

# TPS7H6101-SEP Total Ionizing Dose (TID) Radiation Report



## ABSTRACT

This report discusses the results of the total ionizing dose (TID) testing for the Texas Instruments TPS7H6101-SEP, 200V e-mode GaN power-FET half bridge with integrated gate driver. The study was done to determine TID effects under high dose rate (HDR) up to 50krad(Si). 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 TPS7H6101-SEP is a radiation-tolerant 200V e-mode GaN power-FET half bridge with integrated gate driver. Integration of the e-mode GaN FETs and gate driver simplifies design, reduces component count, and reduces board space. The LGA package is 12mm by 9mm.

## 1.2 Device Details

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

**Table 1-1. Device and Exposure Details**

TID HDR Details: up to 50 krad(Si)	
TI Device Family	TPS7H6101-SEP
TI Part Name	TPS7H6101MNPRTSEPM
Package	64-pin LGA (NPR)
Technology	Linear BiCMOS 7 (LBC7) and GaN
Quantity Tested	30 Irradiated units + 4 Control Units
Lot Accept/Reject	All levels tested and passed 20, 30, and 50 krad(Si)
HDR Radiation Facility	DCLAB - Texas Instruments, Dallas, TX
HDR Dose Level	20krad, 30krad, 50Krad (Si)
HDR Dose Rate	171.6rads(Si)/s
HDR Radiation Source	Gammacell 220 Excel (GC-220E) Co-60
Irradiation Temperature	Ambient room temperature



**Figure 1-1. TPS7H6101-SEP Device**

## 2 Total Dose Test Setup

### 2.1 Test Overview

The TPS7H6101-SEP was tested according to MIL-STD-883, Test Method 1019.9. For this testing, Condition A was used. For Condition A, the product was irradiated up to target radiation level and then put through full electrical parametric testing on the production Automated Test Equipment (ATE). All devices were functional and passed all electrical parametric tests with the readings within the data sheet electrical specification limits.

### 2.2 Test Description and Facilities

HDR exposure was performed on biased and unbiased devices in a Co-60 gamma cell at TI facility in Dallas CLAB (DCLAB), Texas. The un-attenuated dose rate of this cell is 171.6 rads(Si)/s. After exposure, the devices were packed in dry ice (per MIL-STD-883 Method 1019.9 section 3.10) and brought to Junkins lab in TI Dallas for full post-radiation electrical evaluation using Texas Instruments ATE. ATE test limits are set per data sheet electrical limits based on qualification and characterization data. Post-radiation measurements were taken within 30 minutes of removing the devices from the dry ice container. The devices were allowed to reach room temperature prior to electrical post-radiation measurements.

## 2.3 Test Setup Details

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

### 2.3.1 Unbiased

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

### 2.3.2 Biased

Figure 2-1 and Figure 2-2 show the biased diagram that was used for HDR exposure.

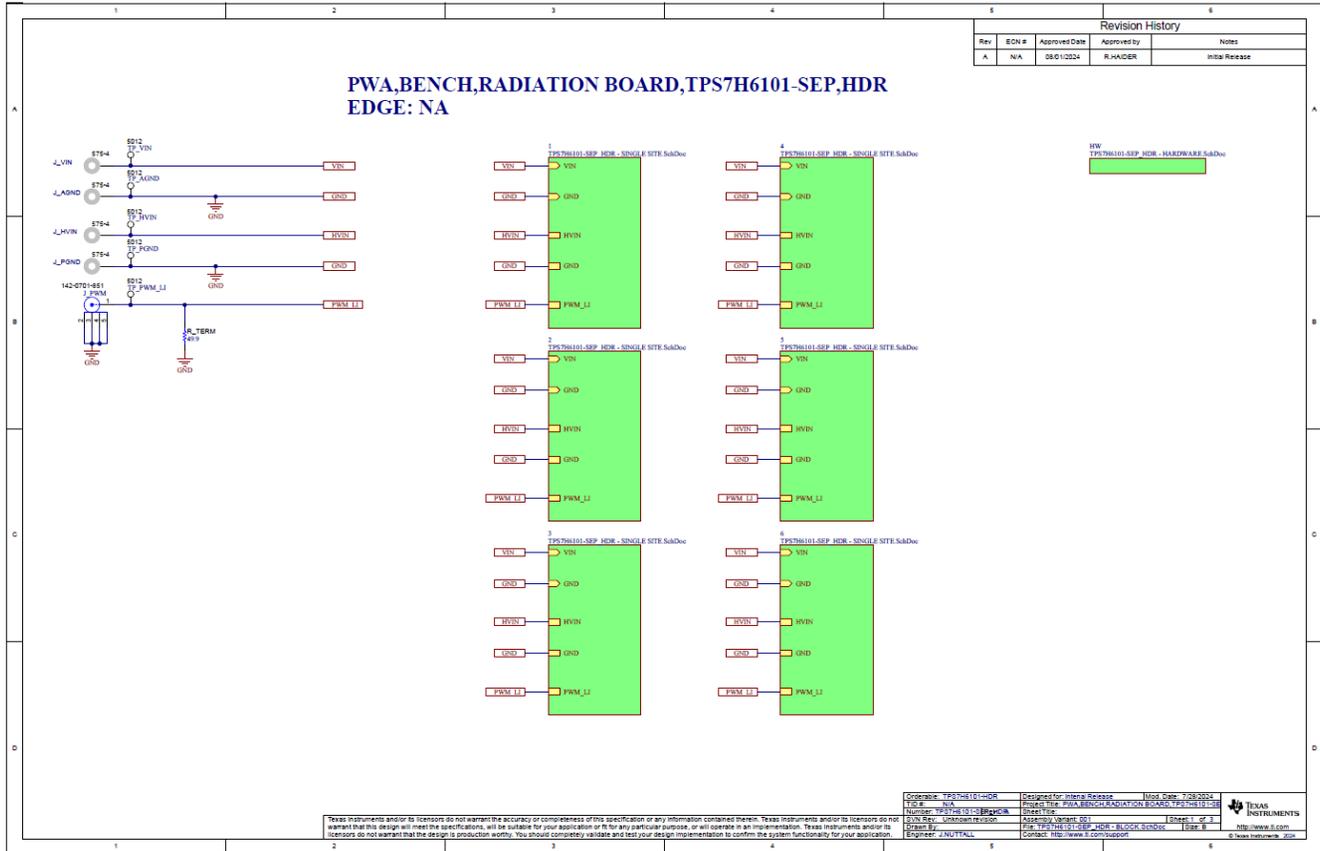


Figure 2-1. Bias Diagram Used in TID Exposure Part 1

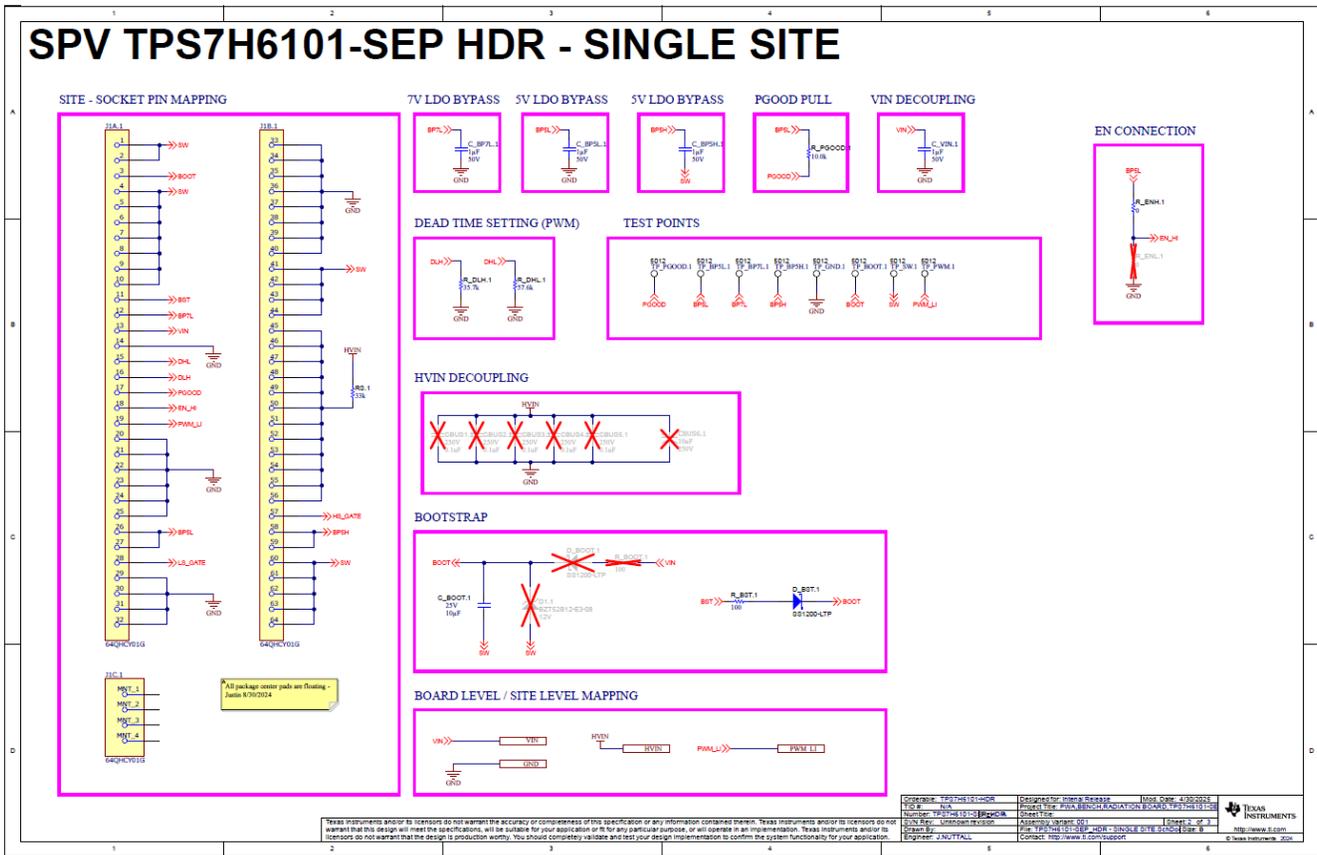


Figure 2-2. Bias Diagram Used in TID Exposure Part 2

Table 2-1. Biased Configuration

VIN (V)	HVIN (V)	Approximate Current Consumption Per Device (mA)	
		I <sub>VIN</sub>	I <sub>HVIN</sub>
14	150	10	0.07

## 2.4 Test Configuration and Condition

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

Table 2-2. HDR Biased Device Information

Total Samples: 15			
Exposure Levels			
20Krad(Si) Biased	30Krad(Si) Biased	50Krad(Si) Biased	Control Unit
1, 2, 3, 4, 5	11, 12, 13, 14, 15	21, 22, 23, 24, 25	41, 42, 43, 44

Table 2-3. HDR Unbiased Device Information

Total Samples: 15			
Exposure Levels			
20Krad(Si) Unbiased	30Krad(Si) Unbiased	50Krad(Si) Unbiased	Control Unit
6, 7, 8, 9, 10	16, 17, 18, 19, 20	26, 27, 28, 29, 30	41, 42, 43, 44

## 3 TID Characterization Test Results

### 3.1 TID Characterization Summary Results

The parametric data for the TPS7H6101-SEP passes up to 50krad(Si) HDR TID exposure. The drifts of the electrical parameters through HDR were within the data sheet limits.

Overall, the TPS7H6101-SEP showed a strong degree of hardness to 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. See TPS7H6101-SEP Electrical Parameters Table below parameters and associated tests.

See [Appendix A: HDR TID Report Data](#) for HDR report up to 50 krad(Si).

### 3.2 Data Sheet Electrical Parameters and Associated Tests

**Table 3-1. TPS7H6101-SEP Electrical Parameters Table**

PARAMETER		TEST CONDITION		MIN	TYP	MAX	UNIT	TEST NUMBERS
<b>GAN POWER FETs</b>								
R <sub>DS(on)(ls)</sub>	Drain-source on resistance - low side	V <sub>PWM_LI</sub> = 5V I <sub>D</sub> = 2A	T <sub>A</sub> = 25°C		16		mΩ	14.3
V <sub>SD(ls)</sub>	Low side source-drain (GND to SW_LS) third quadrant voltage	I <sub>D</sub> = -0.5A			1.8		V	14.7
		I <sub>D</sub> = -1A			2		V	14.9
I <sub>DSS(ls)</sub>	Low side drain (SW_LS to GND) leakage current	V <sub>DS(LS)</sub> = 150V V <sub>PWM_LI</sub> = 0V	T <sub>A</sub> = 25°C		15	150	μA	14.20
R <sub>DS(on)(hs)</sub>	Drain-source on resistance - high side	V <sub>EN_HI</sub> = 5V I <sub>D</sub> = 2A	T <sub>A</sub> = 25°C		16		mΩ	14.6
V <sub>SD(hs)</sub>	Low side source-drain (SW_HS to HVIN) third quadrant voltage	I <sub>D</sub> = -0.5A			1.8		V	14.11
		I <sub>D</sub> = -1A			2		V	14.13
I <sub>DSS(hs)</sub>	Low side drain (SW_HS to HVIN) leakage current		T <sub>A</sub> = 25°C		15	150	μA	14.27
<b>SUPPLY CURRENTS</b>								
I <sub>Q_LS</sub>	Low side shut down current	EN = 0V, VIN = 12V, BOOT = 10V	MODE = PWM		5	6.8	mA	12.1, 12.9, 12.17
			MODE = IIM		5	8	mA	12.25, 12.33, 12.41, 12.49, 12.57, 12.65
I <sub>Q_HS</sub>	High side shut down current	EN = 0V, VIN = 12V, BOOT = 10V	MODE = PWM		5	6.3	mA	12.2, 12.10, 12.18
			MODE = IIM		5	6.3	mA	12.26, 12.34, 12.42, 12.50, 12.58, 12.66
I <sub>Q_BG</sub>	BOOT to GND shutdown leakage current	V <sub>SW_HS</sub> = V <sub>SW_LS</sub> = 100V BOOT = 110V				50	μA	<i>Guaranteed by design</i>
I <sub>OP_BG</sub>	BOOT to GND operating leakage current	V <sub>SW_HS</sub> = V <sub>SW_LS</sub> = 100V BOOT = 110V				50	μA	<i>Guaranteed by design</i>
I <sub>OP_LS</sub>	Low side operating current	MODE = PWM	f = 500kHz		9	12	mA	12.3, 12.11, 12.19
			f = 1Mhz		13	16	mA	12.5, 12.13, 12.21
			f = 2Mhz		21	25	mA	12.7, 12.15, 12.23
		MODE = IIM	f = 500kHz		9	12	mA	12.27, 12.35, 12.43, 12.51, 12.59, 12.67
			f = 1Mhz		13	16	mA	12.29, 12.37, 12.45, 12.53, 12.61, 12.69
			f = 2Mhz		21	25	mA	12.31, 12.39, 12.47, 12.55, 12.63, 12.71
I <sub>OP_HS</sub>	High side operating current	MODE = PWM	f = 500kHz		9	12	mA	12.4, 12.12, 12.20
			f = 1Mhz		13	16	mA	12.6, 12.14, 12.22
			f = 2Mhz		21	25	mA	12.8, 12.16, 12.24
		MODE = IIM	f = 500kHz		9	12	mA	12.28, 12.36, 12.44
			f = 1Mhz		13	16	mA	12.30, 12.38, 12.46, 12.54, 12.62, 12.70
			f = 2Mhz		21	25	mA	12.32, 12.40, 12.48, 12.56, 12.64, 12.72
<b>INTERNAL REGULATORS</b>								
V <sub>BP5L</sub>	Low side 5V regulator output voltage	C <sub>BP5L</sub> = 1μF		4.75	5.0	5.175	V	16.1, 16.2, 16.3

