 | 1.227 | 1.227 | 0.000 |
| 10 | 16 | 1.227 | 1.227 | 0.000 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.227 | 1.226 | -0.001 |
| 15 | 19 | 1.227 | 1.226 | -0.001 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.227 | 1.225 | -0.002 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.227 | 1.225 | -0.002 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.226 | -0.001 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.226 | 1.226 | 0.000 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.225 | -0.001 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.227 | 1.224 | -0.003 |
| 50 | 34 | 1.228 | 1.224 | -0.004 |
| 50 | 35 | 1.227 | 1.224 | -0.003 |
| 55 | 36 | 1.227 | 1.226 | -0.001 |
| 55 | 37 | 1.227 | 1.226 | -0.001 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.227 | 1.225 | -0.002 |
| 55 | 40 | 1.226 | 1.227 | 0.001 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.224 | -0.002 |
| 100 | 43 | 1.226 | 1.224 | -0.002 |
| 100 | 44 | 1.226 | 1.224 | -0.002 |
| 100 | 45 | 1.226 | 1.225 | -0.001 |
| 105 | 46 | 1.226 | 1.225 | -0.001 |
| 105 | 47 | 1.227 | 1.224 | -0.003 |
| 105 | 48 | 1.227 | 1.224 | -0.003 |
| 105 | 49 | 1.226 | 1.224 | -0.002 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.225 | -0.002 |
| 105 | 54 | 1.227 | 1.224 | -0.003 |
| 105 | 55 | 1.226 | 1.225 | -0.001 |
| 105 | 56 | 1.227 | 1.223 | -0.004 |
| 105 | 57 | 1.226 | 1.225 | -0.001 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.226 | 1.222 | -0.004 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.227 | 1.224 | -0.003 |
| 105 | 65 | 1.226 | 1.224 | -0.002 |
| 105 | 66 | 1.227 | 1.224 | -0.003 |
| 105 | 67 | 1.227 | 1.225 | -0.002 |
| Max | | 1.228 | 1.228 | 0.002 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.226 | 1.222 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.98 V_REFCAP_500K_12V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | V |
| Min Limit | 1.213 |

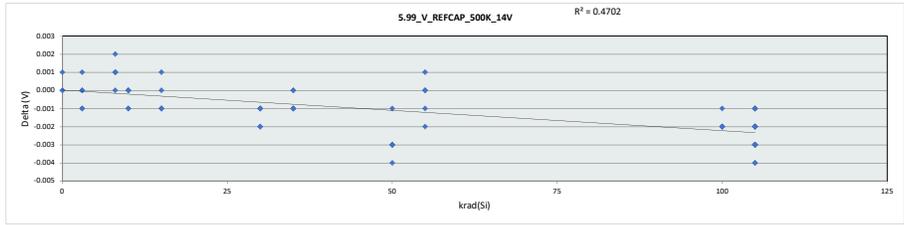
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.227 | 1.225 | 1.226 | 1.225 | 1.225 | 1.224 | 1.225 | 1.224 | 1.222 |
| Average | 1.227 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.224 |
| Max | 1.227 | 1.227 | 1.228 | 1.227 | 1.227 | 1.225 | 1.226 | 1.225 | 1.227 | 1.225 | 1.225 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



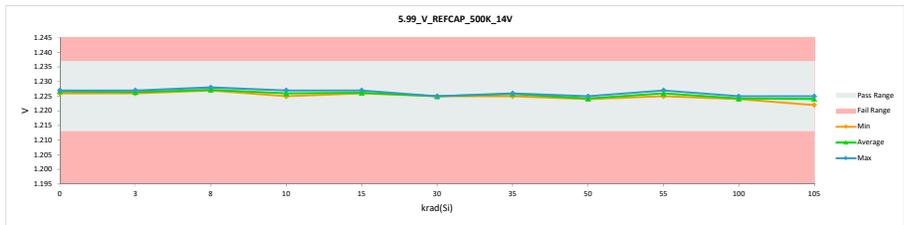
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.99_V_REFCAP_500K_14V | | | | |
|------------------------|----------|---------|----------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | | |
| Max Limit | 1.237 | 1.237 | | |
| Min Limit | 1.213 | 1.213 | | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.226 | 1.227 | 0.001 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.226 | -0.001 |
| 3 | 3 | 1.226 | 1.226 | 0.000 |
| 3 | 4 | 1.227 | 1.226 | -0.001 |
| 3 | 5 | 1.226 | 1.227 | 0.001 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.228 | 0.002 |
| 8 | 9 | 1.226 | 1.227 | 0.001 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.226 | 1.225 | -0.001 |
| 10 | 12 | 1.227 | 1.226 | -0.001 |
| 10 | 13 | 1.226 | 1.226 | 0.000 |
| 10 | 14 | 1.226 | 1.226 | 0.000 |
| 10 | 15 | 1.227 | 1.227 | 0.000 |
| 15 | 16 | 1.226 | 1.227 | 0.001 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.227 | 1.226 | -0.001 |
| 15 | 19 | 1.227 | 1.226 | -0.001 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.227 | 1.225 | -0.002 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.227 | 1.225 | -0.002 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.226 | -0.001 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.226 | 1.226 | 0.000 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.225 | -0.001 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.227 | 1.224 | -0.003 |
| 50 | 34 | 1.228 | 1.224 | -0.004 |
| 50 | 35 | 1.227 | 1.224 | -0.003 |
| 55 | 36 | 1.226 | 1.226 | 0.000 |
| 55 | 37 | 1.227 | 1.226 | -0.001 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.227 | 1.225 | -0.002 |
| 55 | 40 | 1.226 | 1.227 | 0.001 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.224 | -0.002 |
| 100 | 43 | 1.226 | 1.224 | -0.002 |
| 100 | 44 | 1.226 | 1.224 | -0.002 |
| 100 | 45 | 1.226 | 1.225 | -0.001 |
| 105 | 46 | 1.226 | 1.225 | -0.001 |
| 105 | 47 | 1.227 | 1.224 | -0.003 |
| 105 | 48 | 1.227 | 1.224 | -0.003 |
| 105 | 49 | 1.226 | 1.224 | -0.002 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.225 | -0.002 |
| 105 | 54 | 1.227 | 1.224 | -0.003 |
| 105 | 55 | 1.226 | 1.225 | -0.001 |
| 105 | 56 | 1.227 | 1.223 | -0.004 |
| 105 | 57 | 1.226 | 1.224 | -0.002 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.226 | 1.222 | -0.004 |
| 105 | 63 | 1.226 | 1.224 | -0.002 |
| 105 | 64 | 1.227 | 1.224 | -0.003 |
| 105 | 65 | 1.226 | 1.224 | -0.002 |
| 105 | 66 | 1.227 | 1.224 | -0.003 |
| 105 | 67 | 1.227 | 1.225 | -0.002 |
| Max | | 1.228 | 1.228 | 0.002 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.226 | 1.222 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.99_V_REFCAP_500K_14V | | | | | | | | | | | |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | | | | | | | | | | | |
| Tester | | | | | | | | | | | |
| Test Number | | | | | | | | | | | |
| Max Limit | 1.237 | V | | | | | | | | | |
| Min Limit | 1.213 | V | | | | | | | | | |
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.225 | 1.224 | 1.225 | 1.224 | 1.222 |
| Average | 1.227 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.224 |
| Max | 1.227 | 1.227 | 1.228 | 1.227 | 1.227 | 1.225 | 1.226 | 1.225 | 1.227 | 1.225 | 1.225 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |

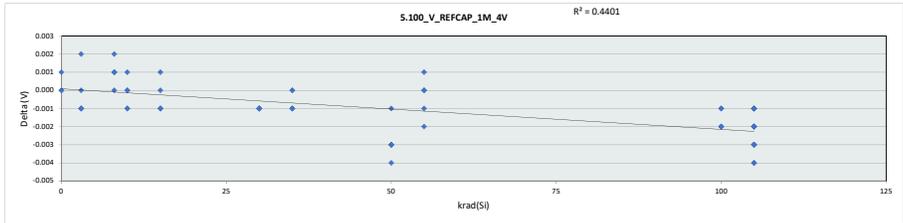


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

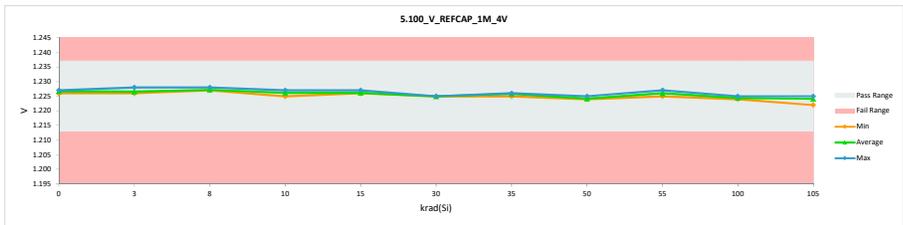
| 5.100_V_REFCAP_1M_4V | |
|----------------------|---|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | V |
| Min Limit | V |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.226 | 1.227 | 0.001 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.226 | -0.001 |
| 3 | 3 | 1.227 | 1.226 | -0.001 |
| 3 | 4 | 1.227 | 1.226 | -0.001 |
| 3 | 5 | 1.226 | 1.228 | 0.002 |
| 8 | 6 | 1.226 | 1.227 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.228 | 0.002 |
| 8 | 9 | 1.226 | 1.227 | 0.001 |
| 8 | 10 | 1.226 | 1.227 | 0.001 |
| 10 | 11 | 1.226 | 1.225 | -0.001 |
| 10 | 12 | 1.226 | 1.226 | 0.000 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.226 | 1.227 | 0.001 |
| 10 | 15 | 1.227 | 1.227 | 0.000 |
| 10 | 16 | 1.226 | 1.227 | 0.001 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.227 | 1.226 | -0.001 |
| 15 | 19 | 1.227 | 1.226 | -0.001 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.226 | 1.225 | -0.001 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.226 | 1.225 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.226 | -0.001 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.226 | 1.226 | 0.000 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.225 | -0.001 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.227 | 1.224 | -0.003 |
| 50 | 34 | 1.228 | 1.224 | -0.004 |
| 50 | 35 | 1.227 | 1.224 | -0.003 |
| 55 | 36 | 1.226 | 1.226 | 0.000 |
| 55 | 37 | 1.227 | 1.226 | -0.001 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.227 | 1.225 | -0.002 |
| 55 | 40 | 1.226 | 1.227 | 0.001 |
| 100 | 41 | 1.226 | 1.224 | -0.002 |
| 100 | 42 | 1.226 | 1.224 | -0.002 |
| 100 | 43 | 1.226 | 1.225 | -0.001 |
| 100 | 44 | 1.226 | 1.224 | -0.002 |
| 100 | 45 | 1.226 | 1.225 | -0.001 |
| 105 | 46 | 1.226 | 1.225 | -0.001 |
| 105 | 47 | 1.227 | 1.224 | -0.003 |
| 105 | 48 | 1.227 | 1.223 | -0.004 |
| 105 | 49 | 1.226 | 1.224 | -0.002 |
| 105 | 50 | 1.226 | 1.225 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.226 | 1.225 | -0.001 |
| 105 | 53 | 1.227 | 1.225 | -0.002 |
| 105 | 54 | 1.227 | 1.224 | -0.003 |
| 105 | 55 | 1.226 | 1.225 | -0.001 |
| 105 | 56 | 1.227 | 1.223 | -0.004 |
| 105 | 57 | 1.226 | 1.225 | -0.001 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.223 | -0.003 |
| 105 | 62 | 1.226 | 1.222 | -0.004 |
| 105 | 63 | 1.226 | 1.225 | -0.001 |
| 105 | 64 | 1.227 | 1.224 | -0.003 |
| 105 | 65 | 1.226 | 1.224 | -0.002 |
| 105 | 66 | 1.227 | 1.224 | -0.003 |
| 105 | 67 | 1.227 | 1.225 | -0.002 |
| Max | | 1.228 | 1.228 | 0.002 |
| Average | | 1.226 | 1.225 | -0.001 |
| Min | | 1.226 | 1.222 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.100_V_REFCAP_1M_4V | |
|----------------------|---|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | V |
| Min Limit | V |

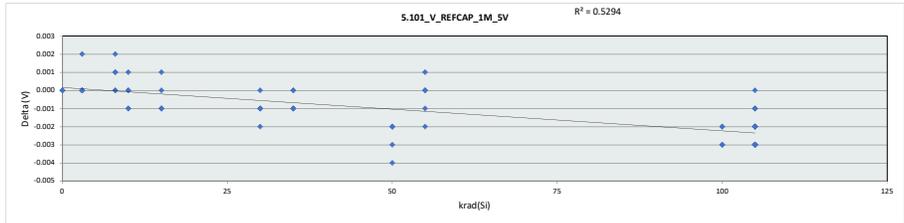
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.227 | 1.225 | 1.226 | 1.225 | 1.225 | 1.224 | 1.225 | 1.224 | 1.222 |
| Average | 1.227 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.226 | 1.224 | 1.224 |
| Max | 1.227 | 1.228 | 1.228 | 1.227 | 1.227 | 1.225 | 1.226 | 1.225 | 1.227 | 1.225 | 1.225 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



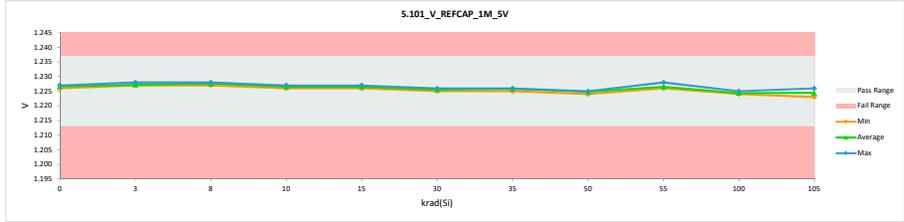
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.101_V_REFCAP_1M_5V | | | | |
|----------------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| | | | 1.237 | 1.237 |
| | | | 1.213 | 1.213 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.227 | 1.227 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.227 | 0.000 |
| 3 | 3 | 1.227 | 1.227 | 0.000 |
| 3 | 4 | 1.227 | 1.227 | 0.000 |
| 3 | 5 | 1.226 | 1.228 | 0.002 |
| 8 | 6 | 1.227 | 1.228 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.228 | 0.002 |
| 8 | 9 | 1.227 | 1.227 | 0.000 |
| 8 | 10 | 1.227 | 1.228 | 0.001 |
| 10 | 11 | 1.226 | 1.226 | 0.000 |
| 10 | 12 | 1.227 | 1.227 | 0.000 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.226 | 1.227 | 0.001 |
| 10 | 15 | 1.228 | 1.227 | -0.001 |
| 15 | 16 | 1.227 | 1.225 | -0.002 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.228 | 1.227 | -0.001 |
| 15 | 19 | 1.227 | 1.226 | -0.001 |
| 15 | 20 | 1.226 | 1.227 | 0.001 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.226 | 1.226 | 0.000 |
| 30 | 23 | 1.227 | 1.226 | -0.001 |
| 30 | 24 | 1.227 | 1.225 | -0.002 |
| 30 | 25 | 1.227 | 1.226 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.226 | -0.001 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.226 | 1.226 | 0.000 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.227 | 1.225 | -0.002 |
| 50 | 32 | 1.227 | 1.225 | -0.002 |
| 50 | 33 | 1.227 | 1.225 | -0.002 |
| 50 | 34 | 1.229 | 1.225 | -0.004 |
| 50 | 35 | 1.227 | 1.224 | -0.003 |
| 55 | 36 | 1.227 | 1.226 | -0.001 |
| 55 | 37 | 1.227 | 1.227 | 0.000 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.228 | 1.226 | -0.002 |
| 55 | 40 | 1.227 | 1.228 | 0.001 |
| 100 | 41 | 1.227 | 1.224 | -0.003 |
| 100 | 42 | 1.227 | 1.224 | -0.003 |
| 100 | 43 | 1.227 | 1.225 | -0.002 |
| 100 | 44 | 1.227 | 1.224 | -0.003 |
| 100 | 45 | 1.227 | 1.225 | -0.002 |
| 105 | 46 | 1.226 | 1.225 | -0.001 |
| 105 | 47 | 1.227 | 1.224 | -0.003 |
| 105 | 48 | 1.227 | 1.224 | -0.003 |
| 105 | 49 | 1.227 | 1.224 | -0.003 |
| 105 | 50 | 1.227 | 1.225 | -0.002 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.227 | 1.226 | -0.001 |
| 105 | 53 | 1.227 | 1.225 | -0.002 |
| 105 | 54 | 1.227 | 1.224 | -0.003 |
| 105 | 55 | 1.226 | 1.226 | 0.000 |
| 105 | 56 | 1.227 | 1.224 | -0.003 |
| 105 | 57 | 1.227 | 1.225 | -0.002 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.224 | -0.002 |
| 105 | 62 | 1.226 | 1.223 | -0.003 |
| 105 | 63 | 1.227 | 1.225 | -0.002 |
| 105 | 64 | 1.227 | 1.224 | -0.003 |
| 105 | 65 | 1.226 | 1.224 | -0.002 |
| 105 | 66 | 1.227 | 1.224 | -0.003 |
| 105 | 67 | 1.227 | 1.226 | -0.001 |
| Max | | 1.229 | 1.228 | 0.002 |
| Average | | 1.227 | 1.226 | -0.001 |
| Min | | 1.226 | 1.223 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.101_V_REFCAP_1M_5V | | | | | | | | | | | | | | | | |
|----------------------|--------|-------------|------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| | | | V | 1.237 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | | | V | 1.227 | 1.227 | 1.227 | 1.227 | 1.227 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.224 | 1.226 | 1.223 |
| Max | | | V | 1.227 | 1.227 | 1.227 | 1.227 | 1.227 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.228 | 1.225 | 1.226 |
| UL | | | V | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |

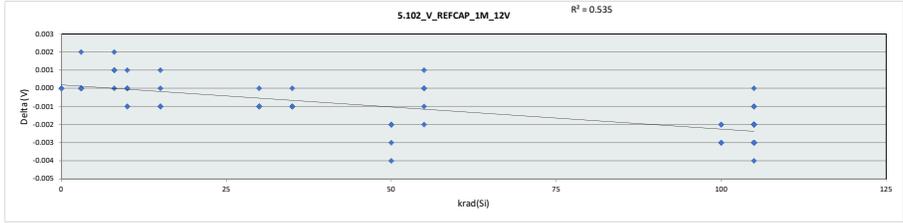


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

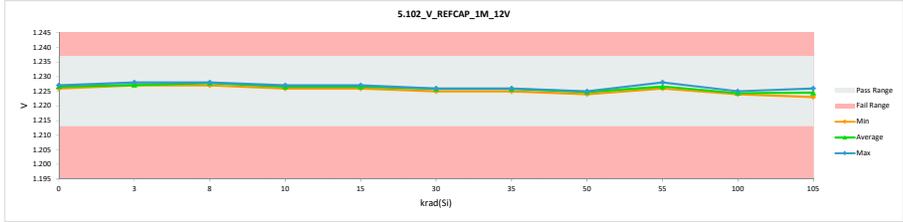
| 5.102_V_REFCAP_1M_12V | |
|-----------------------|---|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | V |
| Min Limit | V |

| krad(Si) | Serial # | Pre HDR | Post HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.227 | 1.227 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.227 | 0.000 |
| 3 | 3 | 1.227 | 1.227 | 0.000 |
| 3 | 4 | 1.227 | 1.227 | 0.000 |
| 3 | 5 | 1.226 | 1.228 | 0.002 |
| 8 | 6 | 1.227 | 1.228 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.228 | 0.002 |
| 8 | 9 | 1.227 | 1.228 | 0.001 |
| 8 | 10 | 1.227 | 1.228 | 0.001 |
| 10 | 11 | 1.226 | 1.226 | 0.000 |
| 10 | 12 | 1.227 | 1.227 | 0.000 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.226 | 1.227 | 0.001 |
| 10 | 15 | 1.228 | 1.227 | -0.001 |
| 15 | 16 | 1.227 | 1.227 | 0.000 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.228 | 1.227 | -0.001 |
| 15 | 19 | 1.227 | 1.226 | -0.001 |
| 15 | 20 | 1.226 | 1.227 | 0.001 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.226 | 1.226 | 0.000 |
| 30 | 23 | 1.227 | 1.226 | -0.001 |
| 30 | 24 | 1.227 | 1.226 | -0.001 |
| 30 | 25 | 1.227 | 1.226 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.226 | -0.001 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.227 | 1.226 | -0.001 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.227 | 1.225 | -0.002 |
| 50 | 32 | 1.227 | 1.225 | -0.002 |
| 50 | 33 | 1.227 | 1.225 | -0.002 |
| 50 | 34 | 1.229 | 1.225 | -0.004 |
| 50 | 35 | 1.227 | 1.224 | -0.003 |
| 55 | 36 | 1.227 | 1.226 | -0.001 |
| 55 | 37 | 1.227 | 1.227 | 0.000 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.228 | 1.226 | -0.002 |
| 55 | 40 | 1.227 | 1.228 | 0.001 |
| 100 | 41 | 1.227 | 1.224 | -0.003 |
| 100 | 42 | 1.227 | 1.224 | -0.003 |
| 100 | 43 | 1.227 | 1.225 | -0.002 |
| 100 | 44 | 1.227 | 1.224 | -0.003 |
| 100 | 45 | 1.227 | 1.225 | -0.002 |
| 105 | 46 | 1.226 | 1.225 | -0.001 |
| 105 | 47 | 1.227 | 1.224 | -0.003 |
| 105 | 48 | 1.227 | 1.224 | -0.003 |
| 105 | 49 | 1.227 | 1.224 | -0.003 |
| 105 | 50 | 1.227 | 1.225 | -0.002 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.227 | 1.226 | -0.001 |
| 105 | 53 | 1.227 | 1.225 | -0.002 |
| 105 | 54 | 1.227 | 1.224 | -0.003 |
| 105 | 55 | 1.226 | 1.226 | 0.000 |
| 105 | 56 | 1.227 | 1.224 | -0.003 |
| 105 | 57 | 1.227 | 1.225 | -0.002 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.224 | -0.002 |
| 105 | 62 | 1.226 | 1.223 | -0.003 |
| 105 | 63 | 1.227 | 1.225 | -0.002 |
| 105 | 64 | 1.228 | 1.224 | -0.004 |
| 105 | 65 | 1.226 | 1.224 | -0.002 |
| 105 | 66 | 1.227 | 1.225 | -0.002 |
| 105 | 67 | 1.227 | 1.226 | -0.001 |
| Max | | 1.229 | 1.228 | 0.002 |
| Average | | 1.227 | 1.226 | -0.001 |
| Min | | 1.226 | 1.223 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.102_V_REFCAP_1M_12V | |
|-----------------------|---|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | V |
| Min Limit | V |

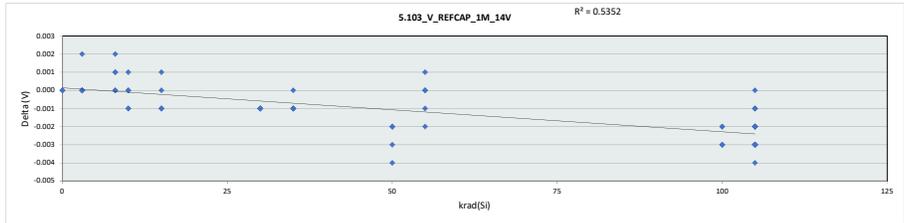
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.227 | 1.227 | 1.226 | 1.226 | 1.226 | 1.225 | 1.224 | 1.226 | 1.224 | 1.223 |
| Average | 1.227 | 1.227 | 1.228 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.227 | 1.224 | 1.225 |
| Max | 1.227 | 1.228 | 1.228 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.228 | 1.225 | 1.226 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



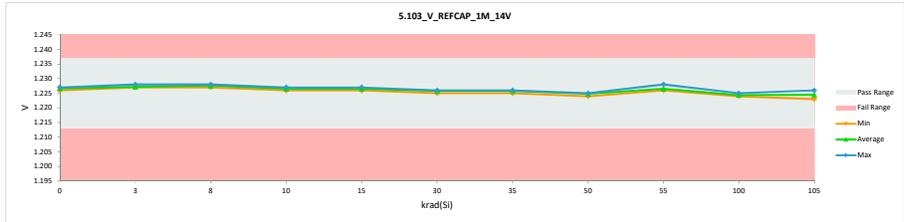
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.103_V_REFCAP_1M_14V | | | | |
|-----------------------|----------|---------|----------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | | |
| Max Limit | 1.237 | 1.237 | | |
| Min Limit | 1.213 | 1.213 | | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.227 | 1.227 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.227 | 0.000 |
| 3 | 3 | 1.227 | 1.227 | 0.000 |
| 3 | 4 | 1.227 | 1.227 | 0.000 |
| 3 | 5 | 1.226 | 1.228 | 0.002 |
| 8 | 6 | 1.227 | 1.228 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.228 | 0.002 |
| 8 | 9 | 1.227 | 1.227 | 0.000 |
| 8 | 10 | 1.227 | 1.228 | 0.001 |
| 10 | 11 | 1.226 | 1.226 | 0.000 |
| 10 | 12 | 1.227 | 1.227 | 0.000 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.226 | 1.227 | 0.001 |
| 10 | 15 | 1.228 | 1.227 | -0.001 |
| 15 | 16 | 1.227 | 1.225 | -0.002 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.228 | 1.227 | -0.001 |
| 15 | 19 | 1.227 | 1.226 | -0.001 |
| 15 | 20 | 1.226 | 1.227 | 0.001 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.227 | 1.226 | -0.001 |
| 30 | 23 | 1.227 | 1.226 | -0.001 |
| 30 | 24 | 1.227 | 1.226 | -0.001 |
| 30 | 25 | 1.227 | 1.226 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.226 | -0.001 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.227 | 1.226 | -0.001 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.227 | 1.225 | -0.002 |
| 50 | 32 | 1.227 | 1.225 | -0.002 |
| 50 | 33 | 1.227 | 1.225 | -0.002 |
| 50 | 34 | 1.229 | 1.225 | -0.004 |
| 50 | 35 | 1.227 | 1.224 | -0.003 |
| 55 | 36 | 1.227 | 1.226 | -0.001 |
| 55 | 37 | 1.227 | 1.227 | 0.000 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.228 | 1.226 | -0.002 |
| 55 | 40 | 1.227 | 1.228 | 0.001 |
| 100 | 41 | 1.227 | 1.224 | -0.003 |
| 100 | 42 | 1.227 | 1.224 | -0.003 |
| 100 | 43 | 1.227 | 1.225 | -0.002 |
| 100 | 44 | 1.227 | 1.224 | -0.003 |
| 100 | 45 | 1.227 | 1.225 | -0.002 |
| 105 | 46 | 1.226 | 1.225 | -0.001 |
| 105 | 47 | 1.227 | 1.224 | -0.003 |
| 105 | 48 | 1.227 | 1.224 | -0.003 |
| 105 | 49 | 1.227 | 1.224 | -0.003 |
| 105 | 50 | 1.227 | 1.225 | -0.002 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.227 | 1.226 | -0.001 |
| 105 | 53 | 1.227 | 1.225 | -0.002 |
| 105 | 54 | 1.227 | 1.224 | -0.003 |
| 105 | 55 | 1.226 | 1.226 | 0.000 |
| 105 | 56 | 1.227 | 1.224 | -0.003 |
| 105 | 57 | 1.227 | 1.225 | -0.002 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.224 | -0.002 |
| 105 | 62 | 1.226 | 1.223 | -0.003 |
| 105 | 63 | 1.227 | 1.225 | -0.002 |
| 105 | 64 | 1.228 | 1.224 | -0.004 |
| 105 | 65 | 1.227 | 1.224 | -0.003 |
| 105 | 66 | 1.227 | 1.225 | -0.002 |
| 105 | 67 | 1.227 | 1.226 | -0.001 |
| Max | | 1.229 | 1.228 | 0.002 |
| Average | | 1.227 | 1.226 | -0.001 |
| Min | | 1.226 | 1.223 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.103_V_REFCAP_1M_14V | | | | | | | | | | | |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | | | | | | | | | | | |
| Tester | | | | | | | | | | | |
| Test Number | | | | | | | | | | | |
| Max Limit | 1.237 | V | | | | | | | | | |
| Min Limit | 1.213 | V | | | | | | | | | |
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.225 | 1.224 | 1.226 | 1.224 | 1.223 |
| Average | 1.227 | 1.227 | 1.228 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.227 | 1.224 | 1.225 |
| Max | 1.227 | 1.228 | 1.228 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.228 | 1.225 | 1.226 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |

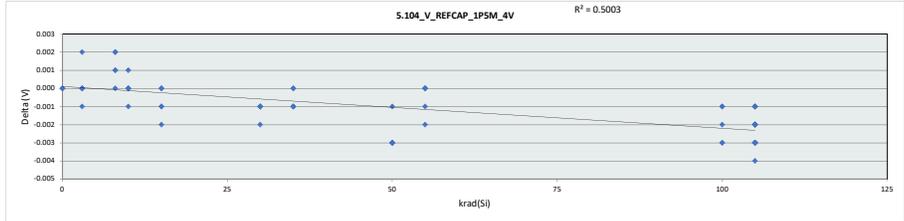


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

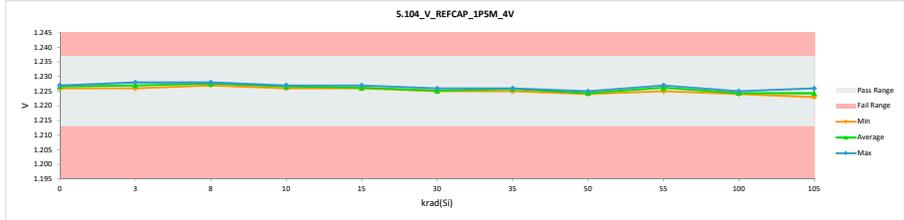
| 5.104_V_REFCAP_1P5M_4V | |
|------------------------|-------------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | V |
| Min Limit | 1.237 1.237 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.227 | 1.227 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.226 | -0.001 |
| 3 | 3 | 1.227 | 1.227 | 0.000 |
| 3 | 4 | 1.227 | 1.227 | 0.000 |
| 3 | 5 | 1.226 | 1.228 | 0.002 |
| 8 | 6 | 1.227 | 1.228 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.228 | 0.002 |
| 8 | 9 | 1.226 | 1.227 | 0.001 |
| 8 | 10 | 1.226 | 1.228 | 0.002 |
| 10 | 11 | 1.226 | 1.226 | 0.000 |
| 10 | 12 | 1.227 | 1.227 | 0.000 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.226 | 1.227 | 0.001 |
| 10 | 15 | 1.227 | 1.227 | 0.000 |
| 10 | 16 | 1.227 | 1.227 | 0.000 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.228 | 1.226 | -0.002 |
| 15 | 19 | 1.227 | 1.226 | -0.001 |
| 15 | 20 | 1.226 | 1.226 | 0.000 |
| 30 | 21 | 1.226 | 1.225 | -0.001 |
| 30 | 22 | 1.226 | 1.225 | -0.001 |
| 30 | 23 | 1.227 | 1.225 | -0.002 |
| 30 | 24 | 1.226 | 1.225 | -0.001 |
| 30 | 25 | 1.227 | 1.226 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.226 | -0.001 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.226 | 1.226 | 0.000 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.226 | 1.225 | -0.001 |
| 50 | 32 | 1.227 | 1.224 | -0.003 |
| 50 | 33 | 1.227 | 1.224 | -0.003 |
| 50 | 34 | 1.228 | 1.225 | -0.003 |
| 50 | 35 | 1.227 | 1.224 | -0.003 |
| 55 | 36 | 1.227 | 1.226 | -0.001 |
| 55 | 37 | 1.227 | 1.227 | 0.000 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.227 | 1.225 | -0.002 |
| 55 | 40 | 1.227 | 1.227 | 0.000 |
| 100 | 41 | 1.227 | 1.224 | -0.003 |
| 100 | 42 | 1.226 | 1.224 | -0.002 |
| 100 | 43 | 1.226 | 1.225 | -0.001 |
| 100 | 44 | 1.227 | 1.224 | -0.003 |
| 100 | 45 | 1.226 | 1.225 | -0.001 |
| 105 | 46 | 1.226 | 1.225 | -0.001 |
| 105 | 47 | 1.227 | 1.224 | -0.003 |
| 105 | 48 | 1.227 | 1.224 | -0.003 |
| 105 | 49 | 1.226 | 1.224 | -0.002 |
| 105 | 50 | 1.227 | 1.225 | -0.002 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.227 | 1.226 | -0.001 |
| 105 | 53 | 1.227 | 1.225 | -0.002 |
| 105 | 54 | 1.227 | 1.224 | -0.003 |
| 105 | 55 | 1.226 | 1.225 | -0.001 |
| 105 | 56 | 1.227 | 1.223 | -0.004 |
| 105 | 57 | 1.226 | 1.225 | -0.001 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.224 | -0.002 |
| 105 | 62 | 1.226 | 1.223 | -0.003 |
| 105 | 63 | 1.227 | 1.225 | -0.002 |
| 105 | 64 | 1.227 | 1.224 | -0.003 |
| 105 | 65 | 1.226 | 1.224 | -0.002 |
| 105 | 66 | 1.227 | 1.224 | -0.003 |
| 105 | 67 | 1.227 | 1.225 | -0.002 |
| Max | | 1.228 | 1.228 | 0.002 |
| Average | | 1.227 | 1.225 | -0.001 |
| Min | | 1.226 | 1.223 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.104_V_REFCAP_1P5M_4V | |
|------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | V |
| Min Limit | 1.213 3 |

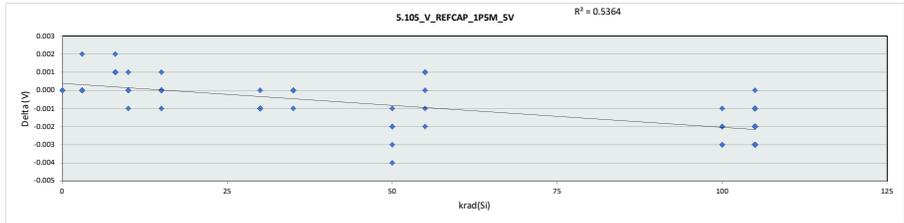
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.226 | 1.227 | 1.226 | 1.226 | 1.226 | 1.225 | 1.225 | 1.224 | 1.225 | 1.223 |
| Average | 1.227 | 1.227 | 1.228 | 1.227 | 1.226 | 1.226 | 1.226 | 1.226 | 1.226 | 1.226 | 1.224 |
| Max | 1.227 | 1.228 | 1.228 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.227 | 1.225 | 1.226 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



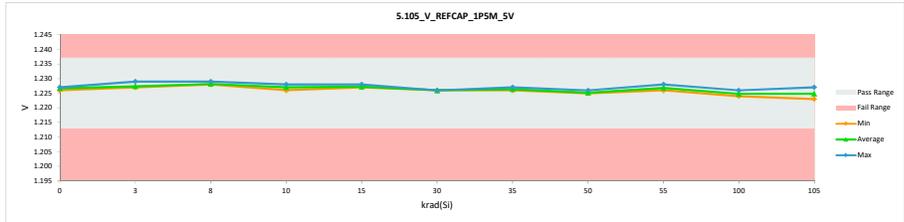
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.105_V_REFCAP_1P5M_5V | | | | |
|------------------------|----------|---------|----------|--------|
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.227 | 1.227 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.227 | 0.000 |
| 3 | 3 | 1.227 | 1.227 | 0.000 |
| 3 | 4 | 1.227 | 1.227 | 0.000 |
| 3 | 5 | 1.227 | 1.229 | 0.002 |
| 8 | 6 | 1.227 | 1.228 | 0.001 |
| 8 | 7 | 1.227 | 1.228 | 0.001 |
| 8 | 8 | 1.227 | 1.229 | 0.002 |
| 8 | 9 | 1.227 | 1.228 | 0.001 |
| 8 | 10 | 1.227 | 1.228 | 0.001 |
| 10 | 11 | 1.226 | 1.226 | 0.000 |
| 10 | 12 | 1.227 | 1.227 | 0.000 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.227 | 1.228 | 0.001 |
| 10 | 15 | 1.228 | 1.228 | 0.000 |
| 15 | 16 | 1.227 | 1.228 | 0.001 |
| 15 | 17 | 1.227 | 1.227 | 0.000 |
| 15 | 18 | 1.228 | 1.227 | -0.001 |
| 15 | 19 | 1.227 | 1.227 | 0.000 |
| 15 | 20 | 1.227 | 1.227 | 0.000 |
| 30 | 21 | 1.226 | 1.226 | 0.000 |
| 30 | 22 | 1.227 | 1.226 | -0.001 |
| 30 | 23 | 1.227 | 1.226 | -0.001 |
| 30 | 24 | 1.227 | 1.226 | -0.001 |
| 30 | 25 | 1.227 | 1.226 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.227 | 0.000 |
| 35 | 28 | 1.227 | 1.227 | 0.000 |
| 35 | 29 | 1.227 | 1.226 | -0.001 |
| 35 | 30 | 1.226 | 1.226 | 0.000 |
| 50 | 31 | 1.227 | 1.226 | -0.001 |
| 50 | 32 | 1.228 | 1.225 | -0.003 |
| 50 | 33 | 1.227 | 1.225 | -0.002 |
| 50 | 34 | 1.229 | 1.225 | -0.004 |
| 50 | 35 | 1.227 | 1.225 | -0.002 |
| 55 | 36 | 1.227 | 1.226 | -0.001 |
| 55 | 37 | 1.227 | 1.228 | 0.001 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.228 | 1.226 | -0.002 |
| 55 | 40 | 1.227 | 1.228 | 0.001 |
| 100 | 41 | 1.227 | 1.225 | -0.002 |
| 100 | 42 | 1.227 | 1.224 | -0.003 |
| 100 | 43 | 1.227 | 1.225 | -0.002 |
| 100 | 44 | 1.227 | 1.224 | -0.003 |
| 100 | 45 | 1.227 | 1.226 | -0.001 |
| 105 | 46 | 1.227 | 1.225 | -0.002 |
| 105 | 47 | 1.227 | 1.225 | -0.002 |
| 105 | 48 | 1.227 | 1.224 | -0.003 |
| 105 | 49 | 1.227 | 1.224 | -0.003 |
| 105 | 50 | 1.227 | 1.226 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.227 | 1.226 | -0.001 |
| 105 | 53 | 1.228 | 1.226 | -0.002 |
| 105 | 54 | 1.227 | 1.225 | -0.002 |
| 105 | 55 | 1.227 | 1.227 | 0.000 |
| 105 | 56 | 1.227 | 1.224 | -0.003 |
| 105 | 57 | 1.227 | 1.225 | -0.002 |
| 105 | 58 | 1.226 | 1.225 | -0.001 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.224 | -0.002 |
| 105 | 62 | 1.226 | 1.223 | -0.003 |
| 105 | 63 | 1.227 | 1.225 | -0.002 |
| 105 | 64 | 1.228 | 1.225 | -0.003 |
| 105 | 65 | 1.227 | 1.224 | -0.003 |
| 105 | 66 | 1.227 | 1.225 | -0.002 |
| 105 | 67 | 1.227 | 1.226 | -0.001 |
| Max | | 1.229 | 1.229 | 0.002 |
| Average | | 1.227 | 1.226 | -0.001 |
| Min | | 1.226 | 1.223 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.105_V_REFCAP_1P5M_5V | | | | | | | | | | | |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.227 | 1.228 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.223 |
| Average | 1.227 | 1.227 | 1.228 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.227 | 1.225 | 1.225 |
| Max | 1.227 | 1.229 | 1.229 | 1.228 | 1.228 | 1.226 | 1.227 | 1.226 | 1.228 | 1.226 | 1.227 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |

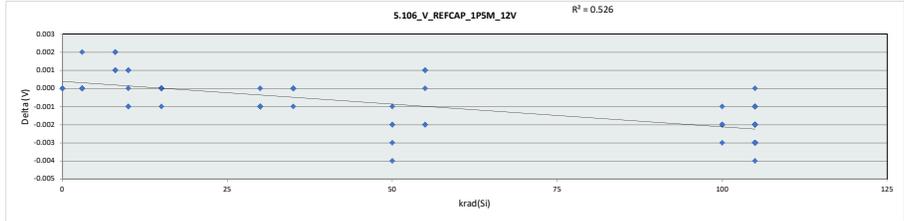


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

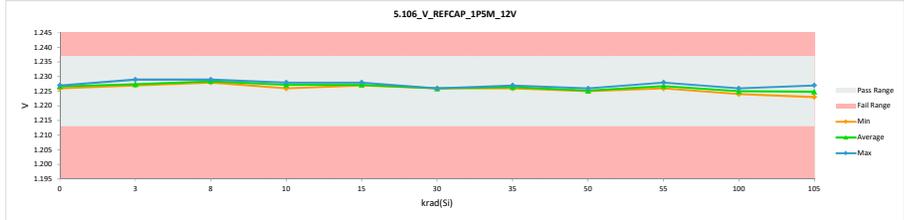
| 5.106_V_REFCAP_1PSM_12V | |
|-------------------------|---|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | V |
| Min Limit | V |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.227 | 1.227 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.227 | 0.000 |
| 3 | 3 | 1.227 | 1.227 | 0.000 |
| 3 | 4 | 1.227 | 1.227 | 0.000 |
| 3 | 5 | 1.227 | 1.229 | 0.002 |
| 8 | 6 | 1.227 | 1.229 | 0.002 |
| 8 | 7 | 1.227 | 1.228 | 0.001 |
| 8 | 8 | 1.227 | 1.229 | 0.002 |
| 8 | 9 | 1.227 | 1.228 | 0.001 |
| 8 | 10 | 1.227 | 1.228 | 0.001 |
| 10 | 11 | 1.226 | 1.226 | 0.000 |
| 10 | 12 | 1.227 | 1.228 | 0.001 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.227 | 1.228 | 0.001 |
| 10 | 15 | 1.229 | 1.228 | -0.001 |
| 15 | 16 | 1.228 | 1.228 | 0.000 |
| 15 | 17 | 1.227 | 1.227 | 0.000 |
| 15 | 18 | 1.228 | 1.227 | -0.001 |
| 15 | 19 | 1.227 | 1.227 | 0.000 |
| 15 | 20 | 1.227 | 1.227 | 0.000 |
| 30 | 21 | 1.226 | 1.226 | 0.000 |
| 30 | 22 | 1.227 | 1.226 | -0.001 |
| 30 | 23 | 1.227 | 1.226 | -0.001 |
| 30 | 24 | 1.227 | 1.226 | -0.001 |
| 30 | 25 | 1.227 | 1.226 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.227 | 0.000 |
| 35 | 28 | 1.227 | 1.227 | 0.000 |
| 35 | 29 | 1.227 | 1.226 | -0.001 |
| 35 | 30 | 1.226 | 1.226 | 0.000 |
| 50 | 31 | 1.227 | 1.226 | -0.001 |
| 50 | 32 | 1.228 | 1.225 | -0.003 |
| 50 | 33 | 1.227 | 1.225 | -0.002 |
| 50 | 34 | 1.229 | 1.225 | -0.004 |
| 50 | 35 | 1.227 | 1.225 | -0.002 |
| 55 | 36 | 1.228 | 1.226 | -0.002 |
| 55 | 37 | 1.227 | 1.228 | 0.001 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.228 | 1.226 | -0.002 |
| 55 | 40 | 1.227 | 1.228 | 0.001 |
| 100 | 41 | 1.227 | 1.225 | -0.002 |
| 100 | 42 | 1.227 | 1.225 | -0.002 |
| 100 | 43 | 1.227 | 1.225 | -0.002 |
| 100 | 44 | 1.227 | 1.224 | -0.003 |
| 100 | 45 | 1.227 | 1.226 | -0.001 |
| 105 | 46 | 1.227 | 1.225 | -0.002 |
| 105 | 47 | 1.228 | 1.225 | -0.003 |
| 105 | 48 | 1.227 | 1.224 | -0.003 |
| 105 | 49 | 1.227 | 1.224 | -0.003 |
| 105 | 50 | 1.227 | 1.226 | -0.001 |
| 105 | 51 | 1.227 | 1.223 | -0.004 |
| 105 | 52 | 1.227 | 1.226 | -0.001 |
| 105 | 53 | 1.228 | 1.226 | -0.002 |
| 105 | 54 | 1.227 | 1.225 | -0.002 |
| 105 | 55 | 1.227 | 1.227 | 0.000 |
| 105 | 56 | 1.227 | 1.224 | -0.003 |
| 105 | 57 | 1.227 | 1.225 | -0.002 |
| 105 | 58 | 1.227 | 1.225 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.224 | -0.002 |
| 105 | 62 | 1.226 | 1.223 | -0.003 |
| 105 | 63 | 1.227 | 1.226 | -0.001 |
| 105 | 64 | 1.228 | 1.225 | -0.003 |
| 105 | 65 | 1.227 | 1.224 | -0.003 |
| 105 | 66 | 1.228 | 1.225 | -0.003 |
| 105 | 67 | 1.227 | 1.226 | -0.001 |
| Max | | 1.229 | 1.229 | 0.002 |
| Average | | 1.227 | 1.226 | -0.001 |
| Min | | 1.226 | 1.223 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.106_V_REFCAP_1PSM_12V | |
|-------------------------|---|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | V |
| Min Limit | V |

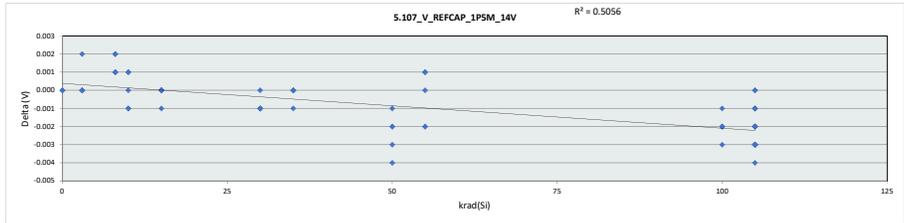
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.227 | 1.228 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.223 |
| Average | 1.227 | 1.227 | 1.228 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.227 | 1.225 | 1.225 |
| Max | 1.227 | 1.229 | 1.229 | 1.228 | 1.228 | 1.226 | 1.227 | 1.226 | 1.228 | 1.226 | 1.227 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



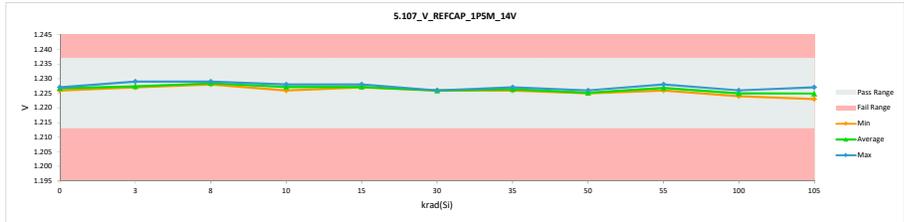
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.107_V_REFCAP_1PSM_14V | | | | |
|-------------------------|----------|---------|----------|--------|
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.227 | 1.227 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.227 | 0.000 |
| 3 | 3 | 1.227 | 1.227 | 0.000 |
| 3 | 4 | 1.227 | 1.227 | 0.000 |
| 3 | 5 | 1.227 | 1.229 | 0.002 |
| 8 | 6 | 1.227 | 1.229 | 0.002 |
| 8 | 7 | 1.227 | 1.228 | 0.001 |
| 8 | 8 | 1.227 | 1.229 | 0.002 |
| 8 | 9 | 1.227 | 1.228 | 0.001 |
| 8 | 10 | 1.227 | 1.228 | 0.001 |
| 10 | 11 | 1.226 | 1.226 | 0.000 |
| 10 | 12 | 1.227 | 1.228 | 0.001 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.227 | 1.228 | 0.001 |
| 10 | 15 | 1.229 | 1.228 | -0.001 |
| 15 | 16 | 1.228 | 1.228 | 0.000 |
| 15 | 17 | 1.227 | 1.227 | 0.000 |
| 15 | 18 | 1.228 | 1.227 | -0.001 |
| 15 | 19 | 1.227 | 1.227 | 0.000 |
| 15 | 20 | 1.227 | 1.227 | 0.000 |
| 30 | 21 | 1.226 | 1.226 | 0.000 |
| 30 | 22 | 1.227 | 1.226 | -0.001 |
| 30 | 23 | 1.227 | 1.226 | -0.001 |
| 30 | 24 | 1.227 | 1.226 | -0.001 |
| 30 | 25 | 1.227 | 1.226 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.227 | 0.000 |
| 35 | 28 | 1.227 | 1.227 | 0.000 |
| 35 | 29 | 1.227 | 1.226 | -0.001 |
| 35 | 30 | 1.226 | 1.226 | 0.000 |
| 50 | 31 | 1.227 | 1.226 | -0.001 |
| 50 | 32 | 1.228 | 1.225 | -0.003 |
| 50 | 33 | 1.227 | 1.225 | -0.002 |
| 50 | 34 | 1.229 | 1.225 | -0.004 |
| 50 | 35 | 1.227 | 1.225 | -0.002 |
| 55 | 36 | 1.228 | 1.226 | -0.002 |
| 55 | 37 | 1.227 | 1.228 | 0.001 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.228 | 1.226 | -0.002 |
| 55 | 40 | 1.227 | 1.228 | 0.001 |
| 100 | 41 | 1.227 | 1.225 | -0.002 |
| 100 | 42 | 1.227 | 1.225 | -0.002 |
| 100 | 43 | 1.227 | 1.225 | -0.002 |
| 100 | 44 | 1.227 | 1.224 | -0.003 |
| 100 | 45 | 1.227 | 1.226 | -0.001 |
| 105 | 46 | 1.227 | 1.225 | -0.002 |
| 105 | 47 | 1.228 | 1.225 | -0.003 |
| 105 | 48 | 1.227 | 1.224 | -0.003 |
| 105 | 49 | 1.227 | 1.224 | -0.003 |
| 105 | 50 | 1.227 | 1.226 | -0.001 |
| 105 | 51 | 1.227 | 1.223 | -0.004 |
| 105 | 52 | 1.227 | 1.227 | 0.000 |
| 105 | 53 | 1.228 | 1.226 | -0.002 |
| 105 | 54 | 1.227 | 1.225 | -0.002 |
| 105 | 55 | 1.227 | 1.227 | 0.000 |
| 105 | 56 | 1.227 | 1.224 | -0.003 |
| 105 | 57 | 1.227 | 1.225 | -0.002 |
| 105 | 58 | 1.227 | 1.225 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.224 | -0.002 |
| 105 | 62 | 1.226 | 1.223 | -0.003 |
| 105 | 63 | 1.227 | 1.226 | -0.001 |
| 105 | 64 | 1.228 | 1.225 | -0.003 |
| 105 | 65 | 1.227 | 1.224 | -0.003 |
| 105 | 66 | 1.228 | 1.225 | -0.003 |
| 105 | 67 | 1.227 | 1.226 | -0.001 |
| Max | | 1.229 | 1.229 | 0.002 |
| Average | | 1.227 | 1.226 | -0.001 |
| Min | | 1.226 | 1.223 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.107_V_REFCAP_1PSM_14V | | | | | | | | | | | |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.227 | 1.228 | 1.226 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.224 | 1.223 |
| Average | 1.227 | 1.227 | 1.228 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.227 | 1.225 | 1.225 |
| Max | 1.227 | 1.229 | 1.229 | 1.228 | 1.228 | 1.226 | 1.227 | 1.226 | 1.228 | 1.226 | 1.227 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |

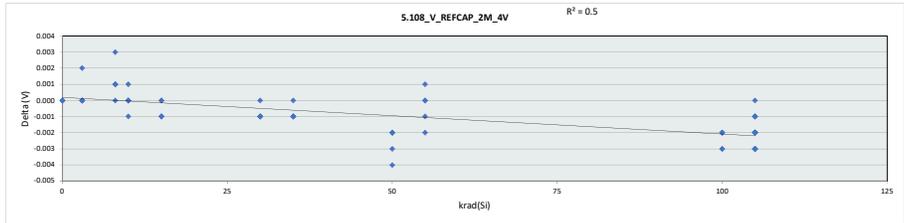


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

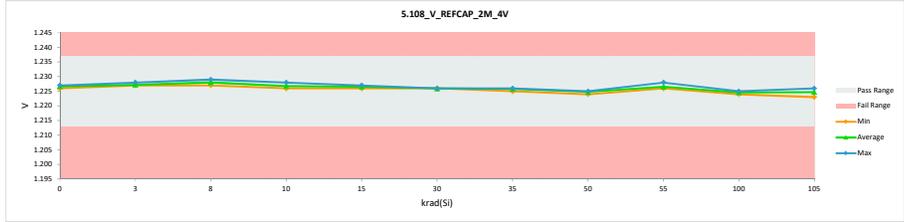
| 5.108_V_REFCAP_2M_4V | |
|----------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | V |
| Min Limit | 1.237 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.227 | 1.227 | 0.000 |
| 0 | 992 | 1.227 | 1.227 | 0.000 |
| 0 | 993 | 1.226 | 1.226 | 0.000 |
| 3 | 1 | 1.227 | 1.227 | 0.000 |
| 3 | 2 | 1.227 | 1.227 | 0.000 |
| 3 | 3 | 1.227 | 1.227 | 0.000 |
| 3 | 4 | 1.227 | 1.227 | 0.000 |
| 3 | 5 | 1.226 | 1.228 | 0.002 |
| 8 | 6 | 1.227 | 1.228 | 0.001 |
| 8 | 7 | 1.227 | 1.227 | 0.000 |
| 8 | 8 | 1.226 | 1.229 | 0.003 |
| 8 | 9 | 1.227 | 1.228 | 0.001 |
| 8 | 10 | 1.227 | 1.228 | 0.001 |
| 10 | 11 | 1.226 | 1.226 | 0.000 |
| 10 | 12 | 1.227 | 1.227 | 0.000 |
| 10 | 13 | 1.227 | 1.226 | -0.001 |
| 10 | 14 | 1.226 | 1.227 | 0.001 |
| 10 | 15 | 1.228 | 1.228 | 0.000 |
| 10 | 16 | 1.227 | 1.227 | 0.000 |
| 15 | 17 | 1.227 | 1.226 | -0.001 |
| 15 | 18 | 1.228 | 1.227 | -0.001 |
| 15 | 19 | 1.227 | 1.226 | -0.001 |
| 15 | 20 | 1.227 | 1.227 | 0.000 |
| 30 | 21 | 1.226 | 1.226 | 0.000 |
| 30 | 22 | 1.227 | 1.226 | -0.001 |
| 30 | 23 | 1.227 | 1.226 | -0.001 |
| 30 | 24 | 1.227 | 1.226 | -0.001 |
| 30 | 25 | 1.227 | 1.226 | -0.001 |
| 35 | 26 | 1.226 | 1.226 | 0.000 |
| 35 | 27 | 1.227 | 1.226 | -0.001 |
| 35 | 28 | 1.227 | 1.226 | -0.001 |
| 35 | 29 | 1.227 | 1.226 | -0.001 |
| 35 | 30 | 1.226 | 1.225 | -0.001 |
| 50 | 31 | 1.227 | 1.225 | -0.002 |
| 50 | 32 | 1.227 | 1.225 | -0.002 |
| 50 | 33 | 1.227 | 1.225 | -0.002 |
| 50 | 34 | 1.229 | 1.225 | -0.004 |
| 50 | 35 | 1.227 | 1.224 | -0.003 |
| 55 | 36 | 1.227 | 1.226 | -0.001 |
| 55 | 37 | 1.227 | 1.227 | 0.000 |
| 55 | 38 | 1.226 | 1.226 | 0.000 |
| 55 | 39 | 1.228 | 1.226 | -0.002 |
| 55 | 40 | 1.227 | 1.228 | 0.001 |
| 100 | 41 | 1.227 | 1.225 | -0.002 |
| 100 | 42 | 1.227 | 1.224 | -0.003 |
| 100 | 43 | 1.227 | 1.225 | -0.002 |
| 100 | 44 | 1.227 | 1.224 | -0.003 |
| 100 | 45 | 1.227 | 1.225 | -0.002 |
| 105 | 46 | 1.226 | 1.225 | -0.001 |
| 105 | 47 | 1.227 | 1.225 | -0.002 |
| 105 | 48 | 1.227 | 1.224 | -0.003 |
| 105 | 49 | 1.227 | 1.224 | -0.003 |
| 105 | 50 | 1.227 | 1.226 | -0.001 |
| 105 | 51 | 1.226 | 1.223 | -0.003 |
| 105 | 52 | 1.227 | 1.226 | -0.001 |
| 105 | 53 | 1.228 | 1.226 | -0.002 |
| 105 | 54 | 1.227 | 1.225 | -0.002 |
| 105 | 55 | 1.226 | 1.226 | 0.000 |
| 105 | 56 | 1.227 | 1.224 | -0.003 |
| 105 | 57 | 1.227 | 1.225 | -0.002 |
| 105 | 58 | 1.226 | 1.224 | -0.002 |
| 105 | 59 | 1.227 | 1.225 | -0.002 |
| 105 | 60 | 1.226 | 1.224 | -0.002 |
| 105 | 61 | 1.226 | 1.224 | -0.002 |
| 105 | 62 | 1.226 | 1.223 | -0.003 |
| 105 | 63 | 1.227 | 1.225 | -0.002 |
| 105 | 64 | 1.227 | 1.225 | -0.002 |
| 105 | 65 | 1.227 | 1.224 | -0.003 |
| 105 | 66 | 1.227 | 1.225 | -0.002 |
| 105 | 67 | 1.227 | 1.226 | -0.001 |
| Max | | 1.229 | 1.229 | 0.003 |
| Average | | 1.227 | 1.226 | -0.001 |
| Min | | 1.226 | 1.223 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 5.108_V_REFCAP_2M_4V | |
|----------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | V |
| Min Limit | 1.213 |

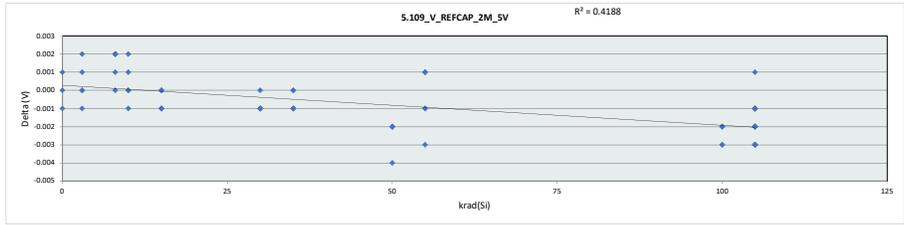
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.227 | 1.227 | 1.226 | 1.226 | 1.226 | 1.225 | 1.224 | 1.226 | 1.224 | 1.223 |
| Average | 1.227 | 1.227 | 1.228 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.227 | 1.225 | 1.225 |
| Max | 1.227 | 1.228 | 1.229 | 1.228 | 1.227 | 1.226 | 1.226 | 1.225 | 1.228 | 1.225 | 1.226 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



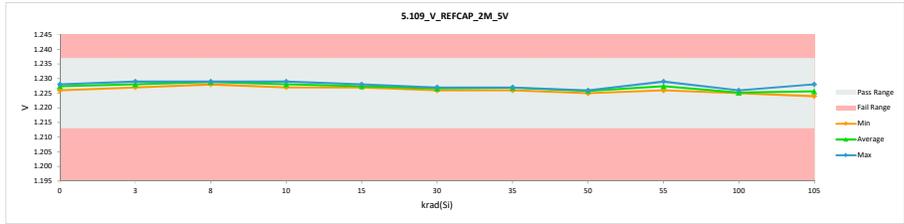
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.109_V_REFCAP_2M_5V | | | | |
|----------------------|----------|---------|----------|--------|
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.227 | 1.228 | 0.001 |
| 0 | 992 | 1.228 | 1.228 | 0.000 |
| 0 | 993 | 1.227 | 1.226 | -0.001 |
| 3 | 1 | 1.227 | 1.228 | 0.001 |
| 3 | 2 | 1.228 | 1.227 | -0.001 |
| 3 | 3 | 1.228 | 1.228 | 0.000 |
| 3 | 4 | 1.228 | 1.228 | 0.000 |
| 3 | 5 | 1.227 | 1.229 | 0.002 |
| 8 | 6 | 1.227 | 1.229 | 0.002 |
| 8 | 7 | 1.228 | 1.228 | 0.000 |
| 8 | 8 | 1.227 | 1.229 | 0.002 |
| 8 | 9 | 1.228 | 1.229 | 0.001 |
| 8 | 10 | 1.227 | 1.229 | 0.002 |
| 10 | 11 | 1.226 | 1.227 | 0.001 |
| 10 | 12 | 1.228 | 1.228 | 0.000 |
| 10 | 13 | 1.228 | 1.227 | -0.001 |
| 10 | 14 | 1.227 | 1.229 | 0.002 |
| 10 | 15 | 1.229 | 1.229 | 0.000 |
| 15 | 16 | 1.228 | 1.228 | 0.000 |
| 15 | 17 | 1.228 | 1.227 | -0.001 |
| 15 | 18 | 1.229 | 1.228 | -0.001 |
| 15 | 19 | 1.228 | 1.227 | -0.001 |
| 15 | 20 | 1.227 | 1.227 | 0.000 |
| 30 | 21 | 1.227 | 1.226 | -0.001 |
| 30 | 22 | 1.227 | 1.227 | 0.000 |
| 30 | 23 | 1.227 | 1.226 | -0.001 |
| 30 | 24 | 1.228 | 1.227 | -0.001 |
| 30 | 25 | 1.228 | 1.227 | -0.001 |
| 35 | 26 | 1.227 | 1.227 | 0.000 |
| 35 | 27 | 1.228 | 1.227 | -0.001 |
| 35 | 28 | 1.228 | 1.227 | -0.001 |
| 35 | 29 | 1.227 | 1.227 | 0.000 |
| 35 | 30 | 1.227 | 1.226 | -0.001 |
| 50 | 31 | 1.228 | 1.226 | -0.002 |
| 50 | 32 | 1.228 | 1.226 | -0.002 |
| 50 | 33 | 1.228 | 1.226 | -0.002 |
| 50 | 34 | 1.230 | 1.226 | -0.004 |
| 50 | 35 | 1.227 | 1.225 | -0.002 |
| 55 | 36 | 1.228 | 1.227 | -0.001 |
| 55 | 37 | 1.228 | 1.229 | 0.001 |
| 55 | 38 | 1.227 | 1.226 | -0.001 |
| 55 | 39 | 1.229 | 1.226 | -0.003 |
| 55 | 40 | 1.228 | 1.229 | 0.001 |
| 100 | 41 | 1.228 | 1.225 | -0.003 |
| 100 | 42 | 1.228 | 1.225 | -0.003 |
| 100 | 43 | 1.227 | 1.225 | -0.002 |
| 100 | 44 | 1.227 | 1.225 | -0.002 |
| 100 | 45 | 1.228 | 1.226 | -0.002 |
| 105 | 46 | 1.227 | 1.225 | -0.002 |
| 105 | 47 | 1.228 | 1.225 | -0.003 |
| 105 | 48 | 1.227 | 1.225 | -0.002 |
| 105 | 49 | 1.227 | 1.225 | -0.002 |
| 105 | 50 | 1.227 | 1.226 | -0.001 |
| 105 | 51 | 1.227 | 1.224 | -0.003 |
| 105 | 52 | 1.228 | 1.227 | -0.001 |
| 105 | 53 | 1.228 | 1.227 | -0.001 |
| 105 | 54 | 1.228 | 1.226 | -0.002 |
| 105 | 55 | 1.227 | 1.228 | 0.001 |
| 105 | 56 | 1.228 | 1.225 | -0.003 |
| 105 | 57 | 1.227 | 1.226 | -0.001 |
| 105 | 58 | 1.227 | 1.225 | -0.002 |
| 105 | 59 | 1.227 | 1.226 | -0.001 |
| 105 | 60 | 1.227 | 1.225 | -0.002 |
| 105 | 61 | 1.227 | 1.225 | -0.002 |
| 105 | 62 | 1.227 | 1.224 | -0.003 |
| 105 | 63 | 1.227 | 1.226 | -0.001 |
| 105 | 64 | 1.229 | 1.226 | -0.003 |
| 105 | 65 | 1.227 | 1.225 | -0.002 |
| 105 | 66 | 1.228 | 1.226 | -0.002 |
| 105 | 67 | 1.228 | 1.227 | -0.001 |
| Max | | 1.230 | 1.229 | 0.002 |
| Average | | 1.228 | 1.227 | -0.001 |
| Min | | 1.226 | 1.224 | -0.004 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



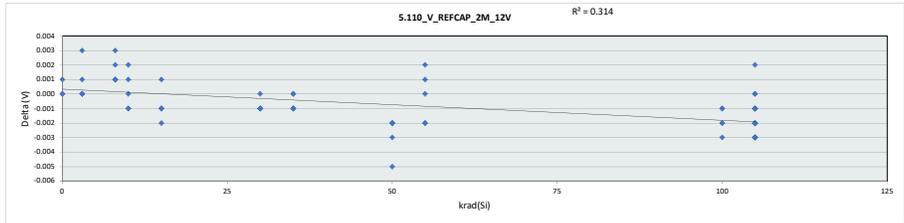
| 5.109_V_REFCAP_2M_5V | | | | | | | | | | | |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.226 | 1.227 | 1.228 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.226 | 1.225 | 1.224 |
| Average | 1.227 | 1.228 | 1.229 | 1.228 | 1.227 | 1.227 | 1.227 | 1.226 | 1.227 | 1.225 | 1.226 |
| Max | 1.228 | 1.229 | 1.229 | 1.229 | 1.228 | 1.227 | 1.227 | 1.226 | 1.229 | 1.226 | 1.228 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



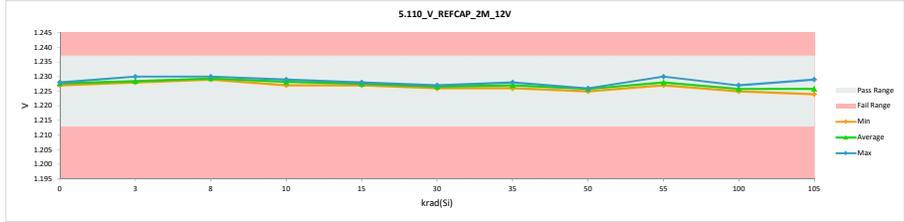
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.110_V_REFCAP_2M_12V | | | | |
|-----------------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| | | | 1.237 | 1.237 |
| | | | 1.213 | 1.213 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.227 | 1.228 | 0.001 |
| 0 | 992 | 1.228 | 1.228 | 0.000 |
| 0 | 993 | 1.227 | 1.227 | 0.000 |
| 3 | 1 | 1.227 | 1.228 | 0.001 |
| 3 | 2 | 1.228 | 1.228 | 0.000 |
| 3 | 3 | 1.228 | 1.228 | 0.000 |
| 3 | 4 | 1.228 | 1.228 | 0.000 |
| 3 | 5 | 1.227 | 1.230 | 0.003 |
| 8 | 6 | 1.227 | 1.230 | 0.003 |
| 8 | 7 | 1.228 | 1.229 | 0.001 |
| 8 | 8 | 1.228 | 1.230 | 0.002 |
| 8 | 9 | 1.228 | 1.229 | 0.001 |
| 8 | 10 | 1.228 | 1.229 | 0.001 |
| 10 | 11 | 1.227 | 1.227 | 0.000 |
| 10 | 12 | 1.228 | 1.229 | 0.001 |
| 10 | 13 | 1.228 | 1.227 | -0.001 |
| 10 | 14 | 1.227 | 1.229 | 0.002 |
| 10 | 15 | 1.230 | 1.229 | -0.001 |
| 15 | 16 | 1.229 | 1.228 | -0.001 |
| 15 | 17 | 1.228 | 1.227 | -0.001 |
| 15 | 18 | 1.230 | 1.228 | -0.002 |
| 15 | 19 | 1.228 | 1.227 | -0.001 |
| 15 | 20 | 1.227 | 1.228 | 0.001 |
| 30 | 21 | 1.227 | 1.226 | -0.001 |
| 30 | 22 | 1.227 | 1.227 | 0.000 |
| 30 | 23 | 1.227 | 1.226 | -0.001 |
| 30 | 24 | 1.228 | 1.227 | -0.001 |
| 30 | 25 | 1.228 | 1.227 | -0.001 |
| 35 | 26 | 1.227 | 1.227 | 0.000 |
| 35 | 27 | 1.228 | 1.227 | -0.001 |
| 35 | 28 | 1.228 | 1.228 | 0.000 |
| 35 | 29 | 1.228 | 1.227 | -0.001 |
| 35 | 30 | 1.227 | 1.226 | -0.001 |
| 50 | 31 | 1.228 | 1.226 | -0.002 |
| 50 | 32 | 1.228 | 1.226 | -0.002 |
| 50 | 33 | 1.228 | 1.226 | -0.002 |
| 50 | 34 | 1.231 | 1.226 | -0.005 |
| 50 | 35 | 1.228 | 1.225 | -0.003 |
| 55 | 36 | 1.229 | 1.227 | -0.002 |
| 55 | 37 | 1.228 | 1.230 | 0.002 |
| 55 | 38 | 1.227 | 1.227 | 0.000 |
| 55 | 39 | 1.229 | 1.227 | -0.002 |
| 55 | 40 | 1.228 | 1.229 | 0.001 |
| 100 | 41 | 1.228 | 1.225 | -0.003 |
| 100 | 42 | 1.228 | 1.226 | -0.002 |
| 100 | 43 | 1.227 | 1.226 | -0.001 |
| 100 | 44 | 1.227 | 1.225 | -0.002 |
| 100 | 45 | 1.228 | 1.227 | -0.001 |
| 105 | 46 | 1.227 | 1.225 | -0.002 |
| 105 | 47 | 1.228 | 1.225 | -0.003 |
| 105 | 48 | 1.228 | 1.225 | -0.003 |
| 105 | 49 | 1.227 | 1.225 | -0.002 |
| 105 | 50 | 1.228 | 1.226 | -0.002 |
| 105 | 51 | 1.227 | 1.224 | -0.003 |
| 105 | 52 | 1.228 | 1.228 | 0.000 |
| 105 | 53 | 1.228 | 1.227 | -0.001 |
| 105 | 54 | 1.228 | 1.227 | -0.001 |
| 105 | 55 | 1.227 | 1.229 | 0.002 |
| 105 | 56 | 1.228 | 1.225 | -0.003 |
| 105 | 57 | 1.227 | 1.226 | -0.001 |
| 105 | 58 | 1.227 | 1.225 | -0.002 |
| 105 | 59 | 1.227 | 1.226 | -0.001 |
| 105 | 60 | 1.227 | 1.225 | -0.002 |
| 105 | 61 | 1.227 | 1.225 | -0.002 |
| 105 | 62 | 1.227 | 1.224 | -0.003 |
| 105 | 63 | 1.227 | 1.227 | 0.000 |
| 105 | 64 | 1.229 | 1.226 | -0.003 |
| 105 | 65 | 1.227 | 1.225 | -0.002 |
| 105 | 66 | 1.229 | 1.226 | -0.003 |
| 105 | 67 | 1.228 | 1.227 | -0.001 |
| Max | | 1.231 | 1.230 | 0.003 |
| Average | | 1.228 | 1.227 | -0.001 |
| Min | | 1.227 | 1.224 | -0.005 |
| Std Dev | | 0.001 | 0.002 | 0.002 |



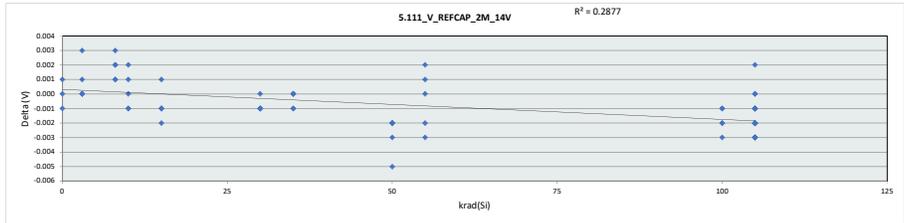
| 5.110_V_REFCAP_2M_12V | | | | | | | | | | | | | | | | |
|-----------------------|--------|-------------|------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| | | | V | 1.237 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| LL | | | | | | 1.227 | 1.228 | 1.229 | 1.227 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.227 | 1.225 |
| Min | | | | | | 1.228 | 1.228 | 1.229 | 1.228 | 1.228 | 1.227 | 1.227 | 1.226 | 1.228 | 1.226 | 1.224 |
| Average | | | | | | 1.228 | 1.228 | 1.229 | 1.228 | 1.228 | 1.227 | 1.227 | 1.226 | 1.228 | 1.226 | 1.226 |
| Max | | | | | | 1.228 | 1.230 | 1.230 | 1.229 | 1.228 | 1.227 | 1.228 | 1.226 | 1.230 | 1.227 | 1.229 |
| UL | | | | | | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



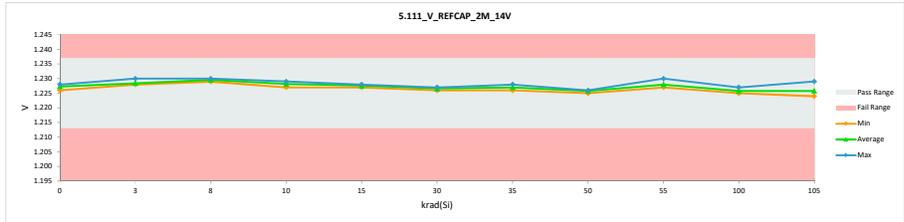
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 5.111 V_REFCAP_2M_14V | | | | |
|-----------------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| | | | 1.237 | 1.237 |
| | | | 1.213 | 1.213 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1.227 | 1.228 | 0.001 |
| 0 | 992 | 1.228 | 1.228 | 0.000 |
| 0 | 993 | 1.227 | 1.226 | -0.001 |
| 3 | 1 | 1.227 | 1.228 | 0.001 |
| 3 | 2 | 1.228 | 1.228 | 0.000 |
| 3 | 3 | 1.228 | 1.228 | 0.000 |
| 3 | 4 | 1.228 | 1.228 | 0.000 |
| 3 | 5 | 1.227 | 1.230 | 0.003 |
| 8 | 6 | 1.227 | 1.230 | 0.003 |
| 8 | 7 | 1.228 | 1.229 | 0.001 |
| 8 | 8 | 1.228 | 1.230 | 0.002 |
| 8 | 9 | 1.228 | 1.230 | 0.002 |
| 8 | 10 | 1.228 | 1.229 | 0.001 |
| 10 | 11 | 1.227 | 1.227 | 0.000 |
| 10 | 12 | 1.228 | 1.229 | 0.001 |
| 10 | 13 | 1.228 | 1.227 | -0.001 |
| 10 | 14 | 1.227 | 1.229 | 0.002 |
| 10 | 15 | 1.230 | 1.229 | -0.001 |
| 15 | 16 | 1.229 | 1.228 | -0.001 |
| 15 | 17 | 1.228 | 1.227 | -0.001 |
| 15 | 18 | 1.230 | 1.228 | -0.002 |
| 15 | 19 | 1.228 | 1.227 | -0.001 |
| 15 | 20 | 1.227 | 1.228 | 0.001 |
| 30 | 21 | 1.227 | 1.226 | -0.001 |
| 30 | 22 | 1.227 | 1.227 | 0.000 |
| 30 | 23 | 1.227 | 1.226 | -0.001 |
| 30 | 24 | 1.228 | 1.227 | -0.001 |
| 30 | 25 | 1.228 | 1.227 | -0.001 |
| 35 | 26 | 1.227 | 1.227 | 0.000 |
| 35 | 27 | 1.228 | 1.227 | -0.001 |
| 35 | 28 | 1.228 | 1.228 | 0.000 |
| 35 | 29 | 1.227 | 1.227 | 0.000 |
| 35 | 30 | 1.227 | 1.226 | -0.001 |
| 50 | 31 | 1.228 | 1.226 | -0.002 |
| 50 | 32 | 1.228 | 1.226 | -0.002 |
| 50 | 33 | 1.228 | 1.226 | -0.002 |
| 50 | 34 | 1.231 | 1.226 | -0.005 |
| 50 | 35 | 1.228 | 1.225 | -0.003 |
| 55 | 36 | 1.229 | 1.227 | -0.002 |
| 55 | 37 | 1.228 | 1.230 | 0.002 |
| 55 | 38 | 1.227 | 1.227 | 0.000 |
| 55 | 39 | 1.230 | 1.227 | -0.003 |
| 55 | 40 | 1.228 | 1.229 | 0.001 |
| 100 | 41 | 1.228 | 1.225 | -0.003 |
| 100 | 42 | 1.228 | 1.226 | -0.002 |
| 100 | 43 | 1.227 | 1.226 | -0.001 |
| 100 | 44 | 1.227 | 1.225 | -0.002 |
| 100 | 45 | 1.228 | 1.227 | -0.001 |
| 105 | 46 | 1.227 | 1.225 | -0.002 |
| 105 | 47 | 1.228 | 1.225 | -0.003 |
| 105 | 48 | 1.228 | 1.225 | -0.003 |
| 105 | 49 | 1.227 | 1.225 | -0.002 |
| 105 | 50 | 1.227 | 1.226 | -0.001 |
| 105 | 51 | 1.227 | 1.224 | -0.003 |
| 105 | 52 | 1.228 | 1.228 | 0.000 |
| 105 | 53 | 1.228 | 1.227 | -0.001 |
| 105 | 54 | 1.228 | 1.227 | -0.001 |
| 105 | 55 | 1.227 | 1.229 | 0.002 |
| 105 | 56 | 1.228 | 1.225 | -0.003 |
| 105 | 57 | 1.227 | 1.226 | -0.001 |
| 105 | 58 | 1.227 | 1.225 | -0.002 |
| 105 | 59 | 1.227 | 1.226 | -0.001 |
| 105 | 60 | 1.227 | 1.225 | -0.002 |
| 105 | 61 | 1.227 | 1.225 | -0.002 |
| 105 | 62 | 1.227 | 1.224 | -0.003 |
| 105 | 63 | 1.227 | 1.227 | 0.000 |
| 105 | 64 | 1.229 | 1.226 | -0.003 |
| 105 | 65 | 1.227 | 1.225 | -0.002 |
| 105 | 66 | 1.228 | 1.226 | -0.002 |
| 105 | 67 | 1.228 | 1.227 | -0.001 |
| Max | | 1.231 | 1.230 | 0.003 |
| Average | | 1.228 | 1.227 | -0.001 |
| Min | | 1.227 | 1.224 | -0.005 |
| Std Dev | | 0.001 | 0.002 | 0.002 |



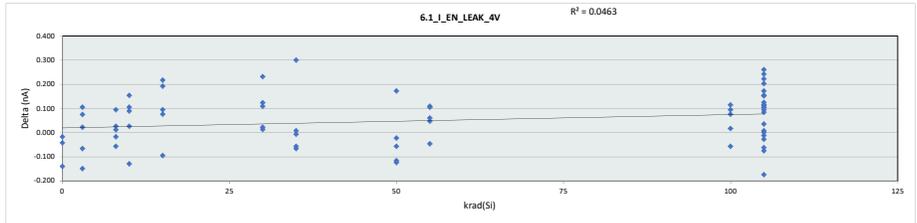
| 5.111 V_REFCAP_2M_14V | | | | | | | | | | | | | | | | |
|-----------------------|--------|-------------|------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| | | | V | V | | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 | 1.213 |
| LL | | | | | | 1.226 | 1.228 | 1.229 | 1.227 | 1.227 | 1.226 | 1.226 | 1.225 | 1.227 | 1.225 | 1.224 |
| Min | | | | | | 1.227 | 1.228 | 1.230 | 1.228 | 1.228 | 1.227 | 1.227 | 1.226 | 1.228 | 1.226 | 1.226 |
| Average | | | | | | 1.228 | 1.230 | 1.230 | 1.229 | 1.228 | 1.227 | 1.228 | 1.226 | 1.230 | 1.227 | 1.229 |
| Max | | | | | | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |
| UL | | | | | | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 | 1.237 |



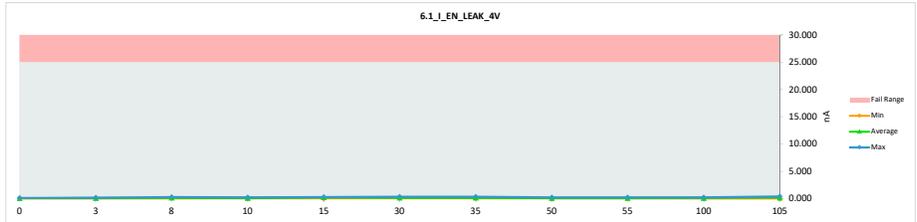
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 6.1 I EN LEAK_4V | | | | |
|------------------|----------|---------|----------|--------|
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 0.083 | 0.041 | -0.042 |
| 0 | 992 | 0.171 | 0.032 | -0.139 |
| 0 | 993 | 0.141 | 0.124 | -0.017 |
| 3 | 1 | 0.190 | 0.124 | -0.066 |
| 3 | 2 | 0.054 | 0.076 | 0.022 |
| 3 | 3 | 0.190 | 0.041 | -0.149 |
| 3 | 4 | 0.034 | 0.139 | 0.105 |
| 3 | 5 | 0.015 | 0.090 | 0.075 |
| 8 | 6 | 0.044 | 0.071 | 0.027 |
| 8 | 7 | 0.200 | 0.295 | 0.095 |
| 8 | 8 | 0.102 | 0.085 | -0.017 |
| 8 | 9 | 0.132 | 0.144 | 0.012 |
| 8 | 10 | 0.219 | 0.163 | -0.056 |
| 10 | 11 | 0.161 | 0.032 | -0.129 |
| 10 | 12 | 0.063 | 0.217 | 0.154 |
| 10 | 13 | 0.044 | 0.071 | 0.027 |
| 10 | 14 | 0.024 | 0.129 | 0.105 |
| 10 | 15 | 0.054 | 0.144 | 0.090 |
| 15 | 16 | 0.015 | 0.207 | 0.192 |
| 15 | 17 | 0.005 | 0.222 | 0.217 |
| 15 | 18 | 0.102 | 0.007 | -0.095 |
| 15 | 19 | 0.122 | 0.217 | 0.095 |
| 15 | 20 | 0.200 | 0.276 | 0.076 |
| 30 | 21 | 0.024 | 0.134 | 0.110 |
| 30 | 22 | 0.005 | 0.129 | 0.124 |
| 30 | 23 | 0.122 | 0.144 | 0.022 |
| 30 | 24 | 0.063 | 0.076 | 0.013 |
| 30 | 25 | 0.083 | 0.315 | 0.232 |
| 35 | 26 | 0.102 | 0.110 | 0.008 |
| 35 | 27 | 0.132 | 0.076 | -0.056 |
| 35 | 28 | 0.141 | 0.134 | -0.007 |
| 35 | 29 | 0.229 | 0.163 | -0.066 |
| 35 | 30 | 0.005 | 0.305 | 0.300 |
| 50 | 31 | 0.034 | 0.207 | 0.173 |
| 50 | 32 | 0.171 | 0.149 | -0.022 |
| 50 | 33 | 0.122 | 0.007 | -0.115 |
| 50 | 34 | 0.317 | 0.193 | -0.124 |
| 50 | 35 | 0.102 | 0.046 | -0.056 |
| 55 | 36 | 0.024 | 0.129 | 0.105 |
| 55 | 37 | 0.015 | 0.076 | 0.061 |
| 55 | 38 | 0.151 | 0.198 | 0.047 |
| 55 | 39 | 0.044 | 0.154 | 0.110 |
| 55 | 40 | 0.083 | 0.037 | -0.046 |
| 100 | 41 | 0.063 | 0.139 | 0.076 |
| 100 | 42 | 0.102 | 0.217 | 0.115 |
| 100 | 43 | 0.073 | 0.017 | -0.056 |
| 100 | 44 | 0.093 | 0.188 | 0.095 |
| 100 | 45 | 0.054 | 0.071 | 0.017 |
| 105 | 46 | 0.093 | 0.207 | 0.114 |
| 105 | 47 | 0.258 | 0.085 | -0.173 |
| 105 | 48 | 0.141 | 0.080 | -0.061 |
| 105 | 49 | 0.180 | 0.168 | -0.012 |
| 105 | 50 | 0.112 | 0.037 | -0.075 |
| 105 | 51 | 0.054 | 0.159 | 0.105 |
| 105 | 52 | 0.210 | 0.305 | 0.095 |
| 105 | 53 | 0.102 | 0.344 | 0.242 |
| 105 | 54 | 0.073 | 0.046 | -0.027 |
| 105 | 55 | 0.063 | 0.266 | 0.203 |
| 105 | 56 | 0.034 | 0.159 | 0.125 |
| 105 | 57 | 0.044 | 0.080 | 0.036 |
| 105 | 58 | 0.093 | 0.266 | 0.173 |
| 105 | 59 | 0.180 | 0.295 | 0.115 |
| 105 | 60 | 0.063 | 0.324 | 0.261 |
| 105 | 61 | 0.083 | 0.188 | 0.105 |
| 105 | 62 | 0.054 | 0.207 | 0.153 |
| 105 | 63 | 0.063 | 0.071 | 0.008 |
| 105 | 64 | 0.083 | 0.168 | 0.085 |
| 105 | 65 | 0.005 | 0.007 | 0.002 |
| 105 | 66 | 0.161 | 0.383 | 0.222 |
| 105 | 67 | 0.024 | 0.178 | 0.154 |
| 105 | 68 | 0.317 | 0.383 | 0.300 |
| 105 | 69 | 0.098 | 0.148 | 0.050 |
| 105 | 70 | 0.005 | 0.007 | -0.173 |
| 105 | 71 | 0.068 | 0.091 | 0.107 |



| 6.1 I EN LEAK_4V | | | | | | | | | | | |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | | | | | | | | | | | |
| Min | 0.032 | 0.041 | 0.071 | 0.032 | 0.007 | 0.076 | 0.076 | 0.007 | 0.037 | 0.017 | 0.007 |
| Average | 0.066 | 0.094 | 0.152 | 0.119 | 0.186 | 0.160 | 0.158 | 0.120 | 0.119 | 0.126 | 0.183 |
| Max | 0.124 | 0.139 | 0.295 | 0.217 | 0.276 | 0.315 | 0.305 | 0.207 | 0.198 | 0.217 | 0.383 |
| UL | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 |

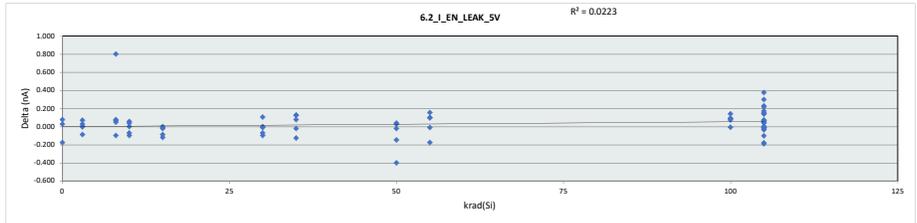


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

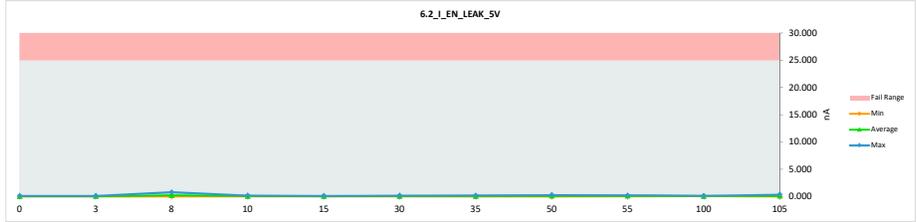
| 6.2 I EN LEAK_5V | |
|------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | nA nA |
| Max Limit | 5 25 |
| Min Limit | -0.1 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.176 | 0.000 | -0.176 |
| 0 | 992 | 0.059 | 0.137 | 0.078 |
| 0 | 993 | 0.000 | 0.029 | 0.029 |
| 3 | 1 | 0.078 | 0.078 | 0.000 |
| 3 | 2 | 0.117 | 0.146 | 0.029 |
| 3 | 3 | 0.068 | 0.068 | 0.000 |
| 3 | 4 | 0.068 | 0.137 | 0.069 |
| 3 | 5 | 0.117 | 0.029 | -0.088 |
| 8 | 6 | 0.088 | 0.166 | 0.078 |
| 8 | 7 | 0.000 | 0.800 | 0.800 |
| 8 | 8 | 0.010 | 0.059 | 0.049 |
| 8 | 9 | 0.166 | 0.068 | -0.098 |
| 8 | 10 | 0.059 | 0.127 | 0.068 |
| 10 | 11 | 0.176 | 0.215 | 0.039 |
| 10 | 12 | 0.117 | 0.020 | -0.097 |
| 10 | 13 | 0.098 | 0.029 | -0.069 |
| 10 | 14 | 0.137 | 0.195 | 0.058 |
| 10 | 15 | 0.117 | 0.117 | 0.000 |
| 15 | 16 | 0.068 | 0.068 | 0.000 |
| 15 | 17 | 0.166 | 0.146 | -0.020 |
| 15 | 18 | 0.244 | 0.127 | -0.117 |
| 15 | 19 | 0.107 | 0.020 | -0.087 |
| 15 | 20 | 0.059 | 0.049 | -0.010 |
| 30 | 21 | 0.098 | 0.000 | -0.098 |
| 30 | 22 | 0.107 | 0.098 | -0.009 |
| 30 | 23 | 0.166 | 0.098 | -0.068 |
| 30 | 24 | 0.195 | 0.195 | 0.000 |
| 30 | 25 | 0.088 | 0.195 | 0.107 |
| 35 | 26 | 0.010 | 0.137 | 0.127 |
| 35 | 27 | 0.039 | 0.117 | 0.078 |
| 35 | 28 | 0.078 | 0.205 | 0.127 |
| 35 | 29 | 0.059 | 0.039 | -0.020 |
| 35 | 30 | 0.176 | 0.049 | -0.127 |
| 50 | 31 | 0.185 | 0.039 | -0.146 |
| 50 | 32 | 0.068 | 0.107 | 0.039 |
| 50 | 33 | 0.185 | 0.215 | 0.030 |
| 50 | 34 | 0.732 | 0.332 | -0.400 |
| 50 | 35 | 0.039 | 0.020 | -0.019 |
| 55 | 36 | 0.010 | 0.166 | 0.156 |
| 55 | 37 | 0.224 | 0.049 | -0.175 |
| 55 | 38 | 0.127 | 0.224 | 0.097 |
| 55 | 39 | 0.127 | 0.117 | -0.010 |
| 55 | 40 | 0.039 | 0.137 | 0.098 |
| 100 | 41 | 0.137 | 0.132 | -0.005 |
| 100 | 42 | 0.010 | 0.151 | 0.141 |
| 100 | 43 | 0.029 | 0.102 | 0.073 |
| 100 | 44 | 0.029 | 0.122 | 0.093 |
| 100 | 45 | 0.029 | 0.122 | 0.093 |
| 105 | 46 | 0.098 | 0.239 | 0.141 |
| 105 | 47 | 0.088 | 0.151 | 0.063 |
| 105 | 48 | 0.000 | 0.376 | 0.376 |
| 105 | 49 | 0.283 | 0.327 | 0.044 |
| 105 | 50 | 0.117 | 0.112 | -0.005 |
| 105 | 51 | 0.127 | 0.093 | -0.034 |
| 105 | 52 | 0.137 | 0.132 | -0.005 |
| 105 | 53 | 0.029 | 0.093 | 0.064 |
| 105 | 54 | 0.234 | 0.044 | -0.190 |
| 105 | 55 | 0.059 | 0.034 | -0.025 |
| 105 | 56 | 0.088 | 0.317 | 0.229 |
| 105 | 57 | 0.000 | 0.297 | 0.297 |
| 105 | 58 | 0.068 | 0.239 | 0.171 |
| 105 | 59 | 0.020 | 0.024 | 0.004 |
| 105 | 60 | 0.107 | 0.005 | -0.102 |
| 105 | 61 | 0.029 | 0.102 | 0.073 |
| 105 | 62 | 0.020 | 0.161 | 0.141 |
| 105 | 63 | 0.098 | 0.249 | 0.151 |
| 105 | 64 | 0.059 | 0.278 | 0.219 |
| 105 | 65 | 0.195 | 0.015 | -0.180 |
| 105 | 66 | 0.049 | 0.044 | -0.005 |
| 105 | 67 | 0.068 | 0.112 | 0.044 |
| Max | | 0.732 | 0.800 | 0.800 |
| Average | | 0.104 | 0.135 | 0.031 |
| Min | | 0.000 | 0.000 | -0.400 |
| Std Dev | | 0.101 | 0.119 | 0.152 |



| 6.2 I EN LEAK_5V | |
|------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 25 nA |
| Min Limit | nA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 0.000 | 0.029 | 0.059 | 0.020 | 0.020 | 0.000 | 0.039 | 0.020 | 0.049 | 0.102 | 0.005 |
| Average | 0.055 | 0.092 | 0.244 | 0.115 | 0.082 | 0.117 | 0.109 | 0.143 | 0.139 | 0.126 | 0.157 |
| Max | 0.137 | 0.146 | 0.800 | 0.215 | 0.146 | 0.195 | 0.205 | 0.332 | 0.224 | 0.151 | 0.376 |
| UL | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 |

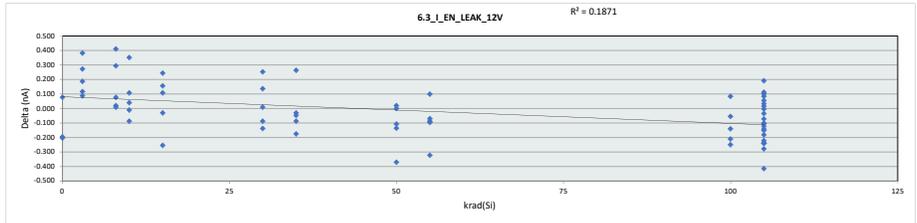


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

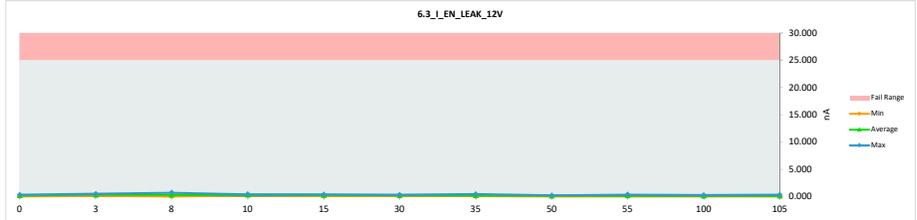
| 6.3 I EN LEAK 12V | |
|-------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | nA nA |
| Max Limit | 5 25 |
| Min Limit | -0.1 |

| krad(Si) | Serial # | Pre HDR | Post HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.380 | 0.176 | -0.204 |
| 0 | 992 | 0.254 | 0.059 | -0.195 |
| 0 | 993 | 0.273 | 0.351 | 0.078 |
| 3 | 1 | 0.078 | 0.166 | 0.088 |
| 3 | 2 | 0.146 | 0.527 | 0.381 |
| 3 | 3 | 0.302 | 0.488 | 0.186 |
| 3 | 4 | 0.156 | 0.273 | 0.117 |
| 3 | 5 | 0.068 | 0.341 | 0.273 |
| 8 | 6 | 0.117 | 0.127 | 0.010 |
| 8 | 7 | 0.302 | 0.712 | 0.410 |
| 8 | 8 | 0.039 | 0.059 | 0.020 |
| 8 | 9 | 0.293 | 0.371 | 0.078 |
| 8 | 10 | 0.107 | 0.400 | 0.293 |
| 10 | 11 | 0.185 | 0.293 | 0.108 |
| 10 | 12 | 0.380 | 0.293 | -0.087 |
| 10 | 13 | 0.215 | 0.205 | -0.010 |
| 10 | 14 | 0.068 | 0.419 | 0.351 |
| 10 | 15 | 0.380 | 0.419 | 0.039 |
| 15 | 16 | 0.156 | 0.400 | 0.244 |
| 15 | 17 | 0.371 | 0.117 | -0.254 |
| 15 | 18 | 0.146 | 0.254 | 0.108 |
| 15 | 19 | 0.185 | 0.341 | 0.156 |
| 15 | 20 | 0.254 | 0.224 | -0.030 |
| 30 | 21 | 0.234 | 0.244 | 0.010 |
| 30 | 22 | 0.156 | 0.293 | 0.137 |
| 30 | 23 | 0.098 | 0.351 | 0.253 |
| 30 | 24 | 0.234 | 0.146 | -0.088 |
| 30 | 25 | 0.254 | 0.117 | -0.137 |
| 35 | 26 | 0.185 | 0.449 | 0.264 |
| 35 | 27 | 0.137 | 0.107 | -0.030 |
| 35 | 28 | 0.273 | 0.224 | -0.049 |
| 35 | 29 | 0.224 | 0.137 | -0.087 |
| 35 | 30 | 0.341 | 0.166 | -0.175 |
| 50 | 31 | 0.166 | 0.185 | 0.019 |
| 50 | 32 | 0.302 | 0.166 | -0.136 |
| 50 | 33 | 0.224 | 0.224 | 0.000 |
| 50 | 34 | 0.595 | 0.224 | -0.371 |
| 50 | 35 | 0.146 | 0.039 | -0.107 |
| 55 | 36 | 0.322 | 0.234 | -0.088 |
| 55 | 37 | 0.195 | 0.098 | -0.097 |
| 55 | 38 | 0.410 | 0.341 | -0.069 |
| 55 | 39 | 0.371 | 0.049 | -0.322 |
| 55 | 40 | 0.263 | 0.361 | 0.098 |
| 100 | 41 | 0.361 | 0.151 | -0.210 |
| 100 | 42 | 0.195 | 0.278 | 0.083 |
| 100 | 43 | 0.166 | 0.112 | -0.054 |
| 100 | 44 | 0.283 | 0.034 | -0.249 |
| 100 | 45 | 0.341 | 0.200 | -0.141 |
| 105 | 46 | 0.254 | 0.034 | -0.220 |
| 105 | 47 | 0.332 | 0.327 | -0.005 |
| 105 | 48 | 0.400 | 0.122 | -0.278 |
| 105 | 49 | 0.244 | 0.171 | -0.073 |
| 105 | 50 | 0.029 | 0.141 | 0.112 |
| 105 | 51 | 0.234 | 0.288 | 0.054 |
| 105 | 52 | 0.166 | 0.268 | 0.102 |
| 105 | 53 | 0.458 | 0.044 | -0.414 |
| 105 | 54 | 0.146 | 0.044 | -0.102 |
| 105 | 55 | 0.254 | 0.015 | -0.239 |
| 105 | 56 | 0.263 | 0.278 | 0.015 |
| 105 | 57 | 0.293 | 0.054 | -0.239 |
| 105 | 58 | 0.283 | 0.132 | -0.151 |
| 105 | 59 | 0.254 | 0.288 | 0.034 |
| 105 | 60 | 0.371 | 0.132 | -0.239 |
| 105 | 61 | 0.293 | 0.112 | -0.181 |
| 105 | 62 | 0.195 | 0.278 | 0.083 |
| 105 | 63 | 0.224 | 0.190 | -0.034 |
| 105 | 64 | 0.322 | 0.200 | -0.122 |
| 105 | 65 | 0.205 | 0.063 | -0.142 |
| 105 | 66 | 0.068 | 0.258 | 0.190 |
| 105 | 67 | 0.117 | 0.015 | -0.102 |
| Max | | 0.595 | 0.712 | 0.410 |
| Average | | 0.239 | 0.220 | -0.019 |
| Min | | 0.029 | 0.015 | -0.414 |
| Std Dev | | 0.107 | 0.138 | 0.179 |



| 6.3 I EN LEAK 12V | |
|-------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 25 nA |
| Min Limit | nA |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 0.059 | 0.166 | 0.059 | 0.205 | 0.117 | 0.117 | 0.107 | 0.039 | 0.049 | 0.034 | 0.015 |
| Average | 0.195 | 0.359 | 0.334 | 0.326 | 0.267 | 0.230 | 0.217 | 0.168 | 0.217 | 0.155 | 0.157 |
| Max | 0.351 | 0.527 | 0.712 | 0.419 | 0.400 | 0.351 | 0.449 | 0.224 | 0.361 | 0.278 | 0.327 |
| UL | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 |

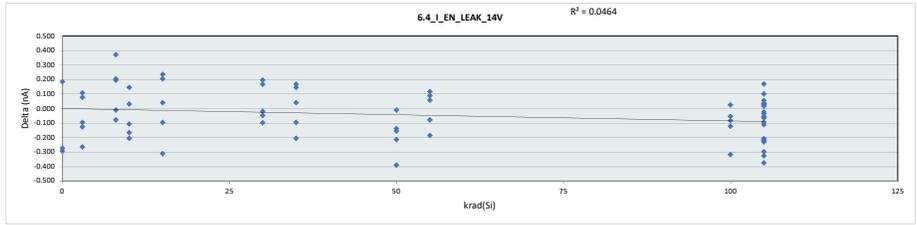


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

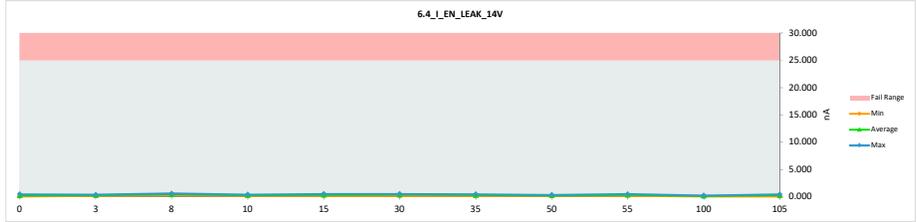
| 6.4 I EN LEAK_14V | |
|-------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | nA nA |
| Max Limit | 5 25 |
| Min Limit | -0.1 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.312 | 0.039 | -0.273 |
| 0 | 992 | 0.371 | 0.078 | -0.293 |
| 0 | 993 | 0.273 | 0.458 | 0.185 |
| 3 | 1 | 0.458 | 0.332 | -0.126 |
| 3 | 2 | 0.244 | 0.351 | 0.107 |
| 3 | 3 | 0.410 | 0.146 | -0.264 |
| 3 | 4 | 0.263 | 0.341 | 0.078 |
| 3 | 5 | 0.341 | 0.244 | -0.097 |
| 8 | 6 | 0.361 | 0.556 | 0.195 |
| 8 | 7 | 0.361 | 0.283 | -0.078 |
| 8 | 8 | 0.185 | 0.390 | 0.205 |
| 8 | 9 | 0.254 | 0.244 | -0.010 |
| 8 | 10 | 0.195 | 0.566 | 0.371 |
| 10 | 11 | 0.429 | 0.263 | -0.166 |
| 10 | 12 | 0.449 | 0.244 | -0.205 |
| 10 | 13 | 0.234 | 0.127 | -0.107 |
| 10 | 14 | 0.215 | 0.361 | 0.146 |
| 10 | 15 | 0.302 | 0.332 | 0.030 |
| 15 | 16 | 0.458 | 0.146 | -0.312 |
| 15 | 17 | 0.254 | 0.488 | 0.234 |
| 15 | 18 | 0.195 | 0.400 | 0.205 |
| 15 | 19 | 0.273 | 0.176 | -0.097 |
| 15 | 20 | 0.283 | 0.322 | 0.039 |
| 30 | 21 | 0.293 | 0.488 | 0.195 |
| 30 | 22 | 0.488 | 0.468 | -0.020 |
| 30 | 23 | 0.205 | 0.156 | -0.049 |
| 30 | 24 | 0.361 | 0.263 | -0.098 |
| 30 | 25 | 0.234 | 0.400 | 0.166 |
| 35 | 26 | 0.312 | 0.215 | -0.097 |
| 35 | 27 | 0.224 | 0.390 | 0.166 |
| 35 | 28 | 0.390 | 0.429 | 0.039 |
| 35 | 29 | 0.166 | 0.312 | 0.146 |
| 35 | 30 | 0.361 | 0.156 | -0.205 |
| 50 | 31 | 0.371 | 0.234 | -0.137 |
| 50 | 32 | 0.351 | 0.195 | -0.156 |
| 50 | 33 | 0.312 | 0.302 | -0.010 |
| 50 | 34 | 0.429 | 0.215 | -0.214 |
| 50 | 35 | 0.536 | 0.146 | -0.390 |
| 55 | 36 | 0.380 | 0.468 | 0.088 |
| 55 | 37 | 0.361 | 0.283 | -0.078 |
| 55 | 38 | 0.263 | 0.380 | 0.117 |
| 55 | 39 | 0.351 | 0.166 | -0.185 |
| 55 | 40 | 0.322 | 0.380 | 0.058 |
| 100 | 41 | 0.166 | 0.190 | 0.024 |
| 100 | 42 | 0.195 | 0.141 | -0.054 |
| 100 | 43 | 0.224 | 0.102 | -0.122 |
| 100 | 44 | 0.351 | 0.034 | -0.317 |
| 100 | 45 | 0.263 | 0.180 | -0.083 |
| 105 | 46 | 0.419 | 0.190 | -0.229 |
| 105 | 47 | 0.215 | 0.385 | 0.170 |
| 105 | 48 | 0.449 | 0.122 | -0.327 |
| 105 | 49 | 0.244 | 0.024 | -0.220 |
| 105 | 50 | 0.283 | 0.219 | -0.064 |
| 105 | 51 | 0.312 | 0.337 | 0.025 |
| 105 | 52 | 0.156 | 0.102 | -0.054 |
| 105 | 53 | 0.380 | 0.171 | -0.209 |
| 105 | 54 | 0.419 | 0.307 | -0.112 |
| 105 | 55 | 0.146 | 0.171 | 0.025 |
| 105 | 56 | 0.380 | 0.356 | -0.024 |
| 105 | 57 | 0.527 | 0.229 | -0.298 |
| 105 | 58 | 0.224 | 0.258 | 0.034 |
| 105 | 59 | 0.195 | 0.132 | -0.063 |
| 105 | 60 | 0.302 | 0.337 | 0.035 |
| 105 | 61 | 0.293 | 0.200 | -0.093 |
| 105 | 62 | 0.410 | 0.200 | -0.210 |
| 105 | 63 | 0.205 | 0.171 | -0.034 |
| 105 | 64 | 0.458 | 0.083 | -0.375 |
| 105 | 65 | 0.137 | 0.239 | 0.102 |
| 105 | 66 | 0.302 | 0.356 | 0.054 |
| 105 | 67 | 0.390 | 0.405 | 0.015 |
| Max | | 0.536 | 0.566 | 0.371 |
| Average | | 0.313 | 0.265 | -0.047 |
| Min | | 0.137 | 0.024 | -0.390 |
| Std Dev | | 0.097 | 0.128 | 0.166 |



| 6.4 I EN LEAK_14V | |
|-------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 25 nA |
| Min Limit | nA |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 0.039 | 0.146 | 0.244 | 0.127 | 0.146 | 0.156 | 0.156 | 0.146 | 0.166 | 0.034 | 0.024 |
| Average | 0.192 | 0.283 | 0.408 | 0.265 | 0.306 | 0.355 | 0.300 | 0.218 | 0.335 | 0.129 | 0.227 |
| Max | 0.458 | 0.351 | 0.566 | 0.361 | 0.488 | 0.488 | 0.429 | 0.302 | 0.468 | 0.190 | 0.405 |
| UL | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 | 25.000 |

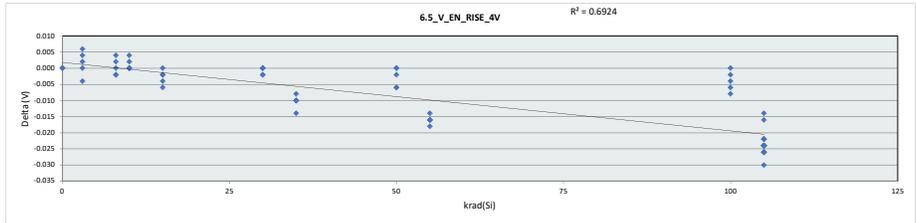


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

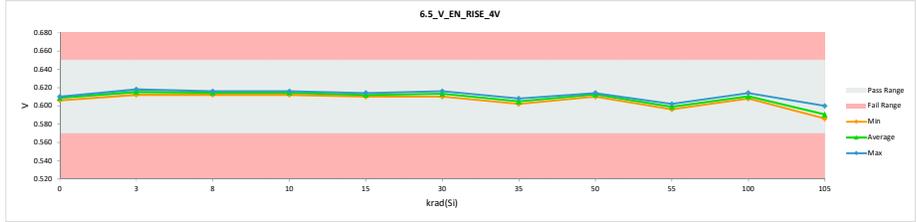
| 6.5 V_EN_RISE_4V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.63 |
| Min Limit | 0.57 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.610 | 0.610 | 0.000 |
| 0 | 992 | 0.610 | 0.610 | 0.000 |
| 0 | 993 | 0.606 | 0.606 | 0.000 |
| 3 | 1 | 0.612 | 0.614 | 0.002 |
| 3 | 2 | 0.612 | 0.618 | 0.006 |
| 3 | 3 | 0.616 | 0.612 | -0.004 |
| 3 | 4 | 0.614 | 0.614 | 0.000 |
| 3 | 5 | 0.614 | 0.618 | 0.004 |
| 8 | 6 | 0.614 | 0.616 | 0.002 |
| 8 | 7 | 0.614 | 0.612 | -0.002 |
| 8 | 8 | 0.616 | 0.614 | -0.002 |
| 8 | 9 | 0.614 | 0.614 | 0.000 |
| 8 | 10 | 0.612 | 0.616 | 0.004 |
| 10 | 11 | 0.612 | 0.612 | 0.000 |
| 10 | 12 | 0.614 | 0.614 | 0.000 |
| 10 | 13 | 0.610 | 0.614 | 0.004 |
| 10 | 14 | 0.616 | 0.616 | 0.000 |
| 10 | 15 | 0.614 | 0.616 | 0.002 |
| 15 | 16 | 0.616 | 0.614 | -0.002 |
| 15 | 17 | 0.612 | 0.612 | 0.000 |
| 15 | 18 | 0.614 | 0.610 | -0.004 |
| 15 | 19 | 0.618 | 0.612 | -0.006 |
| 15 | 20 | 0.614 | 0.612 | -0.002 |
| 30 | 21 | 0.612 | 0.610 | -0.002 |
| 30 | 22 | 0.612 | 0.612 | 0.000 |
| 30 | 23 | 0.616 | 0.616 | 0.000 |
| 30 | 24 | 0.614 | 0.614 | 0.000 |
| 30 | 25 | 0.616 | 0.614 | -0.002 |
| 35 | 26 | 0.616 | 0.602 | -0.014 |
| 35 | 27 | 0.616 | 0.606 | -0.010 |
| 35 | 28 | 0.614 | 0.606 | -0.008 |
| 35 | 29 | 0.618 | 0.608 | -0.010 |
| 35 | 30 | 0.612 | 0.602 | -0.010 |
| 50 | 31 | 0.614 | 0.612 | -0.002 |
| 50 | 32 | 0.618 | 0.612 | -0.006 |
| 50 | 33 | 0.616 | 0.610 | -0.006 |
| 50 | 34 | 0.614 | 0.614 | 0.000 |
| 50 | 35 | 0.614 | 0.614 | 0.000 |
| 55 | 36 | 0.614 | 0.598 | -0.016 |
| 55 | 37 | 0.618 | 0.602 | -0.016 |
| 55 | 38 | 0.612 | 0.598 | -0.014 |
| 55 | 39 | 0.614 | 0.596 | -0.018 |
| 55 | 40 | 0.616 | 0.600 | -0.016 |
| 100 | 41 | 0.614 | 0.610 | -0.004 |
| 100 | 42 | 0.610 | 0.610 | 0.000 |
| 100 | 43 | 0.616 | 0.608 | -0.008 |
| 100 | 44 | 0.616 | 0.614 | -0.002 |
| 100 | 45 | 0.616 | 0.610 | -0.006 |
| 105 | 46 | 0.616 | 0.592 | -0.024 |
| 105 | 47 | 0.616 | 0.592 | -0.024 |
| 105 | 48 | 0.612 | 0.590 | -0.022 |
| 105 | 49 | 0.614 | 0.590 | -0.024 |
| 105 | 50 | 0.616 | 0.592 | -0.024 |
| 105 | 51 | 0.616 | 0.590 | -0.026 |
| 105 | 52 | 0.614 | 0.588 | -0.026 |
| 105 | 53 | 0.616 | 0.586 | -0.030 |
| 105 | 54 | 0.614 | 0.600 | -0.014 |
| 105 | 55 | 0.616 | 0.592 | -0.024 |
| 105 | 56 | 0.616 | 0.590 | -0.026 |
| 105 | 57 | 0.612 | 0.588 | -0.024 |
| 105 | 58 | 0.612 | 0.590 | -0.022 |
| 105 | 59 | 0.612 | 0.596 | -0.016 |
| 105 | 60 | 0.614 | 0.590 | -0.024 |
| 105 | 61 | 0.614 | 0.588 | -0.026 |
| 105 | 62 | 0.614 | 0.588 | -0.026 |
| 105 | 63 | 0.612 | 0.590 | -0.022 |
| 105 | 64 | 0.614 | 0.590 | -0.024 |
| 105 | 65 | 0.616 | 0.592 | -0.024 |
| 105 | 66 | 0.610 | 0.588 | -0.022 |
| 105 | 67 | 0.614 | 0.590 | -0.024 |
| Max | | 0.618 | 0.618 | 0.006 |
| Average | | 0.614 | 0.604 | -0.010 |
| Min | | 0.606 | 0.586 | -0.030 |
| Std Dev | | 0.002 | 0.010 | 0.011 |



| 6.5 V_EN_RISE_4V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.65 |
| Min Limit | 0.57 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.609 | 0.615 | 0.614 | 0.614 | 0.610 | 0.613 | 0.605 | 0.612 | 0.599 | 0.610 | 0.591 |
| Max | 0.610 | 0.618 | 0.616 | 0.616 | 0.614 | 0.616 | 0.608 | 0.614 | 0.602 | 0.614 | 0.600 |
| UL | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 |

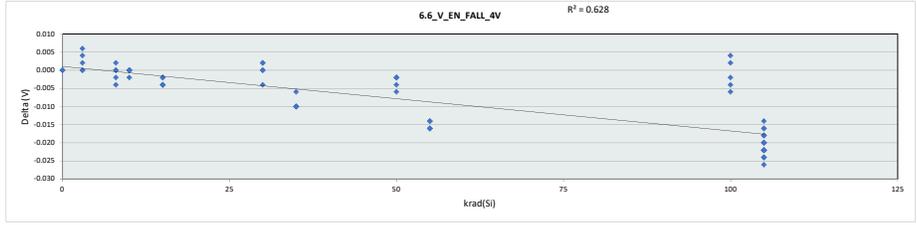


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

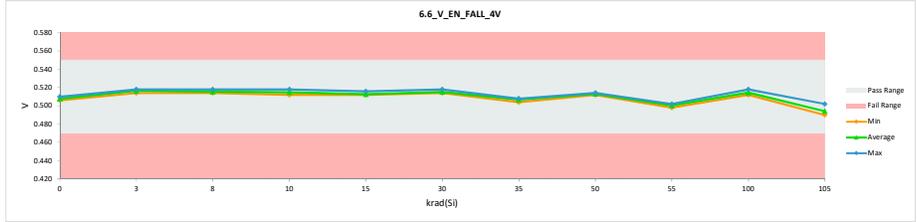
| 6.6 V_EN_FALL_4V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.53 |
| Min Limit | 0.47 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.508 | 0.508 | 0.000 |
| 0 | 992 | 0.510 | 0.510 | 0.000 |
| 0 | 993 | 0.506 | 0.506 | 0.000 |
| 3 | 1 | 0.512 | 0.516 | 0.004 |
| 3 | 2 | 0.512 | 0.518 | 0.006 |
| 3 | 3 | 0.514 | 0.514 | 0.000 |
| 3 | 4 | 0.516 | 0.516 | 0.000 |
| 3 | 5 | 0.516 | 0.518 | 0.002 |
| 8 | 6 | 0.516 | 0.516 | 0.000 |
| 8 | 7 | 0.518 | 0.514 | -0.004 |
| 8 | 8 | 0.516 | 0.516 | 0.000 |
| 8 | 9 | 0.516 | 0.514 | -0.002 |
| 8 | 10 | 0.516 | 0.518 | 0.002 |
| 10 | 11 | 0.514 | 0.512 | -0.002 |
| 10 | 12 | 0.514 | 0.514 | 0.000 |
| 10 | 13 | 0.514 | 0.514 | 0.000 |
| 10 | 14 | 0.518 | 0.518 | 0.000 |
| 10 | 15 | 0.516 | 0.516 | 0.000 |
| 15 | 16 | 0.518 | 0.516 | -0.002 |
| 15 | 17 | 0.514 | 0.512 | -0.002 |
| 15 | 18 | 0.516 | 0.512 | -0.004 |
| 15 | 19 | 0.516 | 0.512 | -0.004 |
| 15 | 20 | 0.516 | 0.512 | -0.004 |
| 30 | 21 | 0.514 | 0.514 | 0.000 |
| 30 | 22 | 0.512 | 0.514 | 0.002 |
| 30 | 23 | 0.516 | 0.518 | 0.002 |
| 30 | 24 | 0.516 | 0.516 | 0.000 |
| 30 | 25 | 0.518 | 0.514 | -0.004 |
| 35 | 26 | 0.516 | 0.506 | -0.010 |
| 35 | 27 | 0.518 | 0.508 | -0.010 |
| 35 | 28 | 0.514 | 0.508 | -0.006 |
| 35 | 29 | 0.518 | 0.508 | -0.010 |
| 35 | 30 | 0.514 | 0.504 | -0.010 |
| 50 | 31 | 0.516 | 0.514 | -0.002 |
| 50 | 32 | 0.518 | 0.512 | -0.006 |
| 50 | 33 | 0.516 | 0.512 | -0.004 |
| 50 | 34 | 0.516 | 0.514 | -0.002 |
| 50 | 35 | 0.516 | 0.514 | -0.002 |
| 55 | 36 | 0.516 | 0.500 | -0.016 |
| 55 | 37 | 0.518 | 0.502 | -0.016 |
| 55 | 38 | 0.514 | 0.500 | -0.014 |
| 55 | 39 | 0.514 | 0.498 | -0.016 |
| 55 | 40 | 0.516 | 0.502 | -0.014 |
| 100 | 41 | 0.514 | 0.512 | -0.002 |
| 100 | 42 | 0.512 | 0.516 | 0.004 |
| 100 | 43 | 0.520 | 0.514 | -0.006 |
| 100 | 44 | 0.516 | 0.518 | 0.002 |
| 100 | 45 | 0.516 | 0.512 | -0.004 |
| 105 | 46 | 0.516 | 0.496 | -0.020 |
| 105 | 47 | 0.516 | 0.494 | -0.022 |
| 105 | 48 | 0.512 | 0.494 | -0.018 |
| 105 | 49 | 0.514 | 0.494 | -0.020 |
| 105 | 50 | 0.518 | 0.494 | -0.024 |
| 105 | 51 | 0.516 | 0.494 | -0.022 |
| 105 | 52 | 0.512 | 0.492 | -0.020 |
| 105 | 53 | 0.514 | 0.492 | -0.022 |
| 105 | 54 | 0.516 | 0.502 | -0.014 |
| 105 | 55 | 0.516 | 0.494 | -0.022 |
| 105 | 56 | 0.518 | 0.494 | -0.024 |
| 105 | 57 | 0.514 | 0.492 | -0.022 |
| 105 | 58 | 0.512 | 0.494 | -0.018 |
| 105 | 59 | 0.514 | 0.498 | -0.016 |
| 105 | 60 | 0.514 | 0.492 | -0.022 |
| 105 | 61 | 0.514 | 0.492 | -0.022 |
| 105 | 62 | 0.516 | 0.490 | -0.026 |
| 105 | 63 | 0.512 | 0.496 | -0.016 |
| 105 | 64 | 0.516 | 0.492 | -0.024 |
| 105 | 65 | 0.518 | 0.496 | -0.022 |
| 105 | 66 | 0.512 | 0.494 | -0.018 |
| 105 | 67 | 0.516 | 0.496 | -0.020 |
| Max | | 0.520 | 0.518 | 0.006 |
| Average | | 0.515 | 0.506 | -0.009 |
| Min | | 0.506 | 0.490 | -0.026 |
| Std Dev | | 0.002 | 0.009 | 0.009 |



| 6.6 V_EN_FALL_4V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.55 |
| Min Limit | 0.47 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.506 | 0.514 | 0.514 | 0.512 | 0.512 | 0.514 | 0.504 | 0.512 | 0.498 | 0.512 | 0.490 |
| Average | 0.508 | 0.516 | 0.516 | 0.515 | 0.513 | 0.515 | 0.507 | 0.513 | 0.500 | 0.514 | 0.494 |
| Max | 0.510 | 0.518 | 0.518 | 0.518 | 0.516 | 0.518 | 0.508 | 0.514 | 0.502 | 0.518 | 0.502 |
| UL | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 |

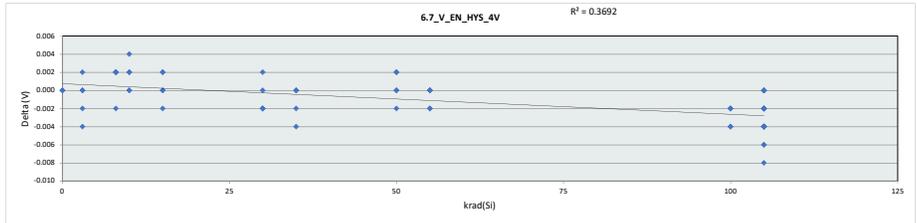


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

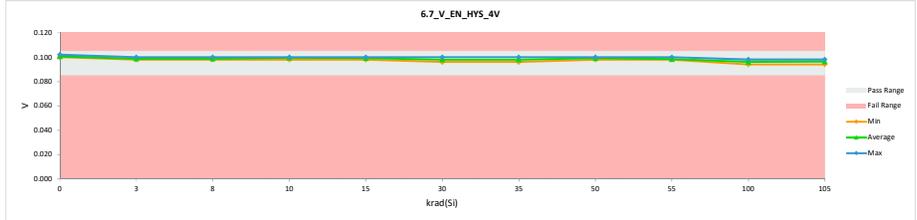
| 6.7_V_EN_HYS_4V | |
|-----------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.105 |
| Min Limit | 0.085 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.102 | 0.102 | 0.000 |
| 0 | 992 | 0.100 | 0.100 | 0.000 |
| 0 | 993 | 0.100 | 0.100 | 0.000 |
| 3 | 1 | 0.100 | 0.098 | -0.002 |
| 3 | 2 | 0.100 | 0.100 | 0.000 |
| 3 | 3 | 0.102 | 0.098 | -0.004 |
| 3 | 4 | 0.098 | 0.098 | 0.000 |
| 3 | 5 | 0.098 | 0.100 | 0.002 |
| 8 | 6 | 0.098 | 0.100 | 0.002 |
| 8 | 7 | 0.096 | 0.098 | 0.002 |
| 8 | 8 | 0.100 | 0.098 | -0.002 |
| 8 | 9 | 0.098 | 0.100 | 0.002 |
| 8 | 10 | 0.096 | 0.098 | 0.002 |
| 10 | 11 | 0.098 | 0.100 | 0.002 |
| 10 | 12 | 0.100 | 0.100 | 0.000 |
| 10 | 13 | 0.096 | 0.100 | 0.004 |
| 10 | 14 | 0.098 | 0.098 | 0.000 |
| 10 | 15 | 0.098 | 0.100 | 0.002 |
| 15 | 16 | 0.098 | 0.098 | 0.000 |
| 15 | 17 | 0.098 | 0.100 | 0.002 |
| 15 | 18 | 0.098 | 0.098 | 0.000 |
| 15 | 19 | 0.102 | 0.100 | -0.002 |
| 15 | 20 | 0.098 | 0.100 | 0.002 |
| 30 | 21 | 0.098 | 0.096 | -0.002 |
| 30 | 22 | 0.100 | 0.098 | -0.002 |
| 30 | 23 | 0.100 | 0.098 | -0.002 |
| 30 | 24 | 0.098 | 0.098 | 0.000 |
| 30 | 25 | 0.098 | 0.100 | 0.002 |
| 35 | 26 | 0.100 | 0.096 | -0.004 |
| 35 | 27 | 0.098 | 0.098 | 0.000 |
| 35 | 28 | 0.100 | 0.098 | -0.002 |
| 35 | 29 | 0.100 | 0.100 | 0.000 |
| 35 | 30 | 0.098 | 0.098 | 0.000 |
| 50 | 31 | 0.098 | 0.098 | 0.000 |
| 50 | 32 | 0.100 | 0.100 | 0.000 |
| 50 | 33 | 0.100 | 0.098 | -0.002 |
| 50 | 34 | 0.098 | 0.100 | 0.002 |
| 50 | 35 | 0.098 | 0.100 | 0.002 |
| 55 | 36 | 0.098 | 0.098 | 0.000 |
| 55 | 37 | 0.100 | 0.100 | 0.000 |
| 55 | 38 | 0.098 | 0.098 | 0.000 |
| 55 | 39 | 0.100 | 0.098 | -0.002 |
| 55 | 40 | 0.100 | 0.098 | -0.002 |
| 100 | 41 | 0.100 | 0.098 | -0.002 |
| 100 | 42 | 0.098 | 0.094 | -0.004 |
| 100 | 43 | 0.096 | 0.094 | -0.002 |
| 100 | 44 | 0.100 | 0.096 | -0.004 |
| 100 | 45 | 0.100 | 0.098 | -0.002 |
| 105 | 46 | 0.100 | 0.096 | -0.004 |
| 105 | 47 | 0.100 | 0.098 | -0.002 |
| 105 | 48 | 0.100 | 0.096 | -0.004 |
| 105 | 49 | 0.100 | 0.096 | -0.004 |
| 105 | 50 | 0.098 | 0.098 | 0.000 |
| 105 | 51 | 0.100 | 0.096 | -0.004 |
| 105 | 52 | 0.102 | 0.096 | -0.006 |
| 105 | 53 | 0.102 | 0.094 | -0.008 |
| 105 | 54 | 0.098 | 0.098 | 0.000 |
| 105 | 55 | 0.100 | 0.098 | -0.002 |
| 105 | 56 | 0.098 | 0.096 | -0.002 |
| 105 | 57 | 0.098 | 0.096 | -0.002 |
| 105 | 58 | 0.100 | 0.096 | -0.004 |
| 105 | 59 | 0.098 | 0.098 | 0.000 |
| 105 | 60 | 0.100 | 0.098 | -0.002 |
| 105 | 61 | 0.100 | 0.096 | -0.004 |
| 105 | 62 | 0.098 | 0.098 | 0.000 |
| 105 | 63 | 0.100 | 0.094 | -0.006 |
| 105 | 64 | 0.098 | 0.098 | 0.000 |
| 105 | 65 | 0.098 | 0.096 | -0.002 |
| 105 | 66 | 0.098 | 0.094 | -0.004 |
| 105 | 67 | 0.098 | 0.094 | -0.004 |
| Max | | 0.102 | 0.102 | 0.004 |
| Average | | 0.099 | 0.098 | -0.001 |
| Min | | 0.096 | 0.094 | -0.008 |
| Std Dev | | 0.001 | 0.002 | 0.002 |



| 6.7_V_EN_HYS_4V | |
|-----------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.105 |
| Min Limit | 0.085 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 |
| Min | 0.100 | 0.098 | 0.098 | 0.098 | 0.098 | 0.096 | 0.096 | 0.096 | 0.098 | 0.098 | 0.094 |
| Average | 0.101 | 0.099 | 0.099 | 0.100 | 0.099 | 0.098 | 0.098 | 0.099 | 0.098 | 0.096 | 0.096 |
| Max | 0.102 | 0.100 | 0.100 | 0.100 | 0.100 | 0.100 | 0.100 | 0.100 | 0.100 | 0.100 | 0.098 |
| UL | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 |

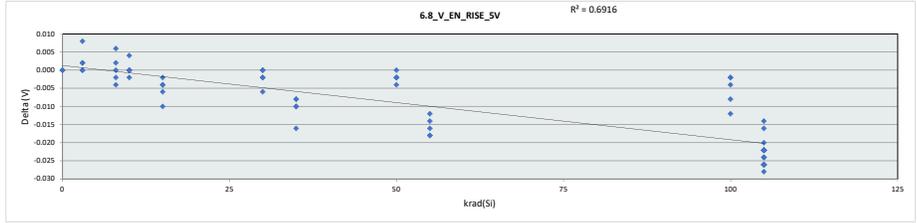


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

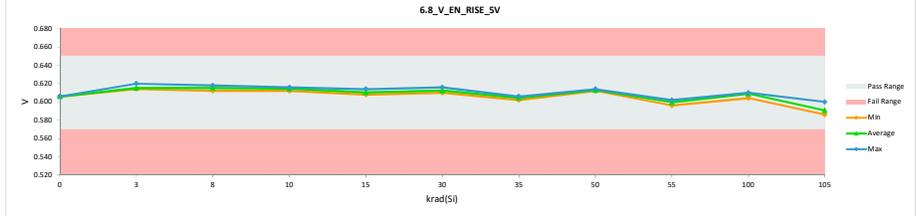
| 6.8 V_EN_RISE_5V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.65 |
| Min Limit | 0.57 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.606 | 0.606 | 0.000 |
| 0 | 992 | 0.606 | 0.606 | 0.000 |
| 0 | 993 | 0.606 | 0.606 | 0.000 |
| 3 | 1 | 0.612 | 0.614 | 0.002 |
| 3 | 2 | 0.612 | 0.620 | 0.008 |
| 3 | 3 | 0.612 | 0.614 | 0.002 |
| 3 | 4 | 0.614 | 0.614 | 0.000 |
| 3 | 5 | 0.614 | 0.614 | 0.000 |
| 8 | 6 | 0.614 | 0.616 | 0.002 |
| 8 | 7 | 0.616 | 0.612 | -0.004 |
| 8 | 8 | 0.616 | 0.616 | 0.000 |
| 8 | 9 | 0.616 | 0.614 | -0.002 |
| 8 | 10 | 0.612 | 0.618 | 0.006 |
| 10 | 11 | 0.612 | 0.612 | 0.000 |
| 10 | 12 | 0.616 | 0.614 | -0.002 |
| 10 | 13 | 0.610 | 0.614 | 0.004 |
| 10 | 14 | 0.616 | 0.616 | 0.000 |
| 10 | 15 | 0.616 | 0.616 | 0.000 |
| 15 | 16 | 0.616 | 0.614 | -0.002 |
| 15 | 17 | 0.614 | 0.608 | -0.006 |
| 15 | 18 | 0.614 | 0.610 | -0.004 |
| 15 | 19 | 0.618 | 0.608 | -0.010 |
| 15 | 20 | 0.616 | 0.612 | -0.004 |
| 30 | 21 | 0.612 | 0.610 | -0.002 |
| 30 | 22 | 0.612 | 0.612 | 0.000 |
| 30 | 23 | 0.616 | 0.616 | 0.000 |
| 30 | 24 | 0.616 | 0.614 | -0.002 |
| 30 | 25 | 0.616 | 0.610 | -0.006 |
| 35 | 26 | 0.612 | 0.602 | -0.010 |
| 35 | 27 | 0.614 | 0.606 | -0.008 |
| 35 | 28 | 0.616 | 0.606 | -0.010 |
| 35 | 29 | 0.620 | 0.604 | -0.016 |
| 35 | 30 | 0.612 | 0.604 | -0.008 |
| 50 | 31 | 0.614 | 0.614 | 0.000 |
| 50 | 32 | 0.614 | 0.612 | -0.002 |
| 50 | 33 | 0.616 | 0.612 | -0.004 |
| 50 | 34 | 0.614 | 0.612 | -0.002 |
| 50 | 35 | 0.616 | 0.614 | -0.002 |
| 55 | 36 | 0.616 | 0.598 | -0.018 |
| 55 | 37 | 0.618 | 0.602 | -0.016 |
| 55 | 38 | 0.612 | 0.600 | -0.012 |
| 55 | 39 | 0.614 | 0.596 | -0.018 |
| 55 | 40 | 0.616 | 0.602 | -0.014 |
| 100 | 41 | 0.616 | 0.604 | -0.012 |
| 100 | 42 | 0.612 | 0.610 | -0.002 |
| 100 | 43 | 0.618 | 0.610 | -0.008 |
| 100 | 44 | 0.612 | 0.610 | -0.002 |
| 100 | 45 | 0.614 | 0.610 | -0.004 |
| 105 | 46 | 0.612 | 0.592 | -0.020 |
| 105 | 47 | 0.616 | 0.592 | -0.024 |
| 105 | 48 | 0.612 | 0.590 | -0.022 |
| 105 | 49 | 0.614 | 0.592 | -0.022 |
| 105 | 50 | 0.616 | 0.592 | -0.024 |
| 105 | 51 | 0.616 | 0.590 | -0.026 |
| 105 | 52 | 0.610 | 0.588 | -0.022 |
| 105 | 53 | 0.612 | 0.586 | -0.026 |
| 105 | 54 | 0.614 | 0.600 | -0.014 |
| 105 | 55 | 0.614 | 0.592 | -0.022 |
| 105 | 56 | 0.612 | 0.590 | -0.022 |
| 105 | 57 | 0.614 | 0.588 | -0.026 |
| 105 | 58 | 0.612 | 0.590 | -0.022 |
| 105 | 59 | 0.612 | 0.596 | -0.016 |
| 105 | 60 | 0.616 | 0.590 | -0.026 |
| 105 | 61 | 0.614 | 0.588 | -0.026 |
| 105 | 62 | 0.616 | 0.588 | -0.028 |
| 105 | 63 | 0.614 | 0.592 | -0.022 |
| 105 | 64 | 0.616 | 0.590 | -0.026 |
| 105 | 65 | 0.614 | 0.592 | -0.022 |
| 105 | 66 | 0.616 | 0.588 | -0.022 |
| 105 | 67 | 0.614 | 0.590 | -0.024 |
| Max | | 0.620 | 0.620 | 0.008 |
| Average | | 0.614 | 0.604 | -0.010 |
| Min | | 0.606 | 0.586 | -0.028 |
| Std Dev | | 0.003 | 0.010 | 0.010 |



| 6.8 V_EN_RISE_5V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.65 |
| Min Limit | 0.57 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.606 | 0.614 | 0.612 | 0.612 | 0.608 | 0.610 | 0.602 | 0.612 | 0.596 | 0.604 | 0.586 |
| Average | 0.606 | 0.615 | 0.615 | 0.614 | 0.610 | 0.612 | 0.604 | 0.613 | 0.600 | 0.609 | 0.591 |
| Max | 0.606 | 0.620 | 0.618 | 0.616 | 0.614 | 0.616 | 0.606 | 0.614 | 0.602 | 0.610 | 0.600 |
| UL | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 |

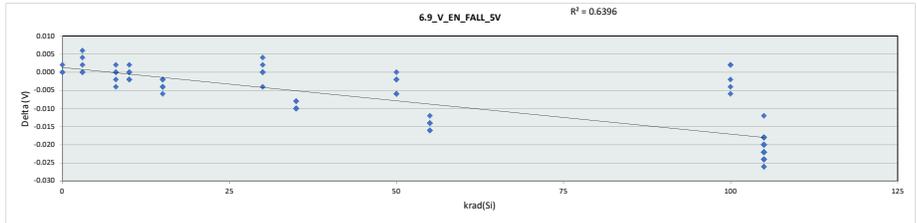


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

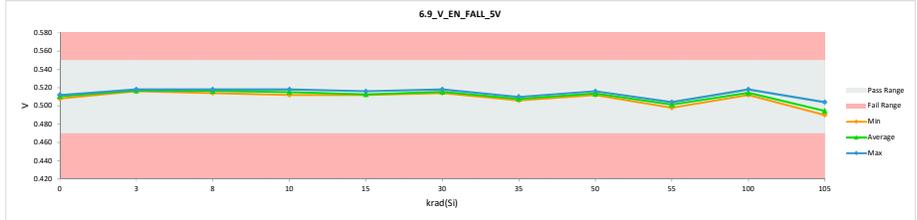
| 6.9_V_EN_FALL_5V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.55 |
| Min Limit | 0.47 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.512 | 0.512 | 0.000 |
| 0 | 992 | 0.512 | 0.512 | 0.000 |
| 0 | 993 | 0.506 | 0.508 | 0.002 |
| 3 | 1 | 0.512 | 0.516 | 0.004 |
| 3 | 2 | 0.512 | 0.518 | 0.006 |
| 3 | 3 | 0.516 | 0.516 | 0.000 |
| 3 | 4 | 0.516 | 0.516 | 0.000 |
| 3 | 5 | 0.516 | 0.518 | 0.002 |
| 8 | 6 | 0.516 | 0.516 | 0.000 |
| 8 | 7 | 0.518 | 0.514 | -0.004 |
| 8 | 8 | 0.518 | 0.516 | -0.002 |
| 8 | 9 | 0.518 | 0.518 | 0.000 |
| 8 | 10 | 0.516 | 0.518 | 0.002 |
| 10 | 11 | 0.514 | 0.512 | -0.002 |
| 10 | 12 | 0.514 | 0.514 | 0.000 |
| 10 | 13 | 0.514 | 0.516 | 0.002 |
| 10 | 14 | 0.518 | 0.518 | 0.000 |
| 10 | 15 | 0.518 | 0.516 | -0.002 |
| 15 | 16 | 0.518 | 0.516 | -0.002 |
| 15 | 17 | 0.514 | 0.512 | -0.002 |
| 15 | 18 | 0.516 | 0.512 | -0.004 |
| 15 | 19 | 0.518 | 0.512 | -0.006 |
| 15 | 20 | 0.516 | 0.512 | -0.004 |
| 30 | 21 | 0.514 | 0.514 | 0.000 |
| 30 | 22 | 0.512 | 0.516 | 0.004 |
| 30 | 23 | 0.516 | 0.518 | 0.002 |
| 30 | 24 | 0.516 | 0.516 | 0.000 |
| 30 | 25 | 0.518 | 0.514 | -0.004 |
| 35 | 26 | 0.516 | 0.506 | -0.010 |
| 35 | 27 | 0.518 | 0.508 | -0.010 |
| 35 | 28 | 0.516 | 0.508 | -0.008 |
| 35 | 29 | 0.520 | 0.510 | -0.010 |
| 35 | 30 | 0.514 | 0.506 | -0.008 |
| 50 | 31 | 0.516 | 0.514 | -0.002 |
| 50 | 32 | 0.518 | 0.512 | -0.006 |
| 50 | 33 | 0.518 | 0.512 | -0.006 |
| 50 | 34 | 0.516 | 0.514 | -0.002 |
| 50 | 35 | 0.516 | 0.516 | 0.000 |
| 55 | 36 | 0.518 | 0.502 | -0.016 |
| 55 | 37 | 0.518 | 0.504 | -0.014 |
| 55 | 38 | 0.514 | 0.502 | -0.012 |
| 55 | 39 | 0.514 | 0.498 | -0.016 |
| 55 | 40 | 0.516 | 0.502 | -0.014 |
| 100 | 41 | 0.514 | 0.512 | -0.002 |
| 100 | 42 | 0.514 | 0.516 | 0.002 |
| 100 | 43 | 0.520 | 0.514 | -0.006 |
| 100 | 44 | 0.516 | 0.518 | 0.002 |
| 100 | 45 | 0.516 | 0.512 | -0.004 |
| 105 | 46 | 0.516 | 0.496 | -0.020 |
| 105 | 47 | 0.518 | 0.494 | -0.024 |
| 105 | 48 | 0.512 | 0.494 | -0.018 |
| 105 | 49 | 0.514 | 0.494 | -0.020 |
| 105 | 50 | 0.518 | 0.494 | -0.024 |
| 105 | 51 | 0.518 | 0.494 | -0.024 |
| 105 | 52 | 0.514 | 0.492 | -0.022 |
| 105 | 53 | 0.516 | 0.492 | -0.024 |
| 105 | 54 | 0.516 | 0.504 | -0.012 |
| 105 | 55 | 0.516 | 0.494 | -0.022 |
| 105 | 56 | 0.518 | 0.496 | -0.022 |
| 105 | 57 | 0.518 | 0.492 | -0.026 |
| 105 | 58 | 0.514 | 0.494 | -0.020 |
| 105 | 59 | 0.516 | 0.498 | -0.018 |
| 105 | 60 | 0.514 | 0.494 | -0.020 |
| 105 | 61 | 0.514 | 0.492 | -0.022 |
| 105 | 62 | 0.516 | 0.490 | -0.026 |
| 105 | 63 | 0.514 | 0.496 | -0.018 |
| 105 | 64 | 0.516 | 0.494 | -0.022 |
| 105 | 65 | 0.518 | 0.496 | -0.022 |
| 105 | 66 | 0.512 | 0.494 | -0.018 |
| 105 | 67 | 0.516 | 0.496 | -0.020 |
| Max | | 0.520 | 0.518 | 0.006 |
| Average | | 0.516 | 0.507 | -0.009 |
| Min | | 0.506 | 0.490 | -0.026 |
| Std Dev | | 0.002 | 0.009 | 0.010 |



| 6.9_V_EN_FALL_5V | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.55 |
| Min Limit | 0.47 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.508 | 0.516 | 0.514 | 0.512 | 0.512 | 0.514 | 0.506 | 0.512 | 0.498 | 0.512 | 0.490 |
| Average | 0.511 | 0.517 | 0.516 | 0.515 | 0.513 | 0.516 | 0.508 | 0.514 | 0.502 | 0.514 | 0.495 |
| Max | 0.512 | 0.518 | 0.518 | 0.518 | 0.516 | 0.518 | 0.510 | 0.516 | 0.504 | 0.518 | 0.504 |
| UL | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 |

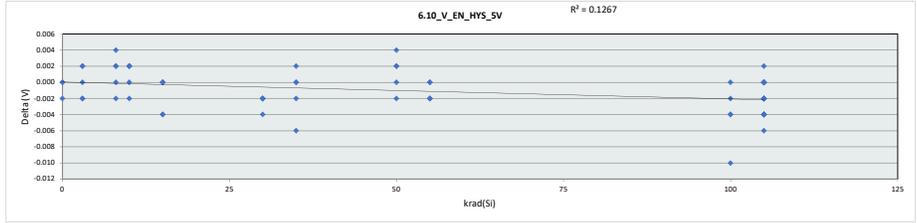


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

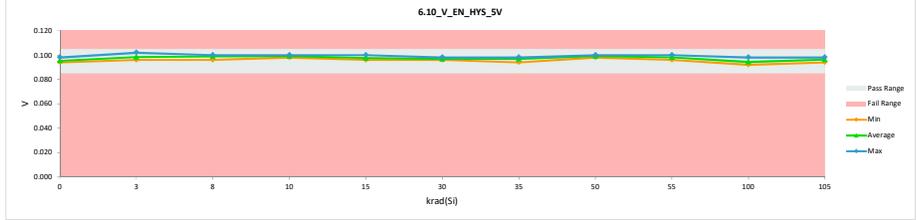
| 6.10_V_EN_HYS_5V | |
|------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.105 |
| Min Limit | 0.085 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.094 | 0.094 | 0.000 |
| 0 | 992 | 0.094 | 0.094 | 0.000 |
| 0 | 993 | 0.100 | 0.098 | -0.002 |
| 3 | 1 | 0.100 | 0.098 | -0.002 |
| 3 | 2 | 0.100 | 0.098 | -0.002 |
| 3 | 3 | 0.098 | 0.098 | 0.000 |
| 3 | 4 | 0.098 | 0.098 | 0.000 |
| 3 | 5 | 0.098 | 0.096 | -0.002 |
| 8 | 6 | 0.098 | 0.100 | 0.002 |
| 8 | 7 | 0.098 | 0.098 | 0.000 |
| 8 | 8 | 0.098 | 0.100 | 0.002 |
| 8 | 9 | 0.098 | 0.096 | -0.002 |
| 8 | 10 | 0.096 | 0.100 | 0.004 |
| 10 | 11 | 0.098 | 0.100 | 0.002 |
| 10 | 12 | 0.102 | 0.100 | -0.002 |
| 10 | 13 | 0.096 | 0.098 | 0.002 |
| 10 | 14 | 0.098 | 0.098 | 0.000 |
| 10 | 15 | 0.098 | 0.100 | 0.002 |
| 15 | 16 | 0.098 | 0.098 | 0.000 |
| 15 | 17 | 0.100 | 0.096 | -0.004 |
| 15 | 18 | 0.098 | 0.098 | 0.000 |
| 15 | 19 | 0.100 | 0.096 | -0.004 |
| 15 | 20 | 0.100 | 0.100 | 0.000 |
| 30 | 21 | 0.098 | 0.096 | -0.002 |
| 30 | 22 | 0.100 | 0.096 | -0.004 |
| 30 | 23 | 0.100 | 0.098 | -0.002 |
| 30 | 24 | 0.100 | 0.098 | -0.002 |
| 30 | 25 | 0.098 | 0.096 | -0.002 |
| 35 | 26 | 0.096 | 0.096 | 0.000 |
| 35 | 27 | 0.096 | 0.098 | 0.002 |
| 35 | 28 | 0.100 | 0.098 | -0.002 |
| 35 | 29 | 0.100 | 0.094 | -0.006 |
| 35 | 30 | 0.098 | 0.098 | 0.000 |
| 50 | 31 | 0.098 | 0.100 | 0.002 |
| 50 | 32 | 0.096 | 0.100 | 0.004 |
| 50 | 33 | 0.098 | 0.100 | 0.002 |
| 50 | 34 | 0.098 | 0.098 | 0.000 |
| 50 | 35 | 0.100 | 0.098 | -0.002 |
| 55 | 36 | 0.098 | 0.096 | -0.002 |
| 55 | 37 | 0.100 | 0.098 | -0.002 |
| 55 | 38 | 0.098 | 0.098 | 0.000 |
| 55 | 39 | 0.100 | 0.098 | -0.002 |
| 55 | 40 | 0.100 | 0.100 | 0.000 |
| 100 | 41 | 0.102 | 0.092 | -0.010 |
| 100 | 42 | 0.098 | 0.094 | -0.004 |
| 100 | 43 | 0.098 | 0.096 | -0.002 |
| 100 | 44 | 0.096 | 0.092 | -0.004 |
| 100 | 45 | 0.098 | 0.098 | 0.000 |
| 105 | 46 | 0.096 | 0.096 | 0.000 |
| 105 | 47 | 0.098 | 0.098 | 0.000 |
| 105 | 48 | 0.100 | 0.096 | -0.004 |
| 105 | 49 | 0.100 | 0.098 | -0.002 |
| 105 | 50 | 0.098 | 0.098 | 0.000 |
| 105 | 51 | 0.098 | 0.096 | -0.002 |
| 105 | 52 | 0.096 | 0.096 | 0.000 |
| 105 | 53 | 0.096 | 0.094 | -0.002 |
| 105 | 54 | 0.098 | 0.096 | -0.002 |
| 105 | 55 | 0.098 | 0.098 | 0.000 |
| 105 | 56 | 0.094 | 0.094 | 0.000 |
| 105 | 57 | 0.096 | 0.096 | 0.000 |
| 105 | 58 | 0.098 | 0.096 | -0.002 |
| 105 | 59 | 0.096 | 0.098 | 0.002 |
| 105 | 60 | 0.102 | 0.096 | -0.006 |
| 105 | 61 | 0.100 | 0.096 | -0.004 |
| 105 | 62 | 0.100 | 0.098 | -0.002 |
| 105 | 63 | 0.100 | 0.096 | -0.004 |
| 105 | 64 | 0.100 | 0.096 | -0.004 |
| 105 | 65 | 0.096 | 0.096 | 0.000 |
| 105 | 66 | 0.098 | 0.094 | -0.004 |
| 105 | 67 | 0.098 | 0.094 | -0.004 |
| Max | | 0.102 | 0.102 | 0.004 |
| Average | | 0.098 | 0.097 | -0.001 |
| Min | | 0.094 | 0.092 | -0.010 |
| Std Dev | | 0.002 | 0.002 | 0.002 |



| 6.10_V_EN_HYS_5V | |
|------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.105 |
| Min Limit | 0.085 |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 |
| Min | 0.094 | 0.096 | 0.096 | 0.098 | 0.096 | 0.094 | 0.098 | 0.096 | 0.092 | 0.094 |
| Average | 0.095 | 0.098 | 0.099 | 0.099 | 0.098 | 0.097 | 0.099 | 0.098 | 0.094 | 0.096 |
| Max | 0.098 | 0.102 | 0.100 | 0.100 | 0.098 | 0.098 | 0.100 | 0.100 | 0.098 | 0.098 |
| UL | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 |

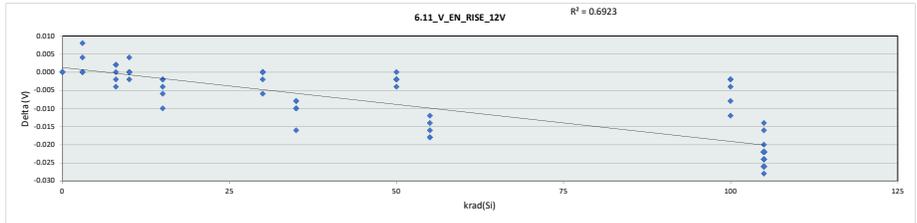


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

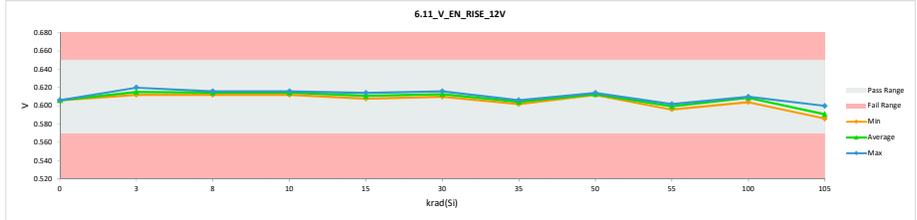
| 6.11 V_EN_RISE_12V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.63 |
| Min Limit | 0.57 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.606 | 0.606 | 0.000 |
| 0 | 992 | 0.606 | 0.606 | 0.000 |
| 0 | 993 | 0.606 | 0.606 | 0.000 |
| 3 | 1 | 0.612 | 0.616 | 0.004 |
| 3 | 2 | 0.612 | 0.620 | 0.008 |
| 3 | 3 | 0.612 | 0.612 | 0.000 |
| 3 | 4 | 0.614 | 0.614 | 0.000 |
| 3 | 5 | 0.614 | 0.614 | 0.000 |
| 8 | 6 | 0.614 | 0.616 | 0.002 |
| 8 | 7 | 0.616 | 0.612 | -0.004 |
| 8 | 8 | 0.616 | 0.616 | 0.000 |
| 8 | 9 | 0.616 | 0.614 | -0.002 |
| 8 | 10 | 0.612 | 0.614 | 0.002 |
| 10 | 11 | 0.612 | 0.612 | 0.000 |
| 10 | 12 | 0.616 | 0.614 | -0.002 |
| 10 | 13 | 0.610 | 0.614 | 0.004 |
| 10 | 14 | 0.616 | 0.616 | 0.000 |
| 10 | 15 | 0.616 | 0.616 | 0.000 |
| 15 | 16 | 0.616 | 0.614 | -0.002 |
| 15 | 17 | 0.614 | 0.608 | -0.006 |
| 15 | 18 | 0.614 | 0.610 | -0.004 |
| 15 | 19 | 0.618 | 0.608 | -0.010 |
| 15 | 20 | 0.616 | 0.614 | -0.002 |
| 30 | 21 | 0.612 | 0.610 | -0.002 |
| 30 | 22 | 0.612 | 0.612 | 0.000 |
| 30 | 23 | 0.616 | 0.616 | 0.000 |
| 30 | 24 | 0.616 | 0.616 | 0.000 |
| 30 | 25 | 0.616 | 0.610 | -0.006 |
| 35 | 26 | 0.612 | 0.602 | -0.010 |
| 35 | 27 | 0.614 | 0.606 | -0.008 |
| 35 | 28 | 0.616 | 0.606 | -0.010 |
| 35 | 29 | 0.620 | 0.604 | -0.016 |
| 35 | 30 | 0.612 | 0.604 | -0.008 |
| 50 | 31 | 0.614 | 0.614 | 0.000 |
| 50 | 32 | 0.614 | 0.612 | -0.002 |
| 50 | 33 | 0.616 | 0.612 | -0.004 |
| 50 | 34 | 0.614 | 0.612 | -0.002 |
| 50 | 35 | 0.616 | 0.614 | -0.002 |
| 55 | 36 | 0.616 | 0.598 | -0.018 |
| 55 | 37 | 0.618 | 0.602 | -0.016 |
| 55 | 38 | 0.612 | 0.600 | -0.012 |
| 55 | 39 | 0.614 | 0.596 | -0.018 |
| 55 | 40 | 0.616 | 0.602 | -0.014 |
| 100 | 41 | 0.616 | 0.604 | -0.012 |
| 100 | 42 | 0.612 | 0.610 | -0.002 |
| 100 | 43 | 0.618 | 0.610 | -0.008 |
| 100 | 44 | 0.612 | 0.610 | -0.002 |
| 100 | 45 | 0.614 | 0.610 | -0.004 |
| 105 | 46 | 0.612 | 0.592 | -0.020 |
| 105 | 47 | 0.616 | 0.592 | -0.024 |
| 105 | 48 | 0.612 | 0.590 | -0.022 |
| 105 | 49 | 0.614 | 0.592 | -0.022 |
| 105 | 50 | 0.616 | 0.592 | -0.024 |
| 105 | 51 | 0.616 | 0.590 | -0.026 |
| 105 | 52 | 0.610 | 0.588 | -0.022 |
| 105 | 53 | 0.612 | 0.586 | -0.026 |
| 105 | 54 | 0.614 | 0.600 | -0.014 |
| 105 | 55 | 0.614 | 0.592 | -0.022 |
| 105 | 56 | 0.612 | 0.590 | -0.022 |
| 105 | 57 | 0.614 | 0.588 | -0.026 |
| 105 | 58 | 0.612 | 0.590 | -0.022 |
| 105 | 59 | 0.612 | 0.596 | -0.016 |
| 105 | 60 | 0.610 | 0.590 | -0.020 |
| 105 | 61 | 0.614 | 0.588 | -0.026 |
| 105 | 62 | 0.616 | 0.588 | -0.028 |
| 105 | 63 | 0.614 | 0.592 | -0.022 |
| 105 | 64 | 0.616 | 0.592 | -0.024 |
| 105 | 65 | 0.614 | 0.592 | -0.022 |
| 105 | 66 | 0.610 | 0.588 | -0.022 |
| 105 | 67 | 0.614 | 0.590 | -0.024 |
| Max | | 0.620 | 0.620 | 0.008 |
| Average | | 0.614 | 0.604 | -0.010 |
| Min | | 0.606 | 0.586 | -0.028 |
| Std Dev | | 0.003 | 0.010 | 0.010 |



| 6.11 V_EN_RISE_12V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.65 |
| Min Limit | 0.57 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.606 | 0.612 | 0.612 | 0.612 | 0.608 | 0.610 | 0.602 | 0.612 | 0.596 | 0.604 | 0.586 |
| Average | 0.606 | 0.615 | 0.614 | 0.614 | 0.611 | 0.613 | 0.604 | 0.613 | 0.600 | 0.609 | 0.591 |
| Max | 0.606 | 0.620 | 0.616 | 0.616 | 0.614 | 0.616 | 0.606 | 0.614 | 0.602 | 0.610 | 0.600 |
| UL | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 |

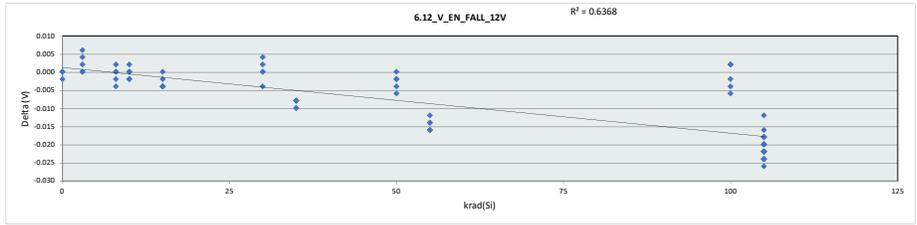


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

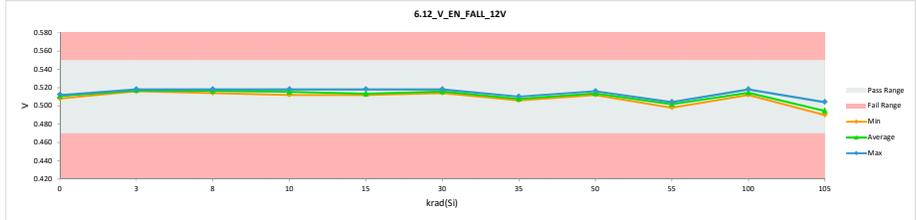
| 6.12 V_EN_FALL_12V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.55 |
| Min Limit | 0.47 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.512 | 0.512 | 0.000 |
| 0 | 992 | 0.512 | 0.512 | 0.000 |
| 0 | 993 | 0.510 | 0.508 | -0.002 |
| 3 | 1 | 0.512 | 0.516 | 0.004 |
| 3 | 2 | 0.512 | 0.518 | 0.006 |
| 3 | 3 | 0.516 | 0.516 | 0.000 |
| 3 | 4 | 0.516 | 0.516 | 0.000 |
| 3 | 5 | 0.516 | 0.518 | 0.002 |
| 8 | 6 | 0.516 | 0.516 | 0.000 |
| 8 | 7 | 0.518 | 0.514 | -0.004 |
| 8 | 8 | 0.518 | 0.516 | -0.002 |
| 8 | 9 | 0.518 | 0.518 | 0.000 |
| 8 | 10 | 0.516 | 0.518 | 0.002 |
| 10 | 11 | 0.514 | 0.512 | -0.002 |
| 10 | 12 | 0.514 | 0.514 | 0.000 |
| 10 | 13 | 0.514 | 0.516 | 0.002 |
| 10 | 14 | 0.518 | 0.518 | 0.000 |
| 10 | 15 | 0.518 | 0.516 | -0.002 |
| 15 | 16 | 0.518 | 0.518 | 0.000 |
| 15 | 17 | 0.514 | 0.512 | -0.002 |
| 15 | 18 | 0.516 | 0.512 | -0.004 |
| 15 | 19 | 0.516 | 0.512 | -0.004 |
| 15 | 20 | 0.516 | 0.512 | -0.004 |
| 30 | 21 | 0.514 | 0.514 | 0.000 |
| 30 | 22 | 0.512 | 0.516 | 0.004 |
| 30 | 23 | 0.516 | 0.518 | 0.002 |
| 30 | 24 | 0.516 | 0.516 | 0.000 |
| 30 | 25 | 0.518 | 0.514 | -0.004 |
| 35 | 26 | 0.516 | 0.506 | -0.010 |
| 35 | 27 | 0.518 | 0.508 | -0.010 |
| 35 | 28 | 0.516 | 0.508 | -0.008 |
| 35 | 29 | 0.518 | 0.510 | -0.008 |
| 35 | 30 | 0.514 | 0.506 | -0.008 |
| 50 | 31 | 0.516 | 0.514 | -0.002 |
| 50 | 32 | 0.518 | 0.512 | -0.006 |
| 50 | 33 | 0.516 | 0.512 | -0.004 |
| 50 | 34 | 0.516 | 0.514 | -0.002 |
| 50 | 35 | 0.516 | 0.516 | 0.000 |
| 55 | 36 | 0.518 | 0.502 | -0.016 |
| 55 | 37 | 0.518 | 0.504 | -0.014 |
| 55 | 38 | 0.514 | 0.502 | -0.012 |
| 55 | 39 | 0.514 | 0.498 | -0.016 |
| 55 | 40 | 0.516 | 0.502 | -0.014 |
| 100 | 41 | 0.514 | 0.512 | -0.002 |
| 100 | 42 | 0.514 | 0.516 | 0.002 |
| 100 | 43 | 0.520 | 0.514 | -0.006 |
| 100 | 44 | 0.516 | 0.518 | 0.002 |
| 100 | 45 | 0.516 | 0.512 | -0.004 |
| 105 | 46 | 0.516 | 0.498 | -0.018 |
| 105 | 47 | 0.518 | 0.494 | -0.024 |
| 105 | 48 | 0.512 | 0.494 | -0.018 |
| 105 | 49 | 0.514 | 0.494 | -0.020 |
| 105 | 50 | 0.518 | 0.494 | -0.024 |
| 105 | 51 | 0.518 | 0.494 | -0.024 |
| 105 | 52 | 0.514 | 0.492 | -0.022 |
| 105 | 53 | 0.516 | 0.492 | -0.024 |
| 105 | 54 | 0.516 | 0.504 | -0.012 |
| 105 | 55 | 0.516 | 0.494 | -0.022 |
| 105 | 56 | 0.518 | 0.496 | -0.022 |
| 105 | 57 | 0.514 | 0.492 | -0.022 |
| 105 | 58 | 0.514 | 0.494 | -0.020 |
| 105 | 59 | 0.514 | 0.498 | -0.016 |
| 105 | 60 | 0.514 | 0.494 | -0.020 |
| 105 | 61 | 0.514 | 0.492 | -0.022 |
| 105 | 62 | 0.516 | 0.490 | -0.026 |
| 105 | 63 | 0.514 | 0.496 | -0.018 |
| 105 | 64 | 0.516 | 0.492 | -0.024 |
| 105 | 65 | 0.518 | 0.496 | -0.022 |
| 105 | 66 | 0.512 | 0.494 | -0.018 |
| 105 | 67 | 0.516 | 0.496 | -0.020 |
| Max | | 0.520 | 0.518 | 0.006 |
| Average | | 0.516 | 0.507 | -0.009 |
| Min | | 0.510 | 0.490 | -0.026 |
| Std Dev | | 0.002 | 0.010 | 0.010 |



| 6.12 V_EN_FALL_12V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.55 |
| Min Limit | 0.47 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.508 | 0.516 | 0.514 | 0.512 | 0.512 | 0.514 | 0.506 | 0.512 | 0.498 | 0.512 | 0.490 |
| Average | 0.511 | 0.517 | 0.516 | 0.515 | 0.513 | 0.516 | 0.508 | 0.514 | 0.502 | 0.514 | 0.495 |
| Max | 0.512 | 0.518 | 0.518 | 0.518 | 0.518 | 0.518 | 0.510 | 0.516 | 0.504 | 0.518 | 0.504 |
| UL | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 |

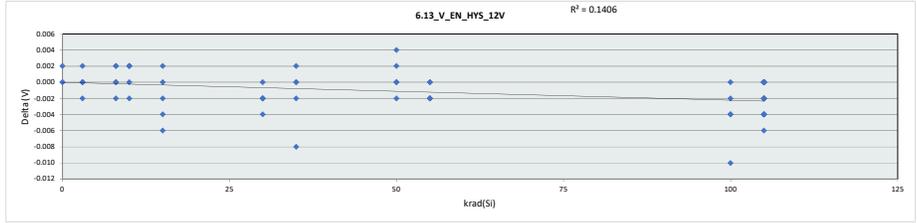


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

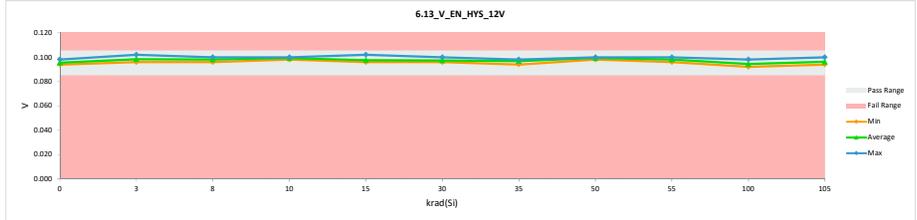
| 6.13 V_EN_HYS_12V | |
|-------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.105 |
| Min Limit | 0.085 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.094 | 0.094 | 0.000 |
| 0 | 992 | 0.094 | 0.094 | 0.000 |
| 0 | 993 | 0.096 | 0.098 | 0.002 |
| 3 | 1 | 0.100 | 0.100 | 0.000 |
| 3 | 2 | 0.102 | 0.102 | 0.000 |
| 3 | 3 | 0.096 | 0.096 | 0.000 |
| 3 | 4 | 0.098 | 0.098 | 0.000 |
| 3 | 5 | 0.098 | 0.096 | -0.002 |
| 8 | 6 | 0.098 | 0.100 | 0.002 |
| 8 | 7 | 0.098 | 0.098 | 0.000 |
| 8 | 8 | 0.098 | 0.100 | 0.002 |
| 8 | 9 | 0.098 | 0.096 | -0.002 |
| 8 | 10 | 0.096 | 0.096 | 0.000 |
| 10 | 11 | 0.098 | 0.100 | 0.002 |
| 10 | 12 | 0.102 | 0.100 | -0.002 |
| 10 | 13 | 0.096 | 0.098 | 0.002 |
| 10 | 14 | 0.098 | 0.098 | 0.000 |
| 10 | 15 | 0.098 | 0.100 | 0.002 |
| 15 | 16 | 0.098 | 0.096 | -0.002 |
| 15 | 17 | 0.100 | 0.096 | -0.004 |
| 15 | 18 | 0.098 | 0.098 | 0.000 |
| 15 | 19 | 0.102 | 0.096 | -0.006 |
| 15 | 20 | 0.100 | 0.102 | 0.002 |
| 30 | 21 | 0.098 | 0.096 | -0.002 |
| 30 | 22 | 0.100 | 0.096 | -0.004 |
| 30 | 23 | 0.100 | 0.098 | -0.002 |
| 30 | 24 | 0.100 | 0.100 | 0.000 |
| 30 | 25 | 0.098 | 0.096 | -0.002 |
| 35 | 26 | 0.096 | 0.096 | 0.000 |
| 35 | 27 | 0.096 | 0.098 | 0.002 |
| 35 | 28 | 0.100 | 0.098 | -0.002 |
| 35 | 29 | 0.102 | 0.094 | -0.008 |
| 35 | 30 | 0.098 | 0.098 | 0.000 |
| 50 | 31 | 0.098 | 0.100 | 0.002 |
| 50 | 32 | 0.096 | 0.100 | 0.004 |
| 50 | 33 | 0.100 | 0.100 | 0.000 |
| 50 | 34 | 0.098 | 0.098 | 0.000 |
| 50 | 35 | 0.100 | 0.098 | -0.002 |
| 55 | 36 | 0.098 | 0.096 | -0.002 |
| 55 | 37 | 0.100 | 0.098 | -0.002 |
| 55 | 38 | 0.098 | 0.098 | 0.000 |
| 55 | 39 | 0.100 | 0.098 | -0.002 |
| 55 | 40 | 0.100 | 0.100 | 0.000 |
| 100 | 41 | 0.102 | 0.092 | -0.010 |
| 100 | 42 | 0.098 | 0.094 | -0.004 |
| 100 | 43 | 0.098 | 0.096 | -0.002 |
| 100 | 44 | 0.096 | 0.092 | -0.004 |
| 100 | 45 | 0.098 | 0.098 | 0.000 |
| 105 | 46 | 0.096 | 0.094 | -0.002 |
| 105 | 47 | 0.098 | 0.098 | 0.000 |
| 105 | 48 | 0.100 | 0.096 | -0.004 |
| 105 | 49 | 0.100 | 0.098 | -0.002 |
| 105 | 50 | 0.098 | 0.098 | 0.000 |
| 105 | 51 | 0.098 | 0.096 | -0.002 |
| 105 | 52 | 0.096 | 0.096 | 0.000 |
| 105 | 53 | 0.096 | 0.094 | -0.002 |
| 105 | 54 | 0.098 | 0.096 | -0.002 |
| 105 | 55 | 0.098 | 0.098 | 0.000 |
| 105 | 56 | 0.094 | 0.094 | 0.000 |
| 105 | 57 | 0.100 | 0.096 | -0.004 |
| 105 | 58 | 0.098 | 0.096 | -0.002 |
| 105 | 59 | 0.098 | 0.098 | 0.000 |
| 105 | 60 | 0.102 | 0.096 | -0.006 |
| 105 | 61 | 0.100 | 0.096 | -0.004 |
| 105 | 62 | 0.100 | 0.098 | -0.002 |
| 105 | 63 | 0.100 | 0.096 | -0.004 |
| 105 | 64 | 0.100 | 0.100 | 0.000 |
| 105 | 65 | 0.096 | 0.096 | 0.000 |
| 105 | 66 | 0.098 | 0.094 | -0.004 |
| 105 | 67 | 0.098 | 0.094 | -0.004 |
| Max | | 0.102 | 0.102 | 0.004 |
| Average | | 0.098 | 0.097 | -0.001 |
| Min | | 0.094 | 0.092 | -0.010 |
| Std Dev | | 0.002 | 0.002 | 0.002 |



| 6.13 V_EN_HYS_12V | |
|-------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.105 |
| Min Limit | 0.085 |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 |
| Min | 0.094 | 0.096 | 0.096 | 0.098 | 0.096 | 0.094 | 0.098 | 0.096 | 0.092 | 0.094 |
| Average | 0.095 | 0.098 | 0.098 | 0.099 | 0.098 | 0.097 | 0.099 | 0.098 | 0.094 | 0.096 |
| Max | 0.098 | 0.102 | 0.100 | 0.100 | 0.102 | 0.100 | 0.098 | 0.100 | 0.098 | 0.100 |
| UL | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 |

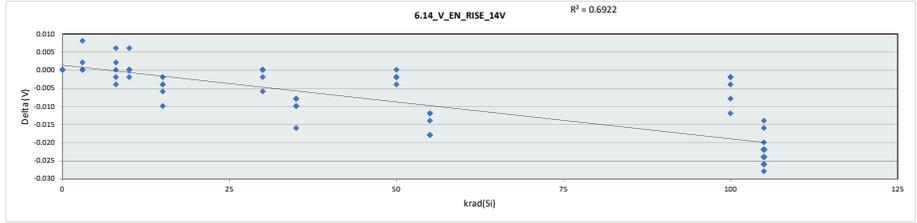


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

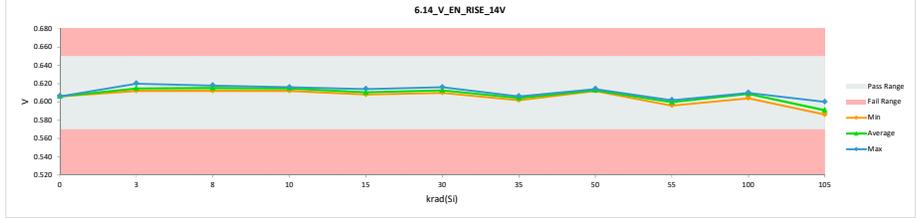
| 6.14 V_EN_RISE_14V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.65 |
| Min Limit | 0.57 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.606 | 0.606 | 0.000 |
| 0 | 992 | 0.606 | 0.606 | 0.000 |
| 0 | 993 | 0.606 | 0.606 | 0.000 |
| 3 | 1 | 0.612 | 0.614 | 0.002 |
| 3 | 2 | 0.612 | 0.620 | 0.008 |
| 3 | 3 | 0.612 | 0.612 | 0.000 |
| 3 | 4 | 0.614 | 0.614 | 0.000 |
| 3 | 5 | 0.614 | 0.614 | 0.000 |
| 8 | 6 | 0.614 | 0.616 | 0.002 |
| 8 | 7 | 0.616 | 0.612 | -0.004 |
| 8 | 8 | 0.616 | 0.616 | 0.000 |
| 8 | 9 | 0.616 | 0.614 | -0.002 |
| 8 | 10 | 0.612 | 0.618 | 0.006 |
| 10 | 11 | 0.612 | 0.612 | 0.000 |
| 10 | 12 | 0.616 | 0.614 | -0.002 |
| 10 | 13 | 0.610 | 0.616 | 0.006 |
| 10 | 14 | 0.616 | 0.616 | 0.000 |
| 10 | 15 | 0.616 | 0.616 | 0.000 |
| 15 | 16 | 0.616 | 0.614 | -0.002 |
| 15 | 17 | 0.614 | 0.608 | -0.006 |
| 15 | 18 | 0.614 | 0.610 | -0.004 |
| 15 | 19 | 0.618 | 0.608 | -0.010 |
| 15 | 20 | 0.616 | 0.612 | -0.004 |
| 30 | 21 | 0.612 | 0.610 | -0.002 |
| 30 | 22 | 0.612 | 0.612 | 0.000 |
| 30 | 23 | 0.616 | 0.616 | 0.000 |
| 30 | 24 | 0.616 | 0.616 | 0.000 |
| 30 | 25 | 0.616 | 0.610 | -0.006 |
| 35 | 26 | 0.612 | 0.602 | -0.010 |
| 35 | 27 | 0.614 | 0.606 | -0.008 |
| 35 | 28 | 0.616 | 0.606 | -0.010 |
| 35 | 29 | 0.620 | 0.604 | -0.016 |
| 35 | 30 | 0.612 | 0.604 | -0.008 |
| 50 | 31 | 0.614 | 0.614 | 0.000 |
| 50 | 32 | 0.614 | 0.612 | -0.002 |
| 50 | 33 | 0.616 | 0.612 | -0.004 |
| 50 | 34 | 0.614 | 0.612 | -0.002 |
| 50 | 35 | 0.616 | 0.614 | -0.002 |
| 55 | 36 | 0.616 | 0.598 | -0.018 |
| 55 | 37 | 0.614 | 0.602 | -0.012 |
| 55 | 38 | 0.612 | 0.600 | -0.012 |
| 55 | 39 | 0.614 | 0.596 | -0.018 |
| 55 | 40 | 0.616 | 0.602 | -0.014 |
| 100 | 41 | 0.616 | 0.604 | -0.012 |
| 100 | 42 | 0.612 | 0.610 | -0.002 |
| 100 | 43 | 0.618 | 0.610 | -0.008 |
| 100 | 44 | 0.612 | 0.610 | -0.002 |
| 100 | 45 | 0.614 | 0.610 | -0.004 |
| 105 | 46 | 0.612 | 0.592 | -0.020 |
| 105 | 47 | 0.616 | 0.592 | -0.024 |
| 105 | 48 | 0.612 | 0.590 | -0.022 |
| 105 | 49 | 0.614 | 0.592 | -0.022 |
| 105 | 50 | 0.616 | 0.592 | -0.024 |
| 105 | 51 | 0.616 | 0.590 | -0.026 |
| 105 | 52 | 0.610 | 0.588 | -0.022 |
| 105 | 53 | 0.612 | 0.586 | -0.026 |
| 105 | 54 | 0.614 | 0.600 | -0.014 |
| 105 | 55 | 0.614 | 0.592 | -0.022 |
| 105 | 56 | 0.612 | 0.590 | -0.022 |
| 105 | 57 | 0.612 | 0.588 | -0.024 |
| 105 | 58 | 0.612 | 0.590 | -0.022 |
| 105 | 59 | 0.612 | 0.596 | -0.016 |
| 105 | 60 | 0.616 | 0.590 | -0.026 |
| 105 | 61 | 0.614 | 0.588 | -0.026 |
| 105 | 62 | 0.616 | 0.588 | -0.028 |
| 105 | 63 | 0.614 | 0.592 | -0.022 |
| 105 | 64 | 0.616 | 0.592 | -0.024 |
| 105 | 65 | 0.614 | 0.592 | -0.022 |
| 105 | 66 | 0.616 | 0.588 | -0.022 |
| 105 | 67 | 0.614 | 0.590 | -0.024 |
| Max | | 0.620 | 0.620 | 0.008 |
| Average | | 0.614 | 0.604 | -0.010 |
| Min | | 0.606 | 0.586 | -0.028 |
| Std Dev | | 0.003 | 0.010 | 0.010 |



| 6.14 V_EN_RISE_14V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.65 |
| Min Limit | 0.57 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.606 | 0.612 | 0.612 | 0.612 | 0.608 | 0.610 | 0.602 | 0.612 | 0.596 | 0.604 | 0.586 |
| Average | 0.606 | 0.615 | 0.615 | 0.615 | 0.610 | 0.613 | 0.604 | 0.613 | 0.600 | 0.609 | 0.591 |
| Max | 0.606 | 0.620 | 0.618 | 0.616 | 0.614 | 0.616 | 0.606 | 0.614 | 0.602 | 0.610 | 0.600 |
| UL | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 |

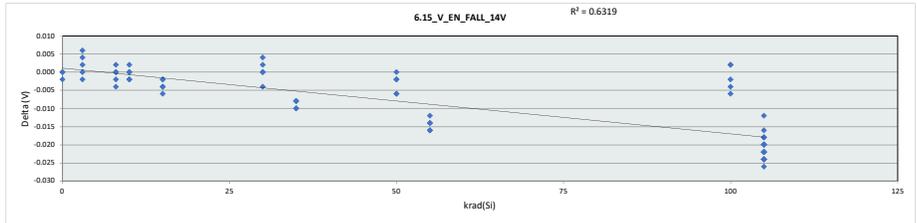


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

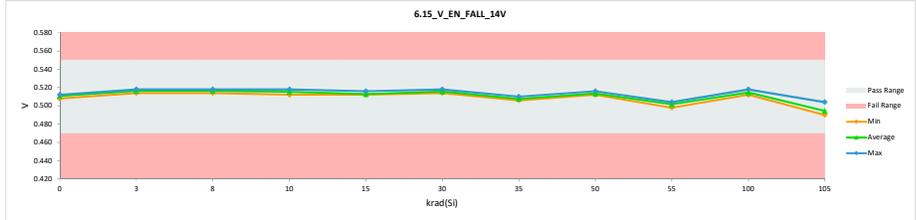
| 6.15 V_EN_FALL_14V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.53 |
| Min Limit | 0.47 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.512 | 0.512 | 0.000 |
| 0 | 992 | 0.512 | 0.512 | 0.000 |
| 0 | 993 | 0.510 | 0.508 | -0.002 |
| 3 | 1 | 0.512 | 0.516 | 0.004 |
| 3 | 2 | 0.512 | 0.518 | 0.006 |
| 3 | 3 | 0.516 | 0.514 | -0.002 |
| 3 | 4 | 0.516 | 0.516 | 0.000 |
| 3 | 5 | 0.516 | 0.518 | 0.002 |
| 8 | 6 | 0.516 | 0.516 | 0.000 |
| 8 | 7 | 0.518 | 0.514 | -0.004 |
| 8 | 8 | 0.518 | 0.516 | -0.002 |
| 8 | 9 | 0.518 | 0.518 | 0.000 |
| 8 | 10 | 0.516 | 0.518 | 0.002 |
| 10 | 11 | 0.514 | 0.512 | -0.002 |
| 10 | 12 | 0.514 | 0.514 | 0.000 |
| 10 | 13 | 0.514 | 0.516 | 0.002 |
| 10 | 14 | 0.518 | 0.518 | 0.000 |
| 10 | 15 | 0.518 | 0.516 | -0.002 |
| 15 | 16 | 0.518 | 0.516 | -0.002 |
| 15 | 17 | 0.514 | 0.512 | -0.002 |
| 15 | 18 | 0.516 | 0.512 | -0.004 |
| 15 | 19 | 0.518 | 0.512 | -0.006 |
| 15 | 20 | 0.516 | 0.512 | -0.004 |
| 30 | 21 | 0.514 | 0.514 | 0.000 |
| 30 | 22 | 0.512 | 0.516 | 0.004 |
| 30 | 23 | 0.516 | 0.518 | 0.002 |
| 30 | 24 | 0.516 | 0.516 | 0.000 |
| 30 | 25 | 0.518 | 0.514 | -0.004 |
| 35 | 26 | 0.516 | 0.506 | -0.010 |
| 35 | 27 | 0.518 | 0.508 | -0.010 |
| 35 | 28 | 0.516 | 0.508 | -0.008 |
| 35 | 29 | 0.518 | 0.510 | -0.008 |
| 35 | 30 | 0.514 | 0.506 | -0.008 |
| 50 | 31 | 0.516 | 0.514 | -0.002 |
| 50 | 32 | 0.518 | 0.512 | -0.006 |
| 50 | 33 | 0.518 | 0.512 | -0.006 |
| 50 | 34 | 0.516 | 0.514 | -0.002 |
| 50 | 35 | 0.516 | 0.516 | 0.000 |
| 55 | 36 | 0.518 | 0.502 | -0.016 |
| 55 | 37 | 0.518 | 0.504 | -0.014 |
| 55 | 38 | 0.514 | 0.502 | -0.012 |
| 55 | 39 | 0.514 | 0.498 | -0.016 |
| 55 | 40 | 0.516 | 0.502 | -0.014 |
| 100 | 41 | 0.514 | 0.512 | -0.002 |
| 100 | 42 | 0.514 | 0.516 | 0.002 |
| 100 | 43 | 0.520 | 0.514 | -0.006 |
| 100 | 44 | 0.516 | 0.518 | 0.002 |
| 100 | 45 | 0.516 | 0.512 | -0.004 |
| 105 | 46 | 0.516 | 0.496 | -0.020 |
| 105 | 47 | 0.518 | 0.494 | -0.024 |
| 105 | 48 | 0.512 | 0.494 | -0.018 |
| 105 | 49 | 0.514 | 0.494 | -0.020 |
| 105 | 50 | 0.518 | 0.494 | -0.024 |
| 105 | 51 | 0.518 | 0.494 | -0.024 |
| 105 | 52 | 0.514 | 0.492 | -0.022 |
| 105 | 53 | 0.516 | 0.492 | -0.024 |
| 105 | 54 | 0.516 | 0.504 | -0.012 |
| 105 | 55 | 0.516 | 0.494 | -0.022 |
| 105 | 56 | 0.518 | 0.496 | -0.022 |
| 105 | 57 | 0.516 | 0.492 | -0.024 |
| 105 | 58 | 0.514 | 0.494 | -0.020 |
| 105 | 59 | 0.514 | 0.498 | -0.016 |
| 105 | 60 | 0.514 | 0.494 | -0.020 |
| 105 | 61 | 0.514 | 0.492 | -0.022 |
| 105 | 62 | 0.516 | 0.490 | -0.026 |
| 105 | 63 | 0.514 | 0.496 | -0.018 |
| 105 | 64 | 0.516 | 0.492 | -0.024 |
| 105 | 65 | 0.518 | 0.496 | -0.022 |
| 105 | 66 | 0.512 | 0.494 | -0.018 |
| 105 | 67 | 0.516 | 0.496 | -0.020 |
| Max | | 0.520 | 0.518 | 0.006 |
| Average | | 0.516 | 0.507 | -0.009 |
| Min | | 0.510 | 0.490 | -0.026 |
| Std Dev | | 0.002 | 0.009 | 0.010 |



| 6.15 V_EN_FALL_14V | |
|--------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.55 |
| Min Limit | 0.47 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.508 | 0.514 | 0.514 | 0.512 | 0.512 | 0.514 | 0.506 | 0.512 | 0.498 | 0.512 | 0.490 |
| Average | 0.511 | 0.516 | 0.516 | 0.515 | 0.513 | 0.516 | 0.508 | 0.514 | 0.502 | 0.514 | 0.494 |
| Max | 0.512 | 0.518 | 0.518 | 0.518 | 0.516 | 0.518 | 0.510 | 0.516 | 0.504 | 0.518 | 0.504 |
| UL | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 | 0.550 |

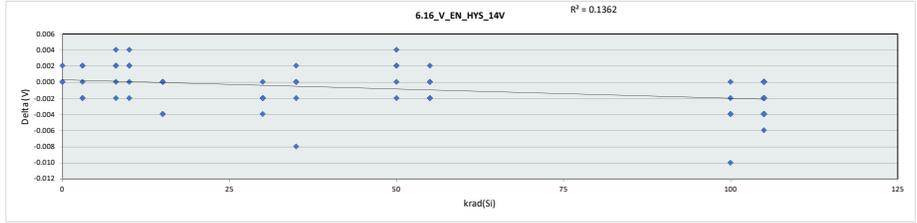


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

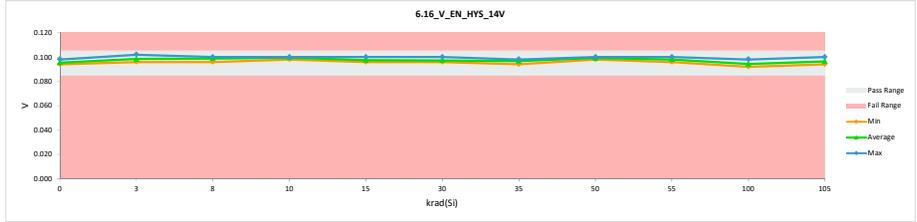
| 6.16 V_EN_HYS_14V | |
|-------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.105 |
| Min Limit | 0.085 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.094 | 0.094 | 0.000 |
| 0 | 992 | 0.094 | 0.094 | 0.000 |
| 0 | 993 | 0.096 | 0.098 | 0.002 |
| 3 | 1 | 0.100 | 0.098 | -0.002 |
| 3 | 2 | 0.100 | 0.102 | 0.002 |
| 3 | 3 | 0.098 | 0.098 | 0.000 |
| 3 | 4 | 0.098 | 0.098 | 0.000 |
| 3 | 5 | 0.098 | 0.096 | -0.002 |
| 8 | 6 | 0.098 | 0.100 | 0.002 |
| 8 | 7 | 0.098 | 0.098 | 0.000 |
| 8 | 8 | 0.098 | 0.100 | 0.002 |
| 8 | 9 | 0.098 | 0.096 | -0.002 |
| 8 | 10 | 0.096 | 0.100 | 0.004 |
| 10 | 11 | 0.098 | 0.100 | 0.002 |
| 10 | 12 | 0.102 | 0.100 | -0.002 |
| 10 | 13 | 0.096 | 0.100 | 0.004 |
| 10 | 14 | 0.098 | 0.098 | 0.000 |
| 10 | 15 | 0.098 | 0.100 | 0.002 |
| 15 | 16 | 0.098 | 0.098 | 0.000 |
| 15 | 17 | 0.100 | 0.096 | -0.004 |
| 15 | 18 | 0.098 | 0.098 | 0.000 |
| 15 | 19 | 0.100 | 0.096 | -0.004 |
| 15 | 20 | 0.100 | 0.100 | 0.000 |
| 30 | 21 | 0.098 | 0.096 | -0.002 |
| 30 | 22 | 0.100 | 0.096 | -0.004 |
| 30 | 23 | 0.100 | 0.098 | -0.002 |
| 30 | 24 | 0.100 | 0.100 | 0.000 |
| 30 | 25 | 0.098 | 0.096 | -0.002 |
| 35 | 26 | 0.096 | 0.096 | 0.000 |
| 35 | 27 | 0.096 | 0.098 | 0.002 |
| 35 | 28 | 0.100 | 0.098 | -0.002 |
| 35 | 29 | 0.102 | 0.094 | -0.008 |
| 35 | 30 | 0.098 | 0.098 | 0.000 |
| 50 | 31 | 0.098 | 0.100 | 0.002 |
| 50 | 32 | 0.096 | 0.100 | 0.004 |
| 50 | 33 | 0.098 | 0.100 | 0.002 |
| 50 | 34 | 0.098 | 0.098 | 0.000 |
| 50 | 35 | 0.100 | 0.098 | -0.002 |
| 55 | 36 | 0.098 | 0.096 | -0.002 |
| 55 | 37 | 0.096 | 0.098 | 0.002 |
| 55 | 38 | 0.098 | 0.098 | 0.000 |
| 55 | 39 | 0.100 | 0.098 | -0.002 |
| 55 | 40 | 0.100 | 0.100 | 0.000 |
| 100 | 41 | 0.102 | 0.092 | -0.010 |
| 100 | 42 | 0.098 | 0.094 | -0.004 |
| 100 | 43 | 0.098 | 0.096 | -0.002 |
| 100 | 44 | 0.096 | 0.092 | -0.004 |
| 100 | 45 | 0.098 | 0.098 | 0.000 |
| 105 | 46 | 0.096 | 0.096 | 0.000 |
| 105 | 47 | 0.098 | 0.098 | 0.000 |
| 105 | 48 | 0.100 | 0.096 | -0.004 |
| 105 | 49 | 0.100 | 0.098 | -0.002 |
| 105 | 50 | 0.098 | 0.098 | 0.000 |
| 105 | 51 | 0.098 | 0.096 | -0.002 |
| 105 | 52 | 0.096 | 0.096 | 0.000 |
| 105 | 53 | 0.096 | 0.094 | -0.002 |
| 105 | 54 | 0.098 | 0.096 | -0.002 |
| 105 | 55 | 0.098 | 0.098 | 0.000 |
| 105 | 56 | 0.094 | 0.094 | 0.000 |
| 105 | 57 | 0.096 | 0.096 | 0.000 |
| 105 | 58 | 0.098 | 0.096 | -0.002 |
| 105 | 59 | 0.098 | 0.098 | 0.000 |
| 105 | 60 | 0.102 | 0.096 | -0.006 |
| 105 | 61 | 0.100 | 0.096 | -0.004 |
| 105 | 62 | 0.100 | 0.098 | -0.002 |
| 105 | 63 | 0.100 | 0.096 | -0.004 |
| 105 | 64 | 0.100 | 0.100 | 0.000 |
| 105 | 65 | 0.096 | 0.096 | 0.000 |
| 105 | 66 | 0.098 | 0.094 | -0.004 |
| 105 | 67 | 0.098 | 0.094 | -0.004 |
| Max | | 0.102 | 0.102 | 0.004 |
| Average | | 0.098 | 0.097 | -0.001 |
| Min | | 0.094 | 0.092 | -0.010 |
| Std Dev | | 0.002 | 0.002 | 0.003 |



| 6.16 V_EN_HYS_14V | |
|-------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.105 |
| Min Limit | 0.085 |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 | 0.085 |
| Min | 0.094 | 0.096 | 0.096 | 0.098 | 0.096 | 0.096 | 0.094 | 0.098 | 0.096 | 0.094 |
| Average | 0.095 | 0.098 | 0.099 | 0.100 | 0.098 | 0.097 | 0.099 | 0.098 | 0.094 | 0.096 |
| Max | 0.098 | 0.102 | 0.100 | 0.100 | 0.100 | 0.100 | 0.098 | 0.100 | 0.098 | 0.100 |
| UL | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 | 0.105 |

