Radiation Report

TPS7H2211-QMLP Total Ionizing Dose (TID) Radiation Report

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Trademarks

1 Device Information

1.1 Product Description

The TPS7H2211 is a single channel eFuse (integrated FET load switch with additional features) that provides reverse current protection, overvoltage protection, and a configurable rise time to minimize inrush current, soft start. The device contains P-channel MOSFETs that operate over an input voltage range of 4.5 V to 14 V and supports a maximum continuous current of 3.5 A. The switch is controlled by an on and off input (EN), which is capable of interfacing directly with low-voltage control signals. Overvoltage protection and soft start are programmable with few external components through the OVP and SS pins. The TPS7H2211 is available in a ceramic and plastic package with an exposed thermal pad allowing for improved thermal performance.

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 100 krad(Si)	
TI Device Number	TPS7H2211-QLMP
Package	32-pin HTSSOP (DAP)
Technology	Linear BiCMOS 7 (LBC7)
Die Lot Number	1203077
A/T Lot Number and Date Code	3412486/B35CN5FK
Quantity Tested	50 irradiated units
Lot Accept or Reject	All levels tested and passed up to 100 krad(Si)
HDR Radiation Facility	DCLAB - Texas Instruments, Dallas, TX
HDR Dose Level	3 krad(Si), 10 krad(Si), 30 krad(Si), 50 krad(Si) and 100 krad(Si)
HDR Dose Rate	200 rad/s
HDR Radiation Source	Gammacell 220 Excel (GC-220E) Co-60
Irradiation Temperature	Ambient, room temperature

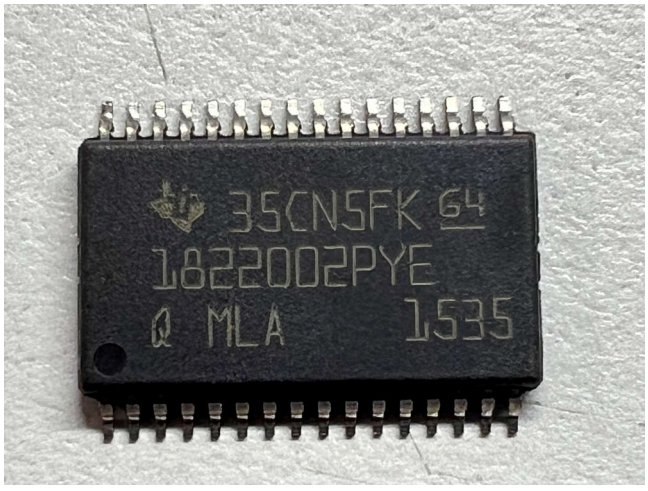


Figure 1-1. Device Used in Exposure (Front)

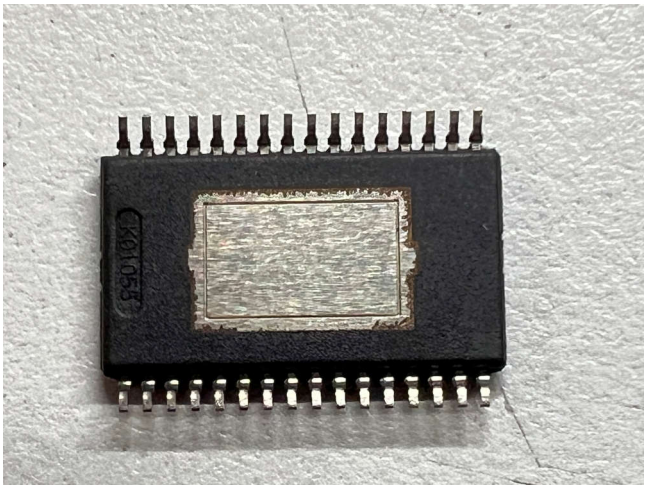


Figure 1-2. Device Used in Exposure (Back)

2 Total Dose Test Setup

2.1 Test Overview

The TPS7H2211-QMLP 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 TPS7H2211-QMLP HDR exposure was performed on biased and unbiased devices in a Co-60 gamma cell at TI facility in Dallas CLAB (DCLAB), Texas. The un-attenuated dose rate of this cell is 200 rads(Si)/s. After exposure, the devices were packed in dry ice (per MIL-STD-883 Method 1019.9 section 3.10) and brought to Junkins lab in TI 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. Post-radiation measurements were taken within 30 minutes of removing the devices from the dry ice container. The devices were allowed to reach room temperature prior to electrical post-radiation measurements.

2.3 Test Setup Details

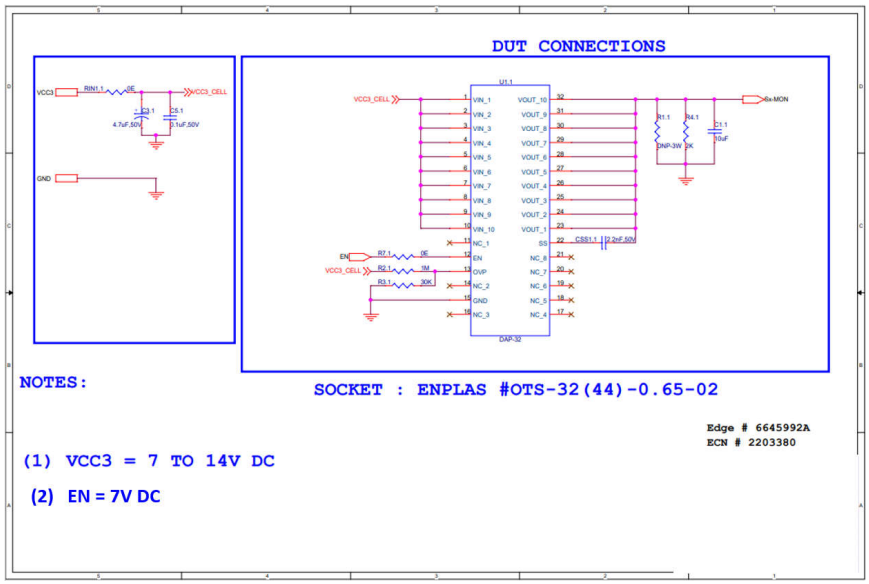
The devices under HDR exposure were tested in biased and unbiased conditions as described as follows.

2.3.1 Unbiased

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

2.3.2 Biased

The TPS7H2211-QMLP was biased with 14 V on the Vin pins, and 7 V on the enable pin. Figure 2-1 shows the biased diagram that was used for HDR exposure.



Sequence = VCC3, VCC2. Bulk capacitors added to all PS.

Figure 2-1. Bias Diagram Used in TID Exposure

Table 2-1. Biased Configuration

VCC3 (V)	VCC3 (mA/device)	VCC2 (V)	VCC2 (mA/device)
14	12	7	6.5

2.4 Test Configuration and Condition

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

Table 2-2. HDR Biased Device Information

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

Table 2-3. HDR Unbiased Device Information

Total Samples: 25				
Exposure Levels				
3 krad(Si)	10 krad(Si)	30 krad(Si)	50 krad(Si)	100 krad(Si)
6, 7, 8, 9, 10	16, 17, 18, 19, 20	26, 27, 28, 29, 30	36, 37, 38, 39, 40	46, 47, 48, 49, 50

3 TID Characterization Test Results

3.1 TID Characterization Summary Results

The parametric data for the TPS7H2211-QMLP passes up to 100-krad(Si) HDR TID irradiation. The drifts of the electrical parameters through HDR were within the data sheet limits.

Overall, the TPS7H2211-QMLP showed a strong degree of hardness to HDR TID irradiation up to 100 krad(Si) for biased exposure conditions. The measurements taken post-irradiation for each sample set showed a marginal shift for most parameters at each dose level. 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 below for parameters and associated tests.

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

3.2 TPS7H2211-QMLP Datasheet Electrical Parameters

Parameter	Test Conditions	MIN	TYP	MAX	Unit	Specification ID	Test Number
POWER SUPPLIES AND CURRENTS							
VIN_{UVLOR}		3.2	3.4	3.8	V	VIN_UVLO_RISE	5.0
VIN_{UVLOF}		2.6	2.9	3.2	V	VIN_UVLO_FALL	5.1
$HYST_{VIN-UVLO}$			0.55	0.75	V	VIN_UVLO_HYST	5.2
I_Q	IOUT = 0 mA, EN = 7 V, IOUT = 0 mA, EN = 7 V		5	10	mA	IQ_VIN	3.0
I_F	EN = 0 V, VOUT = 0 V, measured VOUT current, VIN = 14 V		1	1.3	mA	FORWARD_LEAKAGE	4.9
I_F	EN = 0 V, VOUT = 0 V, measured VOUT current, VIN = 12 V		0.65	0.94	mA	FORWARD_LEAKAGE_12V	4.7
I_F	EN = 0 V, VOUT = 0 V, measured VOUT current, VIN = 9 V		0.15	0.49	mA	FORWARD_LEAKAGE_9V	4.5
I_F	EN = 0 V, VOUT = 0 V, measured VOUT current, VIN = 4.5 V		0.04	0.23	mA	FORWARD_LEAKAGE_4p5V	4.1
I_{SD} VIN	EN = 0 V, VOUT = 0 V, measured VIN current, VIN = 14 V		6.9	10	mA	ISD_VIN_14V	4.8
I_{SD} VIN	EN = 0 V, VOUT = 0 V, measured VIN current, VIN = 12 V		5.9	9.5	mA	ISD_VIN_12V	4.6
I_{SD} VIN	EN = 0 V, VOUT = 0 V, measured VIN current, VIN = 9 V		4.4	8	mA	ISD_VIN_9V	4.4
I_{SD} VIN	EN = 0 V, VOUT = 0 V, measured VIN current, VIN = 4.5 V		3.7	7	mA	ISD_VIN_4p5V	4.0
V_{RCP_ENTER}	EN = 7 V, VIN = 4.5 V		390		mV	NS92N7_1	
V_{RCP_ENTER}	EN = 7 V, VIN = 14 V		363		mV	NSPQQO_1	
V_{RCP_EXIT}	EN = 7 V, VIN = 4.5 V		264		mV	NSMFME_1	
V_{RCP_EXIT}	EN = 7 V, VIN = 14 V		249		mV	NSY0QQ_1	
t_{RCP}	EN = 7 V, VIN = 4.5 V		208		µs	NS8C9O_1	
t_{RCP}	EN = 7 V, VIN = 14 V		247		µs	NSOWO7_1	
I_{RCP}	EN = 0 V, VOUT = 0 to 14 V and VOUT > VIN, EN = 0 V, VOUT = 0 to 14 V and VOUT > VIN		44	250	µA	IRCP_EN_0V	3.1, 3.3
I_{RCP}	EN = 7 V, VIN = 0 V, VOUT = 0 to 14 V, EN = 7 V, VIN = 0 V, VOUT = 0 to 14 V		37	240	µA	IRCP_EN_7V	3.4, 3.5
SOFT START							
I_{SS}			65	83	µA	SS_I_Charge	6.3, 6.7
ENABLE (EN) INPUT							
V_{IHEN}		0.59	0.63	0.67	V	EN_VTH_RISING_PLASTIC	6.0, 6.4
V_{ILEN}		0.49	0.52	0.55	V	EN_VTH_FALLING_PLASTIC	6.1, 6.5
$HYST_{EN}$		95	106	116	mV	EN_HYST_PLASTIC	6.2, 6.6
t_{LOW_OFF}	VOUT falls to < 90%	47			µs	EN_LOW_TIME_CYCLING_PLASTIC	
VIN_{EN}		75%				VIN_EN_PERCENTAGE	
I_{EN}	EN = 7 V, VIN = 14 V, EN = 7 V, VIN = 14 V		2	12	nA	IEN_VIN	6.8, 6.9
OVERVOLTAGE PROTECTION (OVP)							

Parameter	Test Conditions	MIN	TYP	MAX	Unit	Specification ID	Test Number
V_{OVPR}		1.07	1.15	1.22	V	OVP_VTH_Rising_PLASTIC	7.0, 7.3
V_{OVPF}		1.04	1.12	1.19	V	OVP_VTH_Falling_PLASTIC	7.1, 7.4
$HYST_{OVP}$	4.6 V < VIN < 14 V, 4.6 V < VIN < 14 V	24	28	33	mV	OVP_HYST_PLASTIC	7.2, 7.5
I_{OVP}	OVP = 7 V, OVP = 7 V		1.5	12	nA	OVP_ILEAK	7.6, 7.7
CURRENT LIMIT							
I_{L_trip}	VIN = 12 V, CSS = 2 nF, VIN = 12 V, CSS = 2 nF		8		A	NSFVE3_1	
I_{L_peak}	VIN = 12 V, 10 Ω to 10 mΩ short in 1 µs, switch inductance = 270 nH, VIN = 12 V, 10 Ω to 10 mΩ short in 1 µs, switch inductance = 270 nH		25		A	FTO_Current_Limit	
t_{ftr}	VIN = 12 V, 10 Ω to 10 mΩ short in 1 µs, switch inductance = 270 nH, VIN = 12 V, 10 Ω to 10 mΩ short in 1 µs, switch inductance = 270 nH		2.3		µs	Current_Limit_Timer	
t_{fto}	VIN = 12 V, CSS = 2 nF, VIN = 12 V, CSS = 2 nF		51		µs	FTO_OFF_TIME	
THERMAL SHUTDOWN							
Thermal shutdown			155		°C	Thermal_SHDN	
Thermal shutdown hysteresis			20		°C	Thermal_SHDN_Hyst	
RESISTANCE CHARACTERISTICS							
R_{ON}	VIN = 14 V, I_{out} = 3.5 A, 25°C		44.3	46	mΩ	RON_VIN_14V_25_Plastic	8.4
R_{ON}	VIN = 12 V, I_{out} = 3.5 A, 25°C		44	46	mΩ	RON_VIN_12V_25_Plastic	8.3
R_{ON}	VIN = 9 V, I_{out} = 3.5 A, 25°C		43.6	45	mΩ	RON_VIN_9V_25_Plastic	8.2
R_{ON}	VIN = 6 V, I_{out} = 3.5 A, 25°C		43.5	45	mΩ	RON_VIN_6V_25_Plastic	8.1
R_{ON}	VIN = 4.5 V, I_{out} = 3.5 A, 25°C		47.6	49	mΩ	RON_VIN_4P5V_25_Plastic	8.0

4 Applicable and Reference Documents

4.1 Applicable Documents

- Texas Instruments, *TPS7H2211-QMLP Radiation-Tolerant 14-V, 3.5-A eFuse*, data sheet.
- Texas Instruments, *Single Event Effects Report of the TPS7H2211-QMLP Sink and Source DDR Termination LDO Regulator*, radiation report.
- Texas Instruments, *TPS7H2211-QMLP DDR Termination Evaluation Module*, EVM user's guide.

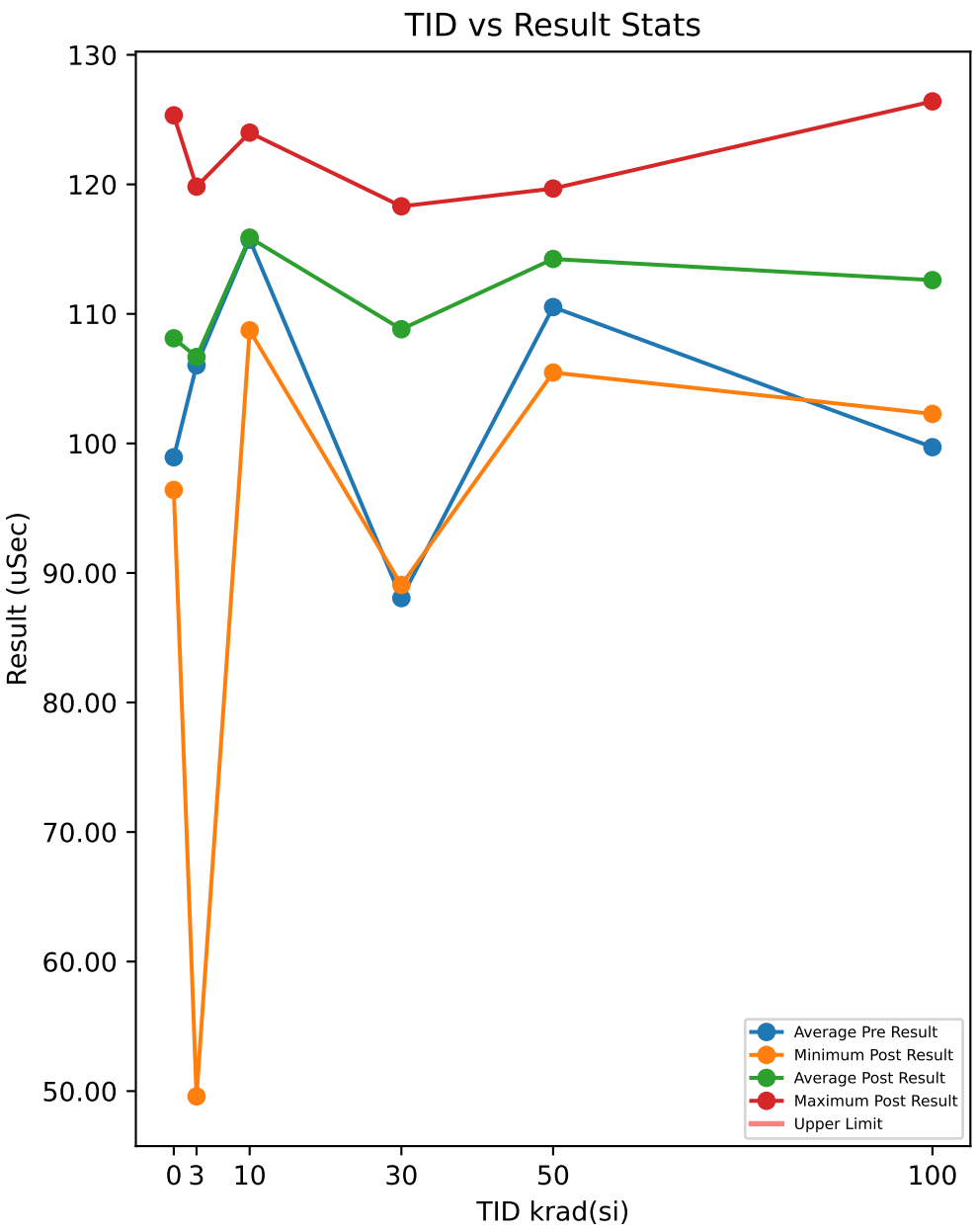
4.2 Reference Documents

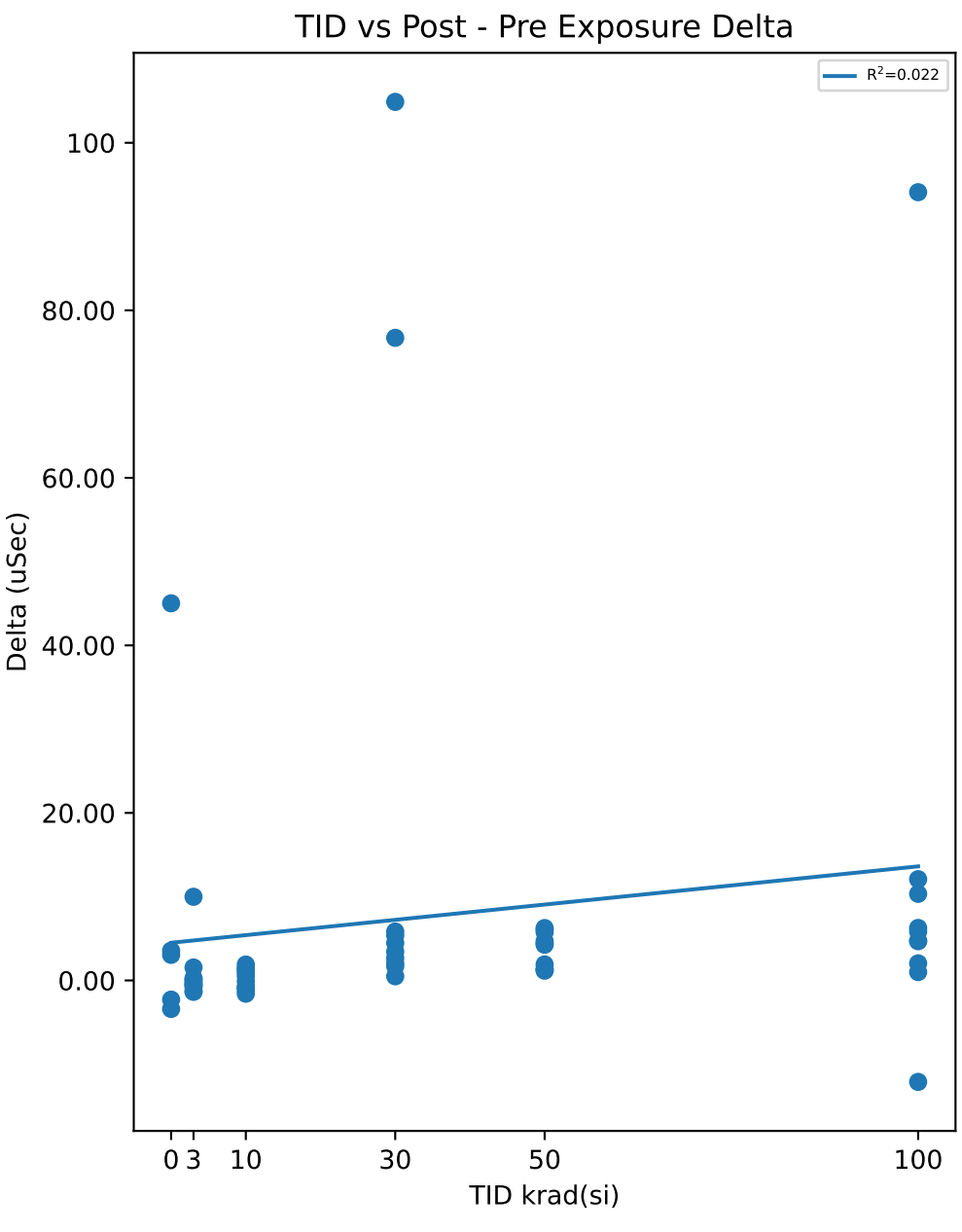
Texas Instruments total ionizing dose radiation (total dose) test procedure follows the standards put forth in MIL-STD-883 TM 1019. The document can be found at the DLA website.

A Appendix: HDR TID Report Data

This appendix contains the HDR TID report data.

Device Test: 11.0 tON_VIN(TON_5p0V)





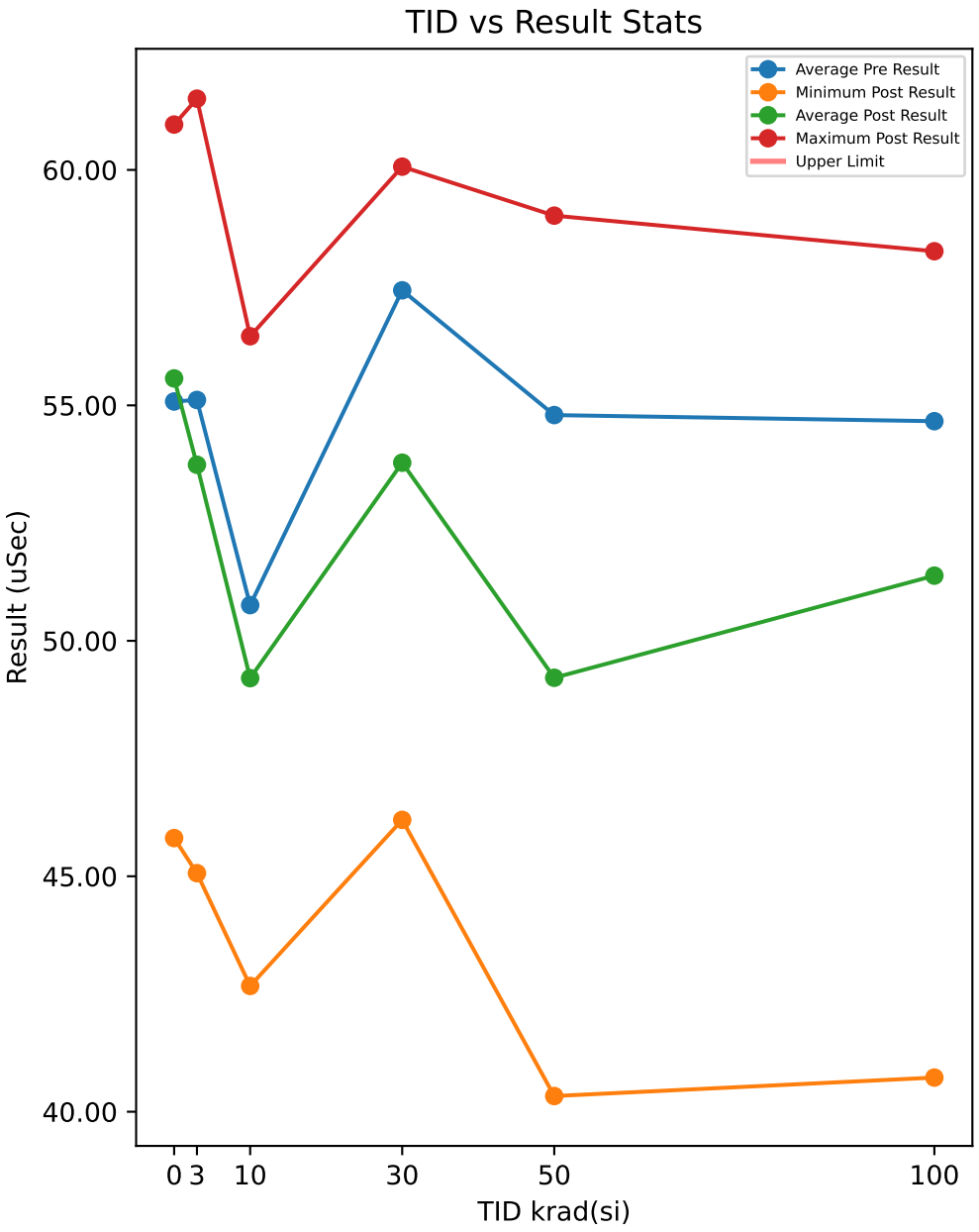
Test Results (No Limits Specified (uSec))

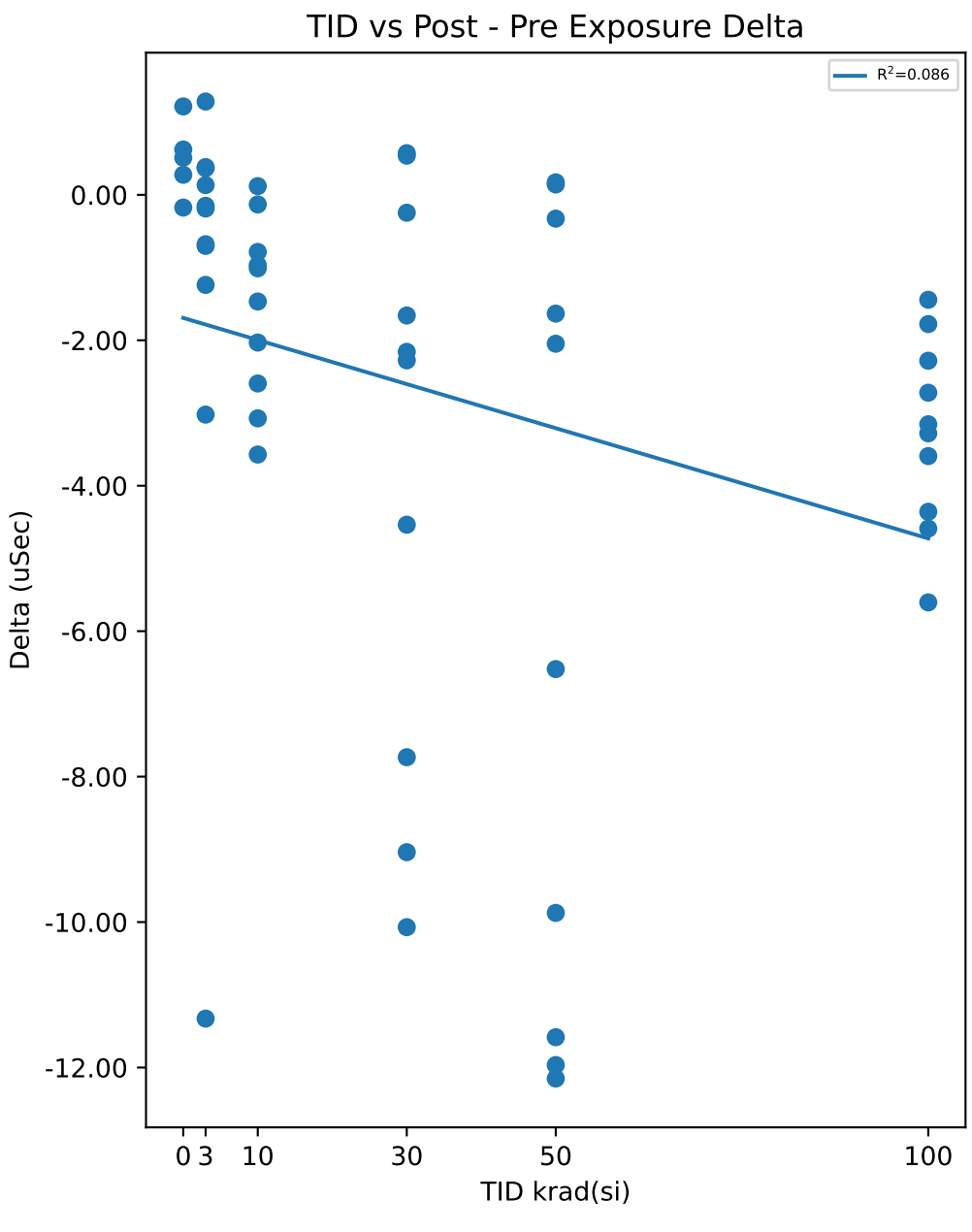
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	106.38	116.37	9.986
2	3	14V Biased HDR	118.12	116.83	-1.298
3	3	14V Biased HDR	48.047	49.593	1.546
4	3	14V Biased HDR	111	111.06	0.068
5	3	14V Biased HDR	106.64	106.11	-0.524
6	3	Unbiased HDR	120.18	119.83	-0.354
7	3	Unbiased HDR	109.72	109.99	0.269
8	3	Unbiased HDR	115.8	115	-0.796
9	3	Unbiased HDR	110.59	110.58	-0.016
10	3	Unbiased HDR	102.16	101.66	-0.502
11	10	14V Biased HDR	122.54	124	1.451
12	10	14V Biased HDR	112.54	113.83	1.291
13	10	14V Biased HDR	110.79	111.31	0.523
14	10	14V Biased HDR	116.06	114.48	-1.582
15	10	14V Biased HDR	111.16	112.11	0.946
16	10	Unbiased HDR	117.89	117.06	-0.835
17	10	Unbiased HDR	109.94	108.73	-1.213
18	10	Unbiased HDR	118.96	118.84	-0.118
19	10	Unbiased HDR	115.65	114.84	-0.802
20	10	Unbiased HDR	121.79	123.69	1.898
21	30	14V Biased HDR	5.165	110.05	104.88
22	30	14V Biased HDR	106.99	110.42	3.433
23	30	14V Biased HDR	108.51	110.54	2.029
24	30	14V Biased HDR	100.6	105.07	4.467
25	30	14V Biased HDR	112.94	118.3	5.359
26	30	Unbiased HDR	113.73	116.4	2.673
27	30	Unbiased HDR	12.352	89.068	76.716
28	30	Unbiased HDR	107.29	108.97	1.682
29	30	Unbiased HDR	101.74	107.58	5.838
30	30	Unbiased HDR	111.26	111.75	0.493
31	50	14V Biased HDR	100.77	105.47	4.7
32	50	14V Biased HDR	109.7	115.45	5.748
33	50	14V Biased HDR	112.28	118.53	6.252
34	50	14V Biased HDR	101.41	107.48	6.078
35	50	14V Biased HDR	107.23	111.5	4.262
36	50	Unbiased HDR	118.3	119.68	1.375
37	50	Unbiased HDR	113.54	114.7	1.166
38	50	Unbiased HDR	114.26	118.69	4.421
39	50	Unbiased HDR	115.1	116.34	1.239
40	50	Unbiased HDR	112.66	114.57	1.913
41	100	14V Biased HDR	20.178	114.28	94.101
42	100	14V Biased HDR	118.78	123.49	4.708
43	100	14V Biased HDR	104.97	109.67	4.704
44	100	14V Biased HDR	101.28	102.28	0.998
45	100	14V Biased HDR	120.14	126.41	6.266
46	100	Unbiased HDR	97.07	109.16	12.087
47	100	Unbiased HDR	116.52	104.41	-12.114
48	100	Unbiased HDR	110.05	115.88	5.825
49	100	Unbiased HDR	94.358	104.7	10.339
50	100	Unbiased HDR	113.77	115.81	2.04
51	0	Correlation	98.697	96.408	-2.289
52	0	Correlation	103.38	106.94	3.557
53	0	Correlation	107.81	104.41	-3.4
54	0	Correlation	80.308	125.33	45.021
55	0	Correlation	104.46	107.51	3.052

Test Statistics (uSec)

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	80.308	98.931	107.81	10.909	96.408	108.12	125.33	10.593	-3.4	9.1882	45.021	20.27
3	48.047	104.86	120.18	20.723	49.593	105.7	119.83	20.438	-1.298	0.8379	9.986	3.3021
10	109.94	115.73	122.54	4.5628	108.73	115.89	124	5.0606	-1.582	0.1559	1.898	1.2306
30	5.165	88.058	113.73	42.045	89.068	108.82	118.3	7.9498	0.493	20.758	104.88	37.545
50	100.77	110.53	118.3	5.7916	105.47	114.24	119.68	4.761	1.166	3.7154	6.252	2.0889
100	20.178	99.711	120.14	29.362	102.28	112.61	126.41	8.0934	-12.114	12.895	94.101	29.277

Device Test: 11.1 tOFF_VIN(TOFF_5p0V)





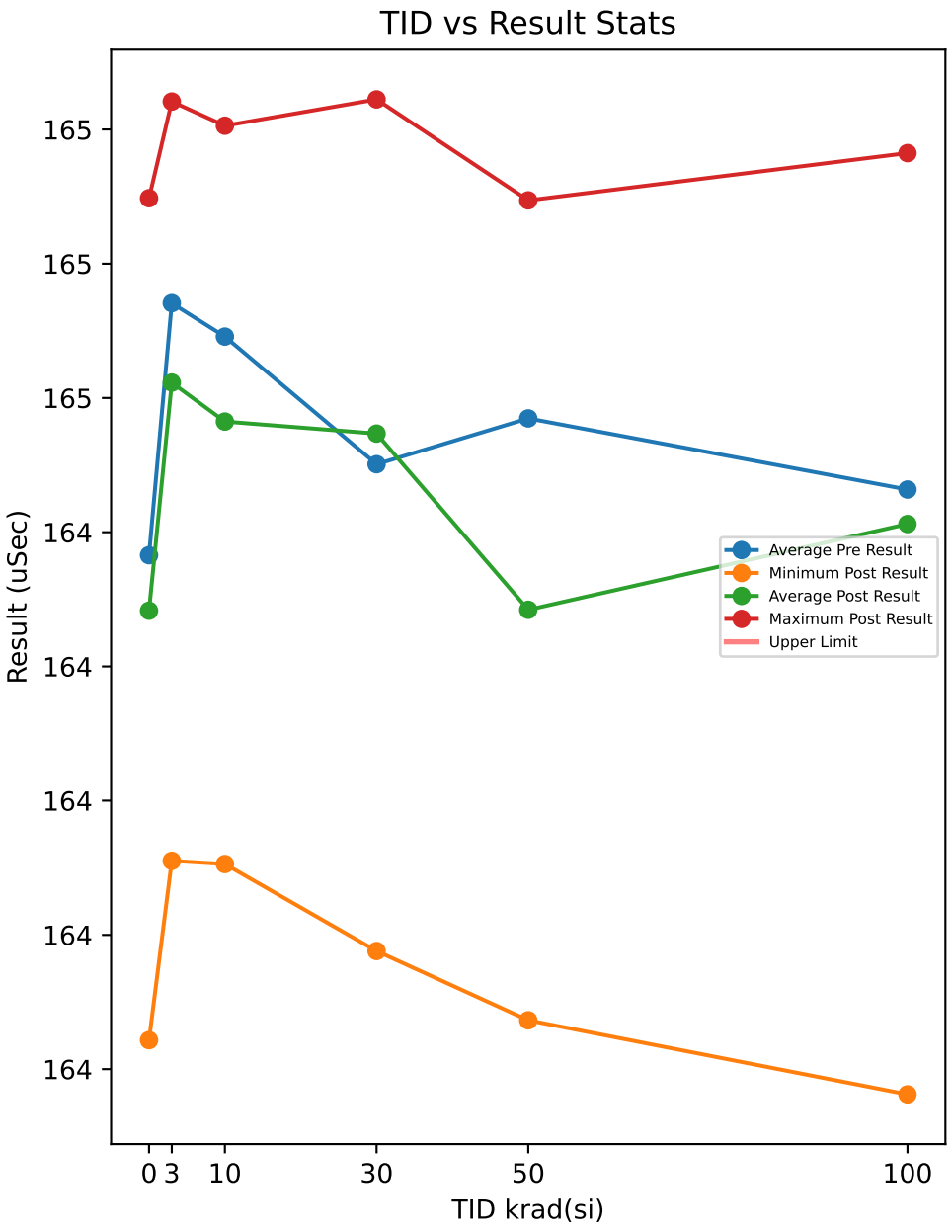
Test Results (No Limits Specified (uSec))

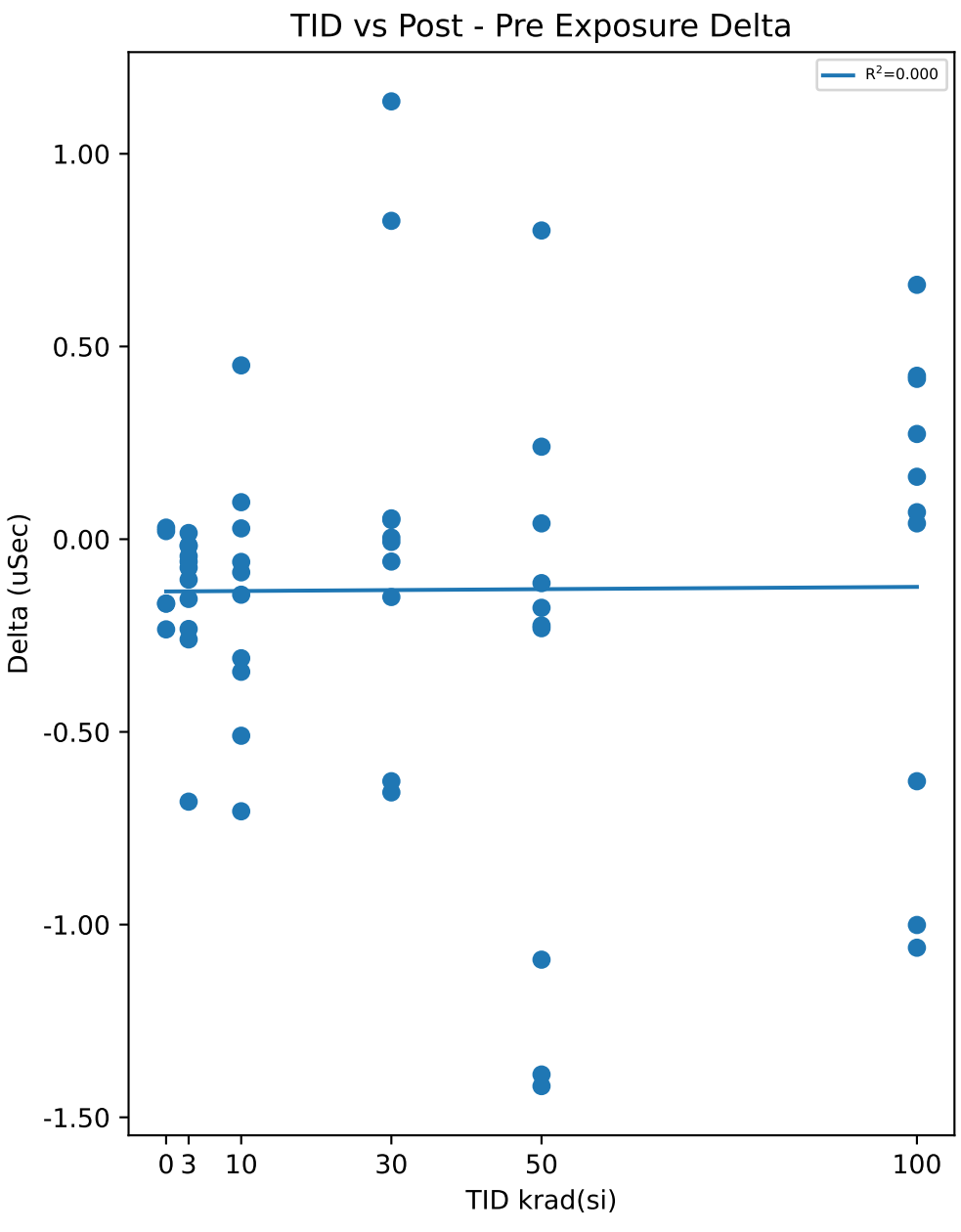
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	56.393	45.066	-11.327
2	3	14V Biased HDR	51.817	48.795	-3.022
3	3	14V Biased HDR	62.215	61.513	-0.702
4	3	14V Biased HDR	56.008	56.39	0.382
5	3	14V Biased HDR	56.923	58.206	1.283
6	3	Unbiased HDR	56.032	56.399	0.367
7	3	Unbiased HDR	57.321	57.17	-0.151
8	3	Unbiased HDR	48.036	48.17	0.134
9	3	Unbiased HDR	57.121	56.442	-0.679
10	3	Unbiased HDR	58.096	57.908	-0.188
11	10	14V Biased HDR	47.228	43.657	-3.571
12	10	14V Biased HDR	58.498	56.467	-2.031
13	10	14V Biased HDR	44.138	42.671	-1.467
14	10	14V Biased HDR	50.059	47.465	-2.594
15	10	14V Biased HDR	55.264	52.191	-3.073
16	10	Unbiased HDR	48.057	47.272	-0.785
17	10	Unbiased HDR	56.282	55.272	-1.01
18	10	Unbiased HDR	46.613	46.733	0.12
19	10	Unbiased HDR	53.806	53.674	-0.132
20	10	Unbiased HDR	47.637	46.671	-0.966
21	30	14V Biased HDR	59.941	55.405	-4.536
22	30	14V Biased HDR	59.555	57.396	-2.159
23	30	14V Biased HDR	55.405	47.672	-7.733
24	30	14V Biased HDR	55.237	46.198	-9.039
25	30	14V Biased HDR	57.541	47.471	-10.07
26	30	Unbiased HDR	57.346	55.07	-2.276
27	30	Unbiased HDR	60.315	60.069	-0.246
28	30	Unbiased HDR	57.483	58.056	0.573
29	30	Unbiased HDR	54.989	53.33	-1.659
30	30	Unbiased HDR	56.619	57.158	0.539
31	50	14V Biased HDR	54.76	42.609	-12.151
32	50	14V Biased HDR	60.147	50.273	-9.874
33	50	14V Biased HDR	57.863	45.897	-11.966
34	50	14V Biased HDR	55.208	43.625	-11.583
35	50	14V Biased HDR	49.056	42.535	-6.521
36	50	Unbiased HDR	41.966	40.333	-1.633
37	50	Unbiased HDR	59.356	59.029	-0.327
38	50	Unbiased HDR	55.739	55.911	0.172
39	50	Unbiased HDR	56.677	54.63	-2.047
40	50	Unbiased HDR	57.165	57.308	0.143
41	100	14V Biased HDR	59.676	55.318	-4.358
42	100	14V Biased HDR	46.329	40.725	-5.604
43	100	14V Biased HDR	46.816	42.227	-4.589
44	100	14V Biased HDR	57.387	54.108	-3.279
45	100	14V Biased HDR	45.78	42.188	-3.592
46	100	Unbiased HDR	59.504	56.783	-2.721
47	100	Unbiased HDR	60.554	58.273	-2.281
48	100	Unbiased HDR	55.158	53.715	-1.443
49	100	Unbiased HDR	56.882	53.727	-3.155
50	100	Unbiased HDR	58.553	56.776	-1.777
51	0	Correlation	57.455	58.671	1.216
52	0	Correlation	58.19	58.7	0.51
53	0	Correlation	53.44	53.716	0.276
54	0	Correlation	60.34	60.963	0.623
55	0	Correlation	45.986	45.811	-0.175

Test Statistics (uSec)

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	45.986	55.082	60.34	5.665	45.811	55.572	60.963	6.0657	-0.175	0.49	1.216	0.50823
3	48.036	55.996	62.215	3.7705	45.066	54.606	61.513	5.3136	-11.327	-1.3903	1.283	3.6676
10	44.138	50.758	58.498	4.842	42.671	49.207	56.467	4.8443	-3.571	-1.5509	0.12	1.236
30	54.989	57.443	60.315	1.9633	46.198	53.783	60.069	4.9601	-10.07	-3.6606	0.573	3.9827
50	41.966	54.794	60.147	5.4426	40.333	49.215	59.029	7.0435	-12.151	-5.5787	0.172	5.3832
100	45.78	54.664	60.554	5.9715	40.725	51.384	58.273	6.8438	-5.604	-3.2799	-1.443	1.3053

Device Test: 11.2 tF_VIN_EN(TFALL_5p0V)





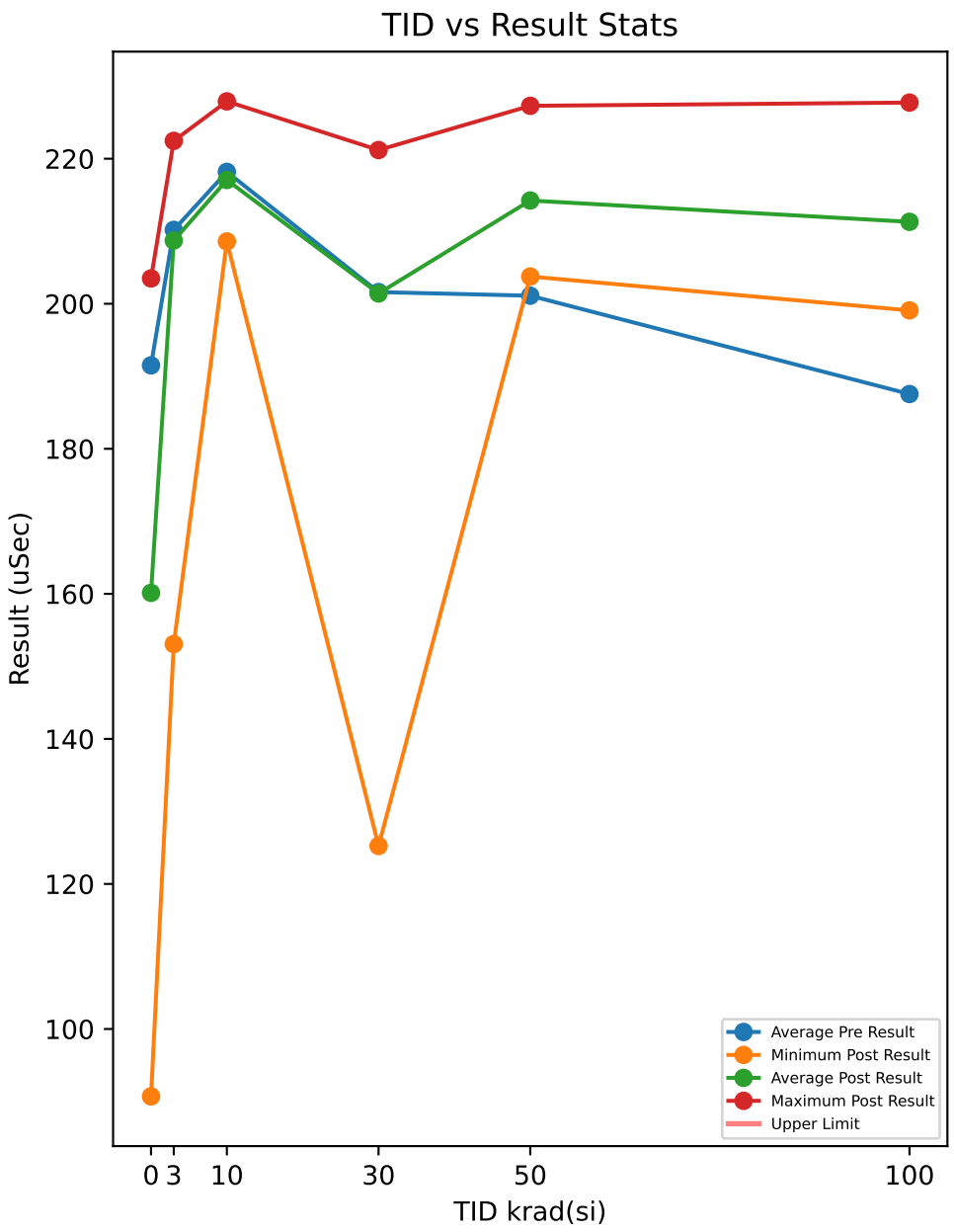
Test Results (No Limits Specified (uSec))

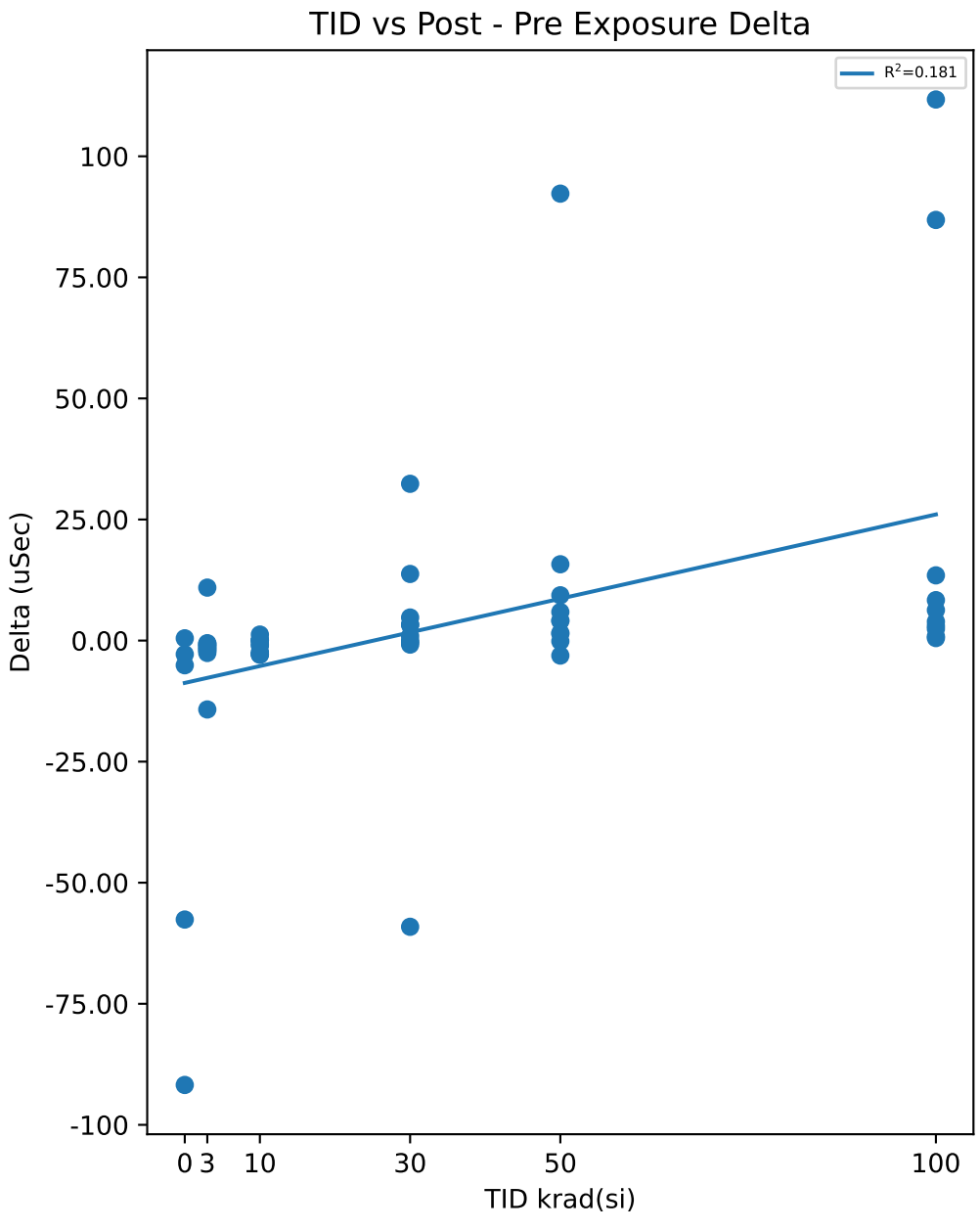
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	165.21	164.53	-0.681
2	3	14V Biased HDR	165.56	165.3	-0.26
3	3	14V Biased HDR	164.04	163.89	-0.155
4	3	14V Biased HDR	165.12	165.07	-0.058
5	3	14V Biased HDR	165.15	165.13	-0.016
6	3	Unbiased HDR	165.06	164.95	-0.105
7	3	Unbiased HDR	164.9	164.89	-0.018
8	3	Unbiased HDR	164.81	164.74	-0.074
9	3	Unbiased HDR	164.91	164.92	0.016
10	3	Unbiased HDR	164.66	164.62	-0.044
11	10	14V Biased HDR	164.57	164.06	-0.51
12	10	14V Biased HDR	164.43	164.88	0.451
13	10	14V Biased HDR	164.19	163.88	-0.309
14	10	14V Biased HDR	165.25	164.54	-0.706
15	10	14V Biased HDR	165.15	165.25	0.096
16	10	Unbiased HDR	165.01	164.87	-0.144
17	10	Unbiased HDR	165.14	165.06	-0.086
18	10	Unbiased HDR	164.66	164.69	0.028
19	10	Unbiased HDR	165.32	165.26	-0.059
20	10	Unbiased HDR	164.91	164.57	-0.344
21	30	14V Biased HDR	163.87	165.01	1.136
22	30	14V Biased HDR	163.92	164.74	0.826
23	30	14V Biased HDR	165.16	164.53	-0.628
24	30	14V Biased HDR	165.06	164.41	-0.657
25	30	14V Biased HDR	164.79	164.79	0.004
26	30	Unbiased HDR	165.18	165.18	-0.007
27	30	Unbiased HDR	163.67	163.72	0.05
28	30	Unbiased HDR	164.58	164.53	-0.058
29	30	Unbiased HDR	165.25	165.31	0.054
30	30	Unbiased HDR	164.77	164.62	-0.15
31	50	14V Biased HDR	165.21	163.79	-1.419
32	50	14V Biased HDR	164.29	165.09	0.801
33	50	14V Biased HDR	164.56	164.33	-0.231
34	50	14V Biased HDR	165.08	163.99	-1.091
35	50	14V Biased HDR	165.2	163.81	-1.389
36	50	Unbiased HDR	163.81	163.59	-0.224
37	50	Unbiased HDR	164.18	164.22	0.041
38	50	Unbiased HDR	165.23	165.12	-0.114
39	50	Unbiased HDR	164.77	165.01	0.24
40	50	Unbiased HDR	164.78	164.6	-0.178
41	100	14V Biased HDR	164.52	165.18	0.66
42	100	14V Biased HDR	164.45	163.45	-1.001
43	100	14V Biased HDR	164.81	163.75	-1.06
44	100	14V Biased HDR	164.68	165.1	0.424
45	100	14V Biased HDR	164.46	163.83	-0.628
46	100	Unbiased HDR	164.12	164.54	0.416
47	100	Unbiased HDR	164.22	164.29	0.07
48	100	Unbiased HDR	165.04	165.21	0.162
49	100	Unbiased HDR	164.79	165.06	0.273
50	100	Unbiased HDR	164.71	164.75	0.041
51	0	Correlation	164.6	164.63	0.03
52	0	Correlation	164.32	164.15	-0.167
53	0	Correlation	165.29	165.12	-0.167
54	0	Correlation	163.53	163.55	0.021
55	0	Correlation	164.55	164.31	-0.234

Test Statistics (uSec)

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	163.53	164.46	165.29	0.6313	163.55	164.35	165.12	0.5808	-0.234	-0.1034	0.03	0.12085
3	164.04	164.94	165.56	0.40162	163.89	164.8	165.3	0.39783	-0.681	-0.1395	0.016	0.2064
10	164.19	164.86	165.32	0.38114	163.88	164.71	165.26	0.46073	-0.706	-0.1583	0.451	0.32775
30	163.67	164.63	165.25	0.59787	163.72	164.68	165.31	0.44778	-0.657	0.057	1.136	0.55754
50	163.81	164.71	165.23	0.49288	163.59	164.36	165.12	0.57407	-1.419	-0.3564	0.801	0.72358
100	164.12	164.58	165.04	0.28179	163.45	164.52	165.21	0.65507	-1.06	-0.0643	0.66	0.61232

Device Test: 11.3 tON_VIN_EN_1p5V(TON_12p0V)





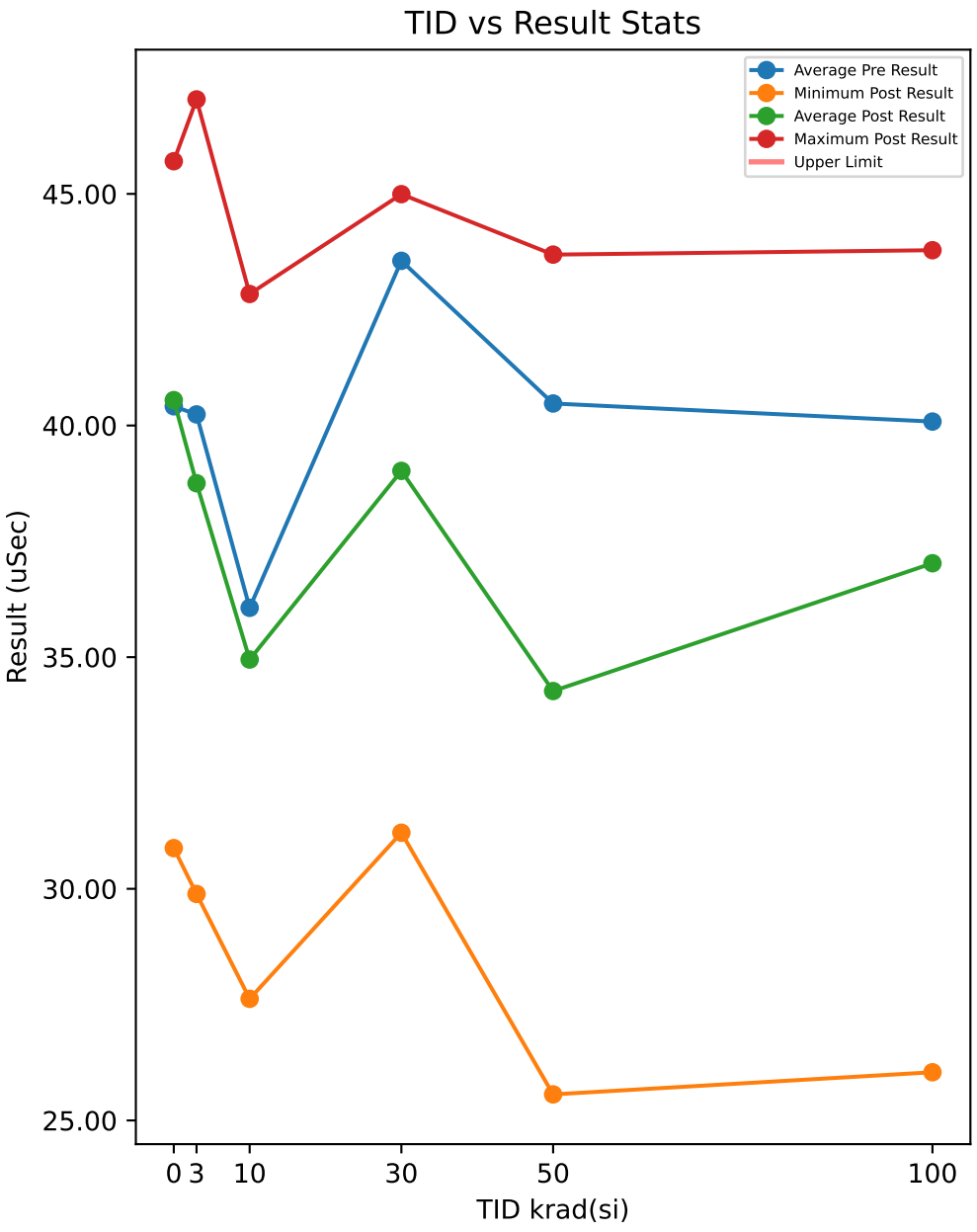
Test Results (No Limits Specified (uSec))

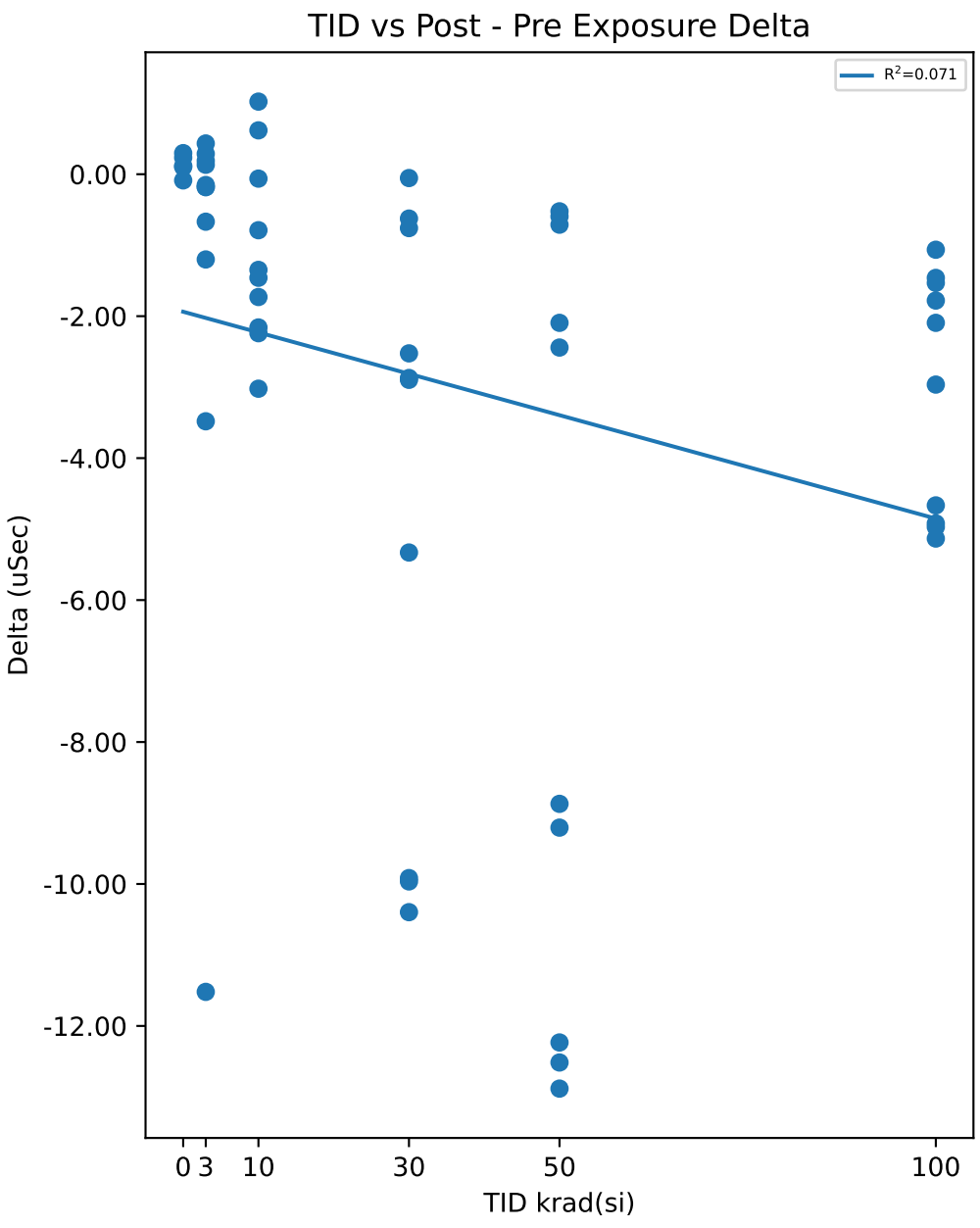
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	210.22	221.15	10.935
2	3	14V Biased HDR	221.86	220.56	-1.298
3	3	14V Biased HDR	167.3	153.07	-14.229
4	3	14V Biased HDR	215.14	213.49	-1.656
5	3	14V Biased HDR	206.62	204.06	-2.559
6	3	Unbiased HDR	223	222.46	-0.543
7	3	Unbiased HDR	213.03	212.33	-0.701
8	3	Unbiased HDR	218.02	215.93	-2.09
9	3	Unbiased HDR	211.54	210.74	-0.806
10	3	Unbiased HDR	202.2	200.98	-1.226
11	10	14V Biased HDR	226.67	227.9	1.237
12	10	14V Biased HDR	214.39	214.41	0.02
13	10	14V Biased HDR	210.23	210.29	0.063
14	10	14V Biased HDR	216.76	214.01	-2.753
15	10	14V Biased HDR	211.69	211.84	0.15
16	10	Unbiased HDR	223.37	221.01	-2.362
17	10	Unbiased HDR	211.5	208.59	-2.911
18	10	Unbiased HDR	221.14	220.11	-1.032
19	10	Unbiased HDR	220.8	217.92	-2.88
20	10	Unbiased HDR	225.32	224.56	-0.769
21	30	14V Biased HDR	194.98	208.73	13.755
22	30	14V Biased HDR	180.86	213.23	32.372
23	30	14V Biased HDR	208.61	208.24	-0.365
24	30	14V Biased HDR	197.73	200.97	3.248
25	30	14V Biased HDR	216.44	221.19	4.759
26	30	Unbiased HDR	213.38	214.32	0.948
27	30	Unbiased HDR	184.34	125.24	-59.104
28	30	Unbiased HDR	209.62	209.62	0.002
29	30	Unbiased HDR	199.06	202.35	3.298
30	30	Unbiased HDR	211.1	210.27	-0.831
31	50	14V Biased HDR	199.69	203.75	4.067
32	50	14V Biased HDR	122.69	214.97	92.287
33	50	14V Biased HDR	202.86	218.62	15.756
34	50	14V Biased HDR	200.69	206.59	5.9
35	50	14V Biased HDR	205.98	207.55	1.566
36	50	Unbiased HDR	217.44	214.34	-3.099
37	50	Unbiased HDR	217.94	227.29	9.35
38	50	Unbiased HDR	213.55	217.67	4.125
39	50	Unbiased HDR	215.91	215.77	-0.139
40	50	Unbiased HDR	214.37	215.8	1.425
41	100	14V Biased HDR	100.93	212.66	111.73
42	100	14V Biased HDR	219.9	222.94	3.044
43	100	14V Biased HDR	204.93	207.36	2.429
44	100	14V Biased HDR	199.65	200.51	0.86
45	100	14V Biased HDR	221.45	227.74	6.291
46	100	Unbiased HDR	196.8	210.26	13.465
47	100	Unbiased HDR	200.77	201.29	0.517
48	100	Unbiased HDR	210.28	214.2	3.919
49	100	Unbiased HDR	190.74	199.09	8.343
50	100	Unbiased HDR	130.06	216.92	86.861
51	0	Correlation	194.05	188.95	-5.097
52	0	Correlation	148.31	90.709	-57.606
53	0	Correlation	206.18	203.35	-2.832
54	0	Correlation	205.96	114.19	-91.765
55	0	Correlation	203.03	203.49	0.465

Test Statistics (uSec)

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	148.31	191.5	206.18	24.641	90.709	160.14	203.49	53.638	-91.765	-31.367	0.465	41.395
3	167.3	208.89	223	15.969	153.07	207.48	222.46	20.38	-14.229	-1.4173	10.935	5.965
10	210.23	218.19	226.67	6.0734	208.59	217.07	227.9	6.329	-2.911	-1.1237	1.237	1.5097
30	180.86	201.61	216.44	12.273	125.24	201.42	221.19	27.38	-59.104	-0.1918	32.372	23.036
50	122.69	201.11	217.94	28.439	203.75	214.24	227.29	6.8303	-3.099	13.124	92.287	28.309
100	100.93	187.55	221.45	39.776	199.09	211.3	227.74	9.6038	0.517	23.746	111.73	40.431

Device Test: 11.4 tOFF_VIN_EN_1p5V(TOFF_12p0V)





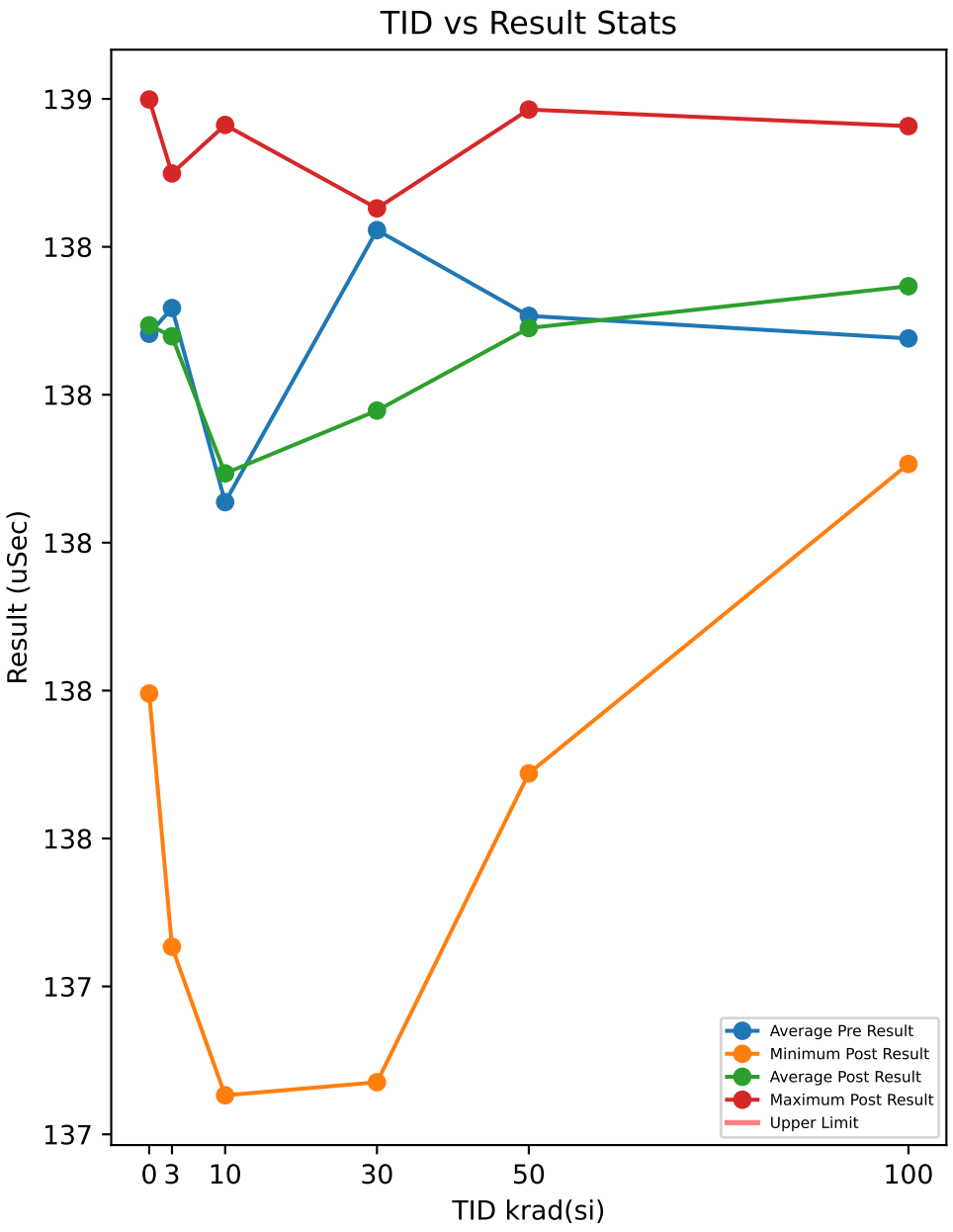
Test Results (No Limits Specified (uSec))

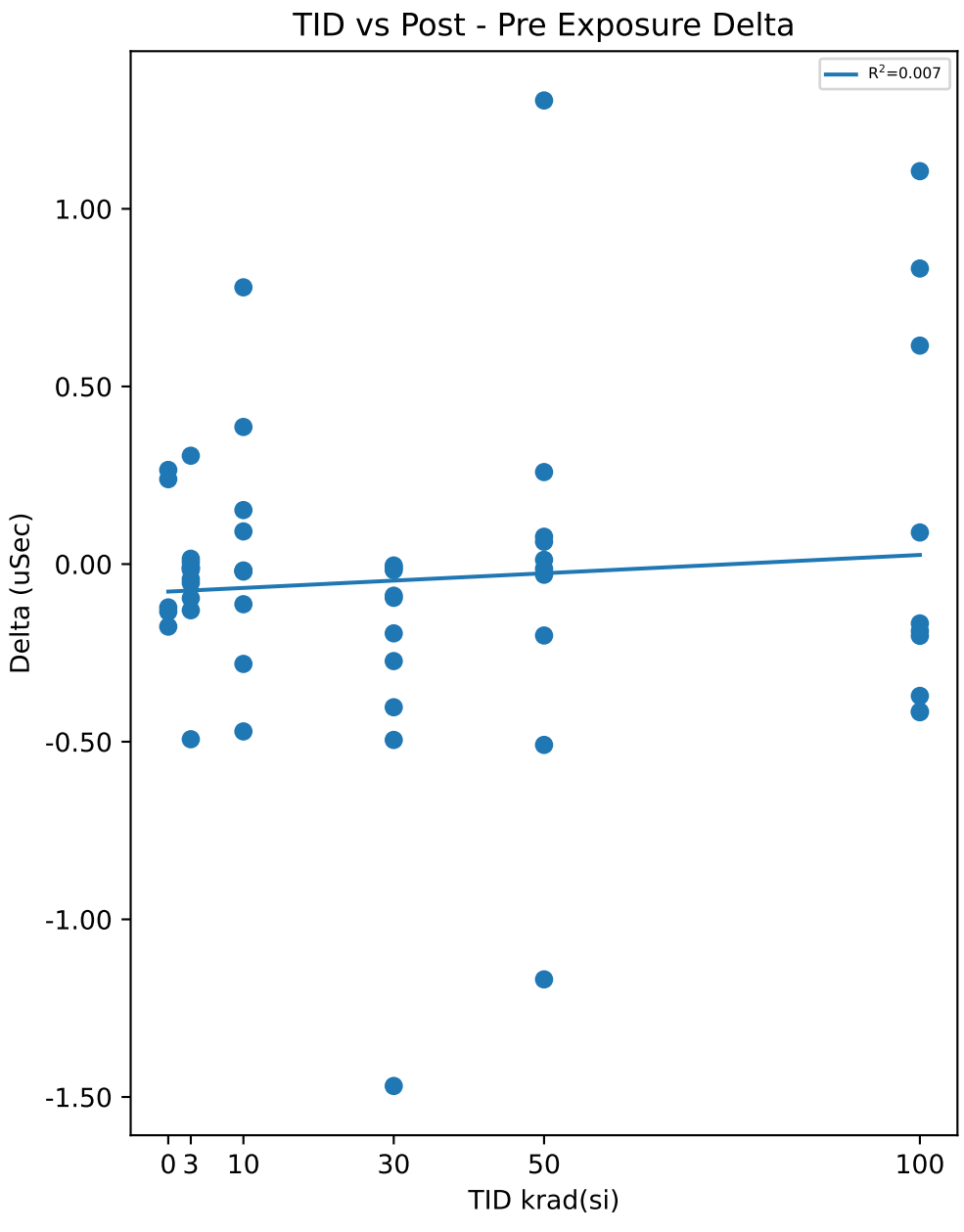
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	41.409	29.889	-11.52
2	3	14V Biased HDR	37.384	33.903	-3.481
3	3	14V Biased HDR	47.22	47.039	-0.181
4	3	14V Biased HDR	41.178	41.611	0.433
5	3	14V Biased HDR	41.946	41.794	-0.152
6	3	Unbiased HDR	41.398	41.686	0.288
7	3	Unbiased HDR	42.694	42.512	-0.182
8	3	Unbiased HDR	32.872	33.061	0.189
9	3	Unbiased HDR	42.051	41.382	-0.669
10	3	Unbiased HDR	43.394	43.527	0.133
11	10	14V Biased HDR	31.372	29.913	-1.459
12	10	14V Biased HDR	44.176	42.017	-2.159
13	10	14V Biased HDR	28.973	27.625	-1.348
14	10	14V Biased HDR	34.471	32.741	-1.73
15	10	14V Biased HDR	40.735	38.495	-2.24
16	10	Unbiased HDR	33.492	33.43	-0.062
17	10	Unbiased HDR	42.221	42.839	0.618
18	10	Unbiased HDR	31.376	32.399	1.023
19	10	Unbiased HDR	39.71	38.921	-0.789
20	10	Unbiased HDR	34.125	31.103	-3.022
21	30	14V Biased HDR	45.354	40.024	-5.33
22	30	14V Biased HDR	45.666	42.769	-2.897
23	30	14V Biased HDR	42.952	32.555	-10.397
24	30	14V Biased HDR	41.174	31.21	-9.964
25	30	14V Biased HDR	42.971	33.054	-9.917
26	30	Unbiased HDR	43.068	40.544	-2.524
27	30	Unbiased HDR	45.753	44.994	-0.759
28	30	Unbiased HDR	43.589	42.964	-0.625
29	30	Unbiased HDR	42.533	39.662	-2.871
30	30	Unbiased HDR	42.489	42.435	-0.054
31	50	14V Biased HDR	40.36	27.845	-12.515
32	50	14V Biased HDR	45.904	36.698	-9.206
33	50	14V Biased HDR	43.26	31.027	-12.233
34	50	14V Biased HDR	41.389	28.506	-12.883
35	50	14V Biased HDR	36.059	27.188	-8.871
36	50	Unbiased HDR	27.656	25.562	-2.094
37	50	Unbiased HDR	44.284	43.689	-0.595
38	50	Unbiased HDR	40.83	40.119	-0.711
39	50	Unbiased HDR	42.129	39.687	-2.442
40	50	Unbiased HDR	42.885	42.362	-0.523
41	100	14V Biased HDR	44.612	39.692	-4.92
42	100	14V Biased HDR	31.173	26.04	-5.133
43	100	14V Biased HDR	32.424	27.454	-4.97
44	100	14V Biased HDR	44.983	40.317	-4.666
45	100	14V Biased HDR	31.099	29.005	-2.094
46	100	Unbiased HDR	44.538	43.007	-1.531
47	100	Unbiased HDR	45.564	43.784	-1.78
48	100	Unbiased HDR	40.581	39.517	-1.064
49	100	Unbiased HDR	42.306	39.342	-2.964
50	100	Unbiased HDR	43.573	42.112	-1.461
51	0	Correlation	42.716	43.013	0.297
52	0	Correlation	43.819	44.053	0.234
53	0	Correlation	39.177	39.09	-0.087
54	0	Correlation	45.602	45.705	0.103
55	0	Correlation	30.761	30.878	0.117

