

TPS7H5007-SEP Neutron Displacement Damage (NDD) Characterization



ABSTRACT

This report presents the effect of neutron displacement damage (NDD) on the TPS7H5007-SEP PWM controller. The TPS7H5007-SEP showed a strong degree of hardness to neutron irradiation up to fluence level 1×10^{13} n/cm².

The neutron irradiation test is a destructive test. Test procedure follows MIL-STD-883 method 1017 as guidance. The purpose of this test is to determine the device susceptibility to non-ionizing energy loss (NIEL) degradation. Objectives of the test are, to detect and measure the degradation of critical device parameters as a function of neutron fluence and to determine if these parameters are within specified limits after exposure to a specified level of neutron fluence.

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1 Device Information

1.1 Product Description

The TPS7H5007-SEP is a 4-V to 14-V single output radiation-tolerant PWM controller that contains an integrated synchronous rectification output, optimized for DC-DC converters in space applications. The dead time and leading edge blank time are fixed at 50 ns for this device. The controller can be configured for maximum duty cycle of 75% or 100%. As such, the DCL pin can be left floating or connected to VLDO. Connection of the DCL pin to AVSS is not permissible for this device. The 0.613-V $\pm 1\%$ accurate internal reference allows design of high-current buck converters for FPGA core voltages.

The TPS7H5007-SEP 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 TPS7H5007-SEP is packaged in a very small 24-pin TSSOP (thin-shrink small outline package) package.

1.2 Device Details

Device and Exposure Details lists the device information and test conditions used in the NDD characterization.

Table 1-1. Device and Exposure Details

| NDD Exposure Details | |
|--|--|
| TI Device | TPS7H5007-SEP |
| TI Part Name | TPS7H5007MPWTSEP |
| Device Function | PWM controller |
| Package | 24-pin TSSOP |
| Technology | LBC7 |
| Lot Number / Lot Trace Code | 2013065 / 1AC9LRK |
| Sample Quantity | 9 + 1 control unit |
| Exposure Facility | Fast Neutron Irradiation (FNI) Facility of University of Massachusetts Lowell Research Reactor (UMLRR) |
| Neutron Fluence (1-MeV equivalent) Level | 1×10^{12} , 5×10^{12} , 1×10^{13} n/cm ² |
| Irradiation Temperature | 25°C |

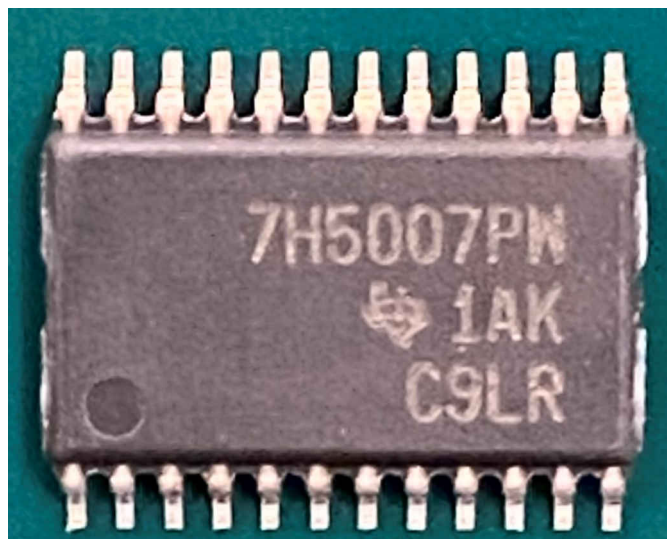


Figure 1-1. TPS7H5007-SEP Device

2 Total Dose Test Setup

2.1 Test Overview

General test procedures adhere to MIL-STD-883, Method 1017 as a guide for neutron irradiation. The TPS7H5007-SEP was electrically tested using the production automated test equipment (ATE) program at an ambient room temperature of 25°C before and after neutron irradiation.

2.2 Test Facility

The utilized test facility is the Fast Neutron Irradiation (FNI) Facility of University of Massachusetts Lowell Research Reactor. The neutron fluence for this irradiation was measured utilizing ASTM E-265 “Measuring Reaction Rates and Fast Neutron Fluence by Radioactivation of Sulfur-32” and correlated to the measured reactor power level. All irradiation conditions required under ASTM 722 were met, this includes: neutron fluence, distribution and uncertainty. The Average Integrated Neutron Fluence, 1-MeV(Si) equivalent, reflects these factors.

Detailed information of the radiation facility is available at the following link:

https://www.uml.edu/docs/FNI%20Brochure_tcm18-90375.pdf

2.3 Test Setup Details

Devices were irradiated at three fluence levels in unbiased conditions: 1.0×10^{12} n/cm², 5.0×10^{12} n/cm² and 1.0×10^{13} n/cm².

Table 2-1. Neutron Irradiation Conditions

| GROUP | SAMPLE QTY | NEUTRON FLUENCE (n/cm ²) | BIAS |
|--------------|------------|---|--------|
| A | 3 | 1.0×10^{12} | Unbias |
| B | 3 | 5.0×10^{12} | Unbias |
| C | 3 | 1.0×10^{13} | Unbias |
| Control Unit | 1 | N/A | N/A |

3 Test Results

3.1 NDD Characterization Summary

The results show that all devices were fully functional and within specification limits. A sample size of nine units was exposed for neutron irradiation and an additional unirradiated control unit was used as correlation.

Overall, the TPS7H5007-SEP showed a strong degree of hardness to Neutron irradiation up to fluence level 1×10^{13} n/cm². The measurements taken post-irradiation for each sample set showed a marginal shift for most parameters at each fluence level. The parameters that showed a greater degree of change between pre- and post- irradiation were still within the Electrical Performance Characteristics specified in the Data Sheet Electrical Parameters table. See [Table 3-1](#) for the Data Sheet Electrical Parameters and Associated Tests.

Electrical testing is done for pre- and post- neutron irradiation by ATE. ATE electrical test is done at an ambient room temperature of 25°C. Parameters not listed in the [Table 3-1](#) are omitted either because there is no parametric data or because verification was done through bench testing.

See [Appendix A](#) for NDD report up to 1.0×10^{13} n/cm².

3.2 Data Sheet Electrical Parameters and Associated Tests

Table 3-1. TPS7H5007-SEP Electrical Parameters Table

| PARAMETER | TEST CONDITION | TPS7H5007-SEP 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. TPS7H5007-SEP Electrical Parameters Table (continued)

| PARAMETER | TEST CONDITION | TPS7H5007-SEP 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. TPS7H5007-SEP Electrical Parameters Table (continued)

| PARAMETER | TEST CONDITION | TPS7H5007-SEP 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 |
| t _{MIN} Minimum on-time | 5 V ≤ VIN ≤ 14 V | | | 115 | ns | 13.145 __OUT_T_ON_MIN |
| TD _{PS} Primary off to secondary on dead time | 5 V ≤ VIN ≤ 14 V, 90% of OUTx falling to 10% of SRx rising, OUTx and SRx floating | 40 | 50 | 60 | ns | 13.53 __PSA_DT_50ns_1M_5V, 13.57 __PSA_DT_50ns_1M_12V, 13.61 __PSA_DT_50ns_1M_14V, |
| TD _{SP} Secondary off to primary on dead time | 5 V ≤ VIN ≤ 14 V, 90% of SRx falling to 10% of OUTx rising edge, OUTx and SRx floating | 40 | 50 | 60 | ns | 13.55 __SPA_DT_50ns_1M_5V, 13.59 __SPA_DT_50ns_1M_12V, 13.63 __SPA_DT_50ns_1M_14V |
| DUTY CYCLE | | | | | | |
| D _{MAX} Maximum duty cycle | 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, [TPS7H5007-SEP Radiation-Hardness-Assured Si and GaN Dual Output Controller data sheet](#)
- Texas Instruments, [TPS7H500x-SEP Evaluation Module \(EVM\)](#)
- Texas Instruments, [TPS7H500x-SEP Single-Event Effects \(SEE\) radiation report](#)

4.2 Reference Documents

Texas Instruments neutron irradiation test follow the guideline from MIL-STD-883 TM 1017. The document is available in Defense Logistic Agency's website.

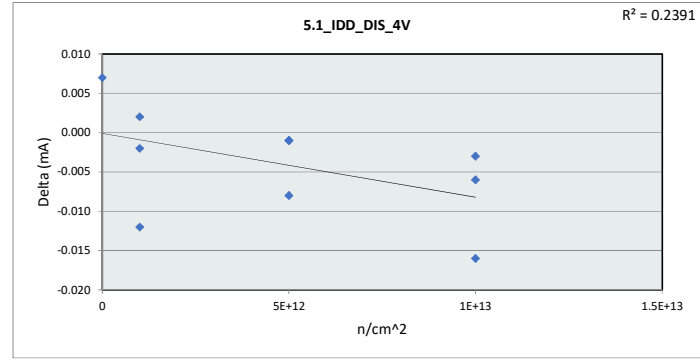
A Appendix: NDD Report Data

This appendix contains the NDD report data.

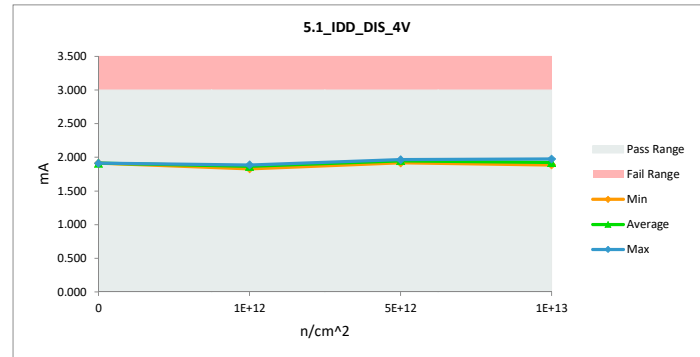
NDD Characterization Report
TPS7H5007-SEP

NDD Characterization Report TPS7H5007-SEP

| 5.1_IDD_DIS_4V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 2.6 | 3 | |
| Min Limit | | 1 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.907 | 1.914 | 0.007 |
| 1E+12 | 21 | 1.885 | 1.887 | 0.002 |
| 1E+12 | 22 | 1.886 | 1.884 | -0.002 |
| 1E+12 | 23 | 1.841 | 1.829 | -0.012 |
| 5E+12 | 24 | 1.926 | 1.918 | -0.008 |
| 5E+12 | 25 | 1.966 | 1.965 | -0.001 |
| 5E+12 | 26 | 1.966 | 1.965 | -0.001 |
| 1E+13 | 27 | 1.902 | 1.886 | -0.016 |
| 1E+13 | 28 | 1.979 | 1.976 | -0.003 |
| 1E+13 | 29 | 1.919 | 1.913 | -0.006 |
| Max | | 1.979 | 1.976 | 0.007 |
| Average | | 1.918 | 1.914 | -0.004 |
| Min | | 1.841 | 1.829 | -0.016 |
| Std Dev | | 0.043 | 0.046 | 0.007 |

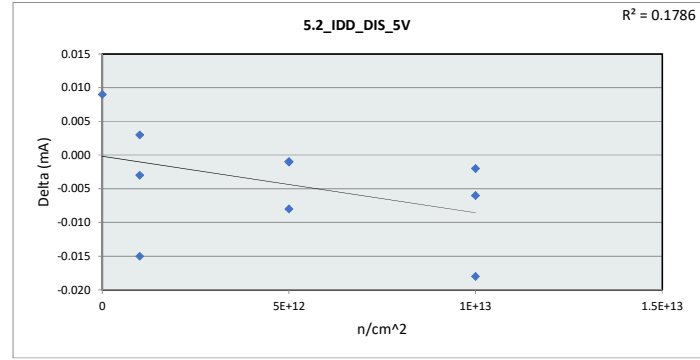


| 5.1_IDD_DIS_4V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 1.914 | 1.829 | 1.918 | 1.886 |
| Average | 1.914 | 1.867 | 1.949 | 1.925 |
| Max | 1.914 | 1.887 | 1.965 | 1.976 |
| UL | 3.000 | 3.000 | 3.000 | 3.000 |

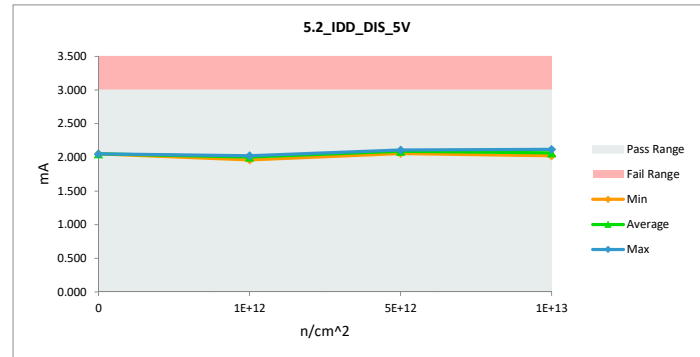


NDD Characterization Report TPS7H5007-SEP

| 5.2_IDD_DIS_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 2.8 | 3 | |
| Min Limit | | 1 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 2.042 | 2.051 | 0.009 |
| 1E+12 | 21 | 2.021 | 2.024 | 0.003 |
| 1E+12 | 22 | 2.025 | 2.022 | -0.003 |
| 1E+12 | 23 | 1.979 | 1.964 | -0.015 |
| 5E+12 | 24 | 2.065 | 2.057 | -0.008 |
| 5E+12 | 25 | 2.106 | 2.105 | -0.001 |
| 5E+12 | 26 | 2.108 | 2.107 | -0.001 |
| 1E+13 | 27 | 2.042 | 2.024 | -0.018 |
| 1E+13 | 28 | 2.119 | 2.117 | -0.002 |
| 1E+13 | 29 | 2.059 | 2.053 | -0.006 |
| Max | | 2.119 | 2.117 | 0.009 |
| Average | | 2.057 | 2.052 | -0.004 |
| Min | | 1.979 | 1.964 | -0.018 |
| Std Dev | | 0.044 | 0.047 | 0.008 |

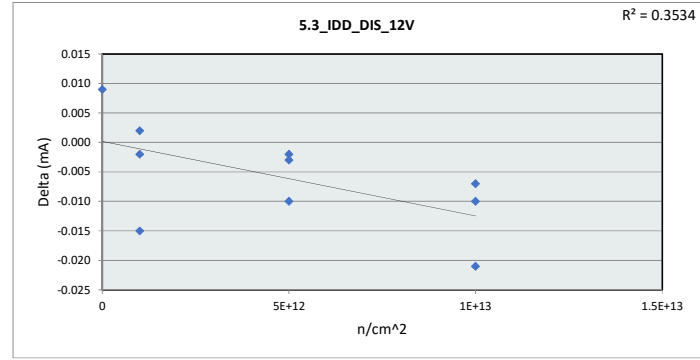


| 5.2_IDD_DIS_5V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 2.051 | 1.964 | 2.057 | 2.024 |
| Average | 2.051 | 2.003 | 2.090 | 2.065 |
| Max | 2.051 | 2.024 | 2.107 | 2.117 |
| UL | 3.000 | 3.000 | 3.000 | 3.000 |

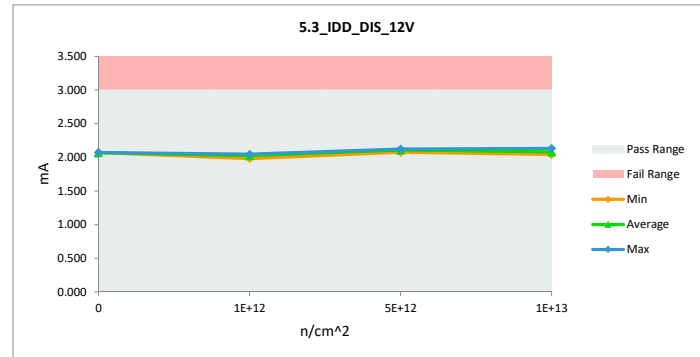


NDD Characterization Report TPS7H5007-SEP

| 5.3_IDD_DIS_12V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 2.8 | 3 | |
| Min Limit | | 1 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 2.063 | 2.072 | 0.009 |
| 1E+12 | 21 | 2.043 | 2.045 | 0.002 |
| 1E+12 | 22 | 2.045 | 2.043 | -0.002 |
| 1E+12 | 23 | 1.998 | 1.983 | -0.015 |
| 5E+12 | 24 | 2.085 | 2.075 | -0.010 |
| 5E+12 | 25 | 2.127 | 2.124 | -0.003 |
| 5E+12 | 26 | 2.127 | 2.125 | -0.002 |
| 1E+13 | 27 | 2.061 | 2.040 | -0.021 |
| 1E+13 | 28 | 2.142 | 2.135 | -0.007 |
| 1E+13 | 29 | 2.079 | 2.069 | -0.010 |
| Max | | 2.142 | 2.135 | 0.009 |
| Average | | 2.077 | 2.071 | -0.006 |
| Min | | 1.998 | 1.983 | -0.021 |
| Std Dev | | 0.045 | 0.047 | 0.009 |

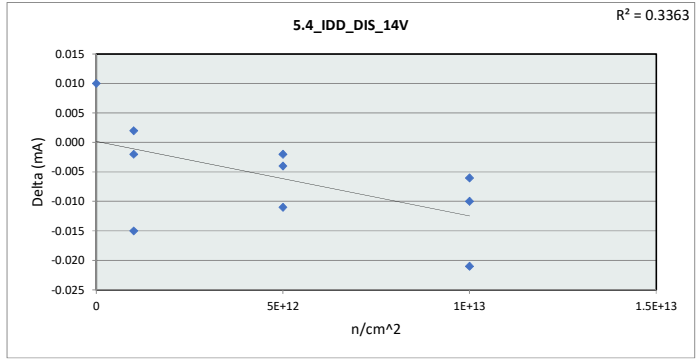


| 5.3_IDD_DIS_12V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 2.072 | 1.983 | 2.075 | 2.040 |
| Average | 2.072 | 2.024 | 2.108 | 2.081 |
| Max | 2.072 | 2.045 | 2.125 | 2.135 |
| UL | 3.000 | 3.000 | 3.000 | 3.000 |

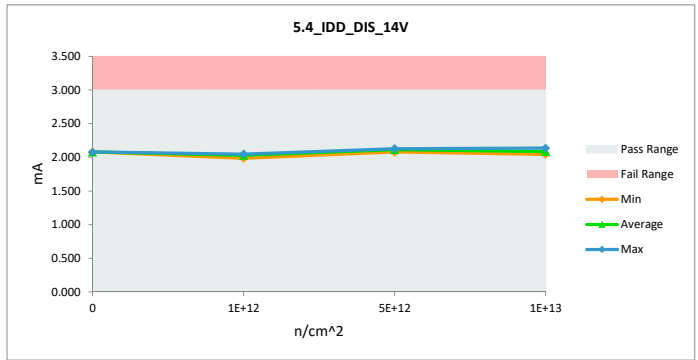


NDD Characterization Report TPS7H5007-SEP

| 5.4_IDD_DIS_14V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 2.8 | 3 | |
| Min Limit | | 1 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 2.067 | 2.077 | 0.010 |
| 1E+12 | 21 | 2.047 | 2.049 | 0.002 |
| 1E+12 | 22 | 2.050 | 2.048 | -0.002 |
| 1E+12 | 23 | 2.002 | 1.987 | -0.015 |
| 5E+12 | 24 | 2.090 | 2.079 | -0.011 |
| 5E+12 | 25 | 2.132 | 2.128 | -0.004 |
| 5E+12 | 26 | 2.131 | 2.129 | -0.002 |
| 1E+13 | 27 | 2.066 | 2.045 | -0.021 |
| 1E+13 | 28 | 2.145 | 2.139 | -0.006 |
| 1E+13 | 29 | 2.084 | 2.074 | -0.010 |
| Max | | 2.145 | 2.139 | 0.010 |
| Average | | 2.081 | 2.075 | -0.006 |
| Min | | 2.002 | 1.987 | -0.021 |
| Std Dev | | 0.045 | 0.047 | 0.009 |

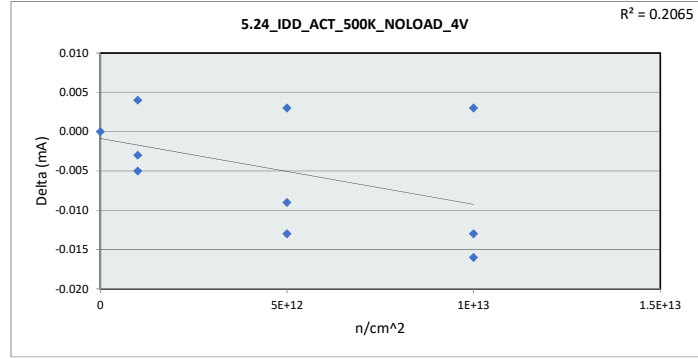


| 5.4_IDD_DIS_14V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 2.077 | 1.987 | 2.079 | 2.045 |
| Average | 2.077 | 2.028 | 2.112 | 2.086 |
| Max | 2.077 | 2.049 | 2.129 | 2.139 |
| UL | 3.000 | 3.000 | 3.000 | 3.000 |

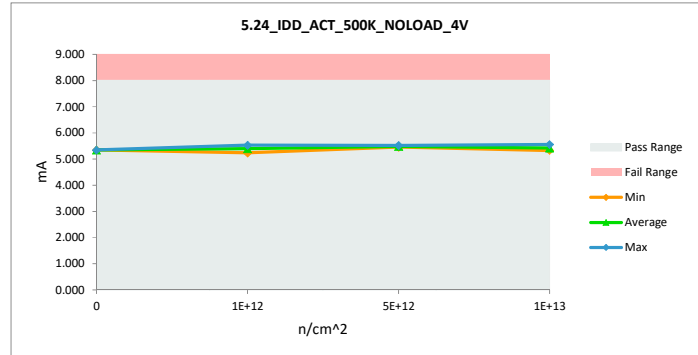


NDD Characterization Report TPS7H5007-SEP

| 5.24_IDD_ACT_500K_NOLOAD_4V | | | | |
|-----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 7.8 | 8 | |
| Min Limit | | 2 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.345 | 5.345 | 0.000 |
| 1E+12 | 21 | 5.523 | 5.527 | 0.004 |
| 1E+12 | 22 | 5.421 | 5.416 | -0.005 |
| 1E+12 | 23 | 5.239 | 5.236 | -0.003 |
| 5E+12 | 24 | 5.468 | 5.455 | -0.013 |
| 5E+12 | 25 | 5.466 | 5.469 | 0.003 |
| 5E+12 | 26 | 5.528 | 5.519 | -0.009 |
| 1E+13 | 27 | 5.340 | 5.327 | -0.013 |
| 1E+13 | 28 | 5.554 | 5.557 | 0.003 |
| 1E+13 | 29 | 5.406 | 5.390 | -0.016 |
| Max | | 5.554 | 5.557 | 0.004 |
| Average | | 5.429 | 5.424 | -0.005 |
| Min | | 5.239 | 5.236 | -0.016 |
| Std Dev | | 0.099 | 0.101 | 0.007 |

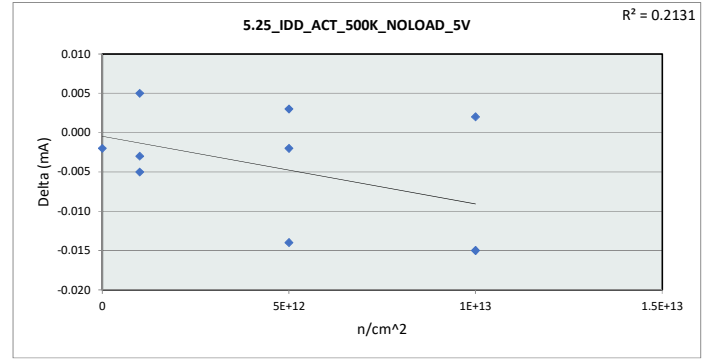


| 5.24_IDD_ACT_500K_NOLOAD | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 8 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 5.345 | 5.236 | 5.455 | 5.327 |
| Average | 5.345 | 5.393 | 5.481 | 5.425 |
| Max | 5.345 | 5.527 | 5.519 | 5.557 |
| UL | 8.000 | 8.000 | 8.000 | 8.000 |

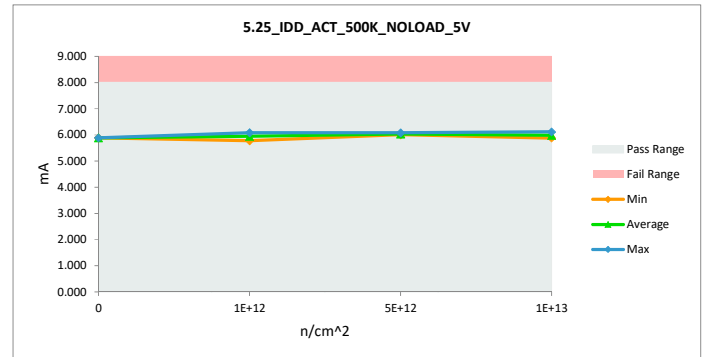


NDD Characterization Report TPS7H5007-SEP

| 5.25_IDD_ACT_500K_NOLOAD_5V | | | | |
|-----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 7.8 | 8 | |
| Min Limit | | 2 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.892 | 5.890 | -0.002 |
| 1E+12 | 21 | 6.078 | 6.083 | 0.005 |
| 1E+12 | 22 | 5.975 | 5.972 | -0.003 |
| 1E+12 | 23 | 5.785 | 5.780 | -0.005 |
| 5E+12 | 24 | 6.020 | 6.006 | -0.014 |
| 5E+12 | 25 | 6.023 | 6.026 | 0.003 |
| 5E+12 | 26 | 6.080 | 6.078 | -0.002 |
| 1E+13 | 27 | 5.892 | 5.877 | -0.015 |
| 1E+13 | 28 | 6.113 | 6.115 | 0.002 |
| 1E+13 | 29 | 5.961 | 5.946 | -0.015 |
| Max | | 6.113 | 6.115 | 0.005 |
| Average | | 5.982 | 5.977 | -0.005 |
| Min | | 5.785 | 5.780 | -0.015 |
| Std Dev | | 0.103 | 0.106 | 0.008 |

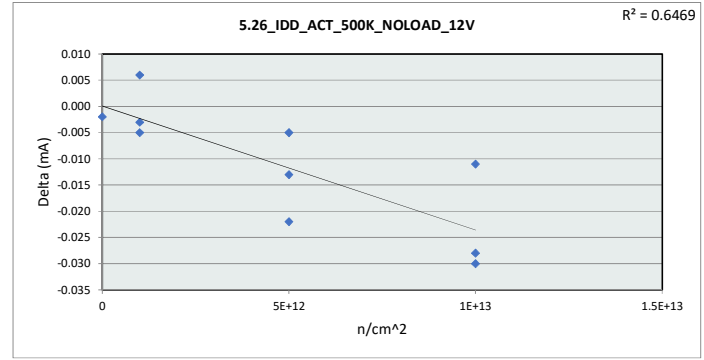


| 5.25_IDD_ACT_500K_NOLOAD | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 8 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 5.890 | 5.780 | 6.006 | 5.877 |
| Average | 5.890 | 5.945 | 6.037 | 5.979 |
| Max | 5.890 | 6.083 | 6.078 | 6.115 |
| UL | 8.000 | 8.000 | 8.000 | 8.000 |

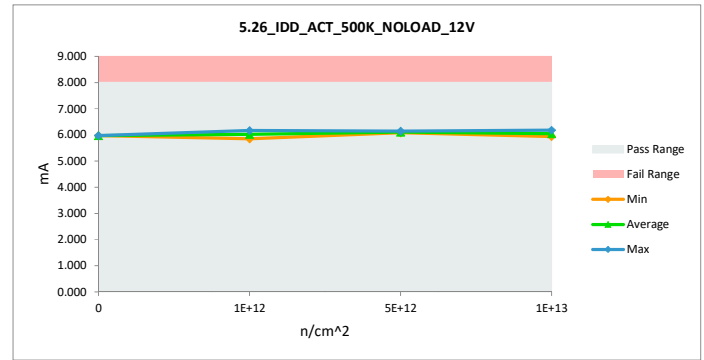


NDD Characterization Report TPS7H5007-SEP

| 5.26_IDD_ACT_500K_NOLOAD_12V | | | | |
|------------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 7.8 | 8 | |
| Min Limit | | 2 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.974 | 5.972 | -0.002 |
| 1E+12 | 21 | 6.161 | 6.167 | 0.006 |
| 1E+12 | 22 | 6.058 | 6.055 | -0.003 |
| 1E+12 | 23 | 5.855 | 5.850 | -0.005 |
| 5E+12 | 24 | 6.100 | 6.078 | -0.022 |
| 5E+12 | 25 | 6.105 | 6.100 | -0.005 |
| 5E+12 | 26 | 6.159 | 6.146 | -0.013 |
| 1E+13 | 27 | 5.965 | 5.937 | -0.028 |
| 1E+13 | 28 | 6.194 | 6.183 | -0.011 |
| 1E+13 | 29 | 6.037 | 6.007 | -0.030 |
| Max | | 6.194 | 6.183 | 0.006 |
| Average | | 6.061 | 6.049 | -0.011 |
| Min | | 5.855 | 5.850 | -0.030 |
| Std Dev | | 0.106 | 0.108 | 0.012 |

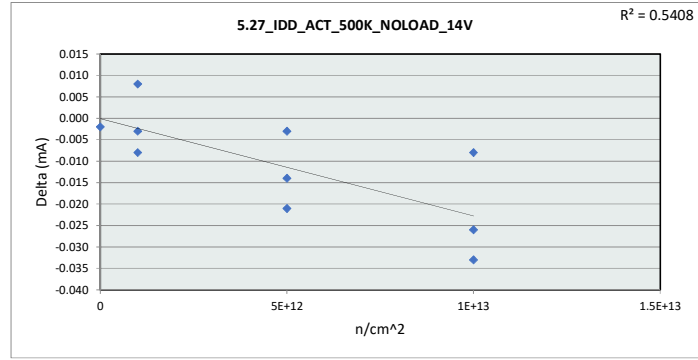


| 5.26_IDD_ACT_500K_NOLOAD | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 8 | mA | |
| Min Limit | | 0 | mA | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 5.972 | 5.850 | 6.078 | 5.937 |
| Average | 5.972 | 6.024 | 6.108 | 6.042 |
| Max | 5.972 | 6.167 | 6.146 | 6.183 |
| UL | 8.000 | 8.000 | 8.000 | 8.000 |

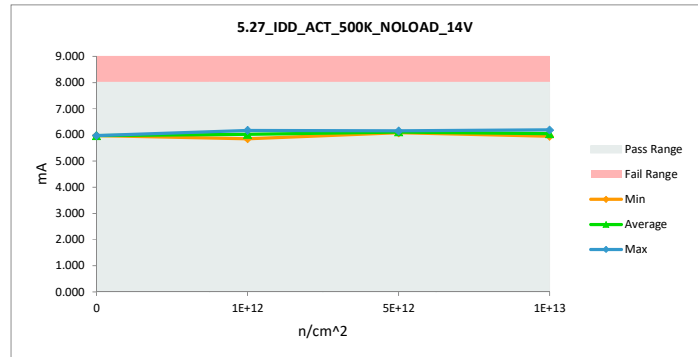


NDD Characterization Report TPS7H5007-SEP

| 5.27_IDD_ACT_500K_NOLOAD_14V | | | | |
|------------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 7.8 | 8 | |
| Min Limit | | 2 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.979 | 5.977 | -0.002 |
| 1E+12 | 21 | 6.166 | 6.174 | 0.008 |
| 1E+12 | 22 | 6.066 | 6.058 | -0.008 |
| 1E+12 | 23 | 5.858 | 5.855 | -0.003 |
| 5E+12 | 24 | 6.104 | 6.083 | -0.021 |
| 5E+12 | 25 | 6.110 | 6.107 | -0.003 |
| 5E+12 | 26 | 6.164 | 6.150 | -0.014 |
| 1E+13 | 27 | 5.971 | 5.945 | -0.026 |
| 1E+13 | 28 | 6.198 | 6.190 | -0.008 |
| 1E+13 | 29 | 6.044 | 6.011 | -0.033 |
| | Max | 6.198 | 6.190 | 0.008 |
| | Average | 6.066 | 6.055 | -0.011 |
| | Min | 5.858 | 5.855 | -0.033 |
| | Std Dev | 0.106 | 0.108 | 0.012 |

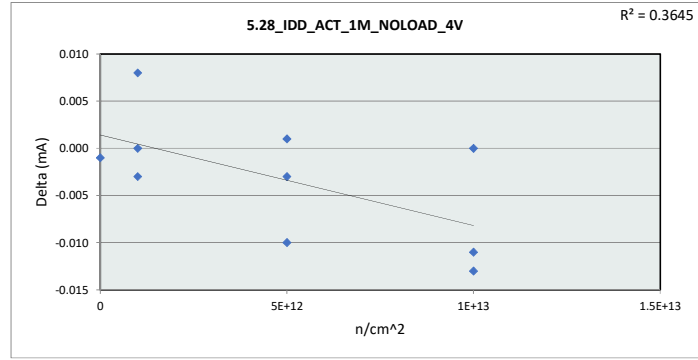


| 5.27_IDD_ACT_500K_NOLOAD | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 8 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 5.977 | 5.855 | 6.083 | 5.945 |
| Average | 5.977 | 6.029 | 6.113 | 6.049 |
| Max | 5.977 | 6.174 | 6.150 | 6.190 |
| UL | 8.000 | 8.000 | 8.000 | 8.000 |

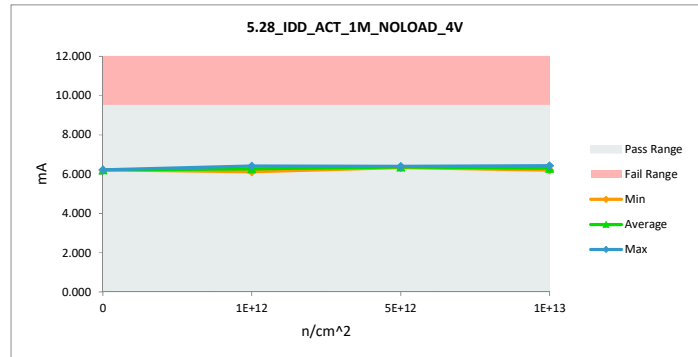


NDD Characterization Report TPS7H5007-SEP

| 5.28_IDD_ACT_1M_NOLOAD_4V | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 9.1 | 9.5 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 6.215 | 6.214 | -0.001 |
| 1E+12 | 21 | 6.407 | 6.415 | 0.008 |
| 1E+12 | 22 | 6.303 | 6.300 | -0.003 |
| 1E+12 | 23 | 6.116 | 6.116 | 0.000 |
| 5E+12 | 24 | 6.342 | 6.332 | -0.010 |
| 5E+12 | 25 | 6.354 | 6.355 | 0.001 |
| 5E+12 | 26 | 6.407 | 6.404 | -0.003 |
| 1E+13 | 27 | 6.217 | 6.204 | -0.013 |
| 1E+13 | 28 | 6.436 | 6.436 | 0.000 |
| 1E+13 | 29 | 6.289 | 6.278 | -0.011 |
| | Max | 6.436 | 6.436 | 0.008 |
| | Average | 6.309 | 6.305 | -0.003 |
| | Min | 6.116 | 6.116 | -0.013 |
| | Std Dev | 0.102 | 0.104 | 0.006 |

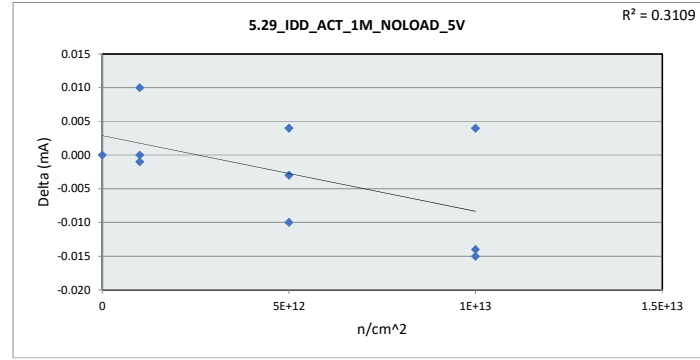


| 5.28_IDD_ACT_1M_NOLOAD_4V | | | | |
|---------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 9.5 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 6.214 | 6.116 | 6.332 | 6.204 |
| Average | 6.214 | 6.277 | 6.364 | 6.306 |
| Max | 6.214 | 6.415 | 6.404 | 6.436 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 |

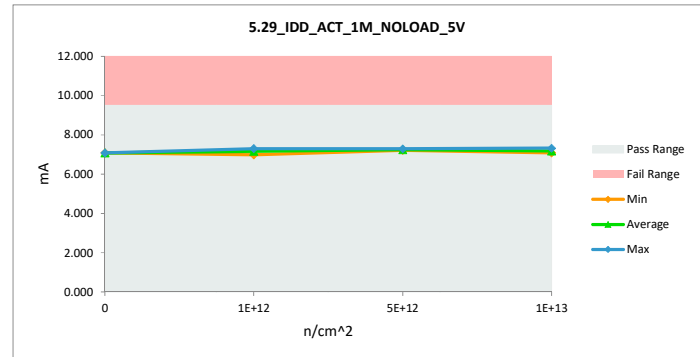


NDD Characterization Report TPS7H5007-SEP

| 5.29_IDD_ACT_1M_NOLOAD_5V | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 9.1 | 9.5 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.083 | 7.083 | 0.000 |
| 1E+12 | 21 | 7.295 | 7.305 | 0.010 |
| 1E+12 | 22 | 7.191 | 7.190 | -0.001 |
| 1E+12 | 23 | 6.991 | 6.991 | 0.000 |
| 5E+12 | 24 | 7.221 | 7.211 | -0.010 |
| 5E+12 | 25 | 7.240 | 7.244 | 0.004 |
| 5E+12 | 26 | 7.295 | 7.292 | -0.003 |
| 1E+13 | 27 | 7.097 | 7.082 | -0.015 |
| 1E+13 | 28 | 7.318 | 7.322 | 0.004 |
| 1E+13 | 29 | 7.171 | 7.157 | -0.014 |
| Max | | 7.318 | 7.322 | 0.010 |
| Average | | 7.190 | 7.188 | -0.003 |
| Min | | 6.991 | 6.991 | -0.015 |
| Std Dev | | 0.106 | 0.110 | 0.008 |

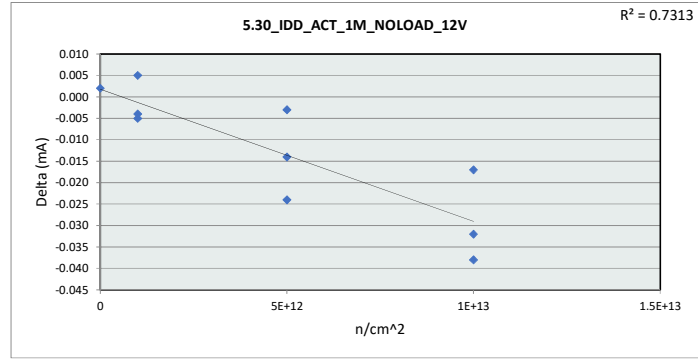


| 5.29_IDD_ACT_1M_NOLOAD_5V | | | | |
|---------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 9.5 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.083 | 6.991 | 7.211 | 7.082 |
| Average | 7.083 | 7.162 | 7.249 | 7.187 |
| Max | 7.083 | 7.305 | 7.292 | 7.322 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 |

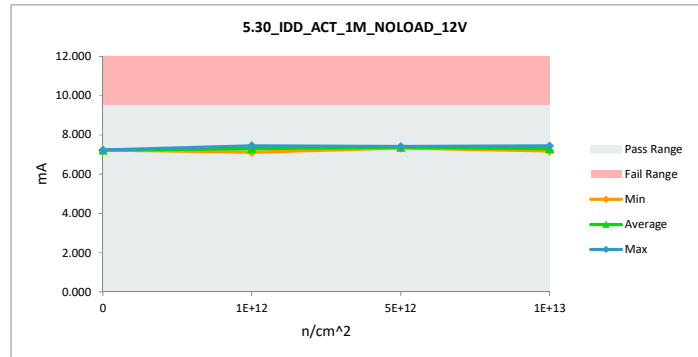


NDD Characterization Report TPS7H5007-SEP

| 5.30_IDD_ACT_1M_NOLOAD_12V | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 9.1 | 9.5 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.226 | 7.228 | 0.002 |
| 1E+12 | 21 | 7.443 | 7.448 | 0.005 |
| 1E+12 | 22 | 7.329 | 7.324 | -0.005 |
| 1E+12 | 23 | 7.114 | 7.110 | -0.004 |
| 5E+12 | 24 | 7.358 | 7.334 | -0.024 |
| 5E+12 | 25 | 7.378 | 7.375 | -0.003 |
| 5E+12 | 26 | 7.423 | 7.409 | -0.014 |
| 1E+13 | 27 | 7.221 | 7.189 | -0.032 |
| 1E+13 | 28 | 7.459 | 7.442 | -0.017 |
| 1E+13 | 29 | 7.301 | 7.263 | -0.038 |
| Max | | 7.459 | 7.448 | 0.005 |
| Average | | 7.325 | 7.312 | -0.013 |
| Min | | 7.114 | 7.110 | -0.038 |
| Std Dev | | 0.111 | 0.113 | 0.015 |

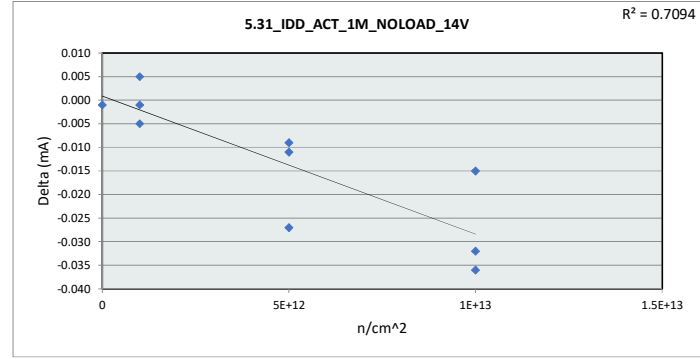


| 5.30_IDD_ACT_1M_NOLOAD | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 9.5 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.228 | 7.110 | 7.334 | 7.189 |
| Average | 7.228 | 7.294 | 7.373 | 7.298 |
| Max | 7.228 | 7.448 | 7.409 | 7.442 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 |

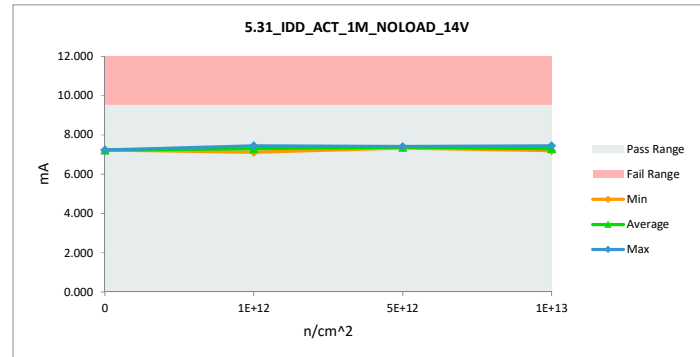


NDD Characterization Report TPS7H5007-SEP

| 5.31_IDD_ACT_1M_NOLOAD_14V | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 9.1 | 9.5 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.230 | 7.229 | -0.001 |
| 1E+12 | 21 | 7.446 | 7.451 | 0.005 |
| 1E+12 | 22 | 7.335 | 7.330 | -0.005 |
| 1E+12 | 23 | 7.117 | 7.116 | -0.001 |
| 5E+12 | 24 | 7.363 | 7.336 | -0.027 |
| 5E+12 | 25 | 7.385 | 7.376 | -0.009 |
| 5E+12 | 26 | 7.424 | 7.413 | -0.011 |
| 1E+13 | 27 | 7.224 | 7.192 | -0.032 |
| 1E+13 | 28 | 7.463 | 7.448 | -0.015 |
| 1E+13 | 29 | 7.305 | 7.269 | -0.036 |
| Max | | 7.463 | 7.451 | 0.005 |
| Average | | 7.329 | 7.316 | -0.013 |
| Min | | 7.117 | 7.116 | -0.036 |
| Std Dev | | 0.111 | 0.113 | 0.014 |

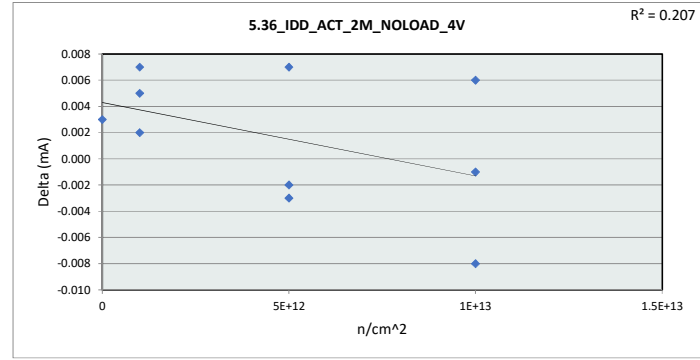


| 5.31_IDD_ACT_1M_NOLOAD | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 9.5 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.229 | 7.116 | 7.336 | 7.192 |
| Average | 7.229 | 7.299 | 7.375 | 7.303 |
| Max | 7.229 | 7.451 | 7.413 | 7.448 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 |

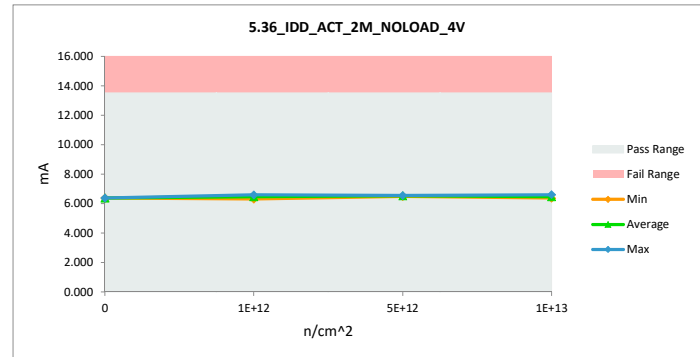


NDD Characterization Report TPS7H5007-SEP

| 5.36_IDD_ACT_2M_NOLOAD_4V | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 9.5 | 13.5 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 6.375 | 6.378 | 0.003 |
| 1E+12 | 21 | 6.580 | 6.587 | 0.007 |
| 1E+12 | 22 | 6.504 | 6.509 | 0.005 |
| 1E+12 | 23 | 6.310 | 6.312 | 0.002 |
| 5E+12 | 24 | 6.491 | 6.488 | -0.003 |
| 5E+12 | 25 | 6.541 | 6.548 | 0.007 |
| 5E+12 | 26 | 6.560 | 6.558 | -0.002 |
| 1E+13 | 27 | 6.378 | 6.377 | -0.001 |
| 1E+13 | 28 | 6.594 | 6.600 | 0.006 |
| 1E+13 | 29 | 6.444 | 6.436 | -0.008 |
| Max | | 6.594 | 6.600 | 0.007 |
| Average | | 6.478 | 6.479 | 0.002 |
| Min | | 6.310 | 6.312 | -0.008 |
| Std Dev | | 0.097 | 0.099 | 0.005 |

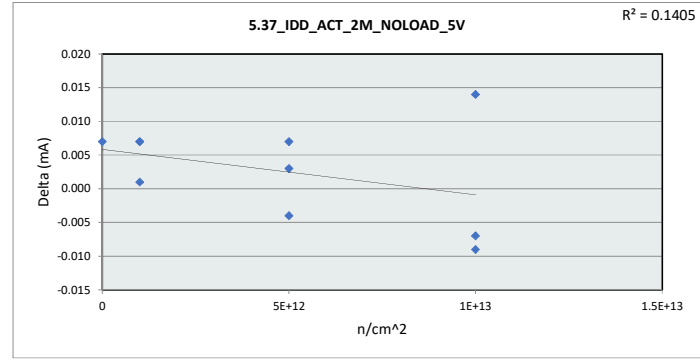


| 5.36_IDD_ACT_2M_NOLOAD_4V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 13.5 | mA | |
| Min Limit | | 0 | mA | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 6.378 | 6.312 | 6.488 | 6.377 |
| Average | 6.378 | 6.469 | 6.531 | 6.471 |
| Max | 6.378 | 6.587 | 6.558 | 6.600 |
| UL | 13.500 | 13.500 | 13.500 | 13.500 |

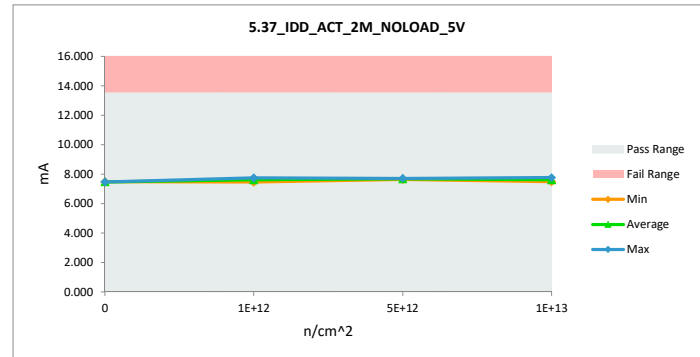


NDD Characterization Report TPS7H5007-SEP

| 5.37_IDD_ACT_2M_NOLOAD_5V | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 12 | 13.5 | |
| Min Limit | | 5 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.468 | 7.475 | 0.007 |
| 1E+12 | 21 | 7.751 | 7.758 | 0.007 |
| 1E+12 | 22 | 7.644 | 7.645 | 0.001 |
| 1E+12 | 23 | 7.452 | 7.459 | 0.007 |
| 5E+12 | 24 | 7.644 | 7.640 | -0.004 |
| 5E+12 | 25 | 7.689 | 7.696 | 0.007 |
| 5E+12 | 26 | 7.709 | 7.712 | 0.003 |
| 1E+13 | 27 | 7.505 | 7.498 | -0.007 |
| 1E+13 | 28 | 7.755 | 7.769 | 0.014 |
| 1E+13 | 29 | 7.610 | 7.601 | -0.009 |
| Max | | 7.755 | 7.769 | 0.014 |
| Average | | 7.623 | 7.625 | 0.003 |
| Min | | 7.452 | 7.459 | -0.009 |
| Std Dev | | 0.112 | 0.115 | 0.007 |

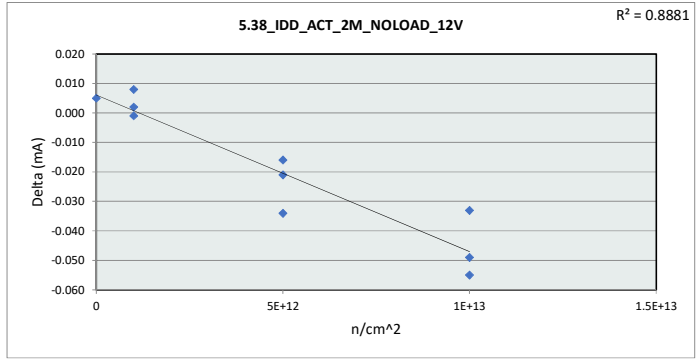


| 5.37_IDD_ACT_2M_NOLOAD_5V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 13.5 | mA | |
| Min Limit | | 0 | mA | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.475 | 7.459 | 7.640 | 7.498 |
| Average | 7.475 | 7.621 | 7.683 | 7.623 |
| Max | 7.475 | 7.758 | 7.712 | 7.769 |
| UL | 13.500 | 13.500 | 13.500 | 13.500 |

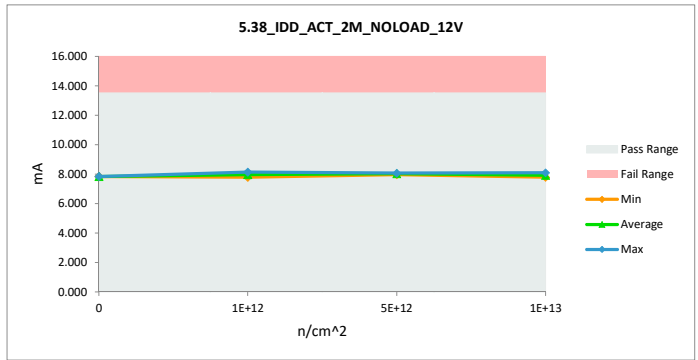


NDD Characterization Report TPS7H5007-SEP

| 5.38_IDD_ACT_2M_NOLOAD_12V | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 12 | 13.5 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.841 | 7.846 | 0.005 |
| 1E+12 | 21 | 8.131 | 8.139 | 0.008 |
| 1E+12 | 22 | 8.014 | 8.013 | -0.001 |
| 1E+12 | 23 | 7.787 | 7.789 | 0.002 |
| 5E+12 | 24 | 7.997 | 7.963 | -0.034 |
| 5E+12 | 25 | 8.059 | 8.043 | -0.016 |
| 5E+12 | 26 | 8.089 | 8.068 | -0.021 |
| 1E+13 | 27 | 7.834 | 7.785 | -0.049 |
| 1E+13 | 28 | 8.123 | 8.090 | -0.033 |
| 1E+13 | 29 | 7.948 | 7.893 | -0.055 |
| Max | | 8.131 | 8.139 | 0.008 |
| Average | | 7.982 | 7.963 | -0.019 |
| Min | | 7.787 | 7.785 | -0.055 |
| Std Dev | | 0.125 | 0.128 | 0.023 |

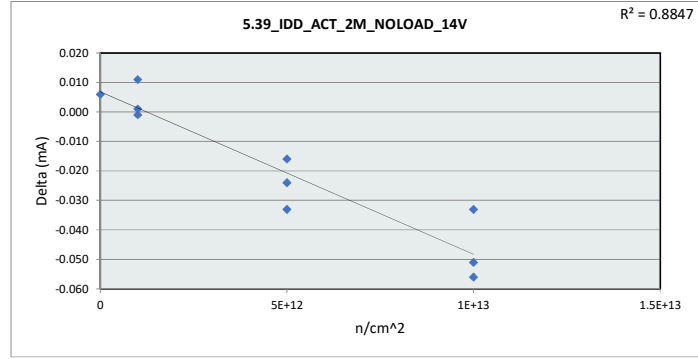


| 5.38_IDD_ACT_2M_NOLOAD | | | | |
|------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 13.5 | mA | |
| Min Limit | | 0 | mA | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.846 | 7.789 | 7.963 | 7.785 |
| Average | 7.846 | 7.980 | 8.025 | 7.923 |
| Max | 7.846 | 8.139 | 8.068 | 8.090 |
| UL | 13.500 | 13.500 | 13.500 | 13.500 |

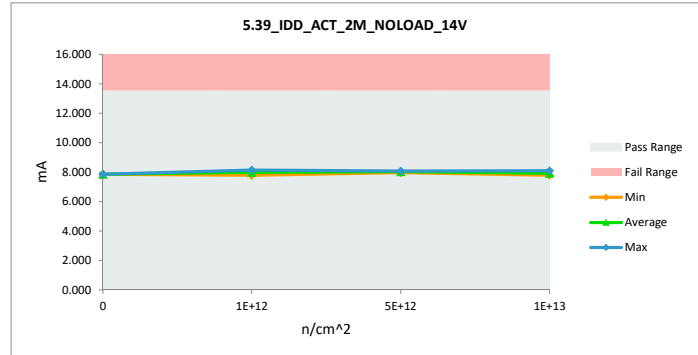


NDD Characterization Report TPS7H5007-SEP

| 5.39_IDD_ACT_2M_NOLOAD_14V | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 12 | 13.5 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.847 | 7.853 | 0.006 |
| 1E+12 | 21 | 8.134 | 8.145 | 0.011 |
| 1E+12 | 22 | 8.016 | 8.015 | -0.001 |
| 1E+12 | 23 | 7.793 | 7.794 | 0.001 |
| 5E+12 | 24 | 8.001 | 7.968 | -0.033 |
| 5E+12 | 25 | 8.063 | 8.047 | -0.016 |
| 5E+12 | 26 | 8.097 | 8.073 | -0.024 |
| 1E+13 | 27 | 7.839 | 7.788 | -0.051 |
| 1E+13 | 28 | 8.127 | 8.094 | -0.033 |
| 1E+13 | 29 | 7.954 | 7.898 | -0.056 |
| Max | | 8.134 | 8.145 | 0.011 |
| Average | | 7.987 | 7.968 | -0.020 |
| Min | | 7.793 | 7.788 | -0.056 |
| Std Dev | | 0.125 | 0.128 | 0.024 |

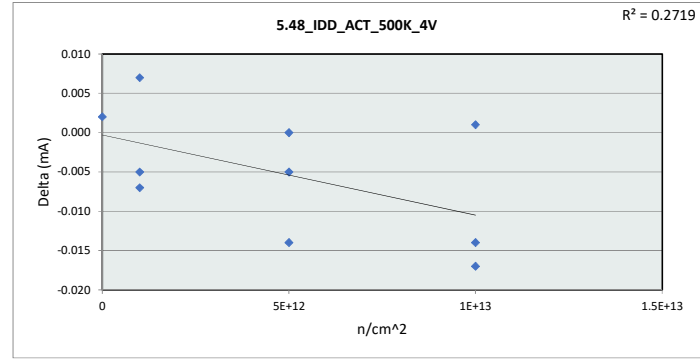


| 5.39_IDD_ACT_2M_NOLOAD | | | | |
|------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 13.5 | mA | |
| Min Limit | | 0 | mA | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.853 | 7.794 | 7.968 | 7.788 |
| Average | 7.853 | 7.985 | 8.029 | 7.927 |
| Max | 7.853 | 8.145 | 8.073 | 8.094 |
| UL | 13.500 | 13.500 | 13.500 | 13.500 |

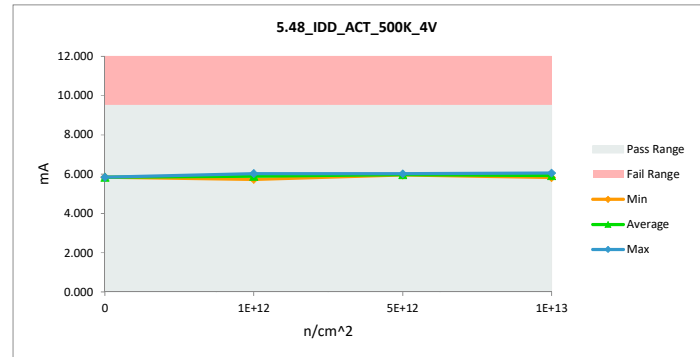


NDD Characterization Report TPS7H5007-SEP

| 5.48_IDD_ACT_500K_4V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 9.2 | 9.5 | |
| Min Limit | | 2 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.843 | 5.845 | 0.002 |
| 1E+12 | 21 | 6.027 | 6.034 | 0.007 |
| 1E+12 | 22 | 5.926 | 5.919 | -0.007 |
| 1E+12 | 23 | 5.738 | 5.733 | -0.005 |
| 5E+12 | 24 | 5.970 | 5.956 | -0.014 |
| 5E+12 | 25 | 5.971 | 5.971 | 0.000 |
| 5E+12 | 26 | 6.023 | 6.018 | -0.005 |
| 1E+13 | 27 | 5.840 | 5.826 | -0.014 |
| 1E+13 | 28 | 6.055 | 6.056 | 0.001 |
| 1E+13 | 29 | 5.913 | 5.896 | -0.017 |
| Max | | 6.055 | 6.056 | 0.007 |
| Average | | 5.931 | 5.925 | -0.005 |
| Min | | 5.738 | 5.733 | -0.017 |
| Std Dev | | 0.100 | 0.103 | 0.008 |

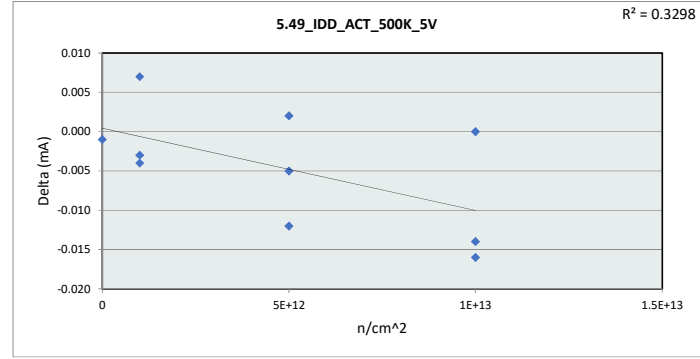


| 5.48_IDD_ACT_500K_4V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 9.5 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 5.845 | 5.733 | 5.956 | 5.826 |
| Average | 5.845 | 5.895 | 5.982 | 5.926 |
| Max | 5.845 | 6.034 | 6.018 | 6.056 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 |

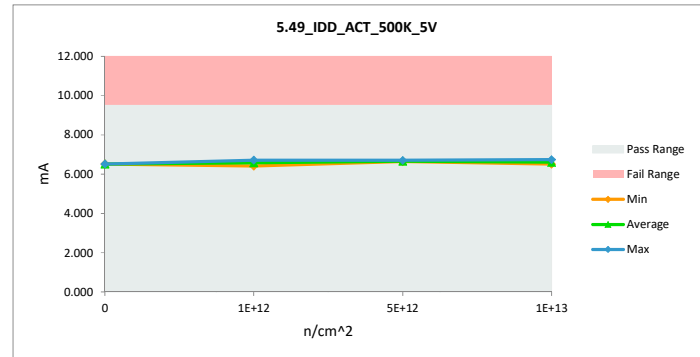


NDD Characterization Report TPS7H5007-SEP

| 5.49_IDD_ACT_500K_5V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 9.2 | 9.5 | |
| Min Limit | | 2 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 6.517 | 6.516 | -0.001 |
| 1E+12 | 21 | 6.712 | 6.719 | 0.007 |
| 1E+12 | 22 | 6.611 | 6.608 | -0.003 |
| 1E+12 | 23 | 6.412 | 6.408 | -0.004 |
| 5E+12 | 24 | 6.651 | 6.639 | -0.012 |
| 5E+12 | 25 | 6.656 | 6.658 | 0.002 |
| 5E+12 | 26 | 6.710 | 6.705 | -0.005 |
| 1E+13 | 27 | 6.521 | 6.505 | -0.016 |
| 1E+13 | 28 | 6.742 | 6.742 | 0.000 |
| 1E+13 | 29 | 6.594 | 6.580 | -0.014 |
| Max | | 6.742 | 6.742 | 0.007 |
| Average | | 6.613 | 6.608 | -0.005 |
| Min | | 6.412 | 6.408 | -0.016 |
| Std Dev | | 0.104 | 0.107 | 0.007 |

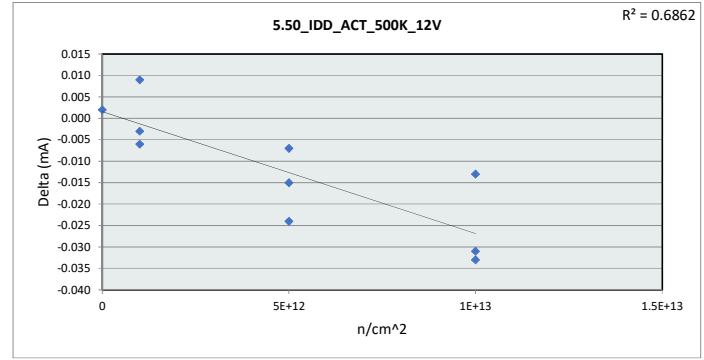


| 5.49_IDD_ACT_500K_5V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 9.5 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 6.516 | 6.408 | 6.639 | 6.505 |
| Average | 6.516 | 6.578 | 6.667 | 6.609 |
| Max | 6.516 | 6.719 | 6.705 | 6.742 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 |

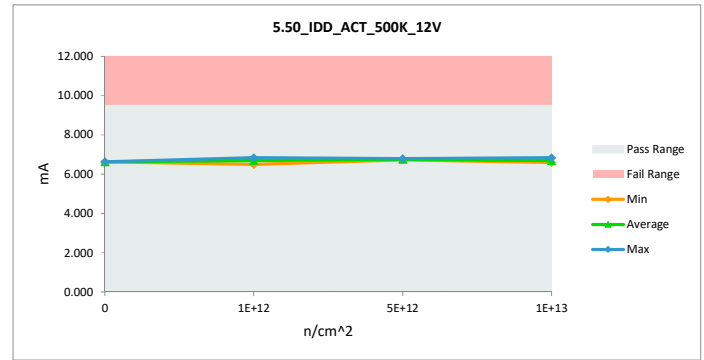


NDD Characterization Report TPS7H5007-SEP

| 5.50_IDD_ACT_500K_12V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 9.2 | 9.5 | |
| Min Limit | | 2 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 6.626 | 6.628 | 0.002 |
| 1E+12 | 21 | 6.823 | 6.832 | 0.009 |
| 1E+12 | 22 | 6.717 | 6.714 | -0.003 |
| 1E+12 | 23 | 6.504 | 6.498 | -0.006 |
| 5E+12 | 24 | 6.757 | 6.733 | -0.024 |
| 5E+12 | 25 | 6.763 | 6.756 | -0.007 |
| 5E+12 | 26 | 6.808 | 6.793 | -0.015 |
| 1E+13 | 27 | 6.618 | 6.585 | -0.033 |
| 1E+13 | 28 | 6.848 | 6.835 | -0.013 |
| 1E+13 | 29 | 6.693 | 6.662 | -0.031 |
| Max | | 6.848 | 6.835 | 0.009 |
| Average | | 6.716 | 6.704 | -0.012 |
| Min | | 6.504 | 6.498 | -0.033 |
| Std Dev | | 0.108 | 0.110 | 0.014 |

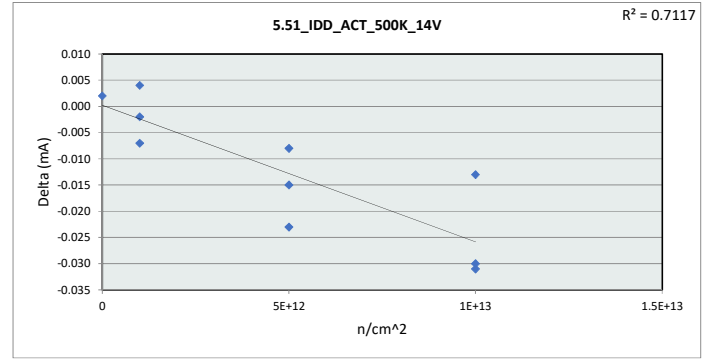


| 5.50_IDD_ACT_500K_12V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 9.5 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 6.628 | 6.498 | 6.733 | 6.585 |
| Average | 6.628 | 6.681 | 6.761 | 6.694 |
| Max | 6.628 | 6.832 | 6.793 | 6.835 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 |

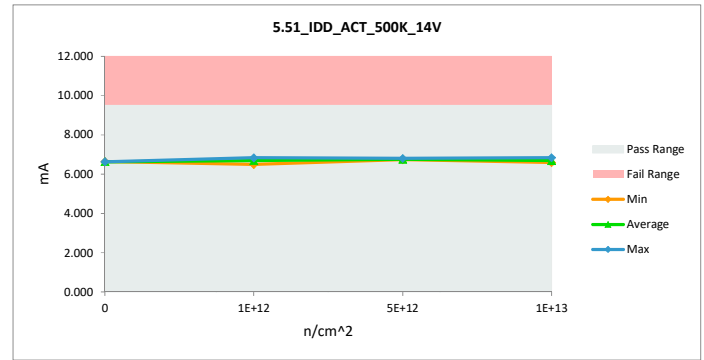


NDD Characterization Report TPS7H5007-SEP

| 5.51_IDD_ACT_500K_14V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 9.2 | 9.5 | |
| Min Limit | | 2 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 6.630 | 6.632 | 0.002 |
| 1E+12 | 21 | 6.830 | 6.834 | 0.004 |
| 1E+12 | 22 | 6.722 | 6.720 | -0.002 |
| 1E+12 | 23 | 6.511 | 6.504 | -0.007 |
| 5E+12 | 24 | 6.760 | 6.737 | -0.023 |
| 5E+12 | 25 | 6.769 | 6.761 | -0.008 |
| 5E+12 | 26 | 6.815 | 6.800 | -0.015 |
| 1E+13 | 27 | 6.620 | 6.590 | -0.030 |
| 1E+13 | 28 | 6.852 | 6.839 | -0.013 |
| 1E+13 | 29 | 6.699 | 6.668 | -0.031 |
| Max | | 6.852 | 6.839 | 0.004 |
| Average | | 6.721 | 6.709 | -0.012 |
| Min | | 6.511 | 6.504 | -0.031 |
| Std Dev | | 0.108 | 0.110 | 0.013 |

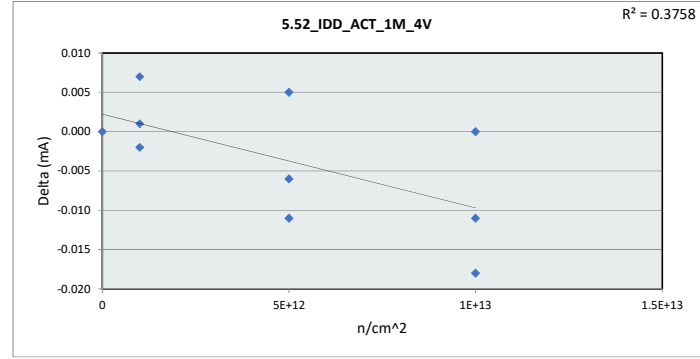


| 5.51_IDD_ACT_500K_14V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 9.5 | mA | |
| Min Limit | | 0 | mA | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 6.632 | 6.504 | 6.737 | 6.590 |
| Average | 6.632 | 6.686 | 6.766 | 6.699 |
| Max | 6.632 | 6.834 | 6.800 | 6.839 |
| UL | 9.500 | 9.500 | 9.500 | 9.500 |

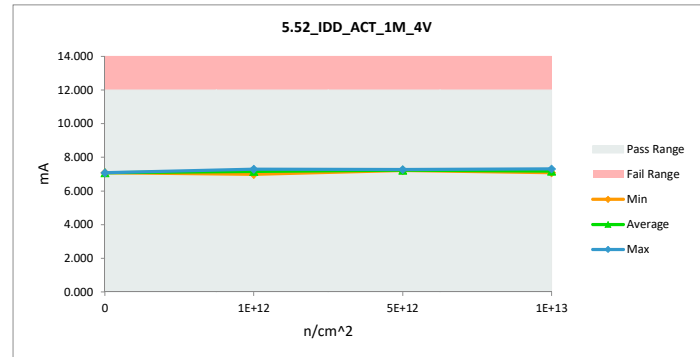


NDD Characterization Report TPS7H5007-SEP

| 5.52_IDD_ACT_1M_4V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 11.7 | 12 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.086 | 7.086 | 0.000 |
| 1E+12 | 21 | 7.292 | 7.299 | 0.007 |
| 1E+12 | 22 | 7.184 | 7.182 | -0.002 |
| 1E+12 | 23 | 6.993 | 6.994 | 0.001 |
| 5E+12 | 24 | 7.222 | 7.211 | -0.011 |
| 5E+12 | 25 | 7.229 | 7.234 | 0.005 |
| 5E+12 | 26 | 7.282 | 7.276 | -0.006 |
| 1E+13 | 27 | 7.089 | 7.078 | -0.011 |
| 1E+13 | 28 | 7.310 | 7.310 | 0.000 |
| 1E+13 | 29 | 7.172 | 7.154 | -0.018 |
| Max | | 7.310 | 7.310 | 0.007 |
| Average | | 7.186 | 7.182 | -0.004 |
| Min | | 6.993 | 6.994 | -0.018 |
| Std Dev | | 0.103 | 0.105 | 0.008 |

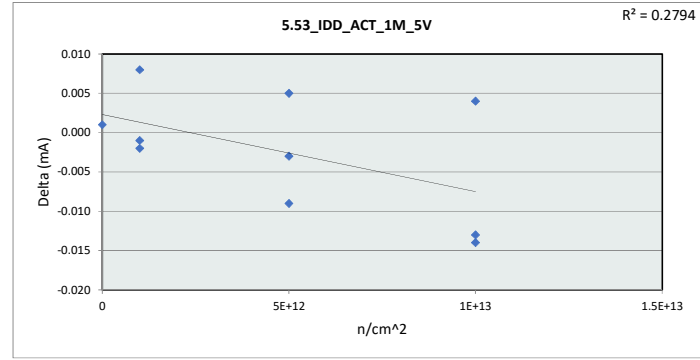


| 5.52_IDD_ACT_1M_4V | | | | |
|--------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 12 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.086 | 6.994 | 7.211 | 7.078 |
| Average | 7.086 | 7.158 | 7.240 | 7.181 |
| Max | 7.086 | 7.299 | 7.276 | 7.310 |
| UL | 12.000 | 12.000 | 12.000 | 12.000 |

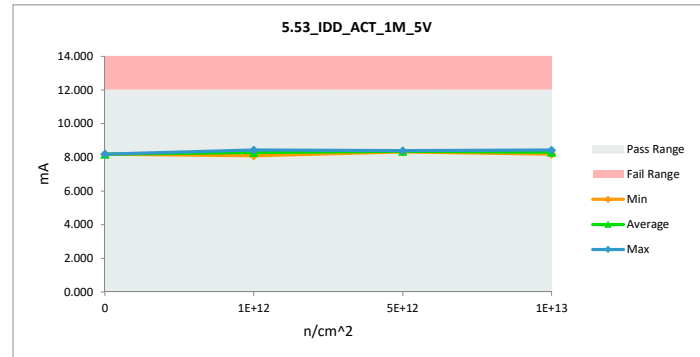


NDD Characterization Report TPS7H5007-SEP

| 5.53_IDD_ACT_1M_5V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 11.7 | 12 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.184 | 8.185 | 0.001 |
| 1E+12 | 21 | 8.416 | 8.424 | 0.008 |
| 1E+12 | 22 | 8.307 | 8.305 | -0.002 |
| 1E+12 | 23 | 8.100 | 8.099 | -0.001 |
| 5E+12 | 24 | 8.334 | 8.325 | -0.009 |
| 5E+12 | 25 | 8.354 | 8.359 | 0.005 |
| 5E+12 | 26 | 8.400 | 8.397 | -0.003 |
| 1E+13 | 27 | 8.201 | 8.188 | -0.013 |
| 1E+13 | 28 | 8.428 | 8.432 | 0.004 |
| 1E+13 | 29 | 8.288 | 8.274 | -0.014 |
| Max | | 8.428 | 8.432 | 0.008 |
| Average | | 8.301 | 8.299 | -0.002 |
| Min | | 8.100 | 8.099 | -0.014 |
| Std Dev | | 0.109 | 0.112 | 0.008 |

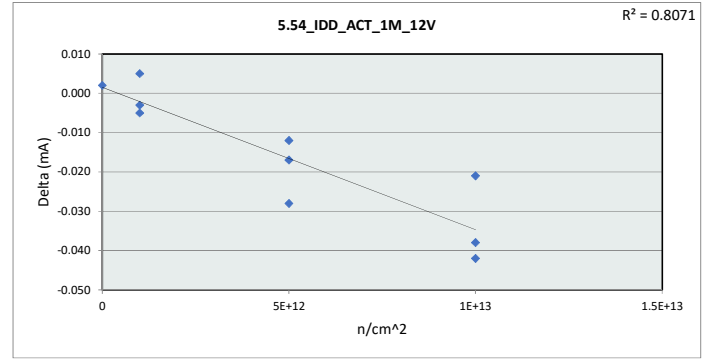


| 5.53_IDD_ACT_1M_5V | | | | |
|--------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 12 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.185 | 8.099 | 8.325 | 8.188 |
| Average | 8.185 | 8.276 | 8.360 | 8.298 |
| Max | 8.185 | 8.424 | 8.397 | 8.432 |
| UL | 12.000 | 12.000 | 12.000 | 12.000 |

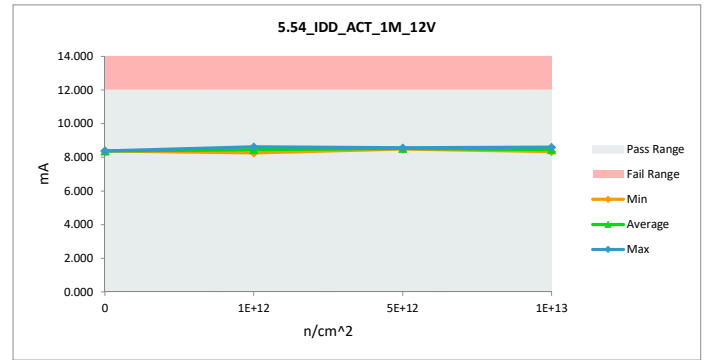


NDD Characterization Report TPS7H5007-SEP

| 5.54_IDD_ACT_1M_12V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 11.7 | 12 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.382 | 8.384 | 0.002 |
| 1E+12 | 21 | 8.619 | 8.624 | 0.005 |
| 1E+12 | 22 | 8.503 | 8.498 | -0.005 |
| 1E+12 | 23 | 8.272 | 8.269 | -0.003 |
| 5E+12 | 24 | 8.526 | 8.498 | -0.028 |
| 5E+12 | 25 | 8.547 | 8.535 | -0.012 |
| 5E+12 | 26 | 8.579 | 8.562 | -0.017 |
| 1E+13 | 27 | 8.377 | 8.339 | -0.038 |
| 1E+13 | 28 | 8.623 | 8.602 | -0.021 |
| 1E+13 | 29 | 8.468 | 8.426 | -0.042 |
| Max | | 8.623 | 8.624 | 0.005 |
| Average | | 8.490 | 8.474 | -0.016 |
| Min | | 8.272 | 8.269 | -0.042 |
| Std Dev | | 0.115 | 0.117 | 0.016 |

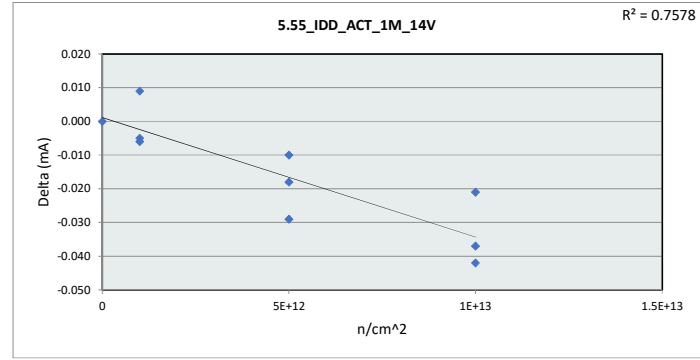


| 5.54_IDD_ACT_1M_12V | | | | |
|---------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 12 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.384 | 8.269 | 8.498 | 8.339 |
| Average | 8.384 | 8.464 | 8.532 | 8.456 |
| Max | 8.384 | 8.624 | 8.562 | 8.602 |
| UL | 12.000 | 12.000 | 12.000 | 12.000 |

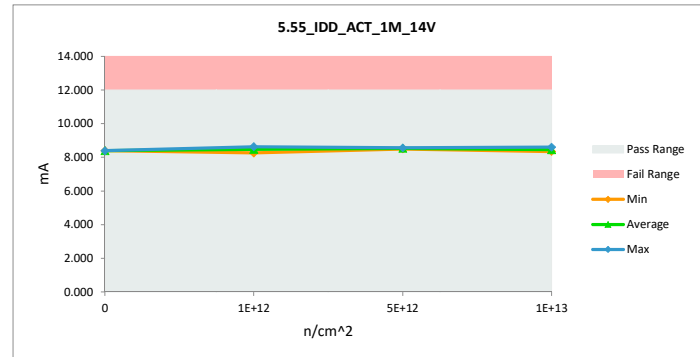


NDD Characterization Report TPS7H5007-SEP

| 5.55_IDD_ACT_1M_14V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 11.7 | 12 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.389 | 8.389 | 0.000 |
| 1E+12 | 21 | 8.622 | 8.631 | 0.009 |
| 1E+12 | 22 | 8.506 | 8.500 | -0.006 |
| 1E+12 | 23 | 8.278 | 8.273 | -0.005 |
| 5E+12 | 24 | 8.531 | 8.502 | -0.029 |
| 5E+12 | 25 | 8.552 | 8.542 | -0.010 |
| 5E+12 | 26 | 8.584 | 8.566 | -0.018 |
| 1E+13 | 27 | 8.383 | 8.346 | -0.037 |
| 1E+13 | 28 | 8.627 | 8.606 | -0.021 |
| 1E+13 | 29 | 8.473 | 8.431 | -0.042 |
| Max | | 8.627 | 8.631 | 0.009 |
| Average | | 8.494 | 8.479 | -0.016 |
| Min | | 8.278 | 8.273 | -0.042 |
| Std Dev | | 0.114 | 0.117 | 0.017 |

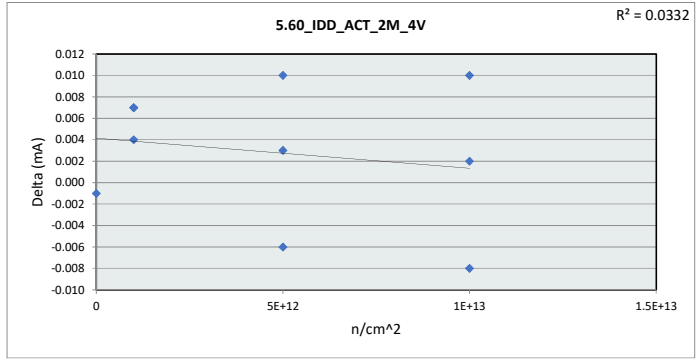


| 5.55_IDD_ACT_1M_14V | | | | |
|---------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 12 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.389 | 8.273 | 8.502 | 8.346 |
| Average | 8.389 | 8.468 | 8.537 | 8.461 |
| Max | 8.389 | 8.631 | 8.566 | 8.606 |
| UL | 12.000 | 12.000 | 12.000 | 12.000 |

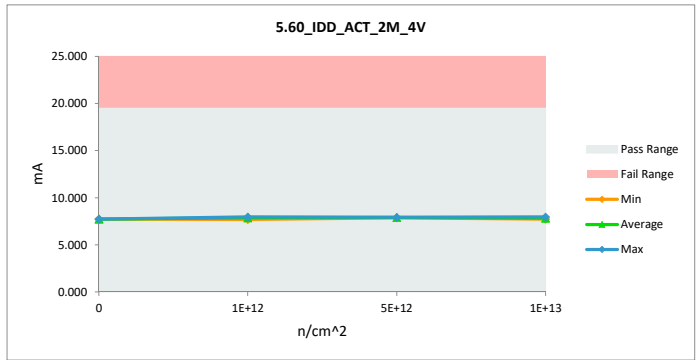


NDD Characterization Report TPS7H5007-SEP

| 5.60_IDD_ACT_2M_4V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 13 | 19.5 | |
| Min Limit | | 5 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.739 | 7.738 | -0.001 |
| 1E+12 | 21 | 7.958 | 7.965 | 0.007 |
| 1E+12 | 22 | 7.887 | 7.894 | 0.007 |
| 1E+12 | 23 | 7.685 | 7.689 | 0.004 |
| 5E+12 | 24 | 7.862 | 7.856 | -0.006 |
| 5E+12 | 25 | 7.909 | 7.919 | 0.010 |
| 5E+12 | 26 | 7.914 | 7.917 | 0.003 |
| 1E+13 | 27 | 7.733 | 7.735 | 0.002 |
| 1E+13 | 28 | 7.954 | 7.964 | 0.010 |
| 1E+13 | 29 | 7.815 | 7.807 | -0.008 |
| Max | | 7.958 | 7.965 | 0.010 |
| Average | | 7.846 | 7.848 | 0.003 |
| Min | | 7.685 | 7.689 | -0.008 |
| Std Dev | | 0.098 | 0.101 | 0.006 |

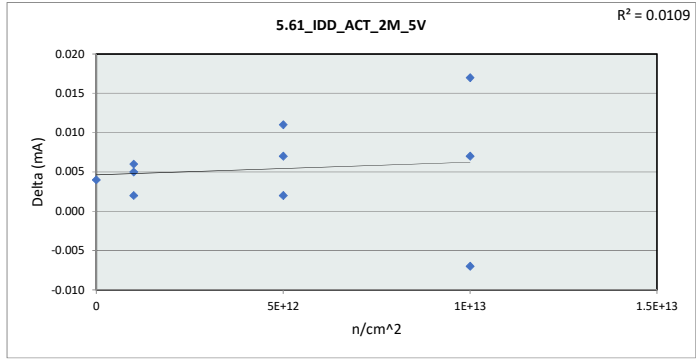


| 5.60_IDD_ACT_2M_4V | | | | |
|--------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 19.5 | mA | | |
| Min Limit | 0 | mA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.738 | 7.689 | 7.856 | 7.735 |
| Average | 7.738 | 7.849 | 7.897 | 7.835 |
| Max | 7.738 | 7.965 | 7.919 | 7.964 |
| UL | 19.500 | 19.500 | 19.500 | 19.500 |

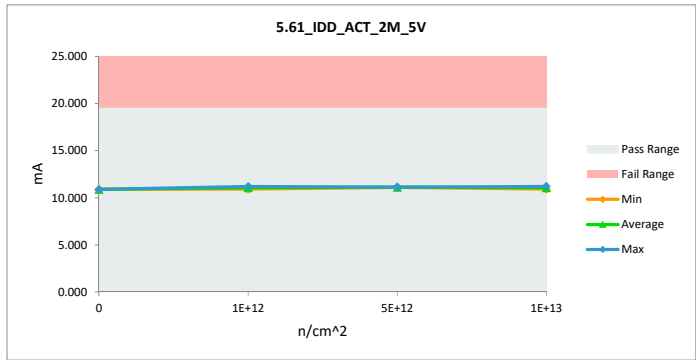


NDD Characterization Report TPS7H5007-SEP

| 5.61_IDD_ACT_2M_5V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 18 | 19.5 | |
| Min Limit | | 10 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 10.877 | 10.881 | 0.004 |
| 1E+12 | 21 | 11.193 | 11.199 | 0.006 |
| 1E+12 | 22 | 11.083 | 11.085 | 0.002 |
| 1E+12 | 23 | 10.900 | 10.905 | 0.005 |
| 5E+12 | 24 | 11.092 | 11.094 | 0.002 |
| 5E+12 | 25 | 11.123 | 11.130 | 0.007 |
| 5E+12 | 26 | 11.106 | 11.117 | 0.011 |
| 1E+13 | 27 | 10.928 | 10.921 | -0.007 |
| 1E+13 | 28 | 11.191 | 11.208 | 0.017 |
| 1E+13 | 29 | 11.044 | 11.051 | 0.007 |
| Max | | 11.193 | 11.208 | 0.017 |
| Average | | 11.054 | 11.059 | 0.005 |
| Min | | 10.877 | 10.881 | -0.007 |
| Std Dev | | 0.115 | 0.119 | 0.006 |