**Table 3-1. TPS7H6101-SEP Electrical Parameters Table (continued)**

PARAMETER		TEST CONDITION	MIN	TYP	MAX	UNIT	TEST NUMBERS	
V <sub>BP5H</sub>	High side 5V regulator output voltage	C <sub>BP5H</sub> = 1μF	4.75	5.0	5.175	V	16.7, 16.8, 16.9	
V <sub>BP7L</sub>	7V regulator output voltage	C <sub>BP7L</sub> = 1μF	6.65	7.0	7.35	V	16.4, 16.5, 16.6	
<b>UNDERVOLTAGE PROTECTION</b>								
BP5H <sub>R</sub>	BP5H UVLO rising threshold	C <sub>BP5H</sub> = 1μF		4.1		V	15.25, 15.28, 15.31	
BP5H <sub>F</sub>	BP5H UVLO falling threshold			3.9		V	15.26, 15.29, 15.32	
BP5H <sub>H</sub>	BP5H UVLO hysteresis			0.25		V	15.27, 15.30, 15.33	
BP5L <sub>R</sub>	BP5L UVLO rising threshold	C <sub>BP5L</sub> = 1μF		4.1		V	15.7, 15.10, 15.13	
BP5L <sub>F</sub>	BP5L UVLO falling threshold			3.9		V	15.8, 15.11, 15.14	
BP5L <sub>H</sub>	BP5L UVLO hysteresis			0.25		V	15.9, 15.12, 15.15	
BP7L <sub>R</sub>	BP7L UVLO rising threshold	C <sub>BP7L</sub> = 1μF		6.4		V	15.16, 15.19, 15.22	
BP7L <sub>F</sub>	BP7L UVLO falling threshold			6.1		V	15.17, 15.20, 15.23	
BP7L <sub>H</sub>	BP7L UVLO hysteresis			0.3		V	15.18, 15.21, 15.24	
V <sub>IN<sub>R</sub></sub>	VIN UVLO rising threshold		8.0	8.6	9.0	V	15.1	
V <sub>IN<sub>F</sub></sub>	VIN UVLO falling threshold		7.5	8.1	8.5	V	15.2	
V <sub>IN<sub>H</sub></sub>	<b>VIN UVLO hysteresis</b>			<b>0.5</b>		<b>V</b>	<b>15.3</b>	
BOOT <sub>R</sub>	BOOT UVLO rising threshold		6.6	7.1	7.4	V	15.4	
BOOT <sub>F</sub>	BOOT UVLO falling threshold		6.2	6.65	7.0	V	15.5	
BOOT <sub>H</sub>	BOOT UVLO hysteresis			0.45		V	15.6	
<b>INPUT PINS</b>								
V <sub>IR</sub>	Input rising edge threshold		1.85		2.85	V	17.1, 17.4, 17.11, 17.14, 17.21, 17.24	
V <sub>IF</sub>	Input falling edge threshold		0.95		1.95	V	17.2, 17.5, 17.12, 17.15, 17.22, 17.25	
V <sub>IHYS</sub>	Input hysteresis			0.7		V	17.3, 17.6, 17.13, 17.16, 17.23, 17.26	
R <sub>PD</sub>	Input pull-down resistance <sup>ev</sup>	V = 2.15V applied at input (EN_HI or PWM_LI)	100		400	kΩ	17.7, 17.8, 17.17, 17.18, 17.27, 17.28	
<b>PROGRAMMABLE DEAD TIME</b>								
t <sub>DLH</sub>	Dead time low side falling to high side	MODE = PWM From V <sub>LSG</sub> = 0.48V to V <sub>HSG</sub> = 0.48V 100kHz < f ≤ 2MHz	RLH = 35.7kΩ	20	30	39	ns	19.1, 19.3, 19.5, 19.7, 19.9, 19.11, 19.13, 19.15, 19.17, 19.19, 19.21, 19.23
t <sub>DHL</sub>	Dead time high side falling to low side	MODE = PWM From V <sub>HSG</sub> = 0.48V to V <sub>LSG</sub> = 0.48V 100kHz < f ≤ 2MHz	RLH = 57.6kΩ	36	44	55	ns	19.2, 19.4, 19.6, 19.8, 19.10, 19.12, 19.14, 19.16, 19.18, 19.20, 19.22, 19.24
<b>BOOTSTRAP DIODE SWITCH</b>								
R <sub>BST_SW</sub>	Bootstrap diode switch resistance	I <sub>BST_SW</sub> = 100mA		0.3		Ω	17.9, 17.19, 17.29	
	Bootstrap diode switch parallel resistance	I <sub>BST_RP</sub> = 1mA	0.8	1	1.2	kΩ	17.10, 17.20, 17.30	
<b>POWER GOOD</b>								
V <sub>PG_OL</sub>	Logic-low output	I <sub>FLT</sub> = 1mA			0.4	V	18.1	
R <sub>PG</sub>	PGOOD internal resistance	BP5L = 5V, BP7L = 7V, VIN = 12V	0.6	1	1.8	MΩ	18.3, 18.4, 18.5	

**Table 3-1. TPS7H6101-SEP Electrical Parameters Table (continued)**

PARAMETER		TEST CONDITION		MIN	TYP	MAX	UNIT	TEST NUMBERS
$V_{BP7L\_MIN\_PG}$	Minimum BP7L voltage for valid PGOOD				3	3.6	V	18.2
<b>GATE DRIVE TIMING</b>								
$t_{p(off)(ls)}$	Low side turn-off propagation delay	From $V_{PWM\_LI} = V_{IR}$ to $V_{LSG} = 2.5V$ $I_D = 400mA$	Mode = PWM		41	51	ns	19.25, 19.31, 19.37
		From $V_{PWM\_LI} = V_{IF}$ to $V_{LSG} = 2.5V$ $I_D = 400mA$	Mode = IIM		33	42	ns	19.44, 19.54, 19.64, 19.74, 19.84, 19.94
$t_{p(on)(ls)}$	Low side turn-on gate drive propagation delay	From $V_{PWM\_LI} = V_{IR}$ to $V_{LSG} = 2.5V$ $I_D = 400mA$	Mode = IIM		33	42	ns	19.43, 19.53, 19.63, 19.73, 19.83, 19.93
$t_{p(off)(hs)}$	High side turn-off propagation delay	From $V_{PWM\_LI} = V_{IF}$ to $V_{HSG} = 2.5V$ $I_D = 400mA$	Mode = PWM		35	50	ns	19.26, 19.32, 19.38
		From $V_{EN\_LI} = V_{IF}$ to $V_{HSG} = 2.5V$ $I_D = 400mA$	Mode = IIM		35	45	ns	19.46, 19.56, 19.66, 19.76, 19.86, 19.96
$t_{p(on)(hs)}$	High side turn-on propagation delay	From $V_{EN\_HI} = V_{IR}$ to $V_{HSG} = 2.5V$ $I_D = 400mA$	Mode = IIM		35	50	ns	19.45, 19.55, 19.65, 19.75, 19.85, 19.95
$t_{d(on)(ls)}$	Low side turn-on delay	From $V_{PWM\_LI} = V_{IF}$ to $V_{DS(ls)} = 4V$ $I_D = 400mA$	Mode = PWM		45	60	ns	19.27, 19.33, 19.39
		From $V_{PWM\_LI} = V_{IR}$ to $V_{DS(ls)} = 4V$ $I_D = 400mA$	Mode = IIM		45	60	ns	19.47, 19.57, 19.67, 19.77, 19.87, 19.97
$t_{d(off)(ls)}$	Low side turn-off delay	From $V_{PWM\_LI} = V_{IR}$ to $V_{DS(ls)} = 1V$ $I_D = 400mA$	Mode = PWM		51	79	ns	19.28, 19.34, 19.40
		From $V_{PWM\_LI} = V_{IF}$ to $V_{DS(ls)} = 1V$ $I_D = 400mA$	Mode = IIM		45	60	ns	19.48, 19.58, 19.68, 19.78, 19.88, 19.98
$t_{d(on)(hs)}$	High side turn-on delay	From $V_{PWM\_LI} = V_{IR}$ to $V_{DS(hs)} = 1V$ $I_D = 400mA$	Mode = PWM		39	65	ns	19.29, 19.35, 19.41
		From $V_{EN\_HI} = V_{IR}$ to $V_{DS(hs)} = 1V$ $I_D = 400mA$	Mode = IIM		39	65	ns	19.49, 19.59, 19.69, 19.79, 19.89, 19.99
$t_{d(off)(hs)}$	High side turn-off delay	From $V_{PWM\_LI} = V_{IF}$ to $V_{DS(hs)} = 4V$ $I_D = 400mA$	Mode = PWM		45	65	ns	19.30, 19.36, 19.42
		From $V_{PWM\_LI} = V_{IF}$ to $V_{DS(hs)} = 4V$ $I_D = 400mA$	Mode = IIM		45	65	ns	19.50, 19.60, 19.70, 19.80, 19.90, 19.100
$t_{MON}$	Delay matching low side on and high side off		MODE = IIM		5	8	ns	19.51, 19.61, 19.71, 19.81, 19.91, 19.101

**Table 3-1. TPS7H6101-SEP Electrical Parameters Table (continued)**

PARAMETER		TEST CONDITION		MIN	TYP	MAX	UNIT	TEST NUMBERS
$t_{MOFF}$	Delay matching low side off and high side on		MODE = IIM		5	8	ns	19.52, 19.62, 19.72, 19.82, 19.92, 19.102
$t_{PW(IIM)}$	Minimum input pulse width (turn-on)		MODE = IIM		5	8	ns	19.103, 19.105, 19.107, 19.109, 19.111, 19.113
$t_{PW(IIM)}$ (OFF)	Minimum input pulse width (turn-off)		MODE = IIM		12	16	ns	19.104, 19.106, 19.108, 19.110, 19.112, 19.114

## 4 Applicable and Reference Documents

### 4.1 Applicable Documents

- Texas Instruments, [TPS7H6101-SEP 200V, 10A GaN Half Bridge Power Stage](#) datasheet
- Texas Instruments, [TPS7H6101-SEP Evaluation Module](#) EVM user's guide

### 4.2 Reference Documents

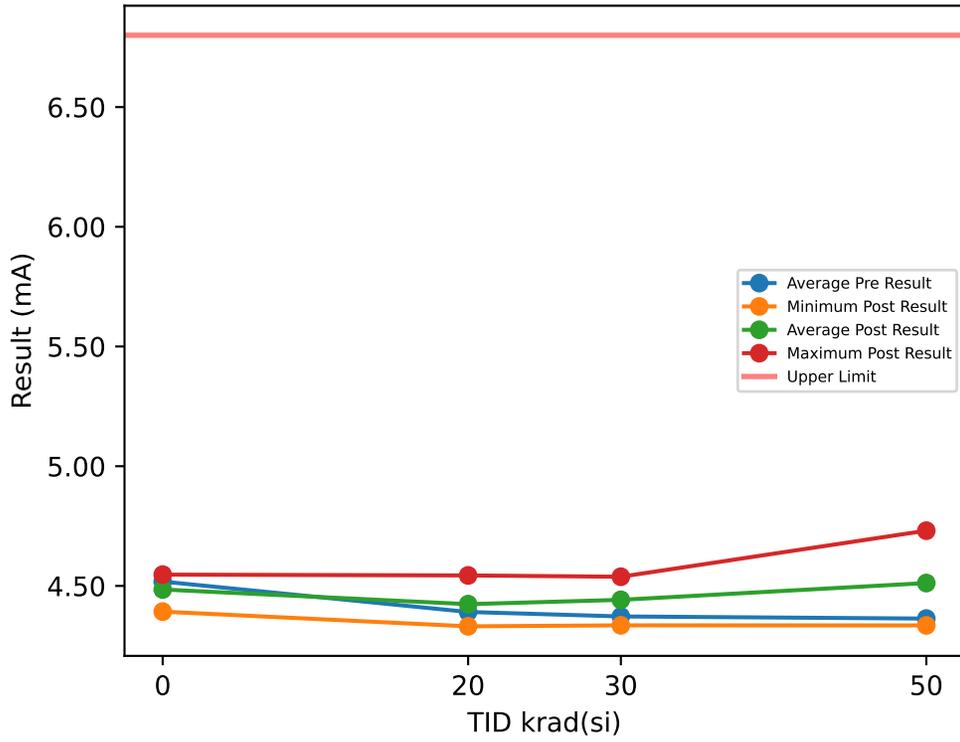
Texas Instruments total ionizing dose radiation (total dose) test procedure follows the standards put forth in MIL-STD-883 TM 1019. The document can be found at the DLA website.

## A Appendix A: HDR TID Report Data

This appendix contains the HDR TID report data.

# Device Test: 12.1 IQ|PWM/VIN/10/8///0MHz/@IQ\_LS\_PWM

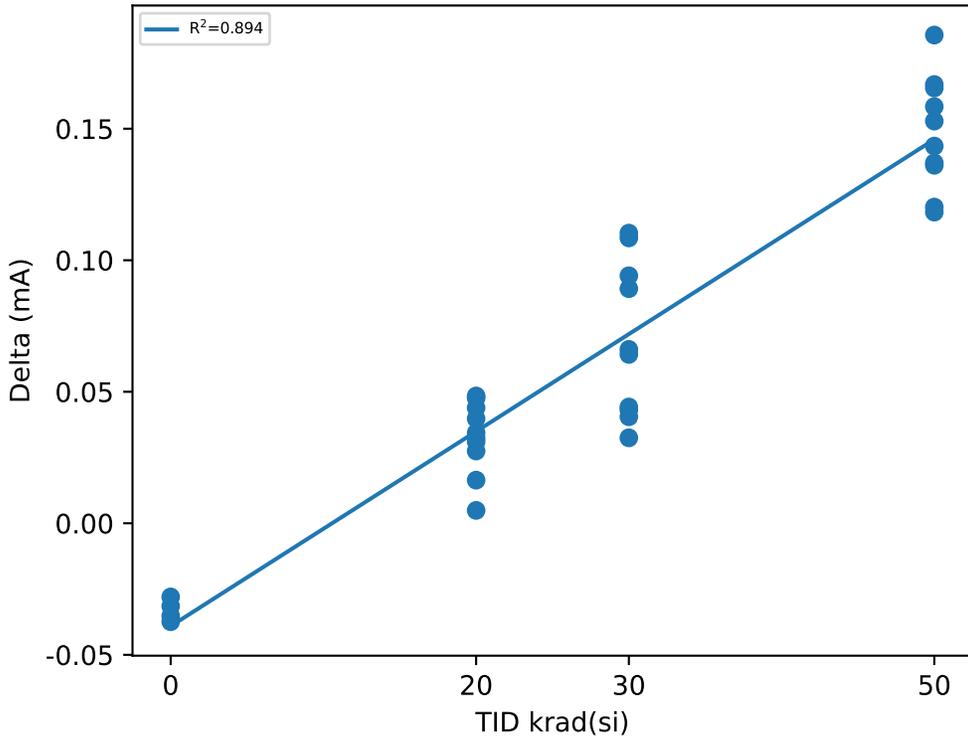
## TID vs Result Stats



## Test Results (Upper Limit = 6.8 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.3327	4.3602	0.0275
2	20	HDR BIAS	4.3919	4.4358	0.0439
3	20	HDR BIAS	4.4391	4.4875	0.0484
4	20	HDR BIAS	4.3263	4.3312	0.0049
5	20	HDR BIAS	4.3522	4.3846	0.0324
6	20	HDR UNBIAS	4.3608	4.4084	0.0476
7	20	HDR UNBIAS	4.3813	4.3977	0.0164
8	20	HDR UNBIAS	4.4541	4.4939	0.0398
9	20	HDR UNBIAS	4.3643	4.3953	0.031
10	20	HDR UNBIAS	4.5094	4.5438	0.0344
11	30	HDR BIAS	4.3761	4.4846	0.1085
12	30	HDR BIAS	4.4324	4.4766	0.0442
13	30	HDR BIAS	4.428	4.5383	0.1103
14	30	HDR BIAS	4.3828	4.4769	0.0941
15	30	HDR BIAS	4.2922	4.3353	0.0431
16	30	HDR UNBIAS	4.3448	4.3773	0.0325
17	30	HDR UNBIAS	4.2868	4.376	0.0892
18	30	HDR UNBIAS	4.3974	4.4616	0.0642
19	30	HDR UNBIAS	4.3929	4.459	0.0661
20	30	HDR UNBIAS	4.3919	4.4324	0.0405
21	50	HDR BIAS	4.2842	4.4276	0.1434
22	50	HDR BIAS	4.1696	4.3351	0.1655
23	50	HDR BIAS	4.5639	4.7307	0.1668
24	50	HDR BIAS	4.4738	4.6267	0.1529
25	50	HDR BIAS	4.3459	4.5043	0.1584
26	50	HDR UNBIAS	4.3172	4.4355	0.1183
27	50	HDR UNBIAS	4.4572	4.5942	0.137
28	50	HDR UNBIAS	4.3134	4.4336	0.1202
29	50	HDR UNBIAS	4.3565	4.5421	0.1856
30	50	HDR UNBIAS	4.3538	4.4899	0.1361
41	0	CORRELATION	4.5787	4.5472	-0.0315
42	0	CORRELATION	4.43	4.3926	-0.0374
43	0	CORRELATION	4.5614	4.5334	-0.028
45	0	CORRELATION	4.5024	4.4672	-0.0352