Test Statistics (uSec)

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	30.761	40.415	45.602	5.8847	30.878	40.548	45.705	5.9285	-0.087	0.1328	0.297	0.14718
3	32.872	41.155	47.22	3.7793	29.889	39.64	47.039	5.4276	-11.52	-1.5142	0.433	3.6932
10	28.973	36.065	44.176	5.2283	27.625	34.948	42.839	5.2497	-3.022	-1.1168	1.023	1.3052
30	41.174	43.555	45.753	1.539	31.21	39.021	44.994	4.9339	-10.397	-4.5338	-0.054	4.1171
50	27.656	40.476	45.904	5.2184	25.562	34.268	43.689	6.9494	-12.883	-6.2073	-0.523	5.3941
100	31.099	40.085	45.564	6.0603	26.04	37.027	43.784	6.778	-5.133	-3.0583	-1.064	1.6814

Device Test: 11.5 tF_VIN_EN_1p5V(TFALL_12p0V)





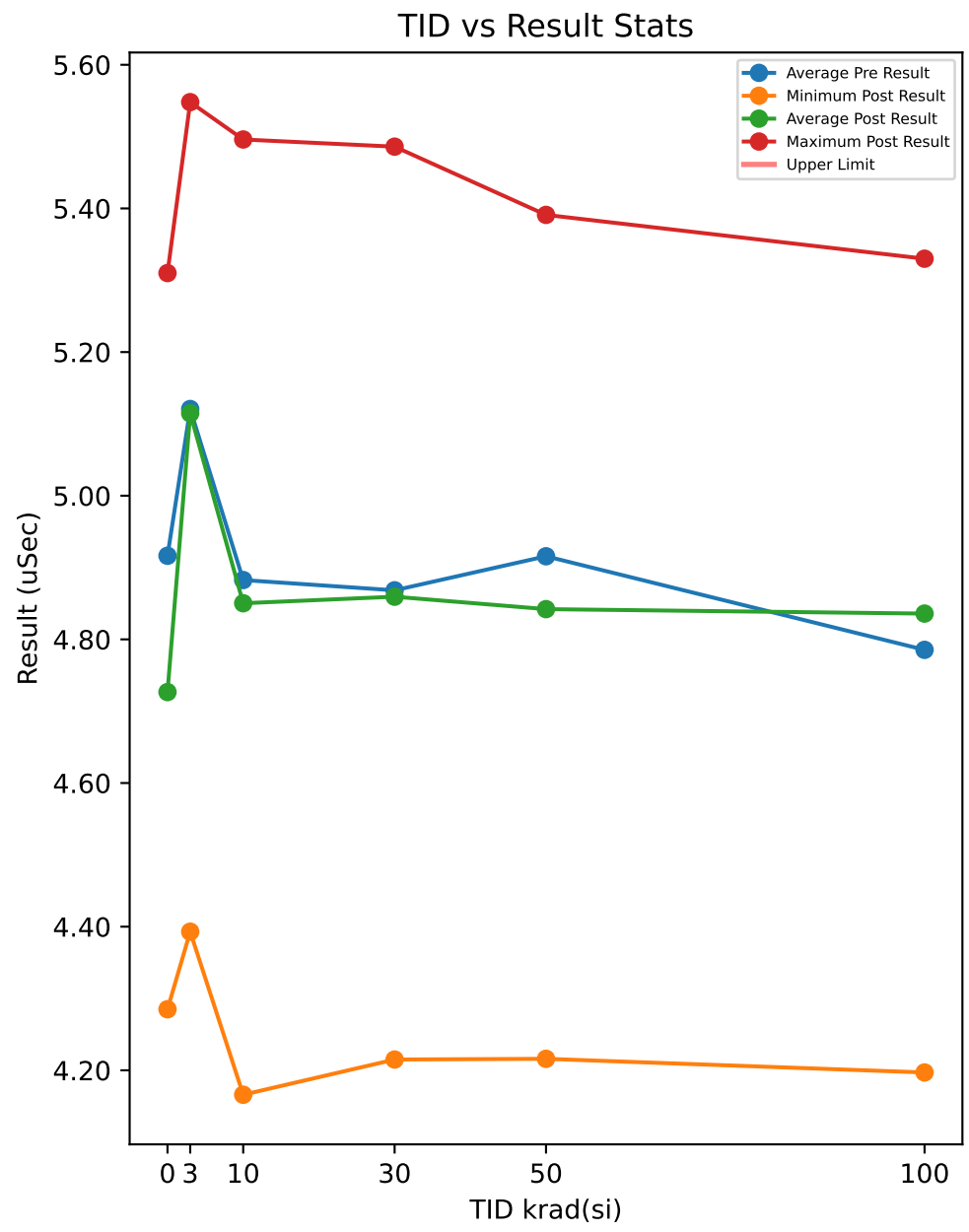
Test Results (No Limits Specified (uSec))

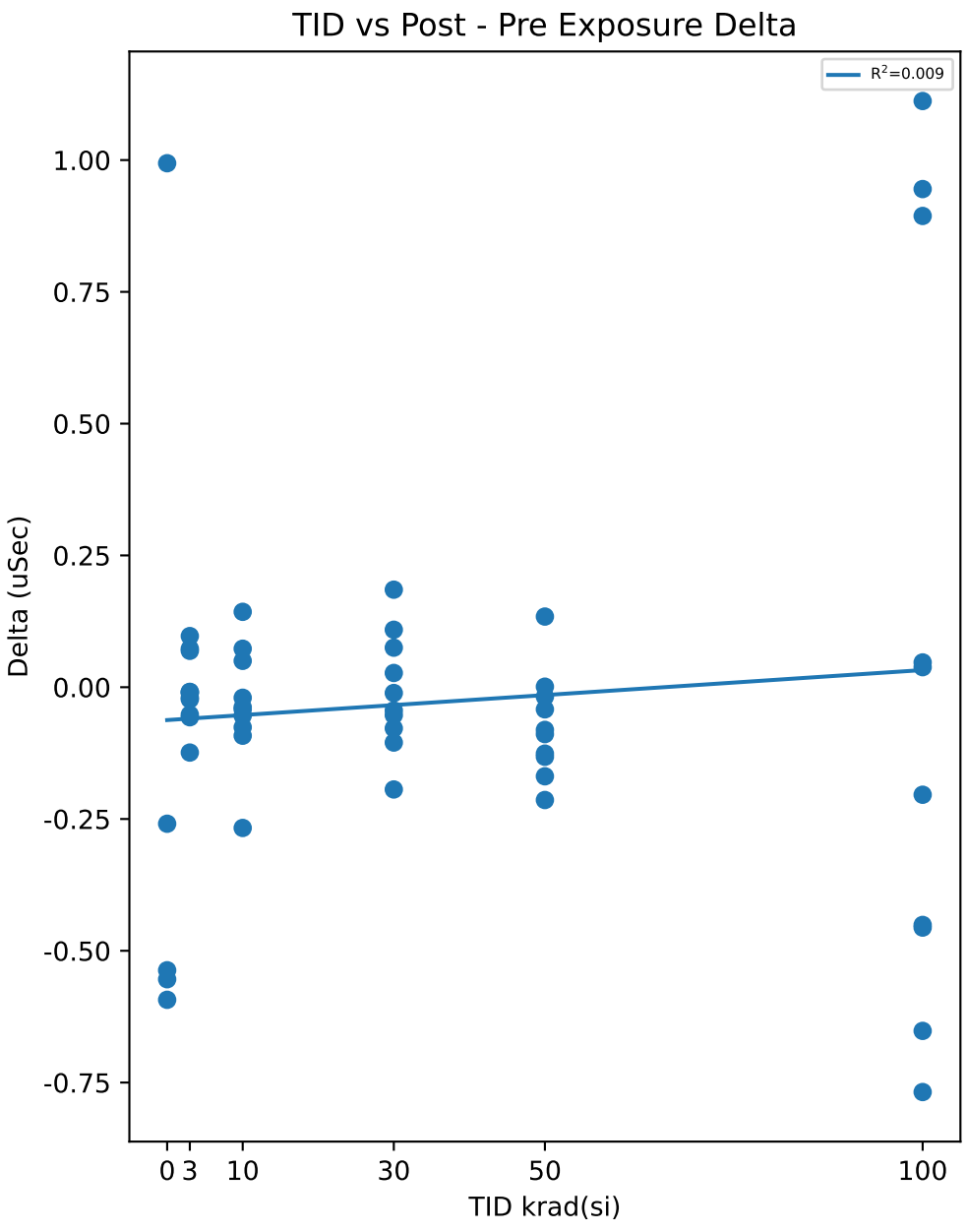
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	138.56	138.43	-0.13
2	3	14V Biased HDR	137.81	137.32	-0.493
3	3	14V Biased HDR	138.57	138.56	-0.01
4	3	14V Biased HDR	138.5	138.52	0.015
5	3	14V Biased HDR	138.67	138.62	-0.042
6	3	Unbiased HDR	138.41	138.41	0.005
7	3	Unbiased HDR	138.57	138.56	-0.016
8	3	Unbiased HDR	138.11	138.02	-0.096
9	3	Unbiased HDR	138.42	138.37	-0.053
10	3	Unbiased HDR	138.61	138.6	-0.01
11	10	14V Biased HDR	138.55	138.71	0.152
12	10	14V Biased HDR	138.53	138.41	-0.113
13	10	14V Biased HDR	138.5	138.59	0.092
14	10	14V Biased HDR	137.39	138.17	0.779
15	10	14V Biased HDR	138.3	138.01	-0.281
16	10	Unbiased HDR	137.08	137.07	-0.018
17	10	Unbiased HDR	138.61	138.59	-0.019
18	10	Unbiased HDR	137.78	137.31	-0.471
19	10	Unbiased HDR	138.23	138.21	-0.021
20	10	Unbiased HDR	137.71	138.09	0.386
21	30	14V Biased HDR	138.53	138.26	-0.273
22	30	14V Biased HDR	138.64	138.55	-0.095
23	30	14V Biased HDR	138.58	138.18	-0.403
24	30	14V Biased HDR	138.34	137.84	-0.495
25	30	14V Biased HDR	138.56	137.09	-1.469
26	30	Unbiased HDR	138.57	138.49	-0.089
27	30	Unbiased HDR	138.52	138.5	-0.017
28	30	Unbiased HDR	138.57	138.56	-0.004
29	30	Unbiased HDR	138.53	138.34	-0.195
30	30	Unbiased HDR	138.44	138.43	-0.01
31	50	14V Biased HDR	138.31	138.56	0.259
32	50	14V Biased HDR	138.78	137.61	-1.169
33	50	14V Biased HDR	138.46	137.95	-0.509
34	50	14V Biased HDR	138.42	138.48	0.063
35	50	14V Biased HDR	137.43	138.73	1.305
36	50	Unbiased HDR	138.44	138.52	0.077
37	50	Unbiased HDR	138.62	138.59	-0.03
38	50	Unbiased HDR	138.47	138.46	-0.013
39	50	Unbiased HDR	138.4	138.19	-0.201
40	50	Unbiased HDR	138.51	138.53	0.012
41	100	14V Biased HDR	138.73	138.31	-0.415
42	100	14V Biased HDR	137.88	138.5	0.615
43	100	14V Biased HDR	137.47	138.57	1.106
44	100	14V Biased HDR	138.7	138.29	-0.417
45	100	14V Biased HDR	137.87	138.7	0.832
46	100	Unbiased HDR	138.61	138.44	-0.167
47	100	Unbiased HDR	138.77	138.58	-0.188
48	100	Unbiased HDR	138.24	138.32	0.089
49	100	Unbiased HDR	138.5	138.13	-0.371
50	100	Unbiased HDR	138.68	138.48	-0.202
51	0	Correlation	138.42	138.66	0.239
52	0	Correlation	138.6	138.48	-0.122
53	0	Correlation	138.34	138.21	-0.134
54	0	Correlation	138.48	138.75	0.265
55	0	Correlation	137.92	137.75	-0.176

Test Statistics (uSec)

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	137.92	138.35	138.6	0.25929	137.75	138.37	138.75	0.4049	-0.176	0.0144	0.265	0.21802
3	137.81	138.42	138.67	0.26532	137.32	138.34	138.62	0.39974	-0.493	-0.083	0.015	0.15113
10	137.08	138.07	138.61	0.54152	137.07	138.12	138.71	0.54367	-0.471	0.0486	0.779	0.34617
30	138.34	138.53	138.64	0.08438	137.09	138.22	138.56	0.45456	-1.469	-0.305	-0.004	0.44285
50	137.43	138.38	138.78	0.3606	137.61	138.36	138.73	0.34479	-1.169	-0.0206	1.305	0.61851
100	137.47	138.35	138.77	0.45791	138.13	138.43	138.7	0.16946	-0.417	0.0882	1.106	0.55893

Device Test: 12.0 OVP_Assert(T_ASSERT_5p0V)





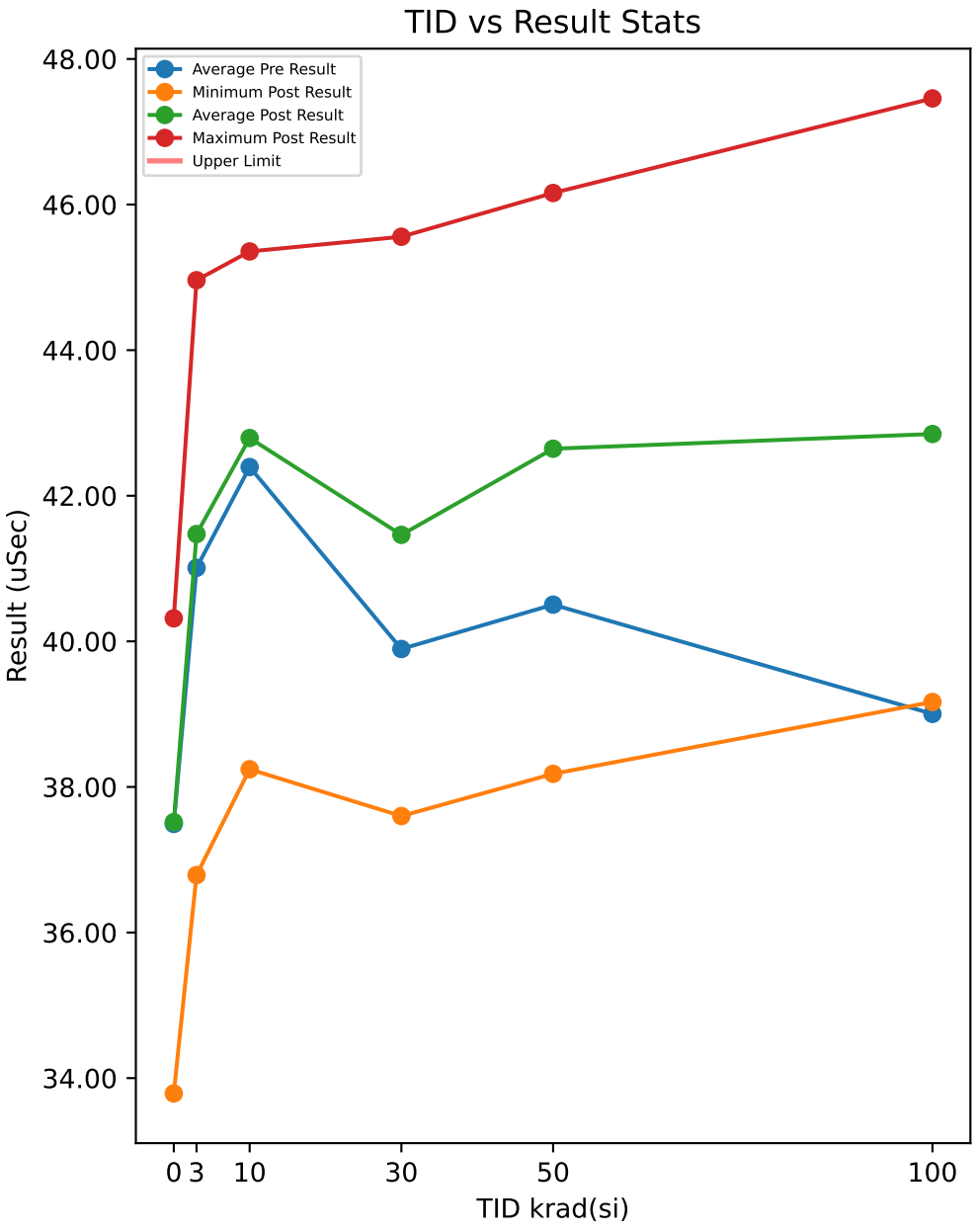
Test Results (No Limits Specified (uSec))

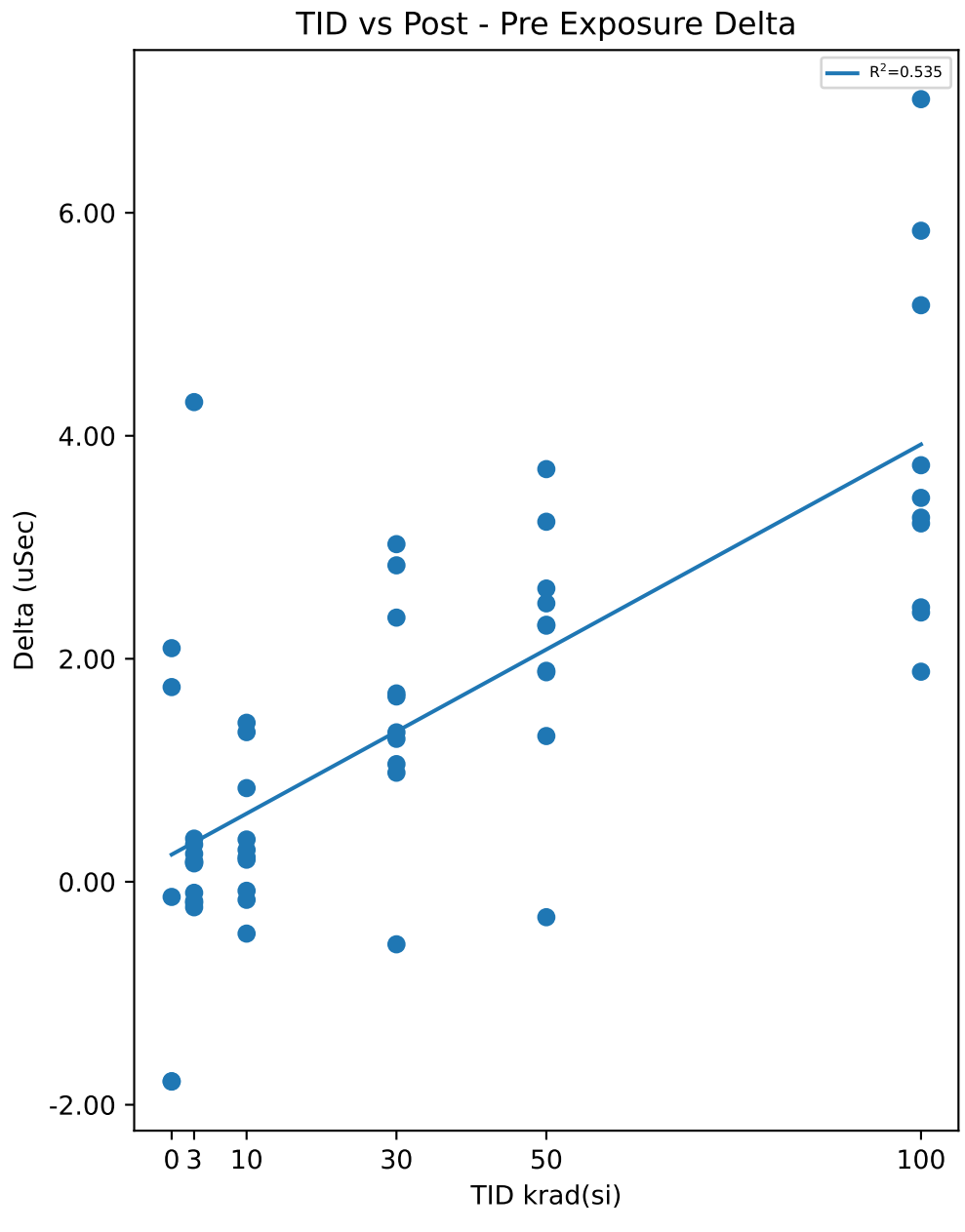
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	5.557	5.548	-0.009
2	3	14V Biased HDR	4.588	4.579	-0.009
3	3	14V Biased HDR	5.012	4.96	-0.052
4	3	14V Biased HDR	5.455	5.524	0.069
5	3	14V Biased HDR	4.517	4.393	-0.124
6	3	Unbiased HDR	4.952	5.025	0.073
7	3	Unbiased HDR	5.472	5.461	-0.011
8	3	Unbiased HDR	4.575	4.672	0.097
9	3	Unbiased HDR	5.169	5.112	-0.057
10	3	Unbiased HDR	5.463	5.44	-0.023
11	10	14V Biased HDR	4.357	4.337	-0.02
12	10	14V Biased HDR	4.934	4.88	-0.054
13	10	14V Biased HDR	5.423	5.496	0.073
14	10	14V Biased HDR	4.269	4.412	0.143
15	10	14V Biased HDR	4.927	4.851	-0.076
16	10	Unbiased HDR	5.443	5.405	-0.038
17	10	Unbiased HDR	4.433	4.166	-0.267
18	10	Unbiased HDR	5.057	5.015	-0.042
19	10	Unbiased HDR	5.547	5.455	-0.092
20	10	Unbiased HDR	4.436	4.486	0.05
21	30	14V Biased HDR	4.827	4.854	0.027
22	30	14V Biased HDR	5.377	5.486	0.109
23	30	14V Biased HDR	4.371	4.293	-0.078
24	30	14V Biased HDR	4.831	4.906	0.075
25	30	14V Biased HDR	5.47	5.417	-0.053
26	30	Unbiased HDR	4.32	4.215	-0.105
27	30	Unbiased HDR	5.004	4.81	-0.194
28	30	Unbiased HDR	5.358	5.347	-0.011
29	30	Unbiased HDR	4.353	4.309	-0.044
30	30	Unbiased HDR	4.772	4.957	0.185
31	50	14V Biased HDR	5.412	5.28	-0.132
32	50	14V Biased HDR	4.46	4.291	-0.169
33	50	14V Biased HDR	4.663	4.797	0.134
34	50	14V Biased HDR	5.309	5.31	0.001
35	50	14V Biased HDR	4.42	4.378	-0.042
36	50	Unbiased HDR	4.917	4.791	-0.126
37	50	Unbiased HDR	5.409	5.328	-0.081
38	50	Unbiased HDR	4.43	4.216	-0.214
39	50	Unbiased HDR	4.728	4.639	-0.089
40	50	Unbiased HDR	5.409	5.391	-0.018
41	100	14V Biased HDR	4.384	4.422	0.038
42	100	14V Biased HDR	4.76	4.807	0.047
43	100	14V Biased HDR	5.404	5.2	-0.204
44	100	14V Biased HDR	4.324	5.269	0.945
45	100	14V Biased HDR	4.849	4.197	-0.652
46	100	Unbiased HDR	5.321	4.87	-0.451
47	100	Unbiased HDR	4.218	5.33	1.112
48	100	Unbiased HDR	4.784	4.328	-0.456
49	100	Unbiased HDR	5.402	4.634	-0.768
50	100	Unbiased HDR	4.408	5.302	0.894
51	0	Correlation	4.708	4.449	-0.259
52	0	Correlation	5.396	4.803	-0.593
53	0	Correlation	4.316	5.31	0.994
54	0	Correlation	4.822	4.285	-0.537
55	0	Correlation	5.34	4.786	-0.554

Test Statistics (uSec)

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	4.316	4.9164	5.396	0.4534	4.285	4.7266	5.31	0.39427	-0.593	-0.1898	0.994	0.67489
3	4.517	5.076	5.557	0.40979	4.393	5.0714	5.548	0.42138	-0.124	-0.0046	0.097	0.067847
10	4.269	4.8826	5.547	0.48727	4.166	4.8503	5.496	0.49158	-0.267	-0.0323	0.143	0.1105
30	4.32	4.8683	5.47	0.43524	4.215	4.8594	5.486	0.47075	-0.194	-0.0089	0.185	0.11119
50	4.42	4.9157	5.412	0.43154	4.216	4.8421	5.391	0.46008	-0.214	-0.0736	0.134	0.098891
100	4.218	4.7854	5.404	0.4586	4.197	4.8359	5.33	0.4297	-0.768	0.0505	1.112	0.6972

Device Test: 12.1 OVP_Deassert(T_DEASSERT_5p0V)





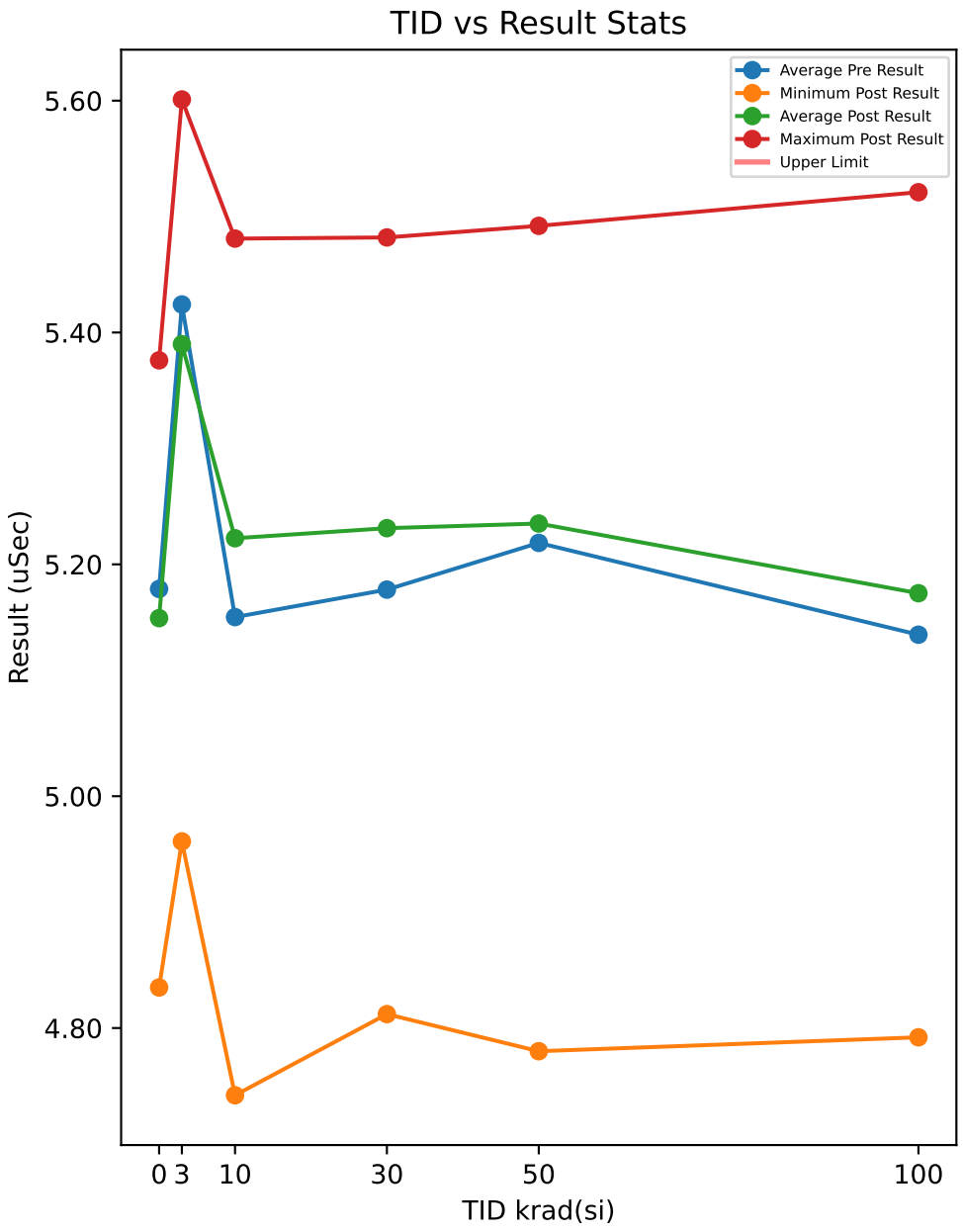
Test Results (No Limits Specified (uSec))

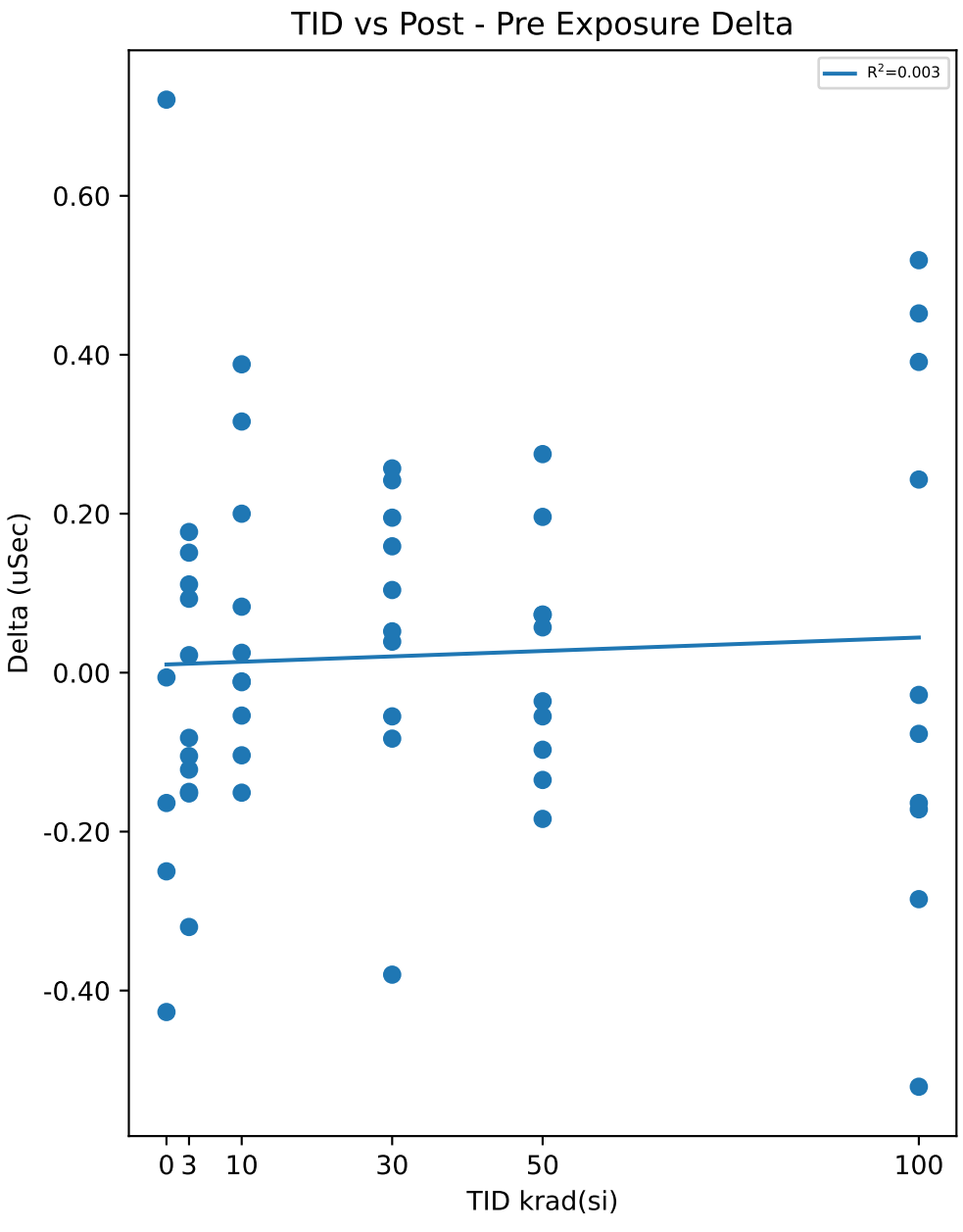
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	39.06	43.362	4.302
2	3	14V Biased HDR	42.63	43.017	0.387
3	3	14V Biased HDR	41.708	41.518	-0.19
4	3	14V Biased HDR	42.067	42.24	0.173
5	3	14V Biased HDR	38.322	38.093	-0.229
6	3	Unbiased HDR	44.627	44.961	0.334
7	3	Unbiased HDR	41.084	41.335	0.251
8	3	Unbiased HDR	40.74	40.926	0.186
9	3	Unbiased HDR	40.785	40.612	-0.173
10	3	Unbiased HDR	36.624	36.789	0.165
11	10	14V Biased HDR	44.014	45.356	1.342
12	10	14V Biased HDR	42.293	42.514	0.221
13	10	14V Biased HDR	38.045	38.243	0.198
14	10	14V Biased HDR	41.375	41.213	-0.162
15	10	14V Biased HDR	41.735	42.114	0.379
16	10	Unbiased HDR	45.013	44.548	-0.465
17	10	Unbiased HDR	39.969	40.255	0.286
18	10	Unbiased HDR	44.018	44.858	0.84
19	10	Unbiased HDR	43.646	43.565	-0.081
20	10	Unbiased HDR	43.836	45.262	1.426
21	30	14V Biased HDR	42.393	41.832	-0.561
22	30	14V Biased HDR	41.642	42.982	1.34
23	30	14V Biased HDR	38.112	39.394	1.282
24	30	14V Biased HDR	35.911	37.6	1.689
25	30	14V Biased HDR	42.72	45.558	2.838
26	30	Unbiased HDR	39.995	42.364	2.369
27	30	Unbiased HDR	41.786	42.764	0.978
28	30	Unbiased HDR	40.517	42.179	1.662
29	30	Unbiased HDR	34.727	37.755	3.028
30	30	Unbiased HDR	41.146	42.201	1.055
31	50	14V Biased HDR	36.301	38.18	1.879
32	50	14V Biased HDR	39.378	42.008	2.63
33	50	14V Biased HDR	42.907	45.204	2.297
34	50	14V Biased HDR	36.878	40.107	3.229
35	50	14V Biased HDR	37.574	39.879	2.305
36	50	Unbiased HDR	41.555	41.237	-0.318
37	50	Unbiased HDR	44.267	46.159	1.892
38	50	Unbiased HDR	40.856	44.557	3.701
39	50	Unbiased HDR	43.938	45.245	1.307
40	50	Unbiased HDR	41.387	43.884	2.497
41	100	14V Biased HDR	39.697	43.14	3.443
42	100	14V Biased HDR	43.787	45.671	1.884
43	100	14V Biased HDR	37.924	40.385	2.461
44	100	14V Biased HDR	36.752	39.167	2.415
45	100	14V Biased HDR	44.192	47.458	3.266
46	100	Unbiased HDR	35.546	42.565	7.019
47	100	Unbiased HDR	34.996	40.167	5.171
48	100	Unbiased HDR	41.4	44.614	3.214
49	100	Unbiased HDR	33.777	39.616	5.839
50	100	Unbiased HDR	41.963	45.699	3.736
51	0	Correlation	35.582	33.79	-1.792
52	0	Correlation	38.57	40.316	1.746
53	0	Correlation	38.744	38.608	-0.136
54	0	Correlation	38.368	36.579	-1.789
55	0	Correlation	36.194	38.289	2.095

Test Statistics (uSec)

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	35.582	37.492	38.744	1.4858	33.79	37.516	40.316	2.4694	-1.792	0.0248	2.095	1.8618
3	36.624	40.765	44.627	2.2877	36.789	41.285	44.961	2.4217	-0.229	0.5206	4.302	1.3471
10	38.045	42.394	45.013	2.1614	38.243	42.793	45.356	2.3754	-0.465	0.3984	1.426	0.62497
30	34.727	39.895	42.72	2.7602	37.6	41.463	45.558	2.4884	-0.561	1.568	3.028	1.0375
50	36.301	40.504	44.267	2.8752	38.18	42.646	46.159	2.7338	-0.318	2.1419	3.701	1.1009
100	33.777	39.003	44.192	3.7469	39.167	42.848	47.458	2.9417	1.884	3.8448	7.019	1.6506

Device Test: 12.2 OVP_Assert_1p5V(T_ASSERT_12p0V)





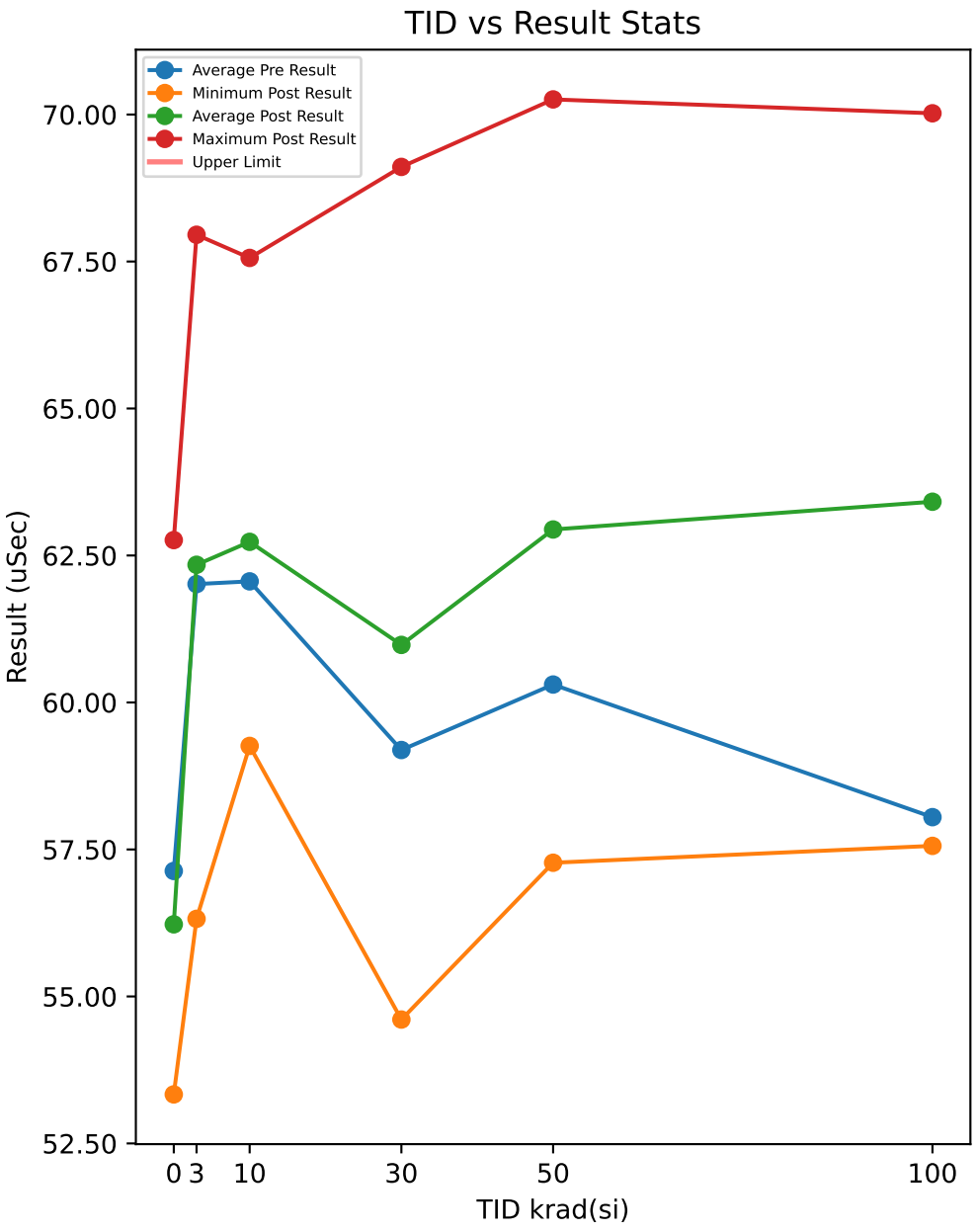
Test Results (No Limits Specified (uSec))

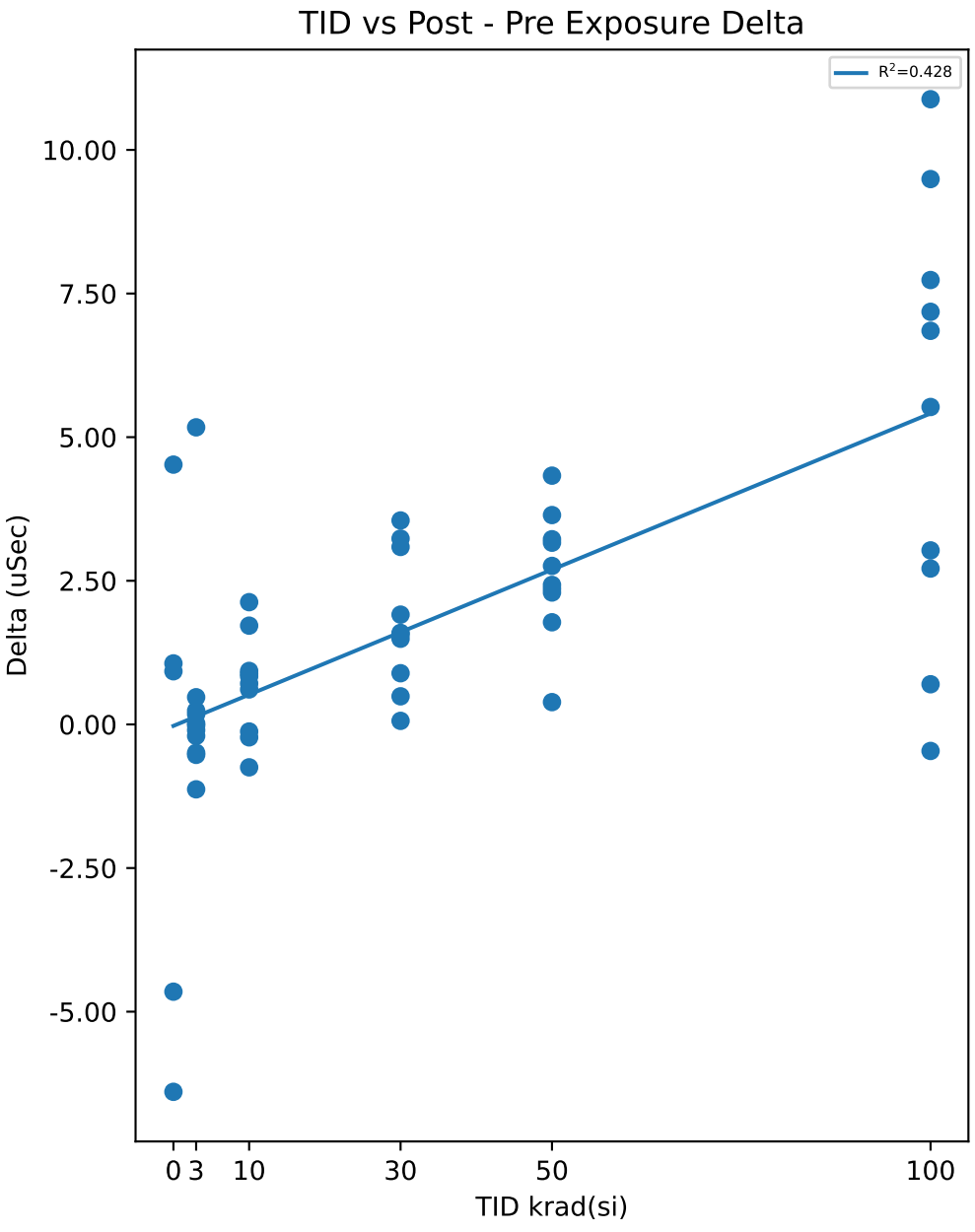
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	5.706	5.601	-0.105
2	3	14V Biased HDR	5.414	5.262	-0.152
3	3	14V Biased HDR	5.677	5.357	-0.32
4	3	14V Biased HDR	5.477	5.499	0.022
5	3	14V Biased HDR	4.978	5.089	0.111
6	3	Unbiased HDR	5.563	5.413	-0.15
7	3	Unbiased HDR	5.482	5.575	0.093
8	3	Unbiased HDR	5.043	4.961	-0.082
9	3	Unbiased HDR	5.336	5.487	0.151
10	3	Unbiased HDR	5.566	5.444	-0.122
11	10	14V Biased HDR	4.629	5.017	0.388
12	10	14V Biased HDR	5.165	5.481	0.316
13	10	14V Biased HDR	5.393	5.476	0.083
14	10	14V Biased HDR	4.753	4.742	-0.011
15	10	14V Biased HDR	5.276	5.301	0.025
16	10	Unbiased HDR	5.587	5.436	-0.151
17	10	Unbiased HDR	4.957	4.903	-0.054
18	10	Unbiased HDR	5.406	5.394	-0.012
19	10	Unbiased HDR	5.56	5.456	-0.104
20	10	Unbiased HDR	4.819	5.019	0.2
21	30	14V Biased HDR	5.178	5.23	0.052
22	30	14V Biased HDR	5.363	5.402	0.039
23	30	14V Biased HDR	5.308	4.928	-0.38
24	30	14V Biased HDR	5.024	5.266	0.242
25	30	14V Biased HDR	5.419	5.336	-0.083
26	30	Unbiased HDR	4.555	4.812	0.257
27	30	Unbiased HDR	5.354	5.299	-0.055
28	30	Unbiased HDR	5.378	5.482	0.104
29	30	Unbiased HDR	4.995	5.19	0.195
30	30	Unbiased HDR	5.208	5.367	0.159
31	50	14V Biased HDR	5.435	5.492	0.057
32	50	14V Biased HDR	4.851	5.126	0.275
33	50	14V Biased HDR	5.126	5.322	0.196
34	50	14V Biased HDR	5.339	5.412	0.073
35	50	14V Biased HDR	4.921	4.885	-0.036
36	50	Unbiased HDR	5.438	5.303	-0.135
37	50	Unbiased HDR	5.421	5.366	-0.055
38	50	Unbiased HDR	4.964	4.78	-0.184
39	50	Unbiased HDR	5.249	5.322	0.073
40	50	Unbiased HDR	5.441	5.344	-0.097
41	100	14V Biased HDR	4.964	4.792	-0.172
42	100	14V Biased HDR	5.141	5.384	0.243
43	100	14V Biased HDR	5.38	5.352	-0.028
44	100	14V Biased HDR	4.753	5.205	0.452
45	100	14V Biased HDR	5.354	4.833	-0.521
46	100	Unbiased HDR	5.422	5.137	-0.285
47	100	Unbiased HDR	4.919	5.31	0.391
48	100	Unbiased HDR	5.13	4.966	-0.164
49	100	Unbiased HDR	5.328	5.251	-0.077
50	100	Unbiased HDR	5.002	5.521	0.519
51	0	Correlation	5.256	5.006	-0.25
52	0	Correlation	5.382	5.376	-0.006
53	0	Correlation	4.598	5.319	0.721
54	0	Correlation	5.262	4.835	-0.427
55	0	Correlation	5.396	5.232	-0.164

Test Statistics (uSec)

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	4.598	5.1788	5.396	0.33116	4.835	5.1536	5.376	0.22708	-0.427	-0.0252	0.721	0.44397
3	4.978	5.4242	5.706	0.2452	4.961	5.3688	5.601	0.20846	-0.32	-0.0554	0.151	0.14689
10	4.629	5.1545	5.587	0.34567	4.742	5.2225	5.481	0.27555	-0.151	0.068	0.388	0.17903
30	4.555	5.1782	5.419	0.26382	4.812	5.2312	5.482	0.20994	-0.38	0.053	0.257	0.19125
50	4.851	5.2185	5.441	0.23521	4.78	5.2352	5.492	0.23276	-0.184	0.0167	0.275	0.14567
100	4.753	5.1393	5.422	0.22779	4.792	5.1751	5.521	0.2423	-0.521	0.0358	0.519	0.34779

Device Test: 12.3 OVP_Deassert_1p5V(T_DEASSERT_12p0V)





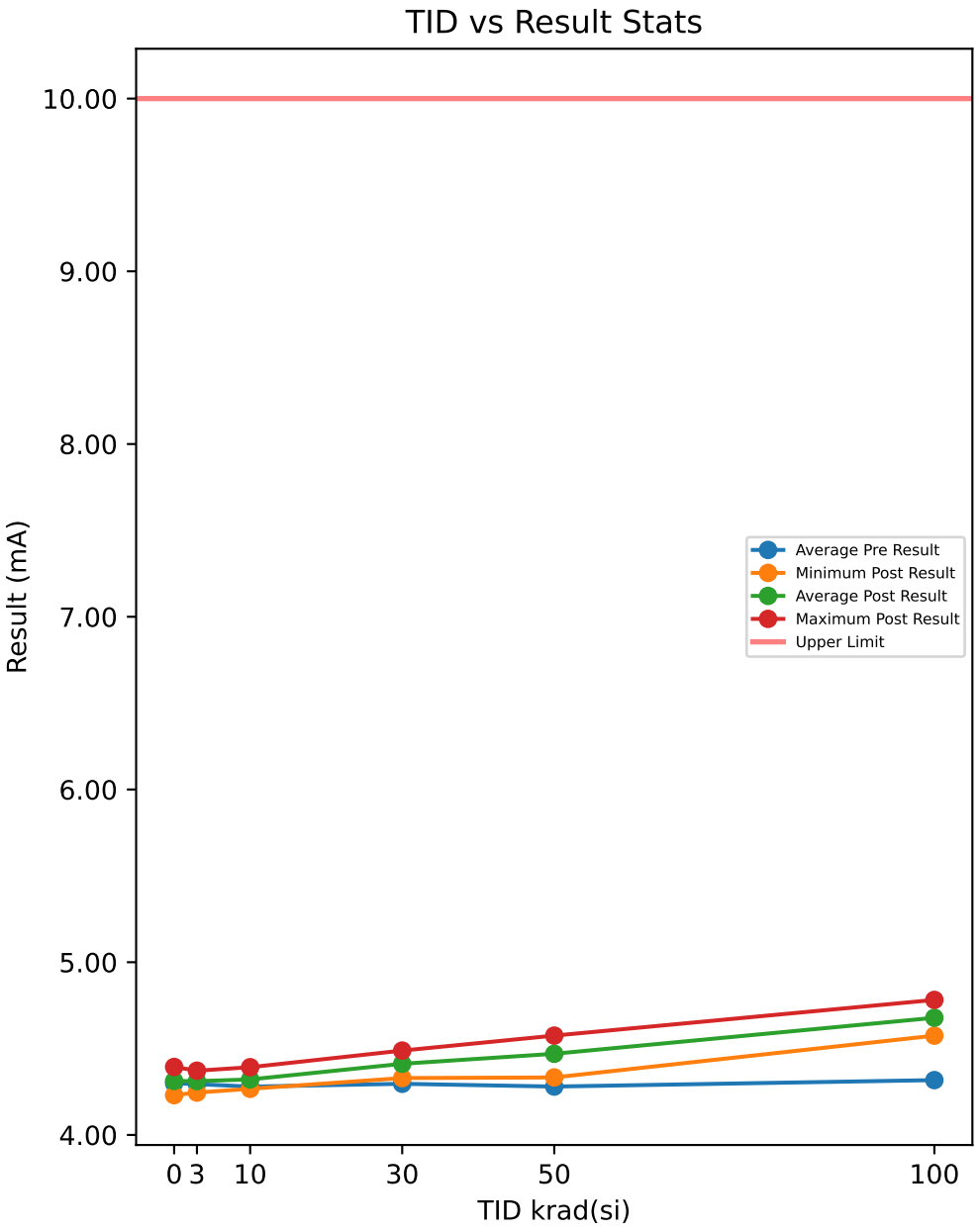
Test Results (No Limits Specified (uSec))

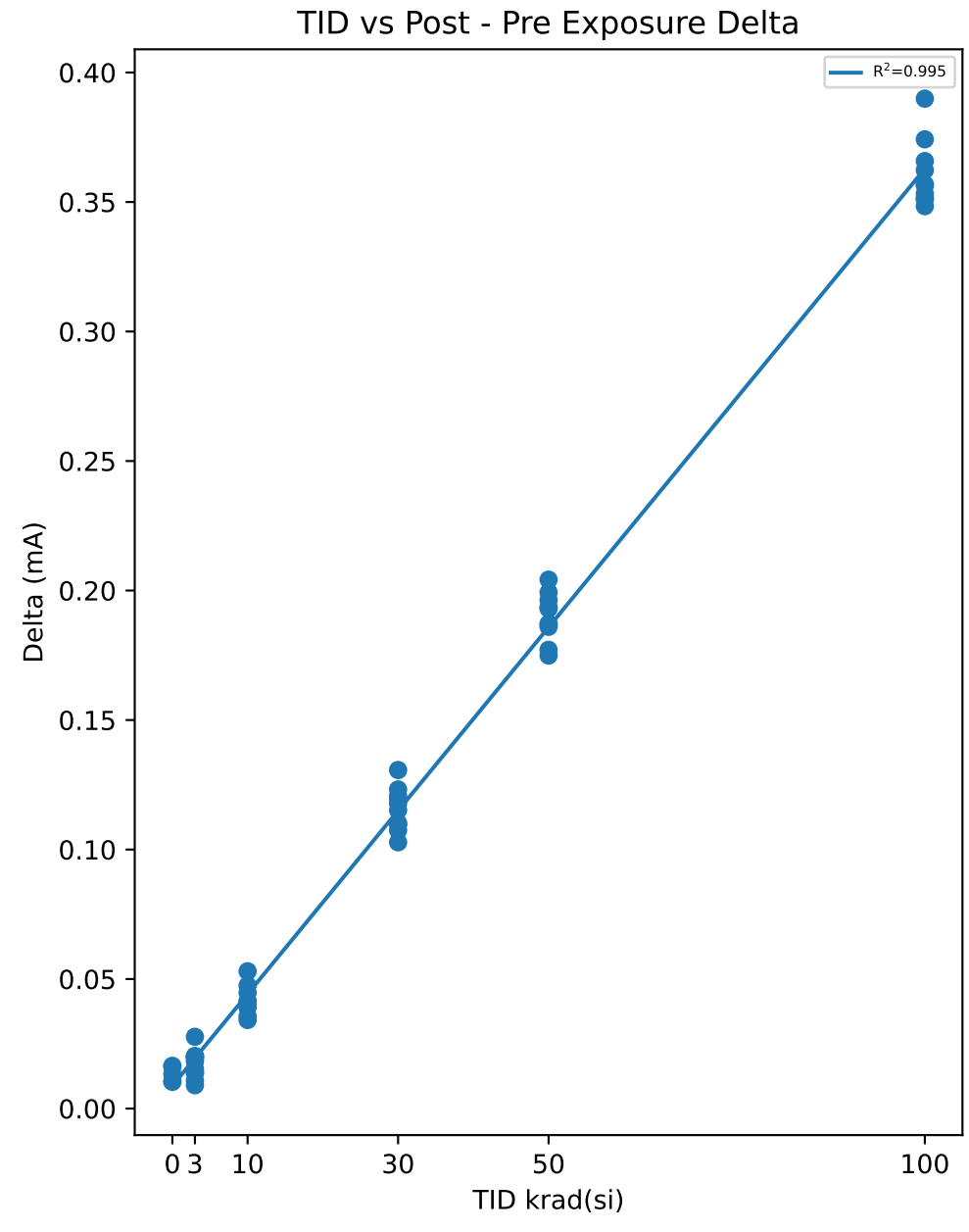
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	62.784	67.955	5.171
2	3	14V Biased HDR	62.704	62.943	0.239
3	3	14V Biased HDR	58.189	57.059	-1.13
4	3	14V Biased HDR	66.62	66.798	0.178
5	3	14V Biased HDR	58.675	58.181	-0.494
6	3	Unbiased HDR	61.767	62.24	0.473
7	3	Unbiased HDR	65.341	65.359	0.018
8	3	Unbiased HDR	60.027	60.01	-0.017
9	3	Unbiased HDR	56.85	56.32	-0.53
10	3	Unbiased HDR	61.14	60.94	-0.2
11	10	14V Biased HDR	62.948	64.667	1.719
12	10	14V Biased HDR	59.046	59.929	0.883
13	10	14V Biased HDR	62.404	62.281	-0.123
14	10	14V Biased HDR	60.312	60.921	0.609
15	10	14V Biased HDR	58.55	59.261	0.711
16	10	Unbiased HDR	68.308	67.561	-0.747
17	10	Unbiased HDR	59.863	60.794	0.931
18	10	Unbiased HDR	59.127	59.964	0.837
19	10	Unbiased HDR	66.978	66.753	-0.225
20	10	Unbiased HDR	63.062	65.19	2.128
21	30	14V Biased HDR	58.845	58.907	0.062
22	30	14V Biased HDR	65.765	67.358	1.593
23	30	14V Biased HDR	56.856	58.347	1.491
24	30	14V Biased HDR	52.696	54.607	1.911
25	30	14V Biased HDR	65.875	69.109	3.234
26	30	Unbiased HDR	59.161	62.25	3.089
27	30	Unbiased HDR	57.224	58.115	0.891
28	30	Unbiased HDR	64.51	66.077	1.567
29	30	Unbiased HDR	53.906	57.456	3.55
30	30	Unbiased HDR	57.077	57.566	0.489
31	50	14V Biased HDR	59.715	62.011	2.296
32	50	14V Biased HDR	58.731	62.375	3.644
33	50	14V Biased HDR	58.34	60.118	1.778
34	50	14V Biased HDR	61.207	64.43	3.223
35	50	14V Biased HDR	56.536	59.699	3.163
36	50	Unbiased HDR	56.886	57.274	0.388
37	50	Unbiased HDR	67.895	70.257	2.362
38	50	Unbiased HDR	60.082	64.412	4.33
39	50	Unbiased HDR	59.699	62.127	2.428
40	50	Unbiased HDR	63.959	66.718	2.759
41	100	14V Biased HDR	57.539	63.064	5.525
42	100	14V Biased HDR	58.037	61.066	3.029
43	100	14V Biased HDR	61.759	64.472	2.713
44	100	14V Biased HDR	56.001	63.736	7.735
45	100	14V Biased HDR	59.461	66.643	7.182
46	100	Unbiased HDR	58.427	59.126	0.699
47	100	Unbiased HDR	53.576	64.458	10.882
48	100	Unbiased HDR	57.143	63.994	6.851
49	100	Unbiased HDR	58.023	57.561	-0.462
50	100	Unbiased HDR	60.529	70.021	9.492
51	0	Correlation	52.409	53.334	0.925
52	0	Correlation	60.83	54.435	-6.395
53	0	Correlation	58.24	62.762	4.522
54	0	Correlation	54.276	55.338	1.062
55	0	Correlation	59.916	55.264	-4.652

Test Statistics (uSec)

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	52.409	57.134	60.83	3.6441	53.334	56.227	62.762	3.7418	-6.395	-0.9076	4.522	4.4958
3	56.85	61.41	66.62	3.1077	56.32	61.78	67.955	4.0356	-1.13	0.3708	5.171	1.7486
10	58.55	62.06	68.308	3.3834	59.261	62.732	67.561	3.0565	-0.747	0.6723	2.128	0.86991
30	52.696	59.191	65.875	4.7165	54.607	60.979	69.109	4.927	0.062	1.7877	3.55	1.1808
50	56.536	60.305	67.895	3.4119	57.274	62.942	70.257	3.721	0.388	2.6371	4.33	1.0825
100	53.576	58.05	61.759	2.2933	57.561	63.414	70.021	3.5747	-0.462	5.3646	10.882	3.7541

Device Test: 3.0 IQ_VIN(IQ_Vin_4p5V)





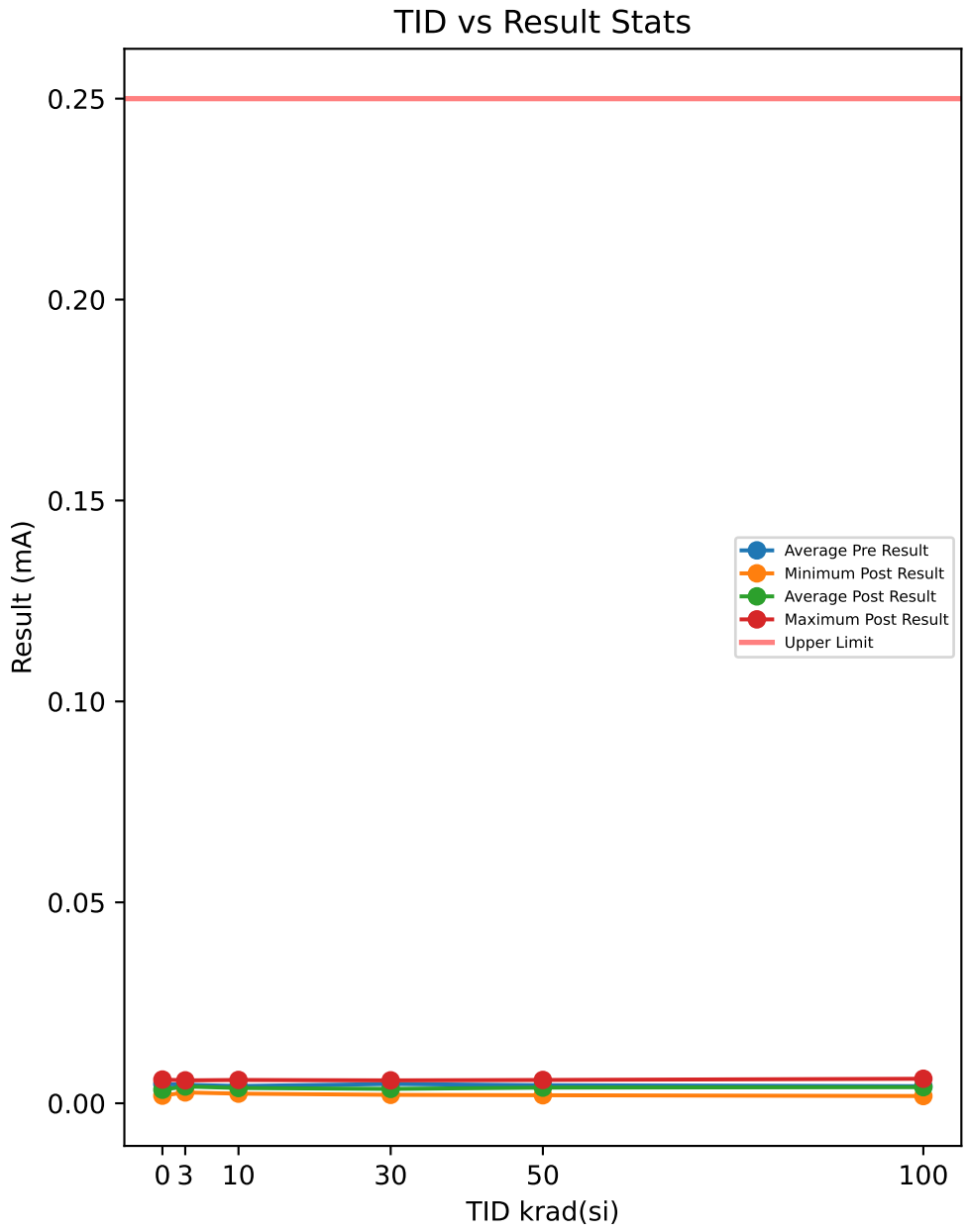
Test Results (Upper Limit = 10.0 (mA))

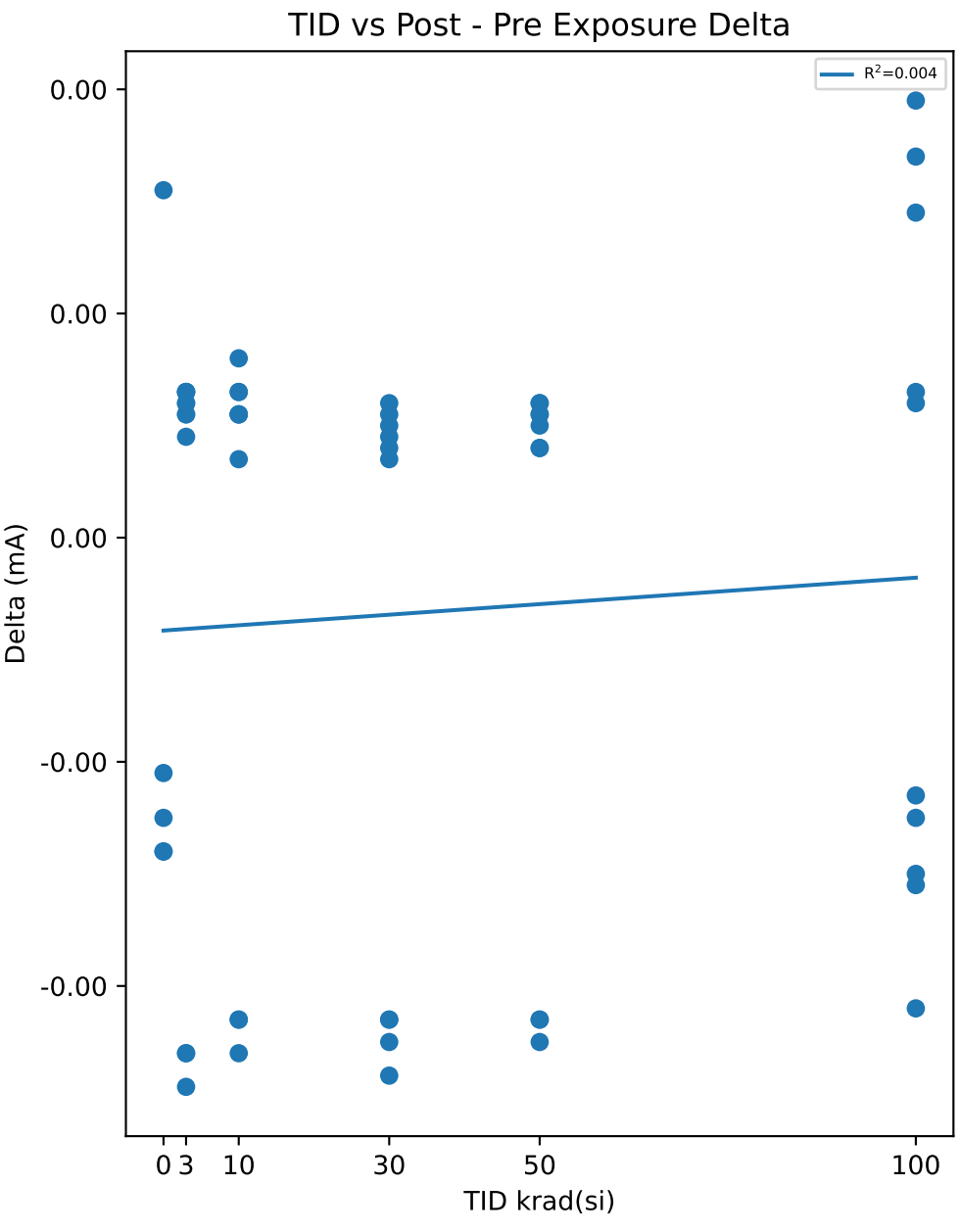
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	4.2766	4.3043	0.0277
2	3	14V Biased HDR	4.3106	4.3196	0.009
3	3	14V Biased HDR	4.2711	4.2819	0.0108
4	3	14V Biased HDR	4.3346	4.3483	0.0137
5	3	14V Biased HDR	4.3522	4.372	0.0198
6	3	Unbiased HDR	4.23	4.2453	0.0153
7	3	Unbiased HDR	4.3145	4.3348	0.0203
8	3	Unbiased HDR	4.3053	4.3248	0.0195
9	3	Unbiased HDR	4.263	4.2812	0.0182
10	3	Unbiased HDR	4.289	4.3091	0.0201
11	10	14V Biased HDR	4.303	4.3429	0.0399
12	10	14V Biased HDR	4.2598	4.2954	0.0356
13	10	14V Biased HDR	4.2676	4.3088	0.0412
14	10	14V Biased HDR	4.2848	4.3323	0.0475
15	10	14V Biased HDR	4.3523	4.3921	0.0398
16	10	Unbiased HDR	4.2608	4.3023	0.0415
17	10	Unbiased HDR	4.3354	4.3884	0.053
18	10	Unbiased HDR	4.2511	4.2853	0.0342
19	10	Unbiased HDR	4.228	4.2671	0.0391
20	10	Unbiased HDR	4.2546	4.2993	0.0447
21	30	14V Biased HDR	4.3577	4.4884	0.1307
22	30	14V Biased HDR	4.2969	4.4176	0.1207
23	30	14V Biased HDR	4.3225	4.4321	0.1096
24	30	14V Biased HDR	4.3343	4.4575	0.1232
25	30	14V Biased HDR	4.263	4.3704	0.1074
26	30	Unbiased HDR	4.2266	4.3294	0.1028
27	30	Unbiased HDR	4.262	4.3772	0.1152
28	30	Unbiased HDR	4.3467	4.4662	0.1195
29	30	Unbiased HDR	4.3081	4.4259	0.1178
30	30	Unbiased HDR	4.2441	4.3543	0.1102
31	50	14V Biased HDR	4.3065	4.4995	0.193
32	50	14V Biased HDR	4.2422	4.4294	0.1872
33	50	14V Biased HDR	4.2612	4.4361	0.1749
34	50	14V Biased HDR	4.3503	4.5496	0.1993
35	50	14V Biased HDR	4.2597	4.4457	0.186
36	50	Unbiased HDR	4.2567	4.453	0.1963
37	50	Unbiased HDR	4.3347	4.5216	0.1869
38	50	Unbiased HDR	4.263	4.4565	0.1935
39	50	Unbiased HDR	4.3709	4.5751	0.2042
40	50	Unbiased HDR	4.1558	4.3329	0.1771
41	100	14V Biased HDR	4.2933	4.6444	0.3511
42	100	14V Biased HDR	4.2185	4.5749	0.3564
43	100	14V Biased HDR	4.346	4.7028	0.3568
44	100	14V Biased HDR	4.3674	4.7416	0.3742
45	100	14V Biased HDR	4.2444	4.5959	0.3515
46	100	Unbiased HDR	4.3192	4.6676	0.3484
47	100	Unbiased HDR	4.3284	4.6816	0.3532
48	100	Unbiased HDR	4.3541	4.7199	0.3658
49	100	Unbiased HDR	4.3919	4.7818	0.3899
50	100	Unbiased HDR	4.3111	4.6734	0.3623
51	0	Correlation	4.3391	4.3497	0.0106
52	0	Correlation	4.2401	4.2563	0.0162
53	0	Correlation	4.3803	4.3936	0.0133
54	0	Correlation	4.22	4.2303	0.0103
55	0	Correlation	4.3164	4.3329	0.0165

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	4.22	4.2992	4.3803	0.06751	4.2303	4.3126	4.3936	0.067625	0.0103	0.01338	0.0165	0.0029541
3	4.23	4.2947	4.3522	0.036153	4.2453	4.3121	4.372	0.036561	0.009	0.01744	0.0277	0.0054243
10	4.228	4.2797	4.3523	0.039388	4.2671	4.3214	4.3921	0.042175	0.0342	0.04165	0.053	0.0055544
30	4.2266	4.2962	4.3577	0.045275	4.3294	4.4119	4.4884	0.052246	0.1028	0.11571	0.1307	0.008354
50	4.1558	4.2801	4.3709	0.062673	4.3329	4.4699	4.5751	0.069579	0.1749	0.18984	0.2042	0.0092897
100	4.2185	4.3174	4.3919	0.053821	4.5749	4.6784	4.7818	0.063096	0.3484	0.36096	0.3899	0.012827

Device Test: 3.1 IRCP_EN_0V(IRCP_EN0p0V_4p5V)





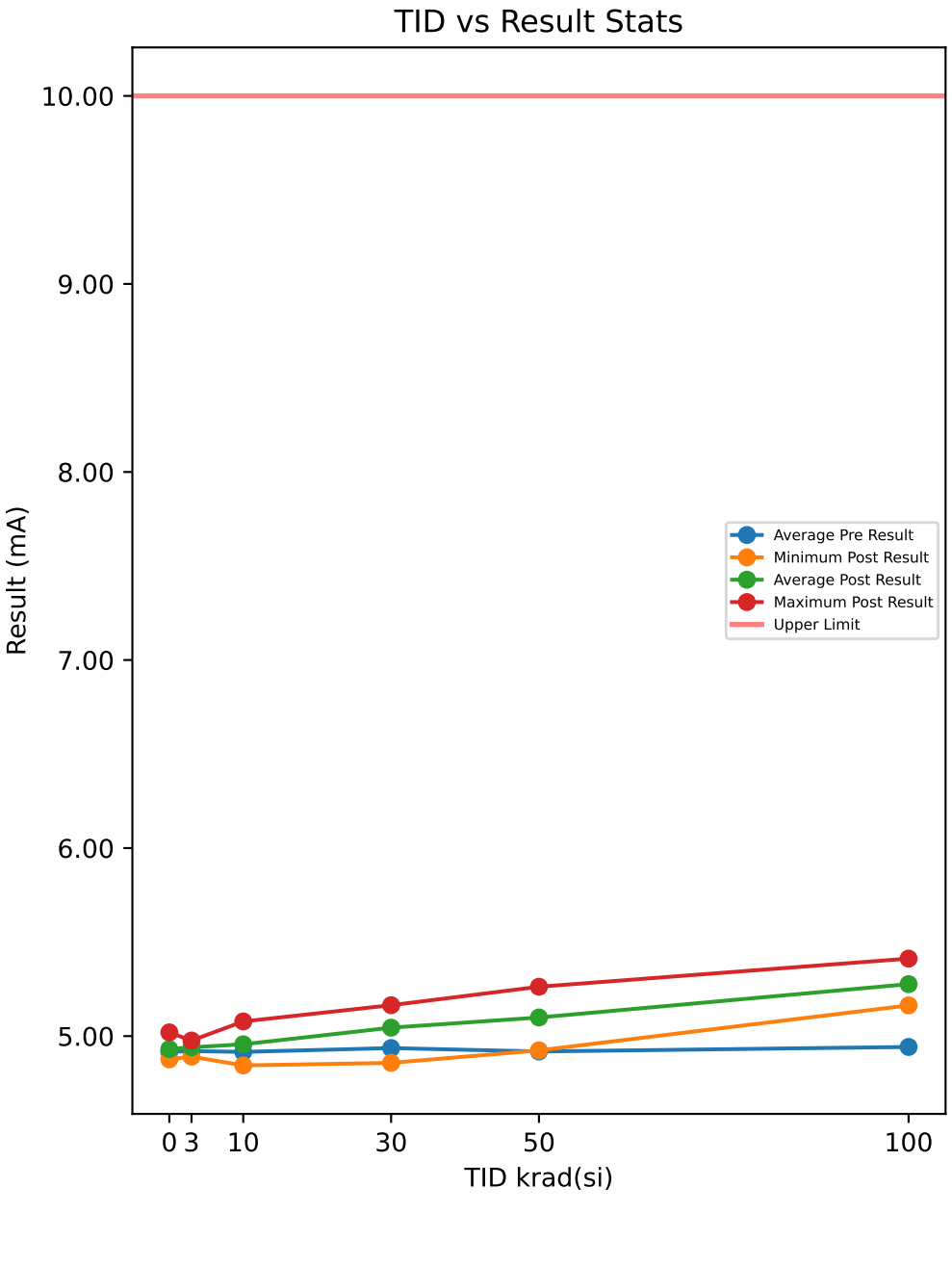
Test Results (Upper Limit = 0.25 (mA))