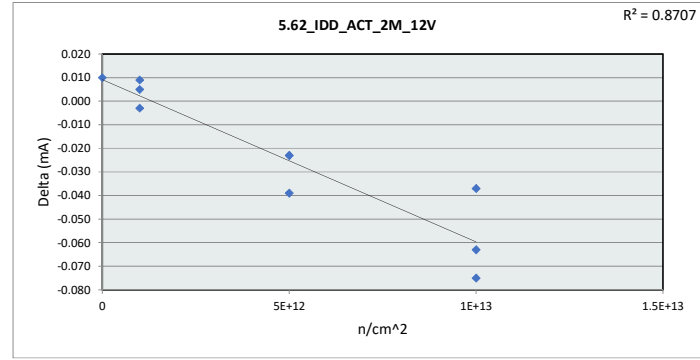


| 5.61_IDD_ACT_2M_5V | | | | |
|--------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 19.5 | mA | |
| Min Limit | | 0 | mA | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 10.881 | 10.905 | 11.094 | 10.921 |
| Average | 10.881 | 11.063 | 11.114 | 11.060 |
| Max | 10.881 | 11.199 | 11.130 | 11.208 |
| UL | 19.500 | 19.500 | 19.500 | 19.500 |

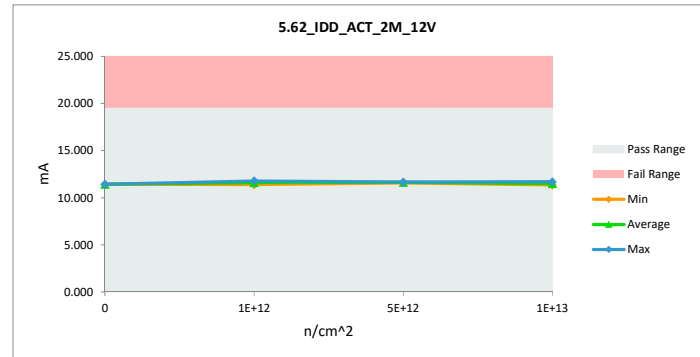


NDD Characterization Report TPS7H5007-SEP

| 5.62_IDD_ACT_2M_12V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 18 | 19.5 | |
| Min Limit | | 10 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 11.413 | 11.423 | 0.010 |
| 1E+12 | 21 | 11.772 | 11.781 | 0.009 |
| 1E+12 | 22 | 11.624 | 11.621 | -0.003 |
| 1E+12 | 23 | 11.397 | 11.402 | 0.005 |
| 5E+12 | 24 | 11.622 | 11.583 | -0.039 |
| 5E+12 | 25 | 11.665 | 11.642 | -0.023 |
| 5E+12 | 26 | 11.690 | 11.667 | -0.023 |
| 1E+13 | 27 | 11.409 | 11.346 | -0.063 |
| 1E+13 | 28 | 11.726 | 11.689 | -0.037 |
| 1E+13 | 29 | 11.577 | 11.502 | -0.075 |
| Max | | 11.772 | 11.781 | 0.010 |
| Average | | 11.589 | 11.566 | -0.024 |
| Min | | 11.397 | 11.346 | -0.075 |
| Std Dev | | 0.138 | 0.142 | 0.030 |

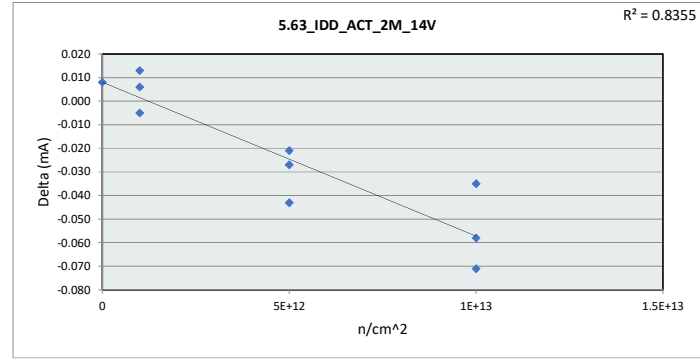


| 5.62_IDD_ACT_2M_12V | | | | |
|---------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 19.5 | mA | |
| Min Limit | | 0 | mA | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 11.423 | 11.402 | 11.583 | 11.346 |
| Average | 11.423 | 11.601 | 11.631 | 11.512 |
| Max | 11.423 | 11.781 | 11.667 | 11.689 |
| UL | 19.500 | 19.500 | 19.500 | 19.500 |

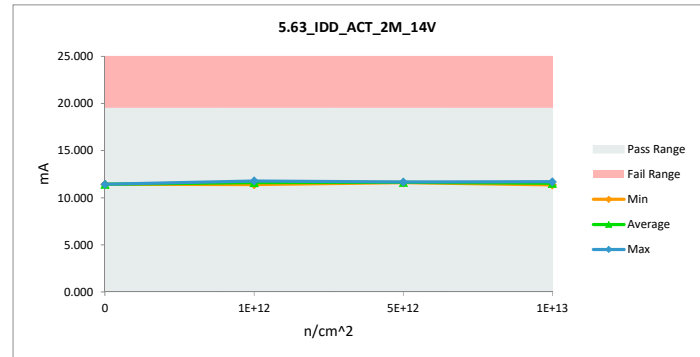


NDD Characterization Report TPS7H5007-SEP

| 5.63_IDD_ACT_2M_14V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mA | mA | |
| Max Limit | | 18 | 19.5 | |
| Min Limit | | 10 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 11.419 | 11.427 | 0.008 |
| 1E+12 | 21 | 11.774 | 11.787 | 0.013 |
| 1E+12 | 22 | 11.629 | 11.624 | -0.005 |
| 1E+12 | 23 | 11.399 | 11.405 | 0.006 |
| 5E+12 | 24 | 11.628 | 11.585 | -0.043 |
| 5E+12 | 25 | 11.668 | 11.647 | -0.021 |
| 5E+12 | 26 | 11.697 | 11.670 | -0.027 |
| 1E+13 | 27 | 11.412 | 11.354 | -0.058 |
| 1E+13 | 28 | 11.730 | 11.695 | -0.035 |
| 1E+13 | 29 | 11.580 | 11.509 | -0.071 |
| Max | | 11.774 | 11.787 | 0.013 |
| Average | | 11.594 | 11.570 | -0.023 |
| Min | | 11.399 | 11.354 | -0.071 |
| Std Dev | | 0.138 | 0.141 | 0.029 |

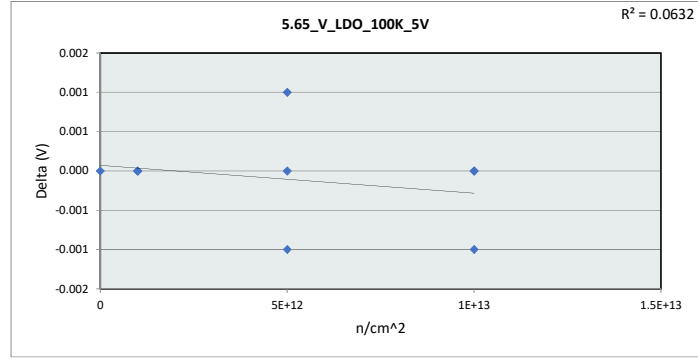


| 5.63_IDD_ACT_2M_14V | | | | |
|---------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 19.5 | mA | |
| Min Limit | | 0 | mA | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 11.427 | 11.405 | 11.585 | 11.354 |
| Average | 11.427 | 11.605 | 11.634 | 11.519 |
| Max | 11.427 | 11.787 | 11.670 | 11.695 |
| UL | 19.500 | 19.500 | 19.500 | 19.500 |

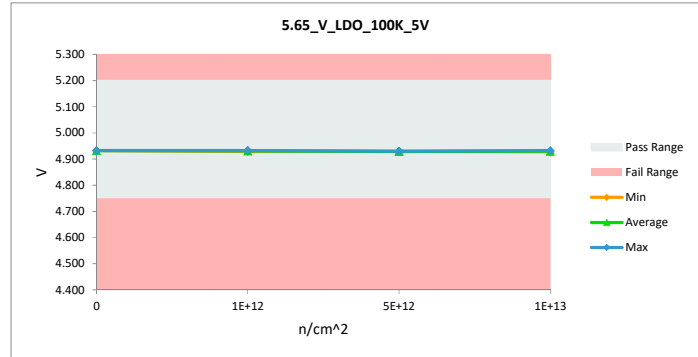


NDD Characterization Report TPS7H5007-SEP

| 5.65_V_LDO_100K_5V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 5.1 | 5.2 | 5.2 | 5.2 |
| Min Limit | 4.85 | 4.75 | 4.75 | 4.75 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 4.932 | 4.932 | 0.000 |
| 1E+12 | 21 | 4.929 | 4.929 | 0.000 |
| 1E+12 | 22 | 4.930 | 4.930 | 0.000 |
| 1E+12 | 23 | 4.933 | 4.933 | 0.000 |
| 5E+12 | 24 | 4.930 | 4.929 | -0.001 |
| 5E+12 | 25 | 4.930 | 4.930 | 0.000 |
| 5E+12 | 26 | 4.928 | 4.929 | 0.001 |
| 1E+13 | 27 | 4.932 | 4.932 | 0.000 |
| 1E+13 | 28 | 4.929 | 4.928 | -0.001 |
| 1E+13 | 29 | 4.931 | 4.931 | 0.000 |
| Max | | 4.933 | 4.933 | 0.001 |
| Average | | 4.930 | 4.930 | 0.000 |
| Min | | 4.928 | 4.928 | -0.001 |
| Std Dev | | 0.002 | 0.002 | 0.001 |

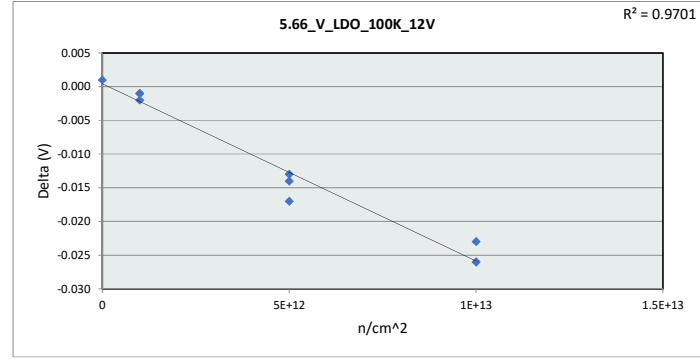


| 5.65_V_LDO_100K_5V | | | | |
|--------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | V | V |
| Min Limit | 4.75 | V | V | V |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.932 | 4.929 | 4.929 | 4.928 |
| Average | 4.932 | 4.931 | 4.929 | 4.930 |
| Max | 4.932 | 4.933 | 4.930 | 4.932 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

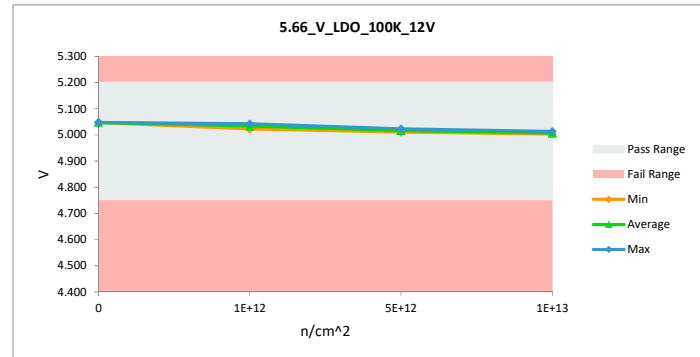


NDD Characterization Report TPS7H5007-SEP

| 5.66_V_LDO_100K_12V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 5.15 | 5.2 | 5.2 | 5.2 |
| Min Limit | 4.85 | 4.75 | 4.75 | 4.75 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.047 | 5.048 | 0.001 |
| 1E+12 | 21 | 5.043 | 5.042 | -0.001 |
| 1E+12 | 22 | 5.037 | 5.035 | -0.002 |
| 1E+12 | 23 | 5.024 | 5.023 | -0.001 |
| 5E+12 | 24 | 5.035 | 5.018 | -0.017 |
| 5E+12 | 25 | 5.037 | 5.023 | -0.014 |
| 5E+12 | 26 | 5.024 | 5.011 | -0.013 |
| 1E+13 | 27 | 5.027 | 5.004 | -0.023 |
| 1E+13 | 28 | 5.039 | 5.013 | -0.026 |
| 1E+13 | 29 | 5.030 | 5.004 | -0.026 |
| Max | | 5.047 | 5.048 | 0.001 |
| Average | | 5.034 | 5.022 | -0.012 |
| Min | | 5.024 | 5.004 | -0.026 |
| Std Dev | | 0.008 | 0.015 | 0.011 |

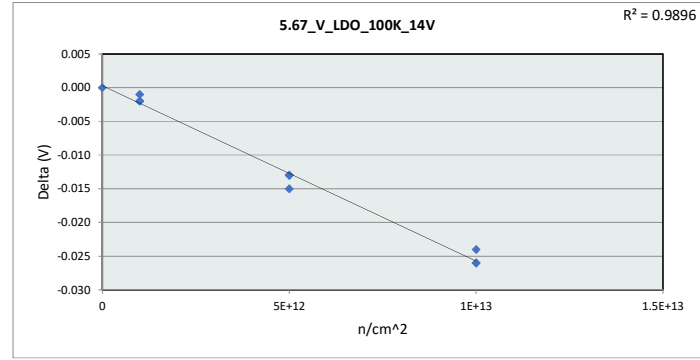


| 5.66_V_LDO_100K_12V | | | | |
|---------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | | |
| Min Limit | 4.75 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.048 | 5.023 | 5.011 | 5.004 |
| Average | 5.048 | 5.033 | 5.017 | 5.007 |
| Max | 5.048 | 5.042 | 5.023 | 5.013 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

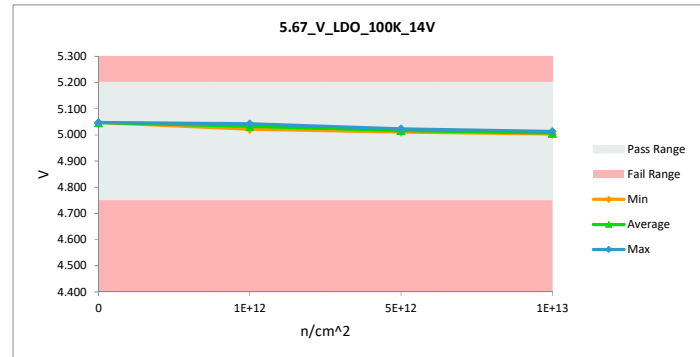


NDD Characterization Report TPS7H5007-SEP

| 5.67_V_LDO_100K_14V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 5.15 | 5.2 | 5.2 | 5.2 |
| Min Limit | 4.85 | 4.75 | 4.75 | 4.75 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.047 | 5.047 | 0.000 |
| 1E+12 | 21 | 5.043 | 5.042 | -0.001 |
| 1E+12 | 22 | 5.037 | 5.035 | -0.002 |
| 1E+12 | 23 | 5.024 | 5.022 | -0.002 |
| 5E+12 | 24 | 5.034 | 5.019 | -0.015 |
| 5E+12 | 25 | 5.036 | 5.023 | -0.013 |
| 5E+12 | 26 | 5.024 | 5.011 | -0.013 |
| 1E+13 | 27 | 5.027 | 5.003 | -0.024 |
| 1E+13 | 28 | 5.039 | 5.013 | -0.026 |
| 1E+13 | 29 | 5.030 | 5.004 | -0.026 |
| Max | | 5.047 | 5.047 | 0.000 |
| Average | | 5.034 | 5.022 | -0.012 |
| Min | | 5.024 | 5.003 | -0.026 |
| Std Dev | | 0.008 | 0.015 | 0.011 |

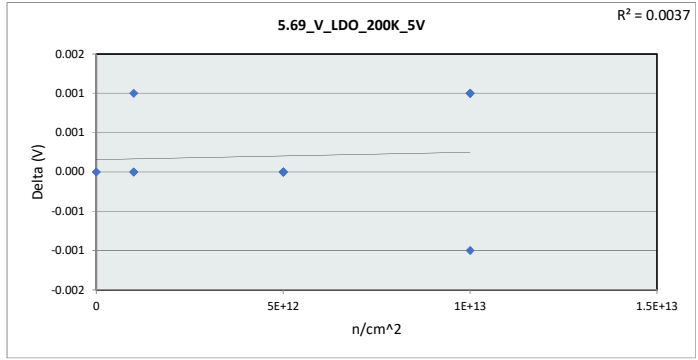


| 5.67_V_LDO_100K_14V | | | | |
|---------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | V | V |
| Min Limit | 4.75 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.047 | 5.022 | 5.011 | 5.003 |
| Average | 5.047 | 5.033 | 5.018 | 5.007 |
| Max | 5.047 | 5.042 | 5.023 | 5.013 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

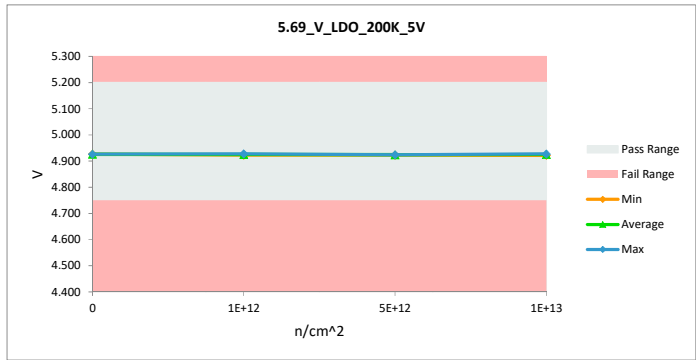


NDD Characterization Report TPS7H5007-SEP

| 5.69_V_LDO_200K_5V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | V | V | |
| Max Limit | | 5.1 | 5.2 | |
| Min Limit | | 4.84 | 4.75 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 4.926 | 4.926 | 0.000 |
| 1E+12 | 21 | 4.923 | 4.923 | 0.000 |
| 1E+12 | 22 | 4.925 | 4.925 | 0.000 |
| 1E+12 | 23 | 4.927 | 4.928 | 0.001 |
| 5E+12 | 24 | 4.924 | 4.924 | 0.000 |
| 5E+12 | 25 | 4.924 | 4.924 | 0.000 |
| 5E+12 | 26 | 4.923 | 4.923 | 0.000 |
| 1E+13 | 27 | 4.926 | 4.927 | 0.001 |
| 1E+13 | 28 | 4.923 | 4.922 | -0.001 |
| 1E+13 | 29 | 4.925 | 4.926 | 0.001 |
| Max | | 4.927 | 4.928 | 0.001 |
| Average | | 4.925 | 4.925 | 0.000 |
| Min | | 4.923 | 4.922 | -0.001 |
| Std Dev | | 0.001 | 0.002 | 0.001 |

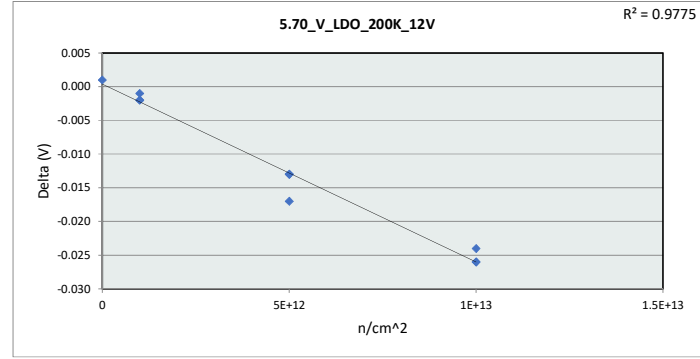


| 5.69_V_LDO_200K_5V | | | | |
|--------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | | |
| Min Limit | 4.75 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.926 | 4.923 | 4.923 | 4.922 |
| Average | 4.926 | 4.925 | 4.924 | 4.925 |
| Max | 4.926 | 4.928 | 4.924 | 4.927 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

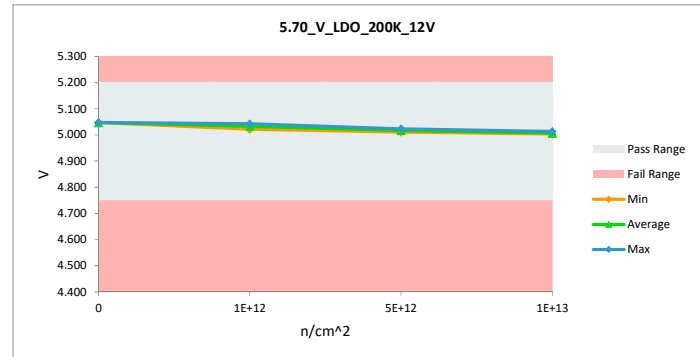


NDD Characterization Report TPS7H5007-SEP

| 5.70_V_LDO_200K_12V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 5.15 | 5.2 | 5.2 | 5.2 |
| Min Limit | 4.84 | 4.75 | 4.75 | 4.75 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.046 | 5.047 | 0.001 |
| 1E+12 | 21 | 5.043 | 5.042 | -0.001 |
| 1E+12 | 22 | 5.036 | 5.034 | -0.002 |
| 1E+12 | 23 | 5.024 | 5.022 | -0.002 |
| 5E+12 | 24 | 5.035 | 5.018 | -0.017 |
| 5E+12 | 25 | 5.036 | 5.023 | -0.013 |
| 5E+12 | 26 | 5.024 | 5.011 | -0.013 |
| 1E+13 | 27 | 5.027 | 5.003 | -0.024 |
| 1E+13 | 28 | 5.039 | 5.013 | -0.026 |
| 1E+13 | 29 | 5.030 | 5.004 | -0.026 |
| Max | | 5.046 | 5.047 | 0.001 |
| Average | | 5.034 | 5.022 | -0.012 |
| Min | | 5.024 | 5.003 | -0.026 |
| Std Dev | | 0.008 | 0.015 | 0.011 |

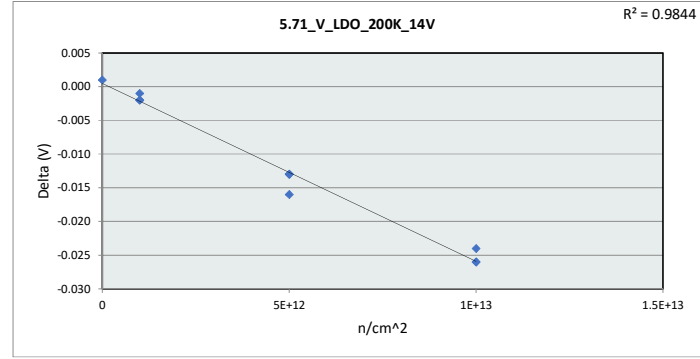


| 5.70_V_LDO_200K_12V | | | | |
|---------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | V | V |
| Min Limit | 4.75 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.047 | 5.022 | 5.011 | 5.003 |
| Average | 5.047 | 5.033 | 5.017 | 5.007 |
| Max | 5.047 | 5.042 | 5.023 | 5.013 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

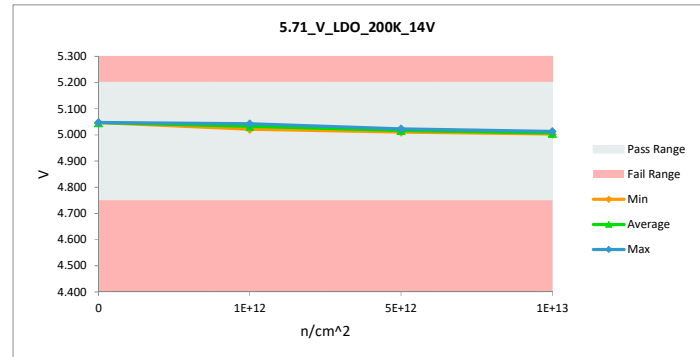


NDD Characterization Report TPS7H5007-SEP

| 5.71_V_LDO_200K_14V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 5.15 | | 5.2 | |
| Min Limit | 4.84 | | 4.75 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.046 | 5.047 | 0.001 |
| 1E+12 | 21 | 5.043 | 5.042 | -0.001 |
| 1E+12 | 22 | 5.036 | 5.034 | -0.002 |
| 1E+12 | 23 | 5.024 | 5.022 | -0.002 |
| 5E+12 | 24 | 5.034 | 5.018 | -0.016 |
| 5E+12 | 25 | 5.036 | 5.023 | -0.013 |
| 5E+12 | 26 | 5.024 | 5.011 | -0.013 |
| 1E+13 | 27 | 5.027 | 5.003 | -0.024 |
| 1E+13 | 28 | 5.039 | 5.013 | -0.026 |
| 1E+13 | 29 | 5.030 | 5.004 | -0.026 |
| Max | | 5.046 | 5.047 | 0.001 |
| Average | | 5.034 | 5.022 | -0.012 |
| Min | | 5.024 | 5.003 | -0.026 |
| Std Dev | | 0.008 | 0.015 | 0.011 |

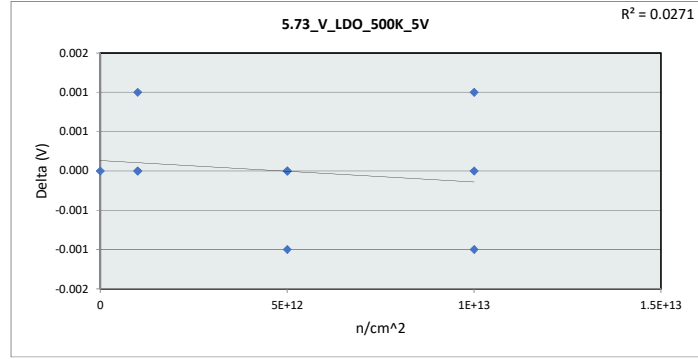


| 5.71_V_LDO_200K_14V | | | | |
|---------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | | V | |
| Min Limit | 4.75 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.047 | 5.022 | 5.011 | 5.003 |
| Average | 5.047 | 5.033 | 5.017 | 5.007 |
| Max | 5.047 | 5.042 | 5.023 | 5.013 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

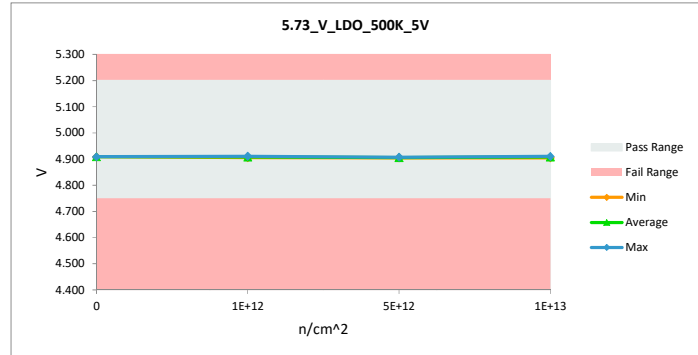


NDD Characterization Report TPS7H5007-SEP

| 5.73_V_LDO_500K_5V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | V | V | |
| Max Limit | | 5.1 | 5.2 | |
| Min Limit | | 4.81 | 4.75 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 4.909 | 4.909 | 0.000 |
| 1E+12 | 21 | 4.906 | 4.906 | 0.000 |
| 1E+12 | 22 | 4.907 | 4.907 | 0.000 |
| 1E+12 | 23 | 4.910 | 4.911 | 0.001 |
| 5E+12 | 24 | 4.907 | 4.907 | 0.000 |
| 5E+12 | 25 | 4.907 | 4.906 | -0.001 |
| 5E+12 | 26 | 4.905 | 4.905 | 0.000 |
| 1E+13 | 27 | 4.909 | 4.910 | 0.001 |
| 1E+13 | 28 | 4.906 | 4.905 | -0.001 |
| 1E+13 | 29 | 4.908 | 4.908 | 0.000 |
| Max | | 4.910 | 4.911 | 0.001 |
| Average | | 4.907 | 4.907 | 0.000 |
| Min | | 4.905 | 4.905 | -0.001 |
| Std Dev | | 0.002 | 0.002 | 0.001 |

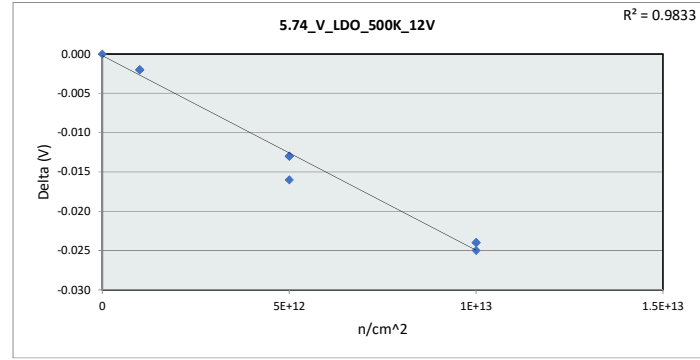


| 5.73_V_LDO_500K_5V | | | | |
|--------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | | |
| Min Limit | 4.75 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.909 | 4.906 | 4.905 | 4.905 |
| Average | 4.909 | 4.908 | 4.906 | 4.908 |
| Max | 4.909 | 4.911 | 4.907 | 4.910 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

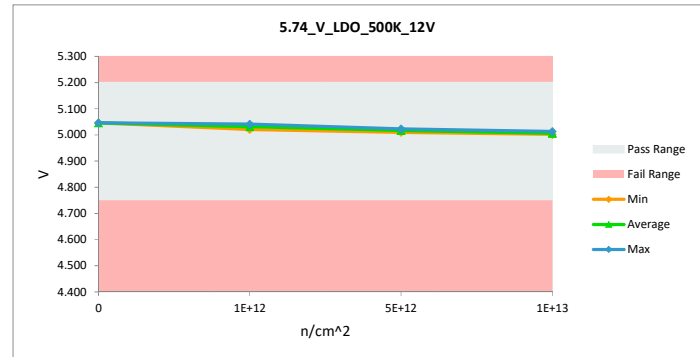


NDD Characterization Report TPS7H5007-SEP

| 5.74_V_LDO_500K_12V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 5.15 | 5.2 | 5.2 | 5.2 |
| Min Limit | 4.81 | 4.75 | 4.75 | 4.75 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.046 | 5.046 | 0.000 |
| 1E+12 | 21 | 5.043 | 5.041 | -0.002 |
| 1E+12 | 22 | 5.035 | 5.033 | -0.002 |
| 1E+12 | 23 | 5.023 | 5.021 | -0.002 |
| 5E+12 | 24 | 5.034 | 5.018 | -0.016 |
| 5E+12 | 25 | 5.036 | 5.023 | -0.013 |
| 5E+12 | 26 | 5.023 | 5.010 | -0.013 |
| 1E+13 | 27 | 5.026 | 5.002 | -0.024 |
| 1E+13 | 28 | 5.037 | 5.013 | -0.024 |
| 1E+13 | 29 | 5.029 | 5.004 | -0.025 |
| Max | | 5.046 | 5.046 | 0.000 |
| Average | | 5.033 | 5.021 | -0.012 |
| Min | | 5.023 | 5.002 | -0.025 |
| Std Dev | | 0.008 | 0.015 | 0.010 |

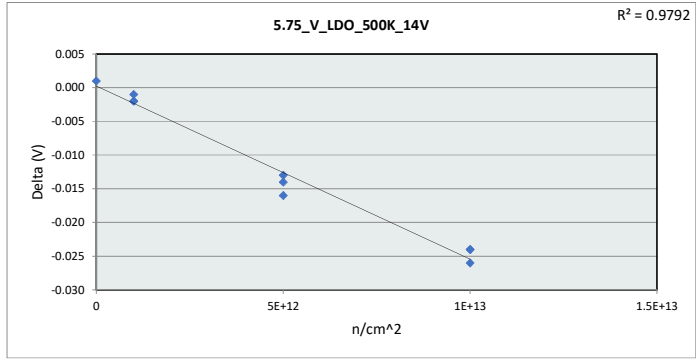


| 5.74_V_LDO_500K_12V | | | | |
|---------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | V | V |
| Min Limit | 4.75 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.046 | 5.021 | 5.010 | 5.002 |
| Average | 5.046 | 5.032 | 5.017 | 5.006 |
| Max | 5.046 | 5.041 | 5.023 | 5.013 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

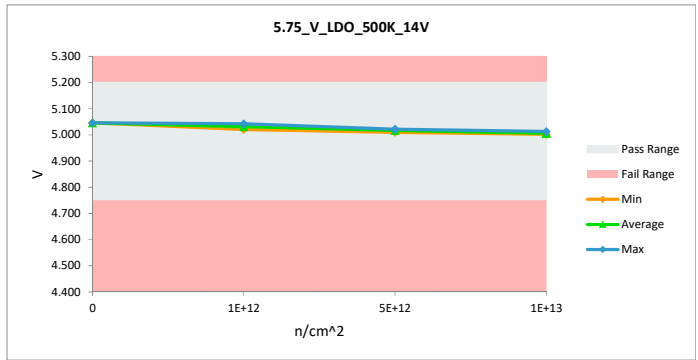


NDD Characterization Report TPS7H5007-SEP

| 5.75_V_LDO_500K_14V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 5.15 | | 5.2 | |
| Min Limit | 4.81 | | 4.75 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.045 | 5.046 | 0.001 |
| 1E+12 | 21 | 5.043 | 5.042 | -0.001 |
| 1E+12 | 22 | 5.035 | 5.033 | -0.002 |
| 1E+12 | 23 | 5.023 | 5.021 | -0.002 |
| 5E+12 | 24 | 5.034 | 5.018 | -0.016 |
| 5E+12 | 25 | 5.036 | 5.022 | -0.014 |
| 5E+12 | 26 | 5.023 | 5.010 | -0.013 |
| 1E+13 | 27 | 5.026 | 5.002 | -0.024 |
| 1E+13 | 28 | 5.037 | 5.013 | -0.024 |
| 1E+13 | 29 | 5.029 | 5.003 | -0.026 |
| Max | | 5.045 | 5.046 | 0.001 |
| Average | | 5.033 | 5.021 | -0.012 |
| Min | | 5.023 | 5.002 | -0.026 |
| Std Dev | | 0.008 | 0.015 | 0.011 |

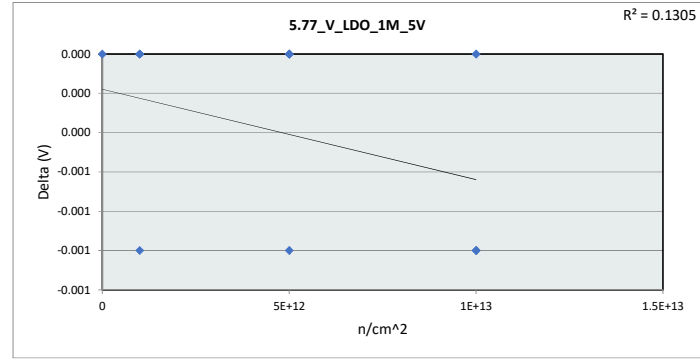


| 5.75_V_LDO_500K_14V | | | | |
|---------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | | |
| Min Limit | 4.75 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.046 | 5.021 | 5.010 | 5.002 |
| Average | 5.046 | 5.032 | 5.017 | 5.006 |
| Max | 5.046 | 5.042 | 5.022 | 5.013 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

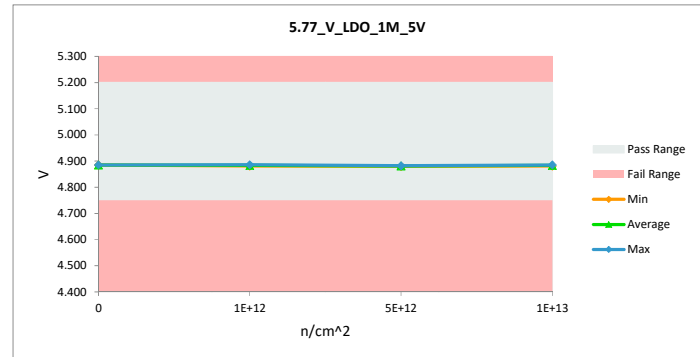


NDD Characterization Report TPS7H5007-SEP

| 5.77_V_LDO_1M_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | | |
| Max Limit | 5.1 | 5.2 | | |
| Min Limit | 4.75 | 4.75 | | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 4.885 | 4.885 | 0.000 |
| 1E+12 | 21 | 4.881 | 4.881 | 0.000 |
| 1E+12 | 22 | 4.883 | 4.882 | -0.001 |
| 1E+12 | 23 | 4.886 | 4.886 | 0.000 |
| 5E+12 | 24 | 4.882 | 4.882 | 0.000 |
| 5E+12 | 25 | 4.882 | 4.882 | 0.000 |
| 5E+12 | 26 | 4.881 | 4.880 | -0.001 |
| 1E+13 | 27 | 4.885 | 4.885 | 0.000 |
| 1E+13 | 28 | 4.882 | 4.881 | -0.001 |
| 1E+13 | 29 | 4.884 | 4.883 | -0.001 |
| Max | | 4.886 | 4.886 | 0.000 |
| Average | | 4.883 | 4.883 | 0.000 |
| Min | | 4.881 | 4.880 | -0.001 |
| Std Dev | | 0.002 | 0.002 | 0.001 |

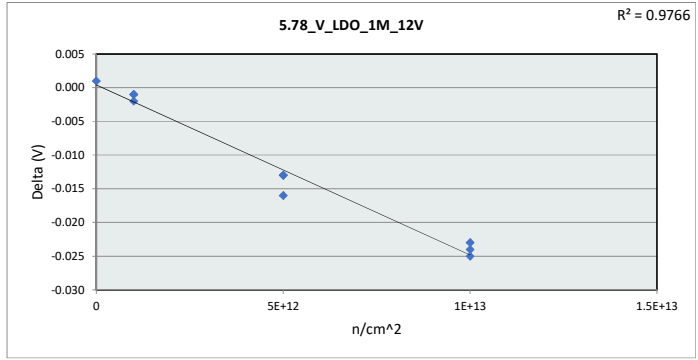


| 5.77_V_LDO_1M_5V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | | |
| Min Limit | 4.75 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 4.885 | 4.881 | 4.880 | 4.881 |
| Average | 4.885 | 4.883 | 4.881 | 4.883 |
| Max | 4.885 | 4.886 | 4.882 | 4.885 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

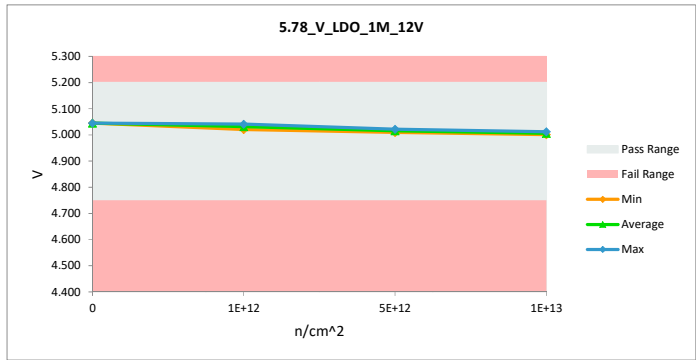


NDD Characterization Report TPS7H5007-SEP

| 5.78_V_LDO_1M_12V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 5.15 | | 5.2 | |
| Min Limit | 4.85 | | 4.75 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.044 | 5.045 | 0.001 |
| 1E+12 | 21 | 5.042 | 5.041 | -0.001 |
| 1E+12 | 22 | 5.034 | 5.032 | -0.002 |
| 1E+12 | 23 | 5.021 | 5.020 | -0.001 |
| 5E+12 | 24 | 5.033 | 5.017 | -0.016 |
| 5E+12 | 25 | 5.035 | 5.022 | -0.013 |
| 5E+12 | 26 | 5.022 | 5.009 | -0.013 |
| 1E+13 | 27 | 5.024 | 5.001 | -0.023 |
| 1E+13 | 28 | 5.036 | 5.012 | -0.024 |
| 1E+13 | 29 | 5.028 | 5.003 | -0.025 |
| Max | | 5.044 | 5.045 | 0.001 |
| Average | | 5.032 | 5.020 | -0.012 |
| Min | | 5.021 | 5.001 | -0.025 |
| Std Dev | | 0.008 | 0.015 | 0.010 |

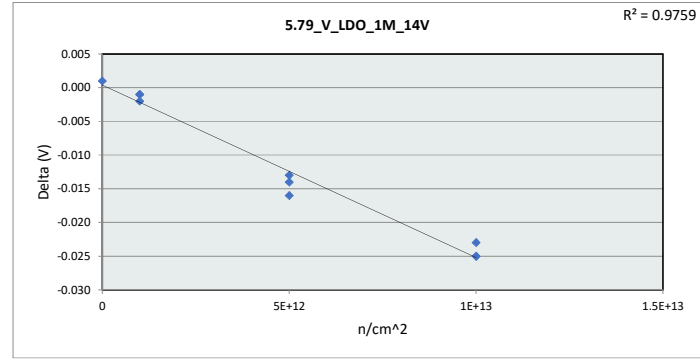


| 5.78_V_LDO_1M_12V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | | V | |
| Min Limit | 4.75 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.045 | 5.020 | 5.009 | 5.001 |
| Average | 5.045 | 5.031 | 5.016 | 5.005 |
| Max | 5.045 | 5.041 | 5.022 | 5.012 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

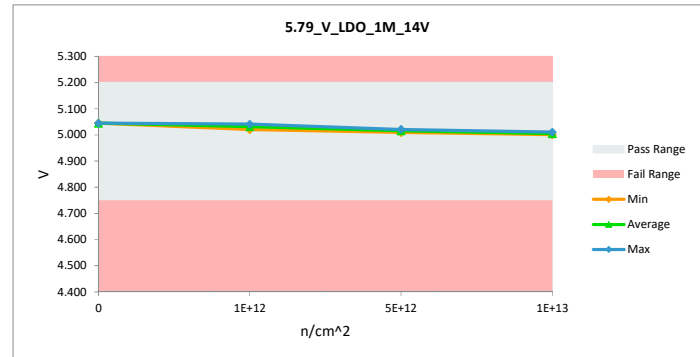


NDD Characterization Report TPS7H5007-SEP

| 5.79_V_LDO_1M_14V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 5.15 | | 5.2 | |
| Min Limit | 4.85 | | 4.75 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.044 | 5.045 | 0.001 |
| 1E+12 | 21 | 5.042 | 5.041 | -0.001 |
| 1E+12 | 22 | 5.034 | 5.032 | -0.002 |
| 1E+12 | 23 | 5.021 | 5.020 | -0.001 |
| 5E+12 | 24 | 5.033 | 5.017 | -0.016 |
| 5E+12 | 25 | 5.035 | 5.021 | -0.014 |
| 5E+12 | 26 | 5.022 | 5.009 | -0.013 |
| 1E+13 | 27 | 5.024 | 5.001 | -0.023 |
| 1E+13 | 28 | 5.036 | 5.011 | -0.025 |
| 1E+13 | 29 | 5.027 | 5.002 | -0.025 |
| Max | | 5.044 | 5.045 | 0.001 |
| Average | | 5.032 | 5.020 | -0.012 |
| Min | | 5.021 | 5.001 | -0.025 |
| Std Dev | | 0.008 | 0.015 | 0.010 |

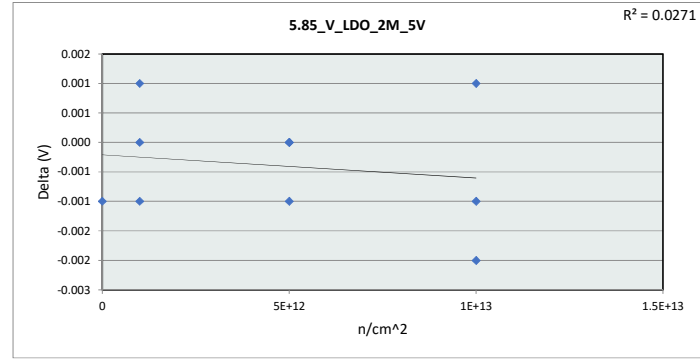


| 5.79_V_LDO_1M_14V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | | |
| Min Limit | 4.75 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.750 | 4.750 | 4.750 | 4.750 |
| Min | 5.045 | 5.020 | 5.009 | 5.001 |
| Average | 5.045 | 5.031 | 5.016 | 5.005 |
| Max | 5.045 | 5.041 | 5.021 | 5.011 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

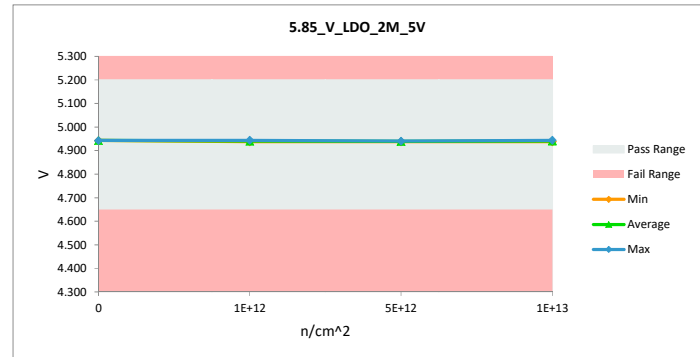


NDD Characterization Report TPS7H5007-SEP

| 5.85_V_LDO_2M_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | V | V | |
| Max Limit | | 5.1 | 5.2 | |
| Min Limit | | 4.8 | 4.65 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 4.944 | 4.943 | -0.001 |
| 1E+12 | 21 | 4.938 | 4.938 | 0.000 |
| 1E+12 | 22 | 4.940 | 4.939 | -0.001 |
| 1E+12 | 23 | 4.943 | 4.944 | 0.001 |
| 5E+12 | 24 | 4.940 | 4.940 | 0.000 |
| 5E+12 | 25 | 4.939 | 4.939 | 0.000 |
| 5E+12 | 26 | 4.939 | 4.938 | -0.001 |
| 1E+13 | 27 | 4.943 | 4.944 | 0.001 |
| 1E+13 | 28 | 4.940 | 4.938 | -0.002 |
| 1E+13 | 29 | 4.942 | 4.941 | -0.001 |
| Max | | 4.944 | 4.944 | 0.001 |
| Average | | 4.941 | 4.940 | 0.000 |
| Min | | 4.938 | 4.938 | -0.002 |
| Std Dev | | 0.002 | 0.002 | 0.001 |

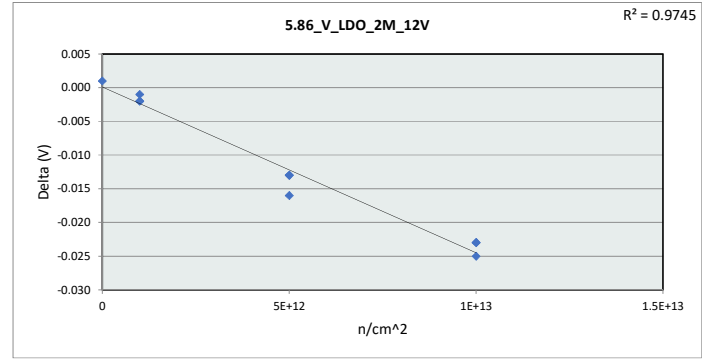


| 5.85_V_LDO_2M_5V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | | |
| Min Limit | 4.65 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.650 | 4.650 | 4.650 | 4.650 |
| Min | 4.943 | 4.938 | 4.938 | 4.938 |
| Average | 4.943 | 4.940 | 4.939 | 4.941 |
| Max | 4.943 | 4.944 | 4.940 | 4.944 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

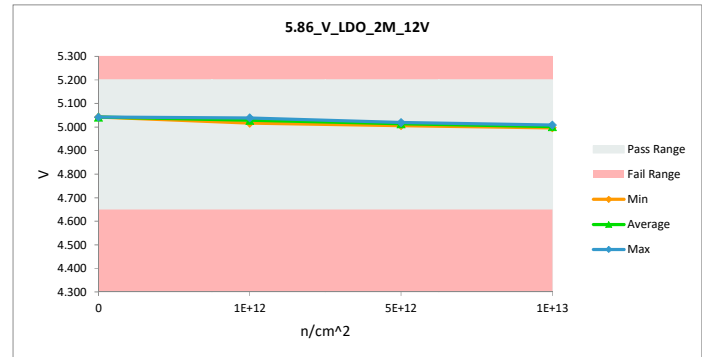


NDD Characterization Report TPS7H5007-SEP

| 5.86_V_LDO_2M_12V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 5.15 | 5.2 | 5.2 | 5.2 |
| Min Limit | 4.8 | 4.65 | 4.65 | 4.65 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.041 | 5.042 | 0.001 |
| 1E+12 | 21 | 5.040 | 5.039 | -0.001 |
| 1E+12 | 22 | 5.030 | 5.028 | -0.002 |
| 1E+12 | 23 | 5.019 | 5.017 | -0.002 |
| 5E+12 | 24 | 5.031 | 5.015 | -0.016 |
| 5E+12 | 25 | 5.032 | 5.019 | -0.013 |
| 5E+12 | 26 | 5.019 | 5.006 | -0.013 |
| 1E+13 | 27 | 5.020 | 4.997 | -0.023 |
| 1E+13 | 28 | 5.032 | 5.009 | -0.023 |
| 1E+13 | 29 | 5.024 | 4.999 | -0.025 |
| Max | | 5.041 | 5.042 | 0.001 |
| Average | | 5.029 | 5.017 | -0.012 |
| Min | | 5.019 | 4.997 | -0.025 |
| Std Dev | | 0.008 | 0.015 | 0.010 |

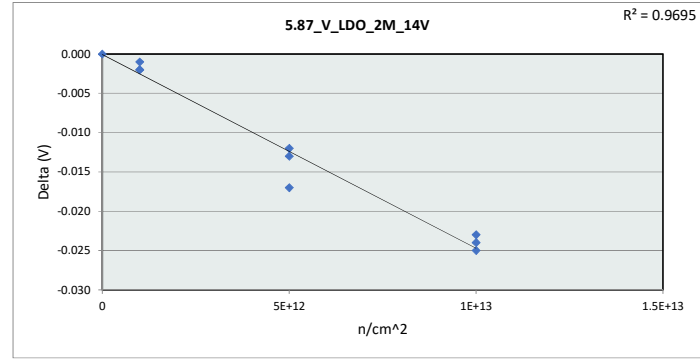


| 5.86_V_LDO_2M_12V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | V | V |
| Min Limit | 4.65 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.650 | 4.650 | 4.650 | 4.650 |
| Min | 5.042 | 5.017 | 5.006 | 4.997 |
| Average | 5.042 | 5.028 | 5.013 | 5.002 |
| Max | 5.042 | 5.039 | 5.019 | 5.009 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

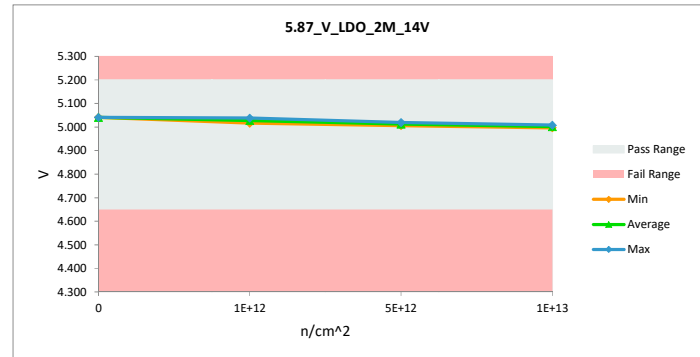


NDD Characterization Report TPS7H5007-SEP

| 5.87_V_LDO_2M_14V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 5.15 | 5.2 | 5.2 | 5.2 |
| Min Limit | 4.8 | 4.65 | 4.65 | 4.65 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.041 | 5.041 | 0.000 |
| 1E+12 | 21 | 5.040 | 5.038 | -0.002 |
| 1E+12 | 22 | 5.030 | 5.028 | -0.002 |
| 1E+12 | 23 | 5.018 | 5.017 | -0.001 |
| 5E+12 | 24 | 5.031 | 5.014 | -0.017 |
| 5E+12 | 25 | 5.032 | 5.019 | -0.013 |
| 5E+12 | 26 | 5.018 | 5.006 | -0.012 |
| 1E+13 | 27 | 5.020 | 4.997 | -0.023 |
| 1E+13 | 28 | 5.032 | 5.008 | -0.024 |
| 1E+13 | 29 | 5.024 | 4.999 | -0.025 |
| Max | | 5.041 | 5.041 | 0.000 |
| Average | | 5.029 | 5.017 | -0.012 |
| Min | | 5.018 | 4.997 | -0.025 |
| Std Dev | | 0.008 | 0.015 | 0.010 |

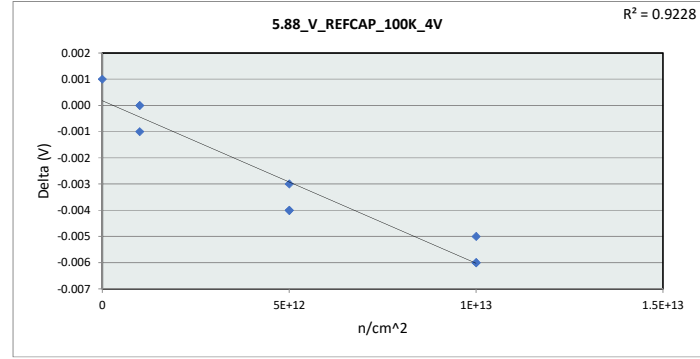


| 5.87_V_LDO_2M_14V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 5.2 | V | V | V |
| Min Limit | 4.65 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 4.650 | 4.650 | 4.650 | 4.650 |
| Min | 5.041 | 5.017 | 5.006 | 4.997 |
| Average | 5.041 | 5.028 | 5.013 | 5.001 |
| Max | 5.041 | 5.038 | 5.019 | 5.008 |
| UL | 5.200 | 5.200 | 5.200 | 5.200 |

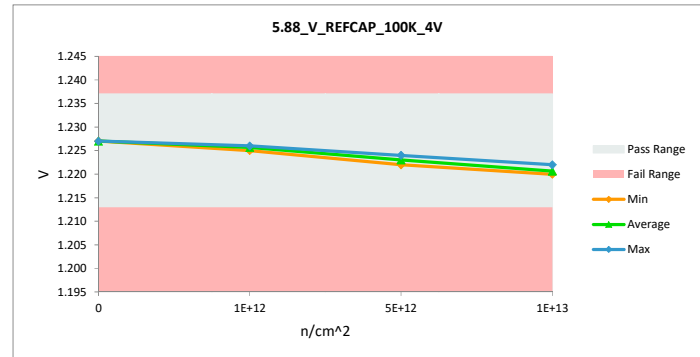


NDD Characterization Report TPS7H5007-SEP

| 5.88_V_REFCAP_100K_4V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.237 | | 1.237 | |
| Min Limit | 1.213 | | 1.213 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.226 | 1.227 | 0.001 |
| 1E+12 | 21 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 22 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 23 | 1.226 | 1.225 | -0.001 |
| 5E+12 | 24 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.222 | -0.004 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.220 | -0.006 |
| 1E+13 | 29 | 1.226 | 1.220 | -0.006 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.224 | -0.003 |
| Min | | 1.226 | 1.220 | -0.006 |
| Std Dev | | 0.000 | 0.003 | 0.003 |

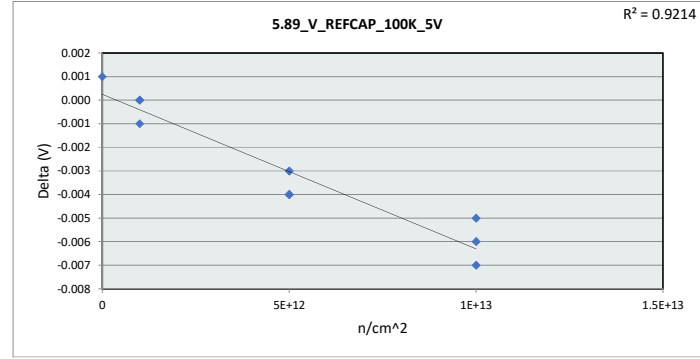


| 5.88_V_REFCAP_100K_4V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | | V | |
| Min Limit | 1.213 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.225 | 1.222 | 1.220 |
| Average | 1.227 | 1.226 | 1.223 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

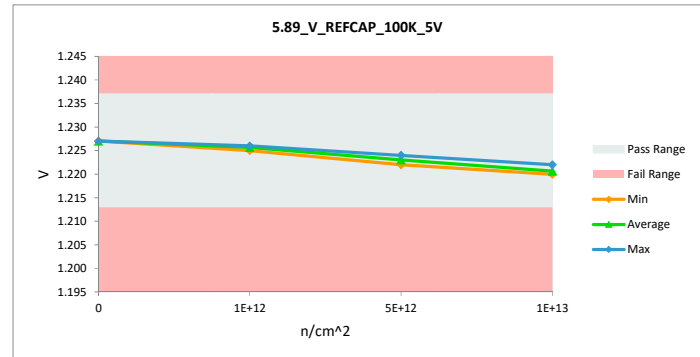


NDD Characterization Report TPS7H5007-SEP

| 5.89_V_REFCAP_100K_5V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.237 | | 1.237 | |
| Min Limit | 1.213 | | 1.213 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.226 | 1.227 | 0.001 |
| 1E+12 | 21 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 22 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 23 | 1.226 | 1.225 | -0.001 |
| 5E+12 | 24 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.222 | -0.004 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.220 | -0.006 |
| 1E+13 | 29 | 1.227 | 1.220 | -0.007 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.224 | -0.003 |
| Min | | 1.226 | 1.220 | -0.007 |
| Std Dev | | 0.001 | 0.003 | 0.003 |

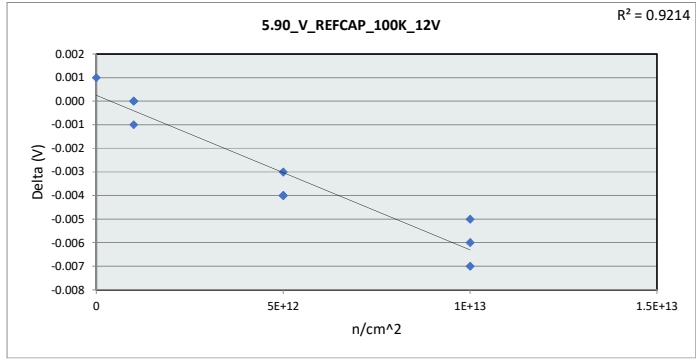


| 5.89_V_REFCAP_100K_5V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | | V | |
| Min Limit | 1.213 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.225 | 1.222 | 1.220 |
| Average | 1.227 | 1.226 | 1.223 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

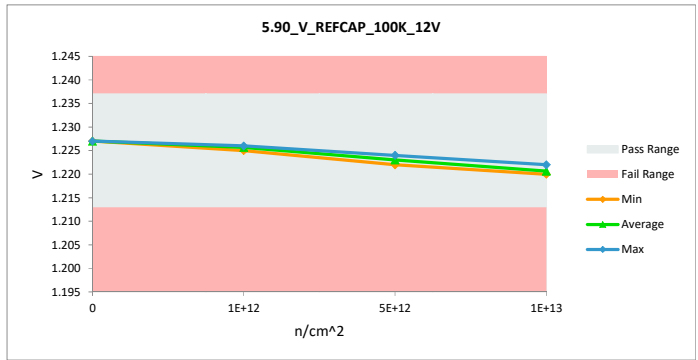


NDD Characterization Report TPS7H5007-SEP

| 5.90_V_REFCAP_100K_12V | | | | |
|------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.226 | 1.227 | 0.001 |
| 1E+12 | 21 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 22 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 23 | 1.226 | 1.225 | -0.001 |
| 5E+12 | 24 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.222 | -0.004 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.220 | -0.006 |
| 1E+13 | 29 | 1.227 | 1.220 | -0.007 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.224 | -0.003 |
| Min | | 1.226 | 1.220 | -0.007 |
| Std Dev | | 0.001 | 0.003 | 0.003 |

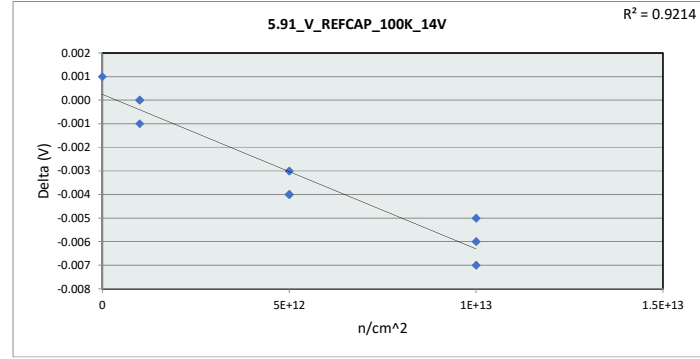


| 5.90_V_REFCAP_100K_12V | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.225 | 1.222 | 1.220 |
| Average | 1.227 | 1.226 | 1.223 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

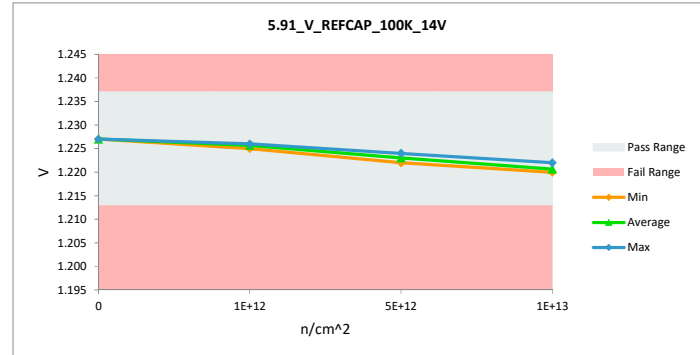


NDD Characterization Report TPS7H5007-SEP

| 5.91_V_REFCAP_100K_14V | | | | |
|------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.226 | 1.227 | 0.001 |
| 1E+12 | 21 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 22 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 23 | 1.226 | 1.225 | -0.001 |
| 5E+12 | 24 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.222 | -0.004 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.220 | -0.006 |
| 1E+13 | 29 | 1.227 | 1.220 | -0.007 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.224 | -0.003 |
| Min | | 1.226 | 1.220 | -0.007 |
| Std Dev | | 0.001 | 0.003 | 0.003 |

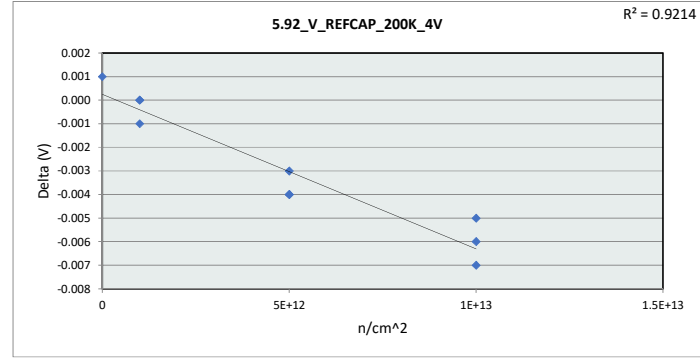


| 5.91_V_REFCAP_100K_14V | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.225 | 1.222 | 1.220 |
| Average | 1.227 | 1.226 | 1.223 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

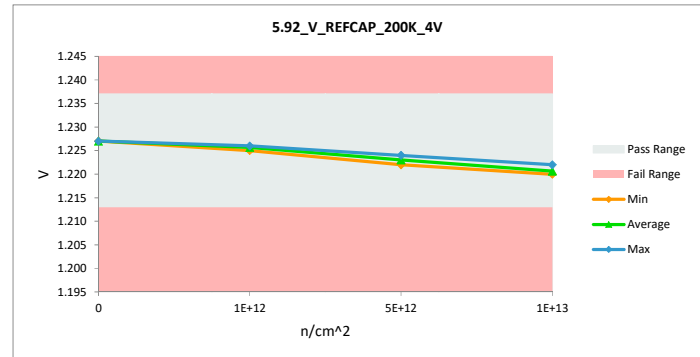


NDD Characterization Report TPS7H5007-SEP

| 5.92_V_REFCAP_200K_4V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.237 | | 1.237 | |
| Min Limit | 1.213 | | 1.213 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.226 | 1.227 | 0.001 |
| 1E+12 | 21 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 22 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 23 | 1.226 | 1.225 | -0.001 |
| 5E+12 | 24 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.222 | -0.004 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.220 | -0.006 |
| 1E+13 | 29 | 1.227 | 1.220 | -0.007 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.224 | -0.003 |
| Min | | 1.226 | 1.220 | -0.007 |
| Std Dev | | 0.001 | 0.003 | 0.003 |

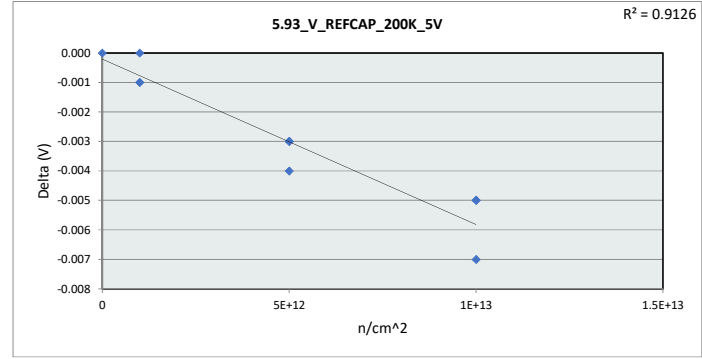


| 5.92_V_REFCAP_200K_4V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | | V | |
| Min Limit | 1.213 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.225 | 1.222 | 1.220 |
| Average | 1.227 | 1.226 | 1.223 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

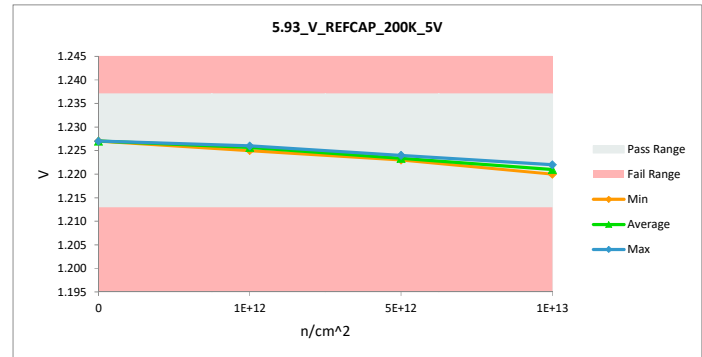


NDD Characterization Report TPS7H5007-SEP

| 5.93_V_REFCAP_200K_5V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.237 | | 1.237 | |
| Min Limit | 1.213 | | 1.213 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.225 | -0.001 |
| 5E+12 | 24 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.220 | -0.007 |
| Max | | 1.227 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.220 | -0.007 |
| Std Dev | | 0.001 | 0.002 | 0.002 |

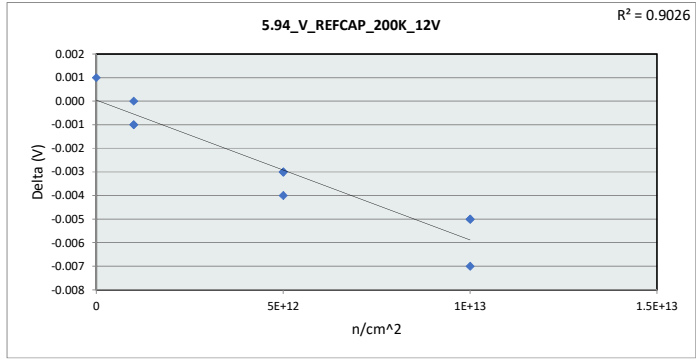


| 5.93_V_REFCAP_200K_5V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | | V | |
| Min Limit | 1.213 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.225 | 1.223 | 1.220 |
| Average | 1.227 | 1.226 | 1.223 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

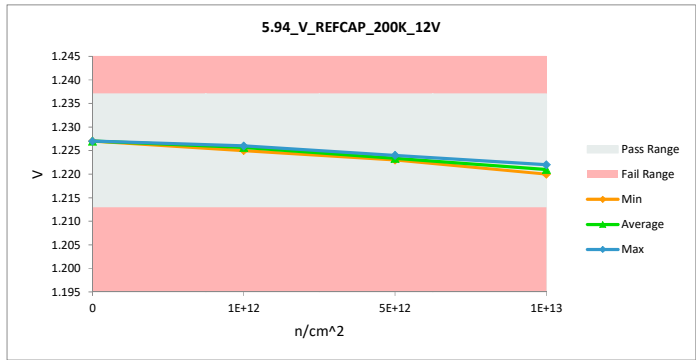


NDD Characterization Report TPS7H5007-SEP

| 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 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.226 | 1.227 | 0.001 |
| 1E+12 | 21 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.225 | -0.001 |
| 5E+12 | 24 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.220 | -0.007 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.224 | -0.003 |
| Min | | 1.226 | 1.220 | -0.007 |
| Std Dev | | 0.001 | 0.002 | 0.003 |

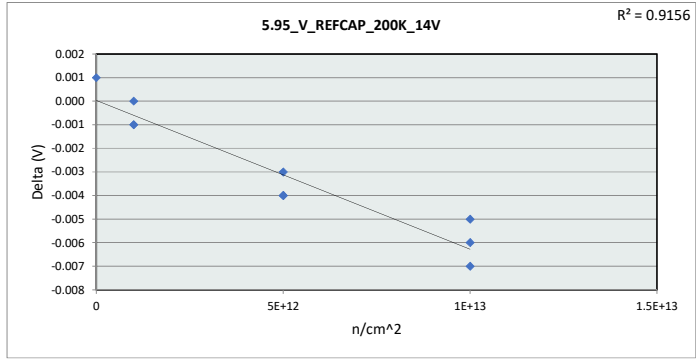


| 5.94_V_REFCAP_200K_12V | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | | V | |
| Min Limit | 1.213 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.225 | 1.223 | 1.220 |
| Average | 1.227 | 1.226 | 1.223 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

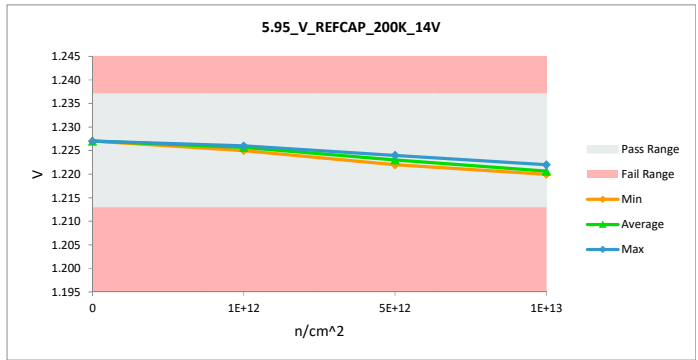


NDD Characterization Report TPS7H5007-SEP

| 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 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.226 | 1.227 | 0.001 |
| 1E+12 | 21 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.225 | -0.001 |
| 5E+12 | 24 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.222 | -0.004 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.220 | -0.006 |
| 1E+13 | 29 | 1.227 | 1.220 | -0.007 |
| Max | | 1.227 | 1.227 | 0.001 |
| Average | | 1.226 | 1.224 | -0.003 |
| Min | | 1.226 | 1.220 | -0.007 |
| Std Dev | | 0.001 | 0.003 | 0.003 |

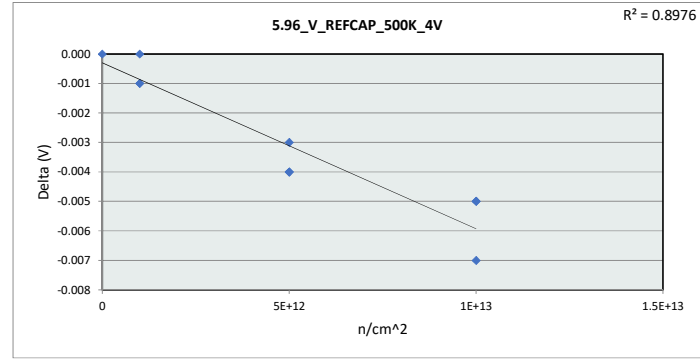


| 5.95_V_REFCAP_200K_14V | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | | V | |
| Min Limit | 1.213 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.225 | 1.222 | 1.220 |
| Average | 1.227 | 1.226 | 1.223 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

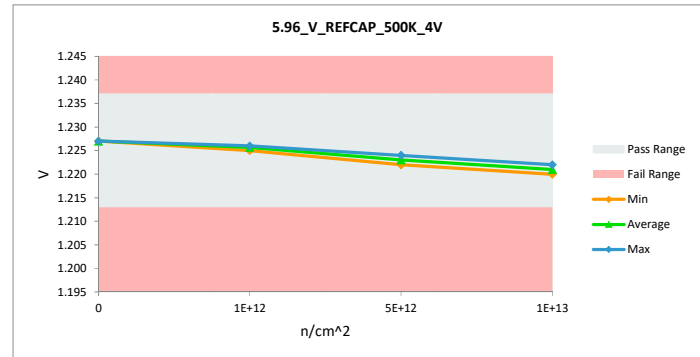


NDD Characterization Report TPS7H5007-SEP

| 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 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.226 | 1.226 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.225 | -0.001 |
| 5E+12 | 24 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.222 | -0.004 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.220 | -0.007 |
| Max | | 1.227 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.220 | -0.007 |
| Std Dev | | 0.001 | 0.002 | 0.002 |

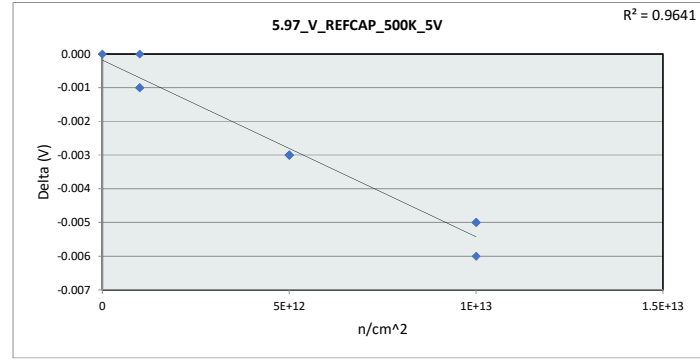


| 5.96_V_REFCAP_500K_4V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | | V | |
| Min Limit | 1.213 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.225 | 1.222 | 1.220 |
| Average | 1.227 | 1.226 | 1.223 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

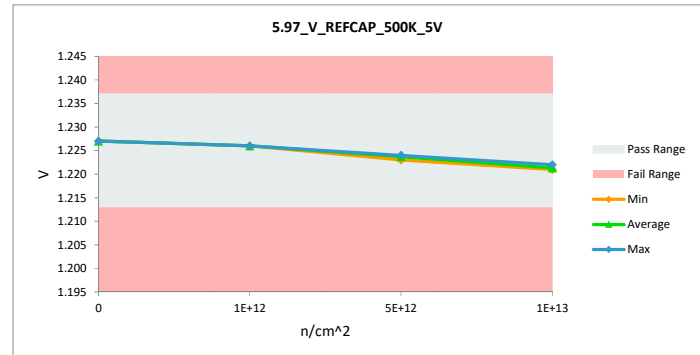


NDD Characterization Report TPS7H5007-SEP

| 5.97_V_REFCAP_500K_5V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.227 | 1.224 | -0.003 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.227 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.000 | 0.002 | 0.002 |

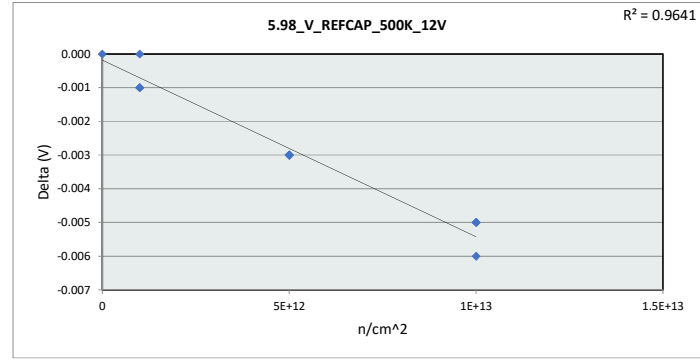


| 5.97_V_REFCAP_500K_5V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.226 | 1.224 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

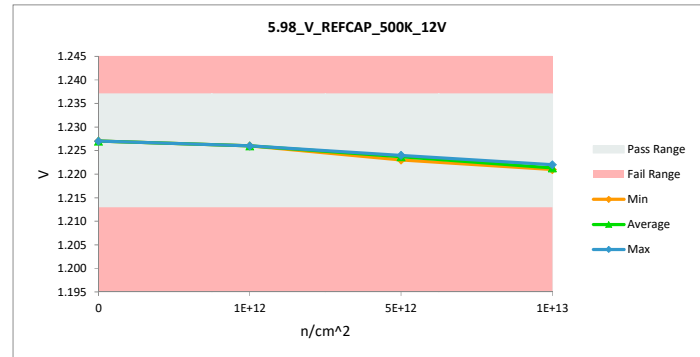


NDD Characterization Report TPS7H5007-SEP

| 5.98_V_REFCAP_500K_12V | | | | |
|------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.227 | 1.224 | -0.003 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.227 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.000 | 0.002 | 0.002 |

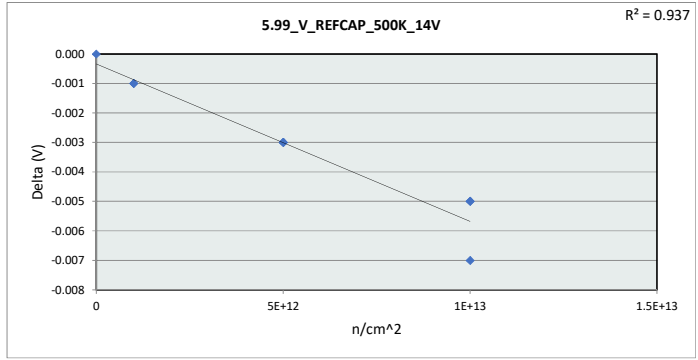


| 5.98_V_REFCAP_500K_12V | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.226 | 1.224 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

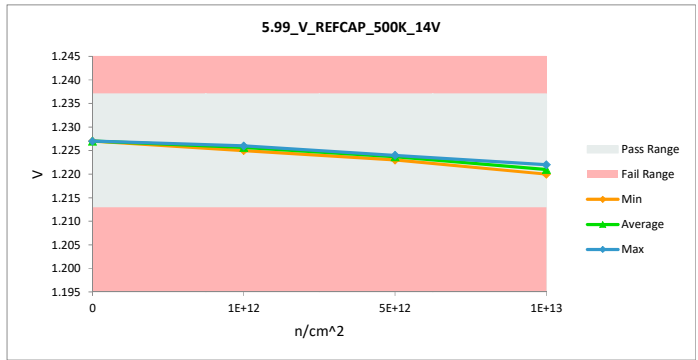


NDD Characterization Report TPS7H5007-SEP

| 5.99_V_REFCAP_500K_14V | | | | |
|------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.225 | -0.001 |
| 5E+12 | 24 | 1.227 | 1.224 | -0.003 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.220 | -0.007 |
| Max | | 1.227 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.220 | -0.007 |
| Std Dev | | 0.000 | 0.002 | 0.002 |

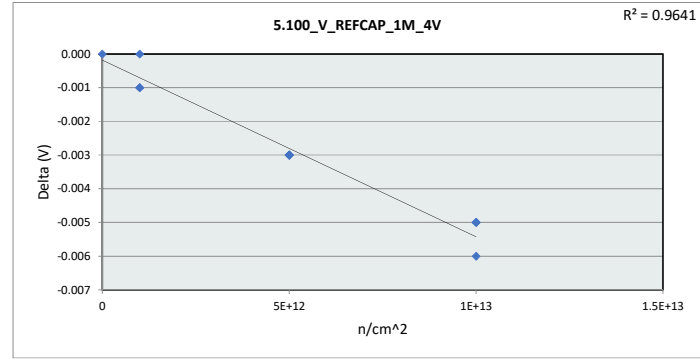


| 5.99_V_REFCAP_500K_14V | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.225 | 1.223 | 1.220 |
| Average | 1.227 | 1.226 | 1.224 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

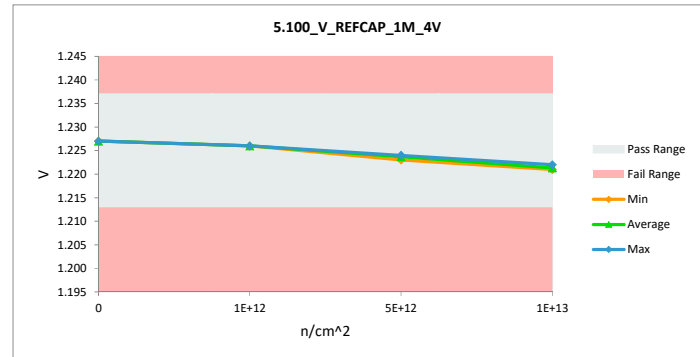


NDD Characterization Report TPS7H5007-SEP

| 5.100_V_REFCAP_1M_4V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.237 | | 1.237 | |
| Min Limit | 1.213 | | 1.213 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.227 | 1.224 | -0.003 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.227 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.000 | 0.002 | 0.002 |

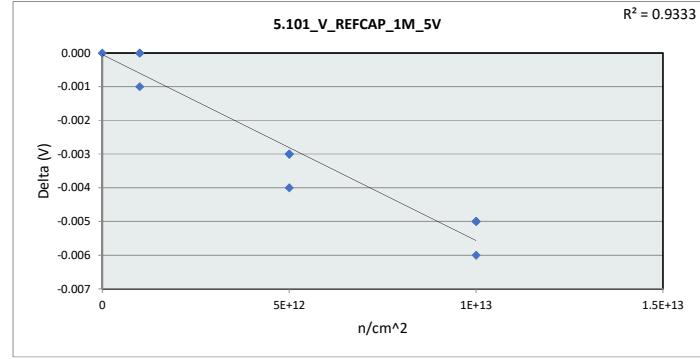


| 5.100_V_REFCAP_1M_4V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | | |
| Min Limit | 1.213 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.226 | 1.224 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

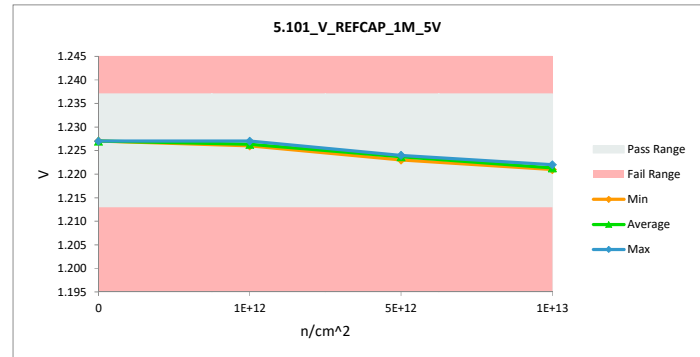


NDD Characterization Report TPS7H5007-SEP

| 5.101_V_REFCAP_1M_5V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.228 | 1.224 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.228 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.001 | 0.002 | 0.002 |

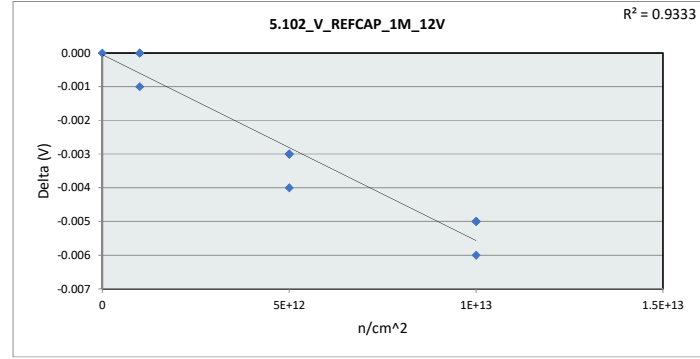


| 5.101_V_REFCAP_1M_5V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.226 | 1.224 | 1.221 |
| Max | 1.227 | 1.227 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

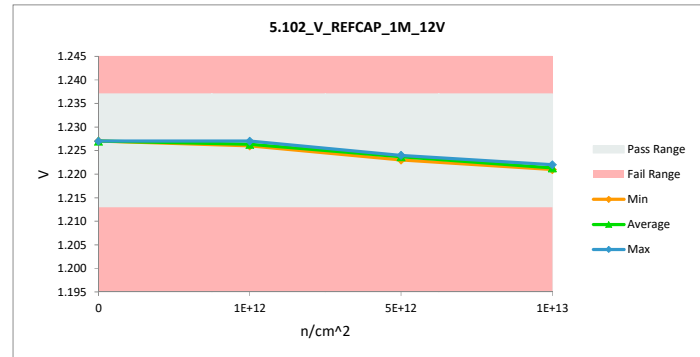


NDD Characterization Report TPS7H5007-SEP

| 5.102_V_REFCAP_1M_12V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.228 | 1.224 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.228 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.001 | 0.002 | 0.002 |

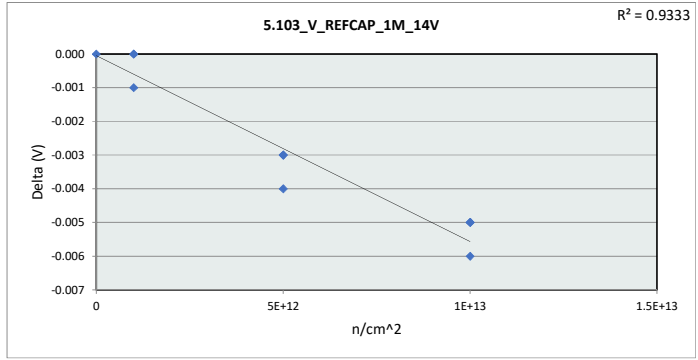


| 5.102_V_REFCAP_1M_12V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.226 | 1.224 | 1.221 |
| Max | 1.227 | 1.227 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

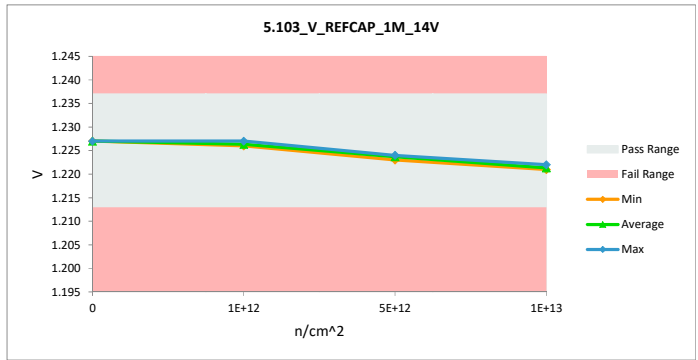


NDD Characterization Report TPS7H5007-SEP

| 5.103_V_REFCAP_1M_14V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.228 | 1.224 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.228 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.001 | 0.002 | 0.002 |