## TID vs Post - Pre Exposure Delta

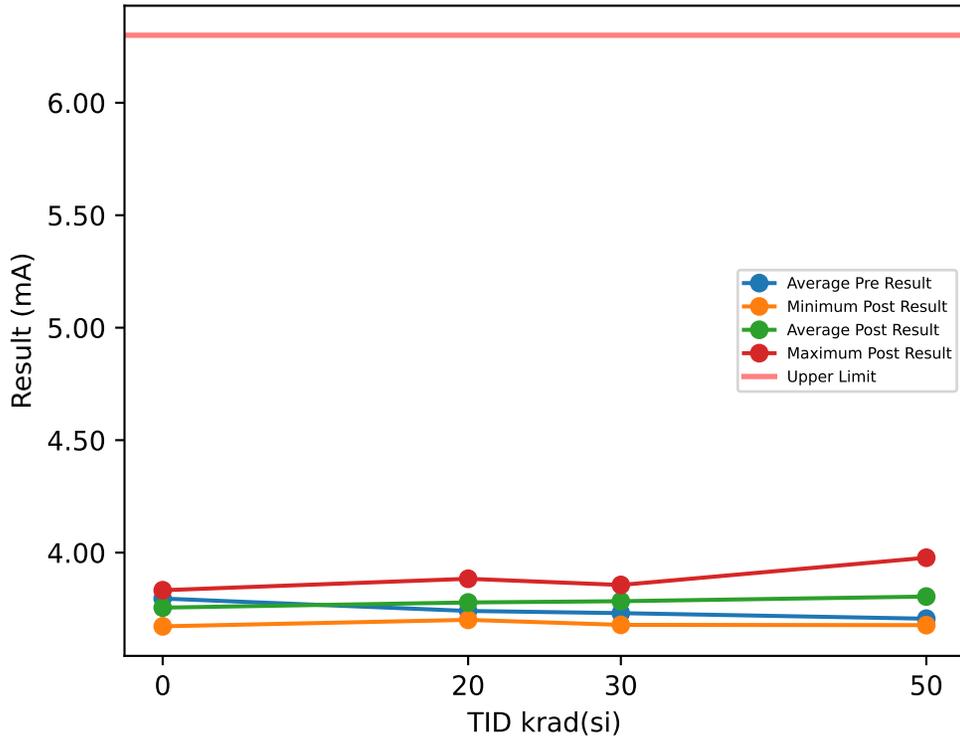


## Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.43	4.5181	4.5787	0.067219	4.3926	4.4851	4.5472	0.070866	-0.0374	-0.033025	-0.028	0.0041412
20	4.3263	4.3912	4.5094	0.058806	4.3312	4.4238	4.5438	0.066167	0.0049	0.03263	0.0484	0.013807
30	4.2868	4.3725	4.4324	0.050288	4.3353	4.4418	4.5383	0.06164	0.0325	0.06927	0.1103	0.029373
50	4.1696	4.3636	4.5639	0.1106	4.3351	4.512	4.7307	0.11528	0.1183	0.14842	0.1856	0.021454

# Device Test: 12.10 IQ|PWM/BOOT/12/10///0MHz/@IQ\_HS\_PWM

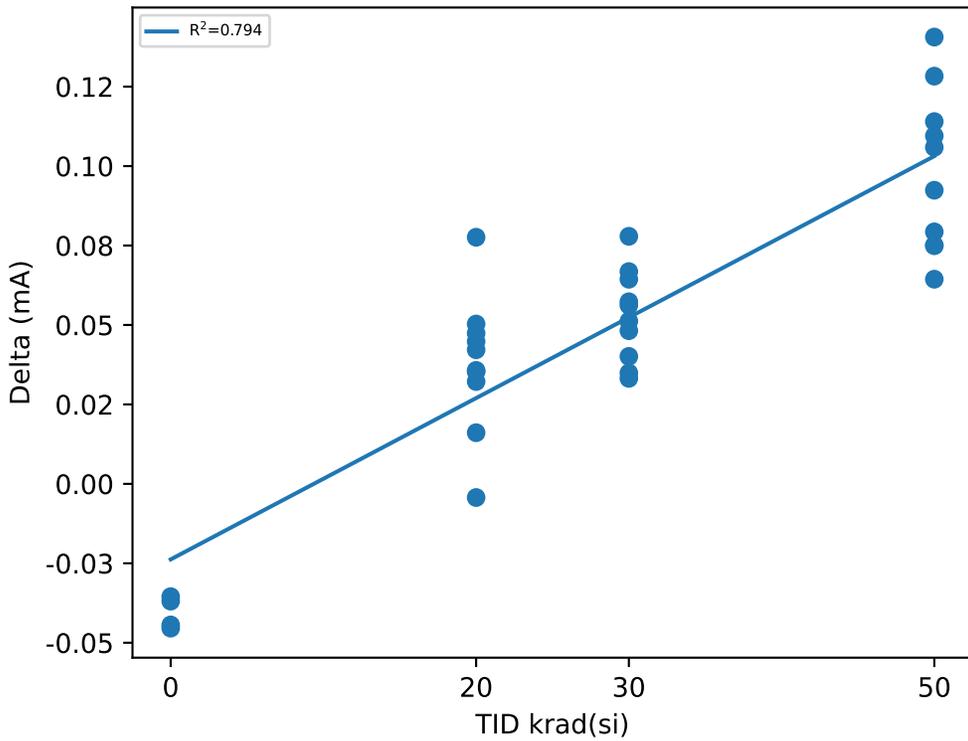
## TID vs Result Stats



## Test Results (Upper Limit = 6.3 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.7148	3.7596	0.0448
2	20	HDR BIAS	3.7725	3.7886	0.0161
3	20	HDR BIAS	3.659	3.7012	0.0422
4	20	HDR BIAS	3.8062	3.8838	0.0776
5	20	HDR BIAS	3.7093	3.7596	0.0503
6	20	HDR UNBIAS	3.7553	3.751	-0.0043
7	20	HDR UNBIAS	3.7915	3.8389	0.0474
8	20	HDR UNBIAS	3.7086	3.7439	0.0353
9	20	HDR UNBIAS	3.6931	3.7253	0.0322
10	20	HDR UNBIAS	3.7978	3.8335	0.0357
11	30	HDR BIAS	3.7532	3.8311	0.0779
12	30	HDR BIAS	3.7348	3.8016	0.0668
13	30	HDR BIAS	3.7466	3.811	0.0644
14	30	HDR BIAS	3.7451	3.7852	0.0401
15	30	HDR BIAS	3.8081	3.8563	0.0482
16	30	HDR UNBIAS	3.6457	3.6789	0.0332
17	30	HDR UNBIAS	3.6817	3.7166	0.0349
18	30	HDR UNBIAS	3.7676	3.8249	0.0573
19	30	HDR UNBIAS	3.7025	3.7537	0.0512
20	30	HDR UNBIAS	3.7256	3.7818	0.0562
21	50	HDR BIAS	3.6435	3.7185	0.075
22	50	HDR BIAS	3.719	3.833	0.114
23	50	HDR BIAS	3.8055	3.9461	0.1406
24	50	HDR BIAS	3.8491	3.9774	0.1283
25	50	HDR BIAS	3.6621	3.7716	0.1095
26	50	HDR UNBIAS	3.6625	3.7269	0.0644
27	50	HDR UNBIAS	3.6999	3.8058	0.1059
28	50	HDR UNBIAS	3.7048	3.7972	0.0924
29	50	HDR UNBIAS	3.7182	3.7932	0.075
30	50	HDR UNBIAS	3.5984	3.6777	0.0793
41	0	CORRELATION	3.7178	3.6724	-0.0454
42	0	CORRELATION	3.8594	3.8225	-0.0369
43	0	CORRELATION	3.7385	3.6941	-0.0444
45	0	CORRELATION	3.8683	3.8328	-0.0355

## TID vs Post - Pre Exposure Delta

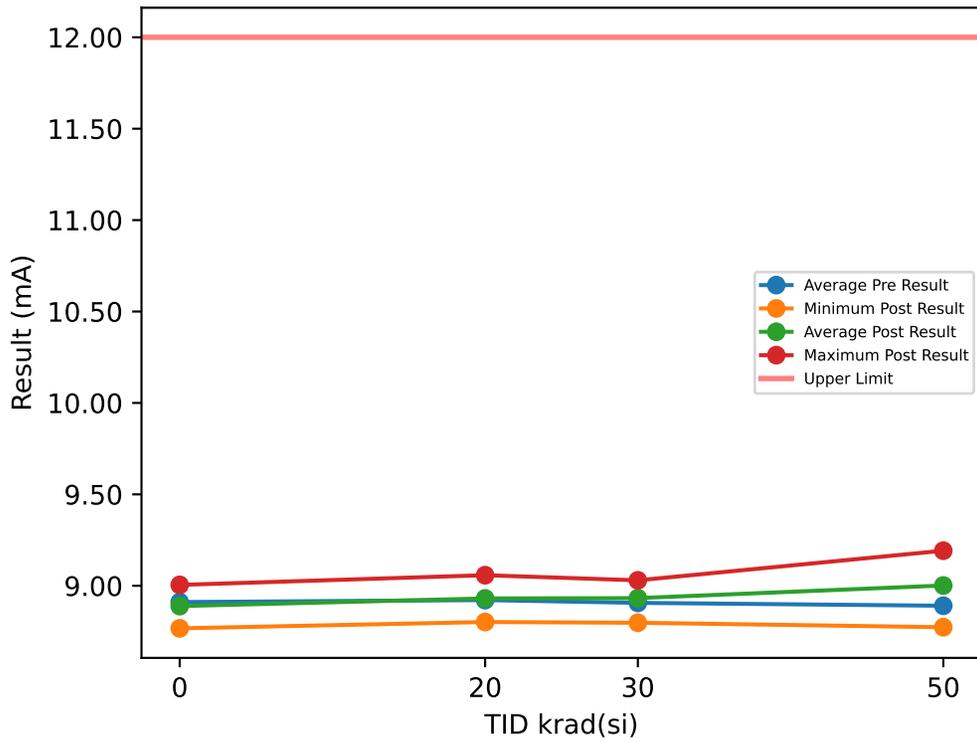


## Test Statistics (mA)

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	3.7178	3.796	3.8683	0.078885	3.6724	3.7555	3.8328	0.083944	-0.0454	-0.04055	-0.0355	0.0050718
20	3.659	3.7408	3.8062	0.050534	3.7012	3.7785	3.8838	0.057093	-0.0043	0.03773	0.0776	0.021567
30	3.6457	3.7311	3.8081	0.045682	3.6789	3.7841	3.8563	0.054437	0.0332	0.05302	0.0779	0.014459
50	3.5984	3.7063	3.8491	0.074563	3.6777	3.8047	3.9774	0.095171	0.0644	0.09844	0.1406	0.025275

# Device Test: 12.11 IOP|PWM/VIN/12/10///0.5MHz/@I\_OP\_LS\_PWM\_500KHZ

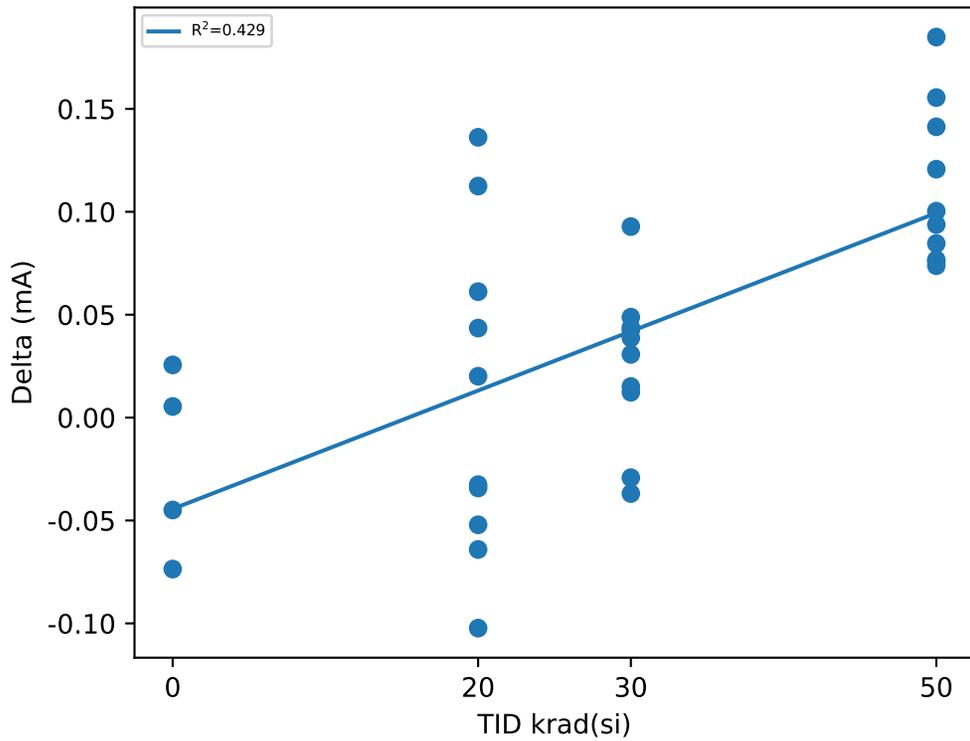
## TID vs Result Stats



## Test Results (Upper Limit = 12.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	8.8798	8.8277	-0.0521
2	20	HDR BIAS	8.9347	8.9021	-0.0326
3	20	HDR BIAS	8.9553	8.9211	-0.0342
4	20	HDR BIAS	8.9689	8.8666	-0.1023
5	20	HDR BIAS	8.8659	8.8018	-0.0641
6	20	HDR UNBIAS	8.9505	9.0117	0.0612
7	20	HDR UNBIAS	8.9781	9.0216	0.0435
8	20	HDR UNBIAS	8.9286	8.9487	0.0201
9	20	HDR UNBIAS	8.8117	8.9479	0.1362
10	20	HDR UNBIAS	8.9454	9.0579	0.1125
11	30	HDR BIAS	8.9831	9.0138	0.0307
12	30	HDR BIAS	9.0075	8.9783	-0.0292
13	30	HDR BIAS	8.9277	8.9715	0.0438
14	30	HDR BIAS	8.8295	8.8682	0.0387
15	30	HDR BIAS	8.8347	8.7978	-0.0369
16	30	HDR UNBIAS	8.8571	8.8722	0.0151
17	30	HDR UNBIAS	8.8763	8.9691	0.0928
18	30	HDR UNBIAS	8.9873	9.0298	0.0425
19	30	HDR UNBIAS	8.7672	8.816	0.0488
20	30	HDR UNBIAS	8.9954	9.0077	0.0123
21	50	HDR BIAS	8.9732	9.047	0.0738
22	50	HDR BIAS	8.6796	8.7734	0.0938
23	50	HDR BIAS	9.0042	9.1045	0.1003
24	50	HDR BIAS	8.8835	8.9602	0.0767
25	50	HDR BIAS	8.7602	8.8361	0.0759
26	50	HDR UNBIAS	8.8989	8.9835	0.0846
27	50	HDR UNBIAS	8.915	9.0999	0.1849
28	50	HDR UNBIAS	8.8434	8.9847	0.1413
29	50	HDR UNBIAS	8.8796	9.0351	0.1555
30	50	HDR UNBIAS	9.0711	9.1918	0.1207
41	0	CORRELATION	9.0784	9.0048	-0.0736
42	0	CORRELATION	8.7417	8.7673	0.0256
43	0	CORRELATION	8.9124	8.9178	0.0054
45	0	CORRELATION	8.911	8.8661	-0.0449

