Radiation Report
TPS7H1121-SP TID Radiation Report

TEXAS INSTRUMENTS

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1 Device Information

1.1 Product Description

The TPS7H1121-SP is a radiation-hardened low dropout linear regulator (LDO) which operates over a wide range of input voltages optimized for powering devices in a space environment. It is capable of sourcing up to 2A over a 2.25V to 14V input. The device offers excellent stability and features a programmable current limit with a wide adjustment range. To support the complex power requirements of FPGAs, DSPs, and microcontrollers, the TPS7H1121-SP provides enable on and off functionality, programmable soft start, and a power good open-drain output.

1.2 Device Details

Table 1-1 lists the device information used in the TID HDR characterization.

Table 1-1. Device and Exposure Details

TID HDR Details: Up to 100krad(Si)	
TI Device Number	TPS7H1121-SP (5962R2320301VXC)
Package	22 PIN HFT
Technology	Linear BiCMOS 7 (LBC7)
Die Lot Number	3300911
A/T Lot Number / Date Code	4000460 / 2407A
Quantity Tested	10 irradiated units
Lot Accept/Reject	All levels tested and passed up to 100krad(Si)
HDR Radiation Facility	DCLAB - Texas Instruments, Dallas, TX
HDR Dose Level	100krad (Si)
HDR Dose Rate	182.92rad / s
HDR Radiation Source	Gammacell 220 Excel (GC-220E) Co-60
Irradiation Temperature	Ambient, room temperature

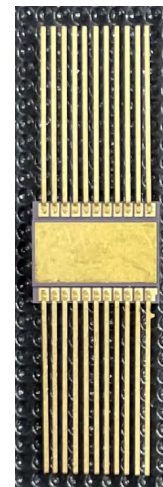**Figure 1-1. Device Used in Exposure (Front)**

Figure 1-2. Device Used in Exposure (Back)

2 Total Dose Test Setup

2.1 Test Overview

The TPS7H1121-SP was tested according to MIL-STD-883, Test Method 1019.9. For this testing, Condition A was used. For Condition A, the product was irradiated up to target radiation level and then put through full electrical parametric testing on the production Automated Test Equipment (ATE). All devices were fully functional, and passed all electrical parametric tests with the readings within the data sheet electrical specification limits.

2.2 Test Description and Facilities

The TPS7H1121-SP HDR exposure was performed on biased and unbiased devices in a Co-60 gamma cell at the Dallas CLAB (DCLAB) at Texas Instruments in Dallas, Texas. The unattenuated dose rate of this cell is 182.92rads(Si)/s. After exposure, the devices were brought to Junkins Laboratory at Texas Instruments in Dallas for full post-radiation electrical evaluation using Texas Instruments ATE. ATE test limits are set per data sheet electrical limits based on preliminary qualification and characterization data.

2.3 Test Setup Details

The devices under HDR exposure were tested in both biased and unbiased conditions shown in Test Configuration and Conditions.

2.3.1 Unbiased

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

2.3.2 Biased

The TPS7H1121-SP biased exposure was performed with a 14V bias on the Vin pins and 2.58V bias on the ENABLE pin. Figure 2-1 shows the biased diagram that was used for HDR exposure.
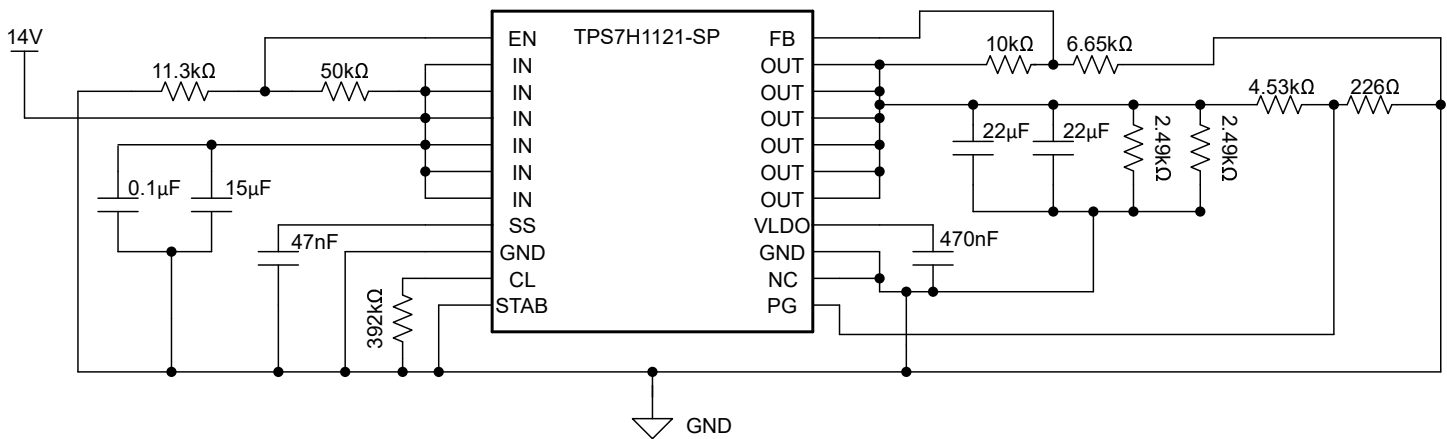
Figure 2-1. Bias Diagram Used in TID Exposure

Table 2-1. Biased Source Configuration

VIN (V)	VIN (mA / device)
14	23

2.4 Test Configuration and Conditions

HDR devices were stressed at 100krad(Si) for biased and unbiased conditions.

Table 2-2. HDR Biased Device Information

Total Samples: 5
Exposure Levels
100 krad(Si)
156, 157, 158, 159, 160

Table 2-3. HDR Unbiased Device Information

Total Samples: 5
Exposure Levels
100krad(Si)
33, 34, 35, 37, 38

3 TID Characterization Test Results

3.1 TID Characterization Summary Results

The parametric data for the TPS7H1121-SP passes up to 100krad(Si) HDR TID irradiation. The drifts of the electrical parameters through HDR were within the data sheet limits.

Overall, the TPS7H1121-SP showed a strong degree of hardness to HDR TID irradiation up to 100 krad(Si) for both biased and unbiased exposure conditions. The measurements taken post-irradiation for each sample set showed a marginal shift for most parameters at each dose level for both biased and unbiased. The parameters that did show a greater degree of change between pre- and post-irradiation were still within the electrical performance characteristics specified in the data sheet electrical parameters. See Section 3.2 for parameters and associated tests.

See Appendix A for HDR report up to 100krad(Si).

3.2 TPS7H1121-SP Data Sheet Electrical Parameters

Parameter		Test Conditions		MIN	TYP	MAX	UNIT	Test Number
POWER SUPPLIES AND CURRENTS								
V_{DO}	Dropout voltage $V_{DO} = V_{IN(forced)} - V_{OUT(set)}$	$V_{OUT(set)} = 2.25V$, $V_{OUT(measured)} = 98\% \times V_{OUT(NOM)}$	$I_{OUT} = 100mA$		28	60	mV	17.3
			$I_{OUT} = 250mA$		70	141		17.6
			$IOUT = 500mA$		150	280		17.9
			$I_{OUT} = 1A$		300	570		17.12
		$V_{OUT(set)} = 2.5V$, $V_{OUT(measured)} = 98\% \times V_{OUT(NOM)}$	$I_{OUT} = 1.5A$		525	750	mV	17.15
			$I_{OUT} = 2 A$		570	900		17.18
		$3 \leq V_{OUT(set)} \leq 13.3V$, $V_{OUT(measured)} = 98\% \times V_{OUT(NOM)}$	$I_{OUT} = 100mA$		20	50	mV	17.21, 17.24
			$I_{OUT} = 250mA$		70	100		17.27, 17.3
			$I_{OUT} = 500mA$		125	180		17.33, 17.36
			$I_{OUT} = 1A$		300	340		17.39, 17.42
			$I_{OUT} = 1.5A$		325	490		17.45, 17.48
			$I_{OUT} = 2A$		500	700		17.51, 17.54
I_{PCL}	Programmed current limit	$V_{IN} = 3.3V$, $V_{OUT(short)} = 0.1V$	RCL = 442kΩ	0.2	0.32	0.44	A	16.1
			RCL = 174kΩ	0.525	0.75	0.975		16.2
			RCL = 82.5kΩ	1.2	1.55	1.86		16.3
			RCL = 41.2kΩ	2.4	3	3.6		16.4
I_Q	Quiescent current	$V_{EN} = 7V$, $I_{OUT} = 0A$			8.75	15	mA	11.7, 11.9, 11.12
I_{GND}	Ground current	$V_{EN} = 7V$	$I_{OUT} = 1A$		10	18	mA	11.13, 11.14
			$I_{OUT} = 2A$		13	20	mA	11.15, 11.16, 11.17
VLDO	Internal linear regulator output voltage	$V_{IN} = 2.25V$		2.05	2.2	2.25	V	15.7
		$3V \leq V_{IN} \leq 14V$		2.3	2.55	2.78		
I_{SHDN}	Shutdown current	$V_{EN} = 0V$, $I_{OUT} = 0A$, $V_{OUT} = 0V$			380	775	µA	11.1, 11.2, 11.3, 11.4, 11.5, 11.6
I_{FB}	Feedback leakage current	$V_{FB} = 0.7V$			1	15	nA	15.78
ACCURACY								
V_{ACC}	Output voltage accuracy	$10mA \leq I_{OUT} \leq 2A$, $0.6V \leq V_{OUT} \leq V_{IN} - V_{DO}$, $P_D \leq 3W$	$3V \leq V_{IN} \leq 14V$	-1.5%		1.5%		
			$3V \leq V_{IN} \leq 14V$, $T_A = 25°C$	-1.5%		1.1%		
			$2.25V \leq V_{IN} \leq 3V$	-1.8%		1.8%		

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Parameter		Test Conditions		MIN	TYP	MAX	UNIT	Test Number
V_{FB}	Feedback voltage	$3V \leq V_{IN} \leq 14V$		0.588	0.596	0.606	V	15.6, 15.12, 15.17, 15.22, 15.26, 15.3, 15.34, 15.38, 15.43, 15.47, 15.51, 15.61, 15.72, 15.77
			$T_A = 25°C$	0.591	0.596	0.603		
		$2.25V \leq V_{IN} \leq 3V$		0.586	0.596	0.608		
$\Delta V_{OUT}/ \Delta V_{IN}$	Line regulation	$3V \leq V_{In} \leq 14V$			100	650	µV/V	18.5
		$2.25V \leq V_{In} \leq 3V$			285	1800		18.4
$\Delta V_{OUT}/ \Delta I_{OUT}$	Load regulation	$10mA \leq I_{OUT} \leq 2A$, $V_{IN} = 4.5V$, $V_{OUT} = 3.3V$			4	16	mV/A	19.5
ENABLE								
$V_{EN(rising)}$	Enable rising threshold (turn-on)			0.575	0.605	0.625	V	13.1, 13.4, 13.7, 13.1, 13.13, 13.16, 13.19
$V_{EN(falling)}$	Enable falling threshold (turn-off)			0.475	0.5	0.52	V	13.2, 13.5, 13.8, 13.11, 13.14, 13.17, 13.2
$t_{EN(delay)}$	EN propogation delay	EN high to $V_{OUT} = 10mV$			50	150	µs	13.24, 13.25, 13.26, 13.27, 13.28, 13.29, 13.3, 13.31, 13.32, 13.33
$I_{EN(LKG)}$	Enable leakage current	$V_{EN} = 7V$			1	30	nA	13.22, 13.23
T_{SD}	Thermal shutdown enter temperature				160		°C	
T_{SD}	Thermal shutdown exit temperature				130		°C	
POWER GOOD								
V_{PG_RISE}	Power good rising as percent of V_{OUT}			93%	95%	97%		14.1, 14.4, 14.7, 14.1, 14.13, 14.16

Parameter		Test Conditions		MIN	TYP	MAX	UNIT	Test Number
V_{PG_FALL}	Power good falling as percent of V_{OUT}			88.5%	91.5%	94%		14.2, 14.5, 14.8, 14.11, 14.14, 14.17
$V_{PG(OL)}$	Power good output low	$I_{PG(SINK)}$ = 2mA			90	190	mV	14.19, 14.2
$V_{IN(MIN\_PG)}$	Minimum V_{IN} for valid PG (V_{PG} < 0.5V)	$I_{PG(SINK)}$ = 0.5mA			0.6	0.8	V	14.21
$I_{PG(LKG)}$	Power good leakage	V_{PG} = 7V, V_{FB} = 0.7V			0.05	2	µA	14.22, 14.23
SOFT START								
I_{SS}	Soft-start current			1.4	2	2.7	µA	20.1, 20.2
t_{SS}	Soft-start time	V_{IN} = 5V, V_{OUT} = 3.3V, measured from V_{OUT} = 10mV to PG assert	C_{SS} = 1nF	0.22	0.35	0.48	ms	20.3
			C_{SS} = 3nF	5.5	10	14.5		20.4
STABILITY								
GM	Gain Margin	V_{IN} = 5V, V_{OUT} = 3.3V, I_{OUT} = 1A, C_{OUT} = 47µF, T_A = 25℃			24		dB	
PM	Phase Margin	V_{IN} = 5V, V_{OUT} = 3.3V, I_{OUT} = 1A, C_{OUT} = 47µF, T_A = 25 ℃			60º			
NOISE AND PSRR								
PSRR	Power-supply rejection ratio	V_{IN} = 5V, V_{OUT} = 3.3V, I_{OUT} = 1A, C_{SS} = 5.6nF	f_{ripple} = 100Hz		68		dB	
			f_{ripple} = 1kHz		72			
			f_{ripple} = 10kHz		51			
			f_{ripple} = 100kHz		40			
			f_{ripple} = 1MHz		34			
V_N	Output noise voltage (Bandwidth from 10Hz to 100kHz)	V_{IN} = 5V, V_{OUT} = 3.3V, I_{OUT} = 1A, C_{SS} = 5.6nF			50		µV$_{RMS}$	

4 Applicable and Reference Documents

4.1 Applicable Documents

- Texas Instruments, *TPS7H1121-SP 2.25 V to 14-V Input, 2-A, Radiation Hardened LDO Regulator*, data sheet.
- Texas Instruments, *TPS7H1121EVM-CVAL Evaluation Module (EVM)*, EVM user's guide.
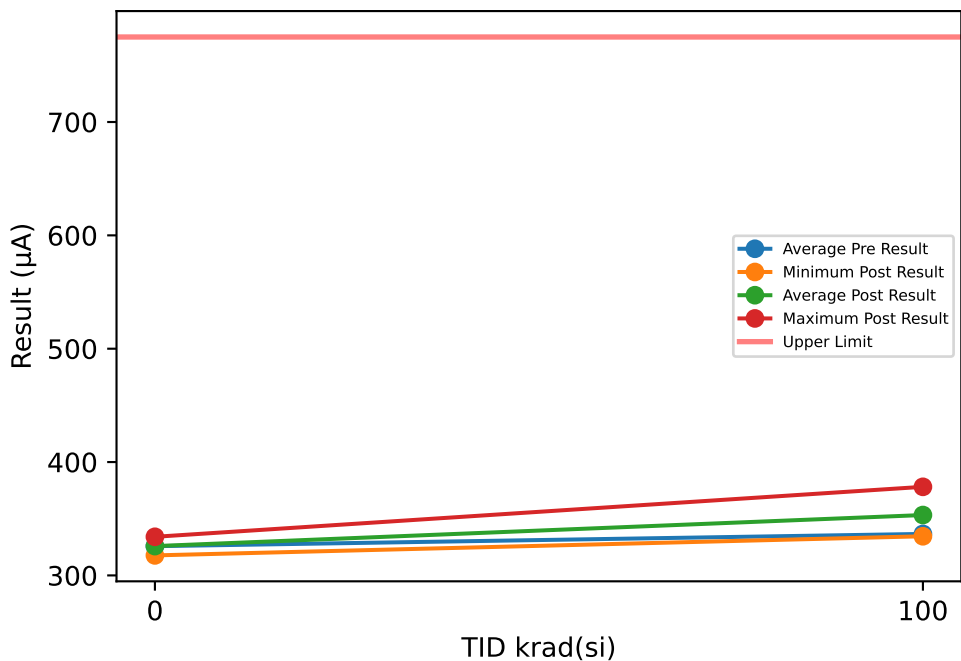
4.2 Reference Documents

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

A Appendix: HDR TID Report Data

This appendix contains the HDR TID report data.

# Device Test: 11.1 WKTKGT_2(ISHDN|SUPPLY/IN/2.25//0/0//@I_SHDN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 775.0 (μA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	319.42	334.53	15.107
34	100	HDR unbiased	333.85	348.5	14.65
35	100	HDR unbiased	331.39	350.21	18.819
37	100	HDR unbiased	350.63	369.29	18.664
38	100	HDR unbiased	319.89	337.52	17.636
72	0	correlation	317.43	317.65	0.2235
73	0	correlation	334.12	334.06	-0.0601
156	100	HDR biased	344.97	358.92	13.953
157	100	HDR biased	325.59	337.44	11.846
158	100	HDR biased	326.08	340.08	14.001
159	100	HDR biased	357.69	377.97	20.287
160	100	HDR biased	356.46	378.14	21.686

Test Statistics (μA)
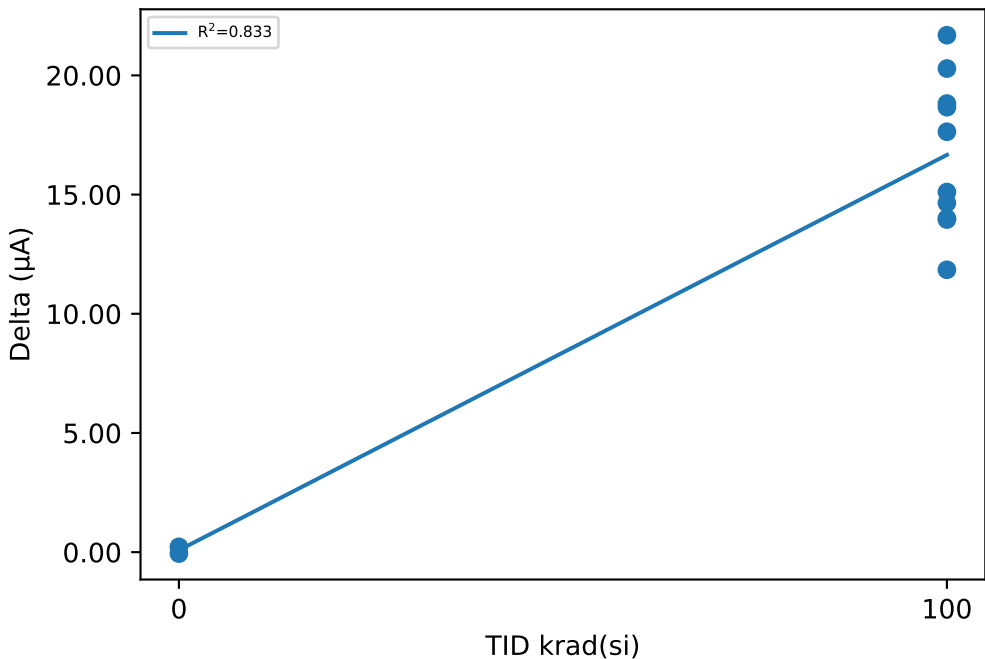
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	317.43	325.78	334.12	11.803	317.65	325.86	334.06	11.602	-0.0601	0.0817	0.2235	0.20054
100	319.42	336.6	357.69	14.707	334.53	353.26	378.14	16.91	11.846	16.665	21.686	3.1986

Device Test: 11.12 WKRVKH_2(IQ|SUPPLY/IN/5/3.3/7/0//@I_Q)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 15.0 (mA))

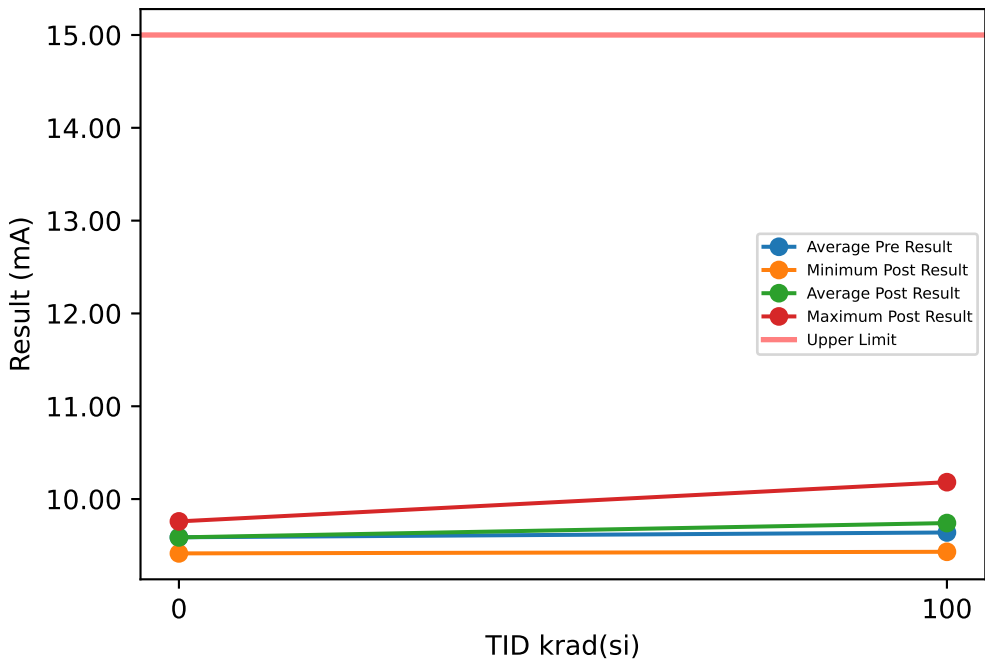| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	9.4694	9.5793	0.1099
34	100	HDR unbiased	9.7238	9.7332	0.0094
35	100	HDR unbiased	9.5816	9.528	-0.0536
37	100	HDR unbiased	9.9877	9.8753	-0.1124
38	100	HDR unbiased	9.3315	9.539	0.2075
72	0	correlation	9.7614	9.7595	-0.0019
73	0	correlation	9.415	9.4147	-0.0003
156	100	HDR biased	9.9038	10.182	0.2782
157	100	HDR biased	9.7351	9.752	0.0169
158	100	HDR biased	9.2618	9.6846	0.4228
159	100	HDR biased	9.3253	9.432	0.1067
160	100	HDR biased	10.081	10.11	0.0293

Test Statistics (mA)
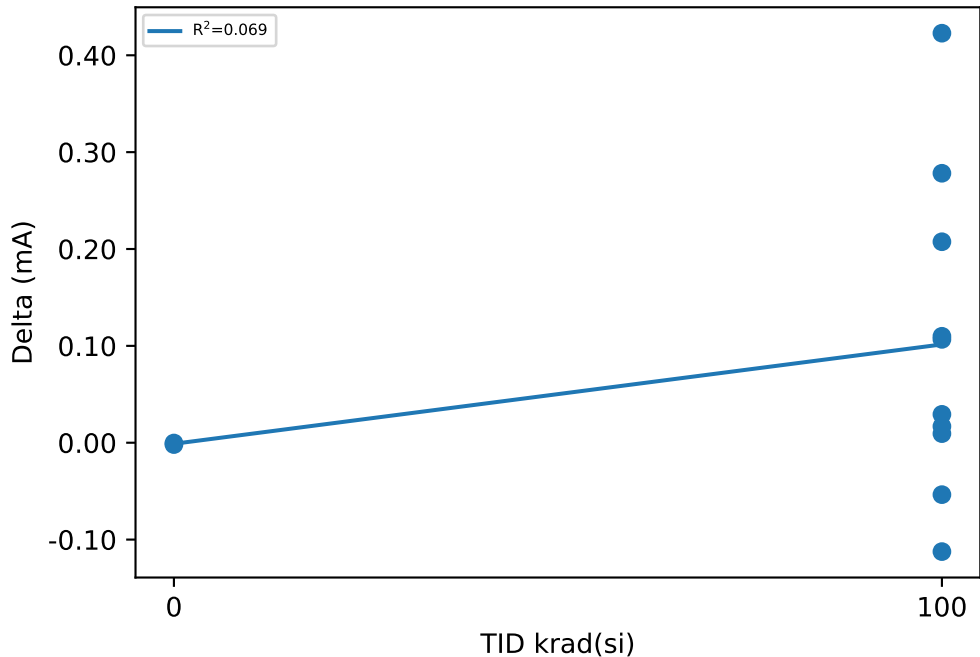
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	9.415	9.5882	9.7614	0.24494	9.4147	9.5871	9.7595	0.24381	-0.0019	-0.0011	-0.0003	0.0011314
100	9.2618	9.6401	10.081	0.29258	9.432	9.7415	10.182	0.24939	-0.1124	0.10147	0.4228	0.16209

Device Test: 11.13 PTV5EE_1(IGND|SUPPLY/IN/2.25/1.1/7/1000//@I_GND_1A)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 18.0 (mA))

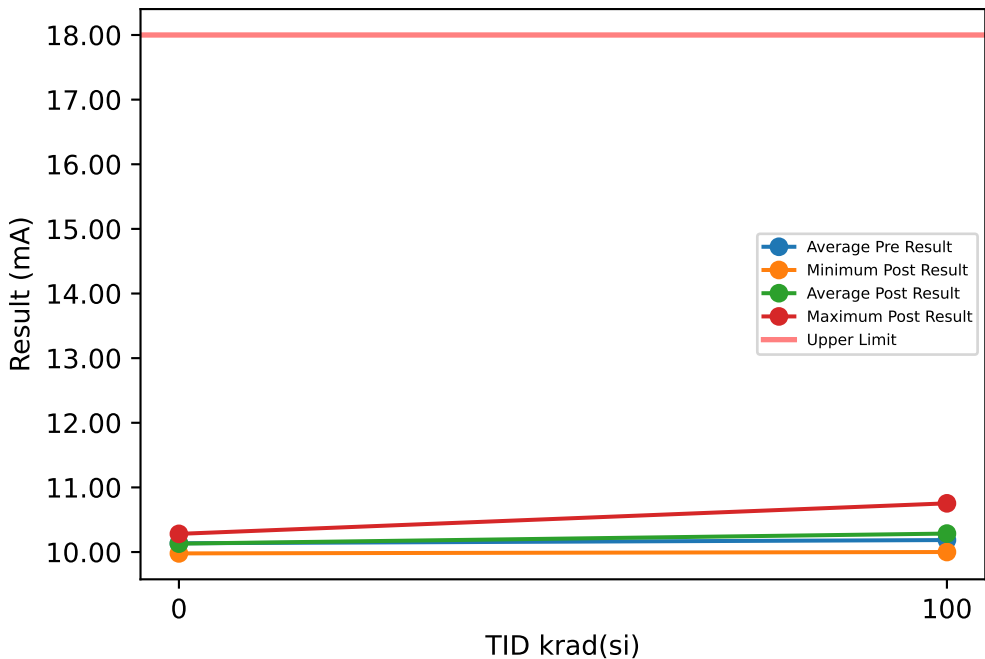| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	10.04	10.124	0.0841
34	100	HDR unbiased	10.157	10.357	0.2003
35	100	HDR unbiased	10.009	10.016	0.0066
37	100	HDR unbiased	10.497	10.457	-0.0398
38	100	HDR unbiased	9.8699	10.001	0.1306
72	0	correlation	10.259	10.281	0.0217
73	0	correlation	10.012	9.9791	-0.0325
156	100	HDR biased	10.538	10.754	0.2154
157	100	HDR biased	10.306	10.297	-0.0093
158	100	HDR biased	9.8645	10.281	0.4167
159	100	HDR biased	9.9729	10.018	0.045
160	100	HDR biased	10.6	10.552	-0.048

Test Statistics (mA)
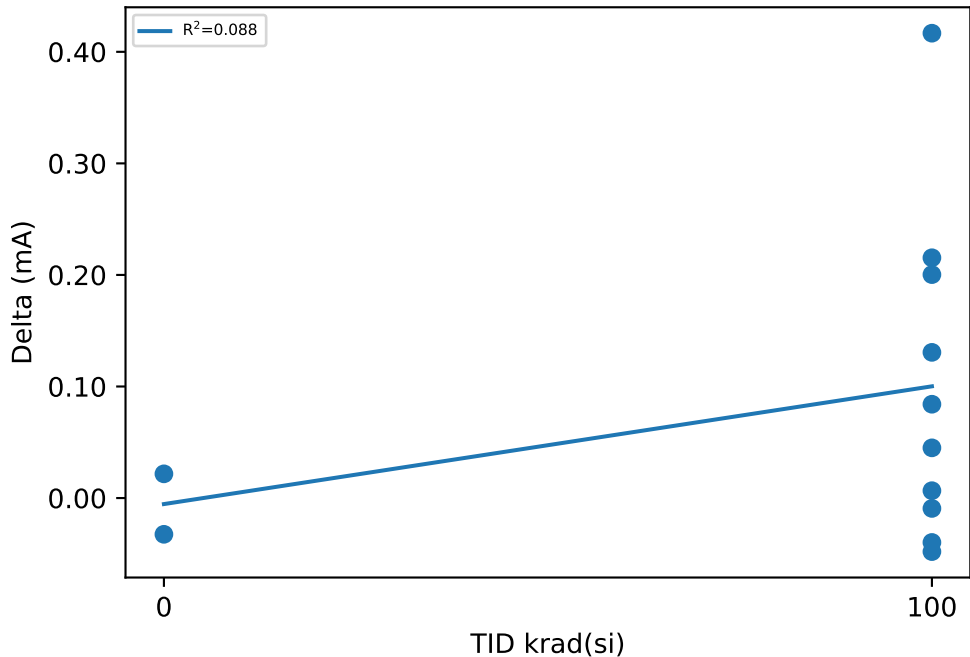
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	10.012	10.136	10.259	0.17529	9.9791	10.13	10.281	0.21362	-0.0325	-0.0054	0.0217	0.038325
100	9.8645	10.186	10.6	0.28068	10.001	10.286	10.754	0.25312	-0.048	0.10016	0.4167	0.1453

Device Test: 11.14 PTV5EE_1(IGND|SUPPLY/IN/3/2.25/7/1000//@I_GND_1A)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 18.0 (mA))

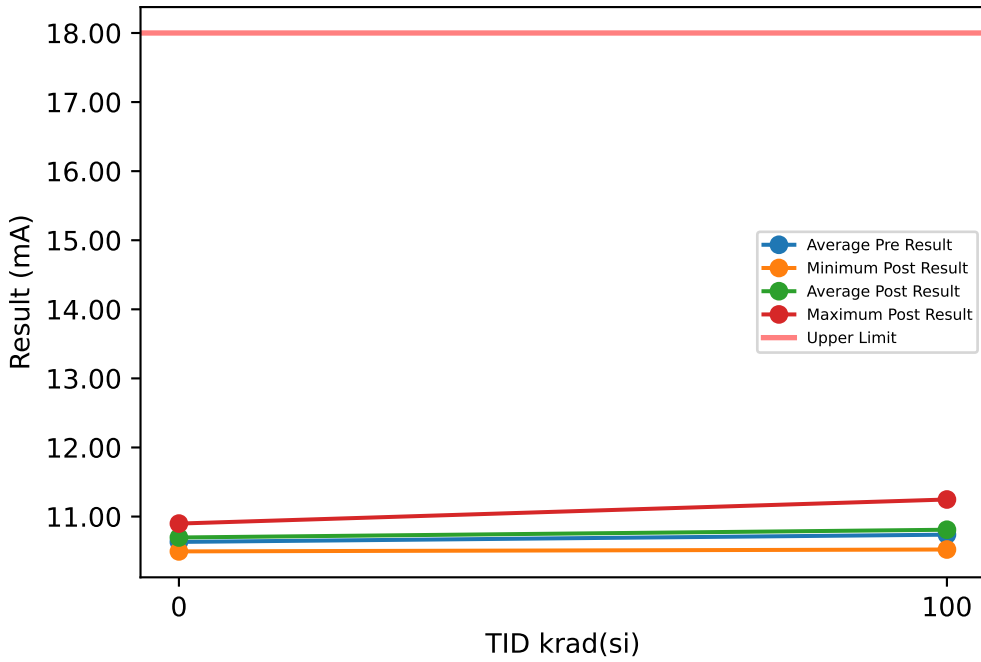| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	10.68	10.732	0.0522
34	100	HDR unbiased	10.812	10.748	-0.064
35	100	HDR unbiased	10.634	10.523	-0.1105
37	100	HDR unbiased	11.098	10.98	-0.1183
38	100	HDR unbiased	10.44	10.531	0.0909
72	0	correlation	10.811	10.899	0.0875
73	0	correlation	10.455	10.496	0.041
156	100	HDR biased	10.912	11.247	0.3353
157	100	HDR biased	10.881	10.813	-0.0674
158	100	HDR biased	10.362	10.821	0.4592
159	100	HDR biased	10.431	10.635	0.2036
160	100	HDR biased	11.129	11.061	-0.0675

Test Statistics (mA)
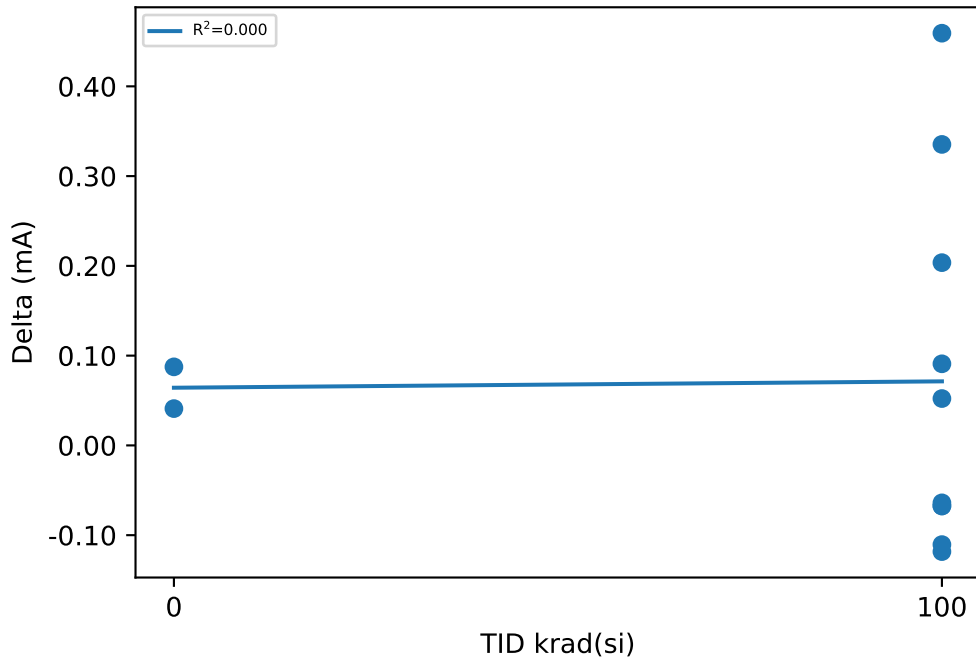
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	10.455	10.633	10.811	0.25194	10.496	10.697	10.899	0.28482	0.041	0.06425	0.0875	0.03288
100	10.362	10.738	11.129	0.27426	10.523	10.809	11.247	0.23185	-0.1183	0.07135	0.4592	0.20117

Device Test: 11.15 WKWQ20_1(IGND|SUPPLY/IN/3/2.25/7/2000//@I_GND_2A)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 20.0 (mA))

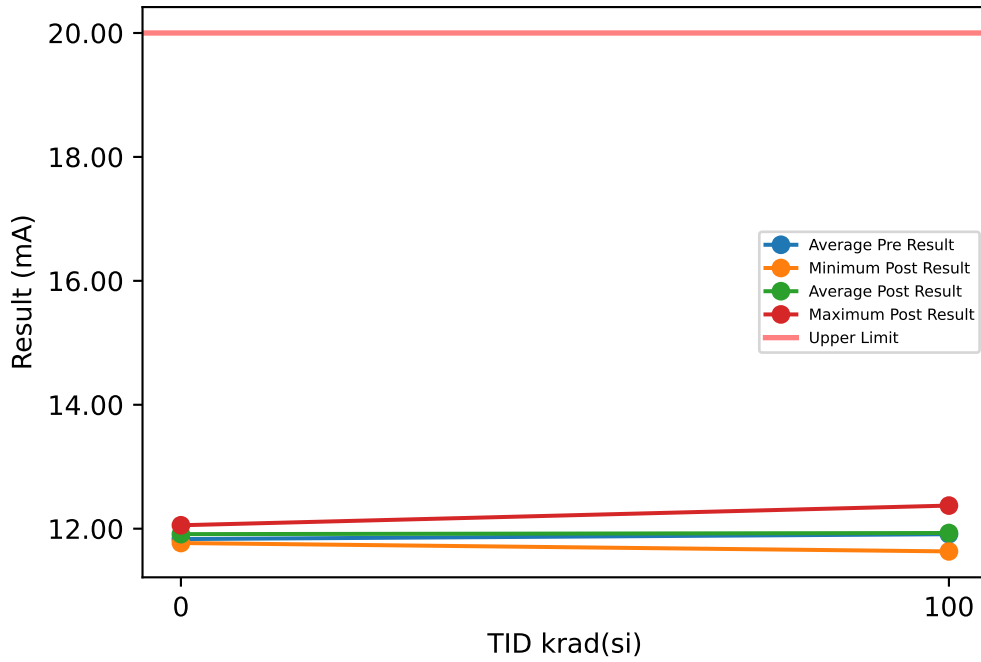| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	11.744	11.905	0.1606
34	100	HDR unbiased	11.899	11.881	-0.0175
35	100	HDR unbiased	11.76	11.633	-0.126
37	100	HDR unbiased	12.325	12.199	-0.126
38	100	HDR unbiased	11.543	11.726	0.1838
72	0	correlation	11.968	12.055	0.0875
73	0	correlation	11.697	11.769	0.072
156	100	HDR biased	12.278	12.373	0.0953
157	100	HDR biased	12.154	11.916	-0.2378
158	100	HDR biased	11.526	11.854	0.3276
159	100	HDR biased	11.55	11.676	0.1262
160	100	HDR biased	12.332	12.14	-0.1914

Test Statistics (mA)
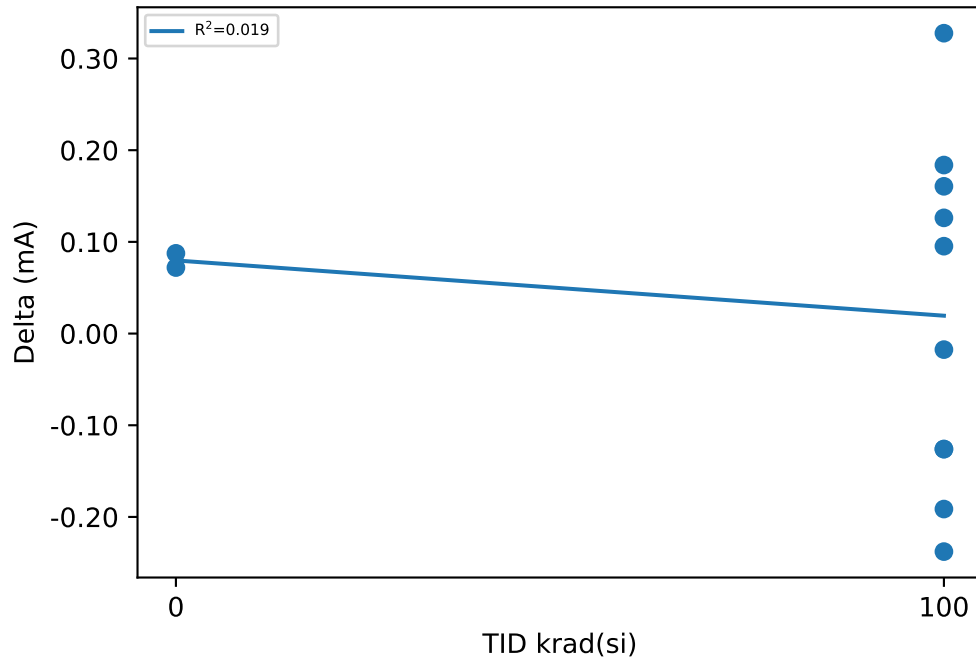
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	11.697	11.832	11.968	0.1917	11.769	11.912	12.055	0.20266	0.072	0.07975	0.0875	0.01096
100	11.526	11.911	12.332	0.33451	11.633	11.93	12.373	0.23939	-0.2378	0.01948	0.3276	0.18659

Device Test: 11.16 WKWQ20_1(IGND|SUPPLY/IN/5/3.3/7/2000//@I_GND_2A)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 20.0 (mA))

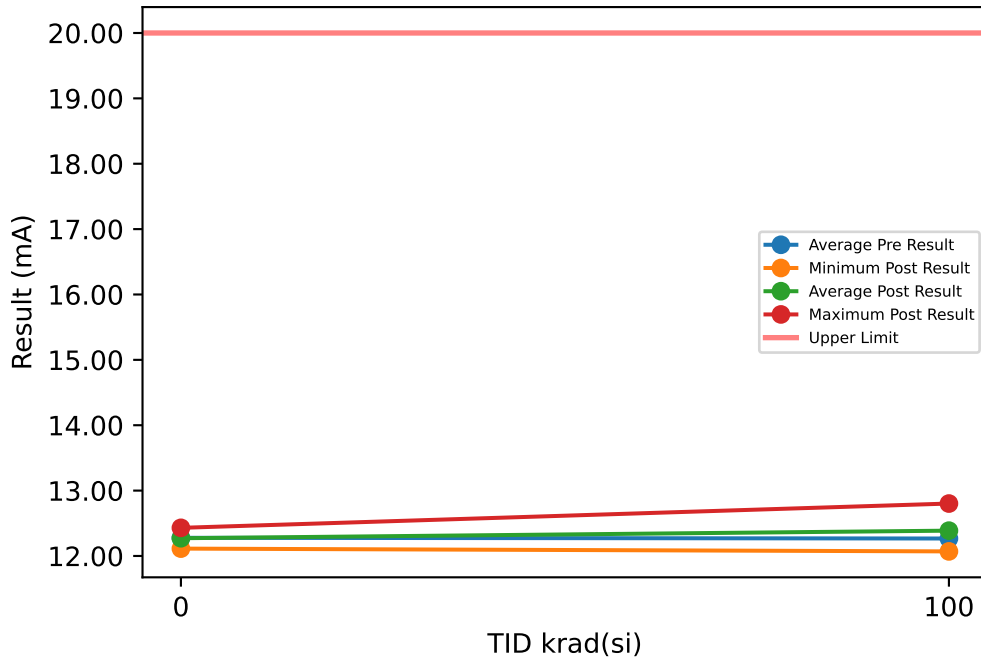| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	12.194	12.302	0.1088
34	100	HDR unbiased	12.325	12.45	0.1244
35	100	HDR unbiased	12.162	12.07	-0.0926
37	100	HDR unbiased	12.666	12.535	-0.1312
38	100	HDR unbiased	11.775	12.116	0.3412
72	0	correlation	12.499	12.43	-0.0684
73	0	correlation	12.057	12.113	0.0555
156	100	HDR biased	12.646	12.802	0.1561
157	100	HDR biased	12.429	12.422	-0.0065
158	100	HDR biased	11.918	12.399	0.4815
159	100	HDR biased	11.918	12.144	0.2259
160	100	HDR biased	12.638	12.632	-0.0065

Test Statistics (mA)
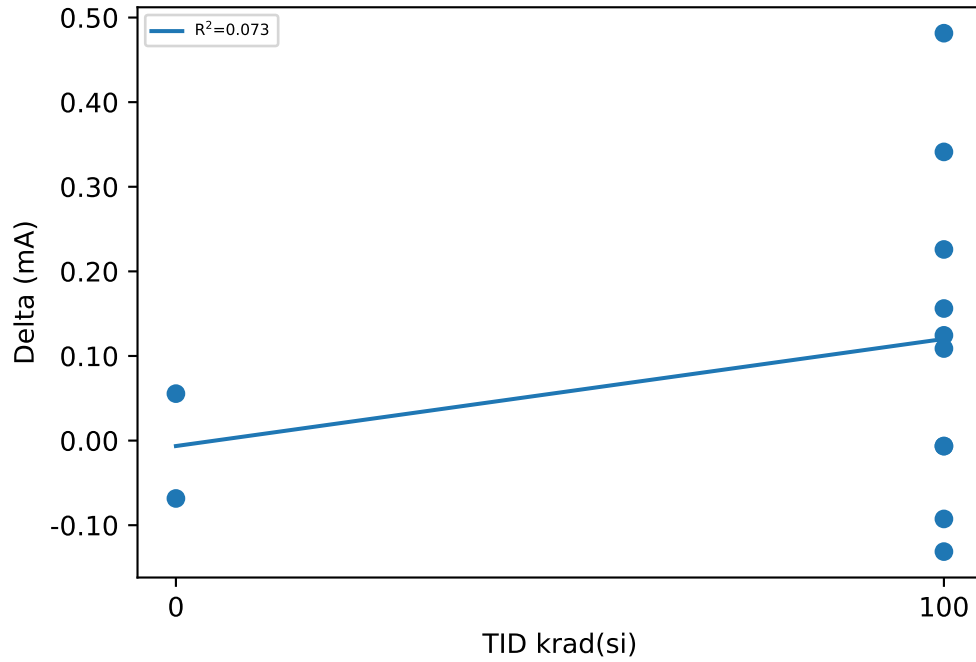
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	12.057	12.278	12.499	0.31219	12.113	12.271	12.43	0.22458	-0.0684	-0.00645	0.0555	0.087611
100	11.775	12.267	12.666	0.32864	12.07	12.387	12.802	0.23552	-0.1312	0.12011	0.4815	0.19223

Device Test: 11.17 WKWQ20_1(IGND|SUPPLY/IN/14/13.3/7/2000//@I_GND_2A)

TID vs Result Stats

Legend:
- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Upper Limit

Y-axis: Result (mA); X-axis: TID krad(si)

TID vs Post - Pre Exposure Delta

$R^2=0.031$

Y-axis: Delta (mA); X-axis: TID krad(si)

Test Results (Upper Limit = 20.0 (mA))

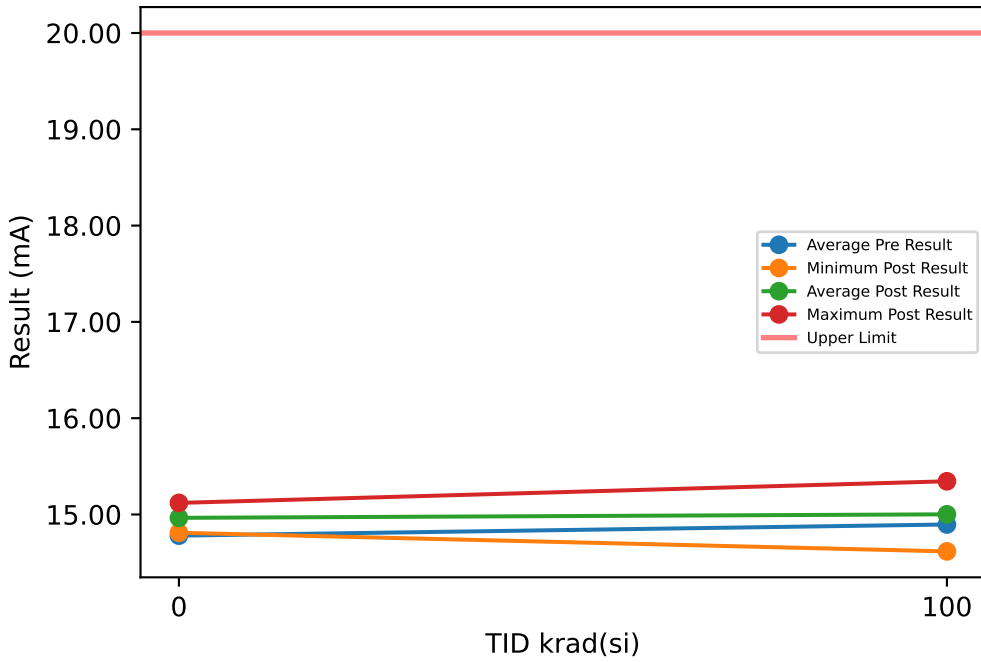| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	14.756	15.014	0.2586
34	100	HDR unbiased	14.895	15.069	0.1734
35	100	HDR unbiased	14.833	14.782	-0.0513
37	100	HDR unbiased	15.306	15.231	-0.0744
38	100	HDR unbiased	14.493	14.829	0.336
72	0	correlation	14.904	15.12	0.2159
73	0	correlation	14.656	14.81	0.154
156	100	HDR biased	15.183	15.345	0.1617
157	100	HDR biased	15.129	14.95	-0.1791
158	100	HDR biased	14.54	14.942	0.4019
159	100	HDR biased	14.61	14.617	0.0067
160	100	HDR biased	15.214	15.236	0.0223

Test Statistics (mA)
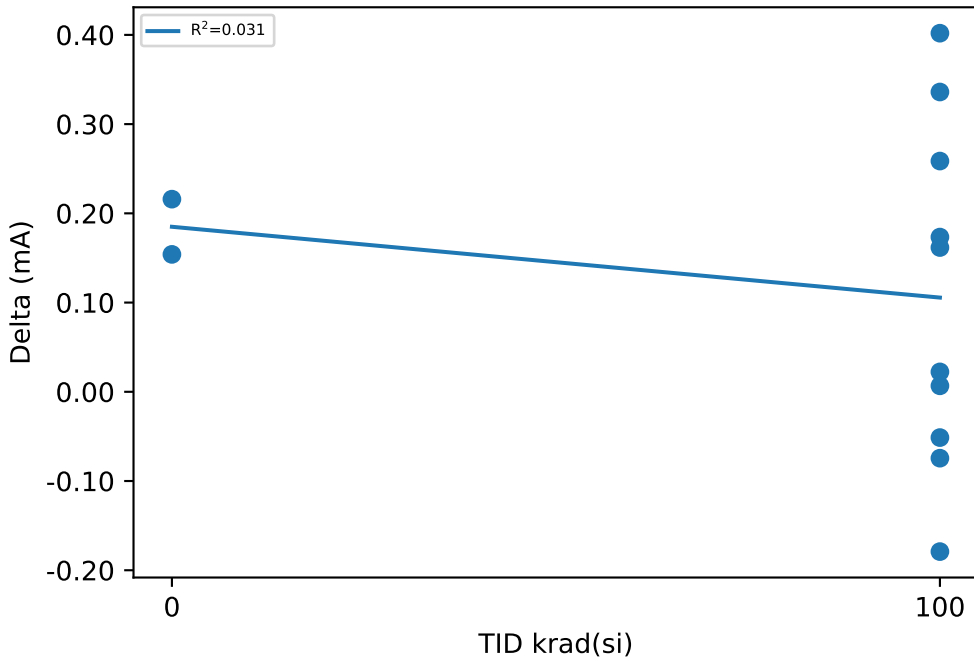
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	14.656	14.78	14.904	0.17529	14.81	14.965	15.12	0.21906	0.154	0.18495	0.2159	0.04377
100	14.493	14.896	15.306	0.29822	14.617	15.001	15.345	0.22678	-0.1791	0.10558	0.4019	0.19056

Device Test: 11.2 WKTKGT_2(ISHDN|SUPPLY/IN/3.3//0/0//@I_SHDN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 775.0 (μA))

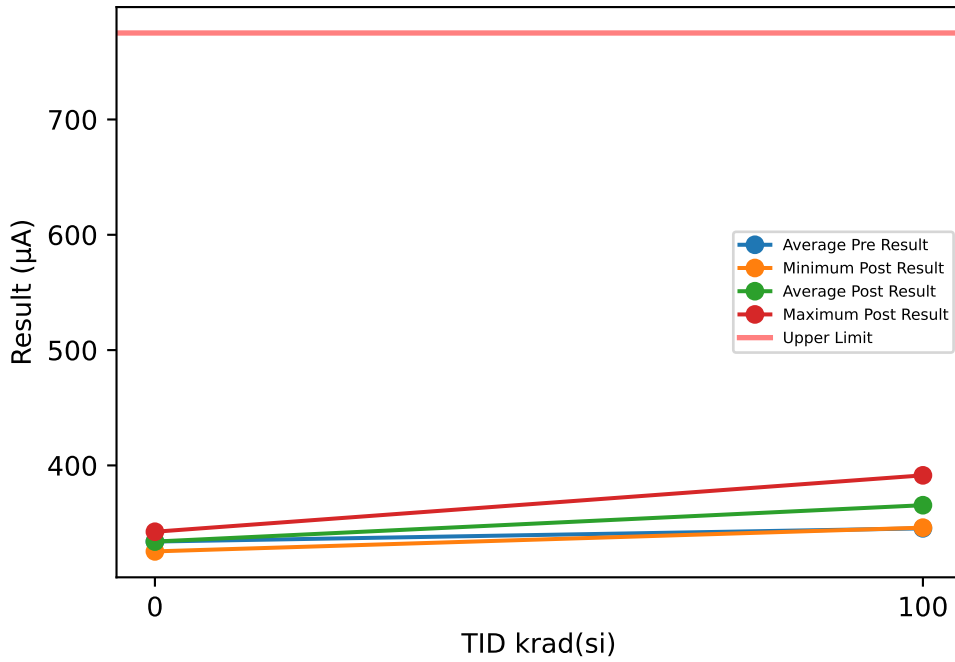| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	327.74	346.03	18.293
34	100	HDR unbiased	342.5	359.72	17.221
35	100	HDR unbiased	340.09	361.79	21.698
37	100	HDR unbiased	358.92	380.33	21.415
38	100	HDR unbiased	327.31	346.92	19.608
72	0	correlation	325.38	325.43	0.0556
73	0	correlation	342.55	342.48	-0.0651
156	100	HDR biased	354.57	373.07	18.499
157	100	HDR biased	335.25	350.78	15.536
158	100	HDR biased	335.86	354.33	18.467
159	100	HDR biased	366.88	391.39	24.505
160	100	HDR biased	364.92	390.49	25.574

Test Statistics (μA)
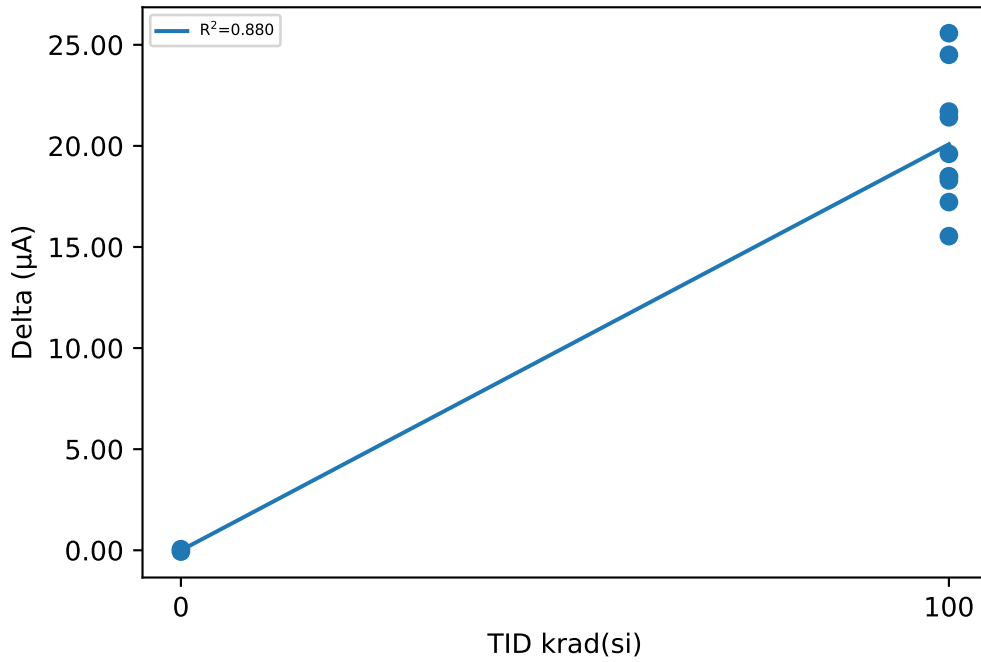
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	325.38	333.96	342.55	12.139	325.43	333.96	342.48	12.054	-0.0651	-0.00475	0.0556	0.085348
100	327.31	345.4	366.88	14.828	346.03	365.48	391.39	17.272	15.536	20.082	25.574	3.1887

Device Test: 11.3 WKTKGT_2(ISHDN|SUPPLY/IN/5//0/0//@I_SHDN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 775.0 (µA))

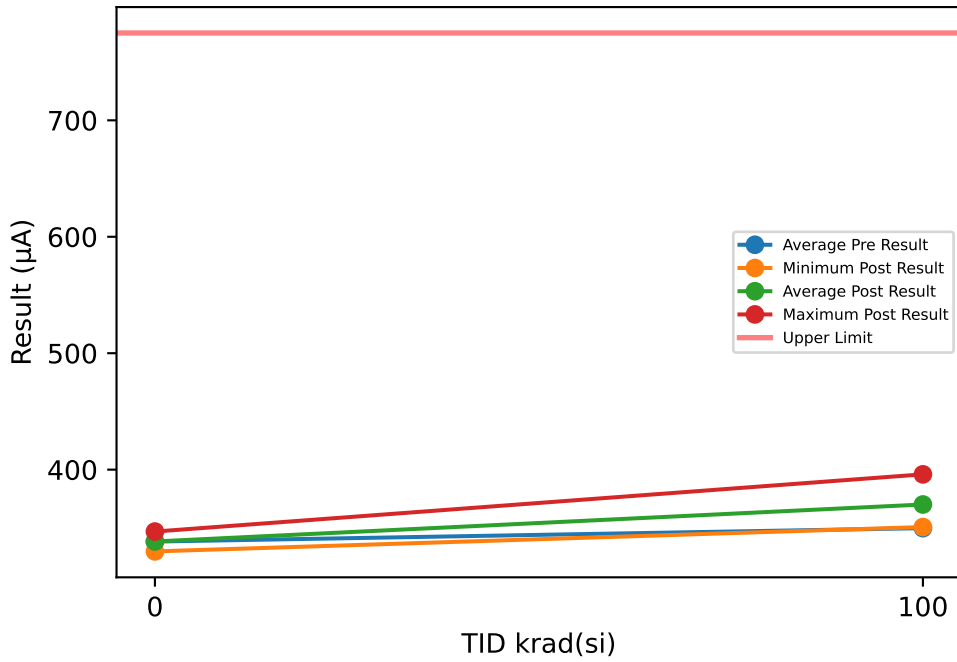| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	332.14	350.71	18.573
34	100	HDR unbiased	346.95	364.41	17.459
35	100	HDR unbiased	344.4	366.34	21.931
37	100	HDR unbiased	363.19	385.09	21.902
38	100	HDR unbiased	331.62	351.61	19.988
72	0	correlation	329.53	329.79	0.2655
73	0	correlation	346.93	346.83	-0.0953
156	100	HDR biased	358.85	377.4	18.55
157	100	HDR biased	339.44	355.4	15.958
158	100	HDR biased	340.1	358.97	18.863
159	100	HDR biased	371.39	395.97	24.576
160	100	HDR biased	369.48	394.87	25.387

Test Statistics (µA)
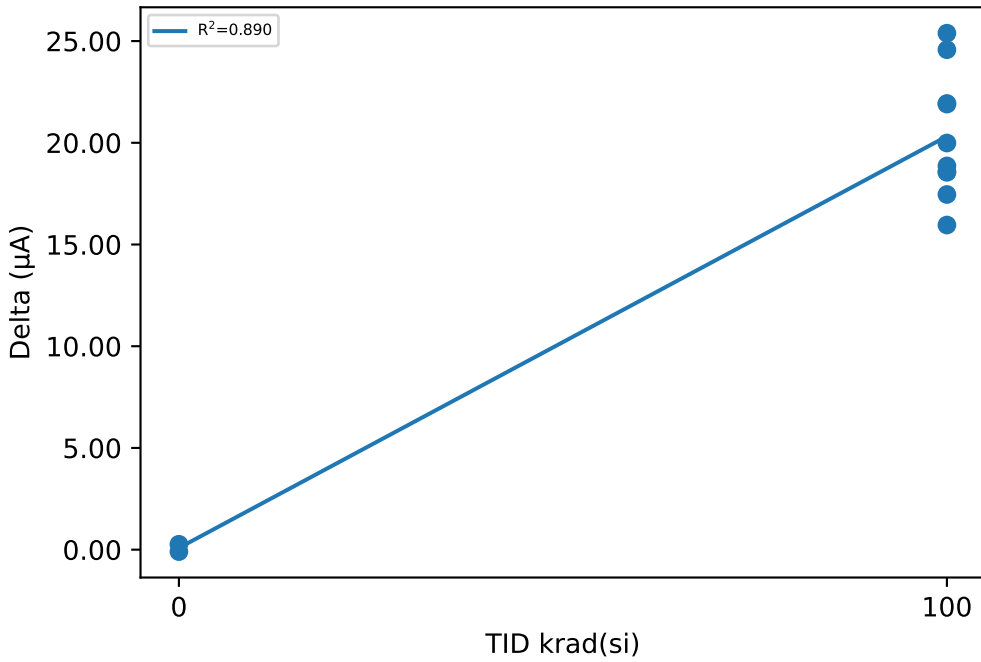
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	329.53	338.23	346.93	12.305	329.79	338.31	346.83	12.05	-0.0953	0.0851	0.2655	0.25512
100	331.62	349.76	371.39	14.892	350.71	370.08	395.97	17.209	15.958	20.319	25.387	3.0645

Device Test: 11.4 WKTKGT_2(ISHDN|SUPPLY/IN/7//0/0//@I_SHDN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 775.0 (µA))

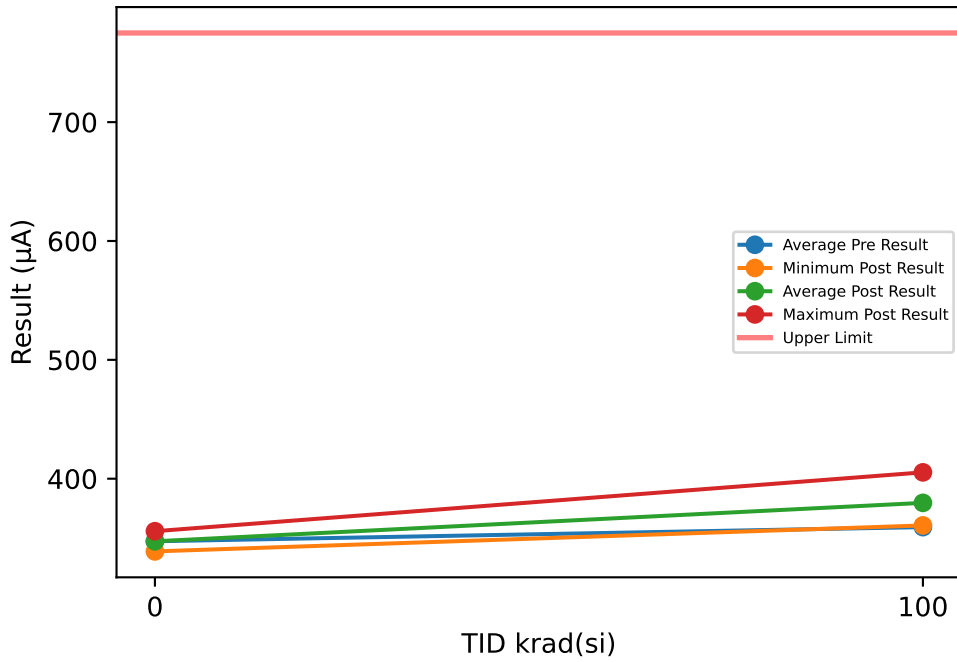| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	341.78	360.68	18.896
34	100	HDR unbiased	356.45	373.96	17.512
35	100	HDR unbiased	353.73	375.59	21.861
37	100	HDR unbiased	372.78	395.05	22.269
38	100	HDR unbiased	341.22	361.1	19.881
72	0	correlation	338.75	338.84	0.0851
73	0	correlation	355.98	355.82	-0.1518
156	100	HDR biased	368.23	386.72	18.488
157	100	HDR biased	348.95	364.86	15.92
158	100	HDR biased	349.39	368.64	19.249
159	100	HDR biased	381.02	405.33	24.317
160	100	HDR biased	379.07	404.78	25.709

Test Statistics (µA)
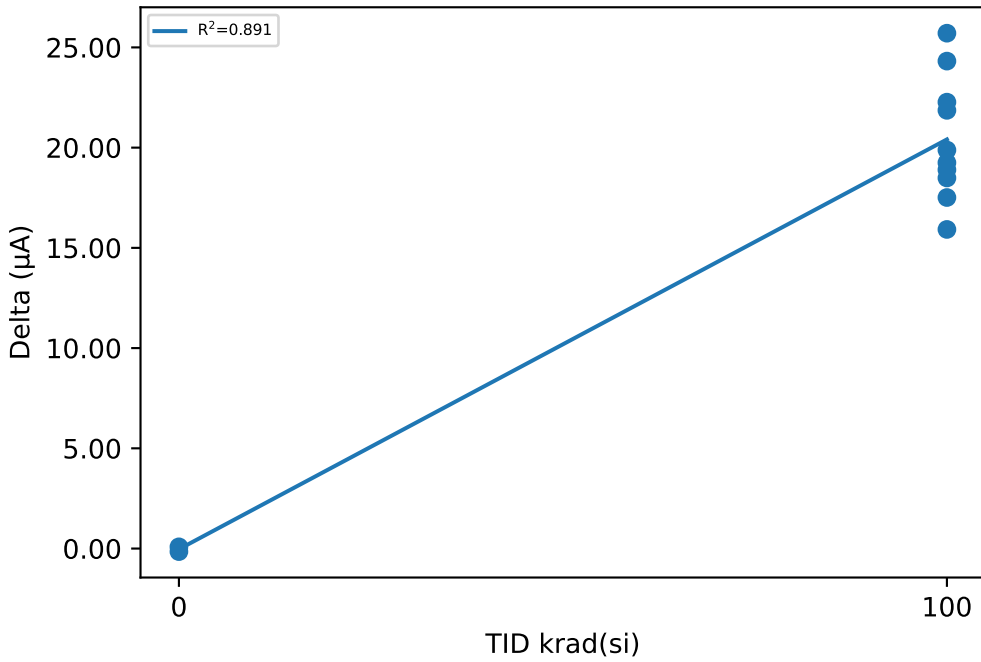
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	338.75	347.36	355.98	12.179	338.84	347.33	355.82	12.012	-0.1518	-0.03335	0.0851	0.16751
100	341.22	359.26	381.02	14.916	360.68	379.67	405.33	17.227	15.92	20.41	25.709	3.0745

Device Test: 11.5 WKTKGT_2(ISHDN|SUPPLY/IN/12//0/0//@I_SHDN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 775.0 (µA))

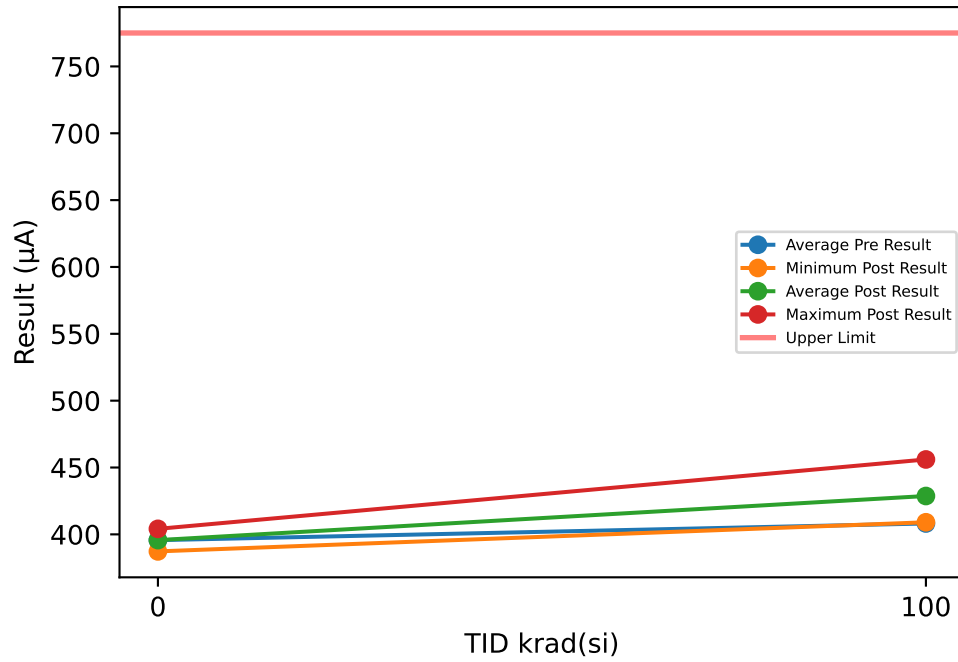| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	390.59	409.35	18.761
34	100	HDR unbiased	405.45	423.11	17.664
35	100	HDR unbiased	401.95	423.51	21.558
37	100	HDR unbiased	422.01	444.13	22.119
38	100	HDR unbiased	389.29	409.05	19.761
72	0	correlation	387.07	387.26	0.1876
73	0	correlation	404.24	404.12	-0.1222
156	100	HDR biased	416.85	435.83	18.983
157	100	HDR biased	397.45	413.82	16.369
158	100	HDR biased	397.25	416.59	19.34
159	100	HDR biased	431.19	456.02	24.829
160	100	HDR biased	429.29	455.49	26.207