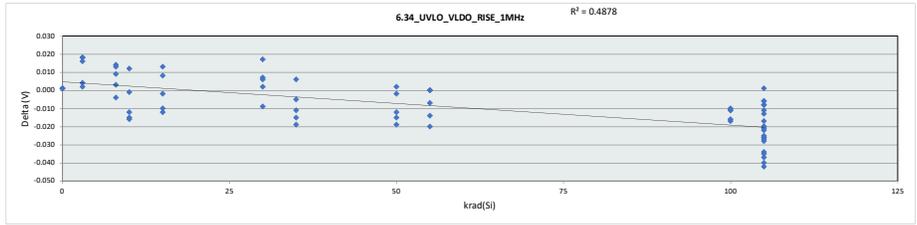


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

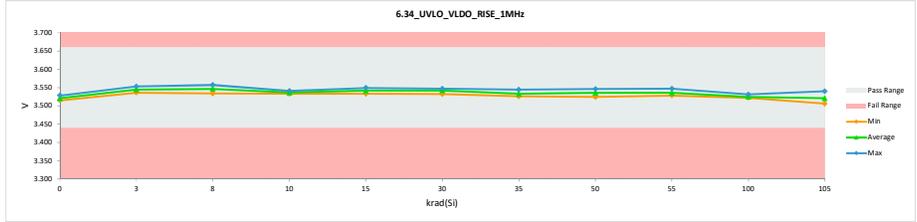
| 6.34 UVLO_VLDO_RISE_1MHZ | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 3.66 |
| Min Limit | 3.44 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 3.514 | 3.515 | 0.001 |
| 0 | 992 | 3.527 | 3.528 | 0.001 |
| 0 | 993 | 3.519 | 3.520 | 0.001 |
| 3 | 1 | 3.528 | 3.544 | 0.016 |
| 3 | 2 | 3.532 | 3.550 | 0.018 |
| 3 | 3 | 3.538 | 3.540 | 0.002 |
| 3 | 4 | 3.532 | 3.536 | 0.004 |
| 3 | 5 | 3.535 | 3.553 | 0.018 |
| 8 | 6 | 3.544 | 3.557 | 0.013 |
| 8 | 7 | 3.538 | 3.534 | -0.004 |
| 8 | 8 | 3.543 | 3.546 | 0.003 |
| 8 | 9 | 3.532 | 3.546 | 0.014 |
| 8 | 10 | 3.540 | 3.549 | 0.009 |
| 10 | 11 | 3.549 | 3.533 | -0.016 |
| 10 | 12 | 3.529 | 3.541 | 0.012 |
| 10 | 13 | 3.537 | 3.536 | -0.001 |
| 10 | 14 | 3.548 | 3.536 | -0.012 |
| 10 | 15 | 3.552 | 3.537 | -0.015 |
| 15 | 16 | 3.552 | 3.540 | -0.012 |
| 15 | 17 | 3.543 | 3.533 | -0.010 |
| 15 | 18 | 3.530 | 3.538 | 0.008 |
| 15 | 19 | 3.536 | 3.549 | 0.013 |
| 15 | 20 | 3.550 | 3.548 | -0.002 |
| 30 | 21 | 3.535 | 3.541 | 0.006 |
| 30 | 22 | 3.530 | 3.547 | 0.017 |
| 30 | 23 | 3.530 | 3.532 | 0.002 |
| 30 | 24 | 3.553 | 3.544 | -0.009 |
| 30 | 25 | 3.539 | 3.546 | 0.007 |
| 35 | 26 | 3.539 | 3.528 | -0.011 |
| 35 | 27 | 3.538 | 3.544 | 0.006 |
| 35 | 28 | 3.543 | 3.538 | -0.005 |
| 35 | 29 | 3.549 | 3.530 | -0.019 |
| 35 | 30 | 3.541 | 3.526 | -0.015 |
| 50 | 31 | 3.536 | 3.524 | -0.012 |
| 50 | 32 | 3.552 | 3.537 | -0.015 |
| 50 | 33 | 3.556 | 3.537 | -0.019 |
| 50 | 34 | 3.536 | 3.534 | -0.002 |
| 50 | 35 | 3.544 | 3.546 | 0.002 |
| 55 | 36 | 3.547 | 3.547 | 0.000 |
| 55 | 37 | 3.548 | 3.528 | -0.020 |
| 55 | 38 | 3.535 | 3.528 | -0.007 |
| 55 | 39 | 3.552 | 3.538 | -0.014 |
| 55 | 40 | 3.536 | 3.536 | 0.000 |
| 100 | 41 | 3.538 | 3.522 | -0.016 |
| 100 | 42 | 3.534 | 3.523 | -0.011 |
| 100 | 43 | 3.541 | 3.531 | -0.010 |
| 100 | 44 | 3.536 | 3.525 | -0.011 |
| 100 | 45 | 3.540 | 3.523 | -0.017 |
| 105 | 46 | 3.548 | 3.527 | -0.021 |
| 105 | 47 | 3.550 | 3.528 | -0.022 |
| 105 | 48 | 3.540 | 3.506 | -0.034 |
| 105 | 49 | 3.546 | 3.506 | -0.040 |
| 105 | 50 | 3.534 | 3.526 | -0.008 |
| 105 | 51 | 3.547 | 3.522 | -0.025 |
| 105 | 52 | 3.539 | 3.513 | -0.026 |
| 105 | 53 | 3.540 | 3.527 | -0.013 |
| 105 | 54 | 3.546 | 3.540 | -0.006 |
| 105 | 55 | 3.539 | 3.528 | -0.011 |
| 105 | 56 | 3.535 | 3.536 | 0.001 |
| 105 | 57 | 3.536 | 3.530 | -0.006 |
| 105 | 58 | 3.536 | 3.510 | -0.026 |
| 105 | 59 | 3.537 | 3.520 | -0.017 |
| 105 | 60 | 3.542 | 3.522 | -0.020 |
| 105 | 61 | 3.536 | 3.516 | -0.020 |
| 105 | 62 | 3.550 | 3.508 | -0.042 |
| 105 | 63 | 3.535 | 3.508 | -0.027 |
| 105 | 64 | 3.541 | 3.533 | -0.008 |
| 105 | 65 | 3.553 | 3.516 | -0.037 |
| 105 | 66 | 3.553 | 3.518 | -0.035 |
| 105 | 67 | 3.550 | 3.522 | -0.028 |
| | Max | 3.556 | 3.557 | 0.018 |
| | Average | 3.540 | 3.532 | -0.008 |
| | Min | 3.514 | 3.506 | -0.042 |
| | Std Dev | 0.008 | 0.012 | 0.014 |



| 6.34 UVLO_VLDO_RISE_1MHZ | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3.66 |
| Min Limit | 3.44 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 |
| Min | 3.515 | 3.536 | 3.534 | 3.533 | 3.533 | 3.532 | 3.526 | 3.524 | 3.528 | 3.522 | 3.506 |
| Average | 3.521 | 3.545 | 3.546 | 3.537 | 3.542 | 3.542 | 3.533 | 3.536 | 3.535 | 3.525 | 3.521 |
| Max | 3.528 | 3.553 | 3.557 | 3.541 | 3.549 | 3.547 | 3.544 | 3.546 | 3.547 | 3.531 | 3.540 |
| UL | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 |

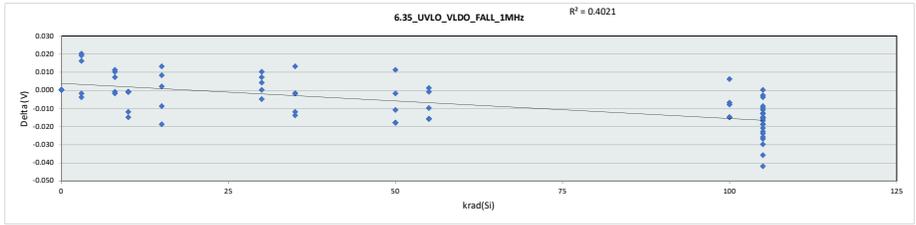


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

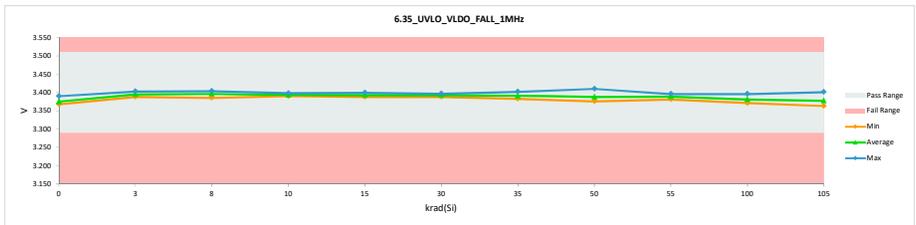
| 6.35 UVLO_VLDO_FALL_1MHz | |
|--------------------------|-----------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | V |
| Min Limit | 3.51 3.29 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 3.368 | 3.368 | 0.000 |
| 0 | 992 | 3.390 | 3.390 | 0.000 |
| 0 | 993 | 3.368 | 3.368 | 0.000 |
| 3 | 1 | 3.378 | 3.397 | 0.019 |
| 3 | 2 | 3.381 | 3.397 | 0.016 |
| 3 | 3 | 3.393 | 3.391 | -0.002 |
| 3 | 4 | 3.392 | 3.388 | -0.004 |
| 3 | 5 | 3.383 | 3.403 | 0.020 |
| 8 | 6 | 3.393 | 3.404 | 0.011 |
| 8 | 7 | 3.386 | 3.385 | -0.001 |
| 8 | 8 | 3.402 | 3.400 | -0.002 |
| 8 | 9 | 3.388 | 3.395 | 0.007 |
| 8 | 10 | 3.388 | 3.398 | 0.010 |
| 10 | 11 | 3.399 | 3.398 | -0.001 |
| 10 | 12 | 3.396 | 3.395 | -0.001 |
| 10 | 13 | 3.391 | 3.390 | -0.001 |
| 10 | 14 | 3.407 | 3.392 | -0.015 |
| 10 | 15 | 3.402 | 3.390 | -0.012 |
| 15 | 16 | 3.408 | 3.389 | -0.019 |
| 15 | 17 | 3.397 | 3.388 | -0.009 |
| 15 | 18 | 3.382 | 3.395 | 0.013 |
| 15 | 19 | 3.388 | 3.396 | 0.008 |
| 15 | 20 | 3.397 | 3.399 | 0.002 |
| 30 | 21 | 3.386 | 3.393 | 0.007 |
| 30 | 22 | 3.387 | 3.397 | 0.010 |
| 30 | 23 | 3.388 | 3.388 | 0.000 |
| 30 | 24 | 3.402 | 3.397 | -0.005 |
| 30 | 25 | 3.389 | 3.393 | 0.004 |
| 35 | 26 | 3.394 | 3.392 | -0.002 |
| 35 | 27 | 3.389 | 3.402 | 0.013 |
| 35 | 28 | 3.388 | 3.386 | -0.002 |
| 35 | 29 | 3.397 | 3.383 | -0.014 |
| 35 | 30 | 3.392 | 3.390 | -0.002 |
| 50 | 31 | 3.387 | 3.376 | -0.011 |
| 50 | 32 | 3.402 | 3.384 | -0.018 |
| 50 | 33 | 3.403 | 3.385 | -0.018 |
| 50 | 34 | 3.386 | 3.384 | -0.002 |
| 50 | 35 | 3.399 | 3.410 | 0.011 |
| 55 | 36 | 3.395 | 3.396 | 0.001 |
| 55 | 37 | 3.397 | 3.381 | -0.016 |
| 55 | 38 | 3.400 | 3.384 | -0.016 |
| 55 | 39 | 3.401 | 3.391 | -0.010 |
| 55 | 40 | 3.392 | 3.391 | -0.001 |
| 100 | 41 | 3.386 | 3.371 | -0.015 |
| 100 | 42 | 3.382 | 3.375 | -0.007 |
| 100 | 43 | 3.390 | 3.396 | 0.006 |
| 100 | 44 | 3.387 | 3.379 | -0.008 |
| 100 | 45 | 3.398 | 3.383 | -0.015 |
| 105 | 46 | 3.396 | 3.377 | -0.019 |
| 105 | 47 | 3.402 | 3.392 | -0.010 |
| 105 | 48 | 3.392 | 3.377 | -0.015 |
| 105 | 49 | 3.403 | 3.376 | -0.027 |
| 105 | 50 | 3.389 | 3.376 | -0.013 |
| 105 | 51 | 3.399 | 3.383 | -0.016 |
| 105 | 52 | 3.391 | 3.382 | -0.009 |
| 105 | 53 | 3.398 | 3.377 | -0.021 |
| 105 | 54 | 3.405 | 3.401 | -0.004 |
| 105 | 55 | 3.391 | 3.380 | -0.011 |
| 105 | 56 | 3.388 | 3.388 | 0.000 |
| 105 | 57 | 3.395 | 3.382 | -0.013 |
| 105 | 58 | 3.383 | 3.368 | -0.015 |
| 105 | 59 | 3.388 | 3.371 | -0.017 |
| 105 | 60 | 3.391 | 3.372 | -0.019 |
| 105 | 61 | 3.388 | 3.364 | -0.024 |
| 105 | 62 | 3.410 | 3.368 | -0.042 |
| 105 | 63 | 3.393 | 3.363 | -0.030 |
| 105 | 64 | 3.391 | 3.388 | -0.003 |
| 105 | 65 | 3.402 | 3.366 | -0.036 |
| 105 | 66 | 3.402 | 3.379 | -0.023 |
| 105 | 67 | 3.399 | 3.373 | -0.026 |
| Max | | 3.410 | 3.410 | 0.020 |
| Average | | 3.393 | 3.386 | -0.007 |
| Min | | 3.368 | 3.363 | -0.042 |
| Std Dev | | 0.008 | 0.011 | 0.013 |



| 6.35 UVLO_VLDO_FALL_1MHz | |
|--------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3.51 V |
| Min Limit | 3.29 V |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 |
| Min | 3.368 | 3.388 | 3.385 | 3.390 | 3.388 | 3.388 | 3.383 | 3.376 | 3.381 | 3.371 |
| Average | 3.375 | 3.395 | 3.396 | 3.393 | 3.393 | 3.394 | 3.391 | 3.388 | 3.389 | 3.381 |
| Max | 3.390 | 3.403 | 3.404 | 3.398 | 3.399 | 3.397 | 3.402 | 3.410 | 3.396 | 3.401 |
| UL | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 |

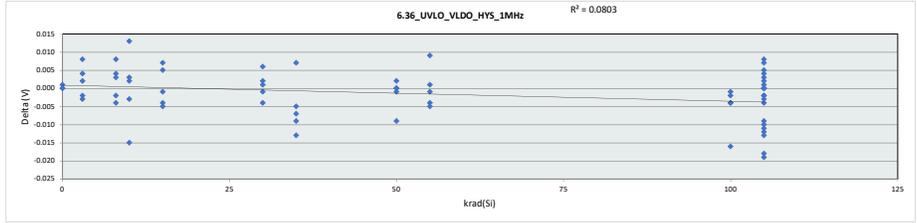


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

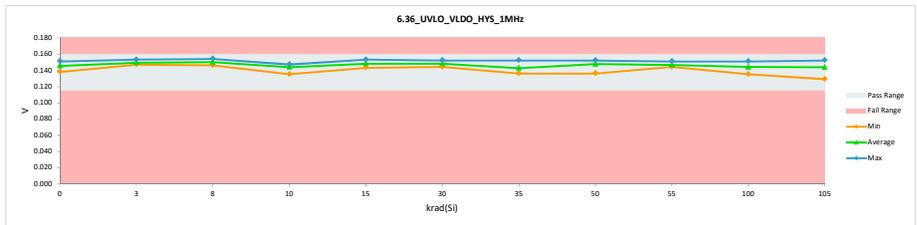
| 6.36 UVLO_VLDO_HYS_1MHz | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.16 |
| Min Limit | 0.115 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.147 | 0.147 | 0.000 |
| 0 | 992 | 0.137 | 0.138 | 0.001 |
| 0 | 993 | 0.151 | 0.151 | 0.000 |
| 3 | 1 | 0.150 | 0.147 | -0.003 |
| 3 | 2 | 0.151 | 0.153 | 0.002 |
| 3 | 3 | 0.145 | 0.149 | 0.004 |
| 3 | 4 | 0.140 | 0.148 | 0.008 |
| 3 | 5 | 0.152 | 0.150 | -0.002 |
| 8 | 6 | 0.151 | 0.154 | 0.003 |
| 8 | 7 | 0.152 | 0.148 | -0.004 |
| 8 | 8 | 0.142 | 0.146 | 0.004 |
| 8 | 9 | 0.144 | 0.152 | 0.008 |
| 8 | 10 | 0.152 | 0.150 | -0.002 |
| 10 | 11 | 0.150 | 0.135 | -0.015 |
| 10 | 12 | 0.133 | 0.146 | 0.013 |
| 10 | 13 | 0.145 | 0.147 | 0.002 |
| 10 | 14 | 0.141 | 0.144 | 0.003 |
| 10 | 15 | 0.150 | 0.147 | -0.003 |
| 15 | 16 | 0.144 | 0.151 | 0.007 |
| 15 | 17 | 0.146 | 0.145 | -0.001 |
| 15 | 18 | 0.148 | 0.143 | -0.005 |
| 15 | 19 | 0.148 | 0.153 | 0.005 |
| 15 | 20 | 0.153 | 0.149 | -0.004 |
| 30 | 21 | 0.149 | 0.148 | -0.001 |
| 30 | 22 | 0.144 | 0.150 | 0.006 |
| 30 | 23 | 0.142 | 0.144 | 0.002 |
| 30 | 24 | 0.151 | 0.147 | -0.004 |
| 30 | 25 | 0.151 | 0.152 | 0.001 |
| 35 | 26 | 0.145 | 0.136 | -0.009 |
| 35 | 27 | 0.149 | 0.142 | -0.007 |
| 35 | 28 | 0.149 | 0.152 | 0.003 |
| 35 | 29 | 0.152 | 0.147 | -0.005 |
| 35 | 30 | 0.149 | 0.136 | -0.013 |
| 50 | 31 | 0.148 | 0.148 | 0.000 |
| 50 | 32 | 0.150 | 0.152 | 0.002 |
| 50 | 33 | 0.153 | 0.152 | -0.001 |
| 50 | 34 | 0.150 | 0.150 | 0.000 |
| 50 | 35 | 0.145 | 0.136 | -0.009 |
| 55 | 36 | 0.152 | 0.151 | -0.001 |
| 55 | 37 | 0.151 | 0.147 | -0.004 |
| 55 | 38 | 0.135 | 0.144 | 0.009 |
| 55 | 39 | 0.151 | 0.146 | -0.005 |
| 55 | 40 | 0.144 | 0.145 | 0.001 |
| 100 | 41 | 0.152 | 0.151 | -0.001 |
| 100 | 42 | 0.152 | 0.148 | -0.004 |
| 100 | 43 | 0.151 | 0.135 | -0.016 |
| 100 | 44 | 0.150 | 0.146 | -0.004 |
| 100 | 45 | 0.142 | 0.140 | -0.002 |
| 105 | 46 | 0.152 | 0.150 | -0.002 |
| 105 | 47 | 0.148 | 0.136 | -0.012 |
| 105 | 48 | 0.148 | 0.129 | -0.019 |
| 105 | 49 | 0.143 | 0.130 | -0.013 |
| 105 | 50 | 0.145 | 0.150 | 0.005 |
| 105 | 51 | 0.148 | 0.139 | -0.009 |
| 105 | 52 | 0.148 | 0.130 | -0.018 |
| 105 | 53 | 0.142 | 0.150 | 0.008 |
| 105 | 54 | 0.142 | 0.139 | -0.003 |
| 105 | 55 | 0.148 | 0.148 | 0.000 |
| 105 | 56 | 0.146 | 0.148 | 0.002 |
| 105 | 57 | 0.141 | 0.148 | 0.007 |
| 105 | 58 | 0.153 | 0.143 | -0.010 |
| 105 | 59 | 0.149 | 0.149 | 0.000 |
| 105 | 60 | 0.152 | 0.150 | -0.002 |
| 105 | 61 | 0.149 | 0.152 | 0.003 |
| 105 | 62 | 0.140 | 0.141 | 0.001 |
| 105 | 63 | 0.141 | 0.145 | 0.004 |
| 105 | 64 | 0.149 | 0.145 | -0.004 |
| 105 | 65 | 0.150 | 0.150 | 0.000 |
| 105 | 66 | 0.150 | 0.139 | -0.011 |
| 105 | 67 | 0.150 | 0.150 | 0.000 |
| Max | | 0.153 | 0.154 | 0.013 |
| Average | | 0.147 | 0.146 | -0.002 |
| Min | | 0.133 | 0.129 | -0.019 |
| Std Dev | | 0.005 | 0.006 | 0.007 |



| 6.36 UVLO_VLDO_HYS_1MHz | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.16 |
| Min Limit | 0.115 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 |
| Min | 0.138 | 0.147 | 0.146 | 0.135 | 0.143 | 0.144 | 0.136 | 0.136 | 0.144 | 0.135 | 0.129 |
| Average | 0.145 | 0.149 | 0.150 | 0.144 | 0.148 | 0.143 | 0.148 | 0.147 | 0.144 | 0.144 | |
| Max | 0.151 | 0.153 | 0.154 | 0.147 | 0.153 | 0.152 | 0.152 | 0.152 | 0.151 | 0.151 | |
| UL | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | |

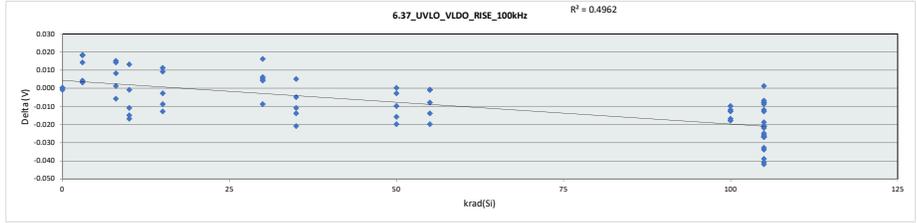


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

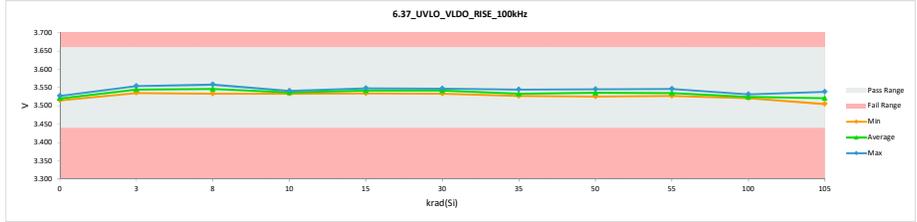
| 6.37 UVLO_VLDO_RISE_100kHz | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 3.66 |
| Min Limit | 3.44 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 3.515 | 3.515 | 0.000 |
| 0 | 992 | 3.528 | 3.527 | -0.001 |
| 0 | 993 | 3.519 | 3.519 | 0.000 |
| 3 | 1 | 3.530 | 3.544 | 0.014 |
| 3 | 2 | 3.531 | 3.549 | 0.018 |
| 3 | 3 | 3.538 | 3.541 | 0.003 |
| 3 | 4 | 3.531 | 3.535 | 0.004 |
| 3 | 5 | 3.536 | 3.554 | 0.018 |
| 8 | 6 | 3.543 | 3.558 | 0.015 |
| 8 | 7 | 3.539 | 3.533 | -0.006 |
| 8 | 8 | 3.544 | 3.545 | 0.001 |
| 8 | 9 | 3.532 | 3.546 | 0.014 |
| 8 | 10 | 3.540 | 3.548 | 0.008 |
| 10 | 11 | 3.550 | 3.533 | -0.017 |
| 10 | 12 | 3.528 | 3.541 | 0.013 |
| 10 | 13 | 3.537 | 3.536 | -0.001 |
| 10 | 14 | 3.547 | 3.536 | -0.011 |
| 10 | 15 | 3.552 | 3.537 | -0.015 |
| 15 | 16 | 3.552 | 3.529 | -0.023 |
| 15 | 17 | 3.543 | 3.534 | -0.009 |
| 15 | 18 | 3.530 | 3.539 | 0.009 |
| 15 | 19 | 3.537 | 3.548 | 0.011 |
| 15 | 20 | 3.551 | 3.548 | -0.003 |
| 30 | 21 | 3.535 | 3.540 | 0.005 |
| 30 | 22 | 3.531 | 3.547 | 0.016 |
| 30 | 23 | 3.529 | 3.533 | 0.004 |
| 30 | 24 | 3.552 | 3.543 | -0.009 |
| 30 | 25 | 3.540 | 3.546 | 0.006 |
| 35 | 26 | 3.538 | 3.527 | -0.011 |
| 35 | 27 | 3.539 | 3.544 | 0.005 |
| 35 | 28 | 3.543 | 3.538 | -0.005 |
| 35 | 29 | 3.550 | 3.529 | -0.021 |
| 35 | 30 | 3.541 | 3.527 | -0.014 |
| 50 | 31 | 3.535 | 3.525 | -0.010 |
| 50 | 32 | 3.553 | 3.537 | -0.016 |
| 50 | 33 | 3.557 | 3.537 | -0.020 |
| 50 | 34 | 3.536 | 3.533 | -0.003 |
| 50 | 35 | 3.545 | 3.545 | 0.000 |
| 55 | 36 | 3.547 | 3.546 | -0.001 |
| 55 | 37 | 3.549 | 3.529 | -0.020 |
| 55 | 38 | 3.535 | 3.527 | -0.008 |
| 55 | 39 | 3.552 | 3.538 | -0.014 |
| 55 | 40 | 3.536 | 3.535 | -0.001 |
| 100 | 41 | 3.538 | 3.521 | -0.017 |
| 100 | 42 | 3.534 | 3.522 | -0.012 |
| 100 | 43 | 3.541 | 3.531 | -0.010 |
| 100 | 44 | 3.537 | 3.524 | -0.013 |
| 100 | 45 | 3.541 | 3.523 | -0.018 |
| 105 | 46 | 3.549 | 3.527 | -0.022 |
| 105 | 47 | 3.549 | 3.528 | -0.021 |
| 105 | 48 | 3.540 | 3.506 | -0.034 |
| 105 | 49 | 3.546 | 3.505 | -0.041 |
| 105 | 50 | 3.534 | 3.527 | -0.007 |
| 105 | 51 | 3.547 | 3.521 | -0.026 |
| 105 | 52 | 3.539 | 3.512 | -0.027 |
| 105 | 53 | 3.540 | 3.527 | -0.013 |
| 105 | 54 | 3.547 | 3.538 | -0.009 |
| 105 | 55 | 3.540 | 3.528 | -0.012 |
| 105 | 56 | 3.535 | 3.536 | 0.001 |
| 105 | 57 | 3.537 | 3.529 | -0.008 |
| 105 | 58 | 3.537 | 3.510 | -0.027 |
| 105 | 59 | 3.536 | 3.517 | -0.019 |
| 105 | 60 | 3.543 | 3.522 | -0.021 |
| 105 | 61 | 3.536 | 3.515 | -0.021 |
| 105 | 62 | 3.550 | 3.508 | -0.042 |
| 105 | 63 | 3.534 | 3.509 | -0.025 |
| 105 | 64 | 3.540 | 3.532 | -0.008 |
| 105 | 65 | 3.554 | 3.515 | -0.039 |
| 105 | 66 | 3.552 | 3.519 | -0.033 |
| 105 | 67 | 3.550 | 3.523 | -0.027 |
| Max | | 3.557 | 3.558 | 0.018 |
| Average | | 3.540 | 3.532 | -0.009 |
| Min | | 3.515 | 3.505 | -0.042 |
| Std Dev | | 0.008 | 0.012 | 0.014 |



| 6.37 UVLO_VLDO_RISE_100k | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3.66 |
| Min Limit | 3.44 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 |
| Min | 3.515 | 3.535 | 3.533 | 3.533 | 3.534 | 3.533 | 3.527 | 3.525 | 3.527 | 3.521 | 3.505 |
| Average | 3.520 | 3.545 | 3.546 | 3.537 | 3.542 | 3.542 | 3.533 | 3.535 | 3.535 | 3.524 | 3.521 |
| Max | 3.527 | 3.554 | 3.558 | 3.541 | 3.548 | 3.547 | 3.544 | 3.545 | 3.546 | 3.531 | 3.538 |
| UL | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 |

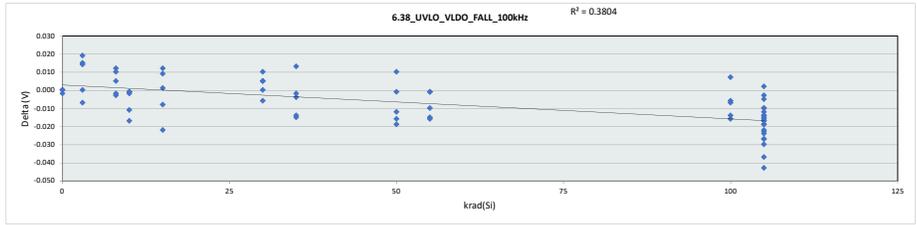


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

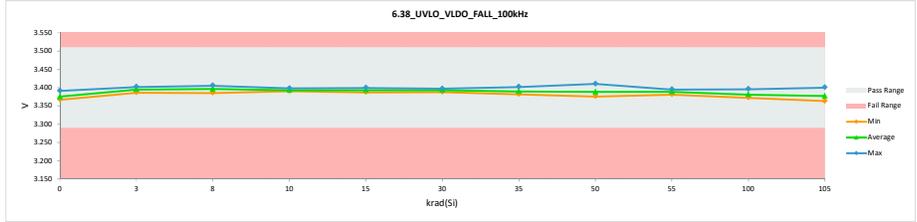
| 6.38 UVLO_VLDO_FALL_100kHz | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 3.51 |
| Min Limit | 3.29 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 3.368 | 3.368 | 0.000 |
| 0 | 992 | 3.391 | 3.391 | 0.000 |
| 0 | 993 | 3.369 | 3.367 | -0.002 |
| 3 | 1 | 3.378 | 3.397 | 0.019 |
| 3 | 2 | 3.381 | 3.396 | 0.015 |
| 3 | 3 | 3.393 | 3.393 | 0.000 |
| 3 | 4 | 3.393 | 3.386 | -0.007 |
| 3 | 5 | 3.388 | 3.402 | 0.014 |
| 8 | 6 | 3.393 | 3.405 | 0.012 |
| 8 | 7 | 3.387 | 3.385 | -0.002 |
| 8 | 8 | 3.401 | 3.398 | -0.003 |
| 8 | 9 | 3.389 | 3.394 | 0.005 |
| 8 | 10 | 3.388 | 3.398 | 0.010 |
| 10 | 11 | 3.399 | 3.398 | -0.001 |
| 10 | 12 | 3.397 | 3.395 | -0.002 |
| 10 | 13 | 3.391 | 3.390 | -0.001 |
| 10 | 14 | 3.407 | 3.390 | -0.017 |
| 10 | 15 | 3.402 | 3.391 | -0.011 |
| 15 | 16 | 3.409 | 3.387 | -0.022 |
| 15 | 17 | 3.396 | 3.388 | -0.008 |
| 15 | 18 | 3.382 | 3.394 | 0.012 |
| 15 | 19 | 3.388 | 3.397 | 0.009 |
| 15 | 20 | 3.398 | 3.399 | 0.001 |
| 30 | 21 | 3.387 | 3.392 | 0.005 |
| 30 | 22 | 3.396 | 3.396 | 0.010 |
| 30 | 23 | 3.388 | 3.388 | 0.000 |
| 30 | 24 | 3.403 | 3.397 | -0.006 |
| 30 | 25 | 3.389 | 3.394 | 0.005 |
| 35 | 26 | 3.393 | 3.391 | -0.002 |
| 35 | 27 | 3.389 | 3.402 | 0.013 |
| 35 | 28 | 3.400 | 3.386 | -0.014 |
| 35 | 29 | 3.397 | 3.382 | -0.015 |
| 35 | 30 | 3.392 | 3.388 | -0.004 |
| 50 | 31 | 3.388 | 3.376 | -0.012 |
| 50 | 32 | 3.401 | 3.385 | -0.016 |
| 50 | 33 | 3.403 | 3.384 | -0.019 |
| 50 | 34 | 3.387 | 3.386 | -0.001 |
| 50 | 35 | 3.400 | 3.410 | 0.010 |
| 55 | 36 | 3.396 | 3.395 | -0.001 |
| 55 | 37 | 3.397 | 3.381 | -0.016 |
| 55 | 38 | 3.400 | 3.385 | -0.015 |
| 55 | 39 | 3.401 | 3.391 | -0.010 |
| 55 | 40 | 3.392 | 3.391 | -0.001 |
| 100 | 41 | 3.386 | 3.372 | -0.014 |
| 100 | 42 | 3.382 | 3.375 | -0.007 |
| 100 | 43 | 3.389 | 3.396 | 0.007 |
| 100 | 44 | 3.386 | 3.380 | -0.006 |
| 100 | 45 | 3.398 | 3.382 | -0.016 |
| 105 | 46 | 3.395 | 3.376 | -0.019 |
| 105 | 47 | 3.402 | 3.392 | -0.010 |
| 105 | 48 | 3.393 | 3.376 | -0.017 |
| 105 | 49 | 3.403 | 3.376 | -0.027 |
| 105 | 50 | 3.389 | 3.375 | -0.014 |
| 105 | 51 | 3.400 | 3.384 | -0.016 |
| 105 | 52 | 3.391 | 3.381 | -0.010 |
| 105 | 53 | 3.399 | 3.377 | -0.022 |
| 105 | 54 | 3.405 | 3.400 | -0.005 |
| 105 | 55 | 3.392 | 3.380 | -0.012 |
| 105 | 56 | 3.387 | 3.389 | 0.002 |
| 105 | 57 | 3.394 | 3.379 | -0.015 |
| 105 | 58 | 3.383 | 3.369 | -0.014 |
| 105 | 59 | 3.388 | 3.371 | -0.017 |
| 105 | 60 | 3.390 | 3.371 | -0.019 |
| 105 | 61 | 3.387 | 3.364 | -0.023 |
| 105 | 62 | 3.410 | 3.367 | -0.043 |
| 105 | 63 | 3.393 | 3.363 | -0.030 |
| 105 | 64 | 3.392 | 3.389 | -0.003 |
| 105 | 65 | 3.402 | 3.365 | -0.037 |
| 105 | 66 | 3.402 | 3.378 | -0.024 |
| 105 | 67 | 3.399 | 3.372 | -0.027 |
| Max | | 3.410 | 3.410 | 0.019 |
| Average | | 3.393 | 3.386 | -0.007 |
| Min | | 3.368 | 3.363 | -0.043 |
| Std Dev | | 0.008 | 0.011 | 0.013 |



| 6.38 UVLO_VLDO_FALL_100k | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3.51 |
| Min Limit | 3.29 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 |
| Min | 3.367 | 3.386 | 3.385 | 3.390 | 3.387 | 3.388 | 3.382 | 3.376 | 3.381 | 3.372 | 3.363 |
| Average | 3.375 | 3.395 | 3.396 | 3.393 | 3.393 | 3.390 | 3.390 | 3.388 | 3.389 | 3.381 | 3.377 |
| Max | 3.391 | 3.402 | 3.405 | 3.398 | 3.399 | 3.397 | 3.402 | 3.410 | 3.395 | 3.396 | 3.400 |
| UL | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 |

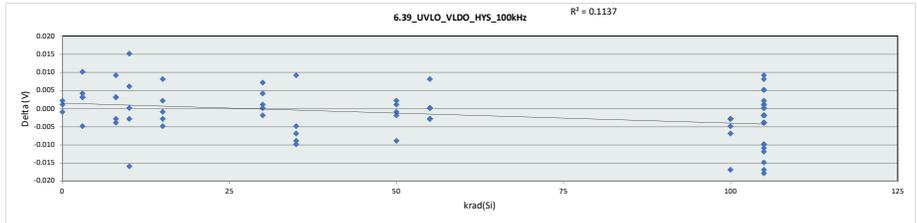


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

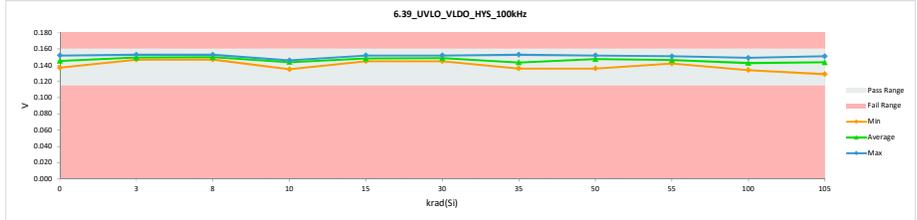
| 6.39 UVLO_VLDO_HYS_100kHz | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.16 |
| Min Limit | 0.115 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.146 | 0.147 | 0.001 |
| 0 | 992 | 0.138 | 0.137 | -0.001 |
| 0 | 993 | 0.150 | 0.152 | 0.002 |
| 3 | 1 | 0.152 | 0.147 | -0.005 |
| 3 | 2 | 0.150 | 0.153 | 0.003 |
| 3 | 3 | 0.145 | 0.148 | 0.003 |
| 3 | 4 | 0.138 | 0.148 | 0.010 |
| 3 | 5 | 0.148 | 0.152 | 0.004 |
| 8 | 6 | 0.150 | 0.153 | 0.003 |
| 8 | 7 | 0.152 | 0.148 | -0.004 |
| 8 | 8 | 0.144 | 0.147 | 0.003 |
| 8 | 9 | 0.143 | 0.152 | 0.009 |
| 8 | 10 | 0.153 | 0.150 | -0.003 |
| 10 | 11 | 0.151 | 0.135 | -0.016 |
| 10 | 12 | 0.131 | 0.146 | 0.015 |
| 10 | 13 | 0.146 | 0.146 | 0.000 |
| 10 | 14 | 0.140 | 0.146 | 0.006 |
| 10 | 15 | 0.149 | 0.146 | -0.003 |
| 15 | 16 | 0.144 | 0.152 | 0.008 |
| 15 | 17 | 0.147 | 0.146 | -0.001 |
| 15 | 18 | 0.148 | 0.145 | -0.003 |
| 15 | 19 | 0.149 | 0.151 | 0.002 |
| 15 | 20 | 0.153 | 0.148 | -0.005 |
| 30 | 21 | 0.148 | 0.148 | 0.000 |
| 30 | 22 | 0.144 | 0.151 | 0.007 |
| 30 | 23 | 0.141 | 0.145 | 0.004 |
| 30 | 24 | 0.149 | 0.147 | -0.002 |
| 30 | 25 | 0.151 | 0.152 | 0.001 |
| 35 | 26 | 0.145 | 0.136 | -0.009 |
| 35 | 27 | 0.149 | 0.142 | -0.007 |
| 35 | 28 | 0.144 | 0.153 | 0.009 |
| 35 | 29 | 0.152 | 0.147 | -0.005 |
| 35 | 30 | 0.149 | 0.139 | -0.010 |
| 50 | 31 | 0.147 | 0.149 | 0.002 |
| 50 | 32 | 0.151 | 0.152 | 0.001 |
| 50 | 33 | 0.154 | 0.152 | -0.002 |
| 50 | 34 | 0.149 | 0.148 | -0.001 |
| 50 | 35 | 0.145 | 0.136 | -0.009 |
| 55 | 36 | 0.151 | 0.151 | 0.000 |
| 55 | 37 | 0.151 | 0.148 | -0.003 |
| 55 | 38 | 0.134 | 0.142 | 0.008 |
| 55 | 39 | 0.150 | 0.147 | -0.003 |
| 55 | 40 | 0.144 | 0.144 | 0.000 |
| 100 | 41 | 0.152 | 0.149 | -0.003 |
| 100 | 42 | 0.152 | 0.147 | -0.005 |
| 100 | 43 | 0.151 | 0.134 | -0.017 |
| 100 | 44 | 0.151 | 0.144 | -0.007 |
| 100 | 45 | 0.143 | 0.140 | -0.003 |
| 105 | 46 | 0.154 | 0.150 | -0.004 |
| 105 | 47 | 0.147 | 0.136 | -0.011 |
| 105 | 48 | 0.147 | 0.130 | -0.017 |
| 105 | 49 | 0.144 | 0.129 | -0.015 |
| 105 | 50 | 0.146 | 0.151 | 0.005 |
| 105 | 51 | 0.147 | 0.137 | -0.010 |
| 105 | 52 | 0.148 | 0.130 | -0.018 |
| 105 | 53 | 0.141 | 0.150 | 0.009 |
| 105 | 54 | 0.142 | 0.138 | -0.004 |
| 105 | 55 | 0.148 | 0.148 | 0.000 |
| 105 | 56 | 0.147 | 0.148 | 0.001 |
| 105 | 57 | 0.142 | 0.150 | 0.008 |
| 105 | 58 | 0.153 | 0.141 | -0.012 |
| 105 | 59 | 0.148 | 0.146 | -0.002 |
| 105 | 60 | 0.153 | 0.151 | -0.002 |
| 105 | 61 | 0.149 | 0.151 | 0.002 |
| 105 | 62 | 0.140 | 0.141 | 0.001 |
| 105 | 63 | 0.141 | 0.146 | 0.005 |
| 105 | 64 | 0.148 | 0.144 | -0.004 |
| 105 | 65 | 0.152 | 0.150 | -0.002 |
| 105 | 66 | 0.150 | 0.140 | -0.010 |
| 105 | 67 | 0.151 | 0.151 | 0.000 |
| Max | | 0.154 | 0.153 | 0.015 |
| Average | | 0.147 | 0.146 | -0.002 |
| Min | | 0.131 | 0.129 | -0.018 |
| Std Dev | | 0.005 | 0.006 | 0.007 |



| 6.39 UVLO_VLDO_HYS_100kHz | |
|---------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.16 V |
| Min Limit | 0.115 V |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 |
| Min | 0.137 | 0.147 | 0.147 | 0.135 | 0.145 | 0.145 | 0.136 | 0.136 | 0.142 | 0.134 | 0.129 |
| Average | 0.145 | 0.150 | 0.150 | 0.144 | 0.148 | 0.149 | 0.143 | 0.147 | 0.146 | 0.143 | 0.144 |
| Max | 0.152 | 0.153 | 0.153 | 0.146 | 0.152 | 0.152 | 0.153 | 0.152 | 0.151 | 0.149 | 0.151 |
| UL | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 |

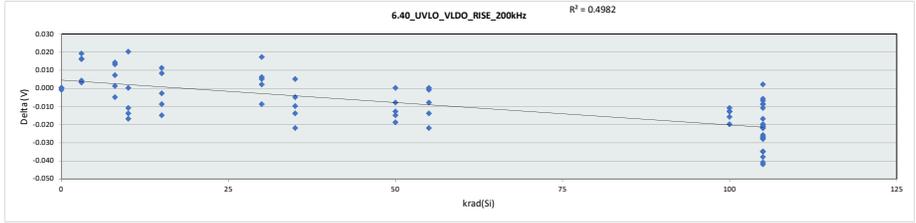


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

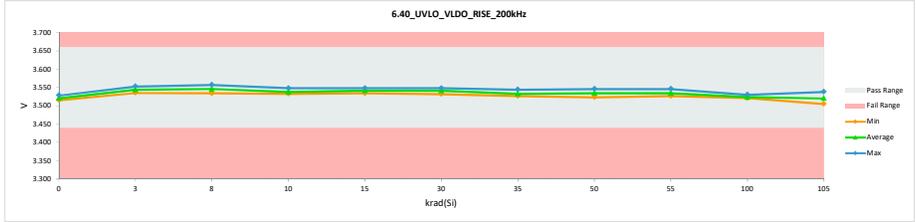
| 6.40 UVLO_VLDO_RISE_200kHz | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 3.66 |
| Min Limit | 3.44 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 3.515 | 3.515 | 0.000 |
| 0 | 992 | 3.528 | 3.528 | 0.000 |
| 0 | 993 | 3.520 | 3.519 | -0.001 |
| 3 | 1 | 3.528 | 3.544 | 0.016 |
| 3 | 2 | 3.531 | 3.550 | 0.019 |
| 3 | 3 | 3.537 | 3.540 | 0.003 |
| 3 | 4 | 3.531 | 3.535 | 0.004 |
| 3 | 5 | 3.537 | 3.553 | 0.016 |
| 8 | 6 | 3.543 | 3.557 | 0.014 |
| 8 | 7 | 3.539 | 3.534 | -0.005 |
| 8 | 8 | 3.544 | 3.545 | 0.001 |
| 8 | 9 | 3.533 | 3.546 | 0.013 |
| 8 | 10 | 3.541 | 3.548 | 0.007 |
| 10 | 11 | 3.550 | 3.533 | -0.017 |
| 10 | 12 | 3.528 | 3.548 | 0.020 |
| 10 | 13 | 3.536 | 3.536 | 0.000 |
| 10 | 14 | 3.547 | 3.536 | -0.011 |
| 10 | 15 | 3.551 | 3.537 | -0.014 |
| 15 | 16 | 3.553 | 3.528 | -0.025 |
| 15 | 17 | 3.543 | 3.534 | -0.009 |
| 15 | 18 | 3.531 | 3.539 | 0.008 |
| 15 | 19 | 3.537 | 3.548 | 0.011 |
| 15 | 20 | 3.550 | 3.547 | -0.003 |
| 30 | 21 | 3.535 | 3.540 | 0.005 |
| 30 | 22 | 3.531 | 3.548 | 0.017 |
| 30 | 23 | 3.530 | 3.532 | 0.002 |
| 30 | 24 | 3.552 | 3.543 | -0.009 |
| 30 | 25 | 3.540 | 3.546 | 0.006 |
| 35 | 26 | 3.537 | 3.527 | -0.010 |
| 35 | 27 | 3.539 | 3.544 | 0.005 |
| 35 | 28 | 3.543 | 3.538 | -0.005 |
| 35 | 29 | 3.550 | 3.528 | -0.022 |
| 35 | 30 | 3.541 | 3.527 | -0.014 |
| 50 | 31 | 3.536 | 3.523 | -0.013 |
| 50 | 32 | 3.553 | 3.538 | -0.015 |
| 50 | 33 | 3.556 | 3.537 | -0.019 |
| 50 | 34 | 3.536 | 3.528 | -0.008 |
| 50 | 35 | 3.546 | 3.546 | 0.000 |
| 55 | 36 | 3.546 | 3.546 | 0.000 |
| 55 | 37 | 3.550 | 3.528 | -0.022 |
| 55 | 38 | 3.535 | 3.527 | -0.008 |
| 55 | 39 | 3.552 | 3.538 | -0.014 |
| 55 | 40 | 3.536 | 3.535 | -0.001 |
| 100 | 41 | 3.538 | 3.522 | -0.016 |
| 100 | 42 | 3.534 | 3.521 | -0.013 |
| 100 | 43 | 3.541 | 3.530 | -0.011 |
| 100 | 44 | 3.537 | 3.524 | -0.013 |
| 100 | 45 | 3.541 | 3.521 | -0.020 |
| 105 | 46 | 3.549 | 3.527 | -0.022 |
| 105 | 47 | 3.550 | 3.528 | -0.022 |
| 105 | 48 | 3.540 | 3.505 | -0.035 |
| 105 | 49 | 3.546 | 3.505 | -0.041 |
| 105 | 50 | 3.534 | 3.525 | -0.009 |
| 105 | 51 | 3.548 | 3.521 | -0.027 |
| 105 | 52 | 3.539 | 3.511 | -0.028 |
| 105 | 53 | 3.540 | 3.520 | -0.020 |
| 105 | 54 | 3.547 | 3.538 | -0.009 |
| 105 | 55 | 3.539 | 3.528 | -0.011 |
| 105 | 56 | 3.535 | 3.537 | 0.002 |
| 105 | 57 | 3.536 | 3.529 | -0.007 |
| 105 | 58 | 3.536 | 3.510 | -0.026 |
| 105 | 59 | 3.536 | 3.519 | -0.017 |
| 105 | 60 | 3.543 | 3.522 | -0.021 |
| 105 | 61 | 3.537 | 3.516 | -0.021 |
| 105 | 62 | 3.550 | 3.508 | -0.042 |
| 105 | 63 | 3.535 | 3.508 | -0.027 |
| 105 | 64 | 3.539 | 3.533 | -0.006 |
| 105 | 65 | 3.554 | 3.516 | -0.038 |
| 105 | 66 | 3.554 | 3.519 | -0.035 |
| 105 | 67 | 3.550 | 3.522 | -0.028 |
| Max | | 3.556 | 3.557 | 0.020 |
| Average | | 3.540 | 3.531 | -0.009 |
| Min | | 3.515 | 3.505 | -0.042 |
| Std Dev | | 0.008 | 0.012 | 0.015 |



| 6.40 UVLO_VLDO_RISE_200k | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3.66 |
| Min Limit | 3.44 |

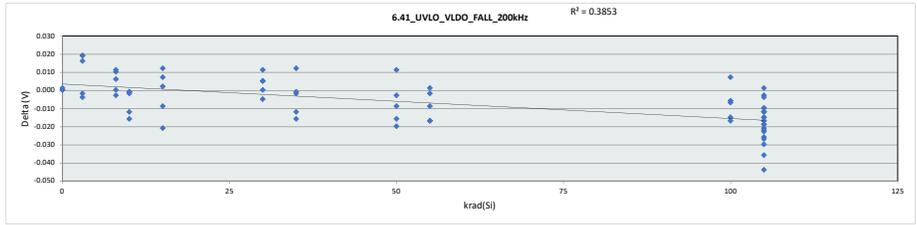
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 |
| Min | 3.515 | 3.535 | 3.534 | 3.533 | 3.534 | 3.534 | 3.532 | 3.527 | 3.523 | 3.527 | 3.521 |
| Average | 3.521 | 3.544 | 3.546 | 3.538 | 3.541 | 3.542 | 3.533 | 3.534 | 3.535 | 3.524 | 3.520 |
| Max | 3.528 | 3.553 | 3.557 | 3.548 | 3.548 | 3.548 | 3.544 | 3.546 | 3.546 | 3.530 | 3.538 |
| UL | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 |



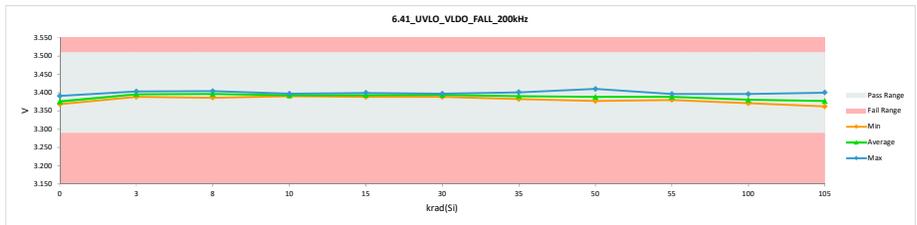
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 6.41 UVLO_VLDO_FALL_200kHz | | | | |
|----------------------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| | | | 3.51 | 3.51 |
| | | | 3.29 | 3.29 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 3.367 | 3.368 | 0.001 |
| 0 | 992 | 3.391 | 3.391 | 0.000 |
| 0 | 993 | 3.368 | 3.368 | 0.000 |
| 3 | 1 | 3.379 | 3.398 | 0.019 |
| 3 | 2 | 3.381 | 3.397 | 0.016 |
| 3 | 3 | 3.393 | 3.391 | -0.002 |
| 3 | 4 | 3.392 | 3.388 | -0.004 |
| 3 | 5 | 3.384 | 3.403 | 0.019 |
| 8 | 6 | 3.393 | 3.404 | 0.011 |
| 8 | 7 | 3.386 | 3.386 | 0.000 |
| 8 | 8 | 3.401 | 3.398 | -0.003 |
| 8 | 9 | 3.388 | 3.394 | 0.006 |
| 8 | 10 | 3.388 | 3.398 | 0.010 |
| 10 | 11 | 3.399 | 3.397 | -0.002 |
| 10 | 12 | 3.396 | 3.395 | -0.001 |
| 10 | 13 | 3.391 | 3.390 | -0.001 |
| 10 | 14 | 3.407 | 3.391 | -0.016 |
| 10 | 15 | 3.402 | 3.390 | -0.012 |
| 15 | 16 | 3.409 | 3.388 | -0.021 |
| 15 | 17 | 3.397 | 3.388 | -0.009 |
| 15 | 18 | 3.383 | 3.395 | 0.012 |
| 15 | 19 | 3.388 | 3.395 | 0.007 |
| 15 | 20 | 3.397 | 3.399 | 0.002 |
| 30 | 21 | 3.387 | 3.392 | 0.005 |
| 30 | 22 | 3.386 | 3.397 | 0.011 |
| 30 | 23 | 3.388 | 3.388 | 0.000 |
| 30 | 24 | 3.402 | 3.397 | -0.005 |
| 30 | 25 | 3.388 | 3.393 | 0.005 |
| 35 | 26 | 3.394 | 3.392 | -0.002 |
| 35 | 27 | 3.389 | 3.401 | 0.012 |
| 35 | 28 | 3.388 | 3.386 | -0.002 |
| 35 | 29 | 3.398 | 3.382 | -0.016 |
| 35 | 30 | 3.391 | 3.390 | -0.001 |
| 50 | 31 | 3.386 | 3.377 | -0.009 |
| 50 | 32 | 3.401 | 3.385 | -0.016 |
| 50 | 33 | 3.404 | 3.384 | -0.020 |
| 50 | 34 | 3.387 | 3.384 | -0.003 |
| 50 | 35 | 3.399 | 3.410 | 0.011 |
| 55 | 36 | 3.395 | 3.396 | 0.001 |
| 55 | 37 | 3.397 | 3.380 | -0.017 |
| 55 | 38 | 3.401 | 3.384 | -0.017 |
| 55 | 39 | 3.401 | 3.392 | -0.009 |
| 55 | 40 | 3.392 | 3.390 | -0.002 |
| 100 | 41 | 3.386 | 3.371 | -0.015 |
| 100 | 42 | 3.381 | 3.375 | -0.006 |
| 100 | 43 | 3.389 | 3.396 | 0.007 |
| 100 | 44 | 3.386 | 3.379 | -0.007 |
| 100 | 45 | 3.398 | 3.381 | -0.017 |
| 105 | 46 | 3.395 | 3.376 | -0.019 |
| 105 | 47 | 3.401 | 3.391 | -0.010 |
| 105 | 48 | 3.392 | 3.380 | -0.012 |
| 105 | 49 | 3.402 | 3.376 | -0.026 |
| 105 | 50 | 3.388 | 3.376 | -0.012 |
| 105 | 51 | 3.400 | 3.383 | -0.017 |
| 105 | 52 | 3.391 | 3.381 | -0.010 |
| 105 | 53 | 3.398 | 3.377 | -0.021 |
| 105 | 54 | 3.404 | 3.400 | -0.004 |
| 105 | 55 | 3.391 | 3.379 | -0.012 |
| 105 | 56 | 3.388 | 3.389 | 0.001 |
| 105 | 57 | 3.394 | 3.379 | -0.015 |
| 105 | 58 | 3.383 | 3.368 | -0.015 |
| 105 | 59 | 3.388 | 3.371 | -0.017 |
| 105 | 60 | 3.391 | 3.372 | -0.019 |
| 105 | 61 | 3.387 | 3.365 | -0.022 |
| 105 | 62 | 3.410 | 3.366 | -0.044 |
| 105 | 63 | 3.392 | 3.362 | -0.030 |
| 105 | 64 | 3.391 | 3.388 | -0.003 |
| 105 | 65 | 3.402 | 3.366 | -0.036 |
| 105 | 66 | 3.402 | 3.379 | -0.023 |
| 105 | 67 | 3.399 | 3.372 | -0.027 |
| Max | | 3.410 | 3.410 | 0.019 |
| Average | | 3.393 | 3.386 | -0.007 |
| Min | | 3.367 | 3.362 | -0.044 |
| Std Dev | | 0.008 | 0.011 | 0.013 |



| 6.41 UVLO_VLDO_FALL_200k | | | | | | | | | | | |
|--------------------------|--------|-------------|-------|-----------|-----------|-------|-------|-------|-------|-------|--|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | | | | | | |
| | | | V | V | | | | | | | |
| | | | 3.51 | 3.29 | | | | | | | |
| krad(Si) | LL | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 | |
| Min | 3.290 | 3.388 | 3.386 | 3.390 | 3.388 | 3.393 | 3.390 | 3.388 | 3.380 | 3.362 | |
| Average | 3.376 | 3.395 | 3.396 | 3.393 | 3.393 | 3.390 | 3.388 | 3.388 | 3.380 | 3.377 | |
| Max | 3.391 | 3.403 | 3.404 | 3.397 | 3.399 | 3.397 | 3.401 | 3.410 | 3.396 | 3.400 | |
| UL | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | |

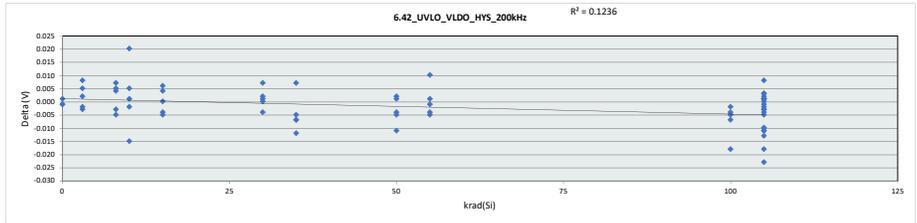


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

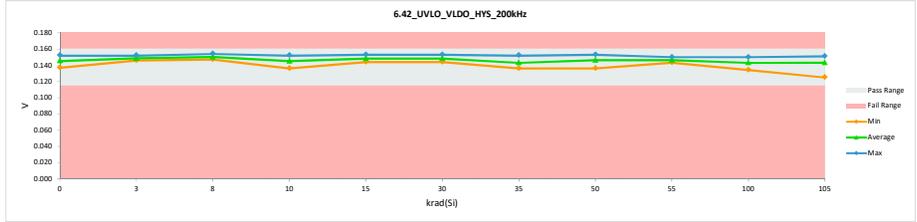
| 6.42 UVLO_VLDO_HYS_200kHz | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.16 |
| Min Limit | 0.115 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.148 | 0.147 | -0.001 |
| 0 | 992 | 0.138 | 0.137 | -0.001 |
| 0 | 993 | 0.151 | 0.152 | 0.001 |
| 3 | 1 | 0.149 | 0.146 | -0.003 |
| 3 | 2 | 0.150 | 0.152 | 0.002 |
| 3 | 3 | 0.144 | 0.149 | 0.005 |
| 3 | 4 | 0.139 | 0.147 | 0.008 |
| 3 | 5 | 0.152 | 0.150 | -0.002 |
| 8 | 6 | 0.149 | 0.154 | 0.005 |
| 8 | 7 | 0.153 | 0.148 | -0.005 |
| 8 | 8 | 0.143 | 0.147 | 0.004 |
| 8 | 9 | 0.145 | 0.152 | 0.007 |
| 8 | 10 | 0.153 | 0.150 | -0.003 |
| 10 | 11 | 0.151 | 0.136 | -0.015 |
| 10 | 12 | 0.132 | 0.152 | 0.020 |
| 10 | 13 | 0.145 | 0.146 | 0.001 |
| 10 | 14 | 0.140 | 0.145 | 0.005 |
| 10 | 15 | 0.149 | 0.147 | -0.002 |
| 15 | 16 | 0.144 | 0.150 | 0.006 |
| 15 | 17 | 0.146 | 0.146 | 0.000 |
| 15 | 18 | 0.148 | 0.144 | -0.004 |
| 15 | 19 | 0.149 | 0.153 | 0.004 |
| 15 | 20 | 0.153 | 0.148 | -0.005 |
| 30 | 21 | 0.148 | 0.148 | 0.000 |
| 30 | 22 | 0.144 | 0.151 | 0.007 |
| 30 | 23 | 0.142 | 0.144 | 0.002 |
| 30 | 24 | 0.150 | 0.146 | -0.004 |
| 30 | 25 | 0.152 | 0.153 | 0.001 |
| 35 | 26 | 0.143 | 0.136 | -0.007 |
| 35 | 27 | 0.150 | 0.143 | -0.007 |
| 35 | 28 | 0.145 | 0.152 | 0.007 |
| 35 | 29 | 0.152 | 0.147 | -0.005 |
| 35 | 30 | 0.149 | 0.137 | -0.012 |
| 50 | 31 | 0.150 | 0.146 | -0.004 |
| 50 | 32 | 0.151 | 0.153 | 0.002 |
| 50 | 33 | 0.152 | 0.153 | 0.001 |
| 50 | 34 | 0.149 | 0.144 | -0.005 |
| 50 | 35 | 0.147 | 0.136 | -0.011 |
| 55 | 36 | 0.151 | 0.150 | -0.001 |
| 55 | 37 | 0.152 | 0.148 | -0.004 |
| 55 | 38 | 0.133 | 0.143 | 0.010 |
| 55 | 39 | 0.151 | 0.146 | -0.005 |
| 55 | 40 | 0.144 | 0.145 | 0.001 |
| 100 | 41 | 0.152 | 0.150 | -0.002 |
| 100 | 42 | 0.153 | 0.146 | -0.007 |
| 100 | 43 | 0.152 | 0.134 | -0.018 |
| 100 | 44 | 0.150 | 0.145 | -0.005 |
| 100 | 45 | 0.144 | 0.140 | -0.004 |
| 105 | 46 | 0.154 | 0.151 | -0.003 |
| 105 | 47 | 0.148 | 0.137 | -0.011 |
| 105 | 48 | 0.148 | 0.125 | -0.023 |
| 105 | 49 | 0.143 | 0.130 | -0.013 |
| 105 | 50 | 0.146 | 0.149 | 0.003 |
| 105 | 51 | 0.148 | 0.138 | -0.010 |
| 105 | 52 | 0.148 | 0.130 | -0.018 |
| 105 | 53 | 0.142 | 0.143 | 0.001 |
| 105 | 54 | 0.143 | 0.138 | -0.005 |
| 105 | 55 | 0.148 | 0.149 | 0.001 |
| 105 | 56 | 0.147 | 0.148 | 0.001 |
| 105 | 57 | 0.142 | 0.150 | 0.008 |
| 105 | 58 | 0.152 | 0.142 | -0.010 |
| 105 | 59 | 0.148 | 0.148 | 0.000 |
| 105 | 60 | 0.152 | 0.149 | -0.003 |
| 105 | 61 | 0.150 | 0.151 | 0.001 |
| 105 | 62 | 0.140 | 0.142 | 0.002 |
| 105 | 63 | 0.143 | 0.146 | 0.003 |
| 105 | 64 | 0.148 | 0.144 | -0.004 |
| 105 | 65 | 0.151 | 0.149 | -0.002 |
| 105 | 66 | 0.151 | 0.140 | -0.011 |
| 105 | 67 | 0.151 | 0.150 | -0.001 |
| Max | | 0.154 | 0.154 | 0.020 |
| Average | | 0.147 | 0.145 | -0.002 |
| Min | | 0.132 | 0.125 | -0.023 |
| Std Dev | | 0.005 | 0.006 | 0.007 |



| 6.42 UVLO_VLDO_HYS_200kHz | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.16 |
| Min Limit | 0.115 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 |
| Min | 0.137 | 0.146 | 0.147 | 0.136 | 0.144 | 0.144 | 0.136 | 0.136 | 0.143 | 0.134 | 0.125 |
| Average | 0.145 | 0.149 | 0.150 | 0.145 | 0.148 | 0.148 | 0.143 | 0.146 | 0.146 | 0.143 | 0.143 |
| Max | 0.152 | 0.152 | 0.154 | 0.152 | 0.153 | 0.153 | 0.152 | 0.153 | 0.150 | 0.150 | 0.151 |
| UL | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 |

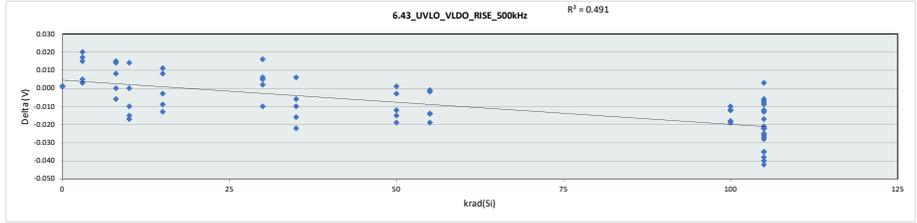


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

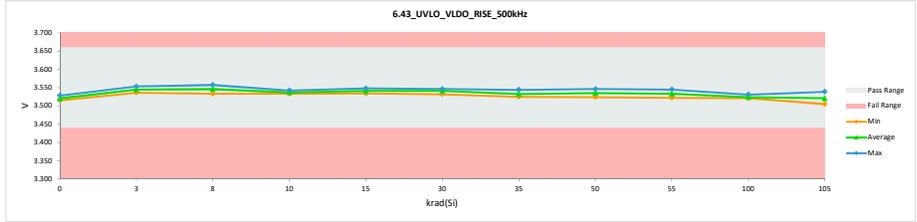
| 6.43 UVLO_VLDO_RISE_500kHz | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 3.66 |
| Min Limit | 3.44 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 3.514 | 3.515 | 0.001 |
| 0 | 992 | 3.527 | 3.528 | 0.001 |
| 0 | 993 | 3.518 | 3.519 | 0.001 |
| 3 | 1 | 3.529 | 3.544 | 0.015 |
| 3 | 2 | 3.531 | 3.551 | 0.020 |
| 3 | 3 | 3.538 | 3.541 | 0.003 |
| 3 | 4 | 3.531 | 3.536 | 0.005 |
| 3 | 5 | 3.536 | 3.553 | 0.017 |
| 8 | 6 | 3.542 | 3.557 | 0.015 |
| 8 | 7 | 3.539 | 3.533 | -0.006 |
| 8 | 8 | 3.545 | 3.545 | 0.000 |
| 8 | 9 | 3.532 | 3.546 | 0.014 |
| 8 | 10 | 3.540 | 3.548 | 0.008 |
| 10 | 11 | 3.550 | 3.533 | -0.017 |
| 10 | 12 | 3.528 | 3.542 | 0.014 |
| 10 | 13 | 3.537 | 3.537 | 0.000 |
| 10 | 14 | 3.546 | 3.536 | -0.010 |
| 10 | 15 | 3.552 | 3.537 | -0.015 |
| 15 | 16 | 3.553 | 3.540 | -0.013 |
| 15 | 17 | 3.543 | 3.534 | -0.009 |
| 15 | 18 | 3.531 | 3.539 | 0.008 |
| 15 | 19 | 3.537 | 3.548 | 0.011 |
| 15 | 20 | 3.550 | 3.547 | -0.003 |
| 30 | 21 | 3.535 | 3.540 | 0.005 |
| 30 | 22 | 3.530 | 3.546 | 0.016 |
| 30 | 23 | 3.530 | 3.532 | 0.002 |
| 30 | 24 | 3.553 | 3.543 | -0.010 |
| 30 | 25 | 3.540 | 3.546 | 0.006 |
| 35 | 26 | 3.537 | 3.527 | -0.010 |
| 35 | 27 | 3.538 | 3.544 | 0.006 |
| 35 | 28 | 3.544 | 3.538 | -0.006 |
| 35 | 29 | 3.550 | 3.528 | -0.022 |
| 35 | 30 | 3.541 | 3.525 | -0.016 |
| 50 | 31 | 3.536 | 3.524 | -0.012 |
| 50 | 32 | 3.552 | 3.537 | -0.015 |
| 50 | 33 | 3.556 | 3.537 | -0.019 |
| 50 | 34 | 3.536 | 3.533 | -0.003 |
| 50 | 35 | 3.545 | 3.546 | 0.001 |
| 55 | 36 | 3.547 | 3.545 | -0.002 |
| 55 | 37 | 3.548 | 3.529 | -0.019 |
| 55 | 38 | 3.536 | 3.522 | -0.014 |
| 55 | 39 | 3.551 | 3.537 | -0.014 |
| 55 | 40 | 3.536 | 3.535 | -0.001 |
| 100 | 41 | 3.539 | 3.521 | -0.018 |
| 100 | 42 | 3.534 | 3.522 | -0.012 |
| 100 | 43 | 3.541 | 3.531 | -0.010 |
| 100 | 44 | 3.537 | 3.525 | -0.012 |
| 100 | 45 | 3.541 | 3.522 | -0.019 |
| 105 | 46 | 3.548 | 3.527 | -0.021 |
| 105 | 47 | 3.550 | 3.528 | -0.022 |
| 105 | 48 | 3.540 | 3.505 | -0.035 |
| 105 | 49 | 3.545 | 3.505 | -0.040 |
| 105 | 50 | 3.534 | 3.526 | -0.008 |
| 105 | 51 | 3.547 | 3.521 | -0.026 |
| 105 | 52 | 3.540 | 3.512 | -0.028 |
| 105 | 53 | 3.540 | 3.527 | -0.013 |
| 105 | 54 | 3.546 | 3.539 | -0.007 |
| 105 | 55 | 3.540 | 3.528 | -0.012 |
| 105 | 56 | 3.534 | 3.537 | 0.003 |
| 105 | 57 | 3.536 | 3.530 | -0.006 |
| 105 | 58 | 3.535 | 3.510 | -0.025 |
| 105 | 59 | 3.536 | 3.519 | -0.017 |
| 105 | 60 | 3.543 | 3.521 | -0.022 |
| 105 | 61 | 3.537 | 3.515 | -0.022 |
| 105 | 62 | 3.550 | 3.508 | -0.042 |
| 105 | 63 | 3.534 | 3.509 | -0.025 |
| 105 | 64 | 3.541 | 3.532 | -0.009 |
| 105 | 65 | 3.554 | 3.516 | -0.038 |
| 105 | 66 | 3.535 | 3.518 | -0.017 |
| 105 | 67 | 3.550 | 3.523 | -0.027 |
| Max | | 3.556 | 3.557 | 0.020 |
| Average | | 3.540 | 3.531 | -0.009 |
| Min | | 3.514 | 3.505 | -0.042 |
| Std Dev | | 0.008 | 0.012 | 0.015 |



| 6.43 UVLO_VLDO_RISE_500k | |
|--------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3.66 V |
| Min Limit | 3.44 V |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 |
| Min | 3.515 | 3.536 | 3.533 | 3.533 | 3.534 | 3.532 | 3.525 | 3.524 | 3.522 | 3.521 | 3.505 |
| Average | 3.521 | 3.545 | 3.546 | 3.537 | 3.542 | 3.541 | 3.532 | 3.535 | 3.534 | 3.524 | 3.521 |
| Max | 3.528 | 3.553 | 3.557 | 3.542 | 3.548 | 3.546 | 3.544 | 3.546 | 3.545 | 3.531 | 3.539 |
| UL | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 |

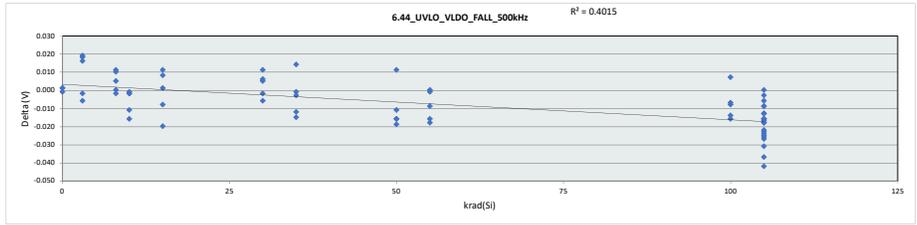


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

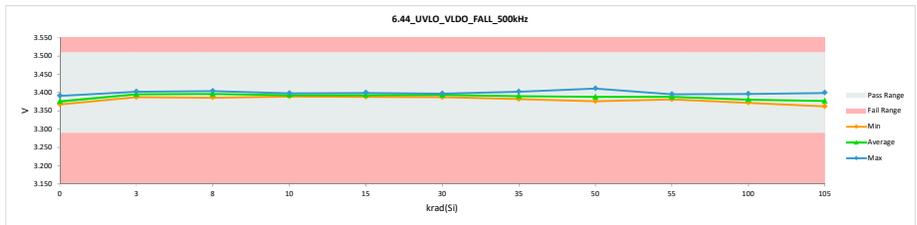
| 6.44 UVLO_VLDO_FALL_500kHz | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 3.51 |
| Min Limit | 3.29 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 3.368 | 3.367 | -0.001 |
| 0 | 992 | 3.390 | 3.391 | 0.001 |
| 0 | 993 | 3.368 | 3.369 | 0.001 |
| 3 | 1 | 3.378 | 3.397 | 0.019 |
| 3 | 2 | 3.381 | 3.397 | 0.016 |
| 3 | 3 | 3.393 | 3.391 | -0.002 |
| 3 | 4 | 3.393 | 3.387 | -0.006 |
| 3 | 5 | 3.384 | 3.402 | 0.018 |
| 8 | 6 | 3.393 | 3.404 | 0.011 |
| 8 | 7 | 3.386 | 3.386 | 0.000 |
| 8 | 8 | 3.401 | 3.399 | -0.002 |
| 8 | 9 | 3.388 | 3.393 | 0.005 |
| 8 | 10 | 3.388 | 3.398 | 0.010 |
| 10 | 11 | 3.399 | 3.398 | -0.001 |
| 10 | 12 | 3.397 | 3.395 | -0.002 |
| 10 | 13 | 3.391 | 3.389 | -0.002 |
| 10 | 14 | 3.407 | 3.391 | -0.016 |
| 10 | 15 | 3.402 | 3.391 | -0.011 |
| 15 | 16 | 3.408 | 3.388 | -0.020 |
| 15 | 17 | 3.396 | 3.388 | -0.008 |
| 15 | 18 | 3.383 | 3.394 | 0.011 |
| 15 | 19 | 3.387 | 3.395 | 0.008 |
| 15 | 20 | 3.398 | 3.399 | 0.001 |
| 30 | 21 | 3.387 | 3.393 | 0.006 |
| 30 | 22 | 3.386 | 3.397 | 0.011 |
| 30 | 23 | 3.389 | 3.387 | -0.002 |
| 30 | 24 | 3.402 | 3.396 | -0.006 |
| 30 | 25 | 3.388 | 3.393 | 0.005 |
| 35 | 26 | 3.393 | 3.392 | -0.001 |
| 35 | 27 | 3.388 | 3.402 | 0.014 |
| 35 | 28 | 3.398 | 3.386 | -0.012 |
| 35 | 29 | 3.397 | 3.382 | -0.015 |
| 35 | 30 | 3.392 | 3.389 | -0.003 |
| 50 | 31 | 3.387 | 3.376 | -0.011 |
| 50 | 32 | 3.400 | 3.384 | -0.016 |
| 50 | 33 | 3.403 | 3.384 | -0.019 |
| 50 | 34 | 3.402 | 3.386 | -0.016 |
| 50 | 35 | 3.400 | 3.411 | 0.011 |
| 55 | 36 | 3.396 | 3.395 | -0.001 |
| 55 | 37 | 3.397 | 3.381 | -0.016 |
| 55 | 38 | 3.401 | 3.383 | -0.018 |
| 55 | 39 | 3.401 | 3.392 | -0.009 |
| 55 | 40 | 3.391 | 3.391 | 0.000 |
| 100 | 41 | 3.386 | 3.372 | -0.014 |
| 100 | 42 | 3.382 | 3.375 | -0.007 |
| 100 | 43 | 3.389 | 3.396 | 0.007 |
| 100 | 44 | 3.387 | 3.379 | -0.008 |
| 100 | 45 | 3.398 | 3.382 | -0.016 |
| 105 | 46 | 3.395 | 3.377 | -0.018 |
| 105 | 47 | 3.401 | 3.392 | -0.009 |
| 105 | 48 | 3.392 | 3.376 | -0.016 |
| 105 | 49 | 3.402 | 3.376 | -0.026 |
| 105 | 50 | 3.388 | 3.375 | -0.013 |
| 105 | 51 | 3.400 | 3.382 | -0.018 |
| 105 | 52 | 3.391 | 3.382 | -0.009 |
| 105 | 53 | 3.399 | 3.376 | -0.023 |
| 105 | 54 | 3.405 | 3.399 | -0.006 |
| 105 | 55 | 3.391 | 3.378 | -0.013 |
| 105 | 56 | 3.388 | 3.388 | 0.000 |
| 105 | 57 | 3.395 | 3.379 | -0.016 |
| 105 | 58 | 3.384 | 3.368 | -0.016 |
| 105 | 59 | 3.388 | 3.371 | -0.017 |
| 105 | 60 | 3.392 | 3.370 | -0.022 |
| 105 | 61 | 3.388 | 3.364 | -0.024 |
| 105 | 62 | 3.409 | 3.367 | -0.042 |
| 105 | 63 | 3.393 | 3.362 | -0.031 |
| 105 | 64 | 3.391 | 3.388 | -0.003 |
| 105 | 65 | 3.403 | 3.366 | -0.037 |
| 105 | 66 | 3.403 | 3.378 | -0.025 |
| 105 | 67 | 3.399 | 3.372 | -0.027 |
| Max | | 3.409 | 3.411 | 0.019 |
| Average | | 3.393 | 3.386 | -0.007 |
| Min | | 3.368 | 3.362 | -0.042 |
| Std Dev | | 0.008 | 0.011 | 0.013 |



| 6.44 UVLO_VLDO_FALL_500k | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3.51 |
| Min Limit | 3.29 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 |
| Min | 3.367 | 3.387 | 3.386 | 3.389 | 3.388 | 3.387 | 3.382 | 3.376 | 3.381 | 3.372 | 3.362 |
| Average | 3.376 | 3.395 | 3.396 | 3.393 | 3.393 | 3.393 | 3.390 | 3.388 | 3.388 | 3.381 | 3.377 |
| Max | 3.391 | 3.402 | 3.404 | 3.398 | 3.399 | 3.397 | 3.402 | 3.411 | 3.395 | 3.396 | 3.399 |
| UL | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 |

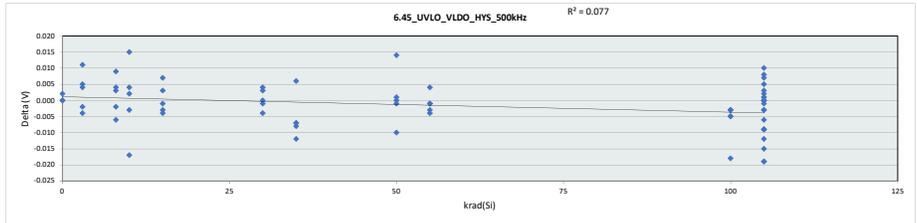


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

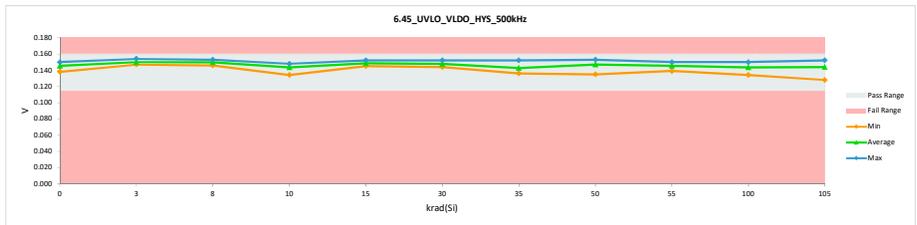
| 6.45 UVLO_VLDO_HYS_500kHz | |
|---------------------------|--------|
| Test Site | Tester |
| Test Number | Unit |
| Max Limit | V |
| Min Limit | V |
| | 0.158 |
| | 0.16 |
| | 0.115 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.146 | 0.148 | 0.002 |
| 0 | 992 | 0.138 | 0.138 | 0.000 |
| 0 | 993 | 0.150 | 0.150 | 0.000 |
| 3 | 1 | 0.151 | 0.147 | -0.004 |
| 3 | 2 | 0.150 | 0.154 | 0.004 |
| 3 | 3 | 0.145 | 0.150 | 0.005 |
| 3 | 4 | 0.138 | 0.149 | 0.011 |
| 3 | 5 | 0.152 | 0.150 | -0.002 |
| 8 | 6 | 0.149 | 0.153 | 0.004 |
| 8 | 7 | 0.153 | 0.147 | -0.006 |
| 8 | 8 | 0.143 | 0.146 | 0.003 |
| 8 | 9 | 0.144 | 0.153 | 0.009 |
| 8 | 10 | 0.152 | 0.150 | -0.002 |
| 10 | 11 | 0.151 | 0.134 | -0.017 |
| 10 | 12 | 0.131 | 0.146 | 0.015 |
| 10 | 13 | 0.146 | 0.148 | 0.002 |
| 10 | 14 | 0.140 | 0.144 | 0.004 |
| 10 | 15 | 0.149 | 0.146 | -0.003 |
| 15 | 16 | 0.145 | 0.152 | 0.007 |
| 15 | 17 | 0.147 | 0.146 | -0.001 |
| 15 | 18 | 0.148 | 0.145 | -0.003 |
| 15 | 19 | 0.149 | 0.152 | 0.003 |
| 15 | 20 | 0.152 | 0.148 | -0.004 |
| 30 | 21 | 0.148 | 0.147 | -0.001 |
| 30 | 22 | 0.145 | 0.149 | 0.004 |
| 30 | 23 | 0.141 | 0.144 | 0.003 |
| 30 | 24 | 0.151 | 0.147 | -0.004 |
| 30 | 25 | 0.152 | 0.152 | 0.000 |
| 35 | 26 | 0.144 | 0.136 | -0.008 |
| 35 | 27 | 0.150 | 0.143 | -0.007 |
| 35 | 28 | 0.146 | 0.152 | 0.006 |
| 35 | 29 | 0.153 | 0.146 | -0.007 |
| 35 | 30 | 0.149 | 0.137 | -0.012 |
| 50 | 31 | 0.149 | 0.148 | -0.001 |
| 50 | 32 | 0.152 | 0.153 | 0.001 |
| 50 | 33 | 0.153 | 0.153 | 0.000 |
| 50 | 34 | 0.133 | 0.147 | 0.014 |
| 50 | 35 | 0.145 | 0.135 | -0.010 |
| 55 | 36 | 0.151 | 0.150 | -0.001 |
| 55 | 37 | 0.151 | 0.148 | -0.003 |
| 55 | 38 | 0.135 | 0.139 | 0.004 |
| 55 | 39 | 0.150 | 0.146 | -0.004 |
| 55 | 40 | 0.145 | 0.144 | -0.001 |
| 100 | 41 | 0.153 | 0.150 | -0.003 |
| 100 | 42 | 0.152 | 0.147 | -0.005 |
| 100 | 43 | 0.152 | 0.134 | -0.018 |
| 100 | 44 | 0.151 | 0.146 | -0.005 |
| 100 | 45 | 0.143 | 0.140 | -0.003 |
| 105 | 46 | 0.153 | 0.150 | -0.003 |
| 105 | 47 | 0.148 | 0.136 | -0.012 |
| 105 | 48 | 0.148 | 0.129 | -0.019 |
| 105 | 49 | 0.143 | 0.128 | -0.015 |
| 105 | 50 | 0.145 | 0.152 | 0.007 |
| 105 | 51 | 0.147 | 0.138 | -0.009 |
| 105 | 52 | 0.149 | 0.130 | -0.019 |
| 105 | 53 | 0.141 | 0.151 | 0.010 |
| 105 | 54 | 0.142 | 0.139 | -0.003 |
| 105 | 55 | 0.149 | 0.150 | 0.001 |
| 105 | 56 | 0.146 | 0.149 | 0.003 |
| 105 | 57 | 0.142 | 0.150 | 0.008 |
| 105 | 58 | 0.151 | 0.142 | -0.009 |
| 105 | 59 | 0.148 | 0.148 | 0.000 |
| 105 | 60 | 0.151 | 0.151 | 0.000 |
| 105 | 61 | 0.149 | 0.151 | 0.002 |
| 105 | 62 | 0.140 | 0.141 | 0.001 |
| 105 | 63 | 0.142 | 0.147 | 0.005 |
| 105 | 64 | 0.150 | 0.144 | -0.006 |
| 105 | 65 | 0.151 | 0.150 | -0.001 |
| 105 | 66 | 0.150 | 0.141 | -0.009 |
| 105 | 67 | 0.151 | 0.151 | 0.000 |
| Max | | 0.153 | 0.154 | 0.015 |
| Average | | 0.147 | 0.146 | -0.001 |
| Min | | 0.131 | 0.128 | -0.019 |
| Std Dev | | 0.005 | 0.006 | 0.007 |



| 6.45 UVLO_VLDO_HYS_500kHz | |
|---------------------------|--------|
| Test Site | Tester |
| Test Number | Unit |
| Max Limit | V |
| Min Limit | V |
| | 0.16 |
| | 0.115 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 |
| Min | 0.145 | 0.150 | 0.150 | 0.144 | 0.145 | 0.148 | 0.143 | 0.147 | 0.145 | 0.143 | 0.144 |
| Average | 0.150 | 0.154 | 0.153 | 0.148 | 0.152 | 0.152 | 0.152 | 0.153 | 0.150 | 0.150 | 0.152 |
| Max | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 |
| UL | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 |

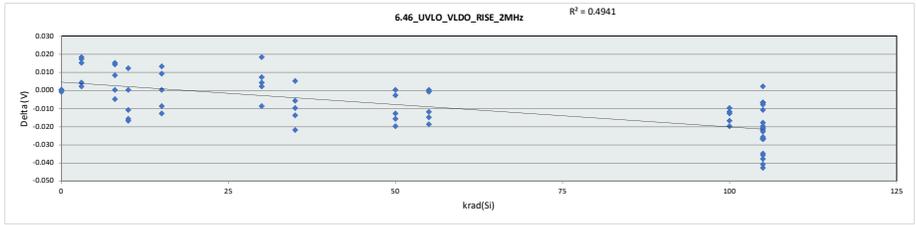


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

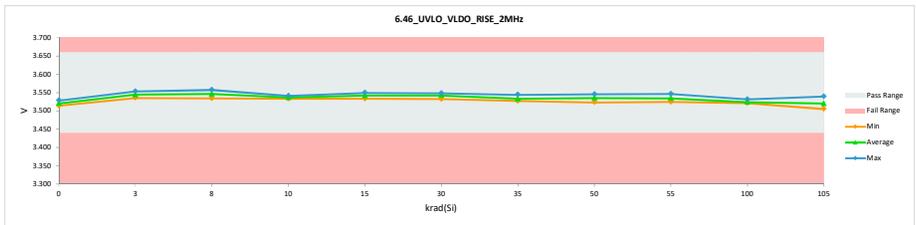
| 6.46 UVLO_VLDO_RISE_2MHz | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 3.66 |
| Min Limit | 3.44 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 3.515 | 3.514 | -0.001 |
| 0 | 992 | 3.528 | 3.528 | 0.000 |
| 0 | 993 | 3.519 | 3.519 | 0.000 |
| 3 | 1 | 3.529 | 3.544 | 0.015 |
| 3 | 2 | 3.533 | 3.550 | 0.017 |
| 3 | 3 | 3.538 | 3.540 | 0.002 |
| 3 | 4 | 3.531 | 3.535 | 0.004 |
| 3 | 5 | 3.535 | 3.553 | 0.018 |
| 8 | 6 | 3.543 | 3.557 | 0.014 |
| 8 | 7 | 3.539 | 3.534 | -0.005 |
| 8 | 8 | 3.545 | 3.545 | 0.000 |
| 8 | 9 | 3.531 | 3.546 | 0.015 |
| 8 | 10 | 3.540 | 3.548 | 0.008 |
| 10 | 11 | 3.550 | 3.533 | -0.017 |
| 10 | 12 | 3.529 | 3.541 | 0.012 |
| 10 | 13 | 3.536 | 3.536 | 0.000 |
| 10 | 14 | 3.547 | 3.536 | -0.011 |
| 10 | 15 | 3.552 | 3.536 | -0.016 |
| 15 | 16 | 3.552 | 3.539 | -0.013 |
| 15 | 17 | 3.542 | 3.533 | -0.009 |
| 15 | 18 | 3.529 | 3.538 | 0.009 |
| 15 | 19 | 3.536 | 3.549 | 0.013 |
| 15 | 20 | 3.549 | 3.549 | 0.000 |
| 30 | 21 | 3.536 | 3.540 | 0.004 |
| 30 | 22 | 3.530 | 3.548 | 0.018 |
| 30 | 23 | 3.530 | 3.532 | 0.002 |
| 30 | 24 | 3.553 | 3.544 | -0.009 |
| 30 | 25 | 3.539 | 3.546 | 0.007 |
| 35 | 26 | 3.538 | 3.528 | -0.010 |
| 35 | 27 | 3.539 | 3.544 | 0.005 |
| 35 | 28 | 3.543 | 3.537 | -0.006 |
| 35 | 29 | 3.550 | 3.528 | -0.022 |
| 35 | 30 | 3.541 | 3.527 | -0.014 |
| 50 | 31 | 3.536 | 3.523 | -0.013 |
| 50 | 32 | 3.553 | 3.537 | -0.016 |
| 50 | 33 | 3.557 | 3.537 | -0.020 |
| 50 | 34 | 3.536 | 3.533 | -0.003 |
| 50 | 35 | 3.545 | 3.545 | 0.000 |
| 55 | 36 | 3.547 | 3.546 | -0.001 |
| 55 | 37 | 3.548 | 3.529 | -0.019 |
| 55 | 38 | 3.536 | 3.524 | -0.012 |
| 55 | 39 | 3.553 | 3.538 | -0.015 |
| 55 | 40 | 3.535 | 3.535 | 0.000 |
| 100 | 41 | 3.538 | 3.521 | -0.017 |
| 100 | 42 | 3.534 | 3.522 | -0.012 |
| 100 | 43 | 3.541 | 3.531 | -0.010 |
| 100 | 44 | 3.537 | 3.524 | -0.013 |
| 100 | 45 | 3.541 | 3.521 | -0.020 |
| 105 | 46 | 3.549 | 3.526 | -0.023 |
| 105 | 47 | 3.549 | 3.528 | -0.021 |
| 105 | 48 | 3.541 | 3.505 | -0.036 |
| 105 | 49 | 3.546 | 3.505 | -0.041 |
| 105 | 50 | 3.534 | 3.526 | -0.008 |
| 105 | 51 | 3.548 | 3.521 | -0.027 |
| 105 | 52 | 3.539 | 3.512 | -0.027 |
| 105 | 53 | 3.540 | 3.520 | -0.020 |
| 105 | 54 | 3.546 | 3.539 | -0.007 |
| 105 | 55 | 3.539 | 3.528 | -0.011 |
| 105 | 56 | 3.534 | 3.536 | 0.002 |
| 105 | 57 | 3.536 | 3.529 | -0.007 |
| 105 | 58 | 3.536 | 3.510 | -0.026 |
| 105 | 59 | 3.536 | 3.518 | -0.018 |
| 105 | 60 | 3.543 | 3.521 | -0.022 |
| 105 | 61 | 3.536 | 3.515 | -0.021 |
| 105 | 62 | 3.551 | 3.508 | -0.043 |
| 105 | 63 | 3.534 | 3.507 | -0.027 |
| 105 | 64 | 3.540 | 3.533 | -0.007 |
| 105 | 65 | 3.553 | 3.515 | -0.038 |
| 105 | 66 | 3.553 | 3.518 | -0.035 |
| 105 | 67 | 3.550 | 3.523 | -0.027 |
| | Max | 3.557 | 3.557 | 0.018 |
| | Average | 3.540 | 3.531 | -0.009 |
| | Min | 3.515 | 3.505 | -0.043 |
| | Std Dev | 0.008 | 0.012 | 0.015 |



| 6.46 UVLO_VLDO_RISE_2MHz | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3.66 |
| Min Limit | 3.44 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 | 3.440 |
| Min | 3.514 | 3.535 | 3.534 | 3.533 | 3.533 | 3.532 | 3.527 | 3.523 | 3.524 | 3.521 | 3.505 |
| Average | 3.520 | 3.544 | 3.546 | 3.536 | 3.542 | 3.542 | 3.533 | 3.535 | 3.534 | 3.524 | 3.520 |
| Max | 3.528 | 3.553 | 3.557 | 3.541 | 3.549 | 3.548 | 3.544 | 3.545 | 3.546 | 3.531 | 3.539 |
| UL | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 | 3.660 |

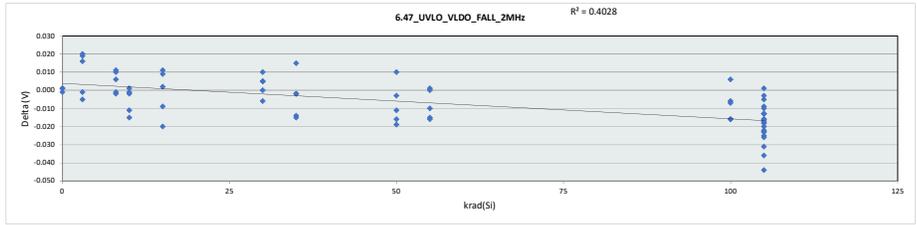


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

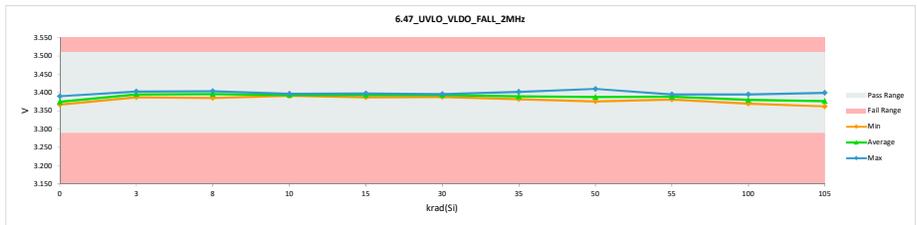
| 6.47 UVLO_VLDO_FALL_2MHz | |
|--------------------------|-----------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | V |
| Min Limit | 3.51 3.51 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 3.367 | 3.368 | 0.001 |
| 0 | 992 | 3.389 | 3.390 | 0.001 |
| 0 | 993 | 3.368 | 3.367 | -0.001 |
| 3 | 1 | 3.378 | 3.398 | 0.020 |
| 3 | 2 | 3.381 | 3.397 | 0.016 |
| 3 | 3 | 3.393 | 3.392 | -0.001 |
| 3 | 4 | 3.392 | 3.387 | -0.005 |
| 3 | 5 | 3.384 | 3.403 | 0.019 |
| 8 | 6 | 3.393 | 3.404 | 0.011 |
| 8 | 7 | 3.387 | 3.385 | -0.002 |
| 8 | 8 | 3.400 | 3.399 | -0.001 |
| 8 | 9 | 3.387 | 3.393 | 0.006 |
| 8 | 10 | 3.388 | 3.398 | 0.010 |
| 10 | 11 | 3.399 | 3.397 | -0.002 |
| 10 | 12 | 3.396 | 3.395 | -0.001 |
| 10 | 13 | 3.390 | 3.391 | 0.001 |
| 10 | 14 | 3.406 | 3.391 | -0.015 |
| 10 | 15 | 3.402 | 3.391 | -0.011 |
| 15 | 16 | 3.408 | 3.388 | -0.020 |
| 15 | 17 | 3.396 | 3.387 | -0.009 |
| 15 | 18 | 3.384 | 3.395 | 0.011 |
| 15 | 19 | 3.388 | 3.397 | 0.009 |
| 15 | 20 | 3.396 | 3.398 | 0.002 |
| 30 | 21 | 3.387 | 3.392 | 0.005 |
| 30 | 22 | 3.386 | 3.396 | 0.010 |
| 30 | 23 | 3.388 | 3.388 | 0.000 |
| 30 | 24 | 3.401 | 3.395 | -0.006 |
| 30 | 25 | 3.388 | 3.393 | 0.005 |
| 35 | 26 | 3.393 | 3.391 | -0.002 |
| 35 | 27 | 3.387 | 3.402 | 0.015 |
| 35 | 28 | 3.399 | 3.385 | -0.014 |
| 35 | 29 | 3.397 | 3.382 | -0.015 |
| 35 | 30 | 3.391 | 3.389 | -0.002 |
| 50 | 31 | 3.387 | 3.376 | -0.011 |
| 50 | 32 | 3.401 | 3.385 | -0.016 |
| 50 | 33 | 3.404 | 3.385 | -0.019 |
| 50 | 34 | 3.387 | 3.384 | -0.003 |
| 50 | 35 | 3.400 | 3.410 | 0.010 |
| 55 | 36 | 3.394 | 3.395 | 0.001 |
| 55 | 37 | 3.396 | 3.381 | -0.015 |
| 55 | 38 | 3.400 | 3.384 | -0.016 |
| 55 | 39 | 3.402 | 3.392 | -0.010 |
| 55 | 40 | 3.391 | 3.391 | 0.000 |
| 100 | 41 | 3.386 | 3.370 | -0.016 |
| 100 | 42 | 3.381 | 3.375 | -0.006 |
| 100 | 43 | 3.389 | 3.395 | 0.006 |
| 100 | 44 | 3.386 | 3.379 | -0.007 |
| 100 | 45 | 3.397 | 3.381 | -0.016 |
| 105 | 46 | 3.395 | 3.377 | -0.018 |
| 105 | 47 | 3.402 | 3.392 | -0.010 |
| 105 | 48 | 3.392 | 3.379 | -0.013 |
| 105 | 49 | 3.403 | 3.380 | -0.023 |
| 105 | 50 | 3.388 | 3.375 | -0.013 |
| 105 | 51 | 3.400 | 3.383 | -0.017 |
| 105 | 52 | 3.391 | 3.382 | -0.009 |
| 105 | 53 | 3.399 | 3.377 | -0.022 |
| 105 | 54 | 3.404 | 3.399 | -0.005 |
| 105 | 55 | 3.392 | 3.379 | -0.013 |
| 105 | 56 | 3.388 | 3.389 | 0.001 |
| 105 | 57 | 3.394 | 3.378 | -0.016 |
| 105 | 58 | 3.384 | 3.368 | -0.016 |
| 105 | 59 | 3.388 | 3.370 | -0.018 |
| 105 | 60 | 3.391 | 3.371 | -0.020 |
| 105 | 61 | 3.387 | 3.364 | -0.023 |
| 105 | 62 | 3.410 | 3.366 | -0.044 |
| 105 | 63 | 3.393 | 3.362 | -0.031 |
| 105 | 64 | 3.391 | 3.388 | -0.003 |
| 105 | 65 | 3.402 | 3.366 | -0.036 |
| 105 | 66 | 3.403 | 3.378 | -0.025 |
| 105 | 67 | 3.399 | 3.373 | -0.026 |
| Max | | 3.410 | 3.410 | 0.020 |
| Average | | 3.393 | 3.386 | -0.007 |
| Min | | 3.367 | 3.362 | -0.044 |
| Std Dev | | 0.008 | 0.011 | 0.013 |



| 6.47 UVLO_VLDO_FALL_2MHz | |
|--------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3.51 V |
| Min Limit | 3.29 V |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 | 3.290 |
| Min | 3.375 | 3.395 | 3.396 | 3.393 | 3.393 | 3.393 | 3.390 | 3.388 | 3.389 | 3.380 | 3.377 |
| Max | 3.390 | 3.403 | 3.404 | 3.397 | 3.398 | 3.396 | 3.402 | 3.410 | 3.395 | 3.395 | 3.399 |
| UL | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 | 3.510 |

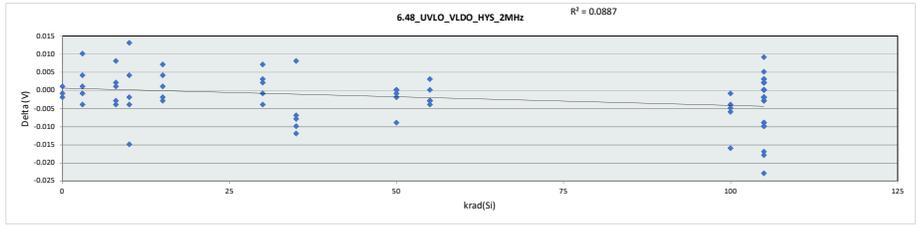


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

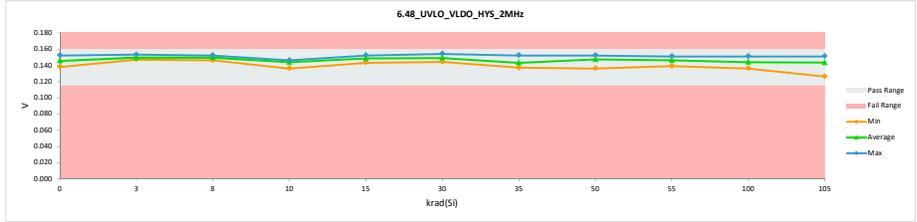
| 6.48 UVLO_VLDO_HYS_2MHz | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.16 |
| Min Limit | 0.115 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.148 | 0.146 | -0.002 |
| 0 | 992 | 0.139 | 0.138 | -0.001 |
| 0 | 993 | 0.151 | 0.152 | 0.001 |
| 3 | 1 | 0.151 | 0.147 | -0.004 |
| 3 | 2 | 0.152 | 0.153 | 0.001 |
| 3 | 3 | 0.145 | 0.149 | 0.004 |
| 3 | 4 | 0.138 | 0.148 | 0.010 |
| 3 | 5 | 0.151 | 0.150 | -0.001 |
| 8 | 6 | 0.150 | 0.152 | 0.002 |
| 8 | 7 | 0.152 | 0.148 | -0.004 |
| 8 | 8 | 0.145 | 0.146 | 0.001 |
| 8 | 9 | 0.144 | 0.152 | 0.008 |
| 8 | 10 | 0.152 | 0.149 | -0.003 |
| 10 | 11 | 0.151 | 0.136 | -0.015 |
| 10 | 12 | 0.133 | 0.146 | 0.013 |
| 10 | 13 | 0.147 | 0.145 | -0.002 |
| 10 | 14 | 0.141 | 0.145 | 0.004 |
| 10 | 15 | 0.150 | 0.146 | -0.004 |
| 15 | 16 | 0.144 | 0.151 | 0.007 |
| 15 | 17 | 0.145 | 0.146 | 0.001 |
| 15 | 18 | 0.145 | 0.143 | -0.002 |
| 15 | 19 | 0.148 | 0.152 | 0.004 |
| 15 | 20 | 0.153 | 0.150 | -0.003 |
| 30 | 21 | 0.149 | 0.148 | -0.001 |
| 30 | 22 | 0.144 | 0.151 | 0.007 |
| 30 | 23 | 0.142 | 0.144 | 0.002 |
| 30 | 24 | 0.152 | 0.148 | -0.004 |
| 30 | 25 | 0.151 | 0.154 | 0.003 |
| 35 | 26 | 0.145 | 0.137 | -0.008 |
| 35 | 27 | 0.152 | 0.142 | -0.010 |
| 35 | 28 | 0.144 | 0.152 | 0.008 |
| 35 | 29 | 0.153 | 0.146 | -0.007 |
| 35 | 30 | 0.150 | 0.138 | -0.012 |
| 50 | 31 | 0.149 | 0.148 | -0.001 |
| 50 | 32 | 0.151 | 0.151 | 0.000 |
| 50 | 33 | 0.154 | 0.152 | -0.002 |
| 50 | 34 | 0.149 | 0.149 | 0.000 |
| 50 | 35 | 0.145 | 0.136 | -0.009 |
| 55 | 36 | 0.154 | 0.151 | -0.003 |
| 55 | 37 | 0.151 | 0.148 | -0.003 |
| 55 | 38 | 0.136 | 0.139 | 0.003 |
| 55 | 39 | 0.151 | 0.147 | -0.004 |
| 55 | 40 | 0.145 | 0.145 | 0.000 |
| 100 | 41 | 0.152 | 0.151 | -0.001 |
| 100 | 42 | 0.152 | 0.146 | -0.006 |
| 100 | 43 | 0.152 | 0.136 | -0.016 |
| 100 | 44 | 0.151 | 0.146 | -0.005 |
| 100 | 45 | 0.144 | 0.140 | -0.004 |
| 105 | 46 | 0.153 | 0.150 | -0.003 |
| 105 | 47 | 0.147 | 0.137 | -0.010 |
| 105 | 48 | 0.149 | 0.126 | -0.023 |
| 105 | 49 | 0.143 | 0.126 | -0.017 |
| 105 | 50 | 0.146 | 0.151 | 0.005 |
| 105 | 51 | 0.147 | 0.138 | -0.009 |
| 105 | 52 | 0.148 | 0.130 | -0.018 |
| 105 | 53 | 0.141 | 0.143 | 0.002 |
| 105 | 54 | 0.142 | 0.140 | -0.002 |
| 105 | 55 | 0.147 | 0.149 | 0.002 |
| 105 | 56 | 0.145 | 0.148 | 0.003 |
| 105 | 57 | 0.142 | 0.151 | 0.009 |
| 105 | 58 | 0.152 | 0.143 | -0.009 |
| 105 | 59 | 0.148 | 0.148 | 0.000 |
| 105 | 60 | 0.152 | 0.150 | -0.002 |
| 105 | 61 | 0.149 | 0.151 | 0.002 |
| 105 | 62 | 0.141 | 0.141 | 0.000 |
| 105 | 63 | 0.142 | 0.145 | 0.003 |
| 105 | 64 | 0.149 | 0.146 | -0.003 |
| 105 | 65 | 0.151 | 0.149 | -0.002 |
| 105 | 66 | 0.150 | 0.140 | -0.010 |
| 105 | 67 | 0.150 | 0.150 | 0.000 |
| Max | | 0.154 | 0.154 | 0.013 |
| Average | | 0.148 | 0.146 | -0.002 |
| Min | | 0.133 | 0.126 | -0.023 |
| Std Dev | | 0.005 | 0.006 | 0.007 |



| 6.48 UVLO_VLDO_HYS_2MHz | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.16 |
| Min Limit | 0.115 |

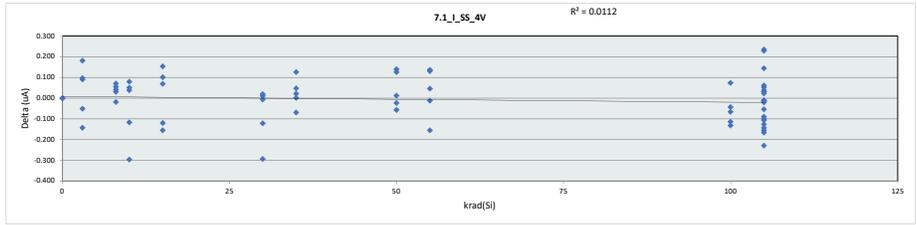
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 | 0.115 |
| Min | 0.138 | 0.147 | 0.146 | 0.136 | 0.143 | 0.144 | 0.137 | 0.136 | 0.139 | 0.136 | 0.126 |
| Average | 0.145 | 0.149 | 0.149 | 0.144 | 0.148 | 0.149 | 0.143 | 0.147 | 0.146 | 0.144 | 0.143 |
| Max | 0.152 | 0.153 | 0.152 | 0.146 | 0.152 | 0.154 | 0.152 | 0.152 | 0.151 | 0.151 | 0.151 |
| UL | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 | 0.160 |



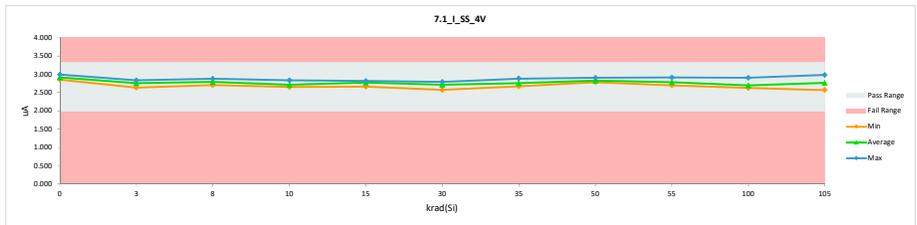
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| | | 7.1 I SS_4V | | |
|-------------|-----------|-------------|----------|--------|
| Test Site | Tester | | | |
| Test Number | Unit | | | |
| Max Limit | Min Limit | uA | uA | |
| | | 3.29 | 3.32 | |
| | | 2.01 | 1.98 | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 2.991 | 2.991 | 0.000 |
| 0 | 992 | 2.858 | 2.857 | -0.001 |
| 0 | 993 | 2.897 | 2.896 | -0.001 |
| 3 | 1 | 2.682 | 2.631 | -0.051 |
| 3 | 2 | 2.653 | 2.833 | 0.180 |
| 3 | 3 | 2.662 | 2.752 | 0.090 |
| 3 | 4 | 2.906 | 2.762 | -0.144 |
| 3 | 5 | 2.712 | 2.808 | 0.096 |
| 8 | 6 | 2.783 | 2.764 | -0.019 |
| 8 | 7 | 2.633 | 2.703 | 0.070 |
| 8 | 8 | 2.846 | 2.876 | 0.030 |
| 8 | 9 | 2.767 | 2.822 | 0.055 |
| 8 | 10 | 2.732 | 2.773 | 0.041 |
| 10 | 11 | 2.781 | 2.831 | 0.050 |
| 10 | 12 | 2.628 | 2.707 | 0.079 |
| 10 | 13 | 2.766 | 2.649 | -0.117 |
| 10 | 14 | 2.666 | 2.704 | 0.038 |
| 10 | 15 | 2.948 | 2.651 | -0.297 |
| 10 | 16 | 2.927 | 2.807 | -0.120 |
| 15 | 17 | 2.712 | 2.813 | 0.101 |
| 15 | 18 | 2.814 | 2.659 | -0.155 |
| 15 | 19 | 2.697 | 2.765 | 0.068 |
| 15 | 20 | 2.657 | 2.810 | 0.153 |
| 30 | 21 | 2.724 | 2.734 | 0.010 |
| 30 | 22 | 2.867 | 2.573 | -0.294 |
| 30 | 23 | 2.747 | 2.740 | -0.007 |
| 30 | 24 | 2.914 | 2.792 | -0.122 |
| 30 | 25 | 2.693 | 2.712 | 0.019 |
| 35 | 26 | 2.735 | 2.665 | -0.070 |
| 35 | 27 | 2.711 | 2.731 | 0.020 |
| 35 | 28 | 2.618 | 2.743 | 0.125 |
| 35 | 29 | 2.834 | 2.881 | 0.047 |
| 35 | 30 | 2.758 | 2.759 | 0.001 |
| 50 | 31 | 2.762 | 2.901 | 0.139 |
| 50 | 32 | 2.805 | 2.781 | -0.024 |
| 50 | 33 | 2.770 | 2.781 | 0.011 |
| 50 | 34 | 2.708 | 2.833 | 0.125 |
| 50 | 35 | 2.878 | 2.820 | -0.058 |
| 55 | 36 | 2.818 | 2.805 | -0.013 |
| 55 | 37 | 2.779 | 2.915 | 0.136 |
| 55 | 38 | 2.852 | 2.697 | -0.155 |
| 55 | 39 | 2.686 | 2.731 | 0.045 |
| 55 | 40 | 2.638 | 2.767 | 0.129 |
| 100 | 41 | 2.738 | 2.623 | -0.115 |
| 100 | 42 | 2.732 | 2.665 | -0.067 |
| 100 | 43 | 2.801 | 2.669 | -0.132 |
| 100 | 44 | 2.827 | 2.900 | 0.073 |
| 100 | 45 | 2.666 | 2.622 | -0.044 |
| 105 | 46 | 2.754 | 2.776 | 0.022 |
| 105 | 47 | 2.798 | 2.569 | -0.229 |
| 105 | 48 | 2.801 | 2.838 | 0.037 |
| 105 | 49 | 2.611 | 2.839 | 0.228 |
| 105 | 50 | 2.728 | 2.712 | -0.016 |
| 105 | 51 | 2.818 | 2.806 | -0.012 |
| 105 | 52 | 2.754 | 2.610 | -0.144 |
| 105 | 53 | 2.645 | 2.788 | 0.143 |
| 105 | 54 | 2.733 | 2.678 | -0.055 |
| 105 | 55 | 2.749 | 2.983 | 0.234 |
| 105 | 56 | 2.880 | 2.931 | 0.051 |
| 105 | 57 | 2.824 | 2.723 | -0.101 |
| 105 | 58 | 2.876 | 2.769 | -0.107 |
| 105 | 59 | 2.881 | 2.715 | -0.166 |
| 105 | 60 | 2.804 | 2.649 | -0.155 |
| 105 | 61 | 2.843 | 2.754 | -0.089 |
| 105 | 62 | 2.808 | 2.839 | 0.031 |
| 105 | 63 | 2.705 | 2.735 | 0.030 |
| 105 | 64 | 2.924 | 2.984 | 0.060 |
| 105 | 65 | 2.805 | 2.679 | -0.126 |
| 105 | 66 | 2.755 | 2.743 | -0.012 |
| 105 | 67 | 2.740 | 2.720 | -0.020 |
| Max | | 2.991 | 2.991 | 0.234 |
| Average | | 2.772 | 2.765 | -0.007 |
| Min | | 2.611 | 2.569 | -0.297 |
| Std Dev | | 0.088 | 0.095 | 0.111 |



| | | 7.1 I SS_4V | | | | | | | | | | | |
|-------------|-----------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | | | | | | | | | | | | |
| Test Number | Unit | | | | | | | | | | | | |
| Max Limit | Min Limit | uA | uA | | | | | | | | | | |
| | | 3.32 | 1.98 | | | | | | | | | | |
| krad(Si) | LL | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 | | |
| Min | 1.980 | 2.857 | 2.631 | 2.703 | 2.649 | 2.659 | 2.573 | 2.665 | 2.781 | 2.697 | 2.622 | 2.569 | 1.980 |
| Average | 1.980 | 2.915 | 2.757 | 2.788 | 2.708 | 2.771 | 2.710 | 2.756 | 2.823 | 2.783 | 2.696 | 2.765 | 1.980 |
| Max | 1.980 | 2.991 | 2.833 | 2.876 | 2.831 | 2.813 | 2.792 | 2.881 | 2.901 | 2.915 | 2.900 | 2.984 | 1.980 |
| UL | 1.980 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 1.980 |

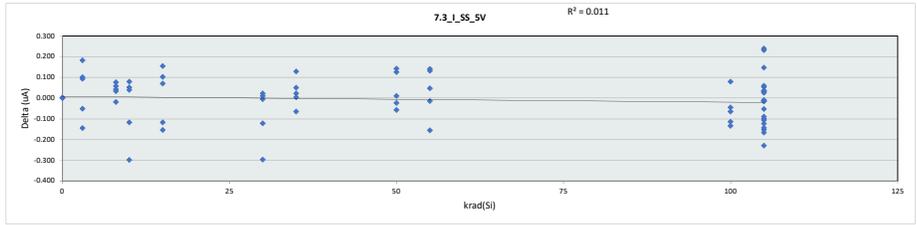


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

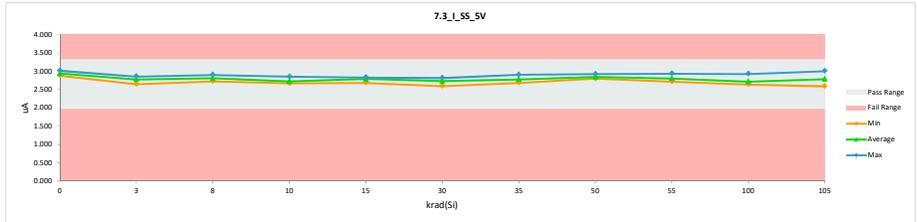
| 7.3 I SS 5V | |
|-------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | uA |
| Max Limit | 3.32 |
| Min Limit | 1.98 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 3.016 | 3.016 | 0.000 |
| 0 | 992 | 2.882 | 2.881 | -0.001 |
| 0 | 993 | 2.920 | 2.919 | -0.001 |
| 3 | 1 | 2.705 | 2.652 | -0.053 |
| 3 | 2 | 2.675 | 2.856 | 0.181 |
| 3 | 3 | 2.683 | 2.774 | 0.091 |
| 3 | 4 | 2.930 | 2.784 | -0.146 |
| 3 | 5 | 2.732 | 2.831 | 0.099 |
| 8 | 6 | 2.806 | 2.786 | -0.020 |
| 8 | 7 | 2.653 | 2.727 | 0.074 |
| 8 | 8 | 2.869 | 2.900 | 0.031 |
| 8 | 9 | 2.789 | 2.845 | 0.056 |
| 8 | 10 | 2.755 | 2.795 | 0.040 |
| 10 | 11 | 2.804 | 2.854 | 0.050 |
| 10 | 12 | 2.651 | 2.728 | 0.077 |
| 10 | 13 | 2.789 | 2.670 | -0.119 |
| 10 | 14 | 2.689 | 2.727 | 0.038 |
| 10 | 15 | 2.973 | 2.673 | -0.300 |
| 15 | 16 | 2.949 | 2.830 | -0.119 |
| 15 | 17 | 2.735 | 2.835 | 0.100 |
| 15 | 18 | 2.837 | 2.682 | -0.155 |
| 15 | 19 | 2.718 | 2.786 | 0.068 |
| 15 | 20 | 2.679 | 2.831 | 0.152 |
| 30 | 21 | 2.746 | 2.755 | 0.009 |
| 30 | 22 | 2.892 | 2.594 | -0.298 |
| 30 | 23 | 2.769 | 2.762 | -0.007 |
| 30 | 24 | 2.938 | 2.814 | -0.124 |
| 30 | 25 | 2.714 | 2.734 | 0.020 |
| 35 | 26 | 2.754 | 2.687 | -0.067 |
| 35 | 27 | 2.733 | 2.753 | 0.020 |
| 35 | 28 | 2.640 | 2.766 | 0.126 |
| 35 | 29 | 2.857 | 2.905 | 0.048 |
| 35 | 30 | 2.780 | 2.783 | 0.003 |
| 50 | 31 | 2.784 | 2.924 | 0.140 |
| 50 | 32 | 2.827 | 2.802 | -0.025 |
| 50 | 33 | 2.792 | 2.801 | 0.009 |
| 50 | 34 | 2.732 | 2.856 | 0.124 |
| 50 | 35 | 2.902 | 2.843 | -0.059 |
| 55 | 36 | 2.842 | 2.826 | -0.016 |
| 55 | 37 | 2.800 | 2.939 | 0.139 |
| 55 | 38 | 2.875 | 2.718 | -0.157 |
| 55 | 39 | 2.708 | 2.753 | 0.045 |
| 55 | 40 | 2.659 | 2.788 | 0.129 |
| 100 | 41 | 2.761 | 2.645 | -0.116 |
| 100 | 42 | 2.753 | 2.686 | -0.067 |
| 100 | 43 | 2.824 | 2.689 | -0.135 |
| 100 | 44 | 2.848 | 2.926 | 0.078 |
| 100 | 45 | 2.689 | 2.642 | -0.047 |
| 105 | 46 | 2.776 | 2.800 | 0.024 |
| 105 | 47 | 2.819 | 2.588 | -0.231 |
| 105 | 48 | 2.824 | 2.859 | 0.035 |
| 105 | 49 | 2.632 | 2.862 | 0.230 |
| 105 | 50 | 2.750 | 2.734 | -0.016 |
| 105 | 51 | 2.840 | 2.829 | -0.011 |
| 105 | 52 | 2.777 | 2.632 | -0.145 |
| 105 | 53 | 2.666 | 2.811 | 0.145 |
| 105 | 54 | 2.754 | 2.700 | -0.054 |
| 105 | 55 | 2.772 | 3.009 | 0.237 |
| 105 | 56 | 2.903 | 2.954 | 0.051 |
| 105 | 57 | 2.847 | 2.745 | -0.102 |
| 105 | 58 | 2.898 | 2.790 | -0.108 |
| 105 | 59 | 2.905 | 2.737 | -0.168 |
| 105 | 60 | 2.825 | 2.671 | -0.154 |
| 105 | 61 | 2.867 | 2.776 | -0.091 |
| 105 | 62 | 2.832 | 2.863 | 0.031 |
| 105 | 63 | 2.726 | 2.757 | 0.031 |
| 105 | 64 | 2.949 | 3.007 | 0.058 |
| 105 | 65 | 2.826 | 2.701 | -0.125 |
| 105 | 66 | 2.777 | 2.763 | -0.014 |
| 105 | 67 | 2.763 | 2.745 | -0.018 |
| | Max | 3.016 | 3.016 | 0.237 |
| | Average | 2.794 | 2.787 | -0.007 |
| | Min | 2.632 | 2.588 | -0.300 |
| | Std Dev | 0.088 | 0.096 | 0.112 |



| 7.3 I SS 5V | |
|-------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 3.32 uA |
| Min Limit | 1.98 uA |

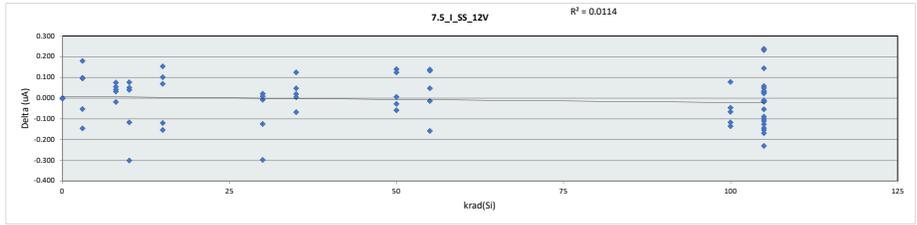
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 |
| Min | 2.881 | 2.652 | 2.727 | 2.670 | 2.682 | 2.594 | 2.687 | 2.801 | 2.718 | 2.642 | 2.588 |
| Average | 2.939 | 2.779 | 2.811 | 2.730 | 2.793 | 2.732 | 2.779 | 2.845 | 2.805 | 2.718 | 2.788 |
| Max | 3.016 | 2.856 | 2.900 | 2.854 | 2.835 | 2.814 | 2.905 | 2.924 | 2.939 | 2.926 | 3.009 |
| UL | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 |



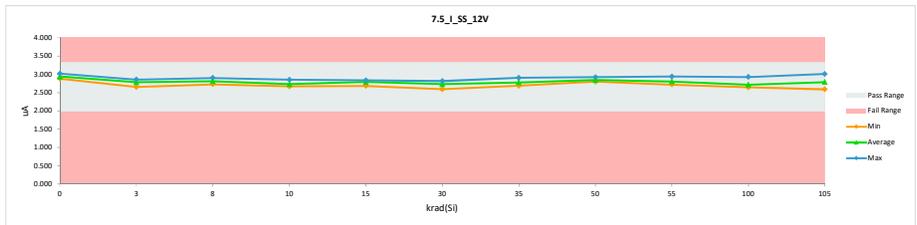
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 7.5 I SS 12V | | | | |
|--------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | uA | uA |
| | | | 3.29 | 3.32 |
| | | | 2.01 | 1.98 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 3.018 | 3.017 | -0.001 |
| 0 | 992 | 2.882 | 2.882 | 0.000 |
| 0 | 993 | 2.921 | 2.919 | -0.002 |
| 3 | 1 | 2.705 | 2.652 | -0.053 |
| 3 | 2 | 2.677 | 2.856 | 0.179 |
| 3 | 3 | 2.682 | 2.777 | 0.095 |
| 3 | 4 | 2.931 | 2.784 | -0.147 |
| 3 | 5 | 2.733 | 2.831 | 0.098 |
| 8 | 6 | 2.807 | 2.788 | -0.019 |
| 8 | 7 | 2.653 | 2.727 | 0.074 |
| 8 | 8 | 2.870 | 2.901 | 0.031 |
| 8 | 9 | 2.790 | 2.844 | 0.054 |
| 8 | 10 | 2.756 | 2.796 | 0.040 |
| 10 | 11 | 2.804 | 2.854 | 0.050 |
| 10 | 12 | 2.652 | 2.728 | 0.076 |
| 10 | 13 | 2.789 | 2.671 | -0.118 |
| 10 | 14 | 2.688 | 2.727 | 0.039 |
| 10 | 15 | 2.975 | 2.673 | -0.302 |
| 15 | 16 | 2.950 | 2.830 | -0.120 |
| 15 | 17 | 2.735 | 2.836 | 0.101 |
| 15 | 18 | 2.836 | 2.682 | -0.154 |
| 15 | 19 | 2.718 | 2.786 | 0.068 |
| 15 | 20 | 2.679 | 2.832 | 0.153 |
| 30 | 21 | 2.747 | 2.756 | 0.009 |
| 30 | 22 | 2.892 | 2.593 | -0.299 |
| 30 | 23 | 2.770 | 2.762 | -0.008 |
| 30 | 24 | 2.939 | 2.814 | -0.125 |
| 30 | 25 | 2.714 | 2.734 | 0.020 |
| 35 | 26 | 2.754 | 2.686 | -0.068 |
| 35 | 27 | 2.734 | 2.753 | 0.019 |
| 35 | 28 | 2.642 | 2.765 | 0.123 |
| 35 | 29 | 2.858 | 2.905 | 0.047 |
| 35 | 30 | 2.780 | 2.784 | 0.004 |
| 50 | 31 | 2.784 | 2.923 | 0.139 |
| 50 | 32 | 2.828 | 2.799 | -0.029 |
| 50 | 33 | 2.793 | 2.798 | 0.005 |
| 50 | 34 | 2.732 | 2.855 | 0.123 |
| 50 | 35 | 2.902 | 2.843 | -0.059 |
| 55 | 36 | 2.842 | 2.827 | -0.015 |
| 55 | 37 | 2.801 | 2.938 | 0.137 |
| 55 | 38 | 2.875 | 2.717 | -0.158 |
| 55 | 39 | 2.707 | 2.754 | 0.047 |
| 55 | 40 | 2.659 | 2.790 | 0.131 |
| 100 | 41 | 2.761 | 2.644 | -0.117 |
| 100 | 42 | 2.753 | 2.686 | -0.067 |
| 100 | 43 | 2.824 | 2.688 | -0.136 |
| 100 | 44 | 2.848 | 2.925 | 0.077 |
| 100 | 45 | 2.690 | 2.643 | -0.047 |
| 105 | 46 | 2.776 | 2.799 | 0.023 |
| 105 | 47 | 2.819 | 2.588 | -0.231 |
| 105 | 48 | 2.824 | 2.859 | 0.035 |
| 105 | 49 | 2.631 | 2.862 | 0.231 |
| 105 | 50 | 2.751 | 2.735 | -0.016 |
| 105 | 51 | 2.840 | 2.828 | -0.012 |
| 105 | 52 | 2.777 | 2.632 | -0.145 |
| 105 | 53 | 2.666 | 2.809 | 0.143 |
| 105 | 54 | 2.754 | 2.700 | -0.054 |
| 105 | 55 | 2.772 | 3.009 | 0.237 |
| 105 | 56 | 2.904 | 2.952 | 0.048 |
| 105 | 57 | 2.848 | 2.747 | -0.101 |
| 105 | 58 | 2.899 | 2.788 | -0.111 |
| 105 | 59 | 2.905 | 2.735 | -0.170 |
| 105 | 60 | 2.825 | 2.671 | -0.154 |
| 105 | 61 | 2.866 | 2.776 | -0.090 |
| 105 | 62 | 2.832 | 2.861 | 0.029 |
| 105 | 63 | 2.727 | 2.756 | 0.029 |
| 105 | 64 | 2.949 | 3.006 | 0.057 |
| 105 | 65 | 2.827 | 2.700 | -0.127 |
| 105 | 66 | 2.777 | 2.761 | -0.016 |
| 105 | 67 | 2.763 | 2.745 | -0.018 |
| Max | | 3.018 | 3.017 | 0.237 |
| Average | | 2.794 | 2.787 | -0.007 |
| Min | | 2.631 | 2.588 | -0.302 |
| Std Dev | | 0.088 | 0.096 | 0.112 |



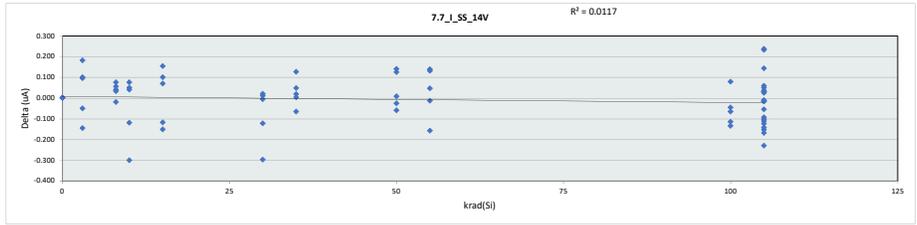
| 7.5 I SS 12V | | | | | | | | | | | |
|--------------|--------|-------------|-------|-----------|-----------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | | | | | | |
| | | | uA | uA | | | | | | | |
| | | | 3.32 | 1.98 | | | | | | | |
| krad(Si) | LL | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| Min | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 |
| Average | 2.939 | 2.780 | 2.811 | 2.731 | 2.793 | 2.732 | 2.779 | 2.844 | 2.805 | 2.717 | 2.787 |
| Max | 3.017 | 2.856 | 2.901 | 2.854 | 2.836 | 2.814 | 2.905 | 2.923 | 2.938 | 2.925 | 3.009 |
| UL | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 |



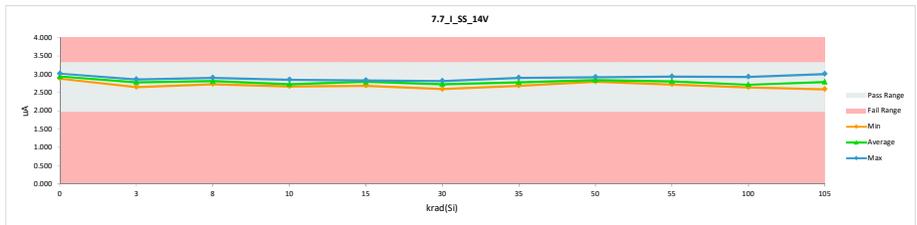
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 7.7 I SS 14V | | | | |
|--------------|---------|-------------|-------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | uA | uA |
| Min Limit | | | 3.29 | 1.98 |
| Serial # | Pre_HDR | Post_HDR | Delta | |
| 0 | 991 | 3.017 | 3.018 | 0.001 |
| 0 | 992 | 2.882 | 2.881 | -0.001 |
| 0 | 993 | 2.920 | 2.919 | -0.001 |
| 3 | 1 | 2.705 | 2.653 | -0.052 |
| 3 | 2 | 2.676 | 2.856 | 0.180 |
| 3 | 3 | 2.682 | 2.776 | 0.094 |
| 3 | 4 | 2.931 | 2.784 | -0.147 |
| 3 | 5 | 2.733 | 2.832 | 0.099 |
| 8 | 6 | 2.807 | 2.787 | -0.020 |
| 8 | 7 | 2.653 | 2.728 | 0.075 |
| 8 | 8 | 2.870 | 2.901 | 0.031 |
| 8 | 9 | 2.790 | 2.844 | 0.054 |
| 8 | 10 | 2.756 | 2.795 | 0.039 |
| 10 | 11 | 2.805 | 2.854 | 0.049 |
| 10 | 12 | 2.653 | 2.727 | 0.074 |
| 10 | 13 | 2.790 | 2.670 | -0.120 |
| 10 | 14 | 2.688 | 2.727 | 0.039 |
| 10 | 15 | 2.975 | 2.673 | -0.302 |
| 15 | 16 | 2.949 | 2.830 | -0.119 |
| 15 | 17 | 2.736 | 2.835 | 0.099 |
| 15 | 18 | 2.836 | 2.683 | -0.153 |
| 15 | 19 | 2.718 | 2.787 | 0.069 |
| 15 | 20 | 2.679 | 2.832 | 0.153 |
| 30 | 21 | 2.746 | 2.756 | 0.010 |
| 30 | 22 | 2.892 | 2.593 | -0.299 |
| 30 | 23 | 2.770 | 2.763 | -0.007 |
| 30 | 24 | 2.939 | 2.815 | -0.124 |
| 30 | 25 | 2.714 | 2.733 | 0.019 |
| 35 | 26 | 2.754 | 2.687 | -0.067 |
| 35 | 27 | 2.735 | 2.753 | 0.018 |
| 35 | 28 | 2.642 | 2.767 | 0.125 |
| 35 | 29 | 2.858 | 2.905 | 0.047 |
| 35 | 30 | 2.780 | 2.783 | 0.003 |
| 50 | 31 | 2.784 | 2.923 | 0.139 |
| 50 | 32 | 2.828 | 2.801 | -0.027 |
| 50 | 33 | 2.793 | 2.800 | 0.007 |
| 50 | 34 | 2.731 | 2.855 | 0.124 |
| 50 | 35 | 2.903 | 2.842 | -0.061 |
| 55 | 36 | 2.841 | 2.827 | -0.014 |
| 55 | 37 | 2.801 | 2.938 | 0.137 |
| 55 | 38 | 2.875 | 2.717 | -0.158 |
| 55 | 39 | 2.708 | 2.753 | 0.045 |
| 55 | 40 | 2.660 | 2.790 | 0.130 |
| 100 | 41 | 2.761 | 2.645 | -0.116 |
| 100 | 42 | 2.754 | 2.687 | -0.067 |
| 100 | 43 | 2.825 | 2.690 | -0.135 |
| 100 | 44 | 2.848 | 2.925 | 0.077 |
| 100 | 45 | 2.689 | 2.642 | -0.047 |
| 105 | 46 | 2.775 | 2.799 | 0.024 |
| 105 | 47 | 2.820 | 2.589 | -0.231 |
| 105 | 48 | 2.824 | 2.858 | 0.034 |
| 105 | 49 | 2.631 | 2.862 | 0.231 |
| 105 | 50 | 2.751 | 2.735 | -0.016 |
| 105 | 51 | 2.840 | 2.828 | -0.012 |
| 105 | 52 | 2.777 | 2.634 | -0.143 |
| 105 | 53 | 2.666 | 2.808 | 0.142 |
| 105 | 54 | 2.755 | 2.699 | -0.056 |
| 105 | 55 | 2.772 | 3.007 | 0.235 |
| 105 | 56 | 2.904 | 2.953 | 0.049 |
| 105 | 57 | 2.848 | 2.745 | -0.103 |
| 105 | 58 | 2.900 | 2.787 | -0.113 |
| 105 | 59 | 2.906 | 2.736 | -0.170 |
| 105 | 60 | 2.824 | 2.670 | -0.154 |
| 105 | 61 | 2.866 | 2.772 | -0.094 |
| 105 | 62 | 2.832 | 2.861 | 0.029 |
| 105 | 63 | 2.727 | 2.757 | 0.030 |
| 105 | 64 | 2.949 | 3.006 | 0.057 |
| 105 | 65 | 2.826 | 2.701 | -0.125 |
| 105 | 66 | 2.777 | 2.761 | -0.016 |
| 105 | 67 | 2.763 | 2.745 | -0.018 |
| Max | | 3.017 | 3.018 | 0.235 |
| Average | | 2.794 | 2.787 | -0.007 |
| Min | | 2.631 | 2.589 | -0.302 |
| Std Dev | | 0.088 | 0.095 | 0.112 |



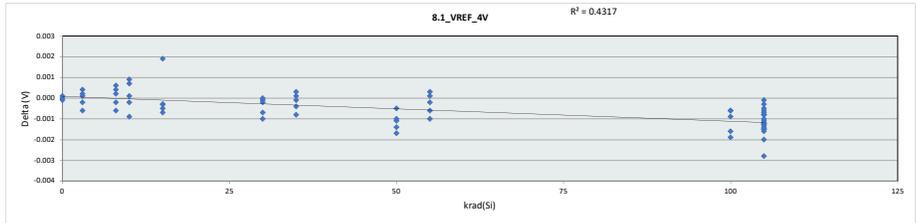
| 7.7 I SS 14V | | | | | | | | | | | | | | | | | |
|--------------|--------|-------------|------|-----------|-----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| | | | uA | 3.32 | 1.98 | LL | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 | 1.980 |
| | | | uA | | | Min | 2.881 | 2.653 | 2.728 | 2.670 | 2.683 | 2.593 | 2.687 | 2.800 | 2.717 | 2.642 | 2.589 |
| | | | | | | Average | 2.939 | 2.780 | 2.811 | 2.730 | 2.793 | 2.732 | 2.779 | 2.844 | 2.805 | 2.718 | 2.787 |
| | | | | | | Max | 3.018 | 2.856 | 2.901 | 2.854 | 2.835 | 2.815 | 2.905 | 2.923 | 2.938 | 2.925 | 3.007 |
| | | | | | | UL | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 | 3.320 |



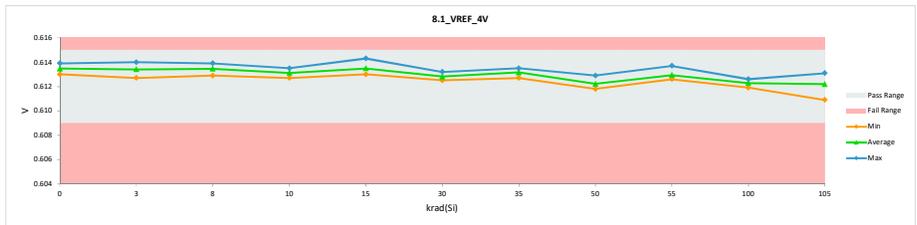
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 8.1_VREF_4V | | | | |
|-------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| | | | | 0.615 |
| | | | | 0.609 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 0.614 | 0.614 | 0.000 |
| 0 | 992 | 0.613 | 0.613 | 0.000 |
| 0 | 993 | 0.613 | 0.613 | 0.000 |
| 3 | 1 | 0.614 | 0.614 | 0.000 |
| 3 | 2 | 0.613 | 0.613 | -0.001 |
| 3 | 3 | 0.613 | 0.613 | 0.000 |
| 3 | 4 | 0.614 | 0.613 | 0.000 |
| 3 | 5 | 0.613 | 0.613 | 0.000 |
| 8 | 6 | 0.614 | 0.614 | 0.000 |
| 8 | 7 | 0.613 | 0.613 | -0.001 |
| 8 | 8 | 0.613 | 0.614 | 0.001 |
| 8 | 9 | 0.613 | 0.614 | 0.000 |
| 8 | 10 | 0.613 | 0.613 | 0.000 |
| 10 | 11 | 0.613 | 0.613 | 0.001 |
| 10 | 12 | 0.614 | 0.613 | -0.001 |
| 10 | 13 | 0.613 | 0.613 | 0.000 |
| 10 | 14 | 0.613 | 0.613 | 0.000 |
| 10 | 15 | 0.613 | 0.613 | 0.001 |
| 15 | 16 | 0.612 | 0.614 | 0.002 |
| 15 | 17 | 0.613 | 0.613 | -0.001 |
| 15 | 18 | 0.614 | 0.613 | -0.001 |
| 15 | 19 | 0.614 | 0.613 | 0.000 |
| 15 | 20 | 0.614 | 0.613 | 0.000 |
| 30 | 21 | 0.613 | 0.613 | 0.000 |
| 30 | 22 | 0.613 | 0.613 | -0.001 |
| 30 | 23 | 0.613 | 0.613 | 0.000 |
| 30 | 24 | 0.613 | 0.613 | 0.000 |
| 30 | 25 | 0.614 | 0.613 | -0.001 |
| 35 | 26 | 0.614 | 0.613 | 0.000 |
| 35 | 27 | 0.613 | 0.613 | 0.000 |
| 35 | 28 | 0.614 | 0.613 | -0.001 |
| 35 | 29 | 0.613 | 0.613 | 0.000 |
| 35 | 30 | 0.613 | 0.613 | 0.000 |
| 50 | 31 | 0.613 | 0.613 | 0.000 |
| 50 | 32 | 0.613 | 0.612 | -0.001 |
| 50 | 33 | 0.613 | 0.612 | -0.001 |
| 50 | 34 | 0.613 | 0.612 | -0.001 |
| 50 | 35 | 0.613 | 0.612 | -0.002 |
| 55 | 36 | 0.614 | 0.613 | -0.001 |
| 55 | 37 | 0.613 | 0.613 | 0.000 |
| 55 | 38 | 0.613 | 0.613 | -0.001 |
| 55 | 39 | 0.613 | 0.613 | 0.000 |
| 55 | 40 | 0.613 | 0.614 | 0.000 |
| 100 | 41 | 0.613 | 0.612 | -0.001 |
| 100 | 42 | 0.613 | 0.612 | -0.002 |
| 100 | 43 | 0.614 | 0.612 | -0.002 |
| 100 | 44 | 0.613 | 0.612 | -0.001 |
| 100 | 45 | 0.613 | 0.613 | -0.001 |
| 105 | 46 | 0.614 | 0.613 | -0.001 |
| 105 | 47 | 0.614 | 0.612 | -0.001 |
| 105 | 48 | 0.614 | 0.612 | -0.001 |
| 105 | 49 | 0.613 | 0.612 | -0.001 |
| 105 | 50 | 0.614 | 0.612 | -0.001 |
| 105 | 51 | 0.613 | 0.611 | -0.002 |
| 105 | 52 | 0.613 | 0.613 | 0.000 |
| 105 | 53 | 0.614 | 0.613 | -0.001 |
| 105 | 54 | 0.613 | 0.612 | -0.002 |
| 105 | 55 | 0.613 | 0.612 | -0.002 |
| 105 | 56 | 0.614 | 0.611 | -0.003 |
| 105 | 57 | 0.613 | 0.613 | -0.001 |
| 105 | 58 | 0.613 | 0.612 | -0.001 |
| 105 | 59 | 0.614 | 0.613 | -0.001 |
| 105 | 60 | 0.613 | 0.613 | 0.000 |
| 105 | 61 | 0.613 | 0.612 | -0.001 |
| 105 | 62 | 0.613 | 0.612 | -0.001 |
| 105 | 63 | 0.613 | 0.612 | -0.001 |
| 105 | 64 | 0.613 | 0.612 | -0.001 |
| 105 | 65 | 0.613 | 0.612 | -0.001 |
| 105 | 66 | 0.614 | 0.613 | -0.001 |
| 105 | 67 | 0.614 | 0.612 | -0.001 |
| Max | | 0.614 | 0.614 | 0.002 |
| Average | | 0.613 | 0.613 | -0.001 |
| Min | | 0.612 | 0.611 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



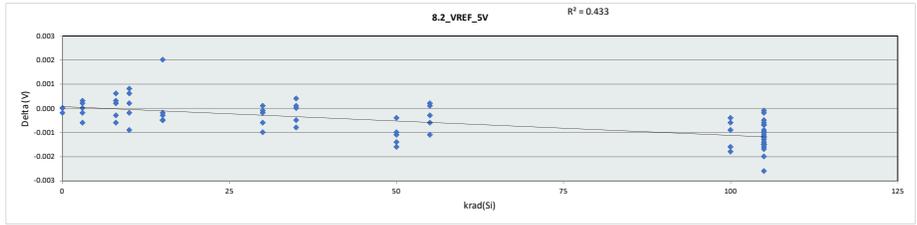
| 8.1_VREF_4V | | | | | | | | | | | | | | | | |
|-------------|--------|-------------|------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| | | | V | V | 0.615 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 |
| | | | V | V | 0.615 | 0.609 | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.612 | 0.613 | 0.612 | 0.611 |
| | | | | | 0.615 | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.612 | 0.613 | 0.612 | 0.612 |
| | | | | | 0.614 | 0.614 | 0.614 | 0.614 | 0.614 | 0.614 | 0.613 | 0.614 | 0.613 | 0.614 | 0.613 | 0.613 |
| | | | | | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 |



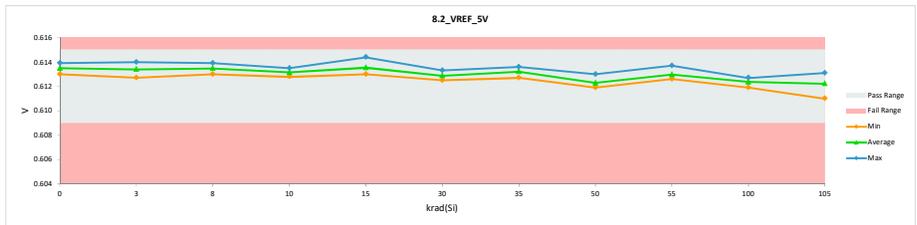
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 8.2_VREF_5V | | | | |
|-------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| | | | | 0.615 |
| | | | | 0.609 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 0.614 | 0.614 | 0.000 |
| 0 | 992 | 0.614 | 0.614 | 0.000 |
| 0 | 993 | 0.613 | 0.613 | 0.000 |
| 3 | 1 | 0.614 | 0.614 | 0.000 |
| 3 | 2 | 0.613 | 0.613 | -0.001 |
| 3 | 3 | 0.613 | 0.613 | 0.000 |
| 3 | 4 | 0.614 | 0.613 | 0.000 |
| 3 | 5 | 0.613 | 0.613 | 0.000 |
| 8 | 6 | 0.614 | 0.614 | 0.000 |
| 8 | 7 | 0.614 | 0.613 | -0.001 |
| 8 | 8 | 0.613 | 0.614 | 0.001 |
| 8 | 9 | 0.613 | 0.614 | 0.000 |
| 8 | 10 | 0.613 | 0.613 | 0.000 |
| 10 | 11 | 0.613 | 0.613 | 0.001 |
| 10 | 12 | 0.614 | 0.613 | -0.001 |
| 10 | 13 | 0.613 | 0.613 | 0.000 |
| 10 | 14 | 0.613 | 0.613 | 0.000 |
| 10 | 15 | 0.613 | 0.613 | 0.001 |
| 15 | 16 | 0.612 | 0.614 | 0.002 |
| 15 | 17 | 0.613 | 0.613 | -0.001 |
| 15 | 18 | 0.614 | 0.613 | 0.000 |
| 15 | 19 | 0.614 | 0.613 | 0.000 |
| 15 | 20 | 0.614 | 0.614 | 0.000 |
| 30 | 21 | 0.613 | 0.613 | 0.000 |
| 30 | 22 | 0.613 | 0.613 | -0.001 |
| 30 | 23 | 0.613 | 0.613 | 0.000 |
| 30 | 24 | 0.613 | 0.613 | 0.000 |
| 30 | 25 | 0.614 | 0.613 | -0.001 |
| 35 | 26 | 0.614 | 0.614 | 0.000 |
| 35 | 27 | 0.613 | 0.613 | 0.000 |
| 35 | 28 | 0.614 | 0.613 | -0.001 |
| 35 | 29 | 0.613 | 0.613 | 0.000 |
| 35 | 30 | 0.613 | 0.613 | -0.001 |
| 50 | 31 | 0.613 | 0.613 | 0.000 |
| 50 | 32 | 0.613 | 0.612 | -0.001 |
| 50 | 33 | 0.613 | 0.612 | -0.001 |
| 50 | 34 | 0.613 | 0.612 | -0.001 |
| 50 | 35 | 0.613 | 0.612 | -0.002 |
| 55 | 36 | 0.614 | 0.613 | -0.001 |
| 55 | 37 | 0.613 | 0.613 | 0.000 |
| 55 | 38 | 0.613 | 0.613 | -0.001 |
| 55 | 39 | 0.613 | 0.613 | 0.000 |
| 55 | 40 | 0.613 | 0.614 | 0.000 |
| 100 | 41 | 0.613 | 0.613 | 0.000 |
| 100 | 42 | 0.613 | 0.612 | -0.002 |
| 100 | 43 | 0.614 | 0.612 | -0.002 |
| 100 | 44 | 0.613 | 0.612 | -0.001 |
| 100 | 45 | 0.613 | 0.613 | -0.001 |
| 105 | 46 | 0.614 | 0.613 | -0.001 |
| 105 | 47 | 0.614 | 0.612 | -0.002 |
| 105 | 48 | 0.614 | 0.612 | -0.002 |
| 105 | 49 | 0.613 | 0.612 | -0.001 |
| 105 | 50 | 0.614 | 0.612 | -0.001 |
| 105 | 51 | 0.613 | 0.611 | -0.002 |
| 105 | 52 | 0.613 | 0.613 | 0.000 |
| 105 | 53 | 0.614 | 0.613 | -0.002 |
| 105 | 54 | 0.614 | 0.612 | -0.002 |
| 105 | 55 | 0.613 | 0.612 | -0.002 |
| 105 | 56 | 0.614 | 0.611 | -0.003 |
| 105 | 57 | 0.613 | 0.612 | -0.001 |
| 105 | 58 | 0.613 | 0.612 | -0.001 |
| 105 | 59 | 0.614 | 0.613 | -0.001 |
| 105 | 60 | 0.613 | 0.613 | 0.000 |
| 105 | 61 | 0.613 | 0.612 | -0.001 |
| 105 | 62 | 0.613 | 0.612 | -0.001 |
| 105 | 63 | 0.613 | 0.612 | -0.001 |
| 105 | 64 | 0.613 | 0.612 | -0.001 |
| 105 | 65 | 0.613 | 0.612 | -0.001 |
| 105 | 66 | 0.614 | 0.613 | -0.001 |
| 105 | 67 | 0.614 | 0.612 | -0.001 |
| Max | | 0.614 | 0.614 | 0.002 |
| Average | | 0.613 | 0.613 | -0.001 |
| Min | | 0.612 | 0.611 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



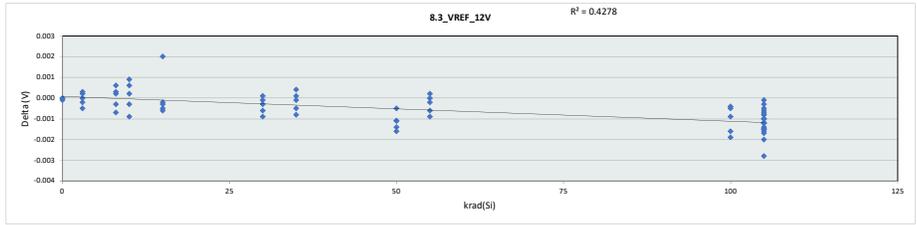
| 8.2_VREF_5V | | | | | | | | | | | | | | | | |
|-------------|--------|-------------|------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| | | | V | V | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 |
| LL | | | | | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.612 | 0.613 | 0.612 | 0.611 |
| Min | | | | | 0.614 | 0.613 | 0.613 | 0.613 | 0.614 | 0.614 | 0.613 | 0.614 | 0.613 | 0.614 | 0.612 | 0.612 |
| Average | | | | | 0.614 | 0.614 | 0.614 | 0.614 | 0.614 | 0.614 | 0.613 | 0.614 | 0.613 | 0.614 | 0.613 | 0.613 |
| Max | | | | | 0.614 | 0.614 | 0.614 | 0.614 | 0.614 | 0.614 | 0.613 | 0.614 | 0.613 | 0.614 | 0.613 | 0.613 |
| UL | | | | | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 |



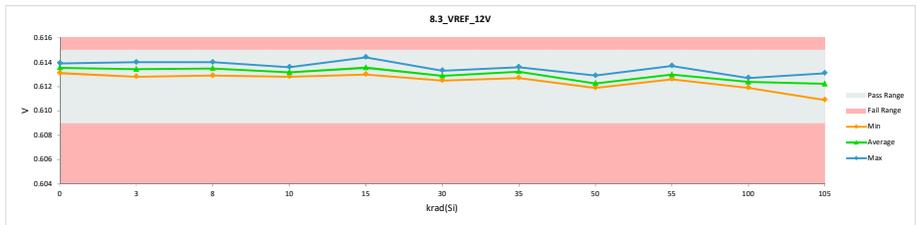
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 8.3_VREF_12V | | | | |
|--------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | V | V |
| | | | | 0.615 |
| | | | | 0.609 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 0.614 | 0.614 | 0.000 |
| 0 | 992 | 0.614 | 0.614 | 0.000 |
| 0 | 993 | 0.613 | 0.613 | 0.000 |
| 3 | 1 | 0.614 | 0.614 | 0.000 |
| 3 | 2 | 0.613 | 0.613 | -0.001 |
| 3 | 3 | 0.613 | 0.613 | 0.000 |
| 3 | 4 | 0.614 | 0.613 | 0.000 |
| 3 | 5 | 0.613 | 0.613 | 0.000 |
| 8 | 6 | 0.614 | 0.614 | 0.000 |
| 8 | 7 | 0.614 | 0.613 | -0.001 |
| 8 | 8 | 0.613 | 0.614 | 0.001 |
| 8 | 9 | 0.613 | 0.614 | 0.000 |
| 8 | 10 | 0.613 | 0.613 | 0.000 |
| 10 | 11 | 0.613 | 0.613 | 0.001 |
| 10 | 12 | 0.614 | 0.613 | -0.001 |
| 10 | 13 | 0.613 | 0.613 | 0.000 |
| 10 | 14 | 0.613 | 0.613 | 0.000 |
| 10 | 15 | 0.613 | 0.614 | 0.001 |
| 15 | 16 | 0.612 | 0.614 | 0.002 |
| 15 | 17 | 0.613 | 0.613 | -0.001 |
| 15 | 18 | 0.614 | 0.613 | -0.001 |
| 15 | 19 | 0.614 | 0.613 | 0.000 |
| 15 | 20 | 0.614 | 0.614 | 0.000 |
| 30 | 21 | 0.613 | 0.613 | 0.000 |
| 30 | 22 | 0.613 | 0.613 | -0.001 |
| 30 | 23 | 0.613 | 0.613 | 0.000 |
| 30 | 24 | 0.613 | 0.613 | 0.000 |
| 30 | 25 | 0.614 | 0.613 | -0.001 |
| 35 | 26 | 0.614 | 0.614 | 0.000 |
| 35 | 27 | 0.613 | 0.613 | 0.000 |
| 35 | 28 | 0.614 | 0.613 | -0.001 |
| 35 | 29 | 0.613 | 0.613 | 0.000 |
| 35 | 30 | 0.613 | 0.613 | -0.001 |
| 50 | 31 | 0.613 | 0.613 | 0.000 |
| 50 | 32 | 0.613 | 0.612 | -0.001 |
| 50 | 33 | 0.613 | 0.612 | -0.001 |
| 50 | 34 | 0.613 | 0.612 | -0.001 |
| 50 | 35 | 0.613 | 0.612 | -0.002 |
| 55 | 36 | 0.614 | 0.613 | -0.001 |
| 55 | 37 | 0.613 | 0.613 | 0.000 |
| 55 | 38 | 0.613 | 0.613 | -0.001 |
| 55 | 39 | 0.613 | 0.613 | 0.000 |
| 55 | 40 | 0.613 | 0.614 | 0.000 |
| 100 | 41 | 0.613 | 0.613 | 0.000 |
| 100 | 42 | 0.613 | 0.612 | -0.002 |
| 100 | 43 | 0.614 | 0.612 | -0.002 |
| 100 | 44 | 0.613 | 0.612 | -0.001 |
| 100 | 45 | 0.613 | 0.613 | -0.001 |
| 105 | 46 | 0.614 | 0.613 | -0.001 |
| 105 | 47 | 0.614 | 0.612 | -0.002 |
| 105 | 48 | 0.614 | 0.612 | -0.002 |
| 105 | 49 | 0.613 | 0.612 | -0.001 |
| 105 | 50 | 0.614 | 0.612 | -0.001 |
| 105 | 51 | 0.613 | 0.611 | -0.002 |
| 105 | 52 | 0.613 | 0.613 | 0.000 |
| 105 | 53 | 0.614 | 0.613 | -0.002 |
| 105 | 54 | 0.614 | 0.612 | -0.002 |
| 105 | 55 | 0.613 | 0.612 | -0.002 |
| 105 | 56 | 0.614 | 0.611 | -0.003 |
| 105 | 57 | 0.613 | 0.612 | -0.001 |
| 105 | 58 | 0.613 | 0.612 | -0.001 |
| 105 | 59 | 0.614 | 0.613 | -0.001 |
| 105 | 60 | 0.613 | 0.613 | 0.000 |
| 105 | 61 | 0.613 | 0.612 | -0.001 |
| 105 | 62 | 0.613 | 0.612 | -0.001 |
| 105 | 63 | 0.613 | 0.612 | -0.001 |
| 105 | 64 | 0.613 | 0.612 | -0.001 |
| 105 | 65 | 0.613 | 0.612 | -0.001 |
| 105 | 66 | 0.614 | 0.613 | -0.001 |
| 105 | 67 | 0.614 | 0.612 | -0.001 |
| Max | | 0.614 | 0.614 | 0.002 |
| Average | | 0.613 | 0.613 | -0.001 |
| Min | | 0.612 | 0.611 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



| 8.3_VREF_12V | | | | | | | | | | | | | | | | |
|--------------|--------|-------------|------|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| | | | V | V | | 0.609 | 0.613 | 0.609 | 0.613 | 0.613 | 0.613 | 0.613 | 0.612 | 0.613 | 0.612 | 0.611 |
| LL | | | | | | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 |
| Min | | | | | | 0.614 | 0.613 | 0.613 | 0.613 | 0.614 | 0.613 | 0.613 | 0.612 | 0.613 | 0.612 | 0.612 |
| Average | | | | | | 0.614 | 0.614 | 0.614 | 0.614 | 0.614 | 0.613 | 0.614 | 0.613 | 0.614 | 0.613 | 0.613 |
| Max | | | | | | 0.614 | 0.614 | 0.614 | 0.614 | 0.614 | 0.613 | 0.614 | 0.613 | 0.614 | 0.613 | 0.613 |
| UL | | | | | | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 |

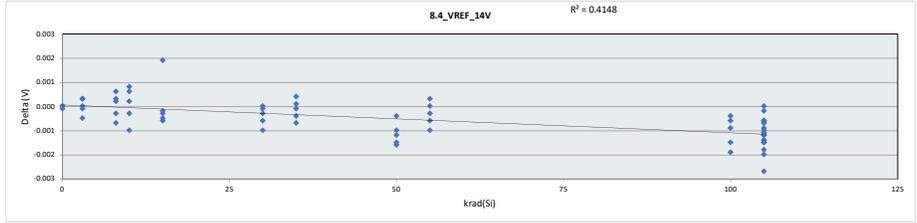


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

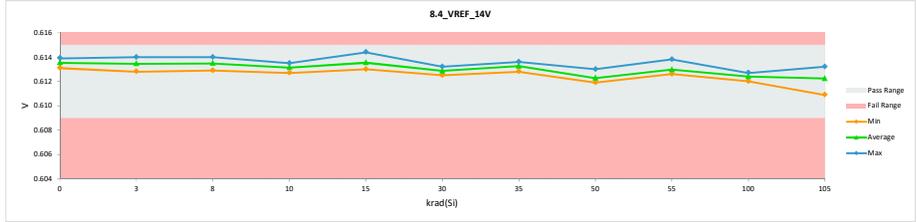
| 8.4_VREF_14V | |
|--------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | V |
| Min Limit | 0.615 |
| | 0.609 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.614 | 0.614 | 0.000 |
| 0 | 992 | 0.614 | 0.614 | 0.000 |
| 0 | 993 | 0.613 | 0.613 | 0.000 |
| 3 | 1 | 0.614 | 0.614 | 0.000 |
| 3 | 2 | 0.613 | 0.613 | -0.001 |
| 3 | 3 | 0.613 | 0.613 | 0.000 |
| 3 | 4 | 0.614 | 0.613 | 0.000 |
| 3 | 5 | 0.613 | 0.613 | 0.000 |
| 8 | 6 | 0.614 | 0.614 | 0.000 |
| 8 | 7 | 0.614 | 0.613 | -0.001 |
| 8 | 8 | 0.613 | 0.614 | 0.001 |
| 8 | 9 | 0.613 | 0.614 | 0.000 |
| 8 | 10 | 0.613 | 0.613 | 0.000 |
| 10 | 11 | 0.613 | 0.613 | 0.001 |
| 10 | 12 | 0.614 | 0.613 | -0.001 |
| 10 | 13 | 0.613 | 0.613 | 0.000 |
| 10 | 14 | 0.613 | 0.613 | 0.000 |
| 10 | 15 | 0.613 | 0.613 | 0.001 |
| 15 | 16 | 0.613 | 0.614 | 0.002 |
| 15 | 17 | 0.613 | 0.613 | -0.001 |
| 15 | 18 | 0.614 | 0.613 | -0.001 |
| 15 | 19 | 0.614 | 0.613 | 0.000 |
| 15 | 20 | 0.614 | 0.614 | 0.000 |
| 30 | 21 | 0.613 | 0.613 | 0.000 |
| 30 | 22 | 0.613 | 0.613 | -0.001 |
| 30 | 23 | 0.613 | 0.613 | 0.000 |
| 30 | 24 | 0.613 | 0.613 | 0.000 |
| 30 | 25 | 0.614 | 0.613 | -0.001 |
| 35 | 26 | 0.614 | 0.614 | 0.000 |
| 35 | 27 | 0.613 | 0.613 | 0.000 |
| 35 | 28 | 0.614 | 0.613 | -0.001 |
| 35 | 29 | 0.613 | 0.613 | 0.000 |
| 35 | 30 | 0.613 | 0.613 | 0.000 |
| 50 | 31 | 0.613 | 0.613 | 0.000 |
| 50 | 32 | 0.613 | 0.612 | -0.001 |
| 50 | 33 | 0.613 | 0.612 | -0.001 |
| 50 | 34 | 0.613 | 0.612 | -0.002 |
| 50 | 35 | 0.613 | 0.612 | -0.002 |
| 55 | 36 | 0.614 | 0.613 | -0.001 |
| 55 | 37 | 0.613 | 0.613 | 0.000 |
| 55 | 38 | 0.613 | 0.613 | -0.001 |
| 55 | 39 | 0.613 | 0.613 | 0.000 |
| 55 | 40 | 0.613 | 0.614 | 0.000 |
| 100 | 41 | 0.613 | 0.613 | 0.000 |
| 100 | 42 | 0.613 | 0.612 | -0.002 |
| 100 | 43 | 0.614 | 0.612 | -0.002 |
| 100 | 44 | 0.613 | 0.612 | -0.001 |
| 100 | 45 | 0.613 | 0.613 | -0.001 |
| 105 | 46 | 0.614 | 0.613 | -0.001 |
| 105 | 47 | 0.614 | 0.612 | -0.001 |
| 105 | 48 | 0.614 | 0.612 | -0.002 |
| 105 | 49 | 0.613 | 0.612 | -0.001 |
| 105 | 50 | 0.614 | 0.612 | -0.001 |
| 105 | 51 | 0.613 | 0.611 | -0.002 |
| 105 | 52 | 0.613 | 0.613 | 0.000 |
| 105 | 53 | 0.614 | 0.613 | -0.001 |
| 105 | 54 | 0.614 | 0.612 | -0.002 |
| 105 | 55 | 0.613 | 0.612 | -0.002 |
| 105 | 56 | 0.614 | 0.611 | -0.003 |
| 105 | 57 | 0.613 | 0.613 | -0.001 |
| 105 | 58 | 0.613 | 0.612 | -0.001 |
| 105 | 59 | 0.614 | 0.613 | -0.001 |
| 105 | 60 | 0.613 | 0.613 | 0.000 |
| 105 | 61 | 0.613 | 0.612 | -0.001 |
| 105 | 62 | 0.613 | 0.612 | -0.001 |
| 105 | 63 | 0.613 | 0.612 | -0.001 |
| 105 | 64 | 0.613 | 0.612 | -0.001 |
| 105 | 65 | 0.613 | 0.612 | -0.001 |
| 105 | 66 | 0.614 | 0.613 | -0.001 |
| 105 | 67 | 0.614 | 0.612 | -0.001 |
| Max | | 0.614 | 0.614 | 0.002 |
| Average | | 0.613 | 0.613 | -0.001 |
| Min | | 0.613 | 0.611 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



| 8.4_VREF_14V | |
|--------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.615 |
| Min Limit | 0.609 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 | 0.609 |
| Min | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.613 | 0.612 | 0.613 | 0.612 | 0.611 |
| Average | 0.614 | 0.613 | 0.613 | 0.613 | 0.614 | 0.613 | 0.613 | 0.612 | 0.613 | 0.612 | 0.612 |
| Max | 0.614 | 0.614 | 0.614 | 0.614 | 0.614 | 0.613 | 0.614 | 0.613 | 0.614 | 0.613 | 0.613 |
| UL | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 | 0.615 |

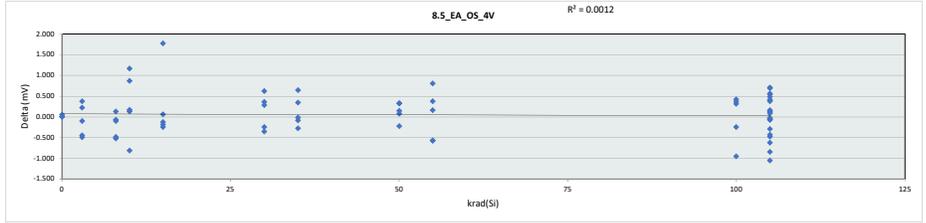


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

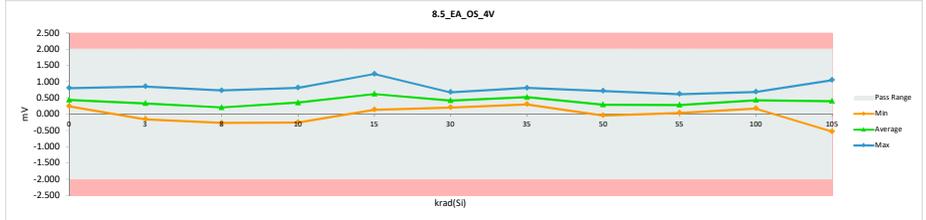
| 8.5_EA_OS_4V | |
|--------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mV |
| Max Limit | 2 |
| Min Limit | -1.8 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.754 | 0.797 | 0.043 |
| 0 | 992 | 0.292 | 0.284 | -0.008 |
| 0 | 993 | 0.243 | 0.240 | -0.003 |
| 3 | 1 | 0.478 | 0.846 | 0.368 |
| 3 | 2 | 0.295 | -0.158 | -0.453 |
| 3 | 3 | 0.216 | 0.430 | 0.213 |
| 3 | 4 | 0.515 | 0.409 | -0.106 |
| 3 | 5 | 0.619 | 0.118 | -0.502 |
| 8 | 6 | 0.748 | 0.258 | -0.490 |
| 8 | 7 | 0.256 | -0.273 | -0.529 |
| 8 | 8 | 0.610 | 0.501 | -0.108 |
| 8 | 9 | 0.606 | 0.726 | 0.120 |
| 8 | 10 | -0.111 | -0.191 | -0.080 |
| 10 | 11 | -0.055 | 0.805 | 0.860 |
| 10 | 12 | 0.567 | -0.256 | -0.823 |
| 10 | 13 | 0.301 | 0.459 | 0.158 |
| 10 | 14 | 0.053 | 0.175 | 0.122 |
| 10 | 15 | -0.570 | 0.584 | 1.153 |
| 15 | 16 | -0.530 | 1.235 | 1.764 |
| 15 | 17 | 0.332 | 0.134 | -0.197 |
| 15 | 18 | 0.569 | 0.439 | -0.129 |
| 15 | 19 | 0.700 | 0.751 | 0.051 |
| 15 | 20 | 0.801 | 0.547 | -0.255 |
| 30 | 21 | 0.387 | 0.665 | 0.278 |
| 30 | 22 | 0.542 | 0.284 | -0.257 |
| 30 | 23 | 0.063 | 0.676 | 0.613 |
| 30 | 24 | -0.150 | 0.201 | 0.351 |
| 30 | 25 | 0.611 | 0.249 | -0.362 |
| 35 | 26 | 0.898 | 0.804 | -0.094 |
| 35 | 27 | 0.107 | 0.441 | 0.333 |
| 35 | 28 | 0.859 | 0.573 | -0.286 |
| 35 | 29 | -0.151 | 0.485 | 0.636 |
| 35 | 30 | 0.327 | 0.300 | -0.027 |
| 50 | 31 | 0.403 | 0.712 | 0.309 |
| 50 | 32 | 0.028 | 0.350 | 0.322 |
| 50 | 33 | 0.175 | 0.309 | 0.134 |
| 50 | 34 | -0.105 | -0.041 | 0.064 |
| 50 | 35 | 0.338 | 0.103 | -0.235 |
| 55 | 36 | 0.633 | 0.058 | -0.575 |
| 55 | 37 | -0.334 | 0.031 | 0.365 |
| 55 | 38 | 0.751 | 0.163 | -0.588 |
| 55 | 39 | -0.184 | 0.613 | 0.797 |
| 55 | 40 | 0.392 | 0.543 | 0.152 |
| 100 | 41 | 0.101 | 0.460 | 0.359 |
| 100 | 42 | 0.588 | 0.330 | -0.257 |
| 100 | 43 | 1.136 | 0.173 | -0.962 |
| 100 | 44 | 0.066 | 0.479 | 0.413 |
| 100 | 45 | 0.371 | 0.678 | 0.308 |
| 105 | 46 | 0.749 | 0.826 | 0.077 |
| 105 | 47 | 0.627 | 0.329 | -0.298 |
| 105 | 48 | 0.672 | 0.636 | -0.036 |
| 105 | 49 | 0.244 | 0.643 | 0.399 |
| 105 | 50 | 0.682 | 0.052 | -0.630 |
| 105 | 51 | 0.118 | 0.058 | -0.059 |
| 105 | 52 | 0.206 | 0.759 | 0.552 |
| 105 | 53 | 0.807 | 0.371 | -0.436 |
| 105 | 54 | 0.428 | -0.059 | -0.487 |
| 105 | 55 | 0.522 | -0.330 | -0.852 |
| 105 | 56 | 0.519 | -0.540 | -1.059 |
| 105 | 57 | 0.275 | 0.383 | 0.107 |
| 105 | 58 | 0.607 | 0.529 | -0.078 |
| 105 | 59 | 0.387 | 0.753 | 0.366 |
| 105 | 60 | 0.234 | 0.930 | 0.697 |
| 105 | 61 | 0.004 | 0.479 | 0.474 |
| 105 | 62 | 0.001 | 0.537 | 0.536 |
| 105 | 63 | 0.138 | 0.266 | 0.128 |
| 105 | 64 | -0.146 | 0.006 | 0.152 |
| 105 | 65 | 0.054 | 0.738 | 0.684 |
| 105 | 66 | 0.641 | 1.041 | 0.400 |
| 105 | 67 | 0.388 | 0.311 | -0.077 |
| Max | | 1.136 | 1.235 | 1.764 |
| Average | | 0.339 | 0.389 | 0.050 |
| Min | | -0.570 | -0.540 | -1.059 |
| Std Dev | | 0.344 | 0.343 | 0.491 |



| 8.5_EA_OS_4V | |
|--------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 2 mV |
| Min Limit | -2 mV |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 |
| Min | 0.240 | -0.158 | -0.273 | -0.256 | 0.135 | 0.202 | 0.300 | -0.041 | 0.031 | 0.173 | -0.540 |
| Average | 0.440 | 0.329 | 0.204 | 0.353 | 0.621 | 0.415 | 0.520 | 0.287 | 0.282 | 0.424 | 0.396 |
| Max | 0.797 | 0.846 | 0.726 | 0.806 | 1.235 | 0.676 | 0.804 | 0.712 | 0.613 | 0.678 | 1.041 |
| UL | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 |

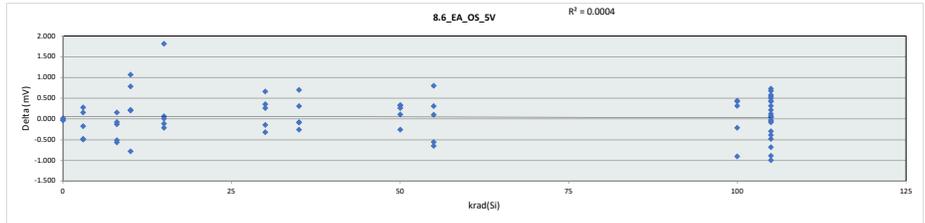


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

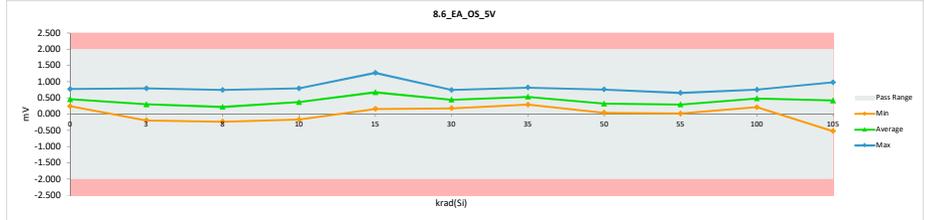
| 8.6_EA_OS_5V | |
|--------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mV |
| Max Limit | 2 |
| Min Limit | -2 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.812 | 0.773 | -0.039 |
| 0 | 992 | 0.344 | 0.350 | 0.006 |
| 0 | 993 | 0.288 | 0.246 | -0.042 |
| 3 | 1 | 0.523 | 0.793 | 0.270 |
| 3 | 2 | 0.299 | -0.194 | -0.493 |
| 3 | 3 | 0.239 | 0.384 | 0.145 |
| 3 | 4 | 0.577 | 0.390 | -0.187 |
| 3 | 5 | 0.649 | 0.141 | -0.508 |
| 8 | 6 | 0.820 | 0.294 | -0.527 |
| 8 | 7 | 0.345 | -0.229 | -0.574 |
| 8 | 8 | 0.571 | 0.481 | -0.090 |
| 8 | 9 | 0.603 | 0.744 | 0.141 |
| 8 | 10 | -0.036 | -0.180 | -0.144 |
| 10 | 11 | 0.017 | 0.792 | 0.775 |
| 10 | 12 | 0.621 | -0.169 | -0.790 |
| 10 | 13 | 0.259 | 0.464 | 0.204 |
| 10 | 14 | 0.047 | 0.233 | 0.186 |
| 10 | 15 | -0.517 | 0.542 | 1.059 |
| 15 | 16 | -0.529 | 1.269 | 1.797 |
| 15 | 17 | 0.284 | 0.163 | -0.121 |
| 15 | 18 | 0.506 | 0.502 | -0.003 |
| 15 | 19 | 0.747 | 0.799 | 0.052 |
| 15 | 20 | 0.855 | 0.633 | -0.222 |
| 30 | 21 | 0.425 | 0.674 | 0.250 |
| 30 | 22 | 0.892 | 0.336 | -0.556 |
| 30 | 23 | 0.094 | 0.742 | 0.648 |
| 30 | 24 | -0.161 | 0.180 | 0.340 |
| 30 | 25 | 0.631 | 0.297 | -0.334 |
| 35 | 26 | 0.915 | 0.818 | -0.097 |
| 35 | 27 | 0.111 | 0.410 | 0.300 |
| 35 | 28 | 0.891 | 0.614 | -0.277 |
| 35 | 29 | -0.164 | 0.521 | 0.685 |
| 35 | 30 | 0.386 | 0.294 | -0.091 |
| 50 | 31 | 0.439 | 0.757 | 0.318 |
| 50 | 32 | 0.053 | 0.366 | 0.313 |
| 50 | 33 | 0.111 | 0.360 | 0.249 |
| 50 | 34 | -0.056 | 0.041 | 0.097 |
| 50 | 35 | 0.349 | 0.080 | -0.269 |
| 55 | 36 | 0.701 | 0.040 | -0.662 |
| 55 | 37 | -0.282 | 0.018 | 0.300 |
| 55 | 38 | 0.780 | 0.208 | -0.572 |
| 55 | 39 | -0.131 | 0.654 | 0.785 |
| 55 | 40 | 0.482 | 0.572 | 0.090 |
| 100 | 41 | 0.109 | 0.533 | 0.424 |
| 100 | 42 | 0.600 | 0.378 | -0.222 |
| 100 | 43 | 1.128 | 0.216 | -0.912 |
| 100 | 44 | 0.130 | 0.544 | 0.414 |
| 100 | 45 | 0.447 | 0.753 | 0.305 |
| 105 | 46 | 0.733 | 0.791 | 0.059 |
| 105 | 47 | 0.669 | 0.362 | -0.307 |
| 105 | 48 | 0.675 | 0.707 | 0.032 |
| 105 | 49 | 0.284 | 0.706 | 0.422 |
| 105 | 50 | 0.750 | 0.054 | -0.696 |
| 105 | 51 | 0.171 | 0.080 | -0.091 |
| 105 | 52 | 0.244 | 0.806 | 0.562 |
| 105 | 53 | 0.845 | 0.441 | -0.404 |
| 105 | 54 | 0.463 | -0.033 | -0.495 |
| 105 | 55 | 0.568 | -0.331 | -0.900 |
| 105 | 56 | 0.484 | -0.524 | -1.009 |
| 105 | 57 | 0.306 | 0.346 | 0.040 |
| 105 | 58 | 0.589 | 0.549 | -0.040 |
| 105 | 59 | 0.364 | 0.775 | 0.411 |
| 105 | 60 | 0.281 | 0.943 | 0.662 |
| 105 | 61 | 0.012 | 0.545 | 0.534 |
| 105 | 62 | 0.067 | 0.552 | 0.485 |
| 105 | 63 | 0.187 | 0.302 | 0.115 |
| 105 | 64 | -0.149 | 0.052 | 0.201 |
| 105 | 65 | 0.052 | 0.771 | 0.718 |
| 105 | 66 | 0.672 | 0.979 | 0.307 |
| 105 | 67 | 0.384 | 0.317 | -0.066 |
| Max | | 1.128 | 1.269 | 1.797 |
| Average | | 0.364 | 0.412 | 0.048 |
| Min | | -0.529 | -0.524 | -1.009 |
| Std Dev | | 0.344 | 0.342 | 0.489 |



| 8.6_EA_OS_5V | |
|--------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 2 mV |
| Min Limit | -2 mV |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 |
| Min | 0.246 | -0.194 | -0.229 | -0.169 | 0.163 | 0.180 | 0.294 | 0.041 | 0.018 | 0.216 | -0.524 |
| Average | 0.457 | 0.303 | 0.222 | 0.373 | 0.673 | 0.446 | 0.532 | 0.321 | 0.298 | 0.485 | 0.418 |
| Max | 0.773 | 0.793 | 0.744 | 0.792 | 1.269 | 0.742 | 0.818 | 0.757 | 0.654 | 0.753 | 0.979 |
| UL | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 |

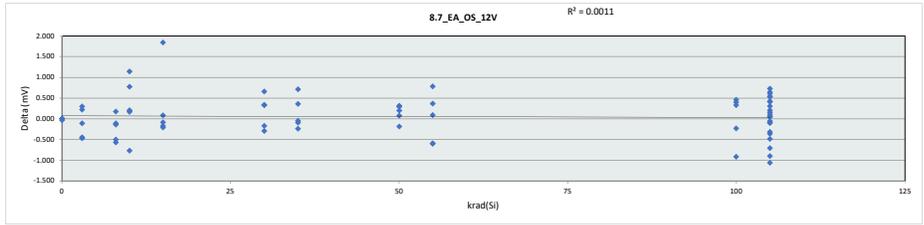


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

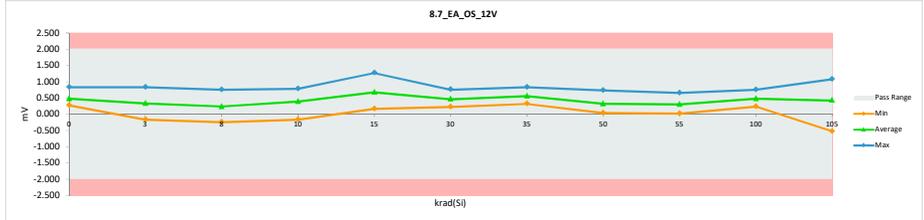
| 8.7_EA_OS_12V | |
|---------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mV |
| Max Limit | 2 |
| Min Limit | -2 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.833 | 0.831 | -0.001 |
| 0 | 992 | 0.346 | 0.341 | -0.005 |
| 0 | 993 | 0.305 | 0.268 | -0.037 |
| 3 | 1 | 0.538 | 0.830 | 0.292 |
| 3 | 2 | 0.307 | -0.167 | -0.474 |
| 3 | 3 | 0.223 | 0.434 | 0.212 |
| 3 | 4 | 0.521 | 0.406 | -0.115 |
| 3 | 5 | 0.616 | 0.163 | -0.453 |
| 8 | 6 | 0.823 | 0.317 | -0.506 |
| 8 | 7 | 0.331 | -0.243 | -0.574 |
| 8 | 8 | 0.627 | 0.512 | -0.116 |
| 8 | 9 | 0.589 | 0.755 | 0.166 |
| 8 | 10 | -0.014 | -0.163 | -0.149 |
| 10 | 11 | 0.017 | 0.779 | 0.761 |
| 10 | 12 | 0.607 | -0.173 | -0.780 |
| 10 | 13 | 0.309 | 0.465 | 0.156 |
| 10 | 14 | 0.030 | 0.227 | 0.197 |
| 10 | 15 | -0.502 | 0.632 | 1.134 |
| 15 | 16 | -0.565 | 1.266 | 1.831 |
| 15 | 17 | 0.342 | 0.160 | -0.182 |
| 15 | 18 | 0.585 | 0.488 | -0.097 |
| 15 | 19 | 0.739 | 0.815 | 0.076 |
| 15 | 20 | 0.847 | 0.629 | -0.219 |
| 30 | 21 | 0.387 | 0.704 | 0.317 |
| 30 | 22 | 0.513 | 0.331 | -0.182 |
| 30 | 23 | 0.105 | 0.756 | 0.651 |
| 30 | 24 | -0.107 | 0.221 | 0.328 |
| 30 | 25 | 0.603 | 0.299 | -0.304 |
| 35 | 26 | 0.925 | 0.825 | -0.100 |
| 35 | 27 | 0.128 | 0.481 | 0.353 |
| 35 | 28 | 0.877 | 0.628 | -0.249 |
| 35 | 29 | -0.178 | 0.527 | 0.705 |
| 35 | 30 | 0.375 | 0.315 | -0.059 |
| 50 | 31 | 0.451 | 0.736 | 0.285 |
| 50 | 32 | 0.065 | 0.372 | 0.307 |
| 50 | 33 | 0.141 | 0.327 | 0.186 |
| 50 | 34 | -0.030 | 0.040 | 0.070 |
| 50 | 35 | 0.335 | 0.141 | -0.194 |
| 55 | 36 | 0.674 | 0.068 | -0.606 |
| 55 | 37 | -0.341 | 0.019 | 0.360 |
| 55 | 38 | 0.804 | 0.203 | -0.601 |
| 55 | 39 | -0.119 | 0.652 | 0.771 |
| 55 | 40 | 0.491 | 0.577 | 0.085 |
| 100 | 41 | 0.086 | 0.540 | 0.454 |
| 100 | 42 | 0.577 | 0.335 | -0.241 |
| 100 | 43 | 1.155 | 0.234 | -0.921 |
| 100 | 44 | 0.158 | 0.547 | 0.389 |
| 100 | 45 | 0.434 | 0.750 | 0.316 |
| 105 | 46 | 0.744 | 0.787 | 0.043 |
| 105 | 47 | 0.676 | 0.352 | -0.324 |
| 105 | 48 | 0.675 | 0.711 | 0.036 |
| 105 | 49 | 0.294 | 0.706 | 0.412 |
| 105 | 50 | 0.747 | 0.035 | -0.712 |
| 105 | 51 | 0.180 | 0.069 | -0.111 |
| 105 | 52 | 0.235 | 0.839 | 0.604 |
| 105 | 53 | 0.812 | 0.442 | -0.370 |
| 105 | 54 | 0.477 | -0.018 | -0.495 |
| 105 | 55 | 0.575 | -0.334 | -0.908 |
| 105 | 56 | 0.538 | -0.530 | -1.068 |
| 105 | 57 | 0.296 | 0.387 | 0.091 |
| 105 | 58 | 0.628 | 0.564 | -0.064 |
| 105 | 59 | 0.433 | 0.733 | 0.300 |
| 105 | 60 | 0.290 | 0.927 | 0.637 |
| 105 | 61 | 0.002 | 0.521 | 0.520 |
| 105 | 62 | 0.061 | 0.597 | 0.536 |
| 105 | 63 | 0.170 | 0.313 | 0.144 |
| 105 | 64 | -0.141 | 0.053 | 0.194 |
| 105 | 65 | 0.059 | 0.775 | 0.716 |
| 105 | 66 | 0.672 | 1.078 | 1.406 |
| 105 | 67 | 0.402 | 0.301 | -0.102 |
| Max | | 1.155 | 1.266 | 1.831 |
| Average | | 0.368 | 0.421 | 0.053 |
| Min | | -0.565 | -0.530 | -1.068 |
| Std Dev | | 0.345 | 0.345 | 0.494 |



| 8.7_EA_OS_12V | |
|---------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mV |
| Max Limit | 2 |
| Min Limit | -2 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 |
| Min | 0.268 | -0.167 | -0.243 | -0.173 | 0.160 | 0.221 | 0.315 | 0.040 | 0.019 | 0.234 | -0.530 |
| Average | 0.480 | 0.333 | 0.236 | 0.386 | 0.672 | 0.462 | 0.555 | 0.323 | 0.304 | 0.481 | 0.423 |
| Max | 0.832 | 0.830 | 0.755 | 0.779 | 1.266 | 0.756 | 0.825 | 0.736 | 0.652 | 0.750 | 1.078 |
| UL | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 |

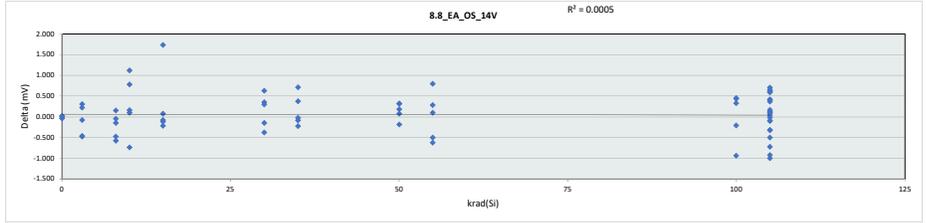


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

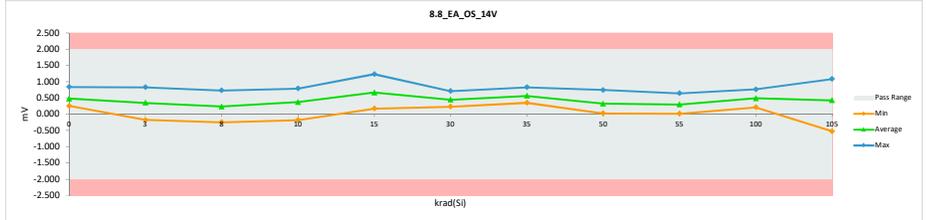
| 8.8_EA_OS_14V | |
|---------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | mV |
| Max Limit | 2 |
| Min Limit | -1.8 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.827 | 0.840 | 0.012 |
| 0 | 992 | 0.355 | 0.347 | -0.007 |
| 0 | 993 | 0.303 | 0.256 | -0.047 |
| 3 | 1 | 0.526 | 0.824 | 0.298 |
| 3 | 2 | 0.290 | -0.177 | -0.468 |
| 3 | 3 | 0.237 | 0.453 | 0.216 |
| 3 | 4 | 0.567 | 0.481 | -0.086 |
| 3 | 5 | 0.631 | 0.144 | -0.487 |
| 8 | 6 | 0.797 | 0.309 | -0.488 |
| 8 | 7 | 0.338 | -0.249 | -0.586 |
| 8 | 8 | 0.618 | 0.559 | -0.059 |
| 8 | 9 | 0.589 | 0.732 | 0.143 |
| 8 | 10 | -0.017 | -0.169 | -0.153 |
| 10 | 11 | 0.018 | 0.791 | 0.773 |
| 10 | 12 | 0.565 | -0.180 | -0.746 |
| 10 | 13 | 0.334 | 0.425 | 0.091 |
| 10 | 14 | 0.075 | 0.223 | 0.148 |
| 10 | 15 | -0.515 | 0.592 | 1.106 |
| 15 | 16 | -0.491 | 1.229 | 1.721 |
| 15 | 17 | 0.301 | 0.173 | -0.127 |
| 15 | 18 | 0.585 | 0.502 | -0.083 |
| 15 | 19 | 0.734 | 0.800 | 0.066 |
| 15 | 20 | 0.849 | 0.625 | -0.224 |
| 30 | 21 | 0.367 | 0.655 | 0.288 |
| 30 | 22 | 0.500 | 0.341 | -0.159 |
| 30 | 23 | 0.089 | 0.710 | 0.621 |
| 30 | 24 | -0.108 | 0.232 | 0.340 |
| 30 | 25 | 0.665 | 0.278 | -0.386 |
| 35 | 26 | 0.926 | 0.829 | -0.097 |
| 35 | 27 | 0.117 | 0.484 | 0.367 |
| 35 | 28 | 0.851 | 0.618 | -0.233 |
| 35 | 29 | -0.163 | 0.543 | 0.706 |
| 35 | 30 | 0.382 | 0.349 | -0.033 |
| 50 | 31 | 0.430 | 0.744 | 0.314 |
| 50 | 32 | 0.060 | 0.366 | 0.306 |
| 50 | 33 | 0.182 | 0.359 | 0.177 |
| 50 | 34 | -0.045 | 0.023 | 0.068 |
| 50 | 35 | 0.316 | 0.122 | -0.194 |
| 55 | 36 | 0.685 | 0.052 | -0.632 |
| 55 | 37 | -0.261 | 0.017 | 0.278 |
| 55 | 38 | 0.720 | 0.208 | -0.512 |
| 55 | 39 | -0.150 | 0.638 | 0.788 |
| 55 | 40 | 0.502 | 0.589 | 0.087 |
| 100 | 41 | 0.099 | 0.524 | 0.424 |
| 100 | 42 | 0.602 | 0.385 | -0.217 |
| 100 | 43 | 1.154 | 0.212 | -0.942 |
| 100 | 44 | 0.118 | 0.558 | 0.440 |
| 100 | 45 | 0.445 | 0.765 | 0.320 |
| 105 | 46 | 0.770 | 0.849 | 0.079 |
| 105 | 47 | 0.687 | 0.353 | -0.334 |
| 105 | 48 | 0.675 | 0.713 | 0.038 |
| 105 | 49 | 0.292 | 0.704 | 0.412 |
| 105 | 50 | 0.759 | 0.026 | -0.732 |
| 105 | 51 | 0.176 | 0.073 | -0.103 |
| 105 | 52 | 0.217 | 0.828 | 0.611 |
| 105 | 53 | 0.757 | 0.432 | -0.324 |
| 105 | 54 | 0.482 | -0.025 | -0.507 |
| 105 | 55 | 0.543 | -0.385 | -0.928 |
| 105 | 56 | 0.475 | -0.530 | -1.006 |
| 105 | 57 | 0.303 | 0.411 | 0.108 |
| 105 | 58 | 0.586 | 0.561 | -0.025 |
| 105 | 59 | 0.411 | 0.769 | 0.358 |
| 105 | 60 | 0.800 | 0.922 | 0.642 |
| 105 | 61 | -0.052 | 0.527 | 0.578 |
| 105 | 62 | -0.028 | 0.565 | 0.594 |
| 105 | 63 | 0.201 | 0.314 | 0.113 |
| 105 | 64 | -0.095 | 0.066 | 0.161 |
| 105 | 65 | 0.063 | 0.757 | 0.694 |
| 105 | 66 | 0.686 | 1.081 | 0.395 |
| 105 | 67 | 0.401 | 0.291 | -0.110 |
| Max | 1.154 | 1.229 | 1.721 | |
| Average | 0.366 | 0.420 | 0.055 | |
| Min | -0.515 | -0.530 | -1.006 | |
| Std Dev | 0.339 | 0.347 | 0.487 | |



| 8.8_EA_OS_14V | |
|---------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 2 mV |
| Min Limit | -2 mV |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 | -2.000 |
| Min | 0.256 | -0.177 | -0.249 | -0.180 | 0.173 | 0.232 | 0.349 | 0.023 | 0.017 | 0.212 | -0.530 |
| Average | 0.481 | 0.345 | 0.236 | 0.370 | 0.666 | 0.443 | 0.564 | 0.323 | 0.301 | 0.489 | 0.423 |
| Max | 0.840 | 0.824 | 0.732 | 0.791 | 1.229 | 0.710 | 0.829 | 0.744 | 0.638 | 0.765 | 1.081 |
| UL | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 |