## TID vs Post - Pre Exposure Delta

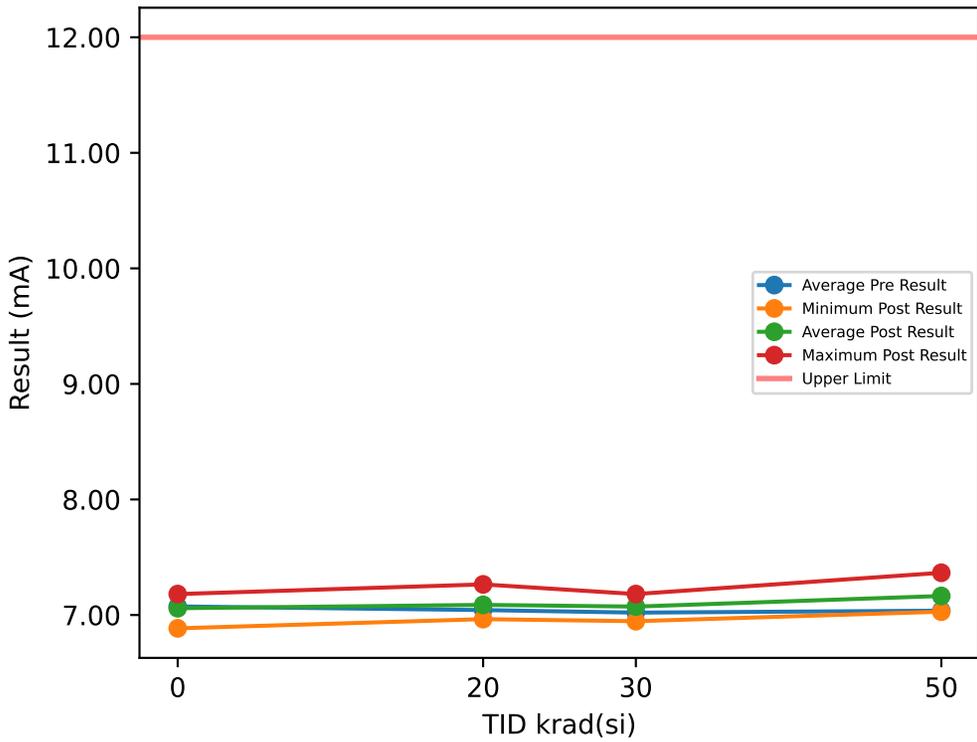


## Test Statistics (mA)

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	8.7417	8.9109	9.0784	0.13746	8.7673	8.889	9.0048	0.099288	-0.0736	-0.021875	0.0256	0.045473
20	8.8117	8.9219	8.9781	0.052825	8.8018	8.9307	9.0579	0.084239	-0.1023	0.00882	0.1362	0.078875
30	8.7672	8.9066	9.0075	0.084847	8.7978	8.9324	9.0298	0.08575	-0.0369	0.02586	0.0928	0.0381
50	8.6796	8.8909	9.0711	0.11397	8.7734	9.0016	9.1918	0.12535	0.0738	0.11075	0.1849	0.038518

# Device Test: 12.12 IOP|PWM/BOOT/12/10///0.5MHz/@I\_OP\_HS\_PWM\_500KHZ

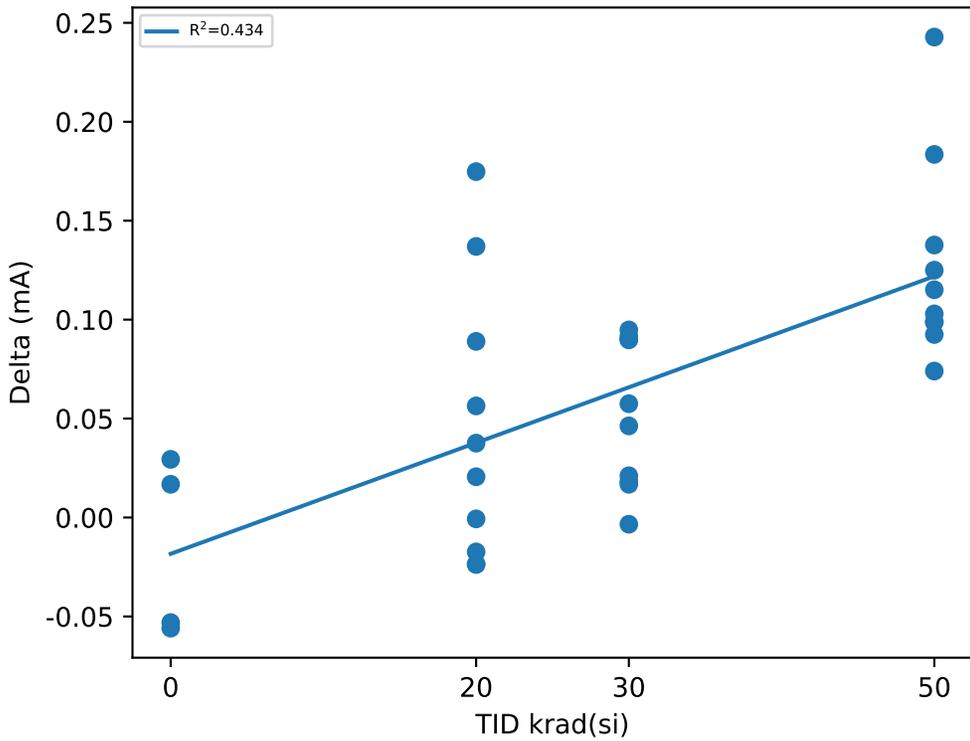
### TID vs Result Stats



### Test Results (Upper Limit = 12.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	7.0859	7.0622	-0.0237
2	20	HDR BIAS	7.0576	7.034	-0.0236
3	20	HDR BIAS	6.9817	6.9643	-0.0174
4	20	HDR BIAS	7.1208	7.1414	0.0206
5	20	HDR BIAS	6.9667	6.966	-0.0007
6	20	HDR UNBIAS	7.0387	7.0763	0.0376
7	20	HDR UNBIAS	7.176	7.265	0.089
8	20	HDR UNBIAS	7.0046	7.061	0.0564
9	20	HDR UNBIAS	6.9672	7.142	0.1748
10	20	HDR UNBIAS	7.0288	7.1658	0.137
11	30	HDR BIAS	6.9918	7.0381	0.0463
12	30	HDR BIAS	7.0589	7.0757	0.0168
13	30	HDR BIAS	6.9962	7.0173	0.0211
14	30	HDR BIAS	7.107	7.1036	-0.0034
15	30	HDR BIAS	7.0652	7.0834	0.0182
16	30	HDR UNBIAS	7.0051	7.0949	0.0898
17	30	HDR UNBIAS	6.889	6.9465	0.0575
18	30	HDR UNBIAS	7.0281	7.1197	0.0916
19	30	HDR UNBIAS	7.0866	7.1814	0.0948
20	30	HDR UNBIAS	6.9784	7.0684	0.09
21	50	HDR BIAS	6.9951	7.0691	0.074
22	50	HDR BIAS	7.0174	7.1163	0.0989
23	50	HDR BIAS	7.1065	7.2442	0.1377
24	50	HDR BIAS	7.2505	7.3656	0.1151
25	50	HDR BIAS	7.0268	7.1255	0.0987
26	50	HDR UNBIAS	6.9992	7.0917	0.0925
27	50	HDR UNBIAS	6.992	7.2348	0.2428
28	50	HDR UNBIAS	6.9833	7.1668	0.1835
29	50	HDR UNBIAS	7.0796	7.2046	0.125
30	50	HDR UNBIAS	6.9259	7.0288	0.1029
41	0	CORRELATION	6.9407	6.8848	-0.0559
42	0	CORRELATION	7.1519	7.1813	0.0294
43	0	CORRELATION	7.0482	7.065	0.0168
45	0	CORRELATION	7.1572	7.1041	-0.0531

### TID vs Post - Pre Exposure Delta

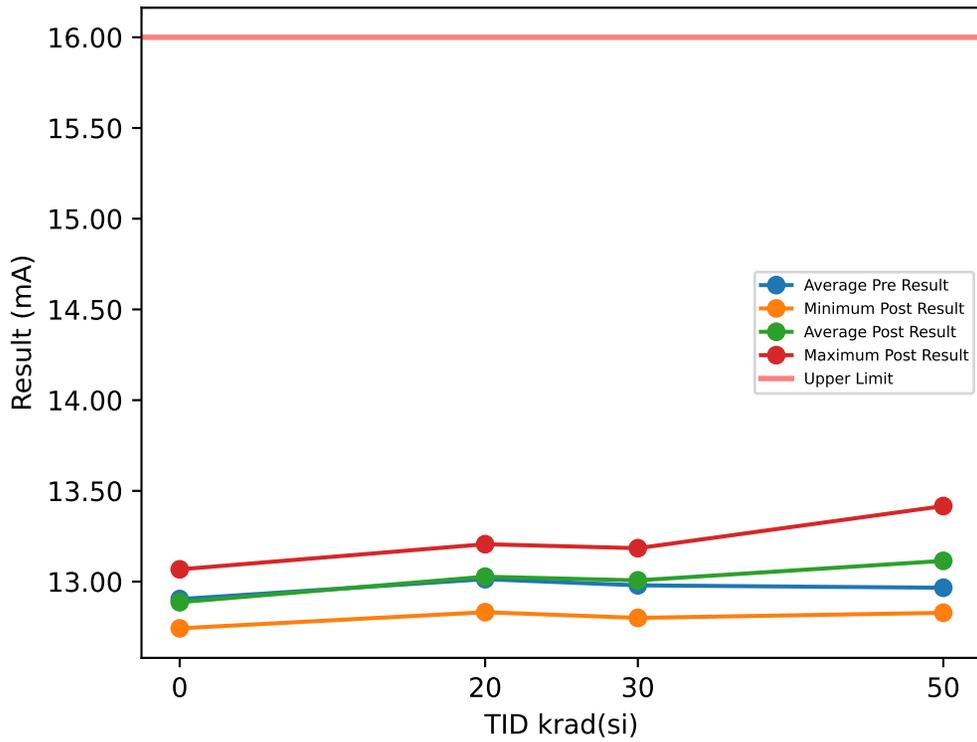


### Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	6.9407	7.0745	7.1572	0.10235	6.8848	7.0588	7.1813	0.12566	-0.0559	-0.0157	0.0294	0.045111
20	6.9667	7.0428	7.176	0.068972	6.9643	7.0878	7.265	0.092965	-0.0237	0.045	0.1748	0.069471
30	6.889	7.0206	7.107	0.063331	6.9465	7.0729	7.1814	0.063076	-0.0034	0.05227	0.0948	0.037624
50	6.9259	7.0376	7.2505	0.090153	7.0288	7.1647	7.3656	0.1	0.074	0.12711	0.2428	0.050588

# Device Test: 12.13 IOP|PWM/VIN/12/10///1MHz/@I\_OP\_LS\_PWM\_1MHZ

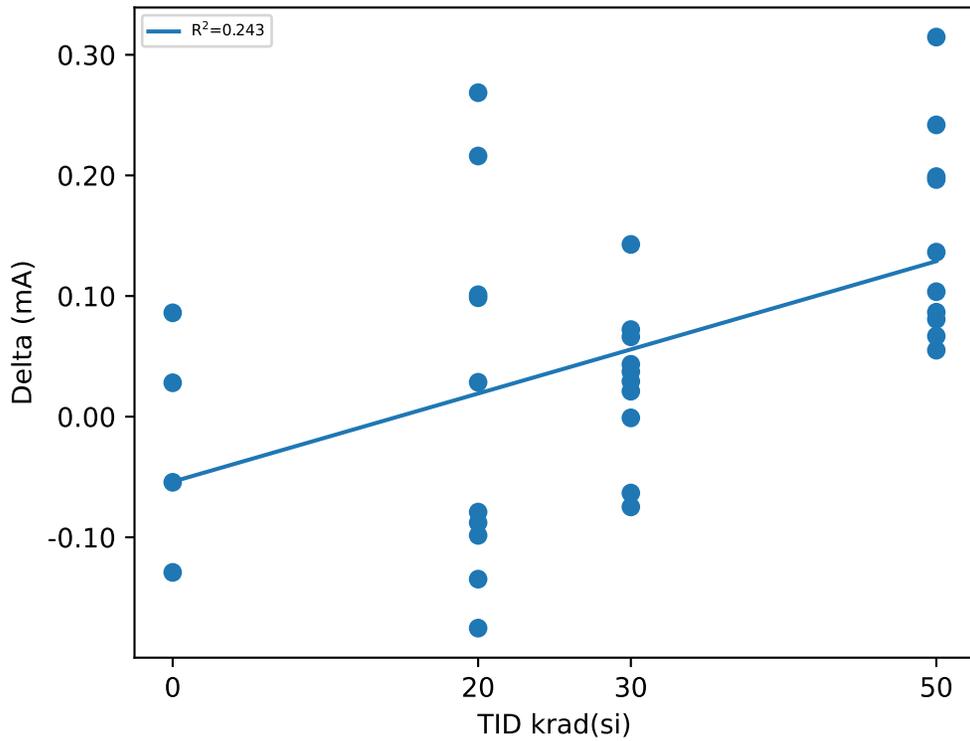
### TID vs Result Stats



### Test Results (Upper Limit = 16.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	12.954	12.856	-0.0984
2	20	HDR BIAS	13.03	12.951	-0.0791
3	20	HDR BIAS	13.059	12.971	-0.0879
4	20	HDR BIAS	13.131	12.956	-0.1753
5	20	HDR BIAS	12.966	12.831	-0.1347
6	20	HDR UNBIAS	13.105	13.206	0.1011
7	20	HDR UNBIAS	13.099	13.198	0.0986
8	20	HDR UNBIAS	12.969	12.998	0.0285
9	20	HDR UNBIAS	12.833	13.101	0.2686
10	20	HDR UNBIAS	12.987	13.203	0.2161
11	30	HDR BIAS	13.083	13.082	-0.001
12	30	HDR BIAS	13.184	13.12	-0.0633
13	30	HDR BIAS	12.947	12.968	0.0211
14	30	HDR BIAS	12.841	12.871	0.0293
15	30	HDR BIAS	12.931	12.856	-0.0748
16	30	HDR UNBIAS	12.906	12.943	0.0373
17	30	HDR UNBIAS	12.948	13.091	0.1428
18	30	HDR UNBIAS	13.118	13.184	0.0662
19	30	HDR UNBIAS	12.728	12.8	0.0722
20	30	HDR UNBIAS	13.107	13.151	0.0434
21	50	HDR BIAS	13.113	13.193	0.0807
22	50	HDR BIAS	12.741	12.828	0.0866
23	50	HDR BIAS	13.026	13.13	0.1036
24	50	HDR BIAS	12.919	12.986	0.0668
25	50	HDR BIAS	12.799	12.854	0.0551
26	50	HDR UNBIAS	13.04	13.176	0.1364
27	50	HDR UNBIAS	12.952	13.266	0.3147
28	50	HDR UNBIAS	12.872	13.114	0.2419
29	50	HDR UNBIAS	12.979	13.178	0.199
30	50	HDR UNBIAS	13.22	13.416	0.1966
41	0	CORRELATION	13.197	13.067	-0.1291
42	0	CORRELATION	12.656	12.742	0.0861
43	0	CORRELATION	12.855	12.883	0.0281
45	0	CORRELATION	12.907	12.853	-0.0544

### TID vs Post - Pre Exposure Delta

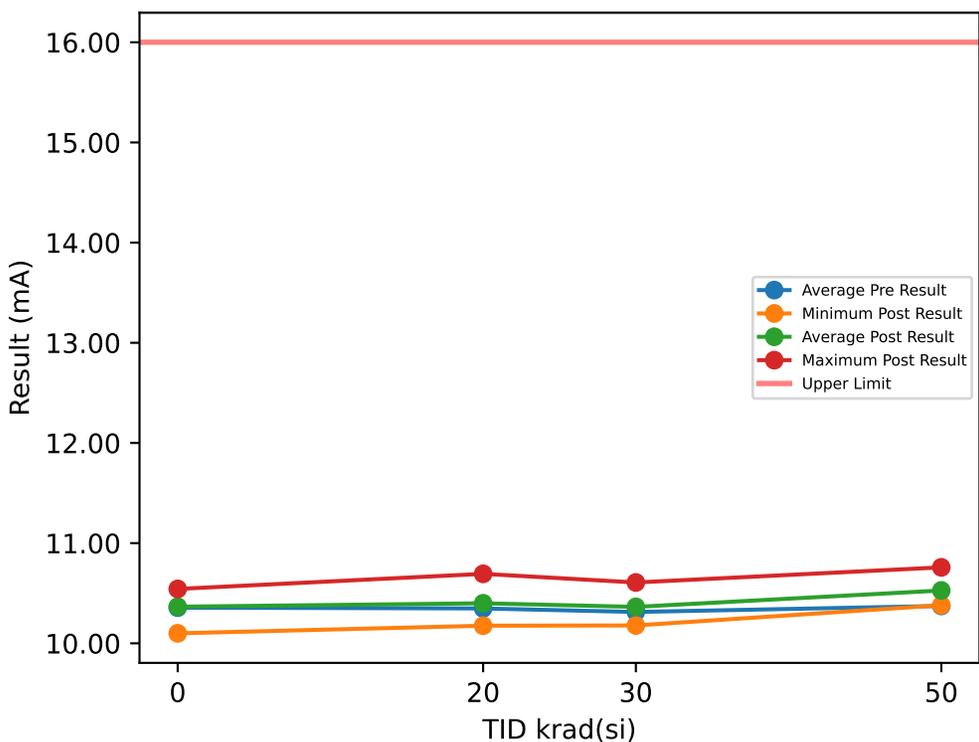


### Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	12.656	12.904	13.197	0.22311	12.742	12.886	13.067	0.13497	-0.1291	-0.017325	0.0861	0.094213
20	12.833	13.013	13.131	0.090056	12.831	13.027	13.206	0.14155	-0.1753	0.01375	0.2686	0.15284
30	12.728	12.979	13.184	0.14146	12.8	13.007	13.184	0.13633	-0.0748	0.02732	0.1428	0.063862
50	12.741	12.966	13.22	0.14319	12.828	13.114	13.416	0.18094	0.0551	0.14814	0.3147	0.086409