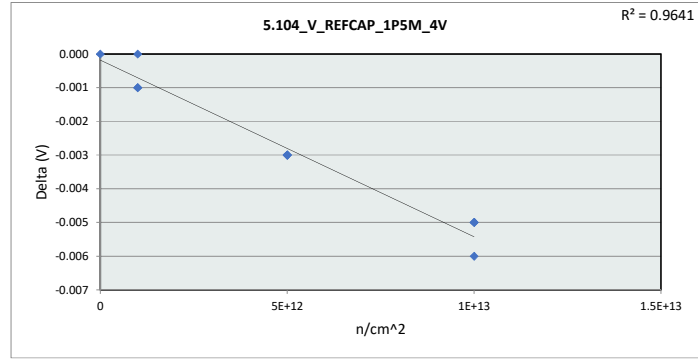


| 5.103_V_REFCAP_1M_14V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.226 | 1.224 | 1.221 |
| Max | 1.227 | 1.227 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

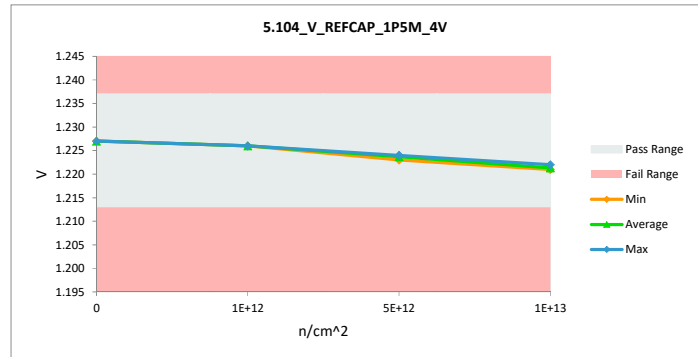


NDD Characterization Report TPS7H5007-SEP

| 5.104_V_REFCAP_1P5M_4V | | | | |
|------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.227 | 1.224 | -0.003 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.227 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.000 | 0.002 | 0.002 |

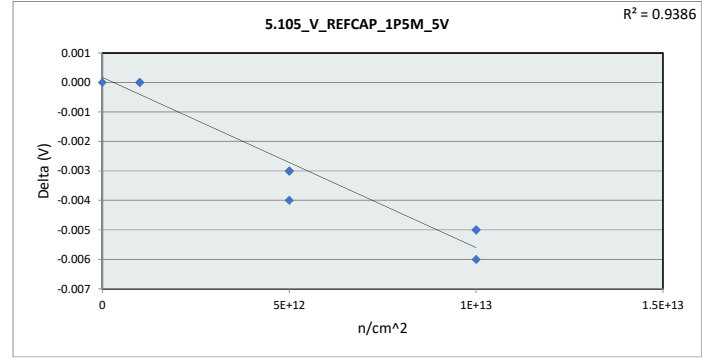


| 5.104_V_REFCAP_1P5M_4V | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.226 | 1.224 | 1.221 |
| Max | 1.227 | 1.226 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

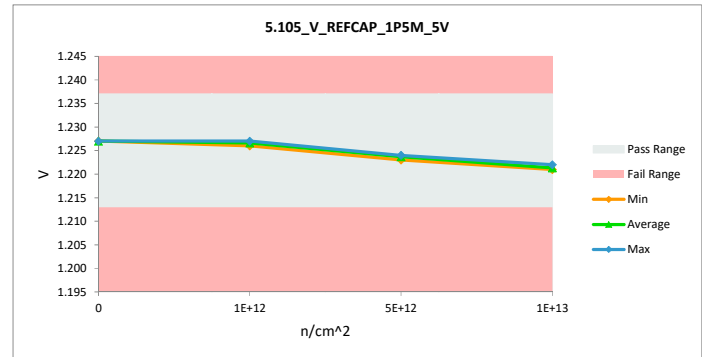


NDD Characterization Report TPS7H5007-SEP

| 5.105_V_REFCAP_1P5M_5V | | | | |
|------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.237 | | 1.237 | |
| Min Limit | 1.213 | | 1.213 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.228 | 1.224 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.228 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.001 | 0.002 | 0.002 |

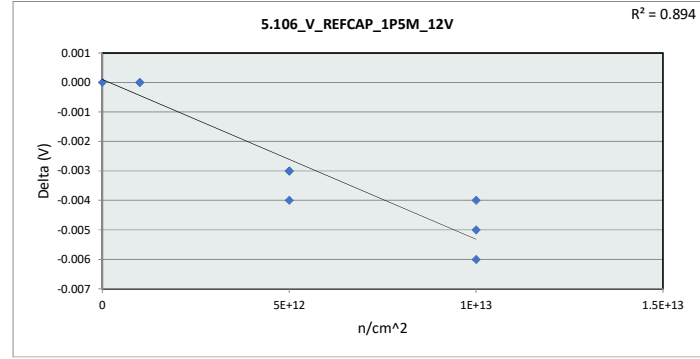


| 5.105_V_REFCAP_1P5M_5V | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | | V | |
| Min Limit | 1.213 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.227 | 1.224 | 1.221 |
| Max | 1.227 | 1.227 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

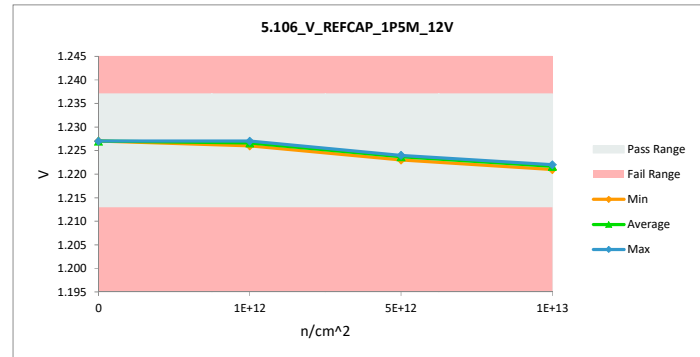


NDD Characterization Report TPS7H5007-SEP

| 5.106_V_REFCAP_1P5M_12V | | | | |
|-------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.228 | 1.224 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.222 | -0.004 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.228 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.002 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.001 | 0.002 | 0.002 |

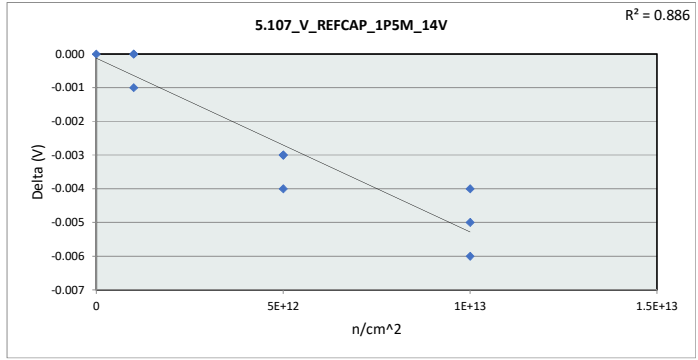


| 5.106_V_REFCAP_1P5M_12V | | | | |
|-------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.227 | 1.224 | 1.222 |
| Max | 1.227 | 1.227 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

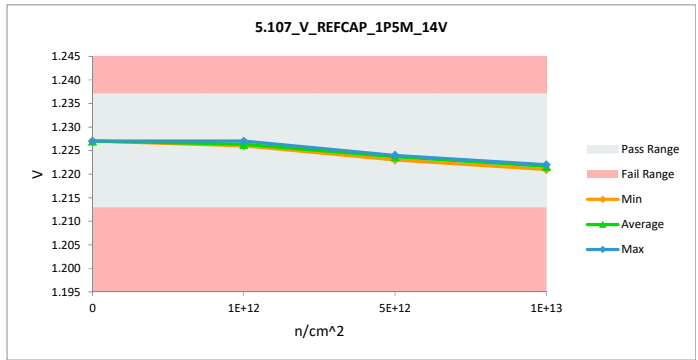


NDD Characterization Report TPS7H5007-SEP

| 5.107_V_REFCAP_1P5M_14V | | | | |
|-------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.237 | | 1.237 | |
| Min Limit | 1.213 | | 1.213 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.226 | -0.001 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.228 | 1.224 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.222 | -0.004 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.228 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.001 | 0.002 | 0.002 |

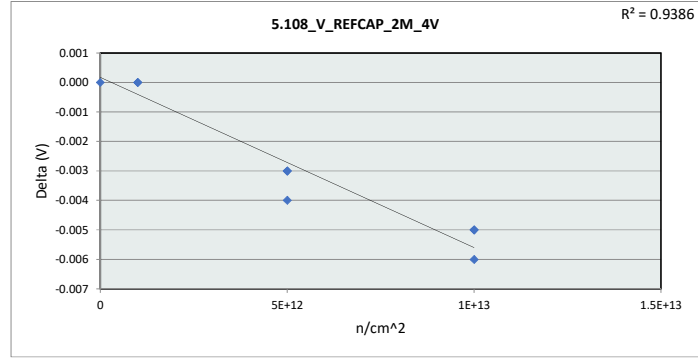


| 5.107_V_REFCAP_1P5M_14V | | | | |
|-------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | | V | |
| Min Limit | 1.213 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.226 | 1.224 | 1.222 |
| Max | 1.227 | 1.227 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

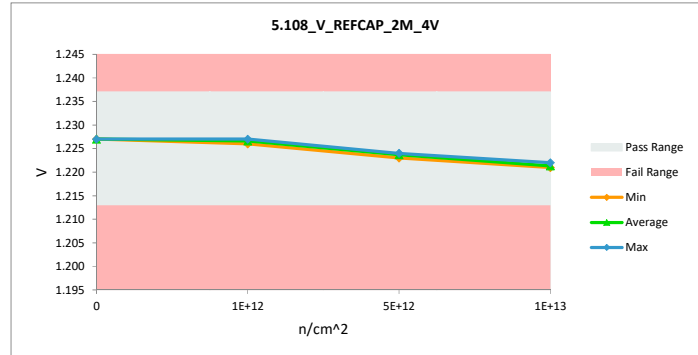


NDD Characterization Report TPS7H5007-SEP

| 5.108_V_REFCAP_2M_4V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 22 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 23 | 1.226 | 1.226 | 0.000 |
| 5E+12 | 24 | 1.228 | 1.224 | -0.004 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.224 | -0.003 |
| 1E+13 | 27 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 28 | 1.226 | 1.221 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.228 | 1.227 | 0.000 |
| Average | | 1.227 | 1.224 | -0.003 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.001 | 0.002 | 0.002 |

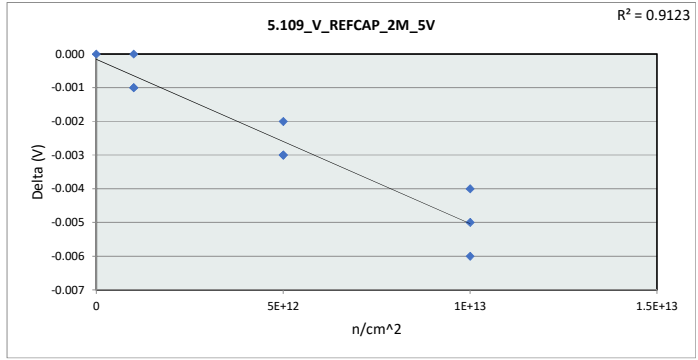


| 5.108_V_REFCAP_2M_4V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.227 | 1.224 | 1.221 |
| Max | 1.227 | 1.227 | 1.224 | 1.222 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

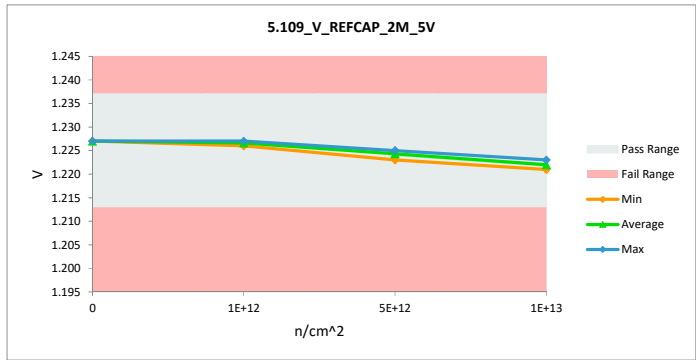


NDD Characterization Report TPS7H5007-SEP

| 5.109_V_REFCAP_2M_5V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.237 | | 1.237 | |
| Min Limit | 1.213 | | 1.213 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.228 | 1.227 | -0.001 |
| 1E+12 | 22 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 23 | 1.227 | 1.226 | -0.001 |
| 5E+12 | 24 | 1.228 | 1.225 | -0.003 |
| 5E+12 | 25 | 1.226 | 1.223 | -0.003 |
| 5E+12 | 26 | 1.227 | 1.225 | -0.002 |
| 1E+13 | 27 | 1.227 | 1.223 | -0.004 |
| 1E+13 | 28 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.228 | 1.227 | 0.000 |
| Average | | 1.227 | 1.225 | -0.002 |
| Min | | 1.226 | 1.221 | -0.006 |
| Std Dev | | 0.001 | 0.002 | 0.002 |

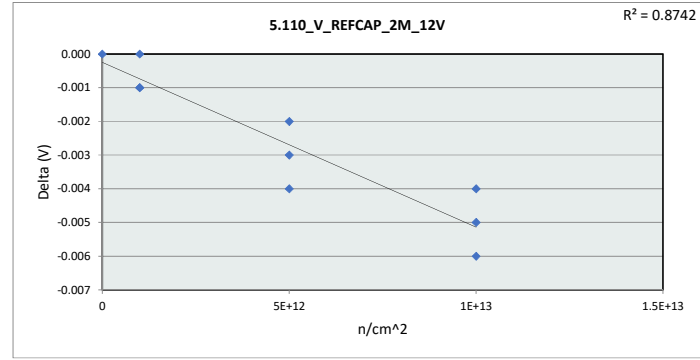


| 5.109_V_REFCAP_2M_5V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | | V | |
| Min Limit | 1.213 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.227 | 1.224 | 1.222 |
| Max | 1.227 | 1.227 | 1.225 | 1.223 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

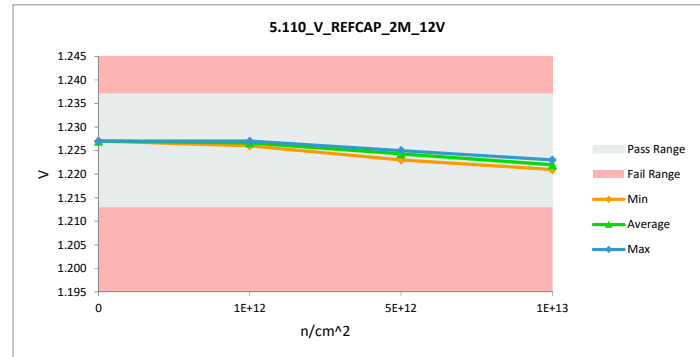


NDD Characterization Report TPS7H5007-SEP

| 5.110_V_REFCAP_2M_12V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.228 | 1.227 | -0.001 |
| 1E+12 | 22 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 23 | 1.227 | 1.226 | -0.001 |
| 5E+12 | 24 | 1.228 | 1.225 | -0.003 |
| 5E+12 | 25 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 26 | 1.227 | 1.225 | -0.002 |
| 1E+13 | 27 | 1.227 | 1.223 | -0.004 |
| 1E+13 | 28 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.228 | 1.227 | 0.000 |
| Average | | 1.227 | 1.225 | -0.003 |
| Min | | 1.227 | 1.221 | -0.006 |
| Std Dev | | 0.000 | 0.002 | 0.002 |

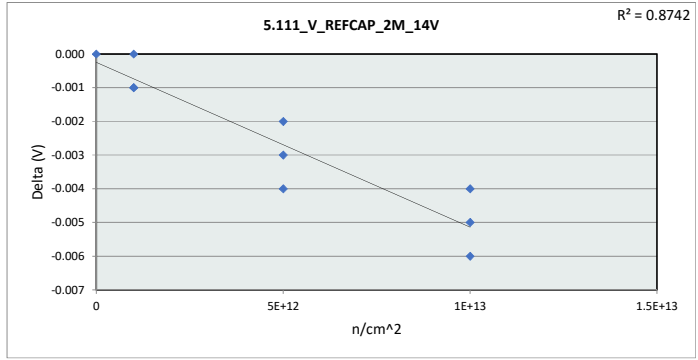


| 5.110_V_REFCAP_2M_12V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.227 | 1.224 | 1.222 |
| Max | 1.227 | 1.227 | 1.225 | 1.223 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

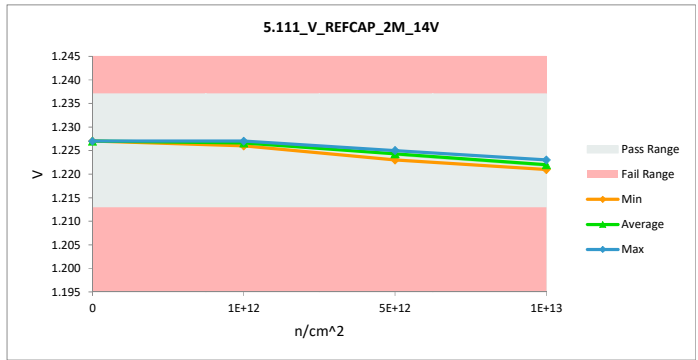


NDD Characterization Report TPS7H5007-SEP

| 5.111_V_REFCAP_2M_14V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.237 | 1.237 | 1.237 | 1.237 |
| Min Limit | 1.213 | 1.213 | 1.213 | 1.213 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 21 | 1.228 | 1.227 | -0.001 |
| 1E+12 | 22 | 1.227 | 1.227 | 0.000 |
| 1E+12 | 23 | 1.227 | 1.226 | -0.001 |
| 5E+12 | 24 | 1.228 | 1.225 | -0.003 |
| 5E+12 | 25 | 1.227 | 1.223 | -0.004 |
| 5E+12 | 26 | 1.227 | 1.225 | -0.002 |
| 1E+13 | 27 | 1.227 | 1.223 | -0.004 |
| 1E+13 | 28 | 1.227 | 1.222 | -0.005 |
| 1E+13 | 29 | 1.227 | 1.221 | -0.006 |
| Max | | 1.228 | 1.227 | 0.000 |
| Average | | 1.227 | 1.225 | -0.003 |
| Min | | 1.227 | 1.221 | -0.006 |
| Std Dev | | 0.000 | 0.002 | 0.002 |

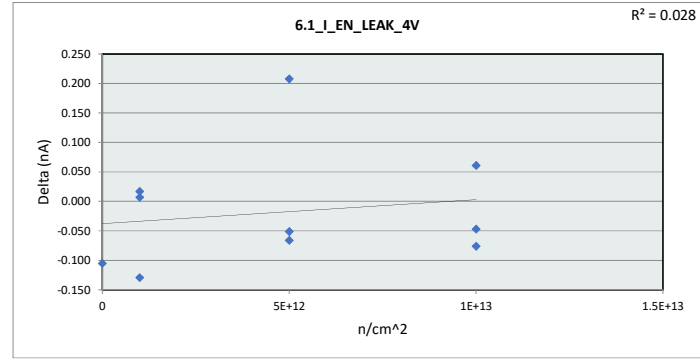


| 5.111_V_REFCAP_2M_14V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.237 | V | V | V |
| Min Limit | 1.213 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.213 | 1.213 | 1.213 | 1.213 |
| Min | 1.227 | 1.226 | 1.223 | 1.221 |
| Average | 1.227 | 1.227 | 1.224 | 1.222 |
| Max | 1.227 | 1.227 | 1.225 | 1.223 |
| UL | 1.237 | 1.237 | 1.237 | 1.237 |

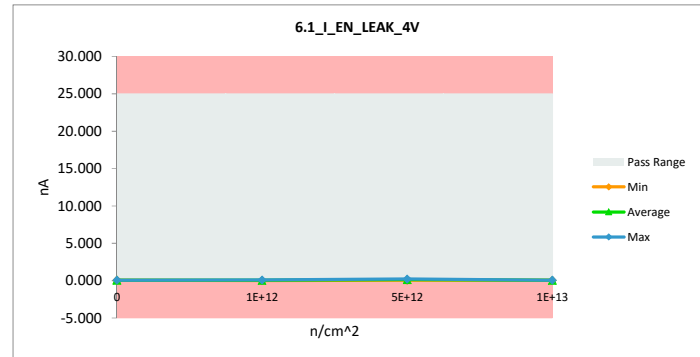


NDD Characterization Report TPS7H5007-SEP

| 6.1_I_EN_LEAK_4V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | nA | | nA | |
| Max Limit | 5 | | 25 | |
| Min Limit | -0.1 | | -0.1 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.171 | 0.066 | -0.105 |
| 1E+12 | 21 | 0.015 | 0.022 | 0.007 |
| 1E+12 | 22 | 0.093 | 0.110 | 0.017 |
| 1E+12 | 23 | 0.161 | 0.032 | -0.129 |
| 5E+12 | 24 | 0.034 | 0.242 | 0.208 |
| 5E+12 | 25 | 0.142 | 0.076 | -0.066 |
| 5E+12 | 26 | 0.190 | 0.139 | -0.051 |
| 1E+13 | 27 | 0.122 | 0.046 | -0.076 |
| 1E+13 | 28 | 0.015 | 0.076 | 0.061 |
| 1E+13 | 29 | 0.093 | 0.046 | -0.047 |
| Max | | 0.190 | 0.242 | 0.208 |
| Average | | 0.104 | 0.085 | -0.018 |
| Min | | 0.015 | 0.022 | -0.129 |
| Std Dev | | 0.065 | 0.065 | 0.098 |

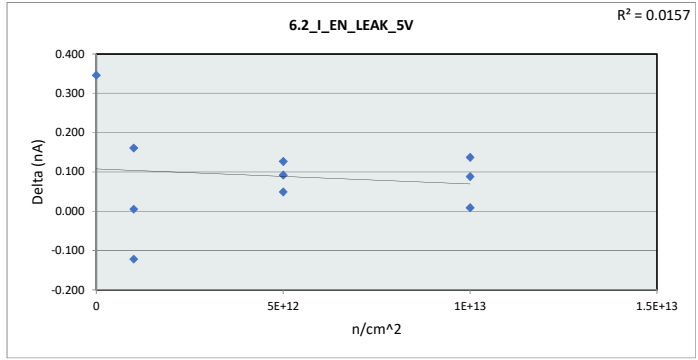


| 6.1_I_EN_LEAK_4V | | | | |
|-------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 25 | nA | | |
| Min Limit | -0.1 | nA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | -0.100 | -0.100 | -0.100 | -0.100 |
| Min | 0.066 | 0.022 | 0.076 | 0.046 |
| Average | 0.066 | 0.055 | 0.152 | 0.056 |
| Max | 0.066 | 0.110 | 0.242 | 0.076 |
| UL | 25.000 | 25.000 | 25.000 | 25.000 |

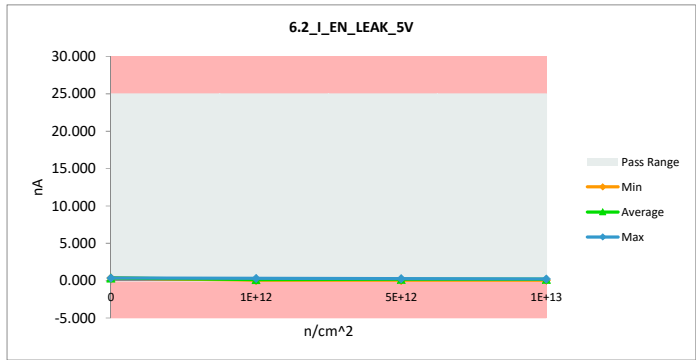


NDD Characterization Report TPS7H5007-SEP

| 6.2_I_EN_LEAK_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | nA | nA | |
| Max Limit | | 5 | 25 | |
| Min Limit | | -0.1 | -0.1 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.027 | 0.373 | 0.346 |
| 1E+12 | 21 | 0.154 | 0.315 | 0.161 |
| 1E+12 | 22 | 0.115 | 0.120 | 0.005 |
| 1E+12 | 23 | 0.173 | 0.051 | -0.122 |
| 5E+12 | 24 | 0.159 | 0.286 | 0.127 |
| 5E+12 | 25 | 0.115 | 0.207 | 0.092 |
| 5E+12 | 26 | 0.002 | 0.051 | 0.049 |
| 1E+13 | 27 | 0.100 | 0.237 | 0.137 |
| 1E+13 | 28 | 0.081 | 0.090 | 0.009 |
| 1E+13 | 29 | 0.129 | 0.217 | 0.088 |
| Max | | 0.173 | 0.373 | 0.346 |
| Average | | 0.105 | 0.195 | 0.089 |
| Min | | 0.002 | 0.051 | -0.122 |
| Std Dev | | 0.056 | 0.113 | 0.122 |

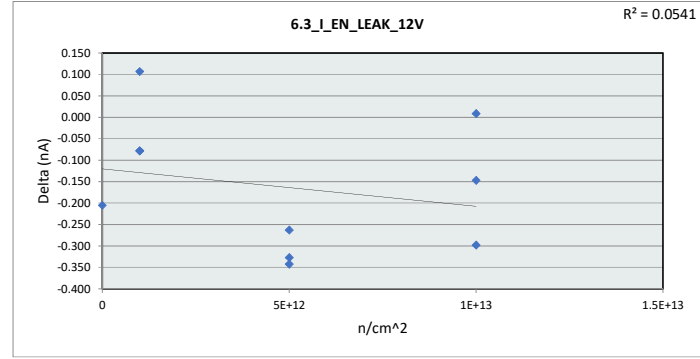


| 6.2_I_EN_LEAK_5V | | | | |
|-------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 25 | nA | | |
| Min Limit | -0.1 | nA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | -0.100 | -0.100 | -0.100 | -0.100 |
| Min | 0.373 | 0.051 | 0.051 | 0.090 |
| Average | 0.373 | 0.162 | 0.181 | 0.181 |
| Max | 0.373 | 0.315 | 0.286 | 0.237 |
| UL | 25.000 | 25.000 | 25.000 | 25.000 |

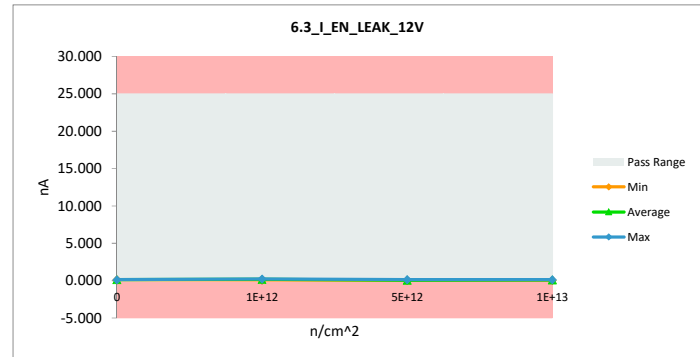


NDD Characterization Report TPS7H5007-SEP

| 6.3_I_EN_LEAK_12V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | nA | nA | |
| Max Limit | | 5 | 25 | |
| Min Limit | | -0.1 | -0.1 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.334 | 0.129 | -0.205 |
| 1E+12 | 21 | 0.120 | 0.227 | 0.107 |
| 1E+12 | 22 | 0.188 | 0.110 | -0.078 |
| 1E+12 | 23 | 0.295 | 0.217 | -0.078 |
| 5E+12 | 24 | 0.393 | 0.051 | -0.342 |
| 5E+12 | 25 | 0.383 | 0.056 | -0.327 |
| 5E+12 | 26 | 0.412 | 0.149 | -0.263 |
| 1E+13 | 27 | 0.354 | 0.056 | -0.298 |
| 1E+13 | 28 | 0.237 | 0.090 | -0.147 |
| 1E+13 | 29 | 0.120 | 0.129 | 0.009 |
| Max | | 0.412 | 0.227 | 0.107 |
| Average | | 0.284 | 0.121 | -0.162 |
| Min | | 0.120 | 0.051 | -0.342 |
| Std Dev | | 0.111 | 0.063 | 0.151 |

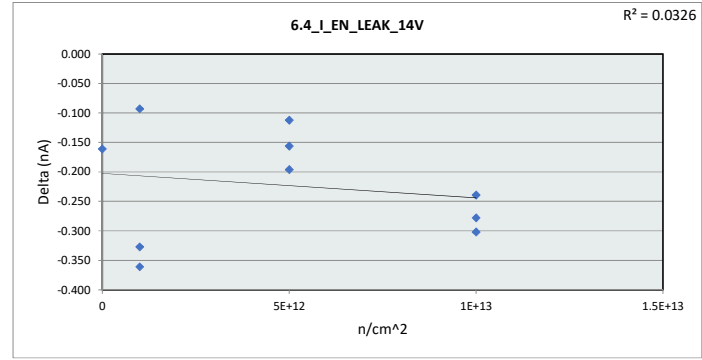


| 6.3_I_EN_LEAK_12V | | | | |
|-------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 25 | nA | | |
| Min Limit | -0.1 | nA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | -0.100 | -0.100 | -0.100 | -0.100 |
| Min | 0.129 | 0.110 | 0.051 | 0.056 |
| Average | 0.129 | 0.185 | 0.085 | 0.092 |
| Max | 0.129 | 0.227 | 0.149 | 0.129 |
| UL | 25.000 | 25.000 | 25.000 | 25.000 |

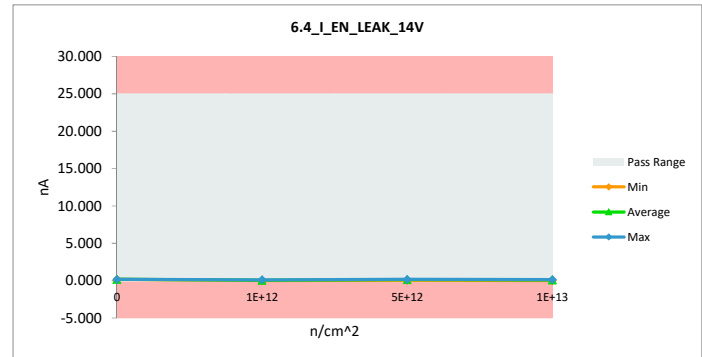


NDD Characterization Report TPS7H5007-SEP

| 6.4_I_EN_LEAK_14V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | nA | nA | |
| Max Limit | | 5 | 25 | |
| Min Limit | | -0.1 | -0.1 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.344 | 0.183 | -0.161 |
| 1E+12 | 21 | 0.383 | 0.022 | -0.361 |
| 1E+12 | 22 | 0.383 | 0.056 | -0.327 |
| 1E+12 | 23 | 0.217 | 0.124 | -0.093 |
| 5E+12 | 24 | 0.276 | 0.120 | -0.156 |
| 5E+12 | 25 | 0.305 | 0.193 | -0.112 |
| 5E+12 | 26 | 0.286 | 0.090 | -0.196 |
| 1E+13 | 27 | 0.315 | 0.037 | -0.278 |
| 1E+13 | 28 | 0.422 | 0.120 | -0.302 |
| 1E+13 | 29 | 0.393 | 0.154 | -0.239 |
| Max | | 0.422 | 0.193 | -0.093 |
| Average | | 0.332 | 0.110 | -0.222 |
| Min | | 0.217 | 0.022 | -0.361 |
| Std Dev | | 0.064 | 0.059 | 0.093 |

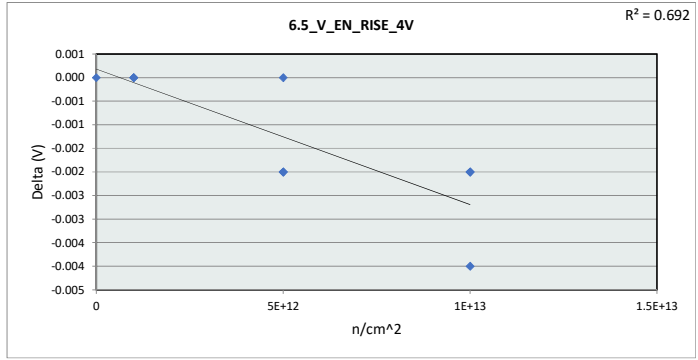


| 6.4_I_EN_LEAK_14V | | | | |
|-------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 25 | nA | | |
| Min Limit | -0.1 | nA | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | -0.100 | -0.100 | -0.100 | -0.100 |
| Min | 0.183 | 0.022 | 0.090 | 0.037 |
| Average | 0.183 | 0.067 | 0.134 | 0.104 |
| Max | 0.183 | 0.124 | 0.193 | 0.154 |
| UL | 25.000 | 25.000 | 25.000 | 25.000 |

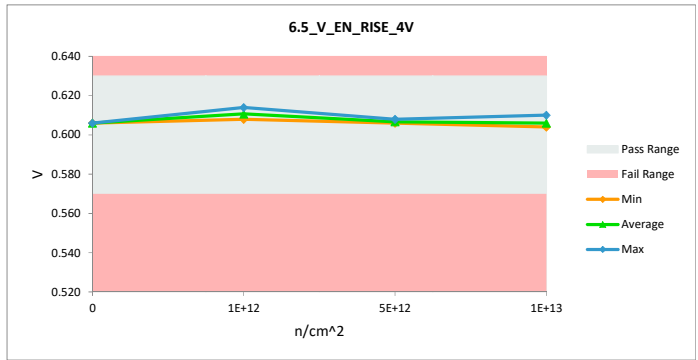


NDD Characterization Report TPS7H5007-SEP

| 6.5_V_EN_RISE_4V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.63 | | 0.63 | |
| Min Limit | 0.58 | | 0.57 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.606 | 0.606 | 0.000 |
| 1E+12 | 21 | 0.614 | 0.614 | 0.000 |
| 1E+12 | 22 | 0.610 | 0.610 | 0.000 |
| 1E+12 | 23 | 0.608 | 0.608 | 0.000 |
| 5E+12 | 24 | 0.608 | 0.606 | -0.002 |
| 5E+12 | 25 | 0.606 | 0.606 | 0.000 |
| 5E+12 | 26 | 0.610 | 0.608 | -0.002 |
| 1E+13 | 27 | 0.612 | 0.610 | -0.002 |
| 1E+13 | 28 | 0.606 | 0.604 | -0.002 |
| 1E+13 | 29 | 0.608 | 0.604 | -0.004 |
| Max | | 0.614 | 0.614 | 0.000 |
| Average | | 0.609 | 0.608 | -0.001 |
| Min | | 0.606 | 0.604 | -0.004 |
| Std Dev | | 0.003 | 0.003 | 0.001 |

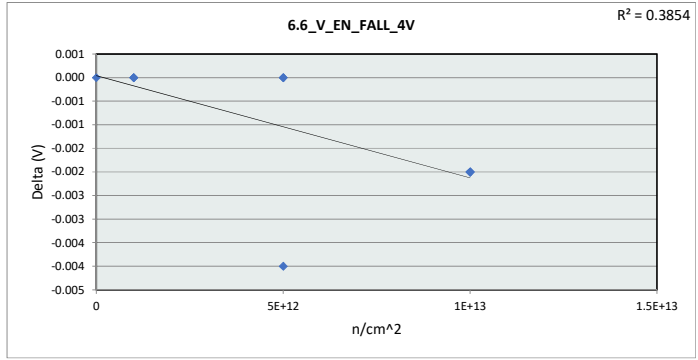


| 6.5_V_EN_RISE_4V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.63 | | V | |
| Min Limit | 0.57 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.606 | 0.608 | 0.606 | 0.604 |
| Average | 0.606 | 0.611 | 0.607 | 0.606 |
| Max | 0.606 | 0.614 | 0.608 | 0.610 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 |

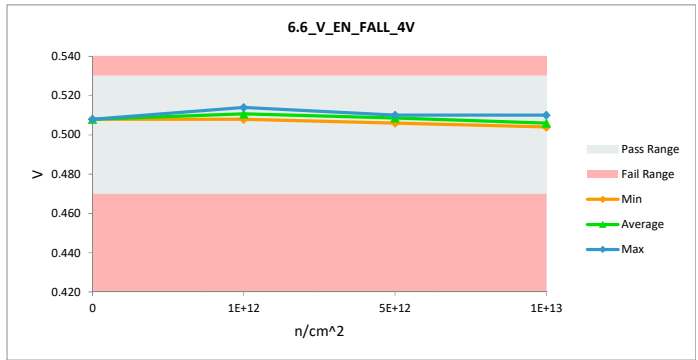


NDD Characterization Report TPS7H5007-SEP

| 6.6_V_EN_FALL_4V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.53 | | 0.53 | |
| Min Limit | 0.48 | | 0.47 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.508 | 0.508 | 0.000 |
| 1E+12 | 21 | 0.514 | 0.514 | 0.000 |
| 1E+12 | 22 | 0.510 | 0.510 | 0.000 |
| 1E+12 | 23 | 0.508 | 0.508 | 0.000 |
| 5E+12 | 24 | 0.510 | 0.510 | 0.000 |
| 5E+12 | 25 | 0.510 | 0.506 | -0.004 |
| 5E+12 | 26 | 0.510 | 0.510 | 0.000 |
| 1E+13 | 27 | 0.512 | 0.510 | -0.002 |
| 1E+13 | 28 | 0.506 | 0.504 | -0.002 |
| 1E+13 | 29 | 0.506 | 0.504 | -0.002 |
| Max | | 0.514 | 0.514 | 0.000 |
| Average | | 0.509 | 0.508 | -0.001 |
| Min | | 0.506 | 0.504 | -0.004 |
| Std Dev | | 0.003 | 0.003 | 0.001 |

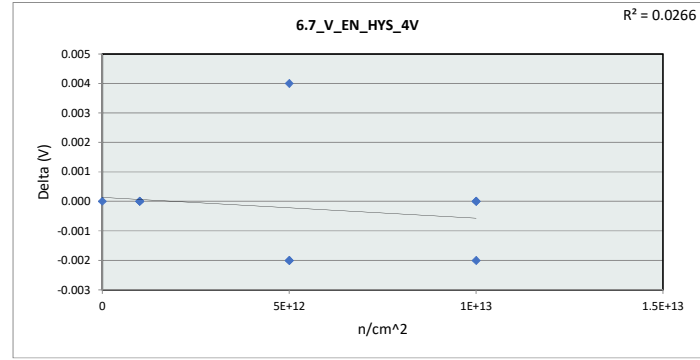


| 6.6_V_EN_FALL_4V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.53 | | V | |
| Min Limit | 0.47 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.508 | 0.508 | 0.506 | 0.504 |
| Average | 0.508 | 0.511 | 0.509 | 0.506 |
| Max | 0.508 | 0.514 | 0.510 | 0.510 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 |

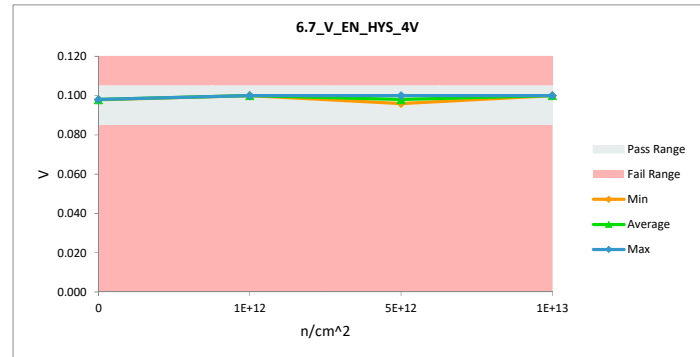


NDD Characterization Report TPS7H5007-SEP

| 6.7_V_EN_HYS_4V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.105 | | 0.105 | |
| Min Limit | 0.085 | | 0.085 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.098 | 0.098 | 0.000 |
| 1E+12 | 21 | 0.100 | 0.100 | 0.000 |
| 1E+12 | 22 | 0.100 | 0.100 | 0.000 |
| 1E+12 | 23 | 0.100 | 0.100 | 0.000 |
| 5E+12 | 24 | 0.098 | 0.096 | -0.002 |
| 5E+12 | 25 | 0.096 | 0.100 | 0.004 |
| 5E+12 | 26 | 0.100 | 0.098 | -0.002 |
| 1E+13 | 27 | 0.100 | 0.100 | 0.000 |
| 1E+13 | 28 | 0.100 | 0.100 | 0.000 |
| 1E+13 | 29 | 0.102 | 0.100 | -0.002 |
| Max | | 0.102 | 0.100 | 0.004 |
| Average | | 0.099 | 0.099 | 0.000 |
| Min | | 0.096 | 0.096 | -0.002 |
| Std Dev | | 0.002 | 0.001 | 0.002 |

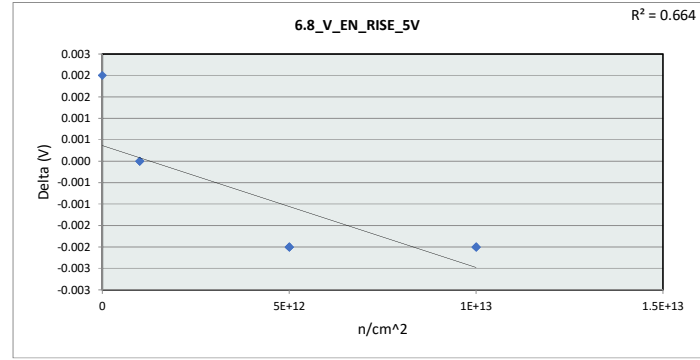


| 6.7_V_EN_HYS_4V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.105 | | V | |
| Min Limit | 0.085 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.085 | 0.085 | 0.085 | 0.085 |
| Min | 0.098 | 0.100 | 0.096 | 0.100 |
| Average | 0.098 | 0.100 | 0.098 | 0.100 |
| Max | 0.098 | 0.100 | 0.100 | 0.100 |
| UL | 0.105 | 0.105 | 0.105 | 0.105 |

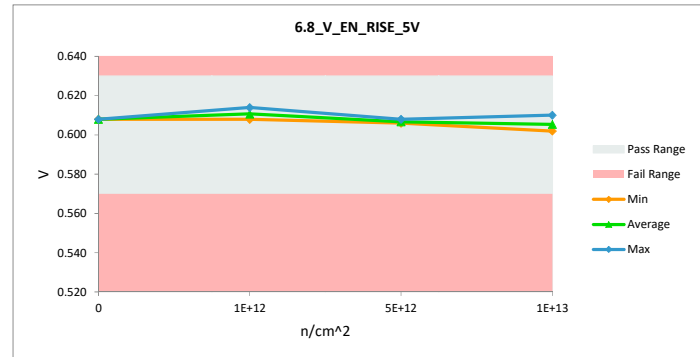


NDD Characterization Report TPS7H5007-SEP

| 6.8_V_EN_RISE_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.63 | | 0.63 | |
| Min Limit | 0.58 | | 0.57 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.606 | 0.608 | 0.002 |
| 1E+12 | 21 | 0.614 | 0.614 | 0.000 |
| 1E+12 | 22 | 0.610 | 0.610 | 0.000 |
| 1E+12 | 23 | 0.608 | 0.608 | 0.000 |
| 5E+12 | 24 | 0.608 | 0.606 | -0.002 |
| 5E+12 | 25 | 0.608 | 0.606 | -0.002 |
| 5E+12 | 26 | 0.610 | 0.608 | -0.002 |
| 1E+13 | 27 | 0.612 | 0.610 | -0.002 |
| 1E+13 | 28 | 0.606 | 0.604 | -0.002 |
| 1E+13 | 29 | 0.604 | 0.602 | -0.002 |
| Max | | 0.614 | 0.614 | 0.002 |
| Average | | 0.609 | 0.608 | -0.001 |
| Min | | 0.604 | 0.602 | -0.002 |
| Std Dev | | 0.003 | 0.003 | 0.001 |

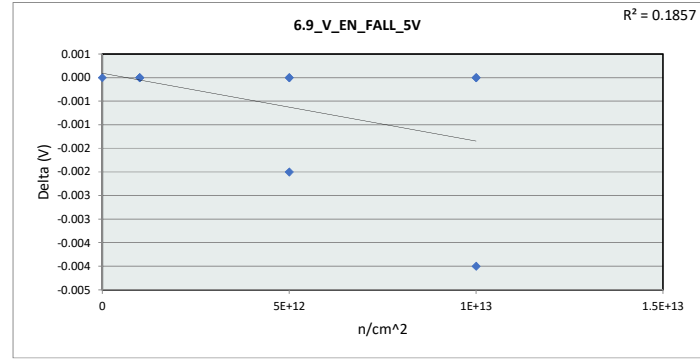


| 6.8_V_EN_RISE_5V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.63 | | V | |
| Min Limit | 0.57 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.608 | 0.608 | 0.606 | 0.602 |
| Average | 0.608 | 0.611 | 0.607 | 0.605 |
| Max | 0.608 | 0.614 | 0.608 | 0.610 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 |

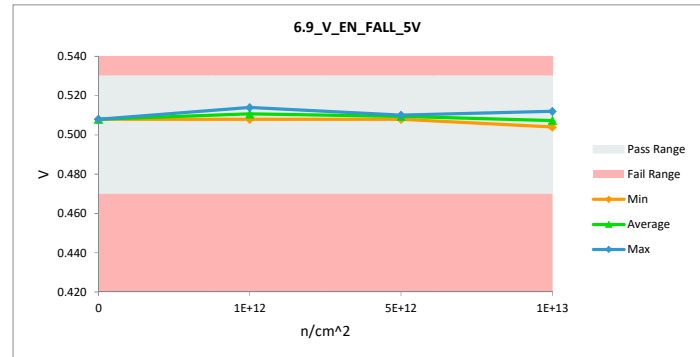


NDD Characterization Report TPS7H5007-SEP

| 6.9_V_EN_FALL_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 0.53 | 0.53 | 0.53 | 0.53 |
| Min Limit | 0.48 | 0.47 | 0.47 | 0.47 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.508 | 0.508 | 0.000 |
| 1E+12 | 21 | 0.514 | 0.514 | 0.000 |
| 1E+12 | 22 | 0.510 | 0.510 | 0.000 |
| 1E+12 | 23 | 0.508 | 0.508 | 0.000 |
| 5E+12 | 24 | 0.510 | 0.510 | 0.000 |
| 5E+12 | 25 | 0.510 | 0.508 | -0.002 |
| 5E+12 | 26 | 0.510 | 0.510 | 0.000 |
| 1E+13 | 27 | 0.512 | 0.512 | 0.000 |
| 1E+13 | 28 | 0.506 | 0.506 | 0.000 |
| 1E+13 | 29 | 0.508 | 0.504 | -0.004 |
| Max | | 0.514 | 0.514 | 0.000 |
| Average | | 0.510 | 0.509 | -0.001 |
| Min | | 0.506 | 0.504 | -0.004 |
| Std Dev | | 0.002 | 0.003 | 0.001 |

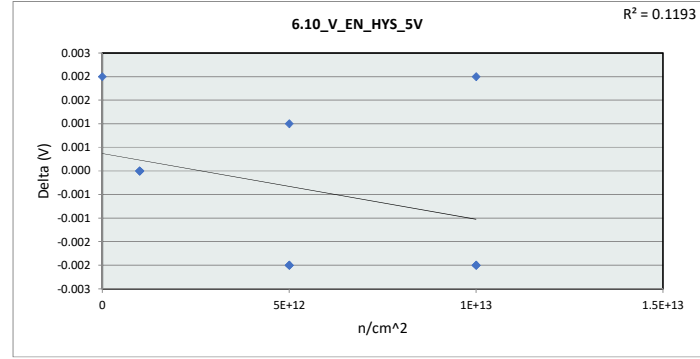


| 6.9_V_EN_FALL_5V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.53 | V | V | V |
| Min Limit | 0.47 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.508 | 0.508 | 0.508 | 0.504 |
| Average | 0.508 | 0.511 | 0.509 | 0.507 |
| Max | 0.508 | 0.514 | 0.510 | 0.512 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 |

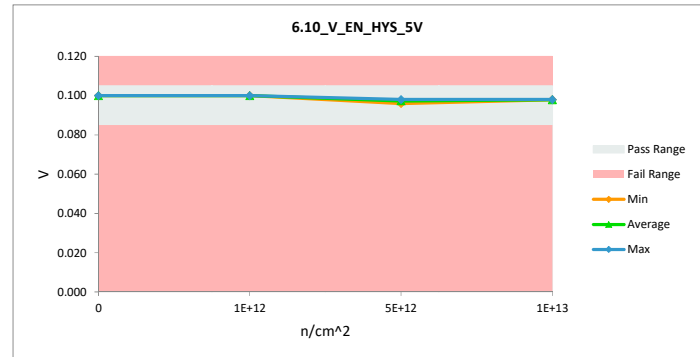


NDD Characterization Report TPS7H5007-SEP

| 6.10_V_EN_HYS_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.105 | | 0.105 | |
| Min Limit | 0.085 | | 0.085 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.098 | 0.100 | 0.002 |
| 1E+12 | 21 | 0.100 | 0.100 | 0.000 |
| 1E+12 | 22 | 0.100 | 0.100 | 0.000 |
| 1E+12 | 23 | 0.100 | 0.100 | 0.000 |
| 5E+12 | 24 | 0.098 | 0.096 | -0.002 |
| 5E+12 | 25 | 0.097 | 0.098 | 0.001 |
| 5E+12 | 26 | 0.100 | 0.098 | -0.002 |
| 1E+13 | 27 | 0.100 | 0.098 | -0.002 |
| 1E+13 | 28 | 0.100 | 0.098 | -0.002 |
| 1E+13 | 29 | 0.096 | 0.098 | 0.002 |
| Max | | 0.100 | 0.100 | 0.002 |
| Average | | 0.099 | 0.099 | 0.000 |
| Min | | 0.096 | 0.096 | -0.002 |
| Std Dev | | 0.002 | 0.001 | 0.002 |

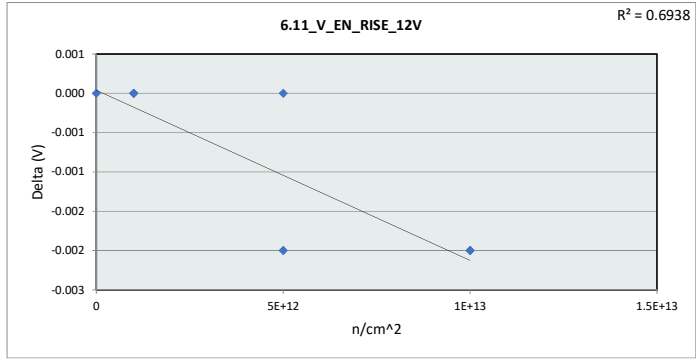


| 6.10_V_EN_HYS_5V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.105 | | V | |
| Min Limit | 0.085 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.085 | 0.085 | 0.085 | 0.085 |
| Min | 0.100 | 0.100 | 0.096 | 0.098 |
| Average | 0.100 | 0.100 | 0.097 | 0.098 |
| Max | 0.100 | 0.100 | 0.098 | 0.098 |
| UL | 0.105 | 0.105 | 0.105 | 0.105 |

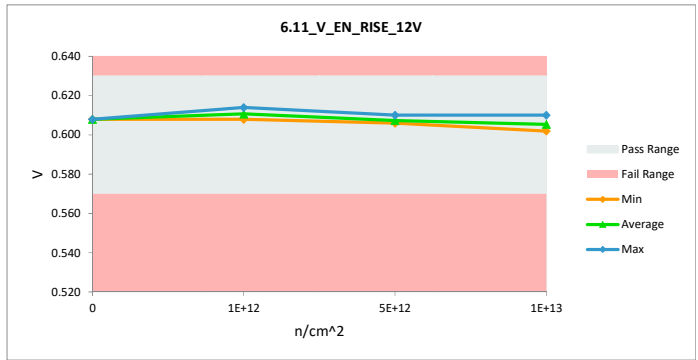


NDD Characterization Report TPS7H5007-SEP

| 6.11_V_EN_RISE_12V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.63 | | 0.63 | |
| Min Limit | 0.58 | | 0.57 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.608 | 0.608 | 0.000 |
| 1E+12 | 21 | 0.614 | 0.614 | 0.000 |
| 1E+12 | 22 | 0.610 | 0.610 | 0.000 |
| 1E+12 | 23 | 0.608 | 0.608 | 0.000 |
| 5E+12 | 24 | 0.608 | 0.606 | -0.002 |
| 5E+12 | 25 | 0.608 | 0.606 | -0.002 |
| 5E+12 | 26 | 0.610 | 0.610 | 0.000 |
| 1E+13 | 27 | 0.612 | 0.610 | -0.002 |
| 1E+13 | 28 | 0.606 | 0.604 | -0.002 |
| 1E+13 | 29 | 0.604 | 0.602 | -0.002 |
| Max | | 0.614 | 0.614 | 0.000 |
| Average | | 0.609 | 0.608 | -0.001 |
| Min | | 0.604 | 0.602 | -0.002 |
| Std Dev | | 0.003 | 0.003 | 0.001 |

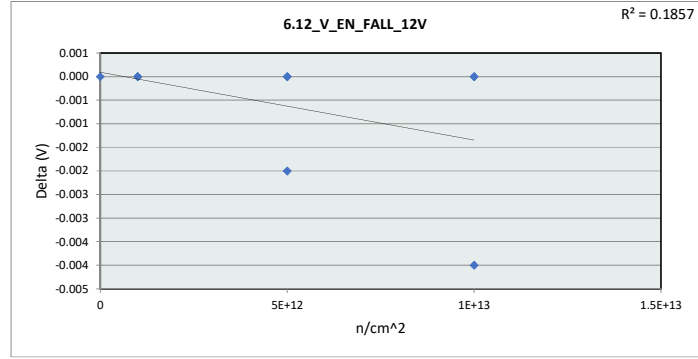


| 6.11_V_EN_RISE_12V | | | | |
|--------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.63 | | V | |
| Min Limit | 0.57 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.608 | 0.608 | 0.606 | 0.602 |
| Average | 0.608 | 0.611 | 0.607 | 0.605 |
| Max | 0.608 | 0.614 | 0.610 | 0.610 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 |

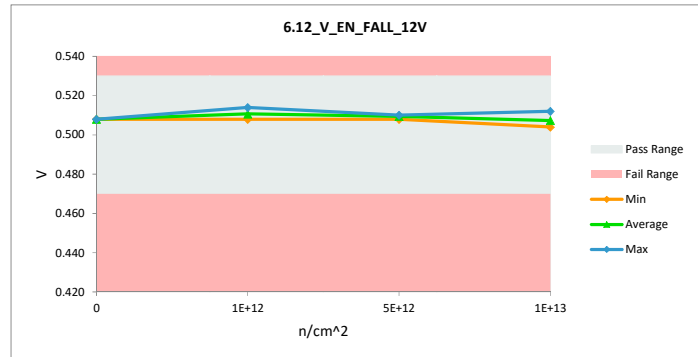


NDD Characterization Report TPS7H5007-SEP

| 6.12_V_EN_FALL_12V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.53 | | 0.53 | |
| Min Limit | 0.48 | | 0.47 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.508 | 0.508 | 0.000 |
| 1E+12 | 21 | 0.514 | 0.514 | 0.000 |
| 1E+12 | 22 | 0.510 | 0.510 | 0.000 |
| 1E+12 | 23 | 0.508 | 0.508 | 0.000 |
| 5E+12 | 24 | 0.510 | 0.510 | 0.000 |
| 5E+12 | 25 | 0.510 | 0.508 | -0.002 |
| 5E+12 | 26 | 0.510 | 0.510 | 0.000 |
| 1E+13 | 27 | 0.512 | 0.512 | 0.000 |
| 1E+13 | 28 | 0.506 | 0.506 | 0.000 |
| 1E+13 | 29 | 0.508 | 0.504 | -0.004 |
| Max | | 0.514 | 0.514 | 0.000 |
| Average | | 0.510 | 0.509 | -0.001 |
| Min | | 0.506 | 0.504 | -0.004 |
| Std Dev | | 0.002 | 0.003 | 0.001 |

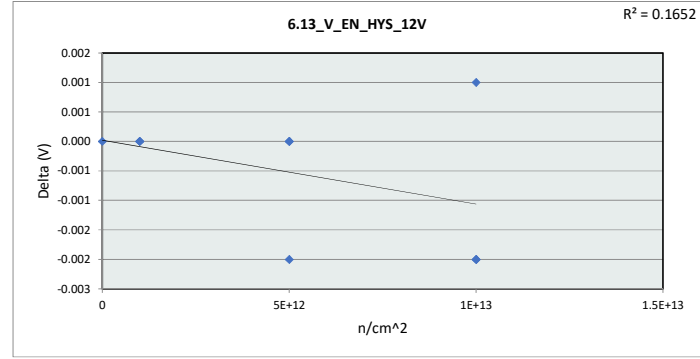


| 6.12_V_EN_FALL_12V | | | | |
|--------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.53 | | V | |
| Min Limit | 0.47 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.508 | 0.508 | 0.508 | 0.504 |
| Average | 0.508 | 0.511 | 0.509 | 0.507 |
| Max | 0.508 | 0.514 | 0.510 | 0.512 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 |

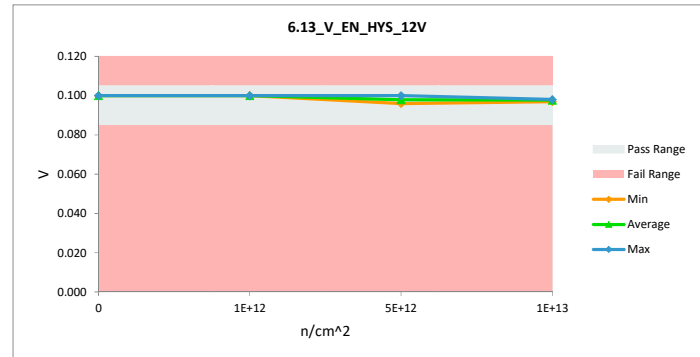


NDD Characterization Report TPS7H5007-SEP

| 6.13_V_EN_HYS_12V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 0.105 | 0.105 | 0.105 | 0.105 |
| Min Limit | 0.085 | 0.085 | 0.085 | 0.085 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.100 | 0.100 | 0.000 |
| 1E+12 | 21 | 0.100 | 0.100 | 0.000 |
| 1E+12 | 22 | 0.100 | 0.100 | 0.000 |
| 1E+12 | 23 | 0.100 | 0.100 | 0.000 |
| 5E+12 | 24 | 0.098 | 0.096 | -0.002 |
| 5E+12 | 25 | 0.098 | 0.098 | 0.000 |
| 5E+12 | 26 | 0.100 | 0.100 | 0.000 |
| 1E+13 | 27 | 0.100 | 0.098 | -0.002 |
| 1E+13 | 28 | 0.100 | 0.098 | -0.002 |
| 1E+13 | 29 | 0.096 | 0.097 | 0.001 |
| Max | | 0.100 | 0.100 | 0.001 |
| Average | | 0.099 | 0.099 | -0.001 |
| Min | | 0.096 | 0.096 | -0.002 |
| Std Dev | | 0.001 | 0.001 | 0.001 |

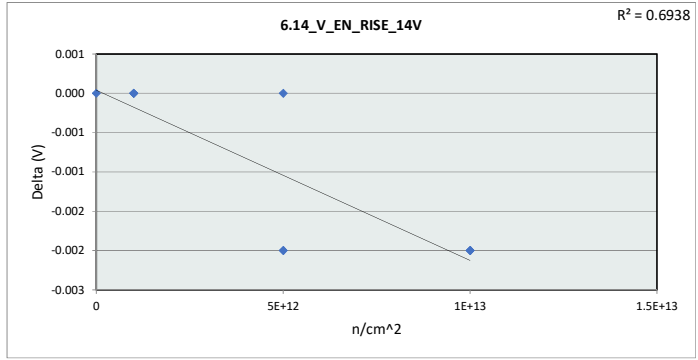


| 6.13_V_EN_HYS_12V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.105 | V | | |
| Min Limit | 0.085 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.085 | 0.085 | 0.085 | 0.085 |
| Min | 0.100 | 0.100 | 0.096 | 0.097 |
| Average | 0.100 | 0.100 | 0.098 | 0.098 |
| Max | 0.100 | 0.100 | 0.100 | 0.098 |
| UL | 0.105 | 0.105 | 0.105 | 0.105 |

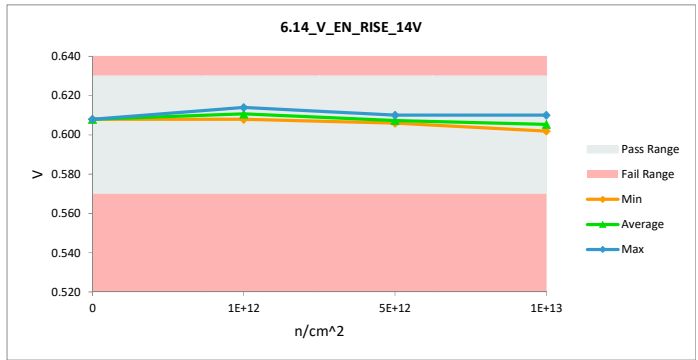


NDD Characterization Report TPS7H5007-SEP

| 6.14_V_EN_RISE_14V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.63 | | 0.63 | |
| Min Limit | 0.58 | | 0.57 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.608 | 0.608 | 0.000 |
| 1E+12 | 21 | 0.614 | 0.614 | 0.000 |
| 1E+12 | 22 | 0.610 | 0.610 | 0.000 |
| 1E+12 | 23 | 0.608 | 0.608 | 0.000 |
| 5E+12 | 24 | 0.608 | 0.606 | -0.002 |
| 5E+12 | 25 | 0.608 | 0.606 | -0.002 |
| 5E+12 | 26 | 0.610 | 0.610 | 0.000 |
| 1E+13 | 27 | 0.612 | 0.610 | -0.002 |
| 1E+13 | 28 | 0.606 | 0.604 | -0.002 |
| 1E+13 | 29 | 0.604 | 0.602 | -0.002 |
| Max | | 0.614 | 0.614 | 0.000 |
| Average | | 0.609 | 0.608 | -0.001 |
| Min | | 0.604 | 0.602 | -0.002 |
| Std Dev | | 0.003 | 0.003 | 0.001 |

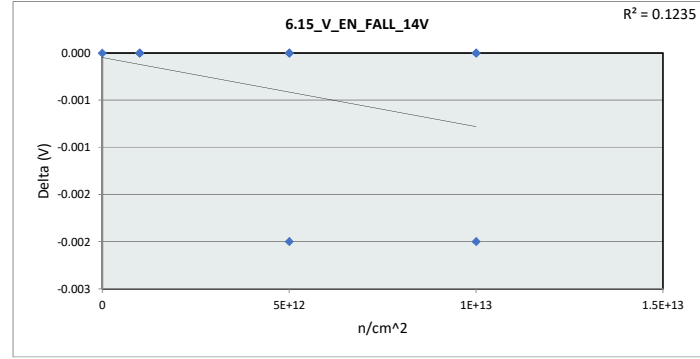


| 6.14_V_EN_RISE_14V | | | | |
|--------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.63 | | V | |
| Min Limit | 0.57 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.608 | 0.608 | 0.606 | 0.602 |
| Average | 0.608 | 0.611 | 0.607 | 0.605 |
| Max | 0.608 | 0.614 | 0.610 | 0.610 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 |

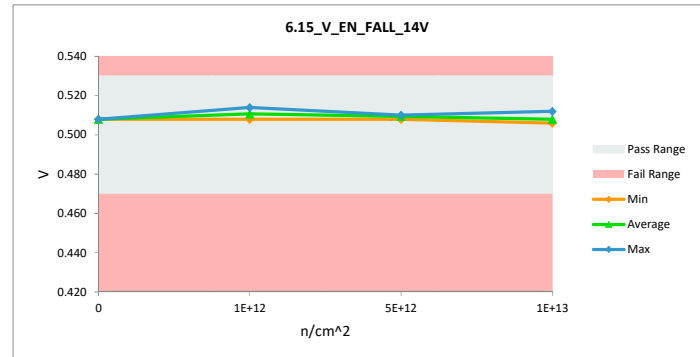


NDD Characterization Report TPS7H5007-SEP

| 6.15_V_EN_FALL_14V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 0.53 | 0.53 | 0.53 | 0.53 |
| Min Limit | 0.48 | 0.47 | 0.47 | 0.47 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.508 | 0.508 | 0.000 |
| 1E+12 | 21 | 0.514 | 0.514 | 0.000 |
| 1E+12 | 22 | 0.510 | 0.510 | 0.000 |
| 1E+12 | 23 | 0.508 | 0.508 | 0.000 |
| 5E+12 | 24 | 0.510 | 0.510 | 0.000 |
| 5E+12 | 25 | 0.510 | 0.508 | -0.002 |
| 5E+12 | 26 | 0.510 | 0.510 | 0.000 |
| 1E+13 | 27 | 0.512 | 0.512 | 0.000 |
| 1E+13 | 28 | 0.506 | 0.506 | 0.000 |
| 1E+13 | 29 | 0.508 | 0.506 | -0.002 |
| Max | | 0.514 | 0.514 | 0.000 |
| Average | | 0.510 | 0.509 | 0.000 |
| Min | | 0.506 | 0.506 | -0.002 |
| Std Dev | | 0.002 | 0.003 | 0.001 |

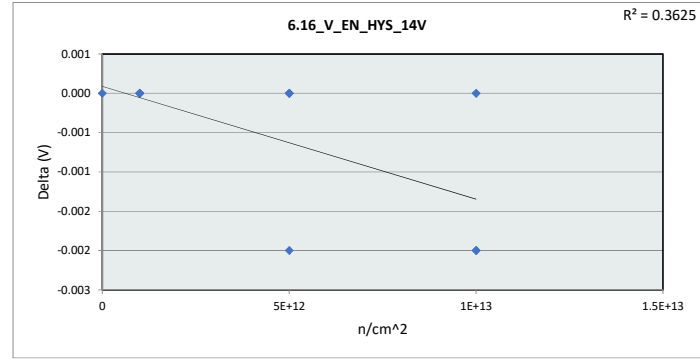


| 6.15_V_EN_FALL_14V | | | | |
|--------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.53 | V | V | V |
| Min Limit | 0.47 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.508 | 0.508 | 0.508 | 0.506 |
| Average | 0.508 | 0.511 | 0.509 | 0.508 |
| Max | 0.508 | 0.514 | 0.510 | 0.512 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 |

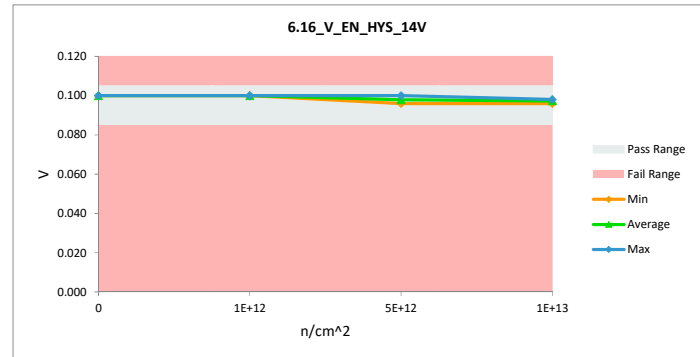


NDD Characterization Report TPS7H5007-SEP

| 6.16_V_EN_HYS_14V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.105 | | 0.105 | |
| Min Limit | 0.085 | | 0.085 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.100 | 0.100 | 0.000 |
| 1E+12 | 21 | 0.100 | 0.100 | 0.000 |
| 1E+12 | 22 | 0.100 | 0.100 | 0.000 |
| 1E+12 | 23 | 0.100 | 0.100 | 0.000 |
| 5E+12 | 24 | 0.098 | 0.096 | -0.002 |
| 5E+12 | 25 | 0.098 | 0.098 | 0.000 |
| 5E+12 | 26 | 0.100 | 0.100 | 0.000 |
| 1E+13 | 27 | 0.100 | 0.098 | -0.002 |
| 1E+13 | 28 | 0.100 | 0.098 | -0.002 |
| 1E+13 | 29 | 0.096 | 0.096 | 0.000 |
| Max | | 0.100 | 0.100 | 0.000 |
| Average | | 0.099 | 0.099 | -0.001 |
| Min | | 0.096 | 0.096 | -0.002 |
| Std Dev | | 0.001 | 0.002 | 0.001 |

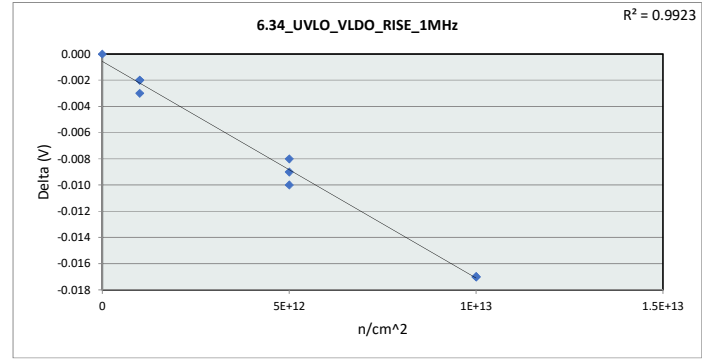


| 6.16_V_EN_HYS_14V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.105 | | V | |
| Min Limit | 0.085 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.085 | 0.085 | 0.085 | 0.085 |
| Min | 0.100 | 0.100 | 0.096 | 0.096 |
| Average | 0.100 | 0.100 | 0.098 | 0.097 |
| Max | 0.100 | 0.100 | 0.100 | 0.098 |
| UL | 0.105 | 0.105 | 0.105 | 0.105 |

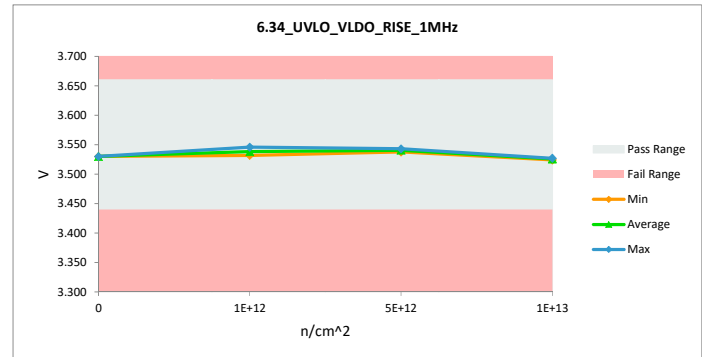


NDD Characterization Report TPS7H5007-SEP

| 6.34_UVLO_VLDO_RISE_1MHz | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 3.66 | | 3.66 | |
| Min Limit | 3.44 | | 3.44 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 3.530 | 3.530 | 0.000 |
| 1E+12 | 21 | 3.549 | 3.546 | -0.003 |
| 1E+12 | 22 | 3.539 | 3.537 | -0.002 |
| 1E+12 | 23 | 3.534 | 3.532 | -0.002 |
| 5E+12 | 24 | 3.547 | 3.538 | -0.009 |
| 5E+12 | 25 | 3.553 | 3.543 | -0.010 |
| 5E+12 | 26 | 3.549 | 3.541 | -0.008 |
| 1E+13 | 27 | 3.541 | 3.524 | -0.017 |
| 1E+13 | 28 | 3.544 | 3.527 | -0.017 |
| 1E+13 | 29 | 3.543 | 3.526 | -0.017 |
| Max | | 3.553 | 3.546 | 0.000 |
| Average | | 3.543 | 3.534 | -0.008 |
| Min | | 3.530 | 3.524 | -0.017 |
| Std Dev | | 0.007 | 0.008 | 0.007 |

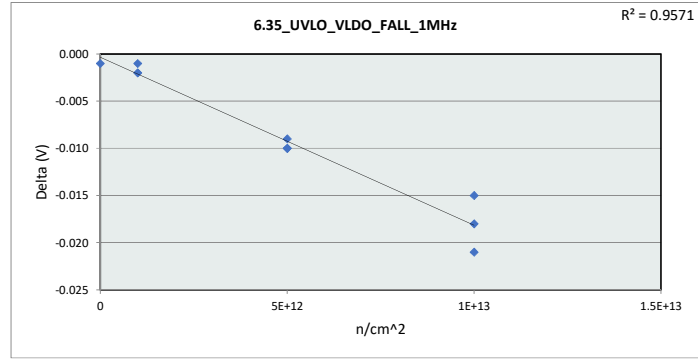


| 6.34_UVLO_VLDO_RISE_1MHz | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.66 | | V | |
| Min Limit | 3.44 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 3.440 | 3.440 | 3.440 | 3.440 |
| Min | 3.530 | 3.532 | 3.538 | 3.524 |
| Average | 3.530 | 3.538 | 3.541 | 3.526 |
| Max | 3.530 | 3.546 | 3.543 | 3.527 |
| UL | 3.660 | 3.660 | 3.660 | 3.660 |

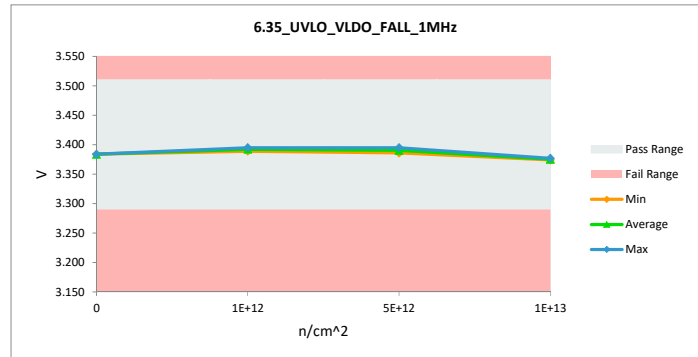


NDD Characterization Report TPS7H5007-SEP

| 6.35_UVLO_VLDO_FALL_1MHz | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 3.51 | | 3.51 | |
| Min Limit | 3.29 | | 3.29 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 3.385 | 3.384 | -0.001 |
| 1E+12 | 21 | 3.397 | 3.395 | -0.002 |
| 1E+12 | 22 | 3.390 | 3.389 | -0.001 |
| 1E+12 | 23 | 3.395 | 3.393 | -0.002 |
| 5E+12 | 24 | 3.396 | 3.386 | -0.010 |
| 5E+12 | 25 | 3.405 | 3.395 | -0.010 |
| 5E+12 | 26 | 3.399 | 3.390 | -0.009 |
| 1E+13 | 27 | 3.392 | 3.377 | -0.015 |
| 1E+13 | 28 | 3.396 | 3.375 | -0.021 |
| 1E+13 | 29 | 3.392 | 3.374 | -0.018 |
| Max | | 3.405 | 3.395 | -0.001 |
| Average | | 3.395 | 3.386 | -0.009 |
| Min | | 3.385 | 3.374 | -0.021 |
| Std Dev | | 0.005 | 0.008 | 0.007 |

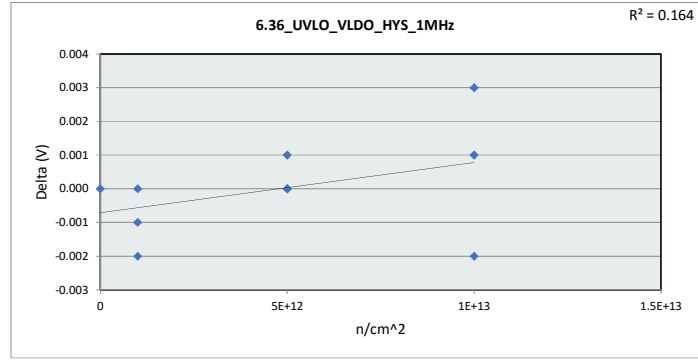


| 6.35_UVLO_VLDO_FALL_1MHz | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.51 | | V | |
| Min Limit | 3.29 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 3.290 | 3.290 | 3.290 | 3.290 |
| Min | 3.384 | 3.389 | 3.386 | 3.374 |
| Average | 3.384 | 3.392 | 3.390 | 3.375 |
| Max | 3.384 | 3.395 | 3.395 | 3.377 |
| UL | 3.510 | 3.510 | 3.510 | 3.510 |

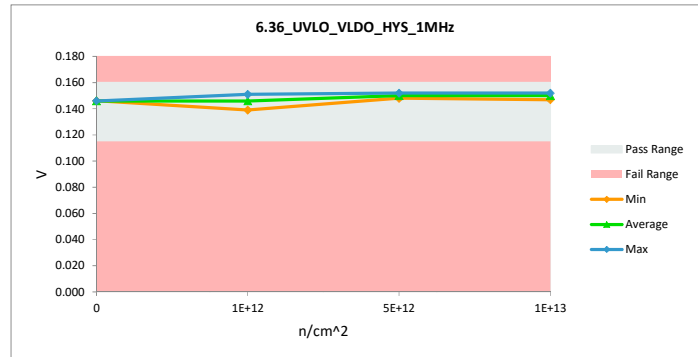


NDD Characterization Report TPS7H5007-SEP

| 6.36_UVLO_VLDO_HYS_1MHz | | | | |
|-------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.158 | | 0.16 | |
| Min Limit | 0.115 | | 0.115 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.146 | 0.146 | 0.000 |
| 1E+12 | 21 | 0.152 | 0.151 | -0.001 |
| 1E+12 | 22 | 0.150 | 0.148 | -0.002 |
| 1E+12 | 23 | 0.139 | 0.139 | 0.000 |
| 5E+12 | 24 | 0.152 | 0.152 | 0.000 |
| 5E+12 | 25 | 0.147 | 0.148 | 0.001 |
| 5E+12 | 26 | 0.150 | 0.150 | 0.000 |
| 1E+13 | 27 | 0.149 | 0.147 | -0.002 |
| 1E+13 | 28 | 0.148 | 0.151 | 0.003 |
| 1E+13 | 29 | 0.151 | 0.152 | 0.001 |
| Max | | 0.152 | 0.152 | 0.003 |
| Average | | 0.148 | 0.148 | 0.000 |
| Min | | 0.139 | 0.139 | -0.002 |
| Std Dev | | 0.004 | 0.004 | 0.001 |

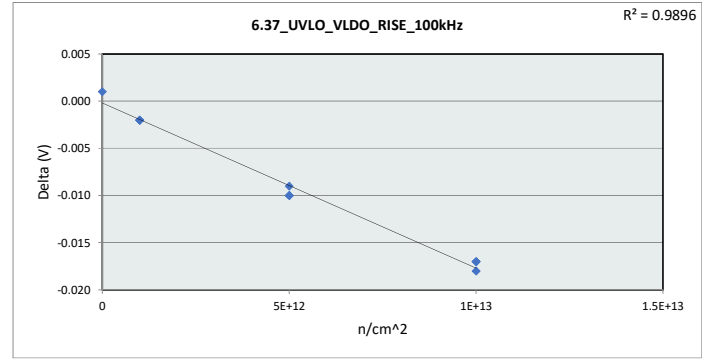


| 6.36_UVLO_VLDO_HYS_1MHz | | | | |
|-------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.16 | | V | |
| Min Limit | 0.115 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.115 | 0.115 | 0.115 | 0.115 |
| Min | 0.146 | 0.139 | 0.148 | 0.147 |
| Average | 0.146 | 0.146 | 0.150 | 0.150 |
| Max | 0.146 | 0.151 | 0.152 | 0.152 |
| UL | 0.160 | 0.160 | 0.160 | 0.160 |

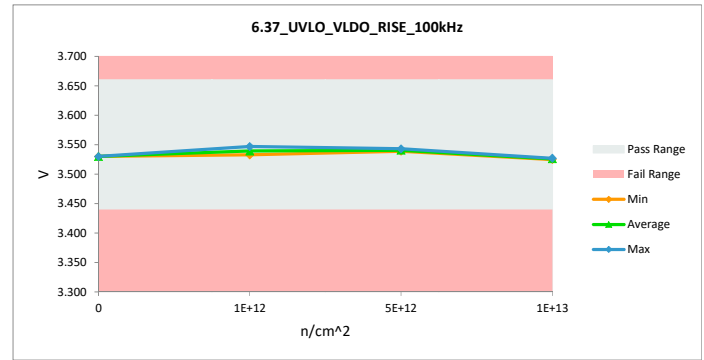


NDD Characterization Report TPS7H5007-SEP

| 6.37_UVLO_VLDO_RISE_100kHz | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 3.66 | | 3.66 | |
| Min Limit | 3.44 | | 3.44 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 3.529 | 3.530 | 0.001 |
| 1E+12 | 21 | 3.549 | 3.547 | -0.002 |
| 1E+12 | 22 | 3.540 | 3.538 | -0.002 |
| 1E+12 | 23 | 3.535 | 3.533 | -0.002 |
| 5E+12 | 24 | 3.548 | 3.539 | -0.009 |
| 5E+12 | 25 | 3.553 | 3.543 | -0.010 |
| 5E+12 | 26 | 3.550 | 3.540 | -0.010 |
| 1E+13 | 27 | 3.542 | 3.525 | -0.017 |
| 1E+13 | 28 | 3.545 | 3.527 | -0.018 |
| 1E+13 | 29 | 3.543 | 3.526 | -0.017 |
| Max | | 3.553 | 3.547 | 0.001 |
| Average | | 3.543 | 3.535 | -0.009 |
| Min | | 3.529 | 3.525 | -0.018 |
| Std Dev | | 0.007 | 0.008 | 0.007 |

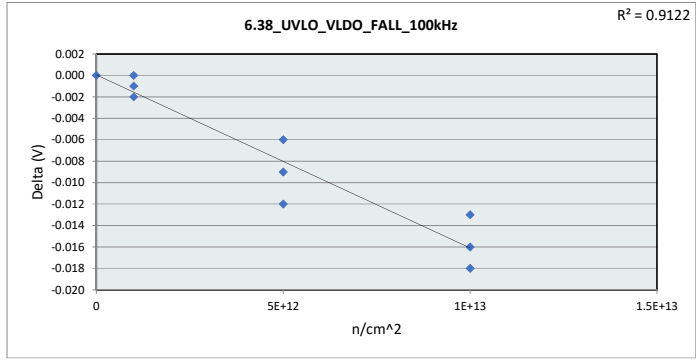


| 6.37_UVLO_VLDO_RISE_100k | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.66 | | V | |
| Min Limit | 3.44 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 3.440 | 3.440 | 3.440 | 3.440 |
| Min | 3.530 | 3.533 | 3.539 | 3.525 |
| Average | 3.530 | 3.539 | 3.541 | 3.526 |
| Max | 3.530 | 3.547 | 3.543 | 3.527 |
| UL | 3.660 | 3.660 | 3.660 | 3.660 |

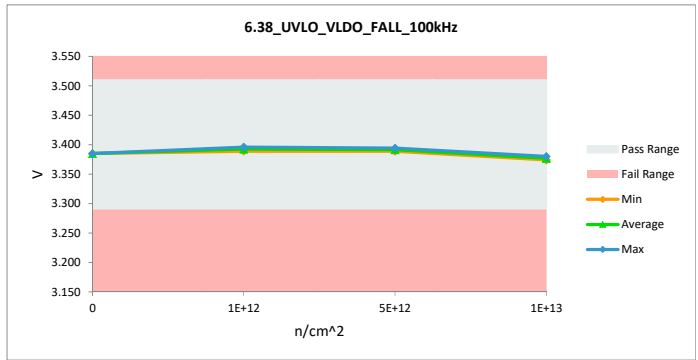


NDD Characterization Report TPS7H5007-SEP

| 6.38_UVLO_VLDO_FALL_100kHz | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 3.51 | | 3.51 | |
| Min Limit | 3.29 | | 3.29 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 3.385 | 3.385 | 0.000 |
| 1E+12 | 21 | 3.396 | 3.396 | 0.000 |
| 1E+12 | 22 | 3.390 | 3.389 | -0.001 |
| 1E+12 | 23 | 3.395 | 3.393 | -0.002 |
| 5E+12 | 24 | 3.395 | 3.389 | -0.006 |
| 5E+12 | 25 | 3.406 | 3.394 | -0.012 |
| 5E+12 | 26 | 3.400 | 3.391 | -0.009 |
| 1E+13 | 27 | 3.393 | 3.377 | -0.016 |
| 1E+13 | 28 | 3.393 | 3.380 | -0.013 |
| 1E+13 | 29 | 3.392 | 3.374 | -0.018 |
| Max | | 3.406 | 3.396 | 0.000 |
| Average | | 3.394 | 3.387 | -0.008 |
| Min | | 3.385 | 3.374 | -0.018 |
| Std Dev | | 0.006 | 0.008 | 0.007 |

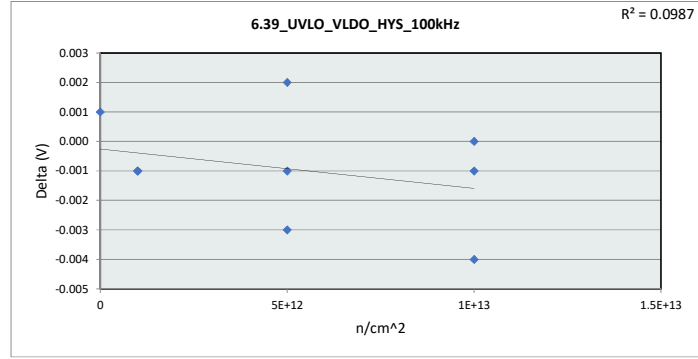


| 6.38_UVLO_VLDO_FALL_100k | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.51 | | V | |
| Min Limit | 3.29 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 3.290 | 3.290 | 3.290 | 3.290 |
| Min | 3.385 | 3.389 | 3.389 | 3.374 |
| Average | 3.385 | 3.393 | 3.391 | 3.377 |
| Max | 3.385 | 3.396 | 3.394 | 3.380 |
| UL | 3.510 | 3.510 | 3.510 | 3.510 |

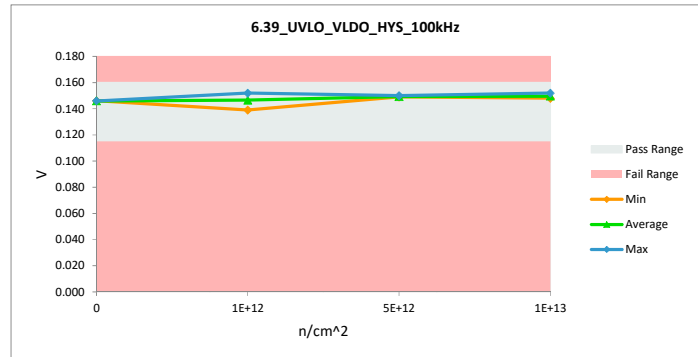


NDD Characterization Report TPS7H5007-SEP

| 6.39_UVLO_VLDO_HYS_100kHz | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.158 | | 0.16 | |
| Min Limit | 0.115 | | 0.115 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.145 | 0.146 | 0.001 |
| 1E+12 | 21 | 0.153 | 0.152 | -0.001 |
| 1E+12 | 22 | 0.150 | 0.149 | -0.001 |
| 1E+12 | 23 | 0.140 | 0.139 | -0.001 |
| 5E+12 | 24 | 0.153 | 0.150 | -0.003 |
| 5E+12 | 25 | 0.147 | 0.149 | 0.002 |
| 5E+12 | 26 | 0.150 | 0.149 | -0.001 |
| 1E+13 | 27 | 0.150 | 0.149 | -0.001 |
| 1E+13 | 28 | 0.152 | 0.148 | -0.004 |
| 1E+13 | 29 | 0.152 | 0.152 | 0.000 |
| Max | | 0.153 | 0.152 | 0.002 |
| Average | | 0.149 | 0.148 | -0.001 |
| Min | | 0.140 | 0.139 | -0.004 |
| Std Dev | | 0.004 | 0.004 | 0.002 |