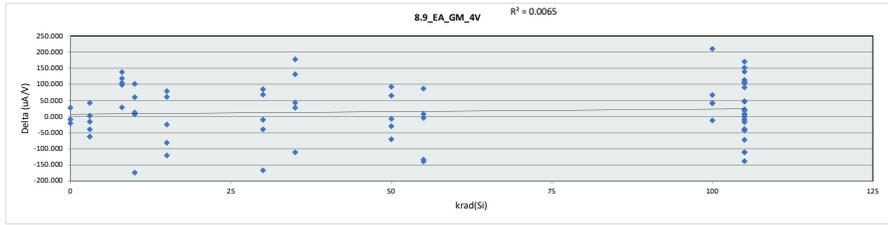


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

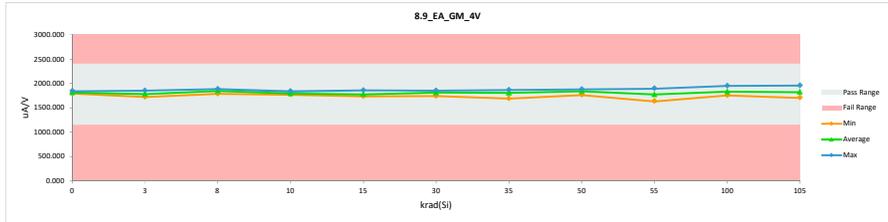
| 8.9_EA_GM_4V | |
|--------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | uA/V |
| Max Limit | 2400 |
| Min Limit | 1150 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|----------|----------|----------|
| 0 | 991 | 1814.724 | 1840.556 | 25.832 |
| 0 | 992 | 1816.335 | 1806.060 | -10.275 |
| 0 | 993 | 1817.831 | 1795.661 | -22.170 |
| 3 | 1 | 1784.782 | 1720.705 | -64.077 |
| 3 | 2 | 1744.256 | 1784.782 | 40.526 |
| 3 | 3 | 1741.513 | 1741.604 | 0.091 |
| 3 | 4 | 1893.206 | 1852.710 | -40.496 |
| 3 | 5 | 1829.128 | 1812.235 | -16.893 |
| 8 | 6 | 1755.223 | 1857.973 | 102.750 |
| 8 | 7 | 1727.206 | 1863.845 | 136.639 |
| 8 | 8 | 1733.739 | 1850.544 | 116.805 |
| 8 | 9 | 1758.139 | 1785.675 | 27.536 |
| 8 | 10 | 1788.025 | 1884.731 | 96.706 |
| 10 | 11 | 1708.300 | 1808.065 | 99.765 |
| 10 | 12 | 1763.405 | 1768.694 | 5.289 |
| 10 | 13 | 1767.725 | 1779.387 | 11.662 |
| 10 | 14 | 1778.312 | 1837.411 | 59.099 |
| 10 | 15 | 1949.083 | 1774.025 | -175.058 |
| 15 | 16 | 1906.784 | 1784.782 | -122.002 |
| 15 | 17 | 1758.701 | 1732.280 | -26.421 |
| 15 | 18 | 1816.709 | 1734.205 | -82.504 |
| 15 | 19 | 1710.721 | 1770.832 | 60.111 |
| 15 | 20 | 1780.822 | 1857.973 | 77.151 |
| 30 | 21 | 1834.839 | 1823.462 | -11.377 |
| 30 | 22 | 1907.109 | 1738.860 | -168.249 |
| 30 | 23 | 1768.694 | 1852.127 | 83.433 |
| 30 | 24 | 1842.698 | 1801.416 | -41.282 |
| 30 | 25 | 1779.387 | 1846.318 | 66.931 |
| 35 | 26 | 1801.145 | 1689.506 | -111.639 |
| 35 | 27 | 1780.851 | 1806.663 | 25.812 |
| 35 | 28 | 1693.229 | 1848.953 | 175.724 |
| 35 | 29 | 1784.782 | 1827.106 | 42.324 |
| 35 | 30 | 1732.289 | 1861.880 | 129.591 |
| 50 | 31 | 1812.235 | 1875.723 | 63.488 |
| 50 | 32 | 1782.080 | 1873.011 | 90.931 |
| 50 | 33 | 1875.723 | 1867.216 | -8.507 |
| 50 | 34 | 1860.177 | 1828.619 | -31.558 |
| 50 | 35 | 1834.618 | 1763.405 | -71.213 |
| 55 | 36 | 1817.831 | 1812.235 | -5.596 |
| 55 | 37 | 1887.137 | 1893.815 | 6.678 |
| 55 | 38 | 1809.147 | 1668.495 | -140.652 |
| 55 | 39 | 1766.311 | 1631.517 | -134.794 |
| 55 | 40 | 1775.094 | 1860.115 | 85.021 |
| 100 | 41 | 1823.452 | 1810.387 | -13.065 |
| 100 | 42 | 1711.699 | 1752.437 | 40.738 |
| 100 | 43 | 1785.760 | 1825.644 | 39.884 |
| 100 | 44 | 1740.655 | 1949.185 | 208.530 |
| 100 | 45 | 1745.118 | 1810.387 | 65.269 |
| 105 | 46 | 1768.694 | 1790.200 | 21.506 |
| 105 | 47 | 1816.217 | 1704.439 | -111.778 |
| 105 | 48 | 1829.108 | 1817.831 | -11.277 |
| 105 | 49 | 1717.130 | 1829.118 | 111.988 |
| 105 | 50 | 1861.322 | 1859.033 | -2.289 |
| 105 | 51 | 1818.846 | 1745.118 | -73.728 |
| 105 | 52 | 1869.765 | 1758.139 | -111.626 |
| 105 | 53 | 1653.779 | 1801.145 | 137.366 |
| 105 | 54 | 1806.683 | 1823.452 | 16.769 |
| 105 | 55 | 1850.197 | 1956.013 | 105.816 |
| 105 | 56 | 1784.791 | 1934.821 | 150.030 |
| 105 | 57 | 1892.459 | 1752.904 | -139.555 |
| 105 | 58 | 1862.779 | 1817.831 | -44.948 |
| 105 | 59 | 1725.243 | 1731.717 | 6.474 |
| 105 | 60 | 1870.756 | 1830.555 | -40.201 |
| 105 | 61 | 1812.235 | 1857.973 | 45.738 |
| 105 | 62 | 1812.225 | 1901.273 | 89.048 |
| 105 | 63 | 1694.925 | 1797.036 | 102.111 |
| 105 | 64 | 1885.345 | 1889.762 | 4.417 |
| 105 | 65 | 1801.832 | 1848.067 | 46.235 |
| 105 | 66 | 1655.979 | 1824.870 | 168.891 |
| 105 | 67 | 1823.462 | 1804.827 | -18.635 |
| Max | 1949.083 | 1956.013 | 208.530 | |
| Average | 1795.721 | 1811.991 | 16.269 | |
| Min | 1655.979 | 1631.517 | -175.058 | |
| Std Dev | 61.378 | 61.738 | 85.943 | |



| 8.9_EA_GM_4V | |
|--------------|-----------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 2400 uA/V |
| Min Limit | 1150 uA/V |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LL | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 |
| Min | 1795.661 | 1720.705 | 1785.675 | 1768.694 | 1732.280 | 1738.860 | 1689.506 | 1763.405 | 1631.517 | 1752.437 | 1704.439 |
| Average | 1814.092 | 1782.407 | 1848.554 | 1793.516 | 1776.014 | 1812.437 | 1806.822 | 1841.595 | 1773.235 | 1829.608 | 1821.642 |
| Max | 1840.556 | 1852.710 | 1884.731 | 1837.411 | 1857.973 | 1852.127 | 1861.880 | 1875.723 | 1893.815 | 1949.185 | 1956.013 |
| UL | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 |

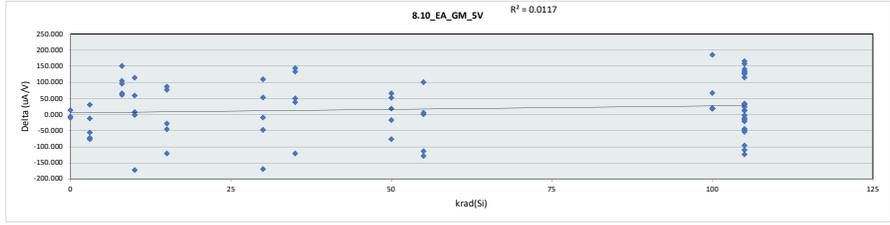


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

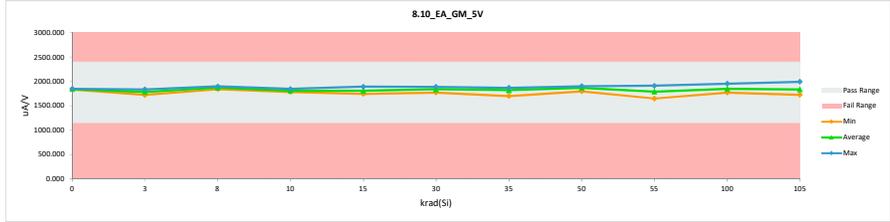
| 8.10 EA GM_5V | |
|---------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | uA/V |
| Max Limit | 2400 |
| Min Limit | 1150 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|----------|----------|----------|
| 0 | 991 | 1857.973 | 1847.619 | -10.354 |
| 0 | 992 | 1841.697 | 1834.819 | -6.878 |
| 0 | 993 | 1827.703 | 1840.556 | 12.853 |
| 3 | 1 | 1795.661 | 1722.781 | -72.880 |
| 3 | 2 | 1776.702 | 1806.673 | 29.971 |
| 3 | 3 | 1770.963 | 1758.139 | -12.824 |
| 3 | 4 | 1913.285 | 1836.737 | -76.548 |
| 3 | 5 | 1857.973 | 1802.248 | -55.725 |
| 8 | 6 | 1783.700 | 1878.379 | 94.679 |
| 8 | 7 | 1747.718 | 1898.401 | 150.683 |
| 8 | 8 | 1748.000 | 1852.127 | 104.127 |
| 8 | 9 | 1779.887 | 1840.556 | 60.669 |
| 8 | 10 | 1826.688 | 1891.861 | 65.173 |
| 10 | 11 | 1709.893 | 1824.047 | 114.154 |
| 10 | 12 | 1778.293 | 1785.874 | 7.581 |
| 10 | 13 | 1798.673 | 1796.757 | -1.916 |
| 10 | 14 | 1788.025 | 1846.328 | 58.303 |
| 10 | 15 | 1970.903 | 1799.078 | -171.825 |
| 15 | 16 | 1937.424 | 1816.797 | -120.627 |
| 15 | 17 | 1775.480 | 1747.699 | -27.781 |
| 15 | 18 | 1825.009 | 1779.387 | -45.622 |
| 15 | 19 | 1728.897 | 1805.788 | 76.891 |
| 15 | 20 | 1805.341 | 1891.797 | 86.456 |
| 30 | 21 | 1856.369 | 1847.365 | -9.004 |
| 30 | 22 | 1937.424 | 1768.704 | -168.720 |
| 30 | 23 | 1779.387 | 1888.093 | 108.706 |
| 30 | 24 | 1876.814 | 1829.118 | -47.696 |
| 30 | 25 | 1810.709 | 1863.856 | 53.147 |
| 35 | 26 | 1817.831 | 1697.334 | -120.497 |
| 35 | 27 | 1784.772 | 1834.809 | 50.037 |
| 35 | 28 | 1702.242 | 1845.678 | 143.436 |
| 35 | 29 | 1813.175 | 1851.167 | 37.992 |
| 35 | 30 | 1736.745 | 1869.776 | 133.031 |
| 50 | 31 | 1834.819 | 1899.928 | 65.109 |
| 50 | 32 | 1840.556 | 1891.989 | 51.433 |
| 50 | 33 | 1875.723 | 1893.794 | 18.071 |
| 50 | 34 | 1869.765 | 1852.117 | -17.648 |
| 50 | 35 | 1872.144 | 1795.661 | -76.483 |
| 55 | 36 | 1829.118 | 1829.118 | 0.000 |
| 55 | 37 | 1906.686 | 1912.260 | 5.574 |
| 55 | 38 | 1812.783 | 1683.994 | -128.789 |
| 55 | 39 | 1764.156 | 1649.791 | -114.365 |
| 55 | 40 | 1779.387 | 1879.537 | 100.150 |
| 100 | 41 | 1827.225 | 1845.425 | 18.200 |
| 100 | 42 | 1752.904 | 1771.355 | 18.451 |
| 100 | 43 | 1816.148 | 1835.772 | 19.624 |
| 100 | 44 | 1771.365 | 1956.732 | 185.367 |
| 100 | 45 | 1767.912 | 1834.819 | 66.907 |
| 105 | 46 | 1794.096 | 1806.673 | 12.577 |
| 105 | 47 | 1823.442 | 1727.197 | -96.245 |
| 105 | 48 | 1844.207 | 1841.596 | -2.611 |
| 105 | 49 | 1732.289 | 1847.579 | 115.290 |
| 105 | 50 | 1897.306 | 1875.723 | -21.583 |
| 105 | 51 | 1817.309 | 1763.619 | -53.690 |
| 105 | 52 | 1897.489 | 1787.187 | -110.302 |
| 105 | 53 | 1704.041 | 1834.819 | 130.778 |
| 105 | 54 | 1794.451 | 1817.821 | 23.370 |
| 105 | 55 | 1836.898 | 1993.822 | 156.924 |
| 105 | 56 | 1799.107 | 1939.551 | 140.444 |
| 105 | 57 | 1890.497 | 1766.348 | -124.149 |
| 105 | 58 | 1882.479 | 1834.819 | -47.660 |
| 105 | 59 | 1749.650 | 1738.409 | -11.241 |
| 105 | 60 | 1862.666 | 1846.308 | -16.358 |
| 105 | 61 | 1817.831 | 1852.127 | 34.296 |
| 105 | 62 | 1795.661 | 1921.624 | 125.963 |
| 105 | 63 | 1707.240 | 1840.556 | 133.316 |
| 105 | 64 | 1903.053 | 1915.382 | 12.329 |
| 105 | 65 | 1837.109 | 1866.800 | 29.691 |
| 105 | 66 | 1658.434 | 1823.452 | 165.018 |
| 105 | 67 | 1840.556 | 1795.661 | -44.895 |
| Max | | 1970.903 | 1993.822 | 185.367 |
| Average | | 1813.827 | 1830.996 | 17.169 |
| Min | | 1658.434 | 1649.791 | -171.825 |
| Std Dev | | 61.590 | 61.892 | 85.200 |



| 8.10 EA GM_5V | |
|---------------|-----------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 2400 uA/V |
| Min Limit | 1150 uA/V |

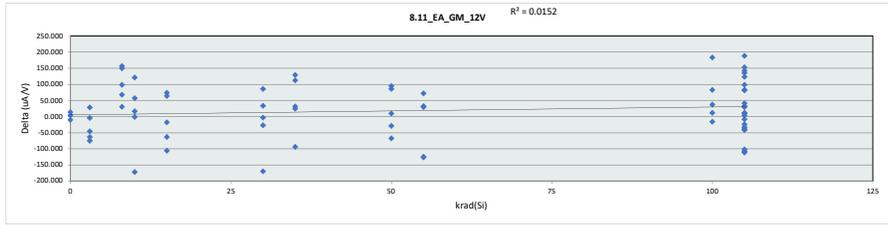
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LL | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 |
| Min | 1834.819 | 1722.781 | 1840.556 | 1765.874 | 1747.699 | 1768.704 | 1697.334 | 1795.661 | 1649.791 | 1771.355 | 1727.197 |
| Average | 1840.998 | 1785.316 | 1872.265 | 1810.417 | 1808.294 | 1839.427 | 1819.753 | 1866.698 | 1790.940 | 1848.821 | 1838.049 |
| Max | 1847.619 | 1836.737 | 1898.401 | 1846.328 | 1891.797 | 1888.093 | 1869.776 | 1899.928 | 1912.260 | 1956.732 | 1993.822 |
| UL | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 |



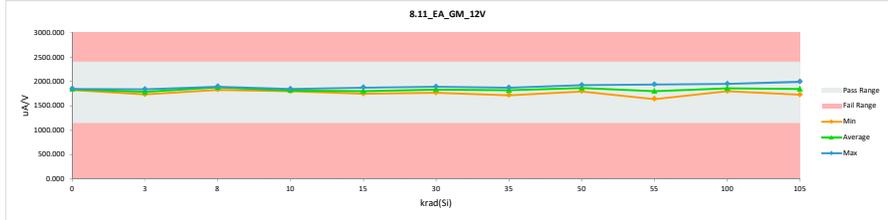
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 8.11 EA GM 12V | | | | |
|----------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | uA/V | 2400 |
| Min Limit | | | uA/V | 1150 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 1833.555 | 1845.678 | 12.123 |
| 0 | 992 | 1845.841 | 1848.230 | 2.389 |
| 0 | 993 | 1840.556 | 1829.118 | -11.438 |
| 3 | 1 | 1811.237 | 1734.608 | -76.629 |
| 3 | 2 | 1763.415 | 1790.200 | 26.785 |
| 3 | 3 | 1774.025 | 1768.704 | -5.321 |
| 3 | 4 | 1903.355 | 1838.246 | -65.109 |
| 3 | 5 | 1846.328 | 1799.580 | -46.748 |
| 8 | 6 | 1789.522 | 1886.384 | 96.862 |
| 8 | 7 | 1737.392 | 1892.470 | 155.078 |
| 8 | 8 | 1745.808 | 1893.815 | 148.007 |
| 8 | 9 | 1799.937 | 1829.118 | 29.181 |
| 8 | 10 | 1822.254 | 1888.518 | 66.264 |
| 10 | 11 | 1703.591 | 1823.115 | 119.524 |
| 10 | 12 | 1785.988 | 1801.155 | 15.167 |
| 10 | 13 | 1809.206 | 1806.683 | -2.523 |
| 10 | 14 | 1788.644 | 1844.015 | 55.371 |
| 10 | 15 | 1975.696 | 1803.071 | -172.625 |
| 15 | 16 | 1931.079 | 1823.977 | -107.102 |
| 15 | 17 | 1767.176 | 1747.709 | -19.467 |
| 15 | 18 | 1825.823 | 1761.138 | -64.685 |
| 15 | 19 | 1725.527 | 1798.413 | 72.886 |
| 15 | 20 | 1813.351 | 1875.723 | 62.372 |
| 30 | 21 | 1851.545 | 1847.274 | -4.271 |
| 30 | 22 | 1937.424 | 1766.571 | -170.853 |
| 30 | 23 | 1808.065 | 1892.608 | 84.543 |
| 30 | 24 | 1852.127 | 1824.473 | -27.654 |
| 30 | 25 | 1817.821 | 1850.197 | 32.376 |
| 35 | 26 | 1812.235 | 1717.130 | -95.105 |
| 35 | 27 | 1800.652 | 1823.452 | 22.800 |
| 35 | 28 | 1726.291 | 1854.061 | 127.770 |
| 35 | 29 | 1804.827 | 1834.819 | 29.992 |
| 35 | 30 | 1759.208 | 1869.776 | 110.568 |
| 50 | 31 | 1840.556 | 1924.765 | 84.209 |
| 50 | 32 | 1802.258 | 1895.334 | 93.076 |
| 50 | 33 | 1865.825 | 1874.382 | 8.557 |
| 50 | 34 | 1875.723 | 1846.085 | -29.638 |
| 50 | 35 | 1853.762 | 1795.661 | -58.101 |
| 55 | 36 | 1817.831 | 1846.318 | 28.487 |
| 55 | 37 | 1906.632 | 1937.424 | 30.792 |
| 55 | 38 | 1821.917 | 1693.856 | -128.061 |
| 55 | 39 | 1764.992 | 1638.784 | -126.208 |
| 55 | 40 | 1812.235 | 1882.912 | 70.677 |
| 100 | 41 | 1865.825 | 1848.841 | -16.984 |
| 100 | 42 | 1763.405 | 1799.310 | 35.905 |
| 100 | 43 | 1836.446 | 1847.253 | 10.807 |
| 100 | 44 | 1768.107 | 1950.249 | 182.142 |
| 100 | 45 | 1759.448 | 1840.556 | 81.108 |
| 105 | 46 | 1799.435 | 1807.909 | 8.474 |
| 105 | 47 | 1841.081 | 1728.469 | -112.612 |
| 105 | 48 | 1856.195 | 1846.318 | -9.877 |
| 105 | 49 | 1742.535 | 1839.910 | 97.375 |
| 105 | 50 | 1875.723 | 1841.374 | -34.349 |
| 105 | 51 | 1829.128 | 1788.730 | -40.398 |
| 105 | 52 | 1880.074 | 1776.702 | -103.372 |
| 105 | 53 | 1712.642 | 1846.328 | 133.686 |
| 105 | 54 | 1812.245 | 1843.437 | 31.192 |
| 105 | 55 | 1842.962 | 1994.261 | 151.299 |
| 105 | 56 | 1797.036 | 1937.424 | 140.388 |
| 105 | 57 | 1877.707 | 1768.704 | -109.003 |
| 105 | 58 | 1883.218 | 1840.545 | -42.673 |
| 105 | 59 | 1737.401 | 1777.784 | 40.383 |
| 105 | 60 | 1869.765 | 1844.745 | -25.020 |
| 105 | 61 | 1812.235 | 1893.815 | 81.580 |
| 105 | 62 | 1831.564 | 1912.249 | 80.685 |
| 105 | 63 | 1707.188 | 1829.118 | 121.930 |
| 105 | 64 | 1911.520 | 1921.624 | 10.104 |
| 105 | 65 | 1826.201 | 1854.307 | 28.106 |
| 105 | 66 | 1660.642 | 1847.477 | 186.835 |
| 105 | 67 | 1834.819 | 1837.351 | 2.532 |
| Max | | 1975.696 | 1994.261 | 186.835 |
| Average | | 1815.940 | 1834.433 | 18.494 |
| Min | | 1660.642 | 1638.784 | -172.625 |
| Std Dev | | 59.184 | 60.693 | 83.295 |



| 8.11 EA GM 12V | | | | | | | | | | | | | | | | |
|----------------|--------|-------------|------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| | | | | 2400 | 1150 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 |
| | | | | uA/V | uA/V | 1829.118 | 1734.608 | 1829.118 | 1801.155 | 1747.709 | 1766.571 | 1717.130 | 1795.661 | 1638.784 | 1799.310 | 1728.469 |
| | | | | | | 1841.009 | 1786.268 | 1878.061 | 1815.608 | 1801.392 | 1836.225 | 1819.848 | 1867.245 | 1799.859 | 1857.242 | 1844.481 |
| | | | | | | 1848.230 | 1838.246 | 1893.815 | 1844.015 | 1875.723 | 1892.608 | 1869.776 | 1924.765 | 1937.424 | 1950.249 | 1994.261 |
| | | | | | | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 |

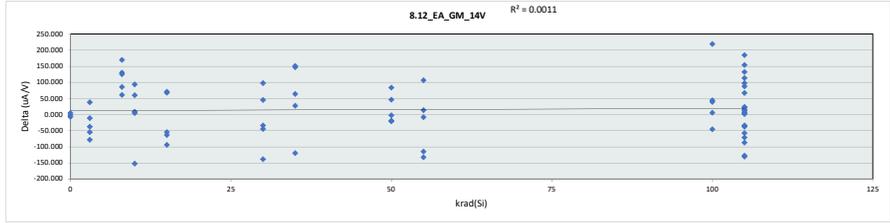


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

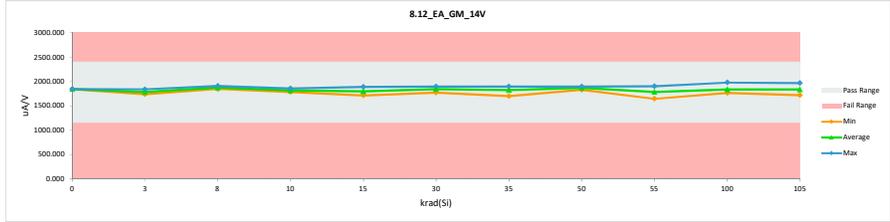
| 8.12 EA GM 14V | |
|----------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | uA/V |
| Max Limit | 2400 |
| Min Limit | 1150 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|----------|----------|----------|
| 0 | 991 | 1846.328 | 1843.417 | -2.911 |
| 0 | 992 | 1847.965 | 1840.556 | -7.409 |
| 0 | 993 | 1839.395 | 1843.762 | 4.367 |
| 3 | 1 | 1794.019 | 1739.662 | -54.357 |
| 3 | 2 | 1749.075 | 1786.587 | 37.512 |
| 3 | 3 | 1775.808 | 1737.392 | -38.416 |
| 3 | 4 | 1918.481 | 1839.980 | -78.501 |
| 3 | 5 | 1834.819 | 1823.868 | -10.951 |
| 8 | 6 | 1758.139 | 1887.541 | 129.402 |
| 8 | 7 | 1737.392 | 1906.079 | 168.687 |
| 8 | 8 | 1738.680 | 1863.845 | 125.165 |
| 8 | 9 | 1785.979 | 1846.328 | 60.349 |
| 8 | 10 | 1792.916 | 1878.558 | 85.642 |
| 10 | 11 | 1727.677 | 1821.205 | 93.528 |
| 10 | 12 | 1780.369 | 1784.772 | 4.403 |
| 10 | 13 | 1803.565 | 1812.245 | 8.680 |
| 10 | 14 | 1794.287 | 1853.887 | 59.600 |
| 10 | 15 | 1977.909 | 1825.346 | -152.563 |
| 15 | 16 | 1912.054 | 1817.792 | -94.272 |
| 15 | 17 | 1764.370 | 1709.928 | -54.442 |
| 15 | 18 | 1829.626 | 1765.670 | -63.956 |
| 15 | 19 | 1732.280 | 1799.464 | 67.184 |
| 15 | 20 | 1815.952 | 1866.405 | 70.453 |
| 30 | 21 | 1879.705 | 1845.181 | -34.524 |
| 30 | 22 | 1932.242 | 1772.085 | -138.107 |
| 30 | 23 | 1796.574 | 1893.815 | 97.241 |
| 30 | 24 | 1866.468 | 1821.986 | -44.482 |
| 30 | 25 | 1834.237 | 1878.716 | 44.479 |
| 35 | 26 | 1817.831 | 1698.314 | -119.517 |
| 35 | 27 | 1810.651 | 1837.361 | 26.710 |
| 35 | 28 | 1702.242 | 1848.434 | 146.192 |
| 35 | 29 | 1784.962 | 1848.515 | 63.553 |
| 35 | 30 | 1743.468 | 1893.826 | 150.358 |
| 50 | 31 | 1848.444 | 1893.815 | 45.371 |
| 50 | 32 | 1796.208 | 1879.726 | 83.518 |
| 50 | 33 | 1893.815 | 1874.225 | -19.590 |
| 50 | 34 | 1862.542 | 1859.940 | -2.602 |
| 50 | 35 | 1854.072 | 1832.924 | -21.148 |
| 55 | 36 | 1812.245 | 1804.157 | -8.088 |
| 55 | 37 | 1891.765 | 1904.857 | 13.092 |
| 55 | 38 | 1830.375 | 1697.326 | -133.049 |
| 55 | 39 | 1760.232 | 1645.188 | -115.044 |
| 55 | 40 | 1779.387 | 1885.727 | 106.340 |
| 100 | 41 | 1865.825 | 1820.079 | -45.746 |
| 100 | 42 | 1723.985 | 1763.072 | 39.087 |
| 100 | 43 | 1829.118 | 1834.819 | 5.701 |
| 100 | 44 | 1759.310 | 1977.920 | 218.610 |
| 100 | 45 | 1759.005 | 1802.751 | 43.746 |
| 105 | 46 | 1807.919 | 1831.024 | 23.105 |
| 105 | 47 | 1851.391 | 1720.334 | -131.057 |
| 105 | 48 | 1844.633 | 1852.127 | 7.494 |
| 105 | 49 | 1752.913 | 1839.930 | 87.017 |
| 105 | 50 | 1899.928 | 1861.870 | -38.058 |
| 105 | 51 | 1825.337 | 1767.511 | -57.826 |
| 105 | 52 | 1875.723 | 1788.168 | -87.555 |
| 105 | 53 | 1702.251 | 1799.773 | 97.522 |
| 105 | 54 | 1807.286 | 1821.393 | 14.107 |
| 105 | 55 | 1838.257 | 1969.816 | 131.559 |
| 105 | 56 | 1806.673 | 1959.932 | 153.259 |
| 105 | 57 | 1885.949 | 1758.139 | -127.810 |
| 105 | 58 | 1868.755 | 1832.914 | -35.841 |
| 105 | 59 | 1743.395 | 1746.653 | 3.258 |
| 105 | 60 | 1881.708 | 1847.762 | -33.946 |
| 105 | 61 | 1836.456 | 1857.973 | 21.517 |
| 105 | 62 | 1852.127 | 1918.492 | 66.365 |
| 105 | 63 | 1717.147 | 1830.165 | 113.018 |
| 105 | 64 | 1914.137 | 1915.426 | 1.289 |
| 105 | 65 | 1821.838 | 1836.245 | 14.407 |
| 105 | 66 | 1653.164 | 1836.717 | 183.553 |
| 105 | 67 | 1857.973 | 1786.587 | -71.386 |
| Max | | 1977.909 | 1977.920 | 218.610 |
| Average | | 1814.496 | 1830.114 | 15.618 |
| Min | | 1653.164 | 1645.188 | -152.563 |
| Std Dev | | 61.775 | 63.129 | 84.629 |



| 8.12 EA GM 14V | |
|----------------|-----------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 2400 uA/V |
| Min Limit | 1150 uA/V |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LL | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1150.000 |
| Min | 1840.556 | 1737.392 | 1846.328 | 1784.772 | 1709.928 | 1772.085 | 1698.314 | 1832.924 | 1645.188 | 1763.072 | 1720.334 |
| Average | 1842.578 | 1785.498 | 1876.470 | 1819.491 | 1795.852 | 1842.357 | 1825.290 | 1868.126 | 1787.451 | 1839.728 | 1835.407 |
| Max | 1843.762 | 1839.980 | 1906.079 | 1853.887 | 1886.405 | 1893.815 | 1893.826 | 1893.815 | 1904.857 | 1977.920 | 1969.816 |
| UL | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 | 2400.000 |

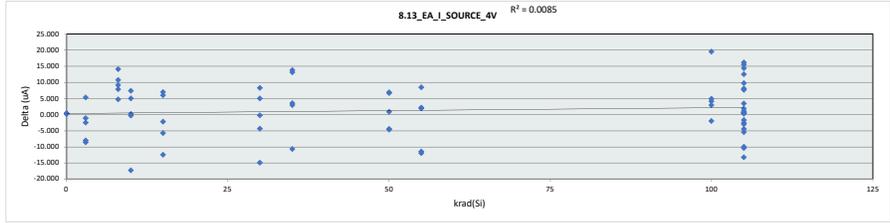


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

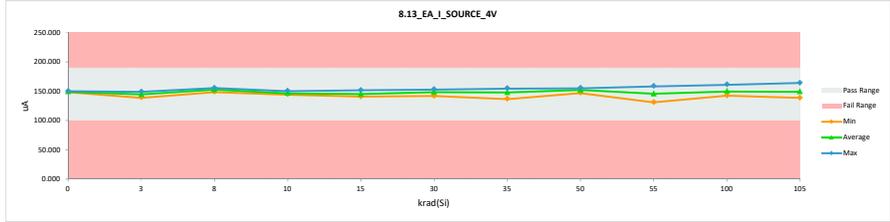
| 8.13 EA I SOURCE 4V | |
|---------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | uA |
| Max Limit | 185 |
| Min Limit | 105 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 148.310 | 148.517 | 0.207 |
| 0 | 992 | 149.716 | 150.003 | 0.287 |
| 0 | 993 | 148.561 | 148.619 | 0.058 |
| 3 | 1 | 147.100 | 138.914 | -8.186 |
| 3 | 2 | 141.143 | 146.350 | 5.207 |
| 3 | 3 | 143.518 | 140.931 | -2.587 |
| 3 | 4 | 157.625 | 148.888 | -8.737 |
| 3 | 5 | 149.099 | 147.845 | -1.254 |
| 8 | 6 | 144.371 | 153.344 | 8.973 |
| 8 | 7 | 140.855 | 154.830 | 13.975 |
| 8 | 8 | 141.053 | 151.687 | 10.634 |
| 8 | 9 | 144.023 | 148.584 | -5.439 |
| 8 | 10 | 147.731 | 155.450 | 7.719 |
| 10 | 11 | 139.692 | 146.891 | 7.199 |
| 10 | 12 | 144.246 | 144.309 | 0.063 |
| 10 | 13 | 145.766 | 145.342 | -0.424 |
| 10 | 14 | 145.245 | 150.156 | 4.911 |
| 10 | 15 | 162.560 | 145.199 | -17.361 |
| 15 | 16 | 158.532 | 145.063 | -12.569 |
| 15 | 17 | 143.026 | 140.716 | -2.310 |
| 15 | 18 | 148.561 | 142.714 | -5.847 |
| 15 | 19 | 139.038 | 144.908 | 5.870 |
| 15 | 20 | 144.740 | 151.547 | 6.807 |
| 30 | 21 | 149.648 | 149.321 | -0.327 |
| 30 | 22 | 156.910 | 141.872 | -15.038 |
| 30 | 23 | 144.988 | 153.100 | 8.112 |
| 30 | 24 | 152.738 | 148.211 | -4.527 |
| 30 | 25 | 146.525 | 151.424 | 4.899 |
| 35 | 26 | 147.632 | 136.813 | -10.819 |
| 35 | 27 | 145.371 | 148.771 | 3.400 |
| 35 | 28 | 136.909 | 149.850 | 12.941 |
| 35 | 29 | 146.345 | 149.163 | 2.818 |
| 35 | 30 | 141.078 | 154.730 | 13.652 |
| 50 | 31 | 148.791 | 155.300 | 6.509 |
| 50 | 32 | 147.807 | 154.559 | 6.752 |
| 50 | 33 | 153.601 | 154.332 | 0.731 |
| 50 | 34 | 154.292 | 149.738 | -4.554 |
| 50 | 35 | 151.734 | 146.941 | -4.793 |
| 55 | 36 | 148.123 | 149.918 | 1.795 |
| 55 | 37 | 156.302 | 158.348 | 2.046 |
| 55 | 38 | 147.711 | 136.167 | -11.544 |
| 55 | 39 | 143.095 | 130.990 | -12.105 |
| 55 | 40 | 144.084 | 152.410 | 8.326 |
| 100 | 41 | 150.943 | 148.847 | -2.096 |
| 100 | 42 | 139.545 | 142.369 | 2.824 |
| 100 | 43 | 145.456 | 149.415 | 3.959 |
| 100 | 44 | 141.792 | 161.152 | 19.360 |
| 100 | 45 | 142.284 | 147.037 | 4.753 |
| 105 | 46 | 145.215 | 145.795 | 0.580 |
| 105 | 47 | 148.680 | 138.558 | -10.122 |
| 105 | 48 | 150.611 | 148.754 | -1.857 |
| 105 | 49 | 140.973 | 148.877 | 7.904 |
| 105 | 50 | 151.930 | 152.241 | 0.311 |
| 105 | 51 | 149.446 | 143.861 | -5.585 |
| 105 | 52 | 154.901 | 144.378 | -10.523 |
| 105 | 53 | 135.725 | 148.078 | 12.353 |
| 105 | 54 | 147.141 | 148.913 | 1.772 |
| 105 | 55 | 149.936 | 164.214 | 14.278 |
| 105 | 56 | 146.212 | 161.526 | 15.314 |
| 105 | 57 | 155.358 | 142.016 | -13.342 |
| 105 | 58 | 152.370 | 147.825 | -4.545 |
| 105 | 59 | 141.047 | 141.192 | 0.145 |
| 105 | 60 | 152.766 | 149.665 | -3.101 |
| 105 | 61 | 147.819 | 151.147 | 3.328 |
| 105 | 62 | 149.123 | 156.640 | 7.517 |
| 105 | 63 | 137.966 | 147.584 | 9.618 |
| 105 | 64 | 156.862 | 157.288 | 0.426 |
| 105 | 65 | 148.972 | 149.930 | 0.958 |
| 105 | 66 | 132.638 | 148.689 | 16.051 |
| 105 | 67 | 149.486 | 146.804 | -2.682 |
| | Max | 162.560 | 164.214 | 19.360 |
| | Average | 147.191 | 148.521 | 1.330 |
| | Min | 132.638 | 130.990 | -17.361 |
| | Std Dev | 5.752 | 5.924 | 8.040 |



| 8.13 EA I SOURCE 4V | |
|---------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 190 uA |
| Min Limit | 100 uA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 148.517 | 138.914 | 148.584 | 144.309 | 140.716 | 141.872 | 136.813 | 146.941 | 130.990 | 142.369 | 138.558 |
| Average | 149.046 | 144.586 | 152.779 | 146.379 | 145.170 | 148.786 | 147.865 | 152.174 | 145.567 | 149.764 | 149.272 |
| Max | 150.003 | 148.888 | 155.450 | 150.156 | 151.547 | 153.100 | 154.730 | 155.300 | 158.348 | 161.152 | 164.214 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |

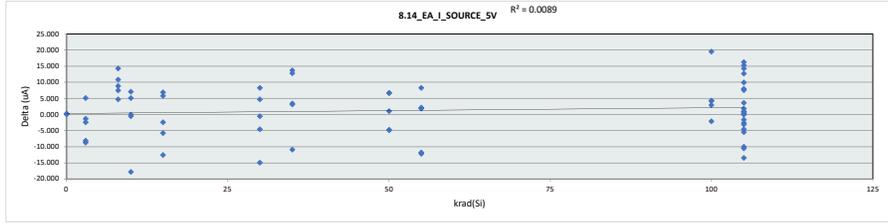


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

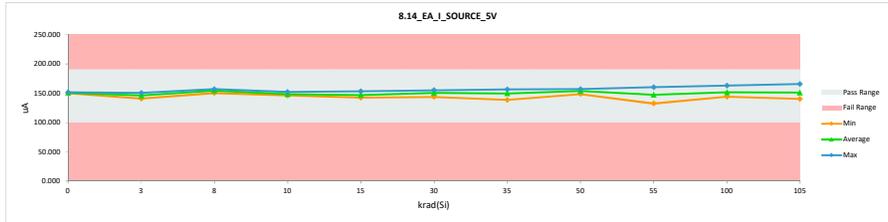
| 8.14 EA I SOURCE 5V | |
|---------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | uA |
| Max Limit | 185 |
| Min Limit | 105 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 149.928 | 150.036 | 0.108 |
| 0 | 992 | 151.375 | 151.667 | 0.292 |
| 0 | 993 | 150.173 | 150.266 | 0.093 |
| 3 | 1 | 148.783 | 140.680 | -8.103 |
| 3 | 2 | 142.791 | 147.885 | 5.094 |
| 3 | 3 | 145.080 | 142.682 | -2.398 |
| 3 | 4 | 159.268 | 150.519 | -8.749 |
| 3 | 5 | 150.775 | 149.469 | -1.306 |
| 8 | 6 | 146.089 | 154.960 | 8.871 |
| 8 | 7 | 142.489 | 156.759 | 14.270 |
| 8 | 8 | 142.625 | 153.449 | 10.824 |
| 8 | 9 | 145.650 | 150.320 | 4.670 |
| 8 | 10 | 149.581 | 157.061 | 7.480 |
| 10 | 11 | 141.414 | 148.504 | 7.090 |
| 10 | 12 | 146.038 | 146.028 | -0.010 |
| 10 | 13 | 147.562 | 147.062 | -0.500 |
| 10 | 14 | 146.913 | 151.993 | 5.080 |
| 10 | 15 | 164.617 | 146.853 | -17.764 |
| 15 | 16 | 160.280 | 147.738 | -12.542 |
| 15 | 17 | 144.751 | 142.315 | -2.436 |
| 15 | 18 | 150.160 | 144.380 | -5.780 |
| 15 | 19 | 140.735 | 146.497 | 5.762 |
| 15 | 20 | 146.515 | 153.343 | 6.828 |
| 30 | 21 | 151.495 | 150.964 | -0.531 |
| 30 | 22 | 158.511 | 143.580 | -14.931 |
| 30 | 23 | 146.751 | 155.025 | 8.274 |
| 30 | 24 | 154.302 | 149.731 | -4.571 |
| 30 | 25 | 148.120 | 152.834 | 4.714 |
| 35 | 26 | 149.304 | 138.364 | -10.940 |
| 35 | 27 | 147.058 | 150.412 | 3.354 |
| 35 | 28 | 138.701 | 151.493 | 12.792 |
| 35 | 29 | 147.956 | 151.074 | 3.118 |
| 35 | 30 | 142.841 | 156.510 | 13.669 |
| 50 | 31 | 150.415 | 157.082 | 6.667 |
| 50 | 32 | 149.532 | 156.214 | 6.682 |
| 50 | 33 | 155.111 | 156.128 | 1.017 |
| 50 | 34 | 156.176 | 151.410 | -4.766 |
| 50 | 35 | 153.395 | 148.550 | -4.845 |
| 55 | 36 | 149.778 | 151.551 | 1.773 |
| 55 | 37 | 158.066 | 160.195 | 2.129 |
| 55 | 38 | 149.353 | 137.543 | -11.810 |
| 55 | 39 | 144.632 | 132.474 | -12.158 |
| 55 | 40 | 145.880 | 154.145 | 8.265 |
| 100 | 41 | 152.728 | 150.579 | -2.149 |
| 100 | 42 | 141.086 | 143.994 | 2.908 |
| 100 | 43 | 146.963 | 151.195 | 4.232 |
| 100 | 44 | 143.553 | 162.996 | 19.443 |
| 100 | 45 | 144.042 | 148.299 | 4.257 |
| 105 | 46 | 146.764 | 147.500 | 0.736 |
| 105 | 47 | 150.347 | 140.291 | -10.056 |
| 105 | 48 | 152.234 | 150.600 | -1.634 |
| 105 | 49 | 142.601 | 150.569 | 7.968 |
| 105 | 50 | 153.788 | 153.864 | 0.076 |
| 105 | 51 | 150.987 | 145.471 | -5.516 |
| 105 | 52 | 156.615 | 146.154 | -10.461 |
| 105 | 53 | 137.347 | 150.000 | 12.653 |
| 105 | 54 | 148.893 | 150.731 | 1.838 |
| 105 | 55 | 151.579 | 165.874 | 14.295 |
| 105 | 56 | 148.015 | 163.296 | 15.281 |
| 105 | 57 | 156.987 | 143.550 | -13.437 |
| 105 | 58 | 154.143 | 149.506 | -4.637 |
| 105 | 59 | 142.642 | 142.688 | 0.046 |
| 105 | 60 | 154.446 | 151.310 | -3.136 |
| 105 | 61 | 149.678 | 153.307 | 3.629 |
| 105 | 62 | 150.782 | 158.329 | 7.547 |
| 105 | 63 | 139.373 | 149.310 | 9.937 |
| 105 | 64 | 158.730 | 158.883 | 0.153 |
| 105 | 65 | 150.420 | 151.385 | 0.965 |
| 105 | 66 | 134.141 | 150.329 | 16.188 |
| 105 | 67 | 151.112 | 148.484 | -2.628 |
| Max | | 164.617 | 165.874 | 19.443 |
| Average | | 148.871 | 150.203 | 1.332 |
| Min | | 134.141 | 132.474 | -17.764 |
| Std Dev | | 5.788 | 5.973 | 8.084 |



| 8.14 EA I SOURCE 5V | |
|---------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 190 |
| Min Limit | 100 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 150.036 | 140.680 | 150.320 | 146.028 | 142.315 | 143.580 | 138.364 | 148.550 | 132.474 | 143.994 | 140.291 |
| Average | 150.656 | 146.247 | 154.510 | 148.088 | 146.855 | 150.427 | 149.571 | 153.877 | 147.182 | 151.413 | 150.974 |
| Max | 151.667 | 150.519 | 157.061 | 151.993 | 153.343 | 155.025 | 156.510 | 157.082 | 160.195 | 162.996 | 165.874 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |

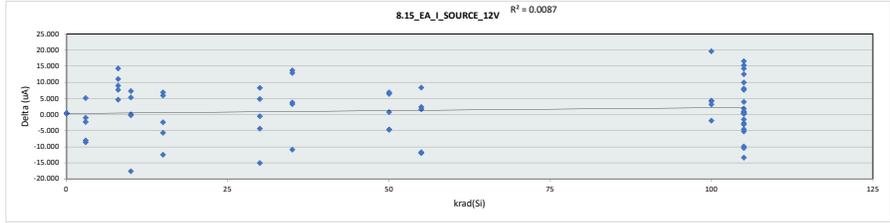


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

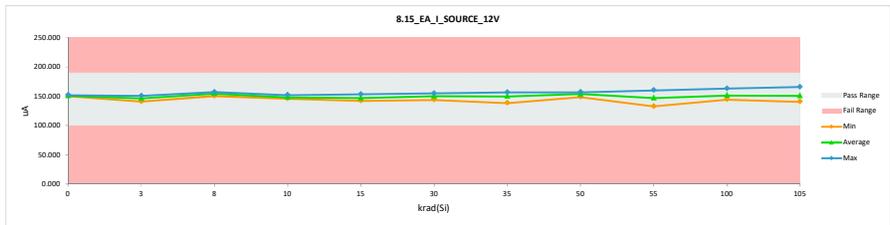
| 8.15 EA I SOURCE 12V | |
|----------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | uA |
| Min Limit | 105 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 150.003 | 150.241 | 0.238 |
| 0 | 992 | 151.473 | 151.774 | 0.301 |
| 0 | 993 | 150.227 | 150.419 | 0.192 |
| 3 | 1 | 148.923 | 140.743 | -8.180 |
| 3 | 2 | 142.954 | 147.918 | 4.964 |
| 3 | 3 | 145.179 | 142.763 | -2.416 |
| 3 | 4 | 159.361 | 150.648 | -8.713 |
| 3 | 5 | 150.831 | 149.671 | -1.160 |
| 8 | 6 | 146.205 | 155.044 | 8.839 |
| 8 | 7 | 142.626 | 156.735 | 14.109 |
| 8 | 8 | 142.671 | 153.607 | 10.936 |
| 8 | 9 | 145.833 | 150.291 | 4.458 |
| 8 | 10 | 149.599 | 157.133 | 7.534 |
| 10 | 11 | 141.514 | 148.637 | 7.123 |
| 10 | 12 | 146.158 | 146.116 | -0.042 |
| 10 | 13 | 147.607 | 147.224 | -0.383 |
| 10 | 14 | 146.925 | 152.094 | 5.169 |
| 10 | 15 | 164.731 | 147.059 | -17.672 |
| 15 | 16 | 160.935 | 147.796 | -12.559 |
| 15 | 17 | 144.856 | 142.353 | -2.503 |
| 15 | 18 | 150.338 | 144.546 | -5.792 |
| 15 | 19 | 140.798 | 146.538 | 5.740 |
| 15 | 20 | 146.553 | 153.345 | 6.792 |
| 30 | 21 | 151.646 | 150.970 | -0.676 |
| 30 | 22 | 158.711 | 143.605 | -15.106 |
| 30 | 23 | 146.797 | 154.936 | 8.139 |
| 30 | 24 | 154.417 | 149.878 | -4.539 |
| 30 | 25 | 148.184 | 152.887 | 4.703 |
| 35 | 26 | 149.388 | 138.360 | -11.028 |
| 35 | 27 | 147.085 | 150.640 | 3.555 |
| 35 | 28 | 138.797 | 151.538 | 12.761 |
| 35 | 29 | 147.996 | 151.052 | 3.056 |
| 35 | 30 | 143.023 | 156.539 | 13.516 |
| 50 | 31 | 150.661 | 156.879 | 6.218 |
| 50 | 32 | 149.583 | 156.373 | 6.790 |
| 50 | 33 | 155.334 | 156.013 | 0.679 |
| 50 | 34 | 156.196 | 151.456 | -4.740 |
| 50 | 35 | 153.367 | 148.539 | -4.828 |
| 55 | 36 | 149.898 | 151.471 | 1.573 |
| 55 | 37 | 158.022 | 160.241 | 2.219 |
| 55 | 38 | 149.437 | 137.659 | -11.778 |
| 55 | 39 | 144.708 | 132.597 | -12.111 |
| 55 | 40 | 146.042 | 154.283 | 8.241 |
| 100 | 41 | 152.816 | 150.760 | -2.056 |
| 100 | 42 | 141.095 | 144.124 | 3.029 |
| 100 | 43 | 147.023 | 151.009 | 3.986 |
| 100 | 44 | 143.545 | 163.066 | 19.521 |
| 100 | 45 | 144.166 | 148.331 | 4.165 |
| 105 | 46 | 146.774 | 147.618 | 0.844 |
| 105 | 47 | 150.445 | 140.440 | -10.005 |
| 105 | 48 | 152.278 | 150.646 | -1.632 |
| 105 | 49 | 142.666 | 150.627 | 7.961 |
| 105 | 50 | 153.858 | 154.002 | 0.144 |
| 105 | 51 | 151.038 | 145.652 | -5.386 |
| 105 | 52 | 156.570 | 146.097 | -10.473 |
| 105 | 53 | 137.433 | 149.809 | 12.376 |
| 105 | 54 | 148.931 | 150.643 | 1.712 |
| 105 | 55 | 151.574 | 165.722 | 14.148 |
| 105 | 56 | 148.159 | 163.250 | 15.091 |
| 105 | 57 | 157.121 | 143.613 | -13.508 |
| 105 | 58 | 154.179 | 149.447 | -4.732 |
| 105 | 59 | 142.677 | 142.825 | 0.148 |
| 105 | 60 | 154.493 | 151.333 | -3.160 |
| 105 | 61 | 149.472 | 153.223 | 3.751 |
| 105 | 62 | 150.807 | 158.361 | 7.554 |
| 105 | 63 | 139.544 | 149.359 | 9.815 |
| 105 | 64 | 158.810 | 159.005 | 0.195 |
| 105 | 65 | 150.661 | 151.240 | 0.579 |
| 105 | 66 | 134.181 | 150.565 | 16.384 |
| 105 | 67 | 151.178 | 148.385 | -2.793 |
| | Max | 164.731 | 165.722 | 19.521 |
| | Average | 148.950 | 150.254 | 1.304 |
| | Min | 134.181 | 132.597 | -17.672 |
| | Std Dev | 5.786 | 5.944 | 8.067 |



| 8.15 EA I SOURCE 12V | |
|----------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | uA |
| Min Limit | 100 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 150.241 | 140.743 | 150.291 | 146.116 | 142.353 | 143.605 | 138.360 | 148.539 | 132.597 | 144.124 | 140.440 |
| Average | 150.811 | 146.349 | 154.562 | 148.226 | 146.916 | 150.455 | 149.626 | 153.852 | 147.250 | 151.458 | 150.994 |
| Max | 151.774 | 150.648 | 157.133 | 152.094 | 153.345 | 154.936 | 156.539 | 156.879 | 160.241 | 163.066 | 165.722 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |

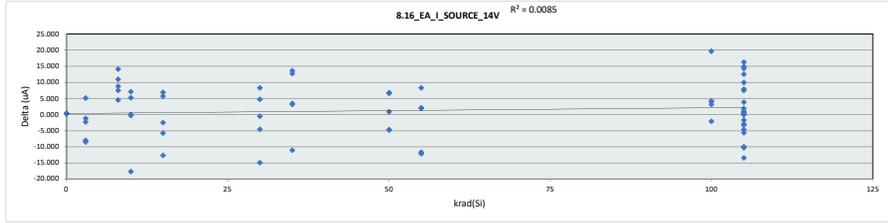


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

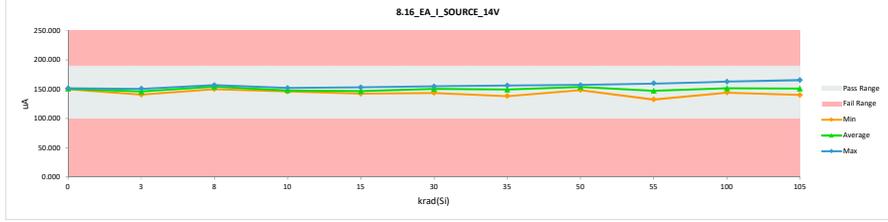
| 8.16 EA I SOURCE 14V | |
|----------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | uA |
| Max Limit | 185 |
| Min Limit | 105 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 149.872 | 150.225 | 0.353 |
| 0 | 992 | 151.373 | 151.639 | 0.266 |
| 0 | 993 | 150.163 | 150.371 | 0.208 |
| 3 | 1 | 148.778 | 140.695 | -8.083 |
| 3 | 2 | 142.792 | 147.893 | 5.101 |
| 3 | 3 | 145.057 | 142.735 | -2.322 |
| 3 | 4 | 159.178 | 150.652 | -8.526 |
| 3 | 5 | 150.715 | 149.450 | -1.265 |
| 8 | 6 | 146.140 | 154.860 | 8.720 |
| 8 | 7 | 142.544 | 156.637 | 14.093 |
| 8 | 8 | 142.570 | 153.459 | 10.889 |
| 8 | 9 | 145.690 | 150.174 | 4.484 |
| 8 | 10 | 149.511 | 156.950 | 7.439 |
| 10 | 11 | 141.485 | 148.556 | 7.071 |
| 10 | 12 | 145.999 | 145.979 | -0.020 |
| 10 | 13 | 147.491 | 147.179 | -0.312 |
| 10 | 14 | 146.776 | 151.932 | 5.156 |
| 10 | 15 | 164.595 | 146.891 | -17.704 |
| 15 | 16 | 160.317 | 147.648 | -12.669 |
| 15 | 17 | 144.778 | 142.267 | -2.511 |
| 15 | 18 | 150.234 | 144.426 | -5.808 |
| 15 | 19 | 140.724 | 146.433 | 5.709 |
| 15 | 20 | 146.427 | 153.231 | 6.804 |
| 30 | 21 | 151.552 | 150.970 | -0.582 |
| 30 | 22 | 139.790 | 143.623 | -14.927 |
| 30 | 23 | 146.759 | 154.970 | 8.211 |
| 30 | 24 | 154.420 | 149.801 | -4.619 |
| 30 | 25 | 148.100 | 152.770 | 4.670 |
| 35 | 26 | 149.372 | 138.308 | -11.064 |
| 35 | 27 | 147.009 | 150.456 | 3.447 |
| 35 | 28 | 139.780 | 151.453 | 12.673 |
| 35 | 29 | 147.857 | 150.987 | 3.130 |
| 35 | 30 | 142.913 | 156.515 | 13.602 |
| 50 | 31 | 150.448 | 157.013 | 6.565 |
| 50 | 32 | 149.499 | 156.294 | 6.795 |
| 50 | 33 | 155.206 | 156.009 | 0.803 |
| 50 | 34 | 156.093 | 151.279 | -4.814 |
| 50 | 35 | 153.327 | 148.540 | -4.787 |
| 55 | 36 | 149.733 | 151.641 | 1.908 |
| 55 | 37 | 158.006 | 160.053 | 2.047 |
| 55 | 38 | 149.381 | 137.660 | -11.721 |
| 55 | 39 | 144.640 | 132.453 | -12.187 |
| 55 | 40 | 145.878 | 154.107 | 8.229 |
| 100 | 41 | 152.706 | 150.604 | -2.102 |
| 100 | 42 | 141.101 | 144.239 | 3.138 |
| 100 | 43 | 146.943 | 150.963 | 4.020 |
| 100 | 44 | 143.494 | 163.112 | 19.618 |
| 100 | 45 | 144.095 | 148.330 | 4.235 |
| 105 | 46 | 146.727 | 147.707 | 0.980 |
| 105 | 47 | 150.280 | 140.308 | -9.972 |
| 105 | 48 | 152.133 | 150.394 | -1.739 |
| 105 | 49 | 142.559 | 150.409 | 7.850 |
| 105 | 50 | 153.742 | 153.727 | -0.015 |
| 105 | 51 | 150.952 | 145.306 | -5.646 |
| 105 | 52 | 156.522 | 146.176 | -10.346 |
| 105 | 53 | 137.177 | 149.645 | 12.468 |
| 105 | 54 | 148.826 | 150.658 | 1.832 |
| 105 | 55 | 151.471 | 165.676 | 14.205 |
| 105 | 56 | 147.938 | 162.815 | 14.877 |
| 105 | 57 | 156.978 | 143.549 | -13.429 |
| 105 | 58 | 154.098 | 149.402 | -4.696 |
| 105 | 59 | 142.626 | 142.713 | 0.087 |
| 105 | 60 | 154.380 | 151.031 | -3.349 |
| 105 | 61 | 149.396 | 153.159 | 3.763 |
| 105 | 62 | 150.593 | 158.071 | 7.478 |
| 105 | 63 | 139.437 | 149.322 | 9.885 |
| 105 | 64 | 158.603 | 158.957 | 0.354 |
| 105 | 65 | 150.537 | 151.066 | 0.529 |
| 105 | 66 | 134.171 | 150.415 | 16.244 |
| 105 | 67 | 151.068 | 148.163 | -2.905 |
| Max | | 164.595 | 165.676 | 19.618 |
| Average | | 148.847 | 150.159 | 1.312 |
| Min | | 134.171 | 132.453 | -17.704 |
| Std Dev | | 5.777 | 5.928 | 8.061 |



| 8.16 EA I SOURCE 14V | |
|----------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 190 uA |
| Min Limit | 100 uA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 150.225 | 140.695 | 150.174 | 145.979 | 142.267 | 143.623 | 138.308 | 148.540 | 132.453 | 144.239 | 140.308 |
| Average | 150.745 | 146.285 | 154.416 | 148.107 | 146.801 | 150.427 | 149.544 | 153.827 | 147.183 | 151.450 | 150.849 |
| Max | 151.639 | 150.652 | 156.950 | 151.932 | 153.231 | 154.970 | 156.515 | 157.013 | 160.053 | 163.112 | 165.676 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |

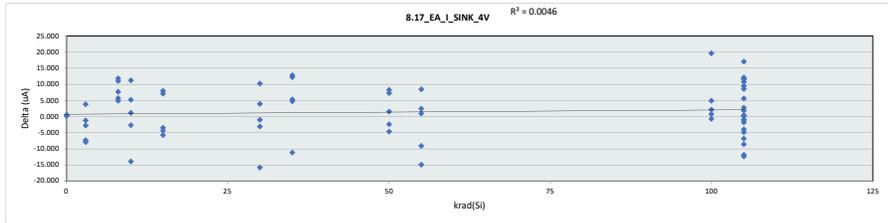


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

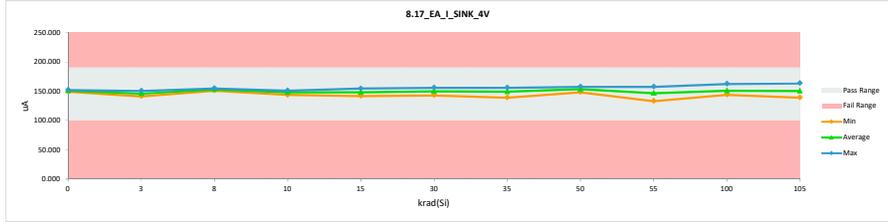
| 8.17 EA I SINK 4V | |
|-------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | uA uA |
| Min Limit | 185 190 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 151.765 | 152.088 | 0.323 |
| 0 | 992 | 150.417 | 150.723 | 0.306 |
| 0 | 993 | 149.142 | 149.233 | 0.091 |
| 3 | 1 | 148.636 | 141.190 | -7.446 |
| 3 | 2 | 142.441 | 146.097 | 3.656 |
| 3 | 3 | 144.231 | 142.946 | -1.285 |
| 3 | 4 | 158.451 | 150.438 | -8.013 |
| 3 | 5 | 151.304 | 148.405 | -2.899 |
| 8 | 6 | 147.165 | 154.717 | 7.552 |
| 8 | 7 | 141.176 | 152.817 | 11.641 |
| 8 | 8 | 142.433 | 153.310 | 10.877 |
| 8 | 9 | 145.908 | 150.700 | 4.792 |
| 8 | 10 | 148.743 | 154.277 | 5.534 |
| 10 | 11 | 139.383 | 150.510 | 11.127 |
| 10 | 12 | 146.349 | 143.567 | -2.782 |
| 10 | 13 | 146.458 | 147.508 | 1.050 |
| 10 | 14 | 145.677 | 150.723 | 5.046 |
| 10 | 15 | 161.647 | 147.602 | -14.045 |
| 15 | 16 | 156.296 | 150.424 | -5.872 |
| 15 | 17 | 145.296 | 141.665 | -3.631 |
| 15 | 18 | 149.573 | 145.105 | -4.468 |
| 15 | 19 | 140.329 | 148.141 | 7.812 |
| 15 | 20 | 147.484 | 154.443 | 6.959 |
| 30 | 21 | 151.558 | 150.403 | -1.155 |
| 30 | 22 | 158.534 | 142.641 | -15.893 |
| 30 | 23 | 145.549 | 155.632 | 10.083 |
| 30 | 24 | 152.377 | 149.204 | -3.173 |
| 30 | 25 | 148.461 | 152.299 | 3.838 |
| 35 | 26 | 150.118 | 138.805 | -11.313 |
| 35 | 27 | 145.503 | 150.701 | 5.198 |
| 35 | 28 | 139.389 | 151.267 | 12.078 |
| 35 | 29 | 146.121 | 150.697 | 4.576 |
| 35 | 30 | 142.989 | 155.616 | 12.627 |
| 50 | 31 | 150.330 | 157.443 | 7.113 |
| 50 | 32 | 148.085 | 156.236 | 8.151 |
| 50 | 33 | 154.693 | 156.125 | 1.432 |
| 50 | 34 | 152.481 | 149.939 | -2.542 |
| 50 | 35 | 152.842 | 148.043 | -4.799 |
| 55 | 36 | 150.107 | 150.934 | 0.827 |
| 55 | 37 | 155.036 | 157.377 | 2.341 |
| 55 | 38 | 151.119 | 136.120 | -14.999 |
| 55 | 39 | 142.153 | 132.903 | -9.250 |
| 55 | 40 | 146.311 | 154.625 | 8.314 |
| 100 | 41 | 151.177 | 150.351 | -0.826 |
| 100 | 42 | 141.712 | 143.753 | 2.041 |
| 100 | 43 | 149.485 | 150.128 | 0.643 |
| 100 | 44 | 142.700 | 162.199 | 19.499 |
| 100 | 45 | 144.455 | 149.284 | 4.829 |
| 105 | 46 | 148.248 | 148.540 | 0.292 |
| 105 | 47 | 151.492 | 138.983 | -12.509 |
| 105 | 48 | 151.926 | 150.926 | -1.000 |
| 105 | 49 | 141.610 | 150.976 | 9.366 |
| 105 | 50 | 154.563 | 153.330 | -1.233 |
| 105 | 51 | 150.374 | 143.466 | -6.908 |
| 105 | 52 | 155.709 | 146.958 | -8.751 |
| 105 | 53 | 137.886 | 149.251 | 11.365 |
| 105 | 54 | 148.981 | 149.032 | 0.051 |
| 105 | 55 | 151.232 | 163.173 | 11.941 |
| 105 | 56 | 147.623 | 159.297 | 11.674 |
| 105 | 57 | 156.117 | 144.139 | -11.978 |
| 105 | 58 | 154.019 | 148.990 | -5.029 |
| 105 | 59 | 142.336 | 142.518 | 0.182 |
| 105 | 60 | 154.432 | 152.458 | -1.974 |
| 105 | 61 | 147.870 | 153.384 | 5.514 |
| 105 | 62 | 150.137 | 158.565 | 8.428 |
| 105 | 63 | 137.914 | 148.484 | 10.570 |
| 105 | 64 | 155.442 | 157.153 | 1.711 |
| 105 | 65 | 149.645 | 152.210 | 2.565 |
| 105 | 66 | 134.583 | 151.448 | 16.865 |
| 105 | 67 | 151.227 | 147.141 | -4.086 |
| | Max | 161.647 | 163.173 | 19.499 |
| | Average | 148.382 | 149.854 | 1.472 |
| | Min | 134.583 | 132.903 | -15.893 |
| | Std Dev | 5.441 | 5.670 | 7.773 |



| 8.17 EA I SINK 4V | |
|-------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | uA |
| Min Limit | uA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 149.233 | 141.190 | 150.700 | 143.567 | 141.665 | 142.641 | 138.805 | 148.043 | 132.903 | 143.753 | 138.983 |
| Average | 150.681 | 145.815 | 153.164 | 147.982 | 147.956 | 150.036 | 149.417 | 153.557 | 146.392 | 151.143 | 150.474 |
| Max | 152.088 | 150.438 | 154.717 | 150.723 | 154.443 | 155.632 | 155.616 | 157.443 | 157.377 | 162.199 | 163.173 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |

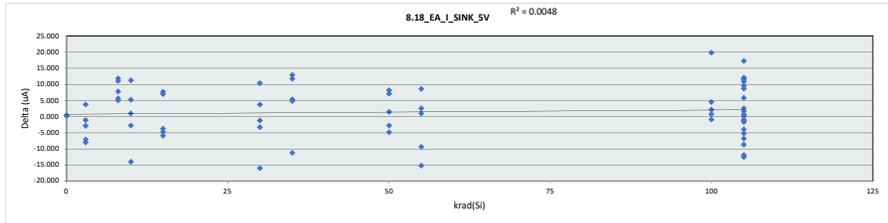


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

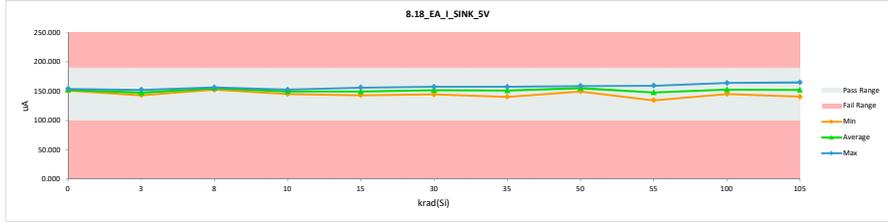
| 8.18 EA I SINK 5V | |
|-------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | uA |
| Max Limit | 185 |
| Min Limit | 190 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 153.660 | 153.943 | 0.283 |
| 0 | 992 | 152.210 | 152.546 | 0.336 |
| 0 | 993 | 150.949 | 151.145 | 0.196 |
| 3 | 1 | 150.335 | 143.152 | -7.183 |
| 3 | 2 | 144.211 | 147.890 | 3.679 |
| 3 | 3 | 145.972 | 144.881 | -1.091 |
| 3 | 4 | 160.405 | 152.412 | -7.993 |
| 3 | 5 | 153.090 | 150.129 | -2.961 |
| 8 | 6 | 148.889 | 156.593 | 7.704 |
| 8 | 7 | 142.914 | 154.679 | 11.765 |
| 8 | 8 | 144.255 | 155.292 | 11.037 |
| 8 | 9 | 147.623 | 152.645 | 5.022 |
| 8 | 10 | 150.648 | 156.191 | 5.543 |
| 10 | 11 | 141.053 | 152.277 | 11.224 |
| 10 | 12 | 148.170 | 145.383 | -2.787 |
| 10 | 13 | 148.472 | 149.382 | 0.910 |
| 10 | 14 | 147.500 | 152.695 | 5.195 |
| 10 | 15 | 163.569 | 149.472 | -14.097 |
| 15 | 16 | 158.213 | 152.243 | -5.970 |
| 15 | 17 | 147.143 | 143.310 | -3.833 |
| 15 | 18 | 151.536 | 146.719 | -4.817 |
| 15 | 19 | 142.082 | 149.747 | 7.665 |
| 15 | 20 | 149.276 | 156.241 | 6.965 |
| 30 | 21 | 153.614 | 152.345 | -1.269 |
| 30 | 22 | 150.467 | 144.401 | -16.066 |
| 30 | 23 | 147.295 | 157.563 | 10.268 |
| 30 | 24 | 154.196 | 150.892 | -3.304 |
| 30 | 25 | 150.312 | 153.971 | 3.659 |
| 35 | 26 | 151.864 | 140.534 | -11.330 |
| 35 | 27 | 147.325 | 152.576 | 5.251 |
| 35 | 28 | 141.113 | 152.799 | 11.686 |
| 35 | 29 | 147.773 | 152.575 | 4.802 |
| 35 | 30 | 144.701 | 157.606 | 12.905 |
| 50 | 31 | 152.016 | 159.051 | 7.035 |
| 50 | 32 | 149.912 | 158.067 | 8.155 |
| 50 | 33 | 156.510 | 157.932 | 1.422 |
| 50 | 34 | 154.425 | 151.593 | -2.832 |
| 50 | 35 | 154.720 | 149.831 | -4.889 |
| 55 | 36 | 151.770 | 152.679 | 0.909 |
| 55 | 37 | 156.878 | 159.428 | 2.550 |
| 55 | 38 | 152.939 | 137.739 | -15.200 |
| 55 | 39 | 143.885 | 134.449 | -9.436 |
| 55 | 40 | 148.052 | 156.587 | 8.535 |
| 100 | 41 | 153.160 | 152.209 | -0.951 |
| 100 | 42 | 143.375 | 145.465 | 2.090 |
| 100 | 43 | 151.304 | 152.036 | 0.732 |
| 100 | 44 | 144.381 | 164.109 | 19.728 |
| 100 | 45 | 146.232 | 150.760 | 4.528 |
| 105 | 46 | 149.922 | 150.604 | 0.682 |
| 105 | 47 | 153.253 | 140.675 | -12.578 |
| 105 | 48 | 153.762 | 152.768 | -0.994 |
| 105 | 49 | 143.284 | 152.797 | 9.513 |
| 105 | 50 | 156.345 | 155.115 | -1.230 |
| 105 | 51 | 152.083 | 145.248 | -6.835 |
| 105 | 52 | 157.538 | 148.845 | -8.693 |
| 105 | 53 | 139.524 | 151.124 | 11.600 |
| 105 | 54 | 150.828 | 150.946 | 0.118 |
| 105 | 55 | 152.913 | 165.009 | 12.096 |
| 105 | 56 | 149.774 | 161.107 | 11.333 |
| 105 | 57 | 157.919 | 145.923 | -11.996 |
| 105 | 58 | 156.066 | 150.774 | -5.292 |
| 105 | 59 | 144.123 | 144.166 | 0.043 |
| 105 | 60 | 156.126 | 154.362 | -1.764 |
| 105 | 61 | 149.735 | 155.524 | 5.789 |
| 105 | 62 | 151.855 | 160.438 | 8.583 |
| 105 | 63 | 139.520 | 150.318 | 10.798 |
| 105 | 64 | 157.446 | 159.069 | 1.623 |
| 105 | 65 | 151.378 | 153.845 | 2.467 |
| 105 | 66 | 136.295 | 153.460 | 17.165 |
| 105 | 67 | 153.119 | 149.121 | -3.998 |
| Max | | 163.569 | 165.009 | 19.728 |
| Average | | 150.189 | 151.677 | 1.489 |
| Min | | 136.295 | 134.449 | -16.066 |
| Std Dev | | 5.494 | 5.721 | 7.838 |



| 8.18 EA I SINK 5V | |
|-------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 190 uA |
| Min Limit | 100 uA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 151.145 | 143.152 | 152.645 | 145.383 | 143.310 | 144.401 | 140.534 | 149.831 | 134.449 | 145.465 | 140.675 |
| Average | 152.545 | 147.693 | 155.080 | 149.842 | 149.652 | 151.834 | 151.218 | 155.295 | 148.176 | 152.916 | 152.329 |
| Max | 153.943 | 152.412 | 156.593 | 152.695 | 156.241 | 157.563 | 157.606 | 159.051 | 159.428 | 164.109 | 165.009 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |

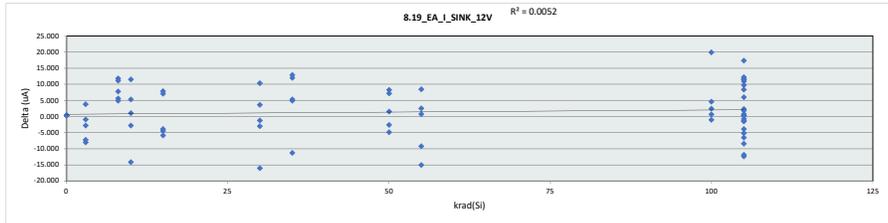


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

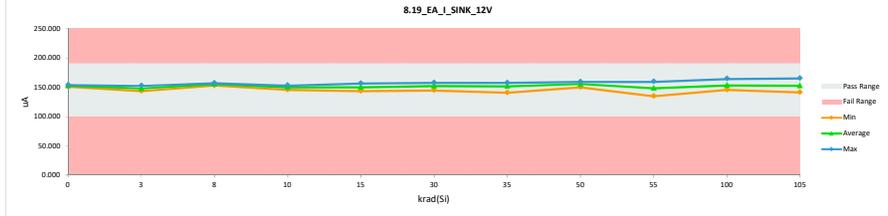
| 8.19 EA I SINK 12V | |
|--------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | uA |
| Min Limit | uA |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 153.560 | 153.910 | 0.350 |
| 0 | 992 | 152.265 | 152.520 | 0.255 |
| 0 | 993 | 151.032 | 151.131 | 0.099 |
| 3 | 1 | 150.485 | 143.181 | -7.304 |
| 3 | 2 | 144.353 | 148.023 | 3.670 |
| 3 | 3 | 146.022 | 144.953 | -1.069 |
| 3 | 4 | 160.541 | 152.417 | -8.124 |
| 3 | 5 | 153.206 | 150.287 | -2.919 |
| 8 | 6 | 149.045 | 156.727 | 7.682 |
| 8 | 7 | 143.068 | 154.734 | 11.666 |
| 8 | 8 | 144.342 | 155.375 | 11.033 |
| 8 | 9 | 147.878 | 152.663 | 4.785 |
| 8 | 10 | 150.785 | 156.261 | 5.476 |
| 10 | 11 | 141.192 | 152.555 | 11.363 |
| 10 | 12 | 148.340 | 145.474 | -2.866 |
| 10 | 13 | 148.576 | 149.485 | 0.909 |
| 10 | 14 | 147.659 | 152.841 | 5.182 |
| 10 | 15 | 163.765 | 149.534 | -14.231 |
| 15 | 16 | 158.291 | 152.328 | -5.963 |
| 15 | 17 | 147.350 | 143.356 | -3.994 |
| 15 | 18 | 151.510 | 146.888 | -4.622 |
| 15 | 19 | 142.171 | 149.893 | 7.722 |
| 15 | 20 | 149.332 | 156.236 | 6.904 |
| 30 | 21 | 153.641 | 152.271 | -1.370 |
| 30 | 22 | 160.568 | 144.441 | -16.127 |
| 30 | 23 | 147.506 | 157.726 | 10.220 |
| 30 | 24 | 154.185 | 151.110 | -3.075 |
| 30 | 25 | 150.408 | 153.953 | 3.545 |
| 35 | 26 | 151.977 | 140.571 | -11.406 |
| 35 | 27 | 147.369 | 152.508 | 5.139 |
| 35 | 28 | 141.216 | 153.094 | 11.878 |
| 35 | 29 | 147.953 | 152.722 | 4.769 |
| 35 | 30 | 144.868 | 157.634 | 12.766 |
| 50 | 31 | 152.229 | 159.313 | 7.084 |
| 50 | 32 | 150.107 | 158.195 | 8.088 |
| 50 | 33 | 156.656 | 158.069 | 1.413 |
| 50 | 34 | 154.499 | 151.784 | -2.715 |
| 50 | 35 | 154.796 | 149.805 | -4.991 |
| 55 | 36 | 152.064 | 152.708 | 0.644 |
| 55 | 37 | 156.999 | 159.411 | 2.412 |
| 55 | 38 | 153.019 | 137.883 | -15.136 |
| 55 | 39 | 144.001 | 134.635 | -9.366 |
| 55 | 40 | 148.323 | 156.696 | 8.373 |
| 100 | 41 | 153.321 | 152.215 | -1.106 |
| 100 | 42 | 143.389 | 145.745 | 2.356 |
| 100 | 43 | 151.432 | 151.973 | 0.541 |
| 100 | 44 | 144.477 | 164.292 | 19.815 |
| 100 | 45 | 146.397 | 150.886 | 4.489 |
| 105 | 46 | 150.019 | 150.690 | 0.671 |
| 105 | 47 | 153.348 | 140.914 | -12.434 |
| 105 | 48 | 153.789 | 152.905 | -0.884 |
| 105 | 49 | 143.385 | 152.977 | 9.592 |
| 105 | 50 | 156.463 | 155.075 | -1.388 |
| 105 | 51 | 152.215 | 145.511 | -6.704 |
| 105 | 52 | 157.559 | 148.997 | -8.562 |
| 105 | 53 | 139.591 | 151.117 | 11.526 |
| 105 | 54 | 150.894 | 151.061 | 0.167 |
| 105 | 55 | 153.055 | 165.111 | 12.056 |
| 105 | 56 | 149.671 | 161.106 | 11.435 |
| 105 | 57 | 157.970 | 145.962 | -12.008 |
| 105 | 58 | 156.051 | 150.780 | -5.271 |
| 105 | 59 | 144.133 | 144.326 | 0.193 |
| 105 | 60 | 156.188 | 154.524 | -1.664 |
| 105 | 61 | 149.759 | 155.628 | 5.869 |
| 105 | 62 | 151.920 | 160.136 | 8.216 |
| 105 | 63 | 139.604 | 150.379 | 10.775 |
| 105 | 64 | 157.645 | 159.334 | 1.689 |
| 105 | 65 | 151.515 | 153.700 | 2.185 |
| 105 | 66 | 136.251 | 153.476 | 17.225 |
| 105 | 67 | 153.167 | 149.185 | -3.982 |
| Max | | 163.765 | 165.111 | 19.815 |
| Average | | 150.291 | 151.762 | 1.471 |
| Min | | 136.251 | 134.635 | -16.127 |
| Std Dev | | 5.494 | 5.703 | 7.833 |



| 8.19 EA I SINK 12V | |
|--------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | uA |
| Min Limit | uA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 151.131 | 143.181 | 152.663 | 145.474 | 143.356 | 144.441 | 140.571 | 149.805 | 134.635 | 145.745 | 140.914 |
| Average | 152.520 | 147.772 | 155.152 | 149.978 | 149.740 | 151.900 | 151.306 | 155.433 | 148.267 | 153.022 | 152.404 |
| Max | 153.910 | 152.417 | 156.727 | 152.841 | 156.236 | 157.726 | 157.634 | 159.313 | 159.411 | 164.292 | 165.111 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |

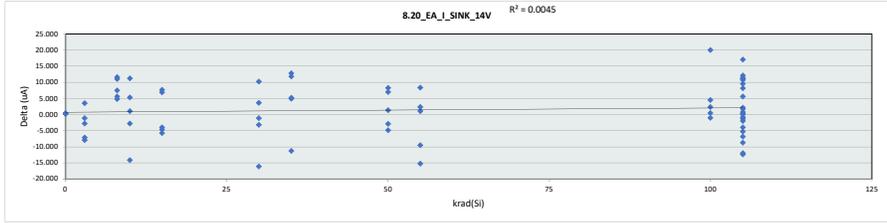


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

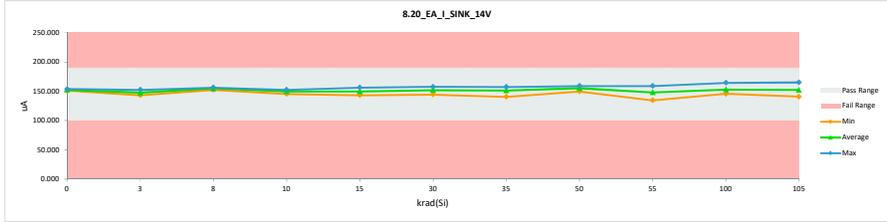
| 8.20 EA I_SINK_14V | |
|--------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | uA uA |
| Min Limit | 185 190 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 153.510 | 153.901 | 0.391 |
| 0 | 992 | 152.183 | 152.574 | 0.391 |
| 0 | 993 | 150.946 | 151.054 | 0.108 |
| 3 | 1 | 150.351 | 143.208 | -7.143 |
| 3 | 2 | 144.336 | 147.862 | 3.526 |
| 3 | 3 | 145.986 | 144.806 | -1.180 |
| 3 | 4 | 160.295 | 152.383 | -7.912 |
| 3 | 5 | 153.037 | 150.180 | -2.857 |
| 8 | 6 | 149.028 | 156.468 | 7.440 |
| 8 | 7 | 143.038 | 154.654 | 11.616 |
| 8 | 8 | 144.155 | 155.148 | 10.993 |
| 8 | 9 | 147.777 | 152.551 | 4.774 |
| 8 | 10 | 150.576 | 156.163 | 5.587 |
| 10 | 11 | 141.123 | 152.296 | 11.173 |
| 10 | 12 | 148.239 | 145.405 | -2.834 |
| 10 | 13 | 148.522 | 149.583 | 1.061 |
| 10 | 14 | 147.392 | 152.655 | 5.263 |
| 10 | 15 | 163.568 | 149.438 | -14.130 |
| 15 | 16 | 158.005 | 152.212 | -5.793 |
| 15 | 17 | 147.231 | 143.264 | -3.967 |
| 15 | 18 | 151.420 | 146.777 | -4.643 |
| 15 | 19 | 142.091 | 149.769 | 7.678 |
| 15 | 20 | 149.279 | 156.137 | 6.858 |
| 30 | 21 | 153.616 | 152.442 | -1.174 |
| 30 | 22 | 150.492 | 144.316 | -16.176 |
| 30 | 23 | 147.410 | 157.630 | 10.220 |
| 30 | 24 | 154.182 | 150.998 | -3.184 |
| 30 | 25 | 150.193 | 153.785 | 3.592 |
| 35 | 26 | 151.879 | 140.589 | -11.290 |
| 35 | 27 | 147.276 | 152.443 | 5.167 |
| 35 | 28 | 141.214 | 152.965 | 11.751 |
| 35 | 29 | 147.736 | 152.572 | 4.836 |
| 35 | 30 | 144.808 | 157.559 | 12.751 |
| 50 | 31 | 152.163 | 159.147 | 6.984 |
| 50 | 32 | 149.813 | 158.094 | 8.281 |
| 50 | 33 | 156.576 | 157.893 | 1.317 |
| 50 | 34 | 154.462 | 151.593 | -2.869 |
| 50 | 35 | 154.704 | 149.813 | -4.891 |
| 55 | 36 | 151.809 | 152.858 | 1.049 |
| 55 | 37 | 156.857 | 159.167 | 2.310 |
| 55 | 38 | 153.013 | 137.740 | -15.273 |
| 55 | 39 | 143.984 | 134.457 | -9.527 |
| 55 | 40 | 148.199 | 156.531 | 8.332 |
| 100 | 41 | 153.075 | 152.044 | -1.031 |
| 100 | 42 | 143.368 | 145.680 | 2.312 |
| 100 | 43 | 151.244 | 151.704 | 0.460 |
| 100 | 44 | 144.426 | 164.407 | 19.981 |
| 100 | 45 | 146.359 | 150.803 | 4.444 |
| 105 | 46 | 149.931 | 150.633 | 0.702 |
| 105 | 47 | 153.215 | 140.795 | -12.420 |
| 105 | 48 | 153.685 | 152.824 | -0.861 |
| 105 | 49 | 143.300 | 152.848 | 9.548 |
| 105 | 50 | 156.397 | 155.086 | -1.311 |
| 105 | 51 | 152.115 | 145.295 | -6.820 |
| 105 | 52 | 157.504 | 148.792 | -8.712 |
| 105 | 53 | 139.477 | 150.907 | 11.430 |
| 105 | 54 | 150.796 | 151.040 | 0.244 |
| 105 | 55 | 153.008 | 165.121 | 12.113 |
| 105 | 56 | 149.687 | 160.710 | 11.023 |
| 105 | 57 | 157.906 | 145.883 | -12.023 |
| 105 | 58 | 156.000 | 150.680 | -5.320 |
| 105 | 59 | 144.094 | 144.106 | 0.012 |
| 105 | 60 | 156.115 | 154.139 | -1.976 |
| 105 | 61 | 149.829 | 155.441 | 5.612 |
| 105 | 62 | 151.904 | 160.036 | 8.132 |
| 105 | 63 | 139.603 | 150.346 | 10.743 |
| 105 | 64 | 157.413 | 159.100 | 1.687 |
| 105 | 65 | 151.416 | 153.534 | 2.118 |
| 105 | 66 | 136.288 | 153.305 | 17.017 |
| 105 | 67 | 153.071 | 149.028 | -4.043 |
| Max | | 163.568 | 165.121 | 19.981 |
| Average | | 150.196 | 151.648 | 1.452 |
| Min | | 136.288 | 134.457 | -16.176 |
| Std Dev | | 5.468 | 5.697 | 7.811 |



| 8.20 EA I_SINK_14V | |
|--------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 190 uA |
| Min Limit | 100 uA |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 151.054 | 143.208 | 152.551 | 145.405 | 143.264 | 144.316 | 140.589 | 149.813 | 134.457 | 145.680 | 140.795 |
| Average | 152.510 | 147.688 | 154.997 | 149.875 | 149.632 | 151.834 | 151.226 | 155.308 | 148.151 | 152.928 | 152.257 |
| Max | 153.901 | 152.383 | 156.468 | 152.655 | 156.137 | 157.630 | 157.559 | 159.147 | 159.167 | 164.407 | 165.121 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |

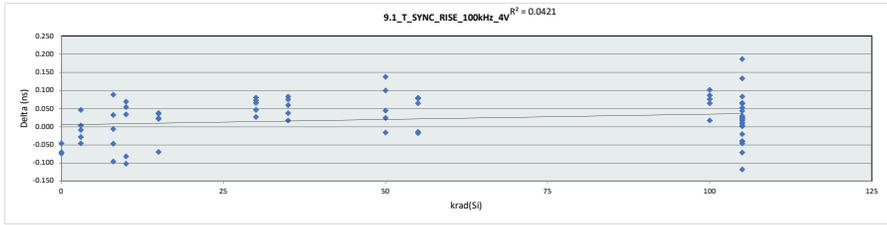


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

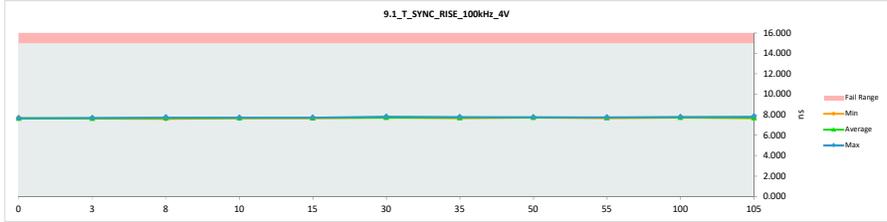
| 9.1 T_SYNC_RISE_100kHz_4V | |
|---------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 14.5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.684 | 7.637 | -0.047 |
| 0 | 992 | 7.712 | 7.640 | -0.072 |
| 0 | 993 | 7.725 | 7.650 | -0.075 |
| 3 | 1 | 7.648 | 7.618 | -0.030 |
| 3 | 2 | 7.632 | 7.634 | 0.002 |
| 3 | 3 | 7.677 | 7.667 | -0.010 |
| 3 | 4 | 7.689 | 7.642 | -0.047 |
| 3 | 5 | 7.637 | 7.682 | 0.045 |
| 8 | 6 | 7.679 | 7.710 | 0.031 |
| 8 | 7 | 7.685 | 7.588 | -0.097 |
| 8 | 8 | 7.641 | 7.728 | 0.087 |
| 8 | 9 | 7.662 | 7.654 | -0.008 |
| 8 | 10 | 7.710 | 7.662 | -0.048 |
| 10 | 11 | 7.750 | 7.647 | -0.103 |
| 10 | 12 | 7.633 | 7.701 | 0.068 |
| 10 | 13 | 7.652 | 7.685 | 0.033 |
| 10 | 14 | 7.603 | 7.656 | 0.053 |
| 10 | 15 | 7.792 | 7.709 | -0.083 |
| 15 | 16 | 7.714 | 7.643 | -0.071 |
| 15 | 17 | 7.639 | 7.661 | 0.022 |
| 15 | 18 | 7.626 | 7.660 | 0.034 |
| 15 | 19 | 7.674 | 7.710 | 0.036 |
| 15 | 20 | 7.689 | 7.709 | 0.020 |
| 30 | 21 | 7.681 | 7.707 | 0.026 |
| 30 | 22 | 7.647 | 7.711 | 0.064 |
| 30 | 23 | 7.697 | 7.768 | 0.071 |
| 30 | 24 | 7.746 | 7.791 | 0.045 |
| 30 | 25 | 7.620 | 7.699 | 0.079 |
| 35 | 26 | 7.647 | 7.683 | 0.036 |
| 35 | 27 | 7.618 | 7.700 | 0.082 |
| 35 | 28 | 7.643 | 7.659 | 0.016 |
| 35 | 29 | 7.687 | 7.761 | 0.074 |
| 35 | 30 | 7.683 | 7.741 | 0.058 |
| 50 | 31 | 7.632 | 7.730 | 0.098 |
| 50 | 32 | 7.699 | 7.742 | 0.043 |
| 50 | 33 | 7.728 | 7.711 | -0.017 |
| 50 | 34 | 7.600 | 7.736 | 0.136 |
| 50 | 35 | 7.712 | 7.735 | 0.023 |
| 55 | 36 | 7.684 | 7.747 | 0.063 |
| 55 | 37 | 7.686 | 7.670 | -0.016 |
| 55 | 38 | 7.671 | 7.749 | 0.078 |
| 55 | 39 | 7.681 | 7.662 | -0.019 |
| 55 | 40 | 7.650 | 7.726 | 0.076 |
| 100 | 41 | 7.626 | 7.701 | 0.075 |
| 100 | 42 | 7.663 | 7.763 | 0.100 |
| 100 | 43 | 7.661 | 7.746 | 0.085 |
| 100 | 44 | 7.687 | 7.750 | 0.063 |
| 100 | 45 | 7.686 | 7.702 | 0.016 |
| 105 | 46 | 7.747 | 7.706 | -0.041 |
| 105 | 47 | 7.682 | 7.744 | 0.062 |
| 105 | 48 | 7.688 | 7.698 | 0.010 |
| 105 | 49 | 7.653 | 7.704 | 0.051 |
| 105 | 50 | 7.742 | 7.720 | -0.022 |
| 105 | 51 | 7.720 | 7.748 | 0.028 |
| 105 | 52 | 7.644 | 7.708 | 0.064 |
| 105 | 53 | 7.675 | 7.675 | 0.000 |
| 105 | 54 | 7.687 | 7.703 | 0.016 |
| 105 | 55 | 7.631 | 7.816 | 0.185 |
| 105 | 56 | 7.728 | 7.752 | 0.024 |
| 105 | 57 | 7.766 | 7.693 | -0.073 |
| 105 | 58 | 7.712 | 7.665 | -0.047 |
| 105 | 59 | 7.714 | 7.735 | 0.021 |
| 105 | 60 | 7.667 | 7.749 | 0.082 |
| 105 | 61 | 7.666 | 7.708 | 0.042 |
| 105 | 62 | 7.644 | 7.663 | 0.019 |
| 105 | 63 | 7.723 | 7.730 | 0.007 |
| 105 | 64 | 7.634 | 7.766 | 0.132 |
| 105 | 65 | 7.765 | 7.646 | -0.119 |
| 105 | 66 | 7.664 | 7.665 | 0.001 |
| 105 | 67 | 7.710 | 7.668 | -0.042 |
| Max | | 7.792 | 7.816 | 0.185 |
| Average | | 7.679 | 7.701 | 0.021 |
| Min | | 7.600 | 7.588 | -0.119 |
| Std Dev | | 0.041 | 0.044 | 0.060 |



| 9.1 T_SYNC_RISE_100kHz_4V | |
|---------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 7.637 | 7.618 | 7.588 | 7.647 | 7.643 | 7.699 | 7.659 | 7.711 | 7.662 | 7.701 | 7.646 |
| Average | 7.642 | 7.649 | 7.668 | 7.680 | 7.677 | 7.735 | 7.709 | 7.731 | 7.711 | 7.732 | 7.712 |
| Max | 7.650 | 7.682 | 7.728 | 7.709 | 7.710 | 7.791 | 7.761 | 7.742 | 7.749 | 7.763 | 7.816 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

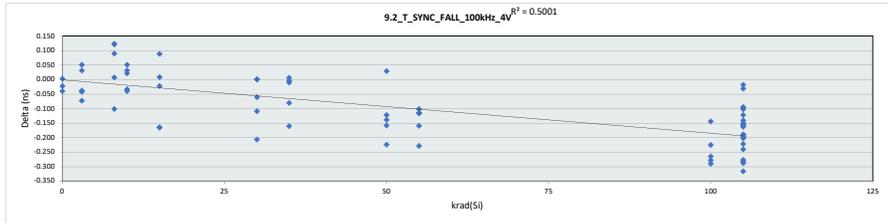


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

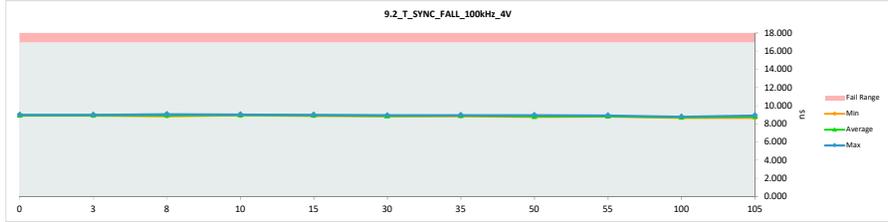
| 9.2 T_SYNC_FALL_100kHz_4V | |
|---------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns ns |
| Min Limit | 14.5 17 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.972 | 8.974 | 0.002 |
| 0 | 992 | 8.938 | 8.897 | -0.041 |
| 0 | 993 | 8.952 | 8.929 | -0.023 |
| 3 | 1 | 8.935 | 8.966 | 0.031 |
| 3 | 2 | 8.889 | 8.939 | 0.050 |
| 3 | 3 | 9.001 | 8.963 | -0.038 |
| 3 | 4 | 8.981 | 8.907 | -0.074 |
| 3 | 5 | 8.964 | 8.921 | -0.043 |
| 8 | 6 | 8.823 | 8.943 | 0.120 |
| 8 | 7 | 8.953 | 8.851 | -0.102 |
| 8 | 8 | 8.917 | 9.006 | 0.089 |
| 8 | 9 | 8.925 | 9.048 | 0.123 |
| 8 | 10 | 8.922 | 8.928 | 0.006 |
| 10 | 11 | 8.946 | 8.996 | 0.050 |
| 10 | 12 | 9.036 | 8.995 | -0.041 |
| 10 | 13 | 8.923 | 8.953 | 0.030 |
| 10 | 14 | 8.900 | 8.921 | 0.021 |
| 10 | 15 | 9.041 | 9.007 | -0.034 |
| 15 | 16 | 9.073 | 8.907 | -0.166 |
| 15 | 17 | 8.985 | 8.962 | -0.023 |
| 15 | 18 | 8.900 | 8.987 | 0.087 |
| 15 | 19 | 8.903 | 8.910 | 0.007 |
| 15 | 20 | 9.050 | 8.884 | -0.166 |
| 30 | 21 | 9.047 | 8.840 | -0.207 |
| 30 | 22 | 8.886 | 8.886 | 0.000 |
| 30 | 23 | 8.947 | 8.886 | -0.061 |
| 30 | 24 | 8.926 | 8.926 | 0.000 |
| 30 | 25 | 9.017 | 8.907 | -0.110 |
| 35 | 26 | 8.970 | 8.959 | -0.011 |
| 35 | 27 | 8.915 | 8.920 | 0.005 |
| 35 | 28 | 9.002 | 8.841 | -0.161 |
| 35 | 29 | 8.942 | 8.937 | -0.005 |
| 35 | 30 | 8.970 | 8.889 | -0.081 |
| 50 | 31 | 8.910 | 8.771 | -0.139 |
| 50 | 32 | 8.925 | 8.802 | -0.123 |
| 50 | 33 | 8.965 | 8.806 | -0.159 |
| 50 | 34 | 8.927 | 8.955 | 0.028 |
| 50 | 35 | 9.004 | 8.779 | -0.225 |
| 55 | 36 | 9.019 | 8.859 | -0.160 |
| 55 | 37 | 8.932 | 8.815 | -0.117 |
| 55 | 38 | 8.999 | 8.897 | -0.102 |
| 55 | 39 | 9.028 | 8.799 | -0.229 |
| 55 | 40 | 8.992 | 8.877 | -0.115 |
| 100 | 41 | 8.948 | 8.669 | -0.279 |
| 100 | 42 | 8.925 | 8.699 | -0.226 |
| 100 | 43 | 8.933 | 8.788 | -0.145 |
| 100 | 44 | 9.009 | 8.719 | -0.290 |
| 100 | 45 | 9.012 | 8.747 | -0.265 |
| 105 | 46 | 8.968 | 8.651 | -0.317 |
| 105 | 47 | 8.950 | 8.794 | -0.156 |
| 105 | 48 | 8.942 | 8.742 | -0.200 |
| 105 | 49 | 8.956 | 8.753 | -0.203 |
| 105 | 50 | 8.971 | 8.730 | -0.241 |
| 105 | 51 | 8.999 | 8.722 | -0.277 |
| 105 | 52 | 8.971 | 8.868 | -0.103 |
| 105 | 53 | 9.028 | 8.745 | -0.283 |
| 105 | 54 | 9.005 | 8.717 | -0.288 |
| 105 | 55 | 8.912 | 8.880 | -0.032 |
| 105 | 56 | 9.007 | 8.848 | -0.159 |
| 105 | 57 | 8.964 | 8.841 | -0.123 |
| 105 | 58 | 8.947 | 8.724 | -0.223 |
| 105 | 59 | 8.959 | 8.796 | -0.163 |
| 105 | 60 | 8.942 | 8.923 | -0.019 |
| 105 | 61 | 9.045 | 8.894 | -0.151 |
| 105 | 62 | 8.931 | 8.735 | -0.196 |
| 105 | 63 | 9.014 | 8.823 | -0.191 |
| 105 | 64 | 8.941 | 8.799 | -0.142 |
| 105 | 65 | 8.967 | 8.869 | -0.098 |
| 105 | 66 | 8.919 | 8.824 | -0.095 |
| 105 | 67 | 8.985 | 8.795 | -0.190 |
| Max | | 9.073 | 9.048 | 0.123 |
| Average | | 8.963 | 8.861 | -0.102 |
| Min | | 8.823 | 8.651 | -0.317 |
| Std Dev | | 0.047 | 0.092 | 0.109 |



| 9.2 T_SYNC_FALL_100kHz_4V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.897 | 8.907 | 8.851 | 8.921 | 8.884 | 8.840 | 8.841 | 8.771 | 8.799 | 8.669 | 8.651 |
| Average | 8.933 | 8.939 | 8.955 | 8.974 | 8.930 | 8.889 | 8.909 | 8.823 | 8.849 | 8.724 | 8.794 |
| Max | 8.974 | 8.966 | 9.048 | 9.007 | 8.987 | 8.926 | 8.959 | 8.955 | 8.897 | 8.788 | 8.923 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

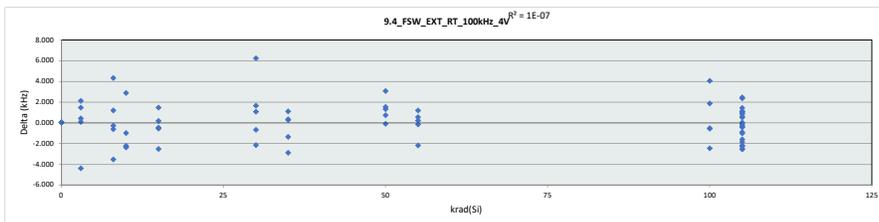


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

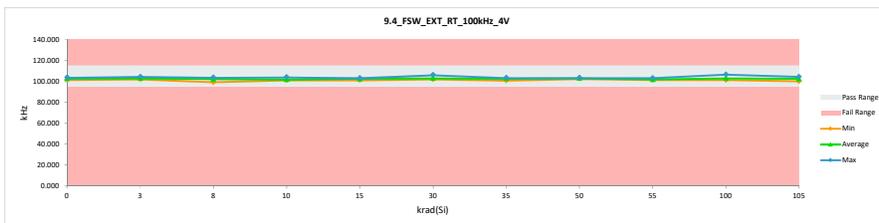
| 9.4 FSW_EXT_RT_100kHz_4V | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 115 |
| Min Limit | 95 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 102.718 | 102.729 | 0.011 |
| 0 | 992 | 101.543 | 101.538 | -0.005 |
| 0 | 993 | 103.698 | 103.696 | -0.002 |
| 3 | 1 | 102.272 | 104.351 | 2.079 |
| 3 | 2 | 102.271 | 103.718 | 1.447 |
| 3 | 3 | 102.597 | 102.663 | 0.066 |
| 3 | 4 | 102.025 | 102.416 | 0.391 |
| 3 | 5 | 106.326 | 101.900 | -4.426 |
| 8 | 6 | 103.762 | 103.099 | -0.663 |
| 8 | 7 | 102.856 | 99.275 | -3.581 |
| 8 | 8 | 97.587 | 101.872 | 4.285 |
| 8 | 9 | 102.456 | 103.619 | 1.163 |
| 8 | 10 | 103.867 | 103.554 | -0.313 |
| 10 | 11 | 103.610 | 101.281 | -2.329 |
| 10 | 12 | 103.446 | 101.053 | -2.393 |
| 10 | 13 | 103.463 | 101.221 | -2.242 |
| 10 | 14 | 101.100 | 103.956 | 2.856 |
| 10 | 15 | 102.295 | 101.281 | -1.014 |
| 15 | 16 | 103.813 | 101.267 | -2.546 |
| 15 | 17 | 101.572 | 102.995 | 1.423 |
| 15 | 18 | 102.549 | 102.064 | -0.485 |
| 15 | 19 | 103.657 | 103.080 | -0.577 |
| 15 | 20 | 102.926 | 103.083 | 0.157 |
| 30 | 21 | 100.820 | 102.426 | 1.606 |
| 30 | 22 | 100.956 | 101.903 | 1.047 |
| 30 | 23 | 99.901 | 106.076 | 6.175 |
| 30 | 24 | 103.392 | 102.664 | -0.728 |
| 30 | 25 | 104.283 | 102.085 | -2.198 |
| 35 | 26 | 102.977 | 103.280 | 0.303 |
| 35 | 27 | 102.174 | 103.236 | 1.062 |
| 35 | 28 | 104.397 | 103.001 | -1.396 |
| 35 | 29 | 103.738 | 100.823 | -2.915 |
| 35 | 30 | 102.777 | 103.012 | 0.235 |
| 50 | 31 | 102.412 | 103.109 | 0.697 |
| 50 | 32 | 101.713 | 103.000 | 1.287 |
| 50 | 33 | 103.172 | 103.032 | -0.140 |
| 50 | 34 | 99.338 | 102.380 | 3.042 |
| 50 | 35 | 101.809 | 103.293 | 1.484 |
| 55 | 36 | 103.591 | 101.385 | -2.206 |
| 55 | 37 | 103.443 | 103.253 | -0.190 |
| 55 | 38 | 101.234 | 101.738 | 0.504 |
| 55 | 39 | 101.171 | 102.333 | 1.162 |
| 55 | 40 | 101.154 | 101.316 | 0.162 |
| 100 | 41 | 103.822 | 101.324 | -2.498 |
| 100 | 42 | 102.041 | 101.445 | -0.596 |
| 100 | 43 | 101.232 | 103.049 | 1.817 |
| 100 | 44 | 103.183 | 102.628 | -0.555 |
| 100 | 45 | 102.511 | 106.518 | 4.007 |
| 105 | 46 | 103.095 | 103.684 | 0.589 |
| 105 | 47 | 103.014 | 103.017 | 0.003 |
| 105 | 48 | 102.529 | 102.050 | -0.479 |
| 105 | 49 | 102.288 | 102.040 | -0.248 |
| 105 | 50 | 106.080 | 103.531 | -2.549 |
| 105 | 51 | 103.067 | 103.560 | 0.493 |
| 105 | 52 | 101.505 | 102.416 | 0.911 |
| 105 | 53 | 103.001 | 103.831 | 0.830 |
| 105 | 54 | 103.339 | 101.453 | -1.886 |
| 105 | 55 | 103.151 | 102.112 | -1.039 |
| 105 | 56 | 100.889 | 103.215 | 2.326 |
| 105 | 57 | 103.260 | 101.053 | -2.207 |
| 105 | 58 | 102.726 | 101.784 | -0.942 |
| 105 | 59 | 102.640 | 103.673 | 1.033 |
| 105 | 60 | 103.254 | 103.169 | -0.085 |
| 105 | 61 | 102.737 | 100.146 | -2.591 |
| 105 | 62 | 103.139 | 100.833 | -2.306 |
| 105 | 63 | 101.834 | 100.196 | -1.638 |
| 105 | 64 | 103.792 | 103.388 | -0.404 |
| 105 | 65 | 101.990 | 104.416 | 2.426 |
| 105 | 66 | 102.345 | 103.440 | 1.095 |
| 105 | 67 | 101.346 | 102.754 | 1.408 |
| Max | | 106.326 | 106.518 | 6.175 |
| Average | | 102.580 | 102.568 | -0.011 |
| Min | | 97.587 | 99.275 | -4.426 |
| Std Dev | | 1.333 | 1.238 | 1.899 |



| 9.4 FSW_EXT_RT_100kHz_4V | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 115 kHz |
| Min Limit | 95 kHz |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 |
| Min | 101.538 | 101.900 | 99.275 | 101.053 | 101.267 | 101.903 | 100.823 | 102.380 | 101.316 | 101.324 | 100.146 |
| Average | 102.654 | 103.010 | 102.284 | 101.758 | 102.498 | 103.031 | 102.670 | 102.963 | 102.005 | 102.993 | 102.535 |
| Max | 103.696 | 104.351 | 103.619 | 103.956 | 103.083 | 106.076 | 103.280 | 103.293 | 103.253 | 106.518 | 104.416 |
| UL | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 |

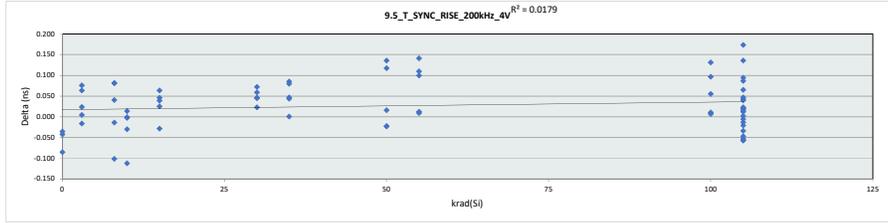


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

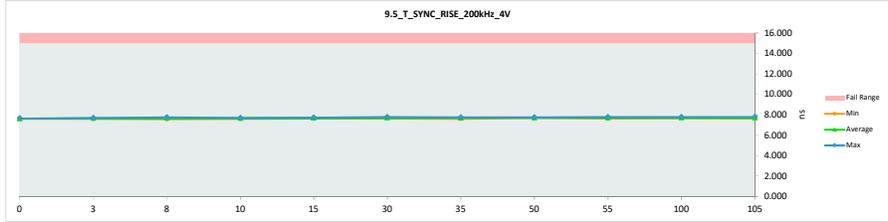
| 9.5 T_SYNC_RISE_200kHz_4V | |
|---------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14.5 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.653 | 7.610 | -0.043 |
| 0 | 992 | 7.695 | 7.609 | -0.086 |
| 0 | 993 | 7.667 | 7.631 | -0.036 |
| 3 | 1 | 7.574 | 7.637 | 0.063 |
| 3 | 2 | 7.619 | 7.632 | -0.017 |
| 3 | 3 | 7.618 | 7.641 | 0.023 |
| 3 | 4 | 7.612 | 7.616 | 0.004 |
| 3 | 5 | 7.599 | 7.674 | 0.075 |
| 8 | 6 | 7.626 | 7.706 | 0.080 |
| 8 | 7 | 7.665 | 7.563 | -0.102 |
| 8 | 8 | 7.641 | 7.721 | 0.080 |
| 8 | 9 | 7.631 | 7.671 | 0.040 |
| 8 | 10 | 7.653 | 7.638 | -0.015 |
| 10 | 11 | 7.678 | 7.676 | -0.002 |
| 10 | 12 | 7.637 | 7.634 | -0.003 |
| 10 | 13 | 7.624 | 7.637 | 0.013 |
| 10 | 14 | 7.633 | 7.602 | -0.031 |
| 10 | 15 | 7.760 | 7.647 | -0.113 |
| 15 | 16 | 7.686 | 7.657 | -0.029 |
| 15 | 17 | 7.619 | 7.643 | 0.024 |
| 15 | 18 | 7.599 | 7.644 | 0.045 |
| 15 | 19 | 7.643 | 7.706 | 0.063 |
| 15 | 20 | 7.621 | 7.659 | 0.038 |
| 30 | 21 | 7.652 | 7.674 | 0.022 |
| 30 | 22 | 7.593 | 7.664 | 0.071 |
| 30 | 23 | 7.674 | 7.719 | 0.045 |
| 30 | 24 | 7.707 | 7.765 | 0.058 |
| 30 | 25 | 7.600 | 7.644 | 0.044 |
| 35 | 26 | 7.603 | 7.646 | 0.043 |
| 35 | 27 | 7.612 | 7.658 | 0.046 |
| 35 | 28 | 7.626 | 7.626 | 0.000 |
| 35 | 29 | 7.638 | 7.717 | 0.079 |
| 35 | 30 | 7.653 | 7.737 | 0.084 |
| 50 | 31 | 7.598 | 7.733 | 0.135 |
| 50 | 32 | 7.739 | 7.716 | -0.023 |
| 50 | 33 | 7.712 | 7.688 | -0.024 |
| 50 | 34 | 7.582 | 7.698 | 0.116 |
| 50 | 35 | 7.675 | 7.690 | 0.015 |
| 55 | 36 | 7.635 | 7.775 | 0.140 |
| 55 | 37 | 7.635 | 7.646 | 0.011 |
| 55 | 38 | 7.660 | 7.759 | 0.099 |
| 55 | 39 | 7.651 | 7.659 | 0.008 |
| 55 | 40 | 7.613 | 7.722 | 0.109 |
| 100 | 41 | 7.654 | 7.664 | 0.010 |
| 100 | 42 | 7.635 | 7.765 | 0.130 |
| 100 | 43 | 7.707 | 7.713 | 0.006 |
| 100 | 44 | 7.618 | 7.714 | 0.096 |
| 100 | 45 | 7.640 | 7.694 | 0.054 |
| 105 | 46 | 7.708 | 7.654 | -0.054 |
| 105 | 47 | 7.687 | 7.709 | 0.022 |
| 105 | 48 | 7.661 | 7.662 | 0.001 |
| 105 | 49 | 7.629 | 7.722 | 0.093 |
| 105 | 50 | 7.682 | 7.728 | 0.046 |
| 105 | 51 | 7.707 | 7.726 | 0.019 |
| 105 | 52 | 7.632 | 7.673 | 0.041 |
| 105 | 53 | 7.646 | 7.657 | 0.011 |
| 105 | 54 | 7.639 | 7.678 | 0.039 |
| 105 | 55 | 7.613 | 7.785 | 0.172 |
| 105 | 56 | 7.758 | 7.723 | -0.035 |
| 105 | 57 | 7.714 | 7.666 | -0.048 |
| 105 | 58 | 7.702 | 7.644 | -0.058 |
| 105 | 59 | 7.707 | 7.693 | -0.014 |
| 105 | 60 | 7.662 | 7.726 | 0.064 |
| 105 | 61 | 7.641 | 7.727 | 0.086 |
| 105 | 62 | 7.651 | 7.645 | -0.006 |
| 105 | 63 | 7.676 | 7.691 | 0.015 |
| 105 | 64 | 7.609 | 7.744 | 0.135 |
| 105 | 65 | 7.700 | 7.642 | -0.058 |
| 105 | 66 | 7.627 | 7.647 | 0.020 |
| 105 | 67 | 7.680 | 7.658 | -0.022 |
| 105 | 68 | 7.760 | 7.785 | 0.172 |
| 105 | 69 | 7.652 | 7.679 | 0.027 |
| 105 | 70 | 7.574 | 7.563 | -0.113 |
| 105 | 71 | 0.041 | 0.046 | 0.059 |



| 9.5 T_SYNC_RISE_200kHz_4V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 7.609 | 7.616 | 7.563 | 7.602 | 7.643 | 7.644 | 7.626 | 7.688 | 7.646 | 7.664 | 7.642 |
| Average | 7.617 | 7.640 | 7.660 | 7.639 | 7.662 | 7.693 | 7.677 | 7.705 | 7.712 | 7.710 | 7.691 |
| Max | 7.631 | 7.674 | 7.721 | 7.676 | 7.706 | 7.765 | 7.737 | 7.733 | 7.775 | 7.765 | 7.785 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

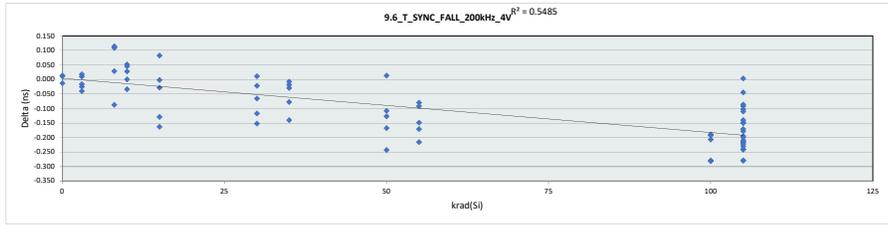


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

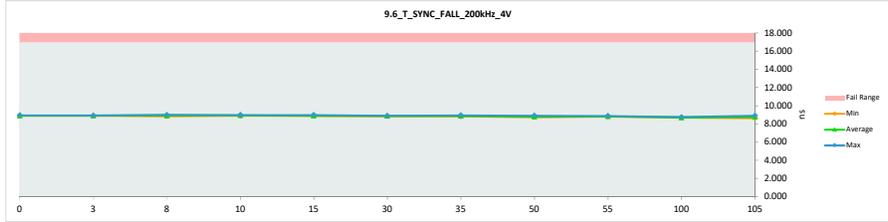
| 9.6 T_SYNC_FALL_200kHz_4V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.927 | 8.939 | 0.012 |
| 0 | 992 | 8.877 | 8.887 | 0.010 |
| 0 | 993 | 8.912 | 8.898 | -0.014 |
| 3 | 1 | 8.916 | 8.925 | 0.009 |
| 3 | 2 | 8.867 | 8.883 | 0.016 |
| 3 | 3 | 8.960 | 8.918 | -0.042 |
| 3 | 4 | 8.923 | 8.897 | -0.026 |
| 3 | 5 | 8.927 | 8.909 | -0.018 |
| 8 | 6 | 8.812 | 8.925 | 0.113 |
| 8 | 7 | 8.927 | 8.838 | -0.089 |
| 8 | 8 | 8.859 | 8.966 | 0.107 |
| 8 | 9 | 8.879 | 8.990 | 0.111 |
| 8 | 10 | 8.895 | 8.922 | 0.027 |
| 10 | 11 | 8.903 | 8.947 | 0.044 |
| 10 | 12 | 8.999 | 8.964 | -0.035 |
| 10 | 13 | 8.873 | 8.923 | 0.050 |
| 10 | 14 | 8.861 | 8.887 | 0.026 |
| 10 | 15 | 8.978 | 8.977 | -0.001 |
| 15 | 16 | 9.037 | 8.872 | -0.165 |
| 15 | 17 | 8.963 | 8.933 | -0.030 |
| 15 | 18 | 8.891 | 8.972 | 0.081 |
| 15 | 19 | 8.899 | 8.896 | -0.003 |
| 15 | 20 | 9.012 | 8.881 | -0.131 |
| 30 | 21 | 8.980 | 8.826 | -0.154 |
| 30 | 22 | 8.859 | 8.869 | 0.010 |
| 30 | 23 | 8.934 | 8.867 | -0.067 |
| 30 | 24 | 8.913 | 8.890 | -0.023 |
| 30 | 25 | 9.000 | 8.881 | -0.119 |
| 35 | 26 | 8.963 | 8.932 | -0.031 |
| 35 | 27 | 8.894 | 8.874 | -0.020 |
| 35 | 28 | 8.965 | 8.824 | -0.141 |
| 35 | 29 | 8.907 | 8.898 | -0.009 |
| 35 | 30 | 8.936 | 8.857 | -0.079 |
| 50 | 31 | 8.886 | 8.758 | -0.128 |
| 50 | 32 | 8.923 | 8.813 | -0.110 |
| 50 | 33 | 8.946 | 8.777 | -0.169 |
| 50 | 34 | 8.892 | 8.904 | 0.012 |
| 50 | 35 | 8.974 | 8.729 | -0.245 |
| 55 | 36 | 8.986 | 8.836 | -0.150 |
| 55 | 37 | 8.888 | 8.807 | -0.081 |
| 55 | 38 | 8.970 | 8.877 | -0.093 |
| 55 | 39 | 8.995 | 8.778 | -0.217 |
| 55 | 40 | 9.001 | 8.829 | -0.172 |
| 100 | 41 | 8.883 | 8.675 | -0.208 |
| 100 | 42 | 8.868 | 8.674 | -0.194 |
| 100 | 43 | 8.935 | 8.744 | -0.191 |
| 100 | 44 | 8.965 | 8.684 | -0.281 |
| 100 | 45 | 9.000 | 8.717 | -0.283 |
| 105 | 46 | 8.916 | 8.635 | -0.281 |
| 105 | 47 | 8.915 | 8.765 | -0.150 |
| 105 | 48 | 8.928 | 8.687 | -0.241 |
| 105 | 49 | 8.925 | 8.694 | -0.231 |
| 105 | 50 | 8.935 | 8.711 | -0.224 |
| 105 | 51 | 8.959 | 8.740 | -0.219 |
| 105 | 52 | 8.940 | 8.847 | -0.093 |
| 105 | 53 | 9.000 | 8.719 | -0.281 |
| 105 | 54 | 8.941 | 8.698 | -0.243 |
| 105 | 55 | 8.896 | 8.850 | -0.046 |
| 105 | 56 | 8.967 | 8.826 | -0.141 |
| 105 | 57 | 8.934 | 8.783 | -0.151 |
| 105 | 58 | 8.925 | 8.713 | -0.212 |
| 105 | 59 | 8.930 | 8.750 | -0.180 |
| 105 | 60 | 8.904 | 8.906 | 0.002 |
| 105 | 61 | 9.031 | 8.817 | -0.214 |
| 105 | 62 | 8.883 | 8.682 | -0.201 |
| 105 | 63 | 8.990 | 8.794 | -0.196 |
| 105 | 64 | 8.886 | 8.774 | -0.112 |
| 105 | 65 | 8.945 | 8.841 | -0.104 |
| 105 | 66 | 8.897 | 8.809 | -0.088 |
| 105 | 67 | 8.948 | 8.776 | -0.172 |
| Max | 9.037 | 8.990 | 0.113 | |
| Average | 8.931 | 8.833 | -0.098 | |
| Min | 8.812 | 8.635 | -0.283 | |
| Std Dev | 0.046 | 0.090 | 0.106 | |



| 9.6 T_SYNC_FALL_200kHz_4V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.887 | 8.883 | 8.838 | 8.887 | 8.872 | 8.826 | 8.824 | 8.729 | 8.778 | 8.674 | 8.635 |
| Average | 8.908 | 8.906 | 8.928 | 8.940 | 8.911 | 8.867 | 8.877 | 8.796 | 8.825 | 8.699 | 8.764 |
| Max | 8.939 | 8.925 | 8.990 | 8.977 | 8.972 | 8.890 | 8.932 | 8.904 | 8.877 | 8.744 | 8.906 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

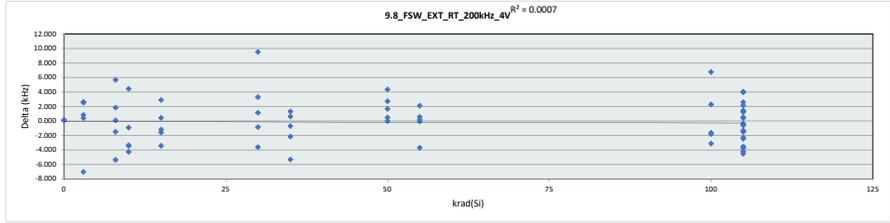


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

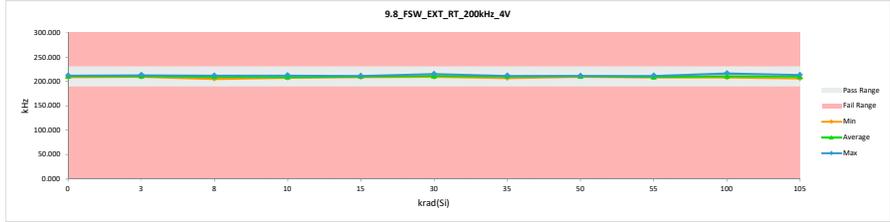
| 9.8 FSW_EXT_RT_200kHz_4V | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 230 |
| Min Limit | 190 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 210.433 | 210.493 | 0.060 |
| 0 | 992 | 208.510 | 208.532 | 0.022 |
| 0 | 993 | 211.933 | 211.947 | 0.014 |
| 3 | 1 | 210.422 | 212.900 | 2.478 |
| 3 | 2 | 209.547 | 212.111 | 2.564 |
| 3 | 3 | 209.990 | 210.319 | 0.329 |
| 3 | 4 | 209.522 | 210.317 | 0.795 |
| 3 | 5 | 216.301 | 209.246 | -7.055 |
| 8 | 6 | 212.168 | 210.634 | -1.534 |
| 8 | 7 | 210.599 | 205.205 | -5.394 |
| 8 | 8 | 203.197 | 208.785 | 5.588 |
| 8 | 9 | 209.867 | 211.671 | 1.804 |
| 8 | 10 | 211.794 | 211.808 | 0.014 |
| 10 | 11 | 211.375 | 208.003 | -3.372 |
| 10 | 12 | 211.784 | 207.489 | -4.295 |
| 10 | 13 | 211.781 | 208.302 | -3.479 |
| 10 | 14 | 207.844 | 212.209 | 4.365 |
| 10 | 15 | 209.389 | 208.419 | -0.970 |
| 15 | 16 | 211.936 | 208.477 | -3.459 |
| 15 | 17 | 208.657 | 211.476 | 2.819 |
| 15 | 18 | 210.503 | 208.873 | -1.630 |
| 15 | 19 | 212.227 | 210.980 | -1.247 |
| 15 | 20 | 210.845 | 211.246 | 0.401 |
| 30 | 21 | 207.294 | 210.508 | 3.214 |
| 30 | 22 | 207.994 | 209.062 | 1.068 |
| 30 | 23 | 205.906 | 215.369 | 9.463 |
| 30 | 24 | 211.331 | 210.457 | -0.874 |
| 30 | 25 | 213.154 | 209.496 | -3.658 |
| 35 | 26 | 211.879 | 211.134 | -0.745 |
| 35 | 27 | 210.341 | 211.617 | 1.276 |
| 35 | 28 | 213.001 | 210.817 | -2.184 |
| 35 | 29 | 212.095 | 206.739 | -5.356 |
| 35 | 30 | 210.432 | 210.989 | 0.557 |
| 50 | 31 | 210.283 | 210.715 | 0.432 |
| 50 | 32 | 208.937 | 210.538 | 1.601 |
| 50 | 33 | 210.678 | 210.626 | -0.052 |
| 50 | 34 | 205.349 | 209.638 | 4.289 |
| 50 | 35 | 208.674 | 211.318 | 2.644 |
| 55 | 36 | 211.635 | 207.900 | -3.735 |
| 55 | 37 | 211.603 | 211.524 | -0.079 |
| 55 | 38 | 207.961 | 208.478 | 0.517 |
| 55 | 39 | 207.676 | 209.708 | 2.032 |
| 55 | 40 | 208.221 | 208.338 | 0.117 |
| 100 | 41 | 212.011 | 208.858 | -3.153 |
| 100 | 42 | 209.781 | 207.925 | -1.856 |
| 100 | 43 | 208.333 | 210.571 | 2.238 |
| 100 | 44 | 211.786 | 210.108 | -1.678 |
| 100 | 45 | 209.673 | 216.386 | 6.713 |
| 105 | 46 | 211.029 | 211.520 | 0.491 |
| 105 | 47 | 211.197 | 210.661 | -0.536 |
| 105 | 48 | 210.659 | 209.122 | -1.537 |
| 105 | 49 | 209.820 | 209.131 | -0.689 |
| 105 | 50 | 215.572 | 211.012 | -4.560 |
| 105 | 51 | 210.982 | 211.324 | 0.342 |
| 105 | 52 | 208.772 | 209.953 | 1.181 |
| 105 | 53 | 210.794 | 212.071 | 1.277 |
| 105 | 54 | 211.915 | 208.180 | -3.735 |
| 105 | 55 | 211.126 | 208.807 | -2.319 |
| 105 | 56 | 206.943 | 210.828 | 3.885 |
| 105 | 57 | 211.507 | 207.717 | -3.790 |
| 105 | 58 | 210.368 | 208.874 | -1.494 |
| 105 | 59 | 210.424 | 211.820 | 1.396 |
| 105 | 60 | 211.153 | 210.767 | -0.386 |
| 105 | 61 | 210.357 | 206.116 | -4.241 |
| 105 | 62 | 211.198 | 207.634 | -3.564 |
| 105 | 63 | 208.741 | 206.230 | -2.511 |
| 105 | 64 | 212.402 | 211.019 | -1.383 |
| 105 | 65 | 209.059 | 213.049 | 3.990 |
| 105 | 66 | 209.726 | 212.255 | 2.529 |
| 105 | 67 | 208.560 | 210.650 | 2.090 |
| Max | | 216.301 | 216.386 | 9.463 |
| Average | | 210.271 | 210.100 | -0.171 |
| Min | | 203.197 | 205.205 | -7.055 |
| Std Dev | | 2.079 | 1.960 | 3.005 |



| 9.8 FSW_EXT_RT_200kHz_4V | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 230 kHz |
| Min Limit | 190 kHz |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |
| Min | 208.532 | 209.246 | 205.205 | 207.489 | 208.477 | 209.062 | 206.739 | 209.638 | 207.900 | 207.925 | 206.116 |
| Average | 210.324 | 210.979 | 209.621 | 208.884 | 210.210 | 210.978 | 210.259 | 210.567 | 209.190 | 210.770 | 209.943 |
| Max | 211.947 | 212.900 | 211.808 | 212.209 | 211.476 | 215.369 | 211.617 | 211.318 | 211.524 | 216.386 | 213.049 |
| UL | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 |

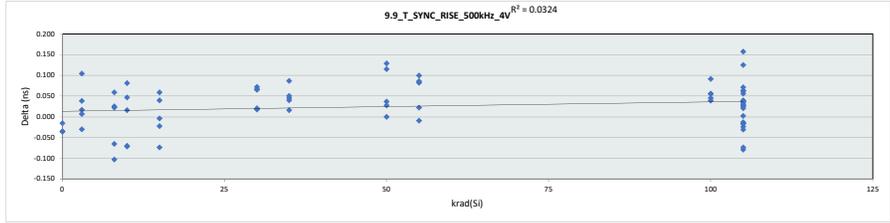


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

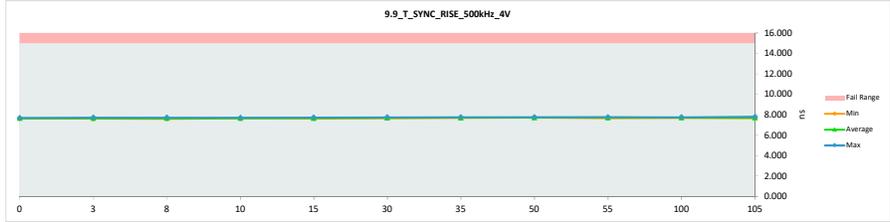
| 9.9 T_SYNC_RISE_500kHz_4V | |
|---------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 14.5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.596 | 7.680 | -0.016 |
| 0 | 992 | 7.674 | 7.638 | -0.036 |
| 0 | 993 | 7.691 | 7.655 | -0.036 |
| 3 | 1 | 7.607 | 7.623 | 0.016 |
| 3 | 2 | 7.684 | 7.653 | -0.031 |
| 3 | 3 | 7.658 | 7.695 | 0.037 |
| 3 | 4 | 7.639 | 7.645 | 0.006 |
| 3 | 5 | 7.624 | 7.727 | 0.103 |
| 8 | 6 | 7.666 | 7.724 | 0.058 |
| 8 | 7 | 7.702 | 7.598 | -0.104 |
| 8 | 8 | 7.666 | 7.690 | 0.024 |
| 8 | 9 | 7.666 | 7.687 | 0.021 |
| 8 | 10 | 7.706 | 7.640 | -0.066 |
| 10 | 11 | 7.722 | 7.651 | -0.071 |
| 10 | 12 | 7.662 | 7.677 | 0.015 |
| 10 | 13 | 7.632 | 7.678 | 0.046 |
| 10 | 14 | 7.590 | 7.670 | 0.080 |
| 10 | 15 | 7.758 | 7.696 | -0.072 |
| 15 | 16 | 7.695 | 7.660 | -0.035 |
| 15 | 17 | 7.655 | 7.650 | -0.005 |
| 15 | 18 | 7.638 | 7.677 | 0.039 |
| 15 | 19 | 7.689 | 7.747 | 0.058 |
| 15 | 20 | 7.699 | 7.676 | -0.023 |
| 30 | 21 | 7.683 | 7.703 | 0.020 |
| 30 | 22 | 7.624 | 7.695 | 0.071 |
| 30 | 23 | 7.687 | 7.753 | 0.066 |
| 30 | 24 | 7.726 | 7.743 | 0.017 |
| 30 | 25 | 7.610 | 7.674 | 0.064 |
| 35 | 26 | 7.658 | 7.702 | 0.044 |
| 35 | 27 | 7.634 | 7.684 | 0.050 |
| 35 | 28 | 7.654 | 7.693 | 0.039 |
| 35 | 29 | 7.683 | 7.769 | 0.086 |
| 35 | 30 | 7.708 | 7.723 | 0.015 |
| 50 | 31 | 7.621 | 7.749 | 0.128 |
| 50 | 32 | 7.705 | 7.732 | 0.027 |
| 50 | 33 | 7.742 | 7.741 | -0.001 |
| 50 | 34 | 7.614 | 7.728 | 0.114 |
| 50 | 35 | 7.718 | 7.754 | 0.036 |
| 55 | 36 | 7.678 | 7.777 | 0.099 |
| 55 | 37 | 7.670 | 7.660 | -0.010 |
| 55 | 38 | 7.652 | 7.733 | 0.081 |
| 55 | 39 | 7.683 | 7.704 | 0.021 |
| 55 | 40 | 7.661 | 7.746 | 0.085 |
| 100 | 41 | 7.659 | 7.697 | 0.038 |
| 100 | 42 | 7.661 | 7.716 | 0.055 |
| 100 | 43 | 7.667 | 7.757 | 0.090 |
| 100 | 44 | 7.685 | 7.729 | 0.044 |
| 100 | 45 | 7.670 | 7.724 | 0.054 |
| 105 | 46 | 7.738 | 7.724 | -0.014 |
| 105 | 47 | 7.693 | 7.754 | 0.061 |
| 105 | 48 | 7.721 | 7.689 | -0.032 |
| 105 | 49 | 7.687 | 7.688 | 0.001 |
| 105 | 50 | 7.703 | 7.739 | 0.036 |
| 105 | 51 | 7.734 | 7.759 | 0.025 |
| 105 | 52 | 7.669 | 7.707 | 0.038 |
| 105 | 53 | 7.674 | 7.707 | 0.033 |
| 105 | 54 | 7.694 | 7.722 | 0.028 |
| 105 | 55 | 7.656 | 7.812 | 0.156 |
| 105 | 56 | 7.723 | 7.748 | 0.025 |
| 105 | 57 | 7.716 | 7.691 | -0.025 |
| 105 | 58 | 7.734 | 7.659 | -0.075 |
| 105 | 59 | 7.692 | 7.730 | 0.038 |
| 105 | 60 | 7.675 | 7.738 | 0.063 |
| 105 | 61 | 7.656 | 7.726 | 0.070 |
| 105 | 62 | 7.688 | 7.672 | -0.016 |
| 105 | 63 | 7.725 | 7.780 | 0.055 |
| 105 | 64 | 7.651 | 7.775 | 0.124 |
| 105 | 65 | 7.738 | 7.658 | -0.080 |
| 105 | 66 | 7.690 | 7.670 | -0.020 |
| 105 | 67 | 7.701 | 7.683 | -0.018 |
| Max | | 7.768 | 7.812 | 0.156 |
| Average | | 7.679 | 7.705 | 0.026 |
| Min | | 7.590 | 7.598 | -0.104 |
| Std Dev | | 0.037 | 0.042 | 0.053 |



| 9.9 T_SYNC_RISE_500kHz_4V | |
|---------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.638 | 7.623 | 7.598 | 7.651 | 7.650 | 7.674 | 7.684 | 7.728 | 7.660 | 7.697 | 7.658 |
| Average | 7.658 | 7.669 | 7.668 | 7.674 | 7.682 | 7.714 | 7.714 | 7.741 | 7.724 | 7.725 | 7.721 |
| Max | 7.680 | 7.727 | 7.724 | 7.696 | 7.747 | 7.753 | 7.769 | 7.754 | 7.777 | 7.757 | 7.812 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

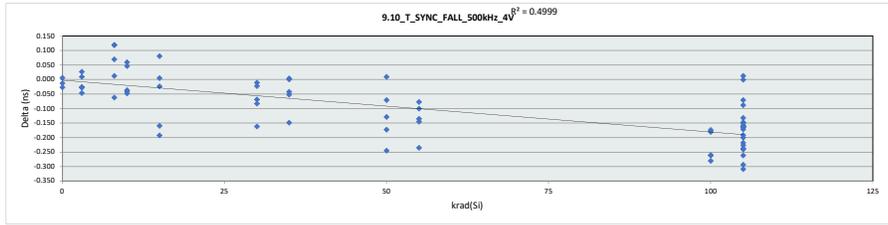


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

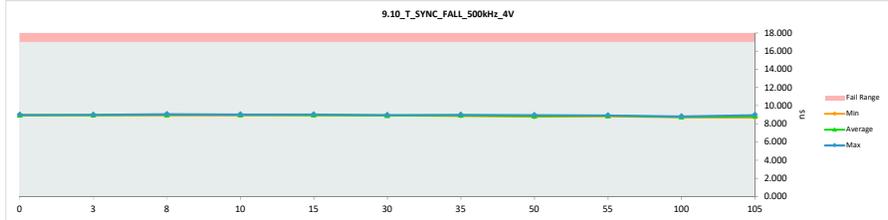
| 9.10 T SYNC FALL 500kHz 4V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 9.004 | 8.975 | -0.029 |
| 0 | 992 | 8.962 | 8.948 | -0.014 |
| 0 | 993 | 8.966 | 8.970 | 0.004 |
| 3 | 1 | 8.970 | 8.995 | 0.025 |
| 3 | 2 | 8.916 | 8.923 | 0.007 |
| 3 | 3 | 9.023 | 8.995 | -0.028 |
| 3 | 4 | 8.982 | 8.952 | -0.030 |
| 3 | 5 | 9.019 | 8.971 | -0.048 |
| 8 | 6 | 8.867 | 8.984 | 0.117 |
| 8 | 7 | 8.988 | 8.924 | -0.064 |
| 8 | 8 | 8.966 | 9.034 | 0.068 |
| 8 | 9 | 9.038 | 9.055 | 0.117 |
| 8 | 10 | 8.956 | 8.967 | 0.011 |
| 10 | 11 | 8.962 | 9.020 | 0.058 |
| 10 | 12 | 9.061 | 9.019 | -0.042 |
| 10 | 13 | 8.951 | 8.996 | 0.045 |
| 10 | 14 | 8.983 | 8.934 | -0.049 |
| 10 | 15 | 9.057 | 9.019 | -0.038 |
| 15 | 16 | 9.118 | 8.924 | -0.194 |
| 15 | 17 | 9.008 | 9.011 | 0.003 |
| 15 | 18 | 8.949 | 9.028 | 0.079 |
| 15 | 19 | 8.962 | 8.937 | -0.025 |
| 15 | 20 | 9.090 | 8.929 | -0.161 |
| 30 | 21 | 9.082 | 8.919 | -0.163 |
| 30 | 22 | 8.929 | 8.917 | -0.012 |
| 30 | 23 | 8.986 | 8.916 | -0.070 |
| 30 | 24 | 8.974 | 8.950 | -0.024 |
| 30 | 25 | 9.008 | 8.924 | -0.084 |
| 35 | 26 | 8.994 | 8.993 | -0.001 |
| 35 | 27 | 8.979 | 8.925 | -0.054 |
| 35 | 28 | 9.022 | 8.872 | -0.150 |
| 35 | 29 | 8.952 | 8.954 | 0.002 |
| 35 | 30 | 8.993 | 8.949 | -0.044 |
| 50 | 31 | 8.940 | 8.810 | -0.130 |
| 50 | 32 | 8.936 | 8.863 | -0.073 |
| 50 | 33 | 9.013 | 8.839 | -0.174 |
| 50 | 34 | 8.950 | 8.957 | 0.007 |
| 50 | 35 | 9.024 | 8.777 | -0.247 |
| 55 | 36 | 9.044 | 8.907 | -0.137 |
| 55 | 37 | 8.970 | 8.891 | -0.079 |
| 55 | 38 | 9.030 | 8.928 | -0.102 |
| 55 | 39 | 9.064 | 8.827 | -0.237 |
| 55 | 40 | 9.033 | 8.886 | -0.147 |
| 100 | 41 | 8.963 | 8.700 | -0.263 |
| 100 | 42 | 8.929 | 8.754 | -0.175 |
| 100 | 43 | 8.984 | 8.802 | -0.182 |
| 100 | 44 | 9.039 | 8.757 | -0.282 |
| 100 | 45 | 9.054 | 8.792 | -0.262 |
| 105 | 46 | 8.980 | 8.685 | -0.295 |
| 105 | 47 | 8.976 | 8.825 | -0.151 |
| 105 | 48 | 8.976 | 8.757 | -0.219 |
| 105 | 49 | 8.997 | 8.795 | -0.202 |
| 105 | 50 | 9.018 | 8.776 | -0.242 |
| 105 | 51 | 9.038 | 8.775 | -0.263 |
| 105 | 52 | 9.013 | 8.923 | -0.090 |
| 105 | 53 | 9.066 | 8.756 | -0.310 |
| 105 | 54 | 8.993 | 8.765 | -0.228 |
| 105 | 55 | 8.928 | 8.926 | -0.002 |
| 105 | 56 | 9.045 | 8.881 | -0.164 |
| 105 | 57 | 9.015 | 8.842 | -0.173 |
| 105 | 58 | 9.003 | 8.764 | -0.239 |
| 105 | 59 | 8.982 | 8.820 | -0.162 |
| 105 | 60 | 8.957 | 8.968 | 0.011 |
| 105 | 61 | 9.077 | 8.910 | -0.167 |
| 105 | 62 | 8.930 | 8.765 | -0.165 |
| 105 | 63 | 9.023 | 8.874 | -0.149 |
| 105 | 64 | 9.000 | 8.840 | -0.160 |
| 105 | 65 | 9.007 | 8.873 | -0.134 |
| 105 | 66 | 8.945 | 8.872 | -0.073 |
| 105 | 67 | 9.006 | 8.813 | -0.193 |
| Max | 9.118 | 9.055 | 0.117 | |
| Average | 8.994 | 8.893 | -0.101 | |
| Min | 8.867 | 8.685 | -0.310 | |
| Std Dev | 0.047 | 0.090 | 0.106 | |



| 9.10 T SYNC FALL 500kHz 4V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.948 | 8.923 | 8.924 | 8.934 | 8.924 | 8.916 | 8.872 | 8.777 | 8.827 | 8.700 | 8.685 |
| Average | 8.964 | 8.967 | 8.993 | 8.998 | 8.966 | 8.925 | 8.939 | 8.849 | 8.888 | 8.761 | 8.828 |
| Max | 8.975 | 8.995 | 9.055 | 9.020 | 9.028 | 8.950 | 8.993 | 8.957 | 8.928 | 8.802 | 8.968 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

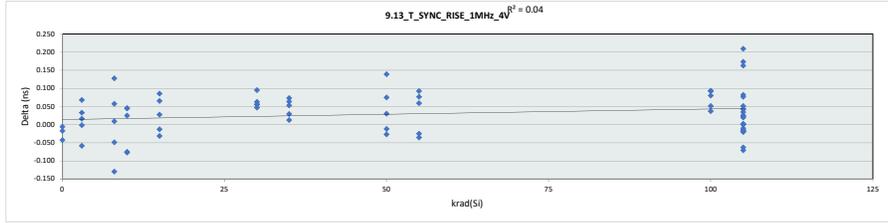


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

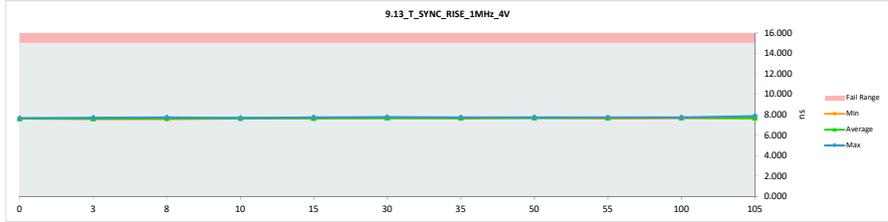
| 9.13 T SYNC RISE 1MHz 4V | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14.5 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.659 | 7.653 | -0.006 |
| 0 | 992 | 7.683 | 7.640 | -0.043 |
| 0 | 993 | 7.668 | 7.651 | -0.017 |
| 3 | 1 | 7.597 | 7.630 | 0.033 |
| 3 | 2 | 7.645 | 7.643 | -0.002 |
| 3 | 3 | 7.637 | 7.653 | 0.016 |
| 3 | 4 | 7.640 | 7.581 | -0.059 |
| 3 | 5 | 7.634 | 7.702 | 0.068 |
| 8 | 6 | 7.673 | 7.730 | 0.057 |
| 8 | 7 | 7.700 | 7.570 | -0.130 |
| 8 | 8 | 7.579 | 7.706 | 0.127 |
| 8 | 9 | 7.649 | 7.658 | 0.009 |
| 8 | 10 | 7.696 | 7.647 | -0.049 |
| 10 | 11 | 7.703 | 7.628 | -0.075 |
| 10 | 12 | 7.653 | 7.678 | 0.025 |
| 10 | 13 | 7.623 | 7.668 | 0.045 |
| 10 | 14 | 7.604 | 7.649 | 0.045 |
| 10 | 15 | 7.753 | 7.676 | -0.077 |
| 10 | 16 | 7.687 | 7.656 | -0.031 |
| 15 | 17 | 7.660 | 7.647 | -0.013 |
| 15 | 18 | 7.593 | 7.658 | 0.065 |
| 15 | 19 | 7.653 | 7.738 | 0.085 |
| 15 | 20 | 7.677 | 7.704 | 0.027 |
| 30 | 21 | 7.651 | 7.713 | 0.062 |
| 30 | 22 | 7.627 | 7.682 | 0.055 |
| 30 | 23 | 7.665 | 7.760 | 0.095 |
| 30 | 24 | 7.717 | 7.764 | 0.047 |
| 30 | 25 | 7.610 | 7.665 | 0.055 |
| 35 | 26 | 7.603 | 7.676 | 0.073 |
| 35 | 27 | 7.622 | 7.675 | 0.053 |
| 35 | 28 | 7.627 | 7.639 | 0.012 |
| 35 | 29 | 7.672 | 7.735 | 0.063 |
| 35 | 30 | 7.699 | 7.728 | 0.029 |
| 50 | 31 | 7.637 | 7.712 | 0.075 |
| 50 | 32 | 7.709 | 7.697 | -0.012 |
| 50 | 33 | 7.740 | 7.713 | -0.027 |
| 50 | 34 | 7.586 | 7.725 | 0.139 |
| 50 | 35 | 7.701 | 7.731 | 0.030 |
| 55 | 36 | 7.663 | 7.739 | 0.076 |
| 55 | 37 | 7.673 | 7.637 | -0.036 |
| 55 | 38 | 7.635 | 7.727 | 0.092 |
| 55 | 39 | 7.682 | 7.657 | -0.025 |
| 55 | 40 | 7.664 | 7.723 | 0.059 |
| 100 | 41 | 7.635 | 7.672 | 0.037 |
| 100 | 42 | 7.648 | 7.740 | 0.092 |
| 100 | 43 | 7.645 | 7.725 | 0.080 |
| 100 | 44 | 7.636 | 7.729 | 0.093 |
| 100 | 45 | 7.679 | 7.730 | 0.051 |
| 105 | 46 | 7.704 | 7.704 | 0.000 |
| 105 | 47 | 7.691 | 7.734 | 0.043 |
| 105 | 48 | 7.710 | 7.690 | -0.020 |
| 105 | 49 | 7.633 | 7.715 | 0.082 |
| 105 | 50 | 7.710 | 7.744 | 0.034 |
| 105 | 51 | 7.730 | 7.749 | 0.019 |
| 105 | 52 | 7.639 | 7.681 | 0.042 |
| 105 | 53 | 7.667 | 7.657 | -0.010 |
| 105 | 54 | 7.655 | 7.864 | 0.209 |
| 105 | 55 | 7.621 | 7.794 | 0.173 |
| 105 | 56 | 7.735 | 7.736 | 0.001 |
| 105 | 57 | 7.702 | 7.686 | -0.016 |
| 105 | 58 | 7.719 | 7.648 | -0.071 |
| 105 | 59 | 7.704 | 7.684 | -0.020 |
| 105 | 60 | 7.657 | 7.733 | 0.076 |
| 105 | 61 | 7.665 | 7.687 | 0.022 |
| 105 | 62 | 7.652 | 7.678 | 0.026 |
| 105 | 63 | 7.693 | 7.695 | 0.002 |
| 105 | 64 | 7.603 | 7.765 | 0.162 |
| 105 | 65 | 7.711 | 7.648 | -0.063 |
| 105 | 66 | 7.630 | 7.681 | 0.051 |
| 105 | 67 | 7.698 | 7.682 | -0.016 |
| Max | | 7.753 | 7.864 | 0.209 |
| Average | | 7.663 | 7.693 | 0.030 |
| Min | | 7.579 | 7.570 | -0.130 |
| Std Dev | | 0.040 | 0.048 | 0.061 |



| 9.13 T SYNC RISE 1MHz 4V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.640 | 7.581 | 7.570 | 7.628 | 7.647 | 7.665 | 7.639 | 7.697 | 7.637 | 7.672 | 7.648 |
| Average | 7.648 | 7.642 | 7.662 | 7.660 | 7.681 | 7.717 | 7.691 | 7.716 | 7.697 | 7.719 | 7.712 |
| Max | 7.653 | 7.702 | 7.730 | 7.678 | 7.738 | 7.764 | 7.735 | 7.731 | 7.739 | 7.740 | 7.864 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

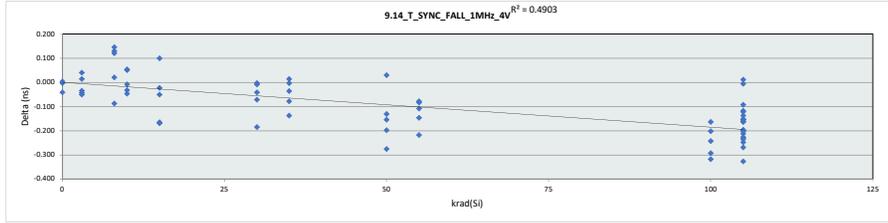


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

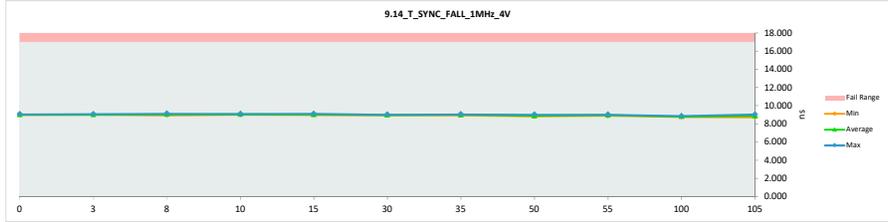
| 9.14 T SYNC FALL 1MHz 4V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns ns |
| Min Limit | 0 17 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 9.040 | 9.041 | 0.001 |
| 0 | 992 | 9.008 | 8.965 | -0.043 |
| 0 | 993 | 9.009 | 9.004 | -0.005 |
| 3 | 1 | 9.018 | 9.056 | 0.038 |
| 3 | 2 | 9.990 | 9.002 | 0.012 |
| 3 | 3 | 9.085 | 9.039 | -0.046 |
| 3 | 4 | 9.038 | 9.001 | -0.037 |
| 3 | 5 | 9.047 | 8.994 | -0.053 |
| 8 | 6 | 8.908 | 9.036 | 0.128 |
| 8 | 7 | 9.033 | 8.944 | -0.089 |
| 8 | 8 | 8.963 | 9.107 | 0.144 |
| 8 | 9 | 9.982 | 9.101 | 0.119 |
| 8 | 10 | 8.988 | 9.007 | 0.019 |
| 10 | 11 | 9.026 | 9.078 | 0.052 |
| 10 | 12 | 9.113 | 9.065 | -0.048 |
| 10 | 13 | 9.000 | 9.049 | 0.049 |
| 10 | 14 | 8.995 | 8.985 | -0.010 |
| 10 | 15 | 9.122 | 9.088 | -0.034 |
| 15 | 16 | 9.159 | 8.992 | -0.167 |
| 15 | 17 | 9.084 | 9.032 | -0.052 |
| 15 | 18 | 8.998 | 9.095 | 0.097 |
| 15 | 19 | 9.023 | 8.998 | -0.025 |
| 15 | 20 | 9.154 | 8.983 | -0.171 |
| 30 | 21 | 9.126 | 8.939 | -0.187 |
| 30 | 22 | 8.982 | 8.977 | -0.005 |
| 30 | 23 | 9.011 | 8.968 | -0.043 |
| 30 | 24 | 9.026 | 9.015 | -0.011 |
| 30 | 25 | 9.078 | 9.005 | -0.073 |
| 35 | 26 | 9.078 | 9.040 | -0.038 |
| 35 | 27 | 8.997 | 9.009 | 0.012 |
| 35 | 28 | 8.970 | 8.931 | -0.139 |
| 35 | 29 | 9.019 | 9.014 | -0.005 |
| 35 | 30 | 9.062 | 8.982 | -0.080 |
| 50 | 31 | 9.010 | 8.853 | -0.157 |
| 50 | 32 | 9.007 | 8.874 | -0.133 |
| 50 | 33 | 9.078 | 8.878 | -0.200 |
| 50 | 34 | 8.984 | 9.012 | 0.028 |
| 50 | 35 | 9.101 | 8.824 | -0.277 |
| 55 | 36 | 9.119 | 8.970 | -0.149 |
| 55 | 37 | 9.016 | 8.936 | -0.080 |
| 55 | 38 | 9.093 | 9.008 | -0.085 |
| 55 | 39 | 9.112 | 8.893 | -0.219 |
| 55 | 40 | 9.080 | 8.970 | -0.110 |
| 100 | 41 | 9.010 | 8.765 | -0.245 |
| 100 | 42 | 8.984 | 8.780 | -0.204 |
| 100 | 43 | 9.013 | 8.848 | -0.165 |
| 100 | 44 | 9.089 | 8.795 | -0.294 |
| 100 | 45 | 9.132 | 8.812 | -0.320 |
| 105 | 46 | 9.066 | 8.737 | -0.329 |
| 105 | 47 | 9.031 | 8.875 | -0.156 |
| 105 | 48 | 9.029 | 8.831 | -0.198 |
| 105 | 49 | 9.043 | 8.839 | -0.204 |
| 105 | 50 | 9.060 | 8.831 | -0.229 |
| 105 | 51 | 9.078 | 8.864 | -0.214 |
| 105 | 52 | 9.070 | 8.950 | -0.120 |
| 105 | 53 | 9.107 | 8.857 | -0.250 |
| 105 | 54 | 9.067 | 8.796 | -0.271 |
| 105 | 55 | 8.987 | 8.979 | -0.008 |
| 105 | 56 | 9.088 | 8.932 | -0.156 |
| 105 | 57 | 9.065 | 8.941 | -0.124 |
| 105 | 58 | 9.070 | 8.834 | -0.236 |
| 105 | 59 | 9.060 | 8.858 | -0.202 |
| 105 | 60 | 9.011 | 9.020 | 0.009 |
| 105 | 61 | 9.142 | 8.942 | -0.200 |
| 105 | 62 | 8.982 | 8.818 | -0.164 |
| 105 | 63 | 9.115 | 8.884 | -0.231 |
| 105 | 64 | 9.027 | 8.888 | -0.139 |
| 105 | 65 | 9.068 | 8.914 | -0.154 |
| 105 | 66 | 9.011 | 8.917 | -0.094 |
| 105 | 67 | 9.034 | 8.868 | -0.166 |
| Max | 9.159 | 9.107 | 0.144 | |
| Average | 9.047 | 8.945 | -0.102 | |
| Min | 8.908 | 8.737 | -0.329 | |
| Std Dev | 0.051 | 0.091 | 0.112 | |



| 9.14 T SYNC FALL 1MHz 4V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.965 | 8.994 | 8.944 | 8.985 | 8.983 | 8.939 | 8.931 | 8.824 | 8.893 | 8.765 | 8.737 |
| Average | 9.003 | 9.018 | 9.039 | 9.053 | 9.020 | 8.981 | 8.995 | 8.888 | 8.955 | 8.800 | 8.881 |
| Max | 9.041 | 9.056 | 9.107 | 9.088 | 9.095 | 9.015 | 9.040 | 9.012 | 9.008 | 8.848 | 9.020 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

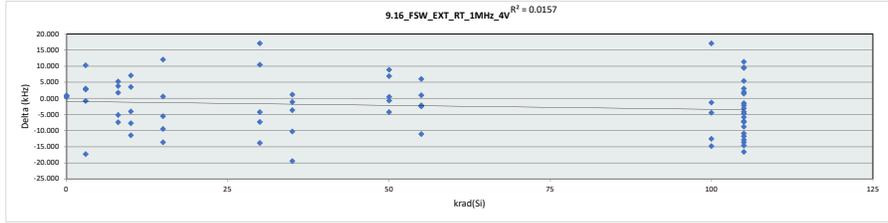


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

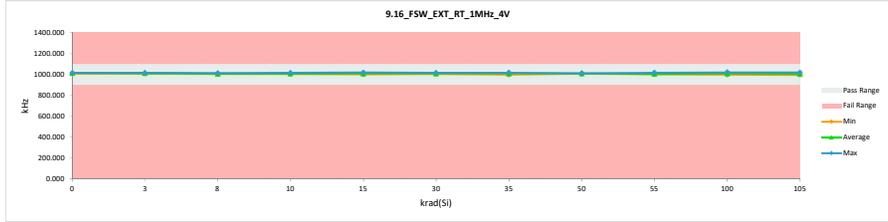
| 9.16 FSW_EXT_RT_1MHz_4V | |
|-------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 1100 |
| Min Limit | 900 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|----------|----------|---------|
| 0 | 991 | 1011.989 | 1012.826 | 0.837 |
| 0 | 992 | 1007.457 | 1008.222 | 0.765 |
| 0 | 993 | 1016.541 | 1016.881 | 0.340 |
| 3 | 1 | 1016.918 | 1016.136 | -0.782 |
| 3 | 2 | 1006.550 | 1016.798 | 10.248 |
| 3 | 3 | 1007.205 | 1009.904 | 2.699 |
| 3 | 4 | 1011.157 | 1014.158 | 3.001 |
| 3 | 5 | 1025.993 | 1008.713 | -17.280 |
| 8 | 6 | 1014.489 | 1007.047 | -7.442 |
| 8 | 7 | 1008.277 | 1003.120 | -5.157 |
| 8 | 8 | 999.860 | 1003.688 | 3.828 |
| 8 | 9 | 1007.439 | 1012.672 | 5.233 |
| 8 | 10 | 1010.883 | 1012.591 | 1.708 |
| 10 | 11 | 1008.588 | 1004.518 | -4.070 |
| 10 | 12 | 1015.622 | 1004.172 | -11.450 |
| 10 | 13 | 1016.654 | 1008.922 | -7.732 |
| 10 | 14 | 1007.976 | 1015.031 | 7.055 |
| 10 | 15 | 1005.945 | 1009.449 | 3.504 |
| 15 | 16 | 1013.943 | 1008.445 | -5.498 |
| 15 | 17 | 1008.178 | 1020.199 | 12.021 |
| 15 | 18 | 1015.336 | 1001.705 | -13.631 |
| 15 | 19 | 1018.746 | 1009.232 | -9.514 |
| 15 | 20 | 1011.380 | 1011.953 | 0.573 |
| 30 | 21 | 1001.944 | 1012.353 | 10.409 |
| 30 | 22 | 1011.714 | 1004.391 | -7.323 |
| 30 | 23 | 999.240 | 1016.272 | 17.032 |
| 30 | 24 | 1011.822 | 1007.590 | -4.232 |
| 30 | 25 | 1021.482 | 1007.604 | -13.878 |
| 35 | 26 | 1021.433 | 1011.175 | -10.258 |
| 35 | 27 | 1018.684 | 1017.594 | -1.090 |
| 35 | 28 | 1018.835 | 1012.159 | -3.676 |
| 35 | 29 | 1016.118 | 996.664 | -19.454 |
| 35 | 30 | 1009.827 | 1010.944 | 1.117 |
| 50 | 31 | 1013.724 | 1009.428 | -4.296 |
| 50 | 32 | 1007.323 | 1006.564 | -0.759 |
| 50 | 33 | 1006.484 | 1006.927 | 0.443 |
| 50 | 34 | 1003.500 | 1010.498 | 6.998 |
| 50 | 35 | 1003.000 | 1011.871 | 8.871 |
| 55 | 36 | 1012.382 | 1001.276 | -11.106 |
| 55 | 37 | 1011.545 | 1017.542 | 5.997 |
| 55 | 38 | 1004.258 | 1001.734 | -2.524 |
| 55 | 39 | 1004.162 | 1005.148 | 0.986 |
| 55 | 40 | 1008.660 | 1006.419 | -2.241 |
| 100 | 41 | 1014.876 | 1010.427 | -4.449 |
| 100 | 42 | 1013.695 | 998.836 | -14.859 |
| 100 | 43 | 1007.577 | 1006.274 | -1.303 |
| 100 | 44 | 1020.981 | 1008.450 | -12.531 |
| 100 | 45 | 1004.057 | 1021.098 | 17.041 |
| 105 | 46 | 1009.695 | 1007.456 | -2.239 |
| 105 | 47 | 1011.619 | 1004.462 | -7.157 |
| 105 | 48 | 1013.353 | 1004.558 | -8.795 |
| 105 | 49 | 1007.541 | 1004.505 | -3.036 |
| 105 | 50 | 1018.905 | 1005.322 | -13.583 |
| 105 | 51 | 1008.517 | 1006.974 | -1.543 |
| 105 | 52 | 1007.658 | 1009.152 | 1.494 |
| 105 | 53 | 1011.841 | 1013.764 | 1.923 |
| 105 | 54 | 1020.046 | 1005.475 | -14.571 |
| 105 | 55 | 1013.511 | 1000.655 | -12.856 |
| 105 | 56 | 998.282 | 1007.790 | 9.508 |
| 105 | 57 | 1014.052 | 1003.197 | -10.855 |
| 105 | 58 | 1010.211 | 1006.078 | -4.133 |
| 105 | 59 | 1010.853 | 1013.884 | 3.031 |
| 105 | 60 | 1010.949 | 1006.150 | -4.799 |
| 105 | 61 | 1012.876 | 996.264 | -16.612 |
| 105 | 62 | 1013.464 | 1006.115 | -7.349 |
| 105 | 63 | 1003.707 | 997.884 | -5.823 |
| 105 | 64 | 1020.052 | 1008.268 | -11.784 |
| 105 | 65 | 1005.978 | 1015.447 | 9.469 |
| 105 | 66 | 1006.808 | 1018.110 | 11.302 |
| 105 | 67 | 1008.271 | 1013.649 | 5.378 |
| | Max | 1025.993 | 1021.098 | 17.041 |
| | Average | 1010.995 | 1008.724 | -2.271 |
| | Min | 998.282 | 996.264 | -19.454 |
| | Std Dev | 5.688 | 5.510 | 8.339 |



| 9.16 FSW_EXT_RT_1MHz_4V | |
|-------------------------|----------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 1100 kHz |
| Min Limit | 900 kHz |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LL | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 |
| Min | 1008.222 | 1008.713 | 1003.120 | 1004.172 | 1001.705 | 1004.391 | 996.664 | 1006.564 | 1001.276 | 998.836 | 996.264 |
| Average | 1012.643 | 1013.142 | 1007.824 | 1008.418 | 1010.307 | 1009.642 | 1009.707 | 1009.040 | 1006.424 | 1009.017 | 1007.053 |
| Max | 1016.881 | 1016.798 | 1012.672 | 1015.031 | 1020.199 | 1016.272 | 1017.594 | 1011.871 | 1017.542 | 1021.098 | 1018.110 |
| UL | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 |

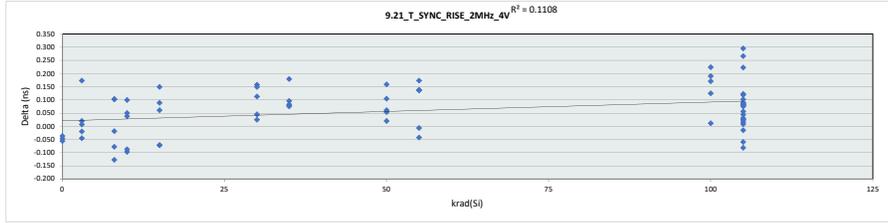


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

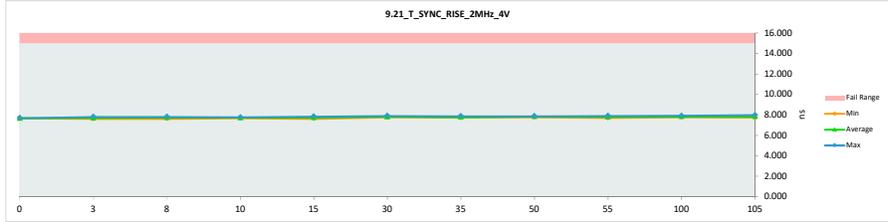
| 9.21 T SYNC RISE 2MHz 4V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 15 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.688 | 7.650 | -0.038 |
| 0 | 992 | 7.712 | 7.655 | -0.057 |
| 0 | 993 | 7.710 | 7.662 | -0.048 |
| 3 | 1 | 7.603 | 7.608 | 0.005 |
| 3 | 2 | 7.706 | 7.685 | -0.021 |
| 3 | 3 | 7.700 | 7.718 | 0.018 |
| 3 | 4 | 7.647 | 7.601 | -0.046 |
| 3 | 5 | 7.618 | 7.789 | 0.171 |
| 8 | 6 | 7.700 | 7.800 | 0.100 |
| 8 | 7 | 7.743 | 7.614 | -0.129 |
| 8 | 8 | 7.684 | 7.786 | 0.102 |
| 8 | 9 | 7.713 | 7.693 | -0.020 |
| 8 | 10 | 7.797 | 7.718 | -0.079 |
| 10 | 11 | 7.811 | 7.713 | -0.098 |
| 10 | 12 | 7.678 | 7.727 | 0.049 |
| 10 | 13 | 7.605 | 7.703 | 0.098 |
| 10 | 14 | 7.634 | 7.670 | 0.036 |
| 10 | 15 | 7.833 | 7.744 | -0.089 |
| 15 | 16 | 7.756 | 7.683 | -0.073 |
| 15 | 17 | 7.680 | 7.607 | -0.073 |
| 15 | 18 | 7.643 | 7.730 | 0.087 |
| 15 | 19 | 7.687 | 7.834 | 0.147 |
| 15 | 20 | 7.702 | 7.761 | 0.059 |
| 30 | 21 | 7.728 | 7.772 | 0.044 |
| 30 | 22 | 7.653 | 7.800 | 0.147 |
| 30 | 23 | 7.786 | 7.809 | 0.023 |
| 30 | 24 | 7.784 | 7.895 | 0.111 |
| 30 | 25 | 7.613 | 7.769 | 0.156 |
| 35 | 26 | 7.625 | 7.719 | 0.094 |
| 35 | 27 | 7.645 | 7.719 | 0.074 |
| 35 | 28 | 7.642 | 7.719 | 0.077 |
| 35 | 29 | 7.687 | 7.865 | 0.178 |
| 35 | 30 | 7.729 | 7.810 | 0.081 |
| 50 | 31 | 7.646 | 7.803 | 0.157 |
| 50 | 32 | 7.804 | 7.856 | 0.052 |
| 50 | 33 | 7.817 | 7.835 | 0.018 |
| 50 | 34 | 7.656 | 7.759 | 0.103 |
| 50 | 35 | 7.778 | 7.838 | 0.060 |
| 55 | 36 | 7.714 | 7.885 | 0.171 |
| 55 | 37 | 7.726 | 7.682 | -0.044 |
| 55 | 38 | 7.696 | 7.833 | 0.137 |
| 55 | 39 | 7.753 | 7.745 | -0.008 |
| 55 | 40 | 7.702 | 7.836 | 0.134 |
| 100 | 41 | 7.646 | 7.769 | 0.123 |
| 100 | 42 | 7.679 | 7.901 | 0.222 |
| 100 | 43 | 7.672 | 7.860 | 0.188 |
| 100 | 44 | 7.643 | 7.812 | 0.169 |
| 100 | 45 | 7.748 | 7.758 | 0.010 |
| 105 | 46 | 7.781 | 7.824 | 0.043 |
| 105 | 47 | 7.762 | 7.836 | 0.074 |
| 105 | 48 | 7.740 | 7.823 | 0.083 |
| 105 | 49 | 7.727 | 7.816 | 0.089 |
| 105 | 50 | 7.767 | 7.884 | 0.117 |
| 105 | 51 | 7.800 | 7.921 | 0.121 |
| 105 | 52 | 7.705 | 7.786 | 0.081 |
| 105 | 53 | 7.689 | 7.744 | 0.055 |
| 105 | 54 | 7.715 | 7.796 | 0.081 |
| 105 | 55 | 7.671 | 7.964 | 0.293 |
| 105 | 56 | 7.833 | 7.858 | 0.025 |
| 105 | 57 | 7.773 | 7.780 | 0.007 |
| 105 | 58 | 7.790 | 7.729 | -0.061 |
| 105 | 59 | 7.751 | 7.773 | 0.022 |
| 105 | 60 | 7.743 | 7.819 | 0.076 |
| 105 | 61 | 7.637 | 7.858 | 0.221 |
| 105 | 62 | 7.720 | 7.734 | 0.014 |
| 105 | 63 | 7.799 | 7.900 | 0.101 |
| 105 | 64 | 7.616 | 7.880 | 0.264 |
| 105 | 65 | 7.821 | 7.738 | -0.083 |
| 105 | 66 | 7.732 | 7.715 | -0.017 |
| 105 | 67 | 7.729 | 7.758 | 0.029 |
| Max | | 7.833 | 7.964 | 0.293 |
| Average | | 7.713 | 7.773 | 0.060 |
| Min | | 7.603 | 7.601 | -0.129 |
| Std Dev | | 0.061 | 0.081 | 0.090 |



| 9.21 T SYNC RISE 2MHz 4V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.650 | 7.601 | 7.614 | 7.670 | 7.607 | 7.769 | 7.719 | 7.759 | 7.682 | 7.758 | 7.715 |
| Average | 7.656 | 7.680 | 7.722 | 7.711 | 7.723 | 7.809 | 7.766 | 7.818 | 7.796 | 7.820 | 7.815 |
| Max | 7.662 | 7.789 | 7.800 | 7.744 | 7.834 | 7.895 | 7.865 | 7.856 | 7.885 | 7.901 | 7.964 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

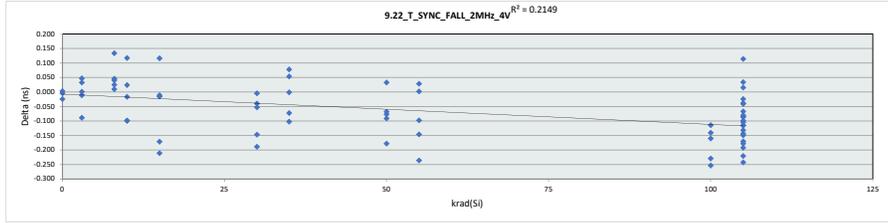


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

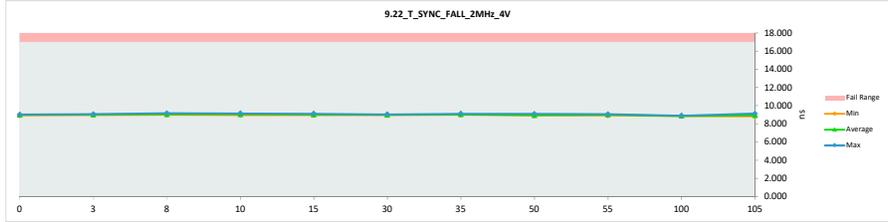
| 9.22 T SYNC FALL 2MHz 4V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.993 | 8.996 | 0.003 |
| 0 | 992 | 8.954 | 8.929 | -0.025 |
| 0 | 993 | 9.031 | 9.026 | -0.005 |
| 3 | 1 | 9.019 | 9.066 | 0.047 |
| 3 | 2 | 8.964 | 8.952 | -0.012 |
| 3 | 3 | 9.022 | 9.054 | 0.032 |
| 3 | 4 | 9.086 | 8.997 | -0.089 |
| 3 | 5 | 9.007 | 9.007 | 0.000 |
| 8 | 6 | 8.955 | 9.001 | 0.046 |
| 8 | 7 | 9.003 | 9.012 | 0.009 |
| 8 | 8 | 9.059 | 9.099 | 0.040 |
| 8 | 9 | 9.034 | 9.167 | 0.133 |
| 8 | 10 | 8.958 | 8.983 | 0.025 |
| 10 | 11 | 9.024 | 9.141 | 0.117 |
| 10 | 12 | 9.097 | 9.121 | 0.024 |
| 10 | 13 | 9.034 | 9.017 | -0.017 |
| 10 | 14 | 9.058 | 8.959 | -0.099 |
| 10 | 15 | 9.167 | 9.068 | -0.099 |
| 15 | 16 | 9.186 | 9.014 | -0.172 |
| 15 | 17 | 9.080 | 9.068 | -0.012 |
| 15 | 18 | 8.992 | 9.108 | 0.116 |
| 15 | 19 | 9.024 | 9.008 | -0.016 |
| 15 | 20 | 9.154 | 8.943 | -0.211 |
| 30 | 21 | 9.180 | 8.991 | -0.189 |
| 30 | 22 | 9.018 | 8.965 | -0.053 |
| 30 | 23 | 9.104 | 8.957 | -0.147 |
| 30 | 24 | 9.029 | 9.024 | -0.005 |
| 30 | 25 | 9.080 | 9.040 | -0.040 |
| 35 | 26 | 9.032 | 9.109 | 0.077 |
| 35 | 27 | 9.020 | 9.018 | -0.002 |
| 35 | 28 | 9.091 | 8.989 | -0.102 |
| 35 | 29 | 9.009 | 9.062 | 0.053 |
| 35 | 30 | 9.085 | 9.012 | -0.073 |
| 50 | 31 | 9.001 | 8.924 | -0.077 |
| 50 | 32 | 9.009 | 8.941 | -0.068 |
| 50 | 33 | 9.028 | 8.937 | -0.091 |
| 50 | 34 | 9.066 | 9.098 | 0.032 |
| 50 | 35 | 9.097 | 8.919 | -0.178 |
| 55 | 36 | 9.173 | 9.027 | -0.146 |
| 55 | 37 | 8.976 | 9.004 | 0.028 |
| 55 | 38 | 9.157 | 9.059 | -0.098 |
| 55 | 39 | 9.163 | 8.927 | -0.236 |
| 55 | 40 | 9.033 | 9.035 | 0.002 |
| 100 | 41 | 9.003 | 8.842 | -0.161 |
| 100 | 42 | 8.966 | 8.851 | -0.115 |
| 100 | 43 | 9.045 | 8.904 | -0.141 |
| 100 | 44 | 9.098 | 8.868 | -0.230 |
| 100 | 45 | 9.139 | 8.885 | -0.254 |
| 105 | 46 | 9.016 | 8.824 | -0.192 |
| 105 | 47 | 8.960 | 8.919 | -0.041 |
| 105 | 48 | 9.061 | 8.911 | -0.150 |
| 105 | 49 | 8.995 | 8.909 | -0.086 |
| 105 | 50 | 8.981 | 8.895 | -0.086 |
| 105 | 51 | 9.024 | 8.919 | -0.105 |
| 105 | 52 | 9.047 | 9.022 | -0.025 |
| 105 | 53 | 9.146 | 8.903 | -0.243 |
| 105 | 54 | 9.061 | 8.883 | -0.178 |
| 105 | 55 | 9.035 | 9.050 | 0.015 |
| 105 | 56 | 9.128 | 9.012 | -0.116 |
| 105 | 57 | 9.052 | 9.013 | -0.039 |
| 105 | 58 | 9.130 | 8.909 | -0.221 |
| 105 | 59 | 9.102 | 8.932 | -0.170 |
| 105 | 60 | 9.012 | 9.125 | 0.113 |
| 105 | 61 | 9.156 | 9.057 | -0.099 |
| 105 | 62 | 9.042 | 8.898 | -0.144 |
| 105 | 63 | 9.121 | 8.989 | -0.132 |
| 105 | 64 | 9.053 | 8.986 | -0.067 |
| 105 | 65 | 9.091 | 9.011 | -0.080 |
| 105 | 66 | 8.968 | 9.001 | 0.033 |
| 105 | 67 | 9.053 | 8.937 | -0.116 |
| Max | | 9.186 | 9.167 | 0.133 |
| Average | | 9.053 | 8.989 | -0.064 |
| Min | | 8.954 | 8.824 | -0.254 |
| Std Dev | | 0.062 | 0.076 | 0.095 |



| 9.22 T SYNC FALL 2MHz 4V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 8.929 | 8.952 | 8.983 | 8.959 | 8.943 | 8.957 | 8.989 | 8.919 | 8.927 | 8.842 | 8.824 |
| Average | 8.984 | 9.015 | 9.052 | 9.061 | 9.028 | 8.995 | 9.038 | 8.964 | 9.010 | 8.870 | 8.959 |
| Max | 9.026 | 9.066 | 9.167 | 9.141 | 9.108 | 9.040 | 9.109 | 9.098 | 9.059 | 8.904 | 9.125 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

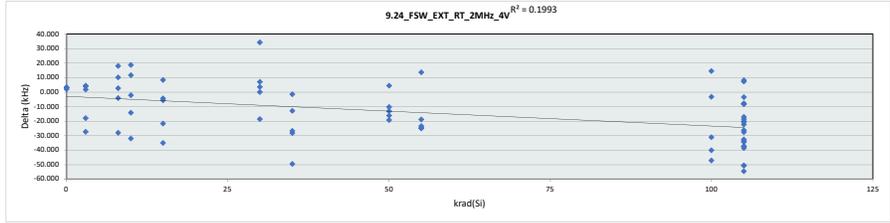


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

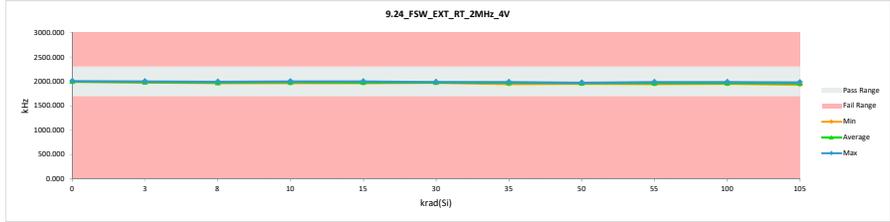
| 9.24 FSW_EXT_RT_2MHz_4V | |
|-------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 2300 |
| Min Limit | 1700 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|----------|----------|---------|
| 0 | 991 | 2003.279 | 2006.064 | 2.785 |
| 0 | 992 | 1992.715 | 1995.627 | 2.912 |
| 0 | 993 | 1990.581 | 1992.285 | 1.704 |
| 3 | 1 | 1995.983 | 1997.427 | 1.444 |
| 3 | 2 | 1993.139 | 1997.174 | 4.035 |
| 3 | 3 | 2000.392 | 1982.174 | -18.218 |
| 3 | 4 | 1985.061 | 1988.700 | 3.639 |
| 3 | 5 | 2007.674 | 1979.918 | -27.756 |
| 8 | 6 | 1980.211 | 1982.452 | 2.241 |
| 8 | 7 | 1998.717 | 1970.439 | -28.278 |
| 8 | 8 | 1958.795 | 1968.490 | 9.695 |
| 8 | 9 | 1978.644 | 1974.222 | -4.422 |
| 8 | 10 | 1973.897 | 1991.499 | 17.602 |
| 10 | 11 | 1978.240 | 1975.748 | -2.492 |
| 10 | 12 | 2002.645 | 1970.395 | -32.250 |
| 10 | 13 | 1999.576 | 1984.972 | -14.604 |
| 10 | 14 | 1983.870 | 2002.123 | 18.253 |
| 10 | 15 | 1975.211 | 1986.437 | 11.226 |
| 15 | 16 | 1987.851 | 1983.199 | -4.652 |
| 15 | 17 | 1991.376 | 1999.422 | 8.046 |
| 15 | 18 | 1990.495 | 1968.435 | -22.060 |
| 15 | 19 | 2008.744 | 1973.431 | -35.313 |
| 15 | 20 | 1991.154 | 1985.148 | -6.006 |
| 30 | 21 | 1972.508 | 1975.589 | 3.081 |
| 30 | 22 | 1979.998 | 1986.641 | 6.643 |
| 30 | 23 | 1956.189 | 1989.964 | 33.775 |
| 30 | 24 | 1977.342 | 1977.115 | -0.227 |
| 30 | 25 | 2002.913 | 1984.007 | -18.906 |
| 35 | 26 | 2001.936 | 1973.434 | -28.502 |
| 35 | 27 | 2001.891 | 1988.689 | -13.202 |
| 35 | 28 | 1979.625 | 1970.532 | -27.093 |
| 35 | 29 | 1995.621 | 1945.814 | -49.807 |
| 35 | 30 | 1981.494 | 1979.670 | -1.824 |
| 50 | 31 | 1986.711 | 1967.122 | -19.589 |
| 50 | 32 | 1976.557 | 1963.123 | -13.434 |
| 50 | 33 | 1980.596 | 1964.128 | -16.468 |
| 50 | 34 | 1970.902 | 1974.924 | 4.022 |
| 50 | 35 | 1967.515 | 1956.900 | -10.615 |
| 55 | 36 | 1973.954 | 1948.838 | -25.116 |
| 55 | 37 | 1989.679 | 1970.432 | -19.247 |
| 55 | 38 | 1977.788 | 1953.928 | -23.860 |
| 55 | 39 | 1973.296 | 1986.520 | 13.224 |
| 55 | 40 | 1988.516 | 1963.292 | -25.224 |
| 100 | 41 | 2000.249 | 1968.803 | -31.446 |
| 100 | 42 | 2000.637 | 1953.296 | -47.341 |
| 100 | 43 | 1982.883 | 1979.348 | -3.535 |
| 100 | 44 | 2003.101 | 1962.619 | -40.482 |
| 100 | 45 | 1973.802 | 1987.874 | 14.072 |
| 105 | 46 | 1978.687 | 1950.787 | -27.900 |
| 105 | 47 | 1990.757 | 1982.643 | -8.114 |
| 105 | 48 | 1983.270 | 1950.292 | -32.978 |
| 105 | 49 | 2001.701 | 1950.637 | -51.064 |
| 105 | 50 | 2002.237 | 1947.264 | -54.973 |
| 105 | 51 | 1986.958 | 1952.865 | -34.093 |
| 105 | 52 | 1995.419 | 1968.851 | -26.568 |
| 105 | 53 | 1981.831 | 1973.223 | -8.608 |
| 105 | 54 | 1998.837 | 1960.009 | -38.828 |
| 105 | 55 | 1979.499 | 1944.777 | -34.722 |
| 105 | 56 | 1955.531 | 1963.411 | 7.880 |
| 105 | 57 | 1989.535 | 1969.086 | -20.449 |
| 105 | 58 | 1982.280 | 1961.386 | -20.894 |
| 105 | 59 | 1975.649 | 1971.908 | -3.741 |
| 105 | 60 | 1978.292 | 1960.910 | -17.382 |
| 105 | 61 | 1996.703 | 1945.819 | -50.884 |
| 105 | 62 | 1973.198 | 1954.314 | -18.884 |
| 105 | 63 | 1973.343 | 1935.540 | -37.803 |
| 105 | 64 | 1984.399 | 1946.856 | -37.543 |
| 105 | 65 | 1970.666 | 1977.581 | 6.915 |
| 105 | 66 | 2000.541 | 1977.930 | -22.611 |
| 105 | 67 | 1982.233 | 1973.796 | -8.437 |
| | Max | 2008.744 | 2006.064 | 33.775 |
| | Average | 1986.336 | 1972.118 | -14.218 |
| | Min | 1955.531 | 1935.540 | -54.973 |
| | Std Dev | 12.432 | 15.924 | 19.356 |



| 9.24 FSW_EXT_RT_2MHz_4V | |
|-------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 2300 |
| Min Limit | 1700 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LL | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 |
| Min | 1992.285 | 1979.918 | 1968.490 | 1970.395 | 1968.435 | 1975.589 | 1945.814 | 1956.900 | 1948.838 | 1953.296 | 1935.540 |
| Average | 1997.992 | 1989.079 | 1977.420 | 1983.935 | 1981.927 | 1982.663 | 1971.628 | 1965.239 | 1964.602 | 1970.388 | 1959.995 |
| Max | 2006.064 | 1997.427 | 1991.499 | 2002.123 | 1999.422 | 1989.964 | 1988.689 | 1974.924 | 1986.520 | 1987.874 | 1982.643 |
| UL | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 |

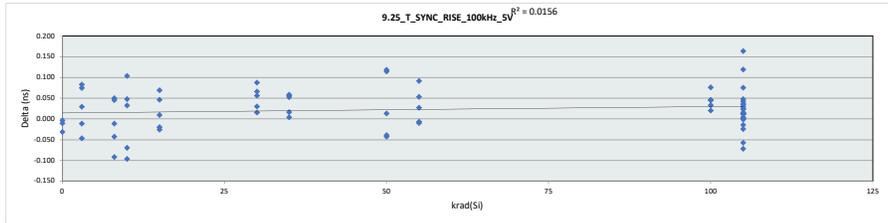


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

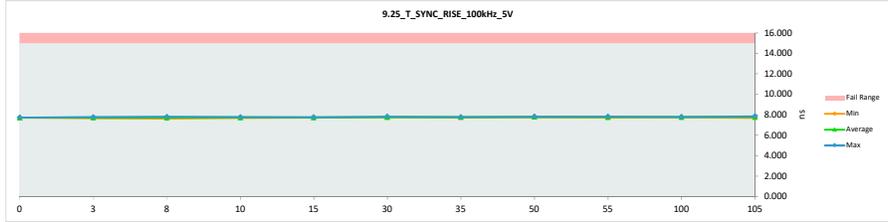
| 9.25 T SYNC RISE 100kHz 5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.748 | 7.716 | -0.032 |
| 0 | 992 | 7.728 | 7.724 | -0.004 |
| 0 | 993 | 7.725 | 7.714 | -0.011 |
| 3 | 1 | 7.687 | 7.675 | -0.012 |
| 3 | 2 | 7.706 | 7.735 | 0.029 |
| 3 | 3 | 7.673 | 7.747 | 0.074 |
| 3 | 4 | 7.714 | 7.667 | -0.047 |
| 3 | 5 | 7.693 | 7.776 | 0.083 |
| 8 | 6 | 7.750 | 7.800 | 0.050 |
| 8 | 7 | 7.738 | 7.646 | -0.092 |
| 8 | 8 | 7.721 | 7.766 | 0.045 |
| 8 | 9 | 7.738 | 7.726 | -0.012 |
| 8 | 10 | 7.766 | 7.723 | -0.043 |
| 10 | 11 | 7.768 | 7.698 | -0.070 |
| 10 | 12 | 7.730 | 7.777 | 0.047 |
| 10 | 13 | 7.667 | 7.770 | 0.103 |
| 10 | 14 | 7.680 | 7.712 | 0.032 |
| 10 | 15 | 7.822 | 7.725 | -0.097 |
| 15 | 16 | 7.767 | 7.741 | -0.026 |
| 15 | 17 | 7.724 | 7.704 | -0.020 |
| 15 | 18 | 7.689 | 7.758 | 0.069 |
| 15 | 19 | 7.711 | 7.757 | 0.046 |
| 15 | 20 | 7.740 | 7.749 | 0.009 |
| 30 | 21 | 7.773 | 7.788 | 0.015 |
| 30 | 22 | 7.685 | 7.741 | 0.056 |
| 30 | 23 | 7.773 | 7.803 | 0.030 |
| 30 | 24 | 7.759 | 7.825 | 0.066 |
| 30 | 25 | 7.649 | 7.736 | 0.087 |
| 35 | 26 | 7.696 | 7.748 | 0.052 |
| 35 | 27 | 7.680 | 7.738 | 0.058 |
| 35 | 28 | 7.729 | 7.733 | 0.004 |
| 35 | 29 | 7.714 | 7.770 | 0.056 |
| 35 | 30 | 7.754 | 7.770 | 0.016 |
| 50 | 31 | 7.708 | 7.822 | 0.114 |
| 50 | 32 | 7.805 | 7.766 | -0.039 |
| 50 | 33 | 7.803 | 7.760 | -0.043 |
| 50 | 34 | 7.666 | 7.784 | 0.118 |
| 50 | 35 | 7.774 | 7.787 | 0.013 |
| 55 | 36 | 7.764 | 7.817 | 0.053 |
| 55 | 37 | 7.719 | 7.709 | -0.010 |
| 55 | 38 | 7.686 | 7.777 | 0.091 |
| 55 | 39 | 7.746 | 7.739 | -0.007 |
| 55 | 40 | 7.739 | 7.766 | 0.027 |
| 100 | 41 | 7.720 | 7.740 | 0.020 |
| 100 | 42 | 7.715 | 7.791 | 0.076 |
| 100 | 43 | 7.740 | 7.785 | 0.045 |
| 100 | 44 | 7.740 | 7.773 | 0.033 |
| 100 | 45 | 7.742 | 7.787 | 0.045 |
| 105 | 46 | 7.786 | 7.784 | -0.002 |
| 105 | 47 | 7.717 | 7.792 | 0.075 |
| 105 | 48 | 7.751 | 7.762 | 0.011 |
| 105 | 49 | 7.725 | 7.740 | 0.015 |
| 105 | 50 | 7.770 | 7.800 | 0.030 |
| 105 | 51 | 7.784 | 7.809 | 0.025 |
| 105 | 52 | 7.696 | 7.743 | 0.047 |
| 105 | 53 | 7.729 | 7.733 | 0.004 |
| 105 | 54 | 7.722 | 7.757 | 0.035 |
| 105 | 55 | 7.688 | 7.851 | 0.163 |
| 105 | 56 | 7.785 | 7.797 | 0.012 |
| 105 | 57 | 7.779 | 7.754 | -0.025 |
| 105 | 58 | 7.769 | 7.697 | -0.072 |
| 105 | 59 | 7.772 | 7.757 | -0.015 |
| 105 | 60 | 7.749 | 7.791 | 0.042 |
| 105 | 61 | 7.739 | 7.762 | 0.023 |
| 105 | 62 | 7.720 | 7.756 | 0.036 |
| 105 | 63 | 7.778 | 7.779 | 0.001 |
| 105 | 64 | 7.698 | 7.817 | 0.119 |
| 105 | 65 | 7.777 | 7.719 | -0.058 |
| 105 | 66 | 7.712 | 7.725 | 0.013 |
| 105 | 67 | 7.738 | 7.749 | 0.011 |
| | Max | 7.822 | 7.851 | 0.163 |
| | Average | 7.734 | 7.756 | 0.023 |
| | Min | 7.649 | 7.646 | -0.097 |
| | Std Dev | 0.037 | 0.038 | 0.051 |



| 9.25 T SYNC RISE 100kHz 5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 15 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.714 | 7.667 | 7.646 | 7.698 | 7.704 | 7.736 | 7.733 | 7.760 | 7.709 | 7.740 | 7.697 |
| Average | 7.718 | 7.720 | 7.732 | 7.736 | 7.742 | 7.779 | 7.752 | 7.784 | 7.762 | 7.775 | 7.767 |
| Max | 7.724 | 7.776 | 7.800 | 7.777 | 7.758 | 7.825 | 7.770 | 7.822 | 7.817 | 7.791 | 7.851 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