# Device Test: 12.14 IOP|PWM/BOOT/12/10///1MHz/@I\_OP\_HS\_PWM\_1MHZ

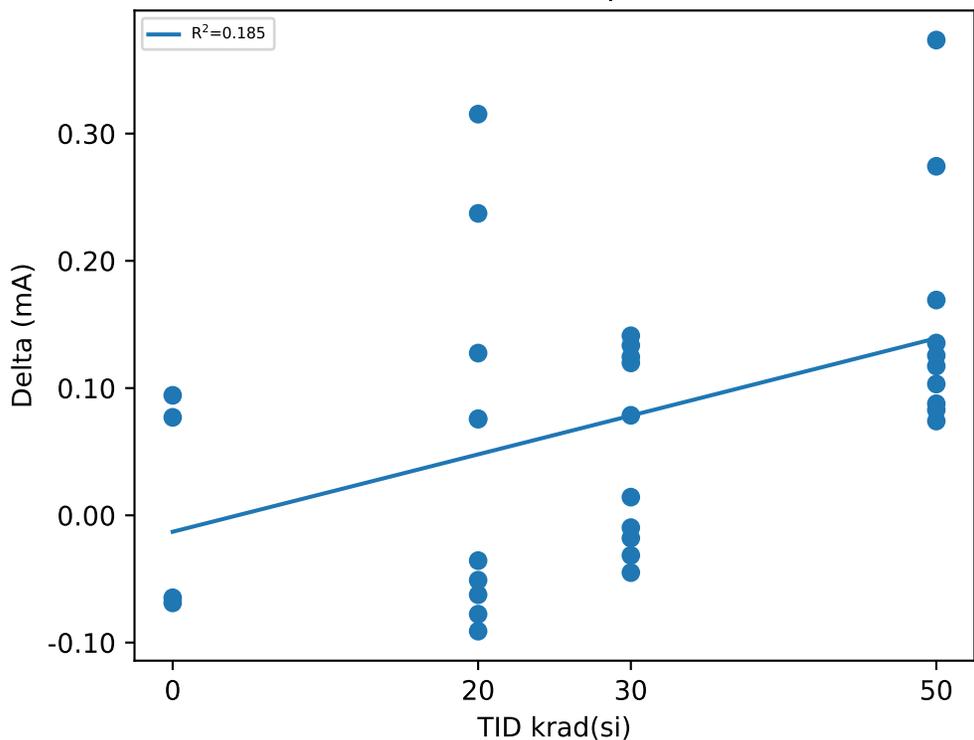
### TID vs Result Stats



### Test Results (Upper Limit = 16.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	10.462	10.371	-0.091
2	20	HDR BIAS	10.345	10.283	-0.0624
3	20	HDR BIAS	10.309	10.232	-0.0777
4	20	HDR BIAS	10.439	10.404	-0.0356
5	20	HDR BIAS	10.227	10.176	-0.051
6	20	HDR UNBIAS	10.324	10.4	0.0756
7	20	HDR UNBIAS	10.566	10.693	0.1275
8	20	HDR UNBIAS	10.303	10.379	0.0759
9	20	HDR UNBIAS	10.246	10.561	0.3153
10	20	HDR UNBIAS	10.261	10.498	0.2373
11	30	HDR BIAS	10.233	10.248	0.0143
12	30	HDR BIAS	10.386	10.354	-0.0315
13	30	HDR BIAS	10.246	10.228	-0.0179
14	30	HDR BIAS	10.472	10.427	-0.045
15	30	HDR BIAS	10.324	10.315	-0.0097
16	30	HDR UNBIAS	10.371	10.512	0.1411
17	30	HDR UNBIAS	10.1	10.178	0.0786
18	30	HDR UNBIAS	10.289	10.414	0.1245
19	30	HDR UNBIAS	10.474	10.607	0.1335
20	30	HDR UNBIAS	10.235	10.355	0.1198
21	50	HDR BIAS	10.351	10.425	0.0741
22	50	HDR BIAS	10.322	10.404	0.0828
23	50	HDR BIAS	10.412	10.547	0.1354
24	50	HDR BIAS	10.655	10.758	0.1032
25	50	HDR BIAS	10.396	10.484	0.0877
26	50	HDR UNBIAS	10.34	10.457	0.1173
27	50	HDR UNBIAS	10.29	10.664	0.3735
28	50	HDR UNBIAS	10.263	10.537	0.2743
29	50	HDR UNBIAS	10.447	10.617	0.1692
30	50	HDR UNBIAS	10.255	10.38	0.1256
41	0	CORRELATION	10.165	10.1	-0.0648
42	0	CORRELATION	10.448	10.543	0.0943
43	0	CORRELATION	10.363	10.44	0.077
45	0	CORRELATION	10.448	10.379	-0.0688

### TID vs Post - Pre Exposure Delta

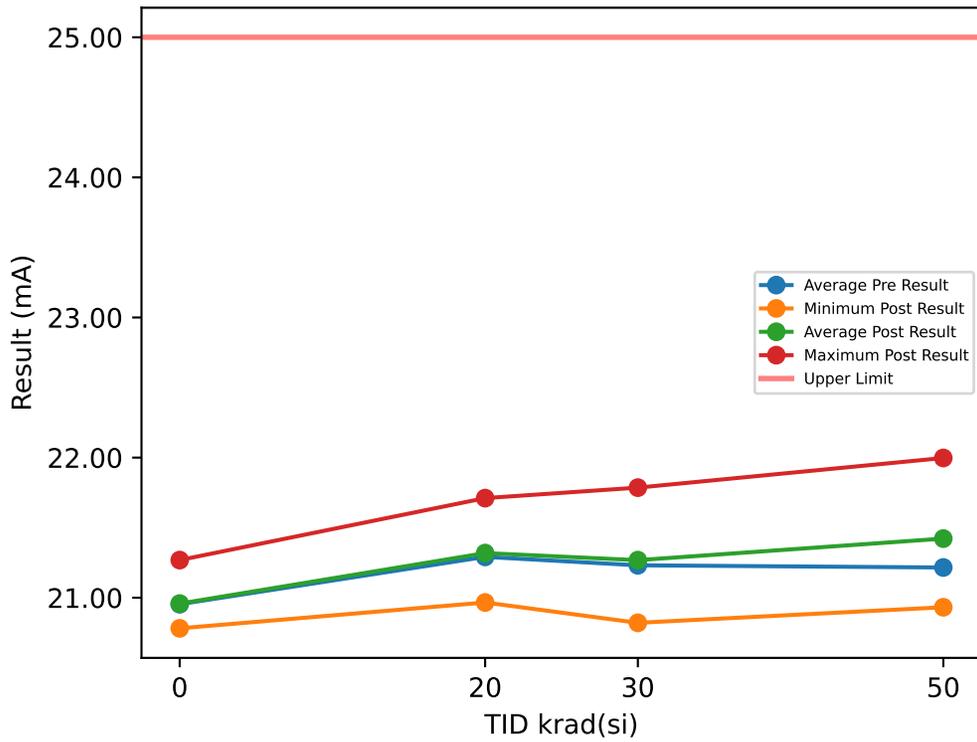


### Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	10.165	10.356	10.448	0.1338	10.1	10.365	10.543	0.18957	-0.0688	0.009425	0.0943	0.088315
20	10.227	10.348	10.566	0.10827	10.176	10.4	10.693	0.1547	-0.091	0.05139	0.3153	0.14108
30	10.1	10.313	10.474	0.11683	10.178	10.364	10.607	0.13195	-0.045	0.05077	0.1411	0.075735
50	10.255	10.373	10.655	0.11749	10.38	10.527	10.758	0.12223	0.0741	0.15431	0.3735	0.096501

# Device Test: 12.15 IOP|PWM/VIN/12/10///2MHz/@I\_OP\_LS\_PWM\_2MHZ

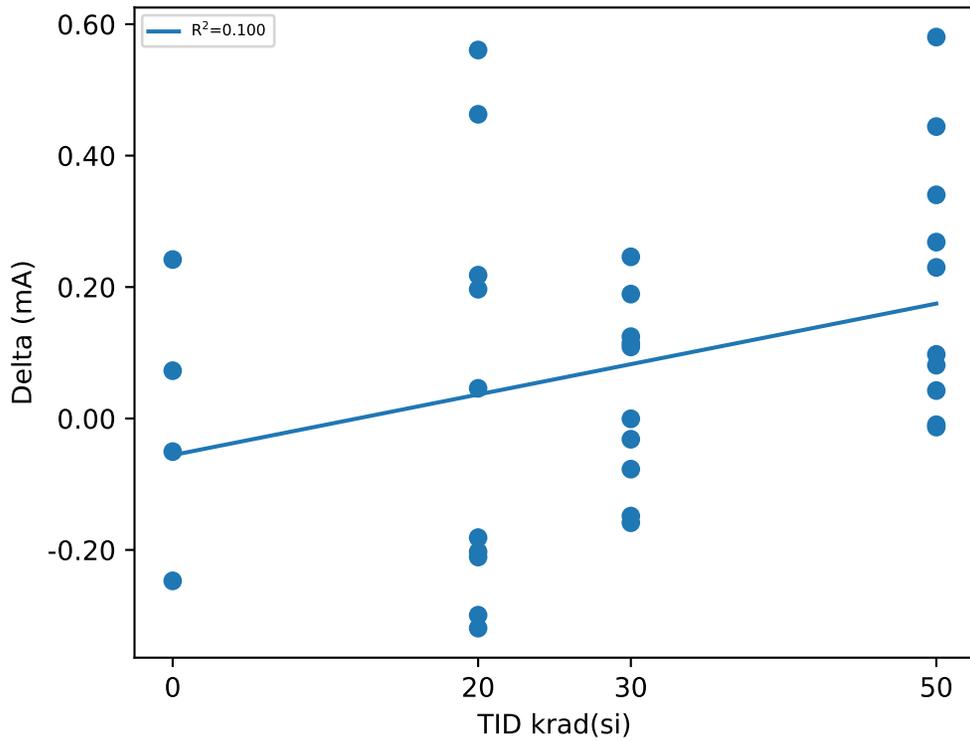
## TID vs Result Stats



## Test Results (Upper Limit = 25.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	21.179	20.976	-0.2028
2	20	HDR BIAS	21.305	21.124	-0.1814
3	20	HDR BIAS	21.348	21.137	-0.2108
4	20	HDR BIAS	21.678	21.36	-0.319
5	20	HDR BIAS	21.265	20.966	-0.2993
6	20	HDR UNBIAS	21.514	21.711	0.1967
7	20	HDR UNBIAS	21.413	21.631	0.2181
8	20	HDR UNBIAS	21.122	21.168	0.0459
9	20	HDR UNBIAS	20.944	21.505	0.5607
10	20	HDR UNBIAS	21.147	21.61	0.4629
11	30	HDR BIAS	21.351	21.274	-0.0771
12	30	HDR BIAS	21.643	21.495	-0.1485
13	30	HDR BIAS	21.042	21.01	-0.0316
14	30	HDR BIAS	20.931	20.93	-0.0005
15	30	HDR BIAS	21.207	21.048	-0.1586
16	30	HDR UNBIAS	21.099	21.223	0.1245
17	30	HDR UNBIAS	21.199	21.445	0.246
18	30	HDR UNBIAS	21.54	21.649	0.1089
19	30	HDR UNBIAS	20.706	20.821	0.1147
20	30	HDR UNBIAS	21.596	21.786	0.1893
21	50	HDR BIAS	21.489	21.57	0.0811
22	50	HDR BIAS	21.093	21.079	-0.0131
23	50	HDR BIAS	21.122	21.22	0.0975
24	50	HDR BIAS	21.054	21.096	0.0425
25	50	HDR BIAS	20.942	20.932	-0.0095
26	50	HDR UNBIAS	21.465	21.695	0.2299
27	50	HDR UNBIAS	21.079	21.659	0.5804
28	50	HDR UNBIAS	21.008	21.452	0.4442
29	50	HDR UNBIAS	21.25	21.518	0.2684
30	50	HDR UNBIAS	21.657	21.997	0.3403
41	0	CORRELATION	21.516	21.269	-0.2471
42	0	CORRELATION	20.54	20.782	0.2419
43	0	CORRELATION	20.791	20.863	0.0727
45	0	CORRELATION	20.969	20.918	-0.0504

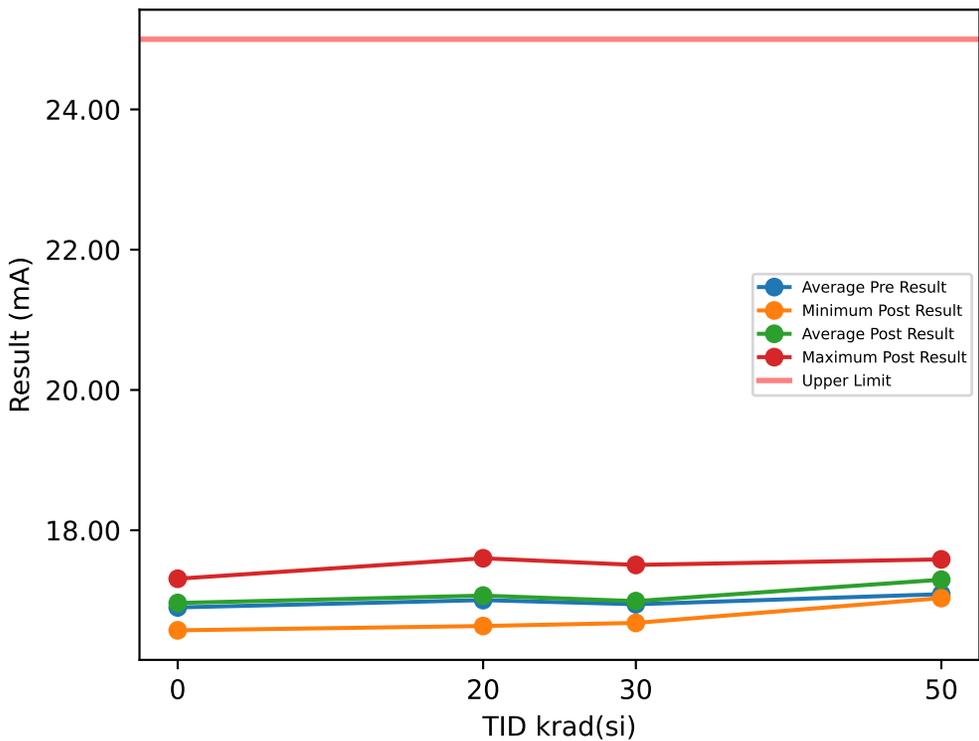
## TID vs Post - Pre Exposure Delta



## 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	20.54	20.954	21.516	0.41393	20.782	20.958	21.269	0.21454	-0.2471	0.004275	0.2419	0.20601
20	20.944	21.292	21.678	0.21112	20.966	21.319	21.711	0.28037	-0.319	0.0271	0.5607	0.31963
30	20.706	21.231	21.643	0.30435	20.821	21.268	21.786	0.32083	-0.1586	0.03671	0.246	0.14045
50	20.942	21.216	21.657	0.24039	20.932	21.422	21.997	0.33309	-0.0131	0.20617	0.5804	0.2022

