Radiation Report

TPS7H4013-SEP Total Ionizing Dose (TID) Radiation Report

ABSTRACT

This report discusses the results of the TID testing for the Texas Instruments TPS7H4013-SEP 4.5V to 14V input, 3A radiation tolerant synchronous buck converter.

The study was done to determine TID effects under high dose rate (HDR) up to 50krad(Si) after 84h anneal at room temperature, resulting in an effective dose rate of 165mrad(Si)/s.

The results show that all samples passed within the specified limits up to 50krad(Si).

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1 Device Information

1.1 Product Description

The TPS7H4013-SEP is a 14V, 3A synchronous buck converter optimized for use in a space environment. High efficiency and reduced component count are achieved through peak current mode control.

The wide voltage range of the TPS7H4013-SEP enables the device to be used as a point of load regulator to convert directly from a 12V or 5V rail. The output voltage start-up ramp is controlled by the SS_TR pin. Power sequencing is possible with the EN and PWRGD pins. The device can be configured with up to four devices in parallel without an external clock for increased current capabilities. Additionally, various features are included such as differential remote sensing, selectable current limit, a flexible fault input pin, and configurable compensation.

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 Exposure Details	
TI Device	TPS7H4013-SEP
Package	44-pin HTSSOP (DDW)
TI Part Name	TPS7H4013MDDWTSEP
Technology	LBC7 (Linear BiCMOS 7)
Assembly Lot Number	5397451
Quantity Tested	HDR: 30 Devices • Five biased and five unbiased units at 20krad (Si) levels • Five biased and five unbiased units at 30krad (Si) levels • Five biased and five unbiased units at 50krad (Si) levels • Five control/correlation units with no exposure
HDR Radiation Facility	Texas Instruments, Dallas, TX
HDR Dose Level	50krad(Si)
HDR Dose Rate	156.71 rads(Si)/s ionizing radiation dose rate
HDR Radiation Source	Gamma cell Co-60
Irradiation Temperature	Ambient, room temperature controlled to 25°C (±6°C) per MIL-STD-883 and MIL-STD-750.

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50krad biased and unbiased devices were annealed for 84 hours at room temperature with their respective bias condition resulting in an effective dose rate of 165mrad(Si)/s.

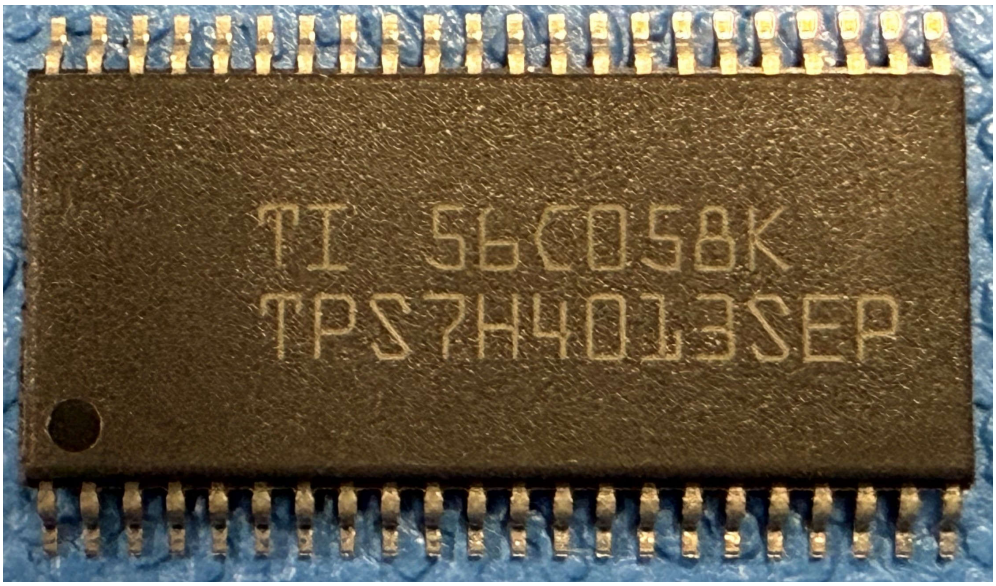

Figure 1-1. TPS7H4013-SEP Device Used in Exposure (Front)

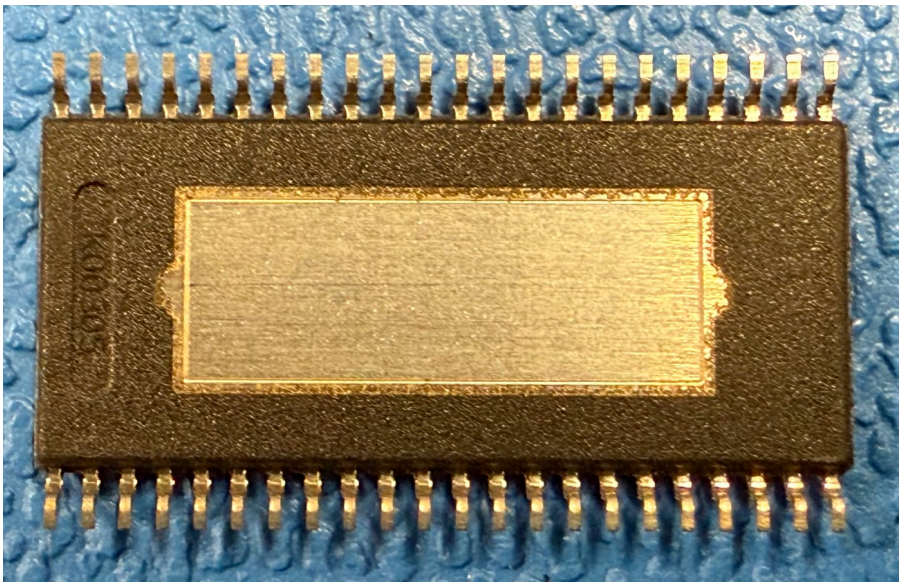

Figure 1-2. TPS7H4013-SEP Device Used in Exposure (Back)

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2 Total Dose Test Setup

2.1 Test Overview

The TPS7H4013-SEP was tested according to MIL-STD-883, Test Method 1019.9. For this testing, Condition A was used. The product was irradiated up to the target radiation level, and then put through full electrical parametric testing on the production automated test equipment (ATE). All devices remained functional passing all parametric test limits.

2.2 Test Description and Facilities

The TPS7H4013-SEP HDR exposure was performed on biased and unbiased devices in a Co-60 gamma cell at TI facility in Dallas, Texas. The unattenuated dose rate of this cell was 156.71rads(Si)/s. The 50krad(Si) biased devices were annealed with the respective biased condition for 84 hours and retested. The effective dose rate for these devices was 165mrad(Si)/s. ATE test limits are set per datasheet electrical limits based on qualification and characterization data.

2.3 Test Setup Details

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

2.3.1 Unbiased

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

2.3.2 Biased

Figure 2-1 shows the diagram for HDR exposure with biased condition.

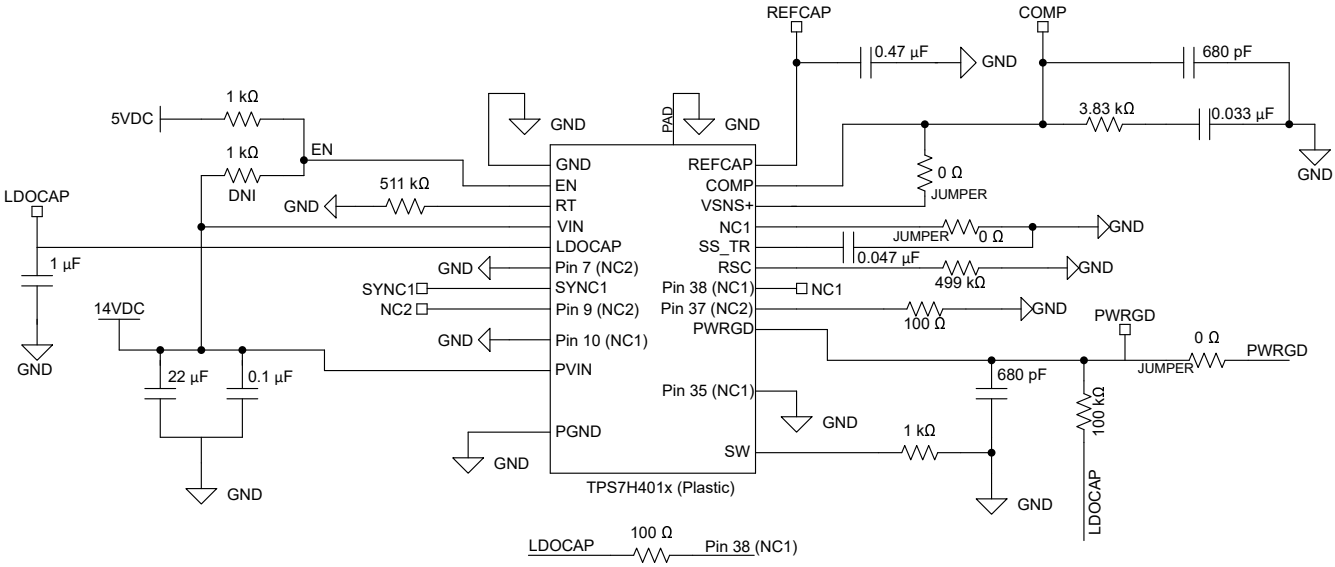

Figure 2-1. TPS7H4013-SEP Bias Diagram

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2.4 Biased Test Configuration and Condition

HDR devices were stressed up to 50 krad(Si) for biased and unbiased conditions.

Table 2-1. HDR: Biased Device Information

Total Samples: 15		
Exposure Levels		
20 krad(Si)	30krad(Si)	50krad(Si)
1, 2, 3, 4, 5	11, 12, 13, 14, 15	77, 78, 79, 80, 81

Table 2-2. HDR: Unbiased Device Information

Total Samples: 15		
Exposure Levels		
20krad(Si)	30krad(Si)	50krad(Si)
6, 7, 8, 9, 10	16, 17, 18, 19, 20	27, 28, 29, 30, 31

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3 TID Characterization Test Results

3.1 TID Characterization Summary Results

The parametric data for the TPS7H4013-SEP passes up to 50krad(Si) HDR TID irradiation. The drifts of the electrical parameters through HDR were within the datasheet limits.

Overall, the TPS7H4013-SEP showed a strong degree of hardness to HDR TID irradiation up to 50krad(Si) for both biased and unbiased exposure conditions. The measurements taken post-irradiation for each sample set showed a marginal shift for most parameters at each dose level for both biased and unbiased. The parameters that did show a greater degree of change pre- and post-irradiation were still within the electrical performance characteristics specified in the datasheet electrical parameters. See Section 3.2 for electrical parameters. Test numbers are listed only for parameters tested for TID.

See Appendix A for HDR report up to 50krad(Si).

3.2 Datasheet Electrical Parameter Characteristics

Over 4.5V ≤ VIN ≤ 14V, PVIN = VIN, VSNS- = 0V, open loop configuration, IOUT = 0A, TA = 25°C, unless otherwise noted.

Table 3-1. Datasheet Electrical Parameter Characteristics

PARAMETER		TEST CONDITIONS		SUB-GROUP	MIN	TYP	MAX	UNIT	TEST NUMBERS
POWER SUPPLIES AND CURRENTS									
V_{UVLOR_PVIN}	PVIN internal UVLO rising threshold			1, 2, 3	3.2	3.4	3.6	V	14.1, 14.7, 14.13, 14.19
$V_{UVLOHYST_PVIN}$	PVIN internal UVLO hysteresis			1, 2, 3	425	450	500	mV	14.3, 14.9, 14.15, 14.21
V_{UVLOR_VIN}	VIN internal UVLO rising threshold			1, 2, 3	3.4	3.6	3.8	V	14.4, 14.10, 14.16, 14.22
$V_{UVLOHYST_VIN}$	VIN internal UVLO hysteresis			1, 2, 3	140	155	170	mV	14.6, 14.12, 14.18, 14.24
I_{SHDN_VIN}	VIN shutdown supply current	V_{EN} = 0V	VIN = 4.5V	1, 2, 3		2	2.9	mA	12.1
			VIN = 14V	1, 2, 3		2	3		12.16
I_{SHDN_PVIN}	PVIN shutdown supply current	V_{EN} = 0V	PVIN = 4.5V	1, 2, 3		2.6	3.5	mA	12.2
			PVIN = 14V	1, 2, 3		3.5	4.7		12.17
I_{Q_VIN}	VIN operating quiescent current (non switching)	V_{EN} = 7V, VSNS+ = 1V		1, 2, 3		2.6	5	mA	12.3, 12.8, 12.13, 12.18
ENABLE									

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Table 3-1. Datasheet Electrical Parameter Characteristics (continued)

PARAMETER		TEST CONDITIONS		SUB-GROUP	MIN	TYP	MAX	UNIT	TEST NUMBERS
$V_{EN(rising)}$	Enable rising threshold (turn-on)			1, 2, 3	0.555	0.61	0.655	V	15.3, 15.6, 15.9, 15.12
$V_{EN(falling)}$	Enable falling threshold (turn-off)			1, 2, 3	0.455	0.51	0.554	V	15.4, 15.7, 15.10, 15.13
$t_{EN(delay)}$	Enable propagation delay	EN high to SW high, SS pin open		1, 2, 3		52	100	µs	24.23, 24.69, 24.112, 24.155
$I_{EN(LKG)}$	Enable input leakage current	V_{EN} = 7V		1, 2, 3		2	100	nA	15.1, 15.15
VOLTAGE REFERENCE AND SENSE									
V_{REF}	Internal voltage reference (including error amplifier VIO)	See datasheet	T_A = –55°C	3	0.594	0.598	0.603	V	
			T_A = 25°C	1	0.596	0.6	0.603		17.4, 17.16, 17.28, 17.40
			T_A = 125°C	2	0.597	0.6	0.604		
$V_{REF(internal)}$	Internal voltage reference (without error amplifier included)	$V_{REF(internal)}$ = V_{SS_TR}		1, 2, 3	0.593	0.6	0.606	V	17.2, 17.14, 17.26, 17.38
V_{BG}	Bandgap voltage (voltage at the REFCAP pin)	C_{REFCAP} = 470nF		1, 2, 3	1.184	1.2	1.222	V	12.5, 12.10, 12.15, 12.20
$I_{VSNS+(LKG)}$	VSNS+ input leakage current	VSNS+ = 0.6V		1, 2, 3		10	30	nA	17.5, 17.17, 17.29, 17.41
ERROR AMPLIFIER									
V_{IO}	Error amplifier input offset voltage	VSNS+ = 0.6V		1, 2, 3	–2.9		2.9	mV	17.3, 17.15, 17.27, 17.39
g_{mEA}	Error amplifier transconductance	–10µA < I_{COMP} < 10µA, V_{COMP} = 1V	T_A = –55°C	11	1400	2050	2700	µS	
			T_A = 25°C	9	1200	1650	2100		18.2, 18.8, 18.14, 18.20
			T_A = 125°C	10	1000	1250	1500		

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Table 3-1. Datasheet Electrical Parameter Characteristics (continued)

PARAMETER		TEST CONDITIONS		SUB-GROUP	MIN	TYP	MAX	UNIT	TEST NUMBERS
EA_{DC}	Error amplifier DC gain	VSNS+ = 0.6V				11500		V/V	
EA_{ISRC}	Error amplifier source	V_{COMP} = 1V, 100mV input overdrive		1, 2, 3	90	125	200	µA	18.3, 18.9, 18.15, 18.21
EA_{ISNK}	Error amplifier sink	V_{COMP} = 1V, 100mV input overdrive		1, 2, 3	90	125	200	µA	18.4, 18.10, 18.16, 18.22
EA_{Ro}	Error amplifier output resistance					7		MΩ	
EA_{BW}	Error amplifier bandwidth	Unity gain bandwidth				9		MHz	
g_{mps}	Power stage transconductance	V_{COMP} = 0.75V	TPS7H4013, HTSSOP	1, 2, 3	3.5	6.2	9.2	S	20.7, 20.58, 20.109, 20.160
OVERCURRENT PROTECTION									
I_{OC_HS1}	High-side switch current limit threshold 1(4)	R_{SHORT} = 100mΩ	TPS7H4013, HTSSOP	1, 2, 3		5.6	7.7	A	20.5, 20.56, 20.107, 20.158
I_{OC_HS2}	High-side switch current limit threshold 2	VIN = 12V, R_{SHORT} ≈ 4mΩ	TPS7H4013, HTSSOP	1, 2, 3		6.8		A	20.6, 20.57, 20.108, 20.159
$I_{OC_LS(sink)}$	Low-side switch sinking overcurrent threshold	T_A = –55°C		3		2		A	
		T_A = 25°C		1		1.9		A	19.14, 19.17, 19.20, 19.23
		T_A = 125°C		2		1.7		A	
$COMP_{SHDN}$	COMP shutdown voltage			1, 2, 3	1.7	1.9	2.1	V	22.2, 22.9, 22.16, 22.23
$t_{COMP(delay)}$	COMP shutdown delay			9, 10, 11		30		µs	
SOFT START AND TRACKING									

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Table 3-1. Datasheet Electrical Parameter Characteristics (continued)

PARAMETER		TEST CONDITIONS		SUB-GROUP	MIN	TYP	MAX	UNIT	TEST NUMBERS
t_{SS}	Soft start time	V_{SS_TR} from 10% to 90%, $V_{OUT(set)}$ = 3.3V	CSS = 5.6nF	9, 10, 11		1.5		ms	22.5, 22.12, 22.19, 22.26
			CSS = 22nF	9, 10, 11	4.7	5.8	7.3		22.6, 22.13, 22.20, 22.27
			CSS = 100nF	9, 10, 11		24.7			22.7, 22.14, 22.21, 22.28
$R_{SS(discharge)}$	Soft start discharge pull-down resistor			1, 2, 3	200	442	700	Ω	22.3, 22.10, 22.17, 22.24
$SS_{startup}$	Maximum voltage on SS before startup(5)					20		mV	22.4, 22.11, 22.18, 22.25
SLOPE COMPENSATION									
SC	Slope compensation, TPS74013	f_{SW} = 100kHz, VIN = 12V	RSC = 499kΩ			–0.5		A/µs	
			RSC = 1.5MΩ			–0.2			
		f_{SW} = 500kHz, VIN = 12V	RSC = 100kΩ			–2.8		A/µs	
			RSC = 499kΩ			–1.2			
			RSC = 1.5MΩ			–0.8			
		f_{SW} = 1000kHz, VIN = 12V	RSC = 100kΩ			–4		A/µs	
			RSC = 499kΩ			–2			
			RSC = 1.5MΩ			–1.5			
MINIMUM ON TIME AND DEAD TIME									
$t_{on(min)}$	Minimum on time	50% to 50% of VIN, I_{SW} = 2A	VIN = 4.5V	9, 10, 11		210	235	ns	24.22
			VIN = 5V	9, 10, 11		213	250		24.68
			VIN = 12V	9, 10, 11		199	250		24.11
			VIN = 14V	9, 10, 11		199	250		24.15
$t_{off(min)}$	Minimum off time	I_{SW} = 2A				306		ns	
t_{dead}	Dead time					70		ns	
SWITCHING FREQUENCY AND SYNCHRONIZATION									

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Table 3-1. Datasheet Electrical Parameter Characteristics (continued)

PARAMETER		TEST CONDITIONS		SUB-GROUP	MIN	TYP	MAX	UNIT	TEST NUMBERS
f_{SW}	RT programmed switching frequency	R_{RT} = 511kΩ		4, 5, 6	90	100	120	kHz	24.12, 24.58, 24.101, 24.144
		R_{RT} = 90.9kΩ		4, 5, 6	450	500	550	kHz	24.19, 24.65, 24.108, 24.151
		R_{RT} = 40.2kΩ	VIN = 4.5V	4, 5, 6	850	1000	1150	kHz	24.2
			5 ≤ VIN ≤ 14	4, 5, 6	870	1000	1170		24.66, 24.109, 24.152
t_{SYNC_D}	SYNC1 to SW delay	SYNC1 input, see datasheet	VIN = 4.5V	9, 10, 11	150	256	390	ns	24.3
			5V ≤ VIN ≤ 14V	9, 10, 11	160	240	310		24.49, 24.92, 24.135
			VIN = 12V, IOUT = 3A			246			
$V_{SYNC1(IH)}$	SYNC1 input high threshold			1, 2, 3			1.7	V	24.4, 24.50, 24.93, 24.136
$V_{SYNC1(IL)}$	SYNC1 input low threshold			1, 2, 3	0.7			V	24.5, 24.51, 24.94, 24.137
f_{SYNC}	SYNC1 input frequency range			4, 5, 6	100		1000	kHz	24.1, 24.6, 24.7, 24.47, 24.52, 24.53, 24.90, 24.95, 24.96, 24.133, 24.138, 24.139

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Table 3-1. Datasheet Electrical Parameter Characteristics (continued)

PARAMETER		TEST CONDITIONS		SUB-GROUP	MIN	TYP	MAX	UNIT	TEST NUMBERS
D_{SYNC}	SYNC1 input duty cycle range	External clock duty cycle		4, 5, 6	40%		60%		24.8, 24.9, 24.54, 24.55, 24.97, 24.98, 24.140, 24.141, 24.80, 24.90, 24.540, 24.550, 24.970, 24.980, 24.1400, 24.1410
$t_{CLK_E_I}$	External clock to internal clock detection time	RT populated		9, 10, 11		2	5	$(1/f_{sw})$ s	24.10, 24.56, 24.99, 24.142
$t_{CLK_I_E}$	Internal clock to external clock detection time	RT populated		9, 10, 11		1	2	$(1/f_{sw})$ s	24.11, 24.57, 24.100, 24.143
POWER GOOD AND THERMAL SHUTDOWN									
$PWRGD_{LOW_F\%}$	PWRGD falling threshold (fault), low	Threshold for PWRGD (VSNS+ as percent of V_{REF})	VSNS+ falling	1, 2, 3	89%	92%	95%		23.2, 23.10, 23.17, 23.24
$PWRGD_{LOW_R\%}$	PWRGD rising threshold (good), low	Threshold for PWRGD (VSNS+ as percent of V_{REF})	VSNS+ rising	1, 2, 3	92%	95%	98%		23.3, 23.11, 23.18, 23.25
$PWRGD_{HIGH_R\%}$	PWRGD rising threshold (fault), high	Threshold for PWRGD (VSNS+ as percent of V_{REF})	VSNS+ rising	1, 2, 3	105%	108%	112%		23.4, 23.12, 23.19, 23.26

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Table 3-1. Datasheet Electrical Parameter Characteristics (continued)

PARAMETER		TEST CONDITIONS		SUB-GROUP	MIN	TYP	MAX	UNIT	TEST NUMBERS
$PWRGD_{HIGH_F\%}$	PWRGD falling threshold (good), high	Threshold for PWRGD (VSNS+ as percent of V_{REF})	VSNS+ falling	1, 2, 3	102%	105%	109%		23.5, 23.13, 23.20, 23.27
$I_{PWRGD(LKG)}$	Output high leakage	VSNS+ = V_{REF}, V_{PWRGD} = 7V		1, 2, 3		50	500	nA	23.6, 23.14, 23.21, 23.28
$V_{PWRGD(OL)}$	Power good output low	$I_{PWRGD(SINK)}$ = 0mA to 2mA		1, 2, 3		250	300	mV	23.7, 23.15, 23.22, 23.29
V_{INMIN_PWRGD}	Minimum VIN for valid PWRGD output	Measured when V_{PWRGD} ≤ 0.5V at 100µA		1, 2, 3		1	2	V	23.1
$T_{SD(enter)}$	Thermal shutdown enter temperature					175		°C	
$T_{SD(exit)}$	Thermal shutdown exit temperature					140		°C	
$T_{SD(HYS)}$	Thermal shutdown hysteresis					35		°C	
MOSFET									
$R_{DS_ON_HS}$	High-side switch resistance at I_{HS} = 3A, TPS7H4013, HTSSOP	PVIN = 4.5V	T_A = –55°C	3		28	41	mΩ	
			T_A = 25°C	1		36	47		20.4, 20.5
			T_A = 125°C	2		46	62		
		5V ≤ PVIN ≤ 14V	T_A = –55°C	3		26	38	mΩ	
			T_A = 25°C	1		33	46		20.55, 20.56, 20.106, 20.107, 20.157, 20.158
			T_A = 125°C	2		41	56		
$R_{DS_ON_LS}$	Low-side switch resistance at I_{LS} = 3A, TPS7H4013, HTSSOP	PVIN = 4.5V	T_A = –55°C	3		20	31	mΩ	
			T_A = 25°C	1		28	39		21.38
			T_A = 125°C	2		41	50		
		5V ≤ PVIN ≤ 14V	T_A = –55°C	3		20	29	mΩ	
			T_A = 25°C	1		27	37		21.41, 21.44, 21.47
			T_A = 125°C	2		39	48		

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4 Applicable and Reference Documents

4.1 Applicable Documents

- Texas Instruments, *TPS7H401X-SP and TPS7H401X-SEP 4.5V to 14V Input, 3A and 6A Radiation Hardened Synchronous Buck Converter,* datasheet.
- Texas Instruments, *TPS7H4013-SEP (TPS7H4013EVM-CVAL) Evaluation Module User's Guide,* 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.

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A Appendix A: HDR Results

This appendix contains the HDR TID report data. The following decoder serves as a reference guide for the test parameters shown in the appendix:

NCAT|HEADER/PIN/V_VIN/I_LOAD/R_RT/CONDITION/@SPEC_ID_PARM

Please reference Table A-1 for an example implementation of this decoder.

Table A-1. Decoder Implementation, Example Test: IDD|STATIC/VIN/14////@VIN_SHDN_CURR_14V

Test Category	Header	Pin Name	Input Voltage	Load Current	Frequency Set Resistor Value	Condition	Specification Identifier
IDD	STATIC	VIN	14V	N/A	N/A	N/A	@VIN_SHDN_CURR_14

Note that the absence of identifiers in a parameter name indicates that the identifier is not applicable. For instance, this test does not have the device driving an external load, and thus no load current is specified.

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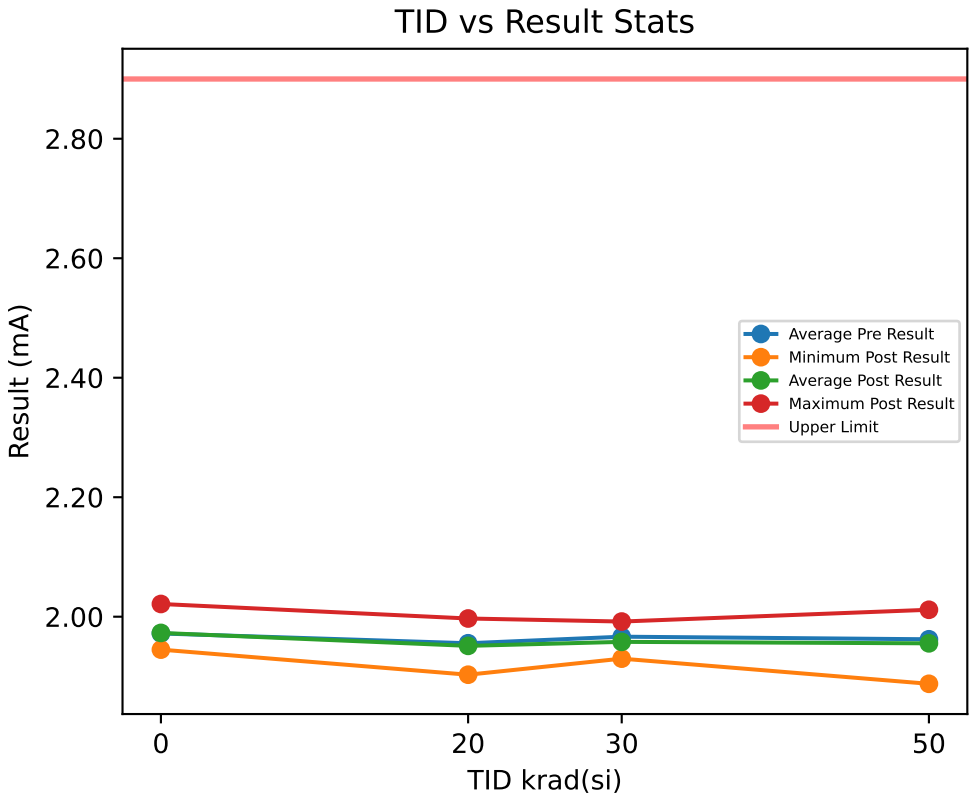
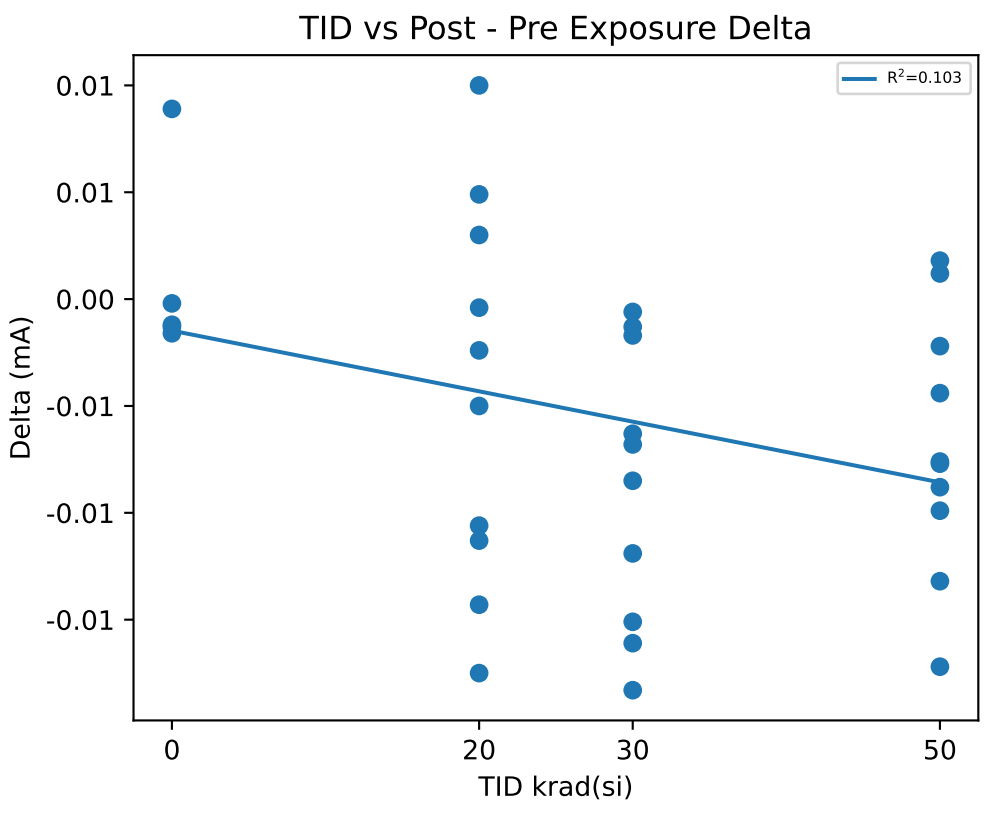
Device Test: 12.1 IDD|STATIC/VIN/4.5////@VIN_SHDN_CURR_4V





Test Results (Upper Limit = 2.9 (mA))

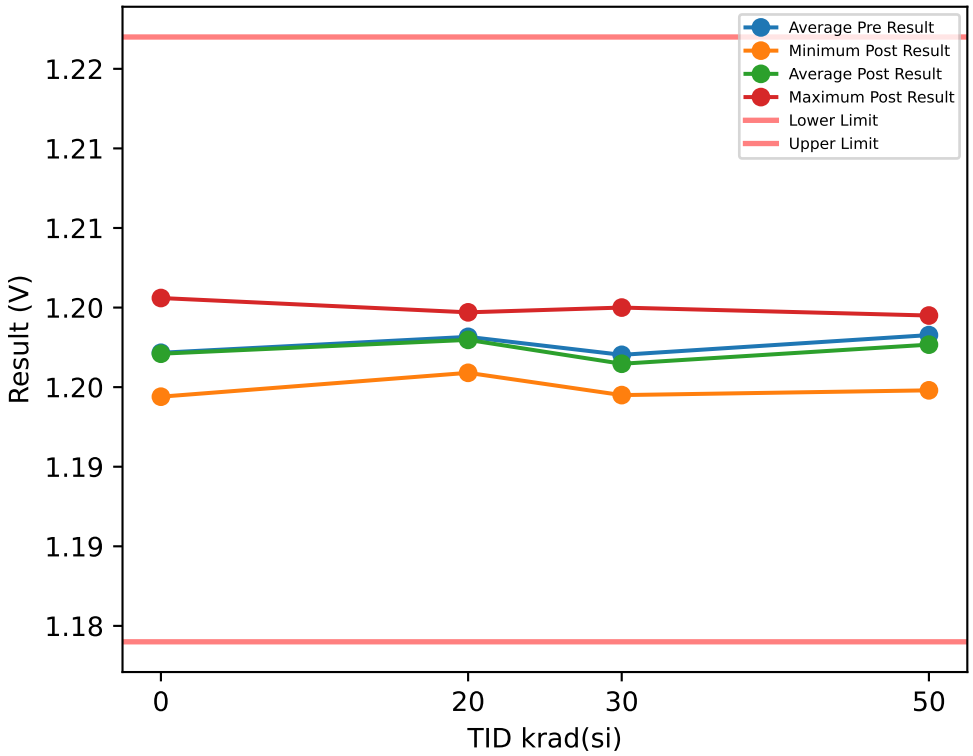
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.9428	1.9424	-0.0004
2	20	Biased	1.9814	1.9863	0.0049
3	20	Biased	1.9441	1.9335	-0.0106
4	20	Biased	1.9053	1.9029	-0.0024
5	20	Biased	1.9692	1.9549	-0.0143
6	20	Unbiased	1.987	1.997	0.01
7	20	Unbiased	1.9534	1.9421	-0.0113
8	20	Unbiased	1.9283	1.9233	-0.005
9	20	Unbiased	1.9726	1.9551	-0.0175
10	20	Unbiased	1.9715	1.9745	0.003
11	30	Biased	1.9448	1.9435	-0.0013
12	30	Biased	1.9581	1.9564	-0.0017
13	30	Biased	1.9982	1.9919	-0.0063
14	30	Biased	1.9538	1.9532	-0.0006
15	30	Biased	1.9588	1.952	-0.0068
16	30	Unbiased	1.9956	1.9795	-0.0161
17	30	Unbiased	1.9765	1.9646	-0.0119
18	30	Unbiased	1.9481	1.9298	-0.0183
19	30	Unbiased	1.9916	1.9765	-0.0151
20	30	Unbiased	1.94	1.9315	-0.0085
27	50	Unbiased	1.9788	1.9689	-0.0099
28	50	Unbiased	2.016	2.0116	-0.0044
29	50	Unbiased	1.9727	1.9705	-0.0022
30	50	Unbiased	1.9482	1.9394	-0.0088
31	50	Unbiased	1.9346	1.9358	0.0012
77	50	Biased-84Hr-Anneal	1.9437	1.9361	-0.0076
78	50	Biased-84Hr-Anneal	1.9329	1.9252	-0.0077
79	50	Biased-84Hr-Anneal	1.991	1.9928	0.0018
80	50	Biased-84Hr-Anneal	1.9995	1.9863	-0.0132
81	50	Biased-84Hr-Anneal	1.9049	1.8877	-0.0172
100	0	CORRELATION	1.9739	1.9723	-0.0016
101	0	CORRELATION	1.9462	1.9449	-0.0013
102	0	CORRELATION	1.9639	1.9627	-0.0012
103	0	CORRELATION	2.0124	2.0213	0.0089
104	0	CORRELATION	1.9633	1.9631	-0.0002

Test Statistics (mA)

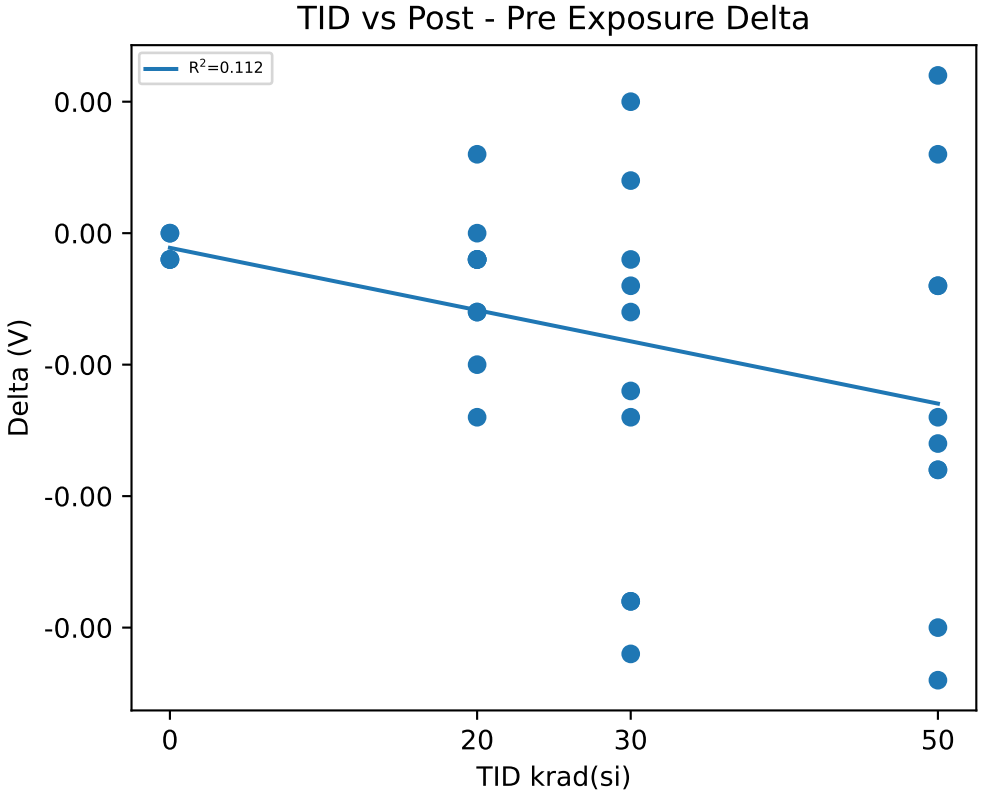
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.9462	1.9719	2.0124	0.024712	1.9449	1.9729	2.0213	0.02884	-0.0016	0.00092	0.0089	0.0044919
20	1.9053	1.9556	1.987	0.025722	1.9029	1.9512	1.997	0.028841	-0.0175	-0.00436	0.01	0.0089729
30	1.94	1.9666	1.9982	0.022072	1.9298	1.9579	1.9919	0.020457	-0.0183	-0.00866	-0.0006	0.0064712
50	1.9049	1.9622	2.016	0.034869	1.8877	1.9554	2.0116	0.037164	-0.0172	-0.0068	0.0018	0.0060467

Device Test: 12.10 LEVEL|STATIC/REFCAP/5////@VBANDGAP

TID vs Result Stats



TID vs Post - Pre Exposure Delta



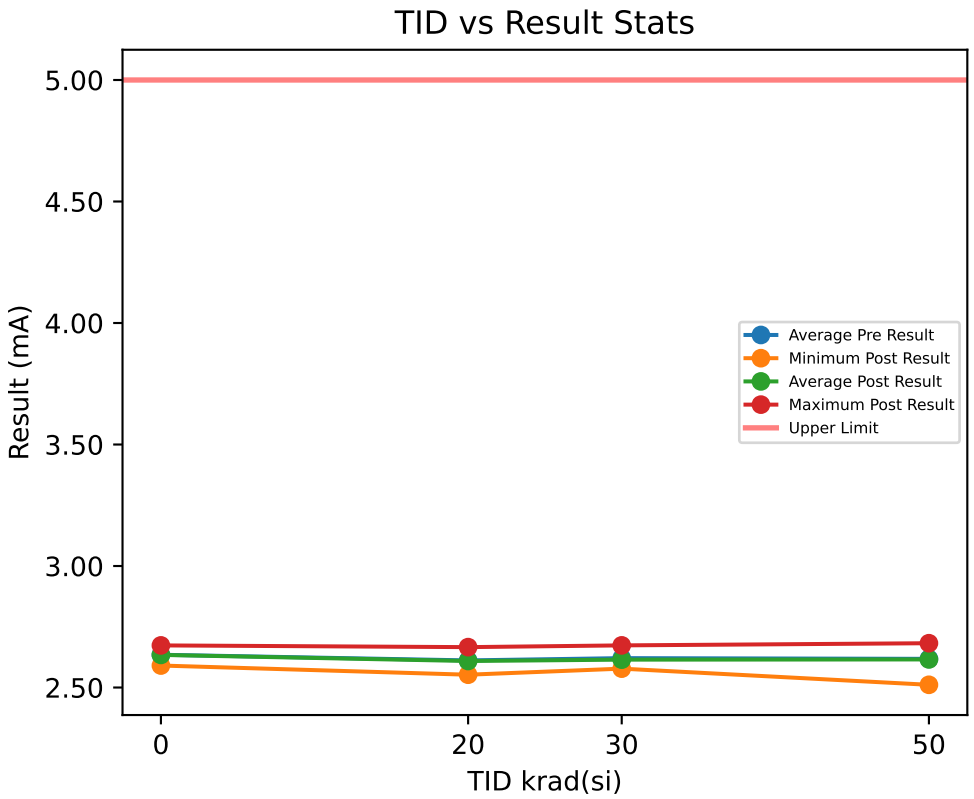
Test Results (Lower Limit = 1.184, Upper Limit = 1.222 (V))

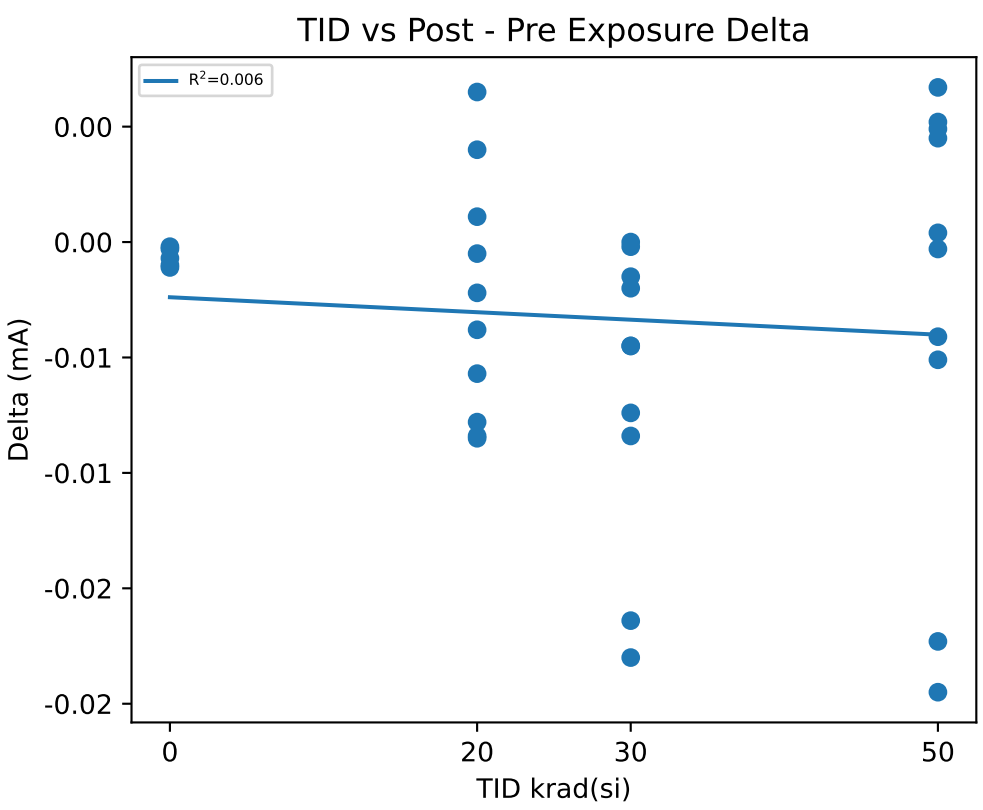
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.2041	1.2038	-0.0003
2	20	Biased	1.201	1.2009	-0.0001
3	20	Biased	1.2054	1.2047	-0.0007
4	20	Biased	1.2033	1.2036	0.0003
5	20	Biased	1.2011	1.201	-0.0001
6	20	Unbiased	1.2042	1.2039	-0.0003
7	20	Unbiased	1.2022	1.2021	-0.0001
8	20	Unbiased	1.2046	1.2045	-0.0001
9	20	Unbiased	1.2022	1.2022	0
10	20	Unbiased	1.2035	1.203	-0.0005
11	30	Biased	1.2057	1.205	-0.0007
12	30	Biased	1.2001	1.1995	-0.0006
13	30	Biased	1.2036	1.2033	-0.0003
14	30	Biased	1.2011	1.1997	-0.0014
15	30	Biased	1.2047	1.2031	-0.0016
16	30	Unbiased	1.2018	1.202	0.0002
17	30	Unbiased	1.2002	1.2	-0.0002
18	30	Unbiased	1.201	1.2009	-0.0001
19	30	Unbiased	1.2003	1.2008	0.0005
20	30	Unbiased	1.2018	1.2004	-0.0014
27	50	Unbiased	1.2012	1.2004	-0.0008
28	50	Unbiased	1.1992	1.1998	0.0006
29	50	Unbiased	1.205	1.2043	-0.0007
30	50	Unbiased	1.205	1.2041	-0.0009
31	50	Unbiased	1.2013	1.2016	0.0003
77	50	Biased-84Hr-Anneal	1.2022	1.2013	-0.0009
78	50	Biased-84Hr-Anneal	1.2041	1.2039	-0.0002
79	50	Biased-84Hr-Anneal	1.2028	1.2026	-0.0002
80	50	Biased-84Hr-Anneal	1.2059	1.2042	-0.0017
81	50	Biased-84Hr-Anneal	1.206	1.2045	-0.0015
100	0	CORRELATION	1.2023	1.2022	-0.0001
101	0	CORRELATION	1.2056	1.2056	0
102	0	CORRELATION	1.2037	1.2037	0
103	0	CORRELATION	1.1997	1.1996	-0.0001
104	0	CORRELATION	1.1995	1.1994	-0.0001

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	1.1995	1.2022	1.2056	0.002615	1.1994	1.2021	1.2056	0.0026627	-0.0001	-6e-05	0	5.4772e-05
20	1.201	1.2032	1.2054	0.0014886	1.2009	1.203	1.2047	0.0013663	-0.0007	-0.00019	0.0003	0.00027669
30	1.2001	1.202	1.2057	0.0019766	1.1995	1.2015	1.205	0.0018209	-0.0016	-0.00056	0.0005	0.00071678
50	1.1992	1.2033	1.206	0.0022886	1.1998	1.2027	1.2045	0.0017739	-0.0017	-0.0006	0.0006	0.00073182

Device Test: 12.13 IQ|STATIC/VIN/12////@IQ_VIN





Test Results (Upper Limit = 5.0 (mA))

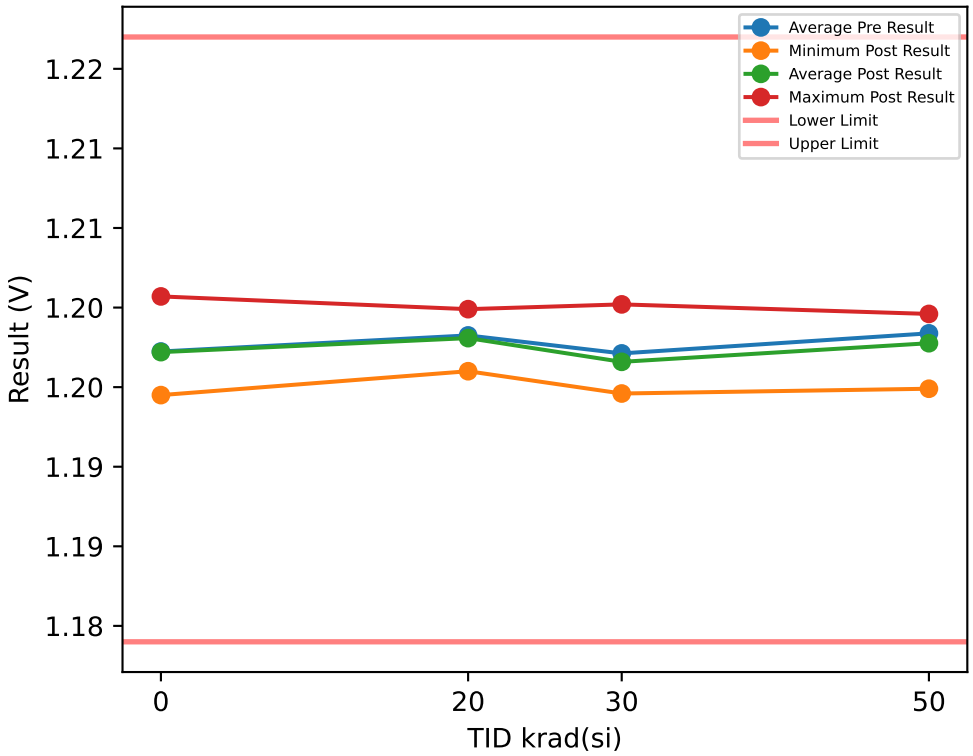
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	2.5805	2.5748	-0.0057
2	20	Biased	2.6544	2.6555	0.0011
3	20	Biased	2.6141	2.6057	-0.0084
4	20	Biased	2.5654	2.5649	-0.0005
5	20	Biased	2.6401	2.6323	-0.0078
6	20	Unbiased	2.6597	2.6662	0.0065
7	20	Unbiased	2.5842	2.5804	-0.0038
8	20	Unbiased	2.5487	2.5527	0.004
9	20	Unbiased	2.6477	2.6392	-0.0085
10	20	Unbiased	2.6212	2.619	-0.0022
11	30	Biased	2.6089	2.6044	-0.0045
12	30	Biased	2.6234	2.6189	-0.0045
13	30	Biased	2.6736	2.6734	-0.0002
14	30	Biased	2.5961	2.5887	-0.0074
15	30	Biased	2.6019	2.6019	0
16	30	Unbiased	2.6554	2.6539	-0.0015
17	30	Unbiased	2.6298	2.6118	-0.018
18	30	Unbiased	2.5861	2.5777	-0.0084
19	30	Unbiased	2.651	2.6346	-0.0164
20	30	Unbiased	2.5834	2.5814	-0.002
27	50	Unbiased	2.6345	2.6342	-0.0003
28	50	Unbiased	2.6774	2.6823	0.0049
29	50	Unbiased	2.6161	2.6213	0.0052
30	50	Unbiased	2.6118	2.6077	-0.0041
31	50	Unbiased	2.5693	2.576	0.0067
77	50	Biased-84Hr-Anneal	2.6065	2.6069	0.0004
78	50	Biased-84Hr-Anneal	2.5841	2.579	-0.0051
79	50	Biased-84Hr-Anneal	2.6762	2.6807	0.0045
80	50	Biased-84Hr-Anneal	2.6735	2.6562	-0.0173
81	50	Biased-84Hr-Anneal	2.5307	2.5112	-0.0195
100	0	CORRELATION	2.6373	2.637	-0.0003
101	0	CORRELATION	2.5915	2.5905	-0.001
102	0	CORRELATION	2.6363	2.6356	-0.0007
103	0	CORRELATION	2.6744	2.6733	-0.0011
104	0	CORRELATION	2.6347	2.6345	-0.0002

Test Statistics (mA)

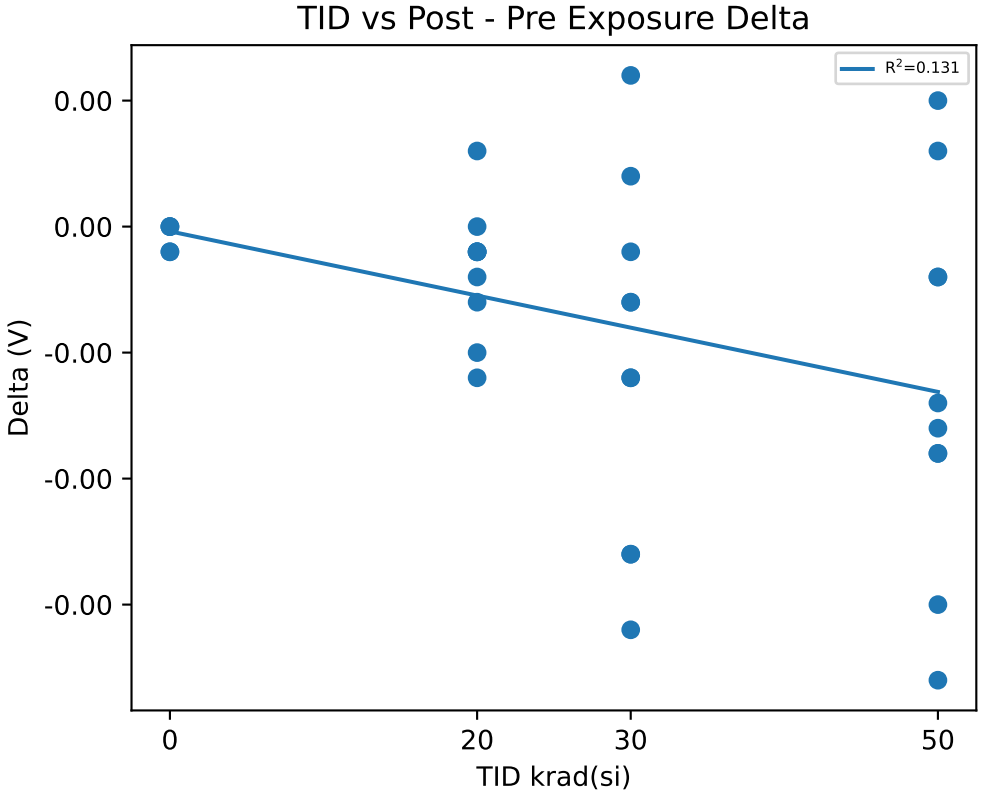
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.5915	2.6348	2.6744	0.029375	2.5905	2.6342	2.6733	0.029361	-0.0011	-0.00066	-0.0002	0.00040373
20	2.5487	2.6116	2.6597	0.039677	2.5527	2.6091	2.6662	0.039584	-0.0085	-0.00253	0.0065	0.0052823
30	2.5834	2.621	2.6736	0.031085	2.5777	2.6147	2.6734	0.03132	-0.018	-0.00629	0	0.0064068
50	2.5307	2.618	2.6774	0.048972	2.5112	2.6155	2.6823	0.052344	-0.0195	-0.00246	0.0067	0.0092992

Device Test: 12.15 LEVEL|STATIC/REFCAP/12////@VBANDGAP

TID vs Result Stats



TID vs Post - Pre Exposure Delta



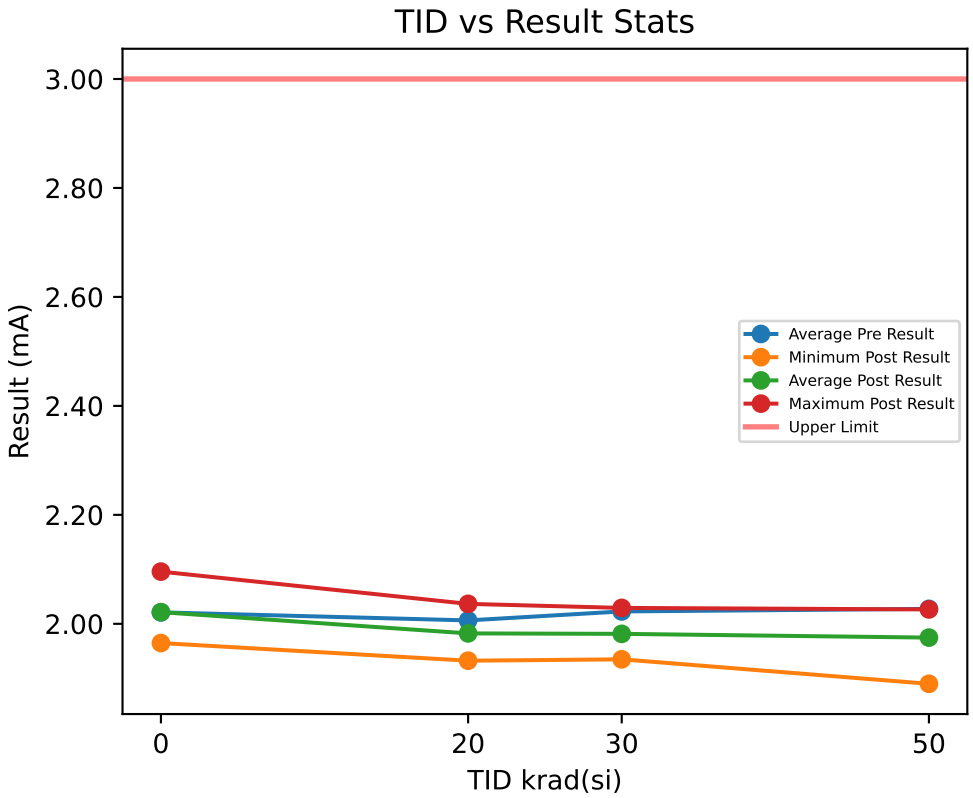
Test Results (Lower Limit = 1.184, Upper Limit = 1.222 (V))

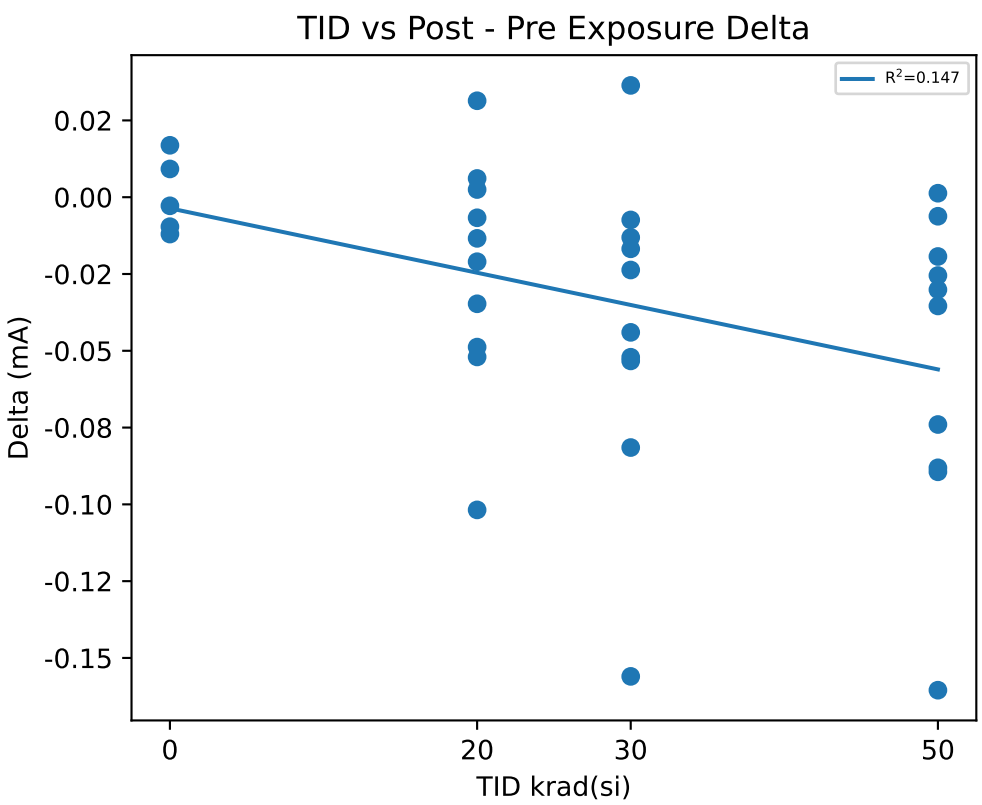
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.2041	1.2039	-0.0002
2	20	Biased	1.2011	1.201	-0.0001
3	20	Biased	1.2055	1.2049	-0.0006
4	20	Biased	1.2034	1.2037	0.0003
5	20	Biased	1.2012	1.2011	-0.0001
6	20	Unbiased	1.2043	1.204	-0.0003
7	20	Unbiased	1.2023	1.2022	-0.0001
8	20	Unbiased	1.2047	1.2046	-0.0001
9	20	Unbiased	1.2023	1.2023	0
10	20	Unbiased	1.2036	1.2031	-0.0005
11	30	Biased	1.2058	1.2052	-0.0006
12	30	Biased	1.2002	1.1996	-0.0006
13	30	Biased	1.2037	1.2034	-0.0003
14	30	Biased	1.2011	1.1998	-0.0013
15	30	Biased	1.2048	1.2032	-0.0016
16	30	Unbiased	1.2019	1.2021	0.0002
17	30	Unbiased	1.2003	1.2	-0.0003
18	30	Unbiased	1.2011	1.201	-0.0001
19	30	Unbiased	1.2004	1.201	0.0006
20	30	Unbiased	1.2019	1.2006	-0.0013
27	50	Unbiased	1.2013	1.2005	-0.0008
28	50	Unbiased	1.1994	1.1999	0.0005
29	50	Unbiased	1.2051	1.2044	-0.0007
30	50	Unbiased	1.2051	1.2042	-0.0009
31	50	Unbiased	1.2014	1.2017	0.0003
77	50	Biased-84Hr-Anneal	1.2023	1.2014	-0.0009
78	50	Biased-84Hr-Anneal	1.2042	1.204	-0.0002
79	50	Biased-84Hr-Anneal	1.2029	1.2027	-0.0002
80	50	Biased-84Hr-Anneal	1.206	1.2042	-0.0018
81	50	Biased-84Hr-Anneal	1.2061	1.2046	-0.0015
100	0	CORRELATION	1.2023	1.2023	0
101	0	CORRELATION	1.2057	1.2057	0
102	0	CORRELATION	1.2038	1.2038	0
103	0	CORRELATION	1.1998	1.1997	-0.0001
104	0	CORRELATION	1.1996	1.1995	-0.0001

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	1.1996	1.2022	1.2057	0.002614	1.1995	1.2022	1.2057	0.0026627	-0.0001	-4e-05	0	5.4772e-05
20	1.2011	1.2033	1.2055	0.0014819	1.201	1.2031	1.2049	0.0013807	-0.0006	-0.00017	0.0003	0.00025408
30	1.2002	1.2021	1.2058	0.001982	1.1996	1.2016	1.2052	0.0018418	-0.0016	-0.00053	0.0006	0.00070246
50	1.1994	1.2034	1.2061	0.002269	1.1999	1.2028	1.2046	0.0017646	-0.0018	-0.00062	0.0005	0.00073151

Device Test: 12.16 IDD|STATIC/VIN/14////@VIN_SHDN_CURR_14V





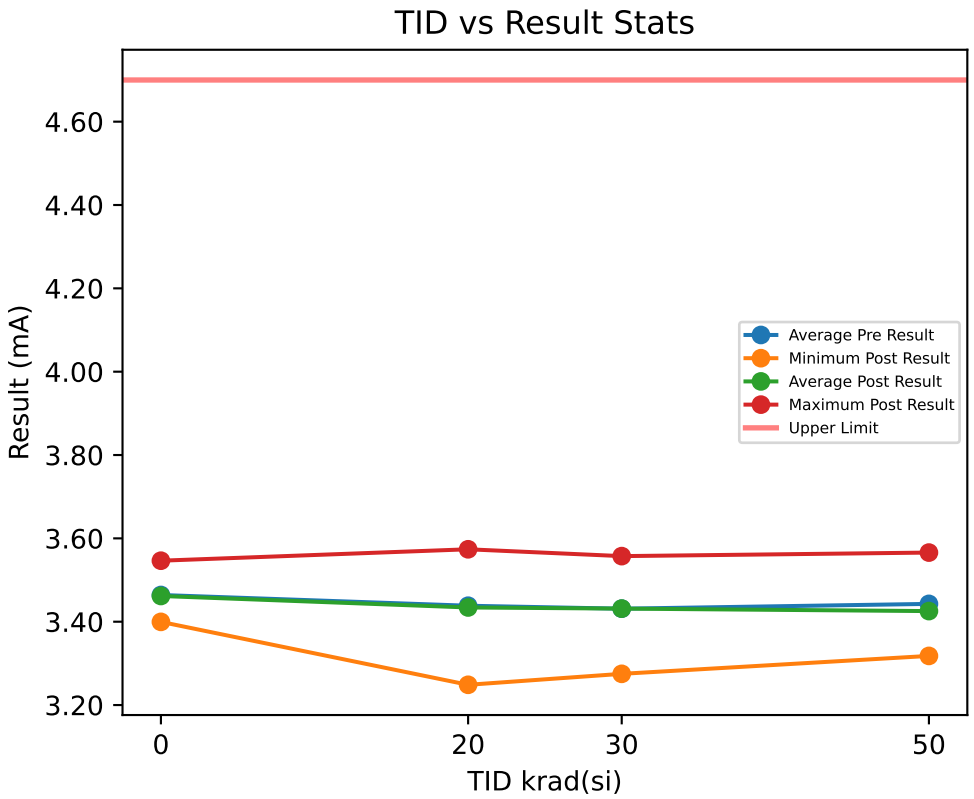
Test Results (Upper Limit = 3.0 (mA))

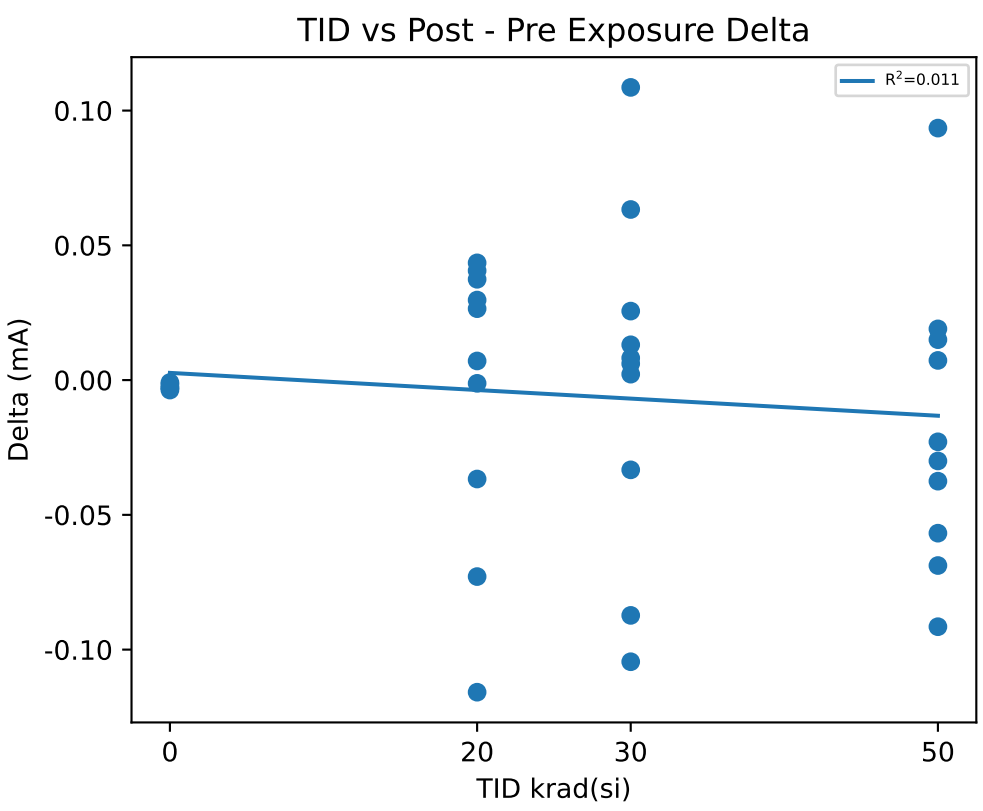
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.9929	1.9719	-0.021
2	20	Biased	1.9925	1.995	0.0025
3	20	Biased	2.0412	1.9394	-0.1018
4	20	Biased	1.9262	1.9323	0.0061
5	20	Biased	2.0418	1.9898	-0.052
6	20	Unbiased	2.0052	2.0366	0.0314
7	20	Unbiased	2.0402	2.0055	-0.0347
8	20	Unbiased	1.9888	1.9821	-0.0067
9	20	Unbiased	2.0494	2.0006	-0.0488
10	20	Unbiased	1.9842	1.9708	-0.0134
11	30	Biased	2.021	1.9689	-0.0521
12	30	Biased	1.9729	2.0093	0.0364
13	30	Biased	2.1069	2.0254	-0.0815
14	30	Biased	1.9685	1.9517	-0.0168
15	30	Biased	2.1414	1.9854	-0.156
16	30	Unbiased	2.0423	2.0292	-0.0131
17	30	Unbiased	2.0099	1.9566	-0.0533
18	30	Unbiased	1.9585	1.9348	-0.0237
19	30	Unbiased	2.0525	2.0085	-0.044
20	30	Unbiased	1.9533	1.9459	-0.0074
27	50	Unbiased	2.0556	1.9816	-0.074
28	50	Unbiased	2.0429	2.0236	-0.0193
29	50	Unbiased	2.035	2.0049	-0.0301
30	50	Unbiased	1.9598	1.9536	-0.0062
31	50	Unbiased	2.0094	1.974	-0.0354
77	50	Biased-84Hr-Anneal	2.0228	1.9347	-0.0881
78	50	Biased-84Hr-Anneal	2.0697	1.9803	-0.0894
79	50	Biased-84Hr-Anneal	2.0251	2.0264	0.0013
80	50	Biased-84Hr-Anneal	2.1385	1.978	-0.1605
81	50	Biased-84Hr-Anneal	1.9154	1.8899	-0.0255
100	0	CORRELATION	2.1078	2.0958	-0.012
101	0	CORRELATION	1.9478	1.9647	0.0169
102	0	CORRELATION	1.9685	1.9777	0.0092
103	0	CORRELATION	2.06	2.0504	-0.0096
104	0	CORRELATION	2.0211	2.0183	-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	1.9478	2.021	2.1078	0.065517	1.9647	2.0214	2.0958	0.053644	-0.012	0.00034	0.0169	0.012386
20	1.9262	2.0062	2.0494	0.038104	1.9323	1.9824	2.0366	0.030948	-0.1018	-0.02384	0.0314	0.037512
30	1.9533	2.0227	2.1414	0.064095	1.9348	1.9816	2.0292	0.034696	-0.156	-0.04115	0.0364	0.051566
50	1.9154	2.0274	2.1385	0.060268	1.8899	1.9747	2.0264	0.041235	-0.1605	-0.05272	0.0013	0.049909

Device Test: 12.17 IDD|STATIC/PVIN/14////@PVIN_SHDN_CURR_14V





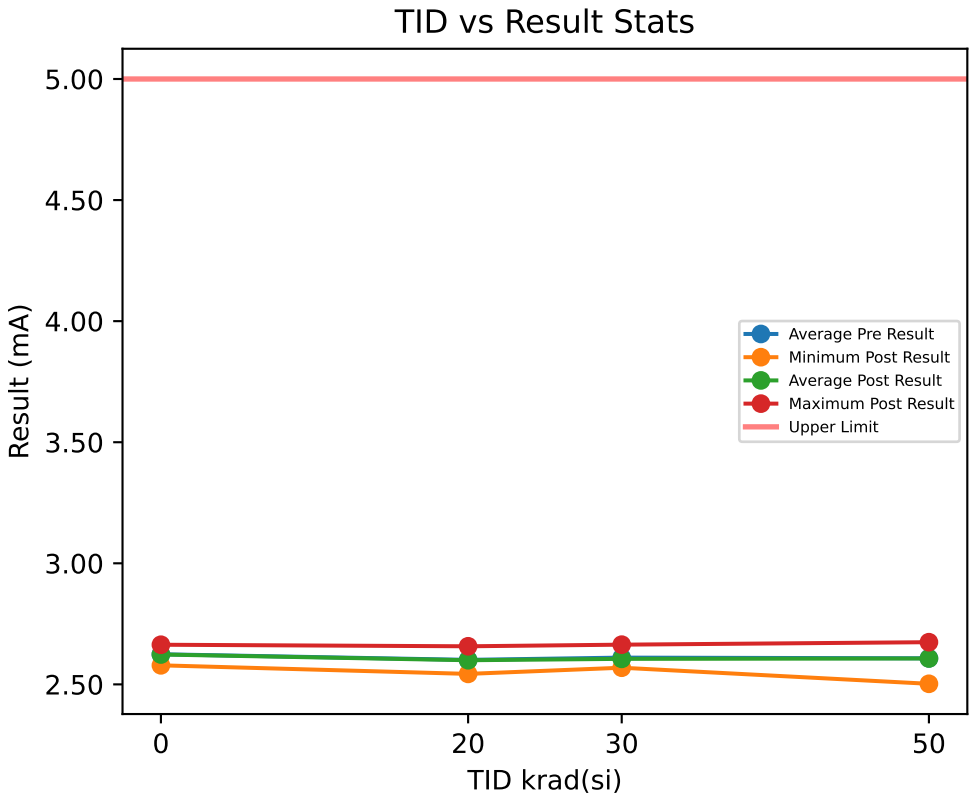
Test Results (Upper Limit = 4.7 (mA))

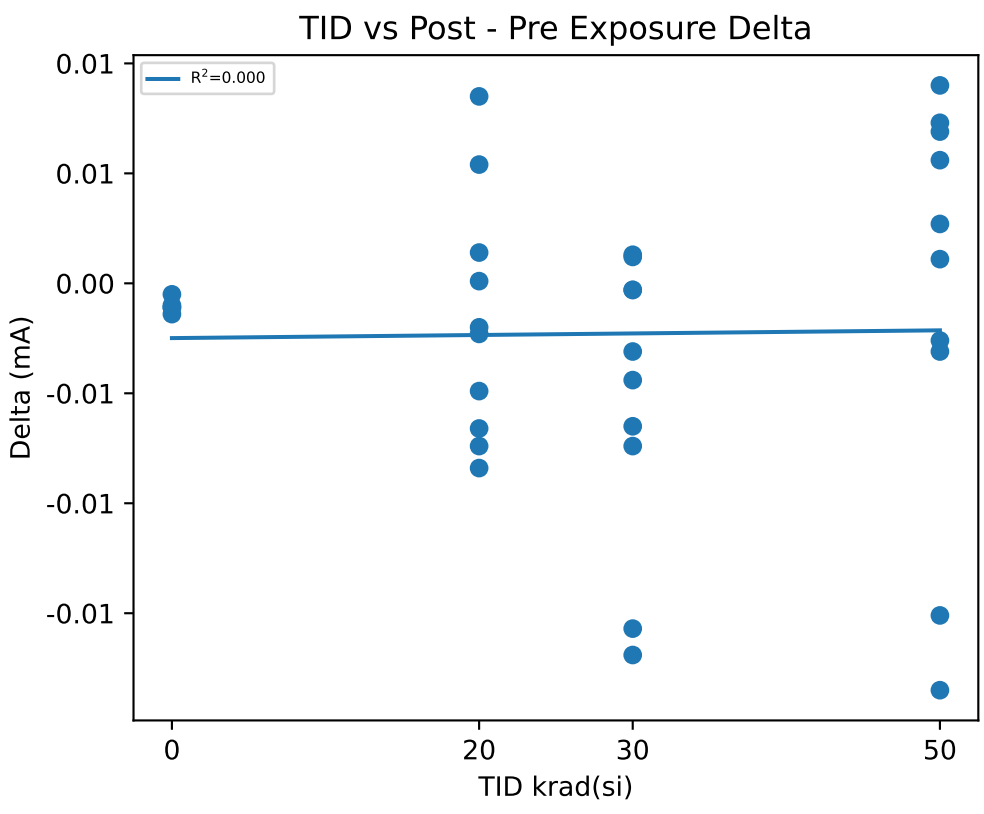
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.4643	3.5017	0.0374
2	20	Biased	3.3644	3.2486	-0.1158
3	20	Biased	3.4135	3.3768	-0.0367
4	20	Biased	3.3555	3.399	0.0435
5	20	Biased	3.4181	3.4252	0.0071
6	20	Unbiased	3.5332	3.5738	0.0406
7	20	Unbiased	3.5009	3.5274	0.0265
8	20	Unbiased	3.4307	3.4295	-0.0012
9	20	Unbiased	3.44	3.4697	0.0297
10	20	Unbiased	3.4629	3.39	-0.0729
11	30	Biased	3.4488	3.5574	0.1086
12	30	Biased	3.4353	3.402	-0.0333
13	30	Biased	3.503	3.5112	0.0082
14	30	Biased	3.4867	3.5123	0.0256
15	30	Biased	3.3541	3.3563	0.0022
16	30	Unbiased	3.4431	3.5064	0.0633
17	30	Unbiased	3.3622	3.2749	-0.0873
18	30	Unbiased	3.3864	3.2819	-0.1045
19	30	Unbiased	3.4537	3.4668	0.0131
20	30	Unbiased	3.4392	3.4453	0.0061
27	50	Unbiased	3.412	3.3432	-0.0688
28	50	Unbiased	3.4975	3.4407	-0.0568
29	50	Unbiased	3.4655	3.4355	-0.03
30	50	Unbiased	3.6034	3.5659	-0.0375
31	50	Unbiased	3.4429	3.42	-0.0229
77	50	Biased-84Hr-Anneal	3.4094	3.3179	-0.0915
78	50	Biased-84Hr-Anneal	3.3466	3.3539	0.0073
79	50	Biased-84Hr-Anneal	3.4424	3.5359	0.0935
80	50	Biased-84Hr-Anneal	3.4343	3.4493	0.015
81	50	Biased-84Hr-Anneal	3.3737	3.3927	0.019
100	0	CORRELATION	3.548	3.5464	-0.0016
101	0	CORRELATION	3.4192	3.4163	-0.0029
102	0	CORRELATION	3.4833	3.4805	-0.0028
103	0	CORRELATION	3.4696	3.4659	-0.0037
104	0	CORRELATION	3.4005	3.3996	-0.0009

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	3.4005	3.4641	3.548	0.058093	3.3996	3.4617	3.5464	0.058015	-0.0037	-0.00238	-0.0009	0.0011167
20	3.3555	3.4383	3.5332	0.055384	3.2486	3.4342	3.5738	0.091305	-0.1158	-0.00418	0.0435	0.054234
30	3.3541	3.4312	3.503	0.049426	3.2749	3.4315	3.5574	0.099559	-0.1045	0.0002	0.1086	0.063585
50	3.3466	3.4428	3.6034	0.071076	3.3179	3.4255	3.5659	0.079848	-0.0915	-0.01727	0.0935	0.053293

Device Test: 12.18 IQ|STATIC/VIN/14////@IQ_VIN





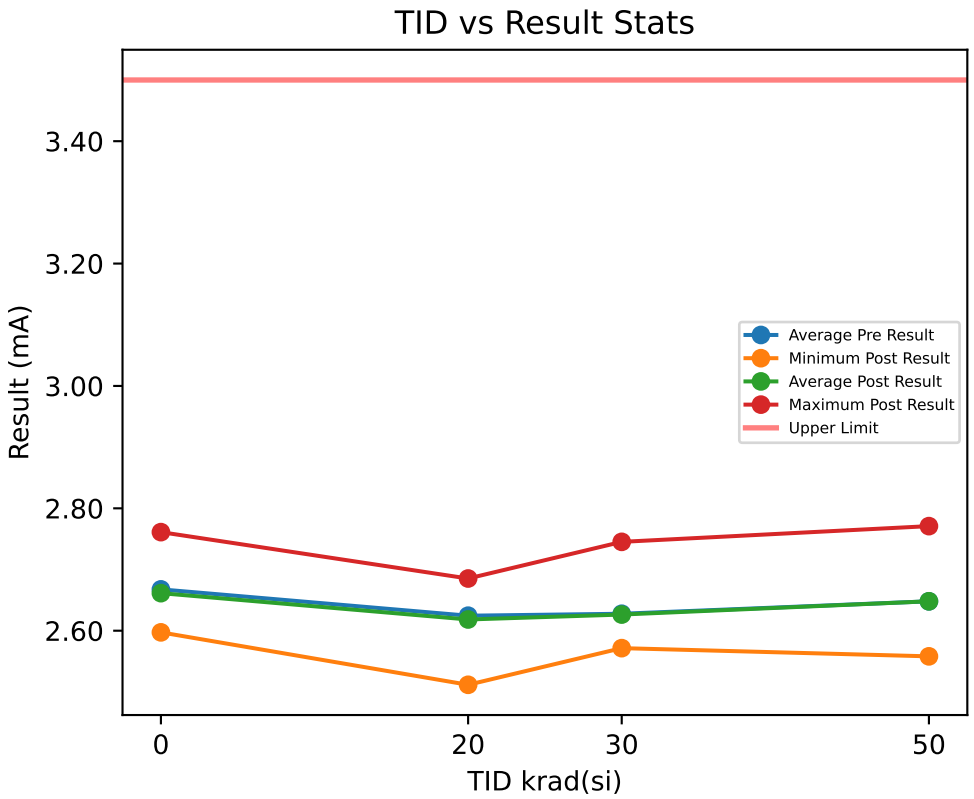
Test Results (Upper Limit = 5.0 (mA))

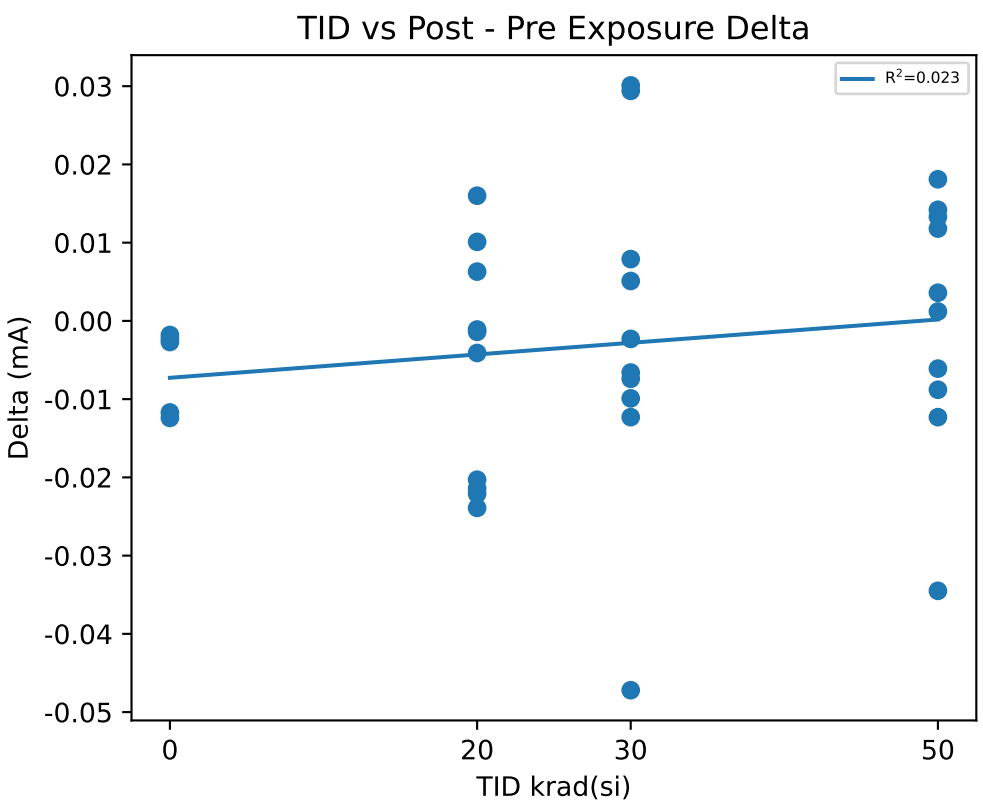
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	2.5706	2.5657	-0.0049
2	20	Biased	2.645	2.6464	0.0014
3	20	Biased	2.6027	2.5943	-0.0084
4	20	Biased	2.5546	2.5547	0.0001
5	20	Biased	2.6299	2.6225	-0.0074
6	20	Unbiased	2.6488	2.6573	0.0085
7	20	Unbiased	2.5739	2.5716	-0.0023
8	20	Unbiased	2.5379	2.5433	0.0054
9	20	Unbiased	2.6378	2.6312	-0.0066
10	20	Unbiased	2.6116	2.6096	-0.002
11	30	Biased	2.5987	2.5943	-0.0044
12	30	Biased	2.6141	2.611	-0.0031
13	30	Biased	2.6627	2.664	0.0013
14	30	Biased	2.5861	2.5796	-0.0065
15	30	Biased	2.5911	2.5923	0.0012
16	30	Unbiased	2.6437	2.6434	-0.0003
17	30	Unbiased	2.6203	2.6034	-0.0169
18	30	Unbiased	2.5762	2.5688	-0.0074
19	30	Unbiased	2.6404	2.6247	-0.0157
20	30	Unbiased	2.5724	2.5721	-0.0003
27	50	Unbiased	2.6243	2.6254	0.0011
28	50	Unbiased	2.6673	2.6742	0.0069
29	50	Unbiased	2.6057	2.613	0.0073
30	50	Unbiased	2.6011	2.5985	-0.0026
31	50	Unbiased	2.5592	2.5682	0.009
77	50	Biased-84Hr-Anneal	2.5967	2.5994	0.0027
78	50	Biased-84Hr-Anneal	2.5729	2.5698	-0.0031
79	50	Biased-84Hr-Anneal	2.6663	2.6719	0.0056
80	50	Biased-84Hr-Anneal	2.6619	2.6468	-0.0151
81	50	Biased-84Hr-Anneal	2.5209	2.5024	-0.0185
100	0	CORRELATION	2.6275	2.6265	-0.001
101	0	CORRELATION	2.5801	2.5787	-0.0014
102	0	CORRELATION	2.6251	2.6246	-0.0005
103	0	CORRELATION	2.6648	2.6637	-0.0011
104	0	CORRELATION	2.6245	2.6234	-0.0011

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	2.5801	2.6244	2.6648	0.03002	2.5787	2.6234	2.6637	0.030138	-0.0014	-0.00102	-0.0005	0.00032711
20	2.5379	2.6013	2.6488	0.039886	2.5433	2.5997	2.6573	0.039846	-0.0084	-0.00162	0.0085	0.0055709
30	2.5724	2.6106	2.6627	0.030856	2.5688	2.6054	2.664	0.031082	-0.0169	-0.00521	0.0013	0.0065824
50	2.5209	2.6076	2.6673	0.048837	2.5024	2.607	2.6742	0.052331	-0.0185	-0.00067	0.009	0.009451

Device Test: 12.2 IDD|STATIC/PVIN/4.5////@PVIN_SHDN_CURR_4V





Test Results (Upper Limit = 3.5 (mA))

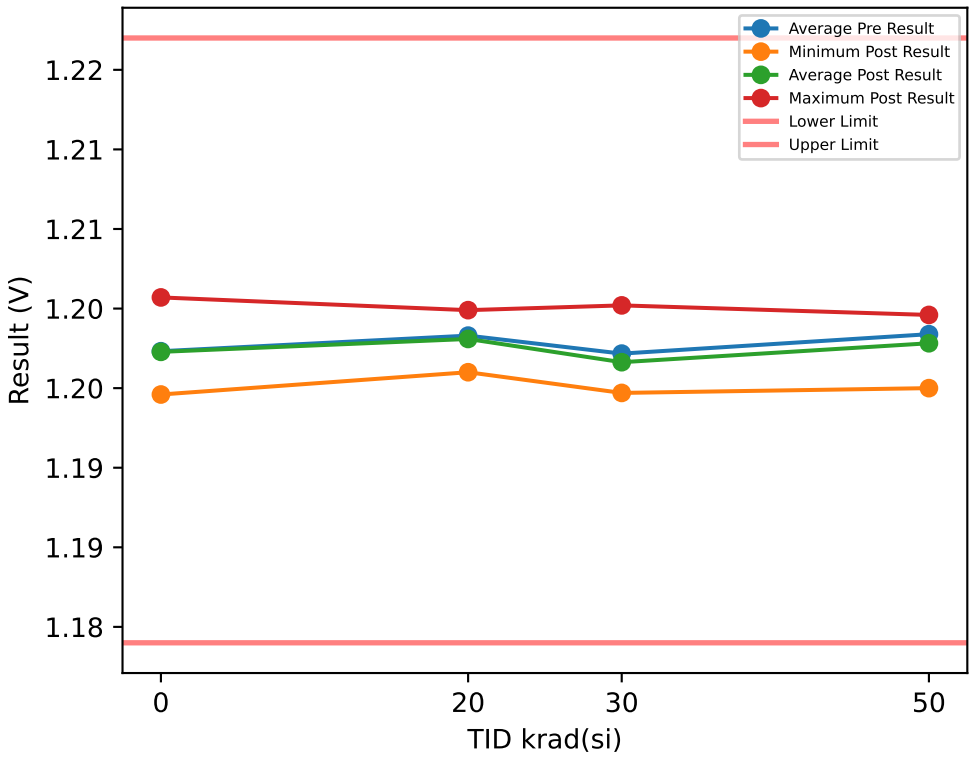
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	2.6203	2.6266	0.0063
2	20	Biased	2.6494	2.6595	0.0101
3	20	Biased	2.6205	2.6002	-0.0203
4	20	Biased	2.533	2.5116	-0.0214
5	20	Biased	2.6693	2.6853	0.016
6	20	Unbiased	2.6686	2.6672	-0.0014
7	20	Unbiased	2.6326	2.6105	-0.0221
8	20	Unbiased	2.5986	2.5945	-0.0041
9	20	Unbiased	2.6039	2.6028	-0.0011
10	20	Unbiased	2.6491	2.6252	-0.0239
11	30	Biased	2.6081	2.6058	-0.0023
12	30	Biased	2.6306	2.624	-0.0066
13	30	Biased	2.7158	2.7452	0.0294
14	30	Biased	2.639	2.6441	0.0051
15	30	Biased	2.5814	2.5893	0.0079
16	30	Unbiased	2.6009	2.631	0.0301
17	30	Unbiased	2.657	2.6496	-0.0074
18	30	Unbiased	2.5814	2.5715	-0.0099
19	30	Unbiased	2.6398	2.5926	-0.0472
20	30	Unbiased	2.6231	2.6108	-0.0123
27	50	Unbiased	2.6477	2.6132	-0.0345
28	50	Unbiased	2.7063	2.7205	0.0142
29	50	Unbiased	2.6819	2.6731	-0.0088
30	50	Unbiased	2.7576	2.7709	0.0133
31	50	Unbiased	2.6499	2.6511	0.0012
77	50	Biased-84Hr-Anneal	2.658	2.6761	0.0181
78	50	Biased-84Hr-Anneal	2.5545	2.5581	0.0036
79	50	Biased-84Hr-Anneal	2.6181	2.6299	0.0118
80	50	Biased-84Hr-Anneal	2.6287	2.6164	-0.0123
81	50	Biased-84Hr-Anneal	2.5776	2.5715	-0.0061
100	0	CORRELATION	2.7629	2.7611	-0.0018
101	0	CORRELATION	2.6	2.5973	-0.0027
102	0	CORRELATION	2.6902	2.6879	-0.0023
103	0	CORRELATION	2.6489	2.6372	-0.0117
104	0	CORRELATION	2.6357	2.6233	-0.0124

Test Statistics (mA)

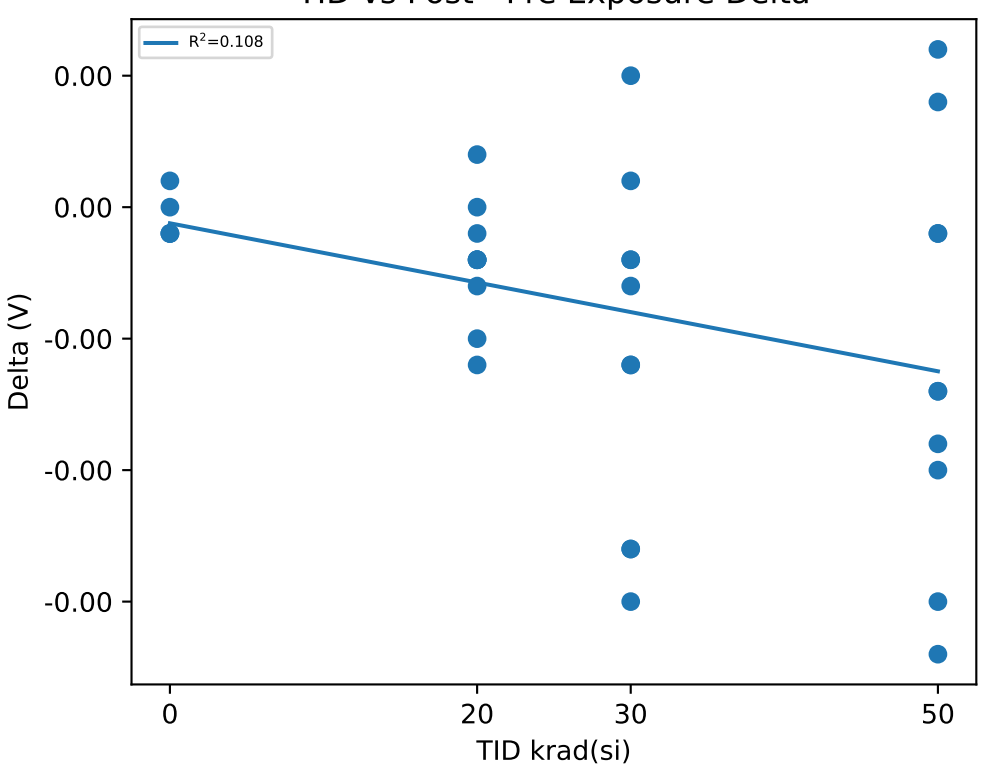
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.6	2.6675	2.7629	0.062309	2.5973	2.6614	2.7611	0.064785	-0.0124	-0.00618	-0.0018	0.0053737
20	2.533	2.6245	2.6693	0.040475	2.5116	2.6183	2.6853	0.048619	-0.0239	-0.00619	0.016	0.014773
30	2.5814	2.6277	2.7158	0.03988	2.5715	2.6264	2.7452	0.048525	-0.0472	-0.00132	0.0301	0.022166
50	2.5545	2.648	2.7576	0.059282	2.5581	2.6481	2.7709	0.065202	-0.0345	5e-05	0.0181	0.016041

Device Test: 12.20 LEVEL|STATIC/REFCAP/14////@VBANDGAP

TID vs Result Stats



TID vs Post - Pre Exposure Delta



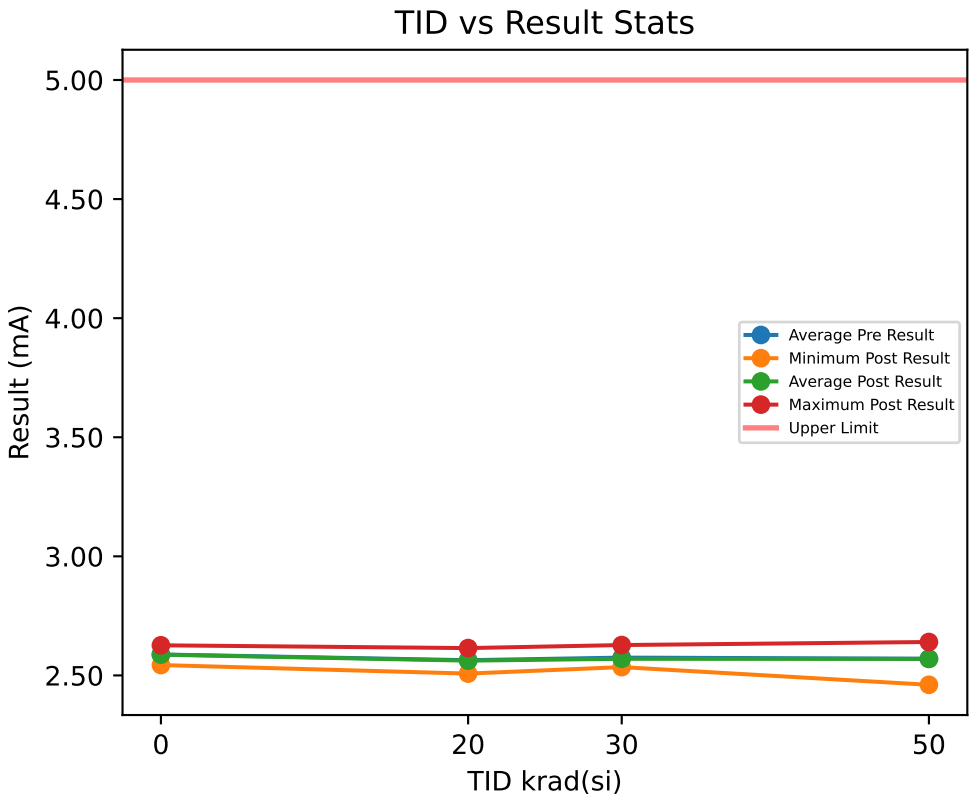
Test Results (Lower Limit = 1.184, Upper Limit = 1.222 (V))

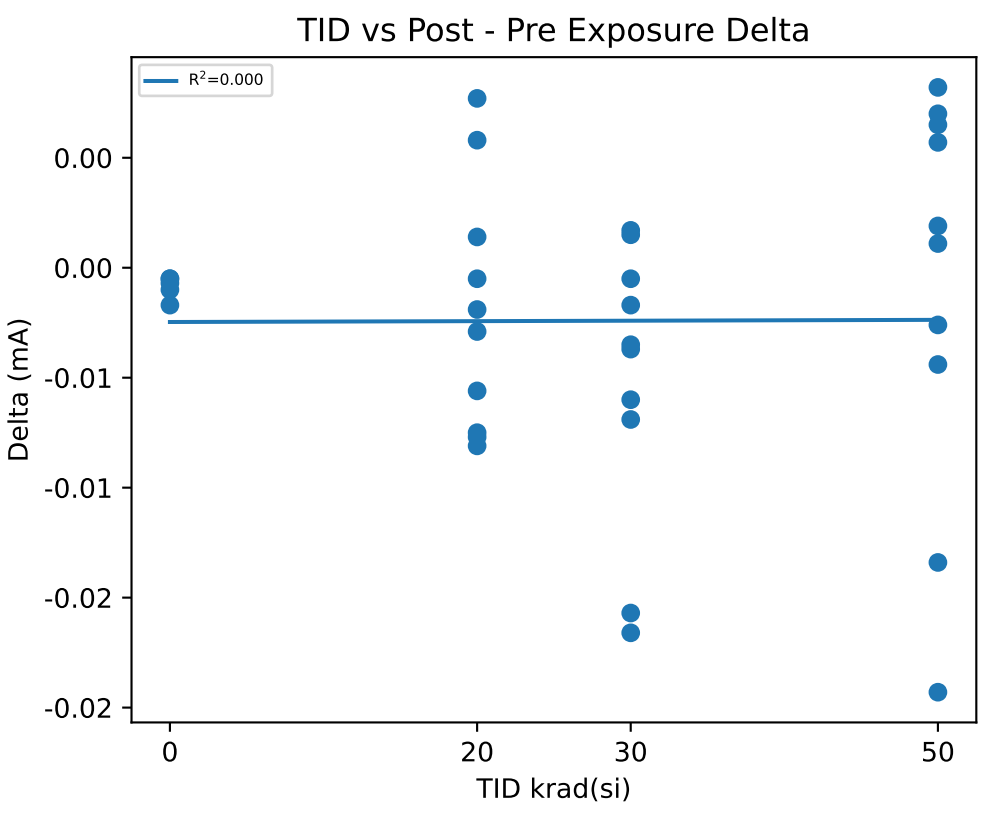
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.2042	1.204	-0.0002
2	20	Biased	1.2012	1.201	-0.0002
3	20	Biased	1.2055	1.2049	-0.0006
4	20	Biased	1.2035	1.2037	0.0002
5	20	Biased	1.2013	1.2011	-0.0002
6	20	Unbiased	1.2043	1.204	-0.0003
7	20	Unbiased	1.2023	1.2022	-0.0001
8	20	Unbiased	1.2048	1.2046	-0.0002
9	20	Unbiased	1.2023	1.2023	0
10	20	Unbiased	1.2036	1.2031	-0.0005
11	30	Biased	1.2058	1.2052	-0.0006
12	30	Biased	1.2003	1.1997	-0.0006
13	30	Biased	1.2037	1.2034	-0.0003
14	30	Biased	1.2012	1.1999	-0.0013
15	30	Biased	1.2048	1.2033	-0.0015
16	30	Unbiased	1.202	1.2021	0.0001
17	30	Unbiased	1.2003	1.2001	-0.0002
18	30	Unbiased	1.2012	1.201	-0.0002
19	30	Unbiased	1.2005	1.201	0.0005
20	30	Unbiased	1.2019	1.2006	-0.0013
27	50	Unbiased	1.2013	1.2006	-0.0007
28	50	Unbiased	1.1994	1.2	0.0006
29	50	Unbiased	1.2051	1.2044	-0.0007
30	50	Unbiased	1.2052	1.2042	-0.001
31	50	Unbiased	1.2014	1.2018	0.0004
77	50	Biased-84Hr-Anneal	1.2023	1.2014	-0.0009
78	50	Biased-84Hr-Anneal	1.2042	1.2041	-0.0001
79	50	Biased-84Hr-Anneal	1.2029	1.2028	-0.0001
80	50	Biased-84Hr-Anneal	1.206	1.2043	-0.0017
81	50	Biased-84Hr-Anneal	1.2061	1.2046	-0.0015
100	0	CORRELATION	1.2024	1.2024	0
101	0	CORRELATION	1.2058	1.2057	-0.0001
102	0	CORRELATION	1.2038	1.2039	0.0001
103	0	CORRELATION	1.1999	1.1998	-0.0001
104	0	CORRELATION	1.1997	1.1996	-0.0001

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	1.1997	1.2023	1.2058	0.0025994	1.1996	1.2023	1.2057	0.00263	-0.0001	-4e-05	0.0001	8.9443e-05
20	1.2012	1.2033	1.2055	0.0014697	1.201	1.2031	1.2049	0.0013876	-0.0006	-0.00021	0.0002	0.00022828
30	1.2003	1.2022	1.2058	0.0019494	1.1997	1.2016	1.2052	0.0018197	-0.0015	-0.00054	0.0005	0.00065524
50	1.1994	1.2034	1.2061	0.0022776	1.2	1.2028	1.2046	0.0017428	-0.0017	-0.00057	0.0006	0.00076165

Device Test: 12.3 IQ|STATIC/VIN/4.5////@IQ_VIN





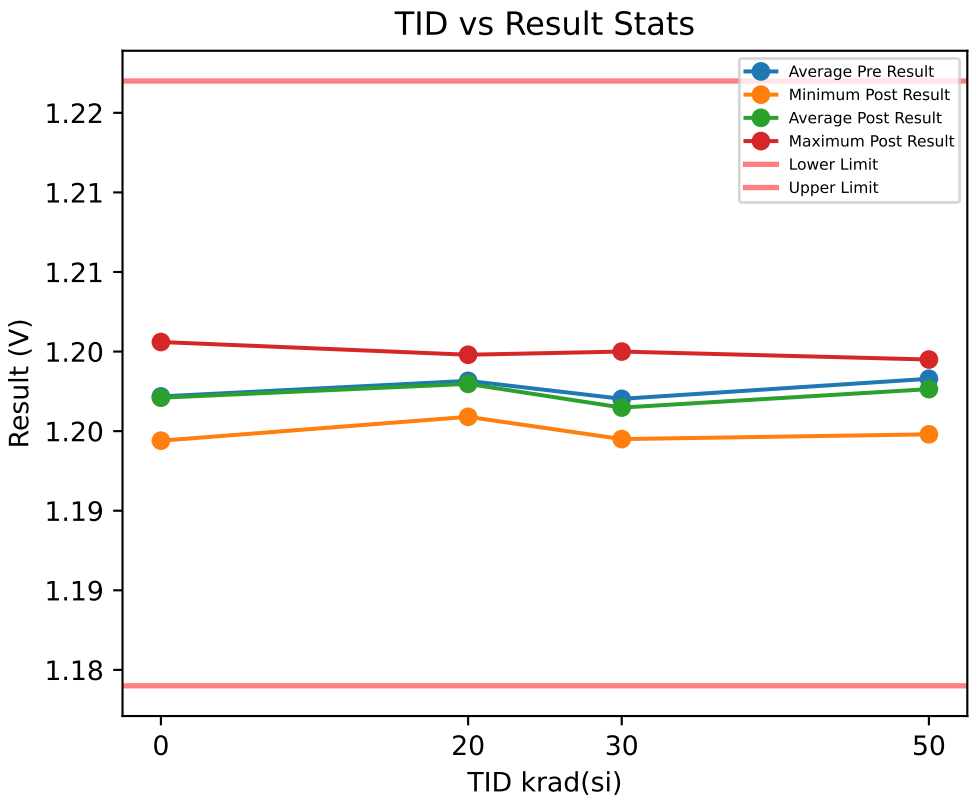
Test Results (Upper Limit = 5.0 (mA))

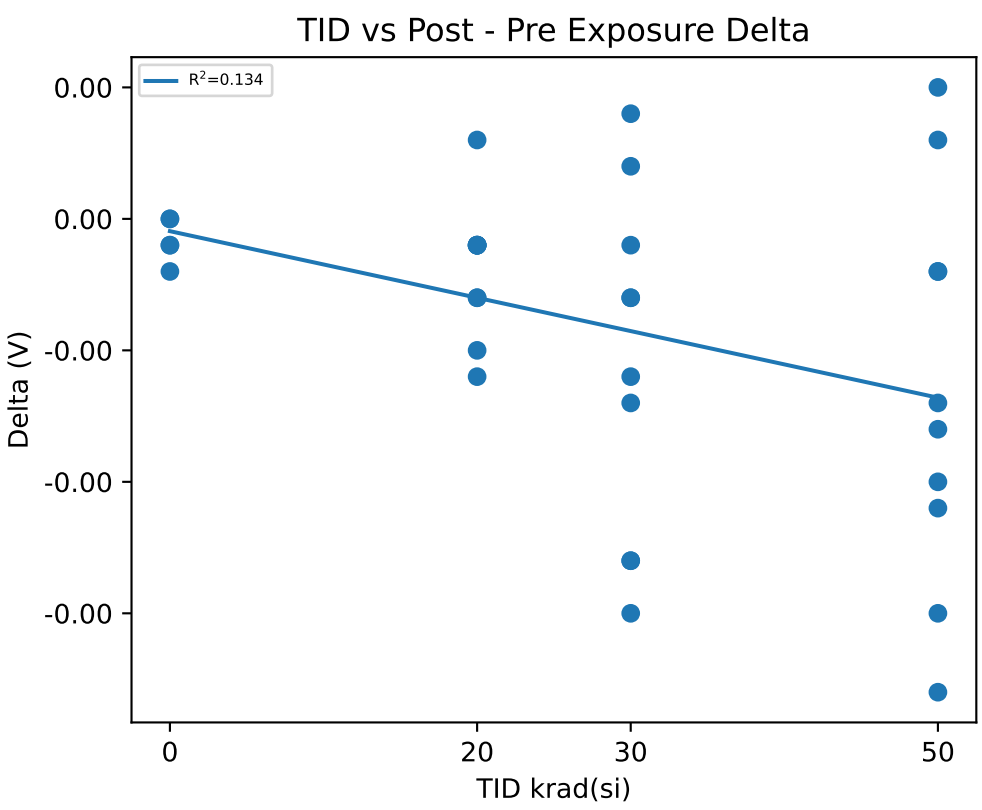
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	2.5309	2.5253	-0.0056
2	20	Biased	2.6072	2.6086	0.0014
3	20	Biased	2.5637	2.556	-0.0077
4	20	Biased	2.5171	2.5166	-0.0005
5	20	Biased	2.5939	2.5864	-0.0075
6	20	Unbiased	2.6071	2.6148	0.0077
7	20	Unbiased	2.5398	2.5369	-0.0029
8	20	Unbiased	2.5019	2.5077	0.0058
9	20	Unbiased	2.6012	2.5931	-0.0081
10	20	Unbiased	2.5763	2.5744	-0.0019
11	30	Biased	2.5596	2.5559	-0.0037
12	30	Biased	2.5794	2.5759	-0.0035
13	30	Biased	2.626	2.6275	0.0015
14	30	Biased	2.5488	2.5428	-0.006
15	30	Biased	2.5526	2.5543	0.0017
16	30	Unbiased	2.609	2.6073	-0.0017
17	30	Unbiased	2.589	2.5733	-0.0157
18	30	Unbiased	2.5418	2.5349	-0.0069
19	30	Unbiased	2.6039	2.5873	-0.0166
20	30	Unbiased	2.5379	2.5374	-0.0005
27	50	Unbiased	2.586	2.5871	0.0011
28	50	Unbiased	2.6333	2.6403	0.007
29	50	Unbiased	2.5679	2.5744	0.0065
30	50	Unbiased	2.5659	2.5633	-0.0026
31	50	Unbiased	2.5221	2.5303	0.0082
77	50	Biased-84Hr-Anneal	2.5613	2.5632	0.0019
78	50	Biased-84Hr-Anneal	2.5333	2.5289	-0.0044
79	50	Biased-84Hr-Anneal	2.6276	2.6333	0.0057
80	50	Biased-84Hr-Anneal	2.6247	2.6113	-0.0134
81	50	Biased-84Hr-Anneal	2.4799	2.4606	-0.0193
100	0	CORRELATION	2.5893	2.5888	-0.0005
101	0	CORRELATION	2.5452	2.5435	-0.0017
102	0	CORRELATION	2.5876	2.5871	-0.0005
103	0	CORRELATION	2.6274	2.6264	-0.001
104	0	CORRELATION	2.5906	2.5899	-0.0007

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	2.5452	2.588	2.6274	0.029124	2.5435	2.5871	2.6264	0.029395	-0.0017	-0.00088	-0.0005	0.000502
20	2.5019	2.5639	2.6072	0.039286	2.5077	2.562	2.6148	0.039013	-0.0081	-0.00193	0.0077	0.0056018
30	2.5379	2.5748	2.626	0.031111	2.5349	2.5697	2.6275	0.03077	-0.0166	-0.00514	0.0017	0.0064609
50	2.4799	2.5702	2.6333	0.049921	2.4606	2.5693	2.6403	0.054043	-0.0193	-0.00093	0.0082	0.0092215

Device Test: 12.5 LEVEL|STATIC/REFCAP/4.5////@VBANDGAP





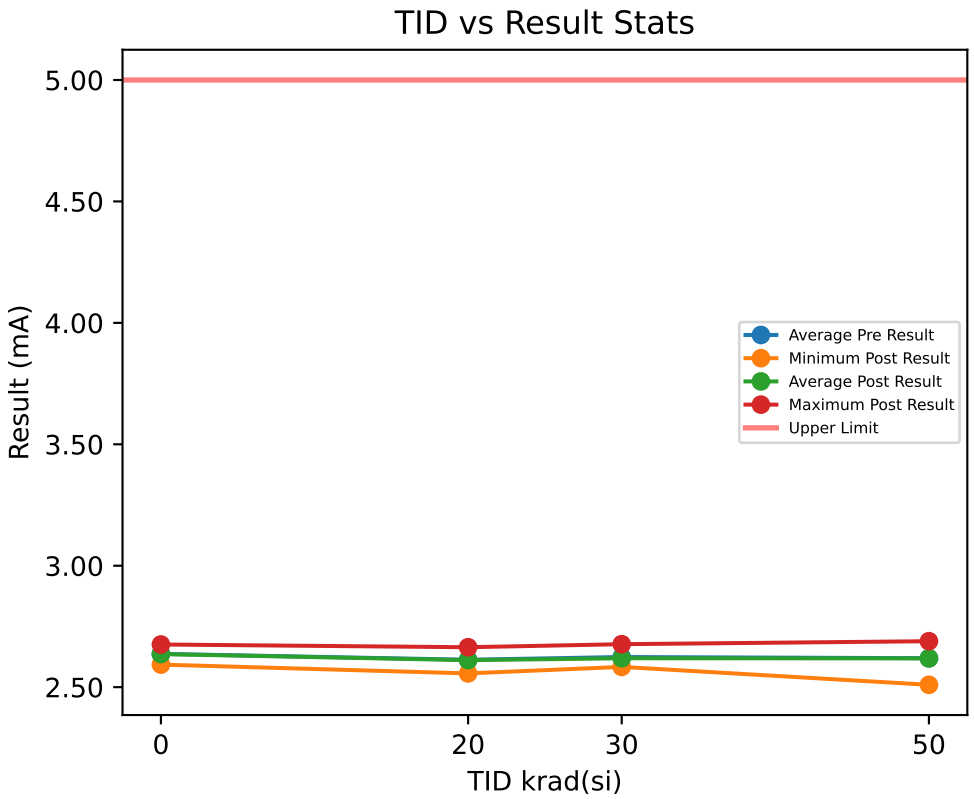
Test Results (Lower Limit = 1.184, Upper Limit = 1.222 (V))

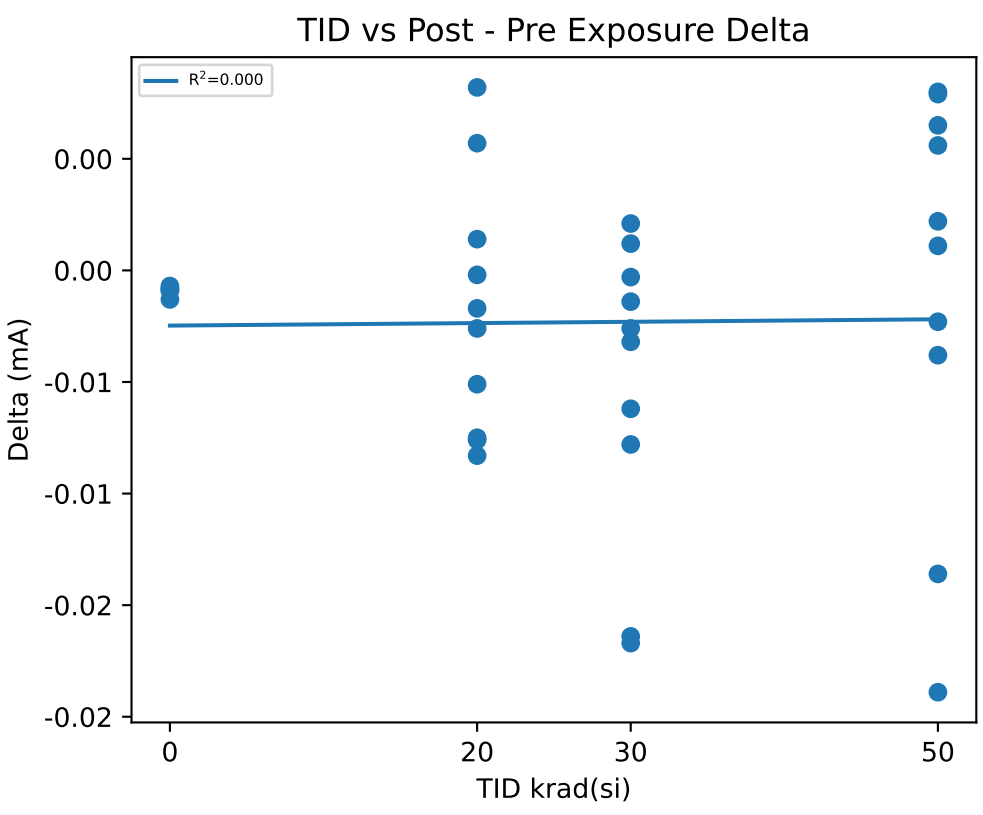
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.2041	1.2038	-0.0003
2	20	Biased	1.201	1.2009	-0.0001
3	20	Biased	1.2054	1.2048	-0.0006
4	20	Biased	1.2033	1.2036	0.0003
5	20	Biased	1.2011	1.201	-0.0001
6	20	Unbiased	1.2042	1.2039	-0.0003
7	20	Unbiased	1.2022	1.2021	-0.0001
8	20	Unbiased	1.2046	1.2045	-0.0001
9	20	Unbiased	1.2022	1.2021	-0.0001
10	20	Unbiased	1.2035	1.203	-0.0005
11	30	Biased	1.2057	1.205	-0.0007
12	30	Biased	1.2001	1.1995	-0.0006
13	30	Biased	1.2036	1.2033	-0.0003
14	30	Biased	1.201	1.1997	-0.0013
15	30	Biased	1.2047	1.2032	-0.0015
16	30	Unbiased	1.2018	1.202	0.0002
17	30	Unbiased	1.2002	1.1999	-0.0003
18	30	Unbiased	1.201	1.2009	-0.0001
19	30	Unbiased	1.2004	1.2008	0.0004
20	30	Unbiased	1.2018	1.2005	-0.0013
27	50	Unbiased	1.2012	1.2004	-0.0008
28	50	Unbiased	1.1993	1.1998	0.0005
29	50	Unbiased	1.205	1.2043	-0.0007
30	50	Unbiased	1.2051	1.204	-0.0011
31	50	Unbiased	1.2013	1.2016	0.0003
77	50	Biased-84Hr-Anneal	1.2022	1.2012	-0.001
78	50	Biased-84Hr-Anneal	1.2041	1.2039	-0.0002
79	50	Biased-84Hr-Anneal	1.2028	1.2026	-0.0002
80	50	Biased-84Hr-Anneal	1.2059	1.2041	-0.0018
81	50	Biased-84Hr-Anneal	1.206	1.2045	-0.0015
100	0	CORRELATION	1.2023	1.2022	-0.0001
101	0	CORRELATION	1.2056	1.2056	0
102	0	CORRELATION	1.2037	1.2037	0
103	0	CORRELATION	1.1997	1.1996	-0.0001
104	0	CORRELATION	1.1996	1.1994	-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	1.1996	1.2022	1.2056	0.0025898	1.1994	1.2021	1.2056	0.0026627	-0.0002	-8e-05	0	8.3666e-05
20	1.201	1.2032	1.2054	0.0014886	1.2009	1.203	1.2048	0.0013873	-0.0006	-0.00019	0.0003	0.00025144
30	1.2001	1.202	1.2057	0.0019726	1.1995	1.2015	1.205	0.0018341	-0.0015	-0.00055	0.0004	0.00065362
50	1.1993	1.2033	1.206	0.0022776	1.1998	1.2026	1.2045	0.0017646	-0.0018	-0.00065	0.0005	0.00074722

Device Test: 12.8 IQ|STATIC/VIN/5////@IQ_VIN





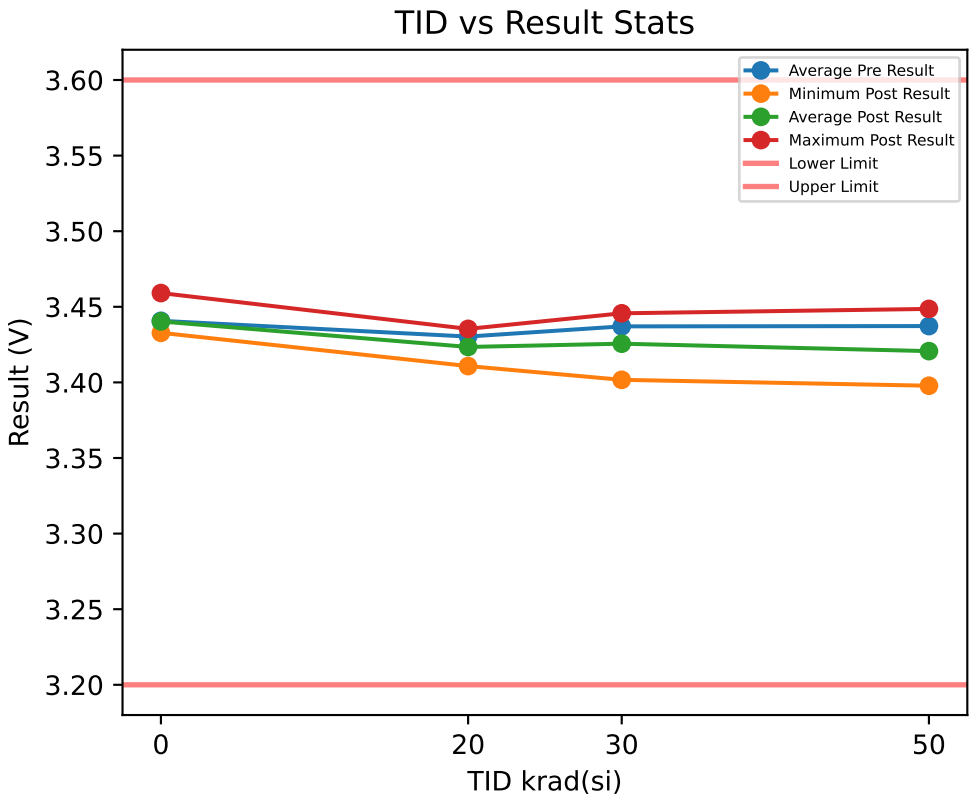
Test Results (Upper Limit = 5.0 (mA))

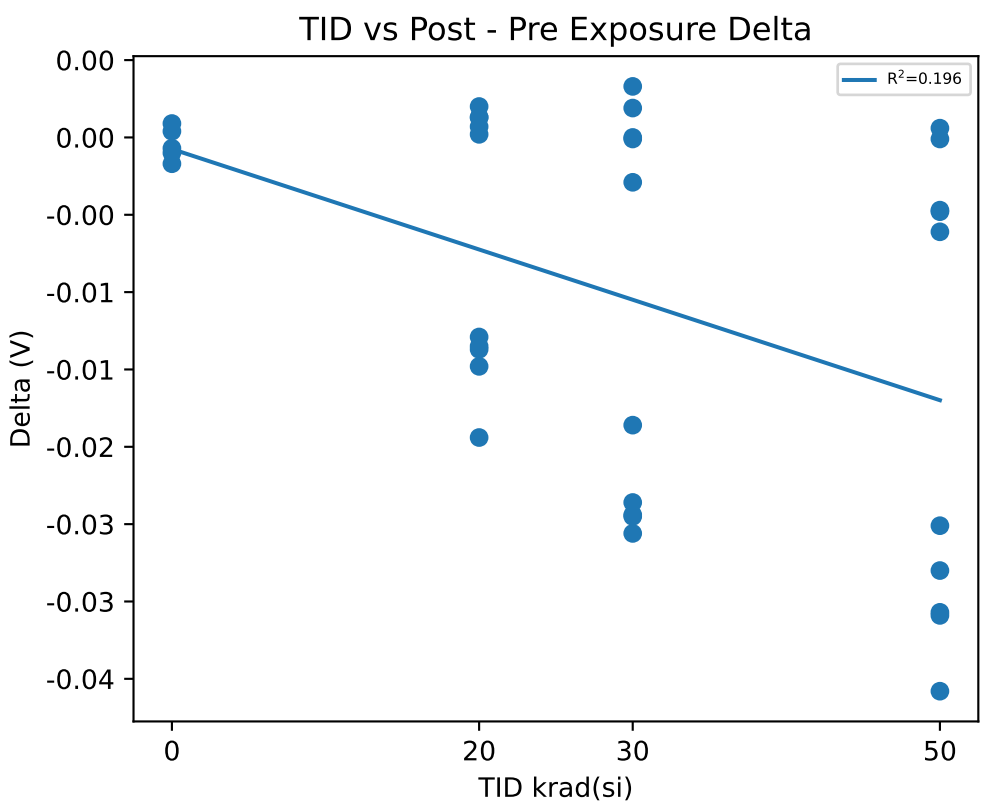
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	2.5797	2.5746	-0.0051
2	20	Biased	2.6568	2.6582	0.0014
3	20	Biased	2.6126	2.605	-0.0076
4	20	Biased	2.5651	2.5649	-0.0002
5	20	Biased	2.6432	2.6357	-0.0075
6	20	Unbiased	2.6562	2.6644	0.0082
7	20	Unbiased	2.589	2.5864	-0.0026
8	20	Unbiased	2.5509	2.5566	0.0057
9	20	Unbiased	2.6503	2.642	-0.0083
10	20	Unbiased	2.6251	2.6234	-0.0017
11	30	Biased	2.6074	2.6042	-0.0032
12	30	Biased	2.6277	2.6251	-0.0026
13	30	Biased	2.6757	2.6769	0.0012
14	30	Biased	2.5987	2.5925	-0.0062
15	30	Biased	2.6012	2.6033	0.0021
16	30	Unbiased	2.6588	2.6574	-0.0014
17	30	Unbiased	2.6384	2.622	-0.0164
18	30	Unbiased	2.5912	2.5834	-0.0078
19	30	Unbiased	2.6539	2.6372	-0.0167
20	30	Unbiased	2.5875	2.5872	-0.0003
27	50	Unbiased	2.6362	2.6373	0.0011
28	50	Unbiased	2.6827	2.6892	0.0065
29	50	Unbiased	2.6161	2.624	0.0079
30	50	Unbiased	2.6154	2.6131	-0.0023
31	50	Unbiased	2.5713	2.5793	0.008
77	50	Biased-84Hr-Anneal	2.6099	2.6121	0.0022
78	50	Biased-84Hr-Anneal	2.5819	2.5781	-0.0038
79	50	Biased-84Hr-Anneal	2.6765	2.6821	0.0056
80	50	Biased-84Hr-Anneal	2.6736	2.66	-0.0136
81	50	Biased-84Hr-Anneal	2.5286	2.5097	-0.0189
100	0	CORRELATION	2.638	2.6372	-0.0008
101	0	CORRELATION	2.5938	2.5929	-0.0009
102	0	CORRELATION	2.6363	2.6356	-0.0007
103	0	CORRELATION	2.6769	2.6756	-0.0013
104	0	CORRELATION	2.6404	2.6395	-0.0009

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	2.5938	2.6371	2.6769	0.029459	2.5929	2.6362	2.6756	0.029324	-0.0013	-0.00092	-0.0007	0.00022804
20	2.5509	2.6129	2.6568	0.039539	2.5566	2.6111	2.6644	0.039235	-0.0083	-0.00177	0.0082	0.0056663
30	2.5875	2.624	2.6757	0.031345	2.5834	2.6189	2.6769	0.031003	-0.0167	-0.00513	0.0021	0.0067401
50	2.5286	2.6192	2.6827	0.050076	2.5097	2.6185	2.6892	0.053981	-0.0189	-0.00073	0.008	0.0092053

Device Test: 14.1 THRESHOLD|RISE/PVIN/4.5////@UVLO_RISE_PVIN





Test Results (Lower Limit = 3.2, Upper Limit = 3.6 (V))

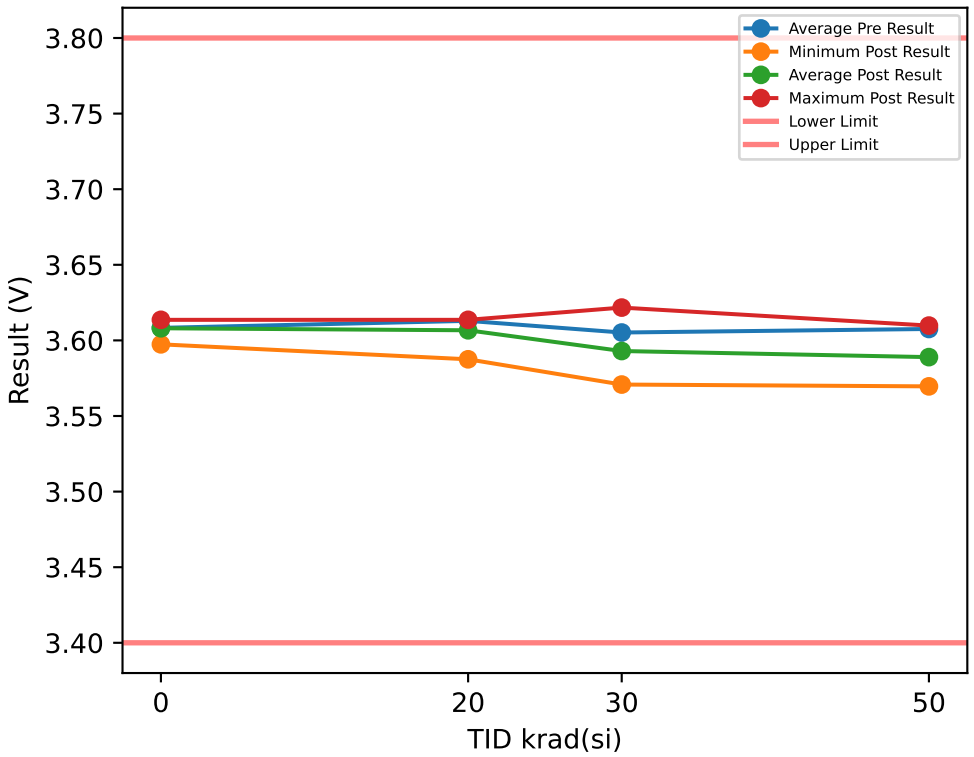
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.4318	3.4181	-0.0137
2	20	Biased	3.4318	3.4189	-0.0129
3	20	Biased	3.4476	3.4282	-0.0194
4	20	Biased	3.4364	3.4229	-0.0135
5	20	Biased	3.4256	3.4108	-0.0148
6	20	Unbiased	3.4347	3.4354	0.0007
7	20	Unbiased	3.4148	3.4161	0.0013
8	20	Unbiased	3.4286	3.4306	0.002
9	20	Unbiased	3.4324	3.4337	0.0013
10	20	Unbiased	3.4195	3.4197	0.0002
11	30	Biased	3.4262	3.4017	-0.0245
12	30	Biased	3.4481	3.4237	-0.0244
13	30	Biased	3.4526	3.434	-0.0186
14	30	Biased	3.4415	3.4179	-0.0236
15	30	Biased	3.4382	3.4126	-0.0256
16	30	Unbiased	3.4458	3.4457	-0.0001
17	30	Unbiased	3.4201	3.4234	0.0033
18	30	Unbiased	3.4344	3.4363	0.0019
19	30	Unbiased	3.4353	3.4324	-0.0029
20	30	Unbiased	3.4283	3.4283	0
27	50	Unbiased	3.4333	3.4286	-0.0047
28	50	Unbiased	3.4345	3.4344	-0.0001
29	50	Unbiased	3.448	3.4486	0.0006
30	50	Unbiased	3.4305	3.4257	-0.0048
31	50	Unbiased	3.4372	3.4311	-0.0061
77	50	Biased-84Hr-Anneal	3.4299	3.4019	-0.028
78	50	Biased-84Hr-Anneal	3.4448	3.4139	-0.0309
79	50	Biased-84Hr-Anneal	3.4285	3.3978	-0.0307
80	50	Biased-84Hr-Anneal	3.4455	3.4097	-0.0358
81	50	Biased-84Hr-Anneal	3.4403	3.4152	-0.0251
100	0	CORRELATION	3.4332	3.4341	0.0009
101	0	CORRELATION	3.4435	3.4418	-0.0017
102	0	CORRELATION	3.4587	3.4591	0.0004
103	0	CORRELATION	3.4335	3.4328	-0.0007
104	0	CORRELATION	3.4347	3.4337	-0.001

Test Statistics (V)

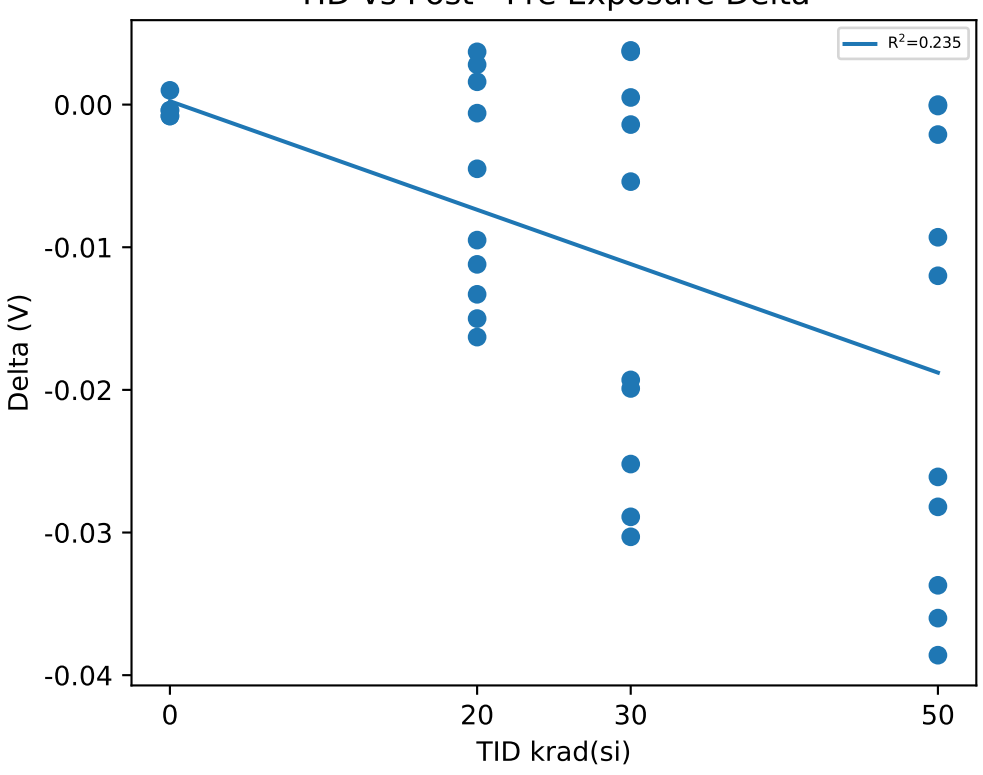
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.4332	3.4407	3.4587	0.010908	3.4328	3.4403	3.4591	0.011112	-0.0017	-0.00042	0.0009	0.0010569
20	3.4148	3.4303	3.4476	0.0091082	3.4108	3.4234	3.4354	0.0081601	-0.0194	-0.00688	0.002	0.0086044
30	3.4201	3.4371	3.4526	0.010292	3.4017	3.4256	3.4457	0.012695	-0.0256	-0.01145	0.0033	0.012762
50	3.4285	3.4373	3.448	0.0070651	3.3978	3.4207	3.4486	0.015766	-0.0358	-0.01656	0.0006	0.014657

Device Test: 14.10 THRESHOLD|RISE/VIN/5////@UVLO_RISE_VIN

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 3.4, Upper Limit = 3.8 (V))

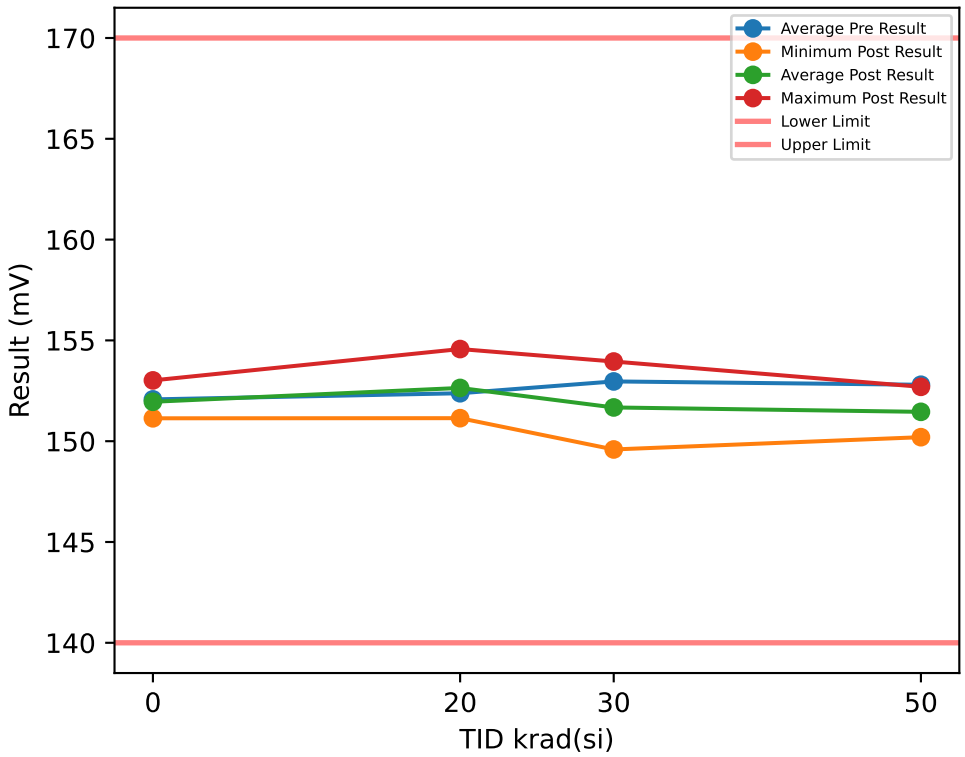
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.6286	3.6136	-0.015
2	20	Biased	3.5987	3.5875	-0.0112
3	20	Biased	3.6299	3.6136	-0.0163
4	20	Biased	3.6222	3.6127	-0.0095
5	20	Biased	3.6158	3.6025	-0.0133
6	20	Unbiased	3.6096	3.6133	0.0037
7	20	Unbiased	3.6055	3.6071	0.0016
8	20	Unbiased	3.6016	3.601	-0.0006
9	20	Unbiased	3.6036	3.6064	0.0028
10	20	Unbiased	3.6137	3.6092	-0.0045
11	30	Biased	3.6071	3.5872	-0.0199
12	30	Biased	3.5997	3.5708	-0.0289
13	30	Biased	3.6102	3.5799	-0.0303
14	30	Biased	3.6059	3.5807	-0.0252
15	30	Biased	3.6064	3.5871	-0.0193
16	30	Unbiased	3.6231	3.6217	-0.0014
17	30	Unbiased	3.5924	3.5929	0.0005
18	30	Unbiased	3.5999	3.5945	-0.0054
19	30	Unbiased	3.6061	3.6099	0.0038
20	30	Unbiased	3.6013	3.605	0.0037
27	50	Unbiased	3.6061	3.5941	-0.012
28	50	Unbiased	3.5982	3.5961	-0.0021
29	50	Unbiased	3.6039	3.6039	0
30	50	Unbiased	3.5962	3.5869	-0.0093
31	50	Unbiased	3.6099	3.6098	-0.0001
77	50	Biased-84Hr-Anneal	3.6082	3.5696	-0.0386
78	50	Biased-84Hr-Anneal	3.6196	3.5914	-0.0282
79	50	Biased-84Hr-Anneal	3.6077	3.5816	-0.0261
80	50	Biased-84Hr-Anneal	3.6198	3.5861	-0.0337
81	50	Biased-84Hr-Anneal	3.6059	3.5699	-0.036
100	0	CORRELATION	3.5982	3.5974	-0.0008
101	0	CORRELATION	3.614	3.6136	-0.0004
102	0	CORRELATION	3.6077	3.6069	-0.0008
103	0	CORRELATION	3.6098	3.6108	0.001
104	0	CORRELATION	3.6118	3.6114	-0.0004

Test Statistics (V)

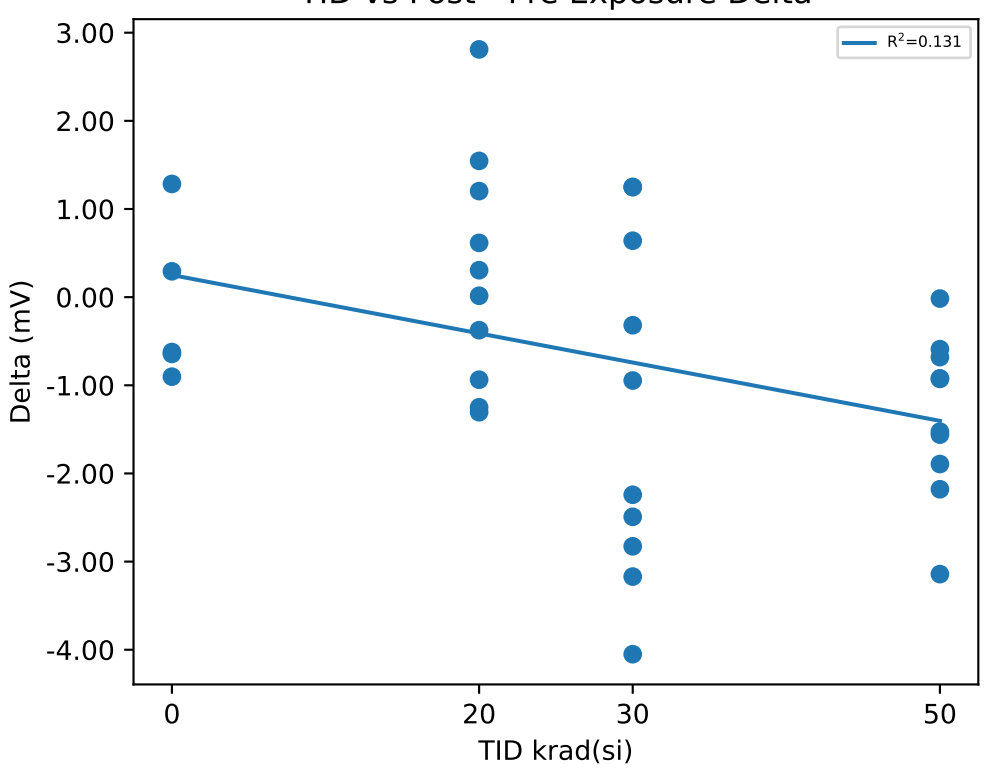
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.5982	3.6083	3.614	0.0061106	3.5974	3.608	3.6136	0.0064095	-0.0008	-0.00028	0.001	0.00074297
20	3.5987	3.6129	3.6299	0.011118	3.5875	3.6067	3.6136	0.0081653	-0.0163	-0.00623	0.0037	0.0077448
30	3.5924	3.6052	3.6231	0.0080908	3.5708	3.593	3.6217	0.015419	-0.0303	-0.01224	0.0038	0.013817
50	3.5962	3.6075	3.6198	0.0077145	3.5696	3.5889	3.6098	0.013104	-0.0386	-0.01861	0	0.015527

Device Test: 14.12 THRESHOLD|HYST/VIN/5////@UVLO_HYST_VIN

TID vs Result Stats



TID vs Post - Pre Exposure Delta



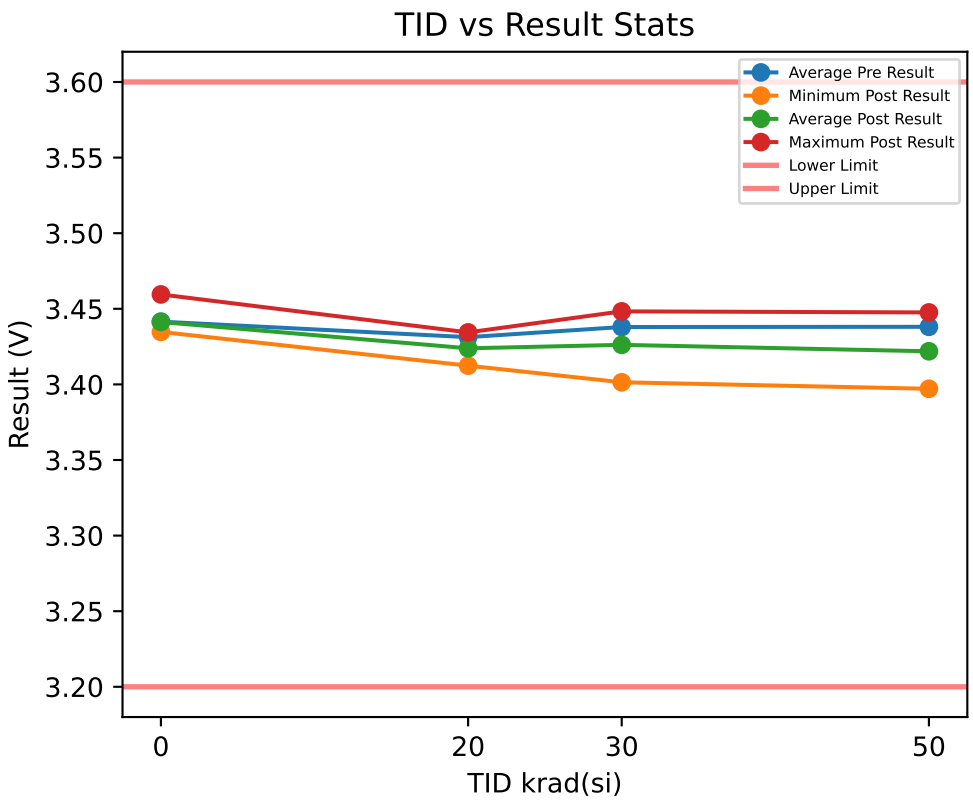
Test Results (Lower Limit = 140.0, Upper Limit = 170.0 (mV))

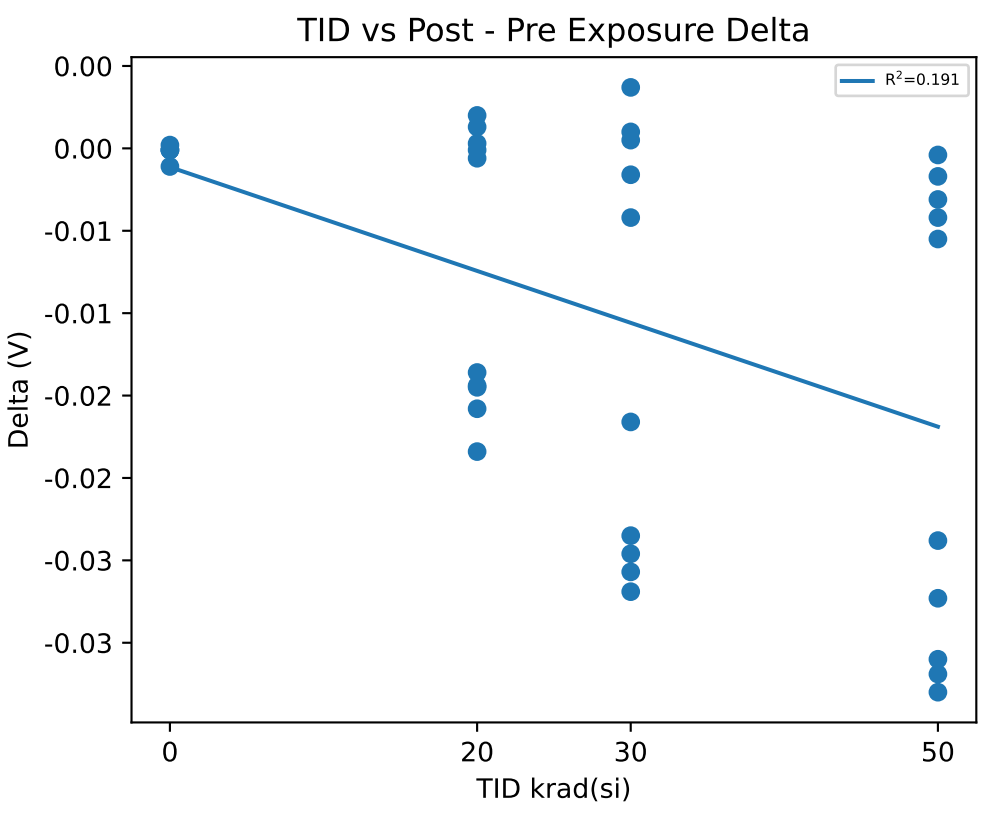
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	152.4	153.95	1.5457
2	20	Biased	152.45	151.14	-1.3054
3	20	Biased	152.38	152.4	0.0157
4	20	Biased	152.39	152.7	0.3056
5	20	Biased	152.09	152.7	0.6156
6	20	Unbiased	150.89	152.09	1.2031
7	20	Unbiased	151.76	154.57	2.8105
8	20	Unbiased	153.33	152.39	-0.9365
9	20	Unbiased	152.71	151.46	-1.2494
10	20	Unbiased	153.38	153.01	-0.3748
11	30	Biased	153.63	151.14	-2.4917
12	30	Biased	153.64	149.59	-4.0505
13	30	Biased	154.27	151.45	-2.8265
14	30	Biased	153.07	150.83	-2.2419
15	30	Biased	151.76	152.4	0.6402
16	30	Unbiased	153.02	152.7	-0.3186
17	30	Unbiased	151.15	150.21	-0.9458
18	30	Unbiased	153.7	150.53	-3.17
19	30	Unbiased	152.7	153.95	1.2493
20	30	Unbiased	152.7	153.95	1.2488
27	50	Unbiased	152.7	150.52	-2.1794
28	50	Unbiased	152.08	151.15	-0.9277
29	50	Unbiased	152.71	152.7	-0.016
30	50	Unbiased	152.45	151.77	-0.6802
31	50	Unbiased	152.39	151.46	-0.9212
77	50	Biased-84Hr-Anneal	153.93	152.4	-1.5257
78	50	Biased-84Hr-Anneal	153.34	150.2	-3.1421
79	50	Biased-84Hr-Anneal	152.08	150.52	-1.5597
80	50	Biased-84Hr-Anneal	152.05	151.46	-0.5901
81	50	Biased-84Hr-Anneal	154.28	152.38	-1.8933
100	0	CORRELATION	152.05	151.15	-0.9022
101	0	CORRELATION	152.09	152.38	0.293
102	0	CORRELATION	153.64	153.02	-0.6227
103	0	CORRELATION	150.8	152.09	1.2841
104	0	CORRELATION	151.78	151.14	-0.6438

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	150.8	152.07	153.64	1.0183	151.14	151.96	153.02	0.81322	-0.9022	-0.11832	1.2841	0.90567
20	150.89	152.38	153.38	0.72471	151.14	152.64	154.57	1.0343	-1.3054	0.26301	2.8105	1.3249
30	151.15	152.96	154.27	0.94569	149.59	151.67	153.95	1.52	-4.0505	-1.2907	1.2493	1.9307
50	152.05	152.8	154.28	0.79309	150.2	151.46	152.7	0.87084	-3.1421	-1.3435	-0.016	0.90903

Device Test: 14.13 THRESHOLD|RISE/PVIN/12////@UVLO_RISE_PVIN





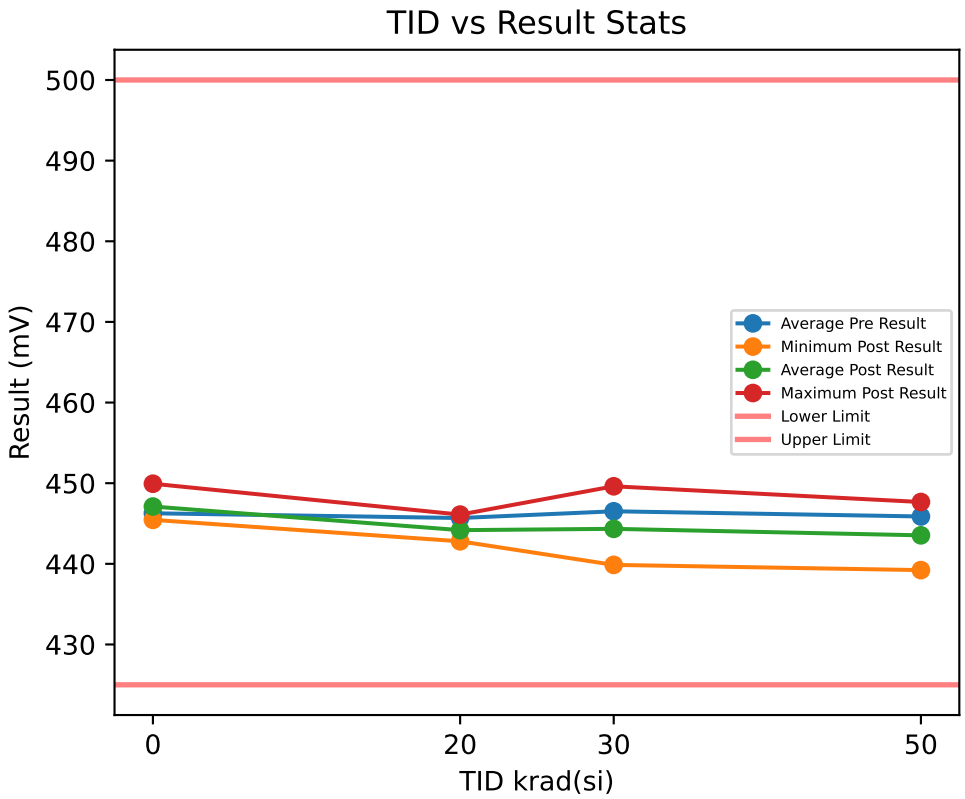
Test Results (Lower Limit = 3.2, Upper Limit = 3.6 (V))

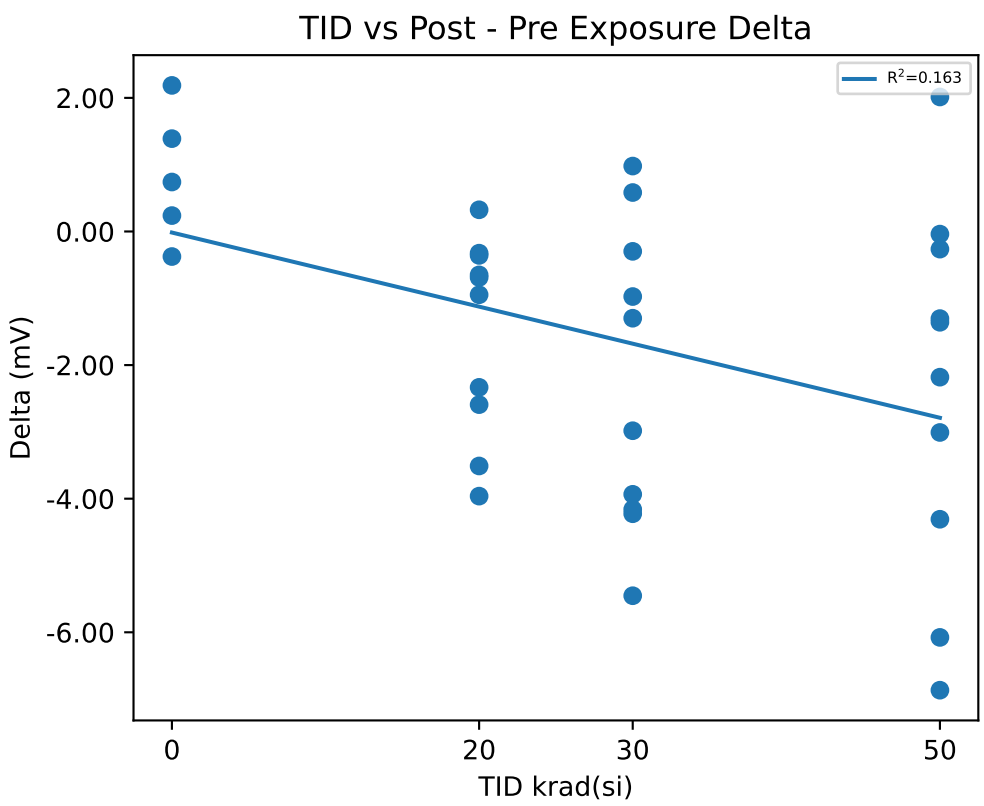
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.4328	3.4184	-0.0144
2	20	Biased	3.4341	3.4205	-0.0136
3	20	Biased	3.4473	3.4289	-0.0184
4	20	Biased	3.4358	3.4213	-0.0145
5	20	Biased	3.4282	3.4124	-0.0158
6	20	Unbiased	3.4341	3.4344	0.0003
7	20	Unbiased	3.4148	3.4168	0.002
8	20	Unbiased	3.4299	3.4312	0.0013
9	20	Unbiased	3.4347	3.4341	-0.0006
10	20	Unbiased	3.4208	3.4207	-0.0001
11	30	Biased	3.4249	3.4014	-0.0235
12	30	Biased	3.4494	3.4237	-0.0257
13	30	Biased	3.4519	3.4353	-0.0166
14	30	Biased	3.4428	3.4182	-0.0246
15	30	Biased	3.4395	3.4126	-0.0269
16	30	Unbiased	3.4478	3.4483	0.0005
17	30	Unbiased	3.4204	3.4241	0.0037
18	30	Unbiased	3.4357	3.4367	0.001
19	30	Unbiased	3.4372	3.433	-0.0042
20	30	Unbiased	3.4299	3.4283	-0.0016
27	50	Unbiased	3.4333	3.4302	-0.0031
28	50	Unbiased	3.4364	3.4347	-0.0017
29	50	Unbiased	3.448	3.4476	-0.0004
30	50	Unbiased	3.4318	3.4263	-0.0055
31	50	Unbiased	3.4376	3.4334	-0.0042
77	50	Biased-84Hr-Anneal	3.4315	3.4042	-0.0273
78	50	Biased-84Hr-Anneal	3.4458	3.4148	-0.031
79	50	Biased-84Hr-Anneal	3.4301	3.3971	-0.033
80	50	Biased-84Hr-Anneal	3.4452	3.4133	-0.0319
81	50	Biased-84Hr-Anneal	3.4412	3.4174	-0.0238
100	0	CORRELATION	3.4348	3.4347	-0.0001
101	0	CORRELATION	3.4425	3.4424	-0.0001
102	0	CORRELATION	3.4606	3.4595	-0.0011
103	0	CORRELATION	3.4345	3.4347	0.0002
104	0	CORRELATION	3.4351	3.435	-0.0001

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	3.4345	3.4415	3.4606	0.011188	3.4347	3.4413	3.4595	0.010715	-0.0011	-0.00024	0.0002	0.000498
20	3.4148	3.4312	3.4473	0.0088178	3.4124	3.4239	3.4344	0.0077031	-0.0184	-0.00738	0.002	0.0085132
30	3.4204	3.4379	3.4519	0.010527	3.4014	3.4262	3.4483	0.013361	-0.0269	-0.01179	0.0037	0.012746
50	3.4301	3.4381	3.448	0.0065891	3.3971	3.4219	3.4476	0.01534	-0.033	-0.01619	-0.0004	0.014216

Device Test: 14.15 THRESHOLD|HYST/PVIN/12////@UVLO_HYST_PVIN





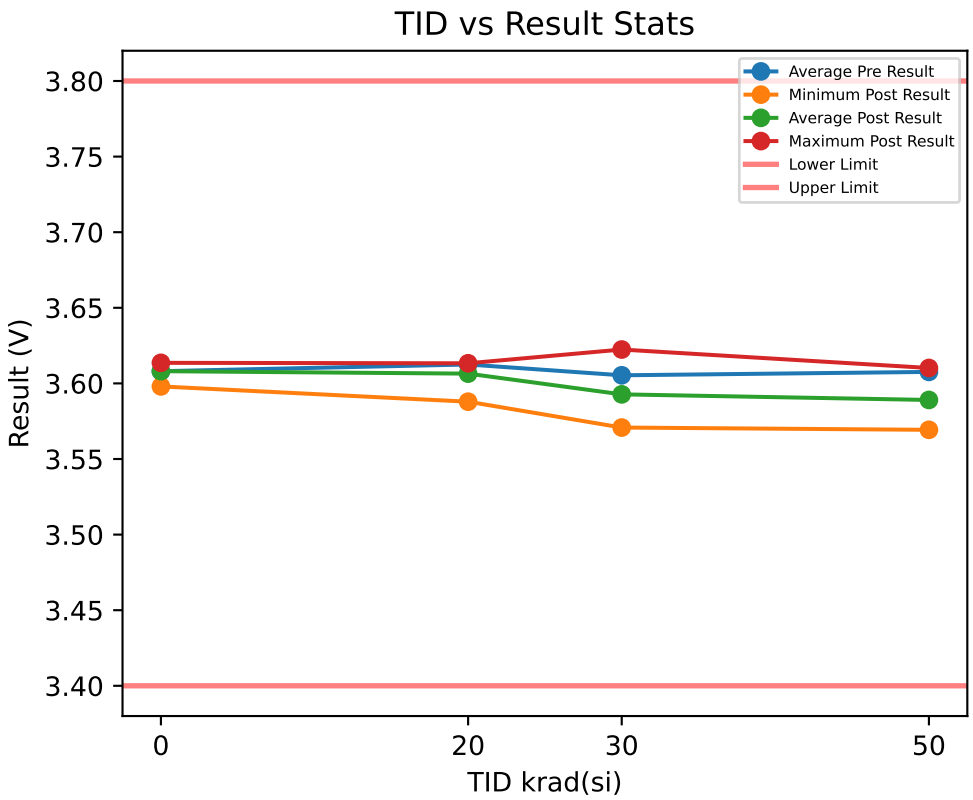
Test Results (Lower Limit = 425.0, Upper Limit = 500.0 (mV))

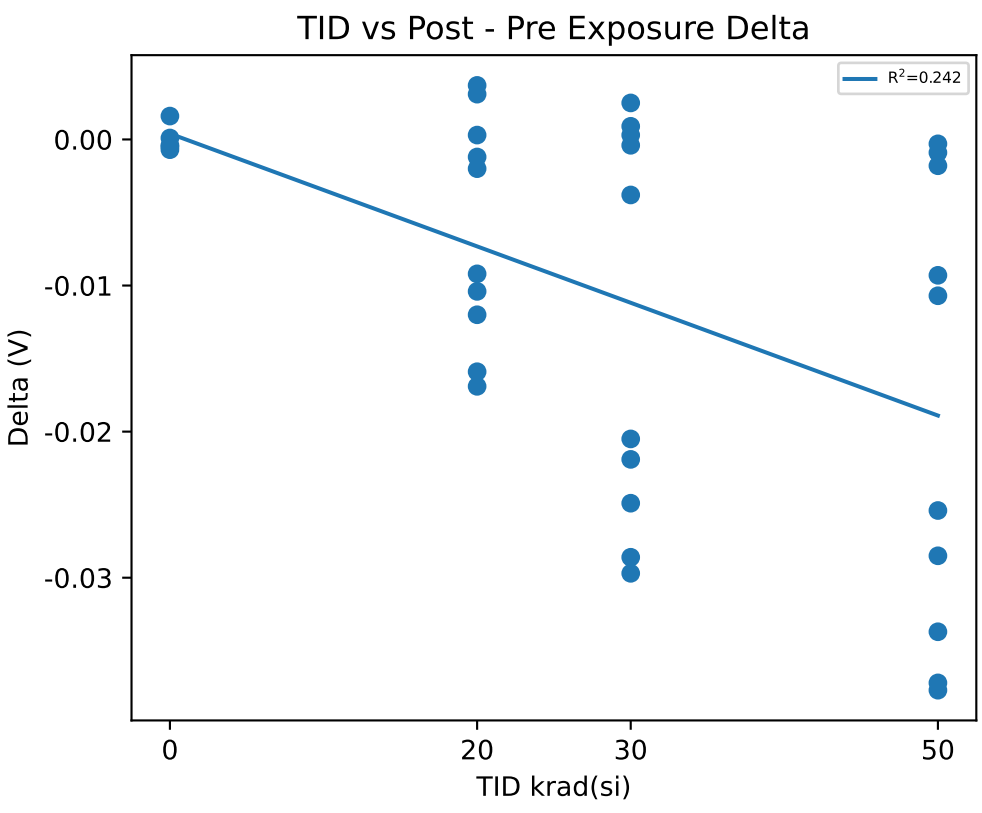
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	446.43	444.1	-2.3332
2	20	Biased	444.45	443.77	-0.6881
3	20	Biased	449.62	446.11	-3.5102
4	20	Biased	446.36	443.77	-2.5919
5	20	Biased	446.75	442.79	-3.9617
6	20	Unbiased	444.45	443.51	-0.9471
7	20	Unbiased	443.45	443.77	0.3247
8	20	Unbiased	444.09	443.77	-0.3247
9	20	Unbiased	446.75	446.11	-0.6495
10	20	Unbiased	444.45	444.1	-0.3582
11	30	Biased	445.07	440.85	-4.2253
12	30	Biased	448.96	443.51	-5.4526
13	30	Biased	449.03	446.04	-2.9826
14	30	Biased	448.03	444.09	-3.9345
15	30	Biased	447.67	443.51	-4.1596
16	30	Unbiased	448.64	449.62	0.9794
17	30	Unbiased	444.16	444.74	0.5832
18	30	Unbiased	446.08	445.78	-0.2975
19	30	Unbiased	446.69	445.4	-1.2984
20	30	Unbiased	440.85	439.87	-0.9739
27	50	Unbiased	442.47	441.17	-1.3041
28	50	Unbiased	442.14	444.16	2.0136
29	50	Unbiased	449.03	447.67	-1.3592
30	50	Unbiased	446.08	446.04	-0.0393
31	50	Unbiased	445.72	445.46	-0.2642
77	50	Biased-84Hr-Anneal	444.57	441.56	-3.0086
78	50	Biased-84Hr-Anneal	448.23	442.15	-6.0764
79	50	Biased-84Hr-Anneal	446.09	439.22	-6.8668
80	50	Biased-84Hr-Anneal	447.49	443.18	-4.3079
81	50	Biased-84Hr-Anneal	446.93	444.75	-2.1809
100	0	CORRELATION	445.22	445.46	0.2381
101	0	CORRELATION	446.93	448.32	1.3899
102	0	CORRELATION	450.31	449.93	-0.375
103	0	CORRELATION	443.59	445.78	2.1868
104	0	CORRELATION	445.3	446.04	0.7405

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	443.59	446.27	450.31	2.5472	445.46	447.11	449.93	1.9413	-0.375	0.83606	2.1868	0.99556
20	443.45	445.68	449.62	1.8511	442.79	444.18	446.11	1.079	-3.9617	-1.504	0.3247	1.4791
30	440.85	446.52	449.03	2.591	439.87	444.34	449.62	2.743	-5.4526	-2.1762	0.9794	2.259
50	442.14	445.87	449.03	2.2727	439.22	443.54	447.67	2.5612	-6.8668	-2.3394	2.0136	2.7767

Device Test: 14.16 THRESHOLD|RISE/VIN/12////@UVLO_RISE_VIN





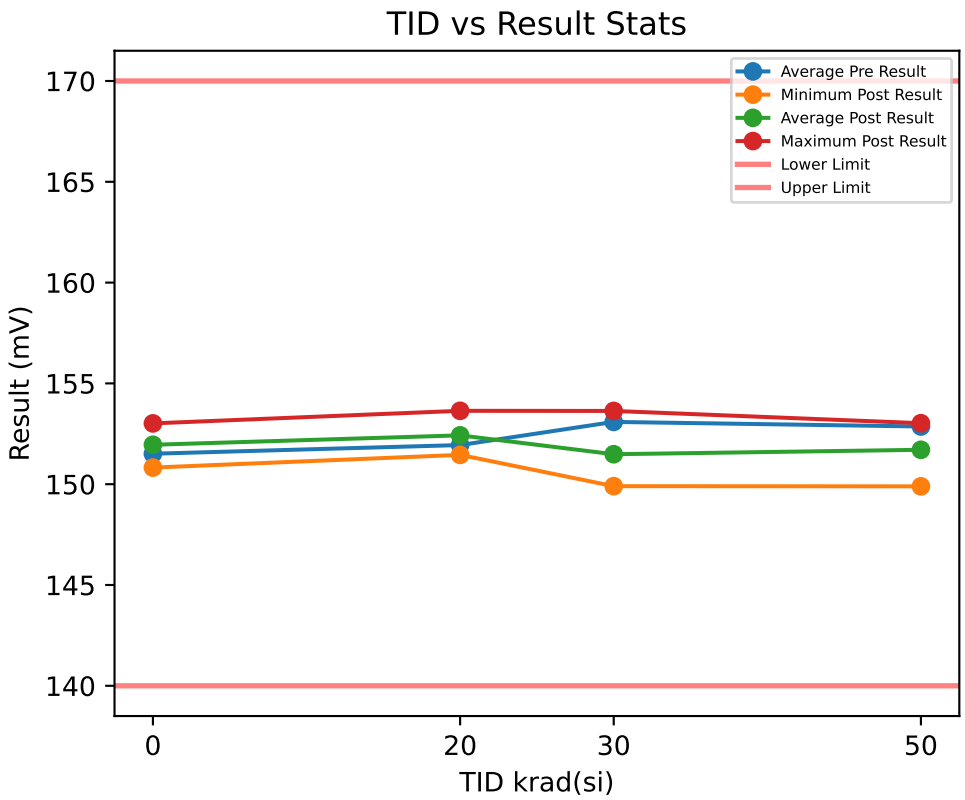
Test Results (Lower Limit = 3.4, Upper Limit = 3.8 (V))