Test Statistics (µA)
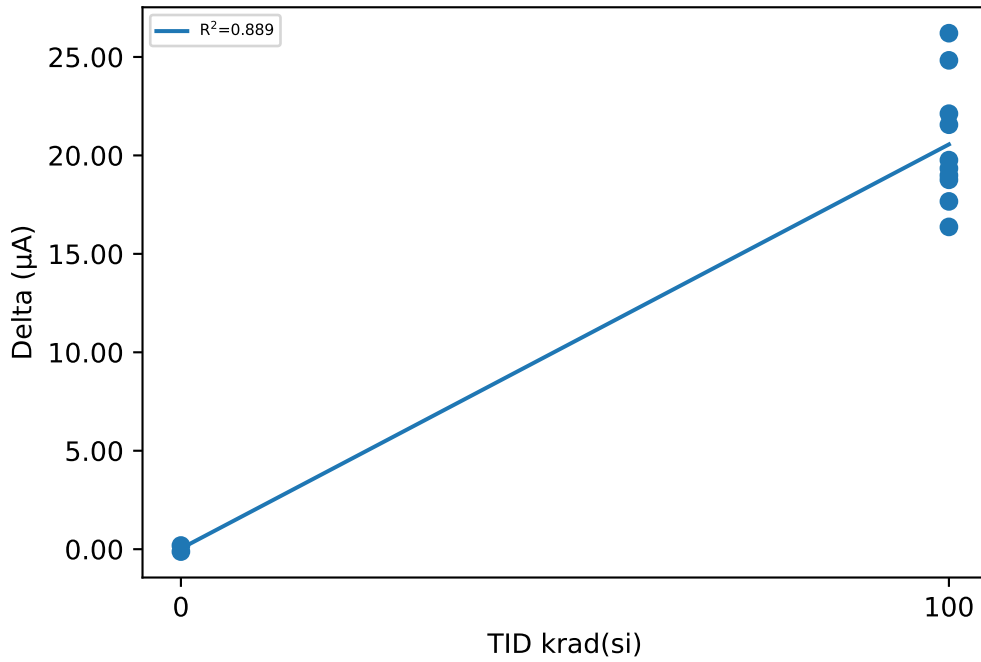
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	387.07	395.66	404.24	12.142	387.26	395.69	404.12	11.923	-0.1222	0.0327	0.1876	0.21906
100	389.29	408.13	431.19	15.595	409.05	428.69	456.02	18.075	16.369	20.559	26.207	3.1152

Device Test: 11.6 WKTKGT_2(ISHDN|SUPPLY/IN/14//0/0//@I_SHDN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 775.0 (µA))

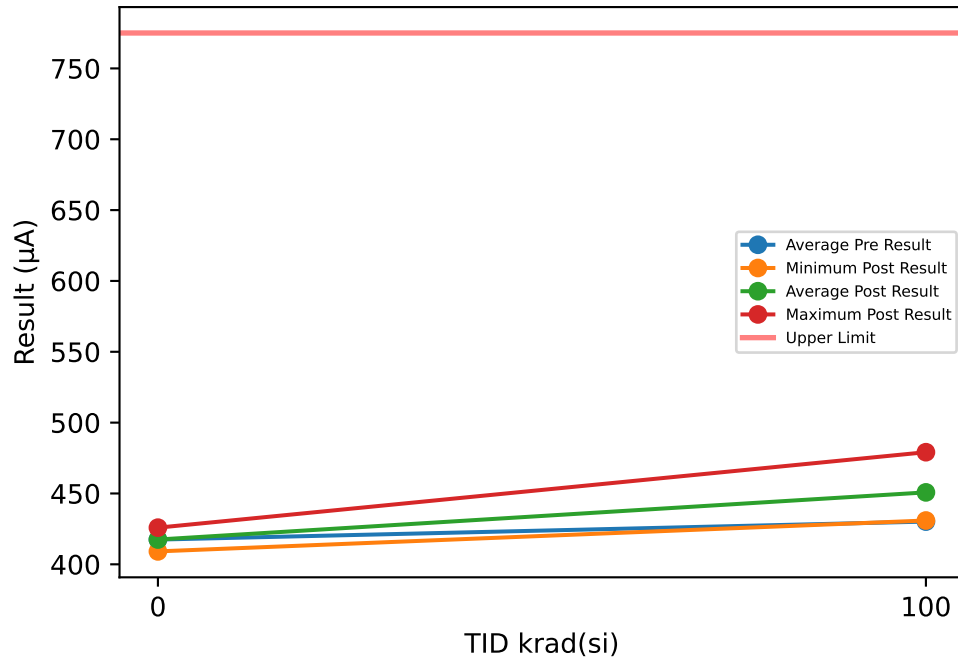| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	412.43	431.3	18.874
34	100	HDR unbiased	427.47	445.15	17.681
35	100	HDR unbiased	423.62	444.81	21.184
37	100	HDR unbiased	444.13	466.27	22.135
38	100	HDR unbiased	410.86	430.92	20.063
72	0	correlation	408.93	409.12	0.184
73	0	correlation	425.96	425.87	-0.0914
156	100	HDR biased	438.86	457.84	18.978
157	100	HDR biased	419.37	435.86	16.493
158	100	HDR biased	418.78	438.05	19.273
159	100	HDR biased	453.96	479.13	25.172
160	100	HDR biased	452.03	478.36	26.333

Test Statistics (µA)
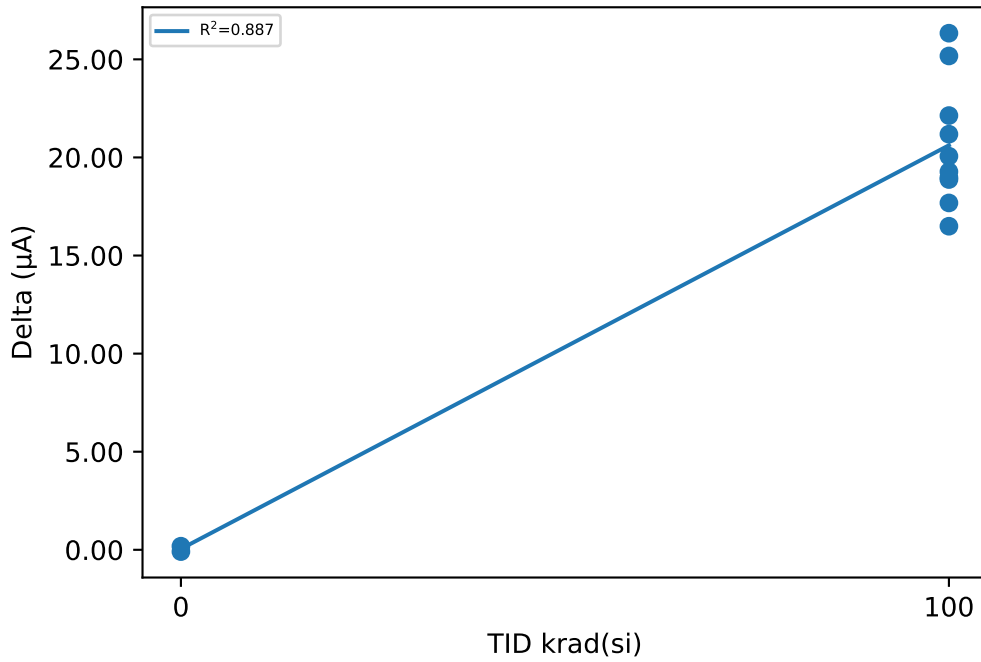
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	408.93	417.44	425.96	12.039	409.12	417.49	425.87	11.844	-0.0914	0.0463	0.184	0.19474
100	410.86	430.15	453.96	15.98	430.92	450.77	479.13	18.498	16.493	20.619	26.333	3.1536

Device Test: 11.7 WKRVKH_2(IQ|SUPPLY/IN/2.25/0.6/7/0//@I_Q)

TID vs Result Stats

Legend:
- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Upper Limit

TID vs Post - Pre Exposure Delta

R²=0.029

Test Results (Upper Limit = 15.0 (mA))

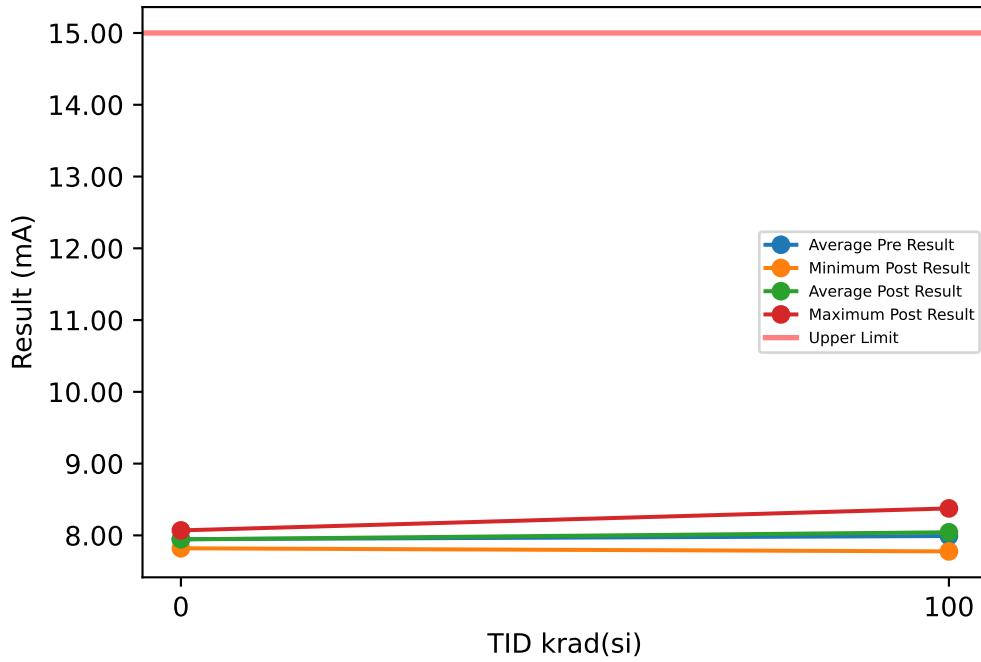| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	7.8435	7.8989	0.0554
34	100	HDR unbiased	8.0754	8.0678	-0.0076
35	100	HDR unbiased	7.9433	7.881	-0.0623
37	100	HDR unbiased	8.2742	8.1563	-0.1179
38	100	HDR unbiased	7.7762	7.9239	0.1477
72	0	correlation	8.0698	8.0695	-0.0003
73	0	correlation	7.823	7.8201	-0.0029
156	100	HDR biased	8.1973	8.3757	0.1784
157	100	HDR biased	8.0772	8.0531	-0.0241
158	100	HDR biased	7.7132	8.0421	0.3289
159	100	HDR biased	7.7218	7.7768	0.055
160	100	HDR biased	8.2863	8.2562	-0.0301

Test Statistics (mA)
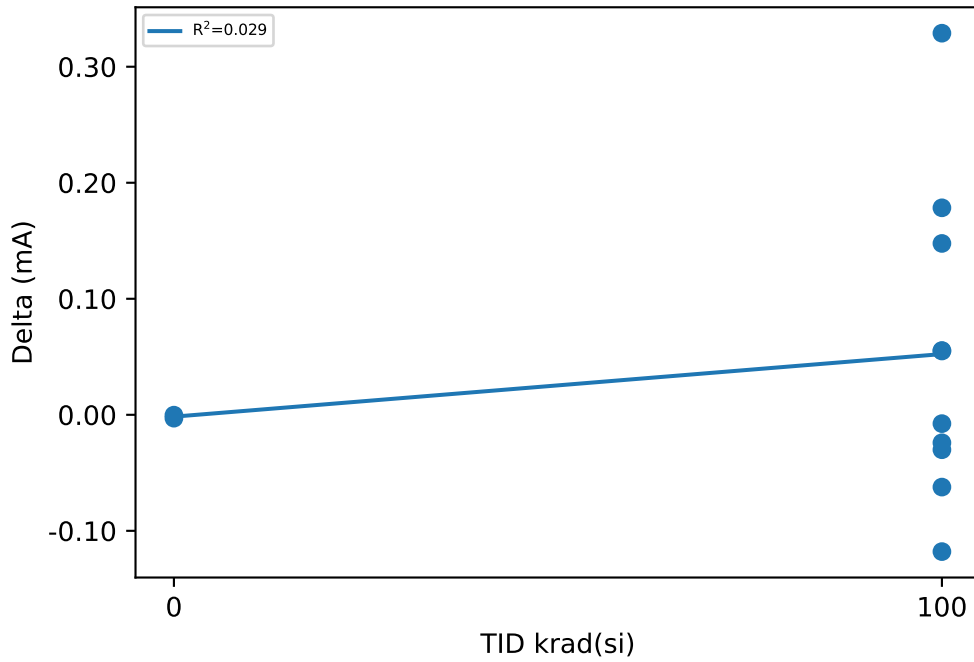
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	7.823	7.9464	8.0698	0.17451	7.8201	7.9448	8.0695	0.17635	-0.0029	-0.0016	-0.0003	0.0018385
100	7.7132	7.9908	8.2863	0.22219	7.7768	8.0432	8.3757	0.18311	-0.1179	0.05234	0.3289	0.13327

Device Test: 11.9 WKRVKH_2(IQ|SUPPLY/IN/14/0.6/7/0//@I_Q)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 15.0 (mA))

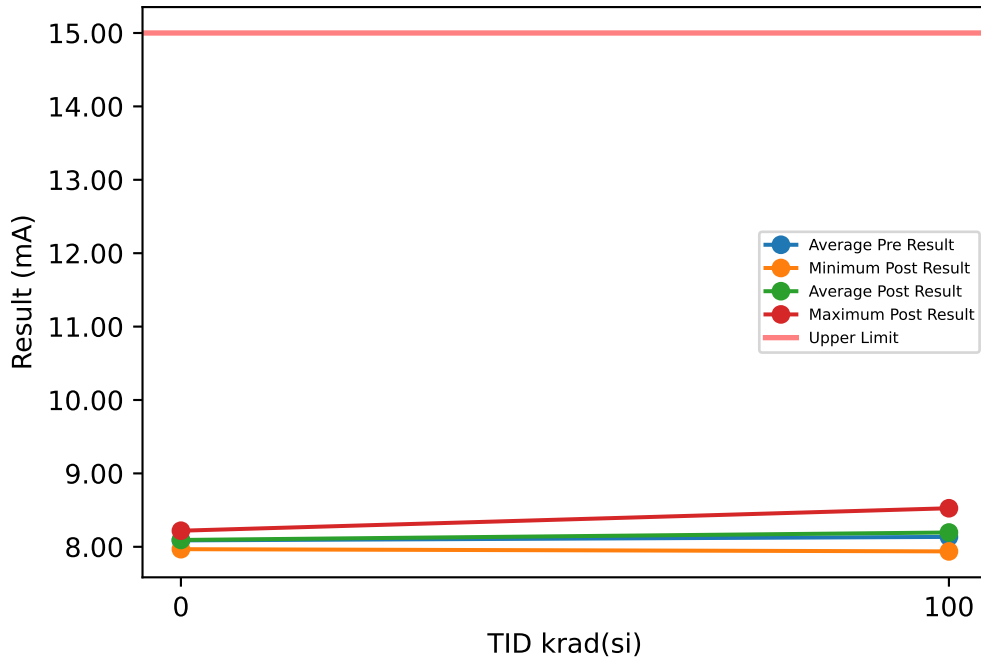| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	7.9858	8.0561	0.0703
34	100	HDR unbiased	8.2217	8.2205	-0.0012
35	100	HDR unbiased	8.0862	8.0299	-0.0563
37	100	HDR unbiased	8.4181	8.31	-0.1081
38	100	HDR unbiased	7.9163	8.07	0.1537
72	0	correlation	8.2138	8.2191	0.0053
73	0	correlation	7.9609	7.9676	0.0067
156	100	HDR biased	8.3458	8.5252	0.1794
157	100	HDR biased	8.2187	8.2036	-0.0151
158	100	HDR biased	7.8591	8.1904	0.3313
159	100	HDR biased	7.8641	7.9374	0.0733
160	100	HDR biased	8.432	8.4064	-0.0256

Test Statistics (mA)
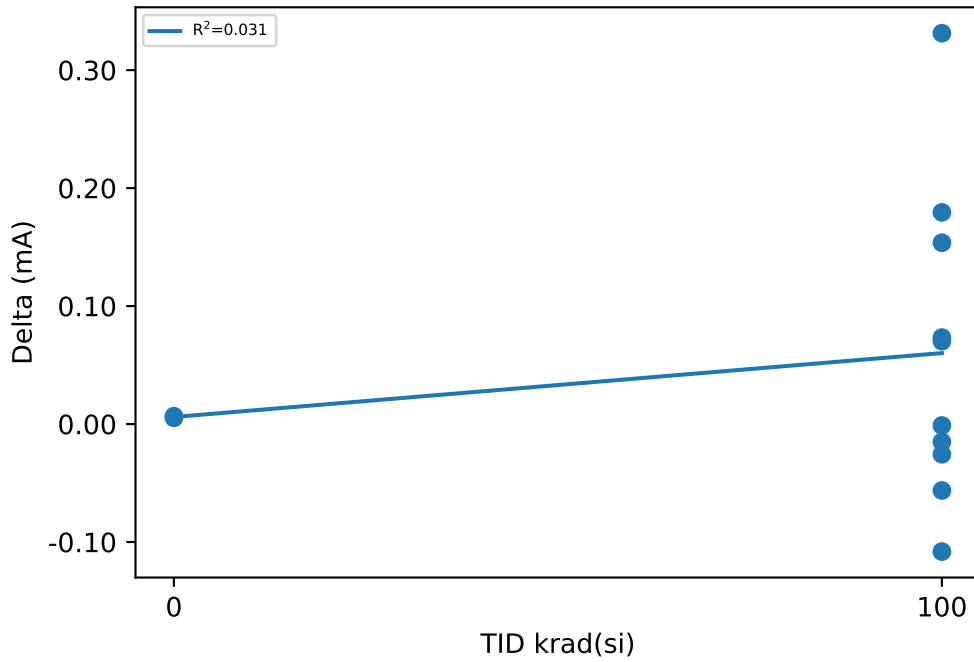
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	7.9609	8.0874	8.2138	0.17883	7.9676	8.0933	8.2191	0.17784	0.0053	0.006	0.0067	0.00098995
100	7.8591	8.1348	8.432	0.22343	7.9374	8.195	8.5252	0.18142	-0.1081	0.06017	0.3313	0.13141

Device Test: 13.1 WKE7RD_1(THRESHOLD|RISE/EN/2.25/0.6//10//@VIH_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.575, Upper Limit = 0.625 (V))

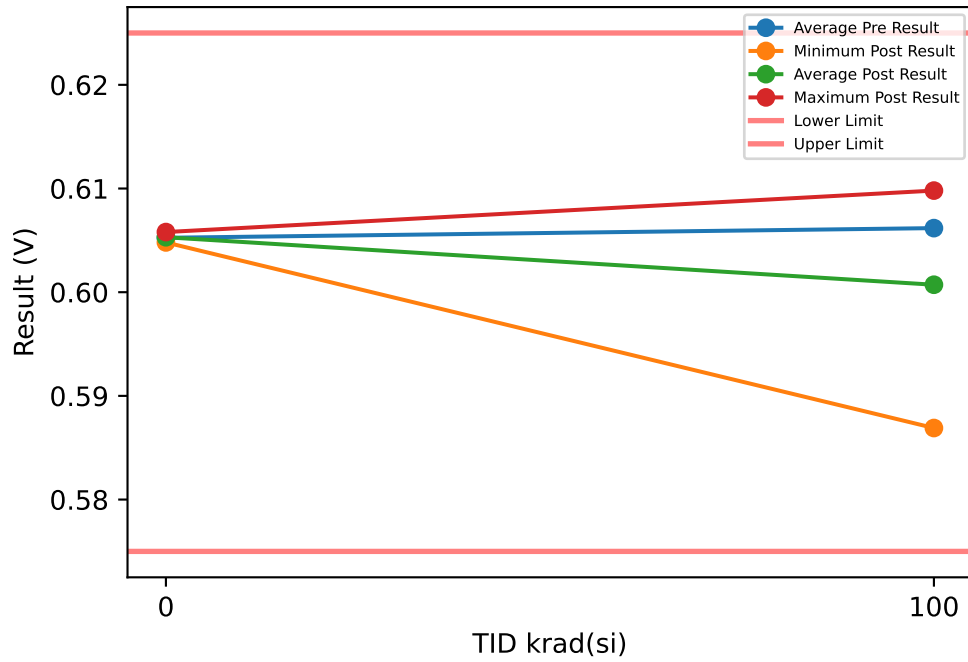| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.6099	0.6078	-0.0021
34	100	HDR unbiased	0.6099	0.6098	-0.0001
35	100	HDR unbiased	0.608	0.6089	0.0009
37	100	HDR unbiased	0.6048	0.6048	0
38	100	HDR unbiased	0.6099	0.6058	-0.0041
72	0	correlation	0.6048	0.6048	0
73	0	correlation	0.6057	0.6058	0.0001
156	100	HDR biased	0.61	0.603	-0.007
157	100	HDR biased	0.6067	0.5986	-0.0081
158	100	HDR biased	0.6059	0.5908	-0.0151
159	100	HDR biased	0.6028	0.5908	-0.012
160	100	HDR biased	0.5939	0.5869	-0.007
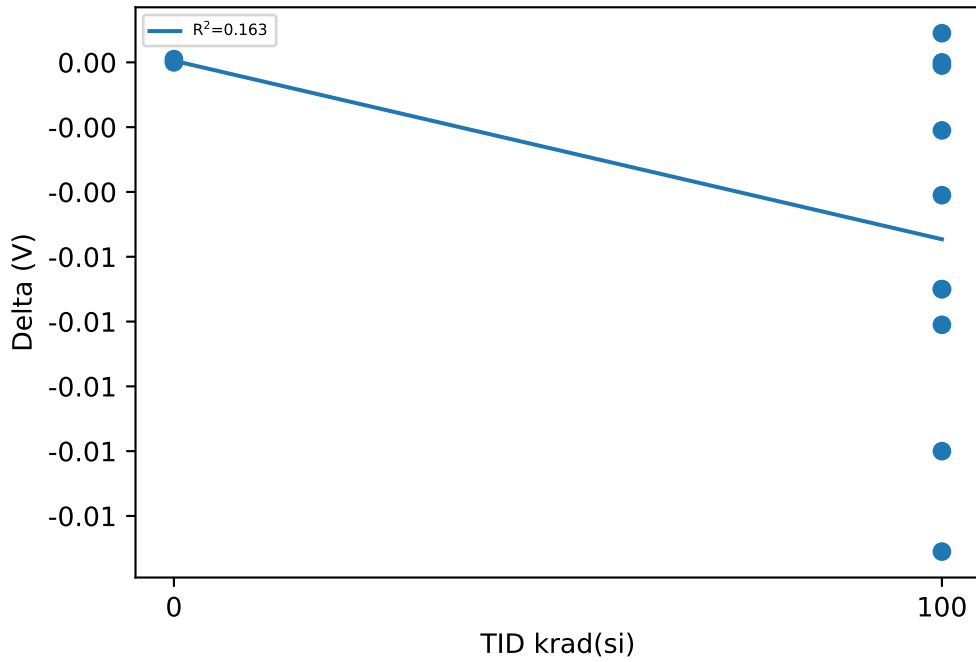
Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6048	0.60525	0.6057	0.0006364	0.6048	0.6053	0.6058	0.00070711	0	5e-05	0.0001	7.0711e-05
100	0.5939	0.60618	0.61	0.0049877	0.5869	0.60072	0.6098	0.008429	-0.0151	-0.00546	0.0009	0.0053701

Device Test: 13.10 WKE7RD_1(THRESHOLD|RISE/EN/7/0.6//10//@VIH_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.575, Upper Limit = 0.625 (V))

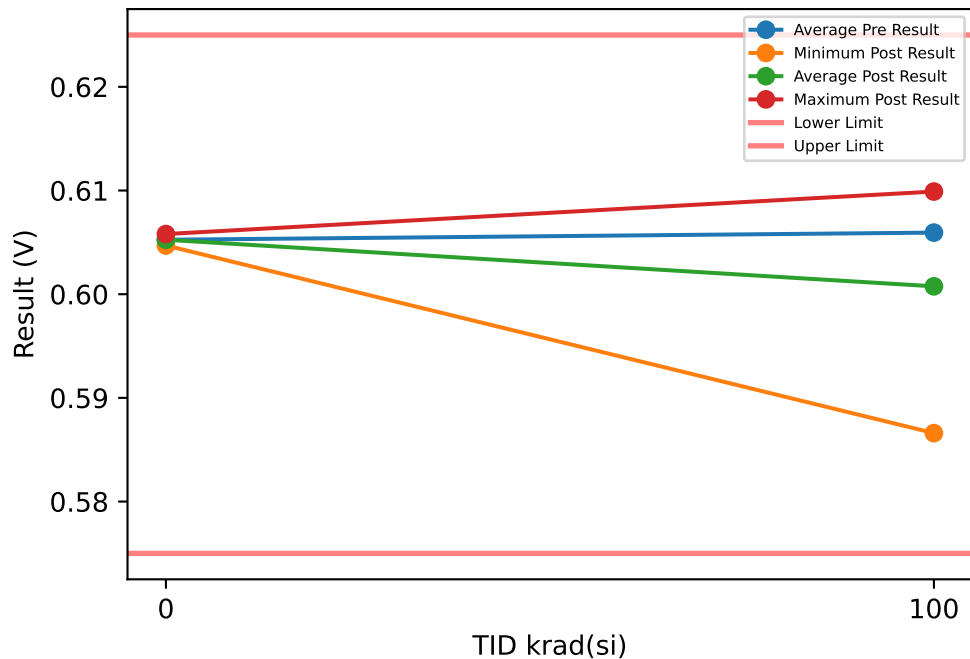| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.6088	0.6078	-0.001
34	100	HDR unbiased	0.61	0.6099	-0.0001
35	100	HDR unbiased	0.6078	0.6088	0.001
37	100	HDR unbiased	0.6058	0.6049	-0.0009
38	100	HDR unbiased	0.61	0.6058	-0.0042
72	0	correlation	0.6047	0.6047	0
73	0	correlation	0.6058	0.6058	0
156	100	HDR biased	0.6088	0.6028	-0.006
157	100	HDR biased	0.6067	0.5985	-0.0082
158	100	HDR biased	0.6048	0.5909	-0.0139
159	100	HDR biased	0.6028	0.5916	-0.0112
160	100	HDR biased	0.5939	0.5866	-0.0073

Test Statistics (V)
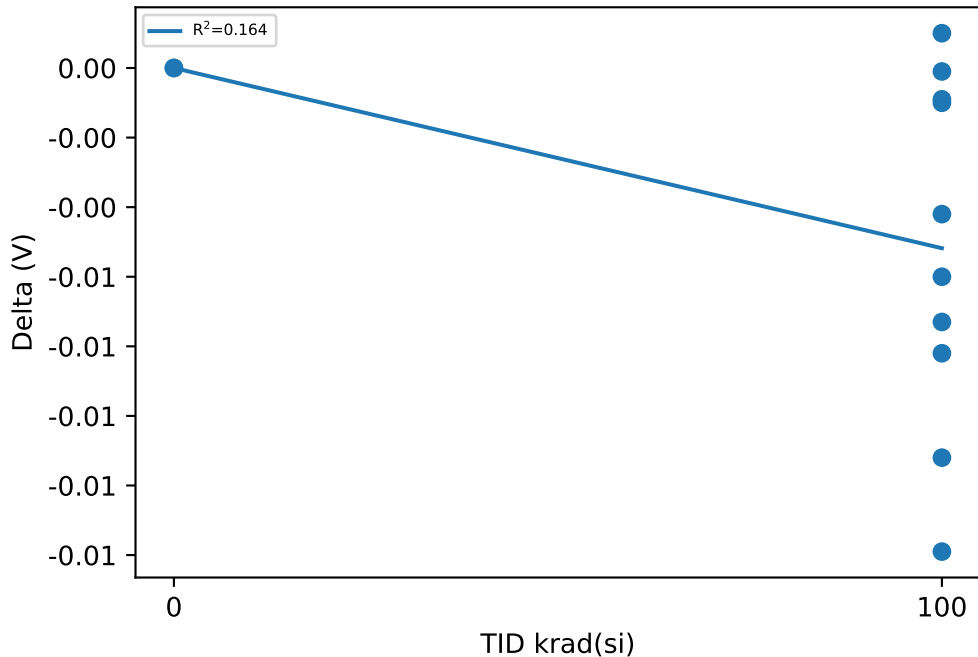
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6047	0.60525	0.6058	0.00077782	0.6047	0.60525	0.6058	0.00077782	0	0	0	0
100	0.5939	0.60594	0.61	0.0048248	0.5866	0.60076	0.6099	0.0083745	-0.0139	-0.00518	0.001	0.0050257

Device Test: 13.11 WKCS56_1(THRESHOLD|FALL/EN/7/0.6//10//@VIL_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.475, Upper Limit = 0.52 (V))

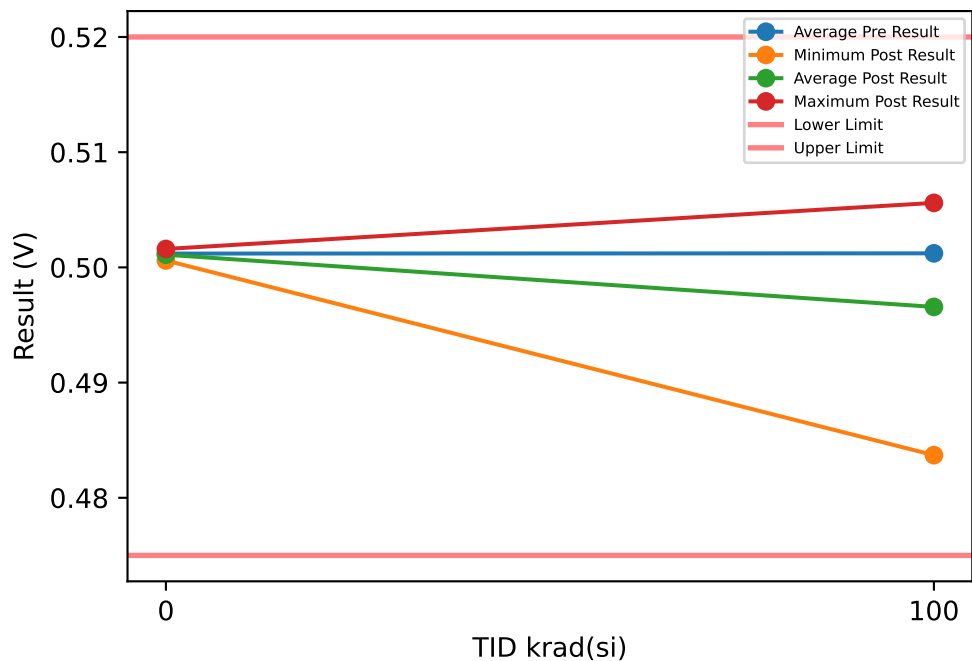| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5048	0.5036	-0.0012
34	100	HDR unbiased	0.5047	0.5056	0.0009
35	100	HDR unbiased	0.5036	0.5046	0.001
37	100	HDR unbiased	0.5007	0.5007	0
38	100	HDR unbiased	0.5047	0.5016	-0.0031
72	0	correlation	0.5007	0.5006	-0.0001
73	0	correlation	0.5017	0.5016	-0.0001
156	100	HDR biased	0.5036	0.4978	-0.0058
157	100	HDR biased	0.5017	0.4937	-0.008
158	100	HDR biased	0.4988	0.4867	-0.0121
159	100	HDR biased	0.4988	0.4877	-0.0111
160	100	HDR biased	0.4908	0.4837	-0.0071

Test Statistics (V)
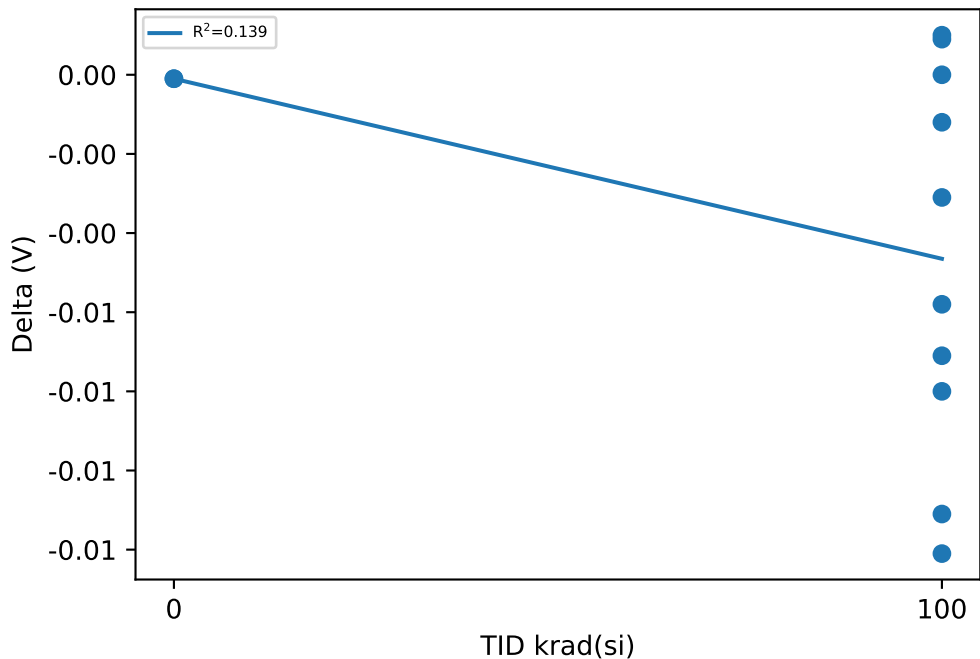
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5007	0.5012	0.5017	0.00070711	0.5006	0.5011	0.5016	0.00070711	-0.0001	-0.0001	-0.0001	0
100	0.4908	0.50122	0.5048	0.0043353	0.4837	0.49657	0.5056	0.0080917	-0.0121	-0.00465	0.001	0.0048797

Device Test: 13.13 WKE7RD_1(THRESHOLD|RISE/EN/12/0.6//10//@VIH_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.575, Upper Limit = 0.625 (V))

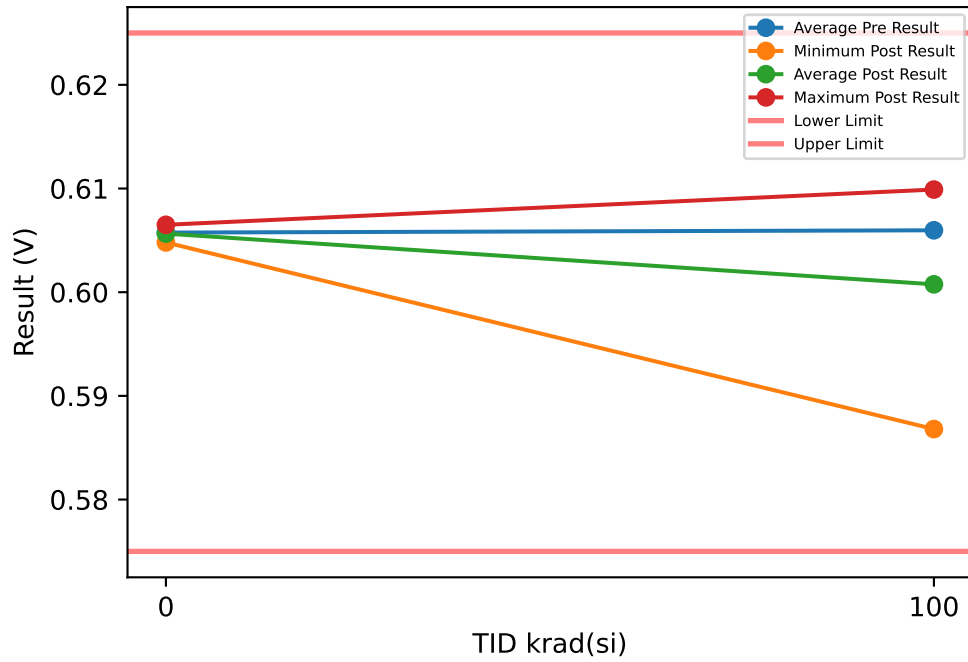| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.6089	0.6078	-0.0011
34	100	HDR unbiased	0.6099	0.6099	0
35	100	HDR unbiased	0.6079	0.6089	0.001
37	100	HDR unbiased	0.6057	0.6048	-0.0009
38	100	HDR unbiased	0.61	0.6058	-0.0042
72	0	correlation	0.6047	0.6048	0.0001
73	0	correlation	0.6068	0.6065	-0.0003
156	100	HDR biased	0.609	0.6028	-0.0062
157	100	HDR biased	0.6068	0.5986	-0.0082
158	100	HDR biased	0.6048	0.5906	-0.0142
159	100	HDR biased	0.6028	0.5916	-0.0112
160	100	HDR biased	0.5939	0.5868	-0.0071
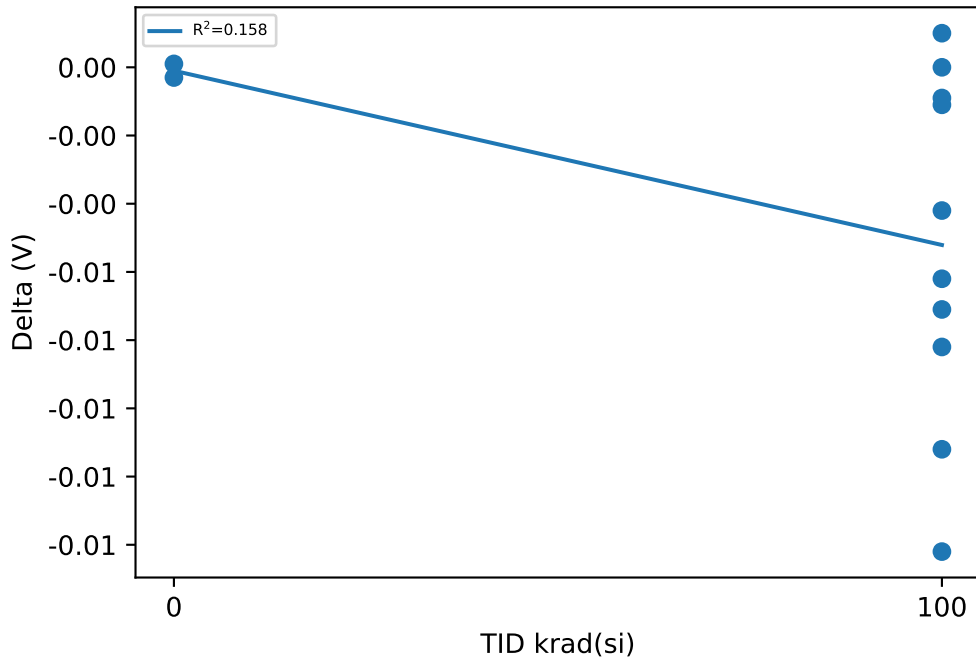
Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6047	0.60575	0.6068	0.0014849	0.6048	0.60565	0.6065	0.0012021	-0.0003	-0.0001	0.0001	0.00028284
100	0.5939	0.60597	0.61	0.0048424	0.5868	0.60076	0.6099	0.0083794	-0.0142	-0.00521	0.001	0.0050814

Device Test: 13.14 WKCS56_1(THRESHOLD|FALL/EN/12/0.6//10//@VIL_EN)

TID vs Result Stats

Legend:
- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Lower Limit
- Upper Limit

TID vs Post - Pre Exposure Delta

- R²=0.156

Test Results (Lower Limit = 0.475, Upper Limit = 0.52 (V))

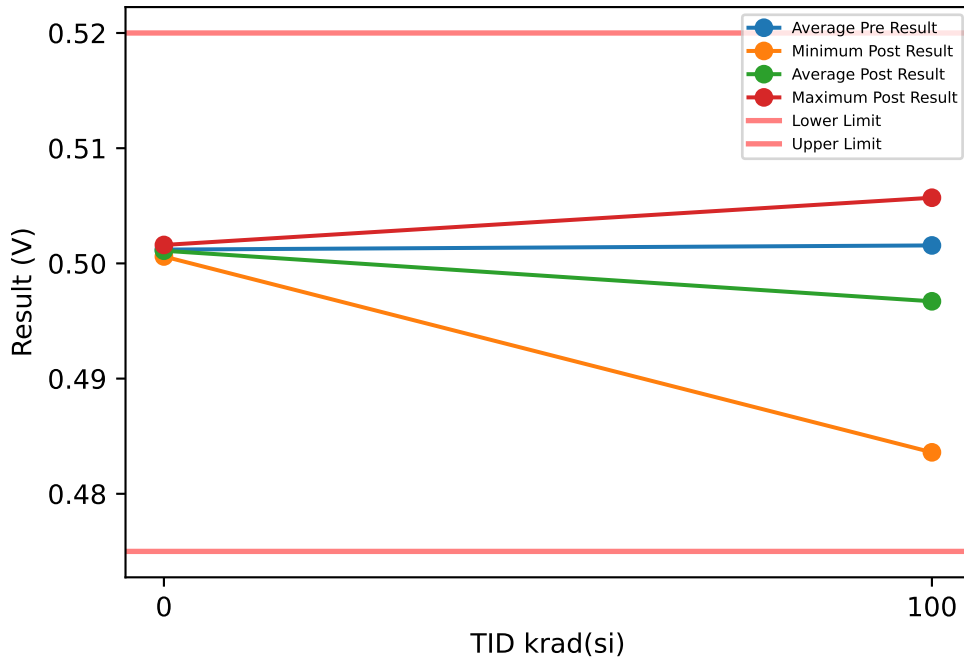| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5057	0.5038	-0.0019
34	100	HDR unbiased	0.5056	0.5057	0.0001
35	100	HDR unbiased	0.5039	0.5048	0.0009
37	100	HDR unbiased	0.5007	0.5007	0
38	100	HDR unbiased	0.5047	0.5017	-0.003
72	0	correlation	0.5008	0.5006	-0.0002
73	0	correlation	0.5016	0.5016	0
156	100	HDR biased	0.5048	0.4988	-0.006
157	100	HDR biased	0.5019	0.4937	-0.0082
158	100	HDR biased	0.4987	0.4867	-0.012
159	100	HDR biased	0.4988	0.4876	-0.0112
160	100	HDR biased	0.4908	0.4836	-0.0072

Test Statistics (V)
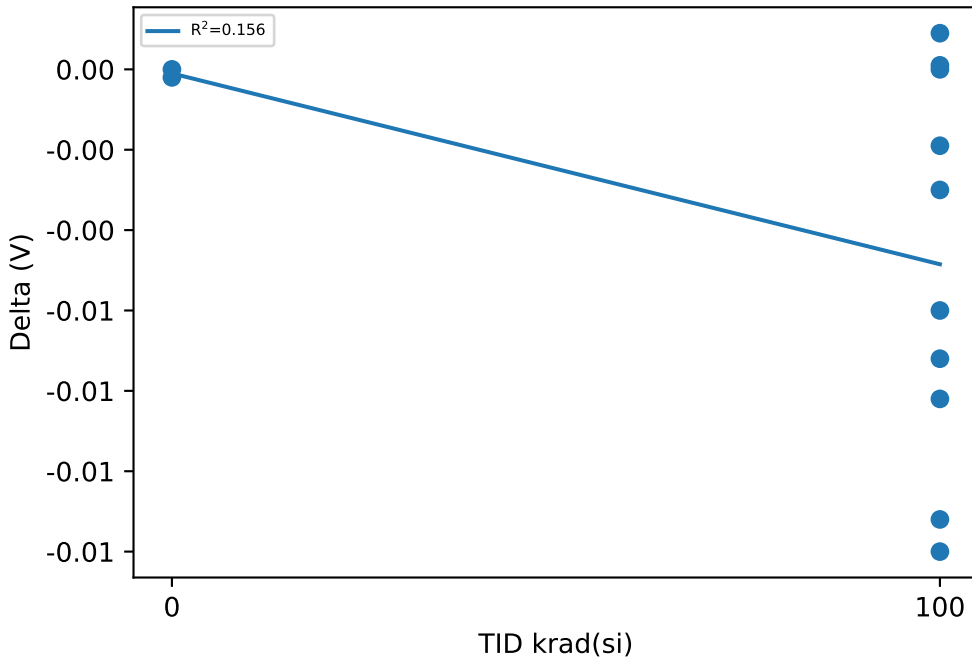
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5008	0.5012	0.5016	0.00056569	0.5006	0.5011	0.5016	0.00070711	-0.0002	-0.0001	0	0.00014142
100	0.4908	0.50156	0.5057	0.0046155	0.4836	0.49671	0.5057	0.0082047	-0.012	-0.00485	0.0009	0.0047461

Device Test: 13.16 WKE7RD_1(THRESHOLD|RISE/EN/14/0.6//10//@VIH_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.575, Upper Limit = 0.625 (V))

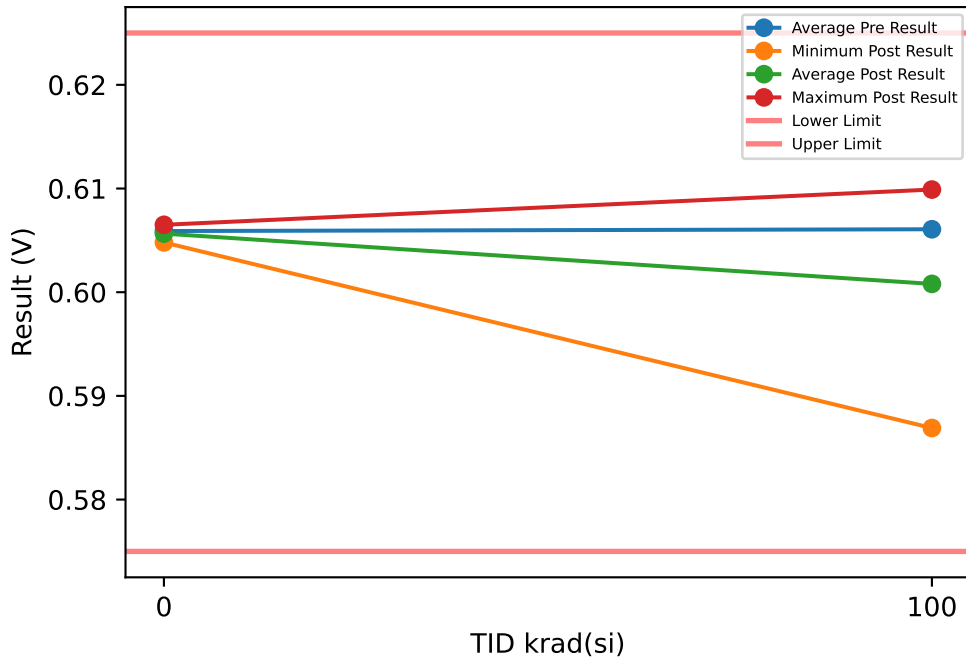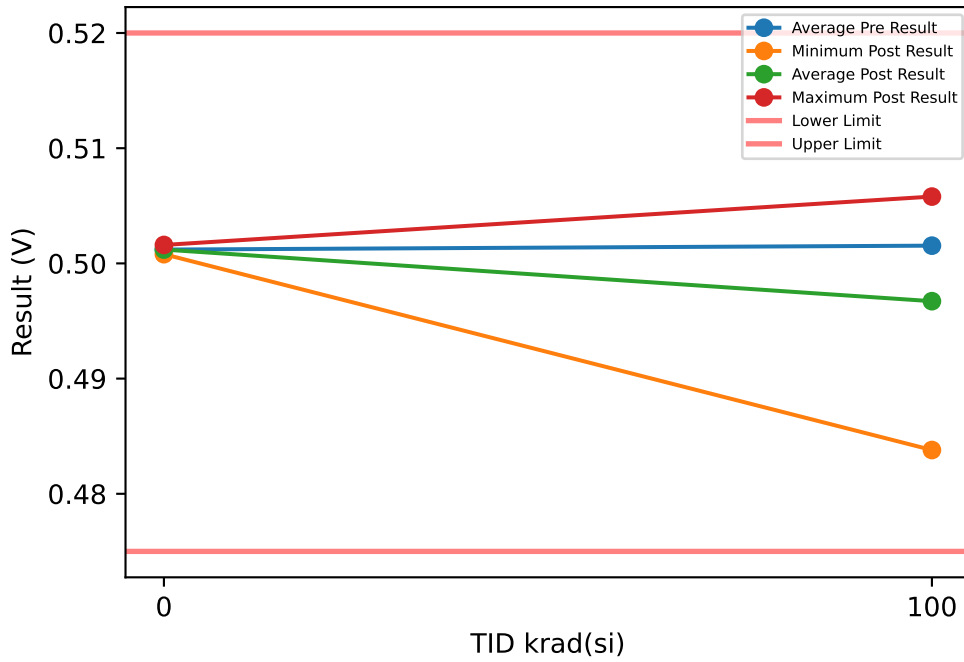| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.6099	0.6079	-0.002
34	100	HDR unbiased	0.6099	0.6099	0
35	100	HDR unbiased	0.6079	0.6089	0.001
37	100	HDR unbiased	0.6058	0.6048	-0.001
38	100	HDR unbiased	0.6099	0.6058	-0.0041
72	0	correlation	0.605	0.6048	-0.0002
73	0	correlation	0.6068	0.6065	-0.0003
156	100	HDR biased	0.609	0.6028	-0.0062
157	100	HDR biased	0.6067	0.5986	-0.0081
158	100	HDR biased	0.6048	0.5908	-0.014
159	100	HDR biased	0.6029	0.5916	-0.0113
160	100	HDR biased	0.5939	0.5869	-0.007
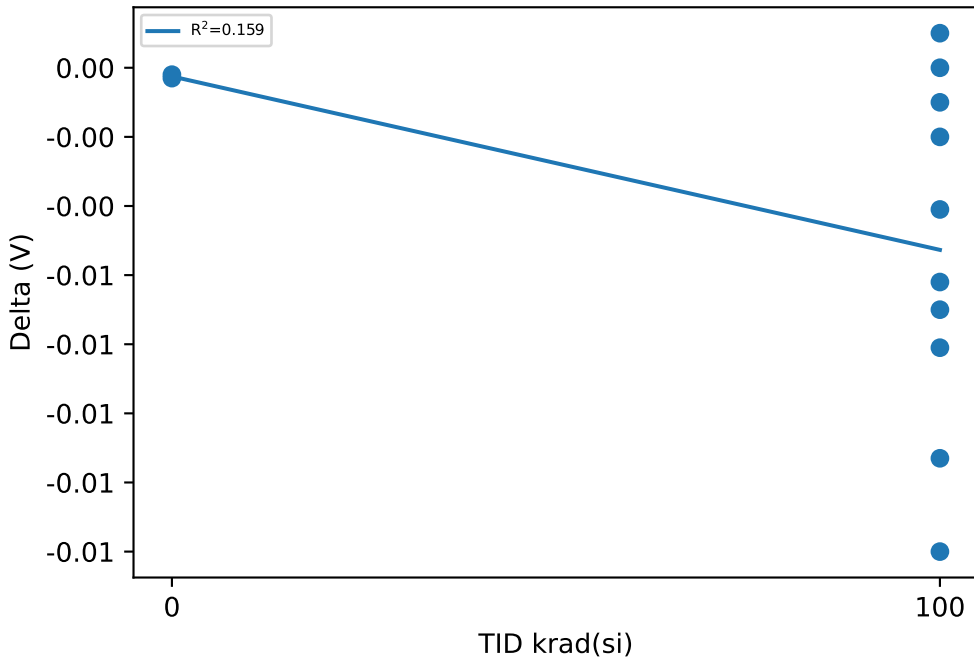
Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.605	0.6059	0.6068	0.0012728	0.6048	0.60565	0.6065	0.0012021	-0.0003	-0.00025	-0.0002	7.0711e-05
100	0.5939	0.60607	0.6099	0.004901	0.5869	0.6008	0.6099	0.0083435	-0.014	-0.00527	0.001	0.0049646

Device Test: 13.17 WKCS56_1(THRESHOLD|FALL/EN/14/0.6//10//@VIL_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.475, Upper Limit = 0.52 (V))

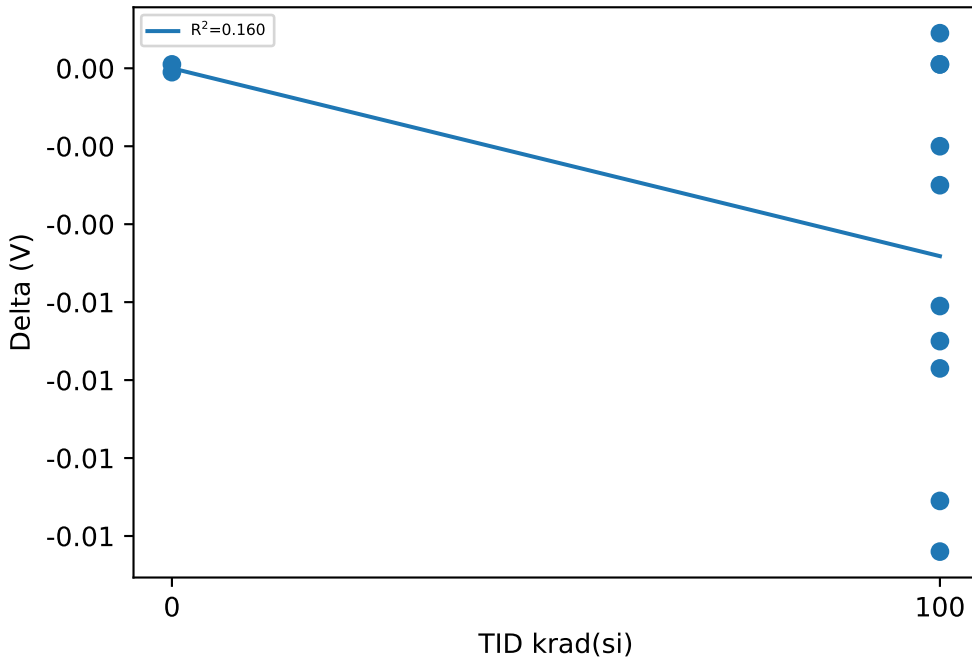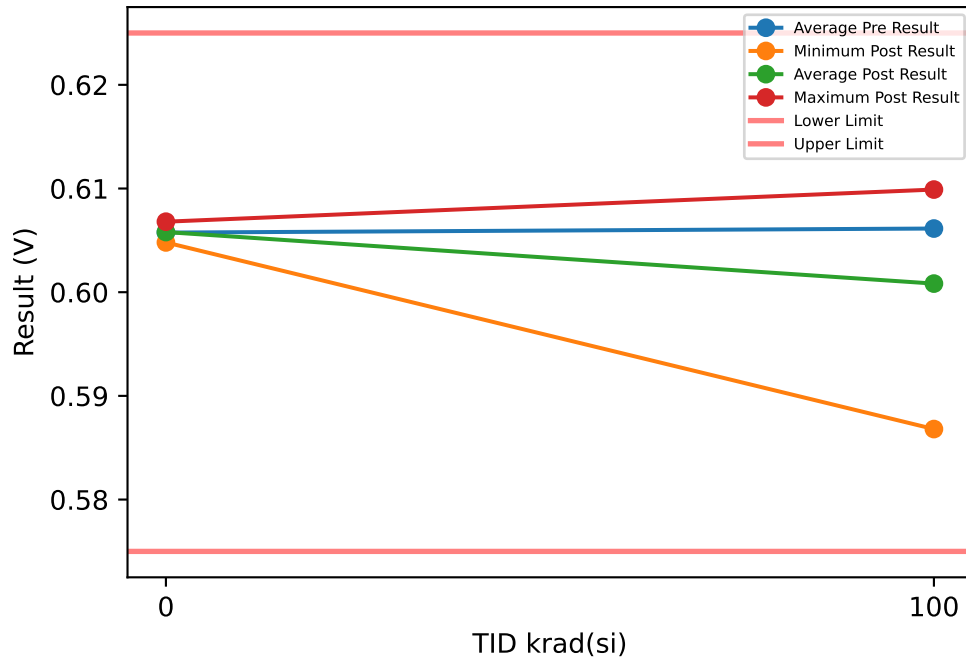| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5056	0.5036	-0.002
34	100	HDR unbiased	0.5057	0.5058	0.0001
35	100	HDR unbiased	0.5037	0.5046	0.0009
37	100	HDR unbiased	0.5008	0.5009	0.0001
38	100	HDR unbiased	0.5048	0.5018	-0.003
72	0	correlation	0.5007	0.5008	0.0001
73	0	correlation	0.5017	0.5016	-0.0001
156	100	HDR biased	0.5048	0.4987	-0.0061
157	100	HDR biased	0.5016	0.4939	-0.0077
158	100	HDR biased	0.4988	0.4864	-0.0124
159	100	HDR biased	0.4988	0.4877	-0.0111
160	100	HDR biased	0.4908	0.4838	-0.007

Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5007	0.5012	0.5017	0.00070711	0.5008	0.5012	0.5016	0.00056569	-0.0001	0	0.0001	0.00014142
100	0.4908	0.50154	0.5057	0.0046022	0.4838	0.49672	0.5058	0.0081773	-0.0124	-0.00482	0.0009	0.0047607

Device Test: 13.19 WKE7RD_1(THRESHOLD|RISE/EN/14/13.9//10//@VIH_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.575, Upper Limit = 0.625 (V))

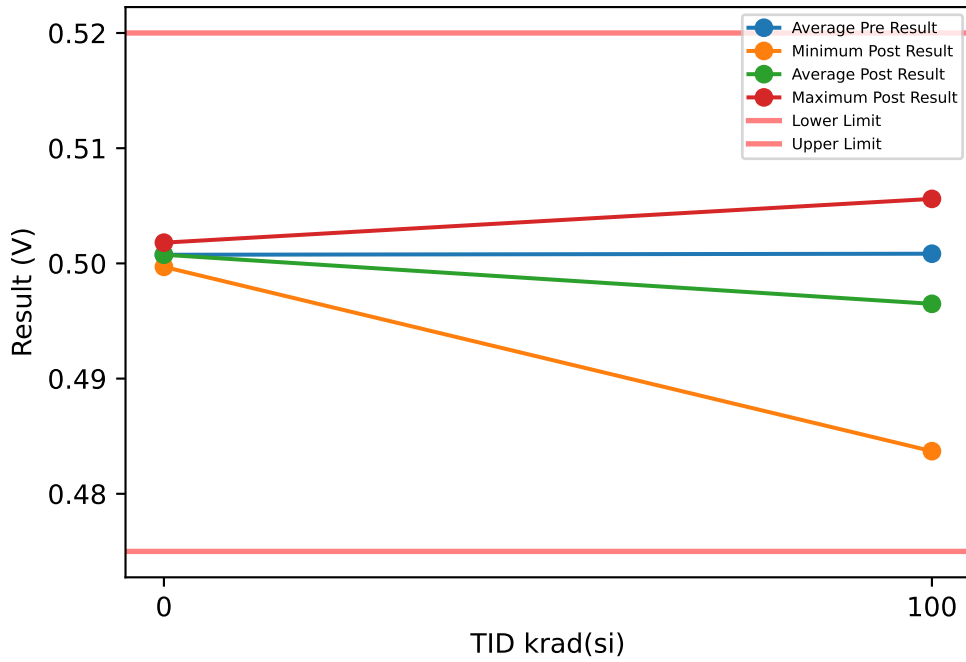| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.6089	0.6078	-0.0011
34	100	HDR unbiased	0.6098	0.6099	0.0001
35	100	HDR unbiased	0.6078	0.6089	0.0011
37	100	HDR unbiased	0.6058	0.6048	-0.001
38	100	HDR unbiased	0.6099	0.6058	-0.0041
72	0	correlation	0.6047	0.6048	0.0001
73	0	correlation	0.6068	0.6068	0
156	100	HDR biased	0.6099	0.6028	-0.0071
157	100	HDR biased	0.6067	0.5989	-0.0078
158	100	HDR biased	0.6059	0.5908	-0.0151
159	100	HDR biased	0.6028	0.5918	-0.011
160	100	HDR biased	0.5939	0.5868	-0.0071
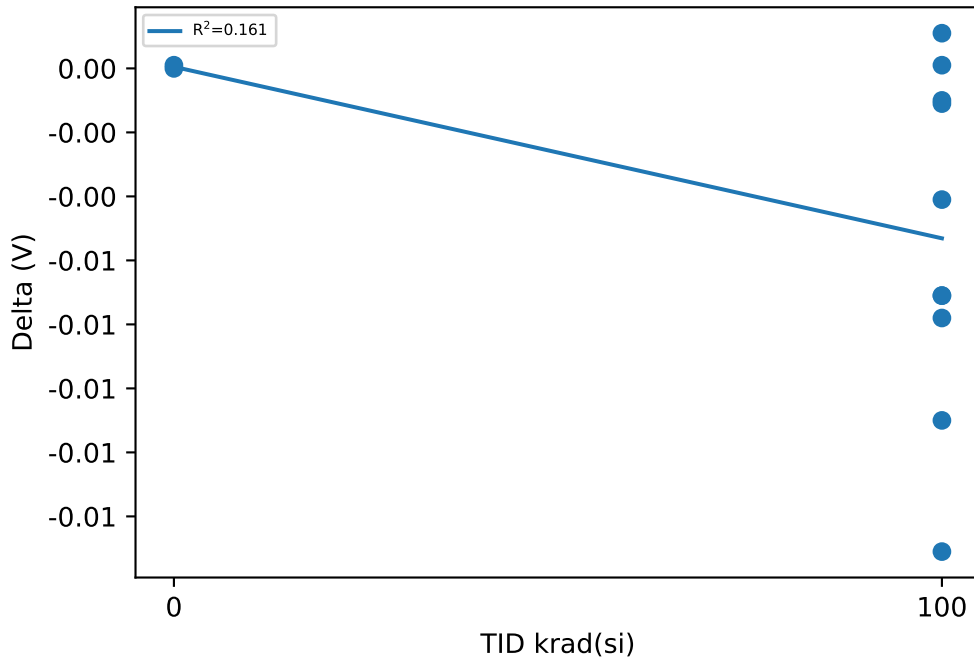
Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6047	0.60575	0.6068	0.0014849	0.6048	0.6058	0.6068	0.0014142	0	5e-05	0.0001	7.0711e-05
100	0.5939	0.60614	0.6099	0.0048706	0.5868	0.60083	0.6099	0.0083201	-0.0151	-0.00531	0.0011	0.0052594

Device Test: 13.2 WKCS56_1(THRESHOLD|FALL/EN/2.25/0.6//10//@VIL_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.475, Upper Limit = 0.52 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5048	0.5036	-0.0012
34	100	HDR unbiased	0.5047	0.5056	0.0009
35	100	HDR unbiased	0.5028	0.5047	0.0019
37	100	HDR unbiased	0.4999	0.5007	0.0008
38	100	HDR unbiased	0.5047	0.5018	-0.0029
72	0	correlation	0.4997	0.4997	0
73	0	correlation	0.5018	0.5018	0
156	100	HDR biased	0.5037	0.4976	-0.0061
157	100	HDR biased	0.5018	0.4936	-0.0082
158	100	HDR biased	0.4987	0.4867	-0.012
159	100	HDR biased	0.4976	0.4869	-0.0107
160	100	HDR biased	0.4897	0.4837	-0.006

Test Statistics (V)
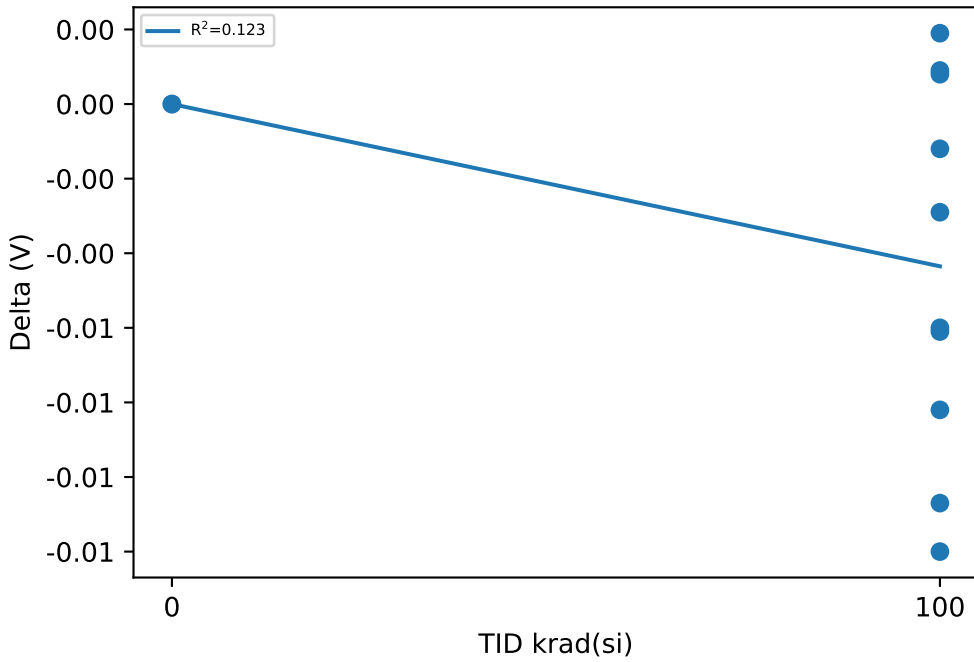
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.4997	0.50075	0.5018	0.0014849	0.4997	0.50075	0.5018	0.0014849	0	0	0	0
100	0.4897	0.50084	0.5048	0.0046961	0.4837	0.49649	0.5056	0.0082182	-0.012	-0.00435	0.0019	0.0049958

Device Test: 13.20 WKCS56_1(THRESHOLD|FALL/EN/14/13.9//10//@VIL_EN)

TID vs Result Stats

Legend:
- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Lower Limit
- Upper Limit

TID vs Post - Pre Exposure Delta

$R^2 = 0.132$

Test Results (Lower Limit = 0.475, Upper Limit = 0.52 (V))

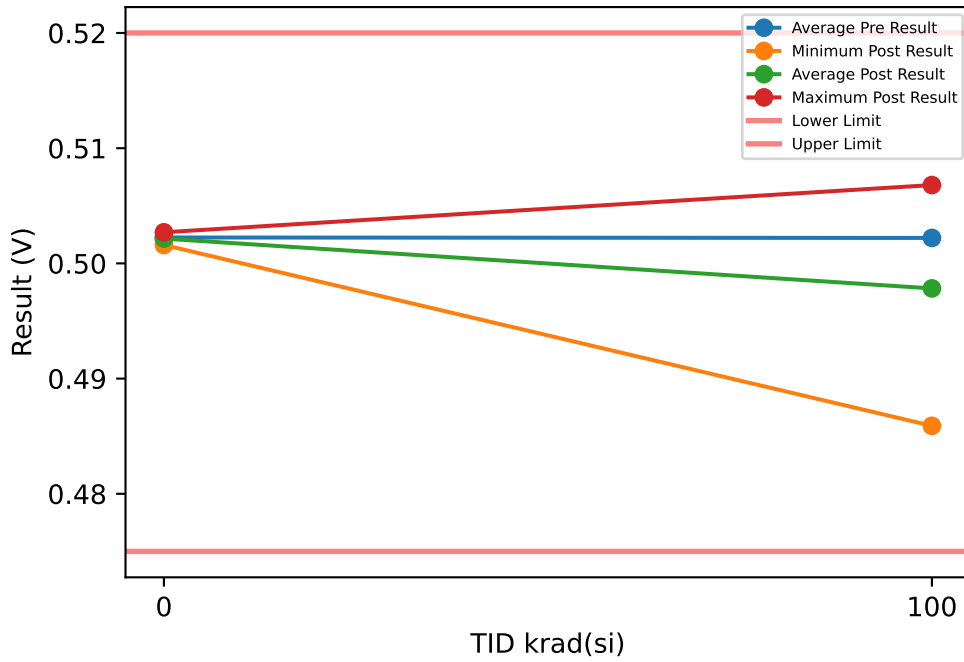| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5056	0.5046	-0.001
34	100	HDR unbiased	0.5058	0.5068	0.001
35	100	HDR unbiased	0.5048	0.5056	0.0008
37	100	HDR unbiased	0.5016	0.5018	0.0002
38	100	HDR unbiased	0.5056	0.5028	-0.0028
72	0	correlation	0.5018	0.5016	-0.0002
73	0	correlation	0.5027	0.5027	0
156	100	HDR biased	0.5057	0.4997	-0.006
157	100	HDR biased	0.5027	0.4947	-0.008
158	100	HDR biased	0.4997	0.4876	-0.0121
159	100	HDR biased	0.4988	0.4888	-0.01
160	100	HDR biased	0.4918	0.4859	-0.0059