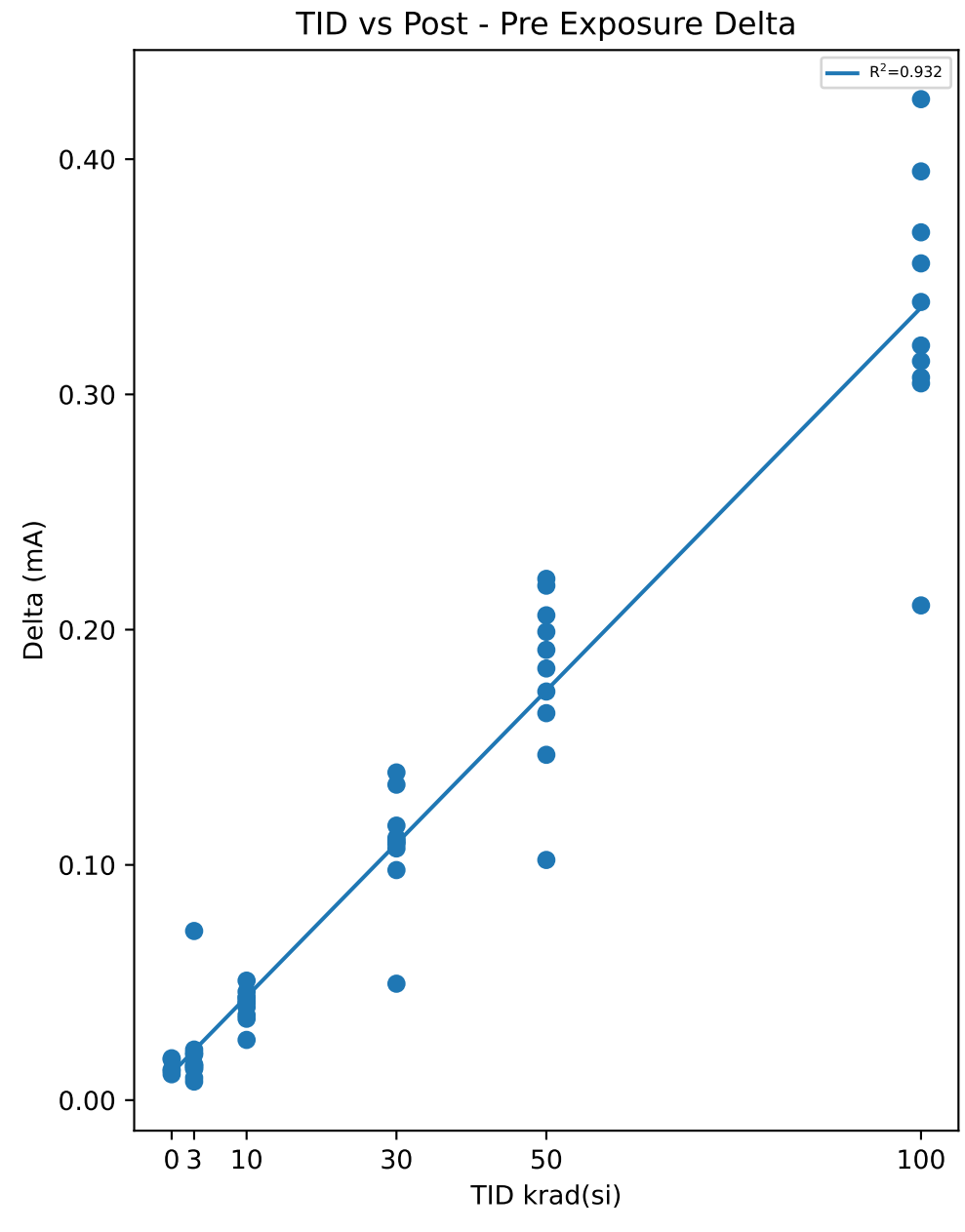
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	0.0041	0.0054	0.0013
2	3	14V Biased HDR	0.002	0.0033	0.0013
3	3	14V Biased HDR	0.0077	0.0028	-0.0049
4	3	14V Biased HDR	0.0046	0.0057	0.0011
5	3	14V Biased HDR	0.0022	0.0035	0.0013
6	3	Unbiased HDR	0.0074	0.0028	-0.0046
7	3	Unbiased HDR	0.0045	0.0057	0.0012
8	3	Unbiased HDR	0.002	0.0032	0.0012
9	3	Unbiased HDR	0.0073	0.0027	-0.0046
10	3	Unbiased HDR	0.0043	0.0054	0.0011
11	10	14V Biased HDR	0.0019	0.0035	0.0016
12	10	14V Biased HDR	0.0069	0.0026	-0.0043
13	10	14V Biased HDR	0.0043	0.0054	0.0011
14	10	14V Biased HDR	0.0024	0.0035	0.0011
15	10	14V Biased HDR	0.0072	0.0026	-0.0046
16	10	Unbiased HDR	0.0045	0.0058	0.0013
17	10	Unbiased HDR	0.0024	0.0035	0.0011
18	10	Unbiased HDR	0.0067	0.0024	-0.0043
19	10	Unbiased HDR	0.0047	0.0054	0.0007
20	10	Unbiased HDR	0.002	0.0033	0.0013
21	30	14V Biased HDR	0.0069	0.0024	-0.0045
22	30	14V Biased HDR	0.0049	0.0056	0.0007
23	30	14V Biased HDR	0.0021	0.0033	0.0012
24	30	14V Biased HDR	0.0069	0.0026	-0.0043
25	30	14V Biased HDR	0.0048	0.0057	0.0009
26	30	Unbiased HDR	0.002	0.0031	0.0011
27	30	Unbiased HDR	0.007	0.0022	-0.0048
28	30	Unbiased HDR	0.0047	0.0057	0.001
29	30	Unbiased HDR	0.0023	0.0031	0.0008
30	30	Unbiased HDR	0.0064	0.0021	-0.0043
31	50	14V Biased HDR	0.005	0.0058	0.0008
32	50	14V Biased HDR	0.0019	0.003	0.0011
33	50	14V Biased HDR	0.0065	0.002	-0.0045
34	50	14V Biased HDR	0.005	0.0058	0.0008
35	50	14V Biased HDR	0.0023	0.0035	0.0012
36	50	Unbiased HDR	0.0064	0.0021	-0.0043
37	50	Unbiased HDR	0.0047	0.0057	0.001
38	50	Unbiased HDR	0.0022	0.0034	0.0012
39	50	Unbiased HDR	0.0065	0.0022	-0.0043
40	50	Unbiased HDR	0.0044	0.0055	0.0011
41	100	14V Biased HDR	0.0022	0.0034	0.0012
42	100	14V Biased HDR	0.006	0.0018	-0.0042
43	100	14V Biased HDR	0.0048	0.0061	0.0013
44	100	14V Biased HDR	0.0022	0.0061	0.0039
45	100	14V Biased HDR	0.0064	0.0033	-0.0031
46	100	Unbiased HDR	0.0046	0.0023	-0.0023
47	100	Unbiased HDR	0.0023	0.0057	0.0034
48	100	Unbiased HDR	0.0062	0.0037	-0.0025
49	100	Unbiased HDR	0.0051	0.0021	-0.003
50	100	Unbiased HDR	0.0027	0.0056	0.0029
51	0	Correlation	0.006	0.0035	-0.0025
52	0	Correlation	0.0047	0.0019	-0.0028
53	0	Correlation	0.0028	0.0059	0.0031
54	0	Correlation	0.0053	0.0032	-0.0021
55	0	Correlation	0.0052	0.0024	-0.0028

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	0.0028	0.0048	0.006	0.0012104	0.0019	0.00338	0.0059	0.001545	-0.0028	-0.00142	0.0031	0.002543
3	0.002	0.00461	0.0077	0.0022203	0.0027	0.00405	0.0057	0.0013176	-0.0049	-0.00056	0.0013	0.002859
10	0.0019	0.0043	0.0072	0.0020923	0.0024	0.0038	0.0058	0.0012684	-0.0046	-0.0005	0.0016	0.0027019
30	0.002	0.0048	0.007	0.0020445	0.0021	0.00358	0.0057	0.0014928	-0.0048	-0.00122	0.0012	0.0028082
50	0.0019	0.00449	0.0065	0.0017966	0.002	0.0039	0.0058	0.0016323	-0.0045	-0.00059	0.0012	0.0026104
100	0.0022	0.00425	0.0064	0.0017399	0.0018	0.00401	0.0061	0.0017175	-0.0042	-0.00024	0.0039	0.0030826

Device Test: 3.2 IQ_VIN(IQ_Vin_14p0V)





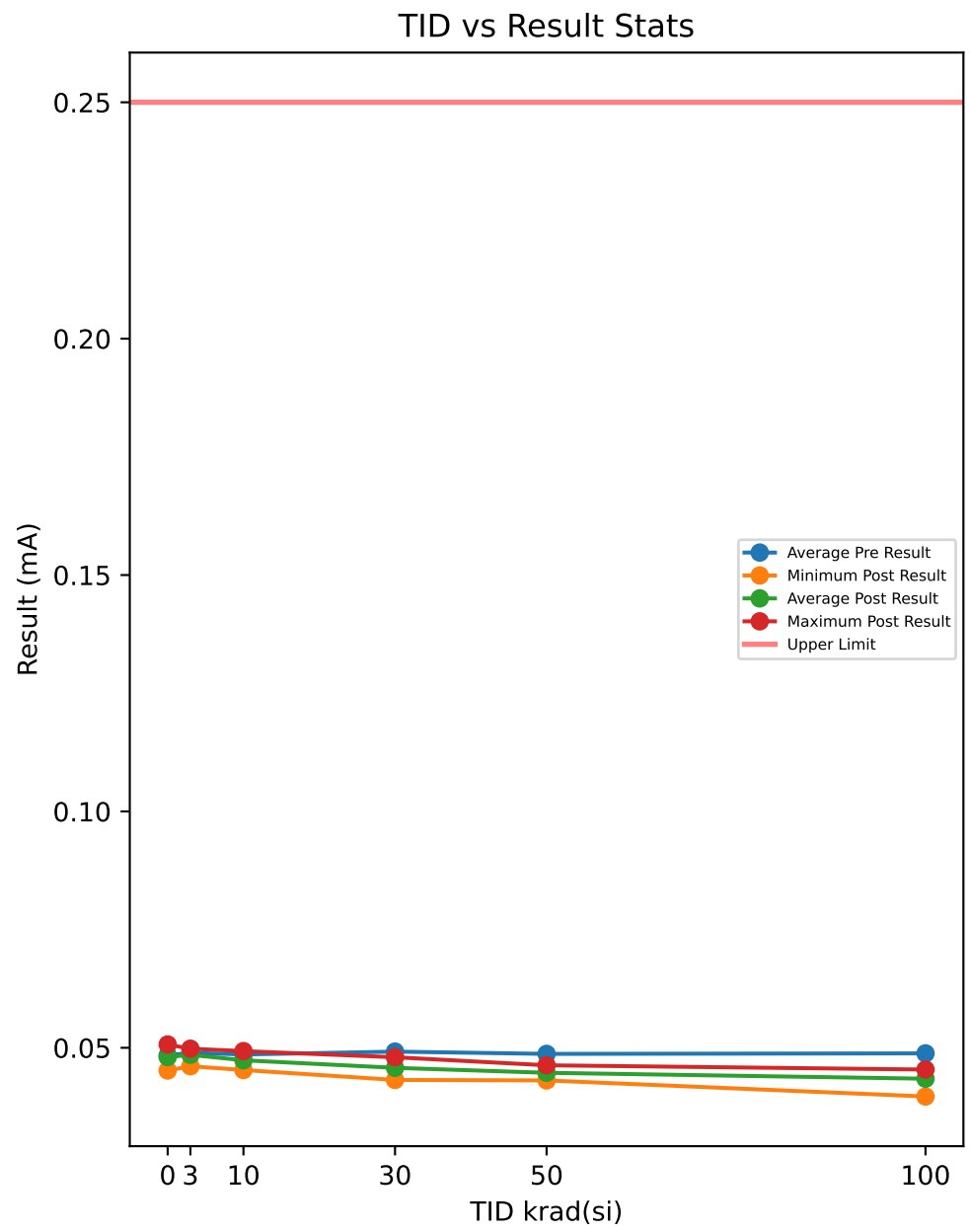
Test Results (Upper Limit = 10.0 (mA))

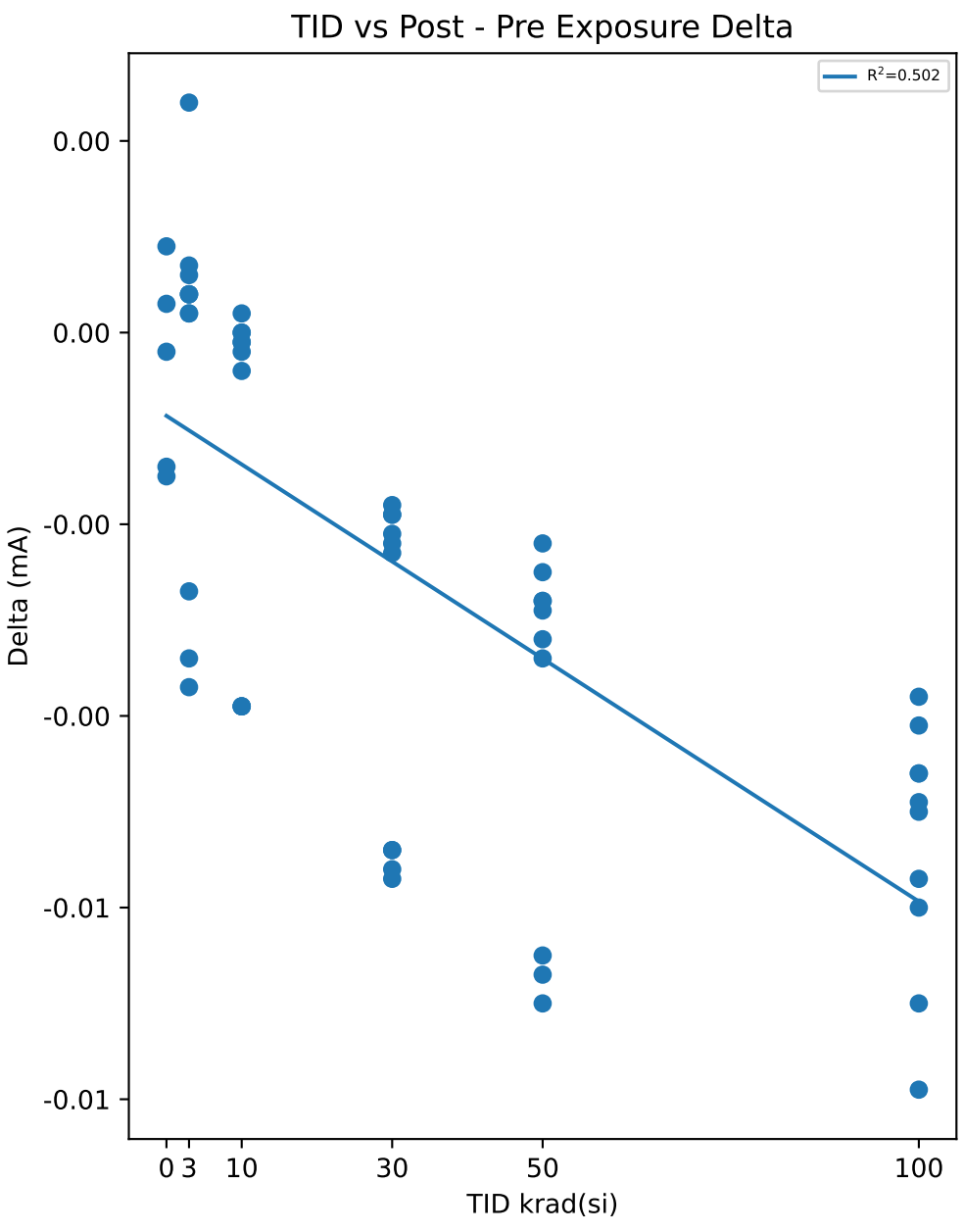
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	4.8736	4.9455	0.0719
2	3	14V Biased HDR	4.931	4.9389	0.0079
3	3	14V Biased HDR	4.9019	4.9114	0.0095
4	3	14V Biased HDR	4.9347	4.9482	0.0135
5	3	14V Biased HDR	4.946	4.9606	0.0146
6	3	Unbiased HDR	4.8716	4.891	0.0194
7	3	Unbiased HDR	4.9353	4.9568	0.0215
8	3	Unbiased HDR	4.9222	4.9368	0.0146
9	3	Unbiased HDR	4.9189	4.9341	0.0152
10	3	Unbiased HDR	4.9563	4.9764	0.0201
11	10	14V Biased HDR	4.9519	4.9938	0.0419
12	10	14V Biased HDR	4.8185	4.8441	0.0256
13	10	14V Biased HDR	4.8761	4.9156	0.0395
14	10	14V Biased HDR	4.9619	5.0057	0.0438
15	10	14V Biased HDR	5.0318	5.0779	0.0461
16	10	Unbiased HDR	4.8948	4.9383	0.0435
17	10	Unbiased HDR	4.9876	5.0384	0.0508
18	10	Unbiased HDR	4.8931	4.9293	0.0362
19	10	Unbiased HDR	4.8633	4.8979	0.0346
20	10	Unbiased HDR	4.8819	4.9232	0.0413
21	30	14V Biased HDR	5.025	5.1643	0.1393
22	30	14V Biased HDR	4.9201	5.0368	0.1167
23	30	14V Biased HDR	4.9731	5.082	0.1089
24	30	14V Biased HDR	4.9291	5.0395	0.1104
25	30	14V Biased HDR	4.9096	5.0074	0.0978
26	30	Unbiased HDR	4.897	5.0066	0.1096
27	30	Unbiased HDR	4.9515	5.0856	0.1341
28	30	Unbiased HDR	4.9788	5.0858	0.107
29	30	Unbiased HDR	4.9712	5.0827	0.1115
30	30	Unbiased HDR	4.8081	4.8576	0.0495
31	50	14V Biased HDR	4.9392	5.1453	0.2061
32	50	14V Biased HDR	4.822	4.9241	0.1021
33	50	14V Biased HDR	4.8933	5.067	0.1737
34	50	14V Biased HDR	5.0409	5.2625	0.2216
35	50	14V Biased HDR	4.9055	5.1046	0.1991
36	50	Unbiased HDR	4.8854	5.0499	0.1645
37	50	Unbiased HDR	4.959	5.1058	0.1468
38	50	Unbiased HDR	4.9269	5.1183	0.1914
39	50	Unbiased HDR	5.0133	5.232	0.2187
40	50	Unbiased HDR	4.7966	4.9801	0.1835
41	100	14V Biased HDR	4.9074	5.2146	0.3072
42	100	14V Biased HDR	4.8641	5.2589	0.3948
43	100	14V Biased HDR	4.9531	5.1634	0.2103
44	100	14V Biased HDR	4.9994	5.3387	0.3393
45	100	14V Biased HDR	4.8955	5.2512	0.3557
46	100	Unbiased HDR	4.9261	5.2308	0.3047
47	100	Unbiased HDR	4.9867	5.4122	0.4255
48	100	Unbiased HDR	4.9749	5.289	0.3141
49	100	Unbiased HDR	4.9776	5.3465	0.3689
50	100	Unbiased HDR	4.9381	5.2589	0.3208
51	0	Correlation	4.9093	4.9203	0.011
52	0	Correlation	4.8795	4.8973	0.0178
53	0	Correlation	5.0068	5.0198	0.013
54	0	Correlation	4.864	4.8764	0.0124
55	0	Correlation	4.9237	4.941	0.0173

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	4.864	4.9167	5.0068	0.055639	4.8764	4.931	5.0198	0.055265	0.011	0.0143	0.0178	0.0030594
3	4.8716	4.9192	4.9563	0.028649	4.891	4.94	4.9764	0.024482	0.0079	0.02082	0.0719	0.018469
10	4.8185	4.9161	5.0318	0.064931	4.8441	4.9564	5.0779	0.07085	0.0256	0.04033	0.0508	0.0069599
30	4.8081	4.9364	5.025	0.059146	4.8576	5.0448	5.1643	0.080581	0.0495	0.10848	0.1393	0.024228
50	4.7966	4.9182	5.0409	0.076142	4.9241	5.099	5.2625	0.10284	0.1021	0.18075	0.2216	0.036303
100	4.8641	4.9423	4.9994	0.044046	5.1634	5.2764	5.4122	0.072504	0.2103	0.33413	0.4255	0.058911

Device Test: 3.3 IRCP_EN_0V(IRCP_EN0p0V_14p0V)





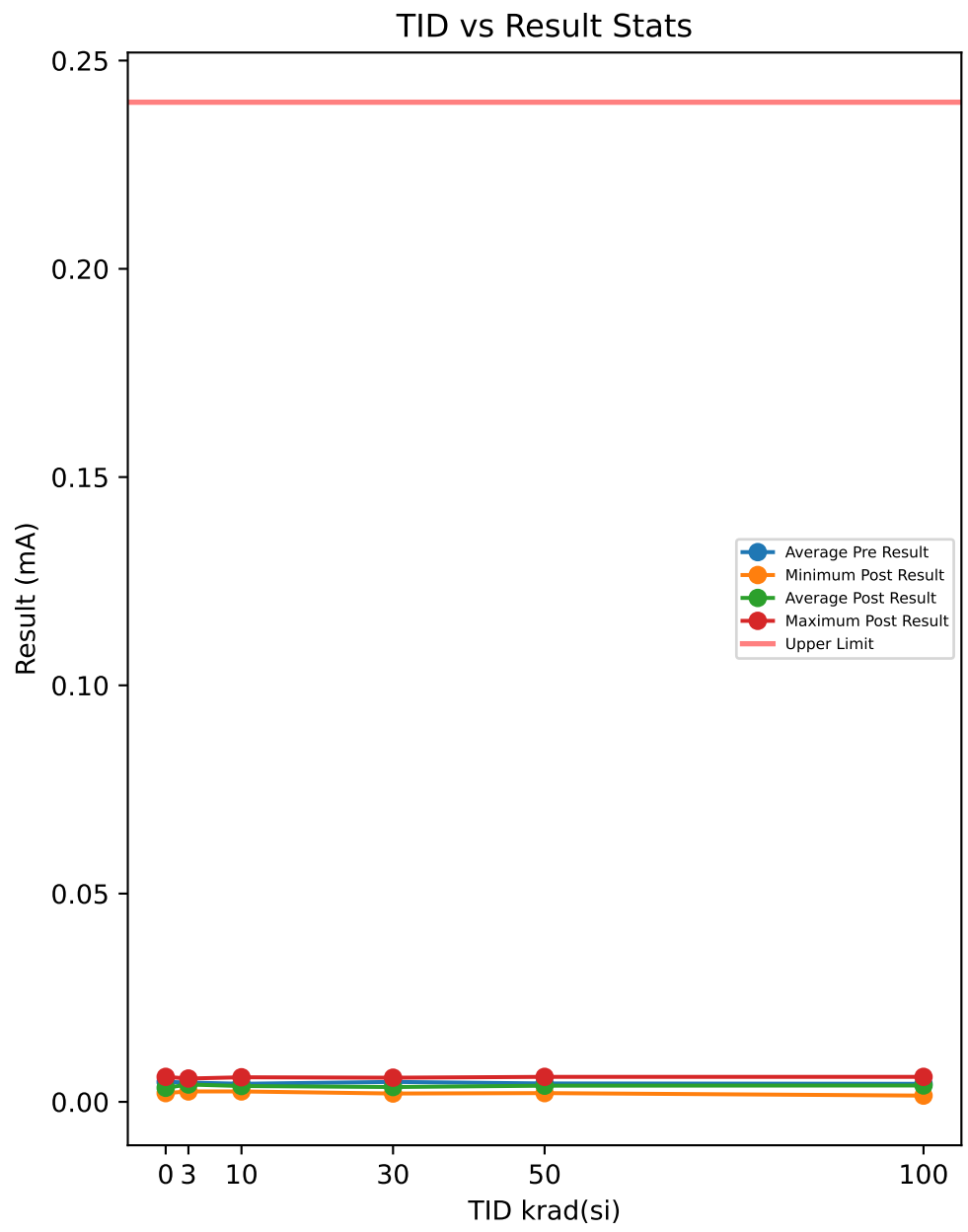
Test Results (Upper Limit = 0.25 (mA))

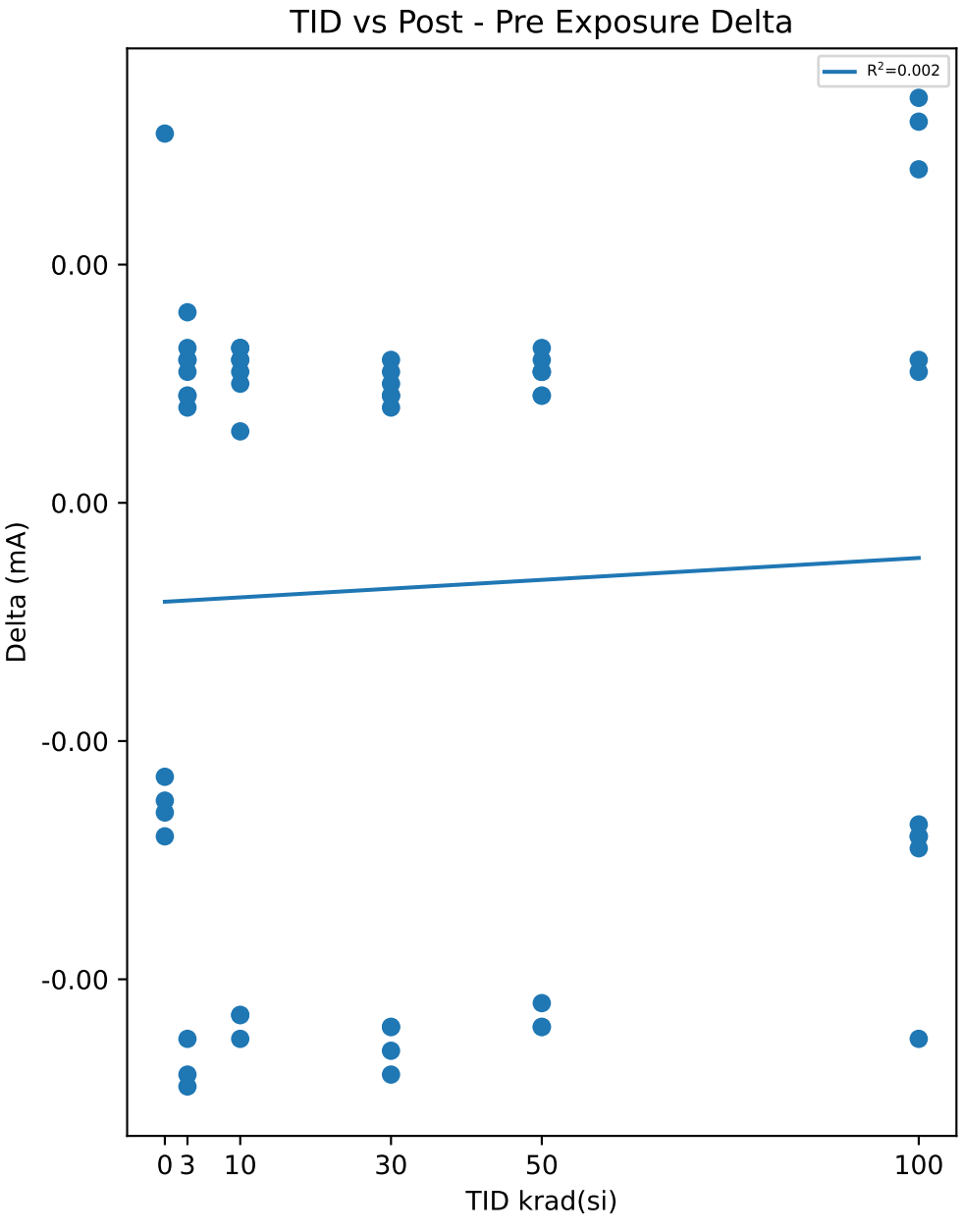
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	0.0474	0.0498	0.0024
2	3	14V Biased HDR	0.0488	0.0492	0.0004
3	3	14V Biased HDR	0.05	0.0463	-0.0037
4	3	14V Biased HDR	0.0491	0.0495	0.0004
5	3	14V Biased HDR	0.0483	0.0489	0.0006
6	3	Unbiased HDR	0.0497	0.047	-0.0027
7	3	Unbiased HDR	0.0488	0.0495	0.0007
8	3	Unbiased HDR	0.0489	0.0493	0.0004
9	3	Unbiased HDR	0.0495	0.0461	-0.0034
10	3	Unbiased HDR	0.048	0.0482	0.0002
11	10	14V Biased HDR	0.0475	0.0477	0.0002
12	10	14V Biased HDR	0.0492	0.0453	-0.0039
13	10	14V Biased HDR	0.0483	0.0481	-0.0002
14	10	14V Biased HDR	0.0484	0.0484	0
15	10	14V Biased HDR	0.0507	0.0468	-0.0039
16	10	Unbiased HDR	0.0481	0.048	-0.0001
17	10	Unbiased HDR	0.0493	0.0493	0
18	10	Unbiased HDR	0.0493	0.0454	-0.0039
19	10	Unbiased HDR	0.0472	0.0468	-0.0004
20	10	Unbiased HDR	0.0479	0.0478	-0.0001
21	30	14V Biased HDR	0.051	0.0456	-0.0054
22	30	14V Biased HDR	0.0486	0.0467	-0.0019
23	30	14V Biased HDR	0.0478	0.046	-0.0018
24	30	14V Biased HDR	0.0508	0.0452	-0.0056
25	30	14V Biased HDR	0.0492	0.047	-0.0022
26	30	Unbiased HDR	0.0473	0.0454	-0.0019
27	30	Unbiased HDR	0.0497	0.044	-0.0057
28	30	Unbiased HDR	0.0503	0.048	-0.0023
29	30	Unbiased HDR	0.0486	0.0465	-0.0021
30	30	Unbiased HDR	0.0486	0.0432	-0.0054
31	50	14V Biased HDR	0.0495	0.0461	-0.0034
32	50	14V Biased HDR	0.0474	0.0442	-0.0032
33	50	14V Biased HDR	0.0496	0.0431	-0.0065
34	50	14V Biased HDR	0.0492	0.0463	-0.0029
35	50	14V Biased HDR	0.0467	0.0445	-0.0022
36	50	Unbiased HDR	0.0509	0.0439	-0.007
37	50	Unbiased HDR	0.0484	0.0456	-0.0028
38	50	Unbiased HDR	0.0484	0.0456	-0.0028
39	50	Unbiased HDR	0.0508	0.0441	-0.0067
40	50	Unbiased HDR	0.0462	0.0437	-0.0025
41	100	14V Biased HDR	0.0479	0.0441	-0.0038
42	100	14V Biased HDR	0.0476	0.0397	-0.0079
43	100	14V Biased HDR	0.0492	0.0446	-0.0046
44	100	14V Biased HDR	0.0488	0.0447	-0.0041
45	100	14V Biased HDR	0.0492	0.0435	-0.0057
46	100	Unbiased HDR	0.0471	0.0411	-0.006
47	100	Unbiased HDR	0.0495	0.0446	-0.0049
48	100	Unbiased HDR	0.0504	0.0454	-0.005
49	100	Unbiased HDR	0.0499	0.0429	-0.007
50	100	Unbiased HDR	0.0486	0.044	-0.0046
51	0	Correlation	0.0509	0.0507	-0.0002
52	0	Correlation	0.0467	0.0452	-0.0015
53	0	Correlation	0.0491	0.05	0.0009
54	0	Correlation	0.0468	0.0471	0.0003
55	0	Correlation	0.0486	0.0472	-0.0014

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	0.0467	0.04842	0.0509	0.0017484	0.0452	0.04804	0.0507	0.0022678	-0.0015	-0.00038	0.0009	0.0010521
3	0.0474	0.04885	0.05	0.00079338	0.0461	0.04838	0.0498	0.0014054	-0.0037	-0.00047	0.0024	0.0020402
10	0.0472	0.04859	0.0507	0.0010429	0.0453	0.04736	0.0493	0.0012834	-0.0039	-0.00123	0.0002	0.0018488
30	0.0473	0.04919	0.051	0.0012432	0.0432	0.04576	0.048	0.0014206	-0.0057	-0.00343	-0.0018	0.0018111
50	0.0462	0.04871	0.0509	0.001601	0.0431	0.04471	0.0463	0.001105	-0.007	-0.004	-0.0022	0.0019183
100	0.0471	0.04882	0.0504	0.0010412	0.0397	0.04346	0.0454	0.0017834	-0.0079	-0.00536	-0.0038	0.0012989

Device Test: 3.4 IRCP_EN_7V(IRCP_EN7p0V_4p5V)





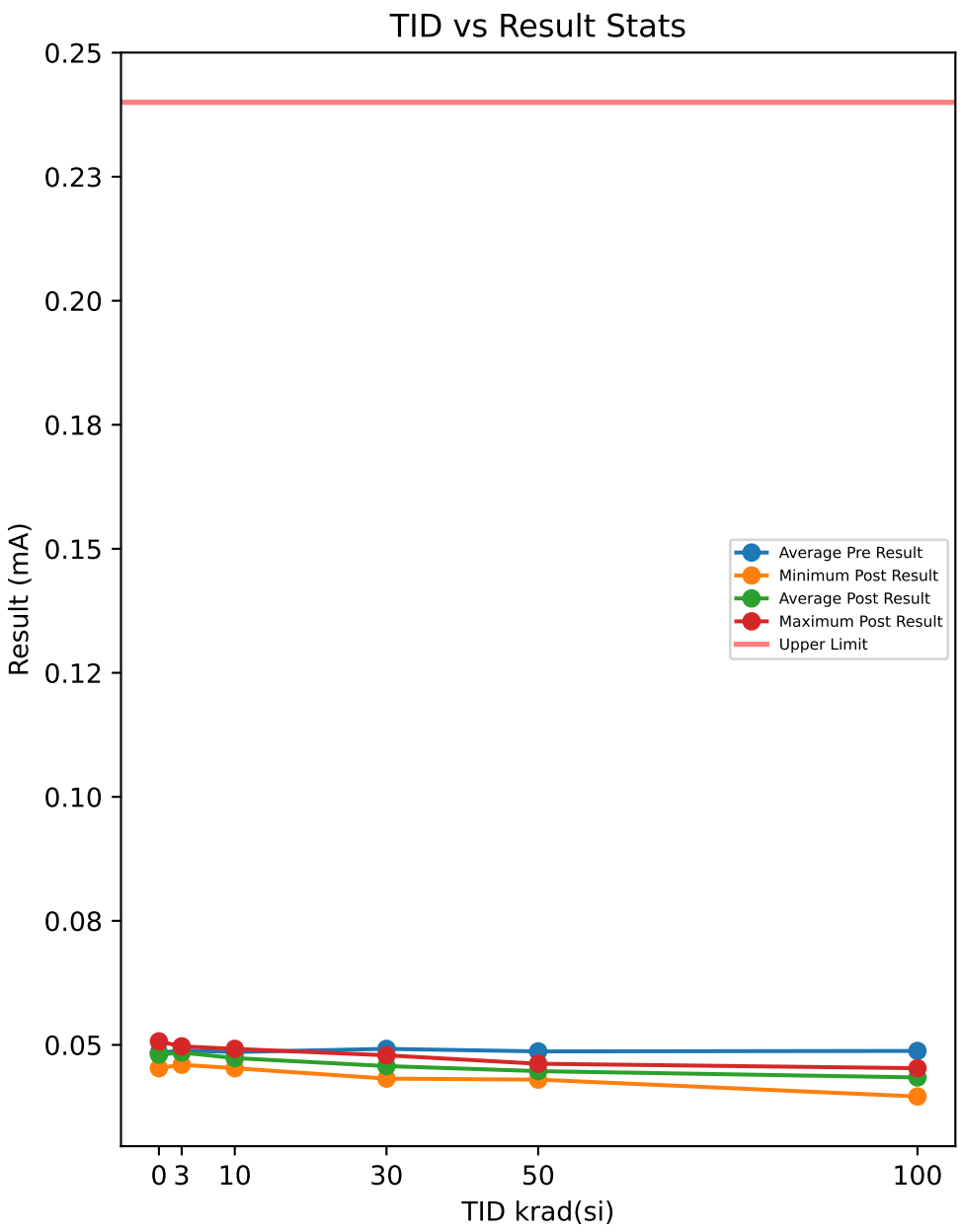
Test Results (Upper Limit = 0.24 (mA))

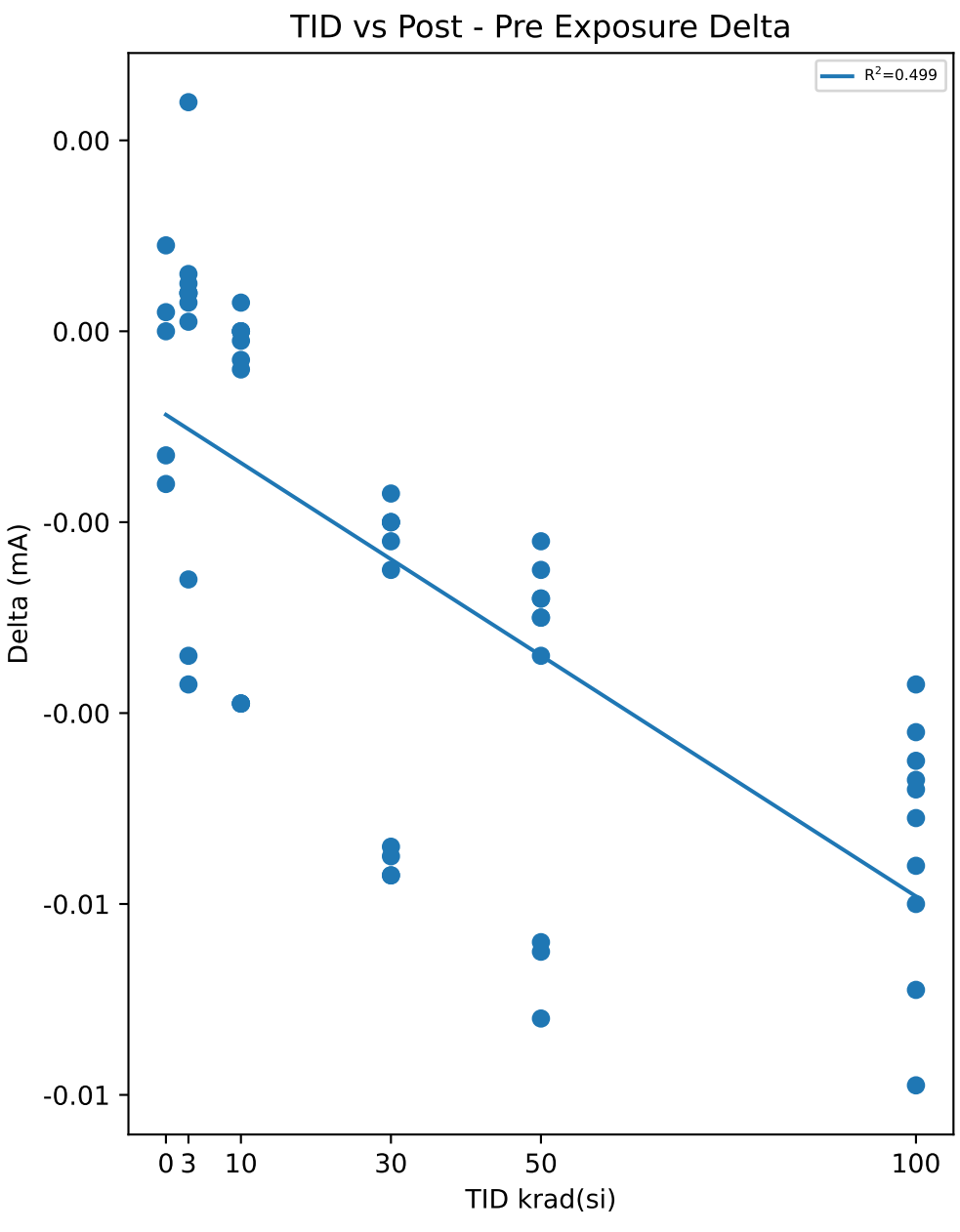
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	0.0044	0.0056	0.0012
2	3	14V Biased HDR	0.002	0.0033	0.0013
3	3	14V Biased HDR	0.0077	0.0028	-0.0049
4	3	14V Biased HDR	0.0047	0.0056	0.0009
5	3	14V Biased HDR	0.0019	0.0035	0.0016
6	3	Unbiased HDR	0.0074	0.0029	-0.0045
7	3	Unbiased HDR	0.0044	0.0056	0.0012
8	3	Unbiased HDR	0.0023	0.0031	0.0008
9	3	Unbiased HDR	0.0073	0.0025	-0.0048
10	3	Unbiased HDR	0.0044	0.0053	0.0009
11	10	14V Biased HDR	0.0021	0.0034	0.0013
12	10	14V Biased HDR	0.0069	0.0026	-0.0043
13	10	14V Biased HDR	0.0042	0.0053	0.0011
14	10	14V Biased HDR	0.0023	0.0035	0.0012
15	10	14V Biased HDR	0.0073	0.0028	-0.0045
16	10	Unbiased HDR	0.0046	0.0059	0.0013
17	10	Unbiased HDR	0.0024	0.0034	0.001
18	10	Unbiased HDR	0.0068	0.0025	-0.0043
19	10	Unbiased HDR	0.0047	0.0053	0.0006
20	10	Unbiased HDR	0.0021	0.0033	0.0012
21	30	14V Biased HDR	0.0069	0.0025	-0.0044
22	30	14V Biased HDR	0.0048	0.0057	0.0009
23	30	14V Biased HDR	0.0021	0.0033	0.0012
24	30	14V Biased HDR	0.007	0.0024	-0.0046
25	30	14V Biased HDR	0.0045	0.0056	0.0011
26	30	Unbiased HDR	0.0022	0.003	0.0008
27	30	Unbiased HDR	0.0069	0.0021	-0.0048
28	30	Unbiased HDR	0.0048	0.0058	0.001
29	30	Unbiased HDR	0.0023	0.0032	0.0009
30	30	Unbiased HDR	0.0064	0.002	-0.0044
31	50	14V Biased HDR	0.0049	0.0058	0.0009
32	50	14V Biased HDR	0.0021	0.003	0.0009
33	50	14V Biased HDR	0.0065	0.0021	-0.0044
34	50	14V Biased HDR	0.0049	0.006	0.0011
35	50	14V Biased HDR	0.0021	0.0032	0.0011
36	50	Unbiased HDR	0.0065	0.0021	-0.0044
37	50	Unbiased HDR	0.0047	0.0058	0.0011
38	50	Unbiased HDR	0.0021	0.0033	0.0012
39	50	Unbiased HDR	0.0063	0.0021	-0.0042
40	50	Unbiased HDR	0.0041	0.0054	0.0013
41	100	14V Biased HDR	0.0023	0.0035	0.0012
42	100	14V Biased HDR	0.006	0.0015	-0.0045
43	100	14V Biased HDR	0.0049	0.006	0.0011
44	100	14V Biased HDR	0.0025	0.0059	0.0034
45	100	14V Biased HDR	0.0063	0.0034	-0.0029
46	100	Unbiased HDR	0.0049	0.0021	-0.0028
47	100	Unbiased HDR	0.0024	0.0056	0.0032
48	100	Unbiased HDR	0.0063	0.0036	-0.0027
49	100	Unbiased HDR	0.005	0.0022	-0.0028
50	100	Unbiased HDR	0.0027	0.0055	0.0028
51	0	Correlation	0.0061	0.0035	-0.0026
52	0	Correlation	0.0046	0.0021	-0.0025
53	0	Correlation	0.0029	0.006	0.0031
54	0	Correlation	0.0053	0.003	-0.0023
55	0	Correlation	0.0051	0.0023	-0.0028

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	0.0029	0.0048	0.0061	0.0011916	0.0021	0.00338	0.006	0.0015675	-0.0028	-0.00142	0.0031	0.0025332
3	0.0019	0.00465	0.0077	0.0022157	0.0025	0.00402	0.0056	0.0013256	-0.0049	-0.00063	0.0016	0.0028426
10	0.0021	0.00434	0.0073	0.0020961	0.0025	0.0038	0.0059	0.0012338	-0.0045	-0.00054	0.0013	0.0026488
30	0.0021	0.00479	0.007	0.0020168	0.002	0.00356	0.0058	0.0015385	-0.0048	-0.00123	0.0012	0.0028616
50	0.0021	0.00442	0.0065	0.0017943	0.0021	0.00388	0.006	0.0016752	-0.0044	-0.00054	0.0013	0.0026209
100	0.0023	0.00433	0.0063	0.0016833	0.0015	0.00393	0.006	0.0017075	-0.0045	-0.0004	0.0034	0.0030243

Device Test: 3.5 IRCP_EN_7V(IRCP_EN7p0V_14p0V)





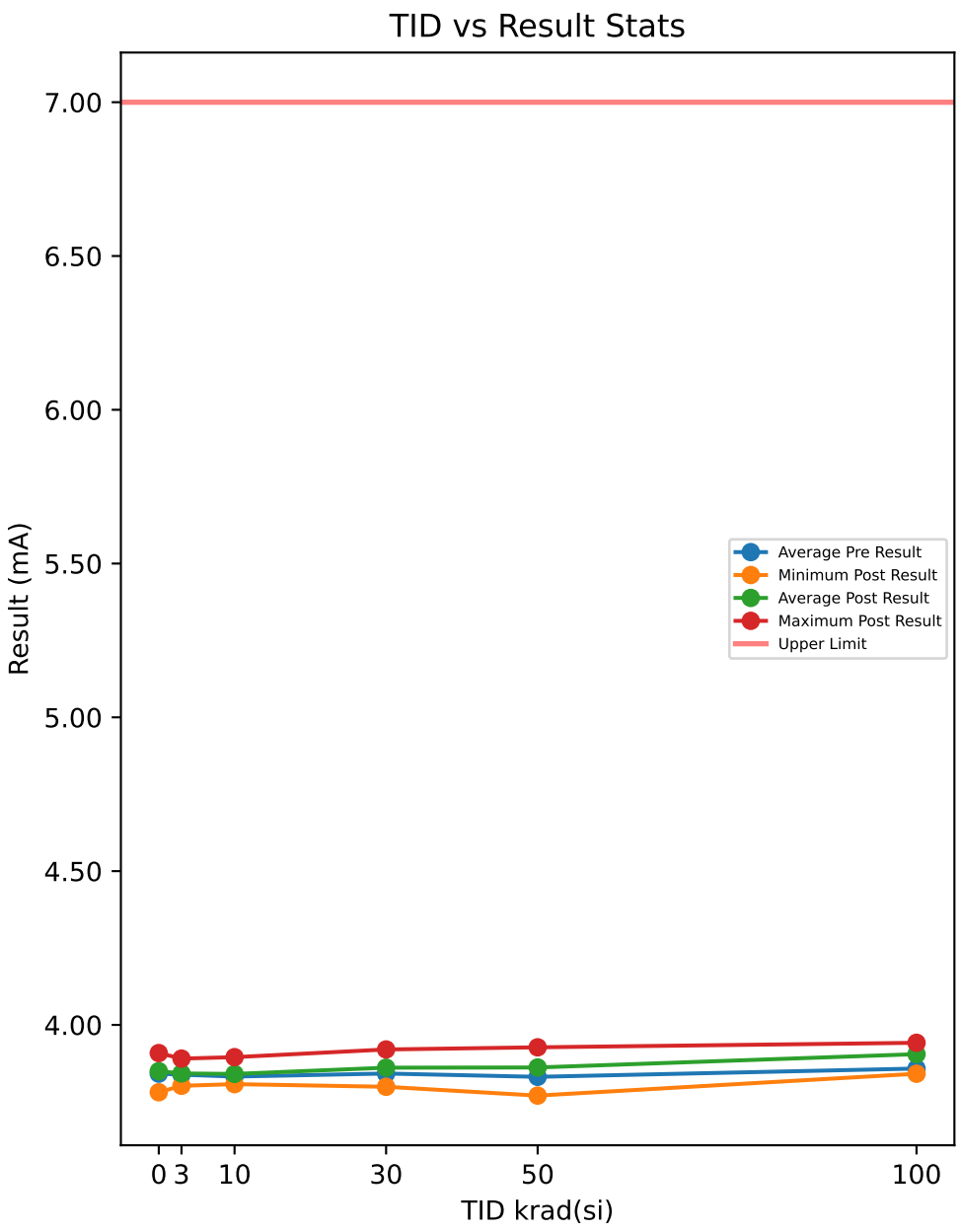
Test Results (Upper Limit = 0.24 (mA))

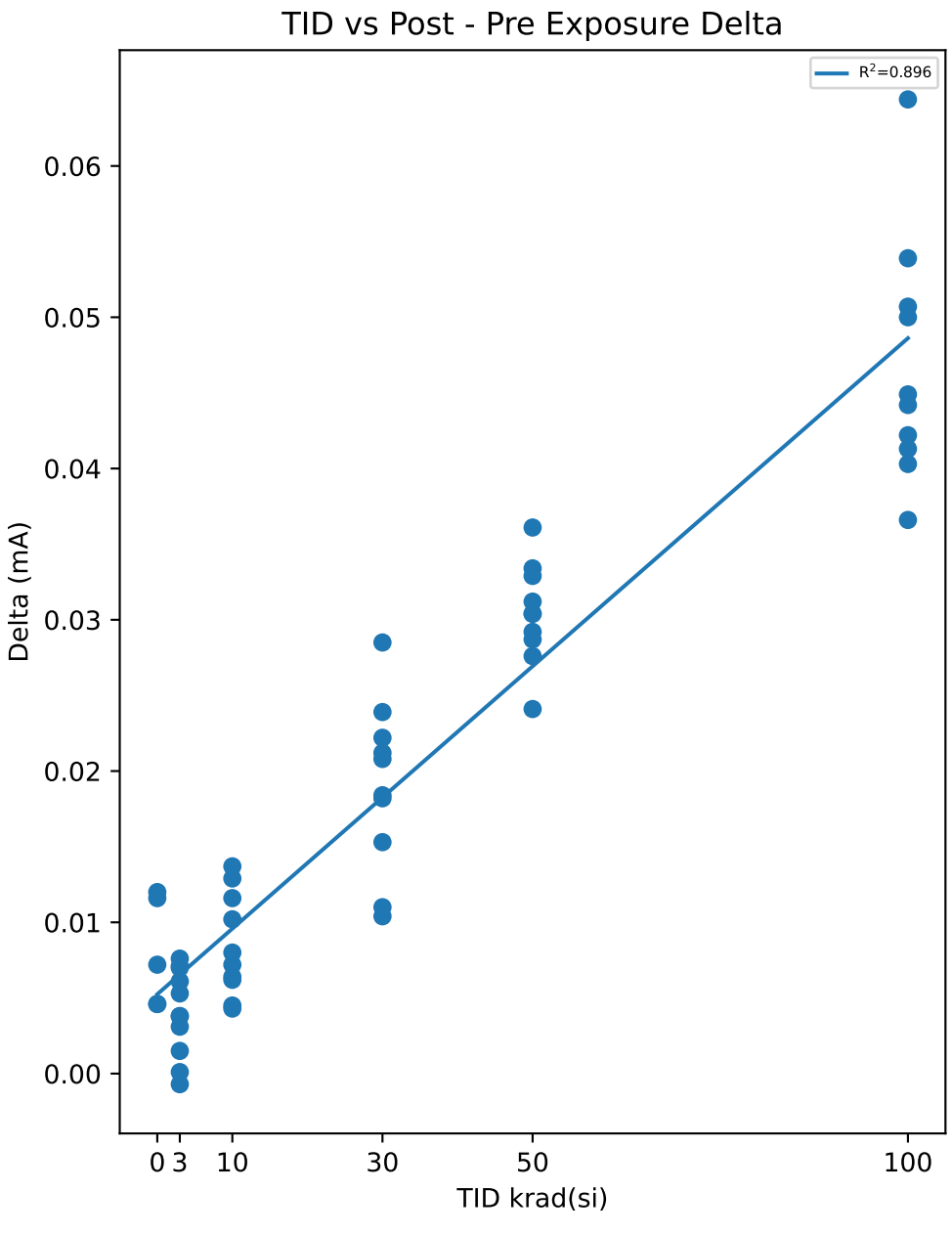
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	0.0473	0.0497	0.0024
2	3	14V Biased HDR	0.0488	0.0492	0.0004
3	3	14V Biased HDR	0.0499	0.0462	-0.0037
4	3	14V Biased HDR	0.0491	0.0495	0.0004
5	3	14V Biased HDR	0.0483	0.0489	0.0006
6	3	Unbiased HDR	0.0497	0.0471	-0.0026
7	3	Unbiased HDR	0.0489	0.0494	0.0005
8	3	Unbiased HDR	0.0488	0.0492	0.0004
9	3	Unbiased HDR	0.0494	0.046	-0.0034
10	3	Unbiased HDR	0.0479	0.0482	0.0003
11	10	14V Biased HDR	0.0474	0.0477	0.0003
12	10	14V Biased HDR	0.0492	0.0453	-0.0039
13	10	14V Biased HDR	0.0483	0.048	-0.0003
14	10	14V Biased HDR	0.0483	0.0483	0
15	10	14V Biased HDR	0.0507	0.0468	-0.0039
16	10	Unbiased HDR	0.0481	0.048	-0.0001
17	10	Unbiased HDR	0.0492	0.0492	0
18	10	Unbiased HDR	0.0493	0.0454	-0.0039
19	10	Unbiased HDR	0.0472	0.0468	-0.0004
20	10	Unbiased HDR	0.0479	0.0479	0
21	30	14V Biased HDR	0.051	0.0455	-0.0055
22	30	14V Biased HDR	0.0487	0.0467	-0.002
23	30	14V Biased HDR	0.0477	0.046	-0.0017
24	30	14V Biased HDR	0.0508	0.0451	-0.0057
25	30	14V Biased HDR	0.0492	0.047	-0.0022
26	30	Unbiased HDR	0.0474	0.0454	-0.002
27	30	Unbiased HDR	0.0497	0.044	-0.0057
28	30	Unbiased HDR	0.0504	0.0479	-0.0025
29	30	Unbiased HDR	0.0485	0.0465	-0.002
30	30	Unbiased HDR	0.0486	0.0432	-0.0054
31	50	14V Biased HDR	0.0495	0.0461	-0.0034
32	50	14V Biased HDR	0.0473	0.0443	-0.003
33	50	14V Biased HDR	0.0495	0.043	-0.0065
34	50	14V Biased HDR	0.0492	0.0462	-0.003
35	50	14V Biased HDR	0.0467	0.0445	-0.0022
36	50	Unbiased HDR	0.0511	0.0439	-0.0072
37	50	Unbiased HDR	0.0484	0.0456	-0.0028
38	50	Unbiased HDR	0.0484	0.0456	-0.0028
39	50	Unbiased HDR	0.0507	0.0443	-0.0064
40	50	Unbiased HDR	0.0461	0.0436	-0.0025
41	100	14V Biased HDR	0.0478	0.0441	-0.0037
42	100	14V Biased HDR	0.0475	0.0396	-0.0079
43	100	14V Biased HDR	0.0491	0.0446	-0.0045
44	100	14V Biased HDR	0.0488	0.0446	-0.0042
45	100	14V Biased HDR	0.0491	0.0435	-0.0056
46	100	Unbiased HDR	0.0471	0.0411	-0.006
47	100	Unbiased HDR	0.0495	0.0447	-0.0048
48	100	Unbiased HDR	0.0504	0.0453	-0.0051
49	100	Unbiased HDR	0.0499	0.043	-0.0069
50	100	Unbiased HDR	0.0486	0.0439	-0.0047
51	0	Correlation	0.0507	0.0507	0
52	0	Correlation	0.0466	0.0453	-0.0013
53	0	Correlation	0.0491	0.05	0.0009
54	0	Correlation	0.0469	0.0471	0.0002
55	0	Correlation	0.0487	0.0471	-0.0016

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	0.0466	0.0484	0.0507	0.0016852	0.0453	0.04804	0.0507	0.0022468	-0.0016	-0.00036	0.0009	0.001055
3	0.0473	0.04881	0.0499	0.00080201	0.046	0.04834	0.0497	0.0014033	-0.0037	-0.00047	0.0024	0.0020205
10	0.0472	0.04856	0.0507	0.0010501	0.0453	0.04734	0.0492	0.0012563	-0.0039	-0.00122	0.0003	0.0018588
30	0.0474	0.0492	0.051	0.0012508	0.0432	0.04573	0.0479	0.0014095	-0.0057	-0.00347	-0.0017	0.0018246
50	0.0461	0.04869	0.0511	0.0016394	0.043	0.04471	0.0462	0.001102	-0.0072	-0.00398	-0.0022	0.0019142
100	0.0471	0.04878	0.0504	0.001057	0.0396	0.04344	0.0453	0.001789	-0.0079	-0.00534	-0.0037	0.0012886

Device Test: 4.0 ISD_VIN_4p5V(ISD_Vin_4p5V)





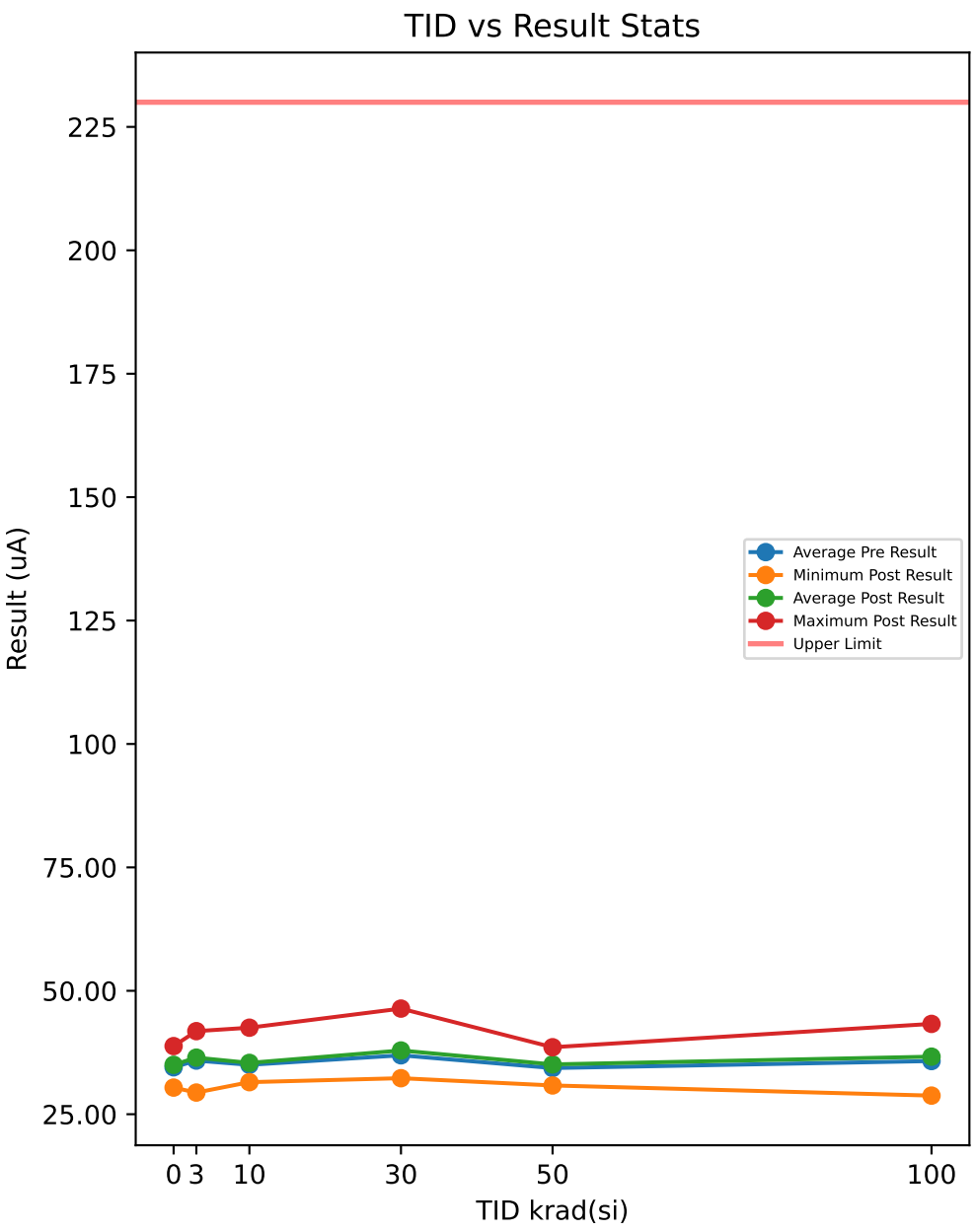
Test Results (Upper Limit = 7.0 (mA))

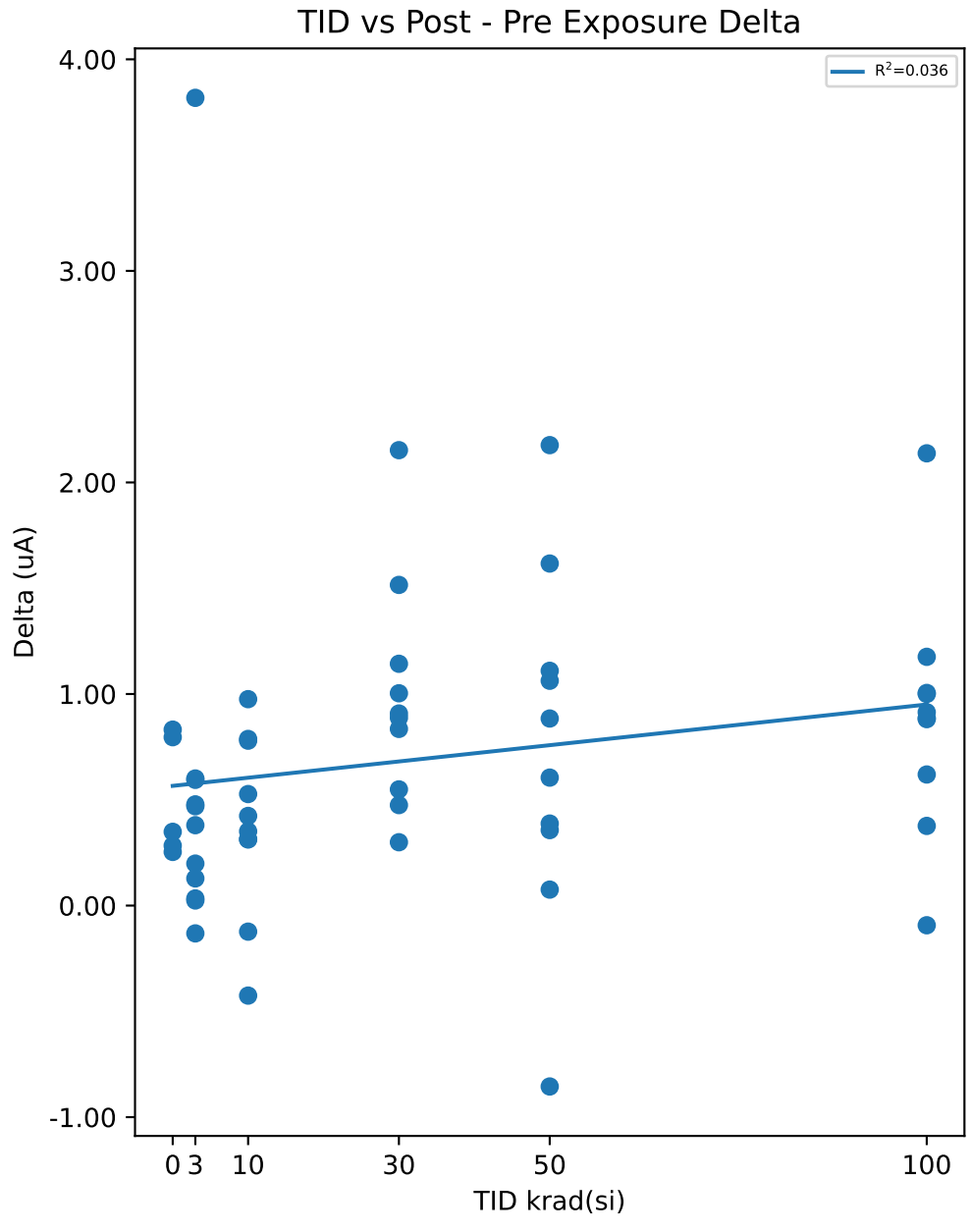
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	3.8339	3.8332	-0.0007
2	3	14V Biased HDR	3.8573	3.8574	0.0001
3	3	14V Biased HDR	3.8293	3.8324	0.0031
4	3	14V Biased HDR	3.868	3.8695	0.0015
5	3	14V Biased HDR	3.8833	3.8904	0.0071
6	3	Unbiased HDR	3.7982	3.802	0.0038
7	3	Unbiased HDR	3.8478	3.8548	0.007
8	3	Unbiased HDR	3.8296	3.8357	0.0061
9	3	Unbiased HDR	3.814	3.8193	0.0053
10	3	Unbiased HDR	3.8285	3.8361	0.0076
11	10	14V Biased HDR	3.8699	3.8815	0.0116
12	10	14V Biased HDR	3.8047	3.8092	0.0045
13	10	14V Biased HDR	3.8168	3.823	0.0062
14	10	14V Biased HDR	3.8403	3.854	0.0137
15	10	14V Biased HDR	3.8879	3.8951	0.0072
16	10	Unbiased HDR	3.816	3.824	0.008
17	10	Unbiased HDR	3.8638	3.8767	0.0129
18	10	Unbiased HDR	3.8187	3.823	0.0043
19	10	Unbiased HDR	3.8051	3.8115	0.0064
20	10	Unbiased HDR	3.7972	3.8074	0.0102
21	30	14V Biased HDR	3.8916	3.9201	0.0285
22	30	14V Biased HDR	3.842	3.8659	0.0239
23	30	14V Biased HDR	3.8685	3.8838	0.0153
24	30	14V Biased HDR	3.8677	3.8899	0.0222
25	30	14V Biased HDR	3.8063	3.8167	0.0104
26	30	Unbiased HDR	3.7878	3.7988	0.011
27	30	Unbiased HDR	3.8126	3.8308	0.0182
28	30	Unbiased HDR	3.8875	3.9083	0.0208
29	30	Unbiased HDR	3.8509	3.8721	0.0212
30	30	Unbiased HDR	3.8039	3.8223	0.0184
31	50	14V Biased HDR	3.8535	3.8896	0.0361
32	50	14V Biased HDR	3.7937	3.8241	0.0304
33	50	14V Biased HDR	3.8306	3.8582	0.0276
34	50	14V Biased HDR	3.8829	3.907	0.0241
35	50	14V Biased HDR	3.8204	3.8496	0.0292
36	50	Unbiased HDR	3.8134	3.8468	0.0334
37	50	Unbiased HDR	3.8756	3.9043	0.0287
38	50	Unbiased HDR	3.8082	3.8386	0.0304
39	50	Unbiased HDR	3.8959	3.9271	0.0312
40	50	Unbiased HDR	3.7372	3.7701	0.0329
41	100	14V Biased HDR	3.846	3.8999	0.0539
42	100	14V Biased HDR	3.7956	3.86	0.0644
43	100	14V Biased HDR	3.8724	3.9173	0.0449
44	100	14V Biased HDR	3.8918	3.9418	0.05
45	100	14V Biased HDR	3.7999	3.8412	0.0413
46	100	Unbiased HDR	3.8762	3.9269	0.0507
47	100	Unbiased HDR	3.8663	3.9029	0.0366
48	100	Unbiased HDR	3.8909	3.9331	0.0422
49	100	Unbiased HDR	3.8992	3.9395	0.0403
50	100	Unbiased HDR	3.842	3.8862	0.0442
51	0	Correlation	3.8674	3.872	0.0046
52	0	Correlation	3.8018	3.8138	0.012
53	0	Correlation	3.9012	3.9084	0.0072
54	0	Correlation	3.7764	3.781	0.0046
55	0	Correlation	3.8608	3.8724	0.0116

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	3.7764	3.8415	3.9012	0.051043	3.781	3.8495	3.9084	0.051153	0.0046	0.008	0.012	0.0036304
3	3.7982	3.839	3.8833	0.025439	3.802	3.8431	3.8904	0.02549	-0.0007	0.00409	0.0076	0.0030183
10	3.7972	3.832	3.8879	0.031597	3.8074	3.8405	3.8951	0.03326	0.0043	0.0085	0.0137	0.0034023
30	3.7878	3.8419	3.8916	0.037268	3.7988	3.8609	3.9201	0.041464	0.0104	0.01899	0.0285	0.0056296
50	3.7372	3.8311	3.8959	0.047764	3.7701	3.8615	3.9271	0.046715	0.0241	0.0304	0.0361	0.0033373
100	3.7956	3.858	3.8992	0.036817	3.8412	3.9049	3.9418	0.034066	0.0366	0.04685	0.0644	0.0081217

Device Test: 4.1 FORWARD_LEAKAGE_4p5V(Forward_Leakage_4p5V)





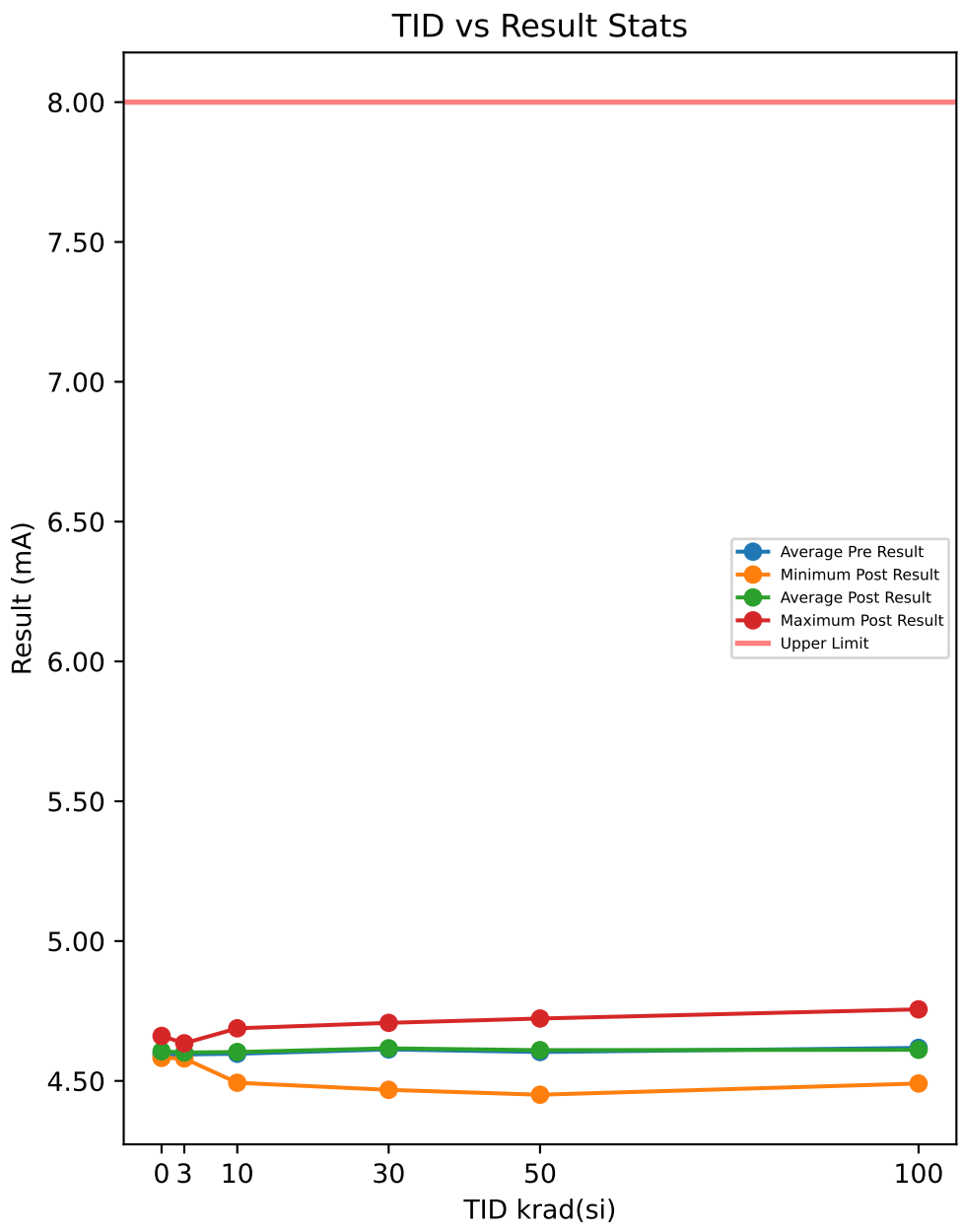
Test Results (Upper Limit = 230.0 (uA))

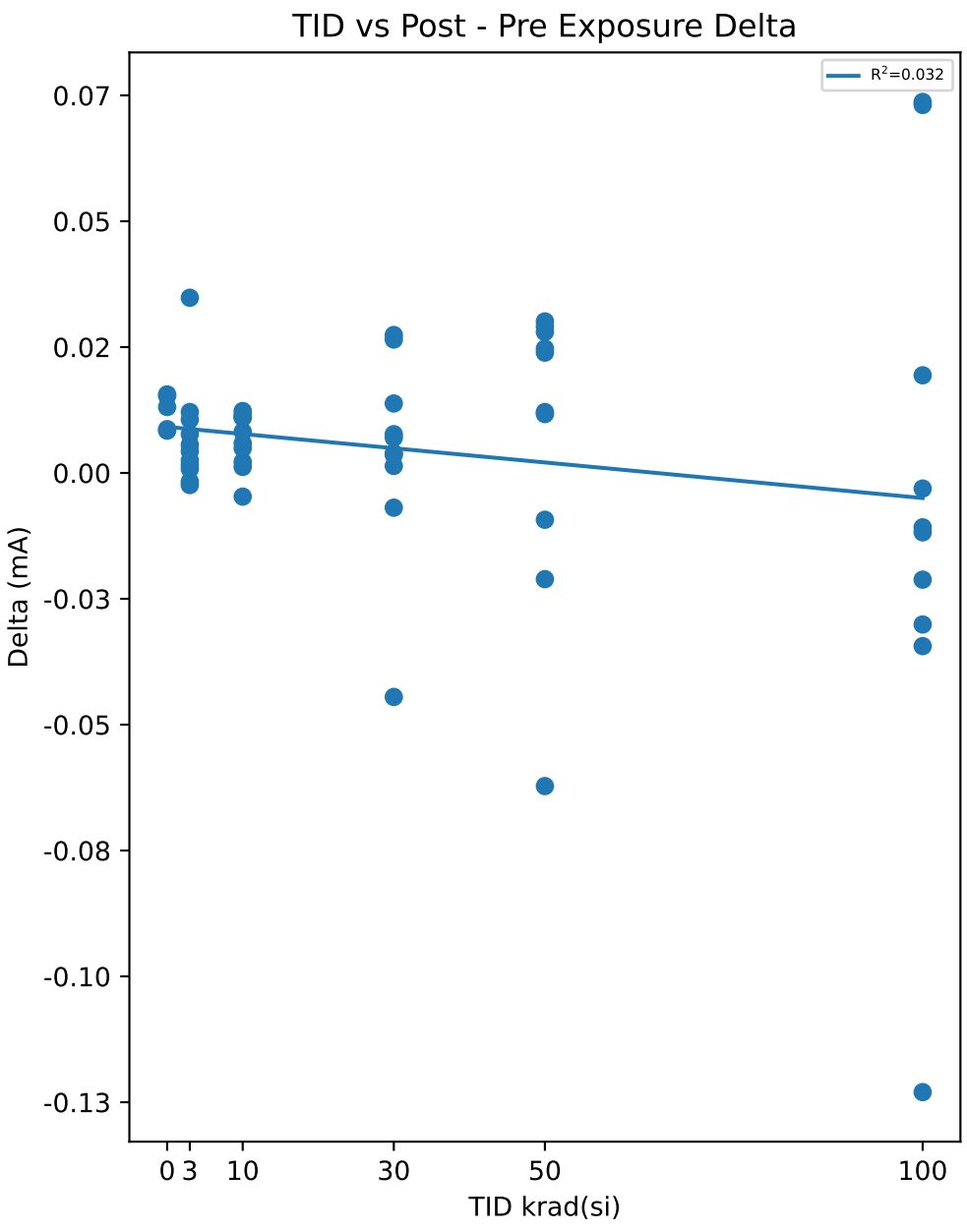
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	36.335	40.153	3.8179
2	3	14V Biased HDR	37.862	37.73	-0.1315
3	3	14V Biased HDR	32.153	32.187	0.0338
4	3	14V Biased HDR	31.703	31.727	0.0241
5	3	14V Biased HDR	31.91	32.505	0.5943
6	3	Unbiased HDR	29.189	29.387	0.1984
7	3	Unbiased HDR	39.301	39.43	0.1284
8	3	Unbiased HDR	41.226	41.827	0.6007
9	3	Unbiased HDR	39.584	40.063	0.4784
10	3	Unbiased HDR	35.547	35.927	0.38
11	10	14V Biased HDR	41.746	42.526	0.7795
12	10	14V Biased HDR	34.329	34.643	0.3135
13	10	14V Biased HDR	31.616	31.492	-0.1232
14	10	14V Biased HDR	31.996	32.971	0.9757
15	10	14V Biased HDR	37.985	38.336	0.3509
16	10	Unbiased HDR	35.127	35.55	0.4237
17	10	Unbiased HDR	32.526	33.314	0.7876
18	10	Unbiased HDR	35.209	34.783	-0.4255
19	10	Unbiased HDR	34.001	34.314	0.3129
20	10	Unbiased HDR	35.513	36.041	0.5271
21	30	14V Biased HDR	34.559	36.711	2.1526
22	30	14V Biased HDR	36.205	36.68	0.475
23	30	14V Biased HDR	45.252	46.394	1.1429
24	30	14V Biased HDR	36.539	38.054	1.5157
25	30	14V Biased HDR	36.215	37.123	0.9078
26	30	Unbiased HDR	37.859	38.747	0.8879
27	30	Unbiased HDR	38.629	39.178	0.5492
28	30	Unbiased HDR	37.563	38.399	0.8351
29	30	Unbiased HDR	35.203	35.502	0.2994
30	30	Unbiased HDR	31.294	32.297	1.0035
31	50	14V Biased HDR	30.471	30.828	0.3568
32	50	14V Biased HDR	35.086	35.97	0.8842
33	50	14V Biased HDR	29.654	31.83	2.1764
34	50	14V Biased HDR	37.287	38.397	1.1097
35	50	14V Biased HDR	35.401	36.006	0.6049
36	50	Unbiased HDR	36.819	37.206	0.3876
37	50	Unbiased HDR	39.424	38.569	-0.8551
38	50	Unbiased HDR	34.93	36.547	1.6167
39	50	Unbiased HDR	34.456	34.531	0.0755
40	50	Unbiased HDR	29.971	31.034	1.0627
41	100	14V Biased HDR	38.728	39.904	1.1758
42	100	14V Biased HDR	35.514	36.514	1.0001
43	100	14V Biased HDR	37.13	38.016	0.8865
44	100	14V Biased HDR	35.221	36.135	0.9139
45	100	14V Biased HDR	34.136	35.017	0.8813
46	100	Unbiased HDR	37.137	37.514	0.3766
47	100	Unbiased HDR	31.111	32.116	1.005
48	100	Unbiased HDR	41.158	43.296	2.1377
49	100	Unbiased HDR	28.15	28.77	0.6196
50	100	Unbiased HDR	39.388	39.295	-0.093
51	0	Correlation	34.188	35.02	0.8317
52	0	Correlation	30.109	30.392	0.2834
53	0	Correlation	38.546	38.8	0.2536
54	0	Correlation	37.599	38.395	0.7959
55	0	Correlation	32.079	32.428	0.3487

Test Statistics (uA)

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	30.109	34.504	38.546	3.5782	30.392	35.007	38.8	3.6677	0.2536	0.50266	0.8317	0.28639
3	29.189	35.481	41.226	4.0624	29.387	36.093	41.827	4.3604	-0.1315	0.61245	3.8179	1.1541
10	31.616	35.005	41.746	3.0329	31.492	35.397	42.526	3.1176	-0.4255	0.39222	0.9757	0.42354
30	31.294	36.932	45.252	3.5741	32.297	37.909	46.394	3.5812	0.2994	0.97691	2.1526	0.54032
50	29.654	34.35	39.424	3.3121	30.828	35.092	38.569	2.9212	-0.8551	0.74194	2.1764	0.8412
100	28.15	35.767	41.158	3.9072	28.77	36.658	43.296	4.082	-0.093	0.89035	2.1377	0.57421

Device Test: 4.4 ISD_VIN_9V(ISD_Vin_9p0V)