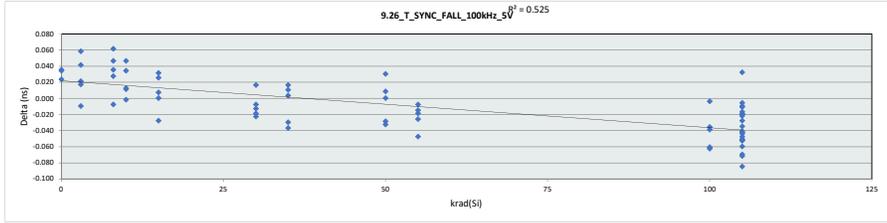


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

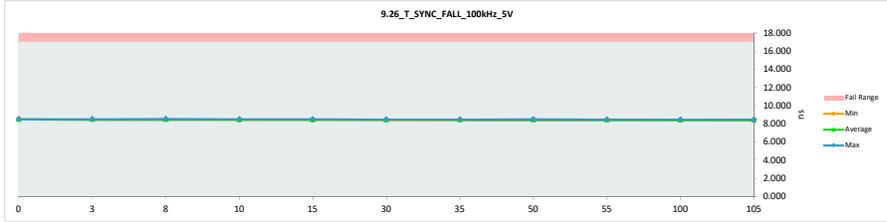
| 9.26 T_SYNC_FALL_100kHz_5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns ns |
| Min Limit | 14 17 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.455 | 8.490 | 0.035 |
| 0 | 992 | 8.446 | 8.480 | 0.034 |
| 0 | 993 | 8.452 | 8.475 | 0.023 |
| 3 | 1 | 8.452 | 8.473 | 0.021 |
| 3 | 2 | 8.472 | 8.462 | -0.010 |
| 3 | 3 | 8.444 | 8.485 | 0.041 |
| 3 | 4 | 8.447 | 8.464 | 0.017 |
| 3 | 5 | 8.434 | 8.492 | 0.058 |
| 8 | 6 | 8.439 | 8.474 | 0.035 |
| 8 | 7 | 8.467 | 8.459 | -0.008 |
| 8 | 8 | 8.437 | 8.498 | 0.061 |
| 8 | 9 | 8.496 | 8.523 | 0.027 |
| 8 | 10 | 8.444 | 8.490 | 0.046 |
| 10 | 11 | 8.454 | 8.466 | 0.012 |
| 10 | 12 | 8.460 | 8.494 | 0.034 |
| 10 | 13 | 8.419 | 8.465 | 0.046 |
| 10 | 14 | 8.450 | 8.461 | 0.011 |
| 10 | 15 | 8.476 | 8.474 | -0.002 |
| 15 | 16 | 8.474 | 8.481 | 0.007 |
| 15 | 17 | 8.428 | 8.459 | 0.031 |
| 15 | 18 | 8.453 | 8.478 | 0.025 |
| 15 | 19 | 8.449 | 8.449 | 0.000 |
| 15 | 20 | 8.466 | 8.438 | -0.028 |
| 30 | 21 | 8.462 | 8.449 | -0.013 |
| 30 | 22 | 8.467 | 8.459 | -0.008 |
| 30 | 23 | 8.445 | 8.422 | -0.023 |
| 30 | 24 | 8.488 | 8.469 | -0.019 |
| 30 | 25 | 8.453 | 8.469 | 0.016 |
| 35 | 26 | 8.440 | 8.456 | 0.016 |
| 35 | 27 | 8.471 | 8.441 | -0.030 |
| 35 | 28 | 8.495 | 8.458 | -0.037 |
| 35 | 29 | 8.466 | 8.469 | 0.003 |
| 35 | 30 | 8.448 | 8.458 | 0.010 |
| 50 | 31 | 8.451 | 8.481 | 0.030 |
| 50 | 32 | 8.435 | 8.406 | -0.029 |
| 50 | 33 | 8.460 | 8.427 | -0.033 |
| 50 | 34 | 8.442 | 8.442 | 0.000 |
| 50 | 35 | 8.454 | 8.452 | 0.002 |
| 55 | 36 | 8.458 | 8.443 | -0.015 |
| 55 | 37 | 8.444 | 8.425 | -0.019 |
| 55 | 38 | 8.468 | 8.460 | -0.008 |
| 55 | 39 | 8.500 | 8.452 | -0.048 |
| 55 | 40 | 8.475 | 8.449 | -0.026 |
| 100 | 41 | 8.476 | 8.440 | -0.036 |
| 100 | 42 | 8.451 | 8.447 | -0.004 |
| 100 | 43 | 8.475 | 8.414 | -0.061 |
| 100 | 44 | 8.460 | 8.397 | -0.063 |
| 100 | 45 | 8.470 | 8.431 | -0.039 |
| 105 | 46 | 8.469 | 8.418 | -0.051 |
| 105 | 47 | 8.464 | 8.444 | -0.020 |
| 105 | 48 | 8.447 | 8.406 | -0.041 |
| 105 | 49 | 8.459 | 8.415 | -0.044 |
| 105 | 50 | 8.445 | 8.428 | -0.017 |
| 105 | 51 | 8.464 | 8.411 | -0.053 |
| 105 | 52 | 8.473 | 8.445 | -0.028 |
| 105 | 53 | 8.494 | 8.409 | -0.085 |
| 105 | 54 | 8.493 | 8.421 | -0.072 |
| 105 | 55 | 8.475 | 8.415 | -0.060 |
| 105 | 56 | 8.435 | 8.467 | 0.032 |
| 105 | 57 | 8.456 | 8.434 | -0.022 |
| 105 | 58 | 8.417 | 8.406 | -0.011 |
| 105 | 59 | 8.456 | 8.421 | -0.035 |
| 105 | 60 | 8.459 | 8.436 | -0.023 |
| 105 | 61 | 8.490 | 8.470 | -0.020 |
| 105 | 62 | 8.472 | 8.452 | -0.020 |
| 105 | 63 | 8.505 | 8.435 | -0.070 |
| 105 | 64 | 8.485 | 8.442 | -0.043 |
| 105 | 65 | 8.465 | 8.455 | -0.010 |
| 105 | 66 | 8.459 | 8.407 | -0.052 |
| 105 | 67 | 8.479 | 8.431 | -0.048 |
| 105 | 68 | 8.505 | 8.523 | 0.018 |
| 105 | 69 | 8.460 | 8.450 | -0.010 |
| 105 | 70 | 8.417 | 8.397 | -0.020 |
| 105 | 71 | 0.019 | 0.027 | 0.008 |



| 9.26 T_SYNC_FALL_100kHz_5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.475 | 8.462 | 8.459 | 8.461 | 8.439 | 8.422 | 8.441 | 8.406 | 8.425 | 8.397 | 8.406 |
| Average | 8.482 | 8.475 | 8.489 | 8.472 | 8.461 | 8.454 | 8.456 | 8.444 | 8.446 | 8.426 | 8.430 |
| Max | 8.490 | 8.492 | 8.523 | 8.494 | 8.481 | 8.469 | 8.469 | 8.481 | 8.460 | 8.447 | 8.470 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

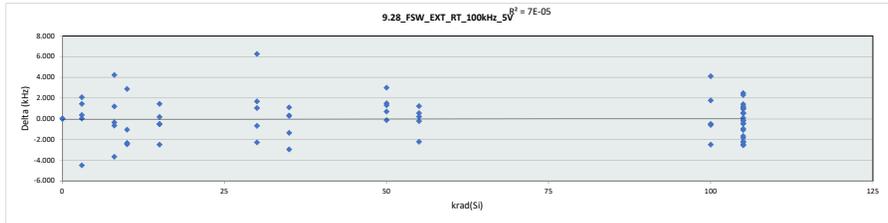


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

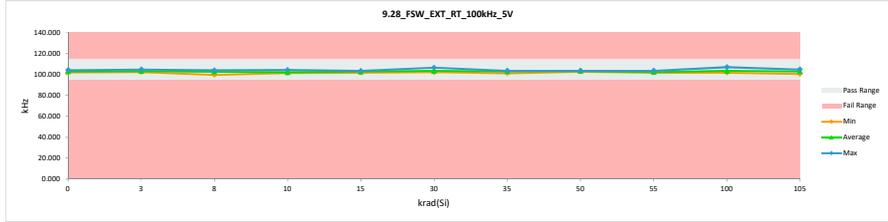
| 9.28 FSW_EXT_RT_100kHz_5V | |
|---------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 115 |
| Min Limit | 95 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 103.192 | 103.198 | 0.006 |
| 0 | 992 | 101.986 | 101.998 | 0.012 |
| 0 | 993 | 104.194 | 104.189 | -0.005 |
| 3 | 1 | 102.749 | 104.834 | 2.085 |
| 3 | 2 | 102.744 | 104.191 | 1.447 |
| 3 | 3 | 103.070 | 103.089 | 0.019 |
| 3 | 4 | 102.513 | 102.869 | 0.356 |
| 3 | 5 | 106.869 | 102.366 | -4.503 |
| 8 | 6 | 104.242 | 103.583 | -0.659 |
| 8 | 7 | 103.354 | 99.698 | -3.656 |
| 8 | 8 | 98.103 | 102.317 | 4.214 |
| 8 | 9 | 102.922 | 104.117 | 1.195 |
| 8 | 10 | 104.420 | 104.087 | -0.333 |
| 10 | 11 | 104.086 | 101.720 | -2.366 |
| 10 | 12 | 103.912 | 101.453 | -2.459 |
| 10 | 13 | 103.990 | 101.645 | -2.345 |
| 10 | 14 | 101.560 | 104.429 | 2.869 |
| 10 | 15 | 102.744 | 101.686 | -1.058 |
| 15 | 16 | 104.252 | 101.768 | -2.484 |
| 15 | 17 | 101.994 | 103.415 | 1.421 |
| 15 | 18 | 103.029 | 102.516 | -0.513 |
| 15 | 19 | 104.099 | 103.559 | -0.540 |
| 15 | 20 | 103.351 | 103.516 | 0.165 |
| 30 | 21 | 101.233 | 102.912 | 1.679 |
| 30 | 22 | 101.314 | 102.398 | 1.024 |
| 30 | 23 | 100.321 | 106.557 | 6.236 |
| 30 | 24 | 103.823 | 103.139 | -0.684 |
| 30 | 25 | 104.750 | 102.470 | -2.280 |
| 35 | 26 | 103.463 | 103.762 | 0.299 |
| 35 | 27 | 102.588 | 103.686 | 1.098 |
| 35 | 28 | 104.877 | 103.525 | -1.352 |
| 35 | 29 | 104.215 | 101.270 | -2.945 |
| 35 | 30 | 103.187 | 103.495 | 0.308 |
| 50 | 31 | 102.869 | 103.561 | 0.692 |
| 50 | 32 | 102.175 | 103.493 | 1.318 |
| 50 | 33 | 103.658 | 103.527 | -0.131 |
| 50 | 34 | 99.775 | 102.781 | 3.006 |
| 50 | 35 | 102.247 | 103.729 | 1.482 |
| 55 | 36 | 104.098 | 101.866 | -2.232 |
| 55 | 37 | 103.967 | 103.749 | -0.218 |
| 55 | 38 | 101.660 | 102.198 | 0.538 |
| 55 | 39 | 101.576 | 102.796 | 1.220 |
| 55 | 40 | 101.571 | 101.774 | 0.203 |
| 100 | 41 | 104.308 | 101.812 | -2.496 |
| 100 | 42 | 102.477 | 101.900 | -0.577 |
| 100 | 43 | 101.710 | 103.495 | 1.785 |
| 100 | 44 | 103.614 | 103.121 | -0.493 |
| 100 | 45 | 102.960 | 107.062 | 4.102 |
| 105 | 46 | 103.598 | 104.159 | 0.561 |
| 105 | 47 | 103.427 | 103.523 | 0.096 |
| 105 | 48 | 103.010 | 102.544 | -0.466 |
| 105 | 49 | 102.748 | 102.545 | -0.203 |
| 105 | 50 | 106.569 | 104.070 | -2.499 |
| 105 | 51 | 103.530 | 104.040 | 0.510 |
| 105 | 52 | 101.912 | 102.909 | 0.997 |
| 105 | 53 | 103.481 | 104.413 | 0.932 |
| 105 | 54 | 103.806 | 101.953 | -1.853 |
| 105 | 55 | 103.662 | 102.588 | -1.074 |
| 105 | 56 | 101.358 | 103.659 | 2.301 |
| 105 | 57 | 103.717 | 101.530 | -2.187 |
| 105 | 58 | 103.211 | 102.263 | -0.948 |
| 105 | 59 | 103.095 | 104.123 | 1.028 |
| 105 | 60 | 103.732 | 103.614 | -0.118 |
| 105 | 61 | 103.139 | 100.591 | -2.548 |
| 105 | 62 | 103.585 | 101.291 | -2.294 |
| 105 | 63 | 102.297 | 100.637 | -1.660 |
| 105 | 64 | 104.307 | 103.851 | -0.456 |
| 105 | 65 | 102.466 | 104.940 | 2.474 |
| 105 | 66 | 102.803 | 103.989 | 1.186 |
| 105 | 67 | 101.785 | 103.190 | 1.405 |
| Max | | 106.869 | 107.062 | 6.236 |
| Average | | 103.044 | 103.038 | -0.005 |
| Min | | 98.103 | 99.698 | -4.503 |
| Std Dev | | 1.347 | 1.255 | 1.913 |



| 9.28 FSW_EXT_RT_100kHz_5 | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 115 |
| Min Limit | 95 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 |
| Min | 101.998 | 102.366 | 99.698 | 101.453 | 101.768 | 102.338 | 101.270 | 102.781 | 101.774 | 101.812 | 100.591 |
| Average | 103.128 | 103.470 | 102.760 | 102.187 | 102.955 | 103.483 | 103.148 | 103.418 | 102.477 | 103.478 | 103.019 |
| Max | 104.189 | 104.834 | 104.117 | 104.429 | 103.559 | 106.557 | 103.762 | 103.729 | 103.749 | 107.062 | 104.940 |
| UL | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 |

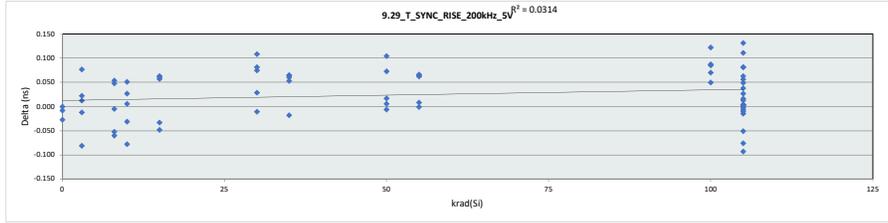


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

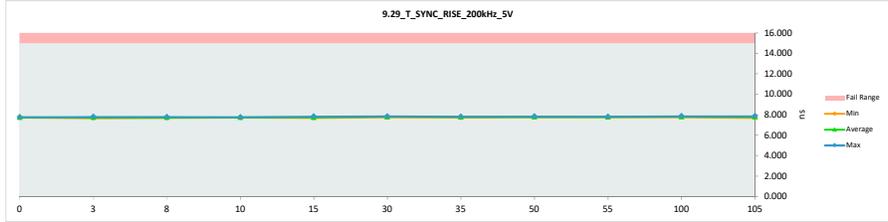
| 9.29 T_SYNC_RISE_200kHz_5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.739 | 7.730 | -0.009 |
| 0 | 992 | 7.749 | 7.721 | -0.028 |
| 0 | 993 | 7.751 | 7.750 | -0.001 |
| 3 | 1 | 7.674 | 7.685 | 0.011 |
| 3 | 2 | 7.741 | 7.728 | -0.013 |
| 3 | 3 | 7.723 | 7.744 | 0.021 |
| 3 | 4 | 7.749 | 7.667 | -0.082 |
| 3 | 5 | 7.709 | 7.785 | 0.076 |
| 8 | 6 | 7.734 | 7.781 | 0.047 |
| 8 | 7 | 7.724 | 7.671 | -0.053 |
| 8 | 8 | 7.709 | 7.762 | 0.053 |
| 8 | 9 | 7.715 | 7.709 | -0.006 |
| 8 | 10 | 7.774 | 7.713 | -0.061 |
| 10 | 11 | 7.751 | 7.719 | -0.032 |
| 10 | 12 | 7.726 | 7.731 | 0.005 |
| 10 | 13 | 7.696 | 7.746 | 0.050 |
| 10 | 14 | 7.699 | 7.725 | 0.026 |
| 10 | 15 | 7.822 | 7.743 | -0.079 |
| 15 | 16 | 7.780 | 7.731 | -0.049 |
| 15 | 17 | 7.705 | 7.671 | -0.034 |
| 15 | 18 | 7.685 | 7.741 | 0.056 |
| 15 | 19 | 7.757 | 7.817 | 0.060 |
| 15 | 20 | 7.725 | 7.787 | 0.062 |
| 30 | 21 | 7.724 | 7.831 | 0.107 |
| 30 | 22 | 7.703 | 7.731 | 0.028 |
| 30 | 23 | 7.745 | 7.819 | 0.074 |
| 30 | 24 | 7.844 | 7.832 | -0.012 |
| 30 | 25 | 7.678 | 7.758 | 0.080 |
| 35 | 26 | 7.700 | 7.764 | 0.064 |
| 35 | 27 | 7.716 | 7.768 | 0.052 |
| 35 | 28 | 7.736 | 7.717 | -0.019 |
| 35 | 29 | 7.728 | 7.791 | 0.063 |
| 35 | 30 | 7.737 | 7.796 | 0.059 |
| 50 | 31 | 7.716 | 7.819 | 0.103 |
| 50 | 32 | 7.763 | 7.779 | 0.016 |
| 50 | 33 | 7.787 | 7.792 | 0.005 |
| 50 | 34 | 7.695 | 7.767 | 0.072 |
| 50 | 35 | 7.780 | 7.773 | -0.007 |
| 55 | 36 | 7.733 | 7.794 | 0.061 |
| 55 | 37 | 7.749 | 7.747 | -0.002 |
| 55 | 38 | 7.727 | 7.792 | 0.065 |
| 55 | 39 | 7.736 | 7.743 | 0.007 |
| 55 | 40 | 7.724 | 7.788 | 0.064 |
| 100 | 41 | 7.708 | 7.757 | 0.049 |
| 100 | 42 | 7.725 | 7.846 | 0.121 |
| 100 | 43 | 7.723 | 7.809 | 0.086 |
| 100 | 44 | 7.721 | 7.790 | 0.069 |
| 100 | 45 | 7.750 | 7.834 | 0.084 |
| 105 | 46 | 7.782 | 7.785 | 0.003 |
| 105 | 47 | 7.744 | 7.799 | 0.055 |
| 105 | 48 | 7.771 | 7.760 | -0.011 |
| 105 | 49 | 7.728 | 7.790 | 0.062 |
| 105 | 50 | 7.779 | 7.805 | 0.026 |
| 105 | 51 | 7.760 | 7.808 | 0.048 |
| 105 | 52 | 7.729 | 7.741 | 0.012 |
| 105 | 53 | 7.748 | 7.696 | -0.052 |
| 105 | 54 | 7.760 | 7.753 | -0.007 |
| 105 | 55 | 7.718 | 7.848 | 0.130 |
| 105 | 56 | 7.772 | 7.852 | 0.080 |
| 105 | 57 | 7.767 | 7.770 | 0.003 |
| 105 | 58 | 7.802 | 7.708 | -0.094 |
| 105 | 59 | 7.765 | 7.768 | 0.003 |
| 105 | 60 | 7.779 | 7.779 | 0.000 |
| 105 | 61 | 7.733 | 7.813 | 0.080 |
| 105 | 62 | 7.742 | 7.739 | -0.003 |
| 105 | 63 | 7.753 | 7.790 | 0.037 |
| 105 | 64 | 7.683 | 7.793 | 0.110 |
| 105 | 65 | 7.779 | 7.702 | -0.077 |
| 105 | 66 | 7.738 | 7.738 | 0.000 |
| 105 | 67 | 7.754 | 7.738 | -0.016 |
| Max | | 7.844 | 7.852 | 0.130 |
| Average | | 7.739 | 7.764 | 0.024 |
| Min | | 7.674 | 7.667 | -0.094 |
| Std Dev | | 0.033 | 0.044 | 0.052 |



| 9.29 T_SYNC_RISE_200kHz_5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 15 ns |
| Min Limit | ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 7.721 | 7.667 | 7.671 | 7.719 | 7.671 | 7.731 | 7.717 | 7.767 | 7.743 | 7.757 | 7.696 |
| Average | 7.734 | 7.722 | 7.727 | 7.733 | 7.749 | 7.794 | 7.767 | 7.786 | 7.773 | 7.807 | 7.772 |
| Max | 7.750 | 7.785 | 7.781 | 7.746 | 7.817 | 7.832 | 7.796 | 7.819 | 7.794 | 7.846 | 7.852 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

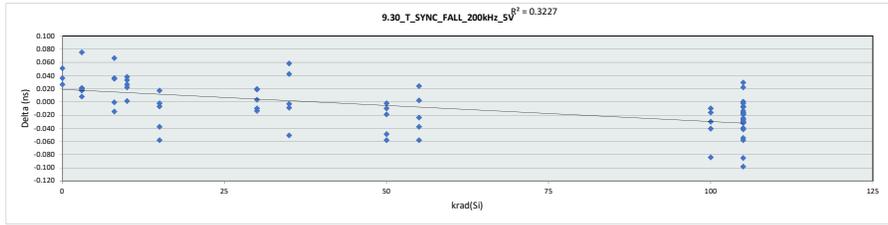


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

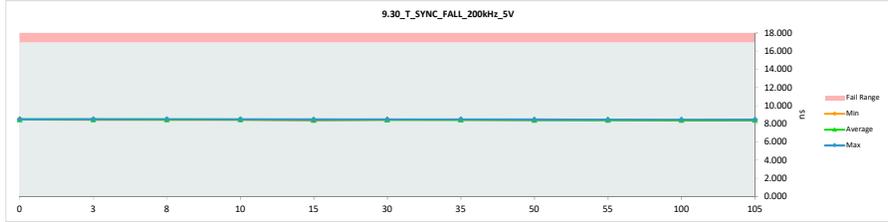
| 9.30 T SYNC FALL 200kHz 5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.451 | 8.502 | 0.051 |
| 0 | 992 | 8.465 | 8.501 | 0.036 |
| 0 | 993 | 8.456 | 8.482 | 0.026 |
| 3 | 1 | 8.454 | 8.462 | 0.008 |
| 3 | 2 | 8.450 | 8.469 | 0.019 |
| 3 | 3 | 8.462 | 8.483 | 0.021 |
| 3 | 4 | 8.422 | 8.497 | 0.075 |
| 3 | 5 | 8.446 | 8.463 | 0.017 |
| 8 | 6 | 8.447 | 8.482 | 0.035 |
| 8 | 7 | 8.469 | 8.454 | -0.015 |
| 8 | 8 | 8.450 | 8.486 | 0.036 |
| 8 | 9 | 8.439 | 8.505 | 0.066 |
| 8 | 10 | 8.454 | 8.453 | -0.001 |
| 10 | 11 | 8.464 | 8.486 | 0.022 |
| 10 | 12 | 8.467 | 8.468 | 0.001 |
| 10 | 13 | 8.452 | 8.490 | 0.038 |
| 10 | 14 | 8.441 | 8.467 | 0.026 |
| 10 | 15 | 8.438 | 8.471 | 0.033 |
| 10 | 16 | 8.472 | 8.465 | -0.007 |
| 15 | 17 | 8.450 | 8.392 | -0.058 |
| 15 | 18 | 8.442 | 8.459 | 0.017 |
| 15 | 19 | 8.441 | 8.439 | -0.002 |
| 15 | 20 | 8.476 | 8.438 | -0.038 |
| 30 | 21 | 8.472 | 8.458 | -0.014 |
| 30 | 22 | 8.450 | 8.453 | 0.003 |
| 30 | 23 | 8.450 | 8.440 | -0.010 |
| 30 | 24 | 8.440 | 8.459 | 0.019 |
| 30 | 25 | 8.455 | 8.474 | 0.019 |
| 35 | 26 | 8.450 | 8.447 | -0.003 |
| 35 | 27 | 8.457 | 8.499 | 0.042 |
| 35 | 28 | 8.498 | 8.447 | -0.051 |
| 35 | 29 | 8.457 | 8.448 | -0.009 |
| 35 | 30 | 8.397 | 8.455 | 0.058 |
| 50 | 31 | 8.469 | 8.420 | -0.049 |
| 50 | 32 | 8.449 | 8.447 | -0.002 |
| 50 | 33 | 8.474 | 8.416 | -0.058 |
| 50 | 34 | 8.444 | 8.434 | -0.010 |
| 50 | 35 | 8.471 | 8.452 | -0.019 |
| 55 | 36 | 8.480 | 8.442 | -0.038 |
| 55 | 37 | 8.421 | 8.445 | 0.024 |
| 55 | 38 | 8.457 | 8.433 | -0.024 |
| 55 | 39 | 8.479 | 8.421 | -0.058 |
| 55 | 40 | 8.453 | 8.455 | 0.002 |
| 100 | 41 | 8.443 | 8.402 | -0.041 |
| 100 | 42 | 8.458 | 8.442 | -0.016 |
| 100 | 43 | 8.462 | 8.432 | -0.030 |
| 100 | 44 | 8.439 | 8.429 | -0.010 |
| 100 | 45 | 8.465 | 8.381 | -0.084 |
| 105 | 46 | 8.444 | 8.466 | 0.022 |
| 105 | 47 | 8.430 | 8.428 | -0.002 |
| 105 | 48 | 8.437 | 8.406 | -0.031 |
| 105 | 49 | 8.468 | 8.410 | -0.058 |
| 105 | 50 | 8.429 | 8.429 | 0.000 |
| 105 | 51 | 8.456 | 8.438 | -0.018 |
| 105 | 52 | 8.470 | 8.438 | -0.032 |
| 105 | 53 | 8.494 | 8.396 | -0.098 |
| 105 | 54 | 8.476 | 8.421 | -0.055 |
| 105 | 55 | 8.445 | 8.438 | -0.007 |
| 105 | 56 | 8.455 | 8.430 | -0.025 |
| 105 | 57 | 8.456 | 8.448 | -0.008 |
| 105 | 58 | 8.397 | 8.426 | 0.029 |
| 105 | 59 | 8.458 | 8.442 | -0.016 |
| 105 | 60 | 8.453 | 8.434 | -0.019 |
| 105 | 61 | 8.458 | 8.444 | -0.014 |
| 105 | 62 | 8.457 | 8.428 | -0.029 |
| 105 | 63 | 8.487 | 8.402 | -0.085 |
| 105 | 64 | 8.452 | 8.410 | -0.042 |
| 105 | 65 | 8.459 | 8.419 | -0.040 |
| 105 | 66 | 8.454 | 8.427 | -0.027 |
| 105 | 67 | 8.457 | 8.426 | -0.031 |
| Max | | 8.498 | 8.505 | 0.075 |
| Average | | 8.454 | 8.446 | -0.008 |
| Min | | 8.397 | 8.381 | -0.098 |
| Std Dev | | 0.018 | 0.028 | 0.036 |



| 9.30 T SYNC FALL 200kHz 5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.482 | 8.462 | 8.453 | 8.467 | 8.392 | 8.440 | 8.447 | 8.416 | 8.421 | 8.381 | 8.396 |
| Average | 8.495 | 8.475 | 8.476 | 8.476 | 8.439 | 8.457 | 8.459 | 8.434 | 8.439 | 8.417 | 8.428 |
| Max | 8.502 | 8.497 | 8.505 | 8.490 | 8.465 | 8.474 | 8.499 | 8.452 | 8.455 | 8.442 | 8.466 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

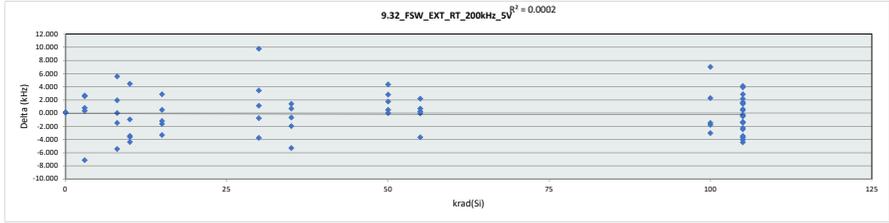


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

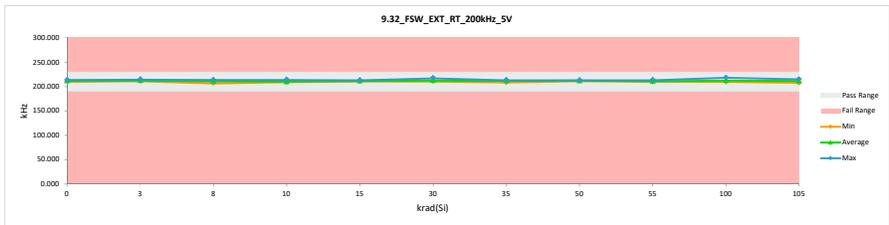
| 9.32 FSW_EXT_RT_200kHz_5V | |
|---------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 230 |
| Min Limit | 190 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 211.766 | 211.812 | 0.046 |
| 0 | 992 | 209.742 | 209.799 | 0.057 |
| 0 | 993 | 213.288 | 213.280 | -0.008 |
| 3 | 1 | 211.716 | 214.222 | 2.506 |
| 3 | 2 | 210.866 | 213.444 | 2.578 |
| 3 | 3 | 211.280 | 211.584 | 0.304 |
| 3 | 4 | 210.885 | 211.617 | 0.732 |
| 3 | 5 | 217.772 | 210.589 | -7.183 |
| 8 | 6 | 213.507 | 211.978 | -1.529 |
| 8 | 7 | 211.949 | 206.456 | -5.493 |
| 8 | 8 | 204.564 | 210.030 | 5.466 |
| 8 | 9 | 211.162 | 213.032 | 1.870 |
| 8 | 10 | 213.257 | 213.223 | -0.034 |
| 10 | 11 | 212.737 | 209.215 | -3.522 |
| 10 | 12 | 213.081 | 208.641 | -4.440 |
| 10 | 13 | 213.208 | 209.556 | -3.652 |
| 10 | 14 | 209.156 | 213.530 | 4.374 |
| 10 | 15 | 210.702 | 209.661 | -1.041 |
| 15 | 16 | 213.198 | 209.336 | -3.862 |
| 15 | 17 | 209.907 | 212.714 | 2.807 |
| 15 | 18 | 211.872 | 210.166 | -1.706 |
| 15 | 19 | 213.534 | 212.296 | -1.238 |
| 15 | 20 | 212.096 | 212.544 | 0.448 |
| 30 | 21 | 208.500 | 211.866 | 3.366 |
| 30 | 22 | 209.295 | 210.339 | 1.044 |
| 30 | 23 | 207.121 | 216.804 | 9.683 |
| 30 | 24 | 212.611 | 211.803 | -0.808 |
| 30 | 25 | 214.492 | 210.668 | -3.824 |
| 35 | 26 | 213.247 | 212.498 | -0.749 |
| 35 | 27 | 211.577 | 212.912 | 1.335 |
| 35 | 28 | 214.314 | 212.259 | -2.055 |
| 35 | 29 | 213.423 | 208.041 | -5.382 |
| 35 | 30 | 211.713 | 212.318 | 0.605 |
| 50 | 31 | 211.583 | 212.027 | 0.444 |
| 50 | 32 | 210.238 | 211.913 | 1.675 |
| 50 | 33 | 212.052 | 211.987 | -0.065 |
| 50 | 34 | 206.579 | 210.868 | 4.289 |
| 50 | 35 | 209.914 | 212.636 | 2.722 |
| 55 | 36 | 212.970 | 209.268 | -3.702 |
| 55 | 37 | 213.031 | 212.949 | -0.082 |
| 55 | 38 | 209.146 | 209.782 | 0.636 |
| 55 | 39 | 208.869 | 210.982 | 2.113 |
| 55 | 40 | 209.459 | 209.641 | 0.182 |
| 100 | 41 | 213.354 | 210.281 | -3.073 |
| 100 | 42 | 211.047 | 209.204 | -1.843 |
| 100 | 43 | 209.675 | 211.877 | 2.202 |
| 100 | 44 | 213.007 | 211.476 | -1.531 |
| 100 | 45 | 210.940 | 217.874 | 6.934 |
| 105 | 46 | 212.397 | 212.908 | 0.511 |
| 105 | 47 | 212.375 | 212.065 | -0.310 |
| 105 | 48 | 212.028 | 210.541 | -1.487 |
| 105 | 49 | 211.087 | 210.534 | -0.553 |
| 105 | 50 | 216.924 | 212.453 | -4.471 |
| 105 | 51 | 212.309 | 212.684 | 0.375 |
| 105 | 52 | 209.959 | 211.293 | 1.334 |
| 105 | 53 | 212.150 | 213.711 | 1.561 |
| 105 | 54 | 213.233 | 209.502 | -3.731 |
| 105 | 55 | 212.549 | 210.208 | -2.341 |
| 105 | 56 | 208.264 | 212.116 | 3.852 |
| 105 | 57 | 212.768 | 209.055 | -3.713 |
| 105 | 58 | 211.697 | 210.299 | -1.398 |
| 105 | 59 | 211.752 | 213.168 | 1.416 |
| 105 | 60 | 212.516 | 212.044 | -0.472 |
| 105 | 61 | 211.525 | 207.442 | -4.083 |
| 105 | 62 | 212.522 | 208.985 | -3.537 |
| 105 | 63 | 210.030 | 207.511 | -2.519 |
| 105 | 64 | 213.812 | 212.375 | -1.437 |
| 105 | 65 | 210.393 | 214.424 | 4.031 |
| 105 | 66 | 210.990 | 213.762 | 2.772 |
| 105 | 67 | 209.823 | 211.918 | 2.095 |
| Max | | 217.772 | 217.874 | 9.683 |
| Average | | 211.579 | 211.436 | -0.143 |
| Min | | 204.564 | 206.456 | -7.183 |
| Std Dev | | 2.110 | 1.996 | 3.040 |



| 9.32 FSW_EXT_RT_200kHz_5 | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 230 kHz |
| Min Limit | 190 kHz |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |
| Min | 209.799 | 210.589 | 206.456 | 208.641 | 209.836 | 210.339 | 208.041 | 210.868 | 209.268 | 209.204 | 207.442 |
| Average | 211.630 | 212.291 | 210.944 | 210.121 | 211.511 | 212.300 | 211.606 | 211.886 | 210.524 | 212.142 | 211.318 |
| Max | 213.280 | 214.222 | 213.223 | 213.530 | 212.714 | 216.804 | 212.912 | 212.636 | 212.949 | 217.874 | 214.424 |
| UL | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 |

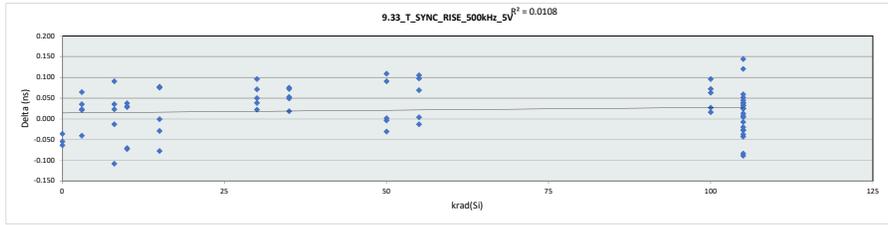


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

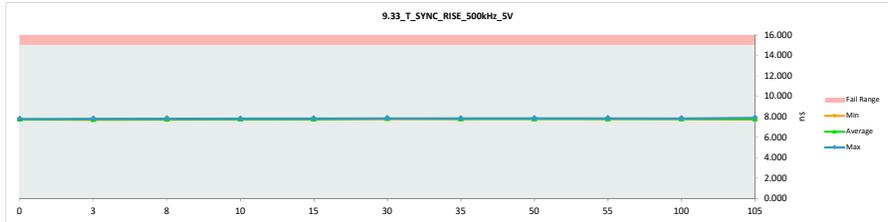
| 9.33 T SYNC RISE 500kHz 5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.829 | 7.774 | -0.055 |
| 0 | 992 | 7.784 | 7.720 | -0.064 |
| 0 | 993 | 7.795 | 7.759 | -0.036 |
| 3 | 1 | 7.698 | 7.721 | 0.023 |
| 3 | 2 | 7.736 | 7.757 | 0.021 |
| 3 | 3 | 7.730 | 7.765 | 0.035 |
| 3 | 4 | 7.751 | 7.710 | -0.041 |
| 3 | 5 | 7.719 | 7.783 | 0.064 |
| 8 | 6 | 7.780 | 7.803 | 0.023 |
| 8 | 7 | 7.811 | 7.703 | -0.108 |
| 8 | 8 | 7.733 | 7.823 | 0.090 |
| 8 | 9 | 7.741 | 7.776 | 0.035 |
| 8 | 10 | 7.771 | 7.758 | -0.013 |
| 10 | 11 | 7.837 | 7.766 | -0.071 |
| 10 | 12 | 7.744 | 7.781 | 0.037 |
| 10 | 13 | 7.731 | 7.761 | 0.030 |
| 10 | 14 | 7.724 | 7.752 | 0.028 |
| 10 | 15 | 7.859 | 7.786 | -0.073 |
| 15 | 16 | 7.812 | 7.734 | -0.078 |
| 15 | 17 | 7.755 | 7.754 | -0.001 |
| 15 | 18 | 7.697 | 7.774 | 0.077 |
| 15 | 19 | 7.743 | 7.818 | 0.075 |
| 15 | 20 | 7.804 | 7.775 | -0.029 |
| 30 | 21 | 7.768 | 7.806 | 0.038 |
| 30 | 22 | 7.733 | 7.804 | 0.071 |
| 30 | 23 | 7.779 | 7.829 | 0.050 |
| 30 | 24 | 7.841 | 7.863 | 0.022 |
| 30 | 25 | 7.704 | 7.800 | 0.096 |
| 35 | 26 | 7.735 | 7.788 | 0.053 |
| 35 | 27 | 7.730 | 7.805 | 0.075 |
| 35 | 28 | 7.742 | 7.760 | 0.018 |
| 35 | 29 | 7.784 | 7.833 | 0.049 |
| 35 | 30 | 7.754 | 7.826 | 0.072 |
| 50 | 31 | 7.708 | 7.798 | 0.090 |
| 50 | 32 | 7.800 | 7.801 | 0.001 |
| 50 | 33 | 7.851 | 7.820 | -0.031 |
| 50 | 34 | 7.688 | 7.797 | 0.109 |
| 50 | 35 | 7.805 | 7.801 | -0.004 |
| 55 | 36 | 7.772 | 7.869 | 0.097 |
| 55 | 37 | 7.771 | 7.758 | -0.013 |
| 55 | 38 | 7.736 | 7.841 | 0.105 |
| 55 | 39 | 7.774 | 7.778 | 0.004 |
| 55 | 40 | 7.748 | 7.817 | 0.069 |
| 100 | 41 | 7.752 | 7.768 | 0.016 |
| 100 | 42 | 7.739 | 7.835 | 0.096 |
| 100 | 43 | 7.747 | 7.819 | 0.072 |
| 100 | 44 | 7.751 | 7.814 | 0.063 |
| 100 | 45 | 7.780 | 7.807 | 0.027 |
| 105 | 46 | 7.813 | 7.775 | -0.038 |
| 105 | 47 | 7.777 | 7.815 | 0.038 |
| 105 | 48 | 7.809 | 7.801 | -0.008 |
| 105 | 49 | 7.775 | 7.807 | 0.032 |
| 105 | 50 | 7.813 | 7.826 | 0.013 |
| 105 | 51 | 7.817 | 7.841 | 0.024 |
| 105 | 52 | 7.739 | 7.777 | 0.038 |
| 105 | 53 | 7.778 | 7.751 | -0.027 |
| 105 | 54 | 7.763 | 7.814 | 0.051 |
| 105 | 55 | 7.756 | 7.900 | 0.144 |
| 105 | 56 | 7.828 | 7.808 | -0.020 |
| 105 | 57 | 7.794 | 7.766 | -0.028 |
| 105 | 58 | 7.825 | 7.736 | -0.089 |
| 105 | 59 | 7.796 | 7.803 | 0.007 |
| 105 | 60 | 7.765 | 7.824 | 0.059 |
| 105 | 61 | 7.749 | 7.774 | 0.025 |
| 105 | 62 | 7.749 | 7.753 | 0.004 |
| 105 | 63 | 7.778 | 7.822 | 0.044 |
| 105 | 64 | 7.726 | 7.846 | 0.120 |
| 105 | 65 | 7.813 | 7.729 | -0.084 |
| 105 | 66 | 7.762 | 7.759 | -0.003 |
| 105 | 67 | 7.813 | 7.770 | -0.043 |
| Max | | 7.859 | 7.900 | 0.144 |
| Average | | 7.768 | 7.790 | 0.022 |
| Min | | 7.688 | 7.703 | -0.108 |
| Std Dev | | 0.040 | 0.038 | 0.055 |



| 9.33 T SYNC RISE 500kHz 5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 7.720 | 7.710 | 7.703 | 7.752 | 7.734 | 7.800 | 7.760 | 7.797 | 7.758 | 7.768 | 7.729 |
| Average | 7.751 | 7.747 | 7.773 | 7.769 | 7.771 | 7.820 | 7.802 | 7.803 | 7.813 | 7.809 | 7.795 |
| Max | 7.774 | 7.783 | 7.823 | 7.786 | 7.818 | 7.863 | 7.833 | 7.820 | 7.869 | 7.835 | 7.900 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

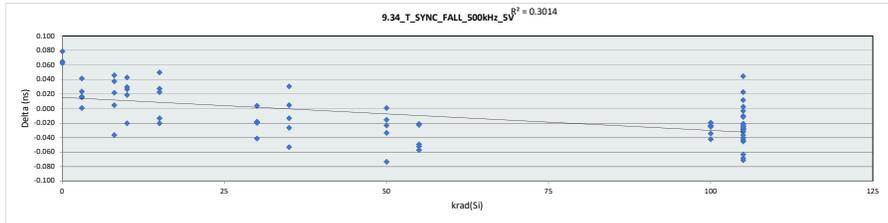


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

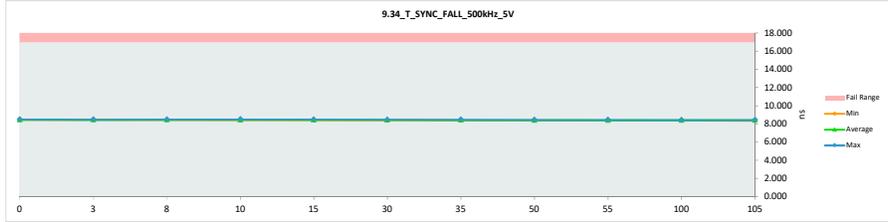
| 9.34 T_SYNC_FALL_500kHz_5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.391 | 8.455 | 0.064 |
| 0 | 992 | 8.392 | 8.470 | 0.078 |
| 0 | 993 | 8.380 | 8.442 | 0.062 |
| 3 | 1 | 8.411 | 8.452 | 0.041 |
| 3 | 2 | 8.429 | 8.452 | 0.023 |
| 3 | 3 | 8.419 | 8.435 | 0.016 |
| 3 | 4 | 8.434 | 8.449 | 0.015 |
| 3 | 5 | 8.441 | 8.441 | 0.000 |
| 8 | 6 | 8.423 | 8.468 | 0.045 |
| 8 | 7 | 8.457 | 8.420 | -0.037 |
| 8 | 8 | 8.432 | 8.436 | 0.004 |
| 8 | 9 | 8.419 | 8.456 | 0.037 |
| 8 | 10 | 8.421 | 8.442 | 0.021 |
| 10 | 11 | 8.400 | 8.442 | 0.042 |
| 10 | 12 | 8.446 | 8.475 | 0.029 |
| 10 | 13 | 8.424 | 8.403 | -0.021 |
| 10 | 14 | 8.420 | 8.428 | 0.026 |
| 10 | 15 | 8.418 | 8.436 | 0.018 |
| 15 | 16 | 8.434 | 8.456 | 0.022 |
| 15 | 17 | 8.434 | 8.413 | -0.021 |
| 15 | 18 | 8.416 | 8.465 | 0.049 |
| 15 | 19 | 8.427 | 8.413 | -0.014 |
| 15 | 20 | 8.403 | 8.430 | 0.027 |
| 30 | 21 | 8.431 | 8.412 | -0.019 |
| 30 | 22 | 8.412 | 8.415 | 0.003 |
| 30 | 23 | 8.444 | 8.402 | -0.042 |
| 30 | 24 | 8.454 | 8.434 | -0.020 |
| 30 | 25 | 8.434 | 8.414 | -0.020 |
| 35 | 26 | 8.413 | 8.443 | 0.030 |
| 35 | 27 | 8.438 | 8.442 | 0.004 |
| 35 | 28 | 8.403 | 8.403 | -0.027 |
| 35 | 29 | 8.416 | 8.402 | -0.014 |
| 35 | 30 | 8.455 | 8.401 | -0.054 |
| 50 | 31 | 8.417 | 8.401 | -0.016 |
| 50 | 32 | 8.426 | 8.402 | -0.024 |
| 50 | 33 | 8.469 | 8.395 | -0.074 |
| 50 | 34 | 8.416 | 8.382 | -0.034 |
| 50 | 35 | 8.428 | 8.428 | 0.000 |
| 55 | 36 | 8.434 | 8.381 | -0.053 |
| 55 | 37 | 8.425 | 8.403 | -0.022 |
| 55 | 38 | 8.435 | 8.412 | -0.023 |
| 55 | 39 | 8.466 | 8.408 | -0.058 |
| 55 | 40 | 8.453 | 8.403 | -0.050 |
| 100 | 41 | 8.416 | 8.381 | -0.035 |
| 100 | 42 | 8.418 | 8.398 | -0.020 |
| 100 | 43 | 8.428 | 8.402 | -0.026 |
| 100 | 44 | 8.412 | 8.388 | -0.024 |
| 100 | 45 | 8.428 | 8.385 | -0.043 |
| 105 | 46 | 8.409 | 8.387 | -0.022 |
| 105 | 47 | 8.436 | 8.399 | -0.037 |
| 105 | 48 | 8.412 | 8.387 | -0.025 |
| 105 | 49 | 8.389 | 8.345 | -0.044 |
| 105 | 50 | 8.404 | 8.393 | -0.011 |
| 105 | 51 | 8.443 | 8.374 | -0.069 |
| 105 | 52 | 8.393 | 8.404 | 0.011 |
| 105 | 53 | 8.464 | 8.392 | -0.072 |
| 105 | 54 | 8.415 | 8.387 | -0.028 |
| 105 | 55 | 8.426 | 8.400 | -0.026 |
| 105 | 56 | 8.420 | 8.387 | -0.033 |
| 105 | 57 | 8.421 | 8.380 | -0.041 |
| 105 | 58 | 8.353 | 8.397 | 0.044 |
| 105 | 59 | 8.430 | 8.401 | -0.029 |
| 105 | 60 | 8.398 | 8.400 | 0.002 |
| 105 | 61 | 8.402 | 8.398 | -0.004 |
| 105 | 62 | 8.436 | 8.414 | -0.022 |
| 105 | 63 | 8.421 | 8.409 | -0.012 |
| 105 | 64 | 8.457 | 8.393 | -0.064 |
| 105 | 65 | 8.385 | 8.407 | 0.022 |
| 105 | 66 | 8.364 | 8.364 | -0.000 |
| 105 | 67 | 8.453 | 8.407 | -0.046 |
| 105 | 68 | 8.469 | 8.475 | 0.078 |
| 105 | 69 | 8.423 | 8.413 | -0.010 |
| 105 | 70 | 8.353 | 8.345 | -0.074 |
| 105 | 71 | 0.022 | 0.027 | 0.035 |



| 9.34 T_SYNC_FALL_500kHz_5V | |
|----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.442 | 8.435 | 8.420 | 8.403 | 8.413 | 8.402 | 8.401 | 8.382 | 8.381 | 8.381 | 8.345 |
| Average | 8.456 | 8.446 | 8.444 | 8.437 | 8.435 | 8.415 | 8.418 | 8.402 | 8.401 | 8.391 | 8.392 |
| Max | 8.470 | 8.452 | 8.468 | 8.475 | 8.465 | 8.434 | 8.443 | 8.428 | 8.412 | 8.402 | 8.414 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

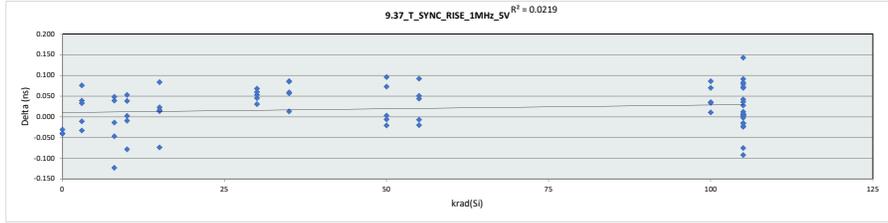


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

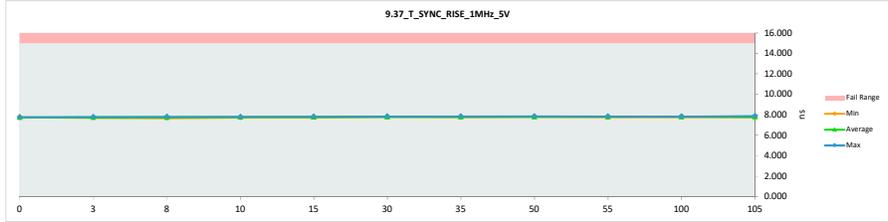
| 9.37 T SYNC RISE 1MHz 5V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.781 | 7.740 | -0.041 |
| 0 | 992 | 7.777 | 7.735 | -0.042 |
| 0 | 993 | 7.761 | 7.729 | -0.032 |
| 3 | 1 | 7.663 | 7.695 | 0.032 |
| 3 | 2 | 7.756 | 7.744 | -0.012 |
| 3 | 3 | 7.729 | 7.757 | 0.028 |
| 3 | 4 | 7.725 | 7.691 | -0.034 |
| 3 | 5 | 7.699 | 7.774 | 0.075 |
| 8 | 6 | 7.761 | 7.799 | 0.038 |
| 8 | 7 | 7.785 | 7.661 | -0.124 |
| 8 | 8 | 7.741 | 7.788 | 0.047 |
| 8 | 9 | 7.748 | 7.733 | -0.015 |
| 8 | 10 | 7.796 | 7.748 | -0.048 |
| 10 | 11 | 7.765 | 7.766 | 0.001 |
| 10 | 12 | 7.743 | 7.780 | 0.037 |
| 10 | 13 | 7.701 | 7.753 | 0.052 |
| 10 | 14 | 7.729 | 7.719 | -0.010 |
| 10 | 15 | 7.827 | 7.748 | -0.079 |
| 15 | 16 | 7.797 | 7.722 | -0.075 |
| 15 | 17 | 7.713 | 7.728 | 0.015 |
| 15 | 18 | 7.695 | 7.778 | 0.083 |
| 15 | 19 | 7.773 | 7.795 | 0.022 |
| 15 | 20 | 7.763 | 7.776 | 0.013 |
| 30 | 21 | 7.746 | 7.805 | 0.059 |
| 30 | 22 | 7.728 | 7.795 | 0.067 |
| 30 | 23 | 7.769 | 7.813 | 0.044 |
| 30 | 24 | 7.792 | 7.844 | 0.052 |
| 30 | 25 | 7.733 | 7.763 | 0.030 |
| 35 | 26 | 7.706 | 7.791 | 0.085 |
| 35 | 27 | 7.679 | 7.763 | 0.084 |
| 35 | 28 | 7.720 | 7.732 | 0.012 |
| 35 | 29 | 7.772 | 7.830 | 0.058 |
| 35 | 30 | 7.762 | 7.818 | 0.056 |
| 50 | 31 | 7.720 | 7.815 | 0.095 |
| 50 | 32 | 7.805 | 7.807 | 0.002 |
| 50 | 33 | 7.828 | 7.806 | -0.022 |
| 50 | 34 | 7.726 | 7.798 | 0.072 |
| 50 | 35 | 7.817 | 7.810 | -0.007 |
| 55 | 36 | 7.749 | 7.840 | 0.091 |
| 55 | 37 | 7.754 | 7.733 | -0.021 |
| 55 | 38 | 7.748 | 7.791 | 0.043 |
| 55 | 39 | 7.770 | 7.762 | -0.008 |
| 55 | 40 | 7.760 | 7.810 | 0.050 |
| 100 | 41 | 7.722 | 7.755 | 0.033 |
| 100 | 42 | 7.732 | 7.817 | 0.085 |
| 100 | 43 | 7.742 | 7.811 | 0.069 |
| 100 | 44 | 7.743 | 7.777 | 0.034 |
| 100 | 45 | 7.774 | 7.784 | 0.010 |
| 105 | 46 | 7.784 | 7.795 | 0.011 |
| 105 | 47 | 7.772 | 7.799 | 0.027 |
| 105 | 48 | 7.783 | 7.785 | 0.002 |
| 105 | 49 | 7.754 | 7.789 | 0.035 |
| 105 | 50 | 7.804 | 7.801 | -0.003 |
| 105 | 51 | 7.812 | 7.818 | 0.006 |
| 105 | 52 | 7.742 | 7.783 | 0.041 |
| 105 | 53 | 7.769 | 7.745 | -0.024 |
| 105 | 54 | 7.738 | 7.816 | 0.078 |
| 105 | 55 | 7.722 | 7.864 | 0.142 |
| 105 | 56 | 7.809 | 7.814 | 0.005 |
| 105 | 57 | 7.776 | 7.760 | -0.016 |
| 105 | 58 | 7.823 | 7.730 | -0.093 |
| 105 | 59 | 7.774 | 7.777 | 0.003 |
| 105 | 60 | 7.752 | 7.823 | 0.071 |
| 105 | 61 | 7.733 | 7.815 | 0.082 |
| 105 | 62 | 7.762 | 7.746 | -0.016 |
| 105 | 63 | 7.768 | 7.837 | 0.069 |
| 105 | 64 | 7.733 | 7.823 | 0.090 |
| 105 | 65 | 7.802 | 7.726 | -0.076 |
| 105 | 66 | 7.740 | 7.741 | 0.001 |
| 105 | 67 | 7.763 | 7.738 | -0.025 |
| Max | | 7.828 | 7.864 | 0.142 |
| Average | | 7.756 | 7.777 | 0.020 |
| Min | | 7.663 | 7.661 | -0.124 |
| Std Dev | | 0.035 | 0.040 | 0.051 |



| 9.37 T SYNC RISE 1MHz 5V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 15 ns |
| Min Limit | ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 7.729 | 7.691 | 7.661 | 7.719 | 7.722 | 7.763 | 7.732 | 7.798 | 7.733 | 7.755 | 7.726 |
| Average | 7.735 | 7.734 | 7.746 | 7.753 | 7.760 | 7.804 | 7.787 | 7.807 | 7.787 | 7.789 | 7.788 |
| Max | 7.740 | 7.774 | 7.799 | 7.780 | 7.795 | 7.844 | 7.830 | 7.815 | 7.840 | 7.817 | 7.864 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

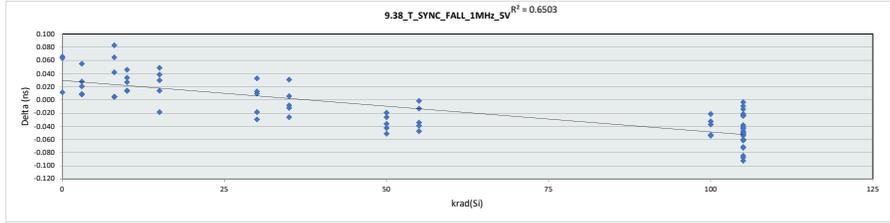


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

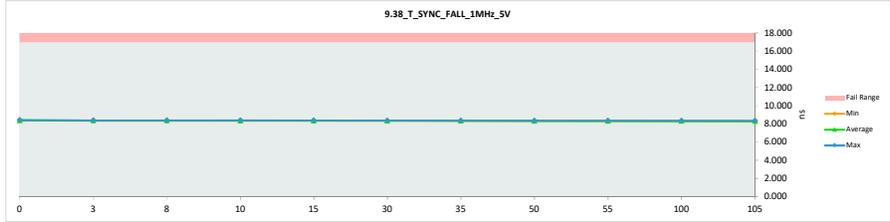
| 9.38 T SYNC FALL 1MHz 5V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.347 | 8.410 | 0.063 |
| 0 | 992 | 8.361 | 8.372 | 0.011 |
| 0 | 993 | 8.330 | 8.395 | 0.065 |
| 3 | 1 | 8.332 | 8.386 | 0.054 |
| 3 | 2 | 8.358 | 8.366 | 0.008 |
| 3 | 3 | 8.369 | 8.377 | 0.008 |
| 3 | 4 | 8.350 | 8.377 | 0.027 |
| 3 | 5 | 8.332 | 8.352 | 0.020 |
| 8 | 6 | 8.332 | 8.373 | 0.041 |
| 8 | 7 | 8.348 | 8.352 | 0.004 |
| 8 | 8 | 8.321 | 8.403 | 0.082 |
| 8 | 9 | 8.326 | 8.390 | 0.064 |
| 8 | 10 | 8.357 | 8.361 | 0.004 |
| 10 | 11 | 8.343 | 8.369 | 0.026 |
| 10 | 12 | 8.360 | 8.373 | 0.013 |
| 10 | 13 | 8.330 | 8.363 | 0.033 |
| 10 | 14 | 8.340 | 8.353 | 0.013 |
| 10 | 15 | 8.331 | 8.376 | 0.045 |
| 10 | 16 | 8.332 | 8.370 | 0.038 |
| 15 | 17 | 8.353 | 8.334 | -0.019 |
| 15 | 18 | 8.341 | 8.389 | 0.048 |
| 15 | 19 | 8.327 | 8.356 | 0.029 |
| 15 | 20 | 8.348 | 8.361 | 0.013 |
| 30 | 21 | 8.361 | 8.331 | -0.030 |
| 30 | 22 | 8.340 | 8.349 | 0.009 |
| 30 | 23 | 8.359 | 8.340 | -0.019 |
| 30 | 24 | 8.349 | 8.361 | 0.012 |
| 30 | 25 | 8.326 | 8.358 | 0.032 |
| 35 | 26 | 8.356 | 8.347 | -0.009 |
| 35 | 27 | 8.334 | 8.364 | 0.030 |
| 35 | 28 | 8.356 | 8.329 | -0.027 |
| 35 | 29 | 8.356 | 8.361 | 0.005 |
| 35 | 30 | 8.357 | 8.344 | -0.013 |
| 50 | 31 | 8.375 | 8.338 | -0.037 |
| 50 | 32 | 8.363 | 8.343 | -0.020 |
| 50 | 33 | 8.368 | 8.325 | -0.043 |
| 50 | 34 | 8.376 | 8.324 | -0.052 |
| 50 | 35 | 8.369 | 8.342 | -0.027 |
| 55 | 36 | 8.352 | 8.317 | -0.035 |
| 55 | 37 | 8.338 | 8.324 | -0.014 |
| 55 | 38 | 8.339 | 8.337 | -0.002 |
| 55 | 39 | 8.372 | 8.324 | -0.048 |
| 55 | 40 | 8.369 | 8.329 | -0.040 |
| 100 | 41 | 8.346 | 8.313 | -0.033 |
| 100 | 42 | 8.374 | 8.336 | -0.038 |
| 100 | 43 | 8.340 | 8.318 | -0.022 |
| 100 | 44 | 8.367 | 8.313 | -0.054 |
| 100 | 45 | 8.369 | 8.314 | -0.055 |
| 105 | 46 | 8.332 | 8.293 | -0.039 |
| 105 | 47 | 8.360 | 8.336 | -0.024 |
| 105 | 48 | 8.355 | 8.283 | -0.072 |
| 105 | 49 | 8.345 | 8.295 | -0.050 |
| 105 | 50 | 8.340 | 8.288 | -0.052 |
| 105 | 51 | 8.374 | 8.301 | -0.073 |
| 105 | 52 | 8.369 | 8.308 | -0.061 |
| 105 | 53 | 8.367 | 8.306 | -0.061 |
| 105 | 54 | 8.375 | 8.320 | -0.055 |
| 105 | 55 | 8.368 | 8.275 | -0.093 |
| 105 | 56 | 8.383 | 8.295 | -0.088 |
| 105 | 57 | 8.358 | 8.305 | -0.053 |
| 105 | 58 | 8.301 | 8.297 | -0.004 |
| 105 | 59 | 8.331 | 8.306 | -0.025 |
| 105 | 60 | 8.334 | 8.319 | -0.015 |
| 105 | 61 | 8.354 | 8.344 | -0.010 |
| 105 | 62 | 8.358 | 8.336 | -0.022 |
| 105 | 63 | 8.371 | 8.327 | -0.044 |
| 105 | 64 | 8.370 | 8.308 | -0.062 |
| 105 | 65 | 8.346 | 8.304 | -0.042 |
| 105 | 66 | 8.349 | 8.301 | -0.048 |
| 105 | 67 | 8.378 | 8.293 | -0.085 |
| Max | | 8.383 | 8.410 | 0.082 |
| Average | | 8.351 | 8.338 | -0.013 |
| Min | | 8.301 | 8.275 | -0.093 |
| Std Dev | | 0.017 | 0.031 | 0.041 |



| 9.38 T SYNC FALL 1MHz 5V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.372 | 8.352 | 8.352 | 8.353 | 8.334 | 8.331 | 8.329 | 8.324 | 8.317 | 8.313 | 8.275 |
| Average | 8.392 | 8.372 | 8.376 | 8.367 | 8.362 | 8.348 | 8.349 | 8.334 | 8.326 | 8.319 | 8.306 |
| Max | 8.410 | 8.386 | 8.403 | 8.376 | 8.389 | 8.361 | 8.364 | 8.343 | 8.337 | 8.336 | 8.344 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

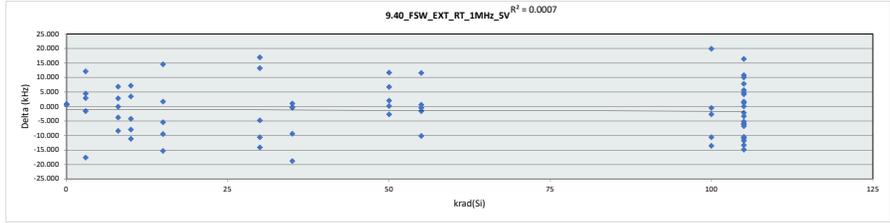


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

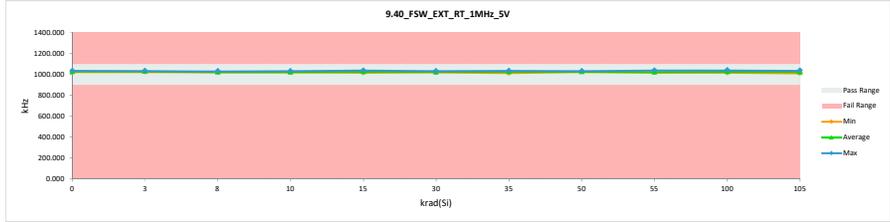
| 9.40 FSW_EXT_RT_1MHz_5V | |
|-------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 1100 |
| Min Limit | 900 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|----------|----------|---------|
| 0 | 991 | 1027.634 | 1028.301 | 0.667 |
| 0 | 992 | 1023.603 | 1024.246 | 0.643 |
| 0 | 993 | 1033.749 | 1034.164 | 0.415 |
| 3 | 1 | 1033.253 | 1031.496 | -1.757 |
| 3 | 2 | 1021.568 | 1023.520 | 11.952 |
| 3 | 3 | 1022.630 | 1026.887 | 4.257 |
| 3 | 4 | 1028.425 | 1031.125 | 2.700 |
| 3 | 5 | 1043.120 | 1025.394 | -17.726 |
| 8 | 6 | 1031.641 | 1023.141 | -8.500 |
| 8 | 7 | 1023.452 | 1019.548 | -3.904 |
| 8 | 8 | 1017.487 | 1020.179 | 2.692 |
| 8 | 9 | 1023.264 | 1029.963 | 6.699 |
| 8 | 10 | 1028.211 | 1028.000 | -0.211 |
| 10 | 11 | 1024.753 | 1020.366 | -4.387 |
| 10 | 12 | 1030.796 | 1019.535 | -11.261 |
| 10 | 13 | 1033.295 | 1025.151 | -8.144 |
| 10 | 14 | 1024.098 | 1031.081 | 6.983 |
| 10 | 15 | 1022.461 | 1025.810 | 3.349 |
| 15 | 16 | 1030.470 | 1024.869 | -5.601 |
| 15 | 17 | 1023.232 | 1037.585 | 14.353 |
| 15 | 18 | 1032.346 | 1016.932 | -15.414 |
| 15 | 19 | 1035.744 | 1026.152 | -9.592 |
| 15 | 20 | 1025.958 | 1027.469 | 1.511 |
| 30 | 21 | 1016.687 | 1029.722 | 13.035 |
| 30 | 22 | 1029.520 | 1018.849 | -10.671 |
| 30 | 23 | 1015.848 | 1032.597 | 16.749 |
| 30 | 24 | 1029.076 | 1024.195 | -4.881 |
| 30 | 25 | 1037.033 | 1022.817 | -14.216 |
| 35 | 26 | 1038.019 | 1028.505 | -9.514 |
| 35 | 27 | 1034.869 | 1034.566 | -0.303 |
| 35 | 28 | 1031.219 | 1030.704 | -0.515 |
| 35 | 29 | 1032.878 | 1013.913 | -18.965 |
| 35 | 30 | 1026.897 | 1027.747 | 0.850 |
| 50 | 31 | 1030.610 | 1027.735 | -2.875 |
| 50 | 32 | 1024.044 | 1024.085 | 0.041 |
| 50 | 33 | 1022.564 | 1024.393 | 1.829 |
| 50 | 34 | 1020.043 | 1026.064 | 6.021 |
| 50 | 35 | 1019.277 | 1030.779 | 11.502 |
| 55 | 36 | 1029.577 | 1019.258 | -10.319 |
| 55 | 37 | 1026.695 | 1038.116 | 11.421 |
| 55 | 38 | 1020.121 | 1018.377 | -1.744 |
| 55 | 39 | 1019.286 | 1019.789 | 0.503 |
| 55 | 40 | 1024.655 | 1024.053 | -0.602 |
| 100 | 41 | 1031.089 | 1028.213 | -2.876 |
| 100 | 42 | 1029.433 | 1015.746 | -13.687 |
| 100 | 43 | 1023.809 | 1023.139 | -0.670 |
| 100 | 44 | 1038.139 | 1027.366 | -10.773 |
| 100 | 45 | 1019.300 | 1039.086 | 19.786 |
| 105 | 46 | 1026.155 | 1026.081 | -0.074 |
| 105 | 47 | 1026.781 | 1020.537 | -6.244 |
| 105 | 48 | 1030.254 | 1023.368 | -6.886 |
| 105 | 49 | 1021.613 | 1023.156 | 1.543 |
| 105 | 50 | 1034.799 | 1024.166 | -10.633 |
| 105 | 51 | 1024.373 | 1025.508 | 1.135 |
| 105 | 52 | 1022.554 | 1026.645 | 4.091 |
| 105 | 53 | 1028.341 | 1032.947 | 4.606 |
| 105 | 54 | 1036.859 | 1023.437 | -13.422 |
| 105 | 55 | 1031.293 | 1019.413 | -11.880 |
| 105 | 56 | 1014.976 | 1025.669 | 10.693 |
| 105 | 57 | 1030.684 | 1019.773 | -10.911 |
| 105 | 58 | 1027.597 | 1024.142 | -3.455 |
| 105 | 59 | 1027.647 | 1033.194 | 5.547 |
| 105 | 60 | 1027.917 | 1022.594 | -5.323 |
| 105 | 61 | 1027.829 | 1012.833 | -14.996 |
| 105 | 62 | 1031.330 | 1025.333 | -5.997 |
| 105 | 63 | 1018.974 | 1016.725 | -2.249 |
| 105 | 64 | 1039.318 | 1028.289 | -11.029 |
| 105 | 65 | 1022.708 | 1032.612 | 9.904 |
| 105 | 66 | 1020.511 | 1036.768 | 16.257 |
| 105 | 67 | 1024.332 | 1031.984 | 7.652 |
| Max | 1043.120 | 1039.086 | 19.786 | |
| Average | 1027.267 | 1025.950 | -1.317 | |
| Min | 1014.976 | 1012.833 | -18.965 | |
| Std Dev | 6.059 | 5.793 | 8.842 | |



| 9.40 FSW_EXT_RT_1MHz_5V | |
|-------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 1100 |
| Min Limit | 900 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LL | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 |
| Min | 1024.246 | 1025.394 | 1019.548 | 1019.535 | 1016.932 | 1018.849 | 1019.913 | 1024.085 | 1018.377 | 1015.746 | 1012.833 |
| Average | 1028.904 | 1029.684 | 1024.166 | 1024.389 | 1026.601 | 1025.636 | 1027.087 | 1026.731 | 1023.919 | 1026.710 | 1025.235 |
| Max | 1034.164 | 1033.520 | 1029.963 | 1031.081 | 1037.585 | 1032.597 | 1034.566 | 1030.779 | 1038.116 | 1039.086 | 1036.768 |
| UL | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 |

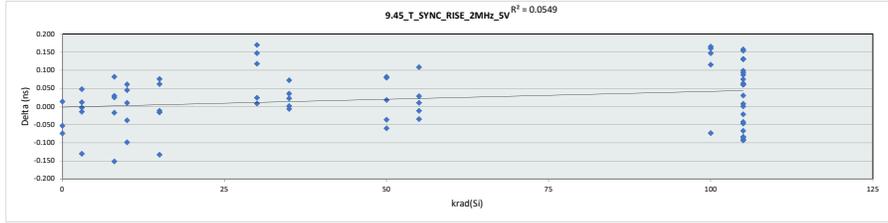


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

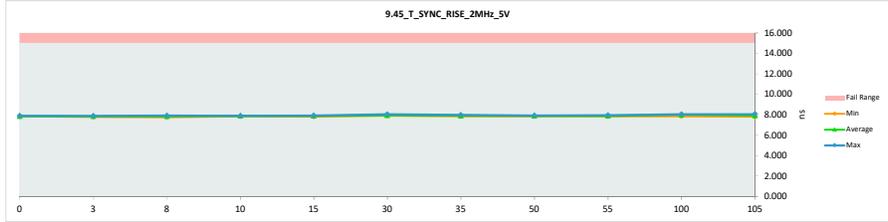
| 9.45 T SYNC RISE 2MHz 5V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.873 | 7.885 | 0.012 |
| 0 | 992 | 7.900 | 7.846 | -0.054 |
| 0 | 993 | 7.944 | 7.869 | -0.075 |
| 3 | 1 | 7.816 | 7.800 | -0.016 |
| 3 | 2 | 7.871 | 7.867 | -0.004 |
| 3 | 3 | 7.852 | 7.899 | 0.047 |
| 3 | 4 | 7.942 | 7.811 | -0.131 |
| 3 | 5 | 7.863 | 7.874 | 0.011 |
| 8 | 6 | 7.891 | 7.919 | 0.028 |
| 8 | 7 | 7.918 | 7.766 | -0.152 |
| 8 | 8 | 7.814 | 7.895 | 0.081 |
| 8 | 9 | 7.875 | 7.857 | -0.018 |
| 8 | 10 | 7.874 | 7.898 | 0.024 |
| 10 | 11 | 7.901 | 7.862 | -0.039 |
| 10 | 12 | 7.831 | 7.875 | 0.044 |
| 10 | 13 | 7.842 | 7.902 | 0.060 |
| 10 | 14 | 7.860 | 7.869 | 0.009 |
| 10 | 15 | 7.888 | 7.888 | -0.100 |
| 15 | 16 | 7.970 | 7.836 | -0.134 |
| 15 | 17 | 7.848 | 7.909 | 0.061 |
| 15 | 18 | 7.808 | 7.883 | 0.075 |
| 15 | 19 | 7.935 | 7.922 | -0.013 |
| 15 | 20 | 7.914 | 7.897 | -0.017 |
| 30 | 21 | 7.884 | 7.907 | 0.023 |
| 30 | 22 | 7.915 | 7.922 | 0.007 |
| 30 | 23 | 7.867 | 8.035 | 0.168 |
| 30 | 24 | 7.896 | 8.013 | 0.117 |
| 30 | 25 | 7.792 | 7.938 | 0.146 |
| 35 | 26 | 7.828 | 7.862 | 0.034 |
| 35 | 27 | 7.886 | 7.907 | 0.021 |
| 35 | 28 | 7.884 | 7.884 | 0.000 |
| 35 | 29 | 7.911 | 7.903 | -0.008 |
| 35 | 30 | 7.901 | 7.972 | 0.071 |
| 50 | 31 | 7.839 | 7.917 | 0.078 |
| 50 | 32 | 7.876 | 7.893 | 0.017 |
| 50 | 33 | 7.931 | 7.870 | -0.061 |
| 50 | 34 | 7.792 | 7.873 | 0.081 |
| 50 | 35 | 7.906 | 7.868 | -0.038 |
| 55 | 36 | 7.895 | 7.904 | 0.009 |
| 55 | 37 | 7.902 | 7.866 | -0.036 |
| 55 | 38 | 7.850 | 7.957 | 0.107 |
| 55 | 39 | 7.899 | 7.886 | -0.013 |
| 55 | 40 | 7.869 | 7.896 | 0.027 |
| 100 | 41 | 7.871 | 7.985 | 0.114 |
| 100 | 42 | 7.868 | 8.014 | 0.146 |
| 100 | 43 | 7.859 | 8.018 | 0.159 |
| 100 | 44 | 7.947 | 7.873 | -0.074 |
| 100 | 45 | 7.892 | 8.056 | 0.164 |
| 105 | 46 | 7.942 | 7.857 | -0.085 |
| 105 | 47 | 7.917 | 8.009 | 0.092 |
| 105 | 48 | 7.933 | 7.838 | -0.095 |
| 105 | 49 | 7.878 | 7.830 | -0.048 |
| 105 | 50 | 7.962 | 7.870 | -0.092 |
| 105 | 51 | 7.910 | 7.909 | -0.001 |
| 105 | 52 | 7.861 | 8.014 | 0.153 |
| 105 | 53 | 7.911 | 8.008 | 0.097 |
| 105 | 54 | 7.925 | 8.055 | 0.130 |
| 105 | 55 | 7.893 | 7.952 | 0.059 |
| 105 | 56 | 7.914 | 8.070 | 0.156 |
| 105 | 57 | 7.959 | 7.965 | 0.006 |
| 105 | 58 | 7.993 | 7.925 | -0.068 |
| 105 | 59 | 7.862 | 7.891 | 0.029 |
| 105 | 60 | 7.902 | 7.988 | 0.086 |
| 105 | 61 | 7.898 | 7.960 | 0.062 |
| 105 | 62 | 7.867 | 7.823 | -0.044 |
| 105 | 63 | 7.913 | 7.827 | -0.086 |
| 105 | 64 | 7.860 | 7.920 | 0.060 |
| 105 | 65 | 7.909 | 7.983 | 0.074 |
| 105 | 66 | 7.884 | 8.013 | 0.129 |
| 105 | 67 | 7.904 | 7.881 | -0.023 |
| Max | | 7.993 | 8.070 | 0.168 |
| Average | | 7.890 | 7.912 | 0.022 |
| Min | | 7.792 | 7.766 | -0.152 |
| Std Dev | | 0.043 | 0.066 | 0.079 |



| 9.45 T SYNC RISE 2MHz 5V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 15 ns |
| Min Limit | ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 7.846 | 7.800 | 7.766 | 7.862 | 7.836 | 7.907 | 7.862 | 7.868 | 7.866 | 7.873 | 7.823 |
| Average | 7.867 | 7.850 | 7.867 | 7.879 | 7.889 | 7.963 | 7.906 | 7.884 | 7.902 | 7.989 | 7.936 |
| Max | 7.885 | 7.899 | 7.919 | 7.902 | 7.922 | 8.035 | 7.972 | 7.917 | 7.957 | 8.056 | 8.070 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

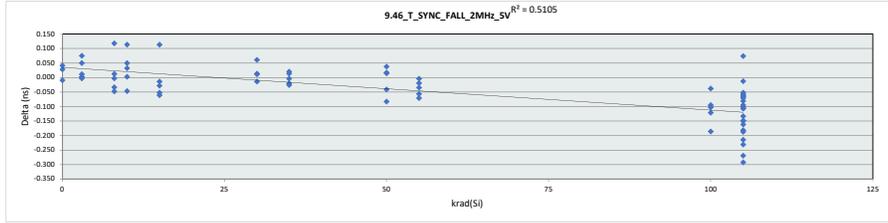


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

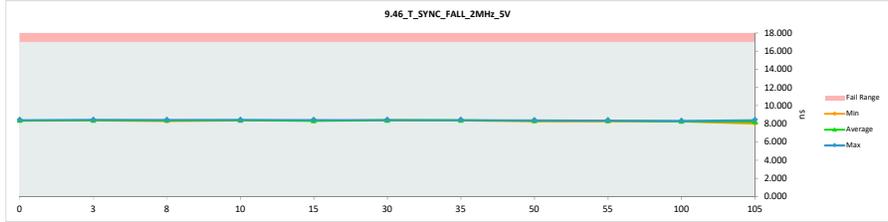
| 9.46 T_SYNC_FALL_2MHz_5V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.312 | 8.351 | 0.039 |
| 0 | 992 | 8.358 | 8.384 | 0.026 |
| 0 | 993 | 8.422 | 8.411 | -0.011 |
| 3 | 1 | 8.362 | 8.410 | 0.048 |
| 3 | 2 | 8.353 | 8.426 | 0.073 |
| 3 | 3 | 8.386 | 8.382 | -0.004 |
| 3 | 4 | 8.406 | 8.416 | 0.010 |
| 3 | 5 | 8.369 | 8.370 | 0.001 |
| 8 | 6 | 8.364 | 8.314 | -0.050 |
| 8 | 7 | 8.381 | 8.392 | 0.011 |
| 8 | 8 | 8.386 | 8.382 | -0.004 |
| 8 | 9 | 8.318 | 8.434 | 0.116 |
| 8 | 10 | 8.390 | 8.355 | -0.035 |
| 10 | 11 | 8.313 | 8.425 | 0.112 |
| 10 | 12 | 8.361 | 8.392 | 0.031 |
| 10 | 13 | 8.382 | 8.383 | 0.001 |
| 10 | 14 | 8.420 | 8.372 | -0.048 |
| 10 | 15 | 8.342 | 8.390 | 0.048 |
| 15 | 16 | 8.392 | 8.319 | -0.063 |
| 15 | 17 | 8.311 | 8.423 | 0.112 |
| 15 | 18 | 8.388 | 8.334 | -0.054 |
| 15 | 19 | 8.364 | 8.334 | -0.030 |
| 15 | 20 | 8.347 | 8.332 | -0.015 |
| 30 | 21 | 8.338 | 8.397 | 0.059 |
| 30 | 22 | 8.405 | 8.390 | -0.015 |
| 30 | 23 | 8.394 | 8.405 | 0.011 |
| 30 | 24 | 8.424 | 8.435 | 0.011 |
| 30 | 25 | 8.384 | 8.395 | 0.011 |
| 35 | 26 | 8.378 | 8.390 | 0.012 |
| 35 | 27 | 8.413 | 8.407 | -0.006 |
| 35 | 28 | 8.424 | 8.402 | -0.022 |
| 35 | 29 | 8.404 | 8.376 | -0.028 |
| 35 | 30 | 8.368 | 8.386 | 0.018 |
| 50 | 31 | 8.383 | 8.340 | -0.043 |
| 50 | 32 | 8.344 | 8.380 | 0.036 |
| 50 | 33 | 8.327 | 8.342 | 0.015 |
| 50 | 34 | 8.369 | 8.382 | 0.013 |
| 50 | 35 | 8.366 | 8.281 | -0.085 |
| 55 | 36 | 8.399 | 8.341 | -0.058 |
| 55 | 37 | 8.303 | 8.267 | -0.036 |
| 55 | 38 | 8.401 | 8.329 | -0.072 |
| 55 | 39 | 8.392 | 8.371 | -0.021 |
| 55 | 40 | 8.372 | 8.366 | -0.006 |
| 100 | 41 | 8.355 | 8.251 | -0.104 |
| 100 | 42 | 8.374 | 8.251 | -0.123 |
| 100 | 43 | 8.389 | 8.292 | -0.097 |
| 100 | 44 | 8.441 | 8.253 | -0.188 |
| 100 | 45 | 8.359 | 8.319 | -0.040 |
| 105 | 46 | 8.332 | 8.149 | -0.183 |
| 105 | 47 | 8.336 | 8.408 | 0.072 |
| 105 | 48 | 8.393 | 8.242 | -0.151 |
| 105 | 49 | 8.331 | 8.259 | -0.072 |
| 105 | 50 | 8.340 | 8.069 | -0.271 |
| 105 | 51 | 8.316 | 8.022 | -0.294 |
| 105 | 52 | 8.382 | 8.279 | -0.103 |
| 105 | 53 | 8.390 | 8.201 | -0.189 |
| 105 | 54 | 8.394 | 8.231 | -0.163 |
| 105 | 55 | 8.426 | 8.210 | -0.216 |
| 105 | 56 | 8.397 | 8.247 | -0.150 |
| 105 | 57 | 8.375 | 8.293 | -0.082 |
| 105 | 58 | 8.329 | 8.220 | -0.109 |
| 105 | 59 | 8.397 | 8.329 | -0.068 |
| 105 | 60 | 8.344 | 8.330 | -0.014 |
| 105 | 61 | 8.358 | 8.304 | -0.054 |
| 105 | 62 | 8.406 | 8.309 | -0.097 |
| 105 | 63 | 8.357 | 8.298 | -0.059 |
| 105 | 64 | 8.401 | 8.169 | -0.232 |
| 105 | 65 | 8.379 | 8.315 | -0.064 |
| 105 | 66 | 8.320 | 8.213 | -0.107 |
| 105 | 67 | 8.384 | 8.249 | -0.135 |
| Max | | 8.441 | 8.435 | 0.116 |
| Average | | 8.372 | 8.326 | -0.045 |
| Min | | 8.303 | 8.022 | -0.294 |
| Std Dev | | 0.032 | 0.085 | 0.086 |



| 9.46 T_SYNC_FALL_2MHz_5V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.351 | 8.370 | 8.314 | 8.372 | 8.319 | 8.390 | 8.376 | 8.281 | 8.267 | 8.251 | 8.022 |
| Average | 8.382 | 8.401 | 8.375 | 8.392 | 8.348 | 8.404 | 8.392 | 8.345 | 8.335 | 8.273 | 8.243 |
| Max | 8.411 | 8.426 | 8.434 | 8.425 | 8.423 | 8.435 | 8.407 | 8.382 | 8.371 | 8.319 | 8.408 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

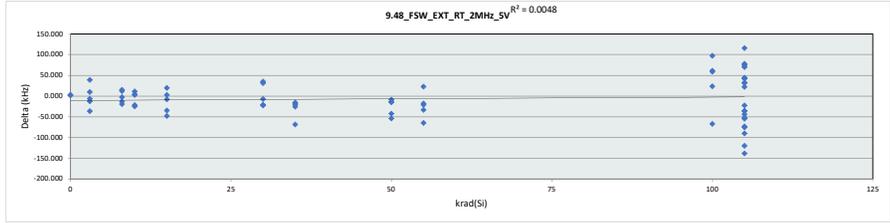


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

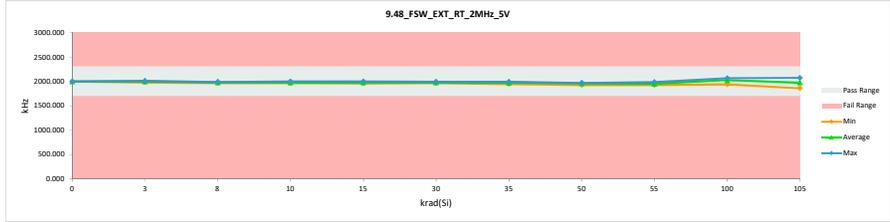
| 9.48 FSW_EXT_RT_2MHz_5V | |
|-------------------------|------|
| Test Site | 1700 |
| Tester | 2300 |
| Test Number | 1700 |
| Unit | kHz |
| Max Limit | 2300 |
| Min Limit | 1700 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|----------|----------|----------|
| 0 | 991 | 1997.943 | 2000.011 | 2.068 |
| 0 | 992 | 2000.621 | 2002.966 | 2.345 |
| 0 | 993 | 1993.106 | 1995.030 | 1.924 |
| 3 | 1 | 2004.616 | 1998.348 | -6.268 |
| 3 | 2 | 1976.934 | 2015.371 | 38.437 |
| 3 | 3 | 1990.093 | 1999.545 | 9.452 |
| 3 | 4 | 2015.891 | 2003.450 | -12.441 |
| 3 | 5 | 2021.058 | 1984.566 | -36.492 |
| 8 | 6 | 1998.362 | 1978.978 | -19.384 |
| 8 | 7 | 1984.323 | 1981.614 | -2.709 |
| 8 | 8 | 1972.169 | 1984.026 | 11.857 |
| 8 | 9 | 1976.697 | 1991.534 | 14.837 |
| 8 | 10 | 1983.812 | 1970.121 | -13.691 |
| 10 | 11 | 1975.949 | 1978.458 | 2.509 |
| 10 | 12 | 1990.650 | 1965.864 | -24.786 |
| 10 | 13 | 2007.600 | 1985.832 | -21.768 |
| 10 | 14 | 1989.324 | 2000.145 | 10.821 |
| 10 | 15 | 1983.724 | 1987.659 | 3.935 |
| 15 | 16 | 1997.755 | 1990.047 | -7.708 |
| 15 | 17 | 1980.554 | 2000.414 | 19.860 |
| 15 | 18 | 1998.909 | 1964.061 | -34.848 |
| 15 | 19 | 2026.947 | 1978.726 | -48.221 |
| 15 | 20 | 1974.466 | 1977.504 | 3.038 |
| 30 | 21 | 1957.265 | 1988.309 | 31.044 |
| 30 | 22 | 1988.530 | 1965.797 | -22.733 |
| 30 | 23 | 1958.449 | 1993.499 | 35.050 |
| 30 | 24 | 1983.602 | 1976.271 | -7.331 |
| 30 | 25 | 1996.682 | 1975.880 | -20.802 |
| 35 | 26 | 2009.146 | 1983.644 | -25.502 |
| 35 | 27 | 2012.094 | 1996.864 | -15.430 |
| 35 | 28 | 1997.990 | 1976.879 | -21.111 |
| 35 | 29 | 2015.555 | 1946.577 | -68.978 |
| 35 | 30 | 1999.636 | 1981.980 | -17.656 |
| 50 | 31 | 2001.969 | 1959.201 | -42.768 |
| 50 | 32 | 1982.248 | 1967.578 | -14.670 |
| 50 | 33 | 1977.423 | 1968.311 | -9.112 |
| 50 | 34 | 1985.829 | 1972.352 | -13.477 |
| 50 | 35 | 1981.851 | 1927.894 | -53.957 |
| 55 | 36 | 1992.487 | 1927.410 | -65.077 |
| 55 | 37 | 1967.491 | 1934.142 | -33.349 |
| 55 | 38 | 1981.101 | 1962.889 | -18.212 |
| 55 | 39 | 1962.576 | 1985.595 | 23.019 |
| 55 | 40 | 1986.542 | 1965.816 | -20.726 |
| 100 | 41 | 2002.023 | 2063.001 | 60.978 |
| 100 | 42 | 2004.748 | 2028.214 | 23.466 |
| 100 | 43 | 1987.984 | 2046.360 | 58.376 |
| 100 | 44 | 2010.351 | 1943.223 | -67.128 |
| 100 | 45 | 1968.285 | 2065.492 | 97.207 |
| 105 | 46 | 1978.229 | 1904.915 | -73.314 |
| 105 | 47 | 1976.094 | 2019.746 | 43.652 |
| 105 | 48 | 1999.246 | 1923.518 | -75.728 |
| 105 | 49 | 1959.234 | 1923.368 | -35.866 |
| 105 | 50 | 2000.248 | 1862.046 | -138.202 |
| 105 | 51 | 1981.605 | 1861.686 | -119.919 |
| 105 | 52 | 1981.185 | 2051.721 | 70.536 |
| 105 | 53 | 1996.524 | 2071.250 | 74.726 |
| 105 | 54 | 2015.315 | 2059.490 | 44.175 |
| 105 | 55 | 2002.316 | 1912.084 | -90.232 |
| 105 | 56 | 1968.582 | 2046.250 | 77.668 |
| 105 | 57 | 2000.394 | 2031.801 | 31.407 |
| 105 | 58 | 2003.228 | 2045.189 | 41.961 |
| 105 | 59 | 1990.090 | 1953.884 | -36.206 |
| 105 | 60 | 1992.655 | 2025.361 | 32.706 |
| 105 | 61 | 1994.243 | 2016.048 | 21.805 |
| 105 | 62 | 1962.604 | 1939.802 | -22.802 |
| 105 | 63 | 1957.180 | 1904.795 | -52.385 |
| 105 | 64 | 1961.693 | 1907.048 | -54.645 |
| 105 | 65 | 1979.181 | 2049.657 | 70.476 |
| 105 | 66 | 1958.708 | 2074.461 | 115.753 |
| 105 | 67 | 1981.007 | 1937.211 | -43.796 |
| Max | | 2026.947 | 2074.461 | 115.753 |
| Average | | 1988.470 | 1982.265 | -6.205 |
| Min | | 1957.180 | 1861.686 | -138.202 |
| Std Dev | | 16.575 | 46.255 | 47.589 |



| 9.48 FSW_EXT_RT_2MHz_5V | |
|-------------------------|------|
| Test Site | 1700 |
| Tester | 2300 |
| Test Number | 1700 |
| Unit | kHz |
| Max Limit | 2300 |
| Min Limit | 1700 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LL | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 |
| Min | 1995.030 | 1984.566 | 1970.121 | 1965.864 | 1964.061 | 1965.797 | 1946.577 | 1927.894 | 1927.410 | 1943.223 | 1861.686 |
| Average | 1999.336 | 2000.256 | 1981.255 | 1983.592 | 1982.150 | 1979.951 | 1977.149 | 1959.067 | 1955.170 | 2029.258 | 1978.242 |
| Max | 2002.966 | 2015.371 | 1991.534 | 2000.145 | 2000.414 | 1993.499 | 1996.664 | 1972.352 | 1985.595 | 2065.492 | 2074.461 |
| UL | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 |

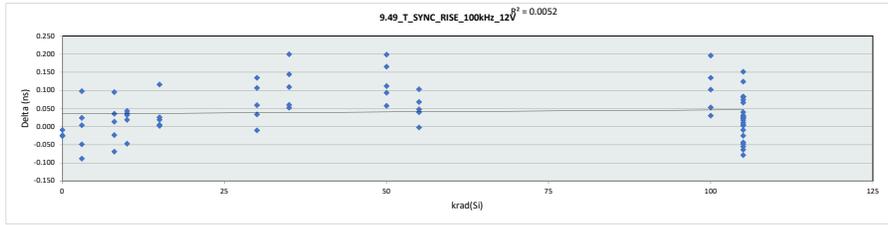


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

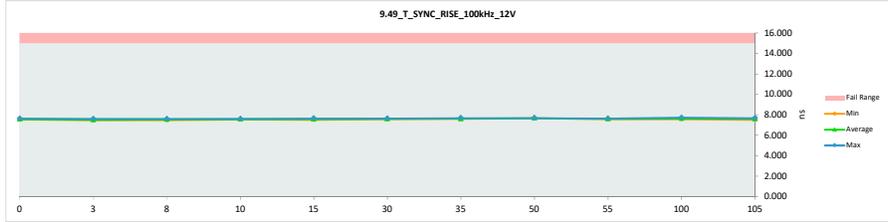
| 9.49 T SYNC RISE 100kHz 12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.557 | 7.547 | -0.010 |
| 0 | 992 | 7.595 | 7.568 | -0.027 |
| 0 | 993 | 7.645 | 7.620 | -0.025 |
| 3 | 1 | 7.514 | 7.464 | -0.050 |
| 3 | 2 | 7.494 | 7.591 | 0.097 |
| 3 | 3 | 7.576 | 7.487 | -0.089 |
| 3 | 4 | 7.482 | 7.485 | 0.003 |
| 3 | 5 | 7.531 | 7.554 | 0.023 |
| 8 | 6 | 7.521 | 7.533 | 0.012 |
| 8 | 7 | 7.555 | 7.485 | -0.070 |
| 8 | 8 | 7.509 | 7.543 | 0.034 |
| 8 | 9 | 7.493 | 7.587 | 0.094 |
| 8 | 10 | 7.555 | 7.531 | -0.024 |
| 10 | 11 | 7.600 | 7.552 | -0.048 |
| 10 | 12 | 7.535 | 7.566 | 0.031 |
| 10 | 13 | 7.538 | 7.580 | 0.042 |
| 10 | 14 | 7.525 | 7.560 | 0.035 |
| 10 | 15 | 7.567 | 7.585 | 0.018 |
| 10 | 16 | 7.563 | 7.564 | 0.001 |
| 15 | 17 | 7.430 | 7.545 | 0.115 |
| 15 | 18 | 7.517 | 7.521 | 0.004 |
| 15 | 19 | 7.604 | 7.629 | 0.025 |
| 15 | 20 | 7.564 | 7.582 | 0.018 |
| 30 | 21 | 7.547 | 7.605 | 0.058 |
| 30 | 22 | 7.488 | 7.593 | 0.105 |
| 30 | 23 | 7.592 | 7.625 | 0.033 |
| 30 | 24 | 7.593 | 7.582 | -0.011 |
| 30 | 25 | 7.489 | 7.622 | 0.133 |
| 35 | 26 | 7.542 | 7.593 | 0.051 |
| 35 | 27 | 7.472 | 7.615 | 0.143 |
| 35 | 28 | 7.479 | 7.587 | 0.108 |
| 35 | 29 | 7.581 | 7.640 | 0.059 |
| 35 | 30 | 7.462 | 7.660 | 0.198 |
| 50 | 31 | 7.465 | 7.662 | 0.197 |
| 50 | 32 | 7.568 | 7.679 | 0.111 |
| 50 | 33 | 7.592 | 7.648 | 0.056 |
| 50 | 34 | 7.494 | 7.658 | 0.164 |
| 50 | 35 | 7.569 | 7.661 | 0.092 |
| 55 | 36 | 7.626 | 7.623 | -0.003 |
| 55 | 37 | 7.543 | 7.582 | 0.039 |
| 55 | 38 | 7.526 | 7.593 | 0.067 |
| 55 | 39 | 7.567 | 7.614 | 0.047 |
| 55 | 40 | 7.523 | 7.625 | 0.102 |
| 100 | 41 | 7.553 | 7.582 | 0.029 |
| 100 | 42 | 7.533 | 7.634 | 0.101 |
| 100 | 43 | 7.518 | 7.713 | 0.195 |
| 100 | 44 | 7.519 | 7.571 | 0.052 |
| 100 | 45 | 7.506 | 7.639 | 0.133 |
| 105 | 46 | 7.620 | 7.571 | -0.049 |
| 105 | 47 | 7.564 | 7.645 | 0.081 |
| 105 | 48 | 7.582 | 7.537 | -0.045 |
| 105 | 49 | 7.584 | 7.519 | -0.065 |
| 105 | 50 | 7.614 | 7.639 | 0.025 |
| 105 | 51 | 7.602 | 7.675 | 0.073 |
| 105 | 52 | 7.566 | 7.592 | 0.026 |
| 105 | 53 | 7.586 | 7.590 | 0.004 |
| 105 | 54 | 7.588 | 7.618 | 0.030 |
| 105 | 55 | 7.541 | 7.664 | 0.123 |
| 105 | 56 | 7.601 | 7.640 | 0.039 |
| 105 | 57 | 7.612 | 7.532 | -0.080 |
| 105 | 58 | 7.603 | 7.605 | 0.002 |
| 105 | 59 | 7.607 | 7.624 | 0.017 |
| 105 | 60 | 7.599 | 7.621 | 0.022 |
| 105 | 61 | 7.586 | 7.596 | 0.010 |
| 105 | 62 | 7.563 | 7.553 | -0.010 |
| 105 | 63 | 7.551 | 7.633 | 0.082 |
| 105 | 64 | 7.504 | 7.654 | 0.150 |
| 105 | 65 | 7.617 | 7.591 | -0.026 |
| 105 | 66 | 7.519 | 7.584 | 0.065 |
| 105 | 67 | 7.608 | 7.552 | -0.056 |
| Max | | 7.645 | 7.713 | 0.198 |
| Average | | 7.552 | 7.593 | 0.041 |
| Min | | 7.430 | 7.464 | -0.089 |
| Std Dev | | 0.047 | 0.051 | 0.067 |



| 9.49 T SYNC RISE 100kHz 12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.547 | 7.464 | 7.485 | 7.552 | 7.521 | 7.582 | 7.587 | 7.648 | 7.582 | 7.571 | 7.519 |
| Average | 7.578 | 7.516 | 7.536 | 7.569 | 7.568 | 7.605 | 7.619 | 7.662 | 7.607 | 7.628 | 7.602 |
| Max | 7.620 | 7.591 | 7.587 | 7.585 | 7.629 | 7.625 | 7.660 | 7.679 | 7.625 | 7.713 | 7.675 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

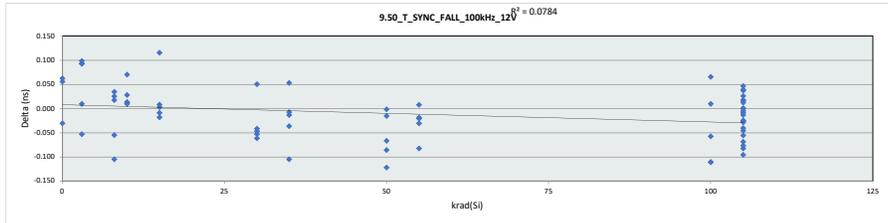


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

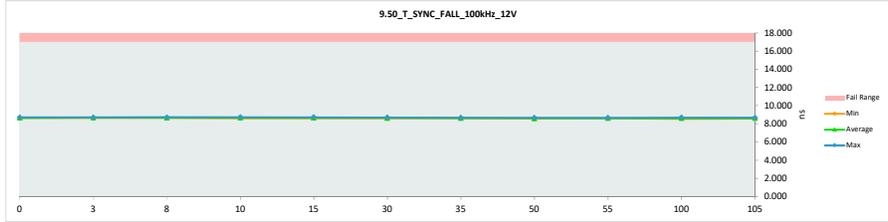
| 9.50 T SYNC FALL 100kHz 12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.648 | 8.710 | 0.062 |
| 0 | 992 | 8.668 | 8.637 | -0.031 |
| 0 | 993 | 8.576 | 8.631 | 0.055 |
| 3 | 1 | 8.619 | 8.712 | 0.093 |
| 3 | 2 | 8.695 | 8.642 | -0.053 |
| 3 | 3 | 8.614 | 8.712 | 0.098 |
| 3 | 4 | 8.662 | 8.671 | 0.009 |
| 3 | 5 | 8.610 | 8.702 | 0.092 |
| 8 | 6 | 8.673 | 8.698 | 0.025 |
| 8 | 7 | 8.692 | 8.637 | -0.055 |
| 8 | 8 | 8.659 | 8.676 | 0.017 |
| 8 | 9 | 8.734 | 8.629 | -0.105 |
| 8 | 10 | 8.658 | 8.692 | 0.034 |
| 10 | 11 | 8.654 | 8.665 | 0.011 |
| 10 | 12 | 8.663 | 8.672 | 0.009 |
| 10 | 13 | 8.624 | 8.694 | 0.070 |
| 10 | 14 | 8.609 | 8.622 | 0.013 |
| 10 | 15 | 8.696 | 8.734 | 0.028 |
| 15 | 16 | 8.645 | 8.648 | 0.003 |
| 15 | 17 | 8.680 | 8.662 | -0.018 |
| 15 | 18 | 8.614 | 8.729 | 0.115 |
| 15 | 19 | 8.612 | 8.620 | 0.008 |
| 15 | 20 | 8.647 | 8.638 | -0.009 |
| 30 | 21 | 8.673 | 8.620 | -0.053 |
| 30 | 22 | 8.671 | 8.624 | -0.047 |
| 30 | 23 | 8.675 | 8.613 | -0.062 |
| 30 | 24 | 8.659 | 8.709 | 0.050 |
| 30 | 25 | 8.687 | 8.645 | -0.042 |
| 35 | 26 | 8.626 | 8.618 | -0.008 |
| 35 | 27 | 8.694 | 8.657 | -0.037 |
| 35 | 28 | 8.662 | 8.648 | -0.014 |
| 35 | 29 | 8.603 | 8.656 | 0.053 |
| 35 | 30 | 8.715 | 8.610 | -0.105 |
| 50 | 31 | 8.659 | 8.657 | -0.002 |
| 50 | 32 | 8.667 | 8.600 | -0.067 |
| 50 | 33 | 8.700 | 8.578 | -0.122 |
| 50 | 34 | 8.646 | 8.630 | -0.016 |
| 50 | 35 | 8.678 | 8.592 | -0.086 |
| 55 | 36 | 8.636 | 8.617 | -0.019 |
| 55 | 37 | 8.661 | 8.630 | -0.031 |
| 55 | 38 | 8.649 | 8.656 | 0.007 |
| 55 | 39 | 8.634 | 8.613 | -0.021 |
| 55 | 40 | 8.707 | 8.624 | -0.083 |
| 100 | 41 | 8.662 | 8.604 | -0.058 |
| 100 | 42 | 8.627 | 8.692 | 0.065 |
| 100 | 43 | 8.666 | 8.555 | -0.111 |
| 100 | 44 | 8.653 | 8.662 | 0.009 |
| 100 | 45 | 8.708 | 8.597 | -0.111 |
| 105 | 46 | 8.623 | 8.649 | 0.026 |
| 105 | 47 | 8.654 | 8.608 | -0.046 |
| 105 | 48 | 8.634 | 8.651 | 0.017 |
| 105 | 49 | 8.629 | 8.675 | 0.046 |
| 105 | 50 | 8.611 | 8.627 | 0.016 |
| 105 | 51 | 8.689 | 8.593 | -0.096 |
| 105 | 52 | 8.611 | 8.597 | -0.014 |
| 105 | 53 | 8.648 | 8.592 | -0.056 |
| 105 | 54 | 8.632 | 8.603 | -0.029 |
| 105 | 55 | 8.662 | 8.653 | -0.009 |
| 105 | 56 | 8.677 | 8.594 | -0.083 |
| 105 | 57 | 8.636 | 8.673 | 0.037 |
| 105 | 58 | 8.632 | 8.563 | -0.069 |
| 105 | 59 | 8.588 | 8.562 | -0.026 |
| 105 | 60 | 8.603 | 8.642 | 0.039 |
| 105 | 61 | 8.619 | 8.619 | 0.000 |
| 105 | 62 | 8.602 | 8.614 | 0.012 |
| 105 | 63 | 8.667 | 8.642 | -0.025 |
| 105 | 64 | 8.664 | 8.623 | -0.041 |
| 105 | 65 | 8.619 | 8.619 | 0.000 |
| 105 | 66 | 8.657 | 8.580 | -0.077 |
| 105 | 67 | 8.662 | 8.657 | -0.005 |
| Max | | 8.734 | 8.729 | 0.115 |
| Average | | 8.651 | 8.640 | -0.012 |
| Min | | 8.576 | 8.555 | -0.122 |
| Std Dev | | 0.032 | 0.040 | 0.054 |



| 9.50 T SYNC FALL 100kHz 12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.631 | 8.642 | 8.629 | 8.622 | 8.620 | 8.613 | 8.610 | 8.578 | 8.613 | 8.555 | 8.562 |
| Average | 8.659 | 8.688 | 8.666 | 8.675 | 8.659 | 8.642 | 8.638 | 8.611 | 8.628 | 8.622 | 8.620 |
| Max | 8.710 | 8.712 | 8.698 | 8.724 | 8.729 | 8.709 | 8.657 | 8.657 | 8.656 | 8.692 | 8.675 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

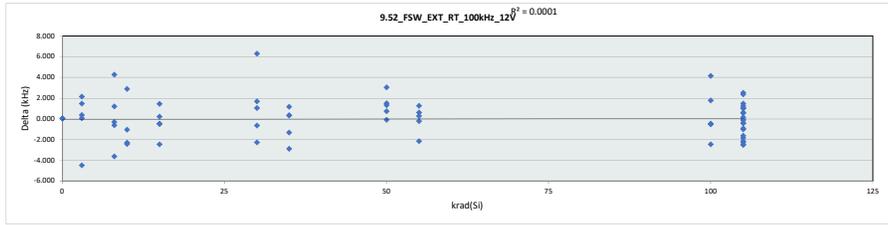


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

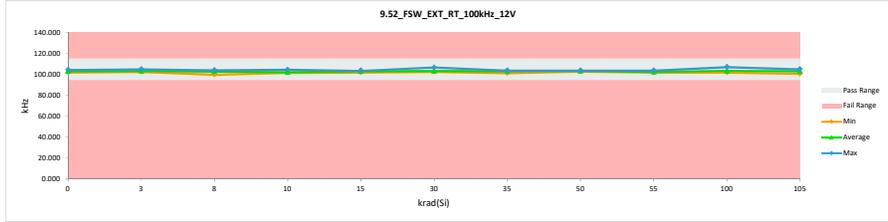
| 9.52 FSW_EXT_RT_100kHz_12V | |
|----------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 115 |
| Min Limit | 95 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 103.210 | 103.224 | 0.014 |
| 0 | 992 | 101.998 | 102.001 | 0.003 |
| 0 | 993 | 104.211 | 104.198 | -0.013 |
| 3 | 1 | 102.774 | 104.869 | 2.095 |
| 3 | 2 | 102.780 | 104.203 | 1.423 |
| 3 | 3 | 103.096 | 103.127 | 0.031 |
| 3 | 4 | 102.556 | 102.892 | 0.336 |
| 3 | 5 | 106.894 | 102.389 | -4.505 |
| 8 | 6 | 104.278 | 103.618 | -0.660 |
| 8 | 7 | 103.383 | 99.730 | -3.653 |
| 8 | 8 | 98.124 | 102.348 | 4.224 |
| 8 | 9 | 102.964 | 104.131 | 1.167 |
| 8 | 10 | 104.444 | 104.099 | -0.345 |
| 10 | 11 | 104.109 | 101.726 | -2.383 |
| 10 | 12 | 103.940 | 101.474 | -2.466 |
| 10 | 13 | 104.004 | 101.656 | -2.348 |
| 10 | 14 | 101.602 | 104.453 | 2.851 |
| 10 | 15 | 102.822 | 101.727 | -1.095 |
| 15 | 16 | 104.288 | 101.782 | -2.506 |
| 15 | 17 | 102.016 | 103.406 | 1.390 |
| 15 | 18 | 103.049 | 102.546 | -0.503 |
| 15 | 19 | 104.097 | 103.580 | -0.517 |
| 15 | 20 | 103.365 | 103.528 | 0.163 |
| 30 | 21 | 101.287 | 102.936 | 1.649 |
| 30 | 22 | 101.363 | 102.352 | 0.989 |
| 30 | 23 | 100.339 | 106.595 | 6.256 |
| 30 | 24 | 103.845 | 103.175 | -0.670 |
| 30 | 25 | 104.781 | 102.480 | -2.301 |
| 35 | 26 | 103.494 | 103.793 | 0.299 |
| 35 | 27 | 102.589 | 103.704 | 1.115 |
| 35 | 28 | 104.907 | 103.552 | -1.355 |
| 35 | 29 | 104.224 | 101.310 | -2.914 |
| 35 | 30 | 103.211 | 103.513 | 0.302 |
| 50 | 31 | 102.904 | 103.590 | 0.686 |
| 50 | 32 | 102.217 | 103.509 | 1.292 |
| 50 | 33 | 103.679 | 103.538 | -0.141 |
| 50 | 34 | 99.793 | 102.778 | 2.985 |
| 50 | 35 | 102.288 | 103.743 | 1.455 |
| 55 | 36 | 104.094 | 101.892 | -2.202 |
| 55 | 37 | 104.007 | 103.764 | -0.243 |
| 55 | 38 | 101.669 | 102.238 | 0.569 |
| 55 | 39 | 101.587 | 102.819 | 1.232 |
| 55 | 40 | 101.588 | 101.813 | 0.225 |
| 100 | 41 | 104.320 | 101.835 | -2.485 |
| 100 | 42 | 102.502 | 101.956 | -0.546 |
| 100 | 43 | 101.748 | 103.502 | 1.754 |
| 100 | 44 | 103.656 | 103.165 | -0.491 |
| 100 | 45 | 102.987 | 107.100 | 4.113 |
| 105 | 46 | 103.611 | 104.192 | 0.581 |
| 105 | 47 | 103.447 | 103.565 | 0.118 |
| 105 | 48 | 103.031 | 102.583 | -0.448 |
| 105 | 49 | 102.754 | 102.582 | -0.172 |
| 105 | 50 | 106.594 | 104.102 | -2.492 |
| 105 | 51 | 103.577 | 104.086 | 0.509 |
| 105 | 52 | 101.921 | 102.914 | 0.993 |
| 105 | 53 | 103.495 | 104.454 | 0.959 |
| 105 | 54 | 103.832 | 101.966 | -1.866 |
| 105 | 55 | 103.699 | 102.639 | -1.060 |
| 105 | 56 | 101.372 | 103.686 | 2.314 |
| 105 | 57 | 103.724 | 101.552 | -2.172 |
| 105 | 58 | 103.245 | 102.287 | -0.958 |
| 105 | 59 | 103.135 | 104.129 | 0.994 |
| 105 | 60 | 103.798 | 103.640 | -0.098 |
| 105 | 61 | 103.157 | 100.617 | -2.540 |
| 105 | 62 | 103.606 | 101.332 | -2.274 |
| 105 | 63 | 102.331 | 100.668 | -1.663 |
| 105 | 64 | 104.341 | 103.860 | -0.481 |
| 105 | 65 | 102.502 | 104.975 | 2.473 |
| 105 | 66 | 102.807 | 104.016 | 1.209 |
| 105 | 67 | 101.812 | 103.236 | 1.424 |
| Max | | 106.894 | 107.100 | 6.256 |
| Average | | 103.069 | 103.063 | -0.005 |
| Min | | 98.124 | 99.730 | -4.505 |
| Std Dev | | 1.346 | 1.255 | 1.911 |



| 9.52 FSW_EXT_RT_100kHz_1 | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 115 |
| Min Limit | 95 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 |
| Min | 102.001 | 102.389 | 99.730 | 101.474 | 101.782 | 102.352 | 101.310 | 102.778 | 101.813 | 101.835 | 100.617 |
| Average | 103.141 | 103.496 | 102.785 | 102.207 | 102.968 | 103.508 | 103.174 | 103.432 | 102.505 | 103.512 | 103.049 |
| Max | 104.198 | 104.869 | 104.131 | 104.453 | 103.580 | 106.595 | 103.793 | 103.743 | 103.764 | 107.100 | 104.975 |
| UL | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 |

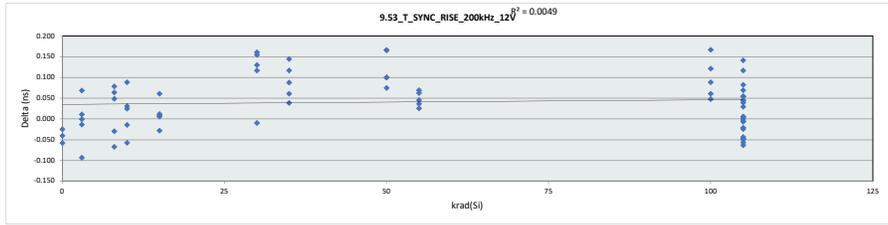


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

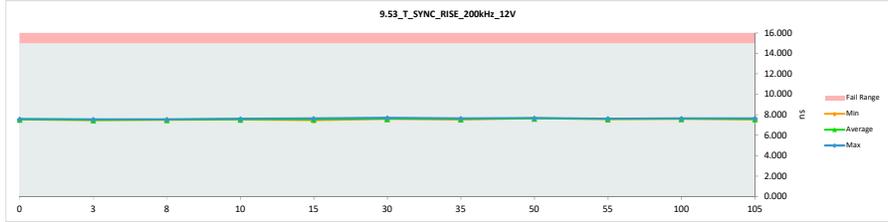
| 9.53 T SYNC RISE 200kHz 12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.583 | 7.526 | -0.057 |
| 0 | 992 | 7.576 | 7.537 | -0.039 |
| 0 | 993 | 7.627 | 7.603 | -0.024 |
| 3 | 1 | 7.496 | 7.497 | 0.001 |
| 3 | 2 | 7.487 | 7.557 | 0.070 |
| 3 | 3 | 7.583 | 7.491 | -0.092 |
| 3 | 4 | 7.479 | 7.467 | -0.012 |
| 3 | 5 | 7.535 | 7.547 | 0.012 |
| 8 | 6 | 7.508 | 7.558 | 0.050 |
| 8 | 7 | 7.555 | 7.489 | -0.066 |
| 8 | 8 | 7.502 | 7.567 | 0.065 |
| 8 | 9 | 7.466 | 7.546 | 0.080 |
| 8 | 10 | 7.547 | 7.519 | -0.028 |
| 10 | 11 | 7.596 | 7.540 | -0.056 |
| 10 | 12 | 7.547 | 7.637 | 0.090 |
| 10 | 13 | 7.505 | 7.537 | 0.032 |
| 10 | 14 | 7.517 | 7.543 | 0.026 |
| 10 | 15 | 7.553 | 7.540 | -0.013 |
| 15 | 16 | 7.563 | 7.536 | -0.027 |
| 15 | 17 | 7.468 | 7.477 | 0.009 |
| 15 | 18 | 7.527 | 7.534 | 0.007 |
| 15 | 19 | 7.599 | 7.661 | 0.062 |
| 15 | 20 | 7.589 | 7.602 | 0.013 |
| 30 | 21 | 7.510 | 7.672 | 0.162 |
| 30 | 22 | 7.471 | 7.602 | 0.131 |
| 30 | 23 | 7.550 | 7.706 | 0.156 |
| 30 | 24 | 7.606 | 7.598 | -0.008 |
| 30 | 25 | 7.477 | 7.595 | 0.118 |
| 35 | 26 | 7.538 | 7.600 | 0.062 |
| 35 | 27 | 7.467 | 7.613 | 0.146 |
| 35 | 28 | 7.449 | 7.538 | 0.089 |
| 35 | 29 | 7.587 | 7.627 | 0.040 |
| 35 | 30 | 7.538 | 7.656 | 0.118 |
| 50 | 31 | 7.512 | 7.679 | 0.167 |
| 50 | 32 | 7.575 | 7.651 | 0.076 |
| 50 | 33 | 7.580 | 7.681 | 0.101 |
| 50 | 34 | 7.492 | 7.659 | 0.167 |
| 50 | 35 | 7.555 | 7.656 | 0.101 |
| 55 | 36 | 7.592 | 7.639 | 0.047 |
| 55 | 37 | 7.537 | 7.575 | 0.038 |
| 55 | 38 | 7.533 | 7.604 | 0.071 |
| 55 | 39 | 7.572 | 7.599 | 0.027 |
| 55 | 40 | 7.540 | 7.604 | 0.064 |
| 100 | 41 | 7.548 | 7.638 | 0.090 |
| 100 | 42 | 7.558 | 7.620 | 0.062 |
| 100 | 43 | 7.501 | 7.669 | 0.168 |
| 100 | 44 | 7.545 | 7.594 | 0.049 |
| 100 | 45 | 7.486 | 7.609 | 0.123 |
| 105 | 46 | 7.612 | 7.557 | -0.055 |
| 105 | 47 | 7.583 | 7.590 | 0.007 |
| 105 | 48 | 7.606 | 7.586 | -0.020 |
| 105 | 49 | 7.540 | 7.517 | -0.023 |
| 105 | 50 | 7.592 | 7.587 | -0.005 |
| 105 | 51 | 7.568 | 7.624 | 0.056 |
| 105 | 52 | 7.569 | 7.610 | 0.041 |
| 105 | 53 | 7.583 | 7.579 | -0.004 |
| 105 | 54 | 7.576 | 7.631 | 0.055 |
| 105 | 55 | 7.522 | 7.640 | 0.118 |
| 105 | 56 | 7.609 | 7.611 | 0.002 |
| 105 | 57 | 7.595 | 7.533 | -0.062 |
| 105 | 58 | 7.615 | 7.567 | -0.048 |
| 105 | 59 | 7.586 | 7.670 | 0.084 |
| 105 | 60 | 7.576 | 7.607 | 0.031 |
| 105 | 61 | 7.572 | 7.618 | 0.046 |
| 105 | 62 | 7.578 | 7.584 | 0.006 |
| 105 | 63 | 7.574 | 7.645 | 0.071 |
| 105 | 64 | 7.490 | 7.633 | 0.143 |
| 105 | 65 | 7.587 | 7.541 | -0.046 |
| 105 | 66 | 7.540 | 7.587 | 0.047 |
| 105 | 67 | 7.596 | 7.554 | -0.042 |
| Max | | 7.627 | 7.706 | 0.168 |
| Average | | 7.549 | 7.590 | 0.041 |
| Min | | 7.449 | 7.467 | -0.092 |
| Std Dev | | 0.044 | 0.054 | 0.065 |



| 9.53 T SYNC RISE 200kHz 12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 15 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.526 | 7.467 | 7.489 | 7.537 | 7.477 | 7.595 | 7.538 | 7.651 | 7.575 | 7.594 | 7.517 |
| Average | 7.555 | 7.512 | 7.536 | 7.559 | 7.562 | 7.635 | 7.607 | 7.665 | 7.604 | 7.626 | 7.594 |
| Max | 7.603 | 7.557 | 7.567 | 7.637 | 7.661 | 7.706 | 7.656 | 7.681 | 7.639 | 7.669 | 7.670 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

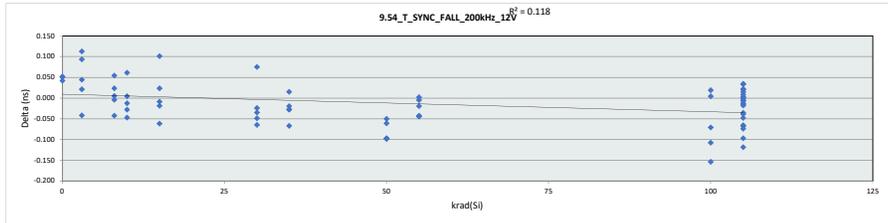


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

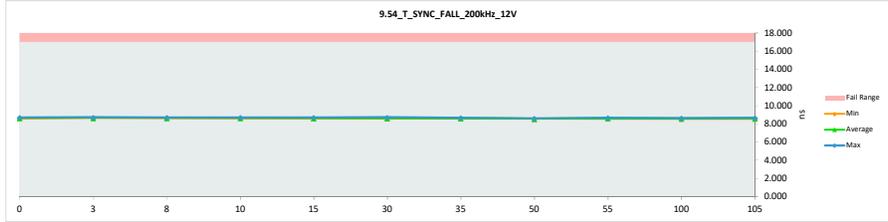
| 9.54 T_SYNC_FALL_200kHz_12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.660 | 8.712 | 0.052 |
| 0 | 992 | 8.630 | 8.684 | 0.054 |
| 0 | 993 | 8.571 | 8.615 | 0.044 |
| 3 | 1 | 8.613 | 8.708 | 0.095 |
| 3 | 2 | 8.685 | 8.645 | -0.040 |
| 3 | 3 | 8.617 | 8.731 | 0.114 |
| 3 | 4 | 8.656 | 8.679 | 0.023 |
| 3 | 5 | 8.635 | 8.681 | 0.046 |
| 8 | 6 | 8.681 | 8.706 | 0.025 |
| 8 | 7 | 8.678 | 8.637 | -0.041 |
| 8 | 8 | 8.645 | 8.701 | 0.056 |
| 8 | 9 | 8.702 | 8.700 | -0.002 |
| 8 | 10 | 8.673 | 8.680 | 0.007 |
| 10 | 11 | 8.666 | 8.655 | -0.011 |
| 10 | 12 | 8.682 | 8.637 | -0.045 |
| 10 | 13 | 8.637 | 8.700 | 0.063 |
| 10 | 14 | 8.633 | 8.639 | 0.006 |
| 10 | 15 | 8.720 | 8.694 | -0.026 |
| 15 | 16 | 8.679 | 8.662 | -0.017 |
| 15 | 17 | 8.715 | 8.655 | -0.060 |
| 15 | 18 | 8.604 | 8.707 | 0.103 |
| 15 | 19 | 8.586 | 8.611 | 0.025 |
| 15 | 20 | 8.651 | 8.644 | -0.007 |
| 30 | 21 | 8.677 | 8.614 | -0.063 |
| 30 | 22 | 8.667 | 8.645 | -0.022 |
| 30 | 23 | 8.660 | 8.627 | -0.033 |
| 30 | 24 | 8.652 | 8.729 | 0.077 |
| 30 | 25 | 8.660 | 8.613 | -0.047 |
| 35 | 26 | 8.632 | 8.614 | -0.018 |
| 35 | 27 | 8.705 | 8.679 | -0.026 |
| 35 | 28 | 8.659 | 8.634 | -0.025 |
| 35 | 29 | 8.622 | 8.639 | 0.017 |
| 35 | 30 | 8.706 | 8.641 | -0.065 |
| 50 | 31 | 8.659 | 8.611 | -0.048 |
| 50 | 32 | 8.680 | 8.583 | -0.097 |
| 50 | 33 | 8.670 | 8.574 | -0.096 |
| 50 | 34 | 8.642 | 8.583 | -0.059 |
| 50 | 35 | 8.677 | 8.582 | -0.095 |
| 55 | 36 | 8.634 | 8.616 | -0.018 |
| 55 | 37 | 8.666 | 8.670 | 0.004 |
| 55 | 38 | 8.652 | 8.649 | -0.003 |
| 55 | 39 | 8.663 | 8.620 | -0.043 |
| 55 | 40 | 8.678 | 8.637 | -0.041 |
| 100 | 41 | 8.661 | 8.592 | -0.069 |
| 100 | 42 | 8.645 | 8.651 | 0.006 |
| 100 | 43 | 8.664 | 8.558 | -0.106 |
| 100 | 44 | 8.624 | 8.645 | 0.021 |
| 100 | 45 | 8.735 | 8.583 | -0.152 |
| 105 | 46 | 8.624 | 8.646 | 0.022 |
| 105 | 47 | 8.652 | 8.639 | -0.013 |
| 105 | 48 | 8.645 | 8.681 | 0.036 |
| 105 | 49 | 8.616 | 8.651 | 0.035 |
| 105 | 50 | 8.632 | 8.628 | -0.004 |
| 105 | 51 | 8.717 | 8.600 | -0.117 |
| 105 | 52 | 8.633 | 8.622 | -0.011 |
| 105 | 53 | 8.641 | 8.607 | -0.034 |
| 105 | 54 | 8.595 | 8.590 | -0.005 |
| 105 | 55 | 8.665 | 8.665 | 0.000 |
| 105 | 56 | 8.722 | 8.627 | -0.095 |
| 105 | 57 | 8.671 | 8.682 | 0.011 |
| 105 | 58 | 8.647 | 8.581 | -0.066 |
| 105 | 59 | 8.640 | 8.576 | -0.064 |
| 105 | 60 | 8.609 | 8.614 | 0.005 |
| 105 | 61 | 8.607 | 8.624 | 0.017 |
| 105 | 62 | 8.625 | 8.649 | 0.024 |
| 105 | 63 | 8.660 | 8.644 | -0.016 |
| 105 | 64 | 8.682 | 8.610 | -0.072 |
| 105 | 65 | 8.657 | 8.620 | -0.037 |
| 105 | 66 | 8.642 | 8.596 | -0.046 |
| 105 | 67 | 8.649 | 8.652 | 0.003 |
| Max | | 8.735 | 8.731 | 0.114 |
| Average | | 8.655 | 8.641 | -0.014 |
| Min | | 8.571 | 8.558 | -0.152 |
| Std Dev | | 0.033 | 0.040 | 0.053 |



| 9.54 T_SYNC_FALL_200kHz_12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.615 | 8.645 | 8.637 | 8.637 | 8.611 | 8.613 | 8.614 | 8.574 | 8.616 | 8.558 | 8.576 |
| Average | 8.670 | 8.689 | 8.685 | 8.665 | 8.656 | 8.646 | 8.641 | 8.587 | 8.638 | 8.606 | 8.627 |
| Max | 8.712 | 8.731 | 8.706 | 8.700 | 8.707 | 8.729 | 8.679 | 8.611 | 8.670 | 8.651 | 8.682 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

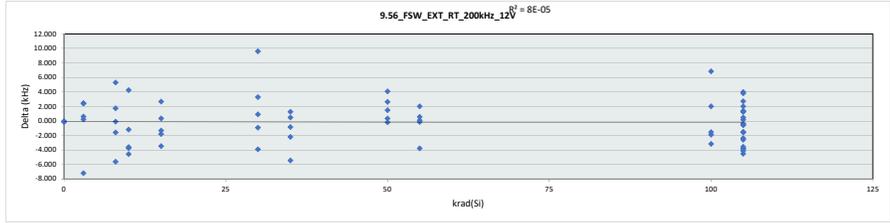


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

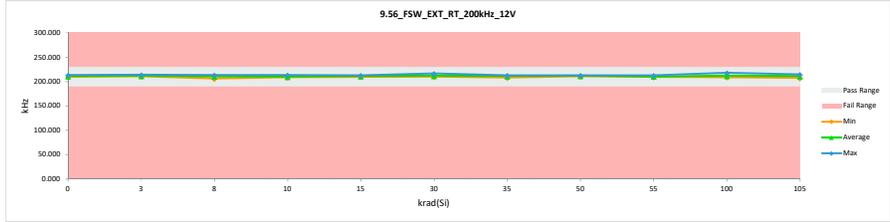
| 9.56 FSW_EXT_RT_200kHz_12V | |
|----------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 230 |
| Min Limit | 190 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 211.849 | 211.883 | 0.034 |
| 0 | 992 | 209.803 | 209.866 | 0.063 |
| 0 | 993 | 213.325 | 213.295 | -0.030 |
| 3 | 1 | 211.808 | 214.321 | 2.513 |
| 3 | 2 | 210.985 | 213.528 | 2.543 |
| 3 | 3 | 211.335 | 211.643 | 0.308 |
| 3 | 4 | 210.985 | 211.676 | 0.691 |
| 3 | 5 | 217.806 | 210.705 | -7.101 |
| 8 | 6 | 213.574 | 212.075 | -1.499 |
| 8 | 7 | 212.023 | 206.500 | -5.523 |
| 8 | 8 | 204.677 | 210.093 | 5.416 |
| 8 | 9 | 211.277 | 213.105 | 1.828 |
| 8 | 10 | 213.339 | 213.324 | -0.015 |
| 10 | 11 | 212.803 | 209.308 | -3.495 |
| 10 | 12 | 213.163 | 208.692 | -4.471 |
| 10 | 13 | 213.262 | 209.620 | -3.642 |
| 10 | 14 | 209.246 | 213.588 | 4.342 |
| 10 | 15 | 210.821 | 209.735 | -1.086 |
| 15 | 16 | 213.288 | 209.920 | -3.368 |
| 15 | 17 | 209.986 | 212.745 | 2.759 |
| 15 | 18 | 211.928 | 210.229 | -1.699 |
| 15 | 19 | 213.584 | 212.370 | -1.214 |
| 15 | 20 | 212.124 | 212.564 | 0.440 |
| 30 | 21 | 208.592 | 211.977 | 3.385 |
| 30 | 22 | 209.388 | 210.388 | 1.000 |
| 30 | 23 | 207.179 | 216.863 | 9.684 |
| 30 | 24 | 212.694 | 211.877 | -0.817 |
| 30 | 25 | 214.540 | 210.739 | -3.801 |
| 35 | 26 | 213.311 | 212.558 | -0.753 |
| 35 | 27 | 211.629 | 212.986 | 1.357 |
| 35 | 28 | 214.408 | 212.326 | -2.082 |
| 35 | 29 | 213.464 | 208.106 | -5.358 |
| 35 | 30 | 211.810 | 212.373 | 0.563 |
| 50 | 31 | 211.643 | 212.089 | 0.446 |
| 50 | 32 | 210.369 | 211.969 | 1.600 |
| 50 | 33 | 212.158 | 212.061 | -0.097 |
| 50 | 34 | 206.667 | 210.858 | 4.191 |
| 50 | 35 | 209.992 | 212.706 | 2.714 |
| 55 | 36 | 213.035 | 209.362 | -3.673 |
| 55 | 37 | 213.078 | 213.034 | -0.044 |
| 55 | 38 | 209.192 | 209.875 | 0.683 |
| 55 | 39 | 208.909 | 211.025 | 2.116 |
| 55 | 40 | 209.538 | 209.709 | 0.171 |
| 100 | 41 | 213.401 | 210.337 | -3.064 |
| 100 | 42 | 211.095 | 209.290 | -1.805 |
| 100 | 43 | 209.799 | 211.910 | 2.111 |
| 100 | 44 | 213.050 | 211.604 | -1.446 |
| 100 | 45 | 211.051 | 217.962 | 6.911 |
| 105 | 46 | 212.432 | 213.003 | 0.571 |
| 105 | 47 | 212.434 | 212.163 | -0.271 |
| 105 | 48 | 212.124 | 210.676 | -1.448 |
| 105 | 49 | 211.137 | 210.667 | -0.470 |
| 105 | 50 | 216.977 | 212.575 | -4.402 |
| 105 | 51 | 212.437 | 212.728 | 0.291 |
| 105 | 52 | 210.016 | 211.375 | 1.359 |
| 105 | 53 | 212.228 | 213.728 | 1.500 |
| 105 | 54 | 213.283 | 209.574 | -3.709 |
| 105 | 55 | 212.618 | 210.324 | -2.294 |
| 105 | 56 | 208.317 | 212.206 | 3.889 |
| 105 | 57 | 212.838 | 209.138 | -3.700 |
| 105 | 58 | 211.789 | 210.342 | -1.447 |
| 105 | 59 | 211.837 | 213.196 | 1.359 |
| 105 | 60 | 211.047 | 212.124 | 1.077 |
| 105 | 61 | 211.560 | 207.521 | -4.039 |
| 105 | 62 | 212.569 | 209.105 | -3.464 |
| 105 | 63 | 210.097 | 207.606 | -2.491 |
| 105 | 64 | 213.921 | 212.464 | -1.457 |
| 105 | 65 | 210.460 | 214.529 | 4.069 |
| 105 | 66 | 211.047 | 213.842 | 2.795 |
| 105 | 67 | 209.888 | 212.017 | 2.129 |
| Max | | 217.806 | 217.962 | 9.684 |
| Average | | 211.651 | 211.510 | -0.141 |
| Min | | 204.677 | 206.500 | -7.101 |
| Std Dev | | 2.102 | 1.995 | 3.024 |



| 9.56 FSW_EXT_RT_200kHz_1 | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 230 kHz |
| Min Limit | 190 kHz |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |
| Min | 209.866 | 210.705 | 206.500 | 208.692 | 209.920 | 210.388 | 208.106 | 210.958 | 209.362 | 209.290 | 207.521 |
| Average | 211.681 | 212.375 | 211.019 | 210.189 | 211.566 | 212.369 | 211.670 | 211.937 | 210.601 | 212.221 | 211.405 |
| Max | 213.295 | 214.321 | 213.324 | 213.588 | 212.745 | 216.863 | 212.986 | 212.706 | 213.034 | 217.962 | 214.529 |
| UL | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 |

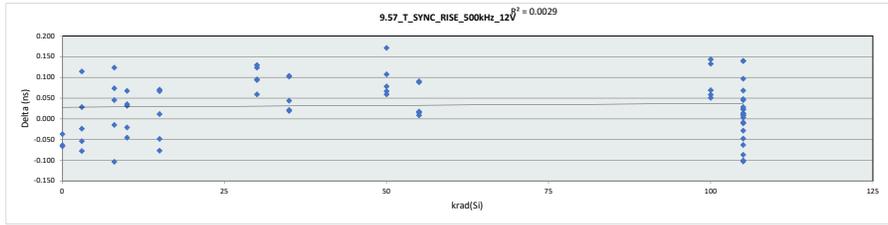


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

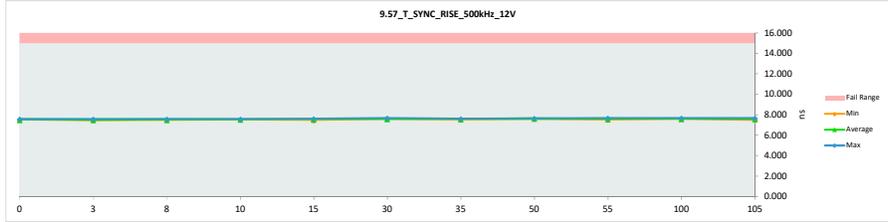
| 9.57 T SYNC RISE 500kHz 12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.578 | 7.514 | -0.064 |
| 0 | 992 | 7.594 | 7.532 | -0.062 |
| 0 | 993 | 7.615 | 7.580 | -0.035 |
| 3 | 1 | 7.497 | 7.475 | -0.022 |
| 3 | 2 | 7.468 | 7.584 | 0.116 |
| 3 | 3 | 7.566 | 7.490 | -0.076 |
| 3 | 4 | 7.533 | 7.481 | -0.052 |
| 3 | 5 | 7.524 | 7.554 | 0.030 |
| 8 | 6 | 7.494 | 7.541 | 0.047 |
| 8 | 7 | 7.586 | 7.484 | -0.102 |
| 8 | 8 | 7.489 | 7.564 | 0.075 |
| 8 | 9 | 7.456 | 7.581 | 0.125 |
| 8 | 10 | 7.548 | 7.535 | -0.013 |
| 10 | 11 | 7.601 | 7.557 | -0.044 |
| 10 | 12 | 7.518 | 7.587 | 0.069 |
| 10 | 13 | 7.513 | 7.546 | 0.033 |
| 10 | 14 | 7.505 | 7.542 | 0.037 |
| 10 | 15 | 7.554 | 7.535 | -0.019 |
| 15 | 16 | 7.578 | 7.503 | -0.075 |
| 15 | 17 | 7.469 | 7.541 | 0.072 |
| 15 | 18 | 7.526 | 7.479 | -0.047 |
| 15 | 19 | 7.564 | 7.632 | 0.068 |
| 15 | 20 | 7.579 | 7.592 | 0.013 |
| 30 | 21 | 7.526 | 7.621 | 0.095 |
| 30 | 22 | 7.481 | 7.578 | 0.097 |
| 30 | 23 | 7.539 | 7.670 | 0.131 |
| 30 | 24 | 7.548 | 7.609 | 0.061 |
| 30 | 25 | 7.482 | 7.607 | 0.125 |
| 35 | 26 | 7.521 | 7.566 | 0.045 |
| 35 | 27 | 7.481 | 7.586 | 0.105 |
| 35 | 28 | 7.519 | 7.540 | 0.021 |
| 35 | 29 | 7.587 | 7.610 | 0.023 |
| 35 | 30 | 7.529 | 7.633 | 0.104 |
| 50 | 31 | 7.503 | 7.612 | 0.109 |
| 50 | 32 | 7.571 | 7.639 | 0.068 |
| 50 | 33 | 7.592 | 7.653 | 0.061 |
| 50 | 34 | 7.475 | 7.648 | 0.173 |
| 50 | 35 | 7.562 | 7.642 | 0.080 |
| 55 | 36 | 7.581 | 7.673 | 0.092 |
| 55 | 37 | 7.514 | 7.533 | 0.019 |
| 55 | 38 | 7.548 | 7.558 | 0.010 |
| 55 | 39 | 7.563 | 7.579 | 0.016 |
| 55 | 40 | 7.544 | 7.634 | 0.090 |
| 100 | 41 | 7.528 | 7.580 | 0.052 |
| 100 | 42 | 7.528 | 7.588 | 0.060 |
| 100 | 43 | 7.547 | 7.681 | 0.134 |
| 100 | 44 | 7.510 | 7.581 | 0.071 |
| 100 | 45 | 7.500 | 7.645 | 0.145 |
| 105 | 46 | 7.614 | 7.553 | -0.061 |
| 105 | 47 | 7.538 | 7.608 | 0.070 |
| 105 | 48 | 7.585 | 7.500 | -0.085 |
| 105 | 49 | 7.560 | 7.514 | -0.046 |
| 105 | 50 | 7.602 | 7.617 | 0.015 |
| 105 | 51 | 7.561 | 7.659 | 0.098 |
| 105 | 52 | 7.588 | 7.598 | 0.010 |
| 105 | 53 | 7.563 | 7.556 | -0.007 |
| 105 | 54 | 7.598 | 7.647 | 0.049 |
| 105 | 55 | 7.532 | 7.673 | 0.141 |
| 105 | 56 | 7.616 | 7.621 | 0.005 |
| 105 | 57 | 7.610 | 7.511 | -0.099 |
| 105 | 58 | 7.571 | 7.562 | -0.009 |
| 105 | 59 | 7.602 | 7.649 | 0.047 |
| 105 | 60 | 7.598 | 7.623 | 0.025 |
| 105 | 61 | 7.562 | 7.592 | 0.030 |
| 105 | 62 | 7.591 | 7.564 | -0.027 |
| 105 | 63 | 7.584 | 7.609 | 0.025 |
| 105 | 64 | 7.491 | 7.632 | 0.141 |
| 105 | 65 | 7.615 | 7.514 | -0.101 |
| 105 | 66 | 7.571 | 7.586 | 0.015 |
| 105 | 67 | 7.536 | 7.547 | 0.011 |
| | Max | 7.616 | 7.681 | 0.173 |
| | Average | 7.547 | 7.580 | 0.033 |
| | Min | 7.456 | 7.475 | -0.102 |
| | Std Dev | 0.042 | 0.053 | 0.068 |



| 9.57 T SYNC RISE 500kHz 12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.514 | 7.475 | 7.484 | 7.535 | 7.479 | 7.578 | 7.540 | 7.612 | 7.533 | 7.580 | 7.500 |
| Average | 7.542 | 7.517 | 7.541 | 7.553 | 7.549 | 7.617 | 7.587 | 7.639 | 7.595 | 7.615 | 7.588 |
| Max | 7.580 | 7.584 | 7.581 | 7.587 | 7.632 | 7.670 | 7.633 | 7.653 | 7.673 | 7.681 | 7.673 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

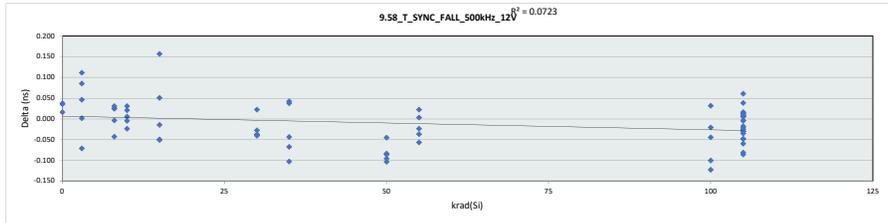


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

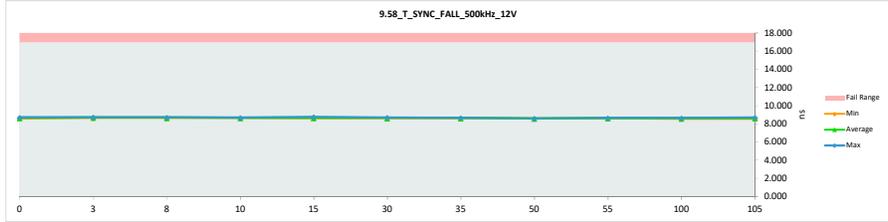
| 9.58 T SYNC FALL 500kHz 12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.700 | 8.718 | 0.018 |
| 0 | 992 | 8.639 | 8.676 | 0.037 |
| 0 | 993 | 8.565 | 8.604 | 0.039 |
| 3 | 1 | 8.644 | 8.731 | 0.087 |
| 3 | 2 | 8.725 | 8.655 | -0.070 |
| 3 | 3 | 8.631 | 8.744 | 0.113 |
| 3 | 4 | 8.678 | 8.681 | 0.003 |
| 3 | 5 | 8.651 | 8.699 | 0.048 |
| 8 | 6 | 8.687 | 8.719 | 0.032 |
| 8 | 7 | 8.647 | 8.645 | -0.002 |
| 8 | 8 | 8.661 | 8.688 | 0.027 |
| 8 | 9 | 8.697 | 8.656 | -0.041 |
| 8 | 10 | 8.662 | 8.688 | 0.026 |
| 10 | 11 | 8.678 | 8.685 | 0.007 |
| 10 | 12 | 8.669 | 8.666 | -0.003 |
| 10 | 13 | 8.636 | 8.668 | 0.032 |
| 10 | 14 | 8.628 | 8.650 | 0.022 |
| 10 | 15 | 8.714 | 8.692 | -0.022 |
| 15 | 16 | 8.682 | 8.669 | -0.013 |
| 15 | 17 | 8.703 | 8.655 | -0.048 |
| 15 | 18 | 8.616 | 8.774 | 0.158 |
| 15 | 19 | 8.598 | 8.650 | 0.052 |
| 15 | 20 | 8.678 | 8.629 | -0.049 |
| 30 | 21 | 8.692 | 8.656 | -0.036 |
| 30 | 22 | 8.733 | 8.643 | -0.090 |
| 30 | 23 | 8.659 | 8.633 | -0.026 |
| 30 | 24 | 8.676 | 8.700 | 0.024 |
| 30 | 25 | 8.664 | 8.625 | -0.039 |
| 35 | 26 | 8.627 | 8.671 | 0.044 |
| 35 | 27 | 8.682 | 8.640 | -0.042 |
| 35 | 28 | 8.733 | 8.667 | -0.066 |
| 35 | 29 | 8.616 | 8.655 | 0.039 |
| 35 | 30 | 8.725 | 8.624 | -0.101 |
| 50 | 31 | 8.695 | 8.601 | -0.094 |
| 50 | 32 | 8.684 | 8.582 | -0.102 |
| 50 | 33 | 8.667 | 8.585 | -0.082 |
| 50 | 34 | 8.640 | 8.596 | -0.044 |
| 50 | 35 | 8.698 | 8.614 | -0.084 |
| 55 | 36 | 8.646 | 8.651 | 0.005 |
| 55 | 37 | 8.662 | 8.640 | -0.022 |
| 55 | 38 | 8.639 | 8.663 | 0.024 |
| 55 | 39 | 8.668 | 8.613 | -0.055 |
| 55 | 40 | 8.673 | 8.638 | -0.035 |
| 100 | 41 | 8.648 | 8.605 | -0.043 |
| 100 | 42 | 8.654 | 8.635 | -0.019 |
| 100 | 43 | 8.684 | 8.563 | -0.121 |
| 100 | 44 | 8.623 | 8.656 | 0.033 |
| 100 | 45 | 8.732 | 8.633 | -0.099 |
| 105 | 46 | 8.635 | 8.642 | 0.007 |
| 105 | 47 | 8.655 | 8.652 | -0.003 |
| 105 | 48 | 8.657 | 8.675 | 0.018 |
| 105 | 49 | 8.642 | 8.682 | 0.040 |
| 105 | 50 | 8.616 | 8.623 | 0.007 |
| 105 | 51 | 8.700 | 8.616 | -0.084 |
| 105 | 52 | 8.601 | 8.612 | 0.011 |
| 105 | 53 | 8.647 | 8.600 | -0.047 |
| 105 | 54 | 8.636 | 8.634 | -0.002 |
| 105 | 55 | 8.653 | 8.669 | 0.016 |
| 105 | 56 | 8.665 | 8.637 | -0.028 |
| 105 | 57 | 8.638 | 8.700 | 0.062 |
| 105 | 58 | 8.598 | 8.569 | -0.029 |
| 105 | 59 | 8.629 | 8.582 | -0.047 |
| 105 | 60 | 8.599 | 8.614 | 0.015 |
| 105 | 61 | 8.614 | 8.624 | 0.010 |
| 105 | 62 | 8.642 | 8.618 | -0.024 |
| 105 | 63 | 8.685 | 8.627 | -0.058 |
| 105 | 64 | 8.664 | 8.630 | -0.034 |
| 105 | 65 | 8.641 | 8.625 | -0.016 |
| 105 | 66 | 8.674 | 8.594 | -0.080 |
| 105 | 67 | 8.685 | 8.665 | -0.020 |
| 105 | 68 | 8.733 | 8.774 | 0.158 |
| 105 | 69 | 8.659 | 8.647 | -0.012 |
| 105 | 70 | 8.565 | 8.563 | -0.121 |
| 105 | 71 | 0.034 | 0.041 | 0.052 |



| 9.58 T SYNC FALL 500kHz 12V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.604 | 8.655 | 8.645 | 8.650 | 8.629 | 8.625 | 8.624 | 8.582 | 8.613 | 8.563 | 8.569 |
| Average | 8.666 | 8.702 | 8.679 | 8.672 | 8.675 | 8.651 | 8.651 | 8.596 | 8.641 | 8.618 | 8.631 |
| Max | 8.718 | 8.744 | 8.719 | 8.692 | 8.774 | 8.700 | 8.671 | 8.614 | 8.663 | 8.656 | 8.700 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

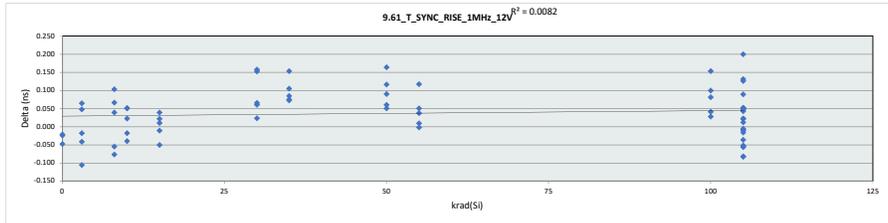


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

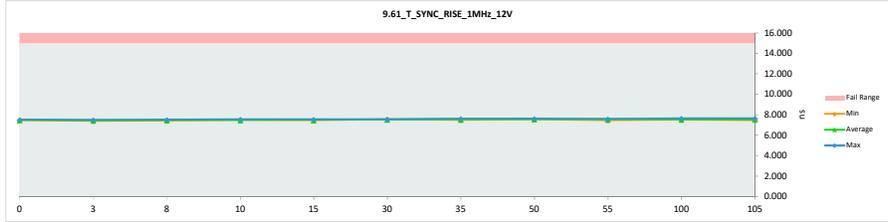
| 9.61 T SYNC RISE 1MHz 12V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.489 | 7.467 | -0.022 |
| 0 | 992 | 7.525 | 7.505 | -0.020 |
| 0 | 993 | 7.574 | 7.528 | -0.046 |
| 3 | 1 | 7.460 | 7.420 | -0.040 |
| 3 | 2 | 7.444 | 7.510 | 0.066 |
| 3 | 3 | 7.546 | 7.442 | -0.104 |
| 3 | 4 | 7.448 | 7.432 | -0.016 |
| 3 | 5 | 7.450 | 7.500 | 0.050 |
| 8 | 6 | 7.470 | 7.511 | 0.041 |
| 8 | 7 | 7.517 | 7.442 | -0.075 |
| 8 | 8 | 7.449 | 7.517 | 0.068 |
| 8 | 9 | 7.425 | 7.530 | 0.105 |
| 8 | 10 | 7.519 | 7.466 | -0.053 |
| 10 | 11 | 7.541 | 7.503 | -0.038 |
| 10 | 12 | 7.496 | 7.548 | 0.052 |
| 10 | 13 | 7.435 | 7.488 | 0.053 |
| 10 | 14 | 7.460 | 7.484 | 0.024 |
| 10 | 15 | 7.517 | 7.501 | -0.016 |
| 10 | 16 | 7.523 | 7.474 | -0.049 |
| 15 | 17 | 7.432 | 7.473 | 0.041 |
| 15 | 18 | 7.474 | 7.486 | 0.012 |
| 15 | 19 | 7.553 | 7.576 | 0.023 |
| 15 | 20 | 7.527 | 7.518 | -0.009 |
| 30 | 21 | 7.486 | 7.553 | 0.067 |
| 30 | 22 | 7.411 | 7.570 | 0.159 |
| 30 | 23 | 7.511 | 7.573 | 0.062 |
| 30 | 24 | 7.526 | 7.551 | 0.025 |
| 30 | 25 | 7.421 | 7.575 | 0.154 |
| 35 | 26 | 7.430 | 7.516 | 0.086 |
| 35 | 27 | 7.414 | 7.521 | 0.107 |
| 35 | 28 | 7.420 | 7.497 | 0.077 |
| 35 | 29 | 7.521 | 7.595 | 0.074 |
| 35 | 30 | 7.454 | 7.609 | 0.155 |
| 50 | 31 | 7.436 | 7.601 | 0.165 |
| 50 | 32 | 7.532 | 7.594 | 0.062 |
| 50 | 33 | 7.529 | 7.621 | 0.092 |
| 50 | 34 | 7.463 | 7.581 | 0.118 |
| 50 | 35 | 7.524 | 7.576 | 0.052 |
| 55 | 36 | 7.554 | 7.593 | 0.039 |
| 55 | 37 | 7.471 | 7.471 | 0.000 |
| 55 | 38 | 7.496 | 7.548 | 0.052 |
| 55 | 39 | 7.535 | 7.546 | 0.011 |
| 55 | 40 | 7.462 | 7.581 | 0.119 |
| 100 | 41 | 7.485 | 7.528 | 0.043 |
| 100 | 42 | 7.474 | 7.575 | 0.101 |
| 100 | 43 | 7.487 | 7.642 | 0.155 |
| 100 | 44 | 7.501 | 7.530 | 0.029 |
| 100 | 45 | 7.476 | 7.559 | 0.083 |
| 105 | 46 | 7.562 | 7.512 | -0.050 |
| 105 | 47 | 7.515 | 7.568 | 0.053 |
| 105 | 48 | 7.525 | 7.473 | -0.052 |
| 105 | 49 | 7.511 | 7.476 | -0.035 |
| 105 | 50 | 7.547 | 7.571 | 0.024 |
| 105 | 51 | 7.520 | 7.611 | 0.091 |
| 105 | 52 | 7.537 | 7.560 | 0.023 |
| 105 | 53 | 7.526 | 7.519 | -0.007 |
| 105 | 54 | 7.522 | 7.650 | 0.128 |
| 105 | 55 | 7.474 | 7.607 | 0.133 |
| 105 | 56 | 7.585 | 7.571 | -0.014 |
| 105 | 57 | 7.553 | 7.472 | -0.081 |
| 105 | 58 | 7.522 | 7.518 | -0.004 |
| 105 | 59 | 7.549 | 7.598 | 0.049 |
| 105 | 60 | 7.543 | 7.587 | 0.044 |
| 105 | 61 | 7.532 | 7.583 | 0.051 |
| 105 | 62 | 7.521 | 7.513 | -0.008 |
| 105 | 63 | 7.540 | 7.594 | 0.054 |
| 105 | 64 | 7.384 | 7.585 | 0.201 |
| 105 | 65 | 7.571 | 7.491 | -0.080 |
| 105 | 66 | 7.518 | 7.532 | 0.014 |
| 105 | 67 | 7.533 | 7.478 | -0.055 |
| | Max | 7.585 | 7.650 | 0.201 |
| | Average | 7.498 | 7.536 | 0.037 |
| | Min | 7.384 | 7.420 | -0.104 |
| | Std Dev | 0.046 | 0.053 | 0.067 |



| 9.61 T SYNC RISE 1MHz 12V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 15 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.467 | 7.420 | 7.442 | 7.484 | 7.473 | 7.551 | 7.497 | 7.576 | 7.471 | 7.528 | 7.472 |
| Average | 7.500 | 7.461 | 7.493 | 7.505 | 7.505 | 7.564 | 7.548 | 7.595 | 7.548 | 7.567 | 7.549 |
| Max | 7.528 | 7.510 | 7.530 | 7.548 | 7.576 | 7.575 | 7.609 | 7.621 | 7.593 | 7.642 | 7.650 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

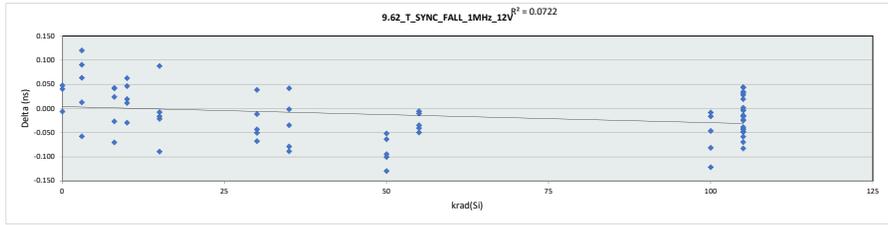


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

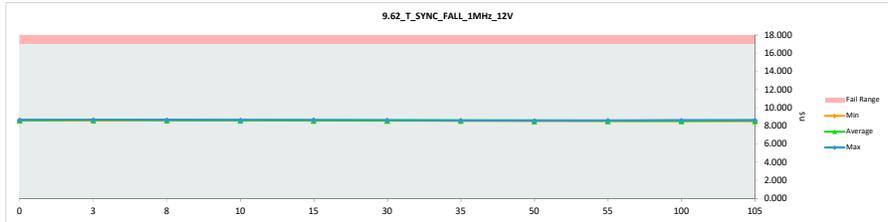
| 9.62 T SYNC FALL 1MHz 12V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.628 | 8.677 | 0.049 |
| 0 | 992 | 8.600 | 8.642 | 0.042 |
| 0 | 993 | 8.582 | 8.577 | -0.005 |
| 3 | 1 | 8.602 | 8.667 | 0.065 |
| 3 | 2 | 8.656 | 8.600 | -0.056 |
| 3 | 3 | 8.570 | 8.691 | 0.121 |
| 3 | 4 | 8.643 | 8.657 | 0.014 |
| 3 | 5 | 8.582 | 8.674 | 0.092 |
| 8 | 6 | 8.619 | 8.644 | 0.025 |
| 8 | 7 | 8.647 | 8.622 | -0.025 |
| 8 | 8 | 8.620 | 8.664 | 0.044 |
| 8 | 9 | 8.679 | 8.610 | -0.069 |
| 8 | 10 | 8.608 | 8.651 | 0.043 |
| 10 | 11 | 8.613 | 8.634 | 0.021 |
| 10 | 12 | 8.619 | 8.632 | 0.013 |
| 10 | 13 | 8.589 | 8.653 | 0.064 |
| 10 | 14 | 8.564 | 8.612 | 0.048 |
| 10 | 15 | 8.684 | 8.656 | -0.028 |
| 15 | 16 | 8.631 | 8.616 | -0.015 |
| 15 | 17 | 8.679 | 8.591 | -0.088 |
| 15 | 18 | 8.582 | 8.671 | 0.089 |
| 15 | 19 | 8.615 | 8.595 | -0.020 |
| 15 | 20 | 8.622 | 8.616 | -0.006 |
| 30 | 21 | 8.643 | 8.577 | -0.066 |
| 30 | 22 | 8.626 | 8.616 | -0.010 |
| 30 | 23 | 8.639 | 8.590 | -0.049 |
| 30 | 24 | 8.616 | 8.656 | 0.040 |
| 30 | 25 | 8.621 | 8.579 | -0.042 |
| 35 | 26 | 8.608 | 8.608 | 0.000 |
| 35 | 27 | 8.661 | 8.584 | -0.077 |
| 35 | 28 | 8.638 | 8.605 | -0.033 |
| 35 | 29 | 8.571 | 8.614 | 0.043 |
| 35 | 30 | 8.663 | 8.576 | -0.087 |
| 50 | 31 | 8.636 | 8.574 | -0.062 |
| 50 | 32 | 8.654 | 8.555 | -0.099 |
| 50 | 33 | 8.670 | 8.542 | -0.128 |
| 50 | 34 | 8.602 | 8.552 | -0.050 |
| 50 | 35 | 8.658 | 8.565 | -0.093 |
| 55 | 36 | 8.576 | 8.567 | -0.009 |
| 55 | 37 | 8.615 | 8.582 | -0.033 |
| 55 | 38 | 8.599 | 8.595 | -0.004 |
| 55 | 39 | 8.622 | 8.574 | -0.048 |
| 55 | 40 | 8.633 | 8.594 | -0.039 |
| 100 | 41 | 8.592 | 8.547 | -0.045 |
| 100 | 42 | 8.627 | 8.620 | -0.007 |
| 100 | 43 | 8.608 | 8.528 | -0.080 |
| 100 | 44 | 8.636 | 8.621 | -0.015 |
| 100 | 45 | 8.695 | 8.575 | -0.120 |
| 105 | 46 | 8.615 | 8.600 | -0.015 |
| 105 | 47 | 8.613 | 8.591 | -0.022 |
| 105 | 48 | 8.574 | 8.619 | 0.045 |
| 105 | 49 | 8.608 | 8.637 | 0.029 |
| 105 | 50 | 8.573 | 8.594 | 0.021 |
| 105 | 51 | 8.655 | 8.574 | -0.081 |
| 105 | 52 | 8.572 | 8.559 | -0.013 |
| 105 | 53 | 8.623 | 8.576 | -0.047 |
| 105 | 54 | 8.606 | 8.559 | -0.047 |
| 105 | 55 | 8.602 | 8.635 | 0.033 |
| 105 | 56 | 8.608 | 8.606 | -0.002 |
| 105 | 57 | 8.595 | 8.631 | 0.036 |
| 105 | 58 | 8.558 | 8.516 | -0.042 |
| 105 | 59 | 8.584 | 8.516 | -0.068 |
| 105 | 60 | 8.544 | 8.589 | 0.045 |
| 105 | 61 | 8.597 | 8.595 | -0.002 |
| 105 | 62 | 8.577 | 8.563 | -0.014 |
| 105 | 63 | 8.626 | 8.589 | -0.037 |
| 105 | 64 | 8.598 | 8.575 | -0.023 |
| 105 | 65 | 8.632 | 8.575 | -0.057 |
| 105 | 66 | 8.603 | 8.562 | -0.041 |
| 105 | 67 | 8.611 | 8.614 | 0.003 |
| Max | | 8.695 | 8.691 | 0.121 |
| Average | | 8.616 | 8.602 | -0.014 |
| Min | | 8.544 | 8.516 | -0.128 |
| Std Dev | | 0.032 | 0.039 | 0.052 |



| 9.62 T SYNC FALL 1MHz 12V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.577 | 8.600 | 8.610 | 8.612 | 8.591 | 8.577 | 8.576 | 8.542 | 8.567 | 8.528 | 8.516 |
| Average | 8.632 | 8.658 | 8.638 | 8.637 | 8.618 | 8.604 | 8.597 | 8.558 | 8.582 | 8.578 | 8.585 |
| Max | 8.677 | 8.691 | 8.664 | 8.656 | 8.671 | 8.656 | 8.614 | 8.574 | 8.595 | 8.621 | 8.637 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

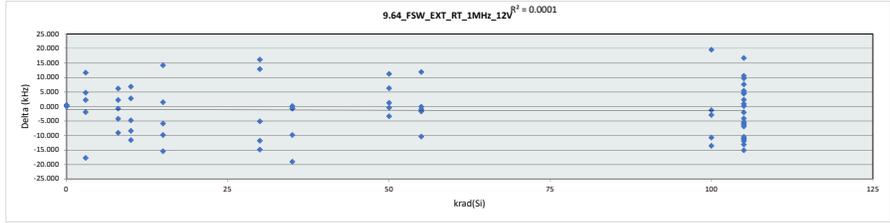


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

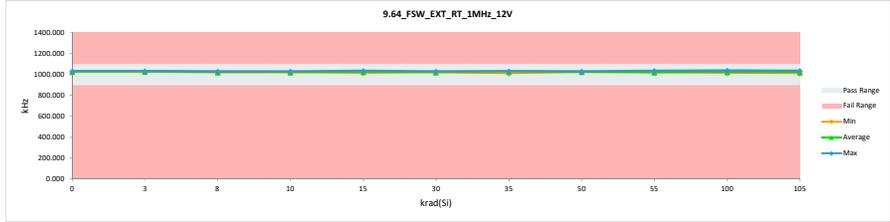
| 9.64 FSW_EXT_RT_1MHz_12V | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 1100 |
| Min Limit | 900 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|----------|----------|---------|
| 0 | 991 | 1028.770 | 1029.425 | 0.655 |
| 0 | 992 | 1024.788 | 1025.465 | 0.677 |
| 0 | 993 | 1034.916 | 1035.149 | 0.233 |
| 3 | 1 | 1034.472 | 1032.788 | -1.684 |
| 3 | 2 | 1022.840 | 1024.706 | 11.866 |
| 3 | 3 | 1023.503 | 1028.524 | 5.021 |
| 3 | 4 | 1029.992 | 1032.423 | 2.431 |
| 3 | 5 | 1044.308 | 1026.849 | -17.459 |
| 8 | 6 | 1033.156 | 1024.381 | -8.775 |
| 8 | 7 | 1024.679 | 1020.635 | -4.044 |
| 8 | 8 | 1018.982 | 1021.499 | 2.517 |
| 8 | 9 | 1024.768 | 1031.133 | 6.365 |
| 8 | 10 | 1029.633 | 1029.111 | -0.522 |
| 10 | 11 | 1025.974 | 1021.387 | -4.587 |
| 10 | 12 | 1031.897 | 1020.566 | -11.331 |
| 10 | 13 | 1034.635 | 1026.432 | -8.203 |
| 10 | 14 | 1025.124 | 1032.244 | 7.120 |
| 10 | 15 | 1024.106 | 1027.154 | 3.048 |
| 15 | 16 | 1031.779 | 1026.118 | -5.661 |
| 15 | 17 | 1024.480 | 1038.854 | 14.374 |
| 15 | 18 | 1033.543 | 1018.327 | -15.216 |
| 15 | 19 | 1036.865 | 1027.253 | -9.612 |
| 15 | 20 | 1026.926 | 1028.630 | 1.704 |
| 30 | 21 | 1017.808 | 1030.876 | 13.068 |
| 30 | 22 | 1031.205 | 1019.636 | -11.569 |
| 30 | 23 | 1017.220 | 1033.646 | 16.426 |
| 30 | 24 | 1030.468 | 1025.633 | -4.835 |
| 30 | 25 | 1038.216 | 1023.605 | -14.611 |
| 30 | 26 | 1039.294 | 1029.704 | -9.590 |
| 35 | 27 | 1036.281 | 1035.769 | -0.512 |
| 35 | 28 | 1032.533 | 1032.190 | -0.343 |
| 35 | 29 | 1034.097 | 1015.281 | -18.816 |
| 35 | 30 | 1028.519 | 1028.884 | 0.365 |
| 50 | 31 | 1032.080 | 1028.931 | -3.149 |
| 50 | 32 | 1025.391 | 1025.214 | -0.177 |
| 50 | 33 | 1023.967 | 1025.407 | 1.440 |
| 50 | 34 | 1021.321 | 1027.800 | 6.479 |
| 50 | 35 | 1020.715 | 1032.190 | 11.475 |
| 55 | 36 | 1030.736 | 1020.637 | -10.099 |
| 55 | 37 | 1027.822 | 1039.909 | 12.087 |
| 55 | 38 | 1021.104 | 1019.642 | -1.462 |
| 55 | 39 | 1020.392 | 1020.514 | 0.122 |
| 55 | 40 | 1026.025 | 1025.347 | -0.678 |
| 100 | 41 | 1032.166 | 1029.450 | -2.716 |
| 100 | 42 | 1030.526 | 1017.194 | -13.332 |
| 100 | 43 | 1024.954 | 1023.926 | -1.028 |
| 100 | 44 | 1039.481 | 1029.006 | -10.475 |
| 100 | 45 | 1020.598 | 1040.415 | 19.817 |
| 105 | 46 | 1027.244 | 1027.653 | 0.409 |
| 105 | 47 | 1027.900 | 1021.774 | -6.126 |
| 105 | 48 | 1031.576 | 1024.949 | -6.627 |
| 105 | 49 | 1022.347 | 1024.934 | 2.587 |
| 105 | 50 | 1035.924 | 1025.627 | -10.297 |
| 105 | 51 | 1025.748 | 1026.888 | 1.140 |
| 105 | 52 | 1023.271 | 1027.926 | 4.655 |
| 105 | 53 | 1029.558 | 1034.482 | 4.924 |
| 105 | 54 | 1038.028 | 1025.116 | -12.912 |
| 105 | 55 | 1032.755 | 1021.127 | -11.628 |
| 105 | 56 | 1016.171 | 1027.015 | 10.844 |
| 105 | 57 | 1031.888 | 1021.119 | -10.769 |
| 105 | 58 | 1029.089 | 1025.250 | -3.839 |
| 105 | 59 | 1028.897 | 1034.520 | 5.623 |
| 105 | 60 | 1028.918 | 1023.837 | -5.081 |
| 105 | 61 | 1028.767 | 1013.958 | -14.809 |
| 105 | 62 | 1032.554 | 1026.931 | -5.623 |
| 105 | 63 | 1020.068 | 1018.276 | -1.792 |
| 105 | 64 | 1041.161 | 1030.063 | -11.098 |
| 105 | 65 | 1024.055 | 1033.941 | 9.886 |
| 105 | 66 | 1021.325 | 1038.235 | 16.910 |
| 105 | 67 | 1025.510 | 1033.402 | 7.892 |
| Max | | 1044.308 | 1040.415 | 19.817 |
| Average | | 1028.512 | 1027.241 | -1.270 |
| Min | | 1016.171 | 1013.958 | -18.816 |
| Std Dev | | 6.099 | 5.824 | 8.851 |



| 9.64 FSW_EXT_RT_1MHz_12V | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 1100 |
| Min Limit | 900 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LL | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 |
| Min | 1025.465 | 1026.849 | 1020.635 | 1020.566 | 1018.327 | 1019.636 | 1015.281 | 1025.214 | 1019.642 | 1017.194 | 1013.958 |
| Average | 1030.013 | 1031.058 | 1025.352 | 1025.557 | 1027.836 | 1026.679 | 1028.366 | 1027.908 | 1025.210 | 1027.998 | 1026.683 |
| Max | 1035.149 | 1034.706 | 1031.133 | 1032.244 | 1038.854 | 1033.646 | 1035.769 | 1032.190 | 1039.909 | 1040.415 | 1038.235 |
| UL | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 |

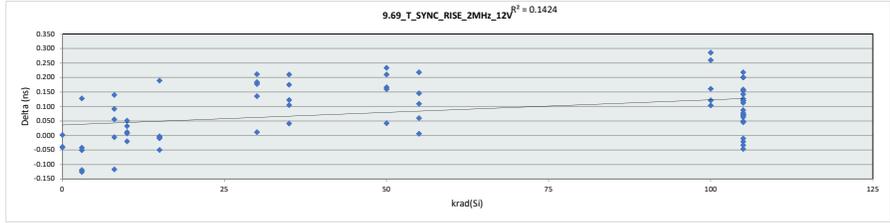


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

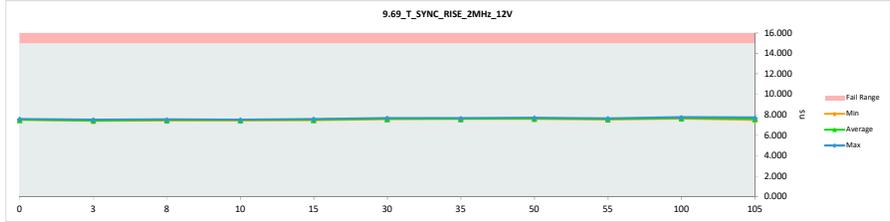
| 9.69 T SYNC RISE 2MHz 12V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.504 | 7.508 | 0.004 |
| 0 | 992 | 7.542 | 7.503 | -0.039 |
| 0 | 993 | 7.633 | 7.597 | -0.036 |
| 3 | 1 | 7.450 | 7.410 | -0.040 |
| 3 | 2 | 7.398 | 7.528 | 0.130 |
| 3 | 3 | 7.559 | 7.443 | -0.116 |
| 3 | 4 | 7.534 | 7.411 | -0.123 |
| 3 | 5 | 7.521 | 7.473 | -0.048 |
| 8 | 6 | 7.448 | 7.506 | 0.058 |
| 8 | 7 | 7.548 | 7.434 | -0.114 |
| 8 | 8 | 7.408 | 7.502 | 0.094 |
| 8 | 9 | 7.399 | 7.541 | 0.142 |
| 8 | 10 | 7.472 | 7.459 | -0.003 |
| 10 | 11 | 7.458 | 7.493 | 0.035 |
| 10 | 12 | 7.478 | 7.531 | 0.053 |
| 10 | 13 | 7.462 | 7.444 | -0.018 |
| 10 | 14 | 7.469 | 7.483 | 0.014 |
| 10 | 15 | 7.474 | 7.484 | 0.010 |
| 15 | 16 | 7.513 | 7.466 | -0.047 |
| 15 | 17 | 7.381 | 7.572 | 0.191 |
| 15 | 18 | 7.474 | 7.467 | -0.007 |
| 15 | 19 | 7.602 | 7.596 | -0.006 |
| 15 | 20 | 7.503 | 7.503 | 0.000 |
| 30 | 21 | 7.458 | 7.644 | 0.186 |
| 30 | 22 | 7.404 | 7.642 | 0.138 |
| 30 | 23 | 7.478 | 7.691 | 0.213 |
| 30 | 24 | 7.539 | 7.553 | 0.014 |
| 30 | 25 | 7.443 | 7.623 | 0.180 |
| 35 | 26 | 7.495 | 7.602 | 0.107 |
| 35 | 27 | 7.470 | 7.647 | 0.177 |
| 35 | 28 | 7.447 | 7.572 | 0.125 |
| 35 | 29 | 7.588 | 7.632 | 0.044 |
| 35 | 30 | 7.456 | 7.668 | 0.212 |
| 50 | 31 | 7.433 | 7.601 | 0.168 |
| 50 | 32 | 7.501 | 7.663 | 0.162 |
| 50 | 33 | 7.477 | 7.689 | 0.212 |
| 50 | 34 | 7.469 | 7.704 | 0.235 |
| 50 | 35 | 7.526 | 7.581 | 0.045 |
| 55 | 36 | 7.526 | 7.535 | 0.009 |
| 55 | 37 | 7.473 | 7.535 | 0.062 |
| 55 | 38 | 7.458 | 7.606 | 0.148 |
| 55 | 39 | 7.504 | 7.616 | 0.112 |
| 55 | 40 | 7.441 | 7.661 | 0.220 |
| 100 | 41 | 7.484 | 7.647 | 0.163 |
| 100 | 42 | 7.495 | 7.619 | 0.124 |
| 100 | 43 | 7.474 | 7.762 | 0.288 |
| 100 | 44 | 7.611 | 7.717 | 0.106 |
| 100 | 45 | 7.447 | 7.709 | 0.262 |
| 105 | 46 | 7.575 | 7.647 | 0.072 |
| 105 | 47 | 7.526 | 7.649 | 0.123 |
| 105 | 48 | 7.531 | 7.582 | 0.051 |
| 105 | 49 | 7.514 | 7.594 | 0.080 |
| 105 | 50 | 7.594 | 7.667 | 0.073 |
| 105 | 51 | 7.523 | 7.725 | 0.202 |
| 105 | 52 | 7.489 | 7.618 | 0.129 |
| 105 | 53 | 7.543 | 7.667 | 0.124 |
| 105 | 54 | 7.548 | 7.709 | 0.161 |
| 105 | 55 | 7.484 | 7.704 | 0.220 |
| 105 | 56 | 7.553 | 7.697 | 0.144 |
| 105 | 57 | 7.594 | 7.550 | -0.044 |
| 105 | 58 | 7.566 | 7.631 | 0.065 |
| 105 | 59 | 7.528 | 7.618 | 0.090 |
| 105 | 60 | 7.545 | 7.660 | 0.115 |
| 105 | 61 | 7.541 | 7.589 | 0.048 |
| 105 | 62 | 7.594 | 7.563 | -0.031 |
| 105 | 63 | 7.507 | 7.499 | -0.008 |
| 105 | 64 | 7.567 | 7.548 | -0.019 |
| 105 | 65 | 7.548 | 7.621 | 0.073 |
| 105 | 66 | 7.484 | 7.687 | 0.203 |
| 105 | 67 | 7.494 | 7.651 | 0.157 |
| Max | | 7.633 | 7.762 | 0.288 |
| Average | | 7.504 | 7.588 | 0.084 |
| Min | | 7.381 | 7.410 | -0.123 |
| Std Dev | | 0.054 | 0.086 | 0.096 |



| 9.69 T SYNC RISE 2MHz 12V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 15 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.503 | 7.410 | 7.434 | 7.444 | 7.466 | 7.553 | 7.572 | 7.581 | 7.535 | 7.619 | 7.499 |
| Average | 7.536 | 7.453 | 7.490 | 7.487 | 7.521 | 7.631 | 7.624 | 7.648 | 7.591 | 7.691 | 7.631 |
| Max | 7.597 | 7.528 | 7.541 | 7.531 | 7.596 | 7.691 | 7.668 | 7.704 | 7.661 | 7.762 | 7.725 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

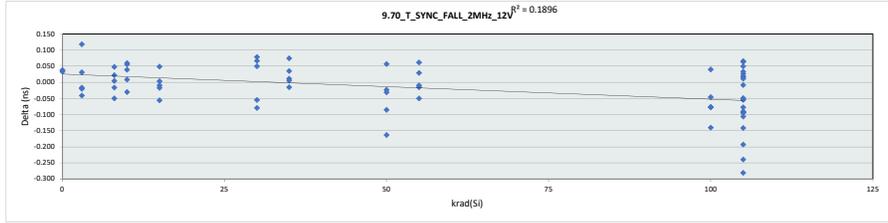


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

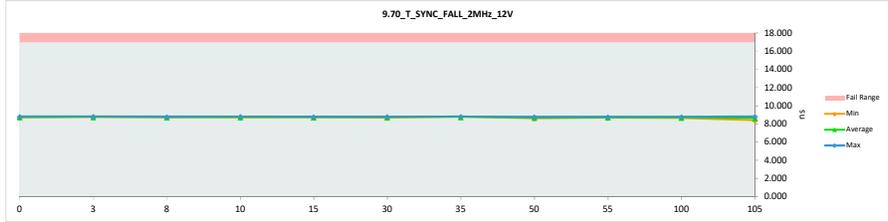
| 9.70 T SYNC FALL 2MHz 12V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.793 | 8.833 | 0.040 |
| 0 | 992 | 8.733 | 8.772 | 0.039 |
| 0 | 993 | 8.679 | 8.714 | 0.035 |
| 3 | 1 | 8.754 | 8.787 | 0.033 |
| 3 | 2 | 8.818 | 8.779 | -0.039 |
| 3 | 3 | 8.707 | 8.827 | 0.120 |
| 3 | 4 | 8.799 | 8.785 | -0.014 |
| 3 | 5 | 8.803 | 8.785 | -0.018 |
| 8 | 6 | 8.763 | 8.787 | 0.024 |
| 8 | 7 | 8.747 | 8.753 | 0.006 |
| 8 | 8 | 8.751 | 8.801 | 0.050 |
| 8 | 9 | 8.790 | 8.742 | -0.048 |
| 8 | 10 | 8.772 | 8.758 | -0.014 |
| 10 | 11 | 8.746 | 8.756 | 0.010 |
| 10 | 12 | 8.753 | 8.725 | -0.028 |
| 10 | 13 | 8.748 | 8.806 | 0.058 |
| 10 | 14 | 8.724 | 8.765 | 0.041 |
| 10 | 15 | 8.764 | 8.826 | 0.062 |
| 10 | 16 | 8.771 | 8.776 | 0.005 |
| 15 | 17 | 8.751 | 8.744 | -0.007 |
| 15 | 18 | 8.738 | 8.789 | 0.051 |
| 15 | 19 | 8.794 | 8.740 | -0.054 |
| 15 | 20 | 8.726 | 8.711 | -0.015 |
| 30 | 21 | 8.713 | 8.793 | 0.080 |
| 30 | 22 | 8.742 | 8.689 | -0.053 |
| 30 | 23 | 8.720 | 8.789 | 0.069 |
| 30 | 24 | 8.758 | 8.810 | 0.052 |
| 30 | 25 | 8.762 | 8.685 | -0.077 |
| 35 | 26 | 8.741 | 8.817 | 0.076 |
| 35 | 27 | 8.775 | 8.812 | 0.037 |
| 35 | 28 | 8.781 | 8.794 | 0.013 |
| 35 | 29 | 8.775 | 8.782 | 0.007 |
| 35 | 30 | 8.817 | 8.804 | -0.013 |
| 50 | 31 | 8.768 | 8.685 | -0.083 |
| 50 | 32 | 8.751 | 8.730 | -0.021 |
| 50 | 33 | 8.757 | 8.728 | -0.029 |
| 50 | 34 | 8.714 | 8.773 | 0.059 |
| 50 | 35 | 8.784 | 8.623 | -0.161 |
| 55 | 36 | 8.726 | 8.713 | -0.013 |
| 55 | 37 | 8.726 | 8.678 | -0.048 |
| 55 | 38 | 8.726 | 8.790 | 0.064 |
| 55 | 39 | 8.713 | 8.706 | -0.007 |
| 55 | 40 | 8.754 | 8.785 | 0.031 |
| 100 | 41 | 8.745 | 8.671 | -0.074 |
| 100 | 42 | 8.758 | 8.800 | 0.042 |
| 100 | 43 | 8.774 | 8.699 | -0.075 |
| 100 | 44 | 8.809 | 8.670 | -0.139 |
| 100 | 45 | 8.777 | 8.733 | -0.044 |
| 105 | 46 | 8.692 | 8.640 | -0.052 |
| 105 | 47 | 8.692 | 8.617 | -0.075 |
| 105 | 48 | 8.781 | 8.677 | -0.104 |
| 105 | 49 | 8.672 | 8.700 | 0.028 |
| 105 | 50 | 8.730 | 8.638 | -0.092 |
| 105 | 51 | 8.760 | 8.620 | -0.140 |
| 105 | 52 | 8.682 | 8.717 | 0.035 |
| 105 | 53 | 8.772 | 8.682 | -0.090 |
| 105 | 54 | 8.739 | 8.648 | -0.091 |
| 105 | 55 | 8.767 | 8.720 | -0.047 |
| 105 | 56 | 8.733 | 8.727 | -0.006 |
| 105 | 57 | 8.742 | 8.808 | 0.066 |
| 105 | 58 | 8.698 | 8.718 | 0.020 |
| 105 | 59 | 8.700 | 8.612 | -0.088 |
| 105 | 60 | 8.696 | 8.748 | 0.052 |
| 105 | 61 | 8.740 | 8.753 | 0.013 |
| 105 | 62 | 8.732 | 8.495 | -0.237 |
| 105 | 63 | 8.688 | 8.409 | -0.279 |
| 105 | 64 | 8.784 | 8.593 | -0.191 |
| 105 | 65 | 8.749 | 8.817 | 0.068 |
| 105 | 66 | 8.681 | 8.700 | 0.019 |
| 105 | 67 | 8.752 | 8.700 | -0.052 |
| Max | | 8.818 | 8.833 | 0.120 |
| Average | | 8.747 | 8.729 | -0.017 |
| Min | | 8.672 | 8.409 | -0.279 |
| Std Dev | | 0.035 | 0.077 | 0.075 |



| 9.70 T SYNC FALL 2MHz 12V | |
|---------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.714 | 8.779 | 8.742 | 8.725 | 8.711 | 8.685 | 8.782 | 8.623 | 8.678 | 8.670 | 8.409 |
| Average | 8.773 | 8.793 | 8.768 | 8.776 | 8.752 | 8.753 | 8.802 | 8.708 | 8.734 | 8.715 | 8.670 |
| Max | 8.833 | 8.827 | 8.801 | 8.826 | 8.789 | 8.810 | 8.817 | 8.773 | 8.790 | 8.800 | 8.817 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

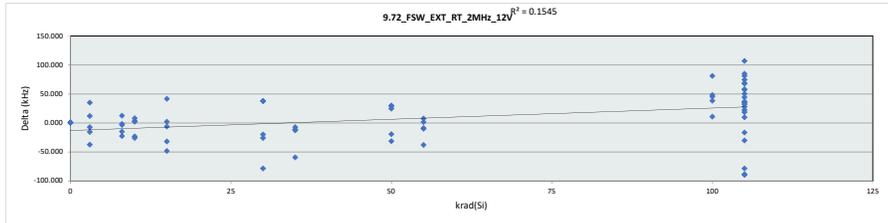


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

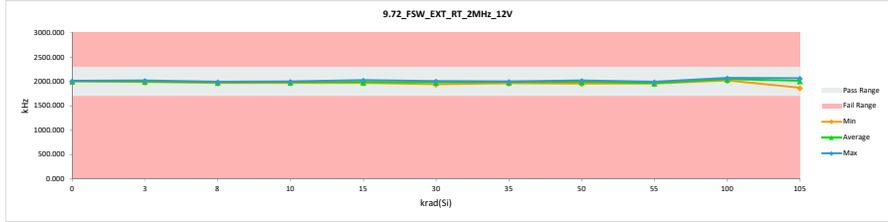
| 9.72 FSW_EXT_RT_2MHz_12V | |
|--------------------------|--------|
| Test Site | Tester |
| Test Number | Unit |
| Max Limit | kHz |
| Min Limit | kHz |
| | 2300 |
| | 1700 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|----------|----------|---------|
| 0 | 991 | 2000.822 | 2002.883 | 2.061 |
| 0 | 992 | 2002.639 | 2004.833 | 2.194 |
| 0 | 993 | 2014.258 | 2015.287 | 1.029 |
| 3 | 1 | 2009.464 | 2003.753 | -5.711 |
| 3 | 2 | 1983.636 | 2019.768 | 36.132 |
| 3 | 3 | 1993.145 | 2006.389 | 13.244 |
| 3 | 4 | 2022.150 | 2007.810 | -14.340 |
| 3 | 5 | 2025.183 | 1989.064 | -36.119 |
| 8 | 6 | 2004.385 | 1983.257 | -21.128 |
| 8 | 7 | 1989.286 | 1988.812 | -0.474 |
| 8 | 8 | 1990.764 | 1988.742 | -2.022 |
| 8 | 9 | 1982.702 | 1996.481 | 13.779 |
| 8 | 10 | 1986.185 | 1972.717 | -13.468 |
| 10 | 11 | 1979.551 | 1983.881 | 4.330 |
| 10 | 12 | 1994.508 | 1970.154 | -24.354 |
| 10 | 13 | 2012.294 | 1990.386 | -21.908 |
| 10 | 14 | 1993.802 | 2003.130 | 9.328 |
| 10 | 15 | 1988.398 | 1991.981 | 3.583 |
| 15 | 16 | 2001.014 | 1995.998 | -5.016 |
| 15 | 17 | 1985.543 | 2028.237 | 42.694 |
| 15 | 18 | 2000.409 | 1969.922 | -30.487 |
| 15 | 19 | 2029.185 | 1982.230 | -46.955 |
| 15 | 20 | 1976.400 | 1979.886 | 3.486 |
| 30 | 21 | 1961.080 | 1999.903 | 38.823 |
| 30 | 22 | 2023.592 | 1946.439 | -77.153 |
| 30 | 23 | 1969.999 | 2009.243 | 39.244 |
| 30 | 24 | 2001.250 | 1982.439 | -18.811 |
| 30 | 25 | 2000.320 | 1976.017 | -24.303 |
| 35 | 26 | 2013.155 | 2002.939 | -10.216 |
| 35 | 27 | 2016.536 | 2006.036 | -10.500 |
| 35 | 28 | 2003.757 | 1998.084 | -5.683 |
| 35 | 29 | 2019.585 | 1961.536 | -58.049 |
| 35 | 30 | 2006.874 | 1995.566 | -11.308 |
| 50 | 31 | 2006.240 | 1988.444 | -17.796 |
| 50 | 32 | 1986.795 | 2012.481 | 25.686 |
| 50 | 33 | 1982.173 | 2012.310 | 30.137 |
| 50 | 34 | 1991.191 | 2022.320 | 31.129 |
| 50 | 35 | 1986.246 | 1956.312 | -29.934 |
| 55 | 36 | 1997.330 | 1960.632 | -36.698 |
| 55 | 37 | 1969.917 | 1961.113 | -8.804 |
| 55 | 38 | 1985.799 | 1988.746 | 2.947 |
| 55 | 39 | 1966.419 | 1958.864 | -7.555 |
| 55 | 40 | 1989.934 | 1998.588 | 8.654 |
| 100 | 41 | 2006.262 | 2055.718 | 49.456 |
| 100 | 42 | 2009.559 | 2021.950 | 12.391 |
| 100 | 43 | 1992.776 | 2039.208 | 46.432 |
| 100 | 44 | 2032.837 | 2072.405 | 39.568 |
| 100 | 45 | 1973.425 | 2055.463 | 82.038 |
| 105 | 46 | 1981.627 | 2050.304 | 68.677 |
| 105 | 47 | 1978.633 | 1963.482 | -15.151 |
| 105 | 48 | 2002.100 | 2047.562 | 45.462 |
| 105 | 49 | 1961.598 | 2047.869 | 86.271 |
| 105 | 50 | 2002.316 | 2038.443 | 36.127 |
| 105 | 51 | 1988.337 | 2040.124 | 51.787 |
| 105 | 52 | 1984.601 | 2043.121 | 58.520 |
| 105 | 53 | 1998.607 | 2068.140 | 69.533 |
| 105 | 54 | 2016.713 | 2055.048 | 38.335 |
| 105 | 55 | 2011.893 | 2041.189 | 29.296 |
| 105 | 56 | 1971.220 | 2046.776 | 75.556 |
| 105 | 57 | 2003.004 | 2026.861 | 23.857 |
| 105 | 58 | 2007.580 | 2041.103 | 33.523 |
| 105 | 59 | 1992.157 | 1963.224 | -28.933 |
| 105 | 60 | 1994.308 | 2014.052 | 19.744 |
| 105 | 61 | 1997.402 | 2008.555 | 11.153 |
| 105 | 62 | 2004.748 | 1917.867 | -86.881 |
| 105 | 63 | 1959.804 | 1871.479 | -88.325 |
| 105 | 64 | 2006.043 | 1928.913 | -77.130 |
| 105 | 65 | 1981.732 | 2041.062 | 59.330 |
| 105 | 66 | 1961.617 | 2069.571 | 107.954 |
| 105 | 67 | 1984.400 | 2066.901 | 82.501 |
| | Max | 2032.837 | 2072.405 | 107.934 |
| | Average | 1994.989 | 2003.574 | 8.585 |
| | Min | 1959.804 | 1871.479 | -88.325 |
| | Std Dev | 16.961 | 38.050 | 41.358 |



| 9.72 FSW_EXT_RT_2MHz_12V | |
|--------------------------|--------|
| Test Site | Tester |
| Test Number | Unit |
| Max Limit | kHz |
| Min Limit | kHz |
| | 2300 |
| | 1700 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LL | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 |
| Min | 2002.883 | 1989.064 | 1972.717 | 1970.154 | 1969.922 | 1946.439 | 1961.536 | 1956.312 | 1958.864 | 2021.950 | 1871.479 |
| Average | 2007.668 | 2005.357 | 1986.002 | 1987.906 | 1991.255 | 1982.808 | 1992.832 | 1998.373 | 1973.589 | 2048.949 | 2017.811 |
| Max | 2015.287 | 2019.768 | 1996.481 | 2003.130 | 2028.237 | 2009.243 | 2006.036 | 2022.320 | 1998.588 | 2072.405 | 2069.571 |
| UL | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 |