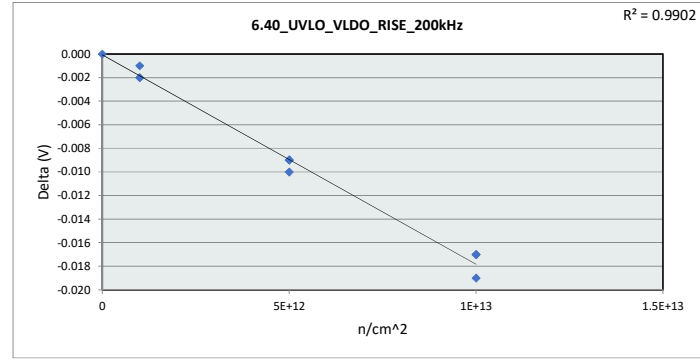


| 6.39_UVLO_VLDO_HYS_100kHz | | | | |
|---------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.16 | | V | |
| Min Limit | 0.115 | | V | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.115 | 0.115 | 0.115 | 0.115 |
| Min | 0.146 | 0.139 | 0.149 | 0.148 |
| Average | 0.146 | 0.147 | 0.149 | 0.150 |
| Max | 0.146 | 0.152 | 0.150 | 0.152 |
| UL | 0.160 | 0.160 | 0.160 | 0.160 |

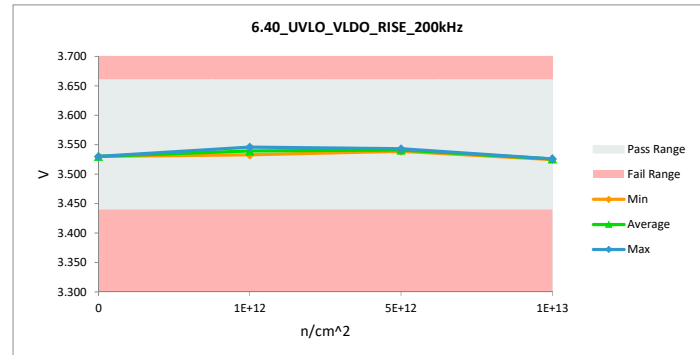


NDD Characterization Report TPS7H5007-SEP

| 6.40_UVLO_VLDO_RISE_200kHz | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 3.66 | | 3.66 | |
| Min Limit | 3.44 | | 3.44 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 3.530 | 3.530 | 0.000 |
| 1E+12 | 21 | 3.548 | 3.546 | -0.002 |
| 1E+12 | 22 | 3.539 | 3.538 | -0.001 |
| 1E+12 | 23 | 3.535 | 3.533 | -0.002 |
| 5E+12 | 24 | 3.548 | 3.539 | -0.009 |
| 5E+12 | 25 | 3.553 | 3.543 | -0.010 |
| 5E+12 | 26 | 3.550 | 3.541 | -0.009 |
| 1E+13 | 27 | 3.542 | 3.525 | -0.017 |
| 1E+13 | 28 | 3.545 | 3.526 | -0.019 |
| 1E+13 | 29 | 3.543 | 3.526 | -0.017 |
| Max | | 3.553 | 3.546 | 0.000 |
| Average | | 3.543 | 3.535 | -0.009 |
| Min | | 3.530 | 3.525 | -0.019 |
| Std Dev | | 0.007 | 0.008 | 0.007 |

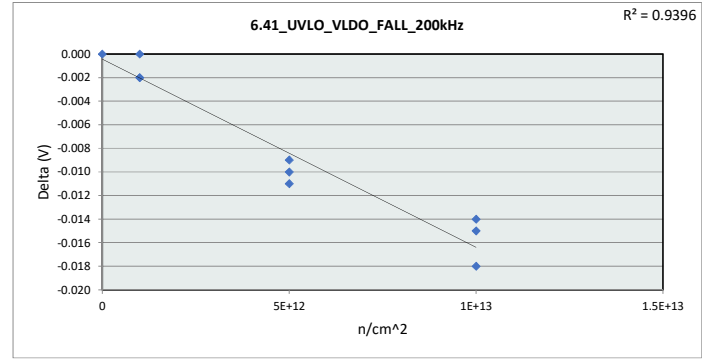


| 6.40_UVLO_VLDO_RISE_200k | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.66 | | V | |
| Min Limit | 3.44 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 3.440 | 3.440 | 3.440 | 3.440 |
| Min | 3.530 | 3.533 | 3.539 | 3.525 |
| Average | 3.530 | 3.539 | 3.541 | 3.526 |
| Max | 3.530 | 3.546 | 3.543 | 3.526 |
| UL | 3.660 | 3.660 | 3.660 | 3.660 |

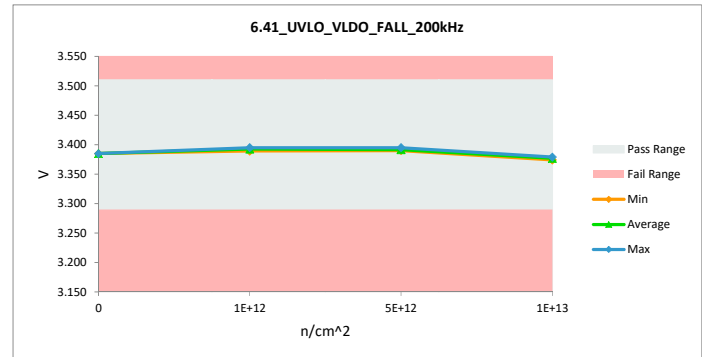


NDD Characterization Report TPS7H5007-SEP

| 6.41_UVLO_VLDO_FALL_200kHz | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 3.51 | | 3.51 | |
| Min Limit | 3.29 | | 3.29 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 3.385 | 3.385 | 0.000 |
| 1E+12 | 21 | 3.397 | 3.395 | -0.002 |
| 1E+12 | 22 | 3.391 | 3.389 | -0.002 |
| 1E+12 | 23 | 3.394 | 3.394 | 0.000 |
| 5E+12 | 24 | 3.399 | 3.390 | -0.009 |
| 5E+12 | 25 | 3.406 | 3.395 | -0.011 |
| 5E+12 | 26 | 3.400 | 3.390 | -0.010 |
| 1E+13 | 27 | 3.392 | 3.377 | -0.015 |
| 1E+13 | 28 | 3.393 | 3.379 | -0.014 |
| 1E+13 | 29 | 3.392 | 3.374 | -0.018 |
| Max | | 3.406 | 3.395 | 0.000 |
| Average | | 3.395 | 3.387 | -0.008 |
| Min | | 3.385 | 3.374 | -0.018 |
| Std Dev | | 0.006 | 0.008 | 0.007 |

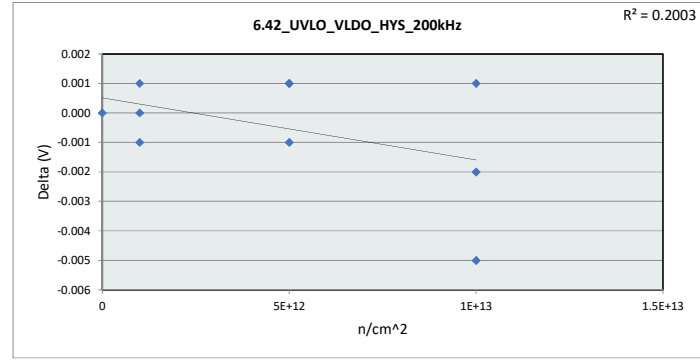


| 6.41_UVLO_VLDO_FALL_200k | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.51 | | V | |
| Min Limit | 3.29 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 3.290 | 3.290 | 3.290 | 3.290 |
| Min | 3.385 | 3.389 | 3.390 | 3.374 |
| Average | 3.385 | 3.393 | 3.392 | 3.377 |
| Max | 3.385 | 3.395 | 3.395 | 3.379 |
| UL | 3.510 | 3.510 | 3.510 | 3.510 |

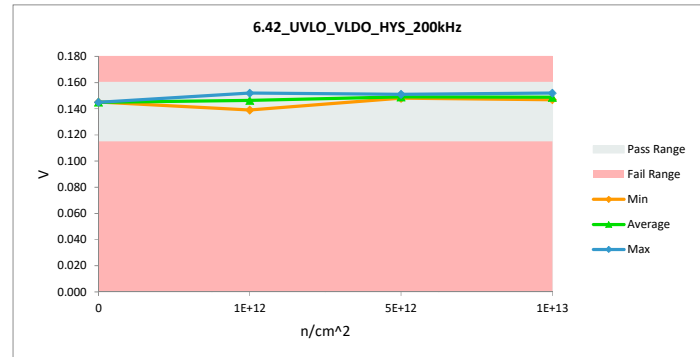


NDD Characterization Report TPS7H5007-SEP

| 6.42_UVLO_VLDO_HYS_200kHz | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.158 | | 0.16 | |
| Min Limit | 0.115 | | 0.115 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.145 | 0.145 | 0.000 |
| 1E+12 | 21 | 0.151 | 0.152 | 0.001 |
| 1E+12 | 22 | 0.148 | 0.148 | 0.000 |
| 1E+12 | 23 | 0.140 | 0.139 | -0.001 |
| 5E+12 | 24 | 0.149 | 0.148 | -0.001 |
| 5E+12 | 25 | 0.147 | 0.148 | 0.001 |
| 5E+12 | 26 | 0.150 | 0.151 | 0.001 |
| 1E+13 | 27 | 0.149 | 0.147 | -0.002 |
| 1E+13 | 28 | 0.152 | 0.147 | -0.005 |
| 1E+13 | 29 | 0.151 | 0.152 | 0.001 |
| Max | | 0.152 | 0.152 | 0.001 |
| Average | | 0.148 | 0.148 | -0.001 |
| Min | | 0.140 | 0.139 | -0.005 |
| Std Dev | | 0.004 | 0.004 | 0.002 |

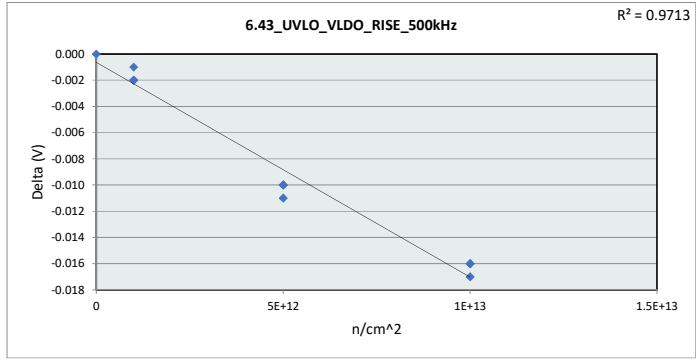


| 6.42_UVLO_VLDO_HYS_200kHz | | | | |
|---------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.16 | | V | |
| Min Limit | 0.115 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.115 | 0.115 | 0.115 | 0.115 |
| Min | 0.145 | 0.139 | 0.148 | 0.147 |
| Average | 0.145 | 0.146 | 0.149 | 0.149 |
| Max | 0.145 | 0.152 | 0.151 | 0.152 |
| UL | 0.160 | 0.160 | 0.160 | 0.160 |

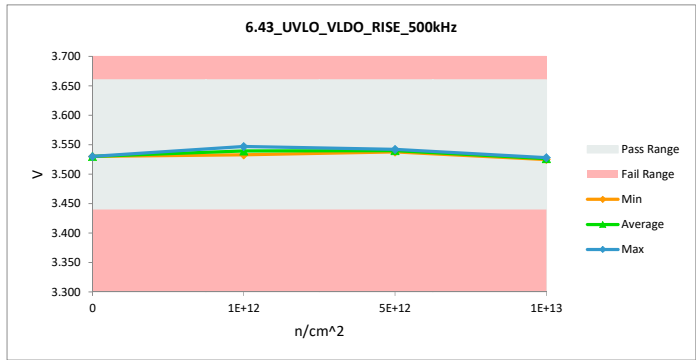


NDD Characterization Report TPS7H5007-SEP

| 6.43_UVLO_VLDO_RISE_500kHz | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 3.66 | | 3.66 | |
| Min Limit | 3.44 | | 3.44 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 3.530 | 3.530 | 0.000 |
| 1E+12 | 21 | 3.549 | 3.547 | -0.002 |
| 1E+12 | 22 | 3.540 | 3.538 | -0.002 |
| 1E+12 | 23 | 3.534 | 3.533 | -0.001 |
| 5E+12 | 24 | 3.548 | 3.538 | -0.010 |
| 5E+12 | 25 | 3.553 | 3.542 | -0.011 |
| 5E+12 | 26 | 3.550 | 3.540 | -0.010 |
| 1E+13 | 27 | 3.541 | 3.525 | -0.016 |
| 1E+13 | 28 | 3.544 | 3.528 | -0.016 |
| 1E+13 | 29 | 3.543 | 3.526 | -0.017 |
| Max | | 3.553 | 3.547 | 0.000 |
| Average | | 3.543 | 3.535 | -0.008 |
| Min | | 3.530 | 3.525 | -0.017 |
| Std Dev | | 0.007 | 0.007 | 0.007 |

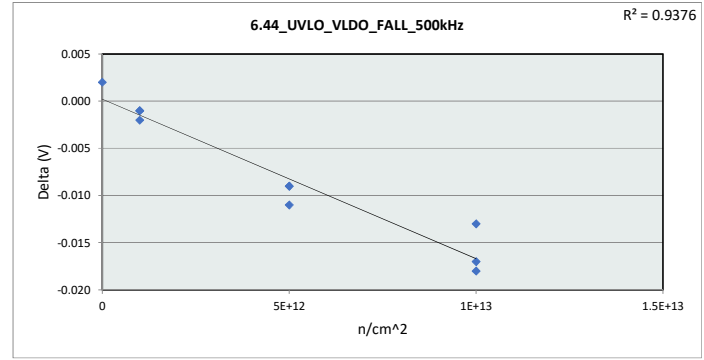


| 6.43_UVLO_VLDO_RISE_500k | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.66 | | V | |
| Min Limit | 3.44 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 3.440 | 3.440 | 3.440 | 3.440 |
| Min | 3.530 | 3.533 | 3.538 | 3.525 |
| Average | 3.530 | 3.539 | 3.540 | 3.526 |
| Max | 3.530 | 3.547 | 3.542 | 3.528 |
| UL | 3.660 | 3.660 | 3.660 | 3.660 |

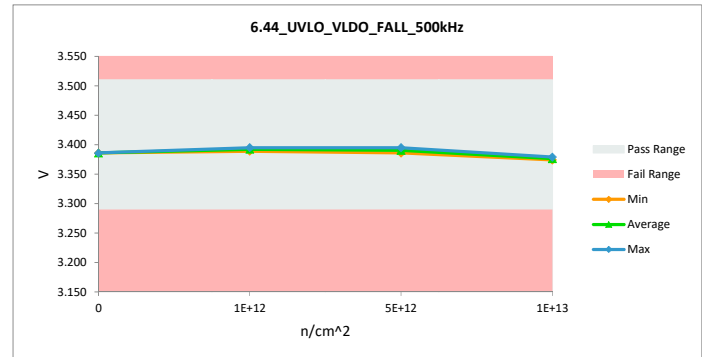


NDD Characterization Report TPS7H5007-SEP

| 6.44_UVLO_VLDO_FALL_500kHz | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 3.51 | | 3.51 | |
| Min Limit | 3.29 | | 3.29 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 3.384 | 3.386 | 0.002 |
| 1E+12 | 21 | 3.396 | 3.395 | -0.001 |
| 1E+12 | 22 | 3.390 | 3.389 | -0.001 |
| 1E+12 | 23 | 3.395 | 3.393 | -0.002 |
| 5E+12 | 24 | 3.395 | 3.386 | -0.009 |
| 5E+12 | 25 | 3.406 | 3.395 | -0.011 |
| 5E+12 | 26 | 3.399 | 3.390 | -0.009 |
| 1E+13 | 27 | 3.394 | 3.376 | -0.018 |
| 1E+13 | 28 | 3.392 | 3.379 | -0.013 |
| 1E+13 | 29 | 3.391 | 3.374 | -0.017 |
| Max | | 3.406 | 3.395 | 0.002 |
| Average | | 3.394 | 3.386 | -0.008 |
| Min | | 3.384 | 3.374 | -0.018 |
| Std Dev | | 0.006 | 0.008 | 0.007 |

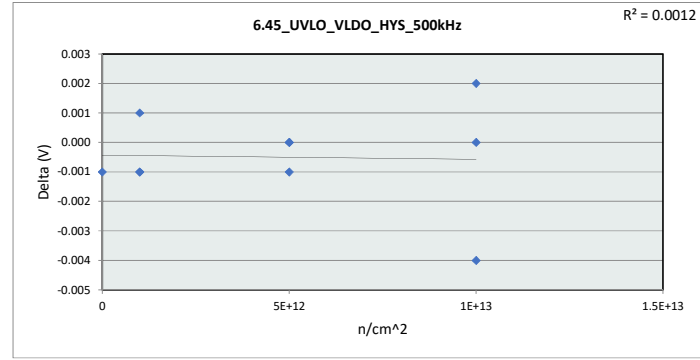


| 6.44_UVLO_VLDO_FALL_500k | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.51 | | V | |
| Min Limit | 3.29 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 3.290 | 3.290 | 3.290 | 3.290 |
| Min | 3.386 | 3.389 | 3.386 | 3.374 |
| Average | 3.386 | 3.392 | 3.390 | 3.376 |
| Max | 3.386 | 3.395 | 3.395 | 3.379 |
| UL | 3.510 | 3.510 | 3.510 | 3.510 |

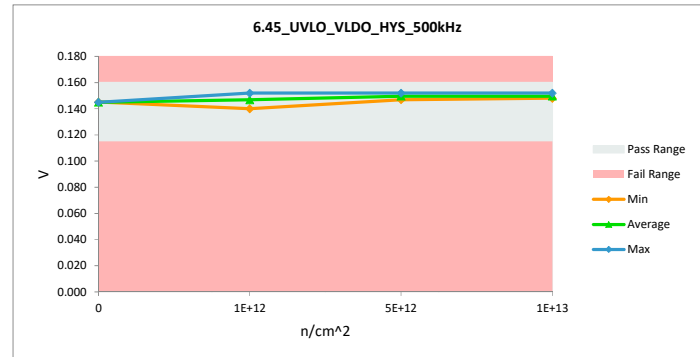


NDD Characterization Report TPS7H5007-SEP

| 6.45_UVLO_VLDO_HYS_500kHz | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.158 | | 0.16 | |
| Min Limit | 0.115 | | 0.115 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.146 | 0.145 | -0.001 |
| 1E+12 | 21 | 0.153 | 0.152 | -0.001 |
| 1E+12 | 22 | 0.150 | 0.149 | -0.001 |
| 1E+12 | 23 | 0.139 | 0.140 | 0.001 |
| 5E+12 | 24 | 0.153 | 0.152 | -0.001 |
| 5E+12 | 25 | 0.147 | 0.147 | 0.000 |
| 5E+12 | 26 | 0.150 | 0.150 | 0.000 |
| 1E+13 | 27 | 0.147 | 0.149 | 0.002 |
| 1E+13 | 28 | 0.152 | 0.148 | -0.004 |
| 1E+13 | 29 | 0.152 | 0.152 | 0.000 |
| Max | | 0.153 | 0.152 | 0.002 |
| Average | | 0.149 | 0.148 | 0.000 |
| Min | | 0.139 | 0.140 | -0.004 |
| Std Dev | | 0.004 | 0.004 | 0.002 |

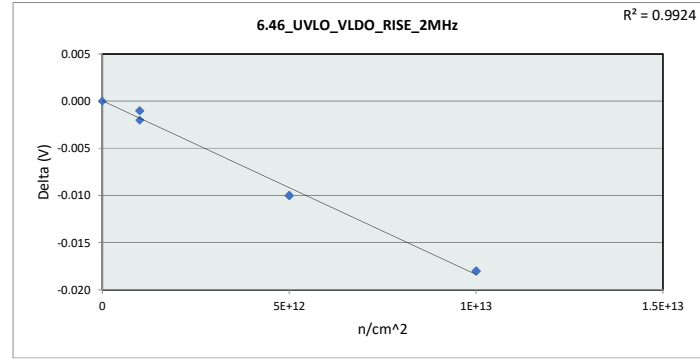


| 6.45_UVLO_VLDO_HYS_500kHz | | | | |
|---------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.16 | | V | |
| Min Limit | 0.115 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.115 | 0.115 | 0.115 | 0.115 |
| Min | 0.145 | 0.140 | 0.147 | 0.148 |
| Average | 0.145 | 0.147 | 0.150 | 0.150 |
| Max | 0.145 | 0.152 | 0.152 | 0.152 |
| UL | 0.160 | 0.160 | 0.160 | 0.160 |

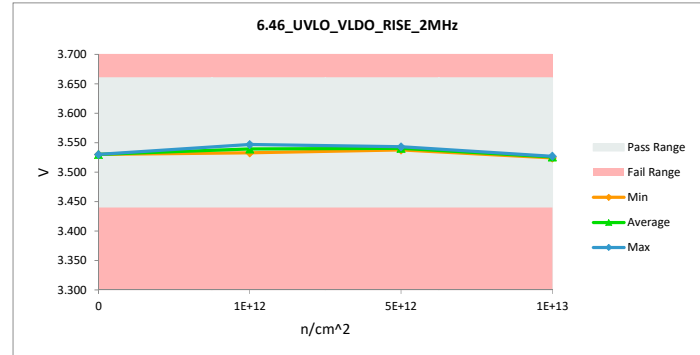


NDD Characterization Report TPS7H5007-SEP

| 6.46_UVLO_VLDO_RISE_2MHz | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 3.66 | | 3.66 | |
| Min Limit | 3.44 | | 3.44 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 3.530 | 3.530 | 0.000 |
| 1E+12 | 21 | 3.548 | 3.547 | -0.001 |
| 1E+12 | 22 | 3.540 | 3.538 | -0.002 |
| 1E+12 | 23 | 3.534 | 3.533 | -0.001 |
| 5E+12 | 24 | 3.548 | 3.538 | -0.010 |
| 5E+12 | 25 | 3.553 | 3.543 | -0.010 |
| 5E+12 | 26 | 3.550 | 3.540 | -0.010 |
| 1E+13 | 27 | 3.542 | 3.524 | -0.018 |
| 1E+13 | 28 | 3.545 | 3.527 | -0.018 |
| 1E+13 | 29 | 3.544 | 3.526 | -0.018 |
| Max | | 3.553 | 3.547 | 0.000 |
| Average | | 3.543 | 3.535 | -0.009 |
| Min | | 3.530 | 3.524 | -0.018 |
| Std Dev | | 0.007 | 0.008 | 0.007 |

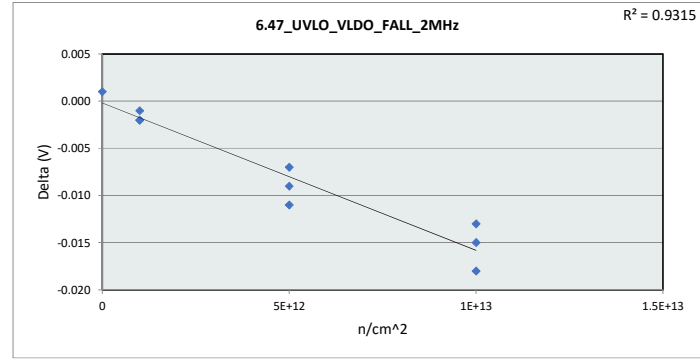


| 6.46_UVLO_VLDO_RISE_2MHz | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.66 | | V | |
| Min Limit | 3.44 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 3.440 | 3.440 | 3.440 | 3.440 |
| Min | 3.530 | 3.533 | 3.538 | 3.524 |
| Average | 3.530 | 3.539 | 3.540 | 3.526 |
| Max | 3.530 | 3.547 | 3.543 | 3.527 |
| UL | 3.660 | 3.660 | 3.660 | 3.660 |

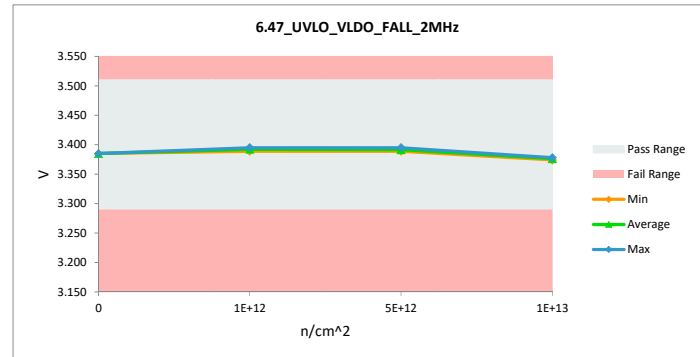


NDD Characterization Report TPS7H5007-SEP

| 6.47_UVLO_VLDO_FALL_2MHz | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 3.51 | | 3.51 | |
| Min Limit | 3.29 | | 3.29 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 3.384 | 3.385 | 0.001 |
| 1E+12 | 21 | 3.396 | 3.395 | -0.001 |
| 1E+12 | 22 | 3.391 | 3.389 | -0.002 |
| 1E+12 | 23 | 3.395 | 3.393 | -0.002 |
| 5E+12 | 24 | 3.396 | 3.389 | -0.007 |
| 5E+12 | 25 | 3.406 | 3.395 | -0.011 |
| 5E+12 | 26 | 3.399 | 3.390 | -0.009 |
| 1E+13 | 27 | 3.392 | 3.377 | -0.015 |
| 1E+13 | 28 | 3.391 | 3.378 | -0.013 |
| 1E+13 | 29 | 3.392 | 3.374 | -0.018 |
| Max | | 3.406 | 3.395 | 0.001 |
| Average | | 3.394 | 3.387 | -0.008 |
| Min | | 3.384 | 3.374 | -0.018 |
| Std Dev | | 0.006 | 0.008 | 0.007 |

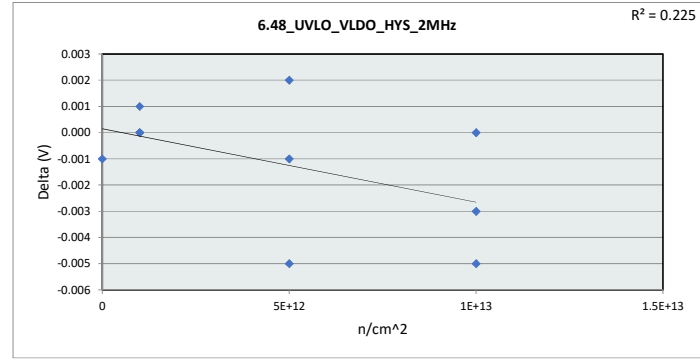


| 6.47_UVLO_VLDO_FALL_2MHz | | | | |
|--------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.51 | | V | |
| Min Limit | 3.29 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 3.290 | 3.290 | 3.290 | 3.290 |
| Min | 3.385 | 3.389 | 3.389 | 3.374 |
| Average | 3.385 | 3.392 | 3.391 | 3.376 |
| Max | 3.385 | 3.395 | 3.395 | 3.378 |
| UL | 3.510 | 3.510 | 3.510 | 3.510 |

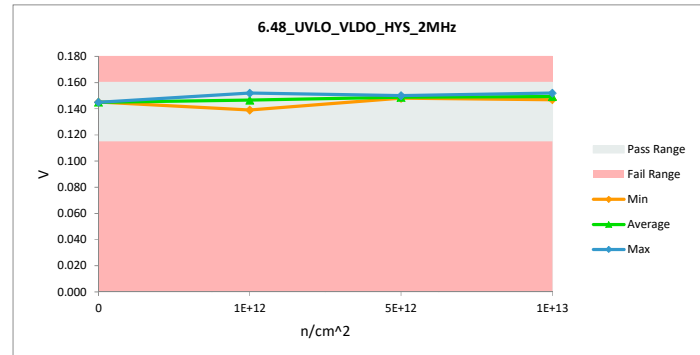


NDD Characterization Report TPS7H5007-SEP

| 6.48_UVLO_VLDO_HYS_2MHz | | | | |
|-------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.158 | | 0.16 | |
| Min Limit | 0.115 | | 0.115 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.146 | 0.145 | -0.001 |
| 1E+12 | 21 | 0.152 | 0.152 | 0.000 |
| 1E+12 | 22 | 0.149 | 0.149 | 0.000 |
| 1E+12 | 23 | 0.138 | 0.139 | 0.001 |
| 5E+12 | 24 | 0.153 | 0.148 | -0.005 |
| 5E+12 | 25 | 0.146 | 0.148 | 0.002 |
| 5E+12 | 26 | 0.151 | 0.150 | -0.001 |
| 1E+13 | 27 | 0.150 | 0.147 | -0.003 |
| 1E+13 | 28 | 0.154 | 0.149 | -0.005 |
| 1E+13 | 29 | 0.152 | 0.152 | 0.000 |
| Max | | 0.154 | 0.152 | 0.002 |
| Average | | 0.149 | 0.148 | -0.001 |
| Min | | 0.138 | 0.139 | -0.005 |
| Std Dev | | 0.005 | 0.004 | 0.002 |

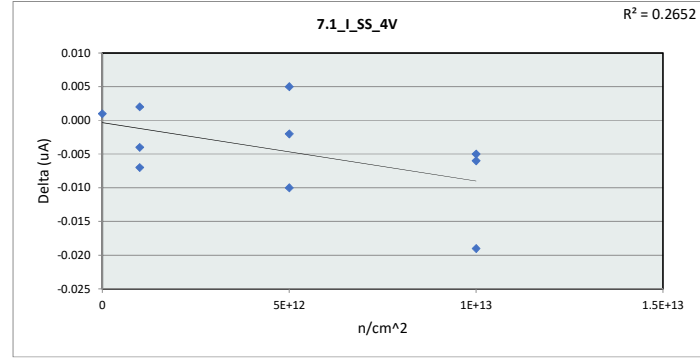


| 6.48_UVLO_VLDO_HYS_2MHz | | | | |
|-------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.16 | | V | |
| Min Limit | 0.115 | | V | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.115 | 0.115 | 0.115 | 0.115 |
| Min | 0.145 | 0.139 | 0.148 | 0.147 |
| Average | 0.145 | 0.147 | 0.149 | 0.149 |
| Max | 0.145 | 0.152 | 0.150 | 0.152 |
| UL | 0.160 | 0.160 | 0.160 | 0.160 |

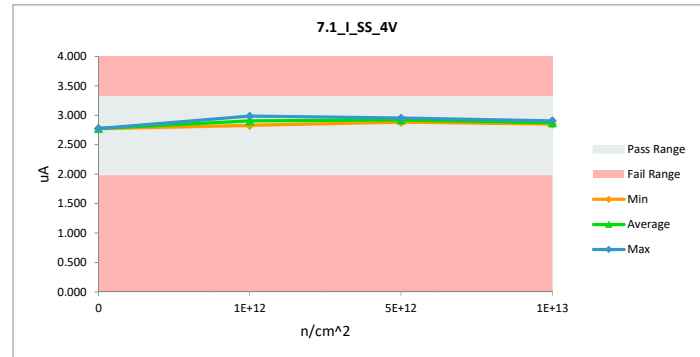


NDD Characterization Report TPS7H5007-SEP

| 7.1_I_SS_4V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 3.2 | 3.32 | |
| Min Limit | | 2.2 | 1.98 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 2.774 | 2.775 | 0.001 |
| 1E+12 | 21 | 2.984 | 2.986 | 0.002 |
| 1E+12 | 22 | 2.904 | 2.897 | -0.007 |
| 1E+12 | 23 | 2.832 | 2.828 | -0.004 |
| 5E+12 | 24 | 2.933 | 2.923 | -0.010 |
| 5E+12 | 25 | 2.877 | 2.882 | 0.005 |
| 5E+12 | 26 | 2.956 | 2.954 | -0.002 |
| 1E+13 | 27 | 2.855 | 2.850 | -0.005 |
| 1E+13 | 28 | 2.913 | 2.907 | -0.006 |
| 1E+13 | 29 | 2.873 | 2.854 | -0.019 |
| Max | | 2.984 | 2.986 | 0.005 |
| Average | | 2.890 | 2.886 | -0.004 |
| Min | | 2.774 | 2.775 | -0.019 |
| Std Dev | | 0.062 | 0.062 | 0.007 |

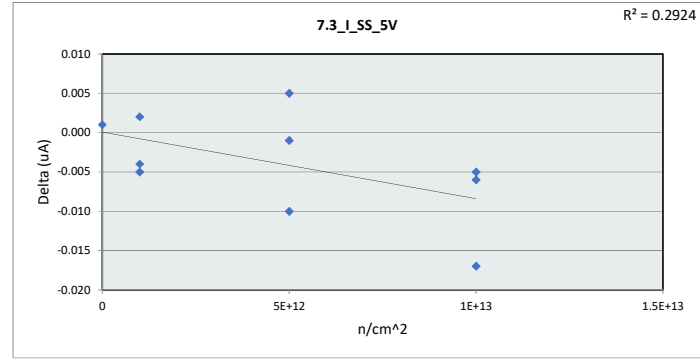


| 7.1_I_SS_4V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.32 | uA | | |
| Min Limit | 1.98 | uA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.980 | 1.980 | 1.980 | 1.980 |
| Min | 2.775 | 2.828 | 2.882 | 2.850 |
| Average | 2.775 | 2.904 | 2.920 | 2.870 |
| Max | 2.775 | 2.986 | 2.954 | 2.907 |
| UL | 3.320 | 3.320 | 3.320 | 3.320 |

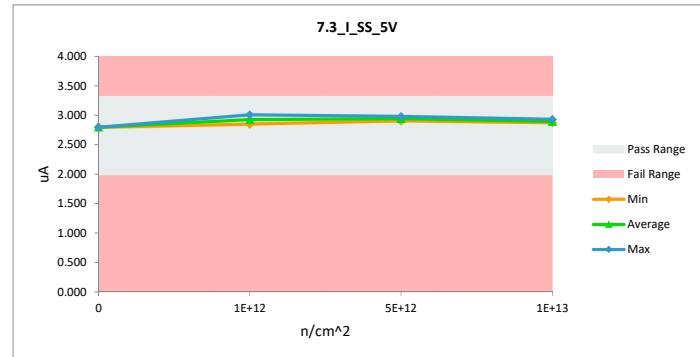


NDD Characterization Report TPS7H5007-SEP

| 7.3_I_SS_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 3.2 | 3.32 | |
| Min Limit | | 2.2 | 1.98 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 2.797 | 2.798 | 0.001 |
| 1E+12 | 21 | 3.007 | 3.009 | 0.002 |
| 1E+12 | 22 | 2.926 | 2.921 | -0.005 |
| 1E+12 | 23 | 2.854 | 2.850 | -0.004 |
| 5E+12 | 24 | 2.955 | 2.945 | -0.010 |
| 5E+12 | 25 | 2.900 | 2.905 | 0.005 |
| 5E+12 | 26 | 2.979 | 2.978 | -0.001 |
| 1E+13 | 27 | 2.878 | 2.873 | -0.005 |
| 1E+13 | 28 | 2.936 | 2.930 | -0.006 |
| 1E+13 | 29 | 2.894 | 2.877 | -0.017 |
| Max | | 3.007 | 3.009 | 0.005 |
| Average | | 2.913 | 2.909 | -0.004 |
| Min | | 2.797 | 2.798 | -0.017 |
| Std Dev | | 0.062 | 0.062 | 0.006 |

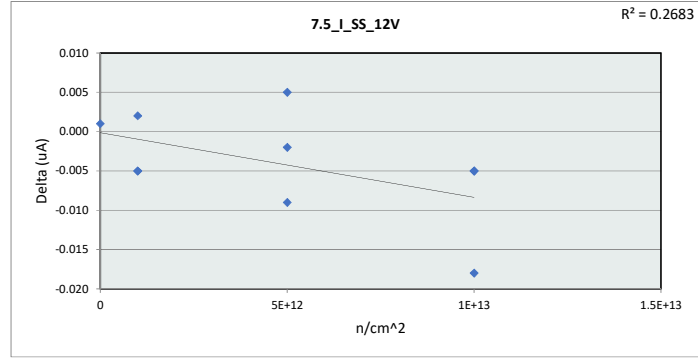


| 7.3_I_SS_5V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 3.32 | uA | |
| Min Limit | | 1.98 | uA | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.980 | 1.980 | 1.980 | 1.980 |
| Min | 2.798 | 2.850 | 2.905 | 2.873 |
| Average | 2.798 | 2.927 | 2.943 | 2.893 |
| Max | 2.798 | 3.009 | 2.978 | 2.930 |
| UL | 3.320 | 3.320 | 3.320 | 3.320 |

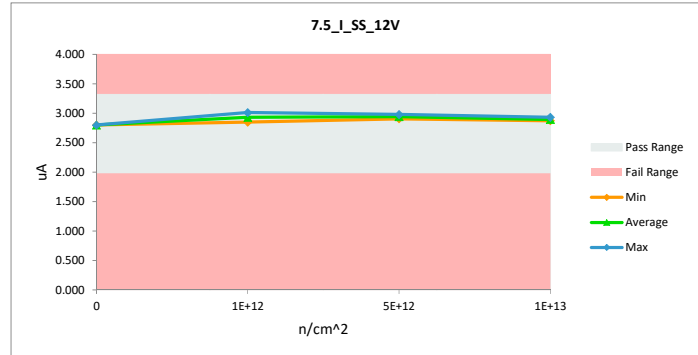


NDD Characterization Report TPS7H5007-SEP

| 7.5_I_SS_12V | | | | |
|--------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 3.2 | 3.32 | |
| Min Limit | | 2.2 | 1.98 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 2.799 | 2.800 | 0.001 |
| 1E+12 | 21 | 3.009 | 3.011 | 0.002 |
| 1E+12 | 22 | 2.928 | 2.923 | -0.005 |
| 1E+12 | 23 | 2.856 | 2.851 | -0.005 |
| 5E+12 | 24 | 2.956 | 2.947 | -0.009 |
| 5E+12 | 25 | 2.902 | 2.907 | 0.005 |
| 5E+12 | 26 | 2.980 | 2.978 | -0.002 |
| 1E+13 | 27 | 2.879 | 2.874 | -0.005 |
| 1E+13 | 28 | 2.937 | 2.932 | -0.005 |
| 1E+13 | 29 | 2.896 | 2.878 | -0.018 |
| Max | | 3.009 | 3.011 | 0.005 |
| Average | | 2.914 | 2.910 | -0.004 |
| Min | | 2.799 | 2.800 | -0.018 |
| Std Dev | | 0.062 | 0.062 | 0.006 |

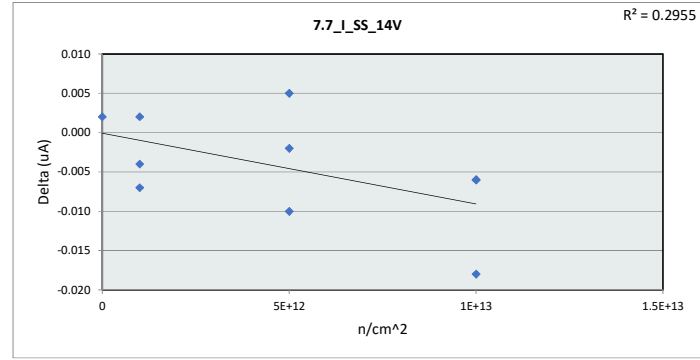


| 7.5_I_SS_12V | | | | |
|--------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 3.32 | uA | | |
| Min Limit | 1.98 | uA | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.980 | 1.980 | 1.980 | 1.980 |
| Min | 2.800 | 2.851 | 2.907 | 2.874 |
| Average | 2.800 | 2.928 | 2.944 | 2.895 |
| Max | 2.800 | 3.011 | 2.978 | 2.932 |
| UL | 3.320 | 3.320 | 3.320 | 3.320 |

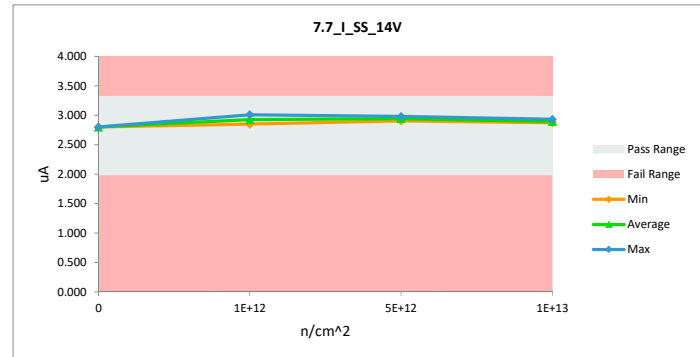


NDD Characterization Report TPS7H5007-SEP

| 7.7_I_SS_14V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 3.2 | 3.32 | |
| Min Limit | | 2.2 | 1.98 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 2.798 | 2.800 | 0.002 |
| 1E+12 | 21 | 3.008 | 3.010 | 0.002 |
| 1E+12 | 22 | 2.929 | 2.922 | -0.007 |
| 1E+12 | 23 | 2.855 | 2.851 | -0.004 |
| 5E+12 | 24 | 2.957 | 2.947 | -0.010 |
| 5E+12 | 25 | 2.902 | 2.907 | 0.005 |
| 5E+12 | 26 | 2.981 | 2.979 | -0.002 |
| 1E+13 | 27 | 2.880 | 2.874 | -0.006 |
| 1E+13 | 28 | 2.937 | 2.931 | -0.006 |
| 1E+13 | 29 | 2.896 | 2.878 | -0.018 |
| Max | | 3.008 | 3.010 | 0.005 |
| Average | | 2.914 | 2.910 | -0.004 |
| Min | | 2.798 | 2.800 | -0.018 |
| Std Dev | | 0.062 | 0.062 | 0.007 |

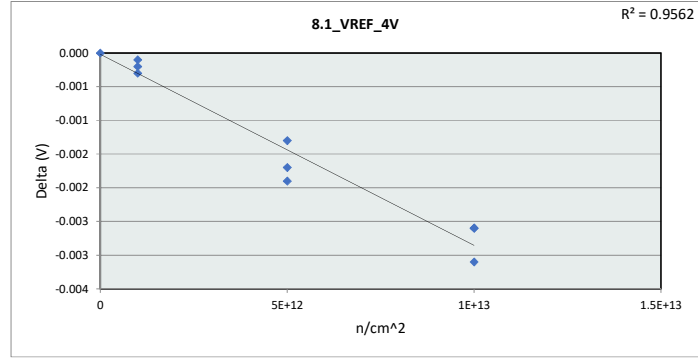


| 7.7_I_SS_14V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 3.32 | uA | |
| Min Limit | | 1.98 | uA | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1.980 | 1.980 | 1.980 | 1.980 |
| Min | 2.800 | 2.851 | 2.907 | 2.874 |
| Average | 2.800 | 2.928 | 2.944 | 2.894 |
| Max | 2.800 | 3.010 | 2.979 | 2.931 |
| UL | 3.320 | 3.320 | 3.320 | 3.320 |

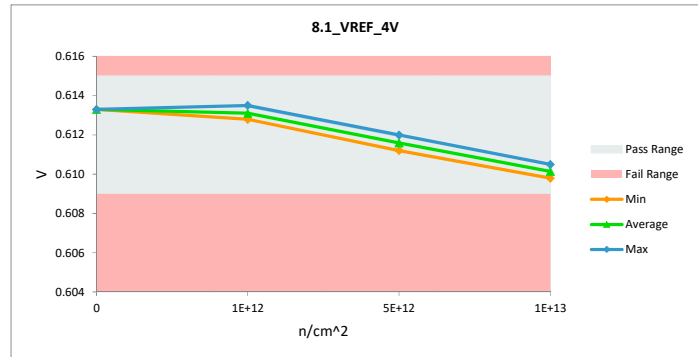


NDD Characterization Report TPS7H5007-SEP

| 8.1_VREF_4V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.615 | | 0.615 | |
| Min Limit | 0.611 | | 0.609 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.613 | 0.613 | 0.000 |
| 1E+12 | 21 | 0.614 | 0.613 | 0.000 |
| 1E+12 | 22 | 0.613 | 0.613 | 0.000 |
| 1E+12 | 23 | 0.613 | 0.613 | 0.000 |
| 5E+12 | 24 | 0.613 | 0.612 | -0.002 |
| 5E+12 | 25 | 0.613 | 0.611 | -0.002 |
| 5E+12 | 26 | 0.613 | 0.612 | -0.001 |
| 1E+13 | 27 | 0.613 | 0.610 | -0.003 |
| 1E+13 | 28 | 0.613 | 0.610 | -0.003 |
| 1E+13 | 29 | 0.613 | 0.610 | -0.003 |
| Max | | 0.614 | 0.613 | 0.000 |
| Average | | 0.613 | 0.612 | -0.001 |
| Min | | 0.613 | 0.610 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |

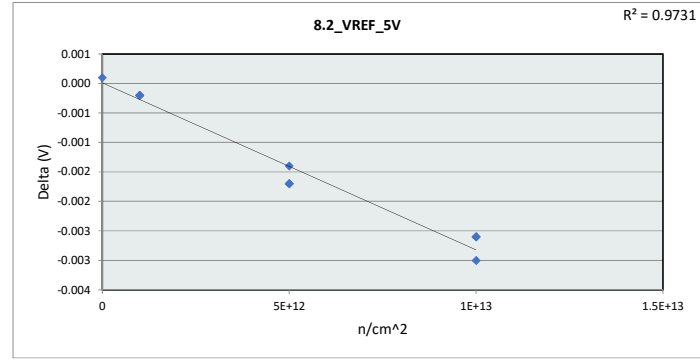


| 8.1_VREF_4V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.615 | | V | |
| Min Limit | 0.609 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.609 | 0.609 | 0.609 | 0.609 |
| Min | 0.613 | 0.613 | 0.611 | 0.610 |
| Average | 0.613 | 0.613 | 0.612 | 0.610 |
| Max | 0.613 | 0.614 | 0.612 | 0.611 |
| UL | 0.615 | 0.615 | 0.615 | 0.615 |

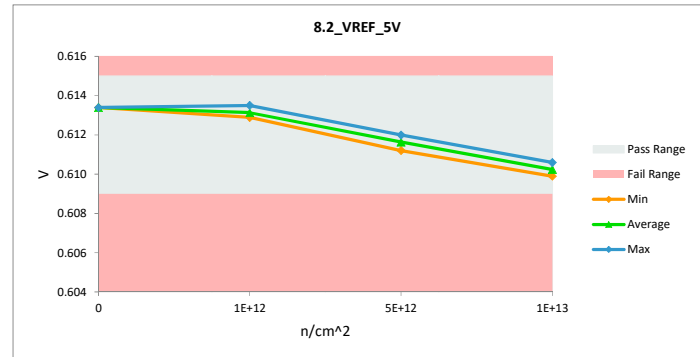


NDD Characterization Report TPS7H5007-SEP

| 8.2_VREF_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.615 | | 0.615 | |
| Min Limit | 0.611 | | 0.609 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.613 | 0.613 | 0.000 |
| 1E+12 | 21 | 0.614 | 0.613 | 0.000 |
| 1E+12 | 22 | 0.613 | 0.613 | 0.000 |
| 1E+12 | 23 | 0.613 | 0.613 | 0.000 |
| 5E+12 | 24 | 0.613 | 0.612 | -0.002 |
| 5E+12 | 25 | 0.613 | 0.611 | -0.002 |
| 5E+12 | 26 | 0.613 | 0.612 | -0.001 |
| 1E+13 | 27 | 0.613 | 0.610 | -0.003 |
| 1E+13 | 28 | 0.613 | 0.611 | -0.003 |
| 1E+13 | 29 | 0.613 | 0.610 | -0.003 |
| Max | | 0.614 | 0.613 | 0.000 |
| Average | | 0.613 | 0.612 | -0.001 |
| Min | | 0.613 | 0.610 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |

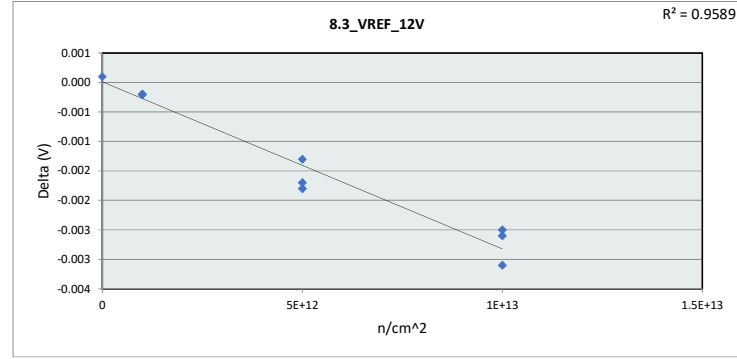


| 8.2_VREF_5V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.615 | | V | |
| Min Limit | 0.609 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.609 | 0.609 | 0.609 | 0.609 |
| Min | 0.613 | 0.613 | 0.611 | 0.610 |
| Average | 0.613 | 0.613 | 0.612 | 0.610 |
| Max | 0.613 | 0.614 | 0.612 | 0.611 |
| UL | 0.615 | 0.615 | 0.615 | 0.615 |

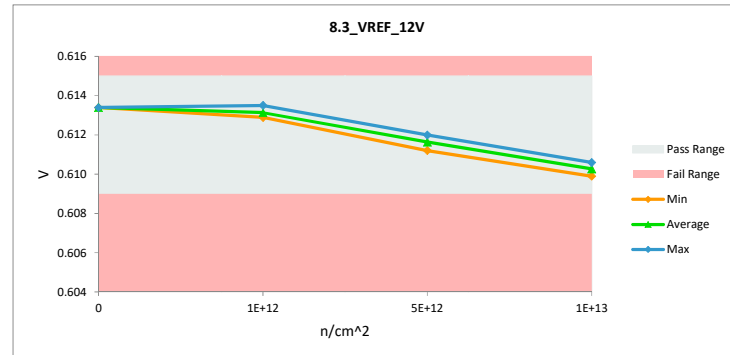


NDD Characterization Report TPS7H5007-SEP

| 8.3_VREF_12V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.615 | | 0.615 | |
| Min Limit | 0.611 | | 0.609 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.613 | 0.613 | 0.000 |
| 1E+12 | 21 | 0.614 | 0.613 | 0.000 |
| 1E+12 | 22 | 0.613 | 0.613 | 0.000 |
| 1E+12 | 23 | 0.613 | 0.613 | 0.000 |
| 5E+12 | 24 | 0.613 | 0.612 | -0.002 |
| 5E+12 | 25 | 0.613 | 0.611 | -0.002 |
| 5E+12 | 26 | 0.613 | 0.612 | -0.001 |
| 1E+13 | 27 | 0.613 | 0.610 | -0.002 |
| 1E+13 | 28 | 0.613 | 0.611 | -0.003 |
| 1E+13 | 29 | 0.613 | 0.610 | -0.003 |
| Max | | 0.614 | 0.613 | 0.000 |
| Average | | 0.613 | 0.612 | -0.001 |
| Min | | 0.613 | 0.610 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |

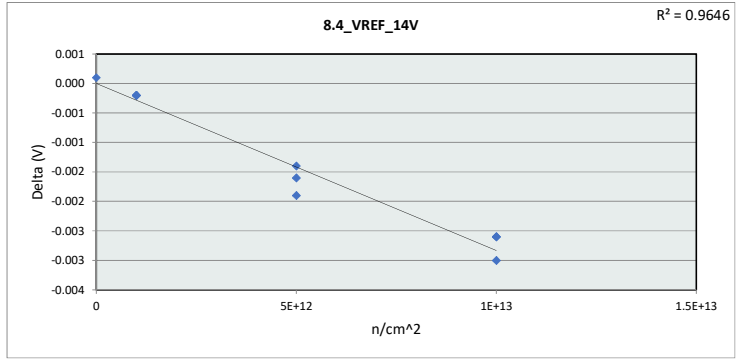


| 8.3_VREF_12V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.615 | | V | |
| Min Limit | 0.609 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.609 | 0.609 | 0.609 | 0.609 |
| Min | 0.613 | 0.613 | 0.611 | 0.610 |
| Average | 0.613 | 0.613 | 0.612 | 0.610 |
| Max | 0.613 | 0.614 | 0.612 | 0.611 |
| UL | 0.615 | 0.615 | 0.615 | 0.615 |

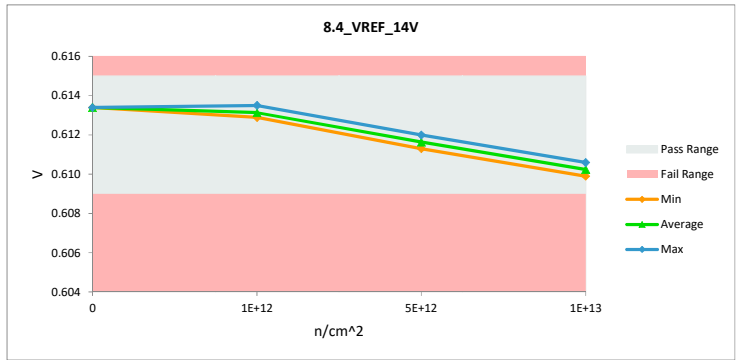


NDD Characterization Report TPS7H5007-SEP

| 8.4_VREF_14V | | | | |
|--------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 0.615 | 0.615 | 0.615 | 0.615 |
| Min Limit | 0.611 | 0.609 | 0.609 | 0.609 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.613 | 0.613 | 0.000 |
| 1E+12 | 21 | 0.614 | 0.613 | 0.000 |
| 1E+12 | 22 | 0.613 | 0.613 | 0.000 |
| 1E+12 | 23 | 0.613 | 0.613 | 0.000 |
| 5E+12 | 24 | 0.613 | 0.612 | -0.002 |
| 5E+12 | 25 | 0.613 | 0.611 | -0.002 |
| 5E+12 | 26 | 0.613 | 0.612 | -0.001 |
| 1E+13 | 27 | 0.613 | 0.610 | -0.003 |
| 1E+13 | 28 | 0.613 | 0.611 | -0.003 |
| 1E+13 | 29 | 0.613 | 0.610 | -0.003 |
| Max | | 0.614 | 0.613 | 0.000 |
| Average | | 0.613 | 0.612 | -0.001 |
| Min | | 0.613 | 0.610 | -0.003 |
| Std Dev | | 0.000 | 0.001 | 0.001 |

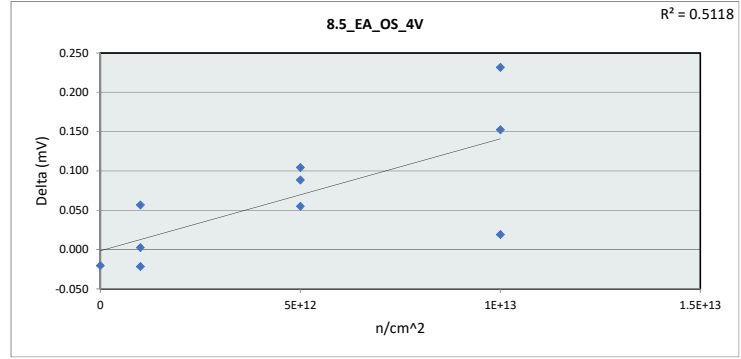


| 8.4_VREF_14V | | | | |
|--------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.615 | V | | |
| Min Limit | 0.609 | V | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.609 | 0.609 | 0.609 | 0.609 |
| Min | 0.613 | 0.613 | 0.611 | 0.610 |
| Average | 0.613 | 0.613 | 0.612 | 0.610 |
| Max | 0.613 | 0.614 | 0.612 | 0.611 |
| UL | 0.615 | 0.615 | 0.615 | 0.615 |

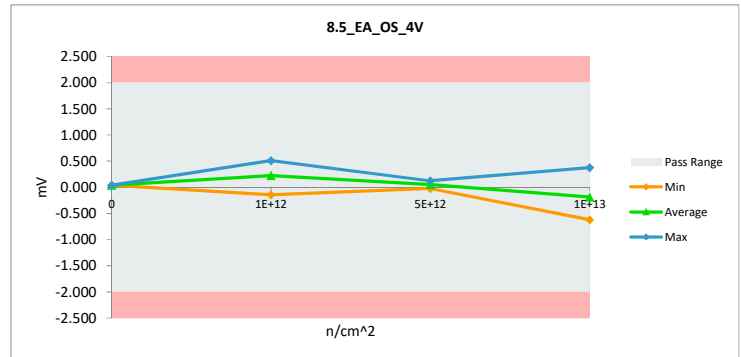


NDD Characterization Report TPS7H5007-SEP

| 8.5_EA_OS_4V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mV | mV | |
| Max Limit | | 1.9 | 2 | |
| Min Limit | | -1.8 | -2 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.060 | 0.039 | -0.021 |
| 1E+12 | 21 | 0.453 | 0.510 | 0.057 |
| 1E+12 | 22 | -0.124 | -0.145 | -0.022 |
| 1E+12 | 23 | 0.308 | 0.311 | 0.003 |
| 5E+12 | 24 | -0.077 | -0.022 | 0.055 |
| 5E+12 | 25 | -0.060 | 0.044 | 0.104 |
| 5E+12 | 26 | 0.035 | 0.123 | 0.088 |
| 1E+13 | 27 | -0.773 | -0.621 | 0.153 |
| 1E+13 | 28 | 0.145 | 0.377 | 0.232 |
| 1E+13 | 29 | -0.336 | -0.317 | 0.019 |
| Max | | 0.453 | 0.510 | 0.232 |
| Average | | -0.037 | 0.030 | 0.067 |
| Min | | -0.773 | -0.621 | -0.022 |
| Std Dev | | 0.341 | 0.336 | 0.081 |

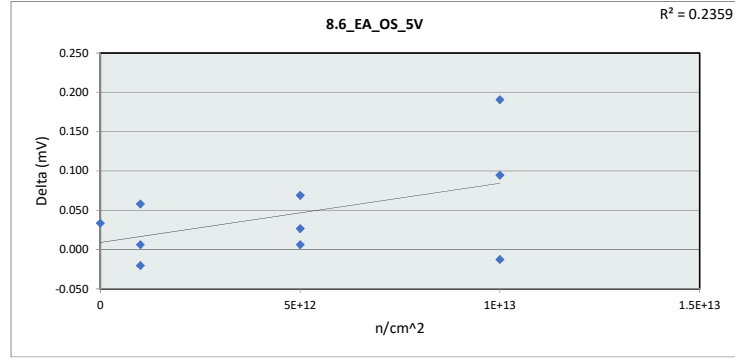


| 8.5_EA_OS_4V | | | | |
|-------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 2 | mV | | |
| Min Limit | -2 | mV | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | -2.000 | -2.000 | -2.000 | -2.000 |
| Min | 0.039 | -0.145 | -0.022 | -0.621 |
| Average | 0.039 | 0.225 | 0.048 | -0.187 |
| Max | 0.039 | 0.510 | 0.123 | 0.377 |
| UL | 2.000 | 2.000 | 2.000 | 2.000 |

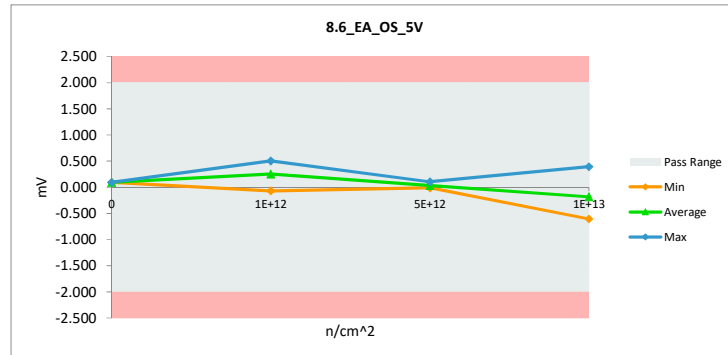


NDD Characterization Report TPS7H5007-SEP

| 8.6_EA_OS_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mV | mV | |
| Max Limit | | 1.9 | 2 | |
| Min Limit | | -1.8 | -2 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.060 | 0.094 | 0.033 |
| 1E+12 | 21 | 0.524 | 0.504 | -0.020 |
| 1E+12 | 22 | -0.127 | -0.069 | 0.058 |
| 1E+12 | 23 | 0.320 | 0.327 | 0.006 |
| 5E+12 | 24 | -0.034 | -0.007 | 0.027 |
| 5E+12 | 25 | -0.001 | 0.006 | 0.006 |
| 5E+12 | 26 | 0.036 | 0.105 | 0.069 |
| 1E+13 | 27 | -0.699 | -0.604 | 0.095 |
| 1E+13 | 28 | 0.204 | 0.394 | 0.191 |
| 1E+13 | 29 | -0.326 | -0.338 | -0.012 |
| Max | | 0.524 | 0.504 | 0.191 |
| Average | | -0.004 | 0.041 | 0.045 |
| Min | | -0.699 | -0.604 | -0.020 |
| Std Dev | | 0.339 | 0.334 | 0.063 |

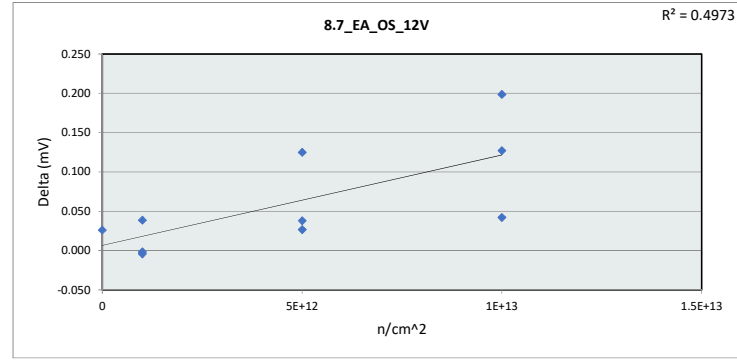


| 8.6_EA_OS_5V | | | | |
|-------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 2 | mV | | |
| Min Limit | -2 | mV | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | -2.000 | -2.000 | -2.000 | -2.000 |
| Min | 0.094 | -0.069 | -0.007 | -0.605 |
| Average | 0.094 | 0.254 | 0.035 | -0.183 |
| Max | 0.094 | 0.504 | 0.105 | 0.394 |
| UL | 2.000 | 2.000 | 2.000 | 2.000 |

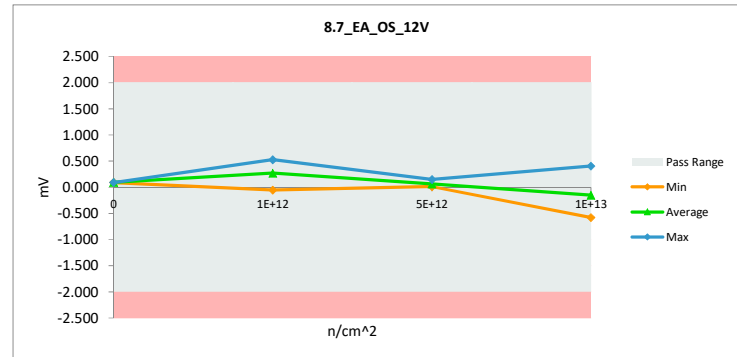


NDD Characterization Report TPS7H5007-SEP

| 8.7_EA_OS_12V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | mV | mV | |
| Max Limit | | 1.9 | 2 | |
| Min Limit | | -1.8 | -2 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.066 | 0.092 | 0.026 |
| 1E+12 | 21 | 0.533 | 0.529 | -0.004 |
| 1E+12 | 22 | -0.093 | -0.055 | 0.039 |
| 1E+12 | 23 | 0.341 | 0.340 | -0.001 |
| 5E+12 | 24 | -0.026 | 0.012 | 0.038 |
| 5E+12 | 25 | 0.001 | 0.027 | 0.027 |
| 5E+12 | 26 | 0.025 | 0.150 | 0.125 |
| 1E+13 | 27 | -0.703 | -0.576 | 0.127 |
| 1E+13 | 28 | 0.208 | 0.407 | 0.199 |
| 1E+13 | 29 | -0.323 | -0.281 | 0.042 |
| Max | | 0.533 | 0.529 | 0.199 |
| Average | | 0.003 | 0.064 | 0.062 |
| Min | | -0.703 | -0.576 | -0.004 |
| Std Dev | | 0.343 | 0.327 | 0.066 |

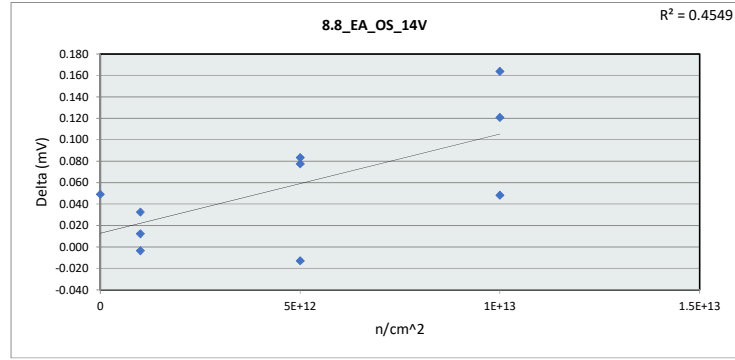


| 8.7_EA_OS_12V | | | | |
|-------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 2 | mV | | |
| Min Limit | -2 | mV | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | -2.000 | -2.000 | -2.000 | -2.000 |
| Min | 0.092 | -0.055 | 0.012 | -0.576 |
| Average | 0.092 | 0.271 | 0.063 | -0.150 |
| Max | 0.092 | 0.529 | 0.150 | 0.407 |
| UL | 2.000 | 2.000 | 2.000 | 2.000 |

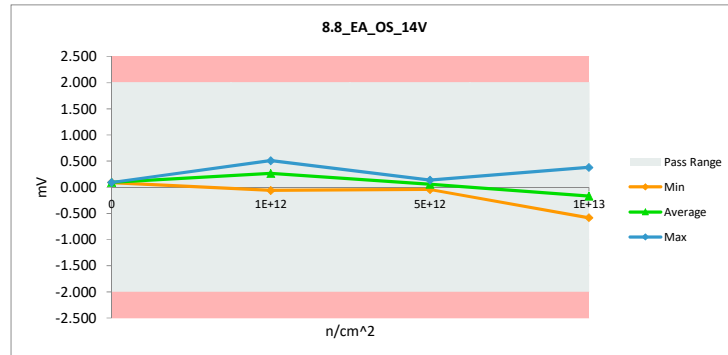


NDD Characterization Report TPS7H5007-SEP

| 8.8_EA_OS_14V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | mV | | mV | |
| Max Limit | 1.9 | | 2 | |
| Min Limit | -1.8 | | -2 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.043 | 0.092 | 0.049 |
| 1E+12 | 21 | 0.513 | 0.509 | -0.003 |
| 1E+12 | 22 | -0.092 | -0.060 | 0.033 |
| 1E+12 | 23 | 0.341 | 0.353 | 0.012 |
| 5E+12 | 24 | -0.028 | -0.041 | -0.013 |
| 5E+12 | 25 | -0.002 | 0.082 | 0.083 |
| 5E+12 | 26 | 0.060 | 0.138 | 0.078 |
| 1E+13 | 27 | -0.703 | -0.582 | 0.121 |
| 1E+13 | 28 | 0.215 | 0.379 | 0.164 |
| 1E+13 | 29 | -0.341 | -0.293 | 0.048 |
| Max | | 0.513 | 0.509 | 0.164 |
| Average | | 0.001 | 0.058 | 0.057 |
| Min | | -0.703 | -0.582 | -0.013 |
| Std Dev | | 0.342 | 0.326 | 0.056 |

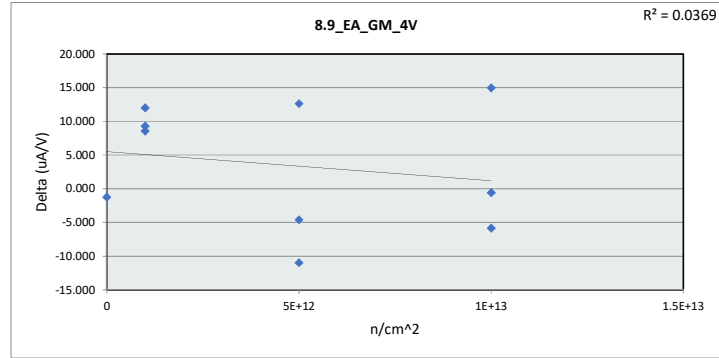


| 8.8_EA_OS_14V | | | | |
|-------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 2 | | mV | |
| Min Limit | -2 | | mV | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | -2.000 | -2.000 | -2.000 | -2.000 |
| Min | 0.092 | -0.060 | -0.041 | -0.582 |
| Average | 0.092 | 0.268 | 0.059 | -0.165 |
| Max | 0.092 | 0.509 | 0.138 | 0.379 |
| UL | 2.000 | 2.000 | 2.000 | 2.000 |

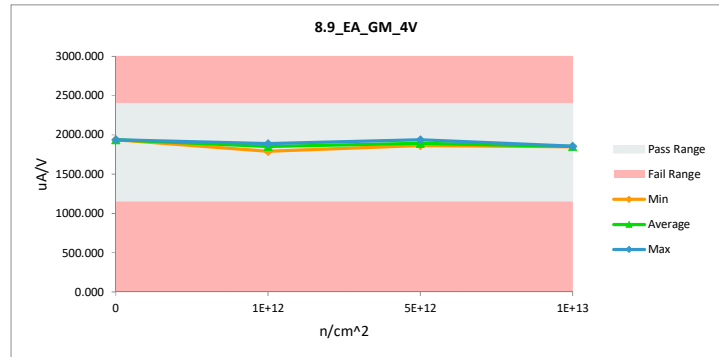


NDD Characterization Report TPS7H5007-SEP

| 8.9_EA_GM_4V | | | | |
|--------------|----------|-----------------|-------------------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA/V | uA/V | |
| Max Limit | | 2350 | 2400 | |
| Min Limit | | 1200 | 1150 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1938.856 | 1937.614 | -1.242 |
| 1E+12 | 21 | 1873.346 | 1881.909 | 8.563 |
| 1E+12 | 22 | 1875.912 | 1887.934 | 12.022 |
| 1E+12 | 23 | 1780.529 | 1789.837 | 9.308 |
| 5E+12 | 24 | 1924.964 | 1937.614 | 12.650 |
| 5E+12 | 25 | 1868.641 | 1864.042 | -4.599 |
| 5E+12 | 26 | 1892.897 | 1881.909 | -10.988 |
| 1E+13 | 27 | 1833.866 | 1848.831 | 14.965 |
| 1E+13 | 28 | 1858.158 | 1852.311 | -5.847 |
| 1E+13 | 29 | 1858.745 | 1858.158 | -0.587 |
| Max | | 1938.856 | 1937.614 | 14.965 |
| Average | | 1870.591 | 1874.016 | 3.425 |
| Min | | 1780.529 | 1789.837 | -10.988 |
| Std Dev | | 44.608 | 43.398 | 9.124 |

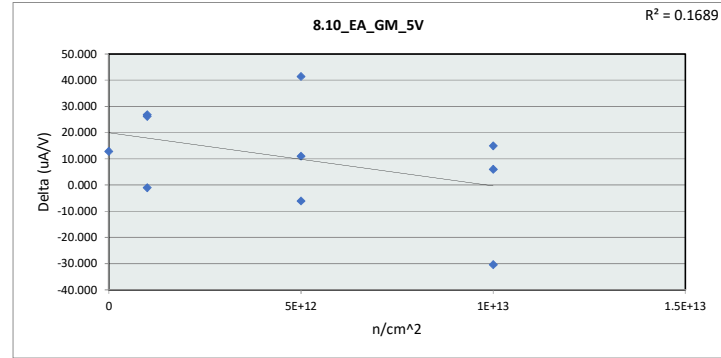


| 8.9_EA_GM_4V | | | | |
|--------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 2400 | uA/V | |
| Min Limit | | 1150 | uA/V | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1150.000 | 1150.000 | 1150.000 | 1150.000 |
| Min | 1937.614 | 1789.837 | 1864.042 | 1848.831 |
| Average | 1937.614 | 1853.227 | 1894.522 | 1853.100 |
| Max | 1937.614 | 1887.934 | 1937.614 | 1858.158 |
| UL | 2400.000 | 2400.000 | 2400.000 | 2400.000 |

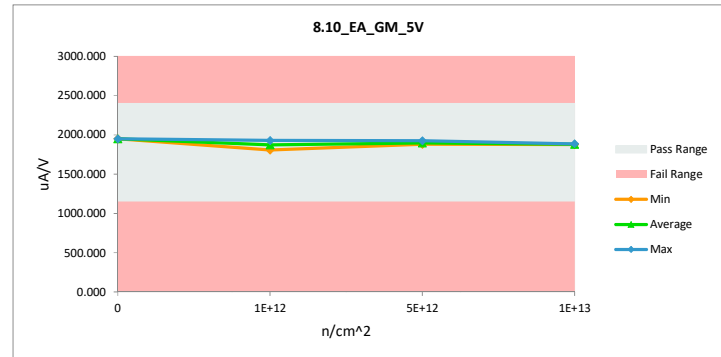


NDD Characterization Report TPS7H5007-SEP

| 8.10_EA_GM_5V | | | | |
|---------------|----------|-----------------|-------------------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA/V | uA/V | |
| Max Limit | | 2350 | 2400 | |
| Min Limit | | 1200 | 1150 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1937.625 | 1950.454 | 12.829 |
| 1E+12 | 21 | 1862.263 | 1888.539 | 26.276 |
| 1E+12 | 22 | 1900.670 | 1927.485 | 26.815 |
| 1E+12 | 23 | 1809.635 | 1808.630 | -1.005 |
| 5E+12 | 24 | 1915.207 | 1926.213 | 11.006 |
| 5E+12 | 25 | 1846.511 | 1887.934 | 41.423 |
| 5E+12 | 26 | 1887.934 | 1881.898 | -6.036 |
| 1E+13 | 27 | 1875.912 | 1881.909 | 5.997 |
| 1E+13 | 28 | 1870.557 | 1885.504 | 14.947 |
| 1E+13 | 29 | 1906.274 | 1875.912 | -30.362 |
| Max | | 1937.625 | 1950.454 | 41.423 |
| Average | | 1881.259 | 1891.448 | 10.189 |
| Min | | 1809.635 | 1808.630 | -30.362 |
| Std Dev | | 36.845 | 38.482 | 19.977 |

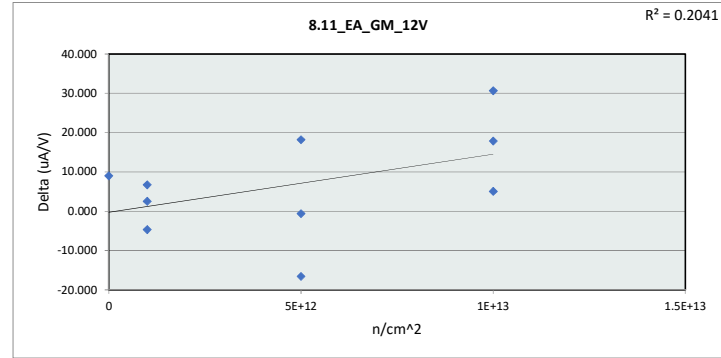


| 8.10_EA_GM_5V | | | | |
|---------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 2400 | uA/V | |
| Min Limit | | 1150 | uA/V | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1150.000 | 1150.000 | 1150.000 | 1150.000 |
| Min | 1950.454 | 1808.630 | 1881.898 | 1875.912 |
| Average | 1950.454 | 1874.885 | 1898.682 | 1881.108 |
| Max | 1950.454 | 1927.485 | 1926.213 | 1885.504 |
| UL | 2400.000 | 2400.000 | 2400.000 | 2400.000 |

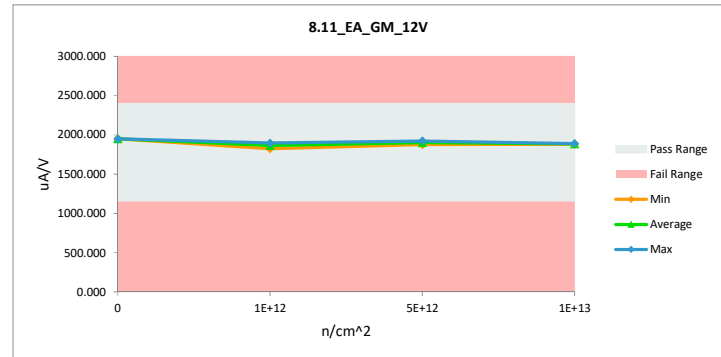


NDD Characterization Report TPS7H5007-SEP

| 8.11_EA_GM_12V | | | | |
|----------------|----------|-----------------|-------------------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA/V | uA/V | |
| Max Limit | | 2350 | 2400 | |
| Min Limit | | 1200 | 1150 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1941.459 | 1950.454 | 8.995 |
| 1E+12 | 21 | 1867.413 | 1874.130 | 6.717 |
| 1E+12 | 22 | 1902.168 | 1897.499 | -4.669 |
| 1E+12 | 23 | 1822.244 | 1824.771 | 2.527 |
| 5E+12 | 24 | 1924.953 | 1924.368 | -0.585 |
| 5E+12 | 25 | 1892.491 | 1875.912 | -16.579 |
| 5E+12 | 26 | 1881.909 | 1900.121 | 18.212 |
| 1E+13 | 27 | 1864.042 | 1881.898 | 17.856 |
| 1E+13 | 28 | 1858.158 | 1888.816 | 30.658 |
| 1E+13 | 29 | 1885.917 | 1890.966 | 5.049 |
| Max | | 1941.459 | 1950.454 | 30.658 |
| Average | | 1884.075 | 1890.893 | 6.818 |
| Min | | 1822.244 | 1824.771 | -16.579 |
| Std Dev | | 34.228 | 32.930 | 13.252 |

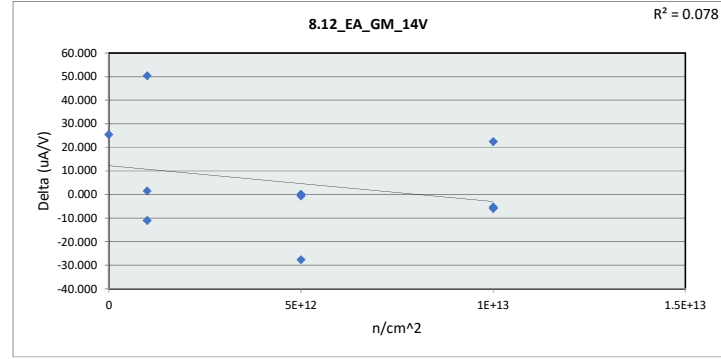


| 8.11_EA_GM_12V | | | | |
|----------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 2400 | uA/V | | |
| Min Limit | 1150 | uA/V | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1150.000 | 1150.000 | 1150.000 | 1150.000 |
| Min | 1950.454 | 1824.771 | 1875.912 | 1881.898 |
| Average | 1950.454 | 1865.467 | 1900.134 | 1887.227 |
| Max | 1950.454 | 1897.499 | 1924.368 | 1890.966 |
| UL | 2400.000 | 2400.000 | 2400.000 | 2400.000 |

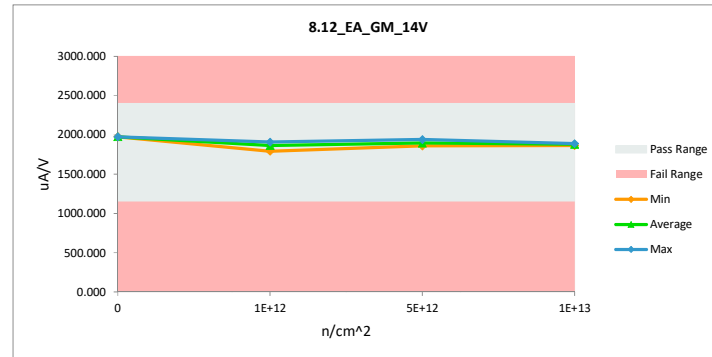


NDD Characterization Report TPS7H5007-SEP

| 8.12_EA_GM_14V | | | | |
|-------------------|----------|-----------------|-------------------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA/V | uA/V | |
| Max Limit | | 2350 | 2400 | |
| Min Limit | | 1200 | 1150 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1951.202 | 1976.627 | 25.425 |
| 1E+12 | 21 | 1858.158 | 1908.519 | 50.361 |
| 1E+12 | 22 | 1894.008 | 1895.527 | 1.519 |
| 1E+12 | 23 | 1804.099 | 1793.108 | -10.991 |
| 5E+12 | 24 | 1940.179 | 1940.348 | 0.169 |
| 5E+12 | 25 | 1891.318 | 1890.753 | -0.565 |
| 5E+12 | 26 | 1887.944 | 1860.291 | -27.653 |
| 1E+13 | 27 | 1869.963 | 1864.042 | -5.921 |
| 1E+13 | 28 | 1865.514 | 1887.934 | 22.420 |
| 1E+13 | 29 | 1894.896 | 1889.592 | -5.304 |
| Max | | 1951.202 | 1976.627 | 50.361 |
| Average | | 1885.728 | 1890.674 | 4.946 |
| Min | | 1804.099 | 1793.108 | -27.653 |
| Std Dev | | 41.528 | 48.714 | 22.091 |

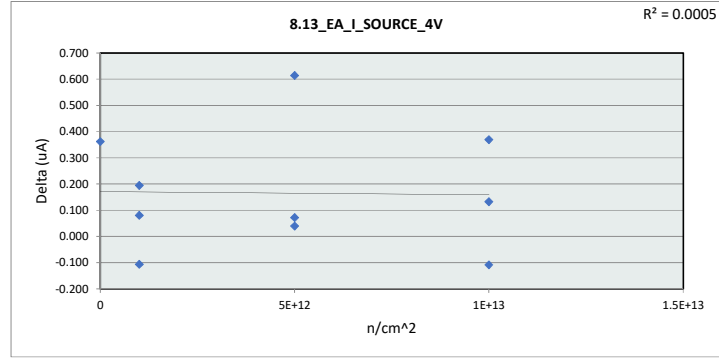


| 8.12_EA_GM_14V | | | | |
|-------------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 2400 | uA/V | | |
| Min Limit | 1150 | uA/V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1150.000 | 1150.000 | 1150.000 | 1150.000 |
| Min | 1976.627 | 1793.108 | 1860.291 | 1864.042 |
| Average | 1976.627 | 1865.718 | 1897.131 | 1880.523 |
| Max | 1976.627 | 1908.519 | 1940.348 | 1889.592 |
| UL | 2400.000 | 2400.000 | 2400.000 | 2400.000 |

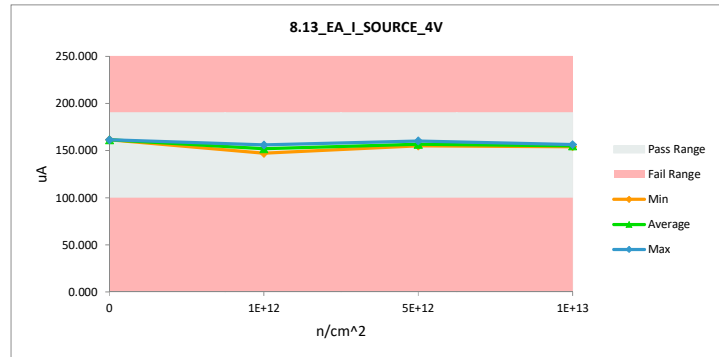


NDD Characterization Report TPS7H5007-SEP

| 8.13_EA_I_SOURCE_4V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 185 | 190 | |
| Min Limit | | 105 | 100 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 161.132 | 161.494 | 0.362 |
| 1E+12 | 21 | 152.748 | 152.943 | 0.195 |
| 1E+12 | 22 | 156.171 | 156.065 | -0.106 |
| 1E+12 | 23 | 147.184 | 147.265 | 0.081 |
| 5E+12 | 24 | 160.205 | 160.245 | 0.040 |
| 5E+12 | 25 | 154.263 | 154.877 | 0.614 |
| 5E+12 | 26 | 155.526 | 155.598 | 0.072 |
| 1E+13 | 27 | 154.974 | 155.107 | 0.133 |
| 1E+13 | 28 | 153.748 | 154.117 | 0.369 |
| 1E+13 | 29 | 156.494 | 156.386 | -0.108 |
| Max | | 161.132 | 161.494 | 0.614 |
| Average | | 155.245 | 155.410 | 0.165 |
| Min | | 147.184 | 147.265 | -0.108 |
| Std Dev | | 3.891 | 3.891 | 0.227 |

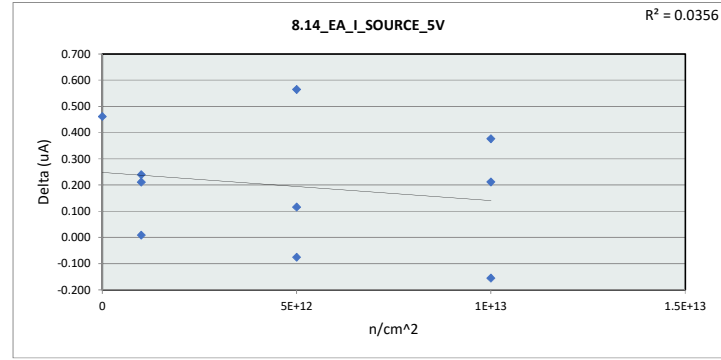


| 8.13_EA_I_SOURCE_4V | | | | |
|---------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 190 | uA | | |
| Min Limit | 100 | uA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 161.494 | 147.265 | 154.877 | 154.117 |
| Average | 161.494 | 152.091 | 156.907 | 155.203 |
| Max | 161.494 | 156.065 | 160.245 | 156.386 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 |