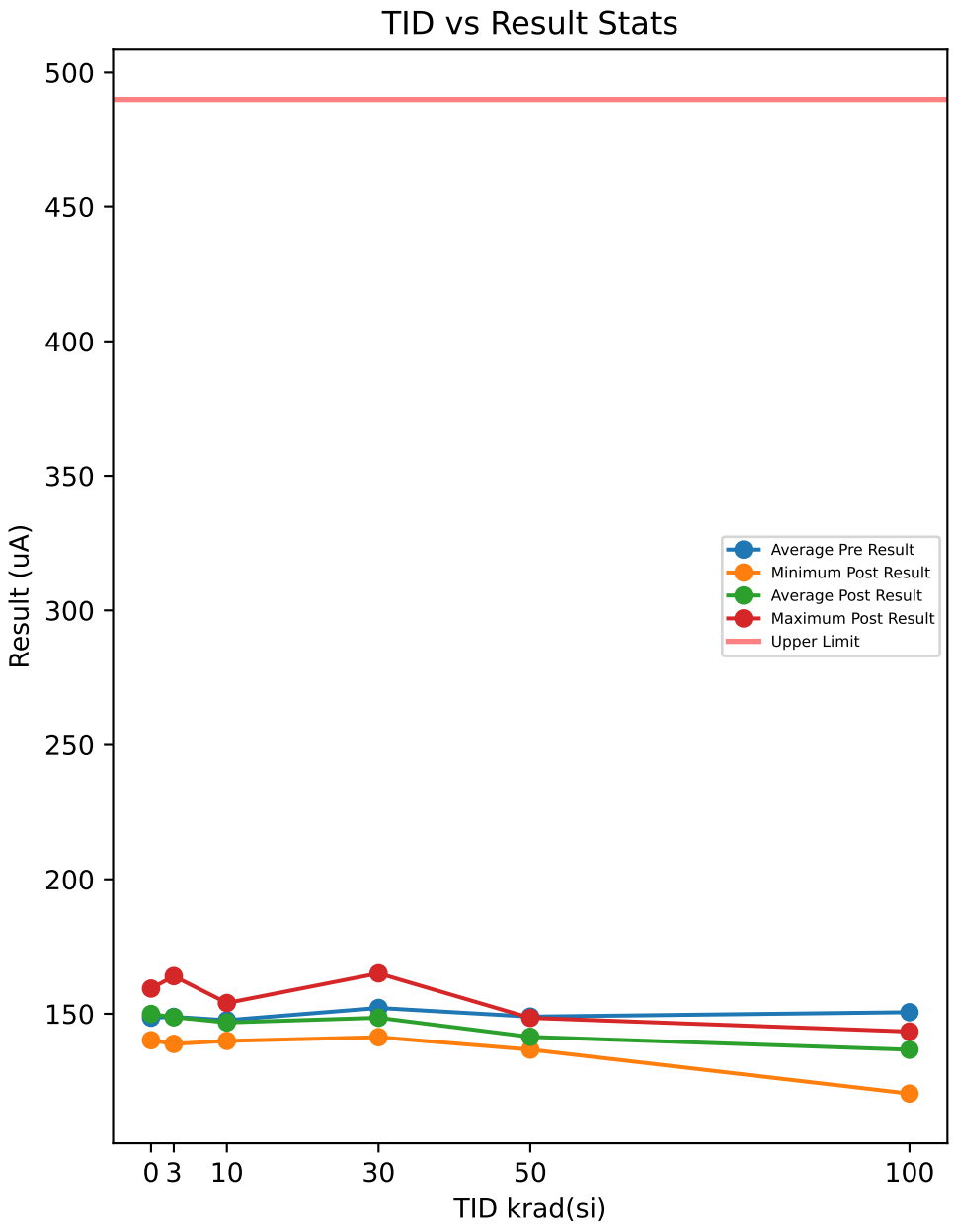
Test Results (Upper Limit = 8.0 (mA))

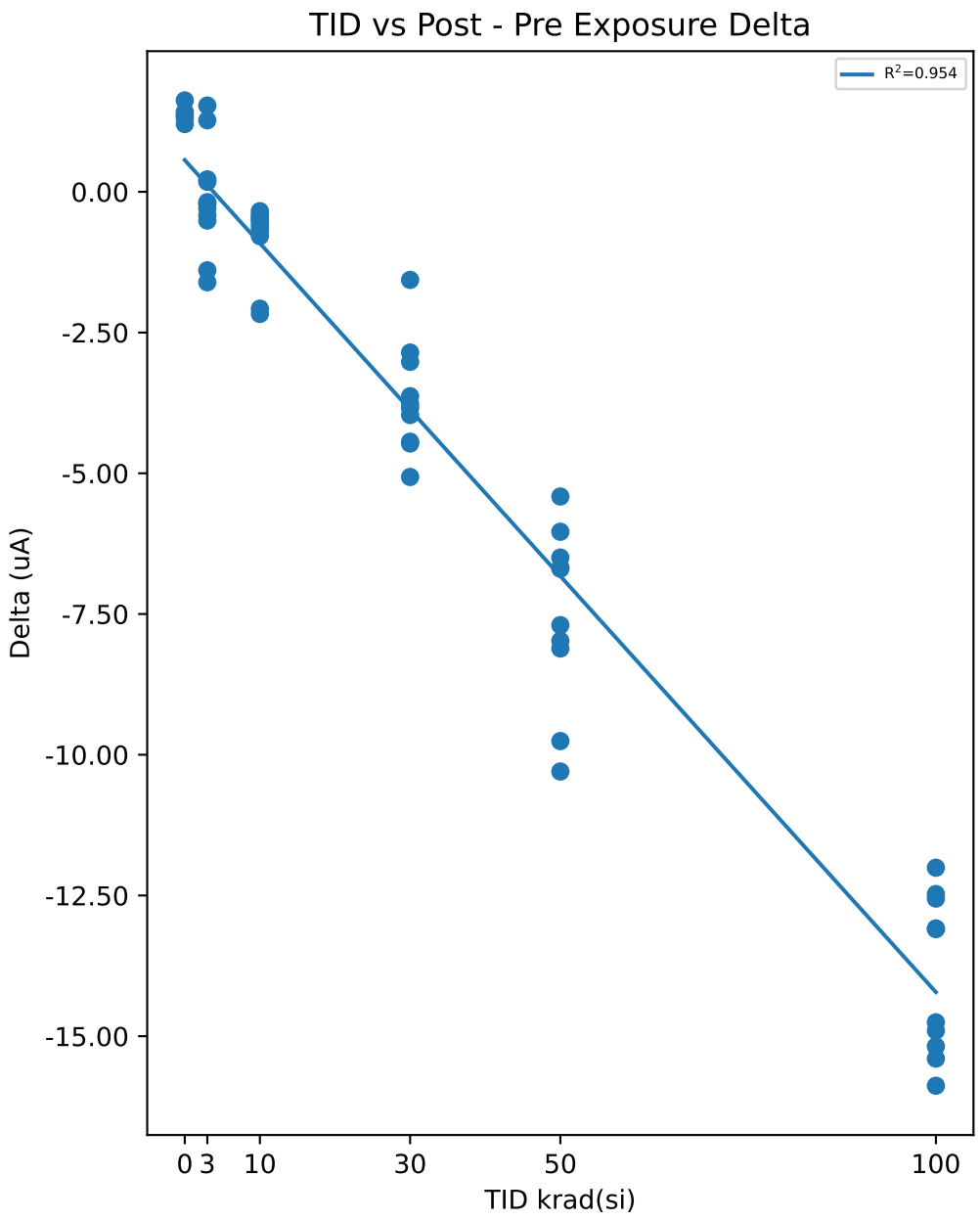
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	4.5623	4.5971	0.0348
2	3	14V Biased HDR	4.5948	4.5931	-0.0017
3	3	14V Biased HDR	4.5914	4.589	-0.0024
4	3	14V Biased HDR	4.5972	4.5988	0.0016
5	3	14V Biased HDR	4.6001	4.6026	0.0025
6	3	Unbiased HDR	4.5727	4.5804	0.0077
7	3	Unbiased HDR	4.6046	4.6152	0.0106
8	3	Unbiased HDR	4.5946	4.6002	0.0056
9	3	Unbiased HDR	4.6047	4.609	0.0043
10	3	Unbiased HDR	4.6224	4.6345	0.0121
11	10	14V Biased HDR	4.6373	4.6483	0.011
12	10	14V Biased HDR	4.4981	4.4934	-0.0047
13	10	14V Biased HDR	4.5676	4.5688	0.0012
14	10	14V Biased HDR	4.6369	4.6428	0.0059
15	10	14V Biased HDR	4.6758	4.6881	0.0123
16	10	Unbiased HDR	4.5824	4.5939	0.0115
17	10	Unbiased HDR	4.6369	4.648	0.0111
18	10	Unbiased HDR	4.5916	4.5965	0.0049
19	10	Unbiased HDR	4.5722	4.5744	0.0022
20	10	Unbiased HDR	4.5716	4.5798	0.0082
21	30	14V Biased HDR	4.6811	4.7076	0.0265
22	30	14V Biased HDR	4.5958	4.6096	0.0138
23	30	14V Biased HDR	4.6646	4.6685	0.0039
24	30	14V Biased HDR	4.5949	4.5985	0.0036
25	30	14V Biased HDR	4.5856	4.5787	-0.0069
26	30	Unbiased HDR	4.5883	4.5953	0.007
27	30	Unbiased HDR	4.6157	4.6431	0.0274
28	30	Unbiased HDR	4.6507	4.6521	0.0014
29	30	Unbiased HDR	4.6366	4.6443	0.0077
30	30	Unbiased HDR	4.5125	4.468	-0.0445
31	50	14V Biased HDR	4.6506	4.6797	0.0291
32	50	14V Biased HDR	4.5128	4.4506	-0.0622
33	50	14V Biased HDR	4.5937	4.6054	0.0117
34	50	14V Biased HDR	4.6951	4.7231	0.028
35	50	14V Biased HDR	4.5977	4.6224	0.0247
36	50	Unbiased HDR	4.5879	4.5786	-0.0093
37	50	Unbiased HDR	4.6271	4.606	-0.0211
38	50	Unbiased HDR	4.5931	4.6052	0.0121
39	50	Unbiased HDR	4.6608	4.6909	0.0301
40	50	Unbiased HDR	4.5148	4.5387	0.0239
41	100	14V Biased HDR	4.5884	4.5766	-0.0118
42	100	14V Biased HDR	4.564	4.6377	0.0737
43	100	14V Biased HDR	4.6137	4.4907	-0.123
44	100	14V Biased HDR	4.6488	4.6457	-0.0031
45	100	14V Biased HDR	4.5908	4.6102	0.0194
46	100	Unbiased HDR	4.6236	4.6024	-0.0212
47	100	Unbiased HDR	4.6828	4.7559	0.0731
48	100	Unbiased HDR	4.6432	4.6131	-0.0301
49	100	Unbiased HDR	4.6208	4.61	-0.0108
50	100	Unbiased HDR	4.6047	4.5703	-0.0344
51	0	Correlation	4.5746	4.583	0.0084
52	0	Correlation	4.5763	4.5919	0.0156
53	0	Correlation	4.6478	4.6609	0.0131
54	0	Correlation	4.5735	4.5822	0.0087
55	0	Correlation	4.5968	4.6121	0.0153

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	4.5735	4.5938	4.6478	0.03167	4.5822	4.606	4.6609	0.03296	0.0084	0.01222	0.0156	0.0034881
3	4.5623	4.5945	4.6224	0.016816	4.5804	4.602	4.6345	0.015026	-0.0024	0.00751	0.0348	0.01071
10	4.4981	4.597	4.6758	0.050734	4.4934	4.6034	4.6881	0.055342	-0.0047	0.00636	0.0123	0.0055546
30	4.5125	4.6126	4.6811	0.048727	4.468	4.6166	4.7076	0.065024	-0.0445	0.00399	0.0274	0.02014
50	4.5128	4.6034	4.6951	0.058712	4.4506	4.6101	4.7231	0.078801	-0.0622	0.0067	0.0301	0.029727
100	4.564	4.6181	4.6828	0.034236	4.4907	4.6113	4.7559	0.06692	-0.123	-0.00682	0.0737	0.056391

Device Test: 4.5 FORWARD_LEAKAGE_9V(Forward_Leakage_9p0V)





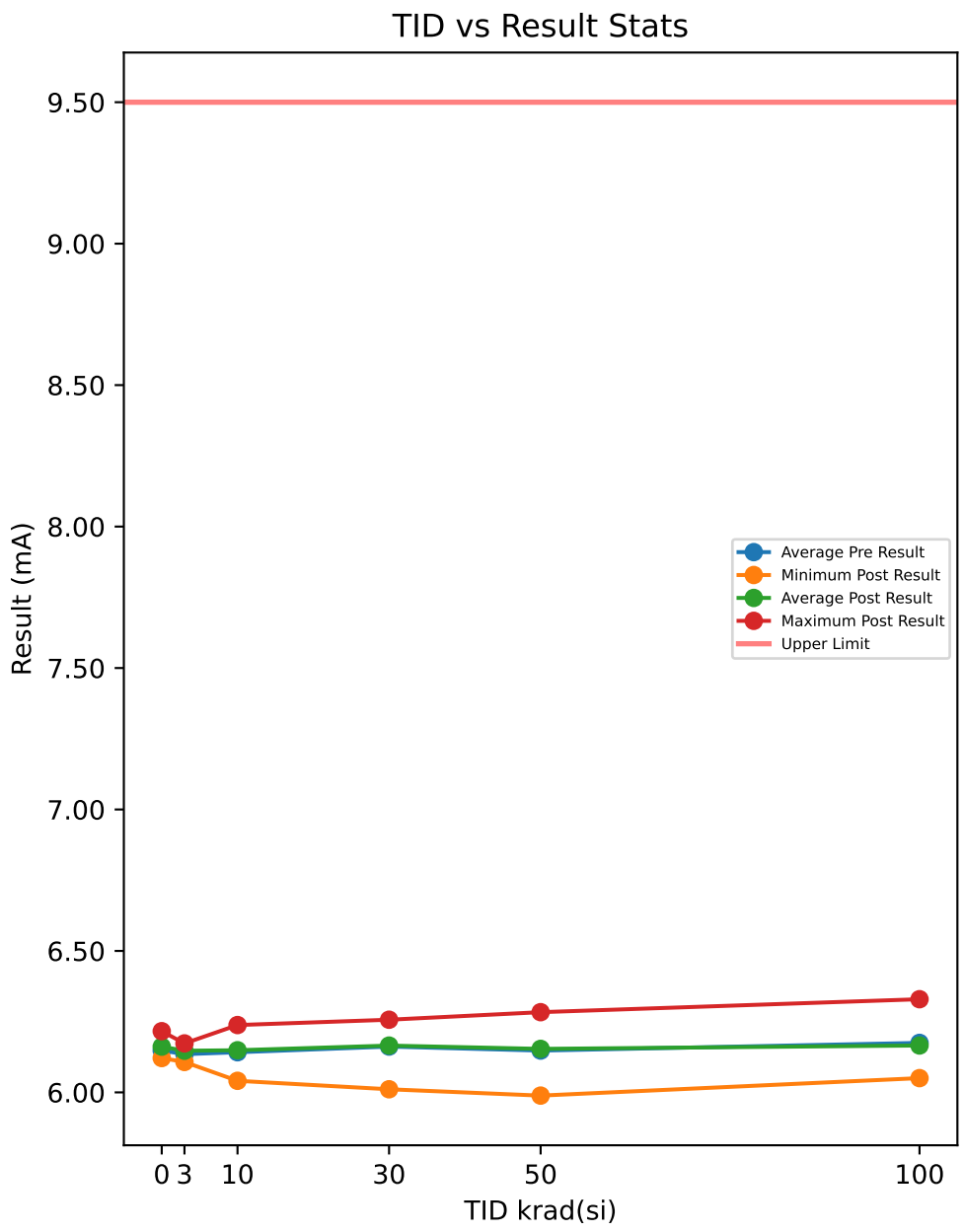
Test Results (Upper Limit = 490.0 (uA))

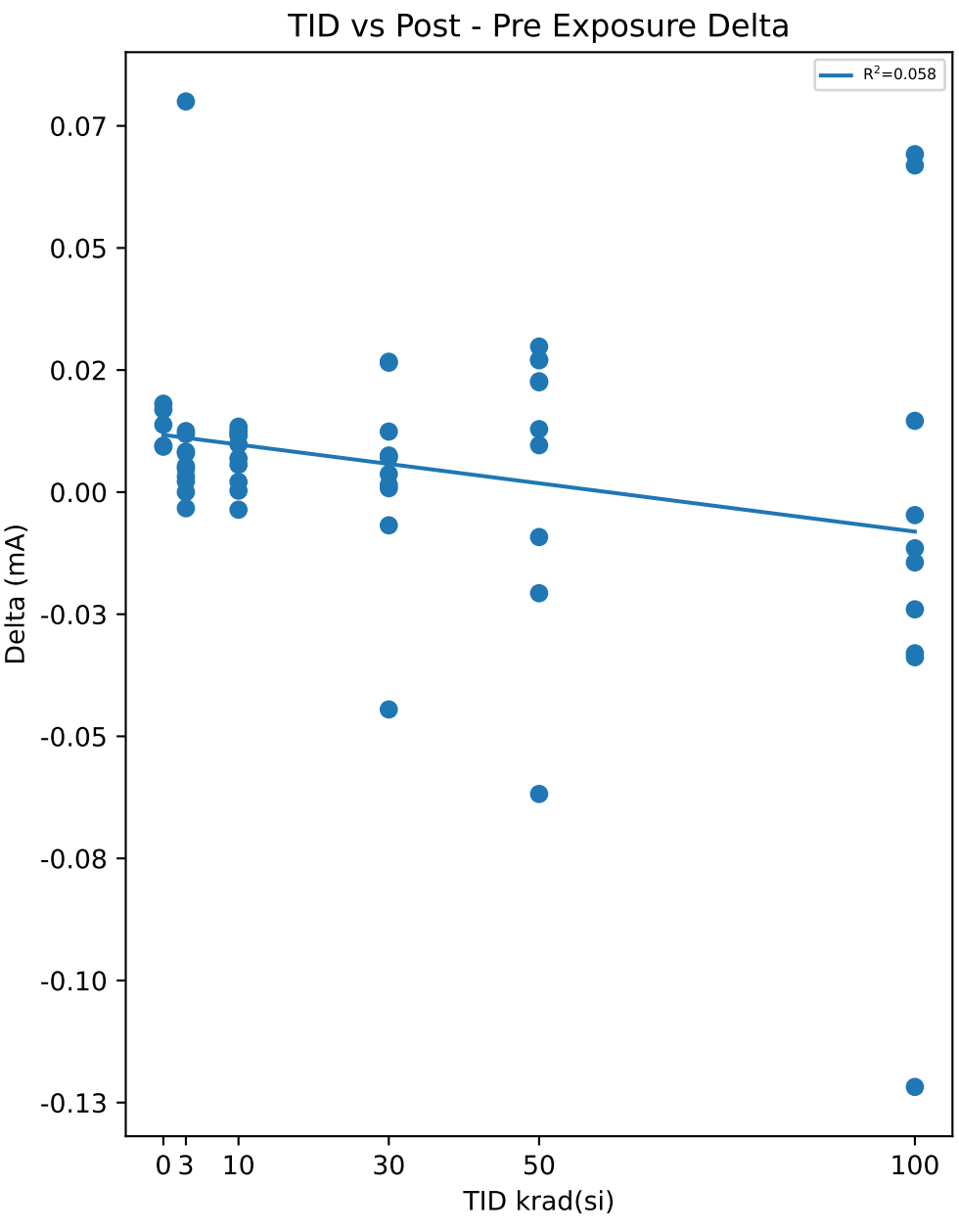
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	150.17	148.56	-1.6073
2	3	14V Biased HDR	146.73	146.22	-0.5111
3	3	14V Biased HDR	148.31	146.91	-1.3942
4	3	14V Biased HDR	140.94	140.73	-0.2139
5	3	14V Biased HDR	139.96	140.14	0.1777
6	3	Unbiased HDR	139.1	138.81	-0.2911
7	3	Unbiased HDR	152.52	152.75	0.2218
8	3	Unbiased HDR	162.48	164.01	1.5324
9	3	Unbiased HDR	159.67	159.49	-0.1841
10	3	Unbiased HDR	148.4	149.67	1.2712
11	10	14V Biased HDR	153.56	153.22	-0.3441
12	10	14V Biased HDR	143.29	142.75	-0.533
13	10	14V Biased HDR	142	139.92	-2.0759
14	10	14V Biased HDR	141.78	141.32	-0.4585
15	10	14V Biased HDR	145.59	144.98	-0.6066
16	10	Unbiased HDR	154.5	154.02	-0.4821
17	10	Unbiased HDR	142.04	141.62	-0.413
18	10	Unbiased HDR	154.66	152.49	-2.1693
19	10	Unbiased HDR	147.79	147.11	-0.6865
20	10	Unbiased HDR	150.96	150.17	-0.7871
21	30	14V Biased HDR	147.36	145.79	-1.5647
22	30	14V Biased HDR	147.66	143.82	-3.84
23	30	14V Biased HDR	168.8	165.04	-3.7608
24	30	14V Biased HDR	151.44	148.42	-3.0208
25	30	14V Biased HDR	154.37	151.52	-2.8558
26	30	Unbiased HDR	150.87	147.24	-3.6315
27	30	Unbiased HDR	156.43	152.47	-3.9652
28	30	Unbiased HDR	149.66	145.22	-4.4394
29	30	Unbiased HDR	145.78	141.31	-4.471
30	30	Unbiased HDR	149.39	144.32	-5.0657
31	50	14V Biased HDR	150.57	142.87	-7.6976
32	50	14V Biased HDR	146.32	139.63	-6.6955
33	50	14V Biased HDR	146.24	140.82	-5.4126
34	50	14V Biased HDR	147.68	141.64	-6.0386
35	50	14V Biased HDR	150.83	144.33	-6.4976
36	50	Unbiased HDR	158.77	148.47	-10.298
37	50	Unbiased HDR	150.68	140.92	-9.7572
38	50	Unbiased HDR	143.56	136.89	-6.6703
39	50	Unbiased HDR	144.81	136.7	-8.1127
40	50	Unbiased HDR	150.04	142.06	-7.976
41	100	14V Biased HDR	153.61	141.6	-12.007
42	100	14V Biased HDR	153.84	140.75	-13.098
43	100	14V Biased HDR	151.78	139.23	-12.555
44	100	14V Biased HDR	144.6	131.51	-13.086
45	100	14V Biased HDR	152.38	139.9	-12.475
46	100	Unbiased HDR	153.98	138.1	-15.88
47	100	Unbiased HDR	147.5	132.11	-15.398
48	100	Unbiased HDR	158.3	143.4	-14.9
49	100	Unbiased HDR	135.55	120.37	-15.18
50	100	Unbiased HDR	154.28	139.53	-14.754
51	0	Correlation	146.34	147.96	1.623
52	0	Correlation	150.7	151.91	1.204
53	0	Correlation	148.87	150.18	1.3152
54	0	Correlation	157.97	159.39	1.4183
55	0	Correlation	138.81	140.18	1.3663

Test Statistics (uA)

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	138.81	148.54	157.97	6.9504	140.18	149.92	159.39	6.9362	1.204	1.3854	1.623	0.15471
3	139.1	148.83	162.48	7.8861	138.81	148.73	164.01	8.2475	-1.6073	-0.09986	1.5324	0.99432
10	141.78	147.62	154.66	5.4086	139.92	146.76	154.02	5.3852	-2.1693	-0.85561	-0.3441	0.68061
30	145.78	152.18	168.8	6.6686	141.31	148.51	165.04	6.7429	-5.0657	-3.6615	-1.5647	0.99013
50	143.56	148.95	158.77	4.3309	136.7	141.43	148.47	3.4543	-10.298	-7.5156	-5.4126	1.5775
100	135.55	150.58	158.3	6.5032	120.37	136.65	143.4	6.8854	-15.88	-13.933	-12.007	1.4239

Device Test: 4.6 ISD_VIN_12V(ISD_Vin_12p0V)





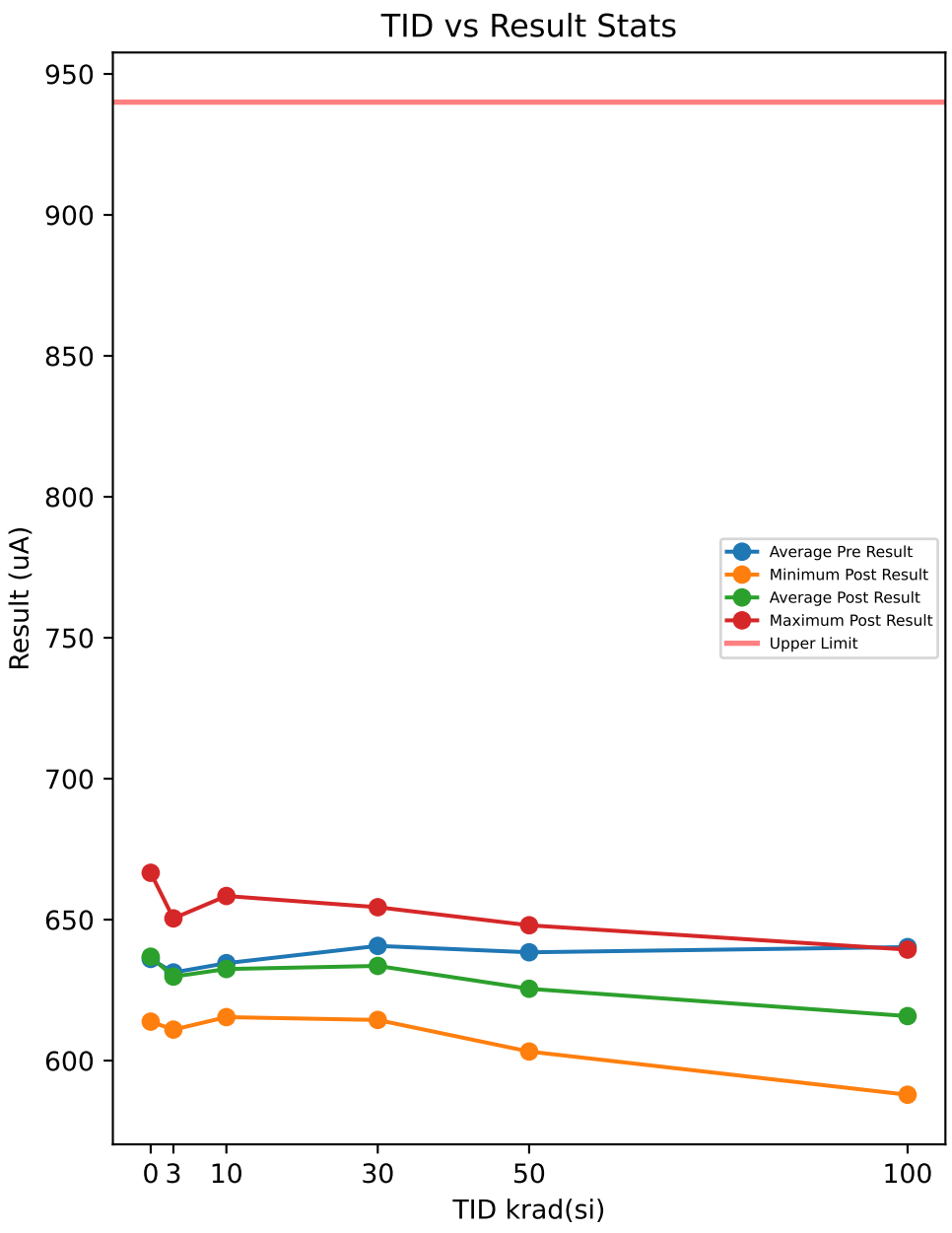
Test Results (Upper Limit = 9.5 (mA))

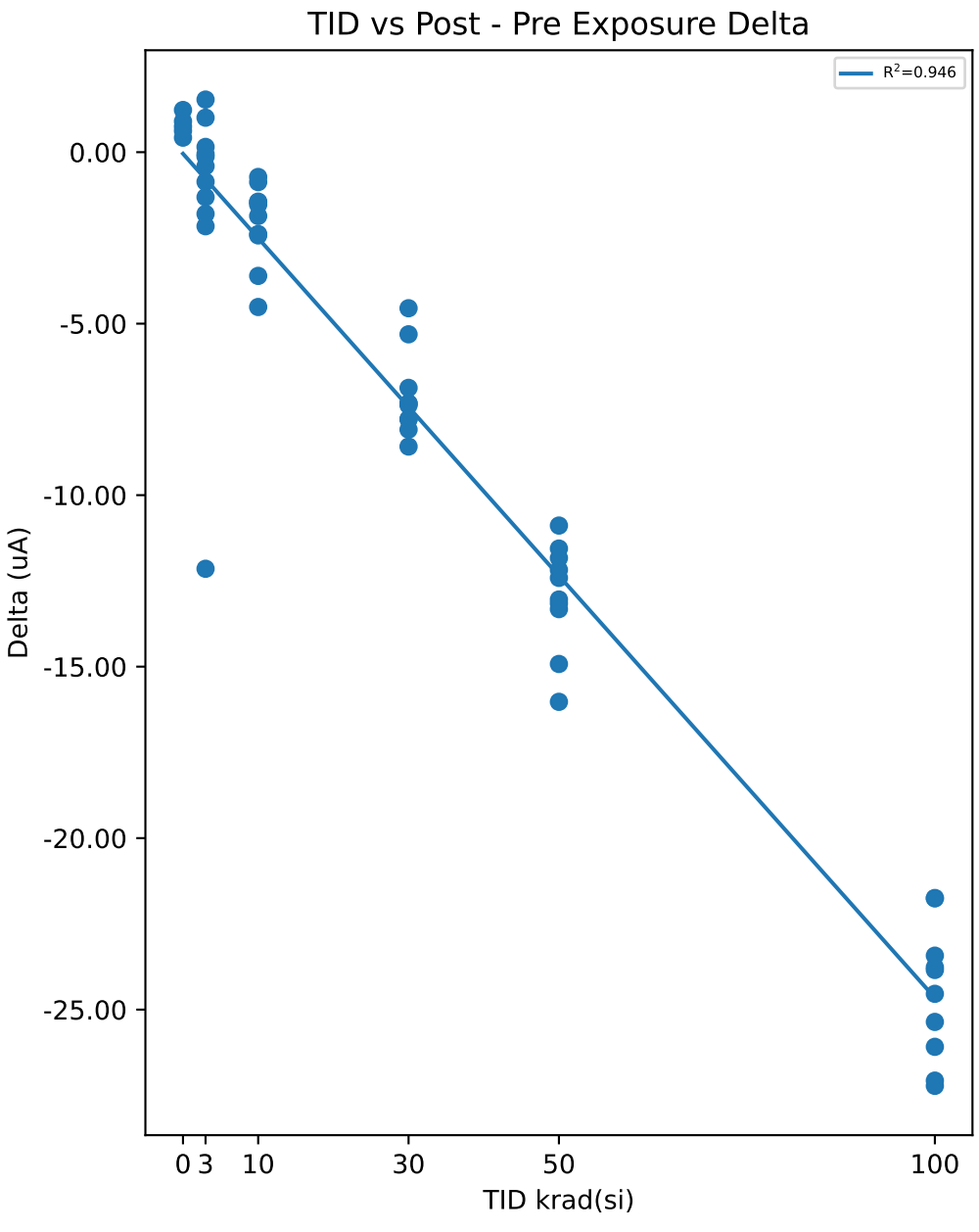
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	6.0825	6.1625	0.08
2	3	14V Biased HDR	6.1202	6.1202	0
3	3	14V Biased HDR	6.1107	6.1074	-0.0033
4	3	14V Biased HDR	6.1222	6.1254	0.0032
5	3	14V Biased HDR	6.1678	6.1731	0.0053
6	3	Unbiased HDR	6.1269	6.1352	0.0083
7	3	Unbiased HDR	6.1518	6.1637	0.0119
8	3	Unbiased HDR	6.1581	6.1661	0.008
9	3	Unbiased HDR	6.1296	6.1344	0.0048
10	3	Unbiased HDR	6.1557	6.1682	0.0125
11	10	14V Biased HDR	6.189	6.201	0.012
12	10	14V Biased HDR	6.0445	6.0409	-0.0036
13	10	14V Biased HDR	6.1364	6.1367	0.0003
14	10	14V Biased HDR	6.1731	6.18	0.0069
15	10	14V Biased HDR	6.2254	6.238	0.0126
16	10	Unbiased HDR	6.0986	6.1101	0.0115
17	10	Unbiased HDR	6.2011	6.2145	0.0134
18	10	Unbiased HDR	6.1223	6.1279	0.0056
19	10	Unbiased HDR	6.1249	6.127	0.0021
20	10	Unbiased HDR	6.1032	6.113	0.0098
21	30	14V Biased HDR	6.2299	6.2566	0.0267
22	30	14V Biased HDR	6.128	6.1404	0.0124
23	30	14V Biased HDR	6.1951	6.1988	0.0037
24	30	14V Biased HDR	6.1442	6.1457	0.0015
25	30	14V Biased HDR	6.1377	6.1309	-0.0068
26	30	Unbiased HDR	6.1339	6.141	0.0071
27	30	Unbiased HDR	6.1537	6.1802	0.0265
28	30	Unbiased HDR	6.256	6.2568	0.0008
29	30	Unbiased HDR	6.1853	6.1928	0.0075
30	30	Unbiased HDR	6.0555	6.011	-0.0445
31	50	14V Biased HDR	6.2158	6.2428	0.027
32	50	14V Biased HDR	6.0504	5.9886	-0.0618
33	50	14V Biased HDR	6.1102	6.1198	0.0096
34	50	14V Biased HDR	6.2564	6.2835	0.0271
35	50	14V Biased HDR	6.1178	6.1405	0.0227
36	50	Unbiased HDR	6.1533	6.1441	-0.0092
37	50	Unbiased HDR	6.1746	6.1539	-0.0207
38	50	Unbiased HDR	6.1331	6.146	0.0129
39	50	Unbiased HDR	6.2251	6.2549	0.0298
40	50	Unbiased HDR	6.0411	6.0636	0.0225
41	100	14V Biased HDR	6.1406	6.1262	-0.0144
42	100	14V Biased HDR	6.1161	6.183	0.0669
43	100	14V Biased HDR	6.1722	6.0504	-0.1218
44	100	14V Biased HDR	6.207	6.2023	-0.0047
45	100	14V Biased HDR	6.1175	6.1321	0.0146
46	100	Unbiased HDR	6.1942	6.1702	-0.024
47	100	Unbiased HDR	6.2601	6.3293	0.0692
48	100	Unbiased HDR	6.2103	6.1765	-0.0338
49	100	Unbiased HDR	6.1831	6.1716	-0.0115
50	100	Unbiased HDR	6.1485	6.1155	-0.033
51	0	Correlation	6.1473	6.1568	0.0095
52	0	Correlation	6.1032	6.1213	0.0181
53	0	Correlation	6.2025	6.2163	0.0138
54	0	Correlation	6.1147	6.124	0.0093
55	0	Correlation	6.1731	6.19	0.0169

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	6.1032	6.1482	6.2025	0.040977	6.1213	6.1617	6.2163	0.041411	0.0093	0.01352	0.0181	0.0040758
3	6.0825	6.1326	6.1678	0.026001	6.1074	6.1456	6.1731	0.02368	-0.0033	0.01307	0.08	0.024025
10	6.0445	6.1418	6.2254	0.055007	6.0409	6.1489	6.238	0.059115	-0.0036	0.00706	0.0134	0.0058557
30	6.0555	6.1619	6.256	0.057105	6.011	6.1654	6.2568	0.07102	-0.0445	0.00349	0.0267	0.019991
50	6.0411	6.1478	6.2564	0.071913	5.9886	6.1538	6.2835	0.089368	-0.0618	0.00599	0.0298	0.029069
100	6.1161	6.175	6.2601	0.045479	6.0504	6.1657	6.3293	0.072326	-0.1218	-0.00925	0.0692	0.054392

Device Test: 4.7 FORWARD_LEAKAGE_12V(Forward_Leakage_12p0V)





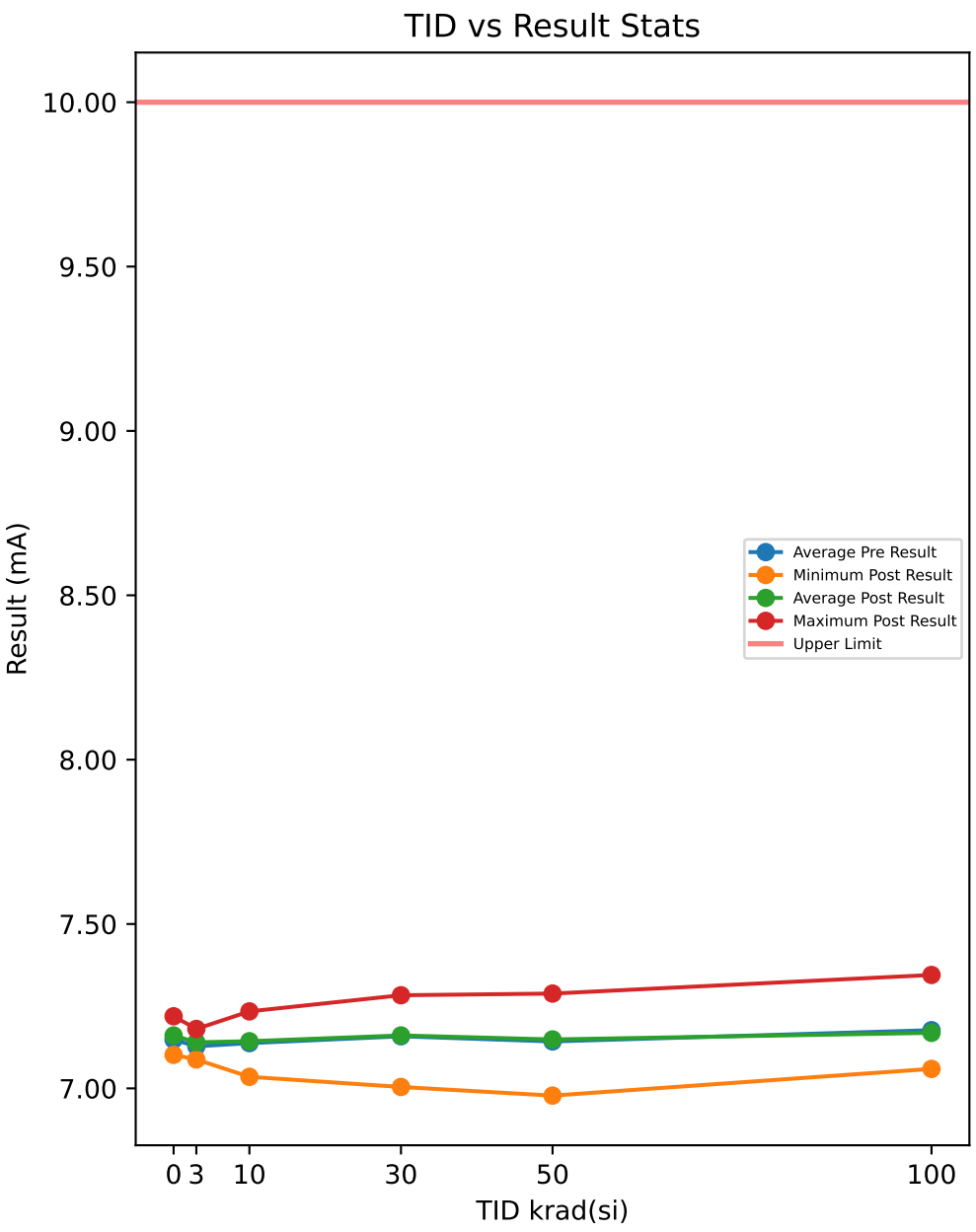
Test Results (Upper Limit = 940.0 (uA))

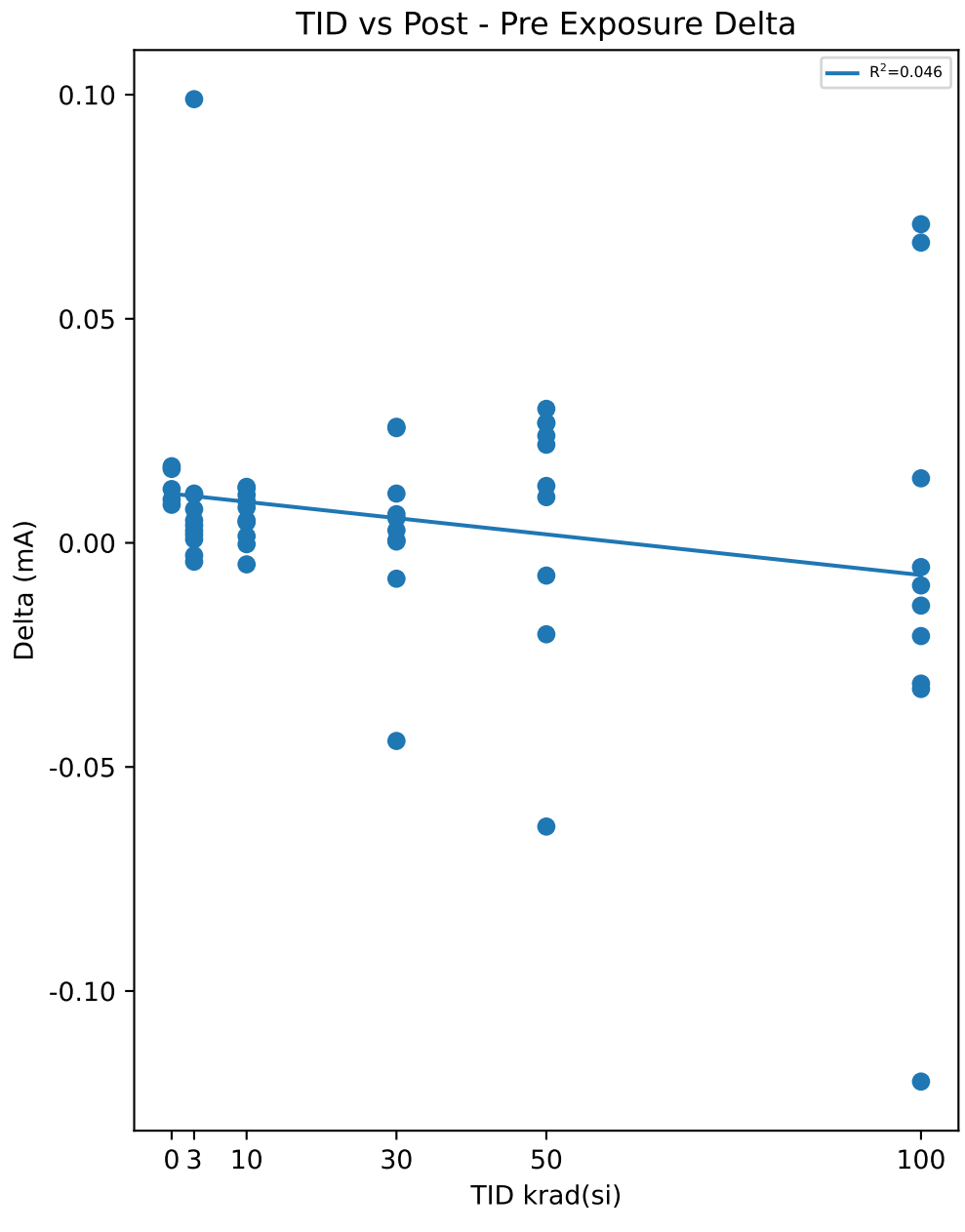
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	634.31	622.16	-12.146
2	3	14V Biased HDR	622.82	622.69	-0.1286
3	3	14V Biased HDR	644.19	642.03	-2.1593
4	3	14V Biased HDR	620.44	620.04	-0.4079
5	3	14V Biased HDR	624.67	624.82	0.1531
6	3	Unbiased HDR	612.3	610.99	-1.3116
7	3	Unbiased HDR	632.96	632.9	-0.0565
8	3	Unbiased HDR	648.91	650.44	1.5337
9	3	Unbiased HDR	652.15	650.35	-1.7986
10	3	Unbiased HDR	628.13	629.14	1.0054
11	10	14V Biased HDR	641.42	639.89	-1.5296
12	10	14V Biased HDR	618.49	617.62	-0.873
13	10	14V Biased HDR	624.68	620.17	-4.5143
14	10	14V Biased HDR	626.07	624.62	-1.4432
15	10	14V Biased HDR	622.91	621.46	-1.4547
16	10	Unbiased HDR	657.05	655.19	-1.8602
17	10	Unbiased HDR	616.15	615.43	-0.7232
18	10	Unbiased HDR	662	658.39	-3.6073
19	10	Unbiased HDR	644.44	642.05	-2.3874
20	10	Unbiased HDR	632.45	630.02	-2.4268
21	30	14V Biased HDR	630.59	626.04	-4.5502
22	30	14V Biased HDR	628.62	620.83	-7.7859
23	30	14V Biased HDR	661.79	654.41	-7.3787
24	30	14V Biased HDR	640.98	633.65	-7.3263
25	30	14V Biased HDR	652.07	646.76	-5.3103
26	30	Unbiased HDR	633.83	626.96	-6.8722
27	30	Unbiased HDR	655.55	648.23	-7.3232
28	30	Unbiased HDR	634.64	626.55	-8.0878
29	30	Unbiased HDR	622.2	614.42	-7.7848
30	30	Unbiased HDR	646.63	638.05	-8.5829
31	50	14V Biased HDR	643.7	630.54	-13.154
32	50	14V Biased HDR	621.31	609.47	-11.832
33	50	14V Biased HDR	654.95	644.07	-10.887
34	50	14V Biased HDR	625.22	613.04	-12.178
35	50	14V Biased HDR	641.69	630.14	-11.557
36	50	Unbiased HDR	661.52	645.49	-16.026
37	50	Unbiased HDR	632.27	617.35	-14.922
38	50	Unbiased HDR	615.63	603.22	-12.412
39	50	Unbiased HDR	626.84	613.52	-13.323
40	50	Unbiased HDR	661.05	648.01	-13.042
41	100	14V Biased HDR	648.3	626.55	-21.747
42	100	14V Biased HDR	663.22	639.37	-23.843
43	100	14V Biased HDR	634.46	612.7	-21.756
44	100	14V Biased HDR	626.31	602.55	-23.765
45	100	14V Biased HDR	641.74	618.31	-23.427
46	100	Unbiased HDR	655.91	629.83	-26.085
47	100	Unbiased HDR	635.11	609.75	-25.358
48	100	Unbiased HDR	652.45	625.38	-27.07
49	100	Unbiased HDR	615.11	587.89	-27.223
50	100	Unbiased HDR	630.1	605.56	-24.54
51	0	Correlation	630.62	631.37	0.7505
52	0	Correlation	666.2	666.62	0.4231
53	0	Correlation	625.04	626.27	1.2294
54	0	Correlation	645.27	646.17	0.9009
55	0	Correlation	613.2	613.83	0.6254

Test Statistics (uA)

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	613.2	636.07	666.2	20.413	613.83	636.85	666.62	20.281	0.4231	0.78586	1.2294	0.30354
3	612.3	632.09	652.15	13.001	610.99	630.56	650.44	13.271	-12.146	-1.5317	1.5337	3.9053
10	616.15	634.57	662	16.023	615.43	632.48	658.39	15.587	-4.5143	-2.082	-0.7232	1.1981
30	622.2	640.69	661.79	12.928	614.42	633.59	654.41	13.004	-8.5829	-7.1002	-4.5502	1.2494
50	615.63	638.42	661.52	16.72	603.22	625.48	648.01	16.386	-16.026	-12.933	-10.887	1.5587
100	615.11	640.27	663.22	14.822	587.89	615.79	639.37	15.171	-27.223	-24.481	-21.747	1.9579

Device Test: 4.8 ISD_VIN_14V(ISD_Vin_14p0V)





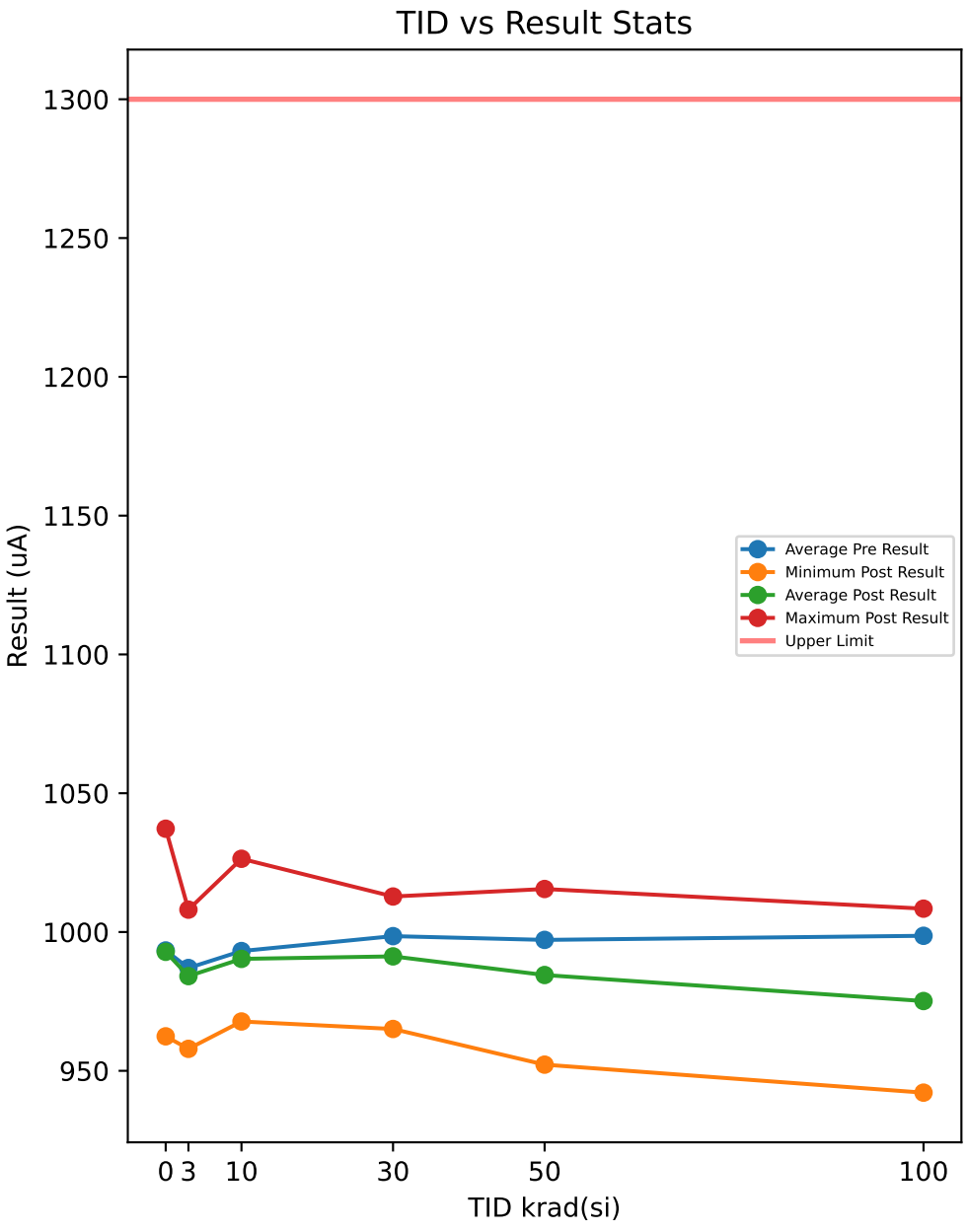
Test Results (Upper Limit = 10.0 (mA))

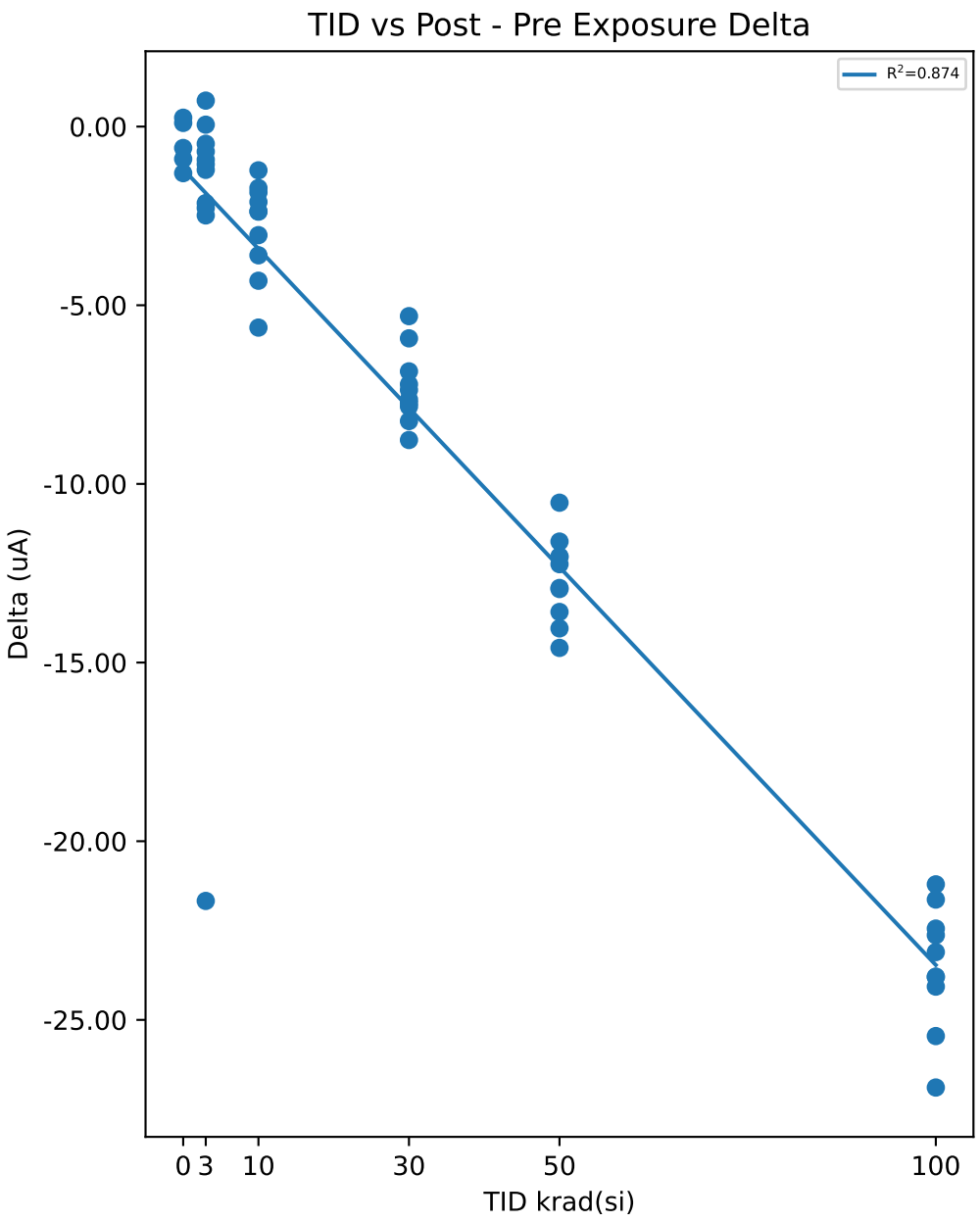
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	7.064	7.163	0.099
2	3	14V Biased HDR	7.1053	7.1025	-0.0028
3	3	14V Biased HDR	7.0921	7.0879	-0.0042
4	3	14V Biased HDR	7.1081	7.1099	0.0018
5	3	14V Biased HDR	7.1781	7.1808	0.0027
6	3	Unbiased HDR	7.1249	7.1324	0.0075
7	3	Unbiased HDR	7.1446	7.1556	0.011
8	3	Unbiased HDR	7.1687	7.1737	0.005
9	3	Unbiased HDR	7.1129	7.1168	0.0039
10	3	Unbiased HDR	7.146	7.1568	0.0108
11	10	14V Biased HDR	7.1904	7.1997	0.0093
12	10	14V Biased HDR	7.04	7.0352	-0.0048
13	10	14V Biased HDR	7.1408	7.1405	-0.0003
14	10	14V Biased HDR	7.165	7.1696	0.0046
15	10	14V Biased HDR	7.222	7.2342	0.0122
16	10	Unbiased HDR	7.0781	7.0888	0.0107
17	10	Unbiased HDR	7.2164	7.2289	0.0125
18	10	Unbiased HDR	7.107	7.112	0.005
19	10	Unbiased HDR	7.1252	7.1267	0.0015
20	10	Unbiased HDR	7.0911	7.099	0.0079
21	30	14V Biased HDR	7.2315	7.2571	0.0256
22	30	14V Biased HDR	7.1147	7.1257	0.011
23	30	14V Biased HDR	7.1809	7.1837	0.0028
24	30	14V Biased HDR	7.1404	7.1407	0.0003
25	30	14V Biased HDR	7.1336	7.1256	-0.008
26	30	Unbiased HDR	7.1293	7.1348	0.0055
27	30	Unbiased HDR	7.1417	7.1676	0.0259
28	30	Unbiased HDR	7.2827	7.2833	0.0006
29	30	Unbiased HDR	7.1814	7.1878	0.0064
30	30	Unbiased HDR	7.0485	7.0043	-0.0442
31	50	14V Biased HDR	7.2261	7.2528	0.0267
32	50	14V Biased HDR	7.0413	6.978	-0.0633
33	50	14V Biased HDR	7.0865	7.0967	0.0102
34	50	14V Biased HDR	7.2616	7.2884	0.0268
35	50	14V Biased HDR	7.1016	7.1235	0.0219
36	50	Unbiased HDR	7.1567	7.1494	-0.0073
37	50	Unbiased HDR	7.1723	7.1519	-0.0204
38	50	Unbiased HDR	7.1273	7.14	0.0127
39	50	Unbiased HDR	7.2328	7.2627	0.0299
40	50	Unbiased HDR	7.0214	7.0453	0.0239
41	100	14V Biased HDR	7.1384	7.1244	-0.014
42	100	14V Biased HDR	7.116	7.183	0.067
43	100	14V Biased HDR	7.1795	7.0593	-0.1202
44	100	14V Biased HDR	7.2101	7.2047	-0.0054
45	100	14V Biased HDR	7.0999	7.1143	0.0144
46	100	Unbiased HDR	7.2044	7.1836	-0.0208
47	100	Unbiased HDR	7.2739	7.345	0.0711
48	100	Unbiased HDR	7.2162	7.1848	-0.0314
49	100	Unbiased HDR	7.187	7.1775	-0.0095
50	100	Unbiased HDR	7.1449	7.1123	-0.0326
51	0	Correlation	7.1588	7.1673	0.0085
52	0	Correlation	7.0849	7.102	0.0171
53	0	Correlation	7.2073	7.2193	0.012
54	0	Correlation	7.1042	7.1139	0.0097
55	0	Correlation	7.1855	7.202	0.0165

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	7.0849	7.1481	7.2073	0.052296	7.102	7.1609	7.2193	0.052007	0.0085	0.01276	0.0171	0.0039023
3	7.064	7.1245	7.1781	0.035238	7.0879	7.1379	7.1808	0.032378	-0.0042	0.01347	0.099	0.030472
10	7.04	7.1376	7.222	0.060736	7.0352	7.1435	7.2342	0.064415	-0.0048	0.00586	0.0125	0.0057409
30	7.0485	7.1585	7.2827	0.064877	7.0043	7.1611	7.2833	0.077188	-0.0442	0.00259	0.0259	0.019656
50	7.0214	7.1428	7.2616	0.081897	6.978	7.1489	7.2884	0.098095	-0.0633	0.00611	0.0299	0.029334
100	7.0999	7.177	7.2739	0.052773	7.0593	7.1689	7.345	0.076892	-0.1202	-0.00814	0.0711	0.054092

Device Test: 4.9 FORWARD_LEAKAGE(Forward_Leakage_14p0V)





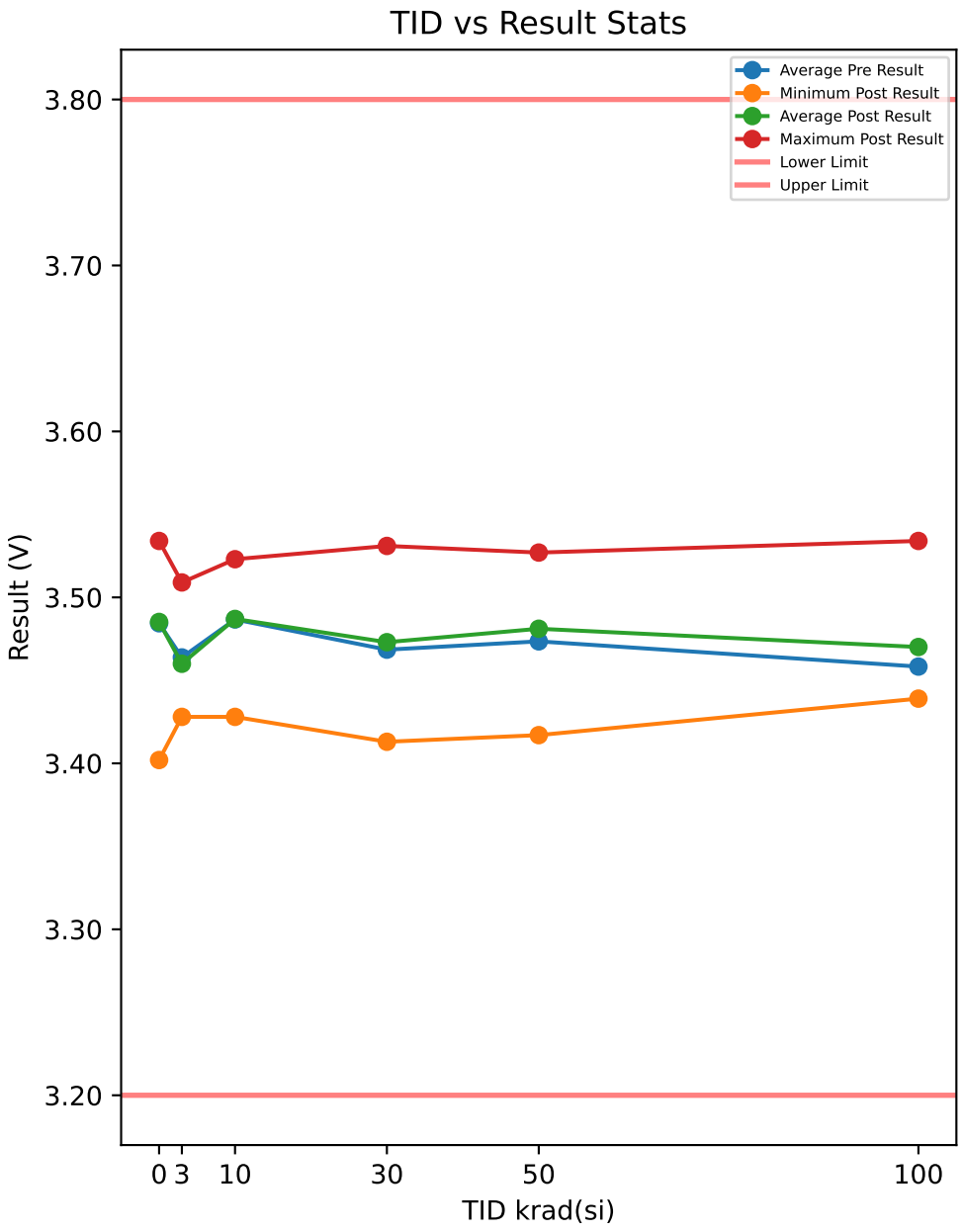
Test Results (Upper Limit = 1300.0 (uA))

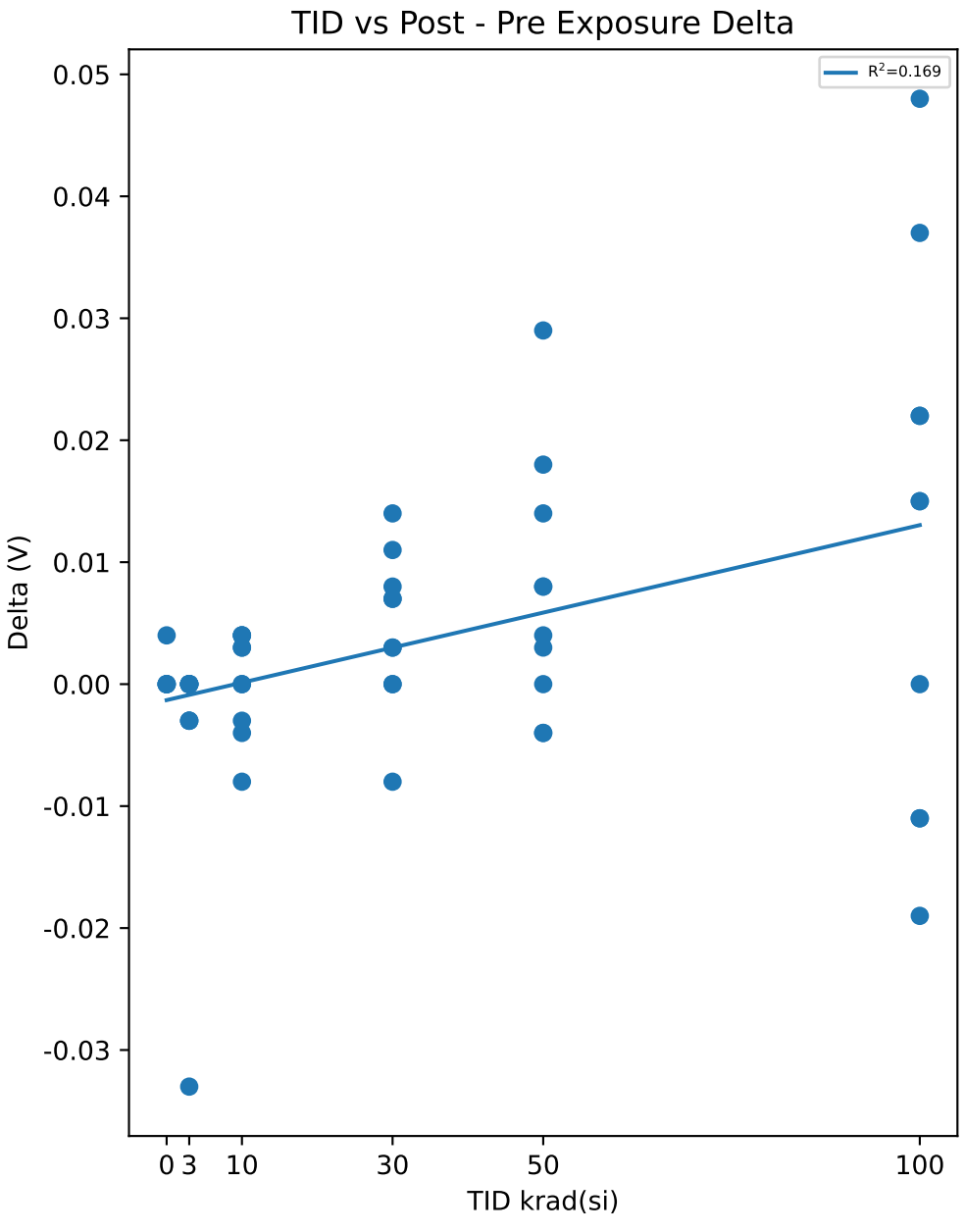
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	992.99	971.32	-21.671
2	3	14V Biased HDR	976.61	975.91	-0.6992
3	3	14V Biased HDR	1010.2	1008	-2.1422
4	3	14V Biased HDR	977.19	976.14	-1.0547
5	3	14V Biased HDR	983.42	982.94	-0.4814
6	3	Unbiased HDR	960.19	957.91	-2.278
7	3	Unbiased HDR	986.12	985.19	-0.9266
8	3	Unbiased HDR	1005.8	1006.5	0.7269
9	3	Unbiased HDR	1010.5	1008.1	-2.4856
10	3	Unbiased HDR	981.84	981.9	0.0534
11	10	14V Biased HDR	1001.3	999.41	-1.8407
12	10	14V Biased HDR	969.49	967.77	-1.7203
13	10	14V Biased HDR	977.61	971.99	-5.6256
14	10	14V Biased HDR	986.31	983.94	-2.3719
15	10	14V Biased HDR	976.56	974.45	-2.1097
16	10	Unbiased HDR	1024.7	1022.3	-2.3801
17	10	Unbiased HDR	970.39	969.16	-1.2244
18	10	Unbiased HDR	1030.7	1026.4	-4.3139
19	10	Unbiased HDR	1008.4	1005.4	-3.0382
20	10	Unbiased HDR	986	982.39	-3.6025
21	30	14V Biased HDR	987.45	982.15	-5.3051
22	30	14V Biased HDR	983.42	975.18	-8.2411
23	30	14V Biased HDR	1020	1012.8	-7.2129
24	30	14V Biased HDR	1001.3	992.55	-8.7713
25	30	14V Biased HDR	1013.5	1007.6	-5.9265
26	30	Unbiased HDR	987.69	980.84	-6.8507
27	30	Unbiased HDR	1018.4	1011	-7.3706
28	30	Unbiased HDR	990.66	982.93	-7.7361
29	30	Unbiased HDR	972.71	965.07	-7.6372
30	30	Unbiased HDR	1010	1002.1	-7.8339
31	50	14V Biased HDR	1006	992.46	-13.584
32	50	14V Biased HDR	971.39	959.35	-12.04
33	50	14V Biased HDR	1025	1014.4	-10.526
34	50	14V Biased HDR	979.45	966.5	-12.942
35	50	14V Biased HDR	1003.1	991.45	-11.614
36	50	Unbiased HDR	1025.5	1010.9	-14.589
37	50	Unbiased HDR	987.61	973.57	-14.043
38	50	Unbiased HDR	964.25	952.22	-12.031
39	50	Unbiased HDR	981.61	968.7	-12.913
40	50	Unbiased HDR	1027.7	1015.5	-12.246
41	100	14V Biased HDR	1009.7	988.51	-21.207
42	100	14V Biased HDR	1032.5	1008.4	-24.069
43	100	14V Biased HDR	989.19	967.56	-21.633
44	100	14V Biased HDR	980.5	956.71	-23.791
45	100	14V Biased HDR	998.05	974.26	-23.8
46	100	Unbiased HDR	1021.6	998.51	-23.103
47	100	Unbiased HDR	991.82	969.38	-22.445
48	100	Unbiased HDR	1013.6	988.12	-25.453
49	100	Unbiased HDR	969.03	942.13	-26.893
50	100	Unbiased HDR	980.4	957.77	-22.629
51	0	Correlation	988.16	987.56	-0.5989
52	0	Correlation	1038.5	1037.2	-1.3033
53	0	Correlation	978.69	978.94	0.2483
54	0	Correlation	998.08	998.18	0.1025
55	0	Correlation	963.33	962.42	-0.9068

Test Statistics (uA)

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	963.33	993.35	1038.5	28.308	962.42	992.86	1037.2	28.035	-1.3033	-0.49164	0.2483	0.66015
3	960.19	988.49	1010.5	16.405	957.91	985.39	1008.1	17.064	-21.671	-3.0958	0.7269	6.6078
10	969.49	993.14	1030.7	22.106	967.77	990.32	1026.4	21.815	-5.6256	-2.8227	-1.2244	1.3489
30	972.71	998.51	1020	16.384	965.07	991.22	1012.8	16.486	-8.7713	-7.2885	-5.3051	1.0392
50	964.25	997.16	1027.7	23.613	952.22	984.51	1015.5	23.648	-14.589	-12.653	-10.526	1.2125
100	969.03	998.64	1032.5	20.258	942.13	975.14	1008.4	20.61	-26.893	-23.502	-21.207	1.719

Device Test: 5.0 VIN_UVLO_RISE(VIN_UVLO_RISING)





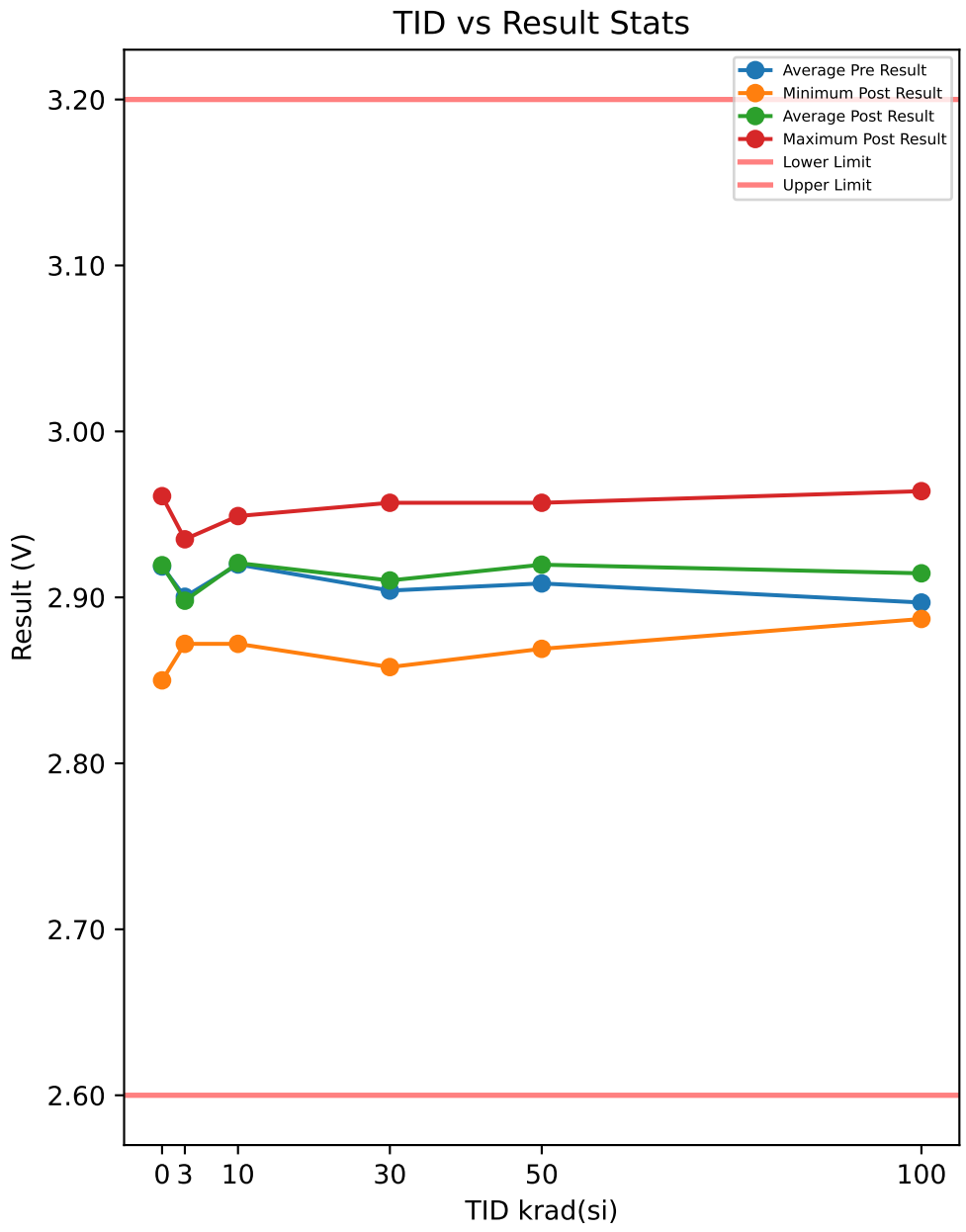
Test Results (Lower Limit = 3.2, Upper Limit = 3.8 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	3.479	3.446	-0.033
2	3	14V Biased HDR	3.505	3.505	0
3	3	14V Biased HDR	3.465	3.465	0
4	3	14V Biased HDR	3.439	3.439	0
5	3	14V Biased HDR	3.457	3.454	-0.003
6	3	Unbiased HDR	3.512	3.509	-0.003
7	3	Unbiased HDR	3.487	3.487	0
8	3	Unbiased HDR	3.442	3.442	0
9	3	Unbiased HDR	3.442	3.439	-0.003
10	3	Unbiased HDR	3.428	3.428	0
11	10	14V Biased HDR	3.509	3.505	-0.004
12	10	14V Biased HDR	3.424	3.428	0.004
13	10	14V Biased HDR	3.446	3.45	0.004
14	10	14V Biased HDR	3.487	3.49	0.003
15	10	14V Biased HDR	3.52	3.512	-0.008
16	10	Unbiased HDR	3.494	3.498	0.004
17	10	Unbiased HDR	3.501	3.501	0
18	10	Unbiased HDR	3.487	3.487	0
19	10	Unbiased HDR	3.479	3.476	-0.003
20	10	Unbiased HDR	3.52	3.523	0.003
21	30	14V Biased HDR	3.487	3.487	0
22	30	14V Biased HDR	3.476	3.483	0.007
23	30	14V Biased HDR	3.487	3.479	-0.008
24	30	14V Biased HDR	3.52	3.531	0.011
25	30	14V Biased HDR	3.509	3.512	0.003
26	30	Unbiased HDR	3.476	3.49	0.014
27	30	Unbiased HDR	3.406	3.413	0.007
28	30	Unbiased HDR	3.428	3.431	0.003
29	30	Unbiased HDR	3.457	3.465	0.008
30	30	Unbiased HDR	3.439	3.439	0
31	50	14V Biased HDR	3.476	3.472	-0.004
32	50	14V Biased HDR	3.468	3.468	0
33	50	14V Biased HDR	3.454	3.45	-0.004
34	50	14V Biased HDR	3.409	3.417	0.008
35	50	14V Biased HDR	3.454	3.468	0.014
36	50	Unbiased HDR	3.494	3.523	0.029
37	50	Unbiased HDR	3.465	3.468	0.003
38	50	Unbiased HDR	3.509	3.527	0.018
39	50	Unbiased HDR	3.505	3.509	0.004
40	50	Unbiased HDR	3.501	3.509	0.008
41	100	14V Biased HDR	3.45	3.465	0.015
42	100	14V Biased HDR	3.439	3.439	0
43	100	14V Biased HDR	3.494	3.483	-0.011
44	100	14V Biased HDR	3.465	3.446	-0.019
45	100	14V Biased HDR	3.545	3.534	-0.011
46	100	Unbiased HDR	3.468	3.516	0.048
47	100	Unbiased HDR	3.417	3.439	0.022
48	100	Unbiased HDR	3.461	3.483	0.022
49	100	Unbiased HDR	3.42	3.457	0.037
50	100	Unbiased HDR	3.424	3.439	0.015
51	0	Correlation	3.461	3.461	0
52	0	Correlation	3.534	3.534	0
53	0	Correlation	3.498	3.498	0
54	0	Correlation	3.402	3.402	0
55	0	Correlation	3.527	3.531	0.004

Test Statistics (V)