Test Statistics (V)
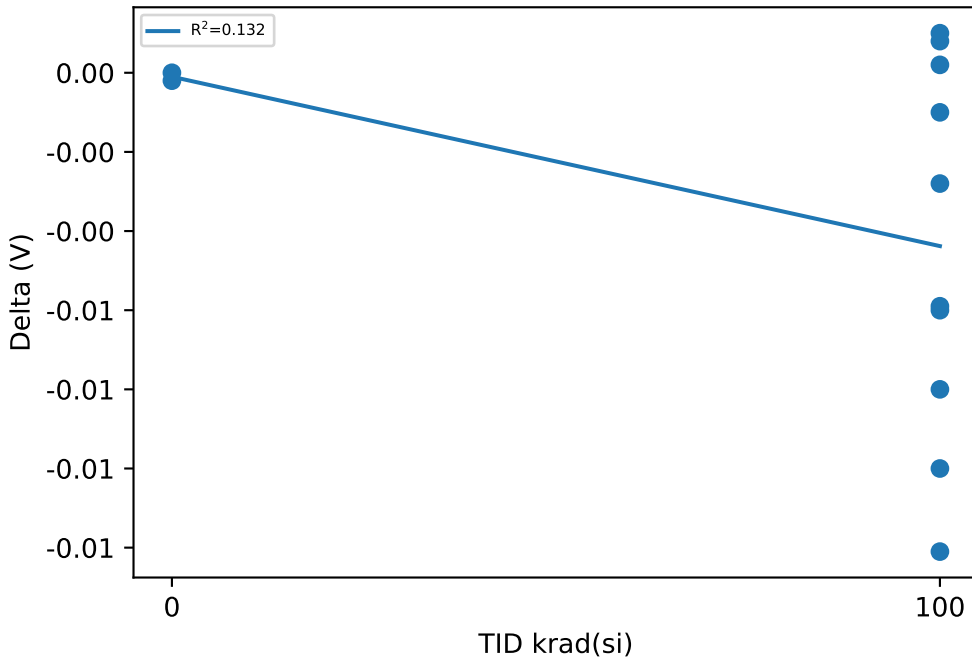
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5018	0.50225	0.5027	0.0006364	0.5016	0.50215	0.5027	0.00077782	-0.0002	-0.0001	0	0.00014142
100	0.4918	0.50221	0.5058	0.0044928	0.4859	0.49783	0.5068	0.0079508	-0.0121	-0.00438	0.001	0.0047128

Device Test: 13.22 WKNA02_1(THRESHOLD|LEAK/EN/2.25/0.6/7/10//@I_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 30.0 (nA))

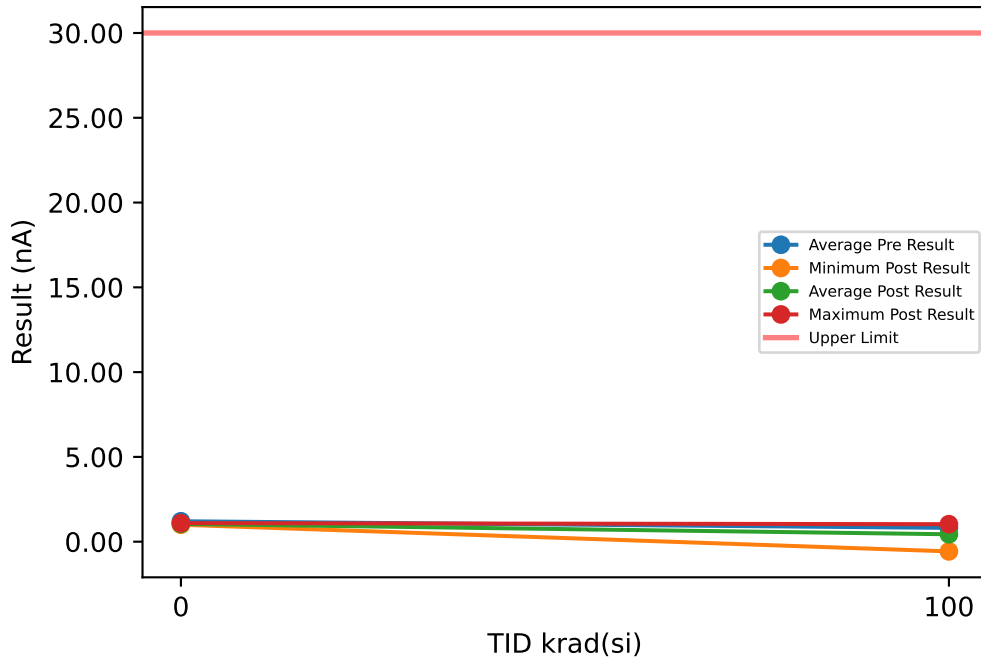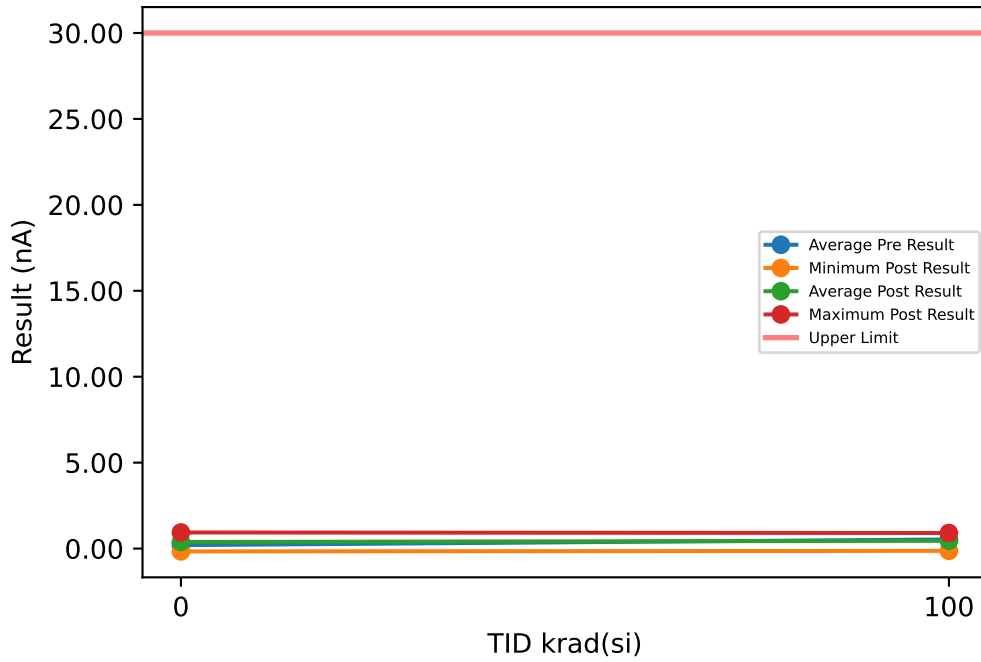| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	1.1262	0.0879	-1.0383
34	100	HDR unbiased	0.7172	0.1822	-0.535
35	100	HDR unbiased	0.3081	1.0318	0.7237
37	100	HDR unbiased	0.9689	0.906	-0.0629
38	100	HDR unbiased	1.0004	0.8116	-0.1888
72	0	correlation	0.8745	1.0948	0.2203
73	0	correlation	1.5353	1.0004	-0.5349
156	100	HDR biased	1.1262	-0.5729	-1.6991
157	100	HDR biased	0.0249	0.7172	0.6923
158	100	HDR biased	1.4409	0.3081	-1.1328
159	100	HDR biased	0.0879	0.5284	0.4405
160	100	HDR biased	1.3465	0.371	-0.9755

Test Statistics (nA)
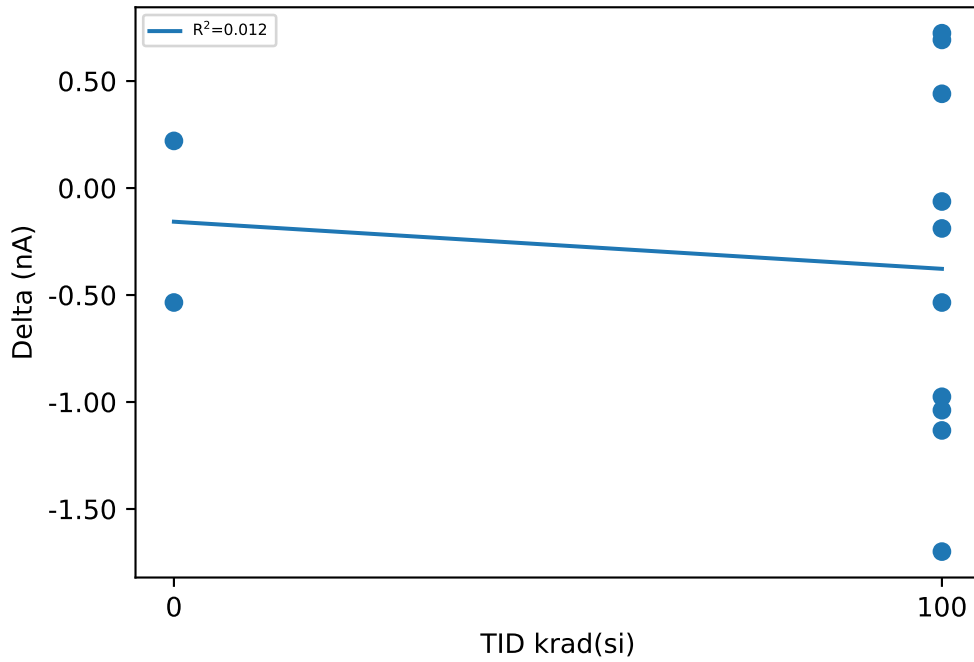
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.8745	1.2049	1.5353	0.46726	1.0004	1.0476	1.0948	0.066751	-0.5349	-0.1573	0.2203	0.53401
100	0.0249	0.81472	1.4409	0.51049	-0.5729	0.43713	1.0318	0.47476	-1.6991	-0.37759	0.7237	0.83646

# Device Test: 13.23 WKNA02_1(THRESHOLD|LEAK/EN/14/0.6/7/10//@I_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 30.0 (nA))

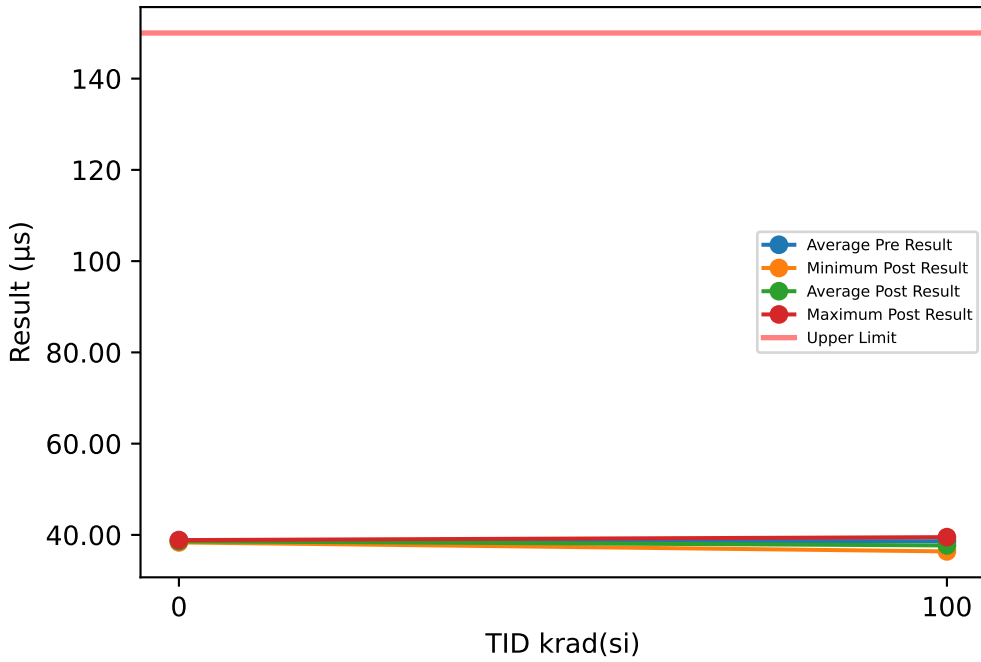| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.6857	0.8116	0.1259
34	100	HDR unbiased	0.7801	0.0879	-0.6922
35	100	HDR unbiased	0.2452	0.7486	0.5034
37	100	HDR unbiased	0.6542	0.906	0.2518
38	100	HDR unbiased	2.3534	0.3081	-2.0453
72	0	correlation	0.4654	0.9374	0.472
73	0	correlation	-0.0695	-0.1639	-0.0944
156	100	HDR biased	0.0564	0.371	0.3146
157	100	HDR biased	1.6612	0.7801	-0.8811
158	100	HDR biased	-0.3212	0.4969	0.8181
159	100	HDR biased	0.2766	-0.1324	-0.409
160	100	HDR biased	-1.0764	0.1508	1.2272

Test Statistics (nA)
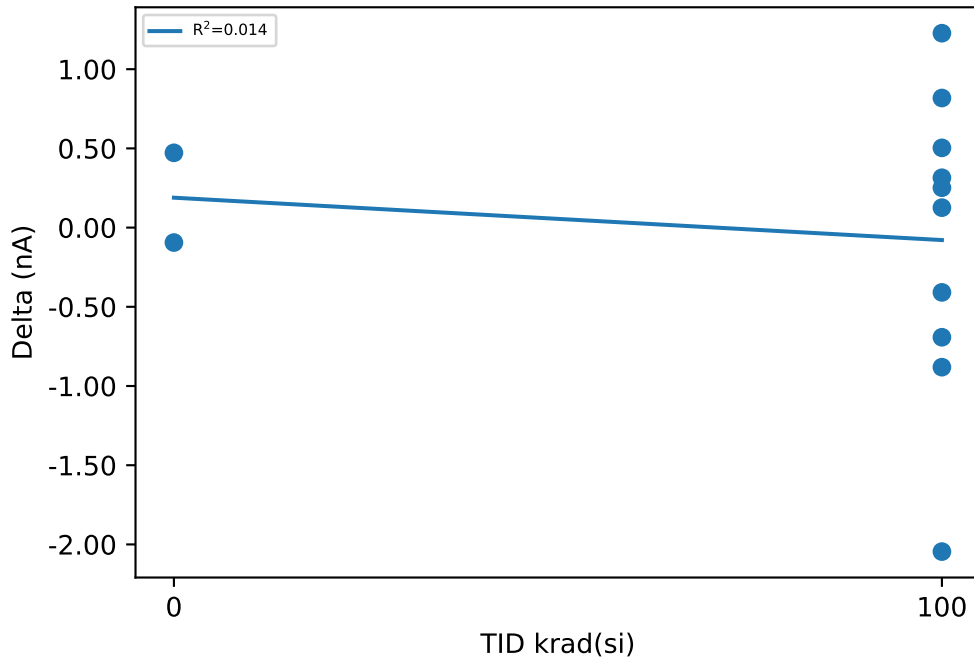
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-0.0695	0.19795	0.4654	0.37823	-0.1639	0.38675	0.9374	0.77874	-0.0944	0.1888	0.472	0.40051
100	-1.0764	0.53152	2.3534	0.96501	-0.1324	0.45286	0.906	0.35358	-2.0453	-0.07866	1.2272	0.95167

# Device Test: 13.24 WKH23M_1(THRESHOLD|DELAY/EN/2.25/0.6//10//@T_EN_DELAY)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 150.0 (μs))

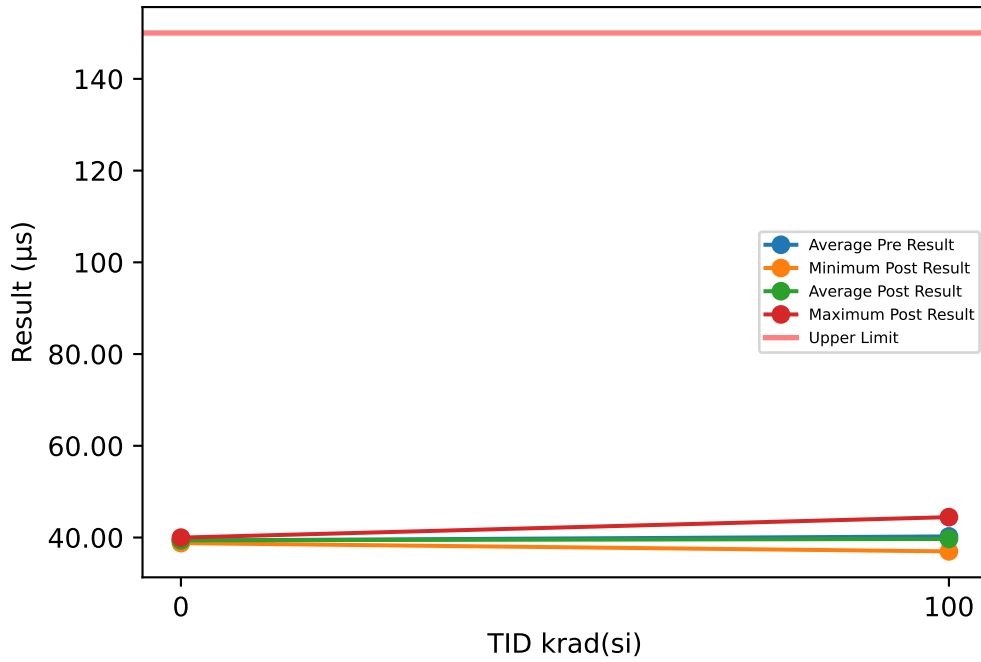| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	39.266	38.271	-0.9952
34	100	HDR unbiased	37.595	37.151	-0.4441
35	100	HDR unbiased	38.916	38.854	-0.0619
37	100	HDR unbiased	37.71	37.047	-0.6629
38	100	HDR unbiased	40.507	39.511	-0.9964
72	0	correlation	38.942	38.863	-0.0786
73	0	correlation	38.627	38.352	-0.2754
156	100	HDR biased	38.684	37.407	-1.2771
157	100	HDR biased	38.574	37.882	-0.6928
158	100	HDR biased	38.113	36.386	-1.7271
159	100	HDR biased	38.936	37.261	-1.6748
160	100	HDR biased	37.905	37.139	-0.7657

Test Statistics (μs)
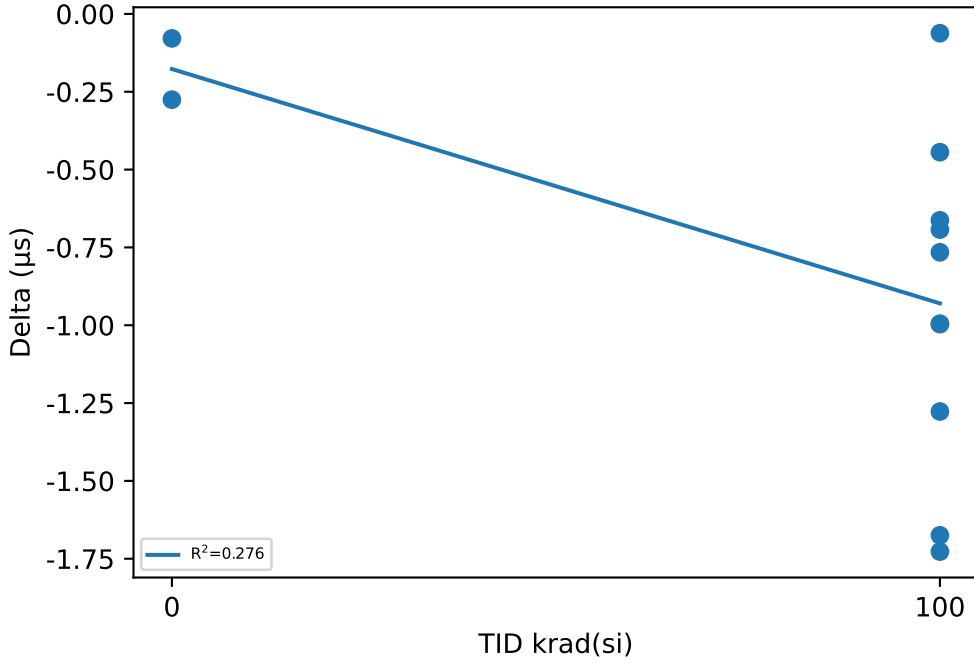
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	38.627	38.784	38.942	0.22274	38.352	38.607	38.863	0.3619	-0.2754	-0.177	-0.0786	0.13916
100	37.595	38.621	40.507	0.87059	36.386	37.691	39.511	0.94391	-1.7271	-0.9298	-0.0619	0.52319

# Device Test: 13.25 WKH23M_1(THRESHOLD|DELAY/EN/3.3/0.6//10//@T_EN_DELAY)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 150.0 (µs))

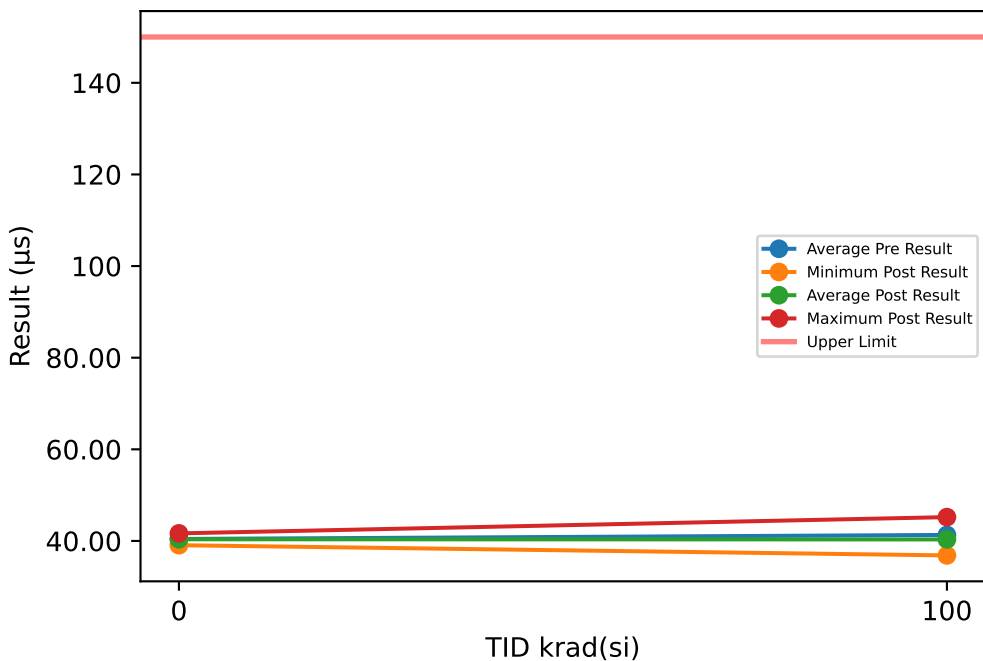| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	40.102	40.286	0.1835
34	100	HDR unbiased	38.745	38.503	-0.2422
35	100	HDR unbiased	43.008	40.616	-2.3927
37	100	HDR unbiased	37.657	37.651	-0.0054
38	100	HDR unbiased	43.157	44.445	1.2885
72	0	correlation	40.287	39.983	-0.3046
73	0	correlation	38.42	38.78	0.3601
156	100	HDR biased	41.261	41.072	-0.1894
157	100	HDR biased	39.363	39.326	-0.0369
158	100	HDR biased	38.642	36.977	-1.6647
159	100	HDR biased	39.569	38.788	-0.7812
160	100	HDR biased	40.966	39.229	-1.7369

## Test Statistics (µs)
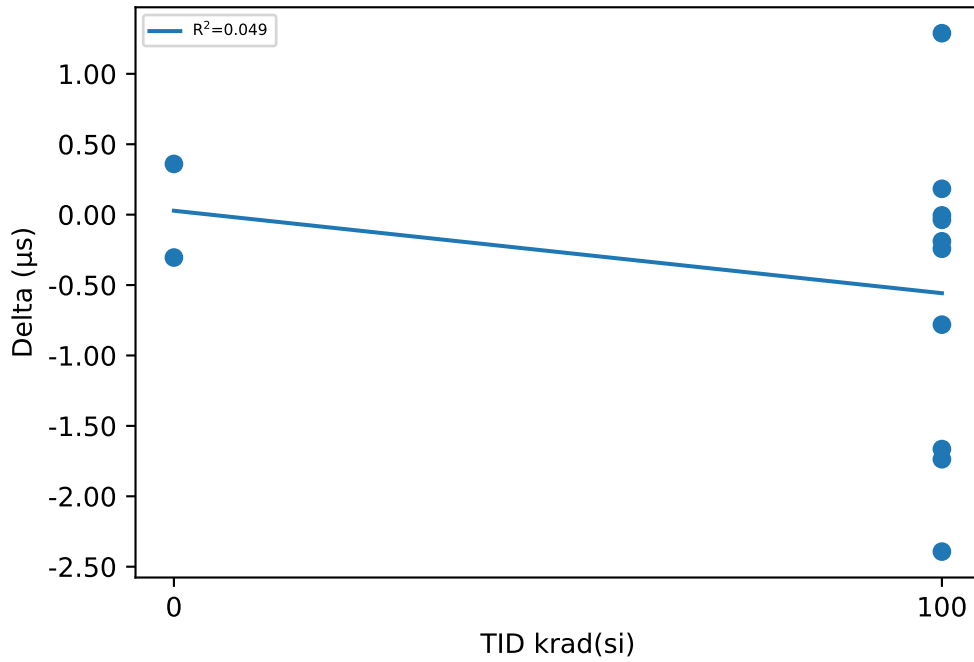
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	38.42	39.354	40.287	1.3202	38.78	39.382	39.983	0.85015	-0.3046	0.02775	0.3601	0.47001
100	37.657	40.247	43.157	1.8391	36.977	39.689	44.445	2.1034	-2.3927	-0.55774	1.2885	1.0956

Device Test: 13.26 WKH23M_1(THRESHOLD|DELAY/EN/5/0.6//10//@T_EN_DELAY)

TID vs Result Stats
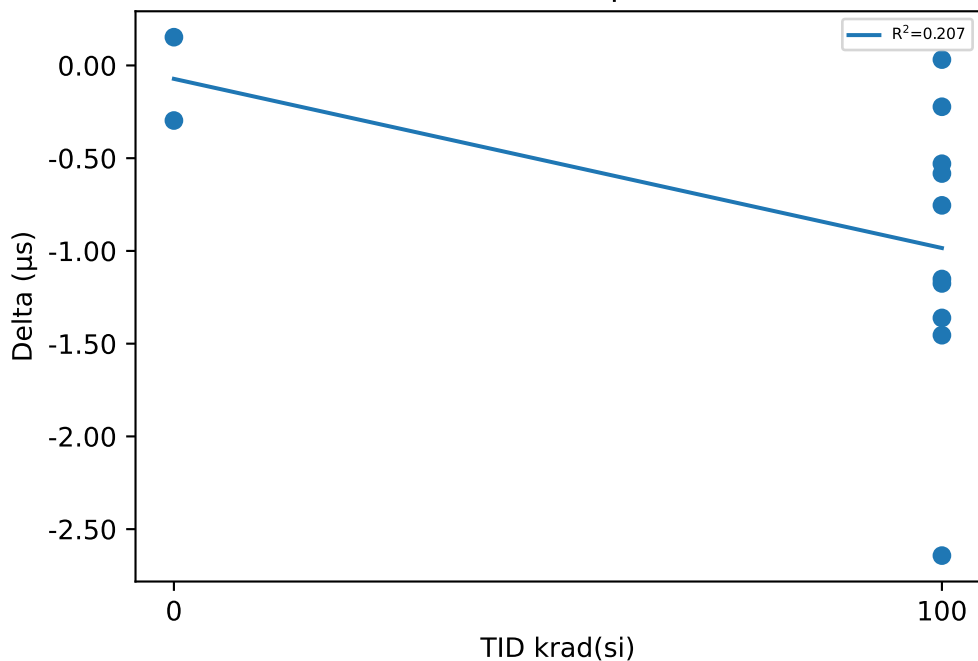
TID vs Post - Pre Exposure Delta
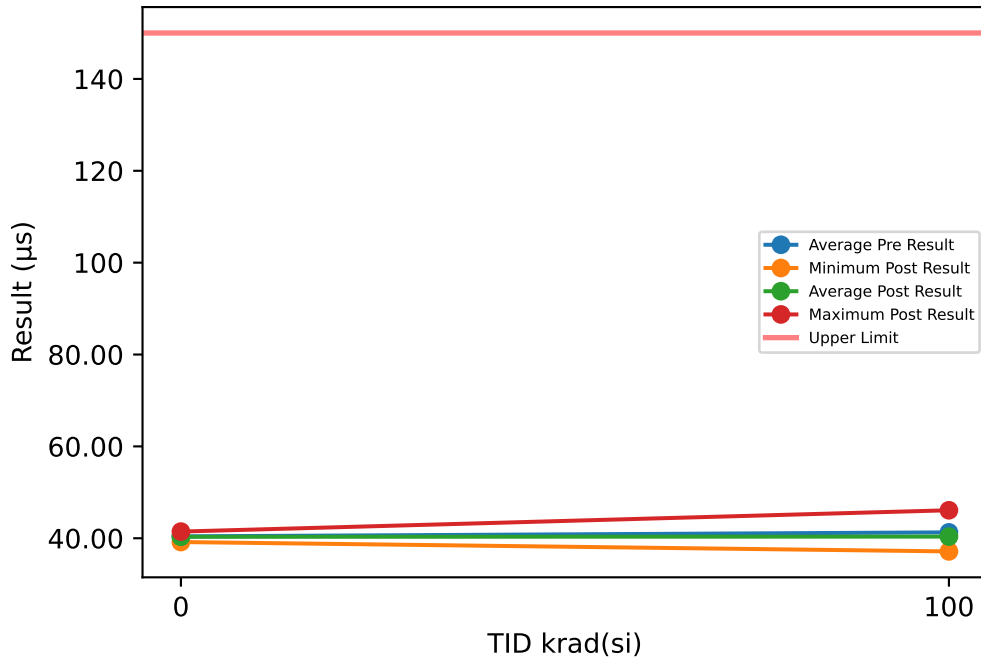

Test Results (Upper Limit = 150.0 (μs))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	41.162	40.94	-0.2227
34	100	HDR unbiased	40.596	39.421	-1.1753
35	100	HDR unbiased	43.705	41.062	-2.6426
37	100	HDR unbiased	38.723	38.194	-0.5299
38	100	HDR unbiased	45.169	45.201	0.0315
72	0	correlation	41.501	41.653	0.1523
73	0	correlation	39.37	39.074	-0.2969
156	100	HDR biased	43.129	41.675	-1.4544
157	100	HDR biased	40.778	40.024	-0.7543
158	100	HDR biased	38.208	36.847	-1.3612
159	100	HDR biased	40.552	39.401	-1.1514
160	100	HDR biased	41.098	40.515	-0.5828

Test Statistics (μs)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	39.37	40.436	41.501	1.5064	39.074	40.363	41.653	1.8241	-0.2969	-0.0723	0.1523	0.31763
100	38.208	41.312	45.169	2.1521	36.847	40.328	45.201	2.235	-2.6426	-0.98431	0.0315	0.76084

# Device Test: 13.27 WKH23M_1(THRESHOLD|DELAY/EN/7/0.6//10//@T_EN_DELAY)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 150.0 (µs))

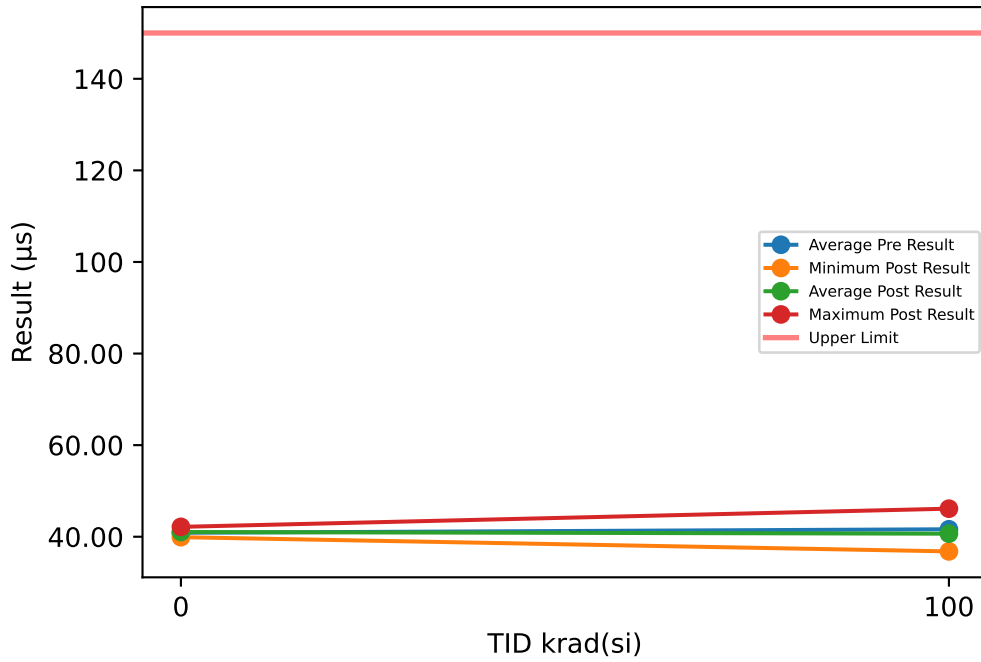| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	41.546	40.532	-1.0143
34	100	HDR unbiased	40.566	39.959	-0.608
35	100	HDR unbiased	42.891	41.999	-0.8925
37	100	HDR unbiased	38.615	38.031	-0.584
38	100	HDR unbiased	45.441	46.094	0.6531
72	0	correlation	41.698	41.453	-0.2447
73	0	correlation	39.126	39.176	0.0499
156	100	HDR biased	42.64	41.71	-0.9295
157	100	HDR biased	40.299	39.178	-1.1205
158	100	HDR biased	38.525	37.139	-1.3861
159	100	HDR biased	40.78	38.718	-2.0622
160	100	HDR biased	41.522	40.235	-1.2867

Test Statistics (µs)
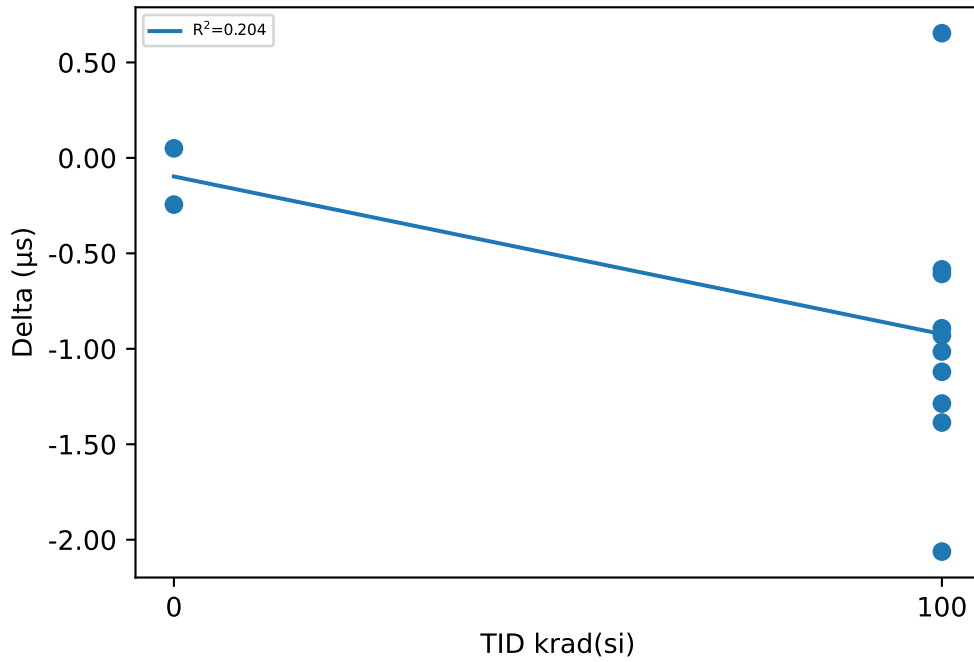
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	39.126	40.412	41.698	1.8185	39.176	40.314	41.453	1.6102	-0.2447	-0.0974	0.0499	0.20831
100	38.525	41.283	45.441	2.0628	37.139	40.359	46.094	2.5272	-2.0622	-0.92307	0.6531	0.6985

# Device Test: 13.28 WKH23M_1(THRESHOLD|DELAY/EN/12/0.6//10//@T_EN_DELAY)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 150.0 (µs))

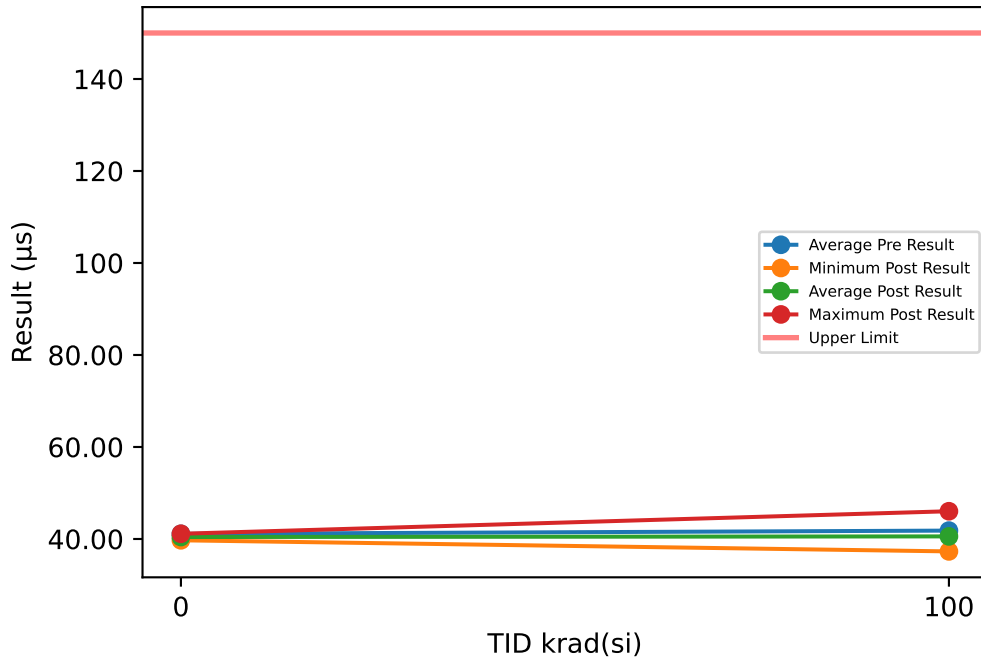| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	41.932	40.402	-1.5303
34	100	HDR unbiased	40.282	39.678	-0.6034
35	100	HDR unbiased	43.976	41.553	-2.4223
37	100	HDR unbiased	38.593	38.55	-0.0429
38	100	HDR unbiased	46.986	46.127	-0.8589
72	0	correlation	41.856	42.158	0.302
73	0	correlation	39.874	39.904	0.0297
156	100	HDR biased	42.292	41.969	-0.3223
157	100	HDR biased	40.487	40.397	-0.0902
158	100	HDR biased	38.295	36.798	-1.4975
159	100	HDR biased	40.874	39.468	-1.406
160	100	HDR biased	42.587	41.699	-0.888

Test Statistics (µs)
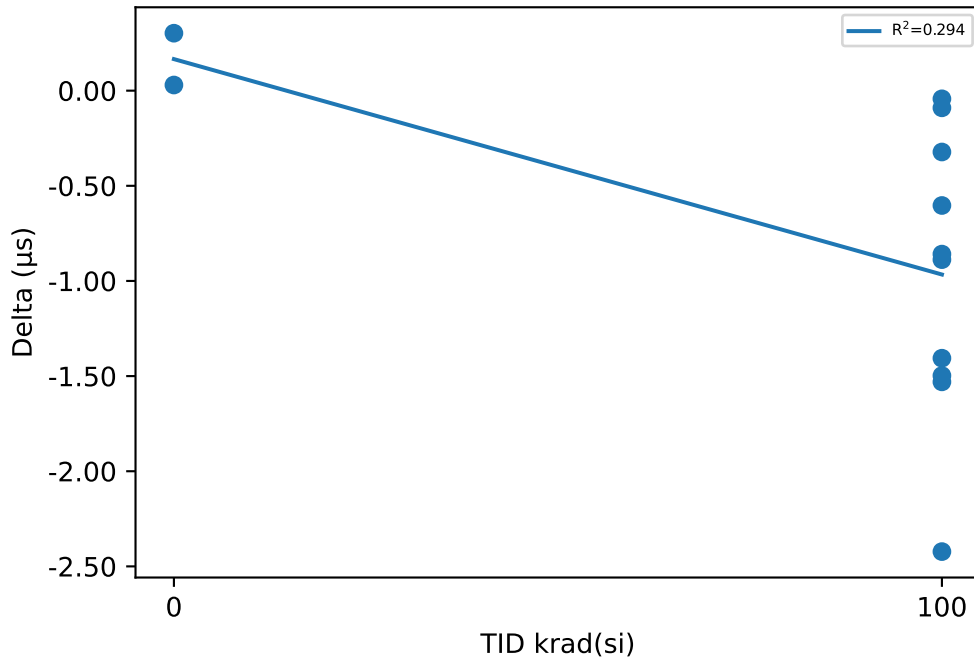
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	39.874	40.865	41.856	1.4012	39.904	41.031	42.158	1.5937	0.0297	0.16585	0.302	0.19255
100	38.295	41.63	46.986	2.5749	36.798	40.664	46.127	2.4804	-2.4223	-0.96618	-0.0429	0.75261

# Device Test: 13.29 WKH23M_1(THRESHOLD|DELAY/EN/14/0.6//10//@T_EN_DELAY)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 150.0 (µs))

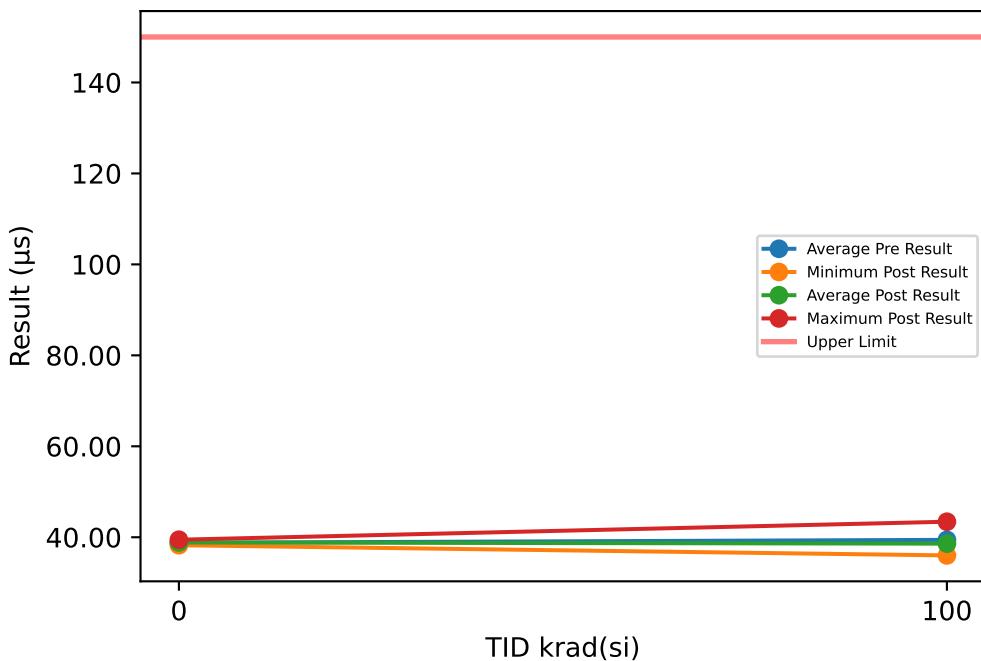| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	42.085	40.854	-1.2302
34	100	HDR unbiased	40.702	39.708	-0.9938
35	100	HDR unbiased	44.992	42.175	-2.8168
37	100	HDR unbiased	38.253	38.746	0.4927
38	100	HDR unbiased	46.815	46.031	-0.7844
72	0	correlation	41.989	41.135	-0.8542
73	0	correlation	40.23	39.713	-0.517
156	100	HDR biased	42.486	41.416	-1.07
157	100	HDR biased	40.941	40.06	-0.8807
158	100	HDR biased	38.789	37.301	-1.4876
159	100	HDR biased	40.746	38.711	-2.0345
160	100	HDR biased	42.414	40.616	-1.7976

Test Statistics (µs)
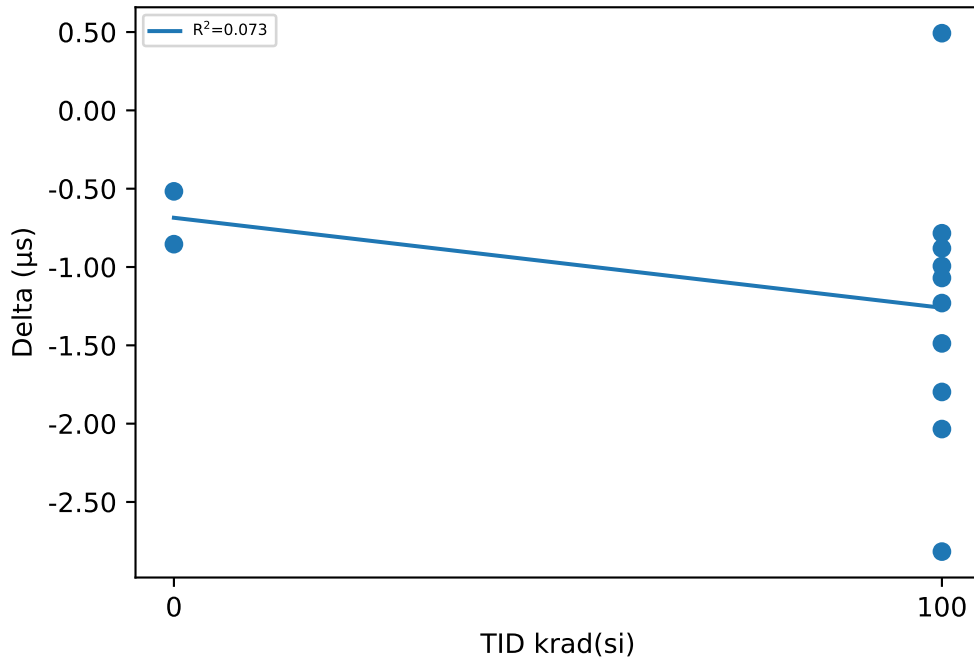
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	40.23	41.11	41.989	1.2436	39.713	40.424	41.135	1.0052	-0.8542	-0.6856	-0.517	0.23844
100	38.253	41.822	46.815	2.6028	37.301	40.562	46.031	2.396	-2.8168	-1.2603	0.4927	0.87649

# Device Test: 13.30 WKH23M_1(THRESHOLD|DELAY/EN/7/5//10//@T_EN_DELAY)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 150.0 (µs))

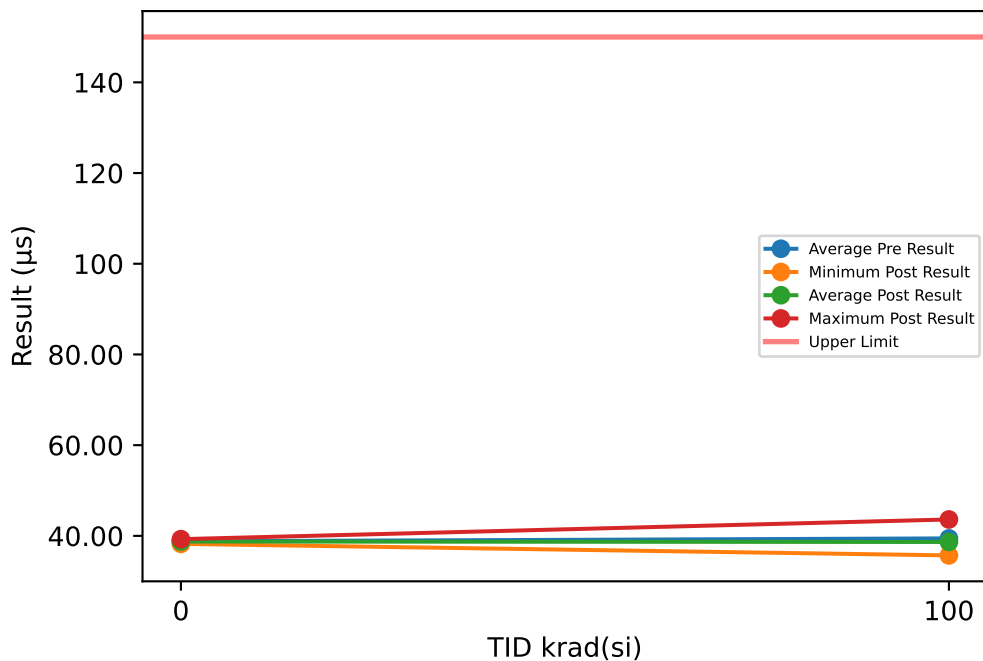| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	39.444	38.685	-0.7591
34	100	HDR unbiased	38.564	37.786	-0.7784
35	100	HDR unbiased	41.041	39.339	-1.7022
37	100	HDR unbiased	37.377	36.807	-0.5705
38	100	HDR unbiased	43.025	43.416	0.3904
72	0	correlation	39.365	39.459	0.0942
73	0	correlation	38.219	38.245	0.026
156	100	HDR biased	40.164	39.648	-0.5155
157	100	HDR biased	38.73	38.235	-0.4954
158	100	HDR biased	37.53	36.012	-1.5182
159	100	HDR biased	38.666	37.366	-1.3009
160	100	HDR biased	39.72	38.653	-1.0668

Test Statistics (µs)
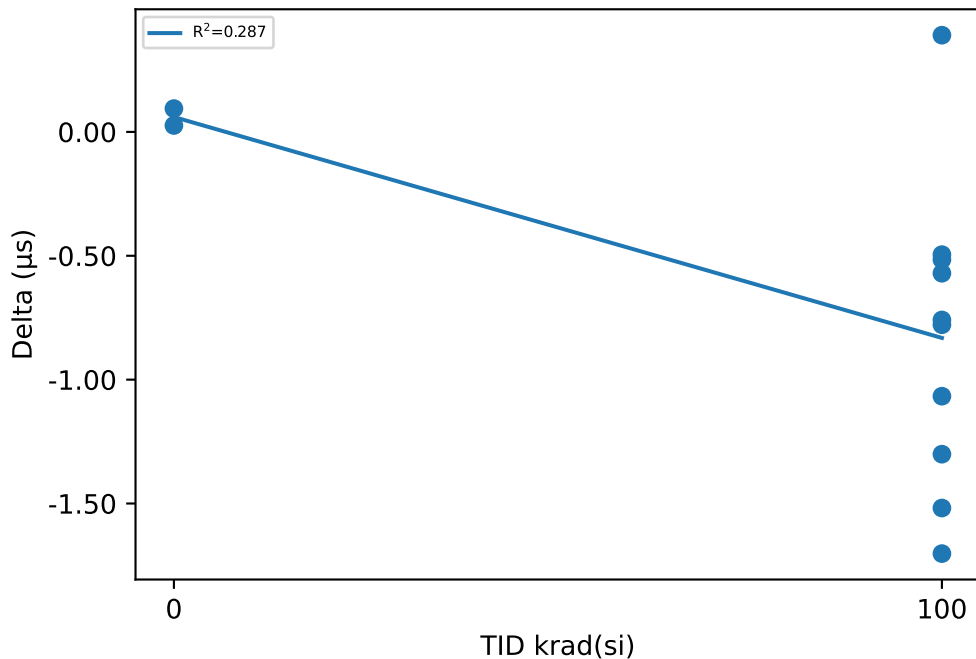
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	38.219	38.792	39.365	0.81042	38.245	38.852	39.459	0.85864	0.026	0.0601	0.0942	0.048225
100	37.377	39.426	43.025	1.6928	36.012	38.595	43.416	2.0298	-1.7022	-0.83166	0.3904	0.60437

# Device Test: 13.31 WKH23M_1(THRESHOLD|DELAY/EN/12/5//10//@T_EN_DELAY)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 150.0 (µs))

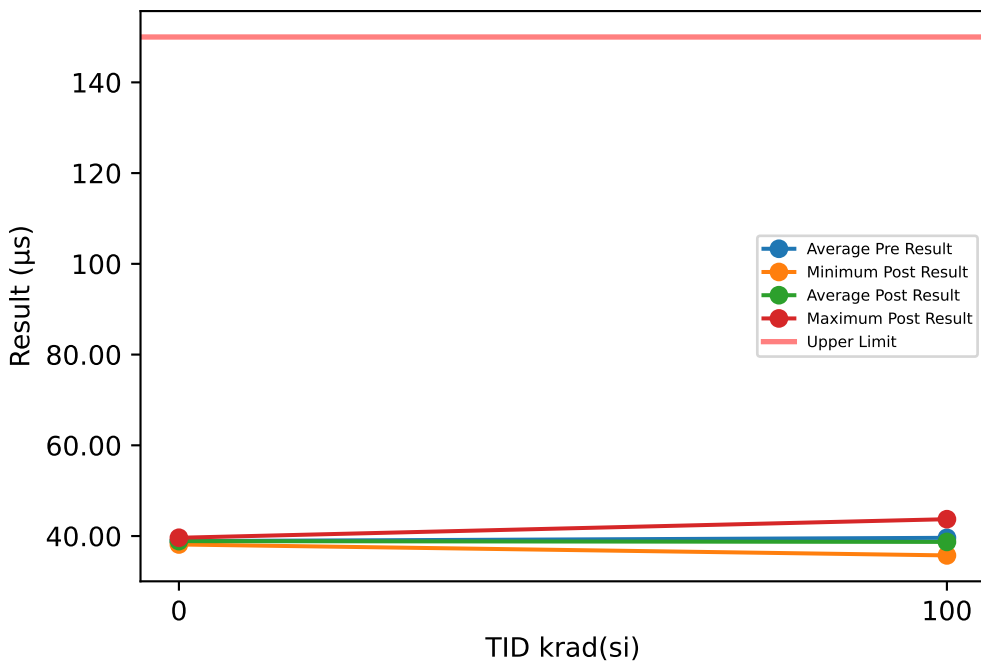| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	39.57	39.018	-0.5527
34	100	HDR unbiased	38.631	37.916	-0.7141
35	100	HDR unbiased	41.338	39.463	-1.8749
37	100	HDR unbiased	36.645	36.847	0.2016
38	100	HDR unbiased	43.556	43.615	0.0586
72	0	correlation	39.4	39.275	-0.1249
73	0	correlation	38.198	38.233	0.0345
156	100	HDR biased	40.27	39.743	-0.5265
157	100	HDR biased	38.734	38.146	-0.5882
158	100	HDR biased	37.376	35.693	-1.6833
159	100	HDR biased	38.77	37.336	-1.4342
160	100	HDR biased	39.546	38.75	-0.7957

Test Statistics (µs)
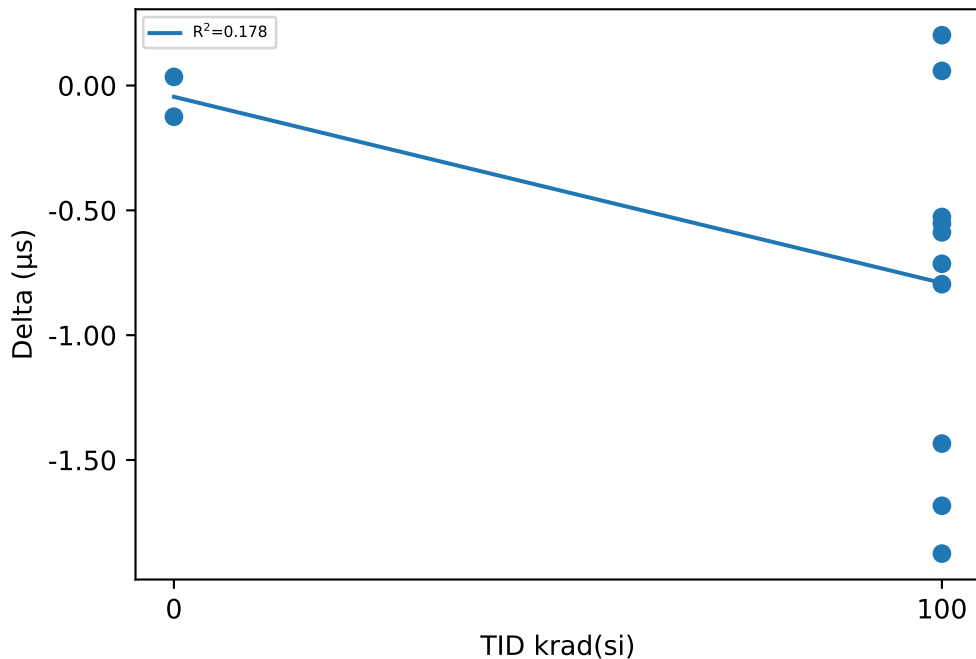
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	38.198	38.799	39.4	0.84952	38.233	38.754	39.275	0.73681	-0.1249	-0.0452	0.0345	0.11271
100	36.645	39.444	43.556	1.9702	35.693	38.653	43.615	2.1387	-1.8749	-0.79094	0.2016	0.68845

# Device Test: 13.32 WKH23M_1(THRESHOLD|DELAY/EN/14/5//10//@T_EN_DELAY)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 150.0 (µs))

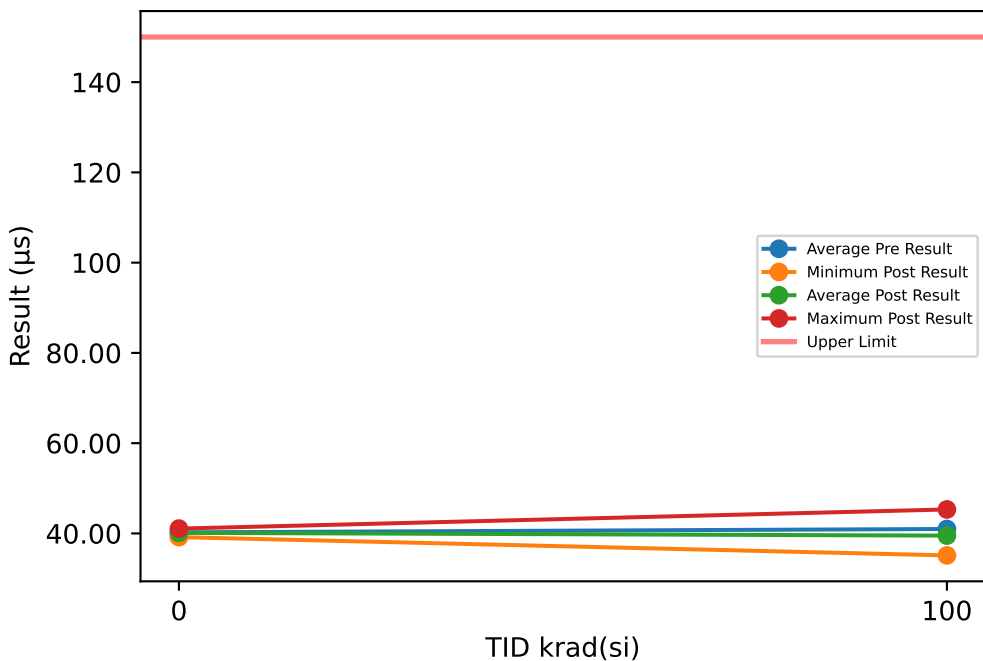| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	39.818	38.9	-0.9186
34	100	HDR unbiased	38.638	37.81	-0.828
35	100	HDR unbiased	41.548	39.516	-2.0318
37	100	HDR unbiased	37.324	36.922	-0.4022
38	100	HDR unbiased	43.395	43.715	0.3203
72	0	correlation	39.502	39.623	0.1201
73	0	correlation	38.272	38.142	-0.1307
156	100	HDR biased	40.277	39.898	-0.3789
157	100	HDR biased	38.769	38.353	-0.4154
158	100	HDR biased	37.553	35.735	-1.8178
159	100	HDR biased	38.885	37.492	-1.3934
160	100	HDR biased	39.887	38.746	-1.1408

Test Statistics (µs)
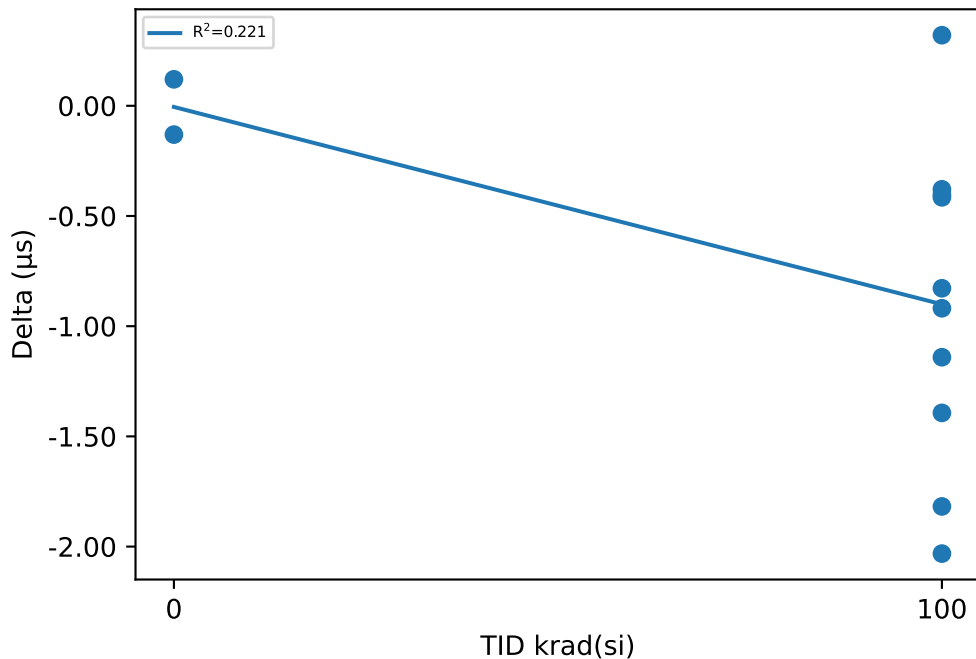
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	38.272	38.887	39.502	0.86981	38.142	38.882	39.623	1.0472	-0.1307	-0.0053	0.1201	0.17734
100	37.324	39.609	43.395	1.8343	35.735	38.709	43.715	2.1504	-2.0318	-0.90066	0.3203	0.72062

# Device Test: 13.33 WKH23M_1(THRESHOLD|DELAY/EN/14/13.9//10//@T_EN_DELAY)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 150.0 (µs))

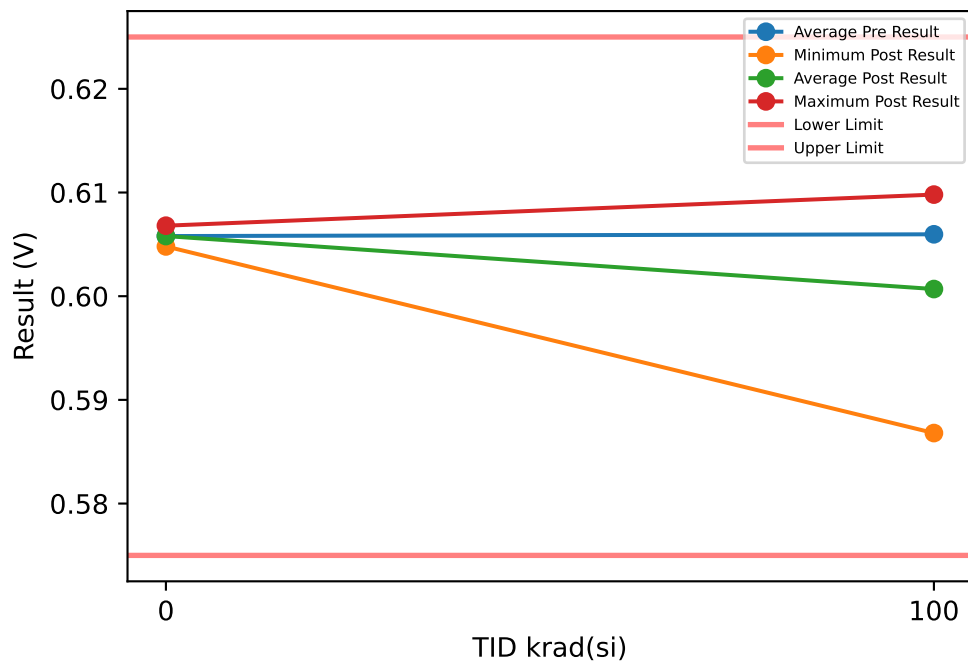| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	41.496	40.008	-1.4881
34	100	HDR unbiased	40.466	38.621	-1.8445
35	100	HDR unbiased	43.524	40.698	-2.8266
37	100	HDR unbiased	37.762	36.558	-1.204
38	100	HDR unbiased	45.324	45.312	-0.0113
72	0	correlation	41.216	41.07	-0.1462
73	0	correlation	39.273	39.185	-0.0885
156	100	HDR biased	42.33	41.422	-0.9082
157	100	HDR biased	40.128	39.425	-0.7032
158	100	HDR biased	37.51	35.134	-2.3761
159	100	HDR biased	40.074	38.084	-1.9894
160	100	HDR biased	41.228	39.924	-1.3039

Test Statistics (µs)
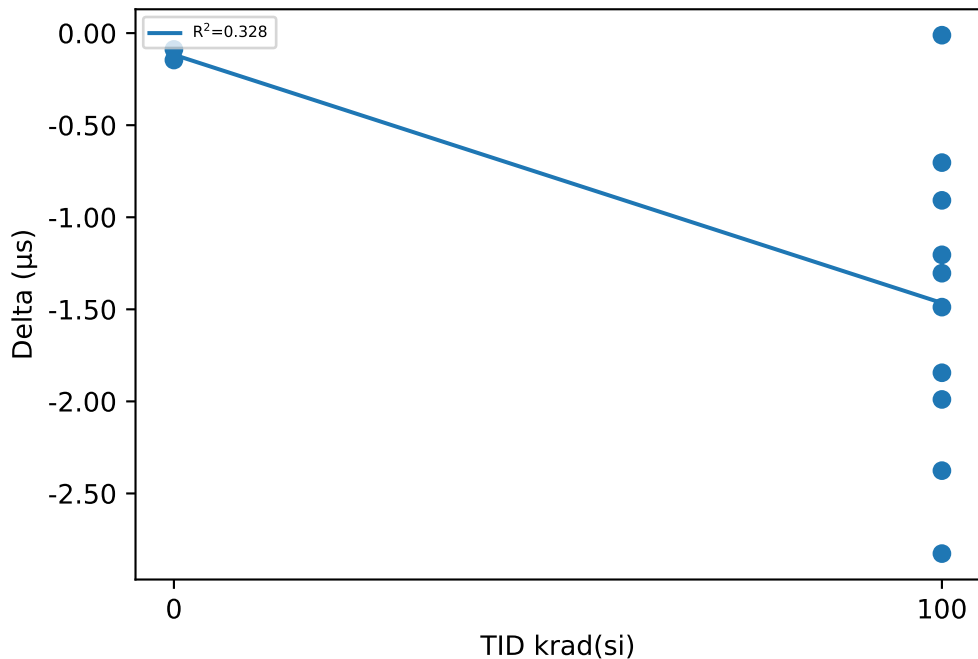
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	39.273	40.245	41.216	1.3736	39.185	40.127	41.07	1.3328	-0.1462	-0.11735	-0.0885	0.0408
100	37.51	40.984	45.324	2.3968	35.134	39.519	45.312	2.7858	-2.8266	-1.4655	-0.0113	0.83008

Device Test: 13.4 WKE7RD_1(THRESHOLD|RISE/EN/3.3/0.6//10//@VIH_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.575, Upper Limit = 0.625 (V))