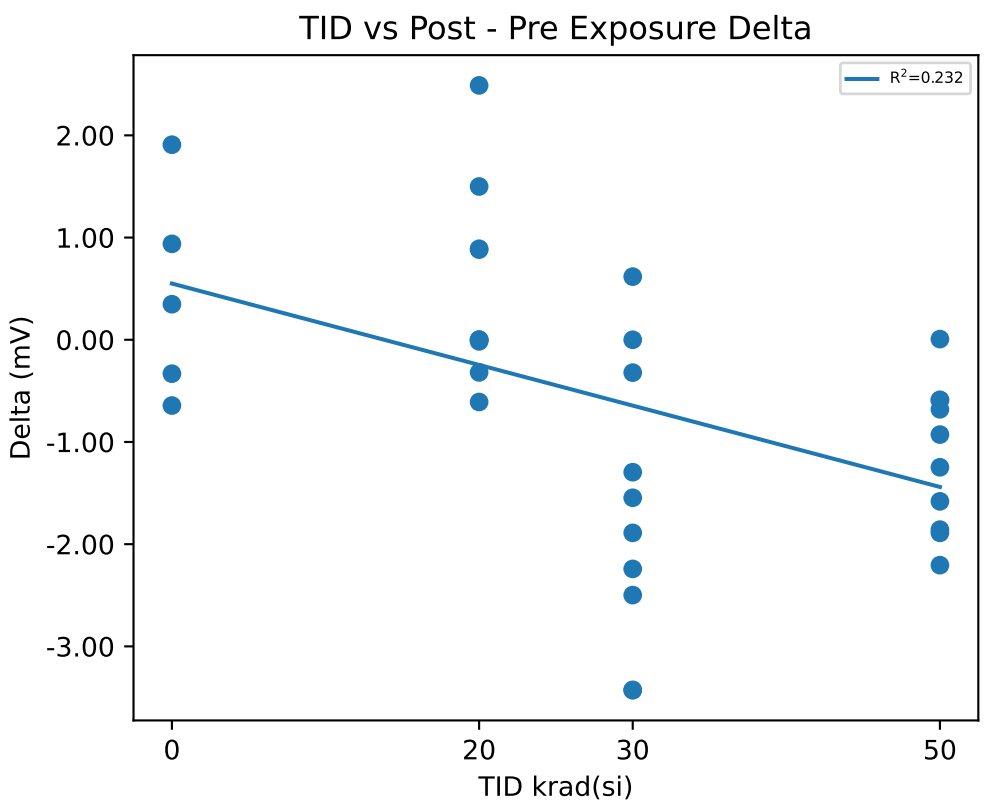
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.6289	3.613	-0.0159
2	20	Biased	3.5971	3.5879	-0.0092
3	20	Biased	3.6302	3.6133	-0.0169
4	20	Biased	3.6225	3.6121	-0.0104
5	20	Biased	3.6152	3.6032	-0.012
6	20	Unbiased	3.6096	3.6133	0.0037
7	20	Unbiased	3.6058	3.6046	-0.0012
8	20	Unbiased	3.6013	3.6016	0.0003
9	20	Unbiased	3.6036	3.6067	0.0031
10	20	Unbiased	3.6109	3.6089	-0.002
11	30	Biased	3.6071	3.5866	-0.0205
12	30	Biased	3.5994	3.5708	-0.0286
13	30	Biased	3.6102	3.5805	-0.0297
14	30	Biased	3.6062	3.5813	-0.0249
15	30	Biased	3.6083	3.5864	-0.0219
16	30	Unbiased	3.6228	3.6224	-0.0004
17	30	Unbiased	3.592	3.5929	0.0009
18	30	Unbiased	3.5993	3.5955	-0.0038
19	30	Unbiased	3.6061	3.6086	0.0025
20	30	Unbiased	3.6022	3.6025	0.0003
27	50	Unbiased	3.6064	3.5957	-0.0107
28	50	Unbiased	3.5982	3.5964	-0.0018
29	50	Unbiased	3.6045	3.6036	-0.0009
30	50	Unbiased	3.5959	3.5866	-0.0093
31	50	Unbiased	3.6105	3.6102	-0.0003
77	50	Biased-84Hr-Anneal	3.6079	3.5702	-0.0377
78	50	Biased-84Hr-Anneal	3.6196	3.5911	-0.0285
79	50	Biased-84Hr-Anneal	3.6064	3.581	-0.0254
80	50	Biased-84Hr-Anneal	3.6201	3.5864	-0.0337
81	50	Biased-84Hr-Anneal	3.6065	3.5693	-0.0372
100	0	CORRELATION	3.5979	3.598	0.0001
101	0	CORRELATION	3.614	3.6136	-0.0004
102	0	CORRELATION	3.6074	3.6069	-0.0005
103	0	CORRELATION	3.6092	3.6108	0.0016
104	0	CORRELATION	3.6118	3.6111	-0.0007

Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.5979	3.6081	3.614	0.0062095	3.598	3.6081	3.6136	0.0061235	-0.0007	2e-05	0.0016	0.00093113
20	3.5971	3.6125	3.6302	0.011485	3.5879	3.6065	3.6133	0.0078623	-0.0169	-0.00605	0.0037	0.0077318
30	3.592	3.6054	3.6228	0.0081733	3.5708	3.5928	3.6224	0.015181	-0.0297	-0.01261	0.0025	0.013546
50	3.5959	3.6076	3.6201	0.007801	3.5693	3.5891	3.6102	0.013269	-0.0377	-0.01855	-0.0003	0.0155

Device Test: 14.18 THRESHOLD|HYST/VIN/12////@UVLO_HYST_VIN





Test Results (Lower Limit = 140.0, Upper Limit = 170.0 (mV))

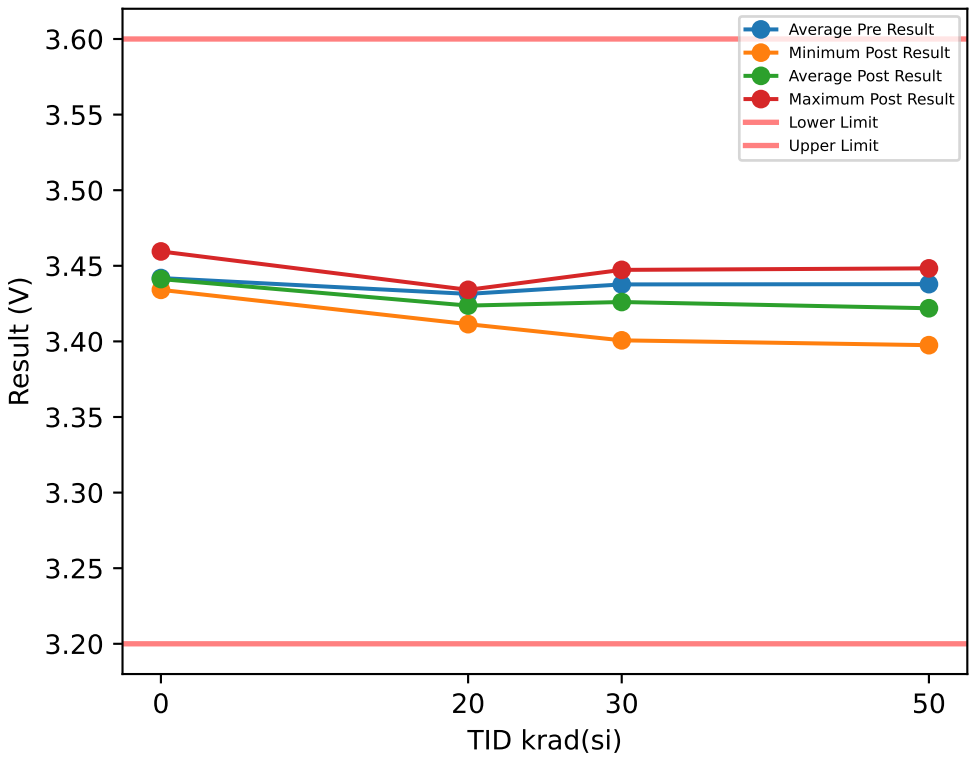
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	152.71	152.7	-0.0158
2	20	Biased	150.57	151.45	0.8819
3	20	Biased	152.7	152.09	-0.6089
4	20	Biased	152.7	152.38	-0.3192
5	20	Biased	151.15	153.64	2.4888
6	20	Unbiased	151.2	152.09	0.8905
7	20	Unbiased	152.39	152.38	-0.0002
8	20	Unbiased	153.02	153.02	0.0002
9	20	Unbiased	152.09	152.09	0
10	20	Unbiased	150.89	152.38	1.4997
11	30	Biased	153.63	150.21	-3.4287
12	30	Biased	153.33	149.9	-3.4261
13	30	Biased	153.96	152.07	-1.8894
14	30	Biased	153.7	151.45	-2.2421
15	30	Biased	153.32	151.78	-1.5459
16	30	Unbiased	153.02	153.63	0.6178
17	30	Unbiased	150.84	150.52	-0.3216
18	30	Unbiased	152.76	151.46	-1.2959
19	30	Unbiased	152.38	152.38	0
20	30	Unbiased	153.95	151.45	-2.4982
27	50	Unbiased	153.01	153.02	0.0066
28	50	Unbiased	152.08	151.15	-0.9277
29	50	Unbiased	153.03	151.14	-1.8893
30	50	Unbiased	152.13	151.45	-0.6803
31	50	Unbiased	153.32	151.46	-1.8578
77	50	Biased-84Hr-Anneal	153.61	153.03	-0.5889
78	50	Biased-84Hr-Anneal	153.34	151.14	-2.2054
79	50	Biased-84Hr-Anneal	151.14	149.89	-1.2476
80	50	Biased-84Hr-Anneal	152.37	151.78	-0.5896
81	50	Biased-84Hr-Anneal	154.59	153.01	-1.5809
100	0	CORRELATION	151.43	151.78	0.3476
101	0	CORRELATION	152.4	152.07	-0.3318
102	0	CORRELATION	152.08	153.02	0.9384
103	0	CORRELATION	150.18	152.09	1.9085
104	0	CORRELATION	151.47	150.82	-0.6435

Test Statistics (mV)

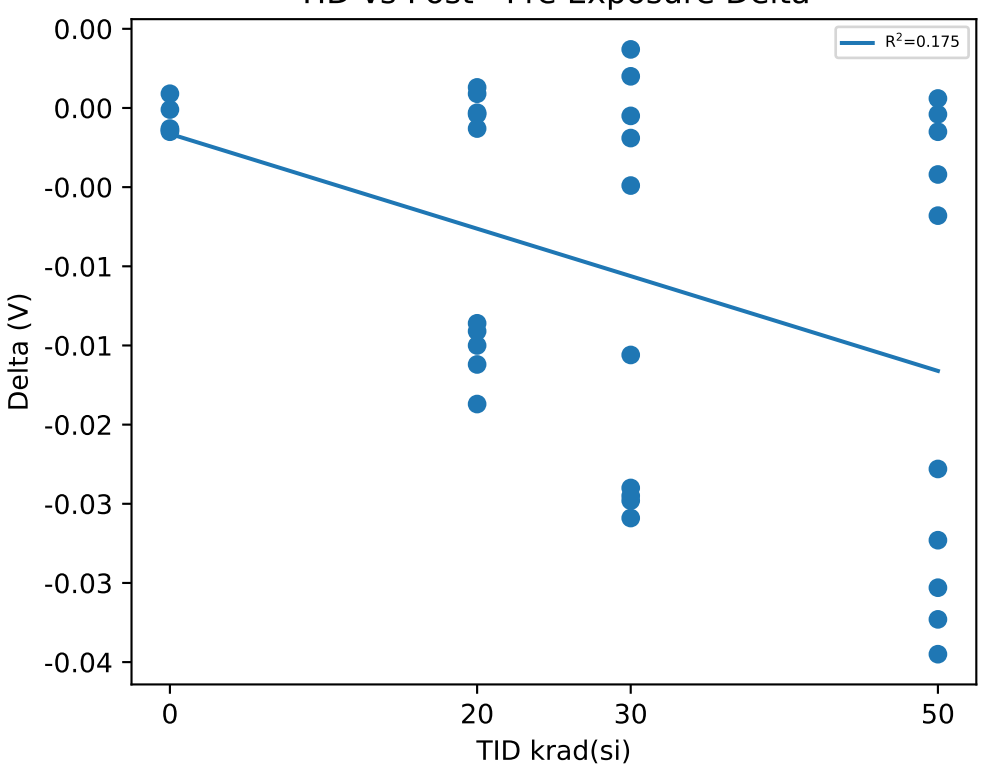
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	150.18	151.51	152.4	0.85147	150.82	151.96	153.02	0.78568	-0.6435	0.44384	1.9085	1.0226
20	150.57	151.94	153.02	0.89978	151.45	152.42	153.64	0.59509	-0.6089	0.4817	2.4888	0.95257
30	150.84	153.09	153.96	0.94028	149.9	151.49	153.63	1.1025	-3.4287	-1.603	0.6178	1.382
50	151.14	152.86	154.59	0.96573	149.89	151.71	153.03	1.0289	-2.2054	-1.1561	0.0066	0.71437

Device Test: 14.19 THRESHOLD|RISE/PVIN/14////@UVLO_RISE_PVIN

TID vs Result Stats



TID vs Post - Pre Exposure Delta



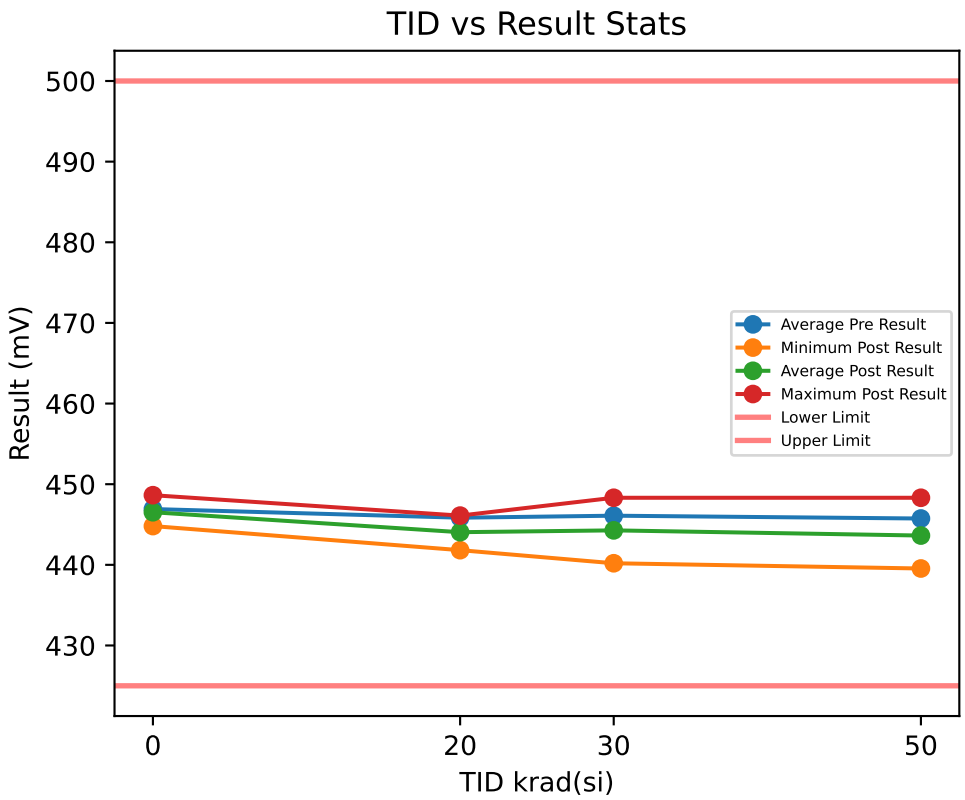
Test Results (Lower Limit = 3.2, Upper Limit = 3.6 (V))

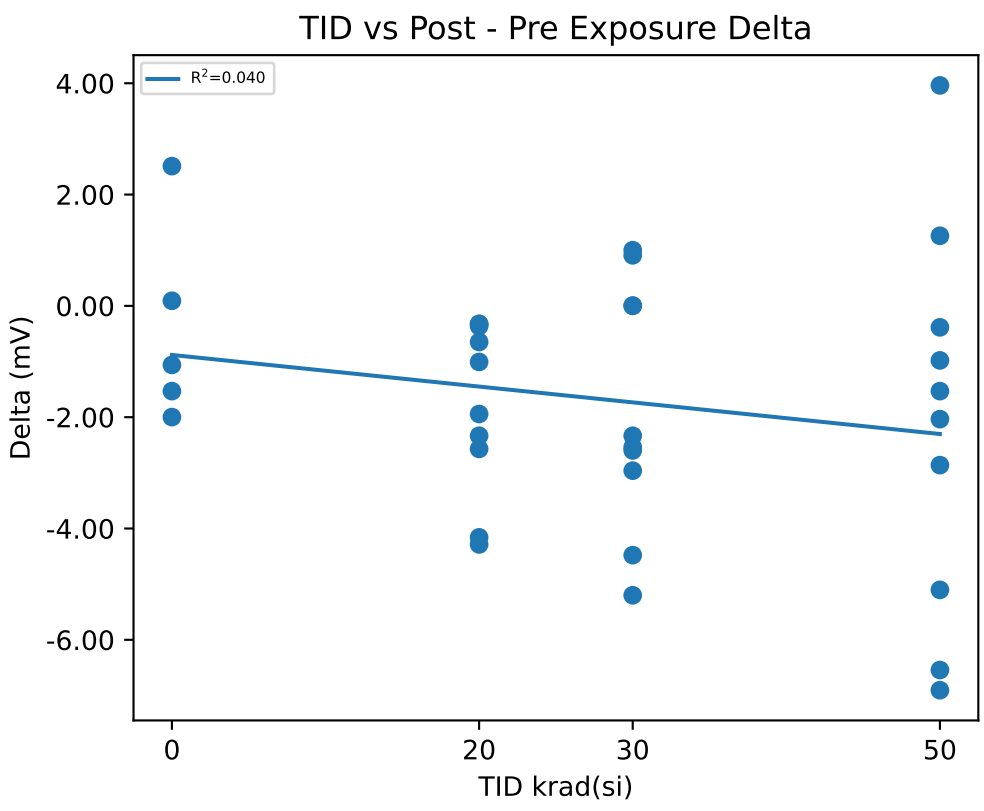
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.4331	3.4181	-0.015
2	20	Biased	3.4338	3.4202	-0.0136
3	20	Biased	3.4476	3.4289	-0.0187
4	20	Biased	3.4364	3.4223	-0.0141
5	20	Biased	3.4276	3.4114	-0.0162
6	20	Unbiased	3.4354	3.4341	-0.0013
7	20	Unbiased	3.4158	3.4171	0.0013
8	20	Unbiased	3.4293	3.4302	0.0009
9	20	Unbiased	3.4344	3.4341	-0.0003
10	20	Unbiased	3.4208	3.4204	-0.0004
11	30	Biased	3.4252	3.4007	-0.0245
12	30	Biased	3.4481	3.4233	-0.0248
13	30	Biased	3.4519	3.4363	-0.0156
14	30	Biased	3.4435	3.4195	-0.024
15	30	Biased	3.4382	3.4123	-0.0259
16	30	Unbiased	3.4478	3.4473	-0.0005
17	30	Unbiased	3.4201	3.4238	0.0037
18	30	Unbiased	3.435	3.437	0.002
19	30	Unbiased	3.4369	3.432	-0.0049
20	30	Unbiased	3.4302	3.4283	-0.0019
27	50	Unbiased	3.4327	3.4312	-0.0015
28	50	Unbiased	3.4358	3.4354	-0.0004
29	50	Unbiased	3.4477	3.4483	0.0006
30	50	Unbiased	3.4305	3.4263	-0.0042
31	50	Unbiased	3.4392	3.4324	-0.0068
77	50	Biased-84Hr-Anneal	3.4315	3.4042	-0.0273
78	50	Biased-84Hr-Anneal	3.4451	3.4148	-0.0303
79	50	Biased-84Hr-Anneal	3.4298	3.3975	-0.0323
80	50	Biased-84Hr-Anneal	3.4455	3.411	-0.0345
81	50	Biased-84Hr-Anneal	3.4409	3.4181	-0.0228
100	0	CORRELATION	3.4354	3.4341	-0.0013
101	0	CORRELATION	3.4429	3.4428	-0.0001
102	0	CORRELATION	3.461	3.4595	-0.0015
103	0	CORRELATION	3.4345	3.4354	0.0009
104	0	CORRELATION	3.4357	3.4343	-0.0014

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	3.4345	3.4419	3.461	0.011194	3.4341	3.4412	3.4595	0.010829	-0.0015	-0.00068	0.0009	0.0010498
20	3.4158	3.4314	3.4476	0.0087918	3.4114	3.4237	3.4341	0.0077238	-0.0187	-0.00774	0.0013	0.0083418
30	3.4201	3.4377	3.4519	0.010413	3.4007	3.4261	3.4473	0.013351	-0.0259	-0.01164	0.0037	0.012455
50	3.4298	3.4379	3.4477	0.0067421	3.3975	3.4219	3.4483	0.015591	-0.0345	-0.01595	0.0006	0.014679

Device Test: 14.21 THRESHOLD|HYST/PVIN/14////@UVLO_HYST_PVIN





Test Results (Lower Limit = 425.0, Upper Limit = 500.0 (mV))

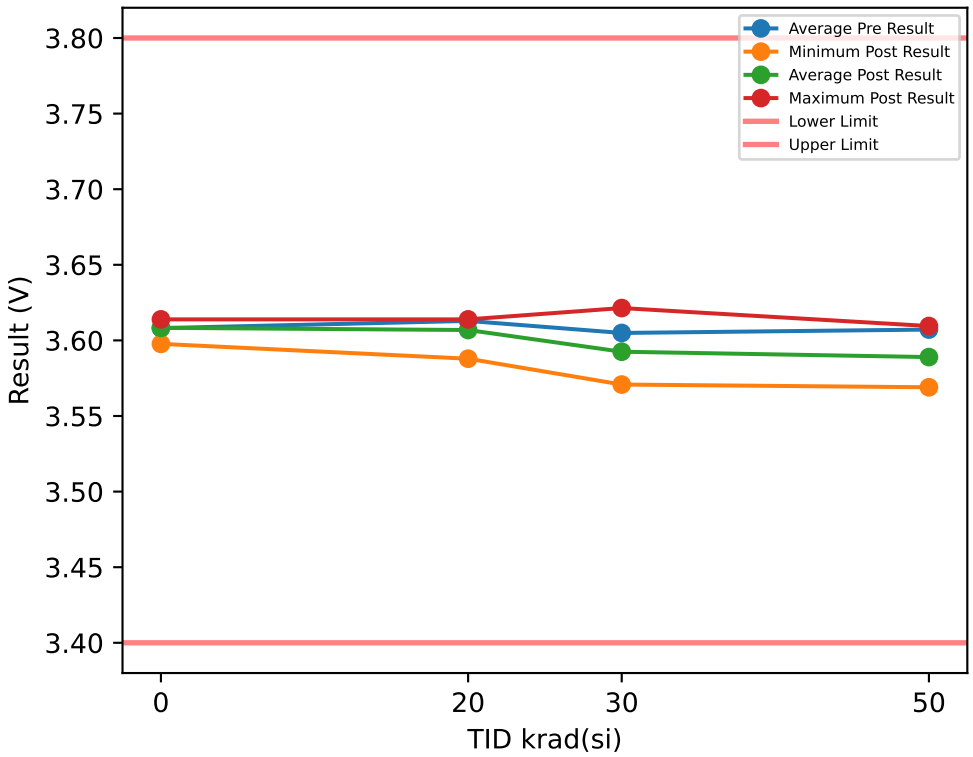
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	446.43	444.1	-2.3334
2	20	Biased	444.13	443.77	-0.3636
3	20	Biased	450.26	446.11	-4.1594
4	20	Biased	446.69	444.75	-1.9425
5	20	Biased	446.11	441.82	-4.2861
6	20	Unbiased	446.08	443.51	-2.5704
7	20	Unbiased	444.1	443.77	-0.3245
8	20	Unbiased	443.44	442.79	-0.6492
9	20	Unbiased	446.43	446.11	-0.3248
10	20	Unbiased	444.78	443.77	-1.0075
11	30	Biased	445.4	440.2	-5.1996
12	30	Biased	447.34	442.86	-4.479
13	30	Biased	449.35	447.02	-2.3337
14	30	Biased	448.68	445.71	-2.9607
15	30	Biased	446.04	443.51	-2.5368
16	30	Unbiased	448.31	448.32	0.0055
17	30	Unbiased	443.83	444.74	0.9083
18	30	Unbiased	445.1	446.11	1.0008
19	30	Unbiased	446.69	444.1	-2.5973
20	30	Unbiased	440.2	440.2	0
27	50	Unbiased	442.15	441.17	-0.9796
28	50	Unbiased	442.14	446.11	3.9614
29	50	Unbiased	448.7	448.32	-0.3855
30	50	Unbiased	444.78	446.04	1.2593
31	50	Unbiased	447.34	444.48	-2.8614
77	50	Biased-84Hr-Anneal	444.89	442.86	-2.0345
78	50	Biased-84Hr-Anneal	447.25	442.15	-5.1027
79	50	Biased-84Hr-Anneal	446.09	439.55	-6.5426
80	50	Biased-84Hr-Anneal	447.49	440.59	-6.9052
81	50	Biased-84Hr-Anneal	446.6	445.07	-1.5317
100	0	CORRELATION	445.87	444.81	-1.061
101	0	CORRELATION	447.9	447.99	0.0914
102	0	CORRELATION	450.63	448.64	-1.9981
103	0	CORRELATION	443.59	446.11	2.5112
104	0	CORRELATION	446.6	445.07	-1.5317

Test Statistics (mV)

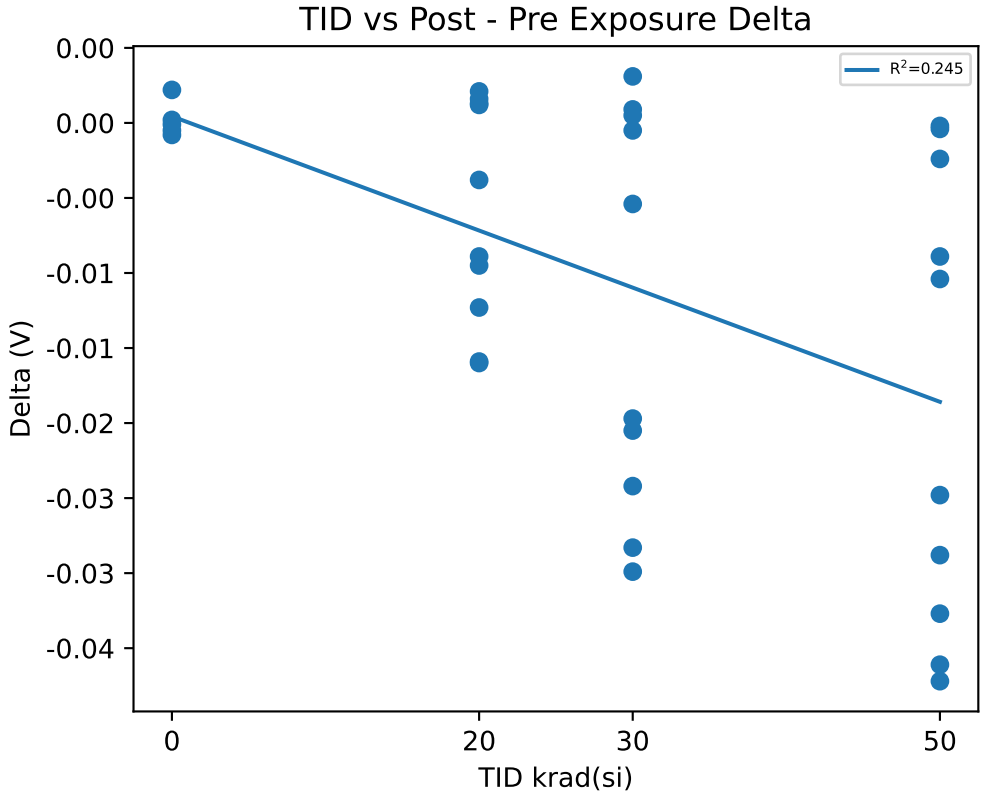
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	443.59	446.92	450.63	2.5994	444.81	446.52	448.64	1.7214	-1.9981	-0.39764	2.5112	1.802
20	443.44	445.84	450.26	1.9425	441.82	444.05	446.11	1.3342	-4.2861	-1.7961	-0.3245	1.5281
30	440.2	446.09	449.35	2.6972	440.2	444.28	448.32	2.6959	-5.1996	-1.8192	1.0008	2.1914
50	442.14	445.74	448.7	2.2368	439.55	443.63	448.32	2.8183	-6.9052	-2.1123	3.9614	3.4151

Device Test: 14.22 THRESHOLD|RISE/VIN/14////@UVLO_RISE_VIN

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 3.4, Upper Limit = 3.8 (V))

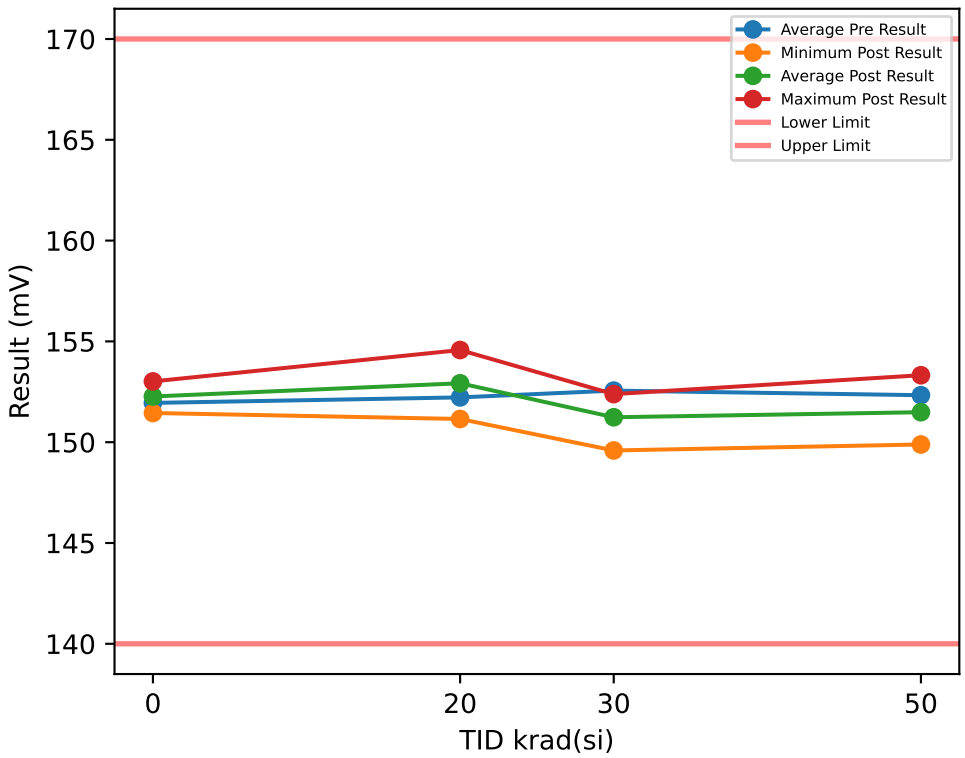
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.6283	3.6124	-0.0159
2	20	Biased	3.5968	3.5879	-0.0089
3	20	Biased	3.6299	3.6139	-0.016
4	20	Biased	3.6222	3.6127	-0.0095
5	20	Biased	3.6155	3.6032	-0.0123
6	20	Unbiased	3.6112	3.6133	0.0021
7	20	Unbiased	3.6058	3.6071	0.0013
8	20	Unbiased	3.6013	3.6025	0.0012
9	20	Unbiased	3.6045	3.6061	0.0016
10	20	Unbiased	3.6134	3.6096	-0.0038
11	30	Biased	3.6074	3.5869	-0.0205
12	30	Biased	3.5991	3.5708	-0.0283
13	30	Biased	3.6098	3.5799	-0.0299
14	30	Biased	3.6052	3.581	-0.0242
15	30	Biased	3.6061	3.5864	-0.0197
16	30	Unbiased	3.6219	3.6214	-0.0005
17	30	Unbiased	3.5924	3.5929	0.0005
18	30	Unbiased	3.5999	3.5945	-0.0054
19	30	Unbiased	3.6055	3.6086	0.0031
20	30	Unbiased	3.6019	3.6028	0.0009
27	50	Unbiased	3.6061	3.5957	-0.0104
28	50	Unbiased	3.5985	3.5961	-0.0024
29	50	Unbiased	3.6045	3.6043	-0.0002
30	50	Unbiased	3.5952	3.5863	-0.0089
31	50	Unbiased	3.6099	3.6095	-0.0004
77	50	Biased-84Hr-Anneal	3.6054	3.5693	-0.0361
78	50	Biased-84Hr-Anneal	3.6199	3.5911	-0.0288
79	50	Biased-84Hr-Anneal	3.6061	3.5813	-0.0248
80	50	Biased-84Hr-Anneal	3.6198	3.5871	-0.0327
81	50	Biased-84Hr-Anneal	3.6062	3.569	-0.0372
100	0	CORRELATION	3.5985	3.5977	-0.0008
101	0	CORRELATION	3.614	3.6139	-0.0001
102	0	CORRELATION	3.6074	3.6069	-0.0005
103	0	CORRELATION	3.6092	3.6114	0.0022
104	0	CORRELATION	3.6115	3.6117	0.0002

Test Statistics (V)

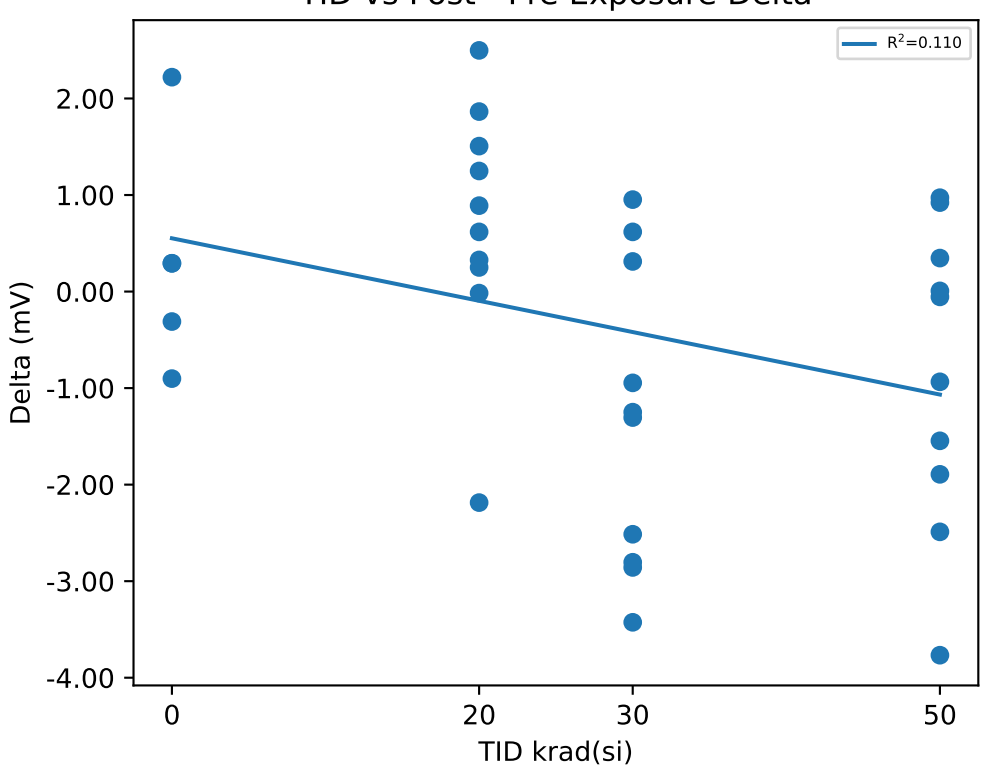
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.5985	3.6081	3.614	0.0059209	3.5977	3.6083	3.6139	0.0064585	-0.0008	0.0002	0.0022	0.0011811
20	3.5968	3.6129	3.6299	0.011241	3.5879	3.6069	3.6139	0.0078589	-0.016	-0.00602	0.0021	0.0073914
30	3.5924	3.6049	3.6219	0.007782	3.5708	3.5925	3.6214	0.015037	-0.0299	-0.0124	0.0031	0.013297
50	3.5952	3.6072	3.6199	0.0078949	3.569	3.589	3.6095	0.013385	-0.0372	-0.01819	-0.0002	0.015222

Device Test: 14.24 THRESHOLD|HYST/VIN/14////@UVLO_HYST_VIN

TID vs Result Stats



TID vs Post - Pre Exposure Delta



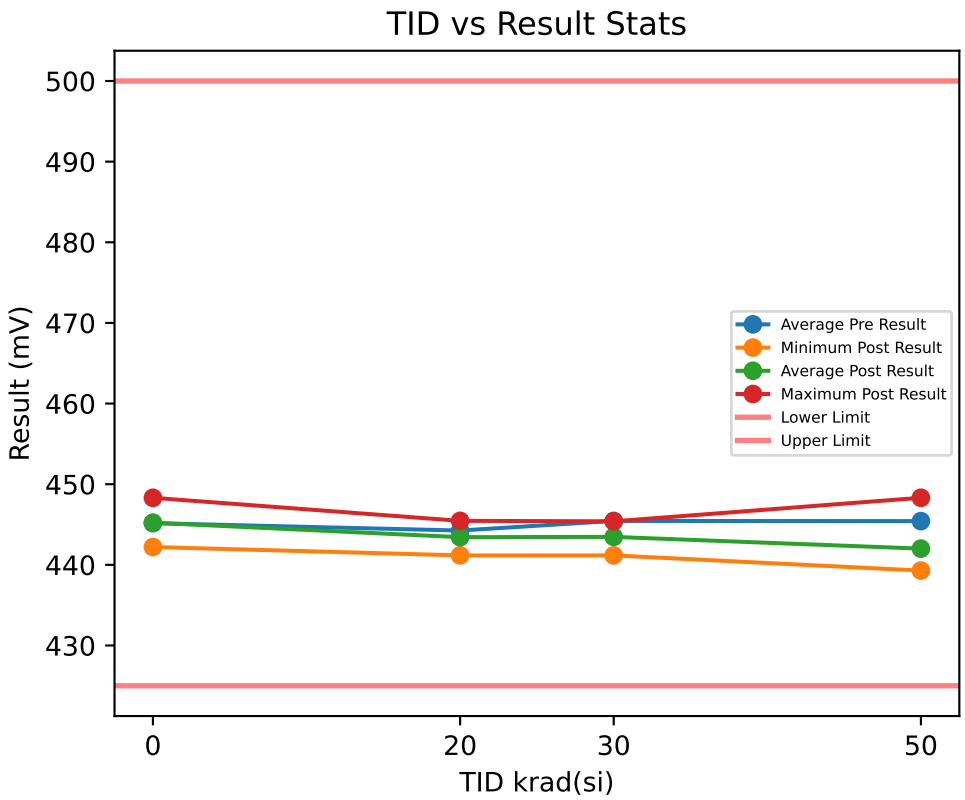
Test Results (Lower Limit = 140.0, Upper Limit = 170.0 (mV))

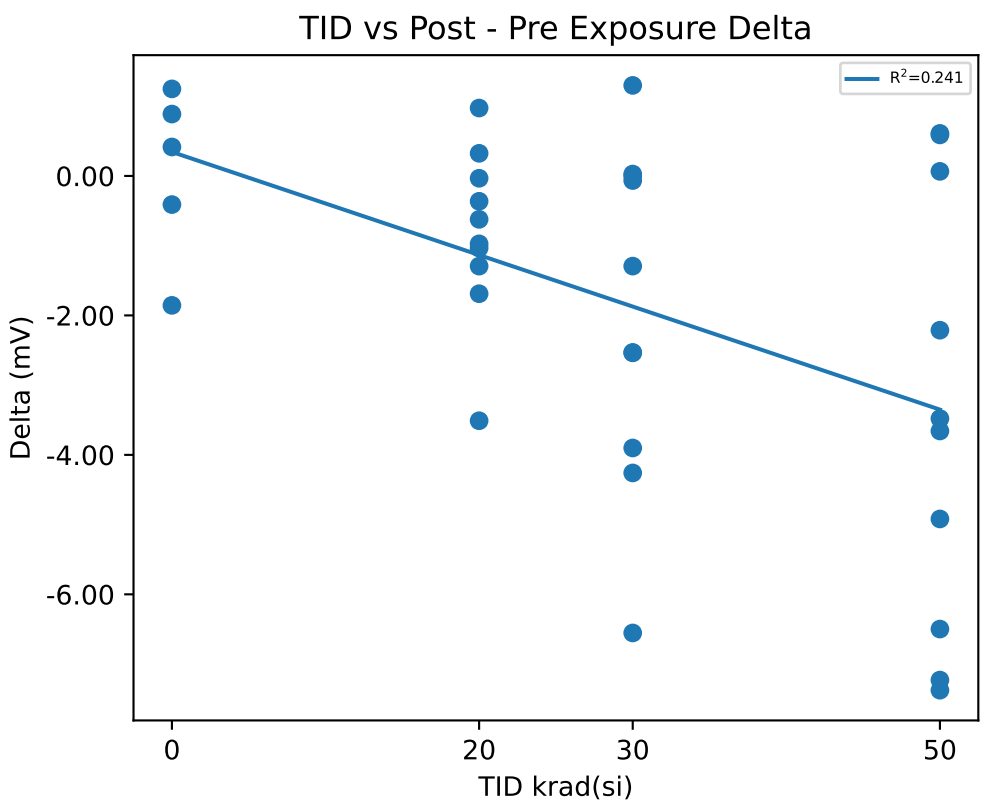
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	152.4	152.38	-0.016
2	20	Biased	150.26	151.77	1.5066
3	20	Biased	152.07	152.4	0.3276
4	20	Biased	152.08	152.7	0.6182
5	20	Biased	151.46	153.33	1.8644
6	20	Unbiased	152.45	153.34	0.89
7	20	Unbiased	152.07	154.57	2.4981
8	20	Unbiased	152.7	153.95	1.249
9	20	Unbiased	153.34	151.15	-2.1861
10	20	Unbiased	153.38	153.63	0.2497
11	30	Biased	153.63	150.83	-2.8041
12	30	Biased	153.02	149.59	-3.4261
13	30	Biased	153.65	151.14	-2.5141
14	30	Biased	152.45	151.14	-1.3051
15	30	Biased	150.82	151.78	0.9525
16	30	Unbiased	151.77	152.38	0.6182
17	30	Unbiased	151.15	150.21	-0.9458
18	30	Unbiased	153.7	150.84	-2.8577
19	30	Unbiased	152.07	152.38	0.3119
20	30	Unbiased	153.33	152.08	-1.2493
27	50	Unbiased	151.45	151.45	0.0069
28	50	Unbiased	153.33	150.84	-2.4891
29	50	Unbiased	152.4	153.32	0.9215
30	50	Unbiased	151.51	151.45	-0.0551
31	50	Unbiased	152.39	150.84	-1.5461
77	50	Biased-84Hr-Anneal	151.12	152.09	0.9722
78	50	Biased-84Hr-Anneal	153.65	149.89	-3.7668
79	50	Biased-84Hr-Anneal	151.14	150.21	-0.9349
80	50	Biased-84Hr-Anneal	152.05	152.4	0.3469
81	50	Biased-84Hr-Anneal	154.28	152.39	-1.8933
100	0	CORRELATION	152.37	151.46	-0.9017
101	0	CORRELATION	152.4	152.7	0.2926
102	0	CORRELATION	153.33	153.02	-0.3106
103	0	CORRELATION	150.49	152.71	2.2208
104	0	CORRELATION	151.16	151.45	0.2933

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	150.49	151.95	153.33	1.1216	151.45	152.27	153.02	0.7516	-0.9017	0.31888	2.2208	1.1731
20	150.26	152.22	153.38	0.90664	151.15	152.92	154.57	1.0385	-2.1861	0.70015	2.4981	1.2809
30	150.82	152.56	153.7	1.0704	149.59	151.24	152.38	0.92823	-3.4261	-1.322	0.9525	1.5691
50	151.12	152.33	154.28	1.1039	149.89	151.49	153.32	1.0757	-3.7668	-0.84378	0.9722	1.5646

Device Test: 14.3 THRESHOLD|HYST/PVIN/4.5////@UVLO_HYST_PVIN





Test Results (Lower Limit = 425.0, Upper Limit = 500.0 (mV))

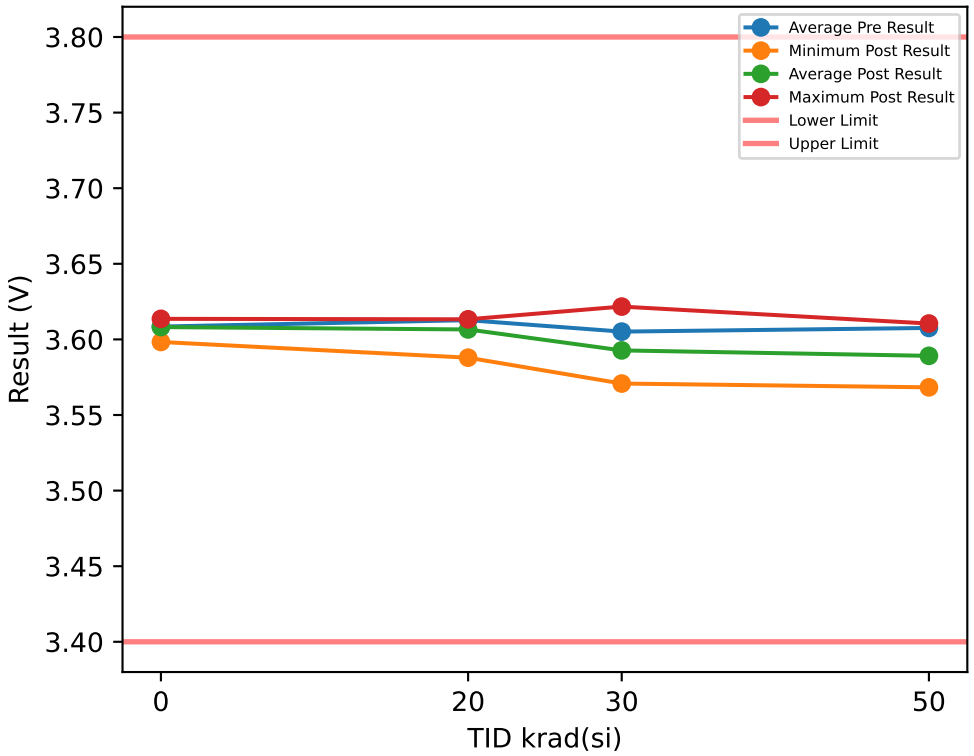
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	444.16	443.12	-1.0345
2	20	Biased	442.51	442.14	-0.3634
3	20	Biased	448.97	445.46	-3.5105
4	20	Biased	446.69	445.4	-1.2933
5	20	Biased	442.86	441.17	-1.6889
6	20	Unbiased	445.1	444.48	-0.6223
7	20	Unbiased	443.12	442.15	-0.9737
8	20	Unbiased	442.79	443.12	0.3245
9	20	Unbiased	443.51	444.48	0.974
10	20	Unbiased	442.83	442.8	-0.0333
11	30	Biased	445.07	441.17	-3.9012
12	30	Biased	446.36	443.83	-2.5312
13	30	Biased	450	443.45	-6.5539
14	30	Biased	446.73	442.47	-4.2592
15	30	Biased	445.07	442.53	-2.5367
16	30	Unbiased	446.69	445.4	-1.293
17	30	Unbiased	442.86	442.79	-0.0657
18	30	Unbiased	444.78	444.81	0.0271
19	30	Unbiased	444.42	444.42	-0.0003
20	30	Unbiased	442.47	443.77	1.2986
27	50	Unbiased	446.69	440.2	-6.498
28	50	Unbiased	443.44	443.51	0.0657
29	50	Unbiased	447.73	448.32	0.5885
30	50	Unbiased	443.48	444.09	0.6103
31	50	Unbiased	445.72	443.51	-2.2121
77	50	Biased-84Hr-Anneal	442.94	439.29	-3.6574
78	50	Biased-84Hr-Anneal	447.25	439.88	-7.3748
79	50	Biased-84Hr-Anneal	444.47	439.55	-4.919
80	50	Biased-84Hr-Anneal	446.52	439.29	-7.2295
81	50	Biased-84Hr-Anneal	445.95	442.47	-3.4795
100	0	CORRELATION	443.92	444.81	0.8876
101	0	CORRELATION	448.23	446.37	-1.8559
102	0	CORRELATION	447.06	448.31	1.2486
103	0	CORRELATION	442.62	442.21	-0.4106
104	0	CORRELATION	444.01	444.42	0.4157

Test Statistics (mV)

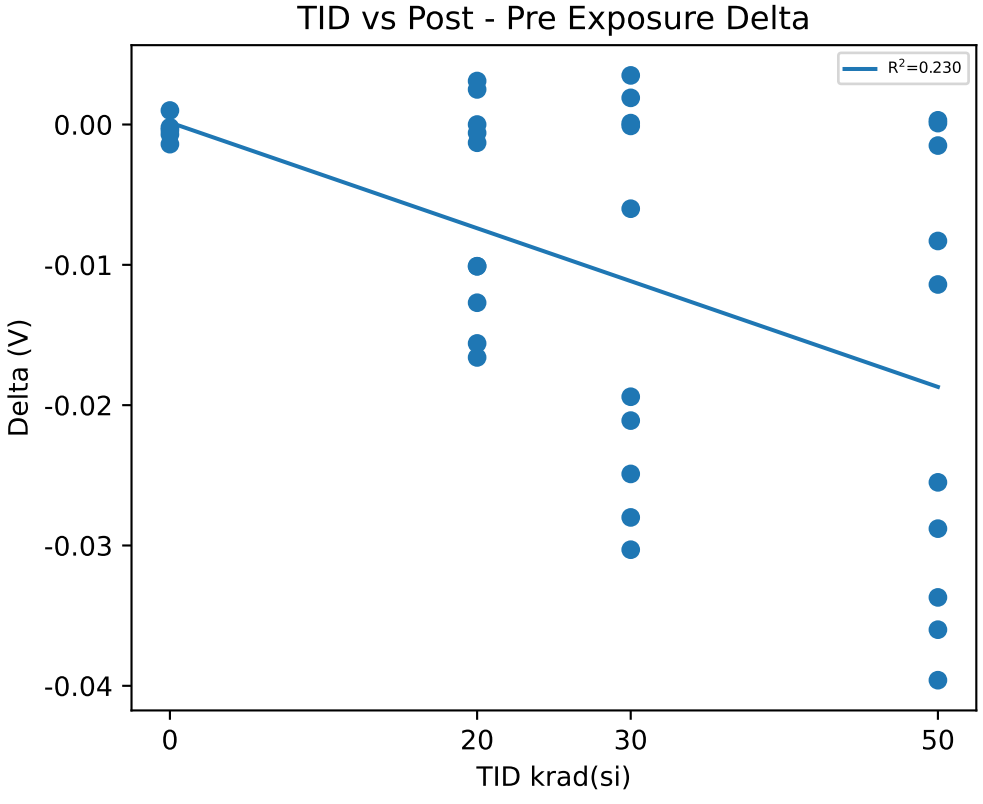
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	442.62	445.17	448.23	2.3633	442.21	445.22	448.31	2.2777	-1.8559	0.05708	1.2486	1.2366
20	442.51	444.25	448.97	2.1044	441.17	443.43	445.46	1.4596	-3.5105	-0.82214	0.974	1.233
30	442.47	445.45	450	2.1632	441.17	443.46	445.4	1.2582	-6.5539	-1.9815	1.2986	2.4325
50	442.94	445.42	447.73	1.719	439.29	442.01	448.32	2.9354	-7.3748	-3.4106	0.6103	3.1243

Device Test: 14.4 THRESHOLD|RISE/VIN/4.5////@UVLO_RISE_VIN

TID vs Result Stats



TID vs Post - Pre Exposure Delta



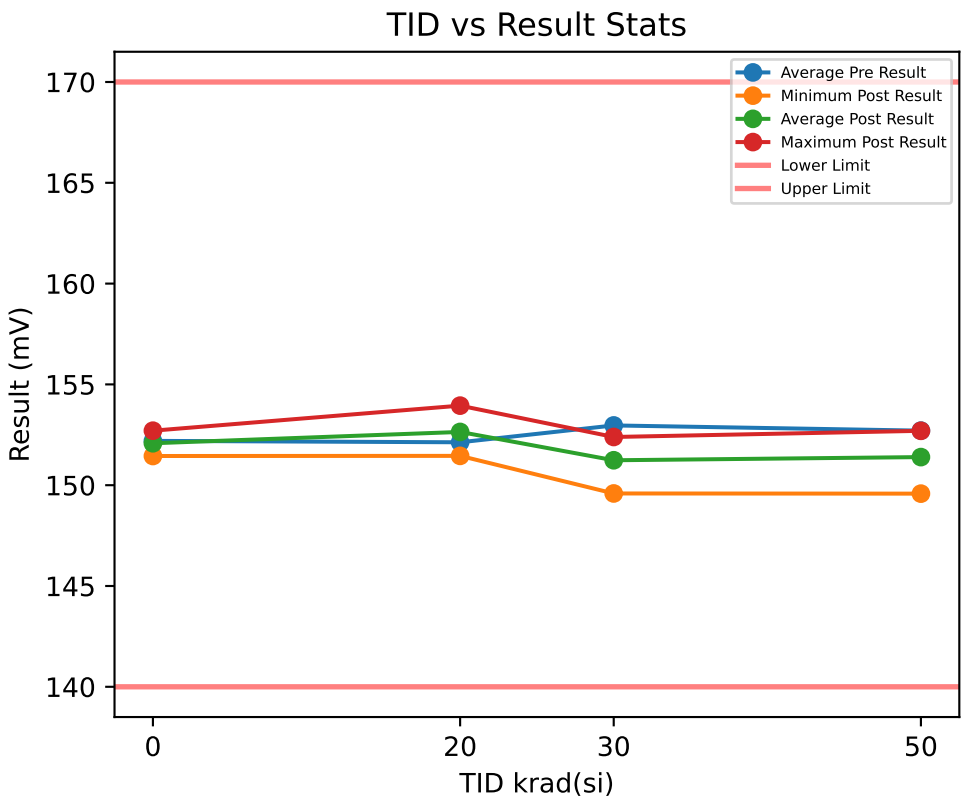
Test Results (Lower Limit = 3.4, Upper Limit = 3.8 (V))

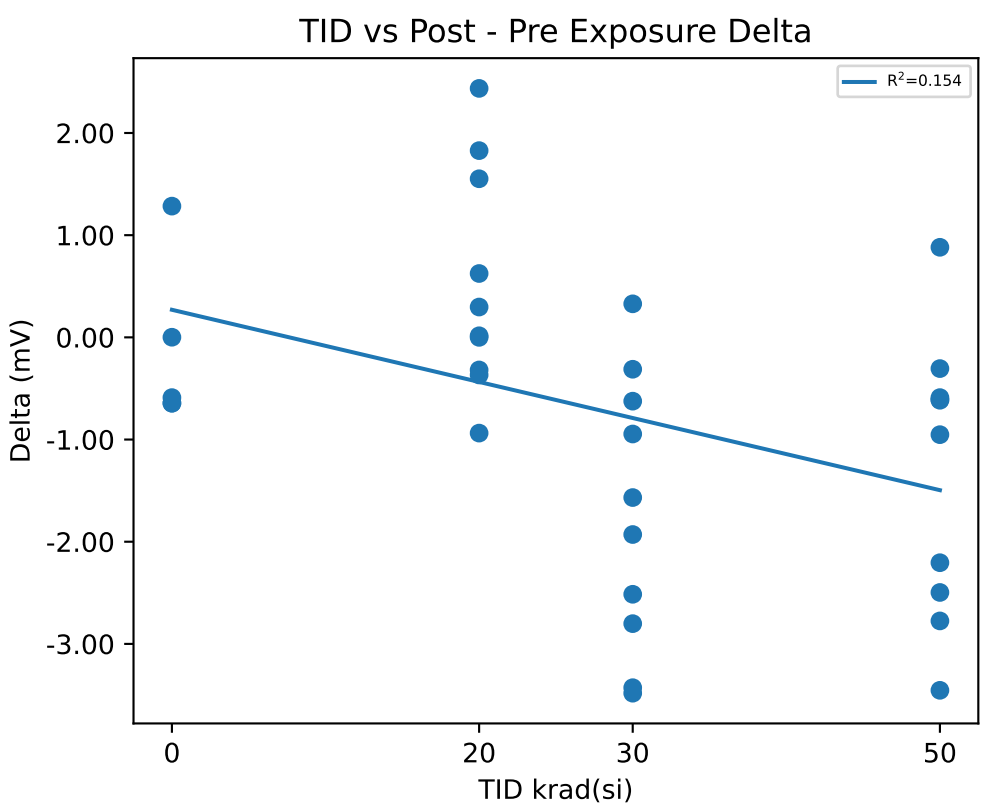
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.6289	3.6133	-0.0156
2	20	Biased	3.598	3.5879	-0.0101
3	20	Biased	3.6299	3.6133	-0.0166
4	20	Biased	3.6225	3.6124	-0.0101
5	20	Biased	3.6155	3.6028	-0.0127
6	20	Unbiased	3.6102	3.6133	0.0031
7	20	Unbiased	3.6052	3.6046	-0.0006
8	20	Unbiased	3.6016	3.6016	0
9	20	Unbiased	3.6042	3.6067	0.0025
10	20	Unbiased	3.6112	3.6099	-0.0013
11	30	Biased	3.6077	3.5866	-0.0211
12	30	Biased	3.5988	3.5708	-0.028
13	30	Biased	3.6105	3.5802	-0.0303
14	30	Biased	3.6059	3.581	-0.0249
15	30	Biased	3.6061	3.5867	-0.0194
16	30	Unbiased	3.6216	3.6217	0.0001
17	30	Unbiased	3.593	3.5929	-0.0001
18	30	Unbiased	3.6005	3.5945	-0.006
19	30	Unbiased	3.6061	3.6096	0.0035
20	30	Unbiased	3.6013	3.6032	0.0019
27	50	Unbiased	3.6061	3.5947	-0.0114
28	50	Unbiased	3.5982	3.5967	-0.0015
29	50	Unbiased	3.6045	3.6046	0.0001
30	50	Unbiased	3.5952	3.5869	-0.0083
31	50	Unbiased	3.6102	3.6105	0.0003
77	50	Biased-84Hr-Anneal	3.6079	3.5683	-0.0396
78	50	Biased-84Hr-Anneal	3.6196	3.5908	-0.0288
79	50	Biased-84Hr-Anneal	3.6074	3.5819	-0.0255
80	50	Biased-84Hr-Anneal	3.6201	3.5864	-0.0337
81	50	Biased-84Hr-Anneal	3.6065	3.5705	-0.036
100	0	CORRELATION	3.5985	3.5983	-0.0002
101	0	CORRELATION	3.614	3.6136	-0.0004
102	0	CORRELATION	3.608	3.6066	-0.0014
103	0	CORRELATION	3.6098	3.6108	0.001
104	0	CORRELATION	3.6121	3.6114	-0.0007

Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.5985	3.6085	3.614	0.0060239	3.5983	3.6081	3.6136	0.0060562	-0.0014	-0.00034	0.001	0.00087636
20	3.598	3.6127	3.6299	0.011247	3.5879	3.6066	3.6133	0.0079745	-0.0166	-0.00614	0.0031	0.0076387
30	3.593	3.6051	3.6216	0.0076919	3.5708	3.5927	3.6217	0.015225	-0.0303	-0.01243	0.0035	0.013542
50	3.5952	3.6076	3.6201	0.0079044	3.5683	3.5891	3.6105	0.013469	-0.0396	-0.01844	0.0003	0.015918

Device Test: 14.6 THRESHOLD|HYST/VIN/4.5////@UVLO_HYST_VIN





Test Results (Lower Limit = 140.0, Upper Limit = 170.0 (mV))

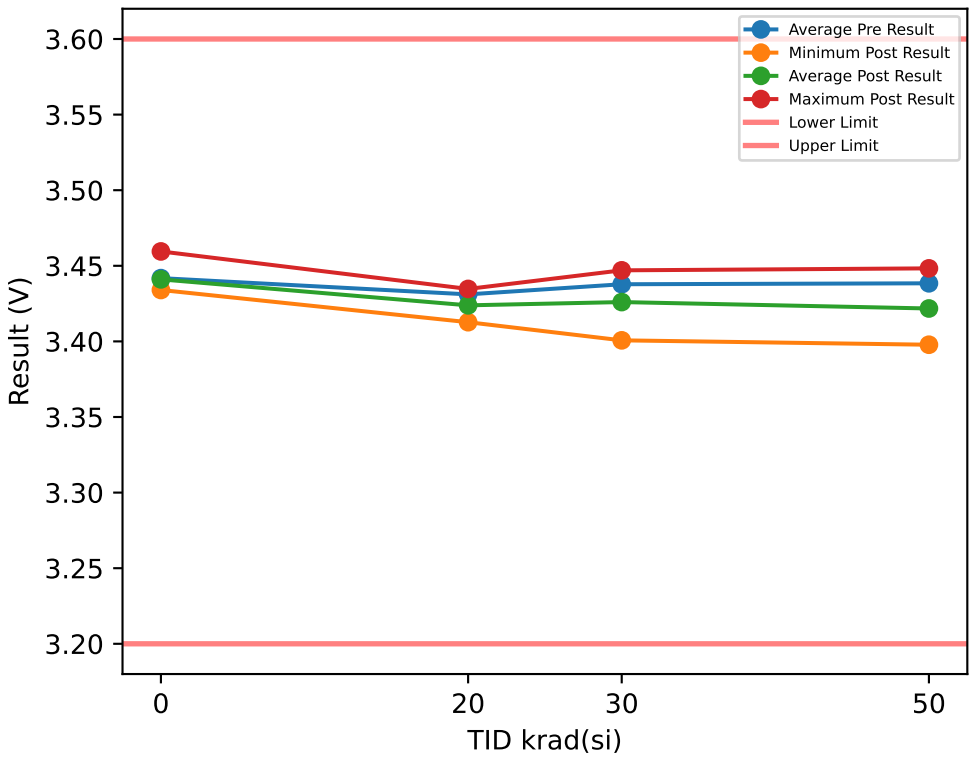
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	152.71	153.01	0.2968
2	20	Biased	151.82	151.45	-0.3679
3	20	Biased	152.07	152.09	0.0155
4	20	Biased	152.7	152.38	-0.319
5	20	Biased	151.46	153.02	1.5521
6	20	Unbiased	151.51	153.34	1.8275
7	20	Unbiased	151.45	152.07	0.6249
8	20	Unbiased	153.02	153.02	0
9	20	Unbiased	153.03	152.09	-0.937
10	20	Unbiased	151.51	153.95	2.4364
11	30	Biased	153.95	150.52	-3.4285
12	30	Biased	152.39	149.59	-2.8017
13	30	Biased	154.27	151.76	-2.5144
14	30	Biased	153.38	151.45	-1.9295
15	30	Biased	151.45	151.78	0.3281
16	30	Unbiased	153.02	151.45	-1.5677
17	30	Unbiased	151.46	150.52	-0.9458
18	30	Unbiased	154.32	150.84	-3.4824
19	30	Unbiased	152.38	152.07	-0.3121
20	30	Unbiased	153.02	152.39	-0.6245
27	50	Unbiased	151.45	151.14	-0.3056
28	50	Unbiased	152.08	151.46	-0.6156
29	50	Unbiased	153.03	152.07	-0.9523
30	50	Unbiased	151.51	152.39	0.8814
31	50	Unbiased	152.39	151.78	-0.6091
77	50	Biased-84Hr-Anneal	153.93	151.15	-2.7751
78	50	Biased-84Hr-Anneal	153.34	149.89	-3.4542
79	50	Biased-84Hr-Anneal	152.08	149.58	-2.4965
80	50	Biased-84Hr-Anneal	152.37	151.78	-0.5896
81	50	Biased-84Hr-Anneal	154.9	152.7	-2.2054
100	0	CORRELATION	152.37	151.78	-0.5896
101	0	CORRELATION	152.72	152.07	-0.6439
102	0	CORRELATION	152.7	152.7	0.0012
103	0	CORRELATION	151.12	152.4	1.2843
104	0	CORRELATION	152.09	151.45	-0.6442

Test Statistics (mV)

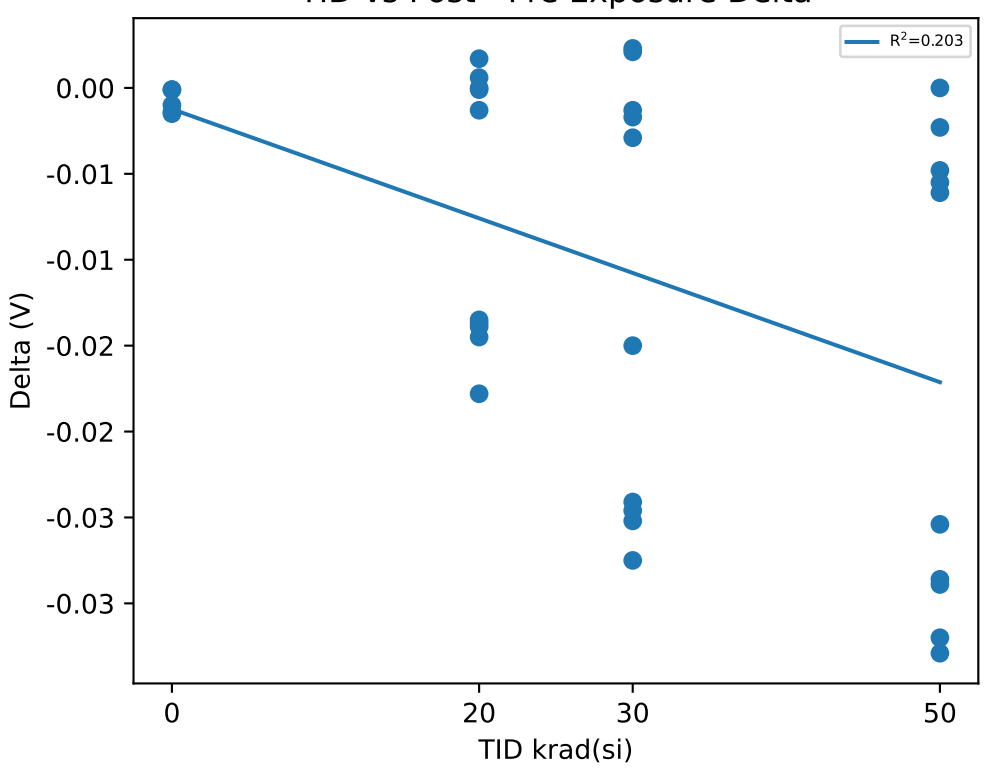
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	151.12	152.2	152.72	0.65811	151.45	152.08	152.7	0.49584	-0.6442	-0.11844	1.2843	0.83014
20	151.45	152.13	153.03	0.66928	151.45	152.64	153.95	0.74636	-0.937	0.51293	2.4364	1.0877
30	151.45	152.96	154.32	1.0499	149.59	151.24	152.39	0.85589	-3.4824	-1.7278	0.3281	1.3279
50	151.45	152.71	154.9	1.0975	149.58	151.39	152.7	1.0072	-3.4542	-1.3122	0.8814	1.3493

Device Test: 14.7 THRESHOLD|RISE/PVIN/5////@UVLO_RISE_PVIN

TID vs Result Stats



TID vs Post - Pre Exposure Delta



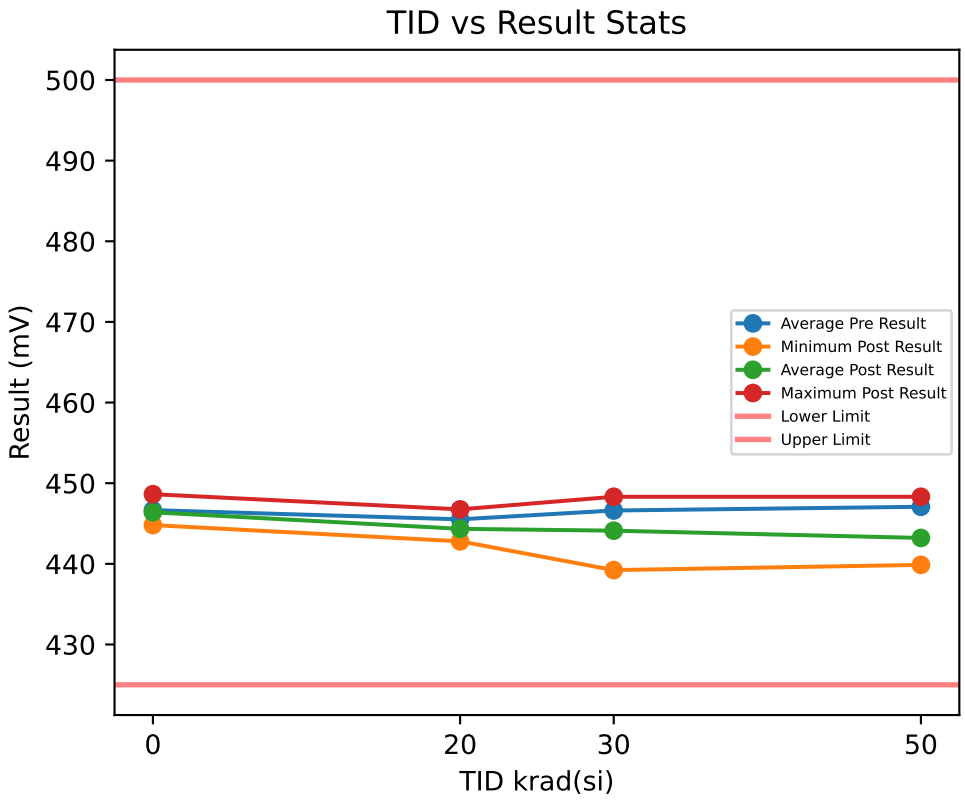
Test Results (Lower Limit = 3.2, Upper Limit = 3.6 (V))

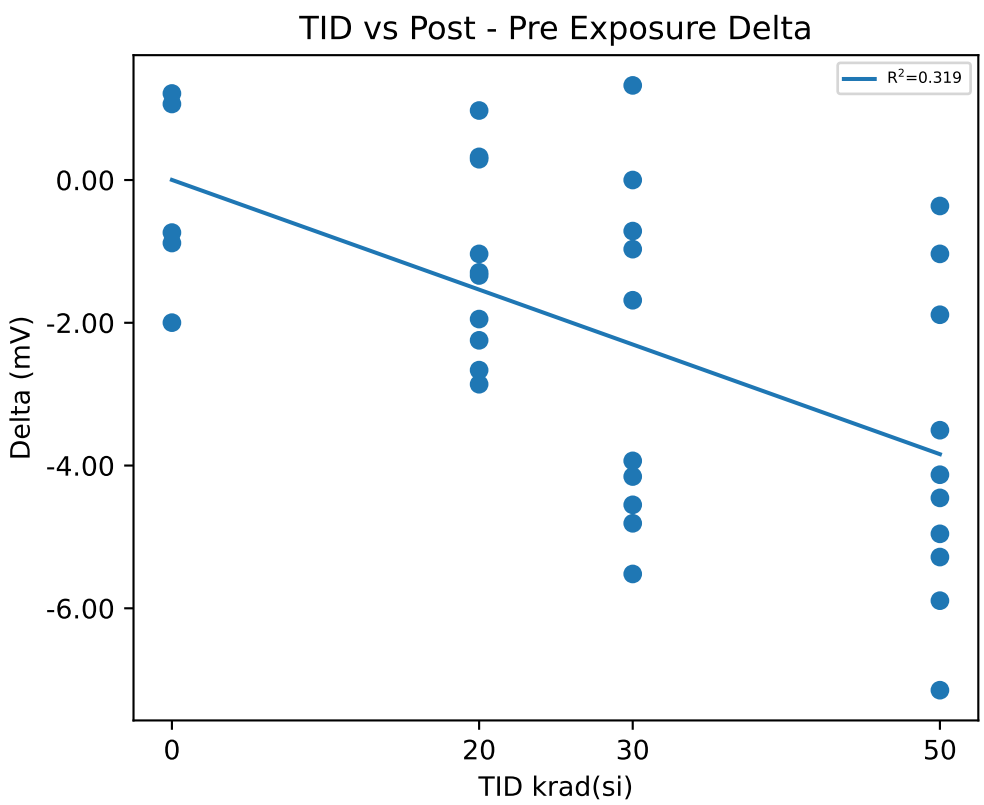
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.4328	3.4191	-0.0137
2	20	Biased	3.4334	3.4195	-0.0139
3	20	Biased	3.4463	3.4285	-0.0178
4	20	Biased	3.4364	3.4229	-0.0135
5	20	Biased	3.4272	3.4127	-0.0145
6	20	Unbiased	3.435	3.4337	-0.0013
7	20	Unbiased	3.4148	3.4165	0.0017
8	20	Unbiased	3.4302	3.4302	0
9	20	Unbiased	3.4341	3.4347	0.0006
10	20	Unbiased	3.4208	3.4207	-0.0001
11	30	Biased	3.4259	3.4007	-0.0252
12	30	Biased	3.4491	3.425	-0.0241
13	30	Biased	3.4513	3.4363	-0.015
14	30	Biased	3.4422	3.4176	-0.0246
15	30	Biased	3.4385	3.411	-0.0275
16	30	Unbiased	3.4487	3.447	-0.0017
17	30	Unbiased	3.4217	3.4238	0.0021
18	30	Unbiased	3.4347	3.437	0.0023
19	30	Unbiased	3.4366	3.4337	-0.0029
20	30	Unbiased	3.4293	3.428	-0.0013
27	50	Unbiased	3.4337	3.4289	-0.0048
28	50	Unbiased	3.4377	3.4354	-0.0023
29	50	Unbiased	3.4483	3.4483	0
30	50	Unbiased	3.4312	3.4257	-0.0055
31	50	Unbiased	3.4392	3.4331	-0.0061
77	50	Biased-84Hr-Anneal	3.4315	3.4026	-0.0289
78	50	Biased-84Hr-Anneal	3.4454	3.4168	-0.0286
79	50	Biased-84Hr-Anneal	3.4298	3.3978	-0.032
80	50	Biased-84Hr-Anneal	3.4462	3.4133	-0.0329
81	50	Biased-84Hr-Anneal	3.4412	3.4158	-0.0254
100	0	CORRELATION	3.4351	3.4341	-0.001
101	0	CORRELATION	3.4429	3.4428	-0.0001
102	0	CORRELATION	3.461	3.4595	-0.0015
103	0	CORRELATION	3.4348	3.4347	-0.0001
104	0	CORRELATION	3.4354	3.434	-0.0014

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	3.4348	3.4418	3.461	0.011233	3.434	3.441	3.4595	0.010975	-0.0015	-0.00082	-0.0001	0.00068337
20	3.4148	3.4311	3.4463	0.0086879	3.4127	3.4239	3.4347	0.0075081	-0.0178	-0.00725	0.0017	0.0079552
30	3.4217	3.4378	3.4513	0.01018	3.4007	3.426	3.447	0.013634	-0.0275	-0.01179	0.0023	0.012627
50	3.4298	3.4384	3.4483	0.0067685	3.3978	3.4218	3.4483	0.015486	-0.0329	-0.01665	0	0.013858

Device Test: 14.9 THRESHOLD|HYST/PVIN/5////@UVLO_HYST_PVIN





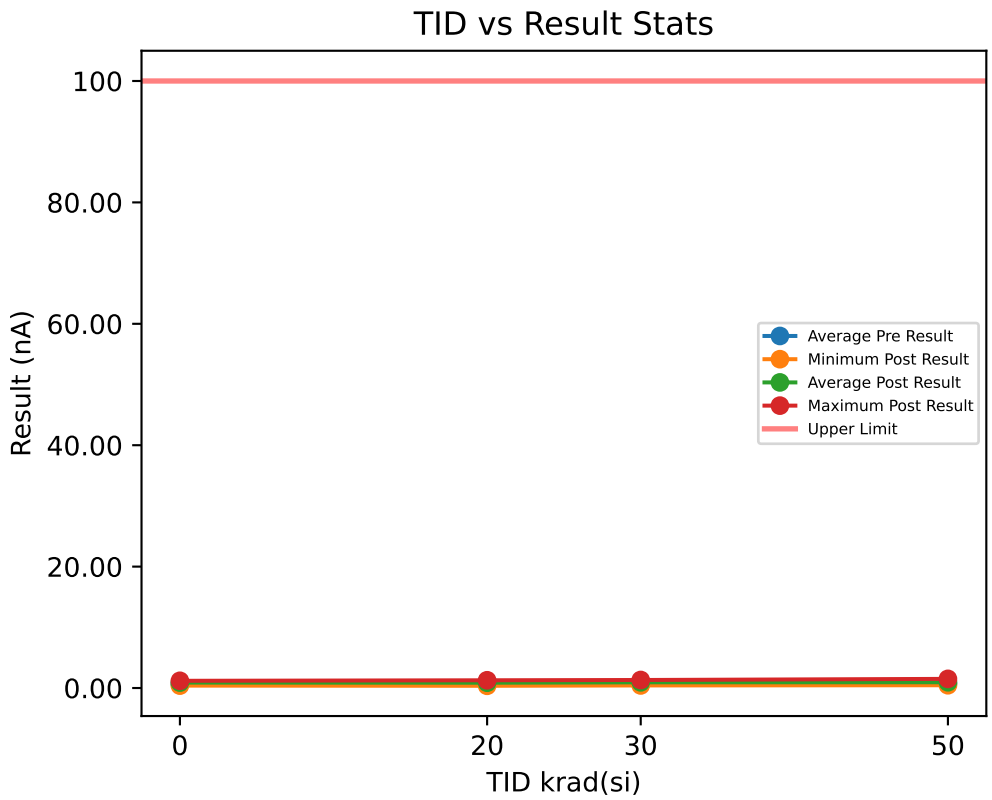
Test Results (Lower Limit = 425.0, Upper Limit = 500.0 (mV))

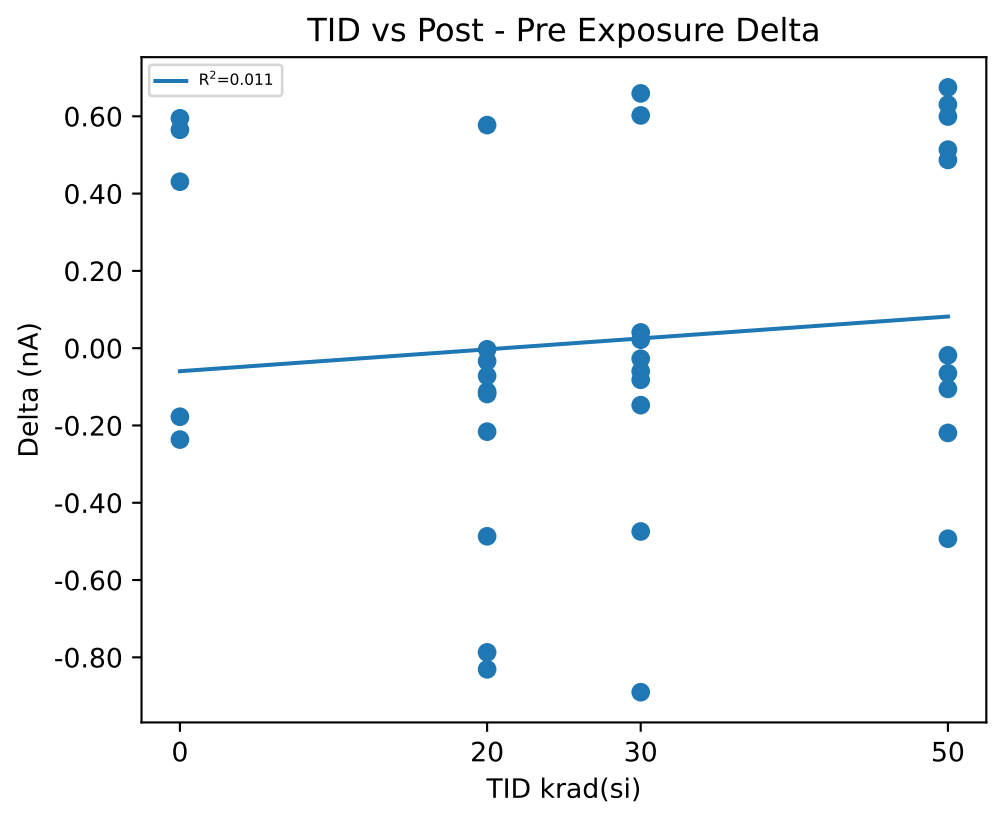
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	446.11	445.07	-1.0348
2	20	Biased	444.13	442.79	-1.3373
3	20	Biased	448.64	445.78	-2.861
4	20	Biased	446.69	445.4	-1.2933
5	20	Biased	446.11	443.44	-2.6633
6	20	Unbiased	445.43	443.18	-2.2457
7	20	Unbiased	443.45	443.77	0.3245
8	20	Unbiased	444.74	442.79	-1.9479
9	20	Unbiased	445.78	446.75	0.9739
10	20	Unbiased	444.13	444.42	0.2912
11	30	Biased	444.42	439.87	-4.5503
12	30	Biased	448.64	444.48	-4.154
13	30	Biased	448.7	447.02	-1.6842
14	30	Biased	447.38	443.44	-3.9345
15	30	Biased	446.69	441.88	-4.8093
16	30	Unbiased	449.29	448.32	-0.9685
17	30	Unbiased	445.13	444.42	-0.7152
18	30	Unbiased	445.1	446.43	1.3258
19	30	Unbiased	446.04	446.04	0.0002
20	30	Unbiased	444.74	439.22	-5.5189
27	50	Unbiased	447.02	439.87	-7.1474
28	50	Unbiased	447.99	444.48	-3.505
29	50	Unbiased	449.35	448.32	-1.0347
30	50	Unbiased	445.43	445.07	-0.3636
31	50	Unbiased	447.02	445.13	-1.8873
77	50	Biased-84Hr-Anneal	444.89	439.94	-4.9568
78	50	Biased-84Hr-Anneal	447.9	443.77	-4.1286
79	50	Biased-84Hr-Anneal	445.76	439.87	-5.8931
80	50	Biased-84Hr-Anneal	448.47	443.18	-5.2821
81	50	Biased-84Hr-Anneal	446.93	442.47	-4.4532
100	0	CORRELATION	445.54	444.81	-0.7362
101	0	CORRELATION	447.25	448.32	1.0655
102	0	CORRELATION	450.63	448.64	-1.9981
103	0	CORRELATION	443.92	445.13	1.2127
104	0	CORRELATION	445.95	445.07	-0.8825

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	443.92	446.66	450.63	2.5202	444.81	446.39	448.64	1.9099	-1.9981	-0.26772	1.2127	1.3748
20	443.45	445.52	448.64	1.5143	442.79	444.34	446.75	1.3668	-2.861	-1.1794	0.9739	1.3282
30	444.42	446.61	449.29	1.8042	439.22	444.11	448.32	3.0327	-5.5189	-2.5009	1.3258	2.3694
50	444.89	447.08	449.35	1.4082	439.87	443.21	448.32	2.763	-7.1474	-3.8652	-0.3636	2.1811

Device Test: 15.1 LEAK|UNPOWERED/EN/0////@EN_LKG_CURR





Test Results (Upper Limit = 100.0 (nA))

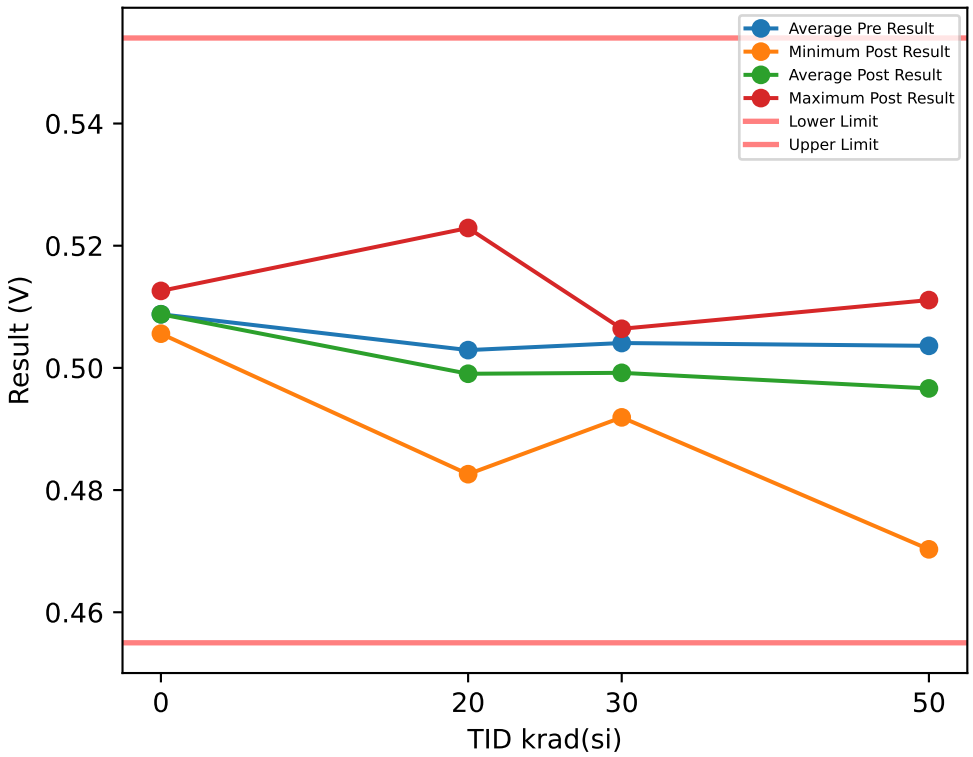
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.093	0.6062	-0.4868
2	20	Biased	1.156	1.1531	-0.0029
3	20	Biased	0.4127	0.99	0.5773
4	20	Biased	1.1968	0.3658	-0.831
5	20	Biased	1.3084	1.2748	-0.0336
6	20	Unbiased	1.2153	0.9993	-0.216
7	20	Unbiased	0.5594	0.4876	-0.0718
8	20	Unbiased	1.2155	1.0969	-0.1186
9	20	Unbiased	1.2678	1.1554	-0.1124
10	20	Unbiased	1.4027	0.6156	-0.7871
11	30	Biased	0.4907	1.15	0.6593
12	30	Biased	1.2374	1.0899	-0.1475
13	30	Biased	1.0306	0.5563	-0.4743
14	30	Biased	1.0811	1.1219	0.0408
15	30	Biased	0.4813	1.0836	0.6023
16	30	Unbiased	1.3154	0.4252	-0.8902
17	30	Unbiased	1.1492	1.1219	-0.0273
18	30	Unbiased	1.1217	1.0399	-0.0818
19	30	Unbiased	0.5407	0.4813	-0.0594
20	30	Unbiased	1.2998	1.3217	0.0219
27	50	Unbiased	0.831	1.5058	0.6748
28	50	Unbiased	1.6619	1.4426	-0.2193
29	50	Unbiased	0.9525	0.4595	-0.493
30	50	Unbiased	1.0811	1.0626	-0.0185
31	50	Unbiased	0.4501	1.0805	0.6304
77	50	Biased-84Hr-Anneal	0.4187	1.0181	0.5994
78	50	Biased-84Hr-Anneal	0.5618	0.4564	-0.1054
79	50	Biased-84Hr-Anneal	0.5052	1.0189	0.5137
80	50	Biased-84Hr-Anneal	0.4717	0.9588	0.4871
81	50	Biased-84Hr-Anneal	0.5712	0.5063	-0.0649
100	0	CORRELATION	0.5061	0.9369	0.4308
101	0	CORRELATION	1.102	0.9246	-0.1774
102	0	CORRELATION	0.5926	1.1874	0.5948
103	0	CORRELATION	0.4655	1.0306	0.5651
104	0	CORRELATION	0.6336	0.3971	-0.2365

Test Statistics (nA)

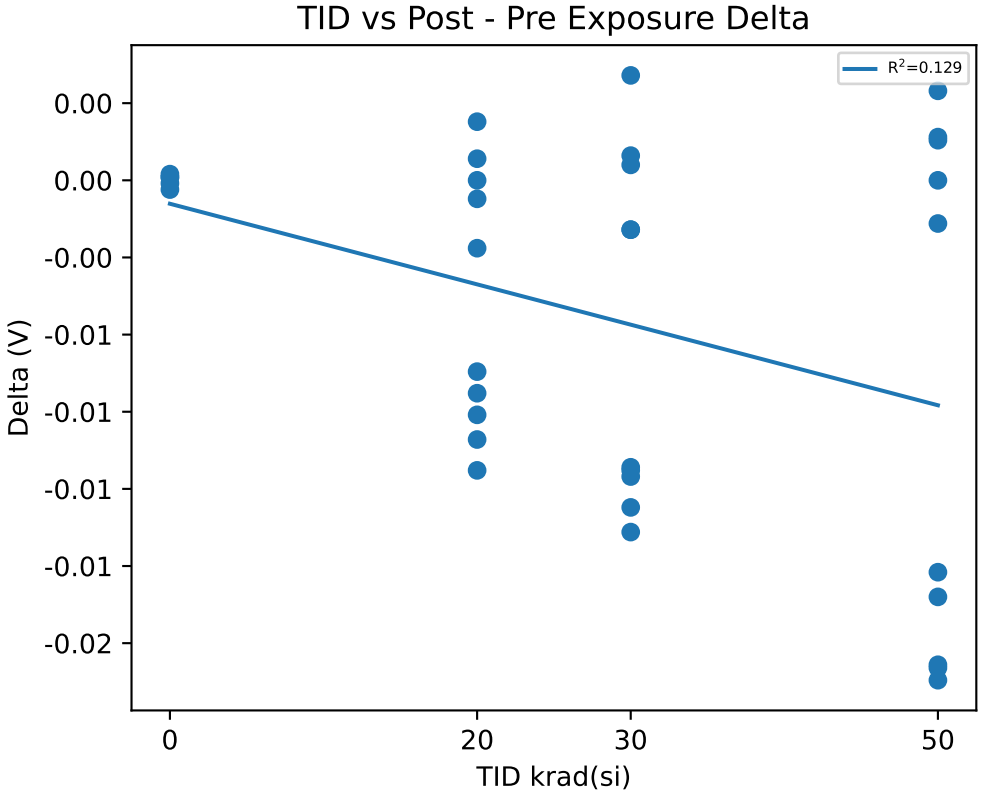
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.4655	0.65996	1.102	0.25599	0.3971	0.89532	1.1874	0.29767	-0.2365	0.23536	0.5948	0.40901
20	0.4127	1.0828	1.4027	0.32729	0.3658	0.87447	1.2748	0.32363	-0.831	-0.20829	0.5773	0.41179
30	0.4813	0.97479	1.3154	0.3372	0.4252	0.93917	1.3217	0.32175	-0.8902	-0.03562	0.6593	0.45179
50	0.4187	0.75052	1.6619	0.39345	0.4564	0.95095	1.5058	0.37592	-0.493	0.20043	0.6748	0.42404

Device Test: 15.10 THRESHOLD|FALL/EN/12////@EN_VTH_FALLING

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 0.455, Upper Limit = 0.554 (V))

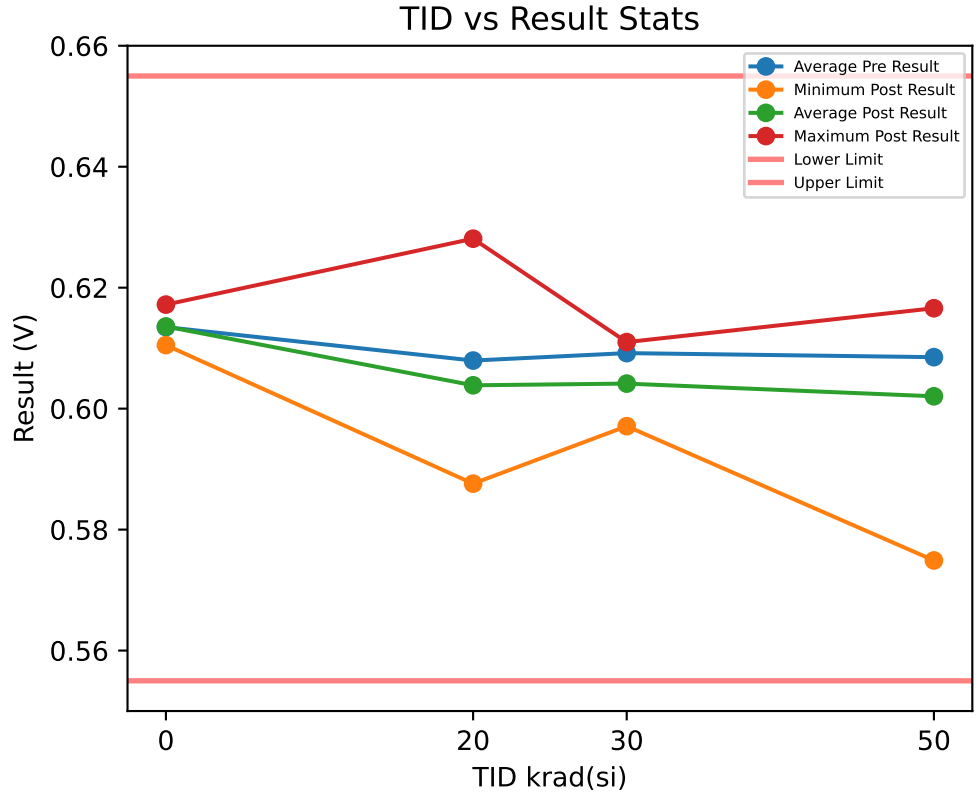
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.4991	0.4907	-0.0084
2	20	Biased	0.4888	0.4826	-0.0062
3	20	Biased	0.5122	0.5028	-0.0094
4	20	Biased	0.5029	0.496	-0.0069
5	20	Biased	0.5031	0.4955	-0.0076
6	20	Unbiased	0.4981	0.4975	-0.0006
7	20	Unbiased	0.5001	0.4979	-0.0022
8	20	Unbiased	0.5014	0.5033	0.0019
9	20	Unbiased	0.5012	0.5012	0
10	20	Unbiased	0.5222	0.5229	0.0007
11	30	Biased	0.5157	0.5064	-0.0093
12	30	Biased	0.5111	0.4997	-0.0114
13	30	Biased	0.5116	0.501	-0.0106
14	30	Biased	0.5069	0.4973	-0.0096
15	30	Biased	0.5016	0.4922	-0.0094
16	30	Unbiased	0.4914	0.4919	0.0005
17	30	Unbiased	0.5	0.5008	0.0008
18	30	Unbiased	0.4997	0.4981	-0.0016
19	30	Unbiased	0.4988	0.5022	0.0034
20	30	Unbiased	0.5039	0.5023	-0.0016
27	50	Unbiased	0.5082	0.5111	0.0029
28	50	Unbiased	0.4842	0.4828	-0.0014
29	50	Unbiased	0.5031	0.5044	0.0013
30	50	Unbiased	0.4978	0.4992	0.0014
31	50	Unbiased	0.5019	0.5019	0
77	50	Biased-84Hr-Anneal	0.483	0.4703	-0.0127
78	50	Biased-84Hr-Anneal	0.5145	0.4988	-0.0157
79	50	Biased-84Hr-Anneal	0.5166	0.5004	-0.0162
80	50	Biased-84Hr-Anneal	0.5186	0.5028	-0.0158
81	50	Biased-84Hr-Anneal	0.5082	0.4947	-0.0135
100	0	CORRELATION	0.5055	0.5056	0.0001
101	0	CORRELATION	0.5086	0.5085	-0.0001
102	0	CORRELATION	0.5129	0.5126	-0.0003
103	0	CORRELATION	0.5108	0.5109	0.0001
104	0	CORRELATION	0.5061	0.5063	0.0002

Test Statistics (V)

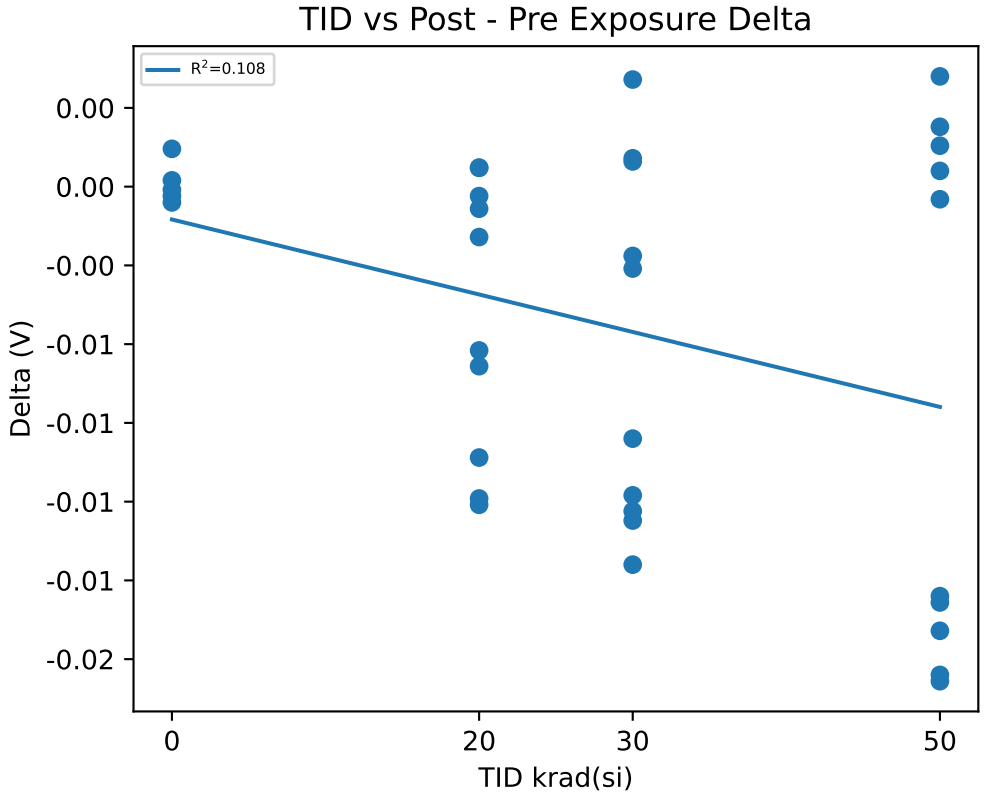
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5055	0.50878	0.5129	0.0031236	0.5056	0.50878	0.5126	0.0029761	-0.0003	-2.2204e-17	0.0002	0.0002
20	0.4888	0.50291	0.5222	0.0088712	0.4826	0.49904	0.5229	0.01039	-0.0094	-0.00387	0.0019	0.0042461
30	0.4914	0.50407	0.5157	0.007299	0.4919	0.49919	0.5064	0.0045167	-0.0114	-0.00488	0.0034	0.0056643
50	0.483	0.50361	0.5186	0.012439	0.4703	0.49664	0.5111	0.011782	-0.0162	-0.00697	0.0029	0.0083687

Device Test: 15.12 THRESHOLD|RISE/EN/14////@EN_VTH_RISING

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 0.555, Upper Limit = 0.655 (V))

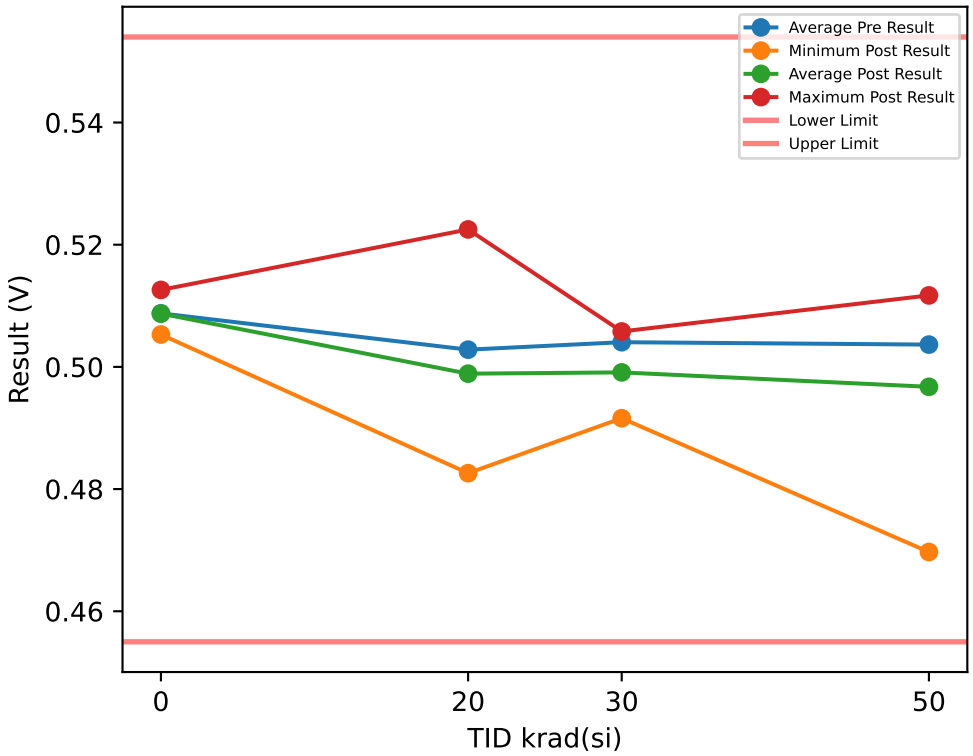
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6046	0.5947	-0.0099
2	20	Biased	0.5928	0.5876	-0.0052
3	20	Biased	0.6181	0.608	-0.0101
4	20	Biased	0.6079	0.6022	-0.0057
5	20	Biased	0.608	0.5994	-0.0086
6	20	Unbiased	0.6028	0.6021	-0.0007
7	20	Unbiased	0.605	0.6034	-0.0016
8	20	Unbiased	0.6063	0.6069	0.0006
9	20	Unbiased	0.6065	0.6062	-0.0003
10	20	Unbiased	0.6275	0.6281	0.0006
11	30	Biased	0.619	0.611	-0.008
12	30	Biased	0.6166	0.6046	-0.012
13	30	Biased	0.6168	0.6065	-0.0103
14	30	Biased	0.6128	0.6022	-0.0106
15	30	Biased	0.6069	0.5971	-0.0098
16	30	Unbiased	0.5963	0.5972	0.0009
17	30	Unbiased	0.6046	0.6054	0.0008
18	30	Unbiased	0.6047	0.6021	-0.0026
19	30	Unbiased	0.6044	0.6078	0.0034
20	30	Unbiased	0.6097	0.6075	-0.0022
27	50	Unbiased	0.6131	0.6166	0.0035
28	50	Unbiased	0.5885	0.5881	-0.0004
29	50	Unbiased	0.6093	0.6106	0.0013
30	50	Unbiased	0.6028	0.6047	0.0019
31	50	Unbiased	0.6069	0.6074	0.0005
77	50	Biased-84Hr-Anneal	0.5879	0.5749	-0.013
78	50	Biased-84Hr-Anneal	0.6197	0.604	-0.0157
79	50	Biased-84Hr-Anneal	0.6212	0.6057	-0.0155
80	50	Biased-84Hr-Anneal	0.6225	0.6084	-0.0141
81	50	Biased-84Hr-Anneal	0.6132	0.6	-0.0132
100	0	CORRELATION	0.611	0.6105	-0.0005
101	0	CORRELATION	0.6132	0.6144	0.0012
102	0	CORRELATION	0.6175	0.6172	-0.0003
103	0	CORRELATION	0.615	0.6152	0.0002
104	0	CORRELATION	0.6107	0.6106	-0.0001

Test Statistics (V)

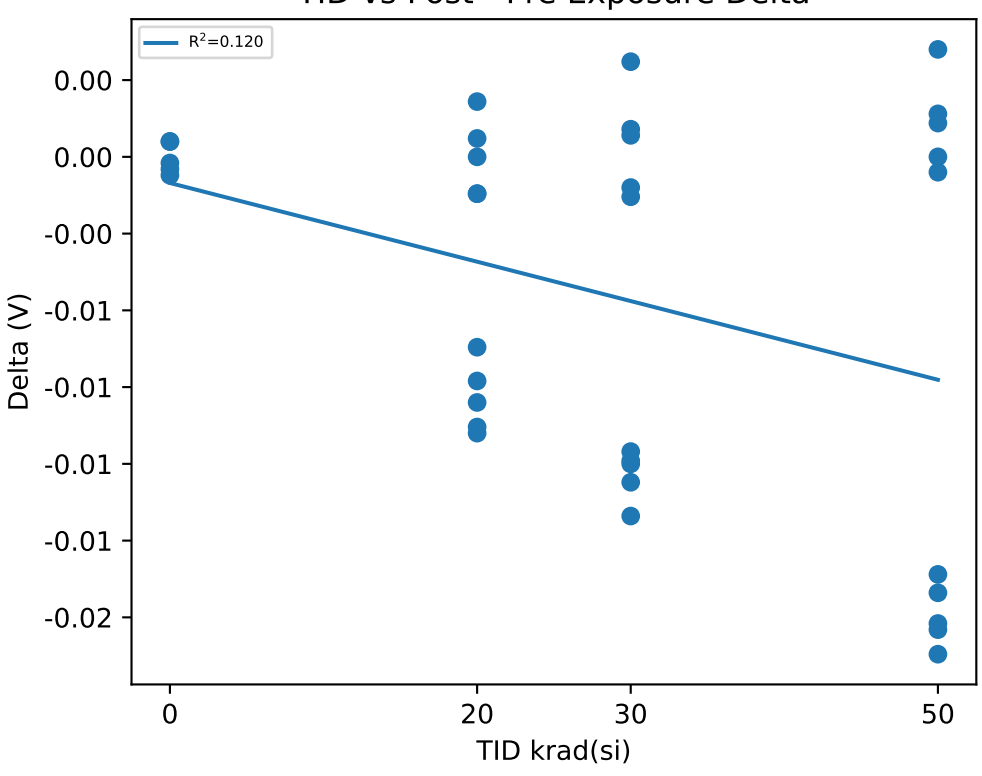
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6107	0.61348	0.6175	0.0028473	0.6105	0.61358	0.6172	0.0029482	-0.0005	0.0001	0.0012	0.00066708
20	0.5928	0.60795	0.6275	0.0092257	0.5876	0.60386	0.6281	0.010508	-0.0101	-0.00409	0.0006	0.0043473
30	0.5963	0.60918	0.619	0.007133	0.5971	0.60414	0.611	0.0045309	-0.012	-0.00504	0.0034	0.0057066
50	0.5879	0.60851	0.6225	0.01241	0.5749	0.60204	0.6166	0.012082	-0.0157	-0.00647	0.0035	0.0083542

Device Test: 15.13 THRESHOLD|FALL/EN/14////@EN_VTH_FALLING

TID vs Result Stats



TID vs Post - Pre Exposure Delta



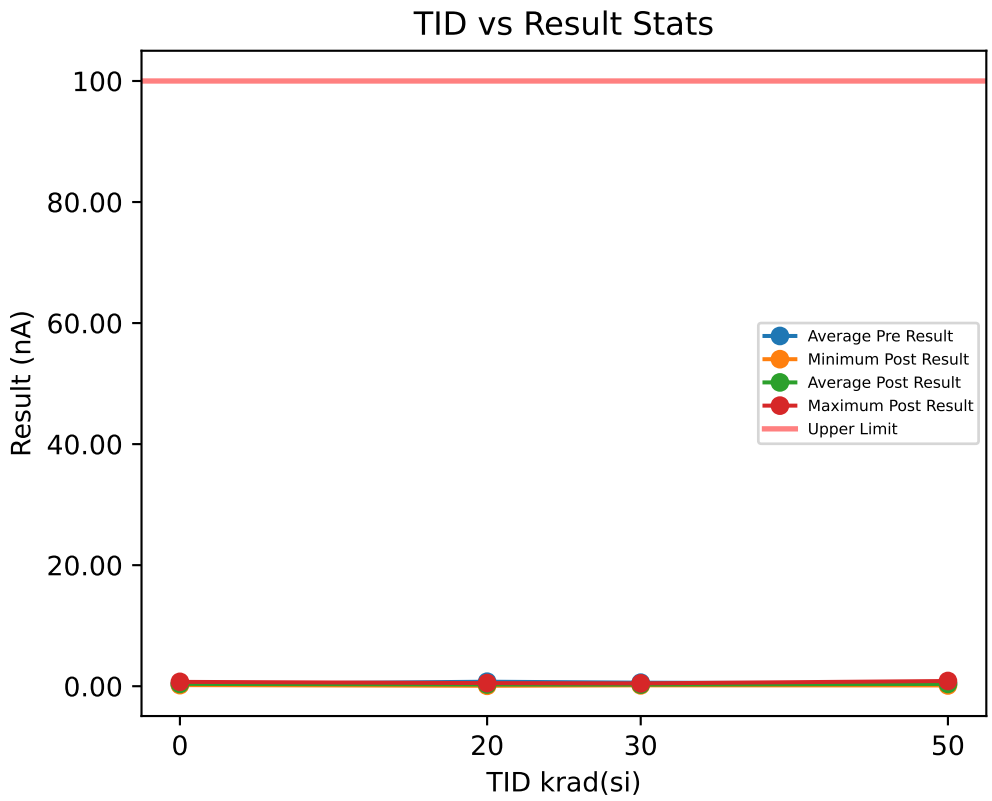
Test Results (Lower Limit = 0.455, Upper Limit = 0.554 (V))

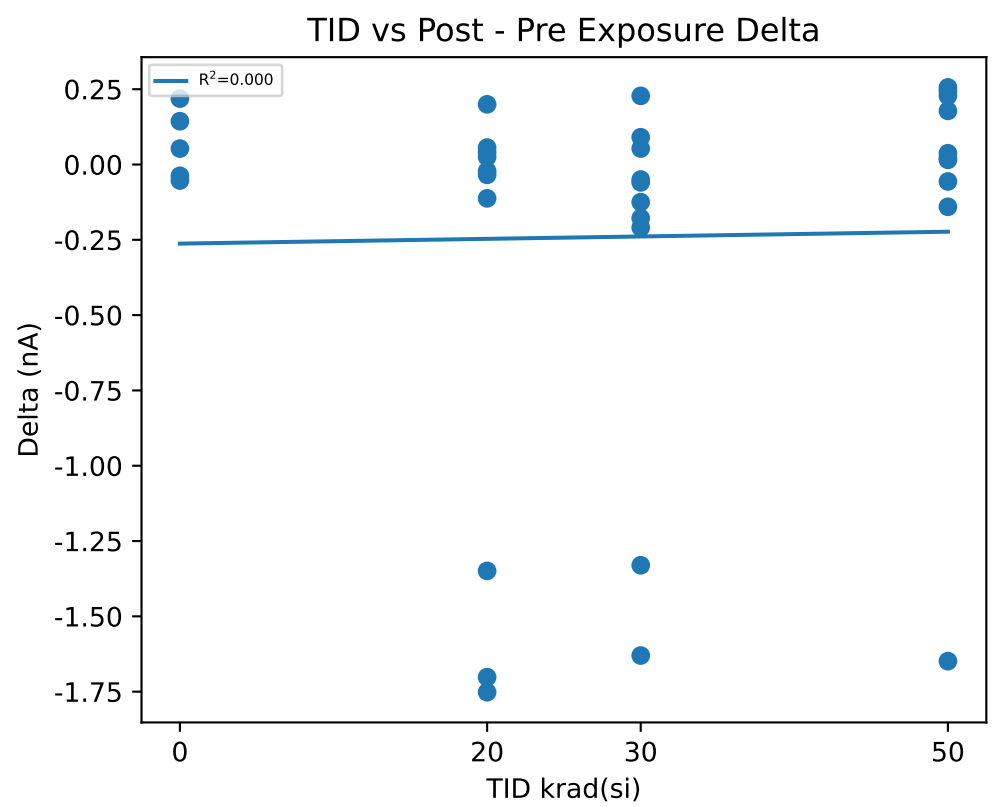
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.4997	0.4907	-0.009
2	20	Biased	0.4888	0.4826	-0.0062
3	20	Biased	0.5119	0.5031	-0.0088
4	20	Biased	0.5033	0.496	-0.0073
5	20	Biased	0.5028	0.4948	-0.008
6	20	Unbiased	0.4981	0.4969	-0.0012
7	20	Unbiased	0.4994	0.4982	-0.0012
8	20	Unbiased	0.5011	0.5029	0.0018
9	20	Unbiased	0.5012	0.5012	0
10	20	Unbiased	0.5219	0.5225	0.0006
11	30	Biased	0.5154	0.5058	-0.0096
12	30	Biased	0.5114	0.4997	-0.0117
13	30	Biased	0.5116	0.501	-0.0106
14	30	Biased	0.5069	0.497	-0.0099
15	30	Biased	0.5016	0.4916	-0.01
16	30	Unbiased	0.4917	0.4926	0.0009
17	30	Unbiased	0.4997	0.5004	0.0007
18	30	Unbiased	0.4994	0.4984	-0.001
19	30	Unbiased	0.4991	0.5022	0.0031
20	30	Unbiased	0.5036	0.5023	-0.0013
27	50	Unbiased	0.5082	0.5117	0.0035
28	50	Unbiased	0.4836	0.4831	-0.0005
29	50	Unbiased	0.5037	0.5051	0.0014
30	50	Unbiased	0.4981	0.4992	0.0011
31	50	Unbiased	0.5022	0.5022	0
77	50	Biased-84Hr-Anneal	0.4833	0.4697	-0.0136
78	50	Biased-84Hr-Anneal	0.5139	0.4985	-0.0154
79	50	Biased-84Hr-Anneal	0.5166	0.5004	-0.0162
80	50	Biased-84Hr-Anneal	0.5183	0.5031	-0.0152
81	50	Biased-84Hr-Anneal	0.5086	0.4944	-0.0142
100	0	CORRELATION	0.5055	0.5053	-0.0002
101	0	CORRELATION	0.5086	0.5091	0.0005
102	0	CORRELATION	0.5132	0.5126	-0.0006
103	0	CORRELATION	0.5104	0.5109	0.0005
104	0	CORRELATION	0.5061	0.5057	-0.0004

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	0.5055	0.50876	0.5132	0.0031675	0.5053	0.50872	0.5126	0.0031925	-0.0006	-4e-05	0.0005	0.00051284
20	0.4888	0.50282	0.5219	0.0087723	0.4826	0.49889	0.5225	0.01032	-0.009	-0.00393	0.0018	0.0042973
30	0.4917	0.50404	0.5154	0.0072399	0.4916	0.4991	0.5058	0.0043944	-0.0117	-0.00494	0.0031	0.0058593
50	0.4833	0.50365	0.5183	0.01239	0.4697	0.49674	0.5117	0.012061	-0.0162	-0.00691	0.0035	0.0085338

Device Test: 15.15 LEAK|POWERED/EN/14////@EN_LKG_CURR





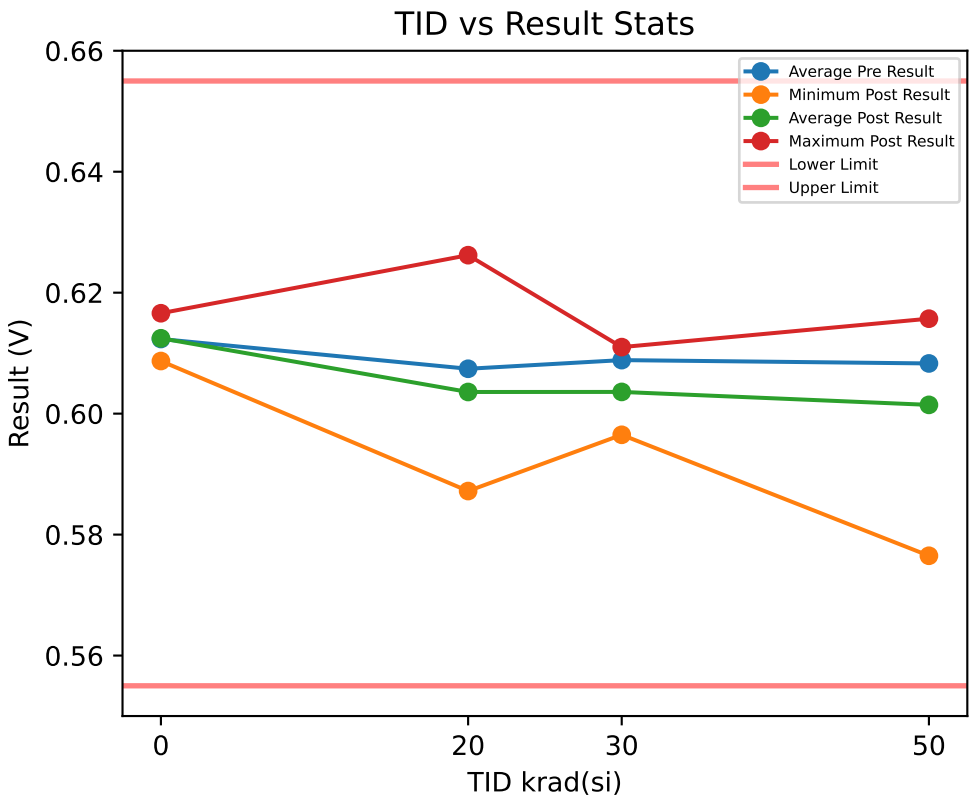
Test Results (Upper Limit = 100.0 (nA))

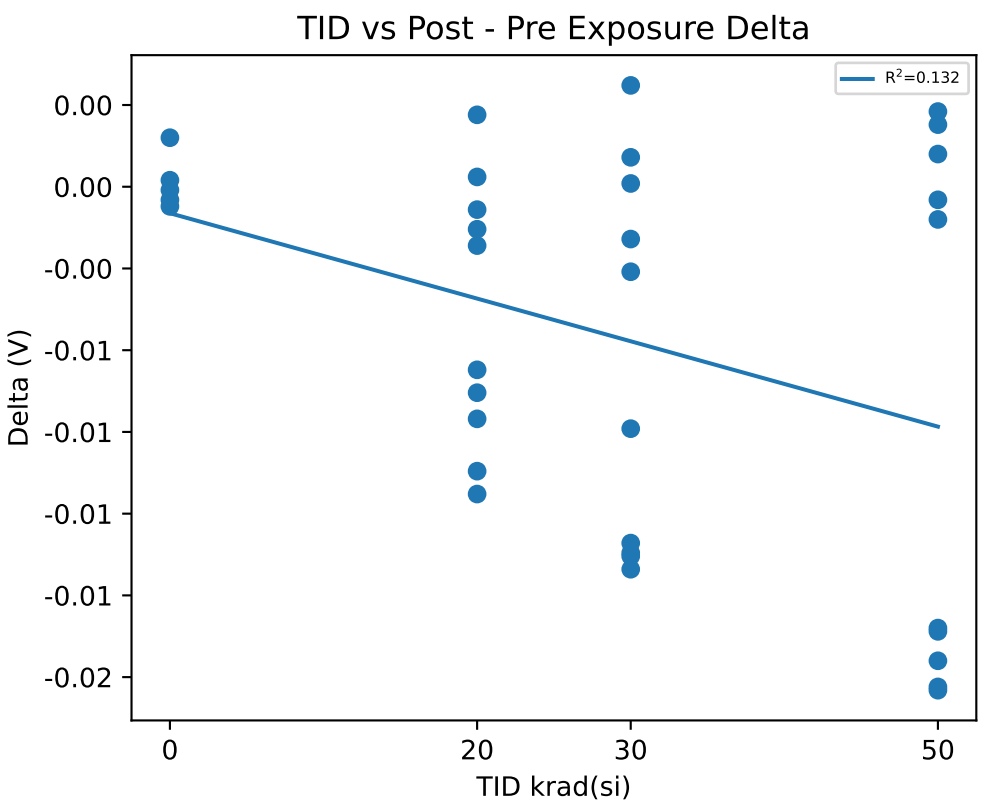
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.2529	0.1405	-0.1124
2	20	Biased	1.8205	0.0687	-1.7518
3	20	Biased	0.1467	0.3465	0.1998
4	20	Biased	0.1217	0.1467	0.025
5	20	Biased	0.4214	0.3871	-0.0343
6	20	Unbiased	1.7862	0.437	-1.3492
7	20	Unbiased	0.2154	0.1936	-0.0218
8	20	Unbiased	0.1436	0.1998	0.0562
9	20	Unbiased	0.4745	0.5151	0.0406
10	20	Unbiased	2.0672	0.3653	-1.7019
11	30	Biased	0.2654	0.1405	-0.1249
12	30	Biased	0.1155	0.3434	0.2279
13	30	Biased	0.4058	0.1967	-0.2091
14	30	Biased	1.8236	0.1935	-1.6301
15	30	Biased	0.3153	0.4058	0.0905
16	30	Unbiased	0.2435	0.2966	0.0531
17	30	Unbiased	0.3559	0.1779	-0.178
18	30	Unbiased	1.7987	0.4683	-1.3304
19	30	Unbiased	0.2029	0.153	-0.0499
20	30	Unbiased	0.3309	0.2716	-0.0593
27	50	Unbiased	0.5588	0.5806	0.0218
28	50	Unbiased	0.6056	0.8616	0.256
29	50	Unbiased	0.2653	0.1249	-0.1404
30	50	Unbiased	1.7799	0.1311	-1.6488
31	50	Unbiased	0.2903	0.4683	0.178
77	50	Biased-84Hr-Anneal	0.2589	0.5026	0.2437
78	50	Biased-84Hr-Anneal	0.2342	0.2497	0.0155
79	50	Biased-84Hr-Anneal	0.178	0.2154	0.0374
80	50	Biased-84Hr-Anneal	0.1996	0.4277	0.2281
81	50	Biased-84Hr-Anneal	0.2873	0.231	-0.0563
100	0	CORRELATION	0.2246	0.3684	0.1438
101	0	CORRELATION	0.6651	0.718	0.0529
102	0	CORRELATION	0.2685	0.2154	-0.0531
103	0	CORRELATION	0.2214	0.4402	0.2188
104	0	CORRELATION	0.2154	0.1779	-0.0375

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	0.2154	0.319	0.6651	0.19462	0.1779	0.38398	0.718	0.21556	-0.0531	0.06498	0.2188	0.11669
20	0.1217	0.74501	2.0672	0.80261	0.0687	0.28003	0.5151	0.14865	-1.7518	-0.46498	0.1998	0.79465
30	0.1155	0.58575	1.8236	0.65101	0.1405	0.26473	0.4683	0.11242	-1.6301	-0.32102	0.2279	0.62863
50	0.178	0.46579	1.7799	0.48397	0.1249	0.37929	0.8616	0.23347	-1.6488	-0.0865	0.256	0.56543

Device Test: 15.3 THRESHOLD|RISE/EN/4.5////@EN_VTH_RISING





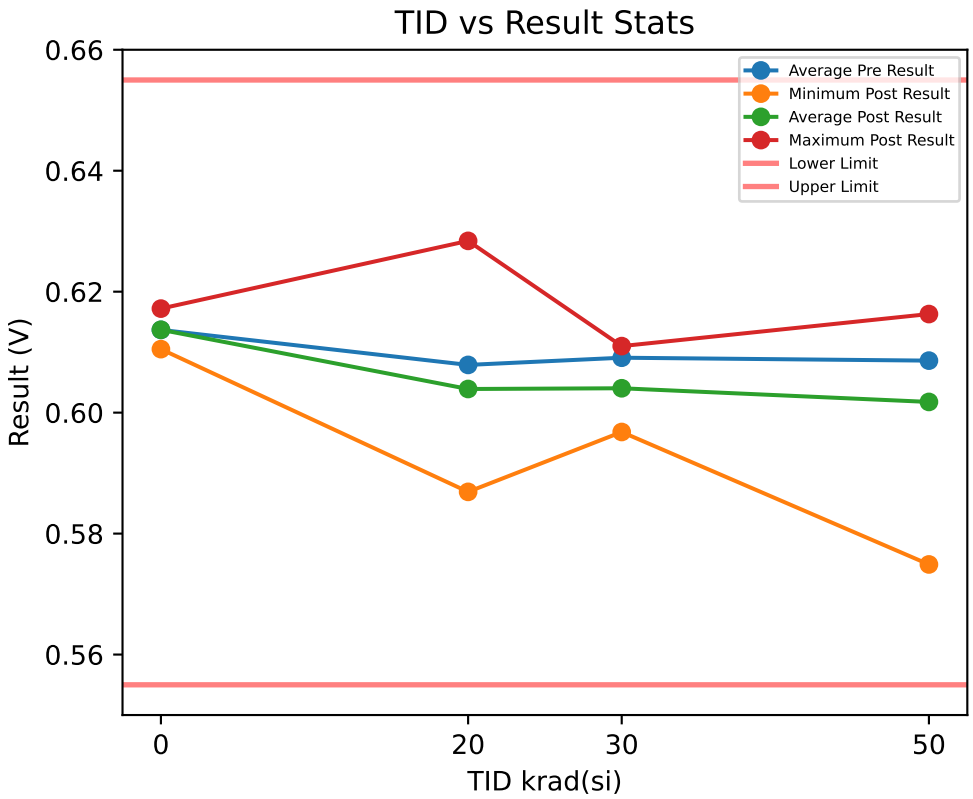
Test Results (Lower Limit = 0.555, Upper Limit = 0.655 (V))

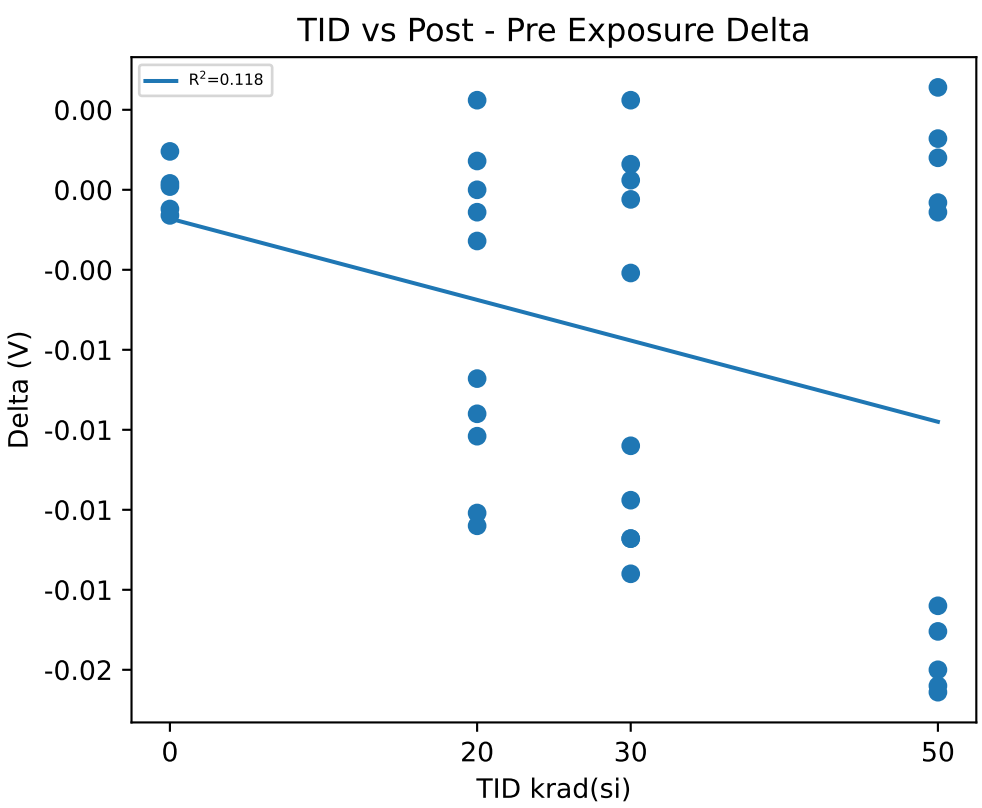
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6037	0.595	-0.0087
2	20	Biased	0.5928	0.5872	-0.0056
3	20	Biased	0.6165	0.6071	-0.0094
4	20	Biased	0.6085	0.6022	-0.0063
5	20	Biased	0.6065	0.5994	-0.0071
6	20	Unbiased	0.6025	0.6018	-0.0007
7	20	Unbiased	0.604	0.6022	-0.0018
8	20	Unbiased	0.606	0.6082	0.0022
9	20	Unbiased	0.6062	0.6065	0.0003
10	20	Unbiased	0.6275	0.6262	-0.0013
11	30	Biased	0.6184	0.611	-0.0074
12	30	Biased	0.6157	0.604	-0.0117
13	30	Biased	0.6165	0.6053	-0.0112
14	30	Biased	0.6125	0.6016	-0.0109
15	30	Biased	0.6078	0.5965	-0.0113
16	30	Unbiased	0.5963	0.5972	0.0009
17	30	Unbiased	0.604	0.6041	0.0001
18	30	Unbiased	0.6041	0.6015	-0.0026
19	30	Unbiased	0.6044	0.6075	0.0031
20	30	Unbiased	0.6088	0.6072	-0.0016
27	50	Unbiased	0.6134	0.6157	0.0023
28	50	Unbiased	0.5885	0.5881	-0.0004
29	50	Unbiased	0.608	0.609	0.001
30	50	Unbiased	0.6028	0.6047	0.0019
31	50	Unbiased	0.6081	0.6071	-0.001
77	50	Biased-84Hr-Anneal	0.5901	0.5765	-0.0136
78	50	Biased-84Hr-Anneal	0.6182	0.6028	-0.0154
79	50	Biased-84Hr-Anneal	0.6197	0.6044	-0.0153
80	50	Biased-84Hr-Anneal	0.621	0.6065	-0.0145
81	50	Biased-84Hr-Anneal	0.6132	0.5997	-0.0135
100	0	CORRELATION	0.6091	0.6093	0.0002
101	0	CORRELATION	0.6125	0.614	0.0015
102	0	CORRELATION	0.6172	0.6166	-0.0006
103	0	CORRELATION	0.6138	0.6137	-0.0001
104	0	CORRELATION	0.6091	0.6087	-0.0004

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	0.6091	0.61234	0.6172	0.0034195	0.6087	0.61246	0.6166	0.0033605	-0.0006	0.00012	0.0015	0.00082885
20	0.5928	0.60742	0.6275	0.009157	0.5872	0.60358	0.6262	0.010112	-0.0094	-0.00384	0.0022	0.0040607
30	0.5963	0.60885	0.6184	0.0069479	0.5965	0.60359	0.611	0.0045462	-0.0117	-0.00526	0.0031	0.0058373
50	0.5885	0.6083	0.621	0.011513	0.5765	0.60145	0.6157	0.011266	-0.0154	-0.00685	0.0023	0.0081004

Device Test: 15.6 THRESHOLD|RISE/EN/5////@EN_VTH_RISING





Test Results (Lower Limit = 0.555, Upper Limit = 0.655 (V))

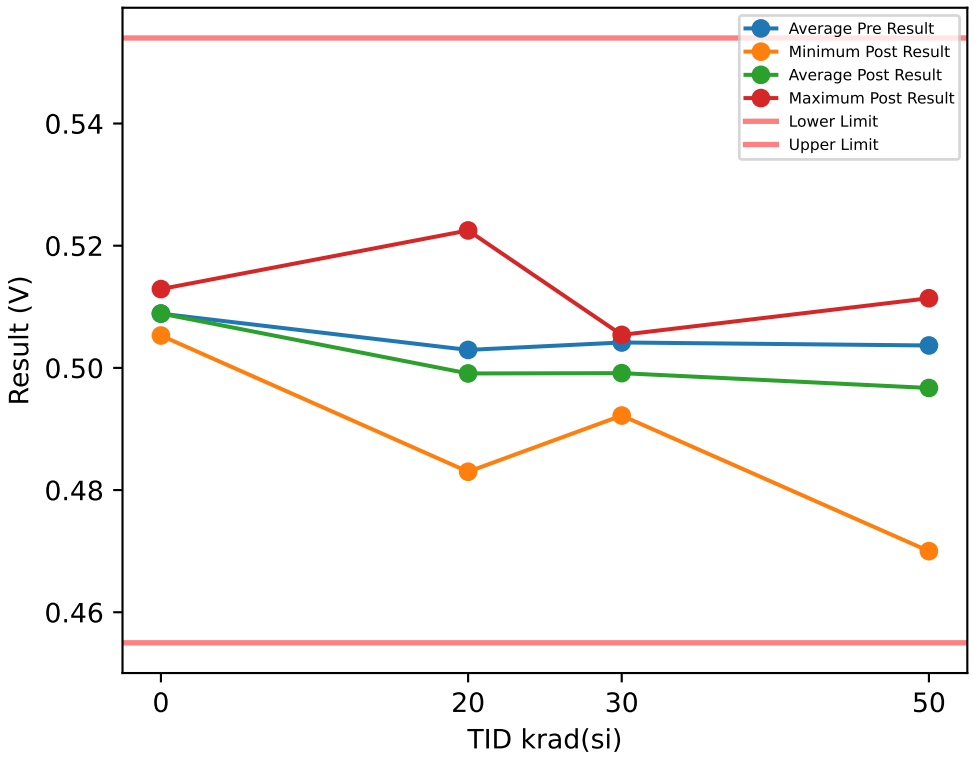
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6049	0.5944	-0.0105
2	20	Biased	0.5928	0.5869	-0.0059
3	20	Biased	0.6181	0.608	-0.0101
4	20	Biased	0.6085	0.6015	-0.007
5	20	Biased	0.6071	0.5994	-0.0077
6	20	Unbiased	0.6028	0.6021	-0.0007
7	20	Unbiased	0.605	0.6034	-0.0016
8	20	Unbiased	0.606	0.6088	0.0028
9	20	Unbiased	0.6062	0.6062	0
10	20	Unbiased	0.6275	0.6284	0.0009
11	30	Biased	0.619	0.611	-0.008
12	30	Biased	0.6163	0.6043	-0.012
13	30	Biased	0.6165	0.6056	-0.0109
14	30	Biased	0.6131	0.6022	-0.0109
15	30	Biased	0.6065	0.5968	-0.0097
16	30	Unbiased	0.5972	0.5975	0.0003
17	30	Unbiased	0.6046	0.6054	0.0008
18	30	Unbiased	0.6047	0.6021	-0.0026
19	30	Unbiased	0.6044	0.6072	0.0028
20	30	Unbiased	0.6085	0.6082	-0.0003
27	50	Unbiased	0.6131	0.6163	0.0032
28	50	Unbiased	0.5888	0.5881	-0.0007
29	50	Unbiased	0.609	0.61	0.001
30	50	Unbiased	0.6028	0.6044	0.0016
31	50	Unbiased	0.6075	0.6071	-0.0004
77	50	Biased-84Hr-Anneal	0.5879	0.5749	-0.013
78	50	Biased-84Hr-Anneal	0.6194	0.6044	-0.015
79	50	Biased-84Hr-Anneal	0.6212	0.6057	-0.0155
80	50	Biased-84Hr-Anneal	0.6228	0.6071	-0.0157
81	50	Biased-84Hr-Anneal	0.6135	0.5997	-0.0138
100	0	CORRELATION	0.6113	0.6105	-0.0008
101	0	CORRELATION	0.6132	0.6144	0.0012
102	0	CORRELATION	0.6178	0.6172	-0.0006
103	0	CORRELATION	0.6154	0.6155	0.0001
104	0	CORRELATION	0.6107	0.6109	0.0002

Test Statistics (V)

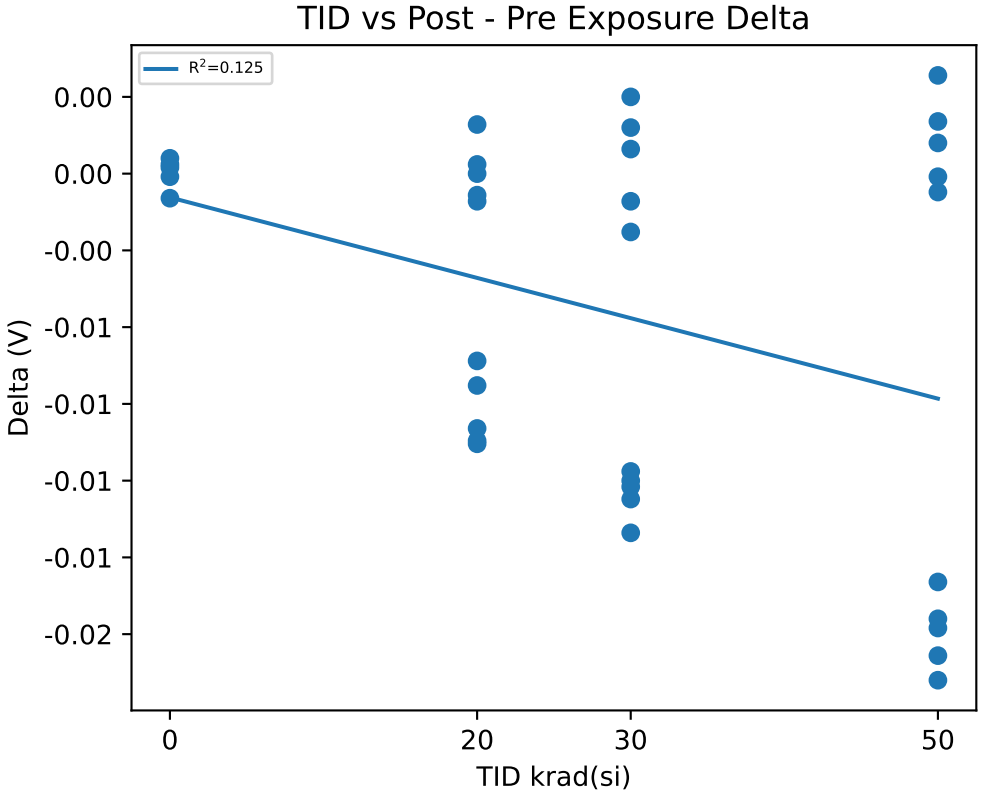
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6107	0.61368	0.6178	0.0029457	0.6105	0.6137	0.6172	0.002918	-0.0008	2e-05	0.0012	0.00078867
20	0.5928	0.60789	0.6275	0.0092324	0.5869	0.60391	0.6284	0.010827	-0.0105	-0.00398	0.0028	0.004815
30	0.5972	0.60908	0.619	0.0069205	0.5968	0.60403	0.611	0.0045021	-0.012	-0.00505	0.0028	0.0057745
50	0.5879	0.6086	0.6228	0.012369	0.5749	0.60177	0.6163	0.011917	-0.0157	-0.00683	0.0032	0.0082942

Device Test: 15.7 THRESHOLD|FALL/EN/5////@EN_VTH_FALLING

TID vs Result Stats



TID vs Post - Pre Exposure Delta



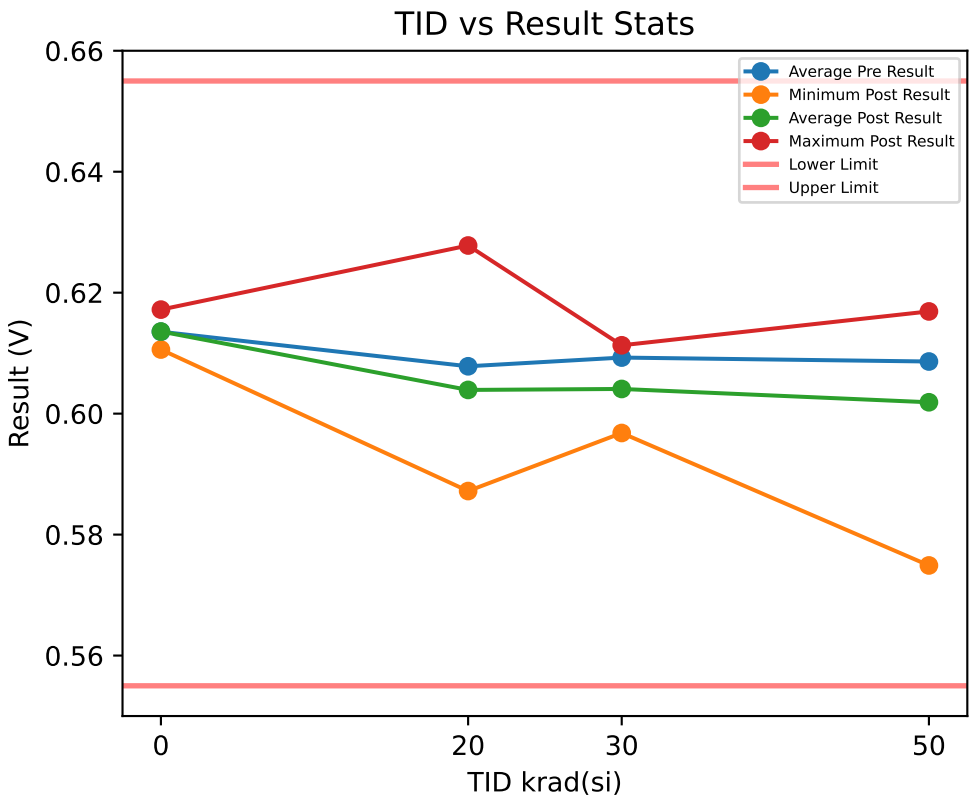
Test Results (Lower Limit = 0.455, Upper Limit = 0.554 (V))

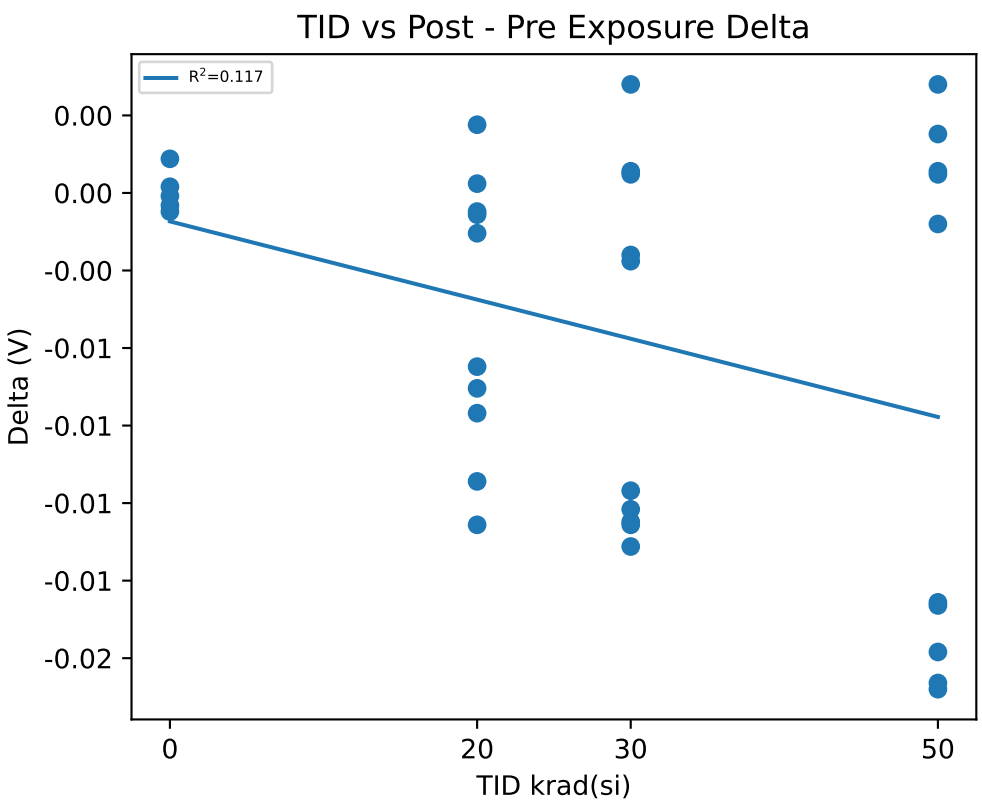
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.4994	0.4907	-0.0087
2	20	Biased	0.4891	0.483	-0.0061
3	20	Biased	0.5119	0.5031	-0.0088
4	20	Biased	0.5029	0.496	-0.0069
5	20	Biased	0.5031	0.4948	-0.0083
6	20	Unbiased	0.4985	0.4978	-0.0007
7	20	Unbiased	0.4994	0.4985	-0.0009
8	20	Unbiased	0.5017	0.5033	0.0016
9	20	Unbiased	0.5012	0.5012	0
10	20	Unbiased	0.5222	0.5225	0.0003
11	30	Biased	0.5154	0.5054	-0.01
12	30	Biased	0.5111	0.4994	-0.0117
13	30	Biased	0.5116	0.501	-0.0106
14	30	Biased	0.5072	0.497	-0.0102
15	30	Biased	0.5019	0.4922	-0.0097
16	30	Unbiased	0.4911	0.4926	0.0015
17	30	Unbiased	0.5	0.5008	0.0008
18	30	Unbiased	0.4997	0.4978	-0.0019
19	30	Unbiased	0.4994	0.5019	0.0025
20	30	Unbiased	0.5042	0.5033	-0.0009
27	50	Unbiased	0.5082	0.5114	0.0032
28	50	Unbiased	0.4839	0.4838	-0.0001
29	50	Unbiased	0.5034	0.5044	0.001
30	50	Unbiased	0.4981	0.4998	0.0017
31	50	Unbiased	0.5022	0.5016	-0.0006
77	50	Biased-84Hr-Anneal	0.4833	0.47	-0.0133
78	50	Biased-84Hr-Anneal	0.5142	0.4985	-0.0157
79	50	Biased-84Hr-Anneal	0.5166	0.5001	-0.0165
80	50	Biased-84Hr-Anneal	0.5179	0.5031	-0.0148
81	50	Biased-84Hr-Anneal	0.5089	0.4944	-0.0145
100	0	CORRELATION	0.5061	0.5053	-0.0008
101	0	CORRELATION	0.5092	0.5091	-0.0001
102	0	CORRELATION	0.5126	0.5129	0.0003
103	0	CORRELATION	0.5104	0.5109	0.0005
104	0	CORRELATION	0.5061	0.5063	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	0.5061	0.50888	0.5126	0.0028155	0.5053	0.5089	0.5129	0.0031528	-0.0008	2e-05	0.0005	0.00050695
20	0.4891	0.50294	0.5222	0.0087695	0.483	0.49909	0.5225	0.01025	-0.0088	-0.00385	0.0016	0.00425
30	0.4911	0.50416	0.5154	0.007262	0.4922	0.49914	0.5054	0.0043167	-0.0117	-0.00502	0.0025	0.0058589
50	0.4833	0.50367	0.5179	0.012326	0.47	0.49671	0.5114	0.011782	-0.0165	-0.00696	0.0032	0.008531

Device Test: 15.9 THRESHOLD|RISE/EN/12////@EN_VTH_RISING





Test Results (Lower Limit = 0.555, Upper Limit = 0.655 (V))

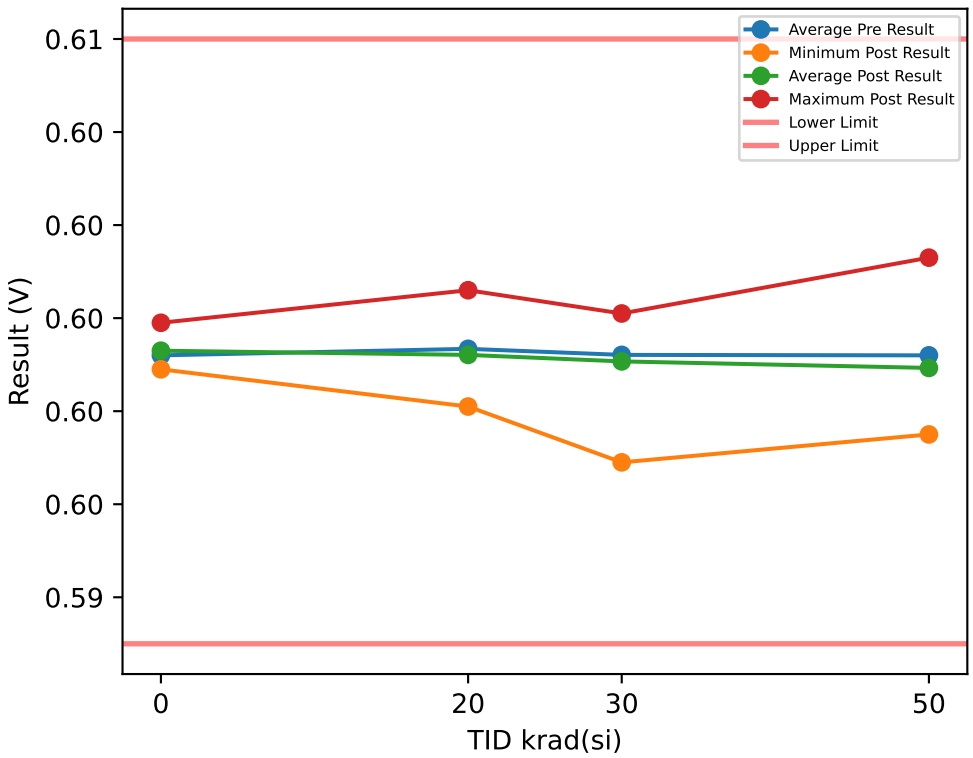
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.604	0.5947	-0.0093
2	20	Biased	0.5928	0.5872	-0.0056
3	20	Biased	0.6184	0.6077	-0.0107
4	20	Biased	0.6082	0.6019	-0.0063
5	20	Biased	0.6068	0.5997	-0.0071
6	20	Unbiased	0.6028	0.6021	-0.0007
7	20	Unbiased	0.6047	0.6034	-0.0013
8	20	Unbiased	0.606	0.6082	0.0022
9	20	Unbiased	0.6062	0.6065	0.0003
10	20	Unbiased	0.6284	0.6278	-0.0006
11	30	Biased	0.6209	0.6113	-0.0096
12	30	Biased	0.616	0.6046	-0.0114
13	30	Biased	0.6171	0.6069	-0.0102
14	30	Biased	0.6128	0.6022	-0.0106
15	30	Biased	0.6075	0.5968	-0.0107
16	30	Unbiased	0.5966	0.5972	0.0006
17	30	Unbiased	0.604	0.6047	0.0007
18	30	Unbiased	0.6041	0.6021	-0.002
19	30	Unbiased	0.604	0.6075	0.0035
20	30	Unbiased	0.6097	0.6075	-0.0022
27	50	Unbiased	0.6134	0.6169	0.0035
28	50	Unbiased	0.5872	0.5878	0.0006
29	50	Unbiased	0.6099	0.6106	0.0007
30	50	Unbiased	0.6028	0.6047	0.0019
31	50	Unbiased	0.6081	0.6071	-0.001
77	50	Biased-84Hr-Anneal	0.5882	0.5749	-0.0133
78	50	Biased-84Hr-Anneal	0.6194	0.6034	-0.016
79	50	Biased-84Hr-Anneal	0.6215	0.6057	-0.0158
80	50	Biased-84Hr-Anneal	0.6228	0.608	-0.0148
81	50	Biased-84Hr-Anneal	0.6129	0.5997	-0.0132
100	0	CORRELATION	0.6113	0.6109	-0.0004
101	0	CORRELATION	0.6129	0.614	0.0011
102	0	CORRELATION	0.6178	0.6172	-0.0006
103	0	CORRELATION	0.615	0.6152	0.0002
104	0	CORRELATION	0.6107	0.6106	-0.0001

Test Statistics (V)

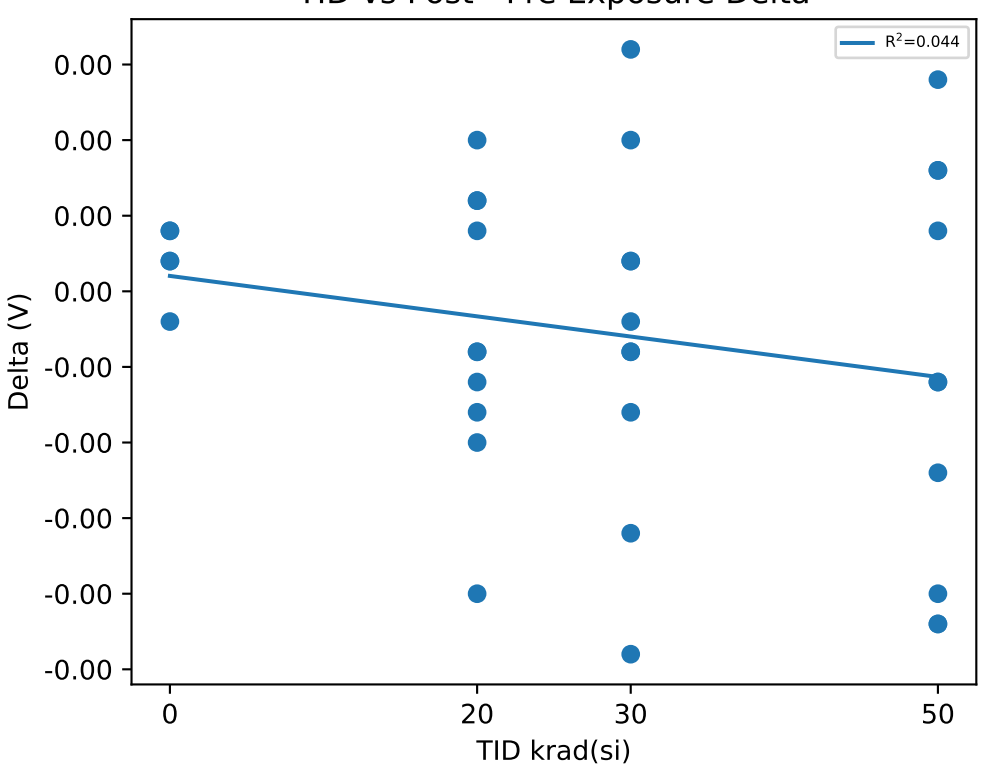
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6107	0.61354	0.6178	0.0029057	0.6106	0.61358	0.6172	0.002827	-0.0006	4e-05	0.0011	0.00066558
20	0.5928	0.60783	0.6284	0.0095319	0.5872	0.60392	0.6278	0.010539	-0.0107	-0.00391	0.0022	0.0044351
30	0.5966	0.60927	0.6209	0.0074568	0.5968	0.60408	0.6113	0.0046178	-0.0114	-0.00519	0.0035	0.005827
50	0.5872	0.60862	0.6228	0.012631	0.5749	0.60188	0.6169	0.01212	-0.016	-0.00674	0.0035	0.0084278

Device Test: 17.14 LEVEL|STATIC/VSNSP/5////@VREF_INTERNAL

TID vs Result Stats



TID vs Post - Pre Exposure Delta



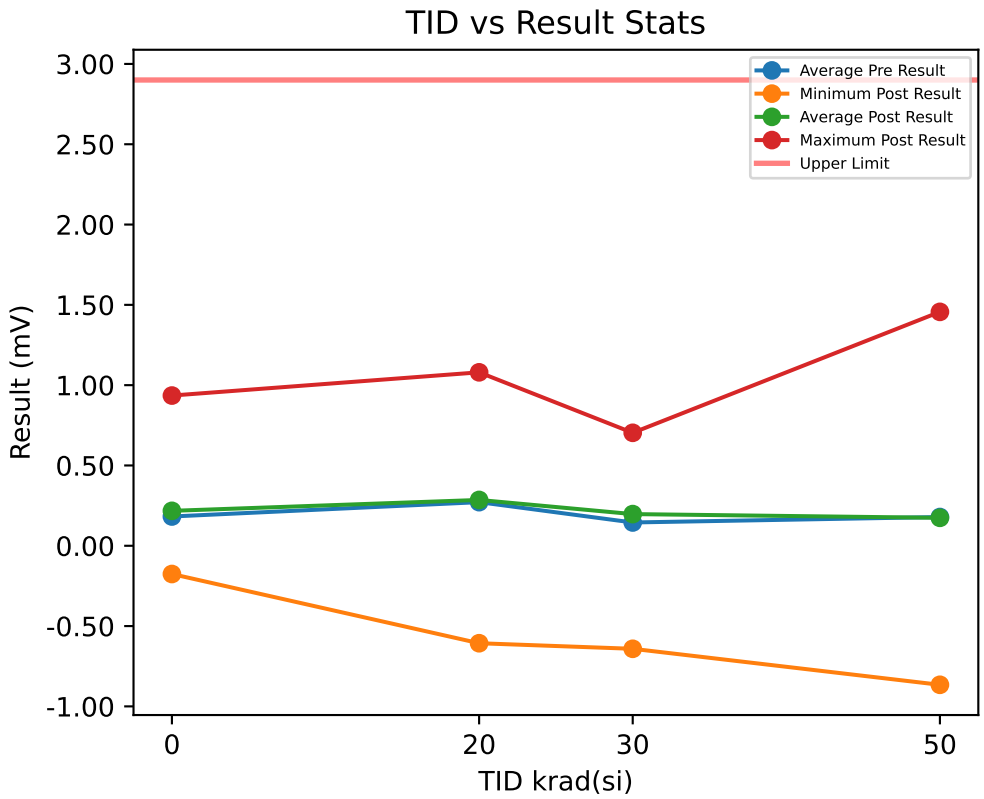
Test Results (Lower Limit = 0.593, Upper Limit = 0.606 (V))

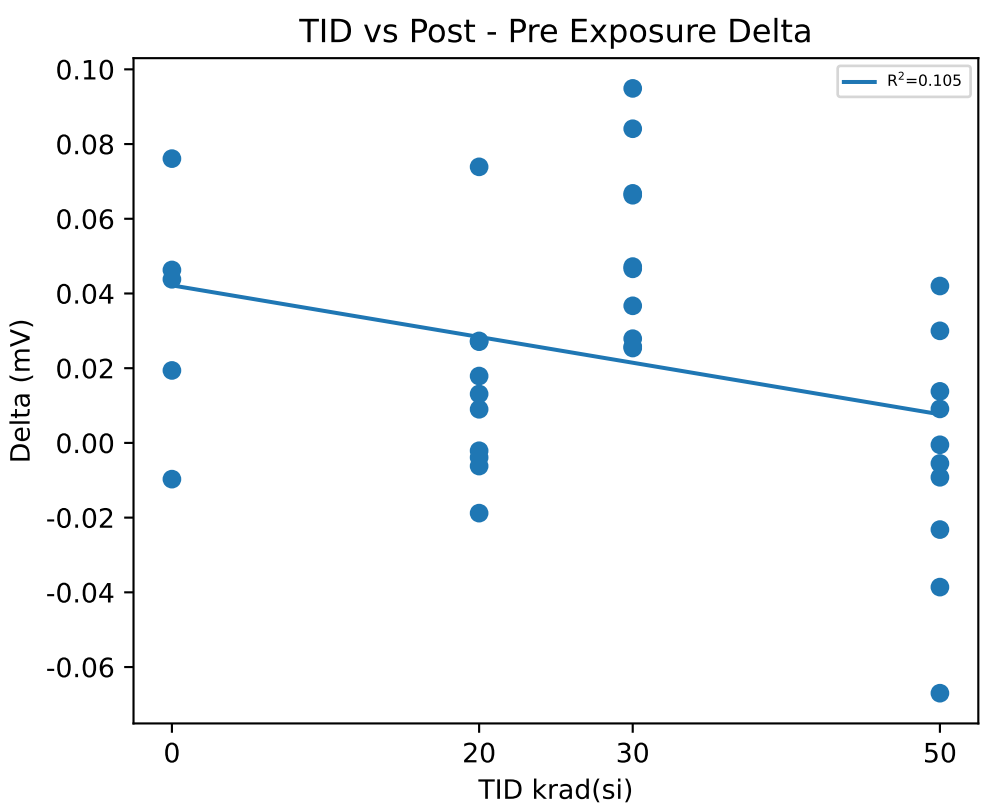
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.5993	0.599	-0.0003
2	20	Biased	0.5991	0.5993	0.0002
3	20	Biased	0.5983	0.5981	-0.0002
4	20	Biased	0.5993	0.5989	-0.0004
5	20	Biased	0.5997	0.5987	-0.001
6	20	Unbiased	0.6003	0.6006	0.0003
7	20	Unbiased	0.599	0.5993	0.0003
8	20	Unbiased	0.5999	0.6004	0.0005
9	20	Unbiased	0.5988	0.5986	-0.0002
10	20	Unbiased	0.5997	0.5992	-0.0005
11	30	Biased	0.5981	0.5969	-0.0012
12	30	Biased	0.5994	0.5999	0.0005
13	30	Biased	0.5995	0.5991	-0.0004
14	30	Biased	0.5998	0.5996	-0.0002
15	30	Biased	0.5999	0.5997	-0.0002
16	30	Unbiased	0.5993	0.6001	0.0008
17	30	Unbiased	0.5999	0.6	0.0001
18	30	Unbiased	0.5987	0.5988	0.0001
19	30	Unbiased	0.5986	0.5985	-0.0001
20	30	Unbiased	0.5989	0.5981	-0.0008
27	50	Unbiased	0.5978	0.5975	-0.0003
28	50	Unbiased	0.6006	0.6013	0.0007
29	50	Unbiased	0.6001	0.599	-0.0011
30	50	Unbiased	0.5984	0.5981	-0.0003
31	50	Unbiased	0.5998	0.6	0.0002
77	50	Biased-84Hr-Anneal	0.5985	0.5979	-0.0006
78	50	Biased-84Hr-Anneal	0.5994	0.5998	0.0004
79	50	Biased-84Hr-Anneal	0.5982	0.5986	0.0004
80	50	Biased-84Hr-Anneal	0.5993	0.5982	-0.0011
81	50	Biased-84Hr-Anneal	0.5999	0.5989	-0.001
100	0	CORRELATION	0.5996	0.5997	0.0001
101	0	CORRELATION	0.5989	0.5991	0.0002
102	0	CORRELATION	0.599	0.5989	-0.0001
103	0	CORRELATION	0.5998	0.5999	0.0001
104	0	CORRELATION	0.5987	0.5989	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	0.5987	0.5992	0.5998	0.00047434	0.5989	0.5993	0.5999	0.00046904	-0.0001	0.0001	0.0002	0.00012247
20	0.5983	0.59934	0.6003	0.00058157	0.5981	0.59921	0.6006	0.00077237	-0.001	-0.00013	0.0005	0.00045717
30	0.5981	0.59921	0.5999	0.00061364	0.5969	0.59907	0.6001	0.0010188	-0.0012	-0.00014	0.0008	0.00058157
50	0.5978	0.5992	0.6006	0.00092856	0.5975	0.59893	0.6013	0.0011528	-0.0011	-0.00027	0.0007	0.00067338

Device Test: 17.15 LEVEL|STATIC/VSNSP/5////@EA_INPUT_OFFSET_V





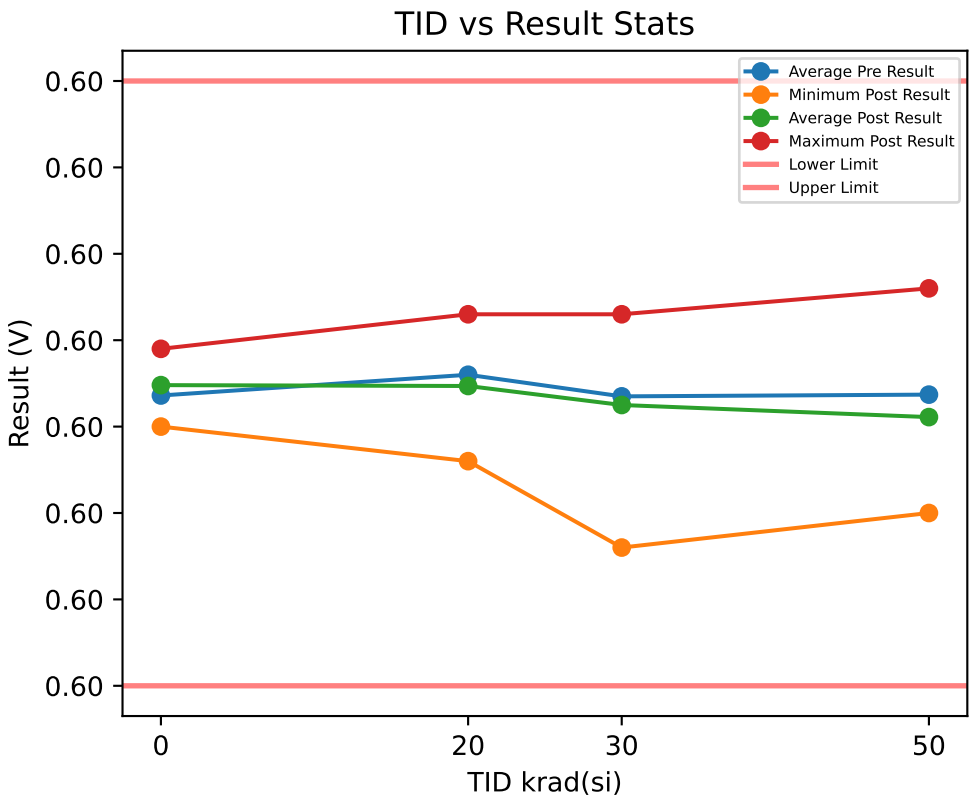
Test Results (Upper Limit = 2.9 (mV))

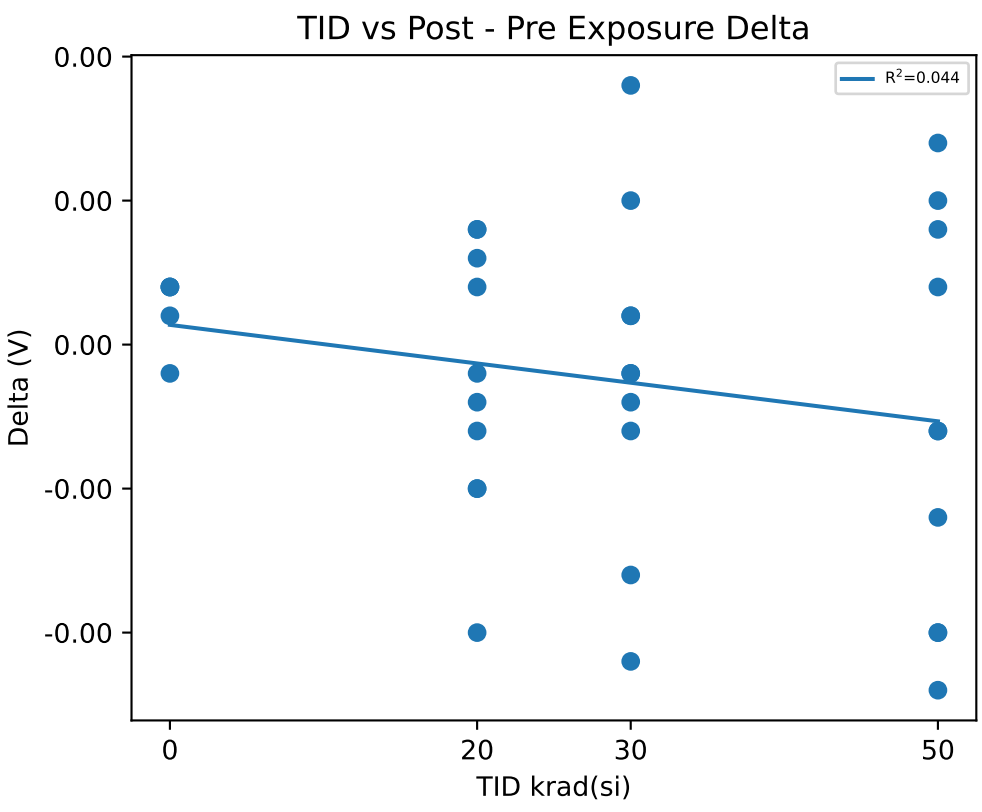
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.062	1.0799	0.0179
2	20	Biased	0.1489	0.1579	0.009
3	20	Biased	0.7273	0.8012	0.0739
4	20	Biased	0.3969	0.3948	-0.0021
5	20	Biased	0.5945	0.6218	0.0273
6	20	Unbiased	-0.3204	-0.3073	0.0131
7	20	Unbiased	0.6599	0.6411	-0.0188
8	20	Unbiased	-0.4781	-0.482	-0.0039
9	20	Unbiased	0.5589	0.5527	-0.0062
10	20	Unbiased	-0.6339	-0.6068	0.0271
11	30	Biased	0.6365	0.7033	0.0668
12	30	Biased	0.0333	0.0591	0.0258
13	30	Biased	0.6059	0.7008	0.0949
14	30	Biased	0.1528	0.1895	0.0367
15	30	Biased	-0.7078	-0.6415	0.0663
16	30	Unbiased	-0.4341	-0.4087	0.0254
17	30	Unbiased	0.289	0.3356	0.0466
18	30	Unbiased	0.5743	0.6215	0.0472
19	30	Unbiased	0.6166	0.7007	0.0841
20	30	Unbiased	-0.3161	-0.2882	0.0279
27	50	Unbiased	0.9749	0.984	0.0091
28	50	Unbiased	-0.7751	-0.7756	-0.0005
29	50	Unbiased	-0.3869	-0.3924	-0.0055
30	50	Unbiased	0.6215	0.5983	-0.0232
31	50	Unbiased	-0.0773	-0.1159	-0.0386
77	50	Biased-84Hr-Anneal	0.4655	0.4793	0.0138
78	50	Biased-84Hr-Anneal	0.1389	0.1297	-0.0092
79	50	Biased-84Hr-Anneal	1.5233	1.4563	-0.067
80	50	Biased-84Hr-Anneal	0.2123	0.2423	0.03
81	50	Biased-84Hr-Anneal	-0.9076	-0.8656	0.042
100	0	CORRELATION	-0.1661	-0.1758	-0.0097
101	0	CORRELATION	0.1148	0.1342	0.0194
102	0	CORRELATION	0.889	0.9353	0.0463
103	0	CORRELATION	-0.0384	0.0377	0.0761
104	0	CORRELATION	0.1121	0.1559	0.0438