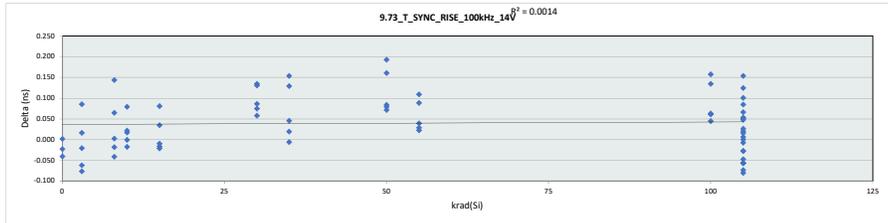


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

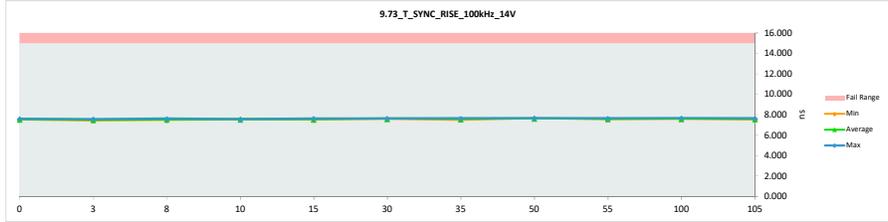
| 9.73 T SYNC RISE 100kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.556 | 7.559 | 0.003 |
| 0 | 992 | 7.571 | 7.532 | -0.039 |
| 0 | 993 | 7.642 | 7.621 | -0.021 |
| 3 | 1 | 7.532 | 7.457 | -0.075 |
| 3 | 2 | 7.491 | 7.578 | 0.087 |
| 3 | 3 | 7.573 | 7.513 | -0.060 |
| 3 | 4 | 7.496 | 7.477 | -0.019 |
| 3 | 5 | 7.564 | 7.582 | 0.018 |
| 8 | 6 | 7.537 | 7.541 | 0.004 |
| 8 | 7 | 7.541 | 7.501 | -0.040 |
| 8 | 8 | 7.510 | 7.576 | 0.066 |
| 8 | 9 | 7.486 | 7.631 | 0.145 |
| 8 | 10 | 7.546 | 7.529 | -0.017 |
| 10 | 11 | 7.572 | 7.556 | -0.016 |
| 10 | 12 | 7.508 | 7.589 | 0.081 |
| 10 | 13 | 7.523 | 7.546 | 0.023 |
| 10 | 14 | 7.539 | 7.558 | 0.019 |
| 10 | 15 | 7.562 | 7.563 | 0.001 |
| 15 | 16 | 7.580 | 7.572 | -0.008 |
| 15 | 17 | 7.486 | 7.568 | 0.082 |
| 15 | 18 | 7.546 | 7.531 | -0.015 |
| 15 | 19 | 7.608 | 7.644 | 0.036 |
| 15 | 20 | 7.587 | 7.567 | -0.020 |
| 30 | 21 | 7.551 | 7.639 | 0.088 |
| 30 | 22 | 7.487 | 7.623 | 0.136 |
| 30 | 23 | 7.570 | 7.646 | 0.076 |
| 30 | 24 | 7.561 | 7.620 | 0.059 |
| 30 | 25 | 7.505 | 7.637 | 0.132 |
| 35 | 26 | 7.558 | 7.579 | 0.021 |
| 35 | 27 | 7.501 | 7.632 | 0.131 |
| 35 | 28 | 7.519 | 7.515 | -0.004 |
| 35 | 29 | 7.597 | 7.644 | 0.047 |
| 35 | 30 | 7.503 | 7.658 | 0.155 |
| 50 | 31 | 7.476 | 7.670 | 0.194 |
| 50 | 32 | 7.579 | 7.652 | 0.073 |
| 50 | 33 | 7.572 | 7.657 | 0.085 |
| 50 | 34 | 7.498 | 7.660 | 0.162 |
| 50 | 35 | 7.567 | 7.648 | 0.081 |
| 55 | 36 | 7.629 | 7.659 | 0.030 |
| 55 | 37 | 7.547 | 7.571 | 0.024 |
| 55 | 38 | 7.541 | 7.631 | 0.090 |
| 55 | 39 | 7.570 | 7.611 | 0.041 |
| 55 | 40 | 7.522 | 7.633 | 0.111 |
| 100 | 41 | 7.550 | 7.612 | 0.062 |
| 100 | 42 | 7.553 | 7.618 | 0.065 |
| 100 | 43 | 7.520 | 7.679 | 0.159 |
| 100 | 44 | 7.550 | 7.596 | 0.046 |
| 100 | 45 | 7.506 | 7.642 | 0.136 |
| 105 | 46 | 7.634 | 7.579 | -0.055 |
| 105 | 47 | 7.562 | 7.648 | 0.086 |
| 105 | 48 | 7.578 | 7.532 | -0.046 |
| 105 | 49 | 7.595 | 7.540 | -0.055 |
| 105 | 50 | 7.647 | 7.592 | -0.055 |
| 105 | 51 | 7.531 | 7.657 | 0.126 |
| 105 | 52 | 7.561 | 7.610 | 0.049 |
| 105 | 53 | 7.582 | 7.584 | 0.002 |
| 105 | 54 | 7.593 | 7.646 | 0.053 |
| 105 | 55 | 7.541 | 7.643 | 0.102 |
| 105 | 56 | 7.624 | 7.641 | 0.017 |
| 105 | 57 | 7.625 | 7.546 | -0.079 |
| 105 | 58 | 7.620 | 7.594 | -0.026 |
| 105 | 59 | 7.614 | 7.642 | 0.028 |
| 105 | 60 | 7.607 | 7.615 | 0.008 |
| 105 | 61 | 7.562 | 7.617 | 0.055 |
| 105 | 62 | 7.591 | 7.585 | -0.006 |
| 105 | 63 | 7.605 | 7.627 | 0.022 |
| 105 | 64 | 7.488 | 7.643 | 0.155 |
| 105 | 65 | 7.615 | 7.543 | -0.072 |
| 105 | 66 | 7.549 | 7.617 | 0.068 |
| 105 | 67 | 7.605 | 7.579 | -0.026 |
| Max | | 7.647 | 7.679 | 0.194 |
| Average | | 7.557 | 7.597 | 0.040 |
| Min | | 7.476 | 7.457 | -0.019 |
| Std Dev | | 0.043 | 0.050 | 0.067 |



| 9.73 T SYNC RISE 100kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 15 ns |
| Min Limit | ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 7.532 | 7.457 | 7.501 | 7.546 | 7.531 | 7.620 | 7.515 | 7.648 | 7.571 | 7.596 | 7.532 |
| Average | 7.571 | 7.521 | 7.556 | 7.562 | 7.576 | 7.633 | 7.606 | 7.657 | 7.621 | 7.629 | 7.604 |
| Max | 7.621 | 7.582 | 7.631 | 7.589 | 7.644 | 7.646 | 7.658 | 7.670 | 7.659 | 7.679 | 7.657 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

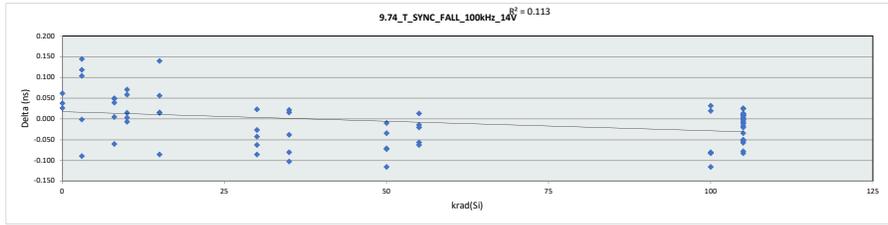


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

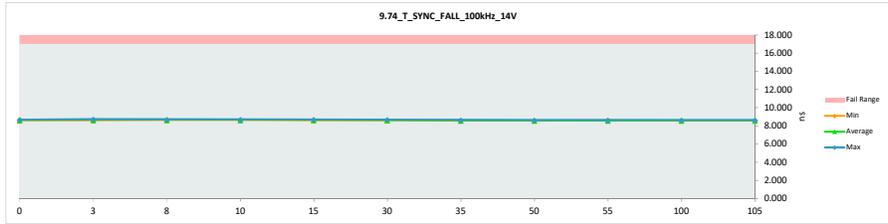
| 9.74 T SYNC FALL 100kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.661 | 8.700 | 0.039 |
| 0 | 992 | 8.623 | 8.686 | 0.063 |
| 0 | 993 | 8.575 | 8.603 | 0.028 |
| 3 | 1 | 8.588 | 8.693 | 0.105 |
| 3 | 2 | 8.709 | 8.621 | -0.088 |
| 3 | 3 | 8.588 | 8.734 | 0.146 |
| 3 | 4 | 8.683 | 8.683 | 0.000 |
| 3 | 5 | 8.596 | 8.716 | 0.120 |
| 8 | 6 | 8.652 | 8.703 | 0.051 |
| 8 | 7 | 8.660 | 8.666 | 0.006 |
| 8 | 8 | 8.661 | 8.712 | 0.051 |
| 8 | 9 | 8.704 | 8.645 | -0.059 |
| 8 | 10 | 8.652 | 8.693 | 0.041 |
| 10 | 11 | 8.627 | 8.643 | 0.016 |
| 10 | 12 | 8.667 | 8.672 | 0.005 |
| 10 | 13 | 8.622 | 8.694 | 0.072 |
| 10 | 14 | 8.609 | 8.669 | 0.060 |
| 10 | 15 | 8.708 | 8.703 | -0.005 |
| 15 | 16 | 8.658 | 8.674 | 0.016 |
| 15 | 17 | 8.709 | 8.625 | -0.084 |
| 15 | 18 | 8.587 | 8.728 | 0.141 |
| 15 | 19 | 8.595 | 8.653 | 0.058 |
| 15 | 20 | 8.651 | 8.668 | 0.017 |
| 30 | 21 | 8.679 | 8.618 | -0.061 |
| 30 | 22 | 8.664 | 8.639 | -0.025 |
| 30 | 23 | 8.655 | 8.614 | -0.041 |
| 30 | 24 | 8.674 | 8.699 | 0.025 |
| 30 | 25 | 8.690 | 8.606 | -0.084 |
| 35 | 26 | 8.635 | 8.658 | 0.023 |
| 35 | 27 | 8.669 | 8.632 | -0.037 |
| 35 | 28 | 8.693 | 8.614 | -0.079 |
| 35 | 29 | 8.610 | 8.627 | 0.017 |
| 35 | 30 | 8.697 | 8.596 | -0.101 |
| 50 | 31 | 8.648 | 8.640 | -0.008 |
| 50 | 32 | 8.665 | 8.594 | -0.071 |
| 50 | 33 | 8.676 | 8.606 | -0.070 |
| 50 | 34 | 8.624 | 8.591 | -0.033 |
| 50 | 35 | 8.692 | 8.578 | -0.114 |
| 55 | 36 | 8.618 | 8.605 | -0.013 |
| 55 | 37 | 8.663 | 8.644 | -0.019 |
| 55 | 38 | 8.639 | 8.654 | 0.015 |
| 55 | 39 | 8.679 | 8.618 | -0.061 |
| 55 | 40 | 8.660 | 8.605 | -0.055 |
| 100 | 41 | 8.657 | 8.578 | -0.079 |
| 100 | 42 | 8.639 | 8.660 | 0.021 |
| 100 | 43 | 8.651 | 8.570 | -0.081 |
| 100 | 44 | 8.625 | 8.658 | 0.033 |
| 100 | 45 | 8.712 | 8.598 | -0.114 |
| 105 | 46 | 8.644 | 8.629 | -0.015 |
| 105 | 47 | 8.647 | 8.639 | -0.008 |
| 105 | 48 | 8.640 | 8.655 | 0.015 |
| 105 | 49 | 8.637 | 8.663 | 0.026 |
| 105 | 50 | 8.603 | 8.616 | 0.013 |
| 105 | 51 | 8.679 | 8.602 | -0.077 |
| 105 | 52 | 8.635 | 8.616 | -0.019 |
| 105 | 53 | 8.658 | 8.577 | -0.081 |
| 105 | 54 | 8.618 | 8.569 | -0.049 |
| 105 | 55 | 8.652 | 8.653 | 0.001 |
| 105 | 56 | 8.629 | 8.629 | 0.000 |
| 105 | 57 | 8.629 | 8.656 | 0.027 |
| 105 | 58 | 8.616 | 8.583 | -0.033 |
| 105 | 59 | 8.633 | 8.577 | -0.056 |
| 105 | 60 | 8.595 | 8.607 | 0.012 |
| 105 | 61 | 8.607 | 8.616 | 0.009 |
| 105 | 62 | 8.622 | 8.631 | 0.009 |
| 105 | 63 | 8.638 | 8.629 | -0.009 |
| 105 | 64 | 8.640 | 8.645 | 0.005 |
| 105 | 65 | 8.653 | 8.602 | -0.051 |
| 105 | 66 | 8.653 | 8.603 | -0.050 |
| 105 | 67 | 8.652 | 8.648 | -0.004 |
| Max | | 8.712 | 8.734 | 0.146 |
| Average | | 8.647 | 8.639 | -0.008 |
| Min | | 8.575 | 8.569 | -0.114 |
| Std Dev | | 0.033 | 0.041 | 0.057 |



| 9.74 T SYNC FALL 100kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 8.603 | 8.621 | 8.645 | 8.643 | 8.625 | 8.606 | 8.596 | 8.578 | 8.605 | 8.570 | 8.569 |
| Average | 8.663 | 8.689 | 8.684 | 8.676 | 8.670 | 8.635 | 8.625 | 8.602 | 8.625 | 8.613 | 8.620 |
| Max | 8.700 | 8.734 | 8.712 | 8.703 | 8.728 | 8.699 | 8.658 | 8.640 | 8.654 | 8.660 | 8.663 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

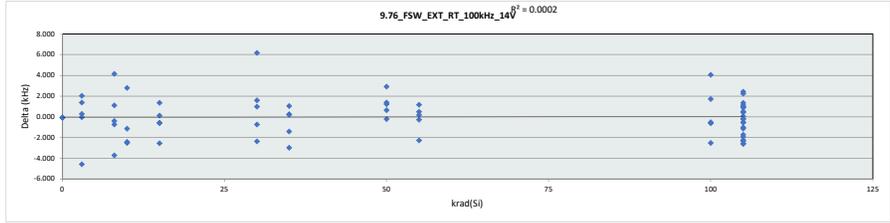


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

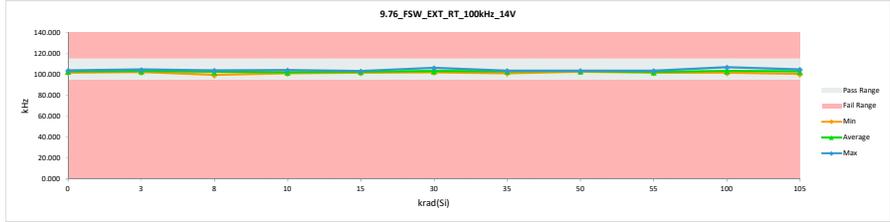
| 9.76 FSW_EXT_RT_100kHz_14V | |
|----------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 115 |
| Min Limit | 95 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 103.216 | 103.232 | 0.016 |
| 0 | 992 | 102.002 | 102.002 | 0.000 |
| 0 | 993 | 104.208 | 104.187 | -0.021 |
| 3 | 1 | 102.769 | 104.865 | 2.096 |
| 3 | 2 | 102.778 | 104.211 | 1.433 |
| 3 | 3 | 103.075 | 103.121 | 0.046 |
| 3 | 4 | 102.556 | 102.894 | 0.338 |
| 3 | 5 | 106.890 | 102.387 | -4.503 |
| 8 | 6 | 104.260 | 103.597 | -0.663 |
| 8 | 7 | 103.373 | 99.722 | -3.651 |
| 8 | 8 | 98.134 | 102.326 | 4.192 |
| 8 | 9 | 102.947 | 104.118 | 1.171 |
| 8 | 10 | 104.439 | 104.093 | -0.346 |
| 10 | 11 | 104.082 | 101.725 | -2.357 |
| 10 | 12 | 103.927 | 101.468 | -2.459 |
| 10 | 13 | 104.026 | 101.649 | -2.377 |
| 10 | 14 | 101.594 | 104.444 | 2.850 |
| 10 | 15 | 102.774 | 101.708 | -1.066 |
| 15 | 16 | 104.260 | 101.786 | -2.474 |
| 15 | 17 | 102.011 | 103.415 | 1.404 |
| 15 | 18 | 103.045 | 102.541 | -0.504 |
| 15 | 19 | 104.106 | 103.584 | -0.522 |
| 15 | 20 | 103.356 | 103.532 | 0.176 |
| 30 | 21 | 101.269 | 102.925 | 1.656 |
| 30 | 22 | 101.322 | 102.364 | 1.042 |
| 30 | 23 | 100.342 | 106.570 | 6.228 |
| 30 | 24 | 103.831 | 103.167 | -0.664 |
| 30 | 25 | 104.768 | 102.467 | -2.301 |
| 35 | 26 | 103.480 | 103.795 | 0.315 |
| 35 | 27 | 102.588 | 103.698 | 1.110 |
| 35 | 28 | 104.892 | 103.556 | -1.336 |
| 35 | 29 | 104.219 | 101.303 | -2.916 |
| 35 | 30 | 103.216 | 103.486 | 0.270 |
| 50 | 31 | 102.888 | 103.583 | 0.695 |
| 50 | 32 | 102.219 | 103.499 | 1.280 |
| 50 | 33 | 103.673 | 103.536 | -0.137 |
| 50 | 34 | 99.803 | 102.777 | 2.974 |
| 50 | 35 | 102.274 | 103.733 | 1.459 |
| 55 | 36 | 104.085 | 101.877 | -2.208 |
| 55 | 37 | 103.982 | 103.766 | -0.216 |
| 55 | 38 | 101.685 | 102.231 | 0.546 |
| 55 | 39 | 101.579 | 102.814 | 1.235 |
| 55 | 40 | 101.570 | 101.814 | 0.244 |
| 100 | 41 | 104.305 | 101.846 | -2.459 |
| 100 | 42 | 102.484 | 101.947 | -0.537 |
| 100 | 43 | 101.732 | 103.524 | 1.792 |
| 100 | 44 | 103.610 | 103.146 | -0.464 |
| 100 | 45 | 102.975 | 107.094 | 4.119 |
| 105 | 46 | 103.609 | 104.189 | 0.580 |
| 105 | 47 | 103.445 | 103.560 | 0.115 |
| 105 | 48 | 103.031 | 102.575 | -0.456 |
| 105 | 49 | 102.752 | 102.589 | -0.163 |
| 105 | 50 | 106.594 | 104.090 | -2.504 |
| 105 | 51 | 103.574 | 104.063 | 0.489 |
| 105 | 52 | 101.913 | 102.938 | 1.025 |
| 105 | 53 | 103.494 | 104.447 | 0.953 |
| 105 | 54 | 103.806 | 101.953 | -1.853 |
| 105 | 55 | 103.696 | 102.635 | -1.061 |
| 105 | 56 | 101.363 | 103.681 | 2.318 |
| 105 | 57 | 103.719 | 101.556 | -2.163 |
| 105 | 58 | 103.241 | 102.289 | -0.952 |
| 105 | 59 | 103.115 | 104.132 | 1.017 |
| 105 | 60 | 103.733 | 103.624 | -0.109 |
| 105 | 61 | 103.144 | 100.597 | -2.547 |
| 105 | 62 | 103.597 | 101.338 | -2.259 |
| 105 | 63 | 102.300 | 100.649 | -1.651 |
| 105 | 64 | 104.337 | 103.861 | -0.476 |
| 105 | 65 | 102.513 | 104.995 | 2.482 |
| 105 | 66 | 102.817 | 104.013 | 1.196 |
| 105 | 67 | 101.797 | 103.226 | 1.429 |
| Max | | 106.890 | 107.094 | 6.228 |
| Average | | 103.060 | 103.059 | -0.001 |
| Min | | 98.134 | 99.722 | -4.503 |
| Std Dev | | 1.344 | 1.255 | 1.908 |



| 9.76 FSW_EXT_RT_100kHz_1 | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 115 |
| Min Limit | 95 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 | 95.000 |
| Min | 102.002 | 102.387 | 99.722 | 101.468 | 101.786 | 102.364 | 101.303 | 102.777 | 101.814 | 101.846 | 100.597 |
| Average | 103.140 | 103.496 | 102.771 | 102.199 | 102.972 | 103.499 | 103.168 | 103.426 | 102.500 | 103.511 | 103.045 |
| Max | 104.187 | 104.865 | 104.118 | 104.444 | 103.584 | 106.570 | 103.795 | 103.733 | 103.766 | 107.094 | 104.995 |
| UL | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 | 115.000 |

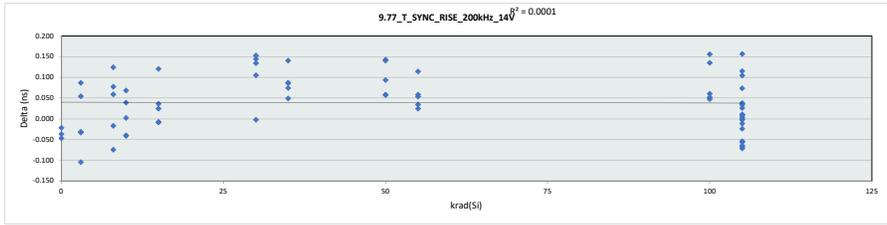


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

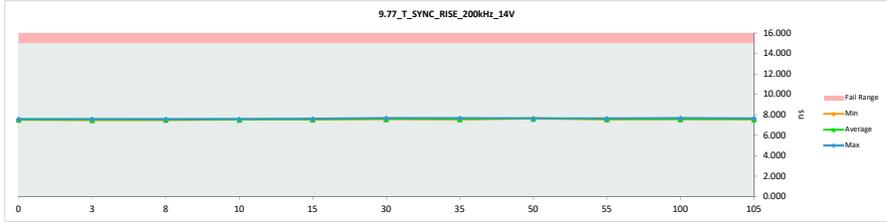
| 9.77 T SYNC RISE 200kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.515 | 7.515 | -0.035 |
| 0 | 992 | 7.597 | 7.552 | -0.045 |
| 0 | 993 | 7.613 | 7.593 | -0.020 |
| 3 | 1 | 7.514 | 7.484 | -0.030 |
| 3 | 2 | 7.485 | 7.573 | 0.088 |
| 3 | 3 | 7.602 | 7.499 | -0.103 |
| 3 | 4 | 7.521 | 7.490 | -0.031 |
| 3 | 5 | 7.543 | 7.599 | 0.056 |
| 8 | 6 | 7.496 | 7.557 | 0.061 |
| 8 | 7 | 7.564 | 7.491 | -0.073 |
| 8 | 8 | 7.488 | 7.567 | 0.079 |
| 8 | 9 | 7.454 | 7.580 | 0.126 |
| 8 | 10 | 7.555 | 7.540 | -0.015 |
| 10 | 11 | 7.611 | 7.573 | -0.038 |
| 10 | 12 | 7.521 | 7.591 | 0.070 |
| 10 | 13 | 7.506 | 7.547 | 0.041 |
| 10 | 14 | 7.550 | 7.554 | 0.004 |
| 10 | 15 | 7.581 | 7.542 | -0.039 |
| 15 | 16 | 7.566 | 7.550 | -0.006 |
| 15 | 17 | 7.461 | 7.583 | 0.122 |
| 15 | 18 | 7.542 | 7.535 | -0.007 |
| 15 | 19 | 7.602 | 7.628 | 0.026 |
| 15 | 20 | 7.569 | 7.607 | 0.038 |
| 30 | 21 | 7.521 | 7.628 | 0.107 |
| 30 | 22 | 7.470 | 7.616 | 0.146 |
| 30 | 23 | 7.555 | 7.691 | 0.136 |
| 30 | 24 | 7.581 | 7.580 | -0.001 |
| 30 | 25 | 7.477 | 7.631 | 0.154 |
| 35 | 26 | 7.533 | 7.584 | 0.051 |
| 35 | 27 | 7.501 | 7.577 | 0.076 |
| 35 | 28 | 7.459 | 7.547 | 0.088 |
| 35 | 29 | 7.580 | 7.668 | 0.088 |
| 35 | 30 | 7.541 | 7.683 | 0.142 |
| 50 | 31 | 7.523 | 7.667 | 0.144 |
| 50 | 32 | 7.565 | 7.660 | 0.095 |
| 50 | 33 | 7.583 | 7.642 | 0.059 |
| 50 | 34 | 7.505 | 7.647 | 0.142 |
| 50 | 35 | 7.583 | 7.643 | 0.060 |
| 55 | 36 | 7.594 | 7.649 | 0.055 |
| 55 | 37 | 7.500 | 7.536 | 0.036 |
| 55 | 38 | 7.546 | 7.606 | 0.060 |
| 55 | 39 | 7.584 | 7.610 | 0.026 |
| 55 | 40 | 7.530 | 7.646 | 0.116 |
| 100 | 41 | 7.538 | 7.600 | 0.062 |
| 100 | 42 | 7.521 | 7.570 | 0.049 |
| 100 | 43 | 7.537 | 7.694 | 0.157 |
| 100 | 44 | 7.536 | 7.590 | 0.054 |
| 100 | 45 | 7.482 | 7.619 | 0.137 |
| 105 | 46 | 7.614 | 7.561 | -0.053 |
| 105 | 47 | 7.560 | 7.635 | 0.075 |
| 105 | 48 | 7.630 | 7.560 | -0.070 |
| 105 | 49 | 7.555 | 7.555 | 0.000 |
| 105 | 50 | 7.616 | 7.615 | -0.001 |
| 105 | 51 | 7.588 | 7.616 | 0.028 |
| 105 | 52 | 7.565 | 7.604 | 0.039 |
| 105 | 53 | 7.593 | 7.598 | 0.005 |
| 105 | 54 | 7.617 | 7.656 | 0.039 |
| 105 | 55 | 7.534 | 7.651 | 0.117 |
| 105 | 56 | 7.654 | 7.600 | -0.054 |
| 105 | 57 | 7.608 | 7.542 | -0.066 |
| 105 | 58 | 7.602 | 7.580 | -0.022 |
| 105 | 59 | 7.635 | 7.670 | 0.035 |
| 105 | 60 | 7.617 | 7.629 | 0.012 |
| 105 | 61 | 7.585 | 7.596 | 0.011 |
| 105 | 62 | 7.593 | 7.583 | -0.010 |
| 105 | 63 | 7.558 | 7.664 | 0.106 |
| 105 | 64 | 7.501 | 7.659 | 0.158 |
| 105 | 65 | 7.617 | 7.554 | -0.063 |
| 105 | 66 | 7.569 | 7.569 | 0.000 |
| 105 | 67 | 7.596 | 7.543 | -0.053 |
| 105 | 68 | 7.654 | 7.694 | 0.158 |
| 105 | 69 | 7.555 | 7.594 | 0.039 |
| 105 | 70 | 7.454 | 7.484 | -0.103 |
| 105 | 71 | 0.047 | 0.050 | 0.067 |



| 9.77 T SYNC RISE 200kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 15 ns |
| Min Limit | ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 7.515 | 7.484 | 7.491 | 7.542 | 7.535 | 7.580 | 7.547 | 7.642 | 7.536 | 7.570 | 7.542 |
| Average | 7.553 | 7.529 | 7.547 | 7.561 | 7.583 | 7.629 | 7.612 | 7.652 | 7.609 | 7.615 | 7.602 |
| Max | 7.593 | 7.599 | 7.580 | 7.591 | 7.628 | 7.691 | 7.683 | 7.667 | 7.649 | 7.694 | 7.670 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

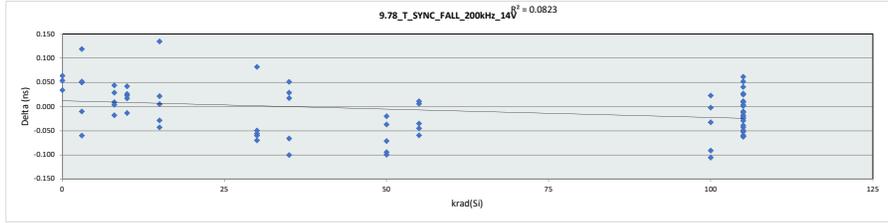


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

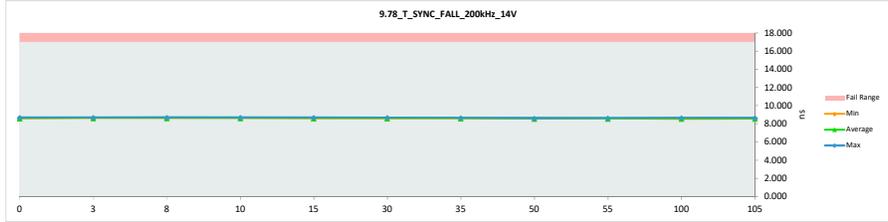
| 9.78 T SYNC FALL 200kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.649 | 8.714 | 0.065 |
| 0 | 992 | 8.616 | 8.651 | 0.035 |
| 0 | 993 | 8.546 | 8.601 | 0.055 |
| 3 | 1 | 8.659 | 8.710 | 0.051 |
| 3 | 2 | 8.636 | 8.636 | -0.059 |
| 3 | 3 | 8.609 | 8.729 | 0.120 |
| 3 | 4 | 8.674 | 8.665 | -0.009 |
| 3 | 5 | 8.630 | 8.683 | 0.053 |
| 8 | 6 | 8.674 | 8.704 | 0.030 |
| 8 | 7 | 8.646 | 8.651 | 0.005 |
| 8 | 8 | 8.651 | 8.696 | 0.045 |
| 8 | 9 | 8.692 | 8.675 | -0.017 |
| 8 | 10 | 8.655 | 8.665 | 0.010 |
| 10 | 11 | 8.613 | 8.640 | 0.027 |
| 10 | 12 | 8.669 | 8.693 | 0.024 |
| 10 | 13 | 8.639 | 8.682 | 0.043 |
| 10 | 14 | 8.614 | 8.632 | 0.018 |
| 10 | 15 | 8.729 | 8.717 | -0.012 |
| 15 | 16 | 8.675 | 8.648 | -0.027 |
| 15 | 17 | 8.693 | 8.651 | -0.042 |
| 15 | 18 | 8.582 | 8.718 | 0.136 |
| 15 | 19 | 8.605 | 8.611 | 0.006 |
| 15 | 20 | 8.637 | 8.660 | 0.023 |
| 30 | 21 | 8.681 | 8.633 | -0.048 |
| 30 | 22 | 8.671 | 8.616 | -0.055 |
| 30 | 23 | 8.674 | 8.605 | -0.069 |
| 30 | 24 | 8.626 | 8.709 | 0.083 |
| 30 | 25 | 8.668 | 8.609 | -0.059 |
| 35 | 26 | 8.633 | 8.685 | 0.052 |
| 35 | 27 | 8.653 | 8.672 | 0.019 |
| 35 | 28 | 8.702 | 8.637 | -0.065 |
| 35 | 29 | 8.606 | 8.636 | 0.030 |
| 35 | 30 | 8.712 | 8.613 | -0.099 |
| 50 | 31 | 8.636 | 8.600 | -0.036 |
| 50 | 32 | 8.686 | 8.593 | -0.093 |
| 50 | 33 | 8.682 | 8.584 | -0.098 |
| 50 | 34 | 8.645 | 8.626 | -0.019 |
| 50 | 35 | 8.684 | 8.614 | -0.070 |
| 55 | 36 | 8.614 | 8.626 | 0.012 |
| 55 | 37 | 8.647 | 8.613 | -0.034 |
| 55 | 38 | 8.641 | 8.648 | 0.007 |
| 55 | 39 | 8.656 | 8.612 | -0.044 |
| 55 | 40 | 8.680 | 8.622 | -0.058 |
| 100 | 41 | 8.625 | 8.594 | -0.031 |
| 100 | 42 | 8.659 | 8.683 | 0.024 |
| 100 | 43 | 8.655 | 8.565 | -0.090 |
| 100 | 44 | 8.647 | 8.646 | -0.001 |
| 100 | 45 | 8.708 | 8.604 | -0.104 |
| 105 | 46 | 8.637 | 8.614 | -0.023 |
| 105 | 47 | 8.638 | 8.621 | -0.017 |
| 105 | 48 | 8.650 | 8.678 | 0.028 |
| 105 | 49 | 8.612 | 8.675 | 0.063 |
| 105 | 50 | 8.603 | 8.656 | 0.053 |
| 105 | 51 | 8.692 | 8.631 | -0.061 |
| 105 | 52 | 8.607 | 8.611 | 0.004 |
| 105 | 53 | 8.669 | 8.608 | -0.061 |
| 105 | 54 | 8.636 | 8.598 | -0.038 |
| 105 | 55 | 8.665 | 8.677 | 0.012 |
| 105 | 56 | 8.659 | 8.648 | -0.011 |
| 105 | 57 | 8.625 | 8.651 | 0.026 |
| 105 | 58 | 8.620 | 8.578 | -0.042 |
| 105 | 59 | 8.630 | 8.579 | -0.051 |
| 105 | 60 | 8.571 | 8.613 | 0.042 |
| 105 | 61 | 8.607 | 8.617 | 0.010 |
| 105 | 62 | 8.609 | 8.589 | -0.020 |
| 105 | 63 | 8.668 | 8.640 | -0.028 |
| 105 | 64 | 8.656 | 8.608 | -0.048 |
| 105 | 65 | 8.619 | 8.621 | 0.002 |
| 105 | 66 | 8.632 | 8.574 | -0.058 |
| 105 | 67 | 8.652 | 8.643 | -0.009 |
| Max | 8.729 | 8.729 | 0.136 | |
| Average | 8.647 | 8.640 | -0.007 | |
| Min | 8.546 | 8.565 | -0.104 | |
| Std Dev | 0.034 | 0.040 | 0.051 | |



| 9.78 T SYNC FALL 200kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.601 | 8.636 | 8.651 | 8.632 | 8.611 | 8.605 | 8.613 | 8.584 | 8.612 | 8.565 | 8.574 |
| Average | 8.655 | 8.685 | 8.678 | 8.673 | 8.658 | 8.634 | 8.649 | 8.603 | 8.624 | 8.618 | 8.624 |
| Max | 8.714 | 8.729 | 8.704 | 8.717 | 8.718 | 8.709 | 8.685 | 8.626 | 8.648 | 8.683 | 8.678 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

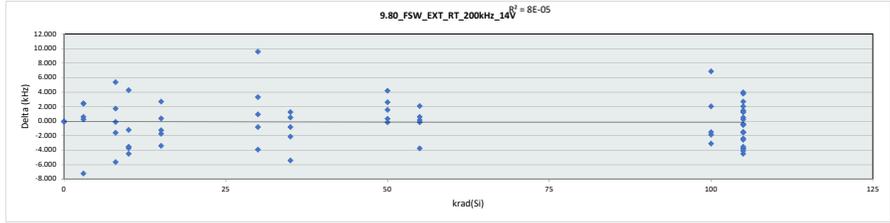


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

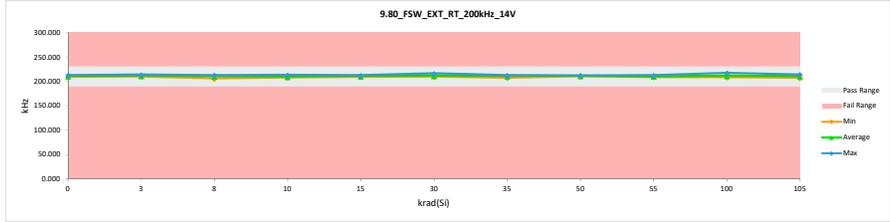
| 9.80 FSW_EXT_RT_200kHz_14V | |
|----------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 230 |
| Min Limit | 190 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 211.827 | 211.892 | 0.065 |
| 0 | 992 | 209.821 | 209.828 | 0.007 |
| 0 | 993 | 213.311 | 213.307 | -0.004 |
| 3 | 1 | 211.806 | 214.311 | 2.505 |
| 3 | 2 | 210.972 | 213.481 | 2.509 |
| 3 | 3 | 211.321 | 211.655 | 0.334 |
| 3 | 4 | 211.009 | 211.681 | 0.672 |
| 3 | 5 | 217.790 | 210.673 | -7.117 |
| 8 | 6 | 213.581 | 212.068 | -1.513 |
| 8 | 7 | 212.044 | 206.493 | -5.551 |
| 8 | 8 | 204.660 | 210.090 | 5.430 |
| 8 | 9 | 211.253 | 213.072 | 1.819 |
| 8 | 10 | 213.320 | 213.302 | -0.018 |
| 10 | 11 | 212.761 | 209.291 | -3.470 |
| 10 | 12 | 213.123 | 208.687 | -4.436 |
| 10 | 13 | 213.257 | 209.604 | -3.653 |
| 10 | 14 | 209.208 | 213.564 | 4.356 |
| 10 | 15 | 210.835 | 208.721 | -1.114 |
| 15 | 16 | 213.249 | 209.920 | -3.329 |
| 15 | 17 | 209.989 | 212.763 | 2.774 |
| 15 | 18 | 211.894 | 210.238 | -1.656 |
| 15 | 19 | 213.551 | 212.363 | -1.188 |
| 15 | 20 | 212.138 | 212.601 | 0.463 |
| 30 | 21 | 208.564 | 211.964 | 3.400 |
| 30 | 22 | 209.390 | 210.393 | 1.003 |
| 30 | 23 | 207.164 | 216.831 | 9.667 |
| 30 | 24 | 212.668 | 211.912 | -0.756 |
| 30 | 25 | 214.564 | 210.720 | -3.844 |
| 35 | 26 | 213.304 | 212.575 | -0.729 |
| 35 | 27 | 211.637 | 212.959 | 1.322 |
| 35 | 28 | 214.410 | 212.341 | -2.069 |
| 35 | 29 | 213.475 | 208.126 | -5.349 |
| 35 | 30 | 211.786 | 212.369 | 0.583 |
| 50 | 31 | 211.636 | 212.058 | 0.422 |
| 50 | 32 | 210.338 | 211.946 | 1.608 |
| 50 | 33 | 212.143 | 212.047 | -0.096 |
| 50 | 34 | 206.618 | 210.894 | 4.276 |
| 50 | 35 | 210.001 | 212.696 | 2.695 |
| 55 | 36 | 213.022 | 209.328 | -3.694 |
| 55 | 37 | 213.103 | 213.017 | -0.086 |
| 55 | 38 | 209.189 | 209.874 | 0.685 |
| 55 | 39 | 208.889 | 211.022 | 2.133 |
| 55 | 40 | 209.521 | 209.726 | 0.205 |
| 100 | 41 | 213.367 | 210.341 | -3.026 |
| 100 | 42 | 211.094 | 209.301 | -1.793 |
| 100 | 43 | 209.785 | 211.910 | 2.125 |
| 100 | 44 | 213.042 | 211.609 | -1.433 |
| 100 | 45 | 211.034 | 217.966 | 6.932 |
| 105 | 46 | 212.417 | 213.003 | 0.586 |
| 105 | 47 | 212.405 | 212.125 | -0.280 |
| 105 | 48 | 212.080 | 210.634 | -1.446 |
| 105 | 49 | 211.132 | 210.689 | -0.443 |
| 105 | 50 | 216.972 | 212.556 | -4.416 |
| 105 | 51 | 212.400 | 212.728 | 0.328 |
| 105 | 52 | 210.020 | 211.351 | 1.331 |
| 105 | 53 | 212.200 | 213.725 | 1.525 |
| 105 | 54 | 213.301 | 209.562 | -3.739 |
| 105 | 55 | 212.630 | 210.324 | -2.306 |
| 105 | 56 | 208.316 | 212.195 | 3.879 |
| 105 | 57 | 212.806 | 209.127 | -3.679 |
| 105 | 58 | 211.776 | 210.311 | -1.465 |
| 105 | 59 | 211.833 | 213.171 | 1.338 |
| 105 | 60 | 212.523 | 212.095 | -0.428 |
| 105 | 61 | 211.544 | 207.525 | -4.019 |
| 105 | 62 | 212.579 | 209.118 | -3.461 |
| 105 | 63 | 210.091 | 207.597 | -2.494 |
| 105 | 64 | 213.855 | 212.432 | -1.423 |
| 105 | 65 | 210.490 | 214.536 | 4.046 |
| 105 | 66 | 211.054 | 213.826 | 2.772 |
| 105 | 67 | 209.872 | 211.992 | 2.120 |
| Max | | 217.790 | 217.966 | 9.667 |
| Average | | 211.639 | 211.502 | -0.137 |
| Min | | 204.660 | 206.493 | -7.117 |
| Std Dev | | 2.103 | 1.992 | 3.024 |



| 9.80 FSW_EXT_RT_200kHz_1 | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 230 kHz |
| Min Limit | 190 kHz |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 | 190.000 |
| Min | 209.828 | 210.673 | 206.493 | 208.687 | 209.920 | 210.393 | 208.126 | 210.894 | 209.328 | 209.301 | 207.525 |
| Average | 211.676 | 212.360 | 211.005 | 210.173 | 211.577 | 212.364 | 211.674 | 211.928 | 210.593 | 212.225 | 211.392 |
| Max | 213.307 | 214.311 | 213.302 | 213.564 | 212.763 | 216.831 | 212.959 | 212.696 | 213.017 | 217.966 | 214.536 |
| UL | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 | 230.000 |

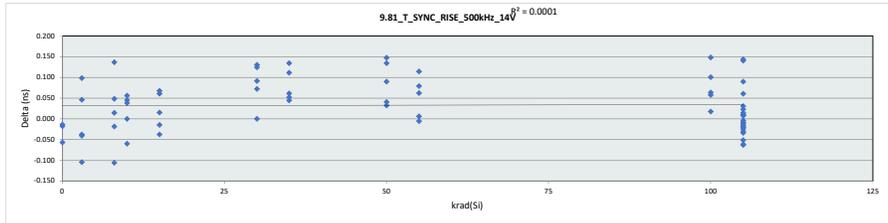


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

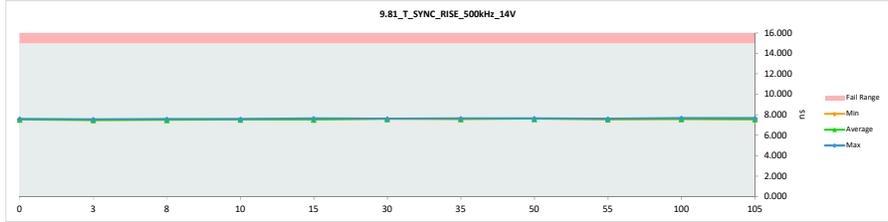
| 9.81 T SYNC RISE 500kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns ns |
| Min Limit | 14 15 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.585 | 7.530 | -0.055 |
| 0 | 992 | 7.576 | 7.560 | -0.016 |
| 0 | 993 | 7.620 | 7.608 | -0.012 |
| 3 | 1 | 7.507 | 7.468 | -0.039 |
| 3 | 2 | 7.473 | 7.573 | 0.100 |
| 3 | 3 | 7.601 | 7.498 | -0.103 |
| 3 | 4 | 7.518 | 7.482 | -0.036 |
| 3 | 5 | 7.517 | 7.565 | 0.048 |
| 8 | 6 | 7.511 | 7.561 | 0.050 |
| 8 | 7 | 7.590 | 7.486 | -0.104 |
| 8 | 8 | 7.497 | 7.513 | 0.016 |
| 8 | 9 | 7.465 | 7.603 | 0.138 |
| 8 | 10 | 7.559 | 7.542 | -0.017 |
| 10 | 11 | 7.590 | 7.532 | -0.058 |
| 10 | 12 | 7.549 | 7.589 | 0.040 |
| 10 | 13 | 7.510 | 7.557 | 0.047 |
| 10 | 14 | 7.497 | 7.555 | 0.058 |
| 10 | 15 | 7.552 | 7.554 | 0.002 |
| 15 | 16 | 7.568 | 7.532 | -0.036 |
| 15 | 17 | 7.478 | 7.540 | 0.062 |
| 15 | 18 | 7.523 | 7.540 | 0.017 |
| 15 | 19 | 7.573 | 7.642 | 0.069 |
| 15 | 20 | 7.596 | 7.583 | -0.013 |
| 30 | 21 | 7.524 | 7.617 | 0.093 |
| 30 | 22 | 7.487 | 7.619 | 0.132 |
| 30 | 23 | 7.555 | 7.629 | 0.074 |
| 30 | 24 | 7.597 | 7.599 | 0.002 |
| 30 | 25 | 7.498 | 7.624 | 0.126 |
| 35 | 26 | 7.541 | 7.595 | 0.054 |
| 35 | 27 | 7.489 | 7.602 | 0.113 |
| 35 | 28 | 7.507 | 7.570 | 0.063 |
| 35 | 29 | 7.592 | 7.638 | 0.046 |
| 35 | 30 | 7.519 | 7.655 | 0.136 |
| 50 | 31 | 7.493 | 7.629 | 0.136 |
| 50 | 32 | 7.544 | 7.635 | 0.091 |
| 50 | 33 | 7.606 | 7.648 | 0.042 |
| 50 | 34 | 7.479 | 7.628 | 0.149 |
| 50 | 35 | 7.582 | 7.616 | 0.034 |
| 55 | 36 | 7.562 | 7.626 | 0.064 |
| 55 | 37 | 7.534 | 7.542 | 0.008 |
| 55 | 38 | 7.540 | 7.621 | 0.081 |
| 55 | 39 | 7.588 | 7.584 | -0.004 |
| 55 | 40 | 7.519 | 7.635 | 0.116 |
| 100 | 41 | 7.544 | 7.603 | 0.059 |
| 100 | 42 | 7.537 | 7.556 | 0.019 |
| 100 | 43 | 7.544 | 7.694 | 0.150 |
| 100 | 44 | 7.538 | 7.603 | 0.065 |
| 100 | 45 | 7.521 | 7.623 | 0.102 |
| 105 | 46 | 7.620 | 7.560 | -0.060 |
| 105 | 47 | 7.564 | 7.596 | 0.032 |
| 105 | 48 | 7.560 | 7.528 | -0.032 |
| 105 | 49 | 7.569 | 7.519 | -0.050 |
| 105 | 50 | 7.598 | 7.607 | 0.009 |
| 105 | 51 | 7.565 | 7.656 | 0.091 |
| 105 | 52 | 7.619 | 7.601 | -0.018 |
| 105 | 53 | 7.579 | 7.556 | -0.023 |
| 105 | 54 | 7.616 | 7.641 | 0.025 |
| 105 | 55 | 7.537 | 7.679 | 0.142 |
| 105 | 56 | 7.621 | 7.619 | -0.002 |
| 105 | 57 | 7.612 | 7.551 | -0.061 |
| 105 | 58 | 7.578 | 7.569 | -0.009 |
| 105 | 59 | 7.587 | 7.649 | 0.062 |
| 105 | 60 | 7.612 | 7.624 | 0.012 |
| 105 | 61 | 7.605 | 7.591 | -0.014 |
| 105 | 62 | 7.592 | 7.563 | -0.029 |
| 105 | 63 | 7.596 | 7.606 | 0.010 |
| 105 | 64 | 7.501 | 7.646 | 0.145 |
| 105 | 65 | 7.563 | 7.556 | -0.007 |
| 105 | 66 | 7.559 | 7.575 | 0.016 |
| 105 | 67 | 7.570 | 7.552 | -0.018 |
| Max | | 7.621 | 7.694 | 0.150 |
| Average | | 7.553 | 7.586 | 0.033 |
| Min | | 7.465 | 7.468 | -0.104 |
| Std Dev | | 0.042 | 0.048 | 0.064 |



| 9.81 T SYNC RISE 500kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | 15 15 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.530 | 7.468 | 7.486 | 7.532 | 7.532 | 7.599 | 7.570 | 7.616 | 7.542 | 7.556 | 7.519 |
| Average | 7.566 | 7.517 | 7.541 | 7.557 | 7.567 | 7.618 | 7.612 | 7.631 | 7.602 | 7.616 | 7.593 |
| Max | 7.608 | 7.573 | 7.603 | 7.589 | 7.642 | 7.629 | 7.655 | 7.648 | 7.635 | 7.694 | 7.679 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

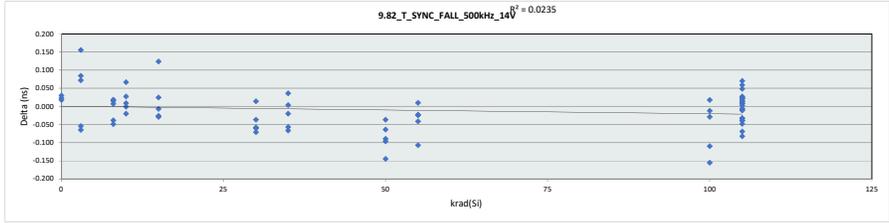


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

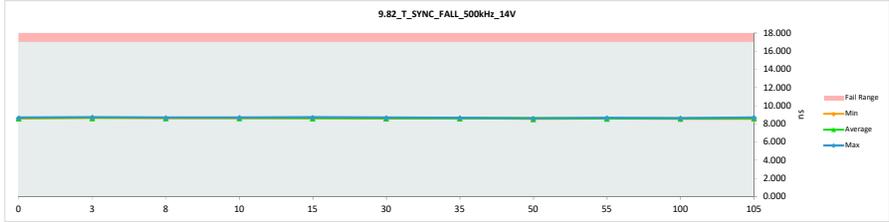
| 9.82 T SYNC FALL 500kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.673 | 8.698 | 0.025 |
| 0 | 992 | 8.661 | 8.681 | 0.020 |
| 0 | 993 | 8.579 | 8.611 | 0.032 |
| 3 | 1 | 8.634 | 8.708 | 0.074 |
| 3 | 2 | 8.711 | 8.648 | -0.063 |
| 3 | 3 | 8.592 | 8.749 | 0.157 |
| 3 | 4 | 8.717 | 8.665 | -0.052 |
| 3 | 5 | 8.616 | 8.702 | 0.086 |
| 8 | 6 | 8.671 | 8.688 | 0.017 |
| 8 | 7 | 8.688 | 8.641 | -0.047 |
| 8 | 8 | 8.663 | 8.684 | 0.021 |
| 8 | 9 | 8.686 | 8.650 | -0.036 |
| 8 | 10 | 8.674 | 8.683 | 0.009 |
| 10 | 11 | 8.642 | 8.643 | 0.001 |
| 10 | 12 | 8.684 | 8.666 | -0.018 |
| 10 | 13 | 8.630 | 8.699 | 0.069 |
| 10 | 14 | 8.616 | 8.645 | 0.029 |
| 10 | 15 | 8.702 | 8.713 | 0.011 |
| 15 | 16 | 8.667 | 8.662 | -0.005 |
| 15 | 17 | 8.668 | 8.641 | -0.027 |
| 15 | 18 | 8.605 | 8.731 | 0.126 |
| 15 | 19 | 8.604 | 8.631 | 0.027 |
| 15 | 20 | 8.663 | 8.639 | -0.024 |
| 30 | 21 | 8.685 | 8.629 | -0.056 |
| 30 | 22 | 8.684 | 8.615 | -0.069 |
| 30 | 23 | 8.656 | 8.598 | -0.058 |
| 30 | 24 | 8.676 | 8.692 | 0.016 |
| 30 | 25 | 8.666 | 8.631 | -0.035 |
| 35 | 26 | 8.630 | 8.668 | 0.038 |
| 35 | 27 | 8.654 | 8.636 | -0.018 |
| 35 | 28 | 8.707 | 8.643 | -0.064 |
| 35 | 29 | 8.634 | 8.640 | 0.006 |
| 35 | 30 | 8.672 | 8.617 | -0.055 |
| 50 | 31 | 8.683 | 8.621 | -0.062 |
| 50 | 32 | 8.666 | 8.572 | -0.094 |
| 50 | 33 | 8.728 | 8.586 | -0.142 |
| 50 | 34 | 8.637 | 8.602 | -0.035 |
| 50 | 35 | 8.672 | 8.585 | -0.087 |
| 55 | 36 | 8.628 | 8.607 | -0.021 |
| 55 | 37 | 8.666 | 8.644 | -0.022 |
| 55 | 38 | 8.660 | 8.672 | 0.012 |
| 55 | 39 | 8.656 | 8.617 | -0.039 |
| 55 | 40 | 8.706 | 8.601 | -0.105 |
| 100 | 41 | 8.602 | 8.592 | -0.010 |
| 100 | 42 | 8.643 | 8.616 | -0.027 |
| 100 | 43 | 8.715 | 8.562 | -0.153 |
| 100 | 44 | 8.620 | 8.640 | 0.020 |
| 100 | 45 | 8.728 | 8.621 | -0.107 |
| 105 | 46 | 8.609 | 8.633 | 0.024 |
| 105 | 47 | 8.645 | 8.672 | 0.027 |
| 105 | 48 | 8.650 | 8.665 | 0.015 |
| 105 | 49 | 8.617 | 8.689 | 0.072 |
| 105 | 50 | 8.627 | 8.632 | 0.005 |
| 105 | 51 | 8.687 | 8.607 | -0.080 |
| 105 | 52 | 8.570 | 8.593 | 0.023 |
| 105 | 53 | 8.654 | 8.587 | -0.067 |
| 105 | 54 | 8.619 | 8.680 | 0.061 |
| 105 | 55 | 8.665 | 8.694 | 0.029 |
| 105 | 56 | 8.660 | 8.624 | -0.036 |
| 105 | 57 | 8.656 | 8.706 | 0.050 |
| 105 | 58 | 8.615 | 8.569 | -0.046 |
| 105 | 59 | 8.612 | 8.575 | -0.037 |
| 105 | 60 | 8.605 | 8.623 | 0.018 |
| 105 | 61 | 8.636 | 8.627 | -0.009 |
| 105 | 62 | 8.620 | 8.631 | 0.011 |
| 105 | 63 | 8.654 | 8.624 | -0.030 |
| 105 | 64 | 8.648 | 8.617 | -0.031 |
| 105 | 65 | 8.646 | 8.640 | -0.006 |
| 105 | 66 | 8.615 | 8.611 | -0.004 |
| 105 | 67 | 8.655 | 8.665 | 0.010 |
| Max | | 8.728 | 8.749 | 0.157 |
| Average | | 8.653 | 8.642 | -0.011 |
| Min | | 8.570 | 8.562 | -0.153 |
| Std Dev | | 0.035 | 0.041 | 0.055 |



| 9.82 T SYNC FALL 500kHz 14V | |
|-----------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 8.611 | 8.648 | 8.641 | 8.643 | 8.631 | 8.598 | 8.617 | 8.572 | 8.601 | 8.562 | 8.569 |
| Average | 8.663 | 8.694 | 8.669 | 8.673 | 8.661 | 8.633 | 8.641 | 8.593 | 8.628 | 8.606 | 8.635 |
| Max | 8.698 | 8.749 | 8.688 | 8.713 | 8.731 | 8.692 | 8.668 | 8.621 | 8.672 | 8.640 | 8.706 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

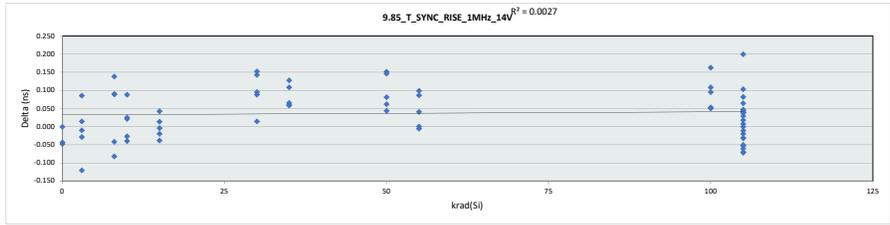


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

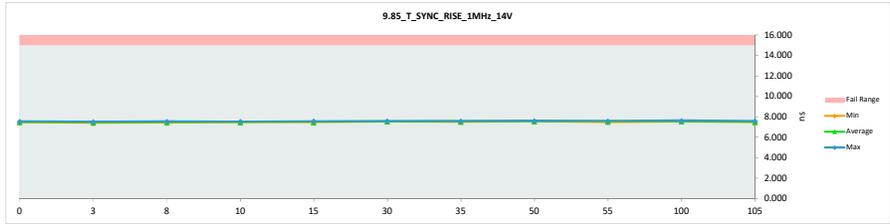
| 9.85 T SYNC RISE 1MHz 14V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.510 | 7.468 | -0.042 |
| 0 | 992 | 7.513 | 7.514 | 0.001 |
| 0 | 993 | 7.609 | 7.563 | -0.046 |
| 3 | 1 | 7.446 | 7.419 | -0.027 |
| 3 | 2 | 7.441 | 7.528 | 0.087 |
| 3 | 3 | 7.549 | 7.430 | -0.119 |
| 3 | 4 | 7.444 | 7.436 | -0.008 |
| 3 | 5 | 7.485 | 7.501 | 0.016 |
| 8 | 6 | 7.438 | 7.529 | 0.091 |
| 8 | 7 | 7.521 | 7.441 | -0.080 |
| 8 | 8 | 7.451 | 7.543 | 0.092 |
| 8 | 9 | 7.425 | 7.565 | 0.140 |
| 8 | 10 | 7.502 | 7.462 | -0.040 |
| 10 | 11 | 7.538 | 7.513 | -0.025 |
| 10 | 12 | 7.462 | 7.552 | 0.090 |
| 10 | 13 | 7.469 | 7.496 | 0.027 |
| 10 | 14 | 7.475 | 7.498 | 0.023 |
| 10 | 15 | 7.522 | 7.484 | -0.038 |
| 15 | 16 | 7.522 | 7.486 | -0.036 |
| 15 | 17 | 7.418 | 7.462 | 0.044 |
| 15 | 18 | 7.484 | 7.466 | -0.018 |
| 15 | 19 | 7.567 | 7.582 | 0.015 |
| 15 | 20 | 7.524 | 7.522 | -0.002 |
| 30 | 21 | 7.484 | 7.574 | 0.090 |
| 30 | 22 | 7.447 | 7.591 | 0.144 |
| 30 | 23 | 7.505 | 7.602 | 0.097 |
| 30 | 24 | 7.536 | 7.552 | 0.016 |
| 30 | 25 | 7.422 | 7.576 | 0.154 |
| 35 | 26 | 7.492 | 7.552 | 0.060 |
| 35 | 27 | 7.441 | 7.551 | 0.110 |
| 35 | 28 | 7.440 | 7.507 | 0.067 |
| 35 | 29 | 7.541 | 7.603 | 0.062 |
| 35 | 30 | 7.442 | 7.571 | 0.129 |
| 50 | 31 | 7.428 | 7.576 | 0.148 |
| 50 | 32 | 7.536 | 7.619 | 0.083 |
| 50 | 33 | 7.536 | 7.600 | 0.064 |
| 50 | 34 | 7.449 | 7.602 | 0.153 |
| 50 | 35 | 7.550 | 7.595 | 0.045 |
| 55 | 36 | 7.553 | 7.596 | 0.043 |
| 55 | 37 | 7.488 | 7.490 | 0.002 |
| 55 | 38 | 7.499 | 7.599 | 0.100 |
| 55 | 39 | 7.546 | 7.542 | -0.004 |
| 55 | 40 | 7.488 | 7.576 | 0.088 |
| 100 | 41 | 7.496 | 7.551 | 0.055 |
| 100 | 42 | 7.491 | 7.588 | 0.097 |
| 100 | 43 | 7.472 | 7.636 | 0.164 |
| 100 | 44 | 7.494 | 7.546 | 0.052 |
| 100 | 45 | 7.464 | 7.574 | 0.110 |
| 105 | 46 | 7.573 | 7.503 | -0.070 |
| 105 | 47 | 7.515 | 7.556 | 0.041 |
| 105 | 48 | 7.523 | 7.474 | -0.049 |
| 105 | 49 | 7.514 | 7.484 | -0.030 |
| 105 | 50 | 7.559 | 7.579 | 0.020 |
| 105 | 51 | 7.524 | 7.608 | 0.084 |
| 105 | 52 | 7.515 | 7.546 | 0.031 |
| 105 | 53 | 7.527 | 7.509 | -0.018 |
| 105 | 54 | 7.544 | 7.610 | 0.066 |
| 105 | 55 | 7.487 | 7.592 | 0.105 |
| 105 | 56 | 7.573 | 7.574 | 0.001 |
| 105 | 57 | 7.544 | 7.493 | -0.051 |
| 105 | 58 | 7.544 | 7.515 | -0.029 |
| 105 | 59 | 7.554 | 7.599 | 0.045 |
| 105 | 60 | 7.540 | 7.582 | 0.042 |
| 105 | 61 | 7.531 | 7.580 | 0.049 |
| 105 | 62 | 7.519 | 7.510 | -0.009 |
| 105 | 63 | 7.552 | 7.592 | 0.040 |
| 105 | 64 | 7.388 | 7.589 | 0.201 |
| 105 | 65 | 7.569 | 7.500 | -0.069 |
| 105 | 66 | 7.492 | 7.501 | 0.009 |
| 105 | 67 | 7.542 | 7.483 | -0.059 |
| | Max | 7.609 | 7.636 | 0.201 |
| | Average | 7.503 | 7.540 | 0.037 |
| | Min | 7.388 | 7.419 | -0.119 |
| | Std Dev | 0.046 | 0.052 | 0.068 |



| 9.85 T SYNC RISE 1MHz 14V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | ns ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 7.468 | 7.419 | 7.441 | 7.484 | 7.462 | 7.552 | 7.507 | 7.576 | 7.490 | 7.546 | 7.474 |
| Average | 7.515 | 7.463 | 7.508 | 7.509 | 7.504 | 7.579 | 7.557 | 7.598 | 7.561 | 7.579 | 7.545 |
| Max | 7.563 | 7.528 | 7.565 | 7.552 | 7.582 | 7.602 | 7.603 | 7.619 | 7.599 | 7.636 | 7.610 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

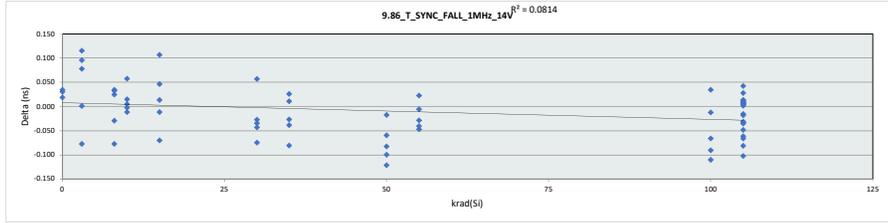


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

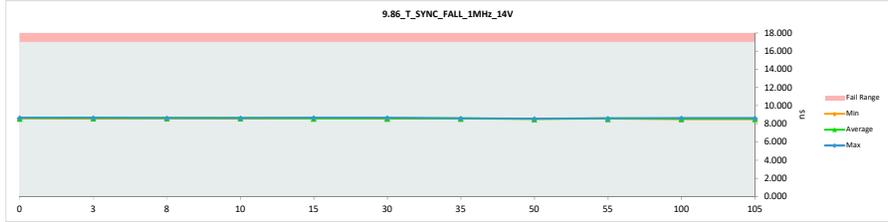
| 9.86 T SYNC FALL 1MHz 14V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.641 | 8.673 | 0.032 |
| 0 | 992 | 8.598 | 8.618 | 0.020 |
| 0 | 993 | 8.552 | 8.588 | 0.036 |
| 3 | 1 | 8.588 | 8.685 | 0.097 |
| 3 | 2 | 8.675 | 8.599 | -0.076 |
| 3 | 3 | 8.559 | 8.676 | 0.117 |
| 3 | 4 | 8.640 | 8.642 | 0.002 |
| 3 | 5 | 8.589 | 8.668 | 0.079 |
| 8 | 6 | 8.630 | 8.656 | 0.026 |
| 8 | 7 | 8.655 | 8.627 | -0.028 |
| 8 | 8 | 8.616 | 8.652 | 0.036 |
| 8 | 9 | 8.671 | 8.595 | -0.076 |
| 8 | 10 | 8.612 | 8.646 | 0.034 |
| 10 | 11 | 8.607 | 8.613 | 0.006 |
| 10 | 12 | 8.636 | 8.635 | -0.001 |
| 10 | 13 | 8.594 | 8.653 | 0.059 |
| 10 | 14 | 8.583 | 8.599 | 0.016 |
| 10 | 15 | 8.665 | 8.655 | -0.010 |
| 15 | 16 | 8.626 | 8.616 | -0.010 |
| 15 | 17 | 8.667 | 8.598 | -0.069 |
| 15 | 18 | 8.565 | 8.673 | 0.108 |
| 15 | 19 | 8.552 | 8.600 | 0.048 |
| 15 | 20 | 8.596 | 8.611 | 0.015 |
| 30 | 21 | 8.652 | 8.579 | -0.073 |
| 30 | 22 | 8.623 | 8.581 | -0.042 |
| 30 | 23 | 8.614 | 8.588 | -0.026 |
| 30 | 24 | 8.606 | 8.664 | 0.058 |
| 30 | 25 | 8.595 | 8.562 | -0.033 |
| 35 | 26 | 8.584 | 8.611 | 0.027 |
| 35 | 27 | 8.609 | 8.584 | -0.025 |
| 35 | 28 | 8.650 | 8.613 | -0.037 |
| 35 | 29 | 8.603 | 8.615 | 0.012 |
| 35 | 30 | 8.657 | 8.578 | -0.079 |
| 50 | 31 | 8.611 | 8.553 | -0.058 |
| 50 | 32 | 8.635 | 8.537 | -0.098 |
| 50 | 33 | 8.658 | 8.538 | -0.120 |
| 50 | 34 | 8.598 | 8.582 | -0.016 |
| 50 | 35 | 8.645 | 8.564 | -0.081 |
| 55 | 36 | 8.571 | 8.595 | 0.024 |
| 55 | 37 | 8.603 | 8.576 | -0.027 |
| 55 | 38 | 8.597 | 8.593 | -0.004 |
| 55 | 39 | 8.625 | 8.579 | -0.046 |
| 55 | 40 | 8.642 | 8.603 | -0.039 |
| 100 | 41 | 8.589 | 8.524 | -0.065 |
| 100 | 42 | 8.597 | 8.633 | 0.036 |
| 100 | 43 | 8.590 | 8.501 | -0.089 |
| 100 | 44 | 8.608 | 8.597 | -0.011 |
| 100 | 45 | 8.672 | 8.563 | -0.109 |
| 105 | 46 | 8.578 | 8.588 | 0.010 |
| 105 | 47 | 8.608 | 8.615 | 0.007 |
| 105 | 48 | 8.608 | 8.617 | 0.009 |
| 105 | 49 | 8.592 | 8.607 | 0.015 |
| 105 | 50 | 8.579 | 8.565 | -0.014 |
| 105 | 51 | 8.639 | 8.559 | -0.080 |
| 105 | 52 | 8.574 | 8.577 | 0.003 |
| 105 | 53 | 8.612 | 8.547 | -0.065 |
| 105 | 54 | 8.569 | 8.552 | -0.017 |
| 105 | 55 | 8.596 | 8.625 | 0.029 |
| 105 | 56 | 8.605 | 8.571 | -0.034 |
| 105 | 57 | 8.586 | 8.630 | 0.044 |
| 105 | 58 | 8.564 | 8.517 | -0.047 |
| 105 | 59 | 8.597 | 8.537 | -0.060 |
| 105 | 60 | 8.549 | 8.563 | 0.014 |
| 105 | 61 | 8.571 | 8.580 | 0.009 |
| 105 | 62 | 8.582 | 8.587 | 0.005 |
| 105 | 63 | 8.621 | 8.591 | -0.030 |
| 105 | 64 | 8.573 | 8.579 | 0.006 |
| 105 | 65 | 8.604 | 8.572 | -0.032 |
| 105 | 66 | 8.614 | 8.513 | -0.101 |
| 105 | 67 | 8.598 | 8.611 | 0.013 |
| 105 | 68 | 8.675 | 8.685 | 0.011 |
| 105 | 69 | 8.608 | 8.597 | -0.011 |
| 105 | 70 | 8.549 | 8.501 | -0.048 |
| 105 | 71 | 0.032 | 0.041 | 0.009 |



| 9.86 T SYNC FALL 1MHz 14V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 8.588 | 8.599 | 8.595 | 8.599 | 8.598 | 8.562 | 8.578 | 8.537 | 8.576 | 8.501 | 8.513 |
| Min | 8.626 | 8.654 | 8.635 | 8.631 | 8.620 | 8.595 | 8.600 | 8.555 | 8.589 | 8.564 | 8.577 |
| Average | 8.673 | 8.685 | 8.656 | 8.655 | 8.673 | 8.664 | 8.615 | 8.582 | 8.603 | 8.633 | 8.630 |
| Max | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |
| UL | | | | | | | | | | | |

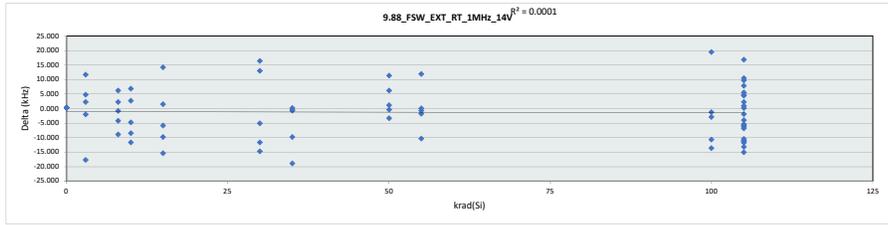


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

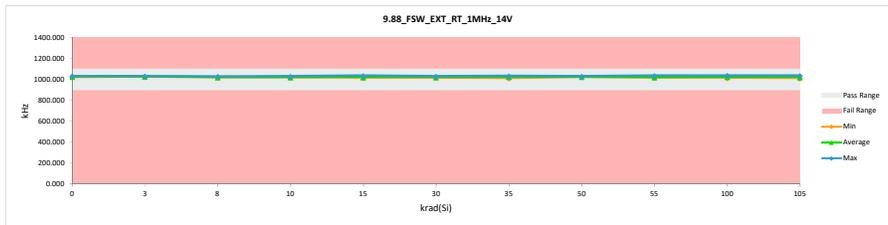
| 9.88 FSW_EXT_RT_1MHz_14V | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | kHz |
| Max Limit | 1100 |
| Min Limit | 900 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|----------|----------|---------|
| 0 | 991 | 1028.842 | 1029.335 | 0.493 |
| 0 | 992 | 1024.686 | 1025.305 | 0.619 |
| 0 | 993 | 1034.745 | 1035.106 | 0.361 |
| 3 | 1 | 1034.441 | 1032.686 | -1.755 |
| 3 | 2 | 1022.648 | 1024.554 | 11.906 |
| 3 | 3 | 1023.415 | 1028.448 | 5.033 |
| 3 | 4 | 1029.874 | 1032.383 | 2.509 |
| 3 | 5 | 1044.249 | 1026.795 | -17.454 |
| 8 | 6 | 1033.087 | 1024.372 | -8.715 |
| 8 | 7 | 1024.574 | 1020.601 | -3.973 |
| 8 | 8 | 1018.982 | 1021.488 | 2.506 |
| 8 | 9 | 1024.689 | 1031.125 | 6.436 |
| 8 | 10 | 1029.628 | 1029.026 | -0.602 |
| 10 | 11 | 1025.877 | 1021.376 | -4.501 |
| 10 | 12 | 1031.890 | 1020.423 | -11.467 |
| 10 | 13 | 1034.580 | 1026.338 | -8.242 |
| 10 | 14 | 1025.009 | 1032.125 | 7.116 |
| 10 | 15 | 1024.135 | 1027.034 | 2.899 |
| 15 | 16 | 1031.731 | 1026.042 | -5.689 |
| 15 | 17 | 1024.399 | 1038.791 | 14.392 |
| 15 | 18 | 1033.319 | 1018.187 | -15.132 |
| 15 | 19 | 1036.754 | 1027.217 | -9.537 |
| 15 | 20 | 1026.810 | 1028.482 | 1.672 |
| 30 | 21 | 1017.709 | 1030.948 | 13.239 |
| 30 | 22 | 1030.984 | 1019.494 | -11.490 |
| 30 | 23 | 1017.105 | 1033.676 | 16.571 |
| 30 | 24 | 1030.443 | 1025.606 | -4.837 |
| 30 | 25 | 1038.182 | 1023.661 | -14.521 |
| 35 | 26 | 1039.237 | 1029.645 | -9.592 |
| 35 | 27 | 1036.178 | 1035.648 | -0.530 |
| 35 | 28 | 1032.467 | 1032.188 | -0.279 |
| 35 | 29 | 1033.946 | 1015.247 | -18.699 |
| 35 | 30 | 1028.369 | 1028.799 | 0.430 |
| 50 | 31 | 1031.977 | 1028.857 | -3.120 |
| 50 | 32 | 1025.333 | 1025.166 | -0.167 |
| 50 | 33 | 1023.936 | 1025.320 | 1.384 |
| 50 | 34 | 1021.239 | 1027.646 | 6.407 |
| 50 | 35 | 1020.551 | 1032.115 | 11.564 |
| 55 | 36 | 1030.647 | 1020.565 | -10.082 |
| 55 | 37 | 1027.809 | 1039.912 | 12.103 |
| 55 | 38 | 1021.073 | 1019.522 | -1.551 |
| 55 | 39 | 1020.257 | 1020.494 | 0.237 |
| 55 | 40 | 1025.825 | 1025.293 | -0.532 |
| 100 | 41 | 1032.032 | 1029.349 | -2.683 |
| 100 | 42 | 1030.496 | 1017.024 | -13.472 |
| 100 | 43 | 1024.979 | 1023.941 | -1.038 |
| 100 | 44 | 1039.356 | 1028.943 | -10.413 |
| 100 | 45 | 1020.583 | 1040.236 | 19.653 |
| 105 | 46 | 1027.174 | 1027.573 | 0.399 |
| 105 | 47 | 1027.753 | 1021.650 | -6.103 |
| 105 | 48 | 1031.498 | 1024.893 | -6.605 |
| 105 | 49 | 1022.346 | 1024.821 | 2.475 |
| 105 | 50 | 1035.762 | 1025.506 | -10.256 |
| 105 | 51 | 1025.649 | 1026.761 | 1.112 |
| 105 | 52 | 1023.142 | 1027.784 | 4.642 |
| 105 | 53 | 1029.453 | 1034.350 | 4.897 |
| 105 | 54 | 1037.998 | 1025.002 | -12.996 |
| 105 | 55 | 1032.661 | 1021.087 | -11.574 |
| 105 | 56 | 1016.140 | 1026.878 | 10.738 |
| 105 | 57 | 1031.827 | 1021.074 | -10.753 |
| 105 | 58 | 1029.006 | 1025.276 | -3.730 |
| 105 | 59 | 1028.647 | 1034.456 | 5.809 |
| 105 | 60 | 1028.861 | 1023.696 | -5.165 |
| 105 | 61 | 1028.680 | 1013.800 | -14.880 |
| 105 | 62 | 1032.453 | 1026.776 | -5.677 |
| 105 | 63 | 1019.953 | 1018.264 | -1.689 |
| 105 | 64 | 1041.091 | 1030.003 | -11.088 |
| 105 | 65 | 1023.892 | 1033.793 | 9.901 |
| 105 | 66 | 1021.196 | 1038.254 | 17.058 |
| 105 | 67 | 1025.417 | 1033.522 | 8.105 |
| Max | 1044.249 | 1040.236 | 19.653 | |
| Average | 1028.424 | 1027.168 | -1.256 | |
| Min | 1016.140 | 1013.800 | -18.699 | |
| Std Dev | 6.098 | 5.830 | 8.858 | |



| 9.88 FSW_EXT_RT_1MHz_14V | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 1100 |
| Min Limit | 900 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LL | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 | 900.000 |
| Min | 1025.305 | 1026.795 | 1020.601 | 1020.423 | 1018.167 | 1019.494 | 1015.247 | 1025.166 | 1019.522 | 1017.024 | 1013.800 |
| Average | 1029.915 | 1030.973 | 1025.322 | 1025.459 | 1027.744 | 1026.677 | 1028.305 | 1027.821 | 1025.157 | 1027.899 | 1026.601 |
| Max | 1035.106 | 1034.554 | 1031.125 | 1032.125 | 1038.791 | 1033.676 | 1035.648 | 1032.115 | 1039.912 | 1040.236 | 1038.254 |
| UL | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 | 1100.000 |

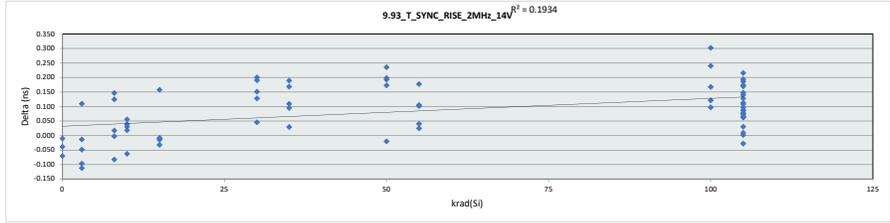


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

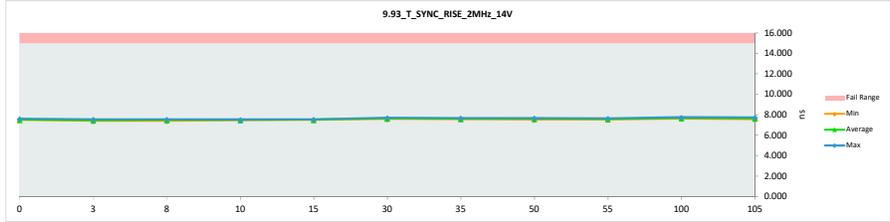
| 9.93 T SYNC RISE 2MHz 14V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 15 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.521 | 7.485 | -0.036 |
| 0 | 992 | 7.525 | 7.517 | -0.008 |
| 0 | 993 | 7.687 | 7.619 | -0.068 |
| 3 | 1 | 7.466 | 7.420 | -0.046 |
| 3 | 2 | 7.439 | 7.550 | 0.111 |
| 3 | 3 | 7.541 | 7.431 | -0.110 |
| 3 | 4 | 7.519 | 7.424 | -0.095 |
| 3 | 5 | 7.516 | 7.505 | -0.011 |
| 8 | 6 | 7.498 | 7.517 | 0.019 |
| 8 | 7 | 7.488 | 7.408 | -0.080 |
| 8 | 8 | 7.404 | 7.531 | 0.127 |
| 8 | 9 | 7.398 | 7.547 | 0.149 |
| 8 | 10 | 7.472 | 7.472 | 0.000 |
| 10 | 11 | 7.485 | 7.506 | 0.021 |
| 10 | 12 | 7.487 | 7.545 | 0.058 |
| 10 | 13 | 7.446 | 7.479 | 0.033 |
| 10 | 14 | 7.449 | 7.490 | 0.041 |
| 10 | 15 | 7.526 | 7.465 | -0.061 |
| 15 | 16 | 7.535 | 7.505 | -0.030 |
| 15 | 17 | 7.410 | 7.570 | 0.160 |
| 15 | 18 | 7.490 | 7.483 | -0.007 |
| 15 | 19 | 7.585 | 7.573 | -0.012 |
| 15 | 20 | 7.490 | 7.483 | -0.007 |
| 30 | 21 | 7.465 | 7.658 | 0.193 |
| 30 | 22 | 7.515 | 7.645 | 0.130 |
| 30 | 23 | 7.520 | 7.722 | 0.202 |
| 30 | 24 | 7.576 | 7.624 | 0.048 |
| 30 | 25 | 7.443 | 7.596 | 0.153 |
| 35 | 26 | 7.488 | 7.585 | 0.097 |
| 35 | 27 | 7.489 | 7.660 | 0.171 |
| 35 | 28 | 7.451 | 7.563 | 0.112 |
| 35 | 29 | 7.572 | 7.604 | 0.032 |
| 35 | 30 | 7.490 | 7.682 | 0.192 |
| 50 | 31 | 7.432 | 7.607 | 0.175 |
| 50 | 32 | 7.480 | 7.680 | 0.200 |
| 50 | 33 | 7.500 | 7.695 | 0.195 |
| 50 | 34 | 7.430 | 7.668 | 0.238 |
| 50 | 35 | 7.535 | 7.535 | -0.018 |
| 55 | 36 | 7.535 | 7.562 | 0.027 |
| 55 | 37 | 7.486 | 7.528 | 0.042 |
| 55 | 38 | 7.487 | 7.591 | 0.104 |
| 55 | 39 | 7.523 | 7.630 | 0.107 |
| 55 | 40 | 7.475 | 7.654 | 0.179 |
| 100 | 41 | 7.516 | 7.686 | 0.170 |
| 100 | 42 | 7.497 | 7.621 | 0.124 |
| 100 | 43 | 7.457 | 7.761 | 0.304 |
| 100 | 44 | 7.621 | 7.720 | 0.099 |
| 100 | 45 | 7.409 | 7.651 | 0.242 |
| 105 | 46 | 7.581 | 7.656 | 0.075 |
| 105 | 47 | 7.510 | 7.600 | 0.090 |
| 105 | 48 | 7.532 | 7.620 | 0.088 |
| 105 | 49 | 7.522 | 7.602 | 0.080 |
| 105 | 50 | 7.568 | 7.667 | 0.099 |
| 105 | 51 | 7.503 | 7.691 | 0.188 |
| 105 | 52 | 7.488 | 7.660 | 0.172 |
| 105 | 53 | 7.522 | 7.664 | 0.142 |
| 105 | 54 | 7.573 | 7.749 | 0.176 |
| 105 | 55 | 7.499 | 7.717 | 0.218 |
| 105 | 56 | 7.571 | 7.721 | 0.150 |
| 105 | 57 | 7.587 | 7.591 | 0.004 |
| 105 | 58 | 7.539 | 7.654 | 0.115 |
| 105 | 59 | 7.559 | 7.623 | 0.064 |
| 105 | 60 | 7.486 | 7.666 | 0.110 |
| 105 | 61 | 7.541 | 7.608 | 0.067 |
| 105 | 62 | 7.604 | 7.579 | -0.025 |
| 105 | 63 | 7.517 | 7.550 | 0.033 |
| 105 | 64 | 7.564 | 7.576 | 0.012 |
| 105 | 65 | 7.574 | 7.641 | 0.067 |
| 105 | 66 | 7.486 | 7.682 | 0.196 |
| 105 | 67 | 7.521 | 7.651 | 0.130 |
| Max | | 7.687 | 7.761 | 0.304 |
| Average | | 7.510 | 7.595 | 0.085 |
| Min | | 7.398 | 7.408 | -0.110 |
| Std Dev | | 0.054 | 0.085 | 0.092 |



| 9.93 T SYNC RISE 2MHz 14V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 15 ns |
| Min Limit | ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 7.485 | 7.420 | 7.408 | 7.465 | 7.483 | 7.596 | 7.563 | 7.535 | 7.528 | 7.621 | 7.550 |
| Average | 7.540 | 7.466 | 7.495 | 7.497 | 7.523 | 7.649 | 7.619 | 7.637 | 7.593 | 7.688 | 7.644 |
| Max | 7.619 | 7.550 | 7.547 | 7.545 | 7.573 | 7.722 | 7.682 | 7.695 | 7.654 | 7.761 | 7.749 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 | 15.000 |

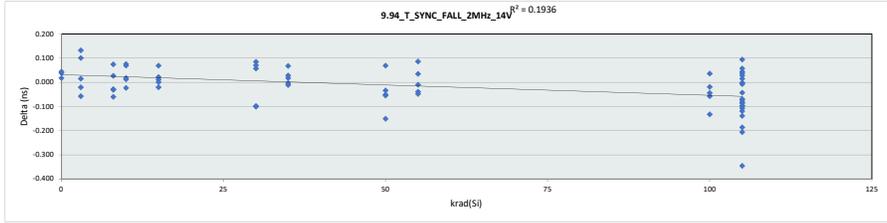


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

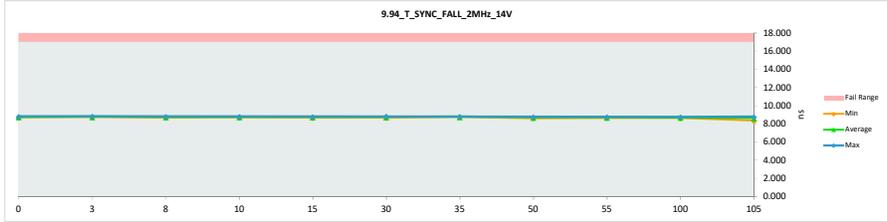
| 9.94 T SYNC FALL 2MHz 14V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 14 17 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.785 | 8.832 | 0.047 |
| 0 | 992 | 8.758 | 8.778 | 0.020 |
| 0 | 993 | 8.690 | 8.731 | 0.041 |
| 3 | 1 | 8.742 | 8.845 | 0.103 |
| 3 | 2 | 8.786 | 8.768 | -0.018 |
| 3 | 3 | 8.706 | 8.841 | 0.135 |
| 3 | 4 | 8.831 | 8.777 | -0.054 |
| 3 | 5 | 8.758 | 8.776 | 0.018 |
| 8 | 6 | 8.766 | 8.795 | 0.029 |
| 8 | 7 | 8.768 | 8.711 | -0.057 |
| 8 | 8 | 8.750 | 8.827 | 0.077 |
| 8 | 9 | 8.762 | 8.734 | -0.028 |
| 8 | 10 | 8.723 | 8.747 | -0.026 |
| 10 | 11 | 8.685 | 8.763 | 0.078 |
| 10 | 12 | 8.750 | 8.729 | -0.021 |
| 10 | 13 | 8.758 | 8.778 | 0.020 |
| 10 | 14 | 8.713 | 8.784 | 0.071 |
| 10 | 15 | 8.797 | 8.812 | 0.015 |
| 15 | 16 | 8.768 | 8.792 | 0.024 |
| 15 | 17 | 8.792 | 8.795 | 0.003 |
| 15 | 18 | 8.718 | 8.790 | 0.072 |
| 15 | 19 | 8.710 | 8.692 | -0.018 |
| 15 | 20 | 8.695 | 8.709 | 0.014 |
| 30 | 21 | 8.705 | 8.793 | 0.088 |
| 30 | 22 | 8.792 | 8.694 | -0.098 |
| 30 | 23 | 8.739 | 8.799 | 0.060 |
| 30 | 24 | 8.770 | 8.843 | 0.073 |
| 30 | 25 | 8.791 | 8.696 | -0.095 |
| 35 | 26 | 8.752 | 8.822 | 0.070 |
| 35 | 27 | 8.789 | 8.820 | 0.031 |
| 35 | 28 | 8.791 | 8.790 | -0.001 |
| 35 | 29 | 8.756 | 8.776 | 0.020 |
| 35 | 30 | 8.804 | 8.795 | -0.009 |
| 50 | 31 | 8.751 | 8.720 | -0.031 |
| 50 | 32 | 8.786 | 8.738 | -0.048 |
| 50 | 33 | 8.784 | 8.732 | -0.052 |
| 50 | 34 | 8.701 | 8.773 | 0.072 |
| 50 | 35 | 8.784 | 8.636 | -0.148 |
| 55 | 36 | 8.728 | 8.683 | -0.045 |
| 55 | 37 | 8.705 | 8.669 | -0.036 |
| 55 | 38 | 8.708 | 8.797 | 0.089 |
| 55 | 39 | 8.700 | 8.693 | -0.007 |
| 55 | 40 | 8.762 | 8.799 | 0.037 |
| 100 | 41 | 8.742 | 8.700 | -0.042 |
| 100 | 42 | 8.737 | 8.776 | 0.039 |
| 100 | 43 | 8.725 | 8.708 | -0.017 |
| 100 | 44 | 8.785 | 8.655 | -0.130 |
| 100 | 45 | 8.797 | 8.742 | -0.055 |
| 105 | 46 | 8.732 | 8.652 | -0.080 |
| 105 | 47 | 8.699 | 8.628 | -0.071 |
| 105 | 48 | 8.743 | 8.676 | -0.067 |
| 105 | 49 | 8.665 | 8.705 | 0.040 |
| 105 | 50 | 8.733 | 8.617 | -0.116 |
| 105 | 51 | 8.762 | 8.626 | -0.136 |
| 105 | 52 | 8.702 | 8.762 | 0.060 |
| 105 | 53 | 8.749 | 8.645 | -0.104 |
| 105 | 54 | 8.753 | 8.659 | -0.094 |
| 105 | 55 | 8.742 | 8.702 | -0.040 |
| 105 | 56 | 8.707 | 8.706 | -0.001 |
| 105 | 57 | 8.744 | 8.775 | 0.031 |
| 105 | 58 | 8.730 | 8.646 | -0.084 |
| 105 | 59 | 8.707 | 8.612 | -0.095 |
| 105 | 60 | 8.688 | 8.735 | 0.047 |
| 105 | 61 | 8.742 | 8.760 | 0.018 |
| 105 | 62 | 8.722 | 8.539 | -0.183 |
| 105 | 63 | 8.708 | 8.365 | -0.343 |
| 105 | 64 | 8.795 | 8.592 | -0.203 |
| 105 | 65 | 8.700 | 8.797 | 0.097 |
| 105 | 66 | 8.677 | 8.677 | 0.000 |
| 105 | 67 | 8.703 | 8.698 | -0.005 |
| Max | | 8.831 | 8.845 | 0.135 |
| Average | | 8.744 | 8.729 | -0.015 |
| Min | | 8.665 | 8.365 | -0.343 |
| Std Dev | | 0.037 | 0.081 | 0.082 |



| 9.94 T SYNC FALL 2MHz 14V | |
|---------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | ns |

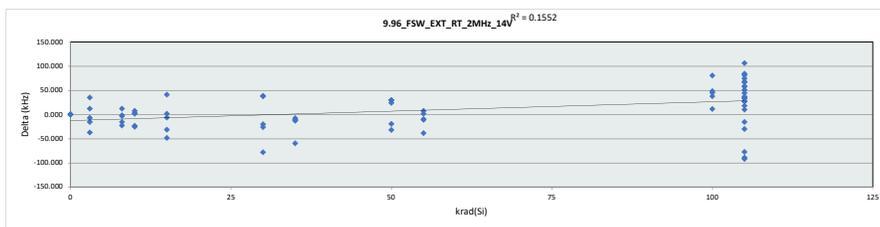
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 8.731 | 8.768 | 8.711 | 8.729 | 8.692 | 8.694 | 8.776 | 8.636 | 8.669 | 8.655 | 8.365 |
| Average | 8.780 | 8.801 | 8.763 | 8.773 | 8.756 | 8.765 | 8.801 | 8.720 | 8.728 | 8.716 | 8.662 |
| Max | 8.832 | 8.845 | 8.827 | 8.812 | 8.795 | 8.843 | 8.822 | 8.773 | 8.799 | 8.776 | 8.797 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |



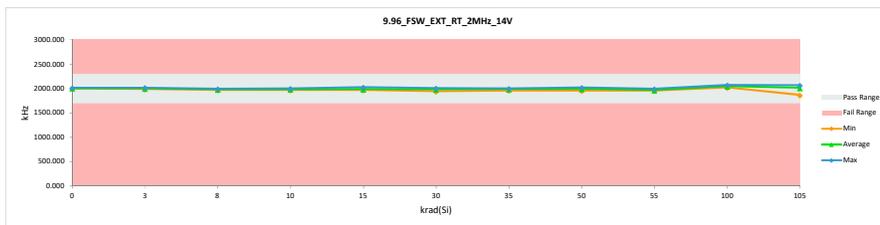
HDR TID Report
TPS7H5001-SP QMLP

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 9.96 FSW_EXT_RT_2MHz_14V | | | | |
|--------------------------|----------|-------------|----------|-----------|
| Test Site | Tester | Test Number | Unit | Max Limit |
| | | | kHz | kHz |
| | | | 2300 | 2300 |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 2000.814 | 2002.519 | 1.705 |
| 0 | 992 | 2002.459 | 2004.701 | 2.242 |
| 0 | 993 | 2014.173 | 2015.006 | 0.833 |
| 3 | 1 | 2009.123 | 2003.765 | -5.358 |
| 3 | 2 | 1983.245 | 2019.444 | 36.199 |
| 3 | 3 | 1993.110 | 2006.453 | 13.343 |
| 3 | 4 | 2021.796 | 2007.495 | -14.301 |
| 3 | 5 | 2024.800 | 1989.205 | -35.595 |
| 8 | 6 | 2004.017 | 1982.893 | -21.124 |
| 8 | 7 | 1989.172 | 1988.573 | -0.599 |
| 8 | 8 | 1990.308 | 1988.534 | -1.774 |
| 8 | 9 | 1982.689 | 1996.430 | 13.741 |
| 8 | 10 | 1986.342 | 1972.253 | -14.089 |
| 10 | 11 | 1979.218 | 1983.554 | 4.336 |
| 10 | 12 | 1994.037 | 1969.974 | -24.063 |
| 10 | 13 | 2012.068 | 1990.149 | -21.919 |
| 10 | 14 | 1993.963 | 2002.706 | 8.743 |
| 10 | 15 | 1988.505 | 1991.805 | 3.300 |
| 15 | 16 | 2000.517 | 1995.738 | -4.779 |
| 15 | 17 | 1985.759 | 2028.119 | 42.360 |
| 15 | 18 | 2000.134 | 1969.915 | -30.219 |
| 15 | 19 | 2028.946 | 1982.117 | -46.829 |
| 15 | 20 | 1976.161 | 1979.196 | 3.035 |
| 30 | 21 | 1960.543 | 1999.967 | 39.424 |
| 30 | 22 | 2023.493 | 1946.599 | -76.894 |
| 30 | 23 | 1969.902 | 2009.570 | 39.668 |
| 30 | 24 | 2000.954 | 1982.210 | -18.744 |
| 30 | 25 | 2000.042 | 1975.520 | -24.522 |
| 35 | 26 | 2012.794 | 2003.211 | -9.583 |
| 35 | 27 | 2015.966 | 2005.809 | -10.157 |
| 35 | 28 | 2003.668 | 1997.729 | -5.939 |
| 35 | 29 | 2019.172 | 1961.290 | -57.882 |
| 35 | 30 | 2006.755 | 1995.367 | -11.388 |
| 50 | 31 | 2006.210 | 1988.129 | -18.081 |
| 50 | 32 | 1986.682 | 2012.119 | 25.437 |
| 50 | 33 | 1982.002 | 2012.587 | 30.585 |
| 50 | 34 | 1990.856 | 2022.016 | 31.160 |
| 50 | 35 | 1986.042 | 1955.224 | -30.818 |
| 55 | 36 | 1997.004 | 1960.185 | -36.819 |
| 55 | 37 | 1970.041 | 1960.804 | -9.237 |
| 55 | 38 | 1985.607 | 1988.848 | 3.241 |
| 55 | 39 | 1966.436 | 1958.434 | -8.002 |
| 55 | 40 | 1989.682 | 1998.462 | 8.780 |
| 100 | 41 | 2005.845 | 2055.717 | 49.872 |
| 100 | 42 | 2009.338 | 2022.134 | 12.796 |
| 100 | 43 | 1992.682 | 2038.787 | 46.105 |
| 100 | 44 | 2032.724 | 2072.109 | 39.385 |
| 100 | 45 | 1973.229 | 2055.005 | 81.776 |
| 105 | 46 | 1981.506 | 2049.744 | 68.238 |
| 105 | 47 | 1978.304 | 1964.156 | -14.148 |
| 105 | 48 | 2002.012 | 2047.501 | 45.489 |
| 105 | 49 | 1961.506 | 2047.382 | 85.876 |
| 105 | 50 | 2002.405 | 2037.896 | 35.491 |
| 105 | 51 | 1987.834 | 2040.067 | 52.233 |
| 105 | 52 | 1984.135 | 2043.653 | 59.518 |
| 105 | 53 | 1998.236 | 2067.810 | 69.574 |
| 105 | 54 | 2016.093 | 2054.482 | 38.389 |
| 105 | 55 | 2011.437 | 2040.859 | 29.422 |
| 105 | 56 | 1970.845 | 2046.485 | 75.640 |
| 105 | 57 | 2002.641 | 2030.911 | 28.270 |
| 105 | 58 | 2007.363 | 2041.625 | 34.262 |
| 105 | 59 | 1991.767 | 1963.410 | -28.357 |
| 105 | 60 | 1993.724 | 2013.296 | 19.572 |
| 105 | 61 | 1997.132 | 2008.370 | 11.238 |
| 105 | 62 | 2004.468 | 1916.601 | -87.867 |
| 105 | 63 | 1959.630 | 1868.969 | -90.661 |
| 105 | 64 | 2005.118 | 1929.076 | -76.042 |
| 105 | 65 | 1981.620 | 2040.950 | 59.330 |
| 105 | 66 | 1961.660 | 2069.469 | 107.809 |
| 105 | 67 | 1984.366 | 2066.616 | 82.250 |
| | Max | 2032.724 | 2072.109 | 107.809 |
| | Average | 1994.755 | 2003.396 | 8.641 |
| | Min | 1959.630 | 1868.969 | -90.661 |
| | Std Dev | 16.909 | 38.229 | 41.441 |



| 9.96 FSW_EXT_RT_2MHz_14V | | | | | | | | | | | |
|--------------------------|----------|-------------|----------|-----------|-----------|----------|----------|----------|----------|----------|----------|
| Test Site | Tester | Test Number | Unit | Max Limit | Min Limit | | | | | | |
| | | | kHz | kHz | kHz | | | | | | |
| | | | 2300 | 1700 | 2300 | | | | | | |
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 | 1700.000 |
| Min | 2002.519 | 1989.205 | 1972.253 | 1969.974 | 1969.915 | 1946.599 | 1961.290 | 1955.224 | 1958.434 | 2022.134 | 1868.969 |
| Average | 2007.409 | 2005.272 | 1985.737 | 1987.638 | 1991.017 | 1982.773 | 1992.681 | 1998.015 | 1973.347 | 2048.750 | 2017.697 |
| Max | 2015.006 | 2019.444 | 1996.430 | 2002.706 | 2028.119 | 2009.570 | 2005.809 | 2022.016 | 1998.462 | 2072.109 | 2069.469 |
| UL | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 | 2300.000 |

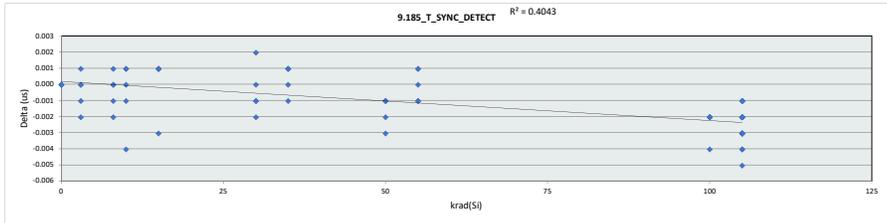


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

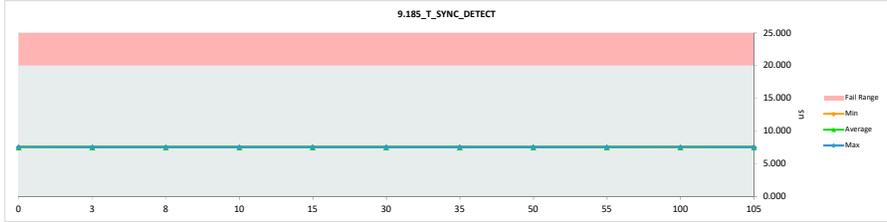
| 9.185_T_SYNC_DETECT | |
|---------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | us |
| Max Limit | 20 |
| Min Limit | 4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.590 | 7.590 | 0.000 |
| 0 | 992 | 7.590 | 7.590 | 0.000 |
| 0 | 993 | 7.589 | 7.589 | 0.000 |
| 3 | 1 | 7.587 | 7.587 | 0.000 |
| 3 | 2 | 7.588 | 7.586 | -0.002 |
| 3 | 3 | 7.587 | 7.587 | 0.000 |
| 3 | 4 | 7.587 | 7.586 | -0.001 |
| 3 | 5 | 7.587 | 7.588 | 0.001 |
| 8 | 6 | 7.587 | 7.588 | 0.001 |
| 8 | 7 | 7.587 | 7.587 | 0.000 |
| 8 | 8 | 7.587 | 7.587 | 0.000 |
| 8 | 9 | 7.587 | 7.586 | -0.001 |
| 8 | 10 | 7.589 | 7.587 | -0.002 |
| 10 | 11 | 7.589 | 7.585 | -0.004 |
| 10 | 12 | 7.588 | 7.587 | -0.001 |
| 10 | 13 | 7.587 | 7.588 | 0.001 |
| 10 | 14 | 7.586 | 7.586 | 0.000 |
| 10 | 15 | 7.587 | 7.588 | 0.001 |
| 10 | 16 | 7.586 | 7.587 | 0.001 |
| 15 | 17 | 7.588 | 7.585 | -0.003 |
| 15 | 18 | 7.587 | 7.588 | 0.001 |
| 15 | 19 | 7.587 | 7.588 | 0.001 |
| 15 | 20 | 7.587 | 7.588 | 0.001 |
| 30 | 21 | 7.588 | 7.587 | -0.001 |
| 30 | 22 | 7.587 | 7.587 | 0.000 |
| 30 | 23 | 7.588 | 7.587 | -0.001 |
| 30 | 24 | 7.587 | 7.589 | 0.002 |
| 30 | 25 | 7.588 | 7.586 | -0.002 |
| 35 | 26 | 7.586 | 7.587 | 0.001 |
| 35 | 27 | 7.587 | 7.587 | 0.000 |
| 35 | 28 | 7.587 | 7.586 | -0.001 |
| 35 | 29 | 7.587 | 7.588 | 0.001 |
| 35 | 30 | 7.587 | 7.588 | 0.001 |
| 50 | 31 | 7.587 | 7.586 | -0.001 |
| 50 | 32 | 7.588 | 7.587 | -0.001 |
| 50 | 33 | 7.588 | 7.587 | -0.001 |
| 50 | 34 | 7.587 | 7.585 | -0.002 |
| 50 | 35 | 7.588 | 7.585 | -0.003 |
| 55 | 36 | 7.587 | 7.588 | 0.001 |
| 55 | 37 | 7.587 | 7.586 | -0.001 |
| 55 | 38 | 7.585 | 7.586 | 0.001 |
| 55 | 39 | 7.587 | 7.587 | 0.000 |
| 55 | 40 | 7.588 | 7.587 | -0.001 |
| 100 | 41 | 7.587 | 7.585 | -0.002 |
| 100 | 42 | 7.587 | 7.585 | -0.002 |
| 100 | 43 | 7.587 | 7.585 | -0.002 |
| 100 | 44 | 7.586 | 7.584 | -0.002 |
| 100 | 45 | 7.588 | 7.584 | -0.004 |
| 105 | 46 | 7.588 | 7.585 | -0.003 |
| 105 | 47 | 7.588 | 7.586 | -0.002 |
| 105 | 48 | 7.588 | 7.585 | -0.003 |
| 105 | 49 | 7.588 | 7.585 | -0.003 |
| 105 | 50 | 7.588 | 7.587 | -0.001 |
| 105 | 51 | 7.590 | 7.587 | -0.003 |
| 105 | 52 | 7.587 | 7.586 | -0.001 |
| 105 | 53 | 7.588 | 7.585 | -0.003 |
| 105 | 54 | 7.588 | 7.583 | -0.005 |
| 105 | 55 | 7.587 | 7.585 | -0.002 |
| 105 | 56 | 7.589 | 7.585 | -0.004 |
| 105 | 57 | 7.588 | 7.586 | -0.002 |
| 105 | 58 | 7.588 | 7.586 | -0.002 |
| 105 | 59 | 7.588 | 7.585 | -0.003 |
| 105 | 60 | 7.588 | 7.586 | -0.002 |
| 105 | 61 | 7.587 | 7.586 | -0.001 |
| 105 | 62 | 7.586 | 7.585 | -0.001 |
| 105 | 63 | 7.588 | 7.586 | -0.002 |
| 105 | 64 | 7.587 | 7.585 | -0.002 |
| 105 | 65 | 7.589 | 7.586 | -0.003 |
| 105 | 66 | 7.588 | 7.584 | -0.004 |
| 105 | 67 | 7.588 | 7.585 | -0.003 |
| Max | | 7.590 | 7.590 | 0.002 |
| Average | | 7.588 | 7.586 | -0.001 |
| Min | | 7.585 | 7.583 | -0.005 |
| Std Dev | | 0.001 | 0.001 | 0.002 |



| 9.185_T_SYNC_DETECT | |
|---------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 20 us |
| Min Limit | us |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | | | | | | | | | | | |
| Min | 7.589 | 7.586 | 7.586 | 7.585 | 7.585 | 7.586 | 7.586 | 7.585 | 7.586 | 7.584 | 7.583 |
| Average | 7.590 | 7.587 | 7.587 | 7.587 | 7.587 | 7.587 | 7.587 | 7.587 | 7.586 | 7.587 | 7.585 |
| Max | | | | | | | | | | | |
| UL | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 | 20.000 |

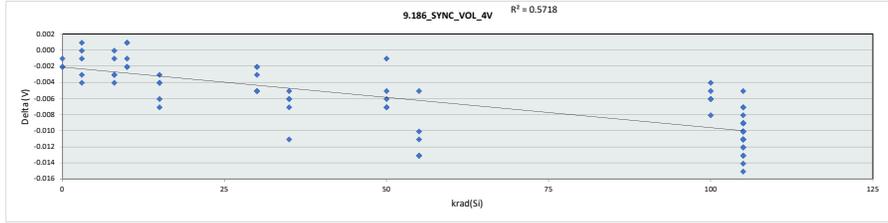


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

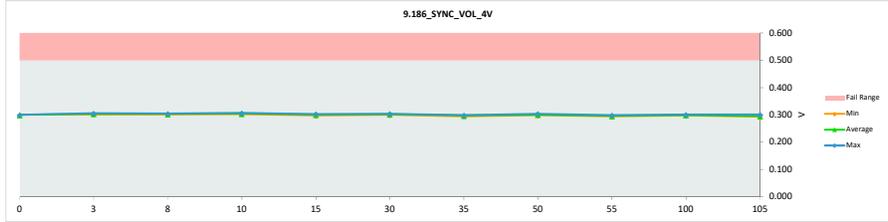
| 9.186_SYNC_VOL_4V | |
|-------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V V |
| Max Limit | 0.5 0.5 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.302 | 0.300 | -0.002 |
| 0 | 992 | 0.301 | 0.300 | -0.001 |
| 0 | 993 | 0.302 | 0.300 | -0.002 |
| 3 | 1 | 0.306 | 0.302 | -0.004 |
| 3 | 2 | 0.306 | 0.303 | -0.003 |
| 3 | 3 | 0.305 | 0.305 | 0.000 |
| 3 | 4 | 0.305 | 0.304 | -0.001 |
| 3 | 5 | 0.305 | 0.306 | 0.001 |
| 8 | 6 | 0.307 | 0.304 | -0.003 |
| 8 | 7 | 0.305 | 0.302 | -0.003 |
| 8 | 8 | 0.304 | 0.304 | 0.000 |
| 8 | 9 | 0.306 | 0.305 | -0.001 |
| 8 | 10 | 0.307 | 0.303 | -0.004 |
| 10 | 11 | 0.306 | 0.305 | -0.001 |
| 10 | 12 | 0.306 | 0.307 | 0.001 |
| 10 | 13 | 0.305 | 0.303 | -0.002 |
| 10 | 14 | 0.306 | 0.304 | -0.002 |
| 10 | 15 | 0.304 | 0.305 | 0.001 |
| 15 | 16 | 0.306 | 0.302 | -0.004 |
| 15 | 17 | 0.305 | 0.301 | -0.004 |
| 15 | 18 | 0.307 | 0.301 | -0.006 |
| 15 | 19 | 0.305 | 0.298 | -0.007 |
| 15 | 20 | 0.306 | 0.303 | -0.003 |
| 30 | 21 | 0.307 | 0.302 | -0.005 |
| 30 | 22 | 0.306 | 0.303 | -0.003 |
| 30 | 23 | 0.305 | 0.300 | -0.005 |
| 30 | 24 | 0.306 | 0.304 | -0.002 |
| 30 | 25 | 0.305 | 0.303 | -0.002 |
| 35 | 26 | 0.304 | 0.297 | -0.007 |
| 35 | 27 | 0.304 | 0.298 | -0.006 |
| 35 | 28 | 0.305 | 0.299 | -0.006 |
| 35 | 29 | 0.304 | 0.299 | -0.005 |
| 35 | 30 | 0.306 | 0.295 | -0.011 |
| 50 | 31 | 0.305 | 0.300 | -0.005 |
| 50 | 32 | 0.306 | 0.300 | -0.006 |
| 50 | 33 | 0.306 | 0.299 | -0.007 |
| 50 | 34 | 0.308 | 0.301 | -0.007 |
| 50 | 35 | 0.305 | 0.304 | -0.001 |
| 55 | 36 | 0.307 | 0.296 | -0.011 |
| 55 | 37 | 0.304 | 0.299 | -0.005 |
| 55 | 38 | 0.307 | 0.294 | -0.013 |
| 55 | 39 | 0.310 | 0.297 | -0.013 |
| 55 | 40 | 0.306 | 0.296 | -0.010 |
| 100 | 41 | 0.304 | 0.299 | -0.005 |
| 100 | 42 | 0.305 | 0.301 | -0.004 |
| 100 | 43 | 0.305 | 0.299 | -0.006 |
| 100 | 44 | 0.306 | 0.298 | -0.008 |
| 100 | 45 | 0.306 | 0.300 | -0.006 |
| 105 | 46 | 0.303 | 0.296 | -0.007 |
| 105 | 47 | 0.309 | 0.294 | -0.015 |
| 105 | 48 | 0.306 | 0.295 | -0.011 |
| 105 | 49 | 0.306 | 0.295 | -0.011 |
| 105 | 50 | 0.304 | 0.296 | -0.008 |
| 105 | 51 | 0.307 | 0.294 | -0.013 |
| 105 | 52 | 0.306 | 0.297 | -0.009 |
| 105 | 53 | 0.305 | 0.294 | -0.011 |
| 105 | 54 | 0.306 | 0.301 | -0.005 |
| 105 | 55 | 0.306 | 0.294 | -0.012 |
| 105 | 56 | 0.307 | 0.293 | -0.014 |
| 105 | 57 | 0.303 | 0.294 | -0.009 |
| 105 | 58 | 0.305 | 0.295 | -0.010 |
| 105 | 59 | 0.305 | 0.294 | -0.011 |
| 105 | 60 | 0.304 | 0.295 | -0.009 |
| 105 | 61 | 0.306 | 0.296 | -0.010 |
| 105 | 62 | 0.309 | 0.296 | -0.013 |
| 105 | 63 | 0.303 | 0.296 | -0.007 |
| 105 | 64 | 0.306 | 0.296 | -0.010 |
| 105 | 65 | 0.305 | 0.295 | -0.010 |
| 105 | 66 | 0.307 | 0.295 | -0.012 |
| 105 | 67 | 0.304 | 0.295 | -0.009 |
| 105 | 68 | 0.310 | 0.307 | 0.001 |
| 105 | 69 | 0.305 | 0.299 | -0.006 |
| 105 | 70 | 0.301 | 0.293 | -0.015 |
| 105 | 71 | 0.002 | 0.004 | 0.004 |



| 9.186_SYNC_VOL_4V | |
|-------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.5 V |
| Min Limit | V |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Min | 0.300 | 0.302 | 0.302 | 0.303 | 0.298 | 0.300 | 0.295 | 0.299 | 0.294 | 0.298 | 0.293 |
| Average | 0.300 | 0.304 | 0.304 | 0.305 | 0.301 | 0.302 | 0.298 | 0.301 | 0.296 | 0.299 | 0.295 |
| Max | 0.300 | 0.306 | 0.305 | 0.307 | 0.303 | 0.304 | 0.299 | 0.304 | 0.299 | 0.301 | 0.301 |
| UL | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 |



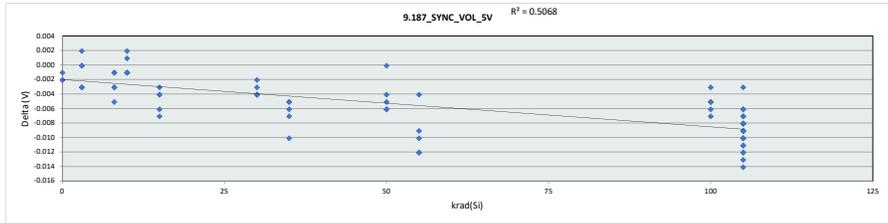
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 9.187_SYNC_VOL_5V | |
|-------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V V |
| Max Limit | 0.5 0.5 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.289 | 0.287 | -0.002 |
| 0 | 992 | 0.288 | 0.287 | -0.001 |
| 0 | 993 | 0.289 | 0.287 | -0.002 |
| 3 | 1 | 0.292 | 0.289 | -0.003 |
| 3 | 2 | 0.292 | 0.289 | -0.003 |
| 3 | 3 | 0.291 | 0.291 | 0.000 |
| 3 | 4 | 0.291 | 0.291 | 0.000 |
| 3 | 5 | 0.291 | 0.293 | 0.002 |
| 8 | 6 | 0.294 | 0.291 | -0.003 |
| 8 | 7 | 0.292 | 0.289 | -0.003 |
| 8 | 8 | 0.291 | 0.290 | -0.001 |
| 8 | 9 | 0.292 | 0.291 | -0.001 |
| 8 | 10 | 0.294 | 0.289 | -0.005 |
| 10 | 11 | 0.292 | 0.291 | -0.001 |
| 10 | 12 | 0.292 | 0.293 | 0.001 |
| 10 | 13 | 0.291 | 0.290 | -0.001 |
| 10 | 14 | 0.292 | 0.291 | -0.001 |
| 10 | 15 | 0.290 | 0.292 | 0.002 |
| 15 | 16 | 0.292 | 0.288 | -0.004 |
| 15 | 17 | 0.291 | 0.287 | -0.004 |
| 15 | 18 | 0.293 | 0.287 | -0.006 |
| 15 | 19 | 0.291 | 0.284 | -0.007 |
| 15 | 20 | 0.292 | 0.289 | -0.003 |
| 30 | 21 | 0.293 | 0.289 | -0.004 |
| 30 | 22 | 0.293 | 0.289 | -0.004 |
| 30 | 23 | 0.291 | 0.287 | -0.004 |
| 30 | 24 | 0.292 | 0.290 | -0.002 |
| 30 | 25 | 0.292 | 0.289 | -0.003 |
| 35 | 26 | 0.291 | 0.284 | -0.007 |
| 35 | 27 | 0.290 | 0.285 | -0.005 |
| 35 | 28 | 0.291 | 0.286 | -0.005 |
| 35 | 29 | 0.291 | 0.285 | -0.006 |
| 35 | 30 | 0.292 | 0.282 | -0.010 |
| 50 | 31 | 0.291 | 0.287 | -0.004 |
| 50 | 32 | 0.292 | 0.287 | -0.005 |
| 50 | 33 | 0.292 | 0.286 | -0.006 |
| 50 | 34 | 0.294 | 0.288 | -0.006 |
| 50 | 35 | 0.291 | 0.291 | 0.000 |
| 55 | 36 | 0.293 | 0.283 | -0.010 |
| 55 | 37 | 0.290 | 0.286 | -0.004 |
| 55 | 38 | 0.293 | 0.281 | -0.012 |
| 55 | 39 | 0.296 | 0.284 | -0.012 |
| 55 | 40 | 0.292 | 0.283 | -0.009 |
| 100 | 41 | 0.291 | 0.286 | -0.005 |
| 100 | 42 | 0.291 | 0.288 | -0.003 |
| 100 | 43 | 0.292 | 0.286 | -0.006 |
| 100 | 44 | 0.292 | 0.285 | -0.007 |
| 100 | 45 | 0.292 | 0.287 | -0.005 |
| 105 | 46 | 0.289 | 0.283 | -0.006 |
| 105 | 47 | 0.295 | 0.281 | -0.014 |
| 105 | 48 | 0.292 | 0.282 | -0.010 |
| 105 | 49 | 0.292 | 0.282 | -0.010 |
| 105 | 50 | 0.290 | 0.283 | -0.007 |
| 105 | 51 | 0.293 | 0.281 | -0.012 |
| 105 | 52 | 0.292 | 0.284 | -0.008 |
| 105 | 53 | 0.291 | 0.282 | -0.009 |
| 105 | 54 | 0.292 | 0.289 | -0.003 |
| 105 | 55 | 0.292 | 0.281 | -0.011 |
| 105 | 56 | 0.293 | 0.280 | -0.013 |
| 105 | 57 | 0.289 | 0.281 | -0.008 |
| 105 | 58 | 0.291 | 0.282 | -0.009 |
| 105 | 59 | 0.291 | 0.281 | -0.010 |
| 105 | 60 | 0.290 | 0.282 | -0.008 |
| 105 | 61 | 0.292 | 0.283 | -0.009 |
| 105 | 62 | 0.295 | 0.283 | -0.012 |
| 105 | 63 | 0.289 | 0.283 | -0.006 |
| 105 | 64 | 0.292 | 0.284 | -0.008 |
| 105 | 65 | 0.291 | 0.282 | -0.009 |
| 105 | 66 | 0.293 | 0.282 | -0.011 |
| 105 | 67 | 0.290 | 0.283 | -0.007 |

| | | | |
|---------|-------|-------|--------|
| Max | 0.296 | 0.293 | 0.002 |
| Average | 0.292 | 0.286 | -0.006 |
| Min | 0.288 | 0.280 | -0.014 |
| Std Dev | 0.001 | 0.004 | 0.004 |



| 9.187_SYNC_VOL_5V | |
|-------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.5 V |
| Min Limit | V |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 0.287 | 0.289 | 0.289 | 0.290 | 0.284 | 0.287 | 0.282 | 0.286 | 0.281 | 0.285 | 0.280 |
| Average | 0.287 | 0.291 | 0.290 | 0.291 | 0.287 | 0.289 | 0.284 | 0.288 | 0.283 | 0.286 | 0.282 |
| Max | 0.287 | 0.293 | 0.291 | 0.293 | 0.289 | 0.290 | 0.286 | 0.291 | 0.286 | 0.288 | 0.289 |
| UL | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 |

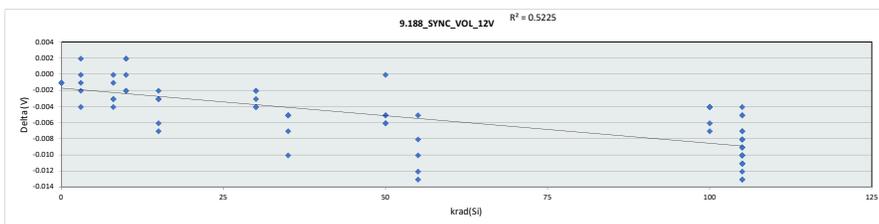


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

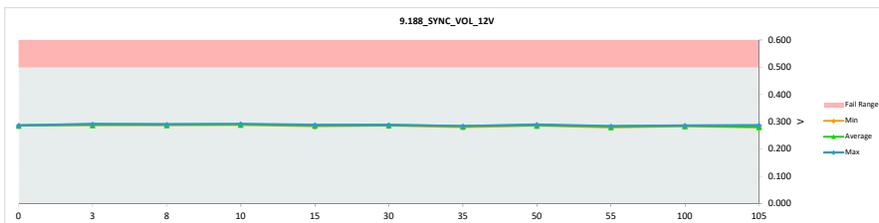
| 9.188_SYNC_VOL_12V | |
|--------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V V |
| Max Limit | 0.5 0.5 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.288 | 0.287 | -0.001 |
| 0 | 992 | 0.287 | 0.286 | -0.001 |
| 0 | 993 | 0.288 | 0.287 | -0.001 |
| 3 | 1 | 0.292 | 0.288 | -0.004 |
| 3 | 2 | 0.291 | 0.289 | -0.002 |
| 3 | 3 | 0.291 | 0.290 | -0.001 |
| 3 | 4 | 0.290 | 0.290 | 0.000 |
| 3 | 5 | 0.290 | 0.292 | 0.002 |
| 8 | 6 | 0.293 | 0.290 | -0.003 |
| 8 | 7 | 0.291 | 0.288 | -0.003 |
| 8 | 8 | 0.290 | 0.289 | -0.001 |
| 8 | 9 | 0.291 | 0.291 | 0.000 |
| 8 | 10 | 0.293 | 0.289 | -0.004 |
| 10 | 11 | 0.291 | 0.291 | 0.000 |
| 10 | 12 | 0.291 | 0.293 | 0.002 |
| 10 | 13 | 0.291 | 0.289 | -0.002 |
| 10 | 14 | 0.292 | 0.290 | -0.002 |
| 10 | 15 | 0.289 | 0.291 | 0.002 |
| 15 | 16 | 0.291 | 0.288 | -0.003 |
| 15 | 17 | 0.290 | 0.287 | -0.003 |
| 15 | 18 | 0.293 | 0.287 | -0.006 |
| 15 | 19 | 0.291 | 0.284 | -0.007 |
| 15 | 20 | 0.291 | 0.289 | -0.002 |
| 30 | 21 | 0.292 | 0.288 | -0.004 |
| 30 | 22 | 0.292 | 0.289 | -0.003 |
| 30 | 23 | 0.290 | 0.286 | -0.004 |
| 30 | 24 | 0.291 | 0.289 | -0.002 |
| 30 | 25 | 0.291 | 0.289 | -0.002 |
| 35 | 26 | 0.290 | 0.283 | -0.007 |
| 35 | 27 | 0.289 | 0.284 | -0.005 |
| 35 | 28 | 0.290 | 0.285 | -0.005 |
| 35 | 29 | 0.290 | 0.285 | -0.005 |
| 35 | 30 | 0.291 | 0.281 | -0.010 |
| 50 | 31 | 0.291 | 0.286 | -0.005 |
| 50 | 32 | 0.292 | 0.286 | -0.006 |
| 50 | 33 | 0.291 | 0.286 | -0.005 |
| 50 | 34 | 0.294 | 0.288 | -0.006 |
| 50 | 35 | 0.290 | 0.290 | 0.000 |
| 55 | 36 | 0.292 | 0.282 | -0.010 |
| 55 | 37 | 0.290 | 0.285 | -0.005 |
| 55 | 38 | 0.292 | 0.280 | -0.012 |
| 55 | 39 | 0.296 | 0.283 | -0.013 |
| 55 | 40 | 0.291 | 0.283 | -0.008 |
| 100 | 41 | 0.290 | 0.286 | -0.004 |
| 100 | 42 | 0.291 | 0.287 | -0.004 |
| 100 | 43 | 0.291 | 0.285 | -0.006 |
| 100 | 44 | 0.291 | 0.284 | -0.007 |
| 100 | 45 | 0.291 | 0.287 | -0.004 |
| 105 | 46 | 0.288 | 0.283 | -0.005 |
| 105 | 47 | 0.294 | 0.281 | -0.013 |
| 105 | 48 | 0.291 | 0.281 | -0.010 |
| 105 | 49 | 0.292 | 0.281 | -0.011 |
| 105 | 50 | 0.290 | 0.283 | -0.007 |
| 105 | 51 | 0.292 | 0.281 | -0.011 |
| 105 | 52 | 0.292 | 0.283 | -0.009 |
| 105 | 53 | 0.291 | 0.281 | -0.010 |
| 105 | 54 | 0.292 | 0.288 | -0.004 |
| 105 | 55 | 0.292 | 0.280 | -0.012 |
| 105 | 56 | 0.292 | 0.279 | -0.013 |
| 105 | 57 | 0.288 | 0.280 | -0.008 |
| 105 | 58 | 0.290 | 0.282 | -0.008 |
| 105 | 59 | 0.290 | 0.281 | -0.009 |
| 105 | 60 | 0.290 | 0.282 | -0.008 |
| 105 | 61 | 0.292 | 0.282 | -0.010 |
| 105 | 62 | 0.294 | 0.283 | -0.011 |
| 105 | 63 | 0.288 | 0.283 | -0.005 |
| 105 | 64 | 0.292 | 0.283 | -0.009 |
| 105 | 65 | 0.291 | 0.281 | -0.010 |
| 105 | 66 | 0.293 | 0.282 | -0.011 |
| 105 | 67 | 0.289 | 0.282 | -0.007 |
| 105 | 68 | 0.296 | 0.293 | 0.002 |
| 105 | 69 | 0.291 | 0.285 | -0.005 |
| 105 | 70 | 0.287 | 0.279 | -0.013 |
| 105 | 71 | 0.002 | 0.004 | 0.004 |



| 9.188_SYNC_VOL_12V | |
|--------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.5 V |
| Min Limit | V |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Min | 0.286 | 0.288 | 0.288 | 0.289 | 0.284 | 0.286 | 0.281 | 0.286 | 0.280 | 0.284 | 0.279 |
| Average | 0.287 | 0.290 | 0.289 | 0.291 | 0.287 | 0.288 | 0.284 | 0.287 | 0.283 | 0.286 | 0.282 |
| Max | 0.287 | 0.292 | 0.291 | 0.293 | 0.289 | 0.289 | 0.285 | 0.290 | 0.285 | 0.287 | 0.288 |
| UL | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 |

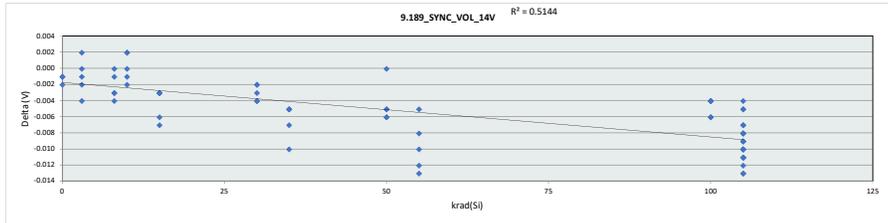


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

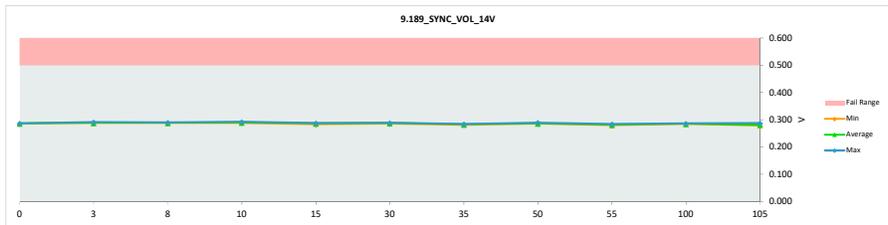
| 9.189_SYNC_VOL_14V | |
|--------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.5 |
| Min Limit | 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.288 | 0.287 | -0.001 |
| 0 | 992 | 0.288 | 0.286 | -0.002 |
| 0 | 993 | 0.288 | 0.287 | -0.001 |
| 3 | 1 | 0.292 | 0.288 | -0.004 |
| 3 | 2 | 0.291 | 0.289 | -0.002 |
| 3 | 3 | 0.291 | 0.290 | -0.001 |
| 3 | 4 | 0.290 | 0.290 | 0.000 |
| 3 | 5 | 0.290 | 0.292 | 0.002 |
| 8 | 6 | 0.293 | 0.290 | -0.003 |
| 8 | 7 | 0.291 | 0.288 | -0.003 |
| 8 | 8 | 0.290 | 0.289 | -0.001 |
| 8 | 9 | 0.291 | 0.291 | 0.000 |
| 8 | 10 | 0.293 | 0.289 | -0.004 |
| 10 | 11 | 0.291 | 0.291 | 0.000 |
| 10 | 12 | 0.291 | 0.293 | 0.002 |
| 10 | 13 | 0.290 | 0.289 | -0.001 |
| 10 | 14 | 0.292 | 0.290 | -0.002 |
| 10 | 15 | 0.289 | 0.291 | 0.002 |
| 15 | 16 | 0.291 | 0.288 | -0.003 |
| 15 | 17 | 0.290 | 0.287 | -0.003 |
| 15 | 18 | 0.293 | 0.287 | -0.006 |
| 15 | 19 | 0.291 | 0.284 | -0.007 |
| 15 | 20 | 0.291 | 0.288 | -0.003 |
| 30 | 21 | 0.292 | 0.288 | -0.004 |
| 30 | 22 | 0.292 | 0.289 | -0.003 |
| 30 | 23 | 0.290 | 0.286 | -0.004 |
| 30 | 24 | 0.291 | 0.289 | -0.002 |
| 30 | 25 | 0.291 | 0.289 | -0.002 |
| 35 | 26 | 0.290 | 0.283 | -0.007 |
| 35 | 27 | 0.289 | 0.284 | -0.005 |
| 35 | 28 | 0.290 | 0.285 | -0.005 |
| 35 | 29 | 0.290 | 0.285 | -0.005 |
| 35 | 30 | 0.291 | 0.281 | -0.010 |
| 50 | 31 | 0.291 | 0.286 | -0.005 |
| 50 | 32 | 0.292 | 0.286 | -0.006 |
| 50 | 33 | 0.291 | 0.286 | -0.005 |
| 50 | 34 | 0.294 | 0.288 | -0.006 |
| 50 | 35 | 0.290 | 0.290 | 0.000 |
| 55 | 36 | 0.292 | 0.282 | -0.010 |
| 55 | 37 | 0.290 | 0.285 | -0.005 |
| 55 | 38 | 0.292 | 0.280 | -0.012 |
| 55 | 39 | 0.296 | 0.283 | -0.013 |
| 55 | 40 | 0.291 | 0.283 | -0.008 |
| 100 | 41 | 0.290 | 0.286 | -0.004 |
| 100 | 42 | 0.291 | 0.287 | -0.004 |
| 100 | 43 | 0.291 | 0.285 | -0.006 |
| 100 | 44 | 0.291 | 0.285 | -0.006 |
| 100 | 45 | 0.291 | 0.287 | -0.004 |
| 105 | 46 | 0.288 | 0.283 | -0.005 |
| 105 | 47 | 0.294 | 0.281 | -0.013 |
| 105 | 48 | 0.291 | 0.281 | -0.010 |
| 105 | 49 | 0.292 | 0.281 | -0.011 |
| 105 | 50 | 0.290 | 0.283 | -0.007 |
| 105 | 51 | 0.292 | 0.281 | -0.011 |
| 105 | 52 | 0.292 | 0.283 | -0.009 |
| 105 | 53 | 0.291 | 0.281 | -0.010 |
| 105 | 54 | 0.292 | 0.288 | -0.004 |
| 105 | 55 | 0.292 | 0.280 | -0.012 |
| 105 | 56 | 0.292 | 0.279 | -0.013 |
| 105 | 57 | 0.288 | 0.280 | -0.008 |
| 105 | 58 | 0.290 | 0.282 | -0.008 |
| 105 | 59 | 0.290 | 0.281 | -0.009 |
| 105 | 60 | 0.290 | 0.282 | -0.008 |
| 105 | 61 | 0.292 | 0.282 | -0.010 |
| 105 | 62 | 0.294 | 0.283 | -0.011 |
| 105 | 63 | 0.288 | 0.283 | -0.005 |
| 105 | 64 | 0.292 | 0.283 | -0.009 |
| 105 | 65 | 0.291 | 0.281 | -0.010 |
| 105 | 66 | 0.293 | 0.282 | -0.011 |
| 105 | 67 | 0.289 | 0.282 | -0.007 |
| Max | | 0.296 | 0.293 | 0.002 |
| Average | | 0.291 | 0.285 | -0.005 |
| Min | | 0.288 | 0.279 | -0.013 |
| Std Dev | | 0.002 | 0.004 | 0.004 |



| 9.189_SYNC_VOL_14V | |
|--------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.5 |
| Min Limit | V |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Min | 0.286 | 0.288 | 0.288 | 0.289 | 0.284 | 0.286 | 0.281 | 0.286 | 0.280 | 0.285 | 0.279 |
| Average | 0.287 | 0.290 | 0.289 | 0.291 | 0.287 | 0.288 | 0.284 | 0.287 | 0.283 | 0.286 | 0.282 |
| Max | 0.287 | 0.292 | 0.291 | 0.293 | 0.288 | 0.289 | 0.285 | 0.290 | 0.285 | 0.287 | 0.288 |
| UL | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 | 0.500 |

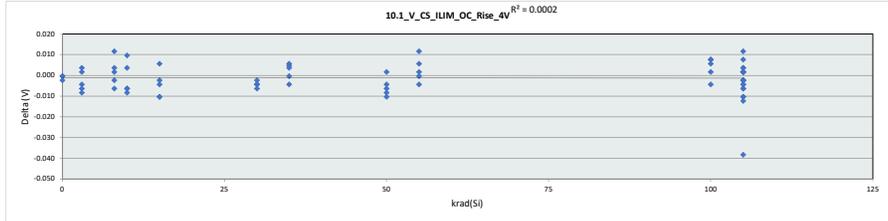


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

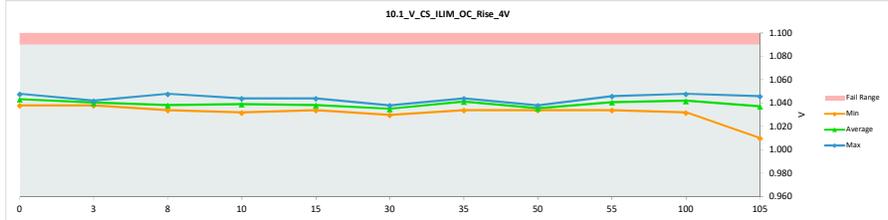
| 10.1 V_CS_ILIM_OC_Rise_4V | |
|---------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 1.08 |
| Min Limit | 0.95 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.048 | 1.048 | 0.000 |
| 0 | 992 | 1.046 | 1.044 | -0.002 |
| 0 | 993 | 1.038 | 1.038 | 0.000 |
| 3 | 1 | 1.046 | 1.038 | -0.008 |
| 3 | 2 | 1.036 | 1.040 | 0.004 |
| 3 | 3 | 1.046 | 1.042 | -0.004 |
| 3 | 4 | 1.040 | 1.042 | 0.002 |
| 3 | 5 | 1.046 | 1.040 | -0.006 |
| 8 | 6 | 1.036 | 1.038 | 0.002 |
| 8 | 7 | 1.036 | 1.048 | 0.012 |
| 8 | 8 | 1.040 | 1.034 | -0.006 |
| 8 | 9 | 1.034 | 1.038 | 0.004 |
| 8 | 10 | 1.036 | 1.034 | -0.002 |
| 10 | 11 | 1.042 | 1.036 | -0.006 |
| 10 | 12 | 1.040 | 1.032 | -0.008 |
| 10 | 13 | 1.040 | 1.044 | 0.004 |
| 10 | 14 | 1.046 | 1.040 | -0.006 |
| 10 | 15 | 1.034 | 1.044 | 0.010 |
| 15 | 16 | 1.038 | 1.044 | 0.006 |
| 15 | 17 | 1.040 | 1.036 | -0.004 |
| 15 | 18 | 1.048 | 1.038 | -0.010 |
| 15 | 19 | 1.042 | 1.040 | -0.002 |
| 15 | 20 | 1.044 | 1.034 | -0.010 |
| 30 | 21 | 1.042 | 1.038 | -0.004 |
| 30 | 22 | 1.044 | 1.038 | -0.006 |
| 30 | 23 | 1.036 | 1.032 | -0.004 |
| 30 | 24 | 1.034 | 1.030 | -0.004 |
| 30 | 25 | 1.040 | 1.038 | -0.002 |
| 35 | 26 | 1.038 | 1.043 | 0.005 |
| 35 | 27 | 1.040 | 1.044 | 0.004 |
| 35 | 28 | 1.038 | 1.034 | -0.004 |
| 35 | 29 | 1.038 | 1.044 | 0.006 |
| 35 | 30 | 1.042 | 1.042 | 0.000 |
| 50 | 31 | 1.044 | 1.036 | -0.008 |
| 50 | 32 | 1.040 | 1.034 | -0.006 |
| 50 | 33 | 1.038 | 1.034 | -0.004 |
| 50 | 34 | 1.048 | 1.038 | -0.010 |
| 50 | 35 | 1.034 | 1.036 | 0.002 |
| 55 | 36 | 1.040 | 1.036 | -0.004 |
| 55 | 37 | 1.034 | 1.046 | 0.012 |
| 55 | 38 | 1.036 | 1.042 | 0.006 |
| 55 | 39 | 1.034 | 1.034 | 0.000 |
| 55 | 40 | 1.044 | 1.046 | 0.002 |
| 100 | 41 | 1.040 | 1.048 | 0.008 |
| 100 | 42 | 1.036 | 1.032 | -0.004 |
| 100 | 43 | 1.042 | 1.048 | 0.006 |
| 100 | 44 | 1.036 | 1.038 | 0.002 |
| 100 | 45 | 1.036 | 1.044 | 0.008 |
| 105 | 46 | 1.042 | 1.036 | -0.006 |
| 105 | 47 | 1.036 | 1.034 | -0.002 |
| 105 | 48 | 1.038 | 1.036 | -0.002 |
| 105 | 49 | 1.040 | 1.036 | -0.004 |
| 105 | 50 | 1.034 | 1.038 | 0.004 |
| 105 | 51 | 1.030 | 1.038 | 0.008 |
| 105 | 52 | 1.038 | 1.040 | 0.002 |
| 105 | 53 | 1.044 | 1.042 | -0.002 |
| 105 | 54 | 1.048 | 1.010 | -0.038 |
| 105 | 55 | 1.036 | 1.034 | -0.002 |
| 105 | 56 | 1.046 | 1.034 | -0.012 |
| 105 | 57 | 1.046 | 1.036 | -0.010 |
| 105 | 58 | 1.034 | 1.046 | 0.012 |
| 105 | 59 | 1.040 | 1.042 | 0.002 |
| 105 | 60 | 1.040 | 1.042 | 0.002 |
| 105 | 61 | 1.040 | 1.042 | 0.002 |
| 105 | 62 | 1.040 | 1.042 | 0.002 |
| 105 | 63 | 1.044 | 1.040 | -0.004 |
| 105 | 64 | 1.044 | 1.034 | -0.010 |
| 105 | 65 | 1.036 | 1.040 | 0.004 |
| 105 | 66 | 1.036 | 1.038 | 0.002 |
| 105 | 67 | 1.046 | 1.040 | -0.006 |
| Max | | 1.048 | 1.048 | 0.012 |
| Average | | 1.040 | 1.039 | -0.001 |
| Min | | 1.030 | 1.010 | -0.038 |
| Std Dev | | 0.004 | 0.006 | 0.007 |



| 10.1 V_CS_ILIM_OC_Rise_4V | |
|---------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 1.09 |
| Min Limit | V |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 1.038 | 1.038 | 1.034 | 1.032 | 1.034 | 1.030 | 1.034 | 1.034 | 1.034 | 1.032 | 1.010 |
| Average | 1.043 | 1.040 | 1.038 | 1.039 | 1.038 | 1.035 | 1.041 | 1.036 | 1.041 | 1.042 | 1.037 |
| Max | 1.048 | 1.042 | 1.048 | 1.044 | 1.044 | 1.038 | 1.044 | 1.038 | 1.046 | 1.048 | 1.046 |
| UL | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 |

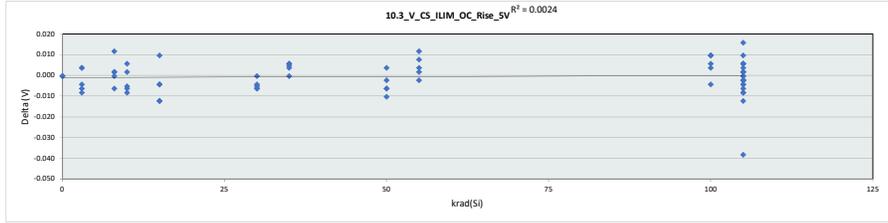


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

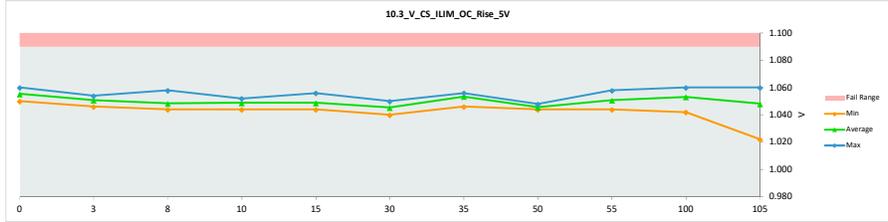
| 10.3 V CS ILIM OC Rise SV | |
|---------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 1.09 |
| Min Limit | 0.95 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.060 | 1.060 | 0.000 |
| 0 | 992 | 1.056 | 1.056 | 0.000 |
| 0 | 993 | 1.050 | 1.050 | 0.000 |
| 3 | 1 | 1.054 | 1.046 | -0.008 |
| 3 | 2 | 1.046 | 1.050 | 0.004 |
| 3 | 3 | 1.056 | 1.052 | -0.004 |
| 3 | 4 | 1.050 | 1.054 | 0.004 |
| 3 | 5 | 1.058 | 1.052 | -0.006 |
| 8 | 6 | 1.046 | 1.048 | 0.002 |
| 8 | 7 | 1.046 | 1.058 | 0.012 |
| 8 | 8 | 1.050 | 1.044 | -0.006 |
| 8 | 9 | 1.046 | 1.048 | 0.002 |
| 8 | 10 | 1.044 | 1.044 | 0.000 |
| 10 | 11 | 1.052 | 1.046 | -0.006 |
| 10 | 12 | 1.052 | 1.044 | -0.008 |
| 10 | 13 | 1.050 | 1.052 | 0.002 |
| 10 | 14 | 1.055 | 1.050 | -0.005 |
| 10 | 15 | 1.046 | 1.052 | 0.006 |
| 15 | 16 | 1.046 | 1.056 | 0.010 |
| 15 | 17 | 1.048 | 1.044 | -0.004 |
| 15 | 18 | 1.060 | 1.048 | -0.012 |
| 15 | 19 | 1.054 | 1.050 | -0.004 |
| 15 | 20 | 1.058 | 1.046 | -0.012 |
| 30 | 21 | 1.050 | 1.050 | 0.000 |
| 30 | 22 | 1.052 | 1.047 | -0.005 |
| 30 | 23 | 1.048 | 1.042 | -0.006 |
| 30 | 24 | 1.046 | 1.040 | -0.006 |
| 30 | 25 | 1.052 | 1.048 | -0.004 |
| 35 | 26 | 1.050 | 1.055 | 0.005 |
| 35 | 27 | 1.050 | 1.056 | 0.006 |
| 35 | 28 | 1.046 | 1.046 | 0.000 |
| 35 | 29 | 1.048 | 1.054 | 0.006 |
| 35 | 30 | 1.052 | 1.056 | 0.004 |
| 50 | 31 | 1.052 | 1.046 | -0.006 |
| 50 | 32 | 1.050 | 1.044 | -0.006 |
| 50 | 33 | 1.046 | 1.044 | -0.002 |
| 50 | 34 | 1.058 | 1.048 | -0.010 |
| 50 | 35 | 1.042 | 1.046 | 0.004 |
| 55 | 36 | 1.048 | 1.046 | -0.002 |
| 55 | 37 | 1.044 | 1.056 | 0.012 |
| 55 | 38 | 1.046 | 1.050 | 0.004 |
| 55 | 39 | 1.042 | 1.044 | 0.002 |
| 55 | 40 | 1.050 | 1.058 | 0.008 |
| 100 | 41 | 1.048 | 1.058 | 0.010 |
| 100 | 42 | 1.046 | 1.042 | -0.004 |
| 100 | 43 | 1.054 | 1.060 | 0.006 |
| 100 | 44 | 1.046 | 1.050 | 0.004 |
| 100 | 45 | 1.046 | 1.056 | 0.010 |
| 105 | 46 | 1.050 | 1.044 | -0.006 |
| 105 | 47 | 1.046 | 1.044 | -0.002 |
| 105 | 48 | 1.048 | 1.046 | -0.002 |
| 105 | 49 | 1.050 | 1.046 | -0.004 |
| 105 | 50 | 1.044 | 1.046 | 0.002 |
| 105 | 51 | 1.040 | 1.050 | 0.010 |
| 105 | 52 | 1.048 | 1.050 | 0.002 |
| 105 | 53 | 1.056 | 1.054 | -0.002 |
| 105 | 54 | 1.060 | 1.022 | -0.038 |
| 105 | 55 | 1.044 | 1.046 | 0.002 |
| 105 | 56 | 1.054 | 1.046 | -0.008 |
| 105 | 57 | 1.058 | 1.046 | -0.012 |
| 105 | 58 | 1.044 | 1.060 | 0.016 |
| 105 | 59 | 1.050 | 1.054 | 0.004 |
| 105 | 60 | 1.048 | 1.054 | 0.006 |
| 105 | 61 | 1.052 | 1.052 | 0.000 |
| 105 | 62 | 1.050 | 1.050 | 0.000 |
| 105 | 63 | 1.052 | 1.050 | -0.002 |
| 105 | 64 | 1.054 | 1.046 | -0.008 |
| 105 | 65 | 1.046 | 1.052 | 0.006 |
| 105 | 66 | 1.044 | 1.050 | 0.006 |
| 105 | 67 | 1.056 | 1.052 | -0.004 |
| Max | | 1.060 | 1.060 | 0.016 |
| Average | | 1.050 | 1.049 | -0.001 |
| Min | | 1.040 | 1.022 | -0.038 |
| Std Dev | | 0.005 | 0.006 | 0.008 |



| 10.3 V CS ILIM OC Rise SV | |
|---------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 1.09 |
| Min Limit | V |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | | | | | | | | | | | |
| Min | 1.050 | 1.046 | 1.044 | 1.044 | 1.044 | 1.040 | 1.046 | 1.044 | 1.044 | 1.042 | 1.022 |
| Average | 1.055 | 1.051 | 1.048 | 1.049 | 1.049 | 1.045 | 1.053 | 1.046 | 1.051 | 1.053 | 1.048 |
| Max | 1.060 | 1.054 | 1.058 | 1.052 | 1.056 | 1.050 | 1.056 | 1.048 | 1.058 | 1.060 | 1.060 |
| UL | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 |

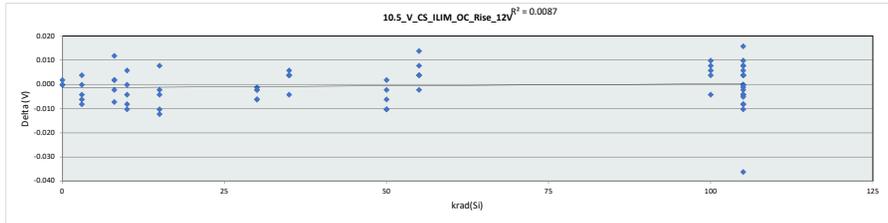


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

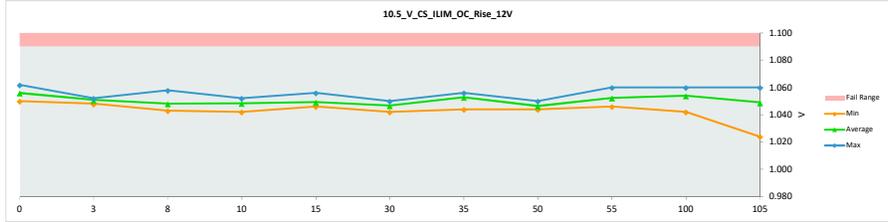
| 10.5 V CS ILIM_OC Rise 12V | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 1.08 |
| Min Limit | 0.95 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.060 | 1.062 | 0.002 |
| 0 | 992 | 1.056 | 1.056 | 0.000 |
| 0 | 993 | 1.050 | 1.050 | 0.000 |
| 3 | 1 | 1.056 | 1.048 | -0.008 |
| 3 | 2 | 1.046 | 1.050 | 0.004 |
| 3 | 3 | 1.056 | 1.052 | -0.004 |
| 3 | 4 | 1.052 | 1.052 | 0.000 |
| 3 | 5 | 1.058 | 1.052 | -0.006 |
| 8 | 6 | 1.046 | 1.048 | 0.002 |
| 8 | 7 | 1.046 | 1.058 | 0.012 |
| 8 | 8 | 1.050 | 1.043 | -0.007 |
| 8 | 9 | 1.046 | 1.048 | 0.002 |
| 8 | 10 | 1.046 | 1.044 | -0.002 |
| 10 | 11 | 1.052 | 1.048 | -0.004 |
| 10 | 12 | 1.052 | 1.042 | -0.010 |
| 10 | 13 | 1.052 | 1.052 | 0.000 |
| 10 | 14 | 1.056 | 1.048 | -0.008 |
| 10 | 15 | 1.046 | 1.052 | 0.006 |
| 15 | 16 | 1.048 | 1.056 | 0.008 |
| 15 | 17 | 1.048 | 1.046 | -0.002 |
| 15 | 18 | 1.060 | 1.048 | -0.012 |
| 15 | 19 | 1.054 | 1.050 | -0.004 |
| 15 | 20 | 1.056 | 1.046 | -0.010 |
| 30 | 21 | 1.052 | 1.050 | -0.002 |
| 30 | 22 | 1.051 | 1.050 | -0.001 |
| 30 | 23 | 1.048 | 1.042 | -0.006 |
| 30 | 24 | 1.048 | 1.042 | -0.006 |
| 30 | 25 | 1.052 | 1.050 | -0.002 |
| 35 | 26 | 1.052 | 1.056 | 0.004 |
| 35 | 27 | 1.050 | 1.056 | 0.006 |
| 35 | 28 | 1.048 | 1.044 | -0.004 |
| 35 | 29 | 1.048 | 1.052 | 0.004 |
| 35 | 30 | 1.052 | 1.056 | 0.004 |
| 50 | 31 | 1.054 | 1.044 | -0.010 |
| 50 | 32 | 1.052 | 1.046 | -0.006 |
| 50 | 33 | 1.048 | 1.046 | -0.002 |
| 50 | 34 | 1.060 | 1.050 | -0.010 |
| 50 | 35 | 1.044 | 1.046 | 0.002 |
| 55 | 36 | 1.048 | 1.046 | -0.002 |
| 55 | 37 | 1.044 | 1.058 | 0.014 |
| 55 | 38 | 1.048 | 1.052 | 0.004 |
| 55 | 39 | 1.042 | 1.046 | 0.004 |
| 55 | 40 | 1.052 | 1.060 | 0.008 |
| 100 | 41 | 1.050 | 1.058 | 0.008 |
| 100 | 42 | 1.046 | 1.042 | -0.004 |
| 100 | 43 | 1.056 | 1.060 | 0.004 |
| 100 | 44 | 1.046 | 1.052 | 0.006 |
| 100 | 45 | 1.048 | 1.058 | 0.010 |
| 105 | 46 | 1.051 | 1.046 | -0.005 |
| 105 | 47 | 1.046 | 1.046 | 0.000 |
| 105 | 48 | 1.050 | 1.046 | -0.004 |
| 105 | 49 | 1.052 | 1.048 | -0.004 |
| 105 | 50 | 1.042 | 1.046 | 0.004 |
| 105 | 51 | 1.040 | 1.050 | 0.010 |
| 105 | 52 | 1.048 | 1.052 | 0.004 |
| 105 | 53 | 1.056 | 1.054 | -0.002 |
| 105 | 54 | 1.060 | 1.024 | -0.036 |
| 105 | 55 | 1.046 | 1.046 | 0.000 |
| 105 | 56 | 1.054 | 1.046 | -0.008 |
| 105 | 57 | 1.058 | 1.048 | -0.010 |
| 105 | 58 | 1.044 | 1.060 | 0.016 |
| 105 | 59 | 1.050 | 1.054 | 0.004 |
| 105 | 60 | 1.048 | 1.054 | 0.006 |
| 105 | 61 | 1.052 | 1.052 | 0.000 |
| 105 | 62 | 1.050 | 1.050 | 0.000 |
| 105 | 63 | 1.052 | 1.051 | -0.001 |
| 105 | 64 | 1.054 | 1.046 | -0.008 |
| 105 | 65 | 1.046 | 1.054 | 0.008 |
| 105 | 66 | 1.044 | 1.052 | 0.008 |
| 105 | 67 | 1.056 | 1.052 | -0.004 |
| Max | | 1.060 | 1.062 | 0.016 |
| Average | | 1.050 | 1.050 | -0.001 |
| Min | | 1.040 | 1.024 | -0.036 |
| Std Dev | | 0.005 | 0.006 | 0.008 |



| 10.5 V CS ILIM_OC Rise 12V | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 1.09 |
| Min Limit | V |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.050 | 1.048 | 1.043 | 1.042 | 1.046 | 1.042 | 1.044 | 1.044 | 1.046 | 1.042 | 1.024 |
| Min | 1.056 | 1.051 | 1.048 | 1.048 | 1.049 | 1.047 | 1.053 | 1.046 | 1.052 | 1.054 | 1.049 |
| Max | 1.062 | 1.052 | 1.058 | 1.052 | 1.056 | 1.050 | 1.056 | 1.050 | 1.060 | 1.060 | 1.060 |
| UL | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 |



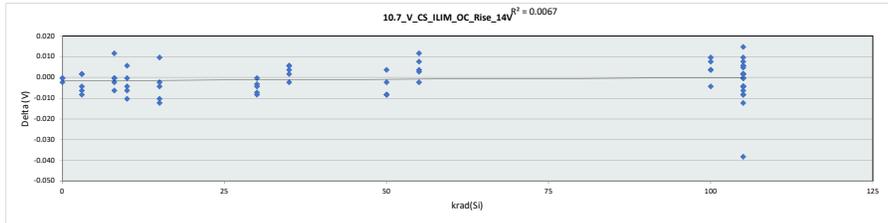
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 10.7_V_CS_ILIM_OC_Rise_14V | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 1.09 |
| Min Limit | 0.95 |

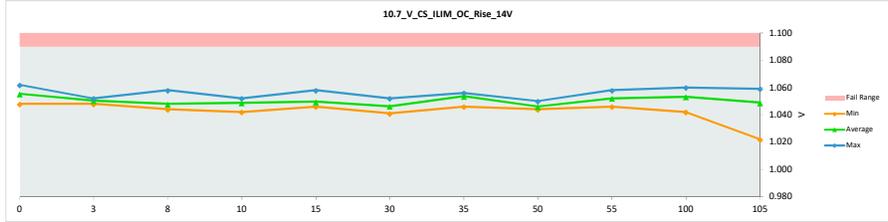
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 1.062 | 1.062 | 0.000 |
| 0 | 992 | 1.056 | 1.056 | 0.000 |
| 0 | 993 | 1.050 | 1.048 | -0.002 |
| 3 | 1 | 1.056 | 1.048 | -0.008 |
| 3 | 2 | 1.046 | 1.048 | 0.002 |
| 3 | 3 | 1.056 | 1.052 | -0.004 |
| 3 | 4 | 1.050 | 1.052 | 0.002 |
| 3 | 5 | 1.058 | 1.052 | -0.006 |
| 8 | 6 | 1.046 | 1.046 | 0.000 |
| 8 | 7 | 1.046 | 1.058 | 0.012 |
| 8 | 8 | 1.050 | 1.044 | -0.006 |
| 8 | 9 | 1.048 | 1.048 | 0.000 |
| 8 | 10 | 1.046 | 1.044 | -0.002 |
| 10 | 11 | 1.052 | 1.048 | -0.004 |
| 10 | 12 | 1.052 | 1.042 | -0.010 |
| 10 | 13 | 1.052 | 1.052 | 0.000 |
| 10 | 14 | 1.056 | 1.050 | -0.006 |
| 10 | 15 | 1.046 | 1.052 | 0.006 |
| 15 | 16 | 1.048 | 1.058 | 0.010 |
| 15 | 17 | 1.048 | 1.046 | -0.002 |
| 15 | 18 | 1.060 | 1.048 | -0.012 |
| 15 | 19 | 1.054 | 1.050 | -0.004 |
| 15 | 20 | 1.056 | 1.046 | -0.010 |
| 30 | 21 | 1.052 | 1.052 | 0.000 |
| 30 | 22 | 1.051 | 1.048 | -0.003 |
| 30 | 23 | 1.050 | 1.042 | -0.008 |
| 30 | 24 | 1.048 | 1.041 | -0.007 |
| 30 | 25 | 1.052 | 1.048 | -0.004 |
| 35 | 26 | 1.052 | 1.056 | 0.004 |
| 35 | 27 | 1.050 | 1.056 | 0.006 |
| 35 | 28 | 1.048 | 1.046 | -0.002 |
| 35 | 29 | 1.048 | 1.054 | 0.006 |
| 35 | 30 | 1.054 | 1.056 | 0.002 |
| 50 | 31 | 1.054 | 1.046 | -0.008 |
| 50 | 32 | 1.052 | 1.044 | -0.008 |
| 50 | 33 | 1.046 | 1.044 | -0.002 |
| 50 | 34 | 1.058 | 1.050 | -0.008 |
| 50 | 35 | 1.042 | 1.046 | 0.004 |
| 55 | 36 | 1.050 | 1.048 | -0.002 |
| 55 | 37 | 1.044 | 1.056 | 0.012 |
| 55 | 38 | 1.048 | 1.052 | 0.004 |
| 55 | 39 | 1.043 | 1.046 | 0.003 |
| 55 | 40 | 1.050 | 1.058 | 0.008 |
| 100 | 41 | 1.048 | 1.058 | 0.010 |
| 100 | 42 | 1.046 | 1.042 | -0.004 |
| 100 | 43 | 1.056 | 1.060 | 0.004 |
| 100 | 44 | 1.046 | 1.050 | 0.004 |
| 100 | 45 | 1.048 | 1.056 | 0.008 |
| 105 | 46 | 1.050 | 1.044 | -0.006 |
| 105 | 47 | 1.046 | 1.046 | 0.000 |
| 105 | 48 | 1.050 | 1.046 | -0.004 |
| 105 | 49 | 1.052 | 1.048 | -0.004 |
| 105 | 50 | 1.044 | 1.046 | 0.002 |
| 105 | 51 | 1.040 | 1.050 | 0.010 |
| 105 | 52 | 1.050 | 1.050 | 0.000 |
| 105 | 53 | 1.056 | 1.052 | -0.004 |
| 105 | 54 | 1.060 | 1.022 | -0.038 |
| 105 | 55 | 1.046 | 1.048 | 0.002 |
| 105 | 56 | 1.054 | 1.046 | -0.008 |
| 105 | 57 | 1.060 | 1.048 | -0.012 |
| 105 | 58 | 1.044 | 1.059 | 0.015 |
| 105 | 59 | 1.049 | 1.054 | 0.005 |
| 105 | 60 | 1.048 | 1.054 | 0.006 |
| 105 | 61 | 1.050 | 1.052 | 0.002 |
| 105 | 62 | 1.050 | 1.052 | 0.002 |
| 105 | 63 | 1.052 | 1.052 | 0.000 |
| 105 | 64 | 1.056 | 1.048 | -0.008 |
| 105 | 65 | 1.046 | 1.054 | 0.008 |
| 105 | 66 | 1.046 | 1.052 | 0.006 |
| 105 | 67 | 1.056 | 1.052 | -0.004 |

| | | | |
|---------|-------|-------|--------|
| Max | 1.062 | 1.062 | 0.015 |
| Average | 1.050 | 1.050 | -0.001 |
| Min | 1.040 | 1.022 | -0.038 |
| Std Dev | 0.005 | 0.006 | 0.008 |



| 10.7_V_CS_ILIM_OC_Rise_14V | |
|----------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 1.09 |
| Min Limit | V |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 1.048 | 1.048 | 1.044 | 1.042 | 1.046 | 1.041 | 1.046 | 1.044 | 1.046 | 1.042 | 1.022 |
| Min | 1.055 | 1.050 | 1.048 | 1.049 | 1.050 | 1.046 | 1.054 | 1.046 | 1.052 | 1.053 | 1.049 |
| Max | 1.062 | 1.052 | 1.058 | 1.052 | 1.058 | 1.052 | 1.056 | 1.050 | 1.058 | 1.060 | 1.059 |
| UL | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 | 1.090 |

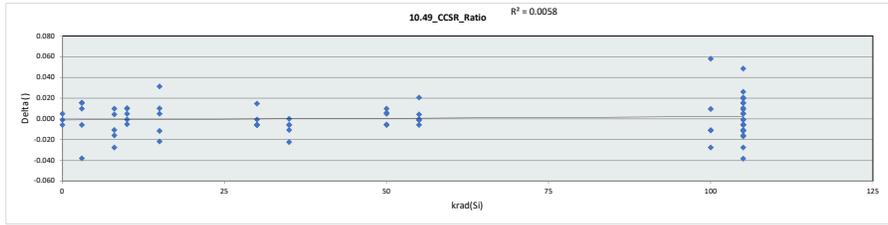


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

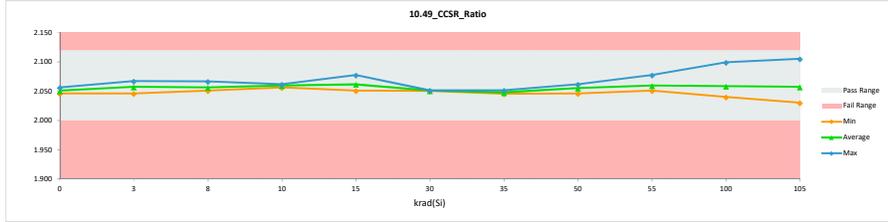
| 10.49 CCSR Ratio | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | 2.12 |
| Min Limit | 2 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 2.052 | 2.051 | 0.000 |
| 0 | 992 | 2.051 | 2.046 | -0.005 |
| 0 | 993 | 2.051 | 2.057 | 0.005 |
| 3 | 1 | 2.051 | 2.067 | 0.016 |
| 3 | 2 | 2.057 | 2.067 | 0.010 |
| 3 | 3 | 2.056 | 2.051 | -0.005 |
| 3 | 4 | 2.084 | 2.046 | -0.037 |
| 3 | 5 | 2.041 | 2.057 | 0.016 |
| 8 | 6 | 2.083 | 2.056 | -0.027 |
| 8 | 7 | 2.056 | 2.067 | 0.011 |
| 8 | 8 | 2.062 | 2.052 | -0.010 |
| 8 | 9 | 2.046 | 2.051 | 0.005 |
| 8 | 10 | 2.072 | 2.057 | -0.015 |
| 10 | 11 | 2.057 | 2.062 | 0.006 |
| 10 | 12 | 2.067 | 2.062 | -0.005 |
| 10 | 13 | 2.046 | 2.056 | 0.011 |
| 10 | 14 | 2.051 | 2.062 | 0.011 |
| 10 | 15 | 2.057 | 2.057 | 0.000 |
| 15 | 16 | 2.046 | 2.078 | 0.032 |
| 15 | 17 | 2.067 | 2.056 | -0.011 |
| 15 | 18 | 2.078 | 2.057 | -0.021 |
| 15 | 19 | 2.056 | 2.067 | 0.011 |
| 15 | 20 | 2.046 | 2.051 | 0.006 |
| 30 | 21 | 2.057 | 2.051 | -0.005 |
| 30 | 22 | 2.056 | 2.051 | -0.005 |
| 30 | 23 | 2.056 | 2.051 | -0.005 |
| 30 | 24 | 2.051 | 2.051 | 0.000 |
| 30 | 25 | 2.035 | 2.051 | 0.015 |
| 35 | 26 | 2.051 | 2.046 | -0.005 |
| 35 | 27 | 2.051 | 2.052 | 0.001 |
| 35 | 28 | 2.068 | 2.046 | -0.022 |
| 35 | 29 | 2.062 | 2.051 | -0.010 |
| 35 | 30 | 2.051 | 2.046 | -0.005 |
| 50 | 31 | 2.051 | 2.057 | 0.006 |
| 50 | 32 | 2.050 | 2.057 | 0.006 |
| 50 | 33 | 2.051 | 2.046 | -0.005 |
| 50 | 34 | 2.062 | 2.056 | -0.005 |
| 50 | 35 | 2.052 | 2.062 | 0.010 |
| 55 | 36 | 2.056 | 2.056 | 0.000 |
| 55 | 37 | 2.056 | 2.061 | 0.005 |
| 55 | 38 | 2.057 | 2.078 | 0.021 |
| 55 | 39 | 2.056 | 2.051 | -0.005 |
| 55 | 40 | 2.052 | 2.052 | 0.000 |
| 100 | 41 | 2.052 | 2.051 | -0.001 |
| 100 | 42 | 2.041 | 2.052 | 0.010 |
| 100 | 43 | 2.078 | 2.051 | -0.027 |
| 100 | 44 | 2.041 | 2.099 | 0.059 |
| 100 | 45 | 2.051 | 2.040 | -0.010 |
| 105 | 46 | 2.067 | 2.073 | 0.006 |
| 105 | 47 | 2.056 | 2.051 | -0.005 |
| 105 | 48 | 2.051 | 2.078 | 0.027 |
| 105 | 49 | 2.051 | 2.073 | 0.021 |
| 105 | 50 | 2.056 | 2.067 | 0.011 |
| 105 | 51 | 2.046 | 2.062 | 0.016 |
| 105 | 52 | 2.047 | 2.067 | 0.020 |
| 105 | 53 | 2.046 | 2.041 | -0.005 |
| 105 | 54 | 2.046 | 2.030 | -0.015 |
| 105 | 55 | 2.056 | 2.105 | 0.049 |
| 105 | 56 | 2.041 | 2.041 | 0.000 |
| 105 | 57 | 2.056 | 2.046 | -0.010 |
| 105 | 58 | 2.083 | 2.056 | -0.027 |
| 105 | 59 | 2.057 | 2.056 | 0.000 |
| 105 | 60 | 2.056 | 2.040 | -0.016 |
| 105 | 61 | 2.057 | 2.046 | -0.010 |
| 105 | 62 | 2.089 | 2.051 | -0.038 |
| 105 | 63 | 2.046 | 2.056 | 0.010 |
| 105 | 64 | 2.056 | 2.062 | 0.006 |
| 105 | 65 | 2.051 | 2.067 | 0.016 |
| 105 | 66 | 2.062 | 2.051 | -0.011 |
| 105 | 67 | 2.051 | 2.046 | -0.005 |
| Max | | 2.089 | 2.105 | 0.059 |
| Average | | 2.056 | 2.057 | 0.001 |
| Min | | 2.035 | 2.030 | -0.038 |
| Std Dev | | 0.011 | 0.012 | 0.017 |



| 10.49 CCSR Ratio | |
|------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 2.12 |
| Min Limit | 2 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 |
| Min | 2.046 | 2.046 | 2.051 | 2.056 | 2.051 | 2.051 | 2.046 | 2.046 | 2.051 | 2.040 | 2.030 |
| Average | 2.051 | 2.058 | 2.057 | 2.060 | 2.062 | 2.051 | 2.048 | 2.056 | 2.060 | 2.059 | 2.058 |
| Max | 2.057 | 2.067 | 2.067 | 2.062 | 2.078 | 2.051 | 2.052 | 2.062 | 2.078 | 2.099 | 2.105 |
| UL | 2.120 | 2.120 | 2.120 | 2.120 | 2.120 | 2.120 | 2.120 | 2.120 | 2.120 | 2.120 | 2.120 |

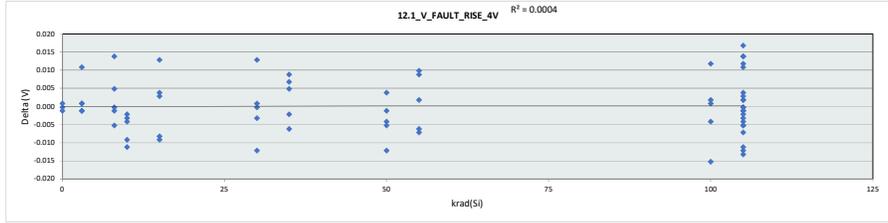


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

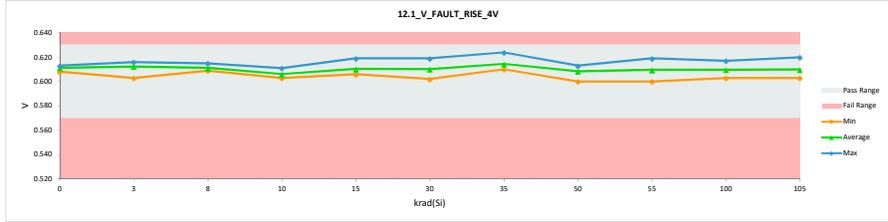
| 12.1 V_FAULT_RISE_4V | |
|----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.63 |
| Min Limit | 0.57 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.608 | 0.608 | 0.000 |
| 0 | 992 | 0.612 | 0.613 | 0.001 |
| 0 | 993 | 0.614 | 0.613 | -0.001 |
| 3 | 1 | 0.615 | 0.616 | 0.001 |
| 3 | 2 | 0.602 | 0.613 | 0.011 |
| 3 | 3 | 0.604 | 0.603 | -0.001 |
| 3 | 4 | 0.617 | 0.616 | -0.001 |
| 3 | 5 | 0.613 | 0.614 | 0.001 |
| 8 | 6 | 0.609 | 0.609 | 0.000 |
| 8 | 7 | 0.607 | 0.612 | 0.005 |
| 8 | 8 | 0.615 | 0.610 | -0.005 |
| 8 | 9 | 0.601 | 0.615 | 0.014 |
| 8 | 10 | 0.611 | 0.610 | -0.001 |
| 10 | 11 | 0.610 | 0.608 | -0.002 |
| 10 | 12 | 0.616 | 0.605 | -0.011 |
| 10 | 13 | 0.612 | 0.603 | -0.009 |
| 10 | 14 | 0.615 | 0.611 | -0.004 |
| 10 | 15 | 0.607 | 0.604 | -0.003 |
| 15 | 16 | 0.606 | 0.619 | 0.013 |
| 15 | 17 | 0.603 | 0.606 | 0.003 |
| 15 | 18 | 0.619 | 0.611 | -0.008 |
| 15 | 19 | 0.606 | 0.610 | 0.004 |
| 15 | 20 | 0.615 | 0.606 | -0.009 |
| 30 | 21 | 0.614 | 0.615 | 0.001 |
| 30 | 22 | 0.605 | 0.602 | -0.003 |
| 30 | 23 | 0.606 | 0.619 | 0.013 |
| 30 | 24 | 0.610 | 0.610 | 0.000 |
| 30 | 25 | 0.617 | 0.605 | -0.012 |
| 35 | 26 | 0.611 | 0.616 | 0.005 |
| 35 | 27 | 0.616 | 0.610 | -0.006 |
| 35 | 28 | 0.615 | 0.624 | 0.009 |
| 35 | 29 | 0.613 | 0.611 | -0.002 |
| 35 | 30 | 0.605 | 0.612 | 0.007 |
| 50 | 31 | 0.617 | 0.613 | -0.004 |
| 50 | 32 | 0.614 | 0.613 | -0.001 |
| 50 | 33 | 0.609 | 0.613 | 0.004 |
| 50 | 34 | 0.612 | 0.600 | -0.012 |
| 50 | 35 | 0.608 | 0.603 | -0.005 |
| 55 | 36 | 0.613 | 0.606 | -0.007 |
| 55 | 37 | 0.609 | 0.618 | 0.009 |
| 55 | 38 | 0.609 | 0.619 | 0.010 |
| 55 | 39 | 0.606 | 0.600 | -0.006 |
| 55 | 40 | 0.603 | 0.605 | 0.002 |
| 100 | 41 | 0.612 | 0.614 | 0.002 |
| 100 | 42 | 0.607 | 0.603 | -0.004 |
| 100 | 43 | 0.619 | 0.604 | -0.015 |
| 100 | 44 | 0.605 | 0.617 | 0.012 |
| 100 | 45 | 0.610 | 0.611 | 0.001 |
| 105 | 46 | 0.609 | 0.606 | -0.003 |
| 105 | 47 | 0.607 | 0.609 | 0.002 |
| 105 | 48 | 0.615 | 0.603 | -0.012 |
| 105 | 49 | 0.601 | 0.603 | 0.002 |
| 105 | 50 | 0.616 | 0.612 | -0.004 |
| 105 | 51 | 0.609 | 0.608 | -0.001 |
| 105 | 52 | 0.606 | 0.620 | 0.014 |
| 105 | 53 | 0.616 | 0.611 | -0.005 |
| 105 | 54 | 0.607 | 0.606 | -0.001 |
| 105 | 55 | 0.619 | 0.608 | -0.011 |
| 105 | 56 | 0.609 | 0.604 | -0.005 |
| 105 | 57 | 0.611 | 0.604 | -0.007 |
| 105 | 58 | 0.617 | 0.617 | 0.000 |
| 105 | 59 | 0.602 | 0.606 | 0.004 |
| 105 | 60 | 0.613 | 0.616 | 0.003 |
| 105 | 61 | 0.602 | 0.614 | 0.012 |
| 105 | 62 | 0.605 | 0.605 | 0.000 |
| 105 | 63 | 0.618 | 0.605 | -0.013 |
| 105 | 64 | 0.614 | 0.612 | -0.002 |
| 105 | 65 | 0.603 | 0.617 | 0.014 |
| 105 | 66 | 0.602 | 0.613 | 0.011 |
| 105 | 67 | 0.602 | 0.619 | 0.017 |
| Max | | 0.619 | 0.624 | 0.017 |
| Average | | 0.610 | 0.610 | 0.000 |
| Min | | 0.601 | 0.600 | -0.015 |
| Std Dev | | 0.005 | 0.006 | 0.007 |



| 12.1 V_FAULT_RISE_4V | |
|----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.63 |
| Min Limit | 0.57 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.608 | 0.603 | 0.609 | 0.603 | 0.606 | 0.602 | 0.610 | 0.600 | 0.600 | 0.603 | 0.603 |
| Average | 0.611 | 0.612 | 0.611 | 0.611 | 0.606 | 0.610 | 0.615 | 0.608 | 0.610 | 0.610 | 0.610 |
| Max | 0.613 | 0.616 | 0.615 | 0.611 | 0.619 | 0.619 | 0.624 | 0.613 | 0.619 | 0.617 | 0.620 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 |

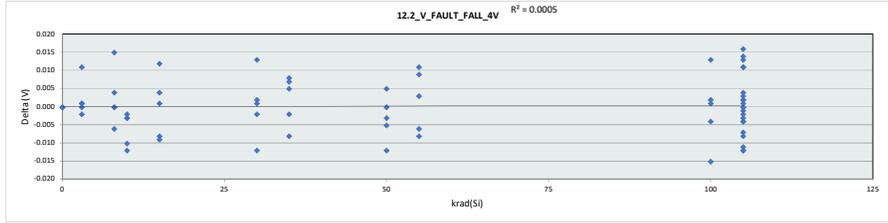


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

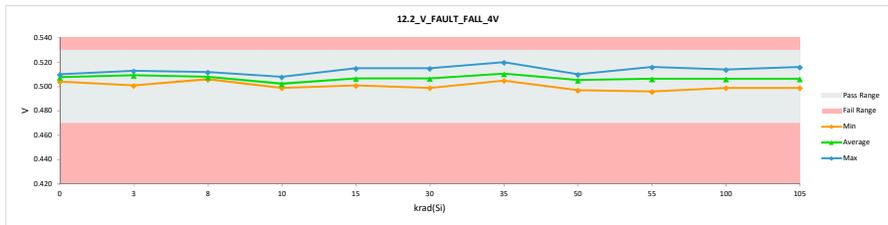
| 12.2 V_FAULT_FALL_4V | |
|----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.53 |
| Min Limit | 0.47 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.504 | 0.504 | 0.000 |
| 0 | 992 | 0.509 | 0.509 | 0.000 |
| 0 | 993 | 0.510 | 0.510 | 0.000 |
| 3 | 1 | 0.511 | 0.512 | 0.001 |
| 3 | 2 | 0.499 | 0.510 | 0.011 |
| 3 | 3 | 0.501 | 0.501 | 0.000 |
| 3 | 4 | 0.515 | 0.513 | -0.002 |
| 3 | 5 | 0.509 | 0.510 | 0.001 |
| 8 | 6 | 0.506 | 0.506 | 0.000 |
| 8 | 7 | 0.504 | 0.508 | 0.004 |
| 8 | 8 | 0.512 | 0.506 | -0.006 |
| 8 | 9 | 0.497 | 0.512 | 0.015 |
| 8 | 10 | 0.508 | 0.508 | 0.000 |
| 10 | 11 | 0.506 | 0.504 | -0.002 |
| 10 | 12 | 0.513 | 0.501 | -0.012 |
| 10 | 13 | 0.509 | 0.499 | -0.010 |
| 10 | 14 | 0.511 | 0.508 | -0.003 |
| 10 | 15 | 0.503 | 0.500 | -0.003 |
| 15 | 16 | 0.503 | 0.515 | 0.012 |
| 15 | 17 | 0.500 | 0.501 | 0.001 |
| 15 | 18 | 0.516 | 0.507 | -0.009 |
| 15 | 19 | 0.503 | 0.507 | 0.004 |
| 15 | 20 | 0.511 | 0.503 | -0.008 |
| 30 | 21 | 0.510 | 0.512 | 0.002 |
| 30 | 22 | 0.501 | 0.499 | -0.002 |
| 30 | 23 | 0.502 | 0.515 | 0.013 |
| 30 | 24 | 0.505 | 0.506 | 0.001 |
| 30 | 25 | 0.513 | 0.501 | -0.012 |
| 35 | 26 | 0.508 | 0.513 | 0.005 |
| 35 | 27 | 0.513 | 0.505 | -0.008 |
| 35 | 28 | 0.512 | 0.520 | 0.008 |
| 35 | 29 | 0.509 | 0.507 | -0.002 |
| 35 | 30 | 0.501 | 0.508 | 0.007 |
| 50 | 31 | 0.513 | 0.510 | -0.003 |
| 50 | 32 | 0.510 | 0.510 | 0.000 |
| 50 | 33 | 0.505 | 0.510 | 0.005 |
| 50 | 34 | 0.509 | 0.497 | -0.012 |
| 50 | 35 | 0.505 | 0.500 | -0.005 |
| 55 | 36 | 0.511 | 0.503 | -0.008 |
| 55 | 37 | 0.506 | 0.515 | 0.009 |
| 55 | 38 | 0.505 | 0.516 | 0.011 |
| 55 | 39 | 0.502 | 0.496 | -0.006 |
| 55 | 40 | 0.499 | 0.502 | 0.003 |
| 100 | 41 | 0.509 | 0.511 | 0.002 |
| 100 | 42 | 0.503 | 0.499 | -0.004 |
| 100 | 43 | 0.515 | 0.500 | -0.015 |
| 100 | 44 | 0.501 | 0.514 | 0.013 |
| 100 | 45 | 0.507 | 0.508 | 0.001 |
| 105 | 46 | 0.506 | 0.503 | -0.003 |
| 105 | 47 | 0.504 | 0.506 | 0.002 |
| 105 | 48 | 0.512 | 0.500 | -0.012 |
| 105 | 49 | 0.498 | 0.500 | 0.002 |
| 105 | 50 | 0.513 | 0.509 | -0.004 |
| 105 | 51 | 0.505 | 0.504 | -0.001 |
| 105 | 52 | 0.502 | 0.516 | 0.014 |
| 105 | 53 | 0.513 | 0.509 | -0.004 |
| 105 | 54 | 0.503 | 0.503 | 0.000 |
| 105 | 55 | 0.516 | 0.505 | -0.011 |
| 105 | 56 | 0.506 | 0.499 | -0.007 |
| 105 | 57 | 0.508 | 0.500 | -0.008 |
| 105 | 58 | 0.513 | 0.513 | 0.000 |
| 105 | 59 | 0.499 | 0.502 | 0.003 |
| 105 | 60 | 0.509 | 0.513 | 0.004 |
| 105 | 61 | 0.499 | 0.510 | 0.011 |
| 105 | 62 | 0.501 | 0.502 | 0.001 |
| 105 | 63 | 0.513 | 0.501 | -0.012 |
| 105 | 64 | 0.510 | 0.508 | -0.002 |
| 105 | 65 | 0.500 | 0.513 | 0.013 |
| 105 | 66 | 0.498 | 0.509 | 0.011 |
| 105 | 67 | 0.499 | 0.515 | 0.016 |
| Max | | 0.516 | 0.520 | 0.016 |
| Average | | 0.507 | 0.507 | 0.000 |
| Min | | 0.497 | 0.496 | -0.015 |
| Std Dev | | 0.005 | 0.006 | 0.008 |



| 12.2 V_FAULT_FALL_4V | |
|----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.53 |
| Min Limit | 0.47 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.504 | 0.501 | 0.506 | 0.499 | 0.501 | 0.499 | 0.505 | 0.497 | 0.496 | 0.499 | 0.499 |
| Average | 0.508 | 0.509 | 0.508 | 0.502 | 0.507 | 0.507 | 0.511 | 0.505 | 0.506 | 0.506 | 0.506 |
| Max | 0.510 | 0.513 | 0.512 | 0.508 | 0.515 | 0.515 | 0.520 | 0.510 | 0.516 | 0.514 | 0.516 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 |

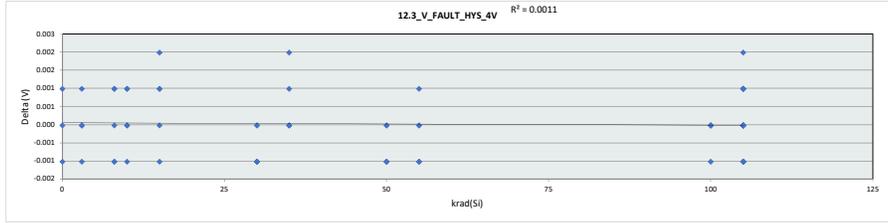


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

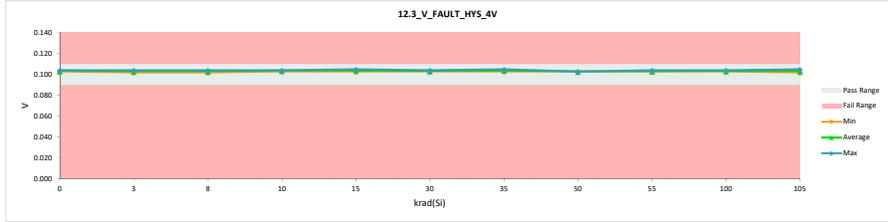
| 12.3 V_FAULT_HYS_4V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.11 |
| Min Limit | 0.09 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.104 | 0.104 | 0.000 |
| 0 | 992 | 0.103 | 0.104 | 0.001 |
| 0 | 993 | 0.104 | 0.103 | -0.001 |
| 3 | 1 | 0.104 | 0.104 | 0.000 |
| 3 | 2 | 0.103 | 0.103 | 0.000 |
| 3 | 3 | 0.103 | 0.102 | -0.001 |
| 3 | 4 | 0.102 | 0.103 | 0.001 |
| 3 | 5 | 0.104 | 0.104 | 0.000 |
| 8 | 6 | 0.103 | 0.103 | 0.000 |
| 8 | 7 | 0.103 | 0.104 | 0.001 |
| 8 | 8 | 0.103 | 0.104 | 0.001 |
| 8 | 9 | 0.104 | 0.103 | -0.001 |
| 8 | 10 | 0.103 | 0.102 | -0.001 |
| 10 | 11 | 0.104 | 0.104 | 0.000 |
| 10 | 12 | 0.103 | 0.104 | 0.001 |
| 10 | 13 | 0.103 | 0.104 | 0.001 |
| 10 | 14 | 0.104 | 0.103 | -0.001 |
| 10 | 15 | 0.104 | 0.104 | 0.000 |
| 15 | 16 | 0.103 | 0.104 | 0.001 |
| 15 | 17 | 0.103 | 0.105 | 0.002 |
| 15 | 18 | 0.103 | 0.104 | 0.001 |
| 15 | 19 | 0.103 | 0.103 | 0.000 |
| 15 | 20 | 0.104 | 0.103 | -0.001 |
| 30 | 21 | 0.104 | 0.103 | -0.001 |
| 30 | 22 | 0.104 | 0.103 | -0.001 |
| 30 | 23 | 0.104 | 0.104 | 0.000 |
| 30 | 24 | 0.105 | 0.104 | -0.001 |
| 30 | 25 | 0.104 | 0.104 | 0.000 |
| 35 | 26 | 0.103 | 0.103 | 0.000 |
| 35 | 27 | 0.103 | 0.105 | 0.002 |
| 35 | 28 | 0.103 | 0.104 | 0.001 |
| 35 | 29 | 0.104 | 0.104 | 0.000 |
| 35 | 30 | 0.104 | 0.104 | 0.000 |
| 50 | 31 | 0.104 | 0.103 | -0.001 |
| 50 | 32 | 0.104 | 0.103 | -0.001 |
| 50 | 33 | 0.104 | 0.103 | -0.001 |
| 50 | 34 | 0.103 | 0.103 | 0.000 |
| 50 | 35 | 0.103 | 0.103 | 0.000 |
| 55 | 36 | 0.102 | 0.103 | 0.001 |
| 55 | 37 | 0.103 | 0.103 | 0.000 |
| 55 | 38 | 0.104 | 0.103 | -0.001 |
| 55 | 39 | 0.104 | 0.104 | 0.000 |
| 55 | 40 | 0.104 | 0.103 | -0.001 |
| 100 | 41 | 0.103 | 0.103 | 0.000 |
| 100 | 42 | 0.104 | 0.104 | 0.000 |
| 100 | 43 | 0.104 | 0.104 | 0.000 |
| 100 | 44 | 0.104 | 0.103 | -0.001 |
| 100 | 45 | 0.103 | 0.103 | 0.000 |
| 105 | 46 | 0.103 | 0.103 | 0.000 |
| 105 | 47 | 0.103 | 0.103 | 0.000 |
| 105 | 48 | 0.103 | 0.103 | 0.000 |
| 105 | 49 | 0.103 | 0.103 | 0.000 |
| 105 | 50 | 0.103 | 0.103 | 0.000 |
| 105 | 51 | 0.104 | 0.104 | 0.000 |
| 105 | 52 | 0.104 | 0.104 | 0.000 |
| 105 | 53 | 0.103 | 0.102 | -0.001 |
| 105 | 54 | 0.104 | 0.103 | -0.001 |
| 105 | 55 | 0.103 | 0.103 | 0.000 |
| 105 | 56 | 0.103 | 0.105 | 0.002 |
| 105 | 57 | 0.103 | 0.104 | 0.001 |
| 105 | 58 | 0.104 | 0.104 | 0.000 |
| 105 | 59 | 0.103 | 0.104 | 0.001 |
| 105 | 60 | 0.104 | 0.103 | -0.001 |
| 105 | 61 | 0.103 | 0.104 | 0.001 |
| 105 | 62 | 0.104 | 0.103 | -0.001 |
| 105 | 63 | 0.105 | 0.104 | -0.001 |
| 105 | 64 | 0.104 | 0.104 | 0.000 |
| 105 | 65 | 0.103 | 0.104 | 0.001 |
| 105 | 66 | 0.104 | 0.104 | 0.000 |
| 105 | 67 | 0.103 | 0.104 | 0.001 |
| Max | | 0.105 | 0.105 | 0.002 |
| Average | | 0.103 | 0.104 | 0.000 |
| Min | | 0.102 | 0.102 | -0.001 |
| Std Dev | | 0.001 | 0.001 | 0.001 |



| 12.3 V_FAULT_HYS_4V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.11 |
| Min Limit | 0.09 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 |
| Min | 0.103 | 0.102 | 0.102 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.102 |
| Average | 0.104 | 0.103 | 0.103 | 0.104 | 0.104 | 0.104 | 0.104 | 0.104 | 0.103 | 0.103 | 0.104 |
| Max | 0.104 | 0.104 | 0.104 | 0.104 | 0.105 | 0.104 | 0.105 | 0.103 | 0.104 | 0.104 | 0.105 |
| UL | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 |