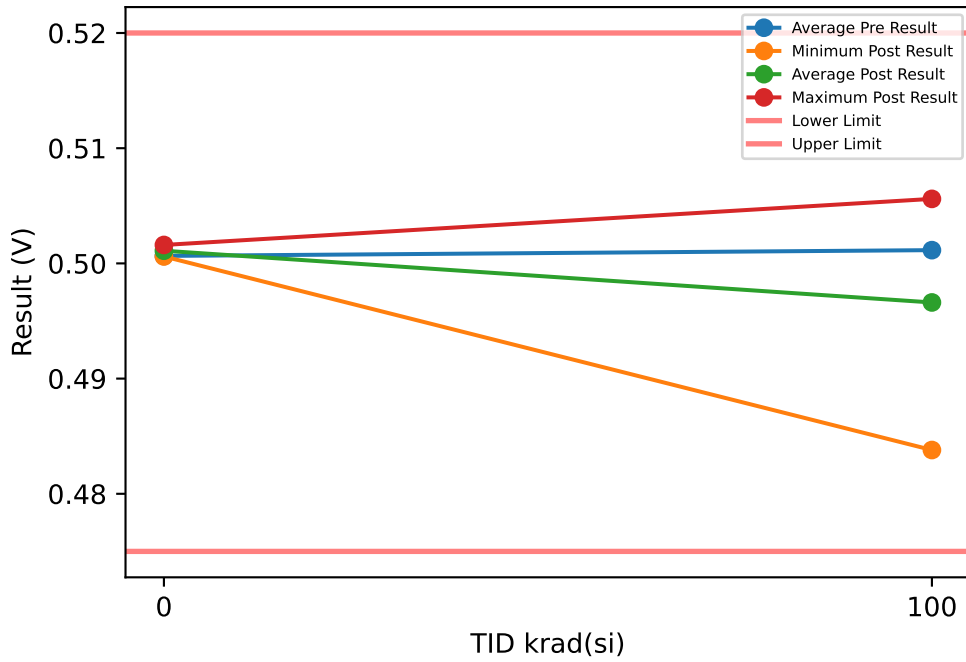| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.6088	0.6079	-0.0009
34	100	HDR unbiased	0.6098	0.6098	0
35	100	HDR unbiased	0.6079	0.6089	0.001
37	100	HDR unbiased	0.6058	0.6047	-0.0011
38	100	HDR unbiased	0.6099	0.6059	-0.004
72	0	correlation	0.6049	0.6048	-0.0001
73	0	correlation	0.6067	0.6068	0.0001
156	100	HDR biased	0.6089	0.6019	-0.007
157	100	HDR biased	0.6069	0.5988	-0.0081
158	100	HDR biased	0.6049	0.5906	-0.0143
159	100	HDR biased	0.6029	0.5916	-0.0113
160	100	HDR biased	0.5939	0.5868	-0.0071
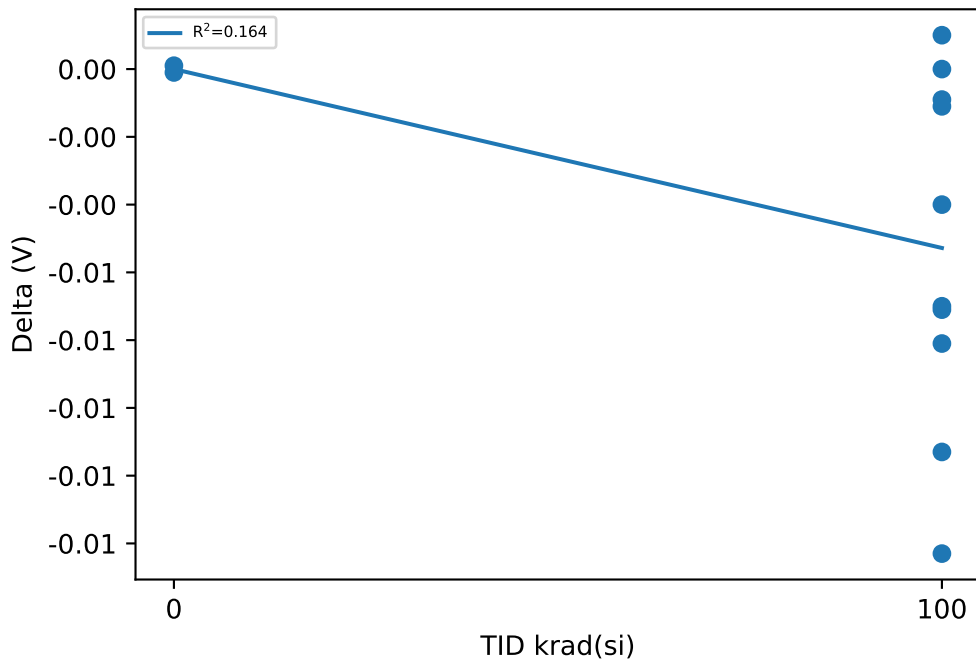
Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6049	0.6058	0.6067	0.0012728	0.6048	0.6058	0.6068	0.0014142	-0.0001	0	0.0001	0.00014142
100	0.5939	0.60597	0.6099	0.0048026	0.5868	0.60069	0.6098	0.0083534	-0.0143	-0.00528	0.001	0.0051363

Device Test: 13.5 WKCS56_1(THRESHOLD|FALL/EN/3.3/0.6//10//@VIL_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.475, Upper Limit = 0.52 (V))

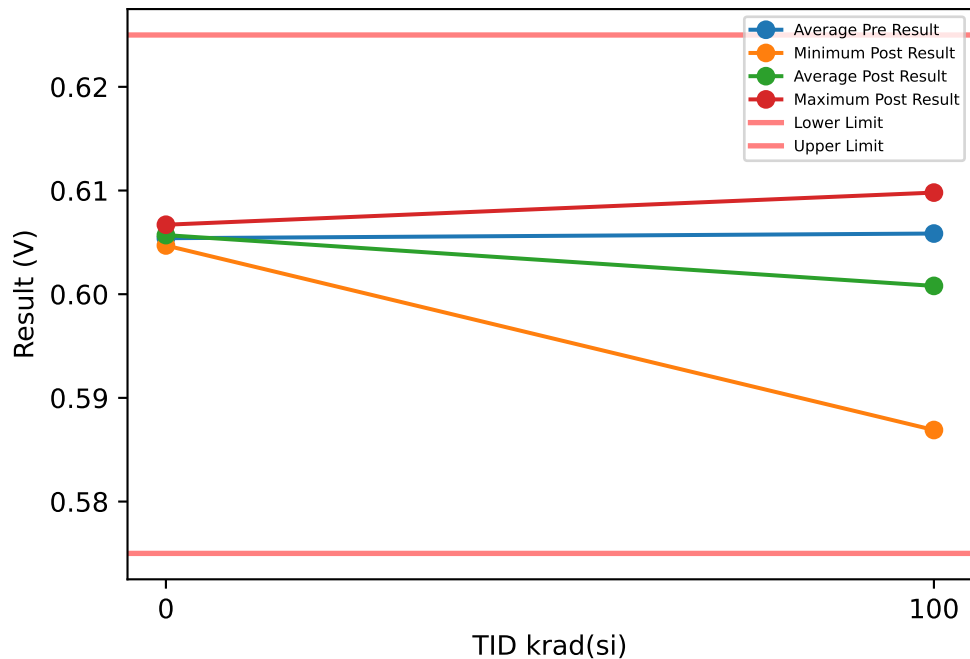| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5048	0.5037	-0.0011
34	100	HDR unbiased	0.5047	0.5056	0.0009
35	100	HDR unbiased	0.5038	0.5047	0.0009
37	100	HDR unbiased	0.5008	0.5007	-0.0001
38	100	HDR unbiased	0.5047	0.5016	-0.0031
72	0	correlation	0.4996	0.5006	0.001
73	0	correlation	0.5017	0.5016	-0.0001
156	100	HDR biased	0.5037	0.4978	-0.0059
157	100	HDR biased	0.5018	0.4937	-0.0081
158	100	HDR biased	0.4988	0.4868	-0.012
159	100	HDR biased	0.4977	0.4877	-0.01
160	100	HDR biased	0.4907	0.4838	-0.0069

Test Statistics (V)
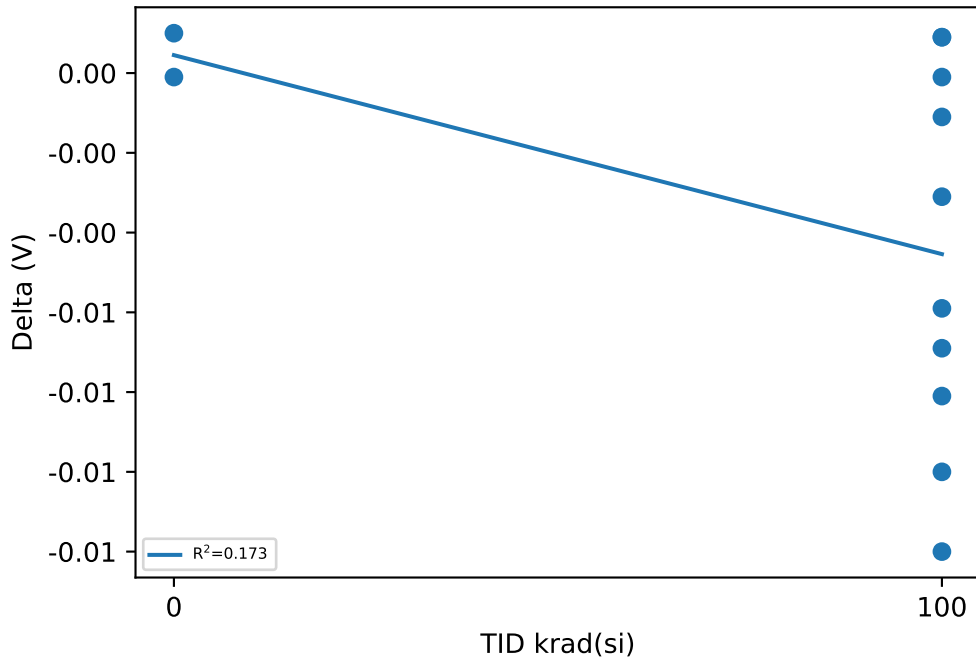
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.4996	0.50065	0.5017	0.0014849	0.5006	0.5011	0.5016	0.00070711	-0.0001	0.00045	0.001	0.00077782
100	0.4907	0.50115	0.5048	0.0044625	0.4838	0.49661	0.5056	0.0080813	-0.012	-0.00454	0.0009	0.0046947

Device Test: 13.7 WKE7RD_1(THRESHOLD|RISE/EN/5/0.6//10//@VIH_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.575, Upper Limit = 0.625 (V))

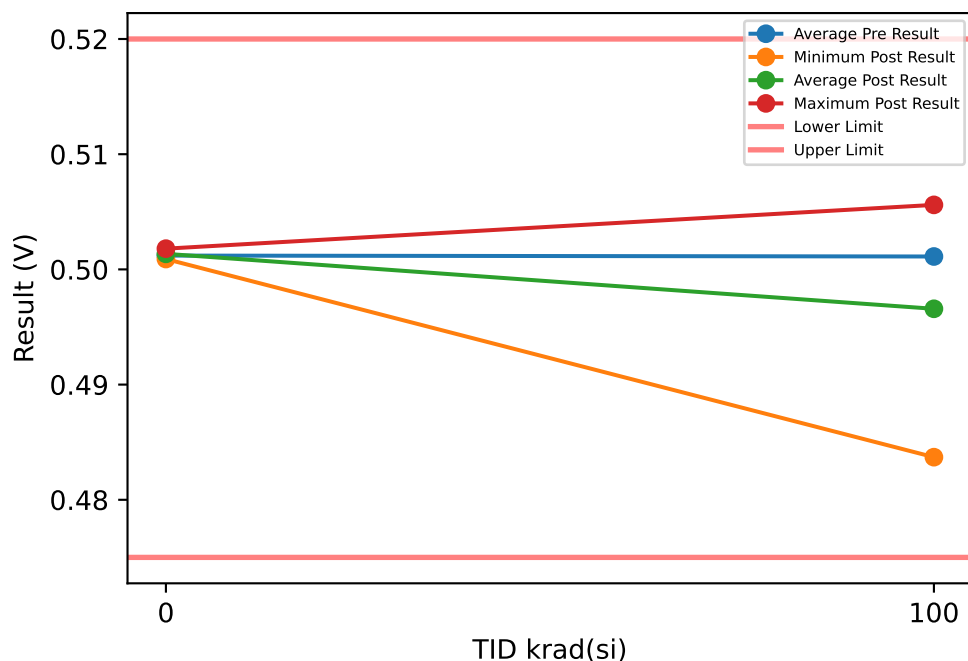| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.6089	0.6078	-0.0011
34	100	HDR unbiased	0.6098	0.6098	0
35	100	HDR unbiased	0.6078	0.6089	0.0011
37	100	HDR unbiased	0.6048	0.6049	0.0001
38	100	HDR unbiased	0.6099	0.6057	-0.0042
72	0	correlation	0.6049	0.6047	-0.0002
73	0	correlation	0.6059	0.6067	0.0008
156	100	HDR biased	0.609	0.6029	-0.0061
157	100	HDR biased	0.6068	0.5989	-0.0079
158	100	HDR biased	0.6048	0.5906	-0.0142
159	100	HDR biased	0.6028	0.5916	-0.0112
160	100	HDR biased	0.5939	0.5869	-0.007
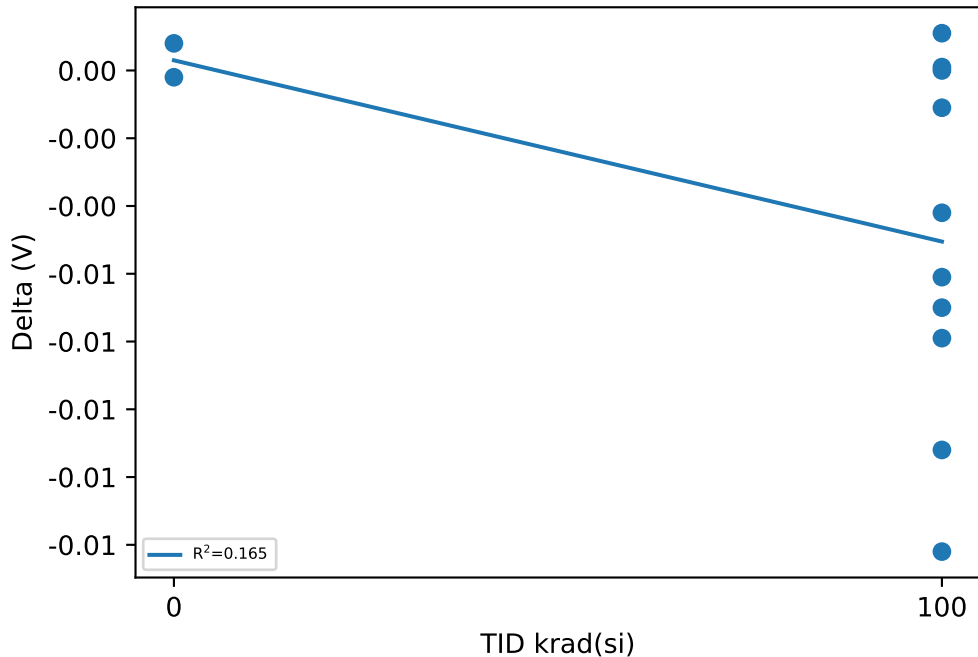
Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6049	0.6054	0.6059	0.00070711	0.6047	0.6057	0.6067	0.0014142	-0.0002	0.0003	0.0008	0.00070711
100	0.5939	0.60585	0.6099	0.0048333	0.5869	0.6008	0.6098	0.0083423	-0.0142	-0.00505	0.0011	0.005172

Device Test: 13.8 WKCS56_1(THRESHOLD|FALL/EN/5/0.6//10//@VIL_EN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.475, Upper Limit = 0.52 (V))

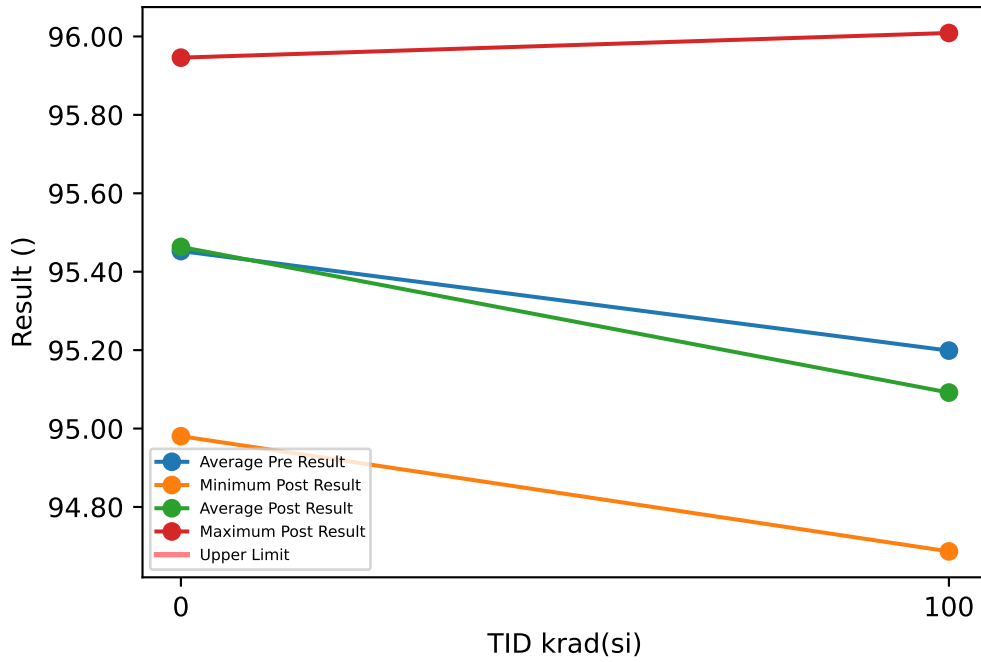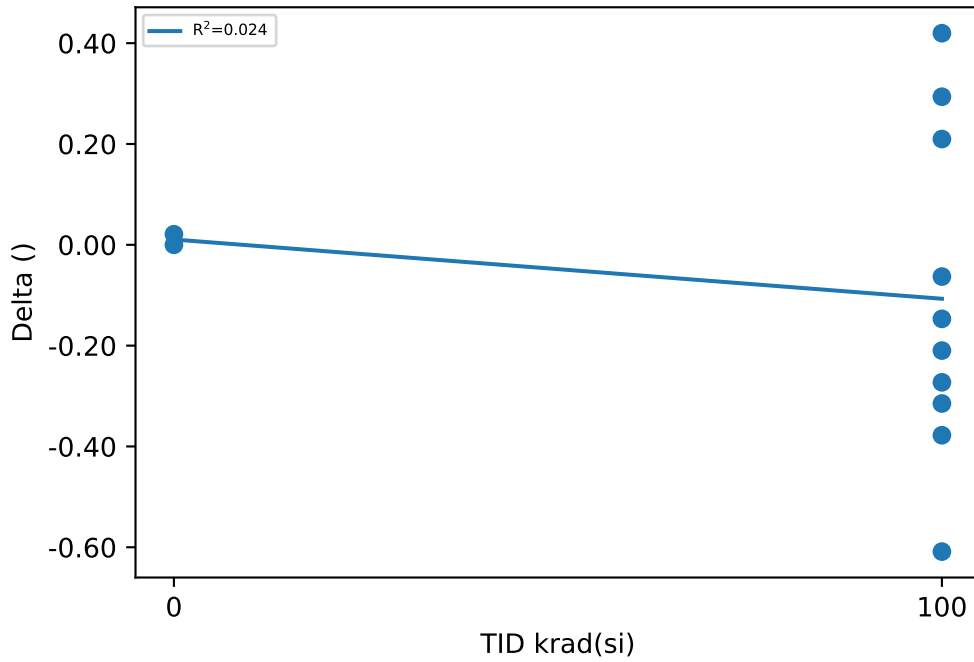| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5046	0.5038	-0.0008
34	100	HDR unbiased	0.5048	0.5056	0.0008
35	100	HDR unbiased	0.5037	0.5047	0.001
37	100	HDR unbiased	0.5008	0.5006	-0.0002
38	100	HDR unbiased	0.5047	0.5017	-0.003
72	0	correlation	0.5007	0.5009	0.0002
73	0	correlation	0.5017	0.5018	0.0001
156	100	HDR biased	0.5036	0.4977	-0.0059
157	100	HDR biased	0.5016	0.4937	-0.0079
158	100	HDR biased	0.4988	0.4866	-0.0122
159	100	HDR biased	0.4977	0.4877	-0.01
160	100	HDR biased	0.4909	0.4837	-0.0072

Test Statistics (V)
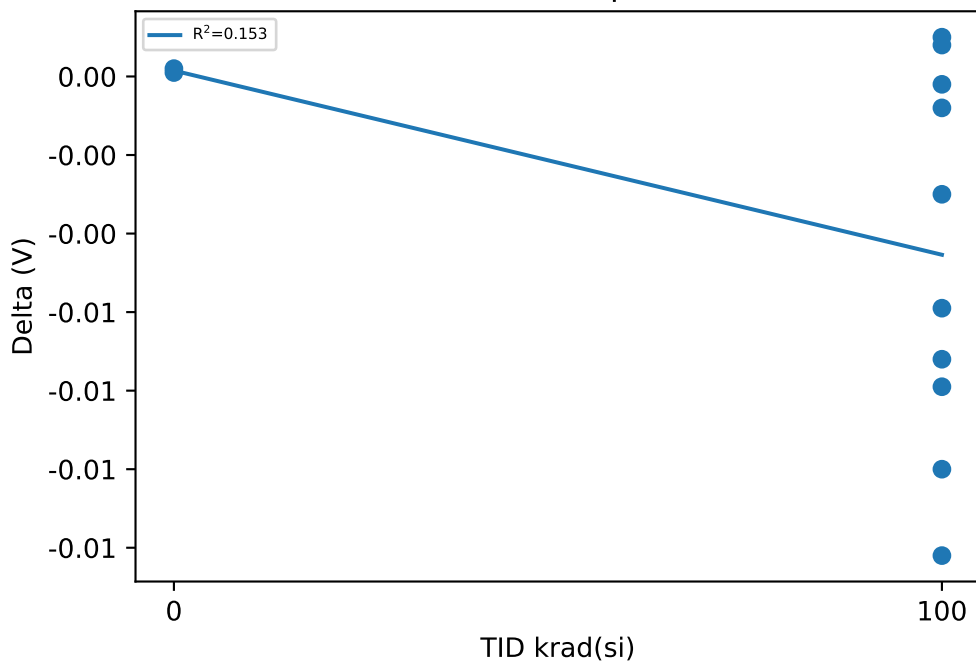
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5007	0.5012	0.5017	0.00070711	0.5009	0.50135	0.5018	0.0006364	0.0001	0.00015	0.0002	7.0711e-05
100	0.4909	0.50112	0.5048	0.004386	0.4837	0.49658	0.5056	0.0081356	-0.0122	-0.00454	0.001	0.0047505

Device Test: 14.1 WKXFDY_1(THRESHOLD|RISE/FB/2.25/0.6//10//@VPG_RISE)

TID vs Result Stats

Legend:
- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Upper Limit

TID vs Post - Pre Exposure Delta

R²=0.024

Test Results (No Limits Specified ())

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	95.799	96.009	0.2098
34	100	HDR unbiased	95.169	94.792	-0.3778
35	100	HDR unbiased	95.295	95.589	0.2938
37	100	HDR unbiased	95.316	95.043	-0.2728
38	100	HDR unbiased	94.918	94.855	-0.063
72	0	correlation	95.925	95.946	0.021
73	0	correlation	94.981	94.981	0
156	100	HDR biased	95.337	94.729	-0.6086
157	100	HDR biased	95.715	95.568	-0.1469
158	100	HDR biased	95.001	94.687	-0.3148
159	100	HDR biased	94.939	94.729	-0.2098
160	100	HDR biased	94.498	94.918	0.4198

Test Statistics ()

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	94.981	95.453	95.925	0.66779	94.981	95.463	95.946	0.68264	0	0.0105	0.021	0.014849
100	94.498	95.199	95.799	0.38687	94.687	95.092	96.009	0.46211	-0.6086	-0.10703	0.4198	0.32459

Device Test: 14.10 WKXFDY_1(THRESHOLD|RISE/FB/7/0.6//10//@VPG_RISE)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (No Limits Specified ())
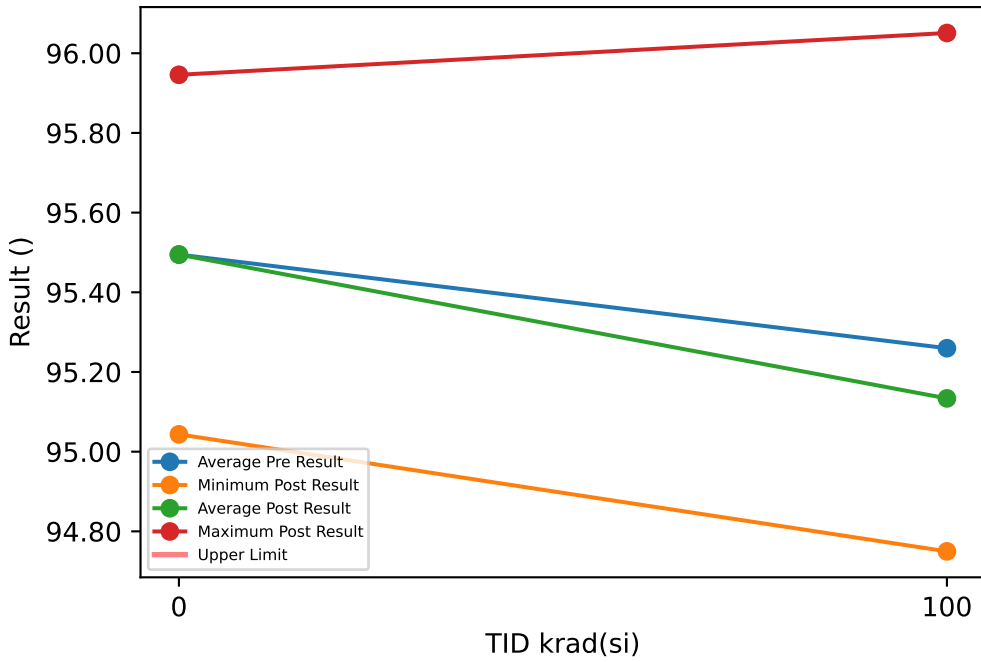
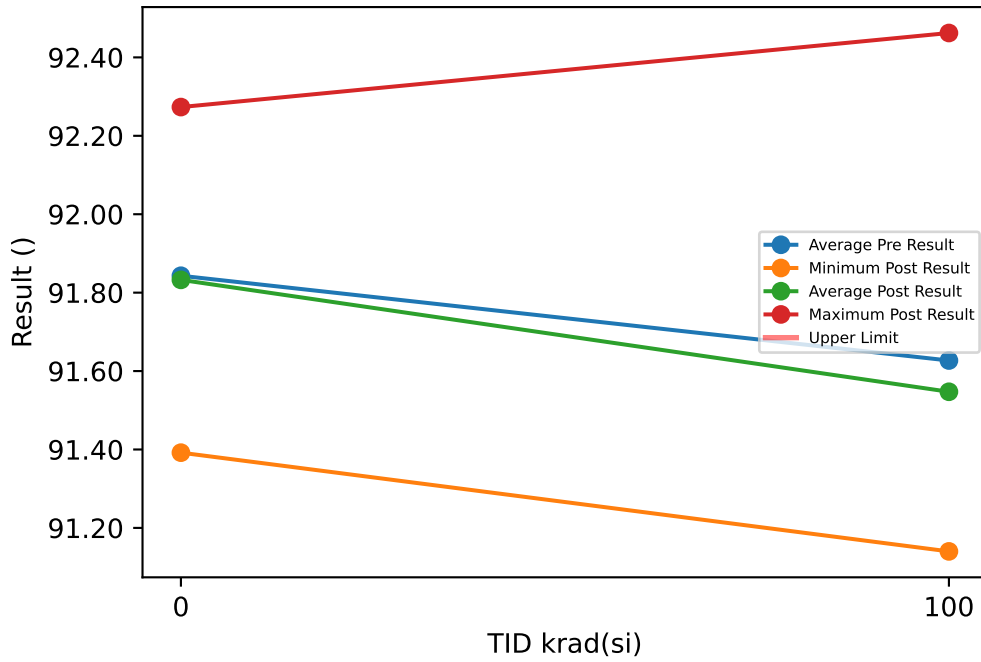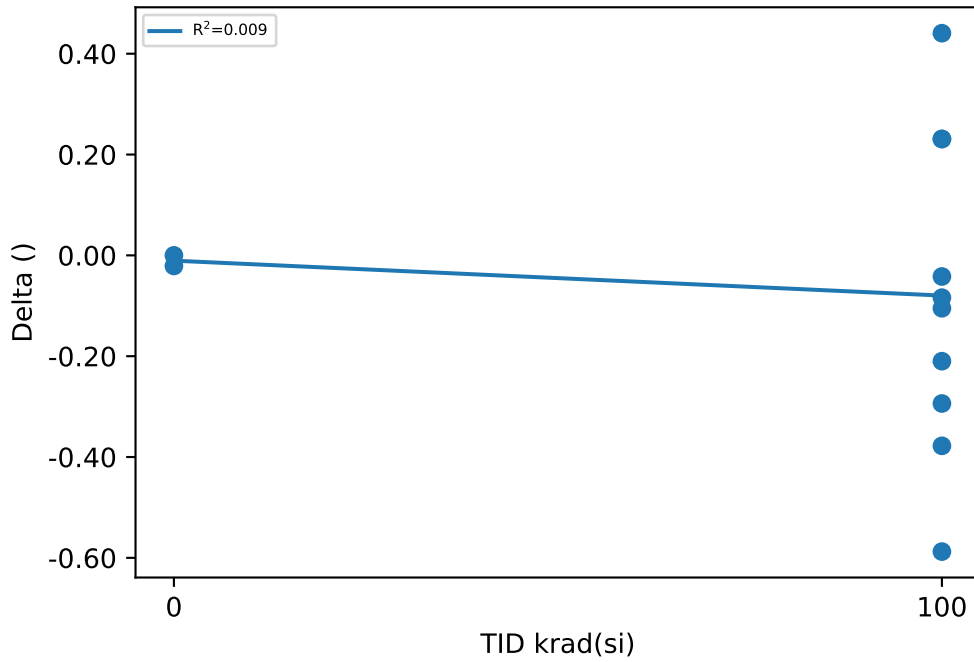| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	95.904	96.051	0.1469
34	100	HDR unbiased	95.232	94.855	-0.3777
35	100	HDR unbiased	95.379	95.547	0.1678
37	100	HDR unbiased	95.337	95.106	-0.2309
38	100	HDR unbiased	95.001	94.918	-0.0839
72	0	correlation	95.946	95.946	0
73	0	correlation	95.043	95.043	0
156	100	HDR biased	95.379	94.75	-0.6296
157	100	HDR biased	95.757	95.61	-0.1469
158	100	HDR biased	95.043	94.75	-0.2938
159	100	HDR biased	94.981	94.792	-0.1889
160	100	HDR biased	94.582	94.96	0.3777

Test Statistics ()
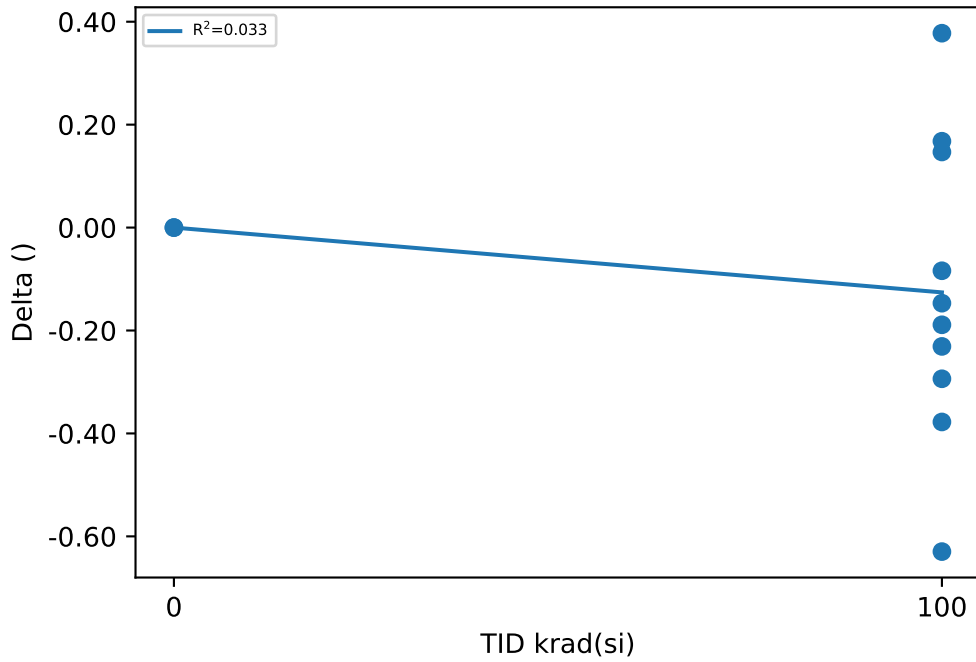
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	95.043	95.495	95.946	0.63809	95.043	95.495	95.946	0.63809	0	0	0	0
100	94.582	95.26	95.904	0.3871	94.75	95.134	96.051	0.44803	-0.6296	-0.12593	0.3777	0.29379

Device Test: 14.11 WK4UM7_1(THRESHOLD|FALL/FB/7/0.6//10//@VPG_FALL)

TID vs Result Stats

Result ()

- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Upper Limit

TID krad(si)

TID vs Post - Pre Exposure Delta

R²=0.009

Delta ()

TID krad(si)

Test Results (No Limits Specified ())

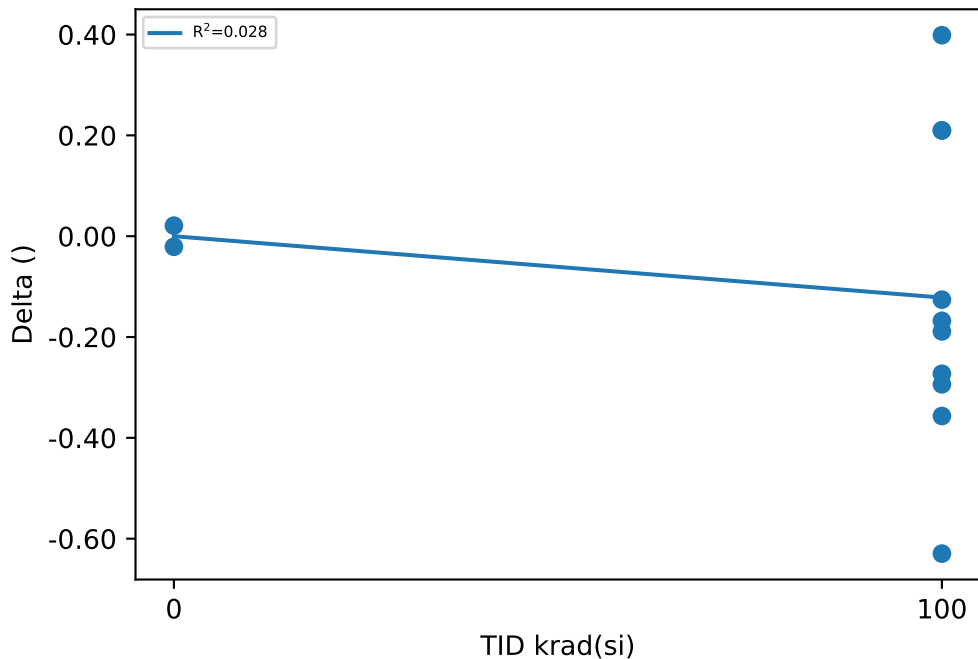| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	92.231	92.462	0.2309
34	100	HDR unbiased	91.581	91.203	-0.3778
35	100	HDR unbiased	91.728	91.959	0.2308
37	100	HDR unbiased	91.728	91.518	-0.2099
38	100	HDR unbiased	91.329	91.287	-0.0419
72	0	correlation	92.294	92.273	-0.021
73	0	correlation	91.392	91.392	0
156	100	HDR biased	91.791	91.203	-0.5876
157	100	HDR biased	92.105	92.022	-0.0839
158	100	HDR biased	91.434	91.14	-0.2938
159	100	HDR biased	91.329	91.224	-0.1049
160	100	HDR biased	91.014	91.455	0.4407

Test Statistics ()

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	91.392	91.843	92.294	0.63809	91.392	91.833	92.273	0.62324	-0.021	-0.0105	0	0.014849
100	91.014	91.627	92.231	0.37025	91.14	91.547	92.462	0.44914	-0.5876	-0.07974	0.4407	0.31188

Device Test: 14.13 WKXFDY_1(THRESHOLD|RISE/FB/12/0.6//10//@VPG_RISE)

TID vs Result Stats
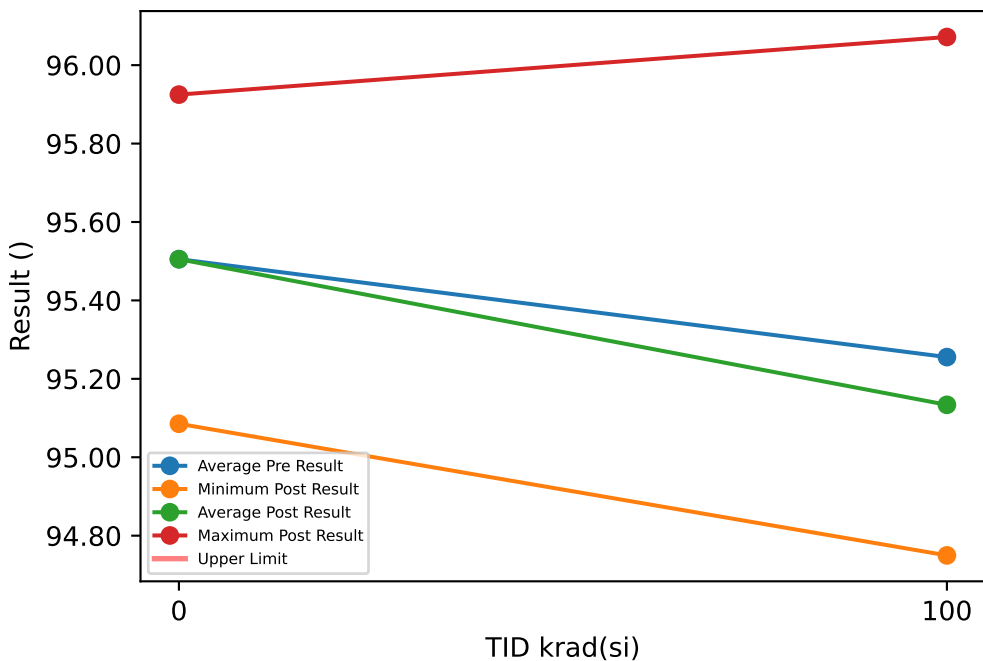
Legend:
- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Upper Limit

TID vs Post - Pre Exposure Delta

$R^2=0.028$

Test Results (No Limits Specified ())

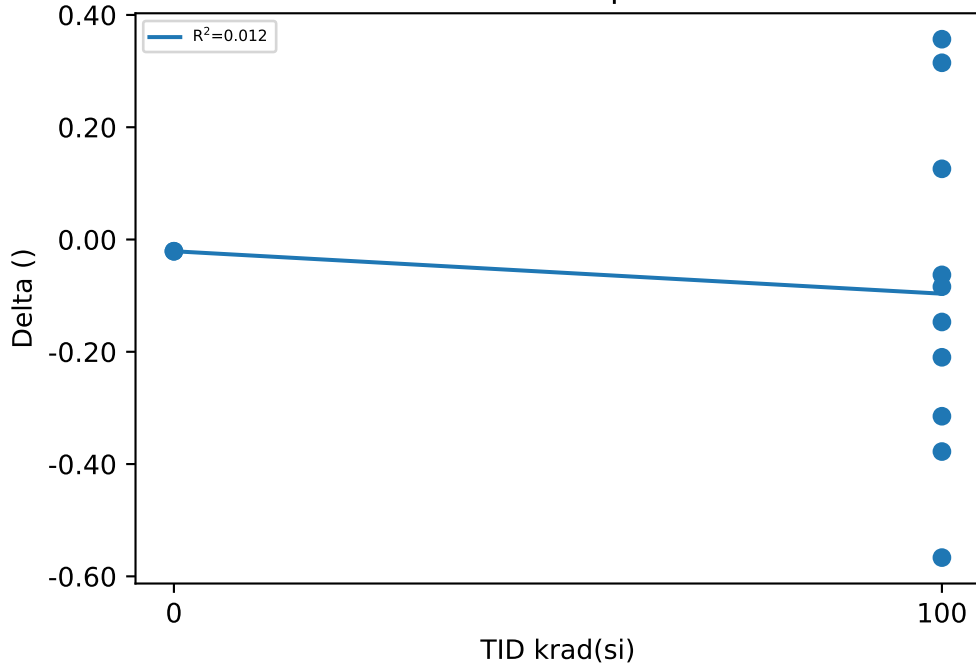| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	95.862	96.072	0.2099
34	100	HDR unbiased	95.211	94.855	-0.3567
35	100	HDR unbiased	95.358	95.568	0.2098
37	100	HDR unbiased	95.379	95.106	-0.2729
38	100	HDR unbiased	94.981	94.855	-0.1259
72	0	correlation	95.946	95.925	-0.021
73	0	correlation	95.064	95.085	0.0209
156	100	HDR biased	95.421	94.792	-0.6296
157	100	HDR biased	95.736	95.568	-0.1679
158	100	HDR biased	95.043	94.75	-0.2938
159	100	HDR biased	94.981	94.792	-0.1889
160	100	HDR biased	94.582	94.981	0.3987

Test Statistics ()

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	95.064	95.505	95.946	0.62324	95.085	95.505	95.925	0.59362	-0.021	-5e-05	0.0209	0.029628
100	94.582	95.255	95.862	0.38064	94.75	95.134	96.072	0.44956	-0.6296	-0.12173	0.3987	0.30966

Device Test: 14.14 WK4UM7_1(THRESHOLD|FALL/FB/12/0.6//10//@VPG_FALL)

TID vs Result Stats
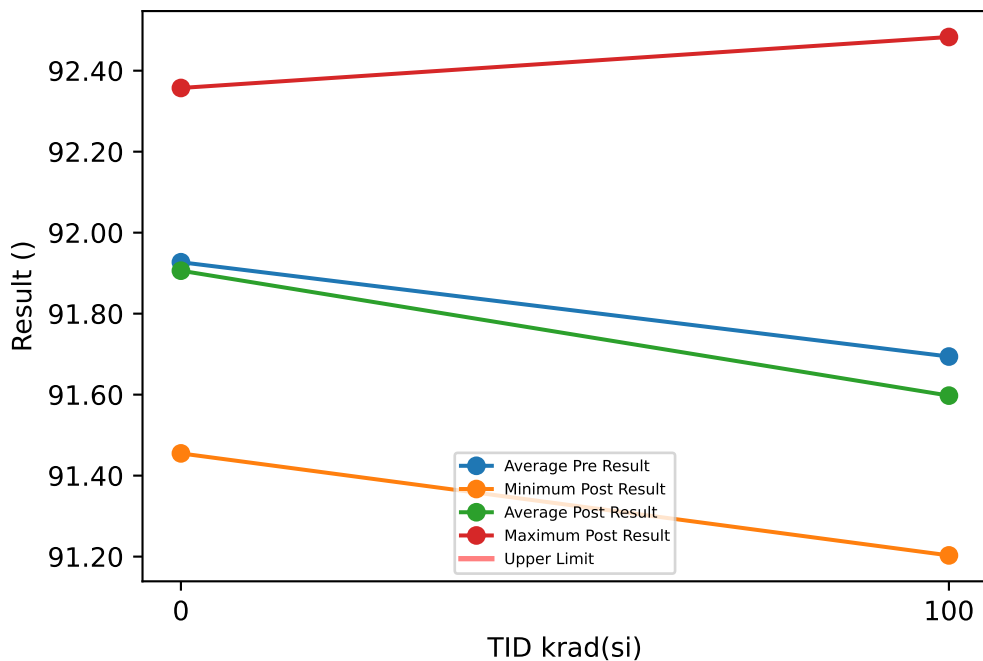
Legend:
- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Upper Limit

TID vs Post - Pre Exposure Delta

$R^2=0.012$

Test Results (No Limits Specified ())

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	92.357	92.483	0.1259
34	100	HDR unbiased	91.644	91.266	-0.3777
35	100	HDR unbiased	91.707	92.022	0.3148
37	100	HDR unbiased	91.77	91.56	-0.2098
38	100	HDR unbiased	91.392	91.329	-0.063
72	0	correlation	92.378	92.357	-0.0209
73	0	correlation	91.476	91.455	-0.0209
156	100	HDR biased	91.833	91.266	-0.5666
157	100	HDR biased	92.168	92.084	-0.084
158	100	HDR biased	91.518	91.203	-0.3148
159	100	HDR biased	91.455	91.308	-0.1469
160	100	HDR biased	91.098	91.455	0.3568

Test Statistics ()

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	91.476	91.927	92.378	0.63809	91.455	91.906	92.357	0.63809	-0.0209	-0.0209	-0.0209	0
100	91.098	91.694	92.357	0.36927	91.203	91.598	92.483	0.44152	-0.5666	-0.09653	0.3568	0.29599

Device Test: 14.16 WKXFDY_1(THRESHOLD|RISE/FB/14/0.6//10//@VPG_RISE)

TID vs Result Stats
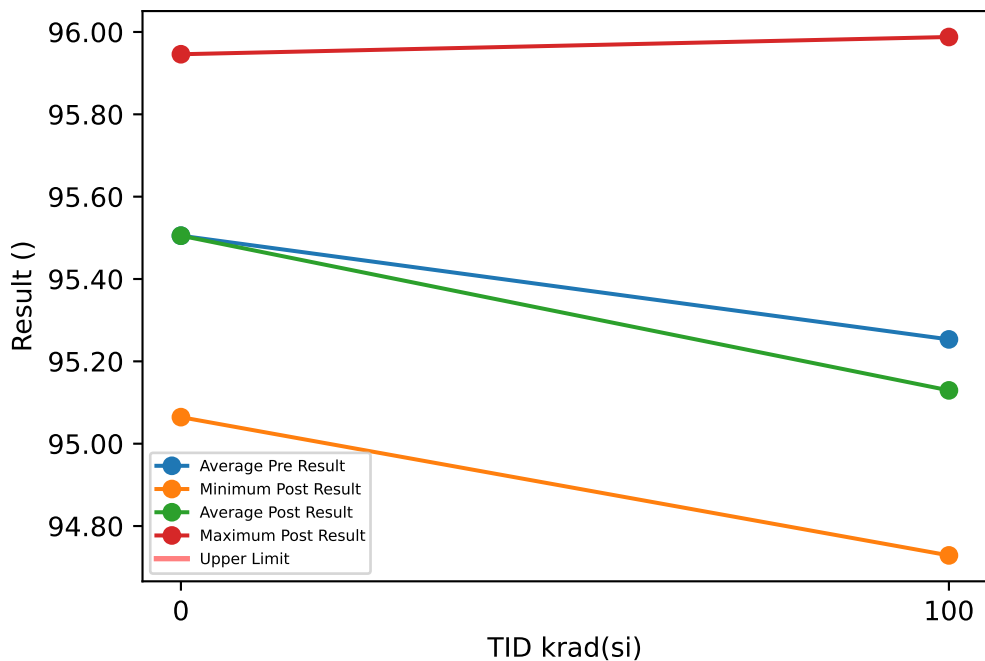
Legend:
- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Upper Limit

TID vs Post - Pre Exposure Delta

R²=0.029

Test Results (No Limits Specified ())

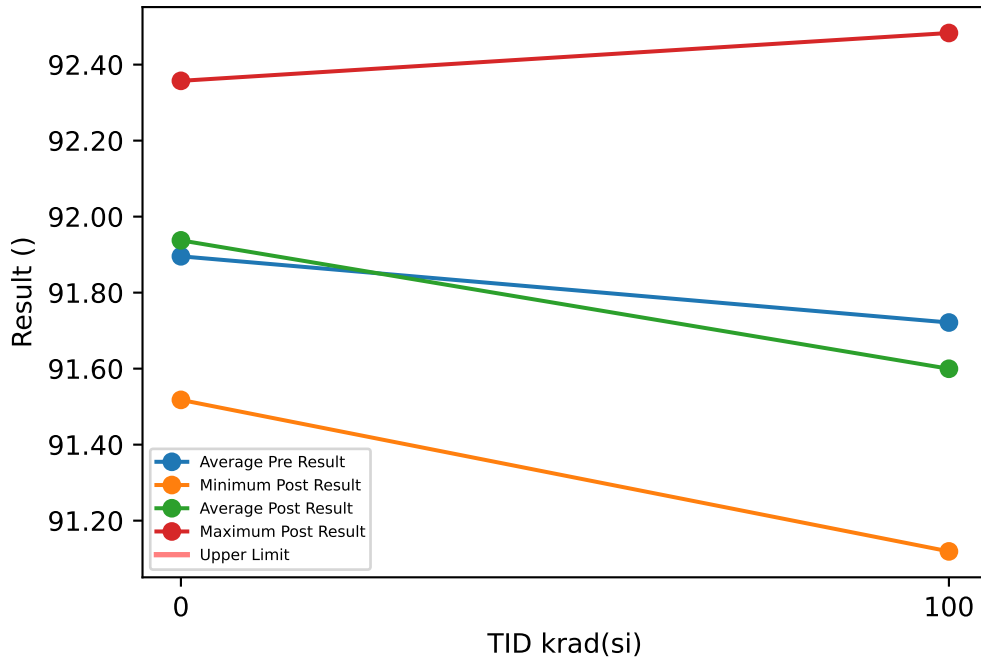| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	95.862	95.988	0.1259
34	100	HDR unbiased	95.211	94.855	-0.3567
35	100	HDR unbiased	95.295	95.568	0.2728
37	100	HDR unbiased	95.358	95.106	-0.2519
38	100	HDR unbiased	95.001	94.939	-0.063
72	0	correlation	95.946	95.946	0
73	0	correlation	95.064	95.064	0
156	100	HDR biased	95.421	94.771	-0.6505
157	100	HDR biased	95.757	95.568	-0.1889
158	100	HDR biased	95.043	94.729	-0.3148
159	100	HDR biased	94.981	94.792	-0.1889
160	100	HDR biased	94.603	94.981	0.3777

Test Statistics ()
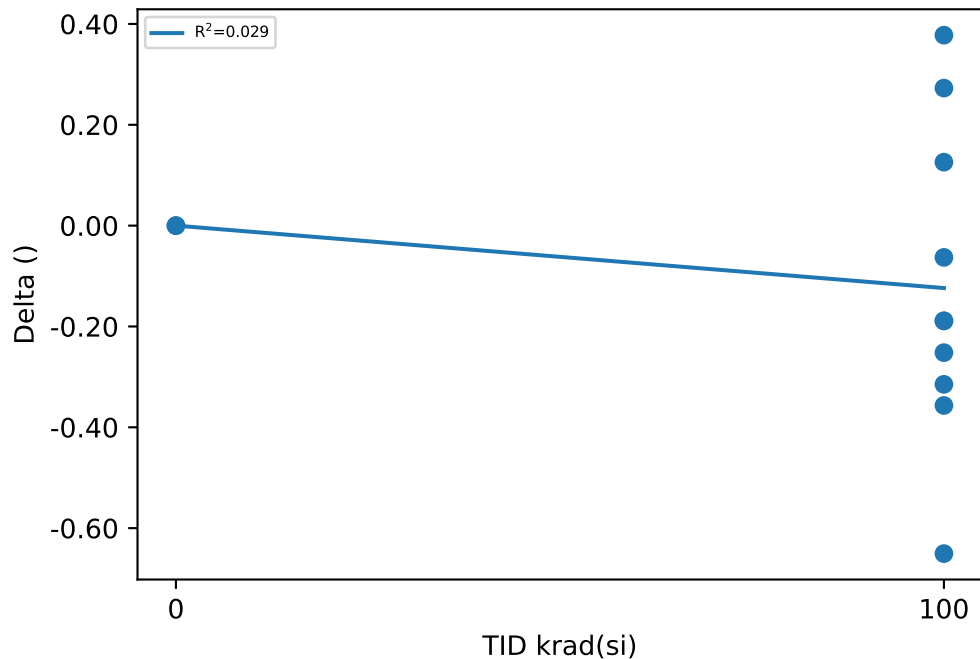
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	95.064	95.505	95.946	0.62324	95.064	95.505	95.946	0.62324	0	0	0	0
100	94.603	95.253	95.862	0.37592	94.729	95.13	95.988	0.42944	-0.6505	-0.12383	0.3777	0.31053

Device Test: 14.17 WK4UM7_1(THRESHOLD|FALL/FB/14/0.6//10//@VPG_FALL)

TID vs Result Stats
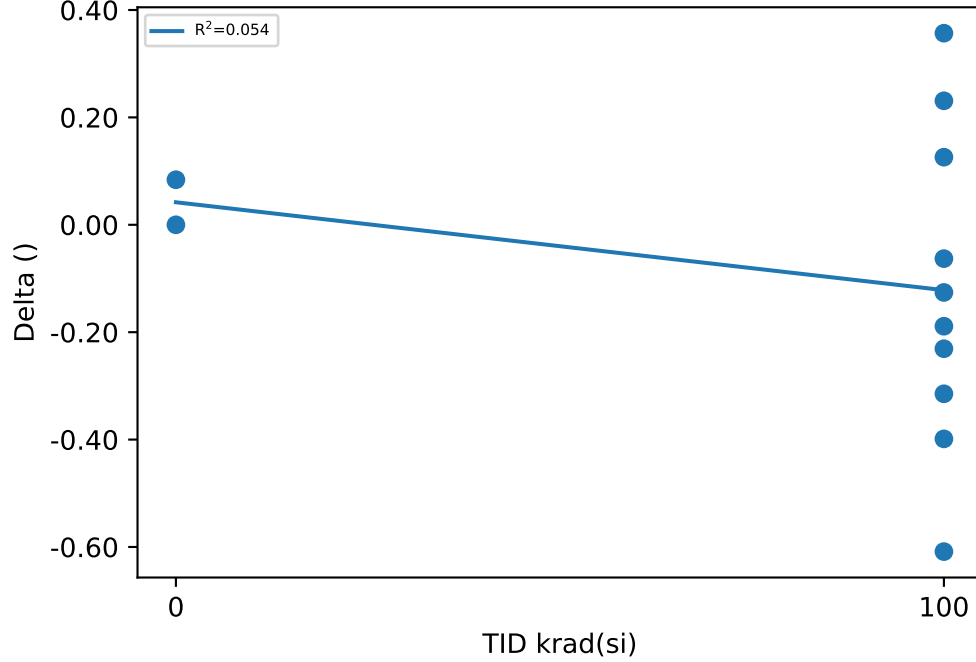
Legend:
- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Upper Limit

TID vs Post - Pre Exposure Delta

R²=0.054

Test Results (No Limits Specified ())

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	92.357	92.483	0.1259
34	100	HDR unbiased	91.623	91.308	-0.3147
35	100	HDR unbiased	91.791	92.022	0.2309
37	100	HDR unbiased	91.812	91.581	-0.2308
38	100	HDR unbiased	91.455	91.392	-0.063
72	0	correlation	92.357	92.357	0
73	0	correlation	91.434	91.518	0.0839
156	100	HDR biased	91.896	91.287	-0.6086
157	100	HDR biased	92.21	92.084	-0.126
158	100	HDR biased	91.518	91.119	-0.3987
159	100	HDR biased	91.455	91.266	-0.1889
160	100	HDR biased	91.098	91.455	0.3568

Test Statistics ()

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	91.434	91.896	92.357	0.65294	91.518	91.938	92.357	0.59362	0	0.04195	0.0839	0.059326
100	91.098	91.721	92.357	0.37543	91.119	91.6	92.483	0.44511	-0.6086	-0.12171	0.3568	0.29543

# Device Test: 14.19 PTM8N4_1(LEVELS|VOL/PG/2.25/////@VPG_OL)

TID vs Result Stats
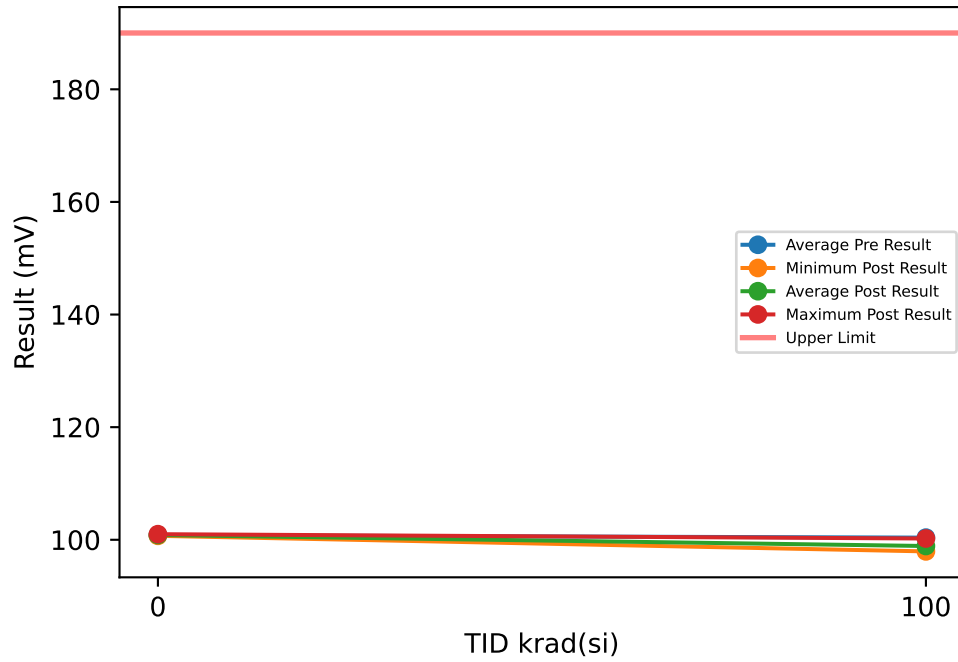
TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 190.0 (mV))

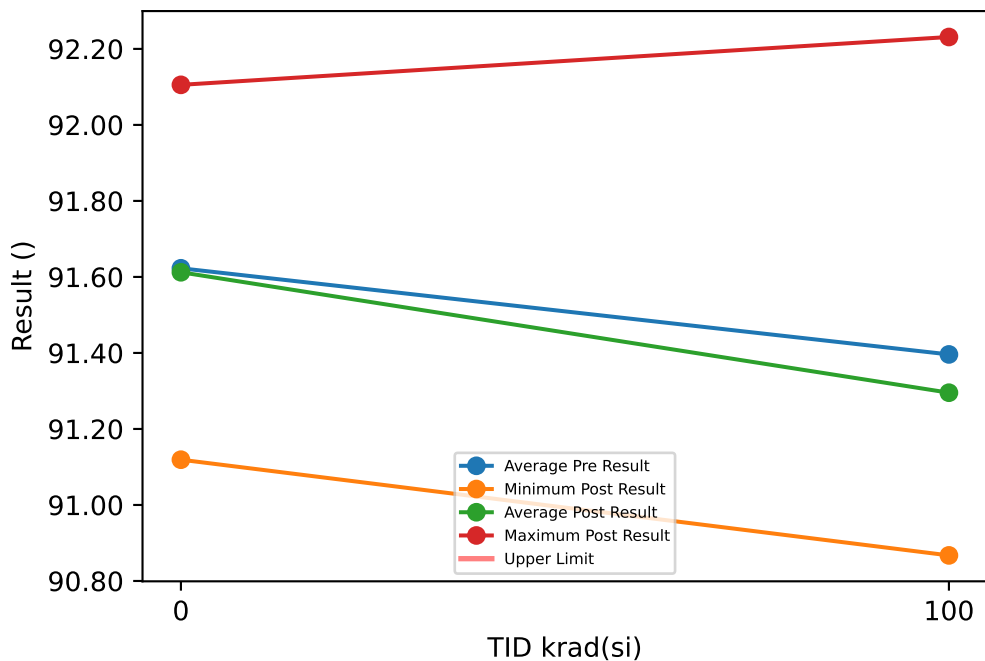| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	100.57	98.811	-1.7589
34	100	HDR unbiased	100.52	98.635	-1.8864
35	100	HDR unbiased	99.754	97.938	-1.8165
37	100	HDR unbiased	100.88	99.164	-1.714
38	100	HDR unbiased	99.684	98.225	-1.4591
72	0	correlation	100.95	101	0.0499
73	0	correlation	100.68	100.7	0.025
156	100	HDR biased	100.79	99.492	-1.2968
157	100	HDR biased	100.09	98.803	-1.288
158	100	HDR biased	99.417	98.236	-1.1806
159	100	HDR biased	100.71	99.415	-1.2918
160	100	HDR biased	101.44	100.22	-1.2106

Test Statistics (mV)
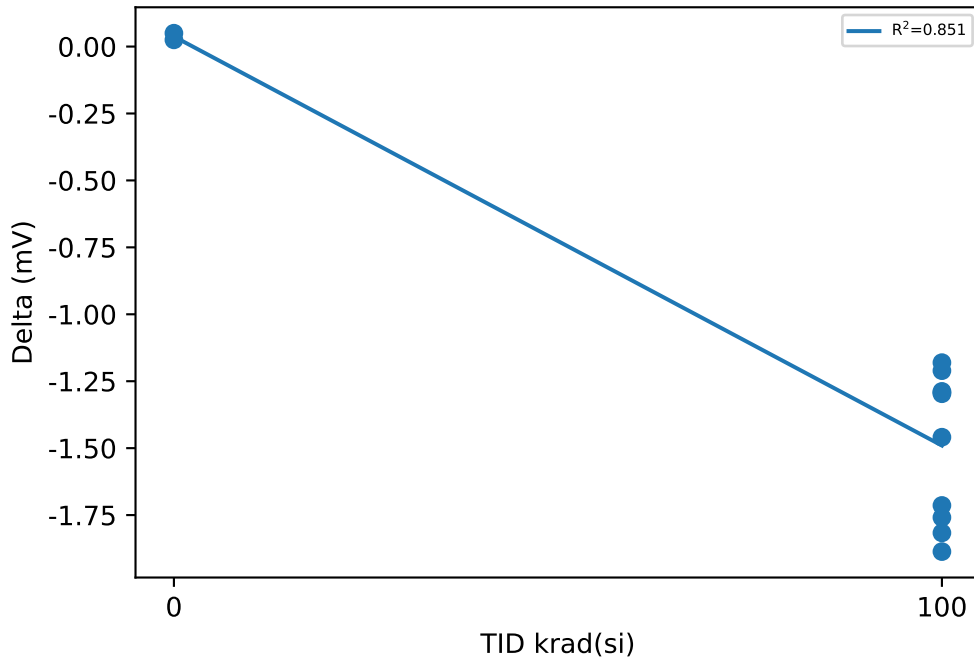
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	100.68	100.81	100.95	0.19085	100.7	100.85	101	0.20846	0.025	0.03745	0.0499	0.017607
100	99.417	100.38	101.44	0.63065	97.938	98.894	100.22	0.69532	-1.8864	-1.4903	-1.1806	0.27455

# Device Test: 14.2 WK4UM7_1(THRESHOLD|FALL/FB/2.25/0.6//10//@VPG_FALL)

TID vs Result Stats

Legend:
- Average Pre Result
- Minimum Post Result
- Average Post Result
- Maximum Post Result
- Upper Limit

TID vs Post - Pre Exposure Delta

$R^2 = 0.015$

Test Results (No Limits Specified ())

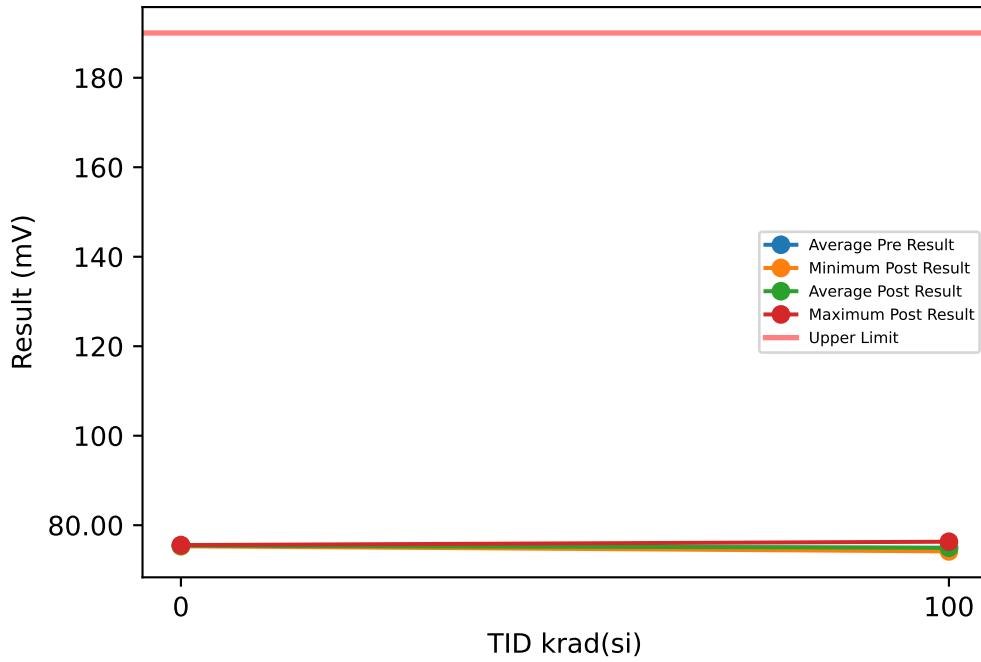| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	92.043	92.231	0.1888
34	100	HDR unbiased	91.329	91.014	-0.3147
35	100	HDR unbiased	91.455	91.791	0.3357
37	100	HDR unbiased	91.455	91.266	-0.1889
38	100	HDR unbiased	91.098	90.993	-0.1049
72	0	correlation	92.084	92.105	0.021
73	0	correlation	91.161	91.119	-0.042
156	100	HDR biased	91.581	90.951	-0.6296
157	100	HDR biased	91.896	91.77	-0.126
158	100	HDR biased	91.203	90.867	-0.3357
159	100	HDR biased	91.14	90.93	-0.2099
160	100	HDR biased	90.762	91.14	0.3778

Test Statistics ()
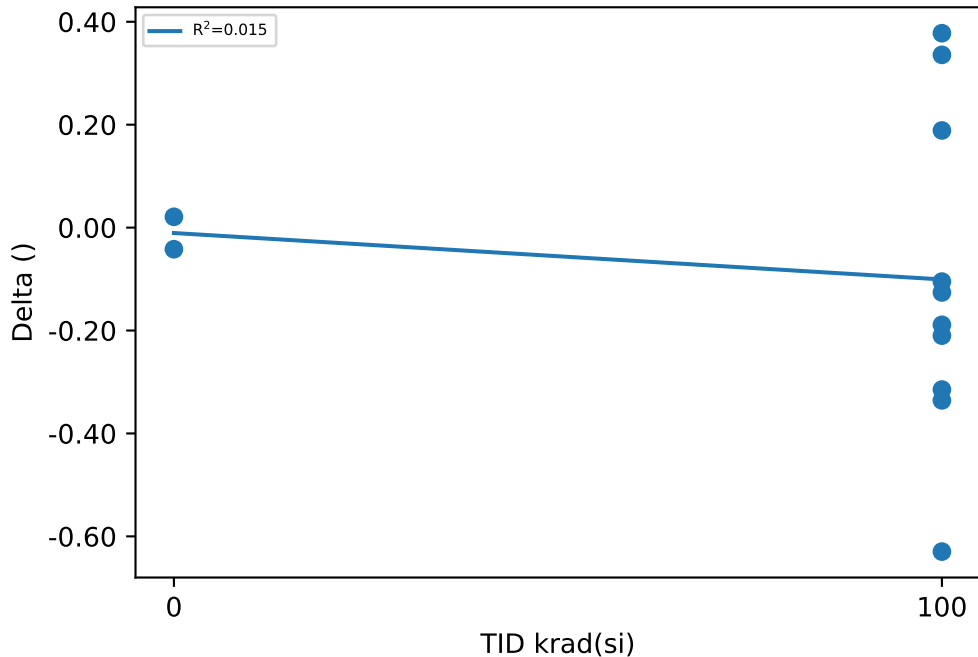
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	91.161	91.623	92.084	0.65287	91.119	91.612	92.105	0.69742	-0.042	-0.0105	0.021	0.044548
100	90.762	91.396	92.043	0.38096	90.867	91.295	92.231	0.46863	-0.6296	-0.10074	0.3778	0.31699

# Device Test: 14.20 PTM8N4_1(LEVELS|VOL/PG/14/////@VPG_OL)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 190.0 (mV))

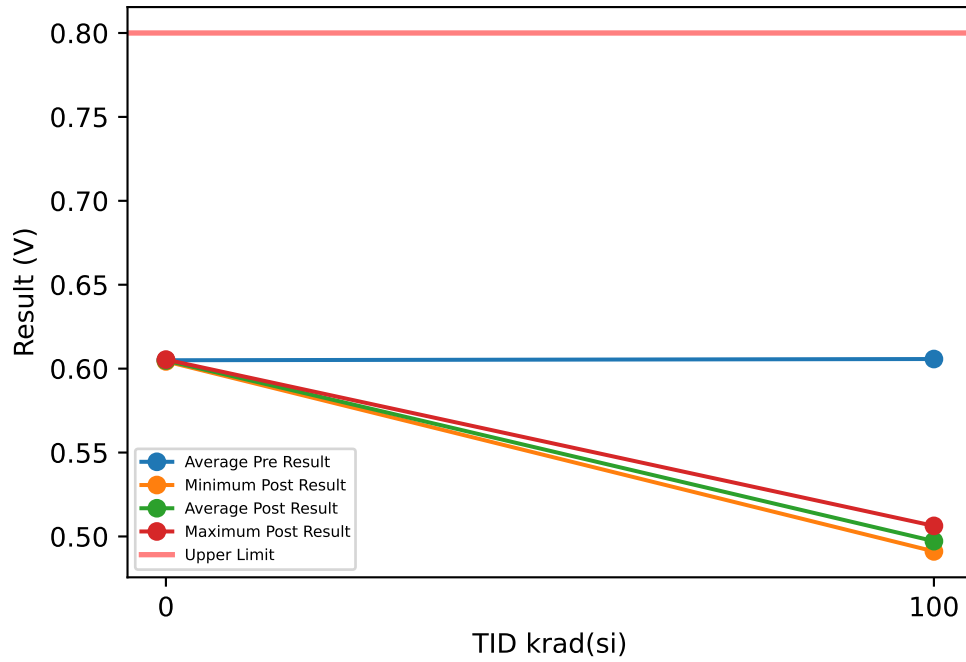| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	75.222	75.111	-0.1112
34	100	HDR unbiased	74.974	74.756	-0.2173
35	100	HDR unbiased	74.318	74.149	-0.1687
37	100	HDR unbiased	75.377	75.226	-0.1511
38	100	HDR unbiased	74.171	74.22	0.0487
72	0	correlation	75.554	75.559	0.005
73	0	correlation	75.265	75.285	0.02
156	100	HDR biased	75.411	75.613	0.2024
157	100	HDR biased	74.6	74.669	0.0687
158	100	HDR biased	73.87	74.197	0.3261
159	100	HDR biased	75.14	75.366	0.2261
160	100	HDR biased	76.077	76.312	0.2349