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	-0.1661	0.18228	0.889	0.41201	-0.1758	0.21746	0.9353	0.42219	-0.0097	0.03518	0.0761	0.032154
20	-0.6339	0.2716	1.062	0.57088	-0.6068	0.28533	1.0799	0.57473	-0.0188	0.01373	0.0739	0.025906
30	-0.7078	0.14504	0.6365	0.49094	-0.6415	0.19721	0.7033	0.50417	0.0254	0.05217	0.0949	0.024844
50	-0.9076	0.17895	1.5233	0.75998	-0.8656	0.17404	1.4563	0.74294	-0.067	-0.00491	0.042	0.032195

Device Test: 17.16 LEVEL|STATIC/SS_TR/5////@VREF_25C





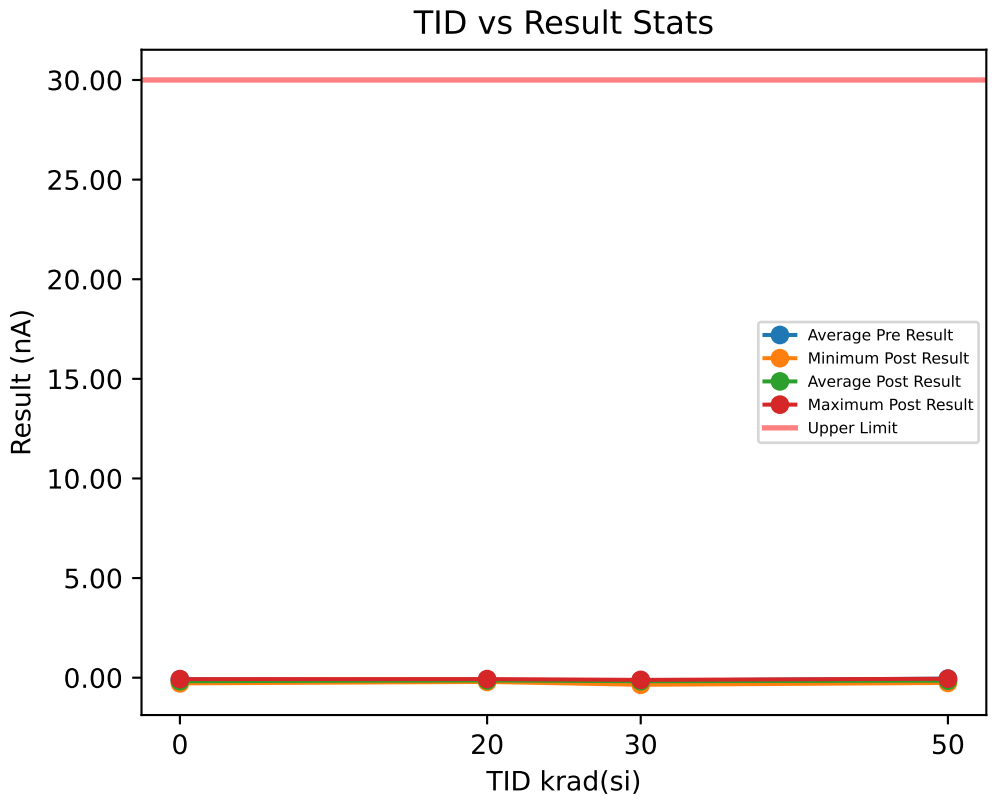
Test Results (Lower Limit = 0.596, Upper Limit = 0.603 (V))

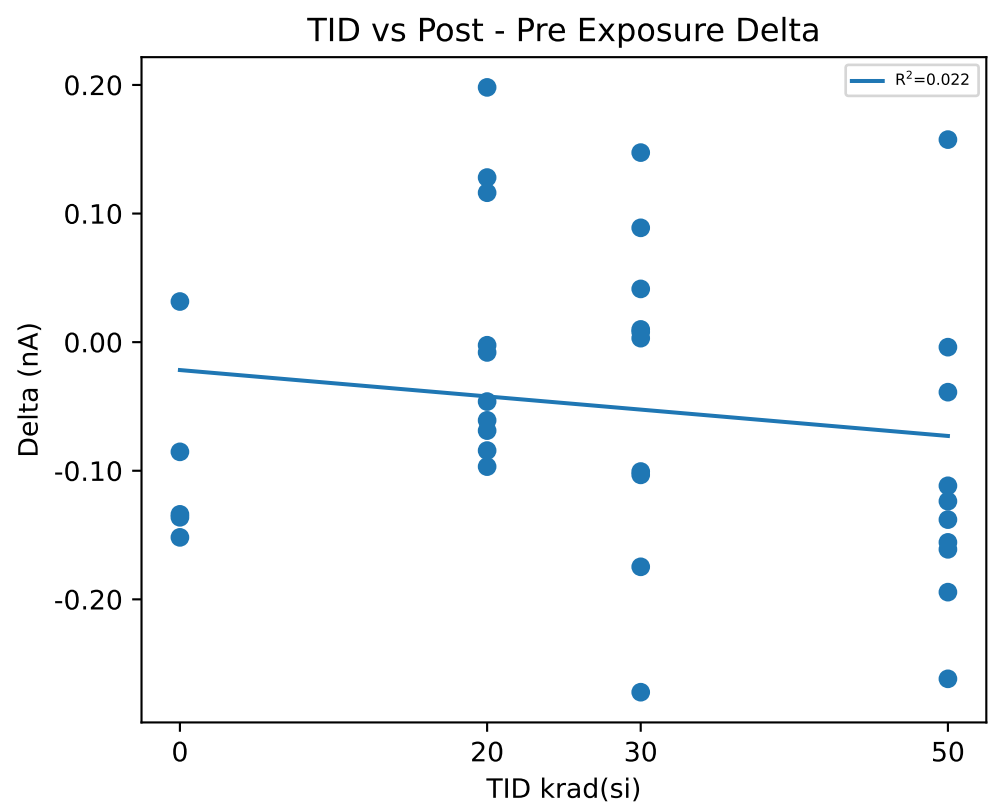
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6004	0.6001	-0.0003
2	20	Biased	0.5992	0.5994	0.0002
3	20	Biased	0.599	0.5989	-0.0001
4	20	Biased	0.5997	0.5992	-0.0005
5	20	Biased	0.6003	0.5993	-0.001
6	20	Unbiased	0.5999	0.6003	0.0004
7	20	Unbiased	0.5996	0.5999	0.0003
8	20	Unbiased	0.5995	0.5999	0.0004
9	20	Unbiased	0.5993	0.5991	-0.0002
10	20	Unbiased	0.5991	0.5986	-0.0005
11	30	Biased	0.5987	0.5976	-0.0011
12	30	Biased	0.5994	0.5999	0.0005
13	30	Biased	0.6001	0.5998	-0.0003
14	30	Biased	0.5999	0.5998	-0.0001
15	30	Biased	0.5992	0.599	-0.0002
16	30	Unbiased	0.5988	0.5997	0.0009
17	30	Unbiased	0.6002	0.6003	0.0001
18	30	Unbiased	0.5993	0.5994	0.0001
19	30	Unbiased	0.5993	0.5992	-0.0001
20	30	Unbiased	0.5986	0.5978	-0.0008
27	50	Unbiased	0.5988	0.5985	-0.0003
28	50	Unbiased	0.5999	0.6006	0.0007
29	50	Unbiased	0.5997	0.5985	-0.0012
30	50	Unbiased	0.599	0.5987	-0.0003
31	50	Unbiased	0.5997	0.5999	0.0002
77	50	Biased-84Hr-Anneal	0.5989	0.5983	-0.0006
78	50	Biased-84Hr-Anneal	0.5995	0.6	0.0005
79	50	Biased-84Hr-Anneal	0.5997	0.6001	0.0004
80	50	Biased-84Hr-Anneal	0.5995	0.5985	-0.001
81	50	Biased-84Hr-Anneal	0.599	0.598	-0.001
100	0	CORRELATION	0.5994	0.5995	0.0001
101	0	CORRELATION	0.599	0.5992	0.0002
102	0	CORRELATION	0.5999	0.5998	-0.0001
103	0	CORRELATION	0.5997	0.5999	0.0002
104	0	CORRELATION	0.5988	0.599	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	0.5988	0.59936	0.5999	0.00046152	0.599	0.59948	0.5999	0.00038341	-0.0001	0.00012	0.0002	0.00013038
20	0.599	0.5996	0.6004	0.00048305	0.5986	0.59947	0.6003	0.00055588	-0.001	-0.00013	0.0004	0.000462
30	0.5986	0.59935	0.6002	0.00056814	0.5976	0.59925	0.6003	0.00089722	-0.0011	-0.0001	0.0009	0.00057542
50	0.5988	0.59937	0.5999	0.00040291	0.598	0.59911	0.6006	0.00093029	-0.0012	-0.00026	0.0007	0.0006867

Device Test: 17.17 LEAK|POWERED/VSNSP/5////@VSNSP_LKG_CURR_0P6V





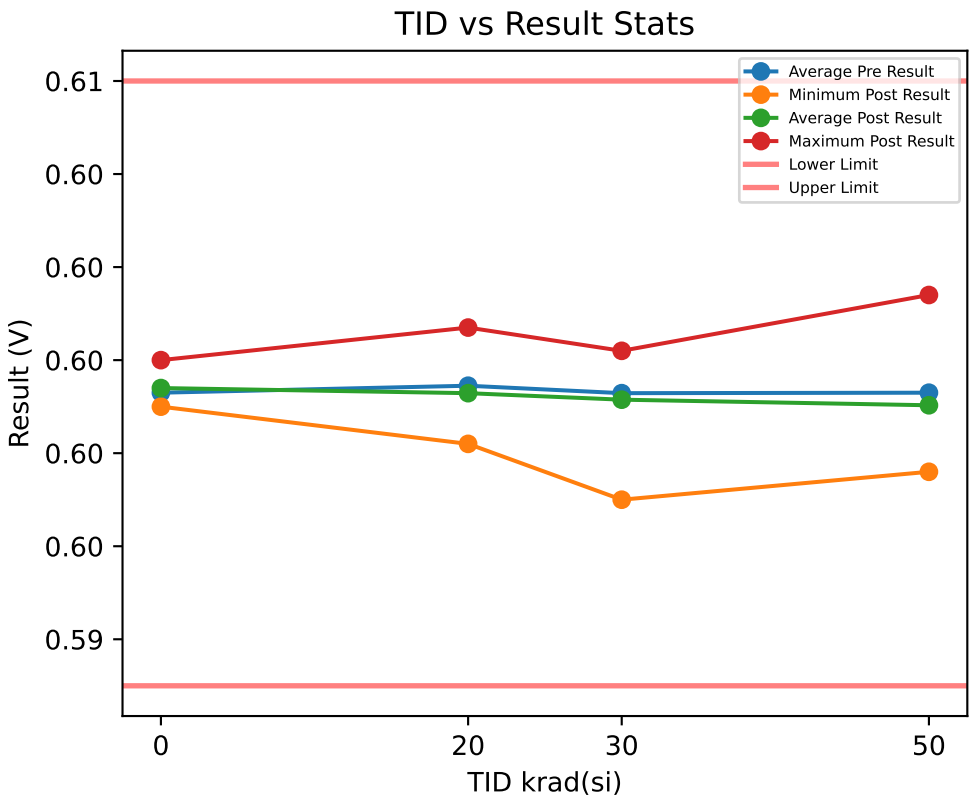
Test Results (Upper Limit = 30.0 (nA))

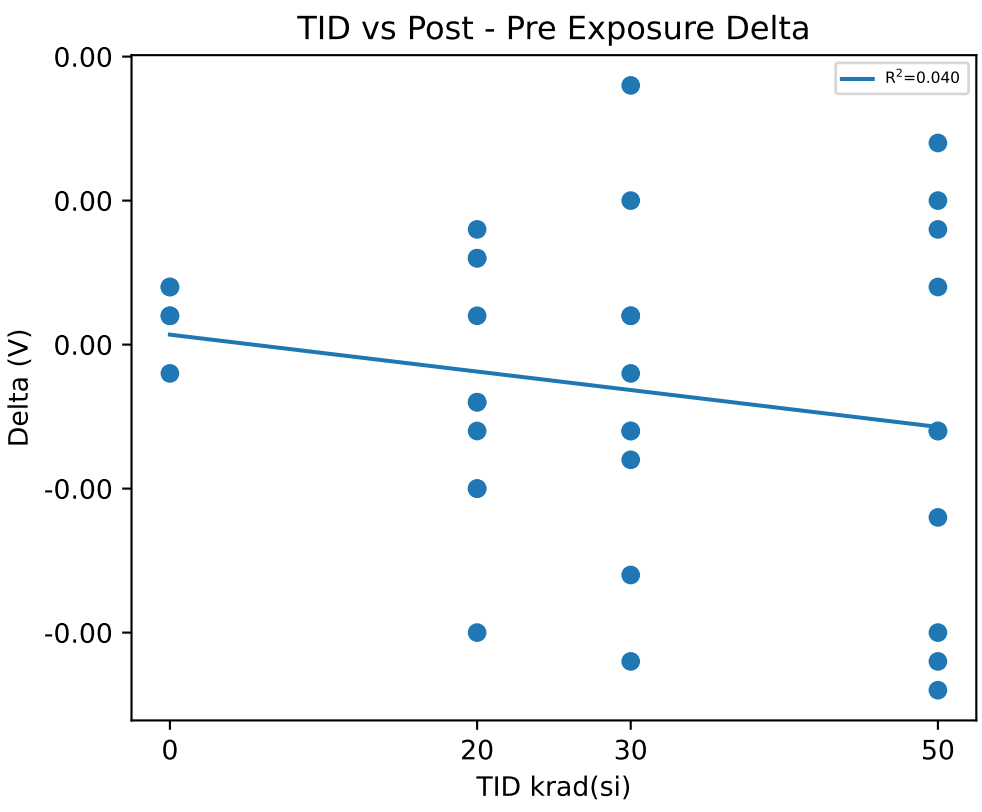
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	-0.2667	-0.0686	0.1981
2	20	Biased	-0.1667	-0.2129	-0.0462
3	20	Biased	-0.0998	-0.1606	-0.0608
4	20	Biased	-0.113	-0.1154	-0.0024
5	20	Biased	-0.2542	-0.138	0.1162
6	20	Unbiased	-0.098	-0.1668	-0.0688
7	20	Unbiased	-0.028	-0.1248	-0.0968
8	20	Unbiased	-0.0537	-0.138	-0.0843
9	20	Unbiased	-0.2511	-0.1231	0.128
10	20	Unbiased	-0.1199	-0.1279	-0.008
11	30	Biased	-0.0842	-0.3564	-0.2722
12	30	Biased	-0.0912	-0.1918	-0.1006
13	30	Biased	-0.2012	-0.1123	0.0889
14	30	Biased	-0.1573	-0.1474	0.0099
15	30	Biased	-0.131	-0.1231	0.0079
16	30	Unbiased	-0.2566	-0.1092	0.1474
17	30	Unbiased	-0.2262	-0.1848	0.0414
18	30	Unbiased	-0.1386	-0.2418	-0.1032
19	30	Unbiased	-0.0031	-0.1778	-0.1747
20	30	Unbiased	-0.1286	-0.1255	0.0031
27	50	Unbiased	-0.0842	-0.0881	-0.0039
28	50	Unbiased	0.0492	-0.0888	-0.138
29	50	Unbiased	-0.2105	-0.053	0.1575
30	50	Unbiased	-0.0419	-0.1536	-0.1117
31	50	Unbiased	-0.0686	-0.1075	-0.0389
77	50	Biased-84Hr-Anneal	-0.1025	-0.2636	-0.1611
78	50	Biased-84Hr-Anneal	0.0278	-0.1279	-0.1557
79	50	Biased-84Hr-Anneal	0.0065	-0.1879	-0.1944
80	50	Biased-84Hr-Anneal	-0.1181	-0.2418	-0.1237
81	50	Biased-84Hr-Anneal	0.084	-0.1778	-0.2618
100	0	CORRELATION	-0.1493	-0.2855	-0.1362
101	0	CORRELATION	-0.0159	-0.1498	-0.1339
102	0	CORRELATION	-0.0184	-0.1037	-0.0853
103	0	CORRELATION	-0.1212	-0.273	-0.1518
104	0	CORRELATION	-0.1033	-0.0717	0.0316

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	-0.1493	-0.08162	-0.0159	0.0611	-0.2855	-0.17674	-0.0717	0.09771	-0.1518	-0.09512	0.0316	0.075097
20	-0.2667	-0.14511	-0.028	0.08589	-0.2129	-0.13761	-0.0686	0.037674	-0.0968	0.0075	0.1981	0.10311
30	-0.2566	-0.1418	-0.0031	0.074153	-0.3564	-0.17701	-0.1092	0.075924	-0.2722	-0.03521	0.1474	0.12671
50	-0.2105	-0.04583	0.084	0.089196	-0.2636	-0.149	-0.053	0.068981	-0.2618	-0.10317	0.1575	0.11702

Device Test: 17.2 LEVEL|STATIC/VSNSP/4.5////@VREF_INTERNAL





Test Results (Lower Limit = 0.593, Upper Limit = 0.606 (V))

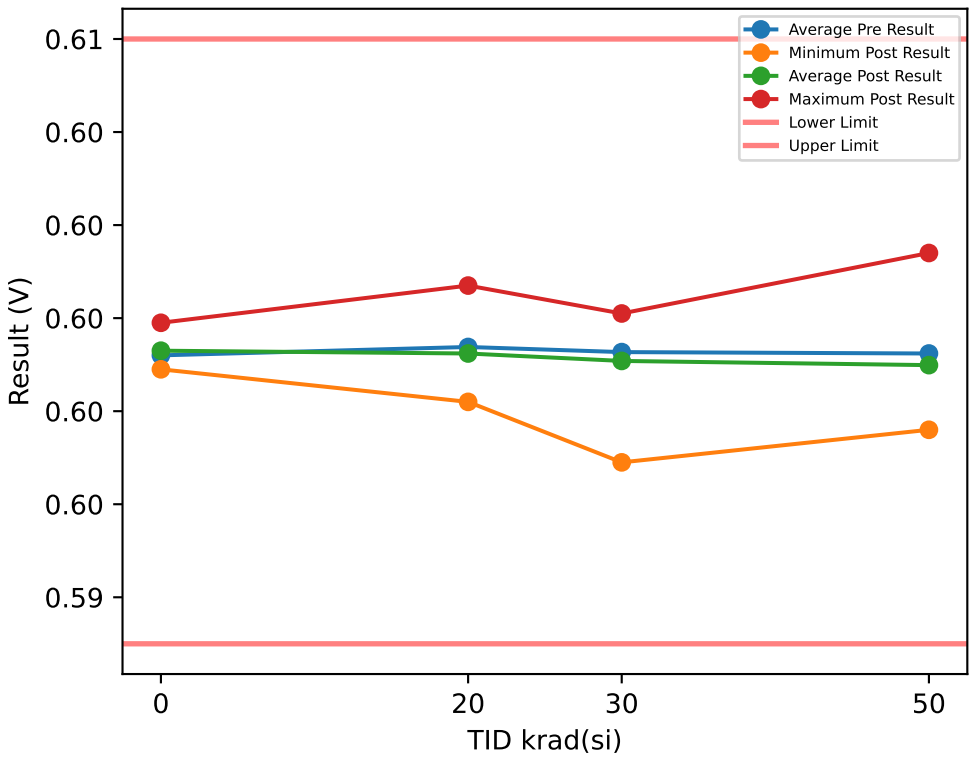
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.5994	0.5991	-0.0003
2	20	Biased	0.5992	0.5993	0.0001
3	20	Biased	0.5984	0.5982	-0.0002
4	20	Biased	0.5994	0.5989	-0.0005
5	20	Biased	0.5998	0.5988	-0.001
6	20	Unbiased	0.6004	0.6007	0.0003
7	20	Unbiased	0.5991	0.5994	0.0003
8	20	Unbiased	0.6001	0.6005	0.0004
9	20	Unbiased	0.5989	0.5987	-0.0002
10	20	Unbiased	0.5998	0.5993	-0.0005
11	30	Biased	0.5981	0.597	-0.0011
12	30	Biased	0.5995	0.6	0.0005
13	30	Biased	0.5996	0.5992	-0.0004
14	30	Biased	0.5999	0.5996	-0.0003
15	30	Biased	0.6	0.5997	-0.0003
16	30	Unbiased	0.5993	0.6002	0.0009
17	30	Unbiased	0.6	0.6001	0.0001
18	30	Unbiased	0.5988	0.5989	0.0001
19	30	Unbiased	0.5987	0.5986	-0.0001
20	30	Unbiased	0.599	0.5982	-0.0008
27	50	Unbiased	0.5979	0.5976	-0.0003
28	50	Unbiased	0.6007	0.6014	0.0007
29	50	Unbiased	0.6002	0.599	-0.0012
30	50	Unbiased	0.5985	0.5982	-0.0003
31	50	Unbiased	0.5999	0.6001	0.0002
77	50	Biased-84Hr-Anneal	0.5986	0.598	-0.0006
78	50	Biased-84Hr-Anneal	0.5995	0.6	0.0005
79	50	Biased-84Hr-Anneal	0.5983	0.5987	0.0004
80	50	Biased-84Hr-Anneal	0.5994	0.5983	-0.0011
81	50	Biased-84Hr-Anneal	0.6	0.599	-0.001
100	0	CORRELATION	0.5997	0.5998	0.0001
101	0	CORRELATION	0.599	0.5992	0.0002
102	0	CORRELATION	0.5991	0.599	-0.0001
103	0	CORRELATION	0.5999	0.6	0.0001
104	0	CORRELATION	0.5988	0.599	0.0002

Test Statistics (V)

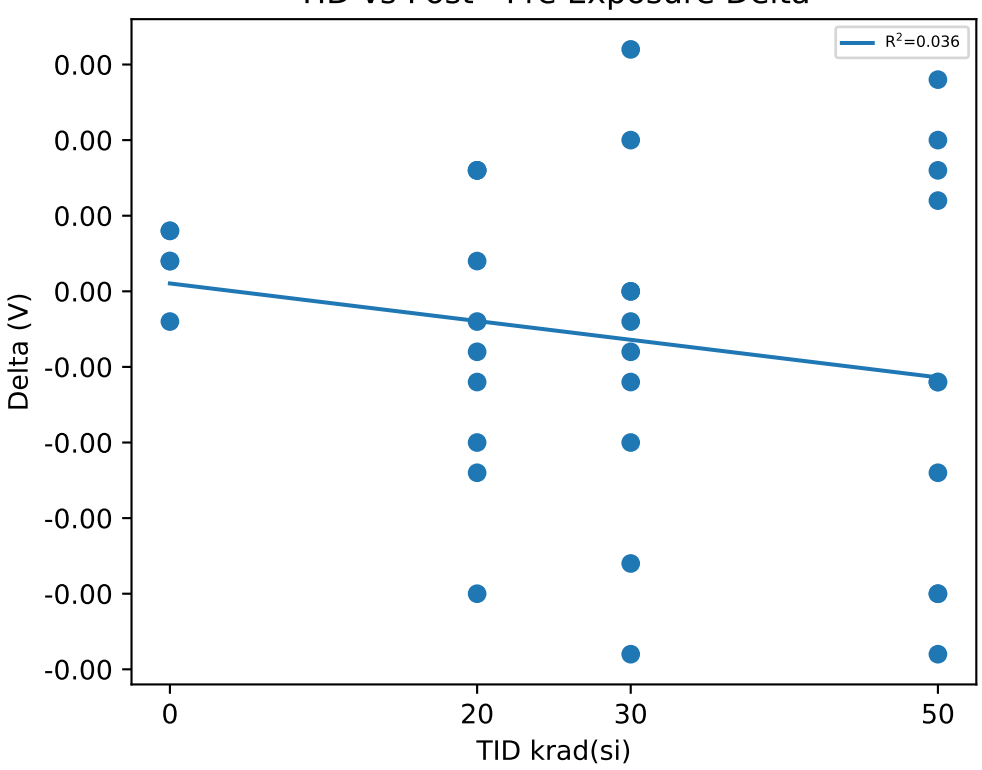
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5988	0.5993	0.5999	0.00047434	0.599	0.5994	0.6	0.00046904	-0.0001	0.0001	0.0002	0.00012247
20	0.5984	0.59945	0.6004	0.00059301	0.5982	0.59929	0.6007	0.00077667	-0.001	-0.00016	0.0004	0.00044272
30	0.5981	0.59929	0.6	0.00063325	0.597	0.59915	0.6002	0.0010069	-0.0011	-0.00014	0.0009	0.00058538
50	0.5979	0.5993	0.6007	0.00092856	0.5976	0.59903	0.6014	0.0011615	-0.0012	-0.00027	0.0007	0.00069929

Device Test: 17.26 LEVEL|STATIC/VSNSP/12////@VREF_INTERNAL

TID vs Result Stats



TID vs Post - Pre Exposure Delta



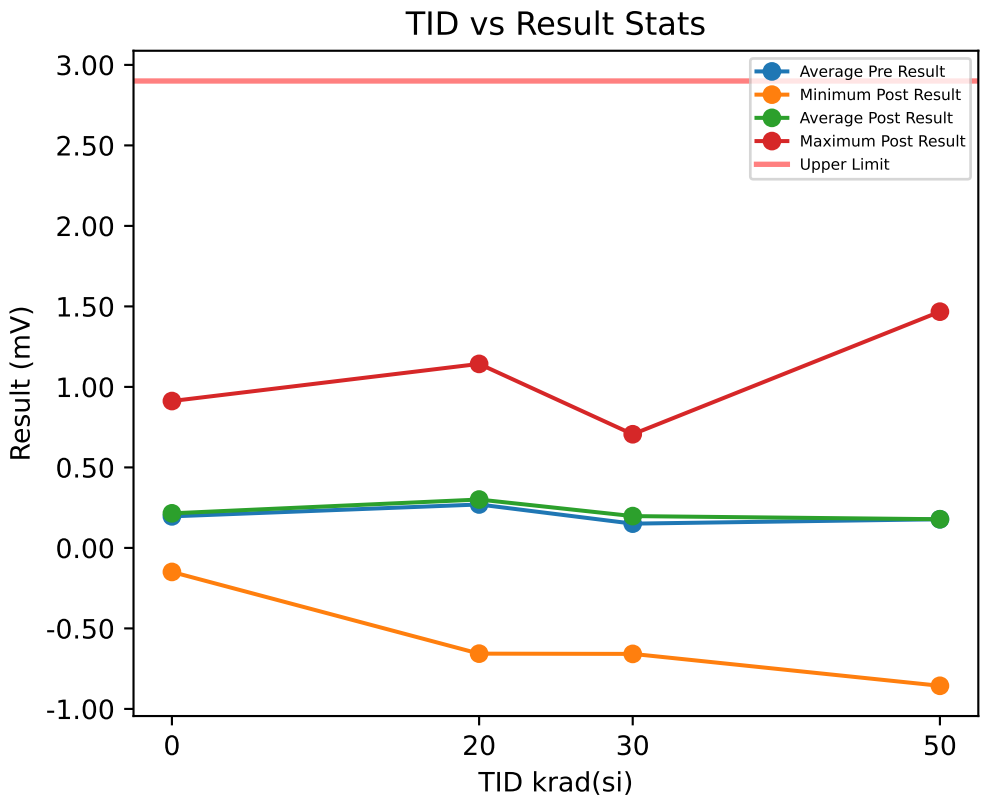
Test Results (Lower Limit = 0.593, Upper Limit = 0.606 (V))

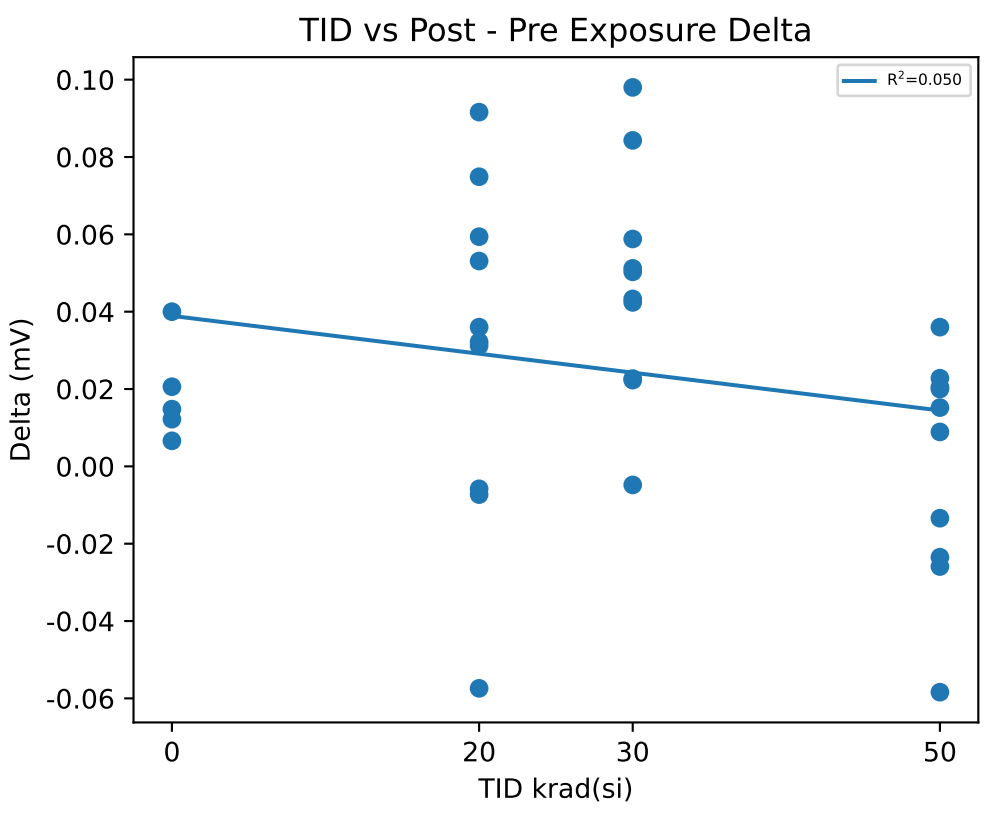
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.5993	0.599	-0.0003
2	20	Biased	0.5992	0.5993	0.0001
3	20	Biased	0.5983	0.5982	-0.0001
4	20	Biased	0.5994	0.5989	-0.0005
5	20	Biased	0.5997	0.5987	-0.001
6	20	Unbiased	0.6003	0.6007	0.0004
7	20	Unbiased	0.599	0.5994	0.0004
8	20	Unbiased	0.6	0.6004	0.0004
9	20	Unbiased	0.5988	0.5986	-0.0002
10	20	Unbiased	0.5998	0.5992	-0.0006
11	30	Biased	0.5981	0.5969	-0.0012
12	30	Biased	0.5994	0.5999	0.0005
13	30	Biased	0.5996	0.5991	-0.0005
14	30	Biased	0.5998	0.5996	-0.0002
15	30	Biased	0.6	0.5997	-0.0003
16	30	Unbiased	0.5993	0.6001	0.0008
17	30	Unbiased	0.6	0.6	0
18	30	Unbiased	0.5988	0.5988	0
19	30	Unbiased	0.5987	0.5986	-0.0001
20	30	Unbiased	0.599	0.5981	-0.0009
27	50	Unbiased	0.5979	0.5976	-0.0003
28	50	Unbiased	0.6007	0.6014	0.0007
29	50	Unbiased	0.6002	0.599	-0.0012
30	50	Unbiased	0.5985	0.5982	-0.0003
31	50	Unbiased	0.5998	0.6001	0.0003
77	50	Biased-84Hr-Anneal	0.5985	0.5979	-0.0006
78	50	Biased-84Hr-Anneal	0.5994	0.5999	0.0005
79	50	Biased-84Hr-Anneal	0.5982	0.5986	0.0004
80	50	Biased-84Hr-Anneal	0.5993	0.5983	-0.001
81	50	Biased-84Hr-Anneal	0.5999	0.5989	-0.001
100	0	CORRELATION	0.5996	0.5997	0.0001
101	0	CORRELATION	0.5989	0.5991	0.0002
102	0	CORRELATION	0.599	0.5989	-0.0001
103	0	CORRELATION	0.5998	0.5999	0.0001
104	0	CORRELATION	0.5987	0.5989	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	0.5987	0.5992	0.5998	0.00047434	0.5989	0.5993	0.5999	0.00046904	-0.0001	0.0001	0.0002	0.00012247
20	0.5983	0.59938	0.6003	0.00059591	0.5982	0.59924	0.6007	0.00077917	-0.001	-0.00014	0.0004	0.00047656
30	0.5981	0.59927	0.6	0.00062013	0.5969	0.59908	0.6001	0.001013	-0.0012	-0.00019	0.0008	0.00059339
50	0.5979	0.59924	0.6007	0.00093119	0.5976	0.59899	0.6014	0.0011666	-0.0012	-0.00025	0.0007	0.00069482

Device Test: 17.27 LEVEL|STATIC/VSNSP/12////@EA_INPUT_OFFSET_V





Test Results (Upper Limit = 2.9 (mV))

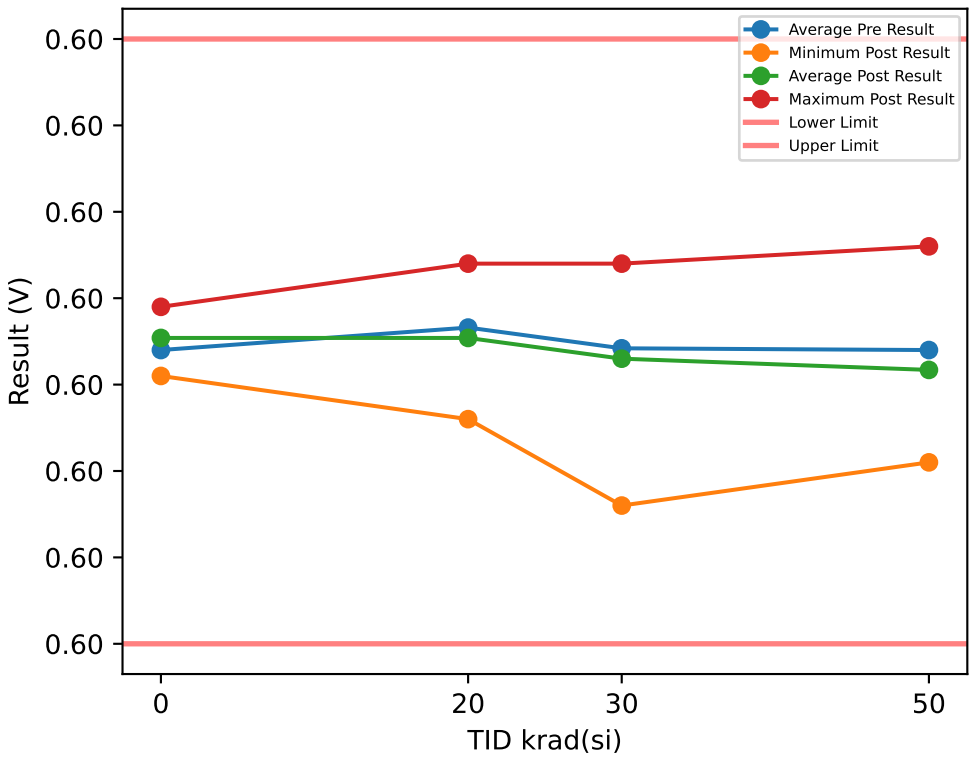
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0513	1.1429	0.0916
2	20	Biased	0.128	0.2029	0.0749
3	20	Biased	0.7428	0.774	0.0312
4	20	Biased	0.3859	0.4453	0.0594
5	20	Biased	0.613	0.6452	0.0322
6	20	Unbiased	-0.3309	-0.2778	0.0531
7	20	Unbiased	0.6696	0.6122	-0.0574
8	20	Unbiased	-0.4638	-0.4711	-0.0073
9	20	Unbiased	0.5522	0.5882	0.036
10	20	Unbiased	-0.6509	-0.6567	-0.0058
11	30	Biased	0.6521	0.6744	0.0223
12	30	Biased	0.0403	0.0355	-0.0048
13	30	Biased	0.6216	0.7059	0.0843
14	30	Biased	0.137	0.1873	0.0503
15	30	Biased	-0.7095	-0.6583	0.0512
16	30	Unbiased	-0.4743	-0.3763	0.098
17	30	Unbiased	0.315	0.3583	0.0433
18	30	Unbiased	0.5952	0.6179	0.0227
19	30	Unbiased	0.6445	0.6869	0.0424
20	30	Unbiased	-0.3144	-0.2556	0.0588
27	50	Unbiased	0.9944	1.0144	0.02
28	50	Unbiased	-0.7744	-0.7516	0.0228
29	50	Unbiased	-0.3983	-0.3894	0.0089
30	50	Unbiased	0.6351	0.5767	-0.0584
31	50	Unbiased	-0.0759	-0.0994	-0.0235
77	50	Biased-84Hr-Anneal	0.4499	0.4859	0.036
78	50	Biased-84Hr-Anneal	0.1284	0.115	-0.0134
79	50	Biased-84Hr-Anneal	1.4932	1.4673	-0.0259
80	50	Biased-84Hr-Anneal	0.1991	0.2196	0.0205
81	50	Biased-84Hr-Anneal	-0.8716	-0.8564	0.0152
100	0	CORRELATION	-0.1614	-0.1492	0.0122
101	0	CORRELATION	0.129	0.1496	0.0206
102	0	CORRELATION	0.9056	0.9122	0.0066
103	0	CORRELATION	-0.029	0.011	0.04
104	0	CORRELATION	0.1355	0.1503	0.0148

Test Statistics (mV)

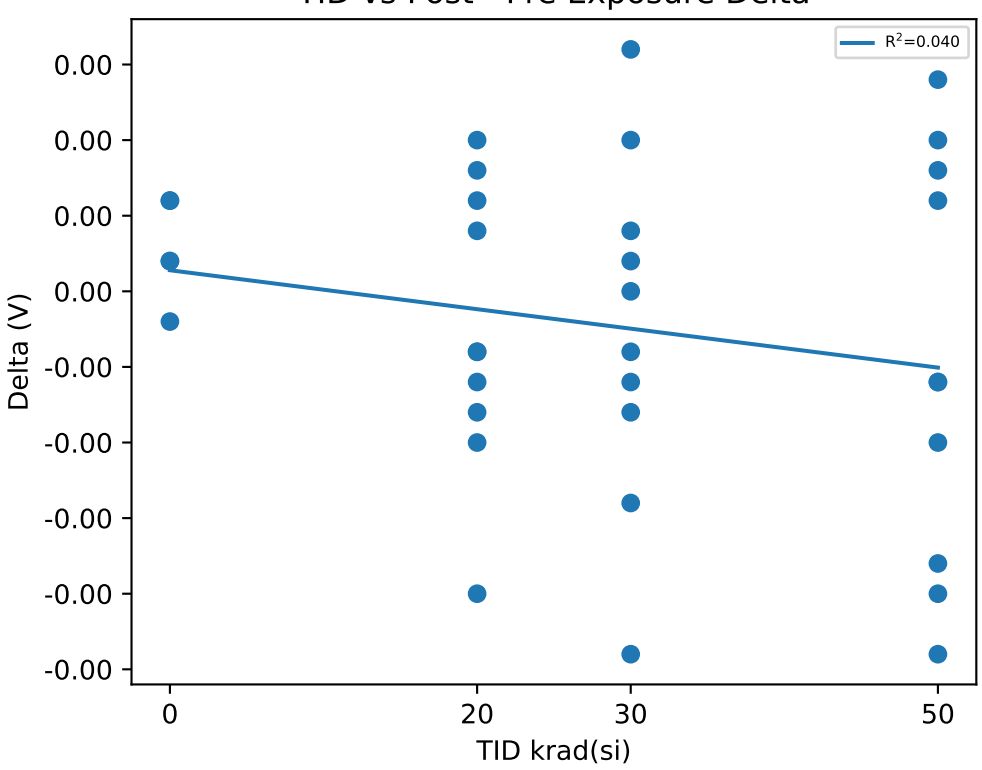
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-0.1614	0.19594	0.9056	0.41534	-0.1492	0.21478	0.9122	0.4089	0.0066	0.01884	0.04	0.012856
20	-0.6509	0.26972	1.0513	0.57466	-0.6567	0.30051	1.1429	0.58776	-0.0574	0.03079	0.0916	0.044167
30	-0.7095	0.15075	0.6521	0.50562	-0.6583	0.1976	0.7059	0.4968	-0.0048	0.04685	0.098	0.02996
50	-0.8716	0.17799	1.4932	0.75184	-0.8564	0.17821	1.4673	0.74195	-0.0584	0.00022	0.036	0.029362

Device Test: 17.28 LEVEL|STATIC/SS_TR/12////@VREF_25C

TID vs Result Stats



TID vs Post - Pre Exposure Delta



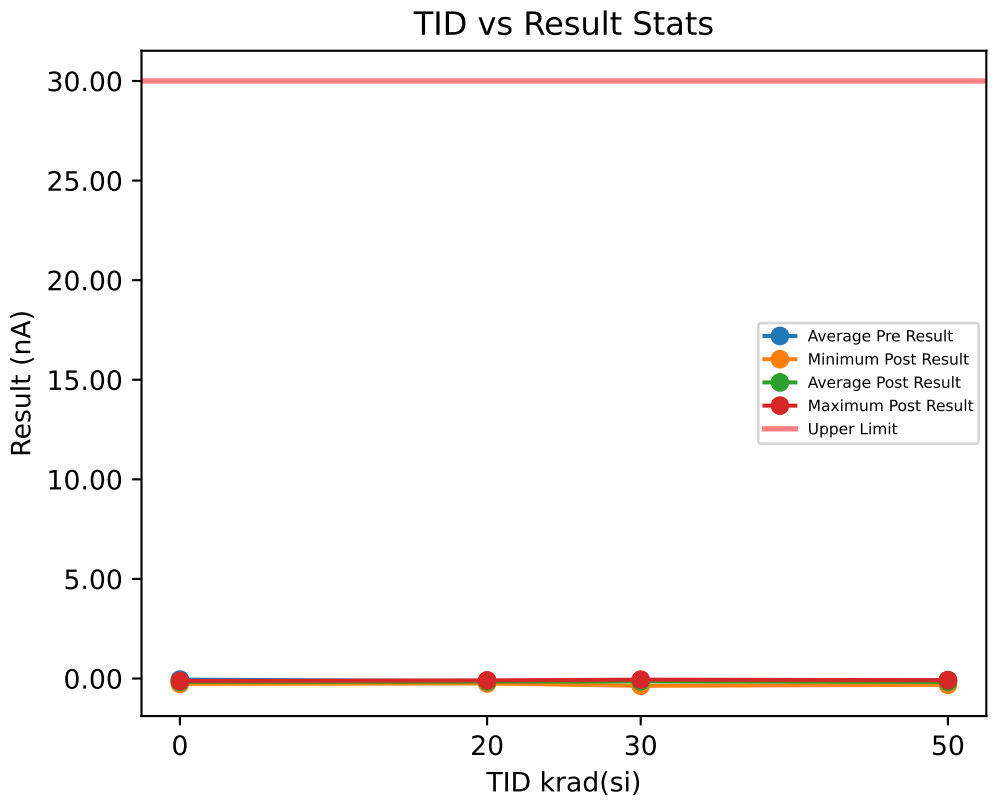
Test Results (Lower Limit = 0.596, Upper Limit = 0.603 (V))

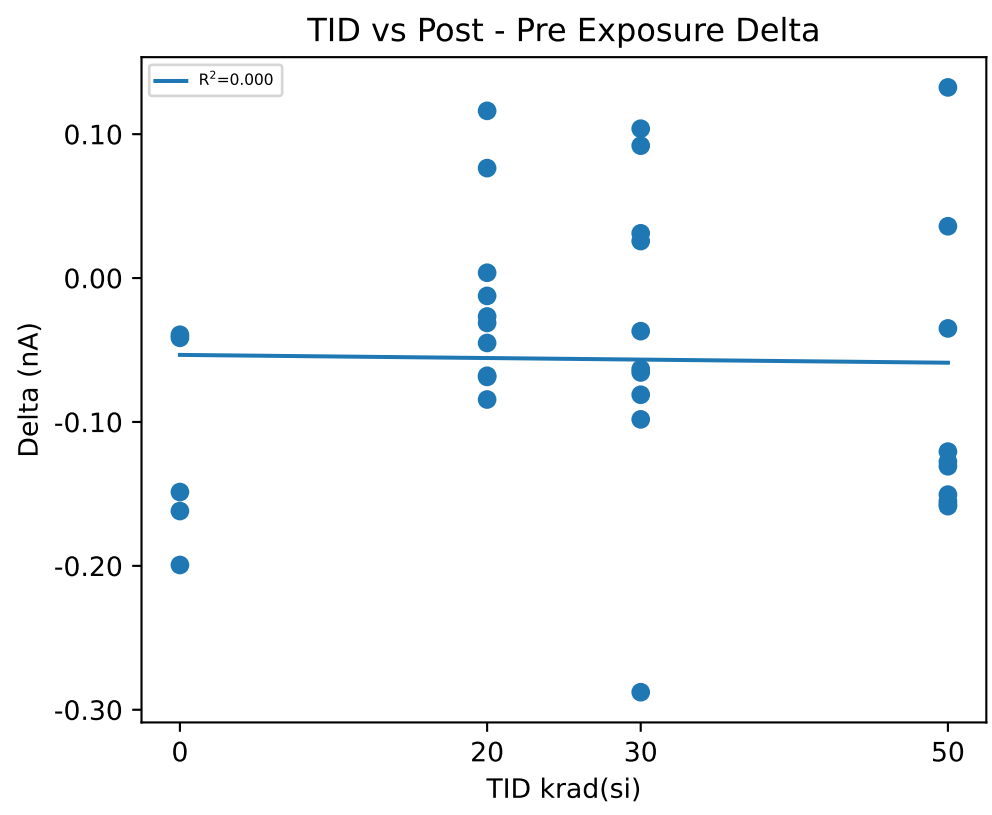
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6004	0.6001	-0.0003
2	20	Biased	0.5993	0.5995	0.0002
3	20	Biased	0.5991	0.5989	-0.0002
4	20	Biased	0.5997	0.5993	-0.0004
5	20	Biased	0.6004	0.5994	-0.001
6	20	Unbiased	0.6	0.6004	0.0004
7	20	Unbiased	0.5997	0.6	0.0003
8	20	Unbiased	0.5995	0.6	0.0005
9	20	Unbiased	0.5994	0.5992	-0.0002
10	20	Unbiased	0.5991	0.5986	-0.0005
11	30	Biased	0.5988	0.5976	-0.0012
12	30	Biased	0.5995	0.6	0.0005
13	30	Biased	0.6002	0.5998	-0.0004
14	30	Biased	0.6	0.5998	-0.0002
15	30	Biased	0.5993	0.599	-0.0003
16	30	Unbiased	0.5989	0.5997	0.0008
17	30	Unbiased	0.6002	0.6004	0.0002
18	30	Unbiased	0.5994	0.5995	0.0001
19	30	Unbiased	0.5993	0.5993	0
20	30	Unbiased	0.5986	0.5979	-0.0007
27	50	Unbiased	0.5989	0.5986	-0.0003
28	50	Unbiased	0.5999	0.6006	0.0007
29	50	Unbiased	0.5998	0.5986	-0.0012
30	50	Unbiased	0.5991	0.5988	-0.0003
31	50	Unbiased	0.5997	0.6	0.0003
77	50	Biased-84Hr-Anneal	0.5989	0.5984	-0.0005
78	50	Biased-84Hr-Anneal	0.5995	0.6	0.0005
79	50	Biased-84Hr-Anneal	0.5997	0.6001	0.0004
80	50	Biased-84Hr-Anneal	0.5995	0.5985	-0.001
81	50	Biased-84Hr-Anneal	0.599	0.5981	-0.0009
100	0	CORRELATION	0.5995	0.5996	0.0001
101	0	CORRELATION	0.599	0.5993	0.0003
102	0	CORRELATION	0.5999	0.5998	-0.0001
103	0	CORRELATION	0.5998	0.5999	0.0001
104	0	CORRELATION	0.5988	0.5991	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	0.5988	0.5994	0.5999	0.00048477	0.5991	0.59954	0.5999	0.00033615	-0.0001	0.00014	0.0003	0.00016733
20	0.5991	0.59966	0.6004	0.00047889	0.5986	0.59954	0.6004	0.00057388	-0.001	-0.00012	0.0005	0.00046857
30	0.5986	0.59942	0.6002	0.00056921	0.5976	0.5993	0.6004	0.00090308	-0.0012	-0.00012	0.0008	0.00057889
50	0.5989	0.5994	0.5999	0.00038873	0.5981	0.59917	0.6006	0.00089821	-0.0012	-0.00023	0.0007	0.00067831

Device Test: 17.29 LEAK|POWERED/VSNSP/12////@VSNSP_LKG_CURR_0P6V





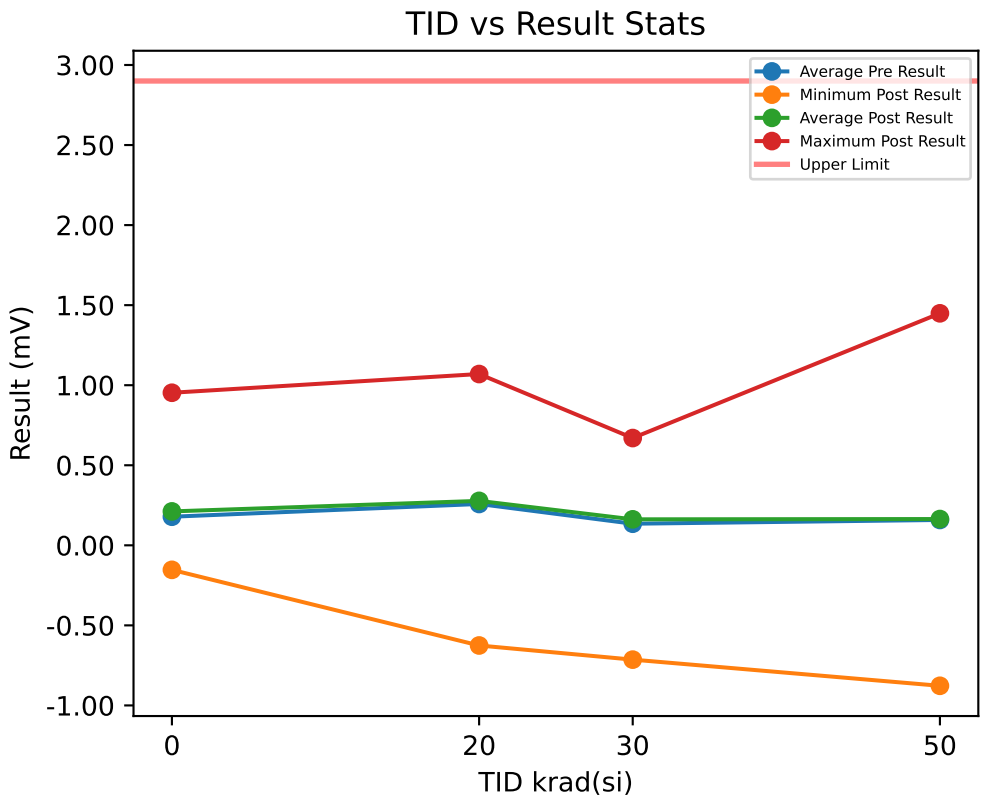
Test Results (Upper Limit = 30.0 (nA))

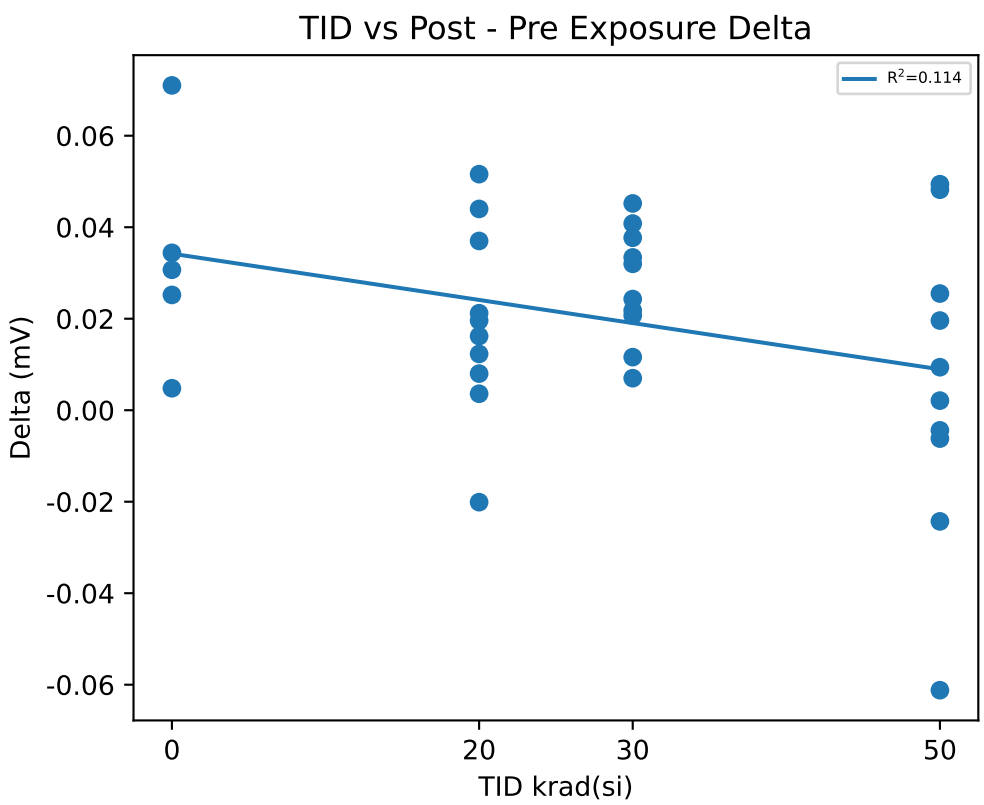
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	-0.1918	-0.1154	0.0764
2	20	Biased	-0.0949	-0.0912	0.0037
3	20	Biased	-0.0749	-0.12	-0.0451
4	20	Biased	-0.0413	-0.1092	-0.0679
5	20	Biased	-0.2636	-0.1474	0.1162
6	20	Unbiased	-0.1667	-0.2511	-0.0844
7	20	Unbiased	-0.1498	-0.181	-0.0312
8	20	Unbiased	-0.0693	-0.138	-0.0687
9	20	Unbiased	-0.1981	-0.2105	-0.0124
10	20	Unbiased	-0.148	-0.1747	-0.0267
11	30	Biased	-0.078	-0.3658	-0.2878
12	30	Biased	-0.138	-0.2012	-0.0632
13	30	Biased	-0.1575	-0.0655	0.092
14	30	Biased	-0.0512	-0.0881	-0.0369
15	30	Biased	-0.0811	-0.1793	-0.0982
16	30	Unbiased	-0.1224	-0.0967	0.0257
17	30	Unbiased	-0.2761	-0.1723	0.1038
18	30	Unbiased	-0.1917	-0.1606	0.0311
19	30	Unbiased	0.0125	-0.0686	-0.0811
20	30	Unbiased	0.0087	-0.0569	-0.0656
27	50	Unbiased	-0.0749	-0.1099	-0.035
28	50	Unbiased	0.018	-0.1325	-0.1505
29	50	Unbiased	-0.2667	-0.1342	0.1325
30	50	Unbiased	-0.1605	-0.319	-0.1585
31	50	Unbiased	-0.1186	-0.0826	0.036
77	50	Biased-84Hr-Anneal	-0.0681	-0.223	-0.1549
78	50	Biased-84Hr-Anneal	0.0216	-0.1092	-0.1308
79	50	Biased-84Hr-Anneal	-0.0652	-0.2222	-0.157
80	50	Biased-84Hr-Anneal	-0.1493	-0.2699	-0.1206
81	50	Biased-84Hr-Anneal	0.0247	-0.1029	-0.1276
100	0	CORRELATION	-0.1087	-0.1481	-0.0394
101	0	CORRELATION	0.0028	-0.1591	-0.1619
102	0	CORRELATION	-0.084	-0.1255	-0.0415
103	0	CORRELATION	-0.1212	-0.2699	-0.1487
104	0	CORRELATION	0.0434	-0.156	-0.1994

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	-0.1212	-0.05354	0.0434	0.072663	-0.2699	-0.17172	-0.1255	0.056436	-0.1994	-0.11818	-0.0394	0.073358
20	-0.2636	-0.13984	-0.0413	0.069299	-0.2511	-0.15385	-0.0912	0.050193	-0.0844	-0.01401	0.1162	0.064737
30	-0.2761	-0.10748	0.0125	0.089323	-0.3658	-0.1455	-0.0569	0.094023	-0.2878	-0.03802	0.1038	0.1131
50	-0.2667	-0.0839	0.0247	0.093543	-0.319	-0.17054	-0.0826	0.081547	-0.1585	-0.08664	0.1325	0.099645

Device Test: 17.3 LEVEL|STATIC/VSNSP/4.5////@EA_INPUT_OFFSET_V





Test Results (Upper Limit = 2.9 (mV))

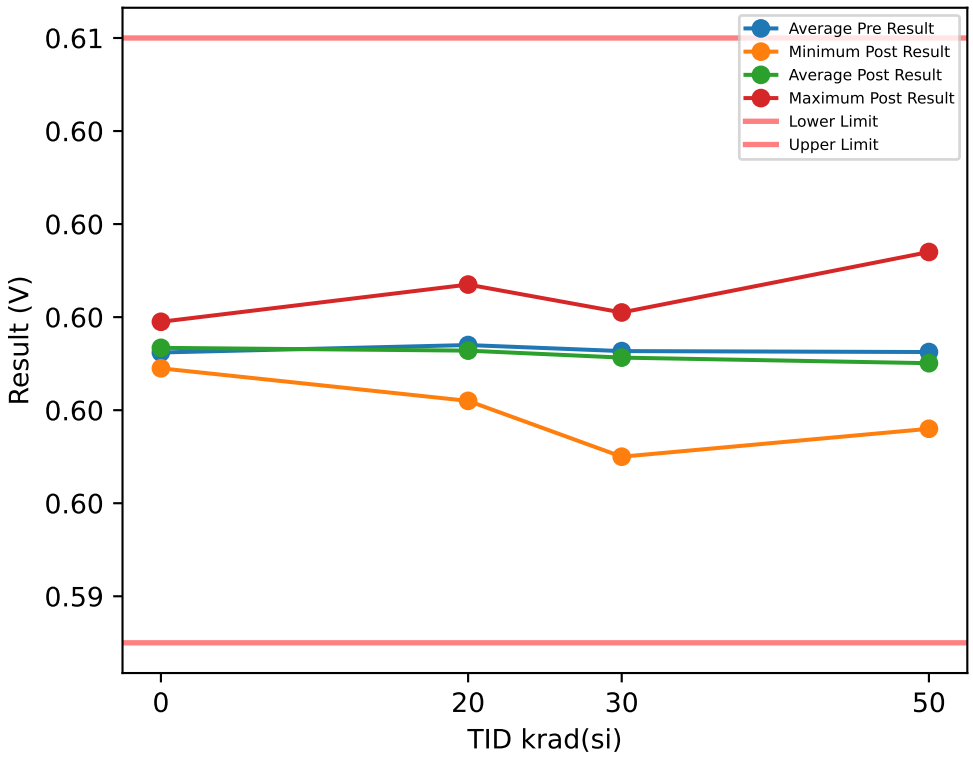
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0328	1.0698	0.037
2	20	Biased	0.129	0.1486	0.0196
3	20	Biased	0.7071	0.7511	0.044
4	20	Biased	0.3835	0.4351	0.0516
5	20	Biased	0.6227	0.6389	0.0162
6	20	Unbiased	-0.3217	-0.3094	0.0123
7	20	Unbiased	0.6248	0.6047	-0.0201
8	20	Unbiased	-0.5058	-0.4978	0.008
9	20	Unbiased	0.5561	0.5597	0.0036
10	20	Unbiased	-0.6468	-0.6256	0.0212
11	30	Biased	0.638	0.67	0.032
12	30	Biased	0.0374	0.049	0.0116
13	30	Biased	0.6133	0.6203	0.007
14	30	Biased	0.1202	0.1445	0.0243
15	30	Biased	-0.7548	-0.714	0.0408
16	30	Unbiased	-0.4893	-0.4441	0.0452
17	30	Unbiased	0.2875	0.3082	0.0207
18	30	Unbiased	0.5825	0.6159	0.0334
19	30	Unbiased	0.6215	0.6592	0.0377
20	30	Unbiased	-0.3076	-0.2858	0.0218
27	50	Unbiased	0.9722	0.9816	0.0094
28	50	Unbiased	-0.8142	-0.7946	0.0196
29	50	Unbiased	-0.4168	-0.4147	0.0021
30	50	Unbiased	0.6022	0.5779	-0.0243
31	50	Unbiased	-0.1192	-0.0937	0.0255
77	50	Biased-84Hr-Anneal	0.4278	0.4772	0.0494
78	50	Biased-84Hr-Anneal	0.1234	0.119	-0.0044
79	50	Biased-84Hr-Anneal	1.5102	1.449	-0.0612
80	50	Biased-84Hr-Anneal	0.1689	0.2171	0.0482
81	50	Biased-84Hr-Anneal	-0.8712	-0.8774	-0.0062
100	0	CORRELATION	-0.1784	-0.1532	0.0252
101	0	CORRELATION	0.1279	0.1623	0.0344
102	0	CORRELATION	0.8819	0.9529	0.071
103	0	CORRELATION	-0.0543	-0.0236	0.0307
104	0	CORRELATION	0.1158	0.1206	0.0048

Test Statistics (mV)

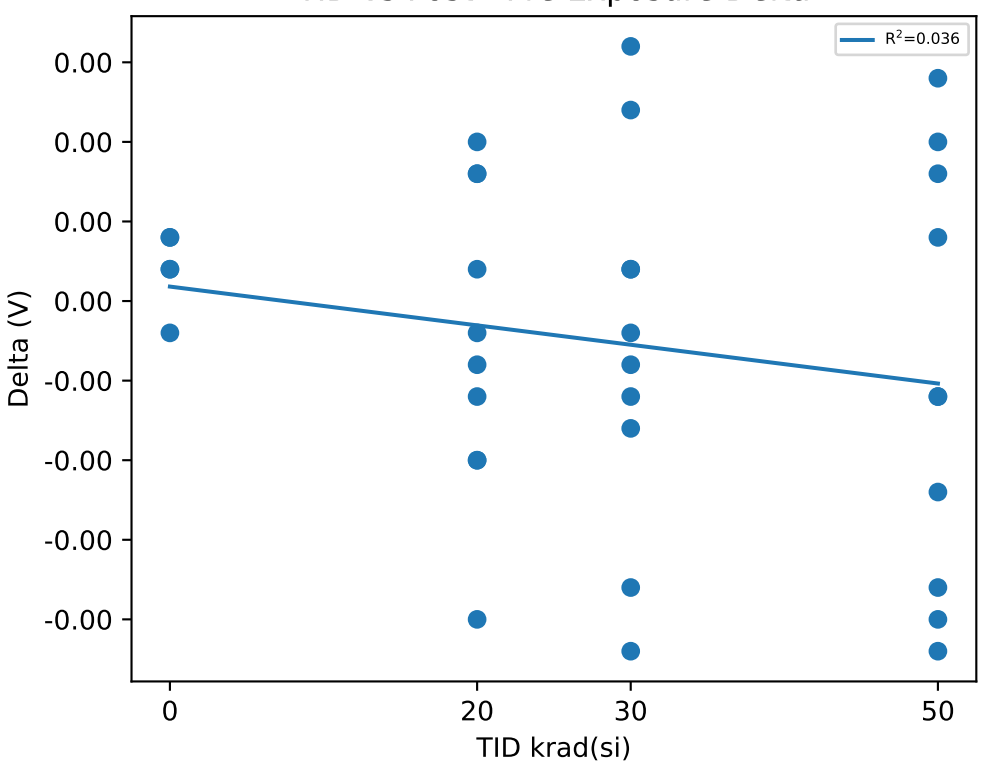
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-0.1784	0.17858	0.8819	0.41317	-0.1532	0.2118	0.9529	0.43262	0.0048	0.03322	0.071	0.024016
20	-0.6468	0.25817	1.0328	0.57047	-0.6256	0.27751	1.0698	0.57464	-0.0201	0.01934	0.0516	0.020964
30	-0.7548	0.13487	0.638	0.50871	-0.714	0.16232	0.67	0.50454	0.007	0.02745	0.0452	0.012522
50	-0.8712	0.15833	1.5102	0.75825	-0.8774	0.16414	1.449	0.74526	-0.0612	0.00581	0.0494	0.033245

Device Test: 17.38 LEVEL|STATIC/VSNSP/14////@VREF_INTERNAL

TID vs Result Stats



TID vs Post - Pre Exposure Delta



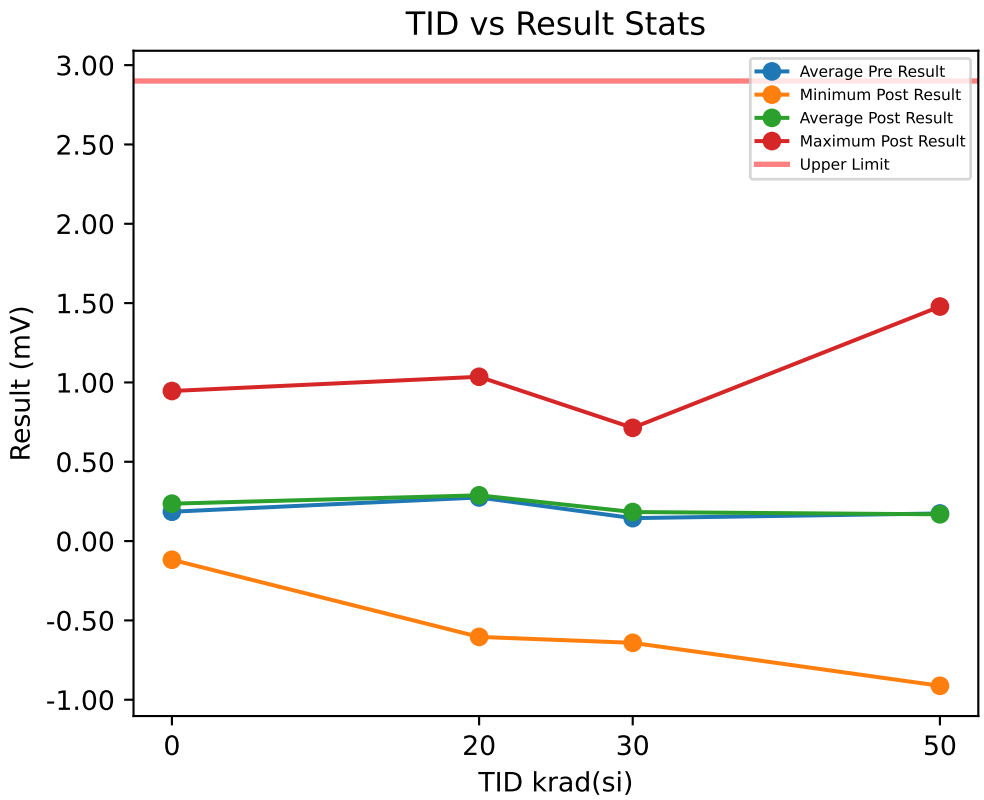
Test Results (Lower Limit = 0.593, Upper Limit = 0.606 (V))

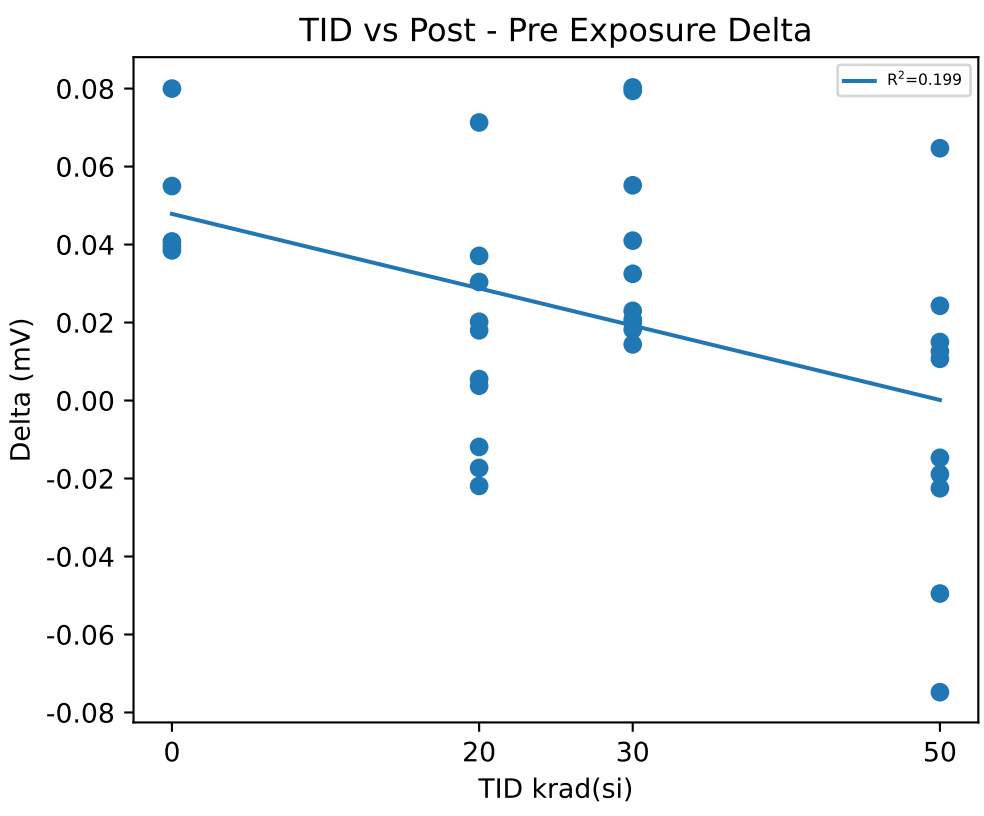
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.5994	0.5991	-0.0003
2	20	Biased	0.5992	0.5993	0.0001
3	20	Biased	0.5983	0.5982	-0.0001
4	20	Biased	0.5994	0.5989	-0.0005
5	20	Biased	0.5998	0.5988	-0.001
6	20	Unbiased	0.6003	0.6007	0.0004
7	20	Unbiased	0.599	0.5994	0.0004
8	20	Unbiased	0.6	0.6005	0.0005
9	20	Unbiased	0.5988	0.5986	-0.0002
10	20	Unbiased	0.5998	0.5993	-0.0005
11	30	Biased	0.5981	0.597	-0.0011
12	30	Biased	0.5994	0.6	0.0006
13	30	Biased	0.5996	0.5992	-0.0004
14	30	Biased	0.5998	0.5996	-0.0002
15	30	Biased	0.6	0.5997	-0.0003
16	30	Unbiased	0.5993	0.6001	0.0008
17	30	Unbiased	0.6	0.6001	0.0001
18	30	Unbiased	0.5988	0.5989	0.0001
19	30	Unbiased	0.5987	0.5986	-0.0001
20	30	Unbiased	0.599	0.5981	-0.0009
27	50	Unbiased	0.5979	0.5976	-0.0003
28	50	Unbiased	0.6007	0.6014	0.0007
29	50	Unbiased	0.6002	0.5991	-0.0011
30	50	Unbiased	0.5985	0.5982	-0.0003
31	50	Unbiased	0.5999	0.6001	0.0002
77	50	Biased-84Hr-Anneal	0.5985	0.5979	-0.0006
78	50	Biased-84Hr-Anneal	0.5994	0.5999	0.0005
79	50	Biased-84Hr-Anneal	0.5982	0.5986	0.0004
80	50	Biased-84Hr-Anneal	0.5993	0.5983	-0.001
81	50	Biased-84Hr-Anneal	0.5999	0.599	-0.0009
100	0	CORRELATION	0.5997	0.5998	0.0001
101	0	CORRELATION	0.5989	0.5991	0.0002
102	0	CORRELATION	0.5991	0.599	-0.0001
103	0	CORRELATION	0.5998	0.5999	0.0001
104	0	CORRELATION	0.5987	0.5989	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	0.5987	0.59924	0.5998	0.00048785	0.5989	0.59934	0.5999	0.00047223	-0.0001	0.0001	0.0002	0.00012247
20	0.5983	0.5994	0.6003	0.00060185	0.5982	0.59928	0.6007	0.00078571	-0.001	-0.00012	0.0005	0.00048028
30	0.5981	0.59927	0.6	0.00062013	0.597	0.59913	0.6001	0.0010067	-0.0011	-0.00014	0.0008	0.00059104
50	0.5979	0.59925	0.6007	0.00093838	0.5976	0.59901	0.6014	0.0011666	-0.0011	-0.00024	0.0007	0.0006603

Device Test: 17.39 LEVEL|STATIC/VSNSP/14////@EA_INPUT_OFFSET_V





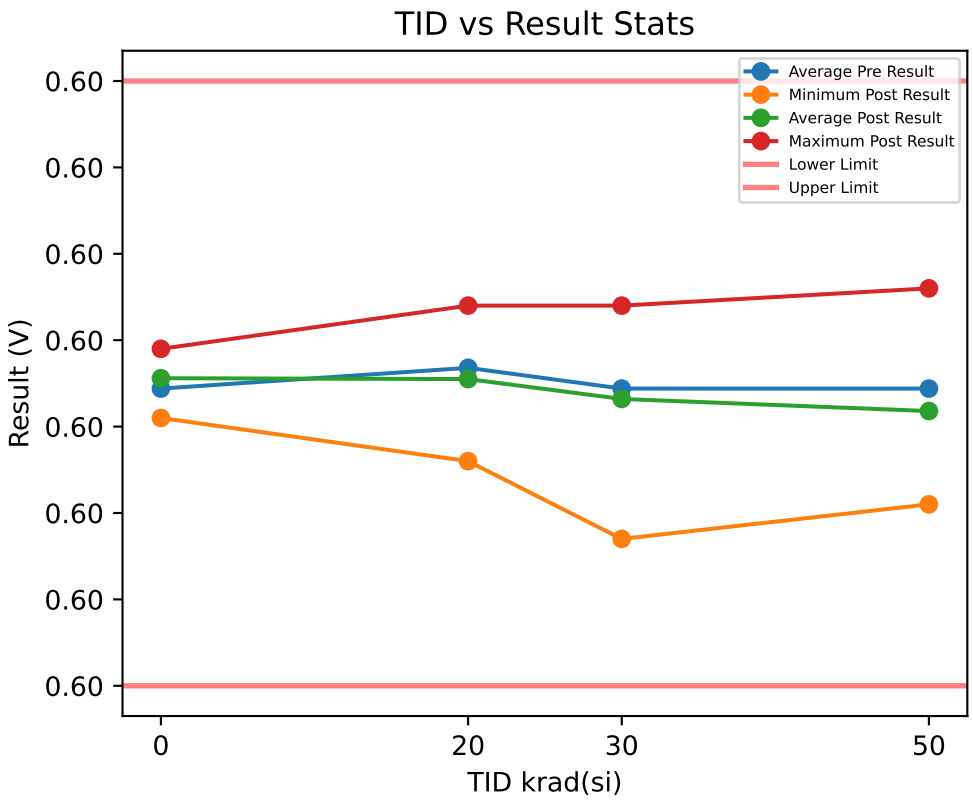
Test Results (Upper Limit = 2.9 (mV))

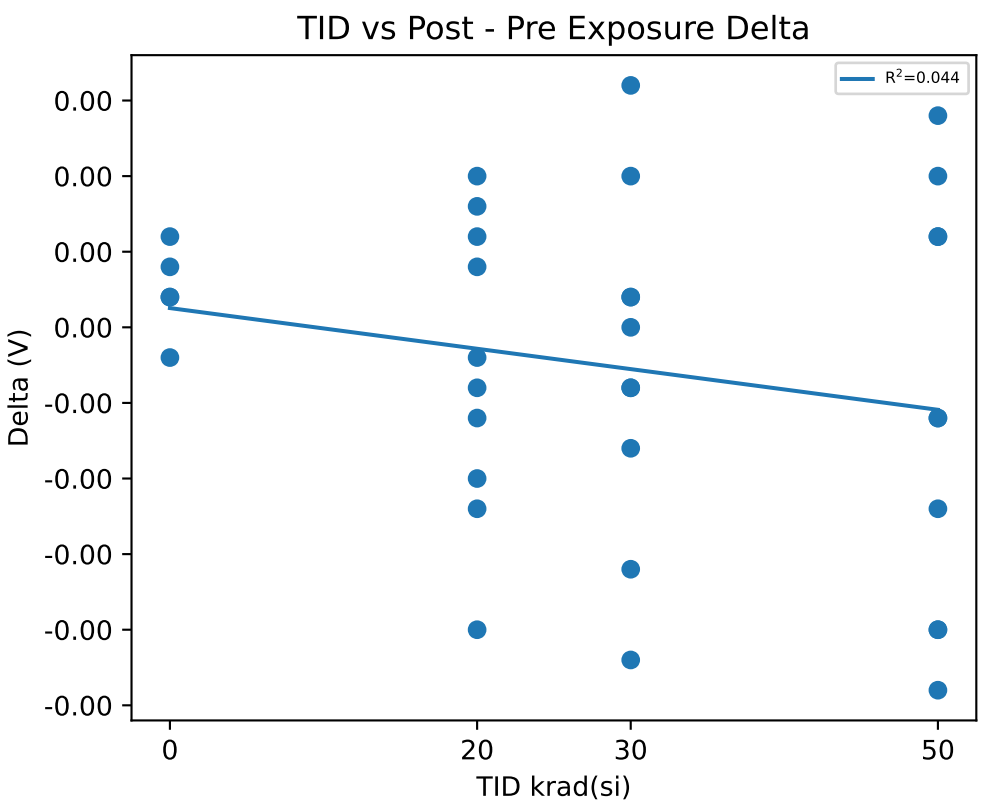
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0576	1.0357	-0.0219
2	20	Biased	0.1389	0.1427	0.0038
3	20	Biased	0.7204	0.7508	0.0304
4	20	Biased	0.3731	0.4444	0.0713
5	20	Biased	0.6323	0.6525	0.0202
6	20	Unbiased	-0.311	-0.3055	0.0055
7	20	Unbiased	0.6655	0.6536	-0.0119
8	20	Unbiased	-0.4553	-0.4726	-0.0173
9	20	Unbiased	0.5695	0.5875	0.018
10	20	Unbiased	-0.641	-0.6039	0.0371
11	30	Biased	0.6344	0.7138	0.0794
12	30	Biased	0.0161	0.0305	0.0144
13	30	Biased	0.6325	0.665	0.0325
14	30	Biased	0.1489	0.1671	0.0182
15	30	Biased	-0.7215	-0.6412	0.0803
16	30	Unbiased	-0.4548	-0.4318	0.023
17	30	Unbiased	0.297	0.3169	0.0199
18	30	Unbiased	0.5759	0.6169	0.041
19	30	Unbiased	0.6208	0.676	0.0552
20	30	Unbiased	-0.3026	-0.2818	0.0208
27	50	Unbiased	1.0011	1.0137	0.0126
28	50	Unbiased	-0.787	-0.8017	-0.0147
29	50	Unbiased	-0.3637	-0.4385	-0.0748
30	50	Unbiased	0.6125	0.5936	-0.0189
31	50	Unbiased	-0.1229	-0.1122	0.0107
77	50	Biased-84Hr-Anneal	0.4271	0.4514	0.0243
78	50	Biased-84Hr-Anneal	0.1377	0.1527	0.015
79	50	Biased-84Hr-Anneal	1.5279	1.4784	-0.0495
80	50	Biased-84Hr-Anneal	0.198	0.2627	0.0647
81	50	Biased-84Hr-Anneal	-0.8896	-0.9121	-0.0225
100	0	CORRELATION	-0.1561	-0.1176	0.0385
101	0	CORRELATION	0.1331	0.1739	0.0408
102	0	CORRELATION	0.891	0.946	0.055
103	0	CORRELATION	-0.0227	0.0168	0.0395
104	0	CORRELATION	0.08	0.16	0.08

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	-0.1561	0.18506	0.891	0.40977	-0.1176	0.23582	0.946	0.41437	0.0385	0.05076	0.08	0.017672
20	-0.641	0.275	1.0576	0.56976	-0.6039	0.28852	1.0357	0.56777	-0.0219	0.01352	0.0713	0.028389
30	-0.7215	0.14467	0.6344	0.49888	-0.6412	0.18314	0.7138	0.50113	0.0144	0.03847	0.0803	0.025019
50	-0.8896	0.17411	1.5279	0.76066	-0.9121	0.1688	1.4784	0.76422	-0.0748	-0.00531	0.0647	0.039606

Device Test: 17.4 LEVEL|STATIC/SS_TR/4.5////@VREF_25C





Test Results (Lower Limit = 0.596, Upper Limit = 0.603 (V))

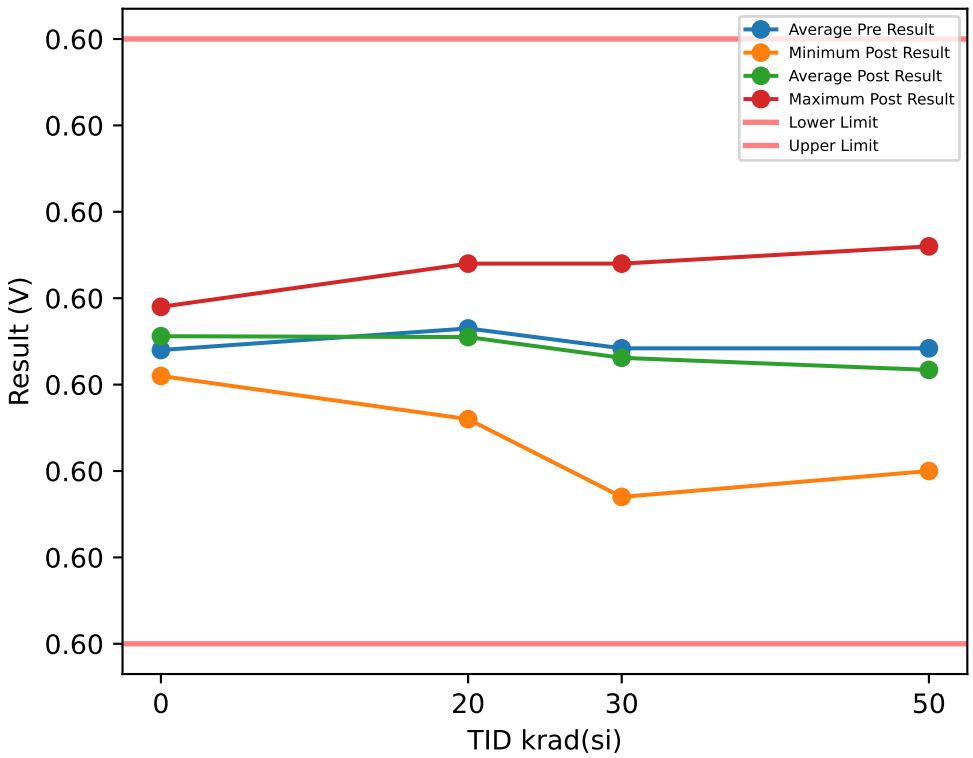
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6004	0.6001	-0.0003
2	20	Biased	0.5993	0.5995	0.0002
3	20	Biased	0.5991	0.599	-0.0001
4	20	Biased	0.5998	0.5993	-0.0005
5	20	Biased	0.6004	0.5994	-0.001
6	20	Unbiased	0.6	0.6004	0.0004
7	20	Unbiased	0.5997	0.6	0.0003
8	20	Unbiased	0.5995	0.6	0.0005
9	20	Unbiased	0.5994	0.5992	-0.0002
10	20	Unbiased	0.5992	0.5986	-0.0006
11	30	Biased	0.5988	0.5977	-0.0011
12	30	Biased	0.5995	0.6	0.0005
13	30	Biased	0.6002	0.5998	-0.0004
14	30	Biased	0.6	0.5998	-0.0002
15	30	Biased	0.5993	0.5991	-0.0002
16	30	Unbiased	0.5989	0.5997	0.0008
17	30	Unbiased	0.6003	0.6004	0.0001
18	30	Unbiased	0.5994	0.5995	0.0001
19	30	Unbiased	0.5993	0.5993	0
20	30	Unbiased	0.5987	0.5979	-0.0008
27	50	Unbiased	0.5989	0.5986	-0.0003
28	50	Unbiased	0.5999	0.6006	0.0007
29	50	Unbiased	0.5998	0.5986	-0.0012
30	50	Unbiased	0.5991	0.5988	-0.0003
31	50	Unbiased	0.5997	0.6	0.0003
77	50	Biased-84Hr-Anneal	0.599	0.5984	-0.0006
78	50	Biased-84Hr-Anneal	0.5996	0.6001	0.0005
79	50	Biased-84Hr-Anneal	0.5998	0.6001	0.0003
80	50	Biased-84Hr-Anneal	0.5995	0.5985	-0.001
81	50	Biased-84Hr-Anneal	0.5991	0.5981	-0.001
100	0	CORRELATION	0.5995	0.5996	0.0001
101	0	CORRELATION	0.5991	0.5993	0.0002
102	0	CORRELATION	0.6	0.5999	-0.0001
103	0	CORRELATION	0.5998	0.5999	0.0001
104	0	CORRELATION	0.5988	0.5991	0.0003

Test Statistics (V)

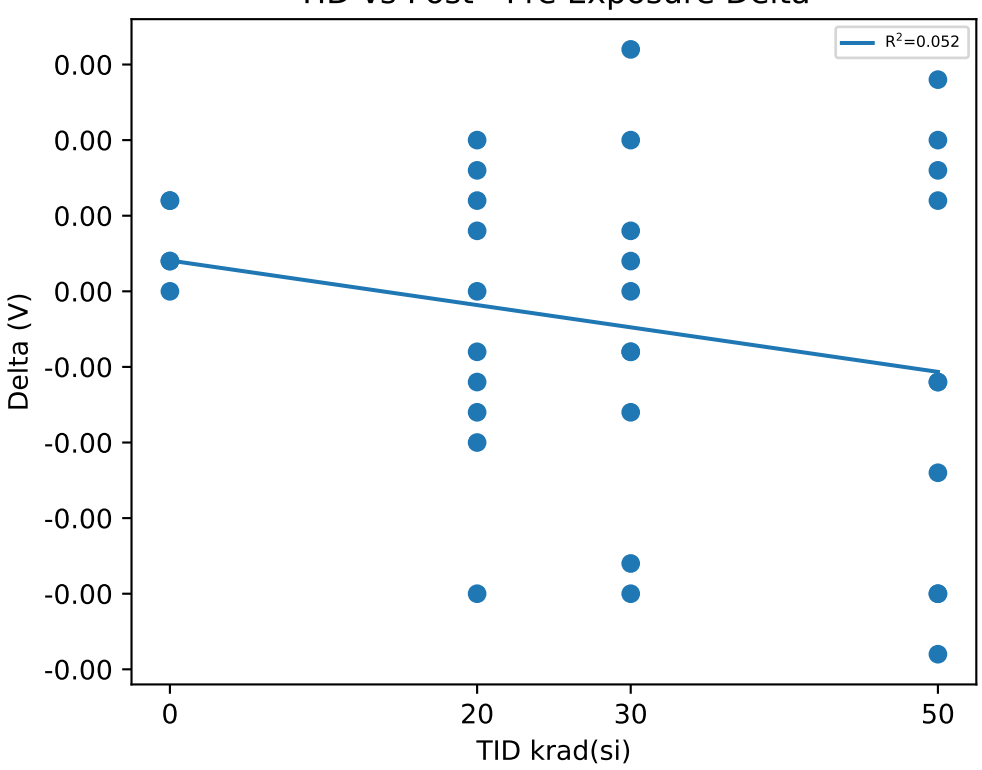
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5988	0.59944	0.6	0.00049295	0.5991	0.59956	0.5999	0.00035777	-0.0001	0.00012	0.0003	0.00014832
20	0.5991	0.59968	0.6004	0.00046857	0.5986	0.59955	0.6004	0.00056224	-0.001	-0.00013	0.0005	0.00048546
30	0.5987	0.59944	0.6003	0.00056999	0.5977	0.59932	0.6004	0.00087914	-0.0011	-0.00012	0.0008	0.00056332
50	0.5989	0.59944	0.5999	0.00037771	0.5981	0.59918	0.6006	0.00090897	-0.0012	-0.00026	0.0007	0.00068508

Device Test: 17.40 LEVEL|STATIC/SS_TR/14////@VREF_25C

TID vs Result Stats



TID vs Post - Pre Exposure Delta



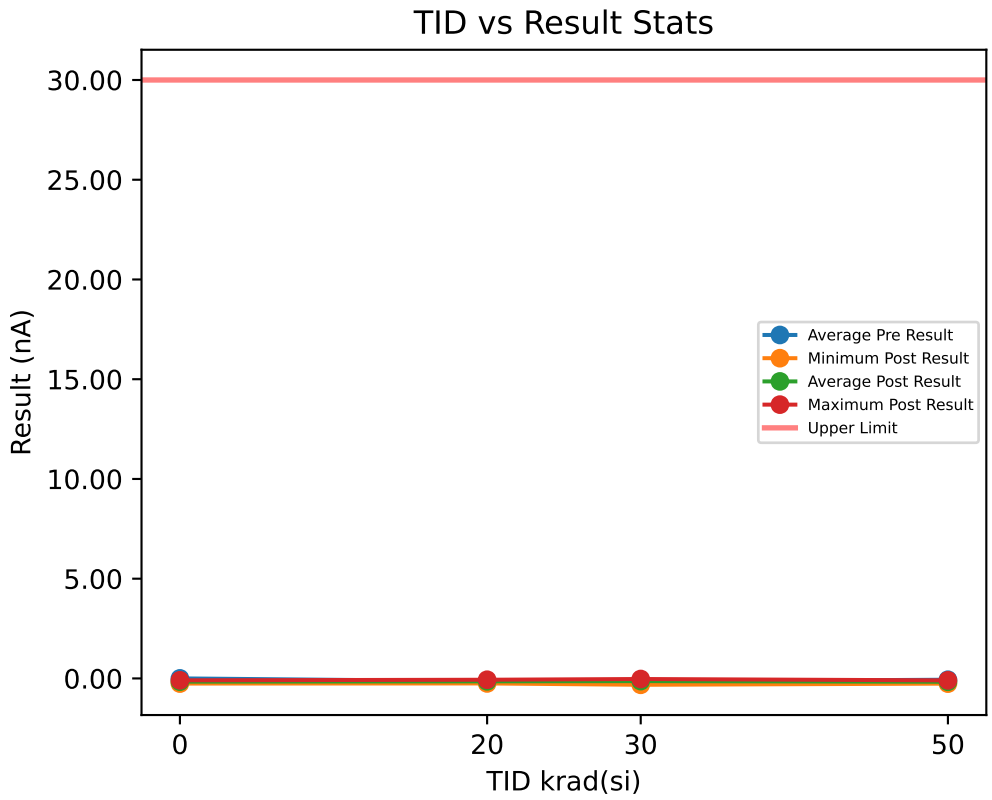
Test Results (Lower Limit = 0.596, Upper Limit = 0.603 (V))

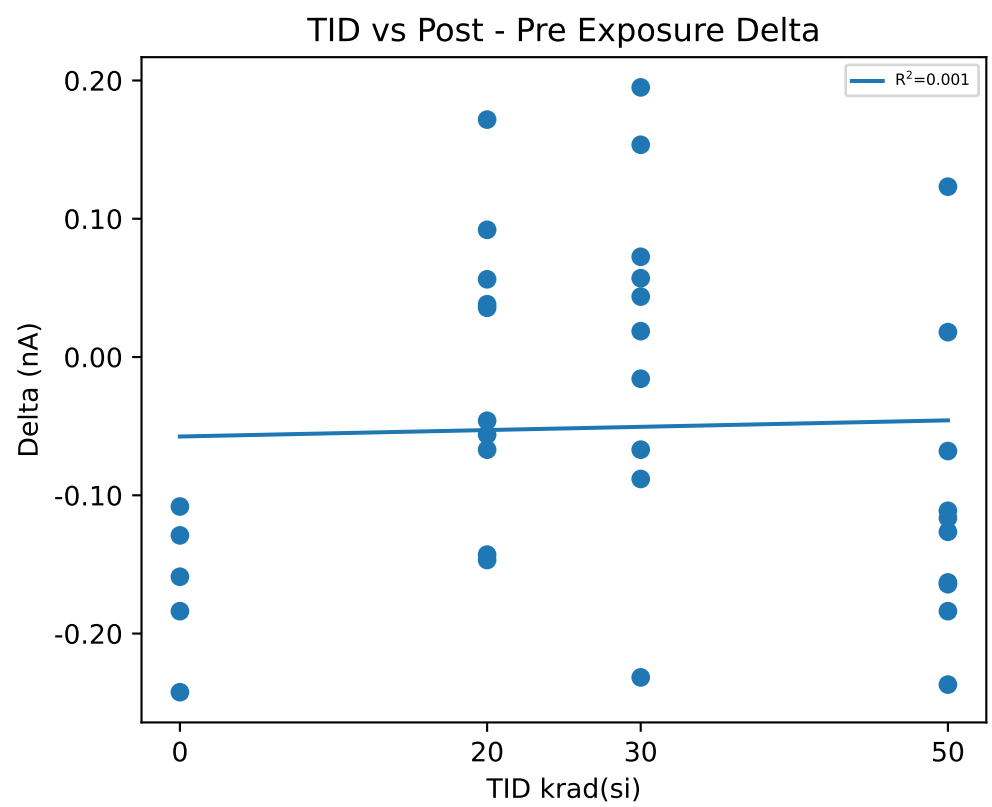
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6004	0.6001	-0.0003
2	20	Biased	0.5993	0.5995	0.0002
3	20	Biased	0.599	0.599	0
4	20	Biased	0.5997	0.5993	-0.0004
5	20	Biased	0.6004	0.5994	-0.001
6	20	Unbiased	0.6	0.6004	0.0004
7	20	Unbiased	0.5997	0.6	0.0003
8	20	Unbiased	0.5995	0.6	0.0005
9	20	Unbiased	0.5994	0.5992	-0.0002
10	20	Unbiased	0.5991	0.5986	-0.0005
11	30	Biased	0.5987	0.5977	-0.001
12	30	Biased	0.5995	0.6	0.0005
13	30	Biased	0.6002	0.5998	-0.0004
14	30	Biased	0.6	0.5998	-0.0002
15	30	Biased	0.5993	0.5991	-0.0002
16	30	Unbiased	0.5989	0.5997	0.0008
17	30	Unbiased	0.6002	0.6004	0.0002
18	30	Unbiased	0.5994	0.5995	0.0001
19	30	Unbiased	0.5993	0.5993	0
20	30	Unbiased	0.5987	0.5978	-0.0009
27	50	Unbiased	0.5989	0.5986	-0.0003
28	50	Unbiased	0.5999	0.6006	0.0007
29	50	Unbiased	0.5998	0.5986	-0.0012
30	50	Unbiased	0.5991	0.5988	-0.0003
31	50	Unbiased	0.5997	0.6	0.0003
77	50	Biased-84Hr-Anneal	0.599	0.5984	-0.0006
78	50	Biased-84Hr-Anneal	0.5996	0.6001	0.0005
79	50	Biased-84Hr-Anneal	0.5997	0.6001	0.0004
80	50	Biased-84Hr-Anneal	0.5995	0.5985	-0.001
81	50	Biased-84Hr-Anneal	0.599	0.598	-0.001
100	0	CORRELATION	0.5995	0.5996	0.0001
101	0	CORRELATION	0.599	0.5993	0.0003
102	0	CORRELATION	0.5999	0.5999	0
103	0	CORRELATION	0.5998	0.5999	0.0001
104	0	CORRELATION	0.5988	0.5991	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	0.5988	0.5994	0.5999	0.00048477	0.5991	0.59956	0.5999	0.00035777	0	0.00016	0.0003	0.00013416
20	0.599	0.59965	0.6004	0.00049272	0.5986	0.59955	0.6004	0.00056224	-0.001	-0.0001	0.0005	0.00046904
30	0.5987	0.59942	0.6002	0.00056725	0.5977	0.59931	0.6004	0.00089747	-0.001	-0.00011	0.0008	0.0005646
50	0.5989	0.59942	0.5999	0.00037947	0.598	0.59917	0.6006	0.00092262	-0.0012	-0.00025	0.0007	0.00069482

Device Test: 17.41 LEAK|POWERED/VSNSP/14////@VSNSP_LKG_CURR_0P6V





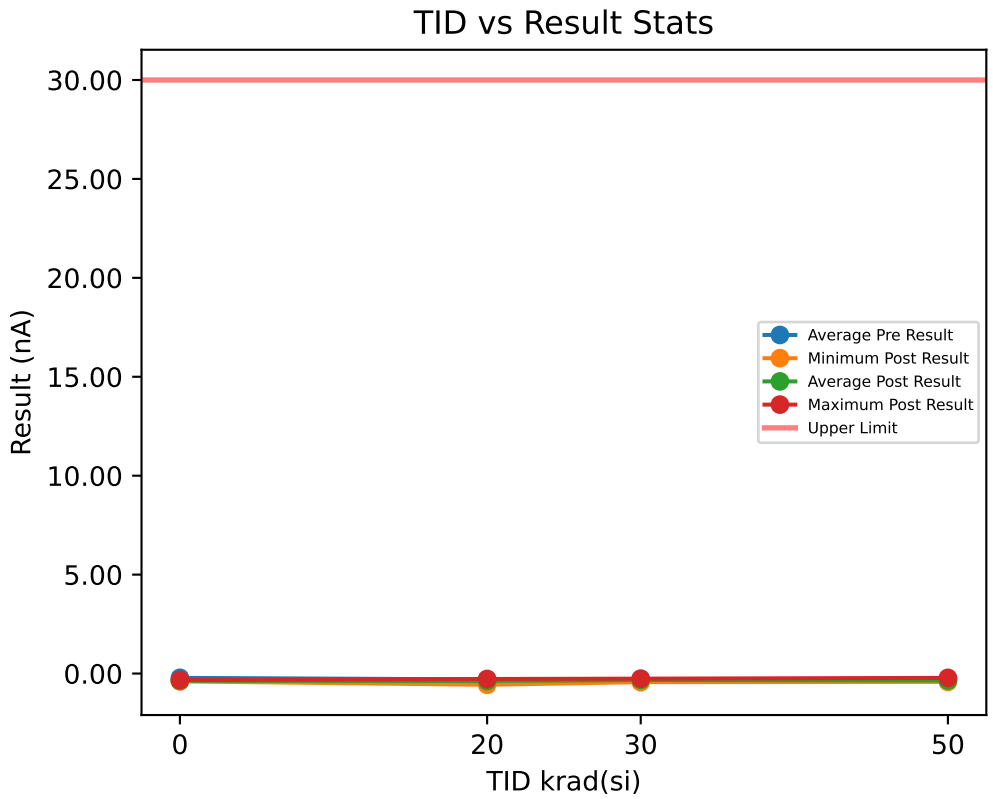
Test Results (Upper Limit = 30.0 (nA))

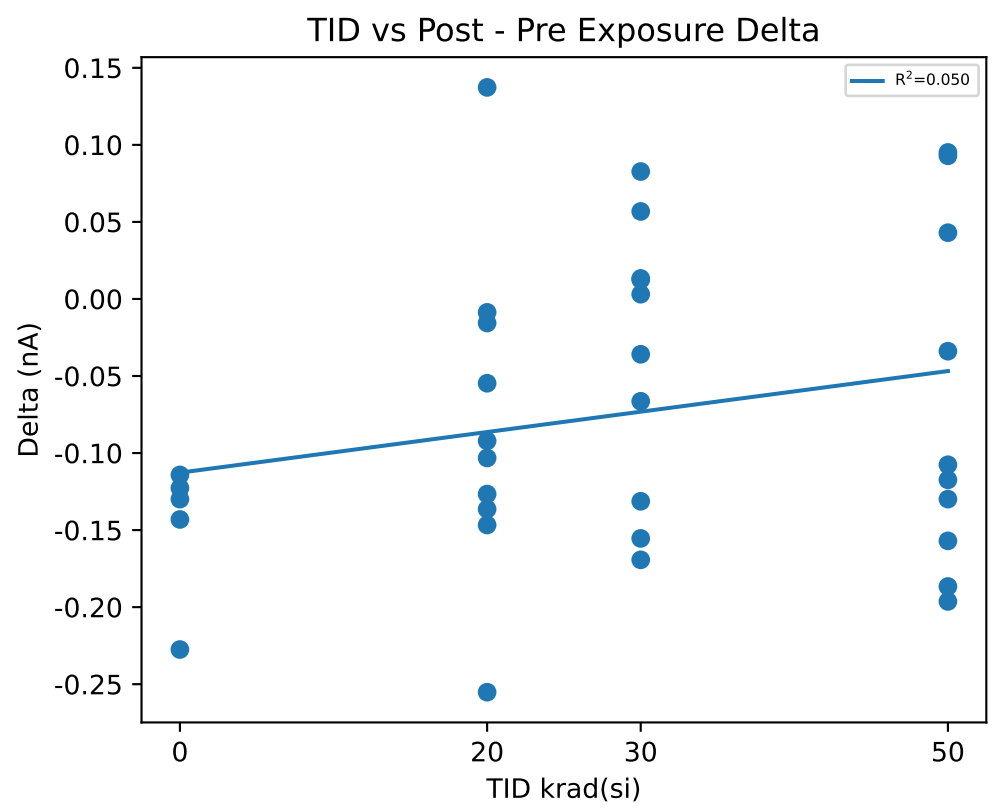
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	-0.2948	-0.2028	0.092
2	20	Biased	-0.1012	-0.2441	-0.1429
3	20	Biased	-0.0499	-0.1169	-0.067
4	20	Biased	-0.0194	-0.0655	-0.0461
5	20	Biased	-0.1949	-0.1567	0.0382
6	20	Unbiased	-0.1043	-0.2511	-0.1468
7	20	Unbiased	-0.078	-0.1342	-0.0562
8	20	Unbiased	-0.1411	-0.0849	0.0562
9	20	Unbiased	-0.2792	-0.1075	0.1717
10	20	Unbiased	-0.1292	-0.0936	0.0356
11	30	Biased	-0.0873	-0.319	-0.2317
12	30	Biased	-0.0537	-0.1419	-0.0882
13	30	Biased	-0.2761	-0.0811	0.195
14	30	Biased	-0.1823	-0.0288	0.1535
15	30	Biased	-0.1248	-0.1918	-0.067
16	30	Unbiased	-0.1942	-0.1217	0.0725
17	30	Unbiased	-0.2262	-0.1692	0.057
18	30	Unbiased	-0.1355	-0.1512	-0.0157
19	30	Unbiased	-0.0936	-0.0749	0.0187
20	30	Unbiased	-0.1068	-0.0631	0.0437
27	50	Unbiased	-0.1154	-0.0974	0.018
28	50	Unbiased	0.0024	-0.1606	-0.163
29	50	Unbiased	-0.2199	-0.0967	0.1232
30	50	Unbiased	-0.0887	-0.1567	-0.068
31	50	Unbiased	-0.028	-0.1544	-0.1264
77	50	Biased-84Hr-Anneal	-0.0962	-0.2605	-0.1643
78	50	Biased-84Hr-Anneal	0.0341	-0.2028	-0.2369
79	50	Biased-84Hr-Anneal	-0.0746	-0.191	-0.1164
80	50	Biased-84Hr-Anneal	-0.1118	-0.223	-0.1112
81	50	Biased-84Hr-Anneal	0.0559	-0.1279	-0.1838
100	0	CORRELATION	-0.015	-0.2574	-0.2424
101	0	CORRELATION	-0.0065	-0.1903	-0.1838
102	0	CORRELATION	-0.0215	-0.1505	-0.129
103	0	CORRELATION	-0.0088	-0.1169	-0.1081
104	0	CORRELATION	0.0653	-0.0936	-0.1589

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	-0.0215	0.0027	0.0653	0.035477	-0.2574	-0.16174	-0.0936	0.064704	-0.2424	-0.16444	-0.1081	0.052234
20	-0.2948	-0.1392	-0.0194	0.091743	-0.2511	-0.14573	-0.0655	0.066196	-0.1468	-0.00653	0.1717	0.10282
30	-0.2761	-0.14805	-0.0537	0.069733	-0.319	-0.13427	-0.0288	0.082797	-0.2317	0.01378	0.195	0.12322
50	-0.2199	-0.06422	0.0559	0.082121	-0.2605	-0.1671	-0.0967	0.053079	-0.2369	-0.10288	0.1232	0.10522

Device Test: 17.5 LEAK|POWERED/VSNSP/4.5////@VSNSP_LKG_CURR_0P6V





Test Results (Upper Limit = 30.0 (nA))

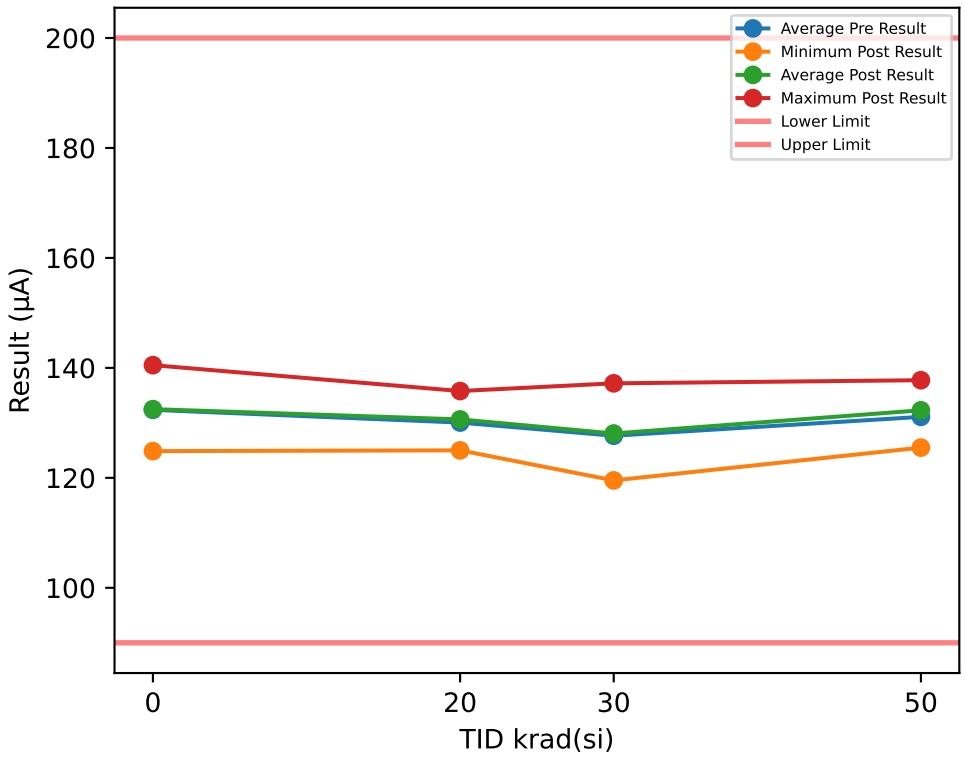
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	-0.326	-0.3807	-0.0547
2	20	Biased	-0.1324	-0.3876	-0.2552
3	20	Biased	-0.2215	-0.3136	-0.0921
4	20	Biased	-0.2659	-0.2746	-0.0087
5	20	Biased	-0.4322	-0.5686	-0.1364
6	20	Unbiased	-0.2634	-0.3666	-0.1032
7	20	Unbiased	-0.3339	-0.3495	-0.0156
8	20	Unbiased	-0.3221	-0.4688	-0.1467
9	20	Unbiased	-0.4509	-0.3136	0.1373
10	20	Unbiased	-0.2135	-0.3401	-0.1266
11	30	Biased	-0.2652	-0.4345	-0.1693
12	30	Biased	-0.3127	-0.3791	-0.0664
13	30	Biased	-0.4103	-0.3276	0.0827
14	30	Biased	-0.1667	-0.3221	-0.1554
15	30	Biased	-0.2215	-0.2574	-0.0359
16	30	Unbiased	-0.372	-0.3152	0.0568
17	30	Unbiased	-0.3822	-0.3689	0.0133
18	30	Unbiased	-0.1823	-0.3136	-0.1313
19	30	Unbiased	-0.2715	-0.2684	0.0031
20	30	Unbiased	-0.2878	-0.2753	0.0125
27	50	Unbiased	-0.3433	-0.3003	0.043
28	50	Unbiased	-0.3908	-0.2979	0.0929
29	50	Unbiased	-0.4259	-0.3308	0.0951
30	50	Unbiased	-0.1917	-0.3783	-0.1866
31	50	Unbiased	-0.284	-0.3916	-0.1076
77	50	Biased-84Hr-Anneal	-0.2804	-0.3978	-0.1174
78	50	Biased-84Hr-Anneal	-0.1501	-0.3464	-0.1963
79	50	Biased-84Hr-Anneal	-0.265	-0.422	-0.157
80	50	Biased-84Hr-Anneal	-0.2742	-0.4041	-0.1299
81	50	Biased-84Hr-Anneal	-0.1845	-0.2184	-0.0339
100	0	CORRELATION	-0.2836	-0.3978	-0.1142
101	0	CORRELATION	-0.1845	-0.3276	-0.1431
102	0	CORRELATION	-0.24	-0.3627	-0.1227
103	0	CORRELATION	-0.2305	-0.3604	-0.1299
104	0	CORRELATION	-0.147	-0.3745	-0.2275

Test Statistics (nA)

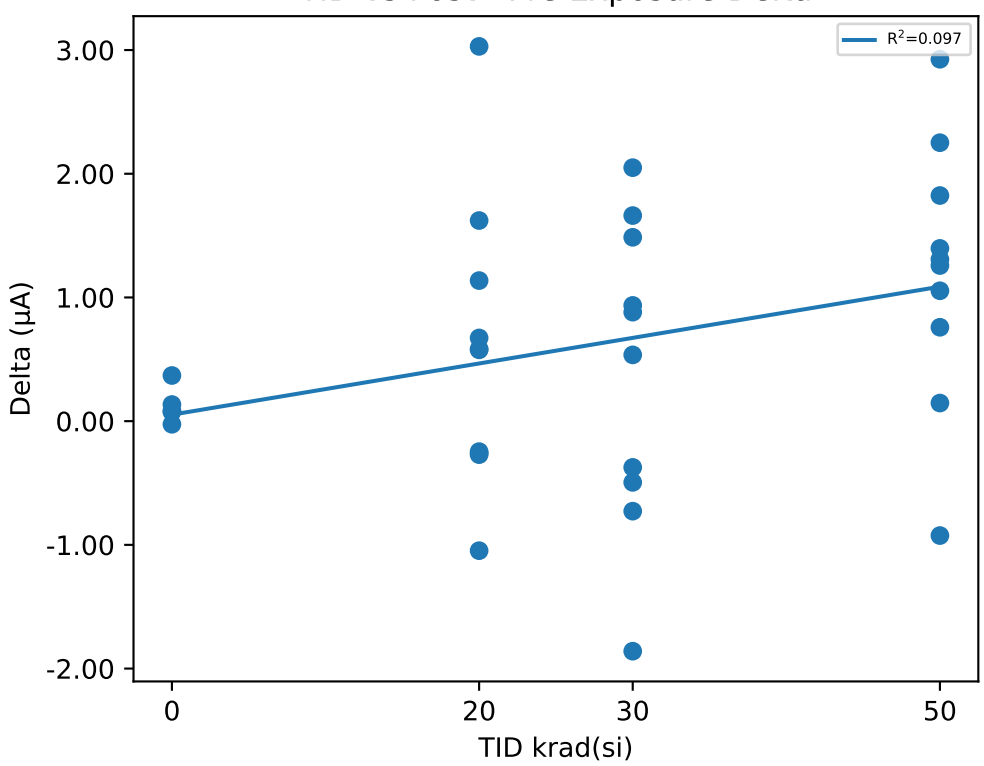
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-0.2836	-0.21712	-0.147	0.052685	-0.3978	-0.3646	-0.3276	0.025448	-0.2275	-0.14748	-0.1142	0.04597
20	-0.4509	-0.29618	-0.1324	0.098122	-0.5686	-0.37637	-0.2746	0.085642	-0.2552	-0.08019	0.1373	0.10449
30	-0.4103	-0.28722	-0.1667	0.083394	-0.4345	-0.32621	-0.2574	0.05509	-0.1693	-0.03899	0.0827	0.088791
50	-0.4259	-0.27899	-0.1501	0.08921	-0.422	-0.34876	-0.2184	0.063066	-0.1963	-0.06977	0.0951	0.11167

Device Test: 18.10 ERROR_AMP|STATIC/COMP/5////@EA_SINK

TID vs Result Stats



TID vs Post - Pre Exposure Delta



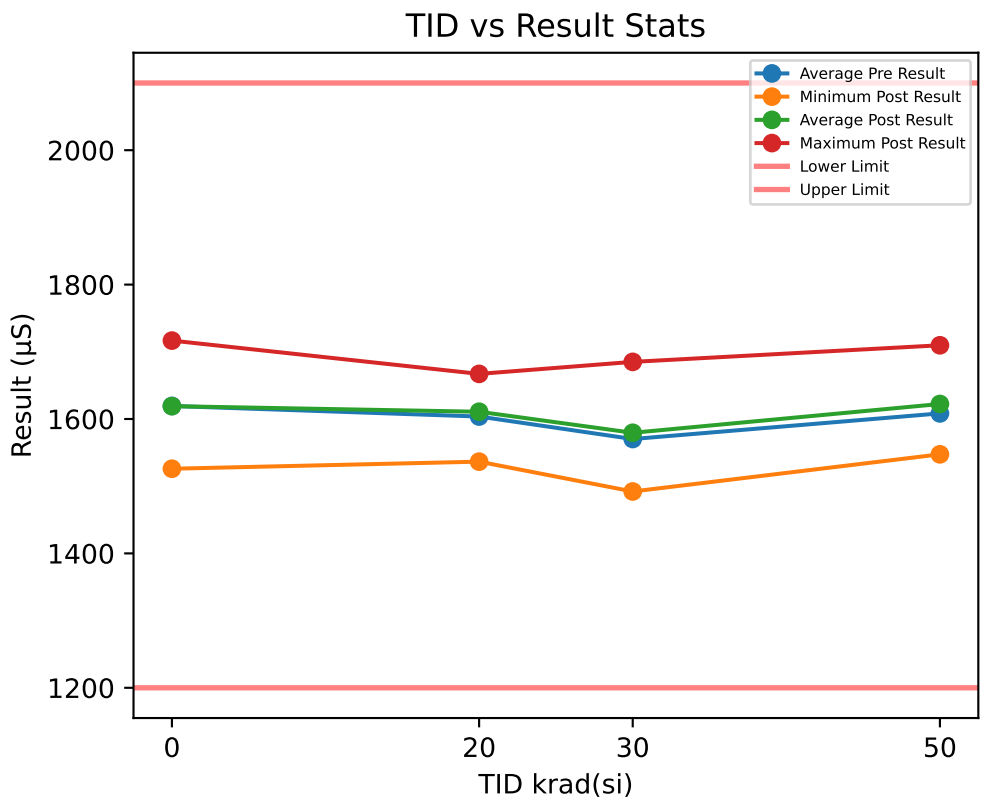
Test Results (Lower Limit = 90.0, Upper Limit = 200.0 (µA))

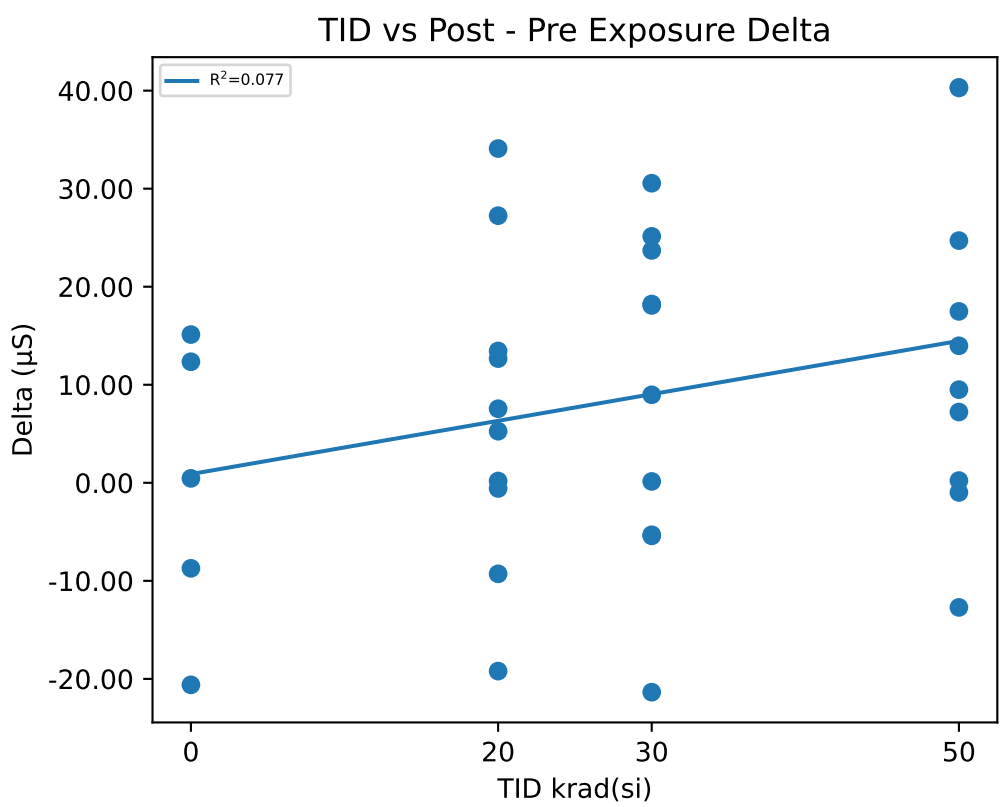
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	127.69	127.44	-0.2462
2	20	Biased	132.6	132.33	-0.2707
3	20	Biased	135.6	135.34	-0.2591
4	20	Biased	123.87	125	1.1365
5	20	Biased	130.34	131.01	0.6726
6	20	Unbiased	132.76	135.79	3.0295
7	20	Unbiased	130	128.96	-1.047
8	20	Unbiased	131.58	133.21	1.6218
9	20	Unbiased	131.24	131.82	0.5766
10	20	Unbiased	124.86	125.44	0.5829
11	30	Biased	129.8	130.68	0.881
12	30	Biased	135.53	137.19	1.6621
13	30	Biased	127.02	129.06	2.0492
14	30	Biased	135.54	134.81	-0.7276
15	30	Biased	124.06	124.6	0.5358
16	30	Unbiased	126.81	128.3	1.4863
17	30	Unbiased	128.11	127.73	-0.3737
18	30	Unbiased	120.03	119.54	-0.4948
19	30	Unbiased	127.81	125.96	-1.8596
20	30	Unbiased	121.85	122.79	0.9357
27	50	Unbiased	133.82	135.64	1.824
28	50	Unbiased	133.66	136.58	2.9256
29	50	Unbiased	130.43	131.74	1.3083
30	50	Unbiased	135.06	135.2	0.1464
31	50	Unbiased	127.96	128.71	0.759
77	50	Biased-84Hr-Anneal	127.76	130.01	2.251
78	50	Biased-84Hr-Anneal	124.11	125.5	1.3965
79	50	Biased-84Hr-Anneal	138.69	137.76	-0.9248
80	50	Biased-84Hr-Anneal	132.79	134.04	1.2581
81	50	Biased-84Hr-Anneal	126.65	127.71	1.0541
100	0	CORRELATION	126.41	126.55	0.1345
101	0	CORRELATION	124.89	124.86	-0.0251
102	0	CORRELATION	132.81	132.89	0.0835
103	0	CORRELATION	140.13	140.5	0.3692
104	0	CORRELATION	137.62	137.69	0.075

Test Statistics (µA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	124.89	132.37	140.13	6.6963	124.86	132.5	140.5	6.7972	-0.0251	0.12742	0.3692	0.14701
20	123.87	130.05	135.6	3.6408	125	130.63	135.79	3.822	-1.047	0.57969	3.0295	1.1624
30	120.03	127.66	135.54	5.1081	119.54	128.07	137.19	5.3113	-1.8596	0.40944	2.0492	1.2385
50	124.11	131.09	138.69	4.4743	125.5	132.29	137.76	4.1705	-0.9248	1.1998	2.9256	1.0732

Device Test: 18.14 EA|STATIC/COMP/12////@EA_GM_25C





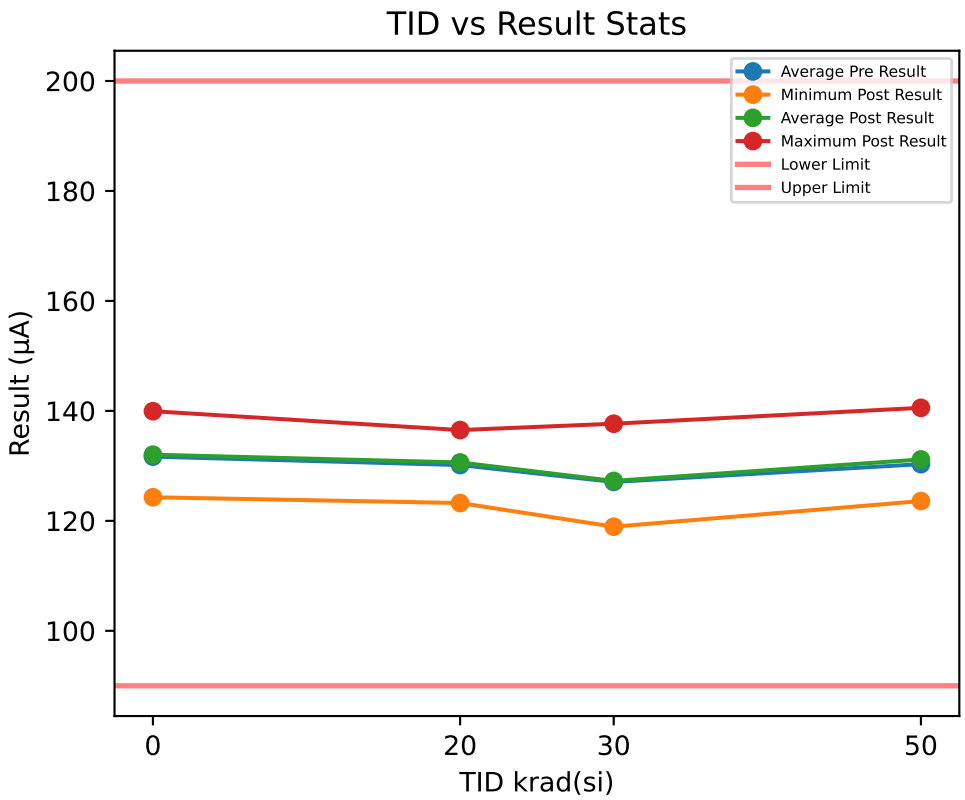
Test Results (Lower Limit = 1200.0, Upper Limit = 2100.0 (µS))

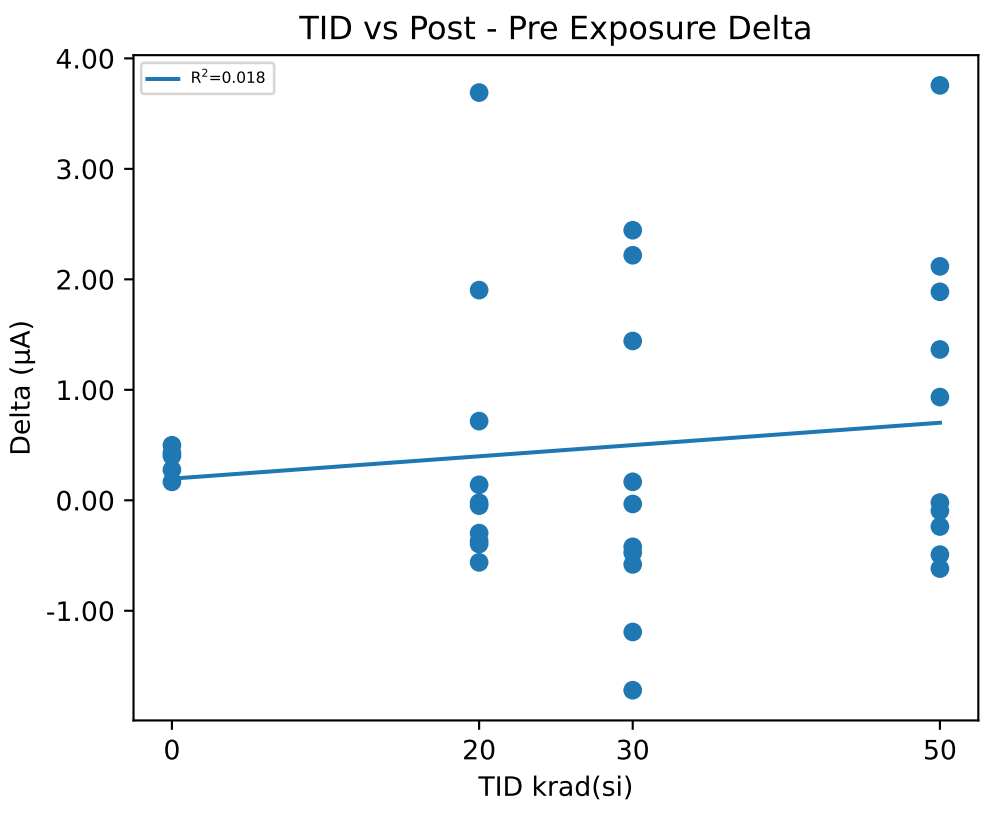
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1588.3	1587.7	-0.5787
2	20	Biased	1644.9	1625.7	-19.206
3	20	Biased	1654.4	1659.6	5.2614
4	20	Biased	1536.4	1549.1	12.668
5	20	Biased	1608.6	1622.1	13.446
6	20	Unbiased	1633	1667.1	34.093
7	20	Unbiased	1600.2	1590.9	-9.2864
8	20	Unbiased	1621.7	1648.9	27.246
9	20	Unbiased	1612.8	1620.4	7.5548
10	20	Unbiased	1536.3	1536.5	0.1829
11	30	Biased	1580.6	1598.7	18.09
12	30	Biased	1654.5	1685	30.558
13	30	Biased	1571.3	1595	23.7
14	30	Biased	1664.6	1659.3	-5.3014
15	30	Biased	1520.3	1538.5	18.235
16	30	Unbiased	1569.4	1578.3	8.9764
17	30	Unbiased	1590.6	1585.2	-5.4104
18	30	Unbiased	1492	1492.1	0.1393
19	30	Unbiased	1573.1	1551.7	-21.358
20	30	Unbiased	1485.8	1510.9	25.136
27	50	Unbiased	1620.5	1660.7	40.278
28	50	Unbiased	1627.3	1667.6	40.33
29	50	Unbiased	1595.8	1603	7.2196
30	50	Unbiased	1641.7	1666.4	24.704
31	50	Unbiased	1582.4	1569.7	-12.709
77	50	Biased-84Hr-Anneal	1580.9	1590.4	9.5011
78	50	Biased-84Hr-Anneal	1547.2	1547.4	0.2283
79	50	Biased-84Hr-Anneal	1710.7	1709.7	-0.9849
80	50	Biased-84Hr-Anneal	1630.3	1647.8	17.485
81	50	Biased-84Hr-Anneal	1546.6	1560.6	13.976
100	0	CORRELATION	1538.4	1553.5	15.121
101	0	CORRELATION	1546.6	1526	-20.608
102	0	CORRELATION	1632.9	1633.4	0.4531
103	0	CORRELATION	1704.3	1716.7	12.347
104	0	CORRELATION	1674.8	1666.1	-8.7232

Test Statistics (µS)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1538.4	1619.4	1704.3	74.715	1526	1619.1	1716.7	78.907	-20.608	-0.28214	15.121	14.847
20	1536.3	1603.7	1654.4	40.649	1536.5	1610.8	1667.1	44.355	-19.206	7.138	34.093	15.905
30	1485.8	1570.2	1664.6	59.896	1492.1	1579.5	1685	60.498	-21.358	9.2764	30.558	16.735
50	1546.6	1608.3	1710.7	49.116	1547.4	1622.3	1709.7	55.116	-12.709	14.003	40.33	17.334

Device Test: 18.15 ERROR_AMP|STATIC/COMP/12////@EA_SOURCE





Test Results (Lower Limit = 90.0, Upper Limit = 200.0 (µA))

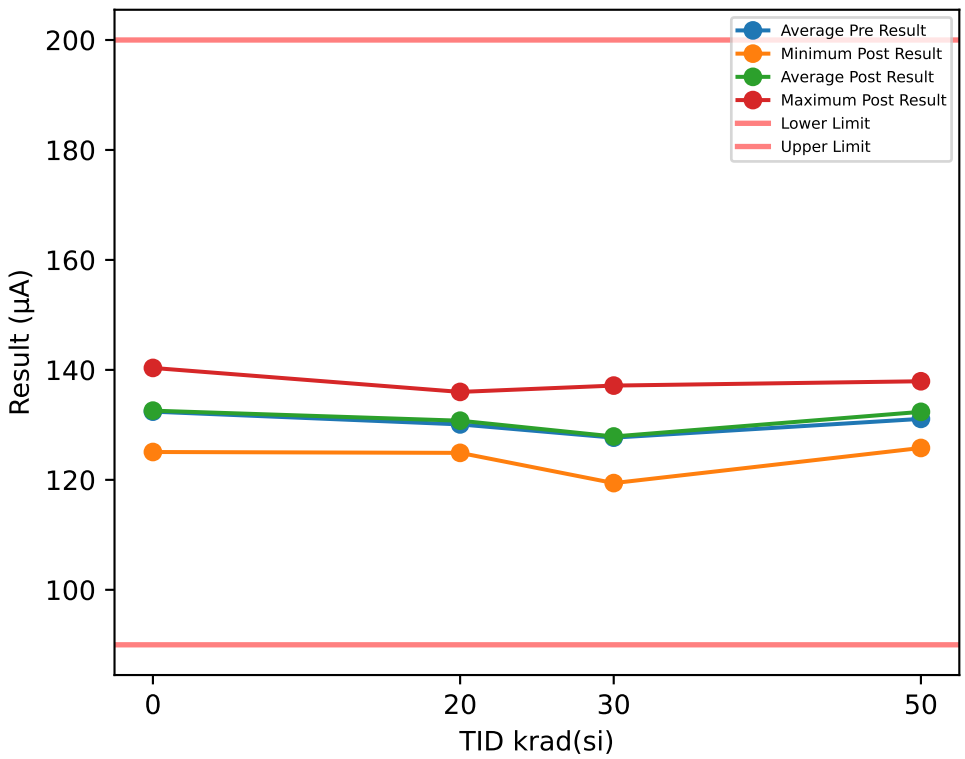
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	129.61	129.24	-0.3676
2	20	Biased	131.82	132.54	0.7167
3	20	Biased	135.01	134.61	-0.396
4	20	Biased	124.6	124.55	-0.0482
5	20	Biased	131.65	131.09	-0.5617
6	20	Unbiased	132.82	136.51	3.6907
7	20	Unbiased	130.81	130.51	-0.2969
8	20	Unbiased	131.03	132.93	1.9025
9	20	Unbiased	130.87	131.01	0.1402
10	20	Unbiased	123.26	123.24	-0.0221
11	30	Biased	128.43	127.96	-0.4744
12	30	Biased	135.22	137.67	2.4446
13	30	Biased	128.47	129.91	1.442
14	30	Biased	135.65	134.46	-1.192
15	30	Biased	122.66	122.83	0.1673
16	30	Unbiased	124.79	127.01	2.2181
17	30	Unbiased	128.88	128.84	-0.0333
18	30	Unbiased	119.52	118.93	-0.5803
19	30	Unbiased	127.05	125.34	-1.7189
20	30	Unbiased	120.1	119.67	-0.4211
27	50	Unbiased	132.82	134.71	1.887
28	50	Unbiased	132.52	136.28	3.7555
29	50	Unbiased	129.41	128.79	-0.6182
30	50	Unbiased	134.45	134.43	-0.0204
31	50	Unbiased	127.16	128.1	0.9343
77	50	Biased-84Hr-Anneal	126.39	127.76	1.3652
78	50	Biased-84Hr-Anneal	123.28	125.4	2.1174
79	50	Biased-84Hr-Anneal	140.65	140.56	-0.0945
80	50	Biased-84Hr-Anneal	132.31	132.07	-0.2375
81	50	Biased-84Hr-Anneal	124.09	123.6	-0.4919
100	0	CORRELATION	125.2	125.6	0.4016
101	0	CORRELATION	123.86	124.29	0.43
102	0	CORRELATION	133.93	134.21	0.2761
103	0	CORRELATION	139.78	139.94	0.1668
104	0	CORRELATION	135.64	136.13	0.4983

Test Statistics (µA)

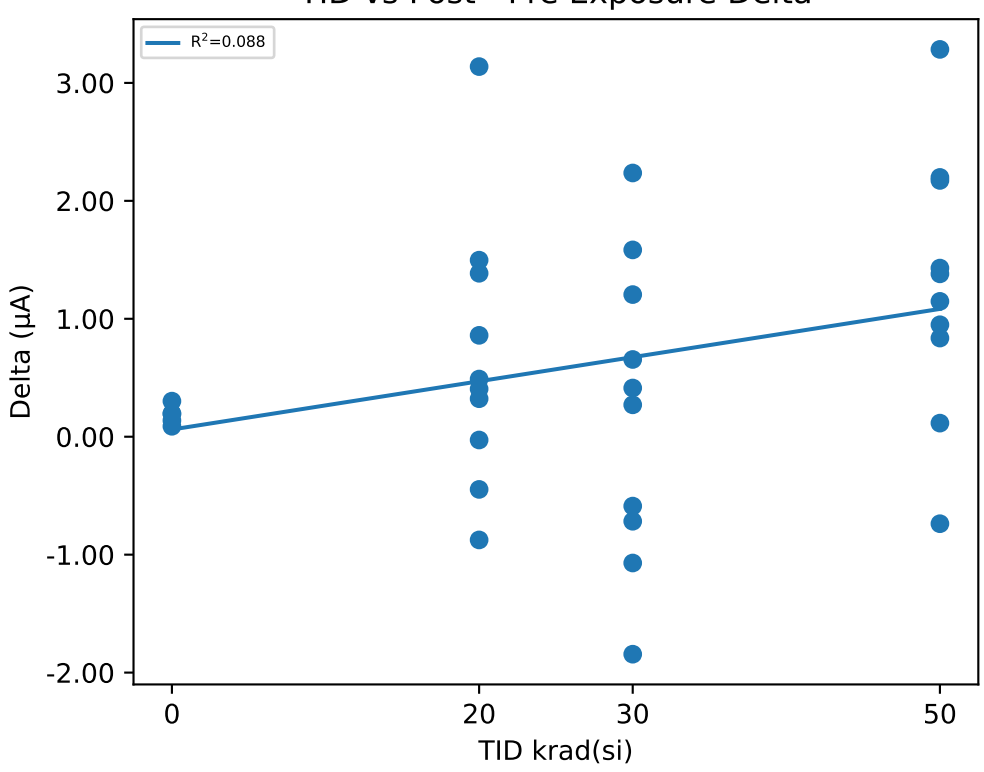
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	123.86	131.68	139.78	6.8807	124.29	132.04	139.94	6.8081	0.1668	0.35456	0.4983	0.13226
20	123.26	130.15	135.01	3.5903	123.24	130.62	136.51	4.126	-0.5617	0.47576	3.6907	1.342
30	119.52	127.08	135.65	5.5528	118.93	127.26	137.67	5.9665	-1.7189	0.1852	2.4446	1.4054
50	123.28	130.31	140.65	5.306	123.6	131.17	140.56	5.3282	-0.6182	0.85969	3.7555	1.4214

Device Test: 18.16 ERROR_AMP|STATIC/COMP/12////@EA_SINK

TID vs Result Stats



TID vs Post - Pre Exposure Delta



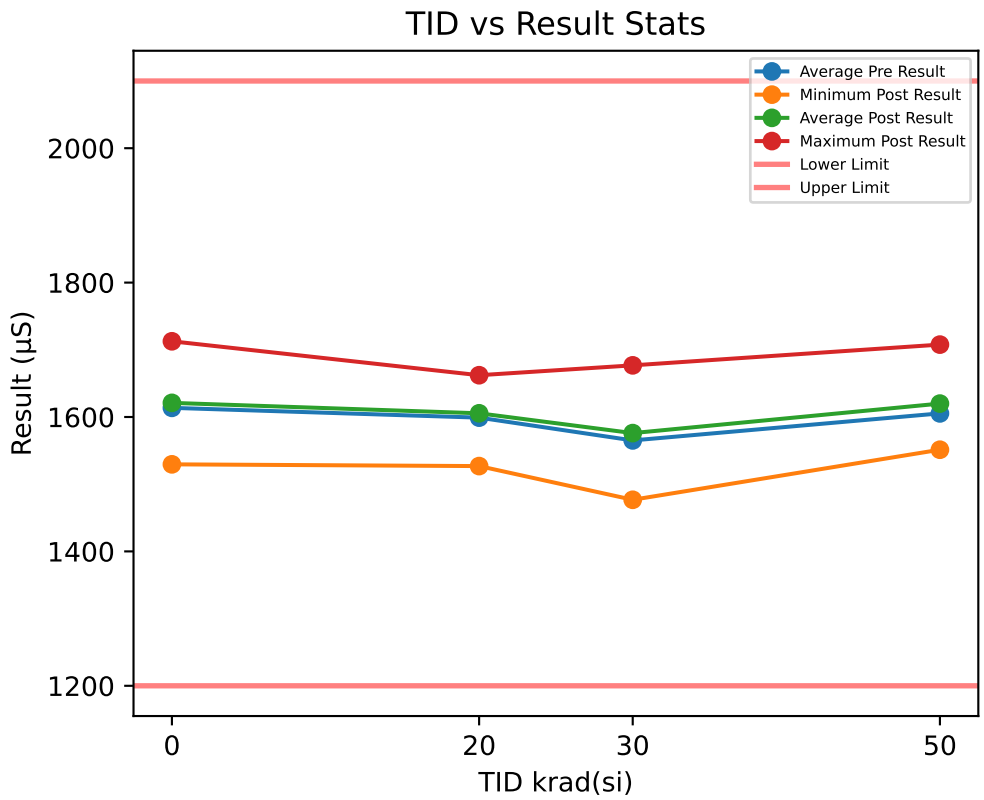
Test Results (Lower Limit = 90.0, Upper Limit = 200.0 (µA))

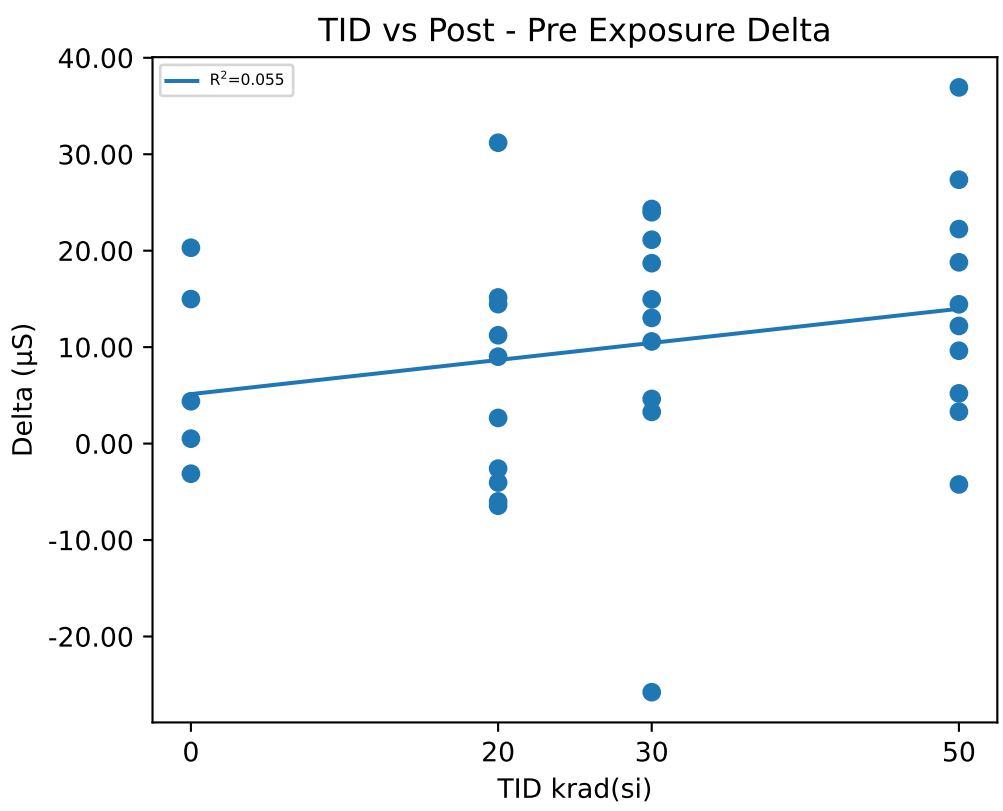
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	127.59	127.56	-0.0277
2	20	Biased	132.37	132.69	0.3223
3	20	Biased	135.83	135.38	-0.4467
4	20	Biased	123.52	124.91	1.3858
5	20	Biased	130.19	131.05	0.8597
6	20	Unbiased	132.85	135.99	3.1384
7	20	Unbiased	130.24	129.36	-0.8751
8	20	Unbiased	131.91	133.41	1.4971
9	20	Unbiased	131.43	131.83	0.4052
10	20	Unbiased	124.9	125.39	0.4891
11	30	Biased	129.85	130.26	0.4131
12	30	Biased	135.56	137.15	1.5841
13	30	Biased	126.89	129.13	2.2363
14	30	Biased	135.49	134.42	-1.0707
15	30	Biased	124.21	124.48	0.2705
16	30	Unbiased	126.92	128.13	1.2053
17	30	Unbiased	128.01	127.3	-0.7168
18	30	Unbiased	120	119.41	-0.5882
19	30	Unbiased	127.81	125.97	-1.844
20	30	Unbiased	121.99	122.65	0.655
27	50	Unbiased	133.63	135.83	2.1987
28	50	Unbiased	133.36	136.65	3.2842
29	50	Unbiased	130.6	131.55	0.9494
30	50	Unbiased	135.01	135.12	0.1153
31	50	Unbiased	128.08	128.92	0.8366
77	50	Biased-84Hr-Anneal	127.76	129.93	2.1731
78	50	Biased-84Hr-Anneal	124.42	125.8	1.381
79	50	Biased-84Hr-Anneal	138.67	137.93	-0.7376
80	50	Biased-84Hr-Anneal	132.66	134.09	1.4299
81	50	Biased-84Hr-Anneal	126.71	127.86	1.1478
100	0	CORRELATION	126.54	126.74	0.1966
101	0	CORRELATION	124.87	125.06	0.1937
102	0	CORRELATION	132.83	133.13	0.3018
103	0	CORRELATION	140.27	140.36	0.0885
104	0	CORRELATION	137.52	137.66	0.1375

Test Statistics (µA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	124.87	132.41	140.27	6.6962	125.06	132.59	140.36	6.656	0.0885	0.18362	0.3018	0.079705
20	123.52	130.08	135.83	3.7595	124.91	130.76	135.99	3.8868	-0.8751	0.67481	3.1384	1.1387
30	120	127.67	135.56	5.0837	119.41	127.89	137.15	5.2769	-1.844	0.21446	2.2363	1.2729
50	124.42	131.09	138.67	4.3584	125.8	132.37	137.93	4.1336	-0.7376	1.2778	3.2842	1.1275

Device Test: 18.2 EA|STATIC/COMP/4.5////@EA_GM_25C





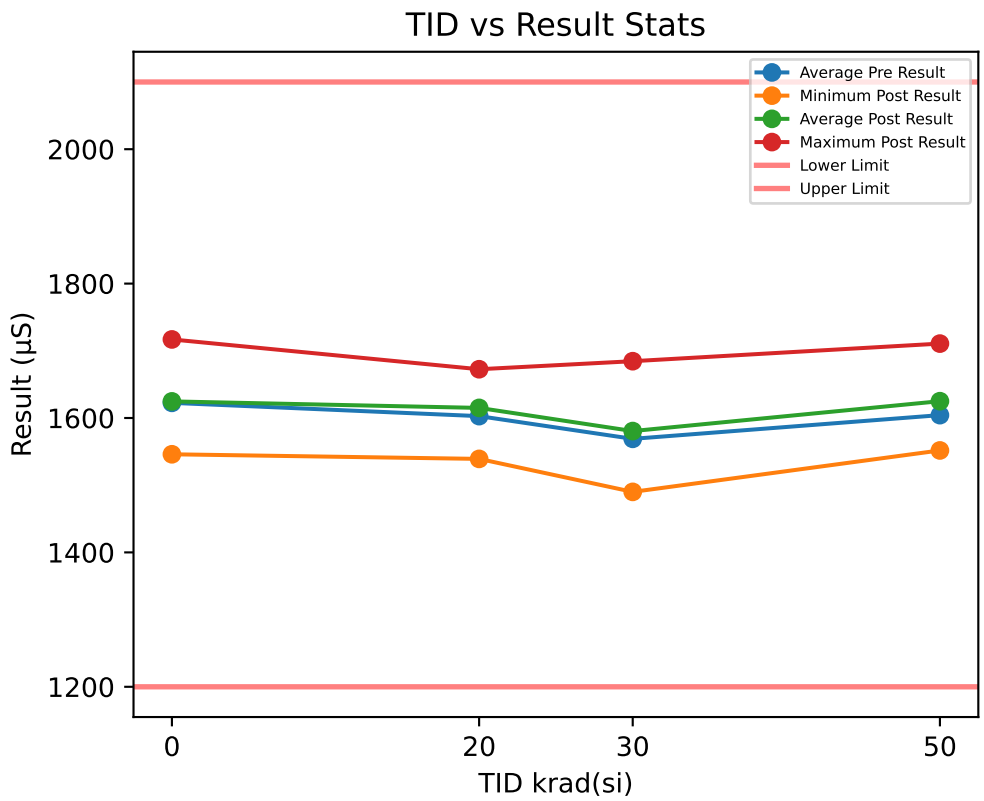
Test Results (Lower Limit = 1200.0, Upper Limit = 2100.0 (µS))

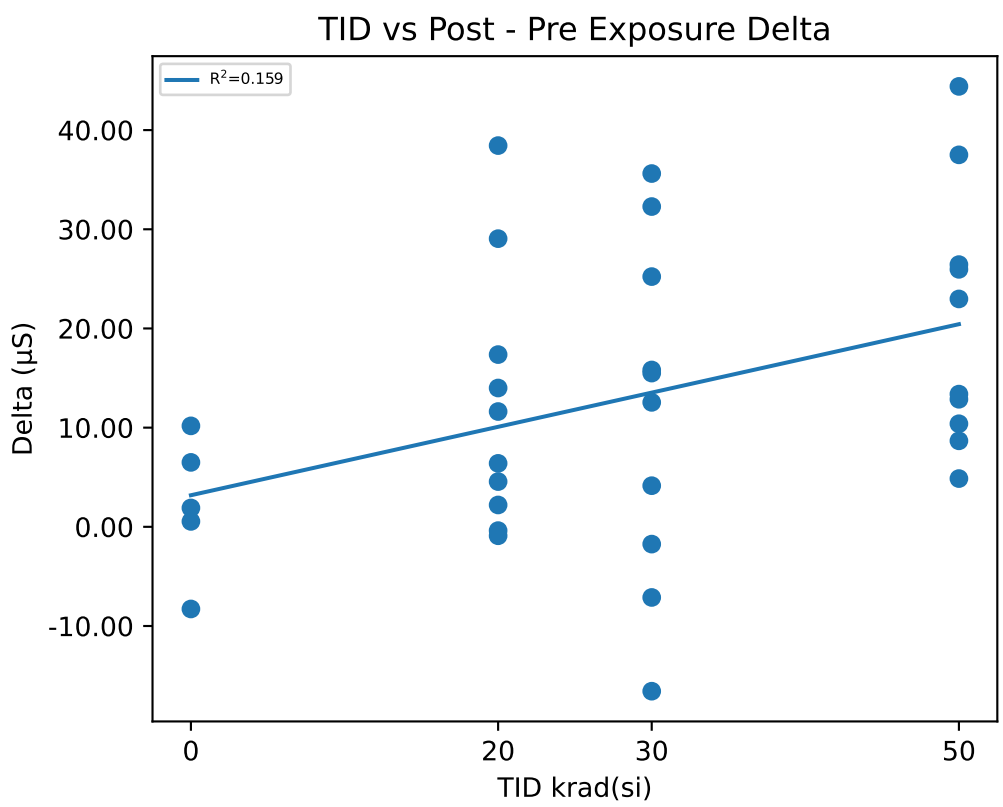
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1579.5	1588.5	9.0107
2	20	Biased	1631.2	1624.8	-6.4454
3	20	Biased	1642.8	1657.3	14.459
4	20	Biased	1535.4	1531.3	-4.036
5	20	Biased	1604.7	1619.9	15.153
6	20	Unbiased	1631	1662.2	31.194
7	20	Unbiased	1592.2	1589.6	-2.5948
8	20	Unbiased	1621.9	1633.1	11.233
9	20	Unbiased	1618.8	1621.5	2.6597
10	20	Unbiased	1532.9	1527	-5.9923
11	30	Biased	1585.1	1595.7	10.591
12	30	Biased	1661.9	1676.9	14.949
13	30	Biased	1575.5	1588.5	13.031
14	30	Biased	1646.5	1665.2	18.704
15	30	Biased	1516.7	1540.7	23.985
16	30	Unbiased	1553.6	1574.7	21.137
17	30	Unbiased	1583.5	1588.2	4.632
18	30	Unbiased	1473.5	1476.8	3.288
19	30	Unbiased	1571	1545.2	-25.776
20	30	Unbiased	1484.1	1508.4	24.325
27	50	Unbiased	1629.9	1648.7	18.795
28	50	Unbiased	1635.4	1672.3	36.93
29	50	Unbiased	1599.7	1595.4	-4.2366
30	50	Unbiased	1637.8	1660	22.242
31	50	Unbiased	1571	1580.6	9.6276
77	50	Biased-84Hr-Anneal	1557.1	1584.4	27.358
78	50	Biased-84Hr-Anneal	1539.1	1551.3	12.196
79	50	Biased-84Hr-Anneal	1702.5	1707.7	5.2076
80	50	Biased-84Hr-Anneal	1627.6	1642	14.44
81	50	Biased-84Hr-Anneal	1553.5	1556.8	3.3085
100	0	CORRELATION	1550.1	1547	-3.1231
101	0	CORRELATION	1525.2	1529.5	4.3869
102	0	CORRELATION	1620.3	1640.6	20.305
103	0	CORRELATION	1697.7	1712.7	14.982
104	0	CORRELATION	1674.8	1675.3	0.5101

Test Statistics (µS)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1525.2	1613.6	1697.7	75.351	1529.5	1621	1712.7	79.964	-3.1231	7.4122	20.305	9.8908
20	1532.9	1599	1642.8	39.112	1527	1605.5	1662.2	46.785	-6.4454	6.4641	31.194	12.059
30	1473.5	1565.2	1661.9	61.74	1476.8	1576	1676.9	62.743	-25.776	10.887	24.325	14.834
50	1539.1	1605.4	1702.5	50.674	1551.3	1619.9	1707.7	53.2	-4.2366	14.587	36.93	12.195

Device Test: 18.20 EA|STATIC/COMP/14////@EA_GM_25C





Test Results (Lower Limit = 1200.0, Upper Limit = 2100.0 (µS))

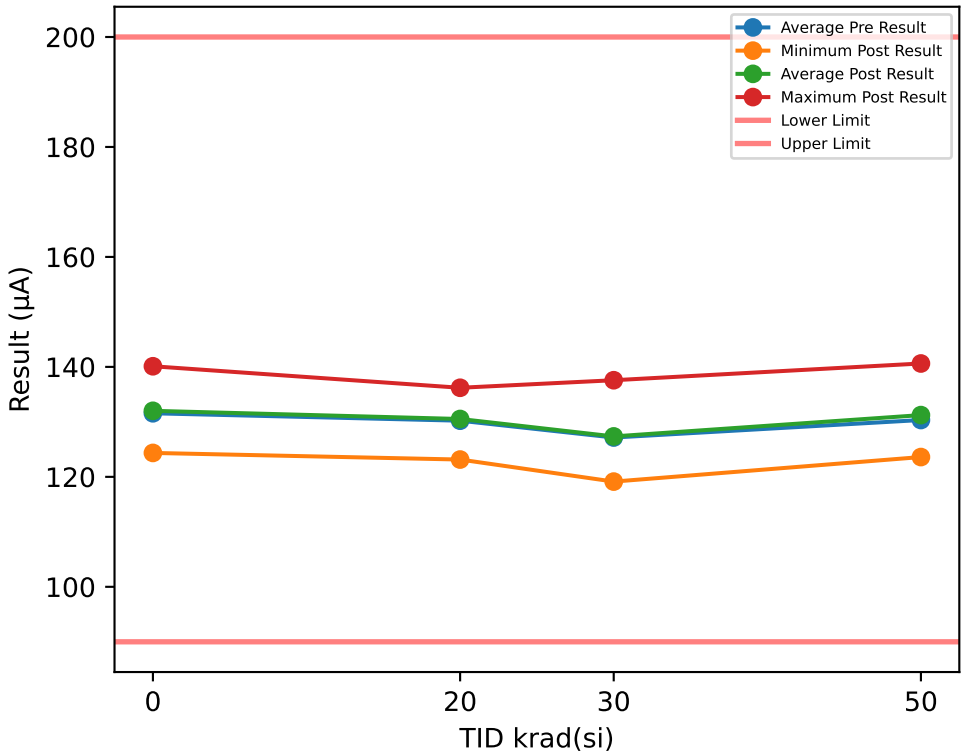
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1587.4	1589.6	2.2034
2	20	Biased	1634.6	1634.2	-0.3822
3	20	Biased	1658.6	1672.6	13.996
4	20	Biased	1536.4	1553.8	17.366
5	20	Biased	1606.2	1617.8	11.624
6	20	Unbiased	1630.1	1668.5	38.438
7	20	Unbiased	1598.9	1603.5	4.5615
8	20	Unbiased	1620.5	1649.6	29.055
9	20	Unbiased	1622.4	1621.5	-0.9016
10	20	Unbiased	1532.7	1539.1	6.398
11	30	Biased	1588.5	1592.7	4.1471
12	30	Biased	1648.9	1684.5	35.62
13	30	Biased	1572.1	1597.4	25.229
14	30	Biased	1658.1	1670.7	12.549
15	30	Biased	1525	1540.5	15.501
16	30	Unbiased	1546.5	1578.7	32.292
17	30	Unbiased	1589.5	1582.4	-7.1213
18	30	Unbiased	1491.8	1490	-1.7423
19	30	Unbiased	1570.7	1554.2	-16.573
20	30	Unbiased	1498.6	1514.5	15.814
27	50	Unbiased	1622.7	1667.1	44.406
28	50	Unbiased	1632.7	1670.2	37.505
29	50	Unbiased	1598.4	1603.3	4.8649
30	50	Unbiased	1650.4	1663.8	13.38
31	50	Unbiased	1566.6	1589.6	22.976
77	50	Biased-84Hr-Anneal	1574.3	1587.2	12.861
78	50	Biased-84Hr-Anneal	1541.3	1551.7	10.392
79	50	Biased-84Hr-Anneal	1684.3	1710.7	26.439
80	50	Biased-84Hr-Anneal	1620.4	1646.4	25.96
81	50	Biased-84Hr-Anneal	1551.5	1560.1	8.6708
100	0	CORRELATION	1551.9	1552.5	0.5457
101	0	CORRELATION	1539.5	1546	6.4973
102	0	CORRELATION	1628.4	1638.6	10.178
103	0	CORRELATION	1715	1716.9	1.9043
104	0	CORRELATION	1677.9	1669.6	-8.2821

Test Statistics (µS)

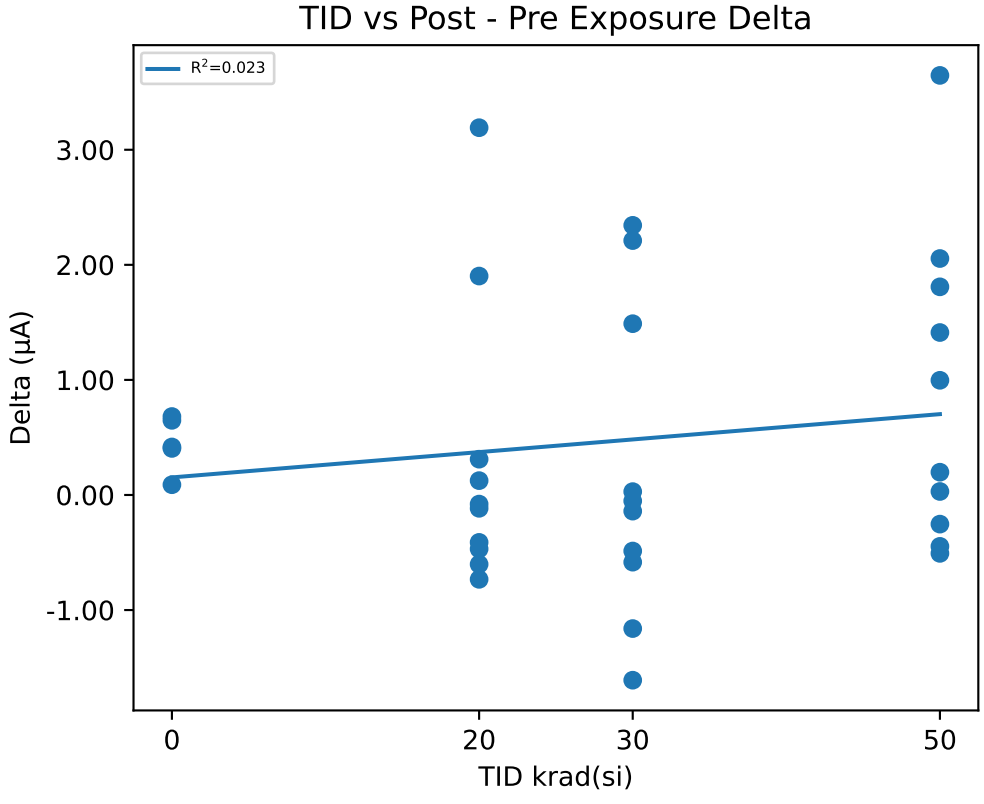
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1539.5	1622.5	1715	76.693	1546	1624.7	1716.9	74.364	-8.2821	2.1687	10.178	6.9788
20	1532.7	1602.8	1658.6	41.024	1539.1	1615	1672.6	44.819	-0.9016	12.236	38.438	13.016
30	1491.8	1569	1658.1	56.268	1490	1580.6	1684.5	61.665	-16.573	11.571	35.62	17.005
50	1541.3	1604.3	1684.3	45.994	1551.7	1625	1710.7	53.602	4.8649	20.745	44.406	13.025

Device Test: 18.21 ERROR_AMP|STATIC/COMP/14////@EA_SOURCE

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 90.0, Upper Limit = 200.0 (µA))

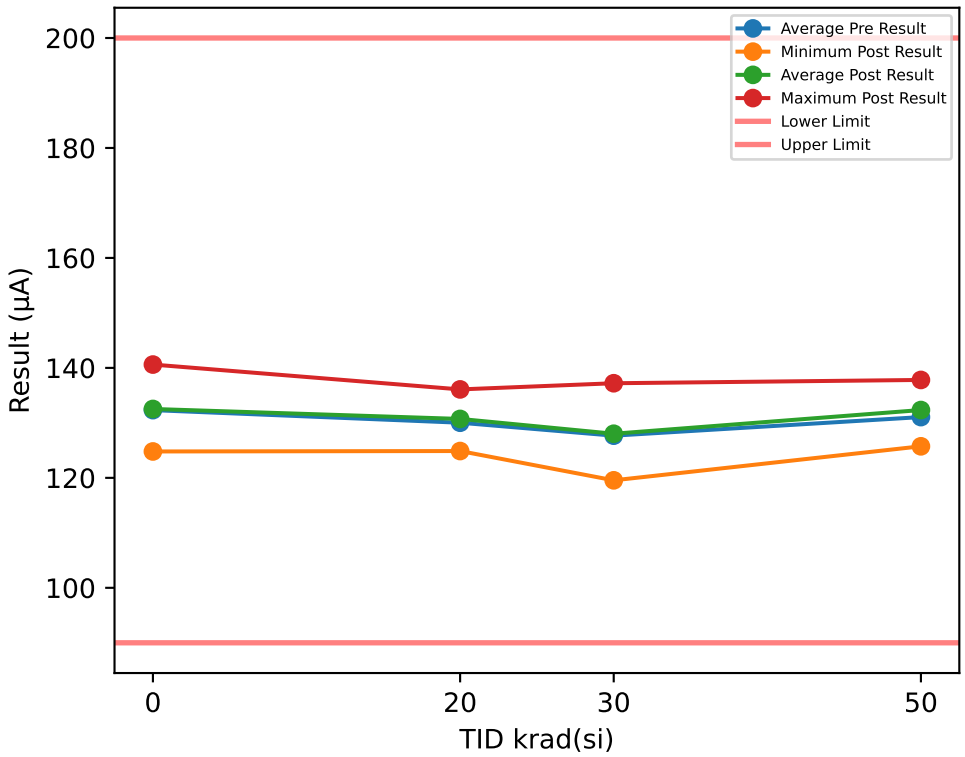
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	129.61	129.01	-0.602
2	20	Biased	131.95	132.26	0.311
3	20	Biased	135.1	134.69	-0.4119
4	20	Biased	124.71	124.63	-0.0792
5	20	Biased	131.75	131.01	-0.7331
6	20	Unbiased	133.01	136.2	3.1916
7	20	Unbiased	130.9	130.43	-0.4688
8	20	Unbiased	130.92	132.82	1.9025
9	20	Unbiased	130.92	131.04	0.1247
10	20	Unbiased	123.26	123.15	-0.1159
11	30	Biased	128.62	128.03	-0.5839
12	30	Biased	135.36	137.57	2.2107
13	30	Biased	128.36	129.85	1.4885
14	30	Biased	135.7	134.54	-1.1609
15	30	Biased	122.99	122.94	-0.0518
16	30	Unbiased	124.87	127.21	2.3433
17	30	Unbiased	128.96	128.98	0.0292
18	30	Unbiased	119.62	119.14	-0.487
19	30	Unbiased	126.99	125.38	-1.6096
20	30	Unbiased	120.05	119.91	-0.1404
27	50	Unbiased	132.91	134.72	1.8088
28	50	Unbiased	132.71	136.36	3.6462
29	50	Unbiased	129.31	128.87	-0.4465
30	50	Unbiased	134.43	134.63	0.1979
31	50	Unbiased	127.15	128.15	0.9966
77	50	Biased-84Hr-Anneal	126.42	127.83	1.4118
78	50	Biased-84Hr-Anneal	123.31	125.37	2.0549
79	50	Biased-84Hr-Anneal	140.59	140.62	0.0304
80	50	Biased-84Hr-Anneal	132.42	132.17	-0.2533
81	50	Biased-84Hr-Anneal	124.11	123.6	-0.5075
100	0	CORRELATION	125.14	125.56	0.4172
101	0	CORRELATION	123.7	124.35	0.6487
102	0	CORRELATION	133.81	133.9	0.0891
103	0	CORRELATION	139.43	140.11	0.6818
104	0	CORRELATION	135.73	136.13	0.4046

Test Statistics (µA)

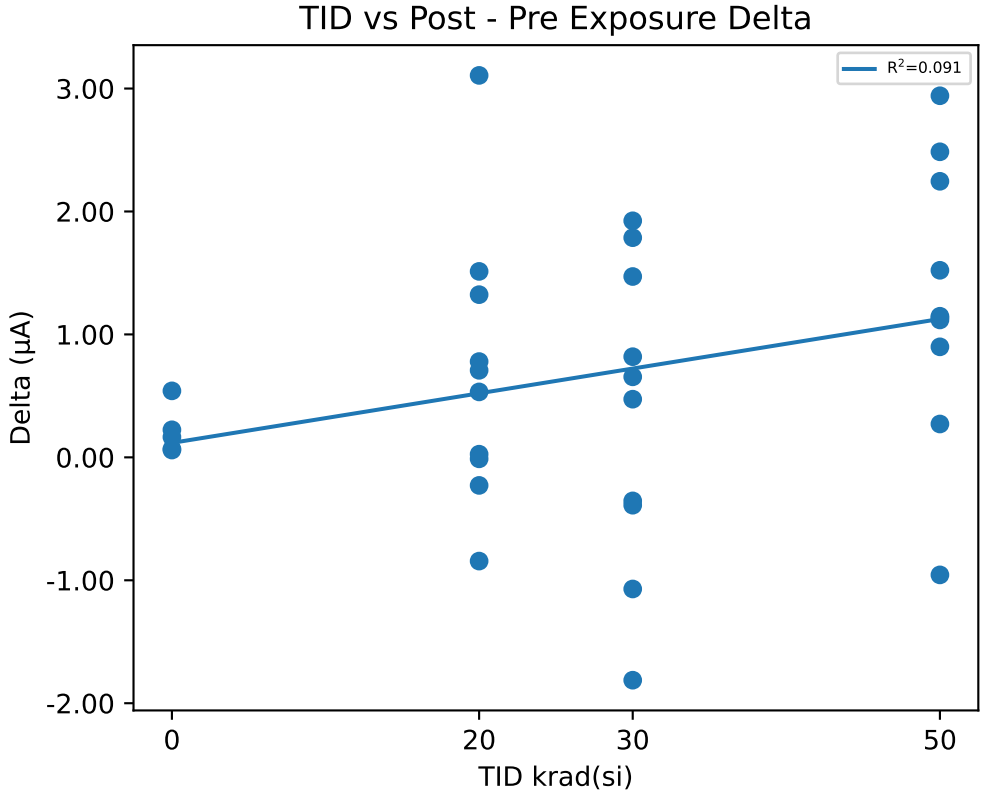
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	123.7	131.56	139.43	6.8437	124.35	132.01	140.11	6.8286	0.0891	0.44828	0.6818	0.238
20	123.26	130.21	135.1	3.6129	123.15	130.52	136.2	4.08	-0.7331	0.31189	3.1916	1.2585
30	119.62	127.15	135.7	5.5475	119.14	127.36	137.57	5.8852	-1.6096	0.20381	2.3433	1.3629
50	123.31	130.34	140.59	5.3036	123.6	131.23	140.62	5.3571	-0.5075	0.89393	3.6462	1.3477