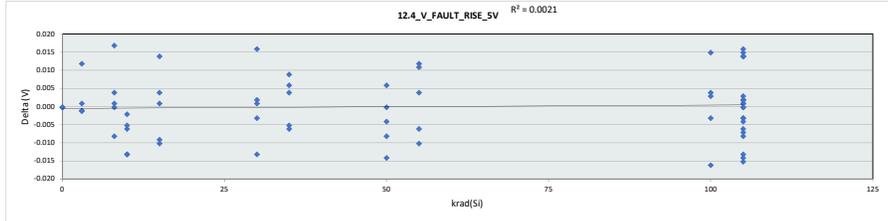


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

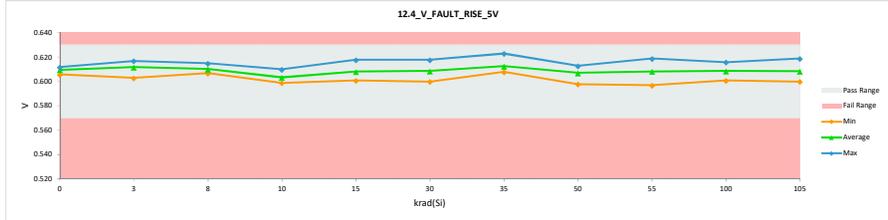
| 12.4 V_FAULT_RISE_SV | |
|----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.63 |
| Min Limit | 0.57 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.606 | 0.606 | 0.000 |
| 0 | 992 | 0.611 | 0.611 | 0.000 |
| 0 | 993 | 0.612 | 0.612 | 0.000 |
| 3 | 1 | 0.615 | 0.614 | -0.001 |
| 3 | 2 | 0.601 | 0.613 | 0.012 |
| 3 | 3 | 0.602 | 0.603 | 0.001 |
| 3 | 4 | 0.618 | 0.617 | -0.001 |
| 3 | 5 | 0.614 | 0.613 | -0.001 |
| 8 | 6 | 0.606 | 0.607 | 0.001 |
| 8 | 7 | 0.607 | 0.611 | 0.004 |
| 8 | 8 | 0.617 | 0.609 | -0.008 |
| 8 | 9 | 0.598 | 0.615 | 0.017 |
| 8 | 10 | 0.610 | 0.610 | 0.000 |
| 10 | 11 | 0.608 | 0.606 | -0.002 |
| 10 | 12 | 0.615 | 0.602 | -0.013 |
| 10 | 13 | 0.612 | 0.599 | -0.013 |
| 10 | 14 | 0.616 | 0.610 | -0.006 |
| 10 | 15 | 0.605 | 0.600 | -0.005 |
| 15 | 16 | 0.604 | 0.618 | 0.014 |
| 15 | 17 | 0.600 | 0.601 | 0.001 |
| 15 | 18 | 0.619 | 0.609 | -0.010 |
| 15 | 19 | 0.604 | 0.608 | 0.004 |
| 15 | 20 | 0.614 | 0.605 | -0.009 |
| 30 | 21 | 0.612 | 0.614 | 0.002 |
| 30 | 22 | 0.603 | 0.600 | -0.003 |
| 30 | 23 | 0.602 | 0.618 | 0.016 |
| 30 | 24 | 0.607 | 0.608 | 0.001 |
| 30 | 25 | 0.617 | 0.604 | -0.013 |
| 35 | 26 | 0.611 | 0.615 | 0.004 |
| 35 | 27 | 0.614 | 0.608 | -0.006 |
| 35 | 28 | 0.614 | 0.623 | 0.009 |
| 35 | 29 | 0.613 | 0.608 | -0.005 |
| 35 | 30 | 0.603 | 0.609 | 0.006 |
| 50 | 31 | 0.616 | 0.612 | -0.004 |
| 50 | 32 | 0.613 | 0.613 | 0.000 |
| 50 | 33 | 0.607 | 0.613 | 0.006 |
| 50 | 34 | 0.612 | 0.598 | -0.014 |
| 50 | 35 | 0.608 | 0.600 | -0.008 |
| 55 | 36 | 0.614 | 0.604 | -0.010 |
| 55 | 37 | 0.608 | 0.619 | 0.011 |
| 55 | 38 | 0.606 | 0.618 | 0.012 |
| 55 | 39 | 0.603 | 0.597 | -0.006 |
| 55 | 40 | 0.600 | 0.604 | 0.004 |
| 100 | 41 | 0.611 | 0.614 | 0.003 |
| 100 | 42 | 0.604 | 0.601 | -0.003 |
| 100 | 43 | 0.617 | 0.601 | -0.016 |
| 100 | 44 | 0.601 | 0.616 | 0.015 |
| 100 | 45 | 0.608 | 0.612 | 0.004 |
| 105 | 46 | 0.608 | 0.604 | -0.004 |
| 105 | 47 | 0.606 | 0.608 | 0.002 |
| 105 | 48 | 0.614 | 0.600 | -0.014 |
| 105 | 49 | 0.599 | 0.600 | 0.001 |
| 105 | 50 | 0.616 | 0.610 | -0.006 |
| 105 | 51 | 0.607 | 0.607 | 0.000 |
| 105 | 52 | 0.604 | 0.619 | 0.015 |
| 105 | 53 | 0.616 | 0.613 | -0.003 |
| 105 | 54 | 0.605 | 0.607 | 0.002 |
| 105 | 55 | 0.619 | 0.606 | -0.013 |
| 105 | 56 | 0.609 | 0.602 | -0.007 |
| 105 | 57 | 0.609 | 0.601 | -0.008 |
| 105 | 58 | 0.615 | 0.617 | 0.002 |
| 105 | 59 | 0.602 | 0.603 | 0.001 |
| 105 | 60 | 0.612 | 0.615 | 0.003 |
| 105 | 61 | 0.599 | 0.613 | 0.014 |
| 105 | 62 | 0.603 | 0.603 | 0.000 |
| 105 | 63 | 0.616 | 0.601 | -0.015 |
| 105 | 64 | 0.614 | 0.611 | -0.003 |
| 105 | 65 | 0.602 | 0.616 | 0.014 |
| 105 | 66 | 0.599 | 0.613 | 0.014 |
| 105 | 67 | 0.602 | 0.618 | 0.016 |
| 105 | 68 | 0.619 | 0.623 | 0.017 |
| 105 | 69 | 0.609 | 0.609 | 0.000 |
| 105 | 70 | 0.598 | 0.597 | -0.016 |
| 105 | 71 | 0.006 | 0.006 | 0.009 |



| 12.4 V_FAULT_RISE_SV | |
|----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.63 |
| Min Limit | 0.57 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.606 | 0.603 | 0.607 | 0.599 | 0.601 | 0.600 | 0.608 | 0.598 | 0.597 | 0.601 | 0.600 |
| Average | 0.610 | 0.612 | 0.610 | 0.603 | 0.608 | 0.609 | 0.613 | 0.607 | 0.608 | 0.609 | 0.609 |
| Max | 0.612 | 0.617 | 0.615 | 0.610 | 0.618 | 0.618 | 0.623 | 0.613 | 0.619 | 0.616 | 0.619 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 |

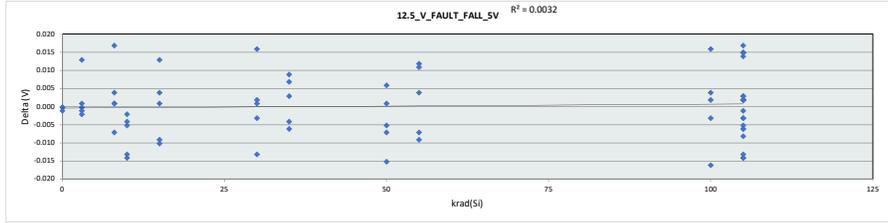


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

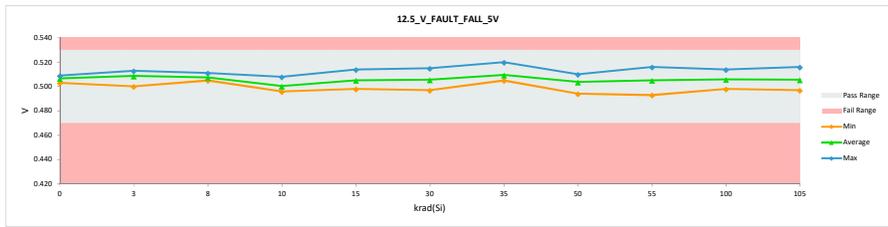
| 12.5 V_FAULT_FALL_SV | |
|----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.53 |
| Min Limit | 0.47 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.503 | 0.503 | 0.000 |
| 0 | 992 | 0.509 | 0.508 | -0.001 |
| 0 | 993 | 0.509 | 0.509 | 0.000 |
| 3 | 1 | 0.512 | 0.511 | -0.001 |
| 3 | 2 | 0.497 | 0.510 | 0.013 |
| 3 | 3 | 0.499 | 0.500 | 0.001 |
| 3 | 4 | 0.515 | 0.513 | -0.002 |
| 3 | 5 | 0.510 | 0.510 | 0.000 |
| 8 | 6 | 0.504 | 0.505 | 0.001 |
| 8 | 7 | 0.504 | 0.508 | 0.004 |
| 8 | 8 | 0.513 | 0.506 | -0.007 |
| 8 | 9 | 0.494 | 0.511 | 0.017 |
| 8 | 10 | 0.506 | 0.507 | 0.001 |
| 10 | 11 | 0.505 | 0.503 | -0.002 |
| 10 | 12 | 0.512 | 0.498 | -0.014 |
| 10 | 13 | 0.509 | 0.496 | -0.013 |
| 10 | 14 | 0.513 | 0.508 | -0.005 |
| 10 | 15 | 0.501 | 0.497 | -0.004 |
| 15 | 16 | 0.501 | 0.514 | 0.013 |
| 15 | 17 | 0.497 | 0.498 | 0.001 |
| 15 | 18 | 0.516 | 0.506 | -0.010 |
| 15 | 19 | 0.501 | 0.505 | 0.004 |
| 15 | 20 | 0.511 | 0.502 | -0.009 |
| 30 | 21 | 0.509 | 0.511 | 0.002 |
| 30 | 22 | 0.500 | 0.497 | -0.003 |
| 30 | 23 | 0.499 | 0.515 | 0.016 |
| 30 | 24 | 0.504 | 0.505 | 0.001 |
| 30 | 25 | 0.513 | 0.500 | -0.013 |
| 35 | 26 | 0.509 | 0.512 | 0.003 |
| 35 | 27 | 0.511 | 0.505 | -0.006 |
| 35 | 28 | 0.511 | 0.520 | 0.009 |
| 35 | 29 | 0.509 | 0.505 | -0.004 |
| 35 | 30 | 0.499 | 0.506 | 0.007 |
| 50 | 31 | 0.513 | 0.508 | -0.005 |
| 50 | 32 | 0.509 | 0.510 | 0.001 |
| 50 | 33 | 0.504 | 0.510 | 0.006 |
| 50 | 34 | 0.509 | 0.494 | -0.015 |
| 50 | 35 | 0.504 | 0.497 | -0.007 |
| 55 | 36 | 0.510 | 0.501 | -0.009 |
| 55 | 37 | 0.505 | 0.516 | 0.011 |
| 55 | 38 | 0.503 | 0.515 | 0.012 |
| 55 | 39 | 0.500 | 0.493 | -0.007 |
| 55 | 40 | 0.497 | 0.501 | 0.004 |
| 100 | 41 | 0.508 | 0.510 | 0.002 |
| 100 | 42 | 0.501 | 0.498 | -0.003 |
| 100 | 43 | 0.514 | 0.498 | -0.016 |
| 100 | 44 | 0.498 | 0.514 | 0.016 |
| 100 | 45 | 0.505 | 0.509 | 0.004 |
| 105 | 46 | 0.504 | 0.501 | -0.003 |
| 105 | 47 | 0.503 | 0.505 | 0.002 |
| 105 | 48 | 0.511 | 0.497 | -0.014 |
| 105 | 49 | 0.495 | 0.497 | 0.002 |
| 105 | 50 | 0.513 | 0.507 | -0.006 |
| 105 | 51 | 0.504 | 0.503 | -0.001 |
| 105 | 52 | 0.501 | 0.516 | 0.015 |
| 105 | 53 | 0.513 | 0.510 | -0.003 |
| 105 | 54 | 0.503 | 0.505 | 0.002 |
| 105 | 55 | 0.516 | 0.503 | -0.013 |
| 105 | 56 | 0.505 | 0.499 | -0.006 |
| 105 | 57 | 0.506 | 0.498 | -0.008 |
| 105 | 58 | 0.511 | 0.514 | 0.003 |
| 105 | 59 | 0.498 | 0.500 | 0.002 |
| 105 | 60 | 0.509 | 0.512 | 0.003 |
| 105 | 61 | 0.496 | 0.510 | 0.014 |
| 105 | 62 | 0.499 | 0.501 | 0.002 |
| 105 | 63 | 0.513 | 0.499 | -0.014 |
| 105 | 64 | 0.512 | 0.507 | -0.005 |
| 105 | 65 | 0.498 | 0.513 | 0.015 |
| 105 | 66 | 0.495 | 0.510 | 0.015 |
| 105 | 67 | 0.498 | 0.515 | 0.017 |
| Max | | 0.516 | 0.520 | 0.017 |
| Average | | 0.506 | 0.506 | 0.000 |
| Min | | 0.494 | 0.493 | -0.016 |
| Std Dev | | 0.006 | 0.006 | 0.009 |



| 12.5 V_FAULT_FALL_SV | |
|----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.53 |
| Min Limit | 0.47 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.503 | 0.500 | 0.505 | 0.496 | 0.498 | 0.497 | 0.505 | 0.494 | 0.493 | 0.498 | 0.497 |
| Average | 0.507 | 0.509 | 0.507 | 0.500 | 0.505 | 0.506 | 0.510 | 0.504 | 0.505 | 0.506 | 0.506 |
| Max | 0.509 | 0.513 | 0.511 | 0.508 | 0.514 | 0.515 | 0.520 | 0.510 | 0.516 | 0.514 | 0.516 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 |

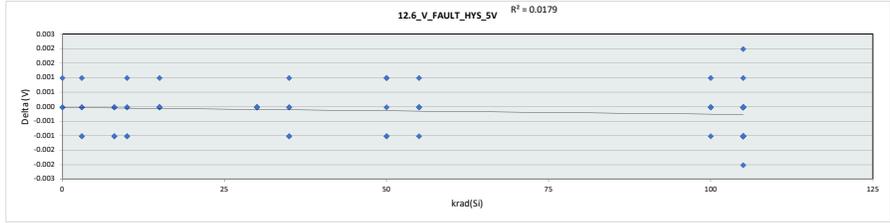


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

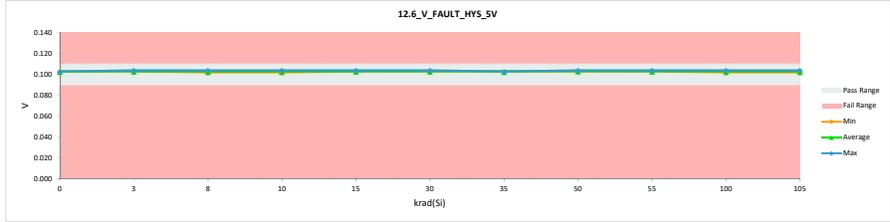
| 12.6 V_FAULT_HYS_5V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.11 |
| Min Limit | 0.09 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.103 | 0.103 | 0.000 |
| 0 | 992 | 0.102 | 0.103 | 0.001 |
| 0 | 993 | 0.103 | 0.103 | 0.000 |
| 3 | 1 | 0.103 | 0.103 | 0.000 |
| 3 | 2 | 0.104 | 0.103 | -0.001 |
| 3 | 3 | 0.103 | 0.103 | 0.000 |
| 3 | 4 | 0.103 | 0.104 | 0.001 |
| 3 | 5 | 0.104 | 0.103 | -0.001 |
| 8 | 6 | 0.102 | 0.102 | 0.000 |
| 8 | 7 | 0.103 | 0.103 | 0.000 |
| 8 | 8 | 0.104 | 0.103 | -0.001 |
| 8 | 9 | 0.104 | 0.104 | 0.000 |
| 8 | 10 | 0.104 | 0.103 | -0.001 |
| 10 | 11 | 0.103 | 0.103 | 0.000 |
| 10 | 12 | 0.103 | 0.104 | 0.001 |
| 10 | 13 | 0.103 | 0.103 | 0.000 |
| 10 | 14 | 0.103 | 0.102 | -0.001 |
| 10 | 15 | 0.104 | 0.103 | -0.001 |
| 15 | 16 | 0.103 | 0.104 | 0.001 |
| 15 | 17 | 0.103 | 0.103 | 0.000 |
| 15 | 18 | 0.103 | 0.103 | 0.000 |
| 15 | 19 | 0.103 | 0.103 | 0.000 |
| 15 | 20 | 0.103 | 0.103 | 0.000 |
| 30 | 21 | 0.103 | 0.103 | 0.000 |
| 30 | 22 | 0.103 | 0.103 | 0.000 |
| 30 | 23 | 0.103 | 0.103 | 0.000 |
| 30 | 24 | 0.103 | 0.103 | 0.000 |
| 30 | 25 | 0.104 | 0.104 | 0.000 |
| 35 | 26 | 0.102 | 0.103 | 0.001 |
| 35 | 27 | 0.103 | 0.103 | 0.000 |
| 35 | 28 | 0.103 | 0.103 | 0.000 |
| 35 | 29 | 0.104 | 0.103 | -0.001 |
| 35 | 30 | 0.104 | 0.103 | -0.001 |
| 50 | 31 | 0.103 | 0.104 | 0.001 |
| 50 | 32 | 0.104 | 0.103 | -0.001 |
| 50 | 33 | 0.103 | 0.103 | 0.000 |
| 50 | 34 | 0.103 | 0.104 | 0.001 |
| 50 | 35 | 0.104 | 0.103 | -0.001 |
| 55 | 36 | 0.104 | 0.103 | -0.001 |
| 55 | 37 | 0.103 | 0.103 | 0.000 |
| 55 | 38 | 0.103 | 0.103 | 0.000 |
| 55 | 39 | 0.103 | 0.104 | 0.001 |
| 55 | 40 | 0.103 | 0.103 | 0.000 |
| 100 | 41 | 0.103 | 0.104 | 0.001 |
| 100 | 42 | 0.103 | 0.103 | 0.000 |
| 100 | 43 | 0.103 | 0.103 | 0.000 |
| 100 | 44 | 0.103 | 0.102 | -0.001 |
| 100 | 45 | 0.103 | 0.103 | 0.000 |
| 105 | 46 | 0.104 | 0.103 | -0.001 |
| 105 | 47 | 0.103 | 0.103 | 0.000 |
| 105 | 48 | 0.103 | 0.103 | 0.000 |
| 105 | 49 | 0.104 | 0.103 | -0.001 |
| 105 | 50 | 0.103 | 0.103 | 0.000 |
| 105 | 51 | 0.103 | 0.104 | 0.001 |
| 105 | 52 | 0.103 | 0.103 | 0.000 |
| 105 | 53 | 0.103 | 0.103 | 0.000 |
| 105 | 54 | 0.102 | 0.102 | 0.000 |
| 105 | 55 | 0.103 | 0.103 | 0.000 |
| 105 | 56 | 0.104 | 0.103 | -0.001 |
| 105 | 57 | 0.103 | 0.103 | 0.000 |
| 105 | 58 | 0.104 | 0.103 | -0.001 |
| 105 | 59 | 0.104 | 0.103 | -0.001 |
| 105 | 60 | 0.103 | 0.103 | 0.000 |
| 105 | 61 | 0.103 | 0.103 | 0.000 |
| 105 | 62 | 0.104 | 0.102 | -0.002 |
| 105 | 63 | 0.103 | 0.102 | -0.001 |
| 105 | 64 | 0.102 | 0.104 | 0.002 |
| 105 | 65 | 0.104 | 0.103 | -0.001 |
| 105 | 66 | 0.104 | 0.103 | -0.001 |
| 105 | 67 | 0.104 | 0.103 | -0.001 |
| Max | | 0.104 | 0.104 | 0.002 |
| Average | | 0.103 | 0.103 | 0.000 |
| Min | | 0.102 | 0.102 | -0.002 |
| Std Dev | | 0.001 | 0.000 | 0.001 |



| 12.6 V_FAULT_HYS_5V | |
|---------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.11 |
| Min Limit | 0.09 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 |
| Min | 0.103 | 0.103 | 0.102 | 0.102 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.102 | 0.102 |
| Average | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 |
| Max | 0.103 | 0.104 | 0.104 | 0.104 | 0.104 | 0.104 | 0.103 | 0.104 | 0.104 | 0.104 | 0.104 |
| UL | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 |

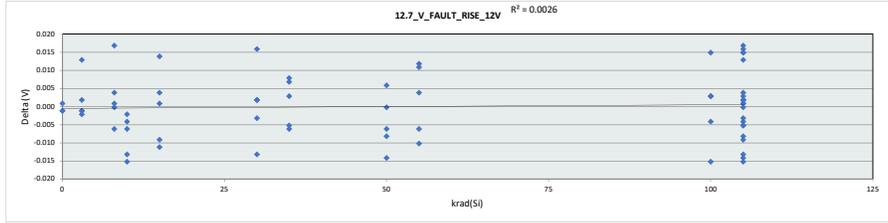


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

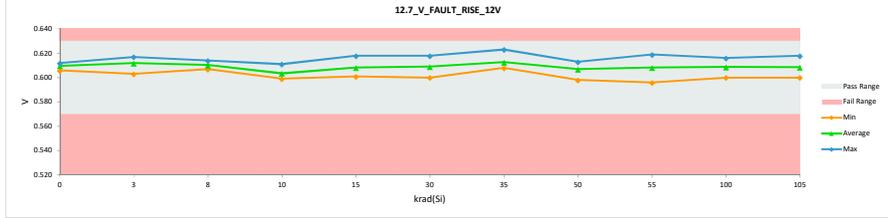
| 12.7 V_FAULT_RISE_12V | |
|-----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.63 |
| Min Limit | 0.57 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.607 | 0.606 | -0.001 |
| 0 | 992 | 0.611 | 0.612 | 0.001 |
| 0 | 993 | 0.612 | 0.611 | -0.001 |
| 3 | 1 | 0.616 | 0.614 | -0.002 |
| 3 | 2 | 0.600 | 0.613 | 0.013 |
| 3 | 3 | 0.601 | 0.603 | 0.002 |
| 3 | 4 | 0.618 | 0.617 | -0.001 |
| 3 | 5 | 0.614 | 0.613 | -0.001 |
| 8 | 6 | 0.607 | 0.607 | 0.000 |
| 8 | 7 | 0.607 | 0.611 | 0.004 |
| 8 | 8 | 0.616 | 0.610 | -0.006 |
| 8 | 9 | 0.597 | 0.614 | 0.017 |
| 8 | 10 | 0.609 | 0.610 | 0.001 |
| 10 | 11 | 0.608 | 0.606 | -0.002 |
| 10 | 12 | 0.616 | 0.601 | -0.015 |
| 10 | 13 | 0.612 | 0.599 | -0.013 |
| 10 | 14 | 0.617 | 0.611 | -0.006 |
| 10 | 15 | 0.604 | 0.600 | -0.004 |
| 15 | 16 | 0.604 | 0.618 | 0.014 |
| 15 | 17 | 0.600 | 0.601 | 0.001 |
| 15 | 18 | 0.620 | 0.609 | -0.011 |
| 15 | 19 | 0.604 | 0.608 | 0.004 |
| 15 | 20 | 0.614 | 0.605 | -0.009 |
| 30 | 21 | 0.612 | 0.614 | 0.002 |
| 30 | 22 | 0.603 | 0.600 | -0.003 |
| 30 | 23 | 0.602 | 0.618 | 0.016 |
| 30 | 24 | 0.607 | 0.609 | 0.002 |
| 30 | 25 | 0.617 | 0.604 | -0.013 |
| 35 | 26 | 0.612 | 0.615 | 0.003 |
| 35 | 27 | 0.614 | 0.608 | -0.006 |
| 35 | 28 | 0.615 | 0.623 | 0.008 |
| 35 | 29 | 0.613 | 0.608 | -0.005 |
| 35 | 30 | 0.602 | 0.609 | 0.007 |
| 50 | 31 | 0.617 | 0.611 | -0.006 |
| 50 | 32 | 0.613 | 0.613 | 0.000 |
| 50 | 33 | 0.607 | 0.613 | 0.006 |
| 50 | 34 | 0.612 | 0.598 | -0.014 |
| 50 | 35 | 0.608 | 0.600 | -0.008 |
| 55 | 36 | 0.614 | 0.604 | -0.010 |
| 55 | 37 | 0.608 | 0.619 | 0.011 |
| 55 | 38 | 0.606 | 0.618 | 0.012 |
| 55 | 39 | 0.602 | 0.596 | -0.006 |
| 55 | 40 | 0.600 | 0.604 | 0.004 |
| 100 | 41 | 0.611 | 0.614 | 0.003 |
| 100 | 42 | 0.604 | 0.600 | -0.004 |
| 100 | 43 | 0.617 | 0.602 | -0.015 |
| 100 | 44 | 0.601 | 0.616 | 0.015 |
| 100 | 45 | 0.609 | 0.612 | 0.003 |
| 105 | 46 | 0.607 | 0.603 | -0.004 |
| 105 | 47 | 0.606 | 0.608 | 0.002 |
| 105 | 48 | 0.614 | 0.600 | -0.014 |
| 105 | 49 | 0.599 | 0.600 | 0.001 |
| 105 | 50 | 0.616 | 0.611 | -0.005 |
| 105 | 51 | 0.607 | 0.607 | 0.000 |
| 105 | 52 | 0.605 | 0.618 | 0.013 |
| 105 | 53 | 0.616 | 0.613 | -0.003 |
| 105 | 54 | 0.606 | 0.608 | 0.002 |
| 105 | 55 | 0.619 | 0.606 | -0.013 |
| 105 | 56 | 0.609 | 0.601 | -0.008 |
| 105 | 57 | 0.609 | 0.600 | -0.009 |
| 105 | 58 | 0.614 | 0.617 | 0.003 |
| 105 | 59 | 0.602 | 0.603 | 0.001 |
| 105 | 60 | 0.612 | 0.616 | 0.004 |
| 105 | 61 | 0.599 | 0.614 | 0.015 |
| 105 | 62 | 0.602 | 0.604 | 0.002 |
| 105 | 63 | 0.616 | 0.601 | -0.015 |
| 105 | 64 | 0.615 | 0.610 | -0.005 |
| 105 | 65 | 0.600 | 0.616 | 0.016 |
| 105 | 66 | 0.598 | 0.613 | 0.015 |
| 105 | 67 | 0.601 | 0.618 | 0.017 |
| Max | | 0.620 | 0.623 | 0.017 |
| Average | | 0.609 | 0.609 | 0.000 |
| Min | | 0.597 | 0.596 | -0.015 |
| Std Dev | | 0.006 | 0.006 | 0.009 |



| 12.7 V_FAULT_RISE_12V | |
|-----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.63 |
| Min Limit | 0.57 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.610 | 0.603 | 0.607 | 0.599 | 0.601 | 0.600 | 0.608 | 0.598 | 0.596 | 0.600 | 0.600 |
| Average | 0.610 | 0.612 | 0.610 | 0.603 | 0.608 | 0.609 | 0.613 | 0.607 | 0.608 | 0.609 | 0.609 |
| Max | 0.612 | 0.617 | 0.614 | 0.611 | 0.618 | 0.618 | 0.623 | 0.613 | 0.619 | 0.616 | 0.618 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 |

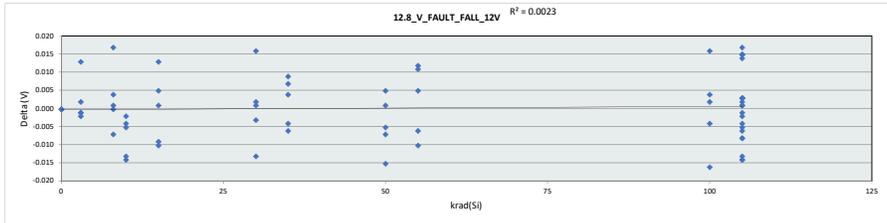


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

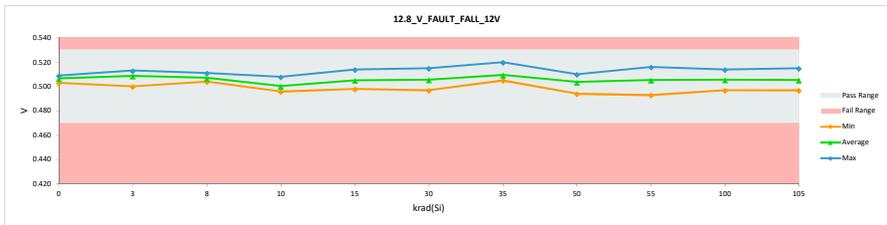
| 12.8 V_FAULT_FALL_12V | |
|-----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.53 |
| Min Limit | 0.47 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.503 | 0.503 | 0.000 |
| 0 | 992 | 0.508 | 0.508 | 0.000 |
| 0 | 993 | 0.509 | 0.509 | 0.000 |
| 3 | 1 | 0.512 | 0.511 | -0.001 |
| 3 | 2 | 0.497 | 0.510 | 0.013 |
| 3 | 3 | 0.498 | 0.500 | 0.002 |
| 3 | 4 | 0.515 | 0.513 | -0.002 |
| 3 | 5 | 0.511 | 0.510 | -0.001 |
| 8 | 6 | 0.503 | 0.504 | 0.001 |
| 8 | 7 | 0.504 | 0.508 | 0.004 |
| 8 | 8 | 0.513 | 0.506 | -0.007 |
| 8 | 9 | 0.494 | 0.511 | 0.017 |
| 8 | 10 | 0.506 | 0.506 | 0.000 |
| 10 | 11 | 0.505 | 0.503 | -0.002 |
| 10 | 12 | 0.512 | 0.498 | -0.014 |
| 10 | 13 | 0.509 | 0.496 | -0.013 |
| 10 | 14 | 0.513 | 0.508 | -0.005 |
| 10 | 15 | 0.501 | 0.497 | -0.004 |
| 15 | 16 | 0.501 | 0.514 | 0.013 |
| 15 | 17 | 0.497 | 0.498 | 0.001 |
| 15 | 18 | 0.516 | 0.506 | -0.010 |
| 15 | 19 | 0.500 | 0.505 | 0.005 |
| 15 | 20 | 0.511 | 0.502 | -0.009 |
| 30 | 21 | 0.509 | 0.511 | 0.002 |
| 30 | 22 | 0.500 | 0.497 | -0.003 |
| 30 | 23 | 0.499 | 0.515 | 0.016 |
| 30 | 24 | 0.504 | 0.505 | 0.001 |
| 30 | 25 | 0.513 | 0.500 | -0.013 |
| 35 | 26 | 0.508 | 0.512 | 0.004 |
| 35 | 27 | 0.511 | 0.505 | -0.006 |
| 35 | 28 | 0.511 | 0.520 | 0.009 |
| 35 | 29 | 0.509 | 0.505 | -0.004 |
| 35 | 30 | 0.499 | 0.506 | 0.007 |
| 50 | 31 | 0.513 | 0.508 | -0.005 |
| 50 | 32 | 0.509 | 0.510 | 0.001 |
| 50 | 33 | 0.504 | 0.509 | 0.005 |
| 50 | 34 | 0.509 | 0.494 | -0.015 |
| 50 | 35 | 0.504 | 0.497 | -0.007 |
| 55 | 36 | 0.511 | 0.501 | -0.010 |
| 55 | 37 | 0.505 | 0.516 | 0.011 |
| 55 | 38 | 0.503 | 0.515 | 0.012 |
| 55 | 39 | 0.499 | 0.493 | -0.006 |
| 55 | 40 | 0.497 | 0.502 | 0.005 |
| 100 | 41 | 0.508 | 0.510 | 0.002 |
| 100 | 42 | 0.501 | 0.497 | -0.004 |
| 100 | 43 | 0.514 | 0.498 | -0.016 |
| 100 | 44 | 0.498 | 0.514 | 0.016 |
| 100 | 45 | 0.505 | 0.509 | 0.004 |
| 105 | 46 | 0.504 | 0.500 | -0.004 |
| 105 | 47 | 0.502 | 0.505 | 0.003 |
| 105 | 48 | 0.511 | 0.497 | -0.014 |
| 105 | 49 | 0.495 | 0.497 | 0.002 |
| 105 | 50 | 0.513 | 0.507 | -0.006 |
| 105 | 51 | 0.504 | 0.503 | -0.001 |
| 105 | 52 | 0.501 | 0.515 | 0.014 |
| 105 | 53 | 0.512 | 0.510 | -0.002 |
| 105 | 54 | 0.502 | 0.505 | 0.003 |
| 105 | 55 | 0.516 | 0.503 | -0.013 |
| 105 | 56 | 0.506 | 0.498 | -0.008 |
| 105 | 57 | 0.506 | 0.498 | -0.008 |
| 105 | 58 | 0.511 | 0.514 | 0.003 |
| 105 | 59 | 0.499 | 0.500 | 0.001 |
| 105 | 60 | 0.509 | 0.512 | 0.003 |
| 105 | 61 | 0.495 | 0.510 | 0.015 |
| 105 | 62 | 0.499 | 0.500 | 0.001 |
| 105 | 63 | 0.513 | 0.499 | -0.014 |
| 105 | 64 | 0.512 | 0.507 | -0.005 |
| 105 | 65 | 0.498 | 0.513 | 0.015 |
| 105 | 66 | 0.495 | 0.510 | 0.015 |
| 105 | 67 | 0.498 | 0.515 | 0.017 |
| Max | | 0.516 | 0.520 | 0.017 |
| Average | | 0.505 | 0.506 | 0.000 |
| Min | | 0.494 | 0.493 | -0.016 |
| Std Dev | | 0.006 | 0.006 | 0.009 |



| 12.8 V_FAULT_FALL_12V | |
|-----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.53 |
| Min Limit | 0.47 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.507 | 0.509 | 0.507 | 0.507 | 0.505 | 0.506 | 0.505 | 0.510 | 0.504 | 0.505 | 0.505 |
| Average | 0.509 | 0.513 | 0.511 | 0.508 | 0.514 | 0.515 | 0.520 | 0.510 | 0.516 | 0.514 | 0.515 |
| Max | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 |

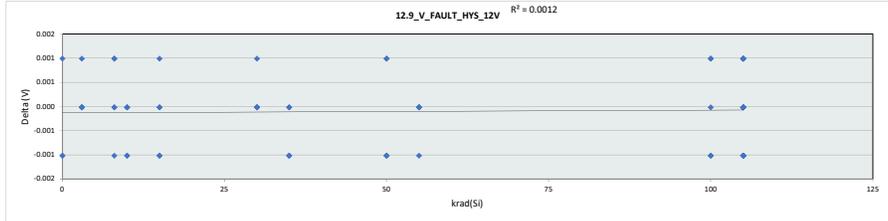


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

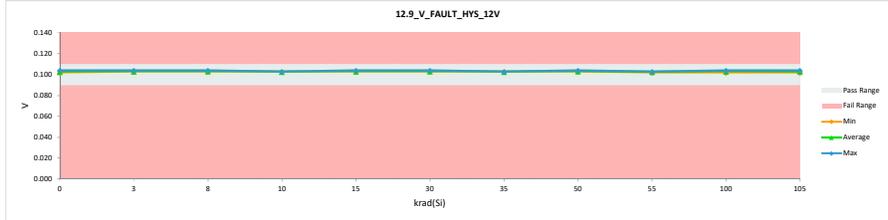
| 12.9 V_FAULT_HYS_12V | |
|----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.11 |
| Min Limit | 0.09 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.104 | 0.103 | -0.001 |
| 0 | 992 | 0.103 | 0.104 | 0.001 |
| 0 | 993 | 0.103 | 0.102 | -0.001 |
| 3 | 1 | 0.103 | 0.103 | 0.000 |
| 3 | 2 | 0.103 | 0.103 | 0.000 |
| 3 | 3 | 0.103 | 0.103 | 0.000 |
| 3 | 4 | 0.103 | 0.104 | 0.001 |
| 3 | 5 | 0.103 | 0.103 | 0.000 |
| 8 | 6 | 0.104 | 0.103 | -0.001 |
| 8 | 7 | 0.103 | 0.103 | 0.000 |
| 8 | 8 | 0.103 | 0.104 | 0.001 |
| 8 | 9 | 0.103 | 0.103 | 0.000 |
| 8 | 10 | 0.103 | 0.104 | 0.001 |
| 10 | 11 | 0.103 | 0.103 | 0.000 |
| 10 | 12 | 0.104 | 0.103 | -0.001 |
| 10 | 13 | 0.103 | 0.103 | 0.000 |
| 10 | 14 | 0.104 | 0.103 | -0.001 |
| 10 | 15 | 0.103 | 0.103 | 0.000 |
| 15 | 16 | 0.103 | 0.104 | 0.001 |
| 15 | 17 | 0.103 | 0.103 | 0.000 |
| 15 | 18 | 0.104 | 0.103 | -0.001 |
| 15 | 19 | 0.104 | 0.103 | -0.001 |
| 15 | 20 | 0.103 | 0.103 | 0.000 |
| 30 | 21 | 0.103 | 0.103 | 0.000 |
| 30 | 22 | 0.103 | 0.103 | 0.000 |
| 30 | 23 | 0.103 | 0.103 | 0.000 |
| 30 | 24 | 0.103 | 0.104 | 0.001 |
| 30 | 25 | 0.104 | 0.104 | 0.000 |
| 35 | 26 | 0.104 | 0.103 | -0.001 |
| 35 | 27 | 0.103 | 0.103 | 0.000 |
| 35 | 28 | 0.104 | 0.103 | -0.001 |
| 35 | 29 | 0.104 | 0.103 | -0.001 |
| 35 | 30 | 0.103 | 0.103 | 0.000 |
| 50 | 31 | 0.104 | 0.103 | -0.001 |
| 50 | 32 | 0.104 | 0.103 | -0.001 |
| 50 | 33 | 0.103 | 0.104 | 0.001 |
| 50 | 34 | 0.103 | 0.104 | 0.001 |
| 50 | 35 | 0.104 | 0.103 | -0.001 |
| 55 | 36 | 0.103 | 0.103 | 0.000 |
| 55 | 37 | 0.103 | 0.103 | 0.000 |
| 55 | 38 | 0.103 | 0.103 | 0.000 |
| 55 | 39 | 0.103 | 0.103 | 0.000 |
| 55 | 40 | 0.103 | 0.102 | -0.001 |
| 100 | 41 | 0.103 | 0.104 | 0.001 |
| 100 | 42 | 0.103 | 0.103 | 0.000 |
| 100 | 43 | 0.103 | 0.104 | 0.001 |
| 100 | 44 | 0.103 | 0.102 | -0.001 |
| 100 | 45 | 0.104 | 0.103 | -0.001 |
| 105 | 46 | 0.103 | 0.103 | 0.000 |
| 105 | 47 | 0.104 | 0.103 | -0.001 |
| 105 | 48 | 0.103 | 0.103 | 0.000 |
| 105 | 49 | 0.104 | 0.103 | -0.001 |
| 105 | 50 | 0.103 | 0.104 | 0.001 |
| 105 | 51 | 0.103 | 0.104 | 0.001 |
| 105 | 52 | 0.104 | 0.103 | -0.001 |
| 105 | 53 | 0.104 | 0.103 | -0.001 |
| 105 | 54 | 0.104 | 0.103 | -0.001 |
| 105 | 55 | 0.103 | 0.103 | 0.000 |
| 105 | 56 | 0.103 | 0.103 | 0.000 |
| 105 | 57 | 0.103 | 0.102 | -0.001 |
| 105 | 58 | 0.103 | 0.103 | 0.000 |
| 105 | 59 | 0.103 | 0.103 | 0.000 |
| 105 | 60 | 0.103 | 0.104 | 0.001 |
| 105 | 61 | 0.103 | 0.104 | 0.001 |
| 105 | 62 | 0.103 | 0.104 | 0.001 |
| 105 | 63 | 0.103 | 0.102 | -0.001 |
| 105 | 64 | 0.103 | 0.103 | 0.000 |
| 105 | 65 | 0.102 | 0.103 | 0.001 |
| 105 | 66 | 0.103 | 0.103 | 0.000 |
| 105 | 67 | 0.103 | 0.103 | 0.000 |
| Max | | 0.104 | 0.104 | 0.001 |
| Average | | 0.103 | 0.103 | 0.000 |
| Min | | 0.102 | 0.102 | -0.001 |
| Std Dev | | 0.000 | 0.001 | 0.001 |



| 12.9 V_FAULT_HYS_12V | |
|----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.11 |
| Min Limit | 0.09 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 |
| Min | 0.102 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.102 | 0.102 | 0.102 |
| Average | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 |
| Max | 0.104 | 0.104 | 0.104 | 0.103 | 0.104 | 0.104 | 0.103 | 0.104 | 0.103 | 0.104 | 0.104 |
| UL | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 |

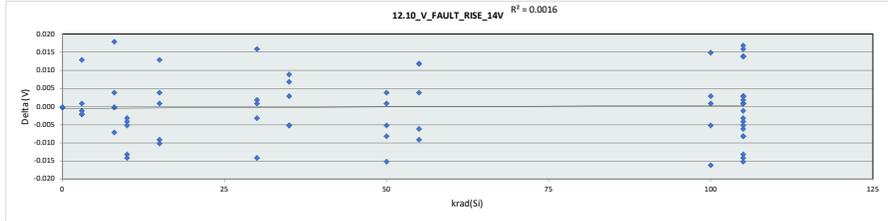


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

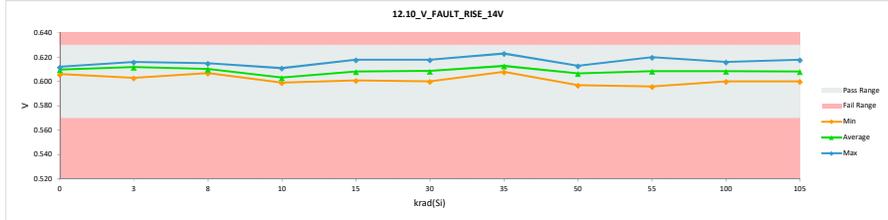
| 12.10_V_FAULT_RISE_14V | |
|------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.63 |
| Min Limit | 0.57 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.606 | 0.606 | 0.000 |
| 0 | 992 | 0.611 | 0.611 | 0.000 |
| 0 | 993 | 0.612 | 0.612 | 0.000 |
| 3 | 1 | 0.616 | 0.614 | -0.002 |
| 3 | 2 | 0.600 | 0.613 | 0.013 |
| 3 | 3 | 0.602 | 0.603 | 0.001 |
| 3 | 4 | 0.618 | 0.616 | -0.002 |
| 3 | 5 | 0.614 | 0.613 | -0.001 |
| 8 | 6 | 0.607 | 0.607 | 0.000 |
| 8 | 7 | 0.607 | 0.611 | 0.004 |
| 8 | 8 | 0.616 | 0.609 | -0.007 |
| 8 | 9 | 0.597 | 0.615 | 0.018 |
| 8 | 10 | 0.610 | 0.610 | 0.000 |
| 10 | 11 | 0.608 | 0.605 | -0.003 |
| 10 | 12 | 0.615 | 0.601 | -0.014 |
| 10 | 13 | 0.612 | 0.599 | -0.013 |
| 10 | 14 | 0.616 | 0.611 | -0.005 |
| 10 | 15 | 0.604 | 0.600 | -0.004 |
| 15 | 16 | 0.605 | 0.618 | 0.013 |
| 15 | 17 | 0.600 | 0.601 | 0.001 |
| 15 | 18 | 0.619 | 0.609 | -0.010 |
| 15 | 19 | 0.604 | 0.608 | 0.004 |
| 15 | 20 | 0.614 | 0.605 | -0.009 |
| 30 | 21 | 0.612 | 0.614 | 0.002 |
| 30 | 22 | 0.603 | 0.600 | -0.003 |
| 30 | 23 | 0.602 | 0.618 | 0.016 |
| 30 | 24 | 0.607 | 0.608 | 0.001 |
| 30 | 25 | 0.617 | 0.603 | -0.014 |
| 35 | 26 | 0.612 | 0.615 | 0.003 |
| 35 | 27 | 0.614 | 0.609 | -0.005 |
| 35 | 28 | 0.614 | 0.623 | 0.009 |
| 35 | 29 | 0.613 | 0.608 | -0.005 |
| 35 | 30 | 0.602 | 0.609 | 0.007 |
| 50 | 31 | 0.616 | 0.611 | -0.005 |
| 50 | 32 | 0.612 | 0.613 | 0.001 |
| 50 | 33 | 0.608 | 0.612 | 0.004 |
| 50 | 34 | 0.612 | 0.597 | -0.015 |
| 50 | 35 | 0.608 | 0.600 | -0.008 |
| 55 | 36 | 0.613 | 0.604 | -0.009 |
| 55 | 37 | 0.608 | 0.620 | 0.012 |
| 55 | 38 | 0.606 | 0.618 | 0.012 |
| 55 | 39 | 0.602 | 0.596 | -0.006 |
| 55 | 40 | 0.600 | 0.604 | 0.004 |
| 100 | 41 | 0.612 | 0.613 | 0.001 |
| 100 | 42 | 0.605 | 0.600 | -0.005 |
| 100 | 43 | 0.617 | 0.601 | -0.016 |
| 100 | 44 | 0.601 | 0.616 | 0.015 |
| 100 | 45 | 0.609 | 0.612 | 0.003 |
| 105 | 46 | 0.607 | 0.603 | -0.004 |
| 105 | 47 | 0.606 | 0.608 | 0.002 |
| 105 | 48 | 0.614 | 0.600 | -0.014 |
| 105 | 49 | 0.599 | 0.600 | 0.001 |
| 105 | 50 | 0.616 | 0.610 | -0.006 |
| 105 | 51 | 0.607 | 0.606 | -0.001 |
| 105 | 52 | 0.604 | 0.618 | 0.014 |
| 105 | 53 | 0.616 | 0.613 | -0.003 |
| 105 | 54 | 0.605 | 0.608 | 0.003 |
| 105 | 55 | 0.619 | 0.606 | -0.013 |
| 105 | 56 | 0.609 | 0.601 | -0.008 |
| 105 | 57 | 0.609 | 0.601 | -0.008 |
| 105 | 58 | 0.614 | 0.617 | 0.003 |
| 105 | 59 | 0.602 | 0.603 | 0.001 |
| 105 | 60 | 0.612 | 0.615 | 0.003 |
| 105 | 61 | 0.599 | 0.613 | 0.014 |
| 105 | 62 | 0.602 | 0.603 | 0.001 |
| 105 | 63 | 0.616 | 0.601 | -0.015 |
| 105 | 64 | 0.615 | 0.610 | -0.005 |
| 105 | 65 | 0.600 | 0.616 | 0.016 |
| 105 | 66 | 0.599 | 0.613 | 0.014 |
| 105 | 67 | 0.601 | 0.618 | 0.017 |
| Max | | 0.619 | 0.623 | 0.018 |
| Average | | 0.609 | 0.609 | 0.000 |
| Min | | 0.597 | 0.596 | -0.016 |
| Std Dev | | 0.006 | 0.006 | 0.009 |



| 12.10_V_FAULT_RISE_14V | |
|------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.63 |
| Min Limit | 0.57 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.606 | 0.603 | 0.607 | 0.599 | 0.601 | 0.600 | 0.608 | 0.597 | 0.596 | 0.600 | 0.600 |
| Average | 0.610 | 0.612 | 0.610 | 0.603 | 0.608 | 0.609 | 0.613 | 0.607 | 0.608 | 0.608 | 0.608 |
| Max | 0.612 | 0.616 | 0.615 | 0.611 | 0.618 | 0.618 | 0.623 | 0.613 | 0.620 | 0.616 | 0.618 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 | 0.630 |

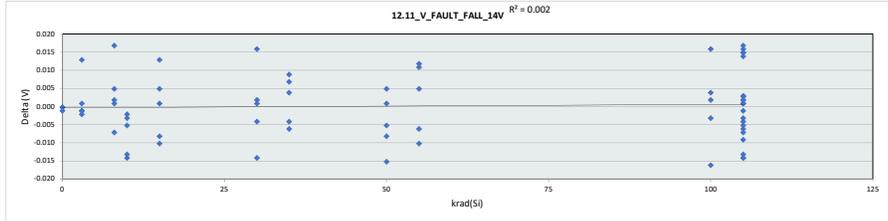


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

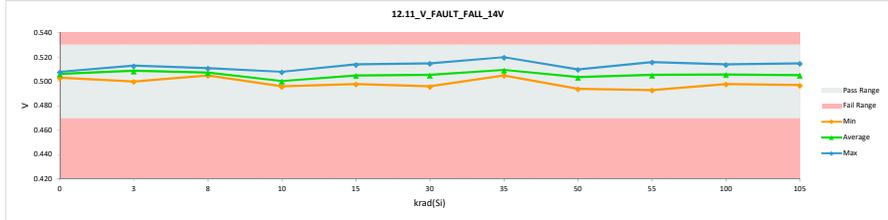
| 12.11_V_FAULT_FALL_14V | |
|------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.53 |
| Min Limit | 0.47 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.503 | 0.503 | 0.000 |
| 0 | 992 | 0.508 | 0.508 | 0.000 |
| 0 | 993 | 0.509 | 0.508 | -0.001 |
| 3 | 1 | 0.512 | 0.511 | -0.001 |
| 3 | 2 | 0.497 | 0.510 | 0.013 |
| 3 | 3 | 0.499 | 0.500 | 0.001 |
| 3 | 4 | 0.515 | 0.513 | -0.002 |
| 3 | 5 | 0.511 | 0.510 | -0.001 |
| 8 | 6 | 0.503 | 0.505 | 0.002 |
| 8 | 7 | 0.503 | 0.508 | 0.005 |
| 8 | 8 | 0.513 | 0.506 | -0.007 |
| 8 | 9 | 0.494 | 0.511 | 0.017 |
| 8 | 10 | 0.506 | 0.507 | 0.001 |
| 10 | 11 | 0.505 | 0.503 | -0.002 |
| 10 | 12 | 0.512 | 0.498 | -0.014 |
| 10 | 13 | 0.509 | 0.496 | -0.013 |
| 10 | 14 | 0.513 | 0.508 | -0.005 |
| 10 | 15 | 0.500 | 0.497 | -0.003 |
| 15 | 16 | 0.501 | 0.514 | 0.013 |
| 15 | 17 | 0.497 | 0.498 | 0.001 |
| 15 | 18 | 0.516 | 0.506 | -0.010 |
| 15 | 19 | 0.500 | 0.505 | 0.005 |
| 15 | 20 | 0.510 | 0.502 | -0.008 |
| 30 | 21 | 0.509 | 0.511 | 0.002 |
| 30 | 22 | 0.500 | 0.496 | -0.004 |
| 30 | 23 | 0.499 | 0.515 | 0.016 |
| 30 | 24 | 0.504 | 0.505 | 0.001 |
| 30 | 25 | 0.514 | 0.500 | -0.014 |
| 35 | 26 | 0.508 | 0.512 | 0.004 |
| 35 | 27 | 0.511 | 0.505 | -0.006 |
| 35 | 28 | 0.511 | 0.520 | 0.009 |
| 35 | 29 | 0.509 | 0.505 | -0.004 |
| 35 | 30 | 0.499 | 0.506 | 0.007 |
| 50 | 31 | 0.513 | 0.508 | -0.005 |
| 50 | 32 | 0.509 | 0.510 | 0.001 |
| 50 | 33 | 0.504 | 0.509 | 0.005 |
| 50 | 34 | 0.509 | 0.494 | -0.015 |
| 50 | 35 | 0.505 | 0.497 | -0.008 |
| 55 | 36 | 0.511 | 0.501 | -0.010 |
| 55 | 37 | 0.505 | 0.516 | 0.011 |
| 55 | 38 | 0.503 | 0.515 | 0.012 |
| 55 | 39 | 0.499 | 0.493 | -0.006 |
| 55 | 40 | 0.497 | 0.502 | 0.005 |
| 100 | 41 | 0.508 | 0.510 | 0.002 |
| 100 | 42 | 0.501 | 0.498 | -0.003 |
| 100 | 43 | 0.514 | 0.498 | -0.016 |
| 100 | 44 | 0.498 | 0.514 | 0.016 |
| 100 | 45 | 0.505 | 0.509 | 0.004 |
| 105 | 46 | 0.504 | 0.500 | -0.004 |
| 105 | 47 | 0.503 | 0.505 | 0.002 |
| 105 | 48 | 0.511 | 0.497 | -0.014 |
| 105 | 49 | 0.495 | 0.497 | 0.002 |
| 105 | 50 | 0.513 | 0.507 | -0.006 |
| 105 | 51 | 0.504 | 0.503 | -0.001 |
| 105 | 52 | 0.501 | 0.515 | 0.014 |
| 105 | 53 | 0.513 | 0.510 | -0.003 |
| 105 | 54 | 0.502 | 0.505 | 0.003 |
| 105 | 55 | 0.516 | 0.503 | -0.013 |
| 105 | 56 | 0.505 | 0.498 | -0.007 |
| 105 | 57 | 0.506 | 0.497 | -0.009 |
| 105 | 58 | 0.511 | 0.514 | 0.003 |
| 105 | 59 | 0.499 | 0.500 | 0.001 |
| 105 | 60 | 0.509 | 0.512 | 0.003 |
| 105 | 61 | 0.495 | 0.510 | 0.015 |
| 105 | 62 | 0.499 | 0.500 | 0.001 |
| 105 | 63 | 0.513 | 0.499 | -0.014 |
| 105 | 64 | 0.512 | 0.507 | -0.005 |
| 105 | 65 | 0.497 | 0.513 | 0.016 |
| 105 | 66 | 0.495 | 0.510 | 0.015 |
| 105 | 67 | 0.498 | 0.515 | 0.017 |
| Max | | 0.516 | 0.520 | 0.017 |
| Average | | 0.505 | 0.506 | 0.000 |
| Min | | 0.494 | 0.493 | -0.016 |
| Std Dev | | 0.006 | 0.006 | 0.009 |



| 12.11_V_FAULT_FALL_14V | |
|------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.53 |
| Min Limit | 0.47 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.503 | 0.500 | 0.505 | 0.496 | 0.498 | 0.496 | 0.505 | 0.494 | 0.493 | 0.498 | 0.497 |
| Average | 0.506 | 0.509 | 0.507 | 0.500 | 0.505 | 0.505 | 0.510 | 0.504 | 0.505 | 0.506 | 0.505 |
| Max | 0.508 | 0.513 | 0.511 | 0.508 | 0.514 | 0.515 | 0.520 | 0.510 | 0.516 | 0.514 | 0.515 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 | 0.530 |

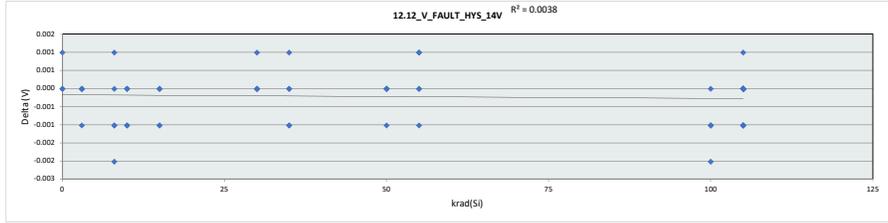


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

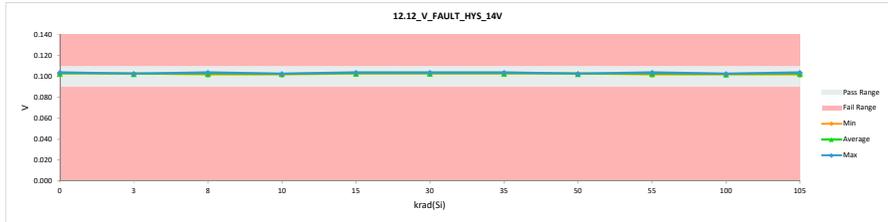
| 12.12_V_FAULT_HYS_14V | |
|-----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | V |
| Max Limit | 0.11 |
| Min Limit | 0.09 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 0.103 | 0.103 | 0.000 |
| 0 | 992 | 0.103 | 0.103 | 0.000 |
| 0 | 993 | 0.103 | 0.104 | 0.001 |
| 3 | 1 | 0.104 | 0.103 | -0.001 |
| 3 | 2 | 0.103 | 0.103 | 0.000 |
| 3 | 3 | 0.103 | 0.103 | 0.000 |
| 3 | 4 | 0.103 | 0.103 | 0.000 |
| 3 | 5 | 0.103 | 0.103 | 0.000 |
| 8 | 6 | 0.104 | 0.102 | -0.002 |
| 8 | 7 | 0.104 | 0.103 | -0.001 |
| 8 | 8 | 0.103 | 0.103 | 0.000 |
| 8 | 9 | 0.103 | 0.104 | 0.001 |
| 8 | 10 | 0.104 | 0.103 | -0.001 |
| 10 | 11 | 0.103 | 0.102 | -0.001 |
| 10 | 12 | 0.103 | 0.103 | 0.000 |
| 10 | 13 | 0.103 | 0.103 | 0.000 |
| 10 | 14 | 0.103 | 0.103 | 0.000 |
| 10 | 15 | 0.104 | 0.103 | -0.001 |
| 15 | 16 | 0.104 | 0.104 | 0.000 |
| 15 | 17 | 0.103 | 0.103 | 0.000 |
| 15 | 18 | 0.103 | 0.103 | 0.000 |
| 15 | 19 | 0.104 | 0.103 | -0.001 |
| 15 | 20 | 0.104 | 0.103 | -0.001 |
| 30 | 21 | 0.103 | 0.103 | 0.000 |
| 30 | 22 | 0.103 | 0.104 | 0.001 |
| 30 | 23 | 0.103 | 0.103 | 0.000 |
| 30 | 24 | 0.103 | 0.103 | 0.000 |
| 30 | 25 | 0.103 | 0.103 | 0.000 |
| 35 | 26 | 0.104 | 0.103 | -0.001 |
| 35 | 27 | 0.103 | 0.104 | 0.001 |
| 35 | 28 | 0.103 | 0.103 | 0.000 |
| 35 | 29 | 0.104 | 0.103 | -0.001 |
| 35 | 30 | 0.103 | 0.103 | 0.000 |
| 50 | 31 | 0.103 | 0.103 | 0.000 |
| 50 | 32 | 0.103 | 0.103 | 0.000 |
| 50 | 33 | 0.104 | 0.103 | -0.001 |
| 50 | 34 | 0.103 | 0.103 | 0.000 |
| 50 | 35 | 0.103 | 0.103 | 0.000 |
| 55 | 36 | 0.102 | 0.103 | 0.001 |
| 55 | 37 | 0.103 | 0.104 | 0.001 |
| 55 | 38 | 0.103 | 0.103 | 0.000 |
| 55 | 39 | 0.103 | 0.103 | 0.000 |
| 55 | 40 | 0.103 | 0.102 | -0.001 |
| 100 | 41 | 0.104 | 0.103 | -0.001 |
| 100 | 42 | 0.104 | 0.102 | -0.002 |
| 100 | 43 | 0.103 | 0.103 | 0.000 |
| 100 | 44 | 0.103 | 0.102 | -0.001 |
| 100 | 45 | 0.104 | 0.103 | -0.001 |
| 105 | 46 | 0.103 | 0.103 | 0.000 |
| 105 | 47 | 0.103 | 0.103 | 0.000 |
| 105 | 48 | 0.103 | 0.103 | 0.000 |
| 105 | 49 | 0.104 | 0.103 | -0.001 |
| 105 | 50 | 0.103 | 0.103 | 0.000 |
| 105 | 51 | 0.103 | 0.103 | 0.000 |
| 105 | 52 | 0.103 | 0.103 | 0.000 |
| 105 | 53 | 0.103 | 0.103 | 0.000 |
| 105 | 54 | 0.103 | 0.103 | 0.000 |
| 105 | 55 | 0.103 | 0.103 | 0.000 |
| 105 | 56 | 0.104 | 0.103 | -0.001 |
| 105 | 57 | 0.103 | 0.104 | 0.001 |
| 105 | 58 | 0.103 | 0.103 | 0.000 |
| 105 | 59 | 0.103 | 0.103 | 0.000 |
| 105 | 60 | 0.103 | 0.103 | 0.000 |
| 105 | 61 | 0.104 | 0.103 | -0.001 |
| 105 | 62 | 0.103 | 0.103 | 0.000 |
| 105 | 63 | 0.103 | 0.102 | -0.001 |
| 105 | 64 | 0.103 | 0.103 | 0.000 |
| 105 | 65 | 0.103 | 0.103 | 0.000 |
| 105 | 66 | 0.104 | 0.103 | -0.001 |
| 105 | 67 | 0.103 | 0.103 | 0.000 |
| Max | | 0.104 | 0.104 | 0.001 |
| Average | | 0.103 | 0.103 | 0.000 |
| Min | | 0.102 | 0.102 | -0.002 |
| Std Dev | | 0.000 | 0.000 | 0.001 |



| 12.12_V_FAULT_HYS_14V | |
|-----------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 0.11 |
| Min Limit | 0.09 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 | 0.090 |
| Min | 0.103 | 0.103 | 0.102 | 0.102 | 0.103 | 0.103 | 0.103 | 0.103 | 0.102 | 0.102 | 0.102 |
| Average | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 | 0.103 |
| Max | 0.104 | 0.103 | 0.104 | 0.103 | 0.104 | 0.104 | 0.104 | 0.103 | 0.104 | 0.103 | 0.104 |
| UL | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 | 0.110 |

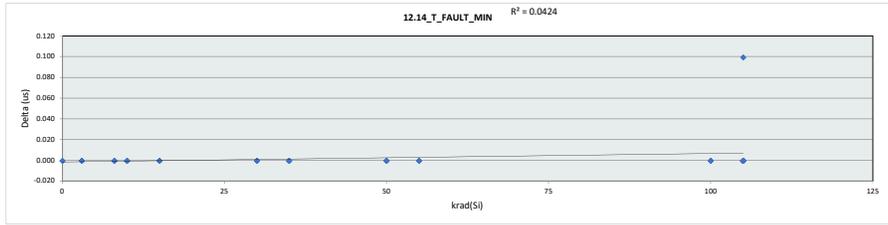


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

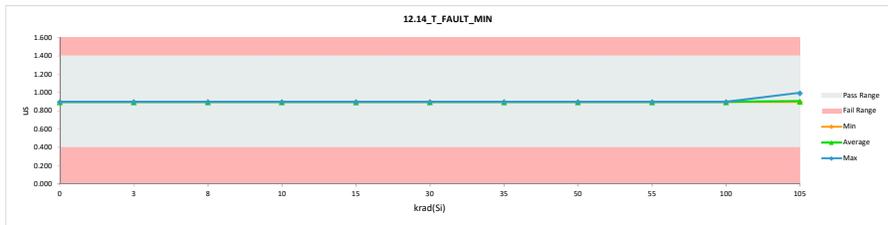
| 12.14 T_FAULT_MIN | |
|-------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | us |
| Max Limit | 1.4 |
| Min Limit | 0.4 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|-------|
| 0 | 991 | 0.900 | 0.900 | 0.000 |
| 0 | 992 | 0.900 | 0.900 | 0.000 |
| 0 | 993 | 0.900 | 0.900 | 0.000 |
| 3 | 1 | 0.900 | 0.900 | 0.000 |
| 3 | 2 | 0.900 | 0.900 | 0.000 |
| 3 | 3 | 0.900 | 0.900 | 0.000 |
| 3 | 4 | 0.900 | 0.900 | 0.000 |
| 3 | 5 | 0.900 | 0.900 | 0.000 |
| 8 | 6 | 0.900 | 0.900 | 0.000 |
| 8 | 7 | 0.900 | 0.900 | 0.000 |
| 8 | 8 | 0.900 | 0.900 | 0.000 |
| 8 | 9 | 0.900 | 0.900 | 0.000 |
| 8 | 10 | 0.900 | 0.900 | 0.000 |
| 10 | 11 | 0.900 | 0.900 | 0.000 |
| 10 | 12 | 0.900 | 0.900 | 0.000 |
| 10 | 13 | 0.900 | 0.900 | 0.000 |
| 10 | 14 | 0.900 | 0.900 | 0.000 |
| 10 | 15 | 0.900 | 0.900 | 0.000 |
| 15 | 16 | 0.900 | 0.900 | 0.000 |
| 15 | 17 | 0.900 | 0.900 | 0.000 |
| 15 | 18 | 0.900 | 0.900 | 0.000 |
| 15 | 19 | 0.900 | 0.900 | 0.000 |
| 15 | 20 | 0.900 | 0.900 | 0.000 |
| 30 | 21 | 0.900 | 0.900 | 0.000 |
| 30 | 22 | 0.900 | 0.900 | 0.000 |
| 30 | 23 | 0.900 | 0.900 | 0.000 |
| 30 | 24 | 0.900 | 0.900 | 0.000 |
| 30 | 25 | 0.900 | 0.900 | 0.000 |
| 35 | 26 | 0.900 | 0.900 | 0.000 |
| 35 | 27 | 0.900 | 0.900 | 0.000 |
| 35 | 28 | 0.900 | 0.900 | 0.000 |
| 35 | 29 | 0.900 | 0.900 | 0.000 |
| 35 | 30 | 0.900 | 0.900 | 0.000 |
| 50 | 31 | 0.900 | 0.900 | 0.000 |
| 50 | 32 | 0.900 | 0.900 | 0.000 |
| 50 | 33 | 0.900 | 0.900 | 0.000 |
| 50 | 34 | 0.900 | 0.900 | 0.000 |
| 50 | 35 | 0.900 | 0.900 | 0.000 |
| 55 | 36 | 0.900 | 0.900 | 0.000 |
| 55 | 37 | 0.900 | 0.900 | 0.000 |
| 55 | 38 | 0.900 | 0.900 | 0.000 |
| 55 | 39 | 0.900 | 0.900 | 0.000 |
| 55 | 40 | 0.900 | 0.900 | 0.000 |
| 100 | 41 | 0.900 | 0.900 | 0.000 |
| 100 | 42 | 0.900 | 0.900 | 0.000 |
| 100 | 43 | 0.900 | 0.900 | 0.000 |
| 100 | 44 | 0.900 | 0.900 | 0.000 |
| 100 | 45 | 0.900 | 0.900 | 0.000 |
| 105 | 46 | 0.900 | 0.900 | 0.000 |
| 105 | 47 | 0.900 | 0.900 | 0.000 |
| 105 | 48 | 0.900 | 0.900 | 0.000 |
| 105 | 49 | 0.900 | 0.900 | 0.000 |
| 105 | 50 | 0.900 | 0.900 | 0.000 |
| 105 | 51 | 0.900 | 0.900 | 0.000 |
| 105 | 52 | 0.900 | 0.900 | 0.000 |
| 105 | 53 | 0.900 | 0.900 | 0.000 |
| 105 | 54 | 0.900 | 1.000 | 0.100 |
| 105 | 55 | 0.900 | 0.900 | 0.000 |
| 105 | 56 | 0.900 | 0.900 | 0.000 |
| 105 | 57 | 0.900 | 0.900 | 0.000 |
| 105 | 58 | 0.900 | 0.900 | 0.000 |
| 105 | 59 | 0.900 | 0.900 | 0.000 |
| 105 | 60 | 0.900 | 0.900 | 0.000 |
| 105 | 61 | 0.900 | 0.900 | 0.000 |
| 105 | 62 | 0.900 | 0.900 | 0.000 |
| 105 | 63 | 0.900 | 0.900 | 0.000 |
| 105 | 64 | 0.900 | 0.900 | 0.000 |
| 105 | 65 | 0.900 | 1.000 | 0.100 |
| 105 | 66 | 0.900 | 0.900 | 0.000 |
| 105 | 67 | 0.900 | 0.900 | 0.000 |
| Max | | 0.900 | 1.000 | 0.100 |
| Average | | 0.900 | 0.903 | 0.003 |
| Min | | 0.900 | 0.900 | 0.000 |
| Std Dev | | 0.000 | 0.017 | 0.017 |



| 12.14 T_FAULT_MIN | |
|-------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 1.4 us |
| Min Limit | 0.4 us |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LL | 0.400 | 0.400 | 0.400 | 0.400 | 0.400 | 0.400 | 0.400 | 0.400 | 0.400 | 0.400 | 0.400 |
| Min | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 |
| Average | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.909 |
| Max | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 | 1.000 |
| UL | 1.400 | 1.400 | 1.400 | 1.400 | 1.400 | 1.400 | 1.400 | 1.400 | 1.400 | 1.400 | 1.400 |

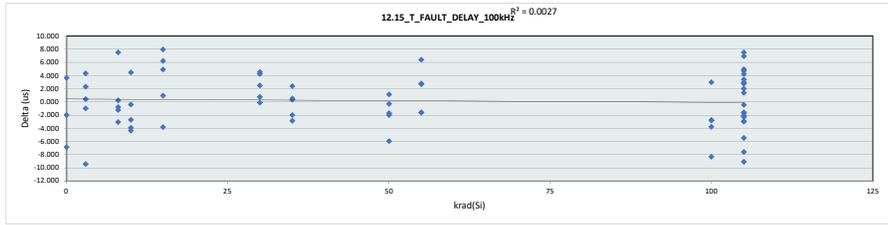


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 12.15 T FAULT_DELAY_100kHz | |
|----------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | us |
| Max Limit | 166 |
| Min Limit | 140 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 156.918 | 155.009 | -1.909 |
| 0 | 992 | 157.662 | 150.910 | -6.752 |
| 0 | 993 | 152.741 | 156.481 | 3.740 |
| 3 | 1 | 152.749 | 155.147 | 2.398 |
| 3 | 2 | 150.905 | 155.347 | 4.442 |
| 3 | 3 | 155.321 | 154.454 | -0.867 |
| 3 | 4 | 160.380 | 151.059 | -9.321 |
| 3 | 5 | 151.229 | 151.755 | 0.526 |
| 8 | 6 | 154.314 | 151.378 | -2.936 |
| 8 | 7 | 152.397 | 151.267 | -1.130 |
| 8 | 8 | 151.412 | 159.037 | 7.625 |
| 8 | 9 | 156.795 | 156.087 | -0.708 |
| 8 | 10 | 156.054 | 156.368 | 0.314 |
| 10 | 11 | 153.836 | 158.394 | 4.558 |
| 10 | 12 | 153.263 | 152.962 | -0.301 |
| 10 | 13 | 155.197 | 150.940 | -4.257 |
| 10 | 14 | 158.256 | 154.458 | -3.798 |
| 10 | 15 | 158.834 | 156.221 | -2.613 |
| 15 | 16 | 151.598 | 157.912 | 6.314 |
| 15 | 17 | 155.720 | 152.016 | -3.704 |
| 15 | 18 | 157.929 | 158.999 | 1.070 |
| 15 | 19 | 155.361 | 160.379 | 5.018 |
| 15 | 20 | 151.010 | 159.036 | 8.026 |
| 30 | 21 | 150.880 | 155.479 | 4.599 |
| 30 | 22 | 159.098 | 159.956 | 0.858 |
| 30 | 23 | 152.443 | 156.752 | 4.309 |
| 30 | 24 | 151.811 | 151.809 | -0.002 |
| 30 | 25 | 156.463 | 159.055 | 2.592 |
| 35 | 26 | 157.734 | 160.227 | 2.493 |
| 35 | 27 | 156.868 | 157.272 | 0.404 |
| 35 | 28 | 153.590 | 151.648 | -1.902 |
| 35 | 29 | 155.730 | 152.965 | -2.765 |
| 35 | 30 | 150.598 | 151.199 | 0.601 |
| 50 | 31 | 156.809 | 154.922 | -1.887 |
| 50 | 32 | 154.139 | 155.387 | 1.248 |
| 50 | 33 | 155.480 | 153.861 | -1.619 |
| 50 | 34 | 157.067 | 151.211 | -5.856 |
| 50 | 35 | 158.820 | 158.636 | -0.184 |
| 55 | 36 | 156.662 | 159.455 | 2.793 |
| 55 | 37 | 157.721 | 156.231 | -1.490 |
| 55 | 38 | 155.126 | 158.032 | 2.906 |
| 55 | 39 | 159.434 | 157.926 | -1.508 |
| 55 | 40 | 153.463 | 159.954 | 6.491 |
| 100 | 41 | 155.147 | 151.470 | -3.677 |
| 100 | 42 | 159.933 | 151.714 | -8.219 |
| 100 | 43 | 151.741 | 154.828 | 3.087 |
| 100 | 44 | 156.708 | 154.024 | -2.684 |
| 100 | 45 | 156.078 | 153.388 | -2.690 |
| 105 | 46 | 152.724 | 156.225 | 3.501 |
| 105 | 47 | 154.809 | 159.138 | 4.329 |
| 105 | 48 | 159.312 | 151.839 | -7.473 |
| 105 | 49 | 153.474 | 156.375 | 2.901 |
| 105 | 50 | 154.900 | 152.895 | -2.005 |
| 105 | 51 | 151.785 | 154.714 | 2.929 |
| 105 | 52 | 154.463 | 156.569 | 2.106 |
| 105 | 53 | 157.732 | 159.213 | 1.481 |
| 105 | 54 | 160.371 | 157.525 | -2.846 |
| 105 | 55 | 151.691 | 156.507 | 4.816 |
| 105 | 56 | 156.541 | 154.974 | -1.567 |
| 105 | 57 | 154.622 | 159.689 | 5.067 |
| 105 | 58 | 159.585 | 159.257 | -0.328 |
| 105 | 59 | 152.221 | 159.233 | 7.012 |
| 105 | 60 | 157.322 | 155.222 | -2.100 |
| 105 | 61 | 157.187 | 155.705 | -1.482 |
| 105 | 62 | 155.939 | 159.000 | 3.061 |
| 105 | 63 | 160.217 | 151.254 | -8.963 |
| 105 | 64 | 160.274 | 154.904 | -5.370 |
| 105 | 65 | 155.224 | 153.052 | -2.172 |
| 105 | 66 | 156.330 | 153.462 | -2.868 |
| 105 | 67 | 152.161 | 159.757 | 7.596 |
| Max | | 160.380 | 160.379 | 8.026 |
| Average | | 155.404 | 155.565 | 0.161 |
| Min | | 150.598 | 150.910 | -9.321 |
| Std Dev | | 2.776 | 2.948 | 4.069 |



| 12.15 T FAULT_DELAY_100k | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 169 |
| Min Limit | 140 |

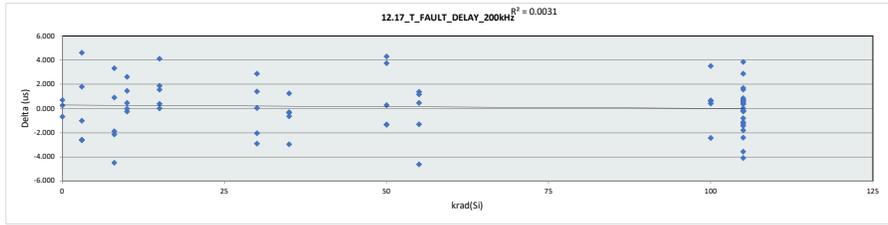
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 140.000 | 140.000 | 140.000 | 140.000 | 140.000 | 140.000 | 140.000 | 140.000 | 140.000 | 140.000 | 140.000 |
| Min | 150.910 | 151.059 | 151.267 | 150.940 | 152.016 | 151.809 | 151.199 | 151.211 | 156.231 | 151.470 | 151.254 |
| Average | 154.133 | 153.552 | 154.827 | 154.595 | 157.668 | 156.610 | 154.662 | 154.803 | 158.320 | 153.085 | 156.205 |
| Max | 156.481 | 155.347 | 159.037 | 158.394 | 160.379 | 159.956 | 160.227 | 158.636 | 159.954 | 154.828 | 159.757 |
| UL | 169.000 | 169.000 | 169.000 | 169.000 | 169.000 | 169.000 | 169.000 | 169.000 | 169.000 | 169.000 | 169.000 |



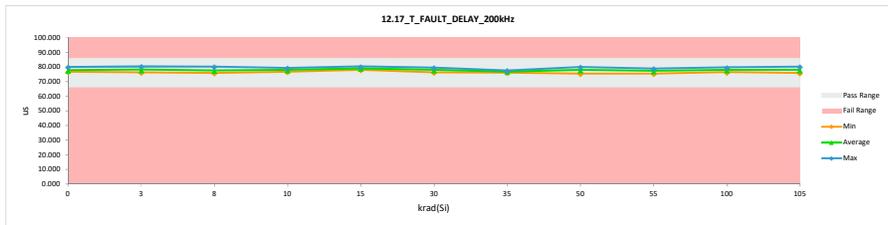
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 12.17 T FAULT_DELAY_200kHz | | | | |
|----------------------------|----------|---------|----------|--------|
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 76.405 | 76.698 | 0.293 |
| 0 | 992 | 77.489 | 76.865 | -0.624 |
| 0 | 993 | 79.307 | 80.070 | 0.763 |
| 3 | 1 | 79.578 | 78.612 | -0.966 |
| 3 | 2 | 75.718 | 80.385 | 4.667 |
| 3 | 3 | 76.619 | 78.466 | 1.847 |
| 3 | 4 | 78.903 | 76.330 | -2.573 |
| 3 | 5 | 79.589 | 77.061 | -2.528 |
| 8 | 6 | 76.841 | 80.226 | 3.385 |
| 8 | 7 | 80.270 | 75.851 | -4.419 |
| 8 | 8 | 79.997 | 77.908 | -2.089 |
| 8 | 9 | 77.285 | 78.254 | 0.969 |
| 8 | 10 | 77.713 | 75.876 | -1.837 |
| 10 | 11 | 76.802 | 78.321 | 1.519 |
| 10 | 12 | 77.138 | 77.181 | 0.043 |
| 10 | 13 | 76.955 | 76.769 | -0.186 |
| 10 | 14 | 76.758 | 79.433 | 2.675 |
| 10 | 15 | 78.065 | 78.574 | 0.509 |
| 15 | 16 | 76.191 | 80.365 | 4.174 |
| 15 | 17 | 76.948 | 78.563 | 1.615 |
| 15 | 18 | 78.032 | 78.105 | 0.073 |
| 15 | 19 | 78.076 | 80.005 | 1.929 |
| 15 | 20 | 78.014 | 78.461 | 0.447 |
| 30 | 21 | 78.411 | 76.424 | -1.987 |
| 30 | 22 | 79.479 | 79.560 | 0.081 |
| 30 | 23 | 80.306 | 77.466 | -2.840 |
| 30 | 24 | 76.607 | 79.528 | 2.921 |
| 30 | 25 | 75.772 | 77.232 | 1.460 |
| 35 | 26 | 79.116 | 76.216 | -2.900 |
| 35 | 27 | 76.025 | 77.325 | 1.300 |
| 35 | 28 | 76.416 | 76.113 | -0.303 |
| 35 | 29 | 77.976 | 77.727 | -0.249 |
| 35 | 30 | 77.902 | 77.322 | -0.580 |
| 50 | 31 | 75.667 | 80.013 | 4.346 |
| 50 | 32 | 76.749 | 75.477 | -1.272 |
| 50 | 33 | 79.073 | 77.795 | -1.278 |
| 50 | 34 | 75.811 | 79.618 | 3.807 |
| 50 | 35 | 77.354 | 77.696 | 0.342 |
| 55 | 36 | 77.113 | 78.326 | 1.213 |
| 55 | 37 | 80.050 | 75.492 | -4.558 |
| 55 | 38 | 76.654 | 77.155 | 0.501 |
| 55 | 39 | 75.782 | 77.210 | 1.428 |
| 55 | 40 | 80.143 | 78.898 | -1.245 |
| 100 | 41 | 78.842 | 79.525 | 0.683 |
| 100 | 42 | 76.159 | 79.718 | 3.559 |
| 100 | 43 | 79.464 | 77.085 | -2.379 |
| 100 | 44 | 75.719 | 76.438 | 0.719 |
| 100 | 45 | 77.301 | 77.758 | 0.457 |
| 105 | 46 | 76.670 | 77.421 | 0.751 |
| 105 | 47 | 75.538 | 76.297 | 0.759 |
| 105 | 48 | 77.590 | 79.208 | 1.618 |
| 105 | 49 | 80.391 | 76.362 | -4.029 |
| 105 | 50 | 79.184 | 79.800 | 0.616 |
| 105 | 51 | 79.977 | 77.616 | -2.361 |
| 105 | 52 | 78.782 | 77.034 | -1.748 |
| 105 | 53 | 75.626 | 79.524 | 3.898 |
| 105 | 54 | 77.026 | 75.958 | -1.068 |
| 105 | 55 | 79.131 | 78.970 | -0.161 |
| 105 | 56 | 76.268 | 78.005 | 1.737 |
| 105 | 57 | 79.848 | 80.330 | 0.482 |
| 105 | 58 | 80.332 | 79.581 | -0.751 |
| 105 | 59 | 79.932 | 79.993 | 0.061 |
| 105 | 60 | 77.169 | 80.097 | 2.928 |
| 105 | 61 | 78.330 | 78.736 | 0.406 |
| 105 | 62 | 77.093 | 75.897 | -1.196 |
| 105 | 63 | 78.118 | 79.026 | 0.908 |
| 105 | 64 | 79.073 | 77.696 | -1.377 |
| 105 | 65 | 79.453 | 75.930 | -3.523 |
| 105 | 66 | 76.479 | 76.317 | -0.162 |
| 105 | 67 | 78.828 | 78.699 | -0.129 |
| Max | | 80.391 | 80.385 | 4.667 |
| Average | | 77.849 | 78.000 | 0.151 |
| Min | | 75.538 | 75.477 | -4.558 |
| Std Dev | | 1.479 | 1.432 | 2.093 |



| 12.17 T FAULT_DELAY_200kHz | | | | | | | | | | | |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 66.000 | 66.000 | 66.000 | 66.000 | 66.000 | 66.000 | 66.000 | 66.000 | 66.000 | 66.000 | 66.000 |
| Min | 76.698 | 76.330 | 75.851 | 76.769 | 78.105 | 76.424 | 76.113 | 75.477 | 75.492 | 76.438 | 75.897 |
| Average | 77.878 | 78.171 | 77.623 | 78.056 | 79.100 | 78.042 | 76.941 | 78.120 | 77.416 | 78.105 | 78.114 |
| Max | 80.070 | 80.385 | 80.226 | 79.433 | 80.365 | 79.560 | 77.727 | 80.013 | 78.898 | 79.718 | 80.330 |
| UL | 86.000 | 86.000 | 86.000 | 86.000 | 86.000 | 86.000 | 86.000 | 86.000 | 86.000 | 86.000 | 86.000 |

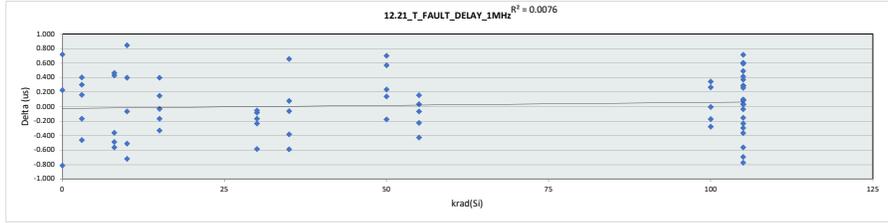


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

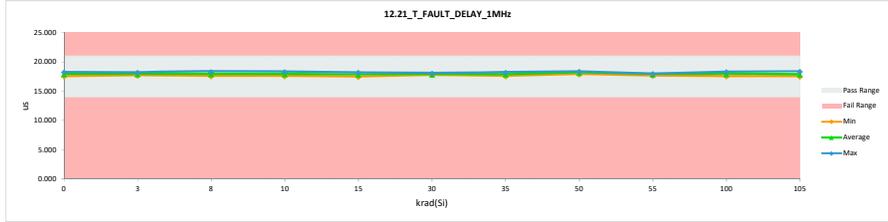
| 12.21 T FAULT_DELAY_1MHz | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | us |
| Max Limit | 21 |
| Min Limit | 14 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 17.825 | 18.058 | 0.233 |
| 0 | 992 | 18.407 | 17.601 | -0.806 |
| 0 | 993 | 17.591 | 18.318 | 0.727 |
| 3 | 1 | 17.566 | 17.735 | 0.169 |
| 3 | 2 | 17.644 | 18.255 | 0.411 |
| 3 | 3 | 17.938 | 18.246 | 0.308 |
| 3 | 4 | 18.112 | 17.954 | -0.158 |
| 3 | 5 | 18.325 | 17.871 | -0.454 |
| 8 | 6 | 17.908 | 18.378 | 0.470 |
| 8 | 7 | 18.217 | 17.864 | -0.353 |
| 8 | 8 | 17.776 | 18.211 | 0.435 |
| 8 | 9 | 18.353 | 17.798 | -0.555 |
| 8 | 10 | 18.102 | 17.623 | -0.479 |
| 10 | 11 | 18.336 | 17.626 | -0.710 |
| 10 | 12 | 18.226 | 17.726 | -0.500 |
| 10 | 13 | 17.991 | 18.397 | 0.406 |
| 10 | 14 | 17.516 | 18.369 | 0.853 |
| 10 | 15 | 17.820 | 17.760 | -0.060 |
| 15 | 16 | 17.644 | 18.049 | 0.405 |
| 15 | 17 | 17.835 | 17.677 | -0.158 |
| 15 | 18 | 17.857 | 17.533 | -0.324 |
| 15 | 19 | 18.273 | 18.249 | -0.024 |
| 15 | 20 | 17.781 | 17.935 | 0.154 |
| 30 | 21 | 18.455 | 17.879 | -0.576 |
| 30 | 22 | 17.944 | 17.827 | -0.077 |
| 30 | 23 | 18.159 | 18.113 | -0.046 |
| 30 | 24 | 18.065 | 17.907 | -0.158 |
| 30 | 25 | 18.255 | 18.029 | -0.226 |
| 35 | 26 | 17.785 | 17.872 | 0.087 |
| 35 | 27 | 18.364 | 17.991 | -0.373 |
| 35 | 28 | 18.453 | 17.873 | -0.580 |
| 35 | 29 | 17.605 | 18.269 | 0.664 |
| 35 | 30 | 17.675 | 17.619 | -0.056 |
| 50 | 31 | 18.302 | 18.135 | -0.167 |
| 50 | 32 | 17.541 | 18.249 | 0.708 |
| 50 | 33 | 18.170 | 18.315 | 0.145 |
| 50 | 34 | 17.831 | 18.409 | 0.578 |
| 50 | 35 | 17.705 | 17.950 | 0.245 |
| 55 | 36 | 17.769 | 17.708 | -0.061 |
| 55 | 37 | 18.226 | 18.010 | -0.216 |
| 55 | 38 | 17.994 | 18.035 | 0.041 |
| 55 | 39 | 17.867 | 18.030 | 0.163 |
| 55 | 40 | 18.351 | 17.932 | -0.419 |
| 100 | 41 | 18.014 | 18.366 | 0.352 |
| 100 | 42 | 17.807 | 18.082 | 0.275 |
| 100 | 43 | 18.225 | 17.956 | -0.269 |
| 100 | 44 | 18.237 | 18.072 | -0.165 |
| 100 | 45 | 17.594 | 17.595 | 0.001 |
| 105 | 46 | 17.775 | 18.040 | 0.265 |
| 105 | 47 | 17.623 | 17.727 | 0.104 |
| 105 | 48 | 17.797 | 17.767 | -0.030 |
| 105 | 49 | 18.268 | 17.582 | -0.686 |
| 105 | 50 | 17.642 | 18.141 | 0.499 |
| 105 | 51 | 18.131 | 17.844 | -0.287 |
| 105 | 52 | 18.370 | 18.014 | -0.356 |
| 105 | 53 | 17.522 | 17.626 | 0.104 |
| 105 | 54 | 17.572 | 17.952 | 0.380 |
| 105 | 55 | 17.994 | 17.849 | -0.145 |
| 105 | 56 | 18.178 | 17.624 | -0.554 |
| 105 | 57 | 17.567 | 17.864 | 0.297 |
| 105 | 58 | 17.653 | 18.374 | 0.721 |
| 105 | 59 | 18.430 | 17.666 | -0.764 |
| 105 | 60 | 17.866 | 18.163 | 0.297 |
| 105 | 61 | 17.545 | 18.145 | 0.600 |
| 105 | 62 | 17.528 | 17.949 | 0.421 |
| 105 | 63 | 17.834 | 17.873 | 0.039 |
| 105 | 64 | 17.864 | 17.953 | 0.089 |
| 105 | 65 | 17.949 | 17.725 | -0.224 |
| 105 | 66 | 17.698 | 18.309 | 0.611 |
| 105 | 67 | 18.406 | 18.446 | 0.040 |
| Max | | 18.455 | 18.446 | 0.853 |
| Average | | 17.954 | 17.973 | 0.018 |
| Min | | 17.516 | 17.533 | -0.806 |
| Std Dev | | 0.289 | 0.247 | 0.406 |



| 12.21 T FAULT_DELAY_1MHz | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 21 us |
| Min Limit | 14 us |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 |
| Min | 17.601 | 17.735 | 17.623 | 17.626 | 17.533 | 17.827 | 17.619 | 17.950 | 17.708 | 17.595 | 17.582 |
| Average | 17.992 | 18.012 | 17.975 | 17.976 | 17.889 | 17.951 | 17.925 | 18.212 | 17.943 | 18.014 | 17.938 |
| Max | 18.318 | 18.255 | 18.378 | 18.397 | 18.249 | 18.113 | 18.269 | 18.409 | 18.035 | 18.366 | 18.446 |
| UL | 21.000 | 21.000 | 21.000 | 21.000 | 21.000 | 21.000 | 21.000 | 21.000 | 21.000 | 21.000 | 21.000 |

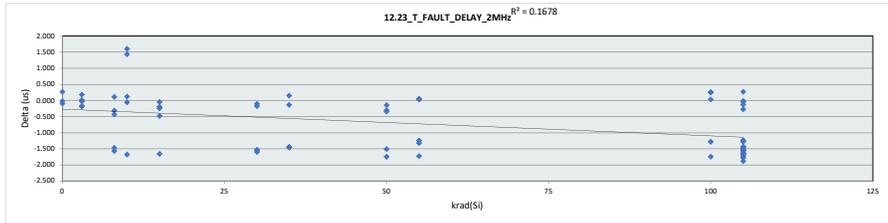


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

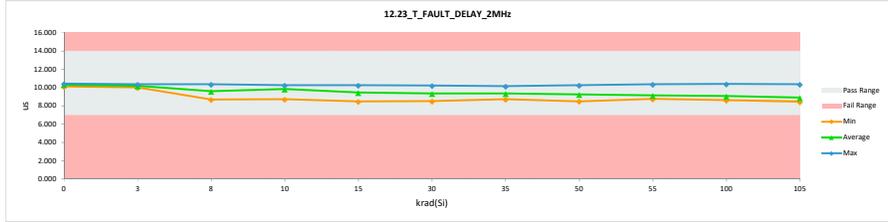
| 12.23 T FAULT_DELAY_2MHz | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | us |
| Max Limit | 14 |
| Min Limit | 7 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 10.445 | 10.448 | 0.003 |
| 0 | 992 | 10.197 | 10.120 | -0.077 |
| 0 | 993 | 10.116 | 10.408 | 0.292 |
| 3 | 1 | 10.087 | 10.289 | 0.202 |
| 3 | 2 | 10.345 | 10.184 | -0.161 |
| 3 | 3 | 10.381 | 10.212 | -0.169 |
| 3 | 4 | 10.011 | 10.005 | -0.006 |
| 3 | 5 | 10.341 | 10.371 | 0.030 |
| 8 | 6 | 10.466 | 10.055 | -0.411 |
| 8 | 7 | 10.228 | 8.684 | -1.544 |
| 8 | 8 | 10.237 | 10.364 | 0.127 |
| 8 | 9 | 10.356 | 8.909 | -1.447 |
| 8 | 10 | 10.336 | 10.040 | -0.296 |
| 10 | 11 | 10.406 | 8.747 | -1.659 |
| 10 | 12 | 10.088 | 10.049 | -0.039 |
| 10 | 13 | 10.139 | 10.278 | 0.139 |
| 10 | 14 | 8.509 | 10.124 | 1.615 |
| 10 | 15 | 8.586 | 10.040 | 1.454 |
| 15 | 16 | 8.666 | 8.493 | -0.173 |
| 15 | 17 | 10.285 | 8.647 | -1.638 |
| 15 | 18 | 10.223 | 10.002 | -0.221 |
| 15 | 19 | 10.304 | 10.272 | -0.032 |
| 15 | 20 | 10.441 | 9.981 | -0.460 |
| 30 | 21 | 10.026 | 8.509 | -1.517 |
| 30 | 22 | 10.471 | 8.898 | -1.573 |
| 30 | 23 | 10.268 | 10.182 | -0.086 |
| 30 | 24 | 10.395 | 10.239 | -0.156 |
| 30 | 25 | 10.423 | 8.905 | -1.518 |
| 35 | 26 | 10.176 | 8.748 | -1.428 |
| 35 | 27 | 10.367 | 8.952 | -1.415 |
| 35 | 28 | 10.396 | 8.959 | -1.437 |
| 35 | 29 | 10.139 | 10.020 | -0.119 |
| 35 | 30 | 10.008 | 10.174 | 0.166 |
| 50 | 31 | 10.281 | 8.794 | -1.487 |
| 50 | 32 | 10.403 | 10.272 | -0.131 |
| 50 | 33 | 10.288 | 10.002 | -0.286 |
| 50 | 34 | 8.827 | 8.506 | -0.321 |
| 50 | 35 | 10.421 | 8.694 | -1.727 |
| 55 | 36 | 10.264 | 8.967 | -1.297 |
| 55 | 37 | 10.100 | 8.883 | -1.217 |
| 55 | 38 | 8.799 | 8.868 | 0.069 |
| 55 | 39 | 10.460 | 8.753 | -1.707 |
| 55 | 40 | 10.307 | 10.360 | 0.053 |
| 100 | 41 | 10.408 | 8.679 | -1.729 |
| 100 | 42 | 8.544 | 8.818 | 0.274 |
| 100 | 43 | 10.150 | 10.415 | 0.265 |
| 100 | 44 | 8.559 | 8.614 | 0.055 |
| 100 | 45 | 10.122 | 8.865 | -1.257 |
| 105 | 46 | 10.339 | 8.672 | -1.667 |
| 105 | 47 | 10.325 | 8.790 | -1.535 |
| 105 | 48 | 10.368 | 8.896 | -1.472 |
| 105 | 49 | 10.455 | 8.589 | -1.866 |
| 105 | 50 | 10.086 | 10.374 | 0.288 |
| 105 | 51 | 10.191 | 8.574 | -1.617 |
| 105 | 52 | 8.534 | 8.513 | -0.021 |
| 105 | 53 | 10.077 | 8.655 | -1.422 |
| 105 | 54 | 10.412 | 8.700 | -1.712 |
| 105 | 55 | 10.305 | 8.685 | -1.620 |
| 105 | 56 | 10.458 | 8.806 | -1.652 |
| 105 | 57 | 10.159 | 8.945 | -1.214 |
| 105 | 58 | 10.437 | 10.330 | -0.107 |
| 105 | 59 | 10.058 | 8.800 | -1.258 |
| 105 | 60 | 10.028 | 10.027 | -0.001 |
| 105 | 61 | 10.074 | 8.655 | -1.419 |
| 105 | 62 | 8.727 | 8.469 | -0.258 |
| 105 | 63 | 10.429 | 8.667 | -1.762 |
| 105 | 64 | 10.075 | 8.556 | -1.519 |
| 105 | 65 | 10.058 | 8.643 | -1.415 |
| 105 | 66 | 10.390 | 8.773 | -1.617 |
| 105 | 67 | 10.461 | 8.934 | -1.527 |
| | Max | 10.471 | 10.448 | 1.615 |
| | Average | 10.059 | 9.341 | -0.718 |
| | Min | 8.509 | 8.469 | -1.866 |
| | Std Dev | 0.567 | 0.738 | 0.849 |



| 12.23 T FAULT_DELAY_2MHz | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 14 us |
| Min Limit | 7 us |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 7.000 | 7.000 | 7.000 | 7.000 | 7.000 | 7.000 | 7.000 | 7.000 | 7.000 | 7.000 | 7.000 |
| Min | 10.120 | 10.005 | 8.684 | 8.747 | 8.493 | 8.509 | 8.748 | 8.506 | 8.753 | 8.614 | 8.469 |
| Average | 10.325 | 10.212 | 9.610 | 9.848 | 9.479 | 9.347 | 9.371 | 9.254 | 9.166 | 9.078 | 8.912 |
| Max | 10.448 | 10.371 | 10.364 | 10.278 | 10.272 | 10.239 | 10.174 | 10.272 | 10.360 | 10.415 | 10.374 |
| UL | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 | 14.000 |

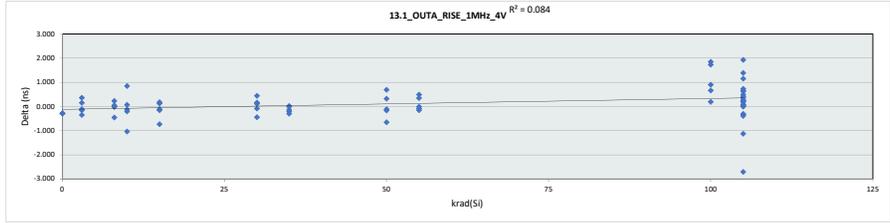


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

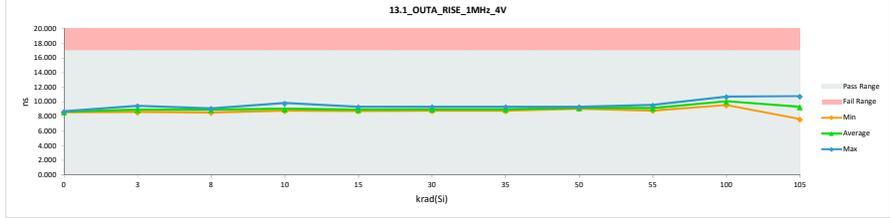
| 13.1 OUTA_RISE_1MHz_4V | |
|------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 16.5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.843 | 8.581 | -0.262 |
| 0 | 992 | 8.906 | 8.651 | -0.255 |
| 0 | 993 | 8.972 | 8.713 | -0.259 |
| 3 | 1 | 8.753 | 8.625 | -0.128 |
| 3 | 2 | 8.681 | 9.056 | 0.175 |
| 3 | 3 | 8.932 | 8.845 | -0.087 |
| 3 | 4 | 9.098 | 8.782 | -0.316 |
| 3 | 5 | 9.066 | 9.457 | 0.391 |
| 8 | 6 | 8.836 | 8.908 | 0.072 |
| 8 | 7 | 8.995 | 8.566 | -0.429 |
| 8 | 8 | 8.853 | 9.111 | 0.258 |
| 8 | 9 | 9.015 | 9.050 | 0.035 |
| 8 | 10 | 9.043 | 9.044 | 0.001 |
| 10 | 11 | 9.088 | 8.986 | -0.102 |
| 10 | 12 | 8.712 | 8.814 | 0.102 |
| 10 | 13 | 8.969 | 8.795 | -0.174 |
| 10 | 14 | 8.959 | 9.839 | 0.880 |
| 10 | 15 | 9.815 | 8.815 | -1.000 |
| 15 | 16 | 9.485 | 8.785 | -0.700 |
| 15 | 17 | 8.708 | 8.917 | 0.209 |
| 15 | 18 | 8.905 | 8.775 | -0.130 |
| 15 | 19 | 9.185 | 9.343 | 0.158 |
| 15 | 20 | 9.017 | 8.926 | -0.091 |
| 30 | 21 | 8.665 | 9.136 | 0.471 |
| 30 | 22 | 8.894 | 8.803 | -0.095 |
| 30 | 23 | 9.204 | 9.342 | 0.138 |
| 30 | 24 | 9.265 | 8.857 | -0.408 |
| 30 | 25 | 8.669 | 8.857 | 0.188 |
| 35 | 26 | 9.063 | 8.792 | -0.271 |
| 35 | 27 | 8.911 | 8.797 | -0.114 |
| 35 | 28 | 8.784 | 8.831 | 0.047 |
| 35 | 29 | 9.509 | 9.327 | -0.182 |
| 35 | 30 | 9.193 | 9.207 | 0.014 |
| 50 | 31 | 8.909 | 9.254 | 0.345 |
| 50 | 32 | 9.705 | 9.083 | -0.622 |
| 50 | 33 | 9.240 | 9.097 | -0.143 |
| 50 | 34 | 8.627 | 9.346 | 0.719 |
| 50 | 35 | 9.350 | 9.259 | -0.091 |
| 55 | 36 | 9.270 | 9.206 | -0.064 |
| 55 | 37 | 9.117 | 8.993 | -0.124 |
| 55 | 38 | 9.062 | 9.577 | 0.515 |
| 55 | 39 | 8.797 | 8.823 | 0.026 |
| 55 | 40 | 8.831 | 9.208 | 0.377 |
| 100 | 41 | 9.473 | 9.695 | 0.222 |
| 100 | 42 | 8.823 | 9.753 | 0.930 |
| 100 | 43 | 8.866 | 9.562 | 0.696 |
| 100 | 44 | 8.986 | 10.738 | 1.752 |
| 100 | 45 | 8.838 | 10.708 | 1.870 |
| 105 | 46 | 9.408 | 9.106 | -0.302 |
| 105 | 47 | 8.943 | 9.219 | 0.276 |
| 105 | 48 | 9.211 | 9.231 | 0.020 |
| 105 | 49 | 8.691 | 9.214 | 0.523 |
| 105 | 50 | 9.247 | 9.330 | 0.083 |
| 105 | 51 | 8.849 | 9.605 | 0.756 |
| 105 | 52 | 8.774 | 8.886 | 0.112 |
| 105 | 53 | 9.334 | 9.613 | 0.279 |
| 105 | 54 | 8.763 | 7.665 | -1.098 |
| 105 | 55 | 8.829 | 10.783 | 1.954 |
| 105 | 56 | 9.378 | 10.023 | 0.645 |
| 105 | 57 | 9.184 | 8.818 | -0.366 |
| 105 | 58 | 11.743 | 9.072 | -2.671 |
| 105 | 59 | 8.992 | 9.684 | 0.692 |
| 105 | 60 | 8.947 | 9.324 | 0.377 |
| 105 | 61 | 8.816 | 8.893 | 0.077 |
| 105 | 62 | 8.912 | 9.130 | 0.218 |
| 105 | 63 | 9.287 | 9.730 | 0.443 |
| 105 | 64 | 8.838 | 10.258 | 1.420 |
| 105 | 65 | 9.241 | 8.965 | -0.276 |
| 105 | 66 | 8.693 | 9.866 | 1.173 |
| 105 | 67 | 9.066 | 9.312 | 0.246 |
| Max | | 11.743 | 10.783 | 1.954 |
| Average | | 9.060 | 9.191 | 0.131 |
| Min | | 8.627 | 7.665 | -2.671 |
| Std Dev | | 0.412 | 0.520 | 0.662 |



| 13.1 OUTA_RISE_1MHz_4V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 0 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.581 | 8.625 | 8.566 | 8.795 | 8.775 | 8.803 | 8.792 | 9.083 | 8.823 | 9.562 | 7.665 |
| Average | 8.648 | 8.953 | 8.936 | 9.050 | 8.949 | 8.999 | 8.991 | 9.208 | 9.161 | 10.091 | 9.351 |
| Max | 8.713 | 9.457 | 9.111 | 9.839 | 9.343 | 9.342 | 9.327 | 9.346 | 9.577 | 10.738 | 10.783 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

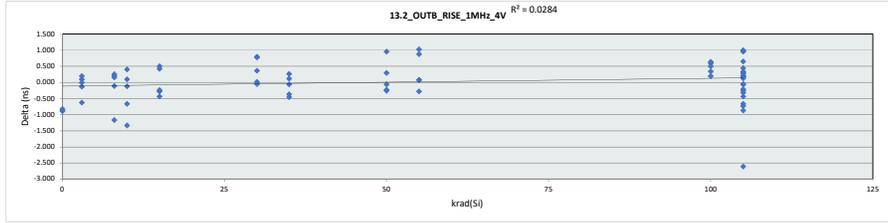


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

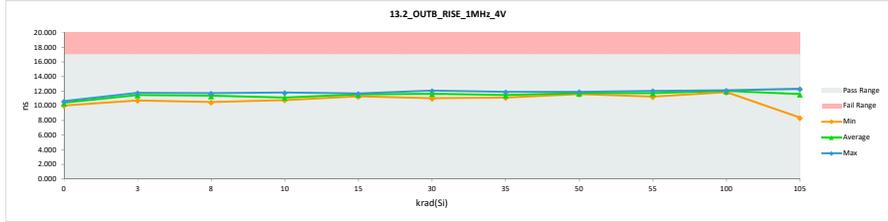
| 13.2_OUTB_RISE_1MHz_4V | |
|------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 16.5 17 |
| Min Limit | 4 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 11.434 | 10.558 | -0.876 |
| 0 | 992 | 10.925 | 10.073 | -0.852 |
| 0 | 993 | 11.464 | 10.660 | -0.804 |
| 3 | 1 | 11.377 | 10.771 | -0.606 |
| 3 | 2 | 11.698 | 11.717 | 0.019 |
| 3 | 3 | 11.568 | 11.779 | 0.211 |
| 3 | 4 | 11.607 | 11.489 | -0.118 |
| 3 | 5 | 11.663 | 11.777 | 0.114 |
| 8 | 6 | 11.735 | 11.642 | -0.093 |
| 8 | 7 | 11.685 | 10.532 | -1.153 |
| 8 | 8 | 11.386 | 11.656 | 0.270 |
| 8 | 9 | 11.522 | 11.746 | 0.224 |
| 8 | 10 | 11.277 | 11.446 | 0.169 |
| 10 | 11 | 11.701 | 11.818 | 0.117 |
| 10 | 12 | 10.416 | 10.835 | 0.419 |
| 10 | 13 | 11.457 | 10.811 | -0.646 |
| 10 | 14 | 11.606 | 11.507 | -0.099 |
| 10 | 15 | 12.122 | 10.809 | -1.313 |
| 15 | 16 | 11.995 | 11.671 | -0.324 |
| 15 | 17 | 10.998 | 11.512 | 0.514 |
| 15 | 18 | 11.256 | 11.698 | 0.442 |
| 15 | 19 | 11.876 | 11.619 | -0.257 |
| 15 | 20 | 11.723 | 11.306 | -0.417 |
| 30 | 21 | 11.263 | 12.081 | 0.818 |
| 30 | 22 | 10.686 | 11.062 | 0.376 |
| 30 | 23 | 11.748 | 11.786 | 0.038 |
| 30 | 24 | 11.841 | 11.810 | -0.031 |
| 30 | 25 | 10.881 | 11.672 | 0.791 |
| 35 | 26 | 11.332 | 11.616 | 0.284 |
| 35 | 27 | 11.507 | 11.159 | -0.348 |
| 35 | 28 | 11.279 | 11.239 | -0.040 |
| 35 | 29 | 11.805 | 11.937 | 0.132 |
| 35 | 30 | 11.948 | 11.513 | -0.435 |
| 50 | 31 | 11.637 | 11.947 | 0.310 |
| 50 | 32 | 11.883 | 11.675 | -0.208 |
| 50 | 33 | 11.871 | 11.625 | -0.246 |
| 50 | 34 | 10.779 | 11.752 | 0.973 |
| 50 | 35 | 11.833 | 11.788 | -0.045 |
| 55 | 36 | 11.823 | 11.918 | 0.095 |
| 55 | 37 | 11.538 | 11.276 | -0.262 |
| 55 | 38 | 11.777 | 11.872 | 0.095 |
| 55 | 39 | 10.801 | 11.691 | 0.890 |
| 55 | 40 | 11.032 | 12.070 | 1.038 |
| 100 | 41 | 11.282 | 11.885 | 0.603 |
| 100 | 42 | 11.478 | 12.130 | 0.652 |
| 100 | 43 | 11.785 | 11.996 | 0.211 |
| 100 | 44 | 11.633 | 12.146 | 0.513 |
| 100 | 45 | 11.758 | 12.119 | 0.361 |
| 105 | 46 | 11.651 | 11.968 | 0.317 |
| 105 | 47 | 11.380 | 11.835 | 0.455 |
| 105 | 48 | 12.029 | 11.800 | -0.229 |
| 105 | 49 | 10.779 | 11.794 | 1.015 |
| 105 | 50 | 11.563 | 11.785 | 0.222 |
| 105 | 51 | 11.646 | 11.998 | 0.352 |
| 105 | 52 | 11.532 | 10.680 | -0.852 |
| 105 | 53 | 11.999 | 11.805 | -0.194 |
| 105 | 54 | 10.976 | 8.387 | -2.589 |
| 105 | 55 | 11.358 | 12.332 | 0.974 |
| 105 | 56 | 11.908 | 12.100 | 0.192 |
| 105 | 57 | 11.368 | 11.322 | -0.046 |
| 105 | 58 | 12.321 | 11.602 | -0.719 |
| 105 | 59 | 11.768 | 12.046 | 0.278 |
| 105 | 60 | 12.523 | 11.880 | -0.643 |
| 105 | 61 | 11.133 | 11.801 | 0.668 |
| 105 | 62 | 11.375 | 11.075 | -0.300 |
| 105 | 63 | 11.769 | 11.957 | 0.188 |
| 105 | 64 | 11.121 | 12.119 | 0.998 |
| 105 | 65 | 11.905 | 11.481 | -0.424 |
| 105 | 66 | 11.568 | 11.710 | 0.142 |
| 105 | 67 | 11.921 | 11.886 | -0.035 |
| Max | | 12.523 | 12.332 | 1.038 |
| Average | | 11.531 | 11.551 | 0.020 |
| Min | | 10.416 | 8.387 | -2.589 |
| Std Dev | | 0.391 | 0.597 | 0.615 |



| 13.2_OUTB_RISE_1MHz_4V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | 0 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 10.073 | 10.771 | 10.532 | 10.809 | 11.306 | 11.062 | 11.159 | 11.625 | 11.276 | 11.885 | 8.387 |
| Average | 10.430 | 11.507 | 11.404 | 11.156 | 11.561 | 11.682 | 11.493 | 11.757 | 11.765 | 12.055 | 11.607 |
| Max | 10.660 | 11.779 | 11.746 | 11.818 | 11.698 | 12.081 | 11.937 | 11.947 | 12.070 | 12.146 | 12.332 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

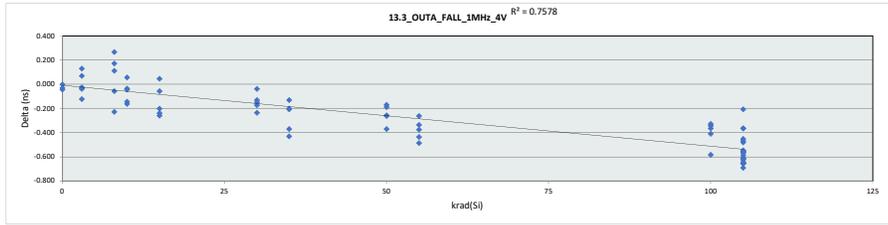


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

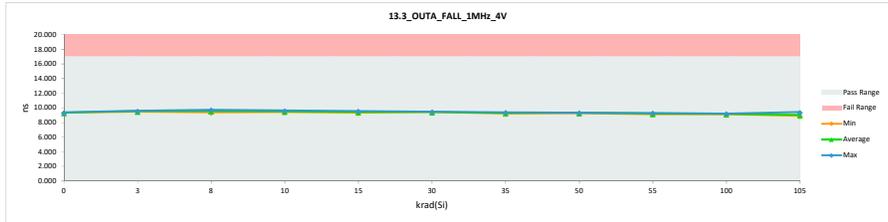
| 13.3_OUTA_FALL_1MHz_4V | |
|------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 16.5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 9.400 | 9.361 | -0.039 |
| 0 | 992 | 9.328 | 9.332 | 0.004 |
| 0 | 993 | 9.357 | 9.331 | -0.026 |
| 3 | 1 | 9.501 | 9.575 | 0.074 |
| 3 | 2 | 9.528 | 9.494 | -0.034 |
| 3 | 3 | 9.602 | 9.583 | -0.019 |
| 3 | 4 | 9.585 | 9.468 | -0.117 |
| 3 | 5 | 9.437 | 9.573 | 0.136 |
| 8 | 6 | 9.470 | 9.587 | 0.117 |
| 8 | 7 | 9.591 | 9.370 | -0.221 |
| 8 | 8 | 9.451 | 9.722 | 0.271 |
| 8 | 9 | 9.664 | 9.642 | 0.178 |
| 8 | 10 | 9.538 | 9.487 | -0.051 |
| 10 | 11 | 9.561 | 9.622 | 0.061 |
| 10 | 12 | 9.623 | 9.467 | -0.156 |
| 10 | 13 | 9.480 | 9.441 | -0.039 |
| 10 | 14 | 9.521 | 9.491 | -0.030 |
| 10 | 15 | 9.653 | 9.516 | -0.137 |
| 15 | 16 | 9.684 | 9.450 | -0.234 |
| 15 | 17 | 9.536 | 9.340 | -0.196 |
| 15 | 18 | 9.523 | 9.575 | 0.052 |
| 15 | 19 | 9.508 | 9.457 | -0.051 |
| 15 | 20 | 9.655 | 9.400 | -0.255 |
| 30 | 21 | 9.642 | 9.411 | -0.231 |
| 30 | 22 | 9.576 | 9.410 | -0.166 |
| 30 | 23 | 9.495 | 9.462 | -0.033 |
| 30 | 24 | 9.603 | 9.460 | -0.143 |
| 30 | 25 | 9.560 | 9.435 | -0.125 |
| 35 | 26 | 9.509 | 9.309 | -0.200 |
| 35 | 27 | 9.506 | 9.311 | -0.195 |
| 35 | 28 | 9.640 | 9.216 | -0.424 |
| 35 | 29 | 9.509 | 9.385 | -0.124 |
| 35 | 30 | 9.632 | 9.267 | -0.365 |
| 50 | 31 | 9.461 | 9.296 | -0.165 |
| 50 | 32 | 9.526 | 9.344 | -0.182 |
| 50 | 33 | 9.584 | 9.334 | -0.250 |
| 50 | 34 | 9.520 | 9.264 | -0.256 |
| 50 | 35 | 9.710 | 9.347 | -0.363 |
| 55 | 36 | 9.675 | 9.194 | -0.481 |
| 55 | 37 | 9.496 | 9.166 | -0.330 |
| 55 | 38 | 9.653 | 9.283 | -0.370 |
| 55 | 39 | 9.543 | 9.114 | -0.429 |
| 55 | 40 | 9.537 | 9.281 | -0.256 |
| 100 | 41 | 9.510 | 9.105 | -0.405 |
| 100 | 42 | 9.502 | 9.179 | -0.323 |
| 100 | 43 | 9.578 | 9.220 | -0.358 |
| 100 | 44 | 9.479 | 9.140 | -0.339 |
| 100 | 45 | 9.699 | 9.121 | -0.578 |
| 105 | 46 | 9.588 | 8.941 | -0.647 |
| 105 | 47 | 9.581 | 9.032 | -0.549 |
| 105 | 48 | 9.581 | 8.966 | -0.615 |
| 105 | 49 | 9.574 | 8.971 | -0.603 |
| 105 | 50 | 9.624 | 8.986 | -0.638 |
| 105 | 51 | 9.592 | 8.986 | -0.606 |
| 105 | 52 | 9.596 | 9.122 | -0.474 |
| 105 | 53 | 9.629 | 8.943 | -0.686 |
| 105 | 54 | 9.607 | 9.407 | -0.200 |
| 105 | 55 | 9.491 | 9.131 | -0.360 |
| 105 | 56 | 9.717 | 9.071 | -0.646 |
| 105 | 57 | 9.562 | 9.022 | -0.540 |
| 105 | 58 | 9.577 | 8.925 | -0.652 |
| 105 | 59 | 9.646 | 8.997 | -0.649 |
| 105 | 60 | 9.558 | 9.097 | -0.461 |
| 105 | 61 | 9.462 | 9.104 | -0.358 |
| 105 | 62 | 9.562 | 9.000 | -0.562 |
| 105 | 63 | 9.648 | 9.030 | -0.618 |
| 105 | 64 | 9.489 | 9.043 | -0.446 |
| 105 | 65 | 9.586 | 9.027 | -0.559 |
| 105 | 66 | 9.578 | 8.995 | -0.583 |
| 105 | 67 | 9.598 | 9.048 | -0.550 |
| Max | | 9.717 | 9.722 | 0.271 |
| Average | | 9.557 | 9.274 | -0.283 |
| Min | | 9.328 | 8.925 | -0.686 |
| Std Dev | | 0.079 | 0.210 | 0.243 |



| 13.3_OUTA_FALL_1MHz_4V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 0 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 9.331 | 9.468 | 9.370 | 9.441 | 9.340 | 9.410 | 9.216 | 9.264 | 9.114 | 9.105 | 8.925 |
| Average | 9.341 | 9.539 | 9.562 | 9.507 | 9.444 | 9.436 | 9.298 | 9.317 | 9.208 | 9.153 | 9.038 |
| Max | 9.361 | 9.583 | 9.722 | 9.622 | 9.575 | 9.462 | 9.385 | 9.347 | 9.283 | 9.220 | 9.407 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

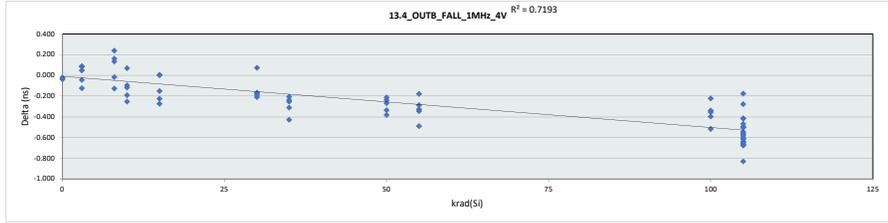


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

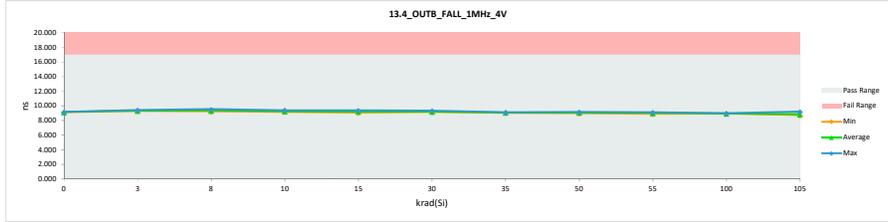
| 13.4_OUTB_FALL_1MHz_4V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 17 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 9.206 | 9.191 | -0.015 |
| 0 | 992 | 9.159 | 9.136 | -0.023 |
| 0 | 993 | 9.220 | 9.188 | -0.032 |
| 3 | 1 | 9.358 | 9.451 | 0.093 |
| 3 | 2 | 9.295 | 9.349 | 0.054 |
| 3 | 3 | 9.391 | 9.352 | -0.039 |
| 3 | 4 | 9.440 | 9.323 | -0.117 |
| 3 | 5 | 9.312 | 9.402 | 0.090 |
| 8 | 6 | 9.275 | 9.414 | 0.139 |
| 8 | 7 | 9.380 | 9.259 | -0.121 |
| 8 | 8 | 9.297 | 9.541 | 0.244 |
| 8 | 9 | 9.258 | 9.426 | 0.168 |
| 8 | 10 | 9.350 | 9.341 | -0.009 |
| 10 | 11 | 9.353 | 9.428 | 0.075 |
| 10 | 12 | 9.452 | 9.205 | -0.247 |
| 10 | 13 | 9.302 | 9.212 | -0.090 |
| 10 | 14 | 9.423 | 9.313 | -0.110 |
| 10 | 15 | 9.456 | 9.271 | -0.185 |
| 15 | 16 | 9.425 | 9.281 | -0.144 |
| 15 | 17 | 9.299 | 9.081 | -0.218 |
| 15 | 18 | 9.378 | 9.391 | 0.013 |
| 15 | 19 | 9.270 | 9.278 | 0.008 |
| 15 | 20 | 9.453 | 9.185 | -0.268 |
| 30 | 21 | 9.433 | 9.270 | -0.163 |
| 30 | 22 | 9.350 | 9.169 | -0.181 |
| 30 | 23 | 9.274 | 9.353 | 0.079 |
| 30 | 24 | 9.425 | 9.264 | -0.161 |
| 30 | 25 | 9.406 | 9.204 | -0.202 |
| 35 | 26 | 9.396 | 9.149 | -0.247 |
| 35 | 27 | 9.327 | 9.126 | -0.201 |
| 35 | 28 | 9.494 | 9.072 | -0.422 |
| 35 | 29 | 9.377 | 9.147 | -0.230 |
| 35 | 30 | 9.397 | 9.093 | -0.304 |
| 50 | 31 | 9.317 | 9.112 | -0.205 |
| 50 | 32 | 9.370 | 9.140 | -0.230 |
| 50 | 33 | 9.404 | 9.141 | -0.263 |
| 50 | 34 | 9.392 | 9.018 | -0.374 |
| 50 | 35 | 9.514 | 9.185 | -0.329 |
| 55 | 36 | 9.465 | 8.982 | -0.483 |
| 55 | 37 | 9.353 | 9.073 | -0.280 |
| 55 | 38 | 9.466 | 9.129 | -0.337 |
| 55 | 39 | 9.264 | 8.945 | -0.319 |
| 55 | 40 | 9.297 | 8.723 | -0.574 |
| 100 | 41 | 9.317 | 8.969 | -0.348 |
| 100 | 42 | 9.295 | 8.962 | -0.333 |
| 100 | 43 | 9.392 | 9.002 | -0.390 |
| 100 | 44 | 9.221 | 9.004 | -0.217 |
| 100 | 45 | 9.494 | 8.984 | -0.510 |
| 105 | 46 | 9.421 | 8.758 | -0.663 |
| 105 | 47 | 9.349 | 8.850 | -0.499 |
| 105 | 48 | 9.399 | 8.767 | -0.632 |
| 105 | 49 | 9.302 | 8.764 | -0.538 |
| 105 | 50 | 9.495 | 8.824 | -0.671 |
| 105 | 51 | 9.403 | 8.804 | -0.599 |
| 105 | 52 | 9.371 | 8.962 | -0.409 |
| 105 | 53 | 9.452 | 8.792 | -0.660 |
| 105 | 54 | 9.402 | 9.231 | -0.171 |
| 105 | 55 | 9.346 | 8.938 | -0.408 |
| 105 | 56 | 9.442 | 8.836 | -0.606 |
| 105 | 57 | 9.391 | 8.783 | -0.608 |
| 105 | 58 | 9.379 | 8.801 | -0.578 |
| 105 | 59 | 9.420 | 8.774 | -0.646 |
| 105 | 60 | 9.768 | 8.944 | -0.824 |
| 105 | 61 | 9.207 | 8.935 | -0.272 |
| 105 | 62 | 9.395 | 8.845 | -0.550 |
| 105 | 63 | 9.482 | 8.847 | -0.635 |
| 105 | 64 | 9.385 | 8.892 | -0.493 |
| 105 | 65 | 9.369 | 8.880 | -0.489 |
| 105 | 66 | 9.343 | 8.882 | -0.461 |
| 105 | 67 | 9.436 | 8.871 | -0.565 |
| Max | | 9.768 | 9.541 | 0.244 |
| Average | | 9.374 | 9.094 | -0.279 |
| Min | | 9.159 | 8.758 | -0.824 |
| Std Dev | | 0.091 | 0.208 | 0.245 |



| 13.4_OUTB_FALL_1MHz_4V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 0 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 9.136 | 9.323 | 9.259 | 9.205 | 9.081 | 9.169 | 9.072 | 9.018 | 8.945 | 8.962 | 8.758 |
| Average | 9.172 | 9.375 | 9.396 | 9.286 | 9.243 | 9.252 | 9.117 | 9.119 | 9.050 | 8.984 | 8.863 |
| Max | 9.191 | 9.451 | 9.541 | 9.428 | 9.391 | 9.353 | 9.149 | 9.185 | 9.129 | 9.004 | 9.231 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

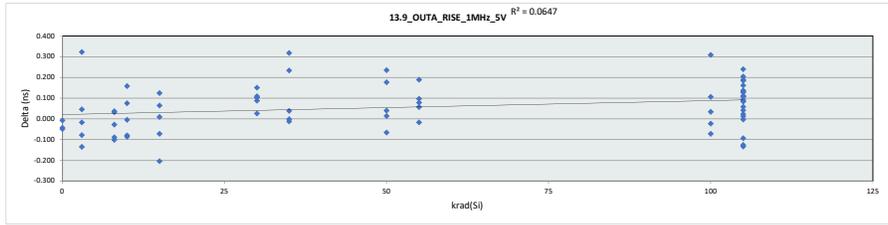


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

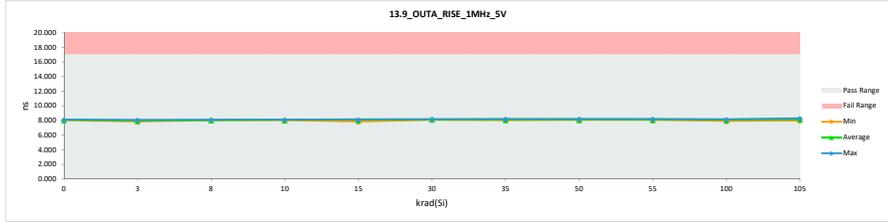
| 13.9_OUTA_RISE_1MHz_5V | |
|------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 16.5 17 |
| Min Limit | 4 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.026 | 8.021 | -0.005 |
| 0 | 992 | 8.140 | 8.094 | -0.046 |
| 0 | 993 | 8.169 | 8.129 | -0.040 |
| 3 | 1 | 7.754 | 8.079 | 0.325 |
| 3 | 2 | 8.034 | 8.034 | -0.013 |
| 3 | 3 | 8.014 | 7.882 | -0.132 |
| 3 | 4 | 8.071 | 7.996 | -0.075 |
| 3 | 5 | 7.922 | 7.972 | 0.050 |
| 8 | 6 | 8.105 | 8.141 | 0.036 |
| 8 | 7 | 8.132 | 8.034 | -0.098 |
| 8 | 8 | 8.086 | 8.126 | 0.040 |
| 8 | 9 | 8.061 | 8.037 | -0.024 |
| 8 | 10 | 8.125 | 8.040 | -0.085 |
| 10 | 11 | 8.155 | 8.078 | -0.077 |
| 10 | 12 | 8.137 | 8.135 | -0.002 |
| 10 | 13 | 7.934 | 8.095 | 0.161 |
| 10 | 14 | 7.940 | 8.019 | 0.079 |
| 10 | 15 | 8.205 | 8.122 | -0.083 |
| 15 | 16 | 7.995 | 8.122 | 0.127 |
| 15 | 17 | 8.080 | 7.879 | -0.201 |
| 15 | 18 | 8.067 | 8.134 | 0.067 |
| 15 | 19 | 8.102 | 8.115 | 0.013 |
| 15 | 20 | 8.126 | 8.057 | -0.069 |
| 30 | 21 | 8.125 | 8.154 | 0.029 |
| 30 | 22 | 8.111 | 8.117 | 0.016 |
| 30 | 23 | 7.972 | 8.125 | 0.153 |
| 30 | 24 | 8.126 | 8.217 | 0.091 |
| 30 | 25 | 8.058 | 8.170 | 0.112 |
| 35 | 26 | 7.924 | 8.161 | 0.237 |
| 35 | 27 | 8.114 | 8.156 | 0.042 |
| 35 | 28 | 8.118 | 8.002 | -0.002 |
| 35 | 29 | 8.053 | 8.044 | -0.009 |
| 35 | 30 | 7.896 | 8.217 | 0.321 |
| 50 | 31 | 8.002 | 8.182 | 0.180 |
| 50 | 32 | 7.966 | 8.204 | 0.238 |
| 50 | 33 | 8.142 | 8.185 | 0.043 |
| 50 | 34 | 8.052 | 8.069 | 0.017 |
| 50 | 35 | 8.125 | 8.062 | -0.063 |
| 55 | 36 | 8.036 | 8.228 | 0.192 |
| 55 | 37 | 8.041 | 8.123 | 0.082 |
| 55 | 38 | 8.064 | 8.124 | 0.060 |
| 55 | 39 | 8.107 | 8.094 | -0.013 |
| 55 | 40 | 8.081 | 8.181 | 0.100 |
| 100 | 41 | 7.999 | 7.930 | -0.069 |
| 100 | 42 | 8.066 | 8.175 | 0.109 |
| 100 | 43 | 8.116 | 8.153 | 0.037 |
| 100 | 44 | 7.848 | 8.159 | 0.311 |
| 100 | 45 | 8.133 | 8.113 | -0.020 |
| 105 | 46 | 8.085 | 8.180 | 0.095 |
| 105 | 47 | 8.054 | 8.246 | 0.192 |
| 105 | 48 | 8.134 | 8.195 | 0.061 |
| 105 | 49 | 8.083 | 8.193 | 0.110 |
| 105 | 50 | 8.073 | 8.237 | 0.164 |
| 105 | 51 | 8.170 | 8.282 | 0.112 |
| 105 | 52 | 8.114 | 8.202 | 0.088 |
| 105 | 53 | 8.165 | 8.042 | -0.123 |
| 105 | 54 | 8.119 | 7.989 | -0.130 |
| 105 | 55 | 8.076 | 8.319 | 0.243 |
| 105 | 56 | 7.992 | 8.123 | 0.131 |
| 105 | 57 | 8.172 | 8.187 | 0.015 |
| 105 | 58 | 8.278 | 8.187 | -0.091 |
| 105 | 59 | 8.136 | 8.162 | 0.026 |
| 105 | 60 | 8.119 | 8.206 | 0.087 |
| 105 | 61 | 8.024 | 8.212 | 0.188 |
| 105 | 62 | 7.976 | 8.116 | 0.140 |
| 105 | 63 | 8.044 | 8.157 | 0.113 |
| 105 | 64 | 8.037 | 8.244 | 0.207 |
| 105 | 65 | 8.157 | 8.157 | 0.000 |
| 105 | 66 | 8.021 | 8.065 | 0.045 |
| 105 | 67 | 8.092 | 8.228 | 0.136 |
| Max | | 8.278 | 8.319 | 0.325 |
| Average | | 8.067 | 8.125 | 0.058 |
| Min | | 7.754 | 7.879 | -0.201 |
| Std Dev | | 0.086 | 0.087 | 0.113 |



| 13.9_OUTA_RISE_1MHz_5V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | 0 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.021 | 7.982 | 8.034 | 8.019 | 7.879 | 8.117 | 8.044 | 8.062 | 8.094 | 7.930 | 7.989 |
| Average | 8.081 | 7.993 | 8.076 | 8.090 | 8.061 | 8.157 | 8.139 | 8.140 | 8.150 | 8.106 | 8.179 |
| Max | 8.129 | 8.079 | 8.141 | 8.135 | 8.134 | 8.217 | 8.217 | 8.204 | 8.228 | 8.175 | 8.319 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

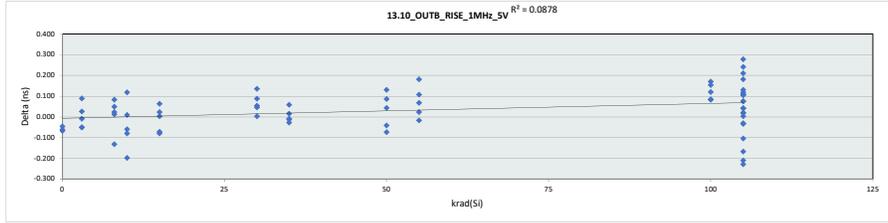


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

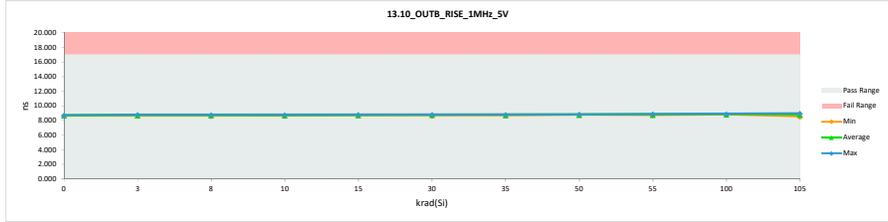
| 13.10_OUTB_RISE_1MHz_5V | |
|-------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 16.5 17 |
| Min Limit | 4 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.791 | 8.748 | -0.043 |
| 0 | 992 | 8.755 | 8.691 | -0.064 |
| 0 | 993 | 8.784 | 8.726 | -0.058 |
| 3 | 1 | 8.699 | 8.693 | -0.006 |
| 3 | 2 | 8.719 | 8.811 | 0.092 |
| 3 | 3 | 8.751 | 8.704 | -0.047 |
| 3 | 4 | 8.777 | 8.729 | -0.048 |
| 3 | 5 | 8.784 | 8.814 | 0.030 |
| 8 | 6 | 8.751 | 8.778 | 0.027 |
| 8 | 7 | 8.800 | 8.672 | -0.128 |
| 8 | 8 | 8.709 | 8.795 | 0.086 |
| 8 | 9 | 8.746 | 8.799 | 0.053 |
| 8 | 10 | 8.765 | 8.781 | 0.016 |
| 10 | 11 | 8.827 | 8.751 | -0.076 |
| 10 | 12 | 8.610 | 8.732 | 0.122 |
| 10 | 13 | 8.750 | 8.693 | -0.057 |
| 10 | 14 | 8.773 | 8.785 | 0.012 |
| 10 | 15 | 8.910 | 8.715 | -0.195 |
| 15 | 16 | 8.833 | 8.757 | -0.076 |
| 15 | 17 | 8.687 | 8.753 | 0.066 |
| 15 | 18 | 8.744 | 8.751 | 0.007 |
| 15 | 19 | 8.787 | 8.814 | 0.027 |
| 15 | 20 | 8.806 | 8.737 | -0.069 |
| 30 | 21 | 8.744 | 8.835 | 0.091 |
| 30 | 22 | 8.666 | 8.715 | 0.049 |
| 30 | 23 | 8.769 | 8.826 | 0.057 |
| 30 | 24 | 8.827 | 8.834 | 0.007 |
| 30 | 25 | 8.684 | 8.823 | 0.139 |
| 35 | 26 | 8.729 | 8.791 | 0.062 |
| 35 | 27 | 8.746 | 8.737 | -0.009 |
| 35 | 28 | 8.736 | 8.754 | 0.018 |
| 35 | 29 | 8.836 | 8.812 | -0.024 |
| 35 | 30 | 8.759 | 8.753 | -0.006 |
| 50 | 31 | 8.765 | 8.854 | 0.089 |
| 50 | 32 | 8.848 | 8.810 | -0.038 |
| 50 | 33 | 8.860 | 8.789 | -0.071 |
| 50 | 34 | 8.688 | 8.822 | 0.134 |
| 50 | 35 | 8.820 | 8.866 | 0.046 |
| 55 | 36 | 8.834 | 8.905 | 0.071 |
| 55 | 37 | 8.791 | 8.777 | -0.014 |
| 55 | 38 | 8.760 | 8.870 | 0.110 |
| 55 | 39 | 8.735 | 8.761 | 0.026 |
| 55 | 40 | 8.716 | 8.901 | 0.185 |
| 100 | 41 | 8.751 | 8.838 | 0.087 |
| 100 | 42 | 8.761 | 8.884 | 0.123 |
| 100 | 43 | 8.782 | 8.868 | 0.086 |
| 100 | 44 | 8.756 | 8.930 | 0.174 |
| 100 | 45 | 8.761 | 8.918 | 0.157 |
| 105 | 46 | 8.794 | 8.817 | 0.023 |
| 105 | 47 | 8.750 | 8.872 | 0.122 |
| 105 | 48 | 8.796 | 8.818 | 0.022 |
| 105 | 49 | 8.667 | 8.851 | 0.184 |
| 105 | 50 | 8.766 | 8.810 | 0.044 |
| 105 | 51 | 8.808 | 8.918 | 0.110 |
| 105 | 52 | 8.807 | 8.582 | -0.225 |
| 105 | 53 | 8.865 | 8.834 | -0.031 |
| 105 | 54 | 8.718 | 8.932 | 0.214 |
| 105 | 55 | 8.734 | 9.015 | 0.281 |
| 105 | 56 | 8.808 | 8.915 | 0.107 |
| 105 | 57 | 8.733 | 8.739 | 0.006 |
| 105 | 58 | 8.953 | 8.789 | -0.164 |
| 105 | 59 | 8.793 | 8.872 | 0.079 |
| 105 | 60 | 9.079 | 8.872 | -0.207 |
| 105 | 61 | 8.728 | 8.862 | 0.134 |
| 105 | 62 | 8.778 | 8.677 | -0.101 |
| 105 | 63 | 8.820 | 8.898 | 0.078 |
| 105 | 64 | 8.719 | 8.963 | 0.244 |
| 105 | 65 | 8.805 | 8.777 | -0.028 |
| 105 | 66 | 8.717 | 8.829 | 0.112 |
| 105 | 67 | 8.824 | 8.868 | 0.044 |
| Max | | 9.079 | 9.015 | 0.281 |
| Average | | 8.773 | 8.806 | 0.032 |
| Min | | 8.610 | 8.582 | -0.225 |
| Std Dev | | 0.067 | 0.078 | 0.101 |



| 13.10_OUTB_RISE_1MHz_5V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | 0 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.691 | 8.693 | 8.672 | 8.693 | 8.737 | 8.715 | 8.737 | 8.799 | 8.761 | 8.838 | 8.582 |
| Average | 8.722 | 8.750 | 8.765 | 8.735 | 8.762 | 8.807 | 8.769 | 8.828 | 8.843 | 8.888 | 8.841 |
| Max | 8.748 | 8.814 | 8.799 | 8.785 | 8.814 | 8.835 | 8.812 | 8.866 | 8.905 | 8.930 | 9.015 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

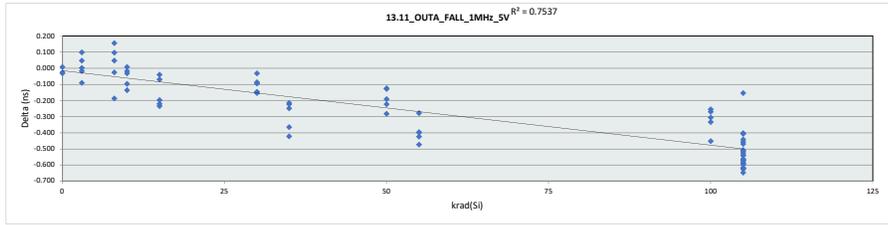


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

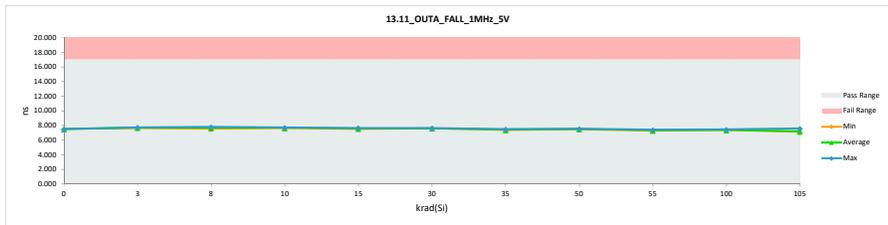
| 13.11_OUTA_FALL_1MHZ_5V | |
|-------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 16.5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.551 | 7.522 | -0.029 |
| 0 | 992 | 7.509 | 7.520 | 0.011 |
| 0 | 993 | 7.535 | 7.513 | -0.022 |
| 3 | 1 | 7.698 | 7.749 | 0.051 |
| 3 | 2 | 7.701 | 7.686 | -0.015 |
| 3 | 3 | 7.755 | 7.760 | 0.005 |
| 3 | 4 | 7.743 | 7.655 | -0.088 |
| 3 | 5 | 7.627 | 7.730 | 0.103 |
| 8 | 6 | 7.668 | 7.718 | 0.050 |
| 8 | 7 | 7.760 | 7.577 | -0.183 |
| 8 | 8 | 7.662 | 7.821 | 0.159 |
| 8 | 9 | 7.662 | 7.763 | 0.101 |
| 8 | 10 | 7.687 | 7.664 | -0.023 |
| 10 | 11 | 7.733 | 7.745 | 0.012 |
| 10 | 12 | 7.771 | 7.639 | -0.132 |
| 10 | 13 | 7.654 | 7.640 | -0.014 |
| 10 | 14 | 7.714 | 7.686 | -0.028 |
| 10 | 15 | 7.795 | 7.701 | -0.094 |
| 15 | 16 | 7.820 | 7.602 | -0.218 |
| 15 | 17 | 7.735 | 7.541 | -0.194 |
| 15 | 18 | 7.709 | 7.674 | -0.035 |
| 15 | 19 | 7.670 | 7.604 | -0.066 |
| 15 | 20 | 7.773 | 7.542 | -0.231 |
| 30 | 21 | 7.777 | 7.626 | -0.151 |
| 30 | 22 | 7.749 | 7.606 | -0.143 |
| 30 | 23 | 7.677 | 7.648 | -0.029 |
| 30 | 24 | 7.734 | 7.642 | -0.092 |
| 30 | 25 | 7.713 | 7.629 | -0.084 |
| 35 | 26 | 7.704 | 7.458 | -0.246 |
| 35 | 27 | 7.673 | 7.453 | -0.220 |
| 35 | 28 | 7.798 | 7.379 | -0.419 |
| 35 | 29 | 7.724 | 7.513 | -0.211 |
| 35 | 30 | 7.766 | 7.405 | -0.361 |
| 50 | 31 | 7.647 | 7.522 | -0.125 |
| 50 | 32 | 7.695 | 7.574 | -0.121 |
| 50 | 33 | 7.754 | 7.566 | -0.188 |
| 50 | 34 | 7.717 | 7.498 | -0.219 |
| 50 | 35 | 7.840 | 7.561 | -0.279 |
| 55 | 36 | 7.825 | 7.356 | -0.469 |
| 55 | 37 | 7.700 | 7.308 | -0.392 |
| 55 | 38 | 7.802 | 7.382 | -0.420 |
| 55 | 39 | 7.719 | 7.324 | -0.395 |
| 55 | 40 | 7.701 | 7.426 | -0.275 |
| 100 | 41 | 7.706 | 7.377 | -0.329 |
| 100 | 42 | 7.675 | 7.424 | -0.251 |
| 100 | 43 | 7.725 | 7.459 | -0.266 |
| 100 | 44 | 7.701 | 7.398 | -0.303 |
| 100 | 45 | 7.834 | 7.386 | -0.448 |
| 105 | 46 | 7.761 | 7.166 | -0.595 |
| 105 | 47 | 7.741 | 7.219 | -0.522 |
| 105 | 48 | 7.748 | 7.181 | -0.567 |
| 105 | 49 | 7.706 | 7.169 | -0.537 |
| 105 | 50 | 7.807 | 7.185 | -0.622 |
| 105 | 51 | 7.755 | 7.172 | -0.583 |
| 105 | 52 | 7.754 | 7.289 | -0.465 |
| 105 | 53 | 7.792 | 7.149 | -0.643 |
| 105 | 54 | 7.761 | 7.611 | -0.150 |
| 105 | 55 | 7.678 | 7.279 | -0.399 |
| 105 | 56 | 7.830 | 7.243 | -0.587 |
| 105 | 57 | 7.723 | 7.219 | -0.504 |
| 105 | 58 | 7.751 | 7.136 | -0.615 |
| 105 | 59 | 7.806 | 7.192 | -0.614 |
| 105 | 60 | 7.715 | 7.262 | -0.453 |
| 105 | 61 | 7.672 | 7.269 | -0.403 |
| 105 | 62 | 7.737 | 7.203 | -0.534 |
| 105 | 63 | 7.786 | 7.221 | -0.565 |
| 105 | 64 | 7.661 | 7.223 | -0.438 |
| 105 | 65 | 7.778 | 7.210 | -0.568 |
| 105 | 66 | 7.724 | 7.214 | -0.510 |
| 105 | 67 | 7.778 | 7.220 | -0.558 |
| Max | | 7.840 | 7.821 | 0.159 |
| Average | | 7.725 | 7.457 | -0.268 |
| Min | | 7.509 | 7.136 | -0.643 |
| Std Dev | | 0.065 | 0.197 | 0.224 |



| 13.11_OUTA_FALL_1MHZ_5V | |
|-------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 0 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.513 | 7.655 | 7.577 | 7.639 | 7.541 | 7.606 | 7.379 | 7.498 | 7.308 | 7.377 | 7.135 |
| Average | 7.518 | 7.716 | 7.709 | 7.682 | 7.593 | 7.630 | 7.442 | 7.544 | 7.359 | 7.405 | 7.229 |
| Max | 7.522 | 7.760 | 7.821 | 7.745 | 7.674 | 7.648 | 7.513 | 7.574 | 7.426 | 7.459 | 7.611 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

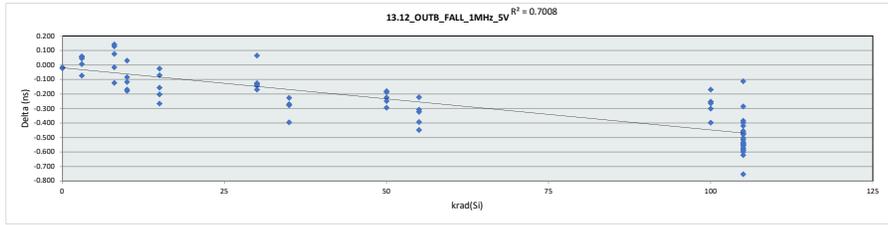


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

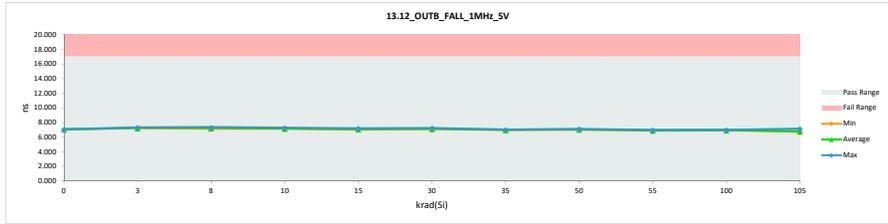
| 13.12_OUTB_FALL_1MHZ_5V | |
|-------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 16.5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.096 | 7.078 | -0.018 |
| 0 | 992 | 7.071 | 7.056 | -0.015 |
| 0 | 993 | 7.104 | 7.089 | -0.015 |
| 3 | 1 | 7.275 | 7.324 | 0.049 |
| 3 | 2 | 7.198 | 7.259 | 0.061 |
| 3 | 3 | 7.260 | 7.270 | 0.010 |
| 3 | 4 | 7.295 | 7.227 | -0.068 |
| 3 | 5 | 7.218 | 7.280 | 0.062 |
| 8 | 6 | 7.203 | 7.284 | 0.081 |
| 8 | 7 | 7.286 | 7.167 | -0.119 |
| 8 | 8 | 7.220 | 7.365 | 0.145 |
| 8 | 9 | 7.170 | 7.302 | 0.132 |
| 8 | 10 | 7.247 | 7.236 | -0.011 |
| 10 | 11 | 7.268 | 7.303 | 0.035 |
| 10 | 12 | 7.315 | 7.142 | -0.173 |
| 10 | 13 | 7.217 | 7.137 | -0.080 |
| 10 | 14 | 7.328 | 7.216 | -0.112 |
| 10 | 15 | 7.364 | 7.199 | -0.165 |
| 15 | 16 | 7.309 | 7.158 | -0.151 |
| 15 | 17 | 7.225 | 7.026 | -0.199 |
| 15 | 18 | 7.281 | 7.215 | -0.066 |
| 15 | 19 | 7.167 | 7.146 | -0.021 |
| 15 | 20 | 7.344 | 7.082 | -0.262 |
| 30 | 21 | 7.320 | 7.182 | -0.138 |
| 30 | 22 | 7.277 | 7.112 | -0.165 |
| 30 | 23 | 7.186 | 7.255 | 0.069 |
| 30 | 24 | 7.310 | 7.189 | -0.121 |
| 30 | 25 | 7.266 | 7.139 | -0.127 |
| 35 | 26 | 7.294 | 7.023 | -0.271 |
| 35 | 27 | 7.233 | 7.010 | -0.223 |
| 35 | 28 | 7.372 | 6.981 | -0.391 |
| 35 | 29 | 7.290 | 7.018 | -0.272 |
| 35 | 30 | 7.275 | 7.008 | -0.267 |
| 50 | 31 | 7.227 | 7.045 | -0.182 |
| 50 | 32 | 7.258 | 7.082 | -0.176 |
| 50 | 33 | 7.309 | 7.088 | -0.221 |
| 50 | 34 | 7.312 | 7.021 | -0.291 |
| 50 | 35 | 7.377 | 7.133 | -0.244 |
| 55 | 36 | 7.339 | 6.895 | -0.444 |
| 55 | 37 | 7.255 | 6.952 | -0.303 |
| 55 | 38 | 7.342 | 6.954 | -0.388 |
| 55 | 39 | 7.195 | 6.877 | -0.318 |
| 55 | 40 | 7.198 | 6.980 | -0.218 |
| 100 | 41 | 7.219 | 6.960 | -0.259 |
| 100 | 42 | 7.195 | 6.946 | -0.249 |
| 100 | 43 | 7.270 | 6.974 | -0.296 |
| 100 | 44 | 7.165 | 7.000 | -0.165 |
| 100 | 45 | 7.372 | 6.980 | -0.392 |
| 105 | 46 | 7.302 | 6.734 | -0.568 |
| 105 | 47 | 7.242 | 6.778 | -0.464 |
| 105 | 48 | 7.321 | 6.727 | -0.594 |
| 105 | 49 | 7.199 | 6.728 | -0.471 |
| 105 | 50 | 7.385 | 6.769 | -0.616 |
| 105 | 51 | 7.292 | 6.744 | -0.548 |
| 105 | 52 | 7.229 | 6.848 | -0.381 |
| 105 | 53 | 7.327 | 6.744 | -0.583 |
| 105 | 54 | 7.284 | 7.175 | -0.109 |
| 105 | 55 | 7.257 | 6.843 | -0.414 |
| 105 | 56 | 7.309 | 6.759 | -0.550 |
| 105 | 57 | 7.270 | 6.758 | -0.512 |
| 105 | 58 | 7.283 | 6.745 | -0.538 |
| 105 | 59 | 7.312 | 6.739 | -0.573 |
| 105 | 60 | 7.610 | 6.861 | -0.749 |
| 105 | 61 | 7.137 | 6.856 | -0.281 |
| 105 | 62 | 7.280 | 6.781 | -0.499 |
| 105 | 63 | 7.333 | 6.792 | -0.541 |
| 105 | 64 | 7.292 | 6.820 | -0.472 |
| 105 | 65 | 7.222 | 6.828 | -0.394 |
| 105 | 66 | 7.268 | 6.818 | -0.450 |
| 105 | 67 | 7.332 | 6.802 | -0.530 |
| Max | | 7.610 | 7.365 | 0.145 |
| Average | | 7.269 | 7.014 | -0.254 |
| Min | | 7.071 | 6.727 | -0.749 |
| Std Dev | | 0.079 | 0.185 | 0.215 |



| 13.12_OUTB_FALL_1MHZ_5V | |
|-------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 0 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.056 | 7.227 | 7.167 | 7.137 | 7.026 | 7.112 | 6.981 | 7.021 | 6.877 | 6.946 | 6.727 |
| Average | 7.074 | 7.272 | 7.271 | 7.199 | 7.125 | 7.175 | 7.008 | 7.074 | 6.932 | 6.972 | 6.802 |
| Max | 7.089 | 7.324 | 7.365 | 7.303 | 7.215 | 7.255 | 7.023 | 7.133 | 6.980 | 7.000 | 7.175 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

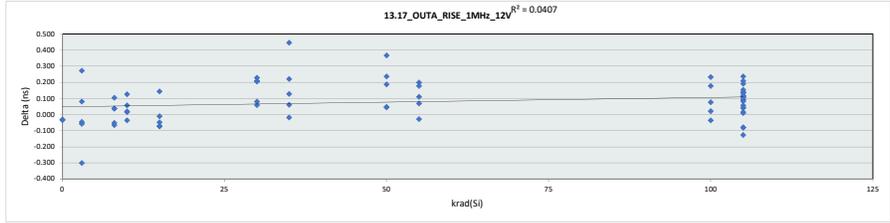


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

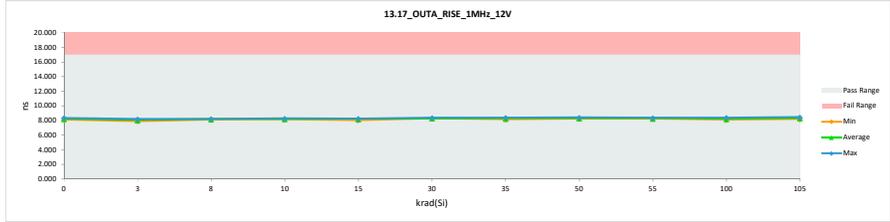
| 13.17_OUTA_RISE_1MHz_12V | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 16.5 17 |
| Min Limit | 4 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.147 | 8.120 | -0.027 |
| 0 | 992 | 8.286 | 8.258 | -0.028 |
| 0 | 993 | 8.402 | 8.372 | -0.030 |
| 3 | 1 | 7.925 | 8.201 | 0.276 |
| 3 | 2 | 8.185 | 8.189 | 0.004 |
| 3 | 3 | 8.233 | 7.936 | -0.297 |
| 3 | 4 | 8.165 | 8.112 | -0.053 |
| 3 | 5 | 8.086 | 8.044 | -0.042 |
| 8 | 6 | 8.186 | 8.227 | 0.041 |
| 8 | 7 | 8.269 | 8.221 | -0.048 |
| 8 | 8 | 8.198 | 8.239 | 0.041 |
| 8 | 9 | 8.128 | 8.237 | 0.109 |
| 8 | 10 | 8.208 | 8.147 | -0.061 |
| 10 | 11 | 8.296 | 8.265 | -0.031 |
| 10 | 12 | 8.283 | 8.306 | 0.023 |
| 10 | 13 | 8.073 | 8.202 | 0.129 |
| 10 | 14 | 8.126 | 8.187 | 0.061 |
| 10 | 15 | 8.212 | 8.231 | 0.019 |
| 15 | 16 | 8.112 | 8.259 | 0.147 |
| 15 | 17 | 8.134 | 8.067 | -0.067 |
| 15 | 18 | 8.277 | 8.208 | -0.069 |
| 15 | 19 | 8.295 | 8.289 | -0.006 |
| 15 | 20 | 8.260 | 8.216 | -0.044 |
| 30 | 21 | 8.237 | 8.321 | 0.084 |
| 30 | 22 | 8.085 | 8.317 | 0.232 |
| 30 | 23 | 8.101 | 8.313 | 0.212 |
| 30 | 24 | 8.258 | 8.321 | 0.063 |
| 30 | 25 | 8.181 | 8.390 | 0.209 |
| 35 | 26 | 8.111 | 8.335 | 0.224 |
| 35 | 27 | 8.217 | 8.348 | 0.131 |
| 35 | 28 | 8.227 | 8.291 | 0.064 |
| 35 | 29 | 8.199 | 8.184 | -0.015 |
| 35 | 30 | 7.965 | 8.415 | 0.450 |
| 50 | 31 | 8.118 | 8.359 | 0.241 |
| 50 | 32 | 8.064 | 8.435 | 0.371 |
| 50 | 33 | 8.228 | 8.419 | 0.191 |
| 50 | 34 | 8.219 | 8.271 | 0.052 |
| 50 | 35 | 8.225 | 8.274 | 0.049 |
| 55 | 36 | 8.221 | 8.403 | 0.182 |
| 55 | 37 | 8.138 | 8.253 | 0.115 |
| 55 | 38 | 8.210 | 8.283 | 0.073 |
| 55 | 39 | 8.295 | 8.272 | -0.023 |
| 55 | 40 | 8.163 | 8.365 | 0.202 |
| 100 | 41 | 8.153 | 8.122 | -0.031 |
| 100 | 42 | 8.218 | 8.244 | 0.026 |
| 100 | 43 | 8.233 | 8.415 | 0.182 |
| 100 | 44 | 8.014 | 8.251 | 0.237 |
| 100 | 45 | 8.205 | 8.286 | 0.081 |
| 105 | 46 | 8.266 | 8.311 | 0.045 |
| 105 | 47 | 8.200 | 8.395 | 0.195 |
| 105 | 48 | 8.257 | 8.271 | 0.014 |
| 105 | 49 | 8.268 | 8.287 | 0.019 |
| 105 | 50 | 8.232 | 8.371 | 0.139 |
| 105 | 51 | 8.262 | 8.475 | 0.213 |
| 105 | 52 | 8.317 | 8.403 | 0.086 |
| 105 | 53 | 8.357 | 8.234 | -0.123 |
| 105 | 54 | 8.310 | 8.235 | -0.075 |
| 105 | 55 | 8.238 | 8.380 | 0.142 |
| 105 | 56 | 8.151 | 8.262 | 0.111 |
| 105 | 57 | 8.332 | 8.255 | -0.077 |
| 105 | 58 | 8.281 | 8.422 | 0.141 |
| 105 | 59 | 8.322 | 8.416 | 0.094 |
| 105 | 60 | 8.302 | 8.397 | 0.095 |
| 105 | 61 | 8.255 | 8.412 | 0.157 |
| 105 | 62 | 8.173 | 8.288 | 0.115 |
| 105 | 63 | 8.185 | 8.303 | 0.118 |
| 105 | 64 | 8.164 | 8.405 | 0.241 |
| 105 | 65 | 8.289 | 8.337 | 0.048 |
| 105 | 66 | 8.189 | 8.250 | 0.061 |
| 105 | 67 | 8.256 | 8.379 | 0.123 |
| Max | | 8.402 | 8.475 | 0.450 |
| Average | | 8.204 | 8.284 | 0.080 |
| Min | | 7.925 | 7.936 | -0.297 |
| Std Dev | | 0.088 | 0.102 | 0.120 |



| 13.17_OUTA_RISE_1MHz_12V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | 0 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.120 | 7.936 | 8.147 | 8.187 | 8.067 | 8.313 | 8.184 | 8.271 | 8.253 | 8.122 | 8.234 |
| Average | 8.250 | 8.096 | 8.214 | 8.238 | 8.208 | 8.332 | 8.315 | 8.352 | 8.315 | 8.264 | 8.340 |
| Max | 8.372 | 8.201 | 8.239 | 8.306 | 8.289 | 8.390 | 8.415 | 8.435 | 8.403 | 8.415 | 8.475 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

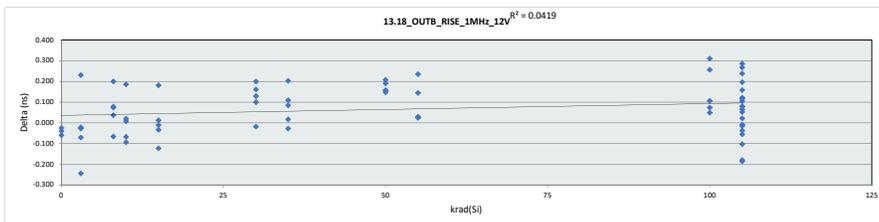


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

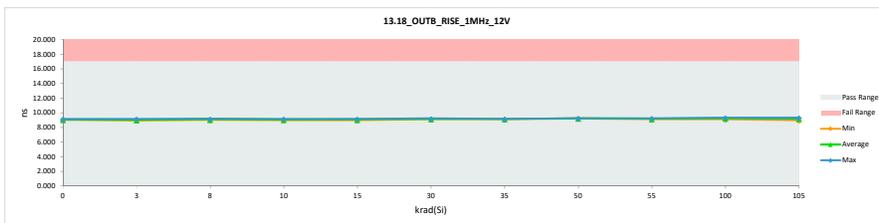
| 13.18_OUTB_RISE_1MHz_12V | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 16.5 17 |
| Min Limit | 4 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 9.056 | 9.019 | -0.037 |
| 0 | 992 | 9.079 | 9.057 | -0.022 |
| 0 | 993 | 9.215 | 9.158 | -0.057 |
| 3 | 1 | 9.057 | 8.990 | -0.067 |
| 3 | 2 | 8.944 | 9.178 | 0.234 |
| 3 | 3 | 9.203 | 8.962 | -0.241 |
| 3 | 4 | 9.063 | 9.044 | -0.019 |
| 3 | 5 | 9.126 | 9.101 | -0.025 |
| 8 | 6 | 9.022 | 9.062 | 0.040 |
| 8 | 7 | 9.108 | 9.046 | -0.062 |
| 8 | 8 | 9.046 | 9.123 | 0.077 |
| 8 | 9 | 9.988 | 9.191 | 0.203 |
| 8 | 10 | 9.027 | 9.108 | 0.081 |
| 10 | 11 | 9.140 | 9.163 | 0.023 |
| 10 | 12 | 8.948 | 9.137 | 0.189 |
| 10 | 13 | 9.104 | 9.014 | -0.090 |
| 10 | 14 | 9.145 | 9.156 | 0.011 |
| 10 | 15 | 9.079 | 9.014 | -0.065 |
| 15 | 16 | 9.105 | 9.098 | -0.007 |
| 15 | 17 | 8.957 | 9.142 | 0.185 |
| 15 | 18 | 9.125 | 9.006 | -0.119 |
| 15 | 19 | 9.175 | 9.190 | 0.015 |
| 15 | 20 | 9.120 | 9.089 | -0.031 |
| 30 | 21 | 9.055 | 9.158 | 0.103 |
| 30 | 22 | 8.976 | 9.141 | 0.165 |
| 30 | 23 | 9.090 | 9.222 | 0.132 |
| 30 | 24 | 9.129 | 9.114 | -0.015 |
| 30 | 25 | 9.034 | 9.237 | 0.203 |
| 35 | 26 | 9.153 | 9.173 | 0.020 |
| 35 | 27 | 9.058 | 9.145 | 0.087 |
| 35 | 28 | 9.007 | 9.119 | 0.112 |
| 35 | 29 | 9.186 | 9.161 | -0.025 |
| 35 | 30 | 8.967 | 9.172 | 0.205 |
| 50 | 31 | 9.084 | 9.244 | 0.160 |
| 50 | 32 | 9.096 | 9.246 | 0.150 |
| 50 | 33 | 9.086 | 9.245 | 0.159 |
| 50 | 34 | 9.057 | 9.268 | 0.211 |
| 50 | 35 | 9.084 | 9.277 | 0.193 |
| 55 | 36 | 9.219 | 9.248 | 0.029 |
| 55 | 37 | 9.106 | 9.134 | 0.028 |
| 55 | 38 | 9.052 | 9.199 | 0.147 |
| 55 | 39 | 9.117 | 9.150 | 0.033 |
| 55 | 40 | 8.989 | 9.237 | 0.238 |
| 100 | 41 | 9.140 | 9.249 | 0.109 |
| 100 | 42 | 9.089 | 9.142 | 0.053 |
| 100 | 43 | 9.070 | 9.329 | 0.259 |
| 100 | 44 | 9.136 | 9.213 | 0.077 |
| 100 | 45 | 8.989 | 9.302 | 0.313 |
| 105 | 46 | 9.166 | 9.114 | -0.052 |
| 105 | 47 | 9.079 | 9.162 | 0.083 |
| 105 | 48 | 9.080 | 9.105 | 0.025 |
| 105 | 49 | 9.053 | 9.120 | 0.067 |
| 105 | 50 | 9.151 | 9.143 | -0.008 |
| 105 | 51 | 9.046 | 9.335 | 0.289 |
| 105 | 52 | 9.174 | 8.998 | -0.176 |
| 105 | 53 | 9.239 | 9.233 | -0.006 |
| 105 | 54 | 9.113 | 9.313 | 0.200 |
| 105 | 55 | 9.100 | 9.262 | 0.162 |
| 105 | 56 | 9.136 | 9.257 | 0.121 |
| 105 | 57 | 9.086 | 9.052 | -0.034 |
| 105 | 58 | 9.170 | 9.251 | 0.081 |
| 105 | 59 | 9.182 | 9.306 | 0.124 |
| 105 | 60 | 9.443 | 9.260 | -0.183 |
| 105 | 61 | 9.134 | 9.254 | 0.120 |
| 105 | 62 | 9.175 | 9.076 | -0.099 |
| 105 | 63 | 9.137 | 9.244 | 0.107 |
| 105 | 64 | 9.058 | 9.299 | 0.241 |
| 105 | 65 | 9.186 | 9.174 | -0.012 |
| 105 | 66 | 8.976 | 9.246 | 0.270 |
| 105 | 67 | 9.152 | 9.208 | 0.056 |
| Max | | 9.443 | 9.335 | 0.313 |
| Average | | 9.098 | 9.166 | 0.068 |
| Min | | 8.944 | 8.962 | -0.241 |
| Std Dev | | 0.080 | 0.091 | 0.119 |



| 13.18_OUTB_RISE_1MHz_12V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | 0 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 9.019 | 8.962 | 9.046 | 9.014 | 9.006 | 9.114 | 9.119 | 9.244 | 9.134 | 9.142 | 8.998 |
| Average | 9.078 | 9.055 | 9.106 | 9.097 | 9.105 | 9.174 | 9.154 | 9.256 | 9.194 | 9.247 | 9.201 |
| Max | 9.158 | 9.178 | 9.191 | 9.163 | 9.190 | 9.237 | 9.173 | 9.277 | 9.248 | 9.329 | 9.335 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

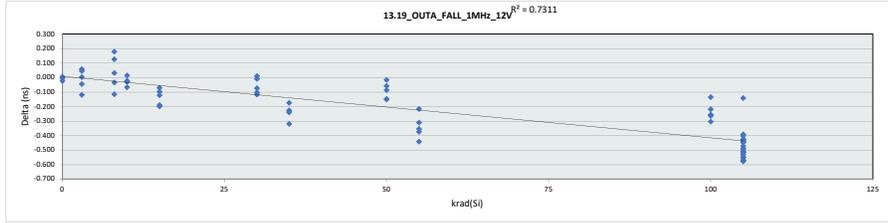


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

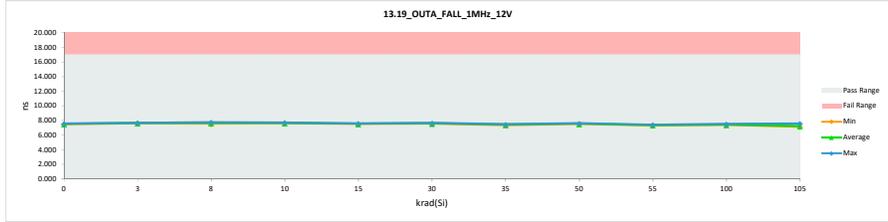
| 13.19_OUTA_FALL_1MHz_12V | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 17 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.501 | 7.511 | 0.010 |
| 0 | 992 | 7.531 | 7.511 | -0.020 |
| 0 | 993 | 7.567 | 7.565 | -0.002 |
| 3 | 1 | 7.664 | 7.672 | 0.008 |
| 3 | 2 | 7.615 | 7.676 | 0.061 |
| 3 | 3 | 7.770 | 7.654 | -0.116 |
| 3 | 4 | 7.664 | 7.623 | -0.041 |
| 3 | 5 | 7.623 | 7.672 | 0.049 |
| 8 | 6 | 7.613 | 7.648 | 0.035 |
| 8 | 7 | 7.686 | 7.575 | -0.111 |
| 8 | 8 | 7.607 | 7.737 | 0.130 |
| 8 | 9 | 7.577 | 7.760 | 0.183 |
| 8 | 10 | 7.650 | 7.620 | -0.030 |
| 10 | 11 | 7.701 | 7.719 | 0.018 |
| 10 | 12 | 7.707 | 7.645 | -0.062 |
| 10 | 13 | 7.634 | 7.614 | -0.020 |
| 10 | 14 | 7.695 | 7.673 | -0.022 |
| 10 | 15 | 7.667 | 7.634 | -0.036 |
| 15 | 16 | 7.740 | 7.554 | -0.186 |
| 15 | 17 | 7.640 | 7.547 | -0.093 |
| 15 | 18 | 7.700 | 7.582 | -0.118 |
| 15 | 19 | 7.666 | 7.599 | -0.067 |
| 15 | 20 | 7.731 | 7.537 | -0.194 |
| 30 | 21 | 7.710 | 7.611 | -0.099 |
| 30 | 22 | 7.679 | 7.610 | -0.069 |
| 30 | 23 | 7.644 | 7.657 | 0.013 |
| 30 | 24 | 7.687 | 7.573 | -0.114 |
| 30 | 25 | 7.647 | 7.641 | -0.006 |
| 35 | 26 | 7.700 | 7.464 | -0.236 |
| 35 | 27 | 7.619 | 7.448 | -0.171 |
| 35 | 28 | 7.700 | 7.385 | -0.315 |
| 35 | 29 | 7.717 | 7.495 | -0.222 |
| 35 | 30 | 7.669 | 7.443 | -0.226 |
| 50 | 31 | 7.623 | 7.541 | -0.082 |
| 50 | 32 | 7.632 | 7.620 | -0.012 |
| 50 | 33 | 7.669 | 7.615 | -0.054 |
| 50 | 34 | 7.692 | 7.549 | -0.143 |
| 50 | 35 | 7.740 | 7.594 | -0.146 |
| 55 | 36 | 7.803 | 7.366 | -0.437 |
| 55 | 37 | 7.644 | 7.338 | -0.306 |
| 55 | 38 | 7.746 | 7.377 | -0.369 |
| 55 | 39 | 7.694 | 7.343 | -0.351 |
| 55 | 40 | 7.645 | 7.433 | -0.212 |
| 100 | 41 | 7.684 | 7.432 | -0.252 |
| 100 | 42 | 7.650 | 7.436 | -0.214 |
| 100 | 43 | 7.672 | 7.540 | -0.132 |
| 100 | 44 | 7.688 | 7.427 | -0.261 |
| 100 | 45 | 7.726 | 7.427 | -0.299 |
| 105 | 46 | 7.750 | 7.182 | -0.568 |
| 105 | 47 | 7.701 | 7.233 | -0.468 |
| 105 | 48 | 7.705 | 7.157 | -0.548 |
| 105 | 49 | 7.703 | 7.157 | -0.546 |
| 105 | 50 | 7.758 | 7.194 | -0.564 |
| 105 | 51 | 7.661 | 7.239 | -0.422 |
| 105 | 52 | 7.753 | 7.310 | -0.443 |
| 105 | 53 | 7.747 | 7.201 | -0.546 |
| 105 | 54 | 7.737 | 7.599 | -0.138 |
| 105 | 55 | 7.660 | 7.237 | -0.423 |
| 105 | 56 | 7.795 | 7.222 | -0.573 |
| 105 | 57 | 7.700 | 7.187 | -0.513 |
| 105 | 58 | 7.660 | 7.217 | -0.443 |
| 105 | 59 | 7.793 | 7.266 | -0.527 |
| 105 | 60 | 7.734 | 7.297 | -0.437 |
| 105 | 61 | 7.678 | 7.279 | -0.399 |
| 105 | 62 | 7.735 | 7.230 | -0.505 |
| 105 | 63 | 7.732 | 7.249 | -0.483 |
| 105 | 64 | 7.626 | 7.239 | -0.387 |
| 105 | 65 | 7.726 | 7.235 | -0.491 |
| 105 | 66 | 7.690 | 7.260 | -0.430 |
| 105 | 67 | 7.736 | 7.224 | -0.512 |
| Max | | 7.803 | 7.760 | 0.183 |
| Average | | 7.683 | 7.459 | -0.224 |
| Min | | 7.501 | 7.157 | -0.573 |
| Std Dev | | 0.058 | 0.177 | 0.208 |



| 13.19_OUTA_FALL_1MHz_12V | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 0 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.511 | 7.623 | 7.575 | 7.614 | 7.537 | 7.573 | 7.385 | 7.541 | 7.338 | 7.427 | 7.157 |
| Average | 7.529 | 7.659 | 7.668 | 7.657 | 7.564 | 7.618 | 7.447 | 7.584 | 7.371 | 7.452 | 7.246 |
| Max | 7.565 | 7.676 | 7.760 | 7.719 | 7.599 | 7.657 | 7.495 | 7.620 | 7.433 | 7.540 | 7.599 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

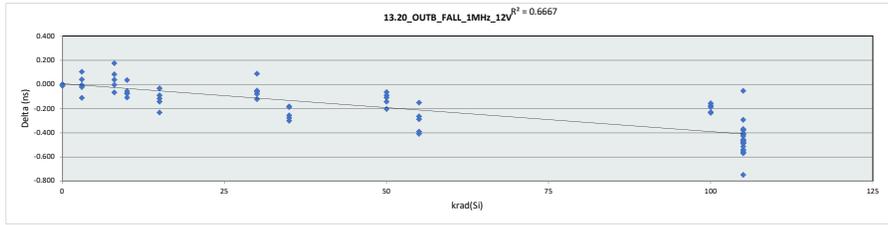


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

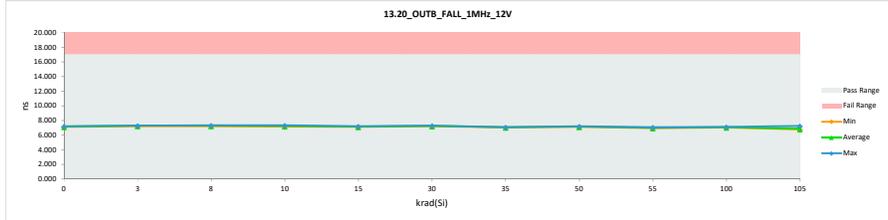
| 13.20_OUTB_FALL_1MHz_12V | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 16.5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.130 | 7.137 | 0.007 |
| 0 | 992 | 7.152 | 7.151 | -0.001 |
| 0 | 993 | 7.206 | 7.200 | -0.006 |
| 3 | 1 | 7.311 | 7.310 | -0.001 |
| 3 | 2 | 7.209 | 7.318 | 0.1109 |
| 3 | 3 | 7.341 | 7.234 | -0.107 |
| 3 | 4 | 7.283 | 7.265 | -0.018 |
| 3 | 5 | 7.269 | 7.315 | 0.046 |
| 8 | 6 | 7.227 | 7.271 | 0.044 |
| 8 | 7 | 7.304 | 7.241 | -0.063 |
| 8 | 8 | 7.250 | 7.338 | 0.088 |
| 8 | 9 | 7.175 | 7.354 | 0.179 |
| 8 | 10 | 7.257 | 7.258 | 0.001 |
| 10 | 11 | 7.296 | 7.336 | 0.040 |
| 10 | 12 | 7.313 | 7.209 | -0.104 |
| 10 | 13 | 7.253 | 7.184 | -0.069 |
| 10 | 14 | 7.352 | 7.282 | -0.070 |
| 10 | 15 | 7.271 | 7.220 | -0.051 |
| 15 | 16 | 7.309 | 7.198 | -0.111 |
| 15 | 17 | 7.198 | 7.113 | -0.085 |
| 15 | 18 | 7.337 | 7.200 | -0.137 |
| 15 | 19 | 7.254 | 7.226 | -0.028 |
| 15 | 20 | 7.363 | 7.135 | -0.228 |
| 30 | 21 | 7.308 | 7.252 | -0.056 |
| 30 | 22 | 7.282 | 7.206 | -0.076 |
| 30 | 23 | 7.222 | 7.315 | 0.093 |
| 30 | 24 | 7.321 | 7.205 | -0.116 |
| 30 | 25 | 7.292 | 7.245 | -0.047 |
| 35 | 26 | 7.368 | 7.097 | -0.271 |
| 35 | 27 | 7.251 | 7.073 | -0.178 |
| 35 | 28 | 7.345 | 7.050 | -0.295 |
| 35 | 29 | 7.337 | 7.085 | -0.252 |
| 35 | 30 | 7.255 | 7.072 | -0.183 |
| 50 | 31 | 7.255 | 7.152 | -0.103 |
| 50 | 32 | 7.271 | 7.211 | -0.060 |
| 50 | 33 | 7.287 | 7.202 | -0.085 |
| 50 | 34 | 7.324 | 7.126 | -0.198 |
| 50 | 35 | 7.371 | 7.234 | -0.137 |
| 55 | 36 | 7.391 | 6.987 | -0.404 |
| 55 | 37 | 7.280 | 7.021 | -0.259 |
| 55 | 38 | 7.393 | 7.007 | -0.386 |
| 55 | 39 | 7.248 | 6.966 | -0.282 |
| 55 | 40 | 7.208 | 7.063 | -0.145 |
| 100 | 41 | 7.271 | 7.089 | -0.182 |
| 100 | 42 | 7.251 | 7.021 | -0.230 |
| 100 | 43 | 7.283 | 7.132 | -0.151 |
| 100 | 44 | 7.244 | 7.073 | -0.171 |
| 100 | 45 | 7.321 | 7.095 | -0.226 |
| 105 | 46 | 7.347 | 6.812 | -0.535 |
| 105 | 47 | 7.288 | 6.836 | -0.452 |
| 105 | 48 | 7.326 | 6.769 | -0.557 |
| 105 | 49 | 7.240 | 6.784 | -0.456 |
| 105 | 50 | 7.413 | 6.850 | -0.563 |
| 105 | 51 | 7.275 | 6.854 | -0.421 |
| 105 | 52 | 7.319 | 6.947 | -0.372 |
| 105 | 53 | 7.383 | 6.840 | -0.543 |
| 105 | 54 | 7.300 | 7.251 | -0.049 |
| 105 | 55 | 7.294 | 6.894 | -0.400 |
| 105 | 56 | 7.353 | 6.871 | -0.482 |
| 105 | 57 | 7.308 | 6.799 | -0.509 |
| 105 | 58 | 7.250 | 6.877 | -0.373 |
| 105 | 59 | 7.356 | 6.887 | -0.469 |
| 105 | 60 | 7.686 | 6.944 | -0.742 |
| 105 | 61 | 7.229 | 6.941 | -0.288 |
| 105 | 62 | 7.348 | 6.869 | -0.479 |
| 105 | 63 | 7.355 | 6.890 | -0.465 |
| 105 | 64 | 7.298 | 6.893 | -0.405 |
| 105 | 65 | 7.298 | 6.887 | -0.411 |
| 105 | 66 | 7.285 | 6.922 | -0.363 |
| 105 | 67 | 7.358 | 6.877 | -0.481 |
| Max | | 7.686 | 7.354 | 0.179 |
| Average | | 7.296 | 7.085 | -0.211 |
| Min | | 7.130 | 6.769 | -0.742 |
| Std Dev | | 0.074 | 0.168 | 0.204 |



| 13.20_OUTB_FALL_1MHz_12V | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 0 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.163 | 7.288 | 7.292 | 7.246 | 7.174 | 7.245 | 7.075 | 7.185 | 7.009 | 7.082 | 6.886 |
| Max | 7.200 | 7.318 | 7.354 | 7.336 | 7.226 | 7.315 | 7.097 | 7.234 | 7.063 | 7.132 | 7.251 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

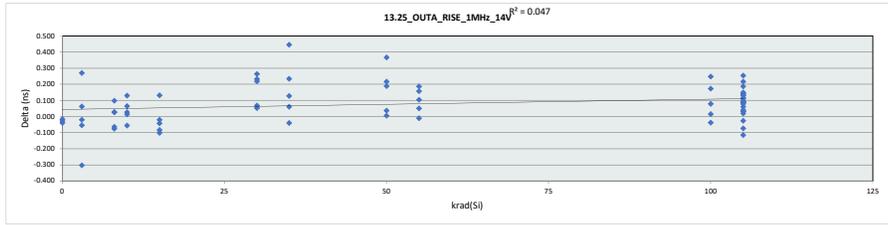


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

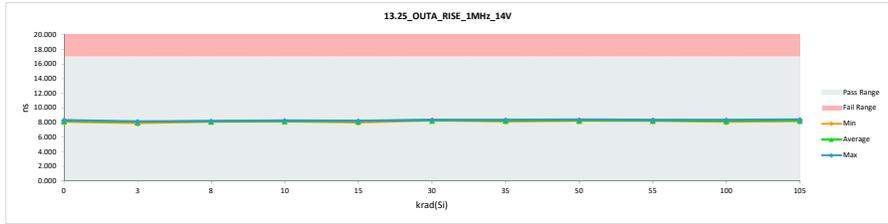
| 13.25_OUTA_RISE_1MHz_14V | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 16.5 17 |
| Min Limit | 4 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.126 | 8.091 | -0.035 |
| 0 | 992 | 8.242 | 8.229 | -0.013 |
| 0 | 993 | 8.373 | 8.349 | -0.024 |
| 3 | 1 | 7.892 | 8.166 | 0.274 |
| 3 | 2 | 8.096 | 8.162 | 0.066 |
| 3 | 3 | 8.225 | 7.926 | -0.299 |
| 3 | 4 | 8.129 | 8.079 | -0.050 |
| 3 | 5 | 8.059 | 8.042 | -0.017 |
| 8 | 6 | 8.169 | 8.201 | 0.032 |
| 8 | 7 | 8.250 | 8.178 | -0.072 |
| 8 | 8 | 8.180 | 8.211 | 0.031 |
| 8 | 9 | 8.102 | 8.205 | 0.103 |
| 8 | 10 | 8.186 | 8.127 | -0.059 |
| 10 | 11 | 8.261 | 8.210 | -0.051 |
| 10 | 12 | 8.257 | 8.289 | 0.032 |
| 10 | 13 | 8.064 | 8.198 | 0.134 |
| 10 | 14 | 8.093 | 8.161 | 0.068 |
| 10 | 15 | 8.182 | 8.199 | 0.017 |
| 15 | 16 | 8.086 | 8.222 | 0.136 |
| 15 | 17 | 8.131 | 8.034 | -0.097 |
| 15 | 18 | 8.237 | 8.199 | -0.038 |
| 15 | 19 | 8.282 | 8.265 | -0.017 |
| 15 | 20 | 8.266 | 8.187 | -0.079 |
| 30 | 21 | 8.225 | 8.281 | 0.056 |
| 30 | 22 | 8.053 | 8.321 | 0.268 |
| 30 | 23 | 8.074 | 8.296 | 0.222 |
| 30 | 24 | 8.218 | 8.291 | 0.073 |
| 30 | 25 | 8.142 | 8.378 | 0.236 |
| 35 | 26 | 8.081 | 8.320 | 0.239 |
| 35 | 27 | 8.180 | 8.312 | 0.132 |
| 35 | 28 | 8.194 | 8.259 | 0.065 |
| 35 | 29 | 8.193 | 8.157 | -0.036 |
| 35 | 30 | 7.941 | 8.390 | 0.449 |
| 50 | 31 | 8.116 | 8.336 | 0.220 |
| 50 | 32 | 8.031 | 8.402 | 0.371 |
| 50 | 33 | 8.201 | 8.394 | 0.193 |
| 50 | 34 | 8.222 | 8.232 | 0.010 |
| 50 | 35 | 8.199 | 8.240 | 0.041 |
| 55 | 36 | 8.187 | 8.378 | 0.191 |
| 55 | 37 | 8.118 | 8.227 | 0.109 |
| 55 | 38 | 8.193 | 8.247 | 0.054 |
| 55 | 39 | 8.265 | 8.258 | -0.007 |
| 55 | 40 | 8.167 | 8.328 | 0.161 |
| 100 | 41 | 8.126 | 8.093 | -0.033 |
| 100 | 42 | 8.196 | 8.216 | 0.020 |
| 100 | 43 | 8.217 | 8.394 | 0.177 |
| 100 | 44 | 7.982 | 8.235 | 0.253 |
| 100 | 45 | 8.191 | 8.273 | 0.082 |
| 105 | 46 | 8.243 | 8.280 | 0.037 |
| 105 | 47 | 8.174 | 8.394 | 0.220 |
| 105 | 48 | 8.230 | 8.254 | 0.024 |
| 105 | 49 | 8.228 | 8.274 | 0.046 |
| 105 | 50 | 8.208 | 8.344 | 0.136 |
| 105 | 51 | 8.233 | 8.425 | 0.192 |
| 105 | 52 | 8.312 | 8.376 | 0.064 |
| 105 | 53 | 8.329 | 8.219 | -0.110 |
| 105 | 54 | 8.270 | 8.201 | -0.069 |
| 105 | 55 | 8.216 | 8.353 | 0.137 |
| 105 | 56 | 8.137 | 8.227 | 0.090 |
| 105 | 57 | 8.306 | 8.285 | -0.021 |
| 105 | 58 | 8.264 | 8.418 | 0.154 |
| 105 | 59 | 8.291 | 8.388 | 0.097 |
| 105 | 60 | 8.290 | 8.373 | 0.083 |
| 105 | 61 | 8.237 | 8.384 | 0.147 |
| 105 | 62 | 8.150 | 8.264 | 0.114 |
| 105 | 63 | 8.181 | 8.278 | 0.097 |
| 105 | 64 | 8.124 | 8.382 | 0.258 |
| 105 | 65 | 8.273 | 8.311 | 0.038 |
| 105 | 66 | 8.127 | 8.222 | 0.095 |
| 105 | 67 | 8.220 | 8.341 | 0.121 |
| Max | | 8.373 | 8.425 | 0.449 |
| Average | | 8.181 | 8.260 | 0.079 |
| Min | | 7.892 | 7.926 | -0.299 |
| Std Dev | | 0.089 | 0.101 | 0.122 |



| 13.25_OUTA_RISE_1MHz_14V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | 0 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.091 | 7.926 | 8.127 | 8.161 | 8.034 | 8.281 | 8.157 | 8.232 | 8.227 | 8.093 | 8.201 |
| Average | 8.223 | 8.075 | 8.184 | 8.211 | 8.181 | 8.313 | 8.288 | 8.321 | 8.288 | 8.242 | 8.318 |
| Max | 8.349 | 8.166 | 8.211 | 8.289 | 8.265 | 8.378 | 8.390 | 8.402 | 8.378 | 8.394 | 8.425 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