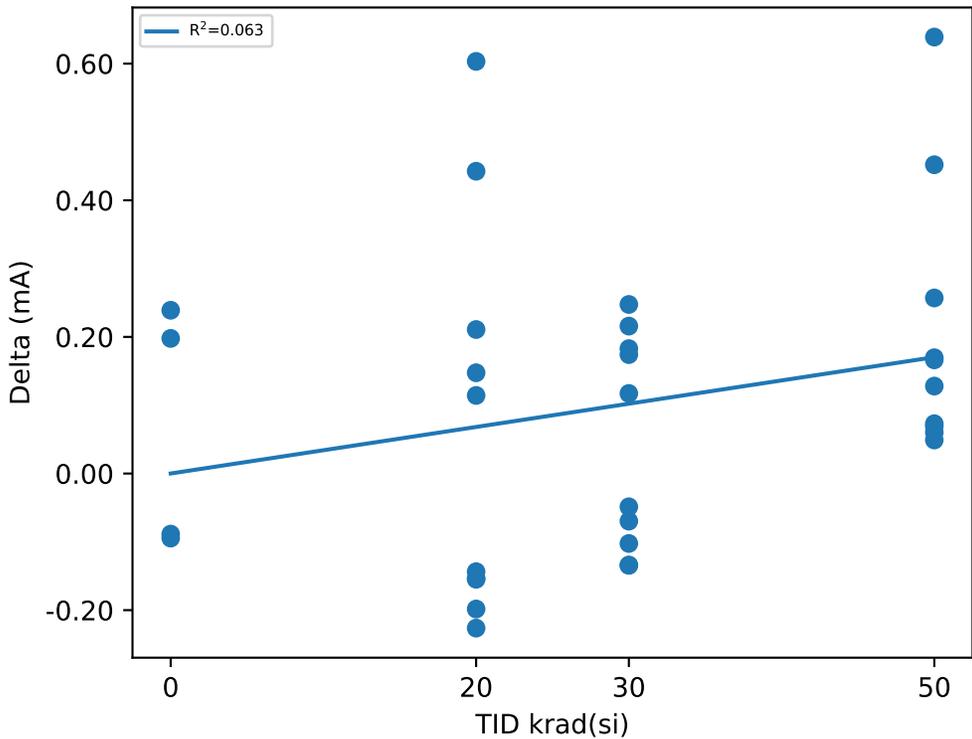
TID vs Result Stats



Test Results (Upper Limit = 25.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	17.255	17.029	-0.2263
2	20	HDR BIAS	16.964	16.82	-0.1437
3	20	HDR BIAS	17.001	16.803	-0.1983
4	20	HDR BIAS	17.128	16.974	-0.1535
5	20	HDR BIAS	16.79	16.635	-0.1548
6	20	HDR UNBIAS	16.942	17.09	0.1475
7	20	HDR UNBIAS	17.39	17.6	0.2108
8	20	HDR UNBIAS	16.949	17.063	0.1143
9	20	HDR UNBIAS	16.844	17.447	0.6033
10	20	HDR UNBIAS	16.779	17.222	0.4425
11	30	HDR BIAS	16.753	16.705	-0.0487
12	30	HDR BIAS	17.1	16.966	-0.1343
13	30	HDR BIAS	16.793	16.69	-0.1024
14	30	HDR BIAS	17.253	17.119	-0.1341
15	30	HDR BIAS	16.884	16.814	-0.0697
16	30	HDR UNBIAS	17.151	17.398	0.2475
17	30	HDR UNBIAS	16.562	16.679	0.1172
18	30	HDR UNBIAS	16.862	17.045	0.1828
19	30	HDR UNBIAS	17.29	17.506	0.2158
20	30	HDR UNBIAS	16.798	16.972	0.1741
21	50	HDR BIAS	17.099	17.172	0.0729
22	50	HDR BIAS	16.984	17.033	0.0491
23	50	HDR BIAS	17.058	17.186	0.128
24	50	HDR BIAS	17.515	17.584	0.0693
25	50	HDR BIAS	17.171	17.231	0.0602
26	50	HDR UNBIAS	17.072	17.238	0.1664
27	50	HDR UNBIAS	16.925	17.564	0.6389
28	50	HDR UNBIAS	16.876	17.328	0.452
29	50	HDR UNBIAS	17.224	17.481	0.257
30	50	HDR UNBIAS	16.966	17.135	0.1695
41	0	CORRELATION	16.662	16.573	-0.0887
42	0	CORRELATION	17.07	17.309	0.239
43	0	CORRELATION	16.795	16.993	0.1978
45	0	CORRELATION	17.072	16.977	-0.0945

TID vs Post - Pre Exposure Delta

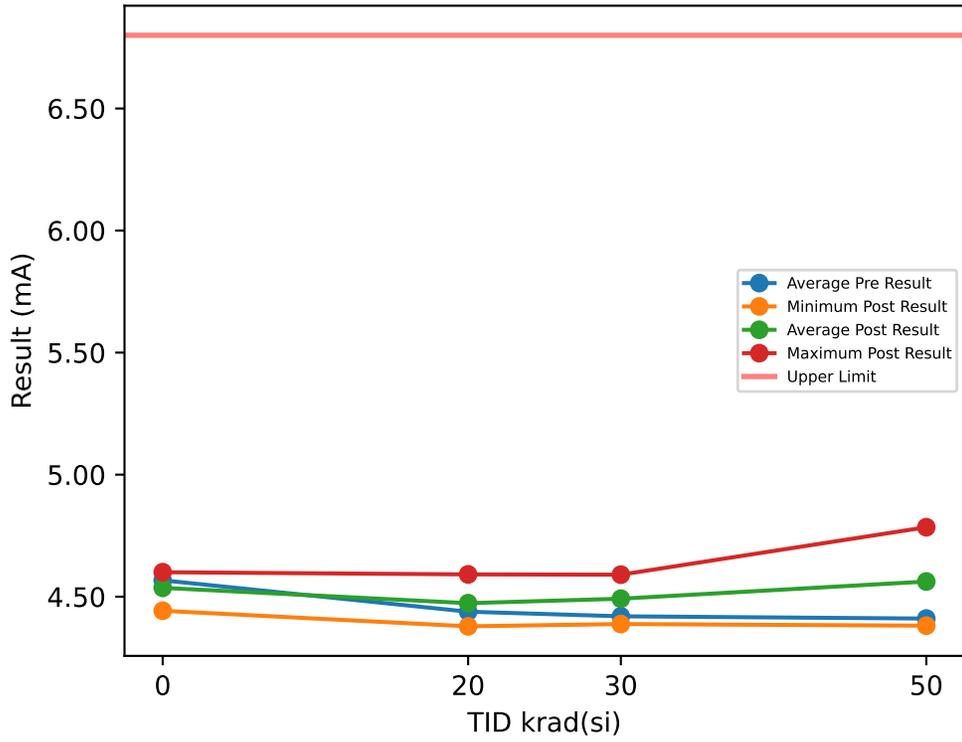


Test Statistics (mA)

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	16.662	16.9	17.072	0.20483	16.573	16.963	17.309	0.30142	-0.0945	0.0634	0.239	0.17978
20	16.779	17.004	17.39	0.1993	16.635	17.068	17.6	0.29448	-0.2263	0.06418	0.6033	0.28993
30	16.562	16.945	17.29	0.24015	16.679	16.989	17.506	0.28902	-0.1343	0.04482	0.2475	0.15597
50	16.876	17.089	17.515	0.18451	17.033	17.295	17.584	0.18871	0.0491	0.20633	0.6389	0.19487

# Device Test: 12.17 IQ|PWM/VIN/14/14///0MHz/@IQ\_LS\_PWM

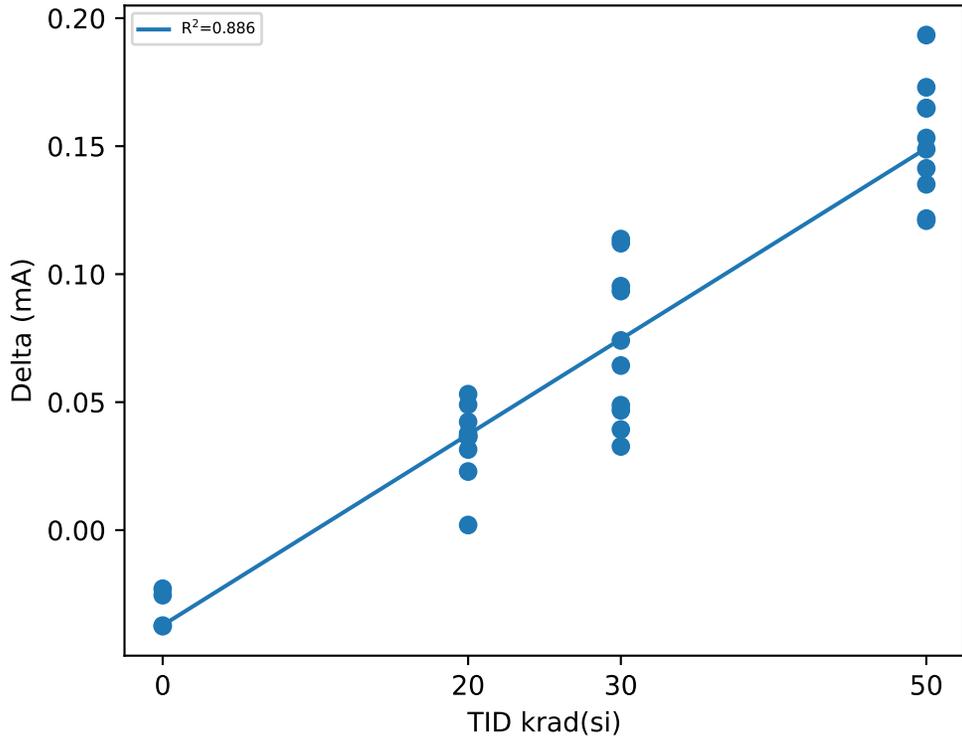
## TID vs Result Stats



## Test Results (Upper Limit = 6.8 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.3802	4.4117	0.0315
2	20	HDR BIAS	4.4398	4.4821	0.0423
3	20	HDR BIAS	4.487	4.5401	0.0531
4	20	HDR BIAS	4.3767	4.3787	0.002
5	20	HDR BIAS	4.4007	4.4371	0.0364
6	20	HDR UNBIAS	4.4072	4.4562	0.049
7	20	HDR UNBIAS	4.4272	4.4501	0.0229
8	20	HDR UNBIAS	4.5043	4.5408	0.0365
9	20	HDR UNBIAS	4.4103	4.447	0.0367
10	20	HDR UNBIAS	4.5536	4.5914	0.0378
11	30	HDR BIAS	4.4238	4.5359	0.1121
12	30	HDR BIAS	4.4794	4.5262	0.0468
13	30	HDR BIAS	4.4766	4.5903	0.1137
14	30	HDR BIAS	4.43	4.5234	0.0934
15	30	HDR BIAS	4.3393	4.3881	0.0488
16	30	HDR UNBIAS	4.3926	4.4253	0.0327
17	30	HDR UNBIAS	4.3331	4.4284	0.0953
18	30	HDR UNBIAS	4.4445	4.5088	0.0643
19	30	HDR UNBIAS	4.4387	4.5128	0.0741
20	30	HDR UNBIAS	4.4397	4.479	0.0393
21	50	HDR BIAS	4.331	4.4798	0.1488
22	50	HDR BIAS	4.2166	4.3814	0.1648
23	50	HDR BIAS	4.6116	4.7846	0.173
24	50	HDR BIAS	4.5216	4.6748	0.1532
25	50	HDR BIAS	4.3932	4.5581	0.1649
26	50	HDR UNBIAS	4.3609	4.4818	0.1209
27	50	HDR UNBIAS	4.5037	4.645	0.1413
28	50	HDR UNBIAS	4.3591	4.4808	0.1217
29	50	HDR UNBIAS	4.4043	4.5977	0.1934
30	50	HDR UNBIAS	4.4032	4.5383	0.1351
41	0	CORRELATION	4.6258	4.6004	-0.0254
42	0	CORRELATION	4.4798	4.4425	-0.0373
43	0	CORRELATION	4.6107	4.5878	-0.0229
45	0	CORRELATION	4.5525	4.515	-0.0375

## TID vs Post - Pre Exposure Delta

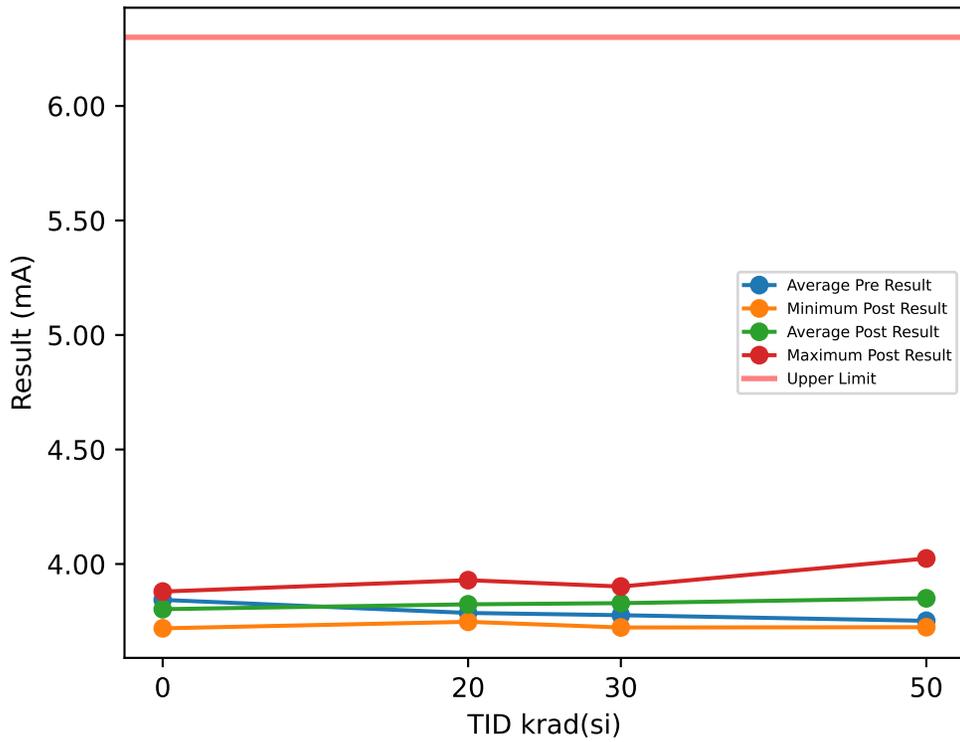


## Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.4798	4.5672	4.6258	0.066285	4.4425	4.5364	4.6004	0.07306	-0.0375	-0.030775	-0.0229	0.0077181
20	4.3767	4.4387	4.5536	0.058196	4.3787	4.4735	4.5914	0.065506	0.002	0.03482	0.0531	0.014295
30	4.3331	4.4198	4.4794	0.050551	4.3881	4.4918	4.5903	0.06139	0.0327	0.07205	0.1137	0.030182
50	4.2166	4.4105	4.6116	0.111	4.3814	4.5622	4.7846	0.1171	0.1209	0.15171	0.1934	0.023049