Device Test: 18.22 ERROR_AMP|STATIC/COMP/14////@EA_SINK

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 90.0, Upper Limit = 200.0 (µA))

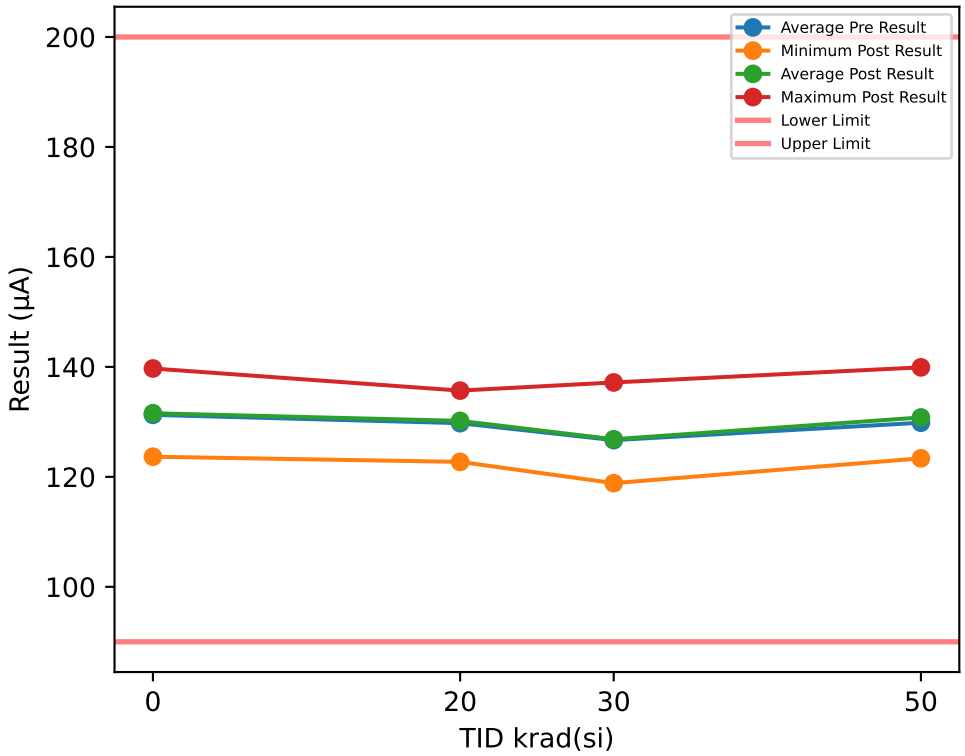
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	127.56	127.55	-0.0121
2	20	Biased	132.54	132.57	0.0257
3	20	Biased	135.71	135.48	-0.2282
4	20	Biased	123.55	124.88	1.3234
5	20	Biased	130.44	130.98	0.5323
6	20	Unbiased	132.98	136.09	3.1069
7	20	Unbiased	129.97	129.13	-0.8438
8	20	Unbiased	131.66	133.18	1.5126
9	20	Unbiased	131.11	131.89	0.7792
10	20	Unbiased	124.73	125.44	0.7079
11	30	Biased	129.71	130.52	0.8188
12	30	Biased	135.42	137.21	1.7868
13	30	Biased	127.05	128.97	1.9242
14	30	Biased	135.53	134.45	-1.0707
15	30	Biased	124.19	124.66	0.4731
16	30	Unbiased	126.95	128.42	1.471
17	30	Unbiased	128.12	127.73	-0.3893
18	30	Unbiased	119.91	119.55	-0.3542
19	30	Unbiased	127.77	125.96	-1.8127
20	30	Unbiased	122.09	122.74	0.655
27	50	Unbiased	133.61	135.86	2.2455
28	50	Unbiased	133.38	136.32	2.9413
29	50	Unbiased	130.52	131.66	1.1367
30	50	Unbiased	134.98	135.25	0.2713
31	50	Unbiased	128.05	128.95	0.899
77	50	Biased-84Hr-Anneal	127.43	129.91	2.4855
78	50	Biased-84Hr-Anneal	124.21	125.74	1.5216
79	50	Biased-84Hr-Anneal	138.76	137.81	-0.9561
80	50	Biased-84Hr-Anneal	132.86	133.98	1.1177
81	50	Biased-84Hr-Anneal	126.71	127.86	1.1478
100	0	CORRELATION	126.62	126.78	0.1653
101	0	CORRELATION	124.73	124.8	0.0686
102	0	CORRELATION	132.66	132.88	0.2241
103	0	CORRELATION	140.06	140.61	0.5408
104	0	CORRELATION	137.52	137.58	0.0594

Test Statistics (µA)

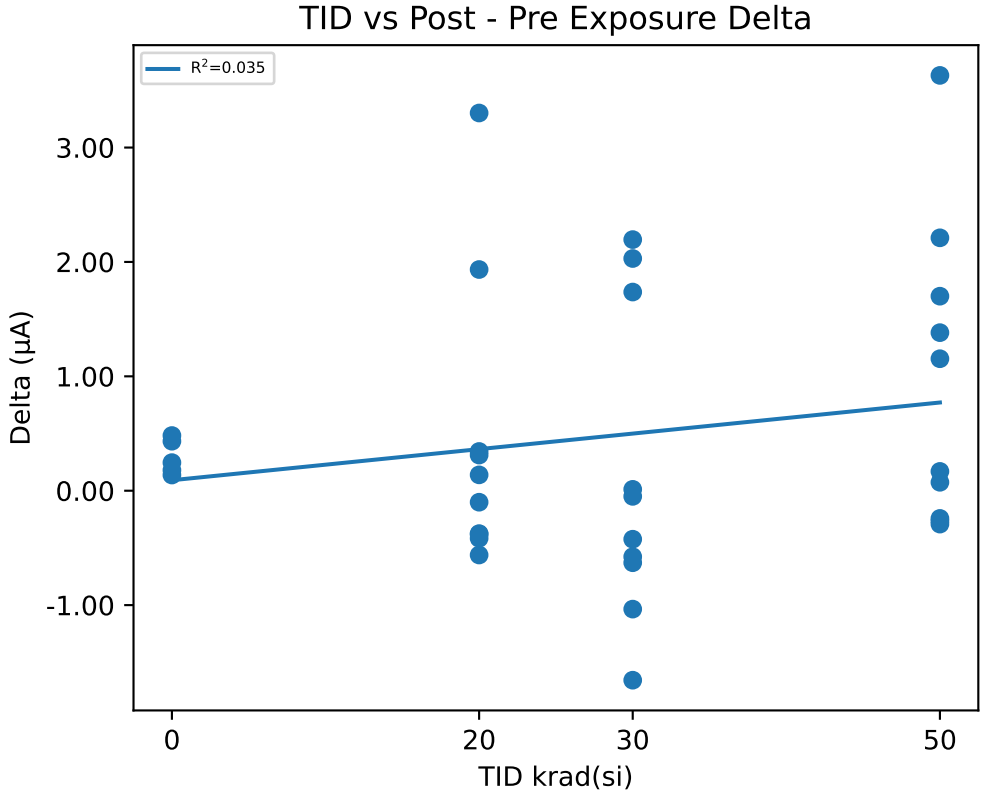
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	124.73	132.32	140.06	6.6574	124.8	132.53	140.61	6.776	0.0594	0.21164	0.5408	0.1964
20	123.55	130.03	135.71	3.7617	124.88	130.72	136.09	3.9006	-0.8438	0.69039	3.1069	1.1097
30	119.91	127.67	135.53	5.0619	119.55	128.02	137.21	5.253	-1.8127	0.3502	1.9242	1.2412
50	124.21	131.05	138.76	4.4487	125.74	132.33	137.81	4.093	-0.9561	1.281	2.9413	1.127

Device Test: 18.3 ERROR_AMP|STATIC/COMP/4.5////@EA_SOURCE

TID vs Result Stats



TID vs Post - Pre Exposure Delta



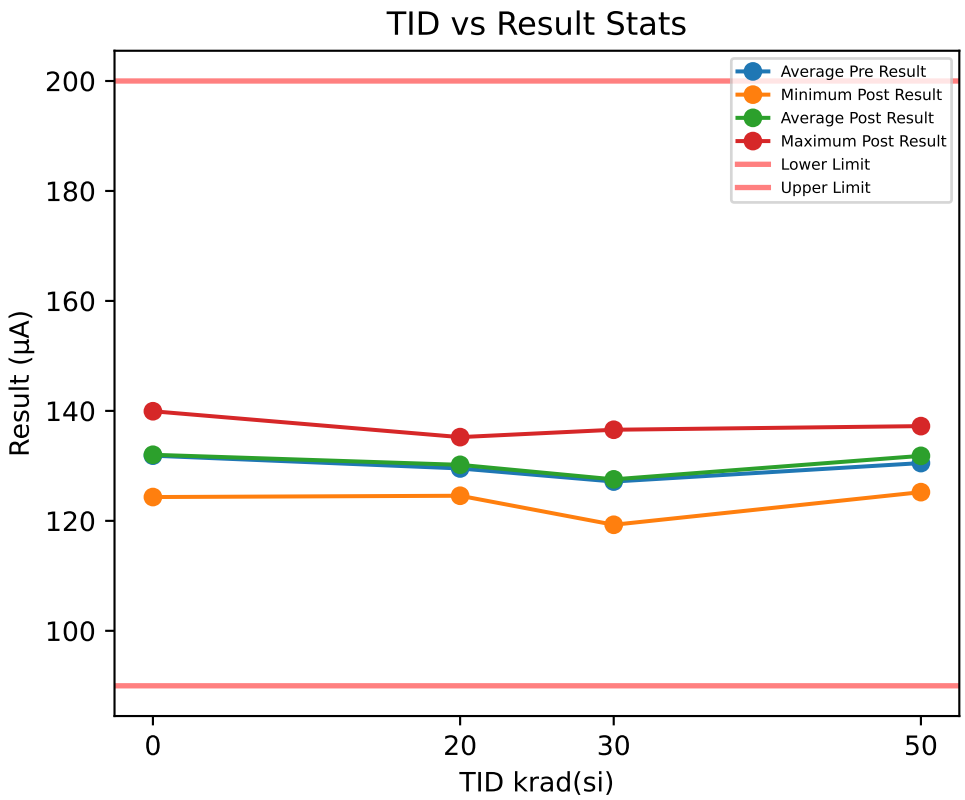
Test Results (Lower Limit = 90.0, Upper Limit = 200.0 (µA))

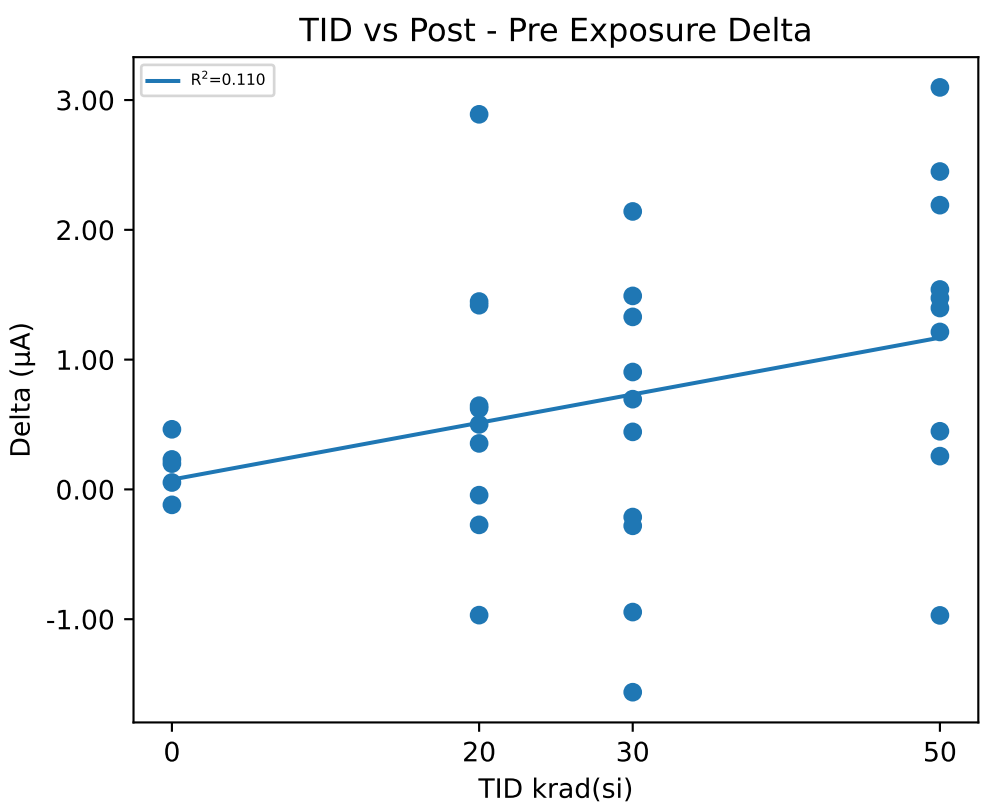
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	129.13	128.71	-0.4158
2	20	Biased	131.42	131.76	0.3431
3	20	Biased	134.73	134.35	-0.3797
4	20	Biased	124.26	124.4	0.1387
5	20	Biased	131.37	130.81	-0.5619
6	20	Unbiased	132.39	135.69	3.3021
7	20	Unbiased	130.4	130.02	-0.3751
8	20	Unbiased	130.51	132.45	1.9338
9	20	Unbiased	130.61	130.92	0.3117
10	20	Unbiased	122.83	122.73	-0.1004
11	30	Biased	128.01	127.38	-0.6295
12	30	Biased	134.97	137.17	2.1954
13	30	Biased	127.74	129.48	1.7369
14	30	Biased	134.99	133.96	-1.035
15	30	Biased	122.41	122.43	0.0121
16	30	Unbiased	124.56	126.59	2.0301
17	30	Unbiased	128.29	128.24	-0.0493
18	30	Unbiased	119.28	118.86	-0.4239
19	30	Unbiased	126.7	125.04	-1.6564
20	30	Unbiased	119.83	119.25	-0.577
27	50	Unbiased	132.45	134.15	1.7006
28	50	Unbiased	132.42	136.05	3.6308
29	50	Unbiased	128.75	128.46	-0.2918
30	50	Unbiased	134.06	134.13	0.0738
31	50	Unbiased	126.63	127.79	1.1539
77	50	Biased-84Hr-Anneal	125.84	127.23	1.3819
78	50	Biased-84Hr-Anneal	122.77	124.98	2.2109
79	50	Biased-84Hr-Anneal	140.18	139.92	-0.2651
80	50	Biased-84Hr-Anneal	131.78	131.95	0.1689
81	50	Biased-84Hr-Anneal	123.61	123.37	-0.2421
100	0	CORRELATION	124.95	125.09	0.1372
101	0	CORRELATION	123.48	123.66	0.1798
102	0	CORRELATION	133.43	133.68	0.2457
103	0	CORRELATION	139.28	139.71	0.4328
104	0	CORRELATION	135.23	135.71	0.4825

Test Statistics (µA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	123.48	131.27	139.28	6.8002	123.66	131.57	139.71	6.9341	0.1372	0.2956	0.4825	0.1539
20	122.83	129.76	134.73	3.6107	122.73	130.18	135.69	4.0477	-0.5619	0.41965	3.3021	1.2428
30	119.28	126.68	134.99	5.4543	118.86	126.84	137.17	5.8749	-1.6564	0.16034	2.1954	1.351
50	122.77	129.85	140.18	5.3565	123.37	130.8	139.92	5.2782	-0.2918	0.95218	3.6308	1.3075

Device Test: 18.4 ERROR_AMP|STATIC/COMP/4.5////@EA_SINK





Test Results (Lower Limit = 90.0, Upper Limit = 200.0 (µA))

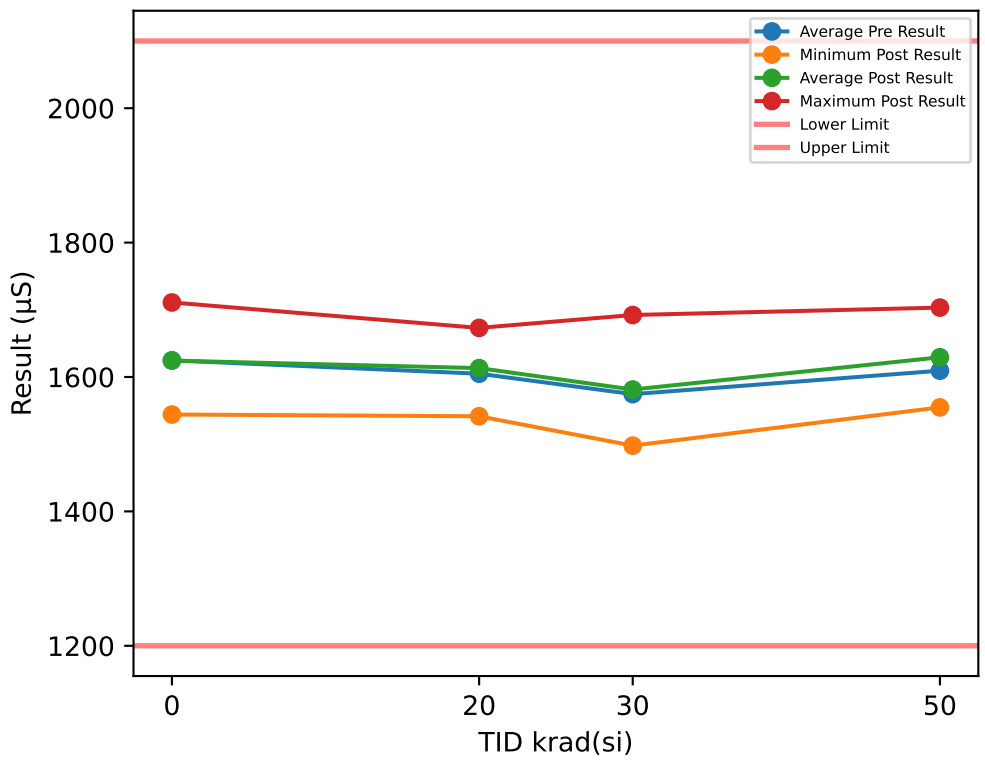
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	127.16	127.11	-0.0444
2	20	Biased	131.82	132.18	0.3544
3	20	Biased	135.16	134.89	-0.2734
4	20	Biased	123.12	124.56	1.4475
5	20	Biased	129.87	130.37	0.5007
6	20	Unbiased	132.34	135.23	2.8901
7	20	Unbiased	129.56	128.6	-0.9688
8	20	Unbiased	131.15	132.57	1.4191
9	20	Unbiased	130.79	131.41	0.6234
10	20	Unbiased	124.33	124.97	0.6452
11	30	Biased	129.13	129.82	0.6952
12	30	Biased	135.08	136.57	1.4909
13	30	Biased	126.6	128.74	2.1417
14	30	Biased	135.03	134.08	-0.9452
15	30	Biased	123.74	124.18	0.4432
16	30	Unbiased	126.41	127.74	1.3292
17	30	Unbiased	127.39	127.11	-0.2806
18	30	Unbiased	119.5	119.29	-0.213
19	30	Unbiased	127.14	125.58	-1.5626
20	30	Unbiased	121.48	122.38	0.9045
27	50	Unbiased	133	135.45	2.4494
28	50	Unbiased	132.82	135.91	3.0975
29	50	Unbiased	129.93	131.14	1.2132
30	50	Unbiased	134.57	134.83	0.2564
31	50	Unbiased	127.75	128.2	0.4479
77	50	Biased-84Hr-Anneal	127.12	129.31	2.1901
78	50	Biased-84Hr-Anneal	123.75	125.22	1.4745
79	50	Biased-84Hr-Anneal	138.2	137.23	-0.9708
80	50	Biased-84Hr-Anneal	131.94	133.48	1.5405
81	50	Biased-84Hr-Anneal	126.01	127.41	1.3975
100	0	CORRELATION	125.82	126.28	0.4631
101	0	CORRELATION	124.45	124.33	-0.1191
102	0	CORRELATION	132.3	132.35	0.0532
103	0	CORRELATION	139.74	139.94	0.1987
104	0	CORRELATION	136.98	137.21	0.2309

Test Statistics (µA)

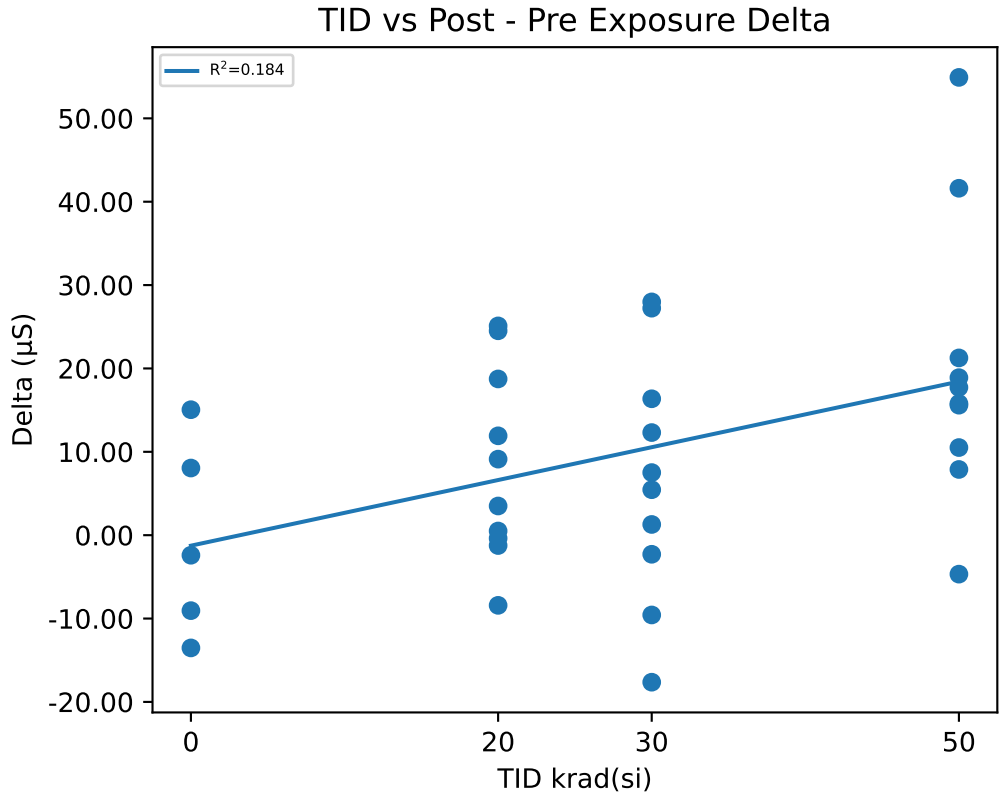
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	124.45	131.86	139.74	6.7044	124.33	132.02	139.94	6.7398	-0.1191	0.16536	0.4631	0.21654
20	123.12	129.53	135.16	3.6968	124.56	130.19	135.23	3.7928	-0.9688	0.65938	2.8901	1.0703
30	119.5	127.15	135.08	5.0777	119.29	127.55	136.57	5.1748	-1.5626	0.40033	2.1417	1.1514
50	123.75	130.51	138.2	4.4056	125.22	131.82	137.23	4.1357	-0.9708	1.3096	3.0975	1.1748

Device Test: 18.8 EA|STATIC/COMP/5////@EA_GM_25C

TID vs Result Stats



TID vs Post - Pre Exposure Delta



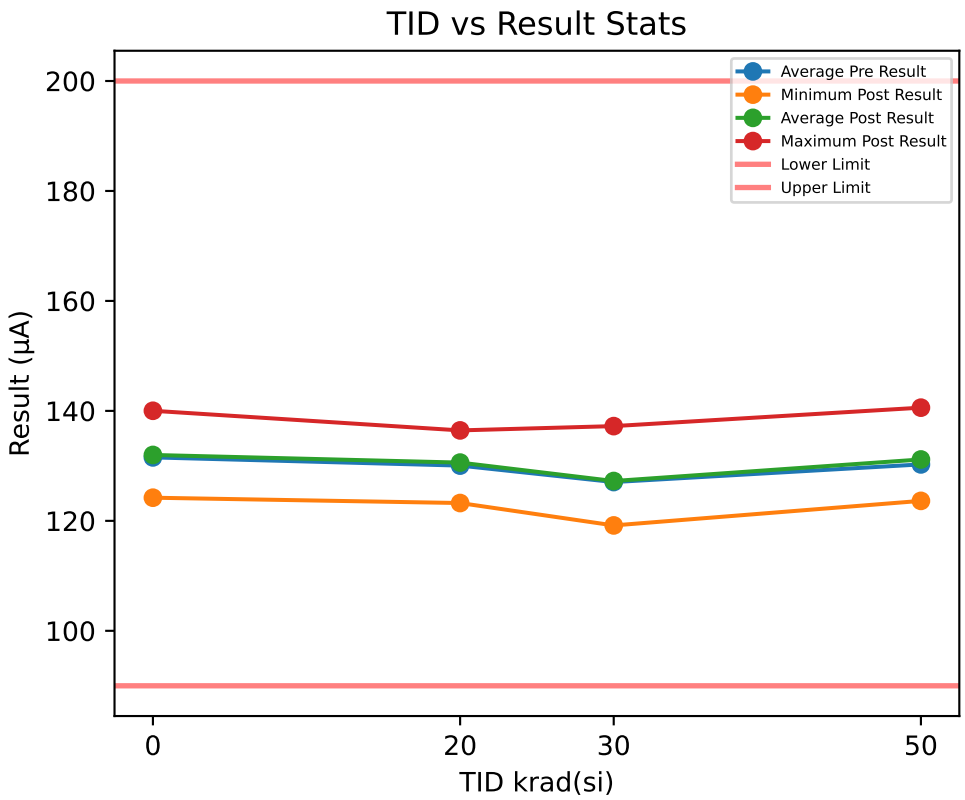
Test Results (Lower Limit = 1200.0, Upper Limit = 2100.0 (µS))

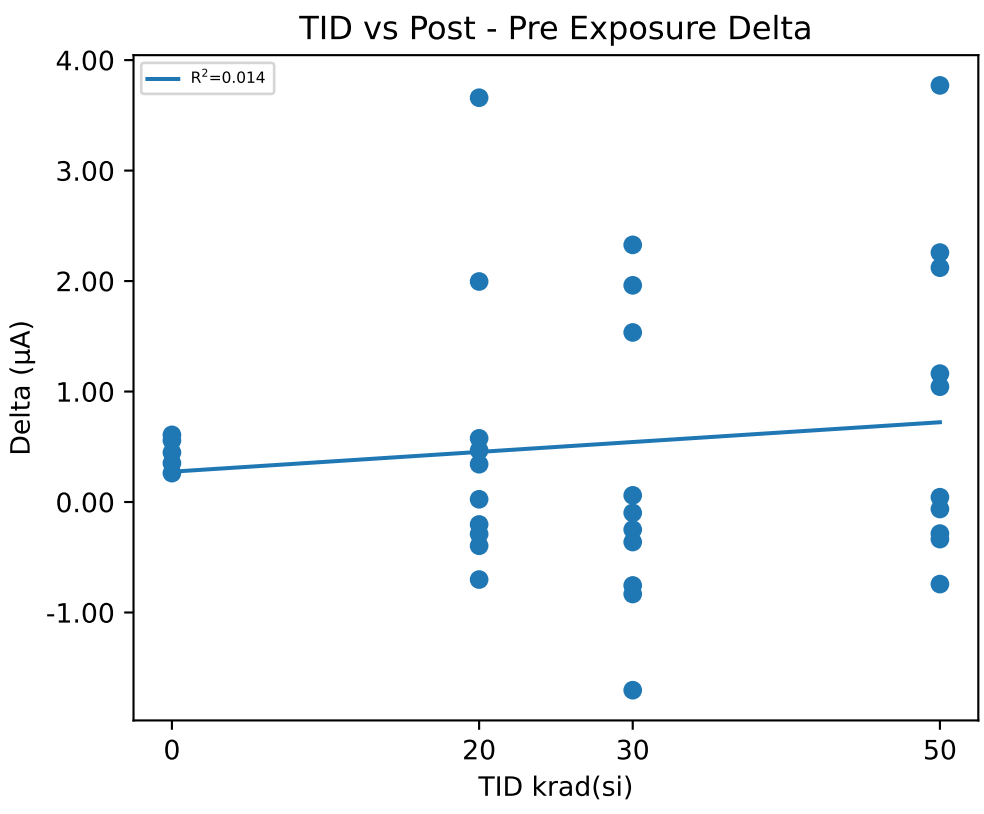
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1596	1596.5	0.5012
2	20	Biased	1638.9	1638.6	-0.3762
3	20	Biased	1661.1	1673	11.918
4	20	Biased	1533.2	1551.9	18.742
5	20	Biased	1617.7	1621.2	3.5015
6	20	Unbiased	1638	1663.1	25.104
7	20	Unbiased	1600	1591.6	-8.4162
8	20	Unbiased	1607.5	1632	24.518
9	20	Unbiased	1613.7	1622.8	9.1234
10	20	Unbiased	1542.8	1541.5	-1.2404
11	30	Biased	1581.7	1598.1	16.362
12	30	Biased	1664.3	1692.2	27.984
13	30	Biased	1573.6	1600.8	27.23
14	30	Biased	1669.8	1667.6	-2.2905
15	30	Biased	1527.6	1539.9	12.31
16	30	Unbiased	1570.4	1577.9	7.5104
17	30	Unbiased	1578.7	1584.1	5.4557
18	30	Unbiased	1499	1500.3	1.2868
19	30	Unbiased	1572.2	1554.6	-17.635
20	30	Unbiased	1507.5	1497.9	-9.5692
27	50	Unbiased	1627.4	1669	41.615
28	50	Unbiased	1628.1	1683.1	54.912
29	50	Unbiased	1597.3	1612.9	15.594
30	50	Unbiased	1645.8	1656.3	10.512
31	50	Unbiased	1581.1	1598.8	17.727
77	50	Biased-84Hr-Anneal	1575	1596.2	21.263
78	50	Biased-84Hr-Anneal	1535.9	1554.8	18.895
79	50	Biased-84Hr-Anneal	1707.9	1703.3	-4.673
80	50	Biased-84Hr-Anneal	1638.5	1654.2	15.792
81	50	Biased-84Hr-Anneal	1556.8	1564.7	7.884
100	0	CORRELATION	1546.1	1554.1	8.0559
101	0	CORRELATION	1546.6	1544.2	-2.4057
102	0	CORRELATION	1632	1647	15.052
103	0	CORRELATION	1720	1710.9	-9.0507
104	0	CORRELATION	1679.3	1665.8	-13.523

Test Statistics (µS)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1546.1	1624.8	1720	78.103	1544.2	1624.4	1710.9	72.609	-13.523	-0.37418	15.052	11.846
20	1533.2	1604.9	1661.1	40.51	1541.5	1613.2	1673	43.286	-8.4162	8.3375	25.104	11.536
30	1499	1574.5	1669.8	57.384	1497.9	1581.3	1692.2	63.579	-17.635	6.8645	27.984	14.788
50	1535.9	1609.4	1707.9	50.397	1554.8	1629.3	1703.3	50.891	-4.673	19.952	54.912	16.92

Device Test: 18.9 ERROR_AMP|STATIC/COMP/5////@EA_SOURCE





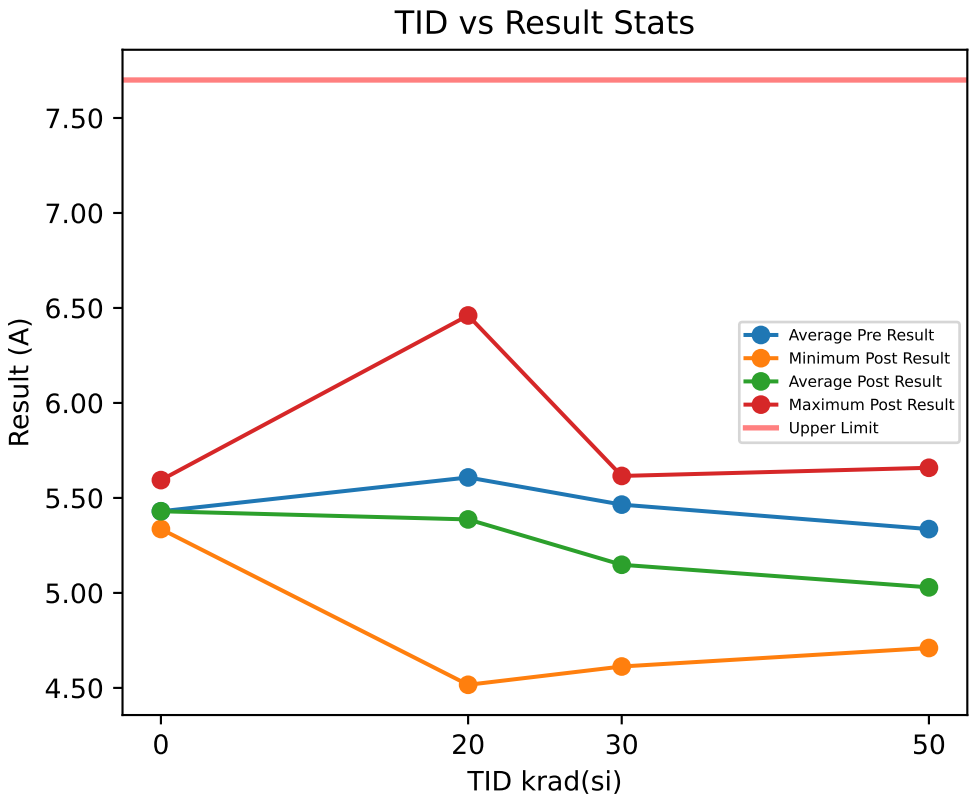
Test Results (Lower Limit = 90.0, Upper Limit = 200.0 (µA))

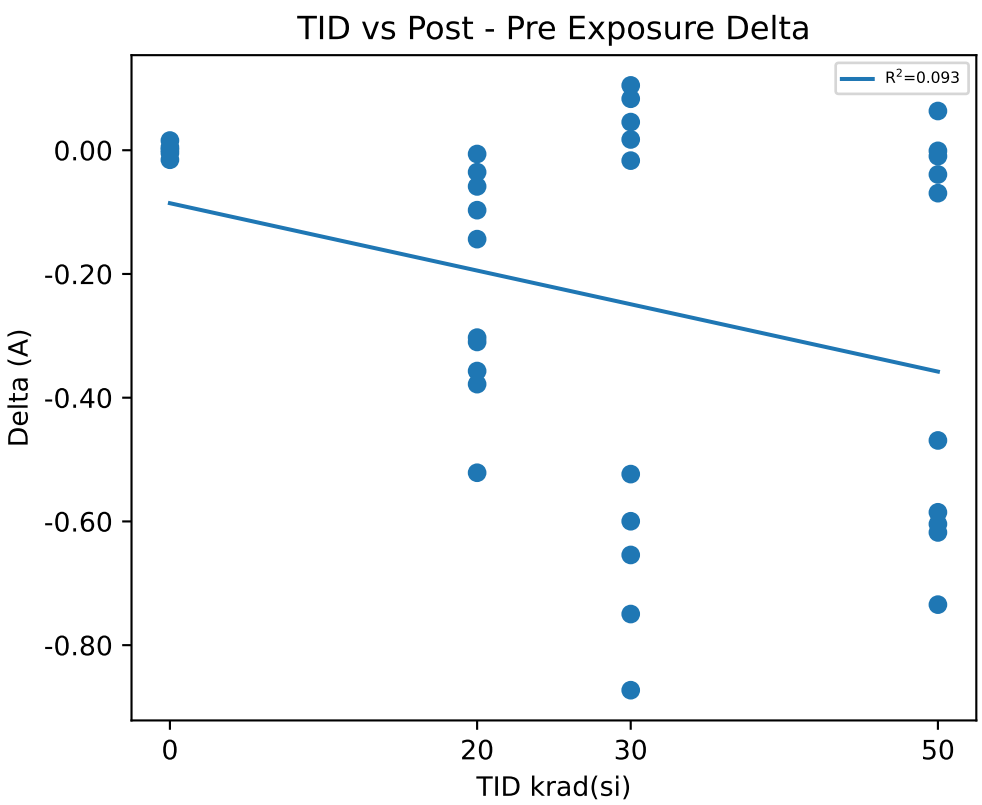
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	129.39	129.1	-0.2901
2	20	Biased	131.76	132.34	0.5765
3	20	Biased	134.91	134.52	-0.3958
4	20	Biased	124.38	124.73	0.342
5	20	Biased	131.7	131	-0.7019
6	20	Unbiased	132.79	136.45	3.6596
7	20	Unbiased	130.73	130.52	-0.2031
8	20	Unbiased	130.78	132.77	1.9961
9	20	Unbiased	130.83	131.29	0.4675
10	20	Unbiased	123.22	123.24	0.0248
11	30	Biased	128.49	127.74	-0.7552
12	30	Biased	135.27	137.23	1.9614
13	30	Biased	128.19	129.73	1.5349
14	30	Biased	135.32	134.49	-0.8327
15	30	Biased	122.85	122.75	-0.0981
16	30	Unbiased	124.87	127.2	2.3276
17	30	Unbiased	128.89	128.95	0.0603
18	30	Unbiased	119.53	119.17	-0.3621
19	30	Unbiased	127.05	125.35	-1.7033
20	30	Unbiased	120.1	119.85	-0.2495
27	50	Unbiased	132.7	134.82	2.1211
28	50	Unbiased	132.51	136.28	3.7711
29	50	Unbiased	129.53	128.79	-0.7429
30	50	Unbiased	134.53	134.24	-0.2857
31	50	Unbiased	127.02	128.07	1.0438
77	50	Biased-84Hr-Anneal	126.58	127.74	1.1621
78	50	Biased-84Hr-Anneal	123.16	125.41	2.258
79	50	Biased-84Hr-Anneal	140.65	140.59	-0.0633
80	50	Biased-84Hr-Anneal	132.03	132.07	0.0436
81	50	Biased-84Hr-Anneal	123.97	123.63	-0.3356
100	0	CORRELATION	125.13	125.39	0.2615
101	0	CORRELATION	123.86	124.21	0.3519
102	0	CORRELATION	133.64	134.08	0.4481
103	0	CORRELATION	139.46	140.02	0.5571
104	0	CORRELATION	135.62	136.23	0.6078

Test Statistics (µA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	123.86	131.54	139.46	6.7817	124.21	131.99	140.02	6.9092	0.2615	0.44528	0.6078	0.14267
20	123.22	130.05	134.91	3.6154	123.24	130.6	136.45	4.0672	-0.7019	0.54756	3.6596	1.3259
30	119.53	127.06	135.32	5.4779	119.17	127.25	137.23	5.8238	-1.7033	0.18833	2.3276	1.3181
50	123.16	130.27	140.65	5.3218	123.63	131.16	140.59	5.3265	-0.7429	0.89722	3.7711	1.4515

Device Test: 20.107 THRESHOLD|RISE/SW/12////@HS_CURR_LIM_3A_HTSSOP





Test Results (Upper Limit = 7.7 (A))

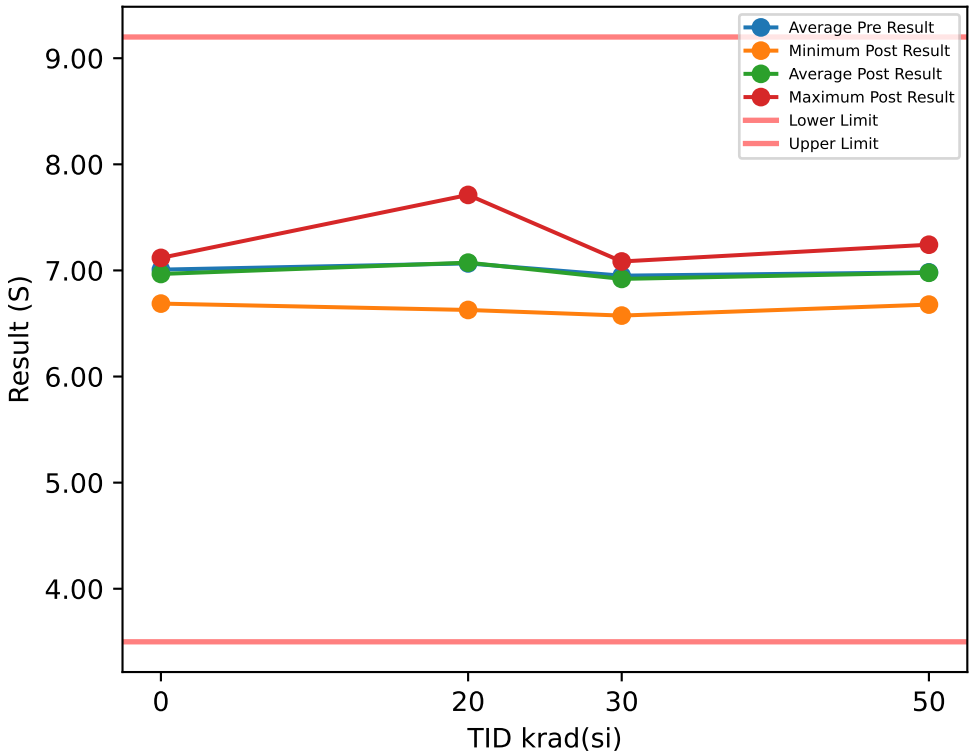
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	5.9589	5.4376	-0.5213
2	20	Biased	5.5676	5.2647	-0.3029
3	20	Biased	5.5037	5.1468	-0.3569
4	20	Biased	4.8262	4.5163	-0.3099
5	20	Biased	5.3812	5.0031	-0.3781
6	20	Unbiased	5.7824	5.6855	-0.0969
7	20	Unbiased	5.5387	5.4802	-0.0585
8	20	Unbiased	5.427	5.4209	-0.0061
9	20	Unbiased	6.6042	6.4605	-0.1437
10	20	Unbiased	5.4884	5.453	-0.0354
11	30	Biased	5.4854	4.6126	-0.8728
12	30	Biased	5.4784	4.8787	-0.5997
13	30	Biased	5.4802	4.826	-0.6542
14	30	Biased	5.7955	5.0458	-0.7497
15	30	Biased	5.603	5.0795	-0.5235
16	30	Unbiased	5.5702	5.6157	0.0455
17	30	Unbiased	5.4069	5.3901	-0.0168
18	30	Unbiased	5.1268	5.2316	0.1048
19	30	Unbiased	5.5045	5.5219	0.0174
20	30	Unbiased	5.1968	5.28	0.0832
27	50	Unbiased	5.4456	5.509	0.0634
28	50	Unbiased	5.0873	5.0863	-0.001
29	50	Unbiased	5.0459	5.0363	-0.0096
30	50	Unbiased	4.8635	4.7941	-0.0694
31	50	Unbiased	5.6979	5.6587	-0.0392
77	50	Biased-84Hr-Anneal	5.3862	4.9171	-0.4691
78	50	Biased-84Hr-Anneal	5.3345	4.7167	-0.6178
79	50	Biased-84Hr-Anneal	5.4445	4.71	-0.7345
80	50	Biased-84Hr-Anneal	5.5032	4.899	-0.6042
81	50	Biased-84Hr-Anneal	5.5509	4.9657	-0.5852
100	0	CORRELATION	5.4581	5.4588	0.0007
101	0	CORRELATION	5.5781	5.5938	0.0157
102	0	CORRELATION	5.3518	5.3364	-0.0154
103	0	CORRELATION	5.4123	5.4171	0.0048
104	0	CORRELATION	5.3478	5.3433	-0.0045

Test Statistics (A)

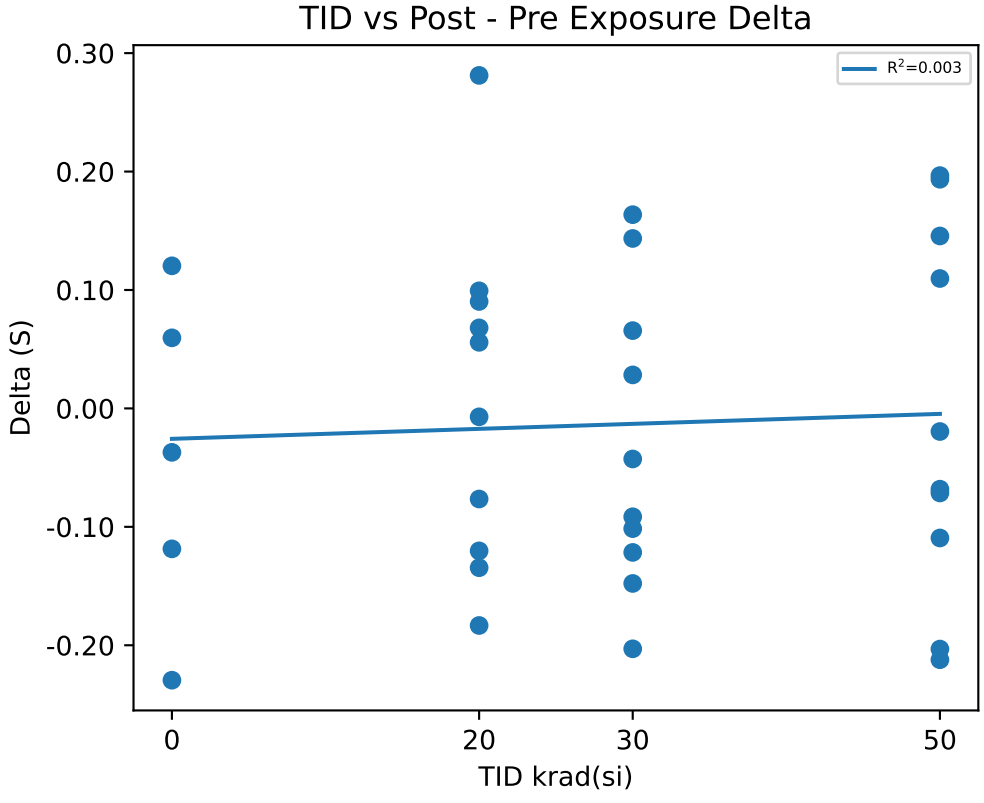
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.3478	5.4296	5.5781	0.094747	5.3364	5.4299	5.5938	0.105	-0.0154	0.00026	0.0157	0.011479
20	4.8262	5.6078	6.6042	0.45619	4.5163	5.3869	6.4605	0.49849	-0.5213	-0.22097	-0.0061	0.17523
30	5.1268	5.4648	5.7955	0.1919	4.6126	5.1482	5.6157	0.31965	-0.8728	-0.31658	0.1048	0.39494
50	4.8635	5.3359	5.6979	0.25835	4.71	5.0293	5.6587	0.3194	-0.7345	-0.30666	0.0634	0.31951

Device Test: 20.109 GMPS|STATIC/SW/12////@EA_GMPS_6A_HTSSOP

TID vs Result Stats



TID vs Post - Pre Exposure Delta



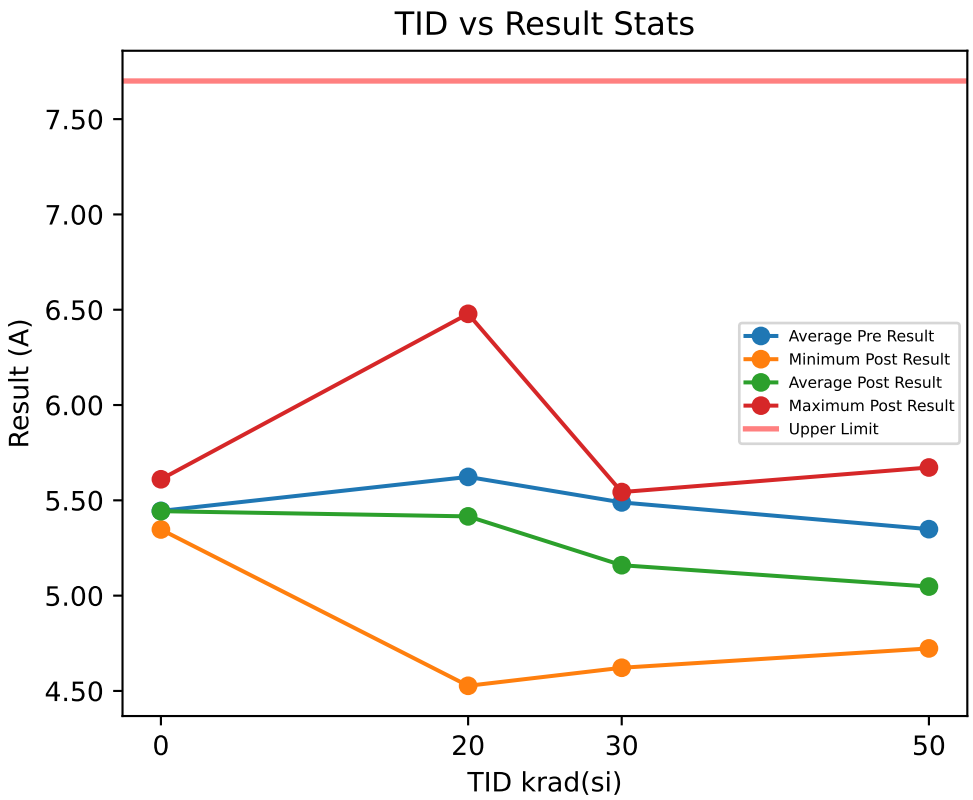
Test Results (Lower Limit = 3.5, Upper Limit = 9.2 (S))

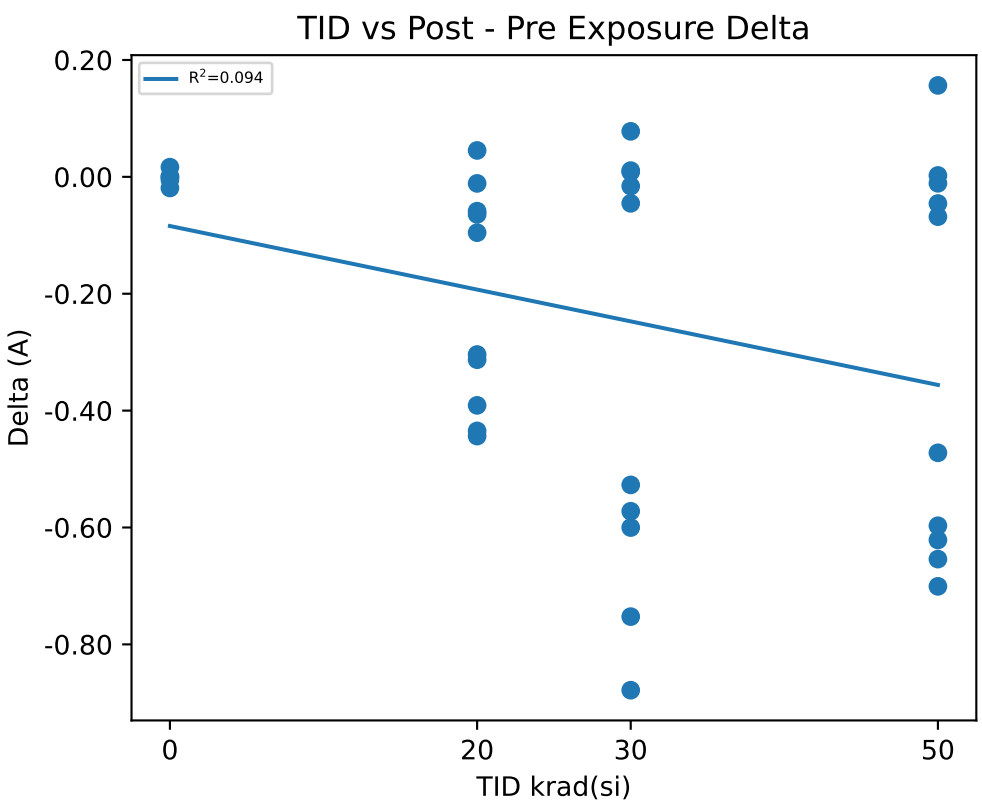
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	6.9099	7.0002	0.0903
2	20	Biased	7.2889	7.2818	-0.0071
3	20	Biased	7.0077	7.2889	0.2812
4	20	Biased	6.5594	6.6274	0.068
5	20	Biased	6.9607	6.8404	-0.1203
6	20	Unbiased	6.9099	6.9657	0.0558
7	20	Unbiased	7.4427	7.542	0.0993
8	20	Unbiased	6.9112	6.7767	-0.1345
9	20	Unbiased	7.7881	7.7116	-0.0765
10	20	Unbiased	6.8827	6.6994	-0.1833
11	30	Biased	7.2793	7.0763	-0.203
12	30	Biased	7.1246	7.0819	-0.0427
13	30	Biased	7.0167	7.0824	0.0657
14	30	Biased	6.7516	6.9152	0.1636
15	30	Biased	7.0196	6.9181	-0.1015
16	30	Unbiased	7.1759	7.0844	-0.0915
17	30	Unbiased	6.8329	6.6851	-0.1478
18	30	Unbiased	6.5462	6.5745	0.0283
19	30	Unbiased	6.927	6.8054	-0.1216
20	30	Unbiased	6.8337	6.9772	0.1435
27	50	Unbiased	7.0568	6.9854	-0.0714
28	50	Unbiased	6.8442	7.0377	0.1935
29	50	Unbiased	7.0554	6.8432	-0.2122
30	50	Unbiased	6.8996	6.8314	-0.0682
31	50	Unbiased	7.139	7.0296	-0.1094
77	50	Biased-84Hr-Anneal	6.6975	6.678	-0.0195
78	50	Biased-84Hr-Anneal	6.8874	7.084	0.1966
79	50	Biased-84Hr-Anneal	7.0476	7.1573	0.1097
80	50	Biased-84Hr-Anneal	7.0936	6.8904	-0.2032
81	50	Biased-84Hr-Anneal	7.0968	7.2424	0.1456
100	0	CORRELATION	7.0495	7.1091	0.0596
101	0	CORRELATION	6.567	6.6874	0.1204
102	0	CORRELATION	6.9851	6.8665	-0.1186
103	0	CORRELATION	7.3476	7.1181	-0.2295
104	0	CORRELATION	7.0889	7.0518	-0.0371

Test Statistics (S)

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	6.567	7.0076	7.3476	0.28222	6.6874	6.9666	7.1181	0.18607	-0.2295	-0.04104	0.1204	0.13941
20	6.5594	7.0661	7.7881	0.34808	6.6274	7.0734	7.7116	0.3674	-0.1833	0.00729	0.2812	0.13998
30	6.5462	6.9507	7.2793	0.21844	6.5745	6.9201	7.0844	0.18105	-0.203	-0.0307	0.1636	0.12534
50	6.6975	6.9818	7.139	0.14191	6.678	6.9779	7.2424	0.16895	-0.2122	-0.00385	0.1966	0.15549

Device Test: 20.158 THRESHOLD|RISE/SW/14////@HS_CURR_LIM_3A_HTSSOP





Test Results (Upper Limit = 7.7 (A))

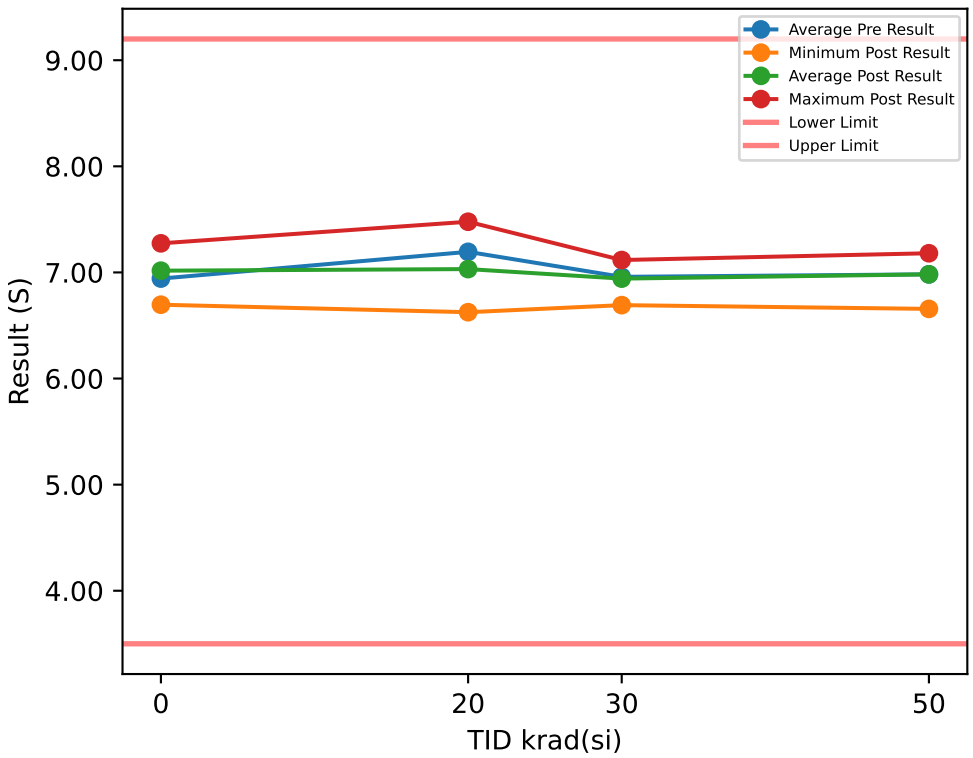
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	5.9748	5.5401	-0.4347
2	20	Biased	5.579	5.275	-0.304
3	20	Biased	5.6036	5.16	-0.4436
4	20	Biased	4.8399	4.527	-0.3129
5	20	Biased	5.3977	5.0067	-0.391
6	20	Unbiased	5.7954	5.6999	-0.0955
7	20	Unbiased	5.5536	5.4894	-0.0642
8	20	Unbiased	5.4422	5.431	-0.0112
9	20	Unbiased	6.5372	6.4785	-0.0587
10	20	Unbiased	5.5057	5.5509	0.0452
11	30	Biased	5.5	4.6216	-0.8784
12	30	Biased	5.4964	4.8963	-0.6001
13	30	Biased	5.4952	4.923	-0.5722
14	30	Biased	5.811	5.0585	-0.7525
15	30	Biased	5.6188	5.0917	-0.5271
16	30	Unbiased	5.5887	5.5434	-0.0453
17	30	Unbiased	5.4174	5.4015	-0.0159
18	30	Unbiased	5.2327	5.2412	0.0085
19	30	Unbiased	5.5198	5.5305	0.0107
20	30	Unbiased	5.2112	5.2891	0.0779
27	50	Unbiased	5.3653	5.5218	0.1565
28	50	Unbiased	5.0969	5.0993	0.0024
29	50	Unbiased	5.0561	5.0451	-0.011
30	50	Unbiased	4.8726	4.8045	-0.0681
31	50	Unbiased	5.7179	5.6723	-0.0456
77	50	Biased-84Hr-Anneal	5.3982	4.926	-0.4722
78	50	Biased-84Hr-Anneal	5.3444	4.7231	-0.6213
79	50	Biased-84Hr-Anneal	5.4612	4.8071	-0.6541
80	50	Biased-84Hr-Anneal	5.6068	4.9061	-0.7007
81	50	Biased-84Hr-Anneal	5.5681	4.9711	-0.597
100	0	CORRELATION	5.4751	5.4755	0.0004
101	0	CORRELATION	5.5939	5.6105	0.0166
102	0	CORRELATION	5.3661	5.3471	-0.019
103	0	CORRELATION	5.4248	5.4251	0.0003
104	0	CORRELATION	5.3627	5.3575	-0.0052

Test Statistics (A)

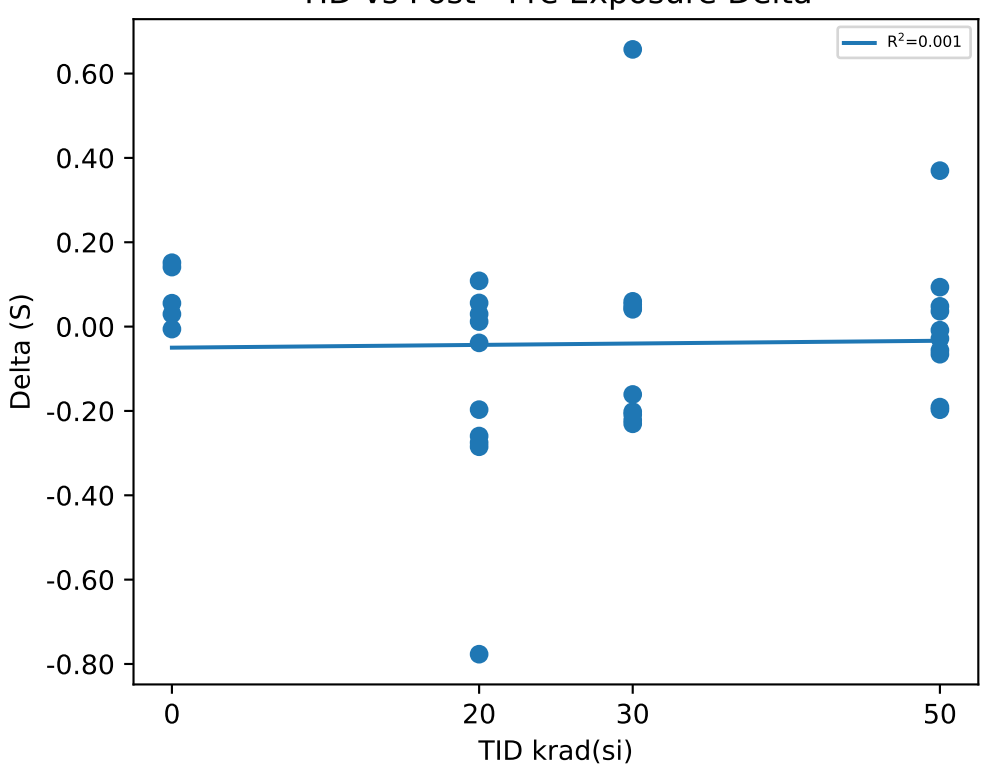
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.3627	5.4445	5.5939	0.095502	5.3471	5.4431	5.6105	0.10717	-0.019	-0.00138	0.0166	0.01279
20	4.8399	5.6229	6.5372	0.43549	4.527	5.4159	6.4785	0.50464	-0.4436	-0.20706	0.0452	0.18829
30	5.2112	5.4891	5.811	0.17626	4.6216	5.1597	5.5434	0.29747	-0.8784	-0.32944	0.0779	0.36915
50	4.8726	5.3487	5.7179	0.26711	4.7231	5.0476	5.6723	0.31282	-0.7007	-0.30111	0.1565	0.33481

Device Test: 20.160 GMPS|STATIC/SW/14////@EA_GMPS_6A_HTSSOP

TID vs Result Stats



TID vs Post - Pre Exposure Delta



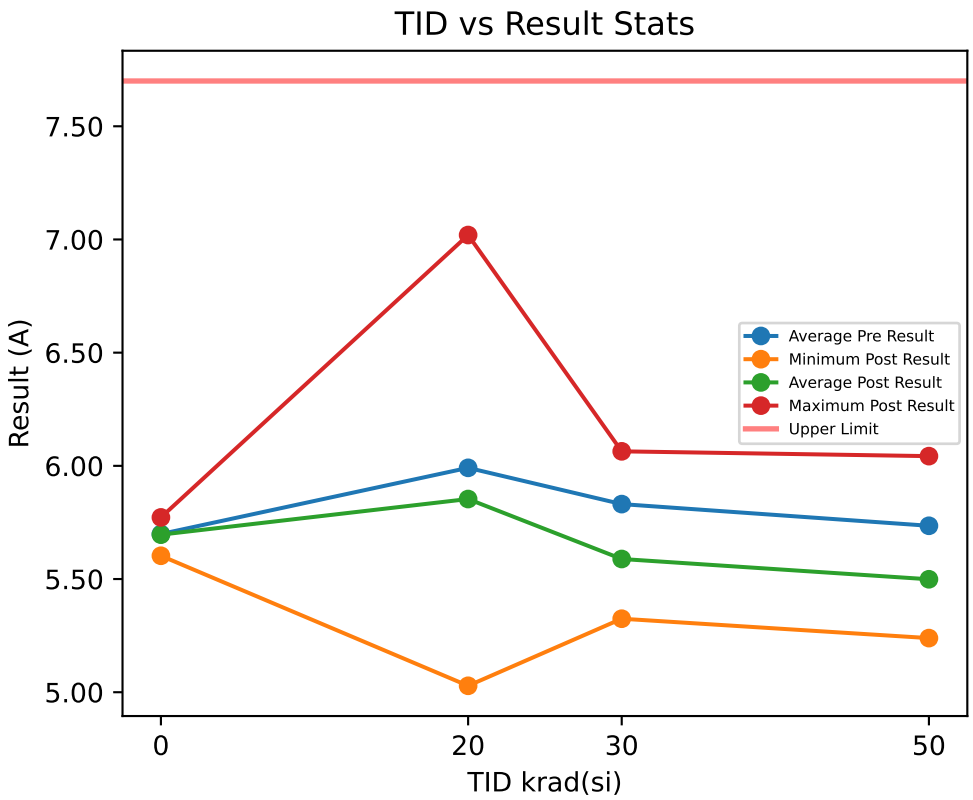
Test Results (Lower Limit = 3.5, Upper Limit = 9.2 (S))

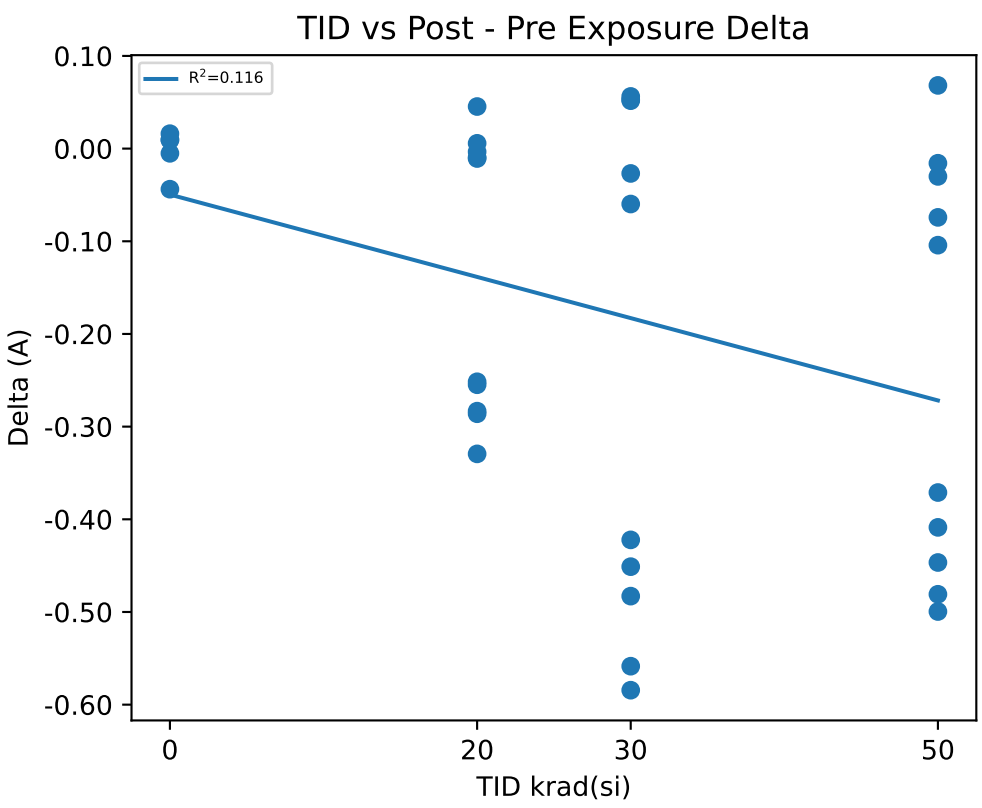
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	6.9577	6.6728	-0.2849
2	20	Biased	7.2403	7.2522	0.0119
3	20	Biased	7.1711	7.1325	-0.0386
4	20	Biased	6.569	6.6251	0.0561
5	20	Biased	7.1584	6.8989	-0.2595
6	20	Unbiased	7.6778	6.901	-0.7768
7	20	Unbiased	7.2721	7.3806	0.1085
8	20	Unbiased	6.9464	6.9762	0.0298
9	20	Unbiased	7.6747	7.4778	-0.1969
10	20	Unbiased	7.2729	6.9978	-0.2751
11	30	Biased	7.2695	7.1086	-0.1609
12	30	Biased	7.1608	6.9521	-0.2087
13	30	Biased	6.8728	6.9327	0.0599
14	30	Biased	6.4596	7.1169	0.6573
15	30	Biased	7.1311	6.9006	-0.2305
16	30	Unbiased	7.0375	7.0785	0.041
17	30	Unbiased	6.8099	6.8541	0.0442
18	30	Unbiased	6.9691	6.7673	-0.2018
19	30	Unbiased	6.9133	6.6917	-0.2216
20	30	Unbiased	6.9617	7.0142	0.0525
27	50	Unbiased	6.8943	6.9878	0.0935
28	50	Unbiased	6.6673	7.0371	0.3698
29	50	Unbiased	7.055	7.0266	-0.0284
30	50	Unbiased	7.0399	7.0314	-0.0085
31	50	Unbiased	7.0272	7.0752	0.048
77	50	Biased-84Hr-Anneal	6.8473	6.6564	-0.1909
78	50	Biased-84Hr-Anneal	6.9973	6.8002	-0.1971
79	50	Biased-84Hr-Anneal	7.0301	6.9646	-0.0655
80	50	Biased-84Hr-Anneal	7.1164	7.0603	-0.0561
81	50	Biased-84Hr-Anneal	7.1443	7.1807	0.0364
100	0	CORRELATION	6.9279	6.922	-0.0059
101	0	CORRELATION	6.5443	6.6958	0.1515
102	0	CORRELATION	6.9328	6.9625	0.0297
103	0	CORRELATION	7.2187	7.2742	0.0555
104	0	CORRELATION	7.0869	7.228	0.1411

Test Statistics (S)

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	6.5443	6.9421	7.2187	0.25299	6.6958	7.0165	7.2742	0.23761	-0.0059	0.07438	0.1515	0.069276
20	6.569	7.194	7.6778	0.33152	6.6251	7.0315	7.4778	0.28138	-0.7768	-0.16255	0.1085	0.26238
30	6.4596	6.9585	7.2695	0.22464	6.6917	6.9417	7.1169	0.14337	-0.2305	-0.01686	0.6573	0.26907
50	6.6673	6.9819	7.1443	0.14242	6.6564	6.982	7.1807	0.14951	-0.1971	0.00012	0.3698	0.16081

Device Test: 20.5 THRESHOLD|RISE/SW/4.5////@HS_CURR_LIM_3A_HTSSOP





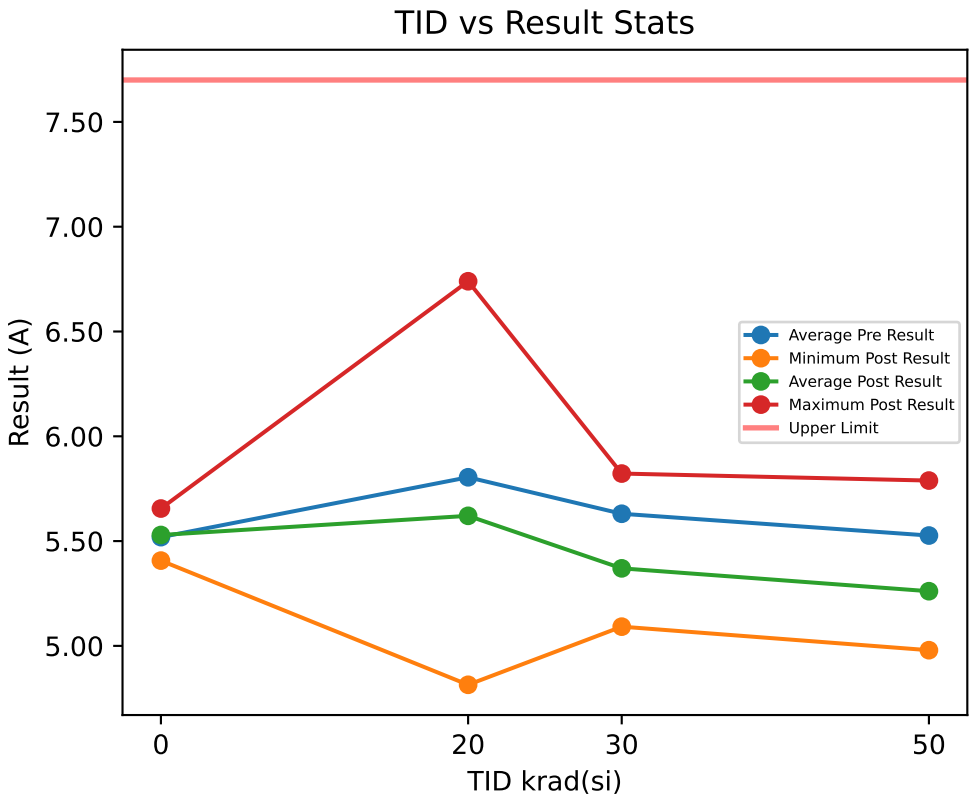
Test Results (Upper Limit = 7.7 (A))

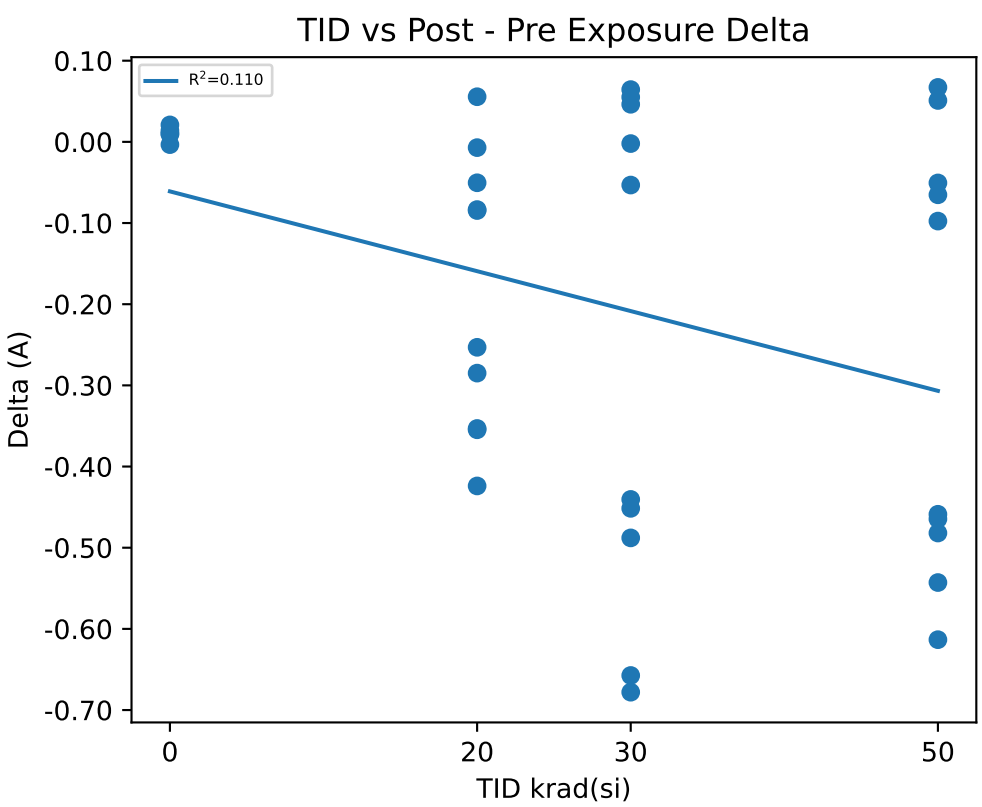
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	6.1293	5.846	-0.2833
2	20	Biased	5.9226	5.6365	-0.2861
3	20	Biased	5.9144	5.585	-0.3294
4	20	Biased	5.28	5.0284	-0.2516
5	20	Biased	5.6557	5.4009	-0.2548
6	20	Unbiased	6.202	6.2077	0.0057
7	20	Unbiased	6.0007	6.0461	0.0454
8	20	Unbiased	5.8808	5.8701	-0.0107
9	20	Unbiased	7.0291	7.0196	-0.0095
10	20	Unbiased	5.8972	5.8938	-0.0034
11	30	Biased	6.0438	5.4594	-0.5844
12	30	Biased	5.8838	5.4009	-0.4829
13	30	Biased	5.7758	5.3247	-0.4511
14	30	Biased	6.1522	5.5937	-0.5585
15	30	Biased	5.9438	5.5216	-0.4222
16	30	Unbiased	6.0078	6.0641	0.0563
17	30	Unbiased	5.6863	5.6265	-0.0598
18	30	Unbiased	5.4426	5.4943	0.0517
19	30	Unbiased	5.7268	5.7	-0.0268
20	30	Unbiased	5.6472	5.7002	0.053
27	50	Unbiased	5.7623	5.8305	0.0682
28	50	Unbiased	5.5084	5.4926	-0.0158
29	50	Unbiased	5.5578	5.4836	-0.0742
30	50	Unbiased	5.3641	5.2599	-0.1042
31	50	Unbiased	6.0729	6.0429	-0.03
77	50	Biased-84Hr-Anneal	5.6507	5.242	-0.4087
78	50	Biased-84Hr-Anneal	5.72	5.2391	-0.4809
79	50	Biased-84Hr-Anneal	5.7812	5.2817	-0.4995
80	50	Biased-84Hr-Anneal	5.9892	5.5426	-0.4466
81	50	Biased-84Hr-Anneal	5.9459	5.5748	-0.3711
100	0	CORRELATION	5.814	5.7702	-0.0438
101	0	CORRELATION	5.7625	5.7722	0.0097
102	0	CORRELATION	5.6543	5.6492	-0.0051
103	0	CORRELATION	5.6698	5.6859	0.0161
104	0	CORRELATION	5.5936	5.6028	0.0092

Test Statistics (A)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.5936	5.6988	5.814	0.088342	5.6028	5.6961	5.7722	0.07465	-0.0438	-0.00278	0.0161	0.024206
20	5.28	5.9912	7.0291	0.44607	5.0284	5.8534	7.0196	0.53011	-0.3294	-0.13777	0.0454	0.15324
30	5.4426	5.831	6.1522	0.21466	5.3247	5.5885	6.0641	0.20747	-0.5844	-0.24247	0.0563	0.27757
50	5.3641	5.7352	6.0729	0.22455	5.2391	5.499	6.0429	0.26908	-0.4995	-0.23628	0.0682	0.22332

Device Test: 20.56 THRESHOLD|RISE/SW/5////@HS_CURR_LIM_3A_HTSSOP





Test Results (Upper Limit = 7.7 (A))

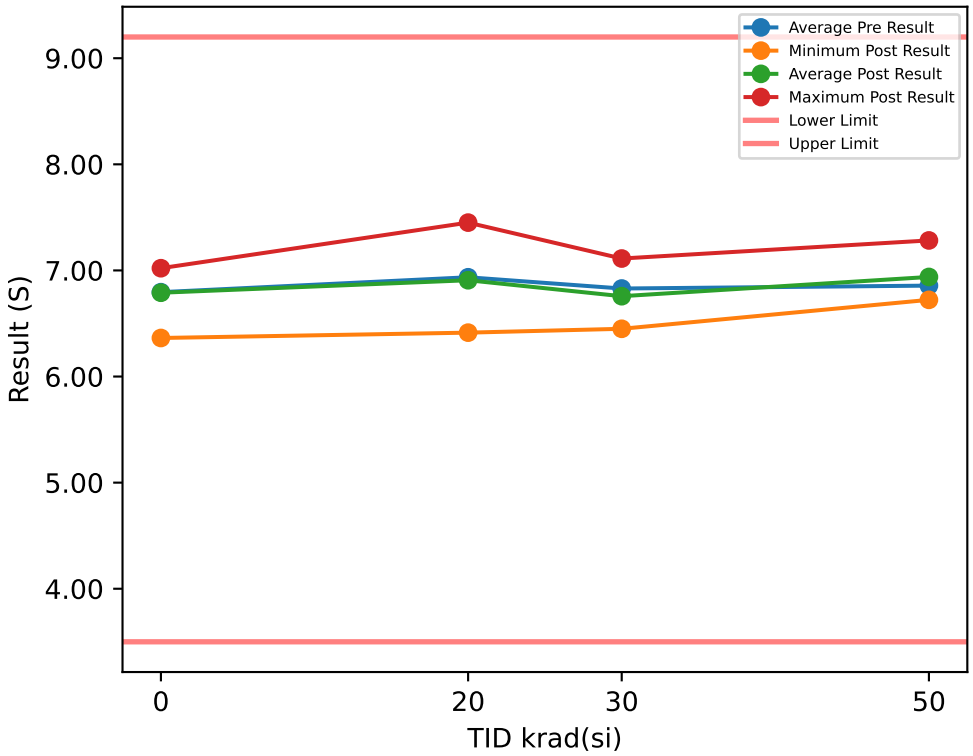
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	6.0207	5.666	-0.3547
2	20	Biased	5.7192	5.3661	-0.3531
3	20	Biased	5.7332	5.3093	-0.4239
4	20	Biased	5.0992	4.8143	-0.2849
5	20	Biased	5.4605	5.2074	-0.2531
6	20	Unbiased	6.0322	6.0251	-0.0071
7	20	Unbiased	5.7552	5.8108	0.0556
8	20	Unbiased	5.7051	5.6217	-0.0834
9	20	Unbiased	6.8243	6.7397	-0.0846
10	20	Unbiased	5.6949	5.6445	-0.0504
11	30	Biased	5.7979	5.1199	-0.678
12	30	Biased	5.6338	5.1933	-0.4405
13	30	Biased	5.5796	5.0917	-0.4879
14	30	Biased	5.9907	5.3333	-0.6574
15	30	Biased	5.7647	5.3132	-0.4515
16	30	Unbiased	5.7578	5.8222	0.0644
17	30	Unbiased	5.4883	5.4351	-0.0532
18	30	Unbiased	5.2929	5.2908	-0.0021
19	30	Unbiased	5.5469	5.5932	0.0463
20	30	Unbiased	5.4514	5.5065	0.0551
27	50	Unbiased	5.5782	5.6453	0.0671
28	50	Unbiased	5.2382	5.2892	0.051
29	50	Unbiased	5.3533	5.2881	-0.0652
30	50	Unbiased	5.0841	5.0335	-0.0506
31	50	Unbiased	5.8864	5.7888	-0.0976
77	50	Biased-84Hr-Anneal	5.4588	4.9942	-0.4646
78	50	Biased-84Hr-Anneal	5.5223	4.9794	-0.5429
79	50	Biased-84Hr-Anneal	5.5847	5.1028	-0.4819
80	50	Biased-84Hr-Anneal	5.7991	5.1858	-0.6133
81	50	Biased-84Hr-Anneal	5.7601	5.3013	-0.4588
100	0	CORRELATION	5.6256	5.6394	0.0138
101	0	CORRELATION	5.6344	5.6553	0.0209
102	0	CORRELATION	5.4573	5.4539	-0.0034
103	0	CORRELATION	5.4794	5.4897	0.0103
104	0	CORRELATION	5.3976	5.4069	0.0093

Test Statistics (A)

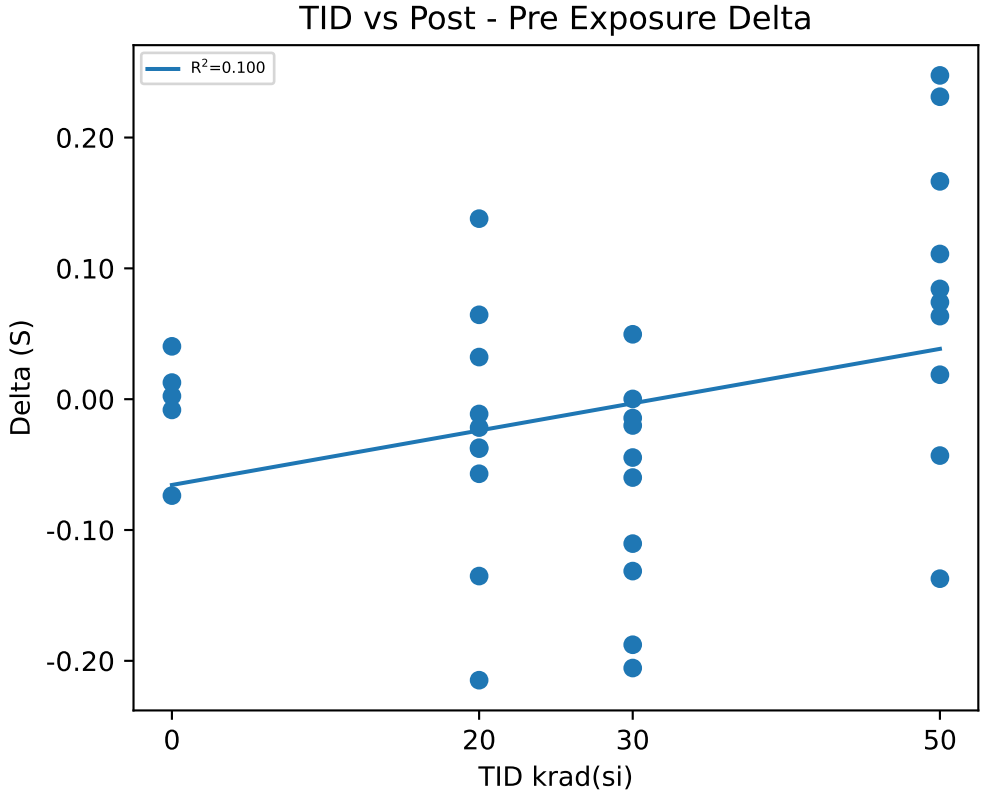
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.3976	5.5189	5.6344	0.10582	5.4069	5.529	5.6553	0.11206	-0.0034	0.01018	0.0209	0.0088491
20	5.0992	5.8045	6.8243	0.4461	4.8143	5.6205	6.7397	0.5204	-0.4239	-0.18396	0.0556	0.16892
30	5.2929	5.6304	5.9907	0.20217	5.0917	5.3699	5.8222	0.22589	-0.678	-0.26048	0.0644	0.30938
50	5.0841	5.5265	5.8864	0.2534	4.9794	5.2608	5.7888	0.27128	-0.6133	-0.26568	0.0671	0.26813

Device Test: 20.58 GMPS|STATIC/SW/5////@EA_GMPS_6A_HTSSOP

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 3.5, Upper Limit = 9.2 (S))

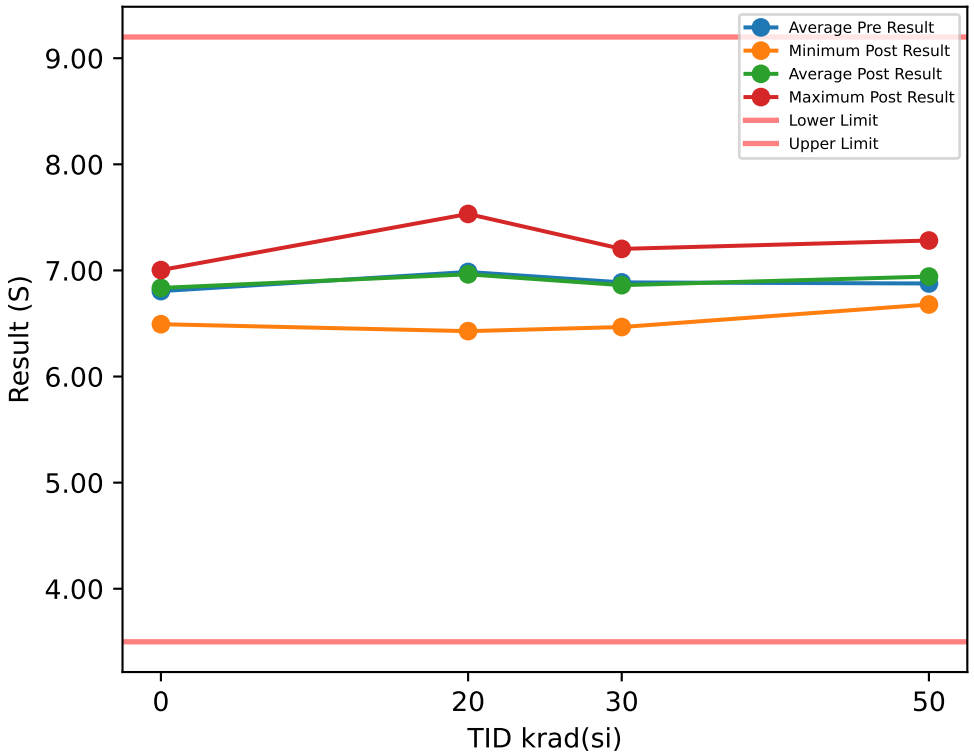
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	6.6613	6.65	-0.0113
2	20	Biased	7.1269	6.9121	-0.2148
3	20	Biased	6.8857	6.864	-0.0217
4	20	Biased	6.4706	6.4136	-0.057
5	20	Biased	6.7189	6.6811	-0.0378
6	20	Unbiased	6.9434	6.9756	0.0322
7	20	Unbiased	7.3126	7.4506	0.138
8	20	Unbiased	6.9076	6.8705	-0.0371
9	20	Unbiased	7.5552	7.42	-0.1352
10	20	Unbiased	6.7733	6.8378	0.0645
11	30	Biased	7.3177	7.1122	-0.2055
12	30	Biased	6.9807	6.9663	-0.0144
13	30	Biased	7.031	6.8996	-0.1314
14	30	Biased	6.612	6.5919	-0.0201
15	30	Biased	6.9615	6.9016	-0.0599
16	30	Unbiased	7.0422	6.9318	-0.1104
17	30	Unbiased	6.6432	6.6434	0.0002
18	30	Unbiased	6.5115	6.4669	-0.0446
19	30	Unbiased	6.4003	6.4499	0.0496
20	30	Unbiased	6.7954	6.6077	-0.1877
27	50	Unbiased	6.924	7.0083	0.0843
28	50	Unbiased	6.5338	6.765	0.2312
29	50	Unbiased	6.9822	6.9391	-0.0431
30	50	Unbiased	6.731	6.7497	0.0187
31	50	Unbiased	6.9061	6.9696	0.0635
77	50	Biased-84Hr-Anneal	6.86	6.7228	-0.1372
78	50	Biased-84Hr-Anneal	6.8484	6.9225	0.0741
79	50	Biased-84Hr-Anneal	6.78	6.891	0.111
80	50	Biased-84Hr-Anneal	7.0352	7.2827	0.2475
81	50	Biased-84Hr-Anneal	6.9673	7.1338	0.1665
100	0	CORRELATION	6.8666	6.8584	-0.0082
101	0	CORRELATION	6.3506	6.3633	0.0127
102	0	CORRELATION	6.8453	6.8857	0.0404
103	0	CORRELATION	7.0946	7.0209	-0.0737
104	0	CORRELATION	6.8183	6.8207	0.0024

Test Statistics (S)

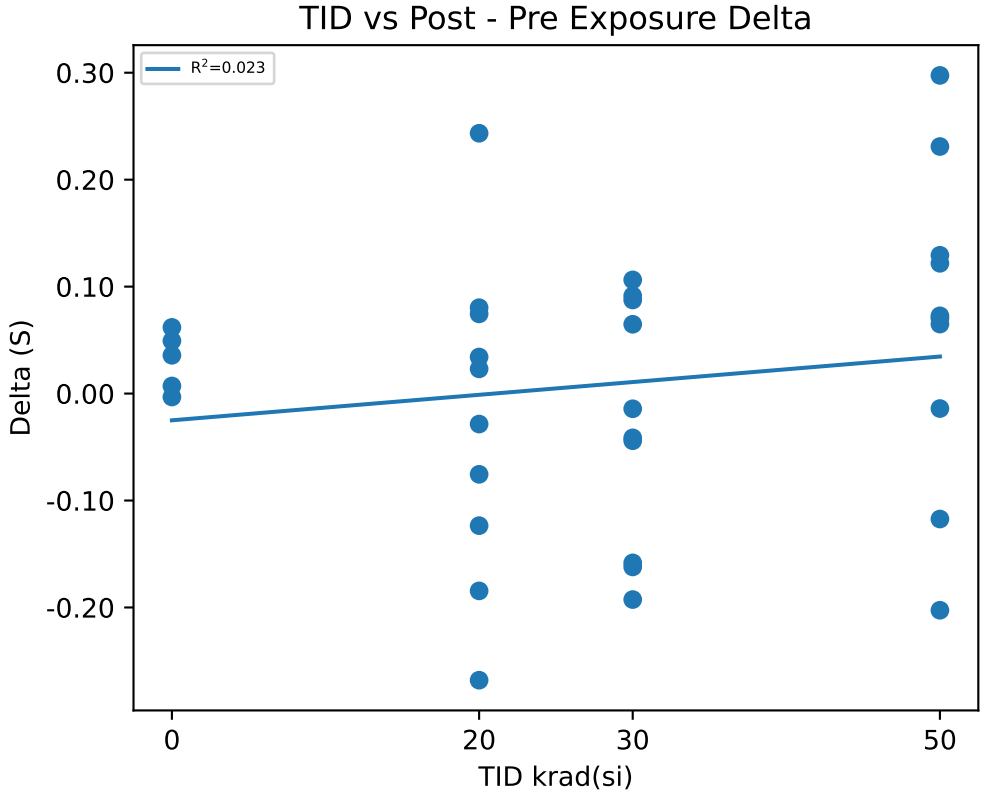
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	6.3506	6.7951	7.0946	0.27178	6.3633	6.7898	7.0209	0.25008	-0.0737	-0.00528	0.0404	0.042305
20	6.4706	6.9356	7.5552	0.32158	6.4136	6.9075	7.4506	0.32178	-0.2148	-0.02802	0.138	0.098579
30	6.4003	6.8296	7.3177	0.28538	6.4499	6.7571	7.1122	0.23159	-0.2055	-0.07242	0.0496	0.083744
50	6.5338	6.8568	7.0352	0.14638	6.7228	6.9385	7.2827	0.17551	-0.1372	0.08165	0.2475	0.1182

Device Test: 20.7 GMPS|STATIC/SW/4.5////@EA_GMPS_6A_HTSSOP

TID vs Result Stats



TID vs Post - Pre Exposure Delta



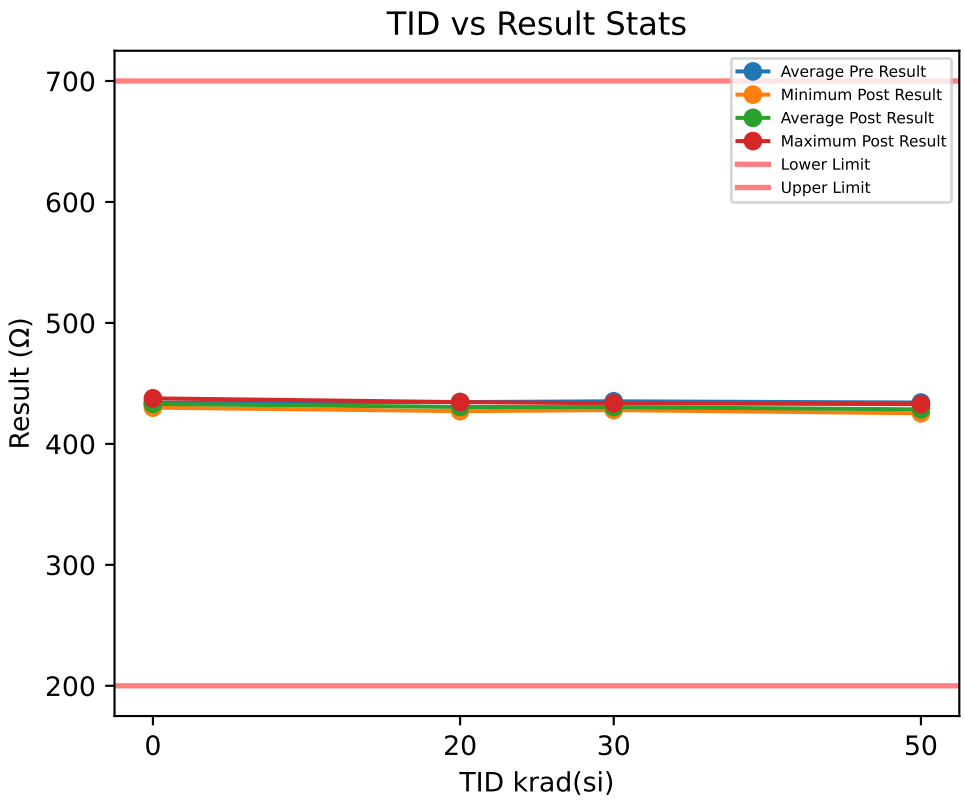
Test Results (Lower Limit = 3.5, Upper Limit = 9.2 (S))

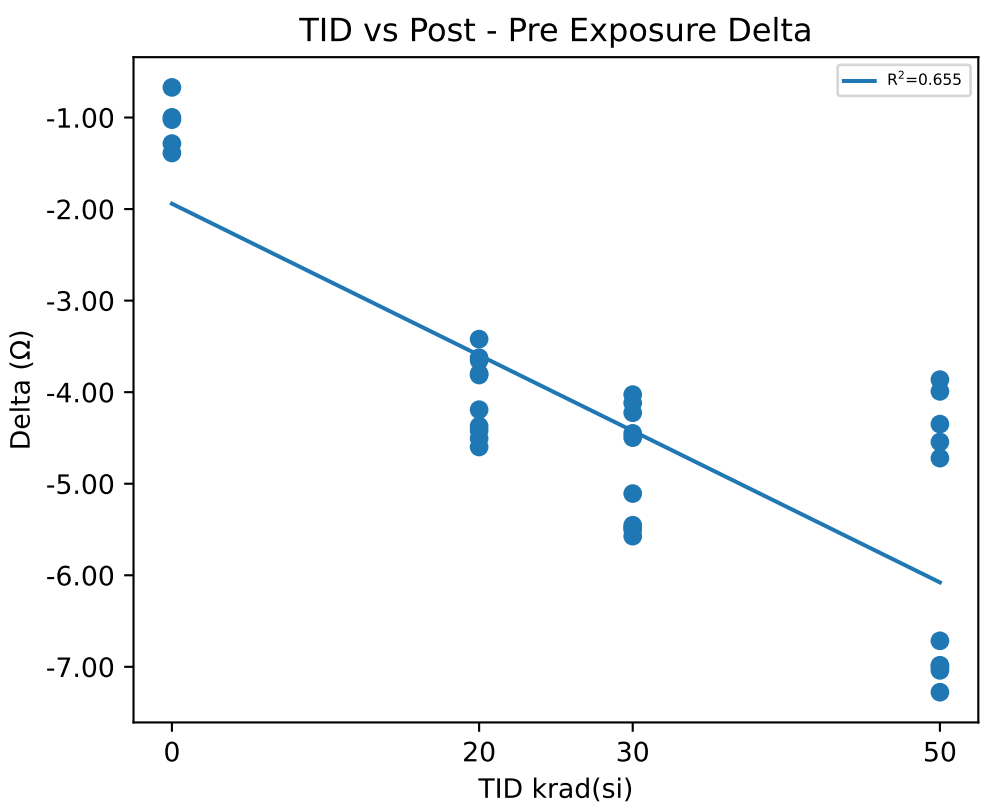
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	6.7703	6.7418	-0.0285
2	20	Biased	7.1906	7.0671	-0.1235
3	20	Biased	6.8385	7.0819	0.2434
4	20	Biased	6.6122	6.4277	-0.1845
5	20	Biased	6.6537	6.6879	0.0342
6	20	Unbiased	7.0982	6.8302	-0.268
7	20	Unbiased	7.2107	7.291	0.0803
8	20	Unbiased	7.0548	6.9793	-0.0755
9	20	Unbiased	7.5093	7.5324	0.0231
10	20	Unbiased	6.9191	6.9936	0.0745
11	30	Biased	7.2784	7.1201	-0.1583
12	30	Biased	7.0079	7.0993	0.0914
13	30	Biased	7.0926	7.1574	0.0648
14	30	Biased	6.697	6.7845	0.0875
15	30	Biased	7.0276	6.835	-0.1926
16	30	Unbiased	7.0966	7.2029	0.1063
17	30	Unbiased	6.6932	6.679	-0.0142
18	30	Unbiased	6.5567	6.5153	-0.0414
19	30	Unbiased	6.6286	6.4665	-0.1621
20	30	Unbiased	6.7941	6.75	-0.0441
27	50	Unbiased	6.838	6.9598	0.1218
28	50	Unbiased	6.702	6.933	0.231
29	50	Unbiased	7.0073	6.89	-0.1173
30	50	Unbiased	6.8256	6.8906	0.065
31	50	Unbiased	6.8208	6.9501	0.1293
77	50	Biased-84Hr-Anneal	6.8815	6.6789	-0.2026
78	50	Biased-84Hr-Anneal	6.7343	6.8046	0.0703
79	50	Biased-84Hr-Anneal	6.8512	6.9239	0.0727
80	50	Biased-84Hr-Anneal	6.9844	7.2819	0.2975
81	50	Biased-84Hr-Anneal	7.1244	7.1104	-0.014
100	0	CORRELATION	6.8381	6.8452	0.0071
101	0	CORRELATION	6.4964	6.4932	-0.0032
102	0	CORRELATION	6.8199	6.8557	0.0358
103	0	CORRELATION	6.9413	7.0032	0.0619
104	0	CORRELATION	6.9293	6.9786	0.0493

Test Statistics (S)

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	6.4964	6.805	6.9413	0.18068	6.4932	6.8352	7.0032	0.20388	-0.0032	0.03018	0.0619	0.027614
20	6.6122	6.9857	7.5093	0.28016	6.4277	6.9633	7.5324	0.31389	-0.268	-0.02245	0.2434	0.1474
30	6.5567	6.8873	7.2784	0.24311	6.4665	6.861	7.2029	0.26993	-0.1926	-0.02627	0.1063	0.11397
50	6.702	6.8769	7.1244	0.12855	6.6789	6.9423	7.2819	0.16266	-0.2026	0.06537	0.2975	0.14912

Device Test: 22.10 LEVEL|SINK/SS_TR/5////@R_SS_DISCHARGE





Test Results (Lower Limit = 200.0, Upper Limit = 700.0 (Ω))

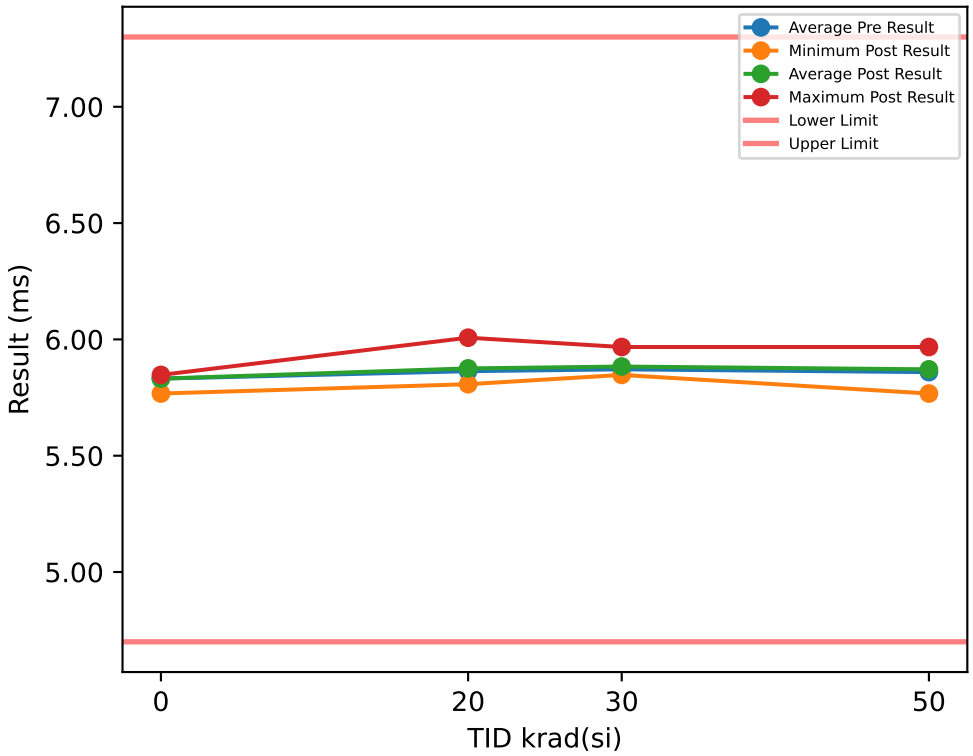
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	430.7	427.05	-3.6528
2	20	Biased	434.63	430.84	-3.7971
3	20	Biased	431.41	427.6	-3.8129
4	20	Biased	434.71	431.09	-3.624
5	20	Biased	432.85	429.43	-3.4202
6	20	Unbiased	438.84	434.24	-4.5986
7	20	Unbiased	435.23	430.86	-4.3711
8	20	Unbiased	438.96	434.54	-4.4189
9	20	Unbiased	434.4	429.9	-4.5058
10	20	Unbiased	433.87	429.68	-4.1913
11	30	Biased	434.44	429.99	-4.4499
12	30	Biased	432.99	428.87	-4.1172
13	30	Biased	436.34	431.84	-4.4967
14	30	Biased	435.86	431.64	-4.2245
15	30	Biased	437.55	433.52	-4.0268
16	30	Unbiased	435.19	429.71	-5.48
17	30	Unbiased	434.94	429.44	-5.5032
18	30	Unbiased	433.36	427.91	-5.4532
19	30	Unbiased	434.53	428.96	-5.573
20	30	Unbiased	436.82	431.71	-5.1075
27	50	Unbiased	435.4	428.41	-6.9829
28	50	Unbiased	436.9	429.62	-7.2772
29	50	Unbiased	435.28	428.24	-7.0389
30	50	Unbiased	433.82	426.82	-6.9989
31	50	Unbiased	435.73	429.02	-6.7162
77	50	Biased-84Hr-Anneal	432.12	427.57	-4.5444
78	50	Biased-84Hr-Anneal	429.63	425.28	-4.3488
79	50	Biased-84Hr-Anneal	430.53	426.54	-3.9912
80	50	Biased-84Hr-Anneal	435.82	431.1	-4.7207
81	50	Biased-84Hr-Anneal	436.7	432.84	-3.8631
100	0	CORRELATION	436.81	435.42	-1.3873
101	0	CORRELATION	438.68	437.65	-1.0234
102	0	CORRELATION	432.7	432.03	-0.6709
103	0	CORRELATION	431.29	430.01	-1.2846
104	0	CORRELATION	430.95	429.96	-0.9982

Test Statistics (Ω)

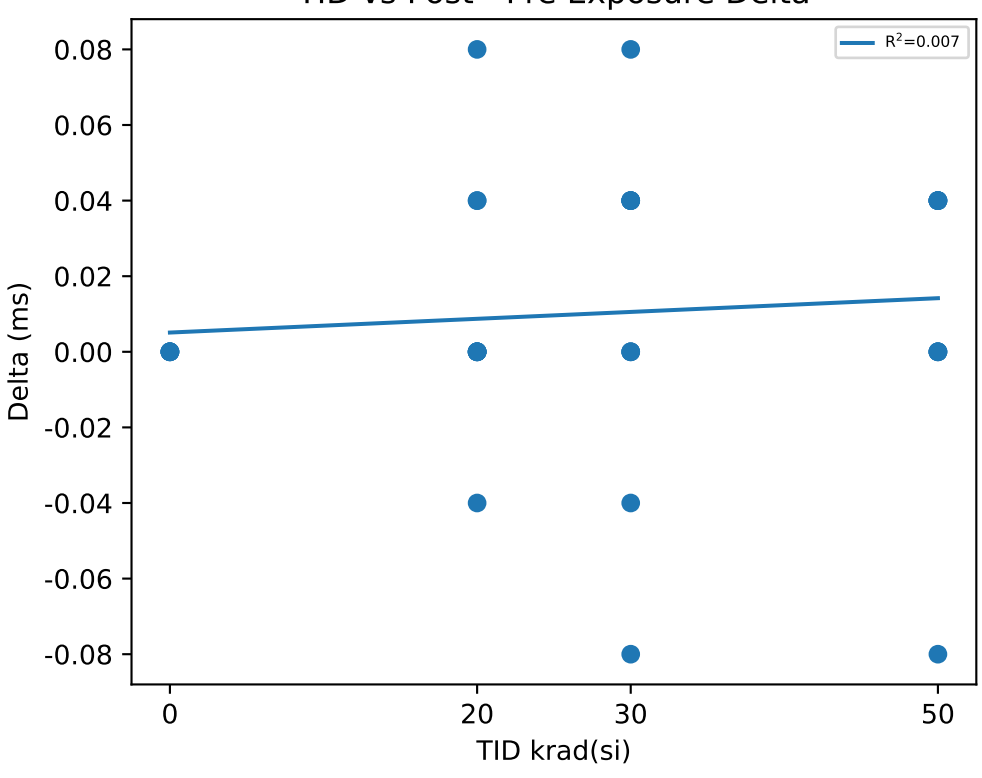
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	430.95	434.09	438.68	3.4652	429.96	433.01	437.65	3.4164	-1.3873	-1.0729	-0.6709	0.27987
20	430.7	434.56	438.96	2.716	427.05	430.52	434.54	2.4365	-4.5986	-4.0393	-3.4202	0.42463
30	432.99	435.2	437.55	1.4618	427.91	430.36	433.52	1.7402	-5.573	-4.8432	-4.0268	0.6383
50	429.63	434.19	436.9	2.5813	425.28	428.54	432.84	2.2376	-7.2772	-5.6482	-3.8631	1.4542

Device Test: 22.13 TIMING|STARTUP/SS_TR/5////@T_SS_22NF

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 4.7, Upper Limit = 7.3 (ms))

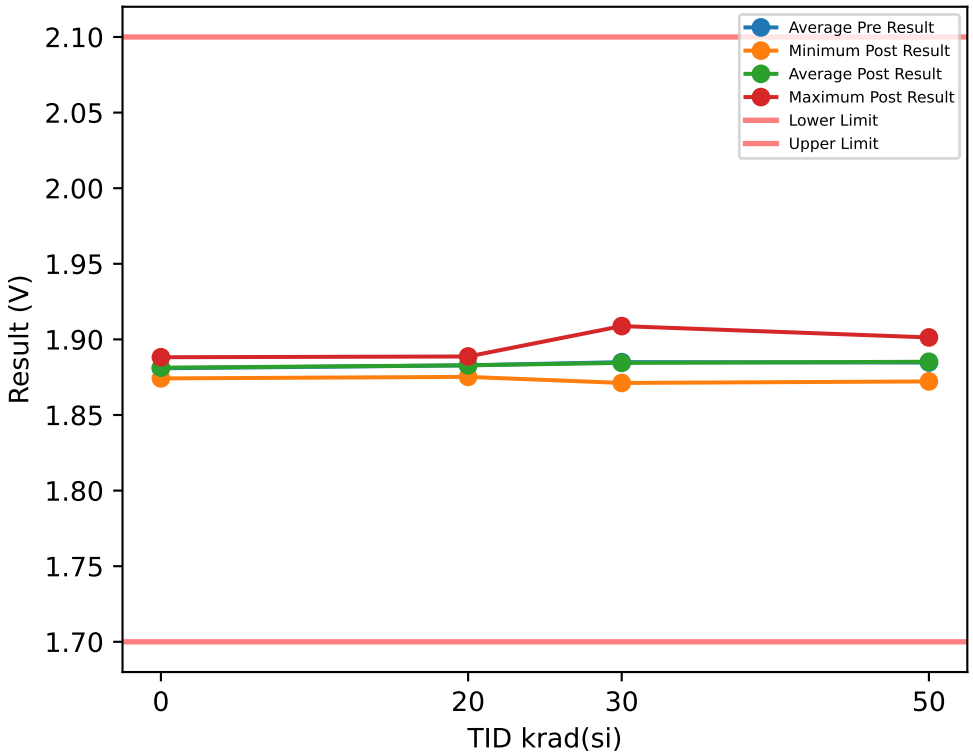
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	5.8073	5.8473	0.04
2	20	Biased	5.8873	5.9273	0.04
3	20	Biased	5.8473	5.8473	0
4	20	Biased	6.0073	6.0073	0
5	20	Biased	5.8073	5.8873	0.08
6	20	Unbiased	5.8473	5.8073	-0.04
7	20	Unbiased	5.8473	5.8473	0
8	20	Unbiased	5.8473	5.8473	0
9	20	Unbiased	5.8473	5.8473	0
10	20	Unbiased	5.8873	5.8873	0
11	30	Biased	5.8873	5.9673	0.08
12	30	Biased	5.8473	5.8473	0
13	30	Biased	5.8073	5.8473	0.04
14	30	Biased	5.8873	5.8873	0
15	30	Biased	5.8473	5.8473	0
16	30	Unbiased	5.9273	5.8473	-0.08
17	30	Unbiased	5.8073	5.8473	0.04
18	30	Unbiased	5.9273	5.8873	-0.04
19	30	Unbiased	5.8473	5.8873	0.04
20	30	Unbiased	5.9273	5.9673	0.04
27	50	Unbiased	5.9273	5.9673	0.04
28	50	Unbiased	5.8473	5.7673	-0.08
29	50	Unbiased	5.8073	5.8473	0.04
30	50	Unbiased	5.9273	5.9273	0
31	50	Unbiased	5.8473	5.8473	0
77	50	Biased-84Hr-Anneal	5.8873	5.8873	0
78	50	Biased-84Hr-Anneal	5.7673	5.7673	0
79	50	Biased-84Hr-Anneal	5.8873	5.9273	0.04
80	50	Biased-84Hr-Anneal	5.8473	5.8873	0.04
81	50	Biased-84Hr-Anneal	5.8473	5.8873	0.04
100	0	CORRELATION	5.8473	5.8473	0
101	0	CORRELATION	5.8473	5.8473	0
102	0	CORRELATION	5.8473	5.8473	0
103	0	CORRELATION	5.7673	5.7673	0
104	0	CORRELATION	5.8473	5.8473	0

Test Statistics (ms)

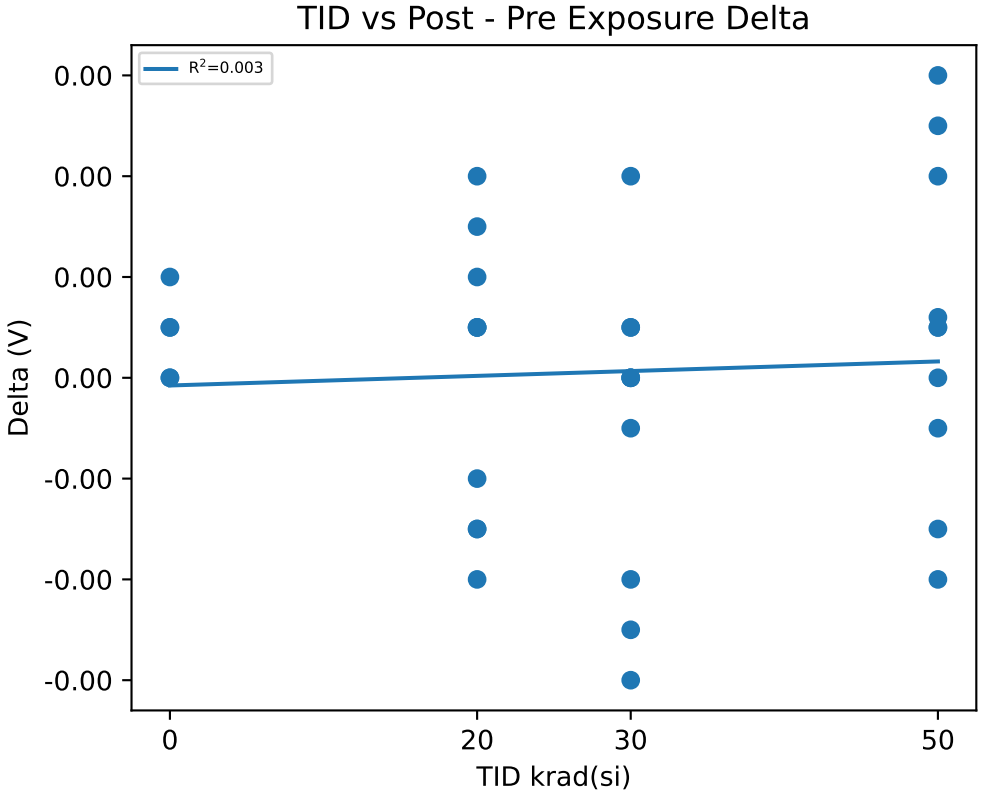
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.7673	5.8313	5.8473	0.035777	5.7673	5.8313	5.8473	0.035777	0	0	0	0
20	5.8073	5.8633	6.0073	0.057194	5.8073	5.8753	6.0073	0.056725	-0.04	0.012	0.08	0.032931
30	5.8073	5.8713	5.9273	0.046952	5.8473	5.8833	5.9673	0.047889	-0.08	0.012	0.08	0.04638
50	5.7673	5.8593	5.9273	0.050067	5.7673	5.8713	5.9673	0.065862	-0.08	0.012	0.04	0.037947

Device Test: 22.16 LEVEL|RISE/COMP/12////@COMP_SHDN

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 1.7, Upper Limit = 2.1 (V))

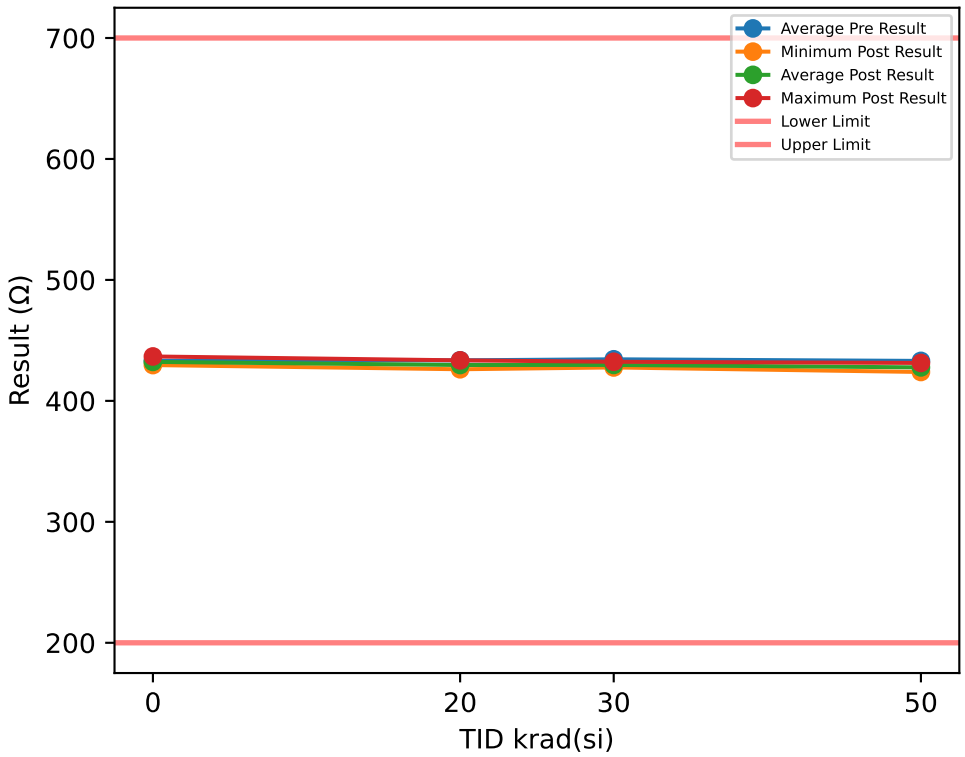
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.8852	1.8842	-0.001
2	20	Biased	1.8782	1.8787	0.0005
3	20	Biased	1.8867	1.8852	-0.0015
4	20	Biased	1.8842	1.8847	0.0005
5	20	Biased	1.8867	1.8887	0.002
6	20	Unbiased	1.8737	1.8752	0.0015
7	20	Unbiased	1.8852	1.8857	0.0005
8	20	Unbiased	1.8812	1.8797	-0.0015
9	20	Unbiased	1.8867	1.8847	-0.002
10	20	Unbiased	1.8807	1.8817	0.001
11	30	Biased	1.8942	1.8917	-0.0025
12	30	Biased	1.8882	1.8862	-0.002
13	30	Biased	1.9088	1.9088	0
14	30	Biased	1.8872	1.8842	-0.003
15	30	Biased	1.8832	1.8837	0.0005
16	30	Unbiased	1.8722	1.8717	-0.0005
17	30	Unbiased	1.8837	1.8857	0.002
18	30	Unbiased	1.8712	1.8712	0
19	30	Unbiased	1.8817	1.8817	0
20	30	Unbiased	1.8792	1.8797	0.0005
27	50	Unbiased	1.8737	1.8722	-0.0015
28	50	Unbiased	1.8757	1.8787	0.003
29	50	Unbiased	1.8917	1.8942	0.0025
30	50	Unbiased	1.8827	1.8822	-0.0005
31	50	Unbiased	1.8772	1.8772	0
77	50	Biased-84Hr-Anneal	1.9007	1.9013	0.0006
78	50	Biased-84Hr-Anneal	1.8852	1.8872	0.002
79	50	Biased-84Hr-Anneal	1.8877	1.8882	0.0005
80	50	Biased-84Hr-Anneal	1.8932	1.8937	0.0005
81	50	Biased-84Hr-Anneal	1.8792	1.8772	-0.002
100	0	CORRELATION	1.8832	1.8837	0.0005
101	0	CORRELATION	1.8762	1.8767	0.0005
102	0	CORRELATION	1.8882	1.8882	0
103	0	CORRELATION	1.8837	1.8837	0
104	0	CORRELATION	1.8732	1.8742	0.001

Test Statistics (V)

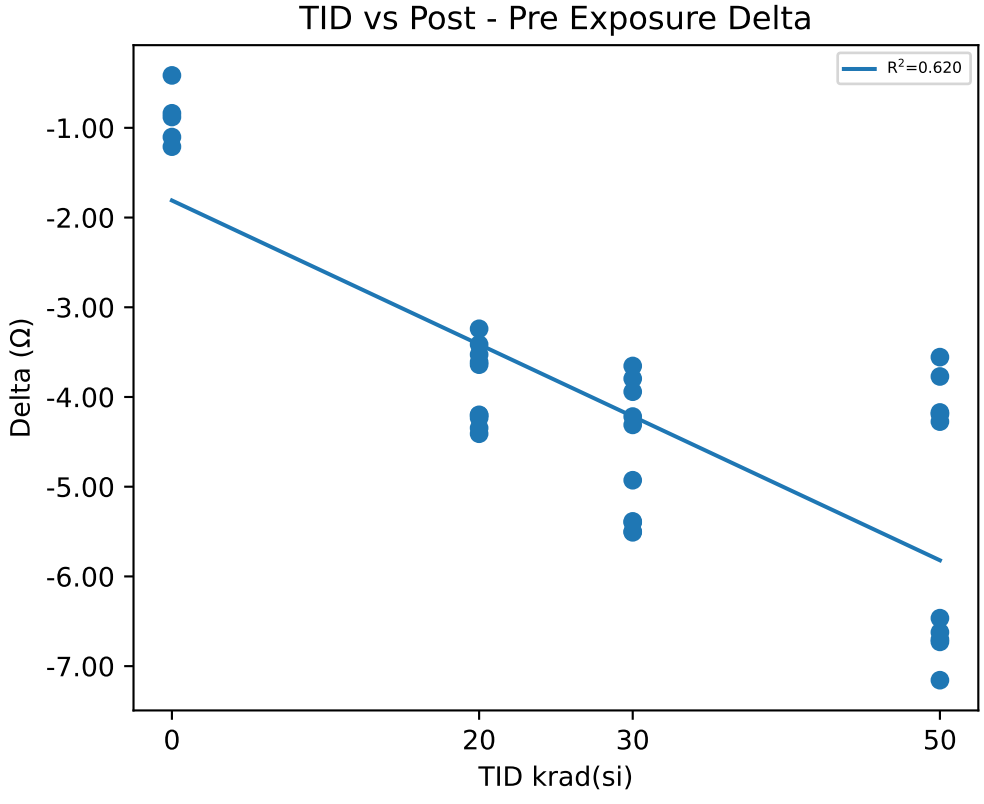
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.8732	1.8809	1.8882	0.0060787	1.8742	1.8813	1.8882	0.0057162	0	0.0004	0.001	0.00041833
20	1.8737	1.8829	1.8867	0.0043465	1.8752	1.8828	1.8887	0.0039934	-0.002	-2.2204e-17	0.002	0.0013944
30	1.8712	1.885	1.9088	0.010903	1.8712	1.8845	1.9088	0.010641	-0.003	-0.0005	0.002	0.0015456
50	1.8737	1.8847	1.9007	0.0086859	1.8722	1.8852	1.9013	0.0092719	-0.002	0.00051	0.003	0.0016333

Device Test: 22.17 LEVEL|SINK/SS_TR/12////@R_SS_DISCHARGE

TID vs Result Stats



TID vs Post - Pre Exposure Delta



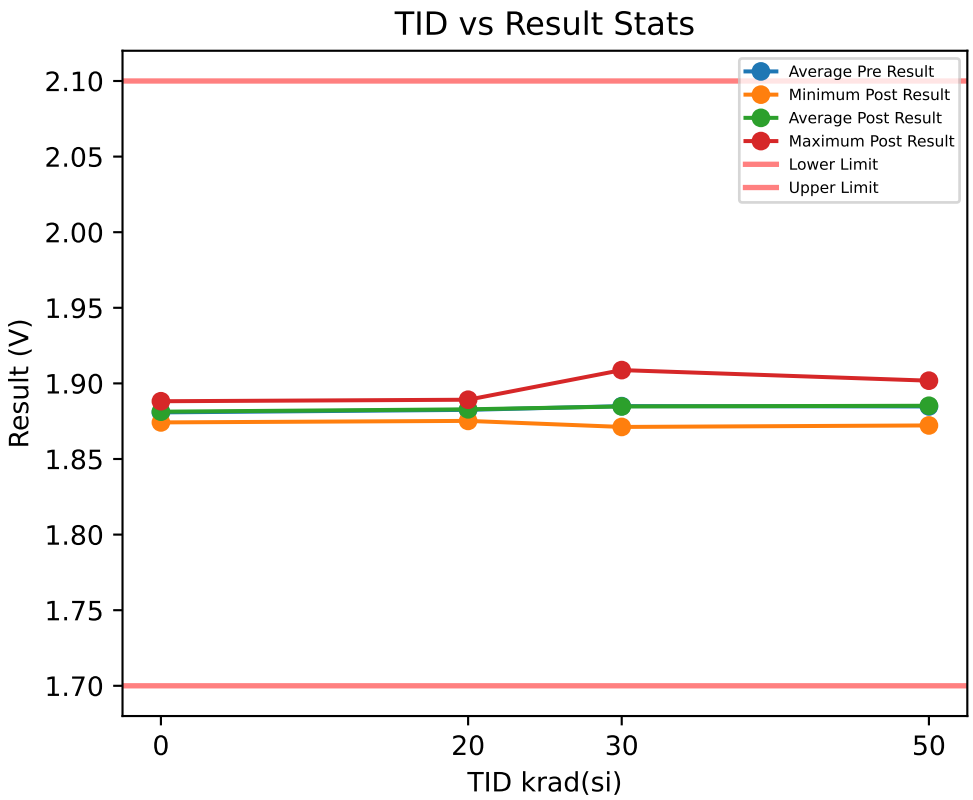
Test Results (Lower Limit = 200.0, Upper Limit = 700.0 (Ω))

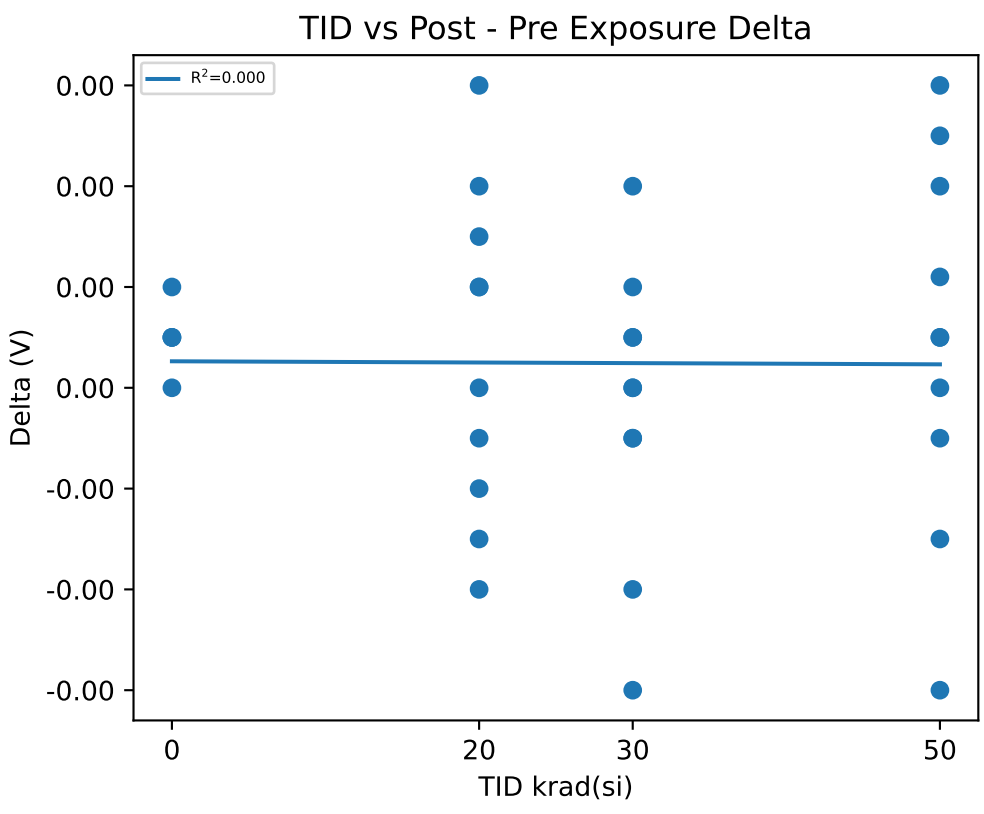
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	429.55	426.14	-3.4144
2	20	Biased	433.75	430.14	-3.6107
3	20	Biased	429.87	426.35	-3.527
4	20	Biased	433.69	430.05	-3.64
5	20	Biased	432.04	428.8	-3.2398
6	20	Unbiased	437.17	432.83	-4.3457
7	20	Unbiased	434.83	430.64	-4.199
8	20	Unbiased	437.71	433.51	-4.2039
9	20	Unbiased	433.69	429.28	-4.4097
10	20	Unbiased	433.05	428.82	-4.2332
11	30	Biased	433.14	428.92	-4.2182
12	30	Biased	432.76	428.82	-3.9412
13	30	Biased	435.42	431.1	-4.311
14	30	Biased	434.79	430.99	-3.7954
15	30	Biased	435.98	432.33	-3.6543
16	30	Unbiased	434.17	428.78	-5.3865
17	30	Unbiased	434.77	429.37	-5.3984
18	30	Unbiased	433.13	427.63	-5.499
19	30	Unbiased	433.49	427.98	-5.5084
20	30	Unbiased	436.15	431.22	-4.9279
27	50	Unbiased	434.41	427.68	-6.7296
28	50	Unbiased	436.27	429.11	-7.1567
29	50	Unbiased	434.02	427.32	-6.7026
30	50	Unbiased	433.03	426.4	-6.6219
31	50	Unbiased	434.92	428.45	-6.4652
77	50	Biased-84Hr-Anneal	431.51	427.23	-4.2746
78	50	Biased-84Hr-Anneal	428.08	423.89	-4.1915
79	50	Biased-84Hr-Anneal	429.06	425.28	-3.7715
80	50	Biased-84Hr-Anneal	434.32	430.15	-4.1723
81	50	Biased-84Hr-Anneal	434.91	431.35	-3.5558
100	0	CORRELATION	435.5	434.29	-1.21
101	0	CORRELATION	437.6	436.72	-0.8795
102	0	CORRELATION	431.18	430.76	-0.4156
103	0	CORRELATION	430.7	429.6	-1.1028
104	0	CORRELATION	430.61	429.77	-0.8379

Test Statistics (Ω)

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	430.61	433.12	437.6	3.2277	429.6	432.23	436.72	3.1443	-1.21	-0.88916	-0.4156	0.30641
20	429.55	433.54	437.71	2.6702	426.14	429.65	433.51	2.3834	-4.4097	-3.8823	-3.2398	0.43592
30	432.76	434.38	436.15	1.2315	427.63	429.71	432.33	1.5784	-5.5084	-4.664	-3.6543	0.75726
50	428.08	433.05	436.27	2.6822	423.89	427.69	431.35	2.2187	-7.1567	-5.3642	-3.5558	1.4702

Device Test: 22.2 LEVEL|RISE/COMP/4.5////@COMP_SHDN





Test Results (Lower Limit = 1.7, Upper Limit = 2.1 (V))

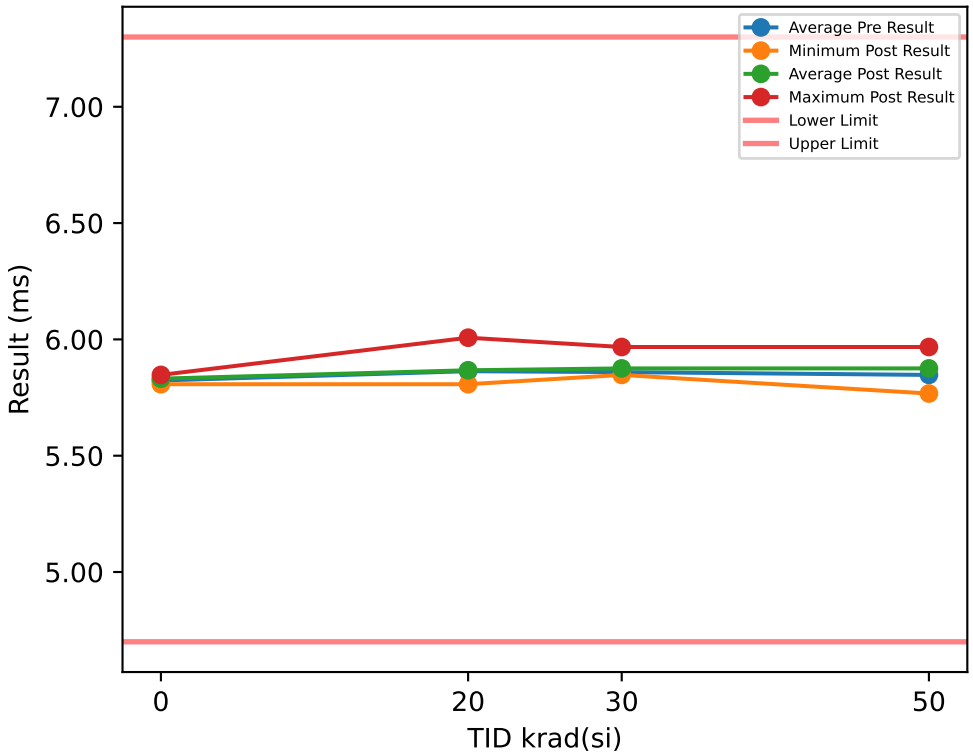
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.8847	1.8842	-0.0005
2	20	Biased	1.8777	1.8792	0.0015
3	20	Biased	1.8862	1.8852	-0.001
4	20	Biased	1.8842	1.8842	0
5	20	Biased	1.8862	1.8892	0.003
6	20	Unbiased	1.8732	1.8752	0.002
7	20	Unbiased	1.8842	1.8852	0.001
8	20	Unbiased	1.8812	1.8797	-0.0015
9	20	Unbiased	1.8867	1.8847	-0.002
10	20	Unbiased	1.8807	1.8817	0.001
11	30	Biased	1.8942	1.8947	0.0005
12	30	Biased	1.8882	1.8862	-0.002
13	30	Biased	1.9093	1.9088	-0.0005
14	30	Biased	1.8872	1.8842	-0.003
15	30	Biased	1.8827	1.8837	0.001
16	30	Unbiased	1.8722	1.8717	-0.0005
17	30	Unbiased	1.8837	1.8857	0.002
18	30	Unbiased	1.8712	1.8712	0
19	30	Unbiased	1.8817	1.8817	0
20	30	Unbiased	1.8792	1.8797	0.0005
27	50	Unbiased	1.8737	1.8722	-0.0015
28	50	Unbiased	1.8757	1.8787	0.003
29	50	Unbiased	1.8917	1.8942	0.0025
30	50	Unbiased	1.8827	1.8822	-0.0005
31	50	Unbiased	1.8772	1.8772	0
77	50	Biased-84Hr-Anneal	1.9007	1.9018	0.0011
78	50	Biased-84Hr-Anneal	1.8852	1.8872	0.002
79	50	Biased-84Hr-Anneal	1.8877	1.8882	0.0005
80	50	Biased-84Hr-Anneal	1.8932	1.8937	0.0005
81	50	Biased-84Hr-Anneal	1.8797	1.8767	-0.003
100	0	CORRELATION	1.8832	1.8837	0.0005
101	0	CORRELATION	1.8762	1.8767	0.0005
102	0	CORRELATION	1.8877	1.8882	0.0005
103	0	CORRELATION	1.8837	1.8837	0
104	0	CORRELATION	1.8732	1.8742	0.001

Test Statistics (V)

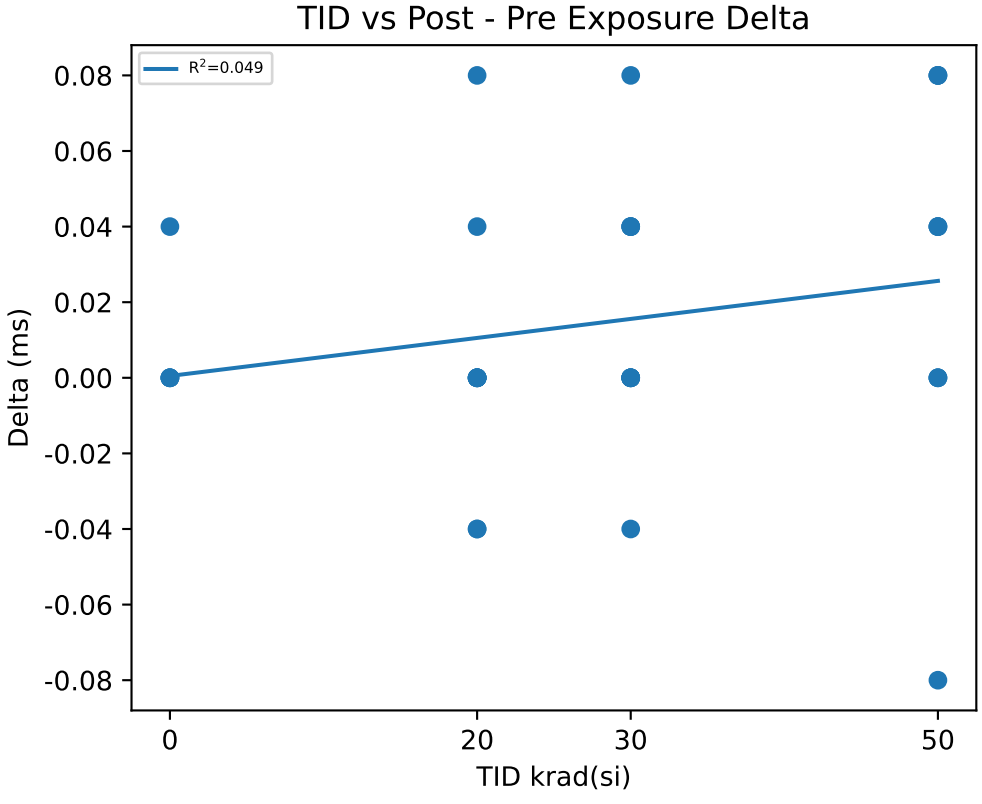
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.8732	1.8808	1.8877	0.0059309	1.8742	1.8813	1.8882	0.0057162	0	0.0005	0.001	0.00035355
20	1.8732	1.8825	1.8867	0.0043474	1.8752	1.8828	1.8892	0.0039655	-0.002	0.00035	0.003	0.0016168
30	1.8712	1.885	1.9093	0.011035	1.8712	1.8848	1.9088	0.010906	-0.003	-0.0002	0.002	0.0014376
50	1.8737	1.8847	1.9007	0.0086521	1.8722	1.8852	1.9018	0.0094181	-0.003	0.00046	0.003	0.0018362

Device Test: 22.20 TIMING|STARTUP/SS_TR/12////@T_SS_22NF

TID vs Result Stats



TID vs Post - Pre Exposure Delta



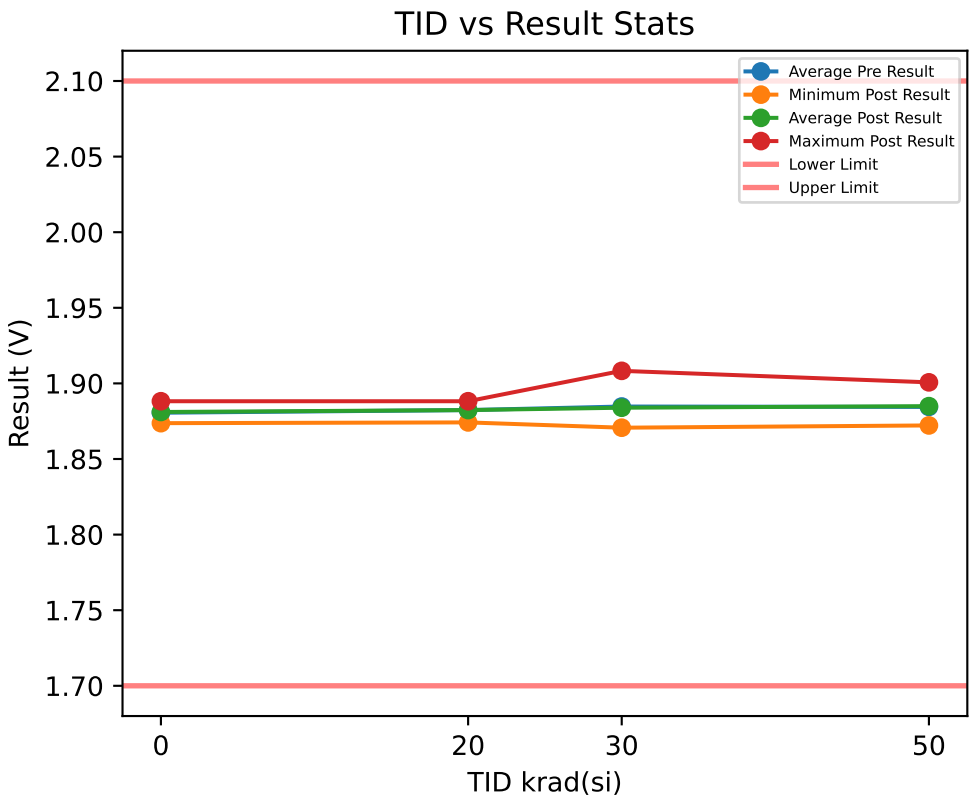
Test Results (Lower Limit = 4.7, Upper Limit = 7.3 (ms))

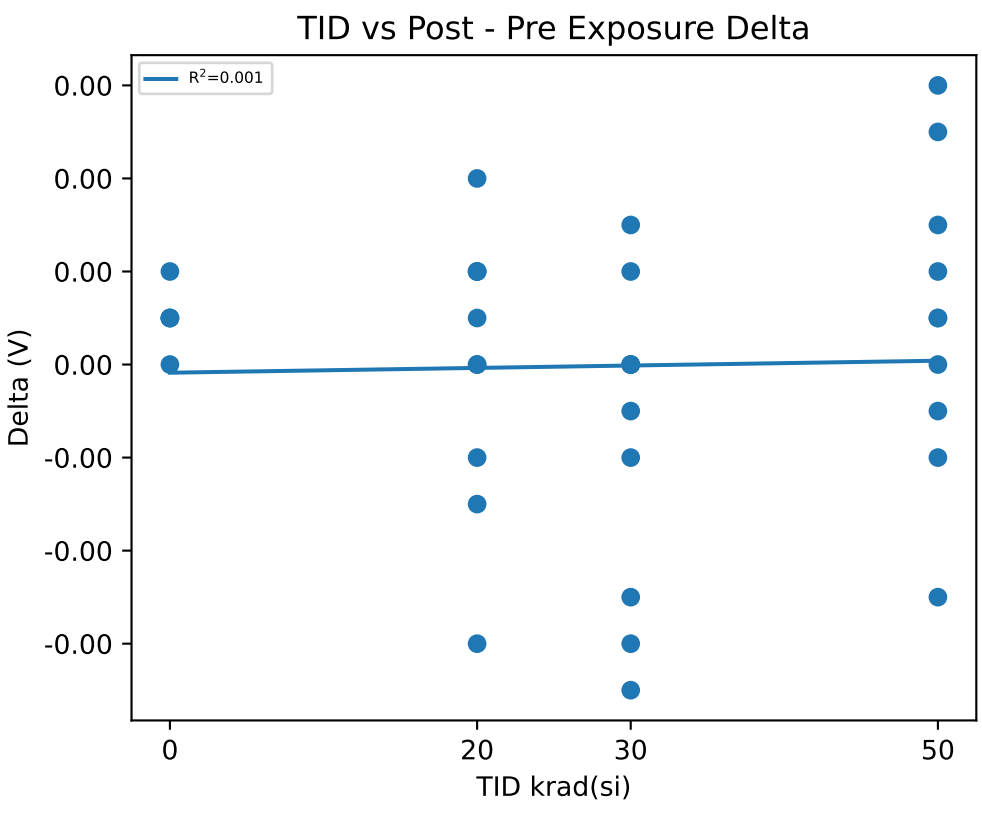
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	5.8073	5.8473	0.04
2	20	Biased	5.8873	5.8873	0
3	20	Biased	5.8473	5.8473	0
4	20	Biased	6.0073	6.0073	0
5	20	Biased	5.8073	5.8873	0.08
6	20	Unbiased	5.8473	5.8073	-0.04
7	20	Unbiased	5.8473	5.8473	0
8	20	Unbiased	5.8473	5.8473	0
9	20	Unbiased	5.8473	5.8473	0
10	20	Unbiased	5.8873	5.8473	-0.04
11	30	Biased	5.8873	5.9673	0.08
12	30	Biased	5.8473	5.8473	0
13	30	Biased	5.8073	5.8473	0.04
14	30	Biased	5.8473	5.8873	0.04
15	30	Biased	5.8473	5.8473	0
16	30	Unbiased	5.8473	5.8473	0
17	30	Unbiased	5.8073	5.8473	0.04
18	30	Unbiased	5.9273	5.8873	-0.04
19	30	Unbiased	5.8473	5.8473	0
20	30	Unbiased	5.9273	5.9273	0
27	50	Unbiased	5.8873	5.9673	0.08
28	50	Unbiased	5.8473	5.7673	-0.08
29	50	Unbiased	5.8073	5.8473	0.04
30	50	Unbiased	5.9273	5.9273	0
31	50	Unbiased	5.8473	5.8473	0
77	50	Biased-84Hr-Anneal	5.8473	5.9273	0.08
78	50	Biased-84Hr-Anneal	5.7673	5.7673	0
79	50	Biased-84Hr-Anneal	5.8873	5.9273	0.04
80	50	Biased-84Hr-Anneal	5.8473	5.8873	0.04
81	50	Biased-84Hr-Anneal	5.8073	5.8873	0.08
100	0	CORRELATION	5.8473	5.8473	0
101	0	CORRELATION	5.8473	5.8473	0
102	0	CORRELATION	5.8473	5.8473	0
103	0	CORRELATION	5.7673	5.8073	0.04
104	0	CORRELATION	5.8073	5.8073	0

Test Statistics (ms)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.7673	5.8233	5.8473	0.035777	5.8073	5.8313	5.8473	0.021909	0	0.008	0.04	0.017889
20	5.8073	5.8633	6.0073	0.057194	5.8073	5.8673	6.0073	0.05416	-0.04	0.004	0.08	0.035024
30	5.8073	5.8593	5.9273	0.042374	5.8473	5.8753	5.9673	0.042374	-0.04	0.016	0.08	0.033731
50	5.7673	5.8473	5.9273	0.046188	5.7673	5.8753	5.9673	0.068118	-0.08	0.028	0.08	0.050067

Device Test: 22.23 LEVEL|RISE/COMP/14////@COMP_SHDN





Test Results (Lower Limit = 1.7, Upper Limit = 2.1 (V))

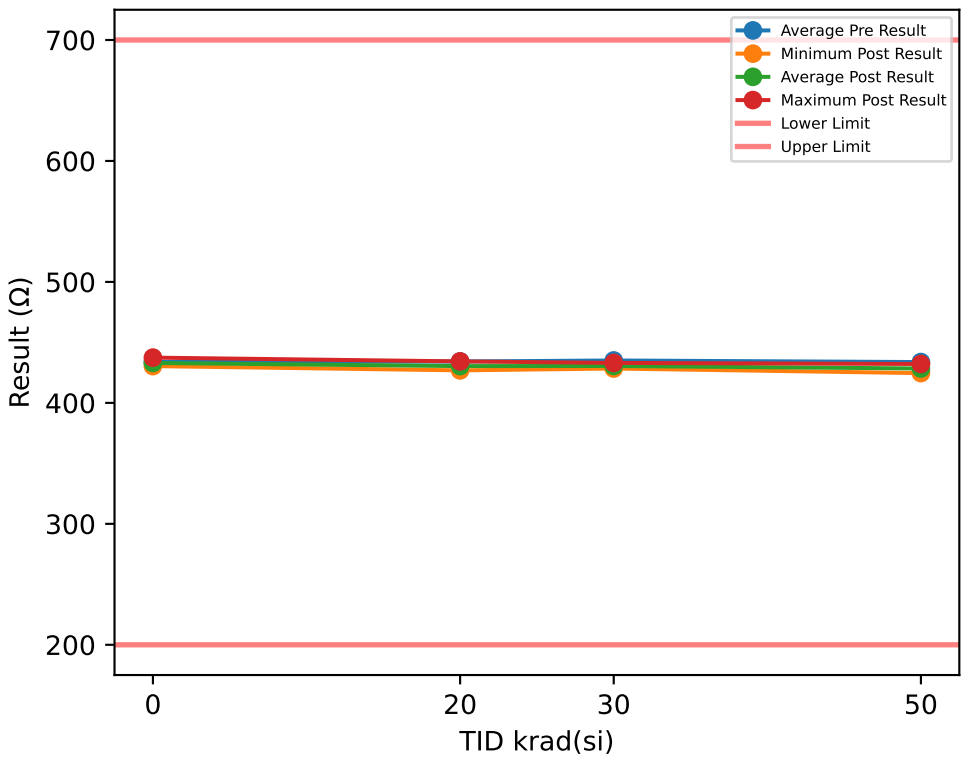
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.8842	1.8842	0
2	20	Biased	1.8777	1.8787	0.001
3	20	Biased	1.8857	1.8842	-0.0015
4	20	Biased	1.8837	1.8842	0.0005
5	20	Biased	1.8862	1.8882	0.002
6	20	Unbiased	1.8732	1.8742	0.001
7	20	Unbiased	1.8847	1.8847	0
8	20	Unbiased	1.8807	1.8797	-0.001
9	20	Unbiased	1.8867	1.8837	-0.003
10	20	Unbiased	1.8807	1.8817	0.001
11	30	Biased	1.8942	1.8917	-0.0025
12	30	Biased	1.8882	1.8852	-0.003
13	30	Biased	1.9083	1.9083	0
14	30	Biased	1.8872	1.8837	-0.0035
15	30	Biased	1.8827	1.8827	0
16	30	Unbiased	1.8722	1.8712	-0.001
17	30	Unbiased	1.8832	1.8847	0.0015
18	30	Unbiased	1.8712	1.8707	-0.0005
19	30	Unbiased	1.8812	1.8812	0
20	30	Unbiased	1.8787	1.8797	0.001
27	50	Unbiased	1.8732	1.8722	-0.001
28	50	Unbiased	1.8757	1.8787	0.003
29	50	Unbiased	1.8912	1.8937	0.0025
30	50	Unbiased	1.8827	1.8822	-0.0005
31	50	Unbiased	1.8767	1.8767	0
77	50	Biased-84Hr-Anneal	1.9002	1.9007	0.0005
78	50	Biased-84Hr-Anneal	1.8852	1.8867	0.0015
79	50	Biased-84Hr-Anneal	1.8872	1.8882	0.001
80	50	Biased-84Hr-Anneal	1.8932	1.8937	0.0005
81	50	Biased-84Hr-Anneal	1.8792	1.8767	-0.0025
100	0	CORRELATION	1.8827	1.8832	0.0005
101	0	CORRELATION	1.8757	1.8767	0.001
102	0	CORRELATION	1.8877	1.8882	0.0005
103	0	CORRELATION	1.8837	1.8837	0
104	0	CORRELATION	1.8732	1.8737	0.0005

Test Statistics (V)

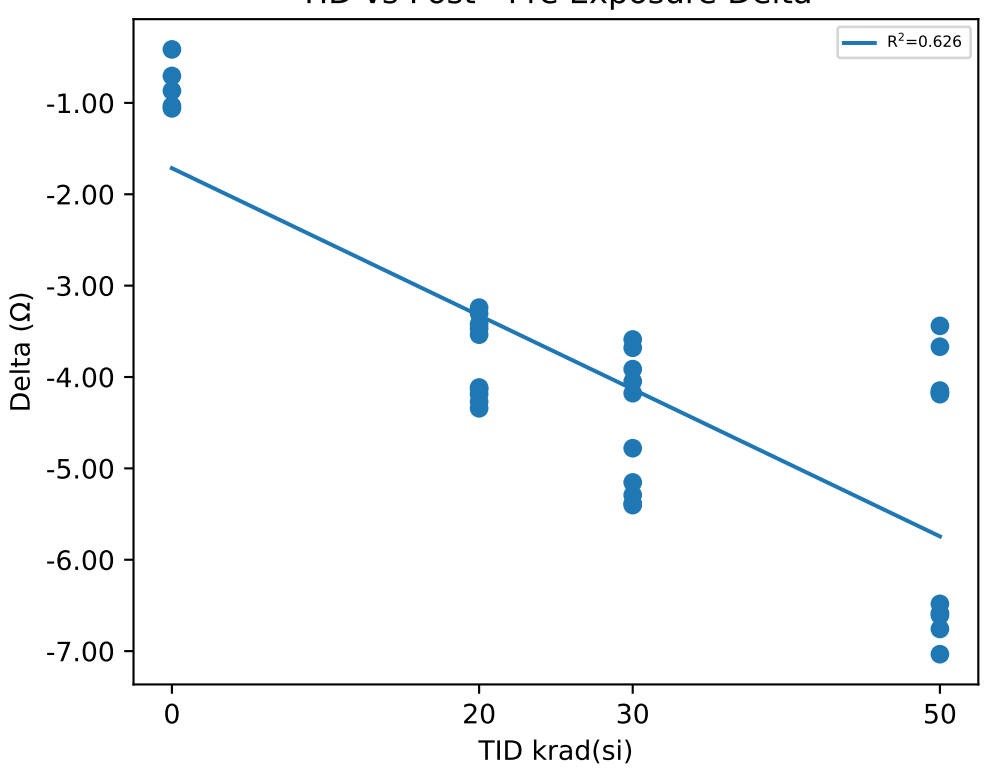
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.8732	1.8806	1.8877	0.0059833	1.8737	1.8811	1.8882	0.0058245	0	0.0005	0.001	0.00035355
20	1.8732	1.8823	1.8867	0.0043015	1.8742	1.8823	1.8882	0.0039303	-0.003	2.2204e-17	0.002	0.001472
30	1.8712	1.8847	1.9083	0.010846	1.8707	1.8839	1.9083	0.010648	-0.0035	-0.0008	0.0015	0.0016865
50	1.8732	1.8844	1.9002	0.0086418	1.8722	1.8849	1.9007	0.0091901	-0.0025	0.0005	0.003	0.001633

Device Test: 22.24 LEVEL|SINK/SS_TR/14////@R_SS_DISCHARGE

TID vs Result Stats



TID vs Post - Pre Exposure Delta



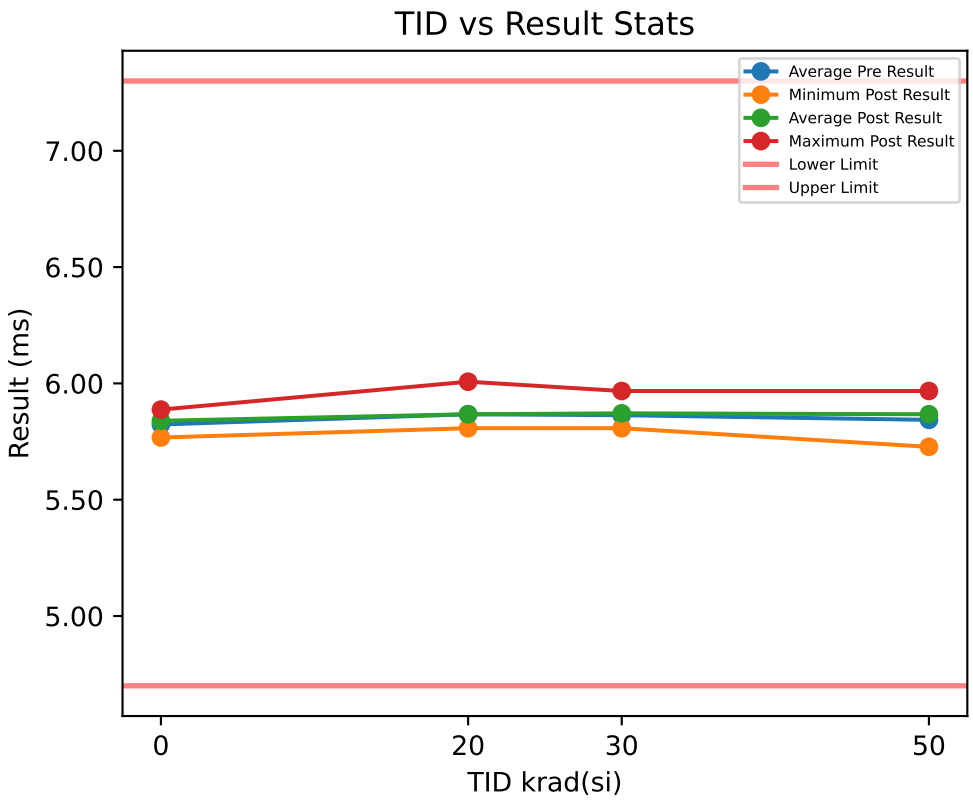
Test Results (Lower Limit = 200.0, Upper Limit = 700.0 (Ω))

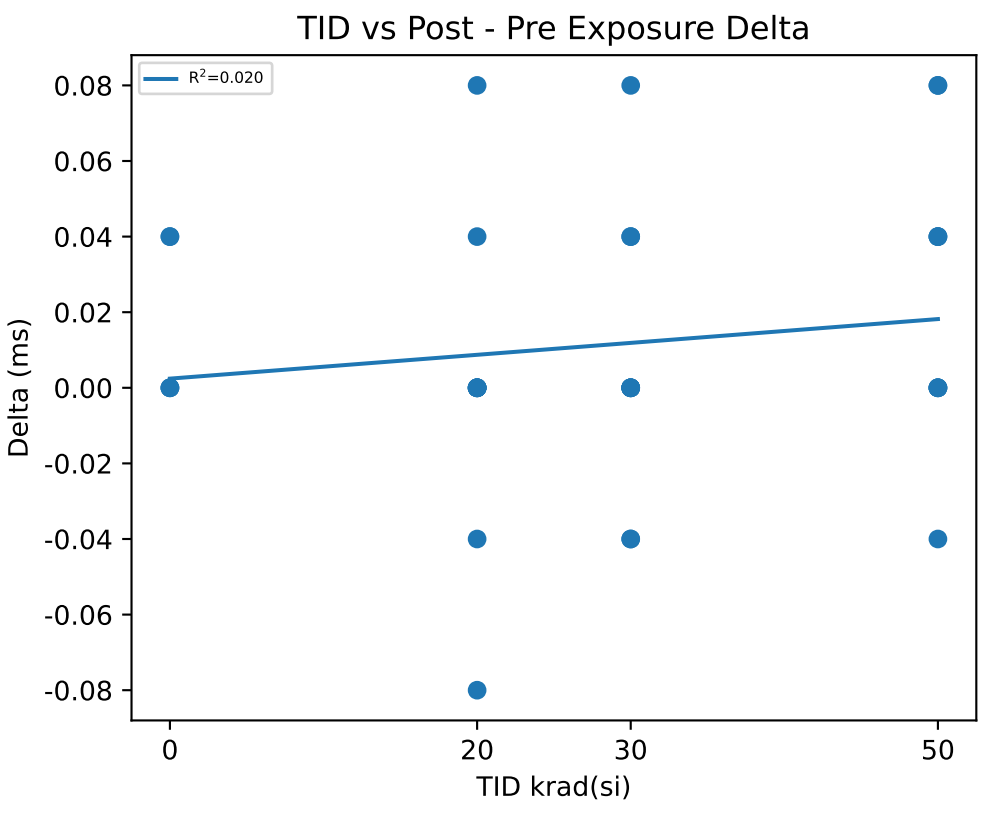
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	430.19	426.89	-3.3042
2	20	Biased	434.38	430.85	-3.5367
3	20	Biased	430.53	427.06	-3.4686
4	20	Biased	434.22	430.8	-3.4197
5	20	Biased	432.7	429.46	-3.2407
6	20	Unbiased	437.9	433.56	-4.3426
7	20	Unbiased	435.58	431.39	-4.1891
8	20	Unbiased	438.42	434.3	-4.1147
9	20	Unbiased	434.36	430.09	-4.2697
10	20	Unbiased	433.75	429.61	-4.1362
11	30	Biased	433.85	429.8	-4.0479
12	30	Biased	433.39	429.48	-3.9138
13	30	Biased	436.13	431.95	-4.1773
14	30	Biased	435.5	431.82	-3.68
15	30	Biased	436.64	433.05	-3.5892
16	30	Unbiased	434.74	429.59	-5.1536
17	30	Unbiased	435.47	430.18	-5.2918
18	30	Unbiased	433.78	428.4	-5.3837
19	30	Unbiased	434.2	428.79	-5.4017
20	30	Unbiased	436.85	432.07	-4.7792
27	50	Unbiased	435.08	428.32	-6.7574
28	50	Unbiased	436.93	429.9	-7.0336
29	50	Unbiased	434.72	428.11	-6.6075
30	50	Unbiased	433.74	427.16	-6.5847
31	50	Unbiased	435.62	429.14	-6.4831
77	50	Biased-84Hr-Anneal	432.09	427.91	-4.1731
78	50	Biased-84Hr-Anneal	428.76	424.61	-4.1483
79	50	Biased-84Hr-Anneal	429.77	426.1	-3.6686
80	50	Biased-84Hr-Anneal	435.08	430.89	-4.1881
81	50	Biased-84Hr-Anneal	435.59	432.15	-3.4404
100	0	CORRELATION	436.19	435.15	-1.0333
101	0	CORRELATION	438.28	437.41	-0.8672
102	0	CORRELATION	431.89	431.47	-0.4146
103	0	CORRELATION	431.46	430.4	-1.06
104	0	CORRELATION	431.24	430.53	-0.7052

Test Statistics (Ω)

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	431.24	433.81	438.28	3.2192	430.4	432.99	437.41	3.1337	-1.06	-0.81606	-0.4146	0.26588
20	430.19	434.2	438.42	2.6972	426.89	430.4	434.3	2.3959	-4.3426	-3.8022	-3.2407	0.44233
30	433.39	435.06	436.85	1.2446	428.4	430.51	433.05	1.5853	-5.4017	-4.5418	-3.5892	0.73505
50	428.76	433.74	436.93	2.6877	424.61	428.43	432.15	2.2255	-7.0336	-5.3085	-3.4404	1.4848

Device Test: 22.27 TIMING|STARTUP/SS_TR/14////@T_SS_22NF





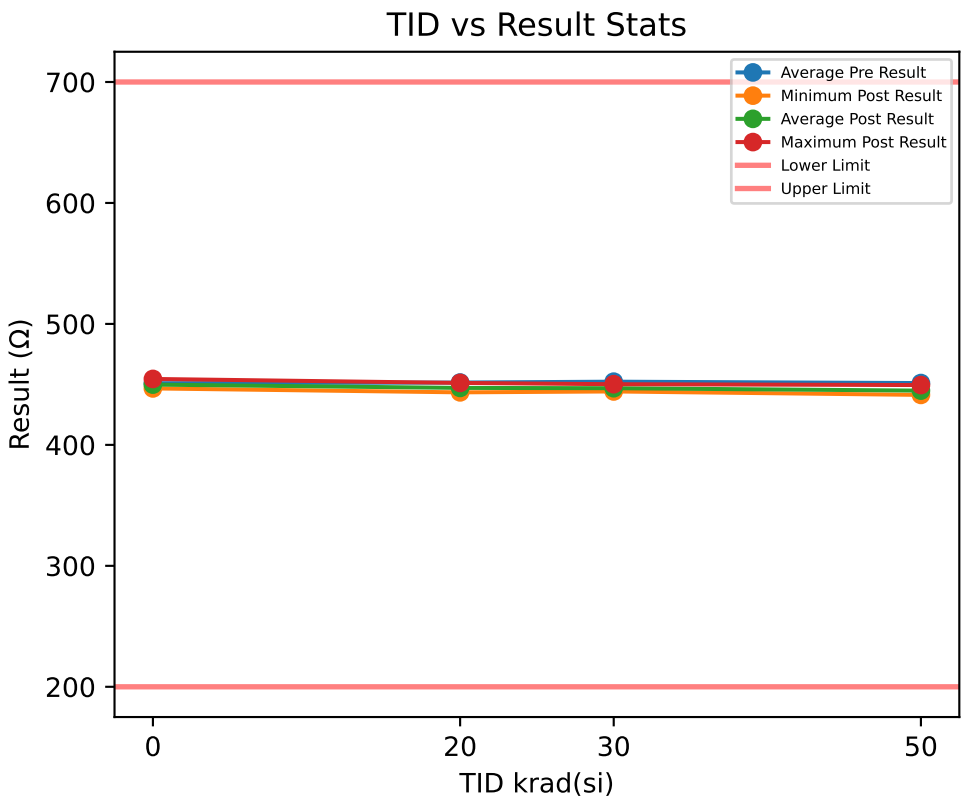
Test Results (Lower Limit = 4.7, Upper Limit = 7.3 (ms))