Test Statistics (mV)
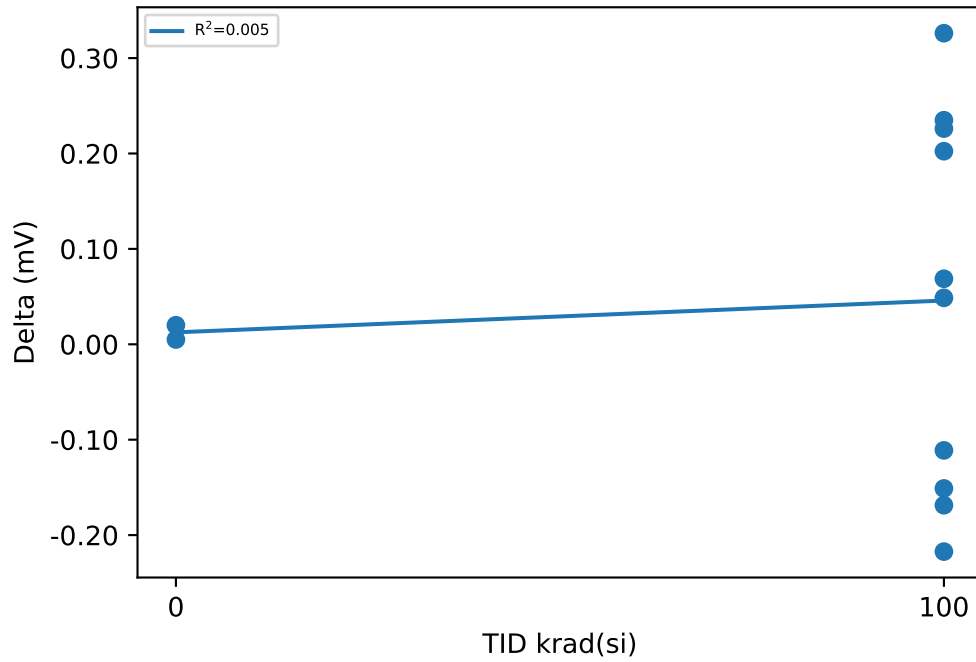
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	75.265	75.409	75.554	0.20492	75.285	75.422	75.559	0.19431	0.005	0.0125	0.02	0.010607
100	73.87	74.916	76.077	0.67138	74.149	74.962	76.312	0.70124	-0.2173	0.04586	0.3261	0.19736

# Device Test: 14.21 WKMTLM_1(VIN|MIN_PG/PG/0.4/////@VIN_MIN_PG)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 0.8 (V))

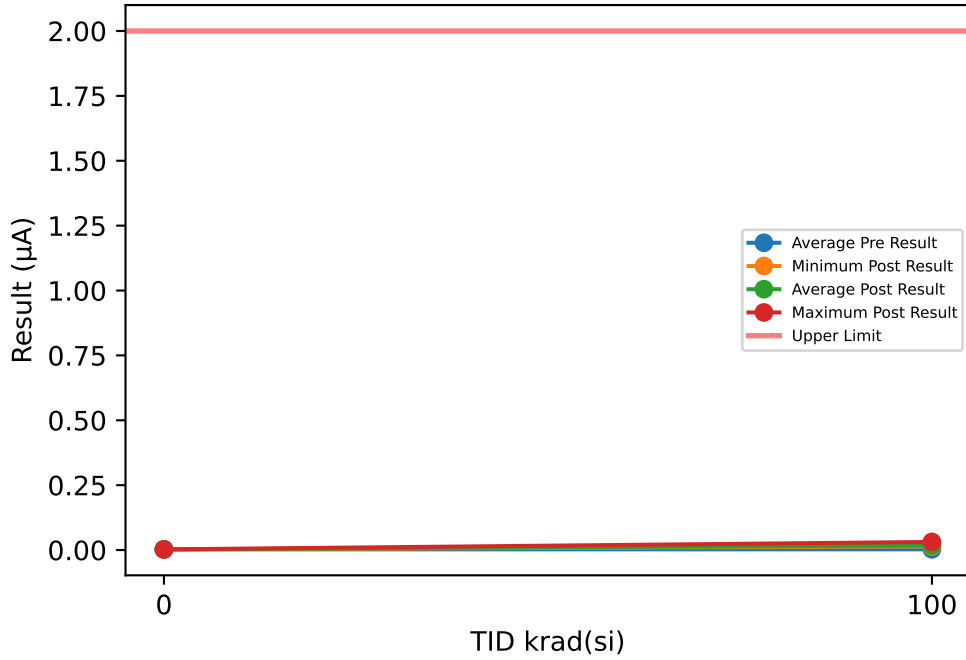| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.6055	0.4943	-0.1112
34	100	HDR unbiased	0.6045	0.4911	-0.1134
35	100	HDR unbiased	0.6036	0.4912	-0.1124
37	100	HDR unbiased	0.6074	0.4963	-0.1111
38	100	HDR unbiased	0.6046	0.5015	-0.1031
72	0	correlation	0.6054	0.6054	0
73	0	correlation	0.6046	0.6043	-0.0003
156	100	HDR biased	0.6054	0.4974	-0.108
157	100	HDR biased	0.6072	0.5063	-0.1009
158	100	HDR biased	0.6054	0.4953	-0.1101
159	100	HDR biased	0.6073	0.4994	-0.1079
160	100	HDR biased	0.6064	0.4993	-0.1071

Test Statistics (V)
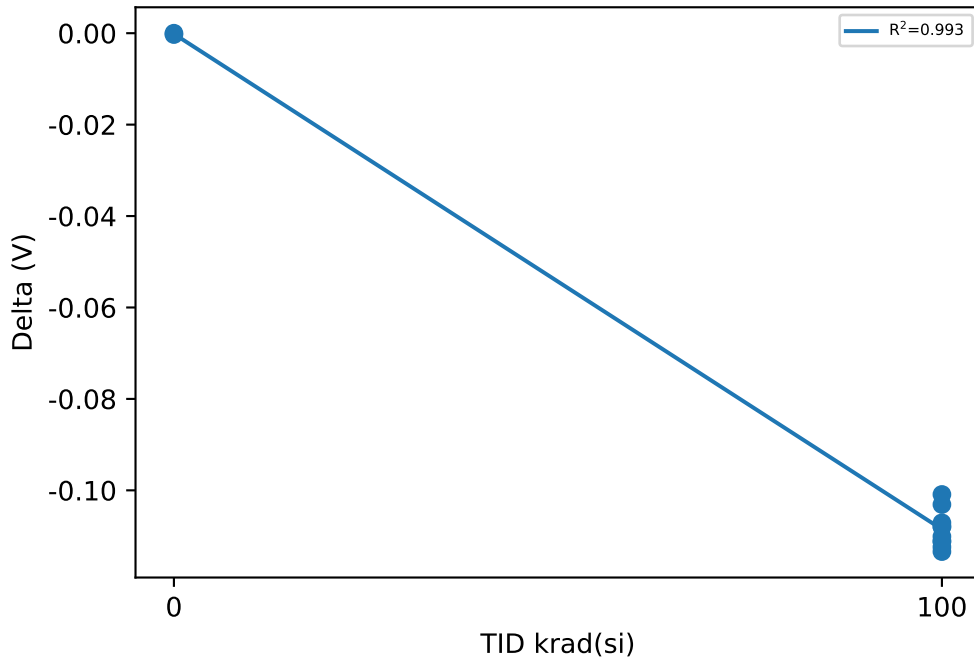
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6046	0.605	0.6054	0.00056569	0.6043	0.60485	0.6054	0.00077782	-0.0003	-0.00015	0	0.00021213
100	0.6036	0.60573	0.6074	0.0013107	0.4911	0.49721	0.5063	0.0046741	-0.1134	-0.10852	-0.1009	0.0040182

# Device Test: 14.22 WKNZS1_1(LEAK|LEAKAGE/PG/2.25/0.6//0//@IPG_LKG)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 2.0 (µA))

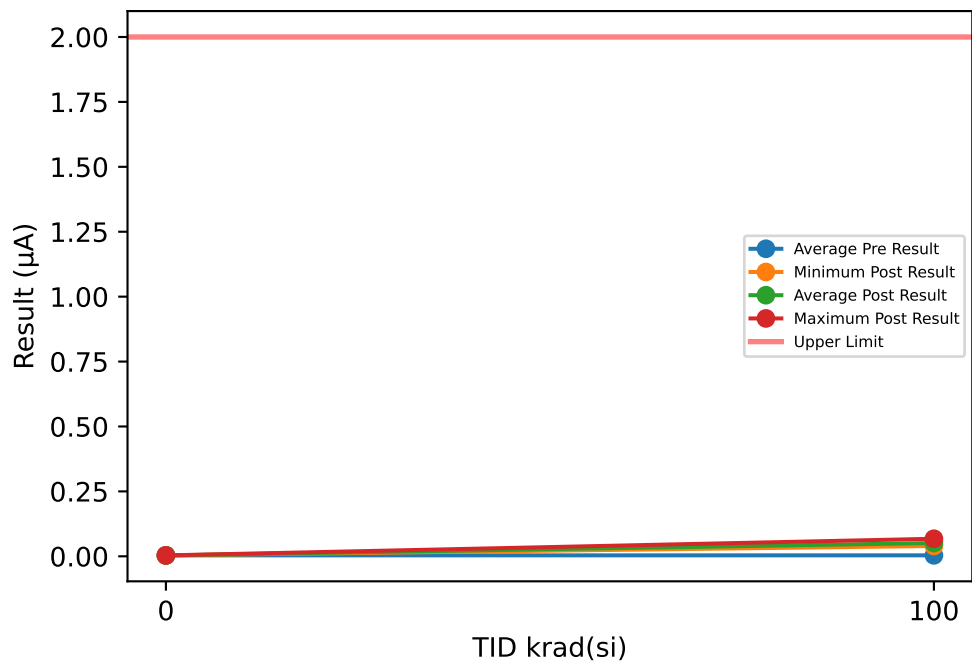| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.0024	0.0164	0.014
34	100	HDR unbiased	0.0028	0.0182	0.0154
35	100	HDR unbiased	0.0025	0.0179	0.0154
37	100	HDR unbiased	0.0025	0.0162	0.0137
38	100	HDR unbiased	0.0024	0.0139	0.0115
72	0	correlation	0.0025	0.0025	0
73	0	correlation	0.0026	0.0026	0
156	100	HDR biased	0.0026	0.0173	0.0147
157	100	HDR biased	0.0024	0.014	0.0116
158	100	HDR biased	0.0046	0.0313	0.0267
159	100	HDR biased	0.0026	0.0174	0.0148
160	100	HDR biased	0.0024	0.0175	0.0151

Test Statistics (µA)
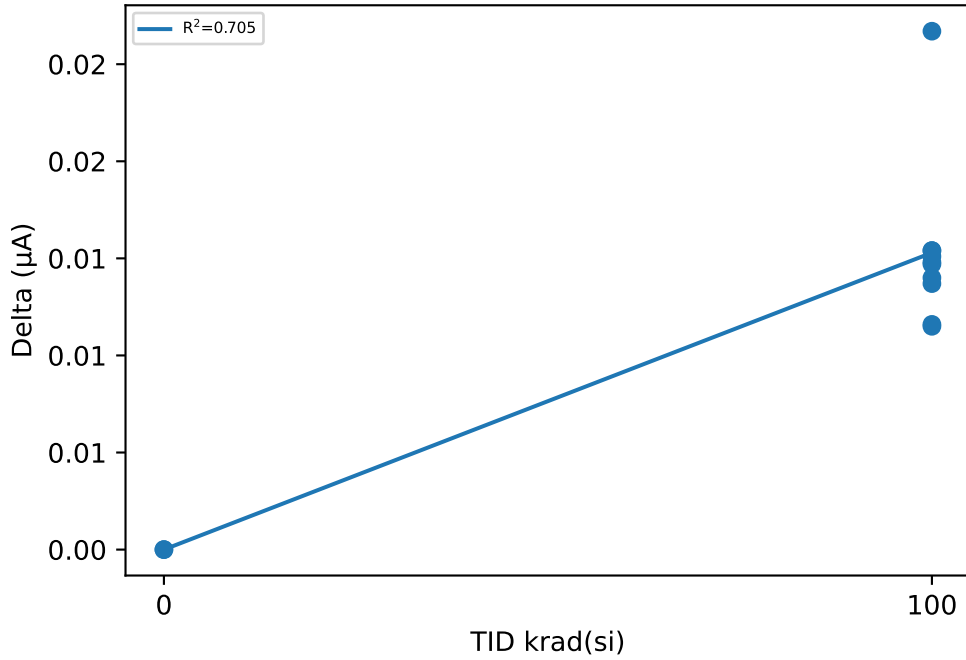
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.0025	0.00255	0.0026	7.0711e-05	0.0025	0.00255	0.0026	7.0711e-05	0	0	0	0
100	0.0024	0.00272	0.0046	0.00067297	0.0139	0.01801	0.0313	0.0049063	0.0115	0.01529	0.0267	0.0042558

# Device Test: 14.23 WKNZS1_1(LEAK|LEAKAGE/PG/14/0.6//0//@IPG_LKG)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 2.0 (µA))

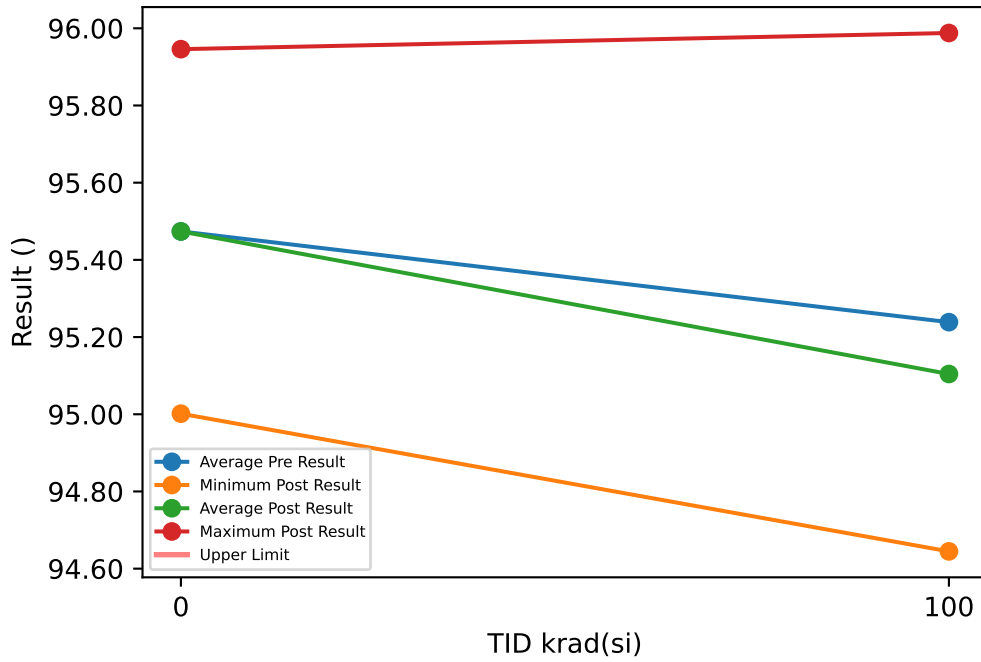| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.0034	0.0483	0.0449
34	100	HDR unbiased	0.0038	0.0547	0.0509
35	100	HDR unbiased	0.0036	0.0522	0.0486
37	100	HDR unbiased	0.0034	0.0487	0.0453
38	100	HDR unbiased	0.0034	0.0397	0.0363
72	0	correlation	0.0034	0.0035	0.0001
73	0	correlation	0.0038	0.0035	-0.0003
156	100	HDR biased	0.0036	0.051	0.0474
157	100	HDR biased	0.0034	0.0403	0.0369
158	100	HDR biased	0.0057	0.0676	0.0619
159	100	HDR biased	0.0037	0.0543	0.0506
160	100	HDR biased	0.0035	0.0553	0.0518

Test Statistics (µA)
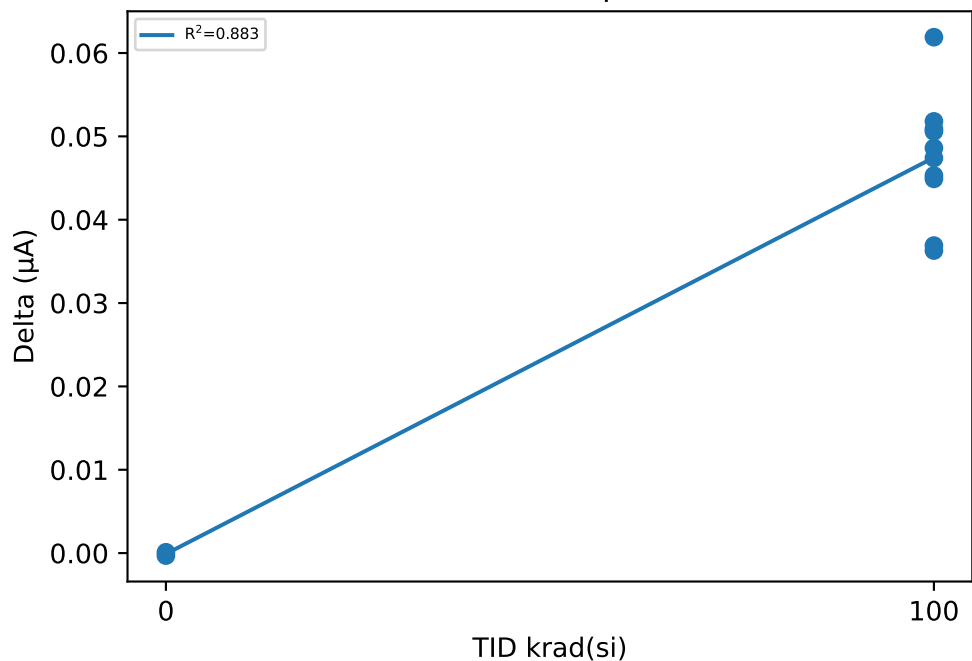
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.0034	0.0036	0.0038	0.00028284	0.0035	0.0035	0.0035	0	-0.0003	-0.0001	0.0001	0.00028284
100	0.0034	0.00375	0.0057	0.0006996	0.0397	0.05121	0.0676	0.0079888	0.0363	0.04746	0.0619	0.0074358

# Device Test: 14.4 WKXFDY_1(THRESHOLD|RISE/FB/3.3/0.6//10//@VPG_RISE)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (No Limits Specified ())

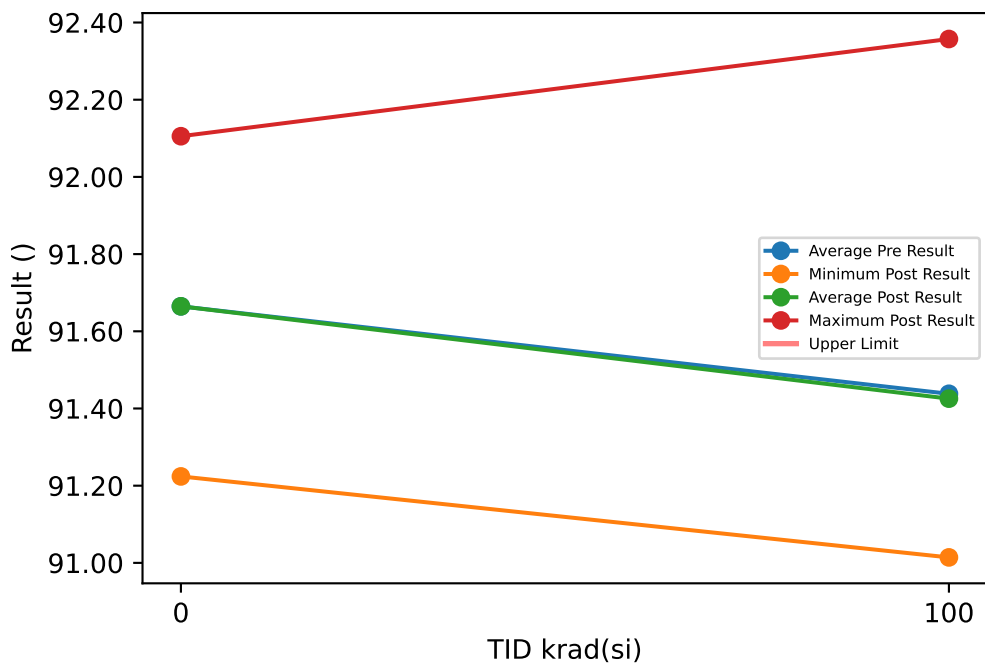| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	95.883	95.988	0.1049
34	100	HDR unbiased	95.211	94.813	-0.3987
35	100	HDR unbiased	95.295	95.568	0.2728
37	100	HDR unbiased	95.295	95.127	-0.1679
38	100	HDR unbiased	94.981	94.855	-0.1259
72	0	correlation	95.967	95.946	-0.021
73	0	correlation	94.981	95.001	0.021
156	100	HDR biased	95.421	94.771	-0.6505
157	100	HDR biased	95.673	95.568	-0.1049
158	100	HDR biased	95.064	94.645	-0.4198
159	100	HDR biased	94.981	94.708	-0.2728
160	100	HDR biased	94.582	95.001	0.4197

Test Statistics ()
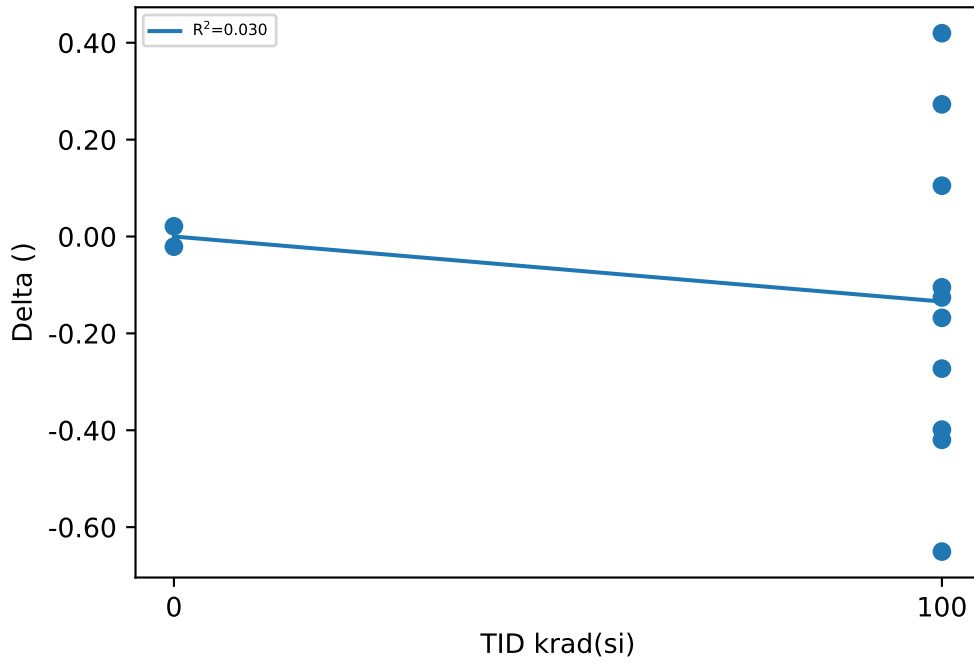
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	94.981	95.474	95.967	0.69749	95.001	95.474	95.946	0.66779	-0.021	-7.1054e-15	0.021	0.029698
100	94.582	95.239	95.883	0.37108	94.645	95.104	95.988	0.45328	-0.6505	-0.13431	0.4197	0.32812

# Device Test: 14.5 WK4UM7_1(THRESHOLD|FALL/FB/3.3/0.6//10//@VPG_FALL)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (No Limits Specified ())

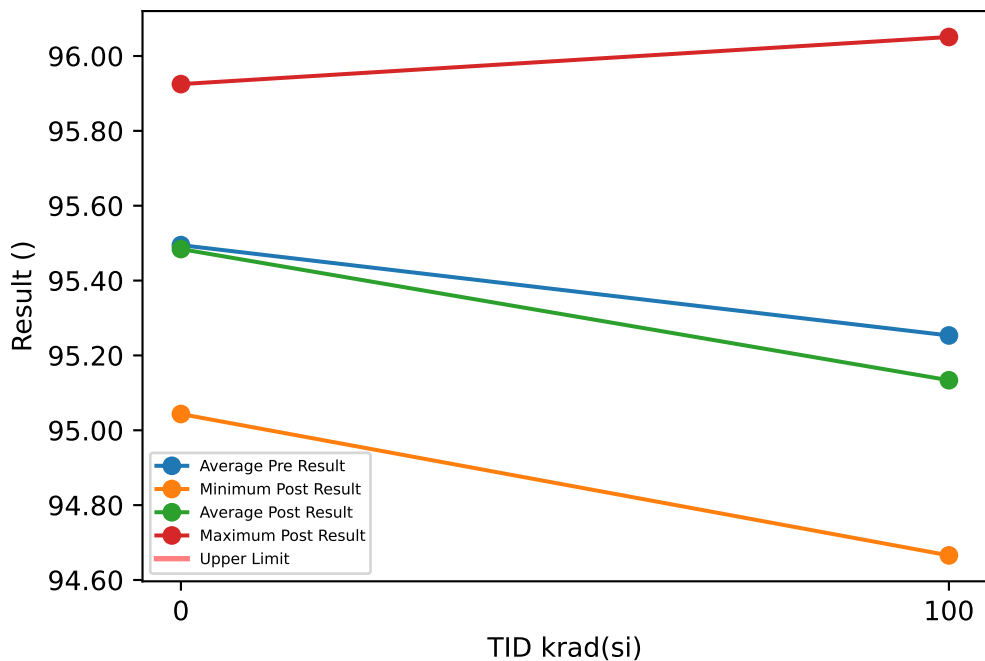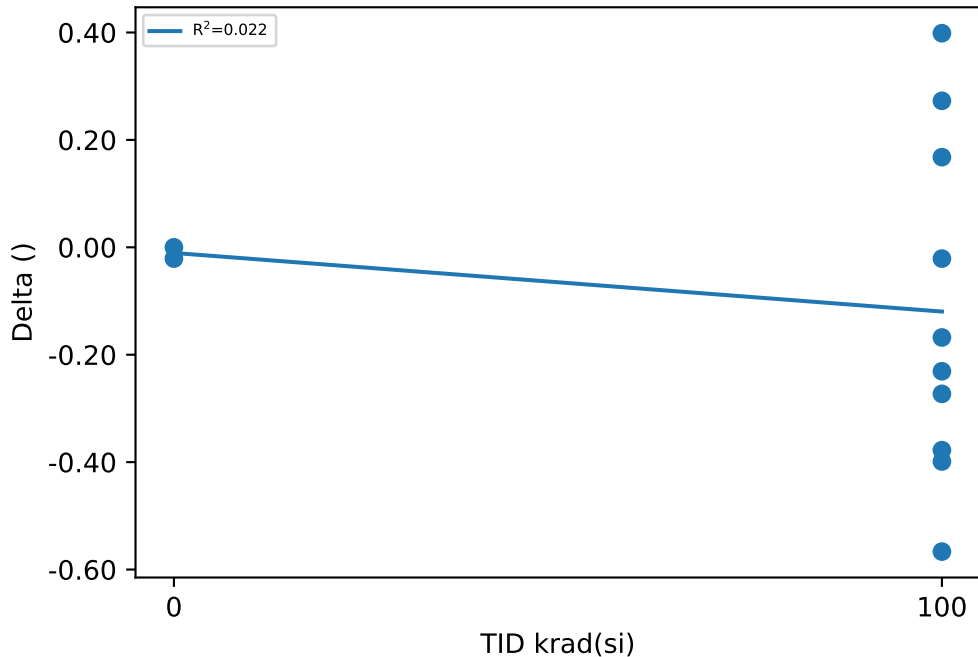| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	92.043	92.357	0.3148
34	100	HDR unbiased	91.392	91.098	-0.2938
35	100	HDR unbiased	91.497	91.917	0.4198
37	100	HDR unbiased	91.518	91.392	-0.1259
38	100	HDR unbiased	91.14	91.14	0
72	0	correlation	92.105	92.105	0
73	0	correlation	91.224	91.224	0
156	100	HDR biased	91.602	91.077	-0.5247
157	100	HDR biased	91.896	91.896	0
158	100	HDR biased	91.266	91.014	-0.2518
159	100	HDR biased	91.203	91.098	-0.1049
160	100	HDR biased	90.825	91.266	0.4407

Test Statistics ()
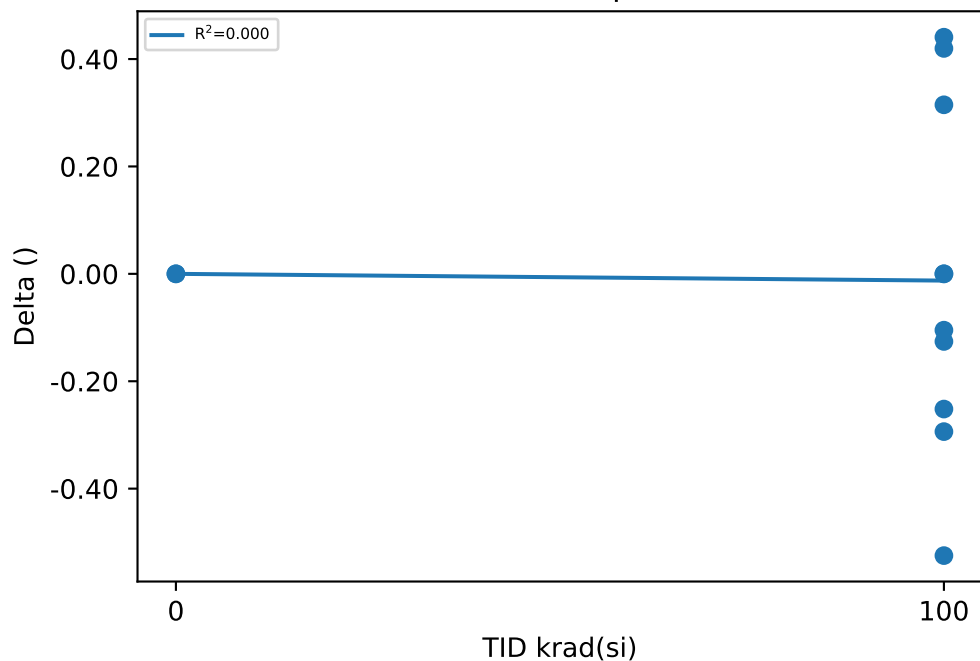
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	91.224	91.665	92.105	0.62324	91.224	91.665	92.105	0.62324	0	0	0	0
100	90.825	91.438	92.043	0.35941	91.014	91.425	92.357	0.46468	-0.5247	-0.01258	0.4407	0.3197

Device Test: 14.7 WKXFDY_1(THRESHOLD|RISE/FB/5/0.6//10//@VPG_RISE)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (No Limits Specified ())
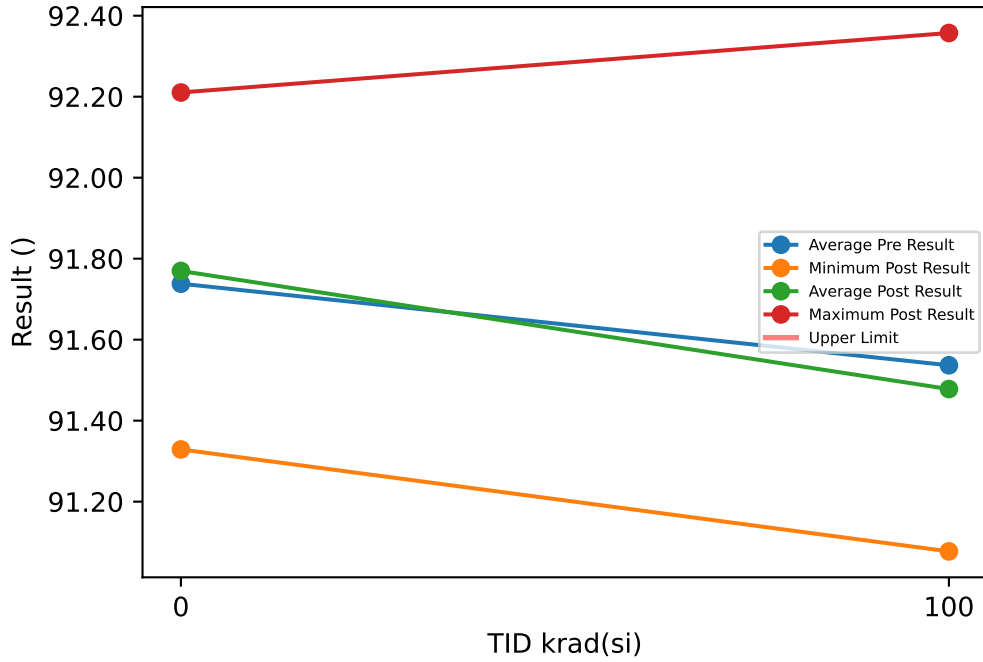
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	95.883	96.051	0.1679
34	100	HDR unbiased	95.211	94.834	-0.3777
35	100	HDR unbiased	95.295	95.568	0.2728
37	100	HDR unbiased	95.358	95.085	-0.2729
38	100	HDR unbiased	94.96	94.939	-0.021
72	0	correlation	95.946	95.925	-0.021
73	0	correlation	95.043	95.043	0
156	100	HDR biased	95.421	94.855	-0.5666
157	100	HDR biased	95.757	95.589	-0.1679
158	100	HDR biased	95.064	94.666	-0.3988
159	100	HDR biased	95.001	94.771	-0.2308
160	100	HDR biased	94.582	94.981	0.3987

Test Statistics ()

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	95.043	95.495	95.946	0.63809	95.043	95.484	95.925	0.62324	-0.021	-0.0105	0	0.014849
100	94.582	95.253	95.883	0.38429	94.666	95.134	96.051	0.44967	-0.5666	-0.11963	0.3987	0.3158

# Device Test: 14.8 WK4UM7_1(THRESHOLD|FALL/FB/5/0.6//10//@VPG_FALL)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (No Limits Specified ())

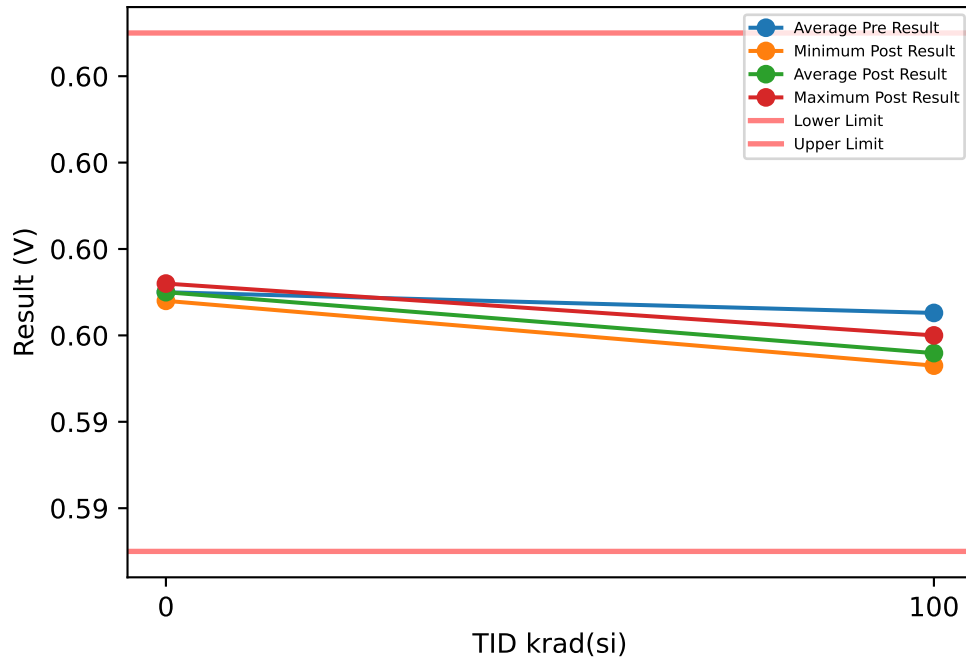| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	92.147	92.357	0.2099
34	100	HDR unbiased	91.539	91.14	-0.3987
35	100	HDR unbiased	91.581	91.98	0.3987
37	100	HDR unbiased	91.623	91.455	-0.1678
38	100	HDR unbiased	91.266	91.182	-0.084
72	0	correlation	92.21	92.21	0
73	0	correlation	91.266	91.329	0.0629
156	100	HDR biased	91.707	91.14	-0.5666
157	100	HDR biased	92.022	91.959	-0.063
158	100	HDR biased	91.329	91.077	-0.2518
159	100	HDR biased	91.266	91.182	-0.084
160	100	HDR biased	90.888	91.308	0.4198

Test Statistics ()
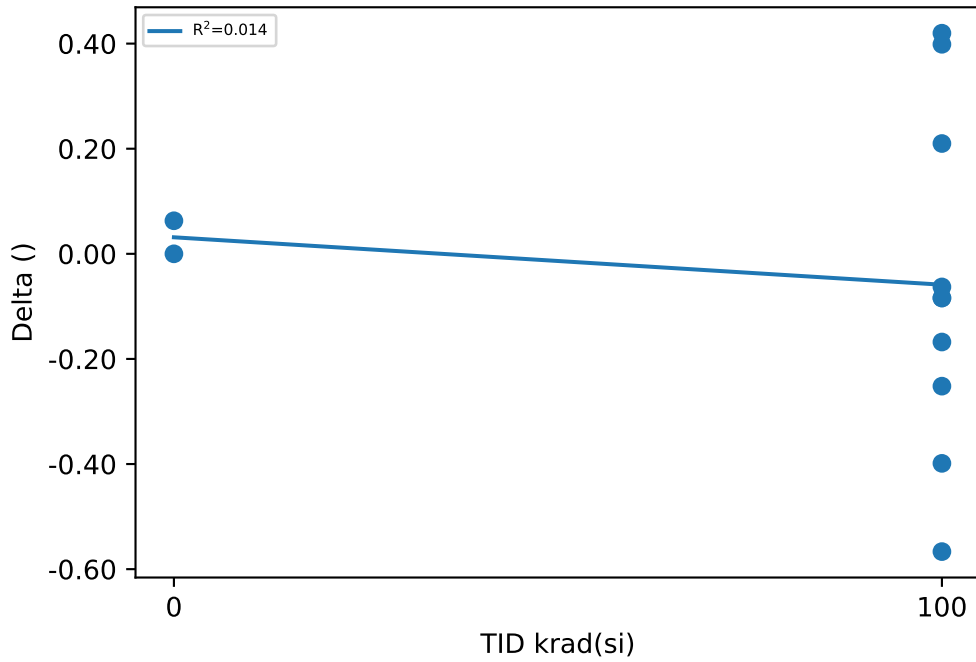
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	91.266	91.738	92.21	0.66779	91.329	91.77	92.21	0.62331	0	0.03145	0.0629	0.044477
100	90.888	91.537	92.147	0.37365	91.077	91.478	92.357	0.4533	-0.5666	-0.05875	0.4198	0.32221

Device Test: 15.12 WKR0Z2_1(FB|VFB/FB/2.25/0.6//1000//@VFB_25C)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

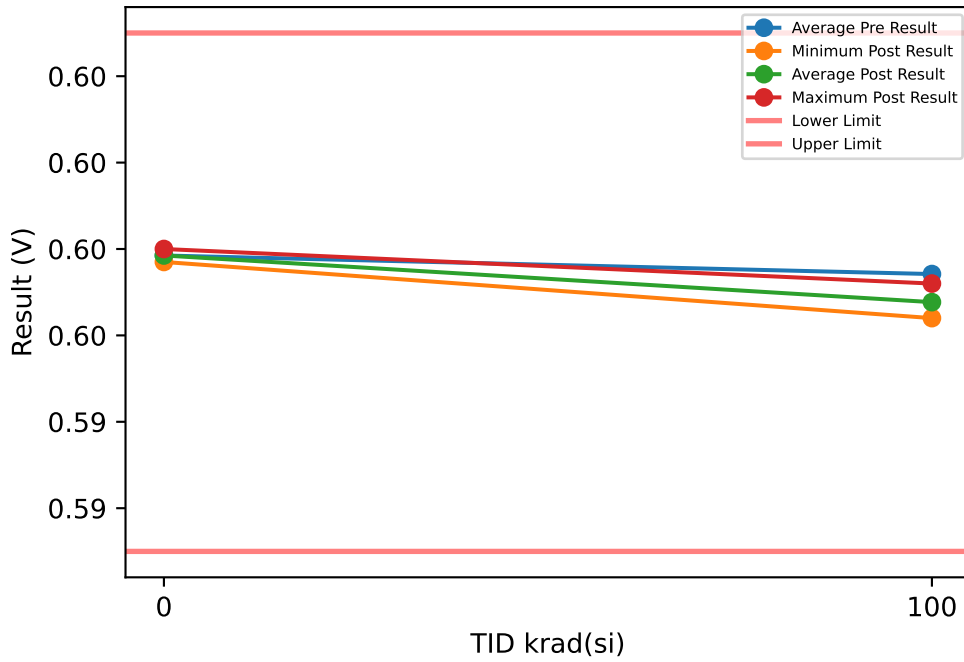| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5965	0.5954	-0.0011
34	100	HDR unbiased	0.597	0.596	-0.001
35	100	HDR unbiased	0.5962	0.5958	-0.0004
37	100	HDR unbiased	0.5968	0.5959	-0.0009
38	100	HDR unbiased	0.5964	0.5955	-0.0009
72	0	correlation	0.5968	0.5968	0
73	0	correlation	0.5972	0.5972	0
156	100	HDR biased	0.5965	0.5954	-0.0011
157	100	HDR biased	0.5967	0.5956	-0.0011
158	100	HDR biased	0.5959	0.5953	-0.0006
159	100	HDR biased	0.5966	0.5955	-0.0011
160	100	HDR biased	0.5966	0.5955	-0.0011

Test Statistics (V)
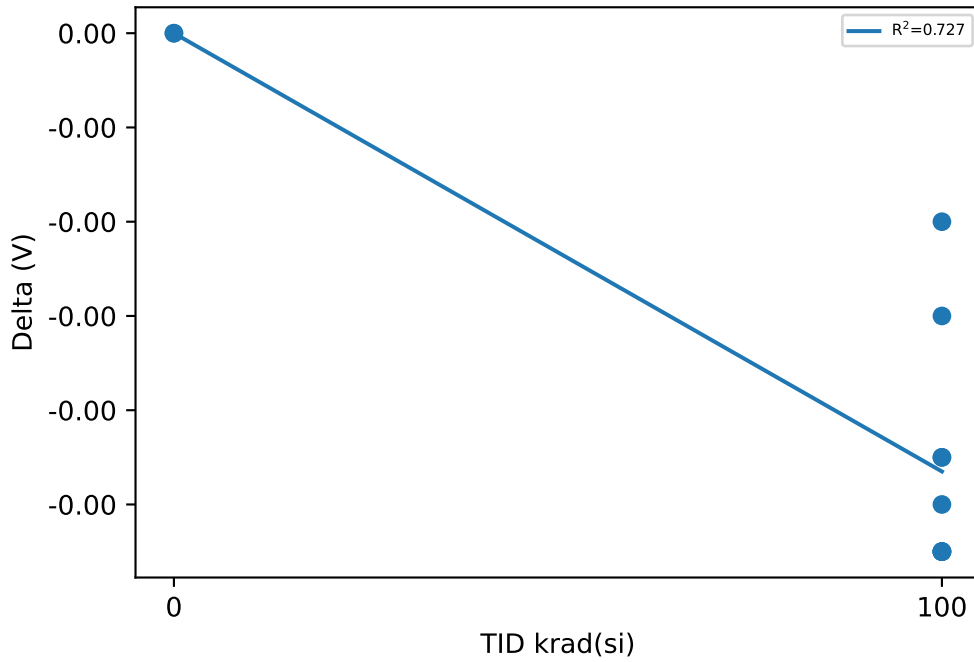
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5968	0.597	0.5972	0.00028284	0.5968	0.597	0.5972	0.00028284	0	0	0	0
100	0.5959	0.59652	0.597	0.0003084	0.5953	0.59559	0.596	0.0002331	-0.0011	-0.00093	-0.0004	0.00024518

Device Test: 15.17 WKR0Z2_1(FB|VFB/FB/2.5/2.25//10//@VFB_25C)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

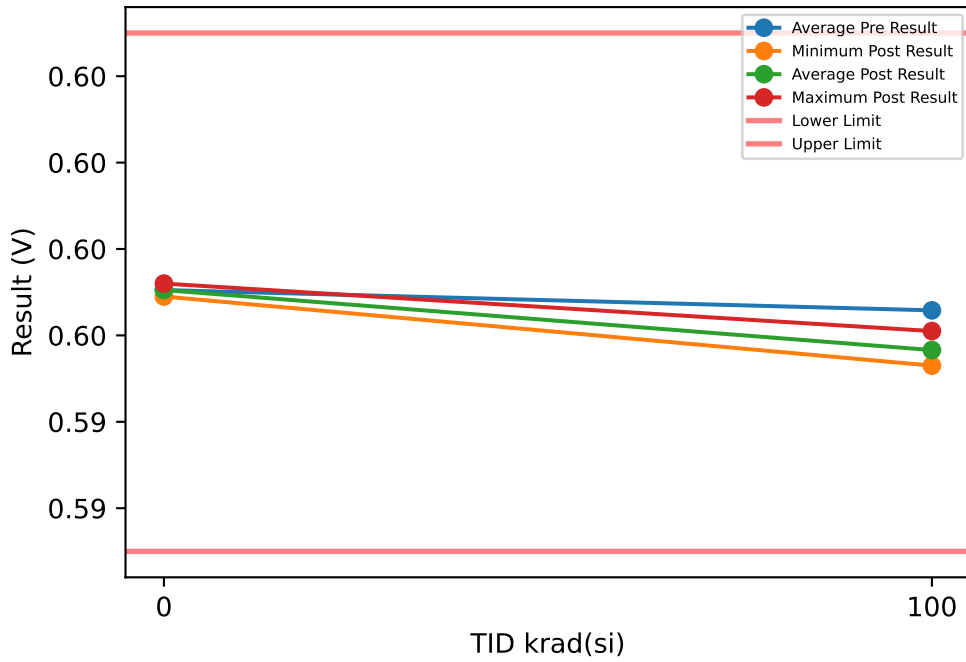| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5973	0.5965	-0.0008
34	100	HDR unbiased	0.5979	0.5972	-0.0007
35	100	HDR unbiased	0.5971	0.597	-0.0001
37	100	HDR unbiased	0.5977	0.5971	-0.0006
38	100	HDR unbiased	0.5973	0.5967	-0.0006
72	0	correlation	0.5977	0.5977	0
73	0	correlation	0.598	0.598	0
156	100	HDR biased	0.5974	0.5966	-0.0008
157	100	HDR biased	0.5976	0.5967	-0.0009
158	100	HDR biased	0.5967	0.5964	-0.0003
159	100	HDR biased	0.5976	0.5967	-0.0009
160	100	HDR biased	0.5976	0.5968	-0.0008

Test Statistics (V)
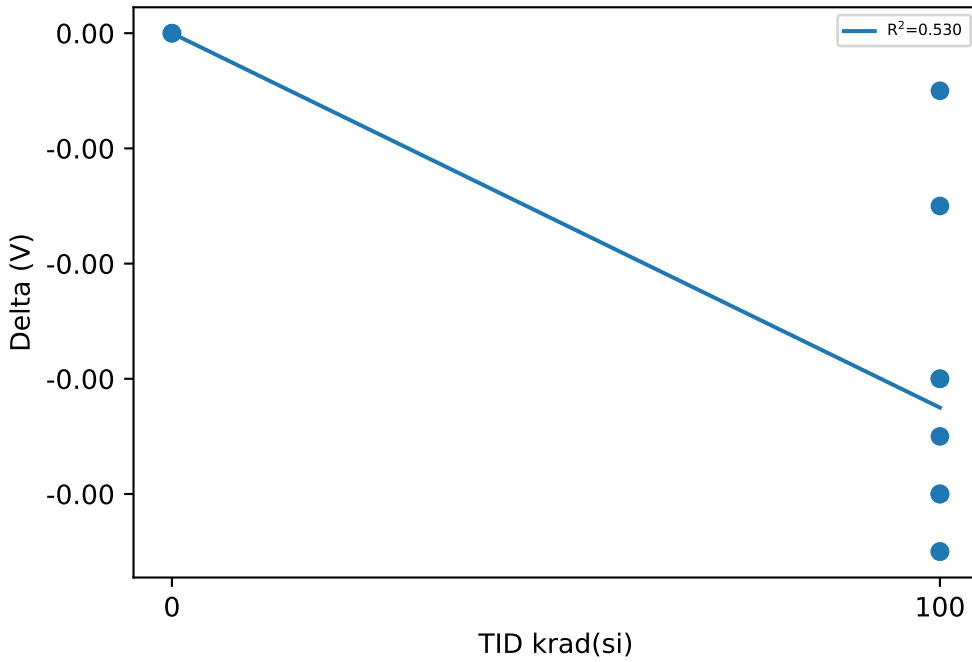
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5977	0.59785	0.598	0.00021213	0.5977	0.59785	0.598	0.00021213	0	0	0	0
100	0.5967	0.59742	0.5979	0.00034254	0.5964	0.59677	0.5972	0.00025841	-0.0009	-0.00065	-0.0001	0.00026352

Device Test: 15.22 WKR0Z2_1(FB|VFB/FB/2.25/1.1//1000//@VFB_25C)

TID vs Result Stats

TID vs Post - Pre Exposure Delta


Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

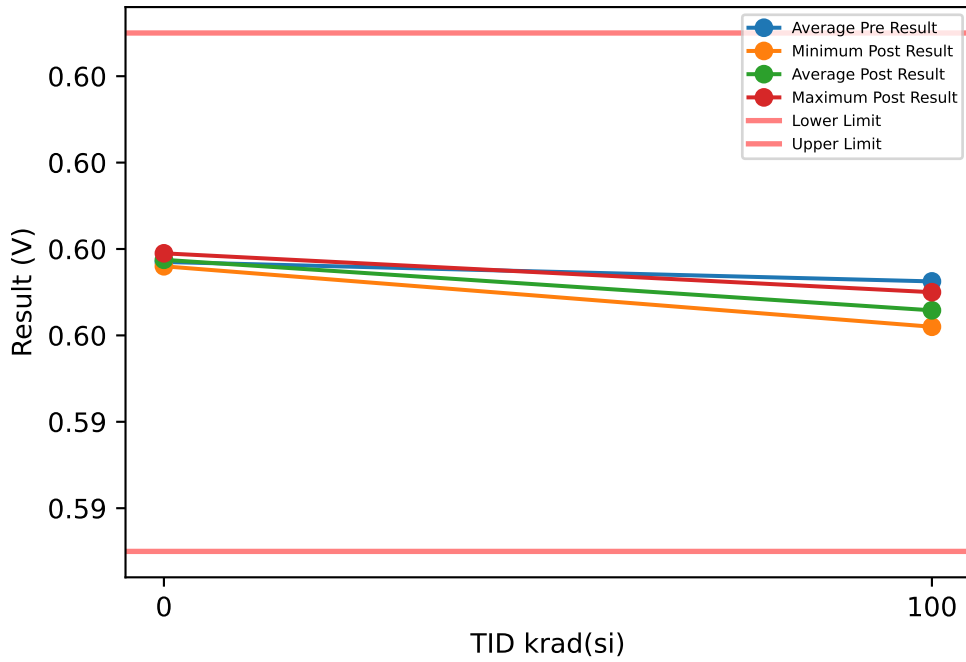| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5965	0.5954	-0.0011
34	100	HDR unbiased	0.5971	0.5961	-0.001
35	100	HDR unbiased	0.5962	0.5958	-0.0004
37	100	HDR unbiased	0.5969	0.596	-0.0009
38	100	HDR unbiased	0.5964	0.5956	-0.0008
72	0	correlation	0.5969	0.5969	0
73	0	correlation	0.5972	0.5972	0
156	100	HDR biased	0.5966	0.5955	-0.0011
157	100	HDR biased	0.5968	0.5957	-0.0011
158	100	HDR biased	0.5959	0.5953	-0.0006
159	100	HDR biased	0.5967	0.5956	-0.0011
160	100	HDR biased	0.5967	0.5956	-0.0011

Test Statistics (V)
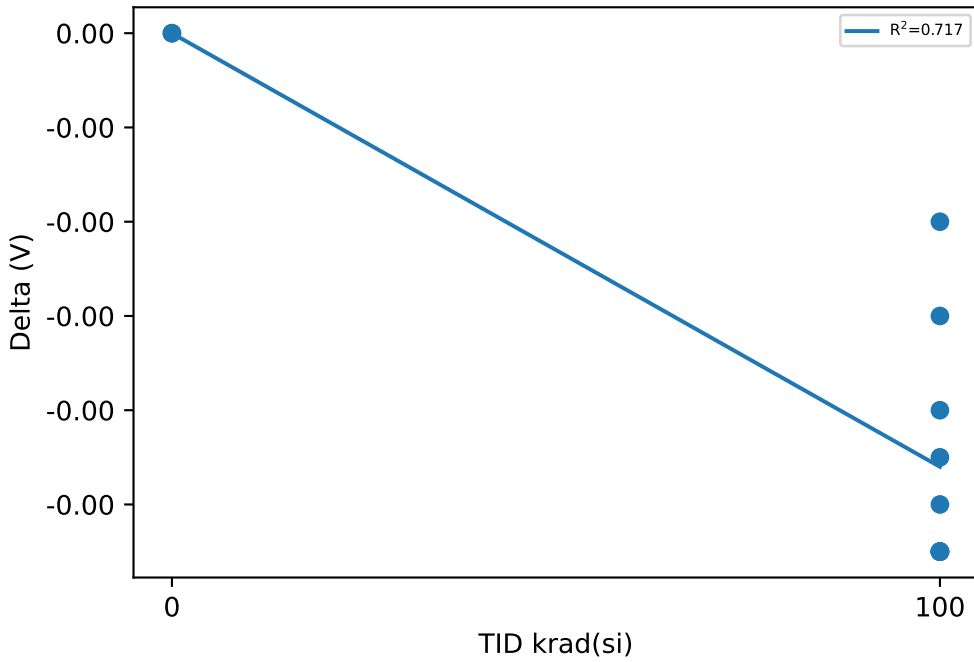
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5969	0.59705	0.5972	0.00021213	0.5969	0.59705	0.5972	0.00021213	0	0	0	0
100	0.5959	0.59658	0.5971	0.00034897	0.5953	0.59566	0.5961	0.00025033	-0.0011	-0.00092	-0.0004	0.00024855

Device Test: 15.26 WKR0Z2_1(FB|VFB/FB/3/0.6//10//@VFB_25C)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

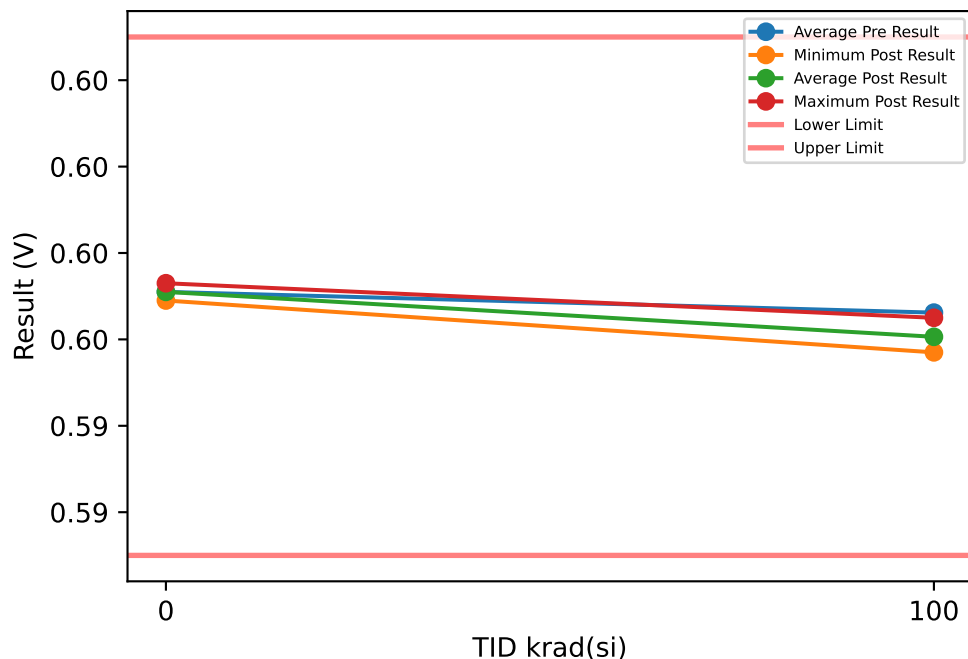| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5972	0.5963	-0.0009
34	100	HDR unbiased	0.5977	0.597	-0.0007
35	100	HDR unbiased	0.5969	0.5968	-0.0001
37	100	HDR unbiased	0.5975	0.5969	-0.0006
38	100	HDR unbiased	0.5971	0.5965	-0.0006
72	0	correlation	0.5975	0.5976	0.0001
73	0	correlation	0.5979	0.5979	0
156	100	HDR biased	0.5973	0.5964	-0.0009
157	100	HDR biased	0.5975	0.5965	-0.001
158	100	HDR biased	0.5965	0.5962	-0.0003
159	100	HDR biased	0.5974	0.5966	-0.0008
160	100	HDR biased	0.5974	0.5966	-0.0008
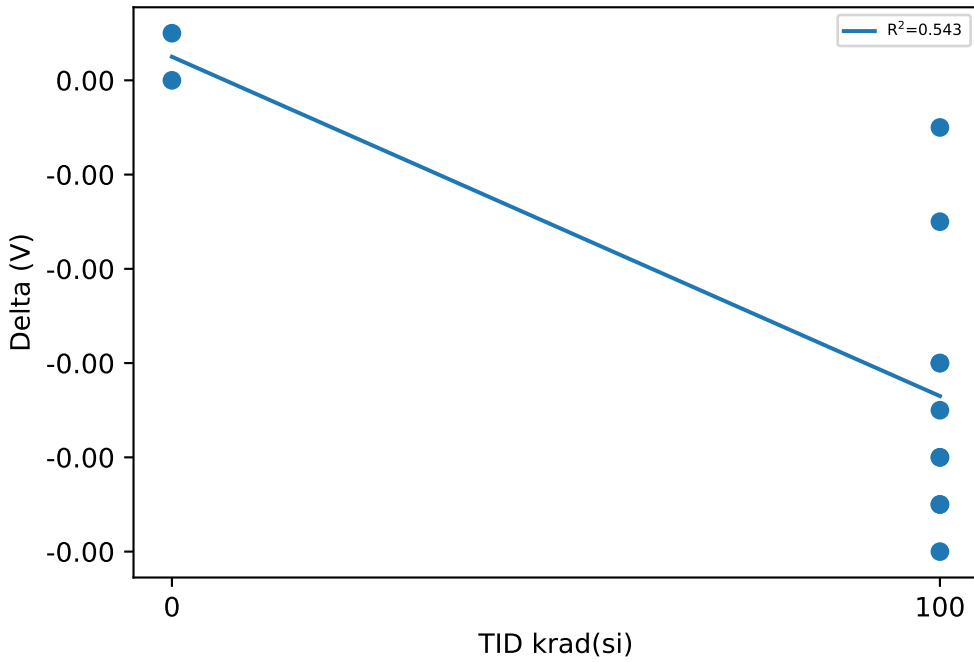
Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5975	0.5977	0.5979	0.00028284	0.5976	0.59775	0.5979	0.00021213	0	5e-05	0.0001	7.0711e-05
100	0.5965	0.59725	0.5977	0.00034721	0.5962	0.59658	0.597	0.00025734	-0.001	-0.00067	-0.0001	0.00028304

Device Test: 15.30 WKR0Z2_1(FB|VFB/FB/3/0.6//1000//@VFB_25C)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

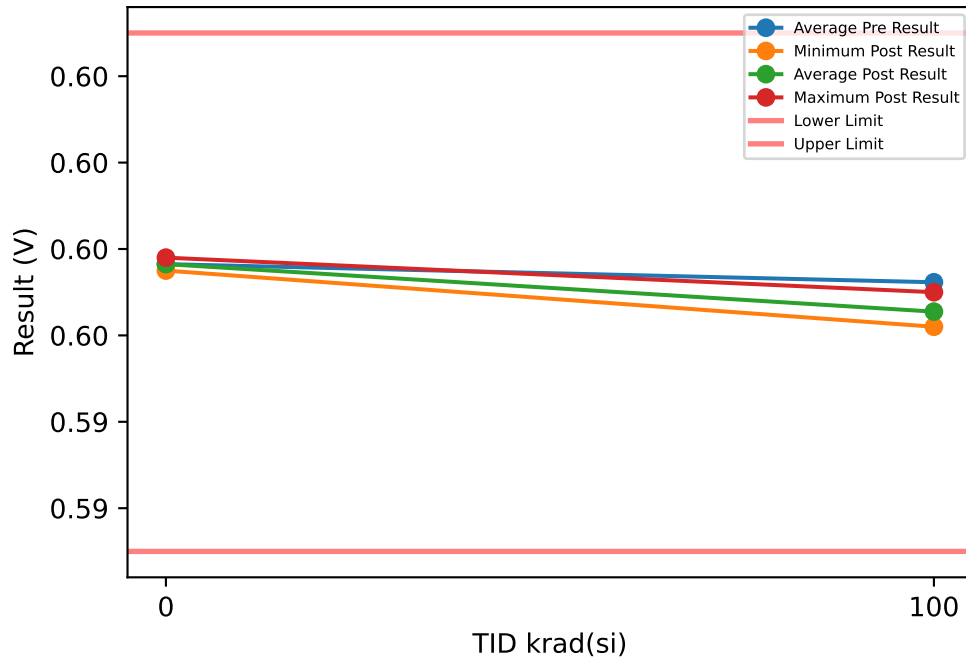| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5966	0.5958	-0.0008
34	100	HDR unbiased	0.5971	0.5965	-0.0006
35	100	HDR unbiased	0.5963	0.5963	0
37	100	HDR unbiased	0.5969	0.5964	-0.0005
38	100	HDR unbiased	0.5965	0.596	-0.0005
72	0	correlation	0.5969	0.5969	0
73	0	correlation	0.5973	0.5973	0
156	100	HDR biased	0.5966	0.5959	-0.0007
157	100	HDR biased	0.5968	0.596	-0.0008
158	100	HDR biased	0.5959	0.5957	-0.0002
159	100	HDR biased	0.5968	0.596	-0.0008
160	100	HDR biased	0.5967	0.596	-0.0007

Test Statistics (V)
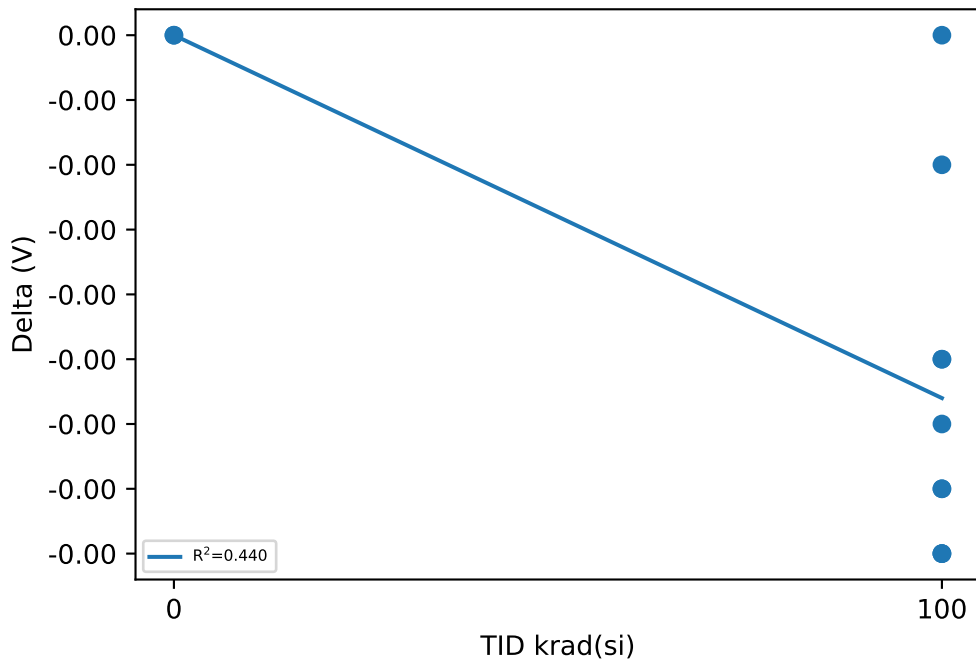
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5969	0.5971	0.5973	0.00028284	0.5969	0.5971	0.5973	0.00028284	0	0	0	0
100	0.5959	0.59662	0.5971	0.00033599	0.5957	0.59606	0.5965	0.00025906	-0.0008	-0.00056	0	0.00027162

Device Test: 15.34 WKR0Z2_1(FB|VFB/FB/3.3/0.6//10//@VFB_25C)
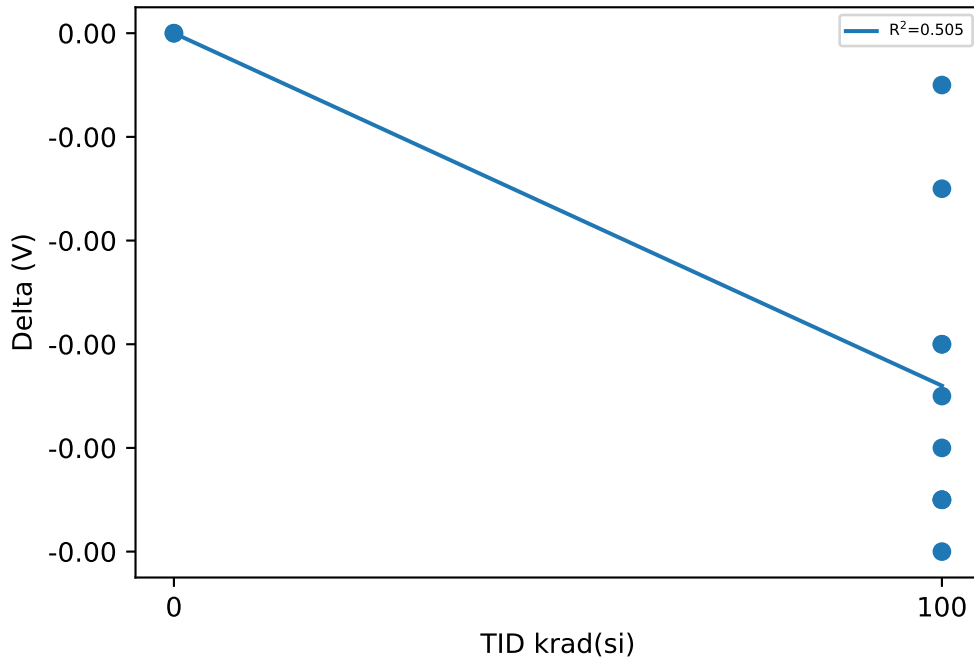
TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

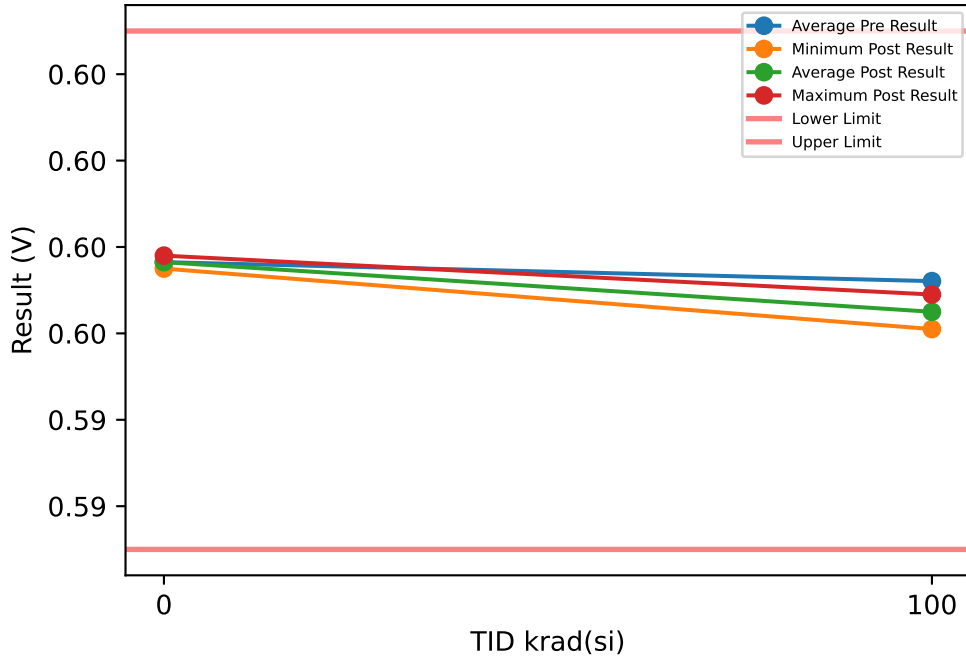| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5971	0.5963	-0.0008
34	100	HDR unbiased	0.5977	0.597	-0.0007
35	100	HDR unbiased	0.5969	0.5968	-0.0001
37	100	HDR unbiased	0.5975	0.5969	-0.0006
38	100	HDR unbiased	0.5971	0.5965	-0.0006
72	0	correlation	0.5975	0.5975	0
73	0	correlation	0.5978	0.5978	0
156	100	HDR biased	0.5973	0.5963	-0.001
157	100	HDR biased	0.5974	0.5965	-0.0009
158	100	HDR biased	0.5965	0.5962	-0.0003
159	100	HDR biased	0.5974	0.5965	-0.0009
160	100	HDR biased	0.5974	0.5965	-0.0009

Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5975	0.59765	0.5978	0.00021213	0.5975	0.59765	0.5978	0.00021213	0	0	0	0
100	0.5965	0.59723	0.5977	0.00034335	0.5962	0.59655	0.597	0.00026771	-0.001	-0.00068	-0.0001	0.00028983

Device Test: 15.38 WKR0Z2_1(OUTPUT|VFB_25C/FB/5/0.6//10//@VFB_25C)
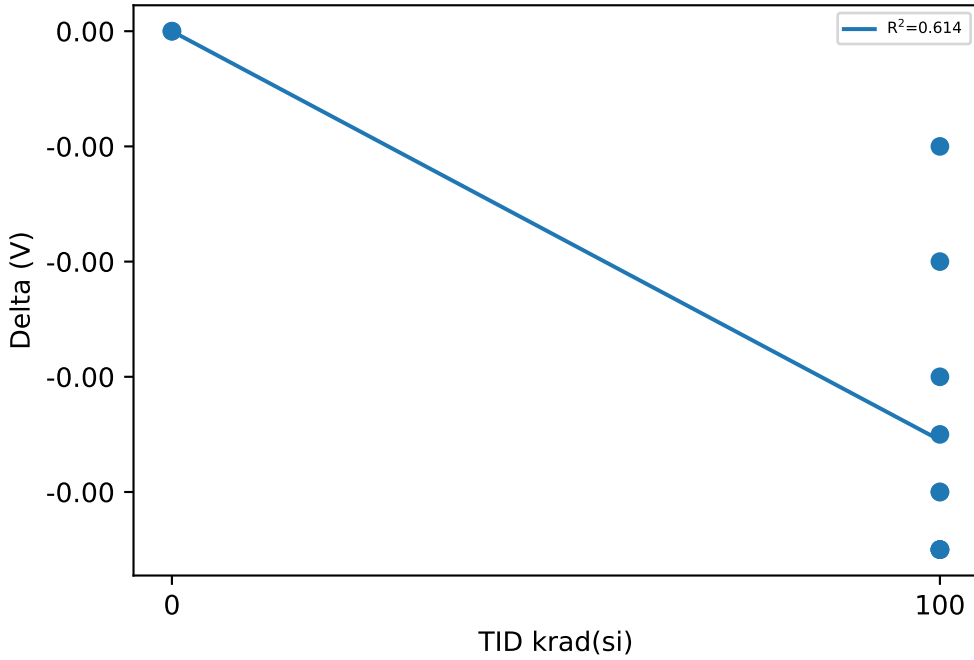
TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

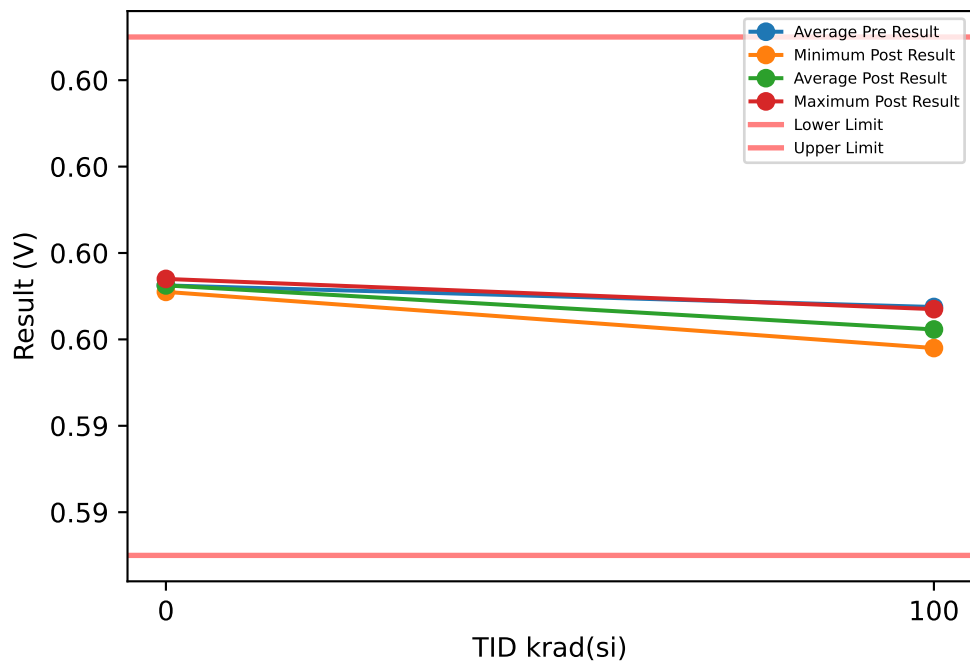| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5971	0.5962	-0.0009
34	100	HDR unbiased	0.5977	0.5969	-0.0008
35	100	HDR unbiased	0.5969	0.5967	-0.0002
37	100	HDR unbiased	0.5975	0.5968	-0.0007
38	100	HDR unbiased	0.5971	0.5965	-0.0006
72	0	correlation	0.5975	0.5975	0
73	0	correlation	0.5978	0.5978	0
156	100	HDR biased	0.5972	0.5963	-0.0009
157	100	HDR biased	0.5974	0.5965	-0.0009
158	100	HDR biased	0.5965	0.5961	-0.0004
159	100	HDR biased	0.5973	0.5965	-0.0008
160	100	HDR biased	0.5974	0.5965	-0.0009

Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5975	0.59765	0.5978	0.00021213	0.5975	0.59765	0.5978	0.00021213	0	0	0	0
100	0.5965	0.59721	0.5977	0.00033813	0.5961	0.59765	0.5969	0.00025386	-0.0009	-0.00071	-0.0002	0.00024244

Device Test: 15.43 WKR0Z2_1(FB|VFB/FB/5/3.3//1000//@VFB_25C)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

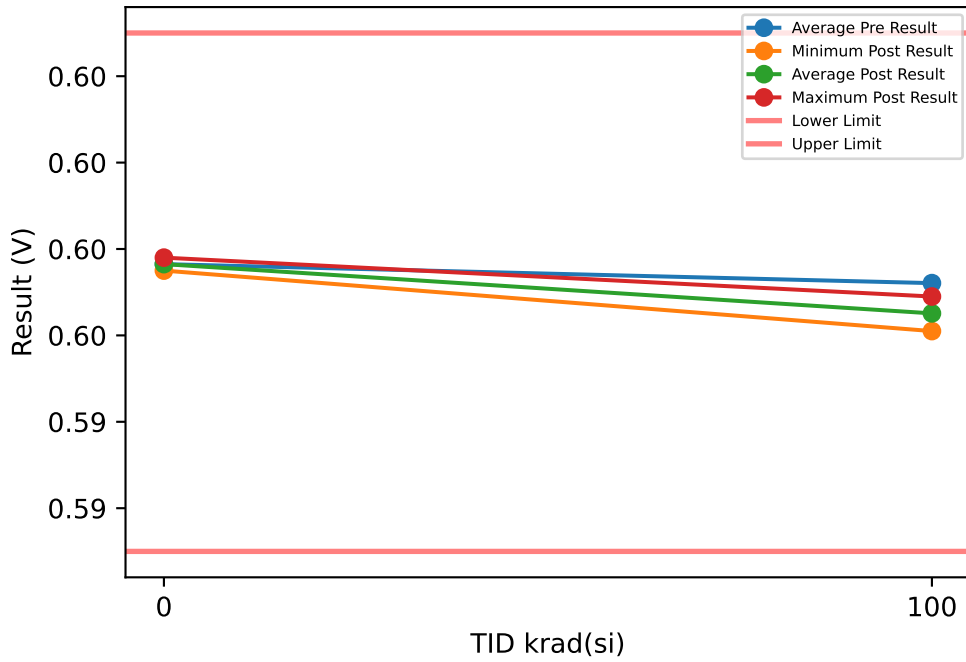| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5967	0.596	-0.0007
34	100	HDR unbiased	0.5972	0.5967	-0.0005
35	100	HDR unbiased	0.5964	0.5965	0.0001
37	100	HDR unbiased	0.597	0.5965	-0.0005
38	100	HDR unbiased	0.5966	0.5962	-0.0004
72	0	correlation	0.5971	0.5971	0
73	0	correlation	0.5974	0.5974	0
156	100	HDR biased	0.5968	0.596	-0.0008
157	100	HDR biased	0.5969	0.5962	-0.0007
158	100	HDR biased	0.5961	0.5958	-0.0003
159	100	HDR biased	0.5969	0.5962	-0.0007
160	100	HDR biased	0.5969	0.5962	-0.0007
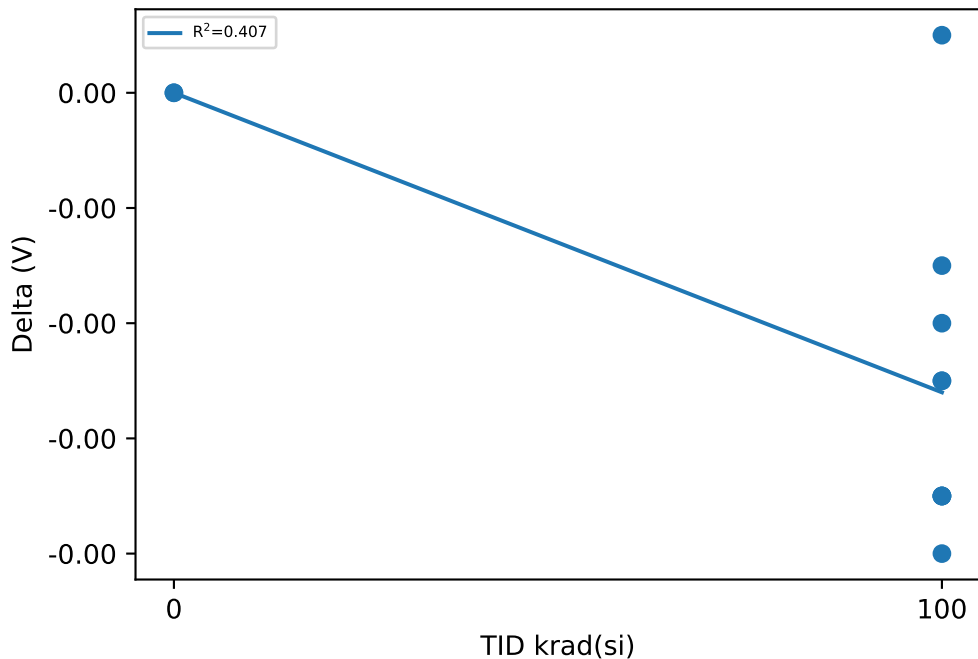
Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5971	0.59725	0.5974	0.00021213	0.5971	0.59725	0.5974	0.00021213	0	0	0	0
100	0.5961	0.59675	0.5972	0.0003171	0.5958	0.59623	0.5967	0.00027101	-0.0008	-0.00052	0.0001	0.00026998

Device Test: 15.47 WKR0Z2_1(FB|VFB/FB/7/0.6//10//@VFB_25C)
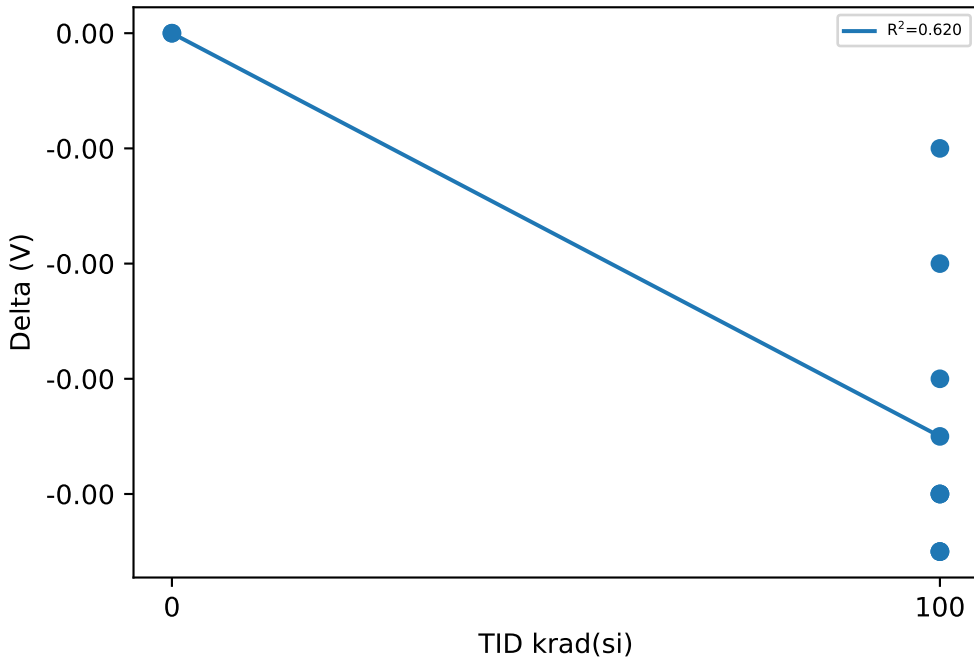
TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

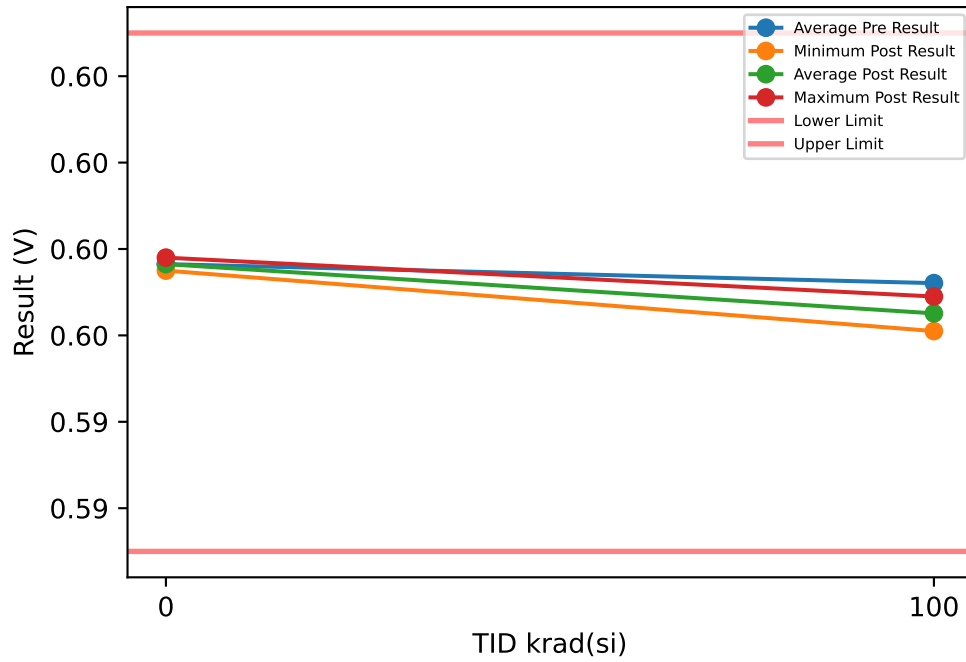| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5971	0.5963	-0.0008
34	100	HDR unbiased	0.5977	0.5969	-0.0008
35	100	HDR unbiased	0.5969	0.5967	-0.0002
37	100	HDR unbiased	0.5975	0.5968	-0.0007
38	100	HDR unbiased	0.5971	0.5965	-0.0006
72	0	correlation	0.5975	0.5975	0
73	0	correlation	0.5978	0.5978	0
156	100	HDR biased	0.5972	0.5963	-0.0009
157	100	HDR biased	0.5974	0.5965	-0.0009
158	100	HDR biased	0.5965	0.5961	-0.0004
159	100	HDR biased	0.5973	0.5965	-0.0008
160	100	HDR biased	0.5974	0.5965	-0.0009

Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5975	0.59765	0.5978	0.00021213	0.5975	0.59765	0.5978	0.00021213	0	0	0	0
100	0.5965	0.59721	0.5977	0.00033813	0.5961	0.59651	0.5969	0.00024244	-0.0009	-0.0007	-0.0002	0.0002357

Device Test: 15.51 WKR0Z2_1(FB|VFB/FB/12/0.6//10//@VFB_25C)
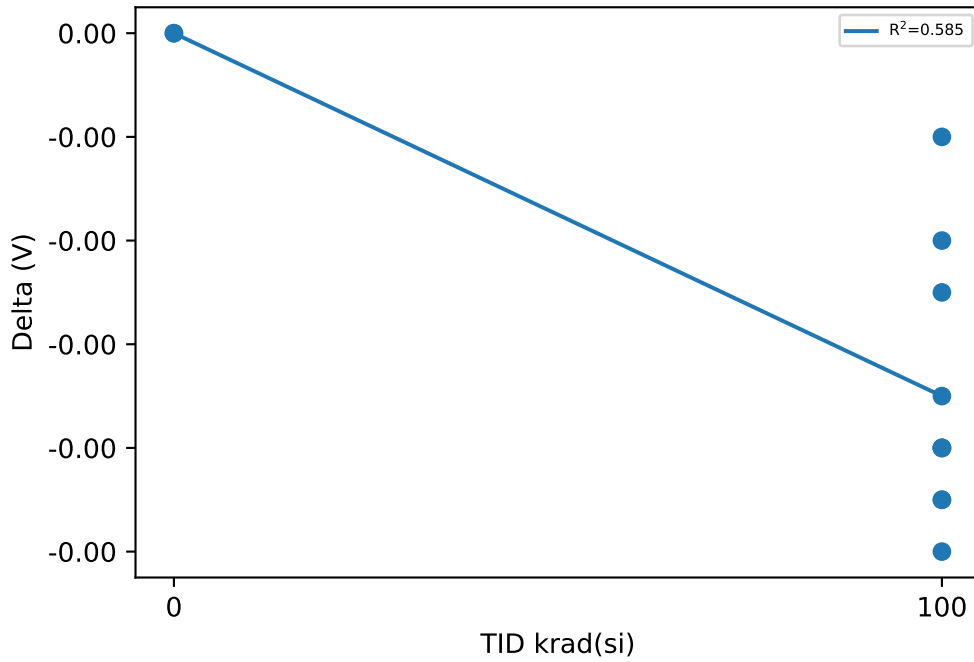
TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

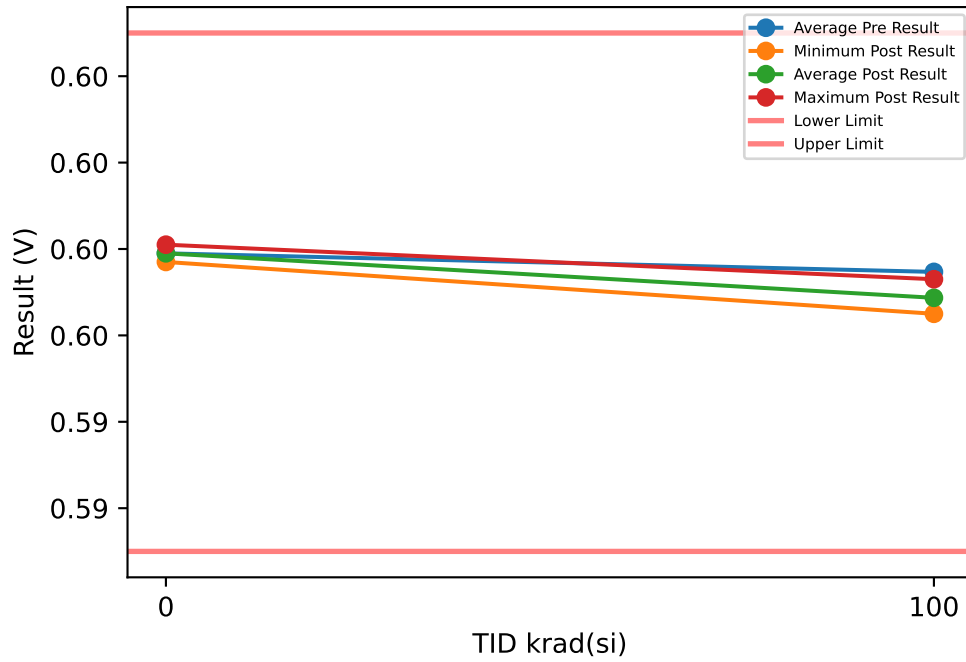| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5971	0.5962	-0.0009
34	100	HDR unbiased	0.5977	0.5969	-0.0008
35	100	HDR unbiased	0.5969	0.5967	-0.0002
37	100	HDR unbiased	0.5975	0.5968	-0.0007
38	100	HDR unbiased	0.5971	0.5966	-0.0005
72	0	correlation	0.5975	0.5975	0
73	0	correlation	0.5978	0.5978	0
156	100	HDR biased	0.5972	0.5963	-0.0009
157	100	HDR biased	0.5974	0.5964	-0.001
158	100	HDR biased	0.5965	0.5961	-0.0004
159	100	HDR biased	0.5973	0.5965	-0.0008
160	100	HDR biased	0.5974	0.5966	-0.0008

Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5975	0.59765	0.5978	0.00021213	0.5975	0.59765	0.5978	0.00021213	0	0	0	0
100	0.5965	0.59721	0.5977	0.00033813	0.5961	0.59651	0.5969	0.00026013	-0.001	-0.0007	-0.0002	0.00025386

Device Test: 15.6 WKR0Z2_1(FB|VFB/FB/2.25/0.6//10//@VFB_25C)

TID vs Result Stats

Legend: Average Pre Result, Minimum Post Result, Average Post Result, Maximum Post Result, Lower Limit, Upper Limit

TID vs Post - Pre Exposure Delta

$R^2=0.492$

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

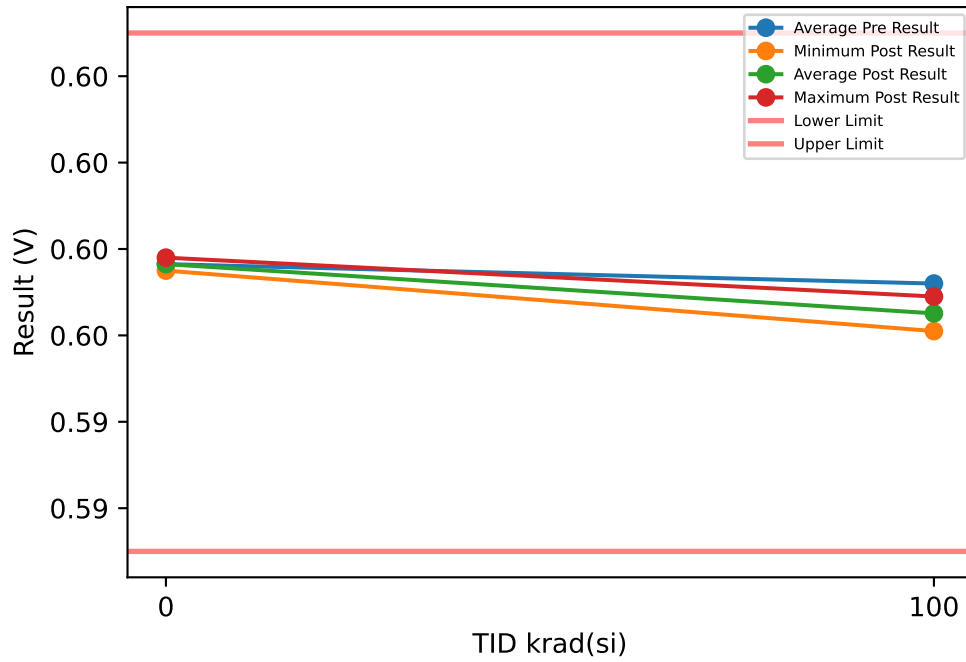| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5974	0.5966	-0.0008
34	100	HDR unbiased	0.598	0.5973	-0.0007
35	100	HDR unbiased	0.5971	0.597	-0.0001
37	100	HDR unbiased	0.5978	0.5972	-0.0006
38	100	HDR unbiased	0.5973	0.5968	-0.0005
72	0	correlation	0.5977	0.5977	0
73	0	correlation	0.5981	0.5981	0
156	100	HDR biased	0.5975	0.5967	-0.0008
157	100	HDR biased	0.5977	0.5968	-0.0009
158	100	HDR biased	0.5967	0.5965	-0.0002
159	100	HDR biased	0.5976	0.5969	-0.0007
160	100	HDR biased	0.5976	0.5969	-0.0007

Test Statistics (V)
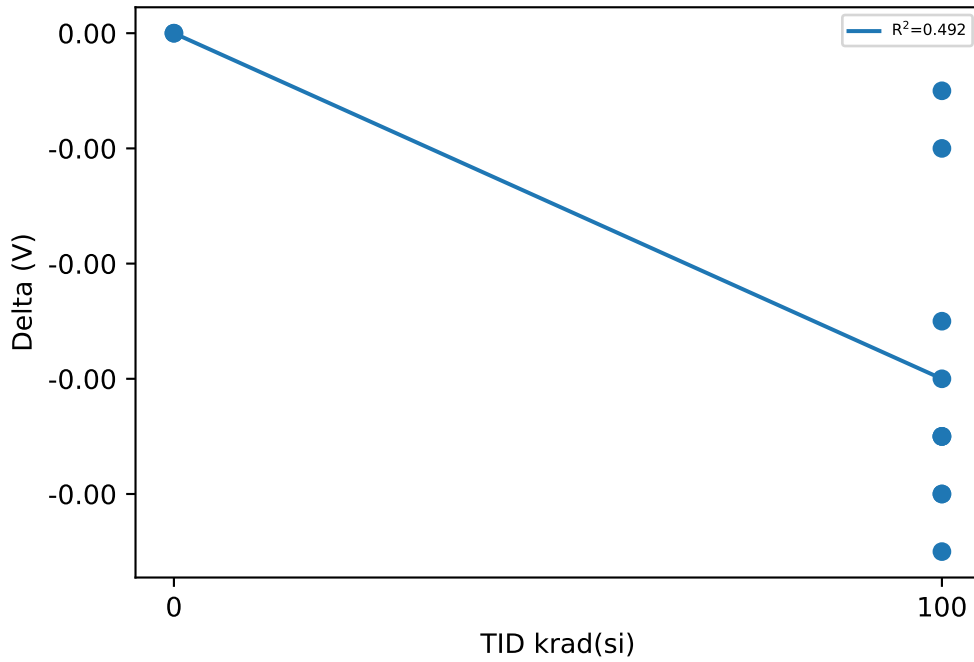
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5977	0.5979	0.5981	0.00028284	0.5977	0.5979	0.5981	0.00028284	0	0	0	0
100	0.5967	0.59747	0.598	0.00037133	0.5965	0.59687	0.5973	0.00024967	-0.0009	-0.0006	-0.0001	0.00026247

Device Test: 15.61 WKR0Z2_1(FB|VFB/FB/14/0.6//10//@VFB_25C)
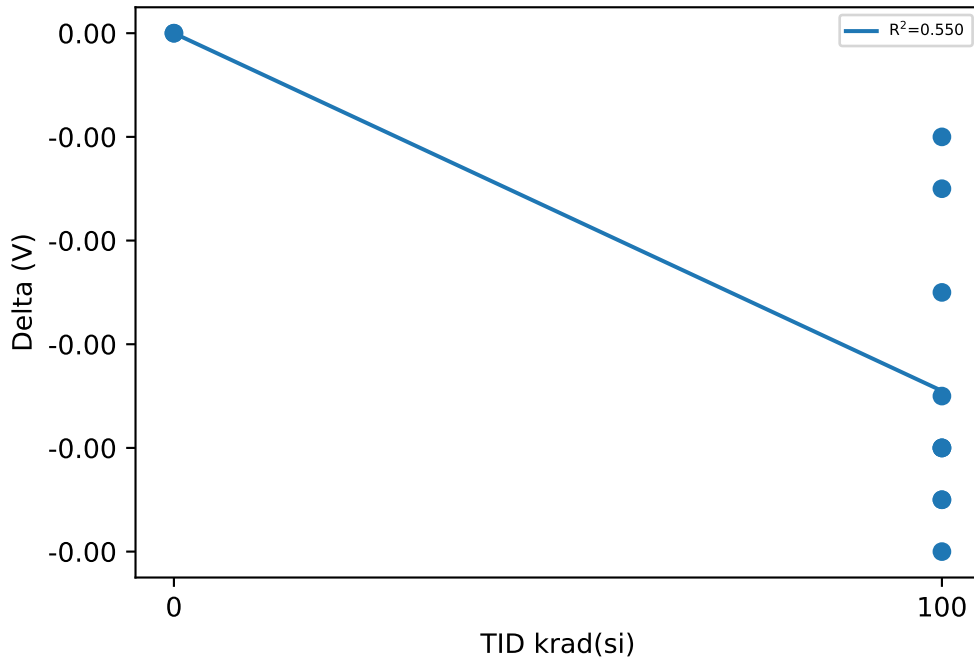
TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

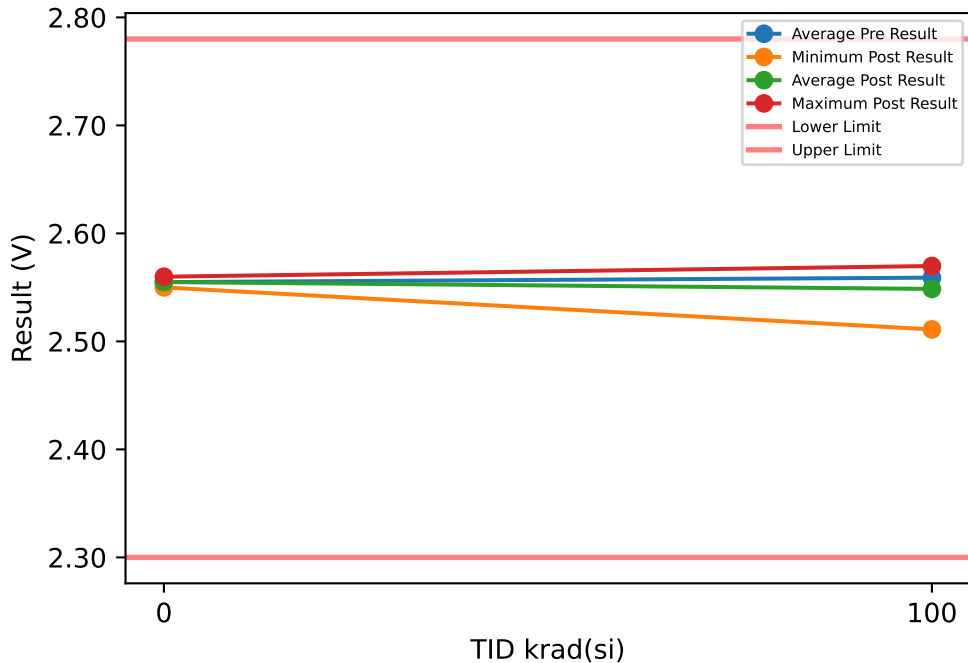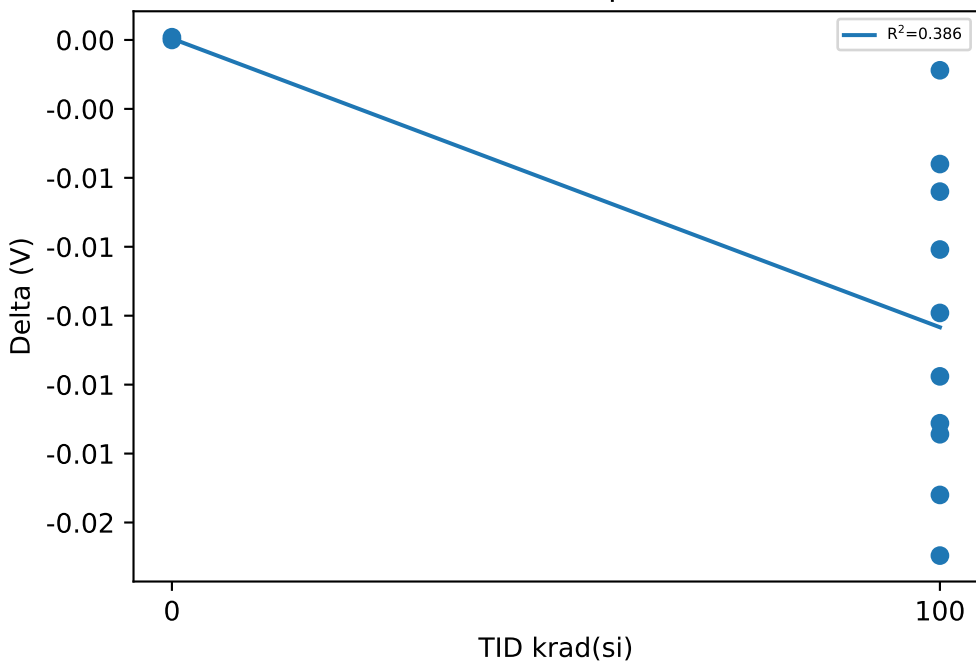| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5971	0.5962	-0.0009
34	100	HDR unbiased	0.5977	0.5969	-0.0008
35	100	HDR unbiased	0.5969	0.5967	-0.0002
37	100	HDR unbiased	0.5975	0.5968	-0.0007
38	100	HDR unbiased	0.5971	0.5966	-0.0005
72	0	correlation	0.5975	0.5975	0
73	0	correlation	0.5978	0.5978	0
156	100	HDR biased	0.5972	0.5963	-0.0009
157	100	HDR biased	0.5974	0.5964	-0.001
158	100	HDR biased	0.5964	0.5961	-0.0003
159	100	HDR biased	0.5973	0.5965	-0.0008
160	100	HDR biased	0.5974	0.5966	-0.0008

Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5975	0.59765	0.5978	0.00021213	0.5975	0.59765	0.5978	0.00021213	0	0	0	0
100	0.5964	0.5972	0.5977	0.00036209	0.5961	0.59651	0.5969	0.00026013	-0.001	-0.00069	-0.0002	0.00026854

Device Test: 15.62 PTQY2G_1(OUTPUT|VLDO/VLDO/14/0.6//10//@V_VLDO)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 2.3, Upper Limit = 2.78 (V))

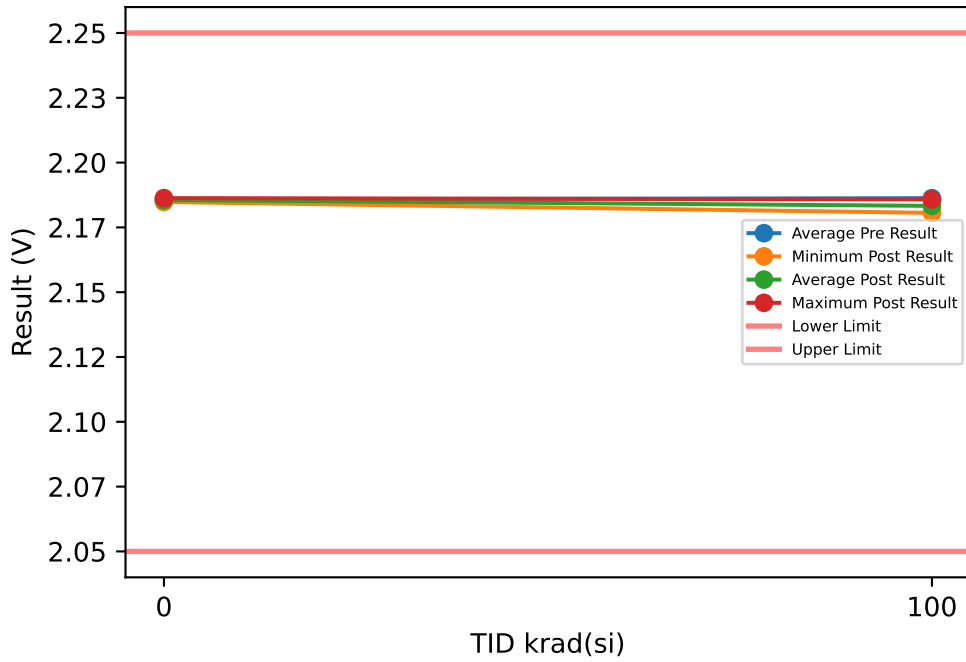| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	2.5579	2.5568	-0.0011
34	100	HDR unbiased	2.5585	2.5486	-0.0099
35	100	HDR unbiased	2.557	2.5515	-0.0055
37	100	HDR unbiased	2.5514	2.5438	-0.0076
38	100	HDR unbiased	2.555	2.5411	-0.0139
72	0	correlation	2.55	2.55	0
73	0	correlation	2.5598	2.5599	0.0001
156	100	HDR biased	2.5712	2.559	-0.0122
157	100	HDR biased	2.5722	2.5677	-0.0045
158	100	HDR biased	2.5885	2.5698	-0.0187
159	100	HDR biased	2.5508	2.5365	-0.0143
160	100	HDR biased	2.5276	2.5111	-0.0165

Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.55	2.5549	2.5598	0.0069296	2.55	2.5549	2.5599	0.0070004	0	5e-05	0.0001	7.0711e-05
100	2.5276	2.559	2.5885	0.016075	2.5111	2.5486	2.5698	0.017095	-0.0187	-0.01042	-0.0011	0.0056784

# Device Test: 15.7 PT7QD0_1(OUTPUT|VLDO/VLDO/2.25/0.6//10//@V_VLDO_VIN_2p25)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 2.05, Upper Limit = 2.25 (V))

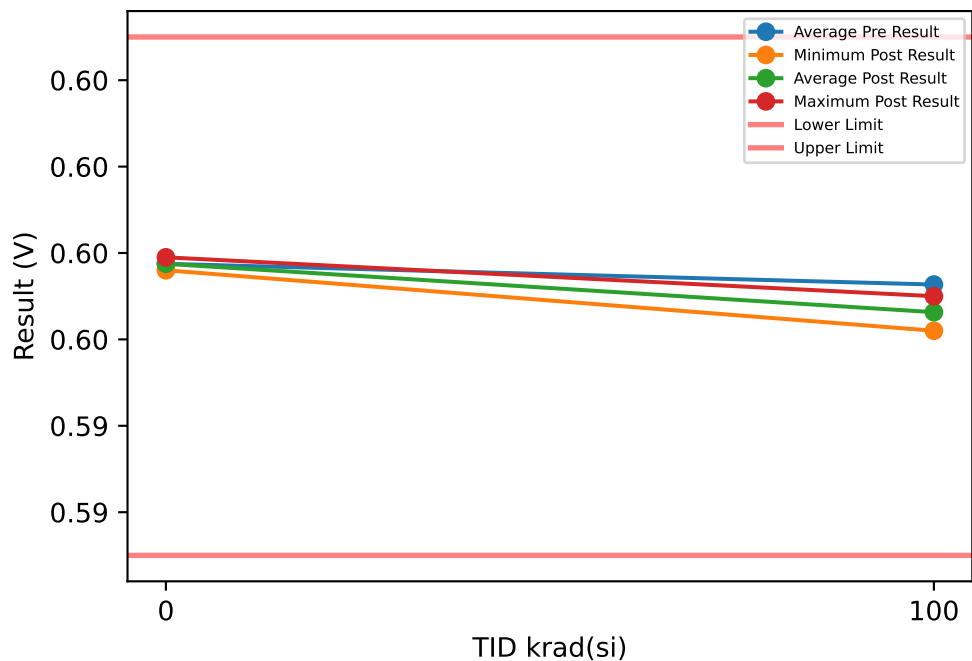| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	2.1875	2.1847	-0.0028
34	100	HDR unbiased	2.1844	2.1818	-0.0026
35	100	HDR unbiased	2.1873	2.1851	-0.0022
37	100	HDR unbiased	2.1841	2.1826	-0.0015
38	100	HDR unbiased	2.1874	2.1837	-0.0037
72	0	correlation	2.185	2.1848	-0.0002
73	0	correlation	2.1866	2.1863	-0.0003
156	100	HDR biased	2.1849	2.1806	-0.0043
157	100	HDR biased	2.1862	2.1842	-0.002
158	100	HDR biased	2.1866	2.1813	-0.0053
159	100	HDR biased	2.1891	2.1858	-0.0033
160	100	HDR biased	2.1852	2.1832	-0.002

Test Statistics (V)
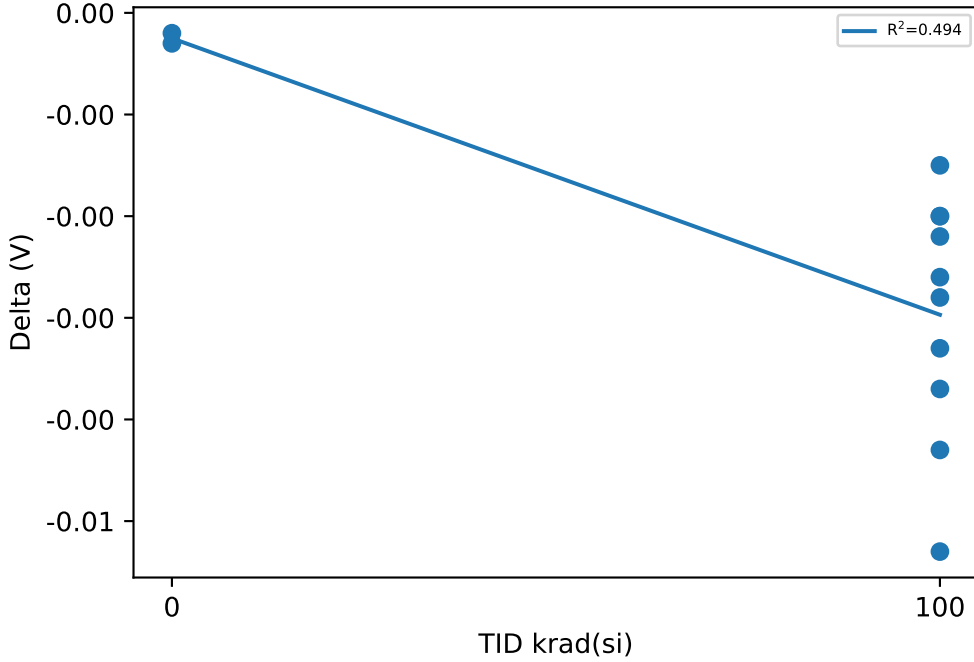
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.185	2.1858	2.1866	0.0011314	2.1848	2.1856	2.1863	0.0010607	-0.0003	-0.00025	-0.0002	7.0711e-05
100	2.1841	2.1863	2.1891	0.0016056	2.1806	2.1833	2.1858	0.0017146	-0.0053	-0.00297	-0.0015	0.0011851

Device Test: 15.72 WKR0Z2_1(FB|VFB/FB/14/13.9//10//@VFB_25C)

## TID vs Result Stats

TID vs Post - Pre Exposure Delta

R²=0.453

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

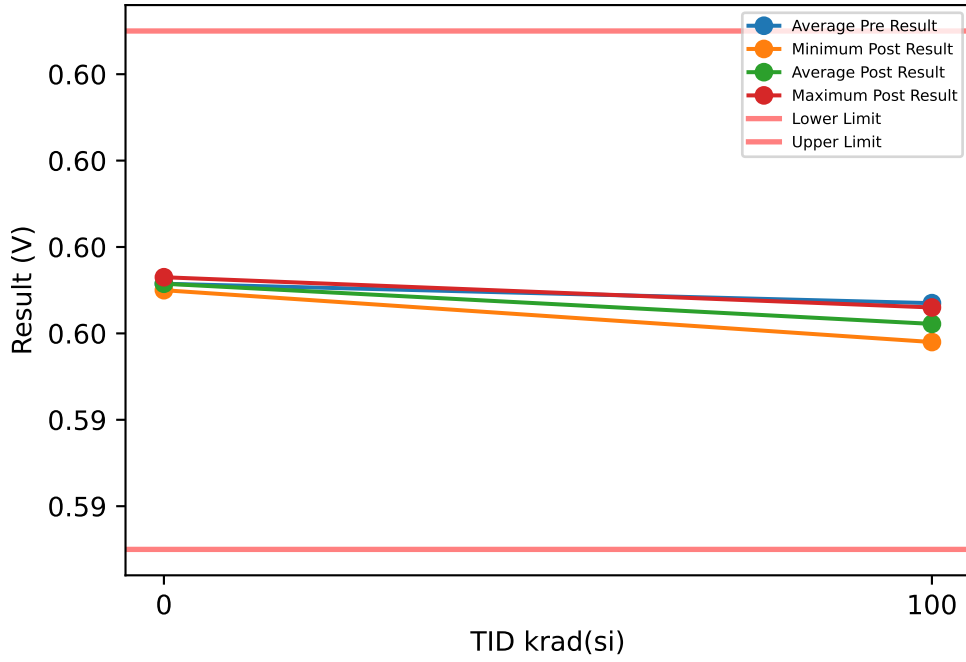| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5972	0.5964	-0.0008
34	100	HDR unbiased	0.5977	0.597	-0.0007
35	100	HDR unbiased	0.5969	0.5969	0
37	100	HDR unbiased	0.5975	0.5969	-0.0006
38	100	HDR unbiased	0.5972	0.5967	-0.0005
72	0	correlation	0.5976	0.5976	0
73	0	correlation	0.5979	0.5979	0
156	100	HDR biased	0.5973	0.5964	-0.0009
157	100	HDR biased	0.5975	0.5965	-0.001
158	100	HDR biased	0.5965	0.5962	-0.0003
159	100	HDR biased	0.5974	0.5966	-0.0008
160	100	HDR biased	0.5975	0.5967	-0.0008

Test Statistics (V)
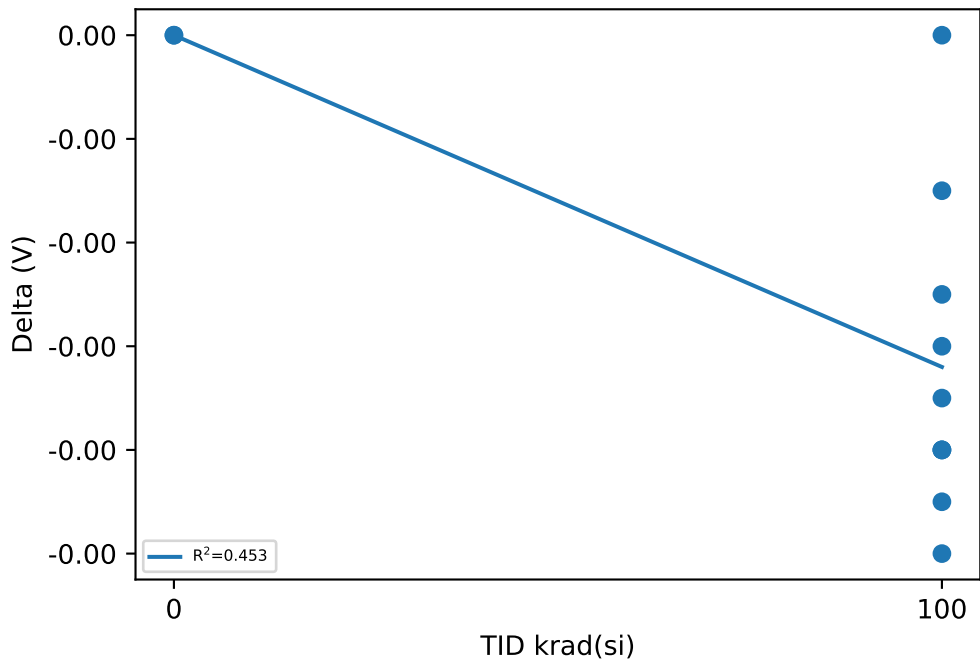
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5976	0.59775	0.5979	0.00021213	0.5976	0.59775	0.5979	0.00021213	0	0	0	0
100	0.5965	0.59727	0.5977	0.00034976	0.5962	0.59663	0.597	0.00025841	-0.001	-0.00064	0	0.00030258

Device Test: 15.77 WKR0Z2_1(FB|VFB/FB/14/13.3//2000//@VFB_25C)

TID vs Result Stats

Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

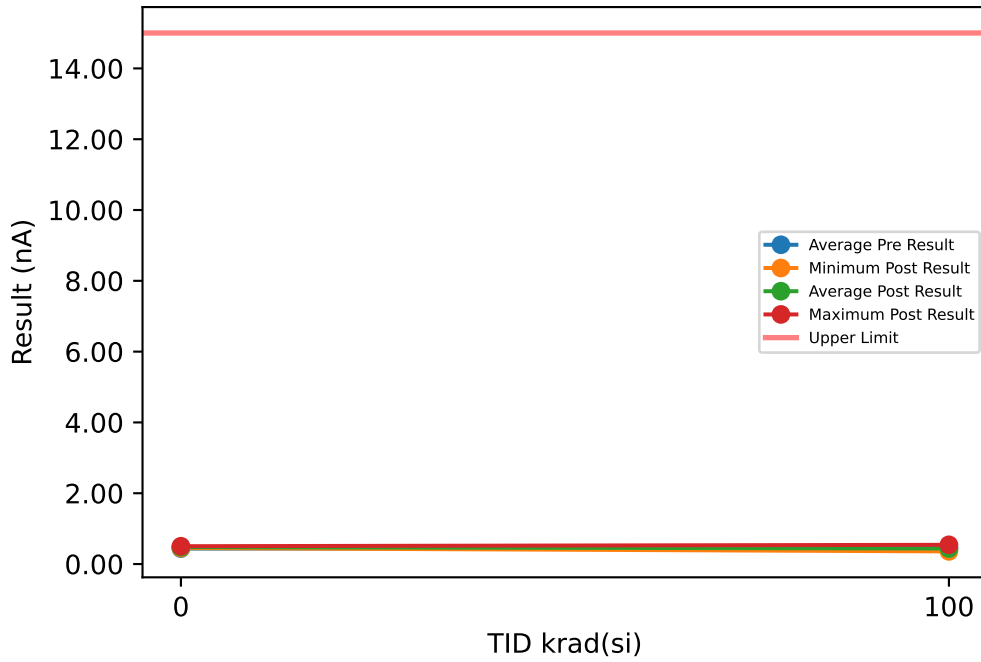| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.5966	0.596	-0.0006
34	100	HDR unbiased	0.5972	0.5966	-0.0006
35	100	HDR unbiased	0.5964	0.5965	0.0001
37	100	HDR unbiased	0.5969	0.5965	-0.0004
38	100	HDR unbiased	0.5966	0.5963	-0.0003
72	0	correlation	0.597	0.597	0
73	0	correlation	0.5973	0.5973	0
156	100	HDR biased	0.5967	0.596	-0.0007
157	100	HDR biased	0.5969	0.5961	-0.0008
158	100	HDR biased	0.596	0.5958	-0.0002
159	100	HDR biased	0.5968	0.5962	-0.0006
160	100	HDR biased	0.5969	0.5962	-0.0007

TID vs Post - Pre Exposure Delta
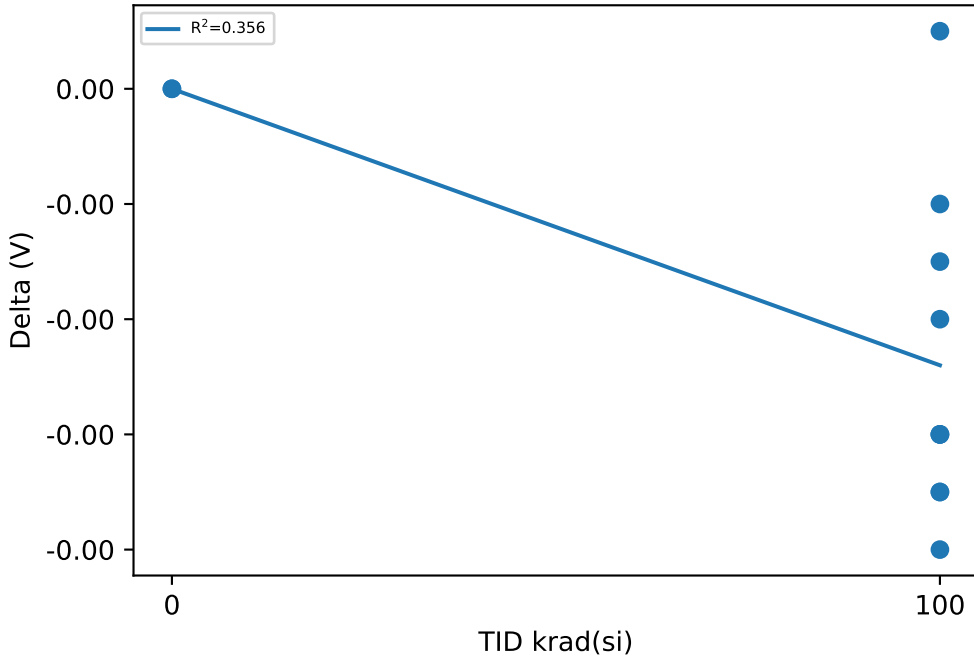
Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.597	0.59715	0.5973	0.00021213	0.597	0.59715	0.5973	0.00021213	0	0	0	0
100	0.596	0.5967	0.5972	0.00032998	0.5958	0.59622	0.5966	0.00025734	-0.0008	-0.00048	0.0001	0.00027809

# Device Test: 15.78 WKGHLU_1(LEAK|CURRENT/FB/5/////@I_FB)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 15.0 (nA))

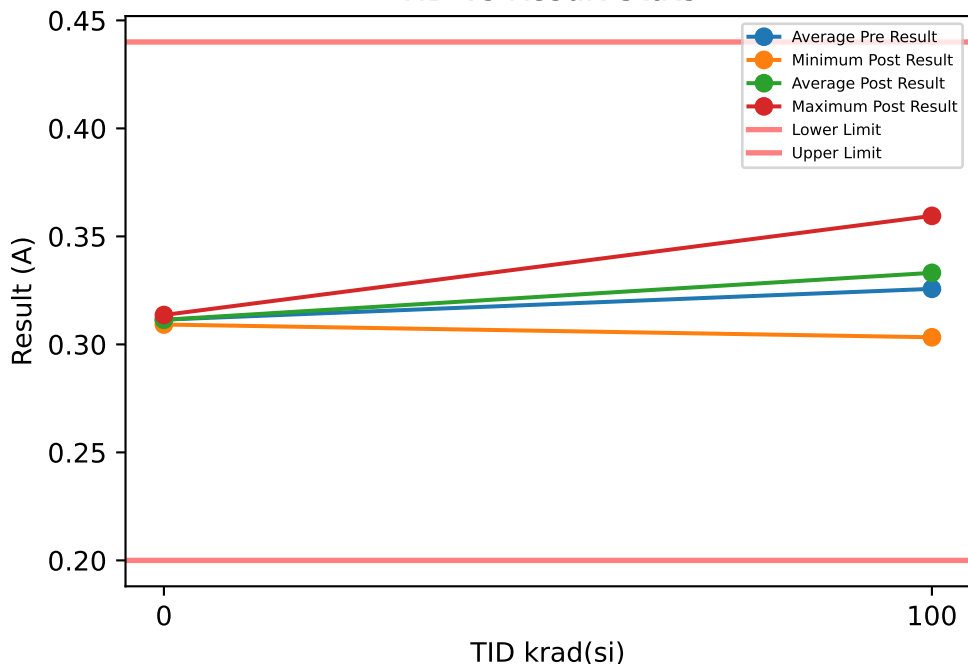| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.4485	0.3592	-0.0893
34	100	HDR unbiased	0.3923	0.3839	-0.0084
35	100	HDR unbiased	0.4548	0.4261	-0.0287
37	100	HDR unbiased	0.4545	0.3573	-0.0972
38	100	HDR unbiased	0.4017	0.4539	0.0522
72	0	correlation	0.4773	0.452	-0.0253
73	0	correlation	0.3964	0.5035	0.1071
156	100	HDR biased	0.4432	0.432	-0.0112
157	100	HDR biased	0.4579	0.4998	0.0419
158	100	HDR biased	0.5045	0.4579	-0.0466
159	100	HDR biased	0.4701	0.5432	0.0731
160	100	HDR biased	0.4773	0.4782	0.0009

Test Statistics (nA)
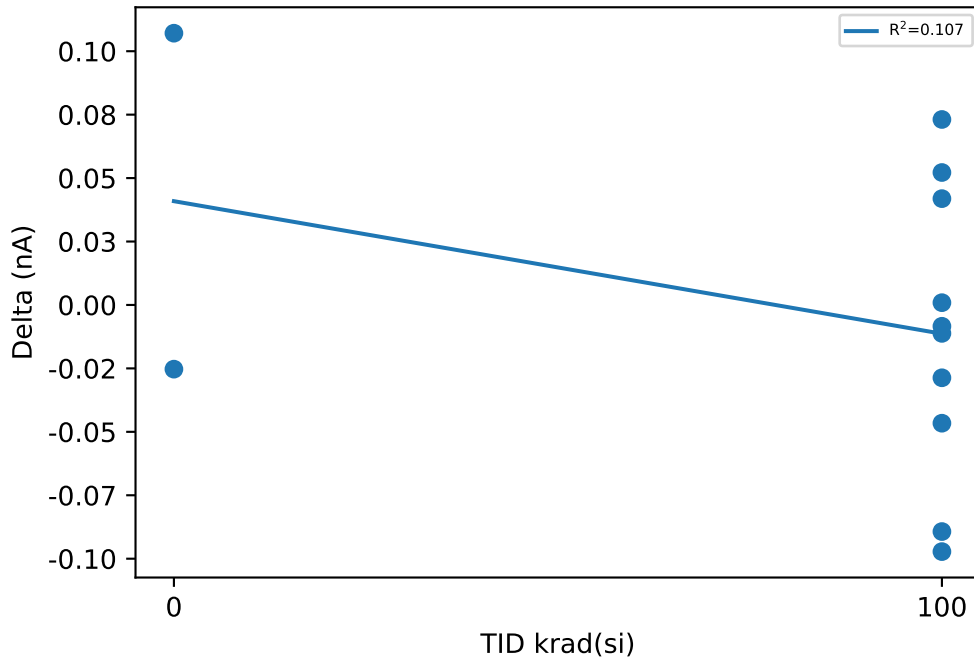
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.3964	0.43685	0.4773	0.057205	0.452	0.47775	0.5035	0.036416	-0.0253	0.0409	0.1071	0.093621
100	0.3923	0.45048	0.5045	0.033223	0.3573	0.43915	0.5432	0.06052	-0.0972	-0.01133	0.0731	0.056916

Device Test: 16.1 PTVENC_1(THRESHOLD|CL_MIN/CL/3.3/////@I_LIM_MIN)

TID vs Result Stats

TID vs Post - Pre Exposure Delta


Test Results (Lower Limit = 0.2, Upper Limit = 0.44 (A))

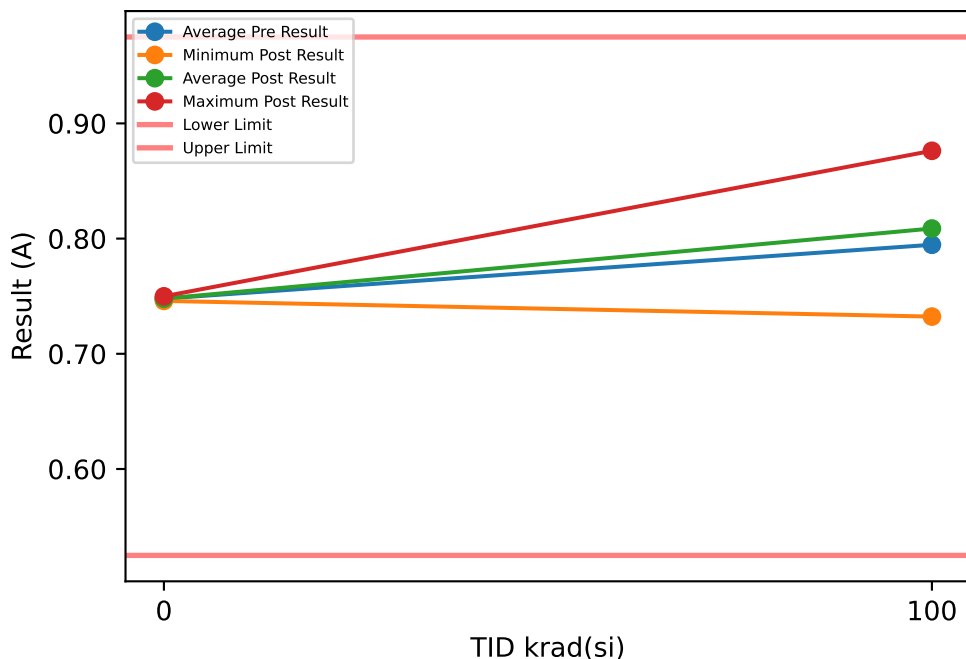| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.3273	0.3319	0.0046
34	100	HDR unbiased	0.3503	0.3477	-0.0026
35	100	HDR unbiased	0.3594	0.3595	0.0001
37	100	HDR unbiased	0.3053	0.3158	0.0105
38	100	HDR unbiased	0.3467	0.3521	0.0054
72	0	correlation	0.3093	0.3092	-0.0001
73	0	correlation	0.3136	0.3136	0
156	100	HDR biased	0.2975	0.3033	0.0058
157	100	HDR biased	0.3116	0.3295	0.0179
158	100	HDR biased	0.3285	0.3383	0.0098
159	100	HDR biased	0.3007	0.3083	0.0076
160	100	HDR biased	0.3299	0.3449	0.015

Test Statistics (A)
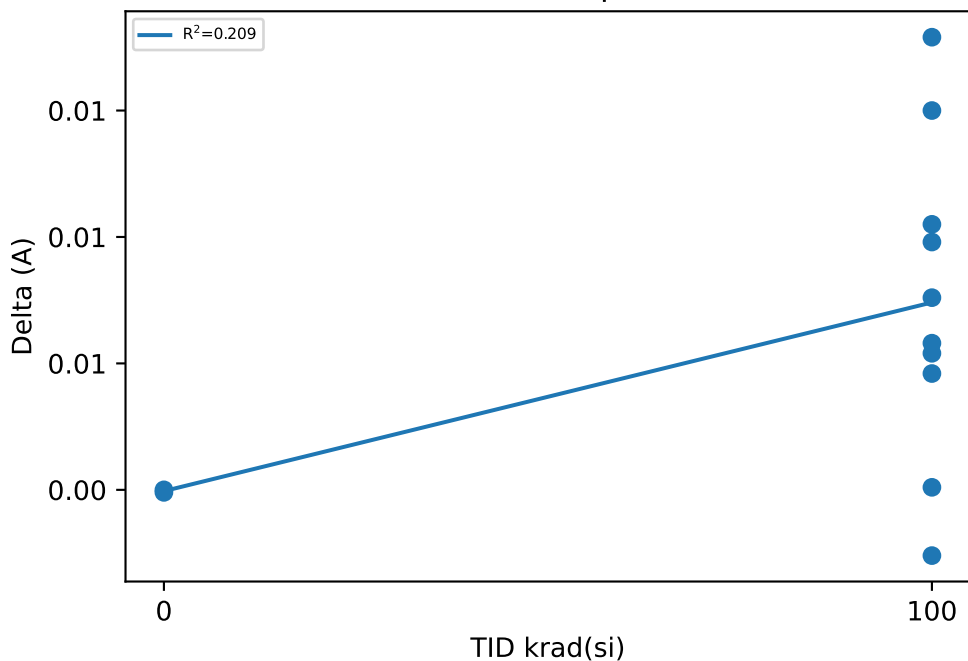
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.3093	0.31145	0.3136	0.0030406	0.3092	0.3114	0.3136	0.0031113	-0.0001	-5e-05	0	7.0711e-05
100	0.2975	0.32572	0.3594	0.021718	0.3033	0.33313	0.3595	0.019015	-0.0026	0.00741	0.0179	0.006246

# Device Test: 16.2 PTO0NN_1(THRESHOLD|CL_SMALL/CL/3.3/////@I_LIM_SMALL)

TID vs Result Stats

Test Results (Lower Limit = 0.525, Upper Limit = 0.975 (A))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.8147	0.8268	0.0121
34	100	HDR unbiased	0.864	0.8583	-0.0057
35	100	HDR unbiased	0.8779	0.8762	-0.0017
37	100	HDR unbiased	0.7751	0.7947	0.0196
38	100	HDR unbiased	0.8582	0.8704	0.0122
72	0	correlation	0.7458	0.7459	0.0001
73	0	correlation	0.75	0.7499	-0.0001
156	100	HDR biased	0.7221	0.7323	0.0102
157	100	HDR biased	0.745	0.7782	0.0332
158	100	HDR biased	0.77	0.7895	0.0195
159	100	HDR biased	0.7278	0.7428	0.015
160	100	HDR biased	0.7916	0.8182	0.0266

## TID vs Post - Pre Exposure Delta
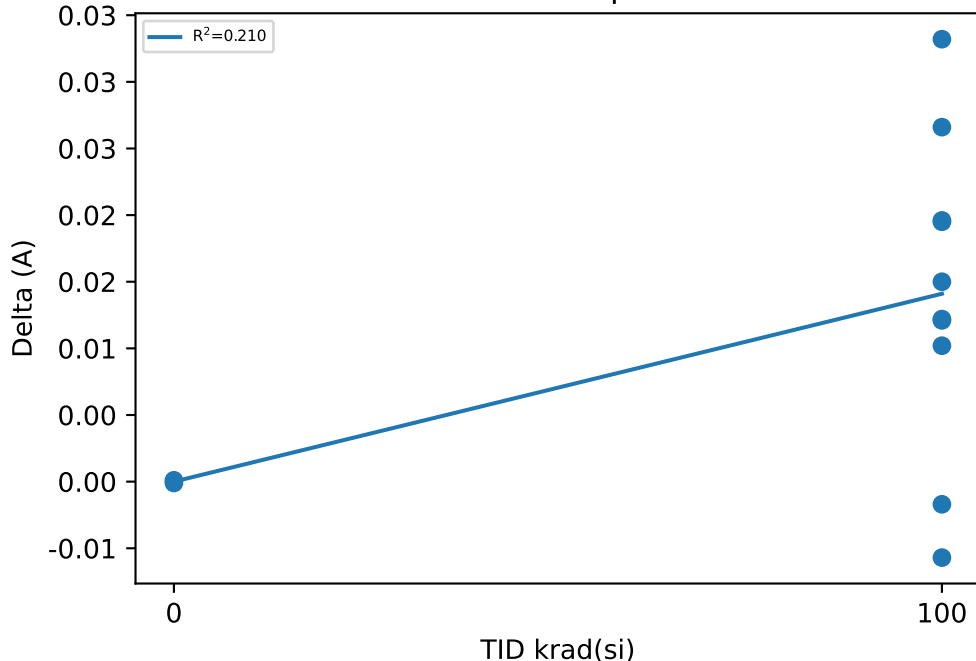
Test Statistics (A)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.7458	0.7479	0.75	0.0029698	0.7459	0.7479	0.7499	0.0028284	-0.0001	0	0.0001	0.00014142
100	0.7221	0.79464	0.8779	0.057133	0.7323	0.80874	0.8762	0.05046	-0.0057	0.0141	0.0332	0.011765

Device Test: 16.3 PT7R0U_1(THRESHOLD|CL_LARGE/CL/3.3/////@I_LIM_LARGE)

TID vs Result Stats

TID vs Post - Pre Exposure Delta
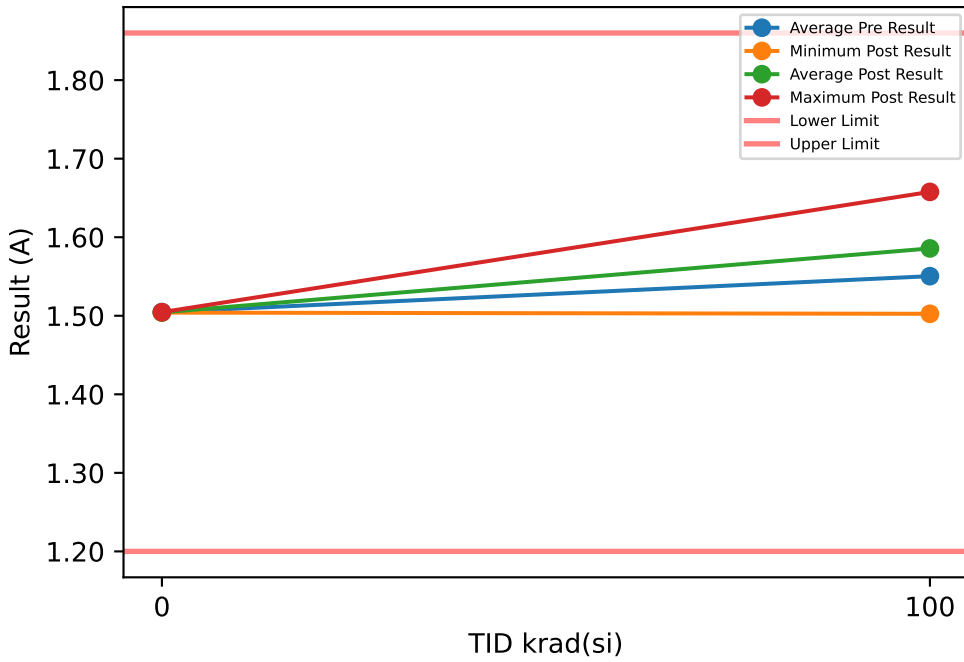
Test Results (Lower Limit = 1.2, Upper Limit = 1.86 (A))