# Device Test: 12.18 IQ|PWM/BOOT/14/14///0MHz/@IQ\_HS\_PWM

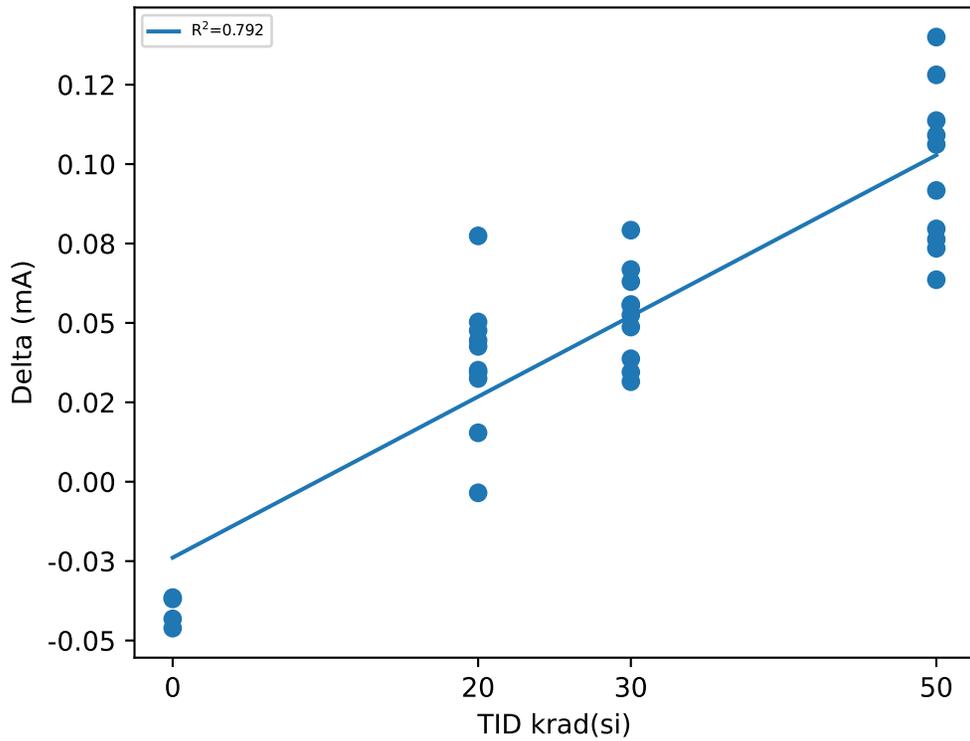
## TID vs Result Stats



## Test Results (Upper Limit = 6.3 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.76	3.8045	0.0445
2	20	HDR BIAS	3.8179	3.8333	0.0154
3	20	HDR BIAS	3.705	3.7476	0.0426
4	20	HDR BIAS	3.852	3.9294	0.0774
5	20	HDR BIAS	3.7536	3.8039	0.0503
6	20	HDR UNBIAS	3.8014	3.7979	-0.0035
7	20	HDR UNBIAS	3.8353	3.8829	0.0476
8	20	HDR UNBIAS	3.7548	3.7899	0.0351
9	20	HDR UNBIAS	3.738	3.7705	0.0325
10	20	HDR UNBIAS	3.8448	3.8792	0.0344
11	30	HDR BIAS	3.7977	3.8769	0.0792
12	30	HDR BIAS	3.7806	3.8474	0.0668
13	30	HDR BIAS	3.7934	3.8564	0.063
14	30	HDR BIAS	3.7911	3.8298	0.0387
15	30	HDR BIAS	3.8529	3.9016	0.0487
16	30	HDR UNBIAS	3.6913	3.7228	0.0315
17	30	HDR UNBIAS	3.7262	3.7607	0.0345
18	30	HDR UNBIAS	3.814	3.8698	0.0558
19	30	HDR UNBIAS	3.7471	3.7996	0.0525
20	30	HDR UNBIAS	3.7703	3.8258	0.0555
21	50	HDR BIAS	3.6894	3.7629	0.0735
22	50	HDR BIAS	3.764	3.8777	0.1137
23	50	HDR BIAS	3.8519	3.9919	0.14
24	50	HDR BIAS	3.896	4.0241	0.1281
25	50	HDR BIAS	3.7086	3.8177	0.1091
26	50	HDR UNBIAS	3.707	3.7706	0.0636
27	50	HDR UNBIAS	3.7451	3.8513	0.1062
28	50	HDR UNBIAS	3.7498	3.8415	0.0917
29	50	HDR UNBIAS	3.7634	3.8397	0.0763
30	50	HDR UNBIAS	3.6444	3.724	0.0796
41	0	CORRELATION	3.7652	3.7191	-0.0461
42	0	CORRELATION	3.9071	3.8702	-0.0369
43	0	CORRELATION	3.7854	3.7422	-0.0432
45	0	CORRELATION	3.9161	3.8796	-0.0365

## TID vs Post - Pre Exposure Delta

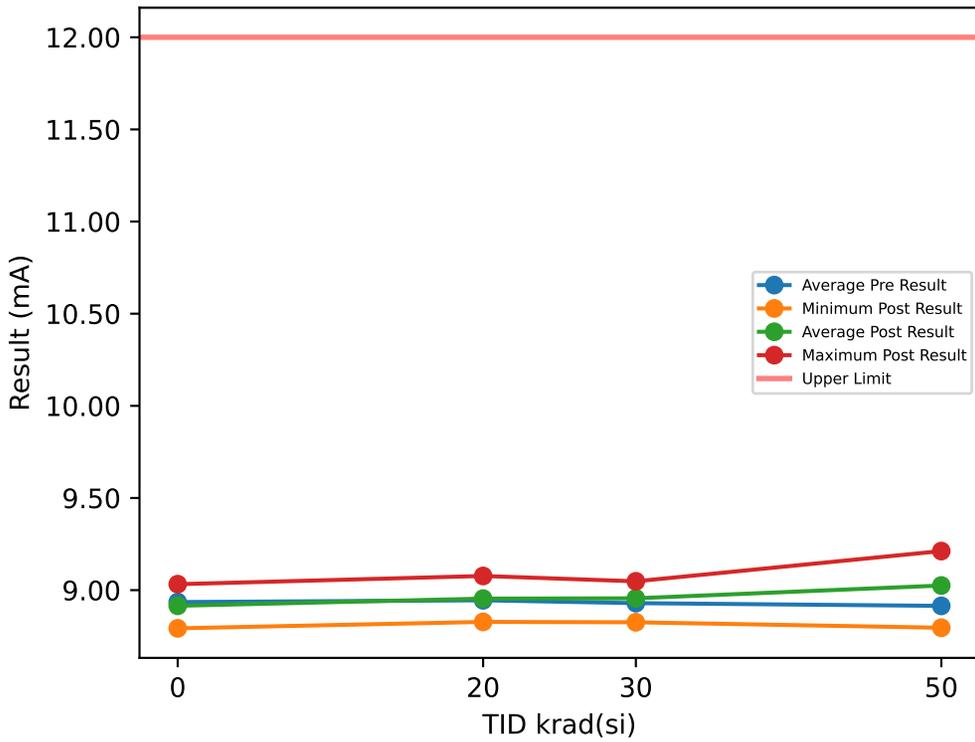


## Test Statistics (mA)

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	3.7652	3.8434	3.9161	0.079209	3.7191	3.8028	3.8796	0.083903	-0.0461	-0.040675	-0.0365	0.004743
20	3.705	3.7863	3.852	0.050621	3.7476	3.8239	3.9294	0.056803	-0.0035	0.03763	0.0774	0.021454
30	3.6913	3.7765	3.8529	0.045826	3.7228	3.8291	3.9016	0.054912	0.0315	0.05262	0.0792	0.014971
50	3.6444	3.752	3.896	0.074868	3.724	3.8501	4.0241	0.095571	0.0636	0.09818	0.14	0.025253

# Device Test: 12.19 IOP|PWM/VIN/14/14///0.5MHz/@I\_OP\_LS\_PWM\_500KHZ

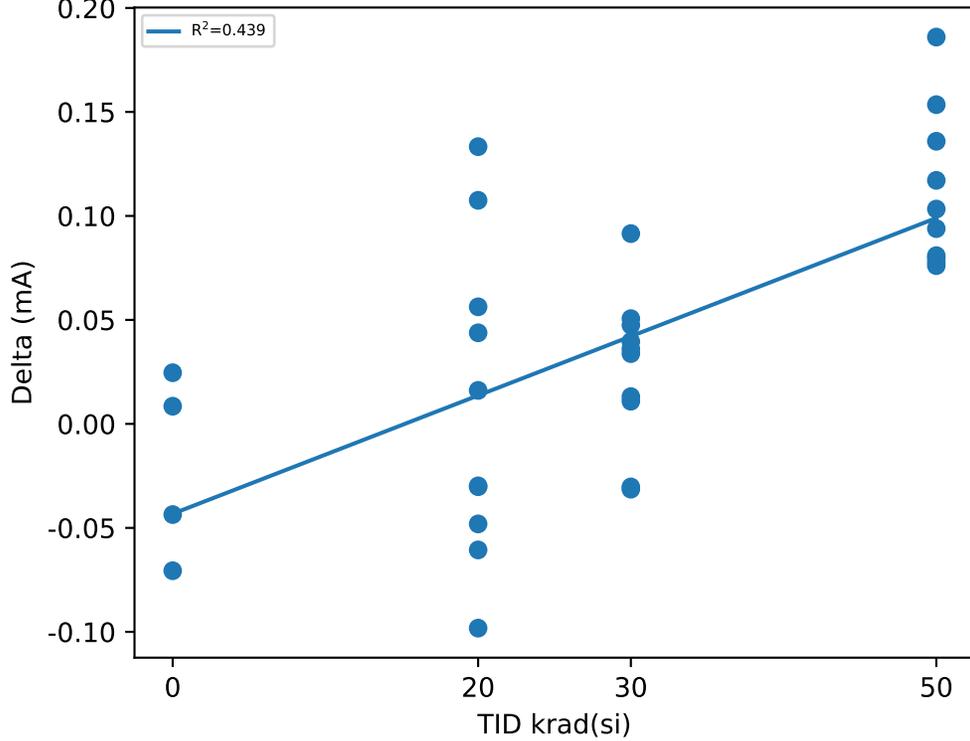
### TID vs Result Stats



### Test Results (Upper Limit = 12.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	8.9021	8.854	-0.0481
2	20	HDR BIAS	8.9572	8.927	-0.0302
3	20	HDR BIAS	8.9787	8.9489	-0.0298
4	20	HDR BIAS	8.9913	8.8931	-0.0982
5	20	HDR BIAS	8.8883	8.8277	-0.0606
6	20	HDR UNBIAS	8.9753	9.0316	0.0563
7	20	HDR UNBIAS	8.9998	9.0436	0.0438
8	20	HDR UNBIAS	8.9522	8.9683	0.0161
9	20	HDR UNBIAS	8.8352	8.9685	0.1333
10	20	HDR UNBIAS	8.9694	9.0769	0.1075
11	30	HDR BIAS	9.0058	9.0396	0.0338
12	30	HDR BIAS	9.0321	9.0018	-0.0303
13	30	HDR BIAS	8.9503	8.9978	0.0475
14	30	HDR BIAS	8.853	8.8926	0.0396
15	30	HDR BIAS	8.857	8.8256	-0.0314
16	30	HDR UNBIAS	8.8811	8.892	0.0109
17	30	HDR UNBIAS	8.8985	8.99	0.0915
18	30	HDR UNBIAS	9.0118	9.0479	0.0361
19	30	HDR UNBIAS	8.7908	8.8414	0.0506
20	30	HDR UNBIAS	9.0146	9.0277	0.0131
21	50	HDR BIAS	8.9958	9.0736	0.0778
22	50	HDR BIAS	8.7021	8.796	0.0939
23	50	HDR BIAS	9.0283	9.1316	0.1033
24	50	HDR BIAS	8.9086	8.9847	0.0761
25	50	HDR BIAS	8.7841	8.8638	0.0797
26	50	HDR UNBIAS	8.9213	9.0022	0.0809
27	50	HDR UNBIAS	8.9397	9.1257	0.186
28	50	HDR UNBIAS	8.8669	9.0028	0.1359
29	50	HDR UNBIAS	8.905	9.0585	0.1535
30	50	HDR UNBIAS	9.0949	9.212	0.1171
41	0	CORRELATION	9.1029	9.0323	-0.0706
42	0	CORRELATION	8.7682	8.7928	0.0246
43	0	CORRELATION	8.9363	8.9448	0.0085
45	0	CORRELATION	8.934	8.8904	-0.0436

### TID vs Post - Pre Exposure Delta

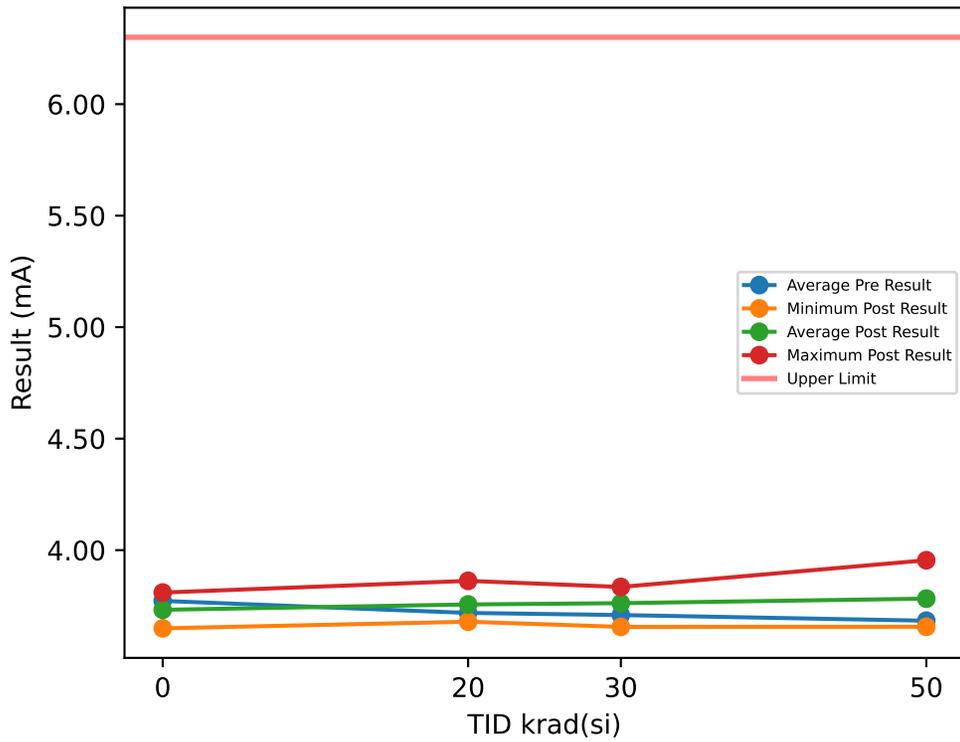


### Test Statistics (mA)

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	8.7682	8.9353	9.1029	0.13664	8.7928	8.9151	9.0323	0.10031	-0.0706	-0.020275	0.0246	0.044416
20	8.8352	8.945	8.9998	0.052818	8.8277	8.954	9.0769	0.081639	-0.0982	0.00901	0.1333	0.075491
30	8.7908	8.9295	9.0321	0.084621	8.8256	8.9556	9.0479	0.084214	-0.0314	0.02614	0.0915	0.037363
50	8.7021	8.9147	9.0949	0.11416	8.796	9.0251	9.212	0.12518	0.0761	0.11042	0.186	0.03748