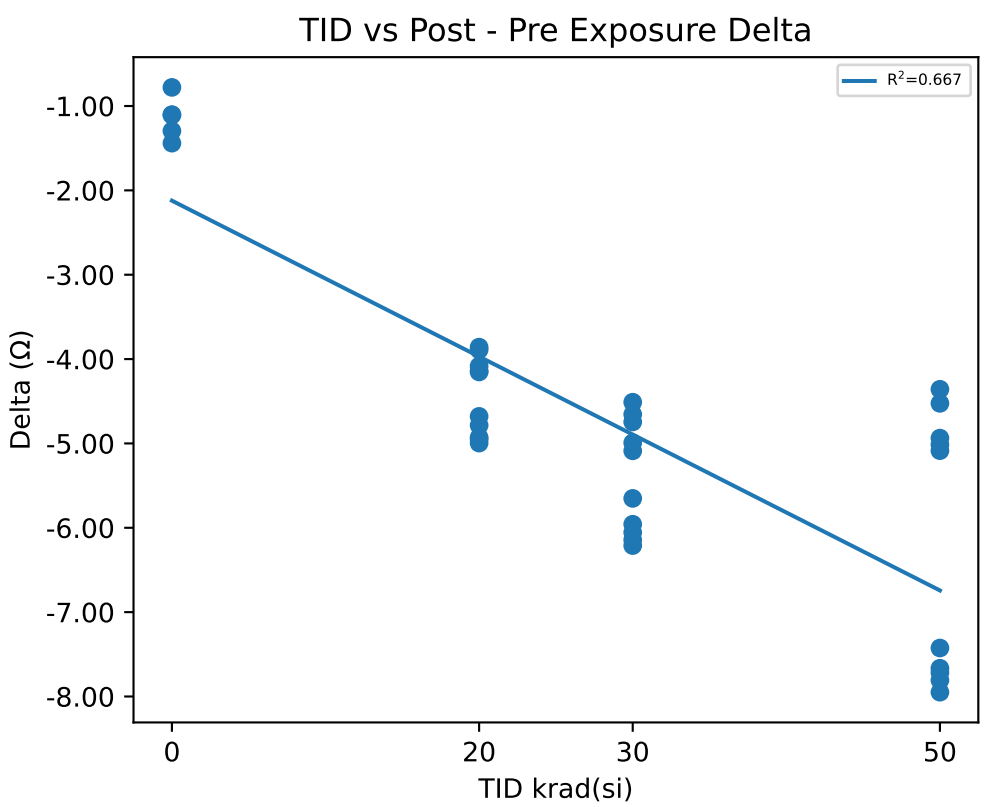
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	5.8073	5.8073	0
2	20	Biased	5.8873	5.9273	0.04
3	20	Biased	5.8473	5.8473	0
4	20	Biased	6.0073	6.0073	0
5	20	Biased	5.8073	5.8873	0.08
6	20	Unbiased	5.8873	5.8073	-0.08
7	20	Unbiased	5.8473	5.8473	0
8	20	Unbiased	5.8473	5.8473	0
9	20	Unbiased	5.8473	5.8473	0
10	20	Unbiased	5.8873	5.8473	-0.04
11	30	Biased	5.8873	5.9673	0.08
12	30	Biased	5.8473	5.8473	0
13	30	Biased	5.8073	5.8473	0.04
14	30	Biased	5.8873	5.8873	0
15	30	Biased	5.8473	5.8473	0
16	30	Unbiased	5.8473	5.8073	-0.04
17	30	Unbiased	5.8073	5.8473	0.04
18	30	Unbiased	5.9273	5.8873	-0.04
19	30	Unbiased	5.8473	5.8473	0
20	30	Unbiased	5.9273	5.9273	0
27	50	Unbiased	5.9273	5.9673	0.04
28	50	Unbiased	5.8073	5.7673	-0.04
29	50	Unbiased	5.7673	5.8473	0.08
30	50	Unbiased	5.9273	5.9273	0
31	50	Unbiased	5.8473	5.8473	0
77	50	Biased-84Hr-Anneal	5.8473	5.9273	0.08
78	50	Biased-84Hr-Anneal	5.7273	5.7273	0
79	50	Biased-84Hr-Anneal	5.8873	5.8873	0
80	50	Biased-84Hr-Anneal	5.8473	5.8873	0.04
81	50	Biased-84Hr-Anneal	5.8473	5.8873	0.04
100	0	CORRELATION	5.8473	5.8873	0.04
101	0	CORRELATION	5.8473	5.8873	0.04
102	0	CORRELATION	5.8473	5.8473	0
103	0	CORRELATION	5.7673	5.7673	0
104	0	CORRELATION	5.8073	5.8073	0

Test Statistics (ms)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.7673	5.8233	5.8473	0.035777	5.7673	5.8393	5.8873	0.052154	0	0.016	0.04	0.021909
20	5.8073	5.8673	6.0073	0.057349	5.8073	5.8673	6.0073	0.060369	-0.08	0	0.08	0.042164
30	5.8073	5.8633	5.9273	0.042999	5.8073	5.8713	5.9673	0.046952	-0.04	0.008	0.08	0.036757
50	5.7273	5.8433	5.9273	0.063805	5.7273	5.8673	5.9673	0.073636	-0.04	0.024	0.08	0.038644

Device Test: 22.3 LEVEL|SINK/SS_TR/4.5////@R_SS_DISCHARGE





Test Results (Lower Limit = 200.0, Upper Limit = 700.0 (Ω))

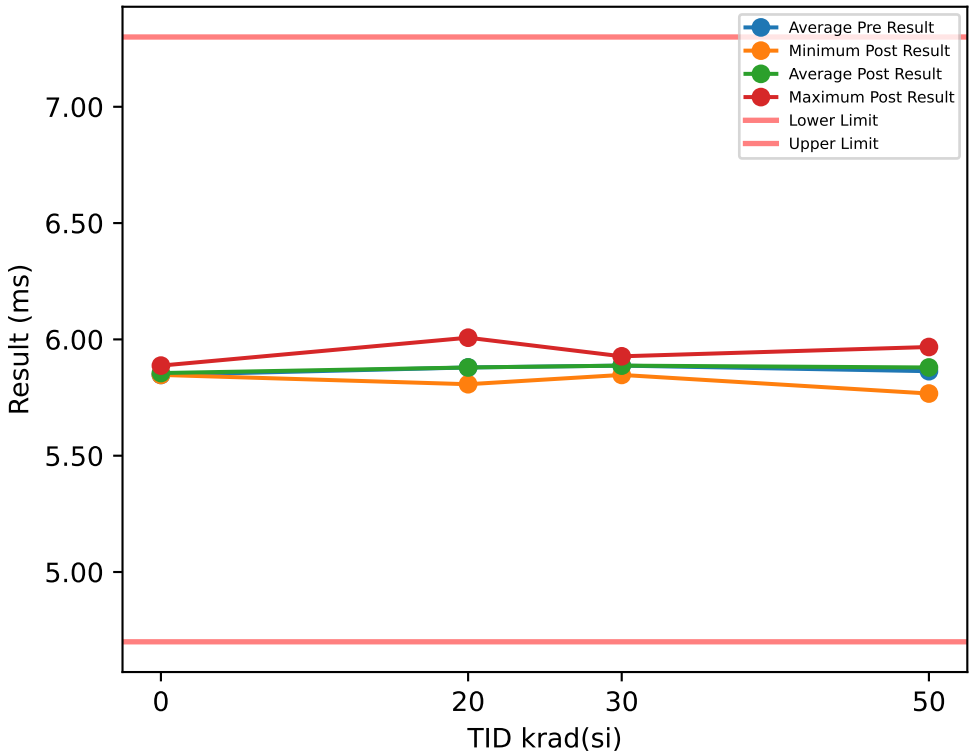
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	447.5	443.42	-4.0834
2	20	Biased	451.63	447.48	-4.1528
3	20	Biased	448.23	444.09	-4.1424
4	20	Biased	451.26	447.37	-3.8898
5	20	Biased	449.94	446.08	-3.8584
6	20	Unbiased	455.9	450.91	-4.996
7	20	Unbiased	452.48	447.69	-4.7852
8	20	Unbiased	456.13	451.21	-4.9281
9	20	Unbiased	451.36	446.41	-4.9505
10	20	Unbiased	450.99	446.31	-4.6793
11	30	Biased	451.55	446.56	-4.9926
12	30	Biased	450.13	445.47	-4.6554
13	30	Biased	453.42	448.34	-5.0878
14	30	Biased	452.94	448.2	-4.7452
15	30	Biased	454.67	450.16	-4.5113
16	30	Unbiased	452.1	446.14	-5.958
17	30	Unbiased	452.12	445.91	-6.2106
18	30	Unbiased	450.22	444.16	-6.0554
19	30	Unbiased	451.33	445.19	-6.1436
20	30	Unbiased	454.05	448.4	-5.6515
27	50	Unbiased	452.34	444.63	-7.717
28	50	Unbiased	454.04	446.09	-7.9491
29	50	Unbiased	452.36	444.56	-7.8067
30	50	Unbiased	450.89	443.22	-7.6654
31	50	Unbiased	452.8	445.37	-7.4252
77	50	Biased-84Hr-Anneal	448.59	443.57	-5.0139
78	50	Biased-84Hr-Anneal	446.25	441.32	-4.937
79	50	Biased-84Hr-Anneal	447.16	442.63	-4.5249
80	50	Biased-84Hr-Anneal	452.85	447.76	-5.0858
81	50	Biased-84Hr-Anneal	453.81	449.45	-4.3581
100	0	CORRELATION	453.7	452.4	-1.2956
101	0	CORRELATION	455.62	454.52	-1.1022
102	0	CORRELATION	449.61	448.83	-0.7793
103	0	CORRELATION	448.11	446.67	-1.4403
104	0	CORRELATION	447.8	446.7	-1.1071

Test Statistics (Ω)

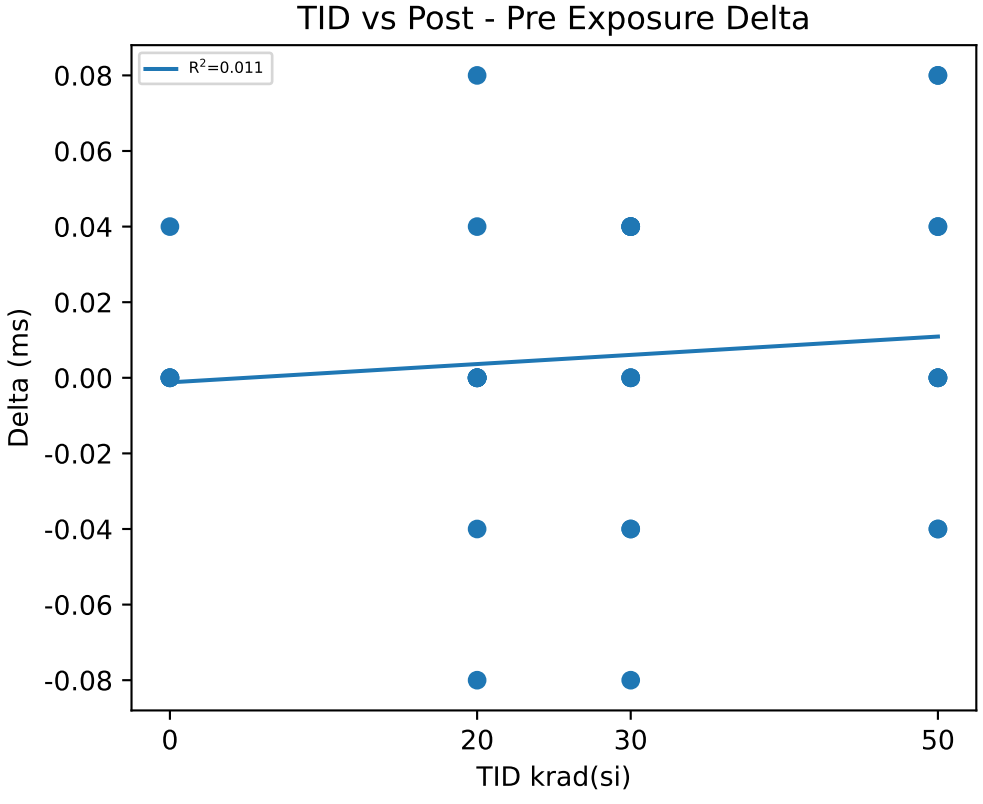
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	447.8	450.97	455.62	3.5038	446.67	449.82	454.52	3.5138	-1.4403	-1.1449	-0.7793	0.24844
20	447.5	451.54	456.13	2.8134	443.42	447.1	451.21	2.5092	-4.996	-4.4466	-3.8584	0.46226
30	450.13	452.25	454.67	1.5263	444.16	446.85	450.16	1.8478	-6.2106	-5.4011	-4.5113	0.67087
50	446.25	451.11	454.04	2.7988	441.32	444.86	449.45	2.4338	-7.9491	-6.2483	-4.3581	1.5638

Device Test: 22.6 TIMING|STARTUP/SS_TR/4.5////@T_SS_22NF

TID vs Result Stats



TID vs Post - Pre Exposure Delta



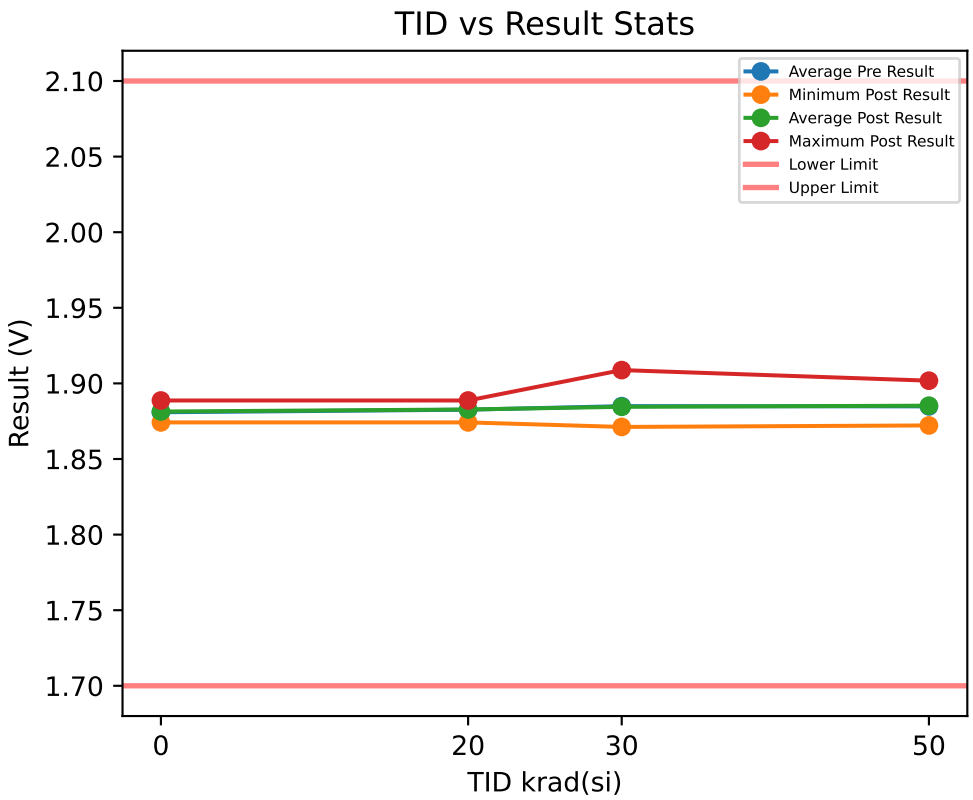
Test Results (Lower Limit = 4.7, Upper Limit = 7.3 (ms))

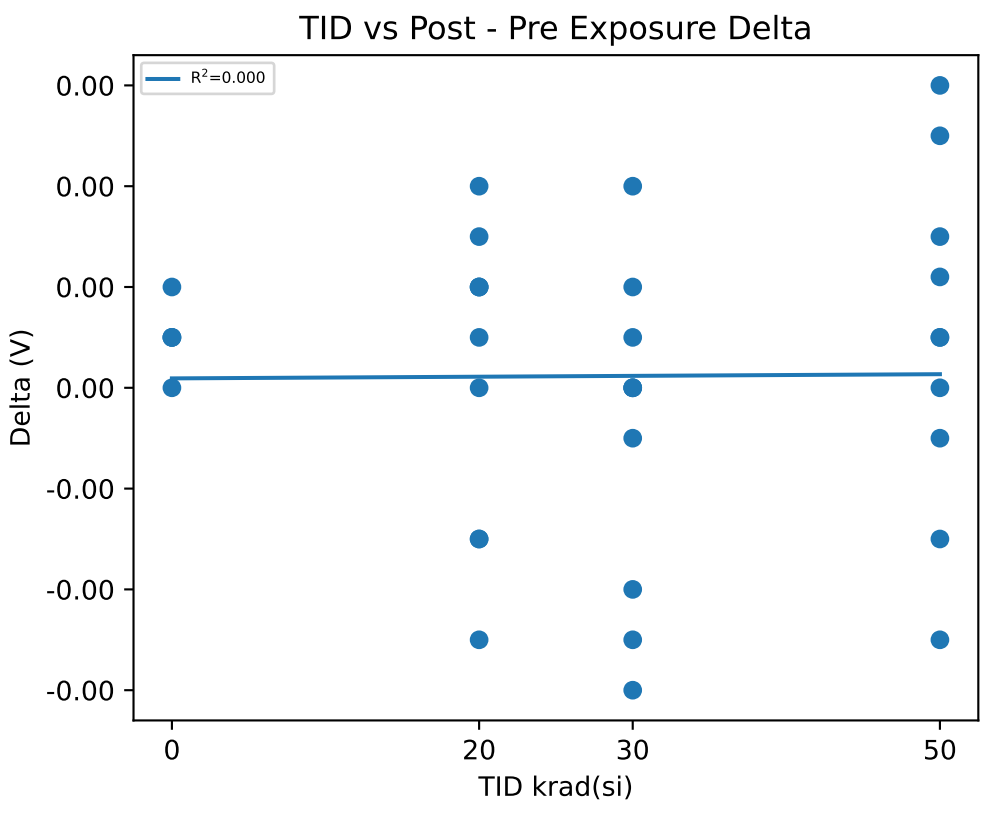
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	5.8073	5.8073	0
2	20	Biased	5.9273	5.9273	0
3	20	Biased	5.8073	5.8073	0
4	20	Biased	5.9673	6.0073	0.04
5	20	Biased	5.8473	5.9273	0.08
6	20	Unbiased	5.9273	5.8473	-0.08
7	20	Unbiased	5.8873	5.8873	0
8	20	Unbiased	5.8473	5.8073	-0.04
9	20	Unbiased	5.8873	5.8873	0
10	20	Unbiased	5.8873	5.8873	0
11	30	Biased	5.9273	5.9273	0
12	30	Biased	5.8873	5.8473	-0.04
13	30	Biased	5.8073	5.8473	0.04
14	30	Biased	5.8473	5.8873	0.04
15	30	Biased	5.8873	5.8873	0
16	30	Unbiased	5.9273	5.8473	-0.08
17	30	Unbiased	5.8473	5.8873	0.04
18	30	Unbiased	5.9673	5.9273	-0.04
19	30	Unbiased	5.8873	5.8873	0
20	30	Unbiased	5.8873	5.9273	0.04
27	50	Unbiased	5.9273	5.9673	0.04
28	50	Unbiased	5.8473	5.8073	-0.04
29	50	Unbiased	5.7673	5.8473	0.08
30	50	Unbiased	5.9273	5.9273	0
31	50	Unbiased	5.8473	5.8473	0
77	50	Biased-84Hr-Anneal	5.8873	5.9273	0.04
78	50	Biased-84Hr-Anneal	5.7673	5.7673	0
79	50	Biased-84Hr-Anneal	5.9273	5.8873	-0.04
80	50	Biased-84Hr-Anneal	5.8873	5.9673	0.08
81	50	Biased-84Hr-Anneal	5.8473	5.8473	0
100	0	CORRELATION	5.8473	5.8473	0
101	0	CORRELATION	5.8873	5.8873	0
102	0	CORRELATION	5.8473	5.8473	0
103	0	CORRELATION	5.8073	5.8473	0.04
104	0	CORRELATION	5.8473	5.8473	0

Test Statistics (ms)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.8073	5.8473	5.8873	0.028284	5.8473	5.8553	5.8873	0.017889	0	0.008	0.04	0.017889
20	5.8073	5.8793	5.9673	0.052662	5.8073	5.8793	6.0073	0.064773	-0.08	0	0.08	0.042164
30	5.8073	5.8873	5.9673	0.046188	5.8473	5.8873	5.9273	0.03266	-0.08	0	0.04	0.042164
50	5.7673	5.8633	5.9273	0.060222	5.7673	5.8793	5.9673	0.067462	-0.04	0.016	0.08	0.042999

Device Test: 22.9 LEVEL|RISE/COMP/5////@COMP_SHDN





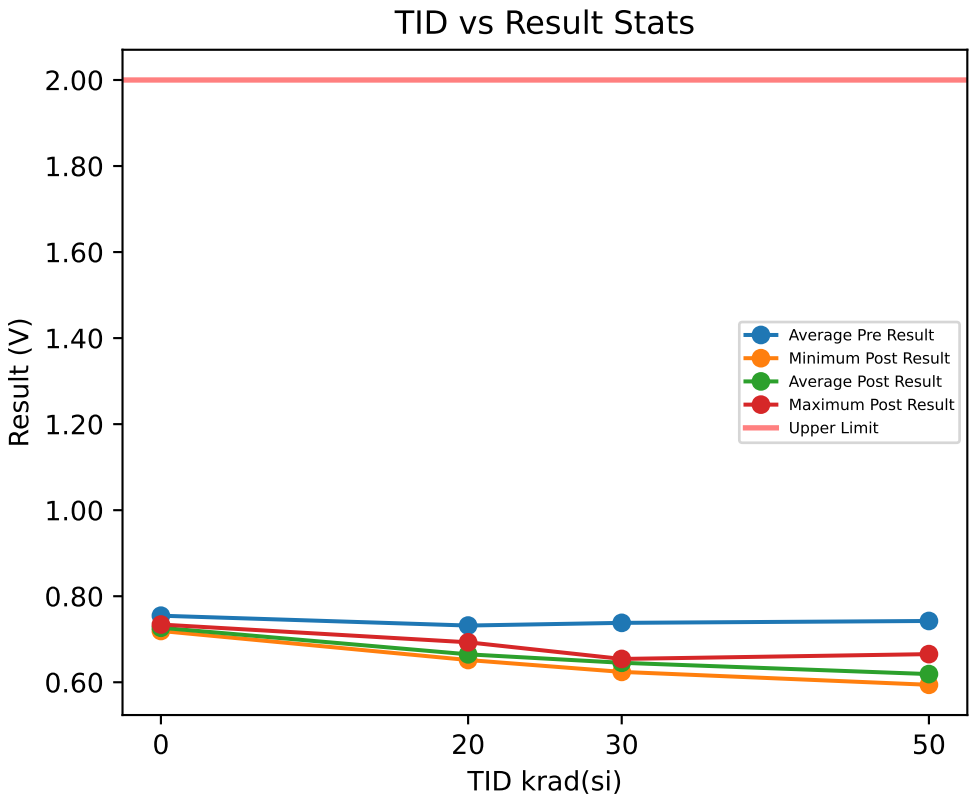
Test Results (Lower Limit = 1.7, Upper Limit = 2.1 (V))

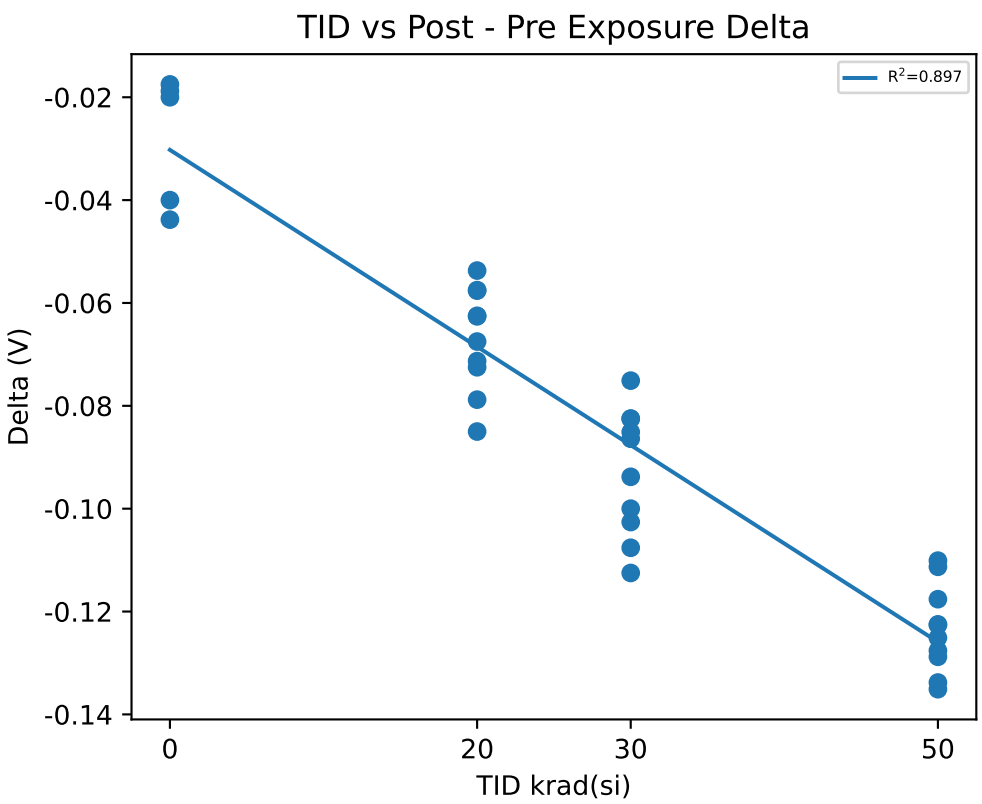
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.8842	1.8847	0.0005
2	20	Biased	1.8782	1.8792	0.001
3	20	Biased	1.8867	1.8852	-0.0015
4	20	Biased	1.8842	1.8842	0
5	20	Biased	1.8867	1.8887	0.002
6	20	Unbiased	1.8732	1.8742	0.001
7	20	Unbiased	1.8842	1.8857	0.0015
8	20	Unbiased	1.8812	1.8797	-0.0015
9	20	Unbiased	1.8867	1.8842	-0.0025
10	20	Unbiased	1.8807	1.8817	0.001
11	30	Biased	1.8942	1.8917	-0.0025
12	30	Biased	1.8882	1.8862	-0.002
13	30	Biased	1.9088	1.9088	0
14	30	Biased	1.8872	1.8842	-0.003
15	30	Biased	1.8832	1.8837	0.0005
16	30	Unbiased	1.8722	1.8717	-0.0005
17	30	Unbiased	1.8837	1.8857	0.002
18	30	Unbiased	1.8712	1.8712	0
19	30	Unbiased	1.8817	1.8817	0
20	30	Unbiased	1.8792	1.8802	0.001
27	50	Unbiased	1.8737	1.8722	-0.0015
28	50	Unbiased	1.8757	1.8787	0.003
29	50	Unbiased	1.8917	1.8942	0.0025
30	50	Unbiased	1.8827	1.8822	-0.0005
31	50	Unbiased	1.8772	1.8772	0
77	50	Biased-84Hr-Anneal	1.9007	1.9018	0.0011
78	50	Biased-84Hr-Anneal	1.8857	1.8872	0.0015
79	50	Biased-84Hr-Anneal	1.8877	1.8882	0.0005
80	50	Biased-84Hr-Anneal	1.8932	1.8937	0.0005
81	50	Biased-84Hr-Anneal	1.8797	1.8772	-0.0025
100	0	CORRELATION	1.8832	1.8837	0.0005
101	0	CORRELATION	1.8762	1.8767	0.0005
102	0	CORRELATION	1.8882	1.8887	0.0005
103	0	CORRELATION	1.8837	1.8837	0
104	0	CORRELATION	1.8732	1.8742	0.001

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	1.8732	1.8809	1.8882	0.0060787	1.8742	1.8814	1.8887	0.0058694	0	0.0005	0.001	0.00035355
20	1.8732	1.8826	1.8867	0.004364	1.8742	1.8828	1.8887	0.0041396	-0.0025	0.00015	0.002	0.0014916
30	1.8712	1.885	1.9088	0.010903	1.8712	1.8845	1.9088	0.010617	-0.003	-0.00045	0.002	0.001589
50	1.8737	1.8848	1.9007	0.0086564	1.8722	1.8853	1.9018	0.0093691	-0.0025	0.00046	0.003	0.0016946

Device Test: 23.1 VIN|VALID/PWRGD/0////@MIN_VIN_FOR_PWRGD_OUTPUT





Test Results (Upper Limit = 2.0 (V))

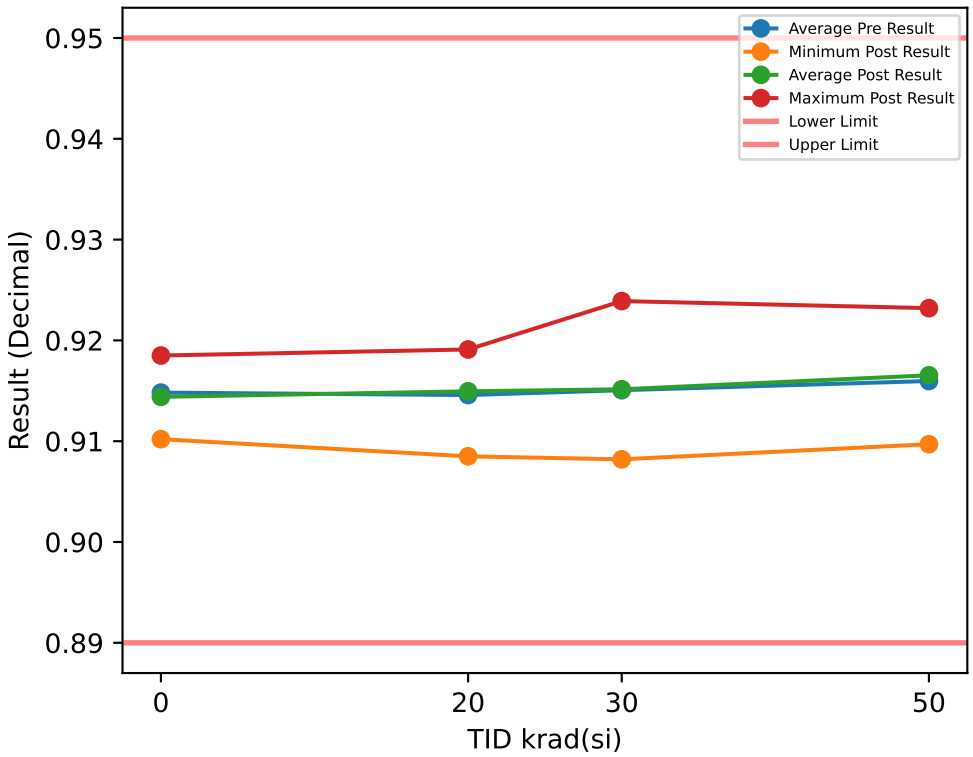
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.7442	0.6654	-0.0788
2	20	Biased	0.728	0.6654	-0.0626
3	20	Biased	0.7267	0.6542	-0.0725
4	20	Biased	0.7505	0.6929	-0.0576
5	20	Biased	0.743	0.6717	-0.0713
6	20	Unbiased	0.7192	0.6517	-0.0675
7	20	Unbiased	0.7154	0.6579	-0.0575
8	20	Unbiased	0.7179	0.6642	-0.0537
9	20	Unbiased	0.7392	0.6542	-0.085
10	20	Unbiased	0.7342	0.6717	-0.0625
11	30	Biased	0.7255	0.6391	-0.0864
12	30	Biased	0.7267	0.6241	-0.1026
13	30	Biased	0.7542	0.6542	-0.1
14	30	Biased	0.7367	0.6429	-0.0938
15	30	Biased	0.7142	0.6391	-0.0751
16	30	Unbiased	0.7342	0.6517	-0.0825
17	30	Unbiased	0.7617	0.6492	-0.1125
18	30	Unbiased	0.753	0.6454	-0.1076
19	30	Unbiased	0.738	0.6529	-0.0851
20	30	Unbiased	0.7367	0.6542	-0.0825
27	50	Unbiased	0.7292	0.6004	-0.1288
28	50	Unbiased	0.728	0.6029	-0.1251
29	50	Unbiased	0.7317	0.6041	-0.1276
30	50	Unbiased	0.7167	0.5941	-0.1226
31	50	Unbiased	0.7179	0.5954	-0.1225
77	50	Biased-84Hr-Anneal	0.8005	0.6654	-0.1351
78	50	Biased-84Hr-Anneal	0.7442	0.6329	-0.1113
79	50	Biased-84Hr-Anneal	0.743	0.6254	-0.1176
80	50	Biased-84Hr-Anneal	0.7642	0.6304	-0.1338
81	50	Biased-84Hr-Anneal	0.7492	0.6391	-0.1101
100	0	CORRELATION	0.7755	0.7317	-0.0438
101	0	CORRELATION	0.738	0.7192	-0.0188
102	0	CORRELATION	0.7405	0.7205	-0.02
103	0	CORRELATION	0.768	0.728	-0.04
104	0	CORRELATION	0.7517	0.7342	-0.0175

Test Statistics (V)

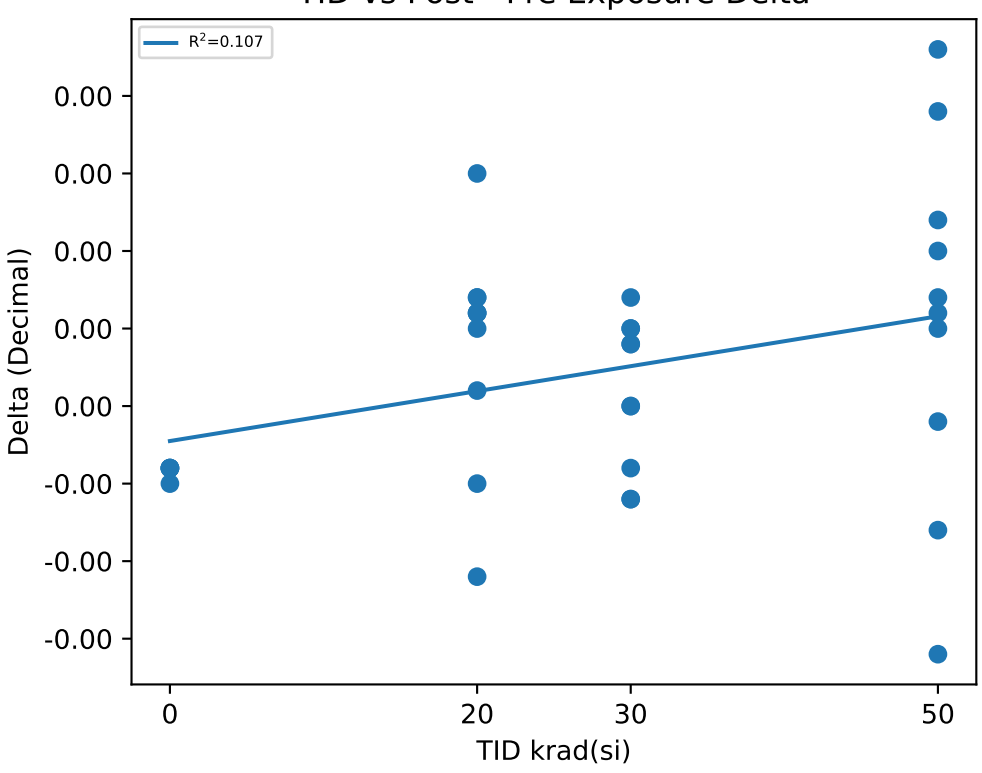
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.738	0.75474	0.7755	0.016576	0.7192	0.72672	0.7342	0.0066639	-0.0438	-0.02802	-0.0175	0.012772
20	0.7154	0.73183	0.7505	0.012251	0.6517	0.66493	0.6929	0.012155	-0.085	-0.0669	-0.0537	0.01004
30	0.7142	0.73809	0.7617	0.014595	0.6241	0.64528	0.6542	0.0094542	-0.1125	-0.09281	-0.0751	0.012391
50	0.7167	0.74246	0.8005	0.025072	0.5941	0.61901	0.6654	0.023393	-0.1351	-0.12345	-0.1101	0.0085186

Device Test: 23.10 THRESHOLD|FALL/PWRGD/5////@VSENSE_VTH_FALLING_FAULT

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 0.89, Upper Limit = 0.95 (Decimal))

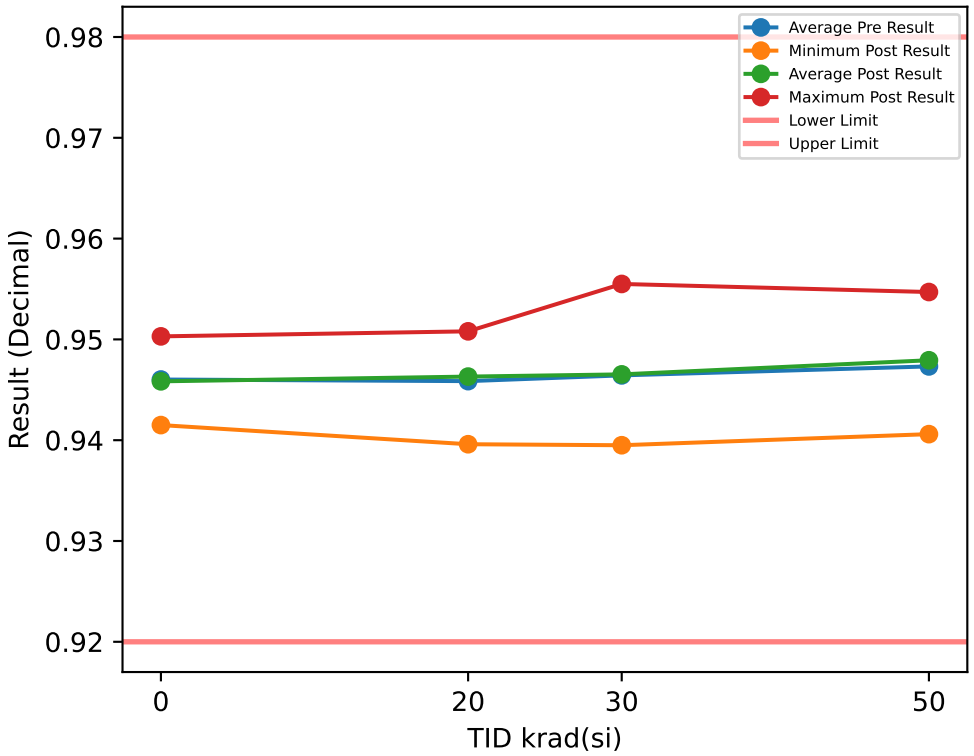
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.9134	0.9149	0.0015
2	20	Biased	0.9176	0.9165	-0.0011
3	20	Biased	0.9084	0.9085	0.0001
4	20	Biased	0.914	0.9146	0.0006
5	20	Biased	0.9184	0.9191	0.0007
6	20	Unbiased	0.915	0.9156	0.0006
7	20	Unbiased	0.9145	0.915	0.0005
8	20	Unbiased	0.912	0.9115	-0.0005
9	20	Unbiased	0.9145	0.9152	0.0007
10	20	Unbiased	0.918	0.9186	0.0006
11	30	Biased	0.9234	0.9239	0.0005
12	30	Biased	0.9165	0.9165	0
13	30	Biased	0.9162	0.9167	0.0005
14	30	Biased	0.9124	0.9118	-0.0006
15	30	Biased	0.913	0.9134	0.0004
16	30	Unbiased	0.9088	0.9082	-0.0006
17	30	Unbiased	0.9182	0.9178	-0.0004
18	30	Unbiased	0.9183	0.9183	0
19	30	Unbiased	0.9119	0.9126	0.0007
20	30	Unbiased	0.9119	0.9123	0.0004
27	50	Unbiased	0.9182	0.9187	0.0005
28	50	Unbiased	0.9091	0.9098	0.0007
29	50	Unbiased	0.9195	0.9207	0.0012
30	50	Unbiased	0.9183	0.9193	0.001
31	50	Unbiased	0.9209	0.9232	0.0023
77	50	Biased-84Hr-Anneal	0.9131	0.9123	-0.0008
78	50	Biased-84Hr-Anneal	0.9091	0.9097	0.0006
79	50	Biased-84Hr-Anneal	0.9119	0.9103	-0.0016
80	50	Biased-84Hr-Anneal	0.9189	0.9208	0.0019
81	50	Biased-84Hr-Anneal	0.9207	0.9206	-0.0001
100	0	CORRELATION	0.9179	0.9175	-0.0004
101	0	CORRELATION	0.9113	0.9109	-0.0004
102	0	CORRELATION	0.9106	0.9102	-0.0004
103	0	CORRELATION	0.9153	0.9149	-0.0004
104	0	CORRELATION	0.919	0.9185	-0.0005

Test Statistics (Decimal)

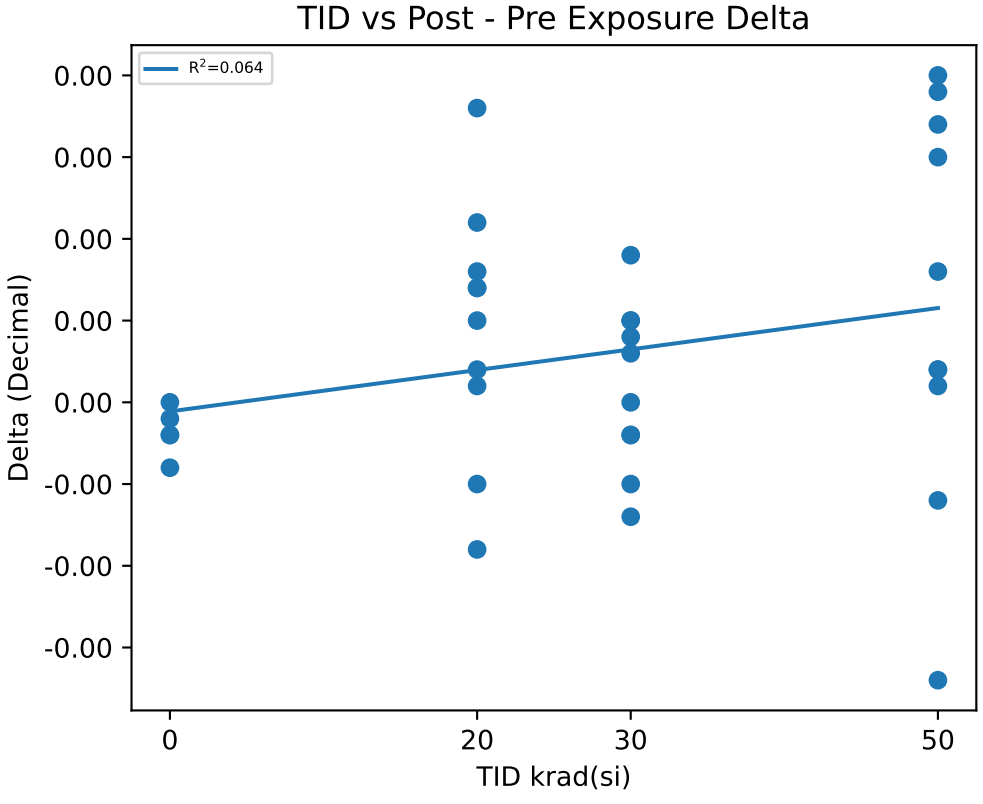
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.9106	0.91482	0.919	0.0037877	0.9102	0.9144	0.9185	0.0037603	-0.0005	-0.00042	-0.0004	4.4721e-05
20	0.9084	0.91458	0.9184	0.0030217	0.9085	0.91495	0.9191	0.0031103	-0.0011	0.00037	0.0015	0.00071964
30	0.9088	0.91506	0.9234	0.0042657	0.9082	0.91515	0.9239	0.0044089	-0.0006	9e-05	0.0007	0.00048408
50	0.9091	0.91597	0.9209	0.0046824	0.9097	0.91654	0.9232	0.0053511	-0.0016	0.00057	0.0023	0.0011738

Device Test: 23.11 THRESHOLD|RISE/PWRGD/5////@VSENSE_VTH_RISING_GOOD

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 0.92, Upper Limit = 0.98 (Decimal))

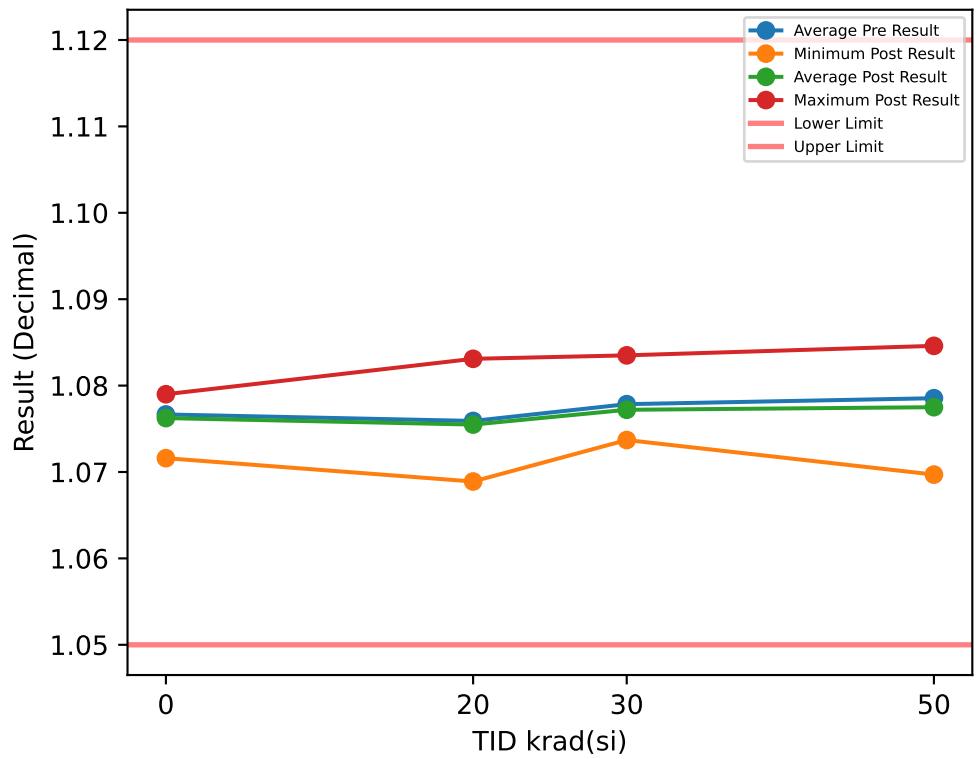
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.9446	0.9464	0.0018
2	20	Biased	0.9487	0.9478	-0.0009
3	20	Biased	0.9395	0.9396	0.0001
4	20	Biased	0.9455	0.9457	0.0002
5	20	Biased	0.9497	0.9508	0.0011
6	20	Unbiased	0.9461	0.9466	0.0005
7	20	Unbiased	0.946	0.9467	0.0007
8	20	Unbiased	0.9431	0.9426	-0.0005
9	20	Unbiased	0.9458	0.9465	0.0007
10	20	Unbiased	0.9496	0.9504	0.0008
11	30	Biased	0.9552	0.9555	0.0003
12	30	Biased	0.9478	0.9476	-0.0002
13	30	Biased	0.9475	0.948	0.0005
14	30	Biased	0.9436	0.9429	-0.0007
15	30	Biased	0.9443	0.9447	0.0004
16	30	Unbiased	0.94	0.9395	-0.0005
17	30	Unbiased	0.9497	0.9495	-0.0002
18	30	Unbiased	0.9498	0.9498	0
19	30	Unbiased	0.9432	0.9441	0.0009
20	30	Unbiased	0.9432	0.9437	0.0005
27	50	Unbiased	0.95	0.9502	0.0002
28	50	Unbiased	0.9404	0.9406	0.0002
29	50	Unbiased	0.9506	0.9523	0.0017
30	50	Unbiased	0.9496	0.9511	0.0015
31	50	Unbiased	0.9528	0.9547	0.0019
77	50	Biased-84Hr-Anneal	0.9442	0.9436	-0.0006
78	50	Biased-84Hr-Anneal	0.9401	0.9409	0.0008
79	50	Biased-84Hr-Anneal	0.943	0.9413	-0.0017
80	50	Biased-84Hr-Anneal	0.9502	0.9522	0.002
81	50	Biased-84Hr-Anneal	0.9523	0.9524	0.0001
100	0	CORRELATION	0.9492	0.9488	-0.0004
101	0	CORRELATION	0.9424	0.9424	0
102	0	CORRELATION	0.9416	0.9415	-0.0001
103	0	CORRELATION	0.9464	0.9462	-0.0002
104	0	CORRELATION	0.9505	0.9503	-0.0002

Test Statistics (Decimal)

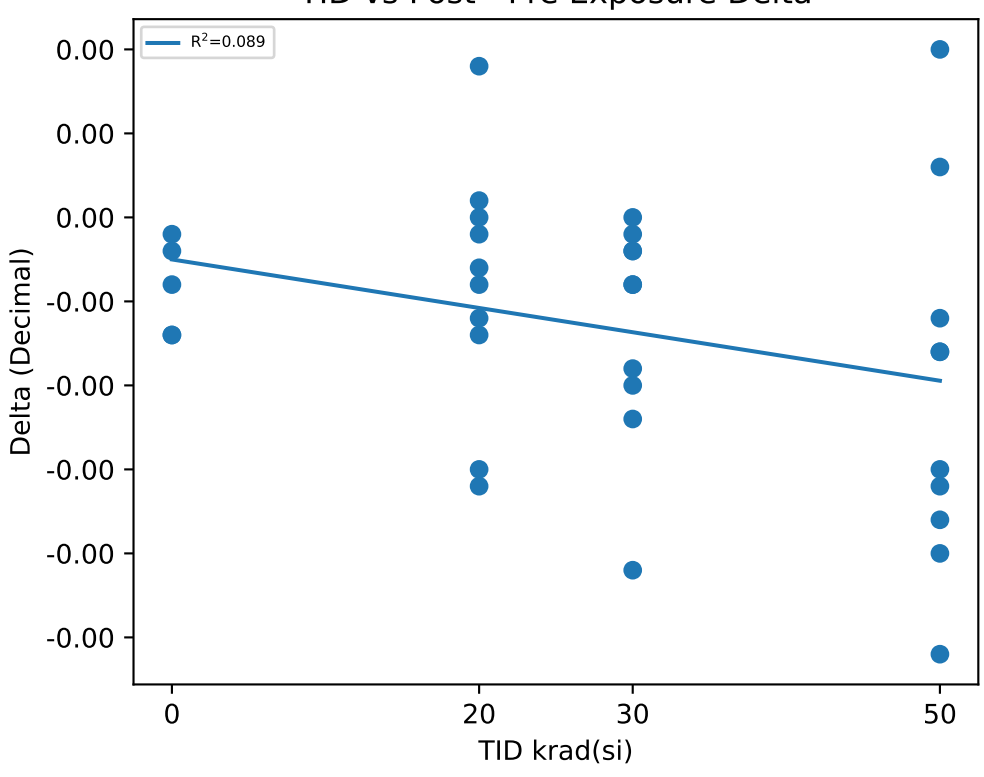
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.9416	0.94602	0.9505	0.0039676	0.9415	0.94584	0.9503	0.0038553	-0.0004	-0.00018	0	0.00014832
20	0.9395	0.94586	0.9497	0.0031031	0.9396	0.94631	0.9508	0.0033091	-0.0009	0.00045	0.0018	0.00077496
30	0.94	0.94643	0.9552	0.0044315	0.9395	0.94653	0.9555	0.004511	-0.0007	0.0001	0.0009	0.00050332
50	0.9401	0.94732	0.9528	0.0048839	0.9406	0.94793	0.9547	0.0056194	-0.0017	0.00061	0.002	0.0012023

Device Test: 23.12 THRESHOLD|RISE/PWRGD/5////@VSENSE_VTH_RISING_FAULT

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 1.05, Upper Limit = 1.12 (Decimal))

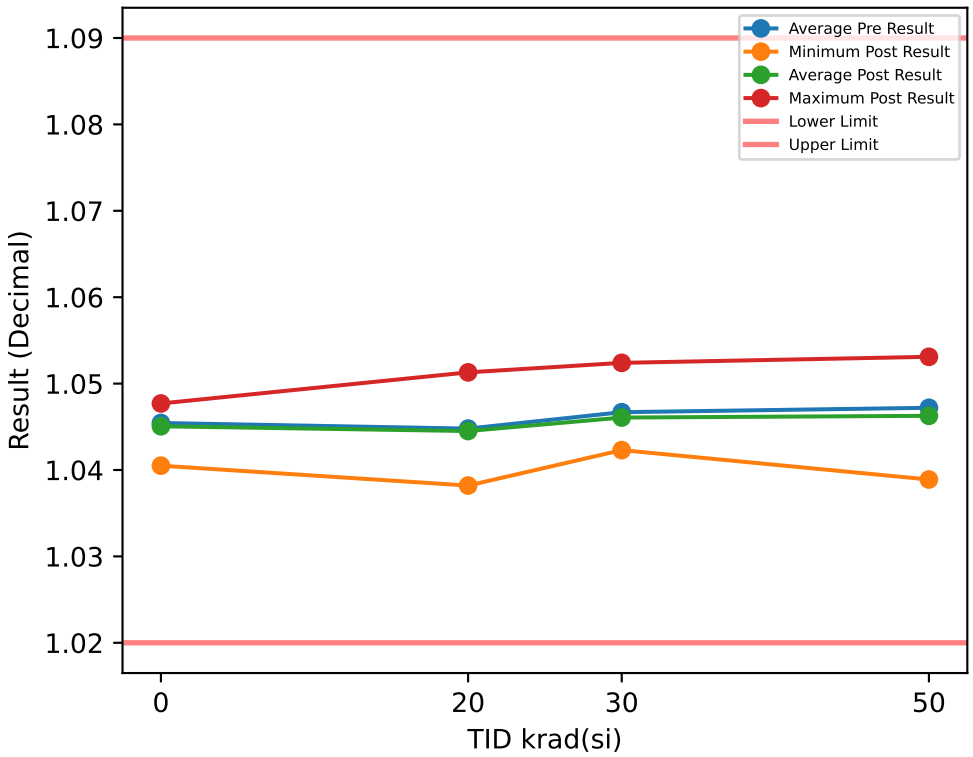
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0759	1.0752	-0.0007
2	20	Biased	1.077	1.0755	-0.0015
3	20	Biased	1.0692	1.0689	-0.0003
4	20	Biased	1.0758	1.0758	0
5	20	Biased	1.0778	1.0779	0.0001
6	20	Unbiased	1.0753	1.0747	-0.0006
7	20	Unbiased	1.0783	1.0779	-0.0004
8	20	Unbiased	1.0712	1.0696	-0.0016
9	20	Unbiased	1.0754	1.0763	0.0009
10	20	Unbiased	1.0832	1.0831	-0.0001
11	30	Biased	1.0837	1.0835	-0.0002
12	30	Biased	1.0797	1.0785	-0.0012
13	30	Biased	1.0821	1.0817	-0.0004
14	30	Biased	1.076	1.0739	-0.0021
15	30	Biased	1.0739	1.0737	-0.0002
16	30	Unbiased	1.0747	1.0738	-0.0009
17	30	Unbiased	1.0799	1.0799	0
18	30	Unbiased	1.0779	1.0775	-0.0004
19	30	Unbiased	1.0741	1.074	-0.0001
20	30	Unbiased	1.0765	1.0755	-0.001
27	50	Unbiased	1.0809	1.0793	-0.0016
28	50	Unbiased	1.0726	1.072	-0.0006
29	50	Unbiased	1.0828	1.0831	0.0003
30	50	Unbiased	1.0812	1.0804	-0.0008
31	50	Unbiased	1.0836	1.0846	0.001
77	50	Biased-84Hr-Anneal	1.0741	1.0726	-0.0015
78	50	Biased-84Hr-Anneal	1.0718	1.07	-0.0018
79	50	Biased-84Hr-Anneal	1.0717	1.0697	-0.002
80	50	Biased-84Hr-Anneal	1.0825	1.0817	-0.0008
81	50	Biased-84Hr-Anneal	1.0842	1.0816	-0.0026
100	0	CORRELATION	1.0794	1.079	-0.0004
101	0	CORRELATION	1.0733	1.0731	-0.0002
102	0	CORRELATION	1.0717	1.0716	-0.0001
103	0	CORRELATION	1.0797	1.079	-0.0007
104	0	CORRELATION	1.0792	1.0785	-0.0007

Test Statistics (Decimal)

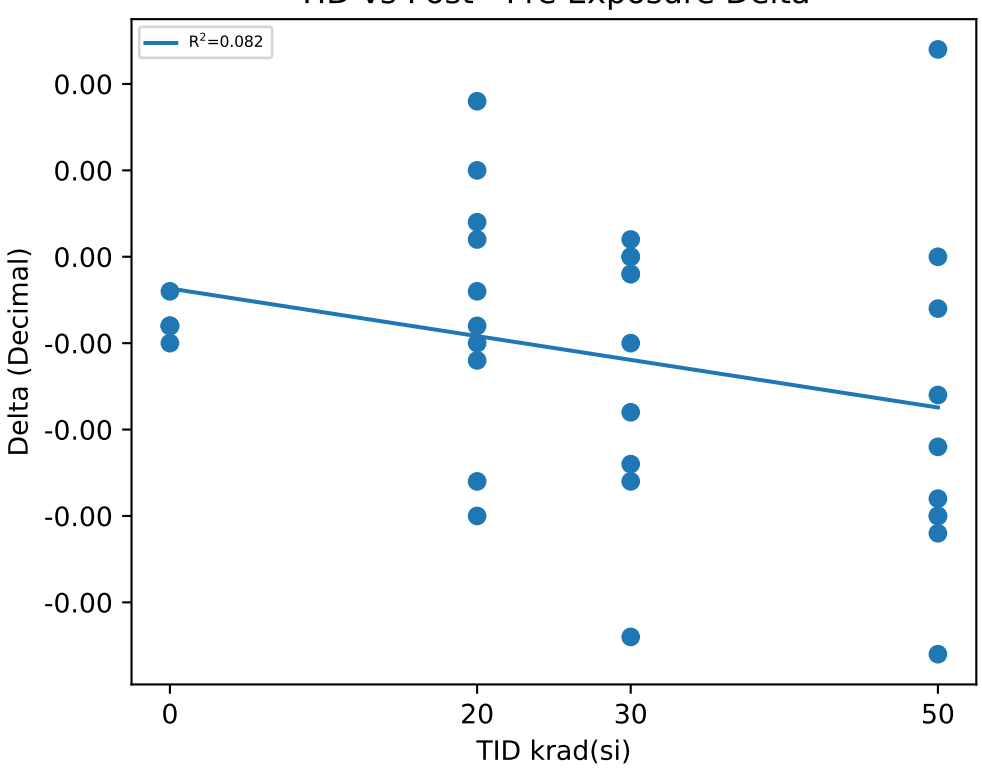
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.0717	1.0767	1.0797	0.0038436	1.0716	1.0762	1.079	0.0035962	-0.0007	-0.00042	-0.0001	0.00027749
20	1.0692	1.0759	1.0832	0.003822	1.0689	1.0755	1.0831	0.0040703	-0.0016	-0.00042	0.0009	0.00074356
30	1.0739	1.0779	1.0837	0.0034115	1.0737	1.0772	1.0835	0.0036031	-0.0021	-0.00065	0	0.00065362
50	1.0717	1.0785	1.0842	0.0052844	1.0697	1.0775	1.0846	0.005766	-0.0026	-0.00104	0.001	0.0010916

Device Test: 23.13 THRESHOLD|FALL/PWRGD/5////@VSENSE_VTH_FALLING_GOOD

TID vs Result Stats



TID vs Post - Pre Exposure Delta



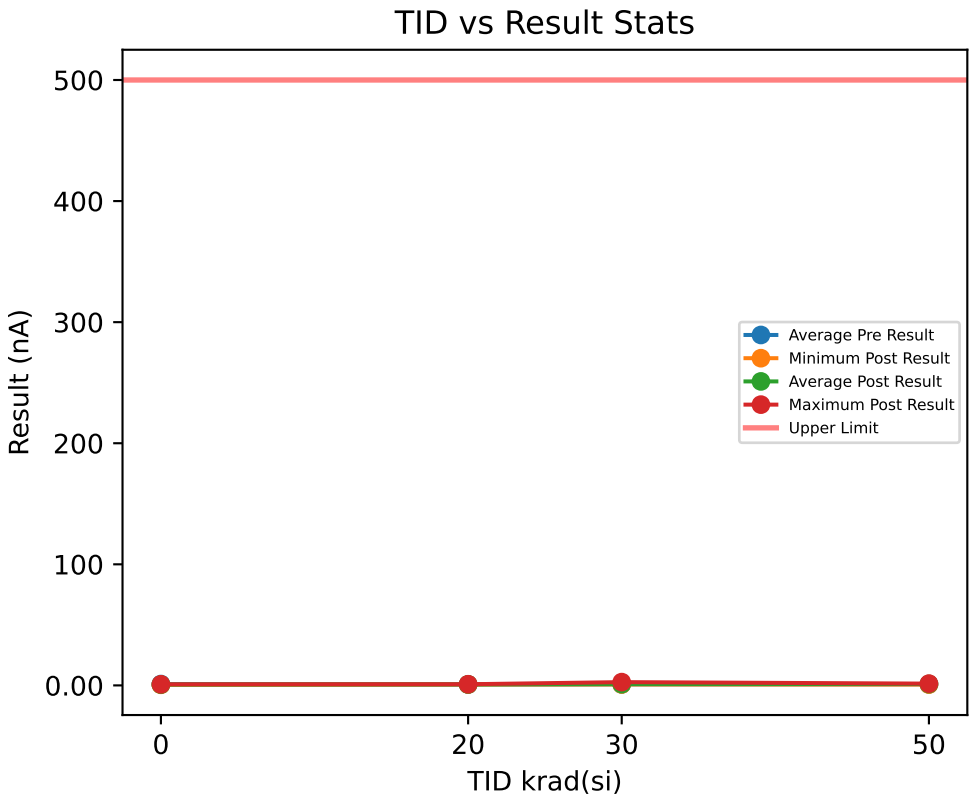
Test Results (Lower Limit = 1.02, Upper Limit = 1.09 (Decimal))

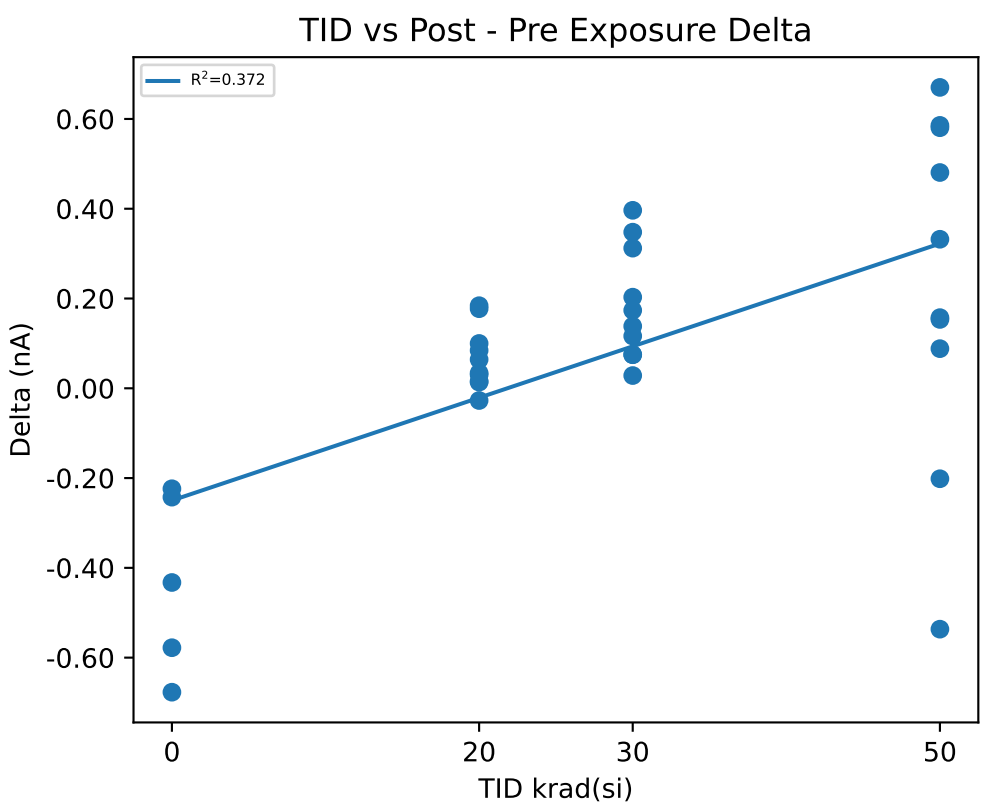
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0446	1.0441	-0.0005
2	20	Biased	1.0461	1.0446	-0.0015
3	20	Biased	1.038	1.0382	0.0002
4	20	Biased	1.0448	1.0449	0.0001
5	20	Biased	1.0463	1.0468	0.0005
6	20	Unbiased	1.0445	1.0441	-0.0004
7	20	Unbiased	1.0468	1.0466	-0.0002
8	20	Unbiased	1.0402	1.0389	-0.0013
9	20	Unbiased	1.0447	1.0456	0.0009
10	20	Unbiased	1.0519	1.0513	-0.0006
11	30	Biased	1.0525	1.0524	-0.0001
12	30	Biased	1.0482	1.047	-0.0012
13	30	Biased	1.0509	1.0504	-0.0005
14	30	Biased	1.0452	1.043	-0.0022
15	30	Biased	1.0428	1.0428	0
16	30	Unbiased	1.0436	1.0423	-0.0013
17	30	Unbiased	1.0487	1.0487	0
18	30	Unbiased	1.0468	1.0467	-0.0001
19	30	Unbiased	1.0428	1.0429	0.0001
20	30	Unbiased	1.0454	1.0445	-0.0009
27	50	Unbiased	1.0496	1.0482	-0.0014
28	50	Unbiased	1.0413	1.041	-0.0003
29	50	Unbiased	1.0517	1.0517	0
30	50	Unbiased	1.0499	1.0488	-0.0011
31	50	Unbiased	1.0519	1.0531	0.0012
77	50	Biased-84Hr-Anneal	1.043	1.0415	-0.0015
78	50	Biased-84Hr-Anneal	1.0405	1.0389	-0.0016
79	50	Biased-84Hr-Anneal	1.0404	1.0389	-0.0015
80	50	Biased-84Hr-Anneal	1.0512	1.0504	-0.0008
81	50	Biased-84Hr-Anneal	1.0525	1.0502	-0.0023
100	0	CORRELATION	1.0481	1.0477	-0.0004
101	0	CORRELATION	1.0422	1.0418	-0.0004
102	0	CORRELATION	1.0407	1.0405	-0.0002
103	0	CORRELATION	1.0482	1.0477	-0.0005
104	0	CORRELATION	1.048	1.0476	-0.0004

Test Statistics (Decimal)

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	1.0407	1.0454	1.0482	0.0036814	1.0405	1.0451	1.0477	0.003599	-0.0005	-0.00038	-0.0002	0.00010954
20	1.038	1.0448	1.0519	0.00374	1.0382	1.0445	1.0513	0.0037814	-0.0015	-0.00028	0.0009	0.000751
30	1.0428	1.0467	1.0525	0.0033584	1.0423	1.0461	1.0524	0.0035565	-0.0022	-0.00062	0.0001	0.00076129
50	1.0404	1.0472	1.0525	0.0051968	1.0389	1.0463	1.0531	0.005557	-0.0023	-0.00093	0.0012	0.0010023

Device Test: 23.14 LEAK|MAX/PWRGD/5////@PWRGD_OUTPUT_HIGH_LEAK





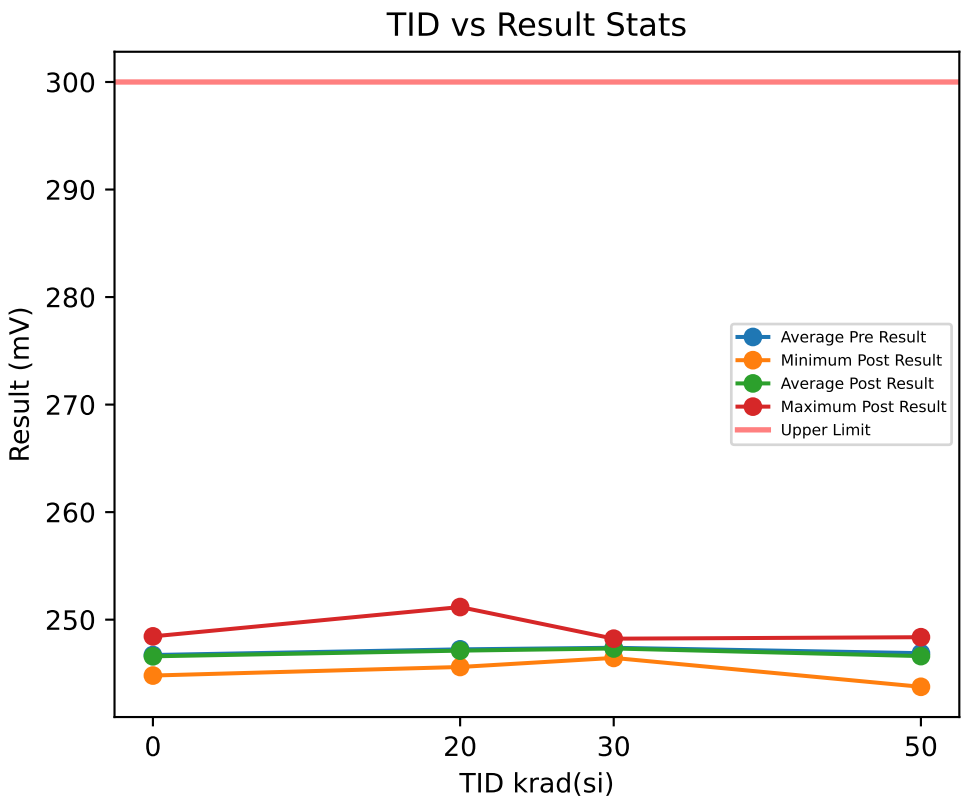
Test Results (Upper Limit = 500.0 (nA))

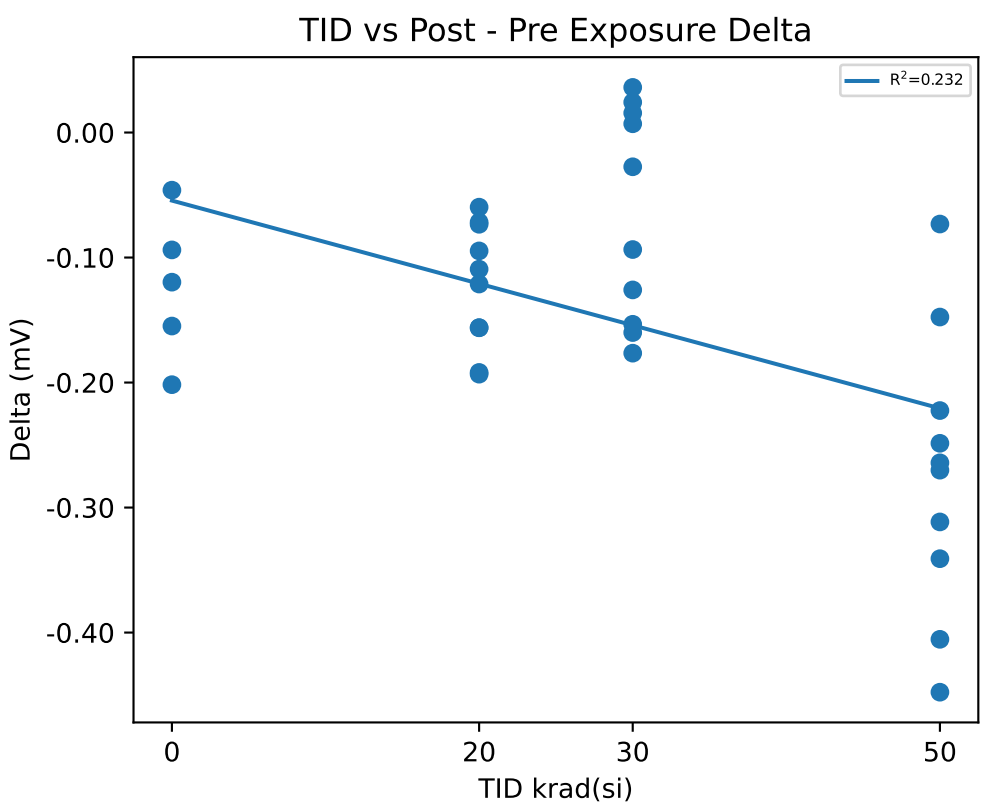
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.7794	0.8095	0.0301
2	20	Biased	0.6973	0.8813	0.184
3	20	Biased	0.7128	0.7265	0.0137
4	20	Biased	0.8002	0.8845	0.0843
5	20	Biased	0.6954	0.7596	0.0642
6	20	Unbiased	0.816	0.7888	-0.0272
7	20	Unbiased	0.8782	0.8938	0.0156
8	20	Unbiased	0.7034	0.8033	0.0999
9	20	Unbiased	0.7763	0.9536	0.1773
10	20	Unbiased	0.8285	0.8626	0.0341
11	30	Biased	0.6378	0.95	0.3122
12	30	Biased	0.7315	0.8479	0.1164
13	30	Biased	0.5648	0.9126	0.3478
14	30	Biased	0.6942	0.769	0.0748
15	30	Biased	0.6847	0.823	0.1383
16	30	Unbiased	0.6378	0.8408	0.203
17	30	Unbiased	0.7888	0.9625	0.1737
18	30	Unbiased	0.8972	0.9256	0.0284
19	30	Unbiased	2.6358	2.7107	0.0749
20	30	Unbiased	0.5941	0.9906	0.3965
27	50	Unbiased	0.7159	1.1966	0.4807
28	50	Unbiased	0.6815	1.3518	0.6703
29	50	Unbiased	0.7514	1.3371	0.5857
30	50	Unbiased	0.8909	1.4714	0.5805
31	50	Unbiased	0.8189	0.9723	0.1534
77	50	Biased-84Hr-Anneal	1.2134	0.6768	-0.5366
78	50	Biased-84Hr-Anneal	0.7649	0.8532	0.0883
79	50	Biased-84Hr-Anneal	0.955	1.1124	0.1574
80	50	Biased-84Hr-Anneal	1.4818	1.2803	-0.2015
81	50	Biased-84Hr-Anneal	0.8522	1.1842	0.332
100	0	CORRELATION	1.3507	0.6737	-0.677
101	0	CORRELATION	0.7992	0.5567	-0.2425
102	0	CORRELATION	0.93	0.4974	-0.4326
103	0	CORRELATION	1.46	0.8821	-0.5779
104	0	CORRELATION	0.9771	0.7533	-0.2238

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	0.7992	1.1034	1.46	0.28587	0.4974	0.67264	0.8821	0.15373	-0.677	-0.43076	-0.2238	0.20035
20	0.6954	0.76875	0.8782	0.063969	0.7265	0.83635	0.9536	0.070006	-0.0272	0.0676	0.184	0.069954
30	0.5648	0.88667	2.6358	0.62219	0.769	1.0733	2.7107	0.57957	0.0284	0.1866	0.3965	0.12628
50	0.6815	0.91259	1.4818	0.25145	0.6768	1.1436	1.4714	0.24584	-0.5366	0.23102	0.6703	0.3832

Device Test: 23.15 VOL|2mA/PWRGD/5////@PWRGD_OUTPUT_LOW





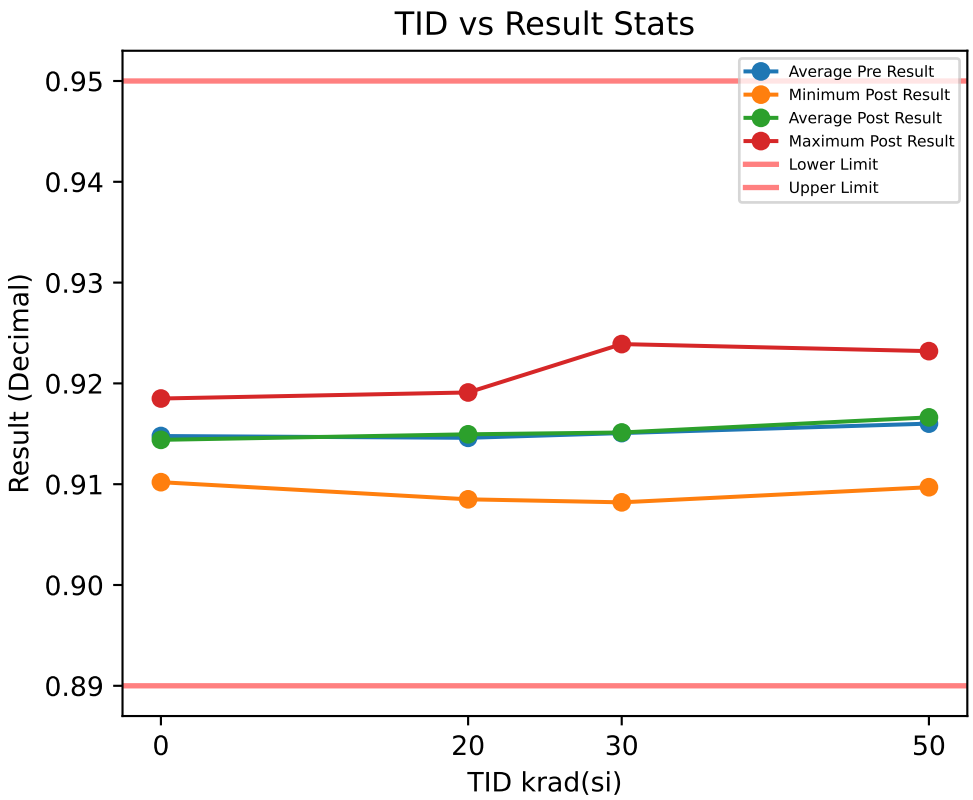
Test Results (Upper Limit = 300.0 (mV))

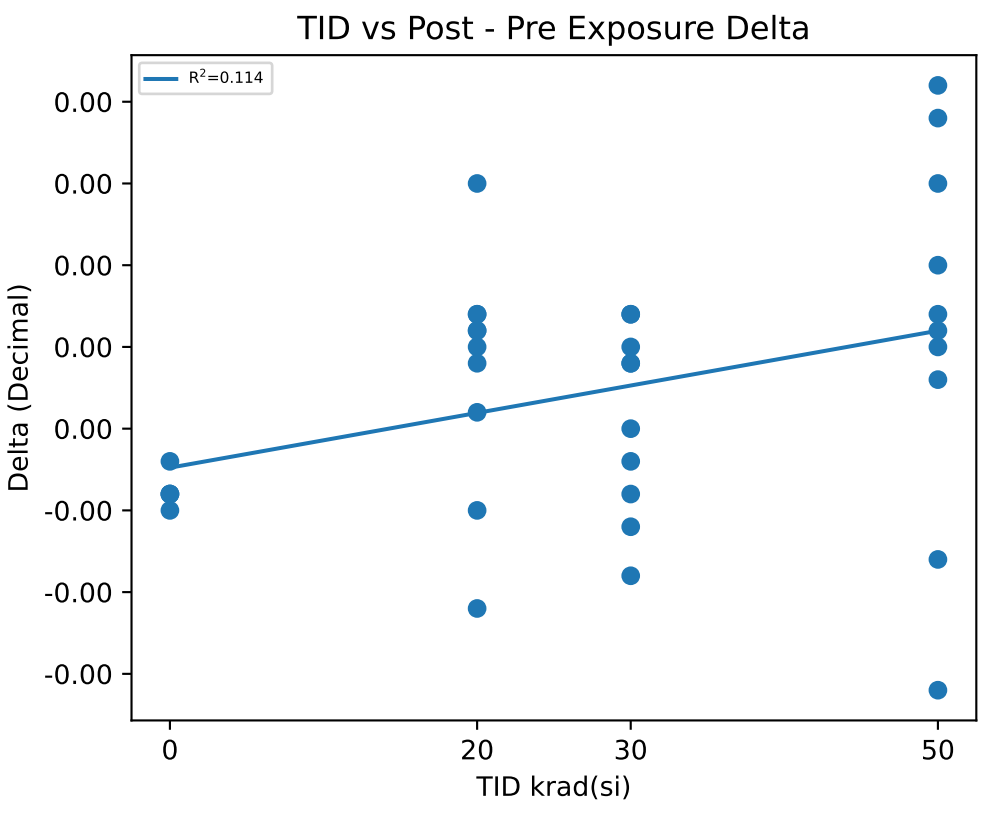
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	245.79	245.6	-0.1919
2	20	Biased	247.76	247.7	-0.0597
3	20	Biased	246.25	246.18	-0.0734
4	20	Biased	251.25	251.17	-0.0717
5	20	Biased	247.13	247.01	-0.1212
6	20	Unbiased	247.63	247.54	-0.0947
7	20	Unbiased	246.54	246.43	-0.1093
8	20	Unbiased	247.01	246.86	-0.1561
9	20	Unbiased	246.06	245.9	-0.1562
10	20	Unbiased	246.98	246.79	-0.1933
11	30	Biased	247.27	247.29	0.0242
12	30	Biased	247.25	247.09	-0.16
13	30	Biased	246.62	246.44	-0.1765
14	30	Biased	247.28	247.12	-0.1534
15	30	Biased	247.11	247.15	0.0361
16	30	Unbiased	247.56	247.57	0.007
17	30	Unbiased	247.24	247.22	-0.0274
18	30	Unbiased	248.2	248.07	-0.1259
19	30	Unbiased	247.11	247.02	-0.0936
20	30	Unbiased	248.22	248.23	0.0156
27	50	Unbiased	246.66	246.51	-0.1476
28	50	Unbiased	247.59	247.37	-0.2224
29	50	Unbiased	246.46	246.19	-0.2701
30	50	Unbiased	246.39	246.04	-0.3409
31	50	Unbiased	247.5	247.43	-0.0732
77	50	Biased-84Hr-Anneal	248.68	248.37	-0.3115
78	50	Biased-84Hr-Anneal	244	243.76	-0.2486
79	50	Biased-84Hr-Anneal	246.23	245.78	-0.4477
80	50	Biased-84Hr-Anneal	248.16	247.76	-0.4054
81	50	Biased-84Hr-Anneal	247.16	246.9	-0.2642
100	0	CORRELATION	248.49	248.45	-0.0461
101	0	CORRELATION	248.19	248.03	-0.1548
102	0	CORRELATION	245.98	245.86	-0.1197
103	0	CORRELATION	245.9	245.81	-0.0939
104	0	CORRELATION	245	244.8	-0.2017

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	245	246.71	248.49	1.5385	244.8	246.59	248.45	1.5715	-0.2017	-0.12324	-0.0461	0.05911
20	245.79	247.24	251.25	1.548	245.6	247.12	251.17	1.5741	-0.1933	-0.12275	-0.0597	0.049416
30	246.62	247.39	248.22	0.49199	246.44	247.32	248.23	0.52169	-0.1765	-0.06539	0.0361	0.085029
50	244	246.88	248.68	1.2918	243.76	246.61	248.37	1.2943	-0.4477	-0.27316	-0.0732	0.11207

Device Test: 23.17 THRESHOLD|FALL/PWRGD/12////@VSENSE_VTH_FALLING_FAULT





Test Results (Lower Limit = 0.89, Upper Limit = 0.95 (Decimal))

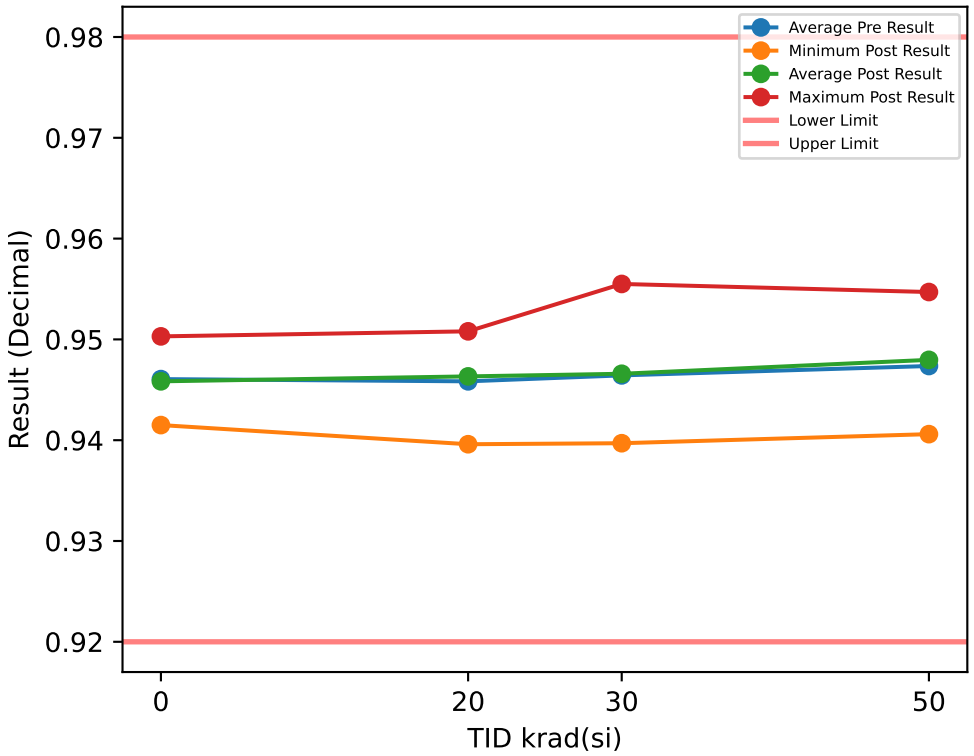
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.9134	0.9149	0.0015
2	20	Biased	0.9176	0.9165	-0.0011
3	20	Biased	0.9084	0.9085	0.0001
4	20	Biased	0.9142	0.9146	0.0004
5	20	Biased	0.9184	0.9191	0.0007
6	20	Unbiased	0.915	0.9156	0.0006
7	20	Unbiased	0.9145	0.915	0.0005
8	20	Unbiased	0.912	0.9115	-0.0005
9	20	Unbiased	0.9145	0.9152	0.0007
10	20	Unbiased	0.918	0.9186	0.0006
11	30	Biased	0.9232	0.9239	0.0007
12	30	Biased	0.9165	0.9163	-0.0002
13	30	Biased	0.9162	0.9167	0.0005
14	30	Biased	0.9124	0.9118	-0.0006
15	30	Biased	0.913	0.9134	0.0004
16	30	Unbiased	0.9091	0.9082	-0.0009
17	30	Unbiased	0.9182	0.9178	-0.0004
18	30	Unbiased	0.9183	0.9183	0
19	30	Unbiased	0.9119	0.9126	0.0007
20	30	Unbiased	0.9119	0.9123	0.0004
27	50	Unbiased	0.9182	0.9187	0.0005
28	50	Unbiased	0.9091	0.9098	0.0007
29	50	Unbiased	0.9197	0.9207	0.001
30	50	Unbiased	0.9183	0.9198	0.0015
31	50	Unbiased	0.9211	0.9232	0.0021
77	50	Biased-84Hr-Anneal	0.9131	0.9123	-0.0008
78	50	Biased-84Hr-Anneal	0.9091	0.9097	0.0006
79	50	Biased-84Hr-Anneal	0.9119	0.9103	-0.0016
80	50	Biased-84Hr-Anneal	0.9189	0.9208	0.0019
81	50	Biased-84Hr-Anneal	0.9207	0.921	0.0003
100	0	CORRELATION	0.9177	0.9175	-0.0002
101	0	CORRELATION	0.9113	0.9109	-0.0004
102	0	CORRELATION	0.9106	0.9102	-0.0004
103	0	CORRELATION	0.9153	0.9149	-0.0004
104	0	CORRELATION	0.919	0.9185	-0.0005

Test Statistics (Decimal)

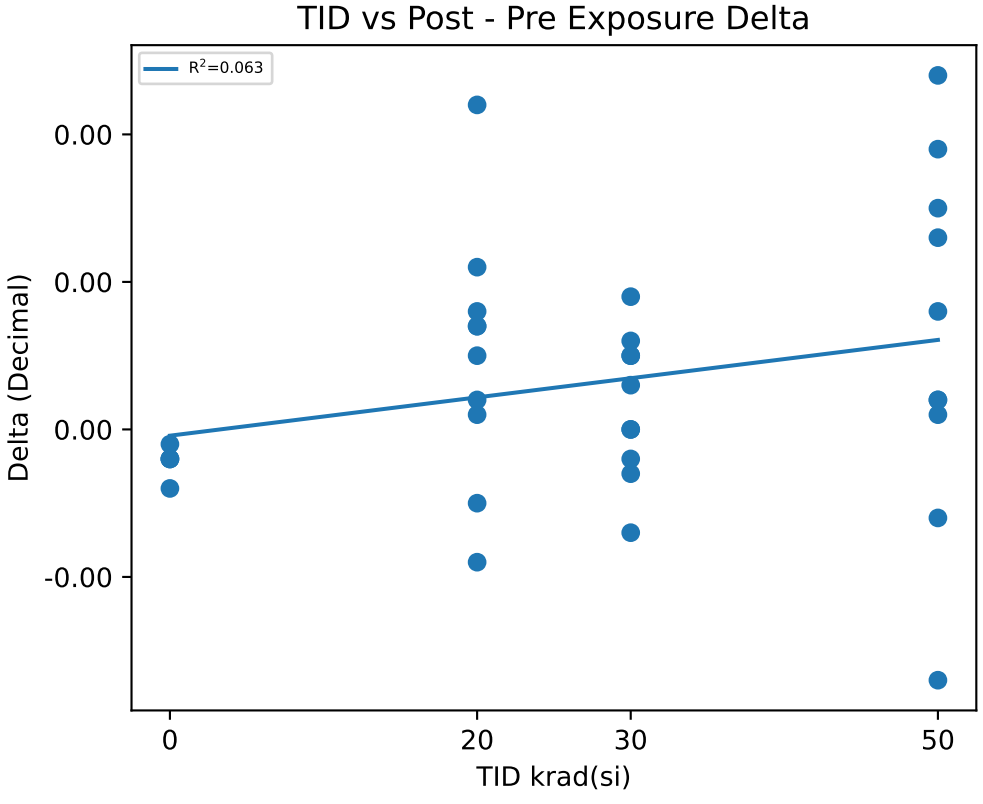
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.9106	0.91478	0.919	0.0037479	0.9102	0.9144	0.9185	0.0037603	-0.0005	-0.00038	-0.0002	0.00010954
20	0.9084	0.9146	0.9184	0.0030181	0.9085	0.91495	0.9191	0.0031103	-0.0011	0.00035	0.0015	0.00071531
30	0.9091	0.91507	0.9232	0.004174	0.9082	0.91513	0.9239	0.0044025	-0.0009	6e-05	0.0007	0.00056608
50	0.9091	0.91601	0.9211	0.0047231	0.9097	0.91663	0.9232	0.0054164	-0.0016	0.00062	0.0021	0.0011458

Device Test: 23.18 THRESHOLD|RISE/PWRGD/12////@VSENSE_VTH_RISING_GOOD

TID vs Result Stats



TID vs Post - Pre Exposure Delta



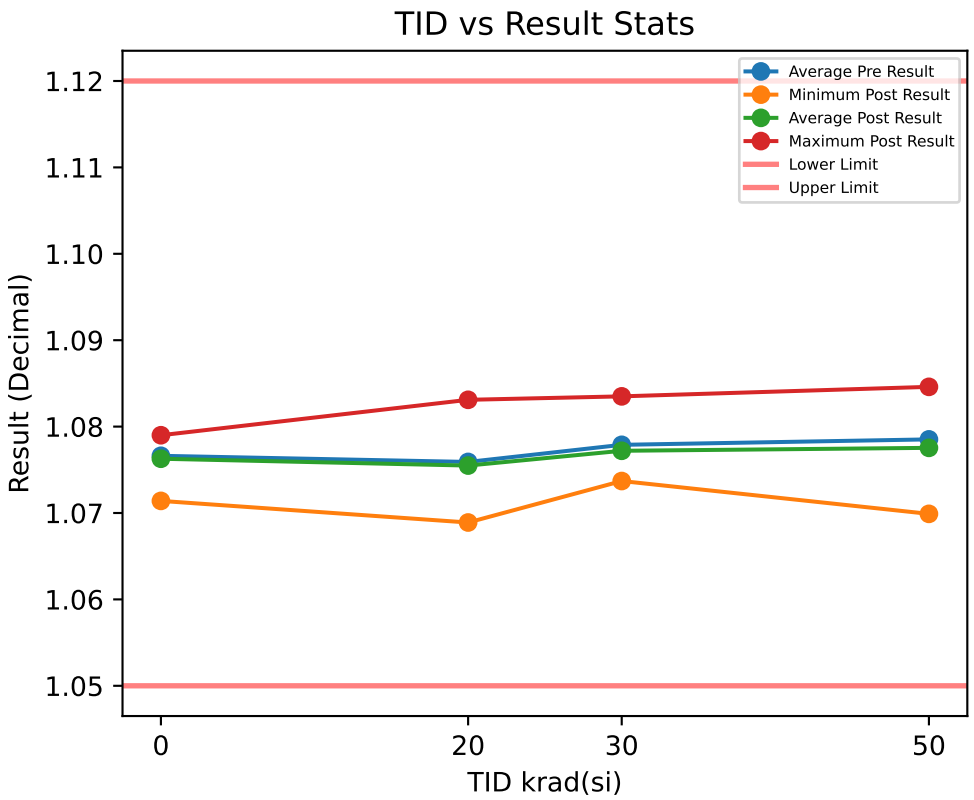
Test Results (Lower Limit = 0.92, Upper Limit = 0.98 (Decimal))

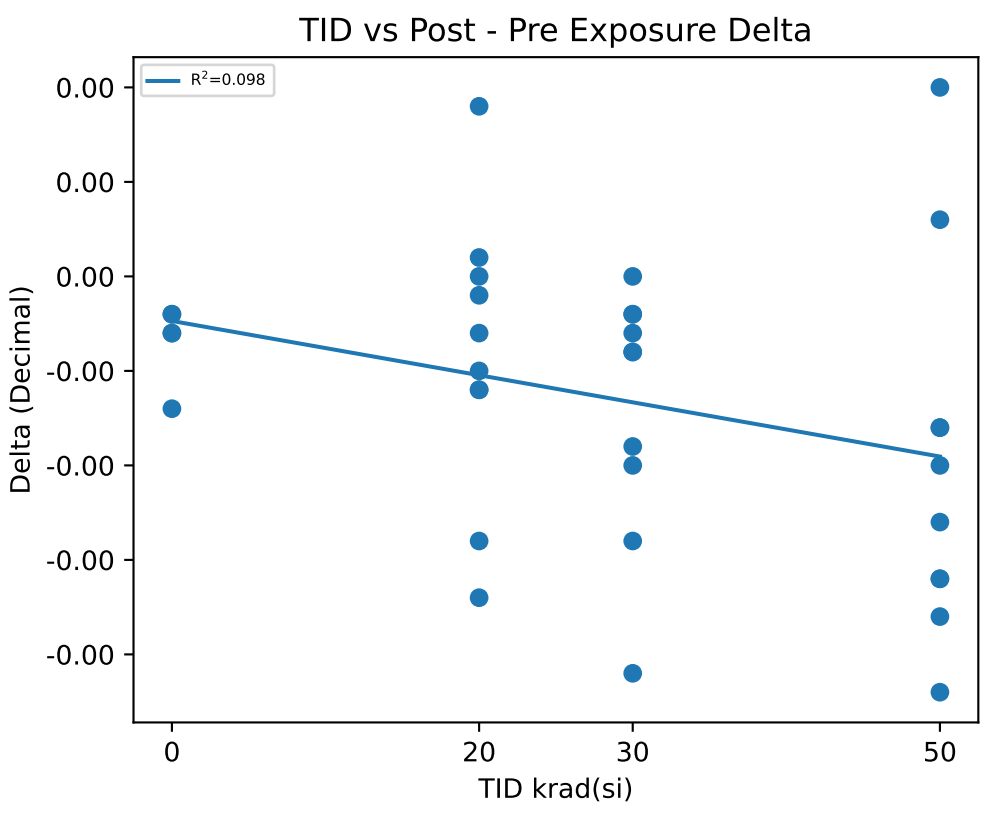
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.9444	0.9466	0.0022
2	20	Biased	0.9487	0.9478	-0.0009
3	20	Biased	0.9395	0.9396	0.0001
4	20	Biased	0.9455	0.9457	0.0002
5	20	Biased	0.9497	0.9508	0.0011
6	20	Unbiased	0.9461	0.9466	0.0005
7	20	Unbiased	0.946	0.9467	0.0007
8	20	Unbiased	0.9431	0.9426	-0.0005
9	20	Unbiased	0.9458	0.9465	0.0007
10	20	Unbiased	0.9496	0.9504	0.0008
11	30	Biased	0.9552	0.9555	0.0003
12	30	Biased	0.9478	0.9478	0
13	30	Biased	0.9477	0.9482	0.0005
14	30	Biased	0.9436	0.9429	-0.0007
15	30	Biased	0.9441	0.9447	0.0006
16	30	Unbiased	0.94	0.9397	-0.0003
17	30	Unbiased	0.9497	0.9495	-0.0002
18	30	Unbiased	0.9498	0.9498	0
19	30	Unbiased	0.9432	0.9441	0.0009
20	30	Unbiased	0.9432	0.9437	0.0005
27	50	Unbiased	0.95	0.9502	0.0002
28	50	Unbiased	0.9404	0.9406	0.0002
29	50	Unbiased	0.951	0.9523	0.0013
30	50	Unbiased	0.9496	0.9511	0.0015
31	50	Unbiased	0.9528	0.9547	0.0019
77	50	Biased-84Hr-Anneal	0.9442	0.9436	-0.0006
78	50	Biased-84Hr-Anneal	0.9401	0.9409	0.0008
79	50	Biased-84Hr-Anneal	0.943	0.9413	-0.0017
80	50	Biased-84Hr-Anneal	0.9502	0.9526	0.0024
81	50	Biased-84Hr-Anneal	0.9523	0.9524	0.0001
100	0	CORRELATION	0.949	0.9488	-0.0002
101	0	CORRELATION	0.9426	0.9424	-0.0002
102	0	CORRELATION	0.9416	0.9415	-0.0001
103	0	CORRELATION	0.9466	0.9462	-0.0004
104	0	CORRELATION	0.9505	0.9503	-0.0002

Test Statistics (Decimal)

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	0.9416	0.94606	0.9505	0.0038895	0.9415	0.94584	0.9503	0.0038553	-0.0004	-0.00022	-0.0001	0.00010954
20	0.9395	0.94584	0.9497	0.0031128	0.9396	0.94633	0.9508	0.0033103	-0.0009	0.00049	0.0022	0.00085823
30	0.94	0.94643	0.9552	0.0044485	0.9397	0.94659	0.9555	0.0044899	-0.0007	0.00016	0.0009	0.0004858
50	0.9401	0.94736	0.9528	0.0049153	0.9406	0.94797	0.9547	0.0056545	-0.0017	0.00061	0.0024	0.0012279

Device Test: 23.19 THRESHOLD|RISE/PWRGD/12////@VSENSE_VTH_RISING_FAULT





Test Results (Lower Limit = 1.05, Upper Limit = 1.12 (Decimal))

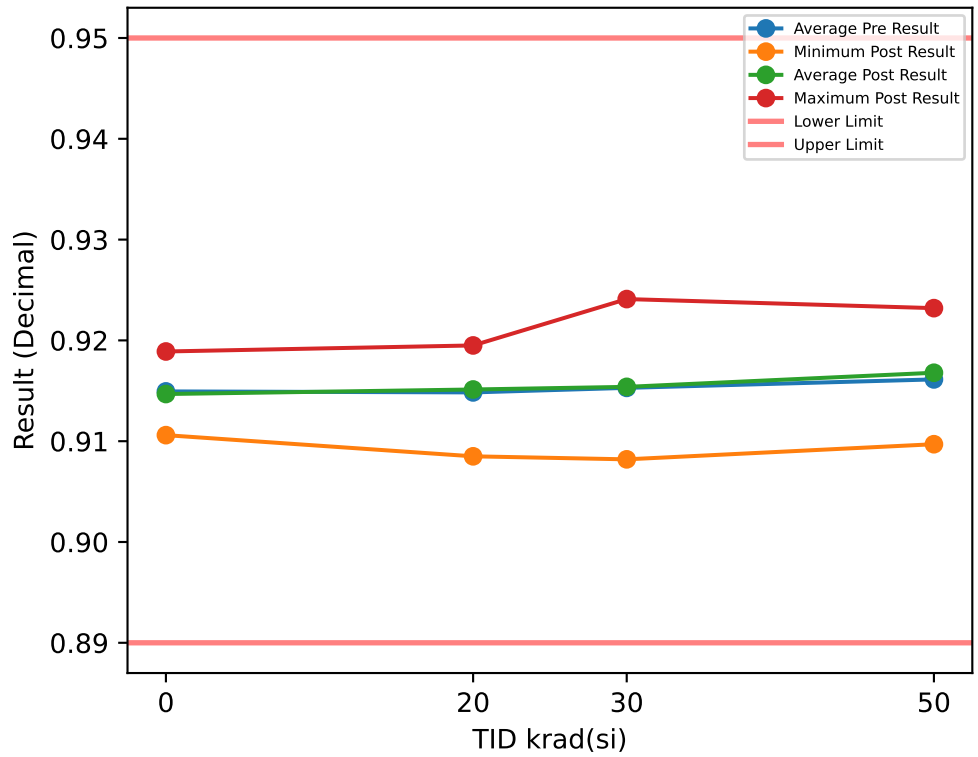
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0757	1.0752	-0.0005
2	20	Biased	1.077	1.0753	-0.0017
3	20	Biased	1.0692	1.0689	-0.0003
4	20	Biased	1.0758	1.0758	0
5	20	Biased	1.0778	1.0779	0.0001
6	20	Unbiased	1.0753	1.0747	-0.0006
7	20	Unbiased	1.0785	1.0779	-0.0006
8	20	Unbiased	1.0712	1.0698	-0.0014
9	20	Unbiased	1.0754	1.0763	0.0009
10	20	Unbiased	1.0832	1.0831	-0.0001
11	30	Biased	1.0837	1.0835	-0.0002
12	30	Biased	1.0799	1.0785	-0.0014
13	30	Biased	1.0821	1.0819	-0.0002
14	30	Biased	1.076	1.0739	-0.0021
15	30	Biased	1.0741	1.0737	-0.0004
16	30	Unbiased	1.0747	1.0738	-0.0009
17	30	Unbiased	1.0799	1.0799	0
18	30	Unbiased	1.0779	1.0775	-0.0004
19	30	Unbiased	1.0741	1.0738	-0.0003
20	30	Unbiased	1.0765	1.0755	-0.001
27	50	Unbiased	1.0809	1.0793	-0.0016
28	50	Unbiased	1.0728	1.0718	-0.001
29	50	Unbiased	1.0828	1.0831	0.0003
30	50	Unbiased	1.0812	1.0804	-0.0008
31	50	Unbiased	1.0836	1.0846	0.001
77	50	Biased-84Hr-Anneal	1.0741	1.0728	-0.0013
78	50	Biased-84Hr-Anneal	1.0716	1.07	-0.0016
79	50	Biased-84Hr-Anneal	1.0717	1.0699	-0.0018
80	50	Biased-84Hr-Anneal	1.0825	1.0817	-0.0008
81	50	Biased-84Hr-Anneal	1.084	1.0818	-0.0022
100	0	CORRELATION	1.0792	1.079	-0.0002
101	0	CORRELATION	1.0733	1.0731	-0.0002
102	0	CORRELATION	1.0717	1.0714	-0.0003
103	0	CORRELATION	1.0797	1.079	-0.0007
104	0	CORRELATION	1.0792	1.0789	-0.0003

Test Statistics (Decimal)

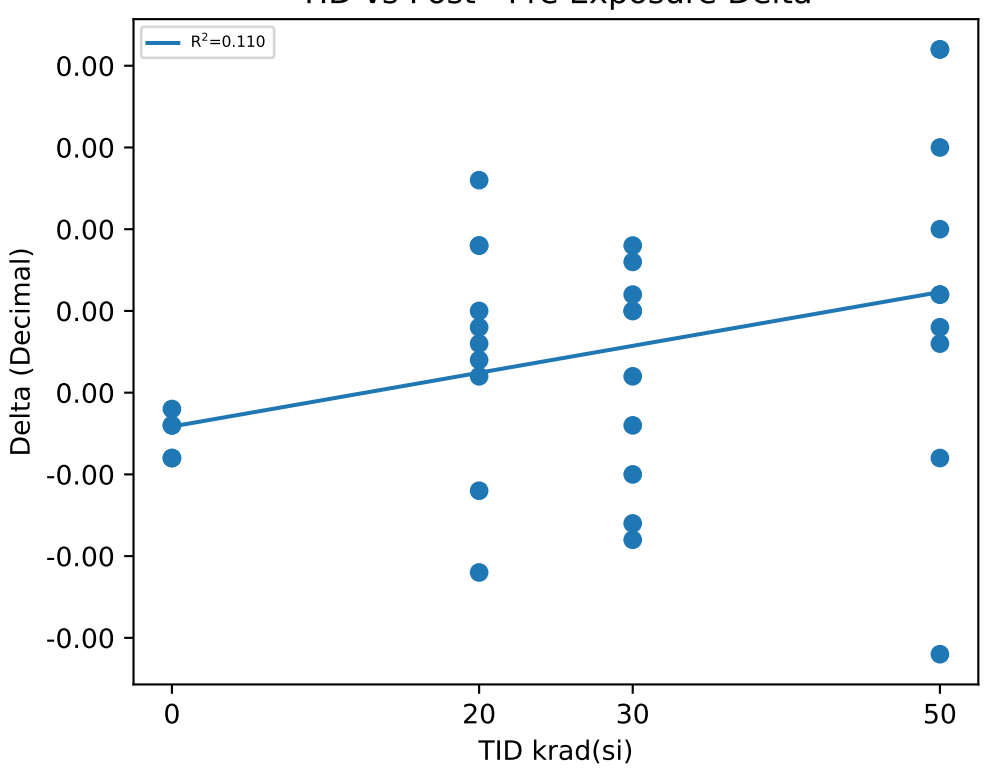
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.0717	1.0766	1.0797	0.0038088	1.0714	1.0763	1.079	0.0037279	-0.0007	-0.00034	-0.0002	0.00020736
20	1.0692	1.0759	1.0832	0.0038371	1.0689	1.0755	1.0831	0.0040391	-0.0017	-0.00042	0.0009	0.00074356
30	1.0741	1.0779	1.0837	0.0033988	1.0737	1.0772	1.0835	0.0036515	-0.0021	-0.00069	0	0.00065904
50	1.0716	1.0785	1.084	0.0052651	1.0699	1.0775	1.0846	0.0057554	-0.0022	-0.00098	0.001	0.0009807

Device Test: 23.2 THRESHOLD|FALL/PWRGD/4.5////@VSENSE_VTH_FALLING_FAULT

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 0.89, Upper Limit = 0.95 (Decimal))

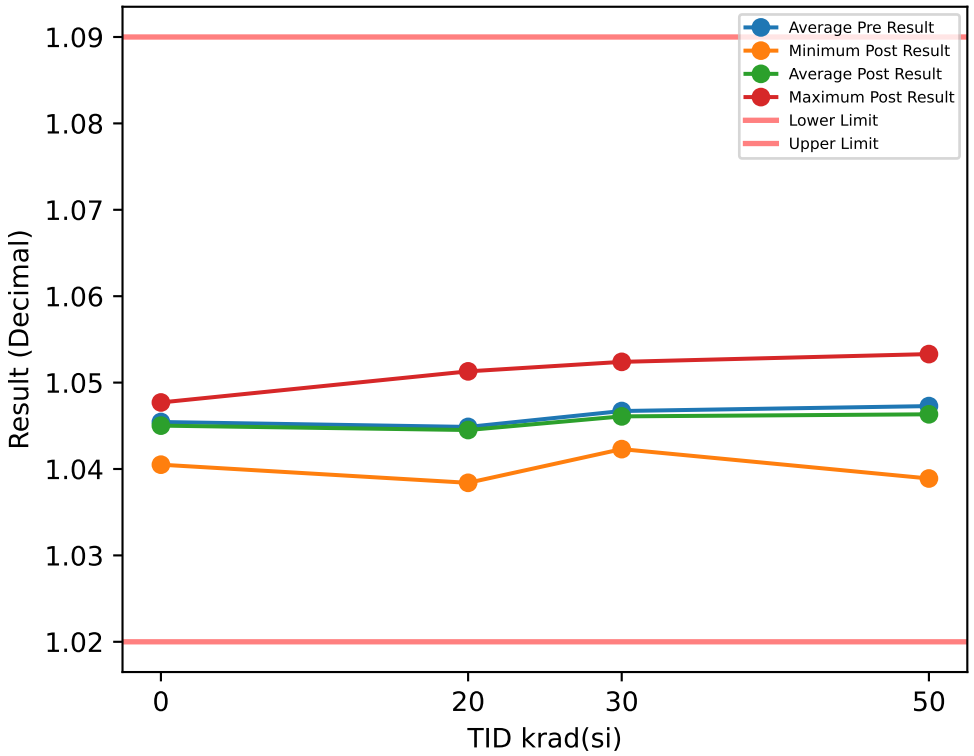
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.9138	0.9151	0.0013
2	20	Biased	0.9178	0.9167	-0.0011
3	20	Biased	0.9084	0.9085	0.0001
4	20	Biased	0.9144	0.9146	0.0002
5	20	Biased	0.9186	0.9195	0.0009
6	20	Unbiased	0.9152	0.9156	0.0004
7	20	Unbiased	0.9147	0.915	0.0003
8	20	Unbiased	0.9123	0.9117	-0.0006
9	20	Unbiased	0.9149	0.9158	0.0009
10	20	Unbiased	0.9183	0.9188	0.0005
11	30	Biased	0.9236	0.9241	0.0005
12	30	Biased	0.9167	0.9165	-0.0002
13	30	Biased	0.9166	0.9167	0.0001
14	30	Biased	0.9126	0.9118	-0.0008
15	30	Biased	0.913	0.9138	0.0008
16	30	Unbiased	0.9091	0.9082	-0.0009
17	30	Unbiased	0.9186	0.9181	-0.0005
18	30	Unbiased	0.9185	0.919	0.0005
19	30	Unbiased	0.9121	0.913	0.0009
20	30	Unbiased	0.9121	0.9127	0.0006
27	50	Unbiased	0.9185	0.9189	0.0004
28	50	Unbiased	0.9094	0.91	0.0006
29	50	Unbiased	0.9197	0.9207	0.001
30	50	Unbiased	0.9185	0.92	0.0015
31	50	Unbiased	0.9211	0.9232	0.0021
77	50	Biased-84Hr-Anneal	0.9131	0.9127	-0.0004
78	50	Biased-84Hr-Anneal	0.9091	0.9097	0.0006
79	50	Biased-84Hr-Anneal	0.9119	0.9103	-0.0016
80	50	Biased-84Hr-Anneal	0.9191	0.9212	0.0021
81	50	Biased-84Hr-Anneal	0.9209	0.9212	0.0003
100	0	CORRELATION	0.9179	0.9175	-0.0004
101	0	CORRELATION	0.9117	0.9115	-0.0002
102	0	CORRELATION	0.9108	0.9106	-0.0002
103	0	CORRELATION	0.9153	0.9149	-0.0004
104	0	CORRELATION	0.919	0.9189	-0.0001

Test Statistics (Decimal)

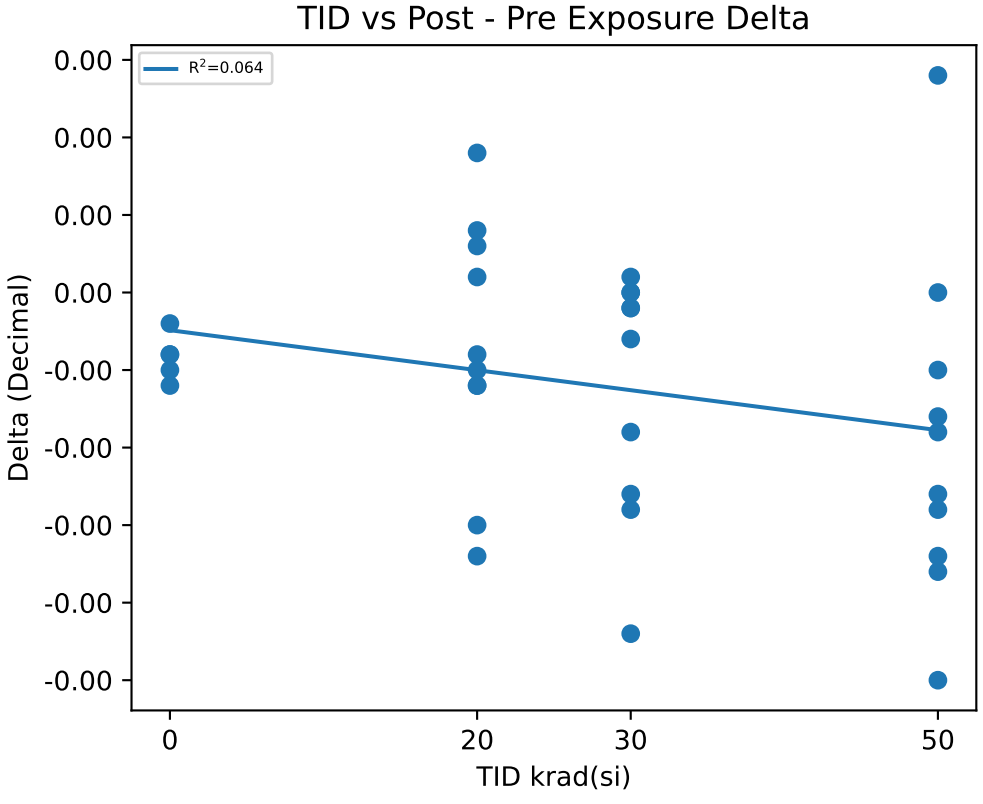
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.9108	0.91494	0.919	0.0036405	0.9106	0.91468	0.9189	0.0036252	-0.0004	-0.00026	-0.0001	0.00013416
20	0.9084	0.91484	0.9186	0.0030591	0.9085	0.91513	0.9195	0.0031924	-0.0011	0.00029	0.0013	0.00071407
30	0.9091	0.91529	0.9236	0.0042839	0.9082	0.91539	0.9241	0.0044628	-0.0009	0.0001	0.0009	0.00066332
50	0.9091	0.91613	0.9211	0.004738	0.9097	0.91679	0.9232	0.0054288	-0.0016	0.00066	0.0021	0.0011257

Device Test: 23.20 THRESHOLD|FALL/PWRGD/12////@VSENSE_VTH_FALLING_GOOD

TID vs Result Stats



TID vs Post - Pre Exposure Delta



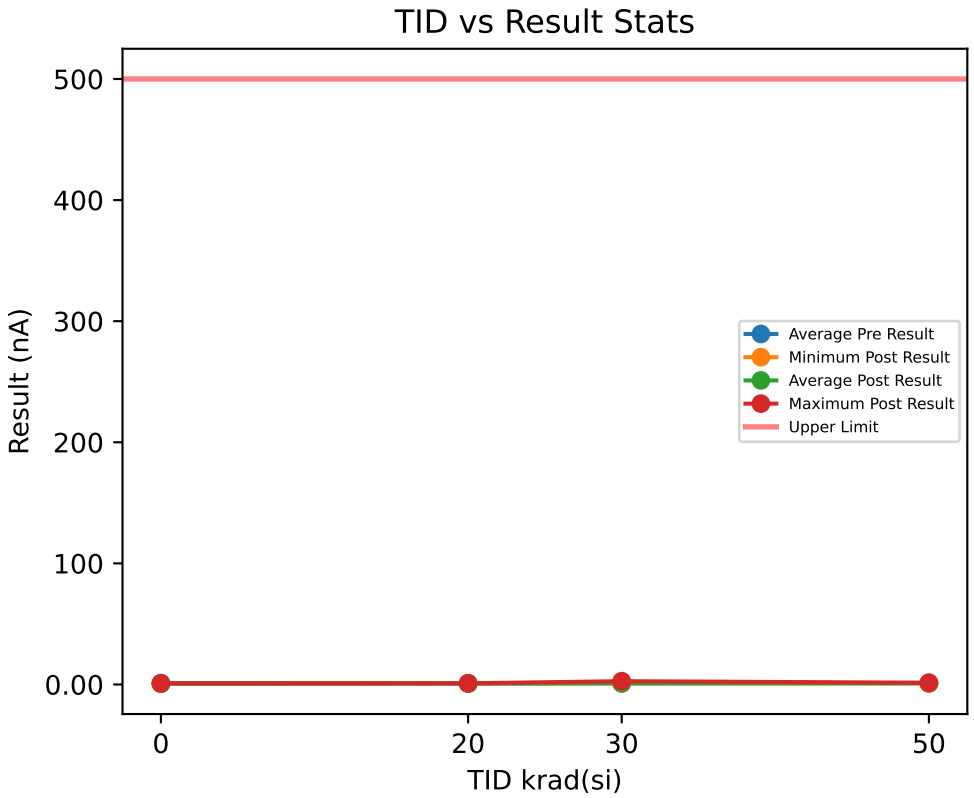
Test Results (Lower Limit = 1.02, Upper Limit = 1.09 (Decimal))

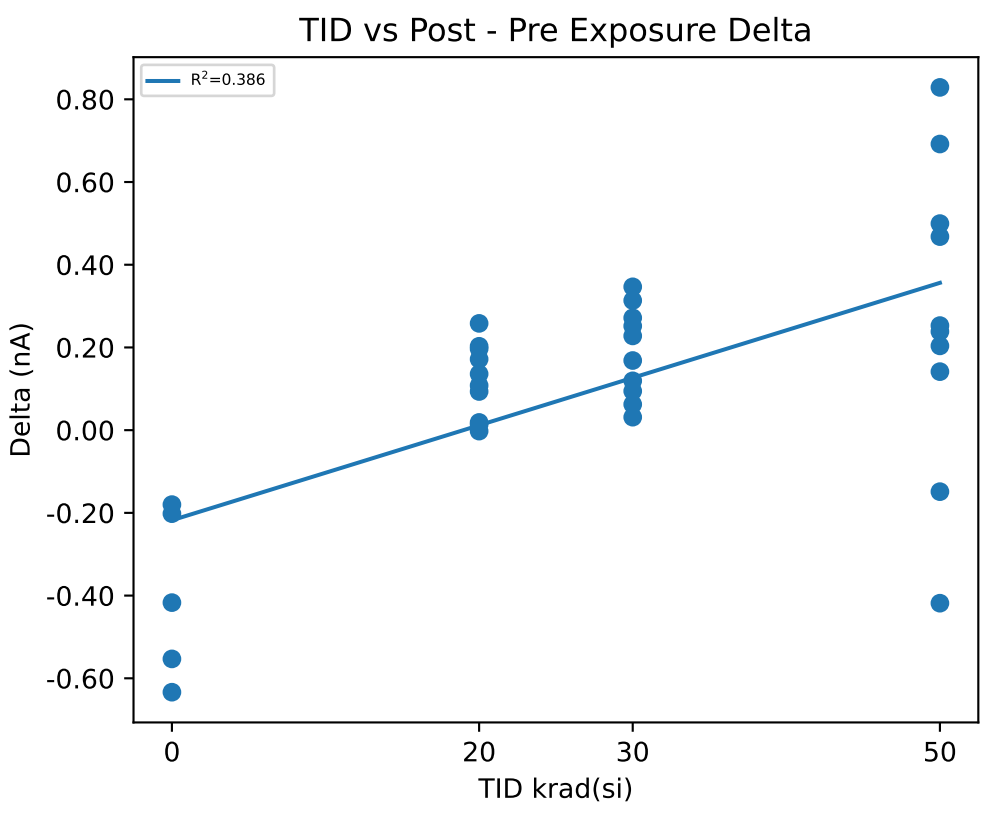
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0446	1.0441	-0.0005
2	20	Biased	1.0463	1.0446	-0.0017
3	20	Biased	1.038	1.0384	0.0004
4	20	Biased	1.0448	1.0449	0.0001
5	20	Biased	1.0465	1.0468	0.0003
6	20	Unbiased	1.0447	1.0441	-0.0006
7	20	Unbiased	1.0468	1.0464	-0.0004
8	20	Unbiased	1.0404	1.0389	-0.0015
9	20	Unbiased	1.0447	1.0456	0.0009
10	20	Unbiased	1.0519	1.0513	-0.0006
11	30	Biased	1.0525	1.0524	-0.0001
12	30	Biased	1.0484	1.047	-0.0014
13	30	Biased	1.0509	1.0506	-0.0003
14	30	Biased	1.0452	1.043	-0.0022
15	30	Biased	1.0428	1.0428	0
16	30	Unbiased	1.0436	1.0423	-0.0013
17	30	Unbiased	1.0487	1.0487	0
18	30	Unbiased	1.0468	1.0467	-0.0001
19	30	Unbiased	1.0428	1.0429	0.0001
20	30	Unbiased	1.0454	1.0445	-0.0009
27	50	Unbiased	1.0496	1.0482	-0.0014
28	50	Unbiased	1.0415	1.041	-0.0005
29	50	Unbiased	1.0517	1.0517	0
30	50	Unbiased	1.0499	1.049	-0.0009
31	50	Unbiased	1.0519	1.0533	0.0014
77	50	Biased-84Hr-Anneal	1.043	1.0417	-0.0013
78	50	Biased-84Hr-Anneal	1.0407	1.0389	-0.0018
79	50	Biased-84Hr-Anneal	1.0406	1.0389	-0.0017
80	50	Biased-84Hr-Anneal	1.0512	1.0504	-0.0008
81	50	Biased-84Hr-Anneal	1.0527	1.0502	-0.0025
100	0	CORRELATION	1.0481	1.0475	-0.0006
101	0	CORRELATION	1.0422	1.0418	-0.0004
102	0	CORRELATION	1.0407	1.0405	-0.0002
103	0	CORRELATION	1.0482	1.0477	-0.0005
104	0	CORRELATION	1.048	1.0476	-0.0004

Test Statistics (Decimal)

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	1.0407	1.0454	1.0482	0.0036814	1.0405	1.045	1.0477	0.0035633	-0.0006	-0.00042	-0.0002	0.00014832
20	1.038	1.0449	1.0519	0.0037292	1.0384	1.0445	1.0513	0.0037329	-0.0017	-0.00036	0.0009	0.00081948
30	1.0428	1.0467	1.0525	0.003369	1.0423	1.0461	1.0524	0.0035841	-0.0022	-0.00062	0.0001	0.00078712
50	1.0406	1.0473	1.0527	0.0051372	1.0389	1.0463	1.0533	0.0055761	-0.0025	-0.00095	0.0014	0.0010886

Device Test: 23.21 LEAK|MAX/PWRGD/12////@PWRGD_OUTPUT_HIGH_LEAK





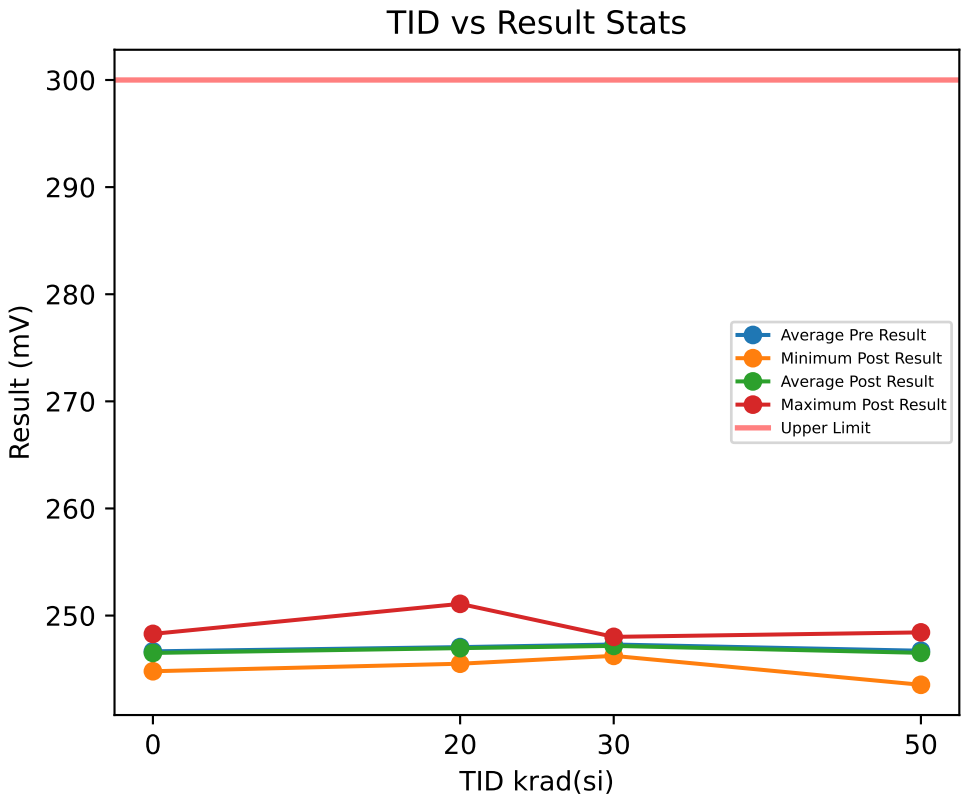
Test Results (Upper Limit = 500.0 (nA))

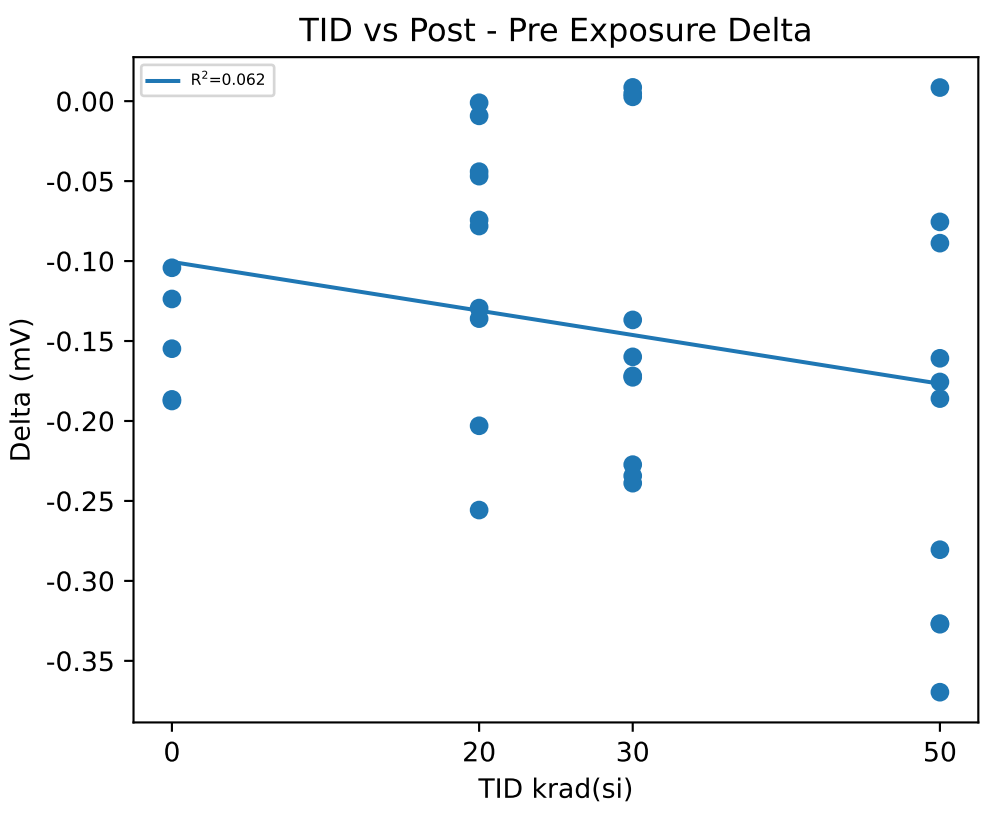
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.7048	0.8408	0.136
2	20	Biased	0.7004	0.9032	0.2028
3	20	Biased	0.7253	0.739	0.0137
4	20	Biased	0.8127	0.9844	0.1717
5	20	Biased	0.7234	0.8314	0.108
6	20	Unbiased	0.7879	0.7856	-0.0023
7	20	Unbiased	0.8751	0.8938	0.0187
8	20	Unbiased	0.6503	0.847	0.1967
9	20	Unbiased	0.7203	0.9785	0.2582
10	20	Unbiased	0.8659	0.9594	0.0935
11	30	Biased	0.7096	0.9375	0.2279
12	30	Biased	0.7783	0.8976	0.1193
13	30	Biased	0.5772	0.8907	0.3135
14	30	Biased	0.7535	0.9219	0.1684
15	30	Biased	0.7565	0.851	0.0945
16	30	Unbiased	0.6566	0.9282	0.2716
17	30	Unbiased	0.7981	1.0499	0.2518
18	30	Unbiased	0.9222	0.9536	0.0314
19	30	Unbiased	2.6795	2.7419	0.0624
20	30	Unbiased	0.6815	1.0281	0.3466
27	50	Unbiased	0.8095	1.309	0.4995
28	50	Unbiased	0.7221	1.414	0.6919
29	50	Unbiased	0.6332	1.462	0.8288
30	50	Unbiased	1.0002	1.4682	0.468
31	50	Unbiased	0.8127	1.0656	0.2529
77	50	Biased-84Hr-Anneal	1.2009	0.7825	-0.4184
78	50	Biased-84Hr-Anneal	0.7337	0.9375	0.2038
79	50	Biased-84Hr-Anneal	0.8926	1.1311	0.2385
80	50	Biased-84Hr-Anneal	1.5099	1.3612	-0.1487
81	50	Biased-84Hr-Anneal	0.8803	1.0218	0.1415
100	0	CORRELATION	1.3975	0.7639	-0.6336
101	0	CORRELATION	0.8304	0.6285	-0.2019
102	0	CORRELATION	0.9737	0.5567	-0.417
103	0	CORRELATION	1.4756	0.9225	-0.5531
104	0	CORRELATION	0.9053	0.7253	-0.18

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	0.8304	1.1165	1.4756	0.29781	0.5567	0.71938	0.9225	0.13964	-0.6336	-0.39712	-0.18	0.20365
20	0.6503	0.75661	0.8751	0.075023	0.739	0.87631	0.9844	0.082515	-0.0023	0.1197	0.2582	0.089524
30	0.5772	0.9313	2.6795	0.62111	0.851	1.12	2.7419	0.57304	0.0314	0.18874	0.3466	0.10939
50	0.6332	0.91951	1.5099	0.26151	0.7825	1.1953	1.4682	0.24078	-0.4184	0.27578	0.8288	0.37315

Device Test: 23.22 VOL|2mA/PWRGD/12////@PWRGD_OUTPUT_LOW





Test Results (Upper Limit = 300.0 (mV))

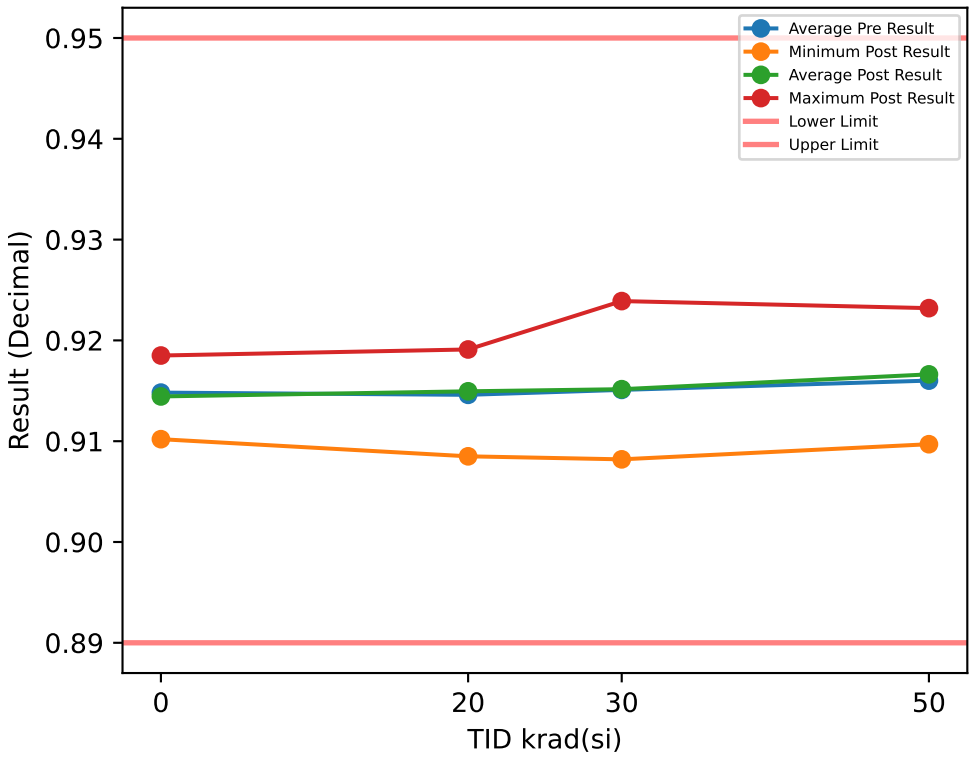
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	245.63	245.51	-0.1294
2	20	Biased	247.63	247.59	-0.0441
3	20	Biased	246.05	245.92	-0.136
4	20	Biased	251.1	251.1	-0.0092
5	20	Biased	246.88	246.81	-0.0743
6	20	Unbiased	247.29	247.29	-0.001
7	20	Unbiased	246.4	246.32	-0.0781
8	20	Unbiased	246.7	246.65	-0.0469
9	20	Unbiased	245.99	245.79	-0.203
10	20	Unbiased	246.89	246.63	-0.2557
11	30	Biased	247.1	247.11	0.0086
12	30	Biased	247.2	247.04	-0.1599
13	30	Biased	246.48	246.24	-0.2389
14	30	Biased	247.12	247.12	0.0027
15	30	Biased	246.94	246.95	0.0048
16	30	Unbiased	247.54	247.32	-0.2273
17	30	Unbiased	247.23	247.09	-0.1368
18	30	Unbiased	248.13	247.96	-0.1727
19	30	Unbiased	247.02	246.85	-0.1718
20	30	Unbiased	248.25	248.01	-0.2343
27	50	Unbiased	246.43	246.44	0.0085
28	50	Unbiased	247.4	247.23	-0.1756
29	50	Unbiased	246.23	246.07	-0.1608
30	50	Unbiased	246.15	246.08	-0.0755
31	50	Unbiased	247.38	247.29	-0.0888
77	50	Biased-84Hr-Anneal	248.76	248.43	-0.3271
78	50	Biased-84Hr-Anneal	243.86	243.54	-0.3267
79	50	Biased-84Hr-Anneal	246.12	245.75	-0.3696
80	50	Biased-84Hr-Anneal	247.95	247.67	-0.2805
81	50	Biased-84Hr-Anneal	246.91	246.72	-0.186
100	0	CORRELATION	248.48	248.29	-0.1865
101	0	CORRELATION	248.06	247.91	-0.1548
102	0	CORRELATION	245.85	245.75	-0.1042
103	0	CORRELATION	245.99	245.81	-0.1875
104	0	CORRELATION	244.93	244.8	-0.1237

Test Statistics (mV)

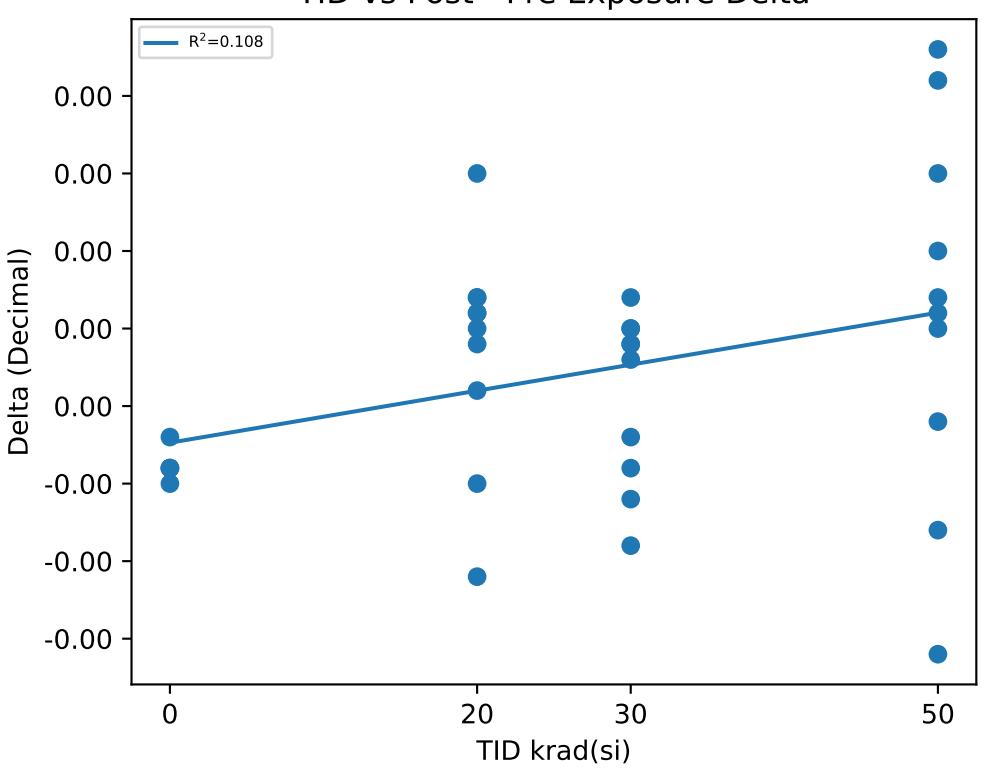
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	244.93	246.66	248.48	1.5309	244.8	246.51	248.29	1.5099	-0.1875	-0.15134	-0.1042	0.037222
20	245.63	247.06	251.1	1.5477	245.51	246.96	251.1	1.5924	-0.2557	-0.09777	-0.001	0.083061
30	246.48	247.3	248.25	0.53985	246.24	247.17	248.01	0.51719	-0.2389	-0.13256	0.0086	0.10091
50	243.86	246.72	248.76	1.3232	243.54	246.52	248.43	1.3331	-0.3696	-0.19821	0.0085	0.1252

Device Test: 23.24 THRESHOLD|FALL/PWRGD/14////@VSENSE_VTH_FALLING_FAULT

TID vs Result Stats



TID vs Post - Pre Exposure Delta



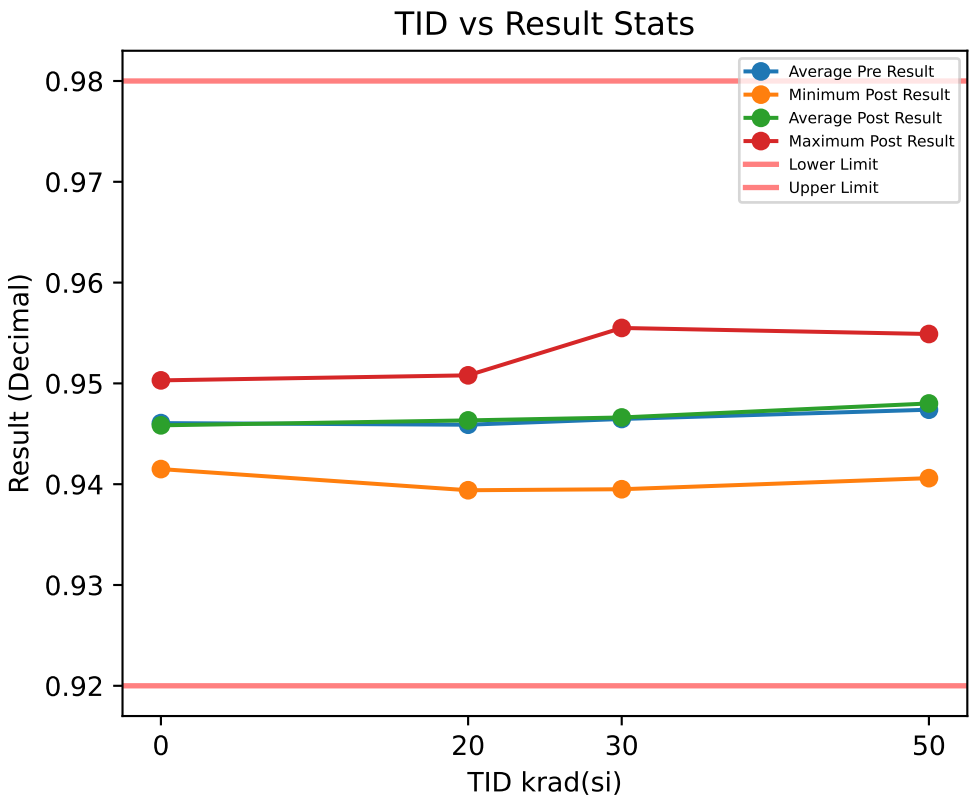
Test Results (Lower Limit = 0.89, Upper Limit = 0.95 (Decimal))

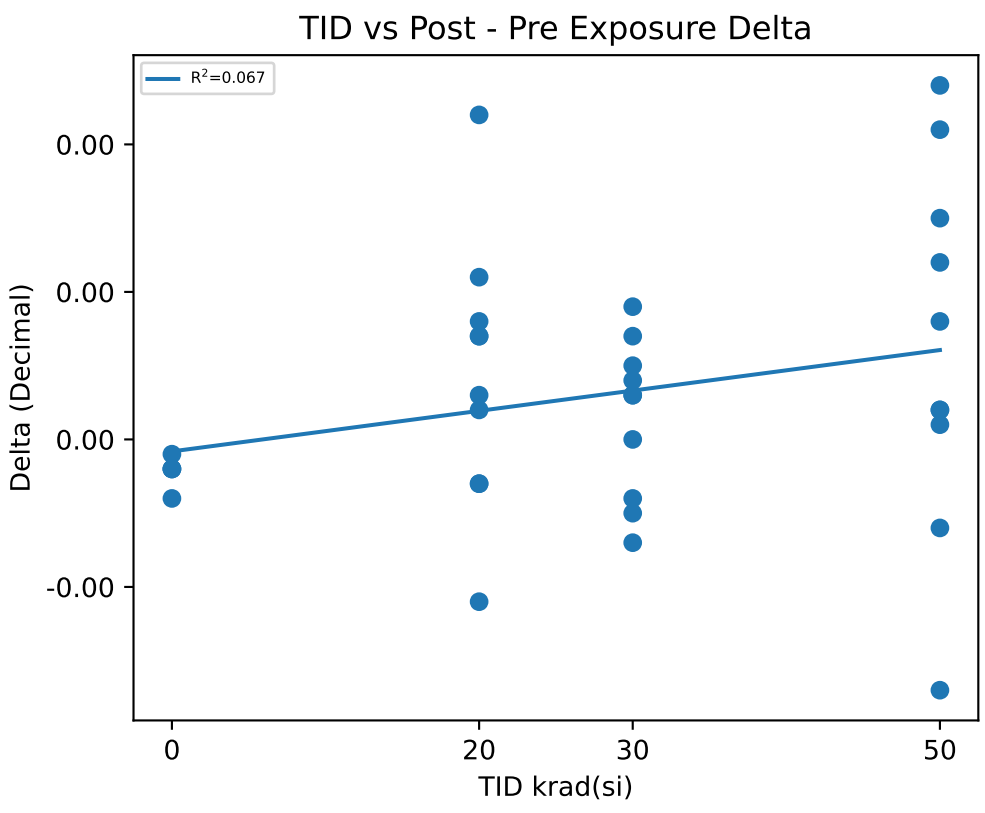
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.9134	0.9149	0.0015
2	20	Biased	0.9176	0.9165	-0.0011
3	20	Biased	0.9084	0.9085	0.0001
4	20	Biased	0.9142	0.9146	0.0004
5	20	Biased	0.9184	0.9191	0.0007
6	20	Unbiased	0.915	0.9156	0.0006
7	20	Unbiased	0.9145	0.915	0.0005
8	20	Unbiased	0.912	0.9115	-0.0005
9	20	Unbiased	0.9145	0.9152	0.0007
10	20	Unbiased	0.918	0.9186	0.0006
11	30	Biased	0.9234	0.9239	0.0005
12	30	Biased	0.9165	0.9163	-0.0002
13	30	Biased	0.9162	0.9167	0.0005
14	30	Biased	0.9124	0.9118	-0.0006
15	30	Biased	0.913	0.9134	0.0004
16	30	Unbiased	0.9091	0.9082	-0.0009
17	30	Unbiased	0.9182	0.9178	-0.0004
18	30	Unbiased	0.9183	0.9186	0.0003
19	30	Unbiased	0.9119	0.9126	0.0007
20	30	Unbiased	0.9119	0.9123	0.0004
27	50	Unbiased	0.9182	0.9187	0.0005
28	50	Unbiased	0.9091	0.9098	0.0007
29	50	Unbiased	0.9197	0.9207	0.001
30	50	Unbiased	0.9183	0.9198	0.0015
31	50	Unbiased	0.9211	0.9232	0.0021
77	50	Biased-84Hr-Anneal	0.9131	0.9123	-0.0008
78	50	Biased-84Hr-Anneal	0.9091	0.9097	0.0006
79	50	Biased-84Hr-Anneal	0.9119	0.9103	-0.0016
80	50	Biased-84Hr-Anneal	0.9189	0.9212	0.0023
81	50	Biased-84Hr-Anneal	0.9207	0.9206	-0.0001
100	0	CORRELATION	0.9179	0.9175	-0.0004
101	0	CORRELATION	0.9113	0.9111	-0.0002
102	0	CORRELATION	0.9106	0.9102	-0.0004
103	0	CORRELATION	0.9153	0.9149	-0.0004
104	0	CORRELATION	0.919	0.9185	-0.0005

Test Statistics (Decimal)

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	0.9106	0.91482	0.919	0.0037877	0.9102	0.91444	0.9185	0.0037146	-0.0005	-0.00038	-0.0002	0.00010954
20	0.9084	0.9146	0.9184	0.0030181	0.9085	0.91495	0.9191	0.0031103	-0.0011	0.00035	0.0015	0.00071531
30	0.9091	0.91509	0.9234	0.0042175	0.9082	0.91516	0.9239	0.0044275	-0.0009	7e-05	0.0007	0.00054985
50	0.9091	0.91601	0.9211	0.0047231	0.9097	0.91663	0.9232	0.0054181	-0.0016	0.00062	0.0023	0.0012209

Device Test: 23.25 THRESHOLD|RISE/PWRGD/14////@VSENSE_VTH_RISING_GOOD





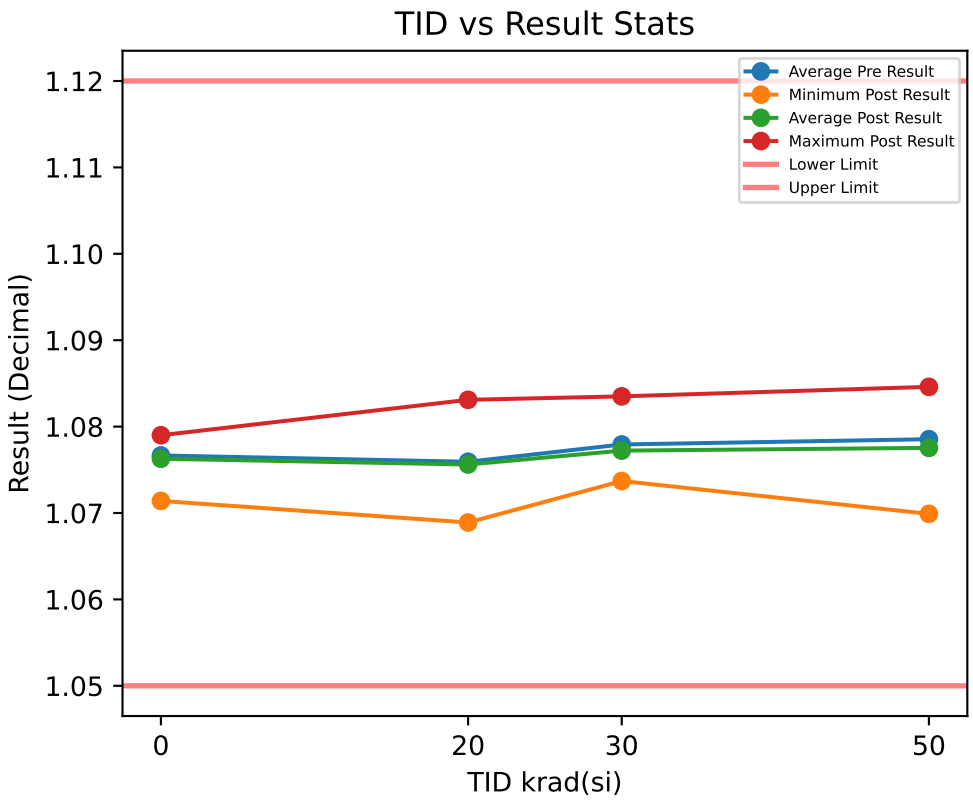
Test Results (Lower Limit = 0.92, Upper Limit = 0.98 (Decimal))

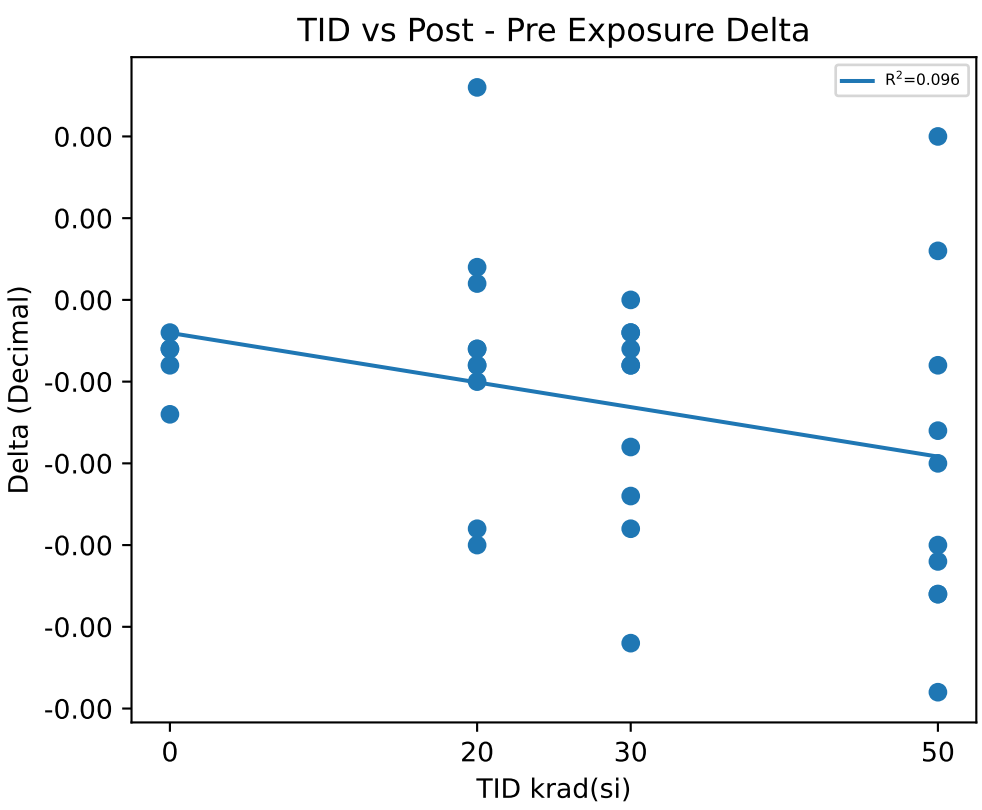
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.9444	0.9466	0.0022
2	20	Biased	0.9489	0.9478	-0.0011
3	20	Biased	0.9397	0.9394	-0.0003
4	20	Biased	0.9455	0.9457	0.0002
5	20	Biased	0.9497	0.9508	0.0011
6	20	Unbiased	0.9463	0.9466	0.0003
7	20	Unbiased	0.946	0.9467	0.0007
8	20	Unbiased	0.9431	0.9428	-0.0003
9	20	Unbiased	0.9458	0.9465	0.0007
10	20	Unbiased	0.9496	0.9504	0.0008
11	30	Biased	0.955	0.9555	0.0005
12	30	Biased	0.9478	0.9478	0
13	30	Biased	0.9475	0.9484	0.0009
14	30	Biased	0.9436	0.9429	-0.0007
15	30	Biased	0.9443	0.9447	0.0004
16	30	Unbiased	0.94	0.9395	-0.0005
17	30	Unbiased	0.9499	0.9495	-0.0004
18	30	Unbiased	0.9498	0.9501	0.0003
19	30	Unbiased	0.9434	0.9441	0.0007
20	30	Unbiased	0.9434	0.9437	0.0003
27	50	Unbiased	0.95	0.9502	0.0002
28	50	Unbiased	0.9404	0.9406	0.0002
29	50	Unbiased	0.951	0.9525	0.0015
30	50	Unbiased	0.9499	0.9511	0.0012
31	50	Unbiased	0.9528	0.9549	0.0021
77	50	Biased-84Hr-Anneal	0.9442	0.9436	-0.0006
78	50	Biased-84Hr-Anneal	0.9401	0.9409	0.0008
79	50	Biased-84Hr-Anneal	0.943	0.9413	-0.0017
80	50	Biased-84Hr-Anneal	0.9502	0.9526	0.0024
81	50	Biased-84Hr-Anneal	0.9523	0.9524	0.0001
100	0	CORRELATION	0.9492	0.9488	-0.0004
101	0	CORRELATION	0.9426	0.9424	-0.0002
102	0	CORRELATION	0.9416	0.9415	-0.0001
103	0	CORRELATION	0.9464	0.9462	-0.0002
104	0	CORRELATION	0.9505	0.9503	-0.0002

Test Statistics (Decimal)

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	0.9416	0.94606	0.9505	0.0039228	0.9415	0.94584	0.9503	0.0038553	-0.0004	-0.00022	-0.0001	0.00010954
20	0.9397	0.9459	0.9497	0.0030912	0.9394	0.94633	0.9508	0.0033317	-0.0011	0.00043	0.0022	0.00090314
30	0.94	0.94647	0.955	0.0043729	0.9395	0.94662	0.9555	0.0045572	-0.0007	0.00015	0.0009	0.00053385
50	0.9401	0.94739	0.9528	0.0049314	0.9406	0.94801	0.9549	0.0056984	-0.0017	0.00062	0.0024	0.001247

Device Test: 23.26 THRESHOLD|RISE/PWRGD/14////@VSENSE_VTH_RISING_FAULT





Test Results (Lower Limit = 1.05, Upper Limit = 1.12 (Decimal))

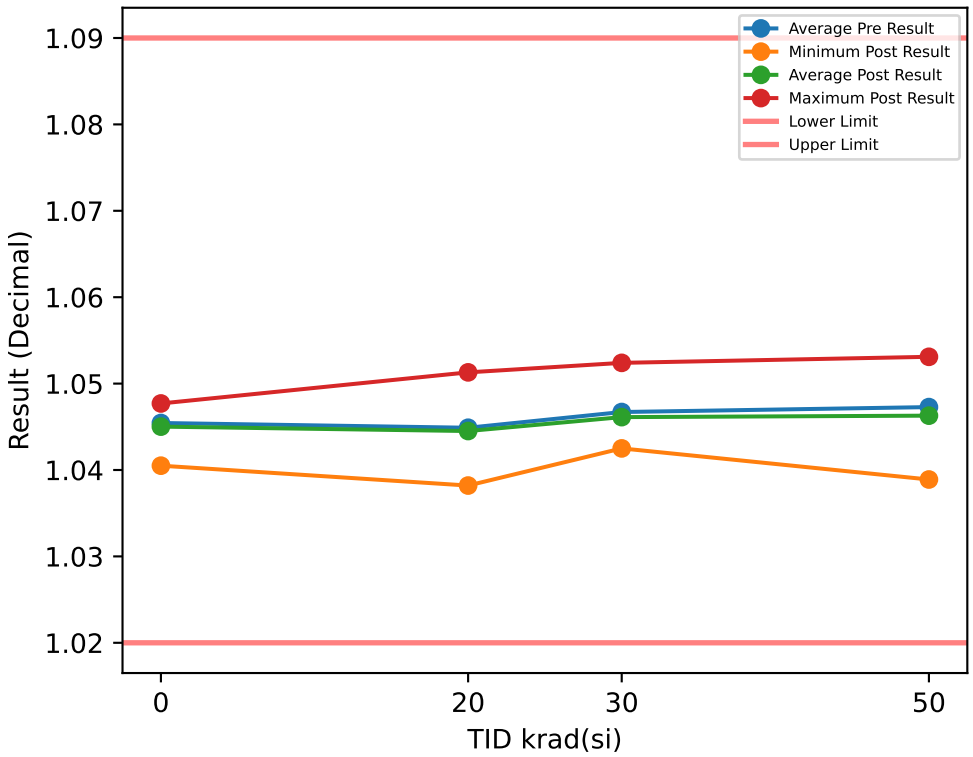
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0759	1.0754	-0.0005
2	20	Biased	1.077	1.0755	-0.0015
3	20	Biased	1.0692	1.0689	-0.0003
4	20	Biased	1.0758	1.076	0.0002
5	20	Biased	1.0778	1.0779	0.0001
6	20	Unbiased	1.0753	1.0749	-0.0004
7	20	Unbiased	1.0783	1.0779	-0.0004
8	20	Unbiased	1.0712	1.0698	-0.0014
9	20	Unbiased	1.0754	1.0767	0.0013
10	20	Unbiased	1.0834	1.0831	-0.0003
11	30	Biased	1.0837	1.0835	-0.0002
12	30	Biased	1.0799	1.0785	-0.0014
13	30	Biased	1.0821	1.0819	-0.0002
14	30	Biased	1.076	1.0739	-0.0021
15	30	Biased	1.0741	1.0737	-0.0004
16	30	Unbiased	1.0747	1.0738	-0.0009
17	30	Unbiased	1.0799	1.0799	0
18	30	Unbiased	1.0781	1.0777	-0.0004
19	30	Unbiased	1.0741	1.0738	-0.0003
20	30	Unbiased	1.0767	1.0755	-0.0012
27	50	Unbiased	1.0809	1.0793	-0.0016
28	50	Unbiased	1.0726	1.0722	-0.0004
29	50	Unbiased	1.0828	1.0831	0.0003
30	50	Unbiased	1.0812	1.0804	-0.0008
31	50	Unbiased	1.0836	1.0846	0.001
77	50	Biased-84Hr-Anneal	1.0743	1.0728	-0.0015
78	50	Biased-84Hr-Anneal	1.0718	1.07	-0.0018
79	50	Biased-84Hr-Anneal	1.0717	1.0699	-0.0018
80	50	Biased-84Hr-Anneal	1.0825	1.0815	-0.001
81	50	Biased-84Hr-Anneal	1.084	1.0816	-0.0024
100	0	CORRELATION	1.0794	1.079	-0.0004
101	0	CORRELATION	1.0733	1.0731	-0.0002
102	0	CORRELATION	1.0717	1.0714	-0.0003
103	0	CORRELATION	1.0797	1.079	-0.0007
104	0	CORRELATION	1.0792	1.0789	-0.0003

Test Statistics (Decimal)

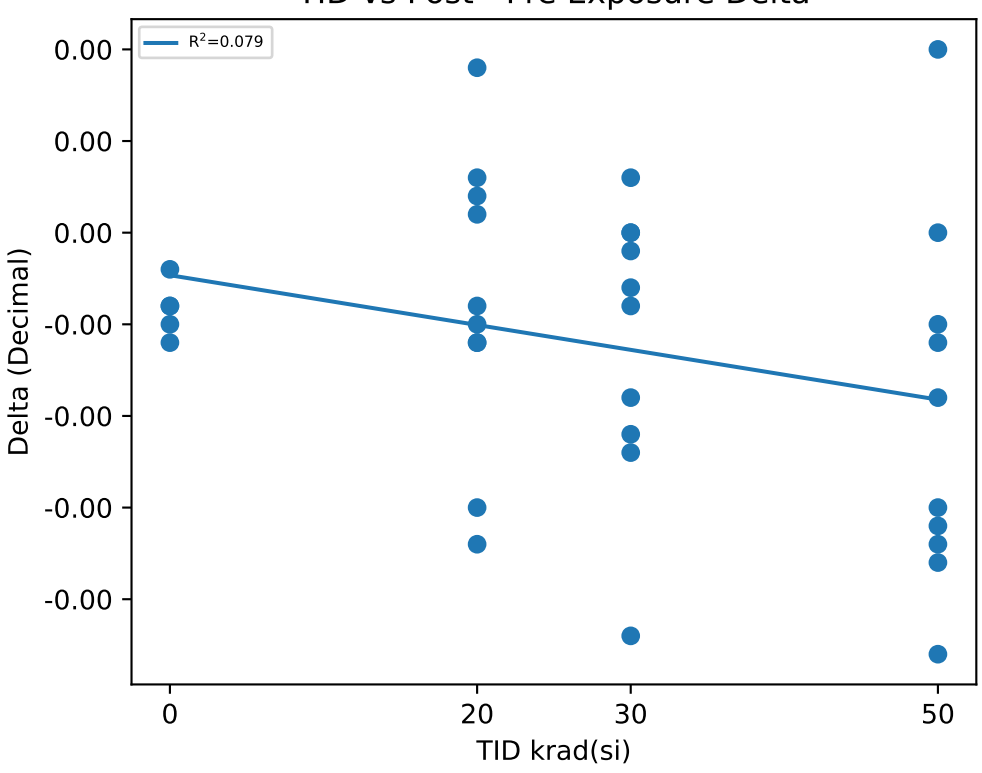
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.0717	1.0767	1.0797	0.0038436	1.0714	1.0763	1.079	0.0037279	-0.0007	-0.00038	-0.0002	0.00019235
20	1.0692	1.0759	1.0834	0.0038647	1.0689	1.0756	1.0831	0.0040451	-0.0015	-0.00032	0.0013	0.00079415
30	1.0741	1.0779	1.0837	0.0033909	1.0737	1.0772	1.0835	0.0036539	-0.0021	-0.00071	0	0.00067239
50	1.0717	1.0785	1.084	0.0052426	1.0699	1.0775	1.0846	0.0056804	-0.0024	-0.001	0.001	0.0010509

Device Test: 23.27 THRESHOLD|FALL/PWRGD/14////@VSENSE_VTH_FALLING_GOOD

TID vs Result Stats



TID vs Post - Pre Exposure Delta



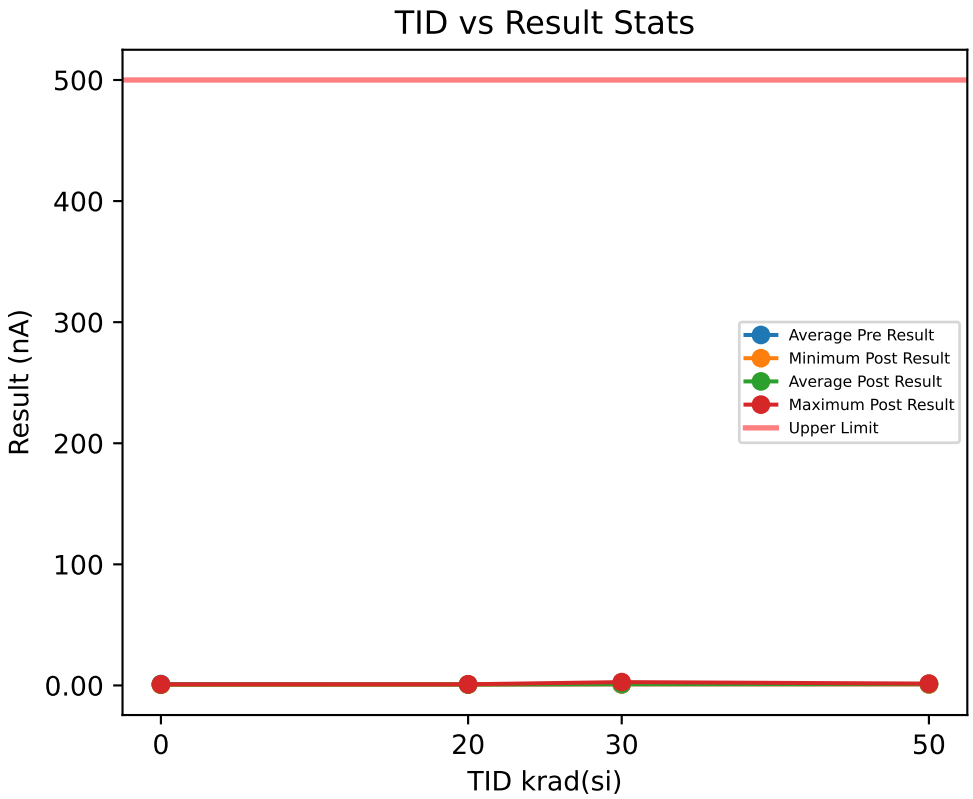
Test Results (Lower Limit = 1.02, Upper Limit = 1.09 (Decimal))

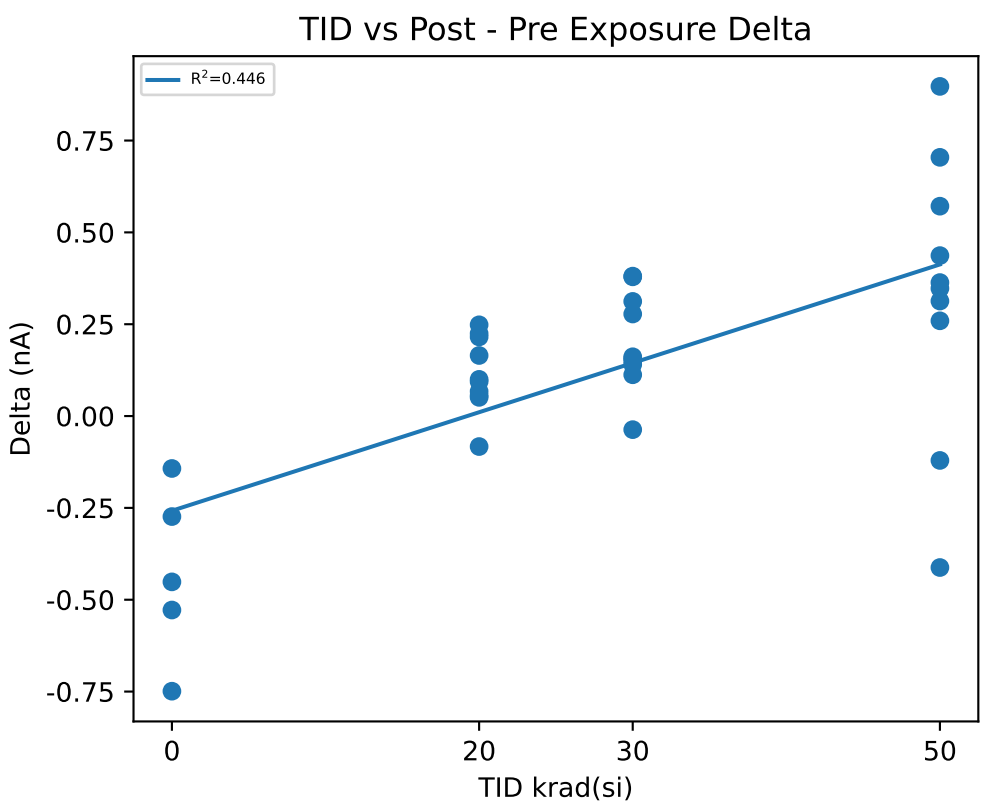
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0446	1.0441	-0.0005
2	20	Biased	1.0463	1.0446	-0.0017
3	20	Biased	1.038	1.0382	0.0002
4	20	Biased	1.0448	1.0449	0.0001
5	20	Biased	1.0465	1.0468	0.0003
6	20	Unbiased	1.0447	1.0441	-0.0006
7	20	Unbiased	1.047	1.0466	-0.0004
8	20	Unbiased	1.0404	1.0389	-0.0015
9	20	Unbiased	1.0447	1.0456	0.0009
10	20	Unbiased	1.0519	1.0513	-0.0006
11	30	Biased	1.0525	1.0524	-0.0001
12	30	Biased	1.0484	1.0472	-0.0012
13	30	Biased	1.0509	1.0506	-0.0003
14	30	Biased	1.0452	1.043	-0.0022
15	30	Biased	1.0428	1.0428	0
16	30	Unbiased	1.0436	1.0425	-0.0011
17	30	Unbiased	1.0487	1.0487	0
18	30	Unbiased	1.0468	1.0464	-0.0004
19	30	Unbiased	1.0428	1.0431	0.0003
20	30	Unbiased	1.0454	1.0445	-0.0009
27	50	Unbiased	1.0498	1.0482	-0.0016
28	50	Unbiased	1.0415	1.041	-0.0005
29	50	Unbiased	1.0517	1.0517	0
30	50	Unbiased	1.0497	1.0488	-0.0009
31	50	Unbiased	1.0521	1.0531	0.001
77	50	Biased-84Hr-Anneal	1.043	1.0415	-0.0015
78	50	Biased-84Hr-Anneal	1.0407	1.0389	-0.0018
79	50	Biased-84Hr-Anneal	1.0406	1.0389	-0.0017
80	50	Biased-84Hr-Anneal	1.0512	1.0506	-0.0006
81	50	Biased-84Hr-Anneal	1.0525	1.0502	-0.0023
100	0	CORRELATION	1.0481	1.0475	-0.0006
101	0	CORRELATION	1.0422	1.0418	-0.0004
102	0	CORRELATION	1.0407	1.0405	-0.0002
103	0	CORRELATION	1.0482	1.0477	-0.0005
104	0	CORRELATION	1.048	1.0476	-0.0004