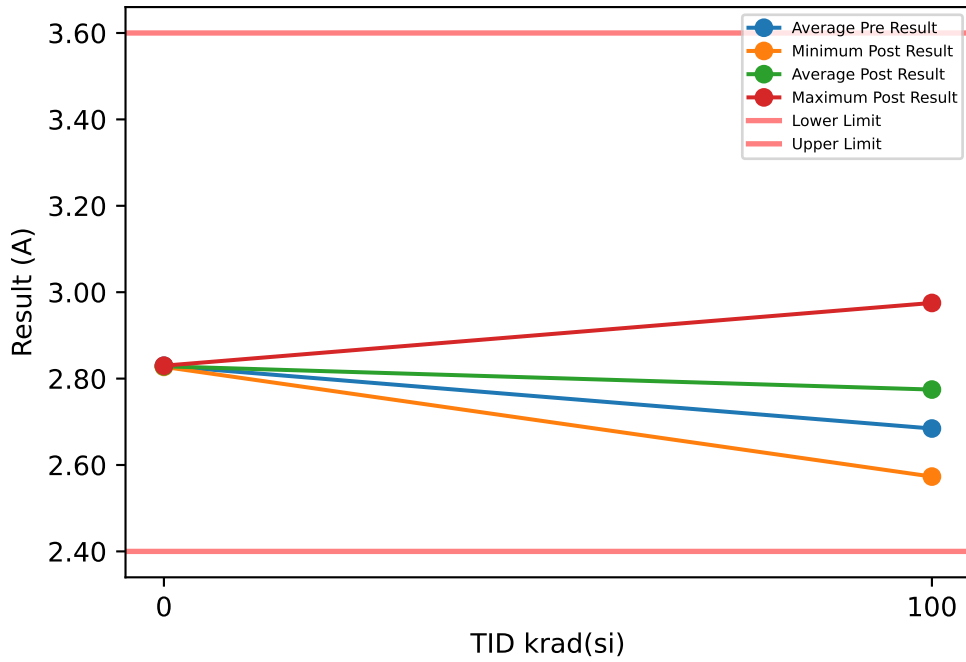| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	1.5588	1.5946	0.0358
34	100	HDR unbiased	1.6318	1.6319	0.0001
35	100	HDR unbiased	1.6485	1.6577	0.0092
37	100	HDR unbiased	1.5003	1.5443	0.044
38	100	HDR unbiased	1.6256	1.6544	0.0288
72	0	correlation	1.5043	1.504	-0.0003
73	0	correlation	1.5049	1.5046	-0.0003
156	100	HDR biased	1.4701	1.5025	0.0324
157	100	HDR biased	1.4941	1.5595	0.0654
158	100	HDR biased	1.5224	1.5609	0.0385
159	100	HDR biased	1.479	1.5185	0.0395
160	100	HDR biased	1.5733	1.6328	0.0595

Test Statistics (A)
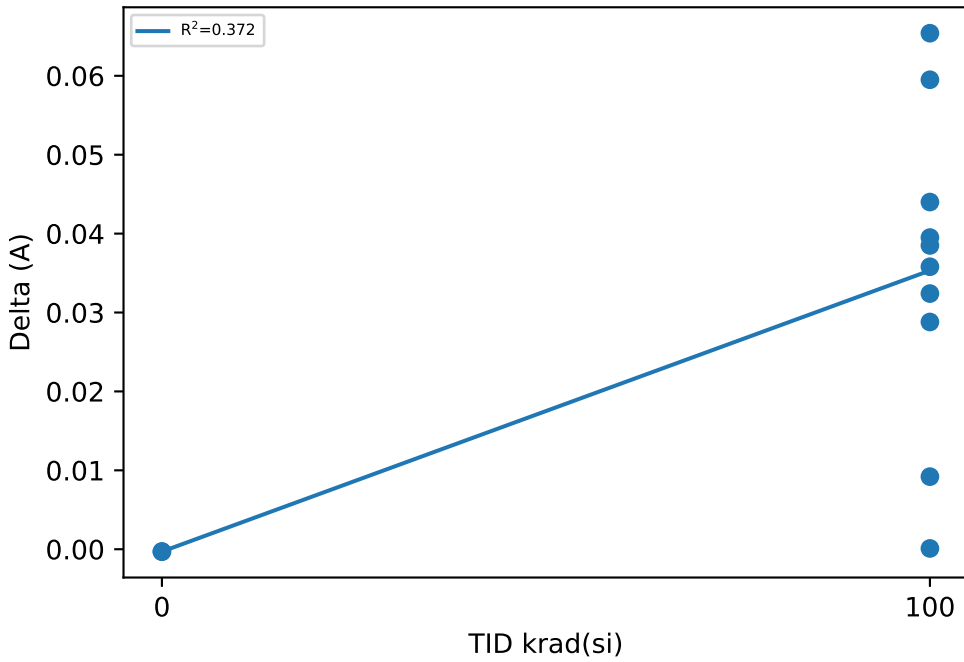
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.5043	1.5046	1.5049	0.00042426	1.504	1.5043	1.5046	0.00042426	-0.0003	-0.0003	-0.0003	0
100	1.4701	1.5504	1.6485	0.06709	1.5025	1.5857	1.6577	0.056558	0.0001	0.03532	0.0654	0.019906

Device Test: 16.4 PT16A5_1(THRESHOLD|CL_MAX/CL/3.3/////@I_LIM_MAX)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 2.4, Upper Limit = 3.6 (A))

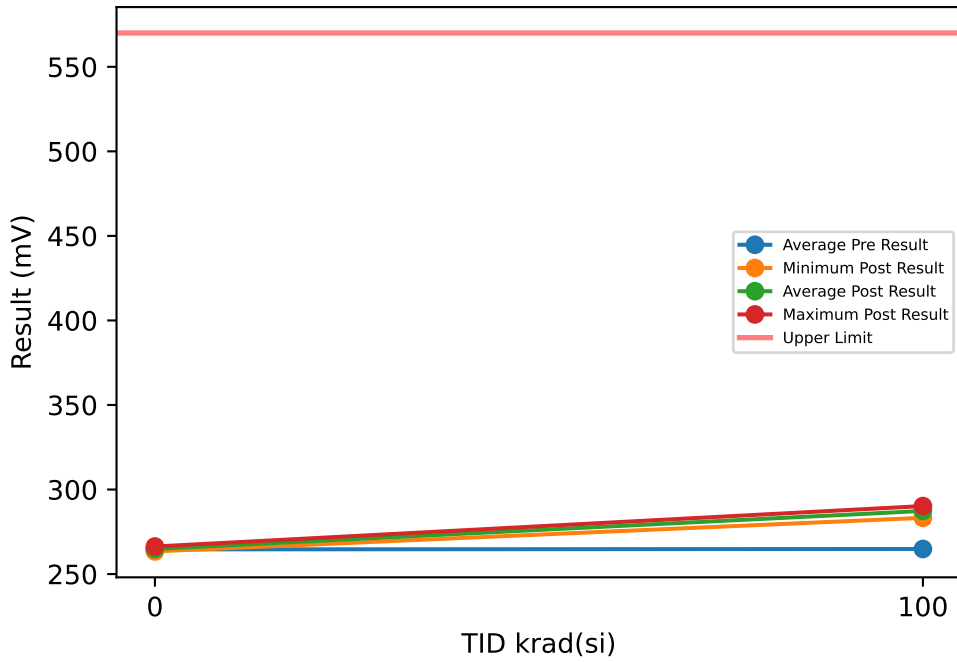| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	2.5055	2.5926	0.0871
34	100	HDR unbiased	2.6001	2.639	0.0389
35	100	HDR unbiased	2.6086	2.6746	0.066
37	100	HDR unbiased	2.4724	2.5732	0.1008
38	100	HDR unbiased	2.5875	2.6615	0.074
72	0	correlation	2.8278	2.8271	-0.0007
73	0	correlation	2.8314	2.8299	-0.0015
156	100	HDR biased	2.8178	2.9332	0.1154
157	100	HDR biased	2.8207	2.9278	0.1071
158	100	HDR biased	2.8258	2.934	0.1082
159	100	HDR biased	2.7426	2.8353	0.0927
160	100	HDR biased	2.8634	2.9751	0.1117

Test Statistics (A)
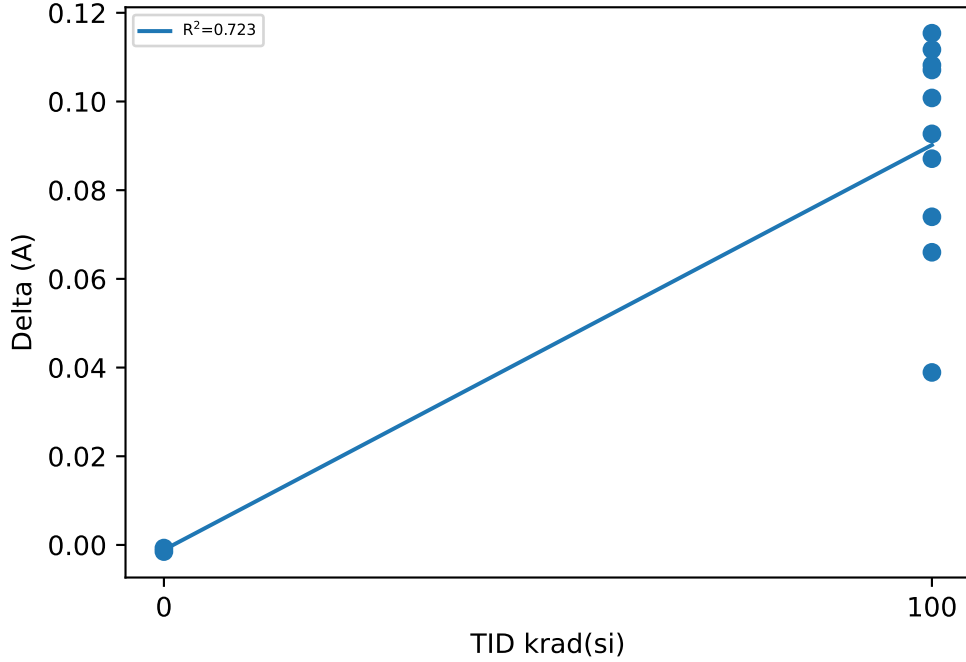
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.8278	2.8296	2.8314	0.0025456	2.8271	2.8285	2.8299	0.0019799	-0.0015	-0.0011	-0.0007	0.00056569
100	2.4724	2.6844	2.8634	0.14567	2.5732	2.7746	2.9751	0.16083	0.0389	0.09019	0.1154	0.024301

# Device Test: 17.12 PT9U5M_1(VIN|DROPOUT/OUT//2.25//1000//@VDO_1A_LV)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 570.0 (mV))

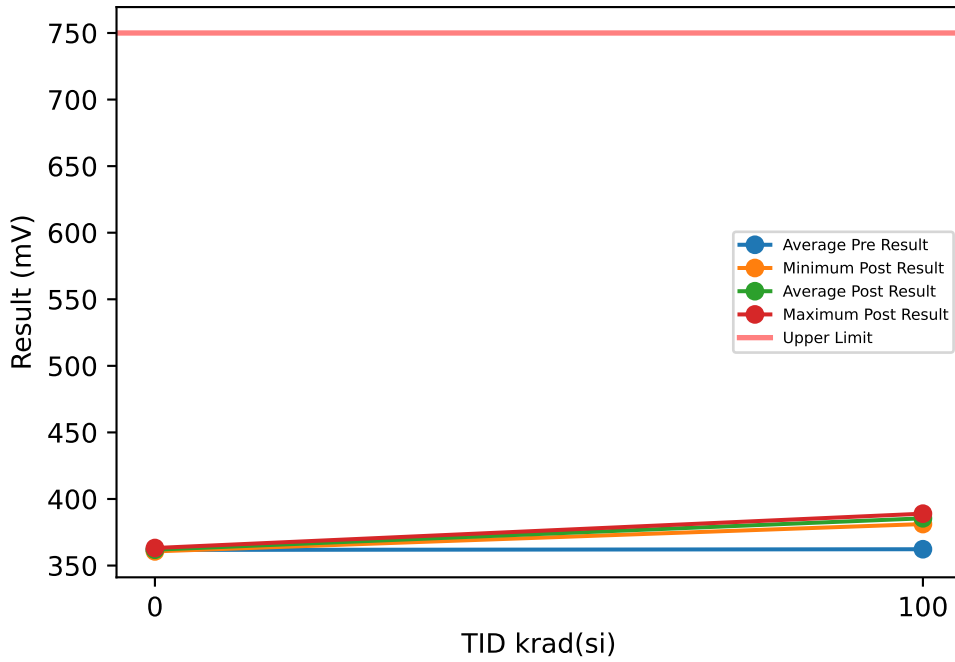| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	266.46	288.53	22.063
34	100	HDR unbiased	266.63	289.21	22.574
35	100	HDR unbiased	265.95	288.7	22.744
37	100	HDR unbiased	263.41	285.64	22.234
38	100	HDR unbiased	267.31	289.03	21.725
72	0	correlation	265.78	266.29	0.509
73	0	correlation	263.41	263.41	0.0005
156	100	HDR biased	261.88	285.64	23.761
157	100	HDR biased	262.39	283.26	20.876
158	100	HDR biased	266.8	290.22	23.422
159	100	HDR biased	262.05	284.62	22.573
160	100	HDR biased	265.44	288.53	23.082

Test Statistics (mV)
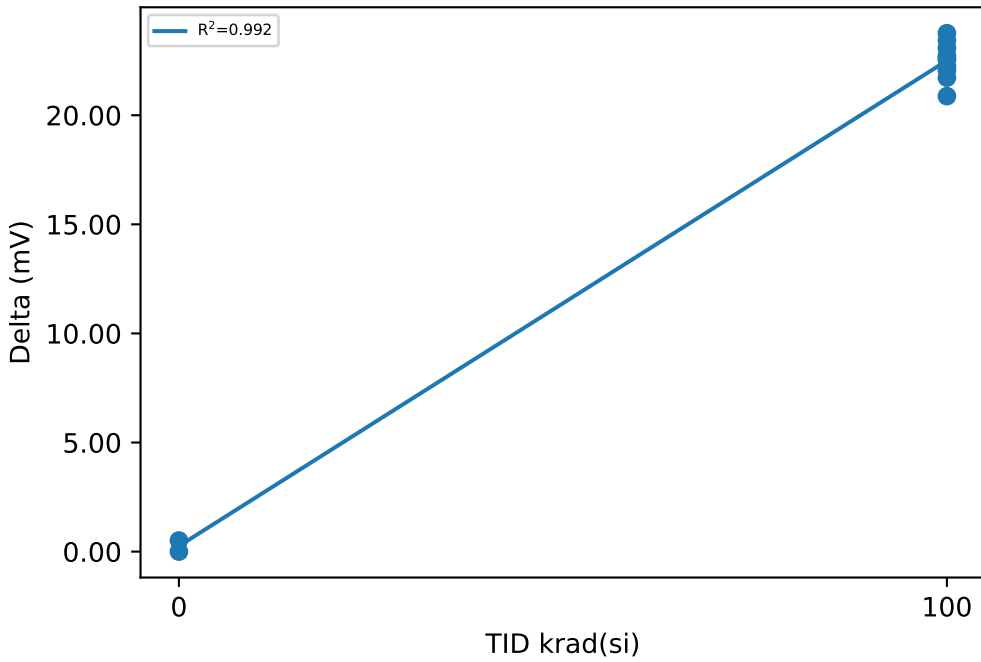
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	263.41	264.6	265.78	1.6802	263.41	264.85	266.29	2.0397	0.0005	0.25475	0.509	0.35956
100	261.88	264.83	267.31	2.1602	283.26	287.34	290.22	2.3354	20.876	22.505	23.761	0.83996

# Device Test: 17.15 PTAG26_1(VIN|DROPOUT/OUT//2.5//1500//@VDO_1P5A_LV)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 750.0 (mV))

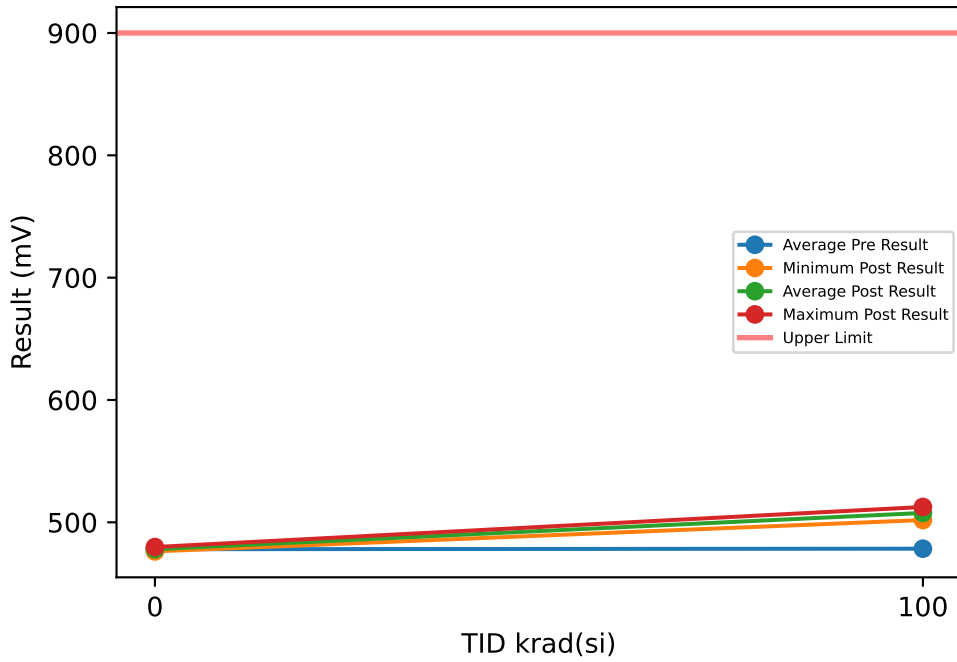| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	364.71	387.28	22.573
34	100	HDR unbiased	364.2	387.11	22.913
35	100	HDR unbiased	363.52	387.45	23.932
37	100	HDR unbiased	360.3	382.87	22.574
38	100	HDR unbiased	365.39	387.79	22.403
72	0	correlation	363.18	363.18	0
73	0	correlation	360.3	360.64	0.339
156	100	HDR biased	358.26	382.87	24.609
157	100	HDR biased	359.62	381.17	21.554
158	100	HDR biased	364.54	388.98	24.441
159	100	HDR biased	358.94	382.19	23.251
160	100	HDR biased	363.18	387.11	23.931

Test Statistics (mV)
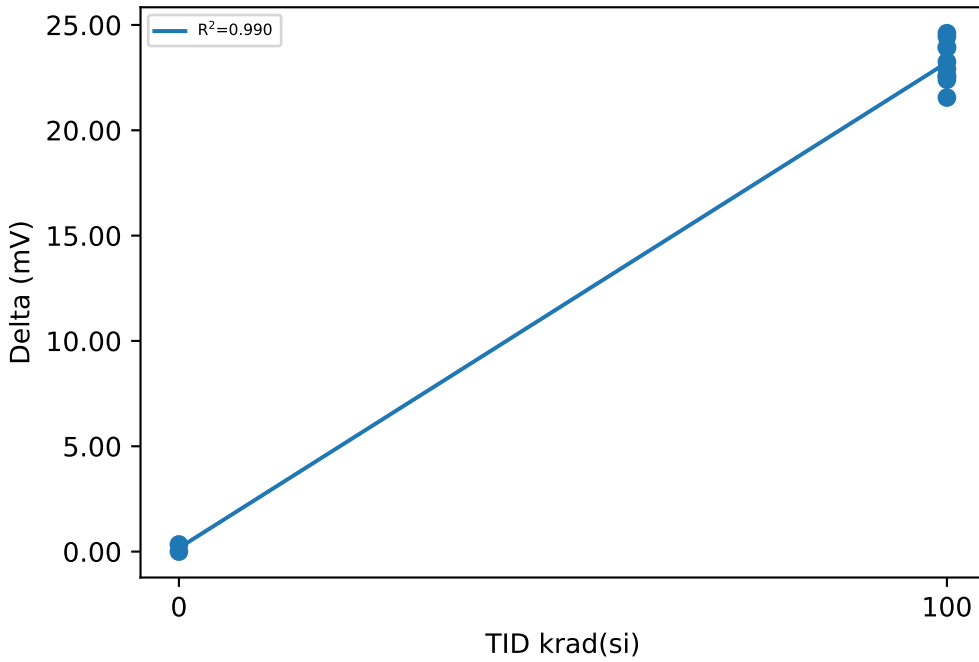
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	360.3	361.74	363.18	2.0391	360.64	361.91	363.18	1.7994	0	0.1695	0.339	0.23971
100	358.26	362.26	365.39	2.6884	381.17	385.48	388.98	2.8493	21.554	23.218	24.609	0.98919

# Device Test: 17.18 PT7O2X_1(VIN|DROPOUT/OUT//2.5//2000//@VDO_2A_LV)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 900.0 (mV))

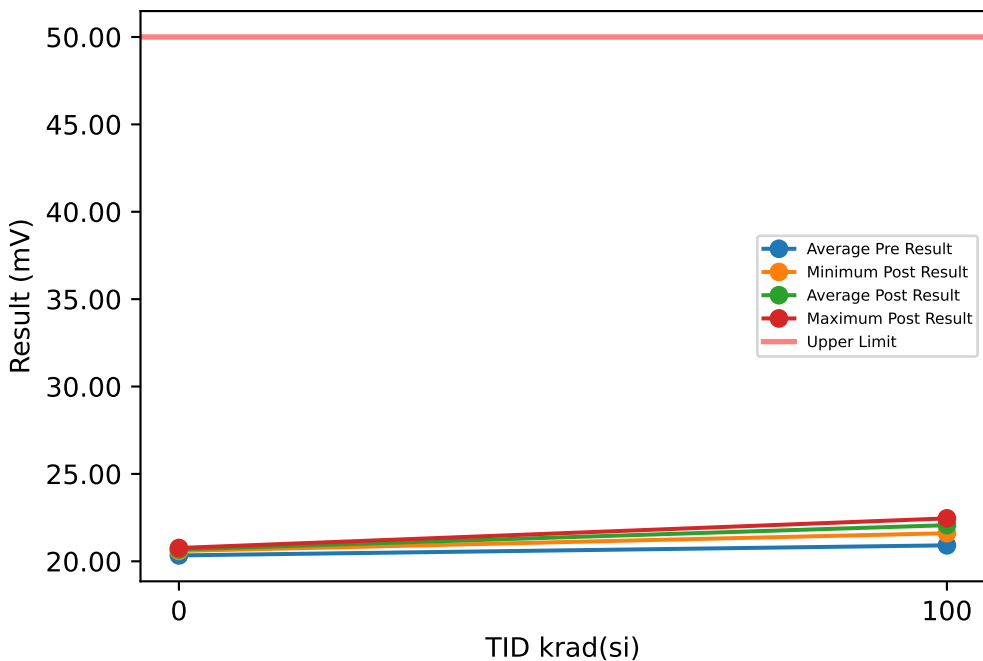| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	481.66	510.68	29.023
34	100	HDR unbiased	481.49	510	28.514
35	100	HDR unbiased	479.96	509.66	29.703
37	100	HDR unbiased	476.23	504.23	28.004
38	100	HDR unbiased	482.84	510.68	27.835
72	0	correlation	479.62	479.79	0.1696
73	0	correlation	476.4	476.23	-0.1699
156	100	HDR biased	472.66	504.23	31.568
157	100	HDR biased	475.38	501.85	26.475
158	100	HDR biased	481.15	512.55	31.4
159	100	HDR biased	473.85	503.55	29.701
160	100	HDR biased	479.28	509.15	29.871

Test Statistics (mV)
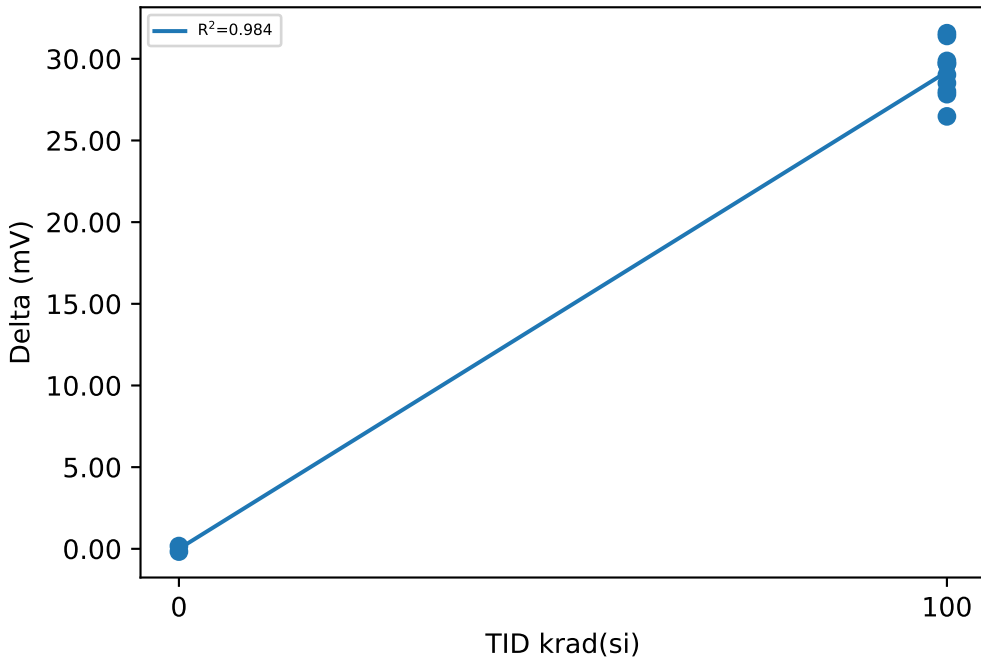
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	476.4	478.01	479.62	2.2796	476.23	478.01	479.79	2.5197	-0.1699	-0.00015	0.1696	0.24006
100	472.66	478.45	482.84	3.6227	501.85	507.66	512.55	3.7707	26.475	29.209	31.568	1.5854

# Device Test: 17.21 WKF5AP_1(VIN|DROPOUT/OUT//3//100//@VDO_100MA)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 50.0 (mV))

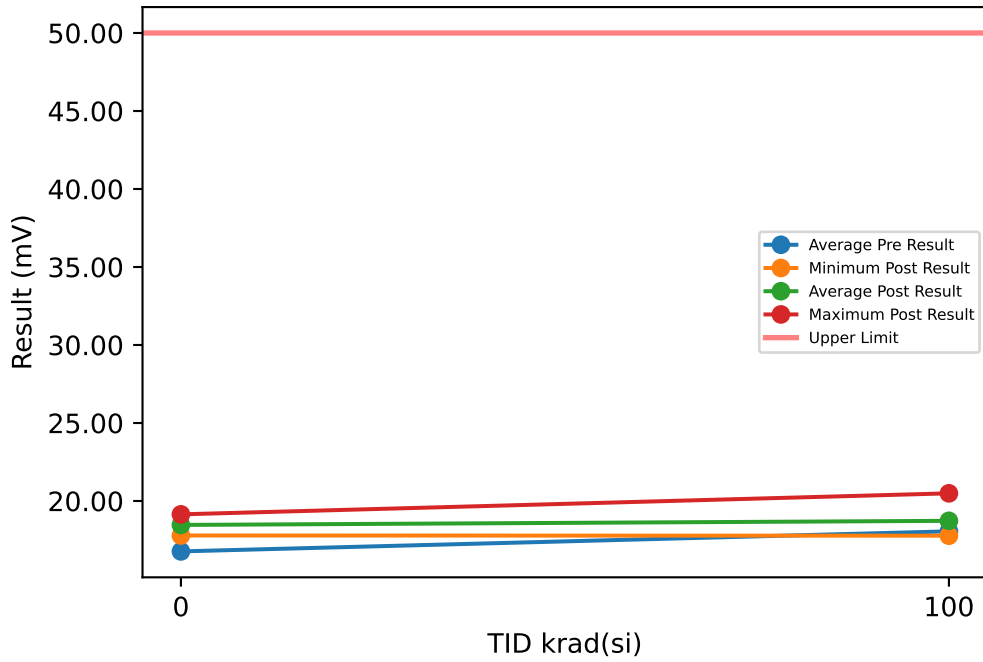| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	21.1	21.947	0.8469
34	100	HDR unbiased	20.423	22.288	1.8654
35	100	HDR unbiased	21.1	22.287	1.1878
37	100	HDR unbiased	20.761	22.118	1.3561
38	100	HDR unbiased	21.44	22.456	1.0163
72	0	correlation	20.422	20.591	0.1695
73	0	correlation	20.253	20.762	0.5088
156	100	HDR biased	20.931	21.946	1.0159
157	100	HDR biased	20.761	21.608	0.8461
158	100	HDR biased	21.268	21.946	0.6783
159	100	HDR biased	20.761	21.777	1.0161
160	100	HDR biased	20.591	22.287	1.6954

Test Statistics (mV)
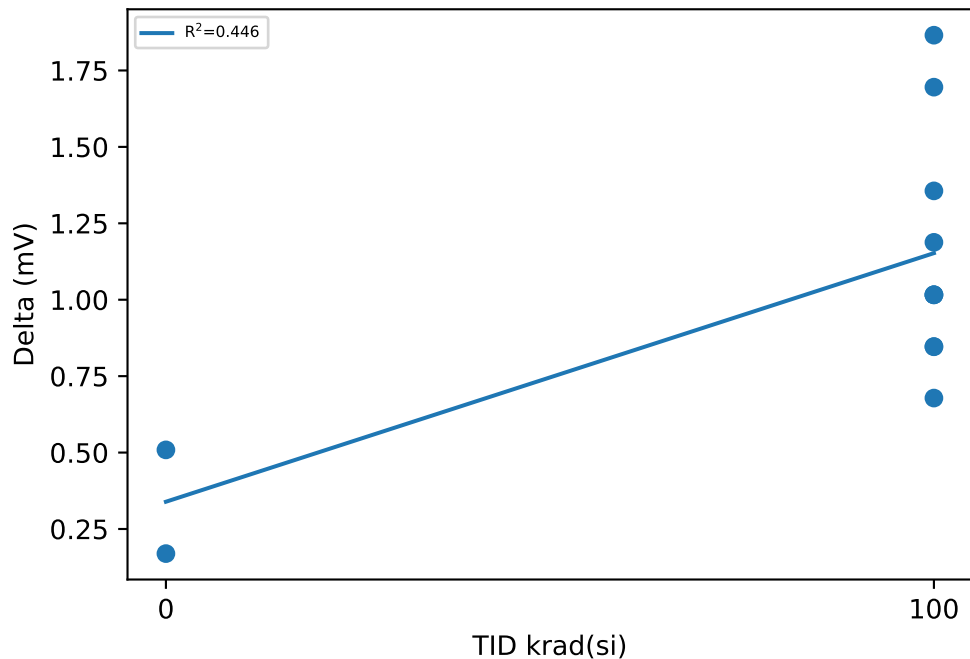
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	20.253	20.338	20.422	0.11922	20.591	20.677	20.762	0.1207	0.1695	0.33915	0.5088	0.23992
100	20.423	20.914	21.44	0.31376	21.608	22.066	22.456	0.26627	0.6783	1.1524	1.8654	0.38204

# Device Test: 17.24 WKF5AP_1(VIN|DROPOUT/OUT//13.3//100//@VDO_100MA)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 50.0 (mV))

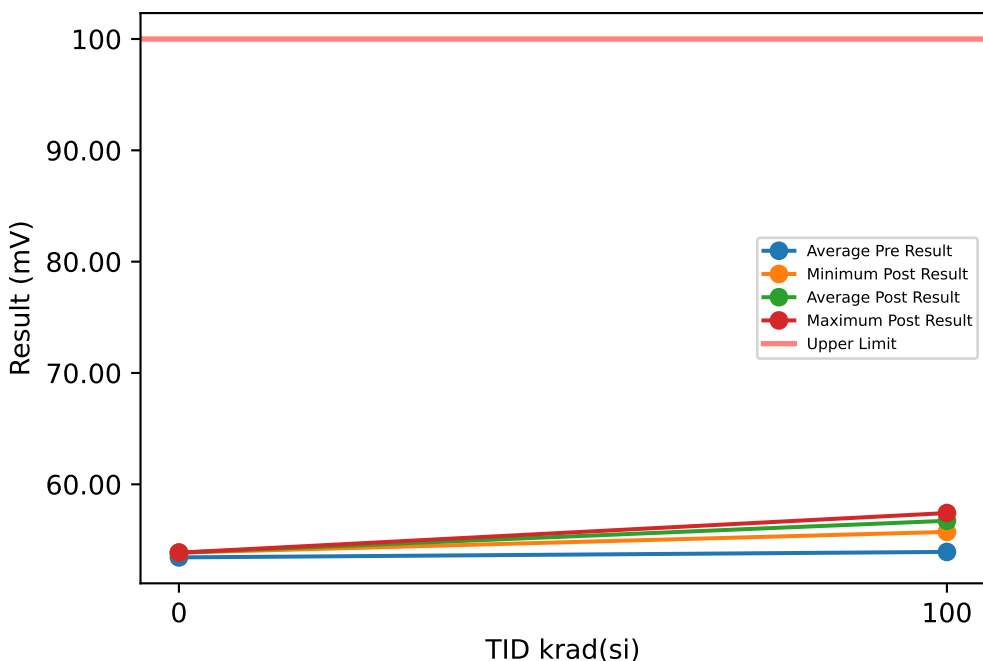| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	17.103	18.456	1.3523
34	100	HDR unbiased	16.431	19.14	2.7093
35	100	HDR unbiased	18.459	18.459	0
37	100	HDR unbiased	19.144	18.459	-0.6848
38	100	HDR unbiased	17.104	17.778	0.6743
72	0	correlation	18.465	19.144	0.6791
73	0	correlation	15.074	17.789	2.7151
156	100	HDR biased	18.463	20.492	2.0285
157	100	HDR biased	17.784	17.777	-0.0076
158	100	HDR biased	17.777	19.133	1.3552
159	100	HDR biased	17.785	19.814	2.0294
160	100	HDR biased	20.5	17.779	-2.7208

Test Statistics (mV)
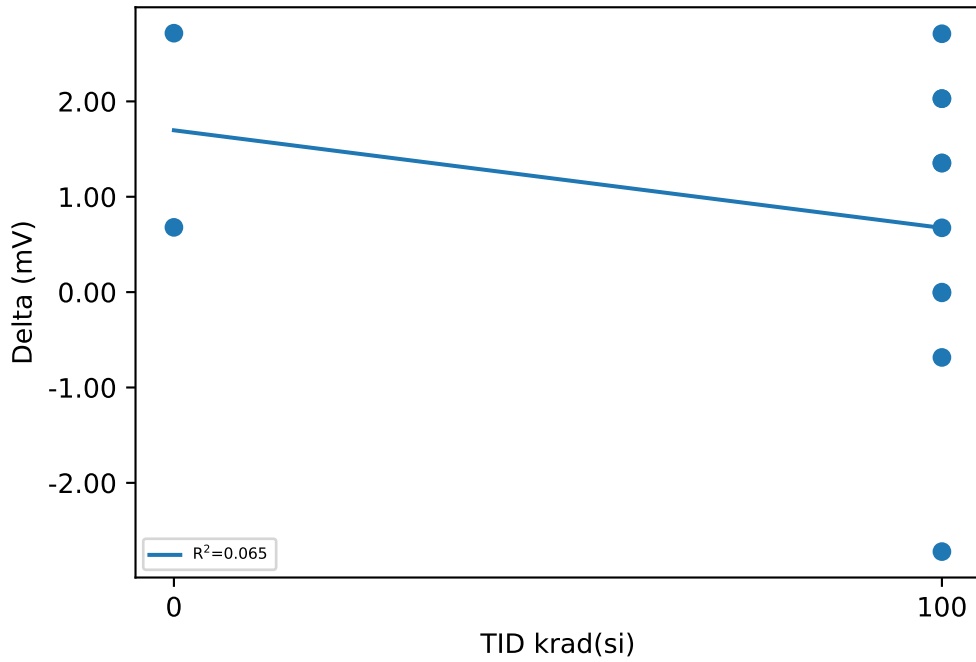
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	15.074	16.769	18.465	2.3979	17.789	18.466	19.144	0.95827	0.6791	1.6971	2.7151	1.4397
100	16.431	18.055	20.5	1.1627	17.777	18.729	20.492	0.91591	-2.7208	0.67358	2.7093	1.5996

# Device Test: 17.27 PTWXP1_1(VIN|DROPOUT/OUT//3//250//@VDO_250MA)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 100.0 (mV))

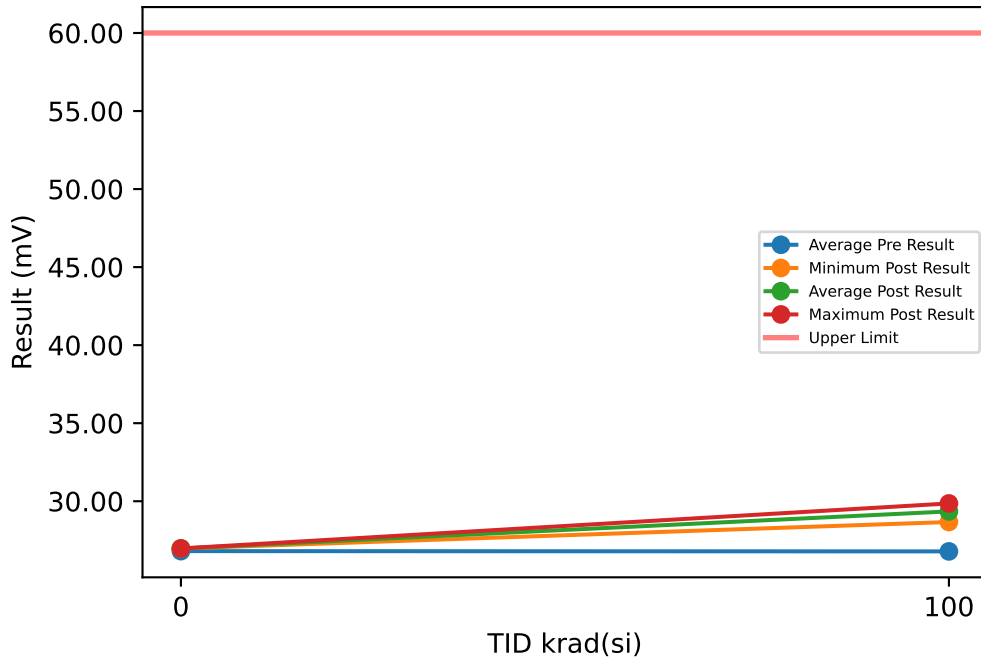| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	54.198	57.251	3.0529
34	100	HDR unbiased	53.69	57.083	3.3927
35	100	HDR unbiased	54.197	56.913	2.7156
37	100	HDR unbiased	53.859	56.404	2.5444
38	100	HDR unbiased	54.198	56.912	2.7144
72	0	correlation	53.52	53.859	0.3395
73	0	correlation	53.351	53.86	0.509
156	100	HDR biased	53.349	56.233	2.8837
157	100	HDR biased	54.199	56.233	2.0342
158	100	HDR biased	54.536	57.42	2.8844
159	100	HDR biased	53.18	55.725	2.5444
160	100	HDR biased	53.859	57.082	3.2227

Test Statistics (mV)
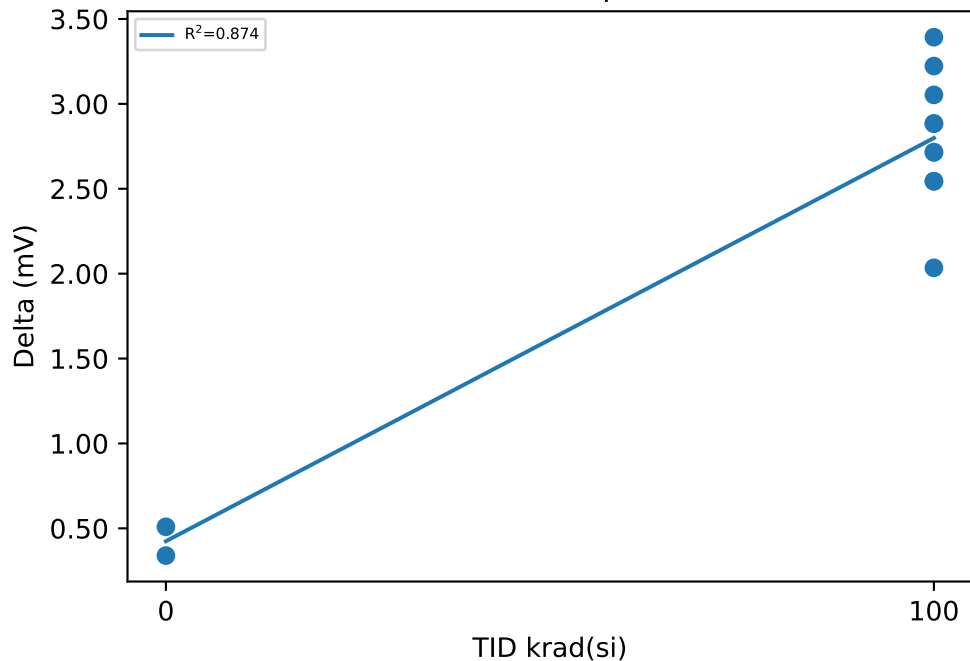
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	53.351	53.435	53.52	0.11915	53.859	53.86	53.86	0.00070711	0.3395	0.42425	0.509	0.11985
100	53.18	53.927	54.536	0.42442	55.725	56.726	57.42	0.54508	2.0342	2.7989	3.3927	0.3858

# Device Test: 17.3 PT86GW_1(VIN|DROPOUT/OUT//2.25//100//@VDO_100MA_LV)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 60.0 (mV))

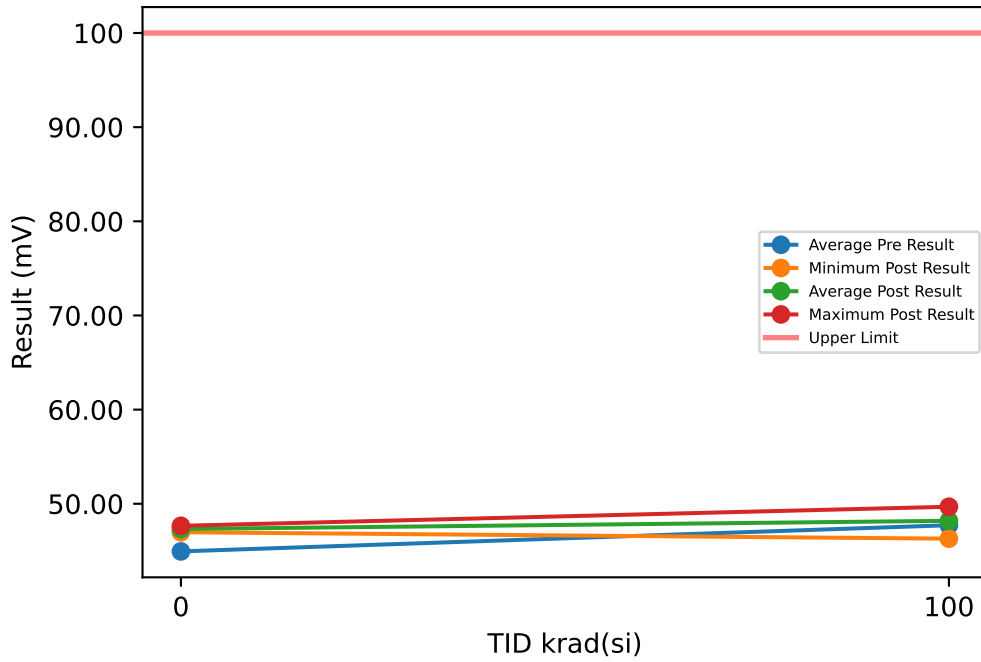| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	26.972	29.856	2.8844
34	100	HDR unbiased	27.483	29.857	2.3749
35	100	HDR unbiased	26.632	29.857	3.2251
37	100	HDR unbiased	26.464	29.348	2.8841
38	100	HDR unbiased	26.972	29.177	2.2058
72	0	correlation	27.142	26.973	-0.1698
73	0	correlation	26.464	26.973	0.509
156	100	HDR biased	26.123	29.347	3.2234
157	100	HDR biased	26.633	28.668	2.0354
158	100	HDR biased	26.971	29.177	2.2061
159	100	HDR biased	26.463	28.838	2.3747
160	100	HDR biased	27.142	29.347	2.2047

Test Statistics (mV)
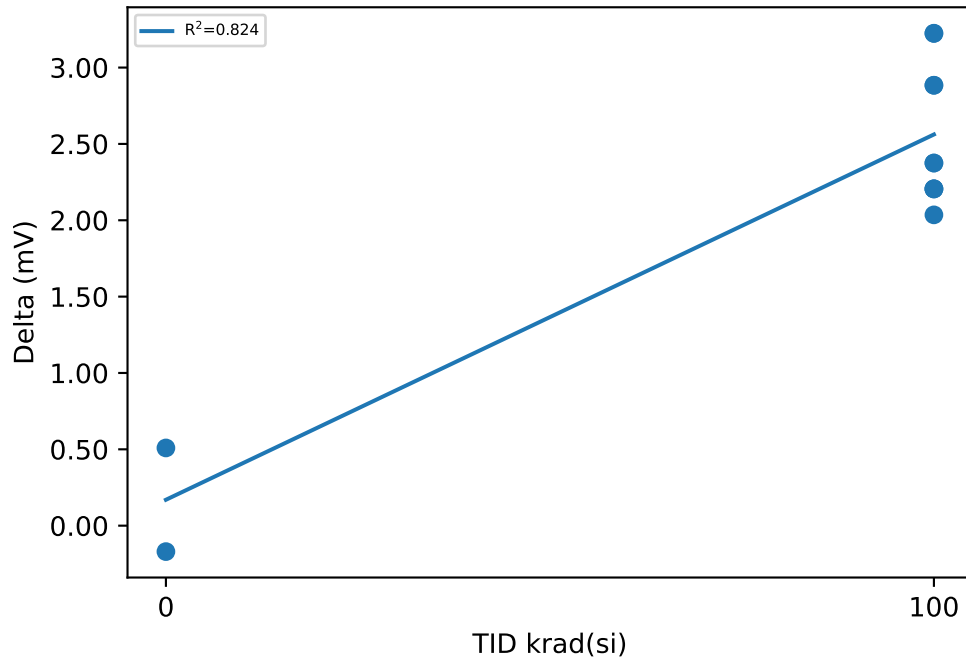
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	26.464	26.803	27.142	0.47949	26.973	26.973	26.973	0.00049497	-0.1698	0.1696	0.509	0.47998
100	26.123	26.786	27.483	0.39568	28.668	29.347	29.857	0.41595	2.0354	2.5619	3.2251	0.44888

## Device Test: 17.30 PTWXP1_1(VIN|DROPOUT/OUT//13.3//250//@VDO_250MA)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 100.0 (mV))

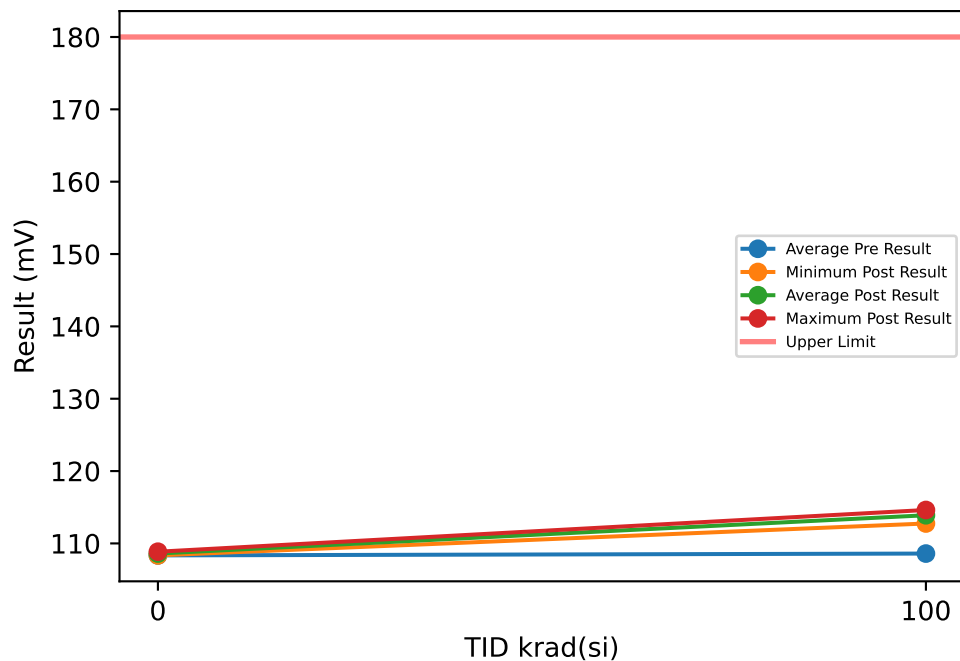| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	49.688	48.324	-1.3647
34	100	HDR unbiased	46.299	46.293	-0.0057
35	100	HDR unbiased	46.97	46.97	0
37	100	HDR unbiased	47.655	48.328	0.6733
38	100	HDR unbiased	49.009	49.684	0.6752
72	0	correlation	46.297	46.977	0.6799
73	0	correlation	43.585	47.658	4.0732
156	100	HDR biased	49.01	47.646	-1.3647
157	100	HDR biased	47.654	49.683	2.0284
158	100	HDR biased	46.968	47.645	0.6771
159	100	HDR biased	45.617	49.005	3.3875
160	100	HDR biased	48.333	48.327	-0.0067

Test Statistics (mV)
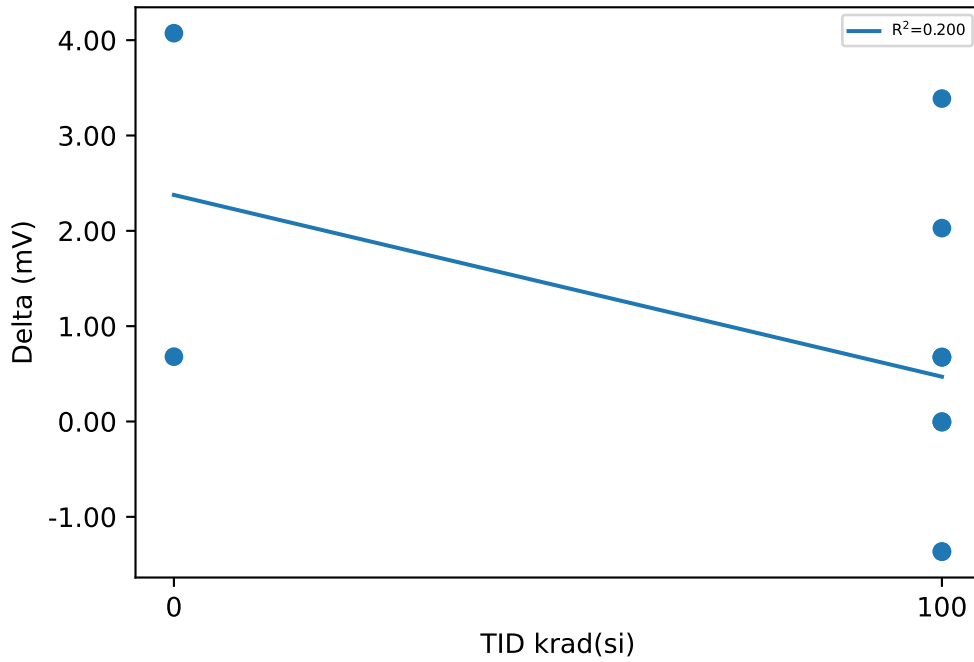
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	43.585	44.941	46.297	1.9179	46.977	47.317	47.658	0.48154	0.6799	2.3765	4.0732	2.3994
100	45.617	47.72	49.688	1.2977	46.293	48.19	49.684	1.0984	-1.3647	0.46997	3.3875	1.4327

# Device Test: 17.33 PTBRMY_1(VIN|DROPOUT/OUT//3//500//@VDO_500MA)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 180.0 (mV))

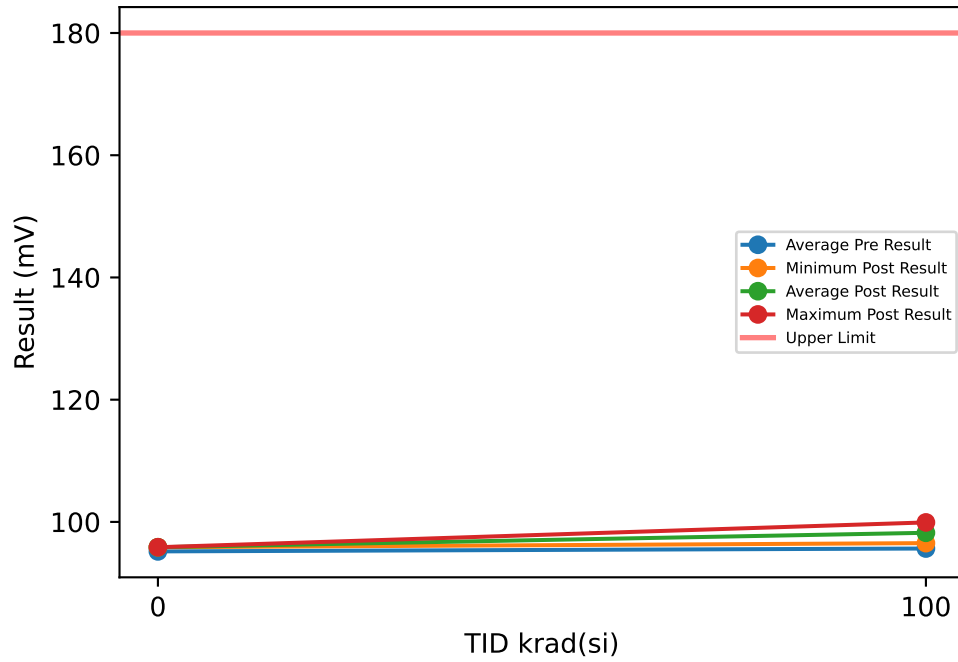| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	109.53	114.45	4.9205
34	100	HDR unbiased	109.02	114.28	5.26
35	100	HDR unbiased	108.85	114.28	5.4312
37	100	HDR unbiased	107.84	113.43	5.5997
38	100	HDR unbiased	109.53	114.45	4.9215
72	0	correlation	108.85	108.85	-0.0003
73	0	correlation	107.84	108.34	0.5092
156	100	HDR biased	107.33	113.26	5.9385
157	100	HDR biased	107.84	112.75	4.9193
158	100	HDR biased	109.53	114.62	5.0909
159	100	HDR biased	107.5	113.26	5.769
160	100	HDR biased	109.02	114.11	5.0903

Test Statistics (mV)
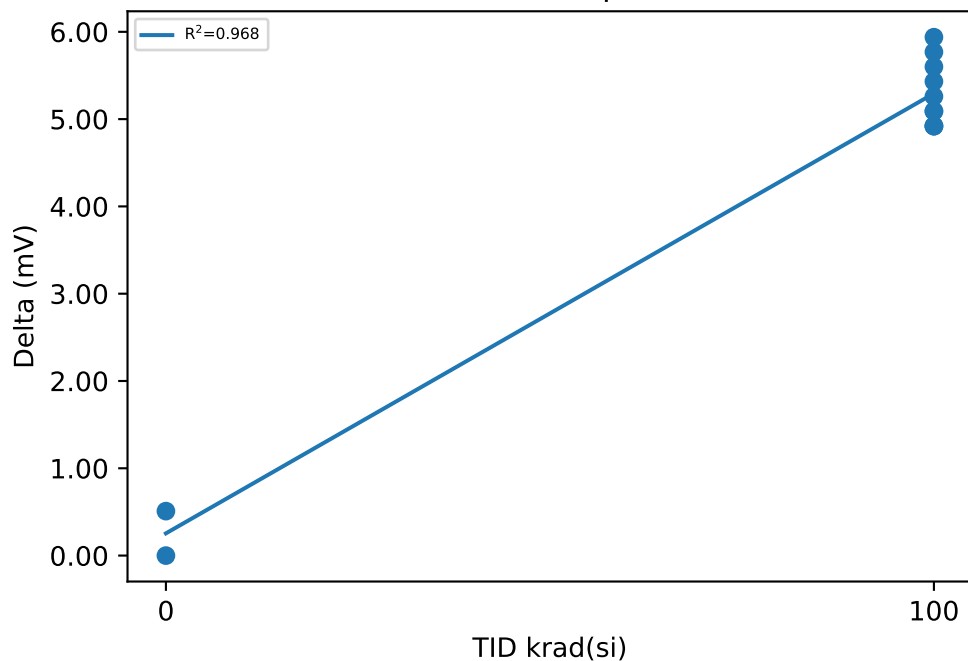
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	107.84	108.34	108.85	0.71969	108.34	108.6	108.85	0.35942	-0.0003	0.25445	0.5092	0.36027
100	107.33	108.6	109.53	0.8841	112.75	113.89	114.62	0.6502	4.9193	5.2941	5.9385	0.37355

# Device Test: 17.36 PTBRMY_1(VIN|DROPOUT/OUT//13.3//500//@VDO_500MA)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 180.0 (mV))

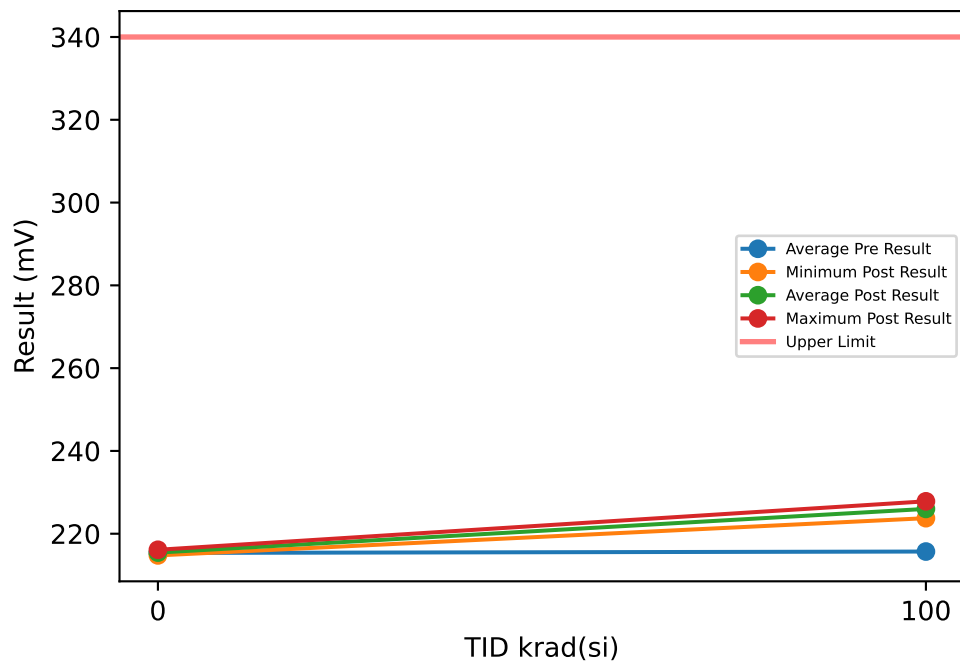| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	99.243	99.917	0.6742
34	100	HDR unbiased	94.498	96.529	2.0313
35	100	HDR unbiased	97.205	99.242	2.037
37	100	HDR unbiased	96.532	97.208	0.6761
38	100	HDR unbiased	93.814	99.239	5.4254
72	0	correlation	95.853	95.853	0
73	0	correlation	94.5	95.857	1.3571
156	100	HDR biased	93.815	98.558	4.7436
157	100	HDR biased	95.852	97.202	1.3504
158	100	HDR biased	96.522	98.558	2.0352
159	100	HDR biased	93.815	97.882	4.0675
160	100	HDR biased	95.174	97.882	2.7085

Test Statistics (mV)
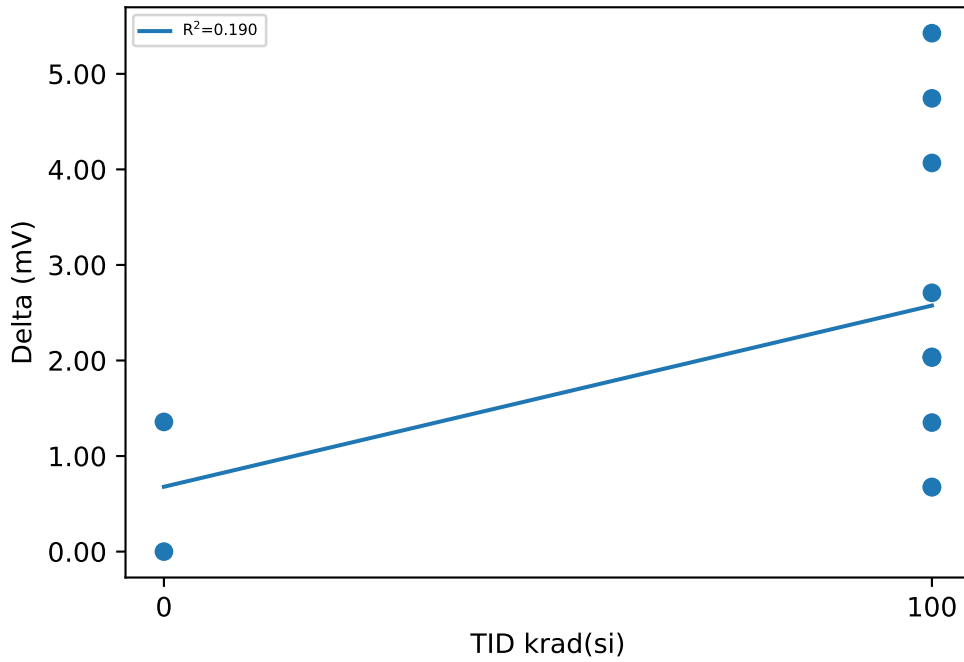
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	94.5	95.176	95.853	0.95693	95.853	95.855	95.857	0.002687	0	0.67855	1.3571	0.95961
100	93.814	95.647	99.243	1.7817	96.529	98.222	99.917	1.0719	0.6742	2.5749	5.4254	1.6556

# Device Test: 17.39 WKCQGI_1(VIN|DROPOUT/OUT//3//1000//@VDO_1A)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 340.0 (mV))

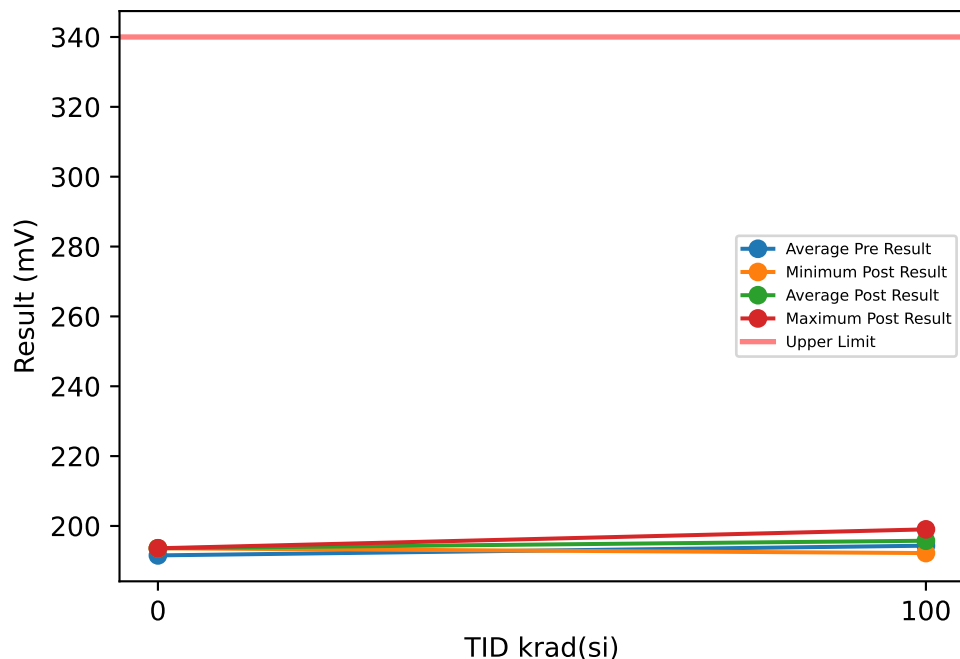| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	217.48	227.83	10.352
34	100	HDR unbiased	217.14	227.15	10.013
35	100	HDR unbiased	216.12	226.98	10.863
37	100	HDR unbiased	214.25	224.44	10.183
38	100	HDR unbiased	217.48	226.98	9.5038
72	0	correlation	215.95	216.12	0.1698
73	0	correlation	214.76	214.76	0.0005
156	100	HDR biased	213.07	224.27	11.2
157	100	HDR biased	214.25	223.93	9.6726
158	100	HDR biased	217.48	227.83	10.353
159	100	HDR biased	213.74	223.76	10.012
160	100	HDR biased	215.95	226.81	10.861

Test Statistics (mV)
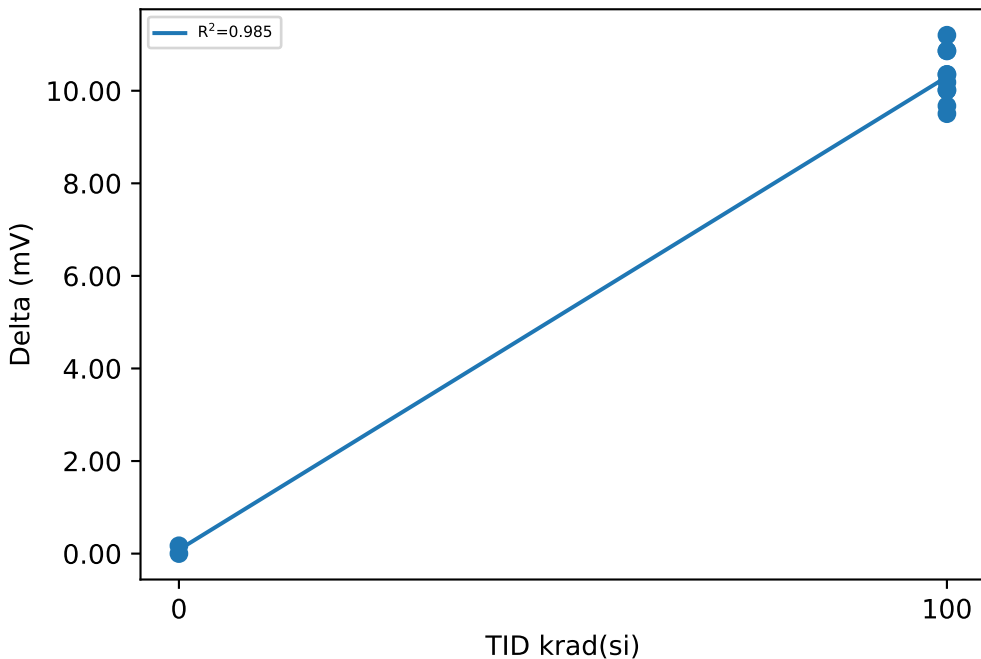
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	214.76	215.36	215.95	0.83941	214.76	215.44	216.12	0.95912	0.0005	0.08515	0.1698	0.11971
100	213.07	215.7	217.48	1.7236	223.76	226	227.83	1.6798	9.5038	10.301	11.2	0.54302

# Device Test: 17.42 WKCQGI_1(VIN|DROPOUT/OUT//13.3//1000//@VDO_1A)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 340.0 (mV))

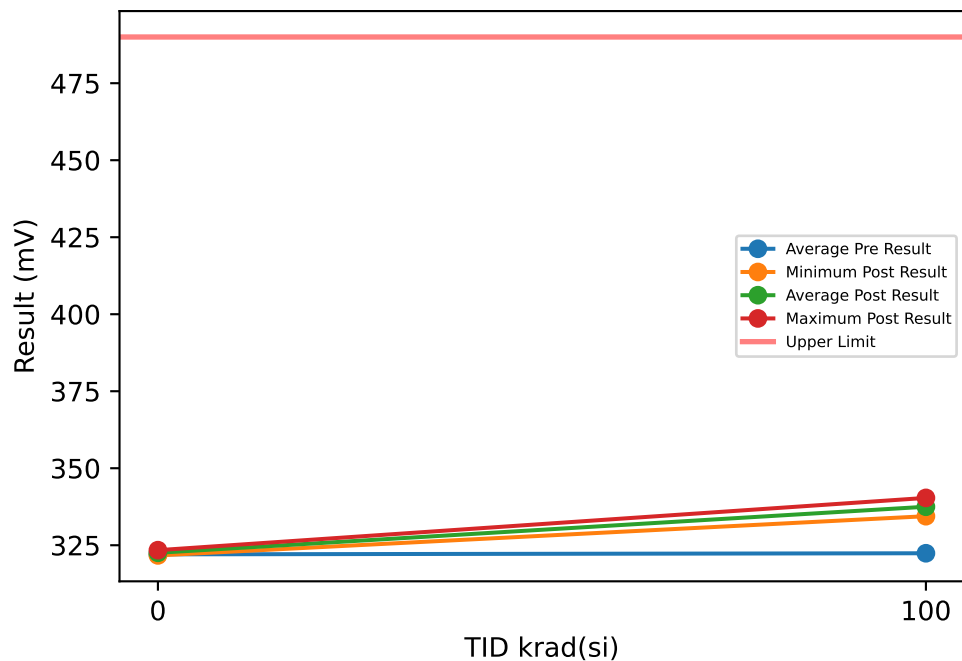| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	197	196.99	-0.0067
34	100	HDR unbiased	196.32	197	0.6724
35	100	HDR unbiased	194.28	195.64	1.358
37	100	HDR unbiased	192.93	194.96	2.0332
38	100	HDR unbiased	196.32	196.31	-0.0038
72	0	correlation	192.93	193.61	0.679
73	0	correlation	190.22	193.61	3.3931
156	100	HDR biased	192.25	192.24	-0.0076
157	100	HDR biased	192.25	194.28	2.0295
158	100	HDR biased	195.63	199.03	3.3913
159	100	HDR biased	190.89	195.64	4.7455
160	100	HDR biased	195.64	195.64	-0.0057