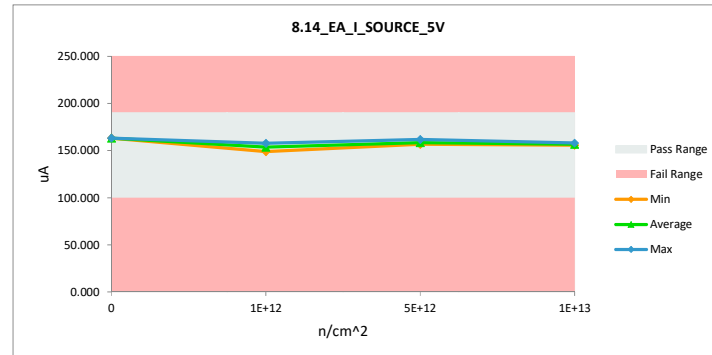


NDD Characterization Report TPS7H5007-SEP

| 8.14_EA_I_SOURCE_5V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 185 | 190 | |
| Min Limit | | 105 | 100 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 162.829 | 163.291 | 0.462 |
| 1E+12 | 21 | 154.243 | 154.483 | 0.240 |
| 1E+12 | 22 | 157.812 | 157.821 | 0.009 |
| 1E+12 | 23 | 148.689 | 148.900 | 0.211 |
| 5E+12 | 24 | 161.756 | 161.872 | 0.116 |
| 5E+12 | 25 | 155.987 | 156.552 | 0.565 |
| 5E+12 | 26 | 157.070 | 156.995 | -0.075 |
| 1E+13 | 27 | 156.528 | 156.740 | 0.212 |
| 1E+13 | 28 | 155.505 | 155.882 | 0.377 |
| 1E+13 | 29 | 158.117 | 157.962 | -0.155 |
| Max | | 162.829 | 163.291 | 0.565 |
| Average | | 156.854 | 157.050 | 0.196 |
| Min | | 148.689 | 148.900 | -0.155 |
| Std Dev | | 3.922 | 3.921 | 0.231 |

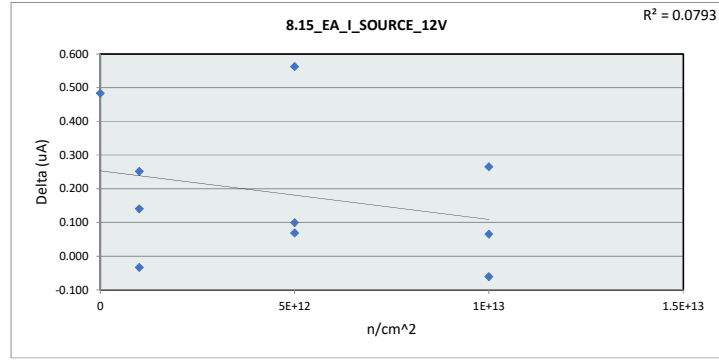


| 8.14_EA_I_SOURCE_5V | | | | |
|---------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 190 | uA | |
| Min Limit | | 100 | uA | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 163.291 | 148.900 | 156.552 | 155.882 |
| Average | 163.291 | 153.735 | 158.473 | 156.861 |
| Max | 163.291 | 157.821 | 161.872 | 157.962 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 |

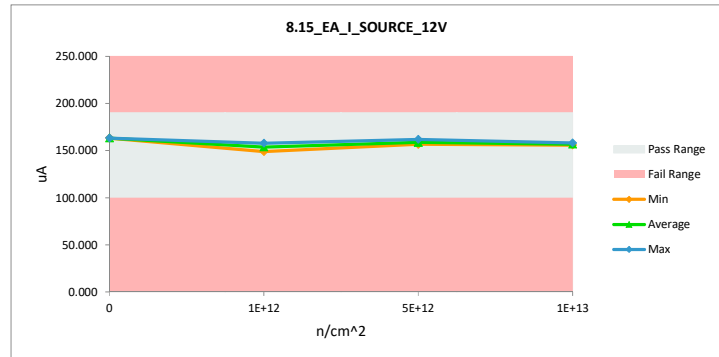


NDD Characterization Report TPS7H5007-SEP

| 8.15_EA_I_SOURCE_12V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 185 | 190 | |
| Min Limit | | 105 | 100 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 162.821 | 163.304 | 0.483 |
| 1E+12 | 21 | 154.293 | 154.544 | 0.251 |
| 1E+12 | 22 | 157.821 | 157.787 | -0.034 |
| 1E+12 | 23 | 148.768 | 148.908 | 0.140 |
| 5E+12 | 24 | 161.935 | 162.003 | 0.068 |
| 5E+12 | 25 | 156.023 | 156.585 | 0.562 |
| 5E+12 | 26 | 157.033 | 157.132 | 0.099 |
| 1E+13 | 27 | 156.633 | 156.698 | 0.065 |
| 1E+13 | 28 | 155.554 | 155.819 | 0.265 |
| 1E+13 | 29 | 158.121 | 158.060 | -0.061 |
| Max | | 162.821 | 163.304 | 0.562 |
| Average | | 156.900 | 157.084 | 0.184 |
| Min | | 148.768 | 148.908 | -0.061 |
| Std Dev | | 3.921 | 3.939 | 0.208 |

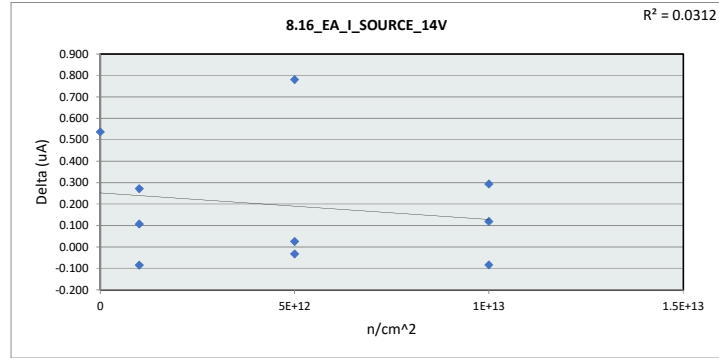


| 8.15_EA_I_SOURCE_12V | | | | |
|----------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 190 | uA | | |
| Min Limit | 100 | uA | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 163.304 | 148.908 | 156.585 | 155.819 |
| Average | 163.304 | 153.746 | 158.573 | 156.859 |
| Max | 163.304 | 157.787 | 162.003 | 158.060 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 |

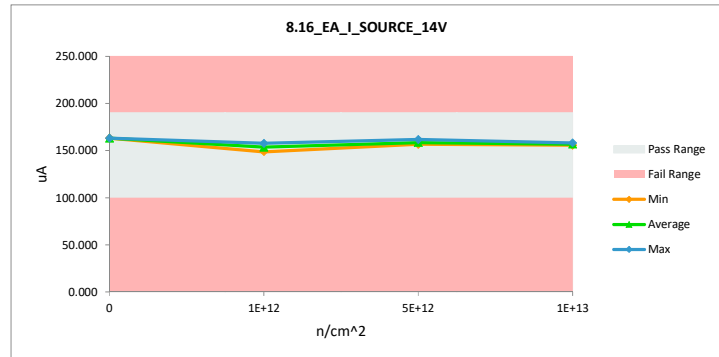


NDD Characterization Report TPS7H5007-SEP

| 8.16_EA_I_SOURCE_14V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 185 | 190 | |
| Min Limit | | 105 | 100 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 162.677 | 163.213 | 0.536 |
| 1E+12 | 21 | 154.190 | 154.461 | 0.271 |
| 1E+12 | 22 | 157.699 | 157.614 | -0.085 |
| 1E+12 | 23 | 148.661 | 148.767 | 0.106 |
| 5E+12 | 24 | 161.731 | 161.698 | -0.033 |
| 5E+12 | 25 | 155.894 | 156.674 | 0.780 |
| 5E+12 | 26 | 156.924 | 156.949 | 0.025 |
| 1E+13 | 27 | 156.514 | 156.632 | 0.118 |
| 1E+13 | 28 | 155.388 | 155.681 | 0.293 |
| 1E+13 | 29 | 158.023 | 157.939 | -0.084 |
| Max | | 162.677 | 163.213 | 0.780 |
| Average | | 156.770 | 156.963 | 0.193 |
| Min | | 148.661 | 148.767 | -0.085 |
| Std Dev | | 3.903 | 3.918 | 0.284 |

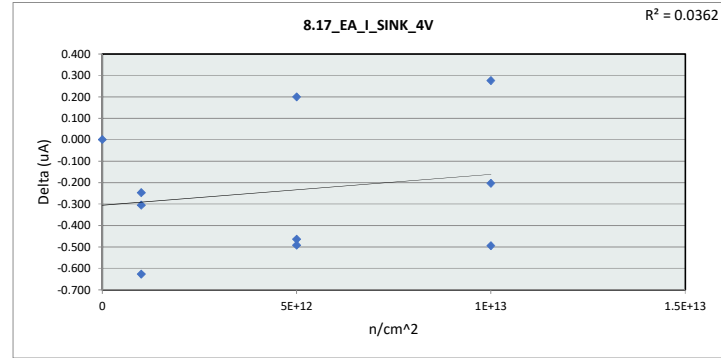


| 8.16_EA_I_SOURCE_14V | | | | |
|----------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 190 | uA | | |
| Min Limit | 100 | uA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 163.213 | 148.767 | 156.674 | 155.681 |
| Average | 163.213 | 153.614 | 158.440 | 156.751 |
| Max | 163.213 | 157.614 | 161.698 | 157.939 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 |

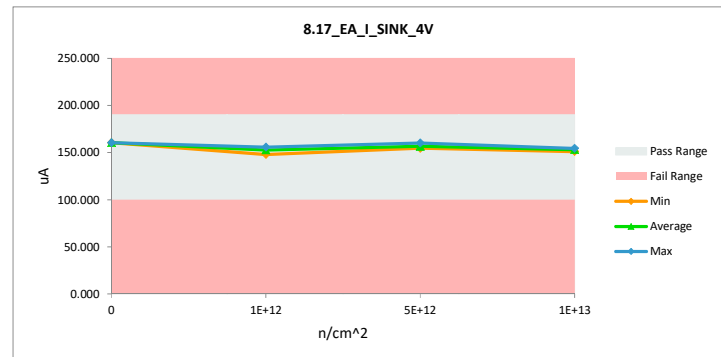


NDD Characterization Report TPS7H5007-SEP

| 8.17_EA_I_SINK_4V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 185 | 190 | |
| Min Limit | | 105 | 100 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 160.509 | 160.509 | 0.000 |
| 1E+12 | 21 | 154.658 | 154.352 | -0.306 |
| 1E+12 | 22 | 156.514 | 155.887 | -0.627 |
| 1E+12 | 23 | 148.300 | 148.052 | -0.248 |
| 5E+12 | 24 | 160.439 | 159.975 | -0.464 |
| 5E+12 | 25 | 154.284 | 154.483 | 0.199 |
| 5E+12 | 26 | 155.912 | 155.420 | -0.492 |
| 1E+13 | 27 | 151.398 | 151.194 | -0.204 |
| 1E+13 | 28 | 154.262 | 154.537 | 0.275 |
| 1E+13 | 29 | 154.344 | 153.849 | -0.495 |
| Max | | 160.509 | 160.509 | 0.275 |
| Average | | 155.062 | 154.826 | -0.236 |
| Min | | 148.300 | 148.052 | -0.627 |
| Std Dev | | 3.689 | 3.663 | 0.307 |

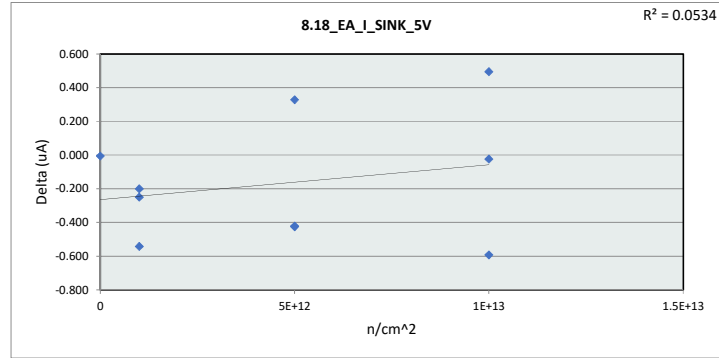


| 8.17_EA_I_SINK_4V | | | | |
|-------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 190 | uA | | |
| Min Limit | 100 | uA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 160.509 | 148.052 | 154.483 | 151.194 |
| Average | 160.509 | 152.764 | 156.626 | 153.193 |
| Max | 160.509 | 155.887 | 159.975 | 154.537 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 |

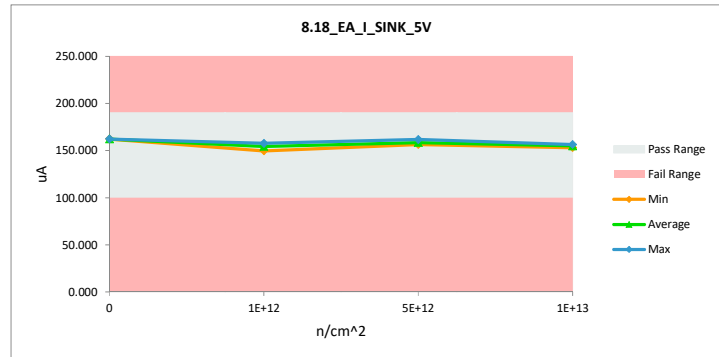


NDD Characterization Report TPS7H5007-SEP

| 8.18_EA_I_SINK_5V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 185 | 190 | |
| Min Limit | | 105 | 100 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 162.343 | 162.336 | -0.007 |
| 1E+12 | 21 | 156.221 | 156.020 | -0.201 |
| 1E+12 | 22 | 158.224 | 157.680 | -0.544 |
| 1E+12 | 23 | 149.914 | 149.663 | -0.251 |
| 5E+12 | 24 | 162.182 | 161.759 | -0.423 |
| 5E+12 | 25 | 156.047 | 156.374 | 0.327 |
| 5E+12 | 26 | 157.582 | 157.156 | -0.426 |
| 1E+13 | 27 | 152.993 | 152.968 | -0.025 |
| 1E+13 | 28 | 155.948 | 156.442 | 0.494 |
| 1E+13 | 29 | 156.154 | 155.560 | -0.594 |
| Max | | 162.343 | 162.336 | 0.494 |
| Average | | 156.761 | 156.596 | -0.165 |
| Min | | 149.914 | 149.663 | -0.594 |
| Std Dev | | 3.746 | 3.709 | 0.364 |

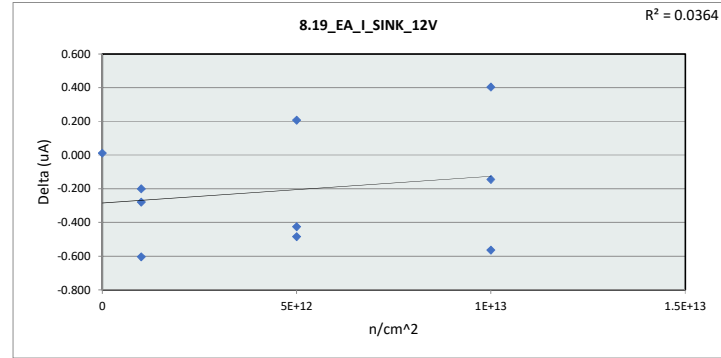


| 8.18_EA_I_SINK_5V | | | | |
|-------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 190 | uA | | |
| Min Limit | 100 | uA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 162.336 | 149.663 | 156.374 | 152.968 |
| Average | 162.336 | 154.454 | 158.430 | 154.990 |
| Max | 162.336 | 157.680 | 161.759 | 156.442 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 |

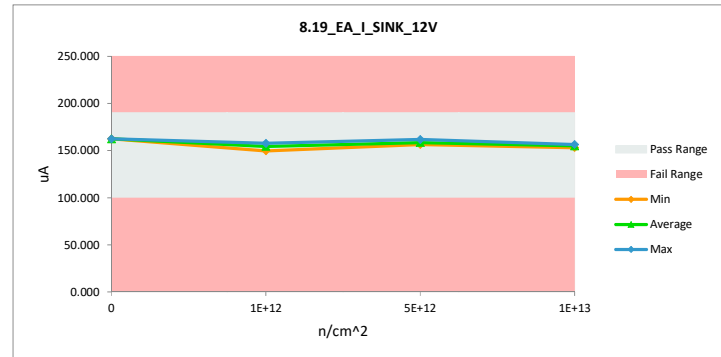


NDD Characterization Report TPS7H5007-SEP

| 8.19_EA_I_SINK_12V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 185 | 190 | |
| Min Limit | | 105 | 100 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 162.395 | 162.406 | 0.011 |
| 1E+12 | 21 | 156.331 | 156.130 | -0.201 |
| 1E+12 | 22 | 158.317 | 157.712 | -0.605 |
| 1E+12 | 23 | 149.969 | 149.689 | -0.280 |
| 5E+12 | 24 | 162.229 | 161.744 | -0.485 |
| 5E+12 | 25 | 156.102 | 156.308 | 0.206 |
| 5E+12 | 26 | 157.581 | 157.155 | -0.426 |
| 1E+13 | 27 | 153.056 | 152.910 | -0.146 |
| 1E+13 | 28 | 156.076 | 156.479 | 0.403 |
| 1E+13 | 29 | 156.191 | 155.626 | -0.565 |
| Max | | 162.395 | 162.406 | 0.403 |
| Average | | 156.825 | 156.616 | -0.209 |
| Min | | 149.969 | 149.689 | -0.605 |
| Std Dev | | 3.741 | 3.717 | 0.335 |

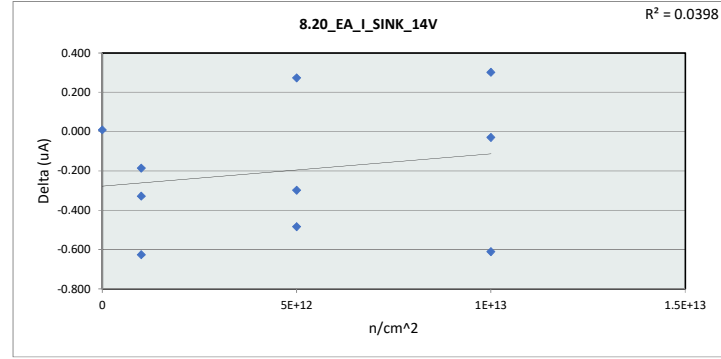


| 8.19_EA_I_SINK_12V | | | | |
|--------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 190 | uA | | |
| Min Limit | 100 | uA | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 162.406 | 149.689 | 156.308 | 152.910 |
| Average | 162.406 | 154.510 | 158.402 | 155.005 |
| Max | 162.406 | 157.712 | 161.744 | 156.479 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 |

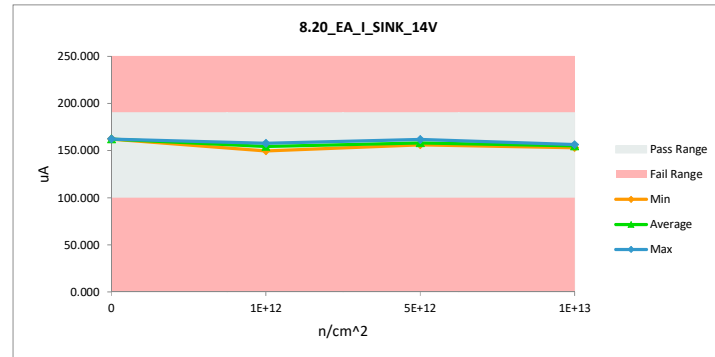


NDD Characterization Report TPS7H5007-SEP

| 8.20_EA_I_SINK_14V | | | | |
|--------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | uA | uA | |
| Max Limit | | 185 | 190 | |
| Min Limit | | 105 | 100 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 162.264 | 162.272 | 0.008 |
| 1E+12 | 21 | 156.193 | 156.007 | -0.186 |
| 1E+12 | 22 | 158.227 | 157.600 | -0.627 |
| 1E+12 | 23 | 149.920 | 149.591 | -0.329 |
| 5E+12 | 24 | 162.098 | 161.614 | -0.484 |
| 5E+12 | 25 | 155.939 | 156.212 | 0.273 |
| 5E+12 | 26 | 157.335 | 157.036 | -0.299 |
| 1E+13 | 27 | 152.931 | 152.901 | -0.030 |
| 1E+13 | 28 | 155.962 | 156.263 | 0.301 |
| 1E+13 | 29 | 156.082 | 155.471 | -0.611 |
| Max | | 162.264 | 162.272 | 0.301 |
| Average | | 156.695 | 156.497 | -0.198 |
| Min | | 149.920 | 149.591 | -0.627 |
| Std Dev | | 3.723 | 3.698 | 0.334 |

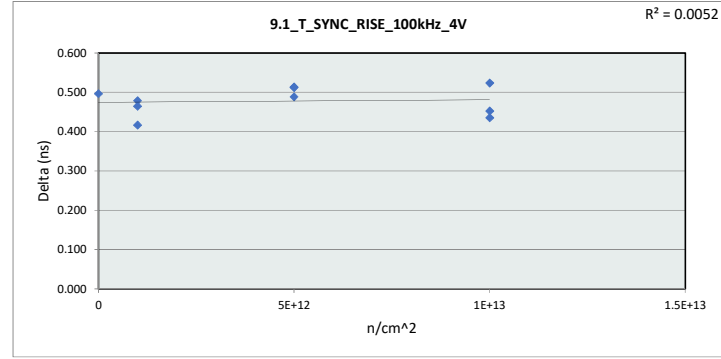


| 8.20_EA_I_SINK_14V | | | | |
|--------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 190 | uA | | |
| Min Limit | 100 | uA | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 100.000 | 100.000 | 100.000 | 100.000 |
| Min | 162.272 | 149.591 | 156.212 | 152.901 |
| Average | 162.272 | 154.399 | 158.287 | 154.878 |
| Max | 162.272 | 157.600 | 161.614 | 156.263 |
| UL | 190.000 | 190.000 | 190.000 | 190.000 |

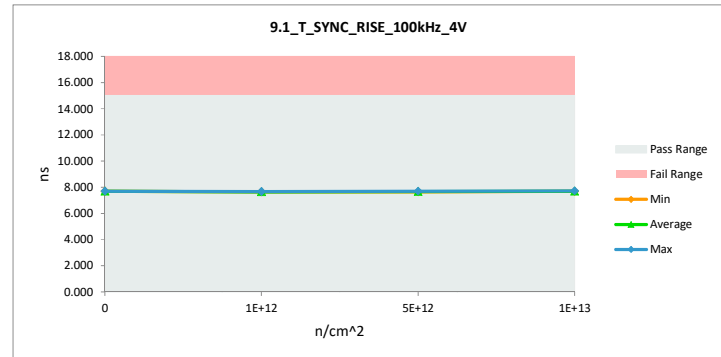


NDD Characterization Report TPS7H5007-SEP

| 9.1_T_SYNC_RISE_100kHz_4V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 14.5 | | 15 | |
| Min Limit | 0 | | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.196 | 7.692 | 0.496 |
| 1E+12 | 21 | 7.222 | 7.638 | 0.416 |
| 1E+12 | 22 | 7.183 | 7.661 | 0.478 |
| 1E+12 | 23 | 7.198 | 7.662 | 0.464 |
| 5E+12 | 24 | 7.122 | 7.634 | 0.512 |
| 5E+12 | 25 | 7.159 | 7.672 | 0.513 |
| 5E+12 | 26 | 7.201 | 7.689 | 0.488 |
| 1E+13 | 27 | 7.262 | 7.714 | 0.452 |
| 1E+13 | 28 | 7.160 | 7.683 | 0.523 |
| 1E+13 | 29 | 7.239 | 7.674 | 0.435 |
| Max | | 7.262 | 7.714 | 0.523 |
| Average | | 7.194 | 7.672 | 0.478 |
| Min | | 7.122 | 7.634 | 0.416 |
| Std Dev | | 0.041 | 0.024 | 0.036 |

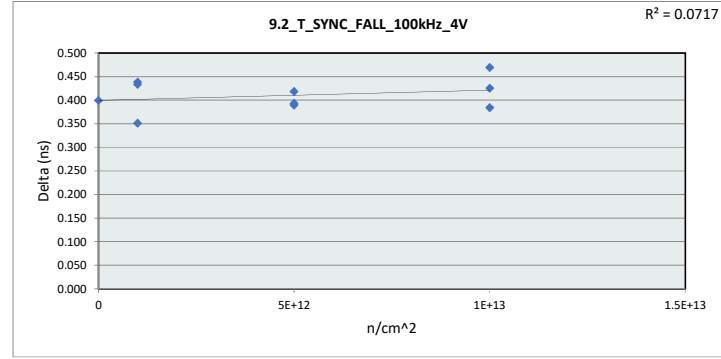


| 9.1_T_SYNC_RISE_100kHz_4V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.692 | 7.638 | 7.634 | 7.674 |
| Average | 7.692 | 7.654 | 7.665 | 7.690 |
| Max | 7.692 | 7.662 | 7.689 | 7.714 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

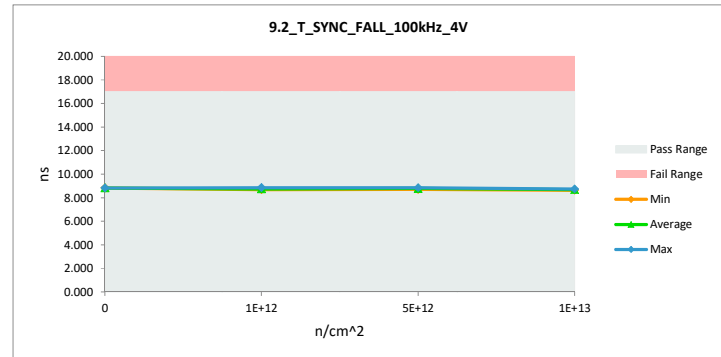


NDD Characterization Report TPS7H5007-SEP

| 9.2_T_SYNC_FALL_100kHz_4V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14.5 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.423 | 8.822 | 0.399 |
| 1E+12 | 21 | 8.267 | 8.700 | 0.433 |
| 1E+12 | 22 | 8.336 | 8.687 | 0.351 |
| 1E+12 | 23 | 8.417 | 8.855 | 0.438 |
| 5E+12 | 24 | 8.307 | 8.696 | 0.389 |
| 5E+12 | 25 | 8.448 | 8.841 | 0.393 |
| 5E+12 | 26 | 8.396 | 8.814 | 0.418 |
| 1E+13 | 27 | 8.200 | 8.669 | 0.469 |
| 1E+13 | 28 | 8.299 | 8.724 | 0.425 |
| 1E+13 | 29 | 8.241 | 8.625 | 0.384 |
| Max | | 8.448 | 8.855 | 0.469 |
| Average | | 8.333 | 8.743 | 0.410 |
| Min | | 8.200 | 8.625 | 0.351 |
| Std Dev | | 0.085 | 0.082 | 0.033 |

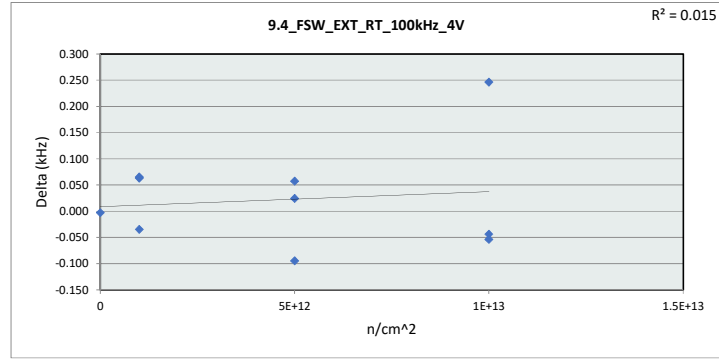


| 9.2_T_SYNC_FALL_100kHz_4V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.822 | 8.687 | 8.696 | 8.625 |
| Average | 8.822 | 8.747 | 8.784 | 8.673 |
| Max | 8.822 | 8.855 | 8.841 | 8.724 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

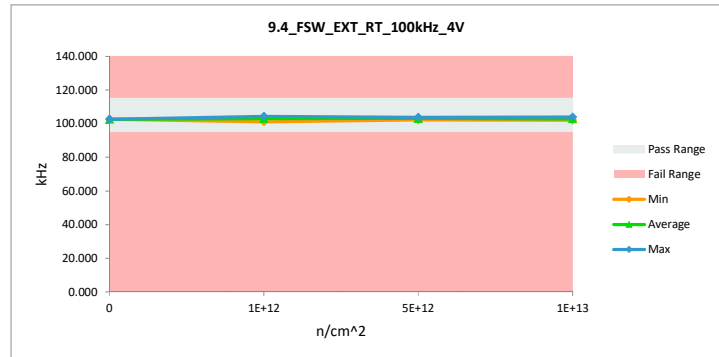


NDD Characterization Report TPS7H5007-SEP

| 9.4_FSW_EXT_RT_100kHz_4V | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 115 | 115 | |
| Min Limit | | 95 | 95 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 102.671 | 102.668 | -0.003 |
| 1E+12 | 21 | 104.405 | 104.370 | -0.035 |
| 1E+12 | 22 | 103.656 | 103.719 | 0.063 |
| 1E+12 | 23 | 101.073 | 101.138 | 0.065 |
| 5E+12 | 24 | 103.343 | 103.248 | -0.095 |
| 5E+12 | 25 | 103.746 | 103.770 | 0.024 |
| 5E+12 | 26 | 102.108 | 102.165 | 0.057 |
| 1E+13 | 27 | 102.162 | 102.118 | -0.044 |
| 1E+13 | 28 | 102.497 | 102.743 | 0.246 |
| 1E+13 | 29 | 103.945 | 103.891 | -0.054 |
| Max | | 104.405 | 104.370 | 0.246 |
| Average | | 102.961 | 102.983 | 0.022 |
| Min | | 101.073 | 101.138 | -0.095 |
| Std Dev | | 1.029 | 0.998 | 0.096 |

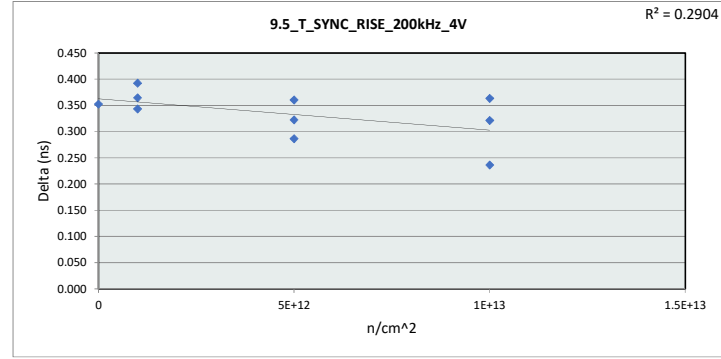


| 9.4_FSW_EXT_RT_100kHz_4V | | | | |
|--------------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 115 | kHz | | |
| Min Limit | 95 | kHz | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 95.000 | 95.000 | 95.000 | 95.000 |
| Min | 102.668 | 101.138 | 102.165 | 102.118 |
| Average | 102.668 | 103.076 | 103.061 | 102.917 |
| Max | 102.668 | 104.370 | 103.770 | 103.891 |
| UL | 115.000 | 115.000 | 115.000 | 115.000 |

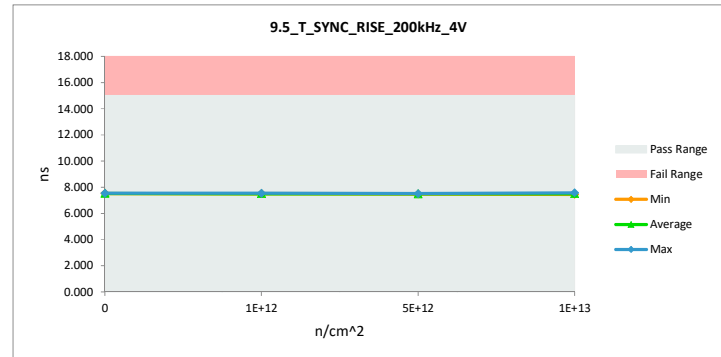


NDD Characterization Report TPS7H5007-SEP

| 9.5_T_SYNC_RISE_200kHz_4V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 14.5 | | 15 | |
| Min Limit | 0 | | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.180 | 7.532 | 0.352 |
| 1E+12 | 21 | 7.142 | 7.506 | 0.364 |
| 1E+12 | 22 | 7.159 | 7.502 | 0.343 |
| 1E+12 | 23 | 7.135 | 7.527 | 0.392 |
| 5E+12 | 24 | 7.146 | 7.468 | 0.322 |
| 5E+12 | 25 | 7.119 | 7.479 | 0.360 |
| 5E+12 | 26 | 7.223 | 7.509 | 0.286 |
| 1E+13 | 27 | 7.242 | 7.563 | 0.321 |
| 1E+13 | 28 | 7.215 | 7.451 | 0.236 |
| 1E+13 | 29 | 7.124 | 7.487 | 0.363 |
| Max | | 7.242 | 7.563 | 0.392 |
| Average | | 7.169 | 7.502 | 0.334 |
| Min | | 7.119 | 7.451 | 0.236 |
| Std Dev | | 0.044 | 0.033 | 0.045 |

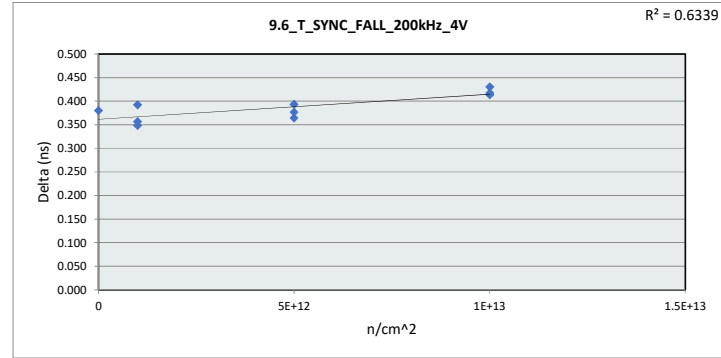


| 9.5_T_SYNC_RISE_200kHz_4V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.532 | 7.502 | 7.468 | 7.451 |
| Average | 7.532 | 7.512 | 7.485 | 7.500 |
| Max | 7.532 | 7.527 | 7.509 | 7.563 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

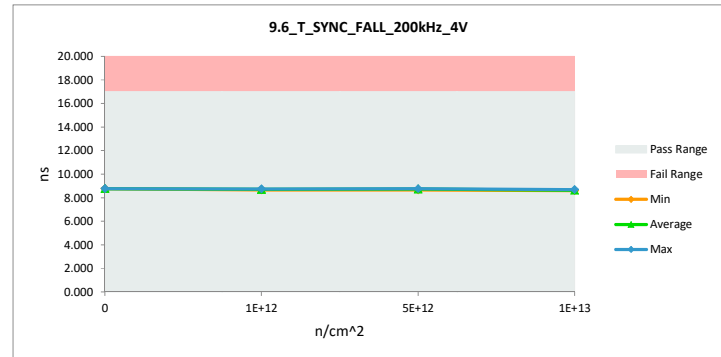


NDD Characterization Report TPS7H5007-SEP

| 9.6_T_SYNC_FALL_200kHz_4V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.396 | 8.776 | 0.380 |
| 1E+12 | 21 | 8.293 | 8.685 | 0.392 |
| 1E+12 | 22 | 8.312 | 8.660 | 0.348 |
| 1E+12 | 23 | 8.387 | 8.743 | 0.356 |
| 5E+12 | 24 | 8.263 | 8.656 | 0.393 |
| 5E+12 | 25 | 8.401 | 8.765 | 0.364 |
| 5E+12 | 26 | 8.377 | 8.753 | 0.376 |
| 1E+13 | 27 | 8.194 | 8.607 | 0.413 |
| 1E+13 | 28 | 8.260 | 8.690 | 0.430 |
| 1E+13 | 29 | 8.199 | 8.616 | 0.417 |
| Max | | 8.401 | 8.776 | 0.430 |
| Average | | 8.308 | 8.695 | 0.387 |
| Min | | 8.194 | 8.607 | 0.348 |
| Std Dev | | 0.079 | 0.061 | 0.027 |

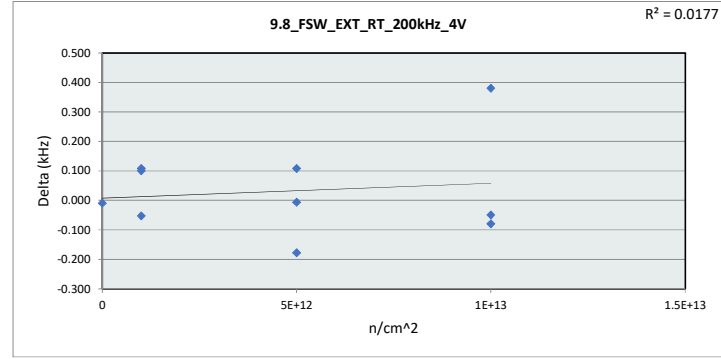


| 9.6_T_SYNC_FALL_200kHz_4V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.776 | 8.660 | 8.656 | 8.607 |
| Average | 8.776 | 8.696 | 8.725 | 8.638 |
| Max | 8.776 | 8.743 | 8.765 | 8.690 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

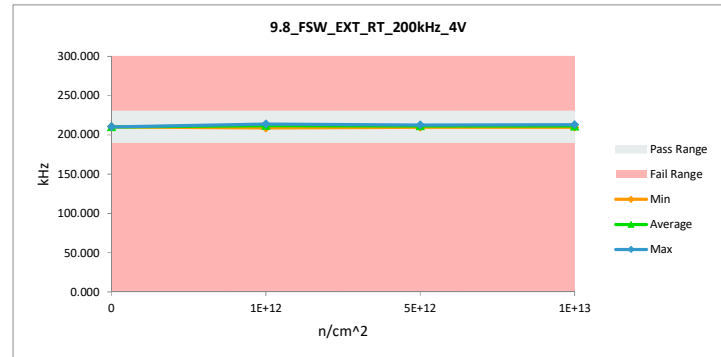


NDD Characterization Report TPS7H5007-SEP

| 9.8_FSW_EXT_RT_200kHz_4V | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 230 | 230 | |
| Min Limit | | 190 | 190 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 210.328 | 210.318 | -0.010 |
| 1E+12 | 21 | 213.826 | 213.773 | -0.053 |
| 1E+12 | 22 | 212.784 | 212.892 | 0.108 |
| 1E+12 | 23 | 208.676 | 208.776 | 0.100 |
| 5E+12 | 24 | 212.172 | 211.994 | -0.178 |
| 5E+12 | 25 | 212.570 | 212.563 | -0.007 |
| 5E+12 | 26 | 209.650 | 209.758 | 0.108 |
| 1E+13 | 27 | 209.841 | 209.791 | -0.050 |
| 1E+13 | 28 | 210.403 | 210.783 | 0.380 |
| 1E+13 | 29 | 212.960 | 212.880 | -0.080 |
| Max | | 213.826 | 213.773 | 0.380 |
| Average | | 211.321 | 211.353 | 0.032 |
| Min | | 208.676 | 208.776 | -0.178 |
| Std Dev | | 1.738 | 1.682 | 0.153 |

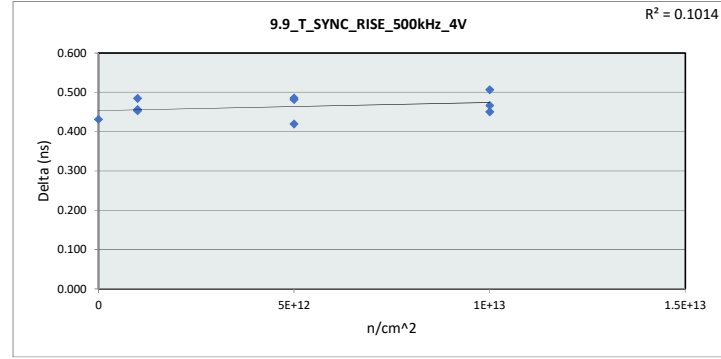


| 9.8_FSW_EXT_RT_200kHz_4V | | | | |
|--------------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 230 | kHz | | |
| Min Limit | 190 | kHz | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 190.000 | 190.000 | 190.000 | 190.000 |
| Min | 210.318 | 208.776 | 209.758 | 209.791 |
| Average | 210.318 | 211.814 | 211.438 | 211.151 |
| Max | 210.318 | 213.773 | 212.563 | 212.880 |
| UL | 230.000 | 230.000 | 230.000 | 230.000 |

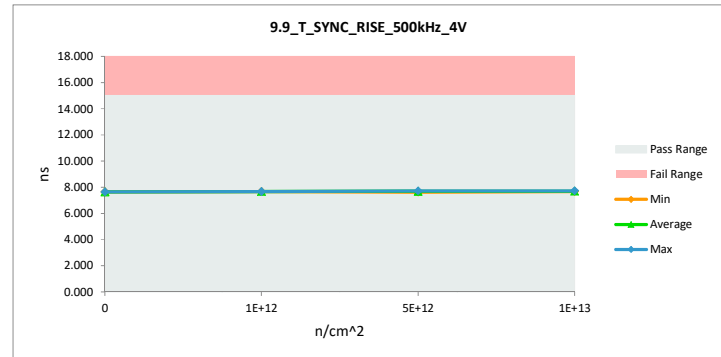


NDD Characterization Report TPS7H5007-SEP

| 9.9_T_SYNC_RISE_500kHz_4V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 14.5 | | 15 | |
| Min Limit | 0 | | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.206 | 7.637 | 0.431 |
| 1E+12 | 21 | 7.205 | 7.661 | 0.456 |
| 1E+12 | 22 | 7.212 | 7.665 | 0.453 |
| 1E+12 | 23 | 7.177 | 7.661 | 0.484 |
| 5E+12 | 24 | 7.208 | 7.627 | 0.419 |
| 5E+12 | 25 | 7.207 | 7.692 | 0.485 |
| 5E+12 | 26 | 7.232 | 7.713 | 0.481 |
| 1E+13 | 27 | 7.209 | 7.675 | 0.466 |
| 1E+13 | 28 | 7.216 | 7.722 | 0.506 |
| 1E+13 | 29 | 7.234 | 7.684 | 0.450 |
| Max | | 7.234 | 7.722 | 0.506 |
| Average | | 7.211 | 7.674 | 0.463 |
| Min | | 7.177 | 7.627 | 0.419 |
| Std Dev | | 0.016 | 0.030 | 0.027 |

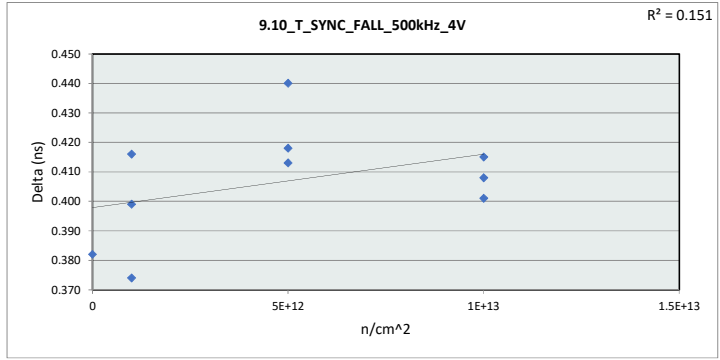


| 9.9_T_SYNC_RISE_500kHz_4V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.637 | 7.661 | 7.627 | 7.675 |
| Average | 7.637 | 7.662 | 7.677 | 7.694 |
| Max | 7.637 | 7.665 | 7.713 | 7.722 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

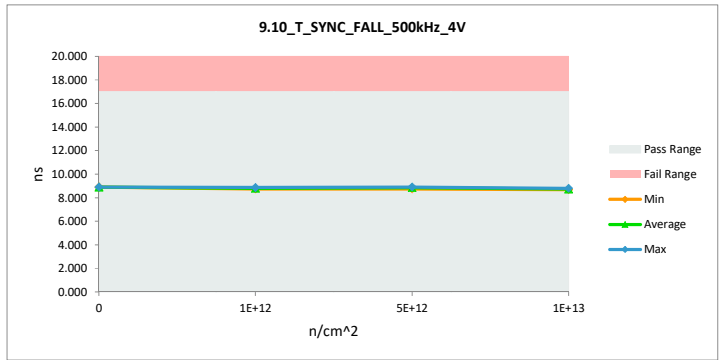


NDD Characterization Report TPS7H5007-SEP

| 9.10_T_SYNC_FALL_500kHz_4V | | | | |
|----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.517 | 8.899 | 0.382 |
| 1E+12 | 21 | 8.329 | 8.745 | 0.416 |
| 1E+12 | 22 | 8.400 | 8.774 | 0.374 |
| 1E+12 | 23 | 8.468 | 8.867 | 0.399 |
| 5E+12 | 24 | 8.322 | 8.735 | 0.413 |
| 5E+12 | 25 | 8.487 | 8.905 | 0.418 |
| 5E+12 | 26 | 8.445 | 8.885 | 0.440 |
| 1E+13 | 27 | 8.278 | 8.679 | 0.401 |
| 1E+13 | 28 | 8.386 | 8.801 | 0.415 |
| 1E+13 | 29 | 8.299 | 8.707 | 0.408 |
| Max | | 8.517 | 8.905 | 0.440 |
| Average | | 8.393 | 8.800 | 0.407 |
| Min | | 8.278 | 8.679 | 0.374 |
| Std Dev | | 0.084 | 0.084 | 0.019 |

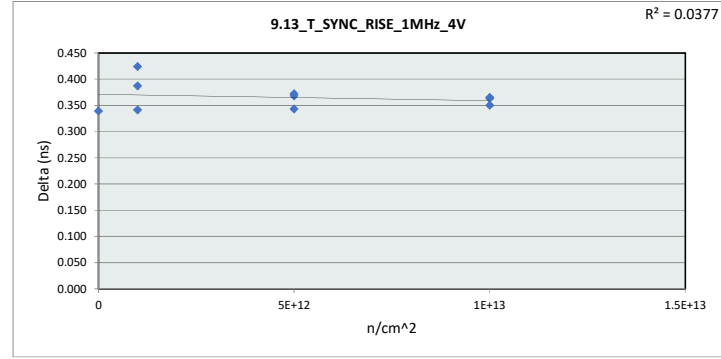


| 9.10_T_SYNC_FALL_500kHz_4V | | | | |
|----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.899 | 8.745 | 8.735 | 8.679 |
| Average | 8.899 | 8.795 | 8.842 | 8.729 |
| Max | 8.899 | 8.867 | 8.905 | 8.801 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

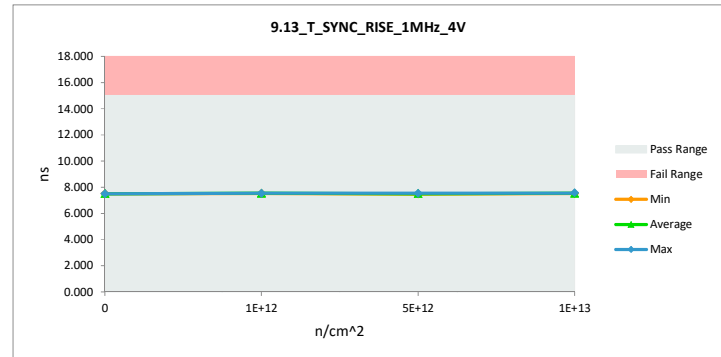


NDD Characterization Report TPS7H5007-SEP

| 9.13_T_SYNC_RISE_1MHz_4V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 14.5 | | 15 | |
| Min Limit | 0 | | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.163 | 7.502 | 0.339 |
| 1E+12 | 21 | 7.192 | 7.533 | 0.341 |
| 1E+12 | 22 | 7.115 | 7.539 | 0.424 |
| 1E+12 | 23 | 7.131 | 7.518 | 0.387 |
| 5E+12 | 24 | 7.133 | 7.476 | 0.343 |
| 5E+12 | 25 | 7.151 | 7.519 | 0.368 |
| 5E+12 | 26 | 7.162 | 7.534 | 0.372 |
| 1E+13 | 27 | 7.192 | 7.557 | 0.365 |
| 1E+13 | 28 | 7.151 | 7.514 | 0.363 |
| 1E+13 | 29 | 7.184 | 7.534 | 0.350 |
| Max | | 7.192 | 7.557 | 0.424 |
| Average | | 7.157 | 7.523 | 0.365 |
| Min | | 7.115 | 7.476 | 0.339 |
| Std Dev | | 0.027 | 0.022 | 0.026 |

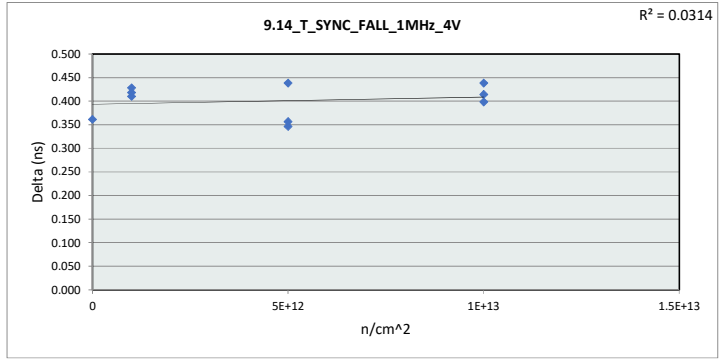


| 9.13_T_SYNC_RISE_1MHz_4V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.502 | 7.518 | 7.476 | 7.514 |
| Average | 7.502 | 7.530 | 7.510 | 7.535 |
| Max | 7.502 | 7.539 | 7.534 | 7.557 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

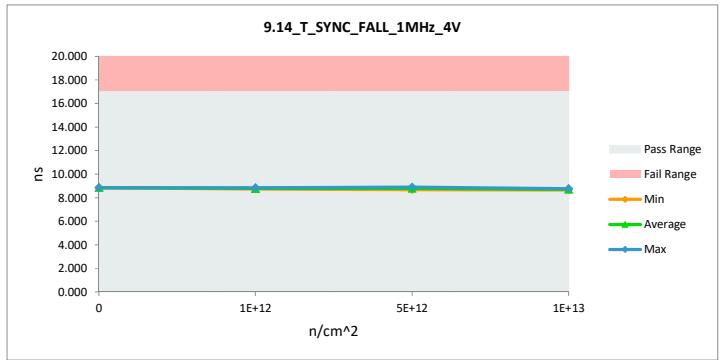


NDD Characterization Report TPS7H5007-SEP

| 9.14_T_SYNC_FALL_1MHz_4V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.489 | 8.850 | 0.361 |
| 1E+12 | 21 | 8.332 | 8.750 | 0.418 |
| 1E+12 | 22 | 8.332 | 8.760 | 0.428 |
| 1E+12 | 23 | 8.438 | 8.848 | 0.410 |
| 5E+12 | 24 | 8.330 | 8.686 | 0.356 |
| 5E+12 | 25 | 8.453 | 8.891 | 0.438 |
| 5E+12 | 26 | 8.468 | 8.814 | 0.346 |
| 1E+13 | 27 | 8.261 | 8.659 | 0.398 |
| 1E+13 | 28 | 8.358 | 8.772 | 0.414 |
| 1E+13 | 29 | 8.263 | 8.701 | 0.438 |
| Max | | 8.489 | 8.891 | 0.438 |
| Average | | 8.372 | 8.773 | 0.401 |
| Min | | 8.261 | 8.659 | 0.346 |
| Std Dev | | 0.084 | 0.077 | 0.034 |

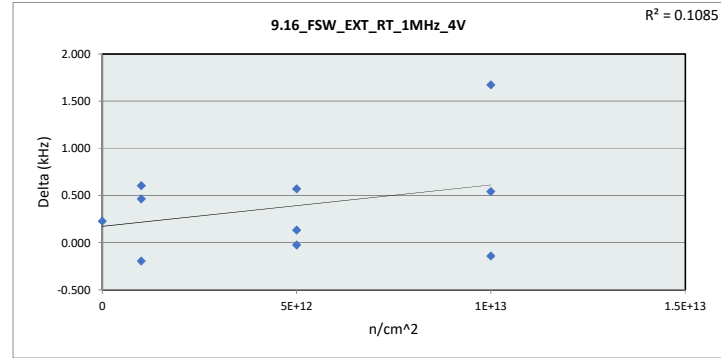


| 9.14_T_SYNC_FALL_1MHz_4V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.850 | 8.750 | 8.686 | 8.659 |
| Average | 8.850 | 8.786 | 8.797 | 8.711 |
| Max | 8.850 | 8.848 | 8.891 | 8.772 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

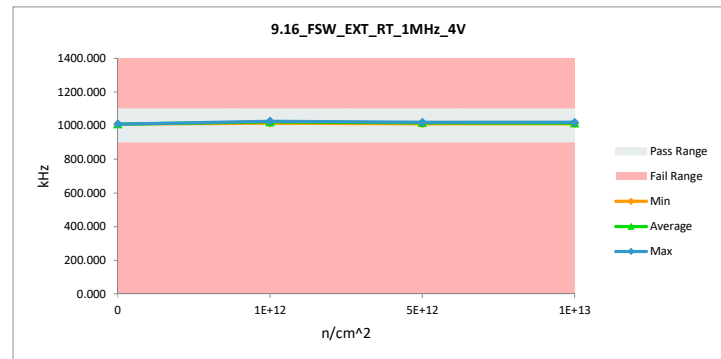


NDD Characterization Report TPS7H5007-SEP

| 9.16_FSW_EXT_RT_1MHz_4V | | | | |
|-------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 1100 | 1100 | |
| Min Limit | | 900 | 900 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1008.918 | 1009.144 | 0.226 |
| 1E+12 | 21 | 1026.689 | 1026.492 | -0.197 |
| 1E+12 | 22 | 1023.089 | 1023.552 | 0.463 |
| 1E+12 | 23 | 1014.493 | 1015.096 | 0.603 |
| 5E+12 | 24 | 1019.330 | 1019.305 | -0.025 |
| 5E+12 | 25 | 1019.471 | 1019.603 | 0.132 |
| 5E+12 | 26 | 1011.522 | 1012.091 | 0.569 |
| 1E+13 | 27 | 1009.633 | 1010.173 | 0.540 |
| 1E+13 | 28 | 1013.006 | 1014.677 | 1.671 |
| 1E+13 | 29 | 1019.767 | 1019.624 | -0.143 |
| Max | | 1026.689 | 1026.492 | 1.671 |
| Average | | 1016.592 | 1016.976 | 0.384 |
| Min | | 1008.918 | 1009.144 | -0.197 |
| Std Dev | | 5.966 | 5.710 | 0.542 |

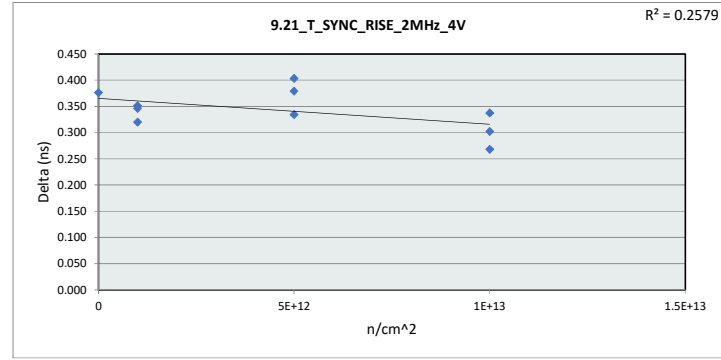


| 9.16_FSW_EXT_RT_1MHz_4V | | | | |
|-------------------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 1100 | kHz | |
| Min Limit | | 900 | kHz | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 900.000 | 900.000 | 900.000 | 900.000 |
| Min | 1009.144 | 1015.096 | 1012.091 | 1010.173 |
| Average | 1009.144 | 1021.713 | 1017.000 | 1014.825 |
| Max | 1009.144 | 1026.492 | 1019.603 | 1019.624 |
| UL | 1100.000 | 1100.000 | 1100.000 | 1100.000 |

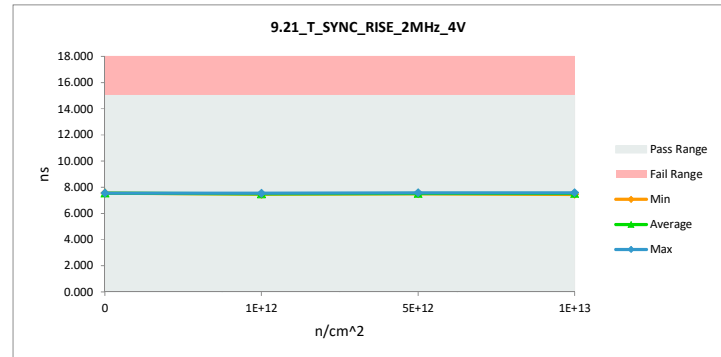


NDD Characterization Report TPS7H5007-SEP

| 9.21_T_SYNC_RISE_2MHz_4V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 15 | | 15 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.167 | 7.543 | 0.376 |
| 1E+12 | 21 | 7.129 | 7.475 | 0.346 |
| 1E+12 | 22 | 7.185 | 7.536 | 0.351 |
| 1E+12 | 23 | 7.147 | 7.467 | 0.320 |
| 5E+12 | 24 | 7.119 | 7.498 | 0.379 |
| 5E+12 | 25 | 7.155 | 7.489 | 0.334 |
| 5E+12 | 26 | 7.172 | 7.575 | 0.403 |
| 1E+13 | 27 | 7.243 | 7.580 | 0.337 |
| 1E+13 | 28 | 7.186 | 7.454 | 0.268 |
| 1E+13 | 29 | 7.233 | 7.535 | 0.302 |
| Max | | 7.243 | 7.580 | 0.403 |
| Average | | 7.174 | 7.515 | 0.342 |
| Min | | 7.119 | 7.454 | 0.268 |
| Std Dev | | 0.040 | 0.045 | 0.039 |

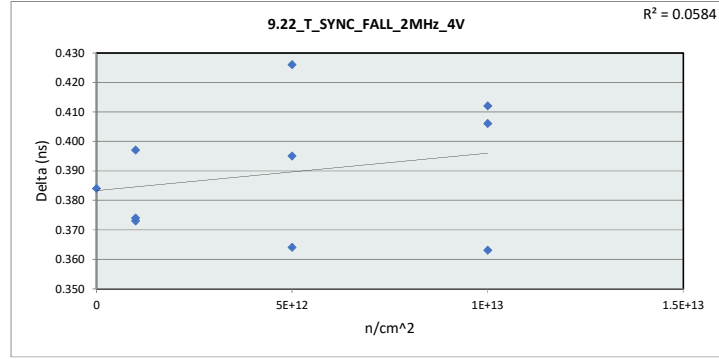


| 9.21_T_SYNC_RISE_2MHz_4V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.543 | 7.467 | 7.489 | 7.454 |
| Average | 7.543 | 7.493 | 7.521 | 7.523 |
| Max | 7.543 | 7.536 | 7.575 | 7.580 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

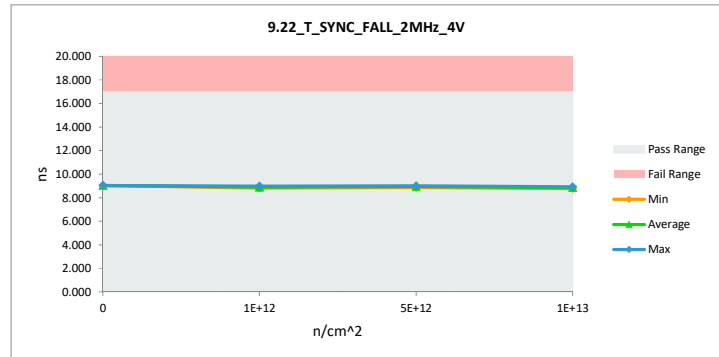


NDD Characterization Report TPS7H5007-SEP

| 9.22_T_SYNC_FALL_2MHz_4V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | ns | |
| Max Limit | | 14 | 17 | |
| Min Limit | | 0 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.663 | 9.047 | 0.384 |
| 1E+12 | 21 | 8.461 | 8.834 | 0.373 |
| 1E+12 | 22 | 8.484 | 8.858 | 0.374 |
| 1E+12 | 23 | 8.585 | 8.982 | 0.397 |
| 5E+12 | 24 | 8.458 | 8.853 | 0.395 |
| 5E+12 | 25 | 8.629 | 8.993 | 0.364 |
| 5E+12 | 26 | 8.587 | 9.013 | 0.426 |
| 1E+13 | 27 | 8.397 | 8.760 | 0.363 |
| 1E+13 | 28 | 8.512 | 8.918 | 0.406 |
| 1E+13 | 29 | 8.438 | 8.850 | 0.412 |
| Max | | 8.663 | 9.047 | 0.426 |
| Average | | 8.521 | 8.911 | 0.389 |
| Min | | 8.397 | 8.760 | 0.363 |
| Std Dev | | 0.089 | 0.094 | 0.021 |

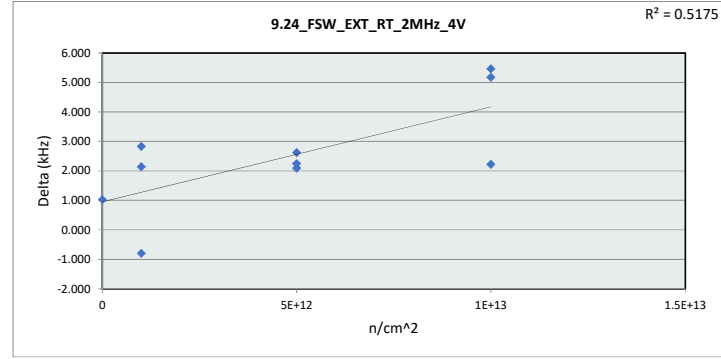


| 9.22_T_SYNC_FALL_2MHz_4V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 9.047 | 8.834 | 8.853 | 8.760 |
| Average | 9.047 | 8.891 | 8.953 | 8.843 |
| Max | 9.047 | 8.982 | 9.013 | 8.918 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

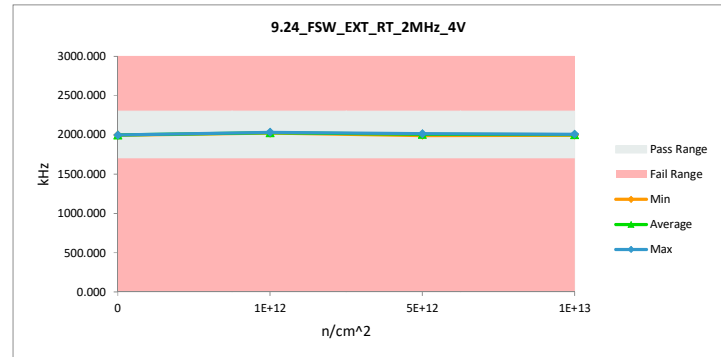


NDD Characterization Report TPS7H5007-SEP

| 9.24_FSW_EXT_RT_2MHz_4V | | | | |
|-------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | kHz | kHz | | |
| Max Limit | 2300 | 2300 | | |
| Min Limit | 1700 | 1700 | | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1996.811 | 1997.833 | 1.022 |
| 1E+12 | 21 | 2026.956 | 2026.156 | -0.800 |
| 1E+12 | 22 | 2030.631 | 2033.456 | 2.825 |
| 1E+12 | 23 | 2019.679 | 2021.818 | 2.139 |
| 5E+12 | 24 | 2010.097 | 2012.188 | 2.091 |
| 5E+12 | 25 | 2012.000 | 2014.619 | 2.619 |
| 5E+12 | 26 | 1990.982 | 1993.225 | 2.243 |
| 1E+13 | 27 | 1991.171 | 1996.631 | 5.460 |
| 1E+13 | 28 | 1997.359 | 2002.527 | 5.168 |
| 1E+13 | 29 | 2005.836 | 2008.058 | 2.222 |
| Max | | 2030.631 | 2033.456 | 5.460 |
| Average | | 2008.152 | 2010.651 | 2.499 |
| Min | | 1990.982 | 1993.225 | -0.800 |
| Std Dev | | 14.314 | 13.501 | 1.811 |

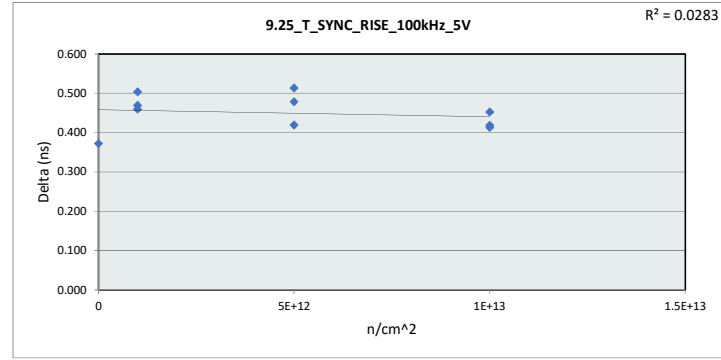


| 9.24_FSW_EXT_RT_2MHz_4V | | | | |
|-------------------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 2300 | kHz | | |
| Min Limit | 1700 | kHz | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1700.000 | 1700.000 | 1700.000 | 1700.000 |
| Min | 1997.833 | 2021.818 | 1993.225 | 1996.631 |
| Average | 1997.833 | 2027.143 | 2006.677 | 2002.405 |
| Max | 1997.833 | 2033.456 | 2014.619 | 2008.058 |
| UL | 2300.000 | 2300.000 | 2300.000 | 2300.000 |

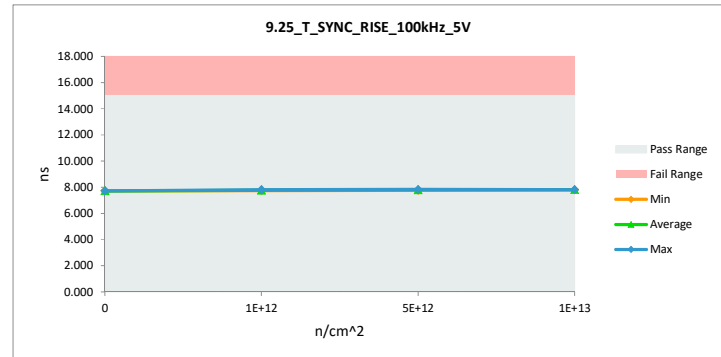


NDD Characterization Report TPS7H5007-SEP

| 9.25_T_SYNC_RISE_100kHz_5V | | | | |
|----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 14 | | 15 | |
| Min Limit | 0 | | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.350 | 7.722 | 0.372 |
| 1E+12 | 21 | 7.300 | 7.769 | 0.469 |
| 1E+12 | 22 | 7.304 | 7.807 | 0.503 |
| 1E+12 | 23 | 7.286 | 7.745 | 0.459 |
| 5E+12 | 24 | 7.284 | 7.797 | 0.513 |
| 5E+12 | 25 | 7.338 | 7.757 | 0.419 |
| 5E+12 | 26 | 7.351 | 7.829 | 0.478 |
| 1E+13 | 27 | 7.379 | 7.792 | 0.413 |
| 1E+13 | 28 | 7.355 | 7.807 | 0.452 |
| 1E+13 | 29 | 7.399 | 7.817 | 0.418 |
| Max | | 7.399 | 7.829 | 0.513 |
| Average | | 7.335 | 7.784 | 0.450 |
| Min | | 7.284 | 7.722 | 0.372 |
| Std Dev | | 0.040 | 0.035 | 0.044 |

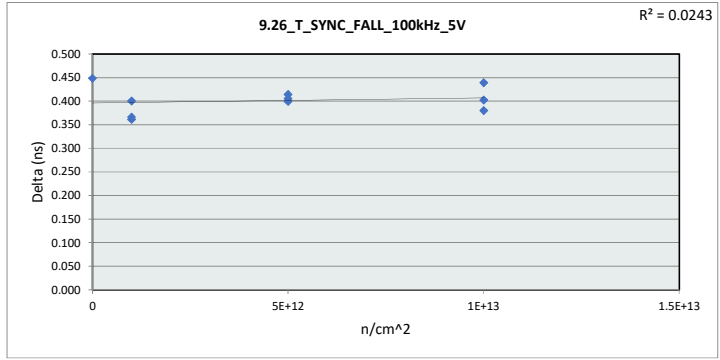


| 9.25_T_SYNC_RISE_100kHz_5V | | | | |
|----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.722 | 7.745 | 7.757 | 7.792 |
| Average | 7.722 | 7.774 | 7.794 | 7.805 |
| Max | 7.722 | 7.807 | 7.829 | 7.817 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

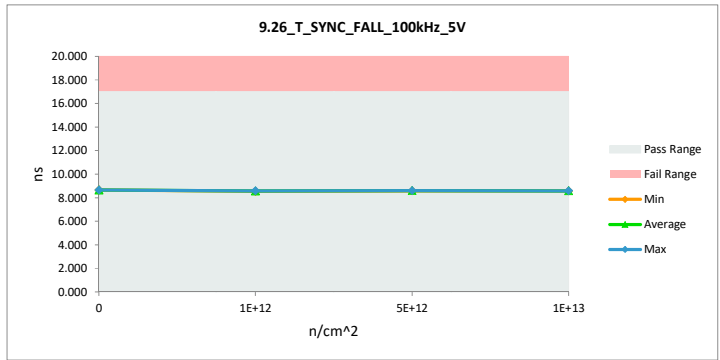


NDD Characterization Report TPS7H5007-SEP

| 9.26_T_SYNC_FALL_100kHz_5V | | | | |
|----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.206 | 8.654 | 0.448 |
| 1E+12 | 21 | 8.183 | 8.583 | 0.400 |
| 1E+12 | 22 | 8.170 | 8.536 | 0.366 |
| 1E+12 | 23 | 8.211 | 8.572 | 0.361 |
| 5E+12 | 24 | 8.184 | 8.589 | 0.405 |
| 5E+12 | 25 | 8.204 | 8.603 | 0.399 |
| 5E+12 | 26 | 8.183 | 8.597 | 0.414 |
| 1E+13 | 27 | 8.148 | 8.587 | 0.439 |
| 1E+13 | 28 | 8.187 | 8.567 | 0.380 |
| 1E+13 | 29 | 8.180 | 8.582 | 0.402 |
| Max | | 8.211 | 8.654 | 0.448 |
| Average | | 8.186 | 8.587 | 0.401 |
| Min | | 8.148 | 8.536 | 0.361 |
| Std Dev | | 0.019 | 0.030 | 0.028 |

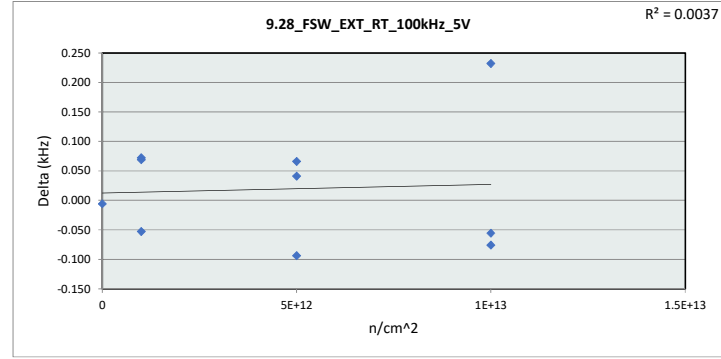


| 9.26_T_SYNC_FALL_100kHz_5V | | | | |
|----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.654 | 8.536 | 8.589 | 8.567 |
| Average | 8.654 | 8.564 | 8.596 | 8.579 |
| Max | 8.654 | 8.583 | 8.603 | 8.587 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

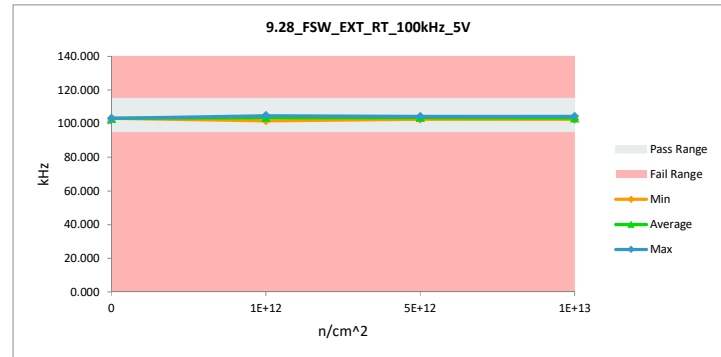


NDD Characterization Report TPS7H5007-SEP

| 9.28_FSW_EXT_RT_100kHz_5V | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 115 | 115 | |
| Min Limit | | 95 | 95 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 103.147 | 103.141 | -0.006 |
| 1E+12 | 21 | 104.850 | 104.797 | -0.053 |
| 1E+12 | 22 | 104.110 | 104.182 | 0.072 |
| 1E+12 | 23 | 101.541 | 101.610 | 0.069 |
| 5E+12 | 24 | 103.798 | 103.704 | -0.094 |
| 5E+12 | 25 | 104.187 | 104.228 | 0.041 |
| 5E+12 | 26 | 102.560 | 102.626 | 0.066 |
| 1E+13 | 27 | 102.619 | 102.563 | -0.056 |
| 1E+13 | 28 | 102.986 | 103.218 | 0.232 |
| 1E+13 | 29 | 104.426 | 104.350 | -0.076 |
| Max | | 104.850 | 104.797 | 0.232 |
| Average | | 103.422 | 103.442 | 0.019 |
| Min | | 101.541 | 101.610 | -0.094 |
| Std Dev | | 1.024 | 0.991 | 0.098 |

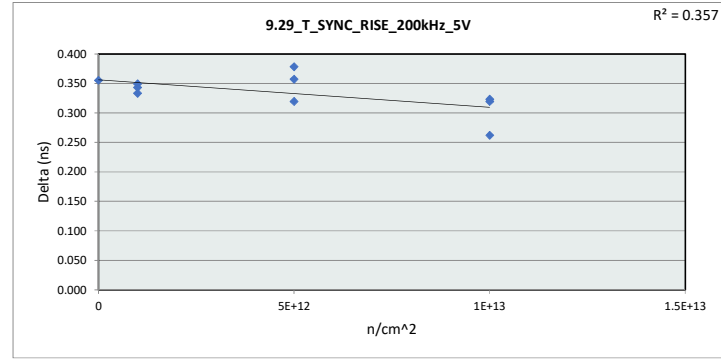


| 9.28_FSW_EXT_RT_100kHz_5 | | | | |
|--------------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 115 | kHz | | |
| Min Limit | 95 | kHz | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 95.000 | 95.000 | 95.000 | 95.000 |
| Min | 103.141 | 101.610 | 102.626 | 102.563 |
| Average | 103.141 | 103.530 | 103.519 | 103.377 |
| Max | 103.141 | 104.797 | 104.228 | 104.350 |
| UL | 115.000 | 115.000 | 115.000 | 115.000 |

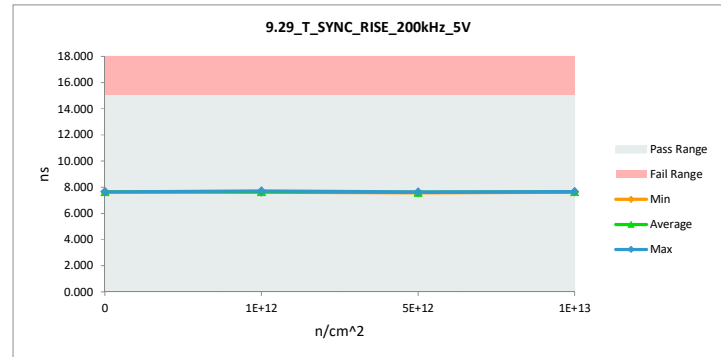


NDD Characterization Report TPS7H5007-SEP

| 9.29_T_SYNC_RISE_200kHz_5V | | | | |
|----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 15 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.299 | 7.654 | 0.355 |
| 1E+12 | 21 | 7.365 | 7.708 | 0.343 |
| 1E+12 | 22 | 7.296 | 7.645 | 0.349 |
| 1E+12 | 23 | 7.278 | 7.611 | 0.333 |
| 5E+12 | 24 | 7.251 | 7.570 | 0.319 |
| 5E+12 | 25 | 7.250 | 7.628 | 0.378 |
| 5E+12 | 26 | 7.286 | 7.643 | 0.357 |
| 1E+13 | 27 | 7.400 | 7.662 | 0.262 |
| 1E+13 | 28 | 7.298 | 7.617 | 0.319 |
| 1E+13 | 29 | 7.336 | 7.659 | 0.323 |
| Max | | 7.400 | 7.708 | 0.378 |
| Average | | 7.306 | 7.640 | 0.334 |
| Min | | 7.250 | 7.570 | 0.262 |
| Std Dev | | 0.048 | 0.037 | 0.032 |

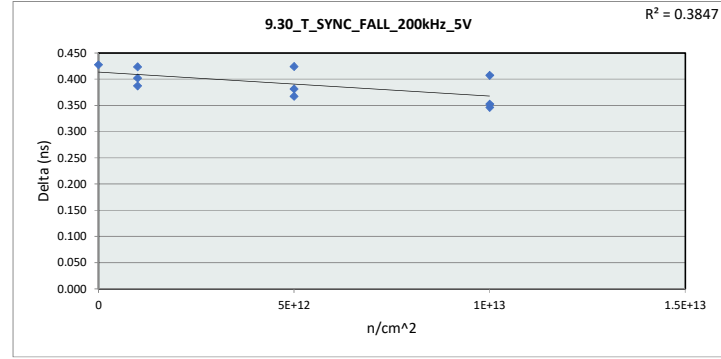


| 9.29_T_SYNC_RISE_200kHz_5V | | | | |
|----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.654 | 7.611 | 7.570 | 7.617 |
| Average | 7.654 | 7.655 | 7.614 | 7.646 |
| Max | 7.654 | 7.708 | 7.643 | 7.662 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

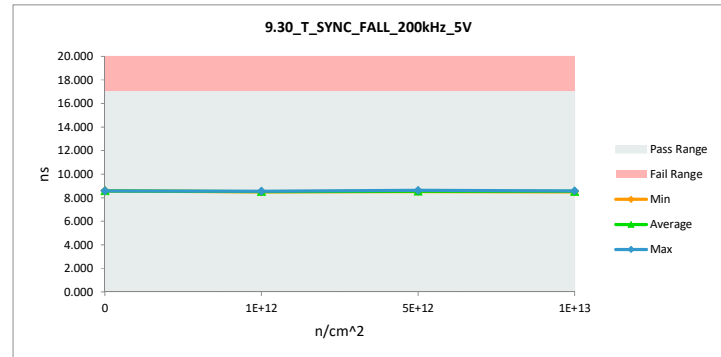


NDD Characterization Report TPS7H5007-SEP

| 9.30_T_SYNC_FALL_200kHz_5V | | | | |
|----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.151 | 8.578 | 0.427 |
| 1E+12 | 21 | 8.070 | 8.493 | 0.423 |
| 1E+12 | 22 | 8.146 | 8.548 | 0.402 |
| 1E+12 | 23 | 8.147 | 8.534 | 0.387 |
| 5E+12 | 24 | 8.130 | 8.511 | 0.381 |
| 5E+12 | 25 | 8.191 | 8.615 | 0.424 |
| 5E+12 | 26 | 8.160 | 8.527 | 0.367 |
| 1E+13 | 27 | 8.157 | 8.509 | 0.352 |
| 1E+13 | 28 | 8.172 | 8.518 | 0.346 |
| 1E+13 | 29 | 8.153 | 8.560 | 0.407 |
| Max | | 8.191 | 8.615 | 0.427 |
| Average | | 8.148 | 8.539 | 0.392 |
| Min | | 8.070 | 8.493 | 0.346 |
| Std Dev | | 0.032 | 0.037 | 0.030 |

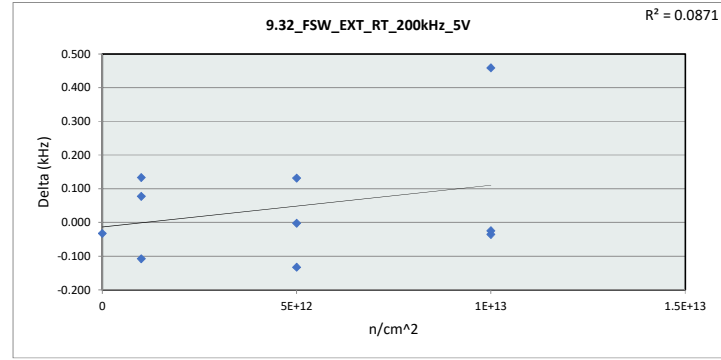


| 9.30_T_SYNC_FALL_200kHz_5V | | | | |
|----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.578 | 8.493 | 8.511 | 8.509 |
| Average | 8.578 | 8.525 | 8.551 | 8.529 |
| Max | 8.578 | 8.548 | 8.615 | 8.560 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

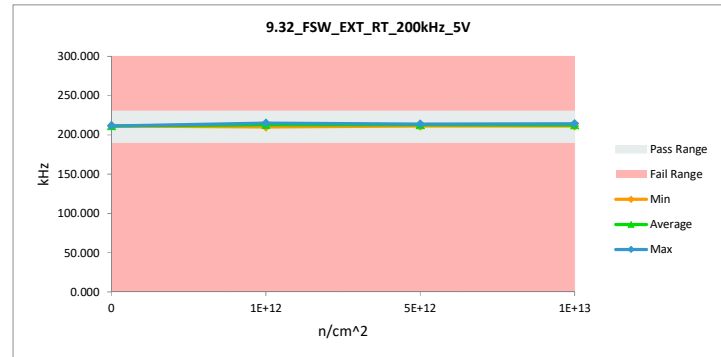


NDD Characterization Report TPS7H5007-SEP

| 9.32_FSW_EXT_RT_200kHz_5V | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 230 | 230 | |
| Min Limit | | 190 | 190 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 211.582 | 211.549 | -0.033 |
| 1E+12 | 21 | 215.122 | 215.014 | -0.108 |
| 1E+12 | 22 | 214.049 | 214.182 | 0.133 |
| 1E+12 | 23 | 209.932 | 210.009 | 0.077 |
| 5E+12 | 24 | 213.483 | 213.350 | -0.133 |
| 5E+12 | 25 | 213.902 | 213.899 | -0.003 |
| 5E+12 | 26 | 210.993 | 211.124 | 0.131 |
| 1E+13 | 27 | 211.100 | 211.075 | -0.025 |
| 1E+13 | 28 | 211.702 | 212.160 | 0.458 |
| 1E+13 | 29 | 214.317 | 214.281 | -0.036 |
| Max | | 215.122 | 215.014 | 0.458 |
| Average | | 212.618 | 212.664 | 0.046 |
| Min | | 209.932 | 210.009 | -0.133 |
| Std Dev | | 1.754 | 1.696 | 0.171 |

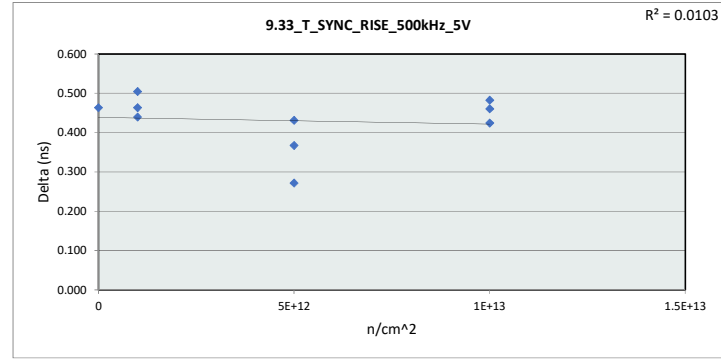


| 9.32_FSW_EXT_RT_200kHz_5 | | | | |
|--------------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 230 | kHz | |
| Min Limit | | 190 | kHz | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 190.000 | 190.000 | 190.000 | 190.000 |
| Min | 211.549 | 210.009 | 211.124 | 211.075 |
| Average | 211.549 | 213.068 | 212.791 | 212.505 |
| Max | 211.549 | 215.014 | 213.899 | 214.281 |
| UL | 230.000 | 230.000 | 230.000 | 230.000 |

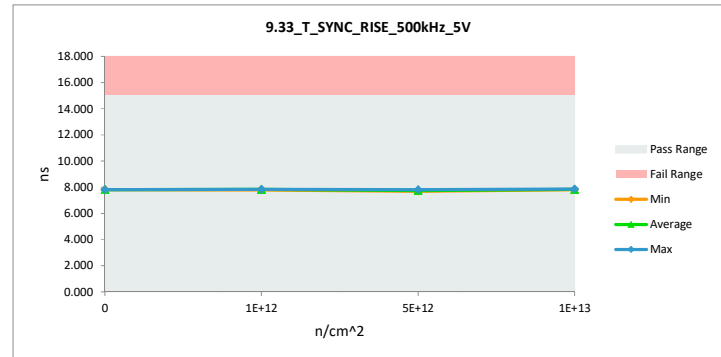


NDD Characterization Report TPS7H5007-SEP

| 9.33_T_SYNC_RISE_500kHz_5V | | | | |
|----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 15 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.346 | 7.809 | 0.463 |
| 1E+12 | 21 | 7.356 | 7.819 | 0.463 |
| 1E+12 | 22 | 7.341 | 7.845 | 0.504 |
| 1E+12 | 23 | 7.363 | 7.802 | 0.439 |
| 5E+12 | 24 | 7.428 | 7.699 | 0.271 |
| 5E+12 | 25 | 7.382 | 7.749 | 0.367 |
| 5E+12 | 26 | 7.380 | 7.811 | 0.431 |
| 1E+13 | 27 | 7.379 | 7.861 | 0.482 |
| 1E+13 | 28 | 7.390 | 7.814 | 0.424 |
| 1E+13 | 29 | 7.362 | 7.822 | 0.460 |
| Max | | 7.428 | 7.861 | 0.504 |
| Average | | 7.373 | 7.803 | 0.430 |
| Min | | 7.341 | 7.699 | 0.271 |
| Std Dev | | 0.025 | 0.047 | 0.067 |

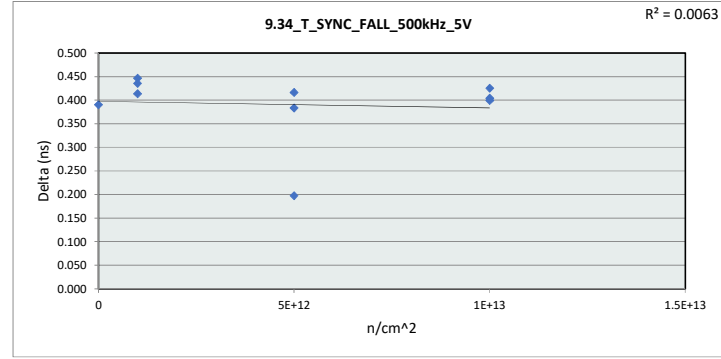


| 9.33_T_SYNC_RISE_500kHz_5V | | | | |
|----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.809 | 7.802 | 7.699 | 7.814 |
| Average | 7.809 | 7.822 | 7.753 | 7.832 |
| Max | 7.809 | 7.845 | 7.811 | 7.861 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