Test Statistics (Decimal)

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	1.0407	1.0454	1.0482	0.0036814	1.0405	1.045	1.0477	0.0035633	-0.0006	-0.00042	-0.0002	0.00014832
20	1.038	1.0449	1.0519	0.0037412	1.0382	1.0445	1.0513	0.0037814	-0.0017	-0.00038	0.0009	0.00080111
30	1.0428	1.0467	1.0525	0.003369	1.0425	1.0461	1.0524	0.0035436	-0.0022	-0.00059	0.0003	0.00075785
50	1.0406	1.0473	1.0525	0.0051342	1.0389	1.0463	1.0531	0.0055738	-0.0023	-0.00099	0.001	0.00099158

Device Test: 23.28 LEAK|MAX/PWRGD/14////@PWRGD_OUTPUT_HIGH_LEAK





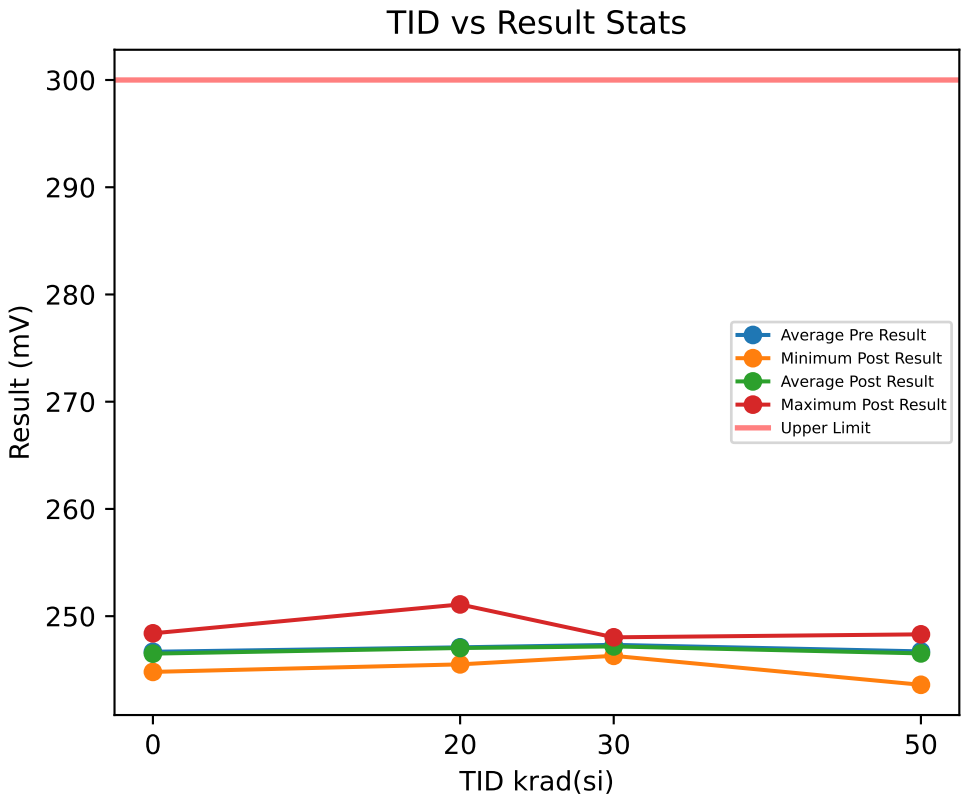
Test Results (Upper Limit = 500.0 (nA))

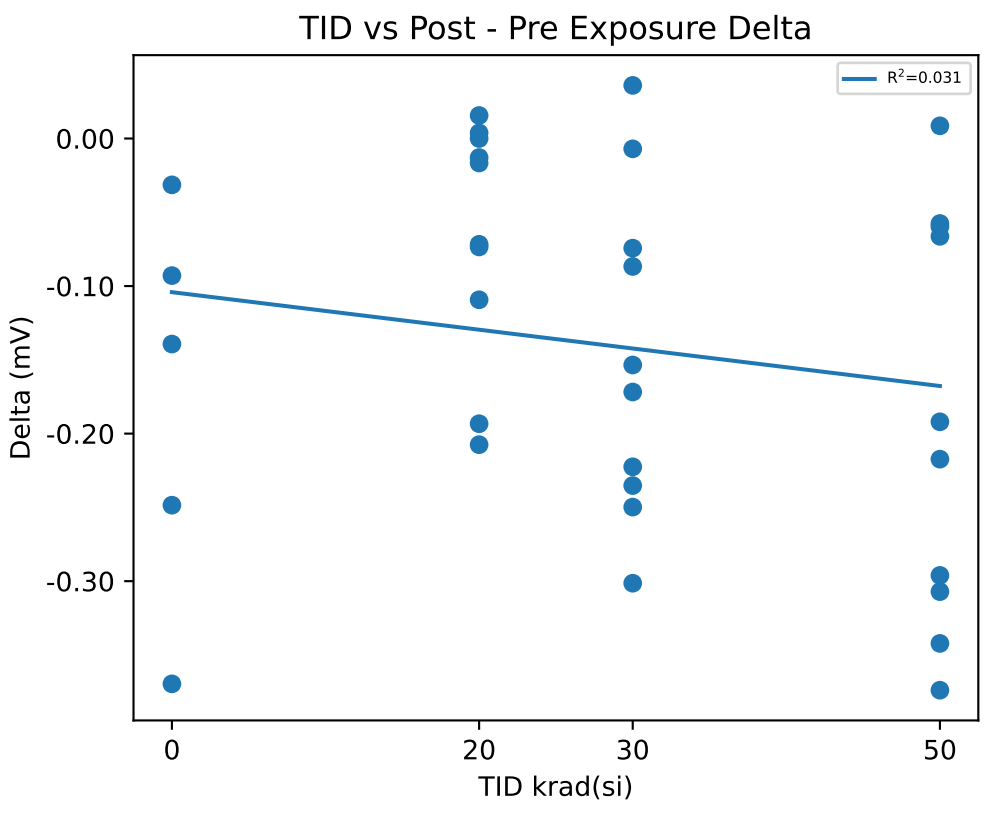
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6923	0.9407	0.2484
2	20	Biased	0.7098	0.9344	0.2246
3	20	Biased	0.769	0.8199	0.0509
4	20	Biased	0.8002	0.9001	0.0999
5	20	Biased	0.6674	0.7346	0.0672
6	20	Unbiased	0.7847	0.7017	-0.083
7	20	Unbiased	0.8532	0.9469	0.0937
8	20	Unbiased	0.6222	0.8376	0.2154
9	20	Unbiased	0.7545	0.9194	0.1649
10	20	Unbiased	0.8441	0.9001	0.056
11	30	Biased	0.7128	0.9906	0.2778
12	30	Biased	0.7658	0.9163	0.1505
13	30	Biased	0.5492	0.9282	0.379
14	30	Biased	0.7535	0.8938	0.1403
15	30	Biased	0.7159	0.8727	0.1568
16	30	Unbiased	0.6691	0.9812	0.3121
17	30	Unbiased	0.8261	0.9875	0.1614
18	30	Unbiased	0.9097	0.8727	-0.037
19	30	Unbiased	2.642	2.7544	0.1124
20	30	Unbiased	0.6534	1.0343	0.3809
27	50	Unbiased	0.8002	1.3715	0.5713
28	50	Unbiased	0.7284	1.4327	0.7043
29	50	Unbiased	0.6145	1.5119	0.8974
30	50	Unbiased	1.0034	1.4402	0.4368
31	50	Unbiased	0.7908	1.0501	0.2593
77	50	Biased-84Hr-Anneal	1.2259	0.8136	-0.4123
78	50	Biased-84Hr-Anneal	0.69	1.0031	0.3131
79	50	Biased-84Hr-Anneal	0.8801	1.2435	0.3634
80	50	Biased-84Hr-Anneal	1.5224	1.4016	-0.1208
81	50	Biased-84Hr-Anneal	0.871	1.2185	0.3475
100	0	CORRELATION	1.4444	0.6954	-0.749
101	0	CORRELATION	0.7805	0.6378	-0.1427
102	0	CORRELATION	0.9769	0.5255	-0.4514
103	0	CORRELATION	1.4381	0.9101	-0.528
104	0	CORRELATION	1.0488	0.7752	-0.2736

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	0.7805	1.1377	1.4444	0.29396	0.5255	0.7088	0.9101	0.1447	-0.749	-0.42894	-0.1427	0.23389
20	0.6222	0.74974	0.8532	0.0758	0.7017	0.86354	0.9469	0.087631	-0.083	0.1138	0.2484	0.10117
30	0.5492	0.91975	2.642	0.61299	0.8727	1.1232	2.7544	0.57579	-0.037	0.20342	0.3809	0.13186
50	0.6145	0.91267	1.5224	0.27505	0.8136	1.2487	1.5119	0.2281	-0.4123	0.336	0.8974	0.37892

Device Test: 23.29 VOL|2mA/PWRGD/14////@PWRGD_OUTPUT_LOW





Test Results (Upper Limit = 300.0 (mV))

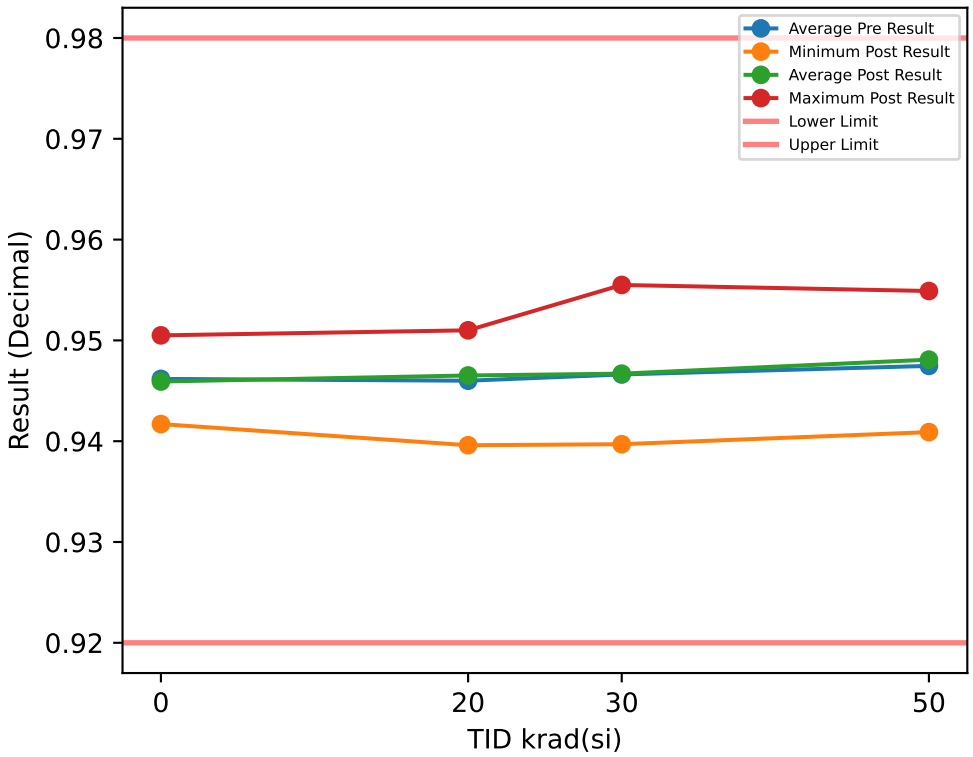
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	245.71	245.51	-0.2075
2	20	Biased	247.67	247.65	-0.0129
3	20	Biased	246.05	245.98	-0.0735
4	20	Biased	251.17	251.1	-0.0717
5	20	Biased	246.96	246.97	0.0038
6	20	Unbiased	247.38	247.37	-0.0166
7	20	Unbiased	246.43	246.43	0
8	20	Unbiased	246.76	246.78	0.0156
9	20	Unbiased	245.98	245.87	-0.1093
10	20	Unbiased	246.85	246.66	-0.1933
11	30	Biased	247.04	247.03	-0.007
12	30	Biased	247.23	247.01	-0.2225
13	30	Biased	246.6	246.3	-0.3014
14	30	Biased	247.24	247.09	-0.1535
15	30	Biased	246.94	246.98	0.036
16	30	Unbiased	247.45	247.36	-0.0867
17	30	Unbiased	247.21	247.14	-0.0743
18	30	Unbiased	248.23	247.99	-0.2352
19	30	Unbiased	247.04	246.86	-0.1718
20	30	Unbiased	248.28	248.03	-0.2498
27	50	Unbiased	246.47	246.48	0.0086
28	50	Unbiased	247.31	247.24	-0.0663
29	50	Unbiased	246.26	246.07	-0.192
30	50	Unbiased	246.21	246.15	-0.0598
31	50	Unbiased	247.41	247.35	-0.0576
77	50	Biased-84Hr-Anneal	248.68	248.31	-0.3739
78	50	Biased-84Hr-Anneal	243.82	243.6	-0.2173
79	50	Biased-84Hr-Anneal	246.07	245.76	-0.3071
80	50	Biased-84Hr-Anneal	247.98	247.68	-0.2961
81	50	Biased-84Hr-Anneal	246.97	246.63	-0.3422
100	0	CORRELATION	248.49	248.4	-0.0929
101	0	CORRELATION	248.17	247.93	-0.2485
102	0	CORRELATION	245.96	245.59	-0.3696
103	0	CORRELATION	245.84	245.81	-0.0314
104	0	CORRELATION	244.94	244.8	-0.1393

Test Statistics (mV)

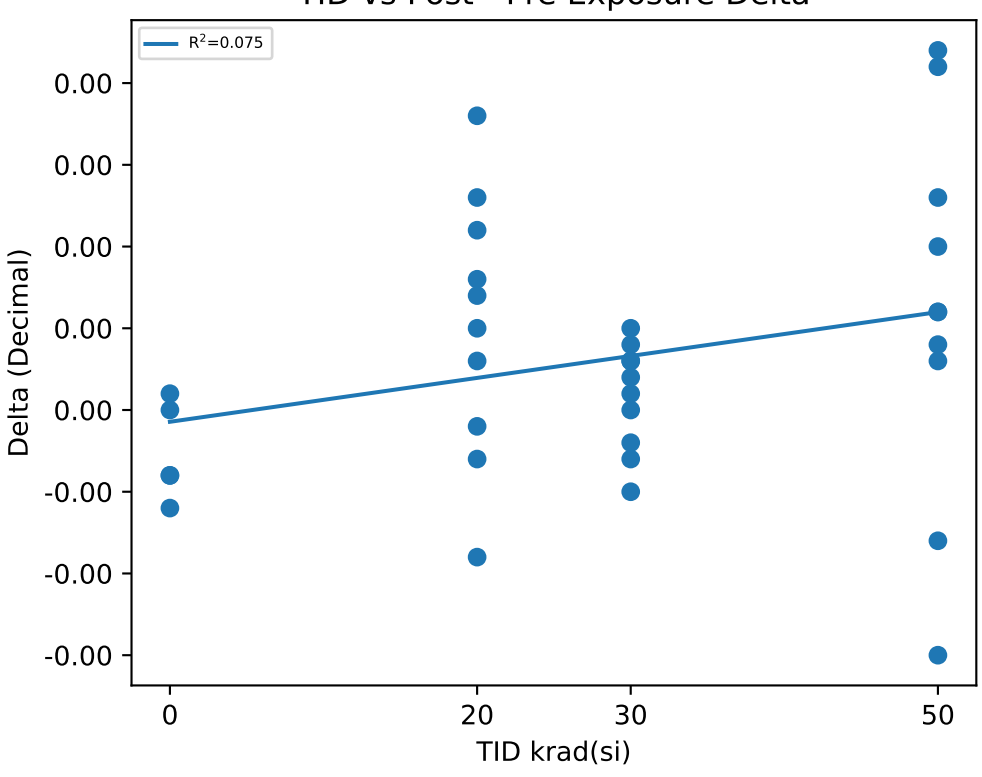
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	244.94	246.68	248.49	1.5623	244.8	246.51	248.4	1.5673	-0.3696	-0.17634	-0.0314	0.13407
20	245.71	247.1	251.17	1.5589	245.51	247.03	251.1	1.5768	-0.2075	-0.06654	0.0156	0.081196
30	246.6	247.33	248.28	0.53779	246.3	247.18	248.03	0.51512	-0.3014	-0.14662	0.036	0.11083
50	243.82	246.72	248.68	1.32	243.6	246.53	248.31	1.2996	-0.3739	-0.19037	0.0086	0.13821

Device Test: 23.3 THRESHOLD|RISE/PWRGD/4.5////@VSENSE_VTH_RISING_GOOD

TID vs Result Stats



TID vs Post - Pre Exposure Delta



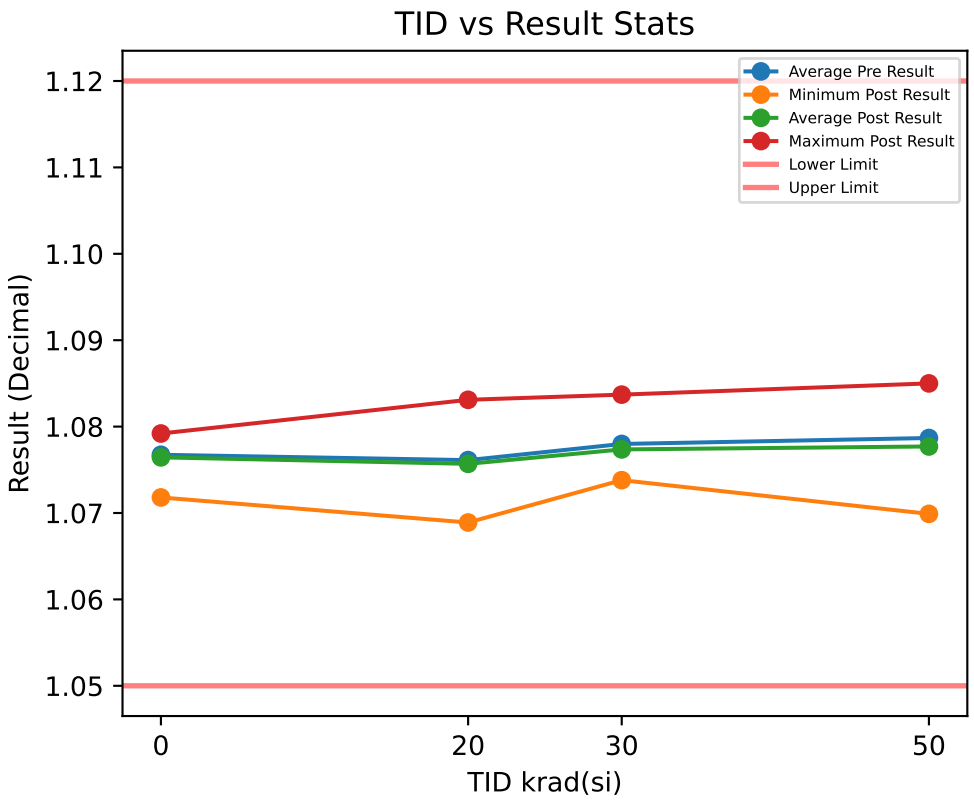
Test Results (Lower Limit = 0.92, Upper Limit = 0.98 (Decimal))

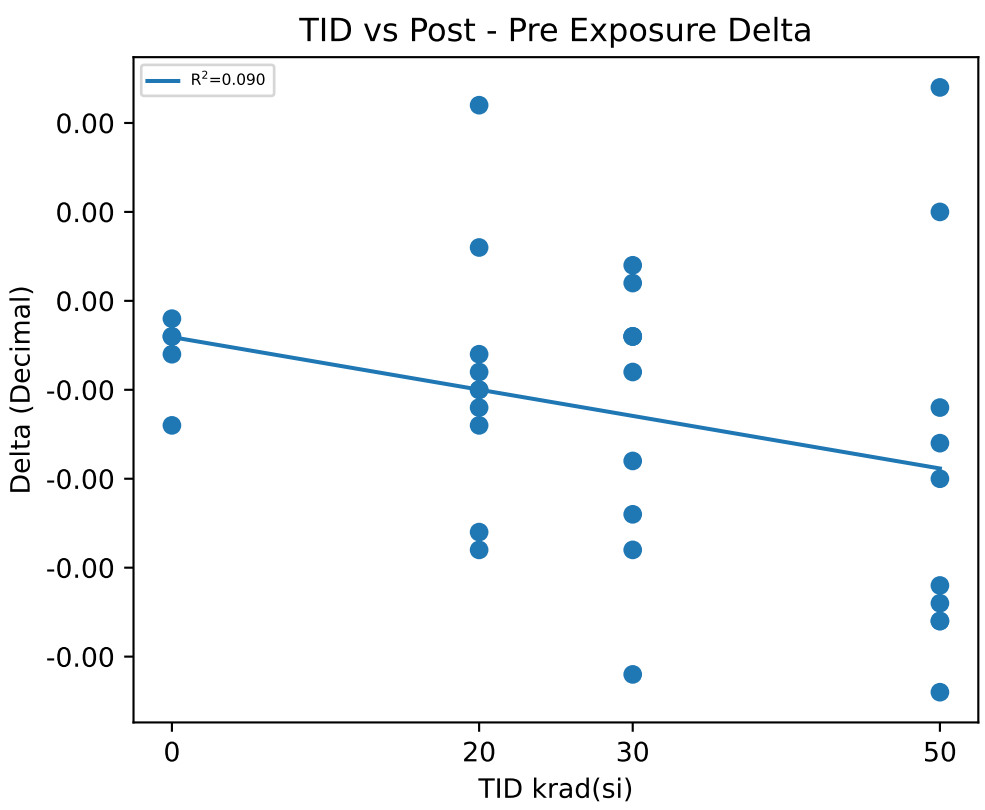
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.9448	0.9466	0.0018
2	20	Biased	0.9489	0.948	-0.0009
3	20	Biased	0.9397	0.9396	-0.0001
4	20	Biased	0.9455	0.946	0.0005
5	20	Biased	0.9497	0.951	0.0013
6	20	Unbiased	0.9467	0.947	0.0003
7	20	Unbiased	0.946	0.9467	0.0007
8	20	Unbiased	0.9433	0.943	-0.0003
9	20	Unbiased	0.9458	0.9469	0.0011
10	20	Unbiased	0.9496	0.9504	0.0008
11	30	Biased	0.9554	0.9555	0.0001
12	30	Biased	0.9478	0.9478	0
13	30	Biased	0.9479	0.9484	0.0005
14	30	Biased	0.9436	0.9433	-0.0003
15	30	Biased	0.9445	0.9447	0.0002
16	30	Unbiased	0.9402	0.9397	-0.0005
17	30	Unbiased	0.9499	0.9497	-0.0002
18	30	Unbiased	0.9498	0.9501	0.0003
19	30	Unbiased	0.9437	0.9441	0.0004
20	30	Unbiased	0.9434	0.9437	0.0003
27	50	Unbiased	0.95	0.9504	0.0004
28	50	Unbiased	0.9404	0.941	0.0006
29	50	Unbiased	0.951	0.9523	0.0013
30	50	Unbiased	0.9501	0.9511	0.001
31	50	Unbiased	0.9528	0.9549	0.0021
77	50	Biased-84Hr-Anneal	0.9444	0.9436	-0.0008
78	50	Biased-84Hr-Anneal	0.9403	0.9409	0.0006
79	50	Biased-84Hr-Anneal	0.943	0.9415	-0.0015
80	50	Biased-84Hr-Anneal	0.9504	0.9526	0.0022
81	50	Biased-84Hr-Anneal	0.9523	0.9526	0.0003
100	0	CORRELATION	0.9492	0.9488	-0.0004
101	0	CORRELATION	0.9428	0.9424	-0.0004
102	0	CORRELATION	0.9416	0.9417	0.0001
103	0	CORRELATION	0.9468	0.9462	-0.0006
104	0	CORRELATION	0.9505	0.9505	0

Test Statistics (Decimal)

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	0.9416	0.94618	0.9505	0.0038913	0.9417	0.94592	0.9505	0.0038584	-0.0006	-0.00026	0.0001	0.00029665
20	0.9397	0.946	0.9497	0.0030598	0.9396	0.94652	0.951	0.0033045	-0.0009	0.00052	0.0018	0.00080388
30	0.9402	0.94662	0.9554	0.004406	0.9397	0.9467	0.9555	0.0045021	-0.0005	8e-05	0.0005	0.00032592
50	0.9403	0.94747	0.9528	0.0049092	0.9409	0.94809	0.9549	0.0056246	-0.0015	0.00062	0.0022	0.0011526

Device Test: 23.4 THRESHOLD|RISE/PWRGD/4.5////@VSENSE_VTH_RISING_FAULT





Test Results (Lower Limit = 1.05, Upper Limit = 1.12 (Decimal))

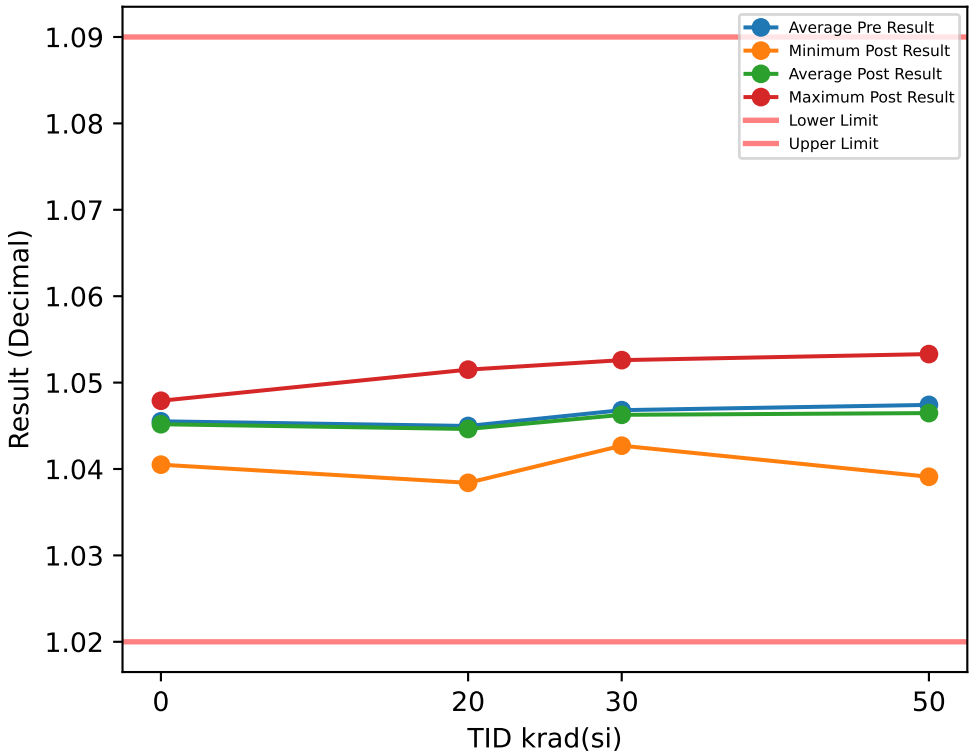
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0761	1.0754	-0.0007
2	20	Biased	1.077	1.0757	-0.0013
3	20	Biased	1.0694	1.0689	-0.0005
4	20	Biased	1.0763	1.076	-0.0003
5	20	Biased	1.0778	1.0781	0.0003
6	20	Unbiased	1.0755	1.0751	-0.0004
7	20	Unbiased	1.0785	1.0779	-0.0006
8	20	Unbiased	1.0714	1.07	-0.0014
9	20	Unbiased	1.0756	1.0767	0.0011
10	20	Unbiased	1.0836	1.0831	-0.0005
11	30	Biased	1.0839	1.0837	-0.0002
12	30	Biased	1.0799	1.0785	-0.0014
13	30	Biased	1.0823	1.0821	-0.0002
14	30	Biased	1.0762	1.0741	-0.0021
15	30	Biased	1.0741	1.0739	-0.0002
16	30	Unbiased	1.0747	1.0738	-0.0009
17	30	Unbiased	1.0799	1.0801	0.0002
18	30	Unbiased	1.0781	1.0777	-0.0004
19	30	Unbiased	1.0741	1.0742	0.0001
20	30	Unbiased	1.0767	1.0755	-0.0012
27	50	Unbiased	1.0809	1.0793	-0.0016
28	50	Unbiased	1.0728	1.0722	-0.0006
29	50	Unbiased	1.0828	1.0833	0.0005
30	50	Unbiased	1.0812	1.0804	-0.0008
31	50	Unbiased	1.0838	1.085	0.0012
77	50	Biased-84Hr-Anneal	1.0745	1.0728	-0.0017
78	50	Biased-84Hr-Anneal	1.072	1.0702	-0.0018
79	50	Biased-84Hr-Anneal	1.0717	1.0699	-0.0018
80	50	Biased-84Hr-Anneal	1.0829	1.0819	-0.001
81	50	Biased-84Hr-Anneal	1.0842	1.082	-0.0022
100	0	CORRELATION	1.0794	1.0792	-0.0002
101	0	CORRELATION	1.0733	1.0731	-0.0002
102	0	CORRELATION	1.0719	1.0718	-0.0001
103	0	CORRELATION	1.0797	1.079	-0.0007
104	0	CORRELATION	1.0794	1.0791	-0.0003

Test Statistics (Decimal)

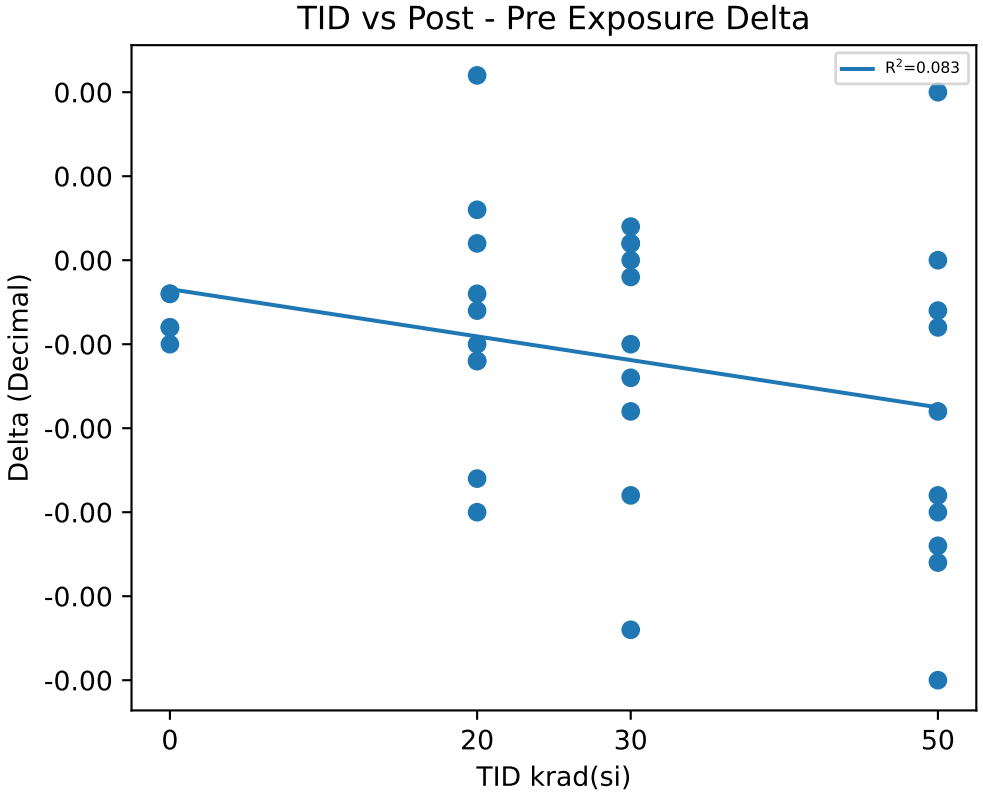
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.0719	1.0767	1.0797	0.0038135	1.0718	1.0764	1.0792	0.0036719	-0.0007	-0.0003	-0.0001	0.00023452
20	1.0694	1.0761	1.0836	0.003849	1.0689	1.0757	1.0831	0.0040226	-0.0014	-0.00043	0.0011	0.00072273
30	1.0741	1.078	1.0839	0.0034443	1.0738	1.0774	1.0837	0.0036561	-0.0021	-0.00063	0.0002	0.00074394
50	1.0717	1.0787	1.0842	0.0052508	1.0699	1.0777	1.085	0.0057925	-0.0022	-0.00098	0.0012	0.0010983

Device Test: 23.5 THRESHOLD|FALL/PWRGD/4.5////@VSENSE_VTH_FALLING_GOOD

TID vs Result Stats



TID vs Post - Pre Exposure Delta



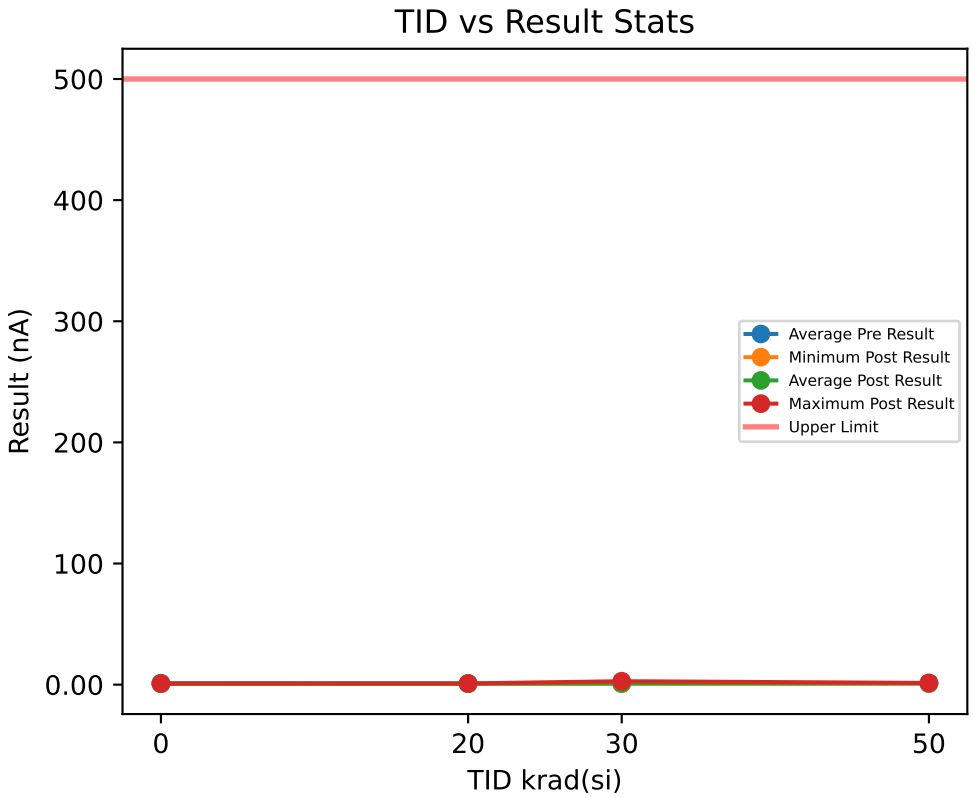
Test Results (Lower Limit = 1.02, Upper Limit = 1.09 (Decimal))

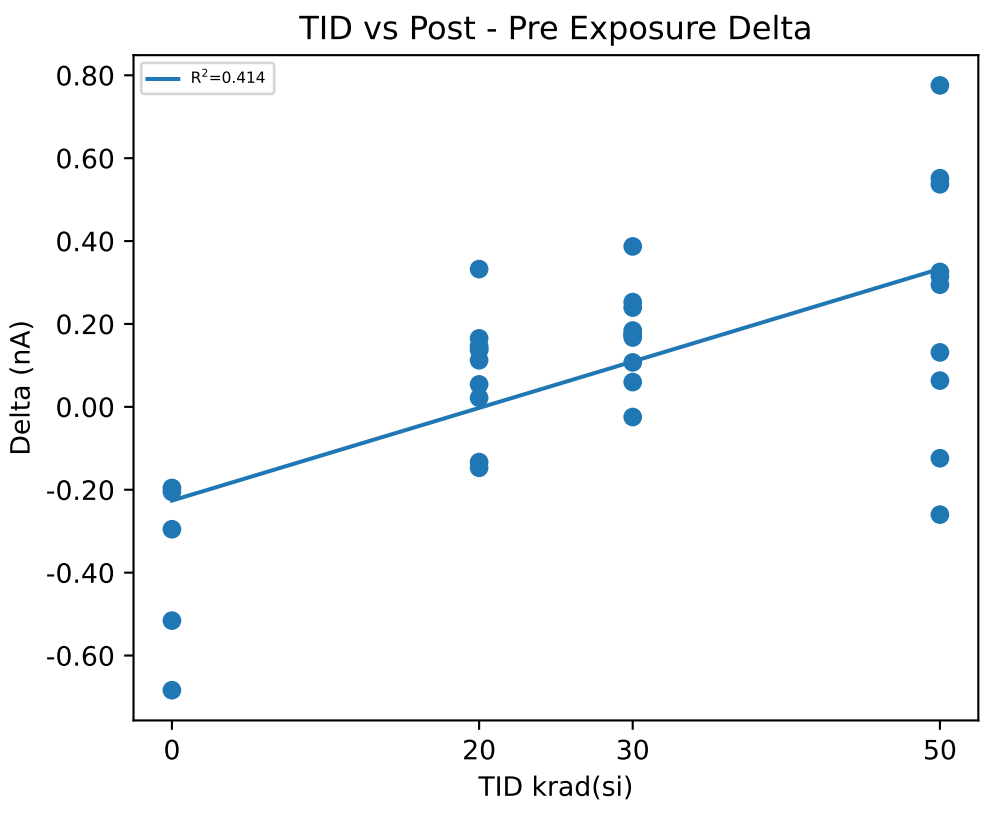
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.0446	1.0441	-0.0005
2	20	Biased	1.0463	1.0448	-0.0015
3	20	Biased	1.0383	1.0384	0.0001
4	20	Biased	1.0452	1.0449	-0.0003
5	20	Biased	1.0465	1.0468	0.0003
6	20	Unbiased	1.0447	1.0441	-0.0006
7	20	Unbiased	1.047	1.0468	-0.0002
8	20	Unbiased	1.0404	1.0391	-0.0013
9	20	Unbiased	1.0447	1.0458	0.0011
10	20	Unbiased	1.0521	1.0515	-0.0006
11	30	Biased	1.0525	1.0526	0.0001
12	30	Biased	1.0486	1.0472	-0.0014
13	30	Biased	1.0511	1.0506	-0.0005
14	30	Biased	1.0454	1.0432	-0.0022
15	30	Biased	1.0428	1.0428	0
16	30	Unbiased	1.0436	1.0427	-0.0009
17	30	Unbiased	1.0487	1.0489	0.0002
18	30	Unbiased	1.0468	1.0467	-0.0001
19	30	Unbiased	1.0432	1.0433	0.0001
20	30	Unbiased	1.0454	1.0447	-0.0007
27	50	Unbiased	1.0498	1.0484	-0.0014
28	50	Unbiased	1.0415	1.0412	-0.0003
29	50	Unbiased	1.0517	1.0517	0
30	50	Unbiased	1.0499	1.049	-0.0009
31	50	Unbiased	1.0523	1.0533	0.001
77	50	Biased-84Hr-Anneal	1.0432	1.0417	-0.0015
78	50	Biased-84Hr-Anneal	1.0409	1.0391	-0.0018
79	50	Biased-84Hr-Anneal	1.0408	1.0391	-0.0017
80	50	Biased-84Hr-Anneal	1.0512	1.0508	-0.0004
81	50	Biased-84Hr-Anneal	1.0529	1.0504	-0.0025
100	0	CORRELATION	1.0481	1.0477	-0.0004
101	0	CORRELATION	1.0422	1.042	-0.0002
102	0	CORRELATION	1.0407	1.0405	-0.0002
103	0	CORRELATION	1.0484	1.0479	-0.0005
104	0	CORRELATION	1.0482	1.0478	-0.0004

Test Statistics (Decimal)

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	1.0407	1.0455	1.0484	0.0037546	1.0405	1.0452	1.0479	0.0036273	-0.0005	-0.00034	-0.0002	0.00013416
20	1.0383	1.045	1.0521	0.0037234	1.0384	1.0446	1.0515	0.0037718	-0.0015	-0.00035	0.0011	0.00075462
30	1.0428	1.0468	1.0525	0.0033491	1.0427	1.0463	1.0526	0.0035321	-0.0022	-0.00054	0.0002	0.00078202
50	1.0408	1.0474	1.0529	0.0051365	1.0391	1.0465	1.0533	0.0055526	-0.0025	-0.00095	0.001	0.0010341

Device Test: 23.6 LEAK|MAX/PWRGD/4.5////@PWRGD_OUTPUT_HIGH_LEAK





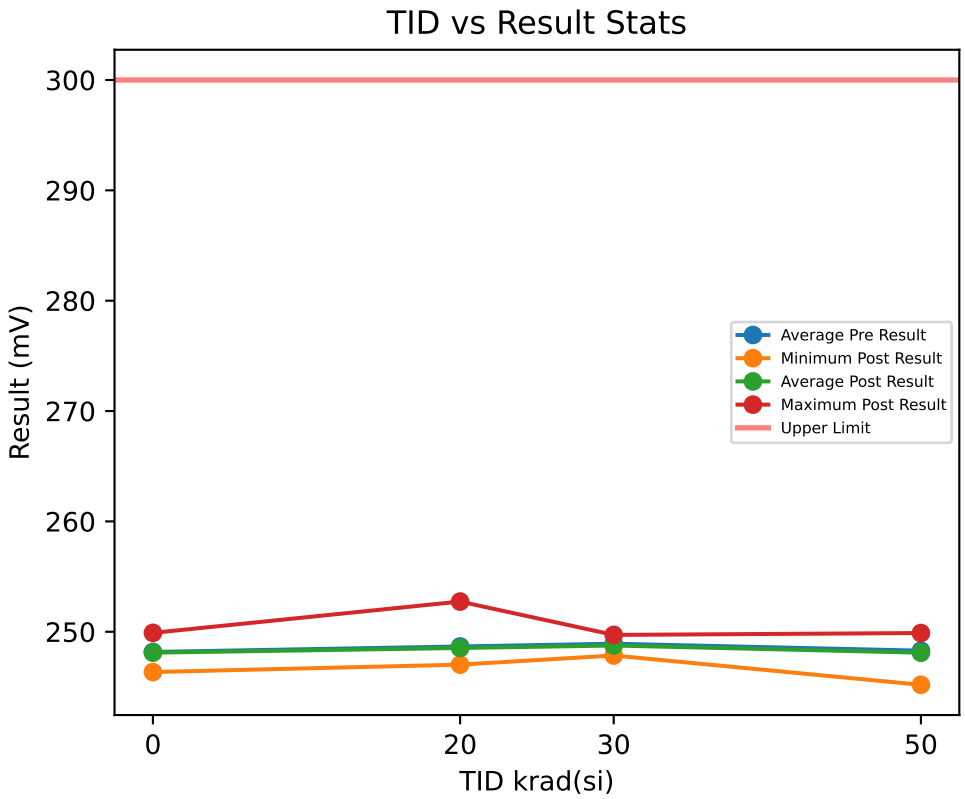
Test Results (Upper Limit = 500.0 (nA))

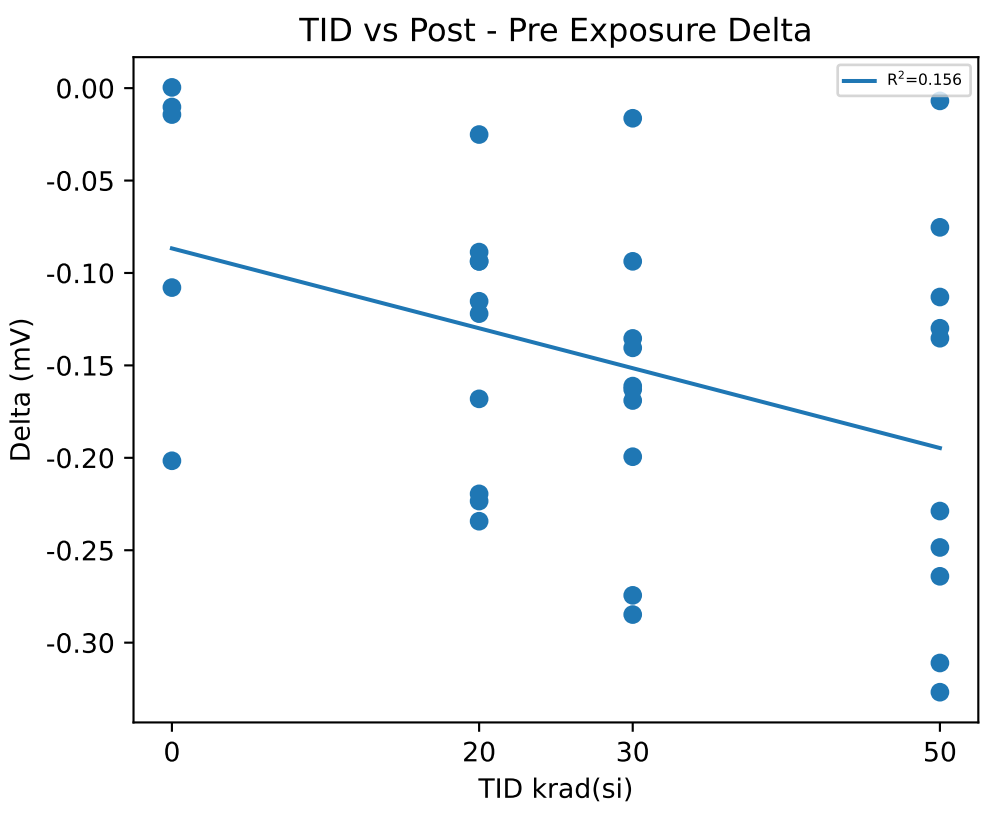
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6239	0.9563	0.3324
2	20	Biased	0.7441	0.9094	0.1653
3	20	Biased	0.7346	0.7888	0.0542
4	20	Biased	0.8689	1.0156	0.1467
5	20	Biased	0.7576	0.897	0.1394
6	20	Unbiased	0.9003	0.767	-0.1333
7	20	Unbiased	0.8501	0.9625	0.1124
8	20	Unbiased	0.6847	0.822	0.1373
9	20	Unbiased	0.795	0.8168	0.0218
10	20	Unbiased	1.0221	0.8751	-0.147
11	30	Biased	0.6878	1.0749	0.3871
12	30	Biased	0.8689	0.9287	0.0598
13	30	Biased	0.7328	0.9001	0.1673
14	30	Biased	0.766	0.9407	0.1747
15	30	Biased	0.6815	0.7888	0.1073
16	30	Unbiased	0.719	0.9032	0.1842
17	30	Unbiased	0.8572	1.0967	0.2395
18	30	Unbiased	0.919	0.8945	-0.0245
19	30	Unbiased	2.6015	2.8543	0.2528
20	30	Unbiased	0.6753	0.8501	0.1748
27	50	Unbiased	0.7377	1.2747	0.537
28	50	Unbiased	0.7846	1.3363	0.5517
29	50	Unbiased	0.6208	1.3964	0.7756
30	50	Unbiased	1.0596	1.3746	0.315
31	50	Unbiased	0.8813	1.0127	0.1314
77	50	Biased-84Hr-Anneal	1.2696	1.0096	-0.26
78	50	Biased-84Hr-Anneal	0.8304	0.8938	0.0634
79	50	Biased-84Hr-Anneal	0.9332	1.2279	0.2947
80	50	Biased-84Hr-Anneal	1.5567	1.4327	-0.124
81	50	Biased-84Hr-Anneal	0.8554	1.181	0.3256
100	0	CORRELATION	1.4506	0.767	-0.6836
101	0	CORRELATION	1.027	0.822	-0.205
102	0	CORRELATION	1.0018	0.7065	-0.2953
103	0	CORRELATION	1.4849	0.9692	-0.5157
104	0	CORRELATION	1.0551	0.8595	-0.1956

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	1.0018	1.2039	1.4849	0.24192	0.7065	0.82484	0.9692	0.099246	-0.6836	-0.37904	-0.1956	0.21353
20	0.6239	0.79813	1.0221	0.11554	0.767	0.88105	1.0156	0.082075	-0.147	0.08292	0.3324	0.1431
30	0.6753	0.9509	2.6015	0.58635	0.7888	1.1232	2.8543	0.61534	-0.0245	0.1723	0.3871	0.11201
50	0.6208	0.95293	1.5567	0.27713	0.8938	1.214	1.4327	0.18608	-0.26	0.26104	0.7756	0.31784

Device Test: 23.7 VOL|2mA/PWRGD/4.5////@PWRGD_OUTPUT_LOW





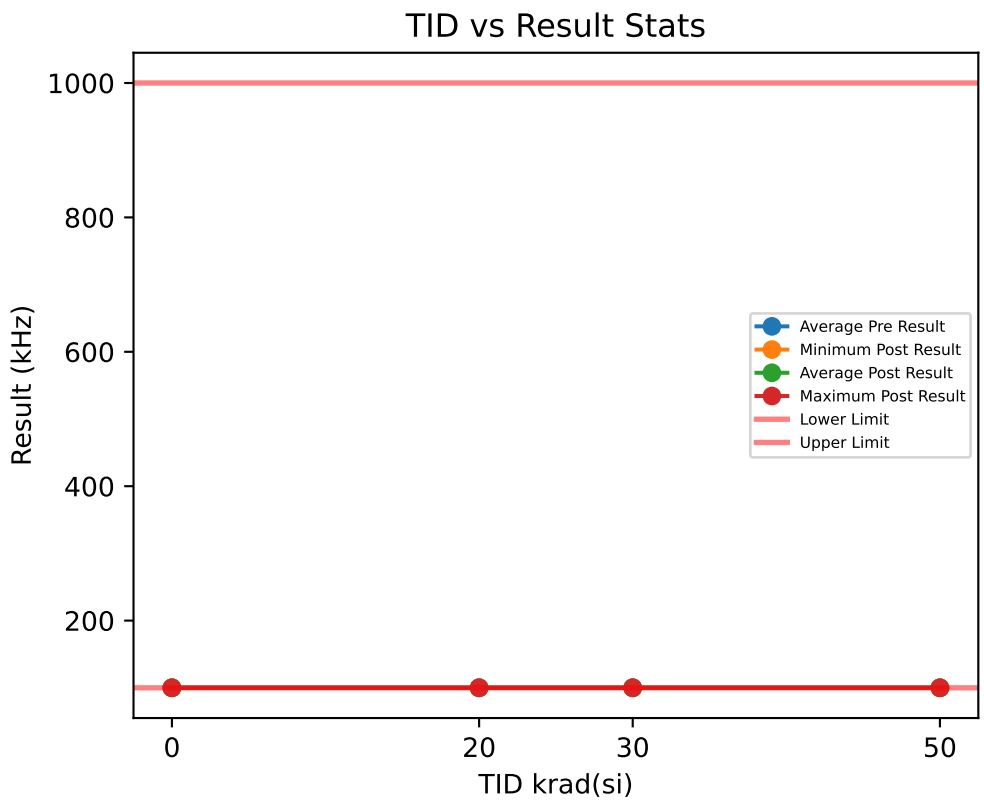
Test Results (Upper Limit = 300.0 (mV))

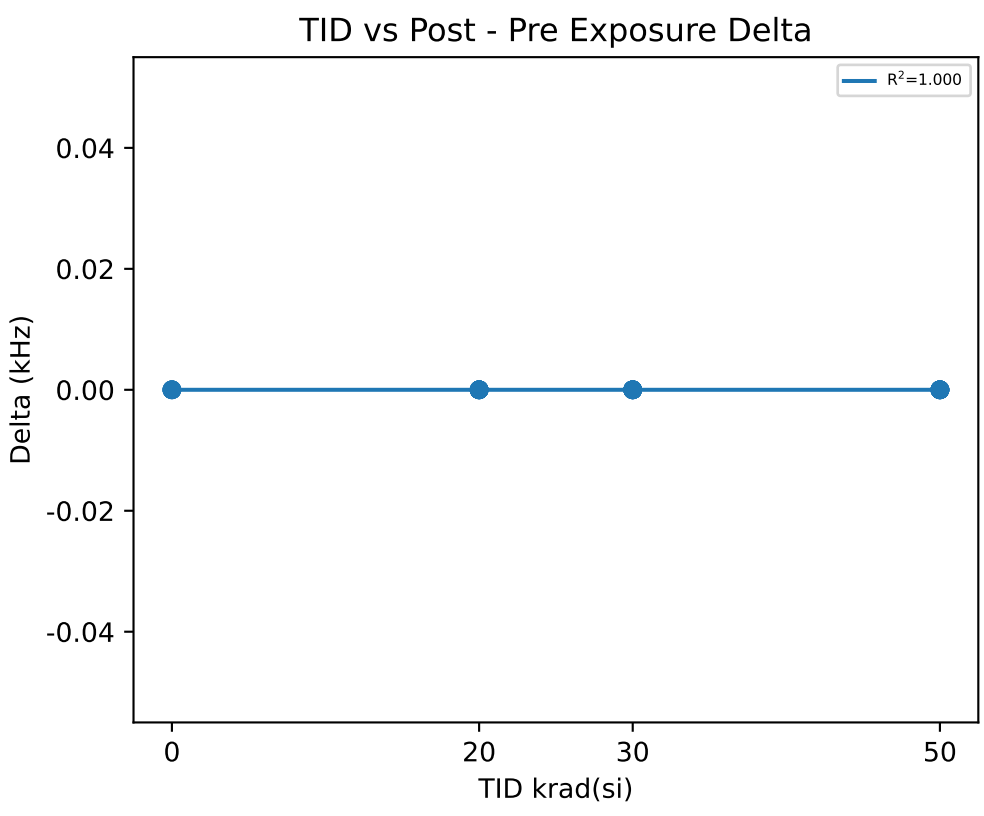
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	247.24	247.02	-0.2234
2	20	Biased	249.17	249.04	-0.122
3	20	Biased	247.64	247.56	-0.0887
4	20	Biased	252.76	252.74	-0.0251
5	20	Biased	248.56	248.39	-0.1681
6	20	Unbiased	249.09	248.87	-0.2195
7	20	Unbiased	247.91	247.82	-0.0937
8	20	Unbiased	248.34	248.25	-0.0937
9	20	Unbiased	247.57	247.34	-0.2343
10	20	Unbiased	248.38	248.27	-0.1153
11	30	Biased	248.82	248.65	-0.163
12	30	Biased	248.82	248.54	-0.2848
13	30	Biased	248.01	247.85	-0.1612
14	30	Biased	248.7	248.53	-0.169
15	30	Biased	248.66	248.52	-0.1354
16	30	Unbiased	249.22	248.94	-0.2744
17	30	Unbiased	248.81	248.61	-0.1994
18	30	Unbiased	249.63	249.62	-0.0163
19	30	Unbiased	248.69	248.55	-0.1405
20	30	Unbiased	249.81	249.71	-0.0937
27	50	Unbiased	248.07	248.06	-0.0069
28	50	Unbiased	248.87	248.76	-0.113
29	50	Unbiased	247.79	247.66	-0.1299
30	50	Unbiased	247.7	247.62	-0.0753
31	50	Unbiased	249.05	248.91	-0.1353
77	50	Biased-84Hr-Anneal	250.13	249.88	-0.2485
78	50	Biased-84Hr-Anneal	245.5	245.19	-0.311
79	50	Biased-84Hr-Anneal	247.68	247.45	-0.2288
80	50	Biased-84Hr-Anneal	249.49	249.16	-0.3268
81	50	Biased-84Hr-Anneal	248.58	248.32	-0.2641
100	0	CORRELATION	250.1	249.9	-0.2016
101	0	CORRELATION	249.69	249.58	-0.1079
102	0	CORRELATION	247.38	247.37	-0.0102
103	0	CORRELATION	247.32	247.32	0.0004
104	0	CORRELATION	246.36	246.35	-0.0143

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	246.36	248.17	250.1	1.6309	246.35	248.1	249.9	1.5517	-0.2016	-0.06672	0.0004	0.087086
20	247.24	248.67	252.76	1.5714	247.02	248.53	252.74	1.6121	-0.2343	-0.13838	-0.0251	0.06991
30	248.01	248.92	249.81	0.51848	247.85	248.75	249.71	0.55263	-0.2848	-0.16377	-0.0163	0.079018
50	245.5	248.29	250.13	1.2745	245.19	248.1	249.88	1.2803	-0.3268	-0.18396	-0.0069	0.10678

Device Test: 24.1 FREQ|100kHz/SYNC1/4.5//OPEN//@SYNC_FREQ_RANGE





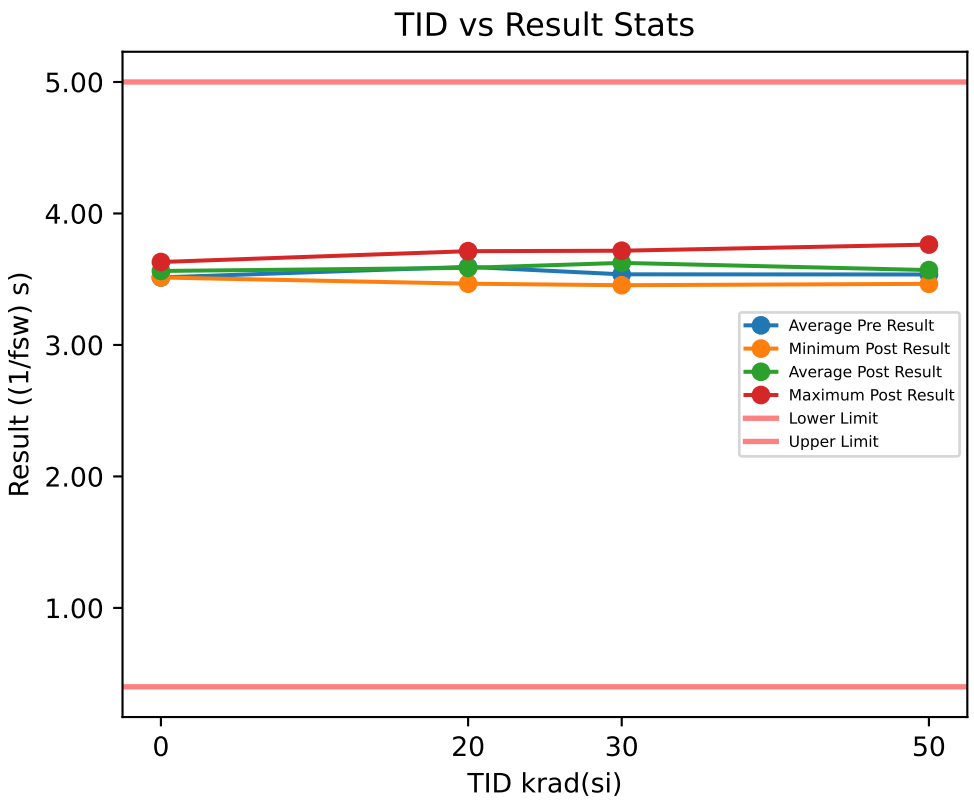
Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

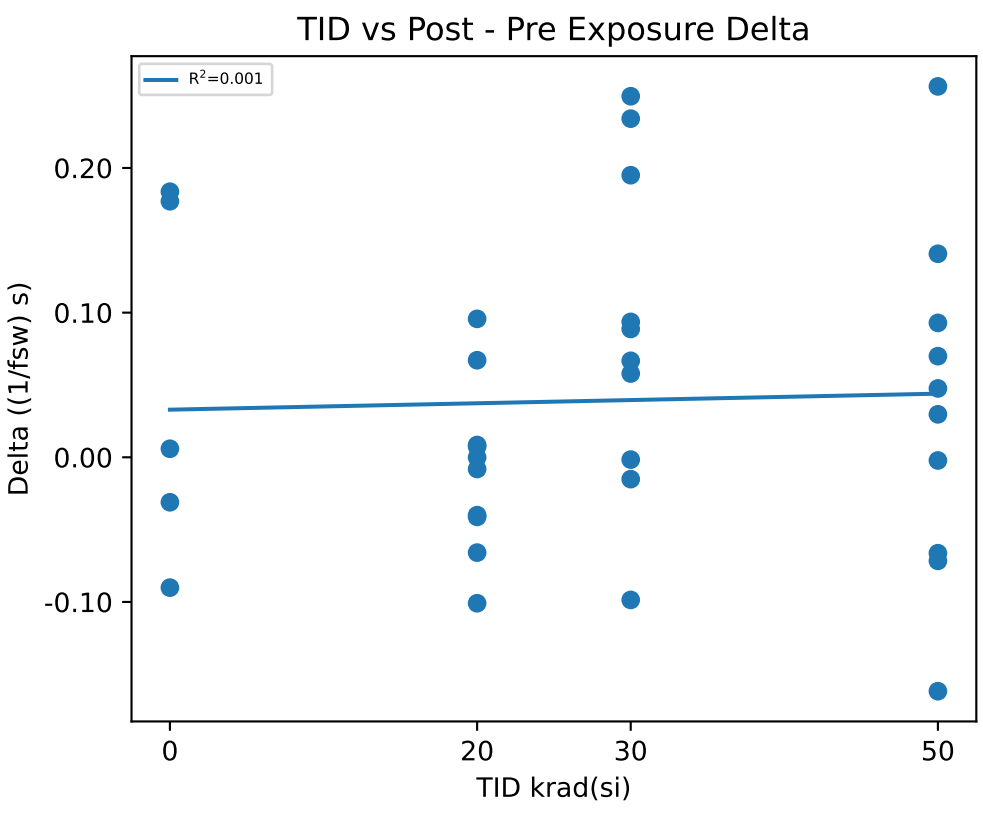
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	100	100	0
2	20	Biased	100	100	0
3	20	Biased	100	100	0
4	20	Biased	100	100	0
5	20	Biased	100	100	0
6	20	Unbiased	100	100	0
7	20	Unbiased	100	100	0
8	20	Unbiased	100	100	0
9	20	Unbiased	100	100	0
10	20	Unbiased	100	100	0
11	30	Biased	100	100	0
12	30	Biased	100	100	0
13	30	Biased	100	100	0
14	30	Biased	100	100	0
15	30	Biased	100	100	0
16	30	Unbiased	100	100	0
17	30	Unbiased	100	100	0
18	30	Unbiased	100	100	0
19	30	Unbiased	100	100	0
20	30	Unbiased	100	100	0
27	50	Unbiased	100	100	0
28	50	Unbiased	100	100	0
29	50	Unbiased	100	100	0
30	50	Unbiased	100	100	0
31	50	Unbiased	100	100	0
77	50	Biased-84Hr-Anneal	100	100	0
78	50	Biased-84Hr-Anneal	100	100	0
79	50	Biased-84Hr-Anneal	100	100	0
80	50	Biased-84Hr-Anneal	100	100	0
81	50	Biased-84Hr-Anneal	100	100	0
100	0	CORRELATION	100	100	0
101	0	CORRELATION	100	100	0
102	0	CORRELATION	100	100	0
103	0	CORRELATION	100	100	0
104	0	CORRELATION	100	100	0

Test Statistics (kHz)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	100	100	100	0	100	100	100	0	0	0	0	0
20	100	100	100	0	100	100	100	0	0	0	0	0
30	100	100	100	0	100	100	100	0	0	0	0	0
50	100	100	100	0	100	100	100	0	0	0	0	0

Device Test: 24.10 TIMING|CLKDETECT/SYNC1/4.5//511k//@T_CLOCK_DET





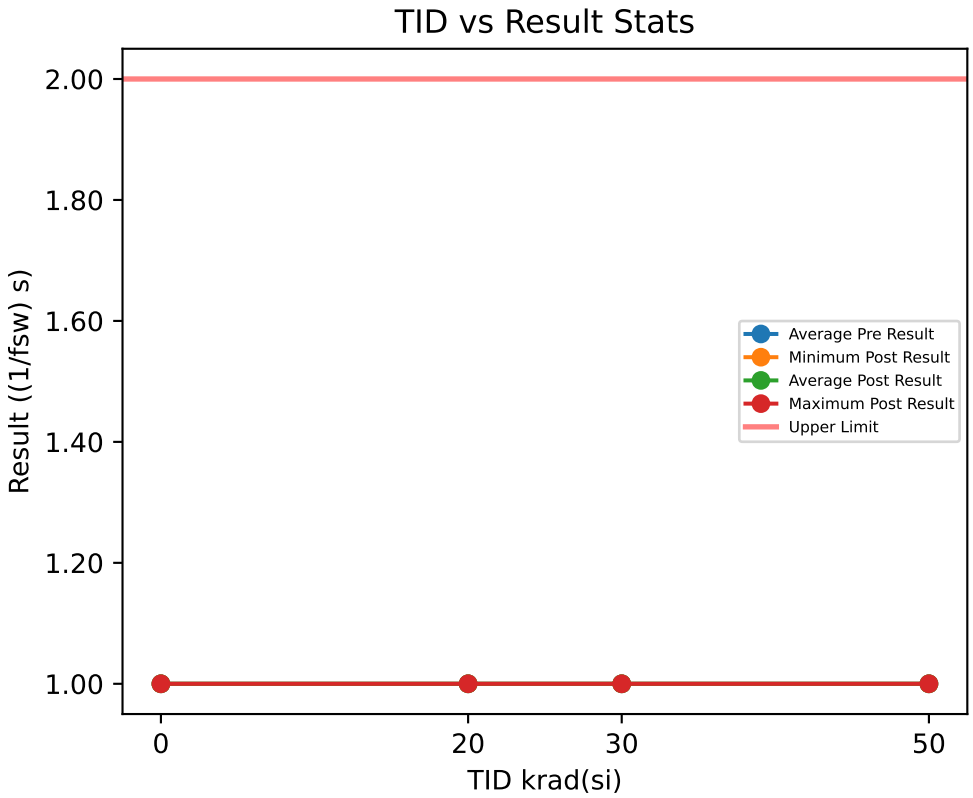
Test Results (Lower Limit = 0.4, Upper Limit = 5.0 ((1/fsw) s))

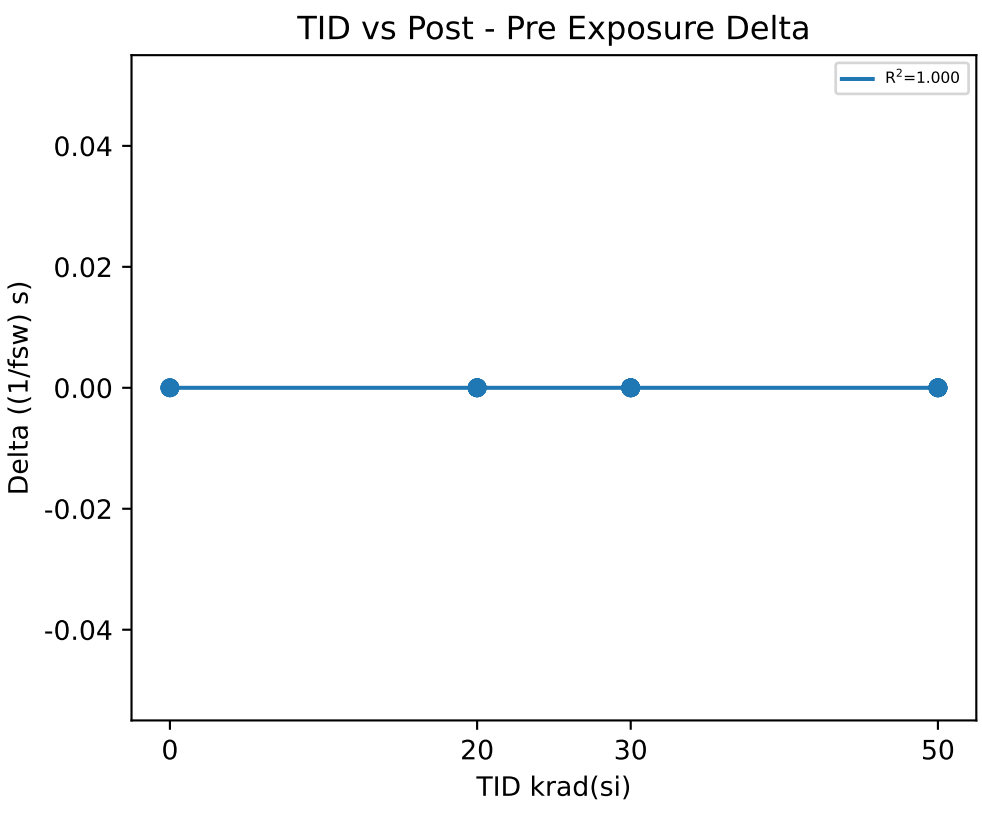
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.6485	3.6404	-0.0081
2	20	Biased	3.5257	3.5256	-0.0001
3	20	Biased	3.4997	3.5668	0.0671
4	20	Biased	3.4575	3.466	0.0085
5	20	Biased	3.7389	3.673	-0.0659
6	20	Unbiased	3.6325	3.5316	-0.1009
7	20	Unbiased	3.6175	3.7132	0.0957
8	20	Unbiased	3.5061	3.5135	0.0074
9	20	Unbiased	3.707	3.6658	-0.0412
10	20	Unbiased	3.6068	3.5668	-0.04
11	30	Biased	3.5837	3.6416	0.0579
12	30	Biased	3.4355	3.6851	0.2496
13	30	Biased	3.6126	3.514	-0.0986
14	30	Biased	3.4826	3.7167	0.2341
15	30	Biased	3.5063	3.7013	0.195
16	30	Unbiased	3.5976	3.596	-0.0016
17	30	Unbiased	3.5753	3.6689	0.0936
18	30	Unbiased	3.4695	3.4544	-0.0151
19	30	Unbiased	3.5415	3.6302	0.0887
20	30	Unbiased	3.5667	3.6334	0.0667
27	50	Unbiased	3.5418	3.4755	-0.0663
28	50	Unbiased	3.555	3.6479	0.0929
29	50	Unbiased	3.5736	3.6033	0.0297
30	50	Unbiased	3.4738	3.4716	-0.0022
31	50	Unbiased	3.5836	3.6535	0.0699
77	50	Biased-84Hr-Anneal	3.4512	3.4988	0.0476
78	50	Biased-84Hr-Anneal	3.4796	3.6203	0.1407
79	50	Biased-84Hr-Anneal	3.5069	3.7633	0.2564
80	50	Biased-84Hr-Anneal	3.5683	3.4967	-0.0716
81	50	Biased-84Hr-Anneal	3.6265	3.4648	-0.1617
100	0	CORRELATION	3.4005	3.5841	0.1836
101	0	CORRELATION	3.6032	3.5131	-0.0901
102	0	CORRELATION	3.5803	3.5492	-0.0311
103	0	CORRELATION	3.4539	3.6309	0.177
104	0	CORRELATION	3.5305	3.5364	0.0059

Test Statistics ((1/fsw) s)

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	3.4005	3.5137	3.6032	0.08532	3.5131	3.5627	3.6309	0.045944	-0.0901	0.04906	0.1836	0.12462
20	3.4575	3.594	3.7389	0.093601	3.466	3.5863	3.7132	0.081702	-0.1009	-0.00775	0.0957	0.058759
30	3.4355	3.5371	3.6126	0.060275	3.4544	3.6242	3.7167	0.083268	-0.0986	0.08703	0.2496	0.11243
50	3.4512	3.536	3.6265	0.05617	3.4648	3.5696	3.7633	0.10229	-0.1617	0.03354	0.2564	0.11862

Device Test: 24.100 TIMING|CLKDETECT/SYNC1/12//511k//@T_CLOCK_DET_EXT





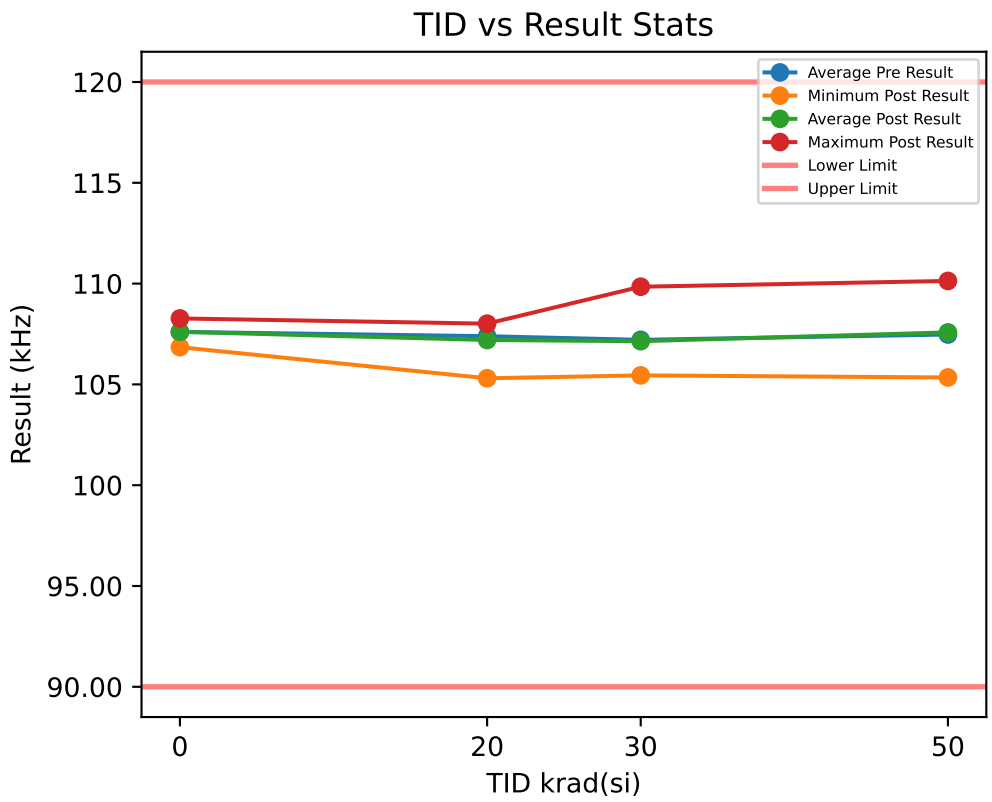
Test Results (Upper Limit = 2.0 ((1/fsw) s))

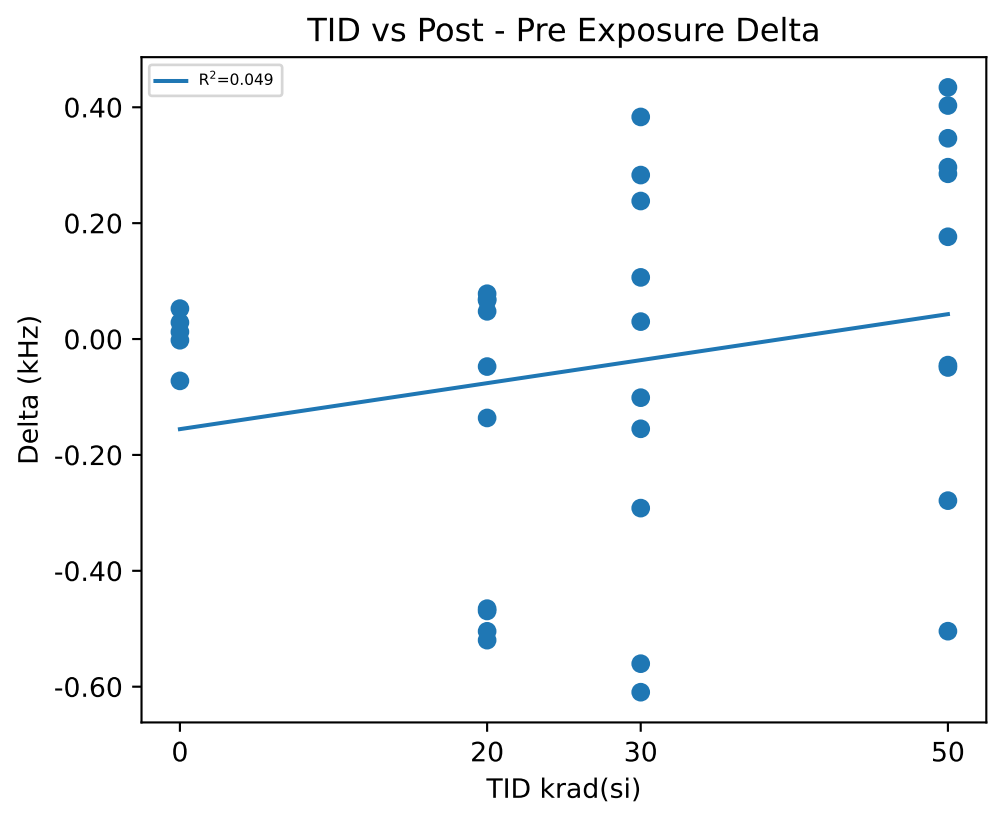
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1	1	0
2	20	Biased	1	1	0
3	20	Biased	1	1	0
4	20	Biased	1	1	0
5	20	Biased	1	1	0
6	20	Unbiased	1	1	0
7	20	Unbiased	1	1	0
8	20	Unbiased	1	1	0
9	20	Unbiased	1	1	0
10	20	Unbiased	1	1	0
11	30	Biased	1	1	0
12	30	Biased	1	1	0
13	30	Biased	1	1	0
14	30	Biased	1	1	0
15	30	Biased	1	1	0
16	30	Unbiased	1	1	0
17	30	Unbiased	1	1	0
18	30	Unbiased	1	1	0
19	30	Unbiased	1	1	0
20	30	Unbiased	1	1	0
27	50	Unbiased	1	1	0
28	50	Unbiased	1	1	0
29	50	Unbiased	1	1	0
30	50	Unbiased	1	1	0
31	50	Unbiased	1	1	0
77	50	Biased-84Hr-Anneal	1	1	0
78	50	Biased-84Hr-Anneal	1	1	0
79	50	Biased-84Hr-Anneal	1	1	0
80	50	Biased-84Hr-Anneal	1	1	0
81	50	Biased-84Hr-Anneal	1	1	0
100	0	CORRELATION	1	1	0
101	0	CORRELATION	1	1	0
102	0	CORRELATION	1	1	0
103	0	CORRELATION	1	1	0
104	0	CORRELATION	1	1	0

Test Statistics ((1/fsw) s)

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	1	1	0	1	1	1	0	0	0	0	0
20	1	1	1	0	1	1	1	0	0	0	0	0
30	1	1	1	0	1	1	1	0	0	0	0	0
50	1	1	1	0	1	1	1	0	0	0	0	0

Device Test: 24.101 FREQ|100kHz/SYNC1/12//511k//@EXT_SET_FREQ_100kHz





Test Results (Lower Limit = 90.0, Upper Limit = 120.0 (kHz))

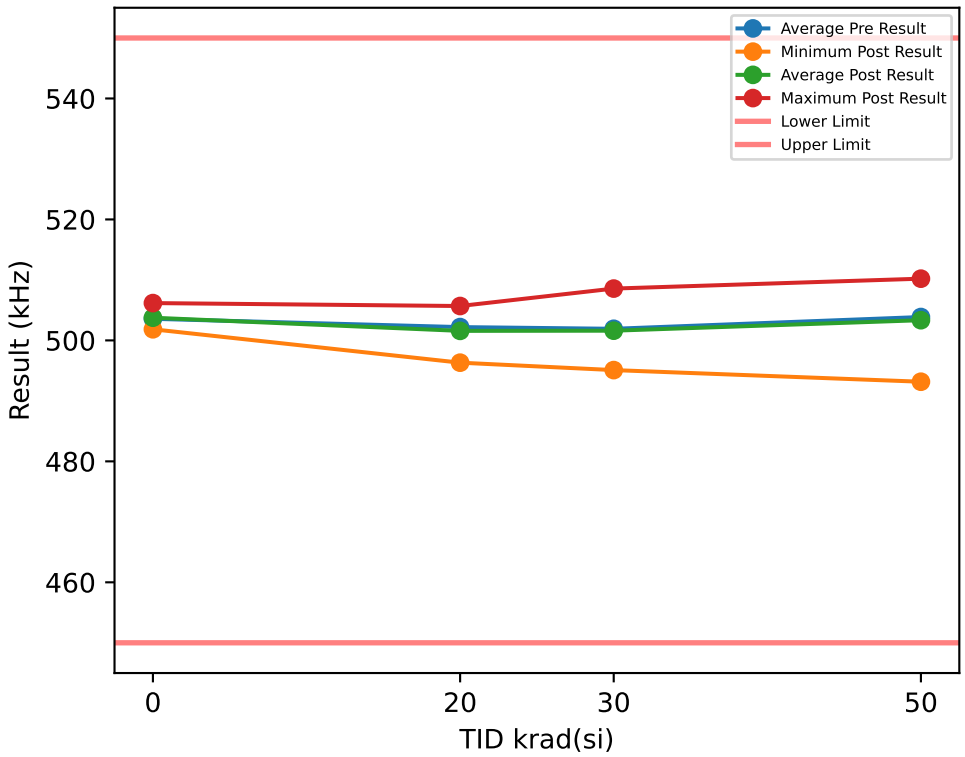
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	108.35	107.89	-0.4653
2	20	Biased	107.5	107	-0.5044
3	20	Biased	107.47	107.54	0.069
4	20	Biased	107.95	108.01	0.0667
5	20	Biased	106.01	105.97	-0.0475
6	20	Unbiased	108.15	107.68	-0.4693
7	20	Unbiased	106.76	106.84	0.0782
8	20	Unbiased	107.96	107.83	-0.1362
9	20	Unbiased	107.92	107.96	0.0478
10	20	Unbiased	105.82	105.3	-0.5197
11	30	Biased	106.29	106.32	0.0301
12	30	Biased	105.5	105.88	0.3833
13	30	Biased	109.95	109.85	-0.1012
14	30	Biased	108.37	108.21	-0.1549
15	30	Biased	106.19	105.9	-0.2918
16	30	Unbiased	107.46	107.69	0.2382
17	30	Unbiased	107.17	106.61	-0.5603
18	30	Unbiased	107.38	106.77	-0.6095
19	30	Unbiased	108.47	108.75	0.283
20	30	Unbiased	105.34	105.45	0.1064
27	50	Unbiased	109.4	109.83	0.4343
28	50	Unbiased	107.73	107.68	-0.045
29	50	Unbiased	106.54	106.04	-0.5042
30	50	Unbiased	107.57	107.75	0.1765
31	50	Unbiased	107.44	107.79	0.3465
77	50	Biased-84Hr-Anneal	110.41	110.13	-0.2789
78	50	Biased-84Hr-Anneal	107.29	107.69	0.403
79	50	Biased-84Hr-Anneal	107.29	107.24	-0.0491
80	50	Biased-84Hr-Anneal	106.01	106.3	0.2966
81	50	Biased-84Hr-Anneal	105.06	105.34	0.2852
100	0	CORRELATION	106.92	106.85	-0.0722
101	0	CORRELATION	107.74	107.74	-0.0021
102	0	CORRELATION	108.03	108.08	0.0525
103	0	CORRELATION	107.07	107.1	0.0286
104	0	CORRELATION	108.26	108.27	0.0124

Test Statistics (kHz)

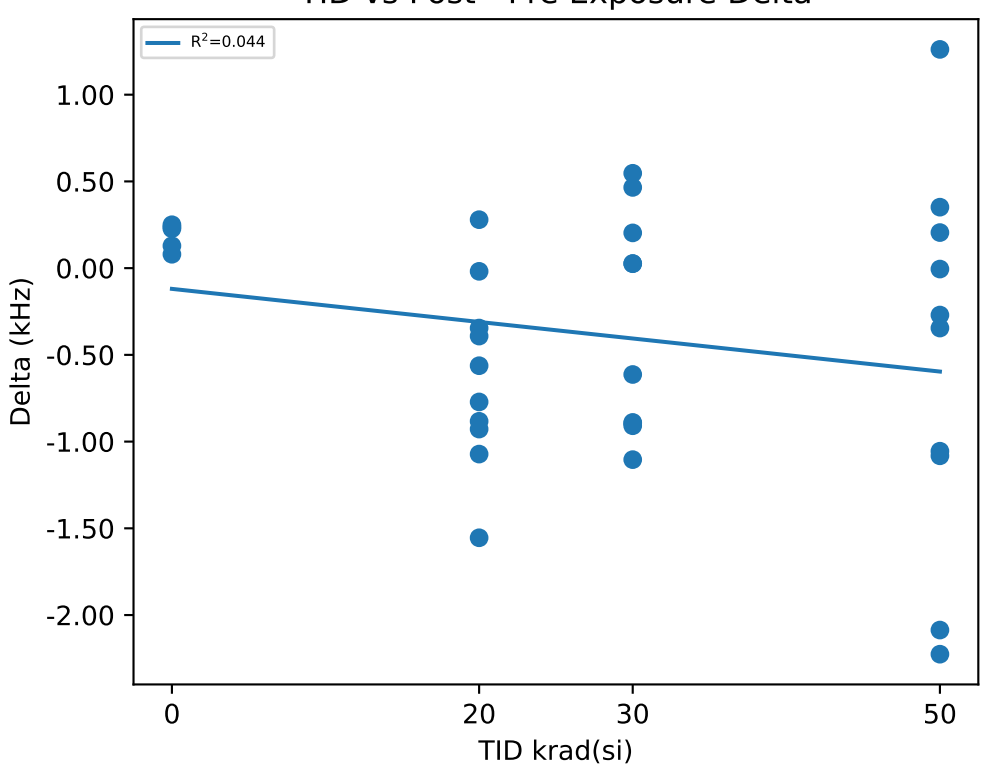
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	106.92	107.6	108.26	0.58728	106.85	107.61	108.27	0.61591	-0.0722	0.00384	0.0525	0.047094
20	105.82	107.39	108.35	0.89353	105.3	107.2	108.01	0.92781	-0.5197	-0.18807	0.0782	0.26791
30	105.34	107.21	109.95	1.446	105.45	107.14	109.85	1.4324	-0.6095	-0.06767	0.3833	0.34238
50	105.06	107.47	110.41	1.5393	105.34	107.58	110.13	1.5202	-0.5042	0.10649	0.4343	0.31528

Device Test: 24.108 FREQ|500kHz/SYNC1/12//90.9k//@EXT_SET_FREQ_500kHz

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 450.0, Upper Limit = 550.0 (kHz))

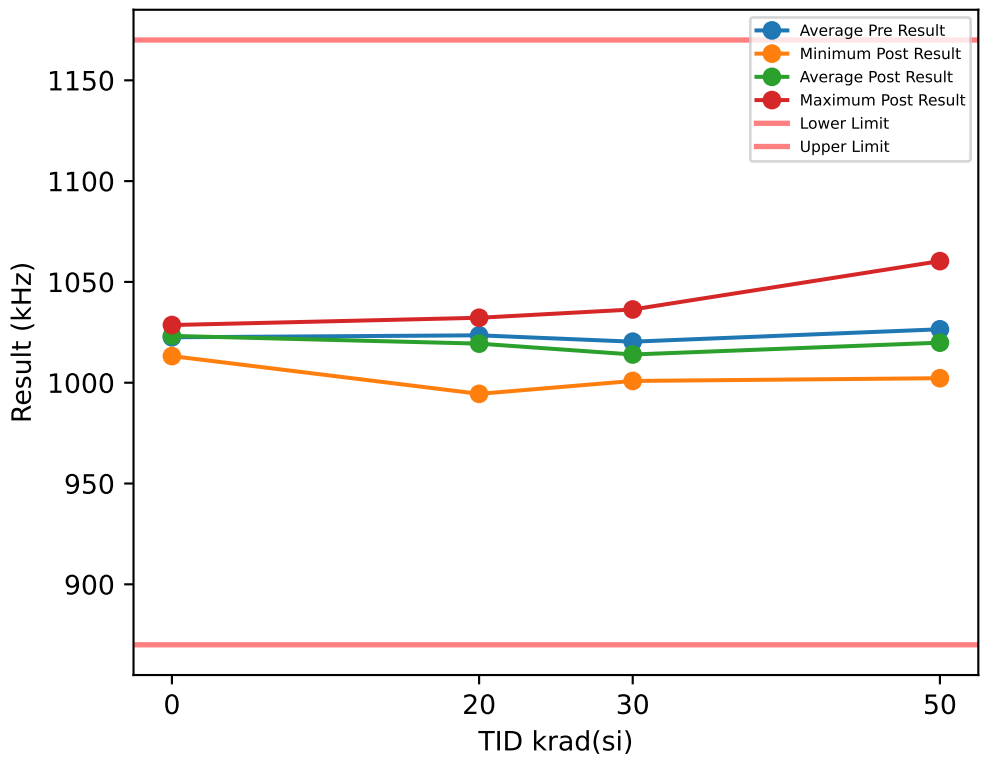
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	499.71	498.64	-1.072
2	20	Biased	505.83	505.48	-0.3454
3	20	Biased	500.3	499.37	-0.9278
4	20	Biased	506.08	505.69	-0.3917
5	20	Biased	496.33	496.32	-0.0184
6	20	Unbiased	503.01	502.24	-0.7714
7	20	Unbiased	500.89	500.33	-0.5625
8	20	Unbiased	505.11	505.39	0.2794
9	20	Unbiased	505.39	504.51	-0.883
10	20	Unbiased	499.33	497.78	-1.5545
11	30	Biased	499.74	500.21	0.4654
12	30	Biased	497.79	497.81	0.0256
13	30	Biased	509.18	508.57	-0.6131
14	30	Biased	502.89	502.91	0.0267
15	30	Biased	499.14	498.25	-0.8894
16	30	Unbiased	502.29	501.38	-0.9086
17	30	Unbiased	503.17	502.07	-1.104
18	30	Unbiased	503.74	502.84	-0.8952
19	30	Unbiased	506.71	506.91	0.2032
20	30	Unbiased	494.54	495.09	0.5469
27	50	Unbiased	506.13	507.4	1.2611
28	50	Unbiased	505.84	504.76	-1.0819
29	50	Unbiased	503.49	501.26	-2.2257
30	50	Unbiased	506.67	506.87	0.2051
31	50	Unbiased	504.02	503.67	-0.3454
77	50	Biased-84Hr-Anneal	512.29	510.21	-2.0865
78	50	Biased-84Hr-Anneal	503.58	503.31	-0.2704
79	50	Biased-84Hr-Anneal	502.64	501.59	-1.0554
80	50	Biased-84Hr-Anneal	501.16	501.15	-0.0053
81	50	Biased-84Hr-Anneal	492.81	493.17	0.3515
100	0	CORRELATION	505.93	506.17	0.2376
101	0	CORRELATION	503.52	503.74	0.2276
102	0	CORRELATION	504.63	504.88	0.2502
103	0	CORRELATION	502	502.13	0.1288
104	0	CORRELATION	501.76	501.84	0.08

Test Statistics (kHz)

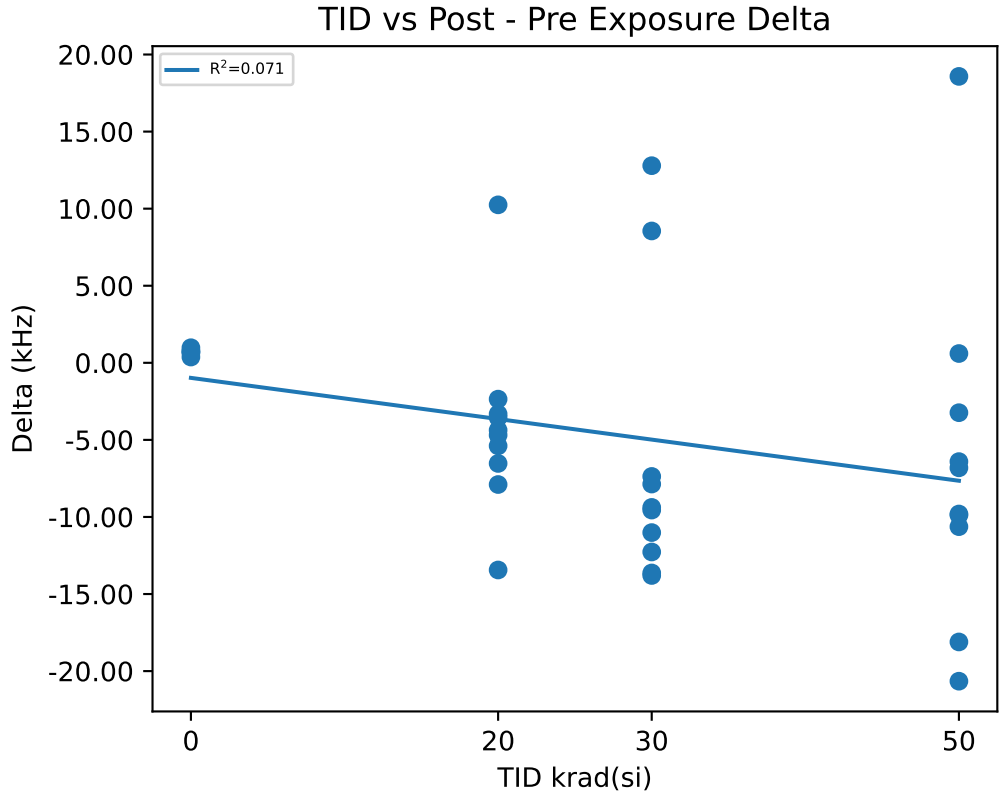
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	501.76	503.57	505.93	1.7646	501.84	503.75	506.17	1.8315	0.08	0.18484	0.2502	0.075855
20	496.33	502.2	506.08	3.3609	496.32	501.58	505.69	3.5414	-1.5545	-0.62473	0.2794	0.53395
30	494.54	501.92	509.18	4.2893	495.09	501.6	508.57	4.0851	-1.104	-0.31425	0.5469	0.631
50	492.81	503.86	512.29	4.9338	493.17	503.34	510.21	4.641	-2.2257	-0.52529	1.2611	1.0945

Device Test: 24.109 FREQ|1MHz/SYNC1/12//34.8k//@EXT_SET_FREQ_1000kHz

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 870.0, Upper Limit = 1170.0 (kHz))

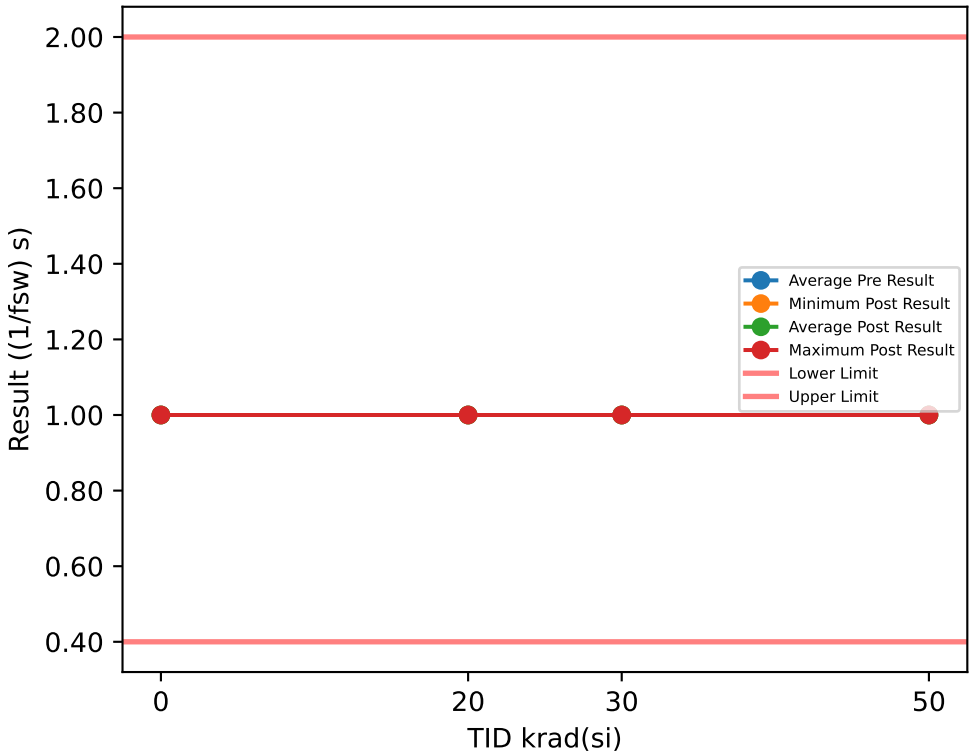
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1019.2	1011.3	-7.8955
2	20	Biased	1034.6	1032.2	-2.3561
3	20	Biased	1023.5	1018.1	-5.3868
4	20	Biased	1028.9	1024.6	-4.3701
5	20	Biased	1015	1011.7	-3.3208
6	20	Unbiased	1031.4	1024.9	-6.5281
7	20	Unbiased	1019.6	1029.8	10.248
8	20	Unbiased	1035.3	1031.8	-3.5472
9	20	Unbiased	1019.7	1015	-4.6892
10	20	Unbiased	1007.9	994.48	-13.44
11	30	Biased	1010.7	1003.3	-7.3709
12	30	Biased	1012.3	1002.7	-9.5524
13	30	Biased	1033.4	1022.4	-11.013
14	30	Biased	1023.5	1036.3	12.789
15	30	Biased	1013.5	1001.2	-12.271
16	30	Unbiased	1030.8	1023	-7.8653
17	30	Unbiased	1014.7	1000.9	-13.796
18	30	Unbiased	1019.8	1006.2	-13.633
19	30	Unbiased	1029.8	1020.4	-9.3798
20	30	Unbiased	1014.9	1023.5	8.5533
27	50	Unbiased	1041.7	1060.3	18.58
28	50	Unbiased	1024.2	1003.6	-20.655
29	50	Unbiased	1030.5	1020.6	-9.8789
30	50	Unbiased	1026.7	1008.6	-18.108
31	50	Unbiased	1030.2	1030.8	0.6025
77	50	Biased-84Hr-Anneal	1041.4	1034.6	-6.8126
78	50	Biased-84Hr-Anneal	1020.6	1010.8	-9.8084
79	50	Biased-84Hr-Anneal	1021.4	1015	-6.4089
80	50	Biased-84Hr-Anneal	1012.9	1002.2	-10.629
81	50	Biased-84Hr-Anneal	1015.4	1012.1	-3.2359
100	0	CORRELATION	1021.3	1022.1	0.7762
101	0	CORRELATION	1027.4	1028.1	0.7106
102	0	CORRELATION	1023.3	1024.2	0.9785
103	0	CORRELATION	1012.8	1013.2	0.375
104	0	CORRELATION	1028	1028.6	0.6514

Test Statistics (kHz)

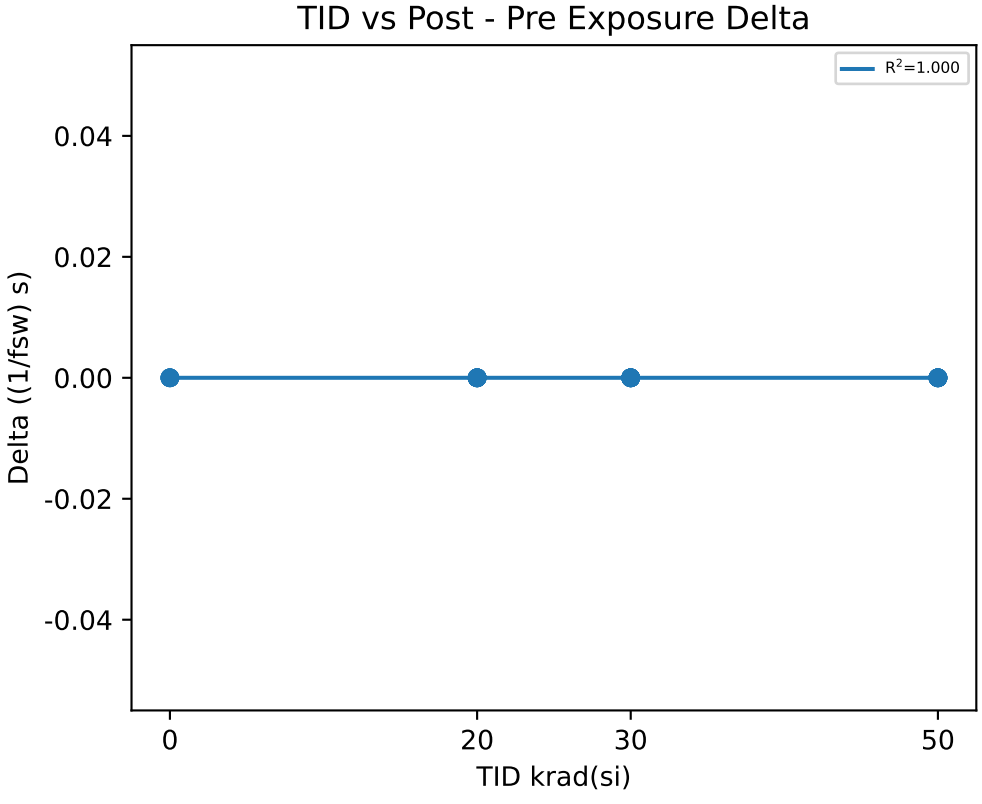
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1012.8	1022.5	1028	6.1024	1013.2	1023.2	1028.6	6.2297	0.375	0.69834	0.9785	0.21878
20	1007.9	1023.5	1035.3	8.9258	994.48	1019.4	1032.2	11.783	-13.44	-4.1286	10.248	5.9574
30	1010.7	1020.4	1033.4	8.4682	1000.9	1014	1036.3	12.547	-13.796	-6.354	12.789	9.2883
50	1012.9	1026.5	1041.7	9.7788	1002.2	1019.9	1060.3	17.777	-20.655	-6.6354	18.58	10.876

Device Test: 24.11 TIMING|CLKDETECT/SYNC1/4.5//511k//@T_CLOCK_DET_EXT

TID vs Result Stats



TID vs Post - Pre Exposure Delta



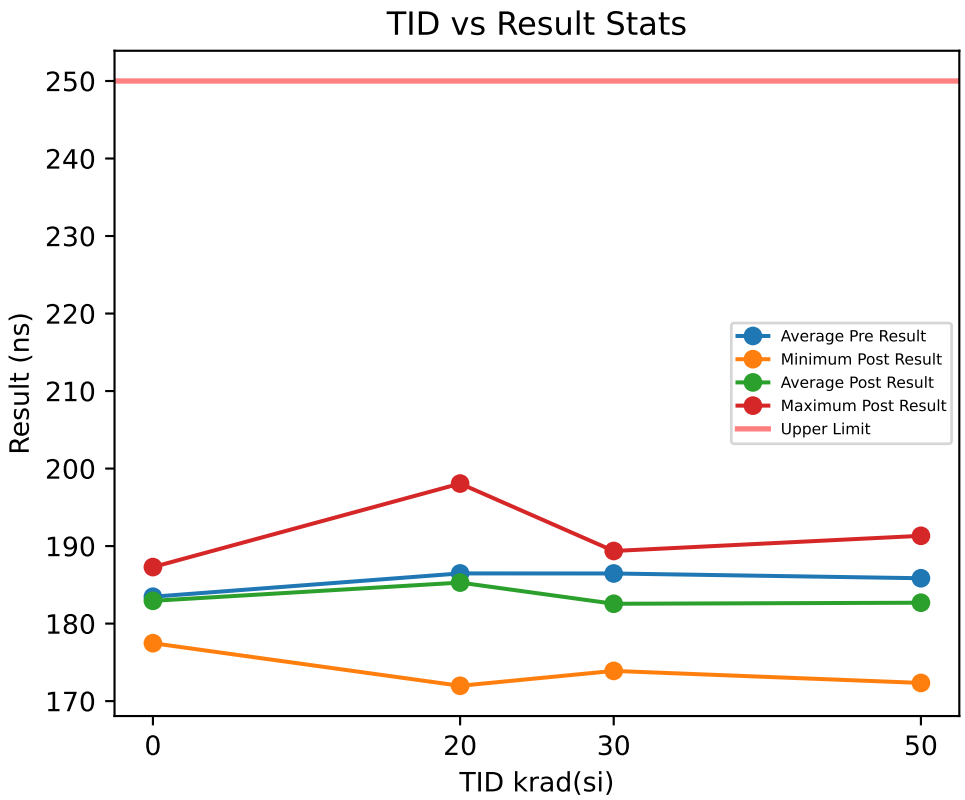
Test Results (Lower Limit = 0.4, Upper Limit = 2.0 ((1/fsw) s))

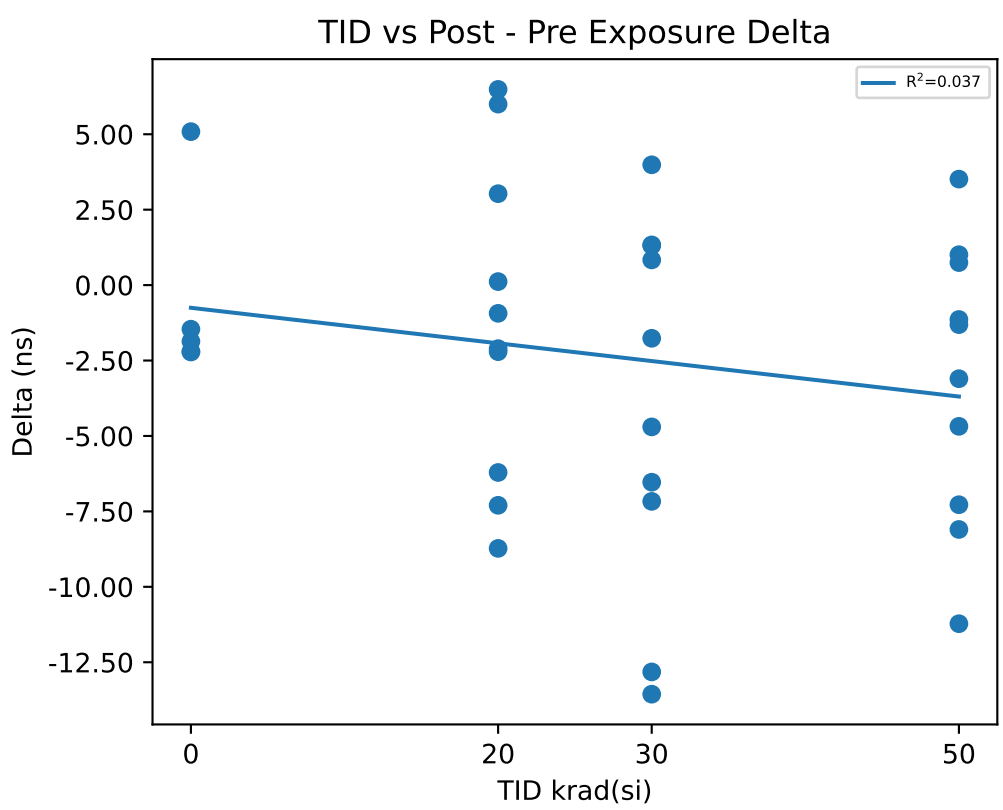
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1	1	0
2	20	Biased	1	1	0
3	20	Biased	1	1	0
4	20	Biased	1	1	0
5	20	Biased	1	1	0
6	20	Unbiased	1	1	0
7	20	Unbiased	1	1	0
8	20	Unbiased	1	1	0
9	20	Unbiased	1	1	0
10	20	Unbiased	1	1	0
11	30	Biased	1	1	0
12	30	Biased	1	1	0
13	30	Biased	1	1	0
14	30	Biased	1	1	0
15	30	Biased	1	1	0
16	30	Unbiased	1	1	0
17	30	Unbiased	1	1	0
18	30	Unbiased	1	1	0
19	30	Unbiased	1	1	0
20	30	Unbiased	1	1	0
27	50	Unbiased	1	1	0
28	50	Unbiased	1	1	0
29	50	Unbiased	1	1	0
30	50	Unbiased	1	1	0
31	50	Unbiased	1	1	0
77	50	Biased-84Hr-Anneal	1	1	0
78	50	Biased-84Hr-Anneal	1	1	0
79	50	Biased-84Hr-Anneal	1	1	0
80	50	Biased-84Hr-Anneal	1	1	0
81	50	Biased-84Hr-Anneal	1	1	0
100	0	CORRELATION	1	1	0
101	0	CORRELATION	1	1	0
102	0	CORRELATION	1	1	0
103	0	CORRELATION	1	1	0
104	0	CORRELATION	1	1	0

Test Statistics ((1/fsw) s)

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	1	1	0	1	1	1	0	0	0	0	0
20	1	1	1	0	1	1	1	0	0	0	0	0
30	1	1	1	0	1	1	1	0	0	0	0	0
50	1	1	1	0	1	1	1	0	0	0	0	0

Device Test: 24.111 TIMING|MINON/SW/12//511k//@ON_TIME_MIN_12V





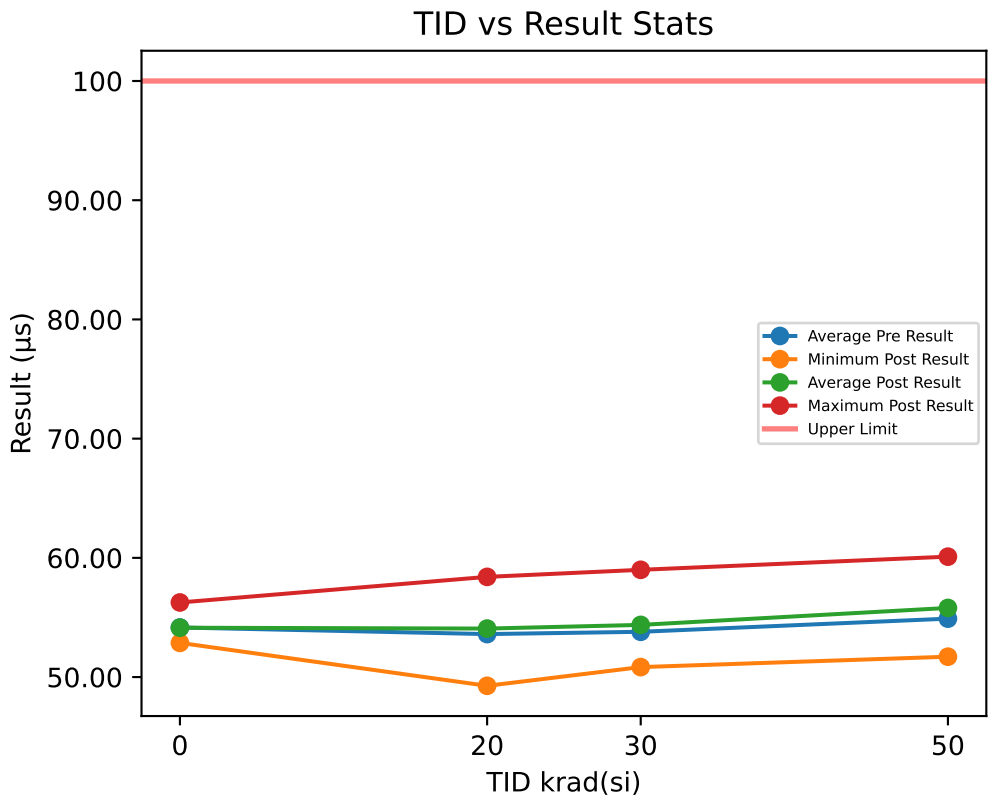
Test Results (Upper Limit = 250.0 (ns))

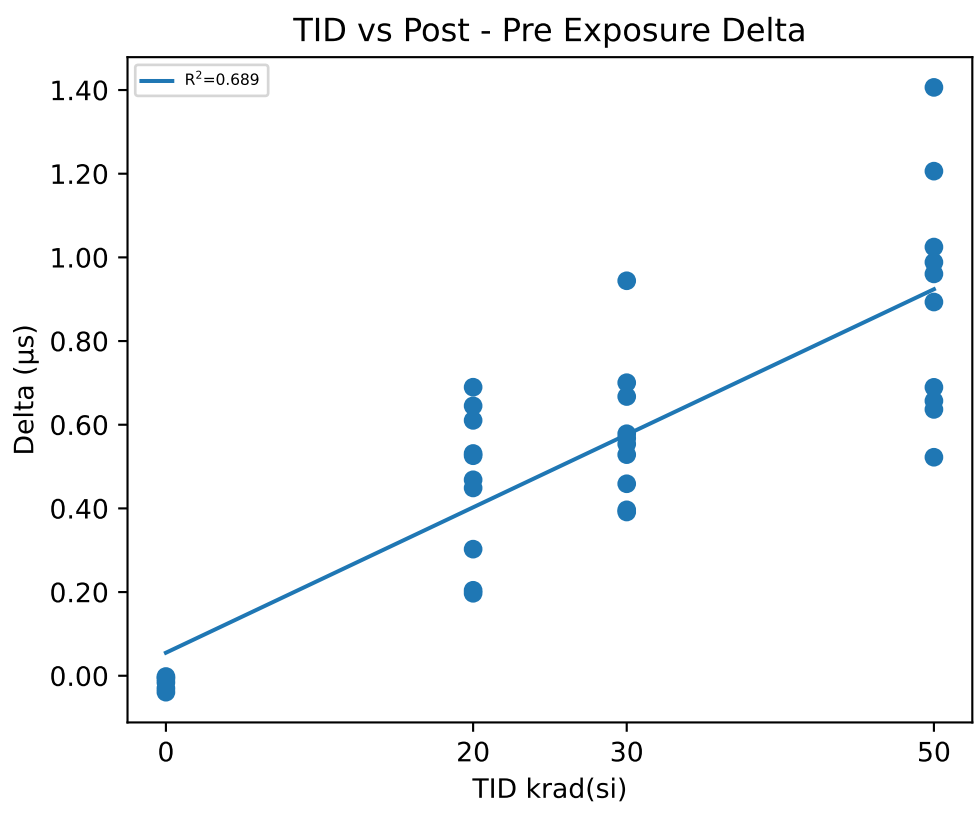
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	190.55	188.45	-2.1058
2	20	Biased	174.18	171.98	-2.2061
3	20	Biased	195.51	186.79	-8.7263
4	20	Biased	195.04	198.07	3.0302
5	20	Biased	183.18	176.97	-6.2101
6	20	Unbiased	178.55	184.55	5.9989
7	20	Unbiased	197.36	190.06	-7.298
8	20	Unbiased	183.21	182.28	-0.9358
9	20	Unbiased	189.74	189.86	0.1166
10	20	Unbiased	177.41	183.9	6.4865
11	30	Biased	197	184.18	-12.82
12	30	Biased	181.72	183.03	1.3122
13	30	Biased	181.97	177.27	-4.6994
14	30	Biased	175.68	176.52	0.8351
15	30	Biased	199.1	185.54	-13.559
16	30	Unbiased	186.18	187.52	1.3324
17	30	Unbiased	181.06	173.9	-7.1677
18	30	Unbiased	181.59	185.58	3.9873
19	30	Unbiased	195.9	189.37	-6.5323
20	30	Unbiased	184.44	182.67	-1.7623
27	50	Unbiased	191.69	180.47	-11.222
28	50	Unbiased	175.95	174.81	-1.1394
29	50	Unbiased	181.98	182.73	0.7463
30	50	Unbiased	171.34	172.34	1.008
31	50	Unbiased	192.66	184.56	-8.0989
77	50	Biased-84Hr-Anneal	186.01	178.73	-7.2787
78	50	Biased-84Hr-Anneal	196	191.32	-4.6809
79	50	Biased-84Hr-Anneal	180.83	184.35	3.5128
80	50	Biased-84Hr-Anneal	190.35	189.04	-1.3099
81	50	Biased-84Hr-Anneal	191.69	188.59	-3.1019
100	0	CORRELATION	179.67	177.47	-2.202
101	0	CORRELATION	188.75	187.29	-1.4611
102	0	CORRELATION	174.7	179.79	5.0861
103	0	CORRELATION	187.21	185.34	-1.8655
104	0	CORRELATION	187.01	184.79	-2.2167

Test Statistics (ns)

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	174.7	183.47	188.75	6.0339	177.47	182.94	187.29	4.1216	-2.2167	-0.53184	5.0861	3.1556
20	174.18	186.47	197.36	8.2884	171.98	185.29	198.07	7.2813	-8.7263	-1.185	6.4865	5.2848
30	175.68	186.47	199.1	7.9992	173.9	182.56	189.37	5.0696	-13.559	-3.9074	3.9873	6.0997
50	171.34	185.85	196	8.0741	172.34	182.69	191.32	6.1966	-11.222	-3.1565	3.5128	4.6349

Device Test: 24.112 TIMING|DELAY/EN/12//511k//@T_EN_DELAY





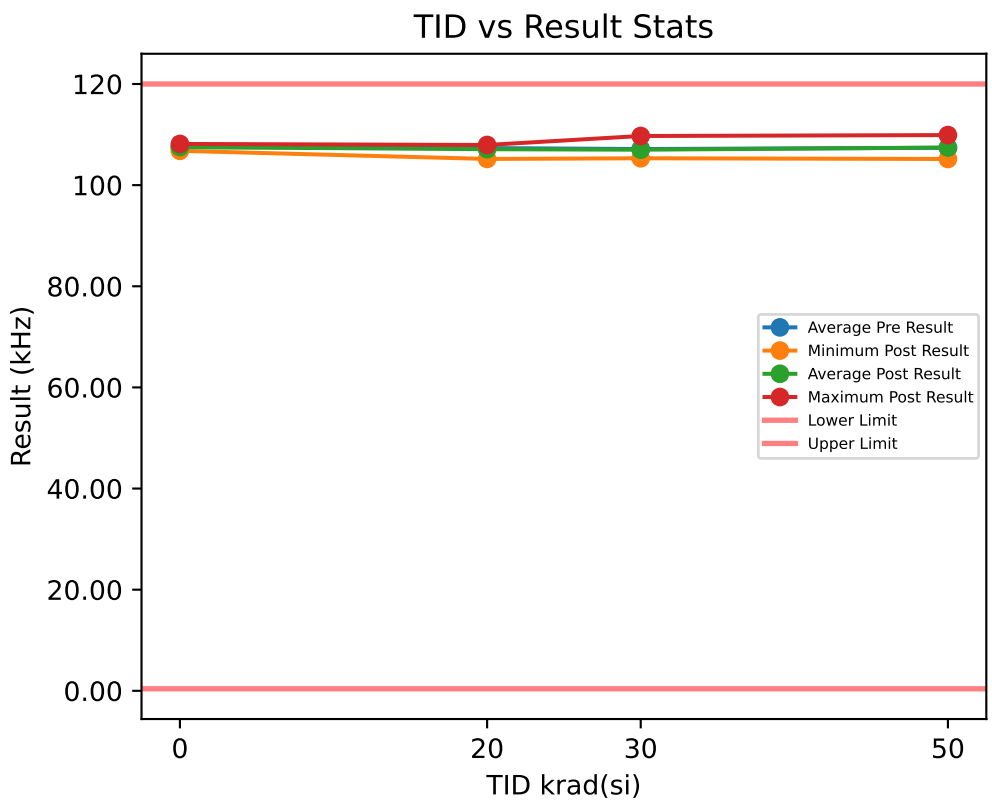
Test Results (Upper Limit = 100.0 (µs))

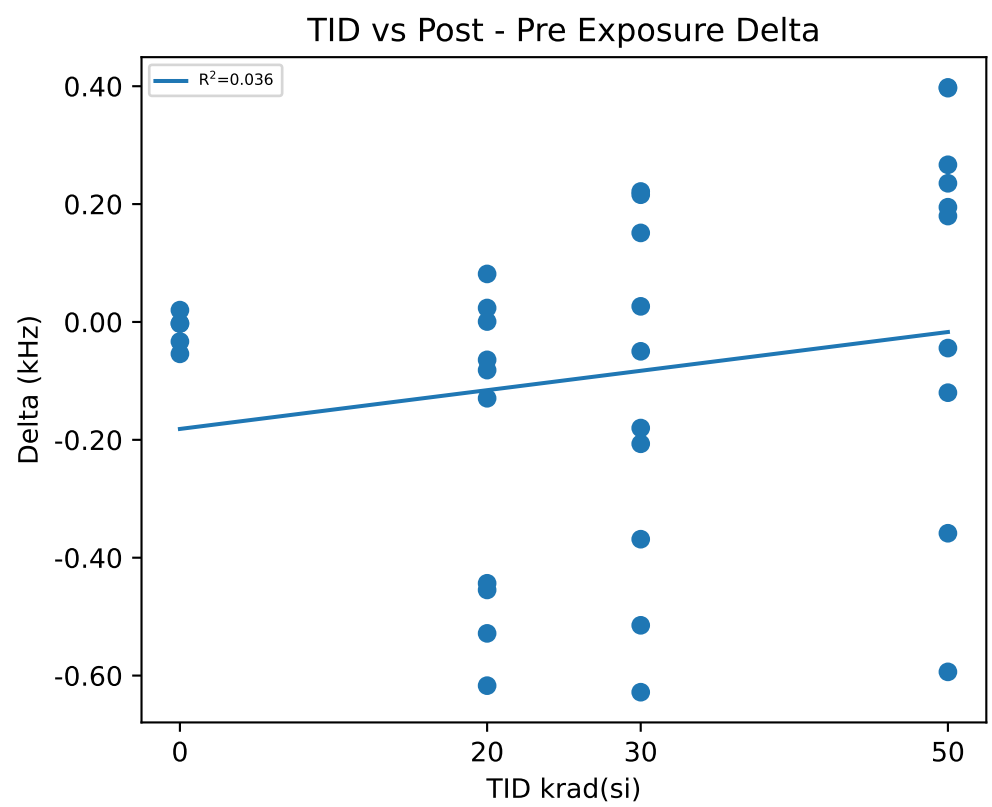
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	56.043	56.733	0.6897
2	20	Biased	49.064	49.268	0.2043
3	20	Biased	57.936	58.404	0.4684
4	20	Biased	56.117	56.648	0.5313
5	20	Biased	52.551	53.077	0.5259
6	20	Unbiased	51.24	51.543	0.3026
7	20	Unbiased	55.006	55.651	0.6451
8	20	Unbiased	53.857	54.054	0.1971
9	20	Unbiased	54.211	54.821	0.6104
10	20	Unbiased	50.038	50.487	0.4489
11	30	Biased	55.196	55.75	0.5539
12	30	Biased	52.938	53.605	0.6674
13	30	Biased	58.606	58.997	0.3914
14	30	Biased	56.214	57.158	0.9441
15	30	Biased	53.843	54.543	0.7005
16	30	Unbiased	50.478	51.057	0.5785
17	30	Unbiased	50.308	50.836	0.5285
18	30	Unbiased	51.297	51.865	0.5677
19	30	Unbiased	51.345	51.742	0.3966
20	30	Unbiased	57.756	58.215	0.4589
27	50	Unbiased	57.482	58.507	1.0247
28	50	Unbiased	53.178	54.071	0.8933
29	50	Unbiased	58.106	59.094	0.9884
30	50	Unbiased	55.282	56.688	1.4063
31	50	Unbiased	55.968	56.929	0.9605
77	50	Biased-84Hr-Anneal	51.019	51.709	0.6894
78	50	Biased-84Hr-Anneal	53.825	54.462	0.6366
79	50	Biased-84Hr-Anneal	52.297	52.954	0.6571
80	50	Biased-84Hr-Anneal	52.953	53.475	0.5223
81	50	Biased-84Hr-Anneal	58.894	60.1	1.2061
100	0	CORRELATION	52.878	52.877	-0.0018
101	0	CORRELATION	54.762	54.732	-0.0301
102	0	CORRELATION	56.273	56.257	-0.0159
103	0	CORRELATION	52.908	52.869	-0.0393
104	0	CORRELATION	53.972	53.965	-0.0066

Test Statistics (µs)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	52.878	54.159	56.273	1.4207	52.869	54.14	56.257	1.4209	-0.0393	-0.01874	-0.0018	0.015765
20	49.064	53.606	57.936	2.8569	49.268	54.069	58.404	2.9601	0.1971	0.46237	0.6897	0.1759
30	50.308	53.798	58.606	3.0329	50.836	54.377	58.997	3.0392	0.3914	0.57875	0.9441	0.164
50	51.019	54.9	58.894	2.6654	51.709	55.799	60.1	2.8628	0.5223	0.89847	1.4063	0.27738

Device Test: 24.12 FREQ|100kHz/SYNC1/4.5//511k//@EXT_SET_FREQ_100kHz





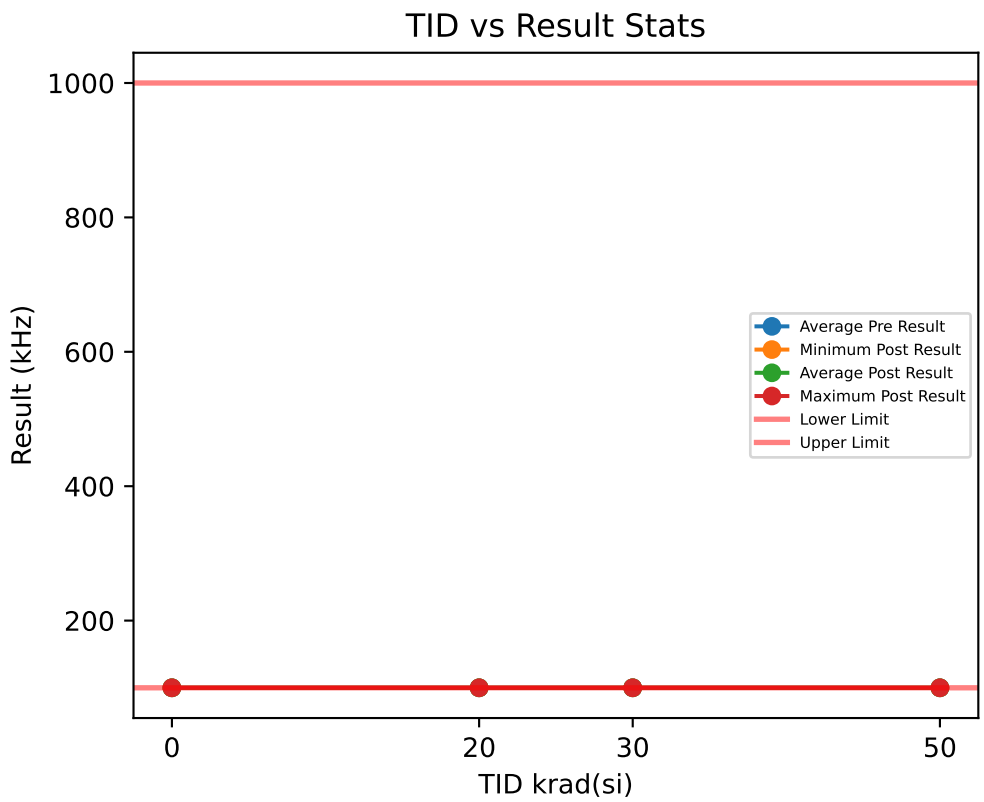
Test Results (Lower Limit = 0.4, Upper Limit = 120.0 (kHz))

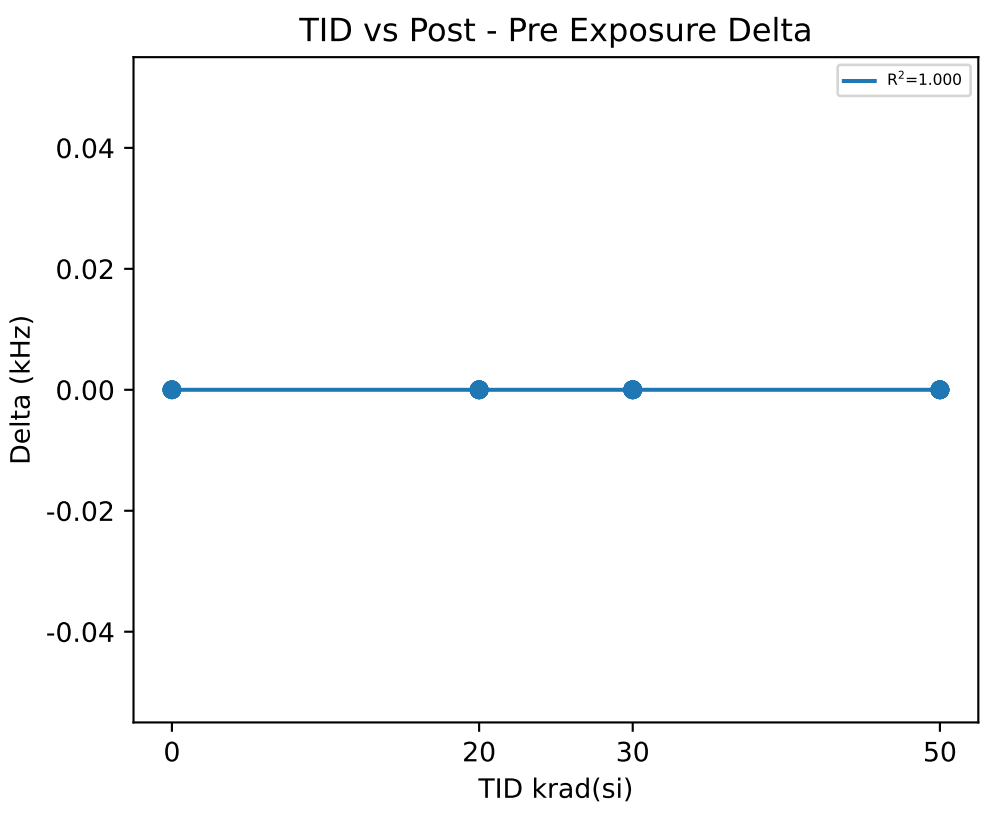
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	108.29	107.84	-0.4547
2	20	Biased	107.43	106.9	-0.5284
3	20	Biased	107.41	107.49	0.0815
4	20	Biased	107.92	107.94	0.0237
5	20	Biased	105.97	105.89	-0.0817
6	20	Unbiased	108.04	107.59	-0.4434
7	20	Unbiased	106.69	106.69	0.0007
8	20	Unbiased	107.87	107.74	-0.1295
9	20	Unbiased	107.86	107.79	-0.0643
10	20	Unbiased	105.8	105.18	-0.6171
11	30	Biased	106.29	106.24	-0.0498
12	30	Biased	105.46	105.69	0.2214
13	30	Biased	109.92	109.72	-0.2067
14	30	Biased	108.26	108.08	-0.18
15	30	Biased	106.07	105.7	-0.3686
16	30	Unbiased	107.36	107.58	0.2159
17	30	Unbiased	107.05	106.53	-0.5147
18	30	Unbiased	107.28	106.65	-0.6282
19	30	Unbiased	108.41	108.56	0.1511
20	30	Unbiased	105.29	105.31	0.0265
27	50	Unbiased	109.27	109.67	0.3967
28	50	Unbiased	107.63	107.58	-0.0443
29	50	Unbiased	106.49	105.89	-0.5937
30	50	Unbiased	107.5	107.68	0.1797
31	50	Unbiased	107.36	107.59	0.2353
77	50	Biased-84Hr-Anneal	110.26	109.9	-0.3585
78	50	Biased-84Hr-Anneal	107.17	107.57	0.398
79	50	Biased-84Hr-Anneal	107.26	107.14	-0.12
80	50	Biased-84Hr-Anneal	106	106.19	0.1947
81	50	Biased-84Hr-Anneal	104.91	105.17	0.2667
100	0	CORRELATION	106.84	106.79	-0.0541
101	0	CORRELATION	107.65	107.67	0.0201
102	0	CORRELATION	108.06	108.02	-0.0332
103	0	CORRELATION	106.98	106.97	-0.0027
104	0	CORRELATION	108.15	108.15	-0.0025

Test Statistics (kHz)

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	106.84	107.53	108.15	0.60387	106.79	107.52	108.15	0.61381	-0.0541	-0.01448	0.0201	0.029147
20	105.8	107.33	108.29	0.87989	105.18	107.11	107.94	0.93703	-0.6171	-0.22132	0.0815	0.25999
30	105.29	107.14	109.92	1.4462	105.31	107.01	109.72	1.4344	-0.6282	-0.13331	0.2214	0.30083
50	104.91	107.38	110.26	1.521	105.17	107.44	109.9	1.5023	-0.5937	0.05546	0.398	0.32983

Device Test: 24.133 FREQ|100kHz/SYNC1/14//OPEN//@SYNC_FREQ_RANGE





Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

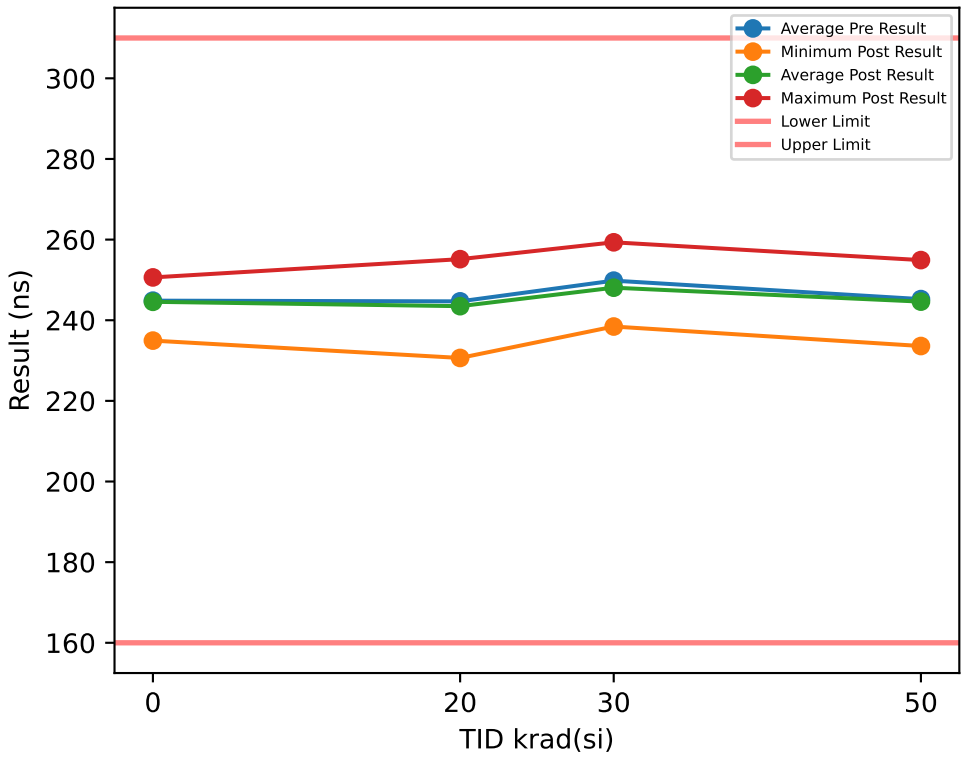
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	100	100	0
2	20	Biased	100	100	0
3	20	Biased	100	100	0
4	20	Biased	100	100	0
5	20	Biased	100	100	0
6	20	Unbiased	100	100	0
7	20	Unbiased	100	100	0
8	20	Unbiased	100	100	0
9	20	Unbiased	100	100	0
10	20	Unbiased	100	100	0
11	30	Biased	100	100	0
12	30	Biased	100	100	0
13	30	Biased	100	100	0
14	30	Biased	100	100	0
15	30	Biased	100	100	0
16	30	Unbiased	100	100	0
17	30	Unbiased	100	100	0
18	30	Unbiased	100	100	0
19	30	Unbiased	100	100	0
20	30	Unbiased	100	100	0
27	50	Unbiased	100	100	0
28	50	Unbiased	100	100	0
29	50	Unbiased	100	100	0
30	50	Unbiased	100	100	0
31	50	Unbiased	100	100	0
77	50	Biased-84Hr-Anneal	100	100	0
78	50	Biased-84Hr-Anneal	100	100	0
79	50	Biased-84Hr-Anneal	100	100	0
80	50	Biased-84Hr-Anneal	100	100	0
81	50	Biased-84Hr-Anneal	100	100	0
100	0	CORRELATION	100	100	0
101	0	CORRELATION	100	100	0
102	0	CORRELATION	100	100	0
103	0	CORRELATION	100	100	0
104	0	CORRELATION	100	100	0

Test Statistics (kHz)

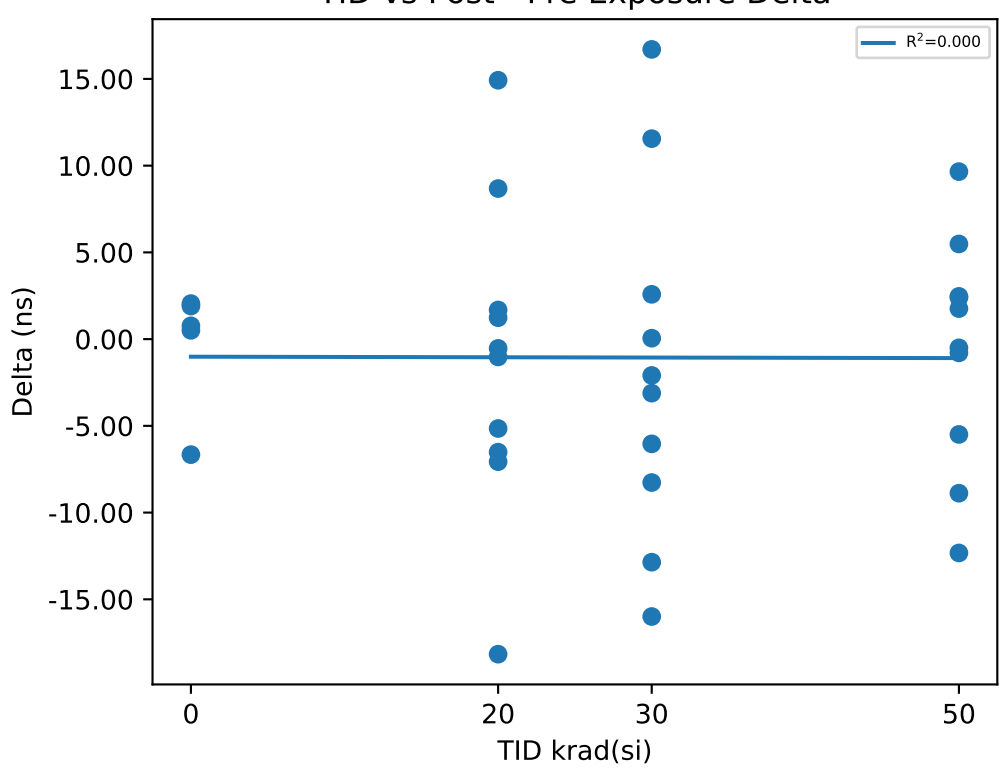
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	100	100	100	0	100	100	100	0	0	0	0	0
20	100	100	100	0	100	100	100	0	0	0	0	0
30	100	100	100	0	100	100	100	0	0	0	0	0
50	100	100	100	0	100	100	100	0	0	0	0	0

Device Test: 24.135 TIMING|DELAY/SYNC1/14//OPEN//@SYNC1_SW_DELAY_INV

TID vs Result Stats



TID vs Post - Pre Exposure Delta



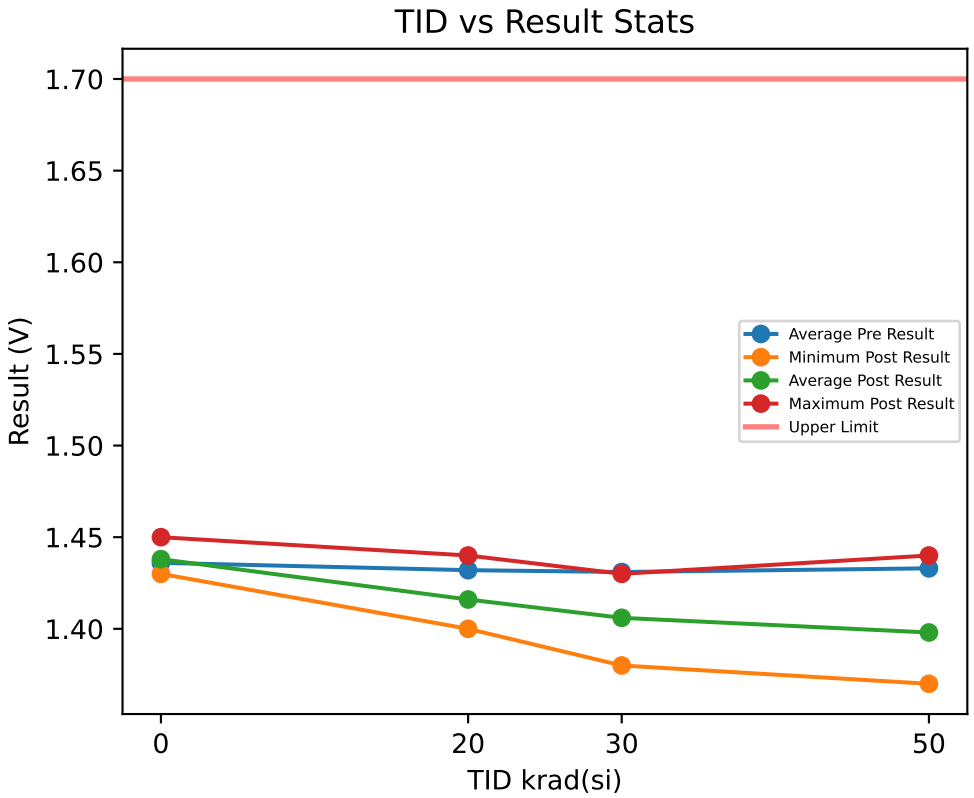
Test Results (Lower Limit = 160.0, Upper Limit = 310.0 (ns))

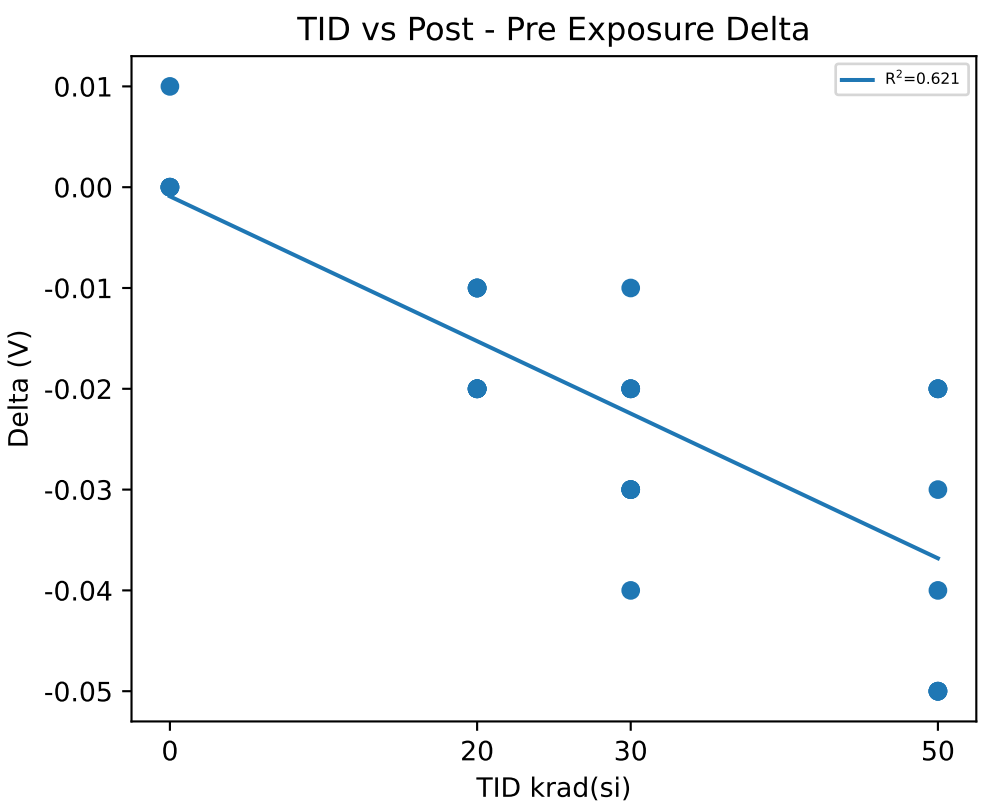
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	237.36	246.04	8.6805
2	20	Biased	253.91	255.15	1.2341
3	20	Biased	240.98	233.91	-7.0645
4	20	Biased	247.87	242.71	-5.1527
5	20	Biased	239.07	254	14.923
6	20	Unbiased	250.3	232.13	-18.163
7	20	Unbiased	240.8	240.27	-0.5349
8	20	Unbiased	254.22	253.19	-1.0272
9	20	Unbiased	228.97	230.65	1.6804
10	20	Unbiased	253.37	246.85	-6.5178
11	30	Biased	248.31	250.89	2.5819
12	30	Biased	251.3	238.44	-12.859
13	30	Biased	234.76	246.31	11.557
14	30	Biased	257.77	255.67	-2.0946
15	30	Biased	250.09	241.82	-8.2677
16	30	Unbiased	249.97	243.93	-6.0379
17	30	Unbiased	242.63	259.33	16.702
18	30	Unbiased	259.2	243.21	-15.992
19	30	Unbiased	247.14	244.03	-3.1142
20	30	Unbiased	257.04	257.1	0.0531
27	50	Unbiased	247.25	252.74	5.4853
28	50	Unbiased	247.42	235.09	-12.327
29	50	Unbiased	235.73	245.39	9.6559
30	50	Unbiased	255.71	254.92	-0.793
31	50	Unbiased	247.22	238.33	-8.8829
77	50	Biased-84Hr-Anneal	231.85	233.6	1.7593
78	50	Biased-84Hr-Anneal	242.04	244.44	2.3974
79	50	Biased-84Hr-Anneal	254.02	248.53	-5.4952
80	50	Biased-84Hr-Anneal	239.21	238.7	-0.5024
81	50	Biased-84Hr-Anneal	251.97	254.44	2.4637
100	0	CORRELATION	241.2	241.96	0.7668
101	0	CORRELATION	244.73	246.64	1.9058
102	0	CORRELATION	257.28	250.62	-6.659
103	0	CORRELATION	234.44	234.95	0.5051
104	0	CORRELATION	246.63	248.68	2.047

Test Statistics (ns)

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	234.44	244.86	257.28	8.3568	234.95	244.57	250.62	6.2678	-6.659	-0.28686	2.047	3.6262
20	228.97	244.68	254.22	8.5255	230.65	243.49	255.15	9.1587	-18.163	-1.1943	14.923	9.0573
30	234.76	249.82	259.2	7.4068	238.44	248.07	259.33	7.1952	-15.992	-1.7472	16.702	10.158
50	231.85	245.24	255.71	7.8973	233.6	244.62	254.92	7.9642	-12.327	-0.6239	9.6559	6.6357

Device Test: 24.136 THRESHOLD|RISE/SYNC1/14//OPEN//@SYNC1_VIH





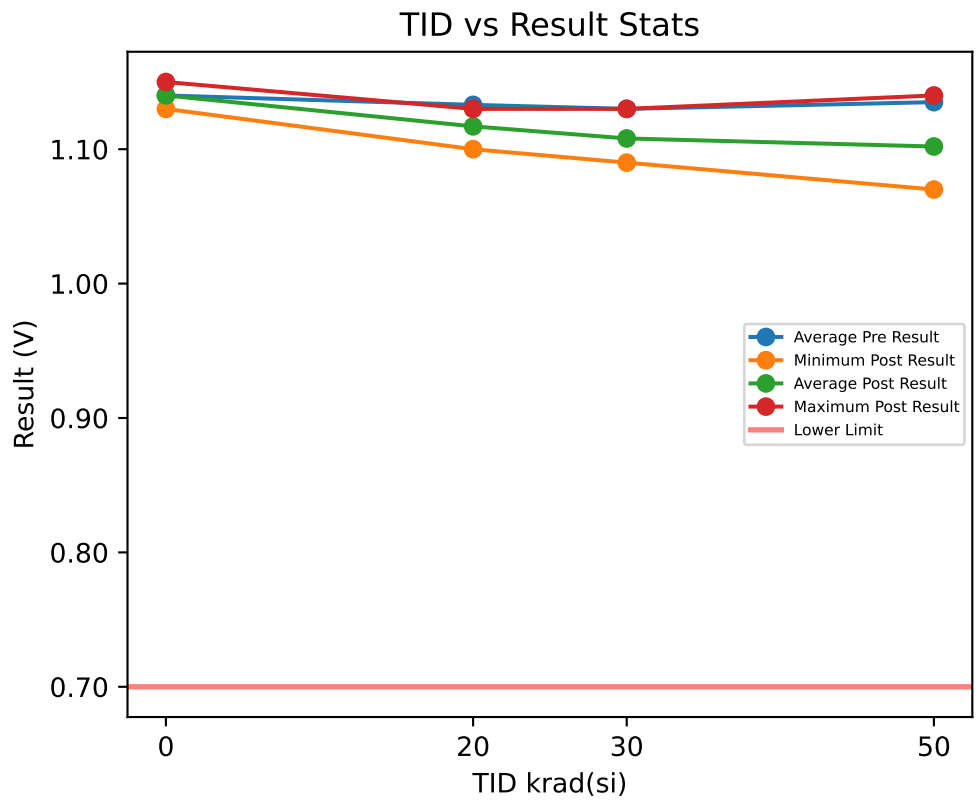
Test Results (Upper Limit = 1.7 (V))

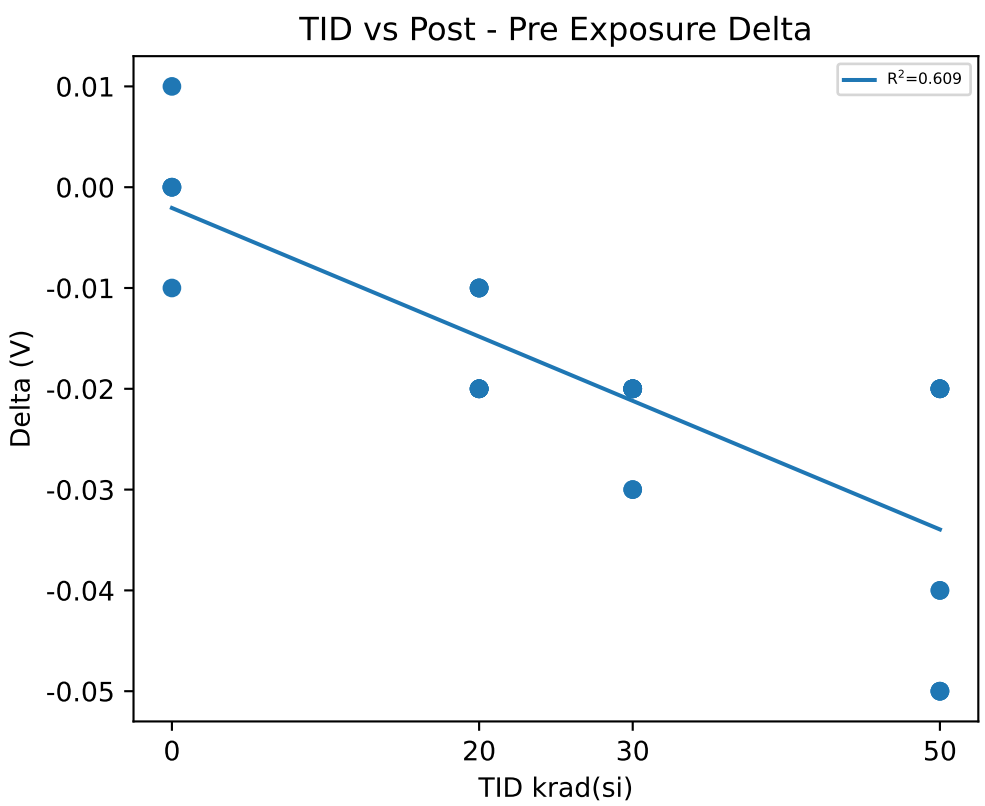
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.45	1.43	-0.02
2	20	Biased	1.42	1.41	-0.01
3	20	Biased	1.45	1.44	-0.01
4	20	Biased	1.43	1.42	-0.01
5	20	Biased	1.44	1.43	-0.01
6	20	Unbiased	1.42	1.4	-0.02
7	20	Unbiased	1.42	1.4	-0.02
8	20	Unbiased	1.42	1.4	-0.02
9	20	Unbiased	1.43	1.41	-0.02
10	20	Unbiased	1.44	1.42	-0.02
11	30	Biased	1.44	1.42	-0.02
12	30	Biased	1.44	1.42	-0.02
13	30	Biased	1.44	1.43	-0.01
14	30	Biased	1.43	1.41	-0.02
15	30	Biased	1.43	1.41	-0.02
16	30	Unbiased	1.43	1.4	-0.03
17	30	Unbiased	1.44	1.4	-0.04
18	30	Unbiased	1.43	1.4	-0.03
19	30	Unbiased	1.42	1.39	-0.03
20	30	Unbiased	1.41	1.38	-0.03
27	50	Unbiased	1.41	1.37	-0.04
28	50	Unbiased	1.42	1.37	-0.05
29	50	Unbiased	1.42	1.37	-0.05
30	50	Unbiased	1.43	1.38	-0.05
31	50	Unbiased	1.42	1.37	-0.05
77	50	Biased-84Hr-Anneal	1.46	1.44	-0.02
78	50	Biased-84Hr-Anneal	1.46	1.43	-0.03
79	50	Biased-84Hr-Anneal	1.45	1.43	-0.02
80	50	Biased-84Hr-Anneal	1.43	1.41	-0.02
81	50	Biased-84Hr-Anneal	1.43	1.41	-0.02
100	0	CORRELATION	1.43	1.43	0
101	0	CORRELATION	1.43	1.43	0
102	0	CORRELATION	1.44	1.44	0
103	0	CORRELATION	1.45	1.45	0
104	0	CORRELATION	1.43	1.44	0.01

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	1.43	1.436	1.45	0.0089443	1.43	1.438	1.45	0.0083666	0	0.002	0.01	0.0044721
20	1.42	1.432	1.45	0.012293	1.4	1.416	1.44	0.014298	-0.02	-0.016	-0.01	0.005164
30	1.41	1.431	1.44	0.0099443	1.38	1.406	1.43	0.015055	-0.04	-0.025	-0.01	0.0084984
50	1.41	1.433	1.46	0.01767	1.37	1.398	1.44	0.028983	-0.05	-0.035	-0.02	0.014337

Device Test: 24.137 THRESHOLD|FALL/SYNC1/14//OPEN//@SYNC1_VIL





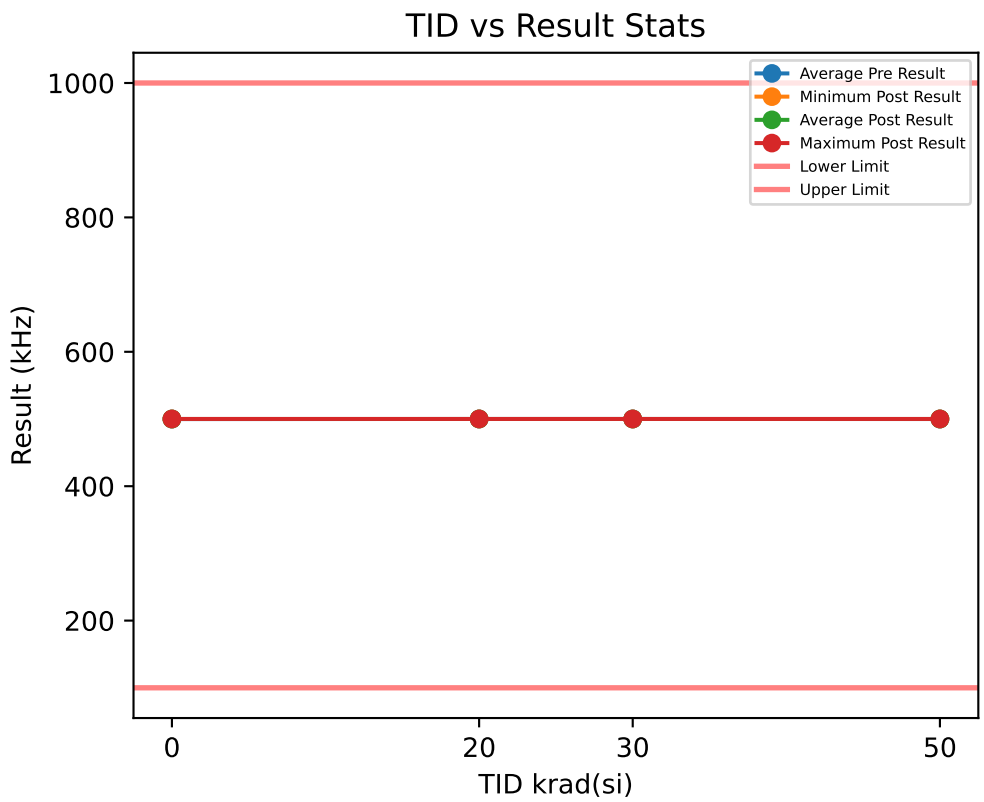
Test Results (Lower Limit = 0.7 (V))

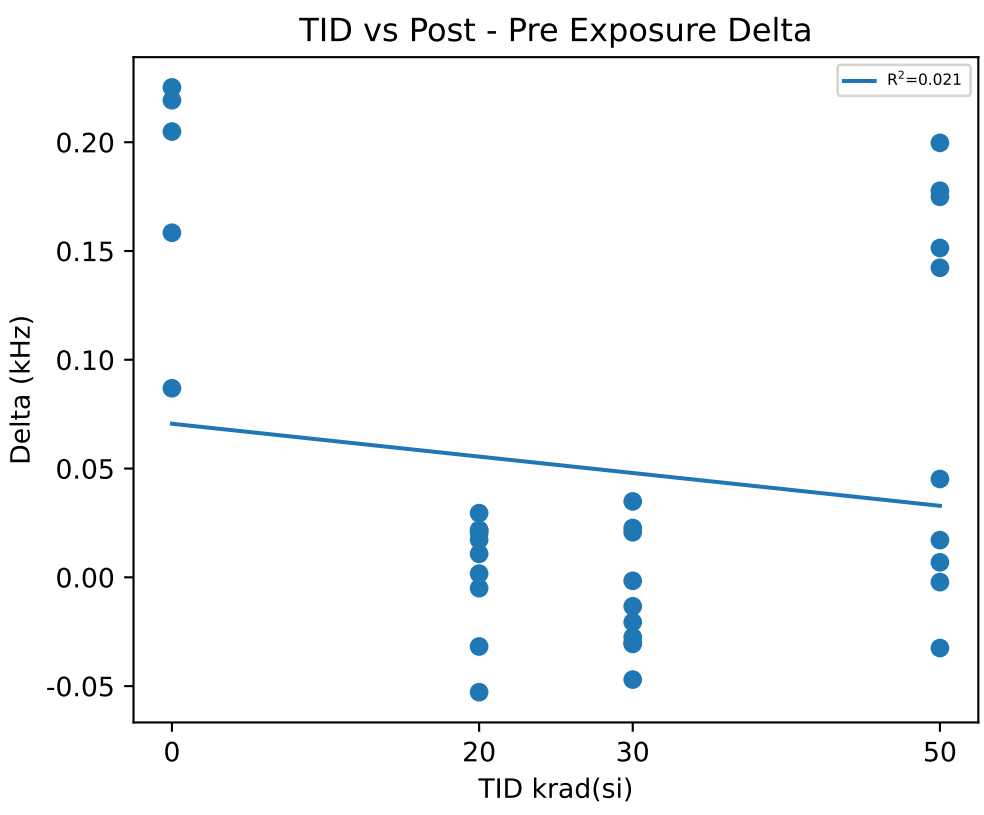
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.15	1.13	-0.02
2	20	Biased	1.12	1.11	-0.01
3	20	Biased	1.14	1.13	-0.01
4	20	Biased	1.14	1.13	-0.01
5	20	Biased	1.14	1.13	-0.01
6	20	Unbiased	1.12	1.1	-0.02
7	20	Unbiased	1.12	1.1	-0.02
8	20	Unbiased	1.12	1.1	-0.02
9	20	Unbiased	1.14	1.12	-0.02
10	20	Unbiased	1.14	1.12	-0.02
11	30	Biased	1.14	1.12	-0.02
12	30	Biased	1.14	1.12	-0.02
13	30	Biased	1.15	1.13	-0.02
14	30	Biased	1.13	1.11	-0.02
15	30	Biased	1.13	1.11	-0.02
16	30	Unbiased	1.12	1.1	-0.02
17	30	Unbiased	1.13	1.1	-0.03
18	30	Unbiased	1.13	1.1	-0.03
19	30	Unbiased	1.12	1.1	-0.02
20	30	Unbiased	1.11	1.09	-0.02
27	50	Unbiased	1.12	1.07	-0.05
28	50	Unbiased	1.12	1.07	-0.05
29	50	Unbiased	1.12	1.08	-0.04
30	50	Unbiased	1.14	1.09	-0.05
31	50	Unbiased	1.12	1.08	-0.04
77	50	Biased-84Hr-Anneal	1.16	1.14	-0.02
78	50	Biased-84Hr-Anneal	1.15	1.13	-0.02
79	50	Biased-84Hr-Anneal	1.15	1.13	-0.02
80	50	Biased-84Hr-Anneal	1.14	1.12	-0.02
81	50	Biased-84Hr-Anneal	1.13	1.11	-0.02
100	0	CORRELATION	1.14	1.14	0
101	0	CORRELATION	1.13	1.13	0
102	0	CORRELATION	1.15	1.14	-0.01
103	0	CORRELATION	1.14	1.15	0.01
104	0	CORRELATION	1.14	1.14	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	1.13	1.14	1.15	0.0070711	1.13	1.14	1.15	0.0070711	-0.01	0	0.01	0.0070711
20	1.12	1.133	1.15	0.011595	1.1	1.117	1.13	0.013375	-0.02	-0.016	-0.01	0.005164
30	1.11	1.13	1.15	0.011547	1.09	1.108	1.13	0.012293	-0.03	-0.022	-0.02	0.0042164
50	1.12	1.135	1.16	0.015092	1.07	1.102	1.14	0.026998	-0.05	-0.033	-0.02	0.014181

Device Test: 24.138 FREQ|500kHz/SYNC1/14//OPEN//@SYNC_FREQ_RANGE





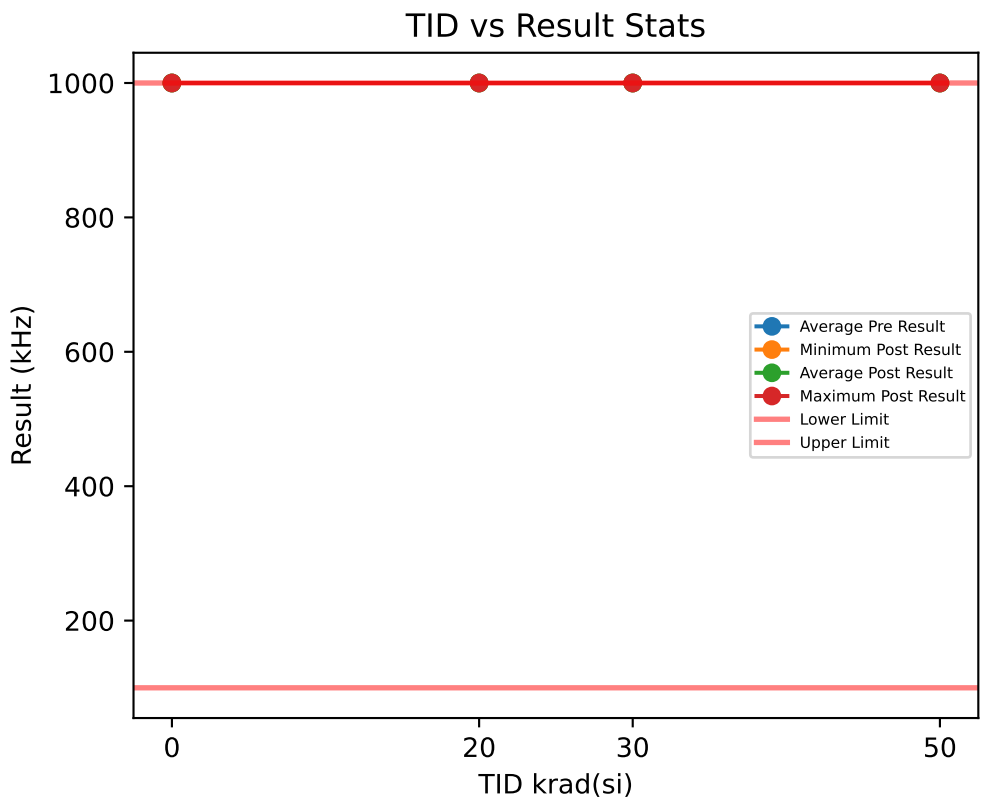
Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