Test Statistics (mV)
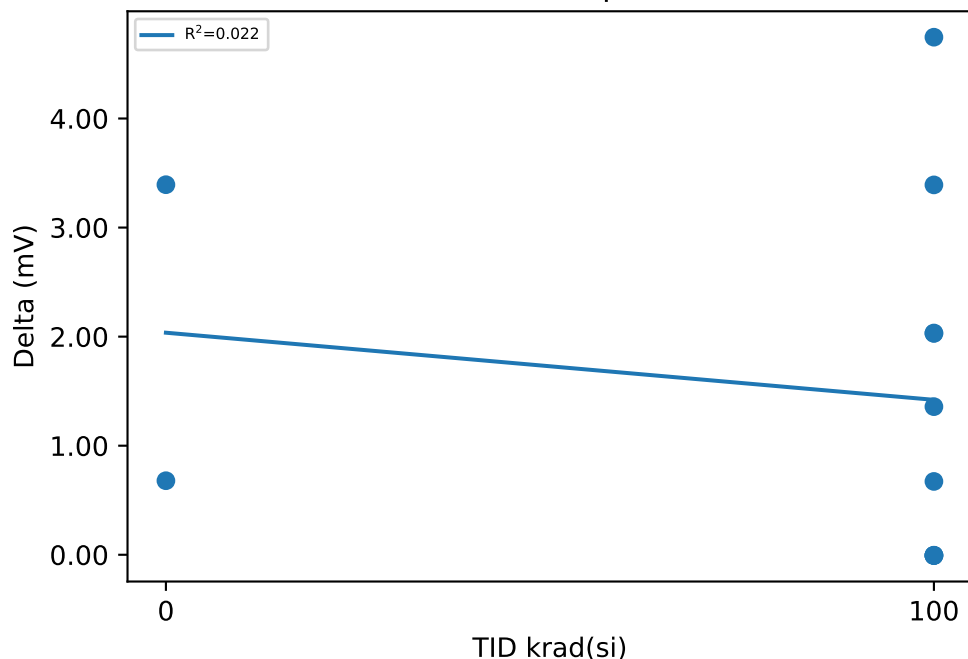
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	190.22	191.57	192.93	1.9178	193.61	193.61	193.61	0.0013435	0.679	2.0361	3.3931	1.9192
100	190.89	194.35	197	2.1327	192.24	195.77	199.03	1.8042	-0.0076	1.4206	4.7455	1.6462

# Device Test: 17.45 PTO8MQ_1(VIN|DROPOUT/OUT//3//1500//@VDO_1P5A)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 490.0 (mV))

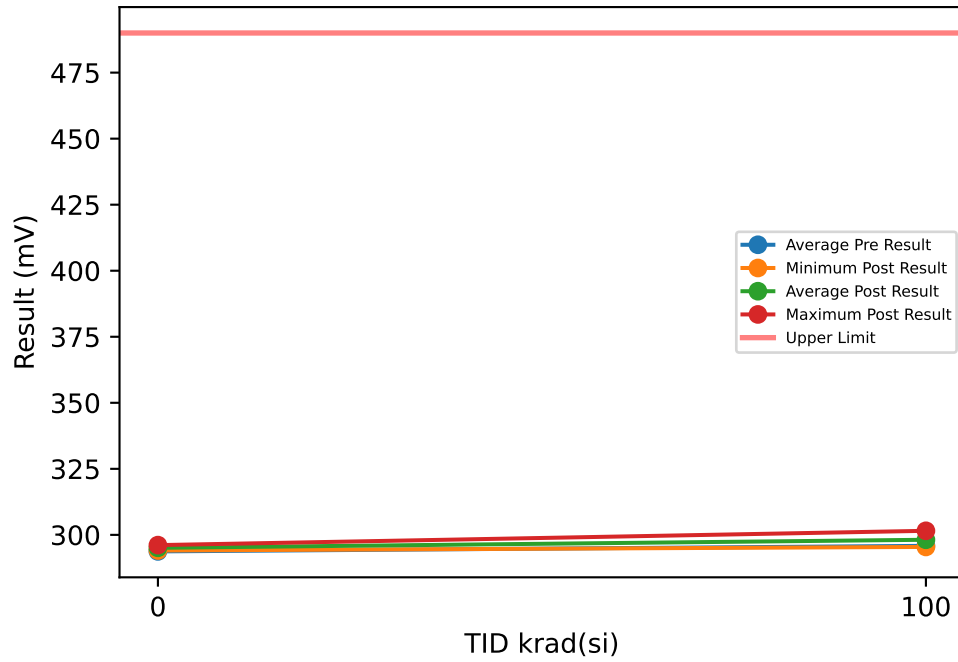| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	324.92	339.86	14.935
34	100	HDR unbiased	323.91	338.67	14.765
35	100	HDR unbiased	323.4	338.33	14.936
37	100	HDR unbiased	320.85	335.62	14.765
38	100	HDR unbiased	325.26	339.35	14.087
72	0	correlation	322.89	323.4	0.5083
73	0	correlation	321.19	321.7	0.5091
156	100	HDR biased	318.14	334.43	16.292
157	100	HDR biased	320.51	334.43	13.915
158	100	HDR biased	324.75	340.37	15.615
159	100	HDR biased	318.99	334.77	15.783
160	100	HDR biased	323.23	339.18	15.952

Test Statistics (mV)
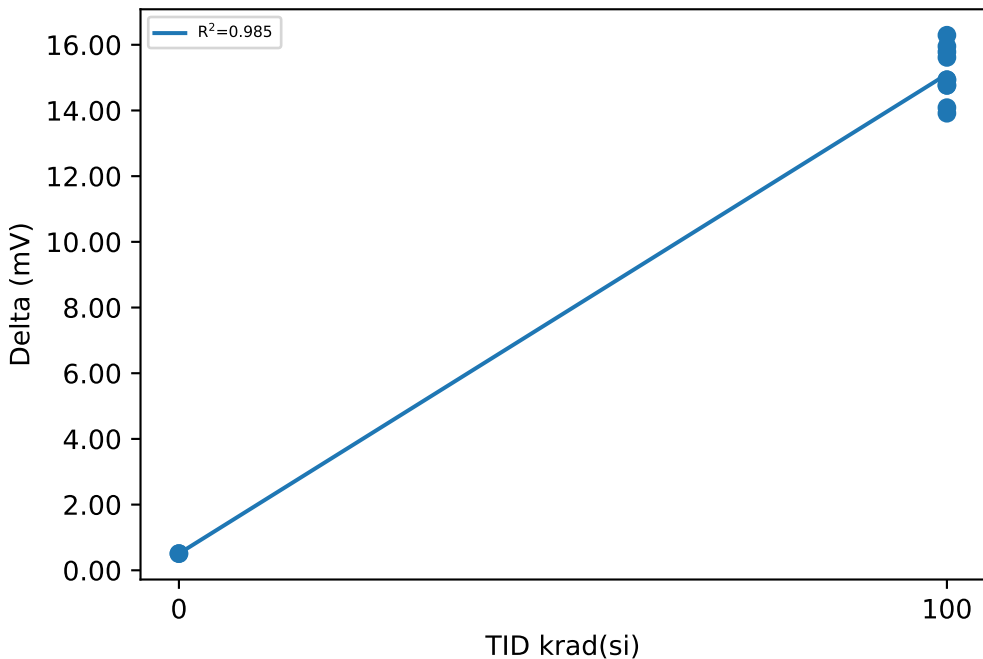
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	321.19	322.04	322.89	1.1995	321.7	322.55	323.4	1.199	0.5083	0.5087	0.5091	0.00056569
100	318.14	322.4	325.26	2.5791	334.43	337.5	340.37	2.4036	13.915	15.105	16.292	0.78789

# Device Test: 17.48 PTO8MQ_1(VIN|DROPOUT/OUT//13.3//1500//@VDO_1P5A)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 490.0 (mV))

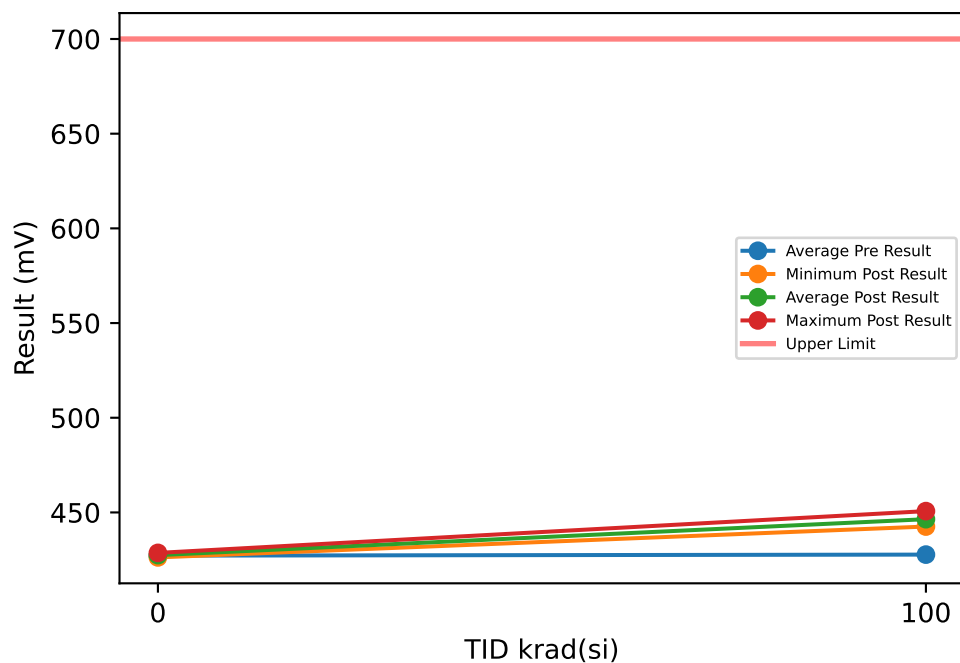| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	299.51	301.54	2.0313
34	100	HDR unbiased	296.12	298.15	2.0332
35	100	HDR unbiased	297.47	298.15	0.681
37	100	HDR unbiased	294.76	296.79	2.0322
38	100	HDR unbiased	299.51	298.15	-1.3619
72	0	correlation	295.44	294.08	-1.3581
73	0	correlation	292.05	296.12	4.0721
156	100	HDR biased	289.33	295.43	6.1035
157	100	HDR biased	295.44	297.47	2.0303
158	100	HDR biased	300.18	298.82	-1.3609
159	100	HDR biased	289.33	296.11	6.7806
160	100	HDR biased	296.79	300.86	4.0665

Test Statistics (mV)
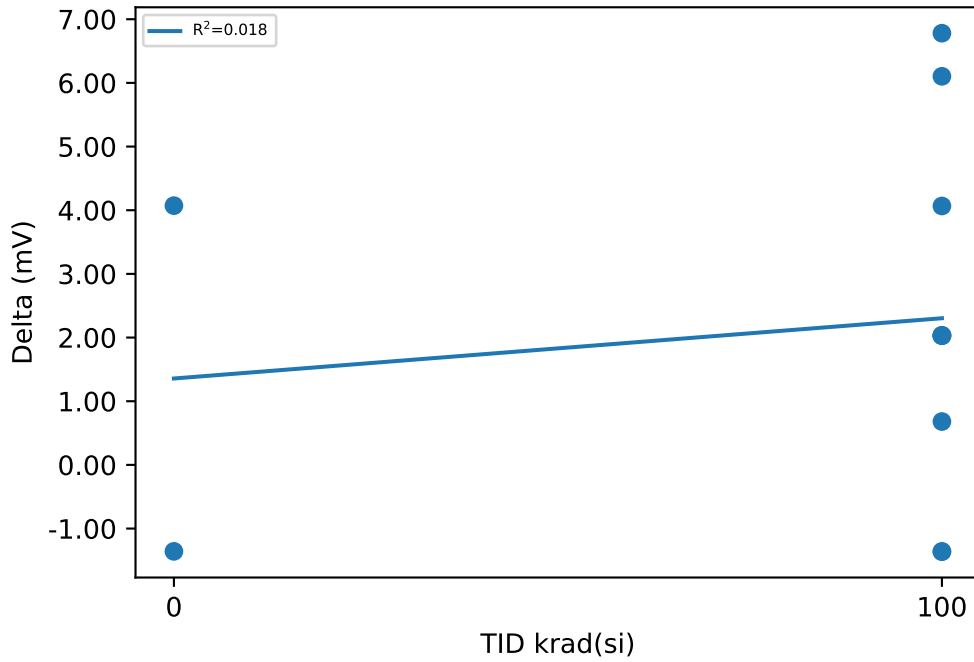
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	292.05	293.74	295.44	2.3973	294.08	295.1	296.12	1.4424	-1.3581	1.357	4.0721	3.8397
100	289.33	295.84	300.18	3.881	295.43	298.15	301.54	1.9196	-1.3619	2.3036	6.7806	2.7362

# Device Test: 17.51 WKLUT9_1(VIN|DROPOUT/OUT//3//2000//@VDO_2A)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 700.0 (mV))

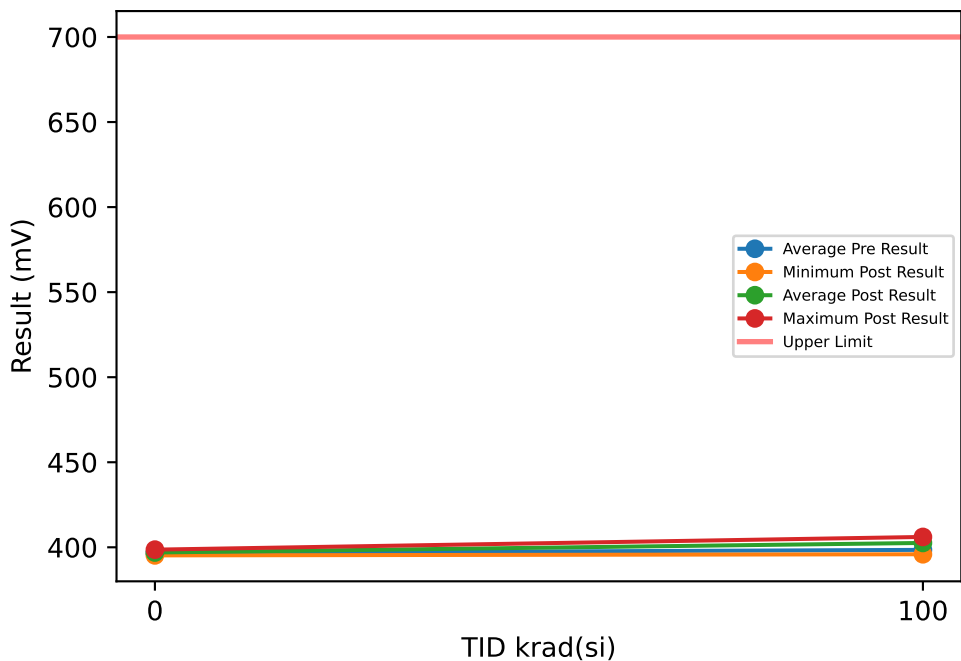| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	431.52	449.51	17.989
34	100	HDR unbiased	430.16	447.64	17.48
35	100	HDR unbiased	428.97	447.98	19.009
37	100	HDR unbiased	425.75	443.4	17.65
38	100	HDR unbiased	430.67	449.17	18.498
72	0	correlation	428.63	428.63	-0.0002
73	0	correlation	425.75	426.26	0.5088
156	100	HDR biased	422.69	442.72	20.025
157	100	HDR biased	424.9	442.55	17.649
158	100	HDR biased	430.67	450.69	20.027
159	100	HDR biased	423.54	443.06	19.516
160	100	HDR biased	428.46	447.64	19.176

Test Statistics (mV)
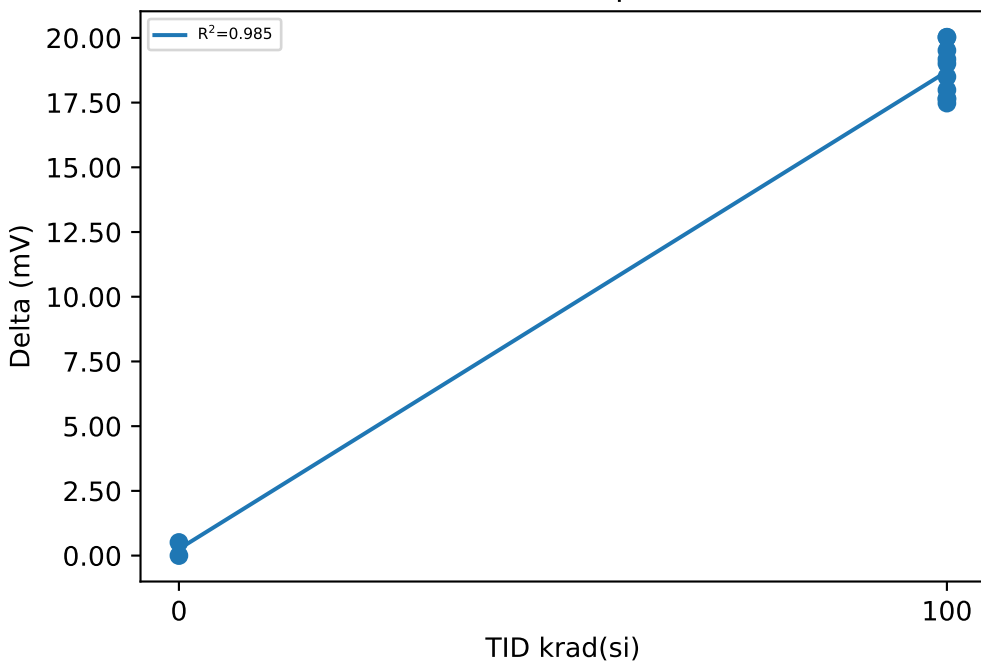
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	425.75	427.19	428.63	2.0391	426.26	427.44	428.63	1.6792	-0.0002	0.2543	0.5088	0.35992
100	422.69	427.73	431.52	3.2398	442.55	446.43	450.69	3.1604	17.48	18.702	20.027	0.98573

# Device Test: 17.54 WKLUT9_1(VIN|DROPOUT/OUT//13.3//2000//@VDO_2A)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 700.0 (mV))

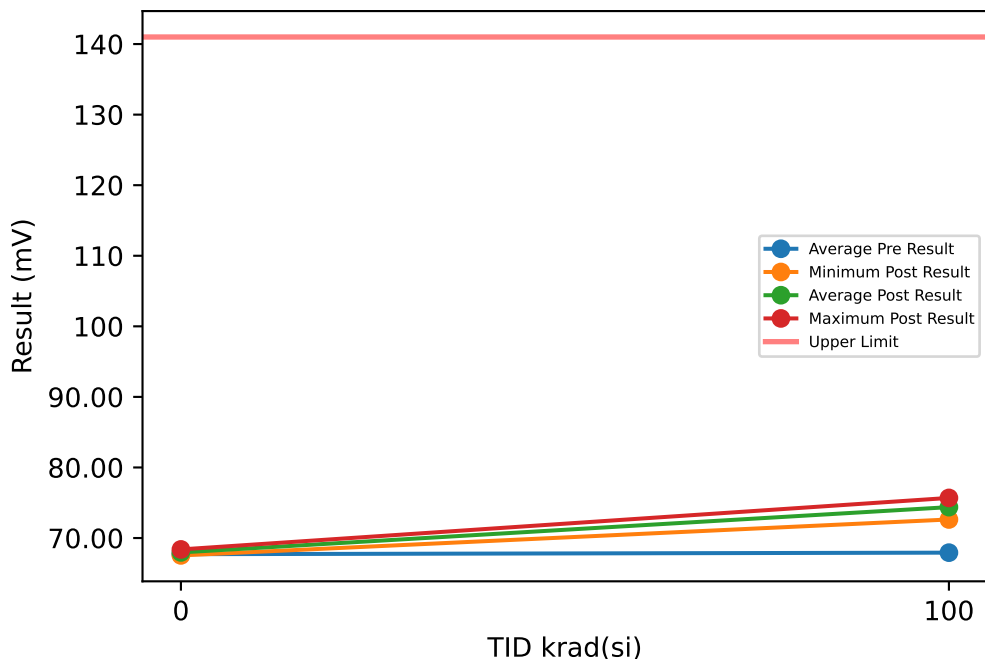| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	404.05	405.4	1.3504
34	100	HDR unbiased	399.31	404.05	4.7474
35	100	HDR unbiased	402.01	405.41	3.3951
37	100	HDR unbiased	394.55	400.66	6.1064
38	100	HDR unbiased	401.34	406.08	4.7483
72	0	correlation	396.59	398.62	2.0351
73	0	correlation	396.59	395.24	-1.357
156	100	HDR biased	390.48	395.9	5.4245
157	100	HDR biased	397.95	400.65	2.7074
158	100	HDR biased	402.69	403.37	0.6771
159	100	HDR biased	393.19	398.62	5.4245
160	100	HDR biased	399.3	405.41	6.1045

Test Statistics (mV)
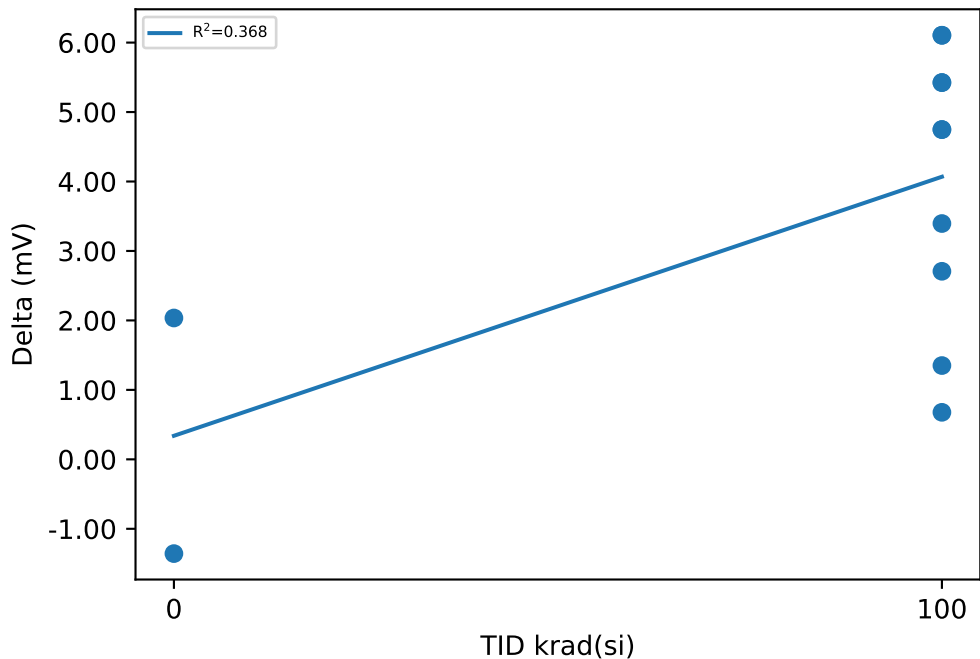
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	396.59	396.59	396.59	0.0019799	395.24	396.93	398.62	2.3966	-1.357	0.33905	2.0351	2.3986
100	390.48	398.49	404.05	4.4538	395.9	402.56	406.08	3.4442	0.6771	4.0686	6.1064	1.9464

# Device Test: 17.6 PTA6YI_1(VIN|DROPOUT/OUT//2.25//250//@VDO_250MA_LV)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 141.0 (mV))

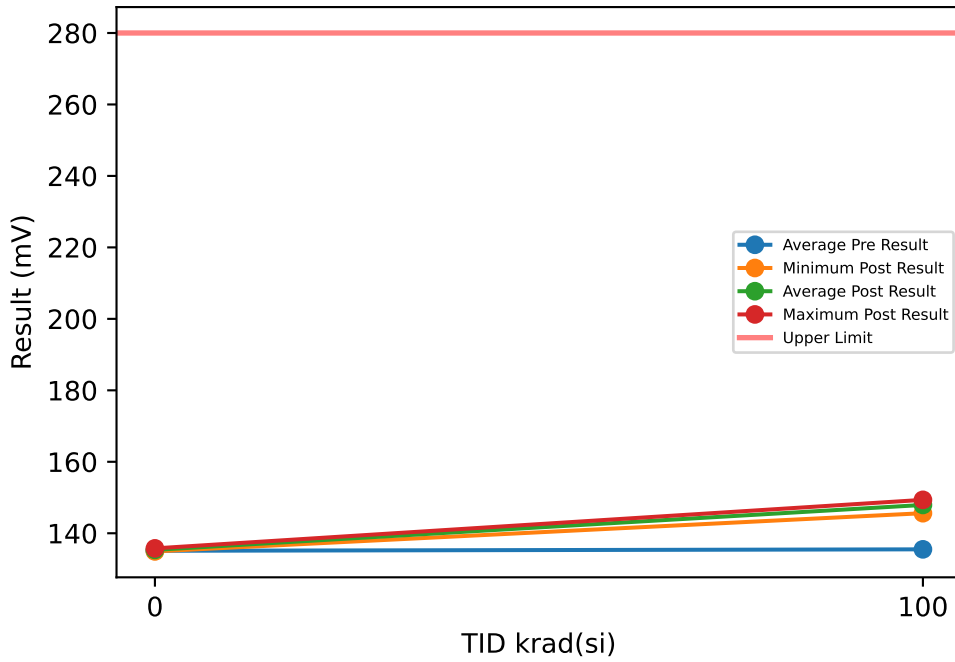| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	68.556	74.496	5.9391
34	100	HDR unbiased	68.388	74.837	6.4488
35	100	HDR unbiased	68.217	74.837	6.6197
37	100	HDR unbiased	67.37	73.988	6.6185
38	100	HDR unbiased	68.217	74.326	6.109
72	0	correlation	68.048	68.388	0.3393
73	0	correlation	67.37	67.54	0.1695
156	100	HDR biased	66.859	73.987	7.1273
157	100	HDR biased	67.539	72.629	5.0898
158	100	HDR biased	68.555	75.684	7.1284
159	100	HDR biased	67.369	73.987	6.6182
160	100	HDR biased	68.218	75.005	6.788

Test Statistics (mV)
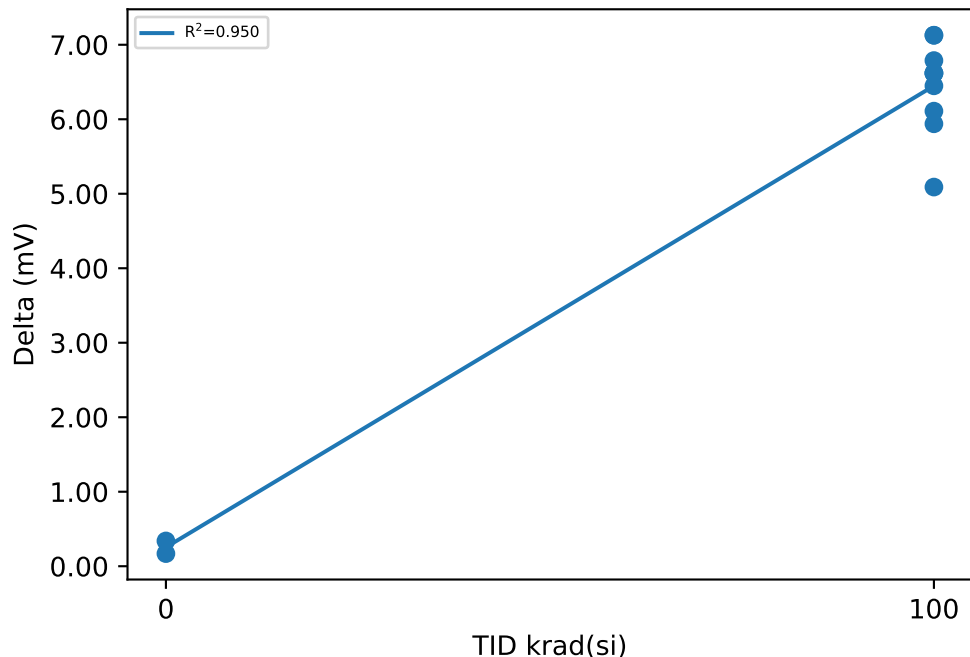
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	67.37	67.709	68.048	0.47942	67.54	67.964	68.388	0.59949	0.1695	0.2544	0.3393	0.12007
100	66.859	67.929	68.556	0.59331	72.629	74.378	75.684	0.82007	5.0898	6.4487	7.1284	0.60975

# Device Test: 17.9 PTCFIQ_1(VIN|DROPOUT/OUT//2.25//500//@VDO_500MA_LV)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 280.0 (mV))

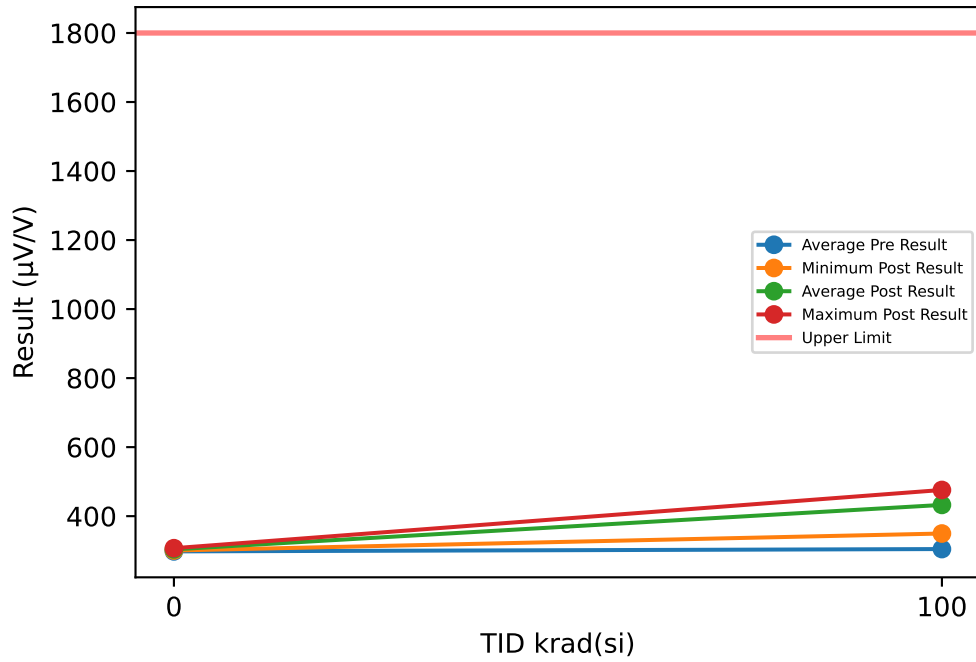| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	136.11	148.5	12.389
34	100	HDR unbiased	136.62	149.01	12.389
35	100	HDR unbiased	136.11	148.84	12.73
37	100	HDR unbiased	134.75	146.97	12.22
38	100	HDR unbiased	136.45	149.18	12.729
72	0	correlation	136.11	135.77	-0.3395
73	0	correlation	134.08	134.92	0.8485
156	100	HDR biased	134.07	146.63	12.559
157	100	HDR biased	134.24	145.61	11.371
158	100	HDR biased	136.96	149.35	12.39
159	100	HDR biased	133.9	146.46	12.558
160	100	HDR biased	135.77	148.67	12.898

Test Statistics (mV)
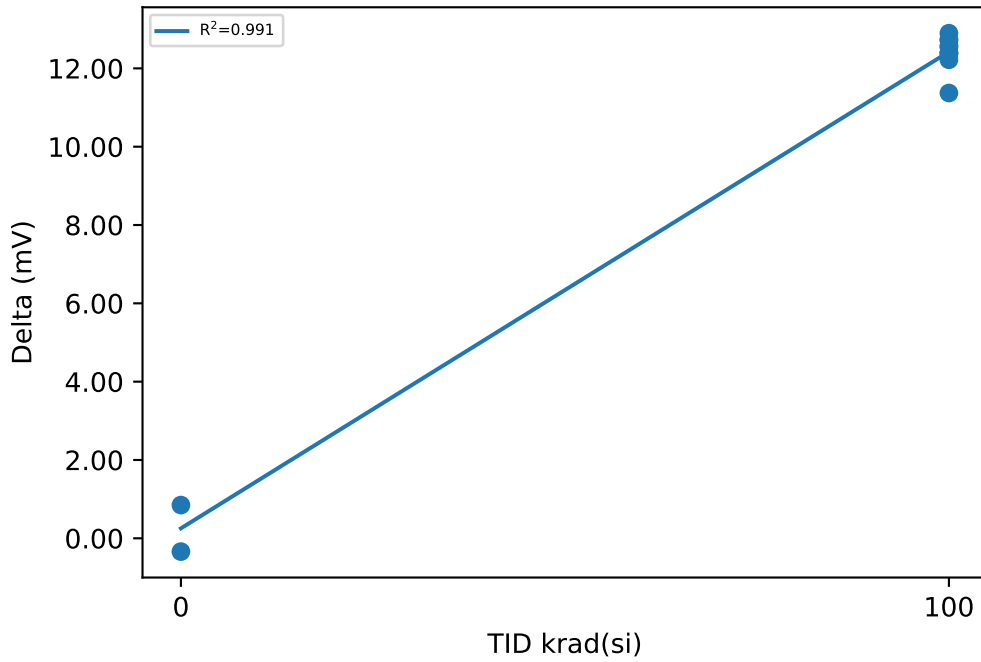
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	134.08	135.09	136.11	1.4396	134.92	135.35	135.77	0.59956	-0.3395	0.2545	0.8485	0.84004
100	133.9	135.5	136.96	1.1458	145.61	147.92	149.35	1.3559	11.371	12.423	12.898	0.42197

# Device Test: 18.4 PT7Q2U_1(VIN|REGULATION/OUT/2.25/0.6//10//@LINE_REG_2p25)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 1800.0 (µV/V))

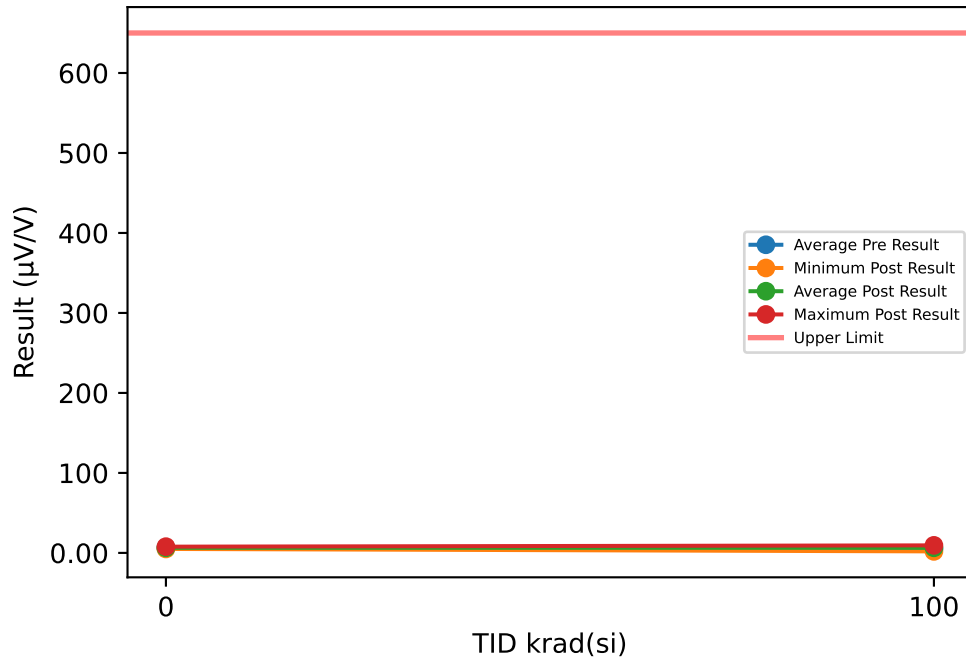| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	320.7	409.42	88.72
34	100	HDR unbiased	310.76	449.67	138.91
35	100	HDR unbiased	253.8	357.38	103.58
37	100	HDR unbiased	334.73	472.74	138.01
38	100	HDR unbiased	297.17	349.69	52.524
72	0	correlation	294.94	300.38	5.4419
73	0	correlation	300.82	307.14	6.3204
156	100	HDR biased	292.67	470.44	177.77
157	100	HDR biased	297.67	443.27	145.6
158	100	HDR biased	307.16	440.59	133.42
159	100	HDR biased	319.38	456.89	137.51
160	100	HDR biased	312.58	475.87	163.29

Test Statistics (µV/V)
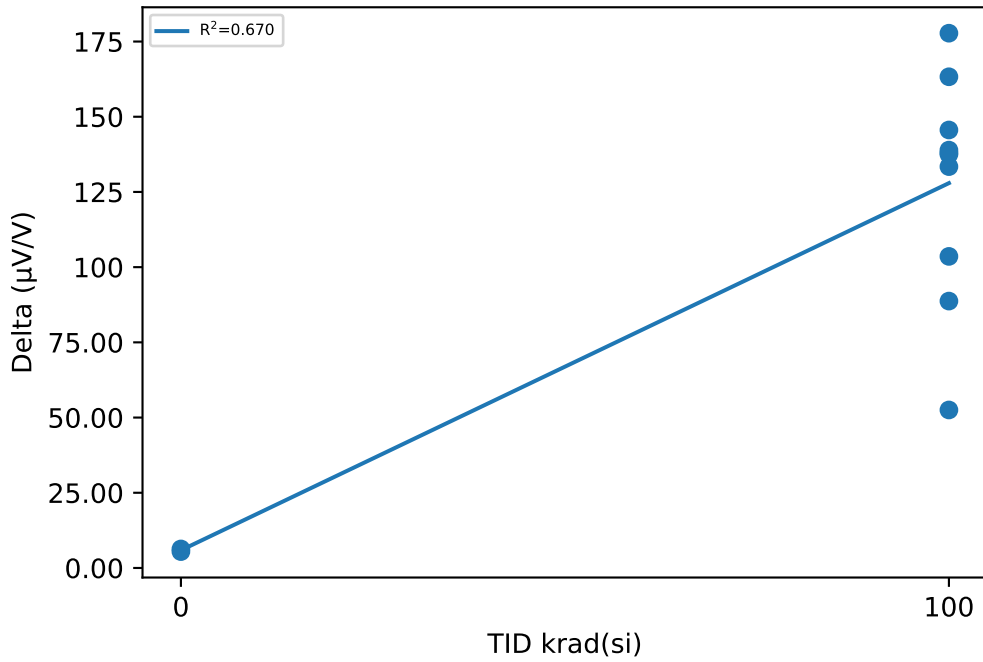
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	294.94	297.88	300.82	4.1564	300.38	303.76	307.14	4.7776	5.4419	5.8811	6.3204	0.62119
100	253.8	304.66	334.73	21.909	349.69	432.6	475.87	46	52.524	127.93	177.77	36.829

# Device Test: 18.5 WKN1X4_2(VIN|REGULATION/OUT/14/0.6//10//@LINE_REG)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 650.0 (µV/V))

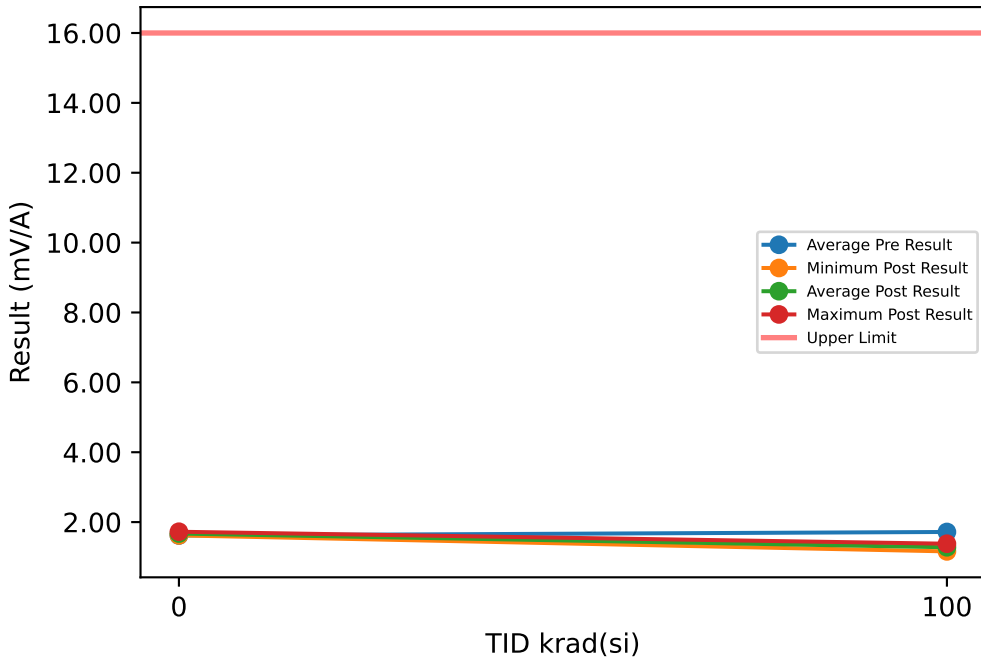| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	5.7987	7.2176	1.4189
34	100	HDR unbiased	6.1689	5.6754	-0.4935
35	100	HDR unbiased	3.7938	6.1998	2.406
37	100	HDR unbiased	8.7289	8.6674	-0.0615
38	100	HDR unbiased	0.3701	1.8815	1.5114
72	0	correlation	4.5958	4.9353	0.3395
73	0	correlation	8.0196	7.8039	-0.2157
156	100	HDR biased	4.1332	3.9173	-0.2159
157	100	HDR biased	6.2614	7.3719	1.1105
158	100	HDR biased	9.13	9.4385	0.3085
159	100	HDR biased	6.2614	8.8525	2.5911
160	100	HDR biased	1.7273	4.6268	2.8995

Test Statistics (µV/V)
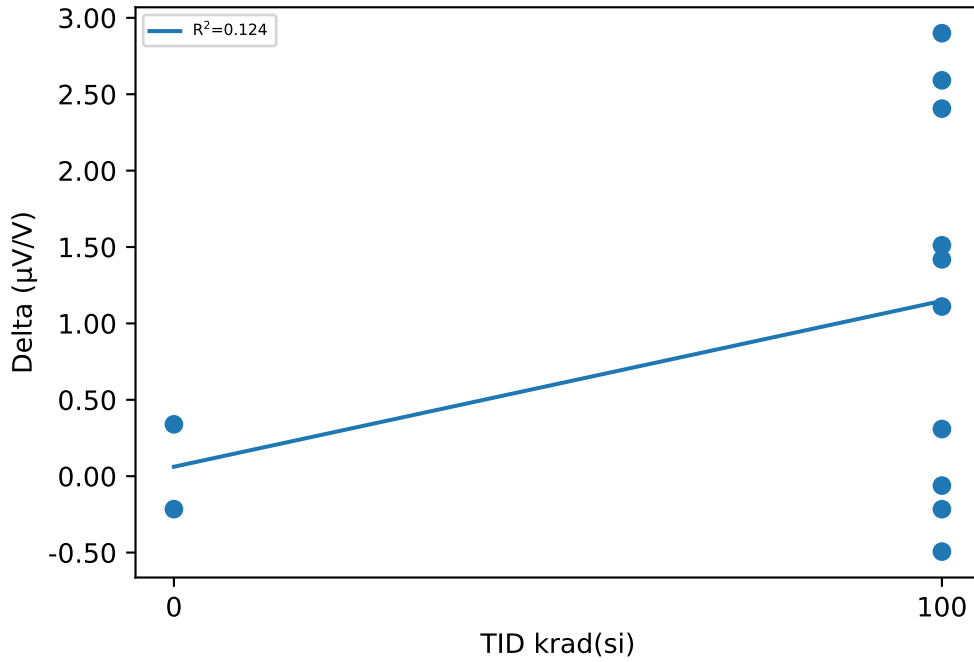
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.5958	6.3077	8.0196	2.421	4.9353	6.3696	7.8039	2.0284	-0.2157	0.0619	0.3395	0.39259
100	0.3701	5.2374	9.13	2.7876	1.8815	6.3849	9.4385	2.4104	-0.4935	1.1475	2.8995	1.2321

# Device Test: 19.5 WKBF69_2(VOUT|REGULATION/OUT/5/3.3////@LOAD_REG)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Upper Limit = 16.0 (mV/A))

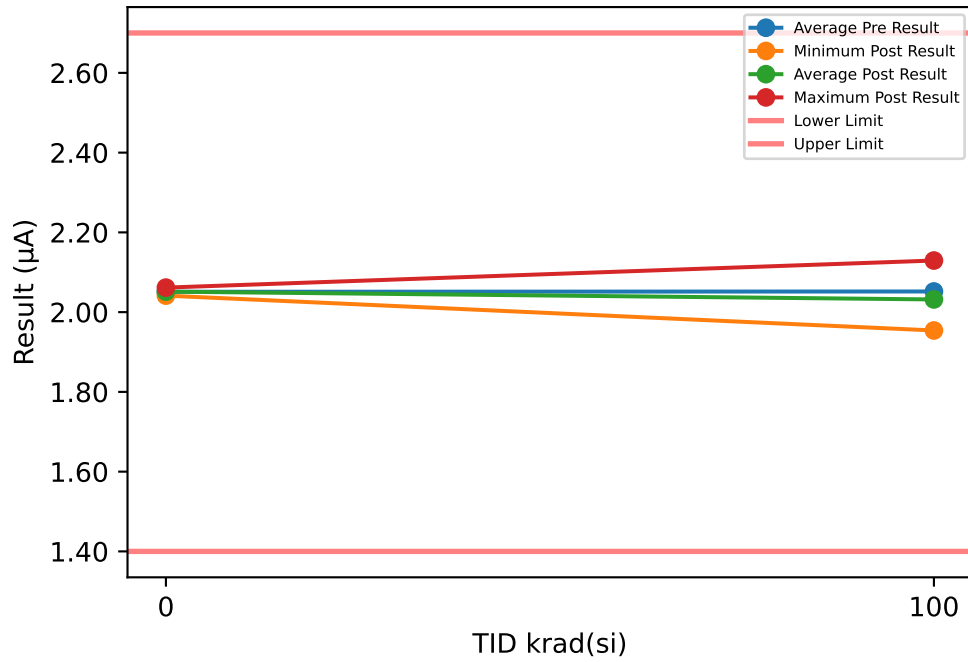| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	1.6633	1.1614	-0.5019
34	100	HDR unbiased	1.6768	1.2376	-0.4392
35	100	HDR unbiased	1.6749	1.1955	-0.4794
37	100	HDR unbiased	1.7445	1.2635	-0.481
38	100	HDR unbiased	1.7202	1.3005	-0.4197
72	0	correlation	1.6235	1.7242	0.1007
73	0	correlation	1.6096	1.6197	0.0101
156	100	HDR biased	1.7654	1.3425	-0.4229
157	100	HDR biased	1.804	1.3375	-0.4665
158	100	HDR biased	1.5584	1.2475	-0.3109
159	100	HDR biased	1.6527	1.327	-0.3257
160	100	HDR biased	1.9133	1.381	-0.5323
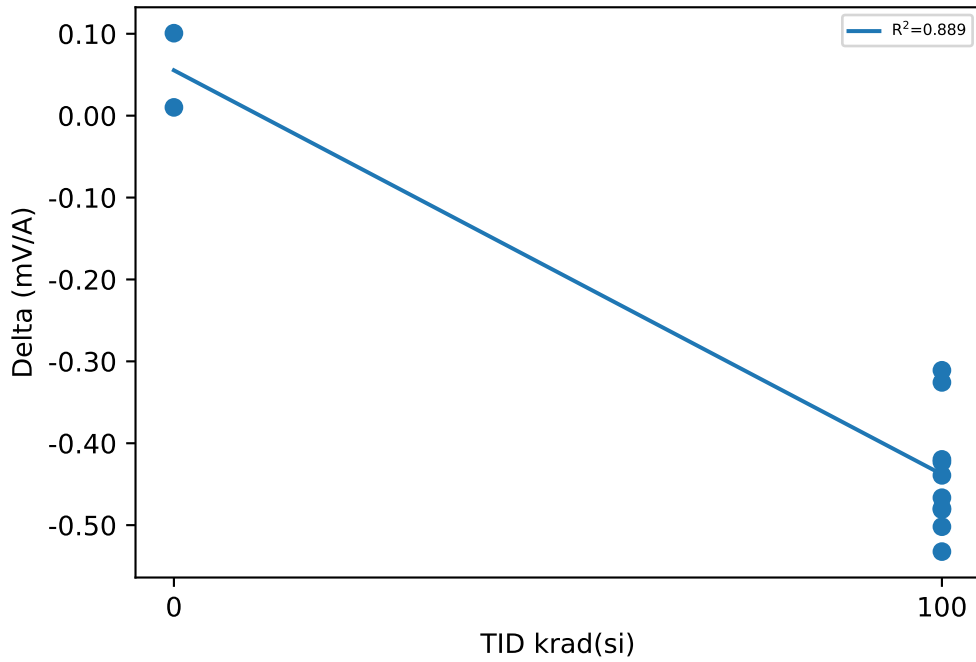
Test Statistics (mV/A)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.6096	1.6166	1.6235	0.0098288	1.6197	1.6719	1.7242	0.073893	0.0101	0.0554	0.1007	0.064064
100	1.5584	1.7174	1.9133	0.097052	1.1614	1.2794	1.381	0.070215	-0.5323	-0.43795	-0.3109	0.072019

Device Test: 20.1 WKE410_2(TIMING|CURRENT/SS/2.25/0.6//10//@I_SS)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 1.4, Upper Limit = 2.7 (µA))

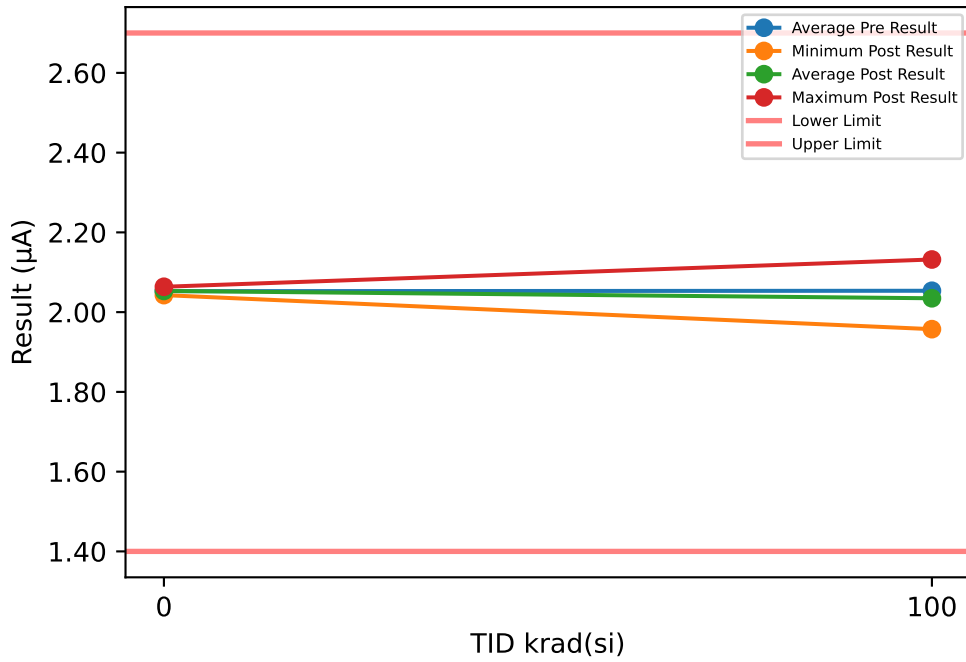| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	1.9599	1.954	-0.0059
34	100	HDR unbiased	2.0328	2.0255	-0.0073
35	100	HDR unbiased	2.0375	1.965	-0.0725
37	100	HDR unbiased	2.0968	2.035	-0.0618
38	100	HDR unbiased	2.0134	2.0357	0.0223
72	0	correlation	2.0614	2.0615	0.0001
73	0	correlation	2.0407	2.0414	0.0007
156	100	HDR biased	2.0947	2.0824	-0.0123
157	100	HDR biased	2.0576	2.0411	-0.0165
158	100	HDR biased	2.0519	2.0876	0.0357
159	100	HDR biased	1.973	1.9628	-0.0102
160	100	HDR biased	2.2007	2.1294	-0.0713

Test Statistics (µA)
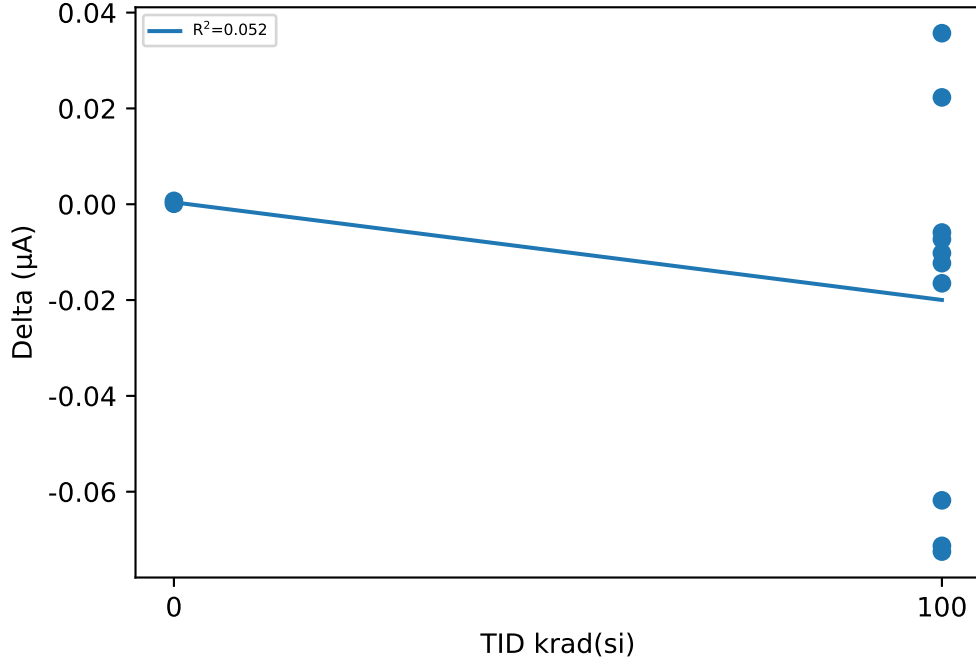
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.0407	2.0511	2.0614	0.014637	2.0414	2.0514	2.0615	0.014213	0.0001	0.0004	0.0007	0.00042426
100	1.9599	2.0518	2.2007	0.068933	1.954	2.0318	2.1294	0.058336	-0.0725	-0.01998	0.0357	0.037349

Device Test: 20.2 WKE410_2(TIMING|CURRENT/SS/14/13.3//10//@I_SS)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 1.4, Upper Limit = 2.7 (µA))

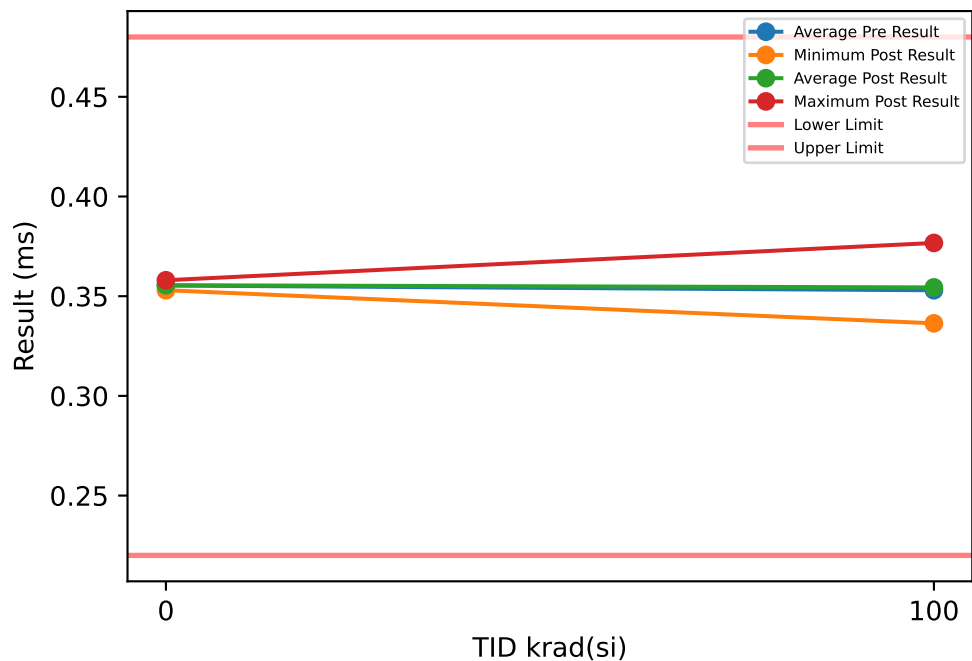| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	1.9624	1.9573	-0.0051
34	100	HDR unbiased	2.0336	2.029	-0.0046
35	100	HDR unbiased	2.0388	1.9671	-0.0717
37	100	HDR unbiased	2.0973	2.0378	-0.0595
38	100	HDR unbiased	2.0157	2.0392	0.0235
72	0	correlation	2.0626	2.0636	0.001
73	0	correlation	2.0426	2.0427	0.0001
156	100	HDR biased	2.0954	2.0835	-0.0119
157	100	HDR biased	2.06	2.0444	-0.0156
158	100	HDR biased	2.0539	2.0925	0.0386
159	100	HDR biased	1.9758	1.965	-0.0108
160	100	HDR biased	2.2031	2.132	-0.0711

Test Statistics (µA)
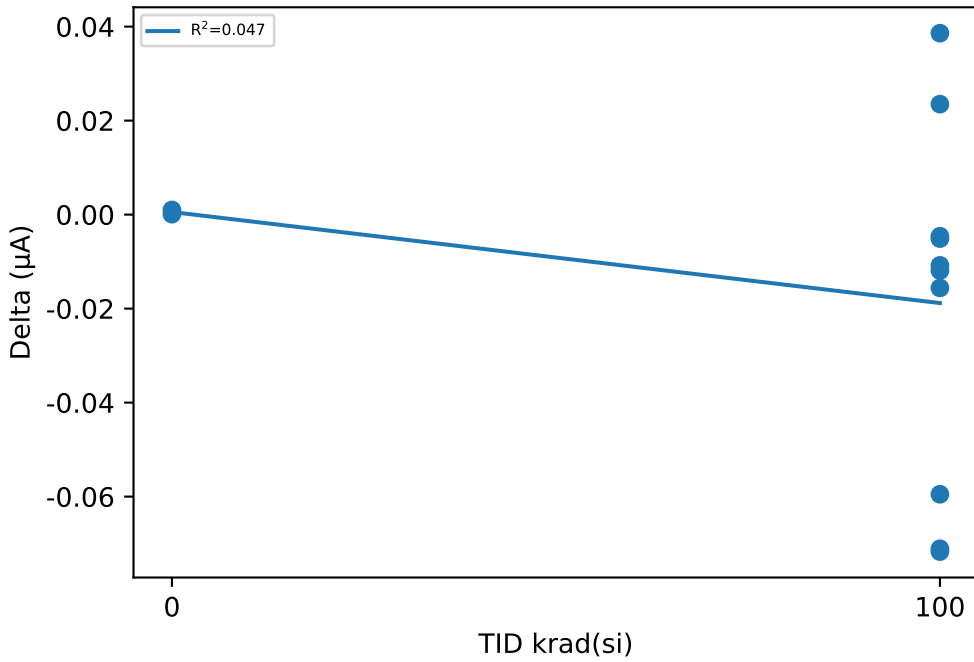
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.0426	2.0526	2.0626	0.014142	2.0427	2.0532	2.0636	0.014779	0.0001	0.00055	0.001	0.0006364
100	1.9624	2.0536	2.2031	0.068697	1.9573	2.0348	2.132	0.058466	-0.0717	-0.01882	0.0386	0.037691

Device Test: 20.3 WK4SLY_1(LEVEL|TIMING/SS/5/3.3//10//@TSS_1NF)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 0.22, Upper Limit = 0.48 (ms))

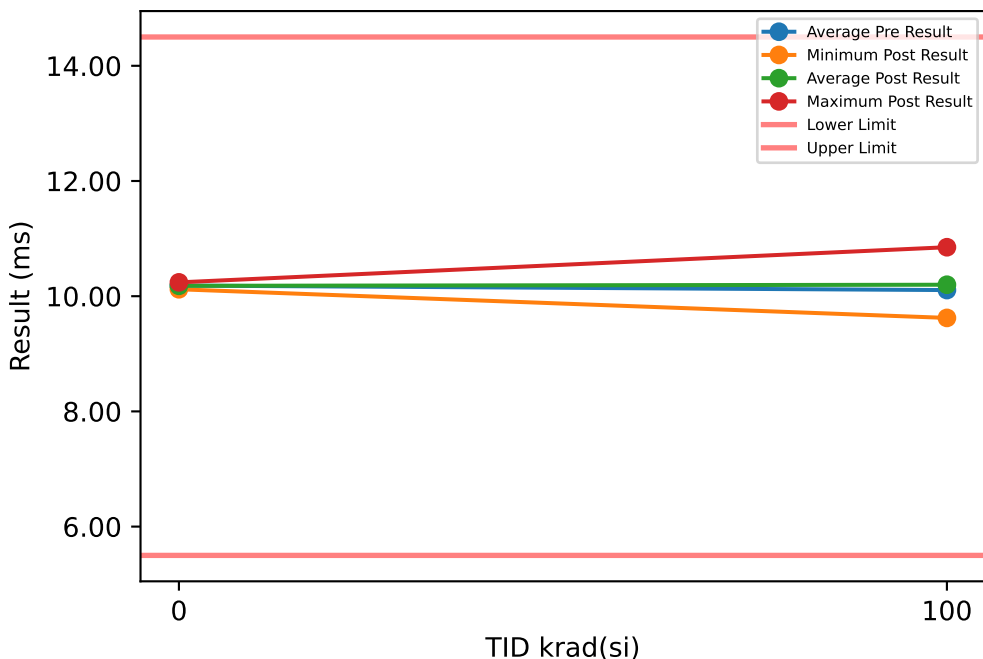| Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	0.3745	0.3767	0.0022
34	100	HDR unbiased	0.3565	0.353	-0.0035
35	100	HDR unbiased	0.3542	0.3686	0.0144
37	100	HDR unbiased	0.3483	0.3548	0.0065
38	100	HDR unbiased	0.3539	0.3474	-0.0065
72	0	correlation	0.358	0.358	0
73	0	correlation	0.3527	0.353	0.0003
156	100	HDR biased	0.3465	0.3429	-0.0036
157	100	HDR biased	0.3564	0.3572	0.0008
158	100	HDR biased	0.3531	0.3439	-0.0092
159	100	HDR biased	0.3628	0.3632	0.0004
160	100	HDR biased	0.3235	0.3364	0.0129

Test Statistics (ms)
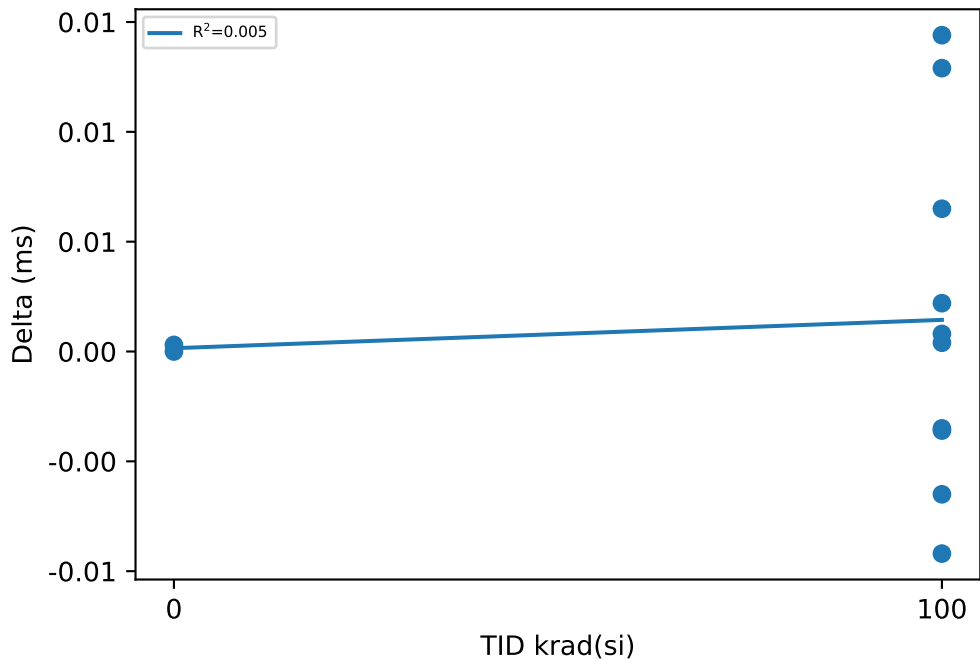
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.3527	0.35535	0.358	0.0037477	0.353	0.3555	0.358	0.0035355	0	0.00015	0.0003	0.00021213
100	0.3235	0.35297	0.3745	0.012991	0.3364	0.35441	0.3767	0.01248	-0.0092	0.00144	0.0144	0.0078388

Device Test: 20.4 WK6ZLB_1(LEVEL|TIMING/SS/5/3.3//10//@TSS_33NF)

TID vs Result Stats

TID vs Post - Pre Exposure Delta

Test Results (Lower Limit = 5.5, Upper Limit = 14.5 (ms))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
33	100	HDR unbiased	10.722	10.85	0.128
34	100	HDR unbiased	10.227	10.17	-0.0564
35	100	HDR unbiased	10.115	10.617	0.5022
37	100	HDR unbiased	10.039	10.27	0.2313
38	100	HDR unbiased	10.085	9.9463	-0.1385
72	0	correlation	10.242	10.24	-0.0023
73	0	correlation	10.127	10.12	-0.0067
156	100	HDR biased	9.8798	9.8289	-0.0509
157	100	HDR biased	10.22	10.269	0.0491
158	100	HDR biased	10.178	9.9394	-0.2389
159	100	HDR biased	10.402	10.477	0.0752
160	100	HDR biased	9.1978	9.623	0.4252

Test Statistics (ms)
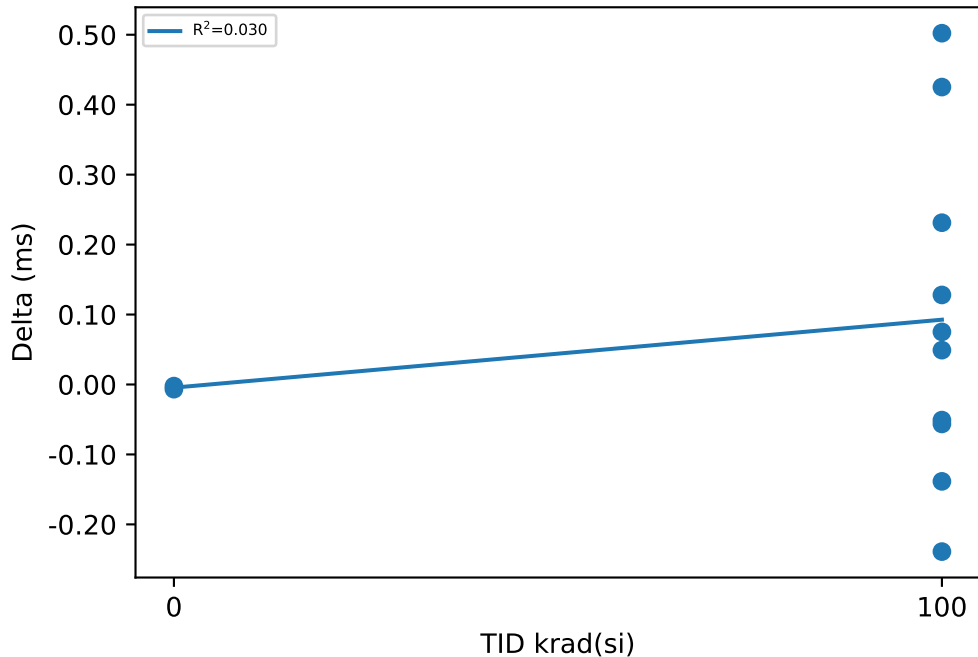
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	10.127	10.185	10.242	0.0816	10.12	10.18	10.24	0.084711	-0.0067	-0.0045	-0.0023	0.0031113
100	9.1978	10.106	10.722	0.3917	9.623	10.199	10.85	0.37812	-0.2389	0.09263	0.5022	0.23739

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