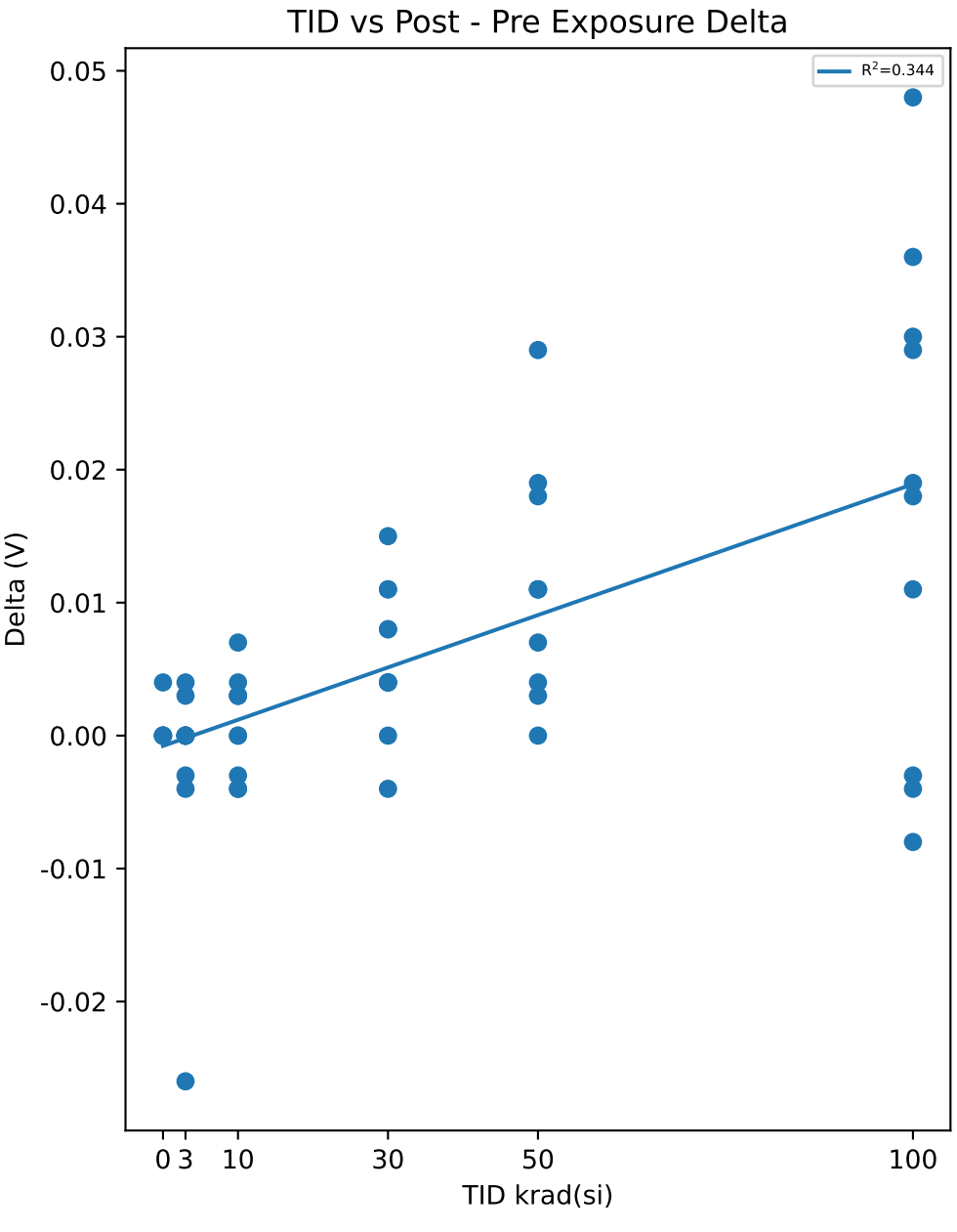
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.402	3.4844	3.534	0.054307	3.402	3.4852	3.534	0.055115	0	0.0008	0.004	0.0017889
3	3.428	3.4656	3.512	0.029159	3.428	3.4614	3.509	0.029102	-0.033	-0.0042	0	0.010218
10	3.424	3.4867	3.52	0.030948	3.428	3.487	3.523	0.028948	-0.008	0.0003	0.004	0.0041379
30	3.406	3.4685	3.52	0.035961	3.413	3.473	3.531	0.036652	-0.008	0.0045	0.014	0.0063114
50	3.409	3.4735	3.509	0.030657	3.417	3.4811	3.527	0.035108	-0.004	0.0076	0.029	0.010373
100	3.417	3.4583	3.545	0.039056	3.439	3.4701	3.534	0.03367	-0.019	0.0118	0.048	0.021862

Device Test: 5.1 VIN_UVLO_FALL(VIN_UVLO_FALLING)



Test Results (Lower Limit = 2.6, Upper Limit = 3.2 (V))

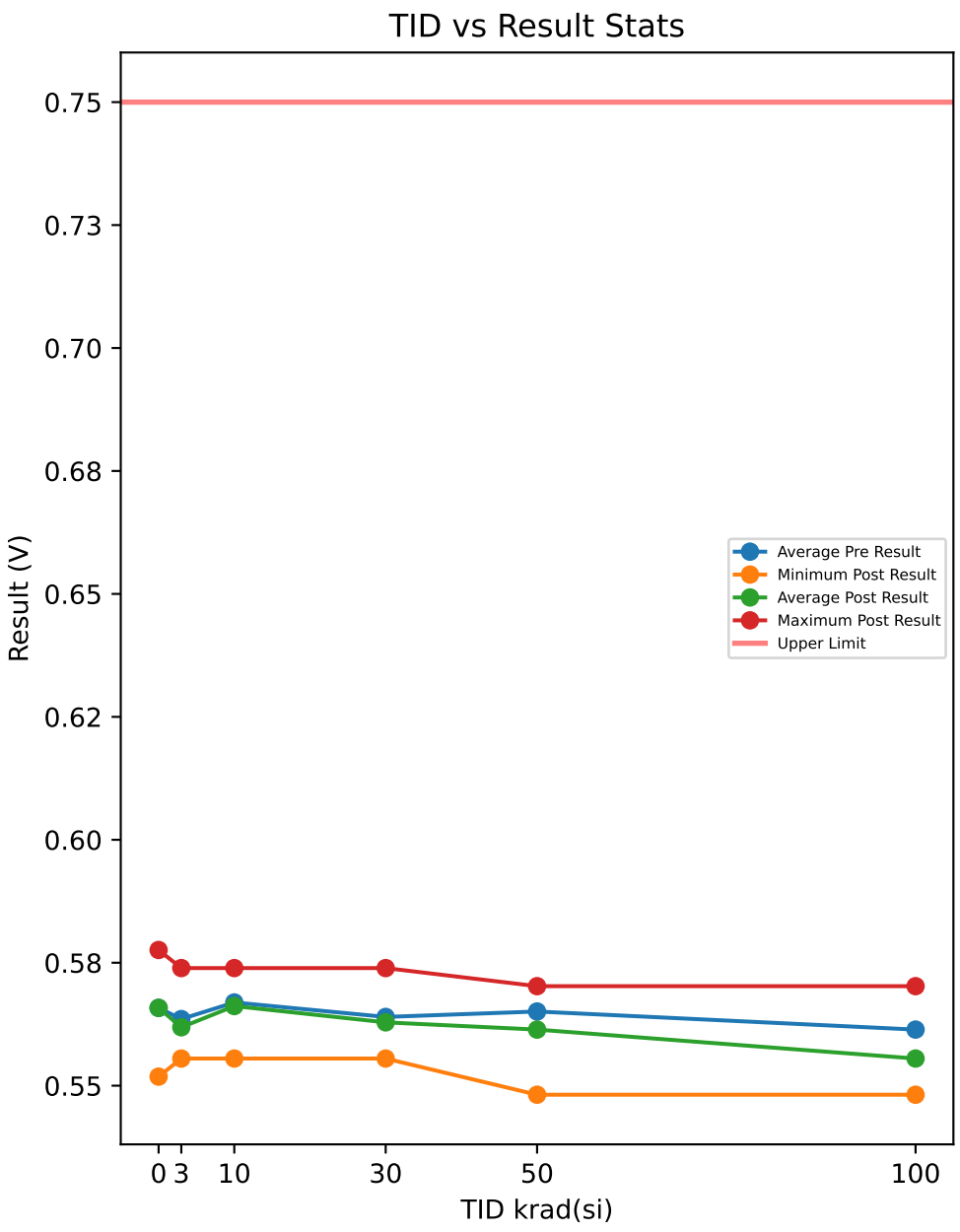
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	2.913	2.887	-0.026
2	3	14V Biased HDR	2.935	2.935	0
3	3	14V Biased HDR	2.902	2.902	0
4	3	14V Biased HDR	2.88	2.88	0
5	3	14V Biased HDR	2.898	2.894	-0.004
6	3	Unbiased HDR	2.938	2.935	-0.003
7	3	Unbiased HDR	2.916	2.92	0.004
8	3	Unbiased HDR	2.883	2.883	0
9	3	Unbiased HDR	2.883	2.883	0
10	3	Unbiased HDR	2.869	2.872	0.003
11	10	14V Biased HDR	2.938	2.935	-0.003
12	10	14V Biased HDR	2.869	2.872	0.003
13	10	14V Biased HDR	2.887	2.891	0.004
14	10	14V Biased HDR	2.92	2.927	0.007
15	10	14V Biased HDR	2.946	2.942	-0.004
16	10	Unbiased HDR	2.924	2.927	0.003
17	10	Unbiased HDR	2.935	2.935	0
18	10	Unbiased HDR	2.92	2.92	0
19	10	Unbiased HDR	2.913	2.909	-0.004
20	10	Unbiased HDR	2.946	2.949	0.003
21	30	14V Biased HDR	2.92	2.924	0.004
22	30	14V Biased HDR	2.909	2.92	0.011
23	30	14V Biased HDR	2.92	2.916	-0.004
24	30	14V Biased HDR	2.946	2.957	0.011
25	30	14V Biased HDR	2.938	2.942	0.004
26	30	Unbiased HDR	2.909	2.924	0.015
27	30	Unbiased HDR	2.85	2.858	0.008
28	30	Unbiased HDR	2.872	2.876	0.004
29	30	Unbiased HDR	2.894	2.902	0.008
30	30	Unbiased HDR	2.883	2.883	0
31	50	14V Biased HDR	2.913	2.913	0
32	50	14V Biased HDR	2.905	2.909	0.004
33	50	14V Biased HDR	2.891	2.894	0.003
34	50	14V Biased HDR	2.858	2.869	0.011
35	50	14V Biased HDR	2.891	2.909	0.018
36	50	Unbiased HDR	2.924	2.953	0.029
37	50	Unbiased HDR	2.902	2.909	0.007
38	50	Unbiased HDR	2.938	2.957	0.019
39	50	Unbiased HDR	2.935	2.946	0.011
40	50	Unbiased HDR	2.927	2.938	0.011
41	100	14V Biased HDR	2.894	2.913	0.019
42	100	14V Biased HDR	2.876	2.887	0.011
43	100	14V Biased HDR	2.927	2.924	-0.003
44	100	14V Biased HDR	2.902	2.894	-0.008
45	100	14V Biased HDR	2.968	2.964	-0.004
46	100	Unbiased HDR	2.905	2.953	0.048
47	100	Unbiased HDR	2.861	2.891	0.03
48	100	Unbiased HDR	2.898	2.927	0.029
49	100	Unbiased HDR	2.869	2.905	0.036
50	100	Unbiased HDR	2.869	2.887	0.018
51	0	Correlation	2.902	2.902	0
52	0	Correlation	2.957	2.961	0.004
53	0	Correlation	2.931	2.931	0
54	0	Correlation	2.85	2.85	0
55	0	Correlation	2.953	2.953	0

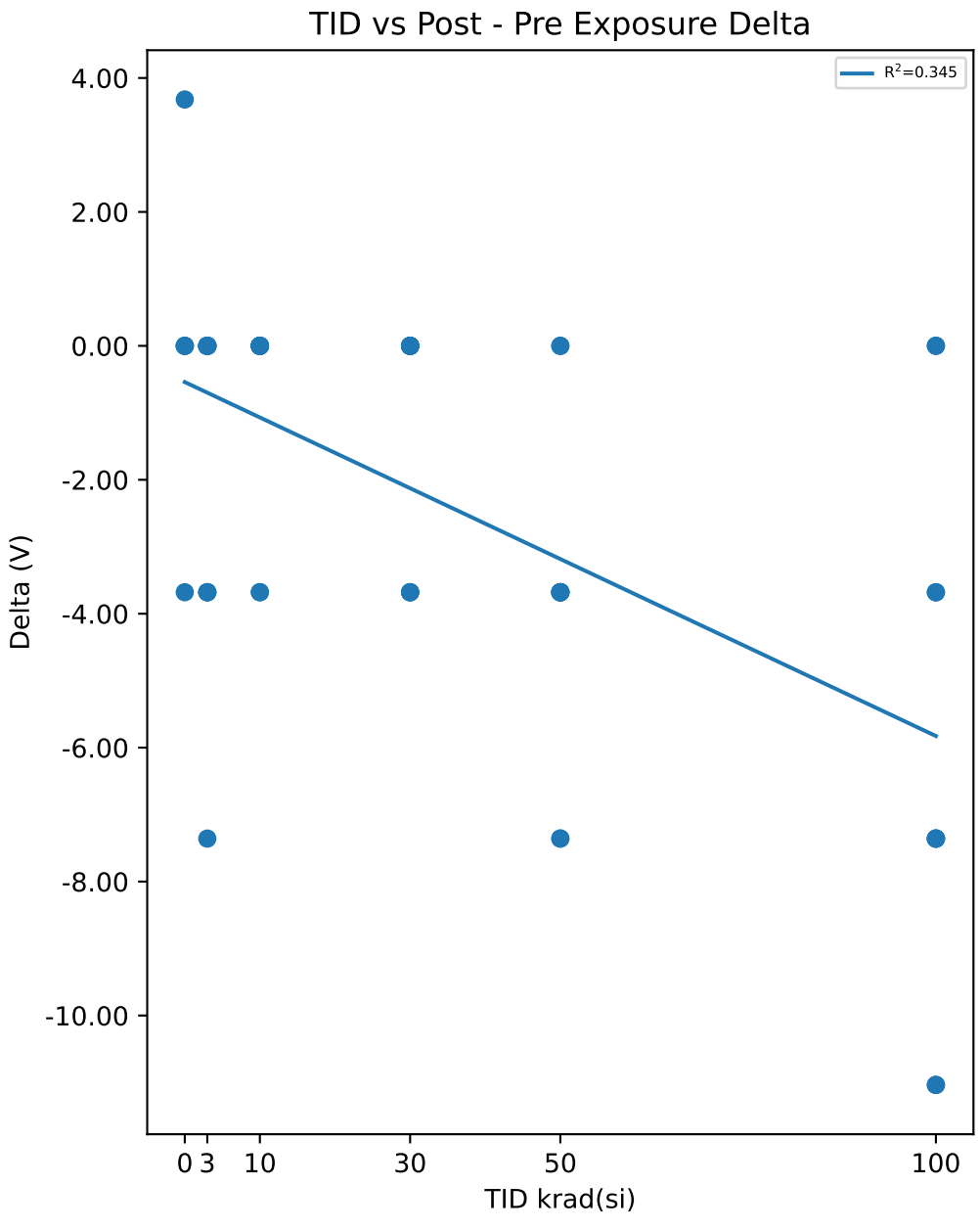


Test Statistics (V)

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	2.85	2.9186	2.957	0.04414	2.85	2.9194	2.961	0.045037	0	0.0008	0.004	0.0017889
3	2.869	2.9017	2.938	0.023599	2.872	2.8991	2.935	0.023125	-0.026	-0.0026	0.004	0.0085531
10	2.869	2.9198	2.946	0.025068	2.872	2.9207	2.949	0.023884	-0.004	0.0009	0.007	0.0037253
30	2.85	2.9041	2.946	0.029745	2.858	2.9102	2.957	0.030575	-0.004	0.0061	0.015	0.005646
50	2.858	2.9084	2.938	0.024478	2.869	2.9197	2.957	0.028178	0	0.0113	0.029	0.0087312
100	2.861	2.8969	2.968	0.032223	2.887	2.9145	2.964	0.027399	-0.008	0.0176	0.048	0.018674

Device Test: 5.2 VIN_UVLO_HYST(VIN_UVLO_HYSTERESIS)





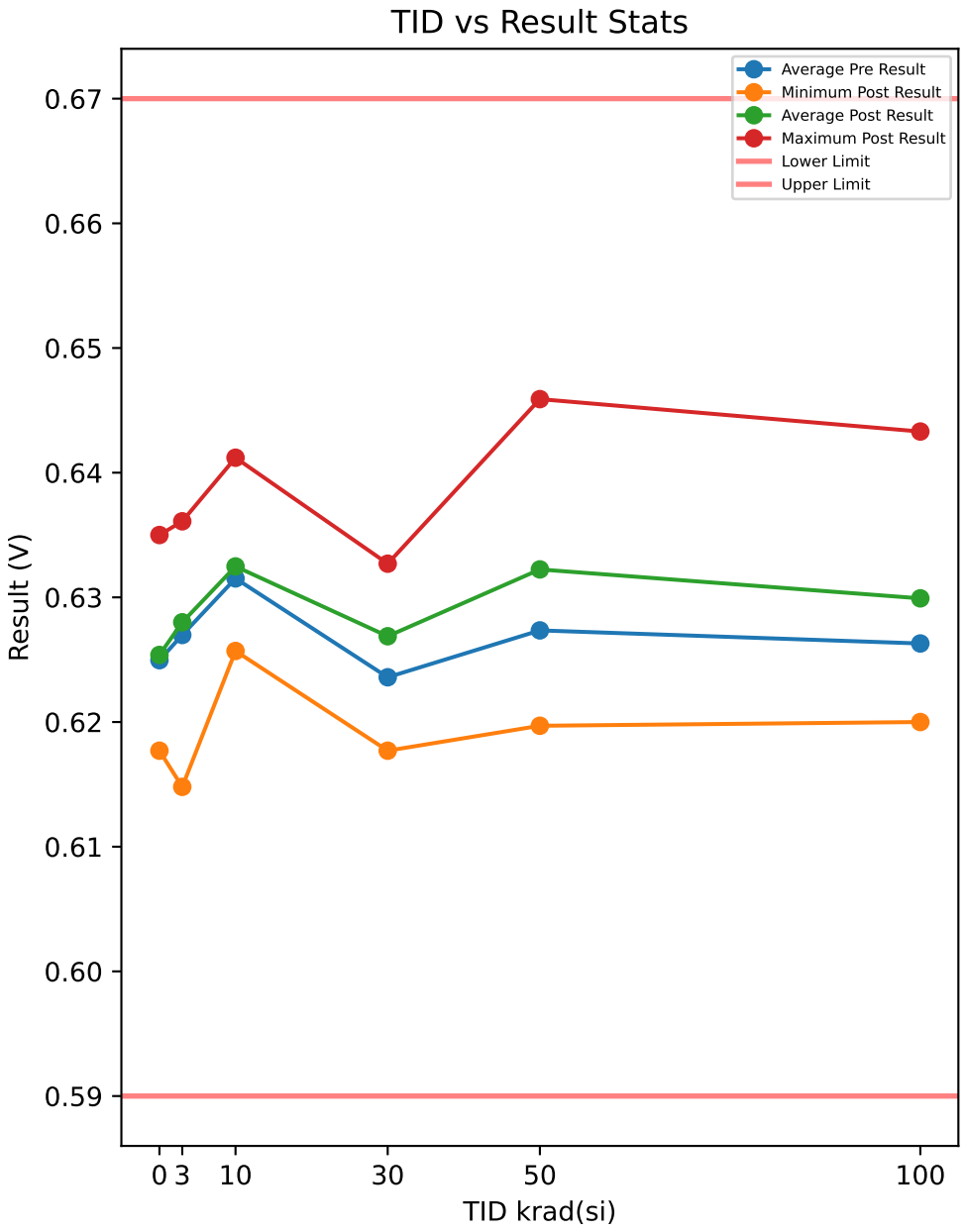
Test Results (Upper Limit = 0.75 (V))

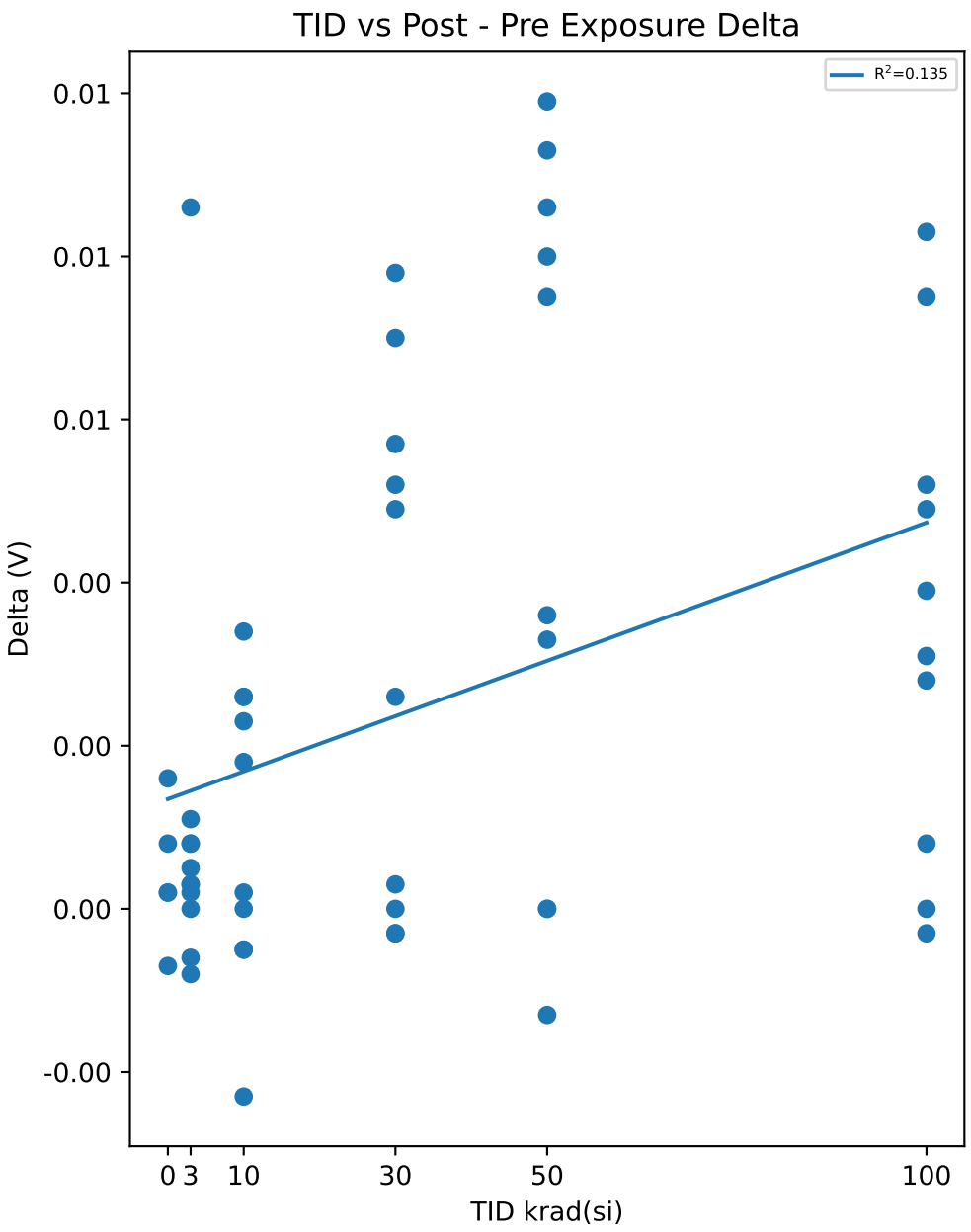
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	0.56655	0.5592	-7.358
2	3	14V Biased HDR	0.57023	0.57023	0
3	3	14V Biased HDR	0.56288	0.56288	0
4	3	14V Biased HDR	0.5592	0.5592	0
5	3	14V Biased HDR	0.5592	0.5592	0
6	3	Unbiased HDR	0.57391	0.57391	0
7	3	Unbiased HDR	0.57023	0.56655	-3.679
8	3	Unbiased HDR	0.5592	0.5592	0
9	3	Unbiased HDR	0.5592	0.55552	-3.679
10	3	Unbiased HDR	0.5592	0.55552	-3.679
11	10	14V Biased HDR	0.57023	0.57023	0
12	10	14V Biased HDR	0.55552	0.55552	0
13	10	14V Biased HDR	0.5592	0.5592	0.001
14	10	14V Biased HDR	0.56655	0.56288	-3.679
15	10	14V Biased HDR	0.57391	0.57024	-3.678
16	10	Unbiased HDR	0.57023	0.57023	0
17	10	Unbiased HDR	0.56655	0.56655	0
18	10	Unbiased HDR	0.56655	0.56655	0
19	10	Unbiased HDR	0.56655	0.56655	0
20	10	Unbiased HDR	0.57391	0.57391	0
21	30	14V Biased HDR	0.56655	0.56288	-3.679
22	30	14V Biased HDR	0.56655	0.56288	-3.679
23	30	14V Biased HDR	0.56655	0.56288	-3.679
24	30	14V Biased HDR	0.57391	0.57391	0
25	30	14V Biased HDR	0.57023	0.57024	0.001
26	30	Unbiased HDR	0.56655	0.56655	0
27	30	Unbiased HDR	0.55552	0.55552	-0.001
28	30	Unbiased HDR	0.55552	0.55552	0
29	30	Unbiased HDR	0.56288	0.56288	-0.001
30	30	Unbiased HDR	0.55552	0.55552	0
31	50	14V Biased HDR	0.56288	0.5592	-3.679
32	50	14V Biased HDR	0.56288	0.5592	-3.679
33	50	14V Biased HDR	0.56288	0.55552	-7.358
34	50	14V Biased HDR	0.55184	0.54816	-3.68
35	50	14V Biased HDR	0.56288	0.5592	-3.68
36	50	Unbiased HDR	0.57023	0.57023	0
37	50	Unbiased HDR	0.56288	0.5592	-3.679
38	50	Unbiased HDR	0.57023	0.57023	0
39	50	Unbiased HDR	0.57023	0.56288	-7.357
40	50	Unbiased HDR	0.57391	0.57023	-3.679
41	100	14V Biased HDR	0.55552	0.55184	-3.68
42	100	14V Biased HDR	0.56288	0.55184	-11.037
43	100	14V Biased HDR	0.56655	0.5592	-7.358
44	100	14V Biased HDR	0.56288	0.55184	-11.036
45	100	14V Biased HDR	0.57759	0.57023	-7.358
46	100	Unbiased HDR	0.56288	0.56288	0.001
47	100	Unbiased HDR	0.55552	0.54816	-7.357
48	100	Unbiased HDR	0.56288	0.55552	-7.359
49	100	Unbiased HDR	0.55184	0.55184	0.001
50	100	Unbiased HDR	0.55552	0.55184	-3.679
51	0	Correlation	0.5592	0.5592	0
52	0	Correlation	0.57759	0.57391	-3.679
53	0	Correlation	0.56655	0.56655	0
54	0	Correlation	0.55184	0.55184	0
55	0	Correlation	0.57391	0.57759	3.679

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	0.55184	0.56582	0.57759	0.010535	0.55184	0.56582	0.57759	0.010535	-3.679	0	3.679	2.6014
3	0.5592	0.56398	0.57391	0.005765	0.55552	0.56214	0.57391	0.0062048	-7.358	-1.8395	0	2.6014
10	0.55552	0.56692	0.57391	0.0058685	0.55552	0.56619	0.57391	0.0056063	-3.679	-0.7356	0.001	1.551
30	0.55552	0.56398	0.57391	0.0065006	0.55552	0.56288	0.57391	0.0062532	-3.679	-1.1038	0.001	1.7771
50	0.55184	0.56508	0.57391	0.0063007	0.54816	0.5614	0.57023	0.0071926	-7.358	-3.6791	0	2.4525
100	0.55184	0.5614	0.57759	0.0073987	0.54816	0.55552	0.57023	0.0067168	-11.037	-5.8862	0.001	3.9549

Device Test: 6.0 EN_VTH_RISING_PLASTIC(EN_UVLO_RISING_4p5V)





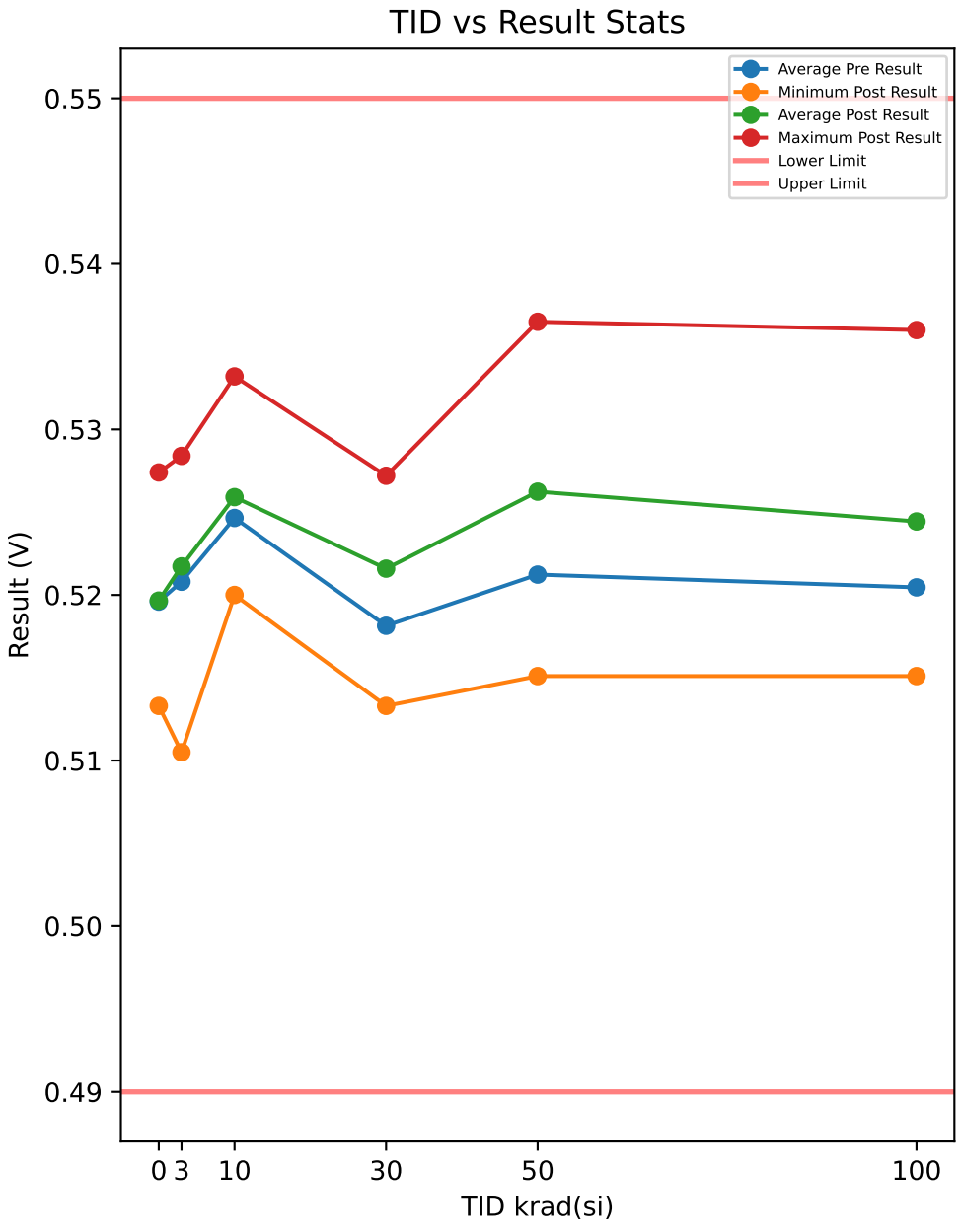
Test Results (Lower Limit = 0.59, Upper Limit = 0.67 (V))

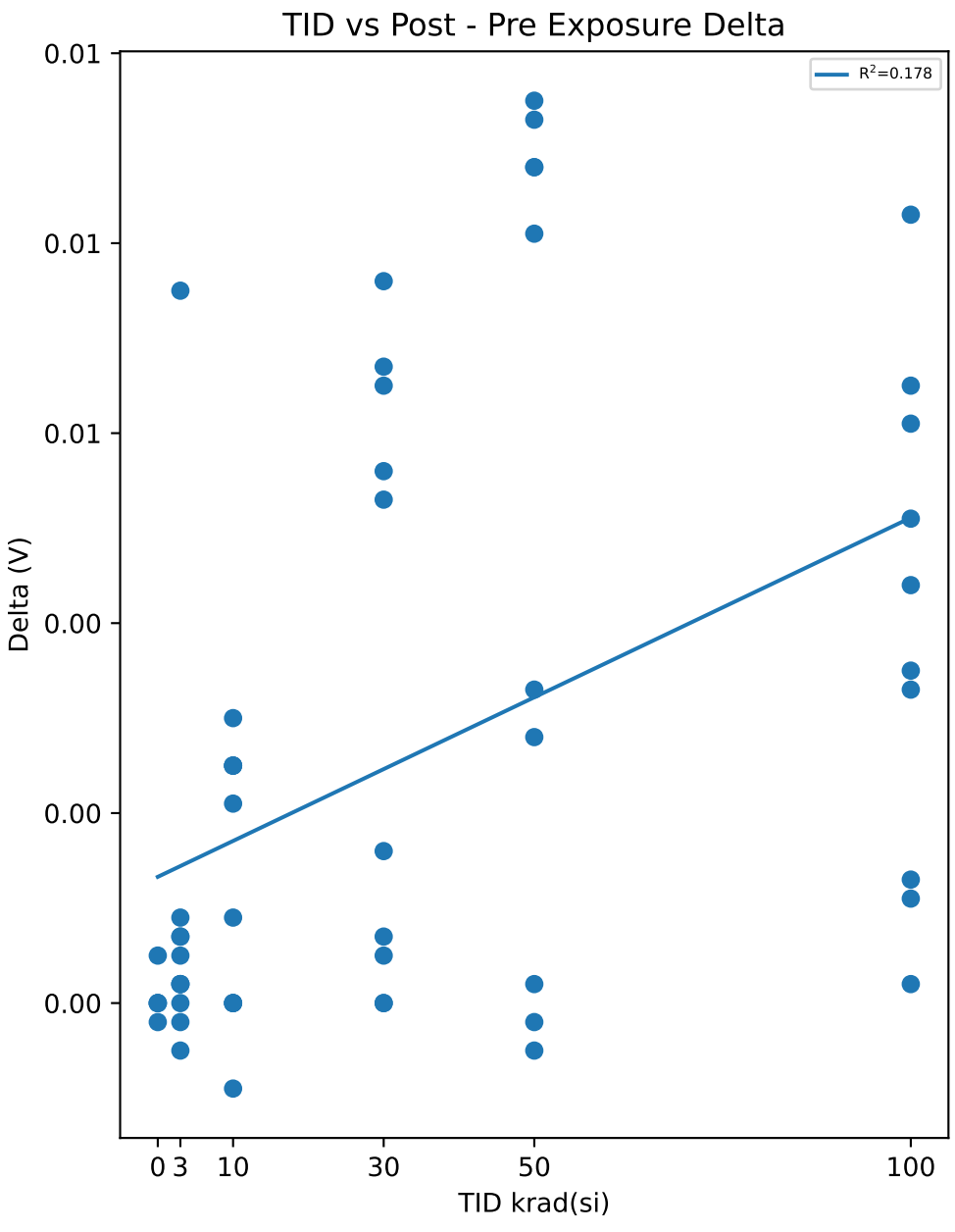
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	0.6275	0.6361	0.0086
2	3	14V Biased HDR	0.6314	0.6319	0.0005
3	3	14V Biased HDR	0.614	0.6148	0.0008
4	3	14V Biased HDR	0.6262	0.6262	0
5	3	14V Biased HDR	0.6259	0.6267	0.0008
6	3	Unbiased HDR	0.6278	0.6272	-0.0006
7	3	Unbiased HDR	0.6249	0.6252	0.0003
8	3	Unbiased HDR	0.6345	0.6337	-0.0008
9	3	Unbiased HDR	0.6262	0.6265	0.0003
10	3	Unbiased HDR	0.6234	0.6236	0.0002
11	10	14V Biased HDR	0.6363	0.6386	0.0023
12	10	14V Biased HDR	0.6223	0.6257	0.0034
13	10	14V Biased HDR	0.6386	0.6412	0.0026
14	10	14V Biased HDR	0.6319	0.6345	0.0026
15	10	14V Biased HDR	0.6278	0.6296	0.0018
16	10	Unbiased HDR	0.6314	0.6314	0
17	10	Unbiased HDR	0.627	0.6265	-0.0005
18	10	Unbiased HDR	0.635	0.6327	-0.0023
19	10	Unbiased HDR	0.6314	0.6309	-0.0005
20	10	Unbiased HDR	0.6335	0.6337	0.0002
21	30	14V Biased HDR	0.6187	0.6265	0.0078
22	30	14V Biased HDR	0.6179	0.6231	0.0052
23	30	14V Biased HDR	0.6275	0.6324	0.0049
24	30	14V Biased HDR	0.627	0.6327	0.0057
25	30	14V Biased HDR	0.6241	0.6311	0.007
26	30	Unbiased HDR	0.6275	0.6275	0
27	30	Unbiased HDR	0.6174	0.6177	0.0003
28	30	Unbiased HDR	0.6231	0.6228	-0.0003
29	30	Unbiased HDR	0.6275	0.6301	0.0026
30	30	Unbiased HDR	0.6252	0.6249	-0.0003
31	50	14V Biased HDR	0.6296	0.6389	0.0093
32	50	14V Biased HDR	0.6215	0.6301	0.0086
33	50	14V Biased HDR	0.6228	0.6327	0.0099
34	50	14V Biased HDR	0.6275	0.6355	0.008
35	50	14V Biased HDR	0.6322	0.6397	0.0075
36	50	Unbiased HDR	0.6423	0.6459	0.0036
37	50	Unbiased HDR	0.6197	0.6197	0
38	50	Unbiased HDR	0.6275	0.6275	0
39	50	Unbiased HDR	0.6239	0.6272	0.0033
40	50	Unbiased HDR	0.6265	0.6252	-0.0013
41	100	14V Biased HDR	0.6226	0.6275	0.0049
42	100	14V Biased HDR	0.635	0.6433	0.0083
43	100	14V Biased HDR	0.6314	0.6389	0.0075
44	100	14V Biased HDR	0.6226	0.6278	0.0052
45	100	14V Biased HDR	0.635	0.6389	0.0039
46	100	Unbiased HDR	0.62	0.6228	0.0028
47	100	Unbiased HDR	0.62	0.62	0
48	100	Unbiased HDR	0.6278	0.6275	-0.0003
49	100	Unbiased HDR	0.6247	0.6278	0.0031
50	100	Unbiased HDR	0.6239	0.6247	0.0008
51	0	Correlation	0.6228	0.6236	0.0008
52	0	Correlation	0.6213	0.6215	0.0002
53	0	Correlation	0.6275	0.6291	0.0016
54	0	Correlation	0.6184	0.6177	-0.0007
55	0	Correlation	0.6348	0.635	0.0002

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	0.6184	0.62496	0.6348	0.0064104	0.6177	0.62538	0.635	0.0067747	-0.0007	0.00042	0.0016	0.00084971
3	0.614	0.62618	0.6345	0.0053607	0.6148	0.62719	0.6361	0.0059255	-0.0008	0.00101	0.0086	0.0027184
10	0.6223	0.63152	0.6386	0.0048127	0.6257	0.63248	0.6412	0.0048625	-0.0023	0.00096	0.0034	0.0018325
30	0.6174	0.62359	0.6275	0.0041525	0.6177	0.62688	0.6327	0.0048554	-0.0003	0.00329	0.0078	0.0032002
50	0.6197	0.62735	0.6423	0.0064825	0.6197	0.63224	0.6459	0.0078649	-0.0013	0.00489	0.0099	0.0042834
100	0.62	0.6263	0.635	0.0057225	0.62	0.62992	0.6433	0.007727	-0.0003	0.00362	0.0083	0.002954

Device Test: 6.1 EN_VTH_FALLING_PLASTIC(EN_UVLO_FALLING_4p5V)





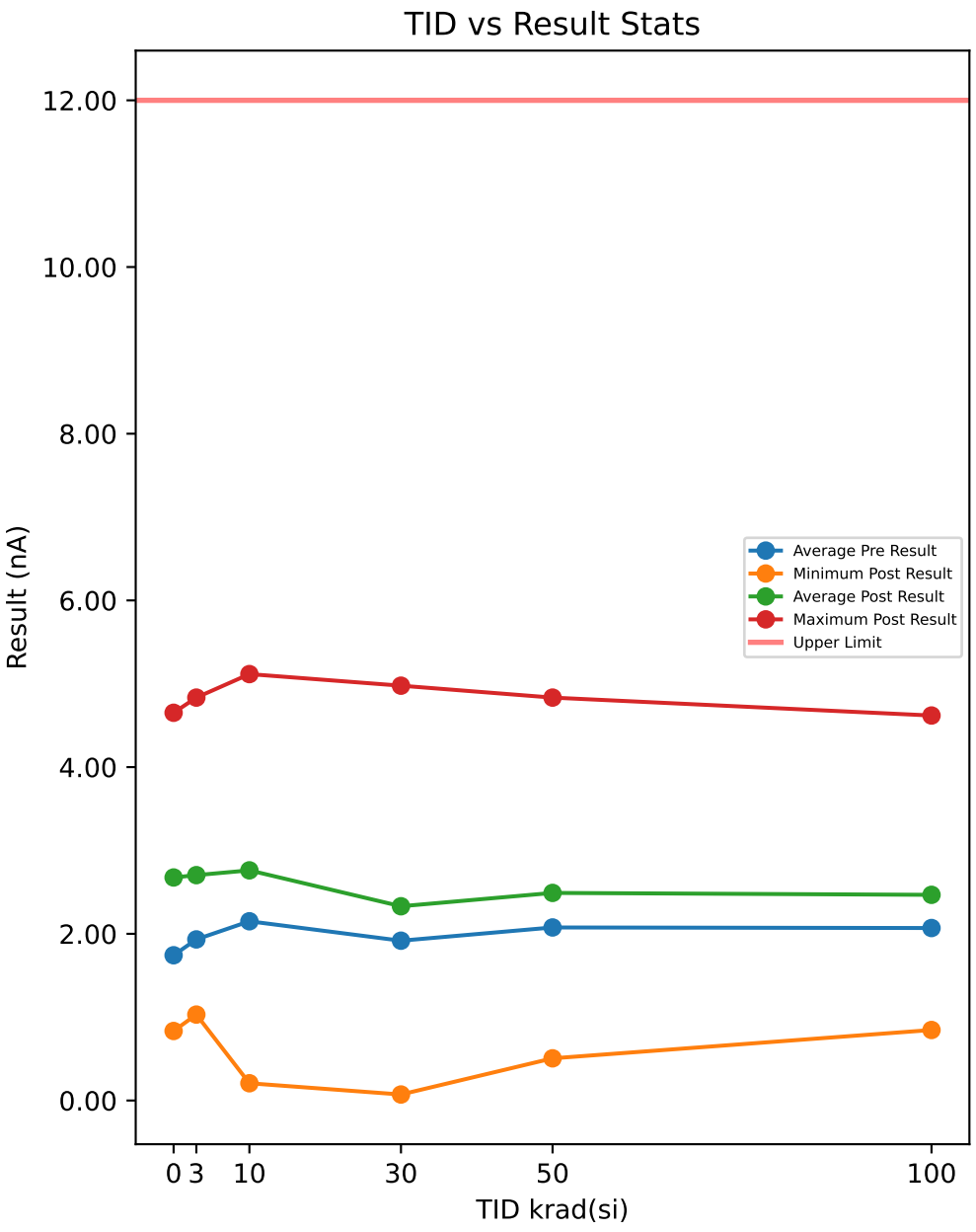
Test Results (Lower Limit = 0.49, Upper Limit = 0.55 (V))

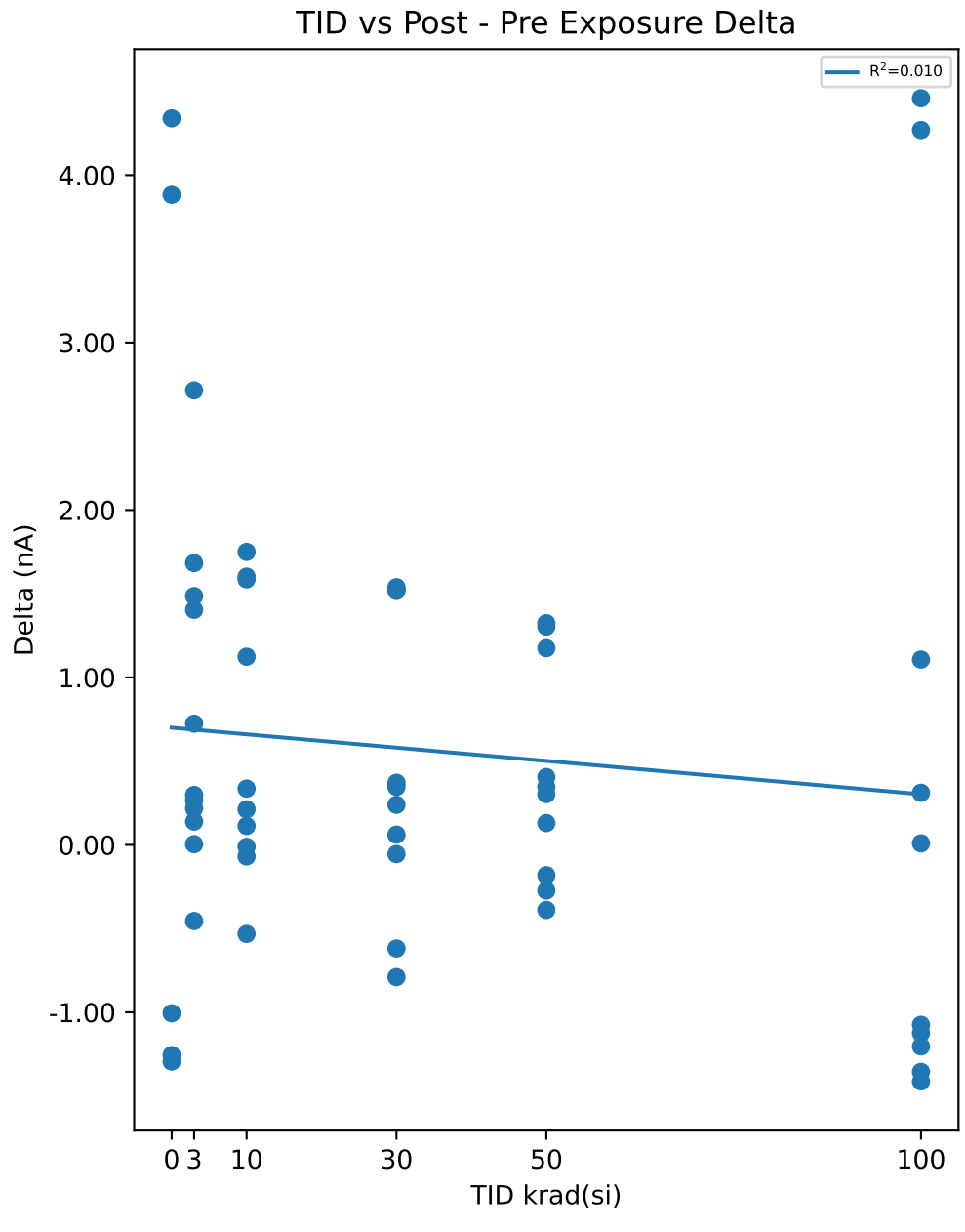
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	0.5209	0.5284	0.0075
2	3	14V Biased HDR	0.5246	0.5253	0.0007
3	3	14V Biased HDR	0.5098	0.5105	0.0007
4	3	14V Biased HDR	0.5207	0.5207	0
5	3	14V Biased HDR	0.52	0.5209	0.0009
6	3	Unbiased HDR	0.5209	0.5207	-0.0002
7	3	Unbiased HDR	0.5191	0.5193	0.0002
8	3	Unbiased HDR	0.5272	0.5267	-0.0005
9	3	Unbiased HDR	0.52	0.5202	0.0002
10	3	Unbiased HDR	0.5177	0.5179	0.0002
11	10	14V Biased HDR	0.5286	0.5311	0.0025
12	10	14V Biased HDR	0.517	0.52	0.003
13	10	14V Biased HDR	0.5307	0.5332	0.0025
14	10	14V Biased HDR	0.5249	0.5274	0.0025
15	10	14V Biased HDR	0.5216	0.5237	0.0021
16	10	Unbiased HDR	0.5256	0.5256	0
17	10	Unbiased HDR	0.5207	0.5207	0
18	10	Unbiased HDR	0.5274	0.5265	-0.0009
19	10	Unbiased HDR	0.5237	0.5237	0
20	10	Unbiased HDR	0.5263	0.5272	0.0009
21	30	14V Biased HDR	0.5138	0.5214	0.0076
22	30	14V Biased HDR	0.5133	0.5186	0.0053
23	30	14V Biased HDR	0.5216	0.5272	0.0056
24	30	14V Biased HDR	0.5207	0.5272	0.0065
25	30	14V Biased HDR	0.5186	0.5253	0.0067
26	30	Unbiased HDR	0.5219	0.5226	0.0007
27	30	Unbiased HDR	0.5128	0.5133	0.0005
28	30	Unbiased HDR	0.5177	0.5177	0
29	30	Unbiased HDR	0.5221	0.5237	0.0016
30	30	Unbiased HDR	0.5189	0.5189	0
31	50	14V Biased HDR	0.5228	0.5321	0.0093
32	50	14V Biased HDR	0.5158	0.5246	0.0088
33	50	14V Biased HDR	0.5179	0.5274	0.0095
34	50	14V Biased HDR	0.5209	0.5297	0.0088
35	50	14V Biased HDR	0.5249	0.533	0.0081
36	50	Unbiased HDR	0.5332	0.5365	0.0033
37	50	Unbiased HDR	0.5149	0.5151	0.0002
38	50	Unbiased HDR	0.5228	0.5226	-0.0002
39	50	Unbiased HDR	0.5191	0.5219	0.0028
40	50	Unbiased HDR	0.52	0.5195	-0.0005
41	100	14V Biased HDR	0.517	0.5235	0.0065
42	100	14V Biased HDR	0.5277	0.536	0.0083
43	100	14V Biased HDR	0.526	0.5321	0.0061
44	100	14V Biased HDR	0.5172	0.5223	0.0051
45	100	14V Biased HDR	0.5277	0.5321	0.0044
46	100	Unbiased HDR	0.5149	0.5182	0.0033
47	100	Unbiased HDR	0.5149	0.5151	0.0002
48	100	Unbiased HDR	0.5219	0.523	0.0011
49	100	Unbiased HDR	0.5191	0.5226	0.0035
50	100	Unbiased HDR	0.5182	0.5195	0.0013
51	0	Correlation	0.5182	0.5182	0
52	0	Correlation	0.5161	0.5161	0
53	0	Correlation	0.5235	0.5233	-0.0002
54	0	Correlation	0.5128	0.5133	0.0005
55	0	Correlation	0.5274	0.5274	0

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	0.5128	0.5196	0.5274	0.0058417	0.5133	0.51966	0.5274	0.005666	-0.0002	6e-05	0.0005	0.00026077
3	0.5098	0.52009	0.5272	0.0045359	0.5105	0.52106	0.5284	0.0050474	-0.0005	0.00097	0.0075	0.0023343
10	0.517	0.52465	0.5307	0.0040522	0.52	0.52591	0.5332	0.0041667	-0.0009	0.00126	0.003	0.0014104
30	0.5128	0.51814	0.5221	0.0036531	0.5133	0.52159	0.5272	0.0045	0	0.00345	0.0076	0.003138
50	0.5149	0.52123	0.5332	0.0052544	0.5151	0.52624	0.5365	0.006691	-0.0005	0.00501	0.0095	0.0042855
100	0.5149	0.52046	0.5277	0.0050441	0.5151	0.52444	0.536	0.0067699	0.0002	0.00398	0.0083	0.0026119

Device Test: 6.10 IEN_VIN(EN3p3V_I_Vin14V)





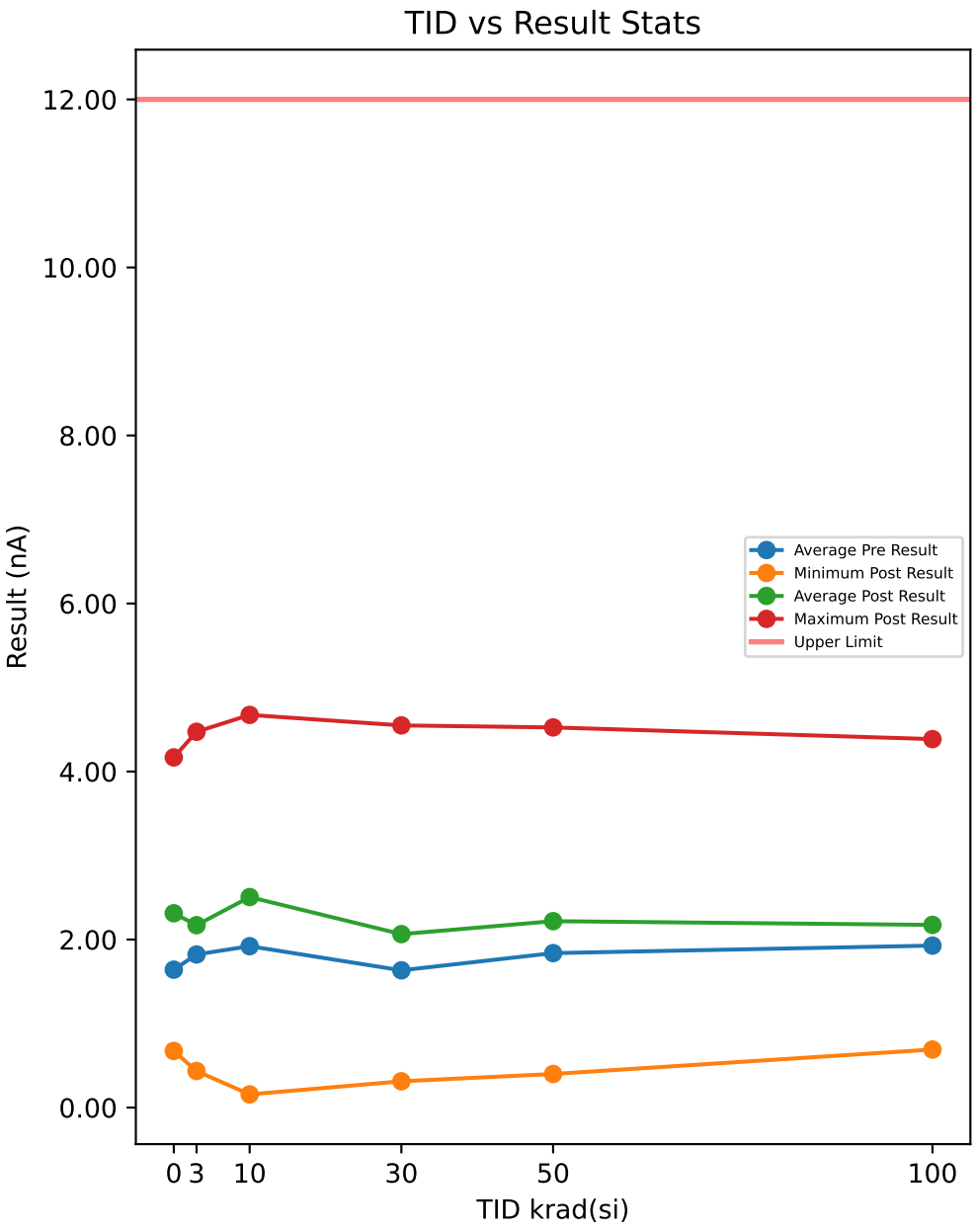
Test Results (Upper Limit = 12.0 (nA))

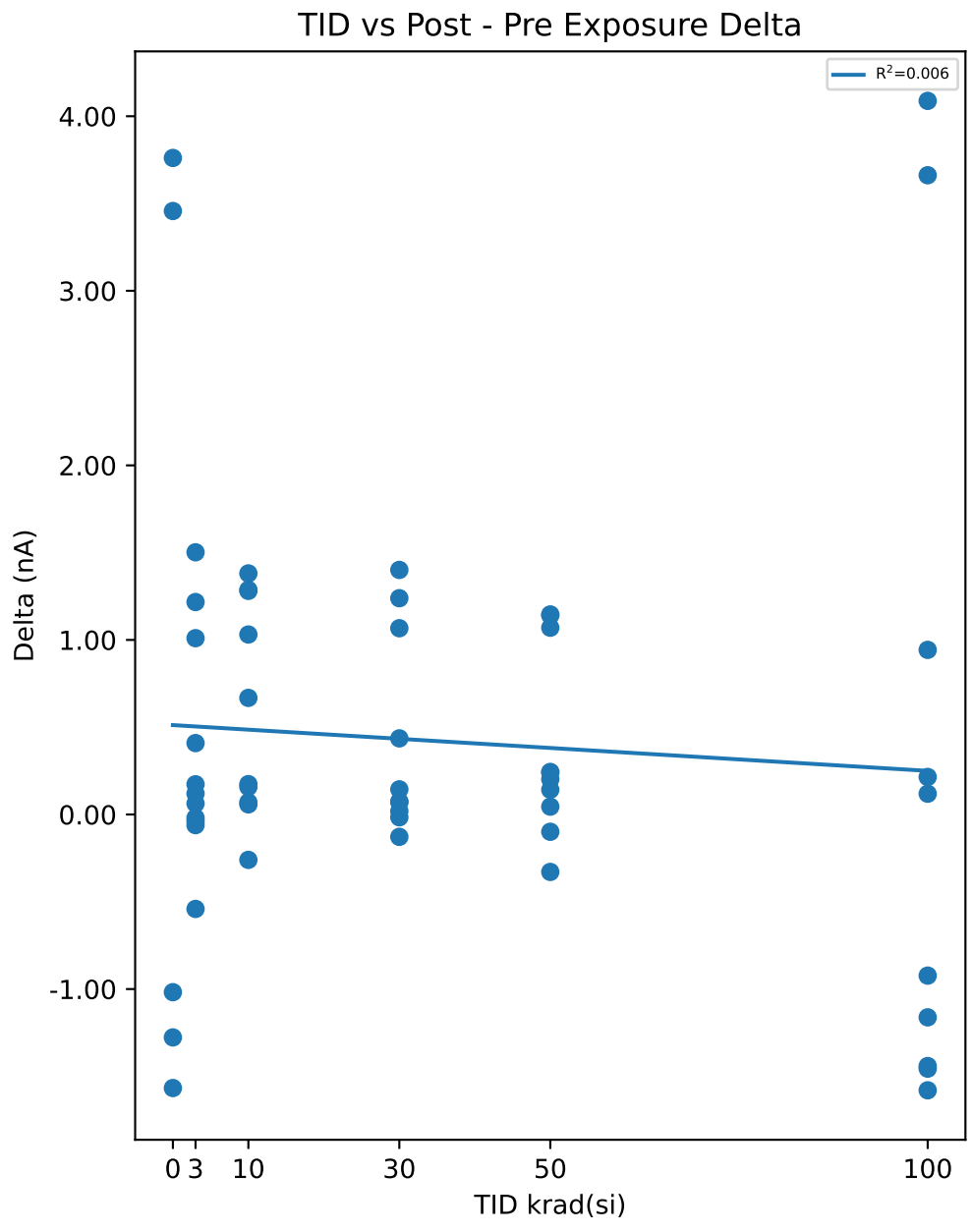
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	2.468	2.013	-0.455
2	3	14V Biased HDR	3.144	4.827	1.683
3	3	14V Biased HDR	0.335	3.05	2.715
4	3	14V Biased HDR	1.926	2.065	0.139
5	3	14V Biased HDR	3.076	4.48	1.404
6	3	Unbiased HDR	0.382	1.106	0.724
7	3	Unbiased HDR	1.946	2.164	0.218
8	3	Unbiased HDR	3.348	4.834	1.486
9	3	Unbiased HDR	0.733	1.031	0.298
10	3	Unbiased HDR	1.893	2.16	0.267
11	10	14V Biased HDR	3.424	5.01	1.586
12	10	14V Biased HDR	0.376	0.307	-0.069
13	10	14V Biased HDR	1.775	2.111	0.336
14	10	14V Biased HDR	3.514	5.116	1.602
15	10	14V Biased HDR	0.739	0.207	-0.532
16	10	Unbiased HDR	2.061	2.273	0.212
17	10	Unbiased HDR	3.182	4.932	1.75
18	10	Unbiased HDR	0.891	1.004	0.113
19	10	Unbiased HDR	2.005	1.993	-0.012
20	10	Unbiased HDR	3.537	4.661	1.124
21	30	14V Biased HDR	0.862	0.072	-0.79
22	30	14V Biased HDR	1.936	2.175	0.239
23	30	14V Biased HDR	3.368	4.892	1.524
24	30	14V Biased HDR	0.674	1.045	0.371
25	30	14V Biased HDR	2.085	2.146	0.061
26	30	Unbiased HDR	3.405	4.944	1.539
27	30	Unbiased HDR	0.88	0.261	-0.619
28	30	Unbiased HDR	2.045	2.391	0.346
29	30	Unbiased HDR	3.46	4.977	1.517
30	30	Unbiased HDR	0.458	0.403	-0.055
31	50	14V Biased HDR	1.96	2.09	0.13
32	50	14V Biased HDR	3.545	4.72	1.175
33	50	14V Biased HDR	0.895	0.506	-0.389
34	50	14V Biased HDR	1.87	2.275	0.405
35	50	14V Biased HDR	3.53	4.834	1.304
36	50	Unbiased HDR	0.881	0.7	-0.181
37	50	Unbiased HDR	1.97	2.317	0.347
38	50	Unbiased HDR	3.396	4.72	1.324
39	50	Unbiased HDR	0.881	0.608	-0.273
40	50	Unbiased HDR	1.834	2.137	0.303
41	100	14V Biased HDR	3.512	4.619	1.107
42	100	14V Biased HDR	0.535	0.846	0.311
43	100	14V Biased HDR	1.969	1.978	0.009
44	100	14V Biased HDR	3.346	2.142	-1.204
45	100	14V Biased HDR	0.212	4.481	4.269
46	100	Unbiased HDR	2.012	0.937	-1.075
47	100	Unbiased HDR	3.471	2.058	-1.413
48	100	Unbiased HDR	0.11	4.569	4.459
49	100	Unbiased HDR	1.999	0.875	-1.124
50	100	Unbiased HDR	3.528	2.172	-1.356
51	0	Correlation	0.257	4.596	4.339
52	0	Correlation	1.84	0.834	-1.006
53	0	Correlation	3.483	2.227	-1.256
54	0	Correlation	0.77	4.652	3.882
55	0	Correlation	2.364	1.07	-1.294

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	0.257	1.7428	3.483	1.2823	0.834	2.6758	4.652	1.855	-1.294	0.933	4.339	2.9072
3	0.335	1.9251	3.348	1.1285	1.031	2.773	4.834	1.4566	-0.455	0.8479	2.715	0.95172
10	0.376	2.1504	3.537	1.2186	0.207	2.7614	5.116	1.9947	-0.532	0.611	1.75	0.8255
30	0.458	1.9173	3.46	1.1836	0.072	2.3306	4.977	1.9779	-0.79	0.4133	1.539	0.85717
50	0.881	2.0762	3.545	1.0745	0.506	2.4907	4.834	1.7154	-0.389	0.4145	1.324	0.64702
100	0.11	2.0694	3.528	1.393	0.846	2.4677	4.619	1.5351	-1.413	0.3983	4.459	2.2496

Device Test: 6.11 IEN_VIN(EN1p8V_I_Vin14V)





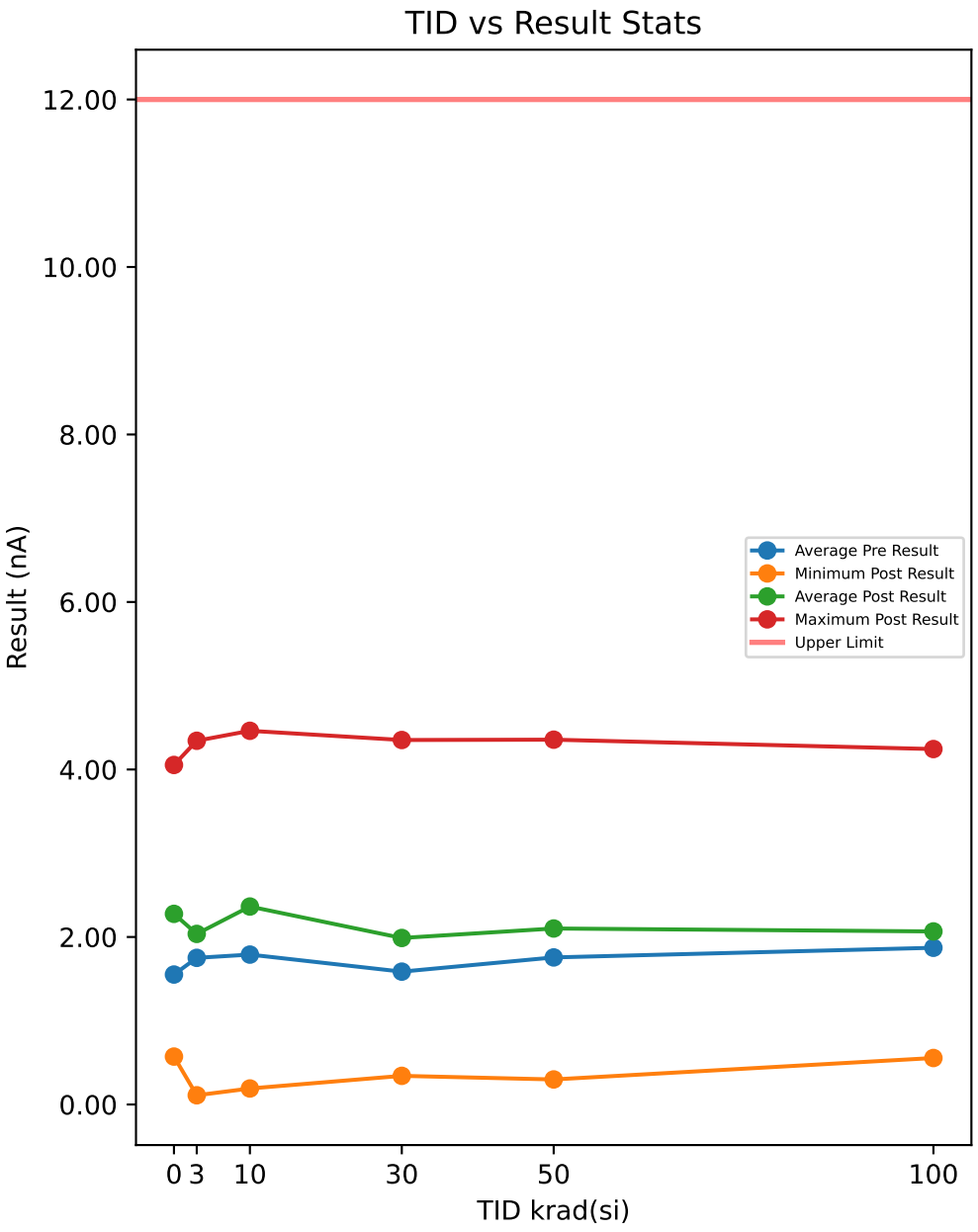
Test Results (Upper Limit = 12.0 (nA))

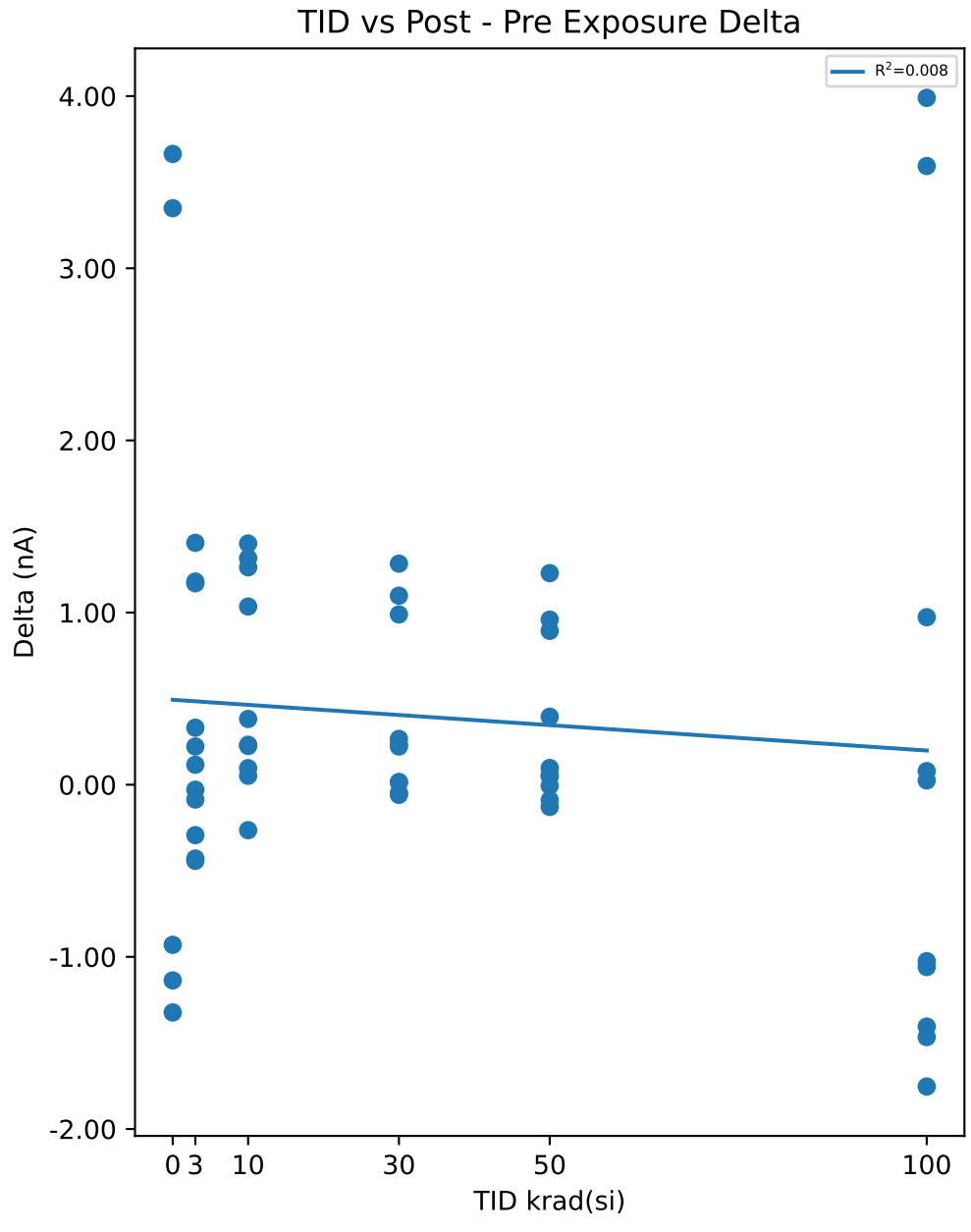
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	2.223	1.682	-0.541
2	3	14V Biased HDR	2.971	4.473	1.502
3	3	14V Biased HDR	0.454	0.435	-0.019
4	3	14V Biased HDR	1.671	1.791	0.12
5	3	14V Biased HDR	3.044	4.054	1.01
6	3	Unbiased HDR	0.906	0.868	-0.038
7	3	Unbiased HDR	1.745	1.808	0.063
8	3	Unbiased HDR	3.199	4.416	1.217
9	3	Unbiased HDR	0.405	0.814	0.409
10	3	Unbiased HDR	1.687	1.86	0.173
11	10	14V Biased HDR	3.265	4.552	1.287
12	10	14V Biased HDR	0.417	0.157	-0.26
13	10	14V Biased HDR	1.753	1.811	0.058
14	10	14V Biased HDR	3.293	4.674	1.381
15	10	14V Biased HDR	0.186	0.344	0.158
16	10	Unbiased HDR	1.768	1.942	0.174
17	10	Unbiased HDR	3.185	4.466	1.281
18	10	Unbiased HDR	0.111	0.779	0.668
19	10	Unbiased HDR	1.768	1.838	0.07
20	10	Unbiased HDR	3.466	4.497	1.031
21	30	14V Biased HDR	0.238	0.313	0.075
22	30	14V Biased HDR	1.67	1.74	0.07
23	30	14V Biased HDR	3.182	4.249	1.067
24	30	14V Biased HDR	0.655	0.674	0.019
25	30	14V Biased HDR	1.812	1.796	-0.016
26	30	Unbiased HDR	3.148	4.549	1.401
27	30	Unbiased HDR	0.591	0.463	-0.128
28	30	Unbiased HDR	1.767	1.911	0.144
29	30	Unbiased HDR	3.168	4.407	1.239
30	30	Unbiased HDR	0.107	0.543	0.436
31	50	14V Biased HDR	1.591	1.834	0.243
32	50	14V Biased HDR	3.322	4.392	1.07
33	50	14V Biased HDR	0.729	0.4	-0.329
34	50	14V Biased HDR	1.629	1.871	0.242
35	50	14V Biased HDR	3.379	4.525	1.146
36	50	Unbiased HDR	0.594	0.736	0.142
37	50	Unbiased HDR	1.467	1.669	0.202
38	50	Unbiased HDR	3.289	4.43	1.141
39	50	Unbiased HDR	0.735	0.636	-0.099
40	50	Unbiased HDR	1.651	1.696	0.045
41	100	14V Biased HDR	3.292	4.235	0.943
42	100	14V Biased HDR	0.507	0.722	0.215
43	100	14V Biased HDR	1.57	1.689	0.119
44	100	14V Biased HDR	3.249	1.669	-1.58
45	100	14V Biased HDR	0.298	4.386	4.088
46	100	Unbiased HDR	1.64	0.717	-0.923
47	100	Unbiased HDR	3.187	1.731	-1.456
48	100	Unbiased HDR	0.421	4.083	3.662
49	100	Unbiased HDR	1.853	0.691	-1.162
50	100	Unbiased HDR	3.264	1.823	-1.441
51	0	Correlation	0.389	4.15	3.761
52	0	Correlation	1.692	0.674	-1.018
53	0	Correlation	3.399	1.832	-1.567
54	0	Correlation	0.711	4.168	3.457
55	0	Correlation	2.017	0.74	-1.277

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	0.389	1.6416	3.399	1.1903	0.674	2.3128	4.168	1.747	-1.567	0.6712	3.761	2.691
3	0.405	1.8305	3.199	1.0347	0.435	2.2201	4.473	1.5285	-0.541	0.3896	1.502	0.64544
10	0.111	1.9212	3.466	1.3456	0.157	2.506	4.674	1.8593	-0.26	0.5848	1.381	0.61688
30	0.107	1.6338	3.182	1.2211	0.313	2.0645	4.549	1.7164	-0.128	0.4307	1.401	0.57925
50	0.594	1.8386	3.379	1.1032	0.4	2.2189	4.525	1.6257	-0.329	0.3803	1.146	0.53877
100	0.298	1.9281	3.292	1.2534	0.691	2.1746	4.386	1.4916	-1.58	0.2465	4.088	2.0912

Device Test: 6.12 IEN_VIN(EN1p5V_I_Vin14V)





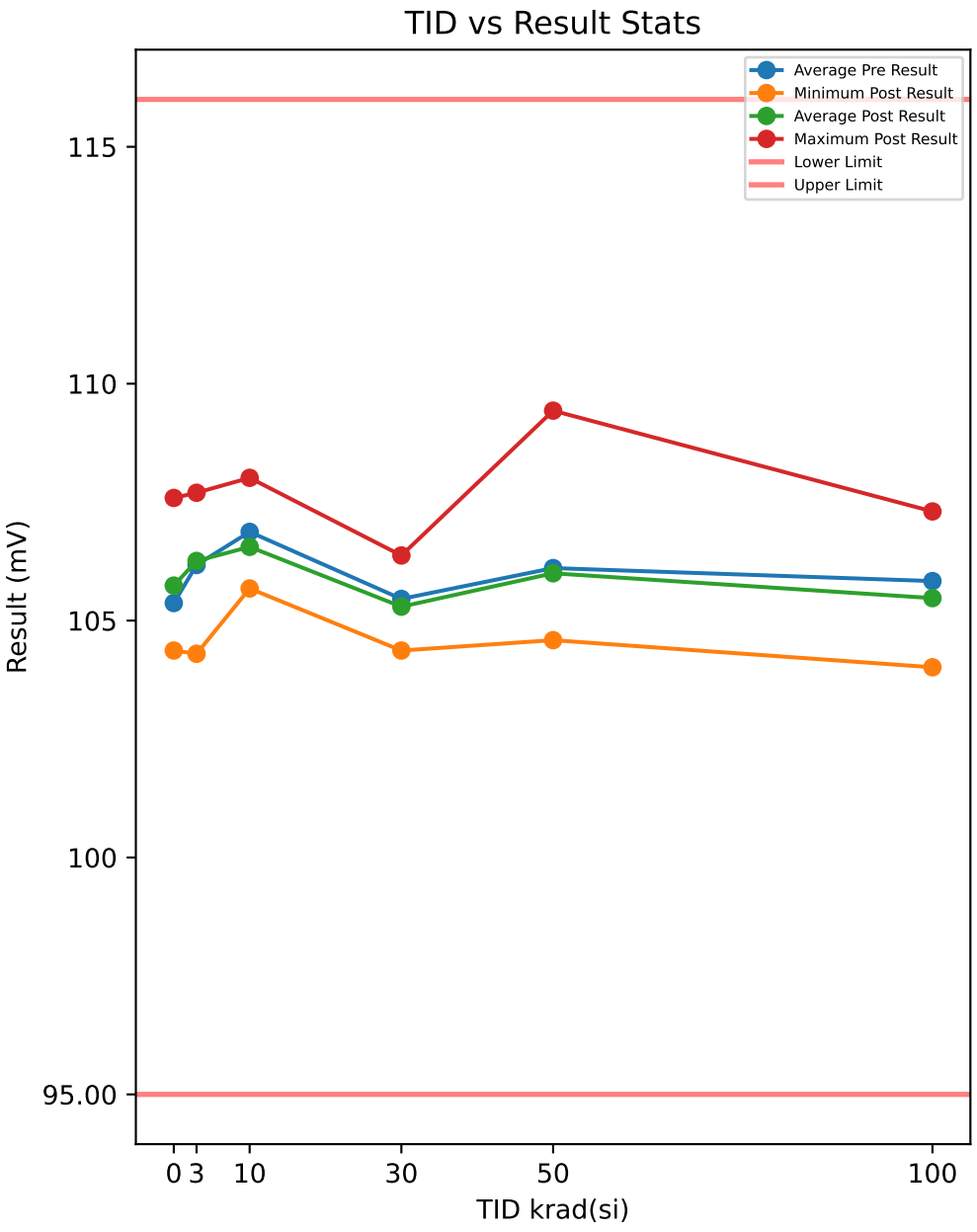
Test Results (Upper Limit = 12.0 (nA))