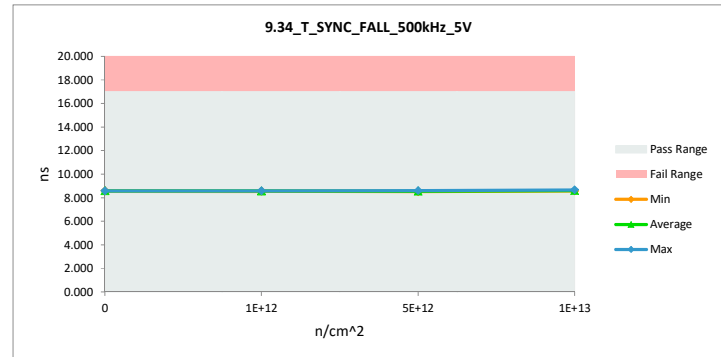


NDD Characterization Report TPS7H5007-SEP

| 9.34_T_SYNC_FALL_500kHz_5V | | | | |
|----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.197 | 8.587 | 0.390 |
| 1E+12 | 21 | 8.154 | 8.589 | 0.435 |
| 1E+12 | 22 | 8.100 | 8.546 | 0.446 |
| 1E+12 | 23 | 8.143 | 8.556 | 0.413 |
| 5E+12 | 24 | 8.148 | 8.531 | 0.383 |
| 5E+12 | 25 | 8.310 | 8.507 | 0.197 |
| 5E+12 | 26 | 8.179 | 8.595 | 0.416 |
| 1E+13 | 27 | 8.134 | 8.559 | 0.425 |
| 1E+13 | 28 | 8.171 | 8.570 | 0.399 |
| 1E+13 | 29 | 8.257 | 8.661 | 0.404 |
| Max | | 8.310 | 8.661 | 0.446 |
| Average | | 8.179 | 8.570 | 0.391 |
| Min | | 8.100 | 8.507 | 0.197 |
| Std Dev | | 0.062 | 0.042 | 0.071 |

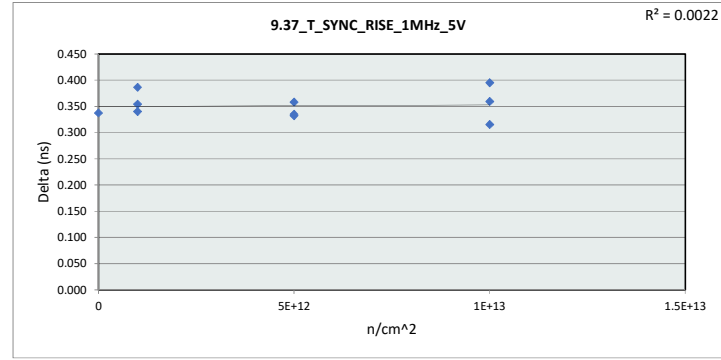


| 9.34_T_SYNC_FALL_500kHz_5V | | | | |
|----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | | ns |
| Min Limit | 0 | | | ns |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.587 | 8.546 | 8.507 | 8.559 |
| Average | 8.587 | 8.564 | 8.544 | 8.597 |
| Max | 8.587 | 8.589 | 8.595 | 8.661 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

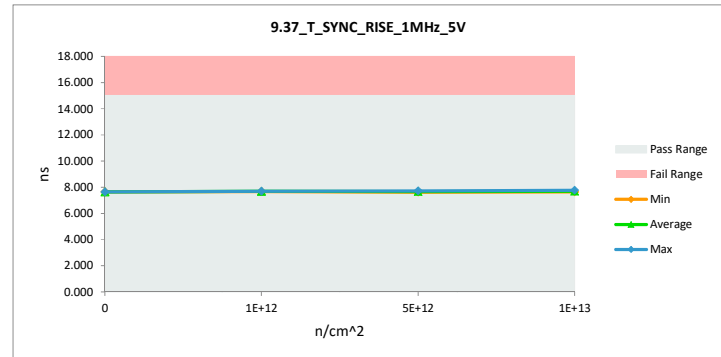


NDD Characterization Report TPS7H5007-SEP

| 9.37_T_SYNC_RISE_1MHz_5V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 15 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.303 | 7.640 | 0.337 |
| 1E+12 | 21 | 7.315 | 7.701 | 0.386 |
| 1E+12 | 22 | 7.329 | 7.669 | 0.340 |
| 1E+12 | 23 | 7.313 | 7.667 | 0.354 |
| 5E+12 | 24 | 7.284 | 7.616 | 0.332 |
| 5E+12 | 25 | 7.331 | 7.666 | 0.335 |
| 5E+12 | 26 | 7.373 | 7.731 | 0.358 |
| 1E+13 | 27 | 7.373 | 7.768 | 0.395 |
| 1E+13 | 28 | 7.319 | 7.678 | 0.359 |
| 1E+13 | 29 | 7.317 | 7.632 | 0.315 |
| Max | | 7.373 | 7.768 | 0.395 |
| Average | | 7.326 | 7.677 | 0.351 |
| Min | | 7.284 | 7.616 | 0.315 |
| Std Dev | | 0.028 | 0.046 | 0.025 |

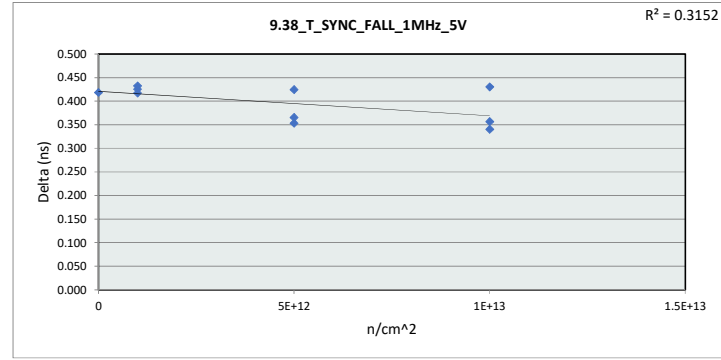


| 9.37_T_SYNC_RISE_1MHz_5V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 15 | | ns |
| Min Limit | | 0 | | ns |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.640 | 7.667 | 7.616 | 7.632 |
| Average | 7.640 | 7.679 | 7.671 | 7.693 |
| Max | 7.640 | 7.701 | 7.731 | 7.768 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

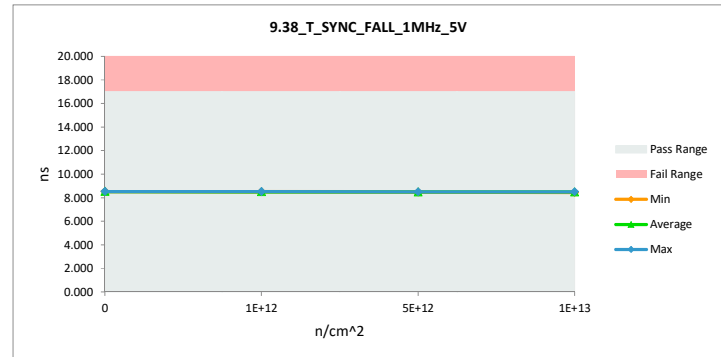


NDD Characterization Report TPS7H5007-SEP

| 9.38_T_SYNC_FALL_1MHz_5V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | ns | |
| Max Limit | | 14 | 17 | |
| Min Limit | | 0 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.115 | 8.533 | 0.418 |
| 1E+12 | 21 | 8.083 | 8.508 | 0.425 |
| 1E+12 | 22 | 8.063 | 8.495 | 0.432 |
| 1E+12 | 23 | 8.107 | 8.524 | 0.417 |
| 5E+12 | 24 | 8.097 | 8.462 | 0.365 |
| 5E+12 | 25 | 8.070 | 8.494 | 0.424 |
| 5E+12 | 26 | 8.143 | 8.496 | 0.353 |
| 1E+13 | 27 | 8.075 | 8.505 | 0.430 |
| 1E+13 | 28 | 8.153 | 8.509 | 0.356 |
| 1E+13 | 29 | 8.088 | 8.428 | 0.340 |
| Max | | 8.153 | 8.533 | 0.432 |
| Average | | 8.099 | 8.495 | 0.396 |
| Min | | 8.063 | 8.428 | 0.340 |
| Std Dev | | 0.030 | 0.030 | 0.037 |

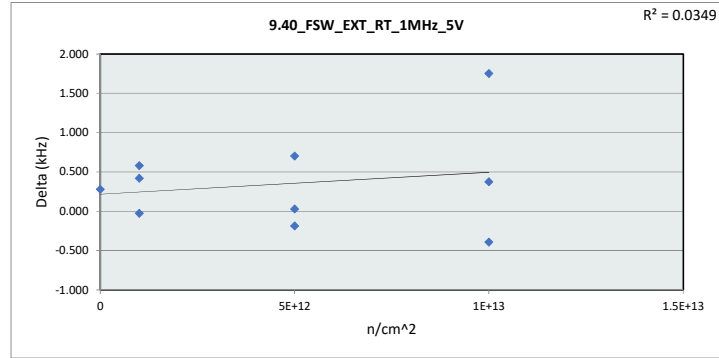


| 9.38_T_SYNC_FALL_1MHz_5V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.533 | 8.495 | 8.462 | 8.428 |
| Average | 8.533 | 8.509 | 8.484 | 8.481 |
| Max | 8.533 | 8.524 | 8.496 | 8.509 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

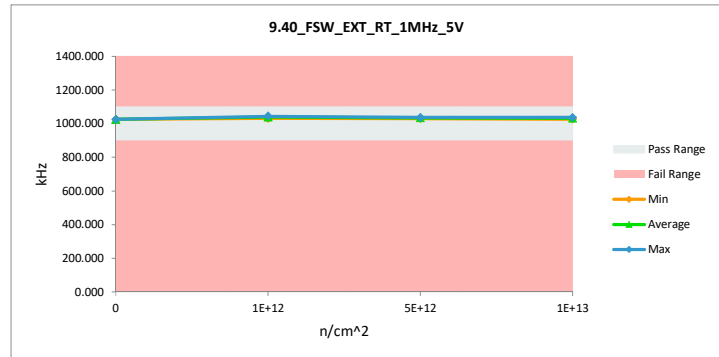


NDD Characterization Report TPS7H5007-SEP

| 9.40_FSW_EXT_RT_1MHz_5V | | | | |
|-------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 1100 | 1100 | |
| Min Limit | | 900 | 900 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1025.100 | 1025.377 | 0.277 |
| 1E+12 | 21 | 1044.230 | 1044.202 | -0.028 |
| 1E+12 | 22 | 1039.827 | 1040.243 | 0.416 |
| 1E+12 | 23 | 1031.007 | 1031.586 | 0.579 |
| 5E+12 | 24 | 1037.202 | 1037.012 | -0.190 |
| 5E+12 | 25 | 1035.954 | 1035.980 | 0.026 |
| 5E+12 | 26 | 1028.732 | 1029.432 | 0.700 |
| 1E+13 | 27 | 1026.576 | 1026.949 | 0.373 |
| 1E+13 | 28 | 1030.397 | 1032.147 | 1.750 |
| 1E+13 | 29 | 1037.417 | 1037.022 | -0.395 |
| Max | | 1044.230 | 1044.202 | 1.750 |
| Average | | 1033.644 | 1033.995 | 0.351 |
| Min | | 1025.100 | 1025.377 | -0.395 |
| Std Dev | | 6.210 | 5.957 | 0.600 |

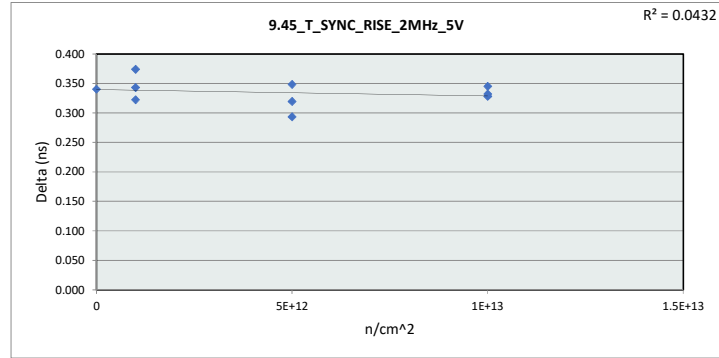


| 9.40_FSW_EXT_RT_1MHz_5V | | | | |
|-------------------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 1100 | kHz | |
| Min Limit | | 900 | kHz | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 900.000 | 900.000 | 900.000 | 900.000 |
| Min | 1025.377 | 1031.586 | 1029.432 | 1026.949 |
| Average | 1025.377 | 1038.677 | 1034.141 | 1032.039 |
| Max | 1025.377 | 1044.202 | 1037.012 | 1037.022 |
| UL | 1100.000 | 1100.000 | 1100.000 | 1100.000 |

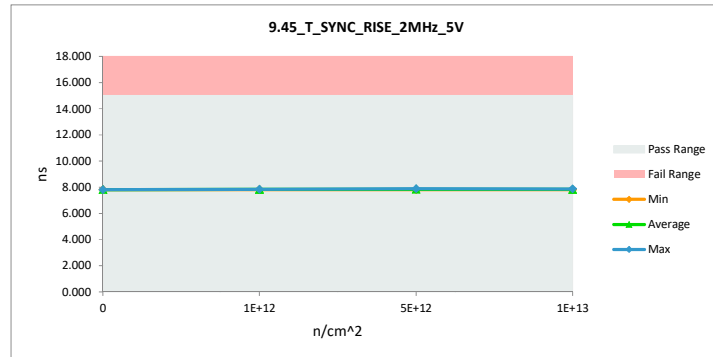


NDD Characterization Report TPS7H5007-SEP

| 9.45_T_SYNC_RISE_2MHz_5V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | ns | | |
| Max Limit | 14 | 15 | | |
| Min Limit | 0 | 0 | | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.467 | 7.807 | 0.340 |
| 1E+12 | 21 | 7.496 | 7.818 | 0.322 |
| 1E+12 | 22 | 7.463 | 7.837 | 0.374 |
| 1E+12 | 23 | 7.482 | 7.825 | 0.343 |
| 5E+12 | 24 | 7.521 | 7.814 | 0.293 |
| 5E+12 | 25 | 7.484 | 7.832 | 0.348 |
| 5E+12 | 26 | 7.566 | 7.885 | 0.319 |
| 1E+13 | 27 | 7.466 | 7.811 | 0.345 |
| 1E+13 | 28 | 7.477 | 7.809 | 0.332 |
| 1E+13 | 29 | 7.542 | 7.870 | 0.328 |
| Max | | 7.566 | 7.885 | 0.374 |
| Average | | 7.496 | 7.831 | 0.334 |
| Min | | 7.463 | 7.807 | 0.293 |
| Std Dev | | 0.035 | 0.027 | 0.021 |

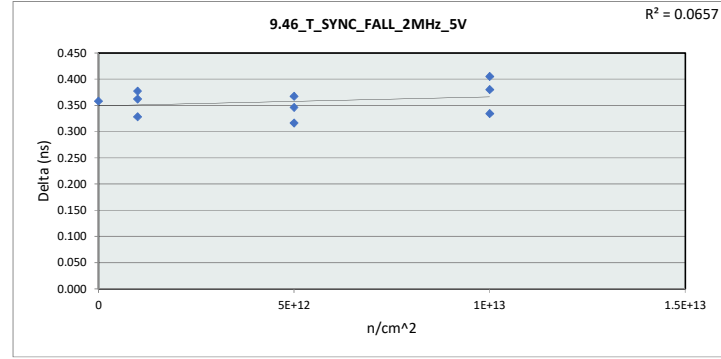


| 9.45_T_SYNC_RISE_2MHz_5V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.807 | 7.818 | 7.814 | 7.809 |
| Average | 7.807 | 7.827 | 7.844 | 7.830 |
| Max | 7.807 | 7.837 | 7.885 | 7.870 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

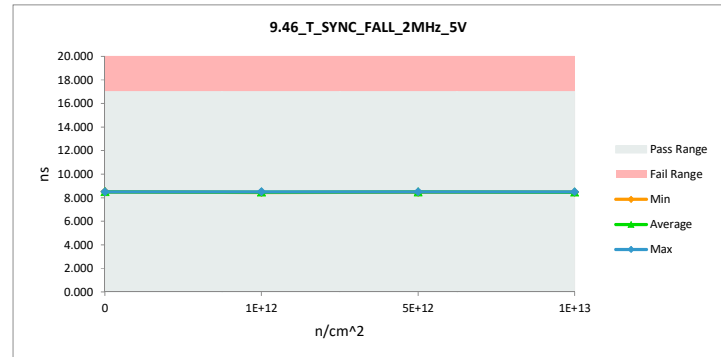


NDD Characterization Report TPS7H5007-SEP

| 9.46_T_SYNC_FALL_2MHz_5V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.146 | 8.504 | 0.358 |
| 1E+12 | 21 | 8.095 | 8.457 | 0.362 |
| 1E+12 | 22 | 8.106 | 8.434 | 0.328 |
| 1E+12 | 23 | 8.128 | 8.505 | 0.377 |
| 5E+12 | 24 | 8.137 | 8.504 | 0.367 |
| 5E+12 | 25 | 8.136 | 8.452 | 0.316 |
| 5E+12 | 26 | 8.137 | 8.483 | 0.346 |
| 1E+13 | 27 | 8.113 | 8.447 | 0.334 |
| 1E+13 | 28 | 8.085 | 8.490 | 0.405 |
| 1E+13 | 29 | 8.108 | 8.488 | 0.380 |
| Max | | 8.146 | 8.505 | 0.405 |
| Average | | 8.119 | 8.476 | 0.357 |
| Min | | 8.085 | 8.434 | 0.316 |
| Std Dev | | 0.021 | 0.027 | 0.027 |

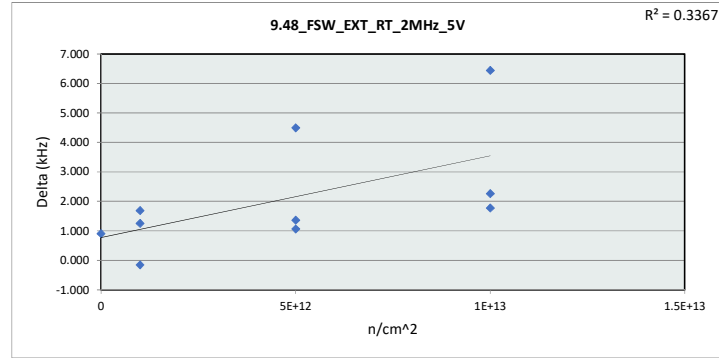


| 9.46_T_SYNC_FALL_2MHz_5V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.504 | 8.434 | 8.452 | 8.447 |
| Average | 8.504 | 8.465 | 8.480 | 8.475 |
| Max | 8.504 | 8.505 | 8.504 | 8.490 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

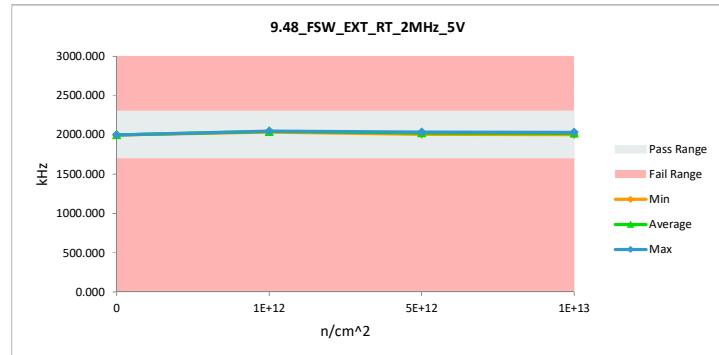


NDD Characterization Report TPS7H5007-SEP

| 9.48_FSW_EXT_RT_2MHz_5V | | | | |
|-------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | kHz | | kHz | |
| Max Limit | 2300 | | 2300 | |
| Min Limit | 1700 | | 1700 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1999.799 | 2000.699 | 0.900 |
| 1E+12 | 21 | 2049.775 | 2049.613 | -0.162 |
| 1E+12 | 22 | 2040.349 | 2041.598 | 1.249 |
| 1E+12 | 23 | 2036.316 | 2038.001 | 1.685 |
| 5E+12 | 24 | 2033.611 | 2034.668 | 1.057 |
| 5E+12 | 25 | 2024.057 | 2025.418 | 1.361 |
| 5E+12 | 26 | 2003.282 | 2007.774 | 4.492 |
| 1E+13 | 27 | 2002.598 | 2004.857 | 2.259 |
| 1E+13 | 28 | 2019.034 | 2025.475 | 6.441 |
| 1E+13 | 29 | 2031.577 | 2033.348 | 1.771 |
| Max | | 2049.775 | 2049.613 | 6.441 |
| Average | | 2024.040 | 2026.145 | 2.105 |
| Min | | 1999.799 | 2000.699 | -0.162 |
| Std Dev | | 17.419 | 16.646 | 1.938 |

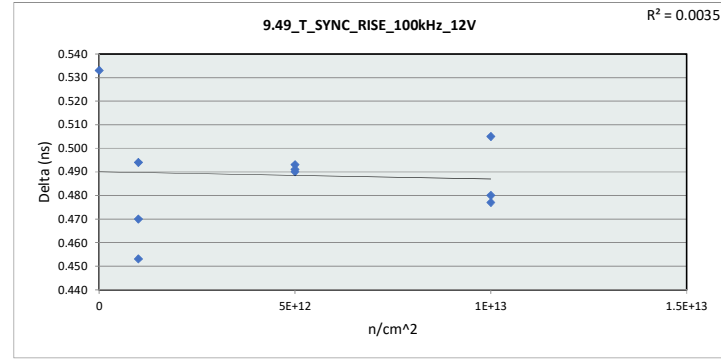


| 9.48_FSW_EXT_RT_2MHz_5V | | | | |
|-------------------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 2300 | | kHz | |
| Min Limit | 1700 | | kHz | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1700.000 | 1700.000 | 1700.000 | 1700.000 |
| Min | 2000.699 | 2038.001 | 2007.774 | 2004.857 |
| Average | 2000.699 | 2043.071 | 2022.620 | 2021.227 |
| Max | 2000.699 | 2049.613 | 2034.668 | 2033.348 |
| UL | 2300.000 | 2300.000 | 2300.000 | 2300.000 |

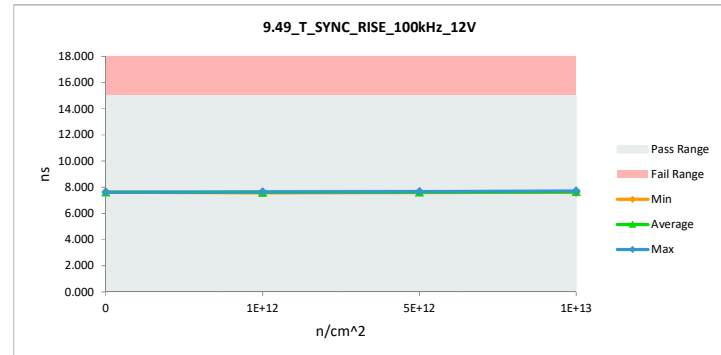


NDD Characterization Report TPS7H5007-SEP

| 9.49_T_SYNC_RISE_100kHz_12V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | ns | |
| Max Limit | | 14 | 15 | |
| Min Limit | | 0 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.088 | 7.621 | 0.533 |
| 1E+12 | 21 | 7.117 | 7.570 | 0.453 |
| 1E+12 | 22 | 7.153 | 7.647 | 0.494 |
| 1E+12 | 23 | 7.139 | 7.609 | 0.470 |
| 5E+12 | 24 | 7.101 | 7.594 | 0.493 |
| 5E+12 | 25 | 7.129 | 7.619 | 0.490 |
| 5E+12 | 26 | 7.177 | 7.668 | 0.491 |
| 1E+13 | 27 | 7.212 | 7.717 | 0.505 |
| 1E+13 | 28 | 7.134 | 7.614 | 0.480 |
| 1E+13 | 29 | 7.149 | 7.626 | 0.477 |
| Max | | 7.212 | 7.717 | 0.533 |
| Average | | 7.140 | 7.628 | 0.489 |
| Min | | 7.088 | 7.570 | 0.453 |
| Std Dev | | 0.036 | 0.041 | 0.021 |

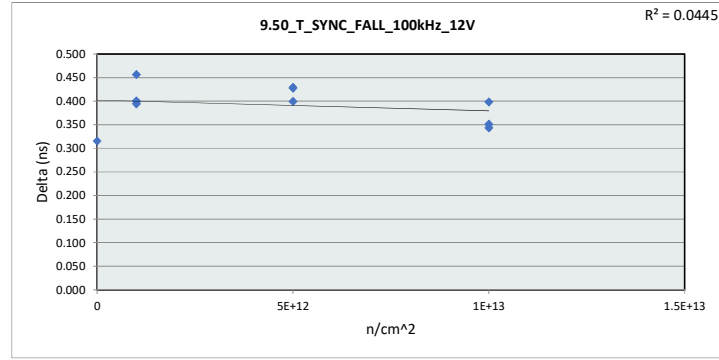


| 9.49_T_SYNC_RISE_100kHz_12V | | | | |
|-----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.621 | 7.570 | 7.594 | 7.614 |
| Average | 7.621 | 7.609 | 7.627 | 7.652 |
| Max | 7.621 | 7.647 | 7.668 | 7.717 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

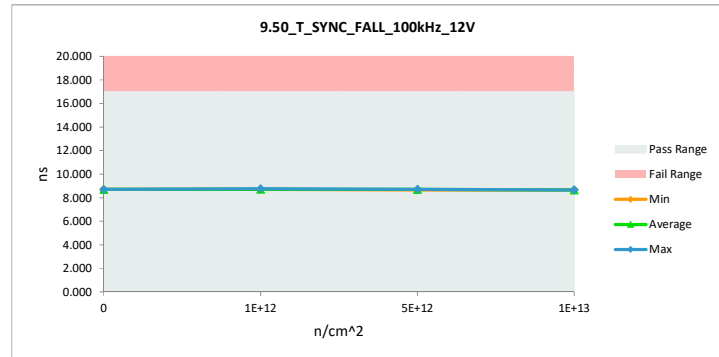


NDD Characterization Report TPS7H5007-SEP

| 9.50_T_SYNC_FALL_100kHz_12V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.383 | 8.698 | 0.315 |
| 1E+12 | 21 | 8.310 | 8.704 | 0.394 |
| 1E+12 | 22 | 8.299 | 8.755 | 0.456 |
| 1E+12 | 23 | 8.302 | 8.702 | 0.400 |
| 5E+12 | 24 | 8.286 | 8.715 | 0.429 |
| 5E+12 | 25 | 8.288 | 8.715 | 0.427 |
| 5E+12 | 26 | 8.249 | 8.648 | 0.399 |
| 1E+13 | 27 | 8.268 | 8.666 | 0.398 |
| 1E+13 | 28 | 8.301 | 8.652 | 0.351 |
| 1E+13 | 29 | 8.303 | 8.646 | 0.343 |
| Max | | 8.383 | 8.755 | 0.456 |
| Average | | 8.299 | 8.690 | 0.391 |
| Min | | 8.249 | 8.646 | 0.315 |
| Std Dev | | 0.035 | 0.036 | 0.043 |

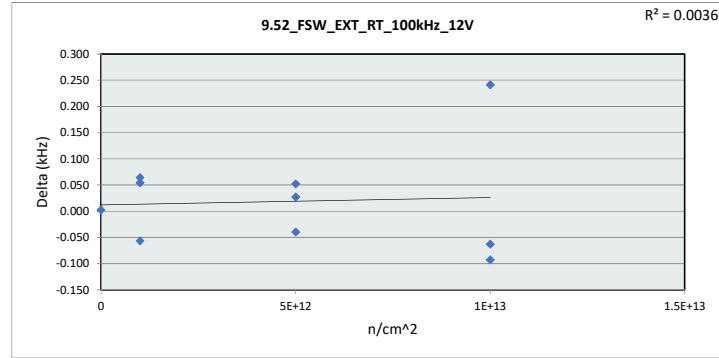


| 9.50_T_SYNC_FALL_100kHz_1 | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | | ns |
| Min Limit | 0 | | | ns |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.698 | 8.702 | 8.648 | 8.646 |
| Average | 8.698 | 8.720 | 8.693 | 8.655 |
| Max | 8.698 | 8.755 | 8.715 | 8.666 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

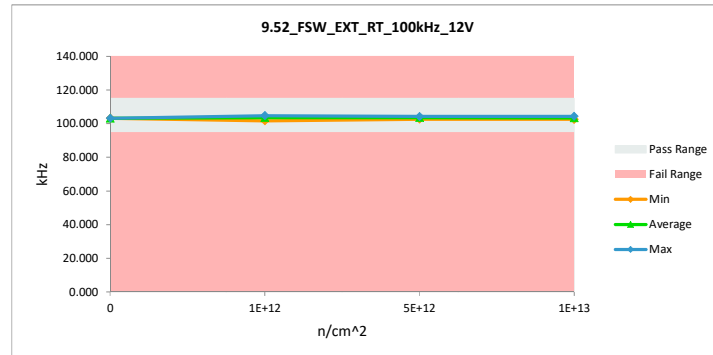


NDD Characterization Report TPS7H5007-SEP

| 9.52_FSW_EXT_RT_100kHz_12V | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 115 | 115 | |
| Min Limit | | 95 | 95 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 103.165 | 103.167 | 0.002 |
| 1E+12 | 21 | 104.867 | 104.810 | -0.057 |
| 1E+12 | 22 | 104.116 | 104.180 | 0.064 |
| 1E+12 | 23 | 101.568 | 101.622 | 0.054 |
| 5E+12 | 24 | 103.818 | 103.778 | -0.040 |
| 5E+12 | 25 | 104.224 | 104.251 | 0.027 |
| 5E+12 | 26 | 102.598 | 102.650 | 0.052 |
| 1E+13 | 27 | 102.636 | 102.573 | -0.063 |
| 1E+13 | 28 | 103.010 | 103.251 | 0.241 |
| 1E+13 | 29 | 104.447 | 104.354 | -0.093 |
| Max | | 104.867 | 104.810 | 0.241 |
| Average | | 103.445 | 103.464 | 0.019 |
| Min | | 101.568 | 101.622 | -0.093 |
| Std Dev | | 1.021 | 0.990 | 0.096 |

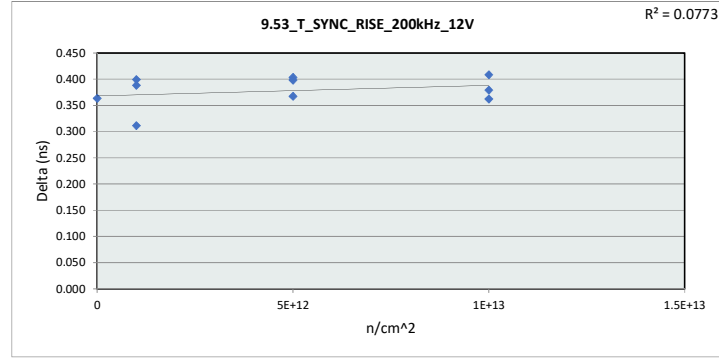


| 9.52_FSW_EXT_RT_100kHz_12V | | | | |
|----------------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 115 | kHz | | |
| Min Limit | 95 | kHz | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 95.000 | 95.000 | 95.000 | 95.000 |
| Min | 103.167 | 101.622 | 102.650 | 102.573 |
| Average | 103.167 | 103.537 | 103.560 | 103.393 |
| Max | 103.167 | 104.810 | 104.251 | 104.354 |
| UL | 115.000 | 115.000 | 115.000 | 115.000 |

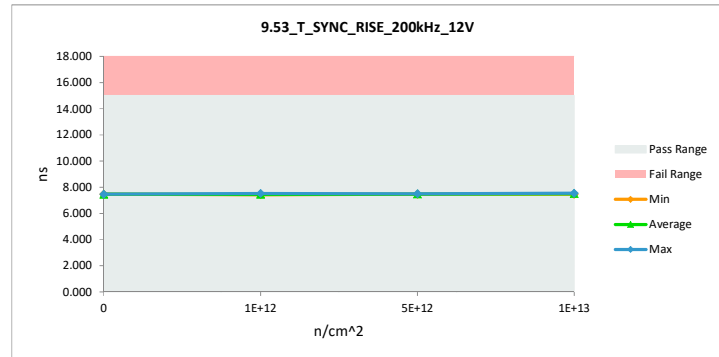


NDD Characterization Report TPS7H5007-SEP

| 9.53_T_SYNC_RISE_200kHz_12V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | ns | | |
| Max Limit | 14 | 15 | | |
| Min Limit | 0 | 0 | | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.103 | 7.466 | 0.363 |
| 1E+12 | 21 | 7.020 | 7.419 | 0.399 |
| 1E+12 | 22 | 7.113 | 7.424 | 0.311 |
| 1E+12 | 23 | 7.137 | 7.525 | 0.388 |
| 5E+12 | 24 | 7.082 | 7.485 | 0.403 |
| 5E+12 | 25 | 7.088 | 7.455 | 0.367 |
| 5E+12 | 26 | 7.088 | 7.486 | 0.398 |
| 1E+13 | 27 | 7.141 | 7.520 | 0.379 |
| 1E+13 | 28 | 7.104 | 7.466 | 0.362 |
| 1E+13 | 29 | 7.130 | 7.538 | 0.408 |
| Max | | 7.141 | 7.538 | 0.408 |
| Average | | 7.101 | 7.478 | 0.378 |
| Min | | 7.020 | 7.419 | 0.311 |
| Std Dev | | 0.035 | 0.041 | 0.029 |

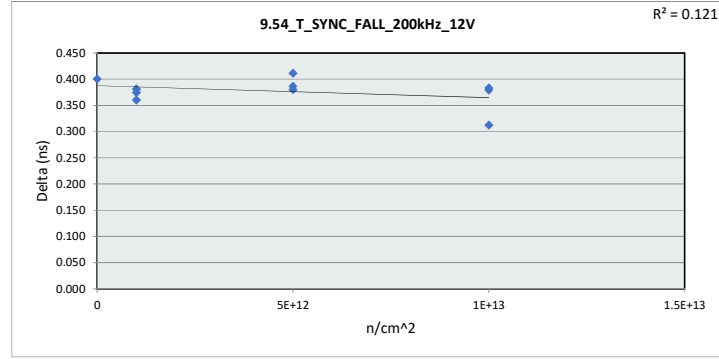


| 9.53_T_SYNC_RISE_200kHz_1 | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.466 | 7.419 | 7.455 | 7.466 |
| Average | 7.466 | 7.456 | 7.475 | 7.508 |
| Max | 7.466 | 7.525 | 7.486 | 7.538 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

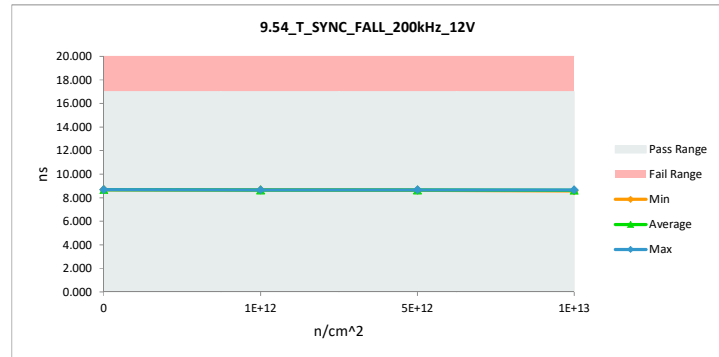


NDD Characterization Report TPS7H5007-SEP

| 9.54_T_SYNC_FALL_200kHz_12V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 14 | | 17 | |
| Min Limit | 0 | | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.285 | 8.685 | 0.400 |
| 1E+12 | 21 | 8.268 | 8.649 | 0.381 |
| 1E+12 | 22 | 8.279 | 8.653 | 0.374 |
| 1E+12 | 23 | 8.281 | 8.641 | 0.360 |
| 5E+12 | 24 | 8.245 | 8.631 | 0.386 |
| 5E+12 | 25 | 8.281 | 8.661 | 0.380 |
| 5E+12 | 26 | 8.254 | 8.665 | 0.411 |
| 1E+13 | 27 | 8.272 | 8.584 | 0.312 |
| 1E+13 | 28 | 8.260 | 8.639 | 0.379 |
| 1E+13 | 29 | 8.270 | 8.653 | 0.383 |
| Max | | 8.285 | 8.685 | 0.411 |
| Average | | 8.270 | 8.646 | 0.377 |
| Min | | 8.245 | 8.584 | 0.312 |
| Std Dev | | 0.013 | 0.027 | 0.027 |

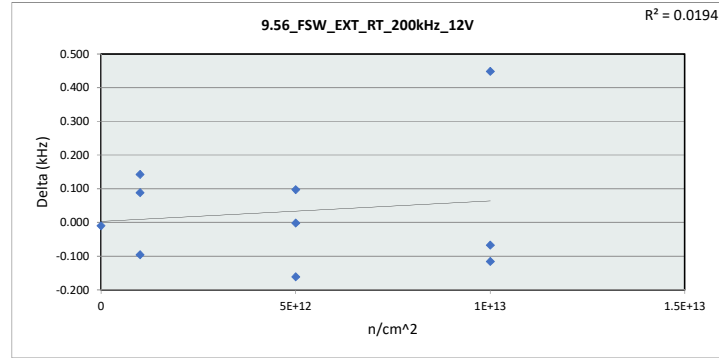


| 9.54_T_SYNC_FALL_200kHz_12V | | | | |
|-----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.685 | 8.641 | 8.631 | 8.584 |
| Average | 8.685 | 8.648 | 8.652 | 8.625 |
| Max | 8.685 | 8.653 | 8.665 | 8.653 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

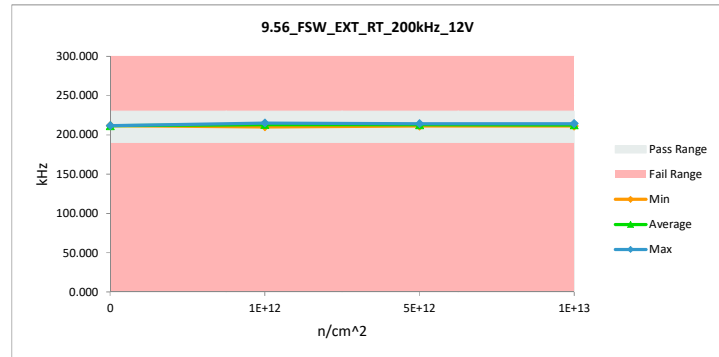


NDD Characterization Report TPS7H5007-SEP

| 9.56_FSW_EXT_RT_200kHz_12V | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | kHz | | kHz | |
| Max Limit | 230 | | 230 | |
| Min Limit | 190 | | 190 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 211.697 | 211.687 | -0.010 |
| 1E+12 | 21 | 215.190 | 215.094 | -0.096 |
| 1E+12 | 22 | 214.139 | 214.281 | 0.142 |
| 1E+12 | 23 | 210.021 | 210.109 | 0.088 |
| 5E+12 | 24 | 213.562 | 213.400 | -0.162 |
| 5E+12 | 25 | 213.985 | 213.983 | -0.002 |
| 5E+12 | 26 | 211.069 | 211.166 | 0.097 |
| 1E+13 | 27 | 211.202 | 211.086 | -0.116 |
| 1E+13 | 28 | 211.781 | 212.229 | 0.448 |
| 1E+13 | 29 | 214.394 | 214.326 | -0.068 |
| Max | | 215.190 | 215.094 | 0.448 |
| Average | | 212.704 | 212.736 | 0.032 |
| Min | | 210.021 | 210.109 | -0.162 |
| Std Dev | | 1.747 | 1.697 | 0.177 |

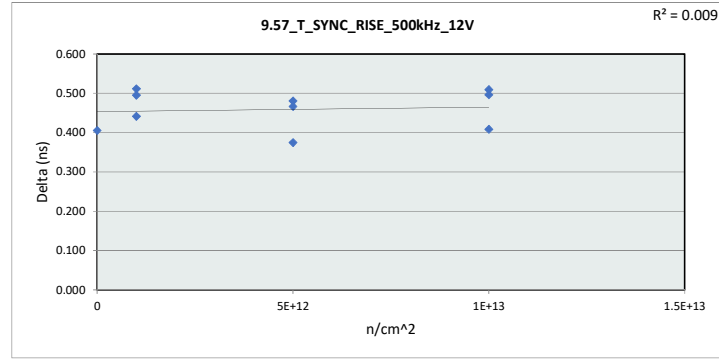


| 9.56_FSW_EXT_RT_200kHz_12V | | | | |
|----------------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 230 | | kHz | |
| Min Limit | 190 | | kHz | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 190.000 | 190.000 | 190.000 | 190.000 |
| Min | 211.687 | 210.109 | 211.166 | 211.086 |
| Average | 211.687 | 213.161 | 212.850 | 212.547 |
| Max | 211.687 | 215.094 | 213.983 | 214.326 |
| UL | 230.000 | 230.000 | 230.000 | 230.000 |

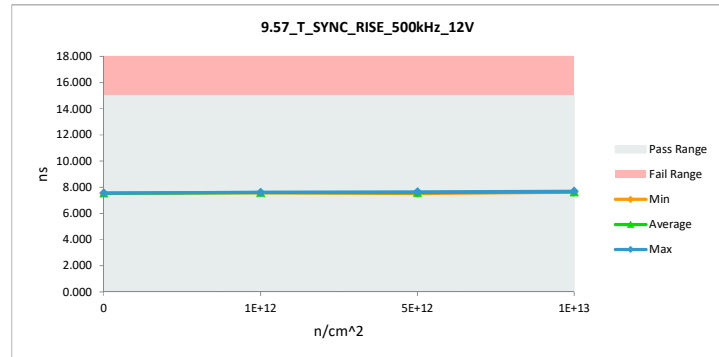


NDD Characterization Report TPS7H5007-SEP

| 9.57_T_SYNC_RISE_500kHz_12V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 15 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.145 | 7.550 | 0.405 |
| 1E+12 | 21 | 7.081 | 7.592 | 0.511 |
| 1E+12 | 22 | 7.136 | 7.577 | 0.441 |
| 1E+12 | 23 | 7.112 | 7.607 | 0.495 |
| 5E+12 | 24 | 7.151 | 7.525 | 0.374 |
| 5E+12 | 25 | 7.134 | 7.600 | 0.466 |
| 5E+12 | 26 | 7.165 | 7.645 | 0.480 |
| 1E+13 | 27 | 7.192 | 7.688 | 0.496 |
| 1E+13 | 28 | 7.110 | 7.619 | 0.509 |
| 1E+13 | 29 | 7.211 | 7.619 | 0.408 |
| Max | | 7.211 | 7.688 | 0.511 |
| Average | | 7.144 | 7.602 | 0.459 |
| Min | | 7.081 | 7.525 | 0.374 |
| Std Dev | | 0.039 | 0.046 | 0.049 |

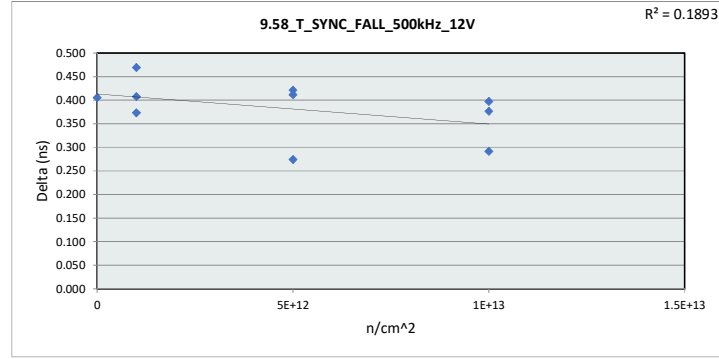


| 9.57_T_SYNC_RISE_500kHz_1 | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.550 | 7.577 | 7.525 | 7.619 |
| Average | 7.550 | 7.592 | 7.590 | 7.642 |
| Max | 7.550 | 7.607 | 7.645 | 7.688 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

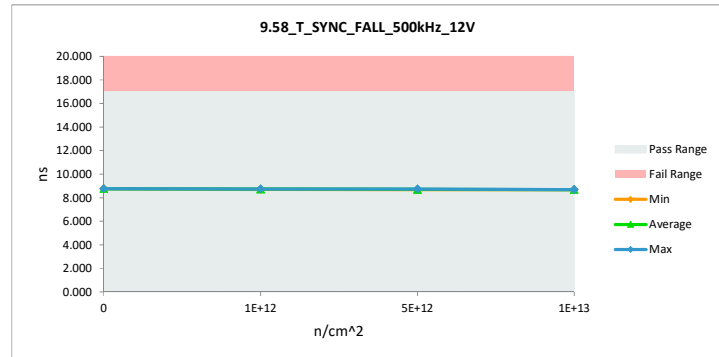


NDD Characterization Report TPS7H5007-SEP

| 9.58_T_SYNC_FALL_500kHz_12V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.356 | 8.761 | 0.405 |
| 1E+12 | 21 | 8.344 | 8.717 | 0.373 |
| 1E+12 | 22 | 8.271 | 8.740 | 0.469 |
| 1E+12 | 23 | 8.316 | 8.723 | 0.407 |
| 5E+12 | 24 | 8.319 | 8.730 | 0.411 |
| 5E+12 | 25 | 8.403 | 8.677 | 0.274 |
| 5E+12 | 26 | 8.276 | 8.697 | 0.421 |
| 1E+13 | 27 | 8.291 | 8.688 | 0.397 |
| 1E+13 | 28 | 8.318 | 8.694 | 0.376 |
| 1E+13 | 29 | 8.384 | 8.675 | 0.291 |
| Max | | 8.403 | 8.761 | 0.469 |
| Average | | 8.328 | 8.710 | 0.382 |
| Min | | 8.271 | 8.675 | 0.274 |
| Std Dev | | 0.044 | 0.029 | 0.059 |

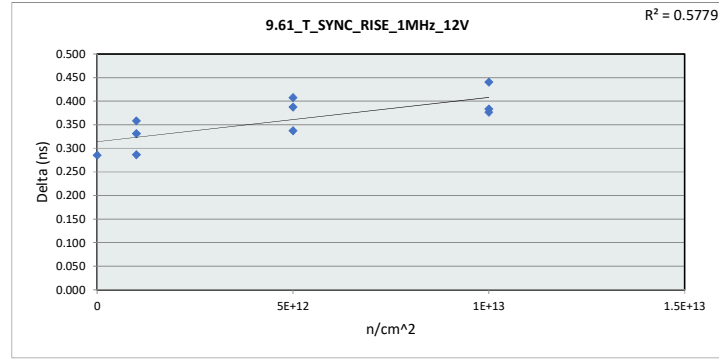


| 9.58_T_SYNC_FALL_500kHz_1 | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | | ns |
| Min Limit | 0 | | | ns |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.761 | 8.717 | 8.677 | 8.675 |
| Average | 8.761 | 8.727 | 8.701 | 8.686 |
| Max | 8.761 | 8.740 | 8.730 | 8.694 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

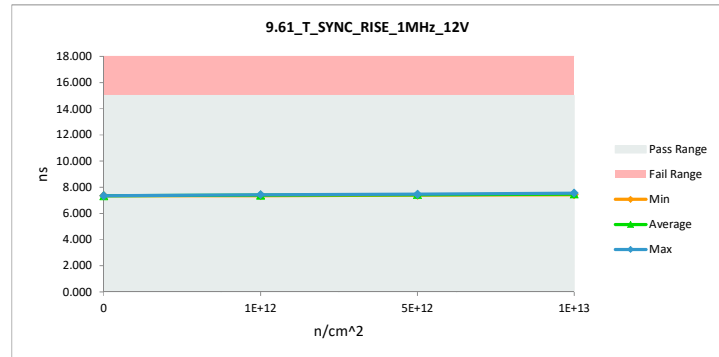


NDD Characterization Report TPS7H5007-SEP

| 9.61_T_SYNC_RISE_1MHz_12V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 15 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.065 | 7.350 | 0.285 |
| 1E+12 | 21 | 7.013 | 7.371 | 0.358 |
| 1E+12 | 22 | 7.064 | 7.350 | 0.286 |
| 1E+12 | 23 | 7.093 | 7.424 | 0.331 |
| 5E+12 | 24 | 7.007 | 7.394 | 0.387 |
| 5E+12 | 25 | 7.035 | 7.442 | 0.407 |
| 5E+12 | 26 | 7.125 | 7.462 | 0.337 |
| 1E+13 | 27 | 7.171 | 7.547 | 0.376 |
| 1E+13 | 28 | 6.995 | 7.435 | 0.440 |
| 1E+13 | 29 | 7.062 | 7.445 | 0.383 |
| Max | | 7.171 | 7.547 | 0.440 |
| Average | | 7.063 | 7.422 | 0.359 |
| Min | | 6.995 | 7.350 | 0.285 |
| Std Dev | | 0.055 | 0.060 | 0.050 |

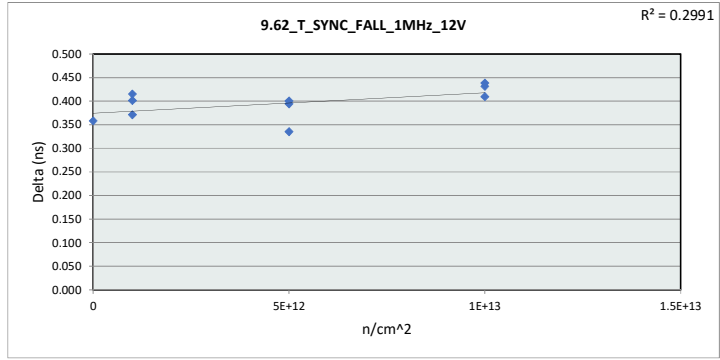


| 9.61_T_SYNC_RISE_1MHz_12V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.350 | 7.350 | 7.394 | 7.435 |
| Average | 7.350 | 7.382 | 7.433 | 7.476 |
| Max | 7.350 | 7.424 | 7.462 | 7.547 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

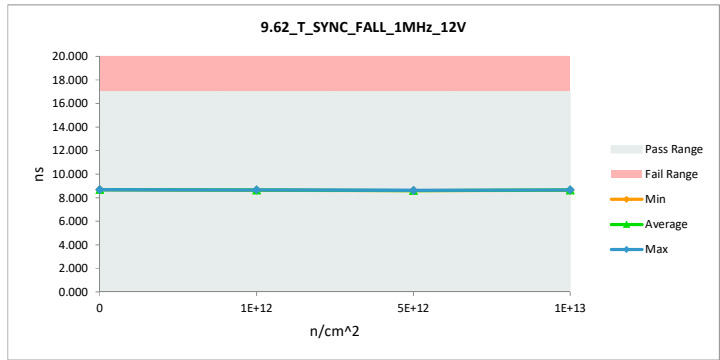


NDD Characterization Report TPS7H5007-SEP

| 9.62_T_SYNC_FALL_1MHz_12V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | ns | |
| Max Limit | | 14 | 17 | |
| Min Limit | | 0 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.326 | 8.684 | 0.358 |
| 1E+12 | 21 | 8.244 | 8.659 | 0.415 |
| 1E+12 | 22 | 8.267 | 8.668 | 0.401 |
| 1E+12 | 23 | 8.263 | 8.634 | 0.371 |
| 5E+12 | 24 | 8.213 | 8.607 | 0.394 |
| 5E+12 | 25 | 8.261 | 8.596 | 0.335 |
| 5E+12 | 26 | 8.218 | 8.618 | 0.400 |
| 1E+13 | 27 | 8.258 | 8.667 | 0.409 |
| 1E+13 | 28 | 8.227 | 8.658 | 0.431 |
| 1E+13 | 29 | 8.196 | 8.634 | 0.438 |
| Max | | 8.326 | 8.684 | 0.438 |
| Average | | 8.247 | 8.643 | 0.395 |
| Min | | 8.196 | 8.596 | 0.335 |
| Std Dev | | 0.037 | 0.029 | 0.032 |

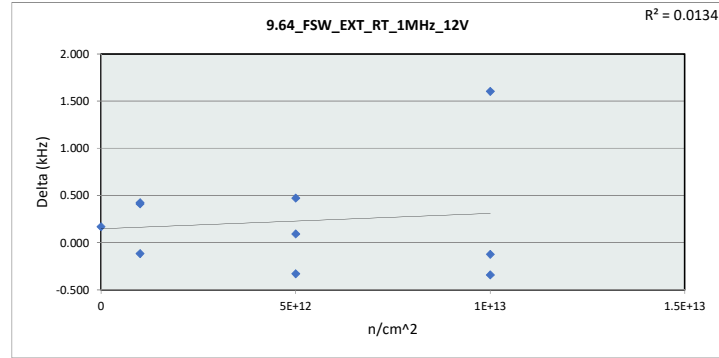


| 9.62_T_SYNC_FALL_1MHz_12V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.684 | 8.634 | 8.596 | 8.634 |
| Average | 8.684 | 8.654 | 8.607 | 8.653 |
| Max | 8.684 | 8.668 | 8.618 | 8.667 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

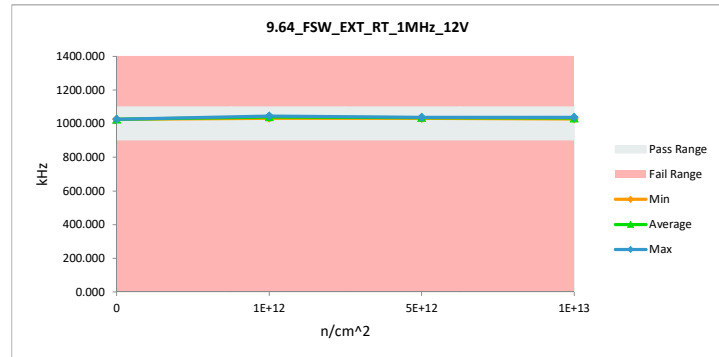


NDD Characterization Report TPS7H5007-SEP

| 9.64_FSW_EXT_RT_1MHz_12V | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 1100 | 1100 | |
| Min Limit | | 900 | 900 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1026.498 | 1026.666 | 0.168 |
| 1E+12 | 21 | 1045.697 | 1045.580 | -0.117 |
| 1E+12 | 22 | 1041.089 | 1041.499 | 0.410 |
| 1E+12 | 23 | 1032.217 | 1032.640 | 0.423 |
| 5E+12 | 24 | 1038.659 | 1038.329 | -0.330 |
| 5E+12 | 25 | 1037.197 | 1037.288 | 0.091 |
| 5E+12 | 26 | 1030.220 | 1030.691 | 0.471 |
| 1E+13 | 27 | 1028.010 | 1027.884 | -0.126 |
| 1E+13 | 28 | 1031.883 | 1033.485 | 1.602 |
| 1E+13 | 29 | 1038.601 | 1038.257 | -0.344 |
| Max | | 1045.697 | 1045.580 | 1.602 |
| Average | | 1035.007 | 1035.232 | 0.225 |
| Min | | 1026.498 | 1026.666 | -0.344 |
| Std Dev | | 6.184 | 6.028 | 0.570 |

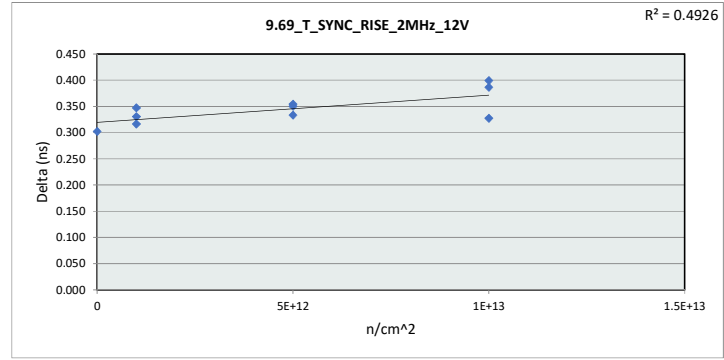


| 9.64_FSW_EXT_RT_1MHz_12V | | | | |
|--------------------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 1100 | kHz | |
| Min Limit | | 900 | kHz | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 900.000 | 900.000 | 900.000 | 900.000 |
| Min | 1026.666 | 1032.640 | 1030.691 | 1027.884 |
| Average | 1026.666 | 1039.906 | 1035.436 | 1033.209 |
| Max | 1026.666 | 1045.580 | 1038.329 | 1038.257 |
| UL | 1100.000 | 1100.000 | 1100.000 | 1100.000 |

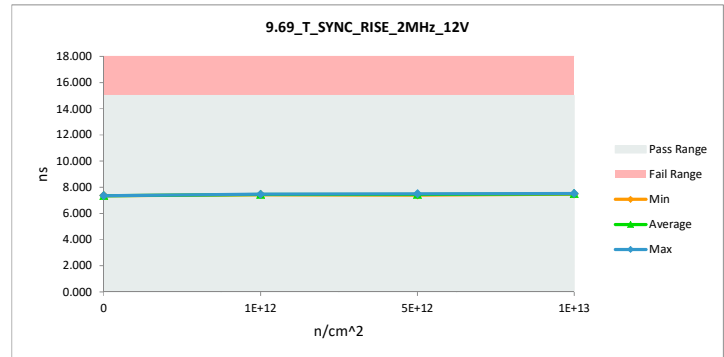


NDD Characterization Report TPS7H5007-SEP

| 9.69_T_SYNC_RISE_2MHz_12V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | ns | |
| Max Limit | | 14 | 15 | |
| Min Limit | | 0 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.051 | 7.353 | 0.302 |
| 1E+12 | 21 | 7.117 | 7.433 | 0.316 |
| 1E+12 | 22 | 7.099 | 7.446 | 0.347 |
| 1E+12 | 23 | 7.134 | 7.464 | 0.330 |
| 5E+12 | 24 | 7.057 | 7.407 | 0.350 |
| 5E+12 | 25 | 7.101 | 7.455 | 0.354 |
| 5E+12 | 26 | 7.151 | 7.484 | 0.333 |
| 1E+13 | 27 | 7.125 | 7.524 | 0.399 |
| 1E+13 | 28 | 7.082 | 7.468 | 0.386 |
| 1E+13 | 29 | 7.195 | 7.522 | 0.327 |
| Max | | 7.195 | 7.524 | 0.399 |
| Average | | 7.111 | 7.456 | 0.344 |
| Min | | 7.051 | 7.353 | 0.302 |
| Std Dev | | 0.043 | 0.051 | 0.030 |

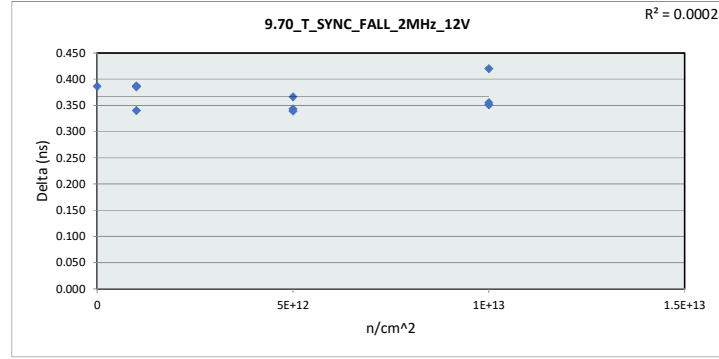


| 9.69_T_SYNC_RISE_2MHz_12V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.353 | 7.433 | 7.407 | 7.468 |
| Average | 7.353 | 7.448 | 7.449 | 7.505 |
| Max | 7.353 | 7.464 | 7.484 | 7.524 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

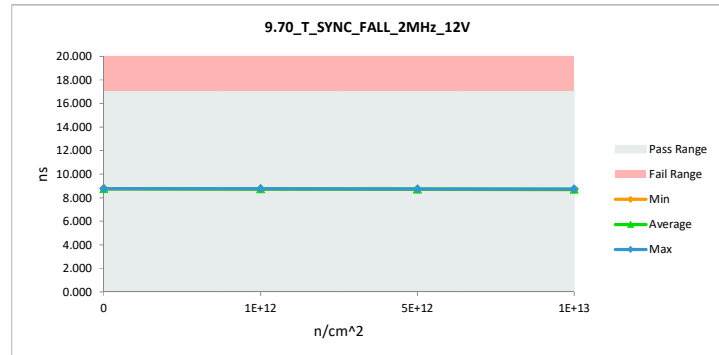


NDD Characterization Report TPS7H5007-SEP

| 9.70_T_SYNC_FALL_2MHz_12V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | ns | |
| Max Limit | | 14 | 17 | |
| Min Limit | | 0 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.387 | 8.773 | 0.386 |
| 1E+12 | 21 | 8.345 | 8.732 | 0.387 |
| 1E+12 | 22 | 8.367 | 8.752 | 0.385 |
| 1E+12 | 23 | 8.430 | 8.770 | 0.340 |
| 5E+12 | 24 | 8.380 | 8.723 | 0.343 |
| 5E+12 | 25 | 8.388 | 8.727 | 0.339 |
| 5E+12 | 26 | 8.351 | 8.717 | 0.366 |
| 1E+13 | 27 | 8.323 | 8.674 | 0.351 |
| 1E+13 | 28 | 8.352 | 8.707 | 0.355 |
| 1E+13 | 29 | 8.325 | 8.745 | 0.420 |
| Max | | 8.430 | 8.773 | 0.420 |
| Average | | 8.365 | 8.732 | 0.367 |
| Min | | 8.323 | 8.674 | 0.339 |
| Std Dev | | 0.033 | 0.030 | 0.027 |

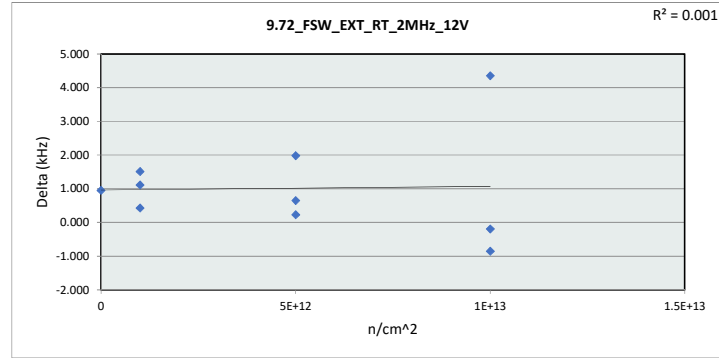


| 9.70_T_SYNC_FALL_2MHz_12V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.773 | 8.732 | 8.717 | 8.674 |
| Average | 8.773 | 8.751 | 8.722 | 8.709 |
| Max | 8.773 | 8.770 | 8.727 | 8.745 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

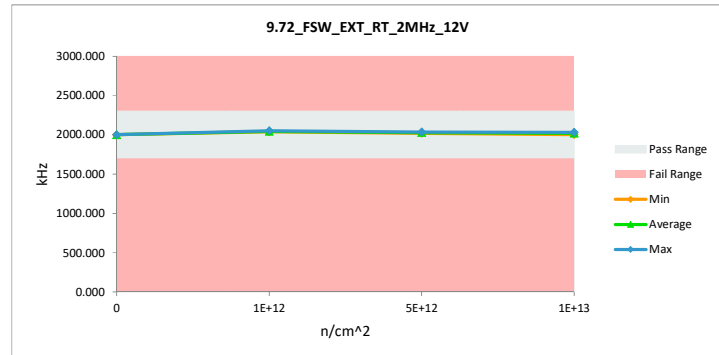


NDD Characterization Report TPS7H5007-SEP

| 9.72_FSW_EXT_RT_2MHz_12V | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 2300 | 2300 | |
| Min Limit | | 1700 | 1700 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 2001.621 | 2002.569 | 0.948 |
| 1E+12 | 21 | 2052.861 | 2053.282 | 0.421 |
| 1E+12 | 22 | 2041.222 | 2042.329 | 1.107 |
| 1E+12 | 23 | 2037.015 | 2038.518 | 1.503 |
| 5E+12 | 24 | 2035.848 | 2036.071 | 0.223 |
| 5E+12 | 25 | 2025.908 | 2026.554 | 0.646 |
| 5E+12 | 26 | 2019.774 | 2021.752 | 1.978 |
| 1E+13 | 27 | 2004.528 | 2004.332 | -0.196 |
| 1E+13 | 28 | 2023.174 | 2027.525 | 4.351 |
| 1E+13 | 29 | 2032.853 | 2031.995 | -0.858 |
| Max | | 2052.861 | 2053.282 | 4.351 |
| Average | | 2027.480 | 2028.493 | 1.012 |
| Min | | 2001.621 | 2002.569 | -0.858 |
| Std Dev | | 15.982 | 15.924 | 1.430 |

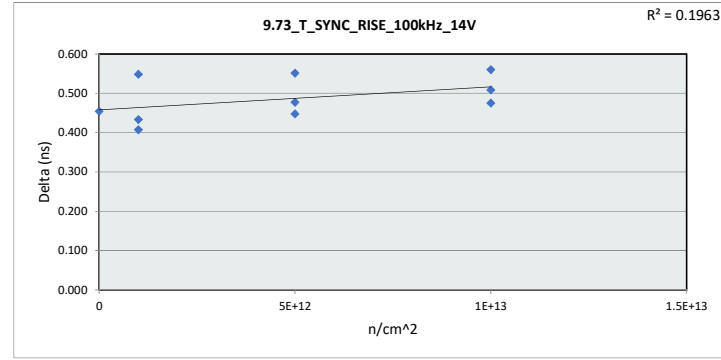


| 9.72_FSW_EXT_RT_2MHz_12V | | | | |
|--------------------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 2300 | kHz | |
| Min Limit | | 1700 | kHz | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1700.000 | 1700.000 | 1700.000 | 1700.000 |
| Min | 2002.569 | 2038.518 | 2021.752 | 2004.332 |
| Average | 2002.569 | 2044.710 | 2028.126 | 2021.284 |
| Max | 2002.569 | 2053.282 | 2036.071 | 2031.995 |
| UL | 2300.000 | 2300.000 | 2300.000 | 2300.000 |

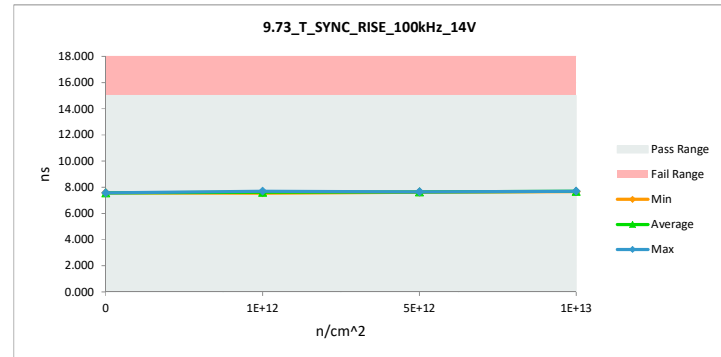


NDD Characterization Report TPS7H5007-SEP

| 9.73_T_SYNC_RISE_100kHz_14V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 15 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.114 | 7.568 | 0.454 |
| 1E+12 | 21 | 7.149 | 7.556 | 0.407 |
| 1E+12 | 22 | 7.148 | 7.581 | 0.433 |
| 1E+12 | 23 | 7.141 | 7.689 | 0.548 |
| 5E+12 | 24 | 7.082 | 7.633 | 0.551 |
| 5E+12 | 25 | 7.150 | 7.627 | 0.477 |
| 5E+12 | 26 | 7.199 | 7.646 | 0.447 |
| 1E+13 | 27 | 7.220 | 7.695 | 0.475 |
| 1E+13 | 28 | 7.109 | 7.669 | 0.560 |
| 1E+13 | 29 | 7.180 | 7.688 | 0.508 |
| Max | | 7.220 | 7.695 | 0.560 |
| Average | | 7.149 | 7.635 | 0.486 |
| Min | | 7.082 | 7.556 | 0.407 |
| Std Dev | | 0.042 | 0.052 | 0.054 |

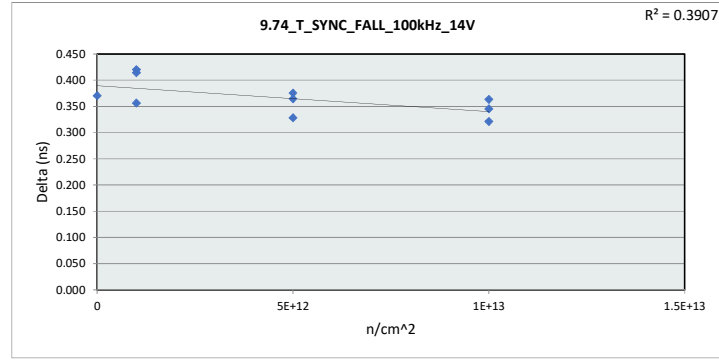


| 9.73_T_SYNC_RISE_100kHz_14V | | | | |
|-----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.568 | 7.556 | 7.627 | 7.669 |
| Average | 7.568 | 7.609 | 7.635 | 7.684 |
| Max | 7.568 | 7.689 | 7.646 | 7.695 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

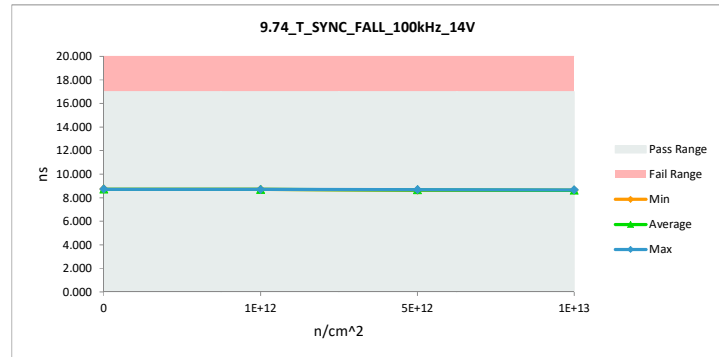


NDD Characterization Report TPS7H5007-SEP

| 9.74_T_SYNC_FALL_100kHz_14V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.353 | 8.723 | 0.370 |
| 1E+12 | 21 | 8.285 | 8.705 | 0.420 |
| 1E+12 | 22 | 8.341 | 8.697 | 0.356 |
| 1E+12 | 23 | 8.280 | 8.694 | 0.414 |
| 5E+12 | 24 | 8.309 | 8.637 | 0.328 |
| 5E+12 | 25 | 8.310 | 8.674 | 0.364 |
| 5E+12 | 26 | 8.302 | 8.677 | 0.375 |
| 1E+13 | 27 | 8.263 | 8.626 | 0.363 |
| 1E+13 | 28 | 8.320 | 8.665 | 0.345 |
| 1E+13 | 29 | 8.305 | 8.626 | 0.321 |
| Max | | 8.353 | 8.723 | 0.420 |
| Average | | 8.307 | 8.672 | 0.366 |
| Min | | 8.263 | 8.626 | 0.321 |
| Std Dev | | 0.027 | 0.034 | 0.032 |

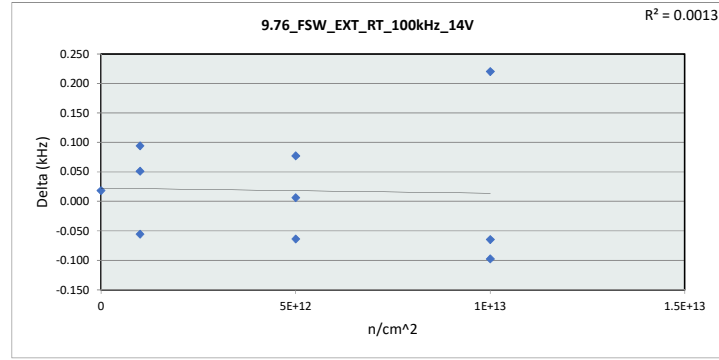


| 9.74_T_SYNC_FALL_100kHz_14V | | | | |
|-----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.723 | 8.694 | 8.637 | 8.626 |
| Average | 8.723 | 8.699 | 8.663 | 8.639 |
| Max | 8.723 | 8.705 | 8.677 | 8.665 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

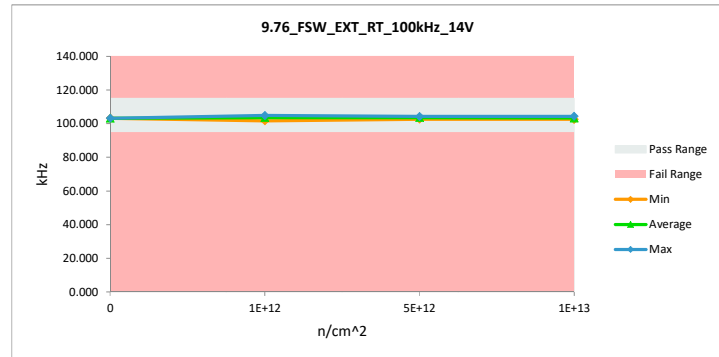


NDD Characterization Report TPS7H5007-SEP

| 9.76_FSW_EXT_RT_100kHz_14V | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 115 | 115 | |
| Min Limit | | 95 | 95 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 103.173 | 103.191 | 0.018 |
| 1E+12 | 21 | 104.877 | 104.821 | -0.056 |
| 1E+12 | 22 | 104.107 | 104.201 | 0.094 |
| 1E+12 | 23 | 101.564 | 101.615 | 0.051 |
| 5E+12 | 24 | 103.819 | 103.755 | -0.064 |
| 5E+12 | 25 | 104.230 | 104.236 | 0.006 |
| 5E+12 | 26 | 102.579 | 102.656 | 0.077 |
| 1E+13 | 27 | 102.637 | 102.572 | -0.065 |
| 1E+13 | 28 | 103.016 | 103.236 | 0.220 |
| 1E+13 | 29 | 104.437 | 104.339 | -0.098 |
| Max | | 104.877 | 104.821 | 0.220 |
| Average | | 103.444 | 103.462 | 0.018 |
| Min | | 101.564 | 101.615 | -0.098 |
| Std Dev | | 1.024 | 0.990 | 0.097 |

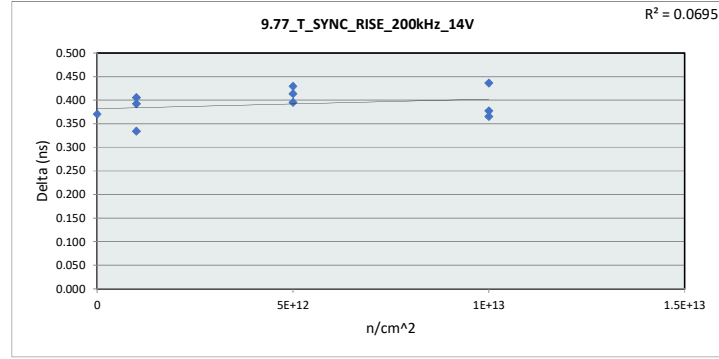


| 9.76_FSW_EXT_RT_100kHz_14V | | | | |
|----------------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 115 | kHz | | |
| Min Limit | 95 | kHz | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 95.000 | 95.000 | 95.000 | 95.000 |
| Min | 103.191 | 101.615 | 102.656 | 102.572 |
| Average | 103.191 | 103.546 | 103.549 | 103.382 |
| Max | 103.191 | 104.821 | 104.236 | 104.339 |
| UL | 115.000 | 115.000 | 115.000 | 115.000 |

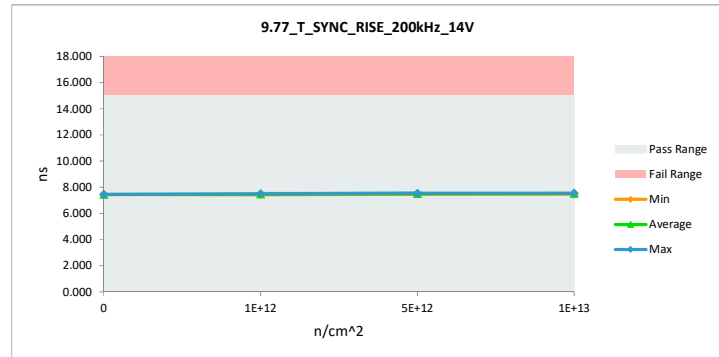


NDD Characterization Report TPS7H5007-SEP

| 9.77_T_SYNC_RISE_200kHz_14V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | ns | | |
| Max Limit | 14 | 15 | | |
| Min Limit | 0 | 0 | | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.081 | 7.451 | 0.370 |
| 1E+12 | 21 | 7.076 | 7.481 | 0.405 |
| 1E+12 | 22 | 7.094 | 7.428 | 0.334 |
| 1E+12 | 23 | 7.117 | 7.509 | 0.392 |
| 5E+12 | 24 | 7.082 | 7.477 | 0.395 |
| 5E+12 | 25 | 7.081 | 7.494 | 0.413 |
| 5E+12 | 26 | 7.108 | 7.537 | 0.429 |
| 1E+13 | 27 | 7.179 | 7.544 | 0.365 |
| 1E+13 | 28 | 7.087 | 7.464 | 0.377 |
| 1E+13 | 29 | 7.103 | 7.539 | 0.436 |
| Max | | 7.179 | 7.544 | 0.436 |
| Average | | 7.101 | 7.492 | 0.392 |
| Min | | 7.076 | 7.428 | 0.334 |
| Std Dev | | 0.031 | 0.040 | 0.031 |

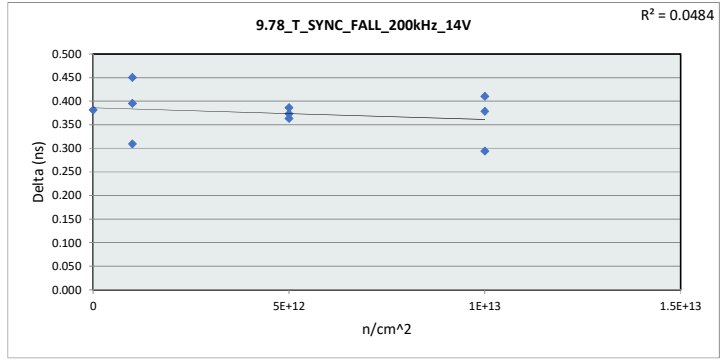


| 9.77_T_SYNC_RISE_200kHz_14V | | | | |
|-----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.451 | 7.428 | 7.477 | 7.464 |
| Average | 7.451 | 7.473 | 7.503 | 7.516 |
| Max | 7.451 | 7.509 | 7.537 | 7.544 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

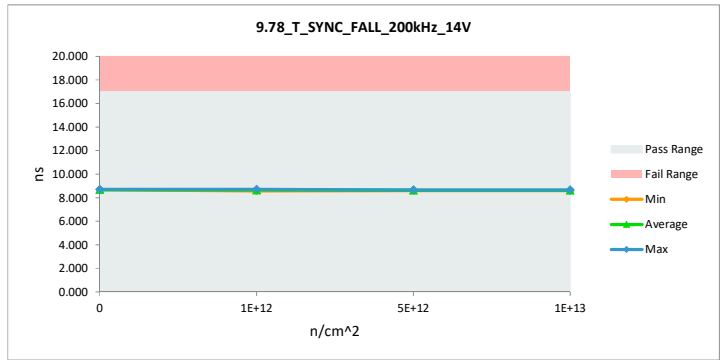


NDD Characterization Report TPS7H5007-SEP

| 9.78_T_SYNC_FALL_200kHz_14V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | ns | |
| Max Limit | | 14 | 17 | |
| Min Limit | | 0 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.310 | 8.691 | 0.381 |
| 1E+12 | 21 | 8.257 | 8.707 | 0.450 |
| 1E+12 | 22 | 8.260 | 8.655 | 0.395 |
| 1E+12 | 23 | 8.272 | 8.581 | 0.309 |
| 5E+12 | 24 | 8.241 | 8.604 | 0.363 |
| 5E+12 | 25 | 8.283 | 8.669 | 0.386 |
| 5E+12 | 26 | 8.262 | 8.635 | 0.373 |
| 1E+13 | 27 | 8.304 | 8.598 | 0.294 |
| 1E+13 | 28 | 8.250 | 8.660 | 0.410 |
| 1E+13 | 29 | 8.242 | 8.620 | 0.378 |
| Max | | 8.310 | 8.707 | 0.450 |
| Average | | 8.268 | 8.642 | 0.374 |
| Min | | 8.241 | 8.581 | 0.294 |
| Std Dev | | 0.024 | 0.041 | 0.045 |

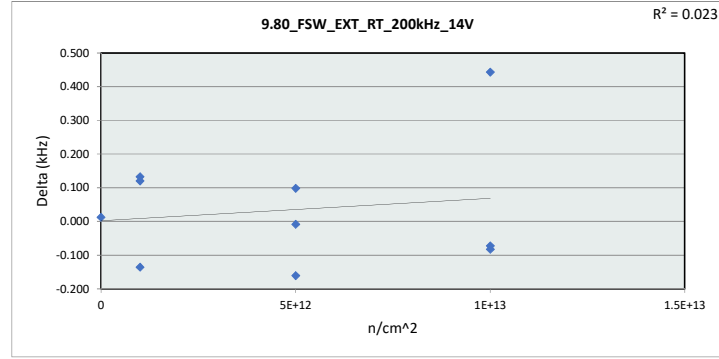


| 9.78_T_SYNC_FALL_200kHz_14V | | | | |
|-----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.691 | 8.581 | 8.604 | 8.598 |
| Average | 8.691 | 8.648 | 8.636 | 8.626 |
| Max | 8.691 | 8.707 | 8.669 | 8.660 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

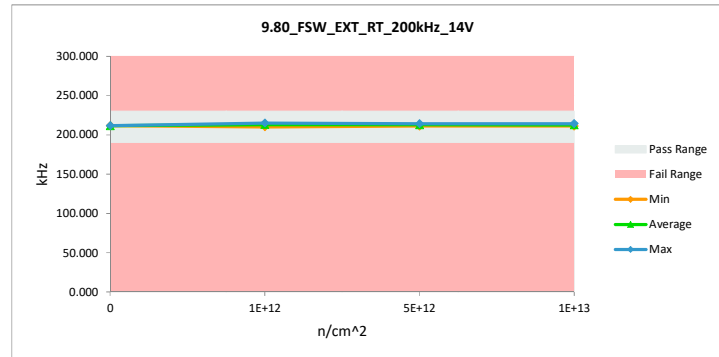


NDD Characterization Report TPS7H5007-SEP

| 9.80_FSW_EXT_RT_200kHz_14V | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 230 | 230 | |
| Min Limit | | 190 | 190 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 211.677 | 211.689 | 0.012 |
| 1E+12 | 21 | 215.174 | 215.038 | -0.136 |
| 1E+12 | 22 | 214.097 | 214.229 | 0.132 |
| 1E+12 | 23 | 210.004 | 210.124 | 0.120 |
| 5E+12 | 24 | 213.590 | 213.429 | -0.161 |
| 5E+12 | 25 | 213.979 | 213.970 | -0.009 |
| 5E+12 | 26 | 211.085 | 211.183 | 0.098 |
| 1E+13 | 27 | 211.187 | 211.114 | -0.073 |
| 1E+13 | 28 | 211.783 | 212.226 | 0.443 |
| 1E+13 | 29 | 214.372 | 214.289 | -0.083 |
| Max | | 215.174 | 215.038 | 0.443 |
| Average | | 212.695 | 212.729 | 0.034 |
| Min | | 210.004 | 210.124 | -0.161 |
| Std Dev | | 1.743 | 1.672 | 0.177 |

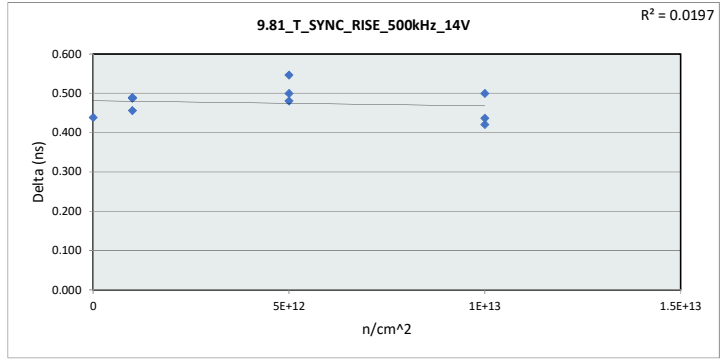


| 9.80_FSW_EXT_RT_200kHz_14V | | | | |
|----------------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 230 | kHz | | |
| Min Limit | 190 | kHz | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 190.000 | 190.000 | 190.000 | 190.000 |
| Min | 211.689 | 210.124 | 211.183 | 211.114 |
| Average | 211.689 | 213.130 | 212.861 | 212.543 |
| Max | 211.689 | 215.038 | 213.970 | 214.289 |
| UL | 230.000 | 230.000 | 230.000 | 230.000 |

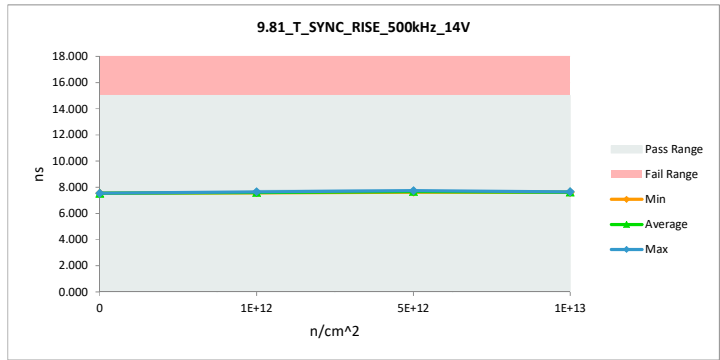


NDD Characterization Report TPS7H5007-SEP

| 9.81_T_SYNC_RISE_500kHz_14V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 15 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.101 | 7.539 | 0.438 |
| 1E+12 | 21 | 7.115 | 7.571 | 0.456 |
| 1E+12 | 22 | 7.089 | 7.576 | 0.487 |
| 1E+12 | 23 | 7.161 | 7.650 | 0.489 |
| 5E+12 | 24 | 7.117 | 7.616 | 0.499 |
| 5E+12 | 25 | 7.185 | 7.731 | 0.546 |
| 5E+12 | 26 | 7.182 | 7.662 | 0.480 |
| 1E+13 | 27 | 7.238 | 7.658 | 0.420 |
| 1E+13 | 28 | 7.113 | 7.612 | 0.499 |
| 1E+13 | 29 | 7.179 | 7.615 | 0.436 |
| Max | | 7.238 | 7.731 | 0.546 |
| Average | | 7.148 | 7.623 | 0.475 |
| Min | | 7.089 | 7.539 | 0.420 |
| Std Dev | | 0.048 | 0.055 | 0.038 |