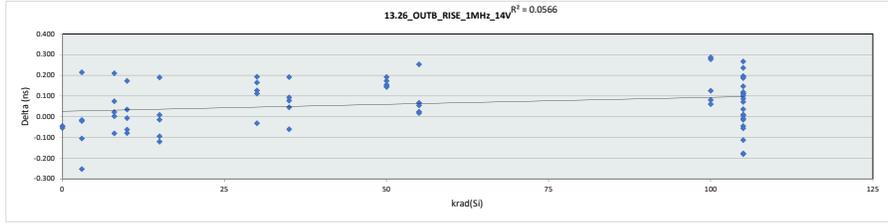


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

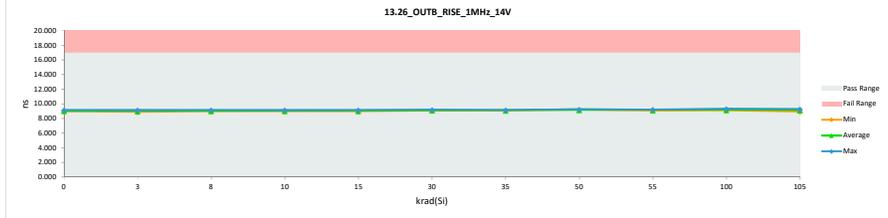
| 13.26_OUTB_RISE_1MHz_14V | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 16.5 17 |
| Min Limit | 4 0 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 9.052 | 9.010 | -0.042 |
| 0 | 992 | 9.091 | 9.040 | -0.051 |
| 0 | 993 | 9.205 | 9.163 | -0.042 |
| 3 | 1 | 9.055 | 8.954 | -0.101 |
| 3 | 2 | 8.943 | 8.161 | 0.218 |
| 3 | 3 | 9.174 | 8.926 | -0.248 |
| 3 | 4 | 9.051 | 9.035 | -0.016 |
| 3 | 5 | 9.122 | 9.110 | -0.012 |
| 8 | 6 | 9.018 | 9.044 | 0.026 |
| 8 | 7 | 9.085 | 9.008 | -0.077 |
| 8 | 8 | 9.027 | 9.034 | 0.007 |
| 8 | 9 | 9.174 | 9.187 | 0.213 |
| 8 | 10 | 9.014 | 9.092 | 0.078 |
| 10 | 11 | 9.128 | 9.125 | -0.003 |
| 10 | 12 | 8.941 | 9.118 | 0.177 |
| 10 | 13 | 9.077 | 9.019 | -0.058 |
| 10 | 14 | 9.123 | 9.161 | 0.038 |
| 10 | 15 | 9.077 | 9.002 | -0.075 |
| 15 | 16 | 9.086 | 9.075 | -0.011 |
| 15 | 17 | 8.930 | 9.123 | 0.193 |
| 15 | 18 | 9.115 | 8.999 | -0.116 |
| 15 | 19 | 9.160 | 9.172 | 0.012 |
| 15 | 20 | 9.168 | 9.078 | -0.090 |
| 30 | 21 | 9.027 | 9.142 | 0.115 |
| 30 | 22 | 8.947 | 9.116 | 0.169 |
| 30 | 23 | 9.093 | 9.224 | 0.131 |
| 30 | 24 | 9.125 | 9.098 | -0.027 |
| 30 | 25 | 9.018 | 9.215 | 0.197 |
| 35 | 26 | 9.124 | 9.173 | 0.049 |
| 35 | 27 | 9.045 | 9.126 | 0.081 |
| 35 | 28 | 9.008 | 9.105 | 0.097 |
| 35 | 29 | 9.186 | 9.129 | -0.057 |
| 35 | 30 | 8.957 | 9.152 | 0.195 |
| 50 | 31 | 9.055 | 9.232 | 0.177 |
| 50 | 32 | 9.091 | 9.242 | 0.151 |
| 50 | 33 | 9.080 | 9.238 | 0.158 |
| 50 | 34 | 9.071 | 9.218 | 0.147 |
| 50 | 35 | 9.068 | 9.263 | 0.195 |
| 55 | 36 | 9.192 | 9.214 | 0.022 |
| 55 | 37 | 9.088 | 9.116 | 0.028 |
| 55 | 38 | 9.114 | 9.184 | 0.070 |
| 55 | 39 | 9.095 | 9.154 | 0.059 |
| 55 | 40 | 8.982 | 9.239 | 0.257 |
| 100 | 41 | 9.103 | 9.232 | 0.129 |
| 100 | 42 | 9.071 | 9.136 | 0.065 |
| 100 | 43 | 9.049 | 9.339 | 0.290 |
| 100 | 44 | 9.107 | 9.191 | 0.084 |
| 100 | 45 | 8.997 | 9.278 | 0.281 |
| 105 | 46 | 9.157 | 9.116 | -0.041 |
| 105 | 47 | 9.056 | 9.246 | 0.190 |
| 105 | 48 | 9.075 | 9.089 | 0.014 |
| 105 | 49 | 9.033 | 9.109 | 0.076 |
| 105 | 50 | 9.138 | 9.133 | -0.005 |
| 105 | 51 | 9.045 | 9.315 | 0.270 |
| 105 | 52 | 9.156 | 8.980 | -0.176 |
| 105 | 53 | 9.218 | 9.228 | 0.010 |
| 105 | 54 | 9.102 | 9.302 | 0.200 |
| 105 | 55 | 9.092 | 9.243 | 0.151 |
| 105 | 56 | 9.105 | 9.209 | 0.104 |
| 105 | 57 | 9.083 | 9.031 | -0.052 |
| 105 | 58 | 9.125 | 9.240 | 0.115 |
| 105 | 59 | 9.170 | 9.293 | 0.123 |
| 105 | 60 | 9.431 | 9.258 | -0.173 |
| 105 | 61 | 9.137 | 9.228 | 0.091 |
| 105 | 62 | 9.163 | 9.055 | -0.108 |
| 105 | 63 | 9.135 | 9.250 | 0.115 |
| 105 | 64 | 9.039 | 9.278 | 0.239 |
| 105 | 65 | 9.171 | 9.160 | -0.011 |
| 105 | 66 | 9.024 | 9.221 | 0.197 |
| 105 | 67 | 9.146 | 9.186 | 0.040 |
| Max | | 9.431 | 9.339 | 0.290 |
| Average | | 9.087 | 9.151 | 0.064 |
| Min | | 8.930 | 8.926 | -0.248 |
| Std Dev | | 0.079 | 0.094 | 0.119 |



| 13.26_OUTB_RISE_1MHz_14V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 17 ns |
| Min Limit | 0 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 9.010 | 8.926 | 9.008 | 9.002 | 8.999 | 9.098 | 9.105 | 9.218 | 9.116 | 9.136 | 8.980 |
| Average | 9.071 | 9.037 | 9.073 | 9.085 | 9.089 | 9.159 | 9.137 | 9.239 | 9.181 | 9.235 | 9.190 |
| Max | 9.163 | 9.161 | 9.187 | 9.161 | 9.172 | 9.224 | 9.173 | 9.263 | 9.239 | 9.339 | 9.315 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

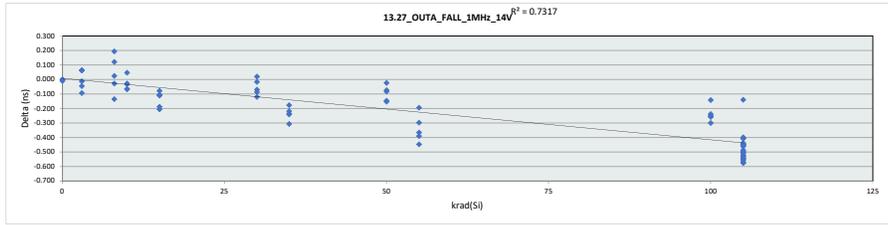


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

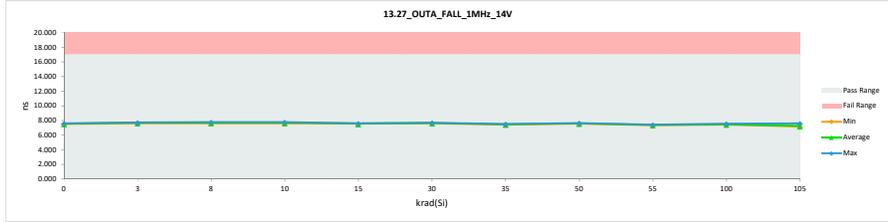
| 13.27_OUTA_FALL_1MHz_14V | |
|--------------------------|------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 16.5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.527 | 7.530 | 0.003 |
| 0 | 992 | 7.535 | 7.541 | 0.006 |
| 0 | 993 | 7.592 | 7.585 | -0.007 |
| 3 | 1 | 7.692 | 7.683 | -0.009 |
| 3 | 2 | 7.636 | 7.703 | 0.067 |
| 3 | 3 | 7.780 | 7.690 | -0.090 |
| 3 | 4 | 7.679 | 7.637 | -0.042 |
| 3 | 5 | 7.640 | 7.708 | 0.068 |
| 8 | 6 | 7.643 | 7.672 | 0.029 |
| 8 | 7 | 7.715 | 7.585 | -0.130 |
| 8 | 8 | 7.634 | 7.760 | 0.126 |
| 8 | 9 | 7.595 | 7.792 | 0.197 |
| 8 | 10 | 7.657 | 7.634 | -0.023 |
| 10 | 11 | 7.715 | 7.765 | 0.050 |
| 10 | 12 | 7.727 | 7.663 | -0.064 |
| 10 | 13 | 7.671 | 7.610 | -0.061 |
| 10 | 14 | 7.716 | 7.692 | -0.024 |
| 10 | 15 | 7.688 | 7.659 | -0.029 |
| 15 | 16 | 7.765 | 7.564 | -0.201 |
| 15 | 17 | 7.655 | 7.555 | -0.100 |
| 15 | 18 | 7.721 | 7.614 | -0.107 |
| 15 | 19 | 7.691 | 7.617 | -0.074 |
| 15 | 20 | 7.741 | 7.557 | -0.184 |
| 30 | 21 | 7.719 | 7.637 | -0.082 |
| 30 | 22 | 7.698 | 7.633 | -0.065 |
| 30 | 23 | 7.660 | 7.684 | 0.024 |
| 30 | 24 | 7.715 | 7.599 | -0.116 |
| 30 | 25 | 7.679 | 7.667 | -0.012 |
| 35 | 26 | 7.709 | 7.472 | -0.237 |
| 35 | 27 | 7.649 | 7.476 | -0.173 |
| 35 | 28 | 7.712 | 7.410 | -0.302 |
| 35 | 29 | 7.721 | 7.507 | -0.214 |
| 35 | 30 | 7.682 | 7.450 | -0.232 |
| 50 | 31 | 7.635 | 7.556 | -0.079 |
| 50 | 32 | 7.648 | 7.628 | -0.020 |
| 50 | 33 | 7.690 | 7.620 | -0.070 |
| 50 | 34 | 7.712 | 7.563 | -0.149 |
| 50 | 35 | 7.770 | 7.629 | -0.141 |
| 55 | 36 | 7.835 | 7.392 | -0.443 |
| 55 | 37 | 7.658 | 7.365 | -0.293 |
| 55 | 38 | 7.776 | 7.391 | -0.385 |
| 55 | 39 | 7.720 | 7.358 | -0.362 |
| 55 | 40 | 7.633 | 7.443 | -0.190 |
| 100 | 41 | 7.706 | 7.452 | -0.254 |
| 100 | 42 | 7.676 | 7.442 | -0.234 |
| 100 | 43 | 7.692 | 7.555 | -0.137 |
| 100 | 44 | 7.690 | 7.443 | -0.247 |
| 100 | 45 | 7.752 | 7.456 | -0.296 |
| 105 | 46 | 7.761 | 7.207 | -0.554 |
| 105 | 47 | 7.707 | 7.250 | -0.457 |
| 105 | 48 | 7.732 | 7.165 | -0.567 |
| 105 | 49 | 7.704 | 7.169 | -0.535 |
| 105 | 50 | 7.780 | 7.241 | -0.539 |
| 105 | 51 | 7.685 | 7.245 | -0.440 |
| 105 | 52 | 7.766 | 7.318 | -0.448 |
| 105 | 53 | 7.771 | 7.225 | -0.546 |
| 105 | 54 | 7.749 | 7.614 | -0.135 |
| 105 | 55 | 7.669 | 7.267 | -0.402 |
| 105 | 56 | 7.824 | 7.252 | -0.572 |
| 105 | 57 | 7.713 | 7.217 | -0.496 |
| 105 | 58 | 7.676 | 7.227 | -0.449 |
| 105 | 59 | 7.810 | 7.285 | -0.525 |
| 105 | 60 | 7.757 | 7.315 | -0.442 |
| 105 | 61 | 7.692 | 7.291 | -0.401 |
| 105 | 62 | 7.763 | 7.244 | -0.519 |
| 105 | 63 | 7.761 | 7.268 | -0.493 |
| 105 | 64 | 7.652 | 7.259 | -0.393 |
| 105 | 65 | 7.736 | 7.254 | -0.482 |
| 105 | 66 | 7.719 | 7.286 | -0.433 |
| 105 | 67 | 7.755 | 7.249 | -0.506 |
| Max | | 7.835 | 7.792 | 0.197 |
| Average | | 7.702 | 7.478 | -0.223 |
| Min | | 7.527 | 7.165 | -0.572 |
| Std Dev | | 0.059 | 0.178 | 0.208 |



| 13.27_OUTA_FALL_1MHz_14V | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 0 |

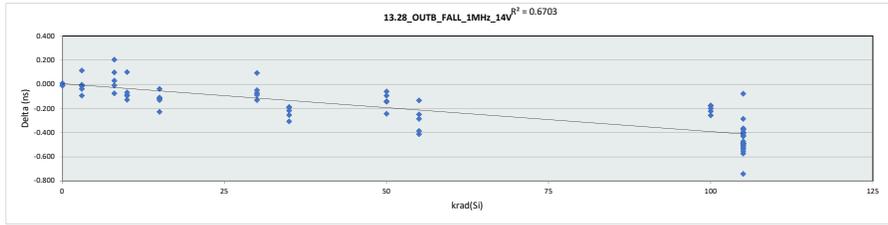
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.530 | 7.637 | 7.595 | 7.610 | 7.555 | 7.599 | 7.410 | 7.556 | 7.358 | 7.442 | 7.165 |
| Average | 7.552 | 7.684 | 7.689 | 7.678 | 7.581 | 7.644 | 7.463 | 7.599 | 7.390 | 7.470 | 7.266 |
| Max | 7.585 | 7.708 | 7.792 | 7.765 | 7.617 | 7.684 | 7.507 | 7.629 | 7.443 | 7.555 | 7.614 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |



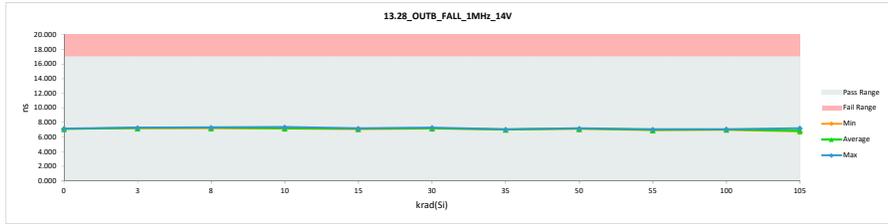
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 13.28_OUTB_FALL_1MHz_14V | | | | |
|--------------------------|----------|---------|----------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | | | |
| Max Limit | ns | ns | | |
| Min Limit | 16.5 | 17 | | |
| | 4 | 0 | | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 7.129 | 7.143 | 0.014 |
| 0 | 992 | 7.147 | 7.142 | -0.005 |
| 0 | 993 | 7.208 | 7.205 | -0.003 |
| 3 | 1 | 7.315 | 7.307 | -0.008 |
| 3 | 2 | 7.193 | 7.309 | 0.119 |
| 3 | 3 | 7.333 | 7.246 | -0.087 |
| 3 | 4 | 7.289 | 7.257 | -0.032 |
| 3 | 5 | 7.270 | 7.272 | 0.002 |
| 8 | 6 | 7.233 | 7.269 | 0.036 |
| 8 | 7 | 7.297 | 7.226 | -0.071 |
| 8 | 8 | 7.241 | 7.344 | 0.103 |
| 8 | 9 | 7.153 | 7.362 | 0.209 |
| 8 | 10 | 7.261 | 7.257 | -0.004 |
| 10 | 11 | 7.291 | 7.397 | 0.106 |
| 10 | 12 | 7.326 | 7.204 | -0.122 |
| 10 | 13 | 7.258 | 7.176 | -0.082 |
| 10 | 14 | 7.358 | 7.269 | -0.089 |
| 10 | 15 | 7.281 | 7.219 | -0.062 |
| 15 | 16 | 7.307 | 7.155 | -0.111 |
| 15 | 17 | 7.213 | 7.108 | -0.105 |
| 15 | 18 | 7.329 | 7.205 | -0.124 |
| 15 | 19 | 7.249 | 7.216 | -0.033 |
| 15 | 20 | 7.359 | 7.137 | -0.222 |
| 30 | 21 | 7.311 | 7.244 | -0.067 |
| 30 | 22 | 7.266 | 7.184 | -0.082 |
| 30 | 23 | 7.230 | 7.329 | 0.099 |
| 30 | 24 | 7.327 | 7.202 | -0.125 |
| 30 | 25 | 7.283 | 7.239 | -0.044 |
| 35 | 26 | 7.304 | 7.091 | -0.213 |
| 35 | 27 | 7.257 | 7.075 | -0.182 |
| 35 | 28 | 7.340 | 7.038 | -0.302 |
| 35 | 29 | 7.333 | 7.085 | -0.248 |
| 35 | 30 | 7.251 | 7.065 | -0.186 |
| 50 | 31 | 7.289 | 7.153 | -0.136 |
| 50 | 32 | 7.264 | 7.210 | -0.054 |
| 50 | 33 | 7.292 | 7.203 | -0.089 |
| 50 | 34 | 7.362 | 7.124 | -0.238 |
| 50 | 35 | 7.366 | 7.229 | -0.137 |
| 55 | 36 | 7.387 | 6.981 | -0.406 |
| 55 | 37 | 7.270 | 7.026 | -0.244 |
| 55 | 38 | 7.390 | 7.011 | -0.379 |
| 55 | 39 | 7.250 | 6.970 | -0.280 |
| 55 | 40 | 7.199 | 7.072 | -0.127 |
| 100 | 41 | 7.266 | 7.073 | -0.193 |
| 100 | 42 | 7.243 | 7.027 | -0.216 |
| 100 | 43 | 7.291 | 7.121 | -0.170 |
| 100 | 44 | 7.238 | 7.066 | -0.172 |
| 100 | 45 | 7.342 | 7.091 | -0.251 |
| 105 | 46 | 7.353 | 6.833 | -0.520 |
| 105 | 47 | 7.285 | 6.894 | -0.391 |
| 105 | 48 | 7.337 | 6.771 | -0.566 |
| 105 | 49 | 7.257 | 6.775 | -0.482 |
| 105 | 50 | 7.412 | 6.863 | -0.549 |
| 105 | 51 | 7.275 | 6.880 | -0.395 |
| 105 | 52 | 7.316 | 6.949 | -0.367 |
| 105 | 53 | 7.382 | 6.853 | -0.529 |
| 105 | 54 | 7.321 | 7.249 | -0.072 |
| 105 | 55 | 7.299 | 6.874 | -0.425 |
| 105 | 56 | 7.345 | 6.849 | -0.496 |
| 105 | 57 | 7.323 | 6.817 | -0.506 |
| 105 | 58 | 7.236 | 6.876 | -0.360 |
| 105 | 59 | 7.357 | 6.874 | -0.483 |
| 105 | 60 | 7.297 | 6.947 | -0.350 |
| 105 | 61 | 7.233 | 6.954 | -0.279 |
| 105 | 62 | 7.349 | 6.867 | -0.482 |
| 105 | 63 | 7.363 | 6.897 | -0.466 |
| 105 | 64 | 7.305 | 6.903 | -0.402 |
| 105 | 65 | 7.310 | 6.892 | -0.418 |
| 105 | 66 | 7.297 | 6.931 | -0.366 |
| 105 | 67 | 7.361 | 6.872 | -0.489 |
| Max | | 7.682 | 7.397 | 0.209 |
| Average | | 7.297 | 7.086 | -0.211 |
| Min | | 7.129 | 6.771 | -0.735 |
| Std Dev | | 0.075 | 0.166 | 0.203 |



| 13.28_OUTB_FALL_1MHz_14V | | | | | | | | | | | |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Test Site | | | | | | | | | | | |
| Tester | | | | | | | | | | | |
| Test Number | | | | | | | | | | | |
| Max Limit | 17 | ns | | | | | | | | | |
| Min Limit | 0 | ns | | | | | | | | | |
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.142 | 7.246 | 7.226 | 7.176 | 7.108 | 7.184 | 7.038 | 7.124 | 6.970 | 7.027 | 6.771 |
| Average | 7.163 | 7.278 | 7.292 | 7.253 | 7.172 | 7.240 | 7.071 | 7.184 | 7.012 | 7.076 | 6.892 |
| Max | 7.205 | 7.309 | 7.362 | 7.397 | 7.216 | 7.329 | 7.091 | 7.229 | 7.072 | 7.121 | 7.249 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 | 17.000 |

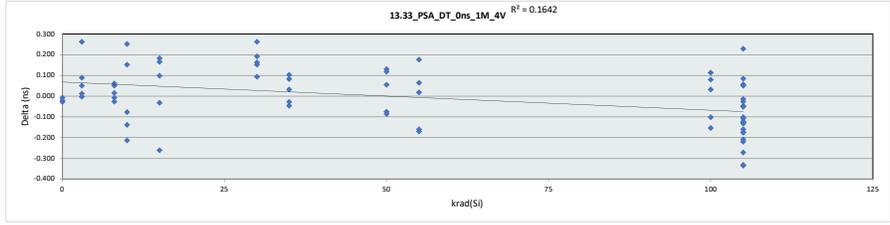


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

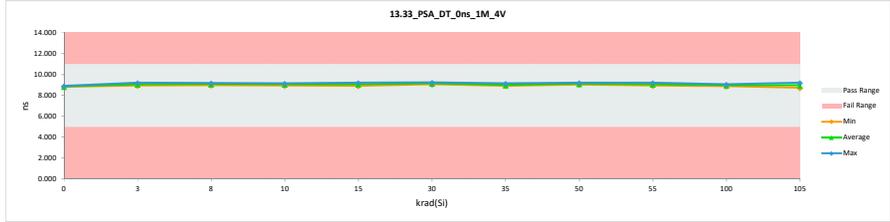
| 13.33 PSA DT 0ns 1M 4V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns ns |
| Min Limit | 5 11 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.835 | 8.817 | -0.018 |
| 0 | 992 | 8.869 | 8.845 | -0.024 |
| 0 | 993 | 8.916 | 8.911 | -0.005 |
| 3 | 1 | 8.974 | 8.974 | 0.000 |
| 3 | 2 | 9.044 | 9.059 | 0.015 |
| 3 | 3 | 8.994 | 9.086 | 0.092 |
| 3 | 4 | 8.902 | 8.956 | 0.054 |
| 3 | 5 | 8.961 | 9.226 | 0.265 |
| 8 | 6 | 9.169 | 9.187 | 0.018 |
| 8 | 7 | 9.004 | 8.981 | -0.023 |
| 8 | 8 | 9.058 | 9.123 | 0.065 |
| 8 | 9 | 9.018 | 9.072 | 0.054 |
| 8 | 10 | 9.154 | 9.149 | -0.005 |
| 10 | 11 | 9.250 | 9.040 | -0.210 |
| 10 | 12 | 8.899 | 9.153 | 0.254 |
| 10 | 13 | 8.961 | 9.116 | 0.155 |
| 10 | 14 | 9.098 | 8.963 | -0.135 |
| 10 | 15 | 9.207 | 9.134 | -0.073 |
| 15 | 16 | 9.194 | 8.936 | -0.258 |
| 15 | 17 | 9.030 | 9.001 | -0.029 |
| 15 | 18 | 9.027 | 9.212 | 0.185 |
| 15 | 19 | 8.985 | 9.086 | 0.101 |
| 15 | 20 | 8.996 | 9.165 | 0.169 |
| 30 | 21 | 8.917 | 9.182 | 0.265 |
| 30 | 22 | 8.922 | 9.077 | 0.155 |
| 30 | 23 | 9.142 | 9.238 | 0.096 |
| 30 | 24 | 9.060 | 9.254 | 0.194 |
| 30 | 25 | 8.918 | 9.084 | 0.166 |
| 35 | 26 | 8.896 | 8.982 | 0.086 |
| 35 | 27 | 8.884 | 8.919 | 0.035 |
| 35 | 28 | 8.979 | 8.955 | -0.024 |
| 35 | 29 | 9.058 | 9.164 | 0.106 |
| 35 | 30 | 9.134 | 9.091 | -0.043 |
| 50 | 31 | 8.963 | 9.084 | 0.121 |
| 50 | 32 | 9.214 | 9.131 | -0.083 |
| 50 | 33 | 9.185 | 9.113 | -0.072 |
| 50 | 34 | 8.979 | 9.037 | 0.058 |
| 50 | 35 | 9.099 | 9.233 | 0.134 |
| 55 | 36 | 9.056 | 9.236 | 0.180 |
| 55 | 37 | 9.131 | 8.974 | -0.157 |
| 55 | 38 | 9.017 | 9.085 | 0.068 |
| 55 | 39 | 9.119 | 8.951 | -0.168 |
| 55 | 40 | 9.113 | 9.134 | 0.021 |
| 100 | 41 | 8.964 | 8.999 | 0.035 |
| 100 | 42 | 8.968 | 9.085 | 0.117 |
| 100 | 43 | 8.923 | 9.006 | 0.083 |
| 100 | 44 | 9.000 | 8.901 | -0.099 |
| 100 | 45 | 9.141 | 8.991 | -0.150 |
| 105 | 46 | 9.076 | 9.129 | 0.053 |
| 105 | 47 | 9.164 | 8.948 | -0.216 |
| 105 | 48 | 9.167 | 8.995 | -0.172 |
| 105 | 49 | 9.038 | 8.992 | -0.046 |
| 105 | 50 | 9.208 | 9.160 | -0.048 |
| 105 | 51 | 9.240 | 9.217 | -0.023 |
| 105 | 52 | 9.078 | 8.873 | -0.205 |
| 105 | 53 | 8.970 | 8.925 | -0.045 |
| 105 | 54 | 8.919 | 8.747 | -0.172 |
| 105 | 55 | 8.942 | 9.174 | 0.232 |
| 105 | 56 | 9.168 | 9.157 | -0.011 |
| 105 | 57 | 9.099 | 8.994 | -0.105 |
| 105 | 58 | 9.132 | 9.003 | -0.129 |
| 105 | 59 | 9.081 | 8.961 | -0.120 |
| 105 | 60 | 9.097 | 8.974 | -0.123 |
| 105 | 61 | 9.028 | 8.871 | -0.157 |
| 105 | 62 | 9.210 | 8.882 | -0.328 |
| 105 | 63 | 9.065 | 9.124 | 0.059 |
| 105 | 64 | 8.980 | 9.068 | 0.088 |
| 105 | 65 | 9.221 | 8.890 | -0.331 |
| 105 | 66 | 8.972 | 8.873 | -0.099 |
| 105 | 67 | 9.143 | 8.875 | -0.268 |
| Max | | 9.250 | 9.254 | 0.265 |
| Average | | 9.048 | 9.042 | -0.006 |
| Min | | 8.835 | 8.747 | -0.331 |
| Std Dev | | 0.105 | 0.118 | 0.141 |



| 13.33 PSA DT 0ns 1M 4V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 11 ns |
| Min Limit | 5 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 8.817 | 8.956 | 8.981 | 8.963 | 8.936 | 9.077 | 8.919 | 9.037 | 8.951 | 8.901 | 8.747 |
| Average | 8.858 | 9.060 | 9.102 | 9.081 | 9.080 | 9.167 | 9.022 | 9.120 | 9.076 | 8.996 | 8.992 |
| Max | 8.911 | 9.226 | 9.187 | 9.153 | 9.212 | 9.254 | 9.164 | 9.233 | 9.236 | 9.085 | 9.217 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

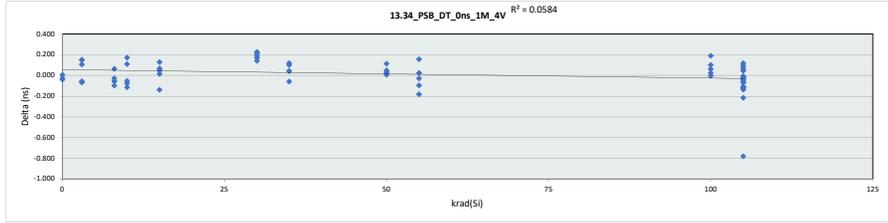


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

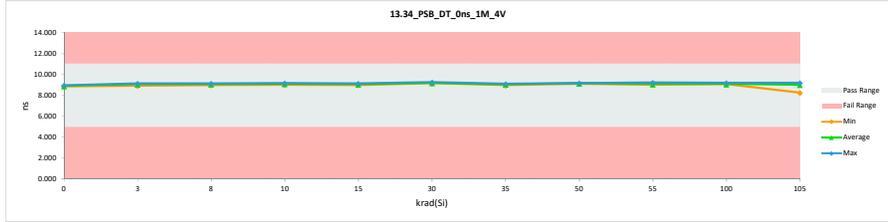
| 13.34 PSB_DT_0ns_1M_4V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 11 11 |
| Min Limit | 5 5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.922 | 8.888 | -0.034 |
| 0 | 992 | 8.925 | 8.907 | -0.018 |
| 0 | 993 | 8.967 | 8.978 | 0.011 |
| 3 | 1 | 8.990 | 8.941 | -0.049 |
| 3 | 2 | 9.116 | 9.054 | -0.062 |
| 3 | 3 | 9.007 | 9.162 | 0.155 |
| 3 | 4 | 8.990 | 9.103 | 0.113 |
| 3 | 5 | 9.009 | 9.166 | 0.157 |
| 8 | 6 | 9.199 | 9.150 | -0.049 |
| 8 | 7 | 9.092 | 8.998 | -0.094 |
| 8 | 8 | 9.094 | 9.163 | 0.069 |
| 8 | 9 | 9.114 | 9.091 | -0.023 |
| 8 | 10 | 9.167 | 9.117 | -0.050 |
| 10 | 11 | 9.181 | 9.111 | -0.070 |
| 10 | 12 | 9.015 | 9.191 | 0.176 |
| 10 | 13 | 9.019 | 9.136 | 0.117 |
| 10 | 14 | 9.139 | 9.030 | -0.109 |
| 10 | 15 | 9.187 | 9.140 | -0.047 |
| 15 | 16 | 9.133 | 9.001 | -0.132 |
| 15 | 17 | 8.995 | 9.067 | 0.072 |
| 15 | 18 | 9.102 | 9.156 | 0.054 |
| 15 | 19 | 9.059 | 9.081 | 0.022 |
| 15 | 20 | 8.980 | 9.115 | 0.135 |
| 30 | 21 | 8.993 | 9.168 | 0.175 |
| 30 | 22 | 8.968 | 9.185 | 0.217 |
| 30 | 23 | 9.123 | 9.270 | 0.147 |
| 30 | 24 | 9.047 | 9.280 | 0.233 |
| 30 | 25 | 8.973 | 9.167 | 0.194 |
| 35 | 26 | 8.937 | 8.985 | 0.048 |
| 35 | 27 | 8.910 | 9.036 | 0.126 |
| 35 | 28 | 8.937 | 9.044 | 0.107 |
| 35 | 29 | 9.050 | 9.098 | 0.048 |
| 35 | 30 | 9.191 | 9.137 | -0.054 |
| 50 | 31 | 9.119 | 9.174 | 0.055 |
| 50 | 32 | 9.164 | 9.198 | 0.034 |
| 50 | 33 | 9.154 | 9.189 | 0.035 |
| 50 | 34 | 9.003 | 9.122 | 0.119 |
| 50 | 35 | 9.167 | 9.179 | 0.012 |
| 55 | 36 | 9.090 | 9.252 | 0.162 |
| 55 | 37 | 9.123 | 9.033 | -0.090 |
| 55 | 38 | 9.080 | 9.111 | 0.031 |
| 55 | 39 | 9.217 | 9.042 | -0.175 |
| 55 | 40 | 9.149 | 9.126 | -0.023 |
| 100 | 41 | 9.013 | 9.081 | 0.068 |
| 100 | 42 | 9.022 | 9.218 | 0.196 |
| 100 | 43 | 8.985 | 9.093 | 0.108 |
| 100 | 44 | 9.084 | 9.086 | 0.002 |
| 100 | 45 | 9.059 | 9.089 | 0.030 |
| 105 | 46 | 9.090 | 9.214 | 0.124 |
| 105 | 47 | 9.127 | 9.106 | -0.021 |
| 105 | 48 | 9.146 | 9.146 | 0.000 |
| 105 | 49 | 9.170 | 9.154 | -0.016 |
| 105 | 50 | 9.234 | 9.226 | -0.008 |
| 105 | 51 | 9.250 | 9.210 | -0.040 |
| 105 | 52 | 9.133 | 9.031 | -0.102 |
| 105 | 53 | 8.982 | 9.039 | 0.057 |
| 105 | 54 | 9.043 | 8.270 | -0.773 |
| 105 | 55 | 9.012 | 9.095 | 0.083 |
| 105 | 56 | 9.086 | 9.147 | 0.061 |
| 105 | 57 | 9.113 | 9.010 | -0.103 |
| 105 | 58 | 9.187 | 9.127 | -0.060 |
| 105 | 59 | 9.089 | 9.065 | -0.024 |
| 105 | 60 | 9.111 | 8.981 | -0.130 |
| 105 | 61 | 9.080 | 9.022 | -0.058 |
| 105 | 62 | 9.112 | 9.002 | -0.110 |
| 105 | 63 | 9.048 | 9.152 | 0.104 |
| 105 | 64 | 9.006 | 9.057 | 0.051 |
| 105 | 65 | 9.199 | 8.990 | -0.209 |
| 105 | 66 | 9.011 | 8.950 | -0.061 |
| 105 | 67 | 9.078 | 8.950 | -0.128 |
| Max | | 9.250 | 9.280 | 0.233 |
| Average | | 9.075 | 9.086 | 0.011 |
| Min | | 8.910 | 8.270 | -0.773 |
| Std Dev | | 0.083 | 0.131 | 0.138 |



| 13.34 PSB_DT_0ns_1M_4V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 11 ns |
| Min Limit | 5 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 8.888 | 8.941 | 8.998 | 9.030 | 9.001 | 9.167 | 8.985 | 9.122 | 9.033 | 9.081 | 8.270 |
| Average | 8.924 | 9.085 | 9.104 | 9.122 | 9.084 | 9.214 | 9.060 | 9.172 | 9.113 | 9.113 | 9.043 |
| Max | 8.978 | 9.166 | 9.163 | 9.191 | 9.156 | 9.280 | 9.137 | 9.198 | 9.252 | 9.218 | 9.226 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

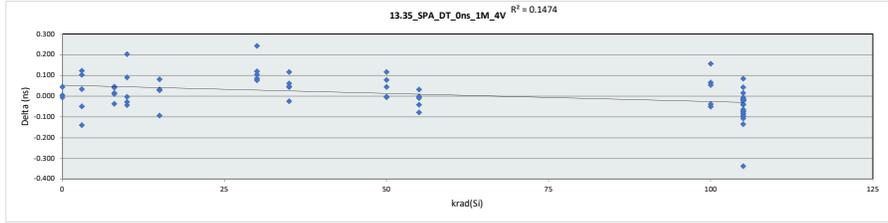


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

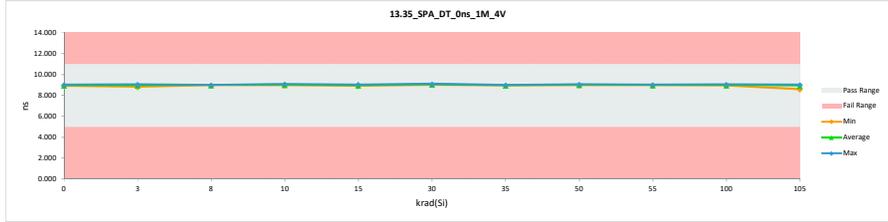
| 13.35 SPA_DT_0ns_1M_4V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 11 11 |
| Min Limit | 5 5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.887 | 8.935 | 0.048 |
| 0 | 992 | 8.951 | 8.958 | 0.007 |
| 0 | 993 | 9.038 | 9.035 | -0.003 |
| 3 | 1 | 8.980 | 8.844 | -0.136 |
| 3 | 2 | 8.926 | 8.980 | -0.046 |
| 3 | 3 | 8.940 | 9.046 | 0.106 |
| 3 | 4 | 8.926 | 8.962 | 0.036 |
| 3 | 5 | 8.954 | 9.079 | 0.125 |
| 8 | 6 | 8.990 | 9.008 | 0.018 |
| 8 | 7 | 8.981 | 8.995 | 0.014 |
| 8 | 8 | 8.963 | 9.012 | 0.049 |
| 8 | 9 | 8.979 | 9.024 | 0.045 |
| 8 | 10 | 9.041 | 9.007 | -0.034 |
| 10 | 11 | 9.027 | 9.027 | 0.000 |
| 10 | 12 | 8.896 | 9.102 | 0.206 |
| 10 | 13 | 8.938 | 9.032 | 0.094 |
| 10 | 14 | 9.014 | 8.974 | -0.040 |
| 10 | 15 | 9.060 | 9.036 | -0.024 |
| 15 | 16 | 9.014 | 8.923 | -0.091 |
| 15 | 17 | 8.985 | 9.017 | 0.032 |
| 15 | 18 | 8.977 | 9.062 | 0.085 |
| 15 | 19 | 8.995 | 9.029 | 0.034 |
| 15 | 20 | 8.902 | 8.937 | 0.035 |
| 30 | 21 | 8.845 | 9.090 | 0.245 |
| 30 | 22 | 8.968 | 9.045 | 0.079 |
| 30 | 23 | 9.029 | 9.118 | 0.089 |
| 30 | 24 | 8.928 | 9.051 | 0.123 |
| 30 | 25 | 8.925 | 9.033 | 0.108 |
| 35 | 26 | 8.904 | 8.953 | 0.049 |
| 35 | 27 | 8.890 | 8.954 | 0.064 |
| 35 | 28 | 8.940 | 8.960 | 0.020 |
| 35 | 29 | 8.975 | 9.023 | 0.048 |
| 35 | 30 | 9.030 | 9.009 | -0.021 |
| 50 | 31 | 8.957 | 9.076 | 0.119 |
| 50 | 32 | 9.079 | 9.079 | 0.000 |
| 50 | 33 | 8.993 | 9.074 | 0.081 |
| 50 | 34 | 8.992 | 8.991 | -0.001 |
| 50 | 35 | 9.007 | 9.054 | 0.047 |
| 55 | 36 | 9.017 | 9.052 | 0.035 |
| 55 | 37 | 8.996 | 8.990 | -0.006 |
| 55 | 38 | 8.990 | 8.992 | 0.002 |
| 55 | 39 | 9.073 | 8.998 | -0.075 |
| 55 | 40 | 9.037 | 8.999 | -0.038 |
| 100 | 41 | 8.977 | 9.033 | 0.056 |
| 100 | 42 | 8.907 | 9.067 | 0.160 |
| 100 | 43 | 8.925 | 8.994 | 0.069 |
| 100 | 44 | 9.010 | 8.963 | -0.047 |
| 100 | 45 | 9.038 | 9.003 | -0.035 |
| 105 | 46 | 9.017 | 9.002 | -0.015 |
| 105 | 47 | 8.936 | 8.982 | 0.046 |
| 105 | 48 | 9.058 | 8.997 | -0.061 |
| 105 | 49 | 9.016 | 9.004 | -0.012 |
| 105 | 50 | 9.091 | 9.022 | -0.069 |
| 105 | 51 | 9.031 | 9.049 | 0.018 |
| 105 | 52 | 9.014 | 8.882 | -0.132 |
| 105 | 53 | 8.954 | 8.937 | -0.017 |
| 105 | 54 | 8.941 | 8.607 | -0.334 |
| 105 | 55 | 8.969 | 8.966 | -0.003 |
| 105 | 56 | 9.013 | 8.993 | -0.020 |
| 105 | 57 | 9.005 | 8.990 | -0.015 |
| 105 | 58 | 9.094 | 8.999 | -0.095 |
| 105 | 59 | 9.048 | 9.009 | -0.039 |
| 105 | 60 | 9.024 | 8.919 | -0.105 |
| 105 | 61 | 8.957 | 8.877 | -0.080 |
| 105 | 62 | 9.014 | 8.979 | -0.035 |
| 105 | 63 | 8.953 | 9.040 | 0.087 |
| 105 | 64 | 8.980 | 8.969 | -0.011 |
| 105 | 65 | 9.044 | 8.952 | -0.092 |
| 105 | 66 | 8.988 | 8.916 | -0.082 |
| 105 | 67 | 8.984 | 8.913 | -0.071 |
| Max | | 9.094 | 9.118 | 0.245 |
| Average | | 8.985 | 8.995 | 0.010 |
| Min | | 8.840 | 8.607 | -0.334 |
| Std Dev | | 0.055 | 0.072 | 0.086 |



| 13.35 SPA_DT_0ns_1M_4V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 11 ns |
| Min Limit | 5 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 8.925 | 8.844 | 8.995 | 8.974 | 8.923 | 9.033 | 8.953 | 8.991 | 8.990 | 8.963 | 8.607 |
| Average | 8.976 | 8.982 | 9.009 | 9.034 | 8.994 | 9.067 | 8.980 | 9.055 | 9.006 | 9.012 | 8.955 |
| Max | 9.035 | 9.079 | 9.024 | 9.102 | 9.062 | 9.118 | 9.023 | 9.079 | 9.052 | 9.067 | 9.049 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

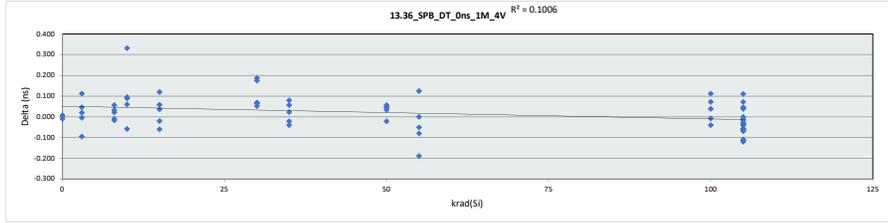


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

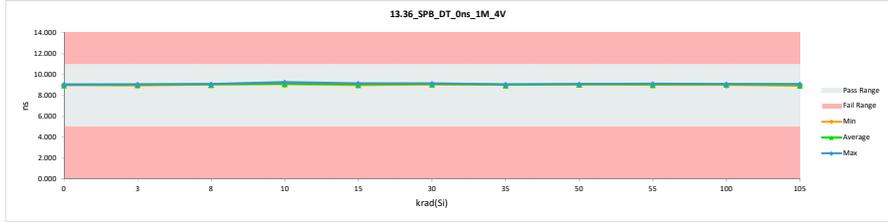
| 13.36_SPB_DT_0ns_1M_4V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 11 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.992 | 8.986 | -0.006 |
| 0 | 992 | 8.990 | 8.997 | 0.007 |
| 0 | 993 | 9.049 | 9.060 | 0.011 |
| 3 | 1 | 9.051 | 8.959 | -0.092 |
| 3 | 2 | 9.056 | 9.054 | -0.002 |
| 3 | 3 | 9.016 | 9.065 | 0.049 |
| 3 | 4 | 8.943 | 9.058 | 0.115 |
| 3 | 5 | 9.050 | 9.073 | 0.023 |
| 8 | 6 | 9.072 | 9.058 | -0.014 |
| 8 | 7 | 9.028 | 9.064 | 0.036 |
| 8 | 8 | 8.976 | 9.036 | 0.060 |
| 8 | 9 | 9.035 | 9.029 | -0.006 |
| 8 | 10 | 9.066 | 9.091 | 0.025 |
| 10 | 11 | 9.015 | 9.107 | 0.092 |
| 10 | 12 | 8.940 | 9.274 | 0.334 |
| 10 | 13 | 9.014 | 9.113 | 0.099 |
| 10 | 14 | 9.108 | 9.053 | -0.055 |
| 10 | 15 | 9.052 | 9.115 | 0.063 |
| 15 | 16 | 9.025 | 8.969 | -0.056 |
| 15 | 17 | 9.002 | 9.064 | 0.062 |
| 15 | 18 | 9.040 | 9.163 | 0.123 |
| 15 | 19 | 9.008 | 9.048 | 0.040 |
| 15 | 20 | 9.041 | 9.025 | -0.016 |
| 30 | 21 | 8.943 | 9.134 | 0.191 |
| 30 | 22 | 8.973 | 9.151 | 0.178 |
| 30 | 23 | 9.053 | 9.122 | 0.069 |
| 30 | 24 | 9.041 | 9.096 | 0.055 |
| 30 | 25 | 8.973 | 9.045 | 0.072 |
| 35 | 26 | 9.015 | 8.996 | -0.019 |
| 35 | 27 | 8.946 | 9.006 | 0.060 |
| 35 | 28 | 8.937 | 9.020 | 0.083 |
| 35 | 29 | 9.047 | 9.011 | -0.036 |
| 35 | 30 | 9.050 | 9.076 | 0.026 |
| 50 | 31 | 9.047 | 9.107 | 0.060 |
| 50 | 32 | 9.078 | 9.060 | -0.018 |
| 50 | 33 | 9.039 | 9.086 | 0.047 |
| 50 | 34 | 9.038 | 9.089 | 0.051 |
| 50 | 35 | 9.018 | 9.055 | 0.037 |
| 55 | 36 | 9.000 | 9.127 | 0.127 |
| 55 | 37 | 9.072 | 9.075 | 0.003 |
| 55 | 38 | 9.063 | 9.015 | -0.048 |
| 55 | 39 | 9.233 | 9.047 | -0.186 |
| 55 | 40 | 9.095 | 9.018 | -0.077 |
| 100 | 41 | 9.043 | 9.084 | 0.041 |
| 100 | 42 | 8.981 | 9.097 | 0.116 |
| 100 | 43 | 8.974 | 9.050 | 0.076 |
| 100 | 44 | 9.033 | 8.996 | -0.037 |
| 100 | 45 | 9.081 | 9.077 | -0.004 |
| 105 | 46 | 9.047 | 9.089 | 0.042 |
| 105 | 47 | 9.012 | 9.015 | 0.003 |
| 105 | 48 | 9.091 | 9.063 | -0.028 |
| 105 | 49 | 9.159 | 9.053 | -0.106 |
| 105 | 50 | 9.085 | 9.050 | -0.035 |
| 105 | 51 | 9.074 | 9.011 | -0.063 |
| 105 | 52 | 9.011 | 8.957 | -0.054 |
| 105 | 53 | 8.979 | 9.028 | 0.049 |
| 105 | 54 | 8.977 | 8.941 | -0.036 |
| 105 | 55 | 8.979 | 9.054 | 0.075 |
| 105 | 56 | 8.994 | 9.040 | 0.046 |
| 105 | 57 | 9.059 | 9.029 | -0.030 |
| 105 | 58 | 9.095 | 9.035 | -0.060 |
| 105 | 59 | 9.040 | 9.033 | -0.007 |
| 105 | 60 | 9.060 | 9.052 | -0.008 |
| 105 | 61 | 9.041 | 8.931 | -0.110 |
| 105 | 62 | 9.052 | 8.986 | -0.066 |
| 105 | 63 | 8.969 | 9.082 | 0.113 |
| 105 | 64 | 9.060 | 9.028 | -0.032 |
| 105 | 65 | 9.110 | 8.994 | -0.116 |
| 105 | 66 | 9.045 | 9.030 | -0.015 |
| 105 | 67 | 9.017 | 8.963 | -0.054 |
| Max | | 9.233 | 9.274 | 0.334 |
| Average | | 9.033 | 9.051 | 0.018 |
| Min | | 8.937 | 8.931 | -0.186 |
| Std Dev | | 0.051 | 0.055 | 0.080 |



| 13.36_SPB_DT_0ns_1M_4V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 5 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 8.986 | 8.959 | 9.029 | 9.053 | 8.969 | 9.045 | 8.996 | 9.055 | 9.015 | 8.996 | 8.931 |
| Average | 9.014 | 9.042 | 9.056 | 9.132 | 9.054 | 9.110 | 9.022 | 9.079 | 9.056 | 9.061 | 9.021 |
| Max | 9.060 | 9.073 | 9.091 | 9.274 | 9.163 | 9.151 | 9.076 | 9.107 | 9.127 | 9.097 | 9.089 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

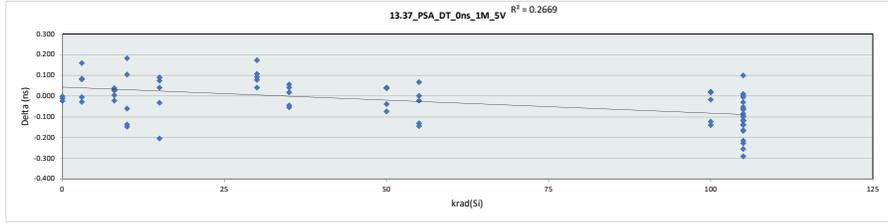


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

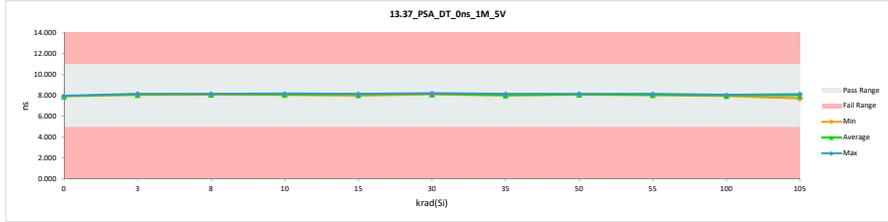
| 13.37 PSA_DT_0ns_1M_5V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.952 | 7.932 | -0.020 |
| 0 | 992 | 7.947 | 7.948 | 0.001 |
| 0 | 993 | 7.984 | 7.976 | -0.008 |
| 3 | 1 | 8.086 | 8.062 | -0.024 |
| 3 | 2 | 8.094 | 8.093 | -0.001 |
| 3 | 3 | 8.057 | 8.142 | 0.085 |
| 3 | 4 | 7.970 | 8.057 | 0.087 |
| 3 | 5 | 8.021 | 8.183 | 0.162 |
| 8 | 6 | 8.174 | 8.156 | -0.018 |
| 8 | 7 | 8.057 | 8.065 | 0.008 |
| 8 | 8 | 8.105 | 8.137 | 0.032 |
| 8 | 9 | 8.085 | 8.116 | 0.031 |
| 8 | 10 | 8.138 | 8.180 | 0.042 |
| 10 | 11 | 8.223 | 8.078 | -0.145 |
| 10 | 12 | 8.003 | 8.188 | 0.185 |
| 10 | 13 | 8.042 | 8.149 | 0.107 |
| 10 | 14 | 8.182 | 8.048 | -0.134 |
| 10 | 15 | 8.199 | 8.142 | -0.057 |
| 15 | 16 | 8.194 | 7.993 | -0.201 |
| 15 | 17 | 8.096 | 8.067 | -0.029 |
| 15 | 18 | 8.084 | 8.162 | 0.078 |
| 15 | 19 | 8.056 | 8.101 | 0.045 |
| 15 | 20 | 8.068 | 8.162 | 0.094 |
| 30 | 21 | 8.000 | 8.176 | 0.176 |
| 30 | 22 | 7.996 | 8.091 | 0.095 |
| 30 | 23 | 8.154 | 8.199 | 0.045 |
| 30 | 24 | 8.097 | 8.208 | 0.111 |
| 30 | 25 | 8.023 | 8.104 | 0.081 |
| 35 | 26 | 7.993 | 8.037 | 0.044 |
| 35 | 27 | 7.976 | 7.998 | 0.022 |
| 35 | 28 | 8.064 | 8.023 | -0.041 |
| 35 | 29 | 8.096 | 8.155 | 0.059 |
| 35 | 30 | 8.144 | 8.093 | -0.051 |
| 50 | 31 | 8.041 | 8.083 | 0.042 |
| 50 | 32 | 8.180 | 8.110 | -0.070 |
| 50 | 33 | 8.145 | 8.109 | -0.036 |
| 50 | 34 | 8.052 | 8.097 | 0.045 |
| 50 | 35 | 8.141 | 8.184 | 0.043 |
| 55 | 36 | 8.103 | 8.174 | 0.071 |
| 55 | 37 | 8.169 | 8.027 | -0.142 |
| 55 | 38 | 8.078 | 8.083 | 0.005 |
| 55 | 39 | 8.165 | 8.038 | -0.127 |
| 55 | 40 | 8.145 | 8.127 | -0.018 |
| 100 | 41 | 8.049 | 8.035 | -0.014 |
| 100 | 42 | 8.044 | 8.066 | 0.022 |
| 100 | 43 | 7.991 | 8.016 | 0.025 |
| 100 | 44 | 8.064 | 7.944 | -0.120 |
| 100 | 45 | 8.159 | 8.022 | -0.137 |
| 105 | 46 | 8.097 | 8.111 | 0.014 |
| 105 | 47 | 8.155 | 7.991 | -0.164 |
| 105 | 48 | 8.176 | 8.042 | -0.134 |
| 105 | 49 | 8.097 | 8.040 | -0.057 |
| 105 | 50 | 8.197 | 8.100 | -0.097 |
| 105 | 51 | 8.198 | 8.149 | -0.049 |
| 105 | 52 | 8.093 | 7.932 | -0.161 |
| 105 | 53 | 8.044 | 7.982 | -0.062 |
| 105 | 54 | 8.011 | 7.724 | -0.287 |
| 105 | 55 | 8.019 | 8.122 | 0.103 |
| 105 | 56 | 8.166 | 8.140 | -0.026 |
| 105 | 57 | 8.116 | 8.024 | -0.092 |
| 105 | 58 | 8.142 | 8.027 | -0.115 |
| 105 | 59 | 8.109 | 7.995 | -0.114 |
| 105 | 60 | 8.106 | 8.025 | -0.081 |
| 105 | 61 | 8.081 | 7.944 | -0.137 |
| 105 | 62 | 8.198 | 7.947 | -0.251 |
| 105 | 63 | 8.095 | 8.094 | -0.001 |
| 105 | 64 | 8.039 | 8.044 | 0.005 |
| 105 | 65 | 8.192 | 7.980 | -0.212 |
| 105 | 66 | 8.049 | 7.936 | -0.113 |
| 105 | 67 | 8.153 | 7.929 | -0.224 |
| Max | | 8.223 | 8.208 | 0.185 |
| Average | | 8.092 | 8.066 | -0.026 |
| Min | | 7.947 | 7.724 | -0.287 |
| Std Dev | | 0.070 | 0.087 | 0.102 |



| 13.37 PSA_DT_0ns_1M_5V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 11 |
| Min Limit | 5 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 7.952 | 8.057 | 8.065 | 8.048 | 7.993 | 8.091 | 7.998 | 8.083 | 8.027 | 7.944 | 7.724 |
| Average | 7.952 | 8.107 | 8.131 | 8.121 | 8.097 | 8.156 | 8.061 | 8.117 | 8.090 | 8.017 | 8.013 |
| Max | 7.976 | 8.183 | 8.180 | 8.188 | 8.162 | 8.208 | 8.155 | 8.184 | 8.174 | 8.066 | 8.149 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

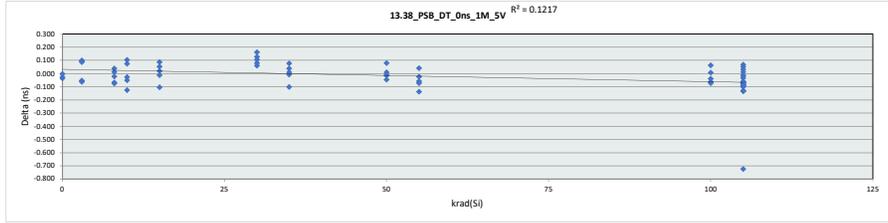


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

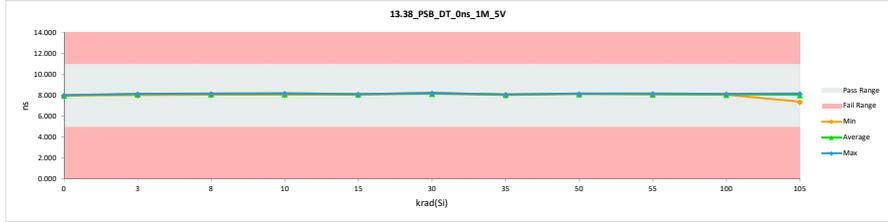
| 13.38 PSB_DT_0ns_1M_5V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 11 11 |
| Min Limit | 5 5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.001 | 7.978 | -0.023 |
| 0 | 992 | 8.044 | 8.013 | -0.031 |
| 0 | 993 | 8.042 | 8.044 | 0.002 |
| 3 | 1 | 8.094 | 8.045 | -0.049 |
| 3 | 2 | 8.156 | 8.097 | -0.059 |
| 3 | 3 | 8.069 | 8.172 | 0.103 |
| 3 | 4 | 8.064 | 8.154 | 0.090 |
| 3 | 5 | 8.059 | 8.159 | 0.100 |
| 8 | 6 | 8.217 | 8.155 | -0.062 |
| 8 | 7 | 8.136 | 8.066 | -0.070 |
| 8 | 8 | 8.141 | 8.184 | 0.043 |
| 8 | 9 | 8.169 | 8.152 | -0.017 |
| 8 | 10 | 8.155 | 8.172 | 0.017 |
| 10 | 11 | 8.188 | 8.141 | -0.047 |
| 10 | 12 | 8.114 | 8.223 | 0.109 |
| 10 | 13 | 8.089 | 8.168 | 0.079 |
| 10 | 14 | 8.200 | 8.079 | -0.121 |
| 10 | 15 | 8.197 | 8.175 | -0.022 |
| 15 | 16 | 8.156 | 8.057 | -0.099 |
| 15 | 17 | 8.078 | 8.136 | 0.058 |
| 15 | 18 | 8.140 | 8.132 | -0.008 |
| 15 | 19 | 8.095 | 8.119 | 0.024 |
| 15 | 20 | 8.042 | 8.133 | 0.091 |
| 30 | 21 | 8.091 | 8.176 | 0.085 |
| 30 | 22 | 8.065 | 8.197 | 0.132 |
| 30 | 23 | 8.170 | 8.234 | 0.064 |
| 30 | 24 | 8.072 | 8.239 | 0.167 |
| 30 | 25 | 8.066 | 8.177 | 0.111 |
| 35 | 26 | 8.034 | 8.048 | 0.014 |
| 35 | 27 | 8.014 | 8.095 | 0.081 |
| 35 | 28 | 8.044 | 8.088 | 0.044 |
| 35 | 29 | 8.113 | 8.110 | -0.003 |
| 35 | 30 | 8.199 | 8.101 | -0.098 |
| 50 | 31 | 8.172 | 8.131 | -0.041 |
| 50 | 32 | 8.159 | 8.174 | 0.015 |
| 50 | 33 | 8.171 | 8.166 | -0.005 |
| 50 | 34 | 8.062 | 8.147 | 0.085 |
| 50 | 35 | 8.181 | 8.171 | -0.010 |
| 55 | 36 | 8.147 | 8.193 | 0.046 |
| 55 | 37 | 8.150 | 8.082 | -0.068 |
| 55 | 38 | 8.141 | 8.122 | -0.019 |
| 55 | 39 | 8.228 | 8.096 | -0.132 |
| 55 | 40 | 8.184 | 8.131 | -0.053 |
| 100 | 41 | 8.100 | 8.066 | -0.034 |
| 100 | 42 | 8.090 | 8.157 | 0.067 |
| 100 | 43 | 8.069 | 8.081 | 0.012 |
| 100 | 44 | 8.137 | 8.079 | -0.058 |
| 100 | 45 | 8.140 | 8.073 | -0.067 |
| 105 | 46 | 8.127 | 8.183 | 0.056 |
| 105 | 47 | 8.145 | 8.116 | -0.029 |
| 105 | 48 | 8.165 | 8.151 | -0.014 |
| 105 | 49 | 8.203 | 8.134 | -0.069 |
| 105 | 50 | 8.222 | 8.161 | -0.061 |
| 105 | 51 | 8.215 | 8.160 | -0.055 |
| 105 | 52 | 8.195 | 8.069 | -0.126 |
| 105 | 53 | 8.059 | 8.051 | -0.008 |
| 105 | 54 | 8.129 | 7.409 | -0.720 |
| 105 | 55 | 8.084 | 8.156 | 0.072 |
| 105 | 56 | 8.100 | 8.135 | 0.035 |
| 105 | 57 | 8.143 | 8.059 | -0.084 |
| 105 | 58 | 8.178 | 8.119 | -0.059 |
| 105 | 59 | 8.144 | 8.067 | -0.077 |
| 105 | 60 | 8.173 | 8.077 | -0.096 |
| 105 | 61 | 8.130 | 8.061 | -0.069 |
| 105 | 62 | 8.139 | 8.054 | -0.085 |
| 105 | 63 | 8.119 | 8.135 | 0.016 |
| 105 | 64 | 8.091 | 8.029 | -0.062 |
| 105 | 65 | 8.179 | 8.050 | -0.129 |
| 105 | 66 | 8.015 | 8.015 | 0.000 |
| 105 | 67 | 8.125 | 7.997 | -0.128 |
| Max | | 8.228 | 8.239 | 0.167 |
| Average | | 8.126 | 8.107 | -0.019 |
| Min | | 8.001 | 7.409 | -0.720 |
| Std Dev | | 0.055 | 0.102 | 0.111 |



| 13.38 PSB_DT_0ns_1M_5V | |
|------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 11 ns |
| Min Limit | 5 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 7.978 | 8.045 | 8.066 | 8.079 | 8.057 | 8.176 | 8.048 | 8.131 | 8.082 | 8.066 | 7.409 |
| Average | 8.012 | 8.125 | 8.146 | 8.157 | 8.115 | 8.205 | 8.088 | 8.158 | 8.125 | 8.091 | 8.063 |
| Max | 8.044 | 8.172 | 8.184 | 8.223 | 8.136 | 8.239 | 8.110 | 8.174 | 8.193 | 8.157 | 8.183 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

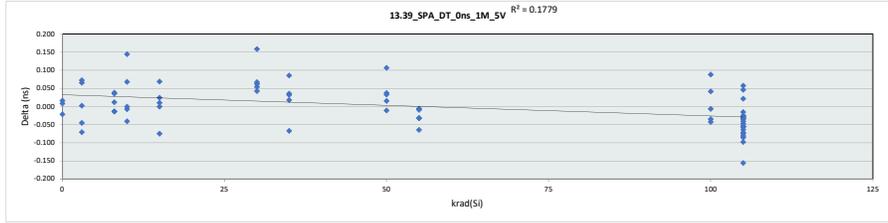


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

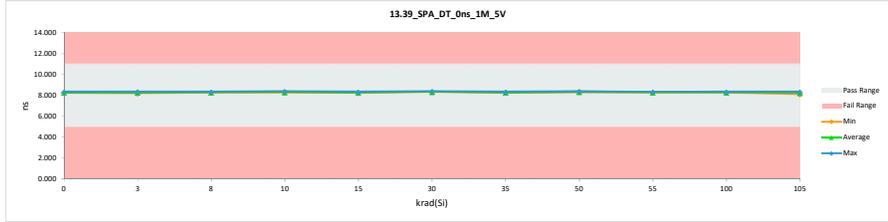
| 13.39 SPA DT 0ns 1M 5V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 11 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.288 | 8.268 | -0.020 |
| 0 | 992 | 8.283 | 8.293 | 0.010 |
| 0 | 993 | 8.336 | 8.354 | 0.018 |
| 3 | 1 | 8.291 | 8.222 | -0.069 |
| 3 | 2 | 8.353 | 8.310 | -0.043 |
| 3 | 3 | 8.286 | 8.360 | 0.074 |
| 3 | 4 | 8.294 | 8.298 | 0.004 |
| 3 | 5 | 8.292 | 8.359 | 0.067 |
| 8 | 6 | 8.321 | 8.309 | -0.012 |
| 8 | 7 | 8.325 | 8.313 | -0.012 |
| 8 | 8 | 8.294 | 8.334 | 0.040 |
| 8 | 9 | 8.312 | 8.349 | 0.037 |
| 8 | 10 | 8.298 | 8.312 | 0.014 |
| 10 | 11 | 8.345 | 8.339 | -0.006 |
| 10 | 12 | 8.258 | 8.404 | 0.146 |
| 10 | 13 | 8.286 | 8.356 | 0.070 |
| 10 | 14 | 8.349 | 8.310 | -0.039 |
| 10 | 15 | 8.353 | 8.354 | 0.001 |
| 15 | 16 | 8.334 | 8.261 | -0.073 |
| 15 | 17 | 8.320 | 8.332 | 0.012 |
| 15 | 18 | 8.284 | 8.355 | 0.071 |
| 15 | 19 | 8.315 | 8.341 | 0.026 |
| 15 | 20 | 8.258 | 8.259 | 0.001 |
| 30 | 21 | 8.224 | 8.384 | 0.160 |
| 30 | 22 | 8.298 | 8.342 | 0.044 |
| 30 | 23 | 8.348 | 8.404 | 0.056 |
| 30 | 24 | 8.288 | 8.352 | 0.064 |
| 30 | 25 | 8.282 | 8.351 | 0.069 |
| 35 | 26 | 8.258 | 8.292 | 0.034 |
| 35 | 27 | 8.258 | 8.278 | 0.020 |
| 35 | 28 | 8.215 | 8.302 | 0.087 |
| 35 | 29 | 8.307 | 8.344 | 0.037 |
| 35 | 30 | 8.368 | 8.303 | -0.065 |
| 50 | 31 | 8.288 | 8.396 | 0.108 |
| 50 | 32 | 8.365 | 8.356 | -0.009 |
| 50 | 33 | 8.318 | 8.353 | 0.035 |
| 50 | 34 | 8.297 | 8.336 | 0.039 |
| 50 | 35 | 8.332 | 8.349 | 0.017 |
| 55 | 36 | 8.341 | 8.337 | -0.004 |
| 55 | 37 | 8.319 | 8.312 | -0.007 |
| 55 | 38 | 8.327 | 8.297 | -0.030 |
| 55 | 39 | 8.390 | 8.327 | -0.063 |
| 55 | 40 | 8.340 | 8.310 | -0.030 |
| 100 | 41 | 8.315 | 8.310 | -0.005 |
| 100 | 42 | 8.262 | 8.352 | 0.090 |
| 100 | 43 | 8.260 | 8.303 | 0.043 |
| 100 | 44 | 8.326 | 8.293 | -0.033 |
| 100 | 45 | 8.343 | 8.302 | -0.041 |
| 105 | 46 | 8.334 | 8.305 | -0.029 |
| 105 | 47 | 8.257 | 8.305 | 0.048 |
| 105 | 48 | 8.366 | 8.304 | -0.062 |
| 105 | 49 | 8.335 | 8.310 | -0.025 |
| 105 | 50 | 8.387 | 8.303 | -0.084 |
| 105 | 51 | 8.352 | 8.329 | -0.023 |
| 105 | 52 | 8.315 | 8.245 | -0.070 |
| 105 | 53 | 8.288 | 8.255 | -0.033 |
| 105 | 54 | 8.278 | 8.124 | -0.154 |
| 105 | 55 | 8.298 | 8.357 | 0.059 |
| 105 | 56 | 8.340 | 8.313 | -0.027 |
| 105 | 57 | 8.328 | 8.314 | -0.014 |
| 105 | 58 | 8.368 | 8.289 | -0.079 |
| 105 | 59 | 8.358 | 8.313 | -0.045 |
| 105 | 60 | 8.332 | 8.280 | -0.052 |
| 105 | 61 | 8.328 | 8.232 | -0.096 |
| 105 | 62 | 8.330 | 8.291 | -0.039 |
| 105 | 63 | 8.300 | 8.323 | 0.023 |
| 105 | 64 | 8.325 | 8.271 | -0.054 |
| 105 | 65 | 8.320 | 8.289 | -0.031 |
| 105 | 66 | 8.275 | 8.255 | -0.020 |
| 105 | 67 | 8.313 | 8.258 | -0.055 |
| Max | | 8.390 | 8.404 | 0.160 |
| Average | | 8.313 | 8.313 | 0.000 |
| Min | | 8.215 | 8.124 | -0.154 |
| Std Dev | | 0.036 | 0.045 | 0.058 |



| 13.39 SPA DT 0ns 1M 5V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 5 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 8.305 | 8.310 | 8.323 | 8.353 | 8.310 | 8.259 | 8.342 | 8.278 | 8.336 | 8.297 | 8.124 |
| Average | 8.305 | 8.310 | 8.323 | 8.353 | 8.310 | 8.259 | 8.342 | 8.278 | 8.336 | 8.297 | 8.124 |
| Max | 8.354 | 8.360 | 8.349 | 8.404 | 8.355 | 8.404 | 8.344 | 8.396 | 8.337 | 8.352 | 8.357 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

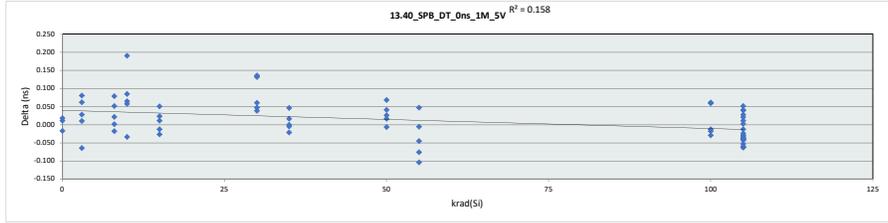


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

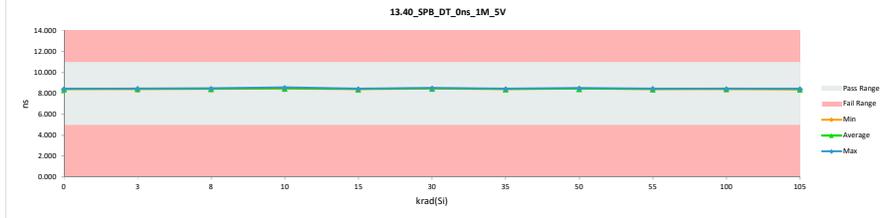
| 13.40 SPB_DT_0ns_1M_5V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 11 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.421 | 8.434 | 0.013 |
| 0 | 992 | 8.433 | 8.418 | -0.015 |
| 0 | 993 | 8.457 | 8.477 | 0.020 |
| 3 | 1 | 8.458 | 8.395 | -0.063 |
| 3 | 2 | 8.459 | 8.471 | 0.012 |
| 3 | 3 | 8.387 | 8.469 | 0.082 |
| 3 | 4 | 8.390 | 8.454 | 0.064 |
| 3 | 5 | 8.453 | 8.482 | 0.029 |
| 8 | 6 | 8.464 | 8.448 | -0.016 |
| 8 | 7 | 8.450 | 8.453 | 0.003 |
| 8 | 8 | 8.376 | 8.456 | 0.080 |
| 8 | 9 | 8.438 | 8.461 | 0.023 |
| 8 | 10 | 8.447 | 8.500 | 0.053 |
| 10 | 11 | 8.429 | 8.495 | 0.066 |
| 10 | 12 | 8.388 | 8.580 | 0.192 |
| 10 | 13 | 8.418 | 8.504 | 0.086 |
| 10 | 14 | 8.488 | 8.456 | -0.032 |
| 10 | 15 | 8.439 | 8.498 | 0.059 |
| 15 | 16 | 8.435 | 8.410 | -0.025 |
| 15 | 17 | 8.430 | 8.443 | 0.013 |
| 15 | 18 | 8.424 | 8.476 | 0.052 |
| 15 | 19 | 8.431 | 8.456 | 0.025 |
| 15 | 20 | 8.447 | 8.436 | -0.011 |
| 30 | 21 | 8.376 | 8.513 | 0.137 |
| 30 | 22 | 8.407 | 8.540 | 0.133 |
| 30 | 23 | 8.463 | 8.503 | 0.040 |
| 30 | 24 | 8.429 | 8.478 | 0.049 |
| 30 | 25 | 8.403 | 8.465 | 0.062 |
| 35 | 26 | 8.428 | 8.425 | -0.003 |
| 35 | 27 | 8.402 | 8.420 | 0.018 |
| 35 | 28 | 8.383 | 8.431 | 0.048 |
| 35 | 29 | 8.457 | 8.437 | -0.020 |
| 35 | 30 | 8.468 | 8.469 | 0.001 |
| 50 | 31 | 8.444 | 8.514 | 0.070 |
| 50 | 32 | 8.470 | 8.465 | -0.005 |
| 50 | 33 | 8.442 | 8.460 | 0.018 |
| 50 | 34 | 8.437 | 8.465 | 0.028 |
| 50 | 35 | 8.443 | 8.486 | 0.043 |
| 55 | 36 | 8.431 | 8.480 | 0.049 |
| 55 | 37 | 8.464 | 8.460 | -0.004 |
| 55 | 38 | 8.471 | 8.397 | -0.074 |
| 55 | 39 | 8.567 | 8.465 | -0.102 |
| 55 | 40 | 8.477 | 8.434 | -0.043 |
| 100 | 41 | 8.461 | 8.450 | -0.011 |
| 100 | 42 | 8.414 | 8.475 | 0.061 |
| 100 | 43 | 8.397 | 8.460 | 0.063 |
| 100 | 44 | 8.434 | 8.418 | -0.016 |
| 100 | 45 | 8.487 | 8.459 | -0.028 |
| 105 | 46 | 8.436 | 8.465 | 0.029 |
| 105 | 47 | 8.415 | 8.437 | 0.022 |
| 105 | 48 | 8.484 | 8.448 | -0.036 |
| 105 | 49 | 8.516 | 8.465 | -0.051 |
| 105 | 50 | 8.478 | 8.438 | -0.040 |
| 105 | 51 | 8.459 | 8.423 | -0.036 |
| 105 | 52 | 8.426 | 8.385 | -0.041 |
| 105 | 53 | 8.418 | 8.431 | 0.013 |
| 105 | 54 | 8.396 | 8.400 | 0.004 |
| 105 | 55 | 8.414 | 8.456 | 0.042 |
| 105 | 56 | 8.410 | 8.452 | 0.042 |
| 105 | 57 | 8.474 | 8.436 | -0.038 |
| 105 | 58 | 8.484 | 8.423 | -0.061 |
| 105 | 59 | 8.472 | 8.444 | -0.028 |
| 105 | 60 | 8.453 | 8.442 | -0.011 |
| 105 | 61 | 8.455 | 8.394 | -0.061 |
| 105 | 62 | 8.454 | 8.418 | -0.036 |
| 105 | 63 | 8.402 | 8.455 | 0.053 |
| 105 | 64 | 8.462 | 8.430 | -0.032 |
| 105 | 65 | 8.476 | 8.418 | -0.058 |
| 105 | 66 | 8.478 | 8.418 | -0.059 |
| 105 | 67 | 8.424 | 8.402 | -0.022 |
| Max | | 8.567 | 8.580 | 0.192 |
| Average | | 8.441 | 8.453 | 0.012 |
| Min | | 8.376 | 8.385 | -0.102 |
| Std Dev | | 0.034 | 0.035 | 0.053 |



| 13.40 SPB_DT_0ns_1M_5V | |
|------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 5 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 8.418 | 8.395 | 8.448 | 8.456 | 8.410 | 8.465 | 8.420 | 8.460 | 8.397 | 8.418 | 8.385 |
| Average | 8.443 | 8.454 | 8.464 | 8.507 | 8.444 | 8.500 | 8.436 | 8.478 | 8.447 | 8.452 | 8.431 |
| Max | 8.477 | 8.482 | 8.500 | 8.580 | 8.476 | 8.540 | 8.469 | 8.514 | 8.480 | 8.475 | 8.465 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

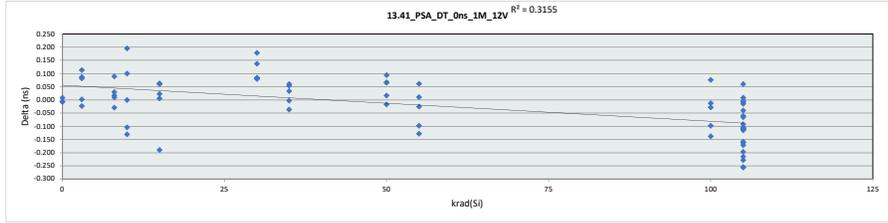


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

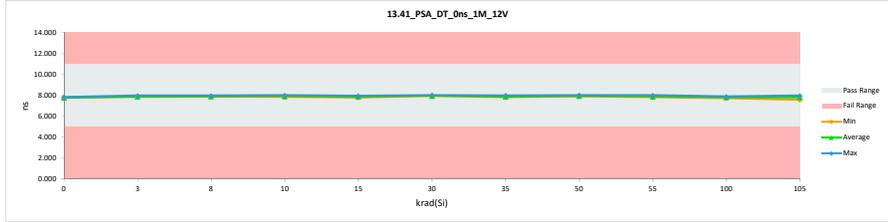
| 13.41 PSA_DT_Ons_1M_12V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 11 11 |
| Min Limit | 5 5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.760 | 7.770 | 0.010 |
| 0 | 992 | 7.779 | 7.775 | -0.004 |
| 0 | 993 | 7.847 | 7.842 | -0.005 |
| 3 | 1 | 7.894 | 7.873 | -0.021 |
| 3 | 2 | 7.859 | 7.943 | 0.084 |
| 3 | 3 | 7.910 | 7.914 | 0.004 |
| 3 | 4 | 7.784 | 7.873 | 0.089 |
| 3 | 5 | 7.873 | 7.988 | 0.115 |
| 8 | 6 | 7.972 | 7.945 | -0.027 |
| 8 | 7 | 7.879 | 7.891 | 0.012 |
| 8 | 8 | 7.918 | 7.950 | 0.032 |
| 8 | 9 | 7.866 | 7.957 | 0.091 |
| 8 | 10 | 7.966 | 7.985 | 0.019 |
| 10 | 11 | 8.037 | 7.936 | -0.101 |
| 10 | 12 | 7.821 | 8.019 | 0.198 |
| 10 | 13 | 7.863 | 7.965 | 0.102 |
| 10 | 14 | 8.004 | 7.876 | -0.128 |
| 10 | 15 | 7.966 | 7.968 | 0.002 |
| 15 | 16 | 8.008 | 7.821 | -0.187 |
| 15 | 17 | 7.880 | 7.888 | 0.008 |
| 15 | 18 | 7.935 | 7.960 | 0.025 |
| 15 | 19 | 7.890 | 7.955 | 0.065 |
| 15 | 20 | 7.908 | 7.970 | 0.062 |
| 30 | 21 | 7.815 | 7.995 | 0.180 |
| 30 | 22 | 7.806 | 7.946 | 0.140 |
| 30 | 23 | 7.966 | 8.048 | 0.082 |
| 30 | 24 | 7.918 | 8.005 | 0.087 |
| 30 | 25 | 7.863 | 7.948 | 0.085 |
| 35 | 26 | 7.827 | 7.883 | 0.056 |
| 35 | 27 | 7.804 | 7.840 | 0.036 |
| 35 | 28 | 7.891 | 7.847 | -0.044 |
| 35 | 29 | 7.940 | 8.002 | 0.062 |
| 35 | 30 | 7.940 | 7.940 | 0.000 |
| 50 | 31 | 7.870 | 7.938 | 0.068 |
| 50 | 32 | 7.985 | 7.970 | -0.015 |
| 50 | 33 | 7.950 | 7.969 | 0.019 |
| 50 | 34 | 7.883 | 7.952 | 0.069 |
| 50 | 35 | 7.942 | 8.038 | 0.096 |
| 55 | 36 | 7.952 | 8.016 | 0.064 |
| 55 | 37 | 7.948 | 7.853 | -0.095 |
| 55 | 38 | 7.914 | 7.891 | -0.023 |
| 55 | 39 | 8.010 | 7.884 | -0.126 |
| 55 | 40 | 7.949 | 7.962 | 0.013 |
| 100 | 41 | 7.882 | 7.857 | -0.025 |
| 100 | 42 | 7.875 | 7.865 | -0.010 |
| 100 | 43 | 7.813 | 7.891 | 0.078 |
| 100 | 44 | 7.896 | 7.761 | -0.135 |
| 100 | 45 | 7.944 | 7.849 | -0.095 |
| 105 | 46 | 7.936 | 7.935 | -0.001 |
| 105 | 47 | 7.963 | 7.807 | -0.156 |
| 105 | 48 | 7.996 | 7.827 | -0.169 |
| 105 | 49 | 7.933 | 7.824 | -0.109 |
| 105 | 50 | 8.037 | 7.929 | -0.108 |
| 105 | 51 | 7.996 | 7.984 | -0.012 |
| 105 | 52 | 7.951 | 7.738 | -0.213 |
| 105 | 53 | 7.883 | 7.825 | -0.058 |
| 105 | 54 | 7.848 | 7.596 | -0.252 |
| 105 | 55 | 7.853 | 7.916 | 0.063 |
| 105 | 56 | 7.987 | 7.949 | -0.038 |
| 105 | 57 | 7.939 | 7.838 | -0.101 |
| 105 | 58 | 7.949 | 7.886 | -0.063 |
| 105 | 59 | 7.948 | 7.843 | -0.105 |
| 105 | 60 | 7.973 | 7.861 | -0.112 |
| 105 | 61 | 7.953 | 7.794 | -0.159 |
| 105 | 62 | 8.039 | 7.786 | -0.253 |
| 105 | 63 | 7.916 | 7.927 | 0.011 |
| 105 | 64 | 7.875 | 7.870 | -0.005 |
| 105 | 65 | 8.011 | 7.817 | -0.194 |
| 105 | 66 | 7.876 | 7.786 | -0.090 |
| 105 | 67 | 7.980 | 7.754 | -0.226 |
| Max | | 8.039 | 8.048 | 0.198 |
| Average | | 7.915 | 7.896 | -0.019 |
| Min | | 7.760 | 7.596 | -0.253 |
| Std Dev | | 0.066 | 0.083 | 0.102 |



| 13.41 PSA_DT_Ons_1M_12V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 11 ns |
| Min Limit | 5 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 7.770 | 7.873 | 7.891 | 7.876 | 7.821 | 7.946 | 7.840 | 7.938 | 7.853 | 7.761 | 7.596 |
| Average | 7.796 | 7.918 | 7.946 | 7.953 | 7.919 | 7.988 | 7.902 | 7.973 | 7.921 | 7.845 | 7.841 |
| Max | 7.842 | 7.988 | 7.985 | 8.019 | 7.970 | 8.048 | 8.002 | 8.038 | 8.016 | 7.891 | 7.984 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

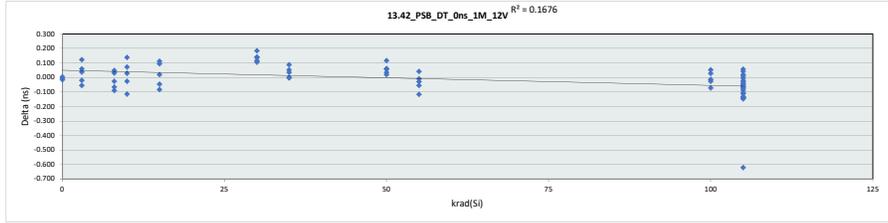


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

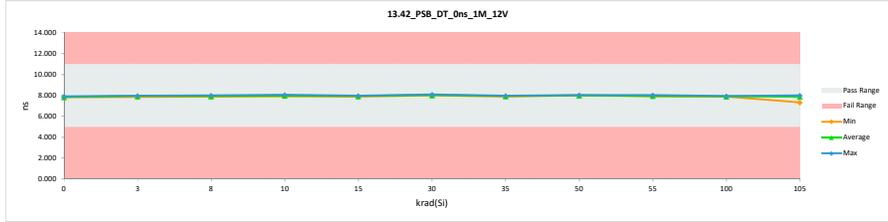
| 13.42 PSB DT Ons 1M 12V | |
|-------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 11 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.819 | 7.826 | 0.007 |
| 0 | 992 | 7.850 | 7.847 | -0.003 |
| 0 | 993 | 7.923 | 7.910 | -0.013 |
| 3 | 1 | 7.915 | 7.863 | -0.052 |
| 3 | 2 | 7.957 | 7.940 | -0.017 |
| 3 | 3 | 7.926 | 7.965 | 0.039 |
| 3 | 4 | 7.863 | 7.989 | 0.126 |
| 3 | 5 | 7.911 | 7.972 | 0.061 |
| 8 | 6 | 8.022 | 7.936 | -0.086 |
| 8 | 7 | 7.955 | 7.893 | -0.062 |
| 8 | 8 | 7.955 | 8.006 | 0.051 |
| 8 | 9 | 7.949 | 7.982 | 0.033 |
| 8 | 10 | 7.991 | 7.968 | -0.023 |
| 10 | 11 | 8.004 | 7.980 | -0.024 |
| 10 | 12 | 7.940 | 8.081 | 0.141 |
| 10 | 13 | 7.919 | 7.995 | 0.076 |
| 10 | 14 | 8.046 | 7.934 | -0.112 |
| 10 | 15 | 7.962 | 7.993 | 0.031 |
| 15 | 16 | 7.962 | 7.882 | -0.080 |
| 15 | 17 | 7.856 | 7.970 | 0.114 |
| 15 | 18 | 7.986 | 7.942 | -0.044 |
| 15 | 19 | 7.951 | 7.974 | 0.023 |
| 15 | 20 | 7.887 | 7.985 | 0.098 |
| 30 | 21 | 7.896 | 8.003 | 0.107 |
| 30 | 22 | 7.871 | 8.057 | 0.186 |
| 30 | 23 | 7.981 | 8.099 | 0.118 |
| 30 | 24 | 7.886 | 8.028 | 0.142 |
| 30 | 25 | 7.900 | 8.040 | 0.140 |
| 35 | 26 | 7.867 | 7.904 | 0.037 |
| 35 | 27 | 7.840 | 7.931 | 0.091 |
| 35 | 28 | 7.871 | 7.927 | 0.056 |
| 35 | 29 | 7.948 | 7.951 | 0.003 |
| 35 | 30 | 7.988 | 7.989 | 0.001 |
| 50 | 31 | 7.974 | 8.011 | 0.037 |
| 50 | 32 | 7.973 | 8.032 | 0.059 |
| 50 | 33 | 7.960 | 8.025 | 0.065 |
| 50 | 34 | 7.895 | 8.013 | 0.118 |
| 50 | 35 | 8.000 | 8.022 | 0.022 |
| 55 | 36 | 7.987 | 8.032 | 0.045 |
| 55 | 37 | 7.974 | 7.922 | -0.052 |
| 55 | 38 | 7.965 | 7.940 | -0.025 |
| 55 | 39 | 8.074 | 7.960 | -0.114 |
| 55 | 40 | 7.972 | 7.967 | -0.005 |
| 100 | 41 | 7.926 | 7.903 | -0.023 |
| 100 | 42 | 7.928 | 7.959 | 0.031 |
| 100 | 43 | 7.892 | 7.947 | 0.055 |
| 100 | 44 | 7.963 | 7.893 | -0.070 |
| 100 | 45 | 7.923 | 7.912 | -0.011 |
| 105 | 46 | 7.957 | 8.016 | 0.059 |
| 105 | 47 | 7.978 | 7.938 | -0.040 |
| 105 | 48 | 7.983 | 7.924 | -0.059 |
| 105 | 49 | 8.034 | 7.931 | -0.103 |
| 105 | 50 | 8.069 | 7.998 | -0.071 |
| 105 | 51 | 8.026 | 8.004 | -0.022 |
| 105 | 52 | 8.018 | 7.884 | -0.134 |
| 105 | 53 | 7.897 | 7.894 | -0.003 |
| 105 | 54 | 7.949 | 7.332 | -0.617 |
| 105 | 55 | 7.912 | 7.957 | 0.045 |
| 105 | 56 | 7.942 | 7.953 | 0.011 |
| 105 | 57 | 7.972 | 7.843 | -0.129 |
| 105 | 58 | 7.998 | 7.975 | -0.023 |
| 105 | 59 | 7.978 | 7.940 | -0.038 |
| 105 | 60 | 8.008 | 7.865 | -0.143 |
| 105 | 61 | 7.986 | 7.902 | -0.084 |
| 105 | 62 | 7.987 | 7.877 | -0.110 |
| 105 | 63 | 7.944 | 7.967 | 0.023 |
| 105 | 64 | 7.925 | 7.873 | -0.052 |
| 105 | 65 | 8.021 | 7.882 | -0.139 |
| 105 | 66 | 7.924 | 7.959 | 0.035 |
| 105 | 67 | 7.957 | 7.824 | -0.133 |
| Max | | 8.074 | 8.099 | 0.186 |
| Average | | 7.950 | 7.942 | -0.008 |
| Min | | 7.819 | 7.332 | -0.617 |
| Std Dev | | 0.054 | 0.095 | 0.108 |



| 13.42 PSB DT Ons 1M 12V | |
|-------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 5 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 7.861 | 7.946 | 7.957 | 7.997 | 7.951 | 8.045 | 7.940 | 8.021 | 7.964 | 7.923 | 7.893 |
| Average | 7.910 | 7.989 | 8.006 | 8.081 | 7.985 | 8.099 | 7.989 | 8.032 | 8.032 | 7.959 | 8.016 |
| Max | 7.910 | 7.989 | 8.006 | 8.081 | 7.985 | 8.099 | 7.989 | 8.032 | 8.032 | 7.959 | 8.016 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

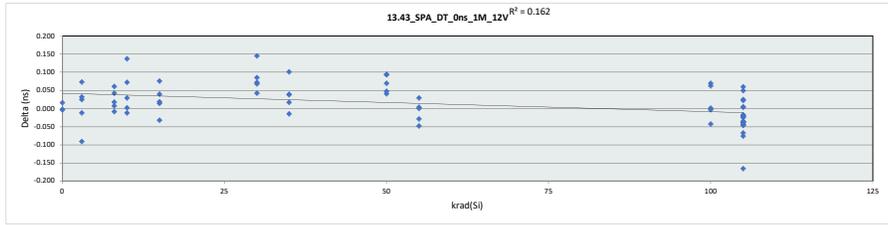


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

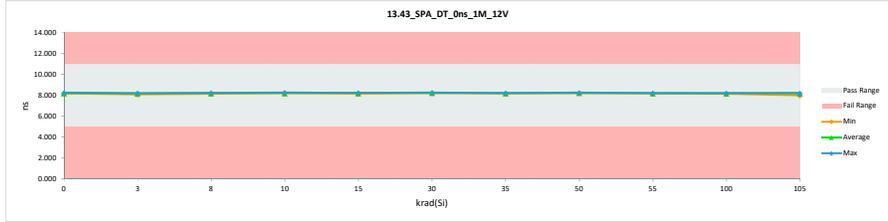
| 13.43 SPA_DT_Ons_1M_12V | |
|-------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 11 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.168 | 8.185 | 0.017 |
| 0 | 992 | 8.196 | 8.194 | -0.002 |
| 0 | 993 | 8.263 | 8.262 | -0.001 |
| 3 | 1 | 8.198 | 8.108 | -0.090 |
| 3 | 2 | 8.229 | 8.218 | -0.011 |
| 3 | 3 | 8.181 | 8.207 | 0.026 |
| 3 | 4 | 8.141 | 8.174 | 0.033 |
| 3 | 5 | 8.154 | 8.228 | 0.074 |
| 8 | 6 | 8.176 | 8.169 | -0.007 |
| 8 | 7 | 8.196 | 8.204 | 0.008 |
| 8 | 8 | 8.167 | 8.210 | 0.043 |
| 8 | 9 | 8.177 | 8.239 | 0.062 |
| 8 | 10 | 8.186 | 8.205 | 0.019 |
| 10 | 11 | 8.205 | 8.208 | 0.003 |
| 10 | 12 | 8.149 | 8.287 | 0.138 |
| 10 | 13 | 8.150 | 8.223 | 0.073 |
| 10 | 14 | 8.230 | 8.219 | -0.011 |
| 10 | 15 | 8.192 | 8.222 | 0.030 |
| 15 | 16 | 8.188 | 8.157 | -0.031 |
| 15 | 17 | 8.172 | 8.249 | 0.077 |
| 15 | 18 | 8.184 | 8.225 | 0.041 |
| 15 | 19 | 8.217 | 8.232 | 0.015 |
| 15 | 20 | 8.153 | 8.173 | 0.020 |
| 30 | 21 | 8.110 | 8.256 | 0.146 |
| 30 | 22 | 8.170 | 8.243 | 0.073 |
| 30 | 23 | 8.216 | 8.285 | 0.069 |
| 30 | 24 | 8.163 | 8.206 | 0.043 |
| 30 | 25 | 8.162 | 8.248 | 0.086 |
| 35 | 26 | 8.165 | 8.205 | 0.040 |
| 35 | 27 | 8.148 | 8.188 | 0.040 |
| 35 | 28 | 8.105 | 8.207 | 0.102 |
| 35 | 29 | 8.196 | 8.214 | 0.018 |
| 35 | 30 | 8.230 | 8.216 | -0.014 |
| 50 | 31 | 8.170 | 8.265 | 0.095 |
| 50 | 32 | 8.218 | 8.260 | 0.042 |
| 50 | 33 | 8.157 | 8.251 | 0.094 |
| 50 | 34 | 8.187 | 8.258 | 0.071 |
| 50 | 35 | 8.192 | 8.241 | 0.049 |
| 55 | 36 | 8.214 | 8.219 | 0.005 |
| 55 | 37 | 8.169 | 8.199 | 0.030 |
| 55 | 38 | 8.209 | 8.181 | -0.028 |
| 55 | 39 | 8.273 | 8.226 | -0.047 |
| 55 | 40 | 8.213 | 8.214 | 0.001 |
| 100 | 41 | 8.212 | 8.214 | 0.002 |
| 100 | 42 | 8.145 | 8.216 | 0.071 |
| 100 | 43 | 8.148 | 8.212 | 0.064 |
| 100 | 44 | 8.212 | 8.170 | -0.042 |
| 100 | 45 | 8.199 | 8.197 | -0.002 |
| 105 | 46 | 8.211 | 8.190 | -0.021 |
| 105 | 47 | 8.144 | 8.205 | 0.061 |
| 105 | 48 | 8.224 | 8.181 | -0.043 |
| 105 | 49 | 8.223 | 8.188 | -0.035 |
| 105 | 50 | 8.255 | 8.189 | -0.066 |
| 105 | 51 | 8.200 | 8.226 | 0.026 |
| 105 | 52 | 8.208 | 8.163 | -0.045 |
| 105 | 53 | 8.185 | 8.167 | -0.018 |
| 105 | 54 | 8.182 | 8.018 | -0.164 |
| 105 | 55 | 8.189 | 8.212 | 0.023 |
| 105 | 56 | 8.199 | 8.205 | 0.006 |
| 105 | 57 | 8.197 | 8.181 | -0.016 |
| 105 | 58 | 8.244 | 8.207 | -0.037 |
| 105 | 59 | 8.229 | 8.234 | 0.005 |
| 105 | 60 | 8.219 | 8.181 | -0.038 |
| 105 | 61 | 8.216 | 8.141 | -0.075 |
| 105 | 62 | 8.209 | 8.188 | -0.021 |
| 105 | 63 | 8.177 | 8.227 | 0.050 |
| 105 | 64 | 8.219 | 8.175 | -0.044 |
| 105 | 65 | 8.217 | 8.193 | -0.024 |
| 105 | 66 | 8.201 | 8.166 | -0.035 |
| 105 | 67 | 8.192 | 8.156 | -0.036 |
| 105 | 68 | 8.273 | 8.287 | 0.146 |
| 105 | 69 | 8.191 | 8.205 | 0.014 |
| 105 | 70 | 8.105 | 8.018 | -0.164 |
| 105 | 71 | 0.033 | 0.040 | 0.054 |



| 13.43 SPA_DT_Ons_1M_12V | |
|-------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 5 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 8.185 | 8.108 | 8.169 | 8.208 | 8.157 | 8.206 | 8.188 | 8.241 | 8.181 | 8.170 | 8.018 |
| Average | 8.214 | 8.187 | 8.205 | 8.232 | 8.207 | 8.248 | 8.206 | 8.255 | 8.208 | 8.202 | 8.182 |
| Max | 8.262 | 8.228 | 8.239 | 8.287 | 8.249 | 8.285 | 8.216 | 8.265 | 8.226 | 8.216 | 8.234 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

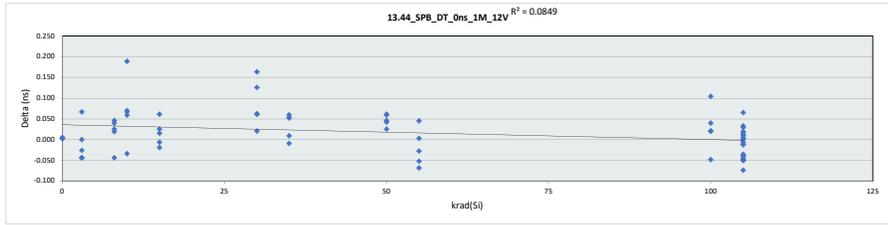


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

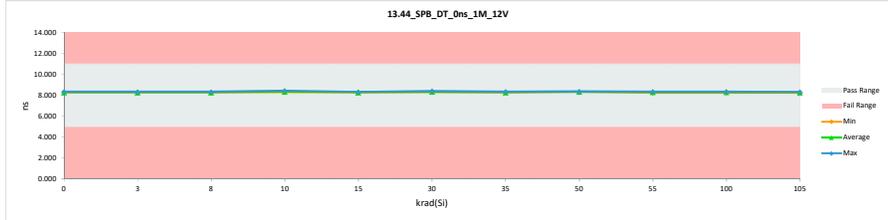
| 13.44 SPB_DT_Ons_1M_12V | |
|-------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 11 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.297 | 8.303 | 0.006 |
| 0 | 992 | 8.294 | 8.298 | 0.004 |
| 0 | 993 | 8.360 | 8.363 | 0.003 |
| 3 | 1 | 8.323 | 8.280 | -0.043 |
| 3 | 2 | 8.356 | 8.357 | 0.001 |
| 3 | 3 | 8.334 | 8.291 | -0.043 |
| 3 | 4 | 8.257 | 8.325 | 0.068 |
| 3 | 5 | 8.367 | 8.342 | -0.025 |
| 8 | 6 | 8.338 | 8.295 | -0.043 |
| 8 | 7 | 8.306 | 8.326 | 0.020 |
| 8 | 8 | 8.269 | 8.310 | 0.041 |
| 8 | 9 | 8.308 | 8.334 | 0.026 |
| 8 | 10 | 8.307 | 8.354 | 0.047 |
| 10 | 11 | 8.307 | 8.367 | 0.060 |
| 10 | 12 | 8.266 | 8.456 | 0.190 |
| 10 | 13 | 8.291 | 8.359 | 0.068 |
| 10 | 14 | 8.364 | 8.331 | -0.033 |
| 10 | 15 | 8.283 | 8.354 | 0.071 |
| 15 | 16 | 8.299 | 8.281 | -0.018 |
| 15 | 17 | 8.282 | 8.344 | 0.062 |
| 15 | 18 | 8.319 | 8.345 | 0.026 |
| 15 | 19 | 8.327 | 8.343 | 0.016 |
| 15 | 20 | 8.324 | 8.319 | -0.005 |
| 30 | 21 | 8.249 | 8.376 | 0.127 |
| 30 | 22 | 8.267 | 8.431 | 0.164 |
| 30 | 23 | 8.318 | 8.381 | 0.063 |
| 30 | 24 | 8.306 | 8.328 | 0.022 |
| 30 | 25 | 8.274 | 8.336 | 0.062 |
| 35 | 26 | 8.292 | 8.302 | 0.010 |
| 35 | 27 | 8.260 | 8.315 | 0.055 |
| 35 | 28 | 8.242 | 8.295 | 0.053 |
| 35 | 29 | 8.326 | 8.318 | -0.008 |
| 35 | 30 | 8.297 | 8.358 | 0.061 |
| 50 | 31 | 8.315 | 8.375 | 0.060 |
| 50 | 32 | 8.324 | 8.350 | 0.026 |
| 50 | 33 | 8.289 | 8.351 | 0.062 |
| 50 | 34 | 8.318 | 8.361 | 0.043 |
| 50 | 35 | 8.302 | 8.349 | 0.047 |
| 55 | 36 | 8.315 | 8.361 | 0.046 |
| 55 | 37 | 8.341 | 8.345 | 0.004 |
| 55 | 38 | 8.328 | 8.277 | -0.051 |
| 55 | 39 | 8.432 | 8.365 | -0.067 |
| 55 | 40 | 8.340 | 8.313 | -0.027 |
| 100 | 41 | 8.326 | 8.348 | 0.022 |
| 100 | 42 | 8.297 | 8.338 | 0.041 |
| 100 | 43 | 8.259 | 8.364 | 0.105 |
| 100 | 44 | 8.326 | 8.279 | -0.047 |
| 100 | 45 | 8.323 | 8.345 | 0.022 |
| 105 | 46 | 8.318 | 8.336 | 0.018 |
| 105 | 47 | 8.278 | 8.312 | 0.034 |
| 105 | 48 | 8.352 | 8.308 | -0.044 |
| 105 | 49 | 8.366 | 8.318 | -0.048 |
| 105 | 50 | 8.346 | 8.298 | -0.048 |
| 105 | 51 | 8.309 | 8.319 | 0.010 |
| 105 | 52 | 8.319 | 8.282 | -0.037 |
| 105 | 53 | 8.289 | 8.319 | 0.030 |
| 105 | 54 | 8.295 | 8.297 | 0.002 |
| 105 | 55 | 8.289 | 8.302 | 0.013 |
| 105 | 56 | 8.299 | 8.319 | 0.020 |
| 105 | 57 | 8.334 | 8.295 | -0.039 |
| 105 | 58 | 8.346 | 8.335 | -0.011 |
| 105 | 59 | 8.338 | 8.342 | 0.004 |
| 105 | 60 | 8.340 | 8.345 | 0.005 |
| 105 | 61 | 8.338 | 8.265 | -0.073 |
| 105 | 62 | 8.331 | 8.282 | -0.049 |
| 105 | 63 | 8.270 | 8.336 | 0.066 |
| 105 | 64 | 8.311 | 8.307 | -0.004 |
| 105 | 65 | 8.350 | 8.302 | -0.048 |
| 105 | 66 | 8.331 | 8.321 | -0.010 |
| 105 | 67 | 8.298 | 8.264 | -0.034 |
| Max | | 8.432 | 8.456 | 0.190 |
| Average | | 8.313 | 8.329 | 0.016 |
| Min | | 8.242 | 8.264 | -0.073 |
| Std Dev | | 0.033 | 0.035 | 0.051 |



| 13.44 SPB_DT_Ons_1M_12V | |
|-------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 5 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 8.298 | 8.280 | 8.295 | 8.331 | 8.281 | 8.328 | 8.295 | 8.349 | 8.277 | 8.279 | 8.264 |
| Average | 8.321 | 8.319 | 8.324 | 8.373 | 8.326 | 8.370 | 8.318 | 8.357 | 8.332 | 8.335 | 8.309 |
| Max | 8.363 | 8.357 | 8.354 | 8.456 | 8.345 | 8.431 | 8.358 | 8.375 | 8.365 | 8.364 | 8.345 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

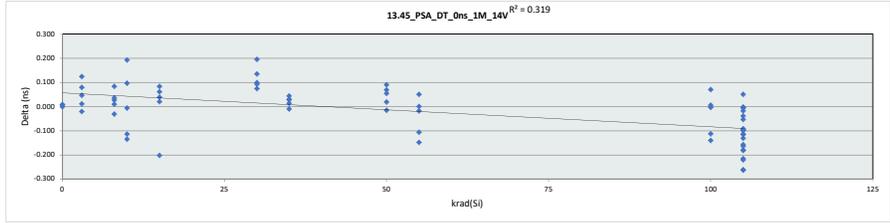


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

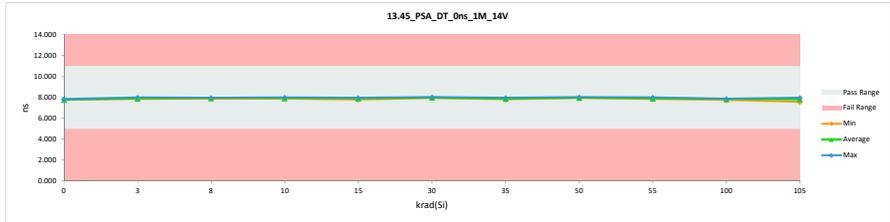
| 13.45 PSA_DT_Ons_1M_14V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 11 11 |
| Min Limit | 5 5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.751 | 7.760 | 0.009 |
| 0 | 992 | 7.778 | 7.788 | 0.010 |
| 0 | 993 | 7.843 | 7.844 | 0.001 |
| 3 | 1 | 7.888 | 7.869 | -0.019 |
| 3 | 2 | 7.938 | 7.938 | 0.048 |
| 3 | 3 | 7.908 | 7.921 | 0.013 |
| 3 | 4 | 7.784 | 7.865 | 0.081 |
| 3 | 5 | 7.870 | 7.995 | 0.125 |
| 8 | 6 | 7.981 | 7.952 | -0.029 |
| 8 | 7 | 7.863 | 7.901 | 0.038 |
| 8 | 8 | 7.924 | 7.952 | 0.028 |
| 8 | 9 | 7.868 | 7.953 | 0.085 |
| 8 | 10 | 7.973 | 7.984 | 0.011 |
| 10 | 11 | 8.032 | 7.920 | -0.112 |
| 10 | 12 | 7.827 | 8.021 | 0.194 |
| 10 | 13 | 7.858 | 7.956 | 0.098 |
| 10 | 14 | 8.013 | 7.879 | -0.134 |
| 10 | 15 | 7.957 | 7.952 | -0.005 |
| 15 | 16 | 8.010 | 7.809 | -0.201 |
| 15 | 17 | 7.882 | 7.904 | 0.022 |
| 15 | 18 | 7.916 | 7.956 | 0.040 |
| 15 | 19 | 7.888 | 7.951 | 0.063 |
| 15 | 20 | 7.902 | 7.987 | 0.085 |
| 30 | 21 | 7.820 | 8.016 | 0.196 |
| 30 | 22 | 7.816 | 7.952 | 0.136 |
| 30 | 23 | 7.955 | 8.049 | 0.094 |
| 30 | 24 | 7.923 | 7.998 | 0.075 |
| 30 | 25 | 7.851 | 7.951 | 0.100 |
| 35 | 26 | 7.832 | 7.863 | 0.031 |
| 35 | 27 | 7.804 | 7.835 | 0.031 |
| 35 | 28 | 7.861 | 7.853 | -0.008 |
| 35 | 29 | 7.939 | 7.985 | 0.046 |
| 35 | 30 | 7.927 | 7.942 | 0.015 |
| 50 | 31 | 7.871 | 7.942 | 0.071 |
| 50 | 32 | 7.981 | 7.967 | -0.014 |
| 50 | 33 | 7.953 | 7.974 | 0.021 |
| 50 | 34 | 7.881 | 7.937 | 0.056 |
| 50 | 35 | 7.941 | 8.032 | 0.091 |
| 55 | 36 | 7.956 | 8.008 | 0.052 |
| 55 | 37 | 7.966 | 7.861 | -0.105 |
| 55 | 38 | 7.910 | 7.894 | -0.016 |
| 55 | 39 | 8.017 | 7.871 | -0.146 |
| 55 | 40 | 7.957 | 7.959 | 0.002 |
| 100 | 41 | 7.872 | 7.870 | -0.002 |
| 100 | 42 | 7.882 | 7.889 | 0.007 |
| 100 | 43 | 7.816 | 7.888 | 0.072 |
| 100 | 44 | 7.900 | 7.761 | -0.139 |
| 100 | 45 | 7.953 | 7.842 | -0.111 |
| 105 | 46 | 7.936 | 7.931 | -0.005 |
| 105 | 47 | 7.978 | 7.815 | -0.163 |
| 105 | 48 | 8.004 | 7.824 | -0.180 |
| 105 | 49 | 7.942 | 7.828 | -0.114 |
| 105 | 50 | 8.039 | 7.910 | -0.129 |
| 105 | 51 | 7.996 | 7.979 | -0.017 |
| 105 | 52 | 7.951 | 7.773 | -0.178 |
| 105 | 53 | 7.892 | 7.802 | -0.090 |
| 105 | 54 | 7.851 | 7.590 | -0.261 |
| 105 | 55 | 7.860 | 7.912 | 0.052 |
| 105 | 56 | 7.989 | 7.951 | -0.038 |
| 105 | 57 | 7.937 | 7.841 | -0.096 |
| 105 | 58 | 7.943 | 7.891 | -0.052 |
| 105 | 59 | 7.944 | 7.848 | -0.096 |
| 105 | 60 | 7.972 | 7.860 | -0.112 |
| 105 | 61 | 7.947 | 7.791 | -0.156 |
| 105 | 62 | 8.039 | 7.779 | -0.260 |
| 105 | 63 | 7.920 | 7.920 | 0.000 |
| 105 | 64 | 7.864 | 7.862 | -0.002 |
| 105 | 65 | 8.025 | 7.811 | -0.214 |
| 105 | 66 | 7.884 | 7.790 | -0.094 |
| 105 | 67 | 7.984 | 7.765 | -0.219 |
| Max | | 8.039 | 8.049 | 0.196 |
| Average | | 7.916 | 7.895 | -0.020 |
| Min | | 7.751 | 7.590 | -0.261 |
| Std Dev | | 0.067 | 0.082 | 0.104 |



| 13.45 PSA_DT_Ons_1M_14V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 11 ns |
| Min Limit | 5 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 7.760 | 7.865 | 7.901 | 7.879 | 7.809 | 7.951 | 7.835 | 7.937 | 7.861 | 7.761 | 7.590 |
| Average | 7.797 | 7.918 | 7.948 | 7.946 | 7.921 | 7.993 | 7.896 | 7.970 | 7.919 | 7.850 | 7.840 |
| Max | 7.844 | 7.995 | 7.984 | 8.021 | 7.987 | 8.049 | 7.985 | 8.032 | 8.008 | 7.889 | 7.979 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

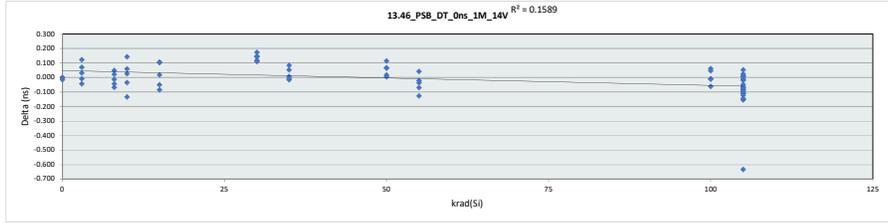


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

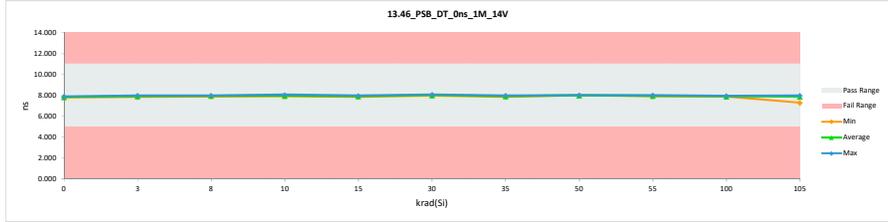
| 13.46 PSB_DT_Ons_1M_14V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 11 11 |
| Min Limit | 5 5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 7.830 | 7.818 | -0.012 |
| 0 | 992 | 7.853 | 7.853 | 0.000 |
| 0 | 993 | 7.922 | 7.924 | 0.002 |
| 3 | 1 | 7.907 | 7.866 | -0.041 |
| 3 | 2 | 7.936 | 7.936 | -0.007 |
| 3 | 3 | 7.938 | 7.971 | 0.033 |
| 3 | 4 | 7.866 | 7.992 | 0.126 |
| 3 | 5 | 7.897 | 7.970 | 0.073 |
| 8 | 6 | 8.023 | 7.958 | -0.065 |
| 8 | 7 | 7.954 | 7.912 | -0.042 |
| 8 | 8 | 7.951 | 7.976 | 0.025 |
| 8 | 9 | 7.943 | 7.993 | 0.050 |
| 8 | 10 | 7.990 | 7.979 | -0.011 |
| 10 | 11 | 8.011 | 7.979 | -0.032 |
| 10 | 12 | 7.930 | 8.076 | 0.146 |
| 10 | 13 | 7.925 | 7.986 | 0.061 |
| 10 | 14 | 8.055 | 7.924 | -0.131 |
| 10 | 15 | 7.954 | 7.984 | 0.030 |
| 15 | 16 | 7.867 | 7.885 | -0.082 |
| 15 | 17 | 7.857 | 7.962 | 0.105 |
| 15 | 18 | 7.986 | 7.939 | -0.047 |
| 15 | 19 | 7.943 | 7.963 | 0.020 |
| 15 | 20 | 7.883 | 7.991 | 0.108 |
| 30 | 21 | 7.882 | 8.003 | 0.121 |
| 30 | 22 | 7.876 | 8.052 | 0.176 |
| 30 | 23 | 7.983 | 8.095 | 0.112 |
| 30 | 24 | 7.891 | 8.037 | 0.146 |
| 30 | 25 | 7.892 | 8.041 | 0.149 |
| 35 | 26 | 7.872 | 7.882 | 0.010 |
| 35 | 27 | 7.846 | 7.933 | 0.087 |
| 35 | 28 | 7.858 | 7.913 | 0.055 |
| 35 | 29 | 7.955 | 7.942 | -0.013 |
| 35 | 30 | 7.998 | 7.992 | -0.006 |
| 50 | 31 | 7.985 | 8.005 | 0.020 |
| 50 | 32 | 7.967 | 8.035 | 0.068 |
| 50 | 33 | 7.957 | 8.025 | 0.068 |
| 50 | 34 | 7.899 | 8.016 | 0.117 |
| 50 | 35 | 8.003 | 8.011 | 0.008 |
| 55 | 36 | 7.984 | 8.029 | 0.045 |
| 55 | 37 | 7.991 | 7.924 | -0.067 |
| 55 | 38 | 7.981 | 7.946 | -0.035 |
| 55 | 39 | 8.065 | 7.941 | -0.124 |
| 55 | 40 | 7.988 | 7.969 | -0.019 |
| 100 | 41 | 7.924 | 7.917 | -0.007 |
| 100 | 42 | 7.918 | 7.967 | 0.049 |
| 100 | 43 | 7.892 | 7.956 | 0.064 |
| 100 | 44 | 7.955 | 7.897 | -0.058 |
| 100 | 45 | 7.922 | 7.913 | -0.009 |
| 105 | 46 | 7.953 | 8.008 | 0.055 |
| 105 | 47 | 7.950 | 7.933 | -0.017 |
| 105 | 48 | 7.993 | 7.926 | -0.067 |
| 105 | 49 | 8.026 | 7.928 | -0.098 |
| 105 | 50 | 8.067 | 7.982 | -0.085 |
| 105 | 51 | 8.010 | 8.000 | -0.010 |
| 105 | 52 | 8.007 | 7.924 | -0.083 |
| 105 | 53 | 7.897 | 7.905 | 0.008 |
| 105 | 54 | 7.942 | 7.311 | -0.631 |
| 105 | 55 | 7.937 | 7.964 | 0.027 |
| 105 | 56 | 7.943 | 7.955 | 0.012 |
| 105 | 57 | 7.972 | 7.853 | -0.119 |
| 105 | 58 | 7.986 | 7.978 | -0.008 |
| 105 | 59 | 7.972 | 7.927 | -0.045 |
| 105 | 60 | 8.013 | 7.863 | -0.150 |
| 105 | 61 | 8.002 | 7.898 | -0.104 |
| 105 | 62 | 7.990 | 7.882 | -0.108 |
| 105 | 63 | 7.946 | 7.963 | 0.017 |
| 105 | 64 | 7.928 | 7.869 | -0.059 |
| 105 | 65 | 8.025 | 7.883 | -0.142 |
| 105 | 66 | 7.935 | 7.860 | -0.075 |
| 105 | 67 | 7.965 | 7.816 | -0.149 |
| Max | | 8.067 | 8.095 | 0.176 |
| Average | | 7.950 | 7.942 | -0.008 |
| Min | | 7.830 | 7.311 | -0.631 |
| Std Dev | | 0.054 | 0.096 | 0.109 |



| 13.46 PSB_DT_Ons_1M_14V | |
|-------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 7.865 | 7.947 | 7.964 | 7.990 | 7.948 | 8.046 | 7.932 | 8.018 | 7.962 | 7.930 | 7.892 |
| Max | 7.924 | 7.992 | 7.993 | 8.076 | 7.991 | 8.095 | 7.992 | 8.035 | 8.029 | 7.967 | 8.008 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

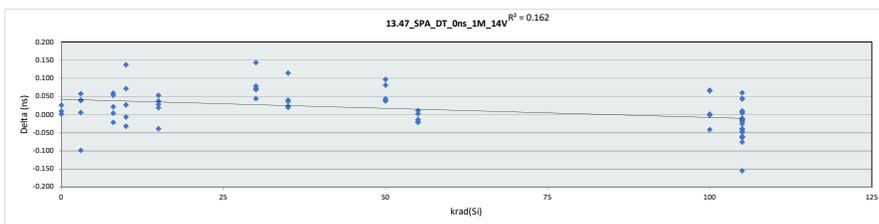


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

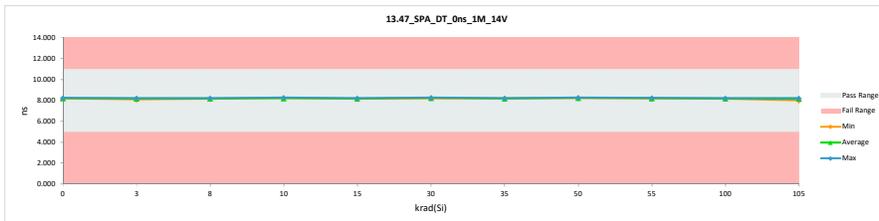
| 13.47 SPA_DT_Ons_1M_14V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 11 11 |
| Min Limit | 5 5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.156 | 8.183 | 0.027 |
| 0 | 992 | 8.184 | 8.194 | 0.010 |
| 0 | 993 | 8.261 | 8.263 | 0.002 |
| 3 | 1 | 8.201 | 8.103 | -0.098 |
| 3 | 2 | 8.198 | 8.007 | -0.007 |
| 3 | 3 | 8.173 | 8.231 | 0.058 |
| 3 | 4 | 8.143 | 8.183 | 0.040 |
| 3 | 5 | 8.187 | 8.228 | 0.041 |
| 8 | 6 | 8.191 | 8.170 | -0.021 |
| 8 | 7 | 8.182 | 8.204 | 0.022 |
| 8 | 8 | 8.165 | 8.219 | 0.054 |
| 8 | 9 | 8.173 | 8.233 | 0.060 |
| 8 | 10 | 8.190 | 8.195 | 0.005 |
| 10 | 11 | 8.218 | 8.212 | -0.006 |
| 10 | 12 | 8.146 | 8.284 | 0.138 |
| 10 | 13 | 8.159 | 8.231 | 0.072 |
| 10 | 14 | 8.244 | 8.213 | -0.031 |
| 10 | 15 | 8.196 | 8.224 | 0.028 |
| 15 | 16 | 8.189 | 8.151 | -0.038 |
| 15 | 17 | 8.177 | 8.231 | 0.054 |
| 15 | 18 | 8.185 | 8.223 | 0.038 |
| 15 | 19 | 8.211 | 8.231 | 0.020 |
| 15 | 20 | 8.147 | 8.176 | 0.029 |
| 30 | 21 | 8.114 | 8.258 | 0.144 |
| 30 | 22 | 8.173 | 8.243 | 0.070 |
| 30 | 23 | 8.213 | 8.286 | 0.073 |
| 30 | 24 | 8.161 | 8.206 | 0.045 |
| 30 | 25 | 8.173 | 8.252 | 0.079 |
| 35 | 26 | 8.161 | 8.202 | 0.041 |
| 35 | 27 | 8.147 | 8.184 | 0.037 |
| 35 | 28 | 8.087 | 8.202 | 0.115 |
| 35 | 29 | 8.193 | 8.217 | 0.024 |
| 35 | 30 | 8.195 | 8.216 | 0.021 |
| 50 | 31 | 8.175 | 8.273 | 0.098 |
| 50 | 32 | 8.216 | 8.255 | 0.039 |
| 50 | 33 | 8.168 | 8.250 | 0.082 |
| 50 | 34 | 8.196 | 8.235 | 0.039 |
| 50 | 35 | 8.193 | 8.237 | 0.044 |
| 55 | 36 | 8.217 | 8.220 | 0.003 |
| 55 | 37 | 8.190 | 8.202 | 0.012 |
| 55 | 38 | 8.208 | 8.190 | -0.018 |
| 55 | 39 | 8.263 | 8.242 | -0.021 |
| 55 | 40 | 8.224 | 8.211 | -0.013 |
| 100 | 41 | 8.214 | 8.214 | 0.000 |
| 100 | 42 | 8.148 | 8.216 | 0.068 |
| 100 | 43 | 8.138 | 8.204 | 0.066 |
| 100 | 44 | 8.218 | 8.177 | -0.041 |
| 100 | 45 | 8.196 | 8.198 | 0.002 |
| 105 | 46 | 8.200 | 8.175 | -0.025 |
| 105 | 47 | 8.136 | 8.197 | 0.061 |
| 105 | 48 | 8.231 | 8.184 | -0.047 |
| 105 | 49 | 8.201 | 8.188 | -0.013 |
| 105 | 50 | 8.260 | 8.198 | -0.062 |
| 105 | 51 | 8.183 | 8.228 | 0.045 |
| 105 | 52 | 8.214 | 8.175 | -0.039 |
| 105 | 53 | 8.180 | 8.171 | -0.009 |
| 105 | 54 | 8.165 | 8.011 | -0.154 |
| 105 | 55 | 8.195 | 8.206 | 0.011 |
| 105 | 56 | 8.196 | 8.204 | 0.008 |
| 105 | 57 | 8.200 | 8.183 | -0.017 |
| 105 | 58 | 8.243 | 8.205 | -0.038 |
| 105 | 59 | 8.225 | 8.230 | 0.005 |
| 105 | 60 | 8.217 | 8.155 | -0.062 |
| 105 | 61 | 8.217 | 8.142 | -0.075 |
| 105 | 62 | 8.212 | 8.198 | -0.014 |
| 105 | 63 | 8.177 | 8.221 | 0.044 |
| 105 | 64 | 8.189 | 8.177 | -0.012 |
| 105 | 65 | 8.212 | 8.194 | -0.018 |
| 105 | 66 | 8.228 | 8.169 | -0.059 |
| 105 | 67 | 8.198 | 8.152 | -0.046 |
| 105 | 68 | 8.263 | 8.286 | 0.144 |
| 105 | 69 | 8.190 | 8.205 | 0.014 |
| 105 | 70 | 8.087 | 8.011 | -0.154 |
| 105 | 71 | 0.033 | 0.041 | 0.053 |



| 13.47 SPA_DT_Ons_1M_14V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 11 ns |
| Min Limit | 5 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 8.183 | 8.103 | 8.170 | 8.212 | 8.151 | 8.206 | 8.184 | 8.235 | 8.190 | 8.177 | 8.011 |
| Average | 8.213 | 8.189 | 8.204 | 8.233 | 8.202 | 8.249 | 8.204 | 8.250 | 8.213 | 8.202 | 8.180 |
| Max | 8.263 | 8.231 | 8.233 | 8.284 | 8.231 | 8.286 | 8.217 | 8.273 | 8.242 | 8.216 | 8.230 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

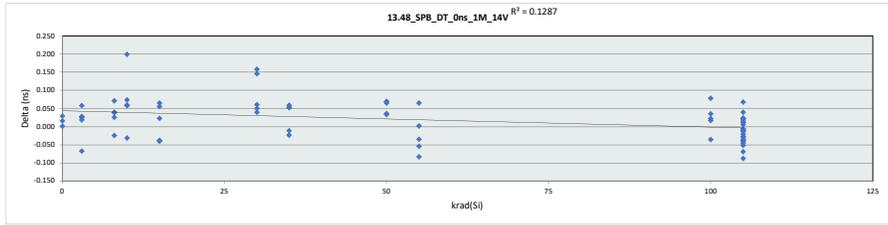


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

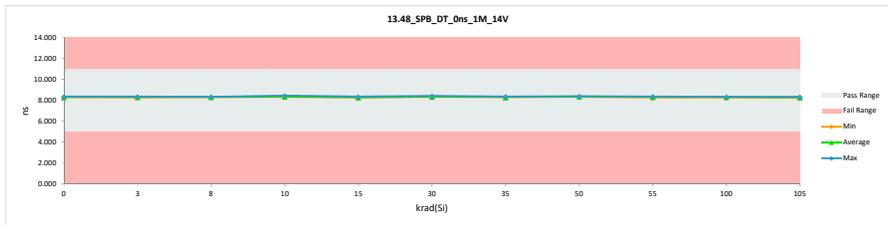
| 13.48 SPB_DT_Ons_1M_14V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 11 11 |
| Min Limit | 5 5 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 8.290 | 8.320 | 0.030 |
| 0 | 992 | 8.304 | 8.306 | 0.002 |
| 0 | 993 | 8.354 | 8.371 | 0.017 |
| 3 | 1 | 8.332 | 8.266 | -0.066 |
| 3 | 2 | 8.318 | 8.347 | 0.029 |
| 3 | 3 | 8.334 | 8.354 | 0.020 |
| 3 | 4 | 8.265 | 8.324 | 0.059 |
| 3 | 5 | 8.319 | 8.345 | 0.026 |
| 8 | 6 | 8.327 | 8.304 | -0.023 |
| 8 | 7 | 8.303 | 8.330 | 0.027 |
| 8 | 8 | 8.256 | 8.328 | 0.072 |
| 8 | 9 | 8.292 | 8.333 | 0.041 |
| 8 | 10 | 8.308 | 8.348 | 0.040 |
| 10 | 11 | 8.294 | 8.369 | 0.075 |
| 10 | 12 | 8.259 | 8.459 | 0.200 |
| 10 | 13 | 8.302 | 8.361 | 0.059 |
| 10 | 14 | 8.377 | 8.347 | -0.030 |
| 10 | 15 | 8.296 | 8.357 | 0.061 |
| 15 | 16 | 8.208 | 8.269 | -0.059 |
| 15 | 17 | 8.280 | 8.337 | 0.057 |
| 15 | 18 | 8.286 | 8.352 | 0.066 |
| 15 | 19 | 8.308 | 8.332 | 0.024 |
| 15 | 20 | 8.325 | 8.289 | -0.036 |
| 30 | 21 | 8.240 | 8.387 | 0.147 |
| 30 | 22 | 8.267 | 8.426 | 0.159 |
| 30 | 23 | 8.324 | 8.375 | 0.051 |
| 30 | 24 | 8.281 | 8.322 | 0.041 |
| 30 | 25 | 8.282 | 8.344 | 0.062 |
| 35 | 26 | 8.317 | 8.295 | -0.022 |
| 35 | 27 | 8.264 | 8.318 | 0.054 |
| 35 | 28 | 8.252 | 8.306 | 0.054 |
| 35 | 29 | 8.330 | 8.320 | -0.010 |
| 35 | 30 | 8.311 | 8.371 | 0.060 |
| 50 | 31 | 8.313 | 8.383 | 0.070 |
| 50 | 32 | 8.321 | 8.358 | 0.037 |
| 50 | 33 | 8.297 | 8.363 | 0.066 |
| 50 | 34 | 8.326 | 8.361 | 0.035 |
| 50 | 35 | 8.297 | 8.368 | 0.071 |
| 55 | 36 | 8.304 | 8.370 | 0.066 |
| 55 | 37 | 8.345 | 8.348 | 0.003 |
| 55 | 38 | 8.333 | 8.280 | -0.053 |
| 55 | 39 | 8.442 | 8.360 | -0.082 |
| 55 | 40 | 8.342 | 8.308 | -0.034 |
| 100 | 41 | 8.321 | 8.344 | 0.023 |
| 100 | 42 | 8.297 | 8.333 | 0.036 |
| 100 | 43 | 8.263 | 8.342 | 0.079 |
| 100 | 44 | 8.318 | 8.283 | -0.035 |
| 100 | 45 | 8.321 | 8.339 | 0.018 |
| 105 | 46 | 8.310 | 8.330 | 0.020 |
| 105 | 47 | 8.277 | 8.318 | 0.041 |
| 105 | 48 | 8.347 | 8.303 | -0.044 |
| 105 | 49 | 8.398 | 8.312 | -0.086 |
| 105 | 50 | 8.345 | 8.308 | -0.037 |
| 105 | 51 | 8.288 | 8.313 | 0.025 |
| 105 | 52 | 8.320 | 8.281 | -0.039 |
| 105 | 53 | 8.291 | 8.305 | 0.014 |
| 105 | 54 | 8.295 | 8.302 | 0.007 |
| 105 | 55 | 8.292 | 8.305 | 0.013 |
| 105 | 56 | 8.294 | 8.317 | 0.023 |
| 105 | 57 | 8.343 | 8.323 | -0.020 |
| 105 | 58 | 8.344 | 8.331 | -0.013 |
| 105 | 59 | 8.335 | 8.330 | -0.005 |
| 105 | 60 | 8.348 | 8.341 | -0.007 |
| 105 | 61 | 8.341 | 8.273 | -0.068 |
| 105 | 62 | 8.328 | 8.294 | -0.034 |
| 105 | 63 | 8.269 | 8.338 | 0.069 |
| 105 | 64 | 8.330 | 8.302 | -0.028 |
| 105 | 65 | 8.358 | 8.308 | -0.050 |
| 105 | 66 | 8.331 | 8.321 | -0.010 |
| 105 | 67 | 8.290 | 8.264 | -0.026 |
| | Max | 8.442 | 8.459 | 0.200 |
| | Average | 8.312 | 8.331 | 0.019 |
| | Min | 8.240 | 8.264 | -0.086 |
| | Std Dev | 0.034 | 0.035 | 0.053 |



| 13.48 SPB_DT_Ons_1M_14V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 11 ns |
| Min Limit | 5 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Min | 8.306 | 8.266 | 8.304 | 8.347 | 8.269 | 8.322 | 8.295 | 8.358 | 8.280 | 8.283 | 8.264 |
| Average | 8.332 | 8.327 | 8.329 | 8.379 | 8.316 | 8.371 | 8.322 | 8.367 | 8.333 | 8.328 | 8.310 |
| Max | 8.371 | 8.354 | 8.348 | 8.459 | 8.352 | 8.426 | 8.371 | 8.383 | 8.370 | 8.344 | 8.341 |
| UL | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 | 11.000 |

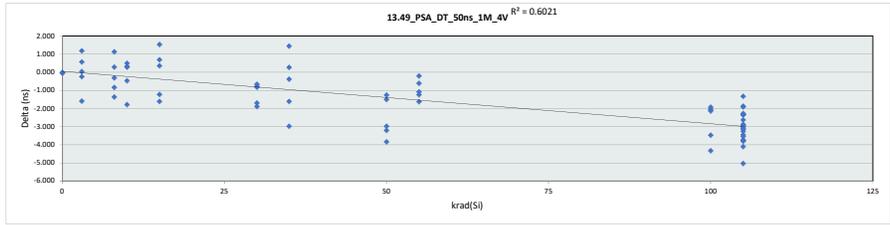


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

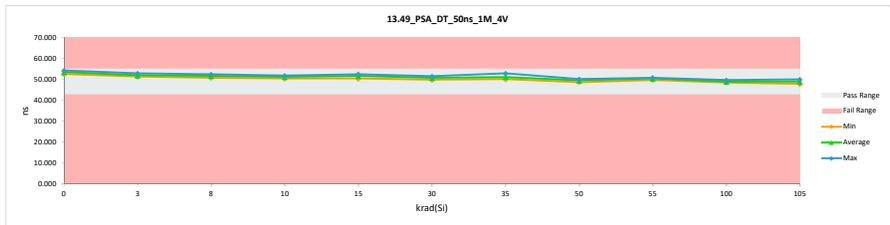
| 13.49 PSA_DT_50ns_1M_4V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 56 55 |
| Min Limit | 44 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 54.416 | 54.402 | -0.014 |
| 0 | 992 | 53.827 | 53.805 | -0.022 |
| 0 | 993 | 52.685 | 52.690 | 0.005 |
| 3 | 1 | 52.215 | 51.992 | -0.223 |
| 3 | 2 | 53.063 | 51.492 | -1.571 |
| 3 | 3 | 51.837 | 53.038 | 1.201 |
| 3 | 4 | 51.750 | 51.804 | 0.054 |
| 3 | 5 | 51.741 | 52.334 | 0.593 |
| 8 | 6 | 52.278 | 52.581 | 0.303 |
| 8 | 7 | 52.230 | 51.417 | -0.813 |
| 8 | 8 | 51.346 | 52.494 | 1.148 |
| 8 | 9 | 51.729 | 51.431 | -0.298 |
| 8 | 10 | 52.281 | 50.931 | -1.350 |
| 10 | 11 | 52.521 | 50.752 | -1.769 |
| 10 | 12 | 50.961 | 51.470 | 0.509 |
| 10 | 13 | 51.650 | 51.956 | 0.306 |
| 10 | 14 | 51.028 | 50.583 | -0.445 |
| 10 | 15 | 51.277 | 51.911 | 0.334 |
| 15 | 16 | 51.659 | 52.029 | 0.370 |
| 15 | 17 | 52.137 | 50.550 | -1.587 |
| 15 | 18 | 51.056 | 52.613 | 1.557 |
| 15 | 19 | 52.630 | 51.430 | -1.200 |
| 15 | 20 | 51.645 | 52.352 | 0.707 |
| 30 | 21 | 52.257 | 51.618 | -0.639 |
| 30 | 22 | 51.780 | 50.975 | -0.805 |
| 30 | 23 | 52.441 | 50.770 | -1.671 |
| 30 | 24 | 51.987 | 51.224 | -0.763 |
| 30 | 25 | 51.828 | 49.959 | -1.869 |
| 35 | 26 | 50.998 | 51.286 | 0.288 |
| 35 | 27 | 51.498 | 51.136 | -0.362 |
| 35 | 28 | 52.076 | 50.488 | -1.588 |
| 35 | 29 | 51.578 | 53.047 | 1.469 |
| 35 | 30 | 53.236 | 50.283 | -2.953 |
| 50 | 31 | 51.798 | 50.313 | -1.485 |
| 50 | 32 | 52.488 | 49.527 | -2.961 |
| 50 | 33 | 52.714 | 49.533 | -3.181 |
| 50 | 34 | 51.403 | 50.159 | -1.244 |
| 50 | 35 | 52.639 | 48.832 | -3.807 |
| 55 | 36 | 51.565 | 50.970 | -0.595 |
| 55 | 37 | 51.092 | 49.864 | -1.228 |
| 55 | 38 | 51.040 | 50.851 | -0.189 |
| 55 | 39 | 51.748 | 50.692 | -1.056 |
| 55 | 40 | 52.352 | 50.741 | -1.611 |
| 100 | 41 | 51.016 | 48.898 | -2.118 |
| 100 | 42 | 51.870 | 49.839 | -2.031 |
| 100 | 43 | 52.378 | 48.933 | -3.445 |
| 100 | 44 | 50.937 | 49.028 | -1.909 |
| 100 | 45 | 52.979 | 48.667 | -4.312 |
| 105 | 46 | 51.806 | 49.915 | -1.891 |
| 105 | 47 | 52.677 | 49.571 | -3.106 |
| 105 | 48 | 52.842 | 49.111 | -3.731 |
| 105 | 49 | 51.971 | 49.118 | -2.853 |
| 105 | 50 | 51.877 | 49.568 | -2.309 |
| 105 | 51 | 52.453 | 49.528 | -2.925 |
| 105 | 52 | 50.900 | 47.926 | -2.974 |
| 105 | 53 | 52.277 | 48.845 | -3.432 |
| 105 | 54 | 52.095 | 49.006 | -3.089 |
| 105 | 55 | 51.713 | 48.476 | -3.237 |
| 105 | 56 | 53.980 | 48.980 | -5.000 |
| 105 | 57 | 51.223 | 49.375 | -1.848 |
| 105 | 58 | 52.176 | 48.391 | -3.785 |
| 105 | 59 | 52.337 | 50.087 | -2.250 |
| 105 | 60 | 51.345 | 49.026 | -2.319 |
| 105 | 61 | 51.819 | 49.512 | -2.307 |
| 105 | 62 | 50.473 | 49.166 | -1.307 |
| 105 | 63 | 52.386 | 49.396 | -2.990 |
| 105 | 64 | 51.611 | 49.004 | -2.607 |
| 105 | 65 | 52.633 | 49.124 | -3.509 |
| 105 | 66 | 52.347 | 48.264 | -4.083 |
| 105 | 67 | 52.299 | 48.590 | -3.709 |
| Max | | 54.416 | 54.402 | 1.557 |
| Average | | 52.017 | 50.481 | -1.536 |
| Min | | 50.473 | 47.926 | -5.000 |
| Std Dev | | 0.734 | 1.466 | 1.567 |



| 13.49 PSA_DT_50ns_1M_4V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

| krad(Si) | 0 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 52.690 | 51.492 | 50.931 | 50.583 | 50.550 | 49.959 | 50.283 | 48.832 | 49.864 | 48.667 |
| Average | 53.632 | 52.132 | 51.771 | 51.334 | 51.795 | 50.909 | 51.248 | 49.673 | 50.624 | 49.073 |
| Max | 54.402 | 53.038 | 52.581 | 51.956 | 52.613 | 51.618 | 53.047 | 50.313 | 50.970 | 49.839 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

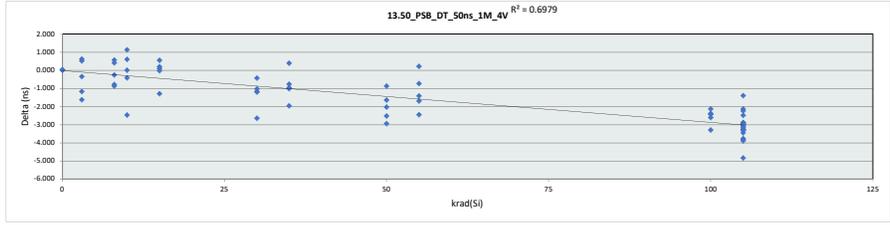


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

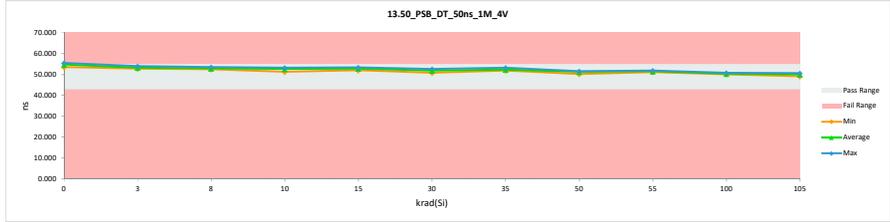
| 13.50_PSB_DT_50ns_1M_4V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 56 55 |
| Min Limit | 44 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 55.598 | 55.630 | 0.032 |
| 0 | 992 | 55.276 | 55.312 | 0.036 |
| 0 | 993 | 53.598 | 53.636 | 0.038 |
| 3 | 1 | 54.400 | 52.802 | -1.598 |
| 3 | 2 | 53.943 | 52.801 | -1.142 |
| 3 | 3 | 53.469 | 54.103 | 0.634 |
| 3 | 4 | 53.132 | 52.802 | -0.330 |
| 3 | 5 | 53.454 | 53.985 | 0.531 |
| 8 | 6 | 52.961 | 53.554 | 0.593 |
| 8 | 7 | 52.706 | 52.475 | -0.231 |
| 8 | 8 | 52.711 | 53.131 | 0.420 |
| 8 | 9 | 53.264 | 52.500 | -0.764 |
| 8 | 10 | 53.745 | 52.900 | -0.845 |
| 10 | 11 | 53.721 | 51.275 | -2.446 |
| 10 | 12 | 52.811 | 52.831 | 0.020 |
| 10 | 13 | 53.640 | 53.241 | -0.399 |
| 10 | 14 | 52.146 | 52.774 | 0.628 |
| 10 | 15 | 52.062 | 53.208 | 1.146 |
| 15 | 16 | 52.342 | 52.560 | 0.218 |
| 15 | 17 | 53.347 | 52.074 | -1.273 |
| 15 | 18 | 52.948 | 53.060 | 0.112 |
| 15 | 19 | 52.924 | 52.917 | -0.007 |
| 15 | 20 | 52.905 | 53.472 | 0.567 |
| 30 | 21 | 52.691 | 52.285 | -0.406 |
| 30 | 22 | 53.382 | 52.213 | -1.169 |
| 30 | 23 | 53.787 | 52.622 | -1.165 |
| 30 | 24 | 52.761 | 51.756 | -1.005 |
| 30 | 25 | 53.433 | 50.804 | -2.629 |
| 35 | 26 | 52.995 | 52.049 | -0.946 |
| 35 | 27 | 52.852 | 52.101 | -0.751 |
| 35 | 28 | 52.868 | 51.868 | -1.000 |
| 35 | 29 | 52.843 | 53.259 | 0.416 |
| 35 | 30 | 54.231 | 52.300 | -1.931 |
| 50 | 31 | 52.774 | 51.156 | -1.618 |
| 50 | 32 | 54.120 | 51.625 | -2.495 |
| 50 | 33 | 53.630 | 51.626 | -2.004 |
| 50 | 34 | 52.427 | 51.577 | -0.850 |
| 50 | 35 | 53.228 | 50.314 | -2.914 |
| 55 | 36 | 52.587 | 51.873 | -0.714 |
| 55 | 37 | 53.028 | 51.352 | -1.676 |
| 55 | 38 | 51.694 | 51.928 | 0.234 |
| 55 | 39 | 53.031 | 51.629 | -1.402 |
| 55 | 40 | 53.628 | 51.195 | -2.433 |
| 100 | 41 | 53.235 | 50.871 | -2.364 |
| 100 | 42 | 52.904 | 50.793 | -2.111 |
| 100 | 43 | 52.917 | 50.329 | -2.588 |
| 100 | 44 | 52.524 | 50.111 | -2.413 |
| 100 | 45 | 53.345 | 50.066 | -3.279 |
| 105 | 46 | 53.273 | 50.312 | -2.961 |
| 105 | 47 | 53.802 | 50.004 | -3.798 |
| 105 | 48 | 53.364 | 50.318 | -3.046 |
| 105 | 49 | 53.298 | 50.316 | -2.982 |
| 105 | 50 | 53.888 | 50.753 | -3.135 |
| 105 | 51 | 52.925 | 50.712 | -2.213 |
| 105 | 52 | 51.838 | 49.717 | -2.121 |
| 105 | 53 | 53.138 | 50.682 | -2.456 |
| 105 | 54 | 53.186 | 49.438 | -3.748 |
| 105 | 55 | 53.044 | 49.171 | -3.873 |
| 105 | 56 | 54.270 | 49.458 | -4.812 |
| 105 | 57 | 53.341 | 50.481 | -2.860 |
| 105 | 58 | 53.000 | 50.060 | -2.940 |
| 105 | 59 | 53.297 | 50.426 | -2.871 |
| 105 | 60 | 53.631 | 50.339 | -3.292 |
| 105 | 61 | 53.286 | 49.850 | -3.436 |
| 105 | 62 | 52.011 | 50.634 | -1.377 |
| 105 | 63 | 53.528 | 50.568 | -2.960 |
| 105 | 64 | 53.030 | 49.806 | -3.224 |
| 105 | 65 | 53.718 | 50.443 | -3.275 |
| 105 | 66 | 53.380 | 50.119 | -3.261 |
| 105 | 67 | 52.841 | 49.846 | -2.995 |
| Max | | 55.598 | 55.630 | 1.146 |
| Average | | 53.216 | 51.631 | -1.584 |
| Min | | 51.694 | 49.171 | -4.812 |
| Std Dev | | 0.671 | 1.438 | 1.437 |



| 13.50_PSB_DT_50ns_1M_4V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 53.636 | 52.801 | 52.475 | 51.275 | 52.074 | 50.804 | 51.868 | 50.314 | 51.195 | 50.066 | 49.171 |
| Average | 54.859 | 53.299 | 52.912 | 52.666 | 52.817 | 51.936 | 52.315 | 51.260 | 51.595 | 50.434 | 50.157 |
| Max | 55.630 | 54.103 | 53.554 | 53.241 | 53.472 | 52.622 | 53.259 | 51.626 | 51.928 | 50.871 | 50.753 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

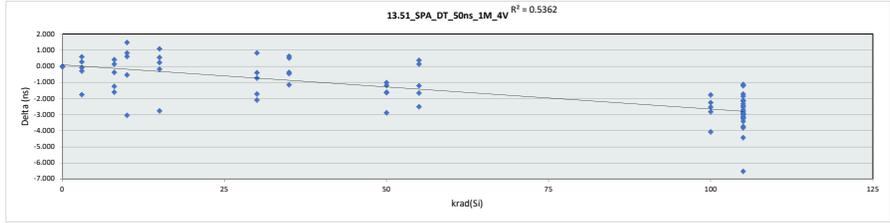


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

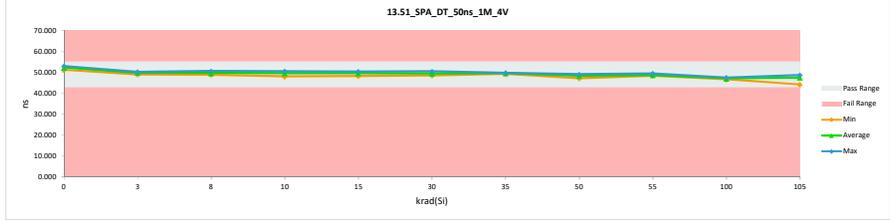
| 13.51 SPA DT 50ns 1M 4V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 56 55 |
| Min Limit | 44 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 52.868 | 52.858 | -0.010 |
| 0 | 992 | 53.131 | 53.138 | 0.007 |
| 0 | 993 | 51.328 | 51.344 | 0.016 |
| 3 | 1 | 50.094 | 50.390 | 0.296 |
| 3 | 2 | 50.899 | 49.152 | -1.737 |
| 3 | 3 | 50.159 | 50.101 | -0.058 |
| 3 | 4 | 49.898 | 49.615 | -0.283 |
| 3 | 5 | 49.622 | 50.234 | 0.612 |
| 8 | 6 | 50.332 | 50.756 | 0.424 |
| 8 | 7 | 50.055 | 49.701 | -0.354 |
| 8 | 8 | 49.863 | 50.024 | 0.161 |
| 8 | 9 | 50.248 | 49.018 | -1.230 |
| 8 | 10 | 51.135 | 49.544 | -1.591 |
| 10 | 11 | 51.159 | 48.139 | -3.020 |
| 10 | 12 | 50.657 | 50.141 | -0.516 |
| 10 | 13 | 49.851 | 50.694 | 0.843 |
| 10 | 14 | 48.697 | 49.318 | 0.621 |
| 10 | 15 | 49.134 | 50.632 | 1.498 |
| 15 | 16 | 48.801 | 49.906 | 1.105 |
| 15 | 17 | 51.085 | 48.345 | -2.740 |
| 15 | 18 | 49.970 | 50.544 | 0.574 |
| 15 | 19 | 49.853 | 49.694 | -0.159 |
| 15 | 20 | 50.173 | 50.433 | 0.260 |
| 30 | 21 | 51.104 | 49.411 | -1.693 |
| 30 | 22 | 50.133 | 49.746 | -0.387 |
| 30 | 23 | 50.226 | 49.511 | -0.715 |
| 30 | 24 | 49.778 | 50.621 | 0.843 |
| 30 | 25 | 50.735 | 48.658 | -2.077 |
| 35 | 26 | 49.199 | 49.718 | 0.519 |
| 35 | 27 | 50.234 | 49.877 | -0.357 |
| 35 | 28 | 50.488 | 49.362 | -1.126 |
| 35 | 29 | 49.248 | 49.900 | 0.652 |
| 35 | 30 | 50.242 | 49.809 | -0.433 |
| 50 | 31 | 49.615 | 48.628 | -0.987 |
| 50 | 32 | 50.398 | 49.237 | -1.161 |
| 50 | 33 | 50.837 | 49.235 | -1.602 |
| 50 | 34 | 49.734 | 48.136 | -1.598 |
| 50 | 35 | 50.173 | 47.312 | -2.861 |
| 55 | 36 | 49.182 | 49.573 | 0.391 |
| 55 | 37 | 49.711 | 48.517 | -1.194 |
| 55 | 38 | 48.508 | 48.660 | 0.152 |
| 55 | 39 | 50.528 | 48.884 | -1.644 |
| 55 | 40 | 51.025 | 48.537 | -2.488 |
| 100 | 41 | 49.732 | 47.218 | -2.514 |
| 100 | 42 | 49.919 | 47.685 | -2.234 |
| 100 | 43 | 50.219 | 47.412 | -2.807 |
| 100 | 44 | 48.569 | 46.805 | -1.764 |
| 100 | 45 | 50.832 | 46.776 | -4.056 |
| 105 | 46 | 50.031 | 47.940 | -2.091 |
| 105 | 47 | 50.764 | 47.792 | -2.972 |
| 105 | 48 | 50.431 | 47.922 | -2.509 |
| 105 | 49 | 50.801 | 47.924 | -2.877 |
| 105 | 50 | 50.671 | 48.531 | -2.140 |
| 105 | 51 | 51.869 | 48.470 | -3.399 |
| 105 | 52 | 49.507 | 48.312 | -1.195 |
| 105 | 53 | 50.591 | 47.369 | -3.222 |
| 105 | 54 | 50.842 | 44.356 | -6.486 |
| 105 | 55 | 50.292 | 46.506 | -3.786 |
| 105 | 56 | 50.825 | 46.431 | -4.394 |
| 105 | 57 | 50.708 | 48.877 | -1.831 |
| 105 | 58 | 50.453 | 47.766 | -2.687 |
| 105 | 59 | 50.606 | 47.497 | -3.109 |
| 105 | 60 | 51.055 | 47.886 | -3.169 |
| 105 | 61 | 50.218 | 48.516 | -1.702 |
| 105 | 62 | 49.002 | 47.892 | -1.110 |
| 105 | 63 | 50.021 | 47.705 | -2.316 |
| 105 | 64 | 50.058 | 47.105 | -2.953 |
| 105 | 65 | 50.940 | 48.164 | -2.776 |
| 105 | 66 | 50.503 | 46.795 | -3.708 |
| 105 | 67 | 49.993 | 47.572 | -2.421 |
| Max | | 53.131 | 53.138 | 1.498 |
| Average | | 50.279 | 48.861 | -1.418 |
| Min | | 48.508 | 44.356 | -6.486 |
| Std Dev | | 0.827 | 1.478 | 1.579 |



| 13.51 SPA DT 50ns 1M 4V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 51.344 | 49.152 | 49.018 | 48.139 | 48.345 | 48.658 | 49.362 | 47.912 | 48.517 | 46.776 | 44.356 |
| Average | 52.447 | 49.898 | 49.809 | 49.785 | 49.784 | 49.589 | 49.733 | 48.510 | 48.834 | 47.179 | 47.606 |
| Max | 53.138 | 50.390 | 50.756 | 50.694 | 50.544 | 50.621 | 49.900 | 49.237 | 49.573 | 47.685 | 48.877 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

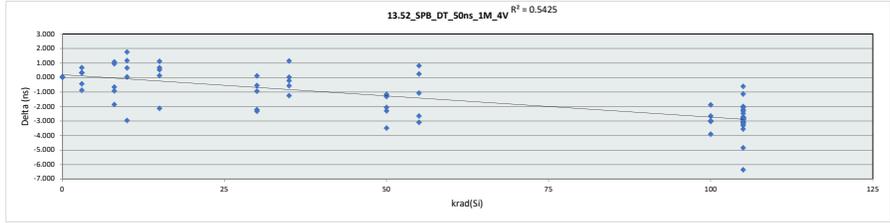


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

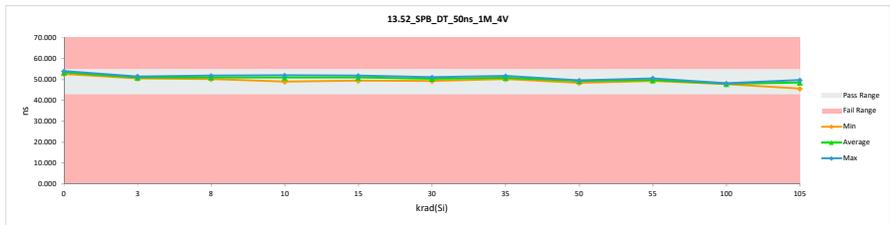
| 13.52 SPB DT 50ns 1M 4V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 56 55 |
| Min Limit | 44 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 53.643 | 53.696 | 0.053 |
| 0 | 992 | 53.967 | 54.016 | 0.049 |
| 0 | 993 | 52.608 | 52.689 | 0.081 |
| 3 | 1 | 51.099 | 51.453 | 0.354 |
| 3 | 2 | 51.386 | 50.527 | -0.859 |
| 3 | 3 | 50.838 | 51.205 | 0.367 |
| 3 | 4 | 50.987 | 50.572 | -0.415 |
| 3 | 5 | 50.843 | 51.561 | 0.718 |
| 8 | 6 | 50.934 | 51.901 | 0.967 |
| 8 | 7 | 51.445 | 50.823 | -0.622 |
| 8 | 8 | 50.724 | 51.818 | 1.094 |
| 8 | 9 | 51.166 | 50.265 | -0.901 |
| 8 | 10 | 52.503 | 50.675 | -1.828 |
| 10 | 11 | 51.897 | 48.976 | -2.921 |
| 10 | 12 | 51.498 | 51.564 | 0.066 |
| 10 | 13 | 50.884 | 52.084 | 1.200 |
| 10 | 14 | 50.002 | 50.692 | 0.690 |
| 10 | 15 | 50.257 | 52.033 | 1.776 |
| 15 | 16 | 50.172 | 50.719 | 0.547 |
| 15 | 17 | 51.659 | 49.555 | -2.104 |
| 15 | 18 | 50.667 | 51.382 | 0.715 |
| 15 | 19 | 51.070 | 51.220 | 0.150 |
| 15 | 20 | 50.775 | 51.919 | 1.144 |
| 30 | 21 | 51.818 | 49.636 | -2.182 |
| 30 | 22 | 51.884 | 50.974 | -0.910 |
| 30 | 23 | 51.229 | 50.715 | -0.514 |
| 30 | 24 | 51.050 | 51.193 | 0.143 |
| 30 | 25 | 51.601 | 49.315 | -2.286 |
| 35 | 26 | 50.658 | 50.462 | -0.196 |
| 35 | 27 | 51.067 | 51.120 | 0.053 |
| 35 | 28 | 51.531 | 50.313 | -1.218 |
| 35 | 29 | 50.574 | 51.738 | 1.164 |
| 35 | 30 | 51.337 | 50.802 | -0.535 |
| 50 | 31 | 50.528 | 49.392 | -1.136 |
| 50 | 32 | 51.663 | 49.633 | -2.030 |
| 50 | 33 | 51.929 | 49.648 | -2.281 |
| 50 | 34 | 50.783 | 49.505 | -1.278 |
| 50 | 35 | 51.911 | 48.458 | -3.453 |
| 55 | 36 | 50.353 | 50.628 | 0.275 |
| 55 | 37 | 50.805 | 49.767 | -1.038 |
| 55 | 38 | 49.286 | 50.117 | 0.831 |
| 55 | 39 | 51.960 | 49.346 | -2.614 |
| 55 | 40 | 52.379 | 49.310 | -3.069 |
| 100 | 41 | 51.067 | 48.080 | -2.987 |
| 100 | 42 | 50.830 | 48.200 | -2.630 |
| 100 | 43 | 51.002 | 48.044 | -2.958 |
| 100 | 44 | 49.725 | 47.867 | -1.858 |
| 100 | 45 | 51.681 | 47.800 | -3.881 |
| 105 | 46 | 51.513 | 48.477 | -3.036 |
| 105 | 47 | 52.188 | 49.159 | -3.029 |
| 105 | 48 | 50.730 | 48.758 | -1.972 |
| 105 | 49 | 52.014 | 48.741 | -3.273 |
| 105 | 50 | 51.893 | 49.851 | -2.042 |
| 105 | 51 | 52.466 | 49.285 | -3.181 |
| 105 | 52 | 50.133 | 49.031 | -1.102 |
| 105 | 53 | 51.266 | 48.389 | -2.877 |
| 105 | 54 | 51.979 | 45.657 | -6.322 |
| 105 | 55 | 51.133 | 47.614 | -3.519 |
| 105 | 56 | 52.545 | 47.729 | -4.816 |
| 105 | 57 | 51.710 | 49.431 | -2.279 |
| 105 | 58 | 51.187 | 48.345 | -2.842 |
| 105 | 59 | 51.520 | 48.807 | -2.713 |
| 105 | 60 | 51.371 | 48.601 | -2.770 |
| 105 | 61 | 51.454 | 49.243 | -2.211 |
| 105 | 62 | 50.223 | 49.639 | -0.584 |
| 105 | 63 | 51.513 | 48.748 | -2.765 |
| 105 | 64 | 51.373 | 48.285 | -3.088 |
| 105 | 65 | 51.899 | 49.111 | -2.788 |
| 105 | 66 | 50.724 | 48.043 | -2.681 |
| 105 | 67 | 50.723 | 48.270 | -2.453 |
| Max | | 53.967 | 54.016 | 1.776 |
| Average | | 51.303 | 49.895 | -1.409 |
| Min | | 49.286 | 45.657 | -6.322 |
| Std Dev | | 0.807 | 1.541 | 1.674 |



| 13.52 SPB DT 50ns 1M 4V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 52.689 | 50.527 | 50.265 | 48.976 | 49.555 | 49.315 | 50.313 | 48.458 | 49.310 | 47.800 | 45.657 |
| Average | 53.467 | 51.064 | 51.096 | 51.070 | 50.959 | 50.367 | 50.887 | 49.327 | 49.834 | 47.998 | 48.601 |
| Max | 54.016 | 51.561 | 51.901 | 52.084 | 51.919 | 51.193 | 51.738 | 49.648 | 50.628 | 48.200 | 49.851 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

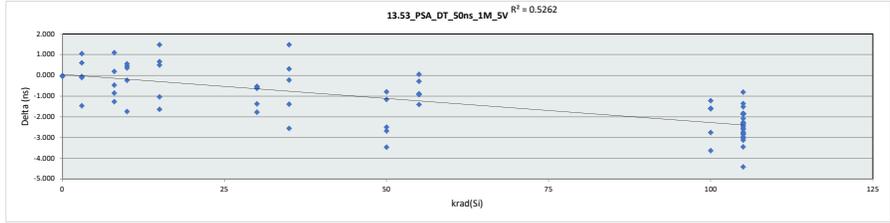


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

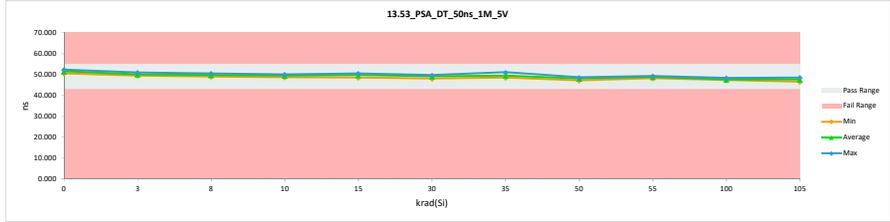
| 13.53 PSA_DT_50ns_1M_5V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 55 55 |
| Min Limit | 43 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 52.363 | 52.353 | -0.010 |
| 0 | 992 | 51.910 | 51.896 | -0.014 |
| 0 | 993 | 50.661 | 50.650 | -0.011 |
| 3 | 1 | 50.143 | 50.058 | -0.085 |
| 3 | 2 | 50.935 | 49.495 | -1.440 |
| 3 | 3 | 49.871 | 50.934 | 1.063 |
| 3 | 4 | 49.771 | 49.738 | -0.033 |
| 3 | 5 | 49.700 | 50.323 | 0.623 |
| 8 | 6 | 50.283 | 50.495 | 0.212 |
| 8 | 7 | 50.203 | 49.376 | -0.827 |
| 8 | 8 | 49.368 | 50.477 | 1.109 |
| 8 | 9 | 49.845 | 49.396 | -0.449 |
| 8 | 10 | 50.264 | 49.010 | -1.254 |
| 10 | 11 | 50.467 | 48.742 | -1.725 |
| 10 | 12 | 49.125 | 49.594 | 0.469 |
| 10 | 13 | 49.672 | 50.056 | 0.384 |
| 10 | 14 | 48.980 | 48.758 | -0.222 |
| 10 | 15 | 49.437 | 50.013 | 0.576 |
| 15 | 16 | 49.539 | 50.059 | 0.520 |
| 15 | 17 | 50.155 | 48.536 | -1.619 |
| 15 | 18 | 49.087 | 50.582 | 1.495 |
| 15 | 19 | 50.570 | 49.549 | -1.021 |
| 15 | 20 | 49.659 | 50.348 | 0.689 |
| 30 | 21 | 50.299 | 49.693 | -0.606 |
| 30 | 22 | 49.760 | 49.223 | -0.537 |
| 30 | 23 | 50.376 | 49.028 | -1.348 |
| 30 | 24 | 50.003 | 49.494 | -0.509 |
| 30 | 25 | 49.900 | 48.145 | -1.755 |
| 35 | 26 | 49.084 | 49.423 | 0.339 |
| 35 | 27 | 49.545 | 49.339 | -0.206 |
| 35 | 28 | 50.111 | 48.746 | -1.365 |
| 35 | 29 | 49.554 | 51.049 | 1.495 |
| 35 | 30 | 51.094 | 48.562 | -2.532 |
| 50 | 31 | 49.745 | 48.610 | -1.135 |
| 50 | 32 | 50.452 | 47.974 | -2.478 |
| 50 | 33 | 50.636 | 47.979 | -2.657 |
| 50 | 34 | 49.371 | 48.599 | -0.772 |
| 50 | 35 | 50.619 | 47.178 | -3.441 |
| 55 | 36 | 49.532 | 49.268 | -0.264 |
| 55 | 37 | 49.144 | 48.236 | -0.908 |
| 55 | 38 | 48.968 | 49.039 | 0.071 |
| 55 | 39 | 49.837 | 48.980 | -0.857 |
| 55 | 40 | 50.344 | 48.994 | -1.390 |
| 100 | 41 | 49.106 | 47.537 | -1.569 |
| 100 | 42 | 49.925 | 48.347 | -1.578 |
| 100 | 43 | 50.350 | 47.618 | -2.732 |
| 100 | 44 | 48.841 | 47.635 | -1.206 |
| 100 | 45 | 50.921 | 47.309 | -3.612 |
| 105 | 46 | 49.860 | 48.375 | -1.485 |
| 105 | 47 | 50.607 | 48.081 | -2.526 |
| 105 | 48 | 50.707 | 47.751 | -2.956 |
| 105 | 49 | 50.043 | 47.753 | -2.290 |
| 105 | 50 | 49.921 | 48.085 | -1.836 |
| 105 | 51 | 50.515 | 48.088 | -2.427 |
| 105 | 52 | 48.890 | 46.642 | -2.248 |
| 105 | 53 | 50.228 | 47.454 | -2.774 |
| 105 | 54 | 50.133 | 47.547 | -2.586 |
| 105 | 55 | 49.725 | 47.011 | -2.714 |
| 105 | 56 | 51.827 | 47.437 | -4.390 |
| 105 | 57 | 49.305 | 47.965 | -1.340 |
| 105 | 58 | 50.067 | 46.963 | -3.104 |
| 105 | 59 | 50.354 | 48.538 | -1.816 |
| 105 | 60 | 49.408 | 47.560 | -1.848 |
| 105 | 61 | 49.929 | 48.096 | -1.833 |
| 105 | 62 | 48.471 | 47.690 | -0.781 |
| 105 | 63 | 50.316 | 47.942 | -2.374 |
| 105 | 64 | 49.681 | 47.626 | -2.055 |
| 105 | 65 | 50.570 | 47.744 | -2.826 |
| 105 | 66 | 50.299 | 46.873 | -3.426 |
| 105 | 67 | 50.220 | 47.231 | -2.989 |
| Max | | 52.363 | 52.353 | 1.495 |
| Average | | 50.009 | 48.784 | -1.225 |
| Min | | 48.471 | 46.642 | -4.390 |
| Std Dev | | 0.708 | 1.242 | 1.346 |



| 13.53 PSA_DT_50ns_1M_5V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

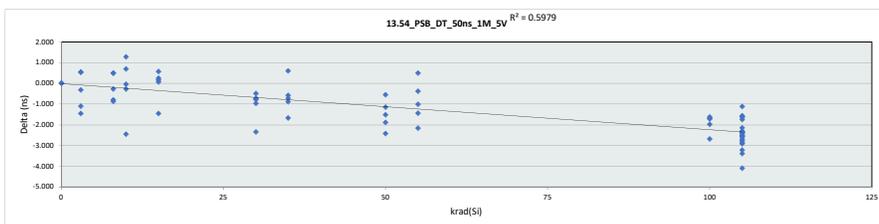
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 50.650 | 49.495 | 49.010 | 48.742 | 48.536 | 48.145 | 48.562 | 47.178 | 48.236 | 47.309 | 46.642 |
| Average | 51.633 | 50.110 | 49.751 | 49.433 | 49.815 | 49.117 | 49.424 | 48.068 | 48.895 | 47.689 | 47.657 |
| Max | 52.353 | 50.934 | 50.495 | 50.056 | 50.582 | 49.693 | 51.049 | 48.610 | 49.268 | 48.347 | 48.538 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |



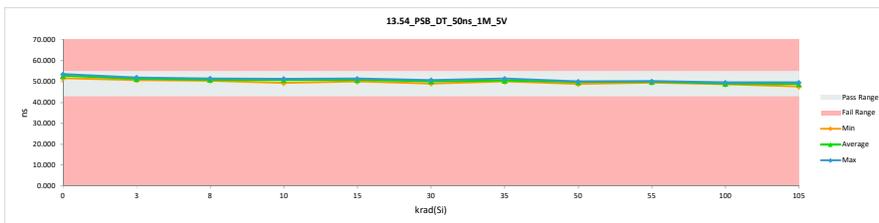
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| 13.54_PSB_DT_50ns_1M_5V | | | | |
|-------------------------|----------|---------|----------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | | | |
| Max Limit | ns | ns | | |
| Min Limit | 45 | 43 | | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 53.548 | 53.571 | 0.023 |
| 0 | 992 | 53.288 | 53.308 | 0.020 |
| 0 | 993 | 51.582 | 51.628 | 0.046 |
| 3 | 1 | 52.351 | 50.918 | -1.433 |
| 3 | 2 | 51.905 | 50.825 | -1.080 |
| 3 | 3 | 51.479 | 52.059 | 0.566 |
| 3 | 4 | 51.150 | 50.856 | -0.294 |
| 3 | 5 | 51.341 | 51.909 | 0.568 |
| 8 | 6 | 51.047 | 51.569 | 0.522 |
| 8 | 7 | 50.774 | 50.523 | -0.251 |
| 8 | 8 | 50.679 | 51.196 | 0.517 |
| 8 | 9 | 51.316 | 50.546 | -0.770 |
| 8 | 10 | 51.908 | 51.058 | -0.850 |
| 10 | 11 | 51.825 | 49.399 | -2.426 |
| 10 | 12 | 50.933 | 50.914 | -0.019 |
| 10 | 13 | 51.655 | 51.412 | -0.243 |
| 10 | 14 | 50.173 | 50.893 | 0.720 |
| 10 | 15 | 50.059 | 51.361 | 1.302 |
| 15 | 16 | 50.461 | 50.726 | 0.265 |
| 15 | 17 | 51.520 | 50.095 | -1.425 |
| 15 | 18 | 50.920 | 51.103 | 0.183 |
| 15 | 19 | 50.954 | 51.038 | 0.084 |
| 15 | 20 | 50.945 | 51.538 | 0.593 |
| 30 | 21 | 50.900 | 50.432 | -0.468 |
| 30 | 22 | 51.290 | 50.595 | -0.695 |
| 30 | 23 | 51.761 | 50.821 | -0.940 |
| 30 | 24 | 50.855 | 50.107 | -0.748 |
| 30 | 25 | 51.435 | 49.121 | -2.314 |
| 35 | 26 | 50.932 | 50.240 | -0.692 |
| 35 | 27 | 50.893 | 50.333 | -0.560 |
| 35 | 28 | 50.975 | 50.119 | -0.856 |
| 35 | 29 | 50.843 | 51.473 | 0.630 |
| 35 | 30 | 52.172 | 50.526 | -1.646 |
| 50 | 31 | 50.836 | 49.705 | -1.131 |
| 50 | 32 | 52.007 | 50.145 | -1.862 |
| 50 | 33 | 51.642 | 50.153 | -1.489 |
| 50 | 34 | 50.503 | 49.972 | -0.531 |
| 50 | 35 | 51.269 | 48.872 | -2.397 |
| 55 | 36 | 50.607 | 50.255 | -0.352 |
| 55 | 37 | 51.138 | 49.717 | -1.421 |
| 55 | 38 | 49.719 | 50.235 | 0.516 |
| 55 | 39 | 51.108 | 50.124 | -0.984 |
| 55 | 40 | 51.709 | 49.578 | -2.131 |
| 100 | 41 | 51.257 | 49.560 | -1.697 |
| 100 | 42 | 50.990 | 49.395 | -1.595 |
| 100 | 43 | 50.978 | 49.033 | -1.945 |
| 100 | 44 | 50.418 | 48.755 | -1.663 |
| 100 | 45 | 51.365 | 48.701 | -2.664 |
| 105 | 46 | 51.296 | 48.965 | -2.331 |
| 105 | 47 | 51.795 | 48.597 | -3.198 |
| 105 | 48 | 51.300 | 48.966 | -2.334 |
| 105 | 49 | 51.488 | 48.969 | -2.519 |
| 105 | 50 | 51.830 | 49.475 | -2.355 |
| 105 | 51 | 51.049 | 49.427 | -1.622 |
| 105 | 52 | 49.964 | 48.402 | -1.562 |
| 105 | 53 | 51.103 | 49.378 | -1.725 |
| 105 | 54 | 51.199 | 49.666 | -1.533 |
| 105 | 55 | 51.056 | 47.685 | -3.371 |
| 105 | 56 | 52.240 | 48.165 | -4.075 |
| 105 | 57 | 51.349 | 49.228 | -2.121 |
| 105 | 58 | 51.135 | 48.628 | -2.507 |
| 105 | 59 | 51.322 | 48.995 | -2.327 |
| 105 | 60 | 51.753 | 48.865 | -2.888 |
| 105 | 61 | 51.321 | 48.576 | -2.745 |
| 105 | 62 | 50.222 | 49.125 | -1.097 |
| 105 | 63 | 51.478 | 49.203 | -2.275 |
| 105 | 64 | 51.068 | 48.497 | -2.571 |
| 105 | 65 | 51.690 | 49.019 | -2.671 |
| 105 | 66 | 51.474 | 48.639 | -2.835 |
| 105 | 67 | 50.896 | 48.475 | -2.421 |
| Max | | 53.548 | 53.571 | 1.302 |
| Average | | 51.249 | 50.019 | -1.230 |
| Min | | 49.719 | 47.685 | -4.075 |
| Std Dev | | 0.647 | 1.188 | 1.205 |



| 13.54_PSB_DT_50ns_1M_5V | | | | | | | | | | | |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Test Site | | | | | | | | | | | |
| Tester | | | | | | | | | | | |
| Test Number | | | | | | | | | | | |
| Max Limit | 55 | ns | | | | | | | | | |
| Min Limit | 43 | ns | | | | | | | | | |
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 51.628 | 50.825 | 50.523 | 49.399 | 50.095 | 49.121 | 50.119 | 48.872 | 49.578 | 48.701 | 47.685 |
| Average | 52.836 | 51.309 | 50.978 | 50.796 | 50.900 | 50.215 | 50.538 | 49.769 | 49.982 | 49.089 | 48.861 |
| Max | 53.571 | 52.039 | 51.569 | 51.412 | 51.538 | 50.821 | 51.473 | 50.153 | 50.255 | 49.560 | 49.666 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

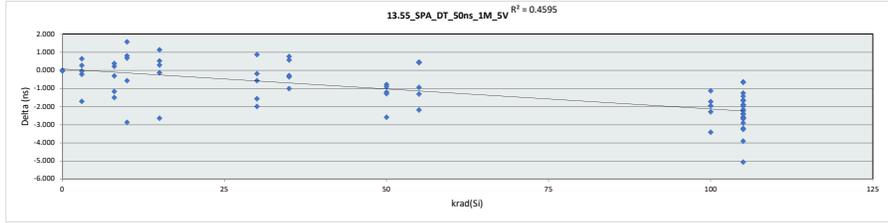


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

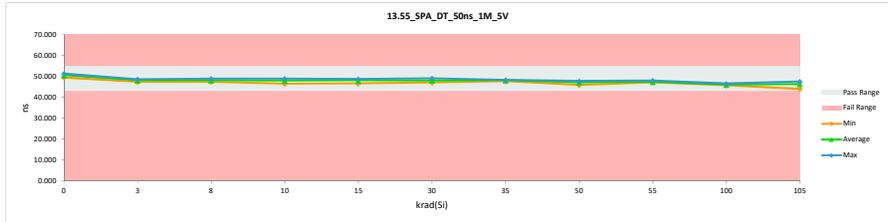
| 13.55 SPA_DT_50ns_1M_5V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 55 55 |
| Min Limit | 43 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 51.170 | 51.163 | -0.007 |
| 0 | 992 | 51.410 | 51.416 | 0.006 |
| 0 | 993 | 49.574 | 49.591 | 0.017 |
| 3 | 1 | 48.455 | 48.742 | 0.287 |
| 3 | 2 | 49.245 | 47.544 | -1.701 |
| 3 | 3 | 48.542 | 48.511 | -0.031 |
| 3 | 4 | 48.242 | 48.034 | -0.208 |
| 3 | 5 | 47.992 | 48.641 | 0.649 |
| 8 | 6 | 48.685 | 49.074 | 0.389 |
| 8 | 7 | 48.371 | 48.075 | -0.296 |
| 8 | 8 | 48.189 | 48.420 | 0.231 |
| 8 | 9 | 48.624 | 47.481 | -1.143 |
| 8 | 10 | 49.426 | 47.952 | -1.474 |
| 10 | 11 | 49.376 | 46.529 | -2.847 |
| 10 | 12 | 49.020 | 48.473 | -0.547 |
| 10 | 13 | 48.246 | 49.062 | 0.816 |
| 10 | 14 | 47.069 | 47.758 | 0.689 |
| 10 | 15 | 47.437 | 49.024 | 1.587 |
| 15 | 16 | 47.180 | 48.335 | 1.155 |
| 15 | 17 | 49.373 | 46.748 | -2.625 |
| 15 | 18 | 48.349 | 48.886 | 0.537 |
| 15 | 19 | 48.237 | 48.122 | -0.115 |
| 15 | 20 | 48.531 | 48.833 | 0.302 |
| 30 | 21 | 49.456 | 47.905 | -1.551 |
| 30 | 22 | 48.481 | 48.315 | -0.166 |
| 30 | 23 | 48.580 | 48.025 | -0.555 |
| 30 | 24 | 48.224 | 49.104 | 0.880 |
| 30 | 25 | 49.103 | 47.123 | -1.980 |
| 35 | 26 | 47.617 | 48.207 | 0.590 |
| 35 | 27 | 48.622 | 48.344 | -0.278 |
| 35 | 28 | 48.820 | 47.821 | -0.999 |
| 35 | 29 | 47.633 | 48.412 | 0.779 |
| 35 | 30 | 48.637 | 48.302 | -0.335 |
| 50 | 31 | 48.033 | 47.271 | -0.762 |
| 50 | 32 | 48.747 | 47.857 | -0.890 |
| 50 | 33 | 49.147 | 47.870 | -1.277 |
| 50 | 34 | 48.102 | 46.912 | -1.190 |
| 50 | 35 | 48.539 | 45.978 | -2.561 |
| 55 | 36 | 47.618 | 48.074 | 0.456 |
| 55 | 37 | 48.083 | 47.155 | -0.928 |
| 55 | 38 | 46.832 | 47.284 | 0.452 |
| 55 | 39 | 48.819 | 47.521 | -1.298 |
| 55 | 40 | 49.324 | 47.165 | -2.159 |
| 100 | 41 | 48.108 | 46.175 | -1.933 |
| 100 | 42 | 48.364 | 46.656 | -1.708 |
| 100 | 43 | 48.620 | 46.347 | -2.273 |
| 100 | 44 | 46.926 | 45.805 | -1.121 |
| 100 | 45 | 49.144 | 45.757 | -3.387 |
| 105 | 46 | 48.402 | 46.748 | -1.654 |
| 105 | 47 | 49.124 | 46.563 | -2.561 |
| 105 | 48 | 48.733 | 46.771 | -1.962 |
| 105 | 49 | 49.160 | 46.774 | -2.386 |
| 105 | 50 | 48.980 | 47.350 | -1.630 |
| 105 | 51 | 50.110 | 47.223 | -2.887 |
| 105 | 52 | 47.770 | 47.139 | -0.631 |
| 105 | 53 | 48.895 | 46.242 | -2.653 |
| 105 | 54 | 49.128 | 44.092 | -5.036 |
| 105 | 55 | 48.577 | 45.344 | -3.233 |
| 105 | 56 | 49.174 | 45.281 | -3.893 |
| 105 | 57 | 49.035 | 47.620 | -1.415 |
| 105 | 58 | 48.721 | 46.568 | -2.153 |
| 105 | 59 | 48.921 | 46.346 | -2.575 |
| 105 | 60 | 49.337 | 46.710 | -2.627 |
| 105 | 61 | 48.600 | 47.357 | -1.243 |
| 105 | 62 | 47.319 | 46.677 | -0.642 |
| 105 | 63 | 48.425 | 46.546 | -1.879 |
| 105 | 64 | 48.440 | 46.067 | -2.373 |
| 105 | 65 | 49.219 | 47.006 | -2.213 |
| 105 | 66 | 48.854 | 45.675 | -3.179 |
| 105 | 67 | 48.325 | 46.438 | -1.887 |
| Max | | 51.410 | 51.416 | 1.587 |
| Average | | 48.622 | 47.491 | -1.132 |
| Min | | 46.832 | 44.092 | -5.036 |
| Std Dev | | 0.803 | 1.261 | 1.367 |



| 13.55 SPA_DT_50ns_1M_5V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 49.591 | 47.544 | 47.481 | 46.529 | 46.748 | 47.123 | 47.821 | 45.978 | 47.155 | 45.757 | 44.092 |
| Average | 50.723 | 48.294 | 48.200 | 48.169 | 48.185 | 48.094 | 48.217 | 47.178 | 47.440 | 46.148 | 46.479 |
| Max | 51.416 | 48.742 | 49.074 | 49.062 | 48.886 | 49.104 | 48.412 | 47.870 | 48.074 | 46.656 | 47.620 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

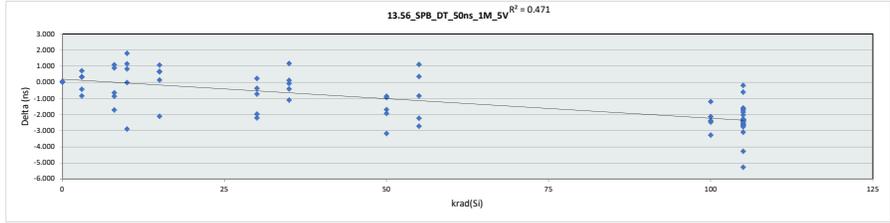


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

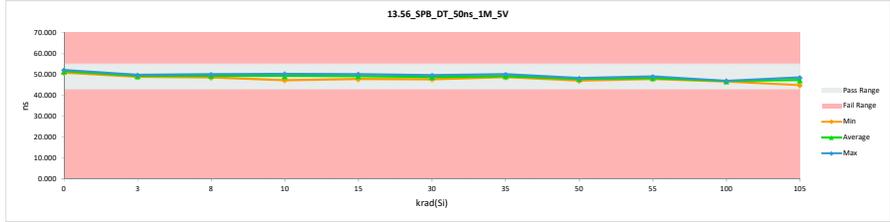
| 13.56 SPB_DT_50ns_1M_5V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 55 55 |
| Min Limit | 45 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 51.928 | 51.976 | 0.048 |
| 0 | 992 | 52.172 | 52.230 | 0.058 |
| 0 | 993 | 50.789 | 50.860 | 0.071 |
| 3 | 1 | 49.415 | 49.771 | 0.356 |
| 3 | 2 | 49.714 | 48.896 | -0.818 |
| 3 | 3 | 49.168 | 49.530 | 0.362 |
| 3 | 4 | 49.295 | 48.895 | -0.400 |
| 3 | 5 | 49.118 | 49.848 | 0.730 |
| 8 | 6 | 49.231 | 50.155 | 0.924 |
| 8 | 7 | 49.712 | 49.095 | -0.617 |
| 8 | 8 | 49.018 | 50.129 | 1.111 |
| 8 | 9 | 49.477 | 48.640 | -0.837 |
| 8 | 10 | 50.725 | 49.042 | -1.683 |
| 10 | 11 | 50.167 | 47.297 | -2.870 |
| 10 | 12 | 49.815 | 49.833 | 0.018 |
| 10 | 13 | 49.184 | 50.361 | 1.177 |
| 10 | 14 | 48.201 | 49.052 | 0.851 |
| 10 | 15 | 48.484 | 50.317 | 1.833 |
| 15 | 16 | 48.450 | 49.135 | 0.685 |
| 15 | 17 | 49.933 | 47.848 | -2.085 |
| 15 | 18 | 49.022 | 49.726 | 0.704 |
| 15 | 19 | 49.400 | 49.560 | 0.160 |
| 15 | 20 | 49.144 | 50.236 | 1.092 |
| 30 | 21 | 50.143 | 48.209 | -1.934 |
| 30 | 22 | 50.132 | 49.441 | -0.691 |
| 30 | 23 | 49.542 | 49.187 | -0.355 |
| 30 | 24 | 49.366 | 49.638 | 0.272 |
| 30 | 25 | 49.915 | 47.740 | -2.175 |
| 35 | 26 | 48.975 | 48.924 | -0.051 |
| 35 | 27 | 49.346 | 49.498 | 0.152 |
| 35 | 28 | 49.837 | 48.753 | -1.084 |
| 35 | 29 | 48.909 | 50.108 | 1.199 |
| 35 | 30 | 49.620 | 49.232 | -0.388 |
| 50 | 31 | 48.855 | 48.018 | -0.837 |
| 50 | 32 | 49.929 | 48.271 | -1.658 |
| 50 | 33 | 50.173 | 48.273 | -1.900 |
| 50 | 34 | 49.079 | 48.153 | -0.926 |
| 50 | 35 | 50.196 | 47.055 | -3.141 |
| 55 | 36 | 48.700 | 49.086 | 0.386 |
| 55 | 37 | 49.132 | 48.306 | -0.826 |
| 55 | 38 | 47.562 | 48.700 | 1.138 |
| 55 | 39 | 50.171 | 47.969 | -2.202 |
| 55 | 40 | 50.582 | 47.887 | -2.695 |
| 100 | 41 | 49.360 | 47.003 | -2.357 |
| 100 | 42 | 49.204 | 47.093 | -2.111 |
| 100 | 43 | 49.342 | 46.904 | -2.438 |
| 100 | 44 | 47.965 | 46.798 | -1.167 |
| 100 | 45 | 49.937 | 46.695 | -3.242 |
| 105 | 46 | 49.783 | 47.205 | -2.578 |
| 105 | 47 | 50.443 | 47.827 | -2.616 |
| 105 | 48 | 49.123 | 47.508 | -1.615 |
| 105 | 49 | 50.264 | 47.524 | -2.740 |
| 105 | 50 | 50.147 | 48.586 | -1.561 |
| 105 | 51 | 50.648 | 48.004 | -2.644 |
| 105 | 52 | 48.397 | 47.814 | -0.583 |
| 105 | 53 | 49.574 | 47.154 | -2.420 |
| 105 | 54 | 50.178 | 44.947 | -5.231 |
| 105 | 55 | 49.410 | 46.343 | -3.067 |
| 105 | 56 | 50.763 | 46.503 | -4.260 |
| 105 | 57 | 49.956 | 48.134 | -1.822 |
| 105 | 58 | 49.452 | 47.141 | -2.311 |
| 105 | 59 | 49.841 | 47.557 | -2.284 |
| 105 | 60 | 49.680 | 47.349 | -2.331 |
| 105 | 61 | 49.757 | 48.052 | -1.705 |
| 105 | 62 | 48.474 | 48.310 | -0.164 |
| 105 | 63 | 49.831 | 47.510 | -2.321 |
| 105 | 64 | 49.640 | 47.135 | -2.505 |
| 105 | 65 | 50.124 | 47.864 | -2.260 |
| 105 | 66 | 49.120 | 46.830 | -2.290 |
| 105 | 67 | 49.046 | 47.049 | -1.997 |
| Max | | 52.172 | 52.230 | 1.833 |
| Average | | 49.588 | 48.453 | -1.135 |
| Min | | 47.562 | 44.947 | -5.231 |
| Std Dev | | 0.787 | 1.339 | 1.483 |



| 13.56 SPB_DT_50ns_1M_5V | |
|-------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 50.860 | 48.895 | 48.640 | 47.297 | 47.848 | 47.740 | 48.753 | 47.055 | 47.887 | 46.695 | 44.947 |
| Average | 51.689 | 49.388 | 49.412 | 49.372 | 49.301 | 48.843 | 49.303 | 47.954 | 48.390 | 46.899 | 47.379 |
| Max | 52.230 | 49.848 | 50.155 | 50.361 | 50.236 | 49.638 | 50.108 | 48.273 | 49.086 | 47.093 | 48.586 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

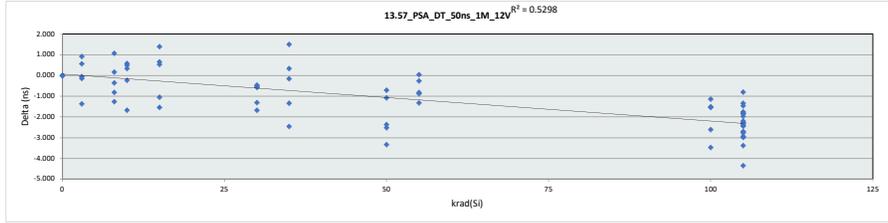


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

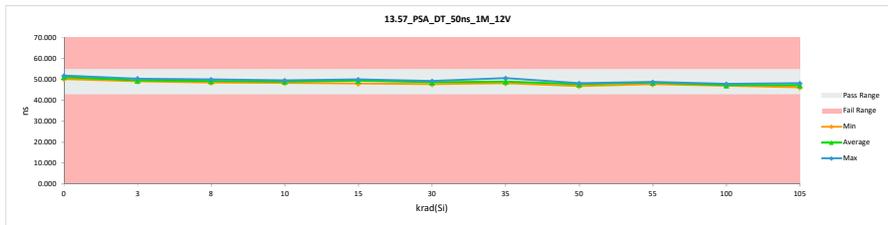
| 13.57 PSA_DT_50ns_1M_12V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 55 55 |
| Min Limit | 43 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 51.920 | 51.929 | 0.009 |
| 0 | 992 | 51.523 | 51.530 | 0.007 |
| 0 | 993 | 50.312 | 50.325 | 0.013 |
| 3 | 1 | 49.741 | 49.622 | -0.119 |
| 3 | 2 | 50.474 | 49.120 | -1.354 |
| 3 | 3 | 49.538 | 50.473 | 0.935 |
| 3 | 4 | 49.351 | 49.318 | -0.033 |
| 3 | 5 | 49.319 | 49.903 | 0.584 |
| 8 | 6 | 49.864 | 50.043 | 0.179 |
| 8 | 7 | 49.777 | 48.980 | -0.797 |
| 8 | 8 | 48.964 | 50.044 | 1.080 |
| 8 | 9 | 49.388 | 49.046 | -0.342 |
| 8 | 10 | 49.857 | 48.608 | -1.249 |
| 10 | 11 | 50.069 | 48.414 | -1.655 |
| 10 | 12 | 48.728 | 49.224 | 0.496 |
| 10 | 13 | 49.277 | 49.621 | 0.344 |
| 10 | 14 | 48.593 | 48.369 | -0.224 |
| 10 | 15 | 48.969 | 49.567 | 0.598 |
| 15 | 16 | 49.119 | 49.672 | 0.553 |
| 15 | 17 | 49.691 | 48.165 | -1.526 |
| 15 | 18 | 48.743 | 50.153 | 1.410 |
| 15 | 19 | 50.223 | 49.185 | -1.038 |
| 15 | 20 | 49.280 | 49.957 | 0.677 |
| 30 | 21 | 49.880 | 49.323 | -0.557 |
| 30 | 22 | 49.332 | 48.888 | -0.444 |
| 30 | 23 | 49.975 | 48.690 | -1.285 |
| 30 | 24 | 49.602 | 49.094 | -0.508 |
| 30 | 25 | 49.493 | 47.827 | -1.666 |
| 35 | 26 | 48.694 | 49.043 | 0.349 |
| 35 | 27 | 49.123 | 48.987 | -0.136 |
| 35 | 28 | 49.594 | 48.378 | -1.216 |
| 35 | 29 | 49.185 | 50.693 | 1.508 |
| 35 | 30 | 50.644 | 48.207 | -2.437 |
| 50 | 31 | 49.342 | 48.278 | -1.064 |
| 50 | 32 | 50.026 | 47.672 | -2.354 |
| 50 | 33 | 50.175 | 47.678 | -2.497 |
| 50 | 34 | 48.984 | 48.297 | -0.687 |
| 50 | 35 | 50.177 | 46.867 | -3.310 |
| 55 | 36 | 49.152 | 48.906 | -0.246 |
| 55 | 37 | 48.745 | 47.877 | -0.868 |
| 55 | 38 | 48.617 | 48.669 | 0.052 |
| 55 | 39 | 49.455 | 48.650 | -0.805 |
| 55 | 40 | 49.909 | 48.605 | -1.304 |
| 100 | 41 | 48.734 | 47.236 | -1.498 |
| 100 | 42 | 49.526 | 47.999 | -1.527 |
| 100 | 43 | 49.950 | 47.358 | -2.592 |
| 100 | 44 | 48.440 | 47.317 | -1.123 |
| 100 | 45 | 50.459 | 46.998 | -3.461 |
| 105 | 46 | 49.491 | 48.047 | -1.444 |
| 105 | 47 | 50.216 | 47.783 | -2.433 |
| 105 | 48 | 50.311 | 47.391 | -2.920 |
| 105 | 49 | 49.679 | 47.389 | -2.290 |
| 105 | 50 | 49.553 | 47.754 | -1.799 |
| 105 | 51 | 50.075 | 47.770 | -2.305 |
| 105 | 52 | 48.534 | 46.353 | -2.181 |
| 105 | 53 | 49.830 | 47.129 | -2.701 |
| 105 | 54 | 49.763 | 47.368 | -2.395 |
| 105 | 55 | 49.313 | 46.620 | -2.693 |
| 105 | 56 | 51.437 | 47.101 | -4.336 |
| 105 | 57 | 48.926 | 47.600 | -1.326 |
| 105 | 58 | 49.647 | 46.686 | -2.961 |
| 105 | 59 | 49.985 | 48.249 | -1.736 |
| 105 | 60 | 49.070 | 47.246 | -1.824 |
| 105 | 61 | 49.576 | 47.772 | -1.804 |
| 105 | 62 | 48.122 | 47.342 | -0.780 |
| 105 | 63 | 49.890 | 47.629 | -2.261 |
| 105 | 64 | 49.261 | 47.307 | -1.954 |
| 105 | 65 | 50.184 | 47.432 | -2.752 |
| 105 | 66 | 49.520 | 46.561 | -2.959 |
| 105 | 67 | 49.841 | 46.884 | -2.957 |
| Max | | 51.920 | 51.929 | 1.508 |
| Average | | 49.609 | 48.432 | -1.178 |
| Min | | 48.122 | 46.353 | -1.766 |
| Std Dev | | 0.697 | 1.208 | 1.307 |



| 13.57 PSA_DT_50ns_1M_12V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 50.325 | 49.120 | 48.608 | 48.369 | 48.165 | 47.827 | 48.207 | 46.867 | 47.877 | 46.998 | 46.353 |
| Average | 51.261 | 49.687 | 49.344 | 49.039 | 49.426 | 48.764 | 49.062 | 47.758 | 48.541 | 47.382 | 47.337 |
| Max | 51.929 | 50.473 | 50.044 | 49.621 | 50.153 | 49.323 | 50.693 | 48.297 | 48.906 | 47.999 | 48.249 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