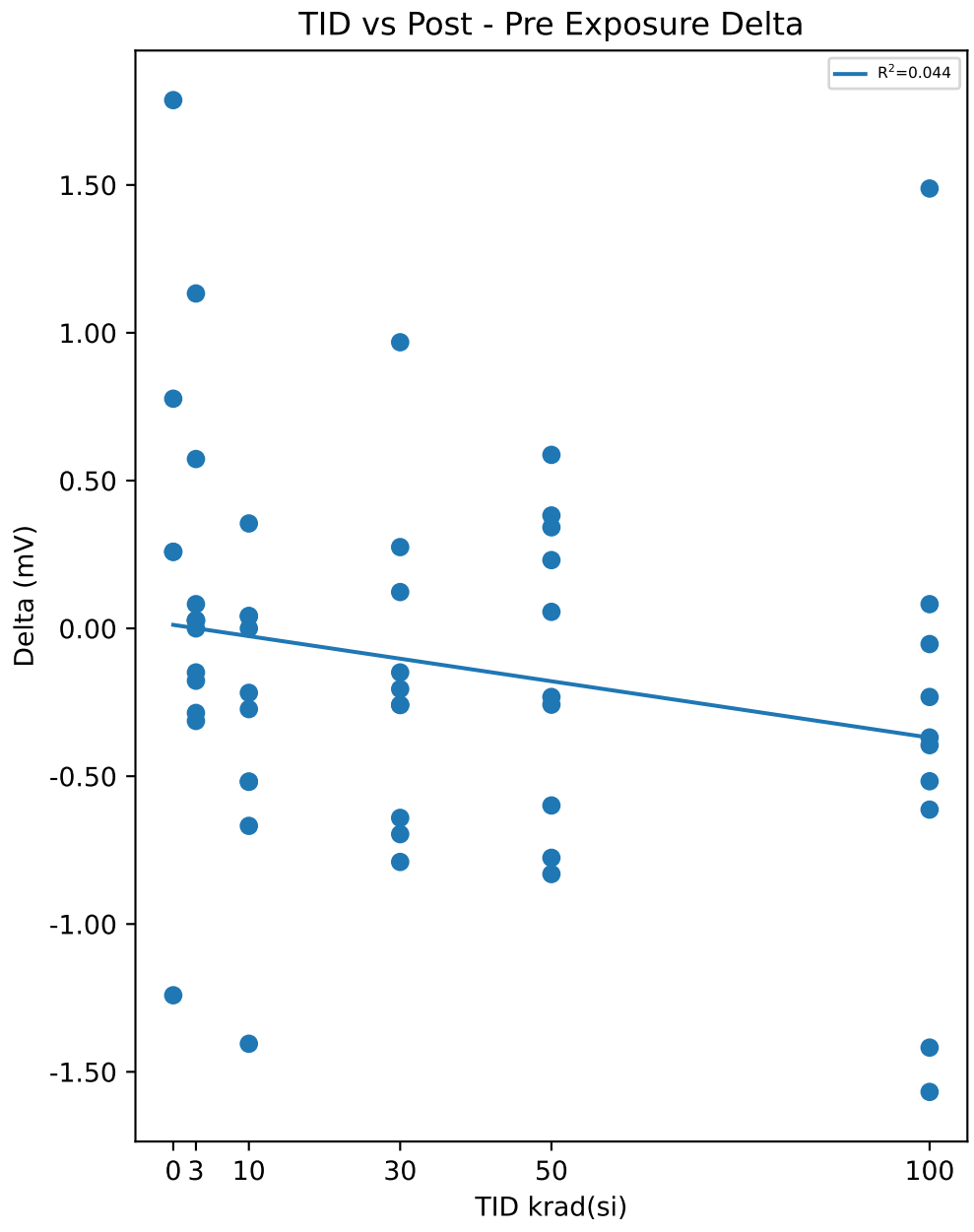
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	2.045	1.603	-0.442
2	3	14V Biased HDR	2.892	4.297	1.405
3	3	14V Biased HDR	0.539	0.11	-0.429
4	3	14V Biased HDR	1.57	1.484	-0.086
5	3	14V Biased HDR	2.905	4.075	1.17
6	3	Unbiased HDR	1.033	0.74	-0.293
7	3	Unbiased HDR	1.512	1.734	0.222
8	3	Unbiased HDR	3.163	4.343	1.18
9	3	Unbiased HDR	0.597	0.713	0.116
10	3	Unbiased HDR	1.372	1.703	0.331
11	10	14V Biased HDR	3.09	4.353	1.263
12	10	14V Biased HDR	0.455	0.191	-0.264
13	10	14V Biased HDR	1.462	1.687	0.225
14	10	14V Biased HDR	3.061	4.462	1.401
15	10	14V Biased HDR	0.176	0.228	0.052
16	10	Unbiased HDR	1.654	1.75	0.096
17	10	Unbiased HDR	3.085	4.401	1.316
18	10	Unbiased HDR	0.274	0.656	0.382
19	10	Unbiased HDR	1.526	1.758	0.232
20	10	Unbiased HDR	3.115	4.15	1.035
21	30	14V Biased HDR	0.12	0.342	0.222
22	30	14V Biased HDR	1.75	1.691	-0.059
23	30	14V Biased HDR	3.169	4.158	0.989
24	30	14V Biased HDR	0.702	0.655	-0.047
25	30	14V Biased HDR	1.644	1.659	0.015
26	30	Unbiased HDR	3.068	4.352	1.284
27	30	Unbiased HDR	0.429	0.444	0.015
28	30	Unbiased HDR	1.643	1.878	0.235
29	30	Unbiased HDR	3.206	4.304	1.098
30	30	Unbiased HDR	0.132	0.398	0.266
31	50	14V Biased HDR	1.46	1.557	0.097
32	50	14V Biased HDR	3.127	4.356	1.229
33	50	14V Biased HDR	0.428	0.299	-0.129
34	50	14V Biased HDR	1.585	1.641	0.056
35	50	14V Biased HDR	3.399	4.293	0.894
36	50	Unbiased HDR	0.541	0.535	-0.006
37	50	Unbiased HDR	1.403	1.798	0.395
38	50	Unbiased HDR	3.359	4.318	0.959
39	50	Unbiased HDR	0.635	0.683	0.048
40	50	Unbiased HDR	1.623	1.534	-0.089
41	100	14V Biased HDR	3.156	4.129	0.973
42	100	14V Biased HDR	0.58	0.605	0.025
43	100	14V Biased HDR	1.554	1.633	0.079
44	100	14V Biased HDR	3.261	1.508	-1.753
45	100	14V Biased HDR	0.254	4.244	3.99
46	100	Unbiased HDR	1.58	0.555	-1.025
47	100	Unbiased HDR	3.106	1.64	-1.466
48	100	Unbiased HDR	0.473	4.067	3.594
49	100	Unbiased HDR	1.621	0.562	-1.059
50	100	Unbiased HDR	3.126	1.721	-1.405
51	0	Correlation	0.371	4.035	3.664
52	0	Correlation	1.709	0.572	-1.137
53	0	Correlation	3.142	1.819	-1.323
54	0	Correlation	0.705	4.054	3.349
55	0	Correlation	1.831	0.901	-0.93

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	0.371	1.5516	3.142	1.0889	0.572	2.2762	4.054	1.6777	-1.323	0.7246	3.664	2.5458
3	0.539	1.7628	3.163	0.95813	0.11	2.0802	4.343	1.5778	-0.442	0.3174	1.405	0.69705
10	0.176	1.7898	3.115	1.2301	0.191	2.3636	4.462	1.7982	-0.264	0.5738	1.401	0.61469
30	0.12	1.5863	3.206	1.2357	0.342	1.9881	4.352	1.6756	-0.059	0.4018	1.284	0.51633
50	0.428	1.756	3.399	1.1501	0.299	2.1014	4.356	1.6137	-0.129	0.3454	1.229	0.49798
100	0.254	1.8711	3.261	1.2095	0.555	2.0664	4.244	1.5086	-1.753	0.1953	3.99	2.0757

Device Test: 6.2 EN_HYST_PLASTIC(EN_UVLO_HYSTERESIS_4p5V)





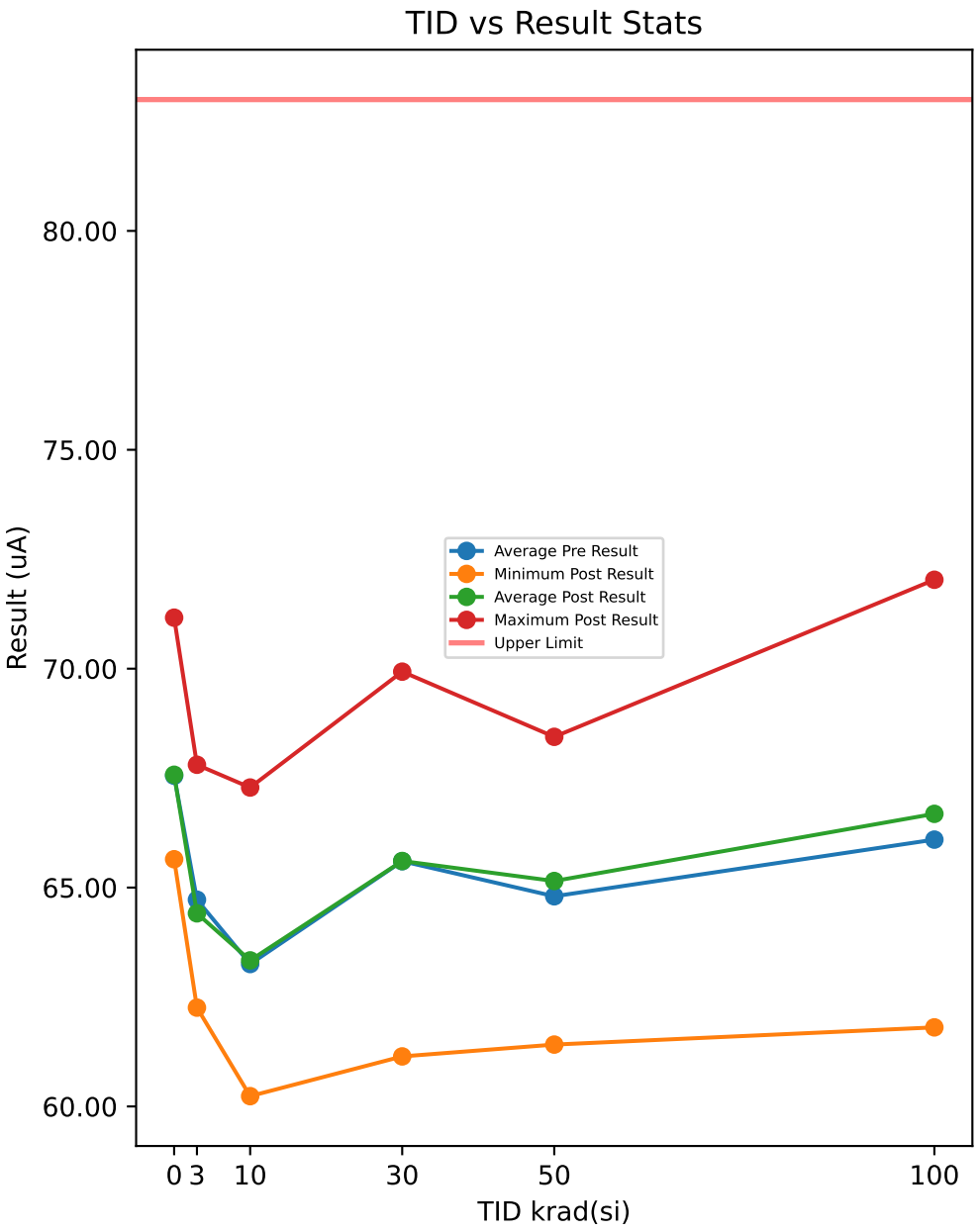
Test Results (Lower Limit = 95.0, Upper Limit = 116.0 (mV))

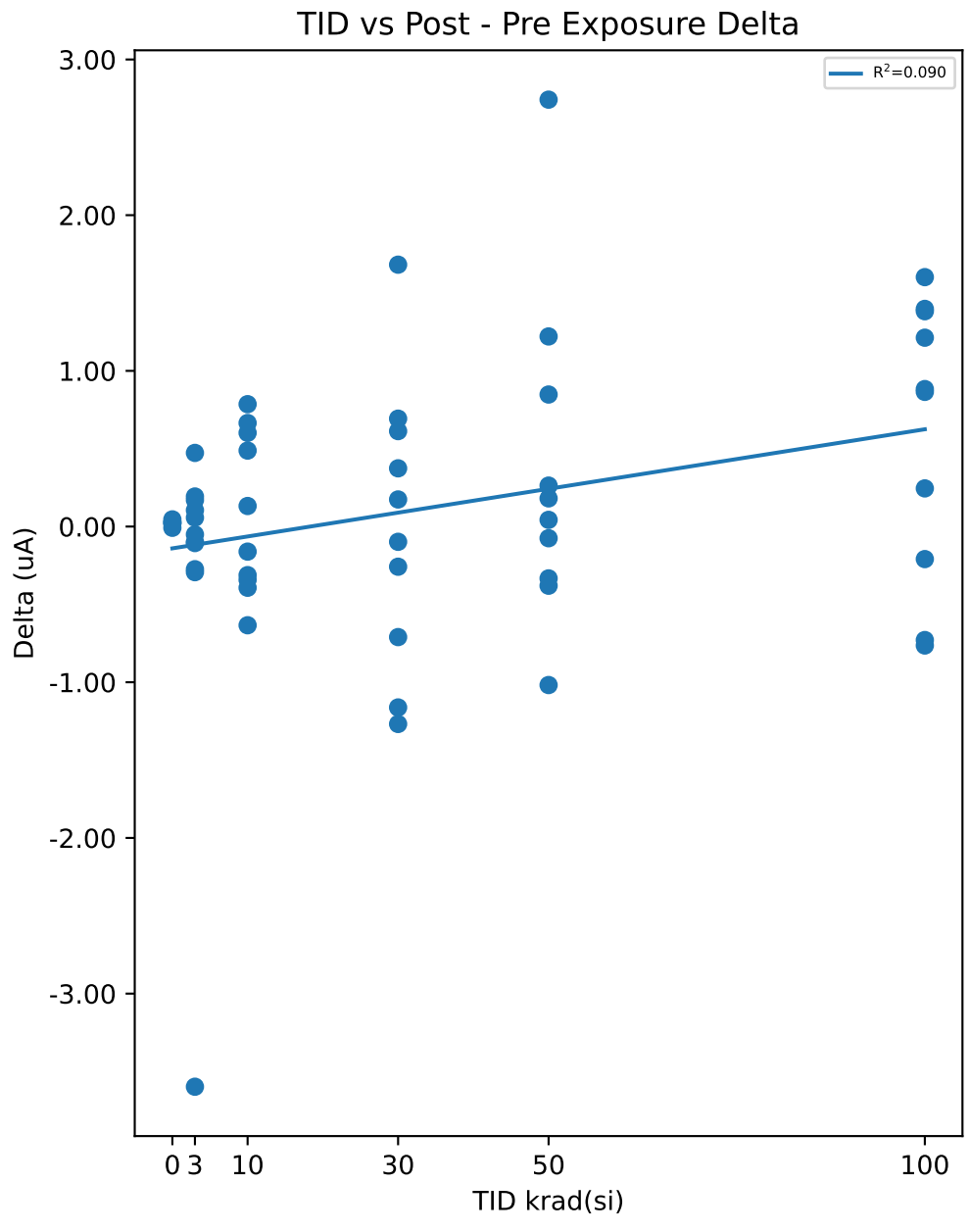
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	106.56	107.7	1.133
2	3	14V Biased HDR	106.74	106.57	-0.177
3	3	14V Biased HDR	104.22	104.3	0.082
4	3	14V Biased HDR	105.5	105.5	0
5	3	14V Biased HDR	105.94	105.79	-0.149
6	3	Unbiased HDR	106.82	106.54	-0.286
7	3	Unbiased HDR	105.83	105.86	0.027
8	3	Unbiased HDR	107.3	106.99	-0.313
9	3	Unbiased HDR	106.2	106.22	0.028
10	3	Unbiased HDR	105.67	105.69	0.027
11	10	14V Biased HDR	107.72	107.51	-0.218
12	10	14V Biased HDR	105.32	105.68	0.355
13	10	14V Biased HDR	107.97	108.01	0.042
14	10	14V Biased HDR	107.03	107.07	0.041
15	10	14V Biased HDR	106.13	105.86	-0.273
16	10	Unbiased HDR	105.82	105.82	0
17	10	Unbiased HDR	106.28	105.76	-0.519
18	10	Unbiased HDR	107.59	106.18	-1.405
19	10	Unbiased HDR	107.67	107.15	-0.518
20	10	Unbiased HDR	107.19	106.53	-0.668
21	30	14V Biased HDR	104.94	105.06	0.123
22	30	14V Biased HDR	104.63	104.48	-0.149
23	30	14V Biased HDR	105.87	105.23	-0.641
24	30	14V Biased HDR	106.28	105.49	-0.79
25	30	14V Biased HDR	105.51	105.79	0.275
26	30	Unbiased HDR	105.64	104.94	-0.696
27	30	Unbiased HDR	104.57	104.37	-0.205
28	30	Unbiased HDR	105.41	105.15	-0.259
29	30	Unbiased HDR	105.41	106.37	0.968
30	30	Unbiased HDR	106.32	106.06	-0.259
31	50	14V Biased HDR	106.78	106.84	0.056
32	50	14V Biased HDR	105.7	105.45	-0.258
33	50	14V Biased HDR	104.92	105.26	0.342
34	50	14V Biased HDR	106.56	105.79	-0.776
35	50	14V Biased HDR	107.29	106.69	-0.599
36	50	Unbiased HDR	109.05	109.43	0.382
37	50	Unbiased HDR	104.82	104.59	-0.232
38	50	Unbiased HDR	104.71	104.94	0.231
39	50	Unbiased HDR	104.79	105.38	0.587
40	50	Unbiased HDR	106.45	105.62	-0.831
41	100	14V Biased HDR	105.58	104.02	-1.568
42	100	14V Biased HDR	107.36	107.3	-0.053
43	100	14V Biased HDR	105.35	106.84	1.488
44	100	14V Biased HDR	105.35	105.43	0.082
45	100	14V Biased HDR	107.36	106.84	-0.517
46	100	Unbiased HDR	105.08	104.68	-0.395
47	100	Unbiased HDR	105.08	104.85	-0.232
48	100	Unbiased HDR	105.9	104.48	-1.418
49	100	Unbiased HDR	105.57	105.2	-0.369
50	100	Unbiased HDR	105.72	105.11	-0.613
51	0	Correlation	104.68	105.46	0.777
52	0	Correlation	105.21	105.47	0.259
53	0	Correlation	104.02	105.8	1.787
54	0	Correlation	105.61	104.37	-1.241
55	0	Correlation	107.33	107.59	0.259

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	104.02	105.37	107.33	1.2481	104.37	105.74	107.59	1.1678	-1.241	0.3682	1.787	1.0947
3	104.22	106.08	107.3	0.86878	104.3	106.12	107.7	0.92425	-0.313	0.0372	1.133	0.40989
10	105.32	106.87	107.97	0.92088	105.68	106.56	108.01	0.83187	-1.405	-0.3163	0.355	0.49542
30	104.57	105.46	106.32	0.61172	104.37	105.29	106.37	0.64664	-0.79	-0.1633	0.968	0.52482
50	104.71	106.11	109.05	1.4047	104.59	106	109.43	1.3943	-0.831	-0.1098	0.587	0.50721
100	105.08	105.83	107.36	0.84312	104.02	105.47	107.3	1.127	-1.568	-0.3595	1.488	0.84259

Device Test: 6.3 SS_I_Charge(SS_Icharge_4p5V)





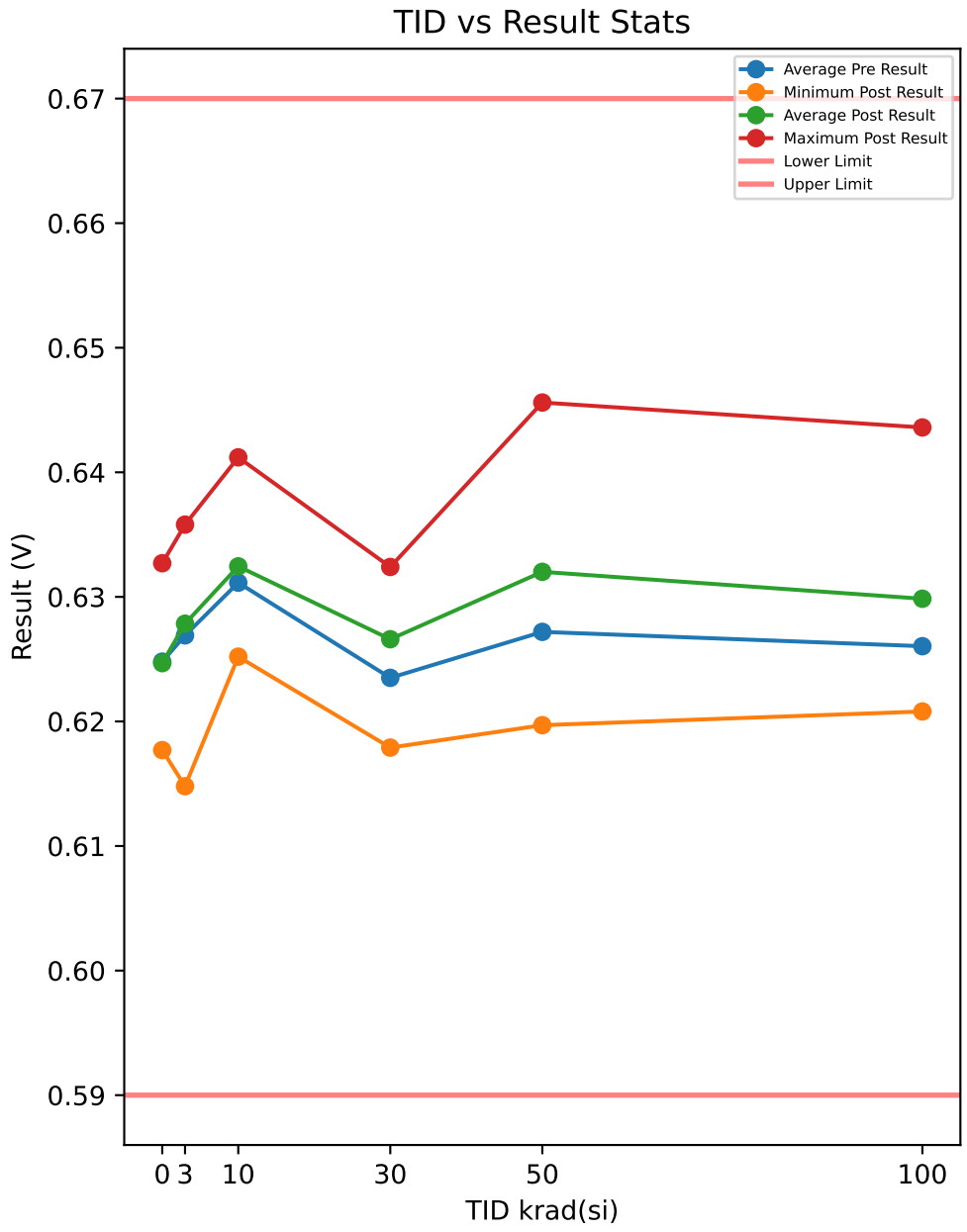
Test Results (Upper Limit = 83.0 (uA))

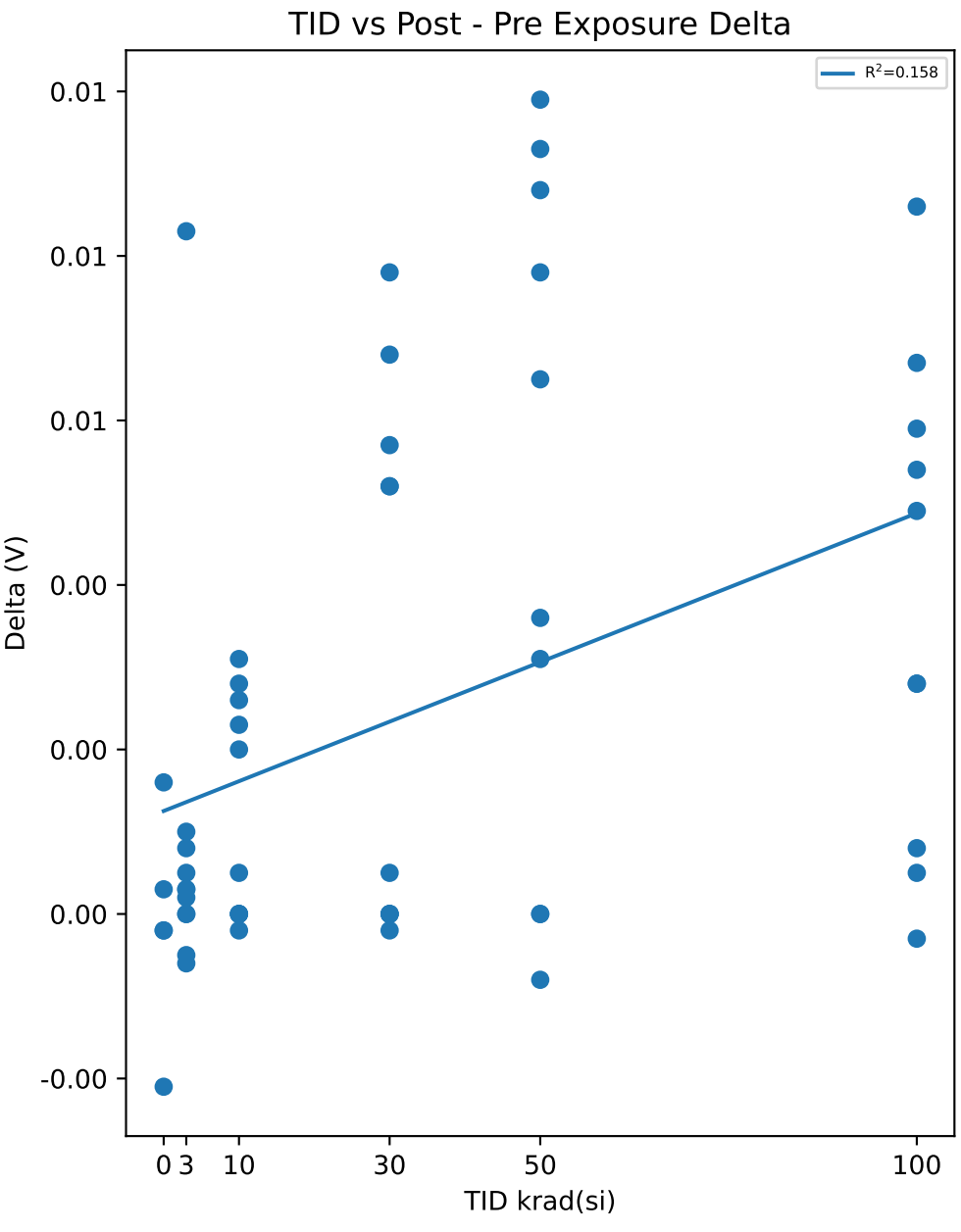
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	65.855	62.257	-3.598
2	3	14V Biased HDR	63.125	63.23	0.105
3	3	14V Biased HDR	65.295	65.488	0.193
4	3	14V Biased HDR	63.341	63.29	-0.051
5	3	14V Biased HDR	67.207	67.68	0.473
6	3	Unbiased HDR	62.922	62.629	-0.293
7	3	Unbiased HDR	64.127	63.853	-0.274
8	3	Unbiased HDR	64.057	64.227	0.17
9	3	Unbiased HDR	65.904	65.805	-0.099
10	3	Unbiased HDR	67.911	67.805	-0.106
11	10	14V Biased HDR	60.869	60.235	-0.634
12	10	14V Biased HDR	64.767	64.606	-0.161
13	10	14V Biased HDR	67.153	67.285	0.132
14	10	14V Biased HDR	63.798	64.584	0.786
15	10	14V Biased HDR	65.375	64.982	-0.393
16	10	Unbiased HDR	60.253	60.918	0.665
17	10	Unbiased HDR	65	65.602	0.602
18	10	Unbiased HDR	62.815	62.473	-0.342
19	10	Unbiased HDR	61.269	61.757	0.488
20	10	Unbiased HDR	61.234	60.922	-0.312
21	30	14V Biased HDR	64.471	66.153	1.682
22	30	14V Biased HDR	63.166	63.068	-0.098
23	30	14V Biased HDR	66.467	66.841	0.374
24	30	14V Biased HDR	70.642	69.932	-0.71
25	30	14V Biased HDR	62.305	61.143	-1.162
26	30	Unbiased HDR	64.621	64.363	-0.258
27	30	Unbiased HDR	64.69	65.383	0.693
28	30	Unbiased HDR	64.12	64.294	0.174
29	30	Unbiased HDR	69.951	68.683	-1.268
30	30	Unbiased HDR	65.588	66.201	0.613
31	50	14V Biased HDR	68.4	68.443	0.043
32	50	14V Biased HDR	65.106	64.773	-0.333
33	50	14V Biased HDR	63.839	63.764	-0.075
34	50	14V Biased HDR	67.869	66.851	-1.018
35	50	14V Biased HDR	66.932	67.113	0.181
36	50	Unbiased HDR	65.115	67.857	2.742
37	50	Unbiased HDR	60.565	61.413	0.848
38	50	Unbiased HDR	63.941	63.561	-0.38
39	50	Unbiased HDR	63.186	64.407	1.221
40	50	Unbiased HDR	63.052	63.315	0.263
41	100	14V Biased HDR	64.616	65.481	0.865
42	100	14V Biased HDR	62.614	64.216	1.602
43	100	14V Biased HDR	66.523	67.906	1.383
44	100	14V Biased HDR	67.771	69.169	1.398
45	100	14V Biased HDR	62.57	61.806	-0.764
46	100	Unbiased HDR	68.738	68.529	-0.209
47	100	Unbiased HDR	69.356	68.627	-0.729
48	100	Unbiased HDR	64.956	65.201	0.245
49	100	Unbiased HDR	71.148	72.031	0.883
50	100	Unbiased HDR	62.659	63.872	1.213
51	0	Correlation	71.173	71.165	-0.008
52	0	Correlation	65.646	65.667	0.021
53	0	Correlation	65.621	65.647	0.026
54	0	Correlation	67.699	67.725	0.026
55	0	Correlation	67.633	67.679	0.046

Test Statistics (uA)

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	65.621	67.554	71.173	2.2639	65.647	67.577	71.165	2.2516	-0.008	0.0222	0.046	0.019422
3	62.922	64.974	67.911	1.7388	62.257	64.626	67.805	1.9904	-3.598	-0.348	0.473	1.1652
10	60.253	63.253	67.153	2.3152	60.235	63.336	67.285	2.3837	-0.634	0.0831	0.786	0.517
30	62.305	65.602	70.642	2.7313	61.143	65.606	69.932	2.5828	-1.268	0.004	1.682	0.90636
50	60.565	64.8	68.4	2.4123	61.413	65.15	68.443	2.2947	-1.018	0.3492	2.742	1.0493
100	62.57	66.095	71.148	3.0908	61.806	66.684	72.031	3.071	-0.764	0.5887	1.602	0.89355

Device Test: 6.4 EN_VTH_RISING_PLASTIC(EN_UVLO_RISING_14V)





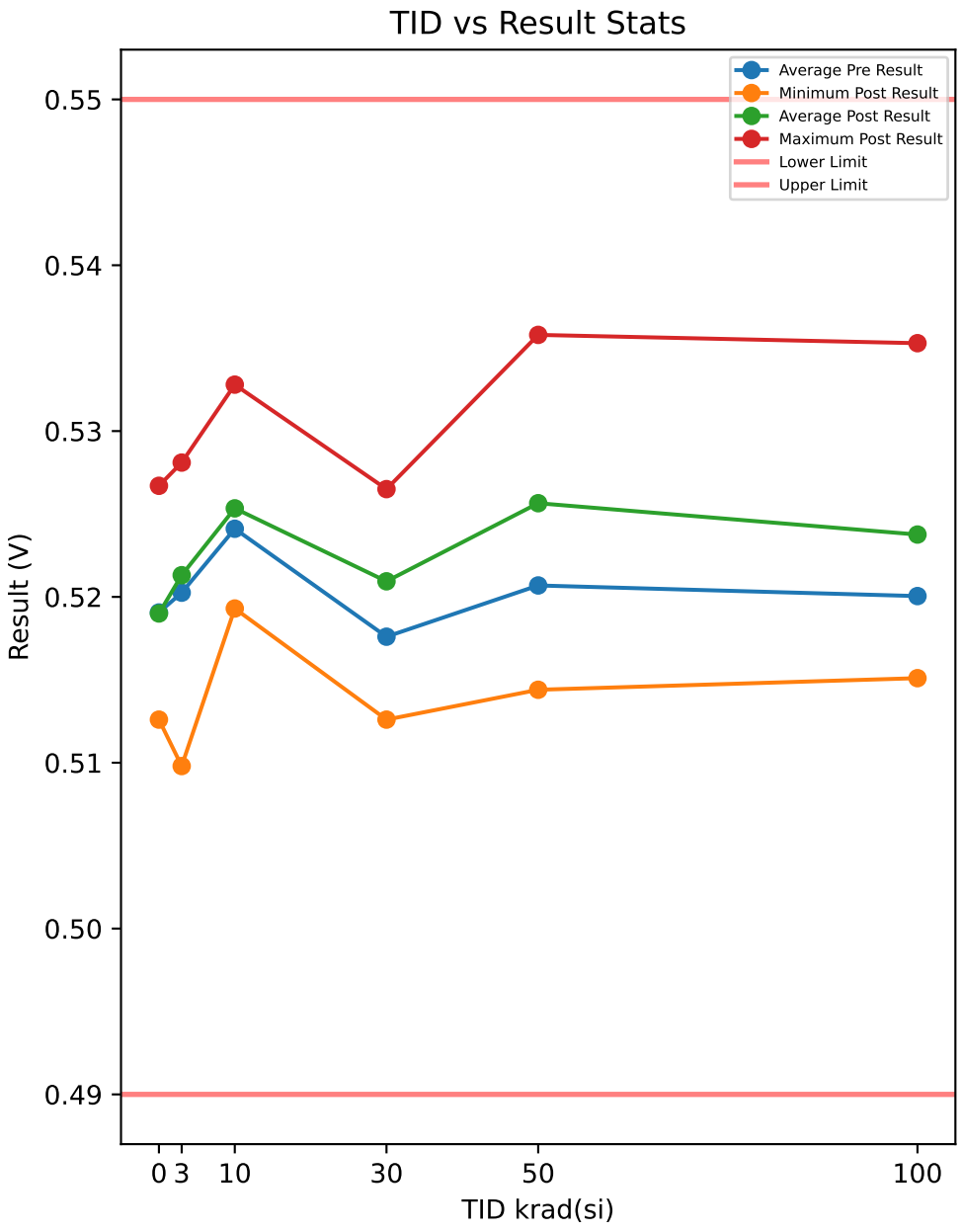
Test Results (Lower Limit = 0.59, Upper Limit = 0.67 (V))

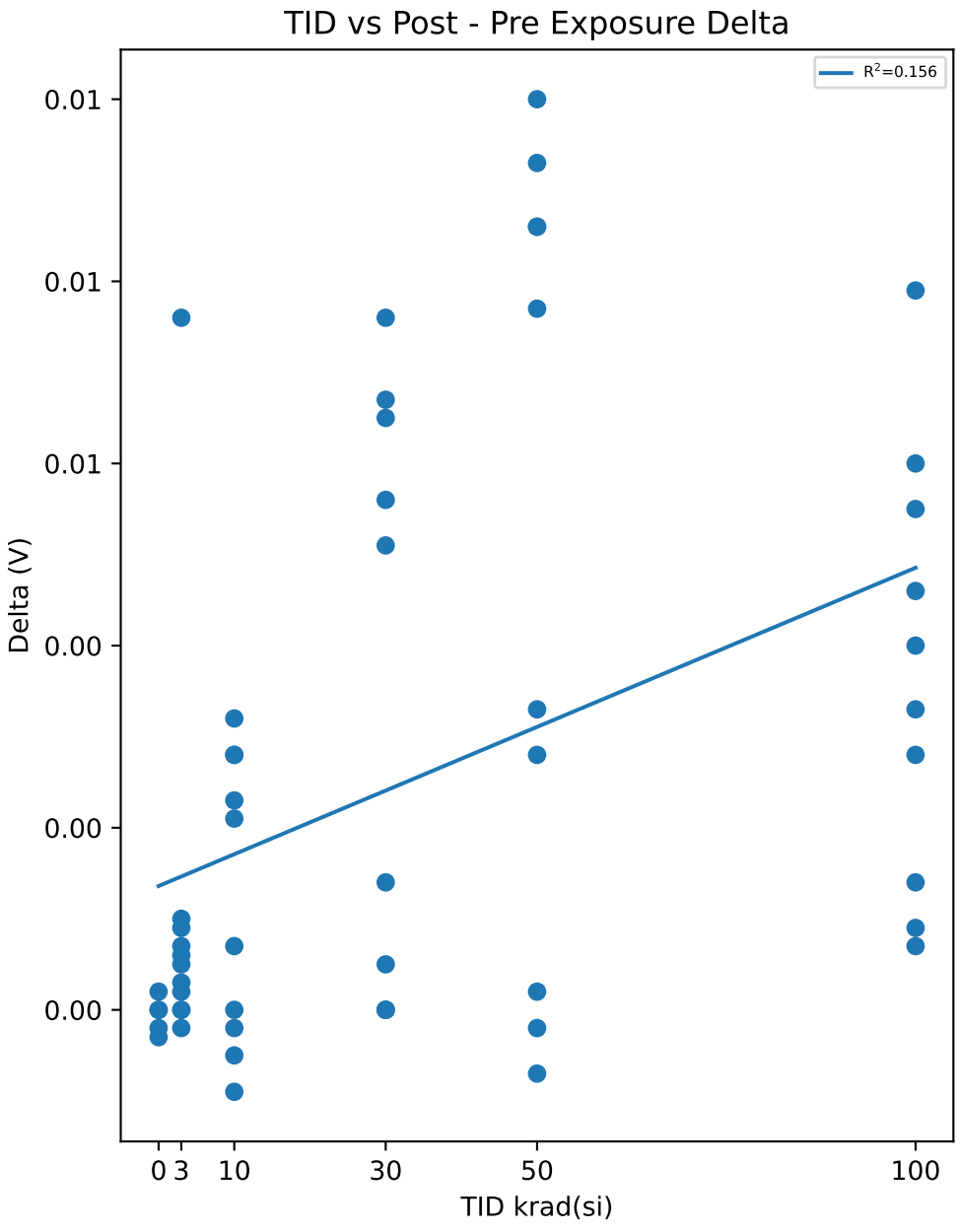
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	0.6275	0.6358	0.0083
2	3	14V Biased HDR	0.6314	0.6319	0.0005
3	3	14V Biased HDR	0.614	0.6148	0.0008
4	3	14V Biased HDR	0.6259	0.6259	0
5	3	14V Biased HDR	0.6259	0.6259	0
6	3	Unbiased HDR	0.6278	0.6272	-0.0006
7	3	Unbiased HDR	0.6249	0.6252	0.0003
8	3	Unbiased HDR	0.6342	0.6337	-0.0005
9	3	Unbiased HDR	0.6262	0.6265	0.0003
10	3	Unbiased HDR	0.6234	0.6236	0.0002
11	10	14V Biased HDR	0.6363	0.6386	0.0023
12	10	14V Biased HDR	0.6221	0.6252	0.0031
13	10	14V Biased HDR	0.6384	0.6412	0.0028
14	10	14V Biased HDR	0.6319	0.6345	0.0026
15	10	14V Biased HDR	0.6278	0.6298	0.002
16	10	Unbiased HDR	0.6314	0.6314	0
17	10	Unbiased HDR	0.6265	0.6265	0
18	10	Unbiased HDR	0.6327	0.6327	0
19	10	Unbiased HDR	0.6311	0.6309	-0.0002
20	10	Unbiased HDR	0.6332	0.6337	0.0005
21	30	14V Biased HDR	0.6187	0.6265	0.0078
22	30	14V Biased HDR	0.6179	0.6231	0.0052
23	30	14V Biased HDR	0.6272	0.6324	0.0052
24	30	14V Biased HDR	0.6267	0.6324	0.0057
25	30	14V Biased HDR	0.6241	0.6309	0.0068
26	30	Unbiased HDR	0.6275	0.6275	0
27	30	Unbiased HDR	0.6174	0.6179	0.0005
28	30	Unbiased HDR	0.6231	0.6231	0
29	30	Unbiased HDR	0.6275	0.6275	0
30	30	Unbiased HDR	0.6249	0.6247	-0.0002
31	50	14V Biased HDR	0.6296	0.6389	0.0093
32	50	14V Biased HDR	0.621	0.6275	0.0065
33	50	14V Biased HDR	0.6228	0.6327	0.0099
34	50	14V Biased HDR	0.627	0.6358	0.0088
35	50	14V Biased HDR	0.6319	0.6397	0.0078
36	50	Unbiased HDR	0.642	0.6456	0.0036
37	50	Unbiased HDR	0.6197	0.6197	0
38	50	Unbiased HDR	0.6275	0.6275	0
39	50	Unbiased HDR	0.6239	0.627	0.0031
40	50	Unbiased HDR	0.6265	0.6257	-0.0008
41	100	14V Biased HDR	0.6226	0.6275	0.0049
42	100	14V Biased HDR	0.635	0.6436	0.0086
43	100	14V Biased HDR	0.6314	0.6381	0.0067
44	100	14V Biased HDR	0.6226	0.628	0.0054
45	100	14V Biased HDR	0.6327	0.6386	0.0059
46	100	Unbiased HDR	0.62	0.6228	0.0028
47	100	Unbiased HDR	0.62	0.6208	0.0008
48	100	Unbiased HDR	0.6278	0.6275	-0.0003
49	100	Unbiased HDR	0.6247	0.6275	0.0028
50	100	Unbiased HDR	0.6236	0.6241	0.0005
51	0	Correlation	0.6228	0.6226	-0.0002
52	0	Correlation	0.621	0.6213	0.0003
53	0	Correlation	0.6275	0.6291	0.0016
54	0	Correlation	0.6179	0.6177	-0.0002
55	0	Correlation	0.6348	0.6327	-0.0021

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	0.6179	0.6248	0.6348	0.0065829	0.6177	0.62468	0.6327	0.0060895	-0.0021	-0.00012	0.0016	0.0013293
3	0.614	0.62612	0.6342	0.0053101	0.6148	0.62705	0.6358	0.0058941	-0.0006	0.00093	0.0083	0.0026238
10	0.6221	0.63114	0.6384	0.0047266	0.6252	0.63245	0.6412	0.0049296	-0.0002	0.00131	0.0031	0.0013593
30	0.6174	0.6235	0.6275	0.0040828	0.6179	0.6266	0.6324	0.0046092	-0.0002	0.0031	0.0078	0.0032971
50	0.6197	0.62719	0.642	0.006433	0.6197	0.63201	0.6456	0.0079111	-0.0008	0.00482	0.0099	0.0041622
100	0.62	0.62604	0.635	0.0053836	0.6208	0.62985	0.6436	0.0075891	-0.0003	0.00381	0.0086	0.0029501

Device Test: 6.5 EN_VTH_FALLING_PLASTIC(EN_UVLO_FALLING_14V)





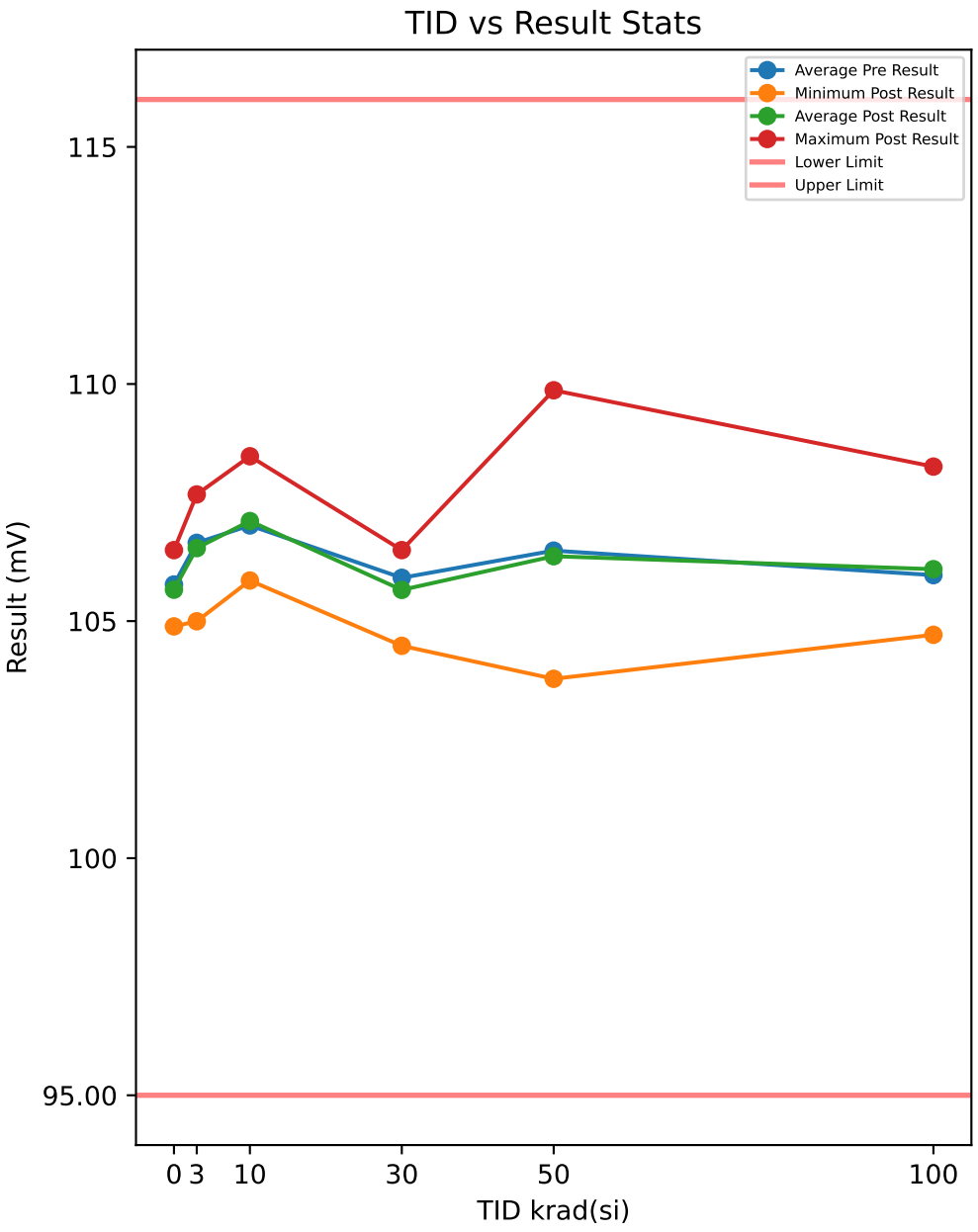
Test Results (Lower Limit = 0.49, Upper Limit = 0.55 (V))

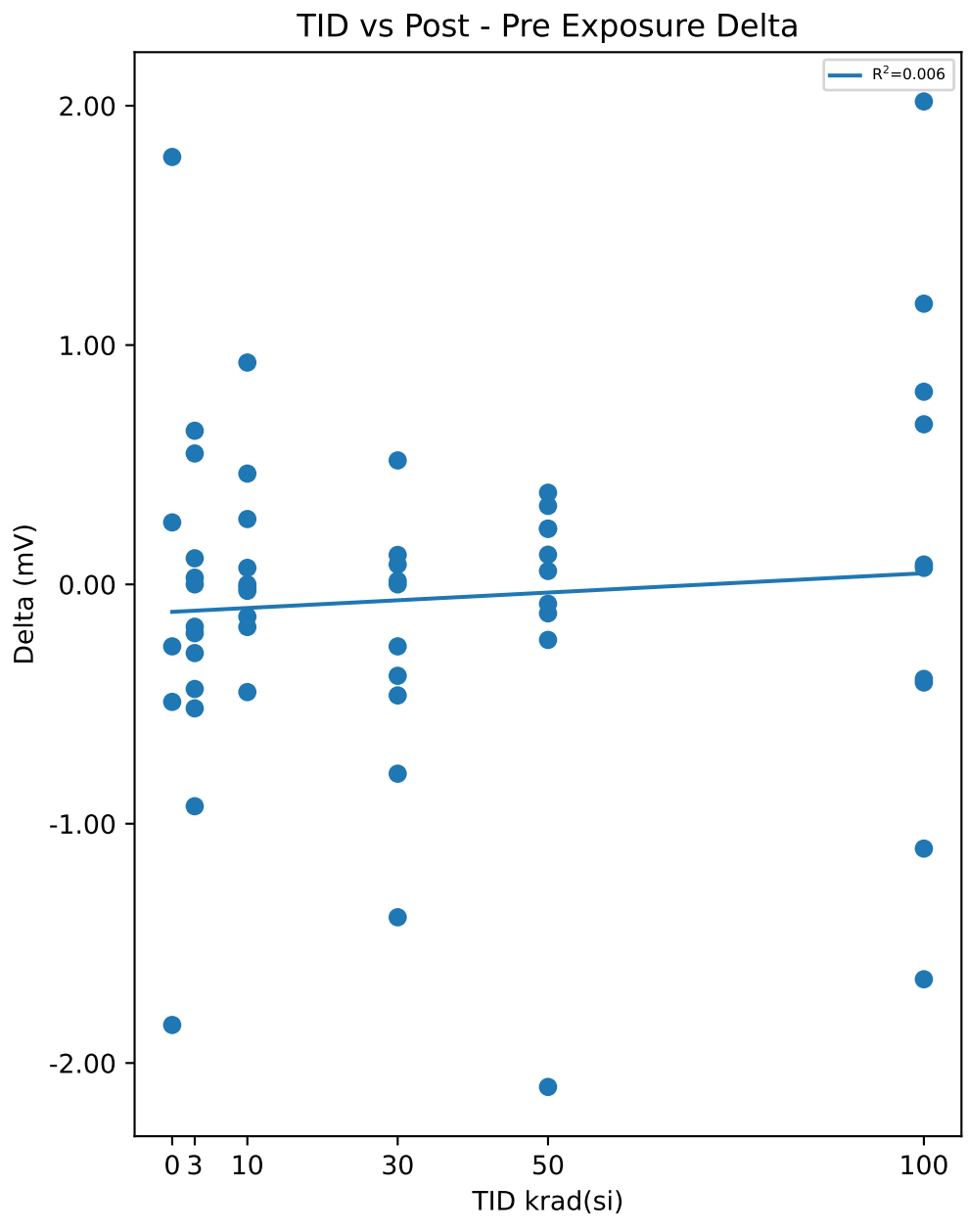
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	0.5205	0.5281	0.0076
2	3	14V Biased HDR	0.524	0.5246	0.0006
3	3	14V Biased HDR	0.5096	0.5098	0.0002
4	3	14V Biased HDR	0.52	0.52	0
5	3	14V Biased HDR	0.5195	0.5205	0.001
6	3	Unbiased HDR	0.5202	0.5202	0
7	3	Unbiased HDR	0.5186	0.5189	0.0003
8	3	Unbiased HDR	0.5267	0.5265	-0.0002
9	3	Unbiased HDR	0.5193	0.52	0.0007
10	3	Unbiased HDR	0.5172	0.5177	0.0005
11	10	14V Biased HDR	0.5281	0.5309	0.0028
12	10	14V Biased HDR	0.5161	0.5193	0.0032
13	10	14V Biased HDR	0.53	0.5328	0.0028
14	10	14V Biased HDR	0.5244	0.5267	0.0023
15	10	14V Biased HDR	0.5209	0.523	0.0021
16	10	Unbiased HDR	0.5251	0.5251	0
17	10	Unbiased HDR	0.5205	0.52	-0.0005
18	10	Unbiased HDR	0.5267	0.5258	-0.0009
19	10	Unbiased HDR	0.5235	0.5233	-0.0002
20	10	Unbiased HDR	0.5258	0.5265	0.0007
21	30	14V Biased HDR	0.5133	0.5209	0.0076
22	30	14V Biased HDR	0.5131	0.5182	0.0051
23	30	14V Biased HDR	0.5209	0.5265	0.0056
24	30	14V Biased HDR	0.52	0.5265	0.0065
25	30	14V Biased HDR	0.5179	0.5246	0.0067
26	30	Unbiased HDR	0.5214	0.5219	0.0005
27	30	Unbiased HDR	0.5126	0.5126	0
28	30	Unbiased HDR	0.517	0.517	0
29	30	Unbiased HDR	0.5216	0.523	0.0014
30	30	Unbiased HDR	0.5182	0.5182	0
31	50	14V Biased HDR	0.5223	0.5316	0.0093
32	50	14V Biased HDR	0.5151	0.5237	0.0086
33	50	14V Biased HDR	0.5172	0.5272	0.01
34	50	14V Biased HDR	0.5207	0.5293	0.0086
35	50	14V Biased HDR	0.5246	0.5323	0.0077
36	50	Unbiased HDR	0.5325	0.5358	0.0033
37	50	Unbiased HDR	0.5142	0.5144	0.0002
38	50	Unbiased HDR	0.5221	0.5219	-0.0002
39	50	Unbiased HDR	0.5184	0.5212	0.0028
40	50	Unbiased HDR	0.5198	0.5191	-0.0007
41	100	14V Biased HDR	0.5168	0.5228	0.006
42	100	14V Biased HDR	0.5274	0.5353	0.0079
43	100	14V Biased HDR	0.5256	0.5311	0.0055
44	100	14V Biased HDR	0.517	0.5216	0.0046
45	100	14V Biased HDR	0.5274	0.5314	0.004
46	100	Unbiased HDR	0.5144	0.5172	0.0028
47	100	Unbiased HDR	0.5144	0.5151	0.0007
48	100	Unbiased HDR	0.5212	0.5226	0.0014
49	100	Unbiased HDR	0.5186	0.5219	0.0033
50	100	Unbiased HDR	0.5177	0.5186	0.0009
51	0	Correlation	0.5175	0.5177	0.0002
52	0	Correlation	0.5154	0.5154	0
53	0	Correlation	0.5228	0.5226	-0.0002
54	0	Correlation	0.5126	0.5126	0
55	0	Correlation	0.527	0.5267	-0.0003

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	0.5126	0.51906	0.527	0.0058007	0.5126	0.519	0.5267	0.0056538	-0.0003	-6e-05	0.0002	0.00019494
3	0.5096	0.51956	0.5267	0.0044465	0.5098	0.52063	0.5281	0.0051195	-0.0002	0.00107	0.0076	0.0023233
10	0.5161	0.52411	0.53	0.0040703	0.5193	0.52534	0.5328	0.0042774	-0.0009	0.00123	0.0032	0.0015663
30	0.5126	0.5176	0.5216	0.003522	0.5126	0.52094	0.5265	0.0044781	0	0.00334	0.0076	0.0032132
50	0.5142	0.52069	0.5325	0.0052802	0.5144	0.52565	0.5358	0.0067124	-0.0007	0.00496	0.01	0.0043074
100	0.5144	0.52005	0.5274	0.0050718	0.5151	0.52376	0.5353	0.0066705	0.0007	0.00371	0.0079	0.002361

Device Test: 6.6 EN_HYST_PLASTIC(EN_UVLO_HYSTERESIS_14V)





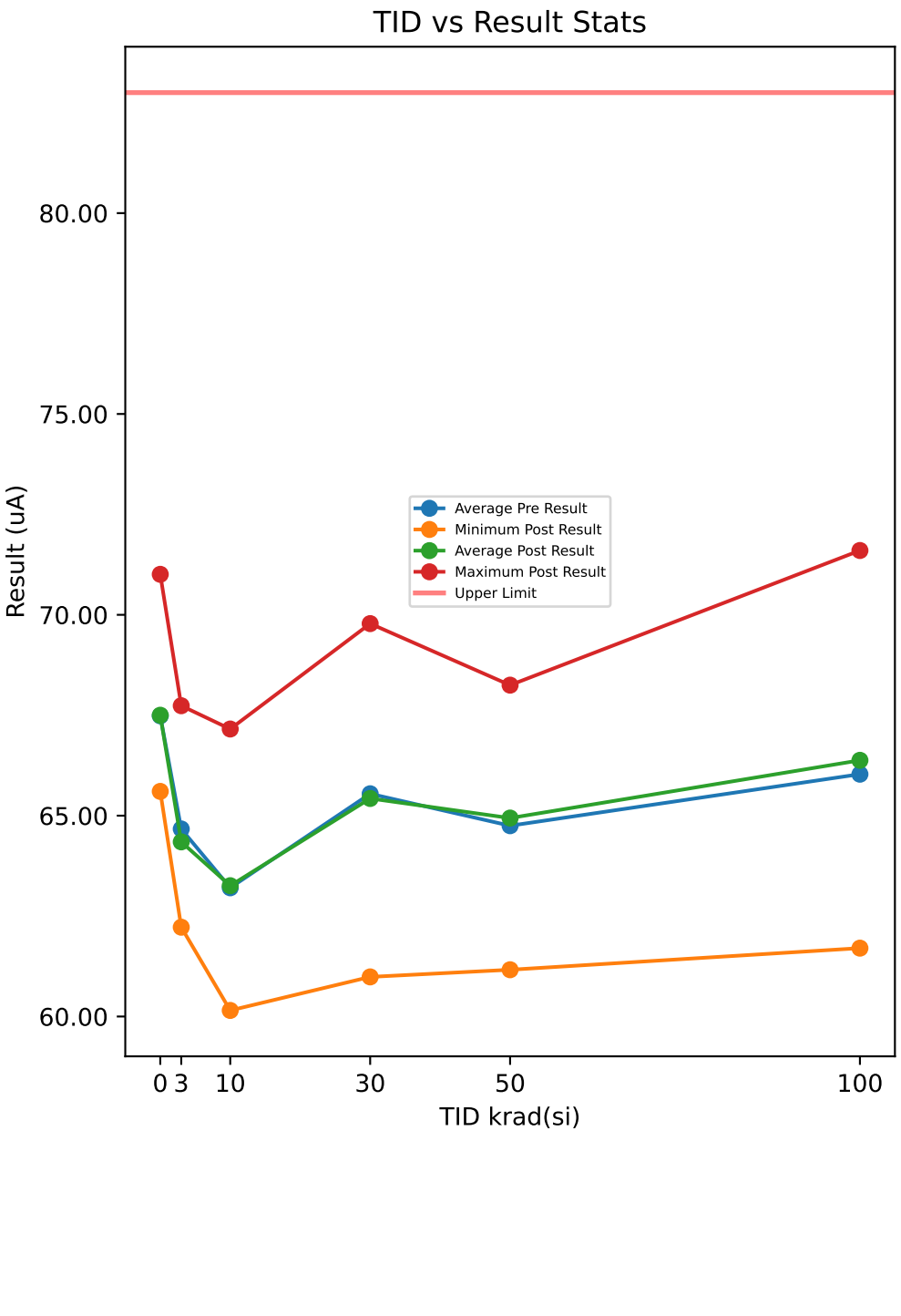
Test Results (Lower Limit = 95.0, Upper Limit = 116.0 (mV))

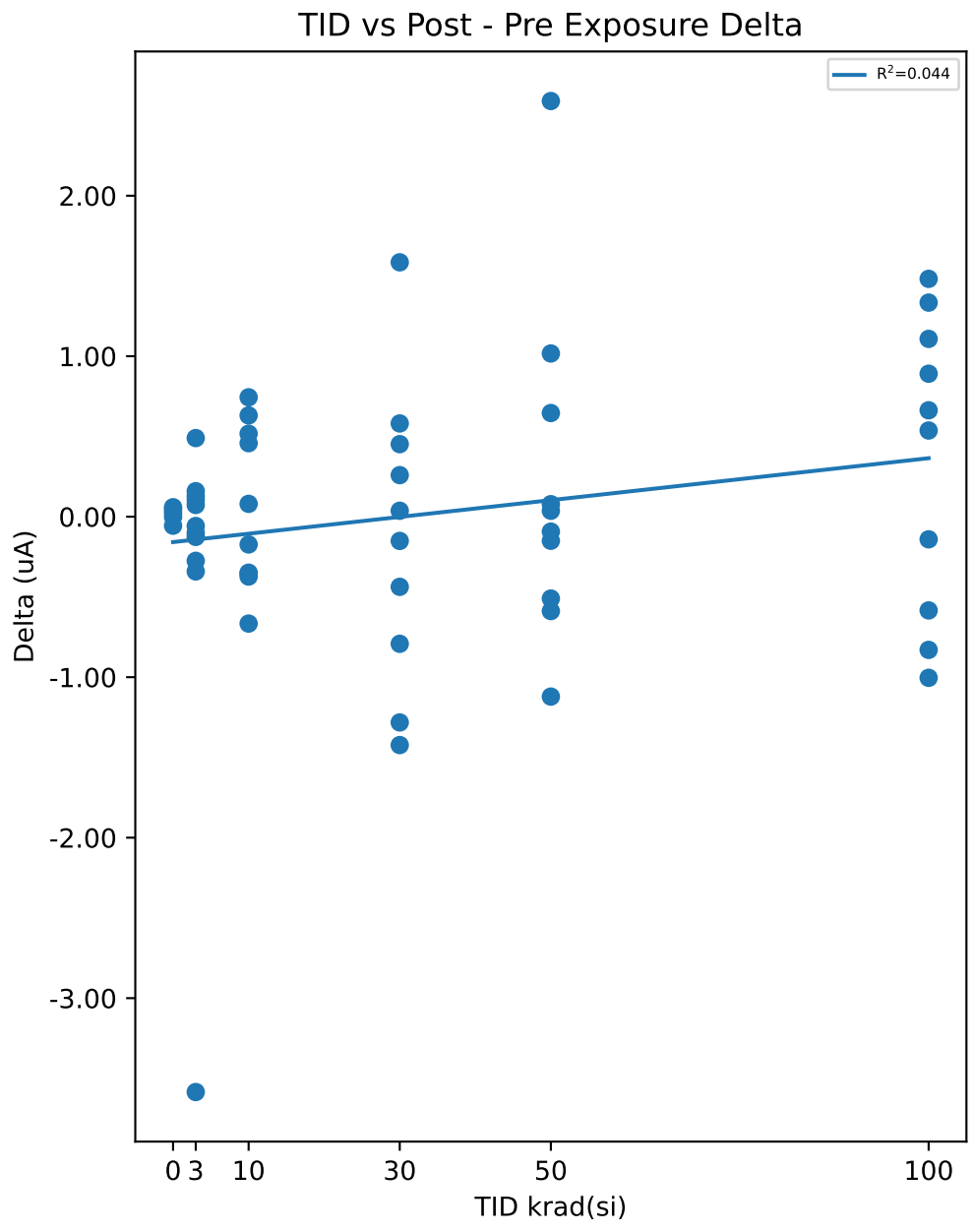
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	107.03	107.67	0.642
2	3	14V Biased HDR	107.44	107.26	-0.177
3	3	14V Biased HDR	104.45	105	0.547
4	3	14V Biased HDR	105.94	105.94	0
5	3	14V Biased HDR	106.4	105.47	-0.927
6	3	Unbiased HDR	107.52	107	-0.518
7	3	Unbiased HDR	106.29	106.32	0.028
8	3	Unbiased HDR	107.51	107.22	-0.287
9	3	Unbiased HDR	106.89	106.45	-0.437
10	3	Unbiased HDR	106.13	105.92	-0.204
11	10	14V Biased HDR	108.19	107.74	-0.45
12	10	14V Biased HDR	105.99	105.86	-0.135
13	10	14V Biased HDR	108.41	108.48	0.069
14	10	14V Biased HDR	107.49	107.77	0.273
15	10	14V Biased HDR	106.82	106.81	-0.013
16	10	Unbiased HDR	106.28	106.28	0
17	10	Unbiased HDR	105.99	106.45	0.463
18	10	Unbiased HDR	105.95	106.88	0.927
19	10	Unbiased HDR	107.64	107.62	-0.027
20	10	Unbiased HDR	107.4	107.22	-0.178
21	30	14V Biased HDR	105.41	105.53	0.123
22	30	14V Biased HDR	104.86	104.94	0.083
23	30	14V Biased HDR	106.31	105.92	-0.382
24	30	14V Biased HDR	106.72	105.92	-0.791
25	30	14V Biased HDR	106.21	106.22	0.015
26	30	Unbiased HDR	106.1	105.64	-0.464
27	30	Unbiased HDR	104.81	105.32	0.518
28	30	Unbiased HDR	106.1	106.1	0
29	30	Unbiased HDR	105.87	104.48	-1.391
30	30	Unbiased HDR	106.76	106.5	-0.259
31	50	14V Biased HDR	107.25	107.3	0.056
32	50	14V Biased HDR	105.88	103.78	-2.1
33	50	14V Biased HDR	105.61	105.49	-0.121
34	50	14V Biased HDR	106.28	106.51	0.233
35	50	14V Biased HDR	107.26	107.39	0.124
36	50	Unbiased HDR	109.48	109.87	0.383
37	50	Unbiased HDR	105.51	105.28	-0.232
38	50	Unbiased HDR	105.41	105.64	0.232
39	50	Unbiased HDR	105.49	105.81	0.328
40	50	Unbiased HDR	106.69	106.61	-0.081
41	100	14V Biased HDR	105.81	104.71	-1.104
42	100	14V Biased HDR	107.59	108.26	0.669
43	100	14V Biased HDR	105.82	106.99	1.173
44	100	14V Biased HDR	105.58	106.39	0.805
45	100	14V Biased HDR	105.26	107.28	2.018
46	100	Unbiased HDR	105.54	105.61	0.069
47	100	Unbiased HDR	105.54	105.62	0.083
48	100	Unbiased HDR	106.59	104.94	-1.65
49	100	Unbiased HDR	106.03	105.64	-0.395
50	100	Unbiased HDR	105.92	105.51	-0.41
51	0	Correlation	105.38	104.89	-0.491
52	0	Correlation	105.65	105.91	0.259
53	0	Correlation	104.71	106.5	1.786
54	0	Correlation	105.32	105.06	-0.259
55	0	Correlation	107.79	105.95	-1.841

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	104.71	105.77	107.79	1.1816	104.89	105.66	106.5	0.67084	-1.841	-0.1092	1.786	1.3129
3	104.45	106.56	107.52	0.94561	105	106.43	107.67	0.86048	-0.927	-0.1333	0.642	0.47239
10	105.95	107.02	108.41	0.9361	105.86	107.11	108.48	0.80239	-0.45	0.0929	0.927	0.38297
30	104.81	105.91	106.76	0.68848	104.48	105.66	106.5	0.61422	-1.391	-0.2548	0.518	0.5406
50	105.41	106.49	109.48	1.2692	103.78	106.37	109.87	1.6231	-2.1	-0.1178	0.383	0.72473
100	105.26	105.97	107.59	0.67397	104.71	106.09	108.26	1.1158	-1.65	0.1258	2.018	1.0885

Device Test: 6.7 SS_I_Charge(SS_Icharge_14V)





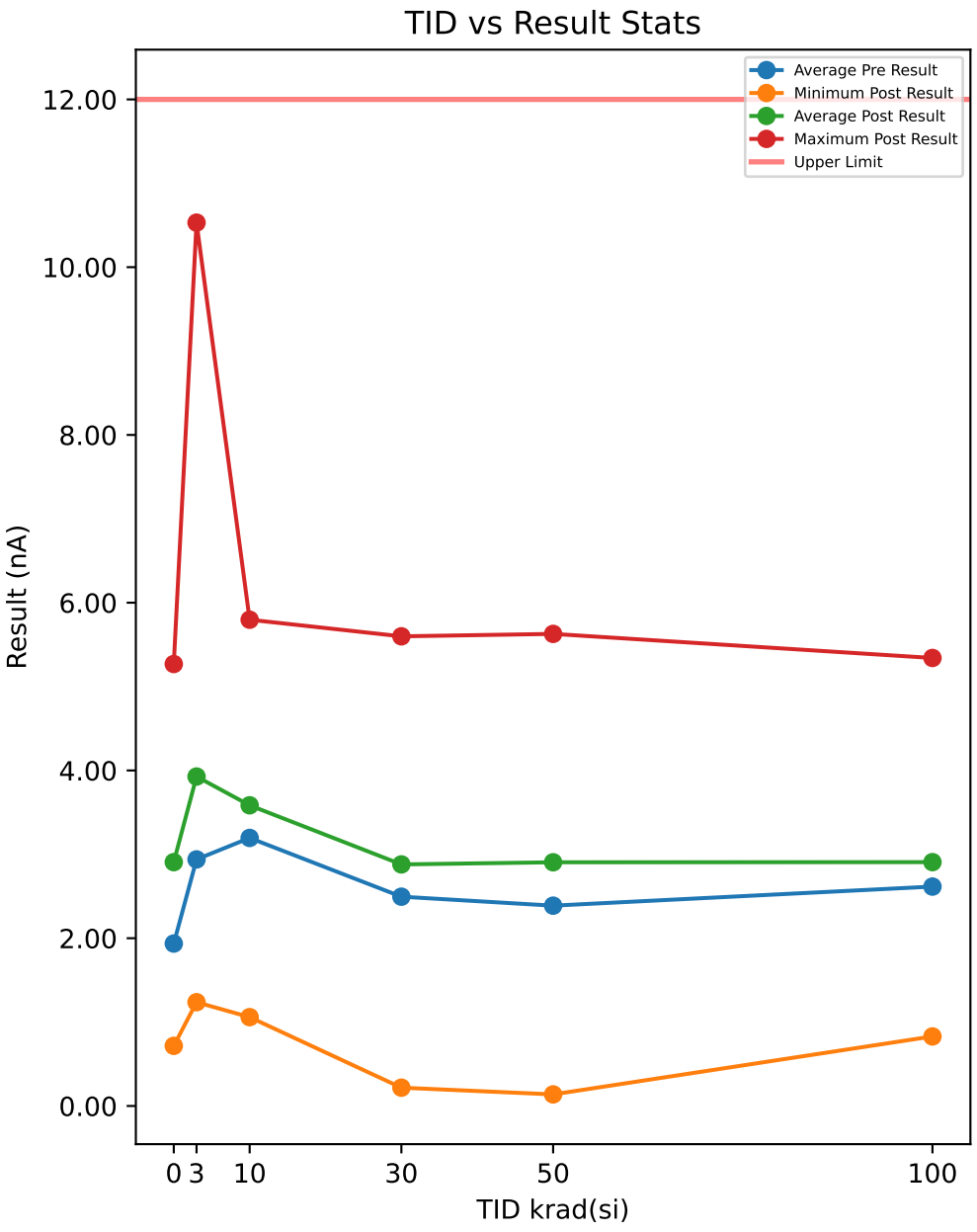
Test Results (Upper Limit = 83.0 (uA))

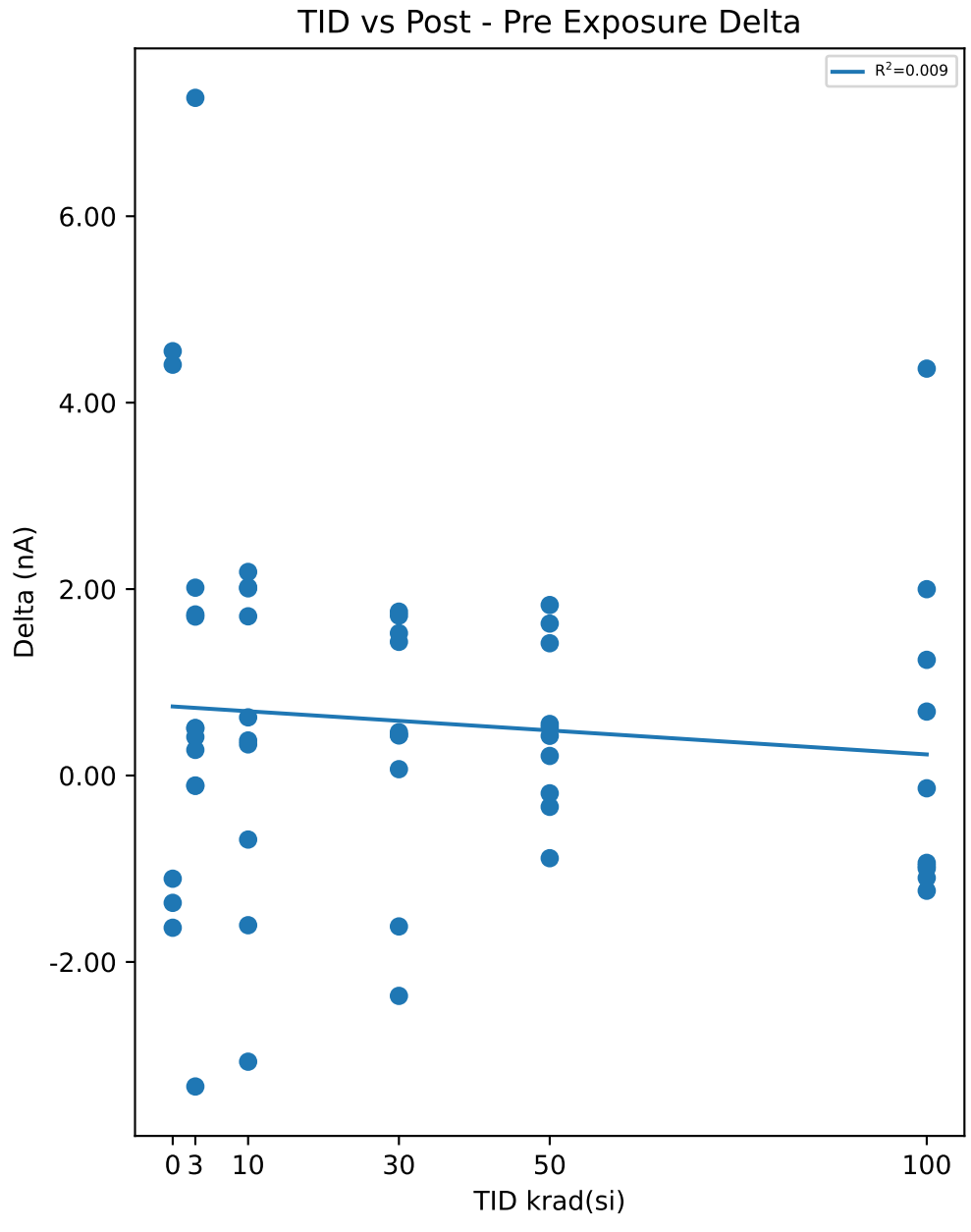
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	65.808	62.223	-3.585
2	3	14V Biased HDR	63.065	63.169	0.104
3	3	14V Biased HDR	65.247	65.406	0.159
4	3	14V Biased HDR	63.284	63.226	-0.058
5	3	14V Biased HDR	67.138	67.628	0.49
6	3	Unbiased HDR	62.884	62.543	-0.341
7	3	Unbiased HDR	64.083	63.808	-0.275
8	3	Unbiased HDR	63.987	64.116	0.129
9	3	Unbiased HDR	65.847	65.746	-0.101
10	3	Unbiased HDR	67.863	67.737	-0.126
11	10	14V Biased HDR	60.817	60.151	-0.666
12	10	14V Biased HDR	64.717	64.544	-0.173
13	10	14V Biased HDR	67.077	67.157	0.08
14	10	14V Biased HDR	63.757	64.501	0.744
15	10	14V Biased HDR	65.338	64.965	-0.373
16	10	Unbiased HDR	60.237	60.868	0.631
17	10	Unbiased HDR	64.939	65.456	0.517
18	10	Unbiased HDR	62.748	62.394	-0.354
19	10	Unbiased HDR	61.244	61.702	0.458
20	10	Unbiased HDR	61.173	60.824	-0.349
21	30	14V Biased HDR	64.448	66.033	1.585
22	30	14V Biased HDR	63.138	62.987	-0.151
23	30	14V Biased HDR	66.398	66.657	0.259
24	30	14V Biased HDR	70.573	69.781	-0.792
25	30	14V Biased HDR	62.268	60.986	-1.282
26	30	Unbiased HDR	64.554	64.117	-0.437
27	30	Unbiased HDR	64.651	65.232	0.581
28	30	Unbiased HDR	64.057	64.094	0.037
29	30	Unbiased HDR	69.862	68.439	-1.423
30	30	Unbiased HDR	65.502	65.954	0.452
31	50	14V Biased HDR	68.342	68.249	-0.093
32	50	14V Biased HDR	65.007	64.497	-0.51
33	50	14V Biased HDR	63.796	63.646	-0.15
34	50	14V Biased HDR	67.834	66.713	-1.121
35	50	14V Biased HDR	66.856	66.893	0.037
36	50	Unbiased HDR	65.1	67.69	2.59
37	50	Unbiased HDR	60.518	61.164	0.646
38	50	Unbiased HDR	63.879	63.291	-0.588
39	50	Unbiased HDR	63.165	64.182	1.017
40	50	Unbiased HDR	63	63.078	0.078
41	100	14V Biased HDR	64.538	65.201	0.663
42	100	14V Biased HDR	62.583	64.065	1.482
43	100	14V Biased HDR	66.44	67.548	1.108
44	100	14V Biased HDR	67.706	69.04	1.334
45	100	14V Biased HDR	62.532	61.702	-0.83
46	100	Unbiased HDR	68.671	68.087	-0.584
47	100	Unbiased HDR	69.305	68.301	-1.004
48	100	Unbiased HDR	64.912	64.771	-0.141
49	100	Unbiased HDR	71.064	71.601	0.537
50	100	Unbiased HDR	62.572	63.463	0.891
51	0	Correlation	71.064	71.008	-0.056
52	0	Correlation	65.605	65.629	0.024
53	0	Correlation	65.545	65.604	0.059
54	0	Correlation	67.651	67.649	-0.002
55	0	Correlation	67.565	67.609	0.044

Test Statistics (uA)

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	65.545	67.486	71.064	2.2439	65.604	67.5	71.008	2.2043	-0.056	0.0138	0.059	0.045224
3	62.884	64.921	67.863	1.7375	62.223	64.56	67.737	1.9898	-3.585	-0.3604	0.49	1.1579
10	60.237	63.205	67.077	2.3054	60.151	63.256	67.157	2.3712	-0.666	0.0515	0.744	0.50204
30	62.268	65.545	70.573	2.7158	60.986	65.428	69.781	2.5689	-1.423	-0.1171	1.585	0.91256
50	60.518	64.75	68.342	2.4081	61.164	64.94	68.249	2.318	-1.121	0.1906	2.59	1.038
100	62.532	66.032	71.064	3.0835	61.702	66.378	71.601	3.0191	-1.004	0.3456	1.482	0.91826

Device Test: 6.8 IEN_VIN(EN7p0V_I_Vin14V)