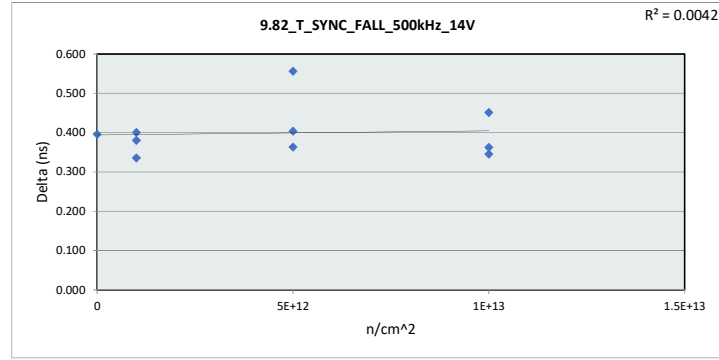


| 9.81_T_SYNC_RISE_500kHz_14V | | | | |
|-----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.539 | 7.571 | 7.616 | 7.612 |
| Average | 7.539 | 7.599 | 7.670 | 7.628 |
| Max | 7.539 | 7.650 | 7.731 | 7.658 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

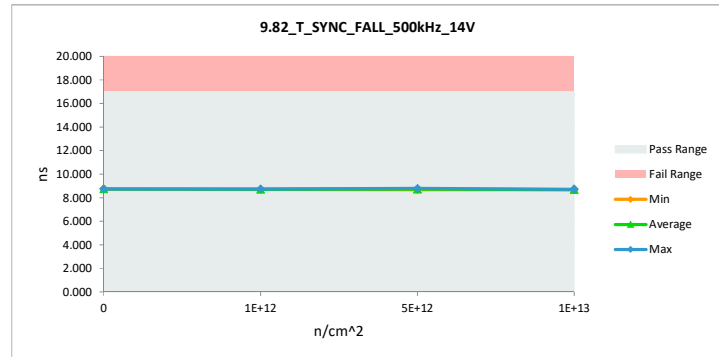


NDD Characterization Report TPS7H5007-SEP

| 9.82_T_SYNC_FALL_500kHz_14V | | | | |
|-----------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.349 | 8.744 | 0.395 |
| 1E+12 | 21 | 8.339 | 8.719 | 0.380 |
| 1E+12 | 22 | 8.357 | 8.692 | 0.335 |
| 1E+12 | 23 | 8.328 | 8.728 | 0.400 |
| 5E+12 | 24 | 8.310 | 8.713 | 0.403 |
| 5E+12 | 25 | 8.227 | 8.783 | 0.556 |
| 5E+12 | 26 | 8.318 | 8.681 | 0.363 |
| 1E+13 | 27 | 8.310 | 8.672 | 0.362 |
| 1E+13 | 28 | 8.330 | 8.675 | 0.345 |
| 1E+13 | 29 | 8.271 | 8.722 | 0.451 |
| Max | | 8.357 | 8.783 | 0.556 |
| Average | | 8.314 | 8.713 | 0.399 |
| Min | | 8.227 | 8.672 | 0.335 |
| Std Dev | | 0.039 | 0.035 | 0.064 |

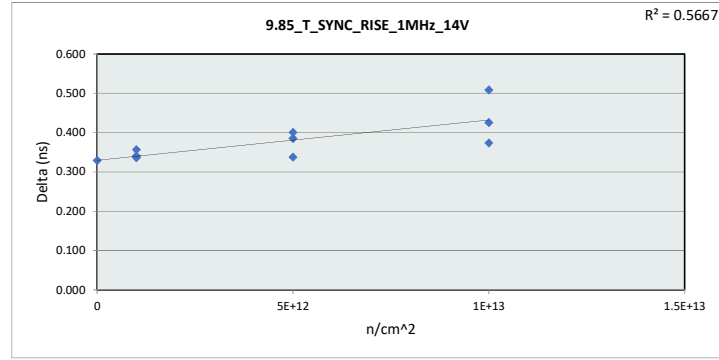


| 9.82_T_SYNC_FALL_500kHz_14V | | | | |
|-----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.744 | 8.692 | 8.681 | 8.672 |
| Average | 8.744 | 8.713 | 8.726 | 8.690 |
| Max | 8.744 | 8.728 | 8.783 | 8.722 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

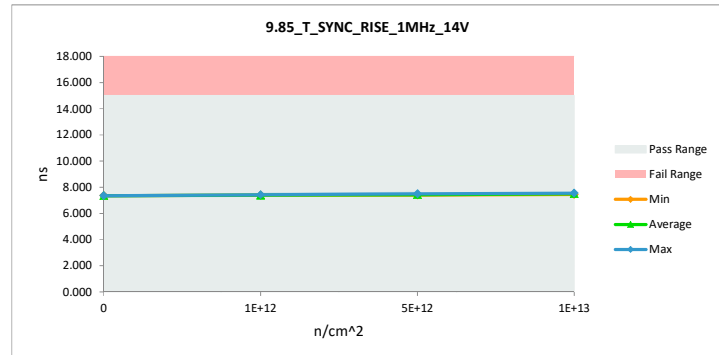


NDD Characterization Report TPS7H5007-SEP

| 9.85_T_SYNC_RISE_1MHz_14V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 15 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.029 | 7.358 | 0.329 |
| 1E+12 | 21 | 7.025 | 7.381 | 0.356 |
| 1E+12 | 22 | 7.045 | 7.381 | 0.336 |
| 1E+12 | 23 | 7.078 | 7.418 | 0.340 |
| 5E+12 | 24 | 7.017 | 7.402 | 0.385 |
| 5E+12 | 25 | 7.027 | 7.427 | 0.400 |
| 5E+12 | 26 | 7.146 | 7.483 | 0.337 |
| 1E+13 | 27 | 7.130 | 7.555 | 0.425 |
| 1E+13 | 28 | 6.987 | 7.495 | 0.508 |
| 1E+13 | 29 | 7.072 | 7.445 | 0.373 |
| Max | | 7.146 | 7.555 | 0.508 |
| Average | | 7.056 | 7.434 | 0.379 |
| Min | | 6.987 | 7.358 | 0.329 |
| Std Dev | | 0.051 | 0.061 | 0.055 |

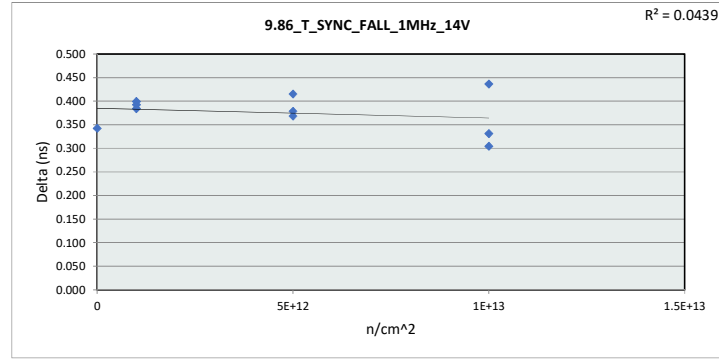


| 9.85_T_SYNC_RISE_1MHz_14V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.358 | 7.381 | 7.402 | 7.445 |
| Average | 7.358 | 7.393 | 7.437 | 7.498 |
| Max | 7.358 | 7.418 | 7.483 | 7.555 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

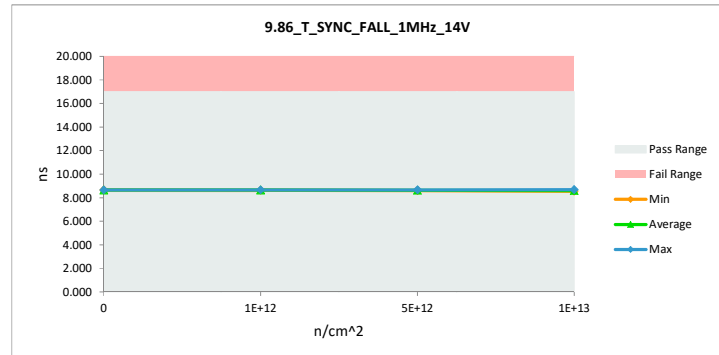


NDD Characterization Report TPS7H5007-SEP

| 9.86_T_SYNC_FALL_1MHz_14V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 14 | | 17 |
| Min Limit | | 0 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.306 | 8.648 | 0.342 |
| 1E+12 | 21 | 8.274 | 8.666 | 0.392 |
| 1E+12 | 22 | 8.226 | 8.625 | 0.399 |
| 1E+12 | 23 | 8.264 | 8.648 | 0.384 |
| 5E+12 | 24 | 8.222 | 8.600 | 0.378 |
| 5E+12 | 25 | 8.265 | 8.633 | 0.368 |
| 5E+12 | 26 | 8.244 | 8.659 | 0.415 |
| 1E+13 | 27 | 8.228 | 8.559 | 0.331 |
| 1E+13 | 28 | 8.243 | 8.679 | 0.436 |
| 1E+13 | 29 | 8.241 | 8.545 | 0.304 |
| Max | | 8.306 | 8.679 | 0.436 |
| Average | | 8.251 | 8.626 | 0.375 |
| Min | | 8.222 | 8.545 | 0.304 |
| Std Dev | | 0.026 | 0.045 | 0.040 |

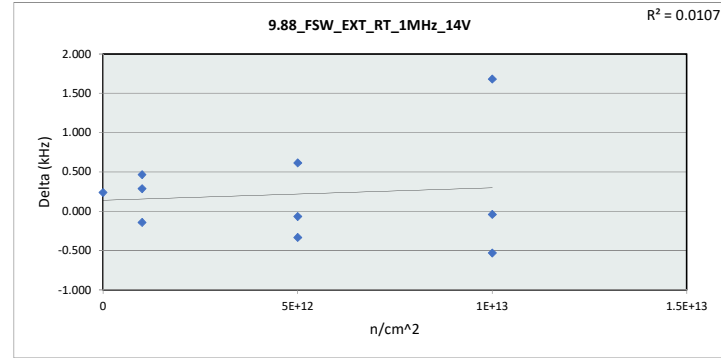


| 9.86_T_SYNC_FALL_1MHz_14V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | | ns |
| Min Limit | 0 | | | ns |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.648 | 8.625 | 8.600 | 8.545 |
| Average | 8.648 | 8.646 | 8.631 | 8.594 |
| Max | 8.648 | 8.666 | 8.659 | 8.679 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

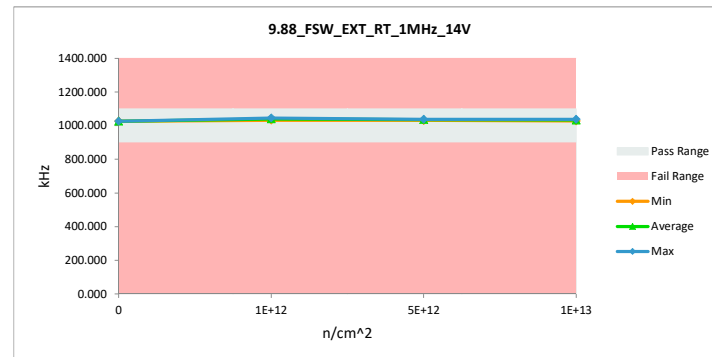


NDD Characterization Report TPS7H5007-SEP

| 9.88_FSW_EXT_RT_1MHz_14V | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 1100 | 1100 | |
| Min Limit | | 900 | 900 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1026.492 | 1026.728 | 0.236 |
| 1E+12 | 21 | 1045.676 | 1045.531 | -0.145 |
| 1E+12 | 22 | 1041.073 | 1041.357 | 0.284 |
| 1E+12 | 23 | 1032.241 | 1032.705 | 0.464 |
| 5E+12 | 24 | 1038.677 | 1038.341 | -0.336 |
| 5E+12 | 25 | 1037.166 | 1037.097 | -0.069 |
| 5E+12 | 26 | 1029.990 | 1030.603 | 0.613 |
| 1E+13 | 27 | 1027.911 | 1027.869 | -0.042 |
| 1E+13 | 28 | 1031.743 | 1033.423 | 1.680 |
| 1E+13 | 29 | 1038.649 | 1038.115 | -0.534 |
| Max | | 1045.676 | 1045.531 | 1.680 |
| Average | | 1034.962 | 1035.177 | 0.215 |
| Min | | 1026.492 | 1026.728 | -0.534 |
| Std Dev | | 6.221 | 5.987 | 0.625 |

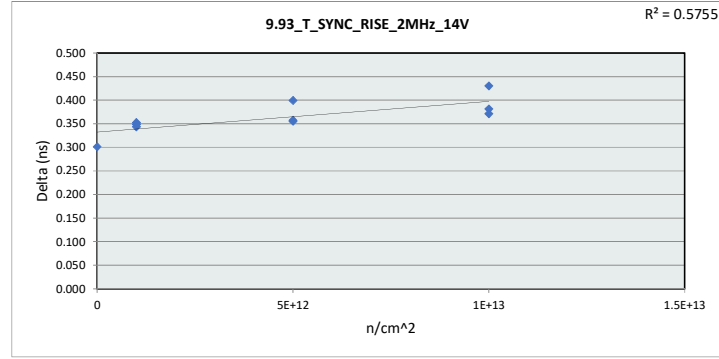


| 9.88_FSW_EXT_RT_1MHz_14V | | | | |
|--------------------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 1100 | kHz | |
| Min Limit | | 900 | kHz | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 900.000 | 900.000 | 900.000 | 900.000 |
| Min | 1026.728 | 1032.705 | 1030.603 | 1027.869 |
| Average | 1026.728 | 1039.864 | 1035.347 | 1033.136 |
| Max | 1026.728 | 1045.531 | 1038.341 | 1038.115 |
| UL | 1100.000 | 1100.000 | 1100.000 | 1100.000 |

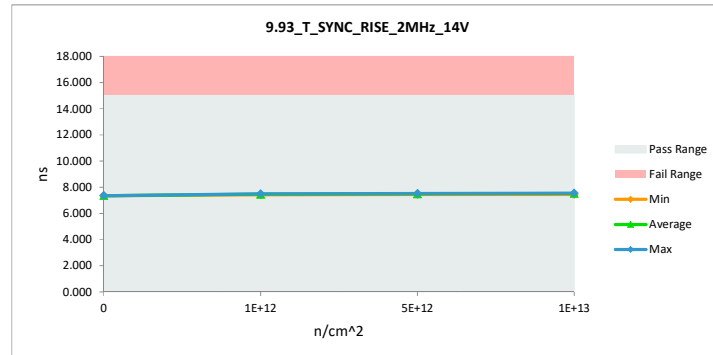


NDD Characterization Report TPS7H5007-SEP

| 9.93_T_SYNC_RISE_2MHz_14V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | ns | |
| Max Limit | | 14 | 15 | |
| Min Limit | | 0 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.057 | 7.358 | 0.301 |
| 1E+12 | 21 | 7.094 | 7.437 | 0.343 |
| 1E+12 | 22 | 7.114 | 7.462 | 0.348 |
| 1E+12 | 23 | 7.135 | 7.487 | 0.352 |
| 5E+12 | 24 | 7.084 | 7.483 | 0.399 |
| 5E+12 | 25 | 7.101 | 7.458 | 0.357 |
| 5E+12 | 26 | 7.168 | 7.523 | 0.355 |
| 1E+13 | 27 | 7.152 | 7.523 | 0.371 |
| 1E+13 | 28 | 7.077 | 7.458 | 0.381 |
| 1E+13 | 29 | 7.125 | 7.555 | 0.430 |
| Max | | 7.168 | 7.555 | 0.430 |
| Average | | 7.111 | 7.474 | 0.364 |
| Min | | 7.057 | 7.358 | 0.301 |
| Std Dev | | 0.035 | 0.055 | 0.035 |

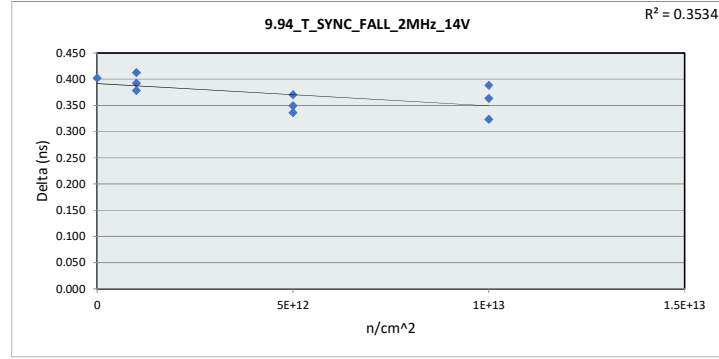


| 9.93_T_SYNC_RISE_2MHz_14V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 15 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.358 | 7.437 | 7.458 | 7.458 |
| Average | 7.358 | 7.462 | 7.488 | 7.512 |
| Max | 7.358 | 7.487 | 7.523 | 7.555 |
| UL | 15.000 | 15.000 | 15.000 | 15.000 |

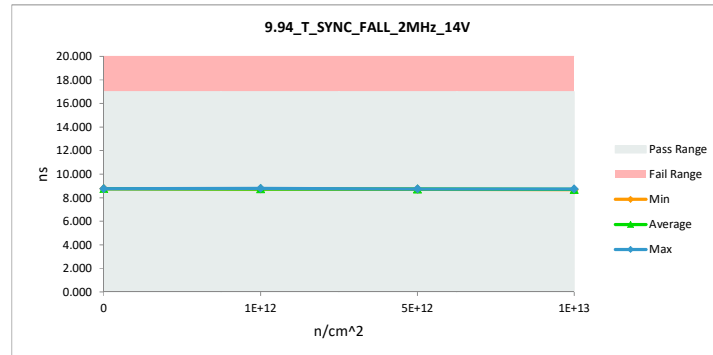


NDD Characterization Report TPS7H5007-SEP

| 9.94_T_SYNC_FALL_2MHz_14V | | | | |
|---------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | ns | |
| Max Limit | | 14 | 17 | |
| Min Limit | | 0 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.354 | 8.756 | 0.402 |
| 1E+12 | 21 | 8.377 | 8.789 | 0.412 |
| 1E+12 | 22 | 8.349 | 8.727 | 0.378 |
| 1E+12 | 23 | 8.336 | 8.728 | 0.392 |
| 5E+12 | 24 | 8.380 | 8.716 | 0.336 |
| 5E+12 | 25 | 8.396 | 8.745 | 0.349 |
| 5E+12 | 26 | 8.350 | 8.720 | 0.370 |
| 1E+13 | 27 | 8.308 | 8.671 | 0.363 |
| 1E+13 | 28 | 8.340 | 8.728 | 0.388 |
| 1E+13 | 29 | 8.373 | 8.696 | 0.323 |
| Max | | 8.396 | 8.789 | 0.412 |
| Average | | 8.356 | 8.728 | 0.371 |
| Min | | 8.308 | 8.671 | 0.323 |
| Std Dev | | 0.026 | 0.032 | 0.029 |

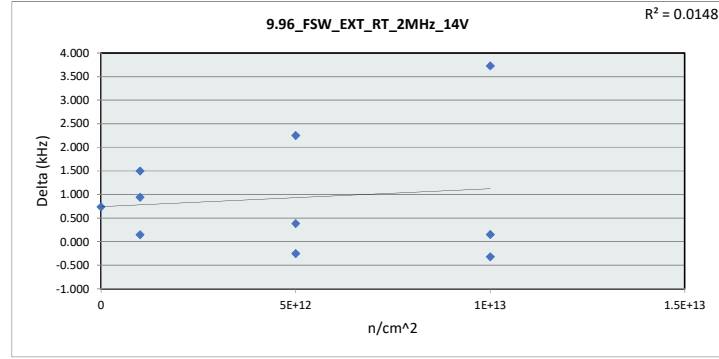


| 9.94_T_SYNC_FALL_2MHz_14V | | | | |
|---------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.756 | 8.727 | 8.716 | 8.671 |
| Average | 8.756 | 8.748 | 8.727 | 8.698 |
| Max | 8.756 | 8.789 | 8.745 | 8.728 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

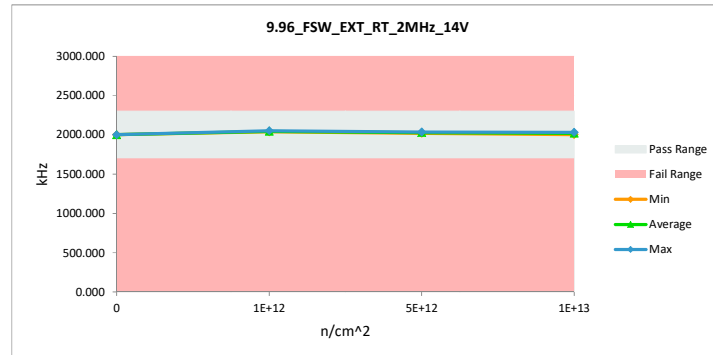


NDD Characterization Report TPS7H5007-SEP

| 9.96_FSW_EXT_RT_2MHz_14V | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | kHz | kHz | |
| Max Limit | | 2300 | 2300 | |
| Min Limit | | 1700 | 1700 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 2001.568 | 2002.301 | 0.733 |
| 1E+12 | 21 | 2052.750 | 2052.895 | 0.145 |
| 1E+12 | 22 | 2040.858 | 2041.794 | 0.936 |
| 1E+12 | 23 | 2037.126 | 2038.623 | 1.497 |
| 5E+12 | 24 | 2035.908 | 2035.652 | -0.256 |
| 5E+12 | 25 | 2026.068 | 2026.448 | 0.380 |
| 5E+12 | 26 | 2019.312 | 2021.561 | 2.249 |
| 1E+13 | 27 | 2004.047 | 2004.196 | 0.149 |
| 1E+13 | 28 | 2022.913 | 2026.635 | 3.722 |
| 1E+13 | 29 | 2032.206 | 2031.882 | -0.324 |
| Max | | 2052.750 | 2052.895 | 3.722 |
| Average | | 2027.276 | 2028.199 | 0.923 |
| Min | | 2001.568 | 2002.301 | -0.324 |
| Std Dev | | 16.033 | 15.878 | 1.265 |

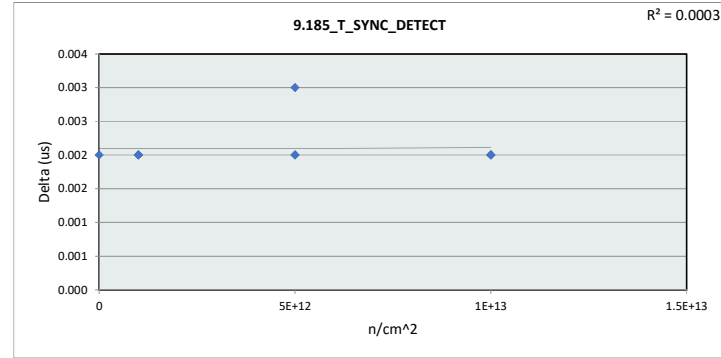


| 9.96_FSW_EXT_RT_2MHz_14V | | | | |
|--------------------------|----------|----------|----------|----------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 2300 | kHz | |
| Min Limit | | 1700 | kHz | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 1700.000 | 1700.000 | 1700.000 | 1700.000 |
| Min | 2002.301 | 2038.623 | 2021.561 | 2004.196 |
| Average | 2002.301 | 2044.437 | 2027.887 | 2020.904 |
| Max | 2002.301 | 2052.895 | 2035.652 | 2031.882 |
| UL | 2300.000 | 2300.000 | 2300.000 | 2300.000 |

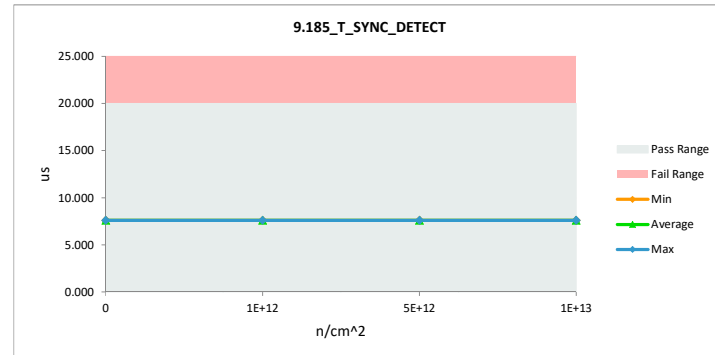


NDD Characterization Report TPS7H5007-SEP

| 9.185_T_SYNC_DETECT | | | | |
|---------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | us | us | |
| Max Limit | | 12 | 20 | |
| Min Limit | | 4 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.587 | 7.589 | 0.002 |
| 1E+12 | 21 | 7.588 | 7.590 | 0.002 |
| 1E+12 | 22 | 7.588 | 7.590 | 0.002 |
| 1E+12 | 23 | 7.588 | 7.590 | 0.002 |
| 5E+12 | 24 | 7.587 | 7.589 | 0.002 |
| 5E+12 | 25 | 7.587 | 7.590 | 0.003 |
| 5E+12 | 26 | 7.588 | 7.590 | 0.002 |
| 1E+13 | 27 | 7.589 | 7.591 | 0.002 |
| 1E+13 | 28 | 7.587 | 7.589 | 0.002 |
| 1E+13 | 29 | 7.587 | 7.589 | 0.002 |
| Max | | 7.589 | 7.591 | 0.003 |
| Average | | 7.588 | 7.590 | 0.002 |
| Min | | 7.587 | 7.589 | 0.002 |
| Std Dev | | 0.001 | 0.001 | 0.000 |

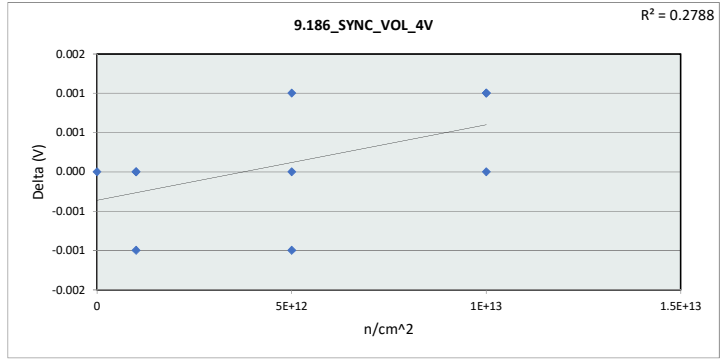


| 9.185_T_SYNC_DETECT | | | | |
|---------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 20 | us | | |
| Min Limit | 0 | us | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.589 | 7.590 | 7.589 | 7.589 |
| Average | 7.589 | 7.590 | 7.590 | 7.590 |
| Max | 7.589 | 7.590 | 7.590 | 7.591 |
| UL | 20.000 | 20.000 | 20.000 | 20.000 |

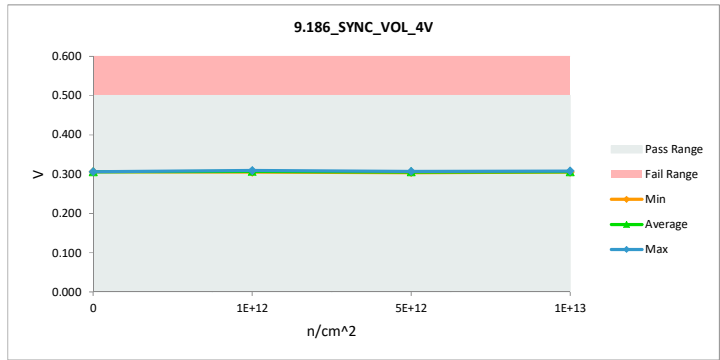


NDD Characterization Report TPS7H5007-SEP

| 9.186_SYNC_VOL_4V | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.5 | | 0.5 | |
| Min Limit | 0 | | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.306 | 0.306 | 0.000 |
| 1E+12 | 21 | 0.309 | 0.309 | 0.000 |
| 1E+12 | 22 | 0.306 | 0.306 | 0.000 |
| 1E+12 | 23 | 0.306 | 0.305 | -0.001 |
| 5E+12 | 24 | 0.305 | 0.304 | -0.001 |
| 5E+12 | 25 | 0.306 | 0.306 | 0.000 |
| 5E+12 | 26 | 0.306 | 0.307 | 0.001 |
| 1E+13 | 27 | 0.305 | 0.305 | 0.000 |
| 1E+13 | 28 | 0.307 | 0.308 | 0.001 |
| 1E+13 | 29 | 0.304 | 0.305 | 0.001 |
| Max | | 0.309 | 0.309 | 0.001 |
| Average | | 0.306 | 0.306 | 0.000 |
| Min | | 0.304 | 0.304 | -0.001 |
| Std Dev | | 0.001 | 0.002 | 0.001 |

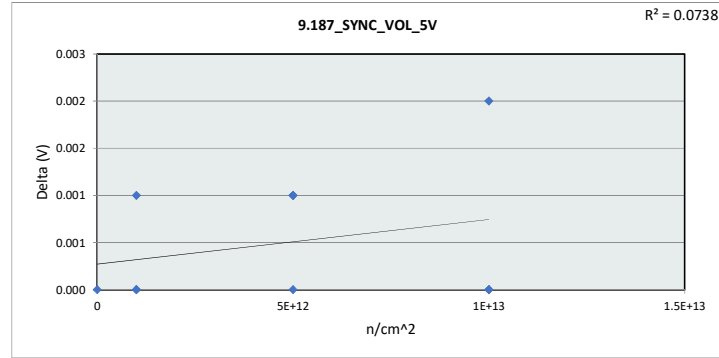


| 9.186_SYNC_VOL_4V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.5 | | V | |
| Min Limit | 0 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 0.306 | 0.305 | 0.304 | 0.305 |
| Average | 0.306 | 0.307 | 0.306 | 0.306 |
| Max | 0.306 | 0.309 | 0.307 | 0.308 |
| UL | 0.500 | 0.500 | 0.500 | 0.500 |

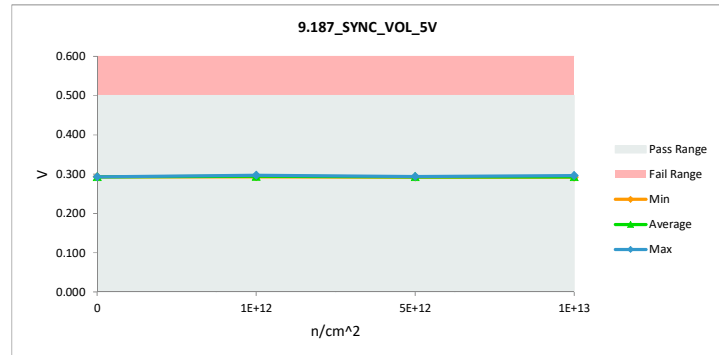


NDD Characterization Report TPS7H5007-SEP

| 9.187_SYNC_VOL_5V | | | | |
|-------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 0.5 | 0.5 | 0.5 | 0.5 |
| Min Limit | 0 | 0 | 0 | 0 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.293 | 0.293 | 0.000 |
| 1E+12 | 21 | 0.296 | 0.297 | 0.001 |
| 1E+12 | 22 | 0.293 | 0.293 | 0.000 |
| 1E+12 | 23 | 0.293 | 0.293 | 0.000 |
| 5E+12 | 24 | 0.292 | 0.292 | 0.000 |
| 5E+12 | 25 | 0.292 | 0.293 | 0.001 |
| 5E+12 | 26 | 0.293 | 0.294 | 0.001 |
| 1E+13 | 27 | 0.292 | 0.292 | 0.000 |
| 1E+13 | 28 | 0.294 | 0.296 | 0.002 |
| 1E+13 | 29 | 0.292 | 0.292 | 0.000 |
| Max | | 0.296 | 0.297 | 0.002 |
| Average | | 0.293 | 0.294 | 0.000 |
| Min | | 0.292 | 0.292 | 0.000 |
| Std Dev | | 0.001 | 0.002 | 0.001 |

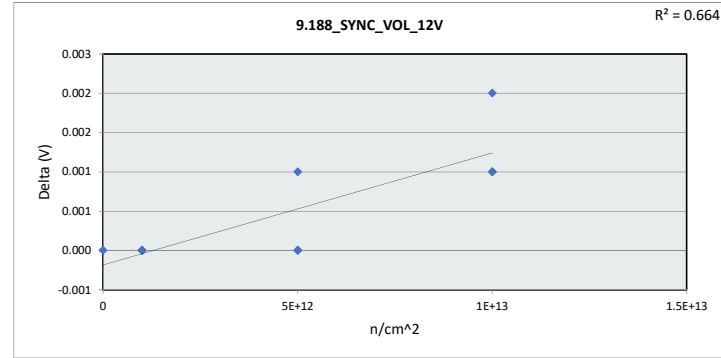


| 9.187_SYNC_VOL_5V | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.5 | V | V | V |
| Min Limit | 0 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 0.293 | 0.293 | 0.292 | 0.292 |
| Average | 0.293 | 0.294 | 0.293 | 0.293 |
| Max | 0.293 | 0.297 | 0.294 | 0.296 |
| UL | 0.500 | 0.500 | 0.500 | 0.500 |

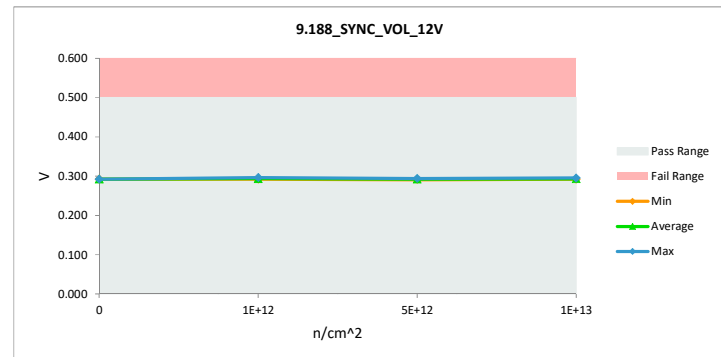


NDD Characterization Report TPS7H5007-SEP

| 9.188_SYNC_VOL_12V | | | | |
|--------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | V | V | |
| Max Limit | | 0.5 | 0.5 | |
| Min Limit | | 0 | 0 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.292 | 0.292 | 0.000 |
| 1E+12 | 21 | 0.296 | 0.296 | 0.000 |
| 1E+12 | 22 | 0.293 | 0.293 | 0.000 |
| 1E+12 | 23 | 0.292 | 0.292 | 0.000 |
| 5E+12 | 24 | 0.291 | 0.291 | 0.000 |
| 5E+12 | 25 | 0.292 | 0.292 | 0.000 |
| 5E+12 | 26 | 0.293 | 0.294 | 0.001 |
| 1E+13 | 27 | 0.291 | 0.292 | 0.001 |
| 1E+13 | 28 | 0.293 | 0.295 | 0.002 |
| 1E+13 | 29 | 0.291 | 0.292 | 0.001 |
| Max | | 0.296 | 0.296 | 0.002 |
| Average | | 0.292 | 0.293 | 0.000 |
| Min | | 0.291 | 0.291 | 0.000 |
| Std Dev | | 0.002 | 0.002 | 0.001 |

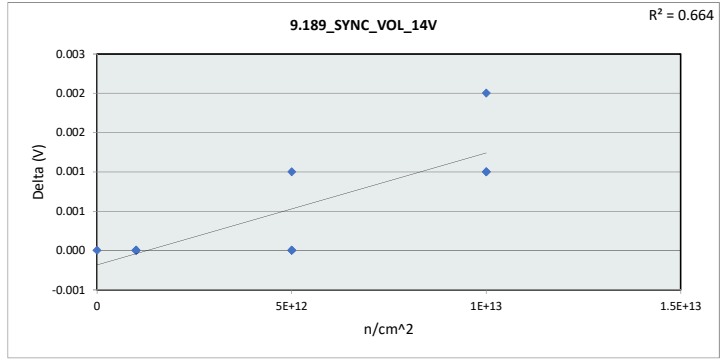


| 9.188_SYNC_VOL_12V | | | | |
|--------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.5 | V | | |
| Min Limit | 0 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 0.292 | 0.292 | 0.291 | 0.292 |
| Average | 0.292 | 0.294 | 0.292 | 0.293 |
| Max | 0.292 | 0.296 | 0.294 | 0.295 |
| UL | 0.500 | 0.500 | 0.500 | 0.500 |

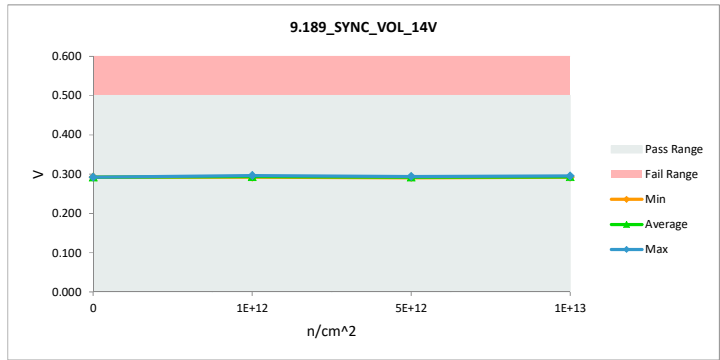


NDD Characterization Report TPS7H5007-SEP

| 9.189_SYNC_VOL_14V | | | | |
|--------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 0.5 | 0.5 | 0.5 | 0.5 |
| Min Limit | 0 | 0 | 0 | 0 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.292 | 0.292 | 0.000 |
| 1E+12 | 21 | 0.296 | 0.296 | 0.000 |
| 1E+12 | 22 | 0.293 | 0.293 | 0.000 |
| 1E+12 | 23 | 0.292 | 0.292 | 0.000 |
| 5E+12 | 24 | 0.291 | 0.291 | 0.000 |
| 5E+12 | 25 | 0.292 | 0.292 | 0.000 |
| 5E+12 | 26 | 0.293 | 0.294 | 0.001 |
| 1E+13 | 27 | 0.291 | 0.292 | 0.001 |
| 1E+13 | 28 | 0.293 | 0.295 | 0.002 |
| 1E+13 | 29 | 0.291 | 0.292 | 0.001 |
| Max | | 0.296 | 0.296 | 0.002 |
| Average | | 0.292 | 0.293 | 0.000 |
| Min | | 0.291 | 0.291 | 0.000 |
| Std Dev | | 0.002 | 0.002 | 0.001 |

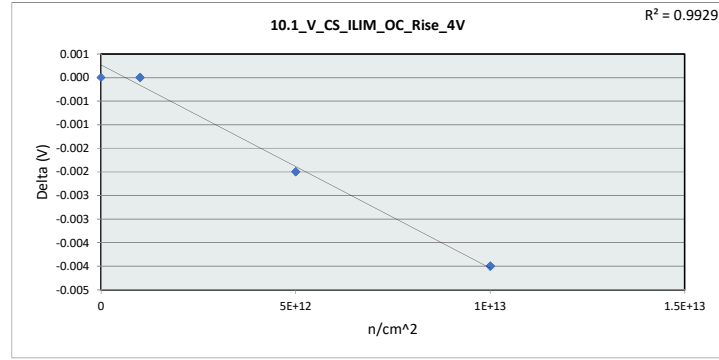


| 9.189_SYNC_VOL_14V | | | | |
|--------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.5 | V | V | V |
| Min Limit | 0 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 0.292 | 0.292 | 0.291 | 0.292 |
| Average | 0.292 | 0.294 | 0.292 | 0.293 |
| Max | 0.292 | 0.296 | 0.294 | 0.295 |
| UL | 0.500 | 0.500 | 0.500 | 0.500 |

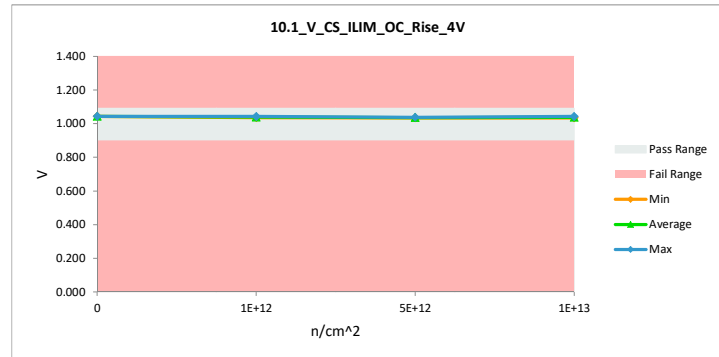


NDD Characterization Report TPS7H5007-SEP

| 10.1_V_CS_ILIM_OC_Rise_4V | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 1.08 | 1.09 | 1.09 | 1.09 |
| Min Limit | 0.95 | 0.9 | 0.9 | 0.9 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.044 | 1.044 | 0.000 |
| 1E+12 | 21 | 1.042 | 1.042 | 0.000 |
| 1E+12 | 22 | 1.036 | 1.036 | 0.000 |
| 1E+12 | 23 | 1.040 | 1.040 | 0.000 |
| 5E+12 | 24 | 1.040 | 1.038 | -0.002 |
| 5E+12 | 25 | 1.036 | 1.034 | -0.002 |
| 5E+12 | 26 | 1.040 | 1.038 | -0.002 |
| 1E+13 | 27 | 1.042 | 1.038 | -0.004 |
| 1E+13 | 28 | 1.038 | 1.034 | -0.004 |
| 1E+13 | 29 | 1.046 | 1.042 | -0.004 |
| Max | | 1.046 | 1.044 | 0.000 |
| Average | | 1.040 | 1.039 | -0.002 |
| Min | | 1.036 | 1.034 | -0.004 |
| Std Dev | | 0.003 | 0.003 | 0.002 |

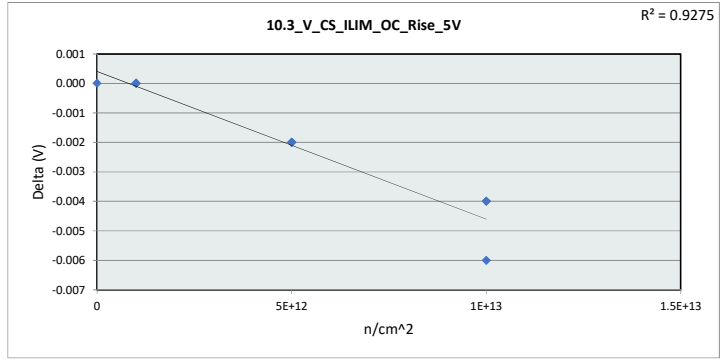


| 10.1_V_CS_ILIM_OC_Rise_4V | | | | |
|---------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.09 | V | V | V |
| Min Limit | 0.9 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.900 | 0.900 | 0.900 | 0.900 |
| Min | 1.044 | 1.036 | 1.034 | 1.034 |
| Average | 1.044 | 1.039 | 1.037 | 1.038 |
| Max | 1.044 | 1.042 | 1.038 | 1.042 |
| UL | 1.090 | 1.090 | 1.090 | 1.090 |

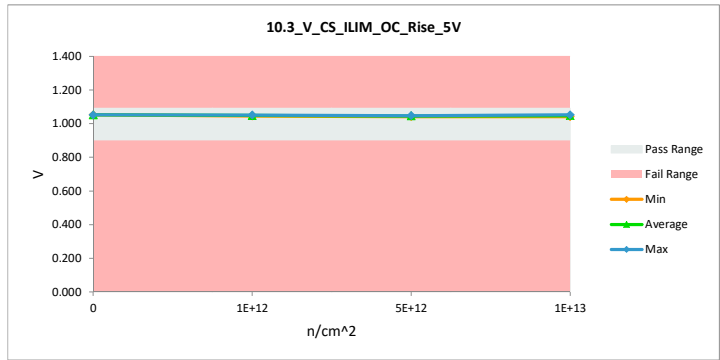


NDD Characterization Report TPS7H5007-SEP

| 10.3_V_CS_ILIM_OC_Rise_5V | | | | |
|---------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.08 | | 1.09 | |
| Min Limit | 0.95 | | 0.9 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.052 | 1.052 | 0.000 |
| 1E+12 | 21 | 1.050 | 1.050 | 0.000 |
| 1E+12 | 22 | 1.046 | 1.046 | 0.000 |
| 1E+12 | 23 | 1.048 | 1.048 | 0.000 |
| 5E+12 | 24 | 1.050 | 1.048 | -0.002 |
| 5E+12 | 25 | 1.044 | 1.042 | -0.002 |
| 5E+12 | 26 | 1.050 | 1.048 | -0.002 |
| 1E+13 | 27 | 1.052 | 1.048 | -0.004 |
| 1E+13 | 28 | 1.048 | 1.042 | -0.006 |
| 1E+13 | 29 | 1.056 | 1.052 | -0.004 |
| Max | | 1.056 | 1.052 | 0.000 |
| Average | | 1.050 | 1.048 | -0.002 |
| Min | | 1.044 | 1.042 | -0.006 |
| Std Dev | | 0.003 | 0.004 | 0.002 |

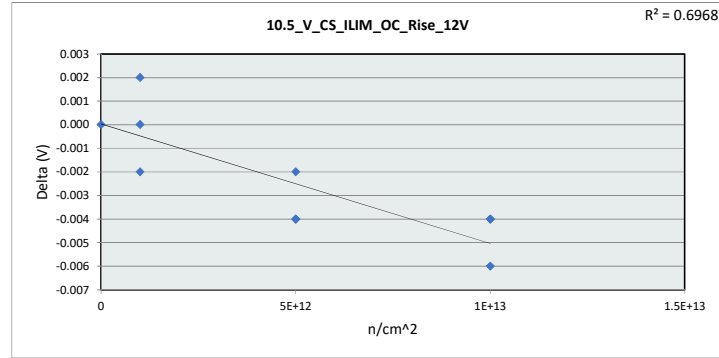


| 10.3_V_CS_ILIM_OC_Rise_5V | | | | |
|---------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.09 | | V | |
| Min Limit | 0.9 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.900 | 0.900 | 0.900 | 0.900 |
| Min | 1.052 | 1.046 | 1.042 | 1.042 |
| Average | 1.052 | 1.048 | 1.046 | 1.047 |
| Max | 1.052 | 1.050 | 1.048 | 1.052 |
| UL | 1.090 | 1.090 | 1.090 | 1.090 |

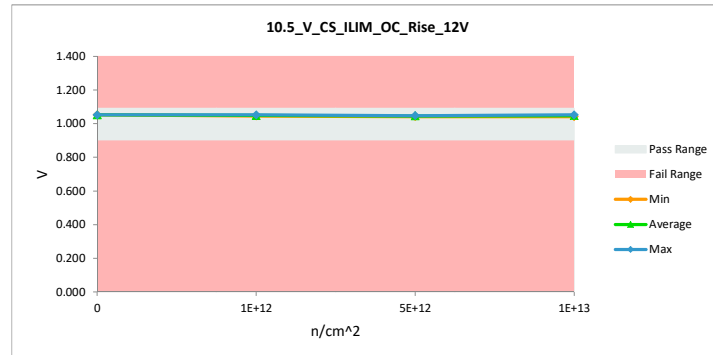


NDD Characterization Report TPS7H5007-SEP

| 10.5_V_CS_ILIM_OC_Rise_12V | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.08 | | 1.09 | |
| Min Limit | 0.95 | | 0.9 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.052 | 1.052 | 0.000 |
| 1E+12 | 21 | 1.050 | 1.052 | 0.002 |
| 1E+12 | 22 | 1.046 | 1.046 | 0.000 |
| 1E+12 | 23 | 1.050 | 1.048 | -0.002 |
| 5E+12 | 24 | 1.052 | 1.048 | -0.004 |
| 5E+12 | 25 | 1.046 | 1.042 | -0.004 |
| 5E+12 | 26 | 1.050 | 1.048 | -0.002 |
| 1E+13 | 27 | 1.052 | 1.048 | -0.004 |
| 1E+13 | 28 | 1.048 | 1.042 | -0.006 |
| 1E+13 | 29 | 1.056 | 1.052 | -0.004 |
| Max | | 1.056 | 1.052 | 0.002 |
| Average | | 1.050 | 1.048 | -0.002 |
| Min | | 1.046 | 1.042 | -0.006 |
| Std Dev | | 0.003 | 0.004 | 0.002 |

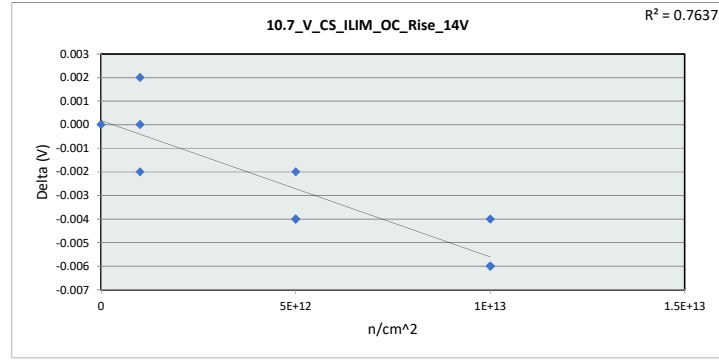


| 10.5_V_CS_ILIM_OC_Rise_12V | | | | |
|----------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.09 | V | | |
| Min Limit | 0.9 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.900 | 0.900 | 0.900 | 0.900 |
| Min | 1.052 | 1.046 | 1.042 | 1.042 |
| Average | 1.052 | 1.049 | 1.046 | 1.047 |
| Max | 1.052 | 1.052 | 1.048 | 1.052 |
| UL | 1.090 | 1.090 | 1.090 | 1.090 |

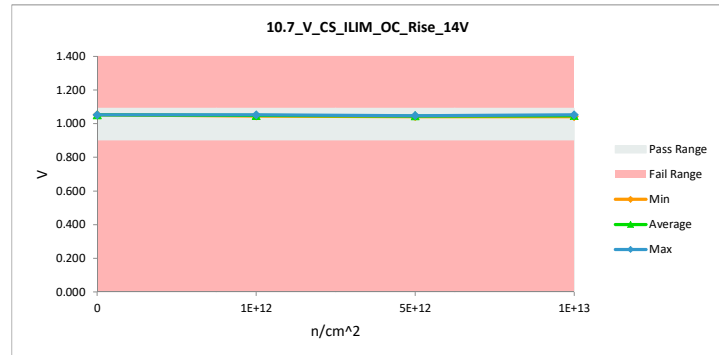


NDD Characterization Report TPS7H5007-SEP

| 10.7_V_CS_ILIM_OC_Rise_14V | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 1.08 | | 1.09 | |
| Min Limit | 0.95 | | 0.9 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 1.052 | 1.052 | 0.000 |
| 1E+12 | 21 | 1.050 | 1.052 | 0.002 |
| 1E+12 | 22 | 1.046 | 1.046 | 0.000 |
| 1E+12 | 23 | 1.050 | 1.048 | -0.002 |
| 5E+12 | 24 | 1.052 | 1.048 | -0.004 |
| 5E+12 | 25 | 1.046 | 1.042 | -0.004 |
| 5E+12 | 26 | 1.050 | 1.048 | -0.002 |
| 1E+13 | 27 | 1.052 | 1.048 | -0.004 |
| 1E+13 | 28 | 1.048 | 1.042 | -0.006 |
| 1E+13 | 29 | 1.058 | 1.052 | -0.006 |
| Max | | 1.058 | 1.052 | 0.002 |
| Average | | 1.050 | 1.048 | -0.003 |
| Min | | 1.046 | 1.042 | -0.006 |
| Std Dev | | 0.004 | 0.004 | 0.003 |

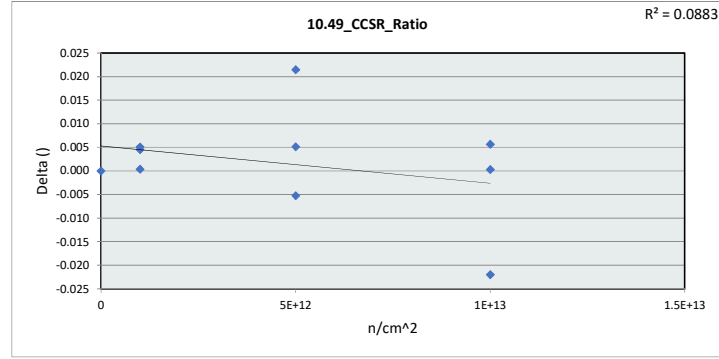


| 10.7_V_CS_ILIM_OC_Rise_14V | | | | |
|----------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 1.09 | | V | |
| Min Limit | 0.9 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.900 | 0.900 | 0.900 | 0.900 |
| Min | 1.052 | 1.046 | 1.042 | 1.042 |
| Average | 1.052 | 1.049 | 1.046 | 1.047 |
| Max | 1.052 | 1.052 | 1.048 | 1.052 |
| UL | 1.090 | 1.090 | 1.090 | 1.090 |

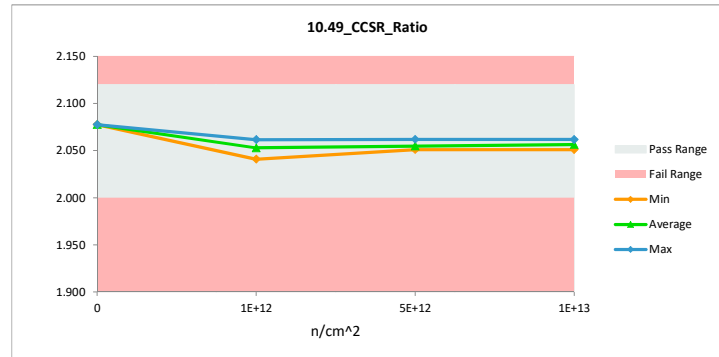


NDD Characterization Report TPS7H5007-SEP

| 10.49_CCSR_Ratio | | | | |
|-------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | | | |
| Max Limit | | 2.12 | 2.12 | |
| Min Limit | | 2 | 2 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 2.078 | 2.078 | 0.000 |
| 1E+12 | 21 | 2.057 | 2.062 | 0.005 |
| 1E+12 | 22 | 2.052 | 2.056 | 0.004 |
| 1E+12 | 23 | 2.041 | 2.041 | 0.000 |
| 5E+12 | 24 | 2.057 | 2.051 | -0.005 |
| 5E+12 | 25 | 2.041 | 2.062 | 0.021 |
| 5E+12 | 26 | 2.046 | 2.051 | 0.005 |
| 1E+13 | 27 | 2.084 | 2.062 | -0.022 |
| 1E+13 | 28 | 2.056 | 2.056 | 0.000 |
| 1E+13 | 29 | 2.046 | 2.051 | 0.006 |
| Max | | 2.084 | 2.078 | 0.021 |
| Average | | 2.055 | 2.057 | 0.001 |
| Min | | 2.041 | 2.041 | -0.022 |
| Std Dev | | 0.015 | 0.010 | 0.011 |

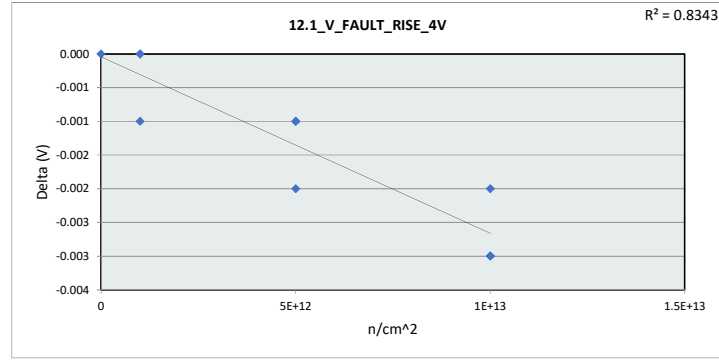


| 10.49_CCSR_Ratio | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 2.12 | | |
| Min Limit | | 2 | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 2.000 | 2.000 | 2.000 | 2.000 |
| Min | 2.078 | 2.041 | 2.051 | 2.051 |
| Average | 2.078 | 2.053 | 2.055 | 2.056 |
| Max | 2.078 | 2.062 | 2.062 | 2.062 |
| UL | 2.120 | 2.120 | 2.120 | 2.120 |

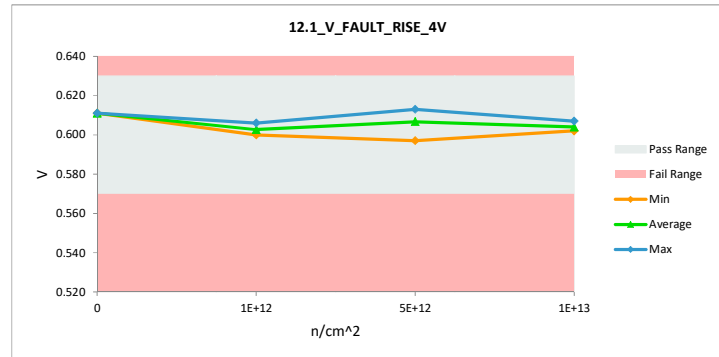


NDD Characterization Report TPS7H5007-SEP

| 12.1_V_FAULT_RISE_4V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 0.63 | 0.63 | 0.63 | 0.63 |
| Min Limit | 0.58 | 0.57 | 0.57 | 0.57 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.611 | 0.611 | 0.000 |
| 1E+12 | 21 | 0.601 | 0.600 | -0.001 |
| 1E+12 | 22 | 0.606 | 0.606 | 0.000 |
| 1E+12 | 23 | 0.602 | 0.602 | 0.000 |
| 5E+12 | 24 | 0.599 | 0.597 | -0.002 |
| 5E+12 | 25 | 0.614 | 0.613 | -0.001 |
| 5E+12 | 26 | 0.611 | 0.610 | -0.001 |
| 1E+13 | 27 | 0.606 | 0.603 | -0.003 |
| 1E+13 | 28 | 0.609 | 0.607 | -0.002 |
| 1E+13 | 29 | 0.605 | 0.602 | -0.003 |
| Max | | 0.614 | 0.613 | 0.000 |
| Average | | 0.606 | 0.605 | -0.001 |
| Min | | 0.599 | 0.597 | -0.003 |
| Std Dev | | 0.005 | 0.005 | 0.001 |

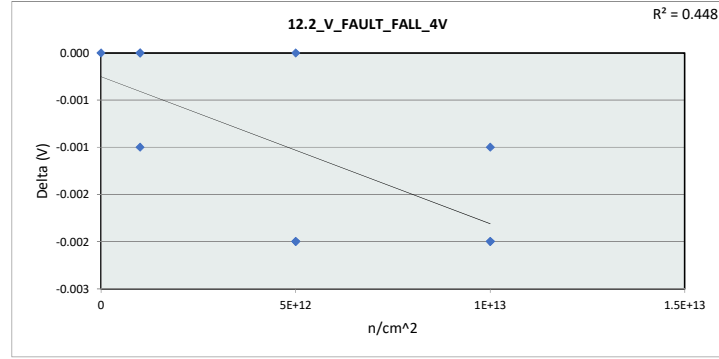


| 12.1_V_FAULT_RISE_4V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.63 | V | | |
| Min Limit | 0.57 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.611 | 0.600 | 0.597 | 0.602 |
| Average | 0.611 | 0.603 | 0.607 | 0.604 |
| Max | 0.611 | 0.606 | 0.613 | 0.607 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 |

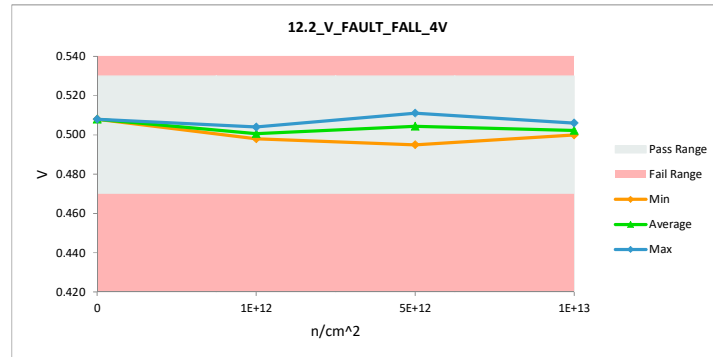


NDD Characterization Report TPS7H5007-SEP

| 12.2_V_FAULT_FALL_4V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 0.53 | 0.53 | 0.53 | 0.53 |
| Min Limit | 0.48 | 0.47 | 0.47 | 0.47 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.508 | 0.508 | 0.000 |
| 1E+12 | 21 | 0.499 | 0.498 | -0.001 |
| 1E+12 | 22 | 0.504 | 0.504 | 0.000 |
| 1E+12 | 23 | 0.500 | 0.500 | 0.000 |
| 5E+12 | 24 | 0.497 | 0.495 | -0.002 |
| 5E+12 | 25 | 0.511 | 0.511 | 0.000 |
| 5E+12 | 26 | 0.509 | 0.507 | -0.002 |
| 1E+13 | 27 | 0.503 | 0.501 | -0.002 |
| 1E+13 | 28 | 0.507 | 0.506 | -0.001 |
| 1E+13 | 29 | 0.502 | 0.500 | -0.002 |
| Max | | 0.511 | 0.511 | 0.000 |
| Average | | 0.504 | 0.503 | -0.001 |
| Min | | 0.497 | 0.495 | -0.002 |
| Std Dev | | 0.005 | 0.005 | 0.001 |

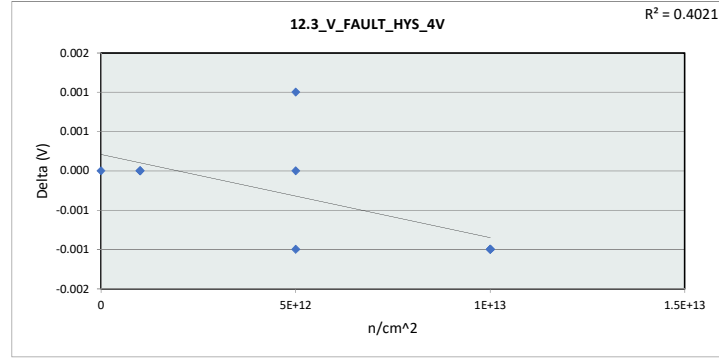


| 12.2_V_FAULT_FALL_4V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.53 | V | | |
| Min Limit | 0.47 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.508 | 0.498 | 0.495 | 0.500 |
| Average | 0.508 | 0.501 | 0.504 | 0.502 |
| Max | 0.508 | 0.504 | 0.511 | 0.506 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 |

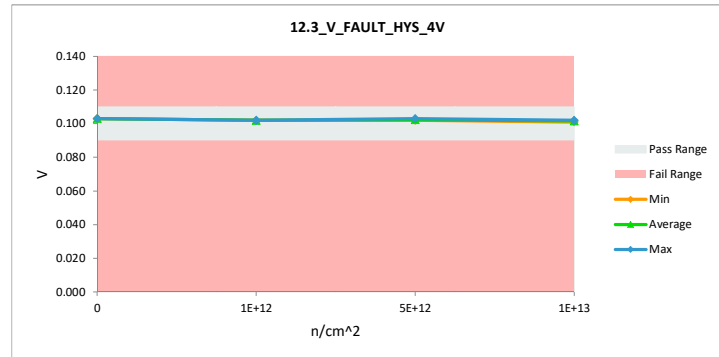


NDD Characterization Report TPS7H5007-SEP

| 12.3_V_FAULT_HYS_4V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.108 | | 0.11 | |
| Min Limit | 0.092 | | 0.09 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.103 | 0.103 | 0.000 |
| 1E+12 | 21 | 0.102 | 0.102 | 0.000 |
| 1E+12 | 22 | 0.102 | 0.102 | 0.000 |
| 1E+12 | 23 | 0.102 | 0.102 | 0.000 |
| 5E+12 | 24 | 0.102 | 0.102 | 0.000 |
| 5E+12 | 25 | 0.103 | 0.102 | -0.001 |
| 5E+12 | 26 | 0.102 | 0.103 | 0.001 |
| 1E+13 | 27 | 0.103 | 0.102 | -0.001 |
| 1E+13 | 28 | 0.102 | 0.101 | -0.001 |
| 1E+13 | 29 | 0.103 | 0.102 | -0.001 |
| Max | | 0.103 | 0.103 | 0.001 |
| Average | | 0.102 | 0.102 | 0.000 |
| Min | | 0.102 | 0.101 | -0.001 |
| Std Dev | | 0.001 | 0.001 | 0.001 |

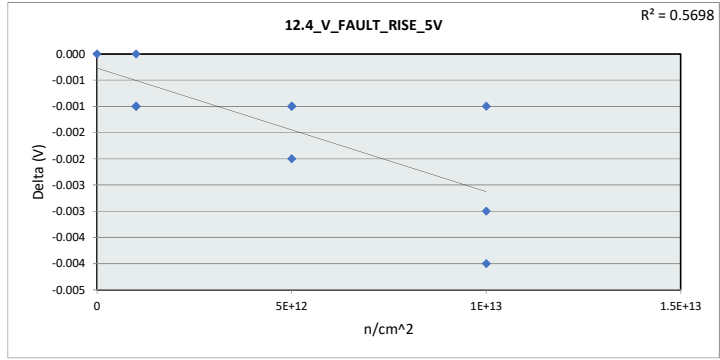


| 12.3_V_FAULT_HYS_4V | | | | |
|---------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.11 | | V | |
| Min Limit | 0.09 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.090 | 0.090 | 0.090 | 0.090 |
| Min | 0.103 | 0.102 | 0.102 | 0.101 |
| Average | 0.103 | 0.102 | 0.102 | 0.102 |
| Max | 0.103 | 0.102 | 0.103 | 0.102 |
| UL | 0.110 | 0.110 | 0.110 | 0.110 |

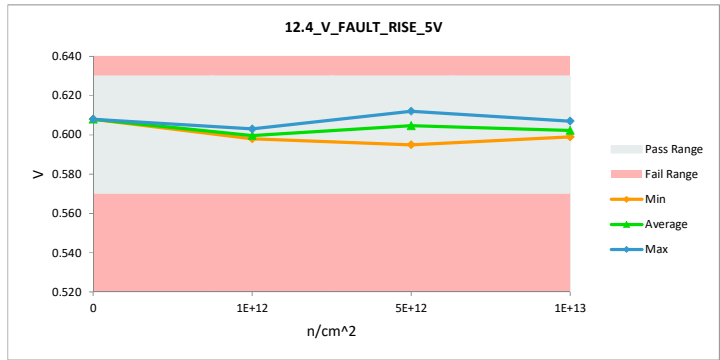


NDD Characterization Report TPS7H5007-SEP

| 12.4_V_FAULT_RISE_5V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.63 | | 0.63 | |
| Min Limit | 0.58 | | 0.57 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.608 | 0.608 | 0.000 |
| 1E+12 | 21 | 0.598 | 0.598 | 0.000 |
| 1E+12 | 22 | 0.604 | 0.603 | -0.001 |
| 1E+12 | 23 | 0.599 | 0.598 | -0.001 |
| 5E+12 | 24 | 0.596 | 0.595 | -0.001 |
| 5E+12 | 25 | 0.613 | 0.612 | -0.001 |
| 5E+12 | 26 | 0.609 | 0.607 | -0.002 |
| 1E+13 | 27 | 0.604 | 0.601 | -0.003 |
| 1E+13 | 28 | 0.608 | 0.607 | -0.001 |
| 1E+13 | 29 | 0.603 | 0.599 | -0.004 |
| Max | | 0.613 | 0.612 | 0.000 |
| Average | | 0.604 | 0.603 | -0.001 |
| Min | | 0.596 | 0.595 | -0.004 |
| Std Dev | | 0.005 | 0.005 | 0.001 |

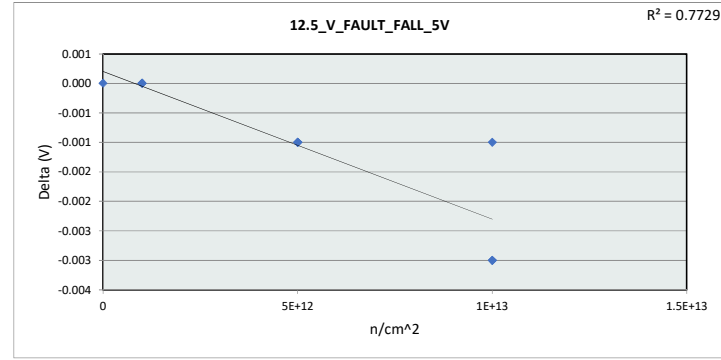


| 12.4_V_FAULT_RISE_5V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.63 | | V | |
| Min Limit | 0.57 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.608 | 0.598 | 0.595 | 0.599 |
| Average | 0.608 | 0.600 | 0.605 | 0.602 |
| Max | 0.608 | 0.603 | 0.612 | 0.607 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 |

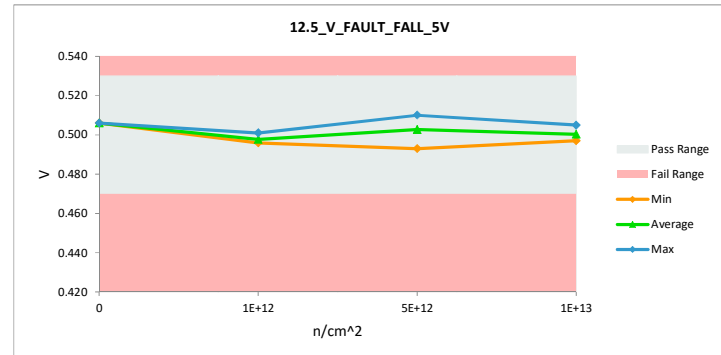


NDD Characterization Report TPS7H5007-SEP

| 12.5_V_FAULT_FALL_5V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.53 | | 0.53 | |
| Min Limit | 0.48 | | 0.47 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.506 | 0.506 | 0.000 |
| 1E+12 | 21 | 0.496 | 0.496 | 0.000 |
| 1E+12 | 22 | 0.501 | 0.501 | 0.000 |
| 1E+12 | 23 | 0.496 | 0.496 | 0.000 |
| 5E+12 | 24 | 0.494 | 0.493 | -0.001 |
| 5E+12 | 25 | 0.511 | 0.510 | -0.001 |
| 5E+12 | 26 | 0.506 | 0.505 | -0.001 |
| 1E+13 | 27 | 0.502 | 0.499 | -0.003 |
| 1E+13 | 28 | 0.506 | 0.505 | -0.001 |
| 1E+13 | 29 | 0.500 | 0.497 | -0.003 |
| Max | | 0.511 | 0.510 | 0.000 |
| Average | | 0.502 | 0.501 | -0.001 |
| Min | | 0.494 | 0.493 | -0.003 |
| Std Dev | | 0.005 | 0.005 | 0.001 |

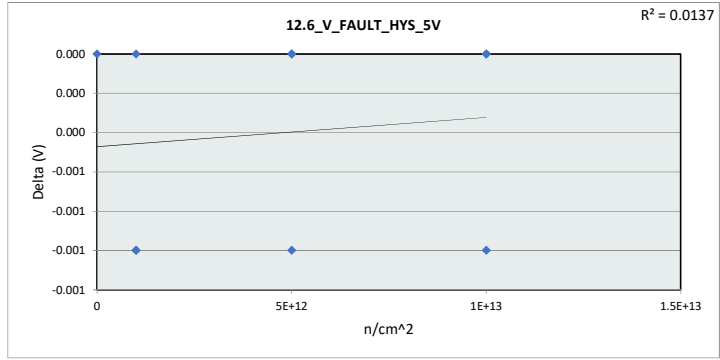


| 12.5_V_FAULT_FALL_5V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.53 | | V | |
| Min Limit | 0.47 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.506 | 0.496 | 0.493 | 0.497 |
| Average | 0.506 | 0.498 | 0.503 | 0.500 |
| Max | 0.506 | 0.501 | 0.510 | 0.505 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 |

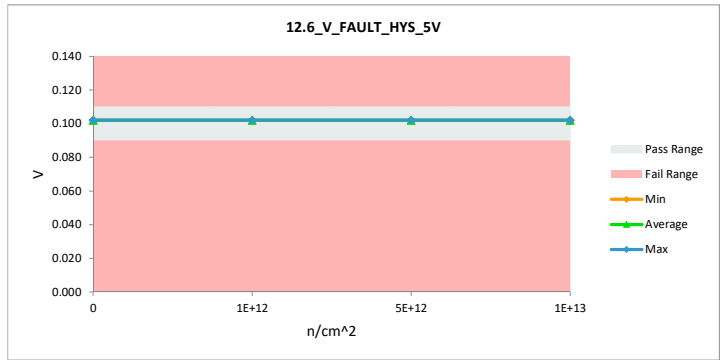


NDD Characterization Report TPS7H5007-SEP

| 12.6_V_FAULT_HYS_5V | | | | |
|---------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 0.108 | 0.11 | 0.11 | 0.11 |
| Min Limit | 0.092 | 0.09 | 0.09 | 0.09 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.102 | 0.102 | 0.000 |
| 1E+12 | 21 | 0.102 | 0.102 | 0.000 |
| 1E+12 | 22 | 0.103 | 0.102 | -0.001 |
| 1E+12 | 23 | 0.103 | 0.102 | -0.001 |
| 5E+12 | 24 | 0.102 | 0.102 | 0.000 |
| 5E+12 | 25 | 0.102 | 0.102 | 0.000 |
| 5E+12 | 26 | 0.103 | 0.102 | -0.001 |
| 1E+13 | 27 | 0.102 | 0.102 | 0.000 |
| 1E+13 | 28 | 0.102 | 0.102 | 0.000 |
| 1E+13 | 29 | 0.103 | 0.102 | -0.001 |
| Max | | 0.103 | 0.102 | 0.000 |
| Average | | 0.102 | 0.102 | 0.000 |
| Min | | 0.102 | 0.102 | -0.001 |
| Std Dev | | 0.001 | 0.000 | 0.001 |

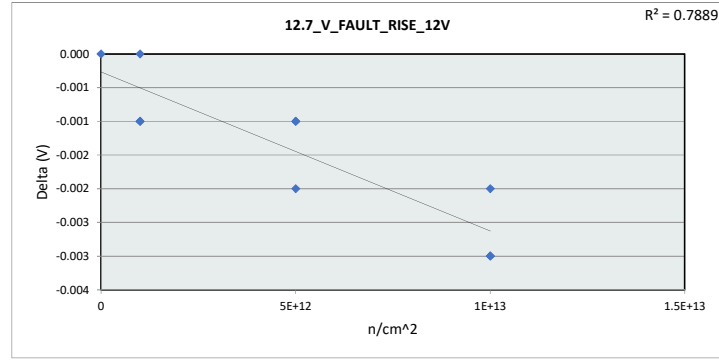


| 12.6_V_FAULT_HYS_5V | | | | |
|---------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.11 | V | | |
| Min Limit | 0.09 | V | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.090 | 0.090 | 0.090 | 0.090 |
| Min | 0.102 | 0.102 | 0.102 | 0.102 |
| Average | 0.102 | 0.102 | 0.102 | 0.102 |
| Max | 0.102 | 0.102 | 0.102 | 0.102 |
| UL | 0.110 | 0.110 | 0.110 | 0.110 |

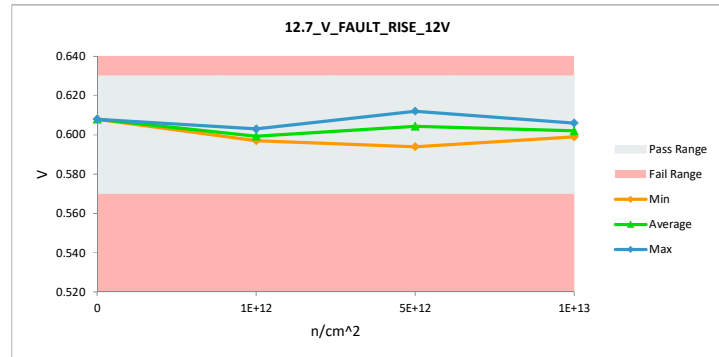


NDD Characterization Report TPS7H5007-SEP

| 12.7_V_FAULT_RISE_12V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.63 | | 0.63 | |
| Min Limit | 0.58 | | 0.57 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.608 | 0.608 | 0.000 |
| 1E+12 | 21 | 0.598 | 0.597 | -0.001 |
| 1E+12 | 22 | 0.603 | 0.603 | 0.000 |
| 1E+12 | 23 | 0.599 | 0.598 | -0.001 |
| 5E+12 | 24 | 0.596 | 0.594 | -0.002 |
| 5E+12 | 25 | 0.613 | 0.612 | -0.001 |
| 5E+12 | 26 | 0.608 | 0.607 | -0.001 |
| 1E+13 | 27 | 0.604 | 0.601 | -0.003 |
| 1E+13 | 28 | 0.608 | 0.606 | -0.002 |
| 1E+13 | 29 | 0.602 | 0.599 | -0.003 |
| Max | | 0.613 | 0.612 | 0.000 |
| Average | | 0.604 | 0.602 | -0.001 |
| Min | | 0.596 | 0.594 | -0.003 |
| Std Dev | | 0.005 | 0.006 | 0.001 |

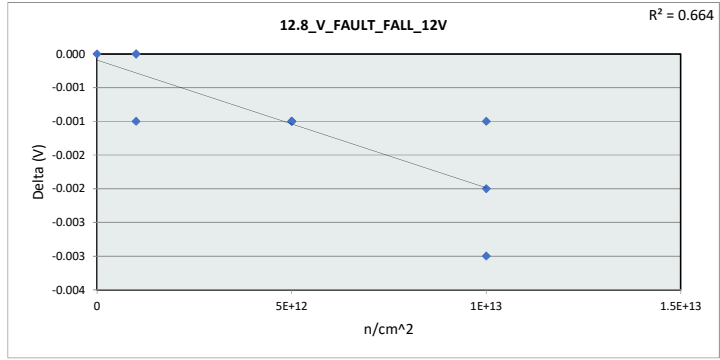


| 12.7_V_FAULT_RISE_12V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.63 | | V | |
| Min Limit | 0.57 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.608 | 0.597 | 0.594 | 0.599 |
| Average | 0.608 | 0.599 | 0.604 | 0.602 |
| Max | 0.608 | 0.603 | 0.612 | 0.606 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 |

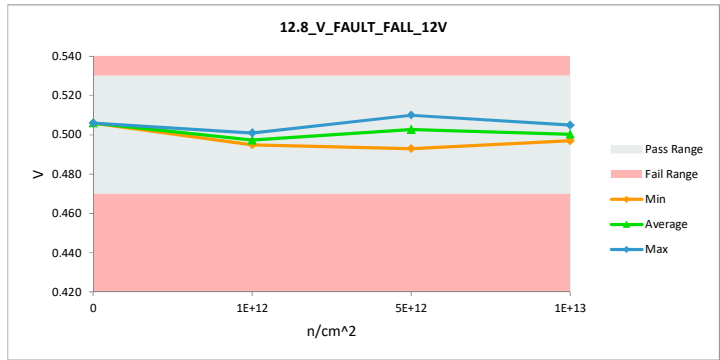


NDD Characterization Report TPS7H5007-SEP

| 12.8_V_FAULT_FALL_12V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.53 | | 0.53 | |
| Min Limit | 0.48 | | 0.47 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.506 | 0.506 | 0.000 |
| 1E+12 | 21 | 0.496 | 0.495 | -0.001 |
| 1E+12 | 22 | 0.501 | 0.501 | 0.000 |
| 1E+12 | 23 | 0.496 | 0.496 | 0.000 |
| 5E+12 | 24 | 0.494 | 0.493 | -0.001 |
| 5E+12 | 25 | 0.511 | 0.510 | -0.001 |
| 5E+12 | 26 | 0.506 | 0.505 | -0.001 |
| 1E+13 | 27 | 0.501 | 0.499 | -0.002 |
| 1E+13 | 28 | 0.506 | 0.505 | -0.001 |
| 1E+13 | 29 | 0.500 | 0.497 | -0.003 |
| Max | | 0.511 | 0.510 | 0.000 |
| Average | | 0.502 | 0.501 | -0.001 |
| Min | | 0.494 | 0.493 | -0.003 |
| Std Dev | | 0.005 | 0.006 | 0.001 |

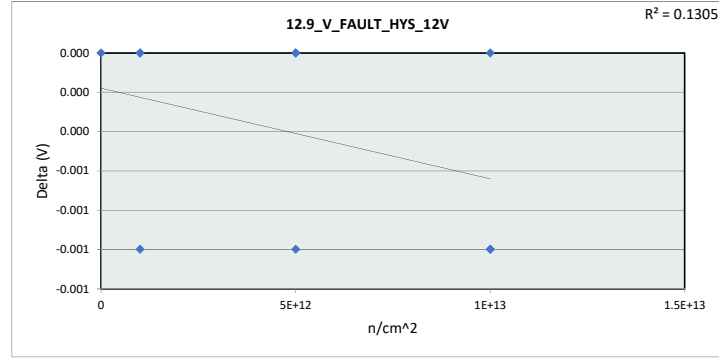


| 12.8_V_FAULT_FALL_12V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.53 | | V | |
| Min Limit | 0.47 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.506 | 0.495 | 0.493 | 0.497 |
| Average | 0.506 | 0.497 | 0.503 | 0.500 |
| Max | 0.506 | 0.501 | 0.510 | 0.505 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 |

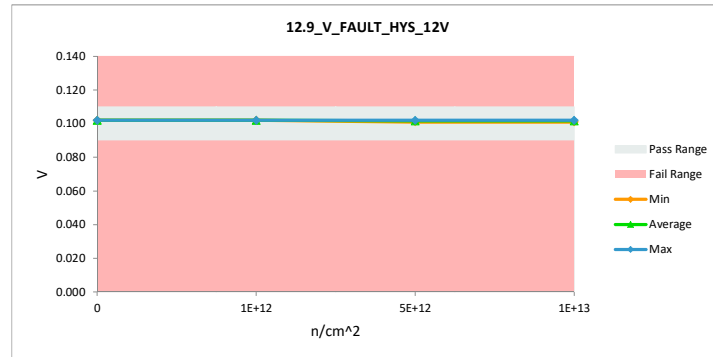


NDD Characterization Report TPS7H5007-SEP

| 12.9_V_FAULT_HYS_12V | | | | |
|----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.108 | | 0.11 | |
| Min Limit | 0.092 | | 0.09 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.102 | 0.102 | 0.000 |
| 1E+12 | 21 | 0.102 | 0.102 | 0.000 |
| 1E+12 | 22 | 0.102 | 0.102 | 0.000 |
| 1E+12 | 23 | 0.103 | 0.102 | -0.001 |
| 5E+12 | 24 | 0.102 | 0.101 | -0.001 |
| 5E+12 | 25 | 0.102 | 0.102 | 0.000 |
| 5E+12 | 26 | 0.102 | 0.102 | 0.000 |
| 1E+13 | 27 | 0.103 | 0.102 | -0.001 |
| 1E+13 | 28 | 0.102 | 0.101 | -0.001 |
| 1E+13 | 29 | 0.102 | 0.102 | 0.000 |
| Max | | 0.103 | 0.102 | 0.000 |
| Average | | 0.102 | 0.102 | 0.000 |
| Min | | 0.102 | 0.101 | -0.001 |
| Std Dev | | 0.000 | 0.000 | 0.001 |

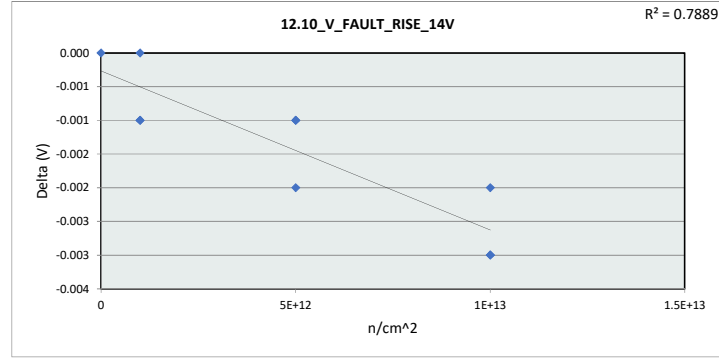


| 12.9_V_FAULT_HYS_12V | | | | |
|----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.11 | | V | |
| Min Limit | 0.09 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.090 | 0.090 | 0.090 | 0.090 |
| Min | 0.102 | 0.102 | 0.101 | 0.101 |
| Average | 0.102 | 0.102 | 0.102 | 0.102 |
| Max | 0.102 | 0.102 | 0.102 | 0.102 |
| UL | 0.110 | 0.110 | 0.110 | 0.110 |

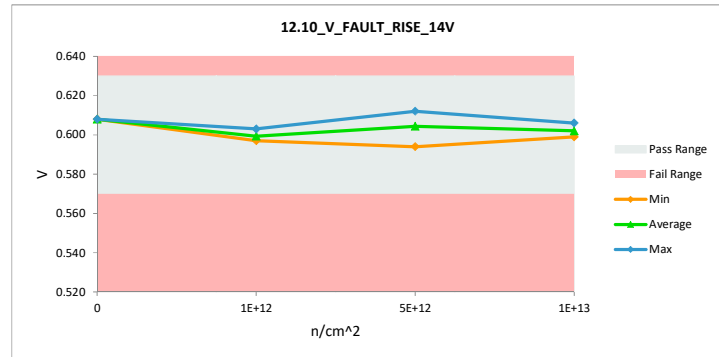


NDD Characterization Report TPS7H5007-SEP

| 12.10_V_FAULT_RISE_14V | | | | |
|------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | V | V | V |
| Max Limit | 0.63 | 0.63 | 0.63 | 0.63 |
| Min Limit | 0.58 | 0.57 | 0.57 | 0.57 |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.608 | 0.608 | 0.000 |
| 1E+12 | 21 | 0.598 | 0.597 | -0.001 |
| 1E+12 | 22 | 0.603 | 0.603 | 0.000 |
| 1E+12 | 23 | 0.599 | 0.598 | -0.001 |
| 5E+12 | 24 | 0.596 | 0.594 | -0.002 |
| 5E+12 | 25 | 0.613 | 0.612 | -0.001 |
| 5E+12 | 26 | 0.608 | 0.607 | -0.001 |
| 1E+13 | 27 | 0.604 | 0.601 | -0.003 |
| 1E+13 | 28 | 0.608 | 0.606 | -0.002 |
| 1E+13 | 29 | 0.602 | 0.599 | -0.003 |
| Max | | 0.613 | 0.612 | 0.000 |
| Average | | 0.604 | 0.602 | -0.001 |
| Min | | 0.596 | 0.594 | -0.003 |
| Std Dev | | 0.005 | 0.006 | 0.001 |

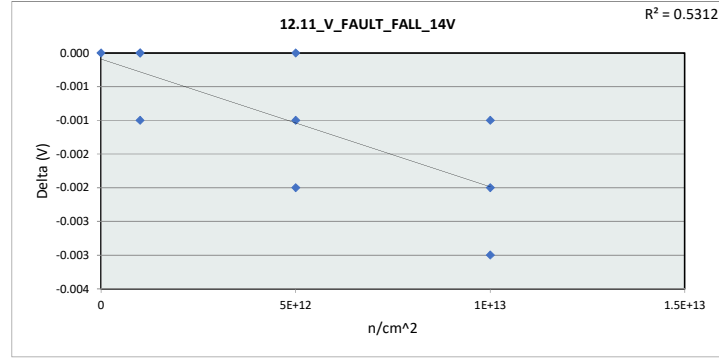


| 12.10_V_FAULT_RISE_14V | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.63 | V | V | V |
| Min Limit | 0.57 | V | V | V |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.570 | 0.570 | 0.570 | 0.570 |
| Min | 0.608 | 0.597 | 0.594 | 0.599 |
| Average | 0.608 | 0.599 | 0.604 | 0.602 |
| Max | 0.608 | 0.603 | 0.612 | 0.606 |
| UL | 0.630 | 0.630 | 0.630 | 0.630 |