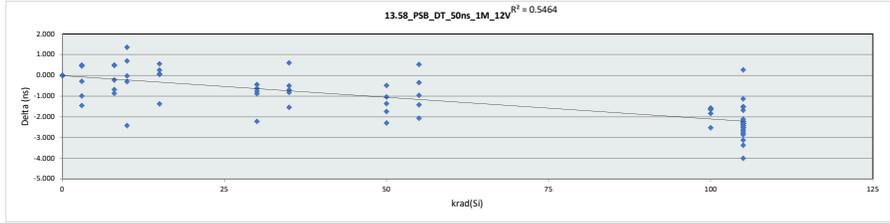


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

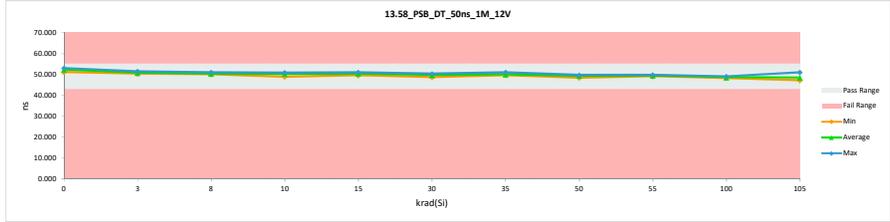
| 13.58 PSB DT 50ns 1M 12V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns ns |
| Min Limit | 45 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 53.104 | 53.135 | 0.031 |
| 0 | 992 | 52.885 | 52.904 | 0.019 |
| 0 | 993 | 51.248 | 51.268 | 0.020 |
| 3 | 1 | 51.927 | 50.497 | -1.430 |
| 3 | 2 | 51.401 | 50.436 | -0.965 |
| 3 | 3 | 51.107 | 51.572 | 0.465 |
| 3 | 4 | 50.714 | 50.451 | -0.263 |
| 3 | 5 | 50.956 | 51.478 | 0.522 |
| 8 | 6 | 50.599 | 51.121 | 0.522 |
| 8 | 7 | 50.357 | 50.148 | -0.209 |
| 8 | 8 | 50.264 | 50.761 | 0.497 |
| 8 | 9 | 50.833 | 50.166 | -0.667 |
| 8 | 10 | 51.503 | 50.649 | -0.854 |
| 10 | 11 | 51.420 | 49.020 | -2.400 |
| 10 | 12 | 50.527 | 50.526 | -0.001 |
| 10 | 13 | 51.254 | 50.979 | -0.275 |
| 10 | 14 | 49.779 | 50.500 | 0.721 |
| 10 | 15 | 49.554 | 50.929 | 1.375 |
| 15 | 16 | 50.050 | 50.318 | 0.268 |
| 15 | 17 | 51.044 | 49.688 | -1.356 |
| 15 | 18 | 50.537 | 50.630 | 0.093 |
| 15 | 19 | 50.592 | 50.658 | 0.066 |
| 15 | 20 | 50.545 | 51.129 | 0.584 |
| 30 | 21 | 50.478 | 50.057 | -0.421 |
| 30 | 22 | 50.841 | 50.242 | -0.599 |
| 30 | 23 | 51.326 | 50.467 | -0.859 |
| 30 | 24 | 50.444 | 49.705 | -0.739 |
| 30 | 25 | 51.004 | 48.806 | -2.198 |
| 35 | 26 | 50.565 | 49.879 | -0.686 |
| 35 | 27 | 50.458 | 49.974 | -0.484 |
| 35 | 28 | 50.536 | 49.731 | -0.805 |
| 35 | 29 | 50.459 | 51.089 | 0.630 |
| 35 | 30 | 51.687 | 50.158 | -1.529 |
| 50 | 31 | 50.397 | 49.375 | -1.022 |
| 50 | 32 | 51.550 | 49.832 | -1.718 |
| 50 | 33 | 51.177 | 49.846 | -1.331 |
| 50 | 34 | 50.105 | 49.638 | -0.467 |
| 50 | 35 | 50.842 | 48.560 | -2.282 |
| 55 | 36 | 50.231 | 49.899 | -0.332 |
| 55 | 37 | 50.747 | 49.351 | -1.396 |
| 55 | 38 | 49.325 | 49.869 | 0.544 |
| 55 | 39 | 50.700 | 49.766 | -0.934 |
| 55 | 40 | 51.271 | 49.232 | -2.039 |
| 100 | 41 | 50.848 | 49.237 | -1.611 |
| 100 | 42 | 50.586 | 49.025 | -1.561 |
| 100 | 43 | 50.560 | 48.753 | -1.807 |
| 100 | 44 | 49.995 | 48.400 | -1.595 |
| 100 | 45 | 50.875 | 48.376 | -2.499 |
| 105 | 46 | 50.921 | 48.609 | -2.312 |
| 105 | 47 | 51.385 | 48.284 | -3.101 |
| 105 | 48 | 50.867 | 48.585 | -2.282 |
| 105 | 49 | 51.074 | 48.592 | -2.482 |
| 105 | 50 | 51.432 | 49.148 | -2.284 |
| 105 | 51 | 50.614 | 49.124 | -1.490 |
| 105 | 52 | 49.589 | 48.099 | -1.490 |
| 105 | 53 | 50.713 | 49.059 | -1.654 |
| 105 | 54 | 50.809 | 51.094 | 0.285 |
| 105 | 55 | 50.654 | 47.301 | -3.353 |
| 105 | 56 | 51.837 | 47.859 | -3.978 |
| 105 | 57 | 50.946 | 48.852 | -2.094 |
| 105 | 58 | 50.708 | 48.318 | -2.390 |
| 105 | 59 | 50.975 | 48.705 | -2.270 |
| 105 | 60 | 51.385 | 48.550 | -2.835 |
| 105 | 61 | 50.939 | 48.260 | -2.679 |
| 105 | 62 | 49.906 | 48.790 | -1.116 |
| 105 | 63 | 51.072 | 48.879 | -2.193 |
| 105 | 64 | 50.648 | 48.162 | -2.486 |
| 105 | 65 | 51.275 | 48.678 | -2.597 |
| 105 | 66 | 51.083 | 48.314 | -2.769 |
| 105 | 67 | 50.506 | 48.131 | -2.375 |
| Max | | 53.104 | 53.135 | 1.375 |
| Average | | 50.836 | 49.680 | -1.155 |
| Min | | 49.325 | 47.301 | -3.978 |
| Std Dev | | 0.640 | 1.168 | 1.187 |



| 13.58 PSB DT 50ns 1M 12V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns ns |
| Min Limit | 43 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 51.268 | 50.436 | 50.148 | 49.020 | 49.688 | 48.806 | 49.731 | 48.560 | 49.232 | 48.376 | 47.301 |
| Average | 52.436 | 50.887 | 50.569 | 50.391 | 50.485 | 49.855 | 50.166 | 49.450 | 49.623 | 48.758 | 48.609 |
| Max | 53.135 | 51.572 | 51.121 | 50.979 | 51.129 | 50.467 | 51.089 | 49.846 | 49.899 | 49.237 | 51.094 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

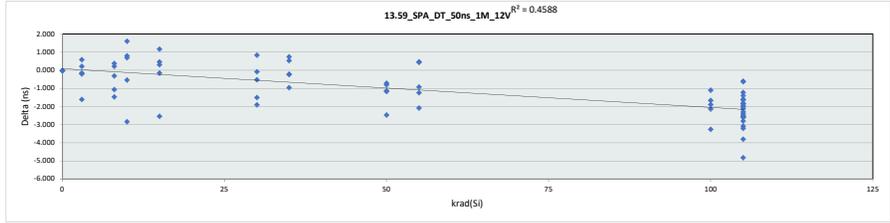


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

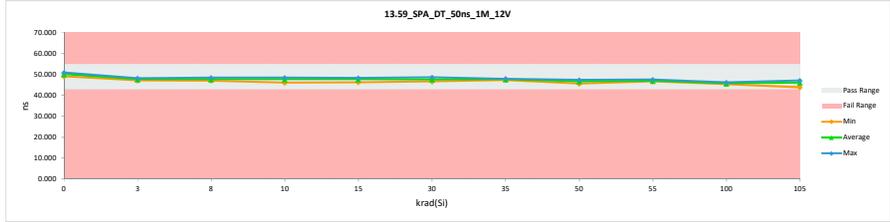
| 13.59 SPA_DT_50ns_1M_12V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 55 55 |
| Min Limit | 43 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 50.731 | 50.729 | -0.002 |
| 0 | 992 | 51.001 | 51.002 | 0.001 |
| 0 | 993 | 49.223 | 49.225 | 0.002 |
| 3 | 1 | 48.061 | 48.305 | 0.244 |
| 3 | 2 | 48.780 | 47.192 | -1.588 |
| 3 | 3 | 48.170 | 48.033 | -0.137 |
| 3 | 4 | 47.823 | 47.638 | -0.185 |
| 3 | 5 | 47.621 | 48.217 | 0.596 |
| 8 | 6 | 48.231 | 48.633 | 0.402 |
| 8 | 7 | 47.958 | 47.676 | -0.282 |
| 8 | 8 | 47.765 | 48.001 | 0.236 |
| 8 | 9 | 48.178 | 47.133 | -1.045 |
| 8 | 10 | 48.998 | 47.547 | -1.451 |
| 10 | 11 | 48.971 | 46.164 | -2.807 |
| 10 | 12 | 48.597 | 48.081 | -0.516 |
| 10 | 13 | 47.825 | 48.639 | 0.814 |
| 10 | 14 | 46.691 | 47.407 | 0.716 |
| 10 | 15 | 46.969 | 48.595 | 1.626 |
| 15 | 16 | 46.760 | 47.951 | 1.191 |
| 15 | 17 | 48.909 | 46.385 | -2.524 |
| 15 | 18 | 47.973 | 48.457 | 0.484 |
| 15 | 19 | 47.884 | 47.749 | -0.135 |
| 15 | 20 | 48.132 | 48.449 | 0.317 |
| 30 | 21 | 49.024 | 47.538 | -1.486 |
| 30 | 22 | 48.036 | 47.974 | -0.062 |
| 30 | 23 | 48.161 | 47.667 | -0.494 |
| 30 | 24 | 47.840 | 48.692 | 0.852 |
| 30 | 25 | 48.687 | 46.798 | -1.889 |
| 35 | 26 | 47.265 | 47.825 | 0.560 |
| 35 | 27 | 48.181 | 47.986 | -0.195 |
| 35 | 28 | 48.389 | 47.450 | -0.939 |
| 35 | 29 | 47.280 | 48.040 | 0.760 |
| 35 | 30 | 48.160 | 47.949 | -0.211 |
| 50 | 31 | 47.624 | 46.928 | -0.696 |
| 50 | 32 | 48.328 | 47.539 | -0.789 |
| 50 | 33 | 48.696 | 47.547 | -1.149 |
| 50 | 34 | 47.700 | 46.590 | -1.110 |
| 50 | 35 | 48.115 | 45.666 | -2.449 |
| 55 | 36 | 47.257 | 47.715 | 0.458 |
| 55 | 37 | 47.687 | 46.783 | -0.904 |
| 55 | 38 | 46.462 | 46.938 | 0.476 |
| 55 | 39 | 48.420 | 47.206 | -1.214 |
| 55 | 40 | 48.890 | 46.836 | -2.054 |
| 100 | 41 | 47.723 | 45.862 | -1.861 |
| 100 | 42 | 47.963 | 46.328 | -1.635 |
| 100 | 43 | 48.204 | 46.088 | -2.116 |
| 100 | 44 | 46.547 | 45.473 | -1.074 |
| 100 | 45 | 48.714 | 45.477 | -3.237 |
| 105 | 46 | 48.025 | 46.396 | -1.629 |
| 105 | 47 | 48.730 | 46.213 | -2.517 |
| 105 | 48 | 48.324 | 46.404 | -1.920 |
| 105 | 49 | 48.777 | 46.399 | -2.378 |
| 105 | 50 | 48.592 | 47.016 | -1.576 |
| 105 | 51 | 49.672 | 46.887 | -2.785 |
| 105 | 52 | 47.417 | 46.832 | -0.585 |
| 105 | 53 | 48.492 | 45.929 | -2.563 |
| 105 | 54 | 48.743 | 43.944 | -4.799 |
| 105 | 55 | 48.159 | 44.980 | -3.179 |
| 105 | 56 | 48.774 | 44.994 | -3.780 |
| 105 | 57 | 48.628 | 47.244 | -1.384 |
| 105 | 58 | 48.292 | 46.291 | -2.001 |
| 105 | 59 | 48.547 | 46.070 | -2.477 |
| 105 | 60 | 48.962 | 46.392 | -2.570 |
| 105 | 61 | 48.232 | 47.032 | -1.200 |
| 105 | 62 | 46.966 | 46.358 | -0.608 |
| 105 | 63 | 48.027 | 46.223 | -1.804 |
| 105 | 64 | 48.027 | 45.764 | -2.263 |
| 105 | 65 | 48.813 | 46.692 | -2.121 |
| 105 | 66 | 48.446 | 45.383 | -3.063 |
| 105 | 67 | 47.932 | 46.116 | -1.816 |
| Max | | 51.001 | 51.002 | 1.626 |
| Average | | 48.217 | 47.138 | -1.079 |
| Min | | 46.462 | 43.944 | -4.799 |
| Std Dev | | 0.793 | 1.222 | 1.327 |



| 13.59 SPA_DT_50ns_1M_12V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

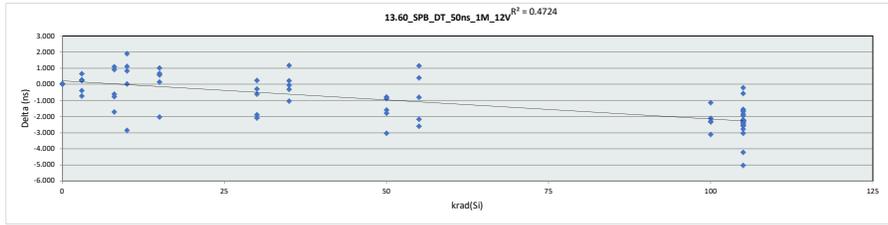
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 49.225 | 47.192 | 47.133 | 46.164 | 46.385 | 46.798 | 47.450 | 45.666 | 46.783 | 45.473 | 43.944 |
| Average | 50.319 | 47.877 | 47.798 | 47.777 | 47.798 | 47.734 | 47.850 | 46.854 | 47.096 | 45.846 | 46.162 |
| Max | 51.002 | 48.305 | 48.633 | 48.639 | 48.457 | 48.692 | 48.040 | 47.547 | 47.715 | 46.328 | 47.244 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |



**HDR TID Report
TPS7H5001-SP QMLP**

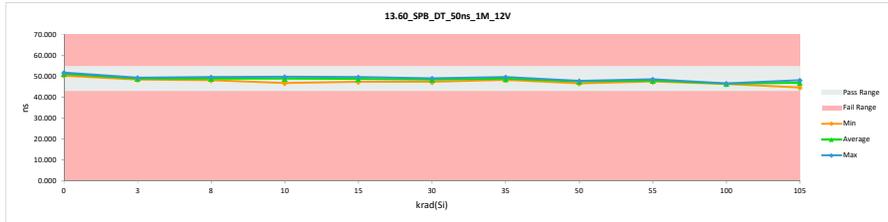
| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| | | 13.60_SPB_DT_50ns_1M_12V | | |
|-------------|-----------|--------------------------|----------|--------|
| Test Site | Tester | | | |
| Test Number | Unit | ns | ns | |
| Max Limit | Min Limit | 55 | 43 | |
| | | 45 | | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 51.525 | 51.568 | 0.043 |
| 0 | 992 | 51.796 | 51.849 | 0.053 |
| 0 | 993 | 50.448 | 50.504 | 0.056 |
| 3 | 1 | 49.033 | 49.333 | 0.300 |
| 3 | 2 | 49.225 | 48.552 | -0.703 |
| 3 | 3 | 48.811 | 49.079 | 0.268 |
| 3 | 4 | 48.865 | 48.501 | -0.364 |
| 3 | 5 | 48.738 | 49.426 | 0.688 |
| 8 | 6 | 48.782 | 49.720 | 0.938 |
| 8 | 7 | 49.295 | 48.720 | -0.575 |
| 8 | 8 | 48.611 | 49.717 | 1.106 |
| 8 | 9 | 49.028 | 48.278 | -0.750 |
| 8 | 10 | 50.314 | 48.634 | -1.680 |
| 10 | 11 | 49.762 | 46.931 | -2.831 |
| 10 | 12 | 49.403 | 49.457 | 0.054 |
| 10 | 13 | 48.794 | 49.936 | 1.142 |
| 10 | 14 | 47.824 | 48.673 | 0.849 |
| 10 | 15 | 47.995 | 49.914 | 1.919 |
| 15 | 16 | 48.039 | 48.730 | 0.691 |
| 15 | 17 | 49.484 | 47.478 | -2.006 |
| 15 | 18 | 48.683 | 49.284 | 0.601 |
| 15 | 19 | 49.030 | 49.191 | 0.161 |
| 15 | 20 | 48.783 | 49.817 | 1.034 |
| 30 | 21 | 49.732 | 47.864 | -1.868 |
| 30 | 22 | 49.689 | 49.997 | -0.592 |
| 30 | 23 | 49.137 | 48.874 | -0.263 |
| 30 | 24 | 48.964 | 49.231 | 0.267 |
| 30 | 25 | 49.487 | 47.417 | -2.070 |
| 35 | 26 | 48.600 | 48.572 | -0.028 |
| 35 | 27 | 48.902 | 49.151 | 0.249 |
| 35 | 28 | 49.391 | 48.383 | -1.008 |
| 35 | 29 | 48.549 | 49.749 | 1.200 |
| 35 | 30 | 49.165 | 48.880 | -0.285 |
| 50 | 31 | 48.455 | 47.687 | -0.768 |
| 50 | 32 | 49.508 | 47.949 | -1.559 |
| 50 | 33 | 49.741 | 47.967 | -1.774 |
| 50 | 34 | 48.681 | 47.832 | -0.849 |
| 50 | 35 | 49.771 | 46.766 | -3.005 |
| 55 | 36 | 48.330 | 48.749 | 0.419 |
| 55 | 37 | 48.720 | 47.935 | -0.785 |
| 55 | 38 | 47.159 | 48.331 | 1.172 |
| 55 | 39 | 49.783 | 47.638 | -2.145 |
| 55 | 40 | 50.146 | 47.566 | -2.580 |
| 100 | 41 | 48.988 | 46.700 | -2.288 |
| 100 | 42 | 48.820 | 46.746 | -2.074 |
| 100 | 43 | 48.945 | 46.638 | -2.307 |
| 100 | 44 | 47.586 | 46.470 | -1.116 |
| 100 | 45 | 49.483 | 46.391 | -3.092 |
| 105 | 46 | 49.405 | 46.866 | -2.539 |
| 105 | 47 | 50.032 | 47.500 | -2.532 |
| 105 | 48 | 48.721 | 47.153 | -1.568 |
| 105 | 49 | 49.895 | 47.140 | -2.755 |
| 105 | 50 | 49.780 | 48.260 | -1.520 |
| 105 | 51 | 50.209 | 47.686 | -2.523 |
| 105 | 52 | 48.031 | 47.490 | -0.541 |
| 105 | 53 | 49.193 | 46.854 | -2.339 |
| 105 | 54 | 49.810 | 44.805 | -5.005 |
| 105 | 55 | 49.003 | 45.993 | -3.010 |
| 105 | 56 | 50.362 | 46.177 | -4.185 |
| 105 | 57 | 49.569 | 47.752 | -1.817 |
| 105 | 58 | 49.055 | 46.853 | -2.202 |
| 105 | 59 | 49.483 | 47.256 | -2.227 |
| 105 | 60 | 49.324 | 47.051 | -2.273 |
| 105 | 61 | 49.400 | 47.729 | -1.671 |
| 105 | 62 | 48.133 | 47.946 | -0.187 |
| 105 | 63 | 49.422 | 47.179 | -2.243 |
| 105 | 64 | 49.217 | 46.821 | -2.396 |
| 105 | 65 | 49.728 | 47.540 | -2.188 |
| 105 | 66 | 48.721 | 46.529 | -2.192 |
| 105 | 67 | 48.653 | 46.723 | -1.930 |
| | Max | 51.796 | 51.849 | 1.919 |
| | Average | 49.188 | 48.102 | -1.086 |
| | Min | 47.159 | 44.805 | -5.005 |
| | Std Dev | 0.784 | 1.303 | 1.446 |



| | | 13.60_SPB_DT_50ns_1M_12V | | |
|-------------|-----------|--------------------------|----|--|
| Test Site | Tester | | | |
| Test Number | Unit | ns | ns | |
| Max Limit | Min Limit | 55 | 43 | |
| | | 45 | | |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 50.594 | 48.501 | 48.278 | 46.931 | 47.478 | 47.417 | 48.383 | 46.766 | 47.566 | 46.391 | 44.805 |
| Average | 51.307 | 48.972 | 49.014 | 48.982 | 48.800 | 48.497 | 48.947 | 47.640 | 48.044 | 46.589 | 47.059 |
| Max | 51.849 | 49.426 | 49.720 | 49.936 | 49.817 | 49.231 | 49.749 | 47.967 | 48.749 | 46.746 | 48.260 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

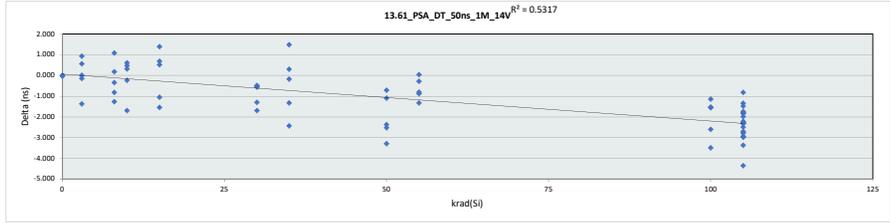


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

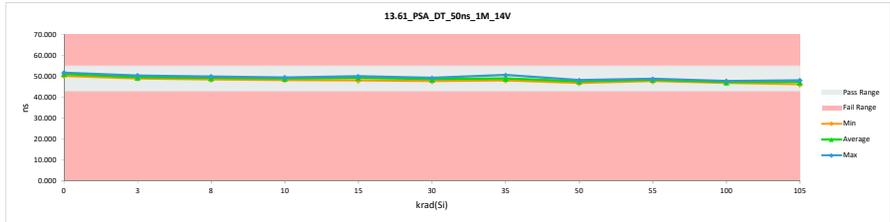
| 13.61 PSA_DT_50ns_1M_14V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 55 55 |
| Min Limit | 43 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 51.922 | 51.922 | 0.000 |
| 0 | 992 | 51.521 | 51.518 | -0.003 |
| 0 | 993 | 50.295 | 50.321 | 0.026 |
| 3 | 1 | 49.755 | 49.625 | -0.130 |
| 3 | 2 | 50.477 | 49.118 | -1.359 |
| 3 | 3 | 49.533 | 50.476 | 0.943 |
| 3 | 4 | 49.324 | 49.347 | 0.023 |
| 3 | 5 | 49.327 | 49.908 | 0.581 |
| 8 | 6 | 49.866 | 50.055 | 0.189 |
| 8 | 7 | 49.787 | 48.985 | -0.802 |
| 8 | 8 | 48.953 | 50.047 | 1.094 |
| 8 | 9 | 49.383 | 49.052 | -0.331 |
| 8 | 10 | 49.853 | 48.608 | -1.245 |
| 10 | 11 | 50.075 | 48.404 | -1.671 |
| 10 | 12 | 48.713 | 49.207 | 0.494 |
| 10 | 13 | 49.277 | 49.615 | 0.338 |
| 10 | 14 | 48.603 | 48.387 | -0.216 |
| 10 | 15 | 48.963 | 49.590 | 0.627 |
| 15 | 16 | 49.130 | 49.664 | 0.534 |
| 15 | 17 | 49.696 | 48.168 | -1.528 |
| 15 | 18 | 48.744 | 50.145 | 1.401 |
| 15 | 19 | 50.207 | 49.176 | -1.031 |
| 15 | 20 | 49.251 | 49.952 | 0.701 |
| 30 | 21 | 49.883 | 49.345 | -0.538 |
| 30 | 22 | 49.335 | 48.876 | -0.459 |
| 30 | 23 | 49.968 | 48.690 | -1.278 |
| 30 | 24 | 49.590 | 49.087 | -0.503 |
| 30 | 25 | 49.491 | 47.821 | -1.670 |
| 35 | 26 | 48.724 | 49.040 | 0.316 |
| 35 | 27 | 49.130 | 48.972 | -0.158 |
| 35 | 28 | 49.580 | 48.369 | -1.311 |
| 35 | 29 | 49.197 | 50.696 | 1.499 |
| 35 | 30 | 50.630 | 48.222 | -2.408 |
| 50 | 31 | 49.336 | 48.264 | -1.072 |
| 50 | 32 | 50.017 | 47.672 | -2.345 |
| 50 | 33 | 50.186 | 47.678 | -2.508 |
| 50 | 34 | 48.984 | 48.291 | -0.693 |
| 50 | 35 | 50.163 | 46.893 | -3.270 |
| 55 | 36 | 49.157 | 48.895 | -0.262 |
| 55 | 37 | 48.741 | 47.881 | -0.860 |
| 55 | 38 | 48.621 | 48.671 | 0.050 |
| 55 | 39 | 49.440 | 48.653 | -0.787 |
| 55 | 40 | 49.910 | 48.606 | -1.304 |
| 100 | 41 | 48.734 | 47.220 | -1.514 |
| 100 | 42 | 49.540 | 47.996 | -1.544 |
| 100 | 43 | 49.936 | 47.354 | -2.582 |
| 100 | 44 | 48.442 | 47.312 | -1.130 |
| 100 | 45 | 50.478 | 47.008 | -3.470 |
| 105 | 46 | 49.500 | 48.033 | -1.467 |
| 105 | 47 | 50.216 | 47.745 | -2.471 |
| 105 | 48 | 50.306 | 47.382 | -2.924 |
| 105 | 49 | 49.669 | 47.386 | -2.283 |
| 105 | 50 | 49.540 | 47.754 | -1.786 |
| 105 | 51 | 50.070 | 47.768 | -2.302 |
| 105 | 52 | 48.533 | 46.339 | -2.194 |
| 105 | 53 | 49.826 | 47.135 | -2.691 |
| 105 | 54 | 49.771 | 47.532 | -2.239 |
| 105 | 55 | 49.331 | 46.627 | -2.704 |
| 105 | 56 | 51.442 | 47.107 | -4.335 |
| 105 | 57 | 48.910 | 47.591 | -1.319 |
| 105 | 58 | 49.632 | 46.675 | -2.957 |
| 105 | 59 | 49.979 | 48.251 | -1.728 |
| 105 | 60 | 49.066 | 47.255 | -1.811 |
| 105 | 61 | 49.573 | 47.787 | -1.786 |
| 105 | 62 | 48.126 | 47.332 | -0.794 |
| 105 | 63 | 49.907 | 47.626 | -2.281 |
| 105 | 64 | 49.276 | 47.306 | -1.970 |
| 105 | 65 | 50.184 | 47.421 | -2.763 |
| 105 | 66 | 49.916 | 46.564 | -3.352 |
| 105 | 67 | 49.835 | 46.888 | -2.947 |
| Max | | 51.922 | 51.922 | 1.499 |
| Average | | 49.608 | 48.433 | -1.175 |
| Min | | 48.126 | 46.339 | -4.335 |
| Std Dev | | 0.697 | 1.206 | 1.305 |



| 13.61 PSA_DT_50ns_1M_14V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 50.321 | 49.119 | 48.608 | 48.387 | 48.168 | 47.821 | 48.222 | 46.893 | 47.891 | 47.008 | 46.339 |
| Average | 51.254 | 49.695 | 49.349 | 49.041 | 49.421 | 48.764 | 49.060 | 47.760 | 48.541 | 47.378 | 47.341 |
| Max | 51.922 | 50.476 | 50.055 | 49.615 | 50.145 | 49.345 | 50.696 | 48.291 | 48.895 | 47.996 | 48.251 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

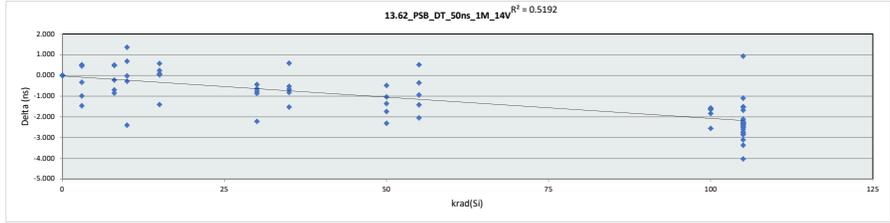


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

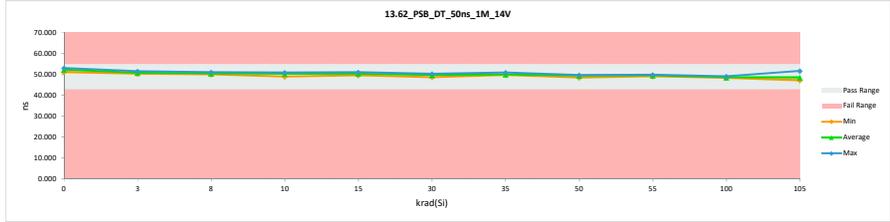
| 13.62 PSB DT 50ns 1M 14V | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 45 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 53.114 | 53.130 | 0.016 |
| 0 | 992 | 52.882 | 52.914 | 0.032 |
| 0 | 993 | 51.249 | 51.271 | 0.022 |
| 3 | 1 | 51.937 | 50.484 | -1.453 |
| 3 | 2 | 51.396 | 50.431 | -0.965 |
| 3 | 3 | 51.106 | 51.575 | 0.469 |
| 3 | 4 | 50.710 | 50.405 | -0.305 |
| 3 | 5 | 50.944 | 51.474 | 0.530 |
| 8 | 6 | 50.601 | 51.113 | 0.512 |
| 8 | 7 | 50.353 | 50.148 | -0.205 |
| 8 | 8 | 50.254 | 50.751 | 0.497 |
| 8 | 9 | 50.843 | 50.162 | -0.681 |
| 8 | 10 | 51.491 | 50.652 | -0.839 |
| 10 | 11 | 51.406 | 49.019 | -2.387 |
| 10 | 12 | 50.527 | 50.530 | 0.003 |
| 10 | 13 | 51.239 | 50.974 | -0.265 |
| 10 | 14 | 49.780 | 50.488 | 0.708 |
| 10 | 15 | 49.567 | 50.943 | 1.376 |
| 15 | 16 | 50.056 | 50.312 | 0.256 |
| 15 | 17 | 51.050 | 49.667 | -1.383 |
| 15 | 18 | 50.525 | 50.626 | 0.101 |
| 15 | 19 | 50.604 | 50.649 | 0.045 |
| 15 | 20 | 50.533 | 51.130 | 0.597 |
| 30 | 21 | 50.472 | 50.053 | -0.419 |
| 30 | 22 | 50.851 | 50.230 | -0.621 |
| 30 | 23 | 51.314 | 50.463 | -0.851 |
| 30 | 24 | 50.443 | 49.701 | -0.742 |
| 30 | 25 | 51.003 | 48.799 | -2.204 |
| 35 | 26 | 50.525 | 49.878 | -0.647 |
| 35 | 27 | 50.461 | 49.957 | -0.504 |
| 35 | 28 | 50.534 | 49.727 | -0.807 |
| 35 | 29 | 50.468 | 51.081 | 0.613 |
| 35 | 30 | 51.679 | 50.168 | -1.511 |
| 50 | 31 | 50.400 | 49.378 | -1.022 |
| 50 | 32 | 51.551 | 49.829 | -1.722 |
| 50 | 33 | 51.182 | 49.849 | -1.333 |
| 50 | 34 | 50.107 | 49.641 | -0.466 |
| 50 | 35 | 50.847 | 48.561 | -2.286 |
| 55 | 36 | 50.237 | 49.890 | -0.347 |
| 55 | 37 | 50.745 | 49.351 | -1.394 |
| 55 | 38 | 49.329 | 49.861 | 0.532 |
| 55 | 39 | 50.696 | 49.768 | -0.928 |
| 55 | 40 | 51.289 | 49.235 | -2.054 |
| 100 | 41 | 50.837 | 49.235 | -1.602 |
| 100 | 42 | 50.574 | 49.021 | -1.553 |
| 100 | 43 | 50.566 | 48.745 | -1.821 |
| 100 | 44 | 50.014 | 48.394 | -1.620 |
| 100 | 45 | 50.900 | 48.359 | -2.541 |
| 105 | 46 | 50.904 | 48.607 | -2.297 |
| 105 | 47 | 51.383 | 48.296 | -3.087 |
| 105 | 48 | 50.861 | 48.577 | -2.284 |
| 105 | 49 | 51.071 | 48.576 | -2.495 |
| 105 | 50 | 51.448 | 49.147 | -2.301 |
| 105 | 51 | 50.622 | 49.107 | -1.515 |
| 105 | 52 | 49.993 | 48.097 | -1.896 |
| 105 | 53 | 50.719 | 49.058 | -1.661 |
| 105 | 54 | 50.802 | 51.743 | 0.941 |
| 105 | 55 | 50.654 | 47.299 | -3.355 |
| 105 | 56 | 51.841 | 47.831 | -4.010 |
| 105 | 57 | 50.951 | 48.858 | -2.093 |
| 105 | 58 | 50.708 | 48.327 | -2.381 |
| 105 | 59 | 50.919 | 48.693 | -2.226 |
| 105 | 60 | 51.382 | 48.546 | -2.836 |
| 105 | 61 | 50.951 | 48.253 | -2.698 |
| 105 | 62 | 49.861 | 48.785 | -1.076 |
| 105 | 63 | 51.066 | 48.863 | -2.203 |
| 105 | 64 | 50.624 | 48.175 | -2.449 |
| 105 | 65 | 51.275 | 48.691 | -2.584 |
| 105 | 66 | 51.082 | 48.320 | -2.762 |
| 105 | 67 | 50.496 | 48.142 | -2.354 |
| Max | | 53.114 | 53.130 | 1.376 |
| Average | | 50.834 | 49.686 | -1.148 |
| Min | | 49.329 | 47.299 | -4.010 |
| Std Dev | | 0.641 | 1.182 | 1.201 |



| 13.62 PSB DT 50ns 1M 14V | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 43 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 51.271 | 50.405 | 50.148 | 49.019 | 49.667 | 48.799 | 49.727 | 48.561 | 49.235 | 48.359 | 47.299 |
| Average | 52.438 | 50.874 | 50.565 | 50.391 | 50.477 | 49.849 | 50.162 | 49.452 | 49.621 | 48.751 | 48.636 |
| Max | 53.130 | 51.575 | 51.113 | 50.974 | 51.130 | 50.463 | 51.081 | 49.849 | 49.890 | 49.235 | 51.743 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

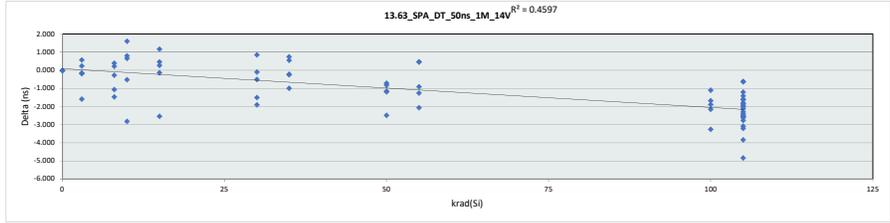


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

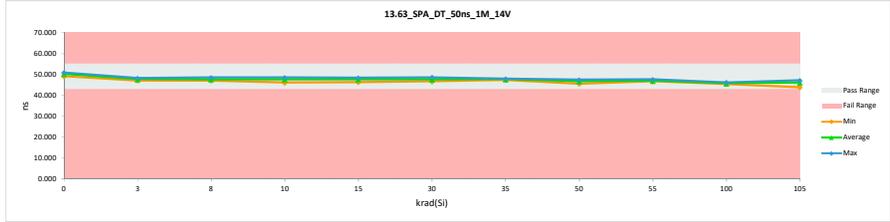
| 13.63 SPA_DT_50ns_1M_14V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 55 55 |
| Min Limit | 43 43 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 50.732 | 50.732 | 0.000 |
| 0 | 992 | 50.996 | 51.004 | 0.008 |
| 0 | 993 | 49.225 | 49.239 | 0.014 |
| 3 | 1 | 48.054 | 48.299 | 0.245 |
| 3 | 2 | 48.756 | 47.188 | -1.568 |
| 3 | 3 | 48.167 | 48.038 | -0.129 |
| 3 | 4 | 47.808 | 47.633 | -0.175 |
| 3 | 5 | 47.622 | 48.207 | 0.585 |
| 8 | 6 | 48.232 | 48.637 | 0.405 |
| 8 | 7 | 47.950 | 47.692 | -0.258 |
| 8 | 8 | 47.766 | 48.001 | 0.235 |
| 8 | 9 | 48.169 | 47.130 | -1.039 |
| 8 | 10 | 49.005 | 47.550 | -1.455 |
| 10 | 11 | 48.958 | 46.160 | -2.798 |
| 10 | 12 | 48.597 | 48.090 | -0.507 |
| 10 | 13 | 47.825 | 48.632 | 0.807 |
| 10 | 14 | 46.700 | 47.382 | 0.682 |
| 10 | 15 | 46.971 | 48.586 | 1.615 |
| 15 | 16 | 46.755 | 47.932 | 1.177 |
| 15 | 17 | 48.905 | 46.383 | -2.522 |
| 15 | 18 | 47.967 | 48.452 | 0.485 |
| 15 | 19 | 47.888 | 47.770 | -0.118 |
| 15 | 20 | 48.156 | 48.442 | 0.286 |
| 30 | 21 | 49.017 | 47.532 | -1.485 |
| 30 | 22 | 48.047 | 47.969 | -0.078 |
| 30 | 23 | 48.164 | 47.680 | -0.484 |
| 30 | 24 | 47.829 | 48.695 | 0.866 |
| 30 | 25 | 48.681 | 46.797 | -1.884 |
| 35 | 26 | 47.253 | 47.828 | 0.575 |
| 35 | 27 | 48.176 | 47.976 | -0.200 |
| 35 | 28 | 48.398 | 47.429 | -0.969 |
| 35 | 29 | 47.269 | 48.026 | 0.757 |
| 35 | 30 | 48.157 | 47.945 | -0.212 |
| 50 | 31 | 47.635 | 46.935 | -0.700 |
| 50 | 32 | 48.325 | 47.531 | -0.794 |
| 50 | 33 | 48.710 | 47.538 | -1.172 |
| 50 | 34 | 47.705 | 46.573 | -1.132 |
| 50 | 35 | 48.112 | 45.649 | -2.463 |
| 55 | 36 | 47.255 | 47.729 | 0.474 |
| 55 | 37 | 47.677 | 46.794 | -0.883 |
| 55 | 38 | 46.448 | 46.930 | 0.482 |
| 55 | 39 | 48.423 | 47.181 | -1.242 |
| 55 | 40 | 48.877 | 46.834 | -2.043 |
| 100 | 41 | 47.730 | 45.855 | -1.875 |
| 100 | 42 | 47.963 | 46.312 | -1.651 |
| 100 | 43 | 48.202 | 46.076 | -2.126 |
| 100 | 44 | 46.549 | 45.470 | -1.079 |
| 100 | 45 | 48.713 | 45.474 | -3.239 |
| 105 | 46 | 47.996 | 46.396 | -1.600 |
| 105 | 47 | 48.727 | 46.221 | -2.506 |
| 105 | 48 | 48.318 | 46.394 | -1.924 |
| 105 | 49 | 48.775 | 46.395 | -2.380 |
| 105 | 50 | 48.591 | 47.013 | -1.578 |
| 105 | 51 | 49.658 | 46.916 | -2.742 |
| 105 | 52 | 47.424 | 46.822 | -0.602 |
| 105 | 53 | 48.492 | 45.935 | -2.557 |
| 105 | 54 | 48.747 | 43.940 | -4.807 |
| 105 | 55 | 48.175 | 44.984 | -3.191 |
| 105 | 56 | 48.771 | 44.950 | -3.821 |
| 105 | 57 | 48.636 | 47.242 | -1.394 |
| 105 | 58 | 48.293 | 46.278 | -2.015 |
| 105 | 59 | 48.526 | 46.055 | -2.471 |
| 105 | 60 | 48.978 | 46.394 | -2.584 |
| 105 | 61 | 48.222 | 47.037 | -1.185 |
| 105 | 62 | 46.949 | 46.344 | -0.605 |
| 105 | 63 | 48.016 | 46.229 | -1.787 |
| 105 | 64 | 48.025 | 45.753 | -2.272 |
| 105 | 65 | 48.805 | 46.686 | -2.119 |
| 105 | 66 | 48.442 | 45.388 | -3.054 |
| 105 | 67 | 47.935 | 46.105 | -1.830 |
| Max | | 50.996 | 51.004 | 1.615 |
| Average | | 48.215 | 47.134 | -1.080 |
| Min | | 46.448 | 43.940 | -4.807 |
| Std Dev | | 0.793 | 1.224 | 1.327 |



| 13.63 SPA_DT_50ns_1M_14V | |
|--------------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 55 ns |
| Min Limit | 43 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 49.239 | 47.188 | 47.130 | 46.160 | 46.383 | 46.797 | 47.429 | 45.649 | 46.794 | 45.470 | 43.940 |
| Average | 50.325 | 47.873 | 47.802 | 47.770 | 47.796 | 47.735 | 47.841 | 46.845 | 47.094 | 45.837 | 46.158 |
| Max | 51.004 | 48.299 | 48.637 | 48.632 | 48.452 | 48.695 | 48.026 | 47.538 | 47.729 | 46.312 | 47.242 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

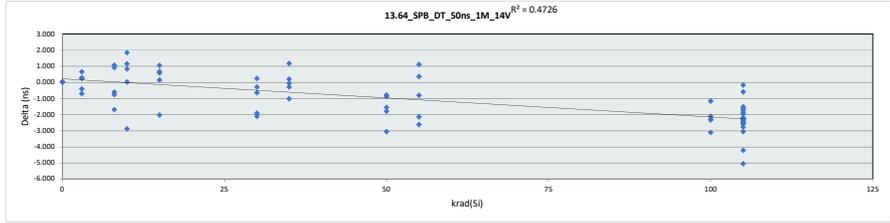


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

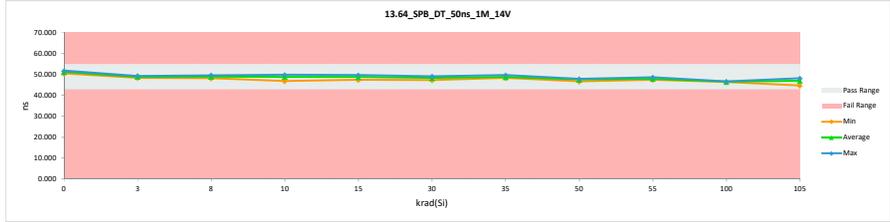
| 13.64 SPB_DT_50ns_1M_14V | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 45 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 51.520 | 51.565 | 0.045 |
| 0 | 992 | 51.793 | 51.844 | 0.051 |
| 0 | 993 | 50.458 | 50.513 | 0.055 |
| 3 | 1 | 49.032 | 49.335 | 0.303 |
| 3 | 2 | 49.208 | 48.552 | -0.686 |
| 3 | 3 | 48.818 | 49.075 | 0.257 |
| 3 | 4 | 48.875 | 48.484 | -0.391 |
| 3 | 5 | 48.734 | 49.422 | 0.688 |
| 8 | 6 | 48.785 | 49.729 | 0.944 |
| 8 | 7 | 49.302 | 48.711 | -0.591 |
| 8 | 8 | 48.613 | 49.706 | 1.093 |
| 8 | 9 | 49.019 | 48.270 | -0.749 |
| 8 | 10 | 50.301 | 48.632 | -1.669 |
| 10 | 11 | 49.771 | 46.930 | -2.841 |
| 10 | 12 | 49.403 | 49.452 | 0.049 |
| 10 | 13 | 48.778 | 49.942 | 1.164 |
| 10 | 14 | 47.816 | 48.681 | 0.865 |
| 10 | 15 | 48.011 | 49.877 | 1.866 |
| 15 | 16 | 48.038 | 48.737 | 0.699 |
| 15 | 17 | 49.472 | 47.472 | -2.000 |
| 15 | 18 | 48.667 | 49.264 | 0.597 |
| 15 | 19 | 49.032 | 49.205 | 0.173 |
| 15 | 20 | 48.748 | 49.819 | 1.071 |
| 30 | 21 | 49.723 | 47.846 | -1.877 |
| 30 | 22 | 49.700 | 49.083 | -0.617 |
| 30 | 23 | 49.136 | 48.867 | -0.269 |
| 30 | 24 | 48.963 | 49.226 | 0.263 |
| 30 | 25 | 49.493 | 47.414 | -2.079 |
| 35 | 26 | 48.604 | 48.574 | -0.030 |
| 35 | 27 | 48.907 | 49.135 | 0.228 |
| 35 | 28 | 49.382 | 48.383 | -0.999 |
| 35 | 29 | 48.542 | 49.742 | 1.200 |
| 35 | 30 | 49.162 | 48.890 | -0.272 |
| 50 | 31 | 48.450 | 47.688 | -0.762 |
| 50 | 32 | 49.502 | 47.968 | -1.534 |
| 50 | 33 | 49.722 | 47.966 | -1.756 |
| 50 | 34 | 48.675 | 47.834 | -0.841 |
| 50 | 35 | 49.766 | 46.747 | -3.019 |
| 55 | 36 | 48.342 | 48.734 | 0.392 |
| 55 | 37 | 48.719 | 47.934 | -0.785 |
| 55 | 38 | 47.189 | 48.332 | 1.143 |
| 55 | 39 | 49.772 | 47.649 | -2.123 |
| 55 | 40 | 50.147 | 47.562 | -2.585 |
| 100 | 41 | 48.967 | 46.697 | -2.270 |
| 100 | 42 | 48.810 | 46.735 | -2.075 |
| 100 | 43 | 48.943 | 46.643 | -2.300 |
| 100 | 44 | 47.585 | 46.447 | -1.138 |
| 100 | 45 | 49.477 | 46.392 | -3.085 |
| 105 | 46 | 49.406 | 46.862 | -2.544 |
| 105 | 47 | 50.040 | 47.505 | -2.535 |
| 105 | 48 | 48.721 | 47.141 | -1.580 |
| 105 | 49 | 49.897 | 47.140 | -2.757 |
| 105 | 50 | 49.759 | 48.261 | -1.498 |
| 105 | 51 | 50.204 | 47.680 | -2.524 |
| 105 | 52 | 48.036 | 47.482 | -0.554 |
| 105 | 53 | 49.196 | 46.842 | -2.354 |
| 105 | 54 | 49.796 | 44.766 | -5.030 |
| 105 | 55 | 49.026 | 45.990 | -3.036 |
| 105 | 56 | 50.355 | 46.170 | -4.185 |
| 105 | 57 | 49.584 | 47.765 | -1.819 |
| 105 | 58 | 49.021 | 46.844 | -2.177 |
| 105 | 59 | 49.470 | 47.251 | -2.219 |
| 105 | 60 | 49.306 | 47.041 | -2.265 |
| 105 | 61 | 49.404 | 47.720 | -1.684 |
| 105 | 62 | 48.112 | 47.970 | -0.142 |
| 105 | 63 | 49.424 | 47.180 | -2.244 |
| 105 | 64 | 49.228 | 46.821 | -2.407 |
| 105 | 65 | 49.728 | 47.530 | -2.198 |
| 105 | 66 | 48.734 | 46.523 | -2.211 |
| 105 | 67 | 48.661 | 46.709 | -1.952 |
| Max | | 51.793 | 51.844 | 1.866 |
| Average | | 49.185 | 48.098 | -1.087 |
| Min | | 47.189 | 44.766 | -5.030 |
| Std Dev | | 0.782 | 1.305 | 1.447 |



| 13.64 SPB_DT_50ns_1M_14V | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 43 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 | 43.000 |
| Min | 50.513 | 48.484 | 48.270 | 46.930 | 47.472 | 47.414 | 48.383 | 46.747 | 47.562 | 46.392 | 44.766 |
| Average | 51.307 | 48.968 | 49.010 | 48.976 | 48.899 | 48.487 | 48.945 | 47.641 | 48.042 | 46.583 | 47.054 |
| Max | 51.844 | 49.422 | 49.729 | 49.942 | 49.819 | 49.226 | 49.742 | 47.968 | 48.734 | 46.735 | 48.261 |
| UL | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 | 55.000 |

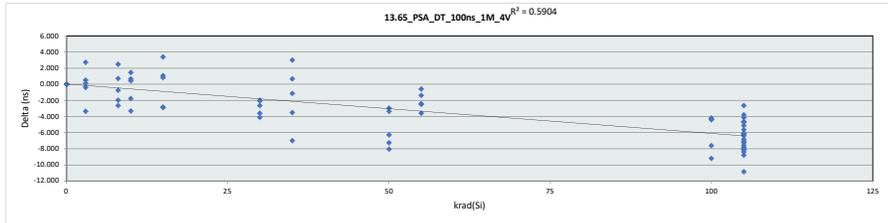


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

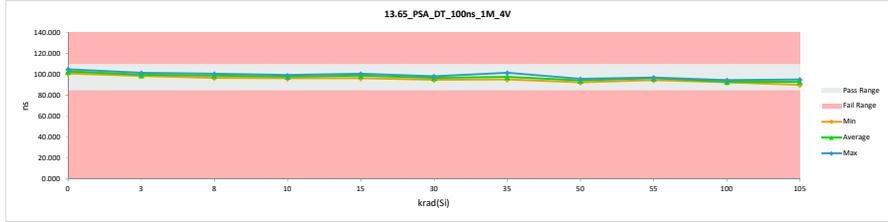
| 13.65 PSA_DT_100ns_1M_4V | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 112 110 |
| Min Limit | 87 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 104.941 | 105.007 | 0.066 |
| 0 | 992 | 103.026 | 103.081 | 0.055 |
| 0 | 993 | 101.155 | 101.217 | 0.062 |
| 3 | 1 | 99.930 | 99.591 | -0.339 |
| 3 | 2 | 101.870 | 98.565 | -3.305 |
| 3 | 3 | 98.891 | 101.681 | 2.790 |
| 3 | 4 | 98.933 | 99.094 | 0.161 |
| 3 | 5 | 99.095 | 99.666 | 0.571 |
| 8 | 6 | 99.945 | 100.704 | 0.759 |
| 8 | 7 | 100.197 | 98.293 | -1.904 |
| 8 | 8 | 97.827 | 100.366 | 2.539 |
| 8 | 9 | 98.642 | 97.964 | -0.678 |
| 8 | 10 | 99.355 | 96.759 | -2.596 |
| 10 | 11 | 100.343 | 97.100 | -3.243 |
| 10 | 12 | 96.716 | 98.243 | 1.527 |
| 10 | 13 | 98.660 | 99.408 | 0.748 |
| 10 | 14 | 98.027 | 96.325 | -1.702 |
| 10 | 15 | 98.815 | 99.315 | 0.500 |
| 15 | 16 | 98.678 | 99.572 | 0.894 |
| 15 | 17 | 99.395 | 96.590 | -2.805 |
| 15 | 18 | 97.319 | 100.751 | 3.432 |
| 15 | 19 | 100.667 | 97.902 | -2.765 |
| 15 | 20 | 98.864 | 99.979 | 1.115 |
| 30 | 21 | 100.293 | 98.353 | -1.940 |
| 30 | 22 | 99.557 | 96.973 | -2.584 |
| 30 | 23 | 100.084 | 96.552 | -3.532 |
| 30 | 24 | 99.060 | 97.057 | -2.003 |
| 30 | 25 | 98.999 | 94.970 | -4.029 |
| 35 | 26 | 97.313 | 98.057 | 0.744 |
| 35 | 27 | 98.427 | 97.324 | -1.103 |
| 35 | 28 | 99.593 | 96.243 | -3.350 |
| 35 | 29 | 98.710 | 101.774 | 3.064 |
| 35 | 30 | 102.122 | 95.191 | -6.931 |
| 50 | 31 | 99.071 | 95.784 | -3.287 |
| 50 | 32 | 99.970 | 93.759 | -6.211 |
| 50 | 33 | 100.974 | 93.776 | -7.198 |
| 50 | 34 | 98.343 | 95.443 | -2.900 |
| 50 | 35 | 100.629 | 92.632 | -7.997 |
| 55 | 36 | 98.255 | 96.939 | -1.316 |
| 55 | 37 | 97.108 | 94.773 | -2.335 |
| 55 | 38 | 97.688 | 97.155 | -0.533 |
| 55 | 39 | 98.807 | 96.374 | -2.433 |
| 55 | 40 | 100.160 | 96.639 | -3.521 |
| 100 | 41 | 97.227 | 92.928 | -4.299 |
| 100 | 42 | 99.050 | 94.748 | -4.302 |
| 100 | 43 | 100.278 | 92.729 | -7.549 |
| 100 | 44 | 97.395 | 93.262 | -4.133 |
| 100 | 45 | 101.600 | 92.457 | -9.143 |
| 105 | 46 | 98.766 | 94.665 | -4.101 |
| 105 | 47 | 100.709 | 94.373 | -6.336 |
| 105 | 48 | 101.047 | 92.991 | -8.056 |
| 105 | 49 | 99.069 | 92.975 | -6.094 |
| 105 | 50 | 99.042 | 93.440 | -5.602 |
| 105 | 51 | 99.825 | 93.779 | -6.046 |
| 105 | 52 | 96.901 | 90.116 | -6.785 |
| 105 | 53 | 100.354 | 92.573 | -7.781 |
| 105 | 54 | 99.498 | 94.443 | -5.055 |
| 105 | 55 | 98.916 | 91.911 | -7.005 |
| 105 | 56 | 103.737 | 92.949 | -10.788 |
| 105 | 57 | 97.157 | 93.414 | -3.743 |
| 105 | 58 | 99.666 | 91.308 | -8.358 |
| 105 | 59 | 99.771 | 95.193 | -4.578 |
| 105 | 60 | 97.669 | 93.090 | -4.579 |
| 105 | 61 | 98.928 | 94.301 | -4.627 |
| 105 | 62 | 96.088 | 93.506 | -2.582 |
| 105 | 63 | 100.594 | 93.410 | -7.184 |
| 105 | 64 | 98.710 | 92.660 | -6.050 |
| 105 | 65 | 100.490 | 92.960 | -7.530 |
| 105 | 66 | 99.966 | 91.239 | -8.727 |
| 105 | 67 | 99.931 | 91.981 | -7.950 |
| Max | | 104.941 | 105.007 | 3.432 |
| Average | | 99.413 | 96.091 | -3.323 |
| Min | | 96.088 | 90.116 | -10.788 |
| Std Dev | | 1.594 | 3.199 | 3.364 |



| 13.65 PSA_DT_100ns_1M_4V | |
|--------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 ns |
| Min Limit | 85 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 101.217 | 98.565 | 96.759 | 96.325 | 96.590 | 94.970 | 95.191 | 92.632 | 94.773 | 92.457 | 90.116 |
| Average | 103.102 | 99.719 | 98.817 | 98.078 | 98.959 | 96.781 | 97.718 | 94.279 | 96.376 | 93.225 | 93.058 |
| Max | 105.007 | 101.681 | 100.704 | 99.408 | 100.751 | 98.353 | 101.774 | 95.784 | 97.155 | 94.748 | 95.193 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

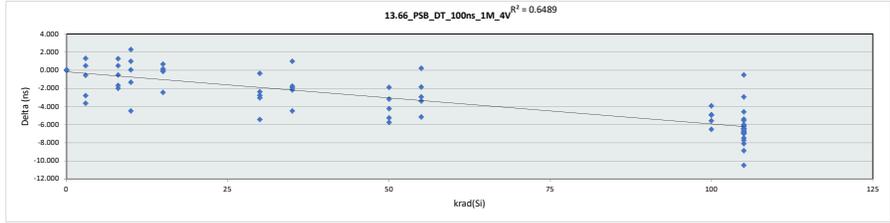


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

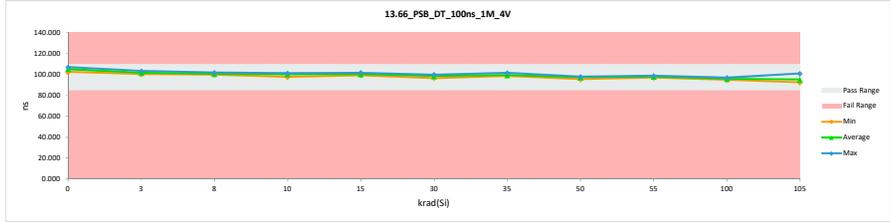
| 13.66 PSB_DT_100ns_1M_4V | |
|--------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 112 85 |
| Min Limit | 87 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 107.050 | 107.115 | 0.065 |
| 0 | 992 | 106.067 | 106.101 | 0.034 |
| 0 | 993 | 102.551 | 102.626 | 0.075 |
| 3 | 1 | 104.486 | 100.900 | -3.586 |
| 3 | 2 | 103.315 | 100.576 | -2.739 |
| 3 | 3 | 102.183 | 103.538 | 1.355 |
| 3 | 4 | 101.251 | 100.741 | -0.510 |
| 3 | 5 | 102.477 | 103.010 | 0.533 |
| 8 | 6 | 100.772 | 102.072 | 1.300 |
| 8 | 7 | 100.506 | 100.023 | -0.483 |
| 8 | 8 | 100.551 | 101.093 | 0.542 |
| 8 | 9 | 101.705 | 100.073 | -1.633 |
| 8 | 10 | 102.524 | 100.585 | -1.939 |
| 10 | 11 | 102.310 | 97.869 | -4.441 |
| 10 | 12 | 100.461 | 100.540 | 0.079 |
| 10 | 13 | 102.653 | 101.387 | -1.266 |
| 10 | 14 | 99.828 | 100.867 | 1.039 |
| 10 | 15 | 98.996 | 101.322 | 2.326 |
| 15 | 16 | 99.651 | 99.859 | 0.208 |
| 15 | 17 | 101.885 | 99.477 | -2.408 |
| 15 | 18 | 100.980 | 101.002 | 0.022 |
| 15 | 19 | 100.716 | 100.633 | -0.083 |
| 15 | 20 | 101.246 | 101.947 | 0.701 |
| 30 | 21 | 100.190 | 99.881 | -0.309 |
| 30 | 22 | 102.258 | 99.247 | -3.011 |
| 30 | 23 | 102.868 | 100.132 | -2.736 |
| 30 | 24 | 100.087 | 97.755 | -2.332 |
| 30 | 25 | 102.149 | 96.782 | -5.367 |
| 35 | 26 | 101.186 | 99.310 | -1.876 |
| 35 | 27 | 100.921 | 99.231 | -1.690 |
| 35 | 28 | 100.996 | 98.866 | -2.130 |
| 35 | 29 | 100.659 | 101.683 | 1.024 |
| 35 | 30 | 103.856 | 99.431 | -4.425 |
| 50 | 31 | 100.701 | 97.569 | -3.132 |
| 50 | 32 | 103.275 | 98.052 | -5.223 |
| 50 | 33 | 102.267 | 98.071 | -4.196 |
| 50 | 34 | 99.959 | 98.125 | -1.834 |
| 50 | 35 | 101.320 | 95.626 | -5.694 |
| 55 | 36 | 100.307 | 98.510 | -1.797 |
| 55 | 37 | 100.862 | 97.524 | -3.338 |
| 55 | 38 | 98.765 | 99.021 | 0.256 |
| 55 | 39 | 100.979 | 98.100 | -2.879 |
| 55 | 40 | 102.254 | 97.166 | -5.088 |
| 100 | 41 | 101.864 | 96.987 | -4.877 |
| 100 | 42 | 100.666 | 96.782 | -3.884 |
| 100 | 43 | 100.553 | 95.712 | -4.841 |
| 100 | 44 | 100.525 | 94.993 | -5.532 |
| 100 | 45 | 101.773 | 95.289 | -6.484 |
| 105 | 46 | 101.402 | 94.986 | -6.416 |
| 105 | 47 | 102.733 | 94.682 | -8.051 |
| 105 | 48 | 102.111 | 95.359 | -6.752 |
| 105 | 49 | 101.517 | 95.360 | -6.157 |
| 105 | 50 | 103.009 | 96.089 | -6.920 |
| 105 | 51 | 100.303 | 95.767 | -4.536 |
| 105 | 52 | 98.993 | 93.642 | -5.351 |
| 105 | 53 | 101.823 | 96.349 | -5.474 |
| 105 | 54 | 101.709 | 101.240 | -0.469 |
| 105 | 55 | 101.521 | 92.683 | -8.838 |
| 105 | 56 | 103.916 | 93.491 | -10.425 |
| 105 | 57 | 101.690 | 95.754 | -5.936 |
| 105 | 58 | 101.398 | 94.742 | -6.656 |
| 105 | 59 | 101.600 | 95.522 | -6.078 |
| 105 | 60 | 102.455 | 95.713 | -6.742 |
| 105 | 61 | 101.720 | 94.048 | -7.672 |
| 105 | 62 | 99.346 | 96.434 | -2.912 |
| 105 | 63 | 102.423 | 96.031 | -6.392 |
| 105 | 64 | 101.255 | 93.825 | -7.430 |
| 105 | 65 | 102.474 | 95.585 | -6.889 |
| 105 | 66 | 102.015 | 95.111 | -6.904 |
| 105 | 67 | 100.824 | 94.395 | -6.429 |
| | Max | 107.050 | 107.115 | 2.326 |
| | Average | 101.595 | 98.286 | -3.309 |
| | Min | 98.765 | 92.683 | -10.425 |
| | Std Dev | 1.451 | 3.042 | 3.000 |



| 13.66 PSB_DT_100ns_1M_4V | |
|--------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 ns |
| Min Limit | 85 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 105.281 | 101.753 | 100.769 | 100.397 | 100.584 | 98.759 | 99.704 | 97.489 | 98.064 | 95.953 | 95.309 |
| Average | 107.115 | 103.538 | 102.072 | 101.387 | 101.947 | 100.132 | 101.683 | 98.125 | 99.021 | 96.987 | 101.240 |
| Max | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

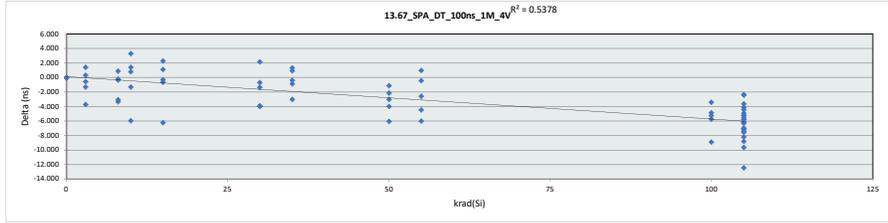


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

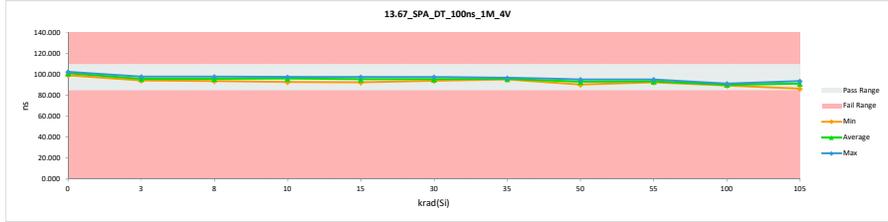
| 13.67 SPA_DT_100ns_1M_4V | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 101.994 | 102.021 | 0.027 |
| 0 | 992 | 102.644 | 102.674 | 0.030 |
| 0 | 993 | 99.418 | 99.477 | 0.059 |
| 3 | 1 | 96.613 | 98.073 | 1.460 |
| 3 | 2 | 98.181 | 94.496 | -3.685 |
| 3 | 3 | 96.806 | 96.272 | -0.534 |
| 3 | 4 | 96.414 | 95.140 | -1.274 |
| 3 | 5 | 95.655 | 96.037 | 0.382 |
| 8 | 6 | 97.225 | 98.177 | 0.952 |
| 8 | 7 | 96.576 | 96.266 | -0.310 |
| 8 | 8 | 96.311 | 96.169 | -0.142 |
| 8 | 9 | 97.135 | 93.874 | -3.261 |
| 8 | 10 | 98.257 | 95.254 | -3.003 |
| 10 | 11 | 98.865 | 92.976 | -5.889 |
| 10 | 12 | 98.439 | 97.193 | -1.246 |
| 10 | 13 | 96.375 | 97.830 | 1.455 |
| 10 | 14 | 93.877 | 94.726 | 0.849 |
| 10 | 15 | 94.401 | 97.736 | 3.335 |
| 15 | 16 | 93.614 | 95.949 | 2.335 |
| 15 | 17 | 98.594 | 92.441 | -6.153 |
| 15 | 18 | 96.532 | 97.697 | 1.165 |
| 15 | 19 | 96.099 | 95.504 | -0.595 |
| 15 | 20 | 97.118 | 96.854 | -0.264 |
| 30 | 21 | 99.194 | 95.259 | -3.935 |
| 30 | 22 | 96.496 | 95.857 | -0.639 |
| 30 | 23 | 96.387 | 95.092 | -1.295 |
| 30 | 24 | 95.490 | 97.683 | 2.193 |
| 30 | 25 | 97.984 | 94.126 | -3.858 |
| 35 | 26 | 94.622 | 96.008 | 1.386 |
| 35 | 27 | 97.045 | 96.727 | -0.318 |
| 35 | 28 | 98.246 | 95.271 | -2.975 |
| 35 | 29 | 94.688 | 95.650 | 0.962 |
| 35 | 30 | 96.567 | 95.741 | -0.826 |
| 50 | 31 | 95.133 | 93.048 | -2.085 |
| 50 | 32 | 96.314 | 95.244 | -1.070 |
| 50 | 33 | 98.265 | 95.300 | -2.965 |
| 50 | 34 | 96.333 | 92.421 | -3.912 |
| 50 | 35 | 96.437 | 90.449 | -5.988 |
| 55 | 36 | 94.206 | 95.211 | 1.005 |
| 55 | 37 | 95.630 | 93.099 | -2.531 |
| 55 | 38 | 93.832 | 93.469 | -0.363 |
| 55 | 39 | 98.099 | 93.689 | -4.410 |
| 55 | 40 | 98.473 | 92.533 | -5.940 |
| 100 | 41 | 95.564 | 90.347 | -5.217 |
| 100 | 42 | 96.137 | 91.320 | -4.817 |
| 100 | 43 | 96.595 | 90.927 | -5.668 |
| 100 | 44 | 92.884 | 89.532 | -3.352 |
| 100 | 45 | 98.332 | 89.510 | -8.822 |
| 105 | 46 | 96.259 | 91.899 | -4.360 |
| 105 | 47 | 97.627 | 91.496 | -6.131 |
| 105 | 48 | 97.495 | 91.984 | -5.511 |
| 105 | 49 | 98.239 | 91.991 | -6.248 |
| 105 | 50 | 97.657 | 92.516 | -5.141 |
| 105 | 51 | 100.416 | 92.949 | -7.467 |
| 105 | 52 | 95.761 | 93.387 | -2.374 |
| 105 | 53 | 97.889 | 90.891 | -6.998 |
| 105 | 54 | 98.822 | 86.447 | -12.375 |
| 105 | 55 | 97.363 | 88.622 | -8.741 |
| 105 | 56 | 97.688 | 88.110 | -9.578 |
| 105 | 57 | 97.815 | 93.766 | -4.049 |
| 105 | 58 | 96.931 | 91.731 | -5.200 |
| 105 | 59 | 97.566 | 90.657 | -6.909 |
| 105 | 60 | 99.266 | 91.876 | -7.390 |
| 105 | 61 | 97.089 | 93.519 | -3.570 |
| 105 | 62 | 93.934 | 91.642 | -2.292 |
| 105 | 63 | 96.528 | 90.788 | -5.740 |
| 105 | 64 | 96.528 | 89.458 | -7.070 |
| 105 | 65 | 98.303 | 92.210 | -6.093 |
| 105 | 66 | 97.412 | 89.273 | -8.139 |
| 105 | 67 | 95.863 | 91.008 | -4.855 |
| Max | | 102.644 | 102.674 | 3.335 |
| Average | | 96.979 | 93.894 | -3.085 |
| Min | | 92.884 | 86.447 | -12.375 |
| Std Dev | | 1.781 | 3.124 | 3.350 |



| 13.67 SPA_DT_100ns_1M_4V | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 99.477 | 94.496 | 93.874 | 92.976 | 92.441 | 94.126 | 95.271 | 90.449 | 92.533 | 89.510 | 86.447 |
| Average | 101.391 | 96.004 | 95.948 | 96.092 | 95.689 | 97.683 | 96.727 | 95.300 | 95.211 | 91.320 | 93.766 |
| Max | 102.674 | 98.073 | 98.177 | 97.830 | 97.697 | 97.683 | 96.727 | 95.300 | 95.211 | 91.320 | 93.766 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

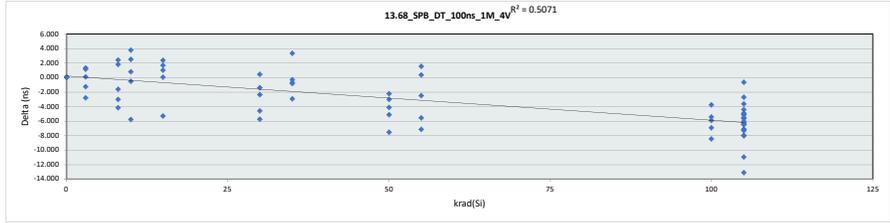


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

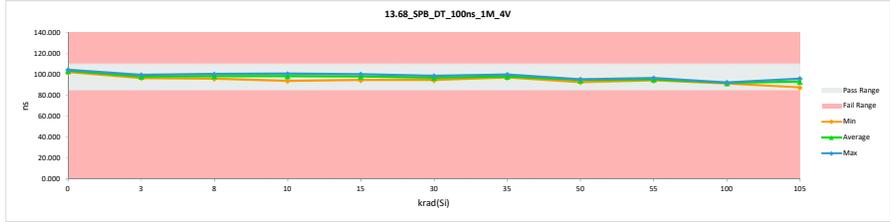
| 13.68_SPB_DT_100ns_1M_4V | |
|--------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 112 85 |
| Min Limit | 110 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 103.864 | 103.929 | 0.065 |
| 0 | 992 | 104.533 | 104.634 | 0.101 |
| 0 | 993 | 102.169 | 102.312 | 0.143 |
| 3 | 1 | 98.491 | 99.876 | 1.385 |
| 3 | 2 | 99.448 | 96.689 | -2.759 |
| 3 | 3 | 98.326 | 98.487 | 0.161 |
| 3 | 4 | 98.441 | 97.232 | -1.209 |
| 3 | 5 | 98.175 | 99.355 | 1.180 |
| 8 | 6 | 98.094 | 100.544 | 2.450 |
| 8 | 7 | 99.730 | 98.185 | -1.545 |
| 8 | 8 | 98.229 | 100.098 | 1.869 |
| 8 | 9 | 99.076 | 96.112 | -2.964 |
| 8 | 10 | 101.762 | 97.645 | -4.117 |
| 10 | 11 | 99.805 | 94.054 | -5.751 |
| 10 | 12 | 99.740 | 99.260 | -0.480 |
| 10 | 13 | 98.370 | 100.904 | 2.534 |
| 10 | 14 | 96.949 | 97.789 | 0.840 |
| 10 | 15 | 96.981 | 100.813 | 3.832 |
| 15 | 16 | 96.537 | 97.621 | 1.084 |
| 15 | 17 | 100.069 | 94.805 | -5.264 |
| 15 | 18 | 97.683 | 99.384 | 1.701 |
| 15 | 19 | 98.788 | 98.881 | 0.093 |
| 15 | 20 | 97.948 | 100.384 | 2.436 |
| 30 | 21 | 100.462 | 94.762 | -5.700 |
| 30 | 22 | 100.914 | 98.590 | -2.324 |
| 30 | 23 | 99.005 | 97.652 | -1.353 |
| 30 | 24 | 98.348 | 98.830 | 0.482 |
| 30 | 25 | 99.956 | 95.390 | -4.566 |
| 35 | 26 | 98.082 | 97.438 | -0.644 |
| 35 | 27 | 99.013 | 98.771 | -0.242 |
| 35 | 28 | 100.094 | 97.209 | -2.885 |
| 35 | 29 | 96.781 | 100.147 | 3.366 |
| 35 | 30 | 98.768 | 97.970 | -0.798 |
| 50 | 31 | 97.152 | 94.984 | -2.168 |
| 50 | 32 | 99.528 | 95.484 | -4.044 |
| 50 | 33 | 100.573 | 95.504 | -5.069 |
| 50 | 34 | 98.142 | 95.190 | -2.952 |
| 50 | 35 | 100.320 | 92.855 | -7.465 |
| 55 | 36 | 96.401 | 96.801 | 0.400 |
| 55 | 37 | 97.983 | 95.539 | -2.444 |
| 55 | 38 | 94.857 | 96.428 | 1.571 |
| 55 | 39 | 100.154 | 94.646 | -5.508 |
| 55 | 40 | 101.569 | 94.490 | -7.079 |
| 100 | 41 | 98.672 | 91.799 | -6.873 |
| 100 | 42 | 97.822 | 92.456 | -5.366 |
| 100 | 43 | 98.224 | 92.357 | -5.867 |
| 100 | 44 | 95.233 | 91.534 | -3.699 |
| 100 | 45 | 100.037 | 91.644 | -8.393 |
| 105 | 46 | 99.616 | 92.539 | -7.077 |
| 105 | 47 | 101.076 | 94.696 | -6.380 |
| 105 | 48 | 97.285 | 93.715 | -3.570 |
| 105 | 49 | 100.799 | 93.728 | -7.071 |
| 105 | 50 | 100.334 | 95.964 | -4.370 |
| 105 | 51 | 101.797 | 93.876 | -7.921 |
| 105 | 52 | 97.078 | 94.427 | -2.651 |
| 105 | 53 | 99.262 | 92.925 | -6.337 |
| 105 | 54 | 100.763 | 87.719 | -13.044 |
| 105 | 55 | 99.121 | 91.148 | -7.973 |
| 105 | 56 | 102.058 | 91.155 | -10.903 |
| 105 | 57 | 100.115 | 95.053 | -5.062 |
| 105 | 58 | 98.886 | 92.466 | -6.420 |
| 105 | 59 | 99.271 | 93.795 | -5.476 |
| 105 | 60 | 99.237 | 93.123 | -6.114 |
| 105 | 61 | 99.622 | 94.776 | -4.846 |
| 105 | 62 | 96.722 | 96.125 | -0.597 |
| 105 | 63 | 99.602 | 93.621 | -5.981 |
| 105 | 64 | 99.431 | 92.161 | -7.270 |
| 105 | 65 | 99.808 | 94.231 | -5.577 |
| 105 | 66 | 97.724 | 92.150 | -5.574 |
| 105 | 67 | 97.642 | 92.636 | -5.006 |
| Max | | 104.533 | 104.634 | 3.832 |
| Average | | 99.122 | 95.993 | -3.129 |
| Min | | 94.857 | 87.719 | -13.044 |
| Std Dev | | 1.770 | 3.296 | 3.617 |



| 13.68_SPB_DT_100ns_1M_4V | |
|--------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 ns |
| Min Limit | 85 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 102.312 | 96.689 | 96.112 | 94.054 | 94.805 | 94.762 | 97.209 | 92.855 | 94.490 | 91.534 | 87.719 |
| Average | 103.625 | 98.328 | 98.517 | 98.564 | 98.215 | 97.045 | 98.307 | 94.803 | 95.581 | 91.958 | 93.274 |
| Max | 104.634 | 99.876 | 100.544 | 100.904 | 100.384 | 98.830 | 100.147 | 95.504 | 96.801 | 92.456 | 96.125 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

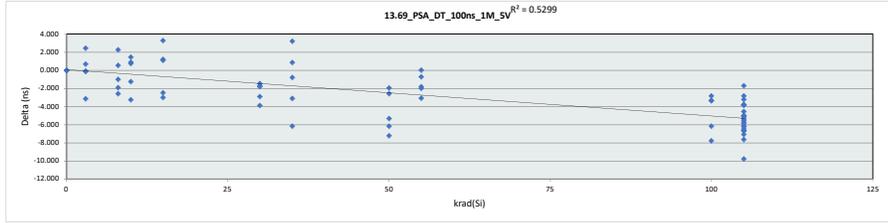


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

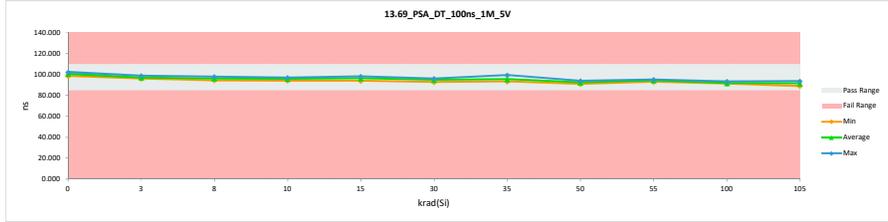
| 13.69 PSA_DT_100ns_1M_5V | |
|--------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 110 110 |
| Min Limit | 85 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 102.431 | 102.451 | 0.020 |
| 0 | 992 | 100.930 | 100.932 | 0.002 |
| 0 | 993 | 98.684 | 98.736 | 0.052 |
| 3 | 1 | 97.381 | 97.305 | -0.076 |
| 3 | 2 | 99.269 | 96.162 | -3.107 |
| 3 | 3 | 96.627 | 99.113 | 2.486 |
| 3 | 4 | 96.604 | 96.564 | -0.040 |
| 3 | 5 | 96.649 | 97.382 | 0.733 |
| 8 | 6 | 97.609 | 98.176 | 0.567 |
| 8 | 7 | 97.728 | 95.867 | -1.861 |
| 8 | 8 | 95.554 | 97.865 | 2.311 |
| 8 | 9 | 96.520 | 95.548 | -0.972 |
| 8 | 10 | 97.107 | 94.569 | -2.538 |
| 10 | 11 | 97.914 | 94.688 | -3.226 |
| 10 | 12 | 94.655 | 96.143 | 1.488 |
| 10 | 13 | 96.375 | 97.159 | 0.784 |
| 10 | 14 | 95.475 | 94.265 | -1.210 |
| 10 | 15 | 96.149 | 97.094 | 0.945 |
| 15 | 16 | 96.130 | 97.266 | 1.136 |
| 15 | 17 | 97.112 | 94.139 | -2.973 |
| 15 | 18 | 95.043 | 98.356 | 3.313 |
| 15 | 19 | 98.254 | 95.810 | -2.444 |
| 15 | 20 | 96.434 | 97.666 | 1.232 |
| 30 | 21 | 97.922 | 96.249 | -1.673 |
| 30 | 22 | 95.930 | 95.161 | -1.769 |
| 30 | 23 | 97.632 | 94.759 | -2.873 |
| 30 | 24 | 96.813 | 95.376 | -1.437 |
| 30 | 25 | 96.784 | 92.952 | -3.832 |
| 35 | 26 | 95.073 | 95.976 | 0.903 |
| 35 | 27 | 96.176 | 95.423 | -0.753 |
| 35 | 28 | 97.378 | 94.316 | -3.062 |
| 35 | 29 | 96.271 | 99.515 | 3.244 |
| 35 | 30 | 99.476 | 93.369 | -6.107 |
| 50 | 31 | 96.562 | 94.010 | -2.552 |
| 50 | 32 | 97.614 | 92.320 | -5.294 |
| 50 | 33 | 98.439 | 92.324 | -6.115 |
| 50 | 34 | 95.873 | 93.970 | -1.903 |
| 50 | 35 | 98.112 | 90.939 | -7.173 |
| 55 | 36 | 95.802 | 95.122 | -0.680 |
| 55 | 37 | 94.890 | 93.132 | -1.758 |
| 55 | 38 | 95.137 | 95.205 | 0.068 |
| 55 | 39 | 96.616 | 94.651 | -1.965 |
| 55 | 40 | 97.801 | 94.755 | -3.046 |
| 100 | 41 | 95.028 | 91.719 | -3.309 |
| 100 | 42 | 96.779 | 93.510 | -3.269 |
| 100 | 43 | 97.839 | 91.719 | -6.120 |
| 100 | 44 | 94.824 | 92.035 | -2.789 |
| 100 | 45 | 99.083 | 91.351 | -7.732 |
| 105 | 46 | 96.514 | 93.352 | -3.162 |
| 105 | 47 | 98.272 | 93.000 | -5.272 |
| 105 | 48 | 98.480 | 91.850 | -6.630 |
| 105 | 49 | 96.853 | 91.862 | -4.991 |
| 105 | 50 | 96.769 | 92.246 | -4.523 |
| 105 | 51 | 97.637 | 92.557 | -5.080 |
| 105 | 52 | 94.524 | 89.070 | -5.454 |
| 105 | 53 | 97.803 | 91.381 | -6.422 |
| 105 | 54 | 97.224 | 91.552 | -5.672 |
| 105 | 55 | 96.532 | 90.434 | -6.098 |
| 105 | 56 | 101.153 | 91.424 | -9.729 |
| 105 | 57 | 95.008 | 92.209 | -2.799 |
| 105 | 58 | 97.126 | 90.085 | -7.041 |
| 105 | 59 | 97.509 | 93.779 | -3.730 |
| 105 | 60 | 95.489 | 91.692 | -3.797 |
| 105 | 61 | 96.780 | 93.013 | -3.767 |
| 105 | 62 | 93.706 | 92.028 | -1.678 |
| 105 | 63 | 97.997 | 92.190 | -5.807 |
| 105 | 64 | 96.480 | 91.544 | -4.936 |
| 105 | 65 | 98.023 | 91.827 | -6.196 |
| 105 | 66 | 97.576 | 89.997 | -7.579 |
| 105 | 67 | 97.455 | 90.839 | -6.616 |
| Max | | 102.431 | 102.451 | 3.313 |
| Average | | 97.034 | 94.301 | -2.734 |
| Min | | 93.706 | 89.070 | -9.729 |
| Std Dev | | 1.540 | 2.782 | 2.954 |



| 13.69 PSA_DT_100ns_1M_5V | |
|--------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 ns |
| Min Limit | 85 ns |

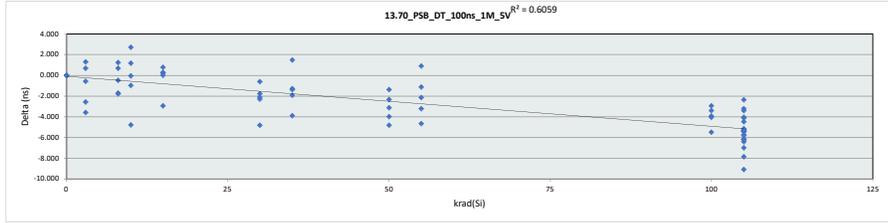
| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 98.736 | 96.162 | 94.569 | 94.265 | 94.139 | 92.952 | 93.369 | 90.939 | 92.132 | 91.351 | 89.070 |
| Average | 100.706 | 97.305 | 96.405 | 95.870 | 96.647 | 94.899 | 95.720 | 92.713 | 94.573 | 92.067 | 91.724 |
| Max | 102.451 | 99.113 | 98.176 | 97.159 | 98.356 | 96.249 | 99.515 | 94.010 | 95.205 | 93.510 | 93.779 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |



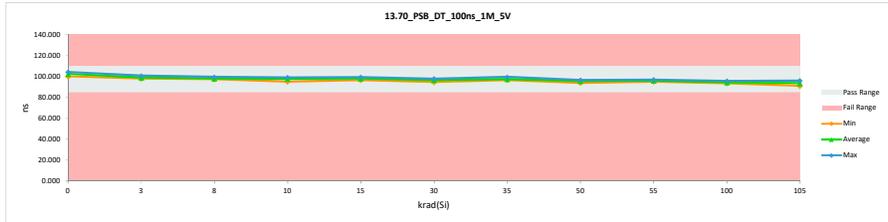
**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

| | | 13.70 PSB_DT_100ns_1M_5V | | |
|-------------|-----------|--------------------------|----------|--------|
| Test Site | Tester | | | |
| Test Number | Unit | | | |
| Max Limit | Min Limit | ns | ns | |
| Max Limit | Min Limit | 110 | 85 | |
| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
| 0 | 991 | 104.399 | 104.436 | 0.037 |
| 0 | 992 | 103.613 | 103.660 | 0.047 |
| 0 | 993 | 100.053 | 100.109 | 0.056 |
| 3 | 1 | 102.078 | 98.547 | -3.531 |
| 3 | 2 | 100.641 | 98.130 | -2.511 |
| 3 | 3 | 99.546 | 100.883 | 1.337 |
| 3 | 4 | 98.833 | 98.310 | -0.523 |
| 3 | 5 | 99.732 | 100.462 | 0.730 |
| 8 | 6 | 98.393 | 99.660 | 1.267 |
| 8 | 7 | 98.070 | 97.627 | -0.443 |
| 8 | 8 | 97.961 | 98.679 | 0.718 |
| 8 | 9 | 99.214 | 97.535 | -1.679 |
| 8 | 10 | 100.279 | 98.547 | -1.732 |
| 10 | 11 | 100.063 | 95.343 | -4.720 |
| 10 | 12 | 98.327 | 98.318 | -0.009 |
| 10 | 13 | 100.168 | 99.252 | -0.916 |
| 10 | 14 | 97.239 | 98.465 | 1.226 |
| 10 | 15 | 96.440 | 99.184 | 2.744 |
| 10 | 16 | 97.378 | 97.697 | 0.319 |
| 15 | 17 | 99.704 | 96.815 | -2.889 |
| 15 | 18 | 98.435 | 98.692 | 0.257 |
| 15 | 19 | 98.315 | 98.365 | 0.050 |
| 15 | 20 | 98.716 | 99.532 | 0.816 |
| 30 | 21 | 98.171 | 97.620 | -0.551 |
| 30 | 22 | 99.532 | 97.473 | -2.059 |
| 30 | 23 | 100.231 | 97.976 | -2.255 |
| 30 | 24 | 97.814 | 96.089 | -1.725 |
| 30 | 25 | 99.562 | 94.812 | -4.750 |
| 35 | 26 | 98.554 | 97.222 | -1.332 |
| 35 | 27 | 98.460 | 97.222 | -1.238 |
| 35 | 28 | 98.653 | 96.789 | -1.874 |
| 35 | 29 | 98.164 | 99.676 | 1.512 |
| 35 | 30 | 101.153 | 97.322 | -3.831 |
| 50 | 31 | 98.252 | 95.979 | -2.273 |
| 50 | 32 | 100.686 | 96.738 | -3.948 |
| 50 | 33 | 99.826 | 96.759 | -3.067 |
| 50 | 34 | 97.590 | 96.276 | -1.314 |
| 50 | 35 | 98.857 | 94.059 | -4.798 |
| 55 | 36 | 97.739 | 96.650 | -1.089 |
| 55 | 37 | 98.808 | 95.646 | -3.162 |
| 55 | 38 | 96.080 | 97.012 | 0.932 |
| 55 | 39 | 98.691 | 96.597 | -2.094 |
| 55 | 40 | 99.980 | 95.360 | -4.620 |
| 100 | 41 | 99.302 | 95.937 | -3.365 |
| 100 | 42 | 98.255 | 95.373 | -2.882 |
| 100 | 43 | 98.297 | 94.414 | -3.883 |
| 100 | 44 | 97.679 | 93.679 | -4.000 |
| 100 | 45 | 99.324 | 93.898 | -5.426 |
| 105 | 46 | 99.016 | 93.839 | -5.177 |
| 105 | 47 | 100.197 | 93.251 | -6.946 |
| 105 | 48 | 99.458 | 94.068 | -5.390 |
| 105 | 49 | 99.379 | 94.064 | -5.315 |
| 105 | 50 | 100.343 | 94.974 | -5.369 |
| 105 | 51 | 98.174 | 94.827 | -3.347 |
| 105 | 52 | 96.685 | 92.632 | -4.053 |
| 105 | 53 | 99.233 | 95.248 | -3.985 |
| 105 | 54 | 99.243 | 96.083 | -3.160 |
| 105 | 55 | 98.980 | 91.169 | -7.811 |
| 105 | 56 | 101.357 | 92.318 | -9.039 |
| 105 | 57 | 99.173 | 94.756 | -4.417 |
| 105 | 58 | 99.061 | 93.311 | -5.750 |
| 105 | 59 | 99.121 | 94.019 | -5.102 |
| 105 | 60 | 100.308 | 94.153 | -6.155 |
| 105 | 61 | 99.212 | 93.056 | -6.156 |
| 105 | 62 | 97.085 | 94.767 | -2.318 |
| 105 | 63 | 99.820 | 94.607 | -5.213 |
| 105 | 64 | 98.723 | 92.629 | -6.094 |
| 105 | 65 | 99.876 | 94.187 | -5.689 |
| 105 | 66 | 99.826 | 93.470 | -6.356 |
| 105 | 67 | 98.356 | 93.031 | -5.325 |
| Max | | 104.399 | 104.436 | 2.744 |
| Average | | 99.141 | 96.419 | -2.722 |
| Min | | 96.080 | 91.169 | -9.039 |
| Std Dev | | 1.412 | 2.599 | 2.599 |



| | | 13.70 PSB_DT_100ns_1M_5V | | | | | | | | | | |
|-------------|-----------|--------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| Test Site | Tester | | | | | | | | | | | |
| Test Number | Unit | | | | | | | | | | | |
| Max Limit | Min Limit | 110 | ns | | | | | | | | | |
| Max Limit | Min Limit | 85 | ns | | | | | | | | | |
| krad(Si) | LL | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 | |
| Min | 100.109 | 98.130 | 97.535 | 95.343 | 96.815 | 94.812 | 96.789 | 94.099 | 95.360 | 93.679 | 91.169 | |
| Average | 102.735 | 99.266 | 98.410 | 98.112 | 98.220 | 96.794 | 97.646 | 95.970 | 96.253 | 94.660 | 93.839 | |
| Max | 104.436 | 100.883 | 99.660 | 99.252 | 99.532 | 97.976 | 99.676 | 96.759 | 97.012 | 95.937 | 96.083 | |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | |

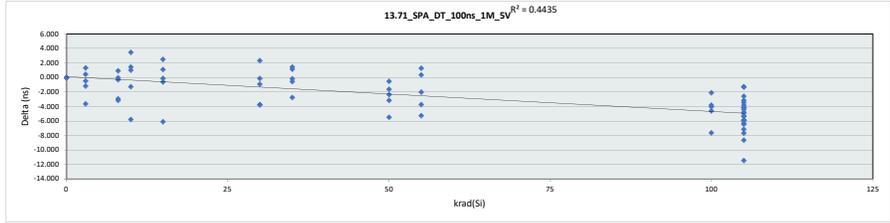


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

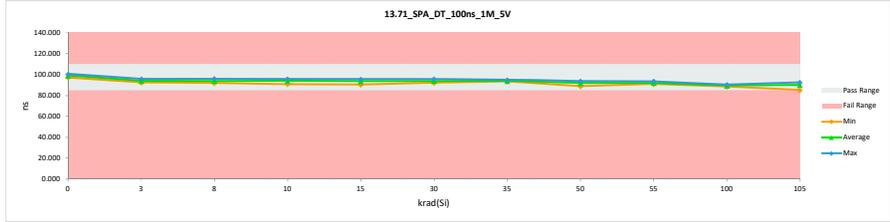
| 13.71 SPA_DT_100ns_1M_5V | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 99.965 | 99.972 | 0.007 |
| 0 | 992 | 100.594 | 100.627 | 0.033 |
| 0 | 993 | 97.270 | 97.320 | 0.050 |
| 3 | 1 | 94.631 | 96.014 | 1.383 |
| 3 | 2 | 96.170 | 92.601 | -3.569 |
| 3 | 3 | 94.778 | 94.344 | -0.434 |
| 3 | 4 | 94.375 | 93.251 | -1.124 |
| 3 | 5 | 93.633 | 94.131 | 0.498 |
| 8 | 6 | 95.165 | 96.138 | 0.973 |
| 8 | 7 | 94.480 | 94.212 | -0.268 |
| 8 | 8 | 94.183 | 94.214 | 0.031 |
| 8 | 9 | 95.173 | 92.094 | -3.079 |
| 8 | 10 | 96.173 | 93.299 | -2.874 |
| 10 | 11 | 96.663 | 90.924 | -5.739 |
| 10 | 12 | 96.414 | 95.211 | -1.203 |
| 10 | 13 | 94.368 | 95.876 | 1.508 |
| 10 | 14 | 91.785 | 92.842 | 1.057 |
| 10 | 15 | 92.265 | 95.801 | 3.536 |
| 15 | 16 | 91.551 | 94.111 | 2.560 |
| 15 | 17 | 96.501 | 90.455 | -6.046 |
| 15 | 18 | 94.565 | 95.734 | 1.169 |
| 15 | 19 | 94.191 | 93.646 | -0.545 |
| 15 | 20 | 95.090 | 95.024 | -0.066 |
| 30 | 21 | 97.246 | 93.547 | -3.699 |
| 30 | 22 | 94.479 | 94.402 | -0.077 |
| 30 | 23 | 94.341 | 93.479 | -0.862 |
| 30 | 24 | 93.624 | 96.020 | 2.396 |
| 30 | 25 | 96.009 | 92.321 | -3.688 |
| 35 | 26 | 92.684 | 94.188 | 1.504 |
| 35 | 27 | 95.078 | 94.970 | -0.108 |
| 35 | 28 | 95.178 | 93.479 | -1.699 |
| 35 | 29 | 92.735 | 93.936 | 1.201 |
| 35 | 30 | 94.595 | 94.077 | -0.518 |
| 50 | 31 | 93.238 | 91.667 | -1.571 |
| 50 | 32 | 94.343 | 93.851 | -0.492 |
| 50 | 33 | 96.178 | 93.860 | -2.318 |
| 50 | 34 | 94.305 | 91.220 | -3.085 |
| 50 | 35 | 94.434 | 89.012 | -5.422 |
| 55 | 36 | 92.358 | 93.699 | 1.341 |
| 55 | 37 | 93.616 | 91.647 | -1.969 |
| 55 | 38 | 91.664 | 92.054 | 0.390 |
| 55 | 39 | 95.962 | 92.289 | -3.673 |
| 55 | 40 | 96.389 | 91.186 | -5.203 |
| 100 | 41 | 93.346 | 89.577 | -3.769 |
| 100 | 42 | 94.303 | 90.552 | -3.751 |
| 100 | 43 | 94.659 | 90.132 | -4.527 |
| 100 | 44 | 90.822 | 88.793 | -2.029 |
| 100 | 45 | 96.309 | 88.753 | -7.556 |
| 105 | 46 | 94.255 | 90.841 | -3.414 |
| 105 | 47 | 95.662 | 90.400 | -5.262 |
| 105 | 48 | 95.360 | 91.051 | -4.309 |
| 105 | 49 | 96.336 | 91.034 | -5.302 |
| 105 | 50 | 95.595 | 91.529 | -4.066 |
| 105 | 51 | 98.250 | 91.851 | -6.399 |
| 105 | 52 | 93.551 | 92.336 | -1.215 |
| 105 | 53 | 95.742 | 89.923 | -5.819 |
| 105 | 54 | 96.706 | 85.322 | -11.384 |
| 105 | 55 | 95.197 | 87.562 | -7.635 |
| 105 | 56 | 95.622 | 87.057 | -8.565 |
| 105 | 57 | 95.777 | 92.659 | -3.118 |
| 105 | 58 | 94.830 | 90.718 | -4.112 |
| 105 | 59 | 95.536 | 89.683 | -5.853 |
| 105 | 60 | 97.102 | 90.833 | -6.269 |
| 105 | 61 | 95.126 | 92.595 | -2.531 |
| 105 | 62 | 91.830 | 90.552 | -1.278 |
| 105 | 63 | 94.565 | 89.822 | -4.743 |
| 105 | 64 | 94.514 | 88.693 | -5.821 |
| 105 | 65 | 96.175 | 91.307 | -4.868 |
| 105 | 66 | 95.387 | 88.282 | -7.105 |
| 105 | 67 | 93.892 | 90.137 | -3.755 |
| Max | | 100.594 | 100.627 | 3.536 |
| Average | | 94.944 | 92.439 | -2.505 |
| Min | | 90.822 | 85.322 | -11.384 |
| Std Dev | | 1.764 | 2.773 | 3.031 |



| 13.71 SPA_DT_100ns_1M_5V | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 97.320 | 92.601 | 92.094 | 90.924 | 90.455 | 92.321 | 93.479 | 89.012 | 91.186 | 88.753 | 85.322 |
| Average | 99.306 | 94.068 | 93.991 | 94.131 | 93.794 | 93.954 | 94.130 | 91.922 | 92.175 | 89.561 | 90.190 |
| Max | 100.627 | 96.014 | 96.138 | 95.876 | 95.734 | 96.020 | 94.970 | 93.860 | 93.699 | 90.552 | 92.659 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

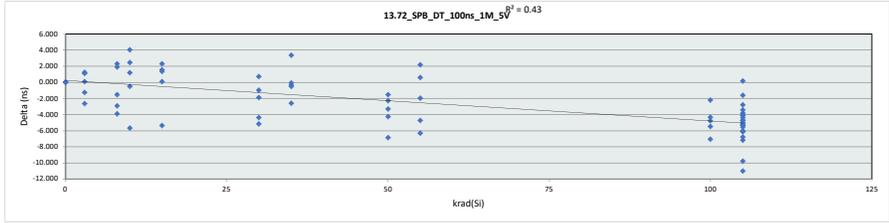


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

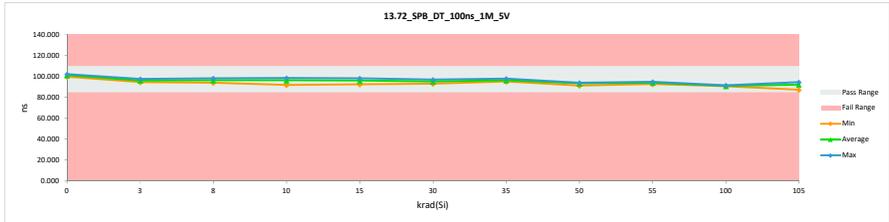
| 13.72_SPB_DT_100ns_1M_5V | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 101.766 | 101.828 | 0.062 |
| 0 | 992 | 102.369 | 102.425 | 0.056 |
| 0 | 993 | 99.853 | 99.953 | 0.100 |
| 3 | 1 | 96.423 | 97.700 | 1.277 |
| 3 | 2 | 97.236 | 94.665 | -2.571 |
| 3 | 3 | 96.214 | 96.343 | 0.129 |
| 3 | 4 | 96.334 | 95.117 | -1.217 |
| 3 | 5 | 96.011 | 97.172 | 1.161 |
| 8 | 6 | 95.966 | 98.304 | 2.338 |
| 8 | 7 | 97.453 | 95.977 | -1.476 |
| 8 | 8 | 96.027 | 97.980 | 1.953 |
| 8 | 9 | 95.941 | 94.077 | -2.864 |
| 8 | 10 | 99.496 | 95.642 | -3.854 |
| 10 | 11 | 97.565 | 91.936 | -5.629 |
| 10 | 12 | 97.564 | 97.094 | -0.470 |
| 10 | 13 | 96.200 | 98.695 | 2.495 |
| 10 | 14 | 94.491 | 95.728 | 1.237 |
| 10 | 15 | 94.548 | 98.619 | 4.071 |
| 15 | 16 | 94.300 | 95.691 | 1.391 |
| 15 | 17 | 97.865 | 92.577 | -5.288 |
| 15 | 18 | 95.674 | 97.286 | 1.612 |
| 15 | 19 | 96.666 | 96.807 | 0.141 |
| 15 | 20 | 95.911 | 98.271 | 2.360 |
| 30 | 21 | 98.337 | 93.224 | -5.113 |
| 30 | 22 | 98.632 | 96.808 | -1.824 |
| 30 | 23 | 96.856 | 95.939 | -0.917 |
| 30 | 24 | 96.273 | 97.032 | 0.759 |
| 30 | 25 | 97.789 | 93.479 | -4.310 |
| 35 | 26 | 95.918 | 95.615 | -0.303 |
| 35 | 27 | 96.768 | 96.757 | -0.011 |
| 35 | 28 | 97.853 | 95.321 | -2.532 |
| 35 | 29 | 94.728 | 98.148 | 3.420 |
| 35 | 30 | 96.603 | 96.148 | -0.455 |
| 50 | 31 | 95.051 | 93.554 | -1.497 |
| 50 | 32 | 97.334 | 94.086 | -3.248 |
| 50 | 33 | 98.326 | 94.114 | -4.212 |
| 50 | 34 | 95.988 | 93.764 | -2.224 |
| 50 | 35 | 98.160 | 91.351 | -6.809 |
| 55 | 36 | 94.299 | 94.951 | 0.652 |
| 55 | 37 | 95.901 | 93.969 | -1.932 |
| 55 | 38 | 92.613 | 94.826 | 2.213 |
| 55 | 39 | 97.842 | 93.169 | -4.673 |
| 55 | 40 | 99.225 | 92.972 | -6.253 |
| 100 | 41 | 96.486 | 91.057 | -5.429 |
| 100 | 42 | 95.843 | 91.565 | -4.278 |
| 100 | 43 | 96.195 | 91.467 | -4.728 |
| 100 | 44 | 92.885 | 90.715 | -2.170 |
| 100 | 45 | 97.825 | 90.803 | -7.022 |
| 105 | 46 | 97.435 | 91.388 | -6.047 |
| 105 | 47 | 98.830 | 93.337 | -5.493 |
| 105 | 48 | 95.306 | 92.569 | -2.737 |
| 105 | 49 | 98.561 | 92.576 | -5.985 |
| 105 | 50 | 98.142 | 94.759 | -3.383 |
| 105 | 51 | 99.445 | 92.727 | -6.718 |
| 105 | 52 | 94.770 | 93.194 | -1.576 |
| 105 | 53 | 97.076 | 91.822 | -5.254 |
| 105 | 54 | 98.396 | 87.455 | -10.941 |
| 105 | 55 | 96.916 | 89.792 | -7.124 |
| 105 | 56 | 99.665 | 89.947 | -9.718 |
| 105 | 57 | 97.843 | 93.783 | -4.060 |
| 105 | 58 | 96.714 | 91.459 | -5.255 |
| 105 | 59 | 97.225 | 92.592 | -4.633 |
| 105 | 60 | 97.128 | 91.999 | -5.129 |
| 105 | 61 | 97.448 | 93.683 | -3.765 |
| 105 | 62 | 94.485 | 94.689 | 0.204 |
| 105 | 63 | 97.432 | 92.485 | -4.947 |
| 105 | 64 | 97.219 | 91.209 | -6.010 |
| 105 | 65 | 97.424 | 93.117 | -4.307 |
| 105 | 66 | 95.679 | 91.008 | -4.671 |
| 105 | 67 | 95.547 | 91.551 | -3.996 |
| Max | | 102.369 | 102.425 | 4.071 |
| Average | | 96.933 | 94.398 | -2.535 |
| Min | | 92.613 | 87.455 | -10.941 |
| Std Dev | | 1.748 | 2.883 | 3.227 |



| 13.72_SPB_DT_100ns_1M_5V | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 99.953 | 94.665 | 94.077 | 91.936 | 92.577 | 93.224 | 95.321 | 91.351 | 92.972 | 90.715 | 87.455 |
| Average | 101.402 | 96.199 | 96.396 | 96.414 | 96.126 | 95.296 | 96.398 | 93.374 | 93.977 | 91.121 | 92.143 |
| Max | 102.425 | 97.700 | 98.304 | 98.695 | 98.271 | 97.032 | 98.148 | 94.114 | 94.951 | 91.565 | 94.759 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

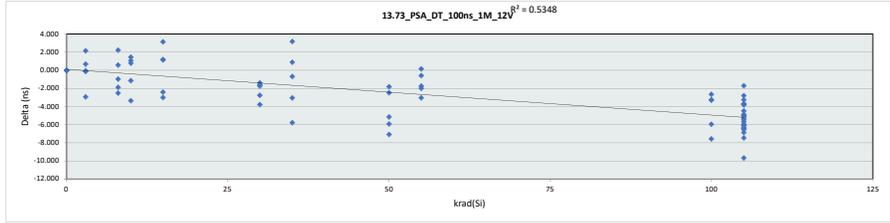


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

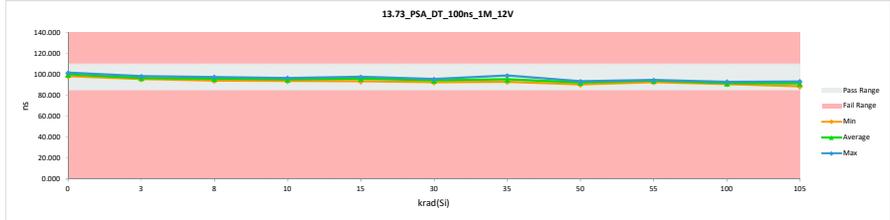
| 13.73 PSA_DT_100ns_1M_12V | |
|---------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 101.834 | 101.845 | 0.011 |
| 0 | 992 | 100.436 | 100.462 | 0.026 |
| 0 | 993 | 98.295 | 98.340 | 0.045 |
| 3 | 1 | 96.891 | 96.818 | -0.073 |
| 3 | 2 | 98.589 | 95.678 | -2.911 |
| 3 | 3 | 96.219 | 98.406 | 2.187 |
| 3 | 4 | 96.084 | 96.055 | -0.029 |
| 3 | 5 | 96.157 | 96.891 | 0.734 |
| 8 | 6 | 97.054 | 97.674 | 0.620 |
| 8 | 7 | 97.223 | 95.385 | -1.838 |
| 8 | 8 | 95.087 | 97.351 | 2.264 |
| 8 | 9 | 95.019 | 95.097 | -0.922 |
| 8 | 10 | 96.629 | 94.139 | -2.490 |
| 10 | 11 | 97.440 | 94.128 | -3.312 |
| 10 | 12 | 94.234 | 95.739 | 1.505 |
| 10 | 13 | 95.888 | 96.716 | 0.828 |
| 10 | 14 | 94.952 | 93.853 | -1.099 |
| 10 | 15 | 95.528 | 96.631 | 1.103 |
| 15 | 16 | 95.554 | 96.757 | 1.203 |
| 15 | 17 | 96.577 | 93.624 | -2.953 |
| 15 | 18 | 94.639 | 97.800 | 3.161 |
| 15 | 19 | 97.777 | 95.405 | -2.372 |
| 15 | 20 | 95.983 | 97.180 | 1.197 |
| 30 | 21 | 97.428 | 95.722 | -1.706 |
| 30 | 22 | 96.378 | 94.815 | -1.563 |
| 30 | 23 | 97.119 | 94.408 | -2.711 |
| 30 | 24 | 96.351 | 95.001 | -1.350 |
| 30 | 25 | 96.311 | 92.570 | -3.741 |
| 35 | 26 | 94.603 | 95.517 | 0.914 |
| 35 | 27 | 95.696 | 95.052 | -0.644 |
| 35 | 28 | 96.896 | 93.894 | -3.002 |
| 35 | 29 | 95.806 | 99.028 | 3.222 |
| 35 | 30 | 98.774 | 93.023 | -5.751 |
| 50 | 31 | 96.033 | 93.610 | -2.423 |
| 50 | 32 | 97.090 | 91.999 | -5.091 |
| 50 | 33 | 97.884 | 92.010 | -5.874 |
| 50 | 34 | 95.396 | 93.608 | -1.788 |
| 50 | 35 | 97.591 | 90.557 | -7.034 |
| 55 | 36 | 95.323 | 94.785 | -0.538 |
| 55 | 37 | 94.424 | 92.731 | -1.693 |
| 55 | 38 | 94.560 | 94.762 | 0.202 |
| 55 | 39 | 96.200 | 94.256 | -1.944 |
| 55 | 40 | 97.290 | 94.298 | -2.992 |
| 100 | 41 | 94.576 | 91.341 | -3.235 |
| 100 | 42 | 96.289 | 93.082 | -3.207 |
| 100 | 43 | 97.323 | 91.419 | -5.904 |
| 100 | 44 | 94.266 | 91.663 | -2.603 |
| 100 | 45 | 98.496 | 90.990 | -7.506 |
| 105 | 46 | 96.109 | 92.899 | -3.210 |
| 105 | 47 | 97.779 | 92.608 | -5.171 |
| 105 | 48 | 97.866 | 91.492 | -6.374 |
| 105 | 49 | 96.442 | 91.487 | -4.955 |
| 105 | 50 | 96.370 | 91.918 | -4.452 |
| 105 | 51 | 97.181 | 92.223 | -4.958 |
| 105 | 52 | 94.113 | 88.737 | -5.376 |
| 105 | 53 | 97.326 | 91.019 | -6.307 |
| 105 | 54 | 96.836 | 90.940 | -5.896 |
| 105 | 55 | 96.069 | 90.016 | -6.053 |
| 105 | 56 | 100.641 | 91.028 | -9.613 |
| 105 | 57 | 94.586 | 91.838 | -2.748 |
| 105 | 58 | 96.584 | 89.766 | -6.818 |
| 105 | 59 | 97.075 | 93.428 | -3.647 |
| 105 | 60 | 95.105 | 91.322 | -3.783 |
| 105 | 61 | 96.373 | 92.682 | -3.691 |
| 105 | 62 | 93.313 | 91.649 | -1.664 |
| 105 | 63 | 97.493 | 91.849 | -5.644 |
| 105 | 64 | 96.004 | 91.196 | -4.808 |
| 105 | 65 | 97.528 | 91.495 | -6.033 |
| 105 | 66 | 97.071 | 89.648 | -7.423 |
| 105 | 67 | 96.939 | 90.472 | -6.467 |
| Max | | 101.834 | 101.845 | 3.222 |
| Average | | 96.543 | 93.883 | -2.660 |
| Min | | 93.313 | 88.737 | -9.613 |
| Std Dev | | 1.512 | 2.728 | 2.898 |



| 13.73 PSA_DT_100ns_1M_12 | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 98.340 | 95.678 | 94.139 | 92.853 | 93.624 | 92.570 | 93.023 | 90.557 | 92.731 | 90.990 | 88.737 |
| Average | 100.216 | 96.770 | 95.929 | 95.413 | 96.153 | 94.503 | 95.303 | 92.357 | 94.166 | 91.699 | 91.351 |
| Max | 101.845 | 98.406 | 97.674 | 96.716 | 97.800 | 95.722 | 99.028 | 93.610 | 94.785 | 93.082 | 93.428 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

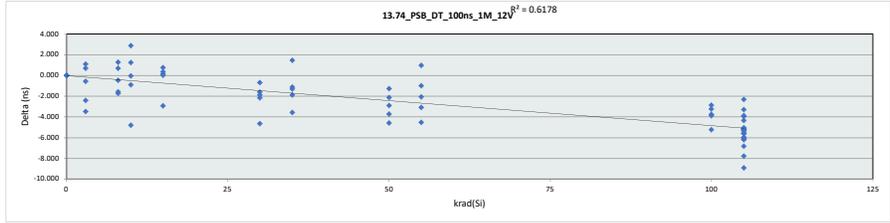


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

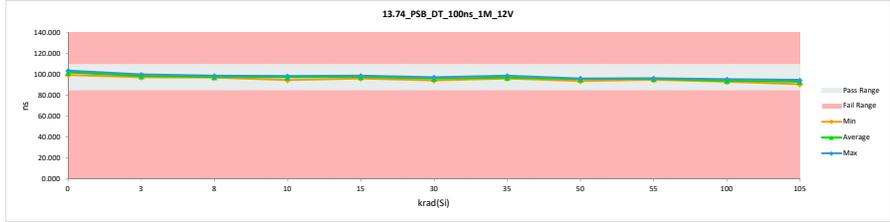
| 13.74 PSB_DT_100ns_1M_12V | |
|---------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 110 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 103.736 | 103.758 | 0.022 |
| 0 | 992 | 103.036 | 103.084 | 0.048 |
| 0 | 993 | 99.584 | 99.639 | 0.055 |
| 3 | 1 | 101.466 | 98.016 | -3.450 |
| 3 | 2 | 99.813 | 97.543 | -2.270 |
| 3 | 3 | 99.027 | 100.168 | 1.141 |
| 3 | 4 | 98.205 | 97.684 | -0.521 |
| 3 | 5 | 99.124 | 99.843 | 0.719 |
| 8 | 6 | 97.783 | 99.086 | 1.303 |
| 8 | 7 | 97.510 | 97.079 | -0.431 |
| 8 | 8 | 97.361 | 98.097 | 0.736 |
| 8 | 9 | 98.564 | 97.015 | -1.549 |
| 8 | 10 | 99.694 | 98.002 | -1.692 |
| 10 | 11 | 99.517 | 94.744 | -4.773 |
| 10 | 12 | 97.856 | 97.858 | 0.002 |
| 10 | 13 | 99.578 | 98.714 | -0.864 |
| 10 | 14 | 96.634 | 97.920 | 1.286 |
| 10 | 15 | 95.757 | 98.650 | 2.893 |
| 15 | 16 | 96.791 | 97.170 | 0.379 |
| 15 | 17 | 99.097 | 96.210 | -2.887 |
| 15 | 18 | 97.923 | 98.106 | 0.183 |
| 15 | 19 | 97.795 | 97.845 | 0.050 |
| 15 | 20 | 98.180 | 98.955 | 0.775 |
| 30 | 21 | 97.724 | 97.070 | -0.654 |
| 30 | 22 | 98.897 | 97.052 | -1.845 |
| 30 | 23 | 99.606 | 97.482 | -2.124 |
| 30 | 24 | 97.271 | 95.695 | -1.576 |
| 30 | 25 | 98.971 | 94.371 | -4.600 |
| 35 | 26 | 97.991 | 96.732 | -1.259 |
| 35 | 27 | 97.879 | 96.798 | -1.081 |
| 35 | 28 | 98.136 | 96.281 | -1.855 |
| 35 | 29 | 97.615 | 99.114 | 1.499 |
| 35 | 30 | 100.404 | 96.869 | -3.535 |
| 50 | 31 | 97.632 | 95.551 | -2.081 |
| 50 | 32 | 100.036 | 96.361 | -3.675 |
| 50 | 33 | 99.220 | 96.374 | -2.846 |
| 50 | 34 | 97.948 | 95.811 | -2.137 |
| 50 | 35 | 98.219 | 93.668 | -4.551 |
| 55 | 36 | 97.185 | 96.215 | -0.970 |
| 55 | 37 | 98.218 | 95.167 | -3.051 |
| 55 | 38 | 95.479 | 96.493 | 1.014 |
| 55 | 39 | 98.200 | 96.163 | -2.037 |
| 55 | 40 | 99.396 | 94.903 | -4.493 |
| 100 | 41 | 98.701 | 95.516 | -3.185 |
| 100 | 42 | 97.697 | 94.852 | -2.845 |
| 100 | 43 | 97.737 | 94.017 | -3.720 |
| 100 | 44 | 97.060 | 93.210 | -3.850 |
| 100 | 45 | 98.689 | 93.494 | -5.195 |
| 105 | 46 | 98.493 | 93.366 | -5.127 |
| 105 | 47 | 99.591 | 92.815 | -6.776 |
| 105 | 48 | 98.843 | 93.585 | -5.258 |
| 105 | 49 | 98.886 | 93.596 | -5.290 |
| 105 | 50 | 99.753 | 94.583 | -5.170 |
| 105 | 51 | 97.715 | 94.468 | -3.247 |
| 105 | 52 | 96.192 | 92.302 | -3.890 |
| 105 | 53 | 98.687 | 94.836 | -3.851 |
| 105 | 54 | 98.759 | 93.234 | -5.525 |
| 105 | 55 | 98.434 | 90.693 | -7.741 |
| 105 | 56 | 100.756 | 91.881 | -8.875 |
| 105 | 57 | 98.644 | 94.328 | -4.316 |
| 105 | 58 | 98.495 | 92.933 | -5.562 |
| 105 | 59 | 98.612 | 93.598 | -5.014 |
| 105 | 60 | 99.833 | 93.717 | -6.116 |
| 105 | 61 | 98.685 | 92.742 | -5.943 |
| 105 | 62 | 96.543 | 94.271 | -2.272 |
| 105 | 63 | 99.219 | 94.151 | -5.068 |
| 105 | 64 | 98.199 | 92.239 | -5.960 |
| 105 | 65 | 99.316 | 93.757 | -5.559 |
| 105 | 66 | 99.203 | 93.044 | -6.159 |
| 105 | 67 | 97.781 | 92.638 | -5.143 |
| Max | | 103.736 | 103.758 | 2.893 |
| Average | | 98.568 | 95.903 | -2.665 |
| Min | | 95.479 | 90.693 | -8.875 |
| Std Dev | | 1.396 | 2.561 | 2.573 |



| 13.74 PSB_DT_100ns_1M_12V | |
|---------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 85 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 99.639 | 97.543 | 97.015 | 94.744 | 96.210 | 94.371 | 96.281 | 93.668 | 94.903 | 93.210 | 90.693 |
| Average | 102.160 | 98.651 | 97.856 | 97.577 | 97.657 | 96.334 | 97.159 | 95.553 | 95.788 | 94.218 | 93.308 |
| Max | 103.758 | 100.168 | 99.086 | 98.714 | 98.955 | 97.482 | 99.114 | 96.374 | 96.493 | 95.516 | 94.836 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

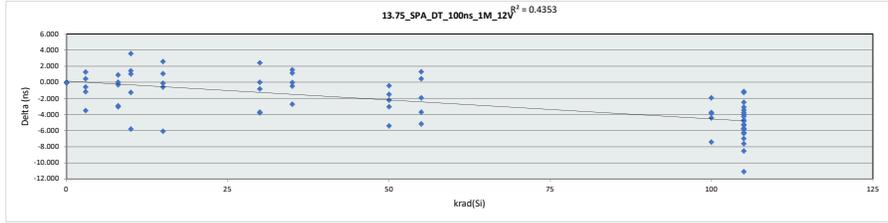


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

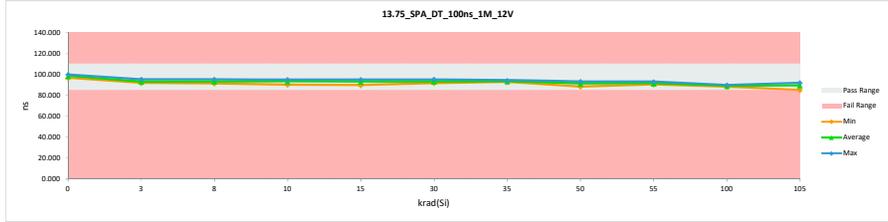
| 13.75 SPA DT 100ns 1M 12V | |
|---------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 110 110 |
| Min Limit | 85 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 99.313 | 99.335 | 0.022 |
| 0 | 992 | 100.014 | 100.042 | 0.028 |
| 0 | 993 | 96.807 | 96.840 | 0.033 |
| 3 | 1 | 94.152 | 95.491 | 1.339 |
| 3 | 2 | 95.549 | 92.087 | -3.462 |
| 3 | 3 | 94.301 | 93.749 | -0.552 |
| 3 | 4 | 93.820 | 92.689 | -1.131 |
| 3 | 5 | 93.093 | 93.602 | 0.509 |
| 8 | 6 | 94.608 | 95.586 | 0.978 |
| 8 | 7 | 93.936 | 93.676 | -0.260 |
| 8 | 8 | 93.634 | 93.681 | 0.047 |
| 8 | 9 | 94.584 | 91.605 | -2.979 |
| 8 | 10 | 95.620 | 92.772 | -2.848 |
| 10 | 11 | 96.116 | 90.394 | -5.722 |
| 10 | 12 | 95.924 | 94.725 | -1.199 |
| 10 | 13 | 93.843 | 95.338 | 1.495 |
| 10 | 14 | 91.250 | 92.343 | 1.093 |
| 10 | 15 | 91.648 | 95.266 | 3.618 |
| 15 | 16 | 90.965 | 93.605 | 2.640 |
| 15 | 17 | 95.912 | 89.914 | -5.998 |
| 15 | 18 | 94.107 | 95.216 | 1.109 |
| 15 | 19 | 93.699 | 93.162 | -0.537 |
| 15 | 20 | 94.584 | 94.512 | -0.072 |
| 30 | 21 | 96.784 | 93.042 | -3.742 |
| 30 | 22 | 93.918 | 93.970 | 0.052 |
| 30 | 23 | 93.798 | 93.020 | -0.778 |
| 30 | 24 | 93.118 | 95.602 | 2.484 |
| 30 | 25 | 95.520 | 91.857 | -3.663 |
| 35 | 26 | 92.119 | 93.699 | 1.580 |
| 35 | 27 | 94.522 | 94.535 | 0.013 |
| 35 | 28 | 95.643 | 92.998 | -2.645 |
| 35 | 29 | 92.237 | 93.427 | 1.190 |
| 35 | 30 | 94.027 | 93.624 | -0.403 |
| 50 | 31 | 92.672 | 91.230 | -1.442 |
| 50 | 32 | 93.812 | 93.450 | -0.362 |
| 50 | 33 | 95.641 | 93.480 | -2.161 |
| 50 | 34 | 93.805 | 90.810 | -2.995 |
| 50 | 35 | 93.888 | 88.569 | -5.319 |
| 55 | 36 | 91.888 | 93.246 | 1.358 |
| 55 | 37 | 93.068 | 91.185 | -1.883 |
| 55 | 38 | 91.112 | 91.601 | 0.489 |
| 55 | 39 | 95.489 | 91.835 | -3.654 |
| 55 | 40 | 95.819 | 90.720 | -5.099 |
| 100 | 41 | 93.000 | 89.197 | -3.803 |
| 100 | 42 | 93.791 | 90.111 | -3.680 |
| 100 | 43 | 94.137 | 89.765 | -4.372 |
| 100 | 44 | 90.268 | 88.376 | -1.892 |
| 100 | 45 | 95.748 | 88.374 | -7.374 |
| 105 | 46 | 93.772 | 90.393 | -3.379 |
| 105 | 47 | 95.169 | 89.976 | -5.193 |
| 105 | 48 | 94.787 | 90.588 | -4.199 |
| 105 | 49 | 95.850 | 90.585 | -5.265 |
| 105 | 50 | 95.080 | 91.109 | -3.971 |
| 105 | 51 | 97.748 | 91.439 | -6.309 |
| 105 | 52 | 93.063 | 91.982 | -1.081 |
| 105 | 53 | 95.200 | 89.499 | -5.701 |
| 105 | 54 | 96.240 | 85.211 | -11.029 |
| 105 | 55 | 94.682 | 87.122 | -7.560 |
| 105 | 56 | 95.109 | 86.651 | -8.458 |
| 105 | 57 | 95.284 | 92.249 | -3.035 |
| 105 | 58 | 94.279 | 90.344 | -3.935 |
| 105 | 59 | 95.066 | 89.290 | -5.776 |
| 105 | 60 | 95.606 | 90.413 | -5.193 |
| 105 | 61 | 94.665 | 92.244 | -2.421 |
| 105 | 62 | 91.337 | 90.116 | -1.221 |
| 105 | 63 | 94.037 | 89.385 | -4.652 |
| 105 | 64 | 93.973 | 88.329 | -5.644 |
| 105 | 65 | 95.649 | 90.897 | -4.752 |
| 105 | 66 | 94.823 | 87.884 | -6.939 |
| 105 | 67 | 93.375 | 89.699 | -3.676 |
| Max | | 100.014 | 100.042 | 3.618 |
| Average | | 94.416 | 91.982 | -2.434 |
| Min | | 90.268 | 85.211 | -11.029 |
| Std Dev | | 1.764 | 2.723 | 2.994 |



| 13.75 SPA DT 100ns 1M 12V | |
|---------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 ns |
| Min Limit | 85 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 96.840 | 92.087 | 91.605 | 90.394 | 89.914 | 91.857 | 92.998 | 88.569 | 90.720 | 88.374 | 85.211 |
| Average | 98.739 | 93.524 | 93.464 | 93.613 | 93.282 | 93.498 | 93.657 | 91.508 | 91.717 | 89.165 | 89.791 |
| Max | 100.042 | 95.491 | 95.586 | 95.338 | 95.216 | 95.602 | 94.535 | 93.480 | 93.246 | 90.111 | 92.249 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

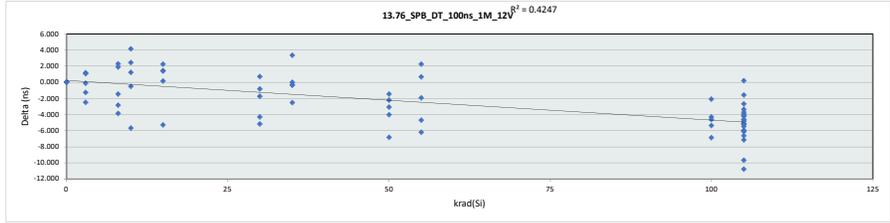


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

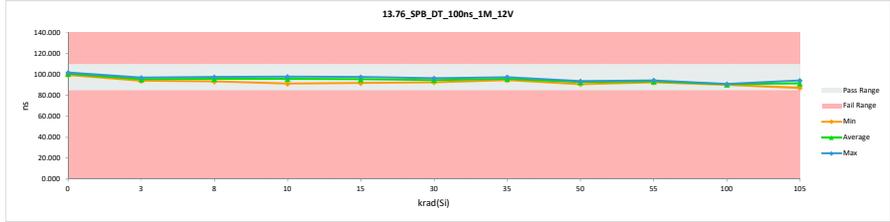
| 13.76 SPB_DT 100ns 1M 12V | |
|---------------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 110 110 |
| Min Limit | 85 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 101.188 | 101.245 | 0.057 |
| 0 | 992 | 101.838 | 101.923 | 0.085 |
| 0 | 993 | 99.420 | 99.523 | 0.103 |
| 3 | 1 | 95.951 | 97.188 | 1.237 |
| 3 | 2 | 96.616 | 94.207 | -2.409 |
| 3 | 3 | 95.801 | 95.756 | -0.045 |
| 3 | 4 | 95.816 | 94.600 | -1.216 |
| 3 | 5 | 95.534 | 96.674 | 1.140 |
| 8 | 6 | 95.425 | 97.764 | 2.339 |
| 8 | 7 | 96.939 | 95.545 | -1.394 |
| 8 | 8 | 95.546 | 97.494 | 1.948 |
| 8 | 9 | 95.386 | 93.606 | -2.780 |
| 8 | 10 | 98.888 | 95.181 | -3.807 |
| 10 | 11 | 97.052 | 91.428 | -5.624 |
| 10 | 12 | 97.112 | 96.647 | -0.465 |
| 10 | 13 | 95.715 | 98.201 | 2.486 |
| 10 | 14 | 93.986 | 95.259 | 1.273 |
| 10 | 15 | 93.933 | 98.127 | 4.194 |
| 15 | 16 | 93.730 | 95.205 | 1.475 |
| 15 | 17 | 97.301 | 92.056 | -5.245 |
| 15 | 18 | 95.281 | 96.764 | 1.483 |
| 15 | 19 | 96.186 | 96.401 | 0.215 |
| 15 | 20 | 95.475 | 97.790 | 2.315 |
| 30 | 21 | 97.859 | 92.736 | -5.123 |
| 30 | 22 | 98.078 | 96.419 | -1.659 |
| 30 | 23 | 96.343 | 95.571 | -0.772 |
| 30 | 24 | 95.806 | 96.592 | 0.786 |
| 30 | 25 | 97.313 | 93.084 | -4.229 |
| 35 | 26 | 95.460 | 95.176 | -0.284 |
| 35 | 27 | 96.310 | 96.356 | 0.046 |
| 35 | 28 | 97.377 | 94.900 | -2.477 |
| 35 | 29 | 94.260 | 97.656 | 3.396 |
| 35 | 30 | 95.993 | 95.754 | -0.239 |
| 50 | 31 | 94.537 | 93.150 | -1.387 |
| 50 | 32 | 96.810 | 93.776 | -3.034 |
| 50 | 33 | 97.778 | 93.795 | -3.983 |
| 50 | 34 | 95.532 | 93.374 | -2.158 |
| 50 | 35 | 97.691 | 90.933 | -6.758 |
| 55 | 36 | 93.851 | 94.594 | 0.743 |
| 55 | 37 | 95.441 | 93.567 | -1.874 |
| 55 | 38 | 92.091 | 94.403 | 2.312 |
| 55 | 39 | 97.396 | 92.750 | -4.646 |
| 55 | 40 | 98.691 | 92.538 | -6.153 |
| 100 | 41 | 96.010 | 90.704 | -5.306 |
| 100 | 42 | 95.371 | 91.128 | -4.243 |
| 100 | 43 | 95.702 | 91.131 | -4.571 |
| 100 | 44 | 92.351 | 90.325 | -2.026 |
| 100 | 45 | 97.247 | 90.429 | -6.818 |
| 105 | 46 | 97.009 | 90.953 | -6.056 |
| 105 | 47 | 98.365 | 92.946 | -5.419 |
| 105 | 48 | 94.782 | 92.170 | -2.612 |
| 105 | 49 | 98.122 | 92.176 | -5.946 |
| 105 | 50 | 97.705 | 94.403 | -3.302 |
| 105 | 51 | 98.931 | 92.371 | -6.560 |
| 105 | 52 | 94.358 | 92.836 | -1.522 |
| 105 | 53 | 96.591 | 91.439 | -5.152 |
| 105 | 54 | 97.945 | 87.232 | -10.713 |
| 105 | 55 | 96.410 | 89.335 | -7.075 |
| 105 | 56 | 99.130 | 89.525 | -9.605 |
| 105 | 57 | 97.409 | 93.376 | -4.033 |
| 105 | 58 | 96.212 | 91.150 | -5.062 |
| 105 | 59 | 96.781 | 92.227 | -4.554 |
| 105 | 60 | 96.732 | 91.638 | -5.094 |
| 105 | 61 | 96.999 | 93.342 | -3.657 |
| 105 | 62 | 94.047 | 94.308 | 0.261 |
| 105 | 63 | 96.920 | 92.130 | -4.790 |
| 105 | 64 | 96.748 | 90.865 | -5.883 |
| 105 | 65 | 96.929 | 92.764 | -4.165 |
| 105 | 66 | 95.216 | 90.638 | -4.578 |
| 105 | 67 | 95.049 | 91.158 | -3.891 |
| Max | | 101.838 | 101.923 | 4.194 |
| Average | | 96.442 | 93.977 | -2.464 |
| Min | | 92.091 | 87.232 | -10.713 |
| Std Dev | | 1.745 | 2.842 | 3.194 |



| 13.76 SPB_DT 100ns 1M 12V | |
|---------------------------|--------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 ns |
| Min Limit | 85 ns |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 99.523 | 94.207 | 93.606 | 91.428 | 92.056 | 92.736 | 94.900 | 90.933 | 92.538 | 90.325 | 87.232 |
| Average | 100.897 | 95.685 | 95.918 | 95.932 | 95.643 | 94.880 | 95.968 | 93.006 | 93.570 | 90.743 | 91.772 |
| Max | 101.923 | 97.188 | 97.764 | 98.201 | 97.790 | 96.592 | 97.656 | 93.795 | 94.594 | 91.131 | 94.403 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

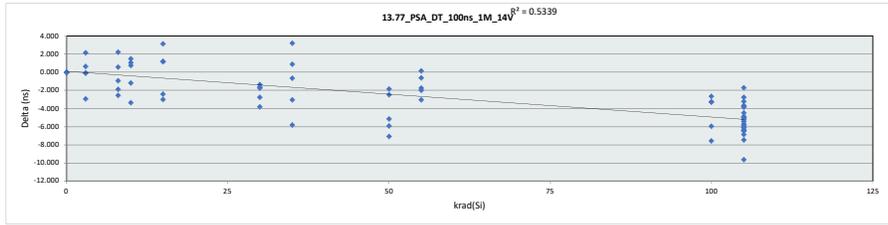


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

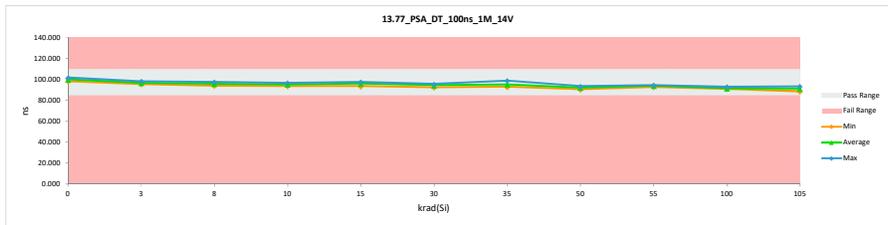
| 13.77 PSA_DT_100ns_1M_14V | |
|---------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 101.795 | 101.851 | 0.056 |
| 0 | 992 | 100.440 | 100.451 | 0.011 |
| 0 | 993 | 98.294 | 98.319 | 0.025 |
| 3 | 1 | 96.871 | 96.806 | -0.065 |
| 3 | 2 | 98.596 | 95.687 | -2.909 |
| 3 | 3 | 96.230 | 98.411 | 2.181 |
| 3 | 4 | 96.089 | 96.060 | -0.029 |
| 3 | 5 | 96.174 | 96.861 | 0.687 |
| 8 | 6 | 97.051 | 97.647 | 0.596 |
| 8 | 7 | 97.215 | 95.389 | -1.826 |
| 8 | 8 | 95.073 | 97.348 | 2.275 |
| 8 | 9 | 95.998 | 95.101 | -0.897 |
| 8 | 10 | 96.641 | 94.126 | -2.515 |
| 10 | 11 | 97.436 | 94.117 | -3.319 |
| 10 | 12 | 94.219 | 95.743 | 1.524 |
| 10 | 13 | 95.888 | 96.692 | 0.804 |
| 10 | 14 | 94.969 | 93.833 | -1.136 |
| 10 | 15 | 95.530 | 96.631 | 1.101 |
| 15 | 16 | 95.554 | 95.753 | 0.199 |
| 15 | 17 | 96.596 | 93.621 | -2.975 |
| 15 | 18 | 94.644 | 97.804 | 3.160 |
| 15 | 19 | 97.766 | 95.409 | -2.357 |
| 15 | 20 | 95.949 | 97.184 | 1.235 |
| 30 | 21 | 97.423 | 95.735 | -1.688 |
| 30 | 22 | 96.405 | 94.807 | -1.598 |
| 30 | 23 | 97.117 | 94.391 | -2.726 |
| 30 | 24 | 96.317 | 94.995 | -1.322 |
| 30 | 25 | 96.350 | 92.579 | -3.771 |
| 35 | 26 | 94.581 | 95.516 | 0.935 |
| 35 | 27 | 95.679 | 95.048 | -0.631 |
| 35 | 28 | 96.899 | 93.895 | -3.004 |
| 35 | 29 | 95.791 | 99.025 | 3.234 |
| 35 | 30 | 98.775 | 93.013 | -5.762 |
| 50 | 31 | 96.035 | 93.591 | -2.444 |
| 50 | 32 | 97.098 | 92.001 | -5.097 |
| 50 | 33 | 97.886 | 92.021 | -5.865 |
| 50 | 34 | 95.395 | 93.588 | -1.807 |
| 50 | 35 | 97.566 | 90.547 | -7.019 |
| 55 | 36 | 95.320 | 94.755 | -0.565 |
| 55 | 37 | 94.424 | 92.729 | -1.695 |
| 55 | 38 | 94.574 | 94.768 | 0.194 |
| 55 | 39 | 96.169 | 94.229 | -1.940 |
| 55 | 40 | 97.283 | 94.294 | -2.989 |
| 100 | 41 | 94.576 | 91.340 | -3.236 |
| 100 | 42 | 96.296 | 93.072 | -3.224 |
| 100 | 43 | 97.313 | 91.411 | -5.902 |
| 100 | 44 | 94.260 | 91.636 | -2.624 |
| 100 | 45 | 98.503 | 90.976 | -7.527 |
| 105 | 46 | 96.090 | 92.910 | -3.180 |
| 105 | 47 | 97.783 | 92.621 | -5.162 |
| 105 | 48 | 97.843 | 91.488 | -6.355 |
| 105 | 49 | 96.443 | 91.485 | -4.958 |
| 105 | 50 | 96.345 | 91.910 | -4.435 |
| 105 | 51 | 97.197 | 92.221 | -4.976 |
| 105 | 52 | 94.099 | 88.726 | -5.373 |
| 105 | 53 | 97.303 | 91.018 | -6.285 |
| 105 | 54 | 96.835 | 91.043 | -5.792 |
| 105 | 55 | 96.067 | 90.010 | -6.057 |
| 105 | 56 | 100.626 | 91.020 | -9.606 |
| 105 | 57 | 94.592 | 91.862 | -2.730 |
| 105 | 58 | 96.587 | 89.751 | -6.836 |
| 105 | 59 | 97.058 | 93.415 | -3.643 |
| 105 | 60 | 95.100 | 91.310 | -3.790 |
| 105 | 61 | 96.371 | 92.671 | -3.700 |
| 105 | 62 | 93.308 | 91.643 | -1.665 |
| 105 | 63 | 97.473 | 91.824 | -5.649 |
| 105 | 64 | 96.017 | 91.180 | -4.837 |
| 105 | 65 | 97.513 | 91.489 | -6.024 |
| 105 | 66 | 97.079 | 89.647 | -7.432 |
| 105 | 67 | 96.920 | 90.483 | -6.437 |
| Max | | 101.795 | 101.851 | 3.234 |
| Average | | 96.539 | 93.879 | -2.660 |
| Min | | 93.308 | 88.726 | -9.606 |
| Std Dev | | 1.510 | 2.727 | 2.896 |



| 13.77 PSA_DT_100ns_1M_14 | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 85 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 98.319 | 95.687 | 94.126 | 92.833 | 93.621 | 92.579 | 93.013 | 90.547 | 92.729 | 90.976 | 88.726 |
| Average | 100.207 | 96.765 | 95.922 | 95.403 | 96.154 | 94.501 | 95.299 | 92.350 | 94.155 | 91.687 | 91.351 |
| Max | 101.851 | 98.411 | 97.647 | 96.692 | 97.804 | 95.735 | 99.025 | 93.591 | 94.768 | 93.072 | 93.415 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

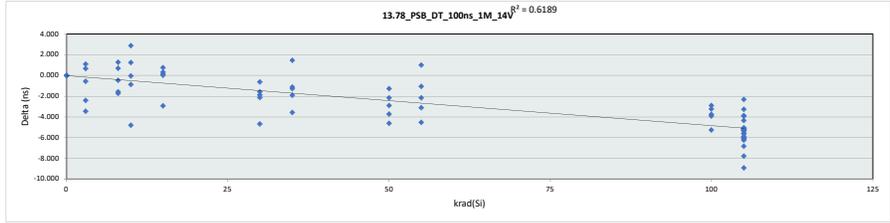


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

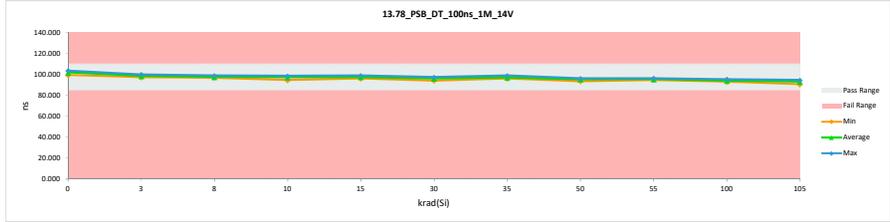
| 13.78 PSB DT 100ns 1M 14V | |
|---------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 110 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 103.709 | 103.746 | 0.037 |
| 0 | 992 | 103.032 | 103.068 | 0.036 |
| 0 | 993 | 99.582 | 99.621 | 0.039 |
| 3 | 1 | 101.461 | 98.037 | -3.424 |
| 3 | 2 | 99.818 | 97.559 | -2.259 |
| 3 | 3 | 99.016 | 100.157 | 1.141 |
| 3 | 4 | 98.190 | 97.675 | -0.515 |
| 3 | 5 | 99.128 | 99.840 | 0.712 |
| 8 | 6 | 97.784 | 99.094 | 1.310 |
| 8 | 7 | 97.490 | 97.064 | -0.426 |
| 8 | 8 | 97.351 | 98.085 | 0.734 |
| 8 | 9 | 98.552 | 97.006 | -1.546 |
| 8 | 10 | 99.691 | 97.993 | -1.698 |
| 10 | 11 | 99.500 | 94.751 | -4.749 |
| 10 | 12 | 97.857 | 97.848 | -0.009 |
| 10 | 13 | 99.549 | 98.698 | -0.851 |
| 10 | 14 | 96.616 | 97.909 | 1.293 |
| 10 | 15 | 95.741 | 98.643 | 2.902 |
| 15 | 16 | 96.791 | 97.150 | 0.359 |
| 15 | 17 | 99.095 | 96.207 | -2.888 |
| 15 | 18 | 97.922 | 98.093 | 0.171 |
| 15 | 19 | 97.793 | 97.845 | 0.052 |
| 15 | 20 | 98.174 | 98.955 | 0.781 |
| 30 | 21 | 97.712 | 97.113 | -0.599 |
| 30 | 22 | 98.882 | 97.027 | -1.855 |
| 30 | 23 | 99.596 | 97.490 | -2.106 |
| 30 | 24 | 97.249 | 95.700 | -1.549 |
| 30 | 25 | 99.012 | 94.365 | -4.647 |
| 35 | 26 | 97.963 | 96.737 | -1.226 |
| 35 | 27 | 97.872 | 96.778 | -1.094 |
| 35 | 28 | 98.133 | 96.267 | -1.866 |
| 35 | 29 | 97.611 | 99.115 | 1.504 |
| 35 | 30 | 100.413 | 96.865 | -3.548 |
| 50 | 31 | 97.639 | 95.525 | -2.114 |
| 50 | 32 | 100.048 | 96.352 | -3.696 |
| 50 | 33 | 99.224 | 96.368 | -2.856 |
| 50 | 34 | 97.033 | 95.802 | -1.231 |
| 50 | 35 | 98.257 | 93.667 | -4.590 |
| 55 | 36 | 97.201 | 96.168 | -1.033 |
| 55 | 37 | 98.232 | 95.149 | -3.083 |
| 55 | 38 | 95.460 | 96.495 | 1.035 |
| 55 | 39 | 98.208 | 96.086 | -2.122 |
| 55 | 40 | 99.385 | 94.899 | -4.486 |
| 100 | 41 | 98.707 | 95.504 | -3.203 |
| 100 | 42 | 97.702 | 94.832 | -2.870 |
| 100 | 43 | 97.727 | 94.008 | -3.719 |
| 100 | 44 | 97.064 | 93.202 | -3.862 |
| 100 | 45 | 98.714 | 93.475 | -5.239 |
| 105 | 46 | 98.459 | 93.357 | -5.102 |
| 105 | 47 | 99.596 | 92.806 | -6.790 |
| 105 | 48 | 98.827 | 93.579 | -5.248 |
| 105 | 49 | 98.887 | 93.584 | -5.303 |
| 105 | 50 | 99.742 | 94.560 | -5.182 |
| 105 | 51 | 97.700 | 94.457 | -3.243 |
| 105 | 52 | 96.184 | 92.314 | -3.870 |
| 105 | 53 | 98.674 | 94.823 | -3.851 |
| 105 | 54 | 98.770 | 92.918 | -5.852 |
| 105 | 55 | 98.414 | 90.684 | -7.730 |
| 105 | 56 | 100.773 | 91.885 | -8.888 |
| 105 | 57 | 98.649 | 94.335 | -4.314 |
| 105 | 58 | 98.477 | 92.930 | -5.547 |
| 105 | 59 | 98.620 | 93.599 | -5.021 |
| 105 | 60 | 99.819 | 93.727 | -6.092 |
| 105 | 61 | 98.697 | 92.705 | -5.992 |
| 105 | 62 | 96.533 | 94.269 | -2.264 |
| 105 | 63 | 99.215 | 94.157 | -5.058 |
| 105 | 64 | 98.173 | 92.215 | -5.958 |
| 105 | 65 | 99.319 | 93.771 | -5.548 |
| 105 | 66 | 99.209 | 93.006 | -6.203 |
| 105 | 67 | 97.785 | 92.621 | -5.164 |
| Max | | 103.709 | 103.746 | 2.902 |
| Average | | 98.564 | 95.890 | -2.674 |
| Min | | 95.460 | 90.684 | -8.888 |
| Std Dev | | 1.397 | 2.566 | 2.582 |



| 13.78 PSB DT 100ns 1M 14 | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 99.621 | 97.559 | 97.006 | 94.751 | 96.207 | 94.365 | 96.267 | 93.667 | 94.899 | 93.202 | 90.684 |
| Average | 102.145 | 98.654 | 97.848 | 97.570 | 97.650 | 96.339 | 97.152 | 95.543 | 95.759 | 94.204 | 93.286 |
| Max | 103.746 | 100.157 | 99.094 | 98.698 | 98.955 | 97.490 | 99.115 | 96.368 | 96.495 | 95.504 | 94.823 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

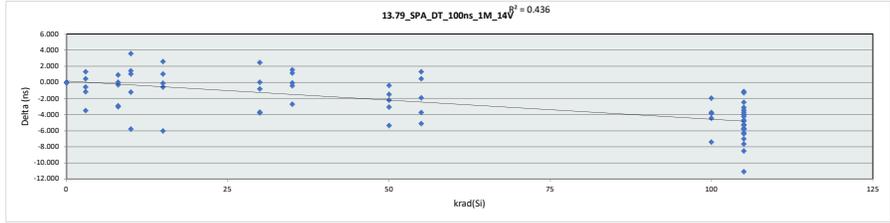


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

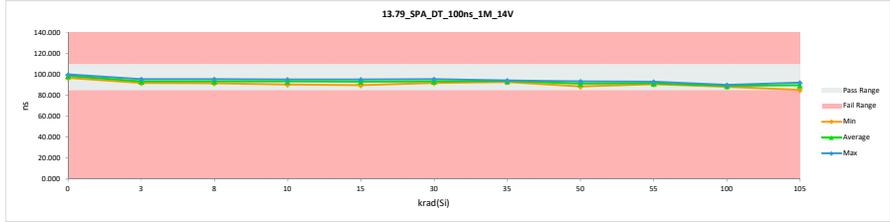
| 13.79 SPA DT 100ns 1M 14V | |
|---------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 99.318 | 99.331 | 0.013 |
| 0 | 992 | 100.007 | 100.031 | 0.024 |
| 0 | 993 | 96.797 | 96.834 | 0.037 |
| 3 | 1 | 94.145 | 95.487 | 1.342 |
| 3 | 2 | 95.528 | 92.074 | -3.454 |
| 3 | 3 | 94.308 | 93.757 | -0.551 |
| 3 | 4 | 93.818 | 92.702 | -1.116 |
| 3 | 5 | 93.098 | 93.600 | 0.502 |
| 8 | 6 | 94.598 | 95.581 | 0.983 |
| 8 | 7 | 93.936 | 93.670 | -0.266 |
| 8 | 8 | 93.631 | 93.670 | 0.039 |
| 8 | 9 | 94.571 | 91.606 | -2.965 |
| 8 | 10 | 95.620 | 92.766 | -2.854 |
| 10 | 11 | 96.125 | 90.385 | -5.740 |
| 10 | 12 | 95.923 | 94.741 | -1.182 |
| 10 | 13 | 93.843 | 95.328 | 1.485 |
| 10 | 14 | 91.228 | 92.301 | 1.073 |
| 10 | 15 | 91.632 | 95.258 | 3.626 |
| 15 | 16 | 90.950 | 93.590 | 2.640 |
| 15 | 17 | 95.882 | 89.903 | -5.979 |
| 15 | 18 | 94.114 | 95.195 | 1.081 |
| 15 | 19 | 93.688 | 93.146 | -0.542 |
| 15 | 20 | 94.581 | 94.507 | -0.074 |
| 30 | 21 | 96.775 | 93.058 | -3.717 |
| 30 | 22 | 93.912 | 93.968 | 0.056 |
| 30 | 23 | 93.799 | 93.015 | -0.784 |
| 30 | 24 | 93.102 | 95.592 | 2.490 |
| 30 | 25 | 95.497 | 91.862 | -3.635 |
| 35 | 26 | 92.097 | 93.695 | 1.598 |
| 35 | 27 | 94.522 | 94.518 | -0.004 |
| 35 | 28 | 95.645 | 92.987 | -2.658 |
| 35 | 29 | 92.227 | 93.425 | 1.198 |
| 35 | 30 | 94.003 | 93.608 | -0.395 |
| 50 | 31 | 92.675 | 91.226 | -1.449 |
| 50 | 32 | 93.796 | 93.443 | -0.353 |
| 50 | 33 | 95.622 | 93.465 | -2.157 |
| 50 | 34 | 93.796 | 90.793 | -3.003 |
| 50 | 35 | 93.865 | 88.550 | -5.315 |
| 55 | 36 | 91.890 | 93.236 | 1.346 |
| 55 | 37 | 93.060 | 91.173 | -1.887 |
| 55 | 38 | 91.094 | 91.587 | 0.493 |
| 55 | 39 | 95.481 | 91.807 | -3.674 |
| 55 | 40 | 95.810 | 90.722 | -5.088 |
| 100 | 41 | 93.002 | 89.188 | -3.814 |
| 100 | 42 | 93.794 | 90.113 | -3.681 |
| 100 | 43 | 94.139 | 89.749 | -4.390 |
| 100 | 44 | 90.275 | 88.370 | -1.905 |
| 100 | 45 | 95.726 | 88.379 | -7.347 |
| 105 | 46 | 93.761 | 90.391 | -3.370 |
| 105 | 47 | 95.151 | 89.965 | -5.186 |
| 105 | 48 | 94.776 | 90.577 | -4.199 |
| 105 | 49 | 95.838 | 90.590 | -5.248 |
| 105 | 50 | 95.076 | 91.123 | -3.953 |
| 105 | 51 | 97.760 | 91.444 | -6.316 |
| 105 | 52 | 93.048 | 91.970 | -1.078 |
| 105 | 53 | 95.208 | 89.500 | -5.708 |
| 105 | 54 | 96.248 | 85.215 | -11.033 |
| 105 | 55 | 94.677 | 87.098 | -7.579 |
| 105 | 56 | 95.102 | 86.633 | -8.469 |
| 105 | 57 | 95.265 | 92.206 | -3.059 |
| 105 | 58 | 94.261 | 90.325 | -3.936 |
| 105 | 59 | 95.059 | 89.297 | -5.762 |
| 105 | 60 | 95.612 | 90.390 | -5.222 |
| 105 | 61 | 94.644 | 92.235 | -2.409 |
| 105 | 62 | 91.327 | 90.079 | -1.248 |
| 105 | 63 | 94.045 | 89.394 | -4.651 |
| 105 | 64 | 93.985 | 88.305 | -5.680 |
| 105 | 65 | 95.652 | 90.904 | -4.748 |
| 105 | 66 | 94.849 | 87.869 | -6.980 |
| 105 | 67 | 93.374 | 89.713 | -3.661 |
| Max | | 100.007 | 100.031 | 3.626 |
| Average | | 94.409 | 91.975 | -2.435 |
| Min | | 90.275 | 85.215 | -11.033 |
| Std Dev | | 1.765 | 2.724 | 2.995 |



| 13.79 SPA DT 100ns 1M 14 | |
|--------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 110 |
| Min Limit | 85 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 96.834 | 92.074 | 91.606 | 90.385 | 89.903 | 91.862 | 92.987 | 88.550 | 90.722 | 88.370 | 85.215 |
| Average | 98.732 | 93.524 | 93.459 | 93.603 | 93.268 | 93.499 | 93.647 | 91.495 | 91.705 | 89.160 | 89.783 |
| Max | 100.031 | 95.487 | 95.581 | 95.328 | 95.195 | 95.592 | 94.518 | 93.465 | 93.236 | 90.113 | 92.235 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

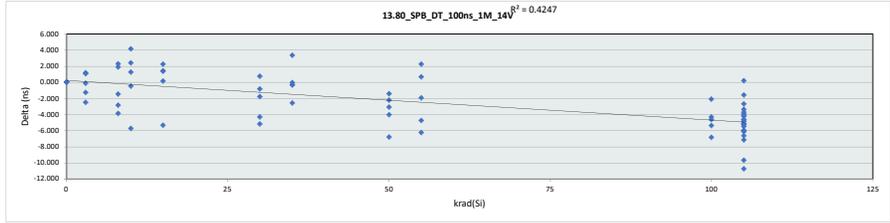


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

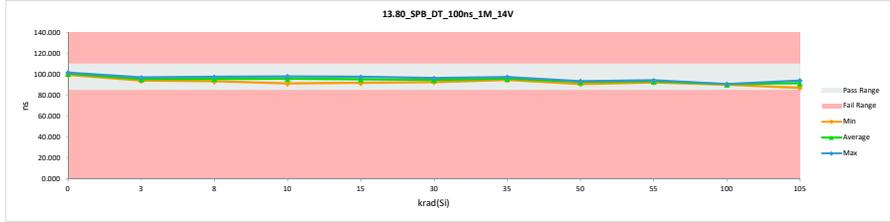
| 13.80_SPB_DT_100ns_1M_14V | |
|---------------------------|-----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | |
| Max Limit | ns |
| Min Limit | 110 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|---------|
| 0 | 991 | 101.163 | 101.235 | 0.072 |
| 0 | 992 | 101.828 | 101.912 | 0.084 |
| 0 | 993 | 99.405 | 99.511 | 0.106 |
| 3 | 1 | 95.951 | 97.202 | 1.251 |
| 3 | 2 | 96.611 | 94.181 | -2.430 |
| 3 | 3 | 95.785 | 95.736 | -0.049 |
| 3 | 4 | 95.826 | 94.615 | -1.211 |
| 3 | 5 | 95.536 | 96.675 | 1.139 |
| 8 | 6 | 95.432 | 97.789 | 2.357 |
| 8 | 7 | 96.926 | 95.536 | -1.390 |
| 8 | 8 | 95.547 | 97.496 | 1.949 |
| 8 | 9 | 96.388 | 93.613 | -2.775 |
| 8 | 10 | 98.885 | 95.189 | -3.796 |
| 10 | 11 | 97.096 | 91.424 | -5.672 |
| 10 | 12 | 97.103 | 96.699 | -0.404 |
| 10 | 13 | 95.724 | 98.204 | 2.480 |
| 10 | 14 | 93.957 | 95.271 | 1.314 |
| 10 | 15 | 93.927 | 98.132 | 4.205 |
| 15 | 16 | 93.734 | 95.211 | 1.477 |
| 15 | 17 | 97.311 | 92.041 | -5.270 |
| 15 | 18 | 95.292 | 96.749 | 1.457 |
| 15 | 19 | 96.184 | 96.400 | 0.216 |
| 15 | 20 | 95.463 | 97.785 | 2.322 |
| 30 | 21 | 97.856 | 92.756 | -5.100 |
| 30 | 22 | 98.130 | 96.421 | -1.709 |
| 30 | 23 | 96.333 | 95.570 | -0.763 |
| 30 | 24 | 95.794 | 96.598 | 0.804 |
| 30 | 25 | 97.327 | 93.073 | -4.254 |
| 35 | 26 | 95.429 | 95.165 | -0.264 |
| 35 | 27 | 96.319 | 96.350 | 0.031 |
| 35 | 28 | 97.387 | 94.887 | -2.500 |
| 35 | 29 | 94.259 | 97.671 | 3.412 |
| 35 | 30 | 95.997 | 95.752 | -0.245 |
| 50 | 31 | 94.531 | 93.150 | -1.381 |
| 50 | 32 | 96.807 | 93.770 | -3.037 |
| 50 | 33 | 97.766 | 93.791 | -3.975 |
| 50 | 34 | 95.526 | 93.387 | -2.139 |
| 50 | 35 | 97.652 | 90.942 | -6.710 |
| 55 | 36 | 93.827 | 94.542 | 0.715 |
| 55 | 37 | 95.442 | 93.563 | -1.879 |
| 55 | 38 | 92.080 | 94.394 | 2.314 |
| 55 | 39 | 97.390 | 92.719 | -4.671 |
| 55 | 40 | 98.688 | 92.531 | -6.157 |
| 100 | 41 | 96.012 | 90.705 | -5.307 |
| 100 | 42 | 95.360 | 91.119 | -4.241 |
| 100 | 43 | 95.696 | 91.142 | -4.554 |
| 100 | 44 | 92.344 | 90.317 | -2.027 |
| 100 | 45 | 97.208 | 90.423 | -6.785 |
| 105 | 46 | 97.005 | 90.947 | -6.058 |
| 105 | 47 | 98.345 | 92.933 | -5.412 |
| 105 | 48 | 94.786 | 92.157 | -2.629 |
| 105 | 49 | 98.120 | 92.176 | -5.944 |
| 105 | 50 | 97.705 | 94.403 | -3.302 |
| 105 | 51 | 98.920 | 92.370 | -6.550 |
| 105 | 52 | 94.357 | 92.895 | -1.502 |
| 105 | 53 | 95.607 | 91.431 | -4.176 |
| 105 | 54 | 97.950 | 87.270 | -10.680 |
| 105 | 55 | 96.429 | 89.328 | -7.101 |
| 105 | 56 | 99.125 | 89.522 | -9.603 |
| 105 | 57 | 97.415 | 93.393 | -4.022 |
| 105 | 58 | 96.200 | 91.124 | -5.076 |
| 105 | 59 | 96.779 | 92.207 | -5.522 |
| 105 | 60 | 96.730 | 91.627 | -5.103 |
| 105 | 61 | 97.002 | 93.342 | -3.660 |
| 105 | 62 | 94.047 | 94.302 | 0.255 |
| 105 | 63 | 96.917 | 92.117 | -4.800 |
| 105 | 64 | 96.749 | 90.860 | -5.889 |
| 105 | 65 | 96.918 | 92.771 | -4.147 |
| 105 | 66 | 95.229 | 90.619 | -4.610 |
| 105 | 67 | 95.041 | 91.167 | -3.874 |
| | Max | 101.828 | 101.912 | 4.205 |
| | Average | 96.439 | 93.975 | -2.463 |
| | Min | 92.080 | 87.270 | -10.680 |
| | Std Dev | 1.745 | 2.843 | 3.195 |



| 13.80_SPB_DT_100ns_1M_14 | |
|--------------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | ns |
| Min Limit | 85 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |
| Min | 99.511 | 94.181 | 93.613 | 91.424 | 92.041 | 92.756 | 94.887 | 90.942 | 92.531 | 90.317 | 87.270 |
| Average | 100.886 | 95.682 | 95.925 | 95.946 | 95.637 | 94.884 | 95.965 | 93.008 | 93.550 | 90.741 | 91.769 |
| Max | 101.912 | 97.202 | 97.789 | 98.204 | 97.785 | 96.598 | 97.671 | 93.791 | 94.542 | 91.142 | 94.403 |
| UL | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 | 110.000 |

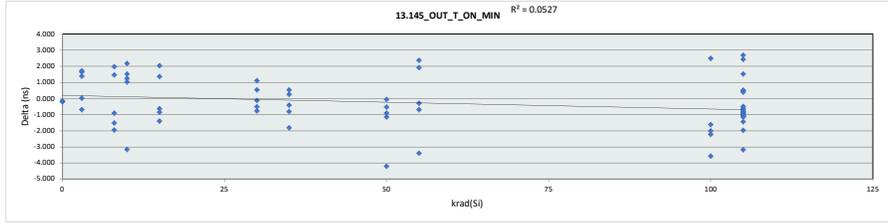


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

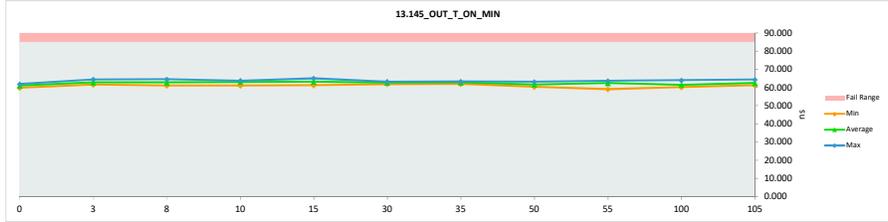
| 13.145 OUT T ON MIN | |
|---------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 85 85 |
| Min Limit | 70 70 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 61.575 | 61.405 | -0.170 |
| 0 | 992 | 62.134 | 61.975 | -0.159 |
| 0 | 993 | 59.940 | 59.809 | -0.131 |
| 3 | 1 | 60.869 | 62.536 | 1.667 |
| 3 | 2 | 63.125 | 64.519 | 1.394 |
| 3 | 3 | 62.828 | 62.869 | 0.041 |
| 3 | 4 | 60.753 | 62.499 | 1.746 |
| 3 | 5 | 62.303 | 61.637 | -0.666 |
| 8 | 6 | 62.561 | 64.562 | 2.001 |
| 8 | 7 | 63.494 | 62.601 | -0.893 |
| 8 | 8 | 62.056 | 63.535 | 1.479 |
| 8 | 9 | 62.562 | 61.073 | -1.489 |
| 8 | 10 | 64.336 | 62.408 | -1.928 |
| 10 | 11 | 64.254 | 61.128 | -3.126 |
| 10 | 12 | 62.068 | 63.113 | 1.045 |
| 10 | 13 | 62.209 | 63.742 | 1.533 |
| 10 | 14 | 61.599 | 63.793 | 2.194 |
| 10 | 15 | 62.545 | 63.806 | 1.261 |
| 15 | 16 | 62.582 | 61.301 | -1.281 |
| 15 | 17 | 63.343 | 62.509 | -0.834 |
| 15 | 18 | 61.869 | 63.254 | 1.385 |
| 15 | 19 | 62.968 | 65.021 | 2.053 |
| 15 | 20 | 64.188 | 63.585 | -0.603 |
| 30 | 21 | 62.365 | 61.871 | -0.494 |
| 30 | 22 | 62.483 | 62.380 | -0.103 |
| 30 | 23 | 62.486 | 63.041 | 0.555 |
| 30 | 24 | 63.787 | 63.050 | -0.737 |
| 30 | 25 | 62.169 | 63.292 | 1.123 |
| 35 | 26 | 62.376 | 62.930 | 0.554 |
| 35 | 27 | 63.582 | 63.195 | -0.387 |
| 35 | 28 | 62.810 | 62.028 | -0.782 |
| 35 | 29 | 64.781 | 62.988 | -1.793 |
| 35 | 30 | 63.030 | 63.314 | 0.284 |
| 50 | 31 | 62.603 | 61.491 | -1.112 |
| 50 | 32 | 61.268 | 60.389 | -0.879 |
| 50 | 33 | 64.617 | 60.443 | -4.174 |
| 50 | 34 | 62.579 | 62.538 | -0.041 |
| 50 | 35 | 63.765 | 63.258 | -0.507 |
| 55 | 36 | 61.238 | 63.178 | 1.940 |
| 55 | 37 | 62.467 | 59.097 | -3.370 |
| 55 | 38 | 61.312 | 63.698 | 2.386 |
| 55 | 39 | 63.574 | 63.304 | -0.270 |
| 55 | 40 | 64.040 | 63.374 | -0.666 |
| 100 | 41 | 63.852 | 60.307 | -3.545 |
| 100 | 42 | 63.334 | 61.744 | -1.590 |
| 100 | 43 | 61.542 | 64.042 | 2.500 |
| 100 | 44 | 62.269 | 60.280 | -1.989 |
| 100 | 45 | 63.432 | 61.229 | -2.203 |
| 105 | 46 | 65.156 | 61.995 | -3.161 |
| 105 | 47 | 63.738 | 62.785 | -0.953 |
| 105 | 48 | 61.915 | 61.337 | -0.578 |
| 105 | 49 | 62.308 | 61.348 | -0.960 |
| 105 | 50 | 63.946 | 64.361 | 0.415 |
| 105 | 51 | 63.087 | 63.618 | 0.531 |
| 105 | 52 | 63.463 | 62.378 | -1.085 |
| 105 | 53 | 63.175 | 61.218 | -1.957 |
| 105 | 54 | 63.192 | 62.333 | -0.859 |
| 105 | 55 | 62.206 | 63.743 | 1.537 |
| 105 | 56 | 63.135 | 62.263 | -0.872 |
| 105 | 57 | 63.406 | 62.737 | -0.669 |
| 105 | 58 | 62.043 | 61.255 | -0.788 |
| 105 | 59 | 63.127 | 62.660 | -0.467 |
| 105 | 60 | 60.856 | 63.568 | 2.712 |
| 105 | 61 | 61.853 | 62.342 | 0.489 |
| 105 | 62 | 63.983 | 62.963 | -1.020 |
| 105 | 63 | 63.384 | 62.255 | -1.129 |
| 105 | 64 | 59.481 | 61.934 | 2.453 |
| 105 | 65 | 62.912 | 62.155 | -0.757 |
| 105 | 66 | 63.414 | 62.003 | -1.411 |
| 105 | 67 | 63.843 | 62.762 | -1.081 |
| | Max | 65.156 | 65.021 | 2.712 |
| | Average | 62.738 | 62.474 | -0.264 |
| | Min | 59.481 | 59.097 | -4.174 |
| | Std Dev | 1.097 | 1.176 | 1.548 |



| 13.145 OUT T ON MIN | |
|---------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | ns ns |
| Max Limit | 85 85 |
| Min Limit | ns ns |

| LL | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Min | 59.809 | 61.637 | 61.073 | 61.128 | 61.301 | 61.871 | 62.028 | 60.389 | 59.097 | 60.280 | 61.218 |
| Average | 61.063 | 62.812 | 62.836 | 63.116 | 63.134 | 62.727 | 62.891 | 61.624 | 62.530 | 61.520 | 62.455 |
| Max | 61.975 | 64.519 | 64.562 | 63.806 | 65.021 | 63.292 | 63.314 | 63.258 | 63.698 | 64.042 | 64.361 |
| UL | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 | 85.000 |

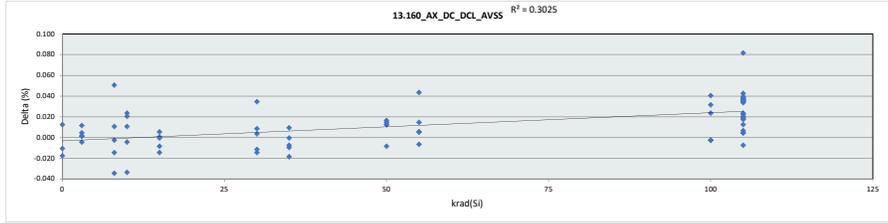


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

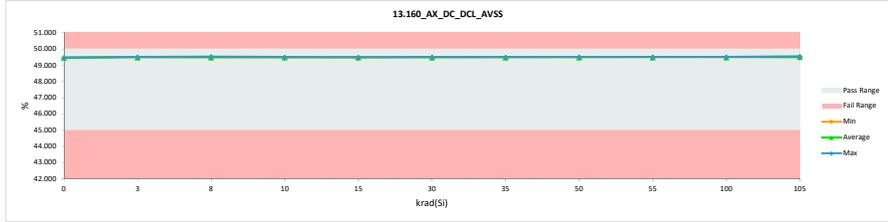
| 13.160 AX DC DCL AVSS | |
|-----------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | % |
| Max Limit | 50 |
| Min Limit | 45 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 49.483 | 49.466 | -0.017 |
| 0 | 992 | 49.469 | 49.482 | 0.013 |
| 0 | 993 | 49.483 | 49.473 | -0.010 |
| 3 | 1 | 49.489 | 49.485 | -0.004 |
| 3 | 2 | 49.492 | 49.497 | 0.005 |
| 3 | 3 | 49.497 | 49.509 | 0.012 |
| 3 | 4 | 49.491 | 49.493 | 0.002 |
| 3 | 5 | 49.489 | 49.491 | 0.002 |
| 8 | 6 | 49.486 | 49.484 | -0.002 |
| 8 | 7 | 49.477 | 49.528 | 0.051 |
| 8 | 8 | 49.523 | 49.489 | -0.034 |
| 8 | 9 | 49.500 | 49.486 | -0.014 |
| 8 | 10 | 49.476 | 49.487 | 0.011 |
| 10 | 11 | 49.482 | 49.506 | 0.024 |
| 10 | 12 | 49.494 | 49.505 | 0.011 |
| 10 | 13 | 49.480 | 49.501 | 0.021 |
| 10 | 14 | 49.501 | 49.497 | -0.004 |
| 10 | 15 | 49.513 | 49.480 | -0.033 |
| 15 | 16 | 49.508 | 49.494 | -0.014 |
| 15 | 17 | 49.503 | 49.503 | 0.000 |
| 15 | 18 | 49.494 | 49.486 | -0.008 |
| 15 | 19 | 49.488 | 49.494 | 0.006 |
| 15 | 20 | 49.485 | 49.486 | 0.001 |
| 30 | 21 | 49.482 | 49.491 | 0.009 |
| 30 | 22 | 49.522 | 49.511 | -0.011 |
| 30 | 23 | 49.496 | 49.482 | -0.014 |
| 30 | 24 | 49.489 | 49.493 | 0.004 |
| 30 | 25 | 49.476 | 49.511 | 0.035 |
| 35 | 26 | 49.497 | 49.490 | -0.007 |
| 35 | 27 | 49.478 | 49.478 | 0.000 |
| 35 | 28 | 49.493 | 49.484 | -0.009 |
| 35 | 29 | 49.496 | 49.506 | 0.010 |
| 35 | 30 | 49.507 | 49.489 | -0.018 |
| 50 | 31 | 49.487 | 49.504 | 0.017 |
| 50 | 32 | 49.499 | 49.491 | -0.008 |
| 50 | 33 | 49.481 | 49.494 | 0.013 |
| 50 | 34 | 49.501 | 49.514 | 0.013 |
| 50 | 35 | 49.501 | 49.516 | 0.015 |
| 55 | 36 | 49.494 | 49.500 | 0.006 |
| 55 | 37 | 49.506 | 49.512 | 0.006 |
| 55 | 38 | 49.495 | 49.510 | 0.015 |
| 55 | 39 | 49.501 | 49.495 | -0.006 |
| 55 | 40 | 49.477 | 49.521 | 0.044 |
| 100 | 41 | 49.480 | 49.521 | 0.041 |
| 100 | 42 | 49.485 | 49.517 | 0.032 |
| 100 | 43 | 49.503 | 49.501 | -0.002 |
| 100 | 44 | 49.488 | 49.512 | 0.024 |
| 100 | 45 | 49.491 | 49.489 | -0.002 |
| 105 | 46 | 49.491 | 49.514 | 0.023 |
| 105 | 47 | 49.489 | 49.523 | 0.034 |
| 105 | 48 | 49.496 | 49.520 | 0.024 |
| 105 | 49 | 49.483 | 49.502 | 0.019 |
| 105 | 50 | 49.486 | 49.504 | 0.018 |
| 105 | 51 | 49.475 | 49.511 | 0.036 |
| 105 | 52 | 49.491 | 49.496 | 0.005 |
| 105 | 53 | 49.492 | 49.512 | 0.020 |
| 105 | 54 | 49.466 | 49.548 | 0.082 |
| 105 | 55 | 49.484 | 49.524 | 0.040 |
| 105 | 56 | 49.482 | 49.518 | 0.036 |
| 105 | 57 | 49.477 | 49.498 | 0.021 |
| 105 | 58 | 49.476 | 49.514 | 0.038 |
| 105 | 59 | 49.485 | 49.492 | 0.007 |
| 105 | 60 | 49.474 | 49.509 | 0.035 |
| 105 | 61 | 49.468 | 49.511 | 0.043 |
| 105 | 62 | 49.508 | 49.513 | 0.005 |
| 105 | 63 | 49.492 | 49.529 | 0.037 |
| 105 | 64 | 49.487 | 49.500 | 0.013 |
| 105 | 65 | 49.496 | 49.489 | -0.007 |
| 105 | 66 | 49.490 | 49.527 | 0.037 |
| 105 | 67 | 49.476 | 49.515 | 0.039 |
| | Max | 49.523 | 49.548 | 0.082 |
| | Average | 49.490 | 49.502 | 0.012 |
| | Min | 49.466 | 49.466 | -0.034 |
| | Std Dev | 0.012 | 0.015 | 0.021 |



| 13.160 AX DC DCL AVSS | |
|-----------------------|----|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 50 |
| Min Limit | 45 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 | 45.000 |
| Min | 49.466 | 49.485 | 49.484 | 49.480 | 49.486 | 49.482 | 49.478 | 49.491 | 49.495 | 49.489 | 49.489 |
| Average | 49.474 | 49.495 | 49.495 | 49.498 | 49.493 | 49.498 | 49.489 | 49.504 | 49.508 | 49.512 | 49.512 |
| Max | 49.482 | 49.509 | 49.528 | 49.506 | 49.503 | 49.511 | 49.506 | 49.516 | 49.521 | 49.521 | 49.548 |
| UL | 50.000 | 50.000 | 50.000 | 50.000 | 50.000 | 50.000 | 50.000 | 50.000 | 50.000 | 50.000 | 50.000 |

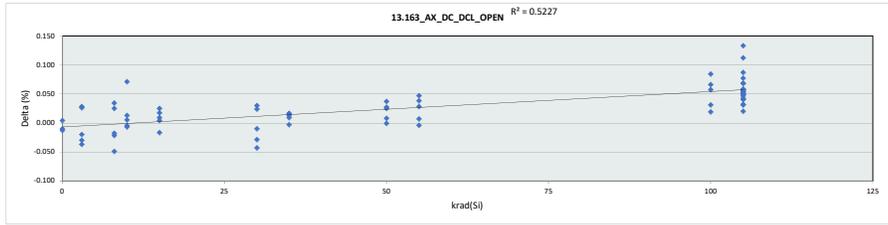


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

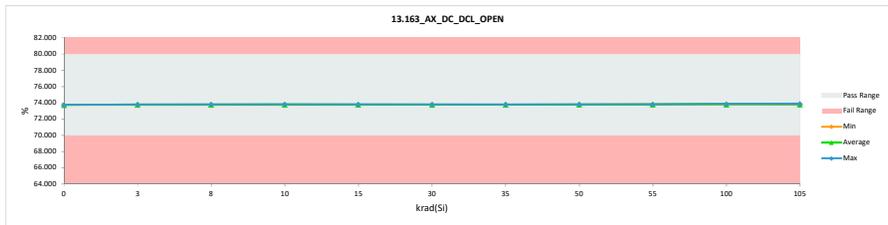
| 13.163 AX DC DCL_OPEN | |
|-----------------------|--------|
| Test Site | Tester |
| Test Number | Unit |
| Max Limit | % |
| Min Limit | % |
| 80 | 70 |
| 70 | 80 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|--------|
| 0 | 991 | 73.755 | 73.746 | -0.009 |
| 0 | 992 | 73.772 | 73.760 | -0.012 |
| 0 | 993 | 73.753 | 73.758 | 0.005 |
| 3 | 1 | 73.801 | 73.782 | -0.019 |
| 3 | 2 | 73.777 | 73.806 | 0.029 |
| 3 | 3 | 73.790 | 73.761 | -0.029 |
| 3 | 4 | 73.797 | 73.761 | -0.036 |
| 3 | 5 | 73.763 | 73.790 | 0.027 |
| 8 | 6 | 73.779 | 73.762 | -0.017 |
| 8 | 7 | 73.795 | 73.830 | 0.035 |
| 8 | 8 | 73.829 | 73.781 | -0.048 |
| 8 | 9 | 73.801 | 73.780 | -0.021 |
| 8 | 10 | 73.760 | 73.786 | 0.026 |
| 10 | 11 | 73.760 | 73.832 | 0.072 |
| 10 | 12 | 73.769 | 73.775 | 0.006 |
| 10 | 13 | 73.772 | 73.786 | 0.014 |
| 10 | 14 | 73.802 | 73.796 | -0.006 |
| 10 | 15 | 73.782 | 73.778 | -0.004 |
| 15 | 16 | 73.783 | 73.801 | 0.018 |
| 15 | 17 | 73.787 | 73.813 | 0.026 |
| 15 | 18 | 73.781 | 73.786 | 0.005 |
| 15 | 19 | 73.784 | 73.768 | -0.016 |
| 15 | 20 | 73.781 | 73.791 | 0.010 |
| 30 | 21 | 73.806 | 73.797 | -0.009 |
| 30 | 22 | 73.790 | 73.815 | 0.025 |
| 30 | 23 | 73.802 | 73.760 | -0.042 |
| 30 | 24 | 73.790 | 73.762 | -0.028 |
| 30 | 25 | 73.785 | 73.816 | 0.031 |
| 35 | 26 | 73.791 | 73.789 | -0.002 |
| 35 | 27 | 73.785 | 73.795 | 0.010 |
| 35 | 28 | 73.786 | 73.803 | 0.017 |
| 35 | 29 | 73.798 | 73.815 | 0.017 |
| 35 | 30 | 73.772 | 73.786 | 0.014 |
| 50 | 31 | 73.788 | 73.814 | 0.026 |
| 50 | 32 | 73.786 | 73.795 | 0.009 |
| 50 | 33 | 73.763 | 73.801 | 0.038 |
| 50 | 34 | 73.841 | 73.841 | 0.000 |
| 50 | 35 | 73.789 | 73.817 | 0.028 |
| 55 | 36 | 73.790 | 73.798 | 0.008 |
| 55 | 37 | 73.760 | 73.789 | 0.029 |
| 55 | 38 | 73.813 | 73.810 | -0.003 |
| 55 | 39 | 73.771 | 73.819 | 0.048 |
| 55 | 40 | 73.771 | 73.810 | 0.039 |
| 100 | 41 | 73.781 | 73.848 | 0.067 |
| 100 | 42 | 73.789 | 73.874 | 0.085 |
| 100 | 43 | 73.800 | 73.820 | 0.020 |
| 100 | 44 | 73.794 | 73.852 | 0.058 |
| 100 | 45 | 73.782 | 73.814 | 0.032 |
| 105 | 46 | 73.763 | 73.820 | 0.057 |
| 105 | 47 | 73.772 | 73.850 | 0.078 |
| 105 | 48 | 73.783 | 73.835 | 0.052 |
| 105 | 49 | 73.780 | 73.849 | 0.069 |
| 105 | 50 | 73.744 | 73.803 | 0.059 |
| 105 | 51 | 73.748 | 73.817 | 0.069 |
| 105 | 52 | 73.791 | 73.812 | 0.021 |
| 105 | 53 | 73.770 | 73.828 | 0.058 |
| 105 | 54 | 73.771 | 73.884 | 0.113 |
| 105 | 55 | 73.777 | 73.832 | 0.055 |
| 105 | 56 | 73.778 | 73.828 | 0.050 |
| 105 | 57 | 73.770 | 73.820 | 0.050 |
| 105 | 58 | 73.779 | 73.826 | 0.047 |
| 105 | 59 | 73.767 | 73.821 | 0.054 |
| 105 | 60 | 73.772 | 73.805 | 0.033 |
| 105 | 61 | 73.716 | 73.850 | 0.134 |
| 105 | 62 | 73.801 | 73.844 | 0.043 |
| 105 | 63 | 73.780 | 73.838 | 0.058 |
| 105 | 64 | 73.758 | 73.846 | 0.088 |
| 105 | 65 | 73.772 | 73.813 | 0.041 |
| 105 | 66 | 73.778 | 73.820 | 0.042 |
| 105 | 67 | 73.798 | 73.830 | 0.032 |
| Max | | 73.841 | 73.884 | 0.134 |
| Average | | 73.781 | 73.808 | 0.027 |
| Min | | 73.716 | 73.746 | -0.048 |
| Std Dev | | 0.019 | 0.029 | 0.035 |



| 13.163 AX DC DCL_OPEN | |
|-----------------------|--------|
| Test Site | Tester |
| Test Number | Unit |
| Max Limit | % |
| Min Limit | % |
| 80 | 70 |
| 70 | 80 |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| LL | 70.000 | 70.000 | 70.000 | 70.000 | 70.000 | 70.000 | 70.000 | 70.000 | 70.000 | 70.000 | 70.000 |
| Min | 73.746 | 73.761 | 73.762 | 73.775 | 73.768 | 73.760 | 73.786 | 73.795 | 73.789 | 73.814 | 73.803 |
| Average | 73.755 | 73.780 | 73.788 | 73.793 | 73.792 | 73.790 | 73.798 | 73.814 | 73.805 | 73.842 | 73.831 |
| Max | 73.760 | 73.806 | 73.830 | 73.832 | 73.813 | 73.816 | 73.815 | 73.841 | 73.819 | 73.874 | 73.884 |
| UL | 80.000 | 80.000 | 80.000 | 80.000 | 80.000 | 80.000 | 80.000 | 80.000 | 80.000 | 80.000 | 80.000 |

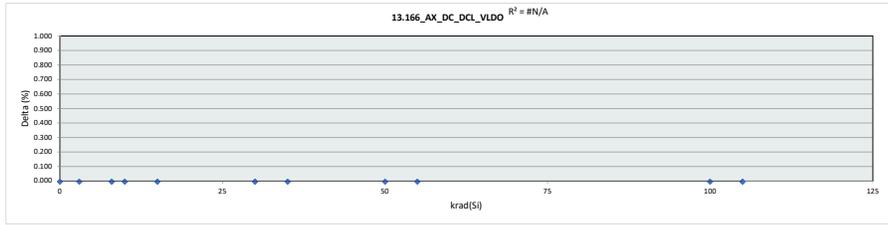


**HDR TID Report
TPS7H5001-SP QMLP**

| krad(Si) | Description |
|----------|-------------------|
| 0 | Control Units |
| 3 | 3 krad Unbiased |
| 8 | 3 krad Biased |
| 10 | 10 krad Unbiased |
| 15 | 10 krad Biased |
| 30 | 30 krad Unbiased |
| 35 | 30 krad Biased |
| 50 | 50 krad Unbiased |
| 55 | 50 krad Biased |
| 100 | 100 krad Unbiased |
| 105 | 100 krad Biased |

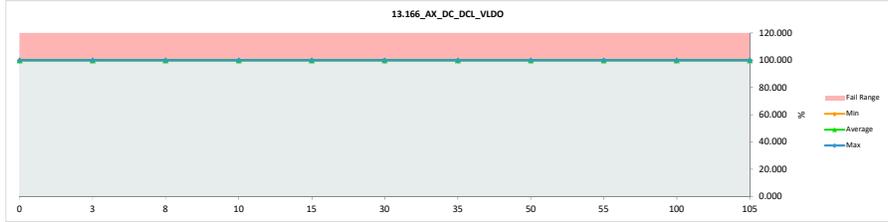
| 13.166 AX DC DCL VLDO | |
|-----------------------|---------|
| Test Site | |
| Tester | |
| Test Number | |
| Unit | % % |
| Max Limit | 101 100 |
| Min Limit | 95 |

| krad(Si) | Serial # | Pre_HDR | Post_HDR | Delta |
|----------|----------|---------|----------|-------|
| 0 | 991 | 100.000 | 100.000 | 0.000 |
| 0 | 992 | 100.000 | 100.000 | 0.000 |
| 0 | 993 | 100.000 | 100.000 | 0.000 |
| 3 | 1 | 100.000 | 100.000 | 0.000 |
| 3 | 2 | 100.000 | 100.000 | 0.000 |
| 3 | 3 | 100.000 | 100.000 | 0.000 |
| 3 | 4 | 100.000 | 100.000 | 0.000 |
| 3 | 5 | 100.000 | 100.000 | 0.000 |
| 8 | 6 | 100.000 | 100.000 | 0.000 |
| 8 | 7 | 100.000 | 100.000 | 0.000 |
| 8 | 8 | 100.000 | 100.000 | 0.000 |
| 8 | 9 | 100.000 | 100.000 | 0.000 |
| 8 | 10 | 100.000 | 100.000 | 0.000 |
| 10 | 11 | 100.000 | 100.000 | 0.000 |
| 10 | 12 | 100.000 | 100.000 | 0.000 |
| 10 | 13 | 100.000 | 100.000 | 0.000 |
| 10 | 14 | 100.000 | 100.000 | 0.000 |
| 10 | 15 | 100.000 | 100.000 | 0.000 |
| 15 | 16 | 100.000 | 100.000 | 0.000 |
| 15 | 17 | 100.000 | 100.000 | 0.000 |
| 15 | 18 | 100.000 | 100.000 | 0.000 |
| 15 | 19 | 100.000 | 100.000 | 0.000 |
| 15 | 20 | 100.000 | 100.000 | 0.000 |
| 30 | 21 | 100.000 | 100.000 | 0.000 |
| 30 | 22 | 100.000 | 100.000 | 0.000 |
| 30 | 23 | 100.000 | 100.000 | 0.000 |
| 30 | 24 | 100.000 | 100.000 | 0.000 |
| 30 | 25 | 100.000 | 100.000 | 0.000 |
| 35 | 26 | 100.000 | 100.000 | 0.000 |
| 35 | 27 | 100.000 | 100.000 | 0.000 |
| 35 | 28 | 100.000 | 100.000 | 0.000 |
| 35 | 29 | 100.000 | 100.000 | 0.000 |
| 35 | 30 | 100.000 | 100.000 | 0.000 |
| 50 | 31 | 100.000 | 100.000 | 0.000 |
| 50 | 32 | 100.000 | 100.000 | 0.000 |
| 50 | 33 | 100.000 | 100.000 | 0.000 |
| 50 | 34 | 100.000 | 100.000 | 0.000 |
| 50 | 35 | 100.000 | 100.000 | 0.000 |
| 55 | 36 | 100.000 | 100.000 | 0.000 |
| 55 | 37 | 100.000 | 100.000 | 0.000 |
| 55 | 38 | 100.000 | 100.000 | 0.000 |
| 55 | 39 | 100.000 | 100.000 | 0.000 |
| 55 | 40 | 100.000 | 100.000 | 0.000 |
| 100 | 41 | 100.000 | 100.000 | 0.000 |
| 100 | 42 | 100.000 | 100.000 | 0.000 |
| 100 | 43 | 100.000 | 100.000 | 0.000 |
| 100 | 44 | 100.000 | 100.000 | 0.000 |
| 100 | 45 | 100.000 | 100.000 | 0.000 |
| 105 | 46 | 100.000 | 100.000 | 0.000 |
| 105 | 47 | 100.000 | 100.000 | 0.000 |
| 105 | 48 | 100.000 | 100.000 | 0.000 |
| 105 | 49 | 100.000 | 100.000 | 0.000 |
| 105 | 50 | 100.000 | 100.000 | 0.000 |
| 105 | 51 | 100.000 | 100.000 | 0.000 |
| 105 | 52 | 100.000 | 100.000 | 0.000 |
| 105 | 53 | 100.000 | 100.000 | 0.000 |
| 105 | 54 | 100.000 | 100.000 | 0.000 |
| 105 | 55 | 100.000 | 100.000 | 0.000 |
| 105 | 56 | 100.000 | 100.000 | 0.000 |
| 105 | 57 | 100.000 | 100.000 | 0.000 |
| 105 | 58 | 100.000 | 100.000 | 0.000 |
| 105 | 59 | 100.000 | 100.000 | 0.000 |
| 105 | 60 | 100.000 | 100.000 | 0.000 |
| 105 | 61 | 100.000 | 100.000 | 0.000 |
| 105 | 62 | 100.000 | 100.000 | 0.000 |
| 105 | 63 | 100.000 | 100.000 | 0.000 |
| 105 | 64 | 100.000 | 100.000 | 0.000 |
| 105 | 65 | 100.000 | 100.000 | 0.000 |
| 105 | 66 | 100.000 | 100.000 | 0.000 |
| 105 | 67 | 100.000 | 100.000 | 0.000 |
| Max | | 100.000 | 100.000 | 0.000 |
| Average | | 100.000 | 100.000 | 0.000 |
| Min | | 100.000 | 100.000 | 0.000 |
| Std Dev | | 0.000 | 0.000 | 0.000 |



| 13.166 AX DC DCL VLDO | |
|-----------------------|-------|
| Test Site | |
| Tester | |
| Test Number | |
| Max Limit | 100 % |
| Min Limit | % |

| krad(Si) | 0 | 3 | 8 | 10 | 15 | 30 | 35 | 50 | 55 | 100 | 105 |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| LL | | | | | | | | | | | |
| Min | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Average | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| Max | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 | 100.000 |
| UL | | | | | | | | | | | |



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