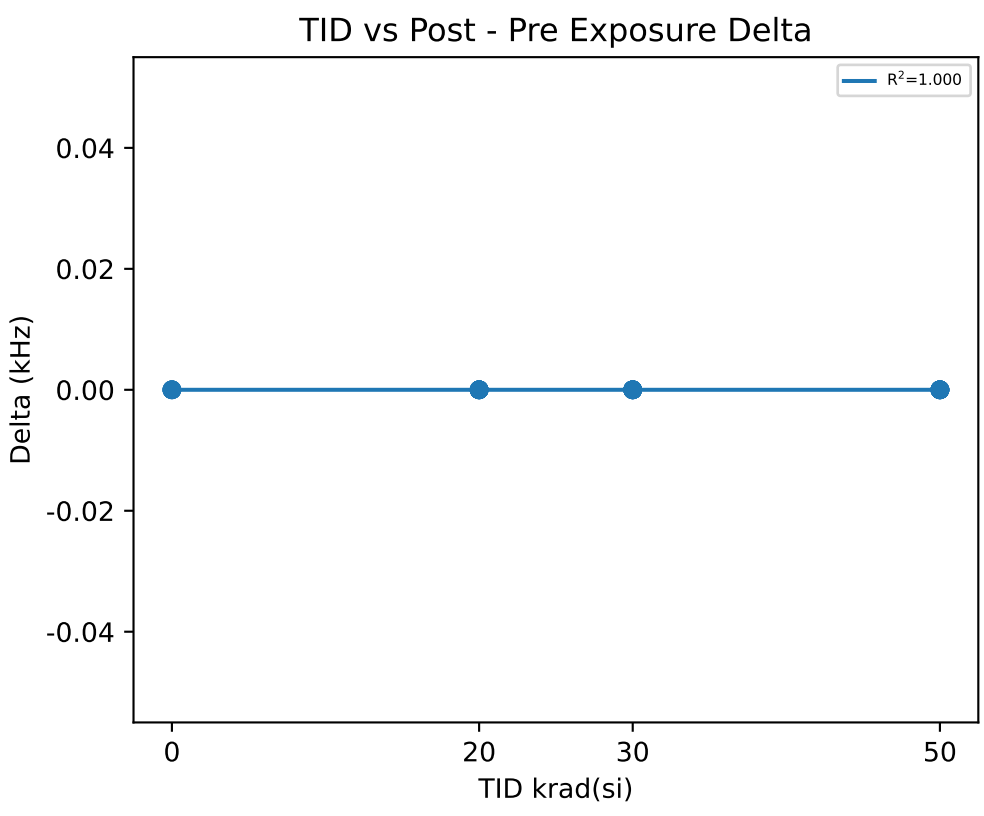
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	500.02	500.02	0.0017
2	20	Biased	500.04	500.01	-0.0318
3	20	Biased	500.02	500.04	0.0203
4	20	Biased	500.02	500.04	0.0218
5	20	Biased	500.02	500.05	0.0295
6	20	Unbiased	500.06	500	-0.0528
7	20	Unbiased	500.04	500.04	-0.005
8	20	Unbiased	500.04	500.05	0.0108
9	20	Unbiased	500.02	500.04	0.0216
10	20	Unbiased	500.02	500.04	0.0173
11	30	Biased	500.04	500.06	0.0207
12	30	Biased	500.04	500.01	-0.0206
13	30	Biased	500.03	500.03	-0.0016
14	30	Biased	500.05	500.02	-0.0275
15	30	Biased	500.03	500	-0.0306
16	30	Unbiased	500.04	500.02	-0.0133
17	30	Unbiased	500.03	500.05	0.0227
18	30	Unbiased	500.05	500.01	-0.047
19	30	Unbiased	500.01	500.04	0.0349
20	30	Unbiased	500.02	499.99	-0.03
27	50	Unbiased	500.03	500.02	-0.0022
28	50	Unbiased	500	500.02	0.0171
29	50	Unbiased	500.01	500.06	0.0452
30	50	Unbiased	500.04	500.05	0.0069
31	50	Unbiased	500.05	500.02	-0.0325
77	50	Biased-84Hr-Anneal	499.84	500.02	0.1749
78	50	Biased-84Hr-Anneal	499.85	500.05	0.1997
79	50	Biased-84Hr-Anneal	499.85	500.03	0.1777
80	50	Biased-84Hr-Anneal	499.85	499.99	0.1423
81	50	Biased-84Hr-Anneal	499.89	500.04	0.1514
100	0	CORRELATION	499.84	500	0.1584
101	0	CORRELATION	499.85	500.08	0.2252
102	0	CORRELATION	499.84	500.06	0.2193
103	0	CORRELATION	499.9	499.98	0.0869
104	0	CORRELATION	499.86	500.06	0.2049

Test Statistics (kHz)

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	499.84	499.86	499.9	0.0237	499.98	500.04	500.08	0.041842	0.0869	0.17894	0.2252	0.057741
20	500.02	500.03	500.06	0.015072	500	500.03	500.05	0.017535	-0.0528	0.00334	0.0295	0.026574
30	500.01	500.03	500.05	0.013212	499.99	500.02	500.06	0.020883	-0.047	-0.00923	0.0349	0.027316
50	499.84	499.94	500.05	0.092005	499.99	500.03	500.06	0.018936	-0.0325	0.08805	0.1997	0.088904

Device Test: 24.139 FREQ|1000kHz/SYNC1/14//OPEN//@SYNC_FREQ_RANGE





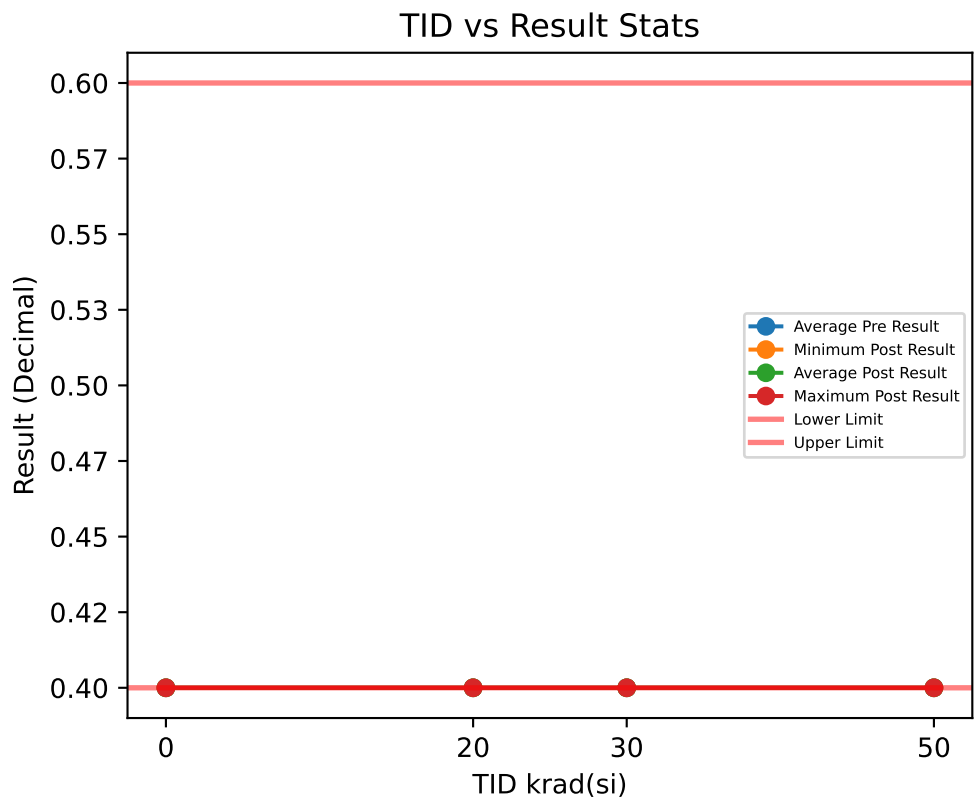
Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

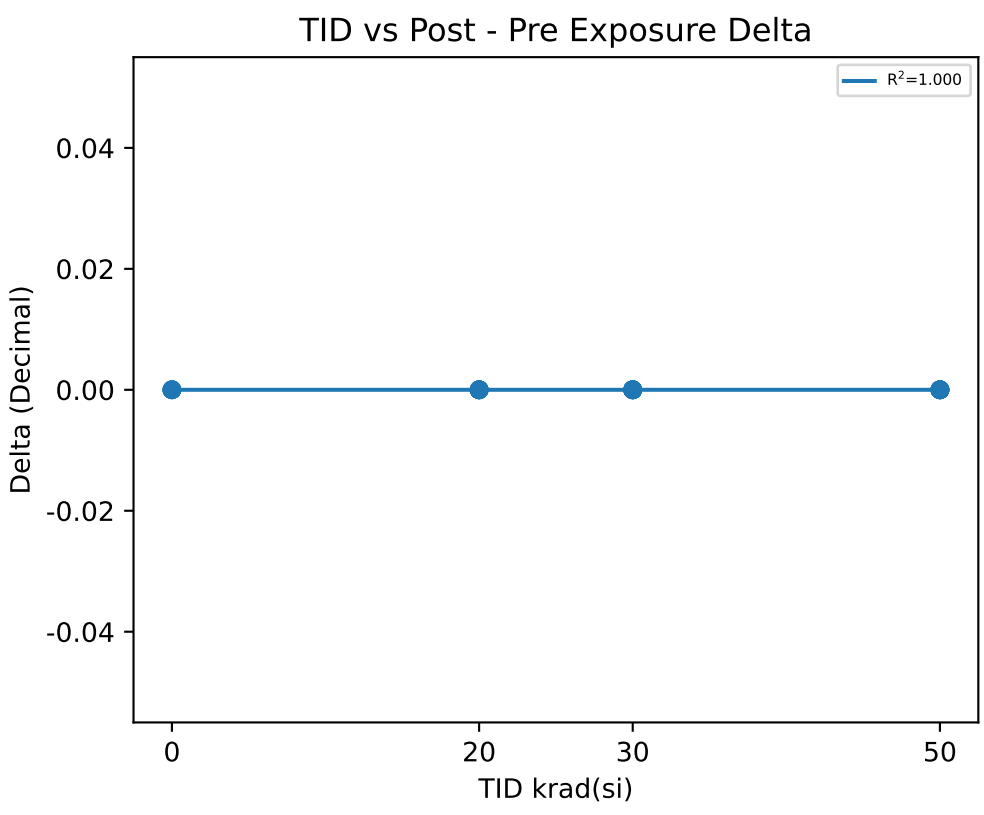
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1000	1000	0
2	20	Biased	1000	1000	0
3	20	Biased	1000	1000	0
4	20	Biased	1000	1000	0
5	20	Biased	1000	1000	0
6	20	Unbiased	1000	1000	0
7	20	Unbiased	1000	1000	0
8	20	Unbiased	1000	1000	0
9	20	Unbiased	1000	1000	0
10	20	Unbiased	1000	1000	0
11	30	Biased	1000	1000	0
12	30	Biased	1000	1000	0
13	30	Biased	1000	1000	0
14	30	Biased	1000	1000	0
15	30	Biased	1000	1000	0
16	30	Unbiased	1000	1000	0
17	30	Unbiased	1000	1000	0
18	30	Unbiased	1000	1000	0
19	30	Unbiased	1000	1000	0
20	30	Unbiased	1000	1000	0
27	50	Unbiased	1000	1000	0
28	50	Unbiased	1000	1000	0
29	50	Unbiased	1000	1000	0
30	50	Unbiased	1000	1000	0
31	50	Unbiased	1000	1000	0
77	50	Biased-84Hr-Anneal	1000	1000	0
78	50	Biased-84Hr-Anneal	1000	1000	0
79	50	Biased-84Hr-Anneal	1000	1000	0
80	50	Biased-84Hr-Anneal	1000	1000	0
81	50	Biased-84Hr-Anneal	1000	1000	0
100	0	CORRELATION	1000	1000	0
101	0	CORRELATION	1000	1000	0
102	0	CORRELATION	1000	1000	0
103	0	CORRELATION	1000	1000	0
104	0	CORRELATION	1000	1000	0

Test Statistics (kHz)

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	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
20	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
30	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
50	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0

Device Test: 24.140 DUTYCYCLE|GNG_40dml/SYNC1/14//OPEN//@SYNC_IN_DUTY_CYCLE_RANGE





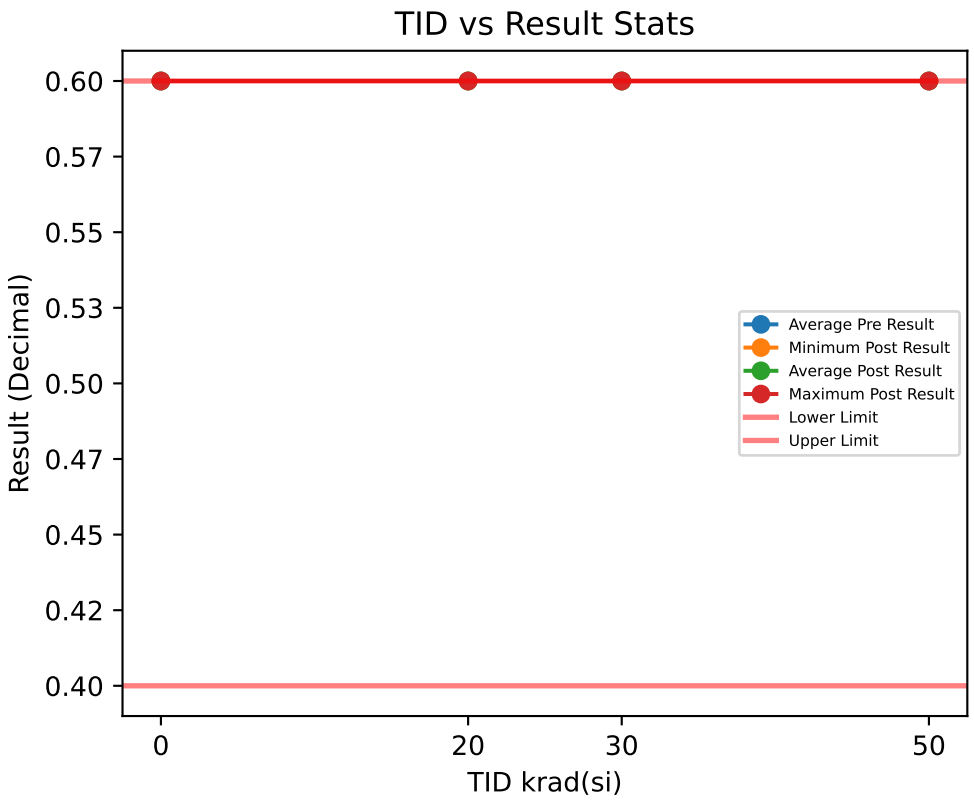
Test Results (Lower Limit = 0.4, Upper Limit = 0.6 (Decimal))

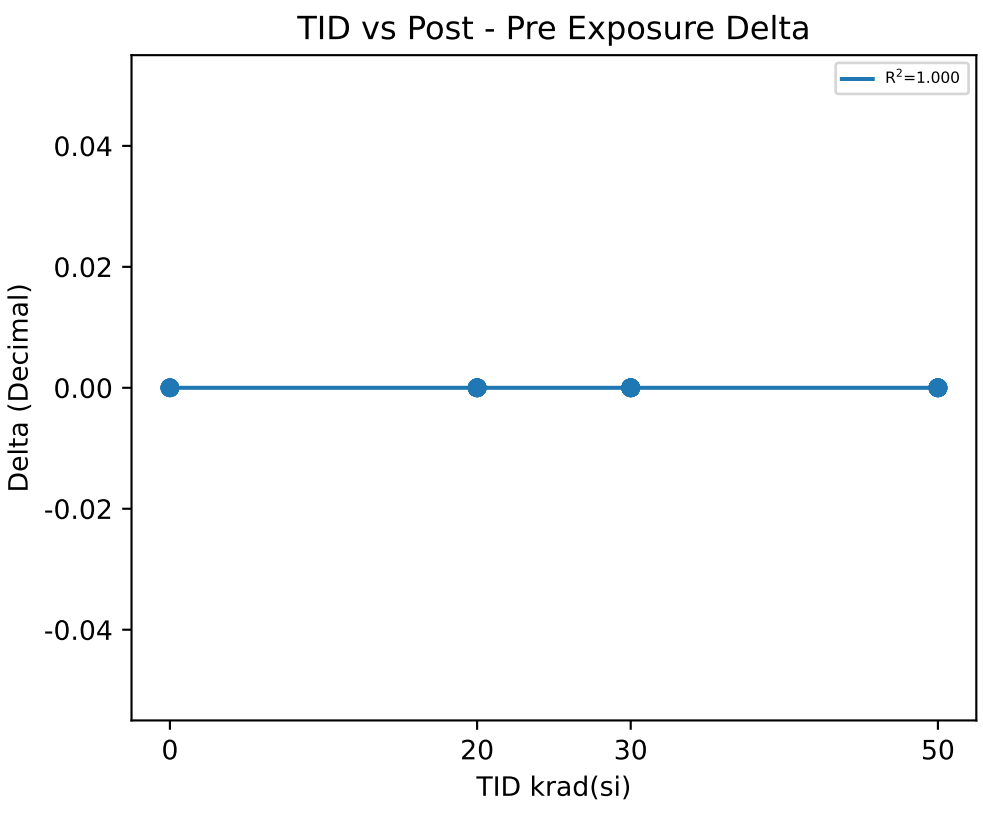
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.4	0.4	0
2	20	Biased	0.4	0.4	0
3	20	Biased	0.4	0.4	0
4	20	Biased	0.4	0.4	0
5	20	Biased	0.4	0.4	0
6	20	Unbiased	0.4	0.4	0
7	20	Unbiased	0.4	0.4	0
8	20	Unbiased	0.4	0.4	0
9	20	Unbiased	0.4	0.4	0
10	20	Unbiased	0.4	0.4	0
11	30	Biased	0.4	0.4	0
12	30	Biased	0.4	0.4	0
13	30	Biased	0.4	0.4	0
14	30	Biased	0.4	0.4	0
15	30	Biased	0.4	0.4	0
16	30	Unbiased	0.4	0.4	0
17	30	Unbiased	0.4	0.4	0
18	30	Unbiased	0.4	0.4	0
19	30	Unbiased	0.4	0.4	0
20	30	Unbiased	0.4	0.4	0
27	50	Unbiased	0.4	0.4	0
28	50	Unbiased	0.4	0.4	0
29	50	Unbiased	0.4	0.4	0
30	50	Unbiased	0.4	0.4	0
31	50	Unbiased	0.4	0.4	0
77	50	Biased-84Hr-Anneal	0.4	0.4	0
78	50	Biased-84Hr-Anneal	0.4	0.4	0
79	50	Biased-84Hr-Anneal	0.4	0.4	0
80	50	Biased-84Hr-Anneal	0.4	0.4	0
81	50	Biased-84Hr-Anneal	0.4	0.4	0
100	0	CORRELATION	0.4	0.4	0
101	0	CORRELATION	0.4	0.4	0
102	0	CORRELATION	0.4	0.4	0
103	0	CORRELATION	0.4	0.4	0
104	0	CORRELATION	0.4	0.4	0

Test Statistics (Decimal)

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	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
20	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
30	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
50	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0

Device Test: 24.141 DUTYCYCLE|GNG_60dml/SYNC1/14//OPEN//@SYNC_IN_DUTY_CYCLE_RANGE





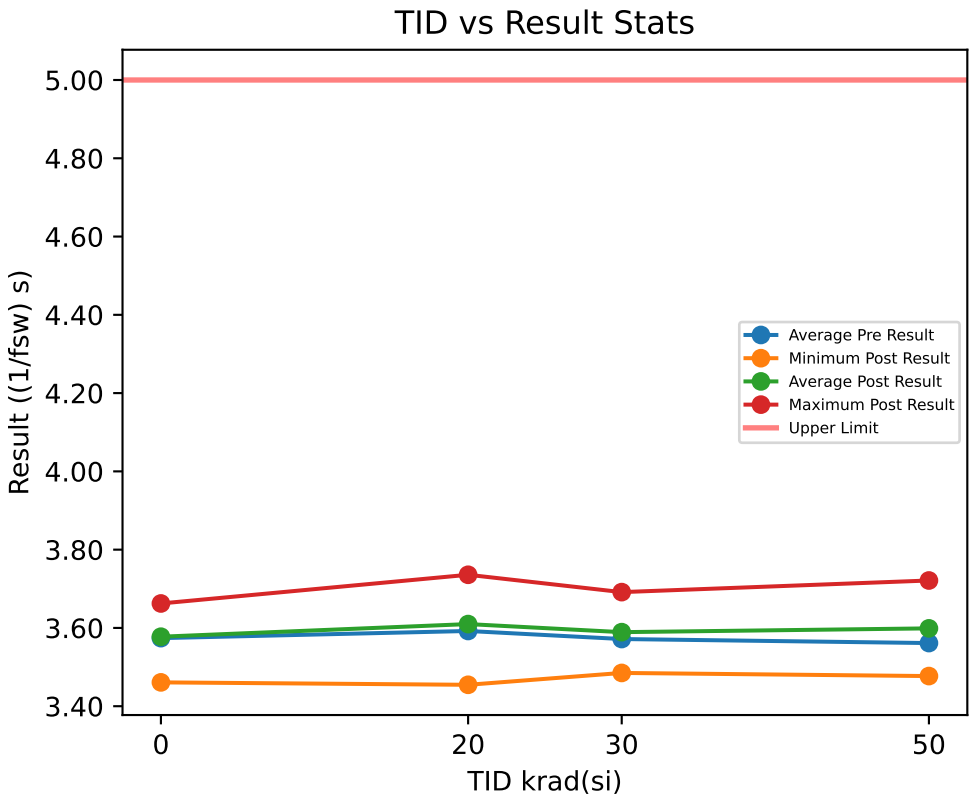
Test Results (Lower Limit = 0.4, Upper Limit = 0.6 (Decimal))

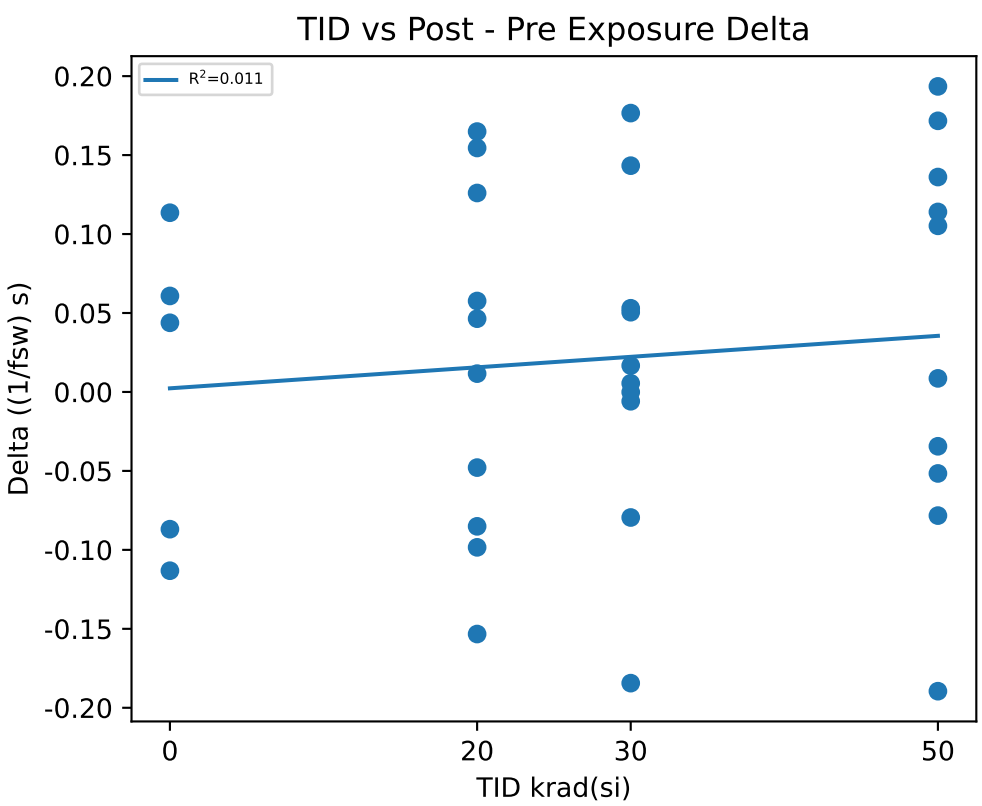
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6	0.6	0
2	20	Biased	0.6	0.6	0
3	20	Biased	0.6	0.6	0
4	20	Biased	0.6	0.6	0
5	20	Biased	0.6	0.6	0
6	20	Unbiased	0.6	0.6	0
7	20	Unbiased	0.6	0.6	0
8	20	Unbiased	0.6	0.6	0
9	20	Unbiased	0.6	0.6	0
10	20	Unbiased	0.6	0.6	0
11	30	Biased	0.6	0.6	0
12	30	Biased	0.6	0.6	0
13	30	Biased	0.6	0.6	0
14	30	Biased	0.6	0.6	0
15	30	Biased	0.6	0.6	0
16	30	Unbiased	0.6	0.6	0
17	30	Unbiased	0.6	0.6	0
18	30	Unbiased	0.6	0.6	0
19	30	Unbiased	0.6	0.6	0
20	30	Unbiased	0.6	0.6	0
27	50	Unbiased	0.6	0.6	0
28	50	Unbiased	0.6	0.6	0
29	50	Unbiased	0.6	0.6	0
30	50	Unbiased	0.6	0.6	0
31	50	Unbiased	0.6	0.6	0
77	50	Biased-84Hr-Anneal	0.6	0.6	0
78	50	Biased-84Hr-Anneal	0.6	0.6	0
79	50	Biased-84Hr-Anneal	0.6	0.6	0
80	50	Biased-84Hr-Anneal	0.6	0.6	0
81	50	Biased-84Hr-Anneal	0.6	0.6	0
100	0	CORRELATION	0.6	0.6	0
101	0	CORRELATION	0.6	0.6	0
102	0	CORRELATION	0.6	0.6	0
103	0	CORRELATION	0.6	0.6	0
104	0	CORRELATION	0.6	0.6	0

Test Statistics (Decimal)

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	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
20	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
30	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
50	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0

Device Test: 24.142 TIMING|CLKDETECT/SYNC1/14//511k//@T_CLOCK_DET





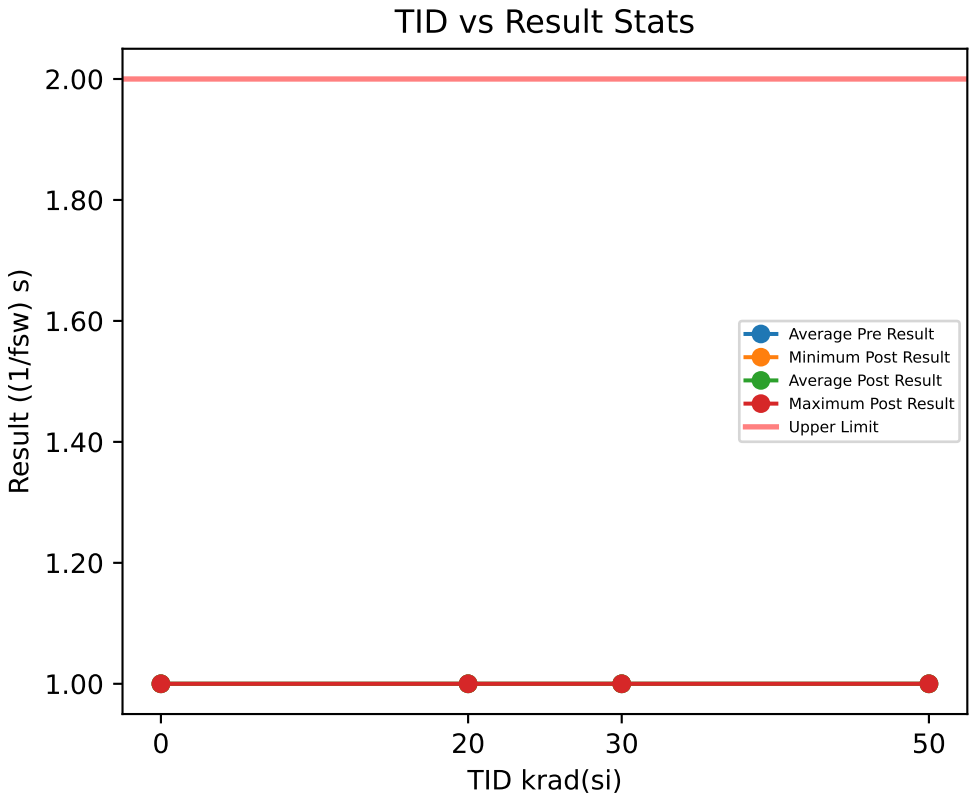
Test Results (Upper Limit = 5.0 ((1/fsw) s))

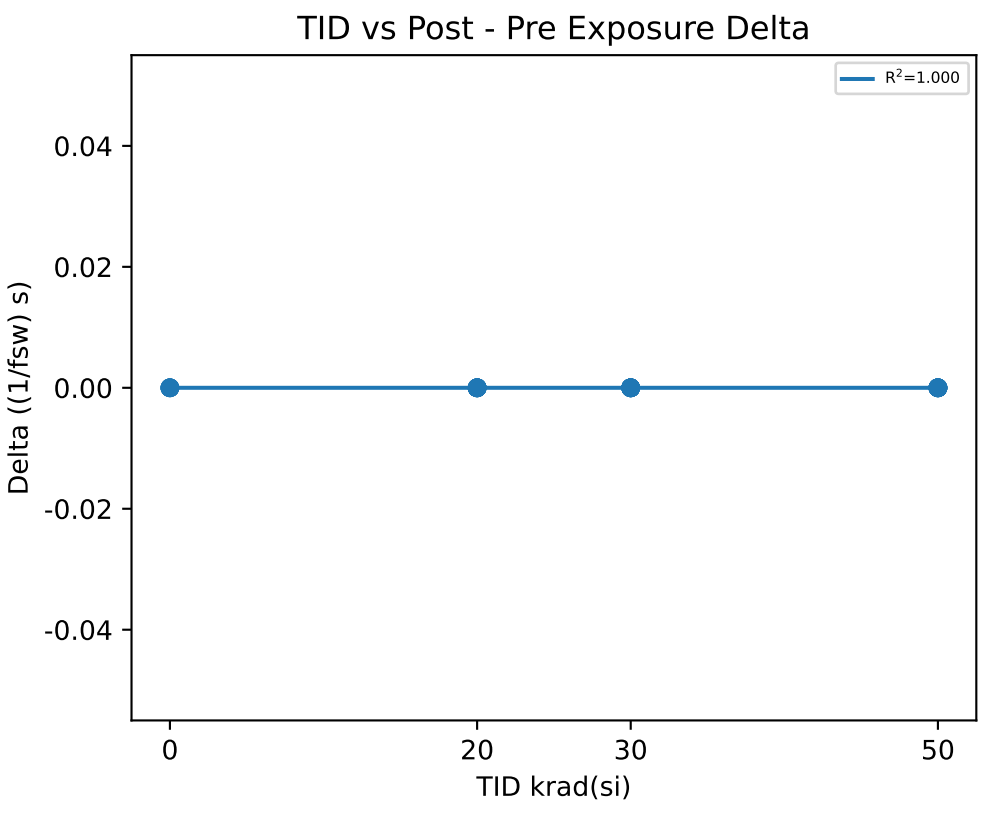
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.6371	3.6487	0.0116
2	20	Biased	3.5713	3.6973	0.126
3	20	Biased	3.5531	3.4547	-0.0984
4	20	Biased	3.6423	3.489	-0.1533
5	20	Biased	3.6502	3.5651	-0.0851
6	20	Unbiased	3.5271	3.692	0.1649
7	20	Unbiased	3.5636	3.6212	0.0576
8	20	Unbiased	3.5838	3.6302	0.0464
9	20	Unbiased	3.6122	3.5643	-0.0479
10	20	Unbiased	3.5813	3.7358	0.1545
11	30	Biased	3.5378	3.5883	0.0505
12	30	Biased	3.5073	3.6506	0.1433
13	30	Biased	3.71	3.5256	-0.1844
14	30	Biased	3.5888	3.5093	-0.0795
15	30	Biased	3.5515	3.6045	0.053
16	30	Unbiased	3.622	3.6161	-0.0059
17	30	Unbiased	3.4975	3.6741	0.1766
18	30	Unbiased	3.5472	3.5471	-0.0001
19	30	Unbiased	3.4683	3.485	0.0167
20	30	Unbiased	3.686	3.6915	0.0055
27	50	Unbiased	3.5158	3.7093	0.1935
28	50	Unbiased	3.3718	3.477	0.1052
29	50	Unbiased	3.7323	3.5428	-0.1895
30	50	Unbiased	3.4901	3.6262	0.1361
31	50	Unbiased	3.5306	3.6446	0.114
77	50	Biased-84Hr-Anneal	3.5172	3.4828	-0.0344
78	50	Biased-84Hr-Anneal	3.6816	3.63	-0.0516
79	50	Biased-84Hr-Anneal	3.5495	3.7212	0.1717
80	50	Biased-84Hr-Anneal	3.6554	3.5771	-0.0783
81	50	Biased-84Hr-Anneal	3.5691	3.5777	0.0086
100	0	CORRELATION	3.5478	3.4609	-0.0869
101	0	CORRELATION	3.506	3.5668	0.0608
102	0	CORRELATION	3.6731	3.5599	-0.1132
103	0	CORRELATION	3.549	3.6625	0.1135
104	0	CORRELATION	3.5939	3.6377	0.0438

Test Statistics ((1/fsw) s)

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	3.506	3.574	3.6731	0.063546	3.4609	3.5776	3.6625	0.078849	-0.1132	0.0036	0.1135	0.098487
20	3.5271	3.5922	3.6502	0.041501	3.4547	3.6098	3.7358	0.091327	-0.1533	0.01763	0.1649	0.11163
30	3.4683	3.5716	3.71	0.079942	3.485	3.5892	3.6915	0.071072	-0.1844	0.01757	0.1766	0.10256
50	3.3718	3.5613	3.7323	0.10472	3.477	3.5989	3.7212	0.083903	-0.1895	0.03753	0.1935	0.12534

Device Test: 24.143 TIMING|CLKDETECT/SYNC1/14//511k//@T_CLOCK_DET_EXT





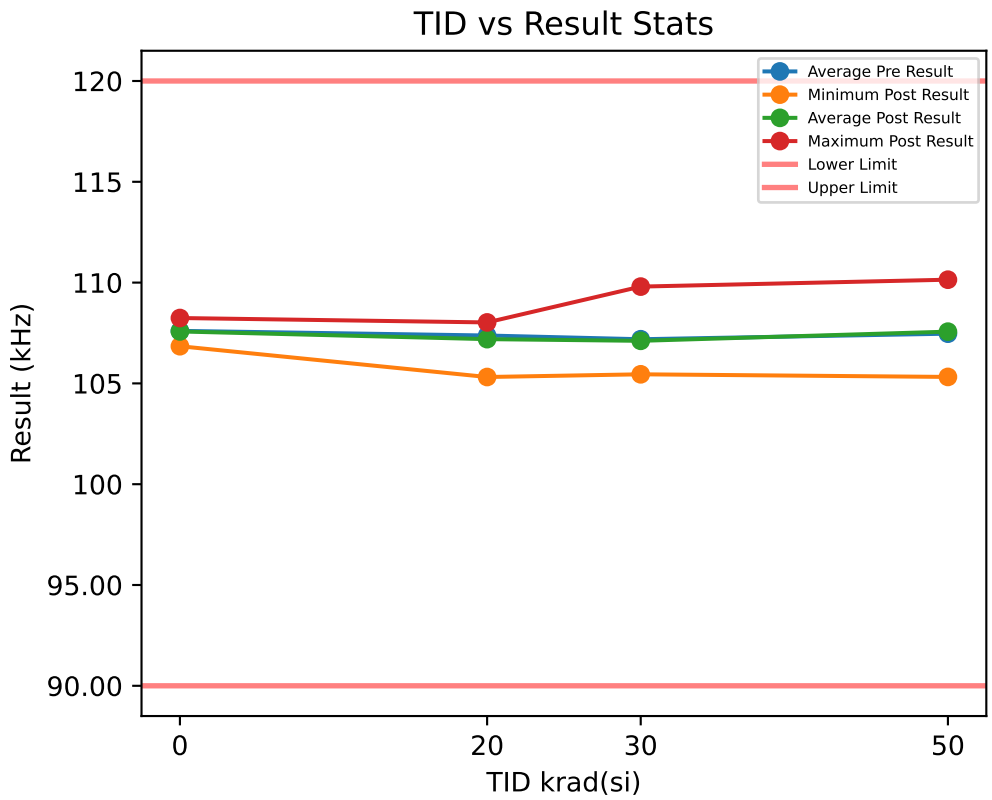
Test Results (Upper Limit = 2.0 ((1/fsw) s))

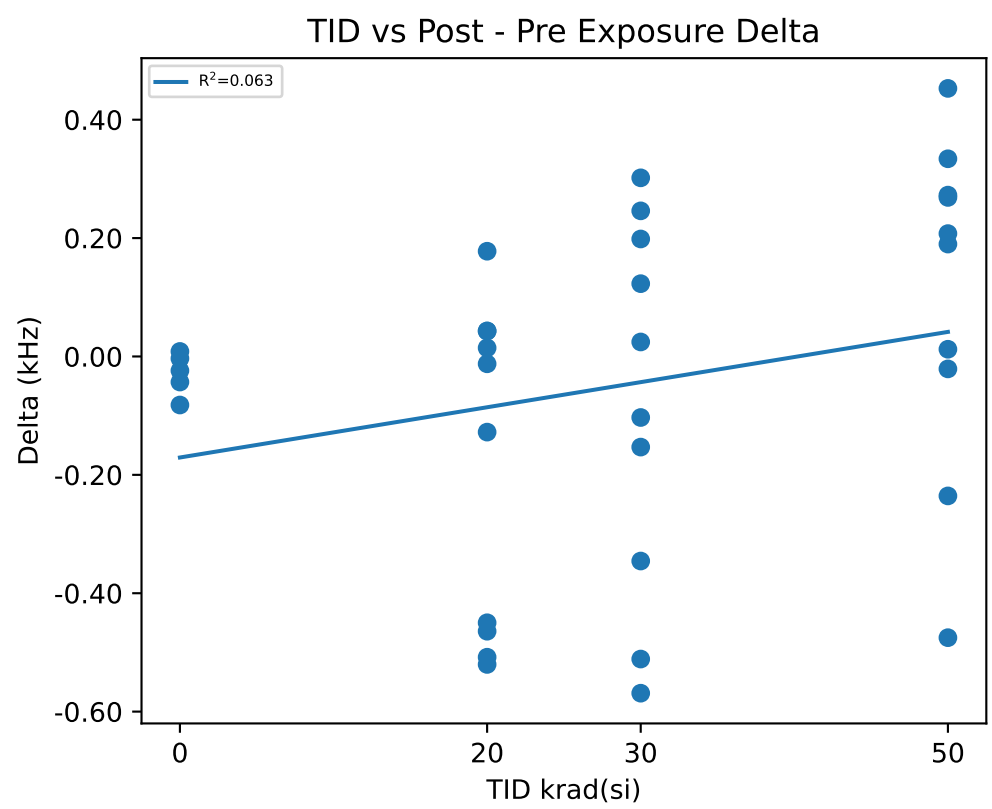
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1	1	0
2	20	Biased	1	1	0
3	20	Biased	1	1	0
4	20	Biased	1	1	0
5	20	Biased	1	1	0
6	20	Unbiased	1	1	0
7	20	Unbiased	1	1	0
8	20	Unbiased	1	1	0
9	20	Unbiased	1	1	0
10	20	Unbiased	1	1	0
11	30	Biased	1	1	0
12	30	Biased	1	1	0
13	30	Biased	1	1	0
14	30	Biased	1	1	0
15	30	Biased	1	1	0
16	30	Unbiased	1	1	0
17	30	Unbiased	1	1	0
18	30	Unbiased	1	1	0
19	30	Unbiased	1	1	0
20	30	Unbiased	1	1	0
27	50	Unbiased	1	1	0
28	50	Unbiased	1	1	0
29	50	Unbiased	1	1	0
30	50	Unbiased	1	1	0
31	50	Unbiased	1	1	0
77	50	Biased-84Hr-Anneal	1	1	0
78	50	Biased-84Hr-Anneal	1	1	0
79	50	Biased-84Hr-Anneal	1	1	0
80	50	Biased-84Hr-Anneal	1	1	0
81	50	Biased-84Hr-Anneal	1	1	0
100	0	CORRELATION	1	1	0
101	0	CORRELATION	1	1	0
102	0	CORRELATION	1	1	0
103	0	CORRELATION	1	1	0
104	0	CORRELATION	1	1	0

Test Statistics ((1/fsw) s)

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	1	1	0	1	1	1	0	0	0	0	0
20	1	1	1	0	1	1	1	0	0	0	0	0
30	1	1	1	0	1	1	1	0	0	0	0	0
50	1	1	1	0	1	1	1	0	0	0	0	0

Device Test: 24.144 FREQ|100kHz/SYNC1/14//511k//@EXT_SET_FREQ_100kHz





Test Results (Lower Limit = 90.0, Upper Limit = 120.0 (kHz))

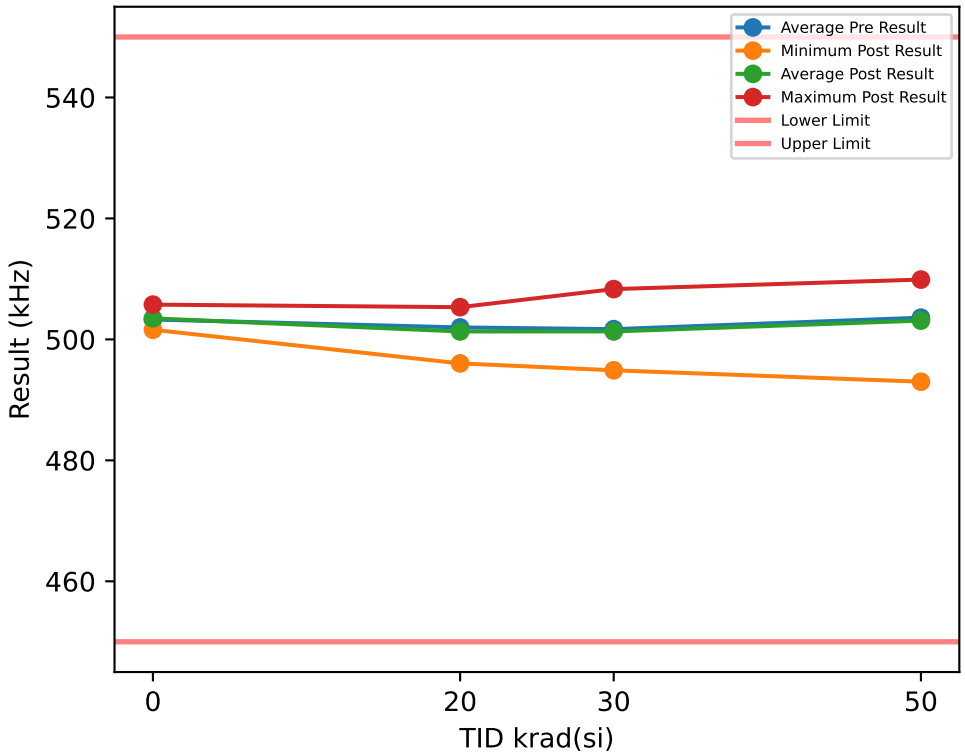
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	108.3	107.85	-0.4499
2	20	Biased	107.45	106.95	-0.5081
3	20	Biased	107.42	107.6	0.1778
4	20	Biased	107.98	108.02	0.0431
5	20	Biased	105.98	105.97	-0.0124
6	20	Unbiased	108.12	107.65	-0.4642
7	20	Unbiased	106.81	106.85	0.0429
8	20	Unbiased	107.95	107.82	-0.1278
9	20	Unbiased	107.9	107.92	0.0145
10	20	Unbiased	105.84	105.32	-0.5203
11	30	Biased	106.28	106.3	0.0245
12	30	Biased	105.48	105.78	0.3018
13	30	Biased	109.9	109.8	-0.1031
14	30	Biased	108.35	108.2	-0.1531
15	30	Biased	106.18	105.83	-0.3456
16	30	Unbiased	107.44	107.69	0.246
17	30	Unbiased	107.08	106.57	-0.5112
18	30	Unbiased	107.38	106.81	-0.5689
19	30	Unbiased	108.48	108.68	0.1985
20	30	Unbiased	105.33	105.45	0.123
27	50	Unbiased	109.34	109.79	0.4529
28	50	Unbiased	107.71	107.72	0.0122
29	50	Unbiased	106.5	106.02	-0.4751
30	50	Unbiased	107.56	107.77	0.2076
31	50	Unbiased	107.43	107.71	0.2726
77	50	Biased-84Hr-Anneal	110.38	110.14	-0.2356
78	50	Biased-84Hr-Anneal	107.36	107.69	0.334
79	50	Biased-84Hr-Anneal	107.26	107.24	-0.021
80	50	Biased-84Hr-Anneal	106.07	106.26	0.1899
81	50	Biased-84Hr-Anneal	105.05	105.32	0.2687
100	0	CORRELATION	106.89	106.84	-0.0432
101	0	CORRELATION	107.77	107.69	-0.082
102	0	CORRELATION	108.06	108.07	0.0085
103	0	CORRELATION	107.06	107.03	-0.0239
104	0	CORRELATION	108.25	108.24	-0.0034

Test Statistics (kHz)

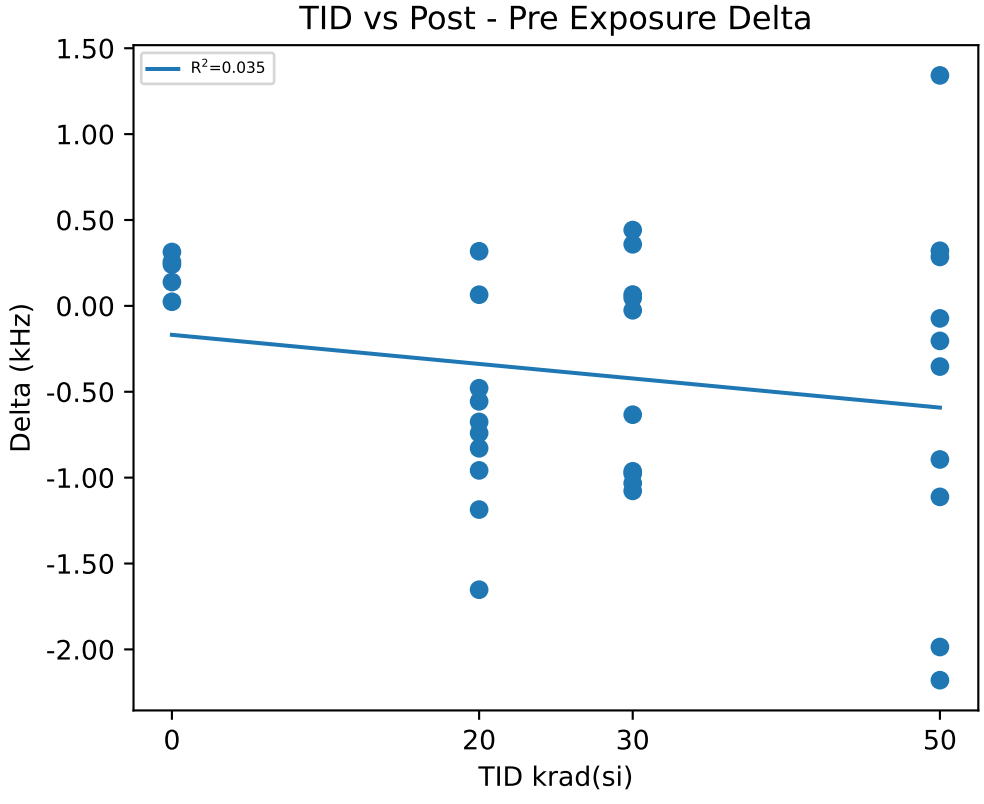
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	106.89	107.61	108.25	0.60561	106.84	107.58	108.24	0.6197	-0.082	-0.0288	0.0085	0.0357
20	105.84	107.38	108.3	0.88317	105.32	107.2	108.02	0.91986	-0.5203	-0.18044	0.1778	0.27349
30	105.33	107.19	109.9	1.4437	105.45	107.11	109.8	1.431	-0.5689	-0.07881	0.3018	0.31324
50	105.05	107.47	110.38	1.5216	105.32	107.57	110.14	1.5255	-0.4751	0.10062	0.4529	0.28342

Device Test: 24.151 FREQ|500kHz/SYNC1/14//90.9k//@EXT_SET_FREQ_500kHz

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Lower Limit = 450.0, Upper Limit = 550.0 (kHz))

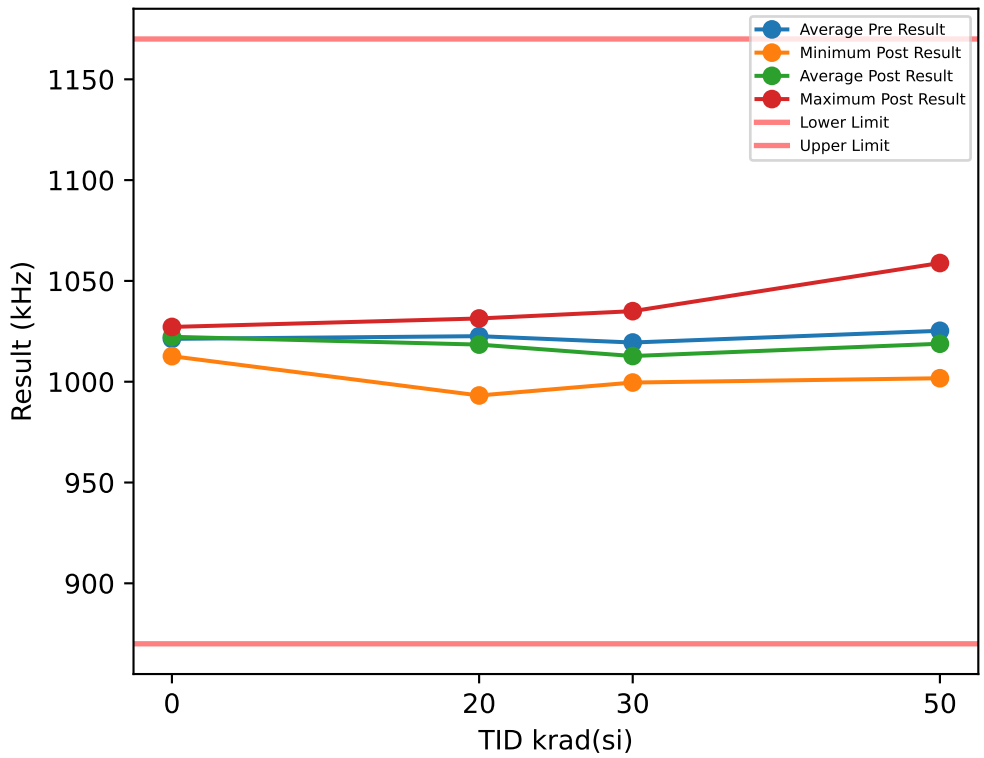
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	499.61	498.43	-1.1859
2	20	Biased	505.6	505.13	-0.4794
3	20	Biased	500.02	499.19	-0.8292
4	20	Biased	505.88	505.33	-0.5559
5	20	Biased	495.97	496.03	0.0651
6	20	Unbiased	502.75	502.07	-0.6755
7	20	Unbiased	500.76	500.02	-0.7403
8	20	Unbiased	504.89	505.21	0.318
9	20	Unbiased	505.23	504.27	-0.9578
10	20	Unbiased	499.09	497.43	-1.6525
11	30	Biased	499.48	499.84	0.3585
12	30	Biased	497.54	497.6	0.0659
13	30	Biased	508.95	508.32	-0.6336
14	30	Biased	502.71	502.69	-0.0257
15	30	Biased	498.97	498	-0.977
16	30	Unbiased	502.05	501.08	-0.9631
17	30	Unbiased	502.82	501.79	-1.0326
18	30	Unbiased	503.51	502.43	-1.0772
19	30	Unbiased	506.46	506.51	0.0464
20	30	Unbiased	494.45	494.89	0.4415
27	50	Unbiased	505.87	507.22	1.3419
28	50	Unbiased	505.48	504.37	-1.112
29	50	Unbiased	503.08	501.09	-1.9861
30	50	Unbiased	506.37	506.66	0.285
31	50	Unbiased	503.67	503.46	-0.2039
77	50	Biased-84Hr-Anneal	512.07	509.89	-2.1793
78	50	Biased-84Hr-Anneal	503.4	503.04	-0.3533
79	50	Biased-84Hr-Anneal	502.29	501.39	-0.8942
80	50	Biased-84Hr-Anneal	501.01	500.93	-0.0729
81	50	Biased-84Hr-Anneal	492.68	493	0.3209
100	0	CORRELATION	505.73	505.75	0.0241
101	0	CORRELATION	503.32	503.57	0.257
102	0	CORRELATION	504.33	504.64	0.3138
103	0	CORRELATION	501.61	501.85	0.2404
104	0	CORRELATION	501.46	501.59	0.1389

Test Statistics (kHz)

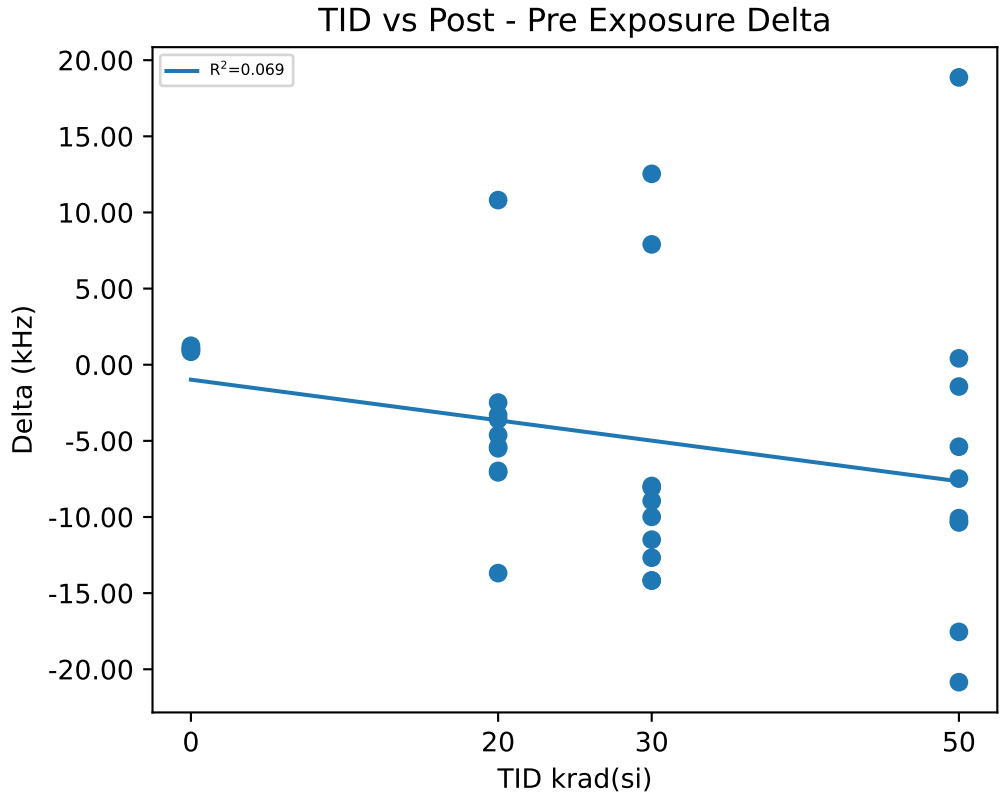
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	501.46	503.29	505.73	1.8172	501.59	503.48	505.75	1.7841	0.0241	0.19484	0.3138	0.11443
20	495.97	501.98	505.88	3.3907	496.03	501.31	505.33	3.5374	-1.6525	-0.66934	0.318	0.56867
30	494.45	501.69	508.95	4.2581	494.89	501.31	508.32	4.0503	-1.0772	-0.37969	0.4415	0.61456
50	492.68	503.59	512.07	4.8995	493	503.11	509.89	4.6065	-2.1793	-0.48539	1.3419	1.0817

Device Test: 24.152 FREQ|1MHz/SYNC1/14//34.8k//@EXT_SET_FREQ_1000kHz

TID vs Result Stats



TID vs Post - Pre Exposure Delta



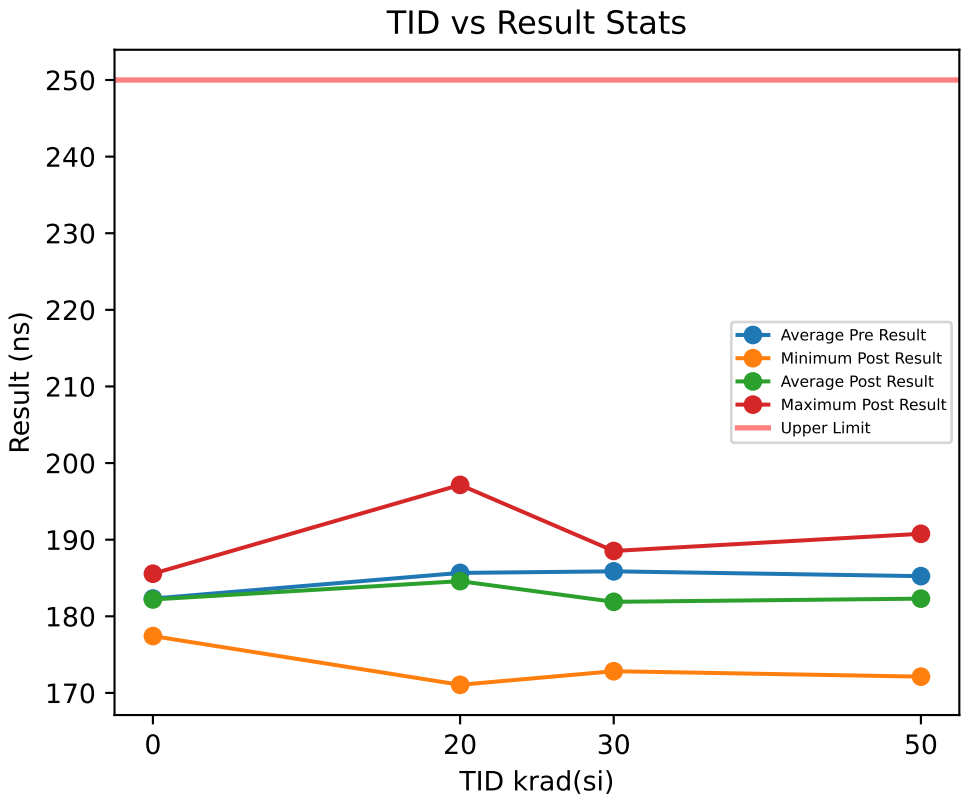
Test Results (Lower Limit = 870.0, Upper Limit = 1170.0 (kHz))

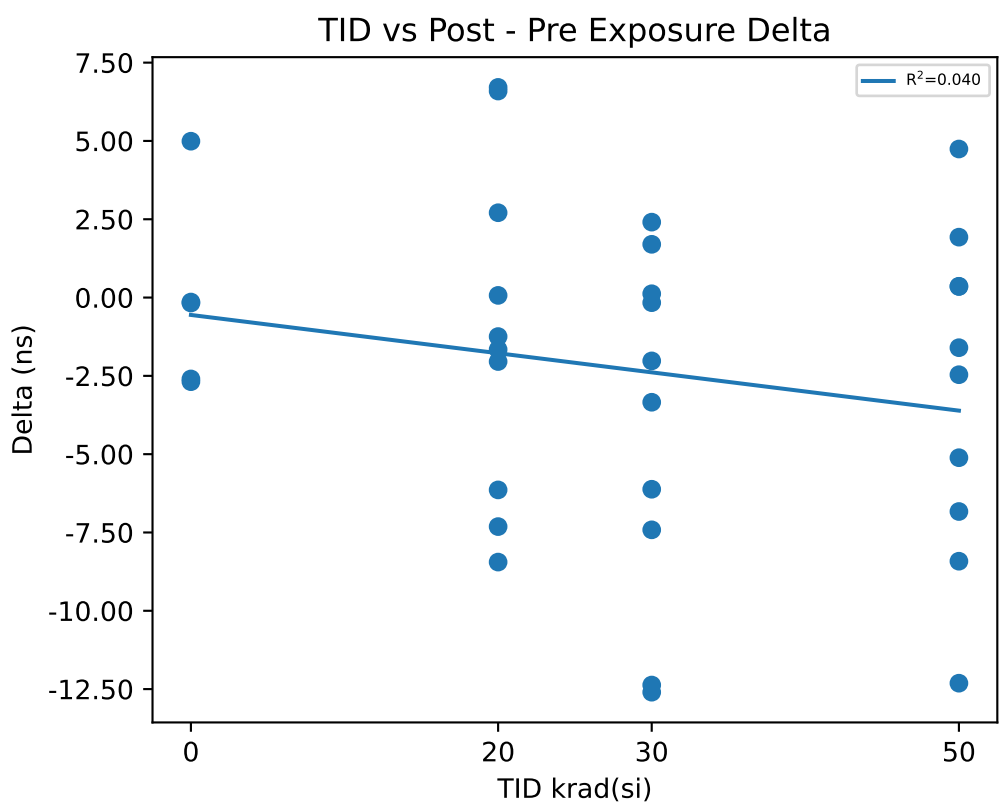
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1017.6	1010.5	-7.0694
2	20	Biased	1033.9	1031.4	-2.4843
3	20	Biased	1022.4	1017	-5.4019
4	20	Biased	1028.4	1023.7	-4.6208
5	20	Biased	1014.3	1010.7	-3.5875
6	20	Unbiased	1030.9	1023.9	-6.9724
7	20	Unbiased	1018.7	1029.5	10.811
8	20	Unbiased	1034.1	1030.8	-3.2936
9	20	Unbiased	1018.9	1013.5	-5.4877
10	20	Unbiased	1006.9	993.17	-13.684
11	30	Biased	1010	1002	-8.0645
12	30	Biased	1011.5	1001.5	-9.9916
13	30	Biased	1032.2	1020.7	-11.49
14	30	Biased	1022.5	1035	12.536
15	30	Biased	1012.8	1000.1	-12.675
16	30	Unbiased	1029.9	1022	-7.963
17	30	Unbiased	1013.8	999.59	-14.169
18	30	Unbiased	1019.1	1004.9	-14.172
19	30	Unbiased	1028.3	1019.4	-8.9436
20	30	Unbiased	1014.3	1022.2	7.9029
27	50	Unbiased	1040	1058.9	18.869
28	50	Unbiased	1023.3	1002.5	-20.849
29	50	Unbiased	1029.5	1019.1	-10.36
30	50	Unbiased	1025.2	1007.6	-17.544
31	50	Unbiased	1029	1029.4	0.4184
77	50	Biased-84Hr-Anneal	1039.9	1032.4	-7.4792
78	50	Biased-84Hr-Anneal	1019.5	1009.5	-10.074
79	50	Biased-84Hr-Anneal	1019.9	1014.5	-5.3844
80	50	Biased-84Hr-Anneal	1012	1001.7	-10.308
81	50	Biased-84Hr-Anneal	1014.4	1012.9	-1.4325
100	0	CORRELATION	1020.1	1021.2	1.077
101	0	CORRELATION	1026.1	1027.2	1.0244
102	0	CORRELATION	1022.2	1023.4	1.2456
103	0	CORRELATION	1011.8	1012.7	0.8505
104	0	CORRELATION	1026.1	1027	0.9324

Test Statistics (kHz)

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	1011.8	1021.3	1026.1	5.884	1012.7	1022.3	1027.2	5.9425	0.8505	1.026	1.2456	0.15032
20	1006.9	1022.6	1034.1	9.0126	993.17	1018.4	1031.4	11.966	-13.684	-4.1791	10.811	6.1338
30	1010	1019.4	1032.2	8.2812	999.59	1012.7	1035	12.536	-14.172	-6.703	12.536	9.2667
50	1012	1025.3	1040	9.5515	1001.7	1018.8	1058.9	17.402	-20.849	-6.4143	18.869	11.002

Device Test: 24.154 TIMING|MINON/SW/14//511k//@ON_TIME_MIN_14V





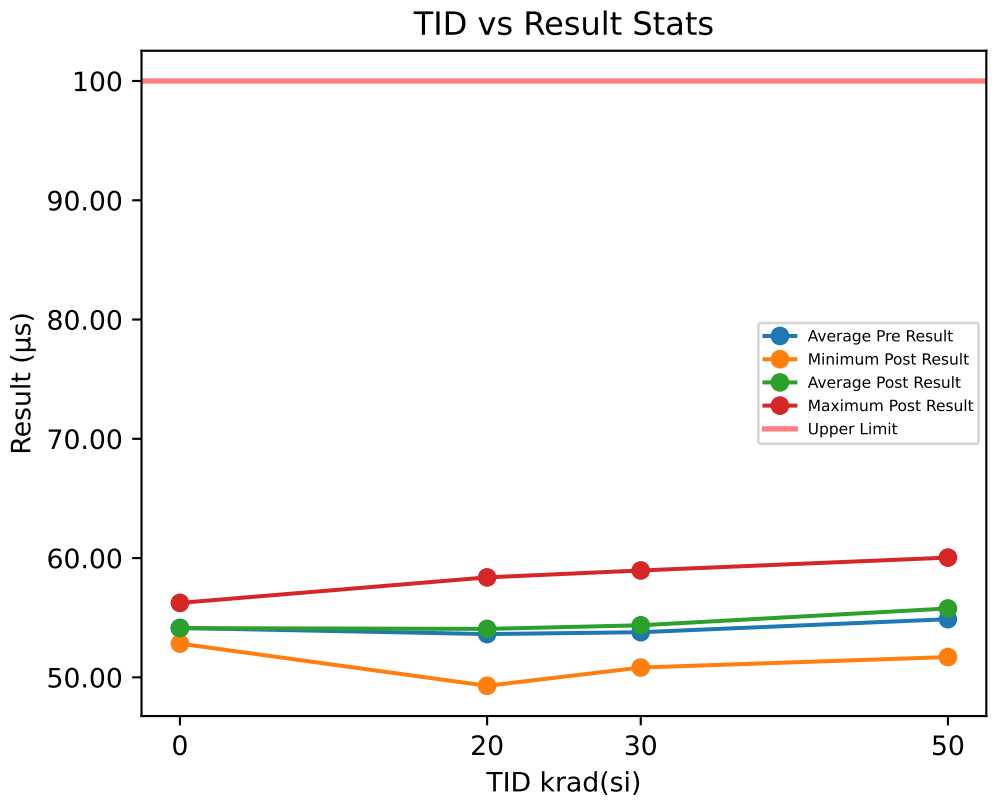
Test Results (Upper Limit = 250.0 (ns))

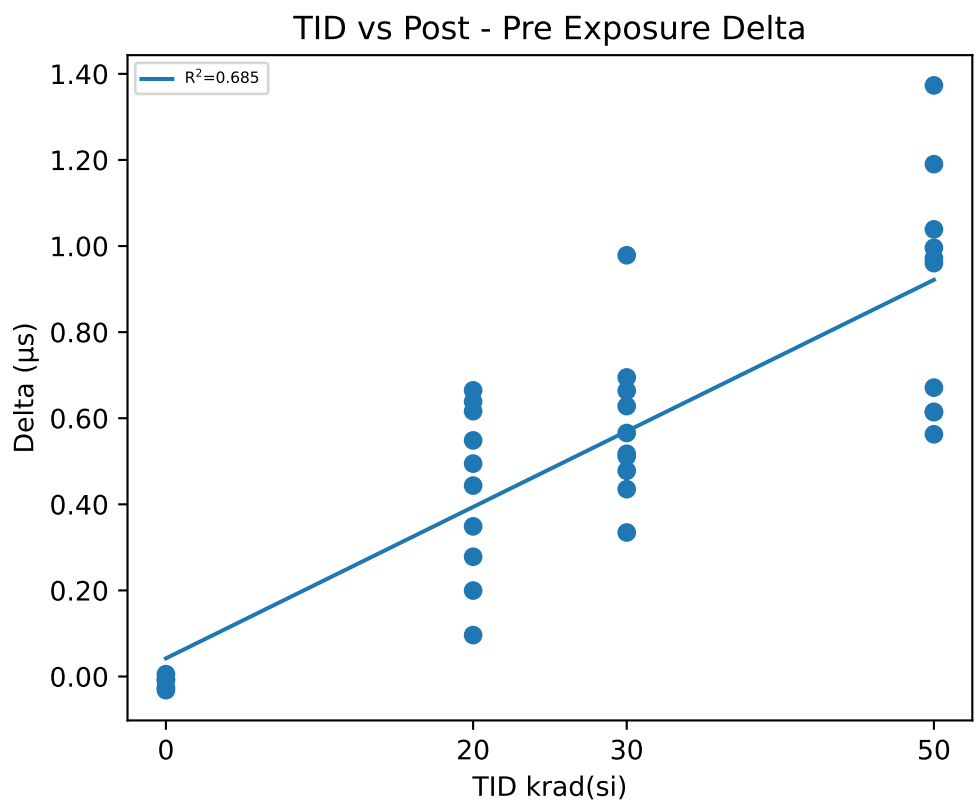
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	190.35	188.31	-2.0423
2	20	Biased	172.72	171.06	-1.6582
3	20	Biased	194.64	186.2	-8.4452
4	20	Biased	194.44	197.15	2.7081
5	20	Biased	182.39	176.25	-6.1409
6	20	Unbiased	177.54	184.14	6.593
7	20	Unbiased	196.66	189.35	-7.3121
8	20	Unbiased	182.51	181.27	-1.2451
9	20	Unbiased	188.35	188.42	0.0691
10	20	Unbiased	177.03	183.74	6.7094
11	30	Biased	196.89	184.52	-12.37
12	30	Biased	181.08	181.2	0.1215
13	30	Biased	180.48	177.13	-3.3422
14	30	Biased	176.09	175.93	-0.1634
15	30	Biased	198.53	185.93	-12.599
16	30	Unbiased	185.79	187.49	1.6998
17	30	Unbiased	180.25	172.83	-7.4154
18	30	Unbiased	181.4	183.81	2.4078
19	30	Unbiased	194.65	188.53	-6.1198
20	30	Unbiased	183.53	181.51	-2.0222
27	50	Unbiased	191.8	179.49	-12.312
28	50	Unbiased	174.99	175.35	0.3599
29	50	Unbiased	181.48	181.84	0.354
30	50	Unbiased	170.19	172.12	1.9284
31	50	Unbiased	192.01	183.59	-8.4173
77	50	Biased-84Hr-Anneal	185.99	179.16	-6.8304
78	50	Biased-84Hr-Anneal	195.88	190.77	-5.1128
79	50	Biased-84Hr-Anneal	179.82	184.56	4.7425
80	50	Biased-84Hr-Anneal	189.74	188.14	-1.6006
81	50	Biased-84Hr-Anneal	190.49	188.03	-2.463
100	0	CORRELATION	177.56	177.42	-0.1432
101	0	CORRELATION	188.01	185.33	-2.6858
102	0	CORRELATION	174.14	179.14	4.9915
103	0	CORRELATION	185.73	185.56	-0.1744
104	0	CORRELATION	186.13	183.54	-2.5984

Test Statistics (ns)

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	174.14	182.32	188.01	6.084	177.42	182.2	185.56	3.7106	-2.6858	-0.12206	4.9915	3.1168
20	172.72	185.66	196.66	8.4096	171.06	184.59	197.15	7.2732	-8.4452	-1.0764	6.7094	5.325
30	176.09	185.87	198.53	7.9126	172.83	181.89	188.53	5.1982	-12.599	-3.9803	2.4078	5.4748
50	170.19	185.24	195.88	8.3361	172.12	182.3	190.77	5.9184	-12.312	-2.9351	4.7425	5.2086

Device Test: 24.155 TIMING|DELAY/EN/14//511k//@T_EN_DELAY





Test Results (Upper Limit = 100.0 (µs))

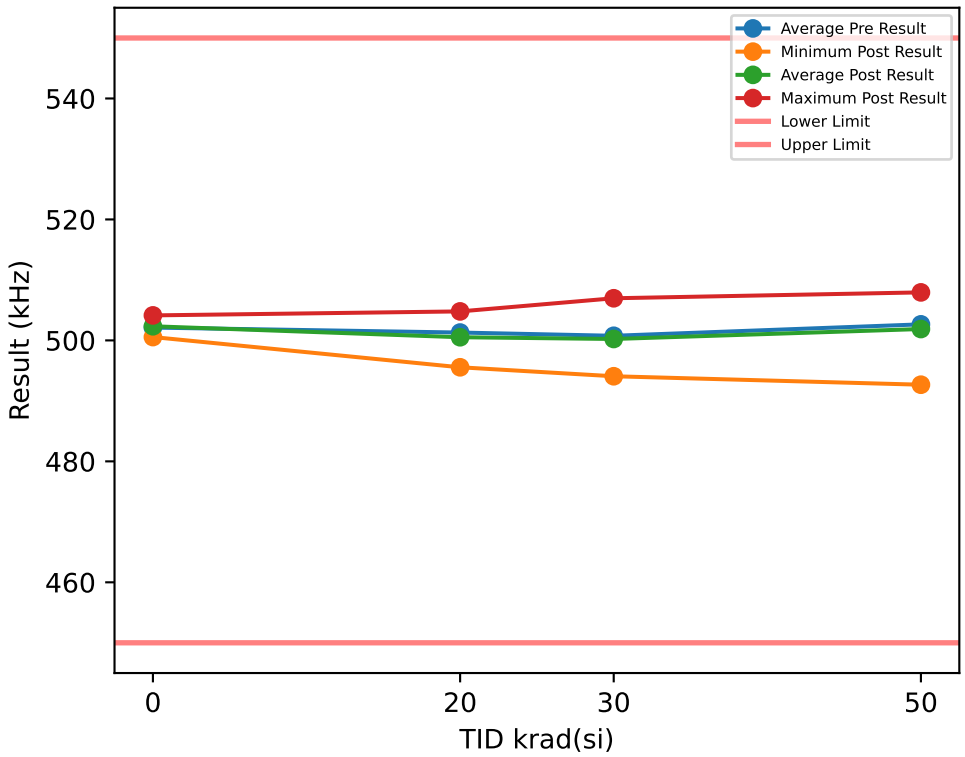
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	56.045	56.71	0.6648
2	20	Biased	49.092	49.292	0.1997
3	20	Biased	57.938	58.382	0.4435
4	20	Biased	56.103	56.598	0.4946
5	20	Biased	52.54	53.089	0.5485
6	20	Unbiased	51.288	51.566	0.2782
7	20	Unbiased	55.026	55.665	0.6388
8	20	Unbiased	53.895	53.992	0.0962
9	20	Unbiased	54.244	54.86	0.6164
10	20	Unbiased	50.111	50.46	0.3488
11	30	Biased	55.203	55.715	0.5116
12	30	Biased	52.888	53.583	0.6948
13	30	Biased	58.626	58.961	0.3346
14	30	Biased	56.162	57.141	0.9786
15	30	Biased	53.87	54.534	0.6639
16	30	Unbiased	50.458	51.087	0.6282
17	30	Unbiased	50.306	50.823	0.5174
18	30	Unbiased	51.297	51.862	0.5657
19	30	Unbiased	51.33	51.765	0.4352
20	30	Unbiased	57.704	58.182	0.4779
27	50	Unbiased	57.413	58.452	1.0388
28	50	Unbiased	53.156	54.117	0.9603
29	50	Unbiased	58.039	59.035	0.9959
30	50	Unbiased	55.294	56.667	1.3732
31	50	Unbiased	55.95	56.922	0.9719
77	50	Biased-84Hr-Anneal	51.031	51.702	0.6711
78	50	Biased-84Hr-Anneal	53.822	54.437	0.6146
79	50	Biased-84Hr-Anneal	52.289	52.904	0.6144
80	50	Biased-84Hr-Anneal	52.911	53.473	0.5627
81	50	Biased-84Hr-Anneal	58.849	60.04	1.1902
100	0	CORRELATION	52.886	52.877	-0.009
101	0	CORRELATION	54.745	54.751	0.0055
102	0	CORRELATION	56.248	56.241	-0.0062
103	0	CORRELATION	52.855	52.829	-0.0259
104	0	CORRELATION	53.966	53.934	-0.0318

Test Statistics (µs)

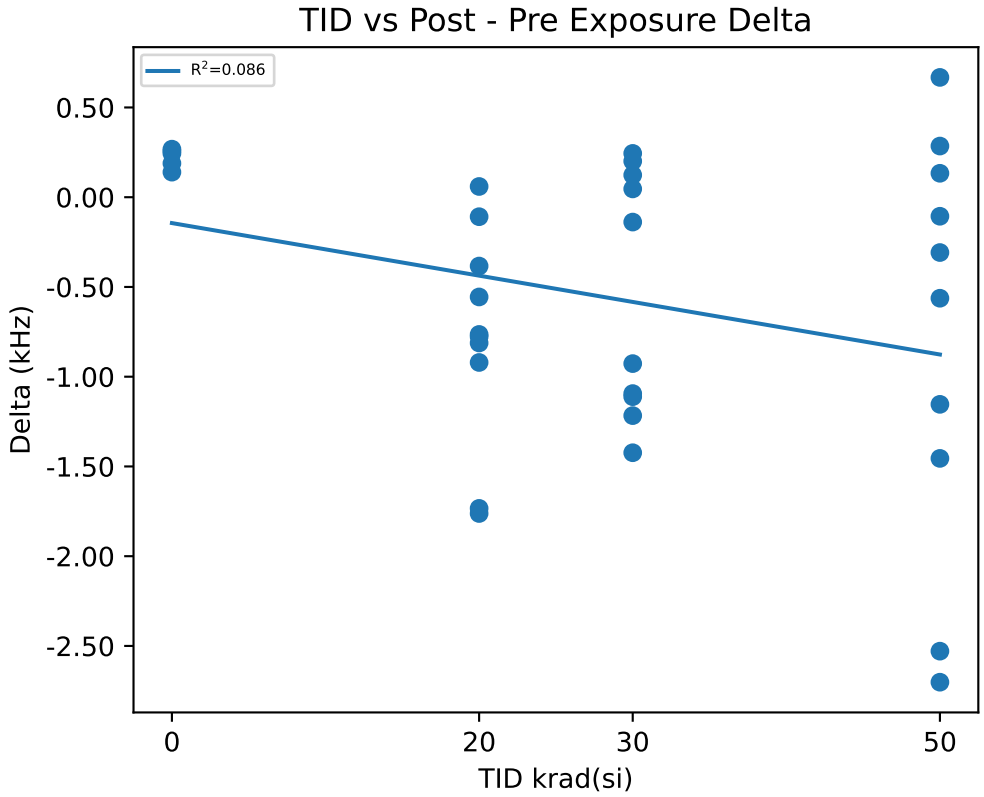
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	52.855	54.14	56.248	1.4196	52.829	54.127	56.241	1.4268	-0.0318	-0.01348	0.0055	0.015192
20	49.092	53.628	57.938	2.8392	49.292	54.061	58.382	2.948	0.0962	0.43295	0.6648	0.19604
30	50.306	53.784	58.626	3.0306	50.823	54.365	58.961	3.0217	0.3346	0.58079	0.9786	0.17696
50	51.031	54.875	58.849	2.645	51.702	55.775	60.04	2.8434	0.5627	0.89931	1.3732	0.27378

Device Test: 24.19 FREQ|500kHz/SYNC1/4.5//90.9k//@EXT_SET_FREQ_500kHz

TID vs Result Stats



TID vs Post - Pre Exposure Delta



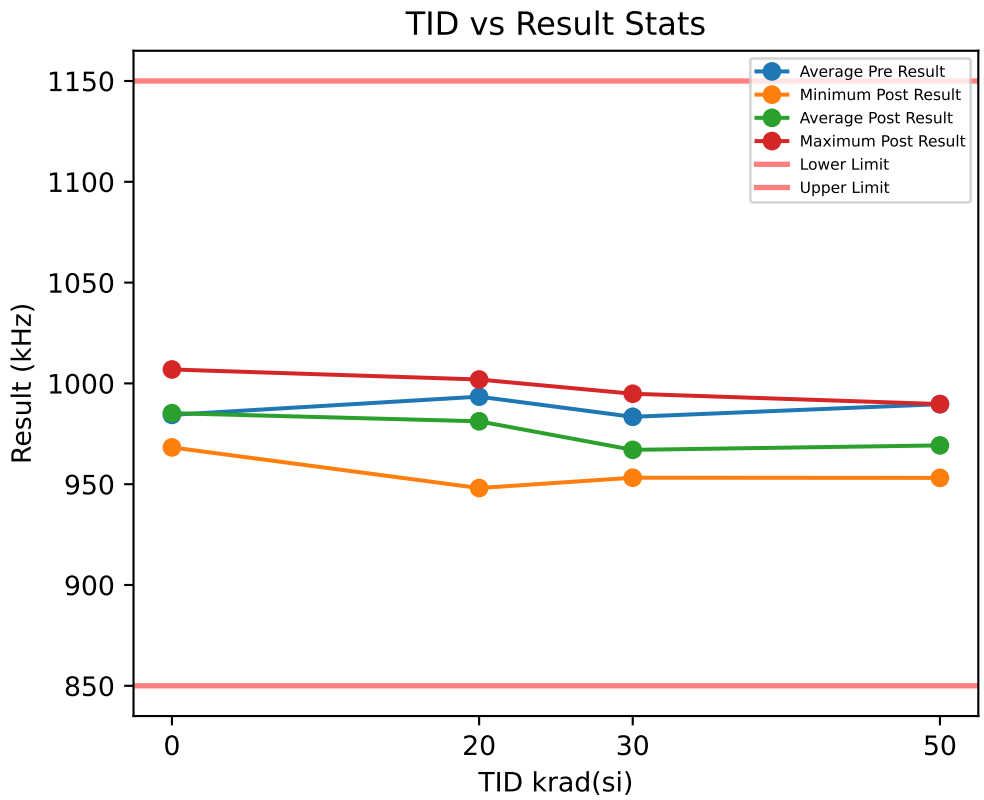
Test Results (Lower Limit = 450.0, Upper Limit = 550.0 (kHz))

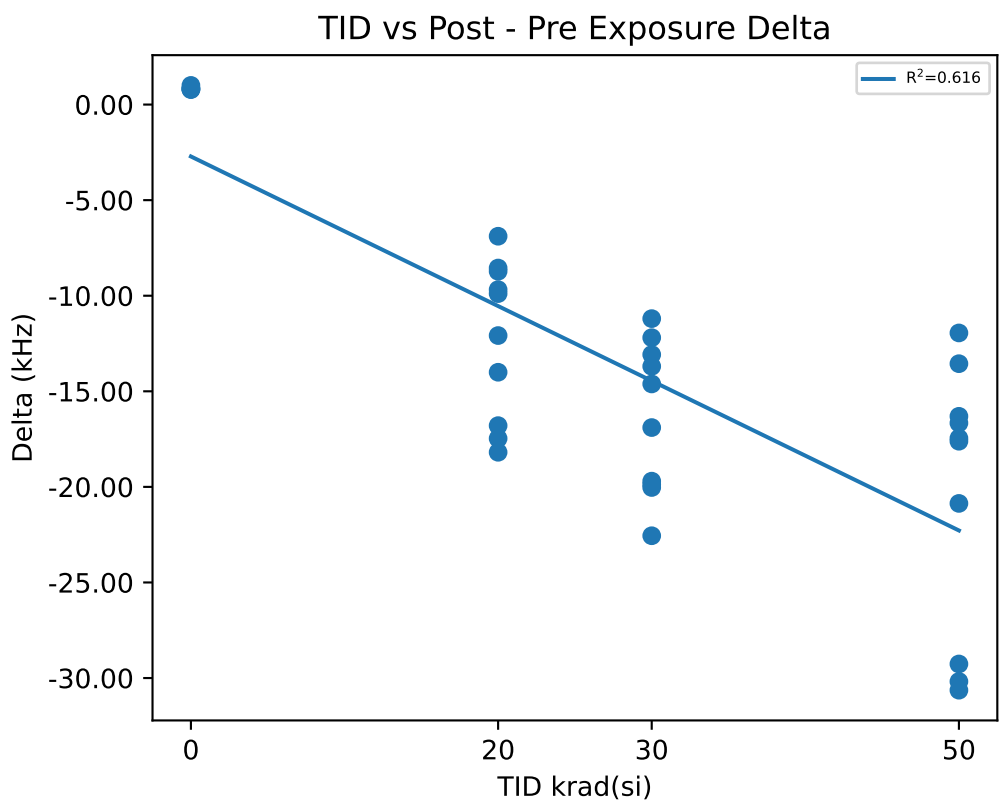
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	499.68	497.92	-1.7621
2	20	Biased	504.45	504.07	-0.3835
3	20	Biased	499.68	498.76	-0.9207
4	20	Biased	505.34	504.58	-0.7645
5	20	Biased	495.66	495.55	-0.1086
6	20	Unbiased	501.92	501.14	-0.7768
7	20	Unbiased	499.73	499.17	-0.5557
8	20	Unbiased	504.73	504.79	0.0598
9	20	Unbiased	504.06	503.25	-0.8121
10	20	Unbiased	497.73	495.99	-1.7336
11	30	Biased	498.47	498.71	0.2441
12	30	Biased	496.5	496.7	0.2009
13	30	Biased	508.18	506.97	-1.2168
14	30	Biased	502.04	502.08	0.0462
15	30	Biased	497.57	496.65	-0.927
16	30	Unbiased	501.37	500.26	-1.1112
17	30	Unbiased	501.33	500.24	-1.094
18	30	Unbiased	502.64	501.21	-1.4236
19	30	Unbiased	505.58	505.44	-0.1385
20	30	Unbiased	493.95	494.07	0.1235
27	50	Unbiased	505.86	506.53	0.6675
28	50	Unbiased	504.21	502.75	-1.4551
29	50	Unbiased	502.21	499.68	-2.5291
30	50	Unbiased	505.04	505.32	0.285
31	50	Unbiased	502.55	501.99	-0.5628
77	50	Biased-84Hr-Anneal	510.64	507.94	-2.702
78	50	Biased-84Hr-Anneal	502.24	501.93	-0.3082
79	50	Biased-84Hr-Anneal	501.53	500.38	-1.154
80	50	Biased-84Hr-Anneal	499.71	499.6	-0.1061
81	50	Biased-84Hr-Anneal	492.54	492.67	0.1333
100	0	CORRELATION	503.99	504.13	0.1396
101	0	CORRELATION	502.22	502.41	0.1887
102	0	CORRELATION	503.28	503.52	0.2441
103	0	CORRELATION	500.29	500.55	0.2568
104	0	CORRELATION	500.8	501.07	0.2677

Test Statistics (kHz)

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	500.29	502.12	503.99	1.5765	500.55	502.34	504.13	1.5363	0.1396	0.21938	0.2677	0.053973
20	495.66	501.3	505.34	3.3048	495.55	500.52	504.79	3.5267	-1.7621	-0.77578	0.0598	0.6017
30	493.95	500.76	508.18	4.2713	494.07	500.23	506.97	3.9793	-1.4236	-0.52964	0.2441	0.67737
50	492.54	502.65	510.64	4.6521	492.67	501.88	507.94	4.3203	-2.702	-0.77315	0.6675	1.1612

Device Test: 24.20 FREQ|1MHz/SYNC1/4.5//34.8k//@EXT_SET_FREQ_1000kHz_4V5





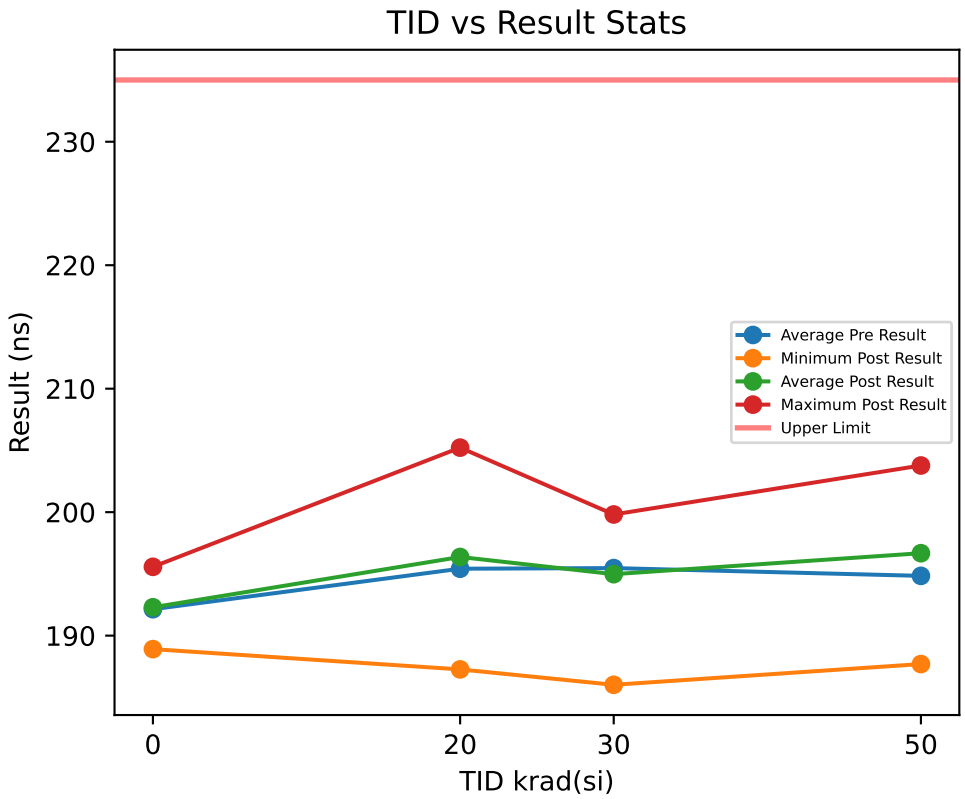
Test Results (Lower Limit = 850.0, Upper Limit = 1150.0 (kHz))

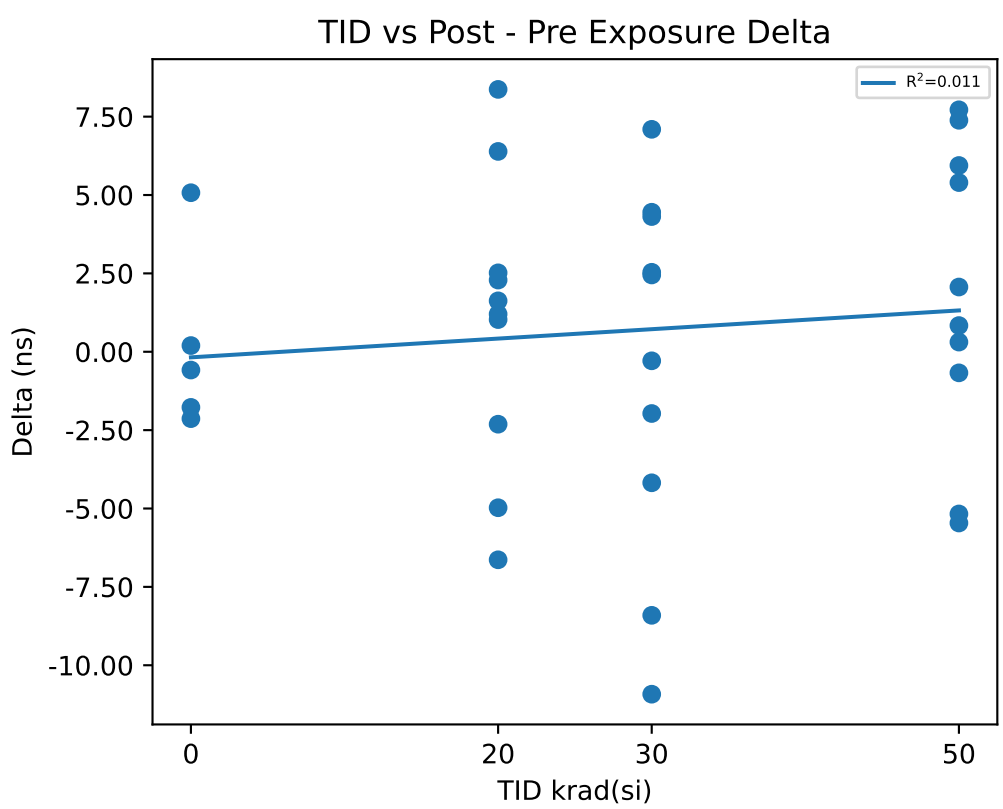
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	997.18	983.18	-14.003
2	20	Biased	1003.9	987.14	-16.796
3	20	Biased	1001.7	991.79	-9.8889
4	20	Biased	996.83	978.64	-18.19
5	20	Biased	995.6	987.05	-8.5514
6	20	Unbiased	1009.4	991.91	-17.467
7	20	Unbiased	985.25	978.36	-6.8877
8	20	Unbiased	1014	1001.9	-12.084
9	20	Unbiased	972.56	963.84	-8.7203
10	20	Unbiased	957.77	948.09	-9.6822
11	30	Biased	965.52	954.32	-11.198
12	30	Biased	978.95	959.07	-19.876
13	30	Biased	993.87	971.32	-22.556
14	30	Biased	995.55	983.35	-12.194
15	30	Biased	968.88	955.18	-13.692
16	30	Unbiased	1009.5	994.86	-14.615
17	30	Unbiased	966.3	953.22	-13.079
18	30	Unbiased	975.87	956.17	-19.7
19	30	Unbiased	986.12	969.22	-16.896
20	30	Unbiased	993.64	973.6	-20.032
27	50	Unbiased	1019	989.74	-29.264
28	50	Unbiased	978.09	957.22	-20.865
29	50	Unbiased	1000.4	969.8	-30.636
30	50	Unbiased	979.94	962.33	-17.612
31	50	Unbiased	1002.6	972.4	-30.181
77	50	Biased-84Hr-Anneal	995.41	977.96	-17.454
78	50	Biased-84Hr-Anneal	980.11	963.81	-16.308
79	50	Biased-84Hr-Anneal	982.51	965.85	-16.66
80	50	Biased-84Hr-Anneal	965.07	953.12	-11.947
81	50	Biased-84Hr-Anneal	993.77	980.21	-13.555
100	0	CORRELATION	970.31	971.12	0.8081
101	0	CORRELATION	992.92	993.77	0.8492
102	0	CORRELATION	985.14	986.14	1.0028
103	0	CORRELATION	967.44	968.25	0.8161
104	0	CORRELATION	1006.1	1006.9	0.7821

Test Statistics (kHz)

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	967.44	984.39	1006.1	16.06	968.25	985.24	1006.9	16.057	0.7821	0.85166	1.0028	0.087821
20	957.77	993.42	1014	17.195	948.09	981.19	1001.9	15.429	-18.19	-12.227	-6.8877	4.1274
30	965.52	983.42	1009.5	14.717	953.22	967.03	994.86	14.07	-22.556	-16.384	-11.198	3.9526
50	965.07	989.69	1019	15.525	953.12	969.24	989.74	11.155	-30.636	-20.448	-11.947	7.0293

Device Test: 24.22 TIMING|MINON/SW/4.5//511k//@ON_TIME_MIN_4V5





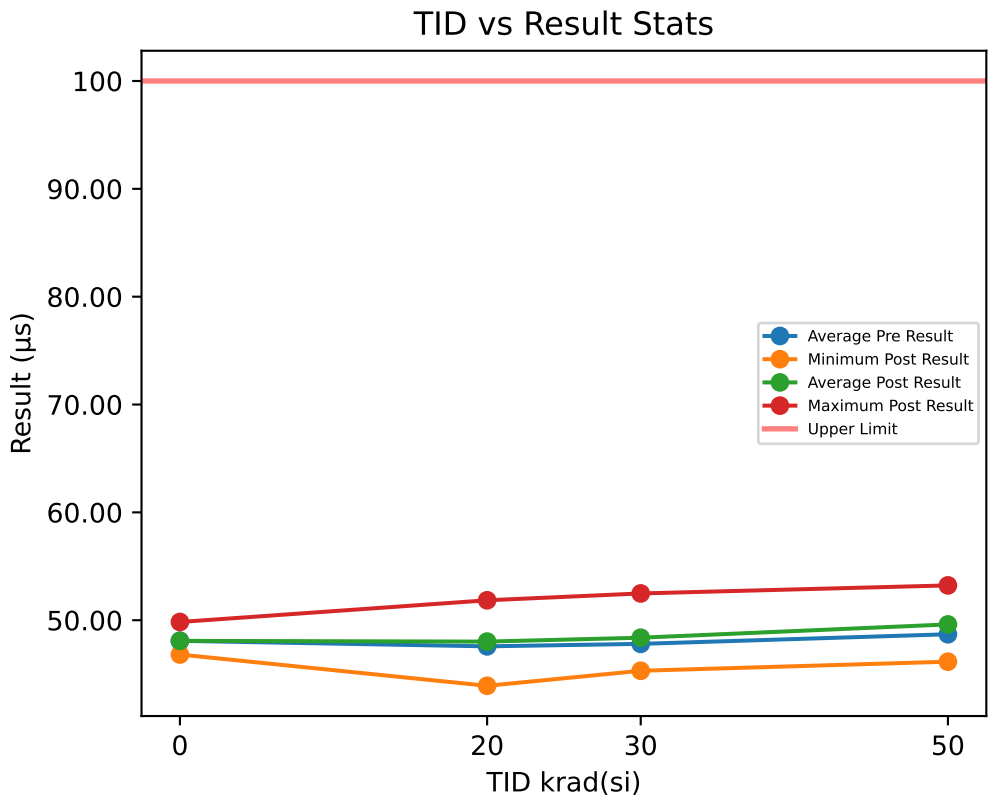
Test Results (Upper Limit = 235.0 (ns))

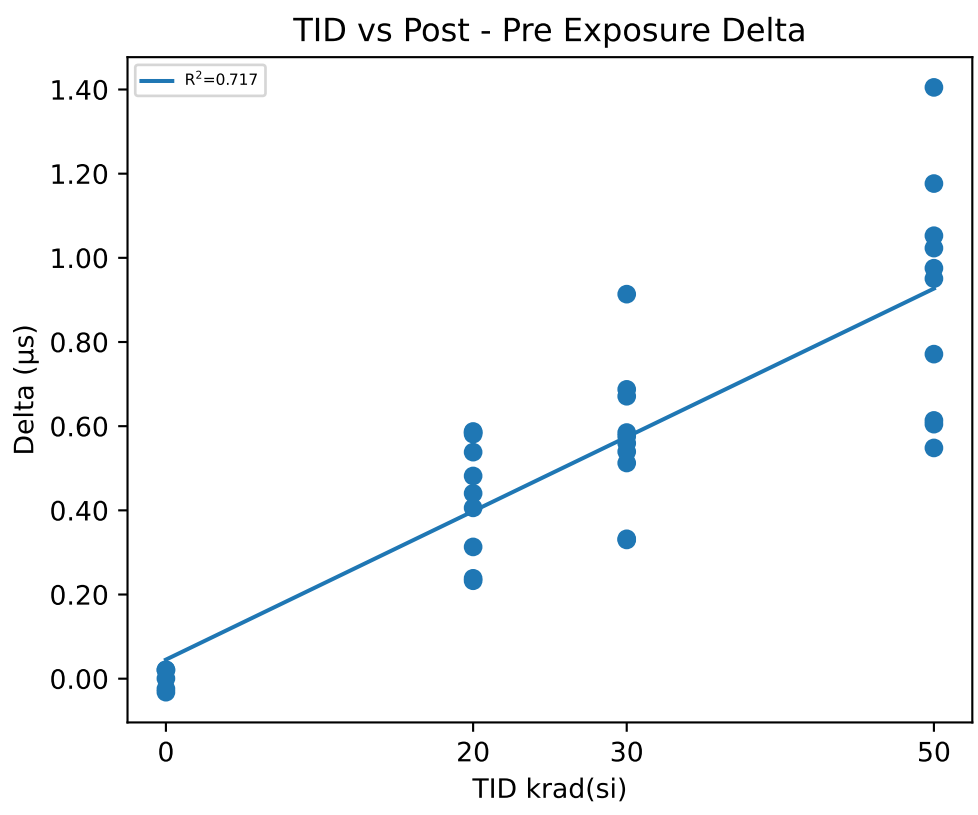
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	196.37	198.89	2.5178
2	20	Biased	184.98	187.26	2.2871
3	20	Biased	204.98	198.35	-6.636
4	20	Biased	203.6	205.23	1.6246
5	20	Biased	193.29	190.98	-2.3107
6	20	Unbiased	187.08	193.47	6.3909
7	20	Unbiased	204.87	199.89	-4.9754
8	20	Unbiased	192.69	193.72	1.0269
9	20	Unbiased	198.63	199.83	1.2017
10	20	Unbiased	187.7	196.07	8.3693
11	30	Biased	205.92	194.99	-10.923
12	30	Biased	191.78	196.23	4.4507
13	30	Biased	192.31	192.02	-0.2886
14	30	Biased	183.57	186.02	2.4499
15	30	Biased	208.22	199.81	-8.4073
16	30	Unbiased	195	199.31	4.3132
17	30	Unbiased	191.2	189.23	-1.9694
18	30	Unbiased	191.32	198.42	7.0959
19	30	Unbiased	202.2	198.02	-4.1796
20	30	Unbiased	193.19	195.73	2.5354
27	50	Unbiased	201.98	196.52	-5.4625
28	50	Unbiased	183.91	191.29	7.3838
29	50	Unbiased	191	196.94	5.9421
30	50	Unbiased	179.98	187.7	7.7187
31	50	Unbiased	202.24	197.07	-5.1739
77	50	Biased-84Hr-Anneal	194.5	195.34	0.8361
78	50	Biased-84Hr-Anneal	204.45	203.78	-0.6728
79	50	Biased-84Hr-Anneal	190.02	195.42	5.3969
80	50	Biased-84Hr-Anneal	200.1	202.17	2.0653
81	50	Biased-84Hr-Anneal	200.22	200.53	0.3087
100	0	CORRELATION	188.71	188.91	0.1983
101	0	CORRELATION	197.71	195.57	-2.1332
102	0	CORRELATION	183.97	189.04	5.0735
103	0	CORRELATION	194.28	193.69	-0.5828
104	0	CORRELATION	196.04	194.27	-1.774

Test Statistics (ns)

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	183.97	192.14	197.71	5.6854	188.91	192.3	195.57	3.1084	-2.1332	0.15636	5.0735	2.9024
20	184.98	195.42	204.98	7.5202	187.26	196.37	205.23	5.1699	-6.636	0.94962	8.3693	4.6273
30	183.57	195.47	208.22	7.6245	186.02	194.98	199.81	4.5644	-10.923	-0.49232	7.0959	5.8709
50	179.98	194.84	204.45	8.3883	187.7	196.67	203.78	4.816	-5.4625	1.8342	7.7187	4.7959

Device Test: 24.23 TIMING|DELAY/EN/4.5//511k//@T_EN_DELAY





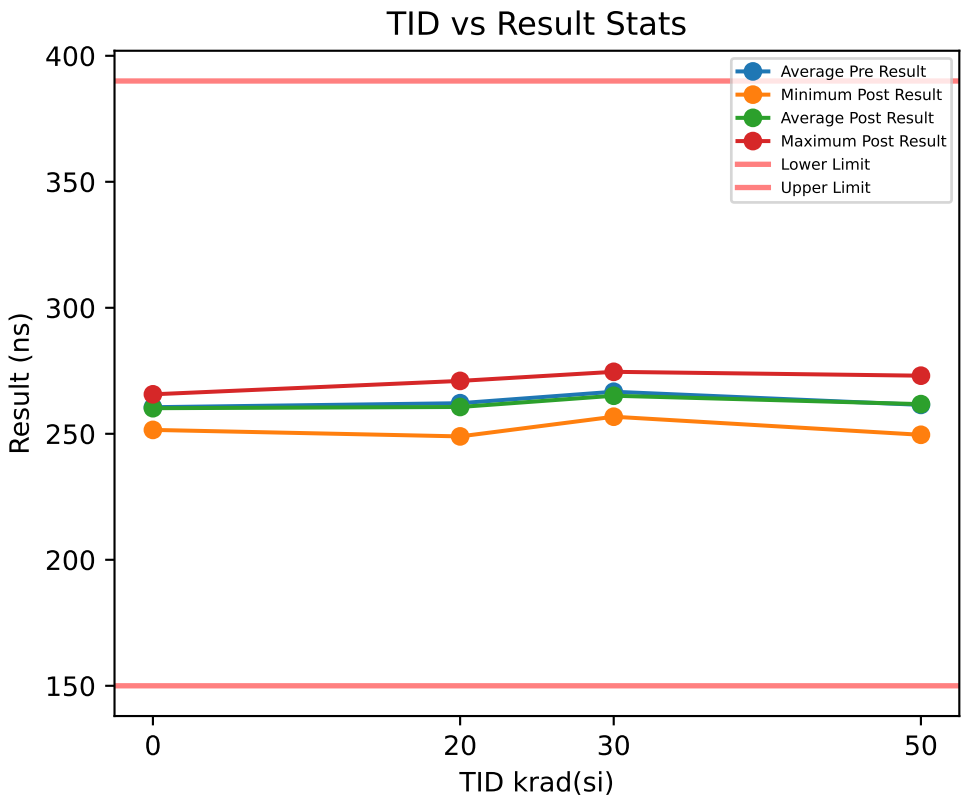
Test Results (Upper Limit = 100.0 (µs))

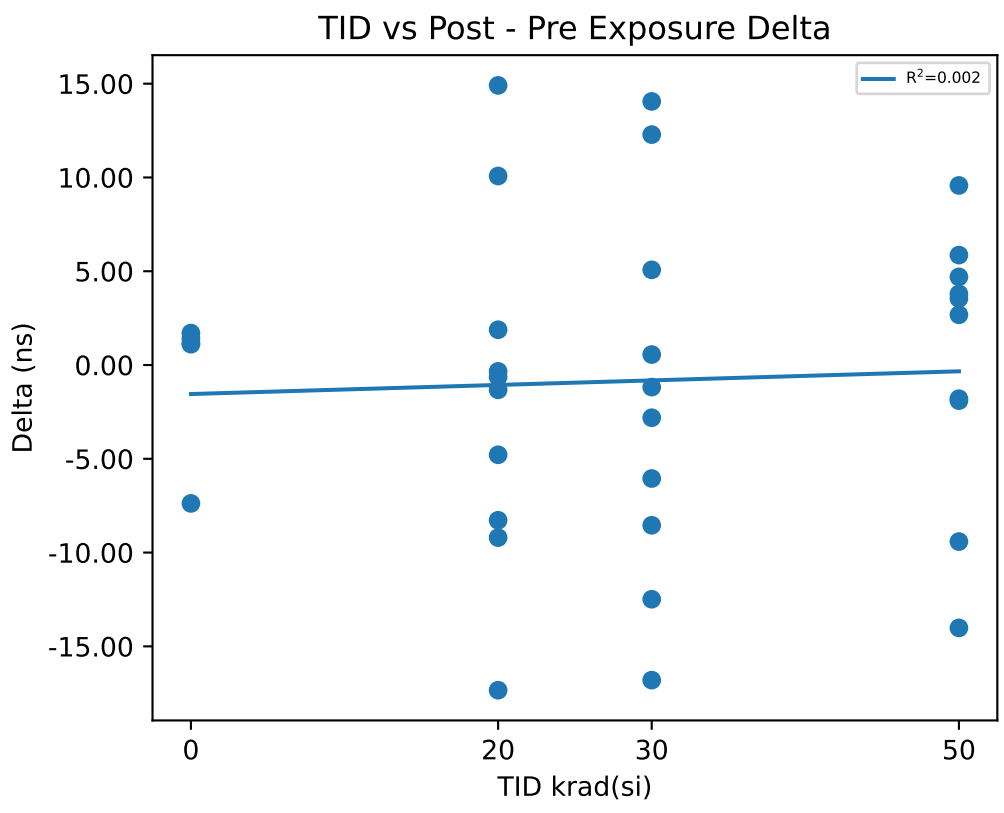
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	49.737	50.318	0.5811
2	20	Biased	43.605	43.918	0.3131
3	20	Biased	51.259	51.846	0.5874
4	20	Biased	49.759	50.199	0.4404
5	20	Biased	46.744	47.225	0.4817
6	20	Unbiased	45.318	45.556	0.2385
7	20	Unbiased	49.003	49.589	0.5854
8	20	Unbiased	47.699	47.931	0.2327
9	20	Unbiased	48.19	48.729	0.5383
10	20	Unbiased	44.443	44.849	0.4059
11	30	Biased	48.86	49.372	0.5125
12	30	Biased	47.183	47.854	0.6711
13	30	Biased	52.152	52.482	0.3297
14	30	Biased	49.882	50.796	0.9137
15	30	Biased	47.677	48.365	0.6875
16	30	Unbiased	44.75	45.31	0.5595
17	30	Unbiased	44.923	45.508	0.5849
18	30	Unbiased	45.766	46.341	0.5758
19	30	Unbiased	45.553	45.886	0.3324
20	30	Unbiased	51.321	51.86	0.5395
27	50	Unbiased	51.04	52.063	1.0231
28	50	Unbiased	47.297	48.273	0.9754
29	50	Unbiased	51.519	52.571	1.0526
30	50	Unbiased	49.115	50.52	1.405
31	50	Unbiased	49.773	50.724	0.9506
77	50	Biased-84Hr-Anneal	45.383	46.154	0.7712
78	50	Biased-84Hr-Anneal	47.659	48.207	0.5483
79	50	Biased-84Hr-Anneal	46.26	46.873	0.6137
80	50	Biased-84Hr-Anneal	46.872	47.477	0.6048
81	50	Biased-84Hr-Anneal	52.05	53.227	1.1765
100	0	CORRELATION	46.841	46.817	-0.0241
101	0	CORRELATION	48.554	48.522	-0.0321
102	0	CORRELATION	49.815	49.835	0.0204
103	0	CORRELATION	47.074	47.095	0.0213
104	0	CORRELATION	48.151	48.152	0.0004

Test Statistics (µs)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	46.841	48.087	49.815	1.2027	46.817	48.084	49.835	1.209	-0.0321	-0.00282	0.0213	0.024706
20	43.605	47.576	51.259	2.5124	43.918	48.016	51.846	2.6083	0.2327	0.44045	0.5874	0.13945
30	44.75	47.807	52.152	2.6657	45.31	48.377	52.482	2.6685	0.3297	0.57066	0.9137	0.17028
50	45.383	48.697	52.05	2.3409	46.154	49.609	53.227	2.5314	0.5483	0.91212	1.405	0.2761

Device Test: 24.3 TIMING|DELAY/SYNC1/4.5//OPEN//@SYNC1_SW_DELAY_INV_4V5





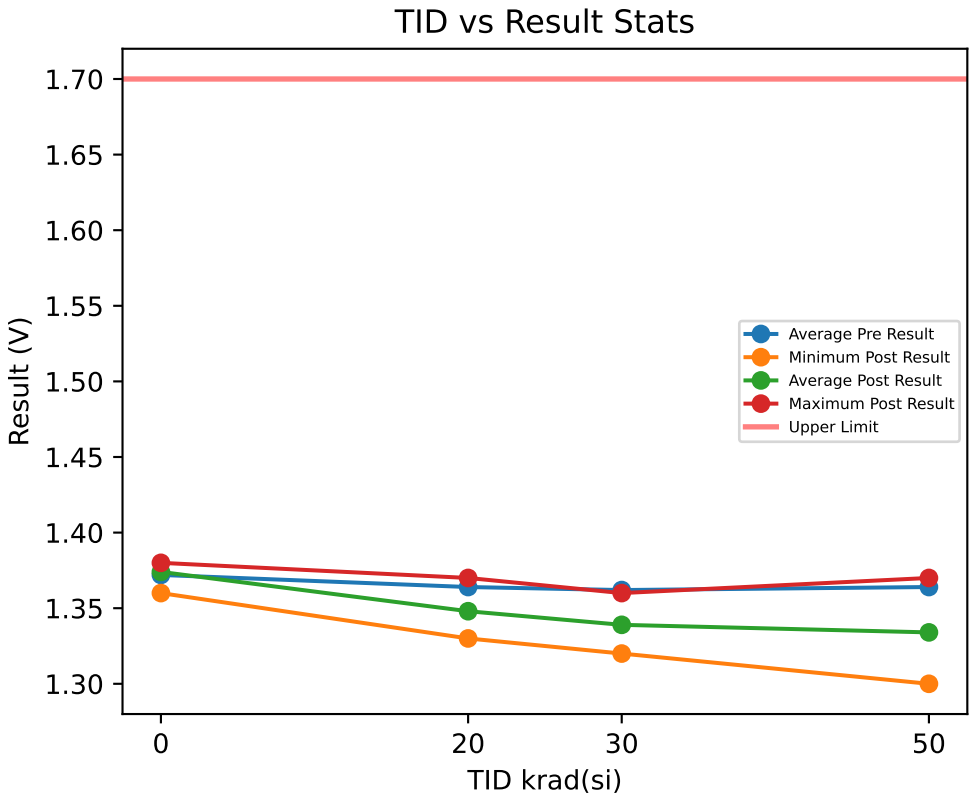
Test Results (Lower Limit = 150.0, Upper Limit = 390.0 (ns))

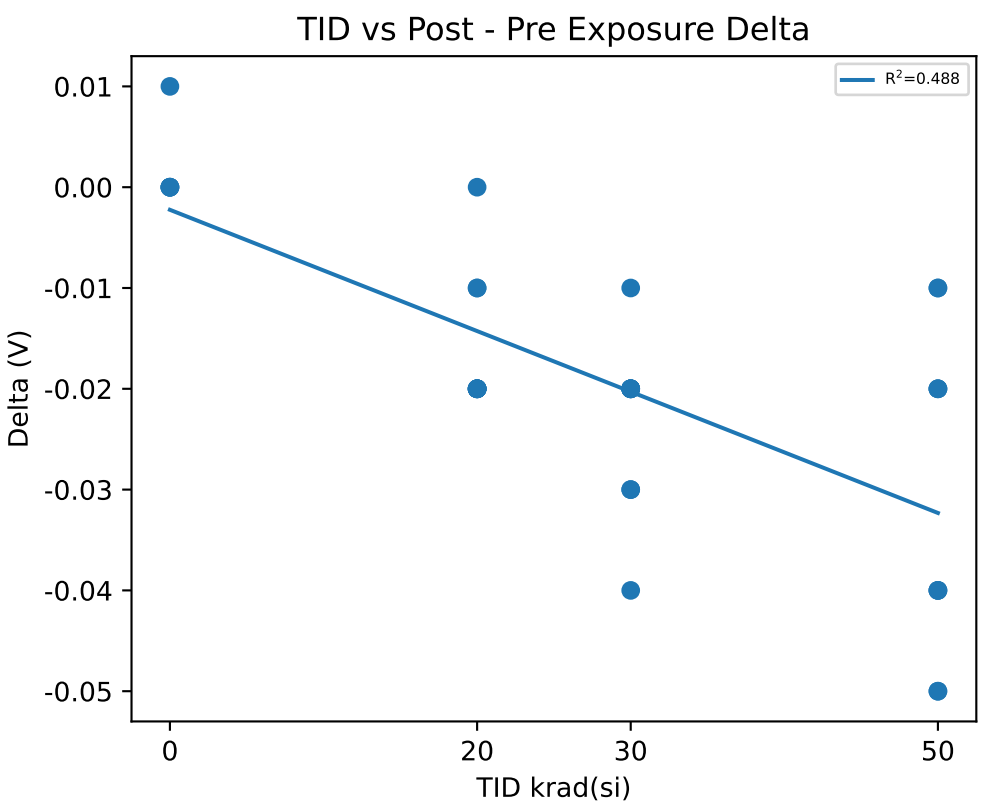
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	255.12	265.2	10.078
2	20	Biased	269.17	268.83	-0.3385
3	20	Biased	257.25	248.97	-8.2775
4	20	Biased	266.1	261.31	-4.7864
5	20	Biased	256.08	270.99	14.909
6	20	Unbiased	268.3	250.96	-17.337
7	20	Unbiased	259.85	259.21	-0.6353
8	20	Unbiased	271.16	269.84	-1.3231
9	20	Unbiased	247.71	249.59	1.8807
10	20	Unbiased	270.72	261.52	-9.2019
11	30	Biased	266.91	271.98	5.0745
12	30	Biased	269.27	256.78	-12.488
13	30	Biased	251.13	263.41	12.285
14	30	Biased	275.05	273.87	-1.1777
15	30	Biased	265.7	257.15	-8.5454
16	30	Unbiased	268.39	262.34	-6.0508
17	30	Unbiased	257.1	271.16	14.055
18	30	Unbiased	274.8	258	-16.801
19	30	Unbiased	264.55	261.74	-2.8102
20	30	Unbiased	274.04	274.59	0.5583
27	50	Unbiased	262.35	268.22	5.8615
28	50	Unbiased	265.08	251.07	-14.018
29	50	Unbiased	251.52	261.09	9.5739
30	50	Unbiased	272.53	270.63	-1.8997
31	50	Unbiased	264.25	254.84	-9.4134
77	50	Biased-84Hr-Anneal	246.06	249.61	3.5471
78	50	Biased-84Hr-Anneal	257.17	261.87	4.6999
79	50	Biased-84Hr-Anneal	271.32	269.52	-1.7963
80	50	Biased-84Hr-Anneal	255.14	257.82	2.6778
81	50	Biased-84Hr-Anneal	269.27	273.06	3.7925
100	0	CORRELATION	256.03	257.44	1.4073
101	0	CORRELATION	260.83	261.99	1.1516
102	0	CORRELATION	273.04	265.66	-7.3792
103	0	CORRELATION	250.44	251.55	1.1089
104	0	CORRELATION	262.43	264.13	1.704

Test Statistics (ns)

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	250.44	260.56	273.04	8.4026	251.55	260.15	265.66	5.724	-7.3792	-0.40148	1.704	3.9079
20	247.71	262.14	271.16	8.0374	248.97	260.64	270.99	8.399	-17.337	-1.5033	14.909	9.3318
30	251.13	266.69	275.05	7.7378	256.78	265.1	274.59	7.1171	-16.801	-1.5901	14.055	10.035
50	246.06	261.47	272.53	8.799	249.61	261.77	273.06	8.3955	-14.018	0.30257	9.5739	7.2516

Device Test: 24.4 THRESHOLD|RISE/SYNC1/4.5//OPEN//@SYNC1_VIH





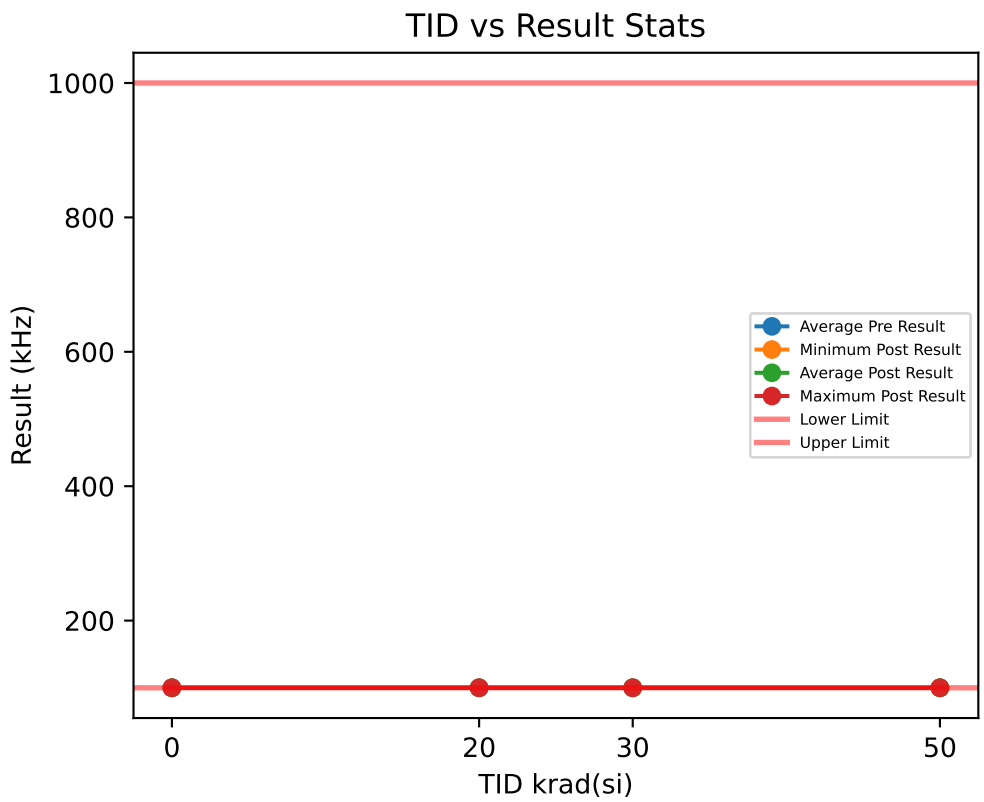
Test Results (Upper Limit = 1.7 (V))

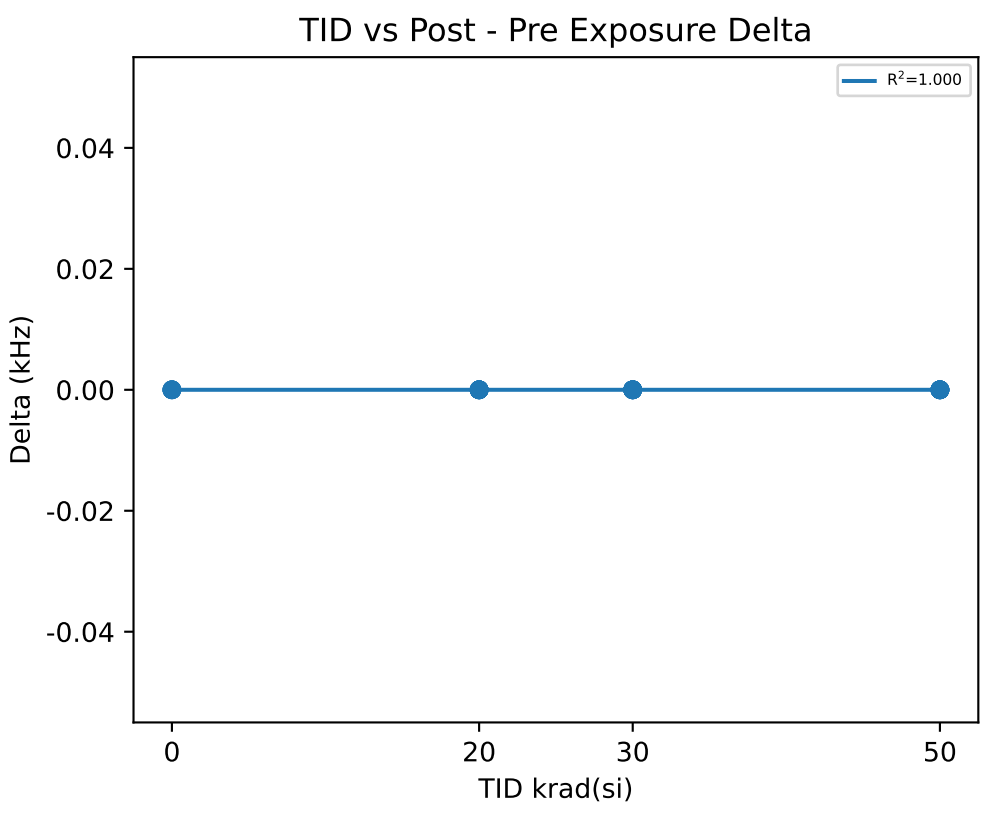
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.38	1.36	-0.02
2	20	Biased	1.36	1.34	-0.02
3	20	Biased	1.37	1.37	0
4	20	Biased	1.37	1.35	-0.02
5	20	Biased	1.38	1.36	-0.02
6	20	Unbiased	1.35	1.33	-0.02
7	20	Unbiased	1.35	1.34	-0.01
8	20	Unbiased	1.35	1.33	-0.02
9	20	Unbiased	1.37	1.35	-0.02
10	20	Unbiased	1.36	1.35	-0.01
11	30	Biased	1.37	1.35	-0.02
12	30	Biased	1.37	1.36	-0.01
13	30	Biased	1.38	1.36	-0.02
14	30	Biased	1.36	1.34	-0.02
15	30	Biased	1.36	1.34	-0.02
16	30	Unbiased	1.36	1.33	-0.03
17	30	Unbiased	1.37	1.33	-0.04
18	30	Unbiased	1.36	1.34	-0.02
19	30	Unbiased	1.35	1.32	-0.03
20	30	Unbiased	1.34	1.32	-0.02
27	50	Unbiased	1.34	1.3	-0.04
28	50	Unbiased	1.35	1.31	-0.04
29	50	Unbiased	1.35	1.3	-0.05
30	50	Unbiased	1.37	1.32	-0.05
31	50	Unbiased	1.35	1.31	-0.04
77	50	Biased-84Hr-Anneal	1.39	1.37	-0.02
78	50	Biased-84Hr-Anneal	1.39	1.37	-0.02
79	50	Biased-84Hr-Anneal	1.38	1.36	-0.02
80	50	Biased-84Hr-Anneal	1.36	1.35	-0.01
81	50	Biased-84Hr-Anneal	1.36	1.35	-0.01
100	0	CORRELATION	1.37	1.37	0
101	0	CORRELATION	1.36	1.36	0
102	0	CORRELATION	1.38	1.38	0
103	0	CORRELATION	1.38	1.38	0
104	0	CORRELATION	1.37	1.38	0.01

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	1.36	1.372	1.38	0.0083666	1.36	1.374	1.38	0.0089443	0	0.002	0.01	0.0044721
20	1.35	1.364	1.38	0.011738	1.33	1.348	1.37	0.013166	-0.02	-0.016	0	0.0069921
30	1.34	1.362	1.38	0.011353	1.32	1.339	1.36	0.014491	-0.04	-0.023	-0.01	0.0082327
50	1.34	1.364	1.39	0.017764	1.3	1.334	1.37	0.028752	-0.05	-0.03	-0.01	0.015635

Device Test: 24.47 FREQ|100kHz/SYNC1/5//OPEN//@SYNC_FREQ_RANGE





Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

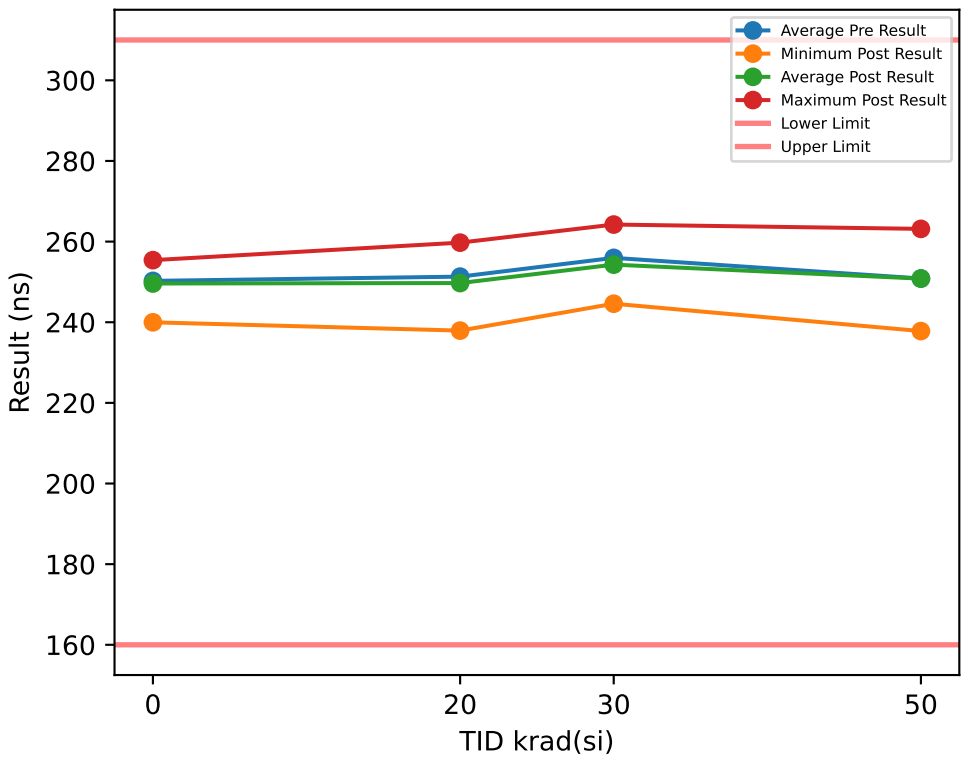
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	100	100	0
2	20	Biased	100	100	0
3	20	Biased	100	100	0
4	20	Biased	100	100	0
5	20	Biased	100	100	0
6	20	Unbiased	100	100	0
7	20	Unbiased	100	100	0
8	20	Unbiased	100	100	0
9	20	Unbiased	100	100	0
10	20	Unbiased	100	100	0
11	30	Biased	100	100	0
12	30	Biased	100	100	0
13	30	Biased	100	100	0
14	30	Biased	100	100	0
15	30	Biased	100	100	0
16	30	Unbiased	100	100	0
17	30	Unbiased	100	100	0
18	30	Unbiased	100	100	0
19	30	Unbiased	100	100	0
20	30	Unbiased	100	100	0
27	50	Unbiased	100	100	0
28	50	Unbiased	100	100	0
29	50	Unbiased	100	100	0
30	50	Unbiased	100	100	0
31	50	Unbiased	100	100	0
77	50	Biased-84Hr-Anneal	100	100	0
78	50	Biased-84Hr-Anneal	100	100	0
79	50	Biased-84Hr-Anneal	100	100	0
80	50	Biased-84Hr-Anneal	100	100	0
81	50	Biased-84Hr-Anneal	100	100	0
100	0	CORRELATION	100	100	0
101	0	CORRELATION	100	100	0
102	0	CORRELATION	100	100	0
103	0	CORRELATION	100	100	0
104	0	CORRELATION	100	100	0

Test Statistics (kHz)

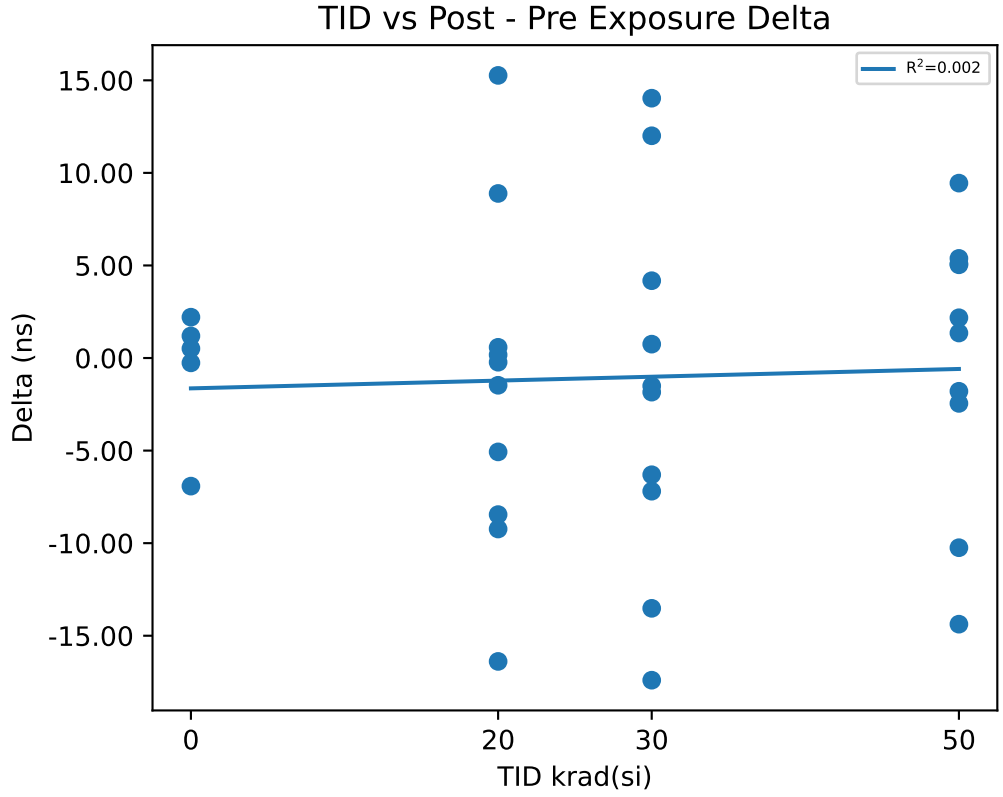
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	100	100	100	0	100	100	100	0	0	0	0	0
20	100	100	100	0	100	100	100	0	0	0	0	0
30	100	100	100	0	100	100	100	0	0	0	0	0
50	100	100	100	0	100	100	100	0	0	0	0	0

Device Test: 24.49 TIMING|DELAY/SYNC1/5//OPEN//@SYNC1_SW_DELAY_INV

TID vs Result Stats



TID vs Post - Pre Exposure Delta



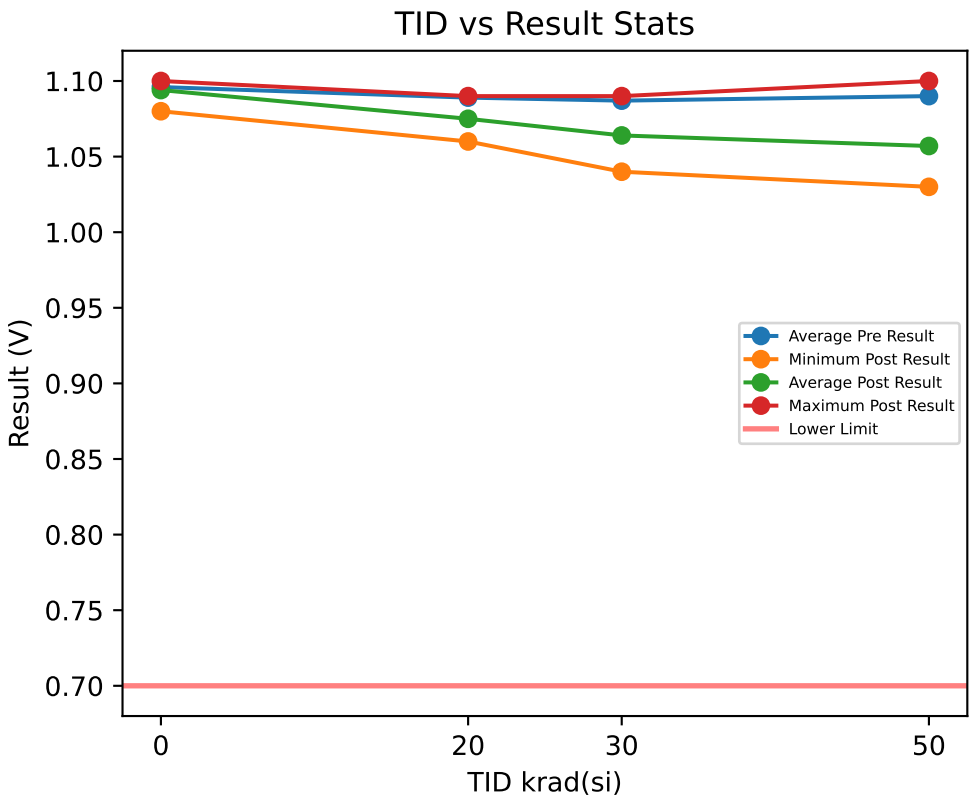
Test Results (Lower Limit = 160.0, Upper Limit = 310.0 (ns))

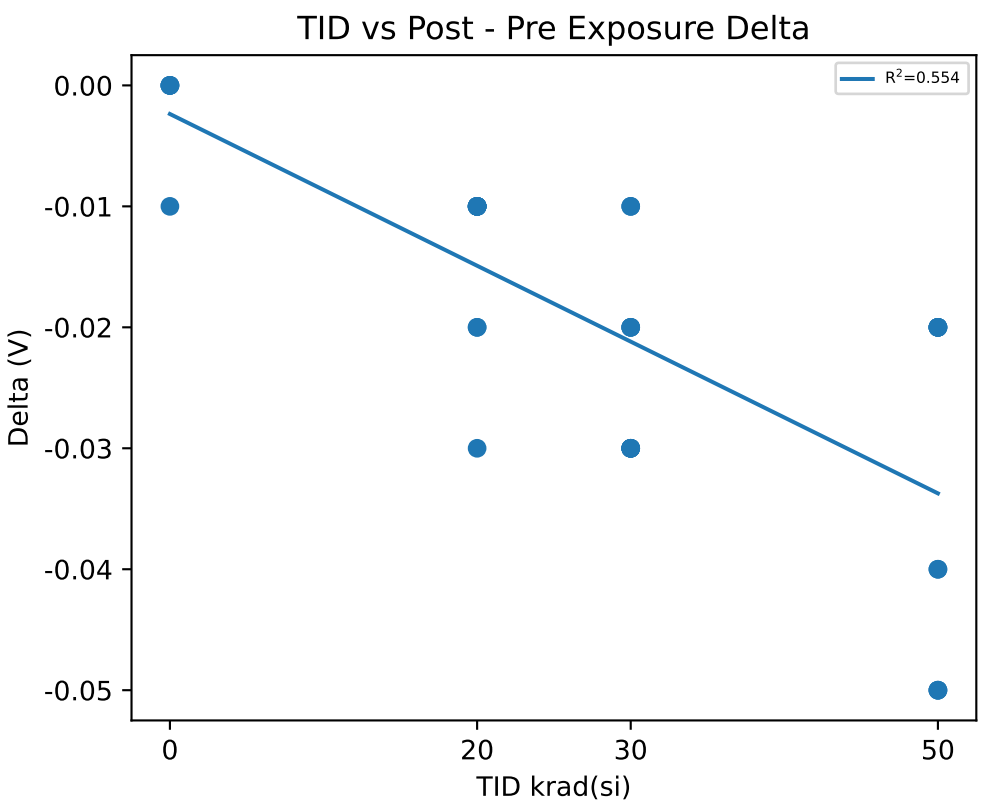
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	244.51	253.4	8.8893
2	20	Biased	258.6	258.37	-0.2266
3	20	Biased	246.54	238.08	-8.4569
4	20	Biased	255.31	250.24	-5.0701
5	20	Biased	244.47	259.74	15.266
6	20	Unbiased	257.22	240.84	-16.387
7	20	Unbiased	248.32	248.49	0.1718
8	20	Unbiased	261.05	259.58	-1.472
9	20	Unbiased	237.35	237.93	0.5785
10	20	Unbiased	259.75	250.51	-9.2354
11	30	Biased	256.54	260.71	4.1763
12	30	Biased	258.11	244.59	-13.52
13	30	Biased	239.95	251.95	12.005
14	30	Biased	264.22	262.71	-1.5069
15	30	Biased	255.15	247.96	-7.1933
16	30	Unbiased	257.54	251.23	-6.3044
17	30	Unbiased	246.5	260.53	14.035
18	30	Unbiased	264.35	246.95	-17.402
19	30	Unbiased	253.81	251.96	-1.8429
20	30	Unbiased	263.48	264.23	0.7495
27	50	Unbiased	252.64	257.68	5.0358
28	50	Unbiased	253.95	239.57	-14.376
29	50	Unbiased	240.48	249.93	9.447
30	50	Unbiased	261.86	260.07	-1.7961
31	50	Unbiased	254.32	244.07	-10.245
77	50	Biased-84Hr-Anneal	235.63	237.81	2.1753
78	50	Biased-84Hr-Anneal	246.54	251.63	5.0871
79	50	Biased-84Hr-Anneal	260.35	257.9	-2.4505
80	50	Biased-84Hr-Anneal	244.99	246.34	1.3505
81	50	Biased-84Hr-Anneal	257.77	263.16	5.3816
100	0	CORRELATION	245.88	246.39	0.5125
101	0	CORRELATION	251.35	252.54	1.193
102	0	CORRELATION	262.32	255.4	-6.919
103	0	CORRELATION	240.24	239.98	-0.2615
104	0	CORRELATION	251.51	253.72	2.2059

Test Statistics (ns)

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	240.24	250.26	262.32	8.1808	239.98	249.61	255.4	6.3657	-6.919	-0.65382	2.2059	3.6179
20	237.35	251.31	261.05	8.0955	237.93	249.72	259.74	8.4451	-16.387	-1.5943	15.266	9.0694
30	239.95	255.96	264.35	7.8449	244.59	254.28	264.23	7.1349	-17.402	-1.6804	14.035	10.075
50	235.63	250.85	261.86	8.668	237.81	250.82	263.16	8.8046	-14.376	-0.03906	9.447	7.4301

Device Test: 24.5 THRESHOLD|FALL/SYNC1/4.5//OPEN//@SYNC1_VIL





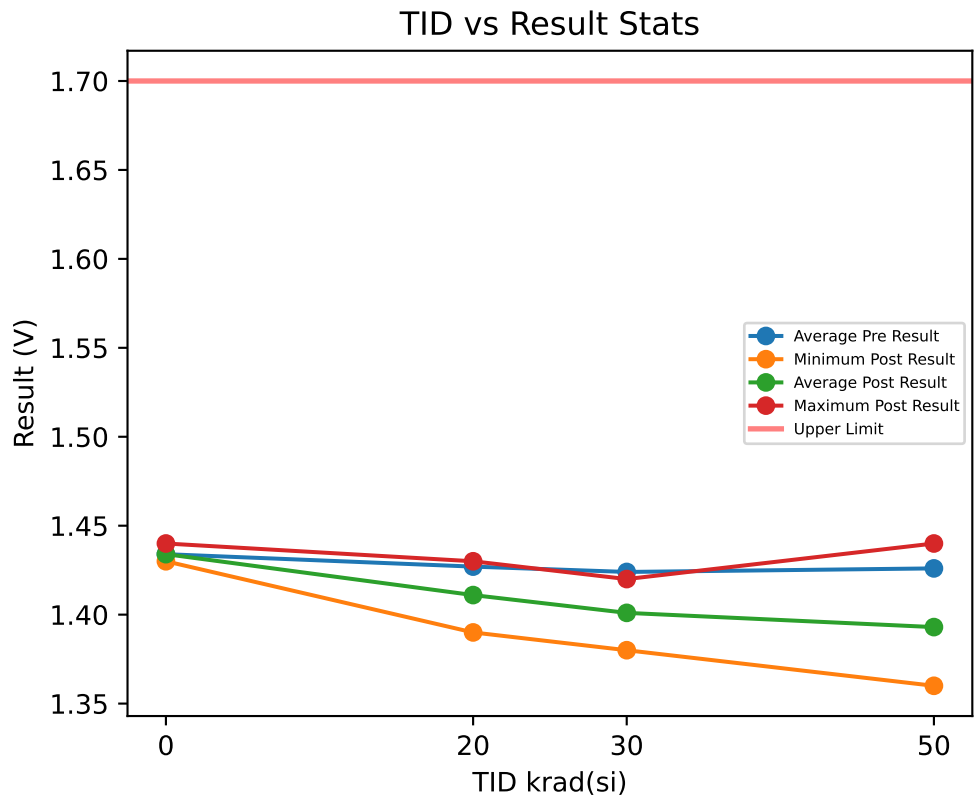
Test Results (Lower Limit = 0.7 (V))

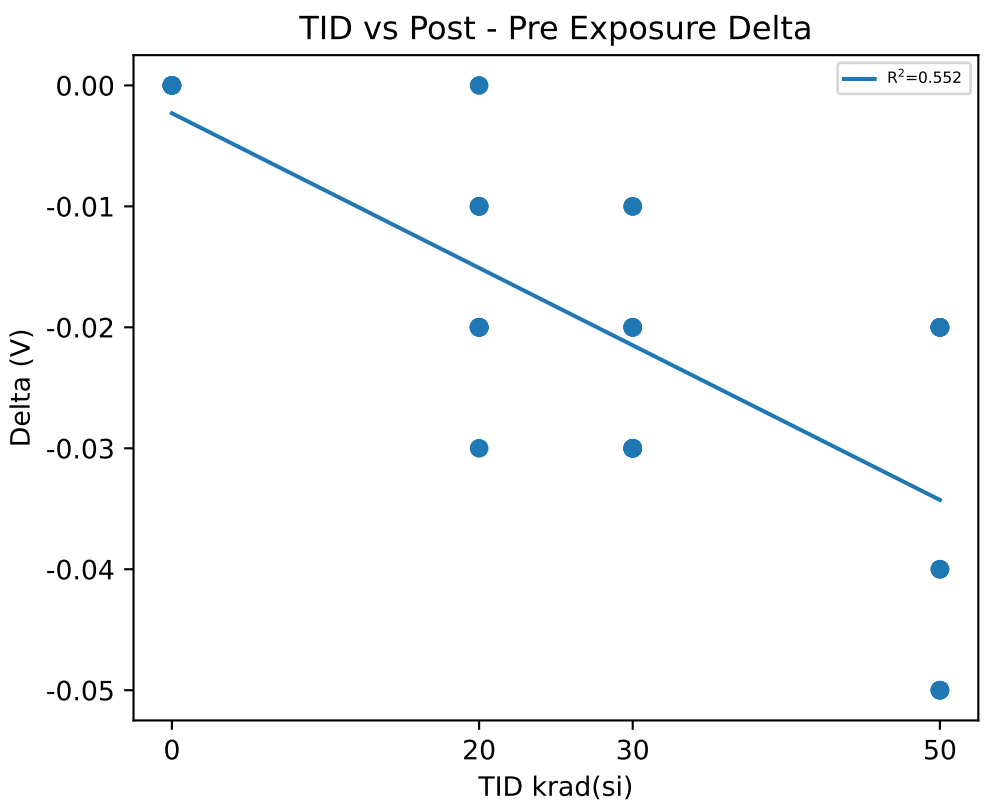
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.1	1.09	-0.01
2	20	Biased	1.08	1.07	-0.01
3	20	Biased	1.1	1.09	-0.01
4	20	Biased	1.1	1.09	-0.01
5	20	Biased	1.1	1.09	-0.01
6	20	Unbiased	1.07	1.06	-0.01
7	20	Unbiased	1.08	1.06	-0.02
8	20	Unbiased	1.07	1.06	-0.01
9	20	Unbiased	1.1	1.07	-0.03
10	20	Unbiased	1.09	1.07	-0.02
11	30	Biased	1.09	1.07	-0.02
12	30	Biased	1.1	1.08	-0.02
13	30	Biased	1.11	1.09	-0.02
14	30	Biased	1.08	1.07	-0.01
15	30	Biased	1.08	1.07	-0.01
16	30	Unbiased	1.08	1.05	-0.03
17	30	Unbiased	1.09	1.06	-0.03
18	30	Unbiased	1.09	1.06	-0.03
19	30	Unbiased	1.08	1.05	-0.03
20	30	Unbiased	1.07	1.04	-0.03
27	50	Unbiased	1.07	1.03	-0.04
28	50	Unbiased	1.07	1.03	-0.04
29	50	Unbiased	1.08	1.03	-0.05
30	50	Unbiased	1.09	1.04	-0.05
31	50	Unbiased	1.08	1.03	-0.05
77	50	Biased-84Hr-Anneal	1.12	1.1	-0.02
78	50	Biased-84Hr-Anneal	1.11	1.09	-0.02
79	50	Biased-84Hr-Anneal	1.1	1.08	-0.02
80	50	Biased-84Hr-Anneal	1.09	1.07	-0.02
81	50	Biased-84Hr-Anneal	1.09	1.07	-0.02
100	0	CORRELATION	1.09	1.09	0
101	0	CORRELATION	1.09	1.08	-0.01
102	0	CORRELATION	1.1	1.1	0
103	0	CORRELATION	1.1	1.1	0
104	0	CORRELATION	1.1	1.1	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	1.09	1.096	1.1	0.0054772	1.08	1.094	1.1	0.0089443	-0.01	-0.002	0	0.0044721
20	1.07	1.089	1.1	0.012867	1.06	1.075	1.09	0.01354	-0.03	-0.014	-0.01	0.0069921
30	1.07	1.087	1.11	0.011595	1.04	1.064	1.09	0.015055	-0.03	-0.023	-0.01	0.0082327
50	1.07	1.09	1.12	0.01633	1.03	1.057	1.1	0.027909	-0.05	-0.033	-0.02	0.014181

Device Test: 24.50 THRESHOLD|RISE/SYNC1/5//OPEN//@SYNC1_VIH





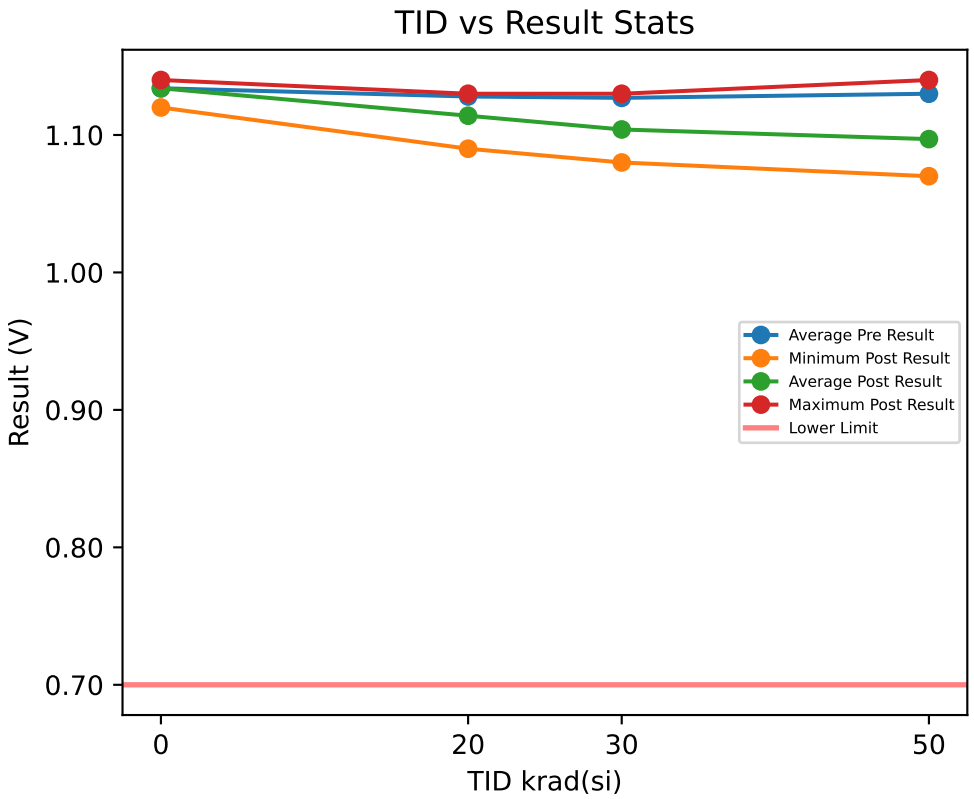
Test Results (Upper Limit = 1.7 (V))

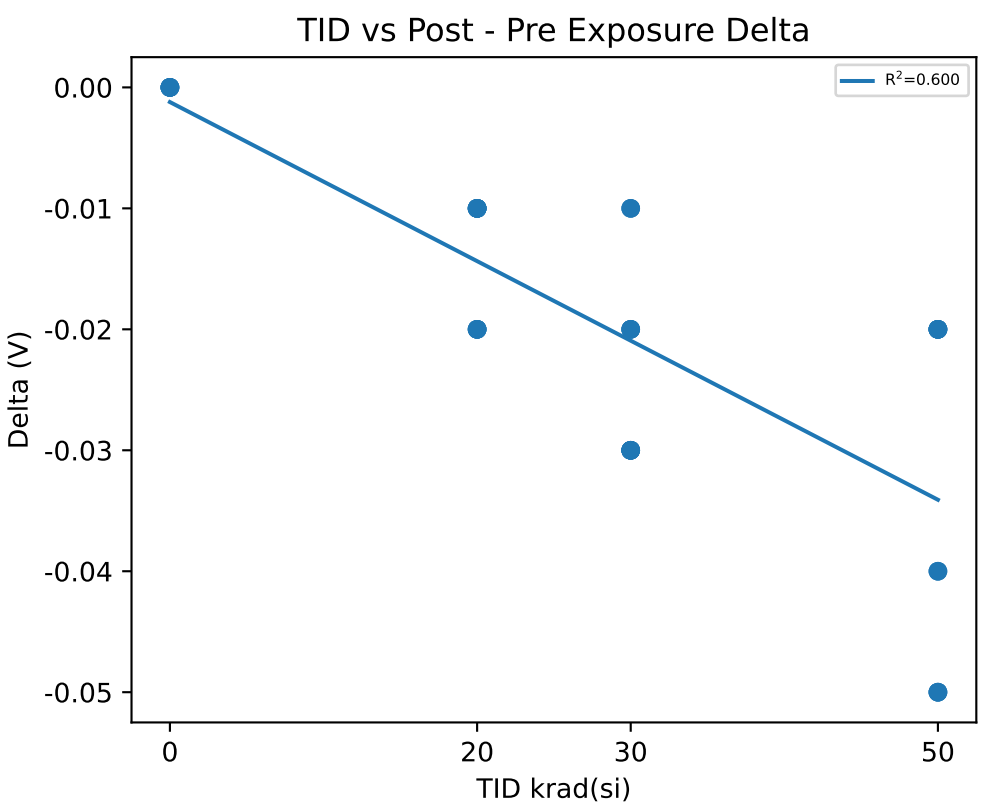
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.45	1.43	-0.02
2	20	Biased	1.42	1.41	-0.01
3	20	Biased	1.44	1.43	-0.01
4	20	Biased	1.42	1.42	0
5	20	Biased	1.44	1.43	-0.01
6	20	Unbiased	1.41	1.39	-0.02
7	20	Unbiased	1.42	1.39	-0.03
8	20	Unbiased	1.41	1.39	-0.02
9	20	Unbiased	1.43	1.41	-0.02
10	20	Unbiased	1.43	1.41	-0.02
11	30	Biased	1.43	1.41	-0.02
12	30	Biased	1.43	1.42	-0.01
13	30	Biased	1.44	1.42	-0.02
14	30	Biased	1.43	1.41	-0.02
15	30	Biased	1.42	1.41	-0.01
16	30	Unbiased	1.42	1.39	-0.03
17	30	Unbiased	1.43	1.4	-0.03
18	30	Unbiased	1.42	1.39	-0.03
19	30	Unbiased	1.41	1.38	-0.03
20	30	Unbiased	1.41	1.38	-0.03
27	50	Unbiased	1.41	1.36	-0.05
28	50	Unbiased	1.41	1.37	-0.04
29	50	Unbiased	1.41	1.36	-0.05
30	50	Unbiased	1.43	1.38	-0.05
31	50	Unbiased	1.41	1.37	-0.04
77	50	Biased-84Hr-Anneal	1.46	1.44	-0.02
78	50	Biased-84Hr-Anneal	1.44	1.42	-0.02
79	50	Biased-84Hr-Anneal	1.44	1.42	-0.02
80	50	Biased-84Hr-Anneal	1.43	1.41	-0.02
81	50	Biased-84Hr-Anneal	1.42	1.4	-0.02
100	0	CORRELATION	1.43	1.43	0
101	0	CORRELATION	1.43	1.43	0
102	0	CORRELATION	1.44	1.44	0
103	0	CORRELATION	1.44	1.44	0
104	0	CORRELATION	1.43	1.43	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	1.43	1.434	1.44	0.0054772	1.43	1.434	1.44	0.0054772	0	0	0	0
20	1.41	1.427	1.45	0.013375	1.39	1.411	1.43	0.016633	-0.03	-0.016	0	0.0084327
30	1.41	1.424	1.44	0.0096609	1.38	1.401	1.42	0.015239	-0.03	-0.023	-0.01	0.0082327
50	1.41	1.426	1.46	0.017127	1.36	1.393	1.44	0.028694	-0.05	-0.033	-0.02	0.014181

Device Test: 24.51 THRESHOLD|FALL/SYNC1/5//OPEN//@SYNC1_VIL





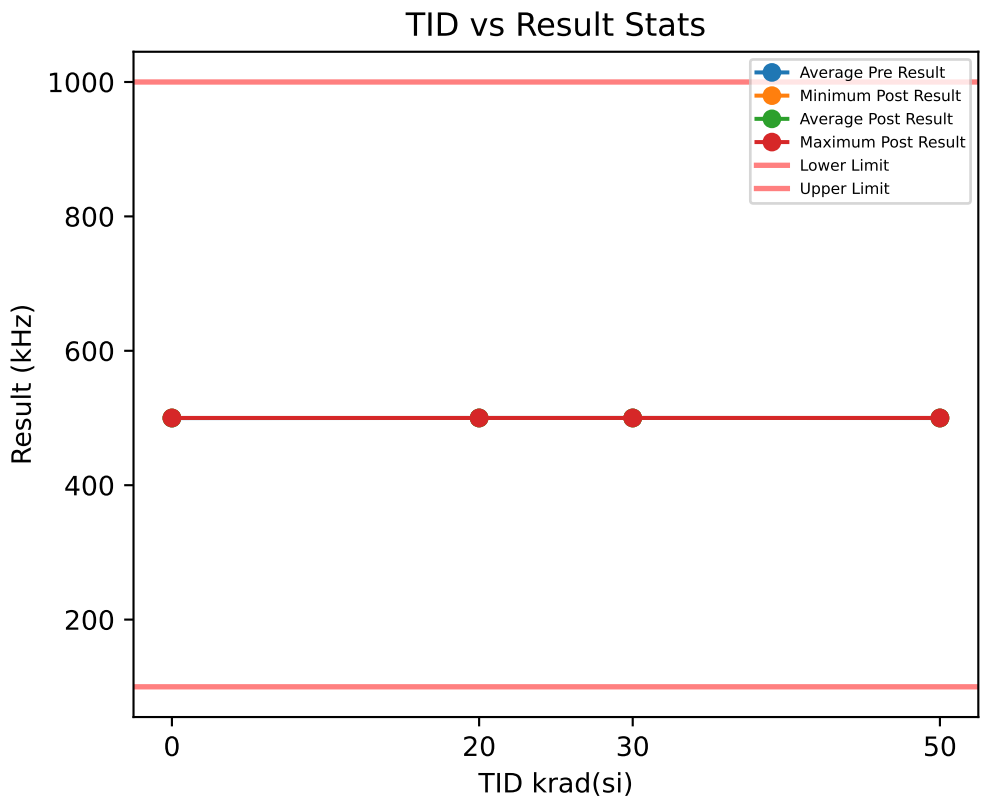
Test Results (Lower Limit = 0.7 (V))

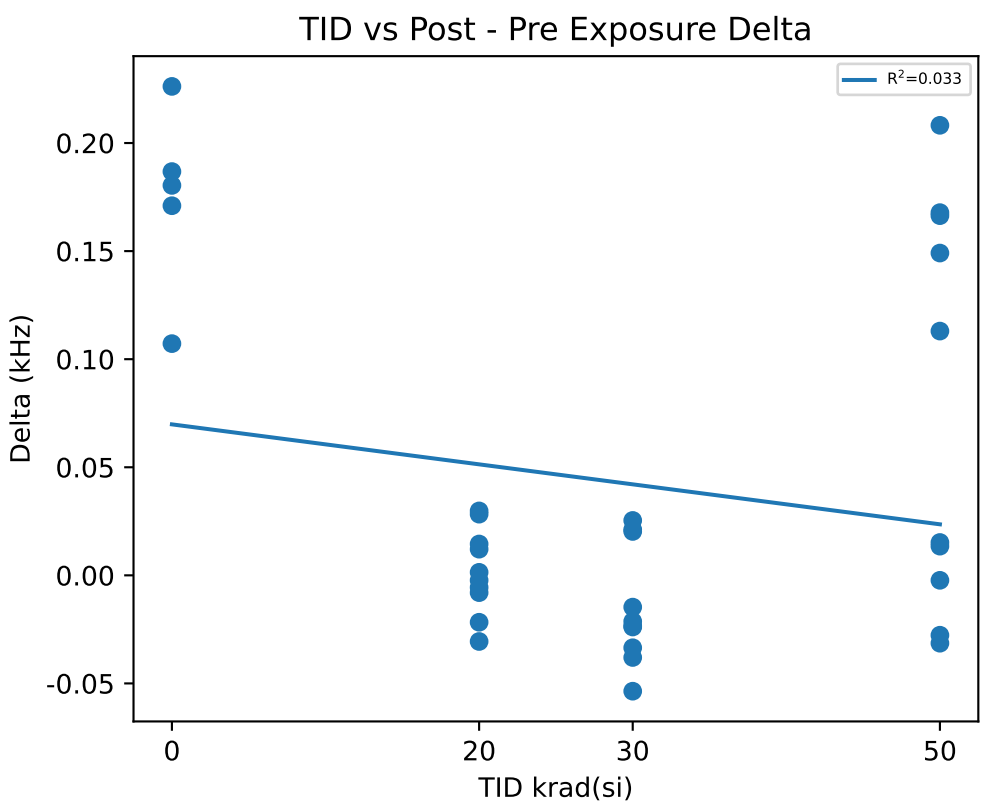
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.14	1.13	-0.01
2	20	Biased	1.12	1.11	-0.01
3	20	Biased	1.14	1.13	-0.01
4	20	Biased	1.14	1.13	-0.01
5	20	Biased	1.14	1.13	-0.01
6	20	Unbiased	1.11	1.09	-0.02
7	20	Unbiased	1.12	1.1	-0.02
8	20	Unbiased	1.11	1.09	-0.02
9	20	Unbiased	1.13	1.12	-0.01
10	20	Unbiased	1.13	1.11	-0.02
11	30	Biased	1.13	1.11	-0.02
12	30	Biased	1.14	1.12	-0.02
13	30	Biased	1.15	1.13	-0.02
14	30	Biased	1.12	1.11	-0.01
15	30	Biased	1.12	1.11	-0.01
16	30	Unbiased	1.12	1.09	-0.03
17	30	Unbiased	1.13	1.1	-0.03
18	30	Unbiased	1.13	1.1	-0.03
19	30	Unbiased	1.12	1.09	-0.03
20	30	Unbiased	1.11	1.08	-0.03
27	50	Unbiased	1.11	1.07	-0.04
28	50	Unbiased	1.11	1.07	-0.04
29	50	Unbiased	1.12	1.07	-0.05
30	50	Unbiased	1.13	1.08	-0.05
31	50	Unbiased	1.12	1.07	-0.05
77	50	Biased-84Hr-Anneal	1.16	1.14	-0.02
78	50	Biased-84Hr-Anneal	1.15	1.13	-0.02
79	50	Biased-84Hr-Anneal	1.14	1.12	-0.02
80	50	Biased-84Hr-Anneal	1.13	1.11	-0.02
81	50	Biased-84Hr-Anneal	1.13	1.11	-0.02
100	0	CORRELATION	1.13	1.13	0
101	0	CORRELATION	1.12	1.12	0
102	0	CORRELATION	1.14	1.14	0
103	0	CORRELATION	1.14	1.14	0
104	0	CORRELATION	1.14	1.14	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	1.12	1.134	1.14	0.0089443	1.12	1.134	1.14	0.0089443	0	0	0	0
20	1.11	1.128	1.14	0.012293	1.09	1.114	1.13	0.016465	-0.02	-0.014	-0.01	0.005164
30	1.11	1.127	1.15	0.011595	1.08	1.104	1.13	0.015055	-0.03	-0.023	-0.01	0.0082327
50	1.11	1.13	1.16	0.01633	1.07	1.097	1.14	0.027909	-0.05	-0.033	-0.02	0.014181

Device Test: 24.52 FREQ|500kHz/SYNC1/5//OPEN//@SYNC_FREQ_RANGE





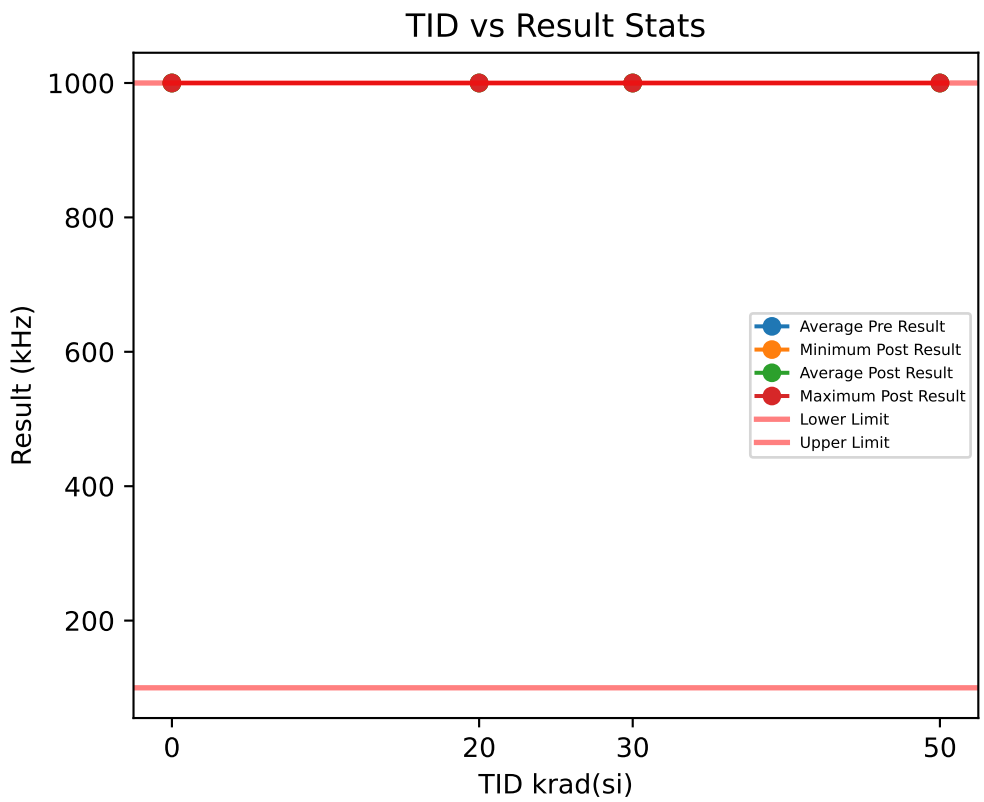
Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

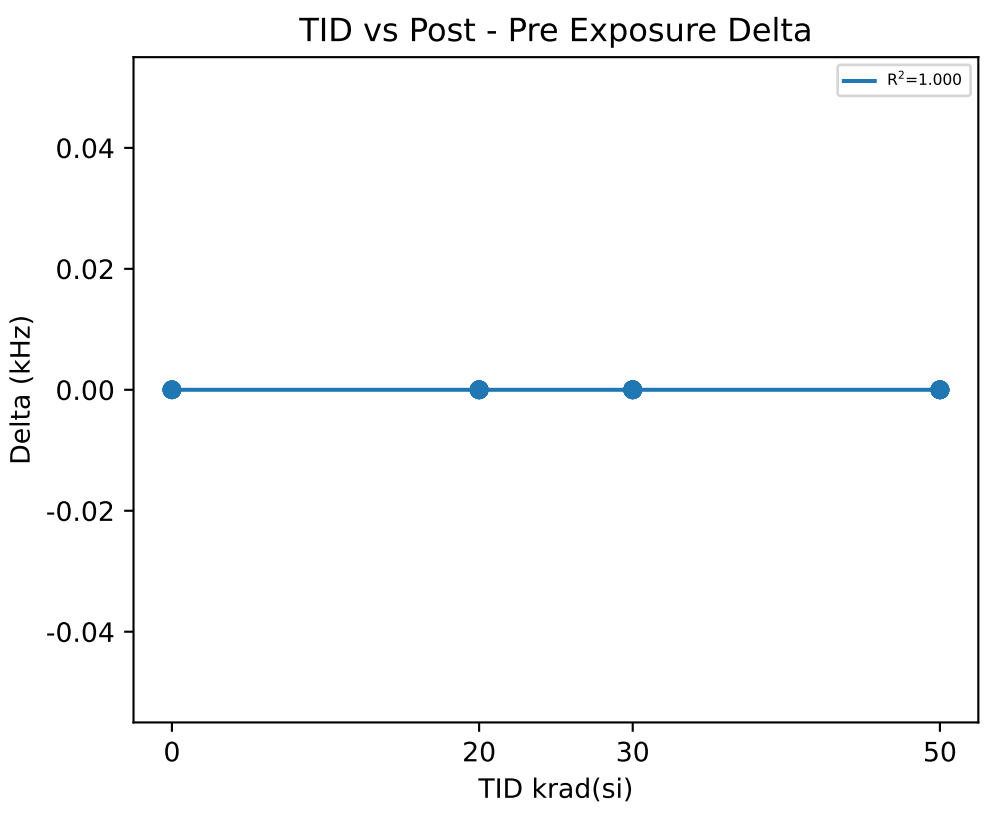
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	500.03	500.04	0.0145
2	20	Biased	500.05	500.05	-0.0023
3	20	Biased	500.03	500.01	-0.0217
4	20	Biased	500.04	500.04	-0.0056
5	20	Biased	500.01	500.04	0.0283
6	20	Unbiased	500.04	500.01	-0.0306
7	20	Unbiased	500.05	500.04	-0.008
8	20	Unbiased	500.02	500.05	0.0298
9	20	Unbiased	500.02	500.02	0.0014
10	20	Unbiased	500.02	500.03	0.0121
11	30	Biased	500.09	500.03	-0.0536
12	30	Biased	500.04	500	-0.038
13	30	Biased	500.05	500.07	0.0212
14	30	Biased	500.06	500.04	-0.0213
15	30	Biased	500	500.03	0.0254
16	30	Unbiased	500.04	500.02	-0.0147
17	30	Unbiased	500.03	500.01	-0.0239
18	30	Unbiased	500.06	500.02	-0.0335
19	30	Unbiased	500.06	500.03	-0.0234
20	30	Unbiased	500.03	500.05	0.0203
27	50	Unbiased	500.07	500.08	0.0135
28	50	Unbiased	500.04	500.04	-0.0023
29	50	Unbiased	500.05	500.06	0.0152
30	50	Unbiased	500.06	500.03	-0.0314
31	50	Unbiased	500.04	500.02	-0.0277
77	50	Biased-84Hr-Anneal	499.88	499.99	0.113
78	50	Biased-84Hr-Anneal	499.88	500.03	0.1491
79	50	Biased-84Hr-Anneal	499.82	500.02	0.2082
80	50	Biased-84Hr-Anneal	499.84	500.01	0.1664
81	50	Biased-84Hr-Anneal	499.87	500.04	0.1678
100	0	CORRELATION	499.83	500	0.171
101	0	CORRELATION	499.84	500.07	0.2262
102	0	CORRELATION	499.84	500.02	0.1868
103	0	CORRELATION	499.88	499.98	0.1072
104	0	CORRELATION	499.87	500.05	0.1804