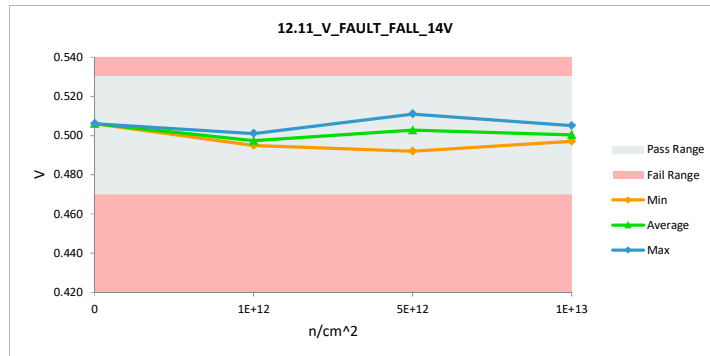


NDD Characterization Report TPS7H5007-SEP

| 12.11_V_FAULT_FALL_14V | | | | |
|------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.53 | | 0.53 | |
| Min Limit | 0.48 | | 0.47 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.506 | 0.506 | 0.000 |
| 1E+12 | 21 | 0.496 | 0.495 | -0.001 |
| 1E+12 | 22 | 0.501 | 0.501 | 0.000 |
| 1E+12 | 23 | 0.496 | 0.496 | 0.000 |
| 5E+12 | 24 | 0.494 | 0.492 | -0.002 |
| 5E+12 | 25 | 0.511 | 0.511 | 0.000 |
| 5E+12 | 26 | 0.506 | 0.505 | -0.001 |
| 1E+13 | 27 | 0.501 | 0.499 | -0.002 |
| 1E+13 | 28 | 0.506 | 0.505 | -0.001 |
| 1E+13 | 29 | 0.500 | 0.497 | -0.003 |
| Max | | 0.511 | 0.511 | 0.000 |
| Average | | 0.502 | 0.501 | -0.001 |
| Min | | 0.494 | 0.492 | -0.003 |
| Std Dev | | 0.005 | 0.006 | 0.001 |

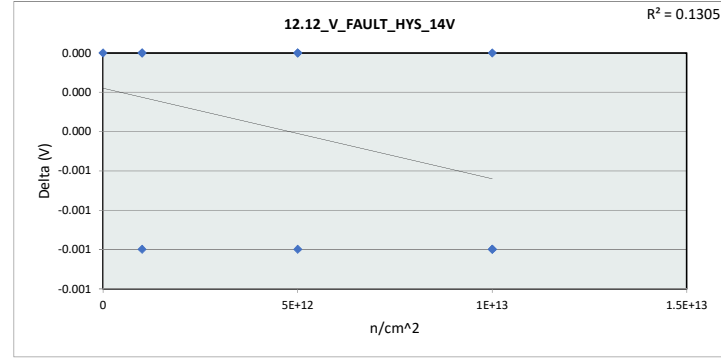


| 12.11_V_FAULT_FALL_14V | | | | |
|------------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.53 | | V | |
| Min Limit | 0.47 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.470 | 0.470 | 0.470 | 0.470 |
| Min | 0.506 | 0.495 | 0.492 | 0.497 |
| Average | 0.506 | 0.497 | 0.503 | 0.500 |
| Max | 0.506 | 0.501 | 0.511 | 0.505 |
| UL | 0.530 | 0.530 | 0.530 | 0.530 |

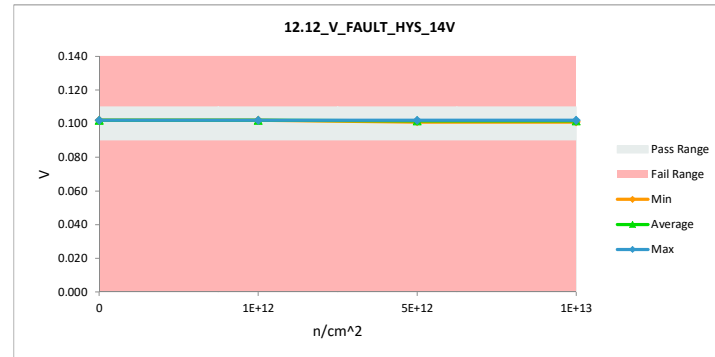


NDD Characterization Report TPS7H5007-SEP

| 12.12_V_FAULT_HYS_14V | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | V | | V | |
| Max Limit | 0.108 | | 0.11 | |
| Min Limit | 0.092 | | 0.09 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.102 | 0.102 | 0.000 |
| 1E+12 | 21 | 0.102 | 0.102 | 0.000 |
| 1E+12 | 22 | 0.102 | 0.102 | 0.000 |
| 1E+12 | 23 | 0.103 | 0.102 | -0.001 |
| 5E+12 | 24 | 0.102 | 0.102 | 0.000 |
| 5E+12 | 25 | 0.102 | 0.101 | -0.001 |
| 5E+12 | 26 | 0.102 | 0.102 | 0.000 |
| 1E+13 | 27 | 0.103 | 0.102 | -0.001 |
| 1E+13 | 28 | 0.102 | 0.101 | -0.001 |
| 1E+13 | 29 | 0.102 | 0.102 | 0.000 |
| Max | | 0.103 | 0.102 | 0.000 |
| Average | | 0.102 | 0.102 | 0.000 |
| Min | | 0.102 | 0.101 | -0.001 |
| Std Dev | | 0.000 | 0.000 | 0.001 |

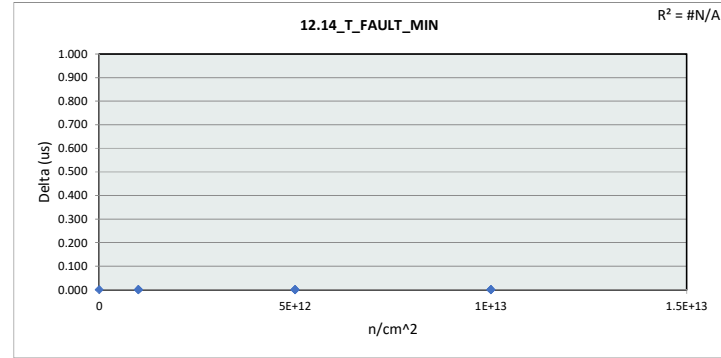


| 12.12_V_FAULT_HYS_14V | | | | |
|-----------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 0.11 | | V | |
| Min Limit | 0.09 | | V | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.090 | 0.090 | 0.090 | 0.090 |
| Min | 0.102 | 0.102 | 0.101 | 0.101 |
| Average | 0.102 | 0.102 | 0.102 | 0.102 |
| Max | 0.102 | 0.102 | 0.102 | 0.102 |
| UL | 0.110 | 0.110 | 0.110 | 0.110 |

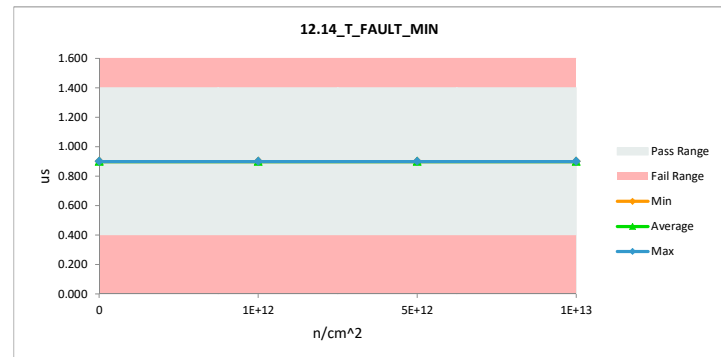


NDD Characterization Report TPS7H5007-SEP

| 12.14_T_FAULT_MIN | | | | |
|-------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | us | us | |
| Max Limit | | 1.2 | 1.4 | |
| Min Limit | | 0.6 | 0.4 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 0.900 | 0.900 | 0.000 |
| 1E+12 | 21 | 0.900 | 0.900 | 0.000 |
| 1E+12 | 22 | 0.900 | 0.900 | 0.000 |
| 1E+12 | 23 | 0.900 | 0.900 | 0.000 |
| 5E+12 | 24 | 0.900 | 0.900 | 0.000 |
| 5E+12 | 25 | 0.900 | 0.900 | 0.000 |
| 5E+12 | 26 | 0.900 | 0.900 | 0.000 |
| 1E+13 | 27 | 0.900 | 0.900 | 0.000 |
| 1E+13 | 28 | 0.900 | 0.900 | 0.000 |
| 1E+13 | 29 | 0.900 | 0.900 | 0.000 |
| Max | | 0.900 | 0.900 | 0.000 |
| Average | | 0.900 | 0.900 | 0.000 |
| Min | | 0.900 | 0.900 | 0.000 |
| Std Dev | | 0.000 | 0.000 | 0.000 |

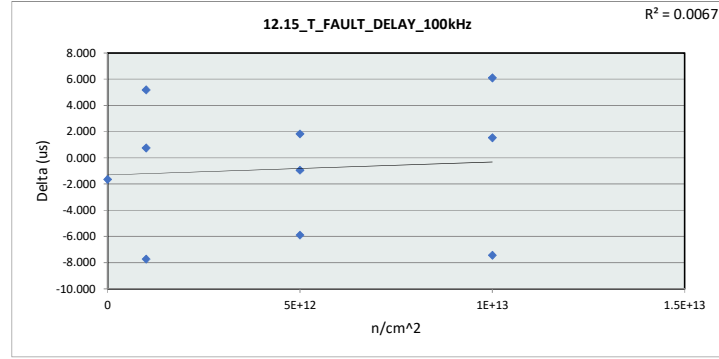


| 12.14_T_FAULT_MIN | | | | |
|-------------------|-------|-------|-------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 1.4 | us | |
| Min Limit | | 0.4 | us | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.400 | 0.400 | 0.400 | 0.400 |
| Min | 0.900 | 0.900 | 0.900 | 0.900 |
| Average | 0.900 | 0.900 | 0.900 | 0.900 |
| Max | 0.900 | 0.900 | 0.900 | 0.900 |
| UL | 1.400 | 1.400 | 1.400 | 1.400 |

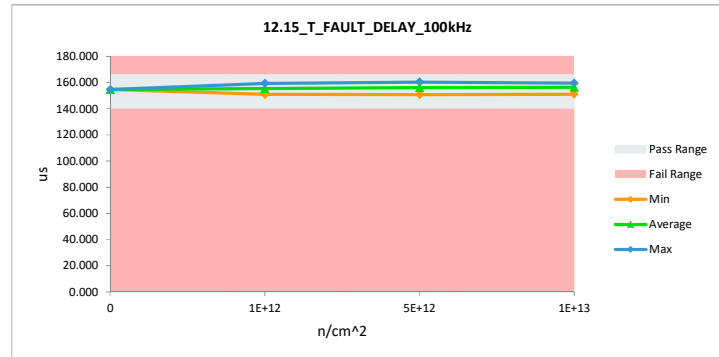


NDD Characterization Report TPS7H5007-SEP

| 12.15_T_FAULT_DELAY_100kHz | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | us | us | |
| Max Limit | | 166 | 166 | |
| Min Limit | | 140 | 140 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 156.269 | 154.611 | -1.658 |
| 1E+12 | 21 | 150.485 | 155.657 | 5.172 |
| 1E+12 | 22 | 158.646 | 159.388 | 0.742 |
| 1E+12 | 23 | 158.713 | 150.976 | -7.737 |
| 5E+12 | 24 | 157.772 | 156.818 | -0.954 |
| 5E+12 | 25 | 156.794 | 150.888 | -5.906 |
| 5E+12 | 26 | 158.572 | 160.385 | 1.813 |
| 1E+13 | 27 | 158.021 | 159.537 | 1.516 |
| 1E+13 | 28 | 152.274 | 158.362 | 6.088 |
| 1E+13 | 29 | 158.434 | 150.983 | -7.451 |
| Max | | 158.713 | 160.385 | 6.088 |
| Average | | 156.598 | 155.760 | -0.838 |
| Min | | 150.485 | 150.888 | -7.737 |
| Std Dev | | 2.897 | 3.764 | 4.909 |

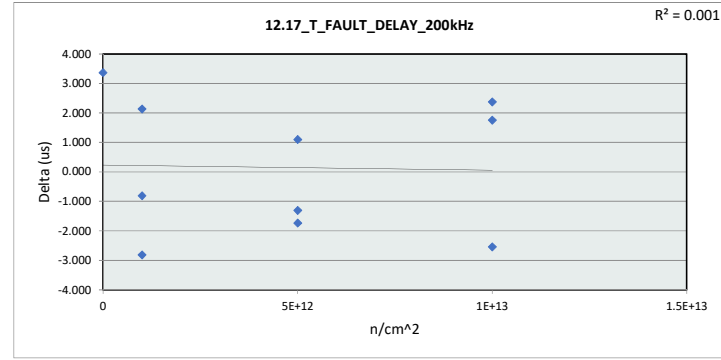


| 12.15_T_FAULT_DELAY_100kHz | | | | |
|----------------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 166 | us | |
| Min Limit | | 140 | us | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 140.000 | 140.000 | 140.000 | 140.000 |
| Min | 154.611 | 150.976 | 150.888 | 150.983 |
| Average | 154.611 | 155.340 | 156.030 | 156.294 |
| Max | 154.611 | 159.388 | 160.385 | 159.537 |
| UL | 166.000 | 166.000 | 166.000 | 166.000 |

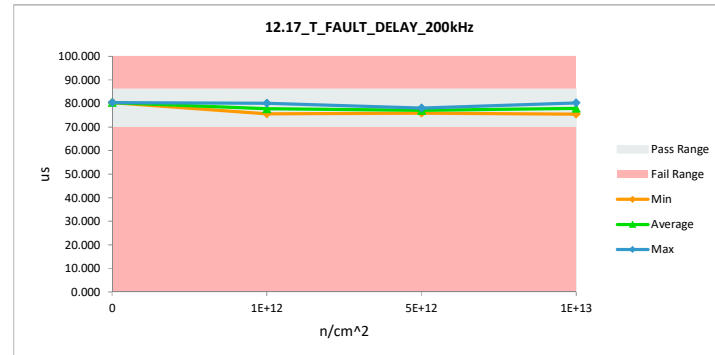


NDD Characterization Report TPS7H5007-SEP

| 12.17_T_FAULT_DELAY_200kHz | | | | |
|----------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | us | us | |
| Max Limit | | 86 | 86 | |
| Min Limit | | 70 | 70 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 77.075 | 80.432 | 3.357 |
| 1E+12 | 21 | 77.998 | 80.126 | 2.128 |
| 1E+12 | 22 | 78.457 | 75.634 | -2.823 |
| 1E+12 | 23 | 78.268 | 77.454 | -0.814 |
| 5E+12 | 24 | 79.343 | 78.035 | -1.308 |
| 5E+12 | 25 | 77.680 | 75.938 | -1.742 |
| 5E+12 | 26 | 76.204 | 77.300 | 1.096 |
| 1E+13 | 27 | 77.908 | 80.276 | 2.368 |
| 1E+13 | 28 | 78.022 | 75.476 | -2.546 |
| 1E+13 | 29 | 76.308 | 78.061 | 1.753 |
| Max | | 79.343 | 80.432 | 3.357 |
| Average | | 77.726 | 77.873 | 0.147 |
| Min | | 76.204 | 75.476 | -2.823 |
| Std Dev | | 0.966 | 1.899 | 2.244 |

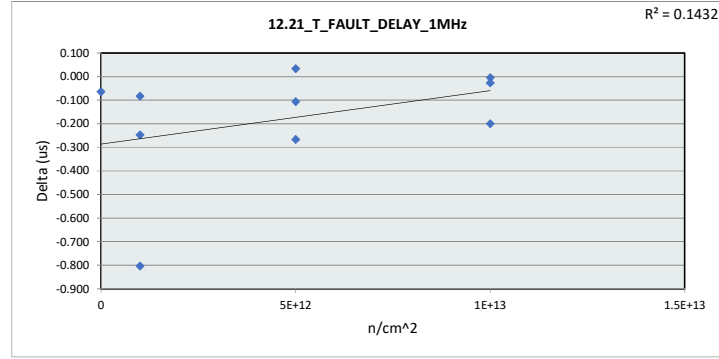


| 12.17_T_FAULT_DELAY_200kHz | | | | |
|----------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | | 86 | us | |
| Min Limit | | 70 | us | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 70.000 | 70.000 | 70.000 | 70.000 |
| Min | 80.432 | 75.634 | 75.938 | 75.476 |
| Average | 80.432 | 77.738 | 77.091 | 77.938 |
| Max | 80.432 | 80.126 | 78.035 | 80.276 |
| UL | 86.000 | 86.000 | 86.000 | 86.000 |

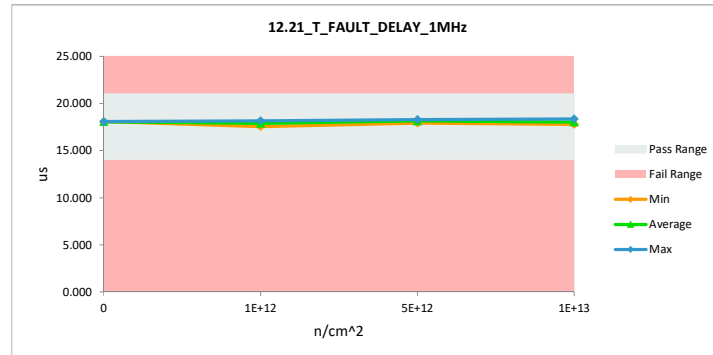


NDD Characterization Report TPS7H5007-SEP

| 12.21_T_FAULT_DELAY_1MHz | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | us | us | |
| Max Limit | | 21 | 21 | |
| Min Limit | | 14 | 14 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 18.140 | 18.075 | -0.065 |
| 1E+12 | 21 | 18.247 | 18.164 | -0.083 |
| 1E+12 | 22 | 18.199 | 17.951 | -0.248 |
| 1E+12 | 23 | 18.332 | 17.528 | -0.804 |
| 5E+12 | 24 | 18.392 | 18.285 | -0.107 |
| 5E+12 | 25 | 18.212 | 18.245 | 0.033 |
| 5E+12 | 26 | 18.186 | 17.919 | -0.267 |
| 1E+13 | 27 | 18.361 | 18.356 | -0.005 |
| 1E+13 | 28 | 17.973 | 17.772 | -0.201 |
| 1E+13 | 29 | 17.952 | 17.925 | -0.027 |
| Max | | 18.392 | 18.356 | 0.033 |
| Average | | 18.199 | 18.022 | -0.177 |
| Min | | 17.952 | 17.528 | -0.804 |
| Std Dev | | 0.149 | 0.255 | 0.243 |

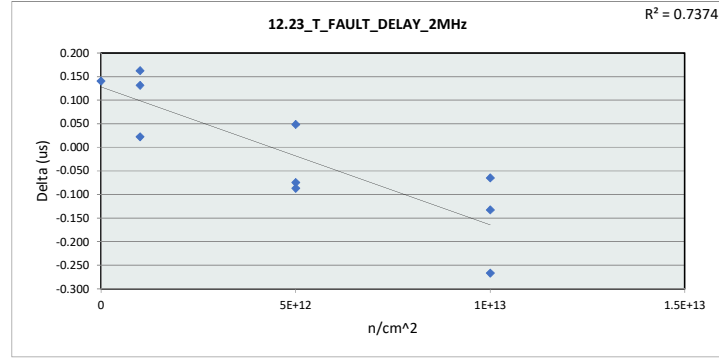


| 12.21_T_FAULT_DELAY_1MHz | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 21 | us | | |
| Min Limit | 14 | us | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 14.000 | 14.000 | 14.000 | 14.000 |
| Min | 18.075 | 17.528 | 17.919 | 17.772 |
| Average | 18.075 | 17.881 | 18.150 | 18.018 |
| Max | 18.075 | 18.164 | 18.285 | 18.356 |
| UL | 21.000 | 21.000 | 21.000 | 21.000 |

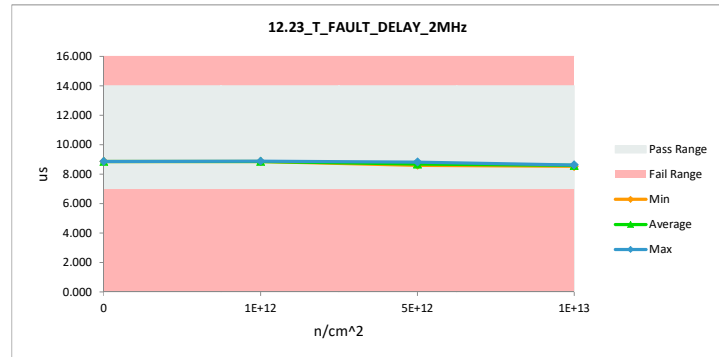


NDD Characterization Report TPS7H5007-SEP

| 12.23_T_FAULT_DELAY_2MHz | | | | |
|--------------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | us | us | |
| Max Limit | | 14 | 14 | |
| Min Limit | | 7 | 7 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.716 | 8.856 | 0.140 |
| 1E+12 | 21 | 8.681 | 8.843 | 0.162 |
| 1E+12 | 22 | 8.749 | 8.880 | 0.131 |
| 1E+12 | 23 | 8.856 | 8.878 | 0.022 |
| 5E+12 | 24 | 8.677 | 8.602 | -0.075 |
| 5E+12 | 25 | 8.560 | 8.608 | 0.048 |
| 5E+12 | 26 | 8.914 | 8.827 | -0.087 |
| 1E+13 | 27 | 8.592 | 8.527 | -0.065 |
| 1E+13 | 28 | 8.894 | 8.627 | -0.267 |
| 1E+13 | 29 | 8.742 | 8.609 | -0.133 |
| Max | | 8.914 | 8.880 | 0.162 |
| Average | | 8.738 | 8.726 | -0.012 |
| Min | | 8.560 | 8.527 | -0.267 |
| Std Dev | | 0.120 | 0.141 | 0.138 |

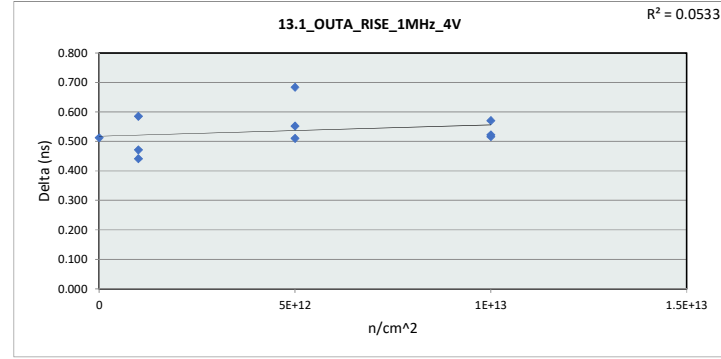


| 12.23_T_FAULT_DELAY_2MHz | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 14 | us | | |
| Min Limit | 7 | us | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 7.000 | 7.000 | 7.000 | 7.000 |
| Min | 8.856 | 8.843 | 8.602 | 8.527 |
| Average | 8.856 | 8.867 | 8.679 | 8.588 |
| Max | 8.856 | 8.880 | 8.827 | 8.627 |
| UL | 14.000 | 14.000 | 14.000 | 14.000 |

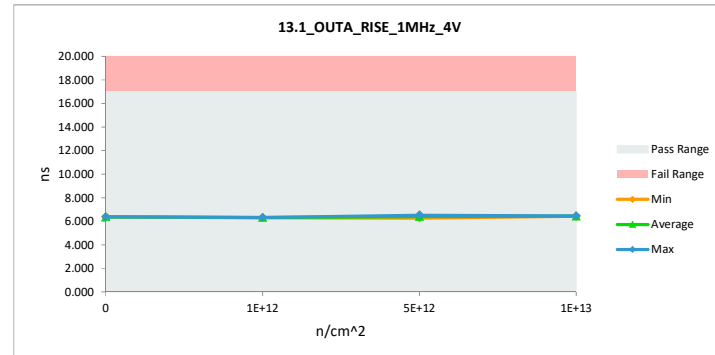


NDD Characterization Report TPS7H5007-SEP

| 13.1_OUTA_RISE_1MHz_4V | | | | |
|------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 16.5 | | 17 | |
| Min Limit | 4 | | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 5.878 | 6.390 | 0.512 |
| 1E+12 | 21 | 5.859 | 6.300 | 0.441 |
| 1E+12 | 22 | 5.835 | 6.306 | 0.471 |
| 1E+12 | 23 | 5.741 | 6.326 | 0.585 |
| 5E+12 | 24 | 5.761 | 6.271 | 0.510 |
| 5E+12 | 25 | 5.726 | 6.409 | 0.683 |
| 5E+12 | 26 | 5.970 | 6.522 | 0.552 |
| 1E+13 | 27 | 5.941 | 6.463 | 0.522 |
| 1E+13 | 28 | 5.903 | 6.419 | 0.516 |
| 1E+13 | 29 | 5.857 | 6.427 | 0.570 |
| Max | | 5.970 | 6.522 | 0.683 |
| Average | | 5.847 | 6.383 | 0.536 |
| Min | | 5.726 | 6.271 | 0.441 |
| Std Dev | | 0.083 | 0.080 | 0.067 |

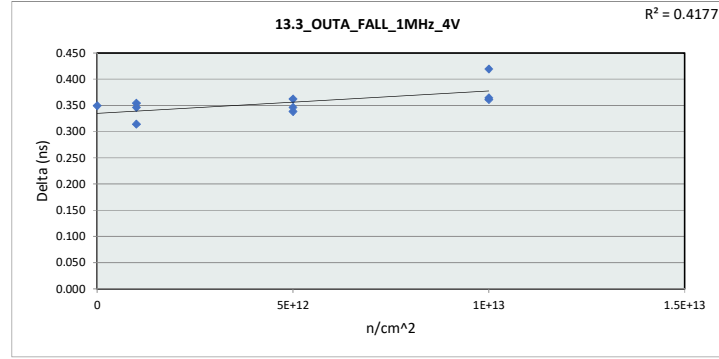


| 13.1_OUTA_RISE_1MHz_4V | | | | |
|------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 6.390 | 6.300 | 6.271 | 6.419 |
| Average | 6.390 | 6.311 | 6.401 | 6.436 |
| Max | 6.390 | 6.326 | 6.522 | 6.463 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

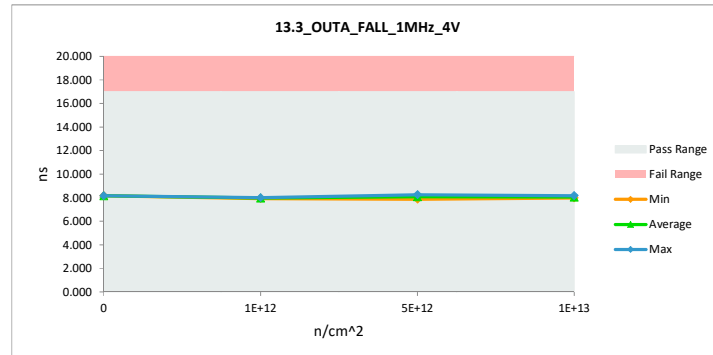


NDD Characterization Report TPS7H5007-SEP

| 13.3_OUTA_FALL_1MHz_4V | | | | |
|------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 16.5 | | 17 |
| Min Limit | | 4 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.815 | 8.164 | 0.349 |
| 1E+12 | 21 | 7.636 | 7.990 | 0.354 |
| 1E+12 | 22 | 7.623 | 7.937 | 0.314 |
| 1E+12 | 23 | 7.636 | 7.982 | 0.346 |
| 5E+12 | 24 | 7.530 | 7.876 | 0.346 |
| 5E+12 | 25 | 7.894 | 8.256 | 0.362 |
| 5E+12 | 26 | 7.782 | 8.120 | 0.338 |
| 1E+13 | 27 | 7.613 | 7.974 | 0.361 |
| 1E+13 | 28 | 7.762 | 8.181 | 0.419 |
| 1E+13 | 29 | 7.622 | 7.986 | 0.364 |
| Max | | 7.894 | 8.256 | 0.419 |
| Average | | 7.691 | 8.047 | 0.355 |
| Min | | 7.530 | 7.876 | 0.314 |
| Std Dev | | 0.114 | 0.124 | 0.027 |

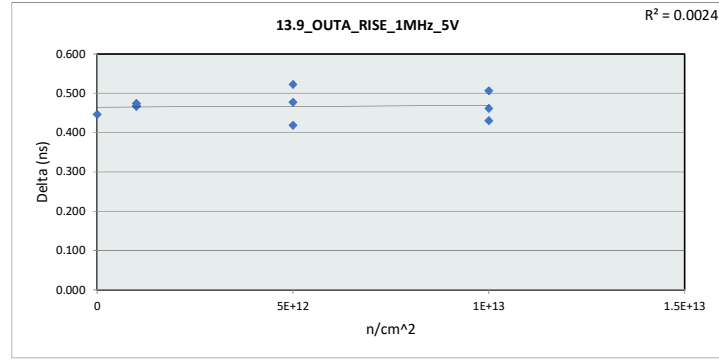


| 13.3_OUTA_FALL_1MHz_4V | | | | |
|------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | | ns |
| Min Limit | 0 | | | ns |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.164 | 7.937 | 7.876 | 7.974 |
| Average | 8.164 | 7.970 | 8.084 | 8.047 |
| Max | 8.164 | 7.990 | 8.256 | 8.181 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

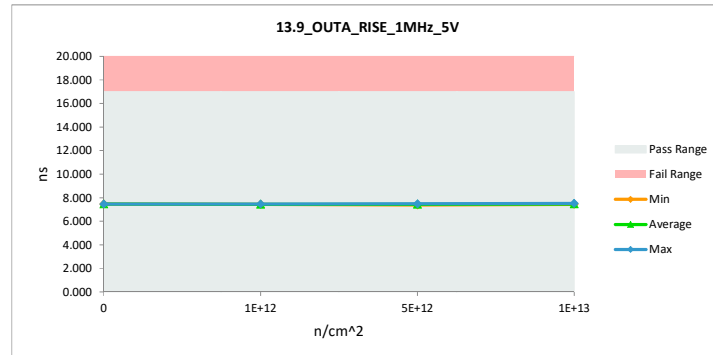


NDD Characterization Report TPS7H5007-SEP

| 13.9_OUTA_RISE_1MHz_5V | | | | |
|------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 16.5 | | 17 | |
| Min Limit | 4 | | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.004 | 7.450 | 0.446 |
| 1E+12 | 21 | 6.984 | 7.452 | 0.468 |
| 1E+12 | 22 | 6.975 | 7.449 | 0.474 |
| 1E+12 | 23 | 6.967 | 7.433 | 0.466 |
| 5E+12 | 24 | 6.958 | 7.376 | 0.418 |
| 5E+12 | 25 | 6.946 | 7.468 | 0.522 |
| 5E+12 | 26 | 6.999 | 7.476 | 0.477 |
| 1E+13 | 27 | 7.012 | 7.442 | 0.430 |
| 1E+13 | 28 | 6.999 | 7.460 | 0.461 |
| 1E+13 | 29 | 6.997 | 7.503 | 0.506 |
| Max | | 7.012 | 7.503 | 0.522 |
| Average | | 6.984 | 7.451 | 0.467 |
| Min | | 6.946 | 7.376 | 0.418 |
| Std Dev | | 0.022 | 0.033 | 0.032 |

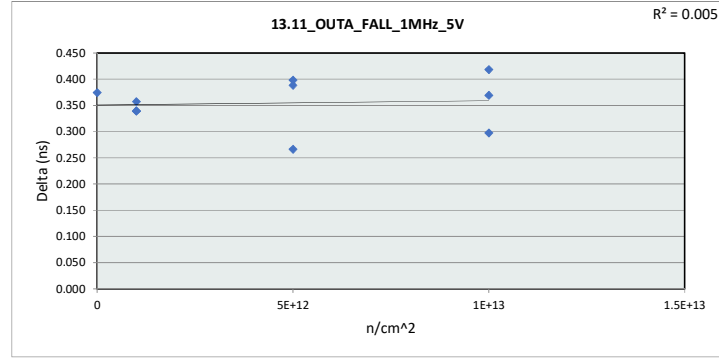


| 13.9_OUTA_RISE_1MHz_5V | | | | |
|------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.450 | 7.433 | 7.376 | 7.442 |
| Average | 7.450 | 7.445 | 7.440 | 7.468 |
| Max | 7.450 | 7.452 | 7.476 | 7.503 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

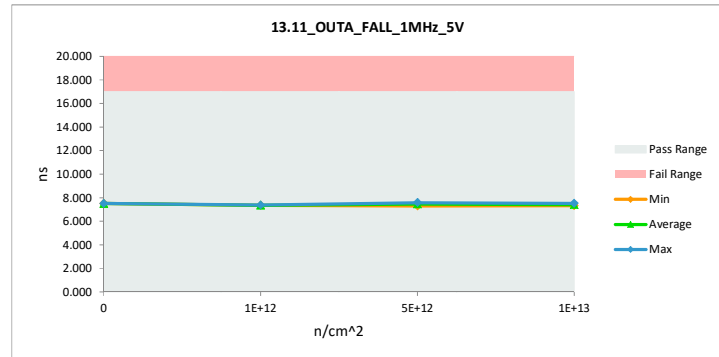


NDD Characterization Report TPS7H5007-SEP

| 13.11_OUTA_FALL_1MHz_5V | | | | |
|-------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 16.5 | | 17 | |
| Min Limit | 4 | | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.139 | 7.513 | 0.374 |
| 1E+12 | 21 | 7.019 | 7.376 | 0.357 |
| 1E+12 | 22 | 7.015 | 7.354 | 0.339 |
| 1E+12 | 23 | 6.997 | 7.336 | 0.339 |
| 5E+12 | 24 | 6.899 | 7.297 | 0.398 |
| 5E+12 | 25 | 7.194 | 7.582 | 0.388 |
| 5E+12 | 26 | 7.212 | 7.478 | 0.266 |
| 1E+13 | 27 | 7.001 | 7.370 | 0.369 |
| 1E+13 | 28 | 7.108 | 7.526 | 0.418 |
| 1E+13 | 29 | 7.030 | 7.327 | 0.297 |
| Max | | 7.212 | 7.582 | 0.418 |
| Average | | 7.061 | 7.416 | 0.355 |
| Min | | 6.899 | 7.297 | 0.266 |
| Std Dev | | 0.099 | 0.099 | 0.046 |

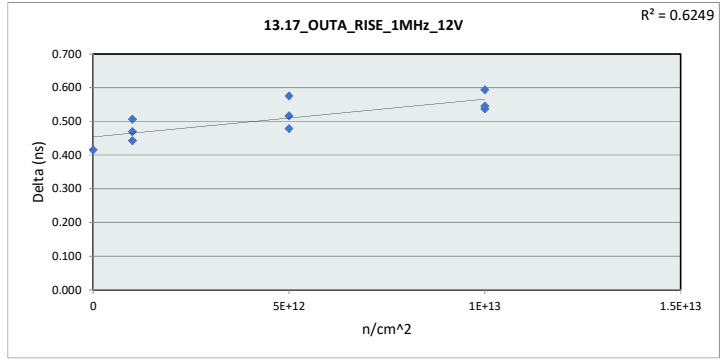


| 13.11_OUTA_FALL_1MHz_5V | | | | |
|-------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.513 | 7.336 | 7.297 | 7.327 |
| Average | 7.513 | 7.355 | 7.452 | 7.408 |
| Max | 7.513 | 7.376 | 7.582 | 7.526 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

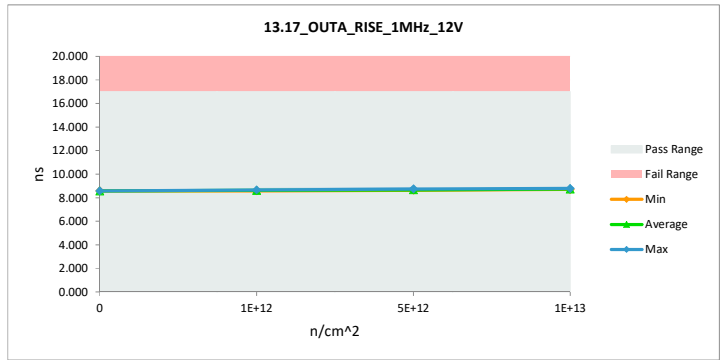


NDD Characterization Report TPS7H5007-SEP

| 13.17_OUTA_RISE_1MHz_12V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 16.5 | | 17 | |
| Min Limit | 4 | | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.150 | 8.565 | 0.415 |
| 1E+12 | 21 | 8.148 | 8.590 | 0.442 |
| 1E+12 | 22 | 8.138 | 8.607 | 0.469 |
| 1E+12 | 23 | 8.141 | 8.647 | 0.506 |
| 5E+12 | 24 | 8.113 | 8.629 | 0.516 |
| 5E+12 | 25 | 8.159 | 8.637 | 0.478 |
| 5E+12 | 26 | 8.163 | 8.738 | 0.575 |
| 1E+13 | 27 | 8.189 | 8.782 | 0.593 |
| 1E+13 | 28 | 8.166 | 8.703 | 0.537 |
| 1E+13 | 29 | 8.183 | 8.728 | 0.545 |
| Max | | 8.189 | 8.782 | 0.593 |
| Average | | 8.155 | 8.663 | 0.508 |
| Min | | 8.113 | 8.565 | 0.415 |
| Std Dev | | 0.022 | 0.071 | 0.057 |

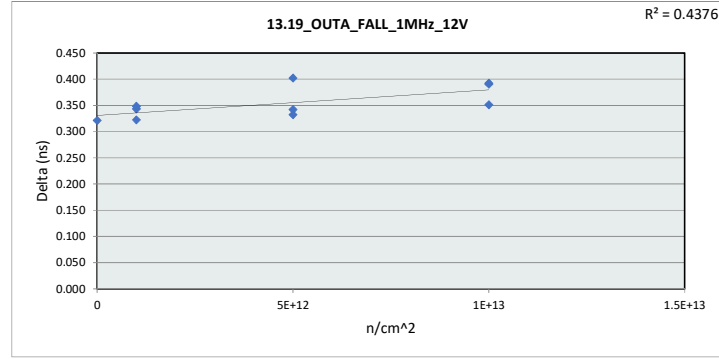


| 13.17_OUTA_RISE_1MHz_12V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.565 | 8.590 | 8.629 | 8.703 |
| Average | 8.565 | 8.615 | 8.668 | 8.738 |
| Max | 8.565 | 8.647 | 8.738 | 8.782 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

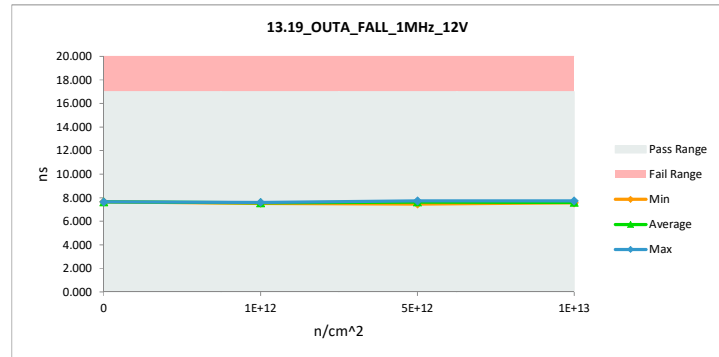


NDD Characterization Report TPS7H5007-SEP

| 13.19_OUTA_FALL_1MHz_12V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 16.5 | | 17 |
| Min Limit | | 4 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.324 | 7.645 | 0.321 |
| 1E+12 | 21 | 7.180 | 7.528 | 0.348 |
| 1E+12 | 22 | 7.239 | 7.561 | 0.322 |
| 1E+12 | 23 | 7.243 | 7.586 | 0.343 |
| 5E+12 | 24 | 7.128 | 7.460 | 0.332 |
| 5E+12 | 25 | 7.374 | 7.716 | 0.342 |
| 5E+12 | 26 | 7.280 | 7.682 | 0.402 |
| 1E+13 | 27 | 7.164 | 7.556 | 0.392 |
| 1E+13 | 28 | 7.328 | 7.718 | 0.390 |
| 1E+13 | 29 | 7.212 | 7.563 | 0.351 |
| Max | | 7.374 | 7.718 | 0.402 |
| Average | | 7.247 | 7.602 | 0.354 |
| Min | | 7.128 | 7.460 | 0.321 |
| Std Dev | | 0.079 | 0.086 | 0.030 |

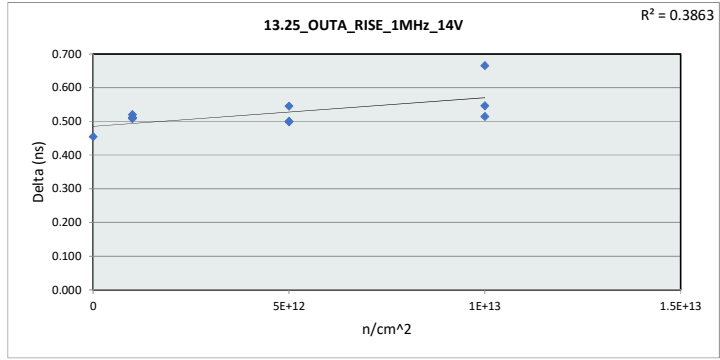


| 13.19_OUTA_FALL_1MHz_12V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.645 | 7.528 | 7.460 | 7.556 |
| Average | 7.645 | 7.558 | 7.619 | 7.612 |
| Max | 7.645 | 7.586 | 7.716 | 7.718 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

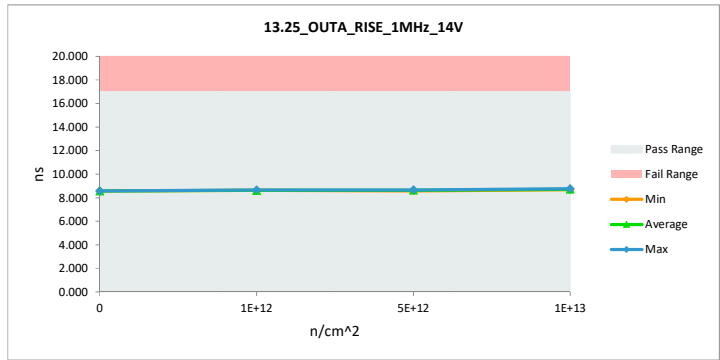


NDD Characterization Report TPS7H5007-SEP

| 13.25_OUTA_RISE_1MHz_14V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | | ns |
| Max Limit | | 16.5 | | 17 |
| Min Limit | | 4 | | 0 |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 8.117 | 8.571 | 0.454 |
| 1E+12 | 21 | 8.107 | 8.615 | 0.508 |
| 1E+12 | 22 | 8.090 | 8.610 | 0.520 |
| 1E+12 | 23 | 8.132 | 8.643 | 0.511 |
| 5E+12 | 24 | 8.089 | 8.587 | 0.498 |
| 5E+12 | 25 | 8.114 | 8.659 | 0.545 |
| 5E+12 | 26 | 8.141 | 8.641 | 0.500 |
| 1E+13 | 27 | 8.103 | 8.768 | 0.665 |
| 1E+13 | 28 | 8.127 | 8.673 | 0.546 |
| 1E+13 | 29 | 8.191 | 8.705 | 0.514 |
| Max | | 8.191 | 8.768 | 0.665 |
| Average | | 8.121 | 8.647 | 0.526 |
| Min | | 8.089 | 8.571 | 0.454 |
| Std Dev | | 0.030 | 0.058 | 0.055 |

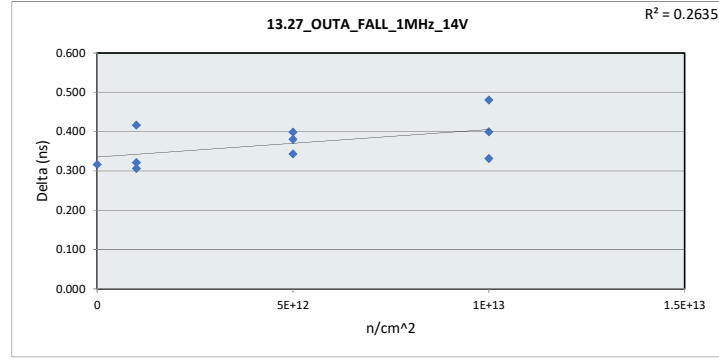


| 13.25_OUTA_RISE_1MHz_14V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | | ns | |
| Min Limit | 0 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 8.571 | 8.610 | 8.587 | 8.673 |
| Average | 8.571 | 8.623 | 8.629 | 8.715 |
| Max | 8.571 | 8.643 | 8.659 | 8.768 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

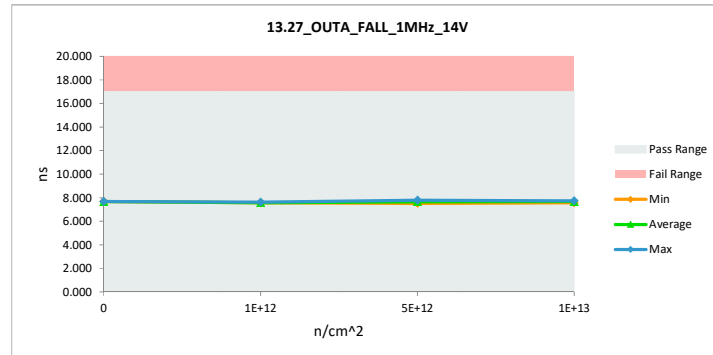


NDD Characterization Report TPS7H5007-SEP

| 13.27_OUTA_FALL_1MHz_14V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | ns | ns | |
| Max Limit | | 16.5 | 17 | |
| Min Limit | | 4 | 0 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 7.352 | 7.668 | 0.316 |
| 1E+12 | 21 | 7.231 | 7.552 | 0.321 |
| 1E+12 | 22 | 7.205 | 7.621 | 0.416 |
| 1E+12 | 23 | 7.259 | 7.565 | 0.306 |
| 5E+12 | 24 | 7.172 | 7.515 | 0.343 |
| 5E+12 | 25 | 7.379 | 7.777 | 0.398 |
| 5E+12 | 26 | 7.292 | 7.672 | 0.380 |
| 1E+13 | 27 | 7.286 | 7.685 | 0.399 |
| 1E+13 | 28 | 7.247 | 7.727 | 0.480 |
| 1E+13 | 29 | 7.249 | 7.580 | 0.331 |
| Max | | 7.379 | 7.777 | 0.480 |
| Average | | 7.267 | 7.636 | 0.369 |
| Min | | 7.172 | 7.515 | 0.306 |
| Std Dev | | 0.063 | 0.084 | 0.055 |

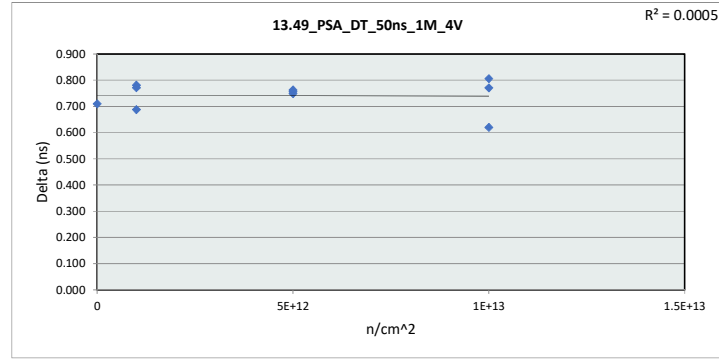


| 13.27_OUTA_FALL_1MHz_14V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 17 | ns | | |
| Min Limit | 0 | ns | | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 0.000 | 0.000 | 0.000 | 0.000 |
| Min | 7.668 | 7.552 | 7.515 | 7.580 |
| Average | 7.668 | 7.579 | 7.655 | 7.664 |
| Max | 7.668 | 7.621 | 7.777 | 7.727 |
| UL | 17.000 | 17.000 | 17.000 | 17.000 |

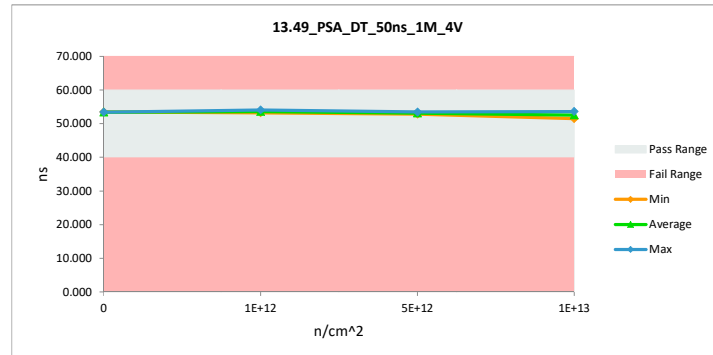


NDD Characterization Report TPS7H5007-SEP

| 13.49_PSA_DT_50ns_1M_4V | | | | |
|-------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 60 | | 60 | |
| Min Limit | 40 | | 40 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 52.753 | 53.462 | 0.709 |
| 1E+12 | 21 | 53.311 | 54.091 | 0.780 |
| 1E+12 | 22 | 52.428 | 53.199 | 0.771 |
| 1E+12 | 23 | 52.907 | 53.594 | 0.687 |
| 5E+12 | 24 | 52.053 | 52.815 | 0.762 |
| 5E+12 | 25 | 52.487 | 53.243 | 0.756 |
| 5E+12 | 26 | 52.712 | 53.460 | 0.748 |
| 1E+13 | 27 | 52.794 | 53.599 | 0.805 |
| 1E+13 | 28 | 52.070 | 52.689 | 0.619 |
| 1E+13 | 29 | 50.711 | 51.481 | 0.770 |
| Max | | 53.311 | 54.091 | 0.805 |
| Average | | 52.423 | 53.163 | 0.741 |
| Min | | 50.711 | 51.481 | 0.619 |
| Std Dev | | 0.711 | 0.715 | 0.055 |

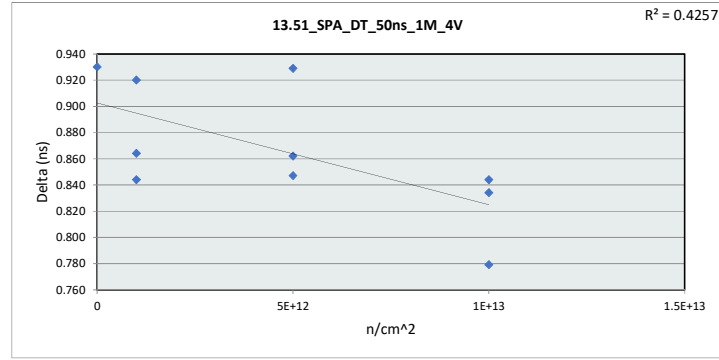


| 13.49_PSA_DT_50ns_1M_4V | | | | |
|-------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 60 | | ns | |
| Min Limit | 40 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 40.000 | 40.000 | 40.000 | 40.000 |
| Min | 53.462 | 53.199 | 52.815 | 51.481 |
| Average | 53.462 | 53.628 | 53.173 | 52.590 |
| Max | 53.462 | 54.091 | 53.460 | 53.599 |
| UL | 60.000 | 60.000 | 60.000 | 60.000 |

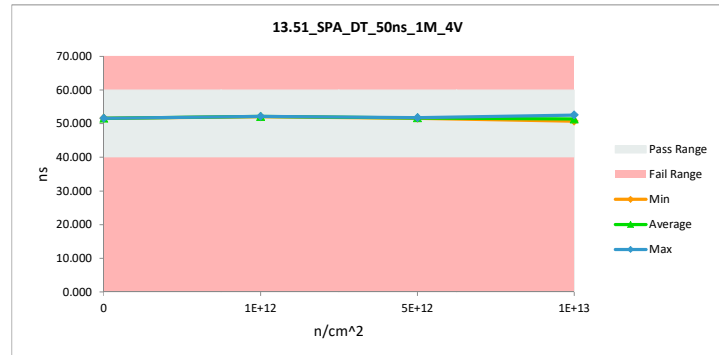


NDD Characterization Report TPS7H5007-SEP

| 13.51_SPA_DT_50ns_1M_4V | | | | |
|-------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 60 | | 60 | |
| Min Limit | 40 | | 40 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 50.668 | 51.598 | 0.930 |
| 1E+12 | 21 | 51.185 | 52.029 | 0.844 |
| 1E+12 | 22 | 51.267 | 52.187 | 0.920 |
| 1E+12 | 23 | 51.287 | 52.151 | 0.864 |
| 5E+12 | 24 | 50.935 | 51.782 | 0.847 |
| 5E+12 | 25 | 50.775 | 51.637 | 0.862 |
| 5E+12 | 26 | 50.748 | 51.677 | 0.929 |
| 1E+13 | 27 | 51.733 | 52.567 | 0.834 |
| 1E+13 | 28 | 50.001 | 50.780 | 0.779 |
| 1E+13 | 29 | 49.936 | 50.780 | 0.844 |
| Max | | 51.733 | 52.567 | 0.930 |
| Average | | 50.854 | 51.719 | 0.865 |
| Min | | 49.936 | 50.780 | 0.779 |
| Std Dev | | 0.565 | 0.578 | 0.048 |

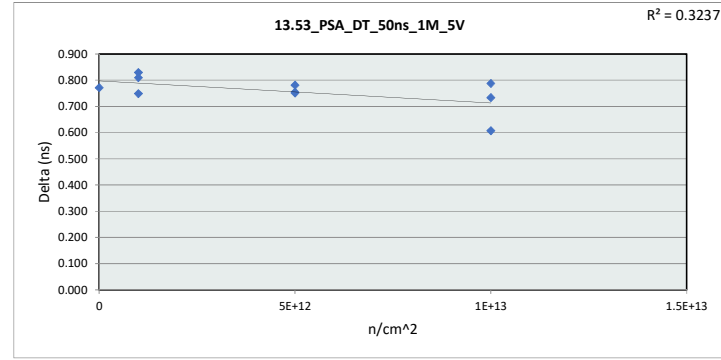


| 13.51_SPA_DT_50ns_1M_4V | | | | |
|-------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 60 | | ns | |
| Min Limit | 40 | | ns | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 40.000 | 40.000 | 40.000 | 40.000 |
| Min | 51.598 | 52.029 | 51.637 | 50.780 |
| Average | 51.598 | 52.122 | 51.699 | 51.376 |
| Max | 51.598 | 52.187 | 51.782 | 52.567 |
| UL | 60.000 | 60.000 | 60.000 | 60.000 |

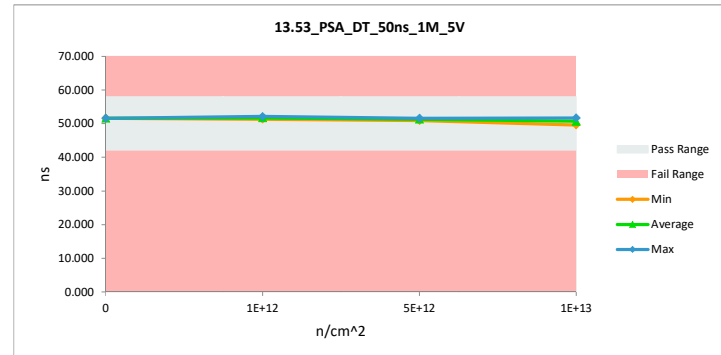


NDD Characterization Report TPS7H5007-SEP

| 13.53_PSA_DT_50ns_1M_5V | | | | |
|-------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 58 | | 58 | |
| Min Limit | 42 | | 42 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 50.857 | 51.628 | 0.771 |
| 1E+12 | 21 | 51.316 | 52.125 | 0.809 |
| 1E+12 | 22 | 50.489 | 51.318 | 0.829 |
| 1E+12 | 23 | 51.018 | 51.766 | 0.748 |
| 5E+12 | 24 | 50.194 | 50.944 | 0.750 |
| 5E+12 | 25 | 50.632 | 51.386 | 0.754 |
| 5E+12 | 26 | 50.830 | 51.610 | 0.780 |
| 1E+13 | 27 | 50.882 | 51.669 | 0.787 |
| 1E+13 | 28 | 50.271 | 50.878 | 0.607 |
| 1E+13 | 29 | 48.883 | 49.616 | 0.733 |
| Max | | 51.316 | 52.125 | 0.829 |
| Average | | 50.537 | 51.294 | 0.757 |
| Min | | 48.883 | 49.616 | 0.607 |
| Std Dev | | 0.673 | 0.698 | 0.060 |

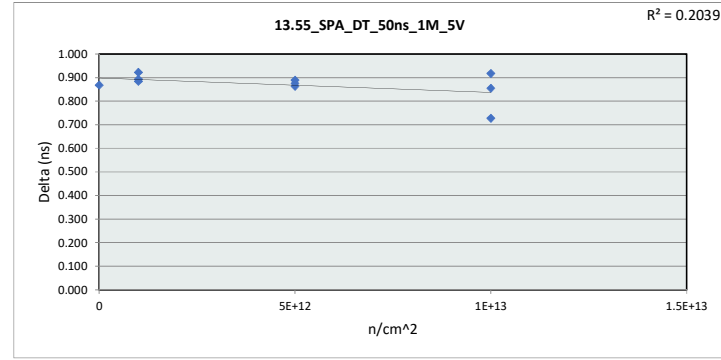


| 13.53_PSA_DT_50ns_1M_5V | | | | |
|-------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 58 | | ns | |
| Min Limit | 42 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 42.000 | 42.000 | 42.000 | 42.000 |
| Min | 51.628 | 51.318 | 50.944 | 49.616 |
| Average | 51.628 | 51.736 | 51.313 | 50.721 |
| Max | 51.628 | 52.125 | 51.610 | 51.669 |
| UL | 58.000 | 58.000 | 58.000 | 58.000 |

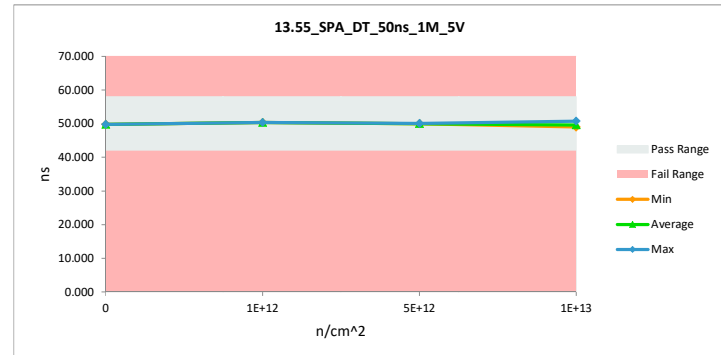


NDD Characterization Report TPS7H5007-SEP

| 13.55_SPA_DT_50ns_1M_5V | | | | |
|-------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 58 | | 58 | |
| Min Limit | 42 | | 42 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 48.917 | 49.784 | 0.867 |
| 1E+12 | 21 | 49.417 | 50.339 | 0.922 |
| 1E+12 | 22 | 49.486 | 50.378 | 0.892 |
| 1E+12 | 23 | 49.466 | 50.349 | 0.883 |
| 5E+12 | 24 | 49.187 | 50.075 | 0.888 |
| 5E+12 | 25 | 49.065 | 49.927 | 0.862 |
| 5E+12 | 26 | 49.075 | 49.949 | 0.874 |
| 1E+13 | 27 | 49.859 | 50.776 | 0.917 |
| 1E+13 | 28 | 48.412 | 49.139 | 0.727 |
| 1E+13 | 29 | 48.157 | 49.011 | 0.854 |
| Max | | 49.859 | 50.776 | 0.922 |
| Average | | 49.104 | 49.973 | 0.869 |
| Min | | 48.157 | 49.011 | 0.727 |
| Std Dev | | 0.513 | 0.553 | 0.054 |

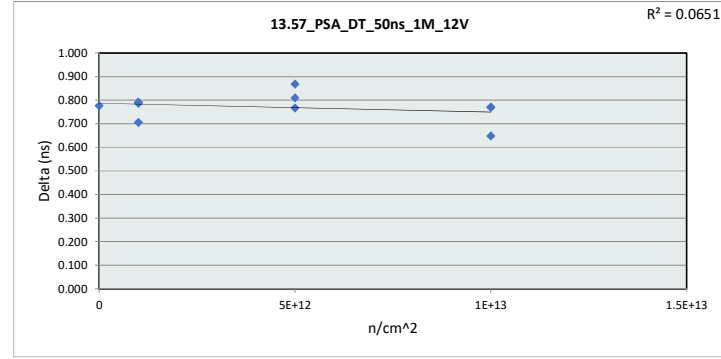


| 13.55_SPA_DT_50ns_1M_5V | | | | |
|-------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 58 | | ns | |
| Min Limit | 42 | | ns | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 42.000 | 42.000 | 42.000 | 42.000 |
| Min | 49.784 | 50.339 | 49.927 | 49.011 |
| Average | 49.784 | 50.355 | 49.984 | 49.642 |
| Max | 49.784 | 50.378 | 50.075 | 50.776 |
| UL | 58.000 | 58.000 | 58.000 | 58.000 |

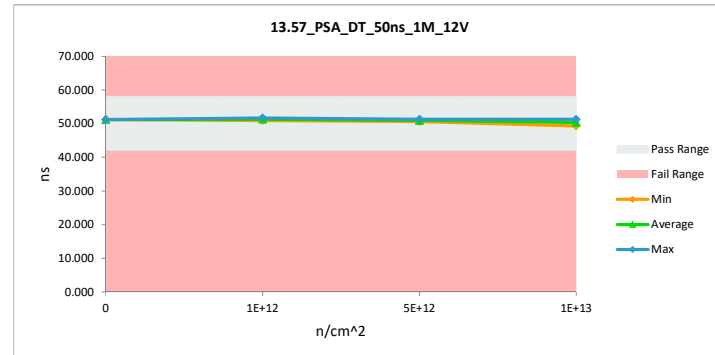


NDD Characterization Report TPS7H5007-SEP

| 13.57_PSA_DT_50ns_1M_12V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 58 | | 58 | |
| Min Limit | 42 | | 42 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 50.444 | 51.220 | 0.776 |
| 1E+12 | 21 | 50.921 | 51.707 | 0.786 |
| 1E+12 | 22 | 50.142 | 50.933 | 0.791 |
| 1E+12 | 23 | 50.688 | 51.393 | 0.705 |
| 5E+12 | 24 | 49.840 | 50.649 | 0.809 |
| 5E+12 | 25 | 50.296 | 51.062 | 0.766 |
| 5E+12 | 26 | 50.437 | 51.304 | 0.867 |
| 1E+13 | 27 | 50.603 | 51.250 | 0.647 |
| 1E+13 | 28 | 49.854 | 50.623 | 0.769 |
| 1E+13 | 29 | 48.559 | 49.328 | 0.769 |
| Max | | 50.921 | 51.707 | 0.867 |
| Average | | 50.178 | 50.947 | 0.769 |
| Min | | 48.559 | 49.328 | 0.647 |
| Std Dev | | 0.666 | 0.658 | 0.059 |

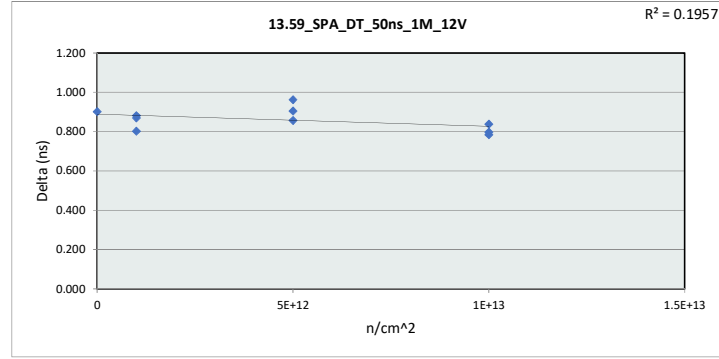


| 13.57_PSA_DT_50ns_1M_12V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 58 | | ns | |
| Min Limit | 42 | | ns | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 42.000 | 42.000 | 42.000 | 42.000 |
| Min | 51.220 | 50.933 | 50.649 | 49.328 |
| Average | 51.220 | 51.344 | 51.005 | 50.400 |
| Max | 51.220 | 51.707 | 51.304 | 51.250 |
| UL | 58.000 | 58.000 | 58.000 | 58.000 |

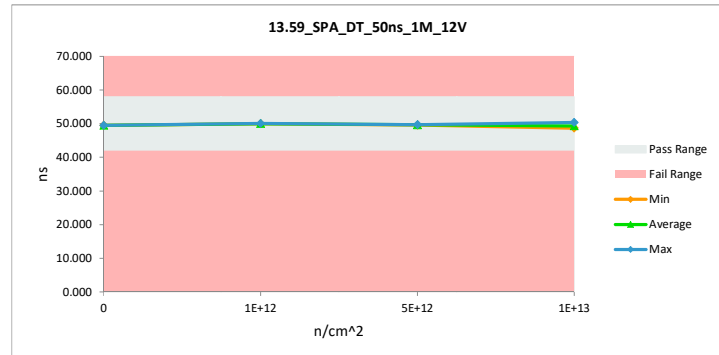


NDD Characterization Report TPS7H5007-SEP

| 13.59_SPA_DT_50ns_1M_12V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 58 | | 58 | |
| Min Limit | 42 | | 42 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 48.592 | 49.493 | 0.901 |
| 1E+12 | 21 | 49.097 | 49.977 | 0.880 |
| 1E+12 | 22 | 49.164 | 49.965 | 0.801 |
| 1E+12 | 23 | 49.192 | 50.061 | 0.869 |
| 5E+12 | 24 | 48.807 | 49.711 | 0.904 |
| 5E+12 | 25 | 48.713 | 49.569 | 0.856 |
| 5E+12 | 26 | 48.726 | 49.687 | 0.961 |
| 1E+13 | 27 | 49.587 | 50.371 | 0.784 |
| 1E+13 | 28 | 48.053 | 48.849 | 0.796 |
| 1E+13 | 29 | 47.858 | 48.695 | 0.837 |
| Max | | 49.587 | 50.371 | 0.961 |
| Average | | 48.779 | 49.638 | 0.859 |
| Min | | 47.858 | 48.695 | 0.784 |
| Std Dev | | 0.526 | 0.525 | 0.056 |

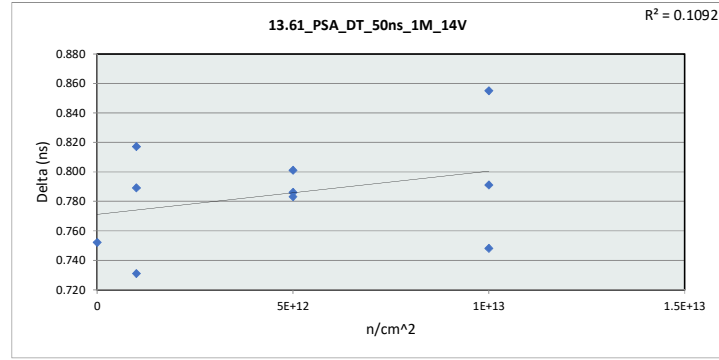


| 13.59_SPA_DT_50ns_1M_12V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 58 | | ns | |
| Min Limit | 42 | | ns | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 42.000 | 42.000 | 42.000 | 42.000 |
| Min | 49.493 | 49.965 | 49.569 | 48.695 |
| Average | 49.493 | 50.001 | 49.656 | 49.305 |
| Max | 49.493 | 50.061 | 49.711 | 50.371 |
| UL | 58.000 | 58.000 | 58.000 | 58.000 |

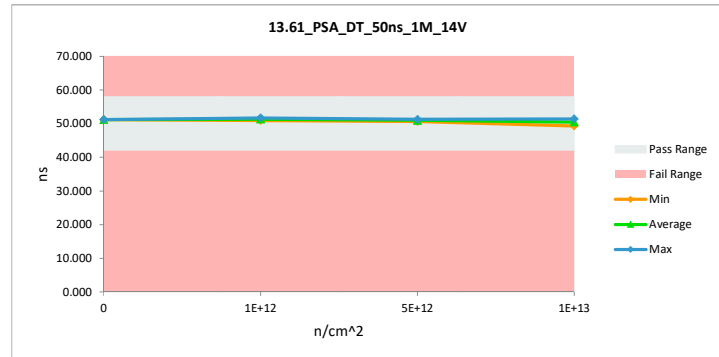


NDD Characterization Report TPS7H5007-SEP

| 13.61_PSA_DT_50ns_1M_14V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 58 | | 58 | |
| Min Limit | 42 | | 42 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 50.434 | 51.186 | 0.752 |
| 1E+12 | 21 | 50.936 | 51.725 | 0.789 |
| 1E+12 | 22 | 50.132 | 50.949 | 0.817 |
| 1E+12 | 23 | 50.660 | 51.391 | 0.731 |
| 5E+12 | 24 | 49.828 | 50.614 | 0.786 |
| 5E+12 | 25 | 50.255 | 51.056 | 0.801 |
| 5E+12 | 26 | 50.482 | 51.265 | 0.783 |
| 1E+13 | 27 | 50.545 | 51.400 | 0.855 |
| 1E+13 | 28 | 49.834 | 50.625 | 0.791 |
| 1E+13 | 29 | 48.569 | 49.317 | 0.748 |
| Max | | 50.936 | 51.725 | 0.855 |
| Average | | 50.167 | 50.953 | 0.785 |
| Min | | 48.569 | 49.317 | 0.731 |
| Std Dev | | 0.661 | 0.671 | 0.036 |

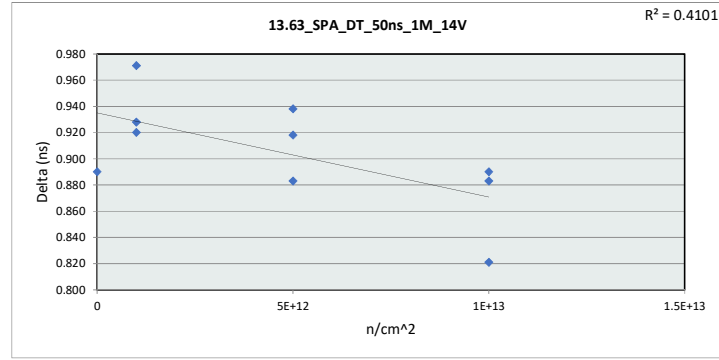


| 13.61_PSA_DT_50ns_1M_14V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 58 | | ns | |
| Min Limit | 42 | | ns | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 42.000 | 42.000 | 42.000 | 42.000 |
| Min | 51.186 | 50.949 | 50.614 | 49.317 |
| Average | 51.186 | 51.355 | 50.978 | 50.447 |
| Max | 51.186 | 51.725 | 51.265 | 51.400 |
| UL | 58.000 | 58.000 | 58.000 | 58.000 |

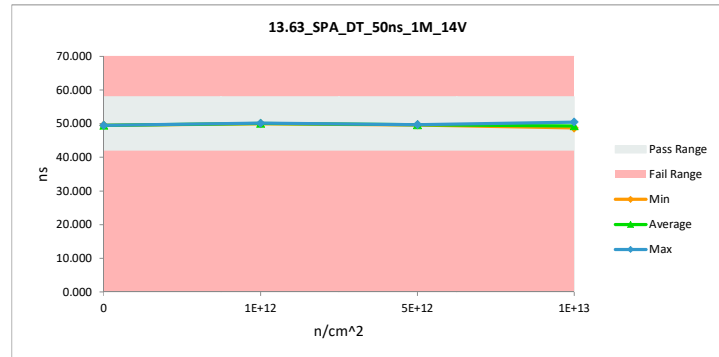


NDD Characterization Report TPS7H5007-SEP

| 13.63_SPA_DT_50ns_1M_14V | | | | |
|--------------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | ns | | |
| Max Limit | 58 | 58 | | |
| Min Limit | 42 | 42 | | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 48.614 | 49.504 | 0.890 |
| 1E+12 | 21 | 49.055 | 49.983 | 0.928 |
| 1E+12 | 22 | 49.104 | 50.024 | 0.920 |
| 1E+12 | 23 | 49.149 | 50.120 | 0.971 |
| 5E+12 | 24 | 48.804 | 49.742 | 0.938 |
| 5E+12 | 25 | 48.706 | 49.589 | 0.883 |
| 5E+12 | 26 | 48.727 | 49.645 | 0.918 |
| 1E+13 | 27 | 49.556 | 50.446 | 0.890 |
| 1E+13 | 28 | 48.009 | 48.830 | 0.821 |
| 1E+13 | 29 | 47.821 | 48.704 | 0.883 |
| Max | | 49.556 | 50.446 | 0.971 |
| Average | | 48.754 | 49.659 | 0.904 |
| Min | | 47.821 | 48.704 | 0.821 |
| Std Dev | | 0.523 | 0.548 | 0.041 |

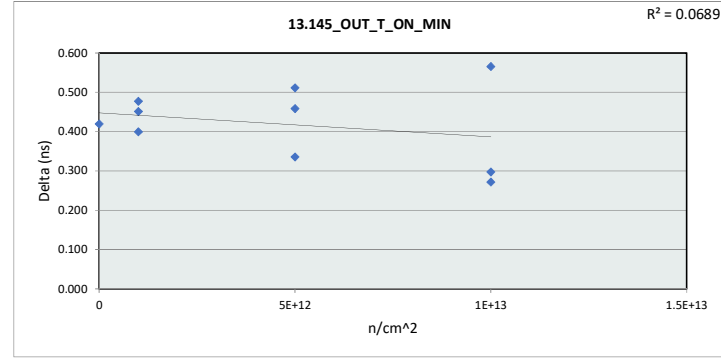


| 13.63_SPA_DT_50ns_1M_14V | | | | |
|--------------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 58 | ns | | |
| Min Limit | 42 | ns | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 42.000 | 42.000 | 42.000 | 42.000 |
| Min | 49.504 | 49.983 | 49.589 | 48.704 |
| Average | 49.504 | 50.042 | 49.659 | 49.327 |
| Max | 49.504 | 50.120 | 49.742 | 50.446 |
| UL | 58.000 | 58.000 | 58.000 | 58.000 |

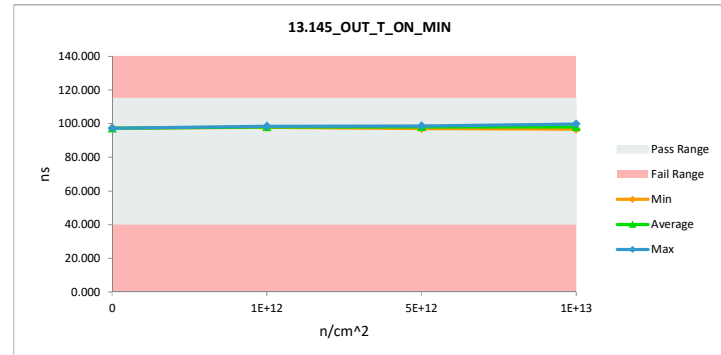


NDD Characterization Report TPS7H5007-SEP

| 13.145_OUT_T_ON_MIN | | | | |
|---------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | ns | | ns | |
| Max Limit | 115 | | 115 | |
| Min Limit | 40 | | 40 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 96.811 | 97.230 | 0.419 |
| 1E+12 | 21 | 97.380 | 97.857 | 0.477 |
| 1E+12 | 22 | 98.072 | 98.471 | 0.399 |
| 1E+12 | 23 | 97.417 | 97.868 | 0.451 |
| 5E+12 | 24 | 96.639 | 97.097 | 0.458 |
| 5E+12 | 25 | 98.309 | 98.644 | 0.335 |
| 5E+12 | 26 | 97.914 | 98.425 | 0.511 |
| 1E+13 | 27 | 99.484 | 99.755 | 0.271 |
| 1E+13 | 28 | 96.402 | 96.699 | 0.297 |
| 1E+13 | 29 | 97.339 | 97.904 | 0.565 |
| Max | | 99.484 | 99.755 | 0.565 |
| Average | | 97.577 | 97.995 | 0.418 |
| Min | | 96.402 | 96.699 | 0.271 |
| Std Dev | | 0.913 | 0.885 | 0.094 |

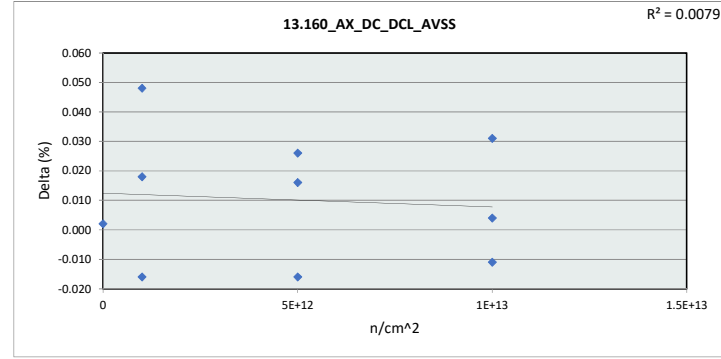


| 13.145_OUT_T_ON_MIN | | | | |
|---------------------|---------|---------|---------|---------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 115 | | ns | |
| Min Limit | 40 | | ns | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 40.000 | 40.000 | 40.000 | 40.000 |
| Min | 97.230 | 97.857 | 97.097 | 96.699 |
| Average | 97.230 | 98.065 | 98.055 | 98.119 |
| Max | 97.230 | 98.471 | 98.644 | 99.755 |
| UL | 115.000 | 115.000 | 115.000 | 115.000 |

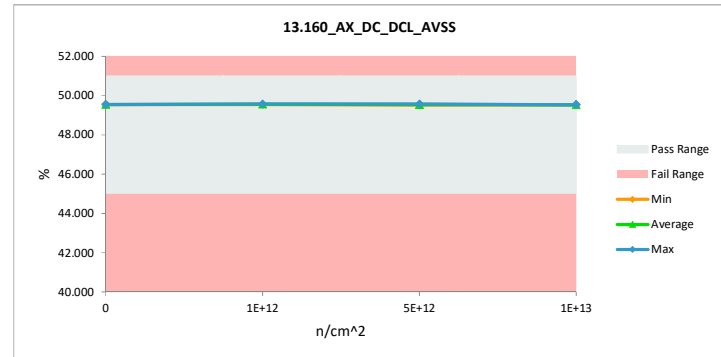


NDD Characterization Report TPS7H5007-SEP

| 13.160_AX_DC_DCL_AVSS | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | % | % | |
| Max Limit | | 51 | 51 | |
| Min Limit | | 45 | 45 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 49.549 | 49.551 | 0.002 |
| 1E+12 | 21 | 49.561 | 49.545 | -0.016 |
| 1E+12 | 22 | 49.506 | 49.554 | 0.048 |
| 1E+12 | 23 | 49.558 | 49.576 | 0.018 |
| 5E+12 | 24 | 49.532 | 49.516 | -0.016 |
| 5E+12 | 25 | 49.514 | 49.530 | 0.016 |
| 5E+12 | 26 | 49.541 | 49.567 | 0.026 |
| 1E+13 | 27 | 49.502 | 49.533 | 0.031 |
| 1E+13 | 28 | 49.544 | 49.533 | -0.011 |
| 1E+13 | 29 | 49.533 | 49.537 | 0.004 |
| Max | | 49.561 | 49.576 | 0.048 |
| Average | | 49.534 | 49.544 | 0.010 |
| Min | | 49.502 | 49.516 | -0.016 |
| Std Dev | | 0.021 | 0.018 | 0.021 |

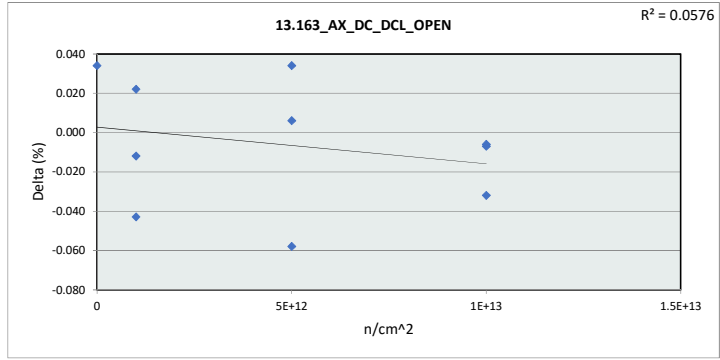


| 13.160_AX_DC_DCL_AVSS | | | | |
|-----------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 51 | % | | |
| Min Limit | 45 | % | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 45.000 | 45.000 | 45.000 | 45.000 |
| Min | 49.551 | 49.545 | 49.516 | 49.533 |
| Average | 49.551 | 49.558 | 49.538 | 49.534 |
| Max | 49.551 | 49.576 | 49.567 | 49.537 |
| UL | 51.000 | 51.000 | 51.000 | 51.000 |

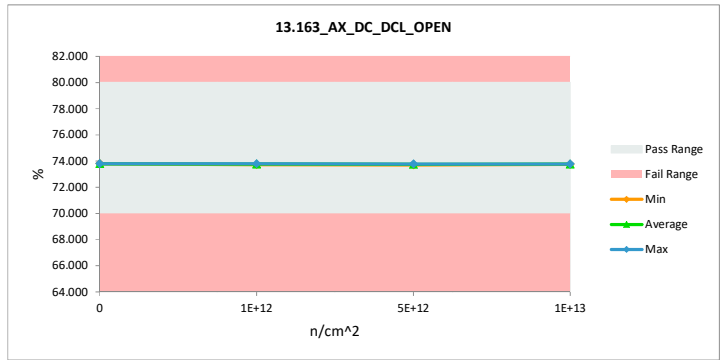


NDD Characterization Report TPS7H5007-SEP

| 13.163_AX_DC_DCL_OPEN | | | | |
|-----------------------|----------|-----------------|-------------------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | % | % | |
| Max Limit | | 80 | 80 | |
| Min Limit | | 70 | 70 | |
| n/cm ² | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 73.773 | 73.807 | 0.034 |
| 1E+12 | 21 | 73.769 | 73.726 | -0.043 |
| 1E+12 | 22 | 73.770 | 73.792 | 0.022 |
| 1E+12 | 23 | 73.795 | 73.783 | -0.012 |
| 5E+12 | 24 | 73.741 | 73.775 | 0.034 |
| 5E+12 | 25 | 73.766 | 73.708 | -0.058 |
| 5E+12 | 26 | 73.764 | 73.770 | 0.006 |
| 1E+13 | 27 | 73.785 | 73.778 | -0.007 |
| 1E+13 | 28 | 73.810 | 73.778 | -0.032 |
| 1E+13 | 29 | 73.752 | 73.746 | -0.006 |
| Max | | 73.810 | 73.807 | 0.034 |
| Average | | 73.772 | 73.766 | -0.006 |
| Min | | 73.741 | 73.708 | -0.058 |
| Std Dev | | 0.020 | 0.031 | 0.031 |

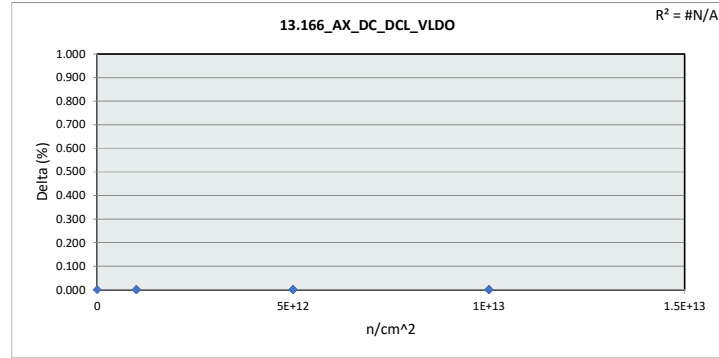


| 13.163_AX_DC_DCL_OPEN | | | | |
|-----------------------|--------|--------|--------|--------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Max Limit | 80 | % | | |
| Min Limit | 70 | % | | |
| n/cm ² | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 70.000 | 70.000 | 70.000 | 70.000 |
| Min | 73.807 | 73.726 | 73.708 | 73.746 |
| Average | 73.807 | 73.767 | 73.751 | 73.767 |
| Max | 73.807 | 73.792 | 73.775 | 73.778 |
| UL | 80.000 | 80.000 | 80.000 | 80.000 |

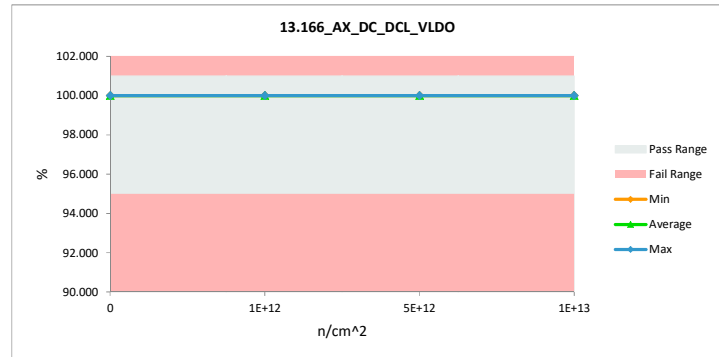


NDD Characterization Report TPS7H5007-SEP

| 13.166_AX_DC_DCL_VLDO | | | | |
|-----------------------|----------|-----------------|-------------------|-------|
| Test Site | | | | |
| Tester | | | | |
| Test Number | | | | |
| Unit | | % | % | |
| Max Limit | | 101 | 101 | |
| Min Limit | | 95 | 95 | |
| n/cm^2 | Serial # | Pre_NDD_5007SEP | Post_NDD_5007-SEP | Delta |
| 0 | 48 | 100.000 | 100.000 | 0.000 |
| 1E+12 | 21 | 100.000 | 100.000 | 0.000 |
| 1E+12 | 22 | 100.000 | 100.000 | 0.000 |
| 1E+12 | 23 | 100.000 | 100.000 | 0.000 |
| 5E+12 | 24 | 100.000 | 100.000 | 0.000 |
| 5E+12 | 25 | 100.000 | 100.000 | 0.000 |
| 5E+12 | 26 | 100.000 | 100.000 | 0.000 |
| 1E+13 | 27 | 100.000 | 100.000 | 0.000 |
| 1E+13 | 28 | 100.000 | 100.000 | 0.000 |
| 1E+13 | 29 | 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 | | 101 | % | |
| Min Limit | | 95 | % | |
| n/cm^2 | 0 | 1E+12 | 5E+12 | 1E+13 |
| LL | 95.000 | 95.000 | 95.000 | 95.000 |
| Min | 100.000 | 100.000 | 100.000 | 100.000 |
| Average | 100.000 | 100.000 | 100.000 | 100.000 |
| Max | 100.000 | 100.000 | 100.000 | 100.000 |
| UL | 101.000 | 101.000 | 101.000 | 101.000 |



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