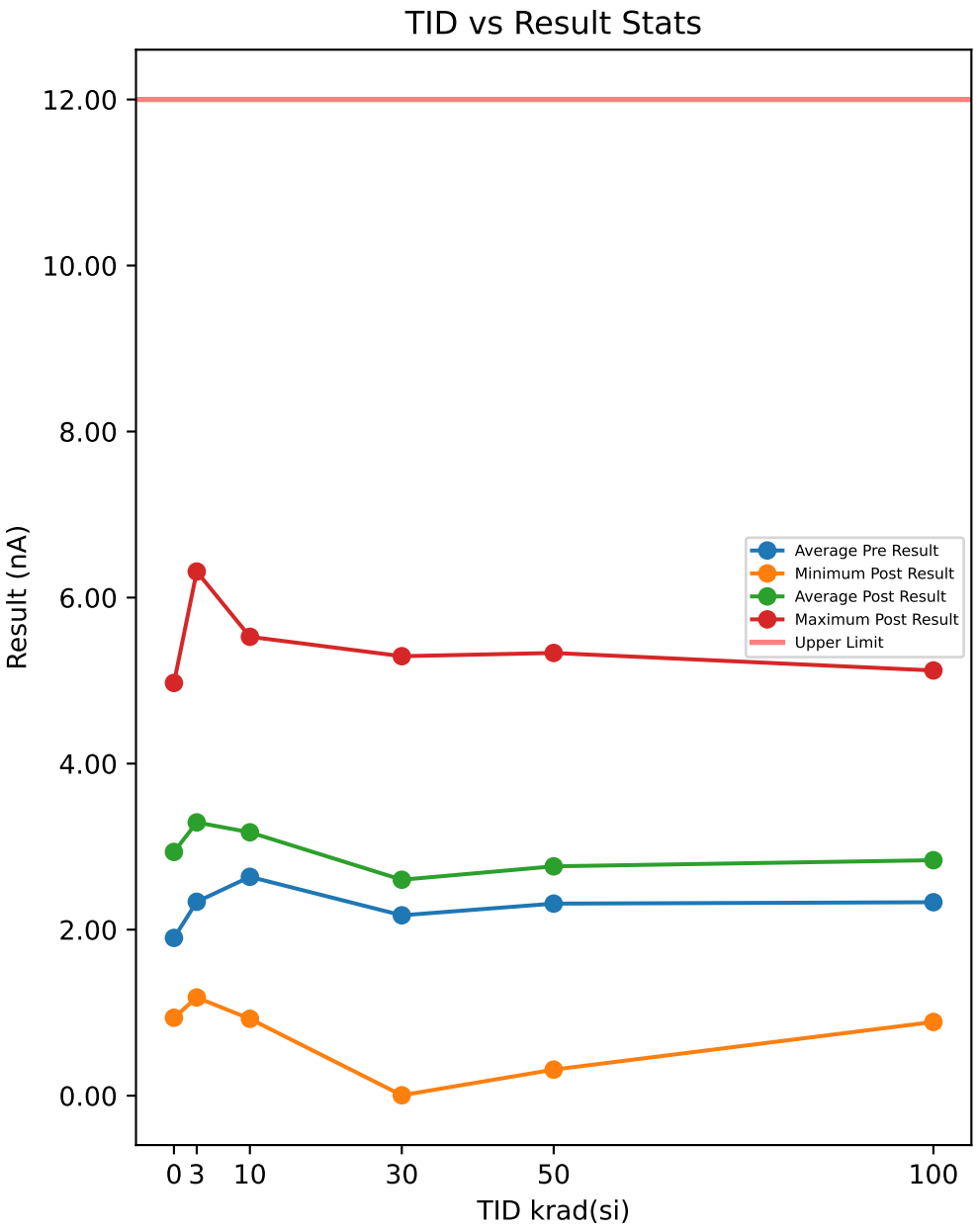
Test Results (Upper Limit = 12.0 (nA))

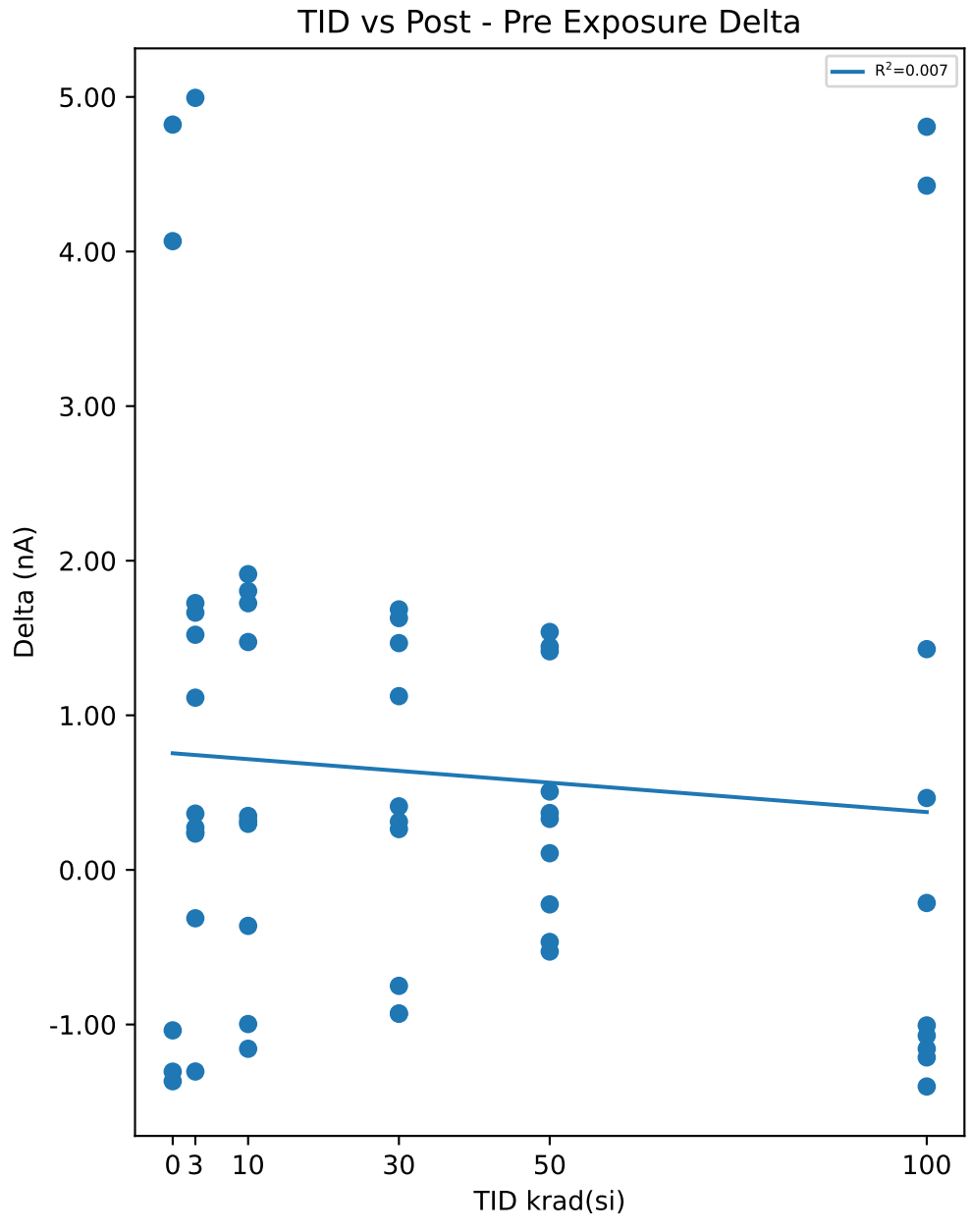
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	2.932	2.821	-0.111
2	3	14V Biased HDR	3.355	5.37	2.015
3	3	14V Biased HDR	3.261	10.531	7.27
4	3	14V Biased HDR	2.388	2.663	0.275
5	3	14V Biased HDR	3.459	5.164	1.705
6	3	Unbiased HDR	1.477	1.37	-0.107
7	3	Unbiased HDR	2.394	2.904	0.51
8	3	Unbiased HDR	3.683	5.411	1.728
9	3	Unbiased HDR	4.573	1.237	-3.336
10	3	Unbiased HDR	2.404	2.91	0.506
11	10	14V Biased HDR	3.786	5.794	2.008
12	10	14V Biased HDR	2.703	2.016	-0.687
13	10	14V Biased HDR	2.076	2.41	0.334
14	10	14V Biased HDR	3.613	5.797	2.184
15	10	14V Biased HDR	3.529	1.923	-1.606
16	10	Unbiased HDR	2.592	2.968	0.376
17	10	Unbiased HDR	3.634	5.653	2.019
18	10	Unbiased HDR	4.129	1.059	-3.07
19	10	Unbiased HDR	2.095	2.719	0.624
20	10	Unbiased HDR	3.799	5.507	1.708
21	30	14V Biased HDR	3.181	1.562	-1.619
22	30	14V Biased HDR	2.335	2.769	0.434
23	30	14V Biased HDR	3.672	5.199	1.527
24	30	14V Biased HDR	0.065	1.499	1.434
25	30	14V Biased HDR	2.376	2.806	0.43
26	30	Unbiased HDR	3.7	5.415	1.715
27	30	Unbiased HDR	0.787	0.855	0.068
28	30	Unbiased HDR	2.412	2.877	0.465
29	30	Unbiased HDR	3.841	5.599	1.758
30	30	Unbiased HDR	2.582	0.218	-2.364
31	50	14V Biased HDR	2.273	2.699	0.426
32	50	14V Biased HDR	3.799	5.628	1.829
33	50	14V Biased HDR	0.474	0.138	-0.336
34	50	14V Biased HDR	2.29	2.808	0.518
35	50	14V Biased HDR	4.033	5.452	1.419
36	50	Unbiased HDR	1.174	0.287	-0.887
37	50	Unbiased HDR	2.399	2.952	0.553
38	50	Unbiased HDR	3.826	5.456	1.63
39	50	Unbiased HDR	1.048	0.857	-0.191
40	50	Unbiased HDR	2.565	2.775	0.21
41	100	14V Biased HDR	3.882	5.123	1.241
42	100	14V Biased HDR	0.143	0.829	0.686
43	100	14V Biased HDR	2.533	2.396	-0.137
44	100	14V Biased HDR	3.814	2.578	-1.236
45	100	14V Biased HDR	2.186	4.185	1.999
46	100	Unbiased HDR	2.391	1.454	-0.937
47	100	Unbiased HDR	3.789	2.691	-1.098
48	100	Unbiased HDR	0.976	5.341	4.365
49	100	Unbiased HDR	2.486	1.489	-0.997
50	100	Unbiased HDR	3.954	2.984	-0.97
51	0	Correlation	0.717	5.269	4.552
52	0	Correlation	2.083	0.717	-1.366
53	0	Correlation	3.85	2.743	-1.107
54	0	Correlation	0.65	5.057	4.407
55	0	Correlation	2.382	0.749	-1.633

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	0.65	1.9364	3.85	1.3251	0.717	2.907	5.269	2.2182	-1.633	0.9706	4.552	3.209
3	1.477	2.9926	4.573	0.86707	1.237	4.0381	10.531	2.7483	-3.336	1.0455	7.27	2.6587
10	2.076	3.1956	4.129	0.75523	1.059	3.5846	5.797	1.8815	-3.07	0.389	2.184	1.7449
30	0.065	2.4951	3.841	1.247	0.218	2.8799	5.599	1.945	-2.364	0.3848	1.758	1.4041
50	0.474	2.3881	4.033	1.2361	0.138	2.9052	5.628	2.0866	-0.887	0.5171	1.829	0.88679
100	0.143	2.6154	3.954	1.3025	0.829	2.907	5.341	1.5395	-1.236	0.2916	4.365	1.8189

Device Test: 6.9 IEN_VIN(EN5p0V_I_Vin14V)





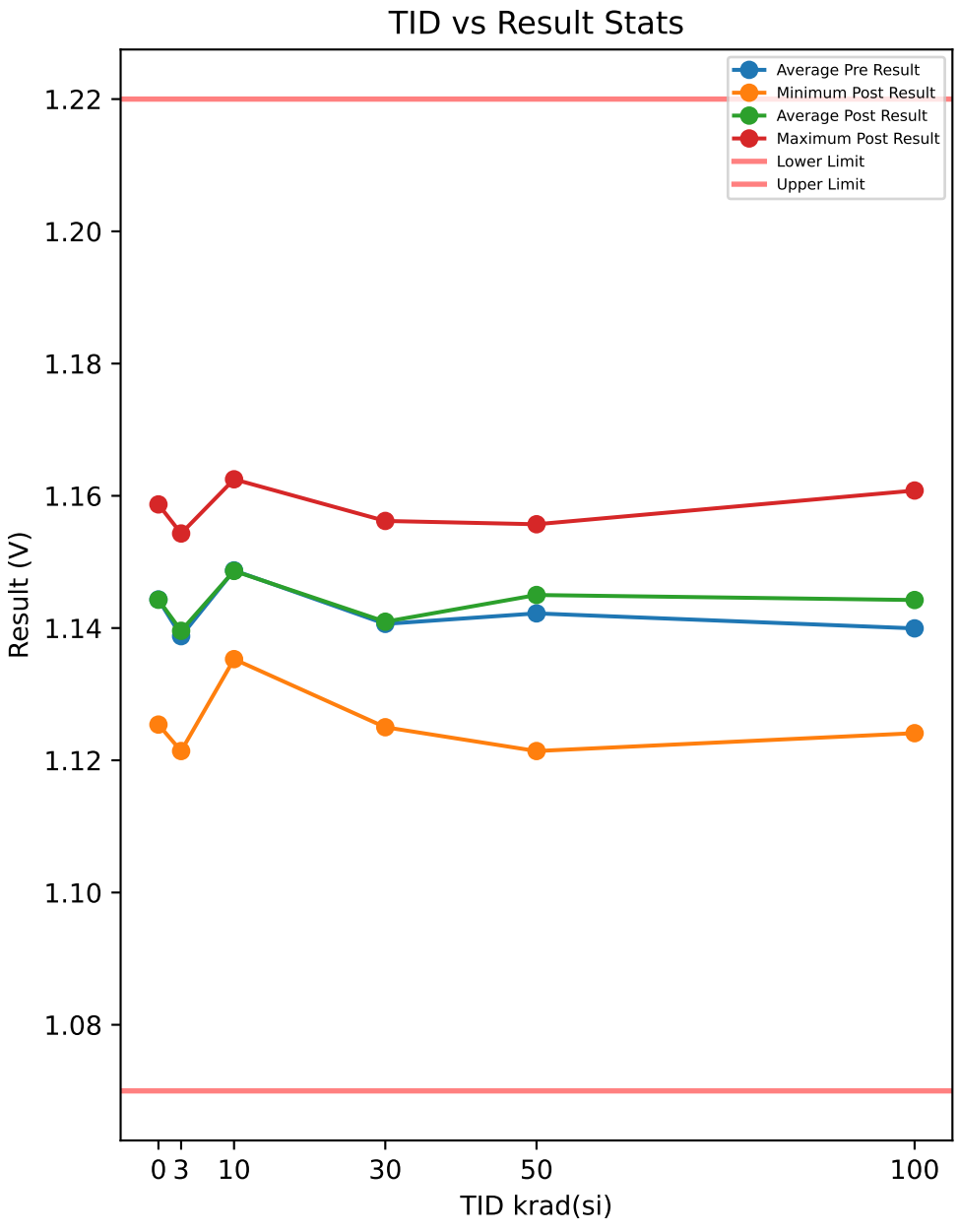
Test Results (Upper Limit = 12.0 (nA))

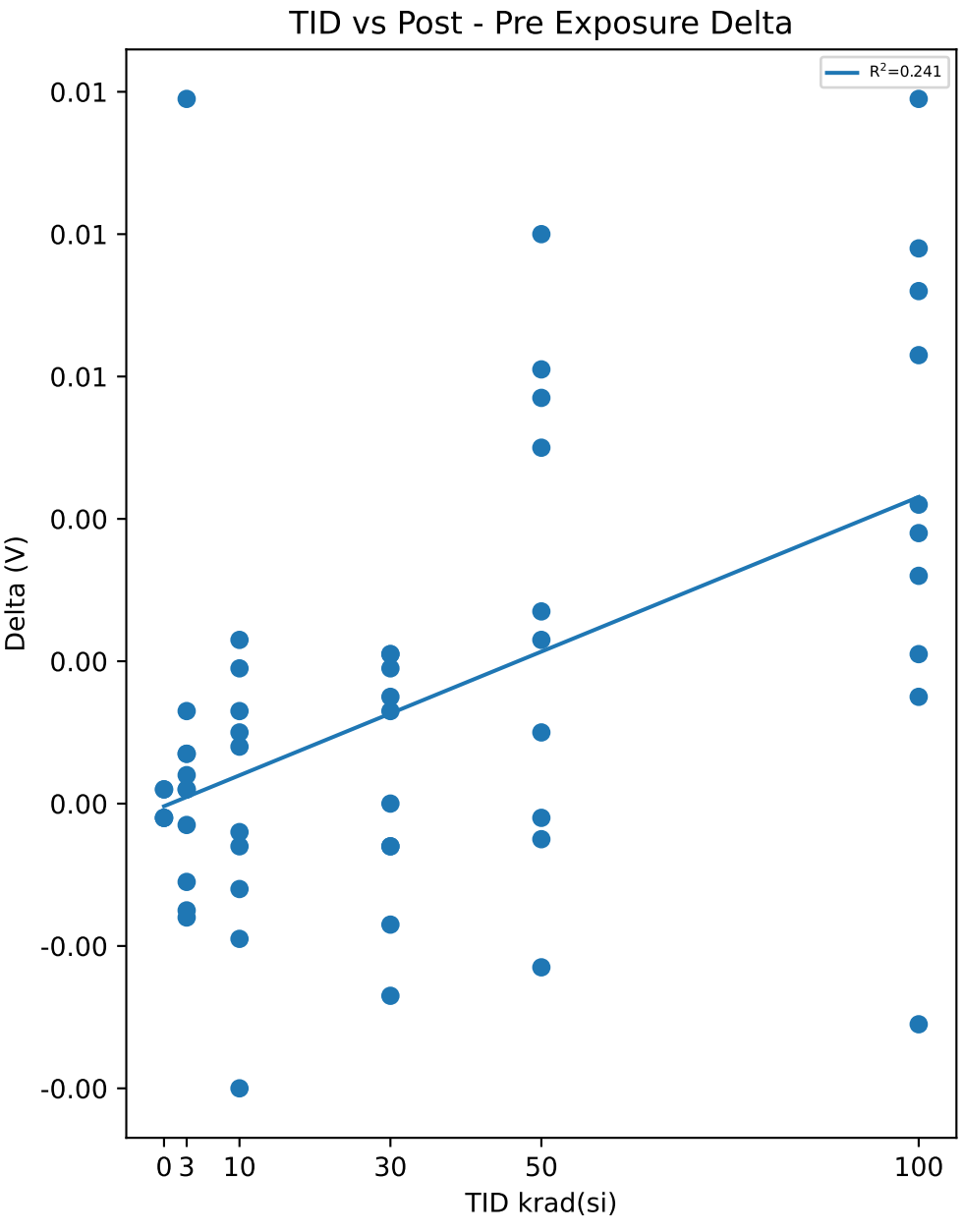
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	2.729	2.416	-0.313
2	3	14V Biased HDR	3.323	5.049	1.726
3	3	14V Biased HDR	1.32	6.314	4.994
4	3	14V Biased HDR	2.143	2.417	0.274
5	3	14V Biased HDR	3.355	4.876	1.521
6	3	Unbiased HDR	0.237	1.351	1.114
7	3	Unbiased HDR	2.224	2.468	0.244
8	3	Unbiased HDR	3.484	5.148	1.664
9	3	Unbiased HDR	2.487	1.183	-1.304
10	3	Unbiased HDR	2.208	2.572	0.364
11	10	14V Biased HDR	3.615	5.528	1.913
12	10	14V Biased HDR	1.379	1.017	-0.362
13	10	14V Biased HDR	2.059	2.357	0.298
14	10	14V Biased HDR	3.611	5.415	1.804
15	10	14V Biased HDR	1.923	0.926	-0.997
16	10	Unbiased HDR	2.264	2.581	0.317
17	10	Unbiased HDR	3.547	5.272	1.725
18	10	Unbiased HDR	2.237	1.08	-1.157
19	10	Unbiased HDR	2.116	2.465	0.349
20	10	Unbiased HDR	3.613	5.087	1.474
21	30	14V Biased HDR	1.708	0.778	-0.93
22	30	14V Biased HDR	2.181	2.445	0.264
23	30	14V Biased HDR	3.69	5.157	1.467
24	30	14V Biased HDR	0.254	1.378	1.124
25	30	14V Biased HDR	2.302	2.614	0.312
26	30	Unbiased HDR	3.571	5.2	1.629
27	30	Unbiased HDR	0.934	0.005	-0.929
28	30	Unbiased HDR	2.315	2.726	0.411
29	30	Unbiased HDR	3.609	5.294	1.685
30	30	Unbiased HDR	1.165	0.415	-0.75
31	50	14V Biased HDR	2.178	2.508	0.33
32	50	14V Biased HDR	3.681	5.125	1.444
33	50	14V Biased HDR	0.842	0.314	-0.528
34	50	14V Biased HDR	2.18	2.548	0.368
35	50	14V Biased HDR	3.919	5.333	1.414
36	50	Unbiased HDR	0.975	0.509	-0.466
37	50	Unbiased HDR	2.221	2.728	0.507
38	50	Unbiased HDR	3.668	5.207	1.539
39	50	Unbiased HDR	1.1	0.877	-0.223
40	50	Unbiased HDR	2.372	2.48	0.108
41	100	14V Biased HDR	3.693	5.121	1.428
42	100	14V Biased HDR	0.423	0.888	0.465
43	100	14V Biased HDR	2.486	2.272	-0.214
44	100	14V Biased HDR	3.452	2.295	-1.157
45	100	14V Biased HDR	0.696	5.122	4.426
46	100	Unbiased HDR	2.31	1.304	-1.006
47	100	Unbiased HDR	3.834	2.433	-1.401
48	100	Unbiased HDR	0.24	5.047	4.807
49	100	Unbiased HDR	2.337	1.265	-1.072
50	100	Unbiased HDR	3.832	2.619	-1.213
51	0	Correlation	0.151	4.972	4.821
52	0	Correlation	1.977	0.939	-1.038
53	0	Correlation	3.819	2.514	-1.305
54	0	Correlation	0.839	4.906	4.067
55	0	Correlation	2.717	1.35	-1.367

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	0.151	1.9006	3.819	1.4612	0.939	2.9362	4.972	1.9175	-1.367	1.0356	4.821	3.1253
3	0.237	2.351	3.484	1.0005	1.183	3.3794	6.314	1.7964	-1.304	1.0284	4.994	1.6909
10	1.379	2.6364	3.615	0.86171	0.926	3.1728	5.528	1.9504	-1.157	0.5364	1.913	1.1528
30	0.254	2.1729	3.69	1.1928	0.005	2.6012	5.294	2.0253	-0.93	0.4283	1.685	1.0382
50	0.842	2.3136	3.919	1.1431	0.314	2.7629	5.333	1.9144	-0.528	0.4493	1.539	0.78124
100	0.24	2.3303	3.834	1.4273	0.888	2.8366	5.122	1.6588	-1.401	0.5063	4.807	2.3421

Device Test: 7.0 OVP_VTH_Rising_PLASTIC(OVP_UVLO_RISING_4p5V)





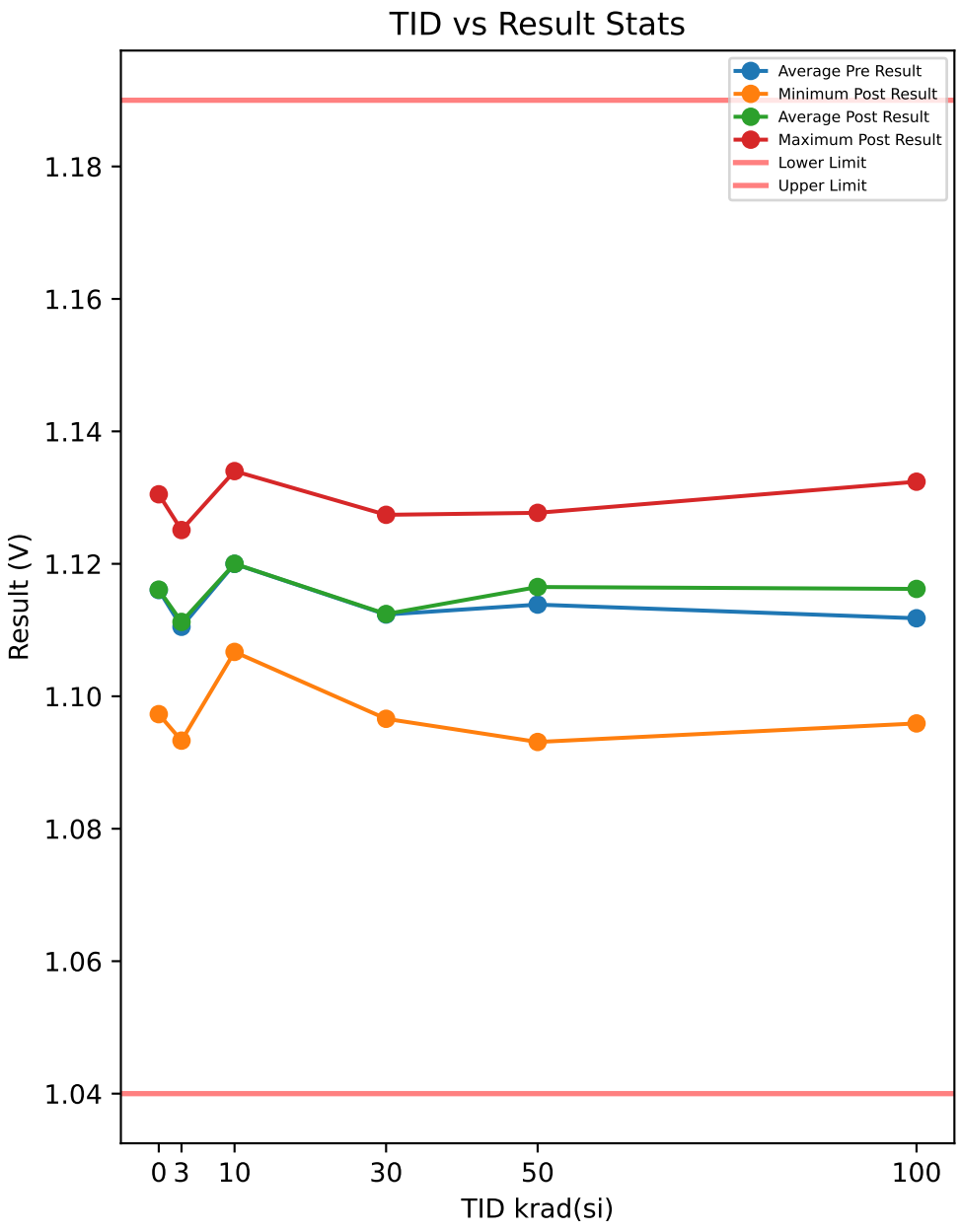
Test Results (Lower Limit = 1.07, Upper Limit = 1.22 (V))

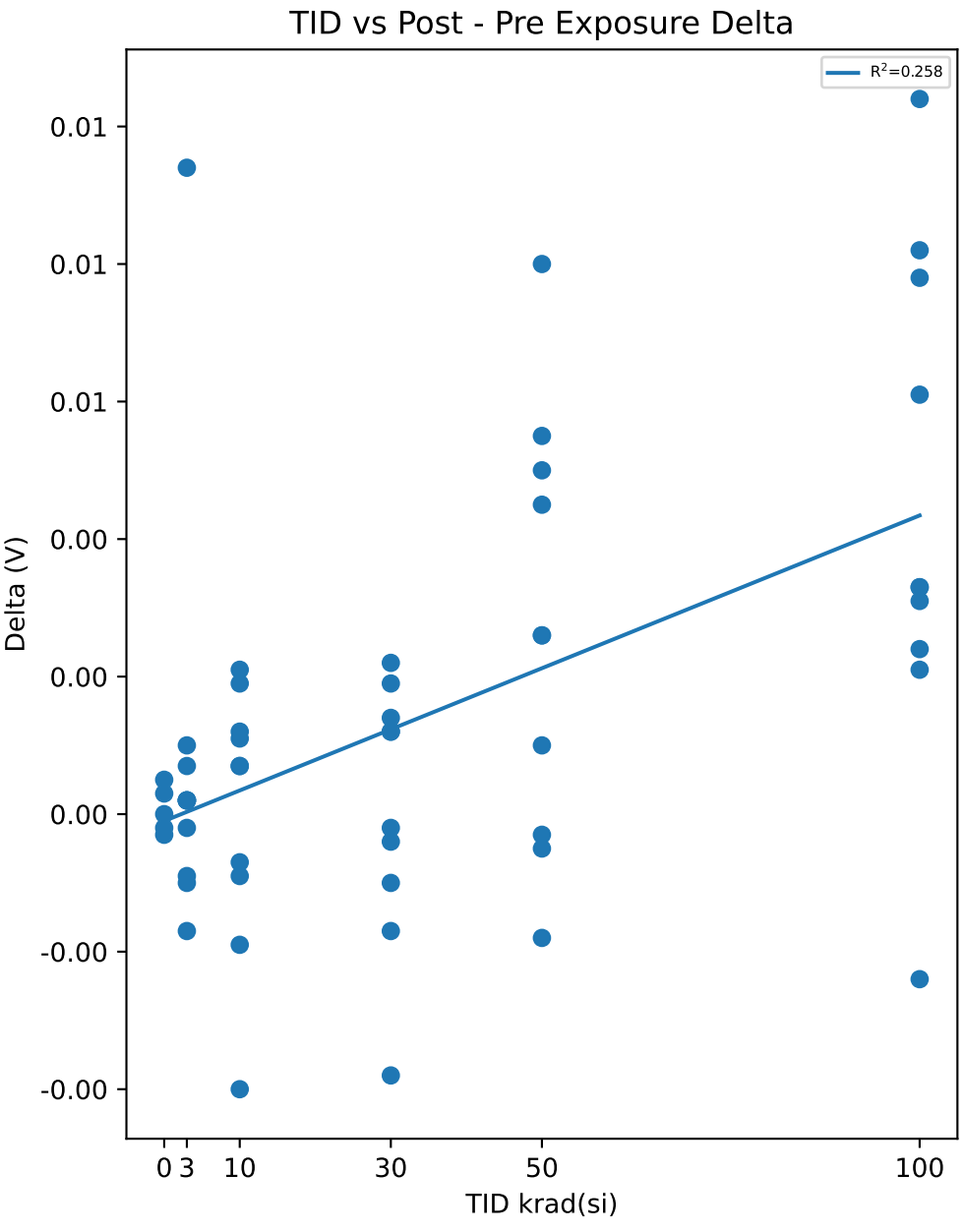
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	1.1444	1.1543	0.0099
2	3	14V Biased HDR	1.1442	1.1444	0.0002
3	3	14V Biased HDR	1.1349	1.1334	-0.0015
4	3	14V Biased HDR	1.1201	1.1214	0.0013
5	3	14V Biased HDR	1.1275	1.1277	0.0002
6	3	Unbiased HDR	1.138	1.1364	-0.0016
7	3	Unbiased HDR	1.1376	1.138	0.0004
8	3	Unbiased HDR	1.1442	1.1431	-0.0011
9	3	Unbiased HDR	1.1383	1.138	-0.0003
10	3	Unbiased HDR	1.1437	1.1444	0.0007
11	10	14V Biased HDR	1.156	1.1568	0.0008
12	10	14V Biased HDR	1.133	1.1353	0.0023
13	10	14V Biased HDR	1.1473	1.1492	0.0019
14	10	14V Biased HDR	1.145	1.146	0.001
15	10	14V Biased HDR	1.1576	1.157	-0.0006
16	10	Unbiased HDR	1.1376	1.1389	0.0013
17	10	Unbiased HDR	1.1494	1.149	-0.0004
18	10	Unbiased HDR	1.1665	1.1625	-0.004
19	10	Unbiased HDR	1.138	1.1368	-0.0012
20	10	Unbiased HDR	1.1568	1.1549	-0.0019
21	30	14V Biased HDR	1.1353	1.1372	0.0019
22	30	14V Biased HDR	1.1547	1.1562	0.0015
23	30	14V Biased HDR	1.1471	1.1471	0
24	30	14V Biased HDR	1.1444	1.1465	0.0021
25	30	14V Biased HDR	1.1444	1.1427	-0.0017
26	30	Unbiased HDR	1.1492	1.1486	-0.0006
27	30	Unbiased HDR	1.1317	1.133	0.0013
28	30	Unbiased HDR	1.1458	1.1452	-0.0006
29	30	Unbiased HDR	1.126	1.1281	0.0021
30	30	Unbiased HDR	1.1277	1.125	-0.0027
31	50	14V Biased HDR	1.1534	1.1557	0.0023
32	50	14V Biased HDR	1.1444	1.1471	0.0027
33	50	14V Biased HDR	1.1374	1.1454	0.008
34	50	14V Biased HDR	1.1408	1.1458	0.005
35	50	14V Biased HDR	1.1157	1.1214	0.0057
36	50	Unbiased HDR	1.1486	1.1547	0.0061
37	50	Unbiased HDR	1.1463	1.1458	-0.0005
38	50	Unbiased HDR	1.145	1.146	0.001
39	50	Unbiased HDR	1.1454	1.1452	-0.0002
40	50	Unbiased HDR	1.1452	1.1429	-0.0023
41	100	14V Biased HDR	1.1406	1.1505	0.0099
42	100	14V Biased HDR	1.1439	1.1511	0.0072
43	100	14V Biased HDR	1.1463	1.1484	0.0021
44	100	14V Biased HDR	1.1412	1.149	0.0078
45	100	14V Biased HDR	1.1576	1.1608	0.0032
46	100	Unbiased HDR	1.1214	1.1277	0.0063
47	100	Unbiased HDR	1.146	1.1429	-0.0031
48	100	Unbiased HDR	1.1458	1.1473	0.0015
49	100	Unbiased HDR	1.1199	1.1241	0.0042
50	100	Unbiased HDR	1.1368	1.1406	0.0038
51	0	Correlation	1.1389	1.1391	0.0002
52	0	Correlation	1.141	1.1408	-0.0002
53	0	Correlation	1.1589	1.1587	-0.0002
54	0	Correlation	1.1252	1.1254	0.0002
55	0	Correlation	1.1576	1.1574	-0.0002

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	1.1252	1.1443	1.1589	0.014097	1.1254	1.1443	1.1587	0.013924	-0.0002	-4e-05	0.0002	0.00021909
3	1.1201	1.1373	1.1444	0.0080678	1.1214	1.1381	1.1543	0.0093027	-0.0016	0.00082	0.0099	0.0033303
10	1.133	1.1487	1.1665	0.010621	1.1353	1.1486	1.1625	0.0093582	-0.004	-8e-05	0.0023	0.0019361
30	1.126	1.1406	1.1547	0.0097627	1.125	1.141	1.1562	0.0098749	-0.0027	0.00033	0.0021	0.0017056
50	1.1157	1.1422	1.1534	0.010233	1.1214	1.145	1.1557	0.0092906	-0.0023	0.00278	0.008	0.0033429
100	1.1199	1.14	1.1576	0.011529	1.1241	1.1442	1.1608	0.011076	-0.0031	0.00429	0.0099	0.0037257

Device Test: 7.1 OVP_VTH_Falling_PLASTIC(OVP_UVLO_FALLING_4p5V)





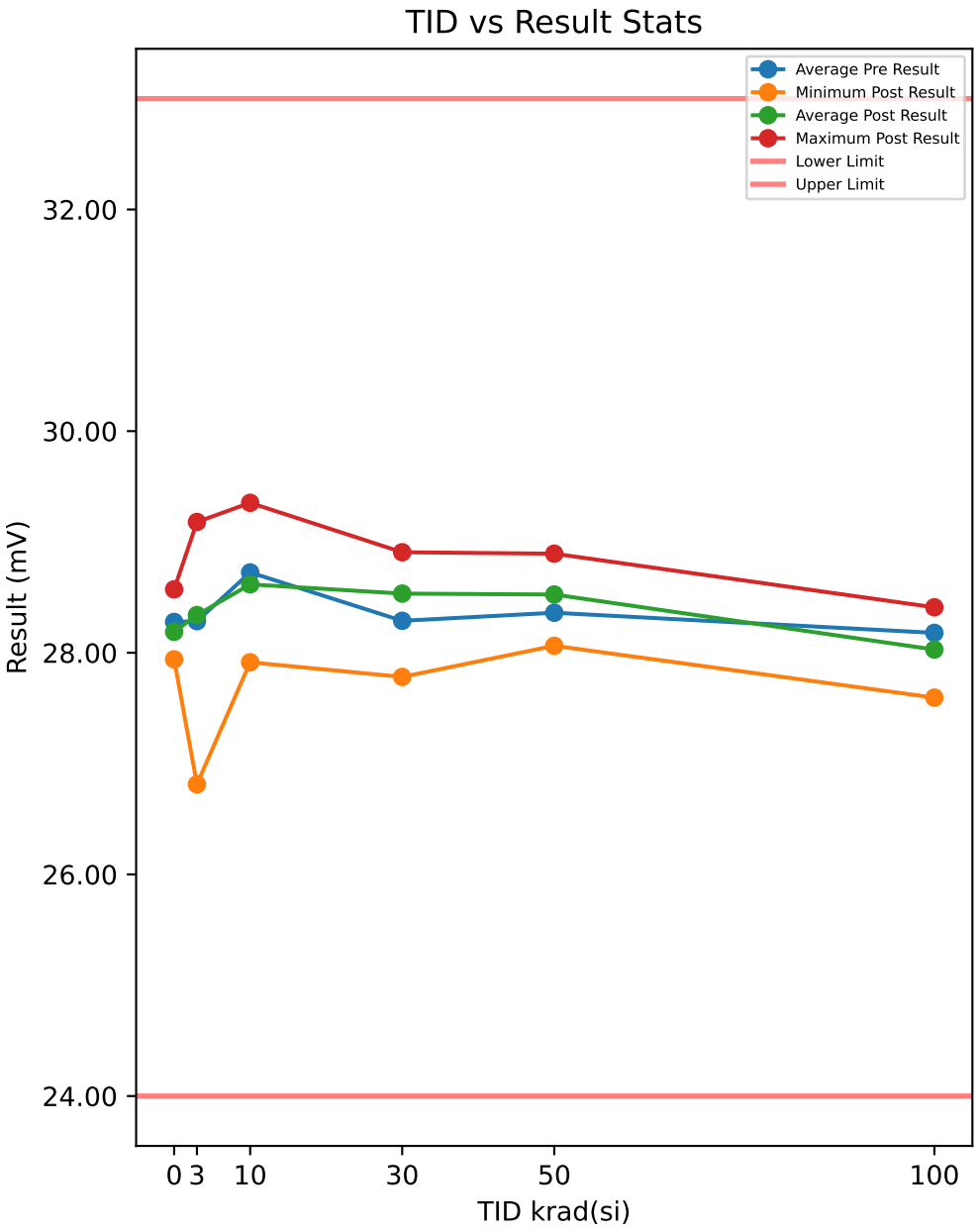
Test Results (Lower Limit = 1.04, Upper Limit = 1.19 (V))

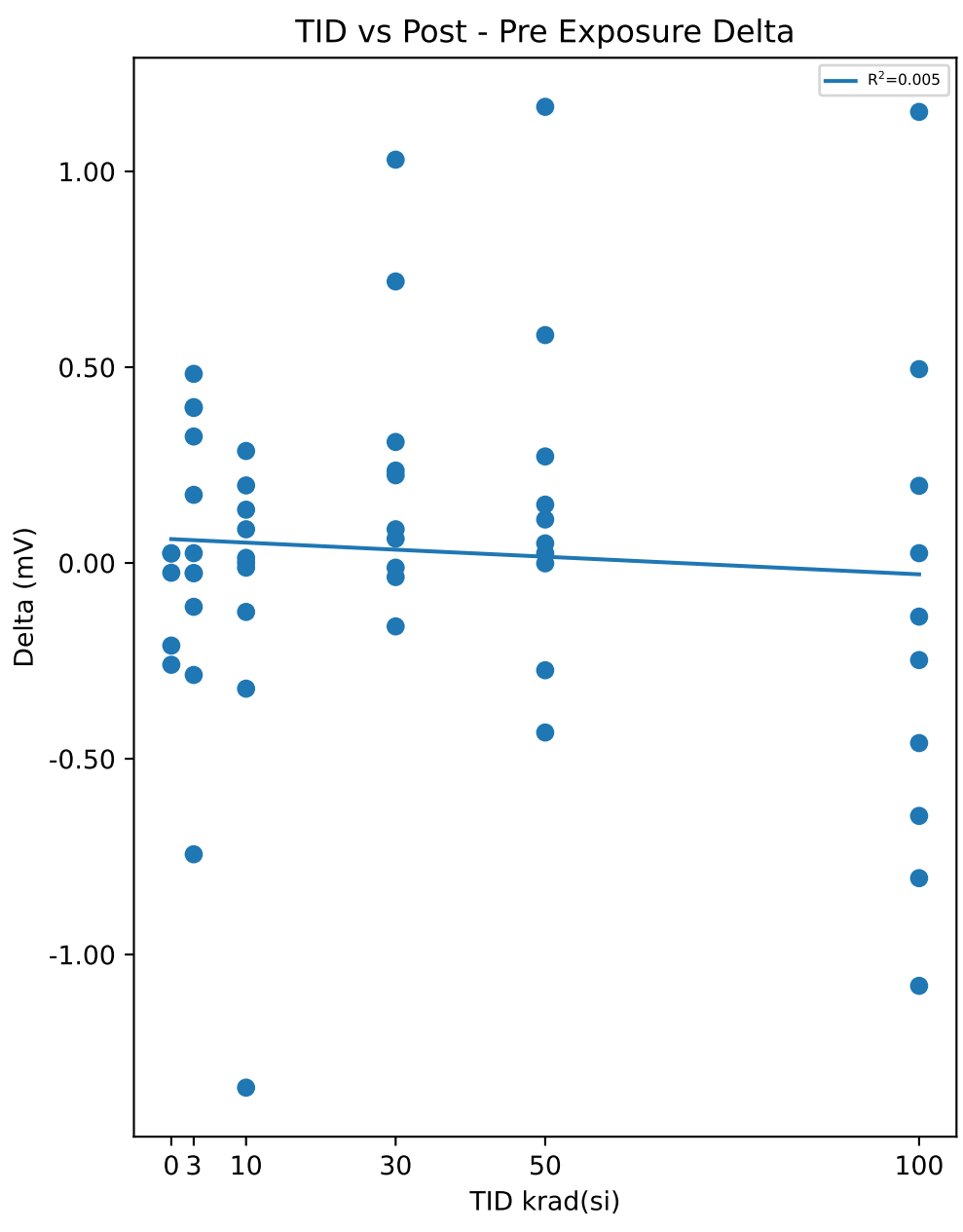
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	1.1157	1.1251	0.0094
2	3	14V Biased HDR	1.1157	1.1159	0.0002
3	3	14V Biased HDR	1.1065	1.1048	-0.0017
4	3	14V Biased HDR	1.0923	1.0933	0.001
5	3	14V Biased HDR	1.0999	1.1001	0.0002
6	3	Unbiased HDR	1.1105	1.1095	-0.001
7	3	Unbiased HDR	1.1088	1.1095	0.0007
8	3	Unbiased HDR	1.1154	1.1145	-0.0009
9	3	Unbiased HDR	1.11	1.1098	-0.0002
10	3	Unbiased HDR	1.1157	1.1159	0.0002
11	10	14V Biased HDR	1.1267	1.1274	0.0007
12	10	14V Biased HDR	1.1046	1.1067	0.0021
13	10	14V Biased HDR	1.1187	1.1206	0.0019
14	10	14V Biased HDR	1.1164	1.1176	0.0012
15	10	14V Biased HDR	1.1284	1.1291	0.0007
16	10	Unbiased HDR	1.1091	1.1102	0.0011
17	10	Unbiased HDR	1.1208	1.1201	-0.0007
18	10	Unbiased HDR	1.138	1.134	-0.004
19	10	Unbiased HDR	1.1095	1.1086	-0.0009
20	10	Unbiased HDR	1.1277	1.1258	-0.0019
21	30	14V Biased HDR	1.1074	1.1086	0.0012
22	30	14V Biased HDR	1.126	1.1274	0.0014
23	30	14V Biased HDR	1.1187	1.1185	-0.0002
24	30	14V Biased HDR	1.1161	1.118	0.0019
25	30	14V Biased HDR	1.1157	1.114	-0.0017
26	30	Unbiased HDR	1.1201	1.1197	-0.0004
27	30	Unbiased HDR	1.1032	1.1044	0.0012
28	30	Unbiased HDR	1.1176	1.1166	-0.001
29	30	Unbiased HDR	1.0982	1.1004	0.0022
30	30	Unbiased HDR	1.1004	1.0966	-0.0038
31	50	14V Biased HDR	1.1251	1.1277	0.0026
32	50	14V Biased HDR	1.1161	1.1187	0.0026
33	50	14V Biased HDR	1.1088	1.1168	0.008
34	50	14V Biased HDR	1.1126	1.1171	0.0045
35	50	14V Biased HDR	1.0876	1.0931	0.0055
36	50	Unbiased HDR	1.1208	1.1258	0.005
37	50	Unbiased HDR	1.1176	1.1171	-0.0005
38	50	Unbiased HDR	1.1166	1.1176	0.001
39	50	Unbiased HDR	1.1171	1.1168	-0.0003
40	50	Unbiased HDR	1.1161	1.1143	-0.0018
41	100	14V Biased HDR	1.1119	1.1223	0.0104
42	100	14V Biased HDR	1.1152	1.1234	0.0082
43	100	14V Biased HDR	1.118	1.1204	0.0024
44	100	14V Biased HDR	1.1128	1.1206	0.0078
45	100	14V Biased HDR	1.1291	1.1324	0.0033
46	100	Unbiased HDR	1.094	1.1001	0.0061
47	100	Unbiased HDR	1.1176	1.1152	-0.0024
48	100	Unbiased HDR	1.1173	1.1194	0.0021
49	100	Unbiased HDR	1.0928	1.0959	0.0031
50	100	Unbiased HDR	1.1091	1.1124	0.0033
51	0	Correlation	1.1107	1.111	0.0003
52	0	Correlation	1.1131	1.1128	-0.0003
53	0	Correlation	1.1307	1.1305	-0.0002
54	0	Correlation	1.0968	1.0973	0.0005
55	0	Correlation	1.1289	1.1289	0

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	1.0968	1.116	1.1307	0.014032	1.0973	1.1161	1.1305	0.013798	-0.0003	6e-05	0.0005	0.00033615
3	1.0923	1.1091	1.1157	0.0077949	1.0933	1.1098	1.1251	0.0089573	-0.0017	0.00079	0.0094	0.0031353
10	1.1046	1.12	1.138	0.010436	1.1067	1.12	1.134	0.009287	-0.004	2e-05	0.0021	0.0019019
30	1.0982	1.1123	1.126	0.0093737	1.0966	1.1124	1.1274	0.0096559	-0.0038	8e-05	0.0022	0.0018784
50	1.0876	1.1138	1.1251	0.010183	1.0931	1.1165	1.1277	0.0092573	-0.0018	0.00266	0.008	0.0031063
100	1.0928	1.1118	1.1291	0.011052	1.0959	1.1162	1.1324	0.010982	-0.0024	0.00443	0.0104	0.0037196

Device Test: 7.2 OVP_HYST_PLASTIC(OVP_UVLO_HYSTERESIS_4p5V)





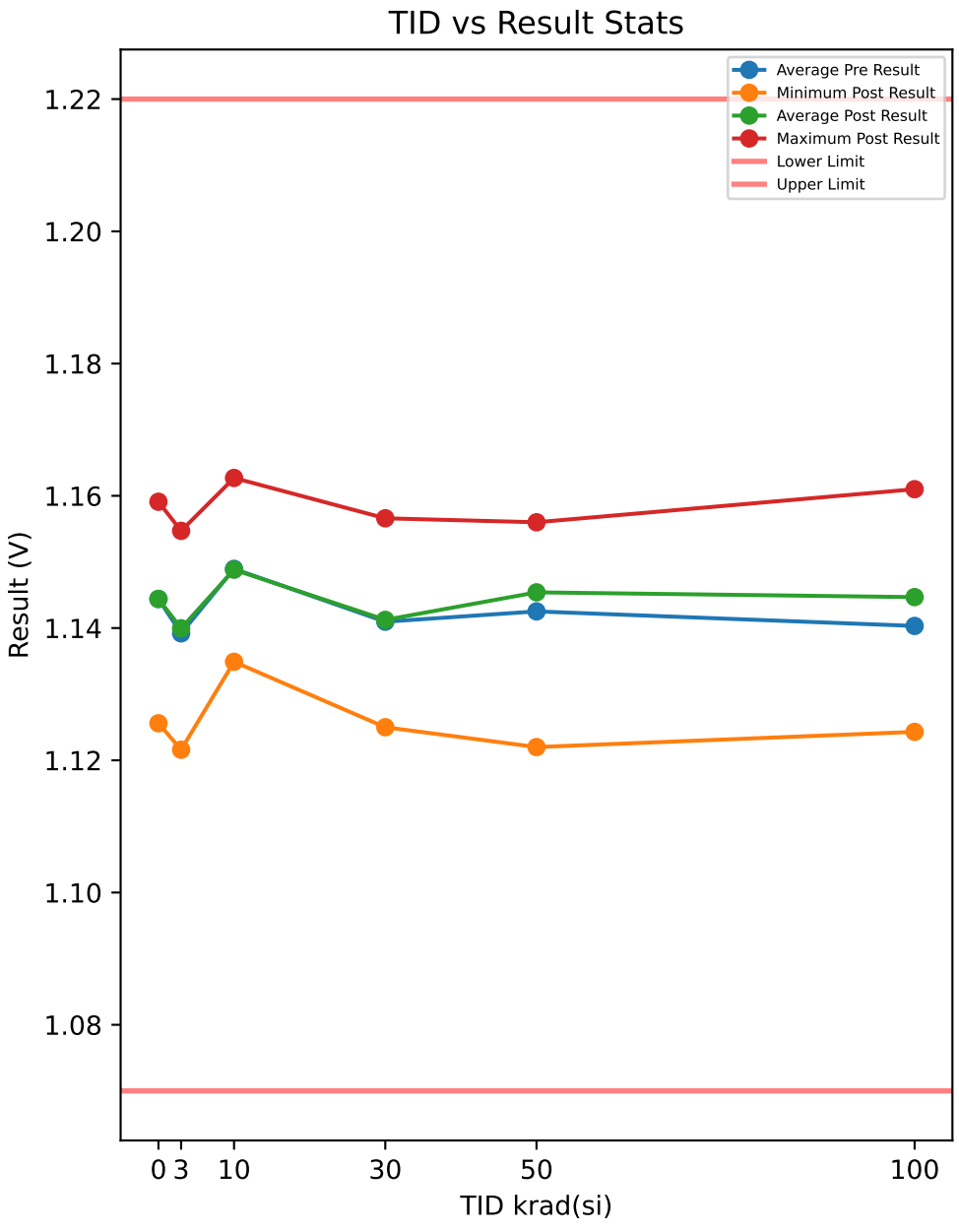
Test Results (Lower Limit = 24.0, Upper Limit = 33.0 (mV))

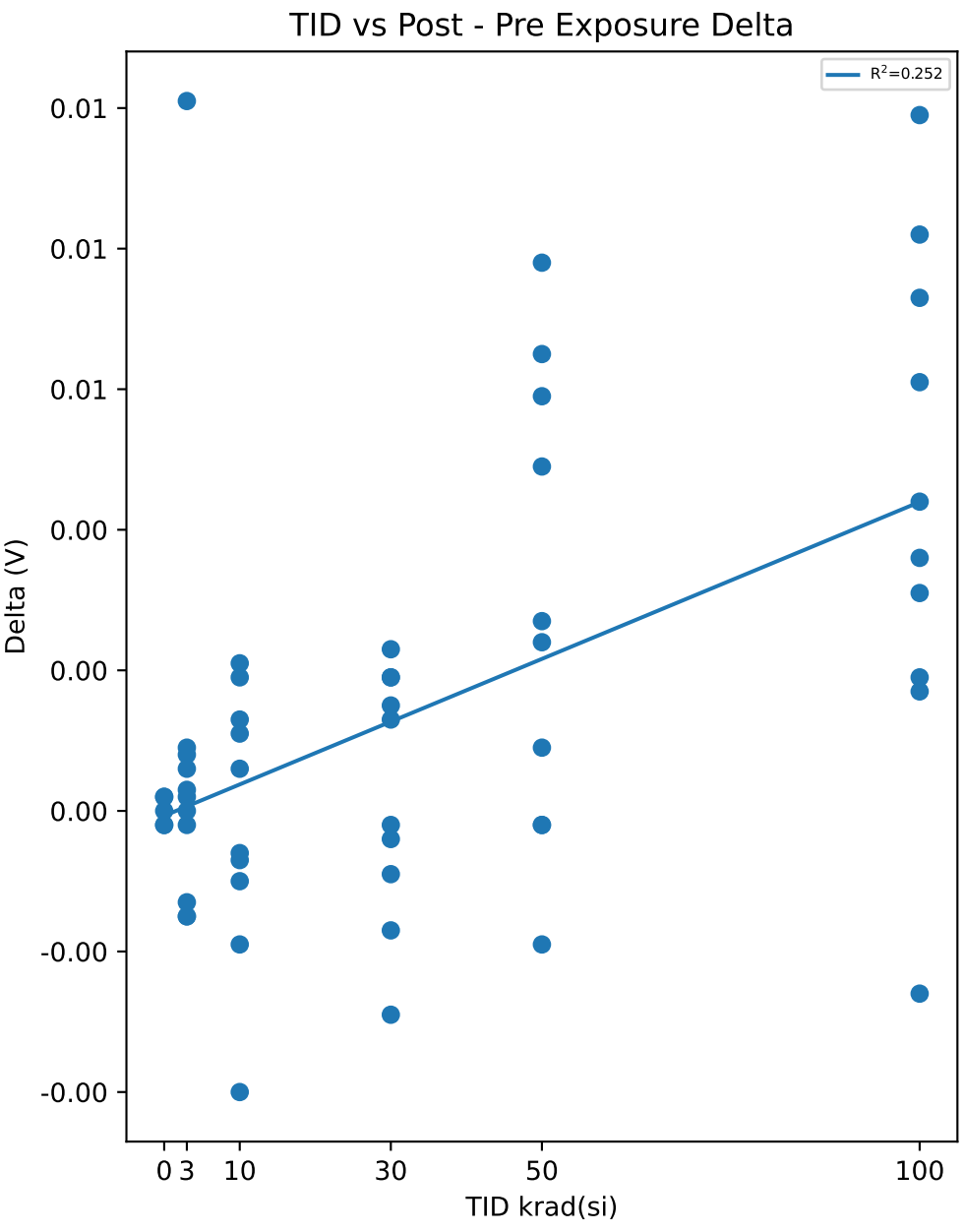
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	28.697	29.18	0.483
2	3	14V Biased HDR	28.487	28.461	-0.026
3	3	14V Biased HDR	28.401	28.575	0.174
4	3	14V Biased HDR	27.782	28.105	0.323
5	3	14V Biased HDR	27.621	27.595	-0.026
6	3	Unbiased HDR	27.557	26.813	-0.744
7	3	Unbiased HDR	28.785	28.499	-0.286
8	3	Unbiased HDR	28.722	28.61	-0.112
9	3	Unbiased HDR	28.239	28.264	0.025
10	3	Unbiased HDR	28.065	28.461	0.396
11	10	14V Biased HDR	29.217	29.353	0.136
12	10	14V Biased HDR	28.388	28.586	0.198
13	10	14V Biased HDR	28.585	28.598	0.013
14	10	14V Biased HDR	28.623	28.498	-0.125
15	10	14V Biased HDR	29.254	27.914	-1.34
16	10	Unbiased HDR	28.55	28.636	0.086
17	10	Unbiased HDR	28.572	28.858	0.286
18	10	Unbiased HDR	28.446	28.447	0.001
19	10	Unbiased HDR	28.499	28.178	-0.321
20	10	Unbiased HDR	29.117	29.105	-0.012
21	30	14V Biased HDR	27.88	28.599	0.719
22	30	14V Biased HDR	28.658	28.72	0.062
23	30	14V Biased HDR	28.374	28.61	0.236
24	30	14V Biased HDR	28.225	28.449	0.224
25	30	14V Biased HDR	28.697	28.661	-0.036
26	30	Unbiased HDR	29.069	28.907	-0.162
27	30	Unbiased HDR	28.538	28.624	0.086
28	30	Unbiased HDR	28.288	28.597	0.309
29	30	Unbiased HDR	27.794	27.782	-0.012
30	30	Unbiased HDR	27.36	28.39	1.03
31	50	14V Biased HDR	28.337	28.063	-0.274
32	50	14V Biased HDR	28.225	28.374	0.149
33	50	14V Biased HDR	28.574	28.573	-0.001
34	50	14V Biased HDR	28.177	28.759	0.582
35	50	14V Biased HDR	28.068	28.34	0.272
36	50	Unbiased HDR	27.729	28.894	1.165
37	50	Unbiased HDR	28.709	28.759	0.05
38	50	Unbiased HDR	28.387	28.498	0.111
39	50	Unbiased HDR	28.337	28.362	0.025
40	50	Unbiased HDR	29.068	28.635	-0.433
41	100	14V Biased HDR	28.673	28.213	-0.46
42	100	14V Biased HDR	28.747	27.667	-1.08
43	100	14V Biased HDR	28.238	27.99	-0.248
44	100	14V Biased HDR	28.362	28.387	0.025
45	100	14V Biased HDR	28.547	28.41	-0.137
46	100	Unbiased HDR	27.398	27.595	0.197
47	100	Unbiased HDR	28.498	27.693	-0.805
48	100	Unbiased HDR	28.524	27.878	-0.646
49	100	Unbiased HDR	27.101	28.253	1.152
50	100	Unbiased HDR	27.707	28.202	0.495
51	0	Correlation	28.165	28.14	-0.025
52	0	Correlation	27.917	27.941	0.024
53	0	Correlation	28.162	28.187	0.025
54	0	Correlation	28.364	28.104	-0.26
55	0	Correlation	28.783	28.572	-0.211

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	27.917	28.278	28.783	0.32364	27.941	28.189	28.572	0.23336	-0.26	-0.0894	0.025	0.136
3	27.557	28.236	28.785	0.46128	26.813	28.256	29.18	0.64687	-0.744	0.0207	0.483	0.3606
10	28.388	28.725	29.254	0.33368	27.914	28.617	29.353	0.41761	-1.34	-0.1078	0.286	0.46491
30	27.36	28.288	29.069	0.50108	27.782	28.534	28.907	0.29914	-0.162	0.2456	1.03	0.36742
50	27.729	28.361	29.068	0.36603	28.063	28.526	28.894	0.24896	-0.433	0.1646	1.165	0.44712
100	27.101	28.18	28.747	0.57297	27.595	28.029	28.41	0.30621	-1.08	-0.1507	1.152	0.65896

Device Test: 7.3 OVP_VTH_Rising_PLASTIC(OVP_UVLO_RISING_14p0V)





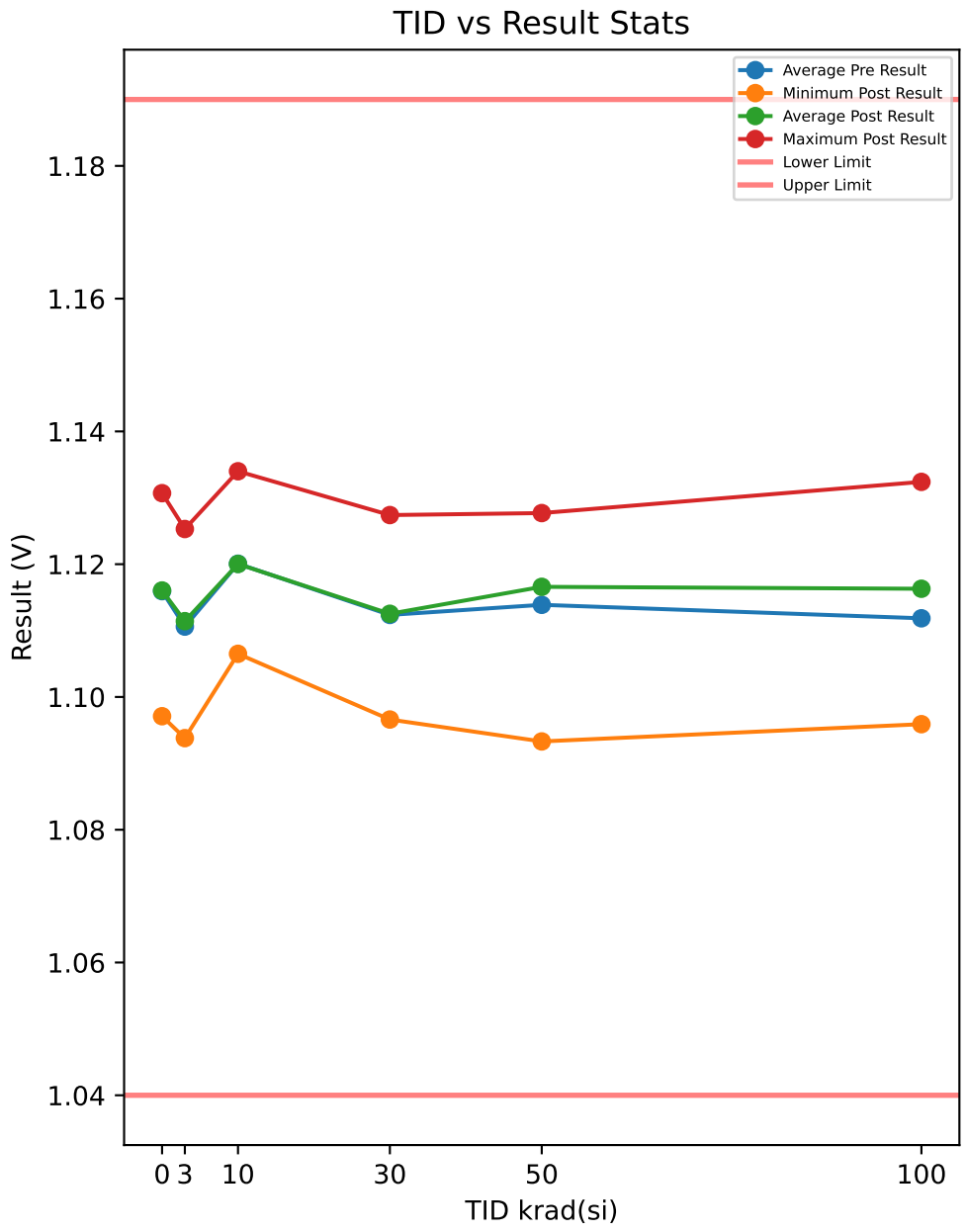
Test Results (Lower Limit = 1.07, Upper Limit = 1.22 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	1.1446	1.1547	0.0101
2	3	14V Biased HDR	1.1446	1.1448	0.0002
3	3	14V Biased HDR	1.1353	1.134	-0.0013
4	3	14V Biased HDR	1.1208	1.1216	0.0008
5	3	14V Biased HDR	1.1279	1.1279	0
6	3	Unbiased HDR	1.1383	1.1368	-0.0015
7	3	Unbiased HDR	1.138	1.1383	0.0003
8	3	Unbiased HDR	1.1448	1.1433	-0.0015
9	3	Unbiased HDR	1.1389	1.1387	-0.0002
10	3	Unbiased HDR	1.1439	1.1448	0.0009
11	10	14V Biased HDR	1.1564	1.157	0.0006
12	10	14V Biased HDR	1.1328	1.1349	0.0021
13	10	14V Biased HDR	1.1477	1.1496	0.0019
14	10	14V Biased HDR	1.1452	1.1465	0.0013
15	10	14V Biased HDR	1.1583	1.1576	-0.0007
16	10	Unbiased HDR	1.1378	1.1389	0.0011
17	10	Unbiased HDR	1.1496	1.149	-0.0006
18	10	Unbiased HDR	1.1667	1.1627	-0.004
19	10	Unbiased HDR	1.138	1.137	-0.001
20	10	Unbiased HDR	1.157	1.1551	-0.0019
21	30	14V Biased HDR	1.1357	1.1376	0.0019
22	30	14V Biased HDR	1.1551	1.1566	0.0015
23	30	14V Biased HDR	1.1477	1.1475	-0.0002
24	30	14V Biased HDR	1.1446	1.1469	0.0023
25	30	14V Biased HDR	1.1446	1.1429	-0.0017
26	30	Unbiased HDR	1.1494	1.149	-0.0004
27	30	Unbiased HDR	1.1319	1.1332	0.0013
28	30	Unbiased HDR	1.1463	1.1454	-0.0009
29	30	Unbiased HDR	1.1264	1.1283	0.0019
30	30	Unbiased HDR	1.1279	1.125	-0.0029
31	50	14V Biased HDR	1.1536	1.156	0.0024
32	50	14V Biased HDR	1.1448	1.1475	0.0027
33	50	14V Biased HDR	1.1378	1.1456	0.0078
34	50	14V Biased HDR	1.1414	1.1463	0.0049
35	50	14V Biased HDR	1.1161	1.122	0.0059
36	50	Unbiased HDR	1.1488	1.1553	0.0065
37	50	Unbiased HDR	1.1465	1.1463	-0.0002
38	50	Unbiased HDR	1.1456	1.1465	0.0009
39	50	Unbiased HDR	1.1454	1.1452	-0.0002
40	50	Unbiased HDR	1.1452	1.1433	-0.0019
41	100	14V Biased HDR	1.1412	1.1511	0.0099
42	100	14V Biased HDR	1.1444	1.1517	0.0073
43	100	14V Biased HDR	1.1467	1.1484	0.0017
44	100	14V Biased HDR	1.1416	1.1498	0.0082
45	100	14V Biased HDR	1.1579	1.161	0.0031
46	100	Unbiased HDR	1.122	1.1281	0.0061
47	100	Unbiased HDR	1.1465	1.1439	-0.0026
48	100	Unbiased HDR	1.1458	1.1477	0.0019
49	100	Unbiased HDR	1.1199	1.1243	0.0044
50	100	Unbiased HDR	1.1372	1.1408	0.0036
51	0	Correlation	1.1389	1.1387	-0.0002
52	0	Correlation	1.1412	1.141	-0.0002
53	0	Correlation	1.1589	1.1591	0.0002
54	0	Correlation	1.1254	1.1256	0.0002
55	0	Correlation	1.1576	1.1576	0

Test Statistics (V)

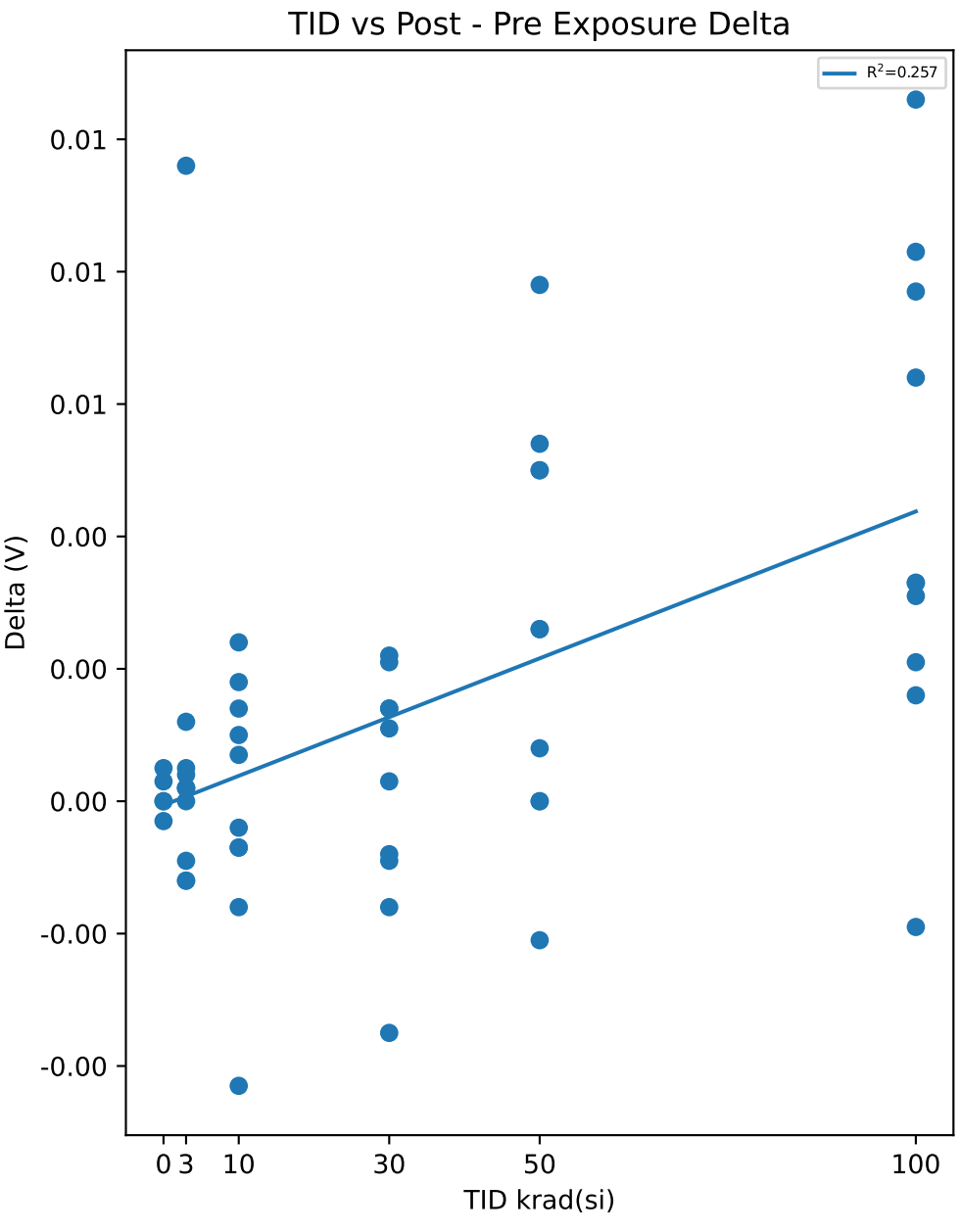
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.1254	1.1444	1.1589	0.014018	1.1256	1.1444	1.1591	0.014034	-0.0002	0	0.0002	0.0002
3	1.1208	1.1377	1.1448	0.0079817	1.1216	1.1385	1.1547	0.0093455	-0.0015	0.00078	0.0101	0.003395
10	1.1328	1.1489	1.1667	0.01077	1.1349	1.1488	1.1627	0.0095102	-0.004	-0.00012	0.0021	0.0019031
30	1.1264	1.141	1.1551	0.0097975	1.125	1.1412	1.1566	0.0099806	-0.0029	0.00028	0.0023	0.0017631
50	1.1161	1.1425	1.1536	0.010164	1.122	1.1454	1.156	0.0092476	-0.0019	0.00288	0.0078	0.0032748
100	1.1199	1.1403	1.1579	0.011544	1.1243	1.1447	1.161	0.011115	-0.0026	0.00436	0.0099	0.0036643

Device Test: 7.4 OVP_VTH_Falling_PLASTIC(OVP_UVLO_FALLING_14p0V)



Test Results (Lower Limit = 1.04, Upper Limit = 1.19 (V))

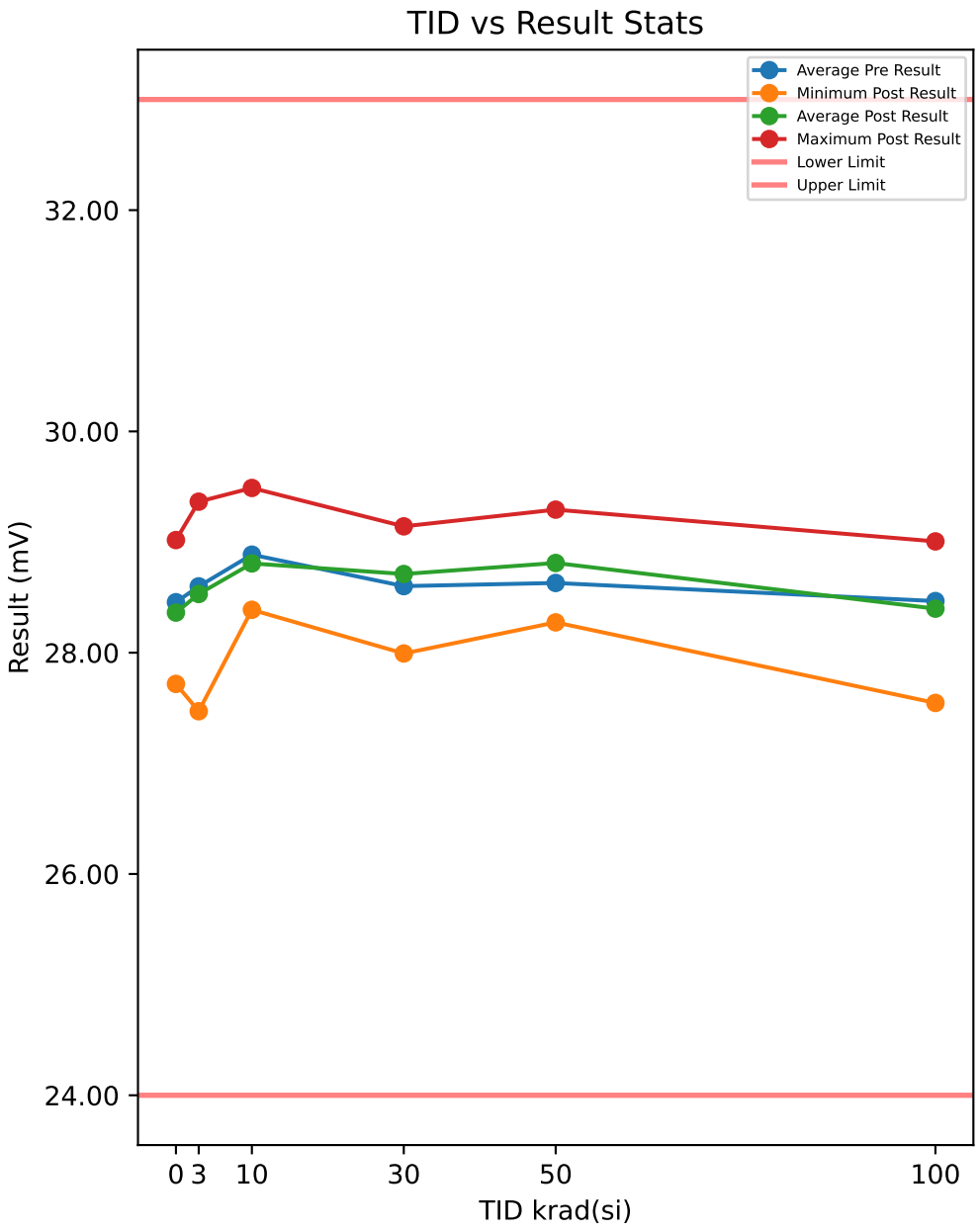
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	1.1157	1.1253	0.0096
2	3	14V Biased HDR	1.1157	1.1161	0.0004
3	3	14V Biased HDR	1.1065	1.1053	-0.0012
4	3	14V Biased HDR	1.0926	1.0938	0.0012
5	3	14V Biased HDR	1.0999	1.1001	0.0002
6	3	Unbiased HDR	1.1105	1.1093	-0.0012
7	3	Unbiased HDR	1.1093	1.1098	0.0005
8	3	Unbiased HDR	1.1154	1.1145	-0.0009
9	3	Unbiased HDR	1.11	1.11	0
10	3	Unbiased HDR	1.1159	1.1161	0.0002
11	10	14V Biased HDR	1.127	1.1277	0.0007
12	10	14V Biased HDR	1.1041	1.1065	0.0024
13	10	14V Biased HDR	1.119	1.1208	0.0018
14	10	14V Biased HDR	1.1166	1.1176	0.001
15	10	14V Biased HDR	1.1286	1.1282	-0.0004
16	10	Unbiased HDR	1.1091	1.1105	0.0014
17	10	Unbiased HDR	1.1208	1.1201	-0.0007
18	10	Unbiased HDR	1.1383	1.134	-0.0043
19	10	Unbiased HDR	1.1093	1.1086	-0.0007
20	10	Unbiased HDR	1.1279	1.1263	-0.0016
21	30	14V Biased HDR	1.1077	1.1088	0.0011
22	30	14V Biased HDR	1.126	1.1274	0.0014
23	30	14V Biased HDR	1.1187	1.119	0.0003
24	30	14V Biased HDR	1.1159	1.118	0.0021
25	30	14V Biased HDR	1.1154	1.1138	-0.0016
26	30	Unbiased HDR	1.1208	1.1199	-0.0009
27	30	Unbiased HDR	1.1032	1.1046	0.0014
28	30	Unbiased HDR	1.1176	1.1168	-0.0008
29	30	Unbiased HDR	1.0982	1.1004	0.0022
30	30	Unbiased HDR	1.1001	1.0966	-0.0035
31	50	14V Biased HDR	1.1251	1.1277	0.0026
32	50	14V Biased HDR	1.1161	1.1187	0.0026
33	50	14V Biased HDR	1.1088	1.1166	0.0078
34	50	14V Biased HDR	1.1126	1.1176	0.005
35	50	14V Biased HDR	1.0883	1.0933	0.005
36	50	Unbiased HDR	1.1206	1.126	0.0054
37	50	Unbiased HDR	1.1176	1.1176	0
38	50	Unbiased HDR	1.1168	1.1176	0.0008
39	50	Unbiased HDR	1.1168	1.1168	0
40	50	Unbiased HDR	1.1161	1.114	-0.0021
41	100	14V Biased HDR	1.1121	1.1227	0.0106
42	100	14V Biased HDR	1.1154	1.1237	0.0083
43	100	14V Biased HDR	1.1178	1.1199	0.0021
44	100	14V Biased HDR	1.1131	1.1208	0.0077
45	100	14V Biased HDR	1.1293	1.1324	0.0031
46	100	Unbiased HDR	1.0942	1.1006	0.0064
47	100	Unbiased HDR	1.1178	1.1159	-0.0019
48	100	Unbiased HDR	1.1171	1.1187	0.0016
49	100	Unbiased HDR	1.0926	1.0959	0.0033
50	100	Unbiased HDR	1.1091	1.1124	0.0033
51	0	Correlation	1.1105	1.111	0.0005
52	0	Correlation	1.1128	1.1128	0
53	0	Correlation	1.1307	1.1307	0
54	0	Correlation	1.0968	1.0971	0.0003
55	0	Correlation	1.1289	1.1286	-0.0003