Test Statistics (kHz)

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	499.83	499.85	499.88	0.019332	499.98	500.02	500.07	0.034092	0.1072	0.17432	0.2262	0.043013
20	500.01	500.03	500.05	0.013672	500.01	500.03	500.05	0.015718	-0.0306	0.00179	0.0298	0.019786
30	500	500.04	500.09	0.02269	500	500.03	500.07	0.018303	-0.0536	-0.01415	0.0254	0.02735
50	499.82	499.95	500.07	0.10488	499.99	500.03	500.08	0.025698	-0.0314	0.07718	0.2082	0.092374

Device Test: 24.53 FREQ|1000kHz/SYNC1/5//OPEN//@SYNC_FREQ_RANGE





Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

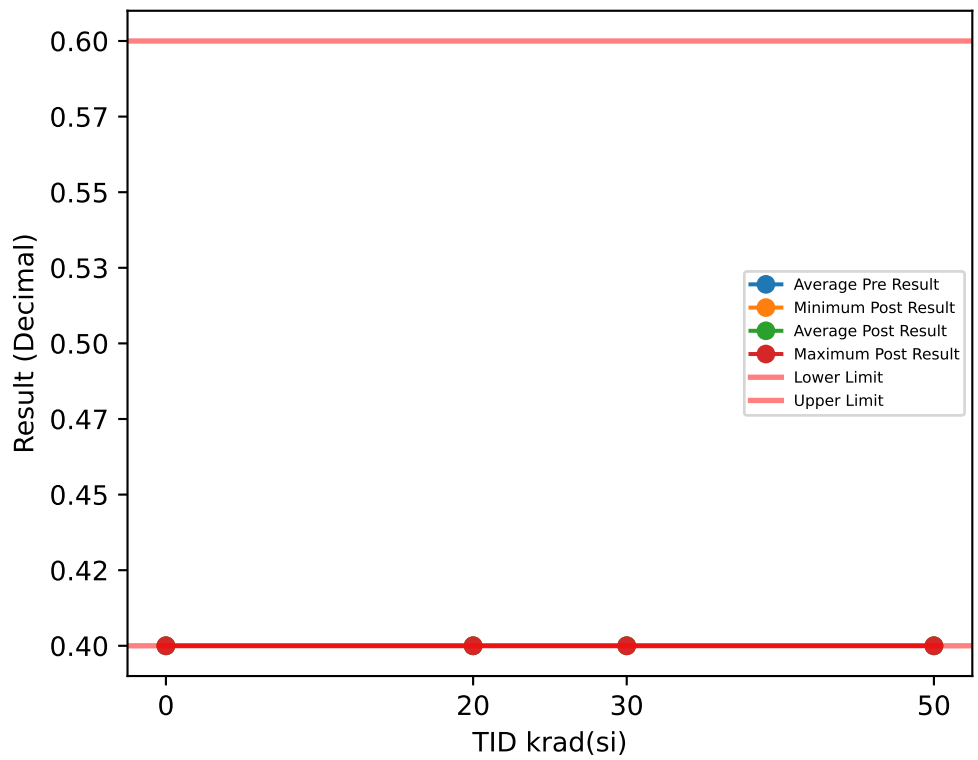
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1000	1000	0
2	20	Biased	1000	1000	0
3	20	Biased	1000	1000	0
4	20	Biased	1000	1000	0
5	20	Biased	1000	1000	0
6	20	Unbiased	1000	1000	0
7	20	Unbiased	1000	1000	0
8	20	Unbiased	1000	1000	0
9	20	Unbiased	1000	1000	0
10	20	Unbiased	1000	1000	0
11	30	Biased	1000	1000	0
12	30	Biased	1000	1000	0
13	30	Biased	1000	1000	0
14	30	Biased	1000	1000	0
15	30	Biased	1000	1000	0
16	30	Unbiased	1000	1000	0
17	30	Unbiased	1000	1000	0
18	30	Unbiased	1000	1000	0
19	30	Unbiased	1000	1000	0
20	30	Unbiased	1000	1000	0
27	50	Unbiased	1000	1000	0
28	50	Unbiased	1000	1000	0
29	50	Unbiased	1000	1000	0
30	50	Unbiased	1000	1000	0
31	50	Unbiased	1000	1000	0
77	50	Biased-84Hr-Anneal	1000	1000	0
78	50	Biased-84Hr-Anneal	1000	1000	0
79	50	Biased-84Hr-Anneal	1000	1000	0
80	50	Biased-84Hr-Anneal	1000	1000	0
81	50	Biased-84Hr-Anneal	1000	1000	0
100	0	CORRELATION	1000	1000	0
101	0	CORRELATION	1000	1000	0
102	0	CORRELATION	1000	1000	0
103	0	CORRELATION	1000	1000	0
104	0	CORRELATION	1000	1000	0

Test Statistics (kHz)

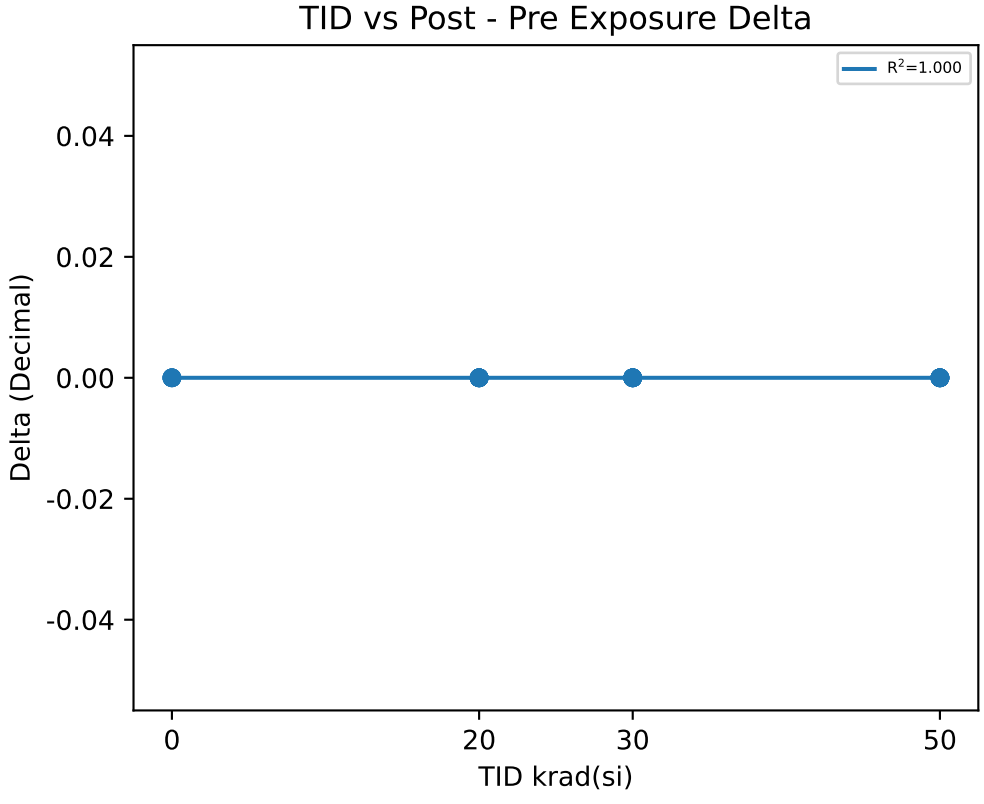
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
20	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
30	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
50	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0

Device Test: 24.54 DUTYCYCLE|GNG_40dml/SYNC1/5//OPEN//@SYNC_IN_DUTY_CYCLE_RANGE

TID vs Result Stats



TID vs Post - Pre Exposure Delta



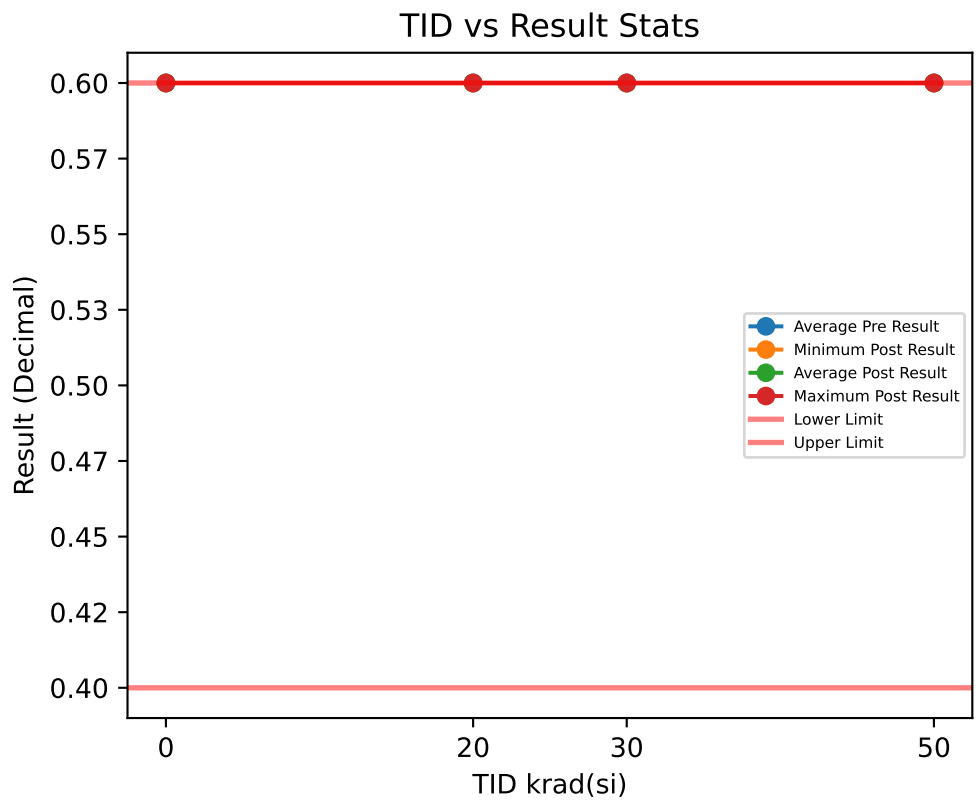
Test Results (Lower Limit = 0.4, Upper Limit = 0.6 (Decimal))

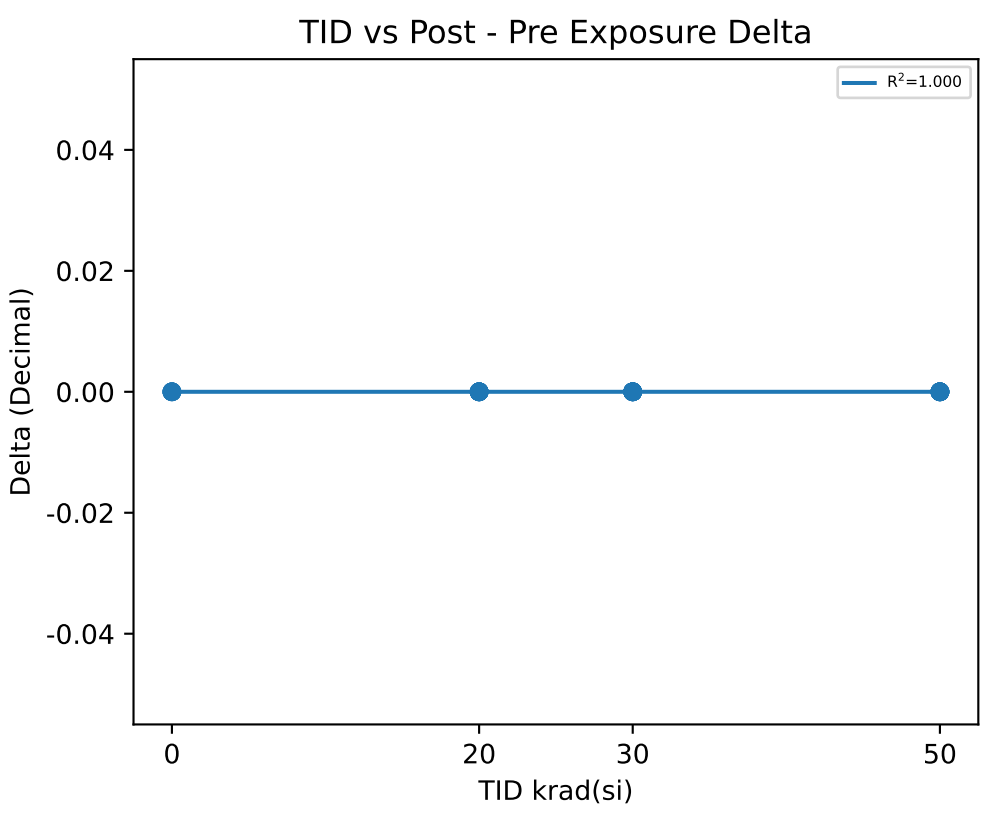
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.4	0.4	0
2	20	Biased	0.4	0.4	0
3	20	Biased	0.4	0.4	0
4	20	Biased	0.4	0.4	0
5	20	Biased	0.4	0.4	0
6	20	Unbiased	0.4	0.4	0
7	20	Unbiased	0.4	0.4	0
8	20	Unbiased	0.4	0.4	0
9	20	Unbiased	0.4	0.4	0
10	20	Unbiased	0.4	0.4	0
11	30	Biased	0.4	0.4	0
12	30	Biased	0.4	0.4	0
13	30	Biased	0.4	0.4	0
14	30	Biased	0.4	0.4	0
15	30	Biased	0.4	0.4	0
16	30	Unbiased	0.4	0.4	0
17	30	Unbiased	0.4	0.4	0
18	30	Unbiased	0.4	0.4	0
19	30	Unbiased	0.4	0.4	0
20	30	Unbiased	0.4	0.4	0
27	50	Unbiased	0.4	0.4	0
28	50	Unbiased	0.4	0.4	0
29	50	Unbiased	0.4	0.4	0
30	50	Unbiased	0.4	0.4	0
31	50	Unbiased	0.4	0.4	0
77	50	Biased-84Hr-Anneal	0.4	0.4	0
78	50	Biased-84Hr-Anneal	0.4	0.4	0
79	50	Biased-84Hr-Anneal	0.4	0.4	0
80	50	Biased-84Hr-Anneal	0.4	0.4	0
81	50	Biased-84Hr-Anneal	0.4	0.4	0
100	0	CORRELATION	0.4	0.4	0
101	0	CORRELATION	0.4	0.4	0
102	0	CORRELATION	0.4	0.4	0
103	0	CORRELATION	0.4	0.4	0
104	0	CORRELATION	0.4	0.4	0

Test Statistics (Decimal)

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	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
20	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
30	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
50	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0

Device Test: 24.55 DUTYCYCLE|GNG_60dml/SYNC1/5//OPEN//@SYNC_IN_DUTY_CYCLE_RANGE





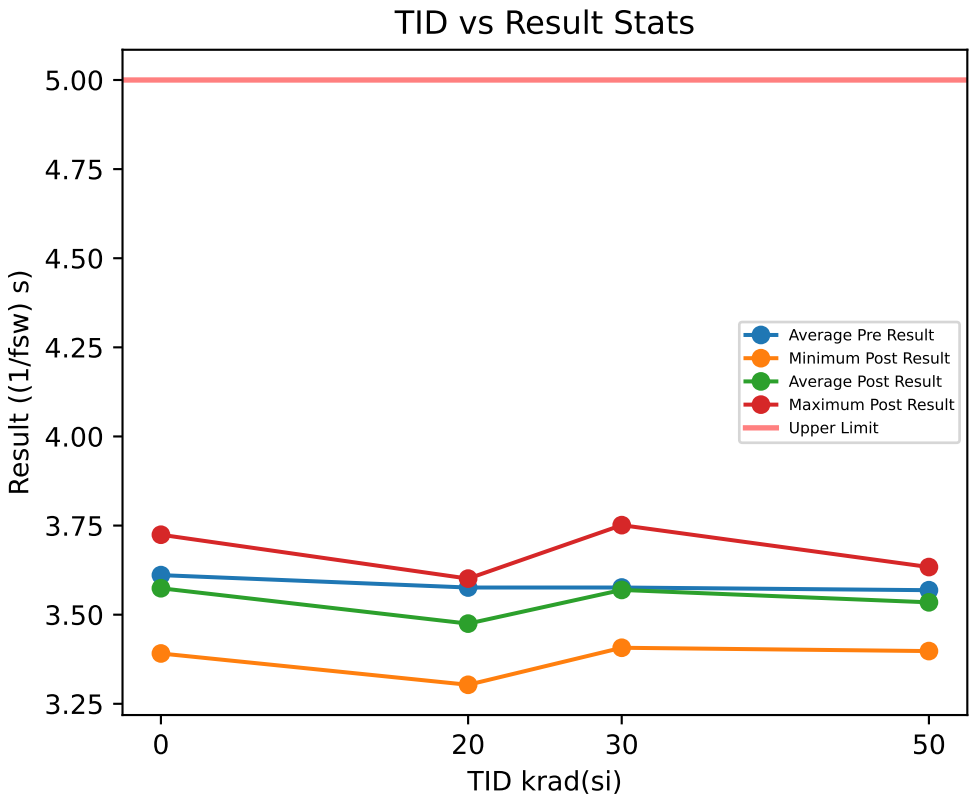
Test Results (Lower Limit = 0.4, Upper Limit = 0.6 (Decimal))

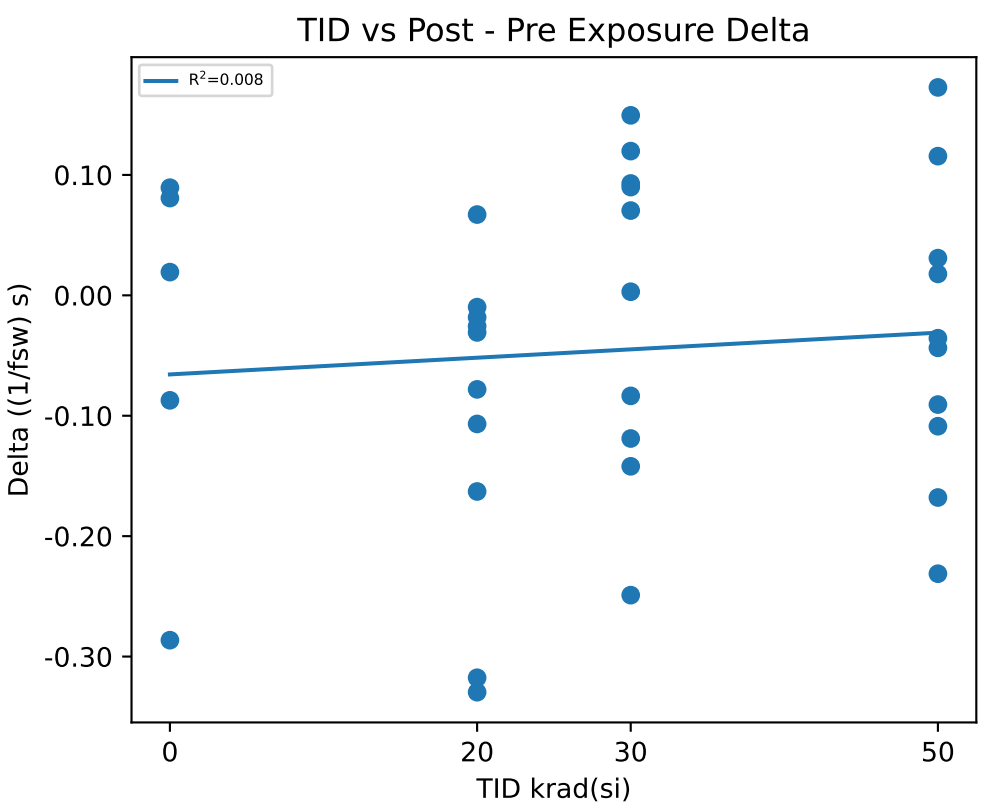
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6	0.6	0
2	20	Biased	0.6	0.6	0
3	20	Biased	0.6	0.6	0
4	20	Biased	0.6	0.6	0
5	20	Biased	0.6	0.6	0
6	20	Unbiased	0.6	0.6	0
7	20	Unbiased	0.6	0.6	0
8	20	Unbiased	0.6	0.6	0
9	20	Unbiased	0.6	0.6	0
10	20	Unbiased	0.6	0.6	0
11	30	Biased	0.6	0.6	0
12	30	Biased	0.6	0.6	0
13	30	Biased	0.6	0.6	0
14	30	Biased	0.6	0.6	0
15	30	Biased	0.6	0.6	0
16	30	Unbiased	0.6	0.6	0
17	30	Unbiased	0.6	0.6	0
18	30	Unbiased	0.6	0.6	0
19	30	Unbiased	0.6	0.6	0
20	30	Unbiased	0.6	0.6	0
27	50	Unbiased	0.6	0.6	0
28	50	Unbiased	0.6	0.6	0
29	50	Unbiased	0.6	0.6	0
30	50	Unbiased	0.6	0.6	0
31	50	Unbiased	0.6	0.6	0
77	50	Biased-84Hr-Anneal	0.6	0.6	0
78	50	Biased-84Hr-Anneal	0.6	0.6	0
79	50	Biased-84Hr-Anneal	0.6	0.6	0
80	50	Biased-84Hr-Anneal	0.6	0.6	0
81	50	Biased-84Hr-Anneal	0.6	0.6	0
100	0	CORRELATION	0.6	0.6	0
101	0	CORRELATION	0.6	0.6	0
102	0	CORRELATION	0.6	0.6	0
103	0	CORRELATION	0.6	0.6	0
104	0	CORRELATION	0.6	0.6	0

Test Statistics (Decimal)

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	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
20	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
30	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
50	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0

Device Test: 24.56 TIMING|CLKDETECT/SYNC1/5//511k//@T_CLOCK_DET





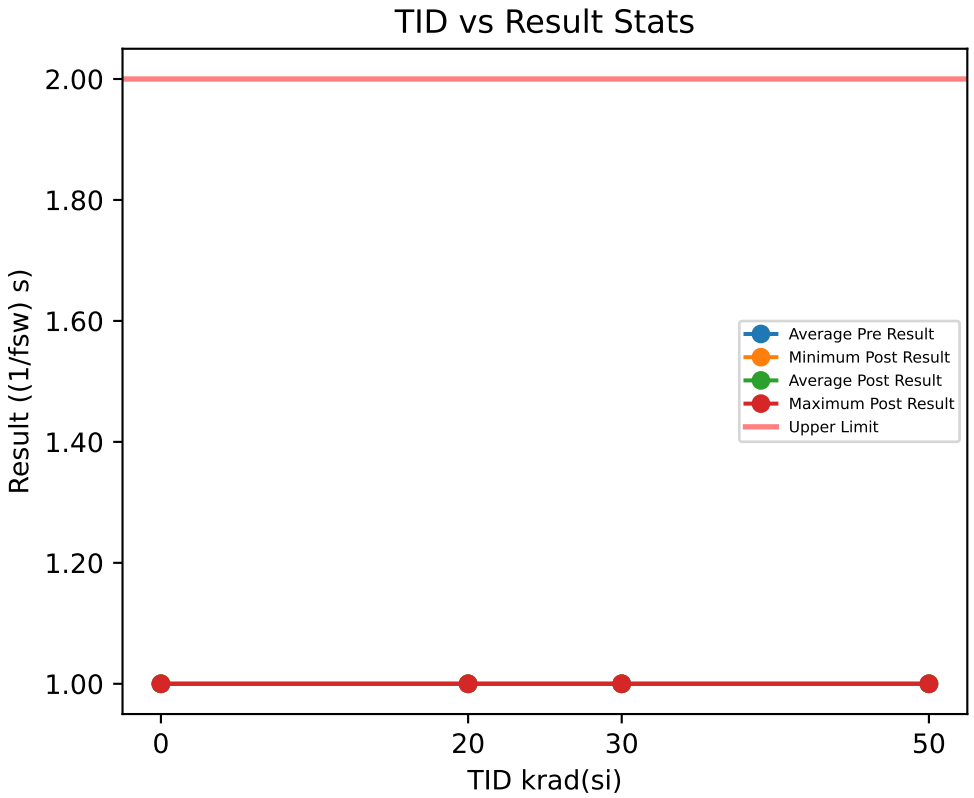
Test Results (Upper Limit = 5.0 ((1/fsw) s))

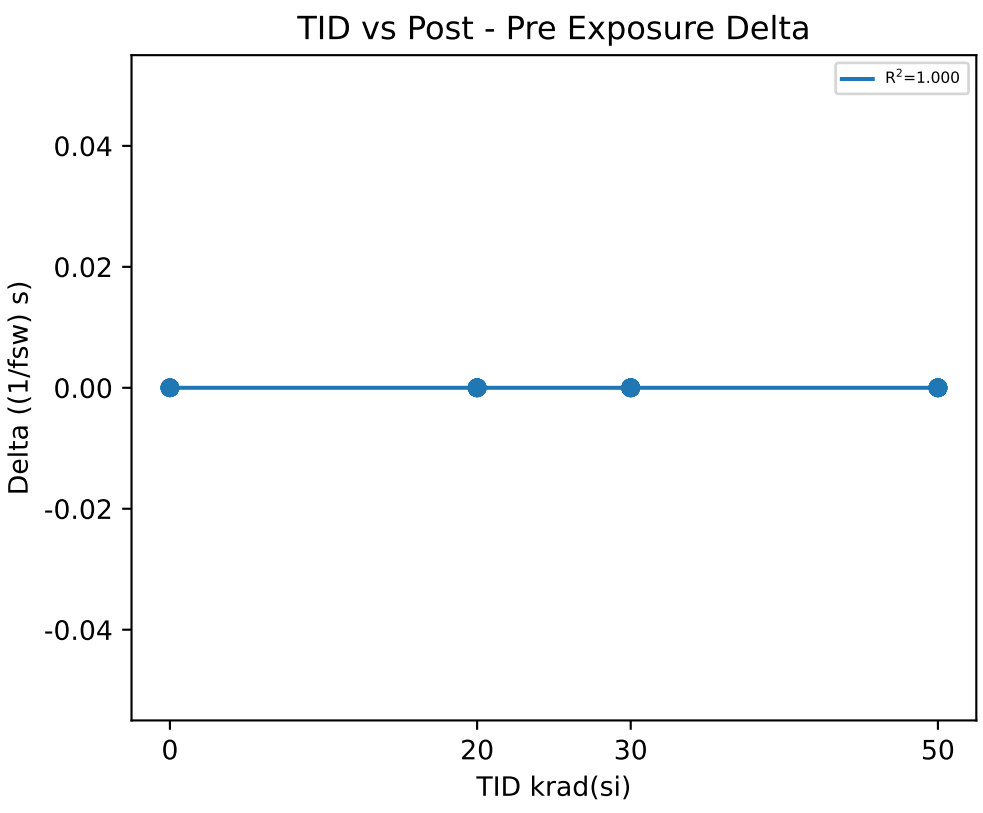
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.5986	3.4357	-0.1629
2	20	Biased	3.6195	3.6012	-0.0183
3	20	Biased	3.7039	3.3743	-0.3296
4	20	Biased	3.4493	3.4237	-0.0256
5	20	Biased	3.6107	3.5799	-0.0308
6	20	Unbiased	3.5397	3.4329	-0.1068
7	20	Unbiased	3.4959	3.563	0.0671
8	20	Unbiased	3.5854	3.5073	-0.0781
9	20	Unbiased	3.6209	3.3033	-0.3176
10	20	Unbiased	3.5378	3.528	-0.0098
11	30	Biased	3.5065	3.5964	0.0899
12	30	Biased	3.6528	3.5108	-0.142
13	30	Biased	3.4878	3.6076	0.1198
14	30	Biased	3.6017	3.7512	0.1495
15	30	Biased	3.4357	3.5061	0.0704
16	30	Unbiased	3.5793	3.4604	-0.1189
17	30	Unbiased	3.6336	3.5501	-0.0835
18	30	Unbiased	3.6562	3.4072	-0.249
19	30	Unbiased	3.5751	3.668	0.0929
20	30	Unbiased	3.6335	3.6365	0.003
27	50	Unbiased	3.5905	3.4998	-0.0907
28	50	Unbiased	3.4208	3.5935	0.1727
29	50	Unbiased	3.4559	3.5715	0.1156
30	50	Unbiased	3.5658	3.3979	-0.1679
31	50	Unbiased	3.6931	3.4619	-0.2312
77	50	Biased-84Hr-Anneal	3.5302	3.548	0.0178
78	50	Biased-84Hr-Anneal	3.5545	3.5109	-0.0436
79	50	Biased-84Hr-Anneal	3.7423	3.6336	-0.1087
80	50	Biased-84Hr-Anneal	3.6517	3.6161	-0.0356
81	50	Biased-84Hr-Anneal	3.4824	3.5133	0.0309
100	0	CORRELATION	3.5334	3.6228	0.0894
101	0	CORRELATION	3.6776	3.3912	-0.2864
102	0	CORRELATION	3.5541	3.5734	0.0193
103	0	CORRELATION	3.6435	3.7243	0.0808
104	0	CORRELATION	3.6464	3.5592	-0.0872

Test Statistics ((1/fsw) s)

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	3.5334	3.611	3.6776	0.063254	3.3912	3.5742	3.7243	0.12104	-0.2864	-0.03682	0.0894	0.15632
20	3.4493	3.5762	3.7039	0.072507	3.3033	3.4749	3.6012	0.096665	-0.3296	-0.10124	0.0671	0.13233
30	3.4357	3.5762	3.6562	0.075953	3.4072	3.5694	3.7512	0.10299	-0.249	-0.00679	0.1495	0.13383
50	3.4208	3.5687	3.7423	0.10366	3.3979	3.5347	3.6336	0.072765	-0.2312	-0.03407	0.1727	0.1237

Device Test: 24.57 TIMING|CLKDETECT/SYNC1/5//511k//@T_CLOCK_DET_EXT





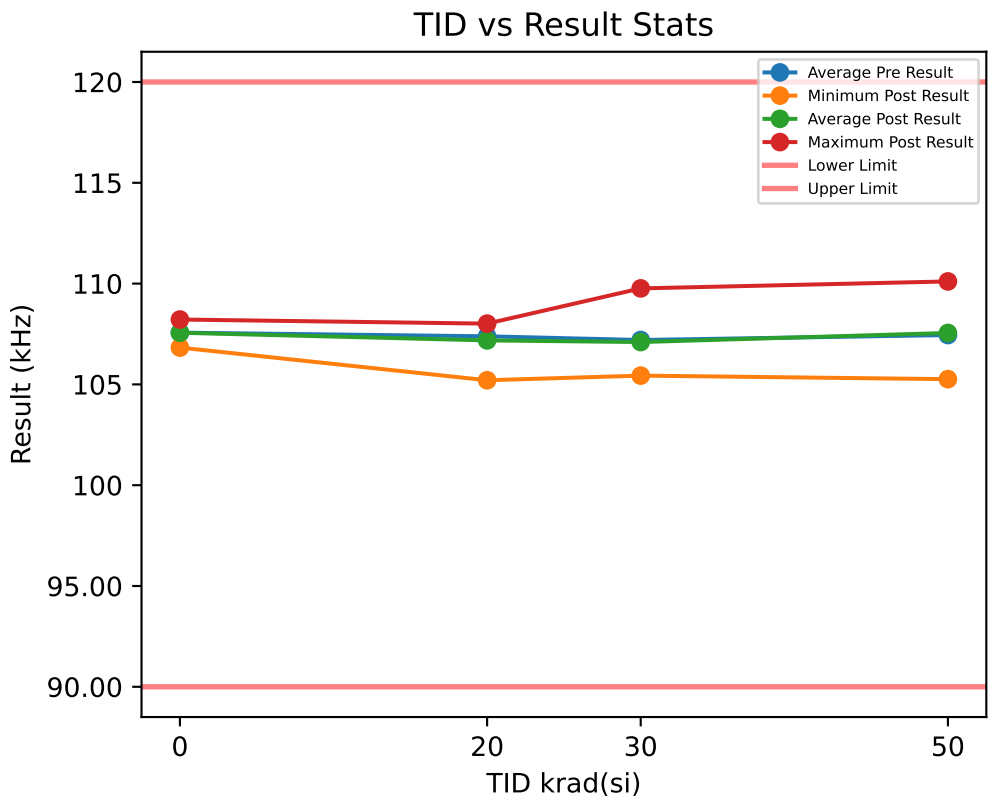
Test Results (Upper Limit = 2.0 ((1/fsw) s))

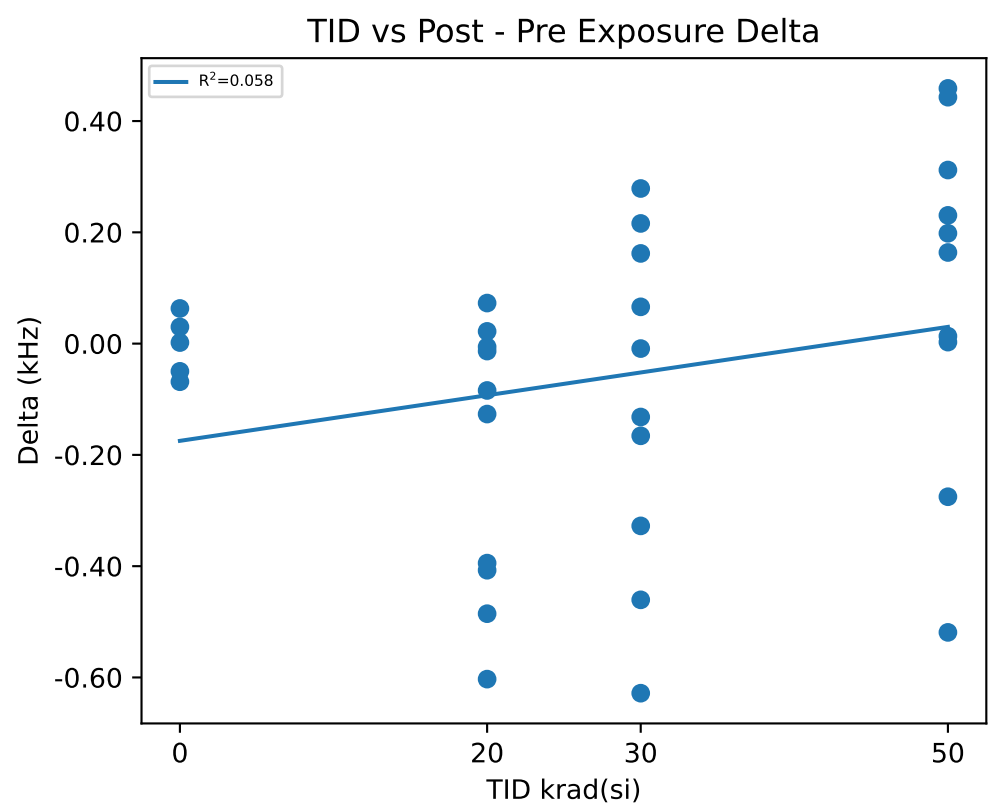
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1	1	0
2	20	Biased	1	1	0
3	20	Biased	1	1	0
4	20	Biased	1	1	0
5	20	Biased	1	1	0
6	20	Unbiased	1	1	0
7	20	Unbiased	1	1	0
8	20	Unbiased	1	1	0
9	20	Unbiased	1	1	0
10	20	Unbiased	1	1	0
11	30	Biased	1	1	0
12	30	Biased	1	1	0
13	30	Biased	1	1	0
14	30	Biased	1	1	0
15	30	Biased	1	1	0
16	30	Unbiased	1	1	0
17	30	Unbiased	1	1	0
18	30	Unbiased	1	1	0
19	30	Unbiased	1	1	0
20	30	Unbiased	1	1	0
27	50	Unbiased	1	1	0
28	50	Unbiased	1	1	0
29	50	Unbiased	1	1	0
30	50	Unbiased	1	1	0
31	50	Unbiased	1	1	0
77	50	Biased-84Hr-Anneal	1	1	0
78	50	Biased-84Hr-Anneal	1	1	0
79	50	Biased-84Hr-Anneal	1	1	0
80	50	Biased-84Hr-Anneal	1	1	0
81	50	Biased-84Hr-Anneal	1	1	0
100	0	CORRELATION	1	1	0
101	0	CORRELATION	1	1	0
102	0	CORRELATION	1	1	0
103	0	CORRELATION	1	1	0
104	0	CORRELATION	1	1	0

Test Statistics ((1/fsw) s)

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	1	1	0	1	1	1	0	0	0	0	0
20	1	1	1	0	1	1	1	0	0	0	0	0
30	1	1	1	0	1	1	1	0	0	0	0	0
50	1	1	1	0	1	1	1	0	0	0	0	0

Device Test: 24.58 FREQ|100kHz/SYNC1/5//511k//@EXT_SET_FREQ_100kHz





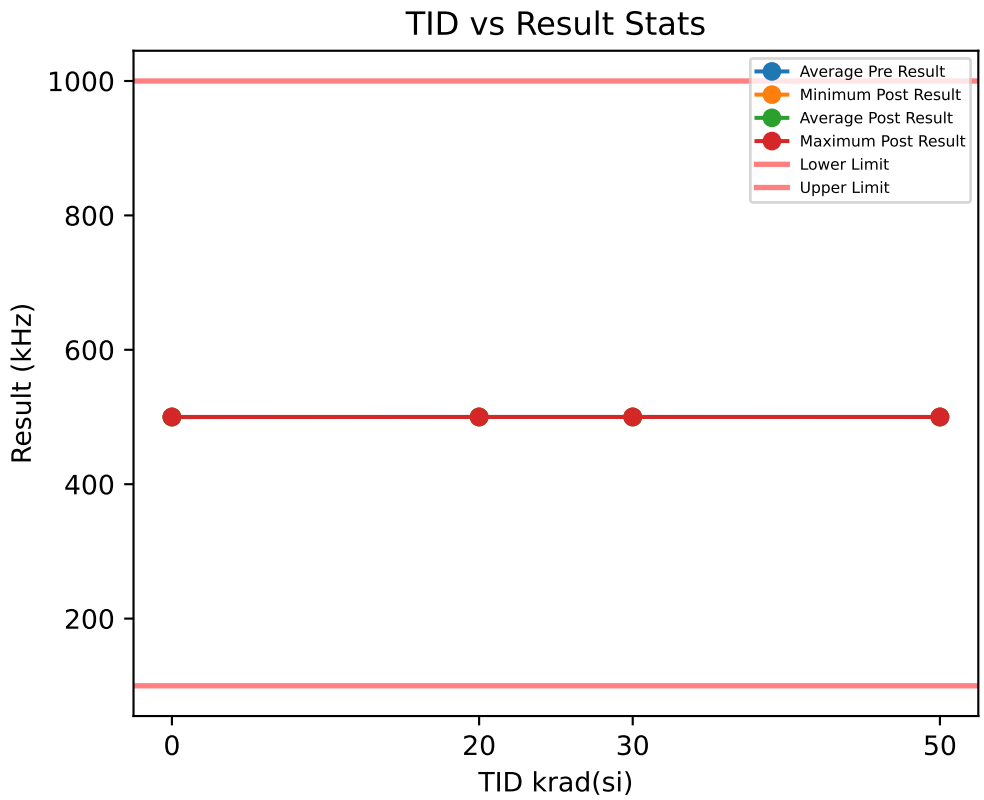
Test Results (Lower Limit = 90.0, Upper Limit = 120.0 (kHz))

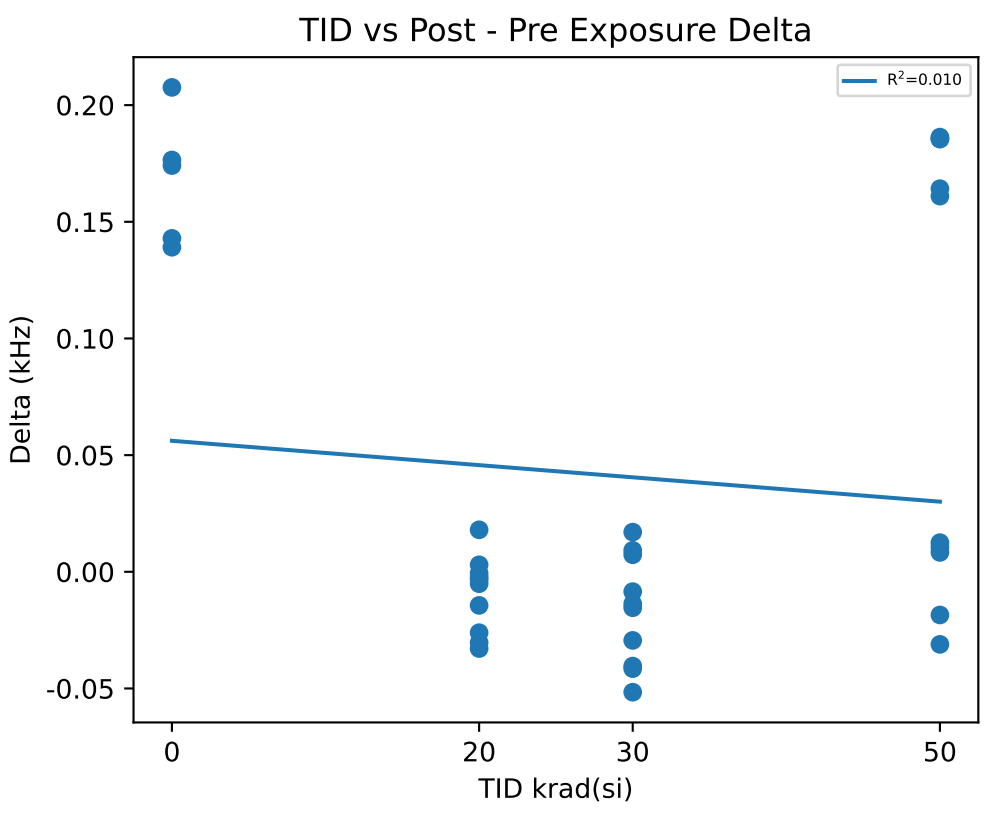
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	108.3	107.89	-0.4073
2	20	Biased	107.46	106.97	-0.4854
3	20	Biased	107.49	107.49	-0.0058
4	20	Biased	107.99	108.01	0.022
5	20	Biased	106.03	105.94	-0.0842
6	20	Unbiased	108.11	107.71	-0.3945
7	20	Unbiased	106.76	106.83	0.0729
8	20	Unbiased	107.98	107.86	-0.1266
9	20	Unbiased	107.92	107.91	-0.0134
10	20	Unbiased	105.81	105.21	-0.603
11	30	Biased	106.33	106.32	-0.0089
12	30	Biased	105.49	105.77	0.2788
13	30	Biased	109.89	109.76	-0.1319
14	30	Biased	108.36	108.19	-0.1657
15	30	Biased	106.17	105.84	-0.3276
16	30	Unbiased	107.47	107.63	0.1621
17	30	Unbiased	107.06	106.6	-0.4605
18	30	Unbiased	107.39	106.76	-0.6283
19	30	Unbiased	108.48	108.69	0.216
20	30	Unbiased	105.37	105.44	0.0661
27	50	Unbiased	109.36	109.82	0.4587
28	50	Unbiased	107.69	107.71	0.0134
29	50	Unbiased	106.51	105.99	-0.519
30	50	Unbiased	107.61	107.77	0.1638
31	50	Unbiased	107.42	107.73	0.312
77	50	Biased-84Hr-Anneal	110.38	110.11	-0.2752
78	50	Biased-84Hr-Anneal	107.22	107.66	0.4429
79	50	Biased-84Hr-Anneal	107.25	107.25	0.0027
80	50	Biased-84Hr-Anneal	106.02	106.21	0.1983
81	50	Biased-84Hr-Anneal	105.03	105.26	0.2305
100	0	CORRELATION	106.89	106.83	-0.0685
101	0	CORRELATION	107.68	107.68	0.0019
102	0	CORRELATION	108.05	108.11	0.0632
103	0	CORRELATION	107.02	106.97	-0.0498
104	0	CORRELATION	108.19	108.22	0.03

Test Statistics (kHz)

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	106.89	107.57	108.19	0.58673	106.83	107.56	108.22	0.63908	-0.0685	-0.00464	0.0632	0.054687
20	105.81	107.39	108.3	0.88919	105.21	107.18	108.01	0.95252	-0.603	-0.20253	0.0729	0.24488
30	105.37	107.2	109.89	1.4312	105.44	107.1	109.76	1.4212	-0.6283	-0.09999	0.2788	0.30076
50	105.03	107.45	110.38	1.5354	105.26	107.55	110.11	1.5398	-0.519	0.10281	0.4587	0.30962

Device Test: 24.6 FREQ|500kHz/SYNC1/4.5//OPEN//@SYNC_FREQ_RANGE





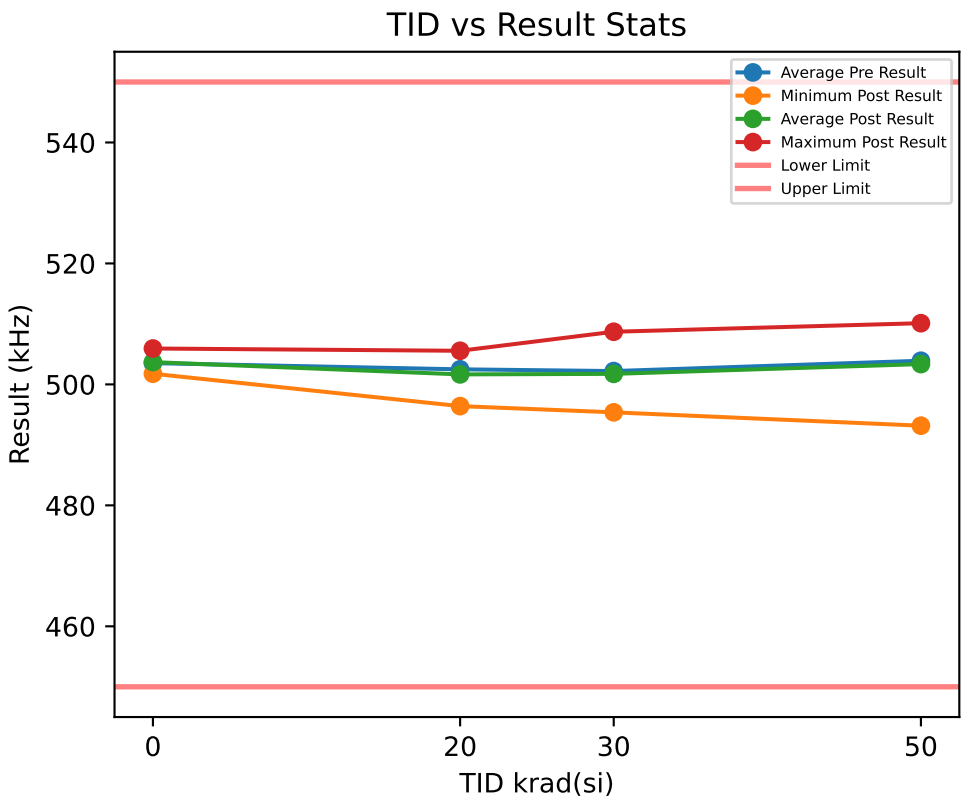
Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

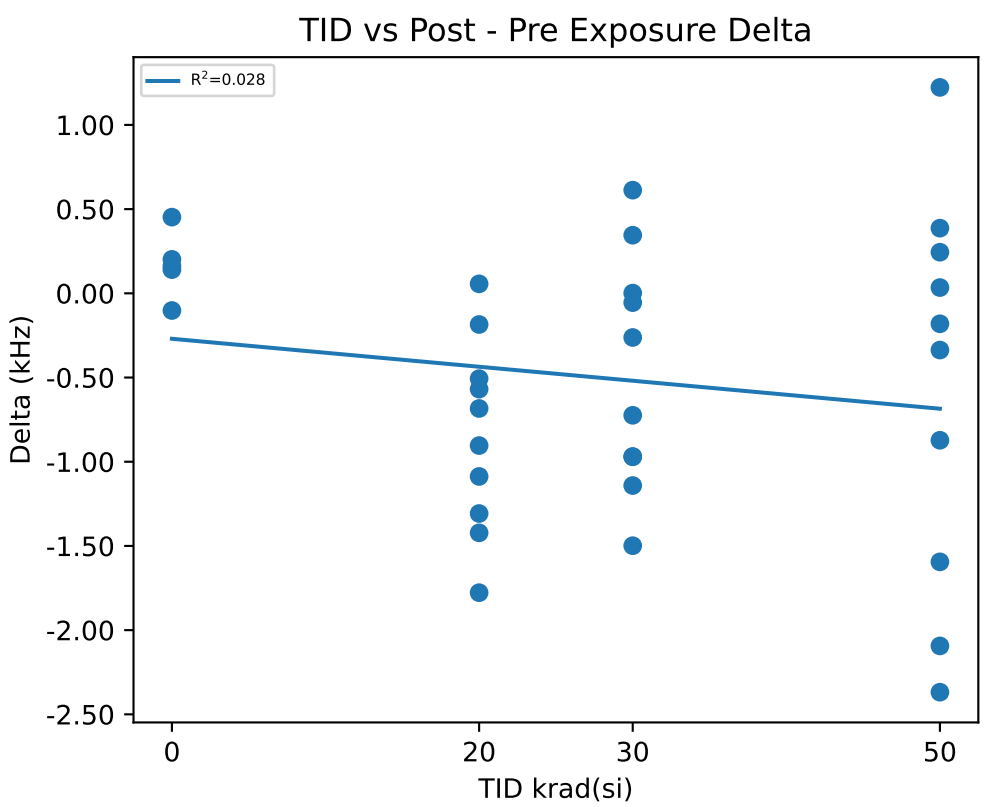
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	500	500	-0.0051
2	20	Biased	500.03	500.05	0.018
3	20	Biased	500.03	500.02	-0.0144
4	20	Biased	500.04	500.04	-0.0033
5	20	Biased	500.02	500.02	-0.0006
6	20	Unbiased	500.05	500.01	-0.0329
7	20	Unbiased	500.05	500.05	-0.0023
8	20	Unbiased	500.05	500.02	-0.0303
9	20	Unbiased	500.02	500.02	0.003
10	20	Unbiased	500.05	500.03	-0.0261
11	30	Biased	500.06	500.04	-0.0154
12	30	Biased	500.01	500	-0.0137
13	30	Biased	500.04	500.04	0.0092
14	30	Biased	500.07	500.06	-0.0085
15	30	Biased	500.03	499.98	-0.0516
16	30	Unbiased	500.05	500.05	0.0073
17	30	Unbiased	500.02	500.04	0.017
18	30	Unbiased	500.04	500	-0.0415
19	30	Unbiased	500.08	500.04	-0.0404
20	30	Unbiased	500.07	500.04	-0.0294
27	50	Unbiased	500.03	500.04	0.0083
28	50	Unbiased	500.05	500.03	-0.0185
29	50	Unbiased	500.02	500.03	0.0125
30	50	Unbiased	500.04	500.01	-0.0311
31	50	Unbiased	500.01	500.02	0.0105
77	50	Biased-84Hr-Anneal	499.84	500.02	0.1855
78	50	Biased-84Hr-Anneal	499.85	500.04	0.1855
79	50	Biased-84Hr-Anneal	499.86	500.03	0.1642
80	50	Biased-84Hr-Anneal	499.84	500.02	0.1863
81	50	Biased-84Hr-Anneal	499.86	500.02	0.161
100	0	CORRELATION	499.87	500	0.1391
101	0	CORRELATION	499.86	500.07	0.2076
102	0	CORRELATION	499.88	500.02	0.1429
103	0	CORRELATION	499.83	500.01	0.1741
104	0	CORRELATION	499.86	500.04	0.1765

Test Statistics (kHz)

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	499.83	499.86	499.88	0.016573	500	500.03	500.07	0.025388	0.1391	0.16804	0.2076	0.02803
20	500	500.03	500.05	0.016507	500	500.03	500.05	0.014873	-0.0329	-0.0094	0.018	0.016265
30	500.01	500.05	500.08	0.022902	499.98	500.03	500.06	0.027355	-0.0516	-0.0167	0.017	0.023609
50	499.84	499.94	500.05	0.096184	500.01	500.03	500.04	0.0092931	-0.0311	0.08642	0.1863	0.096247

Device Test: 24.65 FREQ|500kHz/SYNC1/5//90.9k//@EXT_SET_FREQ_500kHz





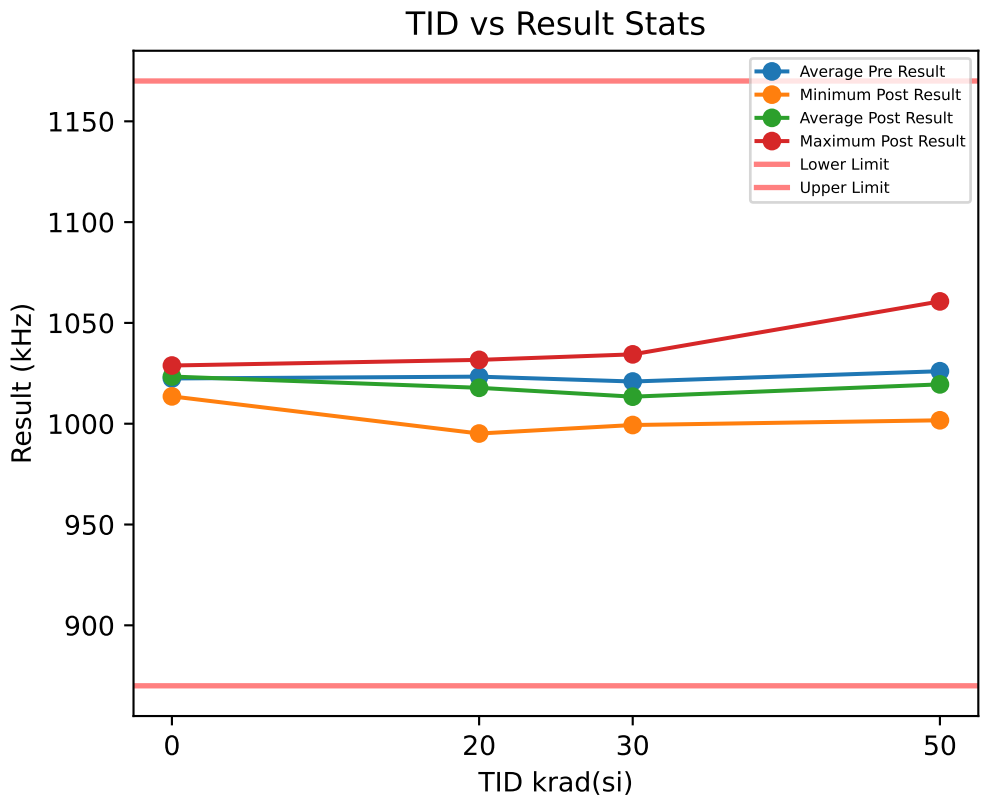
Test Results (Lower Limit = 450.0, Upper Limit = 550.0 (kHz))

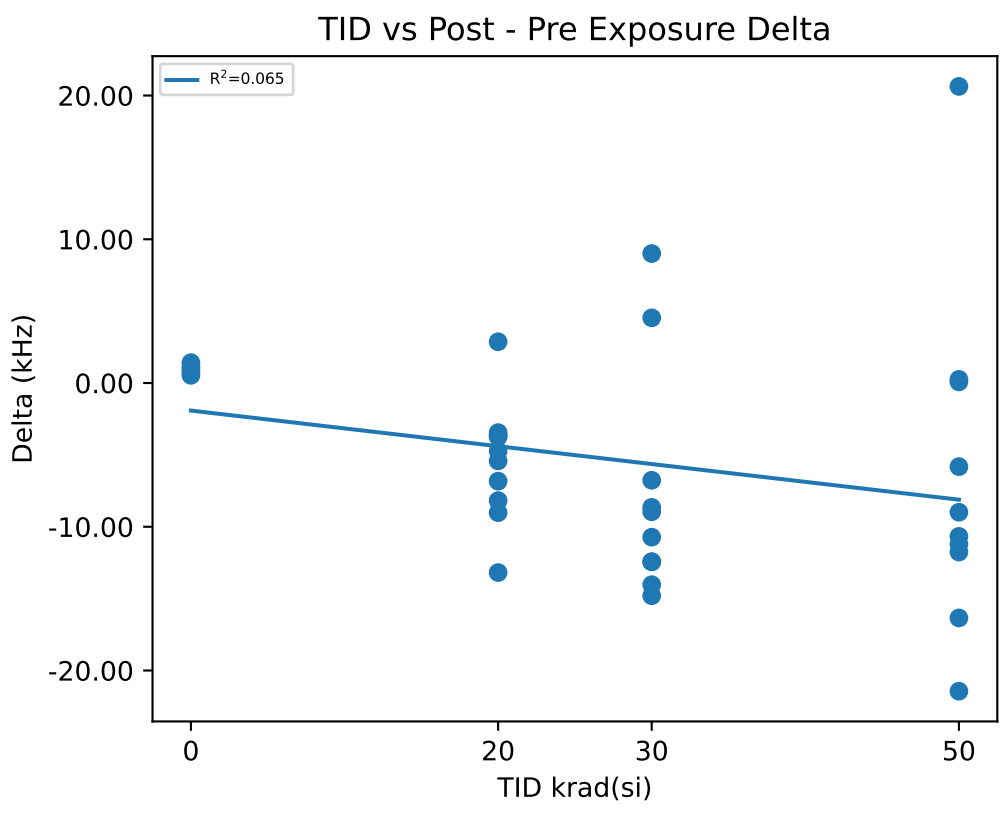
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	500.11	498.69	-1.4222
2	20	Biased	506.03	505.52	-0.5067
3	20	Biased	500.33	499.43	-0.904
4	20	Biased	506.86	505.55	-1.3075
5	20	Biased	496.59	496.41	-0.1851
6	20	Unbiased	503.1	502.42	-0.6837
7	20	Unbiased	501.09	500.52	-0.5689
8	20	Unbiased	505.5	505.56	0.0562
9	20	Unbiased	505.79	504.71	-1.0874
10	20	Unbiased	499.51	497.73	-1.7776
11	30	Biased	499.81	500.42	0.6127
12	30	Biased	498.01	497.74	-0.2621
13	30	Biased	509.43	508.7	-0.7243
14	30	Biased	503.25	503.25	0.0013
15	30	Biased	499.28	498.31	-0.9706
16	30	Unbiased	502.54	501.39	-1.1413
17	30	Unbiased	503.3	502.33	-0.9691
18	30	Unbiased	504.35	502.85	-1.4986
19	30	Unbiased	507.07	507.01	-0.0553
20	30	Unbiased	495.04	495.38	0.3452
27	50	Unbiased	506.51	507.73	1.2228
28	50	Unbiased	506.01	504.42	-1.5946
29	50	Unbiased	503.46	501.1	-2.3685
30	50	Unbiased	506.97	507.21	0.2441
31	50	Unbiased	504.09	503.75	-0.3368
77	50	Biased-84Hr-Anneal	512.21	510.12	-2.0936
78	50	Biased-84Hr-Anneal	503.31	503.13	-0.1809
79	50	Biased-84Hr-Anneal	502.72	501.85	-0.8725
80	50	Biased-84Hr-Anneal	501.04	501.07	0.0343
81	50	Biased-84Hr-Anneal	492.78	493.17	0.387
100	0	CORRELATION	505.79	505.93	0.1408
101	0	CORRELATION	503.52	503.69	0.1626
102	0	CORRELATION	504.67	505.12	0.4525
103	0	CORRELATION	502.02	501.92	-0.102
104	0	CORRELATION	501.56	501.76	0.2017

Test Statistics (kHz)

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	501.56	503.51	505.79	1.7729	501.76	503.68	505.93	1.8666	-0.102	0.17112	0.4525	0.19729
20	496.59	502.49	506.86	3.4629	496.41	501.65	505.56	3.5472	-1.7776	-0.83869	0.0562	0.57184
30	495.04	502.21	509.43	4.2967	495.38	501.74	508.7	4.0853	-1.4986	-0.46621	0.6127	0.69498
50	492.78	503.91	512.21	4.9833	493.17	503.36	510.12	4.6833	-2.3685	-0.55587	1.2228	1.1575

Device Test: 24.66 FREQ|1MHz/SYNC1/5//34.8k//@EXT_SET_FREQ_1000kHz





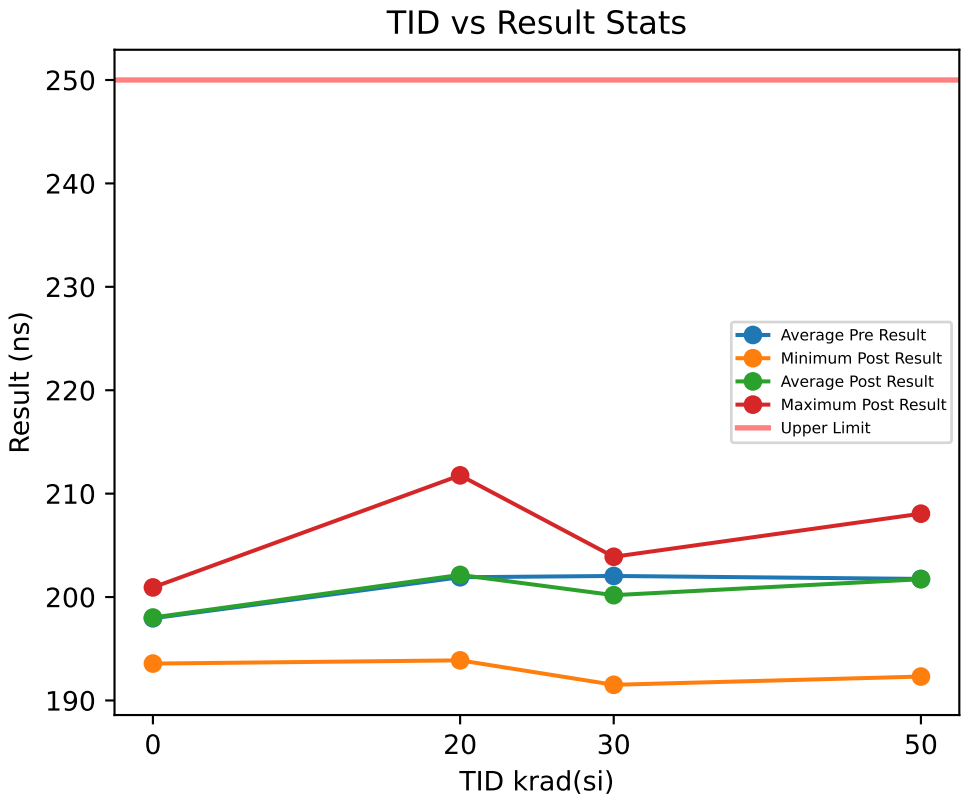
Test Results (Lower Limit = 870.0, Upper Limit = 1170.0 (kHz))

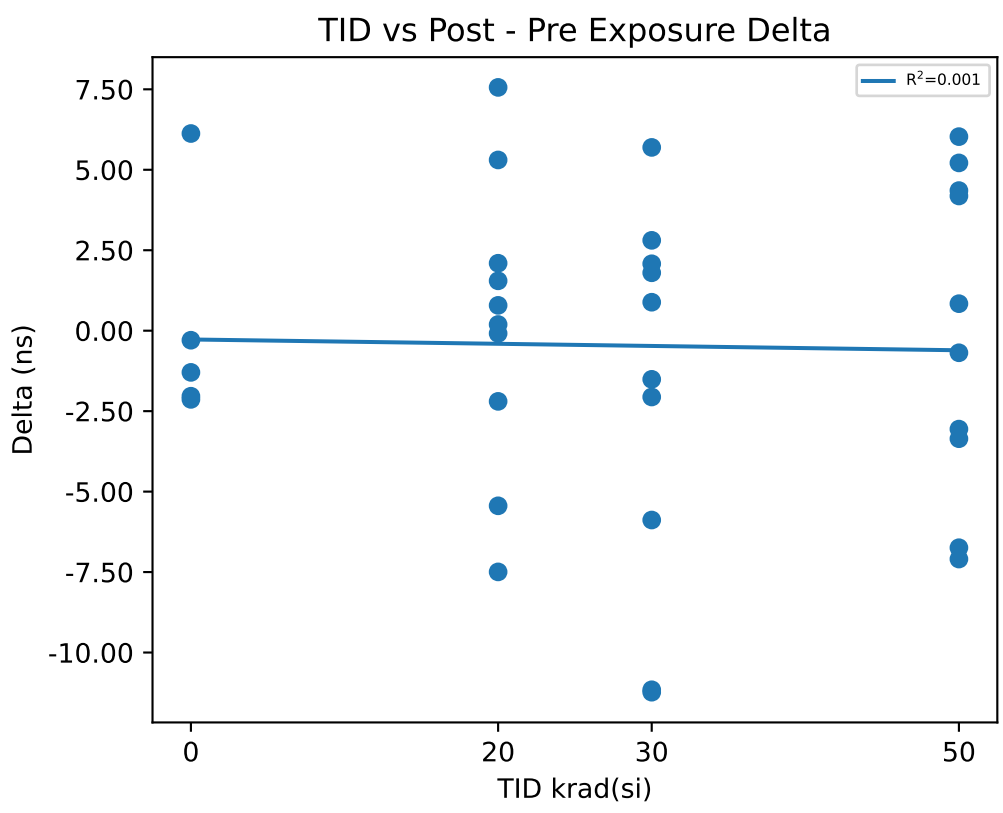
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1017.4	1010.6	-6.8278
2	20	Biased	1035.1	1031.7	-3.4512
3	20	Biased	1022.1	1016.7	-5.418
4	20	Biased	1028.3	1023.6	-4.7299
5	20	Biased	1015.4	1011.7	-3.664
6	20	Unbiased	1031.5	1022.5	-9.0194
7	20	Unbiased	1019.7	1022.5	2.8701
8	20	Unbiased	1034.7	1031	-3.7461
9	20	Unbiased	1020.9	1012.8	-8.1791
10	20	Unbiased	1008.3	995.14	-13.188
11	30	Biased	1010.5	1003.8	-6.766
12	30	Biased	1012.8	1002.1	-10.725
13	30	Biased	1034.5	1019.7	-14.8
14	30	Biased	1025.4	1034.4	9.0077
15	30	Biased	1013.4	999.35	-14.03
16	30	Unbiased	1031.6	1022.9	-8.6521
17	30	Unbiased	1015.5	1003	-12.436
18	30	Unbiased	1020.9	1008.5	-12.438
19	30	Unbiased	1028.4	1019.4	-8.9551
20	30	Unbiased	1016.3	1020.9	4.5348
27	50	Unbiased	1040	1060.7	20.635
28	50	Unbiased	1025.3	1003.9	-21.44
29	50	Unbiased	1029.8	1019.2	-10.671
30	50	Unbiased	1027	1010.7	-16.344
31	50	Unbiased	1031.2	1031.3	0.0787
77	50	Biased-84Hr-Anneal	1041.2	1032.2	-8.9898
78	50	Biased-84Hr-Anneal	1018.8	1007.1	-11.76
79	50	Biased-84Hr-Anneal	1020.4	1014.6	-5.8175
80	50	Biased-84Hr-Anneal	1012.9	1001.7	-11.221
81	50	Biased-84Hr-Anneal	1013.6	1013.9	0.2523
100	0	CORRELATION	1020.9	1021.7	0.752
101	0	CORRELATION	1027.5	1028.7	1.1122
102	0	CORRELATION	1022.8	1024.3	1.4176
103	0	CORRELATION	1013	1013.6	0.5337
104	0	CORRELATION	1027.9	1028.9	0.9856

Test Statistics (kHz)

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	1013	1022.4	1027.9	6.0576	1013.6	1023.4	1028.9	6.2869	0.5337	0.96022	1.4176	0.33846
20	1008.3	1023.4	1035.1	8.8401	995.14	1017.8	1031.7	10.913	-13.188	-5.5353	2.8701	4.2389
30	1010.5	1020.9	1034.5	8.5312	999.35	1013.4	1034.4	11.609	-14.8	-7.5259	9.0077	8.0027
50	1012.9	1026	1041.2	9.8884	1001.7	1019.5	1060.7	17.785	-21.44	-6.5277	20.635	11.64

Device Test: 24.68 TIMING|MINON/SW/5//511k//@ON_TIME_MIN_5V





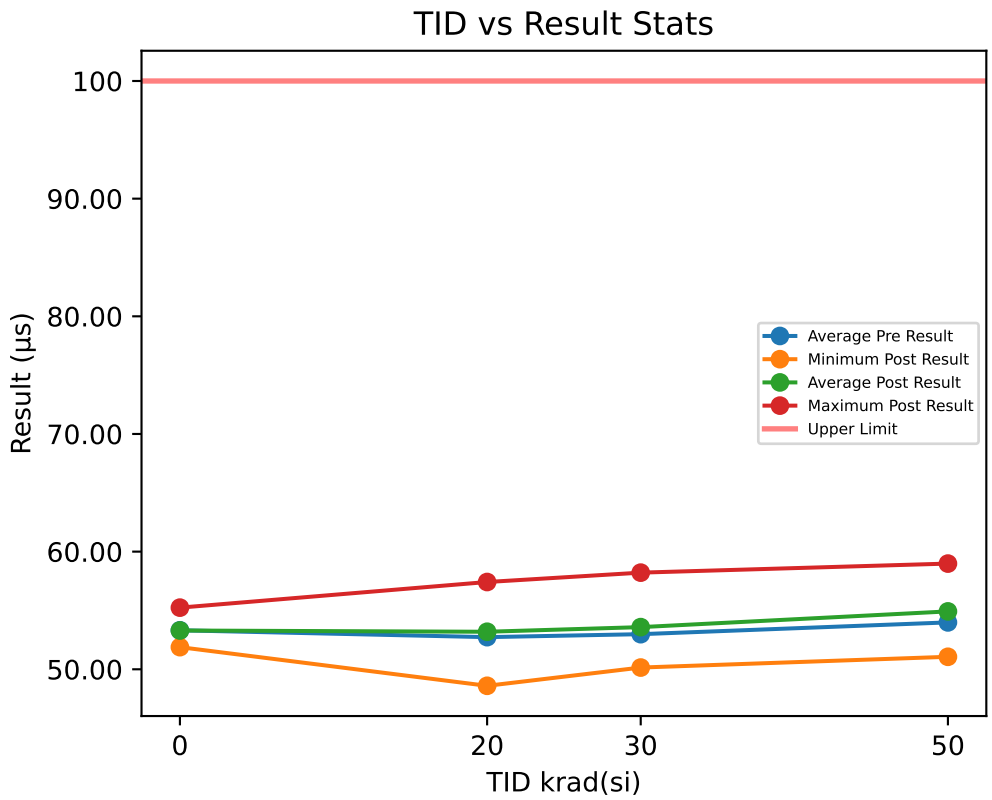
Test Results (Upper Limit = 250.0 (ns))

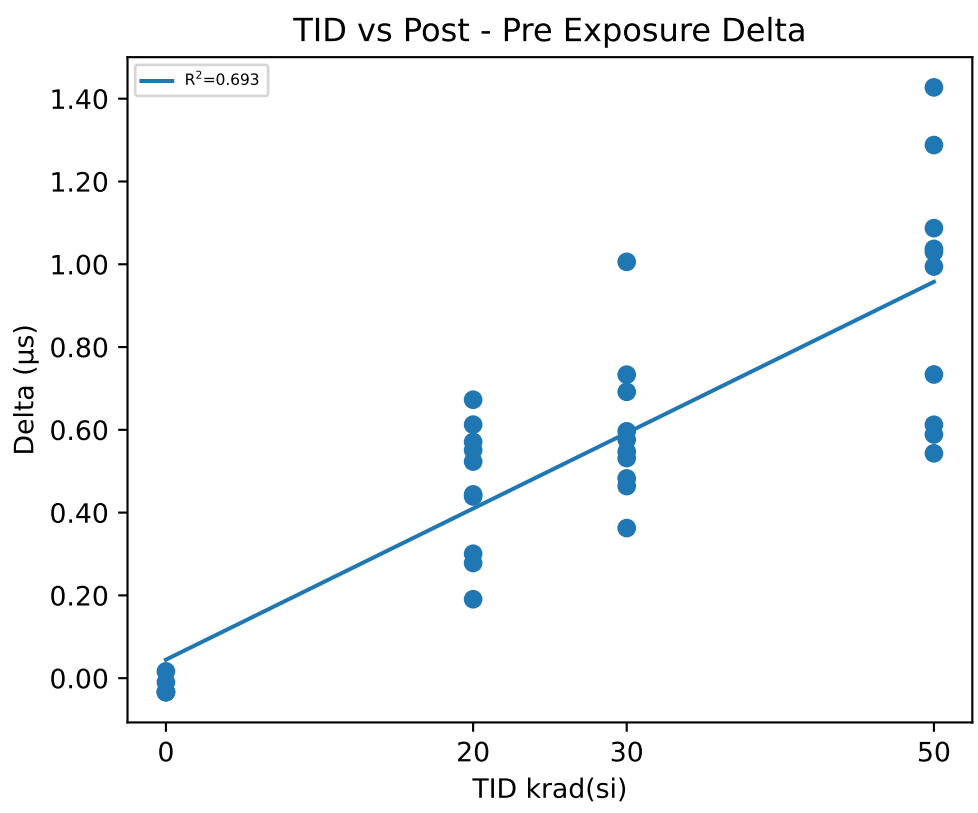
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	203.79	203.71	-0.0847
2	20	Biased	191.78	193.88	2.0957
3	20	Biased	211.44	203.94	-7.4948
4	20	Biased	210.22	211.77	1.5495
5	20	Biased	198.81	196.61	-2.1961
6	20	Unbiased	193.76	199.06	5.3052
7	20	Unbiased	211.18	205.74	-5.4412
8	20	Unbiased	199.25	200.03	0.7869
9	20	Unbiased	204.17	204.36	0.1925
10	20	Unbiased	194.76	202.32	7.5595
11	30	Biased	212.06	200.83	-11.233
12	30	Biased	198.19	200.99	2.8074
13	30	Biased	198.34	196.83	-1.5111
14	30	Biased	190.63	191.51	0.8847
15	30	Biased	215.05	203.89	-11.157
16	30	Unbiased	201.49	203.57	2.079
17	30	Unbiased	196.77	194.71	-2.06
18	30	Unbiased	198.02	203.72	5.6949
19	30	Unbiased	209.5	203.62	-5.8826
20	30	Unbiased	200.35	202.15	1.7994
27	50	Unbiased	209.61	202.52	-7.0954
28	50	Unbiased	190.45	196.48	6.03
29	50	Unbiased	197.01	201.37	4.3535
30	50	Unbiased	187.1	192.31	5.2131
31	50	Unbiased	209.55	202.8	-6.7434
77	50	Biased-84Hr-Anneal	201.83	198.77	-3.0579
78	50	Biased-84Hr-Anneal	211.42	208.06	-3.3561
79	50	Biased-84Hr-Anneal	197.38	201.56	4.1855
80	50	Biased-84Hr-Anneal	206.34	207.18	0.8392
81	50	Biased-84Hr-Anneal	206.86	206.18	-0.6861
100	0	CORRELATION	194.86	193.57	-1.2952
101	0	CORRELATION	203.07	200.93	-2.1342
102	0	CORRELATION	190.41	196.54	6.1266
103	0	CORRELATION	199.59	199.3	-0.2961
104	0	CORRELATION	201.8	199.76	-2.0362

Test Statistics (ns)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	190.41	197.95	203.07	5.2438	193.57	198.02	200.93	2.9644	-2.1342	0.07298	6.1266	3.4632
20	191.78	201.91	211.44	7.3884	193.88	202.14	211.77	5.0451	-7.4948	0.22725	7.5595	4.5072
30	190.63	202.04	215.05	7.6832	191.51	200.18	203.89	4.3568	-11.233	-1.8578	5.6949	5.8303
50	187.1	201.75	211.42	8.4811	192.31	201.72	208.06	4.9056	-7.0954	-0.03176	6.03	4.9172

Device Test: 24.69 TIMING|DELAY/EN/5//511k//@T_EN_DELAY





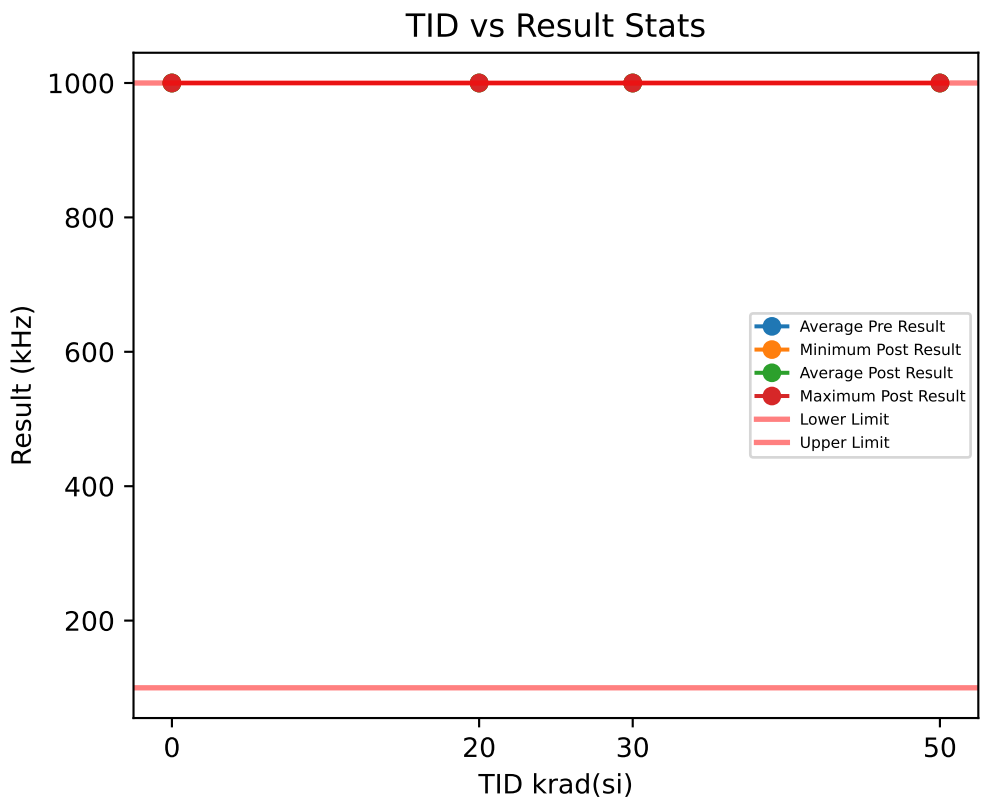
Test Results (Upper Limit = 100.0 (µs))

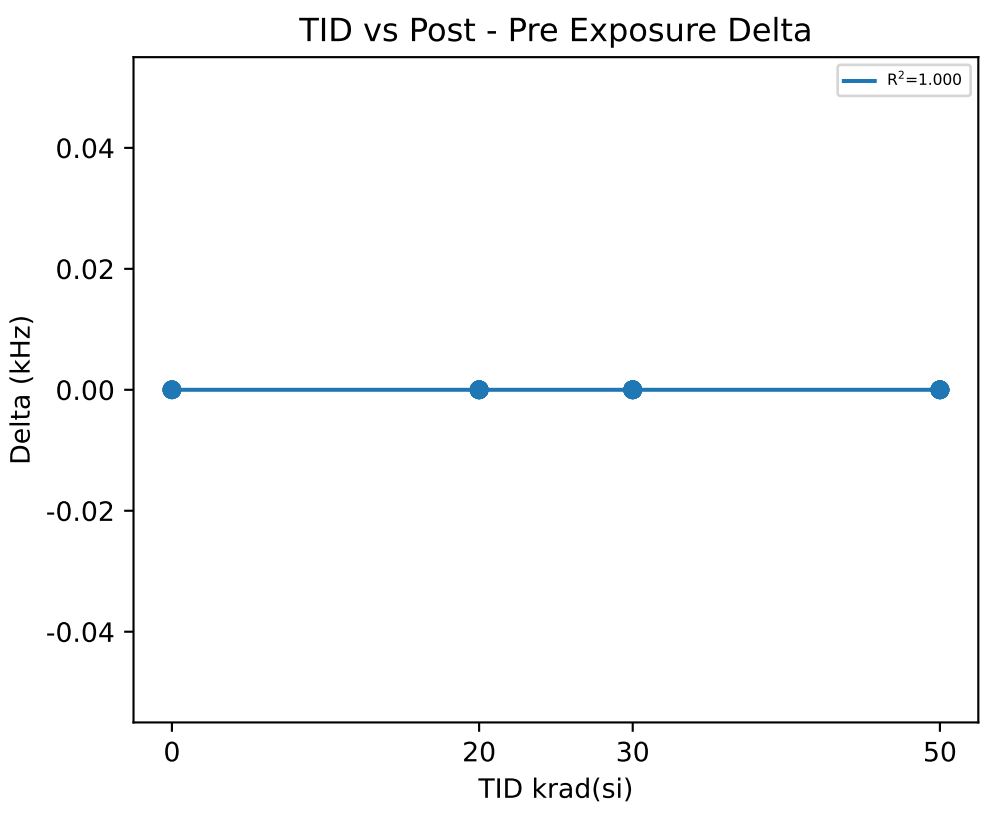
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	55.083	55.756	0.6727
2	20	Biased	48.318	48.596	0.2782
3	20	Biased	56.866	57.417	0.5509
4	20	Biased	55.179	55.618	0.439
5	20	Biased	51.809	52.333	0.5233
6	20	Unbiased	50.164	50.465	0.3006
7	20	Unbiased	54.305	54.876	0.5708
8	20	Unbiased	52.908	53.099	0.1907
9	20	Unbiased	53.431	54.044	0.6125
10	20	Unbiased	49.25	49.694	0.444
11	30	Biased	54.149	54.681	0.5318
12	30	Biased	52.292	52.983	0.6918
13	30	Biased	57.75	58.214	0.4641
14	30	Biased	55.28	56.286	1.0058
15	30	Biased	52.831	53.565	0.7333
16	30	Unbiased	49.6	50.147	0.5472
17	30	Unbiased	49.788	50.365	0.5763
18	30	Unbiased	50.729	51.325	0.5964
19	30	Unbiased	50.475	50.838	0.3626
20	30	Unbiased	56.945	57.428	0.4826
27	50	Unbiased	56.596	57.633	1.0371
28	50	Unbiased	52.42	53.45	1.0297
29	50	Unbiased	57.101	58.189	1.0873
30	50	Unbiased	54.49	55.917	1.4273
31	50	Unbiased	55.166	56.161	0.9945
77	50	Biased-84Hr-Anneal	50.328	51.061	0.7337
78	50	Biased-84Hr-Anneal	52.819	53.363	0.5432
79	50	Biased-84Hr-Anneal	51.288	51.9	0.6122
80	50	Biased-84Hr-Anneal	51.946	52.535	0.5888
81	50	Biased-84Hr-Anneal	57.695	58.983	1.288
100	0	CORRELATION	51.916	51.882	-0.0339
101	0	CORRELATION	53.842	53.858	0.0164
102	0	CORRELATION	55.249	55.239	-0.0099
103	0	CORRELATION	52.165	52.131	-0.0336
104	0	CORRELATION	53.401	53.367	-0.0332

Test Statistics (µs)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	51.916	53.314	55.249	1.3516	51.882	53.296	55.239	1.3652	-0.0339	-0.01884	0.0164	0.022207
20	48.318	52.731	56.866	2.8018	48.596	53.19	57.417	2.8947	0.1907	0.45827	0.6727	0.15801
30	49.6	52.984	57.75	2.9548	50.147	53.583	58.214	2.9794	0.3626	0.59919	1.0058	0.17873
50	50.328	53.985	57.695	2.5941	51.061	54.919	58.983	2.8162	0.5432	0.93418	1.4273	0.3039

Device Test: 24.7 FREQ|1000kHz/SYNC1/4.5//OPEN//@SYNC_FREQ_RANGE





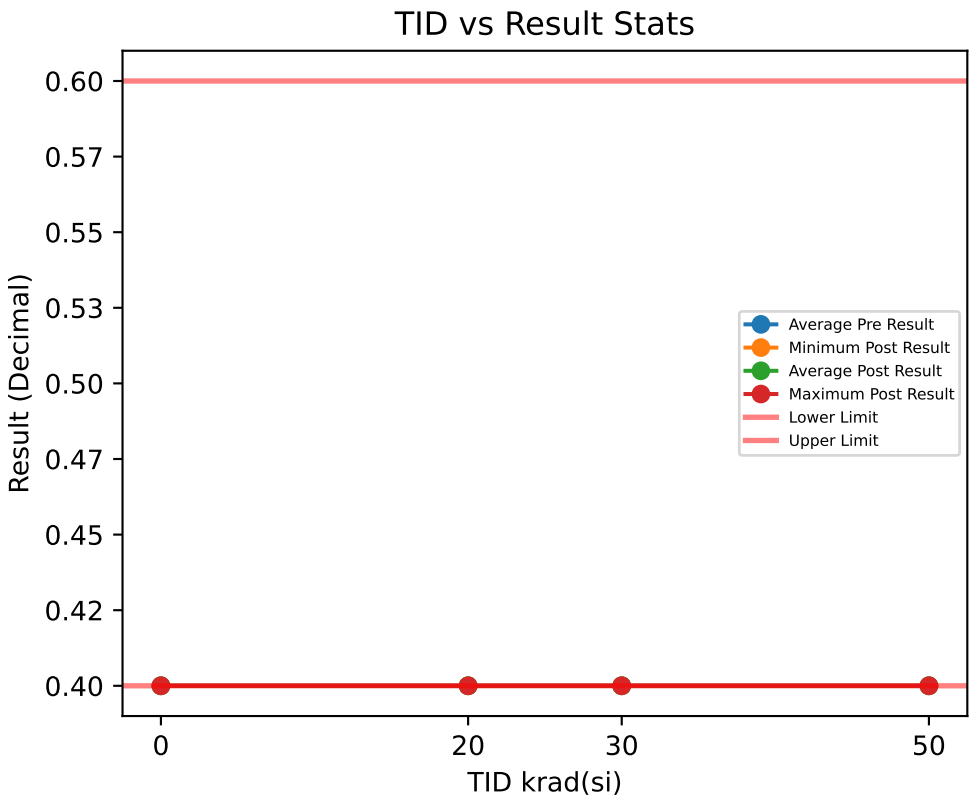
Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

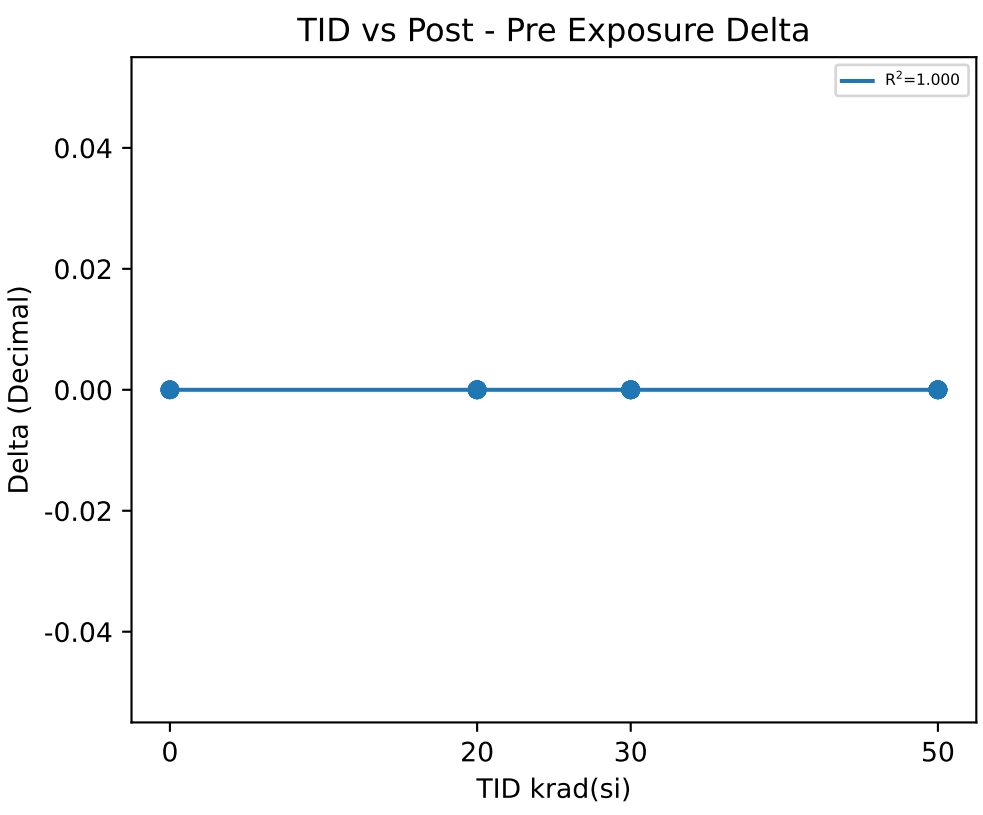
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1000	1000	0
2	20	Biased	1000	1000	0
3	20	Biased	1000	1000	0
4	20	Biased	1000	1000	0
5	20	Biased	1000	1000	0
6	20	Unbiased	1000	1000	0
7	20	Unbiased	1000	1000	0
8	20	Unbiased	1000	1000	0
9	20	Unbiased	1000	1000	0
10	20	Unbiased	1000	1000	0
11	30	Biased	1000	1000	0
12	30	Biased	1000	1000	0
13	30	Biased	1000	1000	0
14	30	Biased	1000	1000	0
15	30	Biased	1000	1000	0
16	30	Unbiased	1000	1000	0
17	30	Unbiased	1000	1000	0
18	30	Unbiased	1000	1000	0
19	30	Unbiased	1000	1000	0
20	30	Unbiased	1000	1000	0
27	50	Unbiased	1000	1000	0
28	50	Unbiased	1000	1000	0
29	50	Unbiased	1000	1000	0
30	50	Unbiased	1000	1000	0
31	50	Unbiased	1000	1000	0
77	50	Biased-84Hr-Anneal	1000	1000	0
78	50	Biased-84Hr-Anneal	1000	1000	0
79	50	Biased-84Hr-Anneal	1000	1000	0
80	50	Biased-84Hr-Anneal	1000	1000	0
81	50	Biased-84Hr-Anneal	1000	1000	0
100	0	CORRELATION	1000	1000	0
101	0	CORRELATION	1000	1000	0
102	0	CORRELATION	1000	1000	0
103	0	CORRELATION	1000	1000	0
104	0	CORRELATION	1000	1000	0

Test Statistics (kHz)

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	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
20	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
30	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
50	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0

Device Test: 24.8 DUTYCYCLE|GNG_40dml/SYNC1/4.5//OPEN//@SYNC_IN_DUTY_CYCLE_RANGE





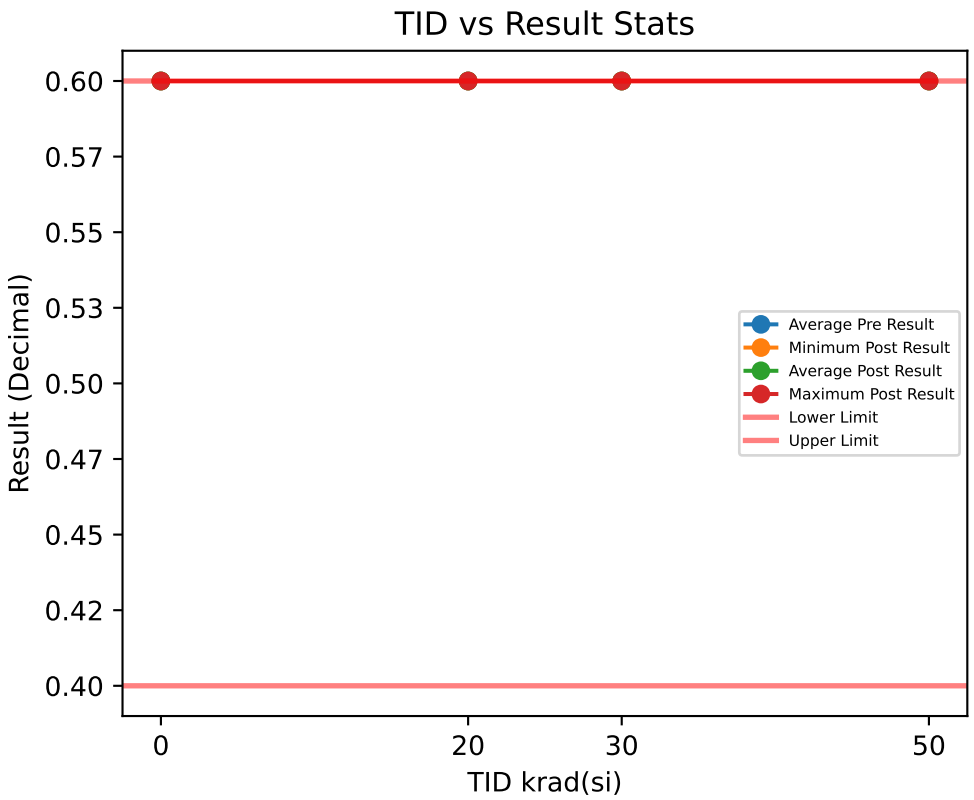
Test Results (Lower Limit = 0.4, Upper Limit = 0.6 (Decimal))

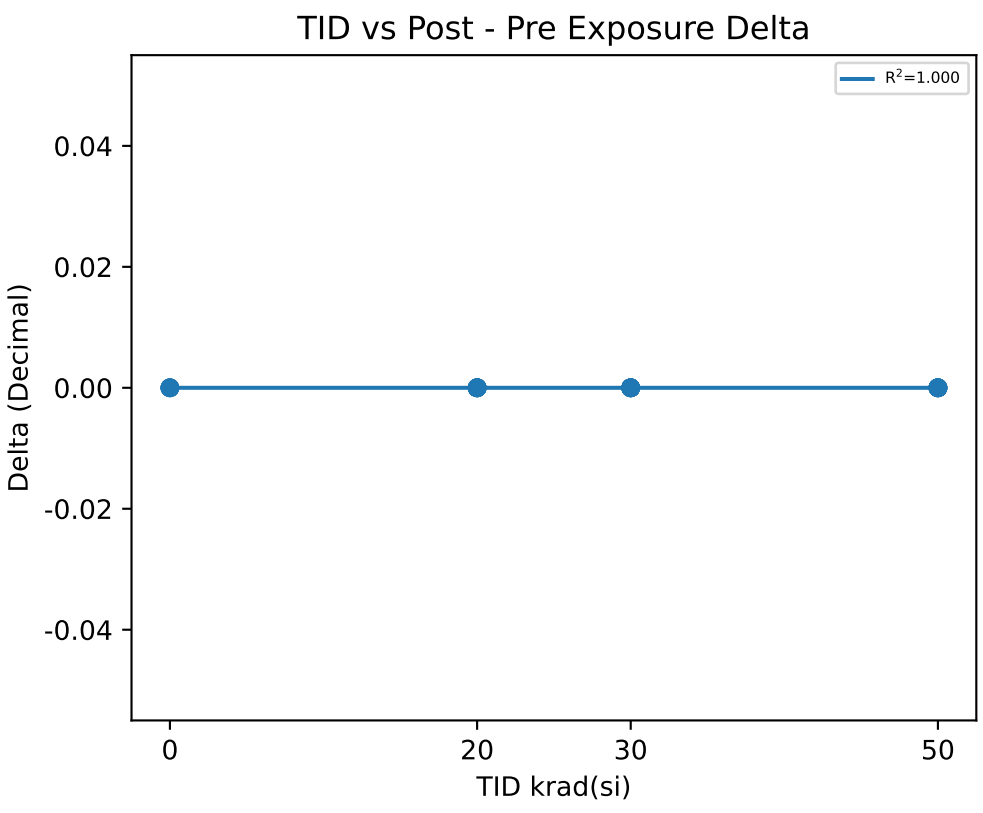
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.4	0.4	0
2	20	Biased	0.4	0.4	0
3	20	Biased	0.4	0.4	0
4	20	Biased	0.4	0.4	0
5	20	Biased	0.4	0.4	0
6	20	Unbiased	0.4	0.4	0
7	20	Unbiased	0.4	0.4	0
8	20	Unbiased	0.4	0.4	0
9	20	Unbiased	0.4	0.4	0
10	20	Unbiased	0.4	0.4	0
11	30	Biased	0.4	0.4	0
12	30	Biased	0.4	0.4	0
13	30	Biased	0.4	0.4	0
14	30	Biased	0.4	0.4	0
15	30	Biased	0.4	0.4	0
16	30	Unbiased	0.4	0.4	0
17	30	Unbiased	0.4	0.4	0
18	30	Unbiased	0.4	0.4	0
19	30	Unbiased	0.4	0.4	0
20	30	Unbiased	0.4	0.4	0
27	50	Unbiased	0.4	0.4	0
28	50	Unbiased	0.4	0.4	0
29	50	Unbiased	0.4	0.4	0
30	50	Unbiased	0.4	0.4	0
31	50	Unbiased	0.4	0.4	0
77	50	Biased-84Hr-Anneal	0.4	0.4	0
78	50	Biased-84Hr-Anneal	0.4	0.4	0
79	50	Biased-84Hr-Anneal	0.4	0.4	0
80	50	Biased-84Hr-Anneal	0.4	0.4	0
81	50	Biased-84Hr-Anneal	0.4	0.4	0
100	0	CORRELATION	0.4	0.4	0
101	0	CORRELATION	0.4	0.4	0
102	0	CORRELATION	0.4	0.4	0
103	0	CORRELATION	0.4	0.4	0
104	0	CORRELATION	0.4	0.4	0

Test Statistics (Decimal)

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	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
20	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
30	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
50	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0

Device Test: 24.9 DUTYCYCLE|GNG_60dml/SYNC1/4.5//OPEN//@SYNC_IN_DUTY_CYCLE_RANGE





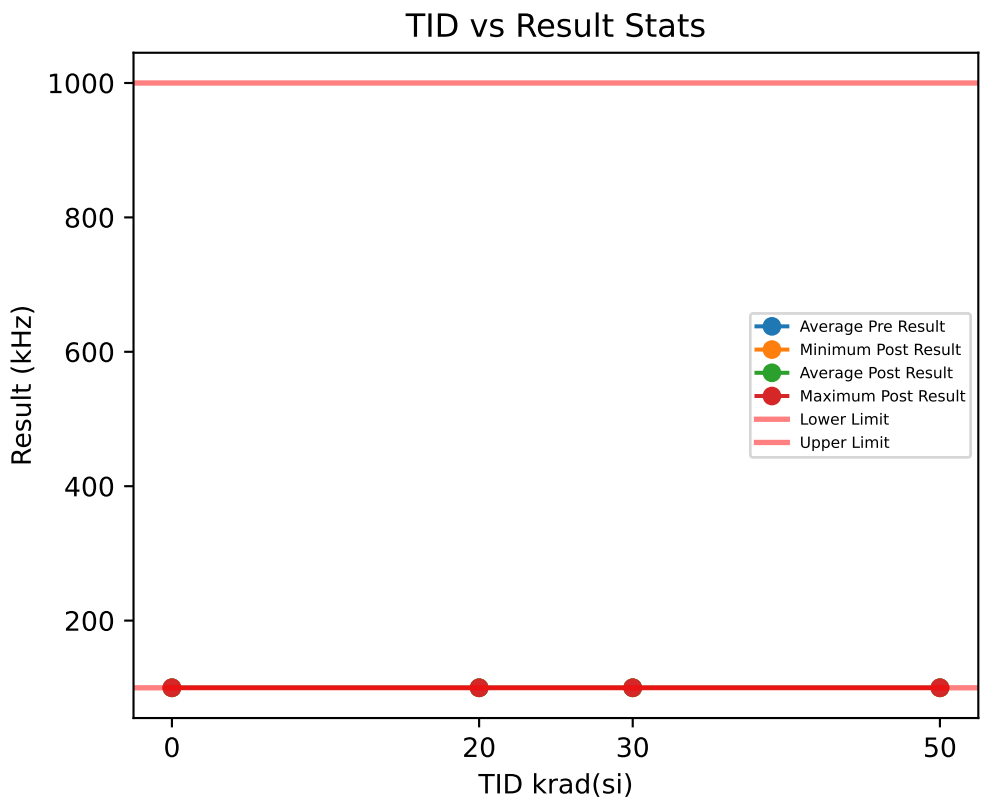
Test Results (Lower Limit = 0.4, Upper Limit = 0.6 (Decimal))

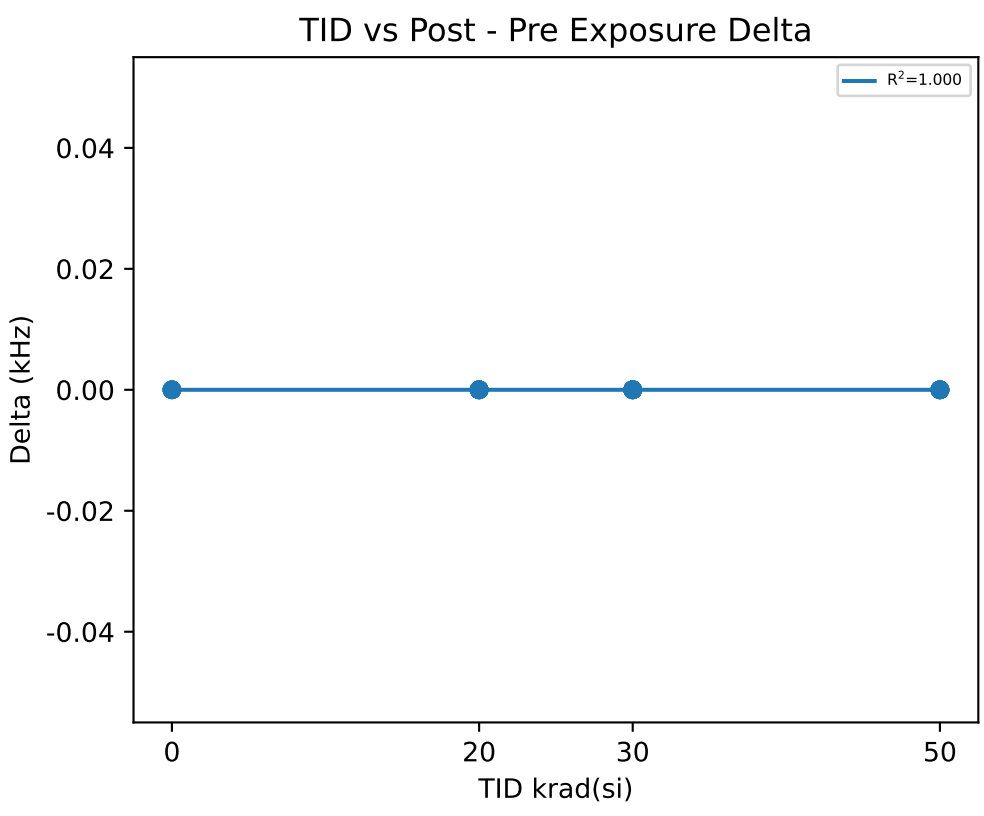
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6	0.6	0
2	20	Biased	0.6	0.6	0
3	20	Biased	0.6	0.6	0
4	20	Biased	0.6	0.6	0
5	20	Biased	0.6	0.6	0
6	20	Unbiased	0.6	0.6	0
7	20	Unbiased	0.6	0.6	0
8	20	Unbiased	0.6	0.6	0
9	20	Unbiased	0.6	0.6	0
10	20	Unbiased	0.6	0.6	0
11	30	Biased	0.6	0.6	0
12	30	Biased	0.6	0.6	0
13	30	Biased	0.6	0.6	0
14	30	Biased	0.6	0.6	0
15	30	Biased	0.6	0.6	0
16	30	Unbiased	0.6	0.6	0
17	30	Unbiased	0.6	0.6	0
18	30	Unbiased	0.6	0.6	0
19	30	Unbiased	0.6	0.6	0
20	30	Unbiased	0.6	0.6	0
27	50	Unbiased	0.6	0.6	0
28	50	Unbiased	0.6	0.6	0
29	50	Unbiased	0.6	0.6	0
30	50	Unbiased	0.6	0.6	0
31	50	Unbiased	0.6	0.6	0
77	50	Biased-84Hr-Anneal	0.6	0.6	0
78	50	Biased-84Hr-Anneal	0.6	0.6	0
79	50	Biased-84Hr-Anneal	0.6	0.6	0
80	50	Biased-84Hr-Anneal	0.6	0.6	0
81	50	Biased-84Hr-Anneal	0.6	0.6	0
100	0	CORRELATION	0.6	0.6	0
101	0	CORRELATION	0.6	0.6	0
102	0	CORRELATION	0.6	0.6	0
103	0	CORRELATION	0.6	0.6	0
104	0	CORRELATION	0.6	0.6	0

Test Statistics (Decimal)

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	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
20	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
30	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
50	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0

Device Test: 24.90 FREQ|100kHz/SYNC1/12//OPEN//@SYNC_FREQ_RANGE





Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

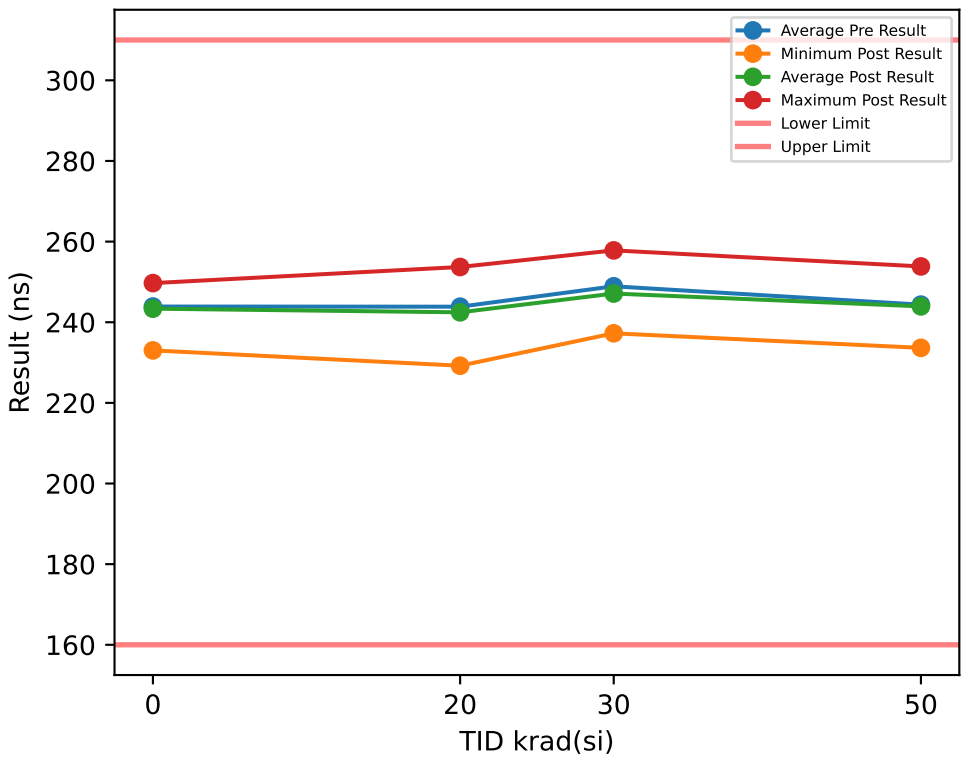
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	100	100	0
2	20	Biased	100	100	0
3	20	Biased	100	100	0
4	20	Biased	100	100	0
5	20	Biased	100	100	0
6	20	Unbiased	100	100	0
7	20	Unbiased	100	100	0
8	20	Unbiased	100	100	0
9	20	Unbiased	100	100	0
10	20	Unbiased	100	100	0
11	30	Biased	100	100	0
12	30	Biased	100	100	0
13	30	Biased	100	100	0
14	30	Biased	100	100	0
15	30	Biased	100	100	0
16	30	Unbiased	100	100	0
17	30	Unbiased	100	100	0
18	30	Unbiased	100	100	0
19	30	Unbiased	100	100	0
20	30	Unbiased	100	100	0
27	50	Unbiased	100	100	0
28	50	Unbiased	100	100	0
29	50	Unbiased	100	100	0
30	50	Unbiased	100	100	0
31	50	Unbiased	100	100	0
77	50	Biased-84Hr-Anneal	100	100	0
78	50	Biased-84Hr-Anneal	100	100	0
79	50	Biased-84Hr-Anneal	100	100	0
80	50	Biased-84Hr-Anneal	100	100	0
81	50	Biased-84Hr-Anneal	100	100	0
100	0	CORRELATION	100	100	0
101	0	CORRELATION	100	100	0
102	0	CORRELATION	100	100	0
103	0	CORRELATION	100	100	0
104	0	CORRELATION	100	100	0

Test Statistics (kHz)

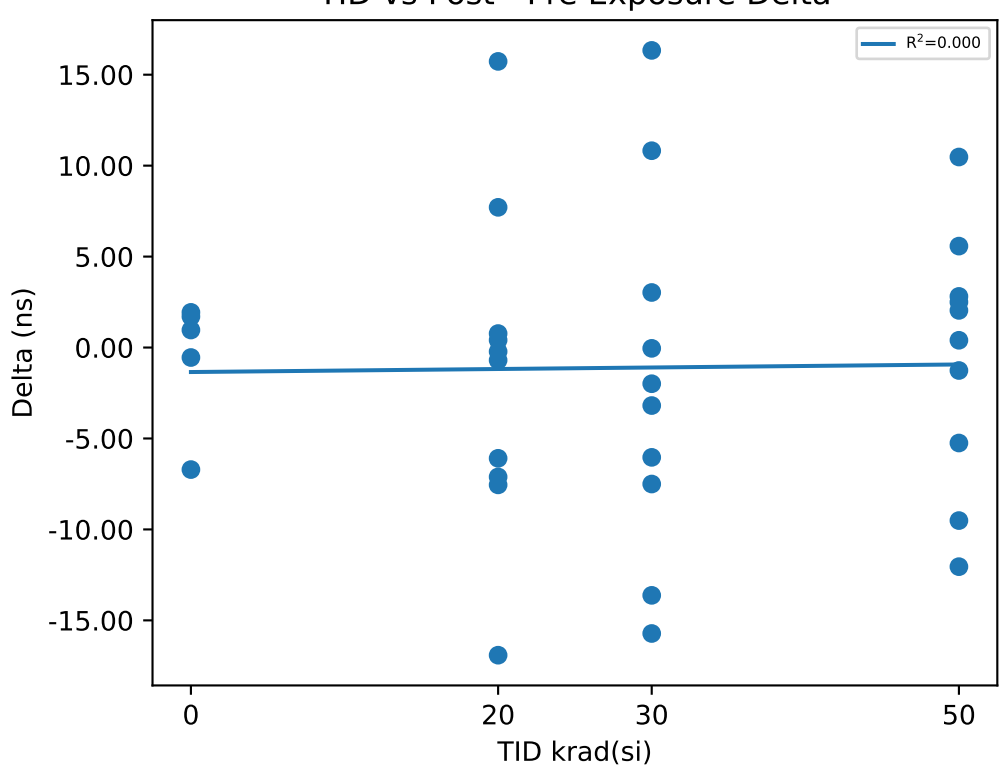
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	100	100	100	0	100	100	100	0	0	0	0	0
20	100	100	100	0	100	100	100	0	0	0	0	0
30	100	100	100	0	100	100	100	0	0	0	0	0
50	100	100	100	0	100	100	100	0	0	0	0	0

Device Test: 24.92 TIMING|DELAY/SYNC1/12//OPEN//@SYNC1_SW_DELAY_INV

TID vs Result Stats



TID vs Post - Pre Exposure Delta



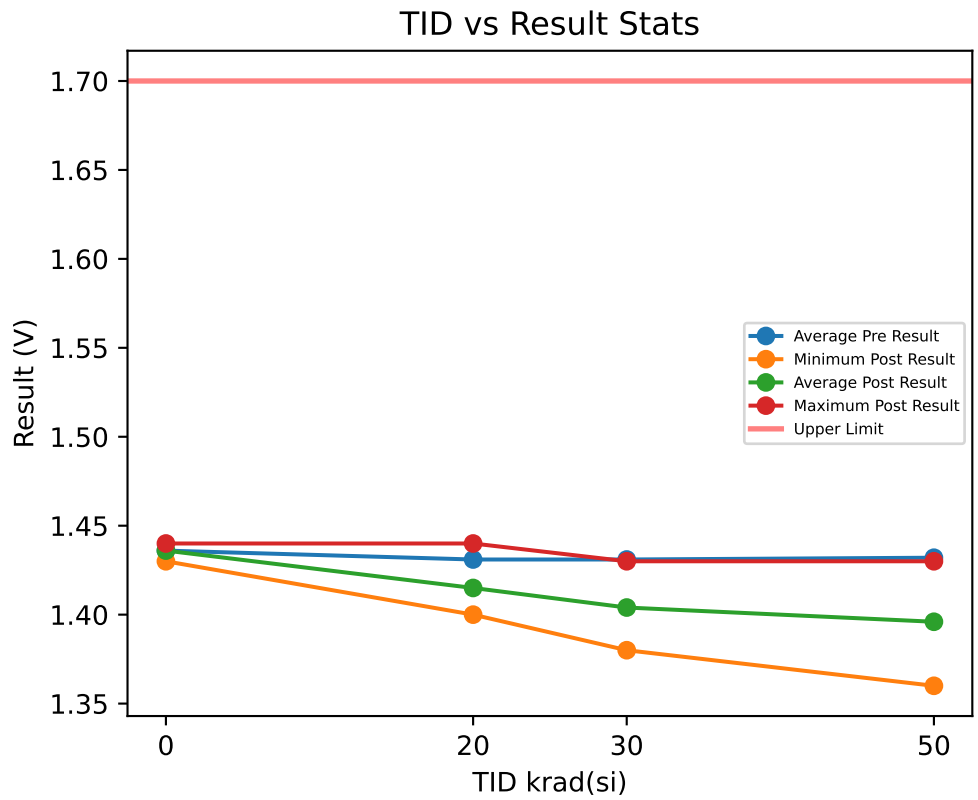
Test Results (Lower Limit = 160.0, Upper Limit = 310.0 (ns))

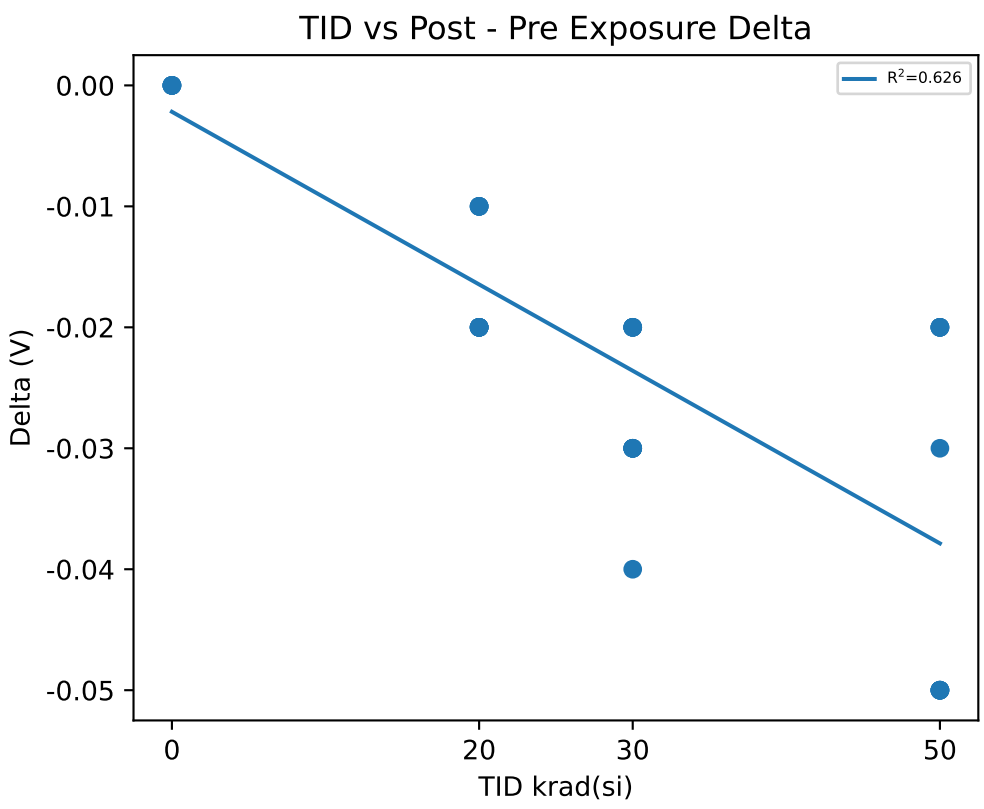
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	237.01	244.72	7.7085
2	20	Biased	253.29	253.7	0.4077
3	20	Biased	240.07	232.52	-7.5505
4	20	Biased	247.4	241.31	-6.0897
5	20	Biased	237.63	253.36	15.732
6	20	Unbiased	249.13	232.22	-16.915
7	20	Unbiased	240.01	239.79	-0.2206
8	20	Unbiased	253.13	252.43	-0.6968
9	20	Unbiased	228.45	229.22	0.769
10	20	Unbiased	252.46	245.35	-7.113
11	30	Biased	246.95	249.97	3.0267
12	30	Biased	250.88	237.25	-13.624
13	30	Biased	234.41	245.23	10.821
14	30	Biased	256.63	254.64	-1.9893
15	30	Biased	248.67	241.16	-7.5035
16	30	Unbiased	249.33	243.29	-6.0375
17	30	Unbiased	241.48	257.82	16.336
18	30	Unbiased	258.16	242.44	-15.721
19	30	Unbiased	246.3	243.11	-3.1892
20	30	Unbiased	256.3	256.26	-0.0447
27	50	Unbiased	246.07	251.65	5.5764
28	50	Unbiased	246.45	234.41	-12.047
29	50	Unbiased	234.42	244.89	10.475
30	50	Unbiased	255.11	253.84	-1.2622
31	50	Unbiased	246.13	236.61	-9.5131
77	50	Biased-84Hr-Anneal	231.15	233.65	2.4989
78	50	Biased-84Hr-Anneal	241.5	244.31	2.811
79	50	Biased-84Hr-Anneal	252.89	247.65	-5.2489
80	50	Biased-84Hr-Anneal	238.82	239.22	0.399
81	50	Biased-84Hr-Anneal	251.08	253.12	2.0416
100	0	CORRELATION	240.11	241.08	0.9632
101	0	CORRELATION	243.6	245.3	1.7063
102	0	CORRELATION	256.41	249.7	-6.7095
103	0	CORRELATION	233.57	233.02	-0.5484
104	0	CORRELATION	245.79	247.72	1.9341

Test Statistics (ns)

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	233.57	243.9	256.41	8.3874	233.02	243.36	249.7	6.6188	-6.7095	-0.53086	1.9341	3.5878
20	228.45	243.86	253.29	8.4435	229.22	242.46	253.7	9.101	-16.915	-1.3968	15.732	8.9411
30	234.41	248.91	258.16	7.3036	237.25	247.12	257.82	7.0844	-15.721	-1.7926	16.336	10.004
50	231.15	244.36	255.11	7.8613	233.65	243.94	253.84	7.6693	-12.047	-0.42691	10.475	6.8496

Device Test: 24.93 THRESHOLD|RISE/SYNC1/12//OPEN//@SYNC1_VIH





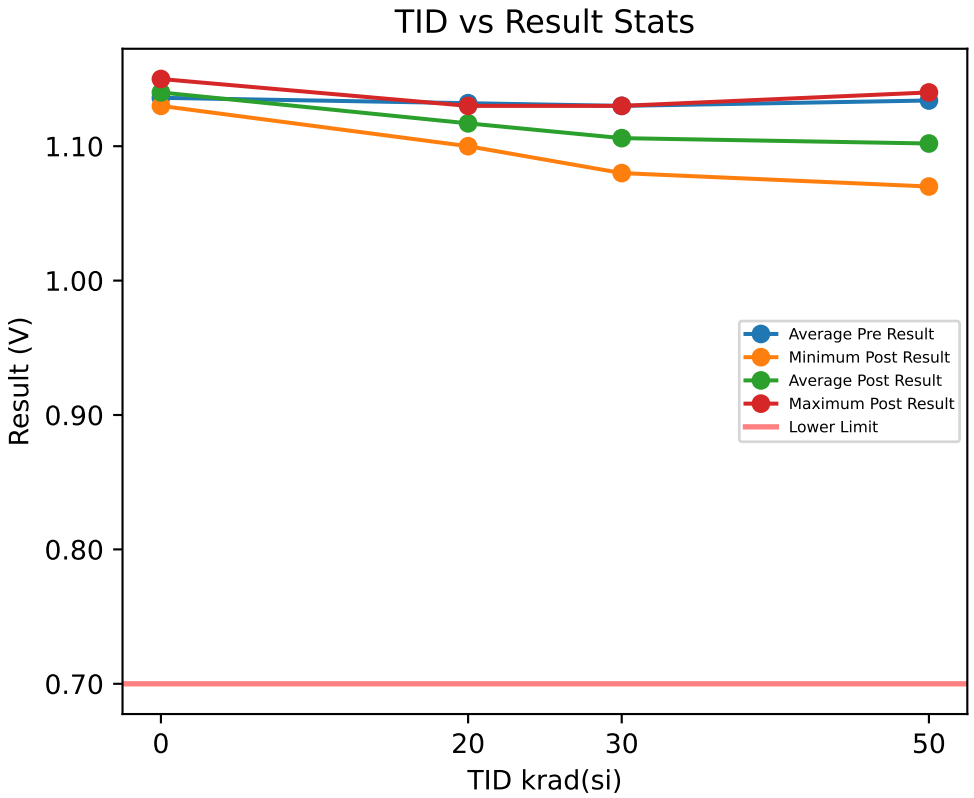
Test Results (Upper Limit = 1.7 (V))

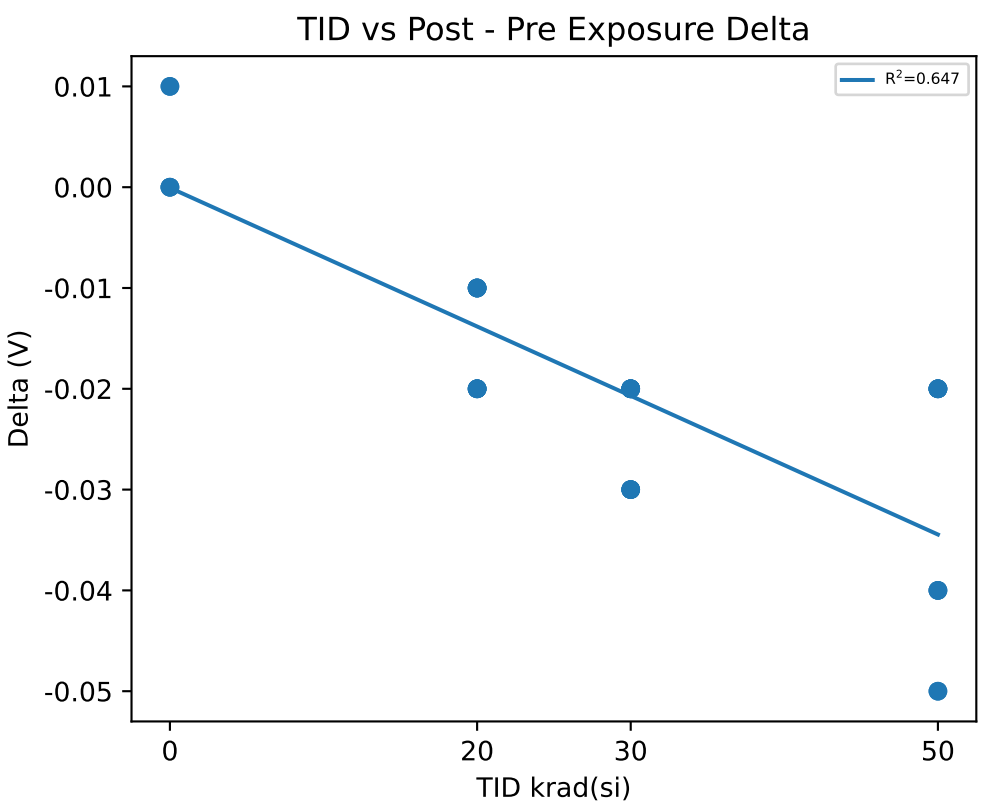
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.45	1.43	-0.02
2	20	Biased	1.42	1.41	-0.01
3	20	Biased	1.45	1.44	-0.01
4	20	Biased	1.43	1.42	-0.01
5	20	Biased	1.44	1.43	-0.01
6	20	Unbiased	1.42	1.4	-0.02
7	20	Unbiased	1.42	1.4	-0.02
8	20	Unbiased	1.42	1.4	-0.02
9	20	Unbiased	1.43	1.41	-0.02
10	20	Unbiased	1.43	1.41	-0.02
11	30	Biased	1.44	1.41	-0.03
12	30	Biased	1.44	1.42	-0.02
13	30	Biased	1.45	1.43	-0.02
14	30	Biased	1.43	1.41	-0.02
15	30	Biased	1.43	1.41	-0.02
16	30	Unbiased	1.42	1.39	-0.03
17	30	Unbiased	1.44	1.4	-0.04
18	30	Unbiased	1.43	1.4	-0.03
19	30	Unbiased	1.42	1.39	-0.03
20	30	Unbiased	1.41	1.38	-0.03
27	50	Unbiased	1.41	1.36	-0.05
28	50	Unbiased	1.42	1.37	-0.05
29	50	Unbiased	1.42	1.37	-0.05
30	50	Unbiased	1.43	1.38	-0.05
31	50	Unbiased	1.42	1.37	-0.05
77	50	Biased-84Hr-Anneal	1.46	1.43	-0.03
78	50	Biased-84Hr-Anneal	1.45	1.43	-0.02
79	50	Biased-84Hr-Anneal	1.45	1.43	-0.02
80	50	Biased-84Hr-Anneal	1.43	1.41	-0.02
81	50	Biased-84Hr-Anneal	1.43	1.41	-0.02
100	0	CORRELATION	1.43	1.43	0
101	0	CORRELATION	1.43	1.43	0
102	0	CORRELATION	1.44	1.44	0
103	0	CORRELATION	1.44	1.44	0
104	0	CORRELATION	1.44	1.44	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	1.43	1.436	1.44	0.0054772	1.43	1.436	1.44	0.0054772	0	0	0	0
20	1.42	1.431	1.45	0.011972	1.4	1.415	1.44	0.014337	-0.02	-0.016	-0.01	0.005164
30	1.41	1.431	1.45	0.011972	1.38	1.404	1.43	0.015055	-0.04	-0.027	-0.02	0.0067495
50	1.41	1.432	1.46	0.016193	1.36	1.396	1.43	0.028752	-0.05	-0.036	-0.02	0.015055

Device Test: 24.94 THRESHOLD|FALL/SYNC1/12//OPEN//@SYNC1_VIL





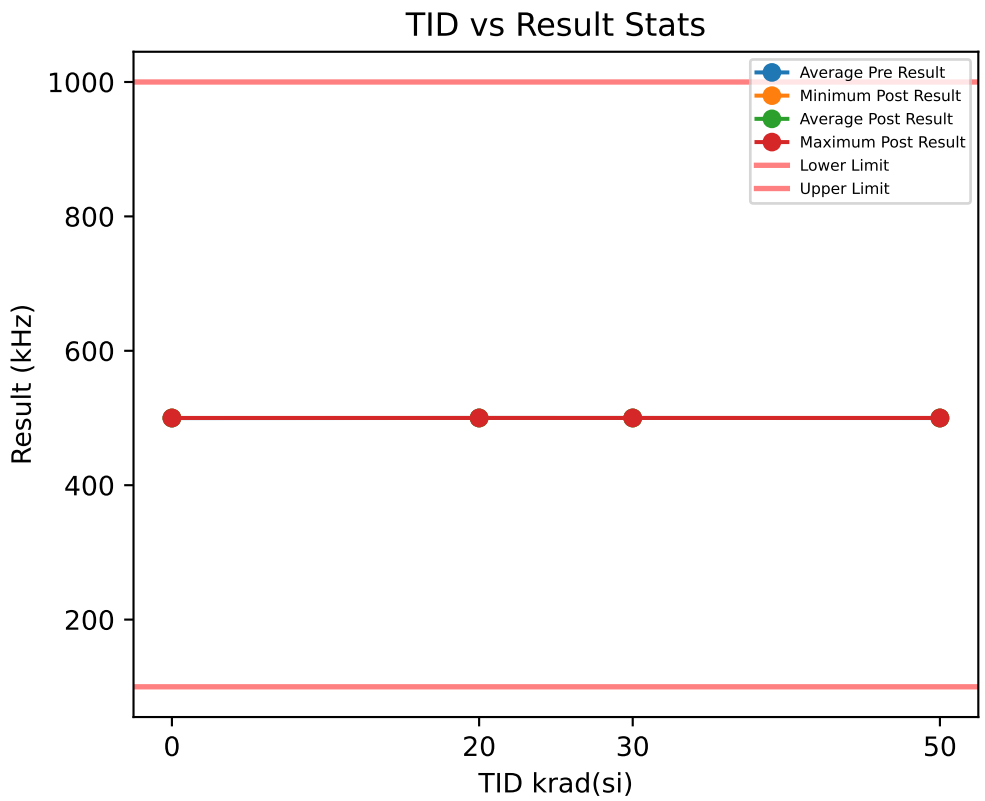
Test Results (Lower Limit = 0.7 (V))

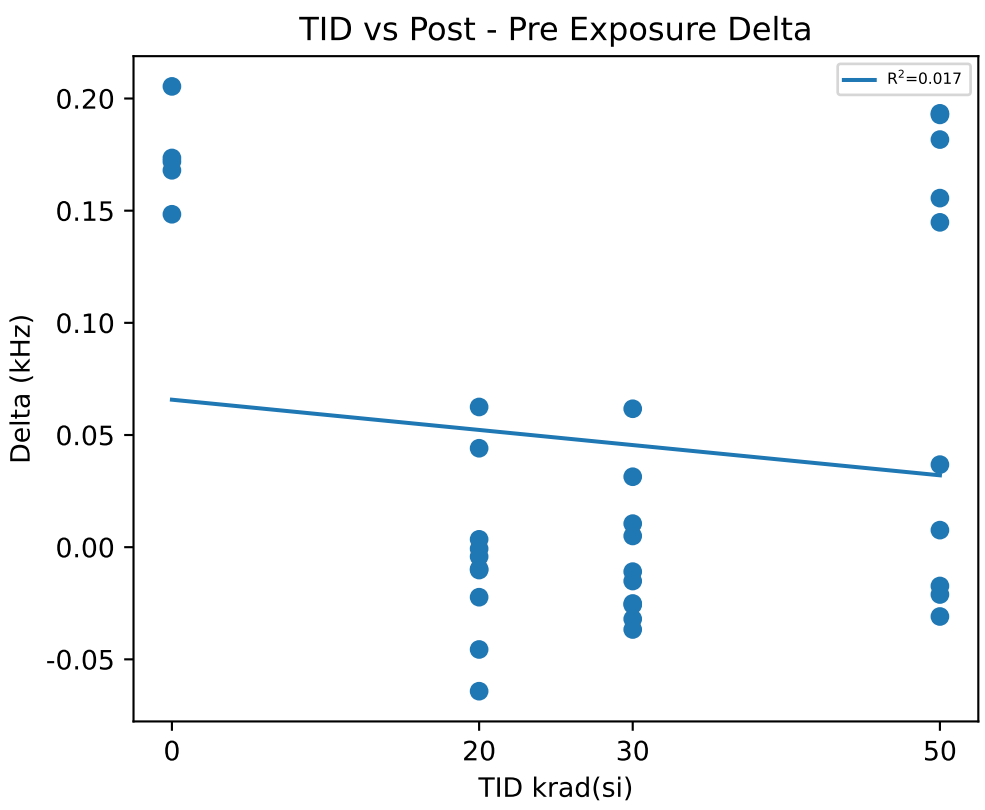
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1.15	1.13	-0.02
2	20	Biased	1.12	1.11	-0.01
3	20	Biased	1.14	1.13	-0.01
4	20	Biased	1.14	1.13	-0.01
5	20	Biased	1.14	1.13	-0.01
6	20	Unbiased	1.12	1.1	-0.02
7	20	Unbiased	1.12	1.1	-0.02
8	20	Unbiased	1.12	1.1	-0.02
9	20	Unbiased	1.14	1.12	-0.02
10	20	Unbiased	1.13	1.12	-0.01
11	30	Biased	1.14	1.12	-0.02
12	30	Biased	1.14	1.12	-0.02
13	30	Biased	1.15	1.13	-0.02
14	30	Biased	1.13	1.11	-0.02
15	30	Biased	1.13	1.11	-0.02
16	30	Unbiased	1.12	1.1	-0.02
17	30	Unbiased	1.13	1.1	-0.03
18	30	Unbiased	1.13	1.1	-0.03
19	30	Unbiased	1.12	1.09	-0.03
20	30	Unbiased	1.11	1.08	-0.03
27	50	Unbiased	1.12	1.07	-0.05
28	50	Unbiased	1.11	1.07	-0.04
29	50	Unbiased	1.12	1.08	-0.04
30	50	Unbiased	1.14	1.09	-0.05
31	50	Unbiased	1.12	1.08	-0.04
77	50	Biased-84Hr-Anneal	1.16	1.14	-0.02
78	50	Biased-84Hr-Anneal	1.15	1.13	-0.02
79	50	Biased-84Hr-Anneal	1.15	1.13	-0.02
80	50	Biased-84Hr-Anneal	1.14	1.12	-0.02
81	50	Biased-84Hr-Anneal	1.13	1.11	-0.02
100	0	CORRELATION	1.13	1.14	0.01
101	0	CORRELATION	1.13	1.13	0
102	0	CORRELATION	1.14	1.14	0
103	0	CORRELATION	1.14	1.15	0.01
104	0	CORRELATION	1.14	1.14	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	1.13	1.136	1.14	0.0054772	1.13	1.14	1.15	0.0070711	0	0.004	0.01	0.0054772
20	1.12	1.132	1.15	0.011353	1.1	1.117	1.13	0.013375	-0.02	-0.015	-0.01	0.0052705
30	1.11	1.13	1.15	0.011547	1.08	1.106	1.13	0.015055	-0.03	-0.024	-0.02	0.005164
50	1.11	1.134	1.16	0.016465	1.07	1.102	1.14	0.026998	-0.05	-0.032	-0.02	0.013166

Device Test: 24.95 FREQ|500kHz/SYNC1/12//OPEN//@SYNC_FREQ_RANGE





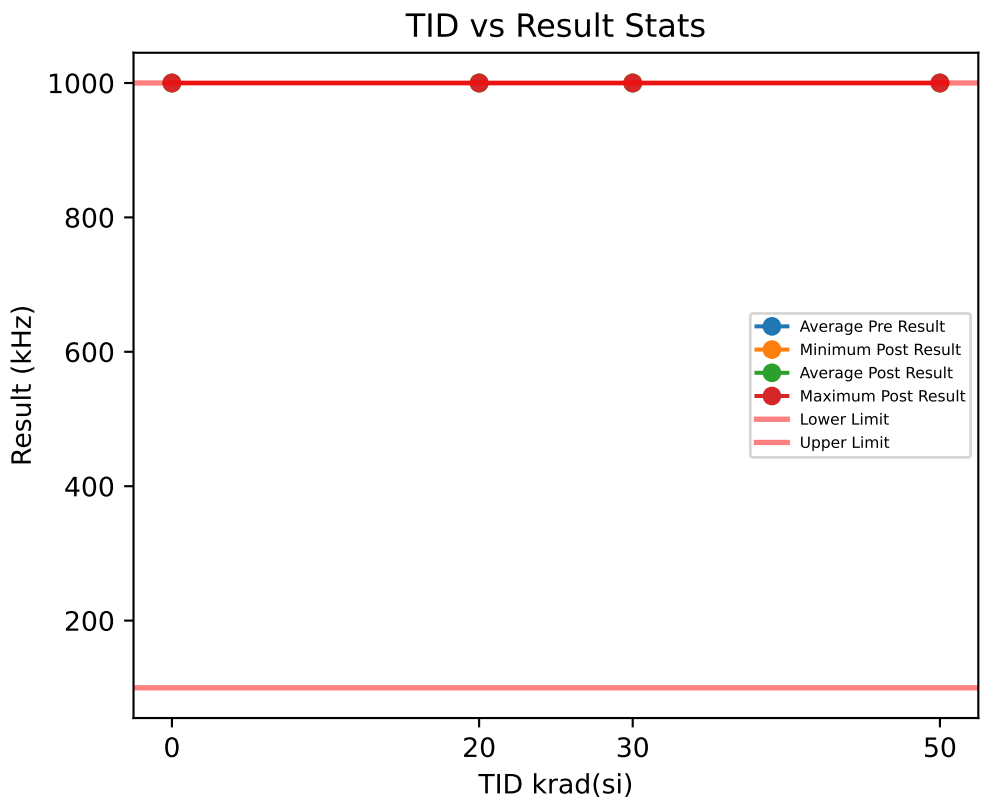
Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

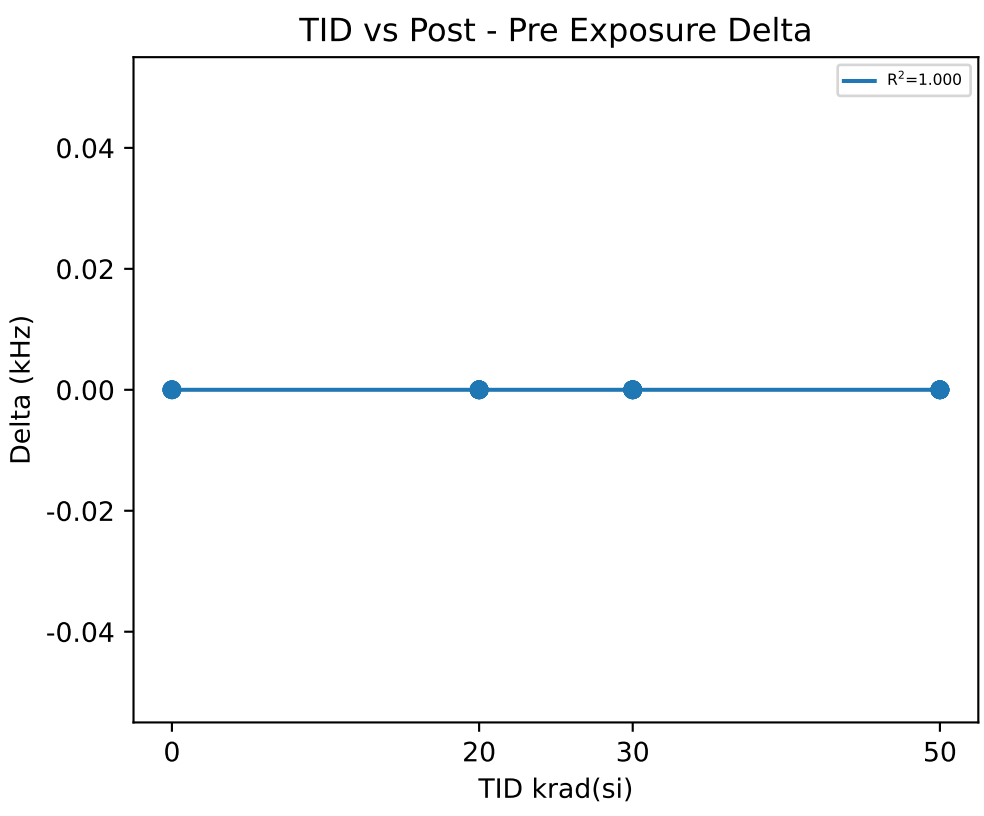
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	500.01	500.07	0.0625
2	20	Biased	500.04	500.05	0.0035
3	20	Biased	500.04	500.03	-0.0097
4	20	Biased	500.05	500.04	-0.0102
5	20	Biased	500.04	500.04	-0.0007
6	20	Unbiased	500.05	500.01	-0.0456
7	20	Unbiased	500.09	500.03	-0.0642
8	20	Unbiased	500.01	500.05	0.0441
9	20	Unbiased	500.04	500.01	-0.0223
10	20	Unbiased	500.05	500.05	-0.0042
11	30	Biased	500.02	500.02	0.005
12	30	Biased	500.05	500.02	-0.0257
13	30	Biased	500	500.06	0.0617
14	30	Biased	500.03	500.02	-0.0151
15	30	Biased	500.06	500.03	-0.032
16	30	Unbiased	500.01	500.04	0.0314
17	30	Unbiased	500.02	500.03	0.0105
18	30	Unbiased	500.05	500.01	-0.0367
19	30	Unbiased	500.04	500.03	-0.0109
20	30	Unbiased	500.05	500.03	-0.0251
27	50	Unbiased	500.04	500.05	0.0076
28	50	Unbiased	500.03	500.01	-0.0211
29	50	Unbiased	499.98	500.02	0.0368
30	50	Unbiased	500.05	500.03	-0.0173
31	50	Unbiased	500.04	500.01	-0.0309
77	50	Biased-84Hr-Anneal	499.83	500.02	0.1927
78	50	Biased-84Hr-Anneal	499.85	500.03	0.1817
79	50	Biased-84Hr-Anneal	499.85	500.04	0.1934
80	50	Biased-84Hr-Anneal	499.86	500.01	0.1556
81	50	Biased-84Hr-Anneal	499.89	500.04	0.1448
100	0	CORRELATION	499.84	500.01	0.168
101	0	CORRELATION	499.87	500.02	0.1484
102	0	CORRELATION	499.83	500.04	0.2054
103	0	CORRELATION	499.84	500.02	0.1735
104	0	CORRELATION	499.85	500.02	0.1719

Test Statistics (kHz)

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	499.83	499.85	499.87	0.013971	500.01	500.02	500.04	0.010329	0.1484	0.17344	0.2054	0.020496
20	500.01	500.04	500.09	0.023212	500.01	500.04	500.07	0.019365	-0.0642	-0.00468	0.0625	0.037355
30	500	500.03	500.06	0.020425	500.01	500.03	500.06	0.013186	-0.0367	-0.00369	0.0617	0.03127
50	499.83	499.94	500.05	0.094129	500.01	500.03	500.05	0.013734	-0.0309	0.08433	0.1934	0.097026

Device Test: 24.96 FREQ|1000kHz/SYNC1/12//OPEN//@SYNC_FREQ_RANGE





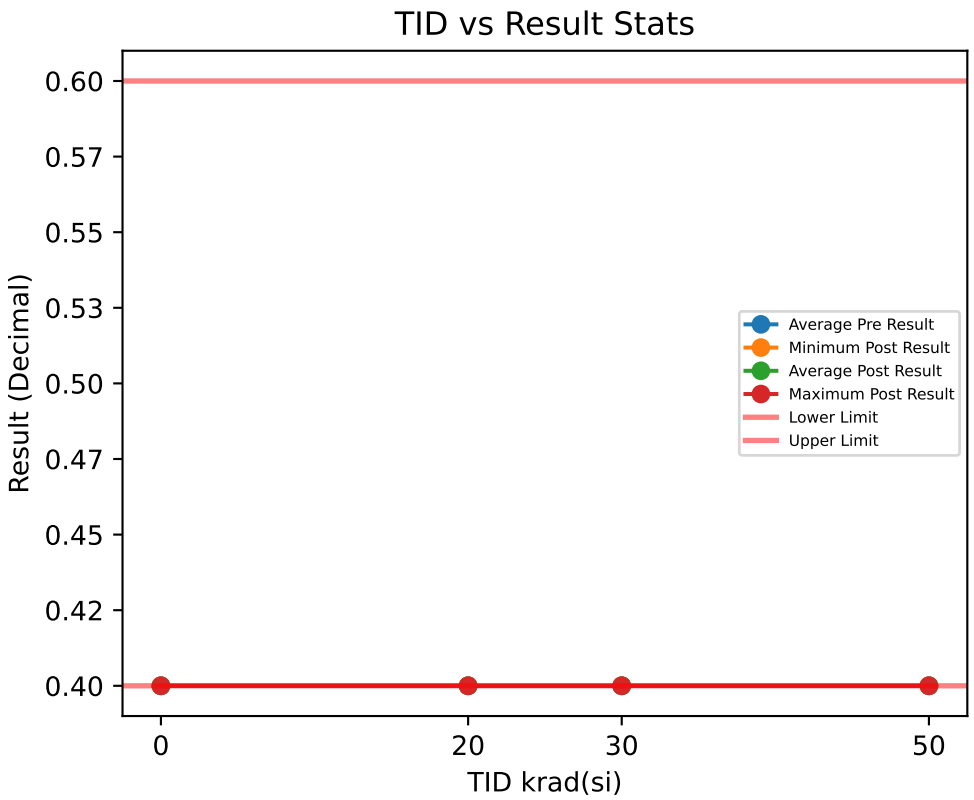
Test Results (Lower Limit = 100.0, Upper Limit = 1000.0 (kHz))

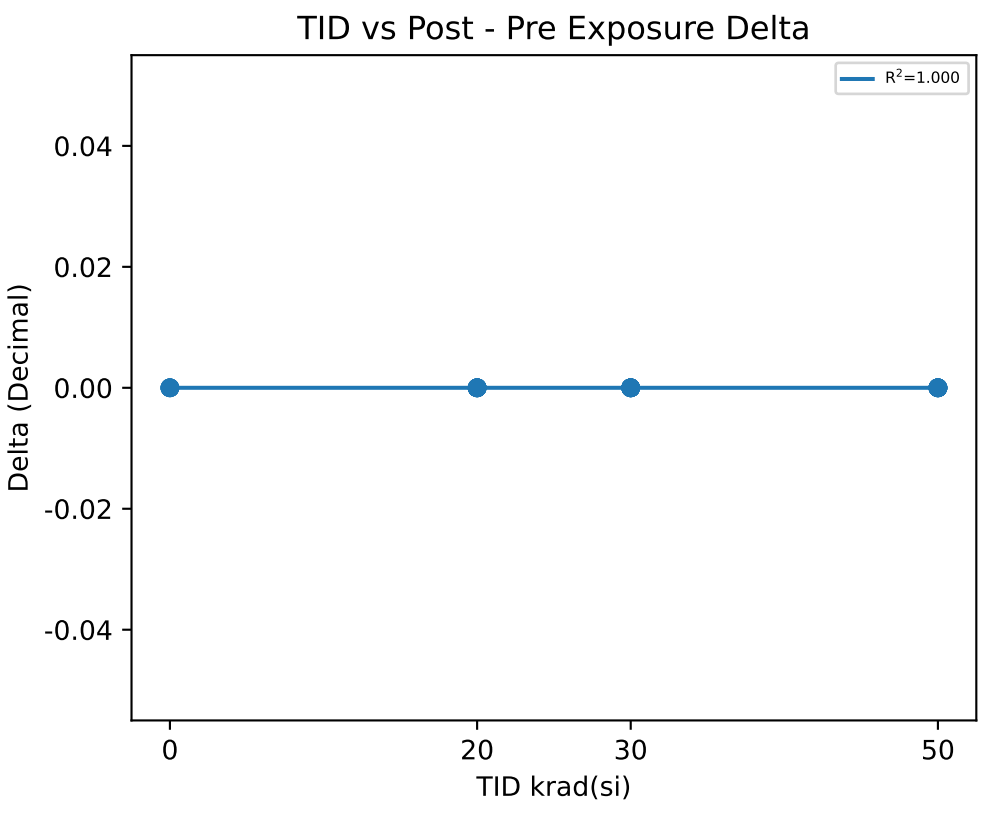
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	1000	1000	0
2	20	Biased	1000	1000	0
3	20	Biased	1000	1000	0
4	20	Biased	1000	1000	0
5	20	Biased	1000	1000	0
6	20	Unbiased	1000	1000	0
7	20	Unbiased	1000	1000	0
8	20	Unbiased	1000	1000	0
9	20	Unbiased	1000	1000	0
10	20	Unbiased	1000	1000	0
11	30	Biased	1000	1000	0
12	30	Biased	1000	1000	0
13	30	Biased	1000	1000	0
14	30	Biased	1000	1000	0
15	30	Biased	1000	1000	0
16	30	Unbiased	1000	1000	0
17	30	Unbiased	1000	1000	0
18	30	Unbiased	1000	1000	0
19	30	Unbiased	1000	1000	0
20	30	Unbiased	1000	1000	0
27	50	Unbiased	1000	1000	0
28	50	Unbiased	1000	1000	0
29	50	Unbiased	1000	1000	0
30	50	Unbiased	1000	1000	0
31	50	Unbiased	1000	1000	0
77	50	Biased-84Hr-Anneal	1000	1000	0
78	50	Biased-84Hr-Anneal	1000	1000	0
79	50	Biased-84Hr-Anneal	1000	1000	0
80	50	Biased-84Hr-Anneal	1000	1000	0
81	50	Biased-84Hr-Anneal	1000	1000	0
100	0	CORRELATION	1000	1000	0
101	0	CORRELATION	1000	1000	0
102	0	CORRELATION	1000	1000	0
103	0	CORRELATION	1000	1000	0
104	0	CORRELATION	1000	1000	0

Test Statistics (kHz)

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	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
20	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
30	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0
50	1000	1000	1000	0	1000	1000	1000	0	0	0	0	0

Device Test: 24.97 DUTYCYCLE|GNG_40dml/SYNC1/12//OPEN//@SYNC_IN_DUTY_CYCLE_RANGE





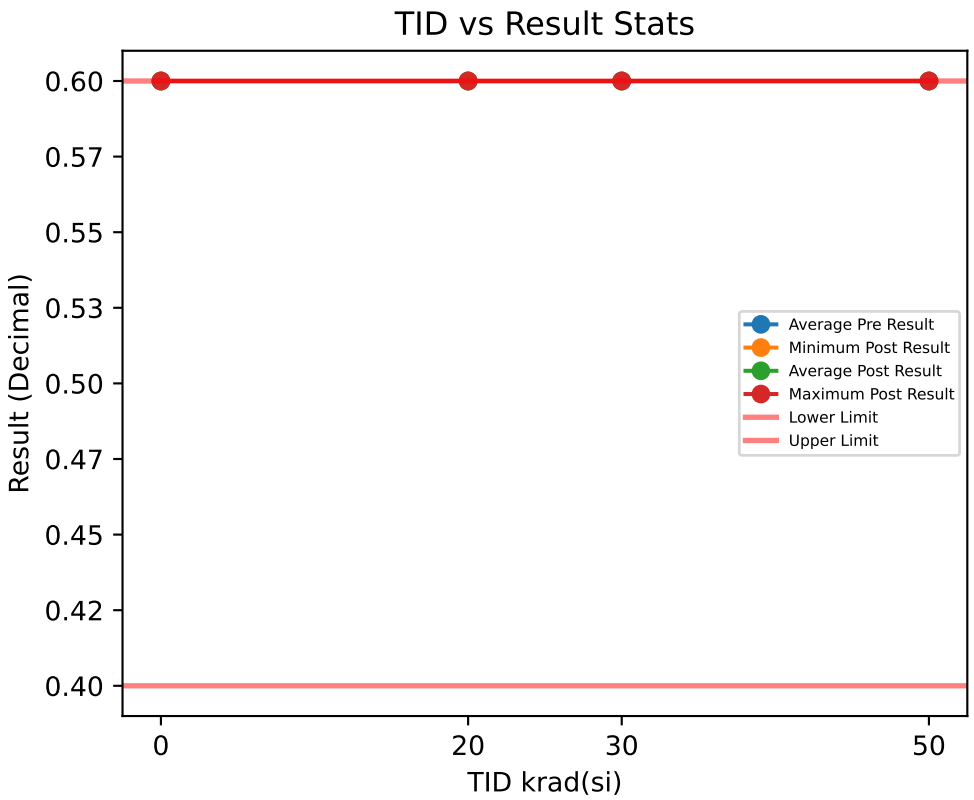
Test Results (Lower Limit = 0.4, Upper Limit = 0.6 (Decimal))

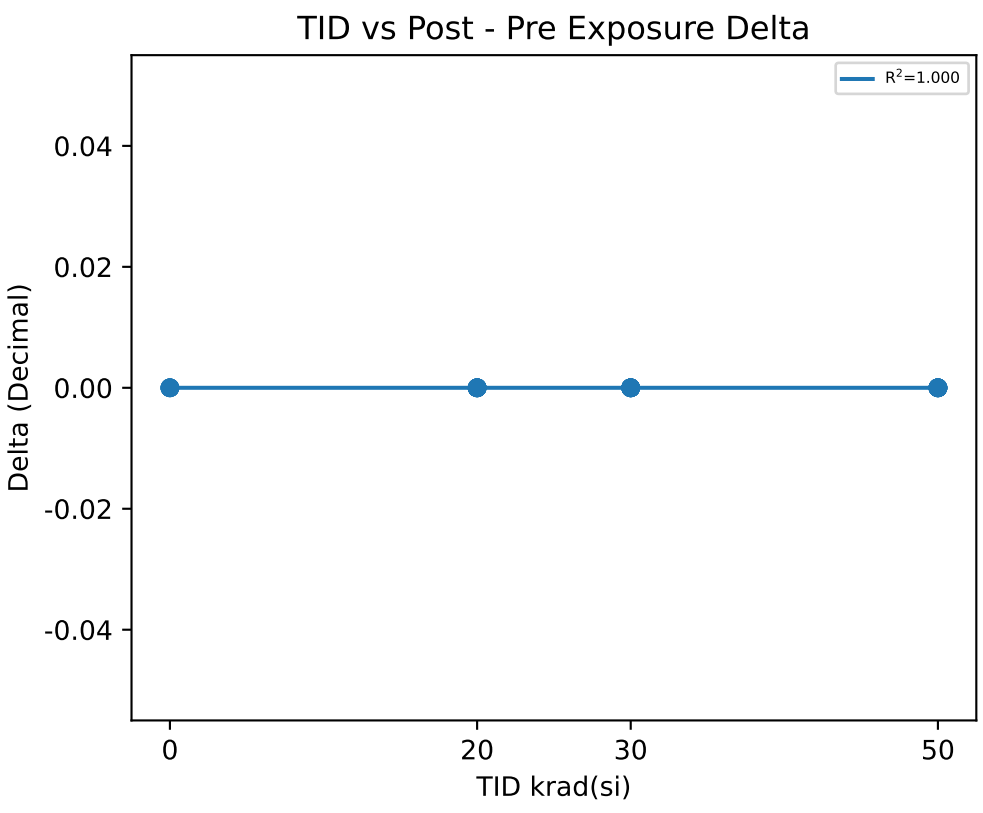
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.4	0.4	0
2	20	Biased	0.4	0.4	0
3	20	Biased	0.4	0.4	0
4	20	Biased	0.4	0.4	0
5	20	Biased	0.4	0.4	0
6	20	Unbiased	0.4	0.4	0
7	20	Unbiased	0.4	0.4	0
8	20	Unbiased	0.4	0.4	0
9	20	Unbiased	0.4	0.4	0
10	20	Unbiased	0.4	0.4	0
11	30	Biased	0.4	0.4	0
12	30	Biased	0.4	0.4	0
13	30	Biased	0.4	0.4	0
14	30	Biased	0.4	0.4	0
15	30	Biased	0.4	0.4	0
16	30	Unbiased	0.4	0.4	0
17	30	Unbiased	0.4	0.4	0
18	30	Unbiased	0.4	0.4	0
19	30	Unbiased	0.4	0.4	0
20	30	Unbiased	0.4	0.4	0
27	50	Unbiased	0.4	0.4	0
28	50	Unbiased	0.4	0.4	0
29	50	Unbiased	0.4	0.4	0
30	50	Unbiased	0.4	0.4	0
31	50	Unbiased	0.4	0.4	0
77	50	Biased-84Hr-Anneal	0.4	0.4	0
78	50	Biased-84Hr-Anneal	0.4	0.4	0
79	50	Biased-84Hr-Anneal	0.4	0.4	0
80	50	Biased-84Hr-Anneal	0.4	0.4	0
81	50	Biased-84Hr-Anneal	0.4	0.4	0
100	0	CORRELATION	0.4	0.4	0
101	0	CORRELATION	0.4	0.4	0
102	0	CORRELATION	0.4	0.4	0
103	0	CORRELATION	0.4	0.4	0
104	0	CORRELATION	0.4	0.4	0

Test Statistics (Decimal)

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	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
20	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
30	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0
50	0.4	0.4	0.4	0	0.4	0.4	0.4	0	0	0	0	0

Device Test: 24.98 DUTYCYCLE|GNG_60dml/SYNC1/12//OPEN//@SYNC_IN_DUTY_CYCLE_RANGE





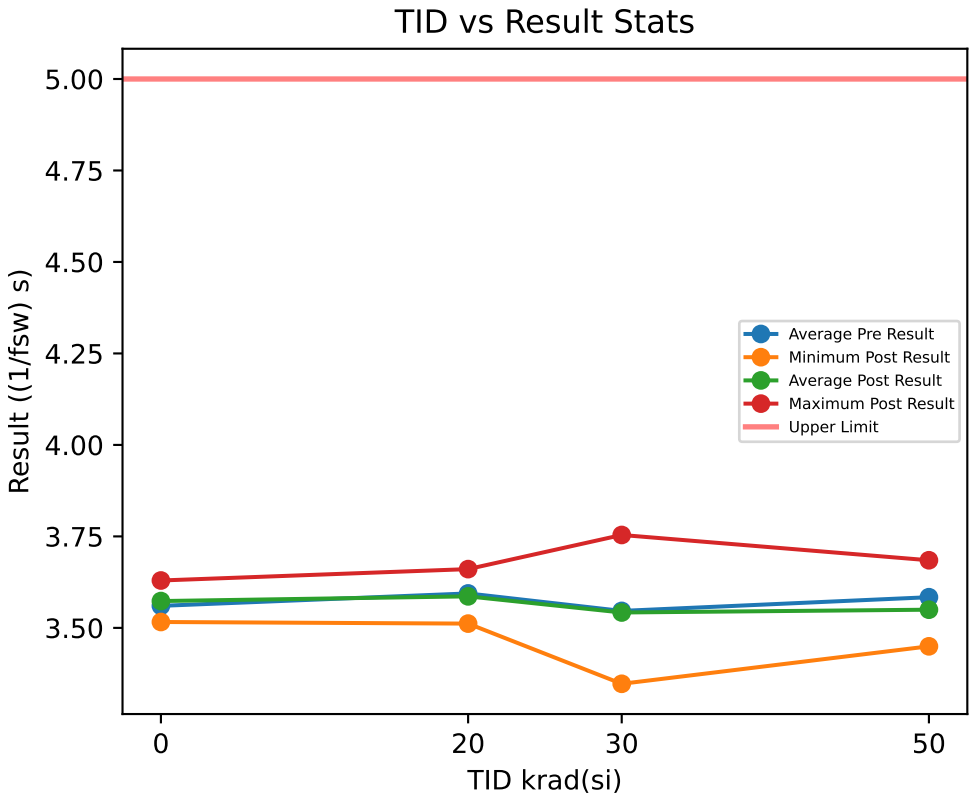
Test Results (Lower Limit = 0.4, Upper Limit = 0.6 (Decimal))

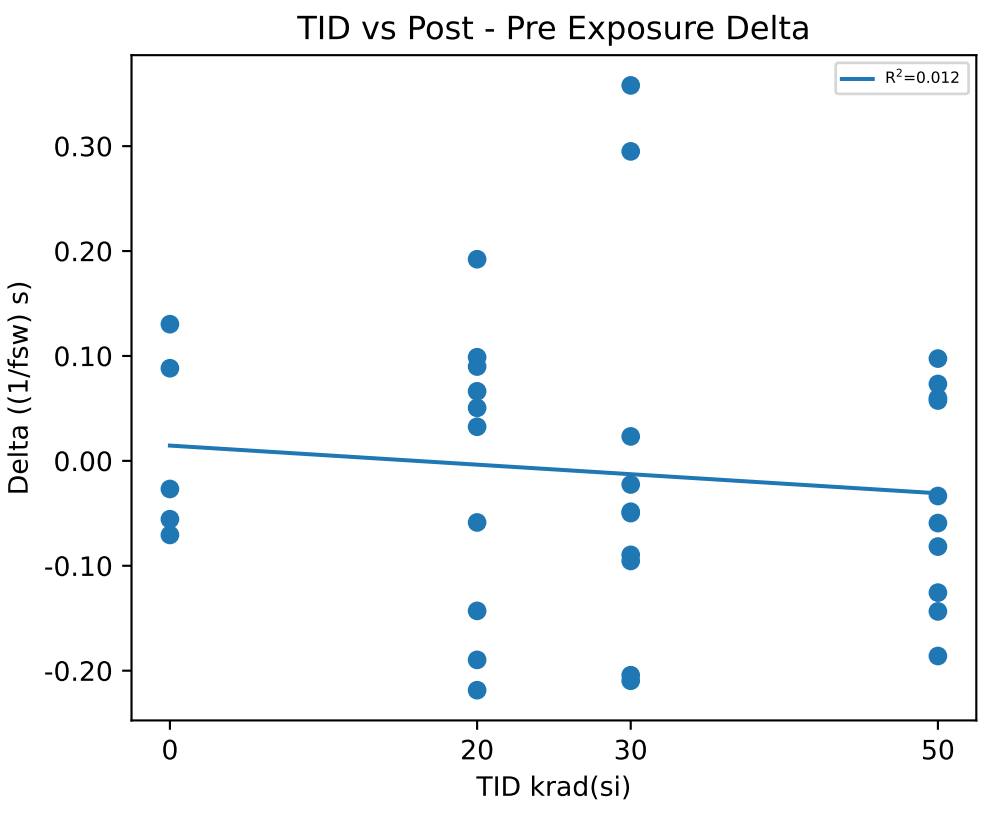
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	0.6	0.6	0
2	20	Biased	0.6	0.6	0
3	20	Biased	0.6	0.6	0
4	20	Biased	0.6	0.6	0
5	20	Biased	0.6	0.6	0
6	20	Unbiased	0.6	0.6	0
7	20	Unbiased	0.6	0.6	0
8	20	Unbiased	0.6	0.6	0
9	20	Unbiased	0.6	0.6	0
10	20	Unbiased	0.6	0.6	0
11	30	Biased	0.6	0.6	0
12	30	Biased	0.6	0.6	0
13	30	Biased	0.6	0.6	0
14	30	Biased	0.6	0.6	0
15	30	Biased	0.6	0.6	0
16	30	Unbiased	0.6	0.6	0
17	30	Unbiased	0.6	0.6	0
18	30	Unbiased	0.6	0.6	0
19	30	Unbiased	0.6	0.6	0
20	30	Unbiased	0.6	0.6	0
27	50	Unbiased	0.6	0.6	0
28	50	Unbiased	0.6	0.6	0
29	50	Unbiased	0.6	0.6	0
30	50	Unbiased	0.6	0.6	0
31	50	Unbiased	0.6	0.6	0
77	50	Biased-84Hr-Anneal	0.6	0.6	0
78	50	Biased-84Hr-Anneal	0.6	0.6	0
79	50	Biased-84Hr-Anneal	0.6	0.6	0
80	50	Biased-84Hr-Anneal	0.6	0.6	0
81	50	Biased-84Hr-Anneal	0.6	0.6	0
100	0	CORRELATION	0.6	0.6	0
101	0	CORRELATION	0.6	0.6	0
102	0	CORRELATION	0.6	0.6	0
103	0	CORRELATION	0.6	0.6	0
104	0	CORRELATION	0.6	0.6	0

Test Statistics (Decimal)

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	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
20	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
30	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0
50	0.6	0.6	0.6	0	0.6	0.6	0.6	0	0	0	0	0

Device Test: 24.99 TIMING|CLKDETECT/SYNC1/12//511k//@T_CLOCK_DET





Test Results (Upper Limit = 5.0 ((1/fsw) s))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	Biased	3.4454	3.6376	0.1922
2	20	Biased	3.5064	3.5569	0.0505
3	20	Biased	3.5069	3.5968	0.0899
4	20	Biased	3.4621	3.5609	0.0988
5	20	Biased	3.8036	3.6606	-0.143
6	20	Unbiased	3.7049	3.6462	-0.0587
7	20	Unbiased	3.514	3.5465	0.0325
8	20	Unbiased	3.5225	3.5888	0.0663
9	20	Unbiased	3.7014	3.5117	-0.1897
10	20	Unbiased	3.7742	3.5556	-0.2186
11	30	Biased	3.7029	3.4986	-0.2043
12	30	Biased	3.5625	3.4729	-0.0896
13	30	Biased	3.5568	3.3472	-0.2096
14	30	Biased	3.648	3.5982	-0.0498
15	30	Biased	3.3167	3.6117	0.295
16	30	Unbiased	3.595	3.5465	-0.0485
17	30	Unbiased	3.396	3.7539	0.3579
18	30	Unbiased	3.5417	3.565	0.0233
19	30	Unbiased	3.5629	3.4675	-0.0954
20	30	Unbiased	3.5815	3.559	-0.0225
27	50	Unbiased	3.6545	3.4685	-0.186
28	50	Unbiased	3.5595	3.657	0.0975
29	50	Unbiased	3.5064	3.5797	0.0733
30	50	Unbiased	3.5255	3.492	-0.0335
31	50	Unbiased	3.6081	3.4646	-0.1435
77	50	Biased-84Hr-Anneal	3.5089	3.4496	-0.0593
78	50	Biased-84Hr-Anneal	3.6624	3.5807	-0.0817
79	50	Biased-84Hr-Anneal	3.4982	3.5557	0.0575
80	50	Biased-84Hr-Anneal	3.6899	3.5643	-0.1256
81	50	Biased-84Hr-Anneal	3.625	3.6848	0.0598
100	0	CORRELATION	3.4992	3.6295	0.1303
101	0	CORRELATION	3.5156	3.6039	0.0883
102	0	CORRELATION	3.6059	3.5503	-0.0556
103	0	CORRELATION	3.6374	3.5668	-0.0706
104	0	CORRELATION	3.5429	3.5161	-0.0268

Test Statistics ((1/fsw) s)

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	3.4992	3.5602	3.6374	0.059283	3.5161	3.5733	3.6295	0.044547	-0.0706	0.01312	0.1303	0.090427
20	3.4454	3.5941	3.8036	0.13601	3.5117	3.5862	3.6606	0.048828	-0.2186	-0.00798	0.1922	0.13736
30	3.3167	3.5464	3.7029	0.11277	3.3472	3.542	3.7539	0.10745	-0.2096	-0.00435	0.3579	0.18962
50	3.4982	3.5838	3.6899	0.072755	3.4496	3.5497	3.6848	0.081008	-0.186	-0.03415	0.0975	0.10131

6 Revision History

NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

Changes from Revision A (December 2025) to Revision B (June 2026)	Page
• Updated bias diagram	4
• Updated electrical characteristics table	6

Changes from Revision * (November 2025) to Revision A (December 2025)	Page
• Corrected device information	2
• Added test numbers to electrical characteristics table	6
• Updated appendix data	14

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