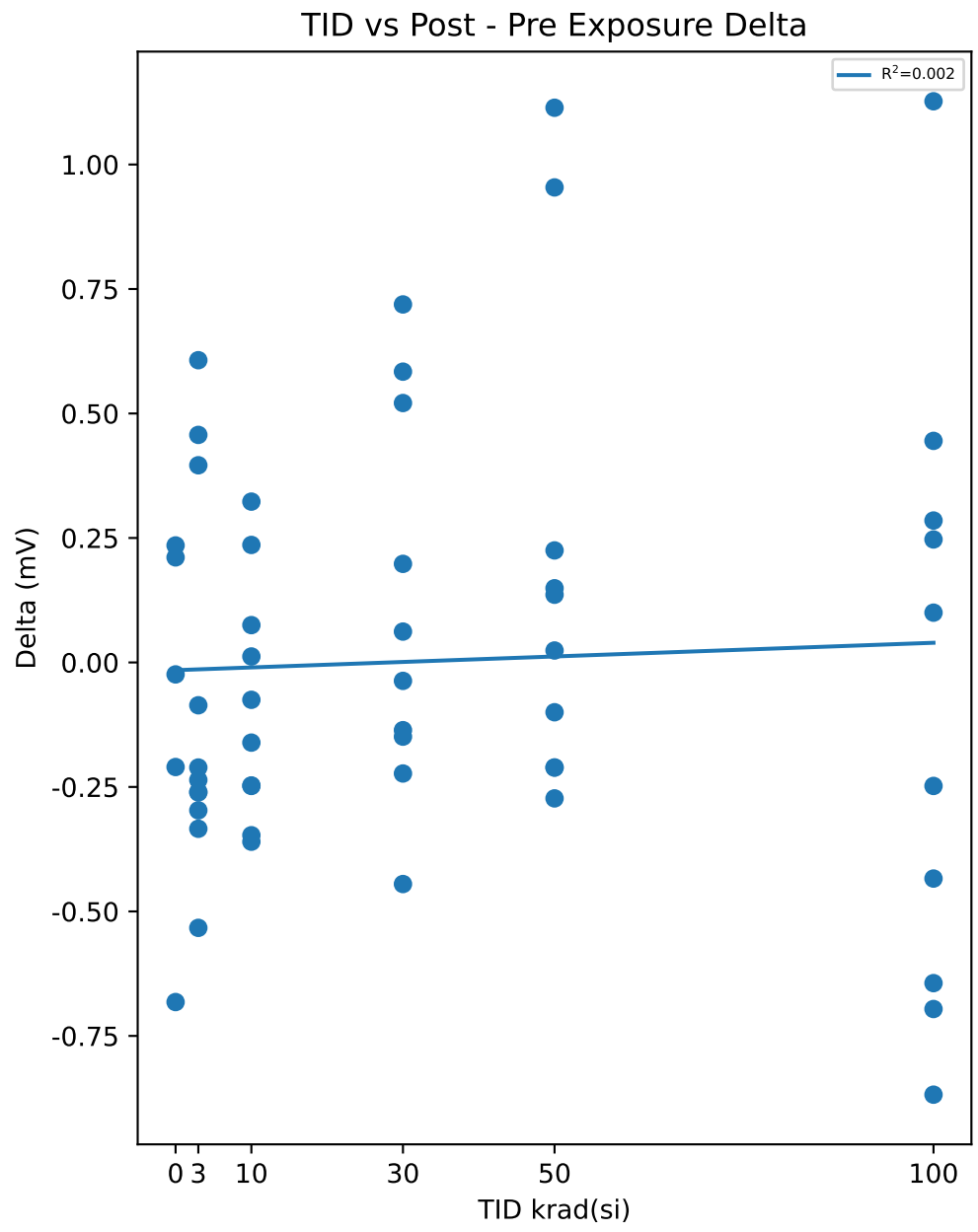


Test Statistics (V)

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	1.0968	1.1159	1.1307	0.014068	1.0971	1.116	1.1307	0.01385	-0.0003	0.0001	0.0005	0.00030822
3	1.0926	1.1092	1.1159	0.0077423	1.0938	1.11	1.1253	0.0088933	-0.0012	0.00088	0.0096	0.0031629
10	1.1041	1.1201	1.1383	0.010643	1.1065	1.12	1.134	0.0092561	-0.0043	-4e-05	0.0024	0.0019614
30	1.0982	1.1124	1.126	0.0094466	1.0966	1.1125	1.1274	0.0096883	-0.0035	0.00017	0.0022	0.0018391
50	1.0883	1.1139	1.1251	0.0099642	1.0933	1.1166	1.1277	0.0092416	-0.0021	0.00271	0.0078	0.0030755
100	1.0926	1.1119	1.1293	0.011089	1.0959	1.1163	1.1324	0.010913	-0.0019	0.00445	0.0106	0.0037334

Device Test: 7.5 OVP_HYST_PLASTIC(OVP_UVLO_HYSTERESIS_14p0V)





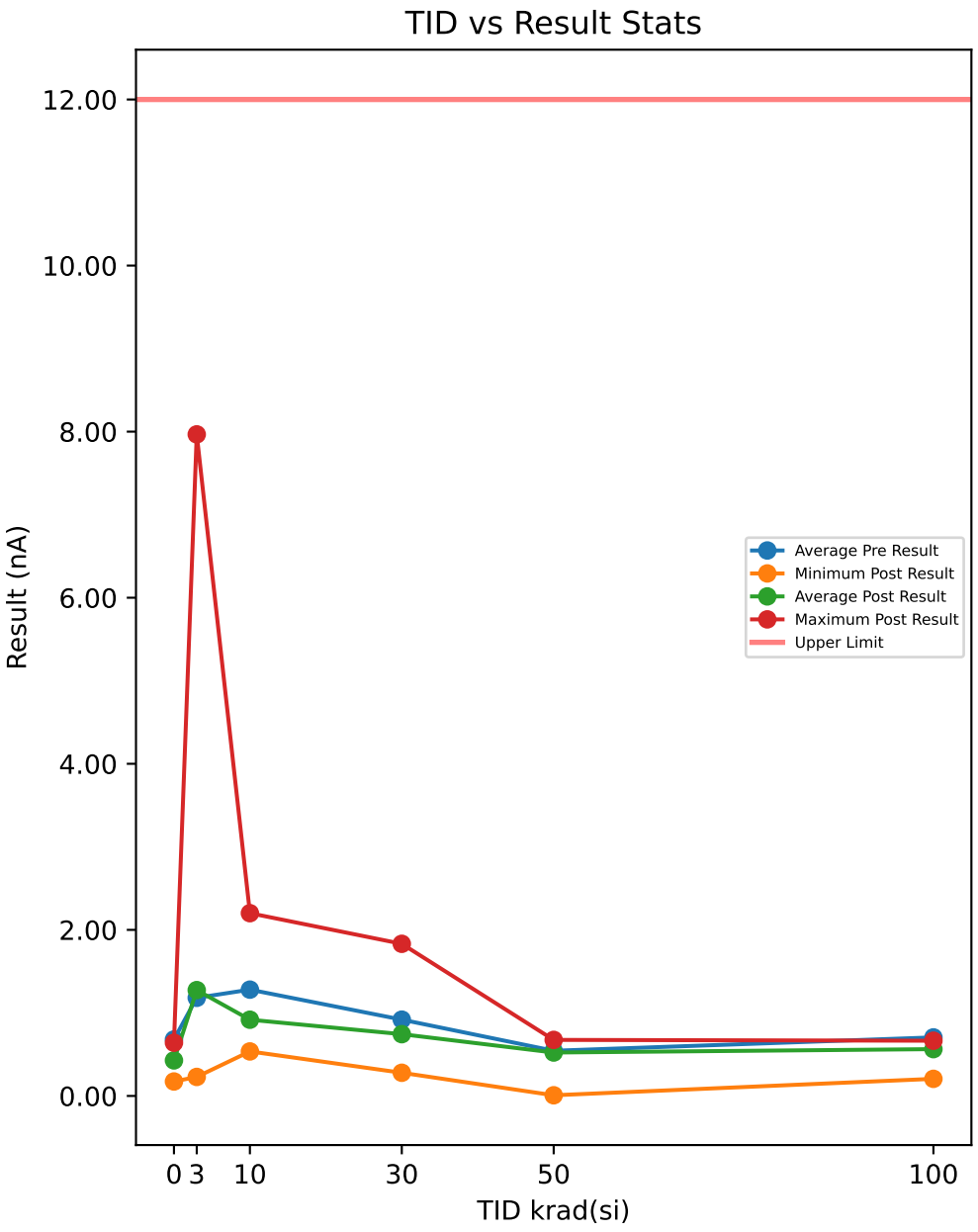
Test Results (Lower Limit = 24.0, Upper Limit = 33.0 (mV))

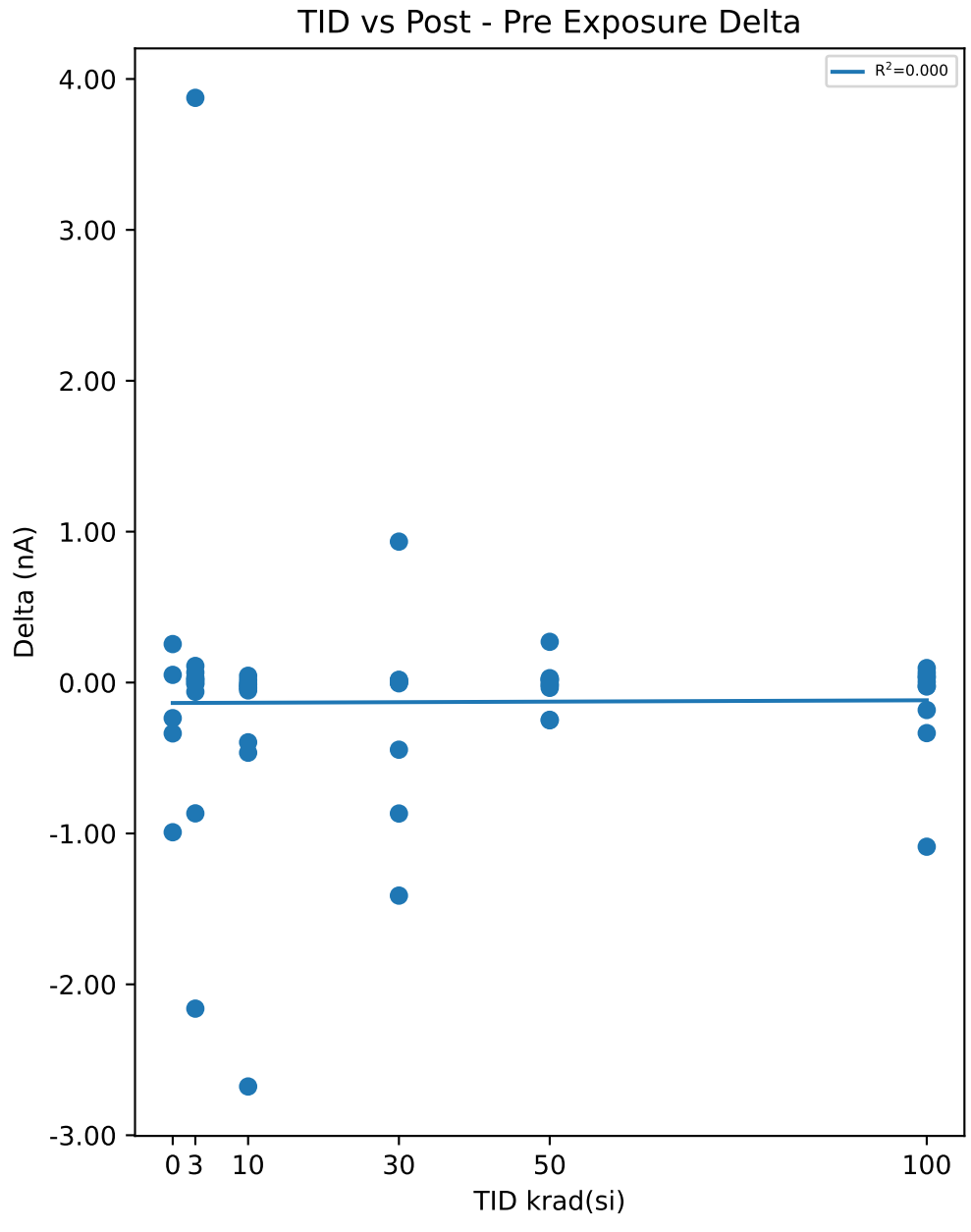
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	28.908	29.365	0.457
2	3	14V Biased HDR	28.908	28.647	-0.261
3	3	14V Biased HDR	28.822	28.736	-0.086
4	3	14V Biased HDR	28.179	27.845	-0.334
5	3	14V Biased HDR	28.042	27.806	-0.236
6	3	Unbiased HDR	27.768	27.471	-0.297
7	3	Unbiased HDR	28.735	28.475	-0.26
8	3	Unbiased HDR	29.354	28.821	-0.533
9	3	Unbiased HDR	28.871	28.66	-0.211
10	3	Unbiased HDR	28.04	28.647	0.607
11	10	14V Biased HDR	29.402	29.327	-0.075
12	10	14V Biased HDR	28.649	28.401	-0.248
13	10	14V Biased HDR	28.771	28.783	0.012
14	10	14V Biased HDR	28.597	28.92	0.323
15	10	14V Biased HDR	29.65	29.489	-0.161
16	10	Unbiased HDR	28.76	28.4	-0.36
17	10	Unbiased HDR	28.783	28.858	0.075
18	10	Unbiased HDR	28.422	28.658	0.236
19	10	Unbiased HDR	28.735	28.388	-0.347
20	10	Unbiased HDR	29.092	28.845	-0.247
21	30	14V Biased HDR	28.066	28.785	0.719
22	30	14V Biased HDR	29.08	29.142	0.062
23	30	14V Biased HDR	29.006	28.561	-0.445
24	30	14V Biased HDR	28.672	28.87	0.198
25	30	14V Biased HDR	29.143	29.106	-0.037
26	30	Unbiased HDR	28.572	29.093	0.521
27	30	Unbiased HDR	28.748	28.599	-0.149
28	30	Unbiased HDR	28.709	28.573	-0.136
29	30	Unbiased HDR	28.216	27.993	-0.223
30	30	Unbiased HDR	27.806	28.39	0.584
31	50	14V Biased HDR	28.547	28.274	-0.273
32	50	14V Biased HDR	28.647	28.796	0.149
33	50	14V Biased HDR	28.995	29.019	0.024
34	50	14V Biased HDR	28.809	28.709	-0.1
35	50	14V Biased HDR	27.783	28.737	0.954
36	50	Unbiased HDR	28.176	29.29	1.114
37	50	Unbiased HDR	28.92	28.709	-0.211
38	50	Unbiased HDR	28.784	28.92	0.136
39	50	Unbiased HDR	28.573	28.362	-0.211
40	50	Unbiased HDR	29.068	29.293	0.225
41	100	14V Biased HDR	29.069	28.373	-0.696
42	100	14V Biased HDR	28.932	28.064	-0.868
43	100	14V Biased HDR	28.895	28.461	-0.434
44	100	14V Biased HDR	28.549	28.994	0.445
45	100	14V Biased HDR	28.521	28.621	0.1
46	100	Unbiased HDR	27.794	27.546	-0.248
47	100	Unbiased HDR	28.684	28.04	-0.644
48	100	Unbiased HDR	28.759	29.006	0.247
49	100	Unbiased HDR	27.336	28.463	1.127
50	100	Unbiased HDR	28.128	28.413	0.285
51	0	Correlation	28.4	27.718	-0.682
52	0	Correlation	28.362	28.152	-0.21
53	0	Correlation	28.162	28.373	0.211
54	0	Correlation	28.575	28.551	-0.024
55	0	Correlation	28.783	29.018	0.235

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	28.162	28.456	28.783	0.23425	27.718	28.362	29.018	0.48089	-0.682	-0.094	0.235	0.37595
3	27.768	28.563	29.354	0.51421	27.471	28.447	29.365	0.56942	-0.533	-0.1154	0.607	0.36076
10	28.422	28.886	29.65	0.3815	28.388	28.807	29.489	0.37729	-0.36	-0.0792	0.323	0.23738
30	27.806	28.602	29.143	0.44632	27.993	28.711	29.142	0.36379	-0.445	0.1094	0.719	0.38624
50	27.783	28.63	29.068	0.39425	28.274	28.811	29.293	0.33885	-0.273	0.1807	1.114	0.4819
100	27.336	28.467	29.069	0.55285	27.546	28.398	29.006	0.44087	-0.868	-0.0686	1.127	0.62145

Device Test: 7.6 OVP_ILEAK(OVP_I_Vin7V)





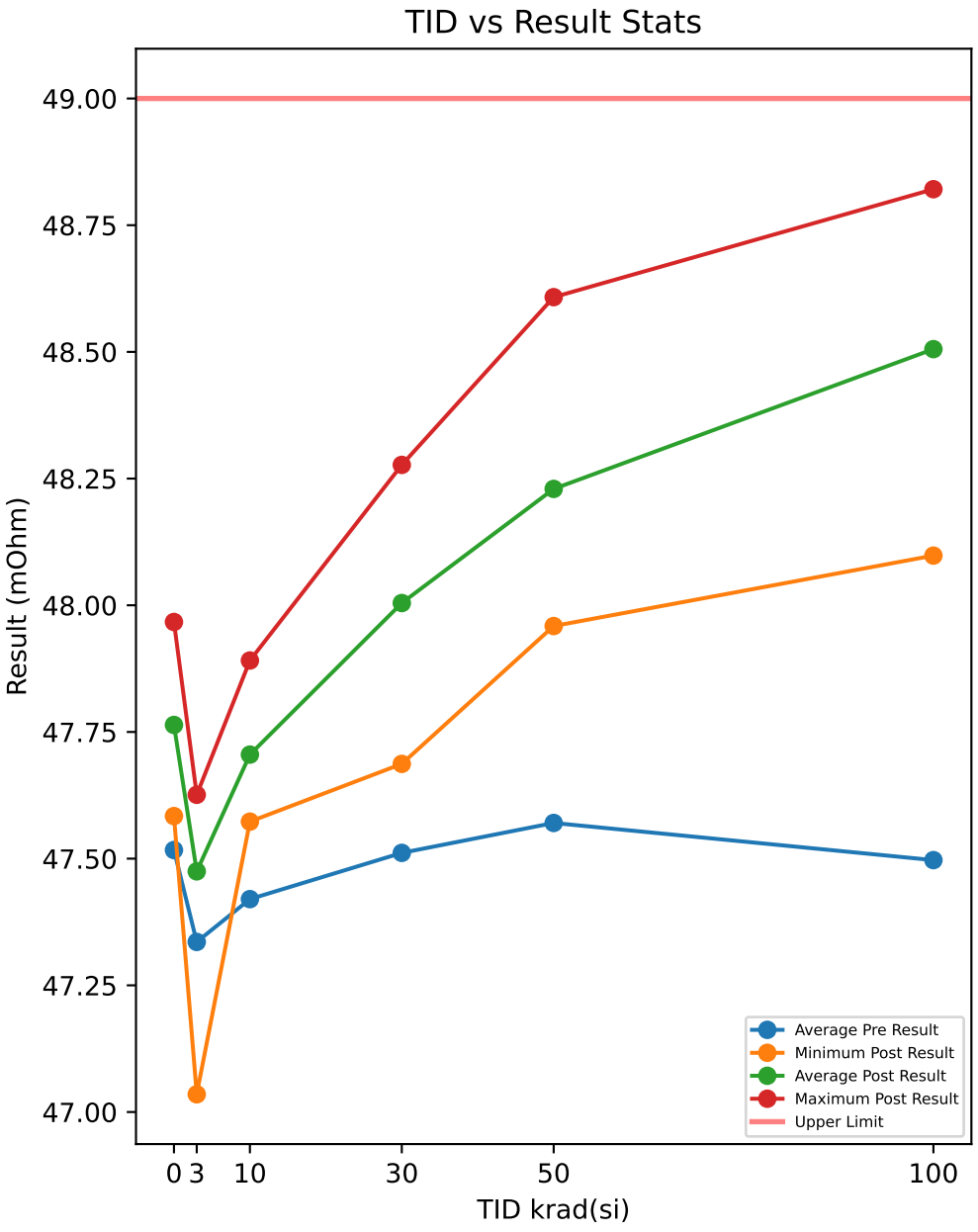
Test Results (Upper Limit = 12.0 (nA))

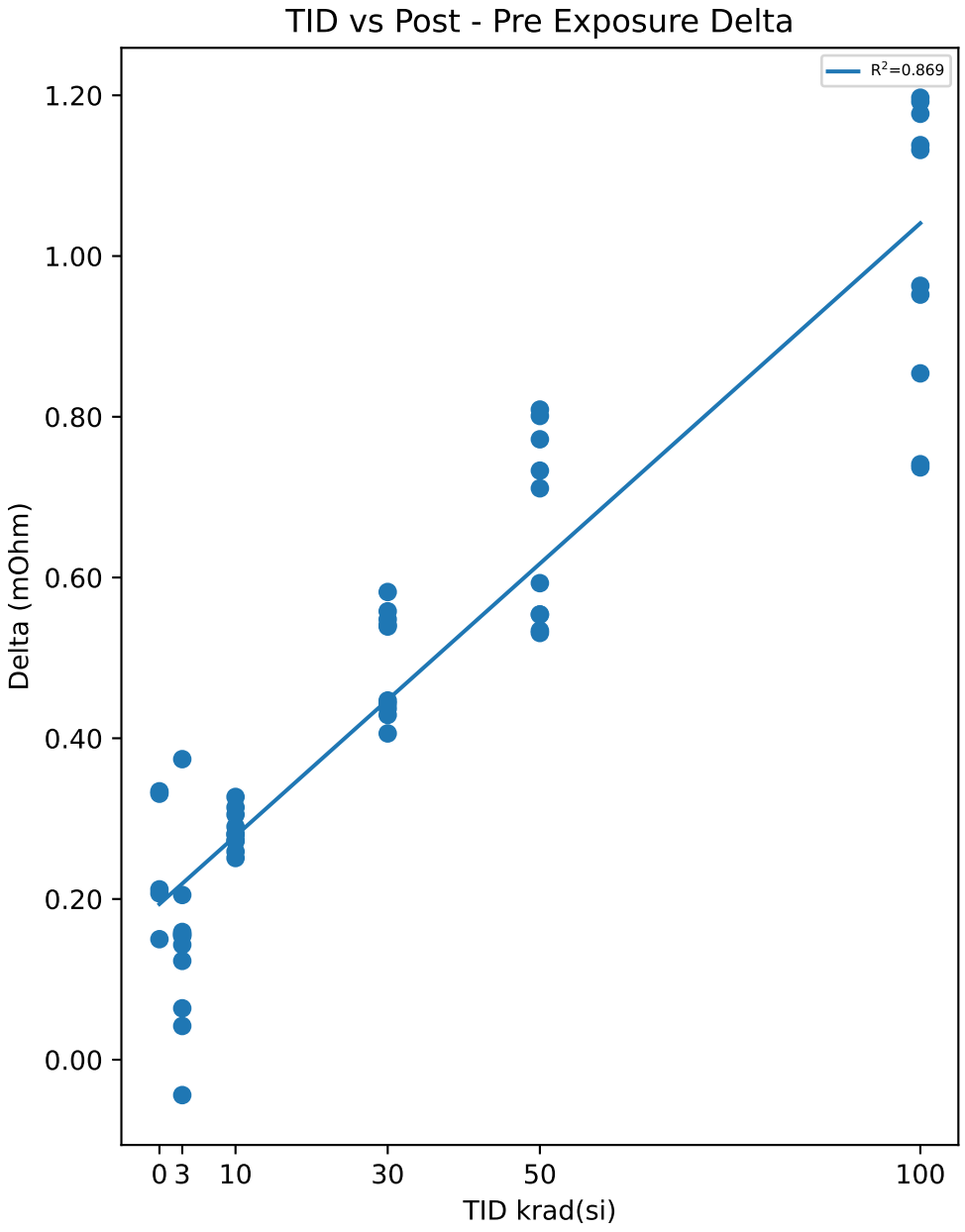
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	0.66	0.727	0.067
2	3	14V Biased HDR	0.642	0.581	-0.061
3	3	14V Biased HDR	4.092	7.967	3.875
4	3	14V Biased HDR	0.644	0.678	0.034
5	3	14V Biased HDR	0.512	0.508	-0.004
6	3	Unbiased HDR	1.096	0.229	-0.867
7	3	Unbiased HDR	0.599	0.618	0.019
8	3	Unbiased HDR	0.588	0.579	-0.009
9	3	Unbiased HDR	2.908	0.747	-2.161
10	3	Unbiased HDR	0.642	0.658	0.016
11	10	14V Biased HDR	0.567	0.536	-0.031
12	10	14V Biased HDR	2.666	2.201	-0.465
13	10	14V Biased HDR	0.649	0.694	0.045
14	10	14V Biased HDR	0.592	0.554	-0.038
15	10	14V Biased HDR	2.4	2.004	-0.396
16	10	Unbiased HDR	0.649	0.665	0.016
17	10	Unbiased HDR	0.595	0.585	-0.01
18	10	Unbiased HDR	3.403	0.726	-2.677
19	10	Unbiased HDR	0.668	0.654	-0.014
20	10	Unbiased HDR	0.612	0.56	-0.052
21	30	14V Biased HDR	2.7	1.832	-0.868
22	30	14V Biased HDR	0.635	0.636	0.001
23	30	14V Biased HDR	0.6	0.603	0.003
24	30	14V Biased HDR	0.724	0.279	-0.445
25	30	14V Biased HDR	0.653	0.661	0.008
26	30	Unbiased HDR	0.597	0.592	-0.005
27	30	Unbiased HDR	0.037	0.971	0.934
28	30	Unbiased HDR	0.653	0.671	0.018
29	30	Unbiased HDR	0.565	0.581	0.016
30	30	Unbiased HDR	2.025	0.613	-1.412
31	50	14V Biased HDR	0.639	0.668	0.029
32	50	14V Biased HDR	0.611	0.576	-0.035
33	50	14V Biased HDR	0.776	0.526	-0.25
34	50	14V Biased HDR	0.562	0.585	0.023
35	50	14V Biased HDR	0.601	0.584	-0.017
36	50	Unbiased HDR	0.099	0.369	0.27
37	50	Unbiased HDR	0.657	0.675	0.018
38	50	Unbiased HDR	0.608	0.595	-0.013
39	50	Unbiased HDR	0.255	0.008	-0.247
40	50	Unbiased HDR	0.632	0.642	0.01
41	100	14V Biased HDR	0.619	0.596	-0.023
42	100	14V Biased HDR	0.11	0.206	0.096
43	100	14V Biased HDR	0.644	0.648	0.004
44	100	14V Biased HDR	0.602	0.645	0.043
45	100	14V Biased HDR	1.653	0.565	-1.088
46	100	Unbiased HDR	0.635	0.609	-0.026
47	100	Unbiased HDR	0.599	0.665	0.066
48	100	Unbiased HDR	0.922	0.587	-0.335
49	100	Unbiased HDR	0.646	0.464	-0.182
50	100	Unbiased HDR	0.62	0.652	0.032
51	0	Correlation	1.166	0.174	-0.992
52	0	Correlation	0.671	0.435	-0.236
53	0	Correlation	0.59	0.641	0.051
54	0	Correlation	0.319	0.574	0.255
55	0	Correlation	0.653	0.316	-0.337

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	0.319	0.6798	1.166	0.30636	0.174	0.428	0.641	0.1896	-0.992	-0.2518	0.255	0.47538
3	0.512	1.2383	4.092	1.2342	0.229	1.3292	7.967	2.3369	-2.161	0.0909	3.875	1.5042
10	0.567	1.2801	3.403	1.0929	0.536	0.9179	2.201	0.62926	-2.677	-0.3622	0.045	0.83234
30	0.037	0.9189	2.7	0.80028	0.279	0.7439	1.832	0.41661	-1.412	-0.175	0.934	0.62468
50	0.099	0.544	0.776	0.20469	0.008	0.5228	0.675	0.20078	-0.25	-0.0212	0.27	0.14734
100	0.11	0.705	1.653	0.38707	0.206	0.5637	0.665	0.13877	-1.088	-0.1413	0.096	0.35701

Device Test: 8.0 RON_VIN_4P5V_25_PLASTIC(RdsOn_3p50A_4p5V)





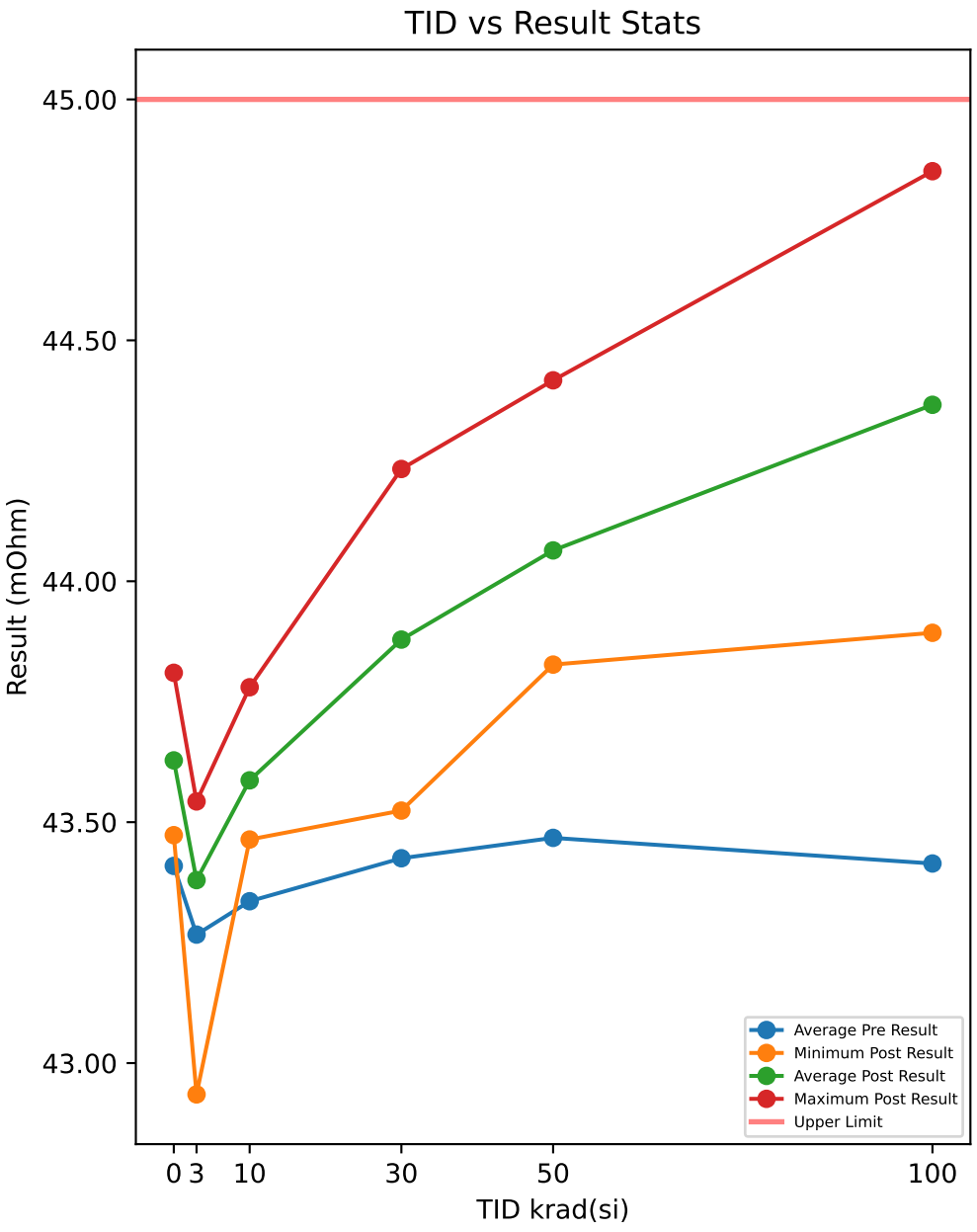
Test Results (Upper Limit = 49.0 (mOhm))

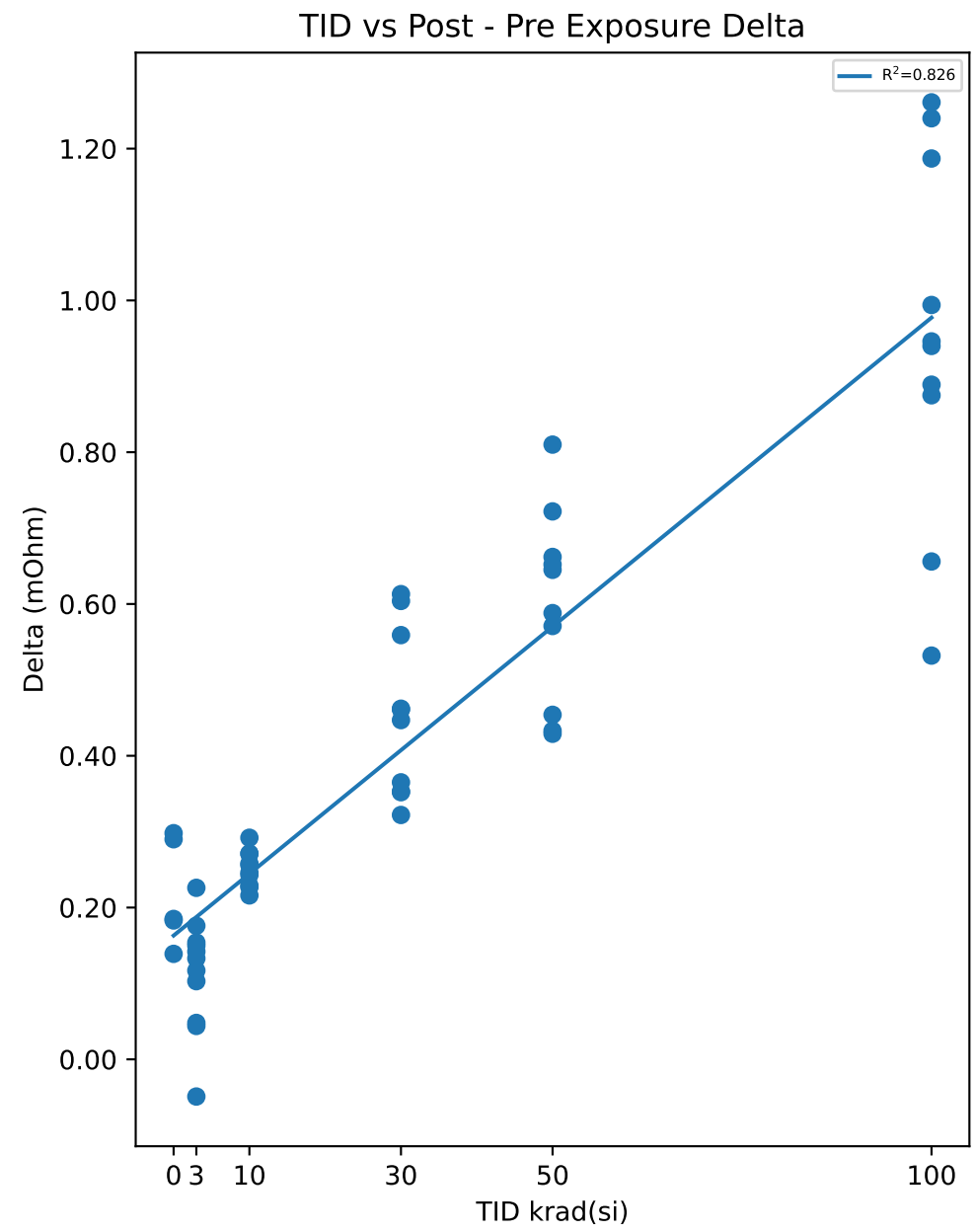
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	47.108	47.482	0.374
2	3	14V Biased HDR	47.528	47.57	0.042
3	3	14V Biased HDR	47.079	47.035	-0.044
4	3	14V Biased HDR	47.471	47.626	0.155
5	3	14V Biased HDR	47.458	47.612	0.154
6	3	Unbiased HDR	47.338	47.461	0.123
7	3	Unbiased HDR	47.344	47.501	0.157
8	3	Unbiased HDR	47.38	47.539	0.159
9	3	Unbiased HDR	47.308	47.451	0.143
10	3	Unbiased HDR	47.26	47.465	0.205
11	10	14V Biased HDR	47.381	47.661	0.28
12	10	14V Biased HDR	47.426	47.685	0.259
13	10	14V Biased HDR	47.312	47.639	0.327
14	10	14V Biased HDR	47.577	47.891	0.314
15	10	14V Biased HDR	47.442	47.732	0.29
16	10	Unbiased HDR	47.322	47.573	0.251
17	10	Unbiased HDR	47.38	47.652	0.272
18	10	Unbiased HDR	47.564	47.837	0.273
19	10	Unbiased HDR	47.341	47.622	0.281
20	10	Unbiased HDR	47.456	47.761	0.305
21	30	14V Biased HDR	47.461	48.009	0.548
22	30	14V Biased HDR	47.651	48.19	0.539
23	30	14V Biased HDR	47.455	48.013	0.558
24	30	14V Biased HDR	47.695	48.277	0.582
25	30	14V Biased HDR	47.667	48.208	0.541
26	30	Unbiased HDR	47.344	47.781	0.437
27	30	Unbiased HDR	47.546	47.952	0.406
28	30	Unbiased HDR	47.522	47.965	0.443
29	30	Unbiased HDR	47.258	47.687	0.429
30	30	Unbiased HDR	47.515	47.962	0.447
31	50	14V Biased HDR	47.571	48.343	0.772
32	50	14V Biased HDR	47.226	47.959	0.733
33	50	14V Biased HDR	47.587	48.298	0.711
34	50	14V Biased HDR	47.799	48.608	0.809
35	50	14V Biased HDR	47.421	48.222	0.801
36	50	Unbiased HDR	47.743	48.274	0.531
37	50	Unbiased HDR	47.629	48.163	0.534
38	50	Unbiased HDR	47.509	48.063	0.554
39	50	Unbiased HDR	47.637	48.23	0.593
40	50	Unbiased HDR	47.582	48.136	0.554
41	100	14V Biased HDR	47.689	48.821	1.132
42	100	14V Biased HDR	47.517	48.694	1.177
43	100	14V Biased HDR	47.34	48.532	1.192
44	100	14V Biased HDR	47.55	48.688	1.138
45	100	14V Biased HDR	47.412	48.609	1.197
46	100	Unbiased HDR	47.135	48.098	0.963
47	100	Unbiased HDR	47.611	48.352	0.741
48	100	Unbiased HDR	47.614	48.468	0.854
49	100	Unbiased HDR	47.634	48.586	0.952
50	100	Unbiased HDR	47.469	48.206	0.737
51	0	Correlation	47.755	47.967	0.212
52	0	Correlation	47.596	47.93	0.334
53	0	Correlation	47.558	47.708	0.15
54	0	Correlation	47.423	47.63	0.207
55	0	Correlation	47.253	47.584	0.331

Test Statistics (mOhm)

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	47.253	47.517	47.755	0.18914	47.584	47.764	47.967	0.17483	0.15	0.2468	0.334	0.081943
3	47.079	47.327	47.528	0.14751	47.035	47.474	47.626	0.16663	-0.044	0.1468	0.374	0.10716
10	47.312	47.42	47.577	0.092994	47.573	47.705	47.891	0.099832	0.251	0.2852	0.327	0.024073
30	47.258	47.511	47.695	0.14011	47.687	48.004	48.277	0.18471	0.406	0.493	0.582	0.065835
50	47.226	47.57	47.799	0.1616	47.959	48.23	48.608	0.17541	0.531	0.6592	0.809	0.11644
100	47.135	47.497	47.689	0.16641	48.098	48.505	48.821	0.22779	0.737	1.0083	1.197	0.18379

Device Test: 8.1 RON_VIN_6V_25_PLASTIC(RdsOn_3p50A_6p0V)





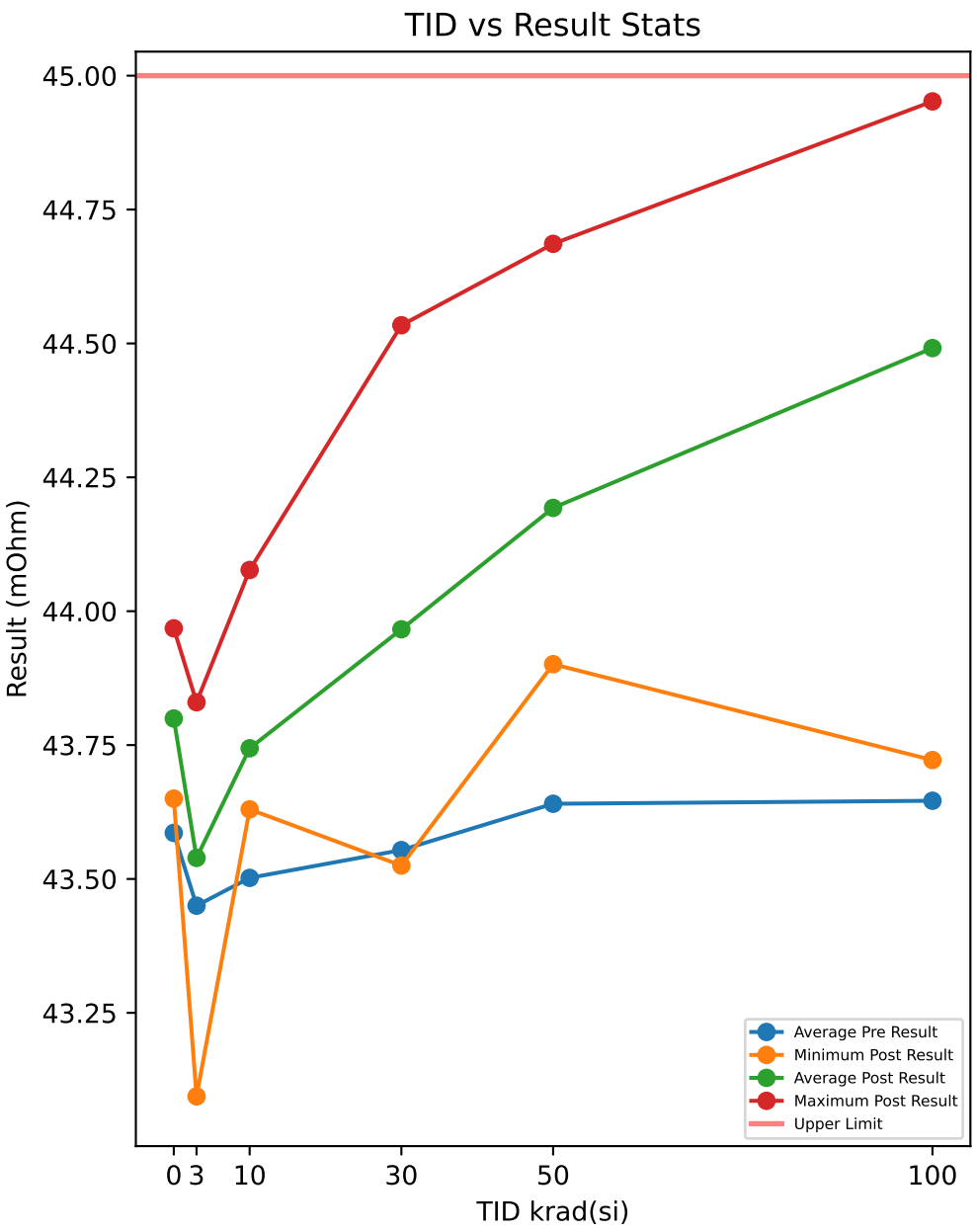
Test Results (Upper Limit = 45.0 (mOhm))

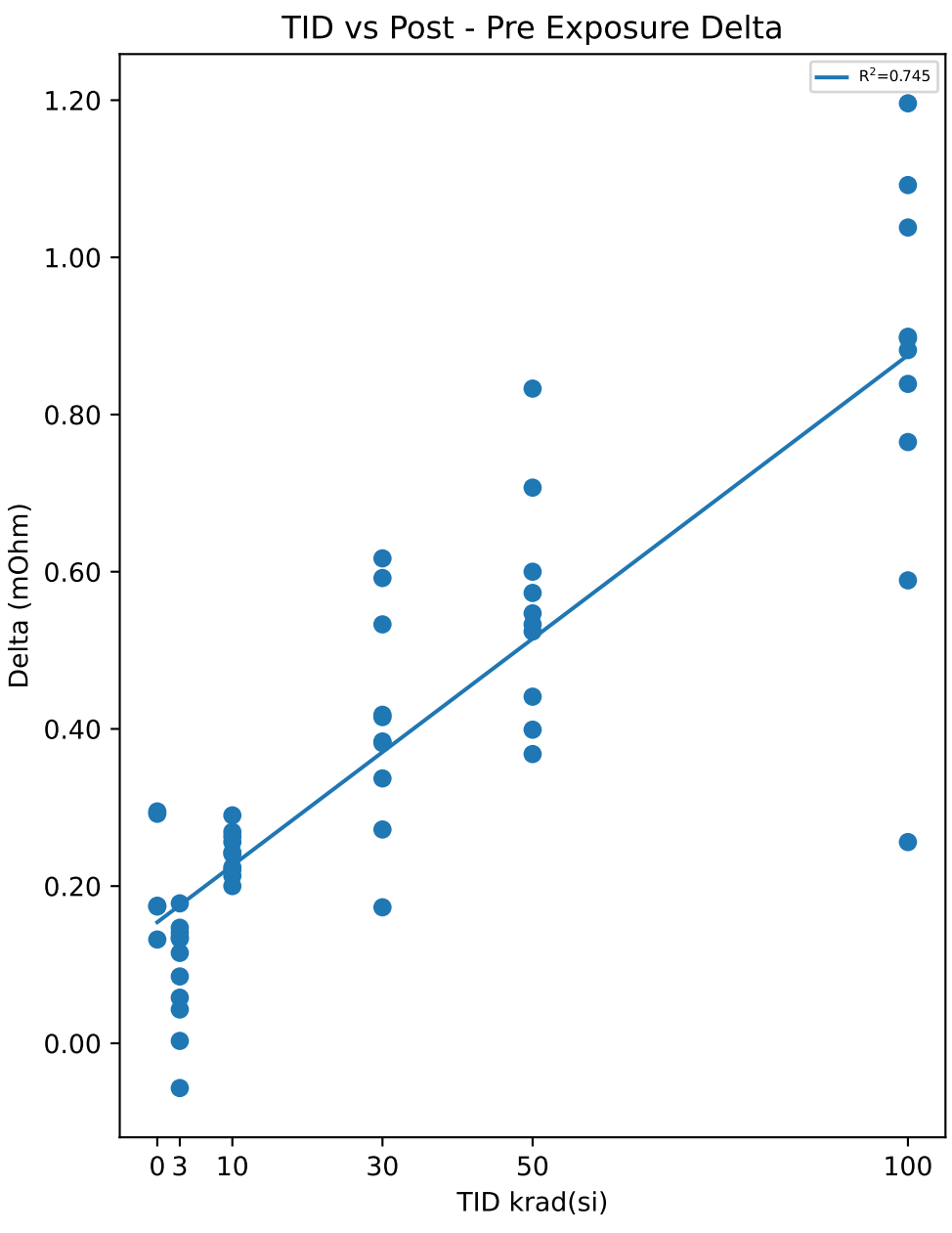
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	43.145	43.371	0.226
2	3	14V Biased HDR	43.456	43.5	0.044
3	3	14V Biased HDR	42.984	42.935	-0.049
4	3	14V Biased HDR	43.353	43.495	0.142
5	3	14V Biased HDR	43.389	43.543	0.154
6	3	Unbiased HDR	43.266	43.369	0.103
7	3	Unbiased HDR	43.248	43.381	0.133
8	3	Unbiased HDR	43.332	43.482	0.15
9	3	Unbiased HDR	43.251	43.368	0.117
10	3	Unbiased HDR	43.186	43.362	0.176
11	10	14V Biased HDR	43.28	43.523	0.243
12	10	14V Biased HDR	43.509	43.78	0.271
13	10	14V Biased HDR	43.234	43.526	0.292
14	10	14V Biased HDR	43.44	43.711	0.271
15	10	14V Biased HDR	43.293	43.549	0.256
16	10	Unbiased HDR	43.248	43.464	0.216
17	10	Unbiased HDR	43.246	43.475	0.229
18	10	Unbiased HDR	43.461	43.688	0.227
19	10	Unbiased HDR	43.278	43.524	0.246
20	10	Unbiased HDR	43.37	43.628	0.258
21	30	14V Biased HDR	43.329	43.79	0.461
22	30	14V Biased HDR	43.564	44.123	0.559
23	30	14V Biased HDR	43.369	43.831	0.462
24	30	14V Biased HDR	43.629	44.233	0.604
25	30	14V Biased HDR	43.546	43.993	0.447
26	30	Unbiased HDR	43.265	43.618	0.353
27	30	Unbiased HDR	43.44	43.762	0.322
28	30	Unbiased HDR	43.407	43.772	0.365
29	30	Unbiased HDR	43.172	43.524	0.352
30	30	Unbiased HDR	43.53	44.143	0.613
31	50	14V Biased HDR	43.461	44.106	0.645
32	50	14V Biased HDR	43.168	43.978	0.81
33	50	14V Biased HDR	43.49	44.078	0.588
34	50	14V Biased HDR	43.604	44.256	0.652
35	50	14V Biased HDR	43.29	43.952	0.662
36	50	Unbiased HDR	43.695	44.417	0.722
37	50	Unbiased HDR	43.553	44.124	0.571
38	50	Unbiased HDR	43.394	43.827	0.433
39	50	Unbiased HDR	43.487	43.941	0.454
40	50	Unbiased HDR	43.532	43.961	0.429
41	100	14V Biased HDR	43.611	44.851	1.24
42	100	14V Biased HDR	43.428	44.368	0.94
43	100	14V Biased HDR	43.262	44.449	1.187
44	100	14V Biased HDR	43.44	44.701	1.261
45	100	14V Biased HDR	43.305	44.251	0.946
46	100	Unbiased HDR	43.095	43.97	0.875
47	100	Unbiased HDR	43.507	44.163	0.656
48	100	Unbiased HDR	43.495	44.384	0.889
49	100	Unbiased HDR	43.638	44.632	0.994
50	100	Unbiased HDR	43.361	43.893	0.532
51	0	Correlation	43.589	43.774	0.185
52	0	Correlation	43.512	43.81	0.298
53	0	Correlation	43.398	43.537	0.139
54	0	Correlation	43.364	43.547	0.183
55	0	Correlation	43.183	43.473	0.29

Test Statistics (mOhm)

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	43.183	43.409	43.589	0.15511	43.473	43.628	43.81	0.15273	0.139	0.219	0.298	0.070947
3	42.984	43.261	43.456	0.135	42.935	43.381	43.543	0.17104	-0.049	0.1196	0.226	0.075803
10	43.234	43.336	43.509	0.10117	43.464	43.587	43.78	0.10822	0.216	0.2509	0.292	0.023402
30	43.172	43.425	43.629	0.14496	43.524	43.879	44.233	0.23501	0.322	0.4538	0.613	0.10797
50	43.168	43.467	43.695	0.15253	43.827	44.064	44.417	0.17285	0.429	0.5966	0.81	0.12775
100	43.095	43.414	43.638	0.16486	43.893	44.366	44.851	0.30919	0.532	0.952	1.261	0.23793

Device Test: 8.2 RON_VIN_9V_25_PLASTIC(RdsOn_3p50A_9p0V)





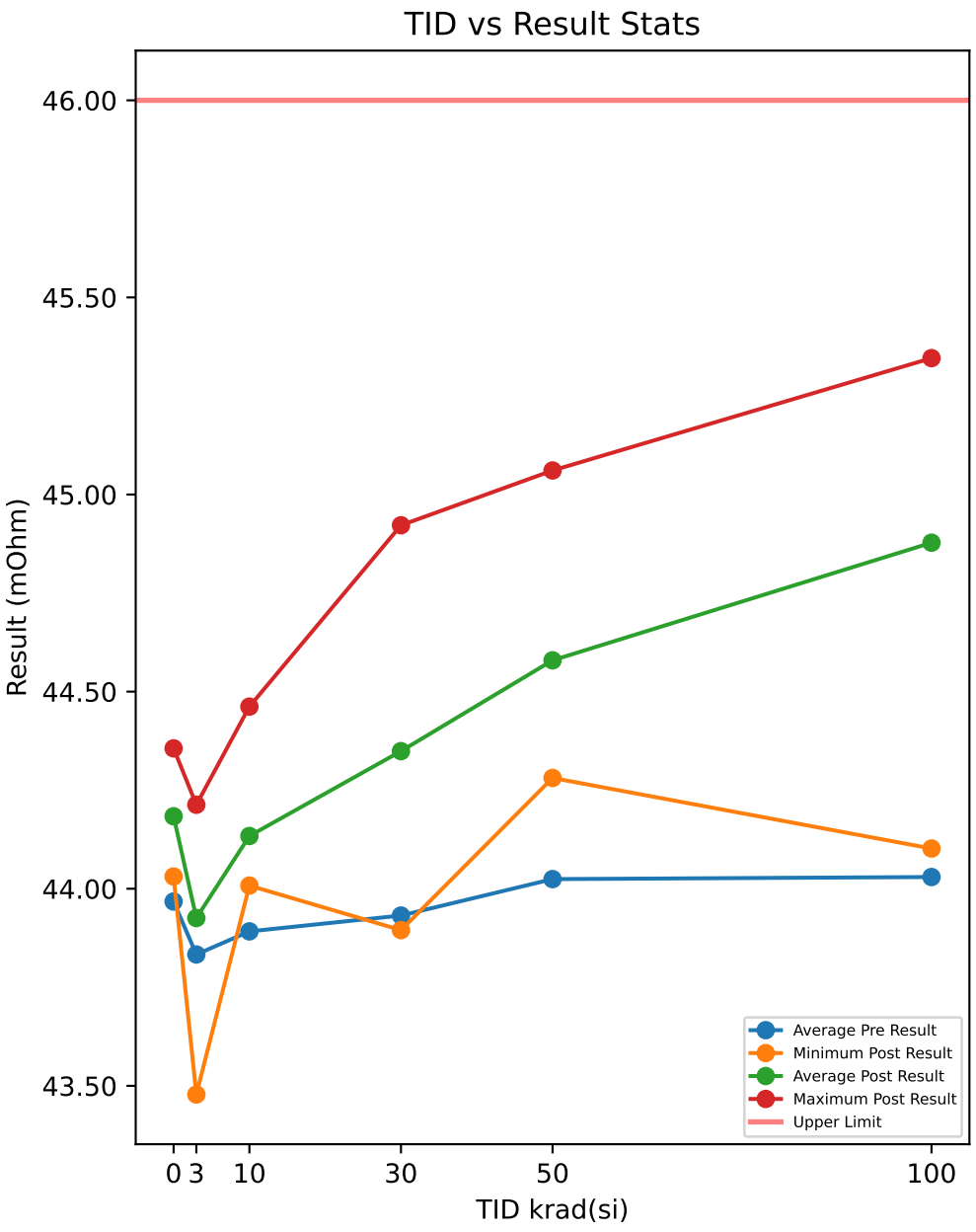
Test Results (Upper Limit = 45.0 (mOhm))

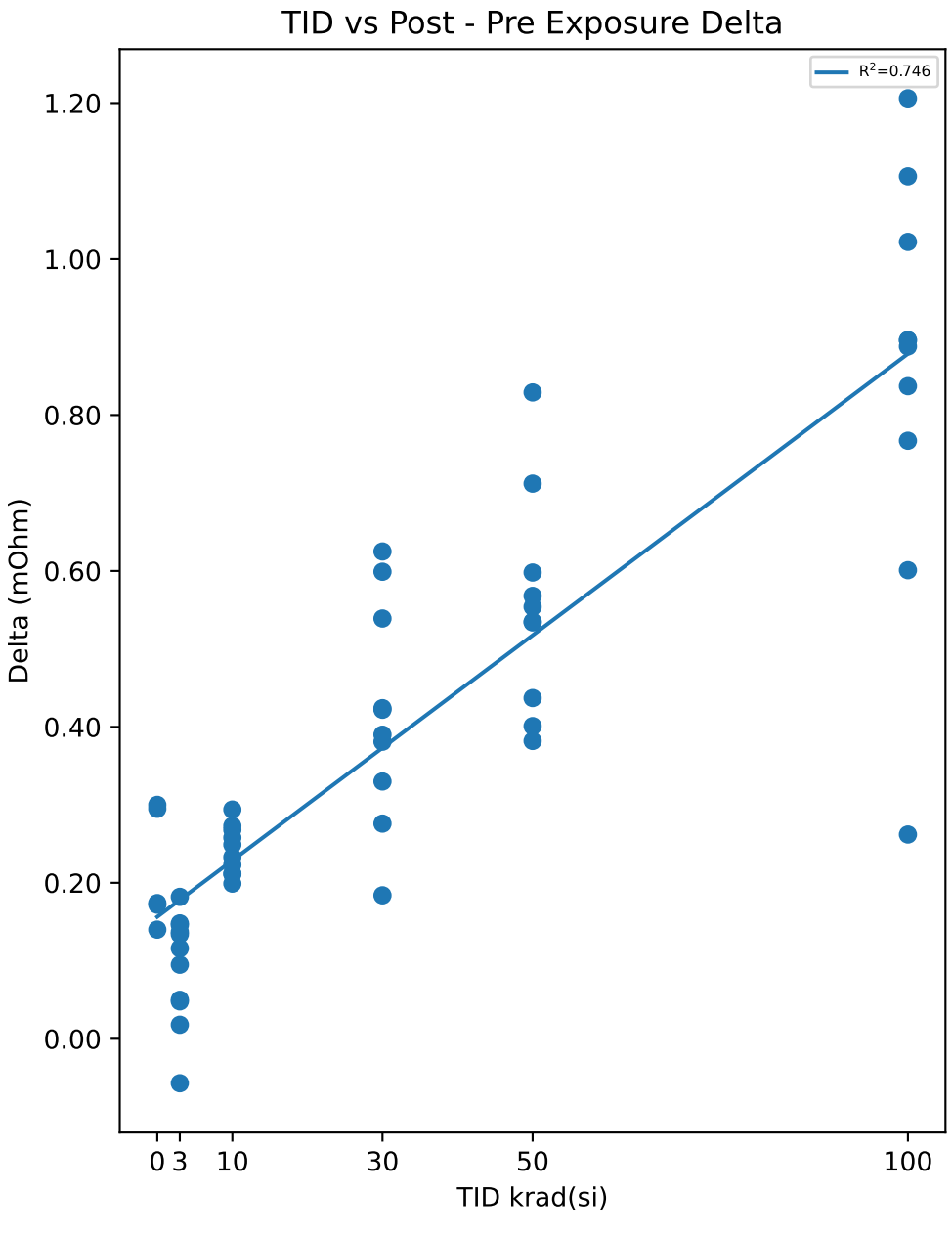
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	43.468	43.471	0.003
2	3	14V Biased HDR	43.675	43.718	0.043
3	3	14V Biased HDR	43.151	43.094	-0.057
4	3	14V Biased HDR	43.623	43.758	0.135
5	3	14V Biased HDR	43.683	43.83	0.147
6	3	Unbiased HDR	43.329	43.414	0.085
7	3	Unbiased HDR	43.538	43.671	0.133
8	3	Unbiased HDR	43.544	43.685	0.141
9	3	Unbiased HDR	43.286	43.401	0.115
10	3	Unbiased HDR	43.241	43.419	0.178
11	10	14V Biased HDR	43.45	43.671	0.221
12	10	14V Biased HDR	43.814	44.077	0.263
13	10	14V Biased HDR	43.447	43.716	0.269
14	10	14V Biased HDR	43.509	43.799	0.29
15	10	14V Biased HDR	43.411	43.635	0.224
16	10	Unbiased HDR	43.43	43.63	0.2
17	10	Unbiased HDR	43.396	43.637	0.241
18	10	Unbiased HDR	43.571	43.784	0.213
19	10	Unbiased HDR	43.439	43.682	0.243
20	10	Unbiased HDR	43.553	43.809	0.256
21	30	14V Biased HDR	43.406	43.79	0.384
22	30	14V Biased HDR	43.867	44.4	0.533
23	30	14V Biased HDR	43.535	43.953	0.418
24	30	14V Biased HDR	43.942	44.534	0.592
25	30	14V Biased HDR	43.576	43.991	0.415
26	30	Unbiased HDR	43.297	43.569	0.272
27	30	Unbiased HDR	43.39	43.563	0.173
28	30	Unbiased HDR	43.535	43.917	0.382
29	30	Unbiased HDR	43.188	43.525	0.337
30	30	Unbiased HDR	43.803	44.42	0.617
31	50	14V Biased HDR	43.63	44.177	0.547
32	50	14V Biased HDR	43.427	44.26	0.833
33	50	14V Biased HDR	43.712	44.285	0.573
34	50	14V Biased HDR	43.648	44.172	0.524
35	50	14V Biased HDR	43.405	44.005	0.6
36	50	Unbiased HDR	43.979	44.686	0.707
37	50	Unbiased HDR	43.769	44.302	0.533
38	50	Unbiased HDR	43.502	43.901	0.399
39	50	Unbiased HDR	43.656	44.024	0.368
40	50	Unbiased HDR	43.676	44.117	0.441
41	100	14V Biased HDR	43.86	44.952	1.092
42	100	14V Biased HDR	43.61	44.492	0.882
43	100	14V Biased HDR	43.477	44.515	1.038
44	100	14V Biased HDR	43.742	44.938	1.196
45	100	14V Biased HDR	43.421	44.186	0.765
46	100	Unbiased HDR	43.414	44.253	0.839
47	100	Unbiased HDR	43.817	44.406	0.589
48	100	Unbiased HDR	43.743	44.64	0.897
49	100	Unbiased HDR	43.91	44.809	0.899
50	100	Unbiased HDR	43.466	43.722	0.256
51	0	Correlation	43.794	43.968	0.174
52	0	Correlation	43.634	43.929	0.295
53	0	Correlation	43.603	43.735	0.132
54	0	Correlation	43.475	43.65	0.175
55	0	Correlation	43.424	43.716	0.292

Test Statistics (mOhm)

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	43.424	43.586	43.794	0.14528	43.65	43.8	43.968	0.14022	0.132	0.2136	0.295	0.074982
3	43.151	43.454	43.683	0.19039	43.094	43.546	43.83	0.22476	-0.057	0.0923	0.178	0.074126
10	43.396	43.502	43.814	0.12434	43.63	43.744	44.077	0.13582	0.2	0.242	0.29	0.027972
30	43.188	43.554	43.942	0.24956	43.525	43.966	44.534	0.37502	0.173	0.4123	0.617	0.1387
50	43.405	43.64	43.979	0.16934	43.901	44.193	44.686	0.21693	0.368	0.5525	0.833	0.14003
100	43.414	43.646	43.91	0.1915	43.722	44.491	44.952	0.37778	0.256	0.8453	1.196	0.26819

Device Test: 8.3 RON_VIN_12V_25_PLASTIC(RdsOn_3p50A_12p0V)





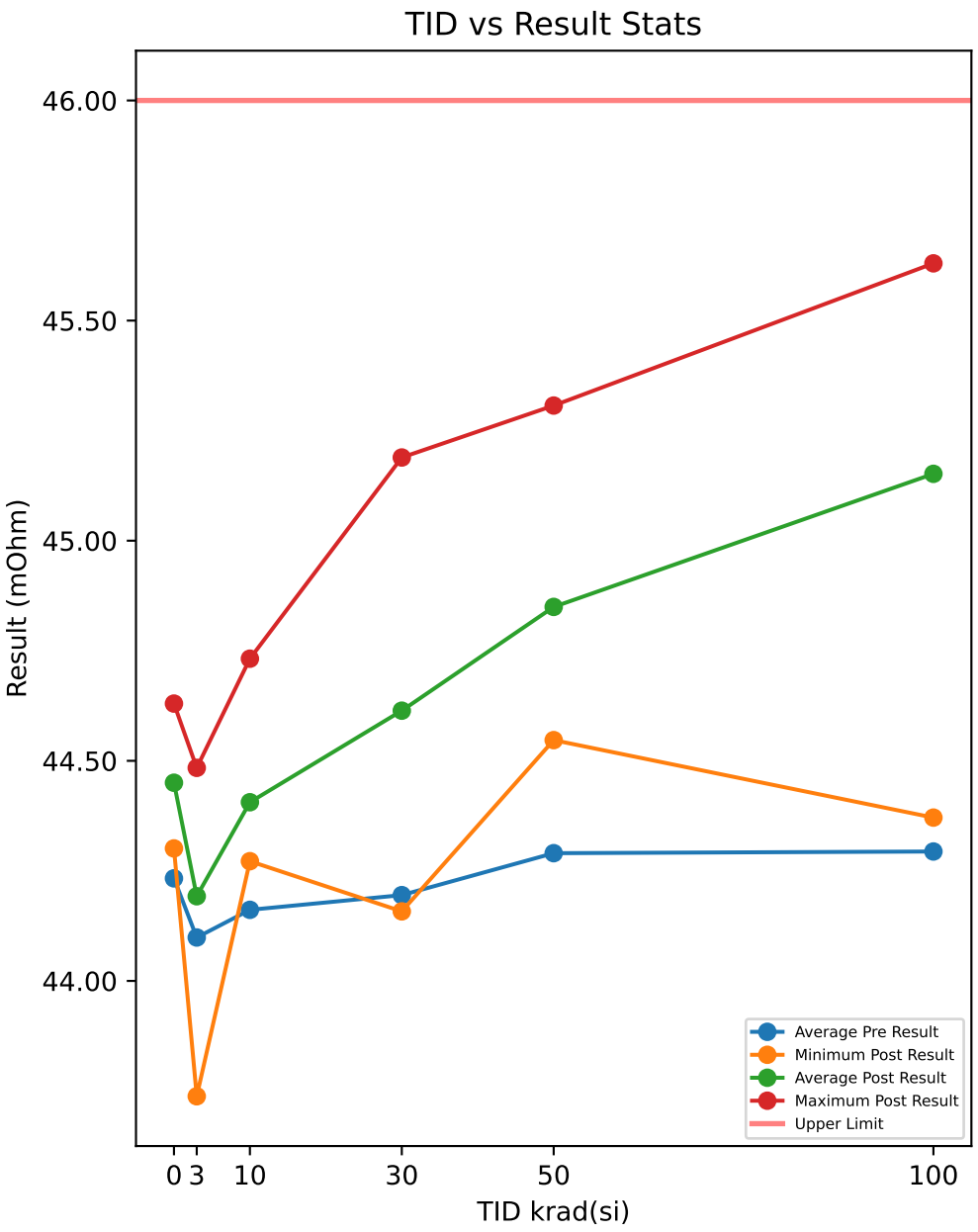
Test Results (Upper Limit = 46.0 (mOhm))

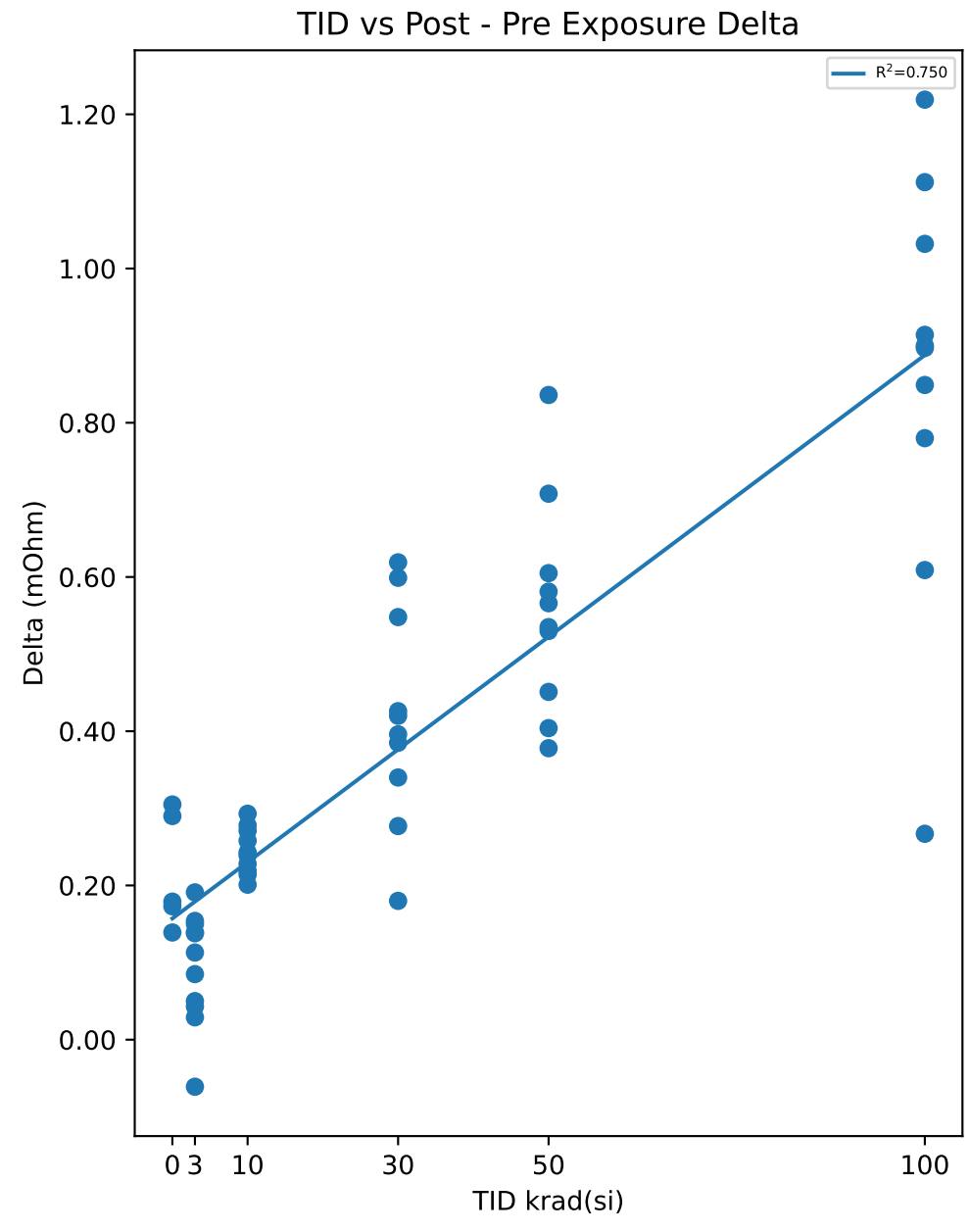
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	43.838	43.856	0.018
2	3	14V Biased HDR	44.055	44.103	0.048
3	3	14V Biased HDR	43.535	43.478	-0.057
4	3	14V Biased HDR	44.019	44.156	0.137
5	3	14V Biased HDR	44.065	44.213	0.148
6	3	Unbiased HDR	43.701	43.796	0.095
7	3	Unbiased HDR	43.929	44.063	0.134
8	3	Unbiased HDR	43.904	44.05	0.146
9	3	Unbiased HDR	43.683	43.799	0.116
10	3	Unbiased HDR	43.63	43.812	0.182
11	10	14V Biased HDR	43.834	44.057	0.223
12	10	14V Biased HDR	44.194	44.462	0.268
13	10	14V Biased HDR	43.848	44.121	0.273
14	10	14V Biased HDR	43.888	44.182	0.294
15	10	14V Biased HDR	43.804	44.016	0.212
16	10	Unbiased HDR	43.824	44.023	0.199
17	10	Unbiased HDR	43.775	44.008	0.233
18	10	Unbiased HDR	43.959	44.17	0.211
19	10	Unbiased HDR	43.832	44.081	0.249
20	10	Unbiased HDR	43.96	44.218	0.258
21	30	14V Biased HDR	43.772	44.162	0.39
22	30	14V Biased HDR	44.254	44.793	0.539
23	30	14V Biased HDR	43.916	44.338	0.422
24	30	14V Biased HDR	44.323	44.922	0.599
25	30	14V Biased HDR	43.962	44.386	0.424
26	30	Unbiased HDR	43.682	43.958	0.276
27	30	Unbiased HDR	43.754	43.938	0.184
28	30	Unbiased HDR	43.918	44.299	0.381
29	30	Unbiased HDR	43.565	43.895	0.33
30	30	Unbiased HDR	44.174	44.799	0.625
31	50	14V Biased HDR	44.023	44.577	0.554
32	50	14V Biased HDR	43.808	44.637	0.829
33	50	14V Biased HDR	44.112	44.68	0.568
34	50	14V Biased HDR	44.025	44.56	0.535
35	50	14V Biased HDR	43.797	44.395	0.598
36	50	Unbiased HDR	44.349	45.061	0.712
37	50	Unbiased HDR	44.155	44.689	0.534
38	50	Unbiased HDR	43.88	44.281	0.401
39	50	Unbiased HDR	44.038	44.42	0.382
40	50	Unbiased HDR	44.057	44.494	0.437
41	100	14V Biased HDR	44.239	45.345	1.106
42	100	14V Biased HDR	43.985	44.881	0.896
43	100	14V Biased HDR	43.843	44.865	1.022
44	100	14V Biased HDR	44.14	45.346	1.206
45	100	14V Biased HDR	43.807	44.574	0.767
46	100	Unbiased HDR	43.802	44.639	0.837
47	100	Unbiased HDR	44.204	44.805	0.601
48	100	Unbiased HDR	44.135	45.031	0.896
49	100	Unbiased HDR	44.302	45.19	0.888
50	100	Unbiased HDR	43.84	44.102	0.262
51	0	Correlation	44.182	44.356	0.174
52	0	Correlation	44.011	44.311	0.3
53	0	Correlation	43.975	44.115	0.14
54	0	Correlation	43.859	44.031	0.172
55	0	Correlation	43.811	44.106	0.295

Test Statistics (mOhm)

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	43.811	43.968	44.182	0.14511	44.031	44.184	44.356	0.14139	0.14	0.2162	0.3	0.075453
3	43.535	43.836	44.065	0.1891	43.478	43.933	44.213	0.22409	-0.057	0.0967	0.182	0.072967
10	43.775	43.892	44.194	0.12261	44.008	44.134	44.462	0.13714	0.199	0.242	0.294	0.031266
30	43.565	43.932	44.323	0.25187	43.895	44.349	44.922	0.3793	0.184	0.417	0.625	0.13949
50	43.797	44.024	44.349	0.16691	44.281	44.579	45.061	0.21435	0.382	0.555	0.829	0.1375
100	43.802	44.03	44.302	0.19604	44.102	44.878	45.346	0.38226	0.262	0.8481	1.206	0.26715

Device Test: 8.4 RON_VIN_14V_25_PLASTIC(RdsOn_3p50A_14p0V)





Test Results (Upper Limit = 46.0 (mOhm))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	3	14V Biased HDR	44.098	44.127	0.029
2	3	14V Biased HDR	44.32	44.363	0.043
3	3	14V Biased HDR	43.799	43.738	-0.061
4	3	14V Biased HDR	44.298	44.437	0.139
5	3	14V Biased HDR	44.33	44.484	0.154
6	3	Unbiased HDR	43.962	44.047	0.085
7	3	Unbiased HDR	44.193	44.331	0.138
8	3	Unbiased HDR	44.161	44.311	0.15
9	3	Unbiased HDR	43.955	44.068	0.113
10	3	Unbiased HDR	43.892	44.083	0.191
11	10	14V Biased HDR	44.106	44.325	0.219
12	10	14V Biased HDR	44.461	44.732	0.271
13	10	14V Biased HDR	44.125	44.403	0.278
14	10	14V Biased HDR	44.155	44.448	0.293
15	10	14V Biased HDR	44.063	44.291	0.228
16	10	Unbiased HDR	44.1	44.301	0.201
17	10	Unbiased HDR	44.033	44.272	0.239
18	10	Unbiased HDR	44.223	44.437	0.214
19	10	Unbiased HDR	44.106	44.349	0.243
20	10	Unbiased HDR	44.243	44.501	0.258
21	30	14V Biased HDR	44.029	44.425	0.396
22	30	14V Biased HDR	44.518	45.066	0.548
23	30	14V Biased HDR	44.184	44.61	0.426
24	30	14V Biased HDR	44.59	45.189	0.599
25	30	14V Biased HDR	44.23	44.65	0.42
26	30	Unbiased HDR	43.949	44.226	0.277
27	30	Unbiased HDR	44.008	44.188	0.18
28	30	Unbiased HDR	44.181	44.566	0.385
29	30	Unbiased HDR	43.818	44.158	0.34
30	30	Unbiased HDR	44.442	45.061	0.619
31	50	14V Biased HDR	44.3	44.866	0.566
32	50	14V Biased HDR	44.069	44.905	0.836
33	50	14V Biased HDR	44.379	44.96	0.581
34	50	14V Biased HDR	44.291	44.826	0.535
35	50	14V Biased HDR	44.063	44.668	0.605
36	50	Unbiased HDR	44.599	45.307	0.708
37	50	Unbiased HDR	44.425	44.955	0.53
38	50	Unbiased HDR	44.143	44.547	0.404
39	50	Unbiased HDR	44.311	44.689	0.378
40	50	Unbiased HDR	44.322	44.773	0.451
41	100	14V Biased HDR	44.499	45.611	1.112
42	100	14V Biased HDR	44.247	45.144	0.897
43	100	14V Biased HDR	44.1	45.132	1.032
44	100	14V Biased HDR	44.411	45.63	1.219
45	100	14V Biased HDR	44.065	44.845	0.78
46	100	Unbiased HDR	44.067	44.916	0.849
47	100	Unbiased HDR	44.474	45.083	0.609
48	100	Unbiased HDR	44.396	45.296	0.9
49	100	Unbiased HDR	44.577	45.491	0.914
50	100	Unbiased HDR	44.104	44.371	0.267
51	0	Correlation	44.451	44.63	0.179
52	0	Correlation	44.273	44.578	0.305
53	0	Correlation	44.237	44.376	0.139
54	0	Correlation	44.128	44.301	0.173
55	0	Correlation	44.076	44.366	0.29

Test Statistics (mOhm)

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	44.076	44.233	44.451	0.14561	44.301	44.45	44.63	0.1445	0.139	0.2172	0.305	0.075061
3	43.799	44.101	44.33	0.19056	43.738	44.199	44.484	0.22759	-0.061	0.0981	0.191	0.075447
10	44.033	44.162	44.461	0.12367	44.272	44.406	44.732	0.13746	0.201	0.2444	0.293	0.030067
30	43.818	44.195	44.59	0.25562	44.158	44.614	45.189	0.3821	0.18	0.419	0.619	0.13916
50	44.063	44.29	44.599	0.16505	44.547	44.85	45.307	0.20886	0.378	0.5594	0.836	0.13802
100	44.065	44.294	44.577	0.19959	44.371	45.152	45.63	0.38585	0.267	0.8579	1.219	0.26853

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