# Device Test: 12.2 IQ|PWM/BOOT/10/8///0MHz/@IQ\_HS\_PWM

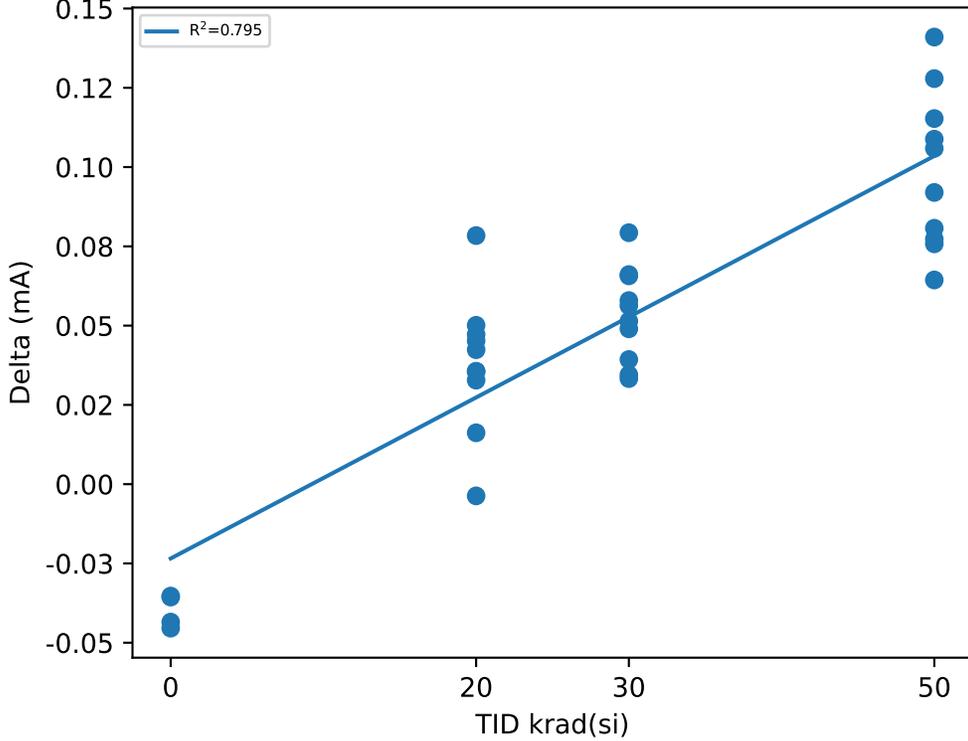
## TID vs Result Stats



## Test Results (Upper Limit = 6.3 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.6918	3.737	0.0452
2	20	HDR BIAS	3.7505	3.7667	0.0162
3	20	HDR BIAS	3.6366	3.679	0.0424
4	20	HDR BIAS	3.7838	3.8622	0.0784
5	20	HDR BIAS	3.6872	3.7373	0.0501
6	20	HDR UNBIAS	3.733	3.7293	-0.0037
7	20	HDR UNBIAS	3.7697	3.8169	0.0472
8	20	HDR UNBIAS	3.6863	3.7219	0.0356
9	20	HDR UNBIAS	3.6706	3.7034	0.0328
10	20	HDR UNBIAS	3.7755	3.811	0.0355
11	30	HDR BIAS	3.7312	3.8105	0.0793
12	30	HDR BIAS	3.7127	3.7788	0.0661
13	30	HDR BIAS	3.724	3.7897	0.0657
14	30	HDR BIAS	3.7232	3.7625	0.0393
15	30	HDR BIAS	3.786	3.835	0.049
16	30	HDR UNBIAS	3.6227	3.656	0.0333
17	30	HDR UNBIAS	3.6595	3.694	0.0345
18	30	HDR UNBIAS	3.7459	3.8022	0.0563
19	30	HDR UNBIAS	3.6814	3.7328	0.0514
20	30	HDR UNBIAS	3.7033	3.7612	0.0579
21	50	HDR BIAS	3.6207	3.6965	0.0758
22	50	HDR BIAS	3.6964	3.8117	0.1153
23	50	HDR BIAS	3.7824	3.9234	0.141
24	50	HDR BIAS	3.8268	3.9547	0.1279
25	50	HDR BIAS	3.6396	3.7484	0.1088
26	50	HDR UNBIAS	3.6401	3.7045	0.0644
27	50	HDR UNBIAS	3.6782	3.7841	0.1059
28	50	HDR UNBIAS	3.6826	3.7746	0.092
29	50	HDR UNBIAS	3.6939	3.7712	0.0773
30	50	HDR UNBIAS	3.5756	3.6563	0.0807
41	0	CORRELATION	3.6948	3.6494	-0.0454
42	0	CORRELATION	3.8347	3.7994	-0.0353
43	0	CORRELATION	3.7151	3.6716	-0.0435
45	0	CORRELATION	3.8454	3.8098	-0.0356

## TID vs Post - Pre Exposure Delta

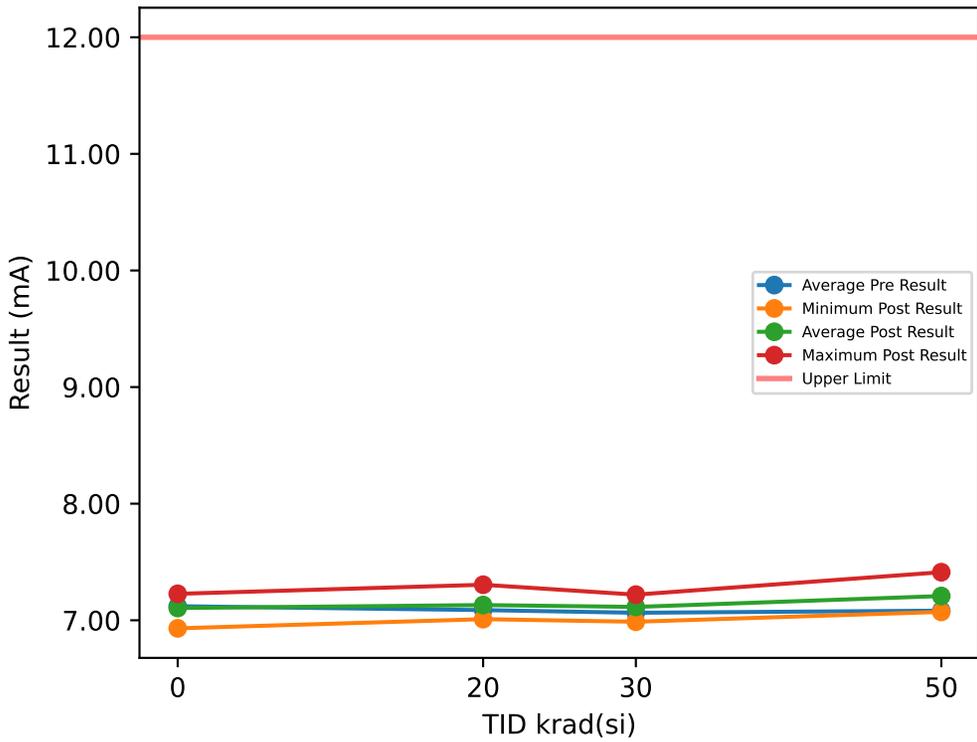


## Test Statistics (mA)

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	3.6948	3.7725	3.8454	0.078561	3.6494	3.7325	3.8098	0.083796	-0.0454	-0.03995	-0.0353	0.0052552
20	3.6366	3.7185	3.7838	0.050663	3.679	3.7565	3.8622	0.057161	-0.0037	0.03797	0.0784	0.021571
30	3.6227	3.709	3.786	0.045845	3.656	3.7623	3.835	0.054833	0.0333	0.05328	0.0793	0.01489
50	3.5756	3.6836	3.8268	0.074548	3.6563	3.7825	3.9547	0.094939	0.0644	0.09891	0.141	0.024941

# Device Test: 12.20 IOP|PWM/BOOT/14/14///0.5MHz/@I\_OP\_HS\_PWM\_500KHZ

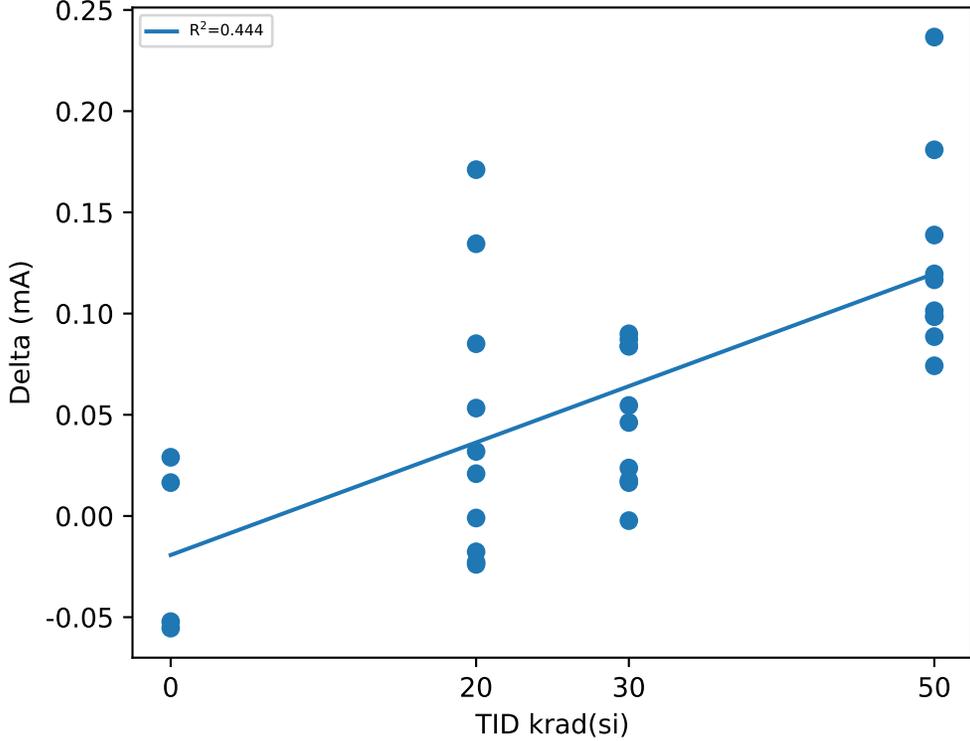
### TID vs Result Stats



### Test Results (Upper Limit = 12.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	7.13	7.1072	-0.0228
2	20	HDR BIAS	7.1022	7.0783	-0.0239
3	20	HDR BIAS	7.0273	7.0096	-0.0177
4	20	HDR BIAS	7.1659	7.1868	0.0209
5	20	HDR BIAS	7.0106	7.0096	-0.001
6	20	HDR UNBIAS	7.0826	7.1145	0.0319
7	20	HDR UNBIAS	7.2197	7.3048	0.0851
8	20	HDR UNBIAS	7.049	7.1023	0.0533
9	20	HDR UNBIAS	7.0126	7.1837	0.1711
10	20	HDR UNBIAS	7.0741	7.2086	0.1345
11	30	HDR BIAS	7.0352	7.0814	0.0462
12	30	HDR BIAS	7.1037	7.1202	0.0165
13	30	HDR BIAS	7.0395	7.0632	0.0237
14	30	HDR BIAS	7.1508	7.1485	-0.0023
15	30	HDR BIAS	7.1079	7.1255	0.0176
16	30	HDR UNBIAS	7.0499	7.1338	0.0839
17	30	HDR UNBIAS	6.9329	6.9875	0.0546
18	30	HDR UNBIAS	7.0721	7.1594	0.0873
19	30	HDR UNBIAS	7.1298	7.2198	0.09
20	30	HDR UNBIAS	7.0223	7.1062	0.0839
21	50	HDR BIAS	7.0401	7.1143	0.0742
22	50	HDR BIAS	7.062	7.1606	0.0986
23	50	HDR BIAS	7.1505	7.2893	0.1388
24	50	HDR BIAS	7.2956	7.4123	0.1167
25	50	HDR BIAS	7.0724	7.1709	0.0985
26	50	HDR UNBIAS	7.0424	7.131	0.0886
27	50	HDR UNBIAS	7.0378	7.2744	0.2366
28	50	HDR UNBIAS	7.0279	7.2088	0.1809
29	50	HDR UNBIAS	7.1261	7.2457	0.1196
30	50	HDR UNBIAS	6.9706	7.072	0.1014
41	0	CORRELATION	6.9864	6.931	-0.0554
42	0	CORRELATION	7.1979	7.2269	0.029
43	0	CORRELATION	7.0959	7.1124	0.0165
45	0	CORRELATION	7.2028	7.1506	-0.0522

### TID vs Post - Pre Exposure Delta

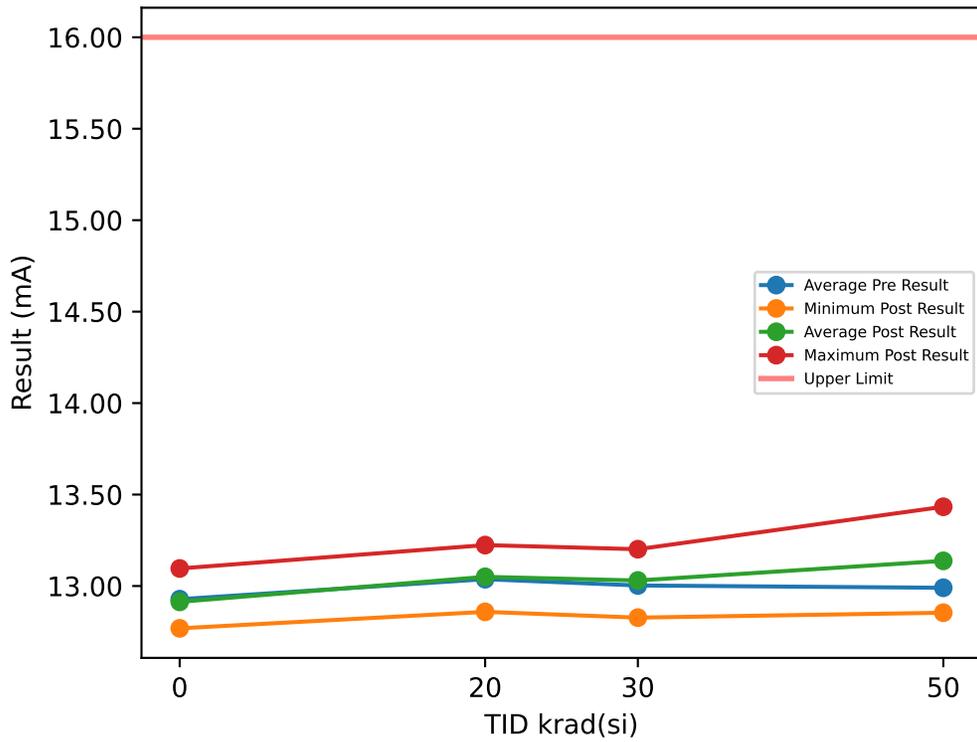


### Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	6.9864	7.1208	7.2028	0.10223	6.931	7.1052	7.2269	0.12552	-0.0554	-0.015525	0.029	0.044509
20	7.0106	7.0874	7.2197	0.068702	7.0096	7.1305	7.3048	0.091913	-0.0239	0.04314	0.1711	0.068067
30	6.9329	7.0644	7.1508	0.063233	6.9875	7.1145	7.2198	0.062103	-0.0023	0.05014	0.09	0.034839
50	6.9706	7.0825	7.2956	0.090287	7.072	7.2079	7.4123	0.10056	0.0742	0.12539	0.2366	0.049135

# Device Test: 12.21 IOP|PWM/VIN/14/14///1MHz/@I\_OP\_LS\_PWM\_1MHZ

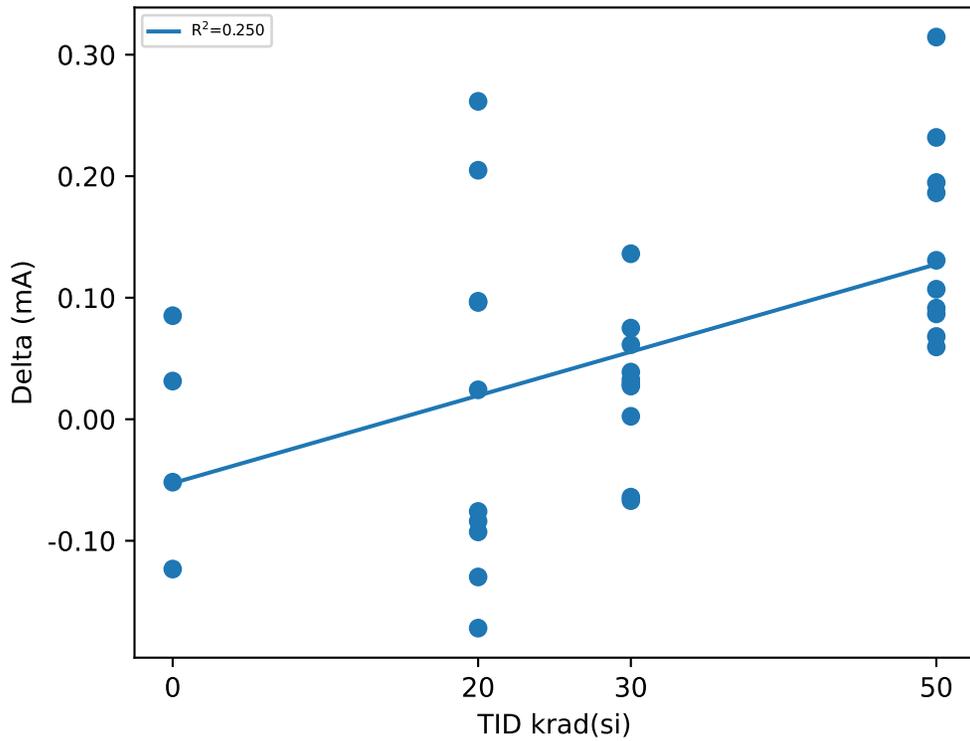
### TID vs Result Stats



### Test Results (Upper Limit = 16.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	12.977	12.884	-0.0927
2	20	HDR BIAS	13.054	12.978	-0.0759
3	20	HDR BIAS	13.084	13	-0.0839
4	20	HDR BIAS	13.153	12.982	-0.1719
5	20	HDR BIAS	12.989	12.859	-0.1298
6	20	HDR UNBIAS	13.128	13.224	0.0961
7	20	HDR UNBIAS	13.121	13.219	0.0971
8	20	HDR UNBIAS	12.993	13.018	0.0242
9	20	HDR UNBIAS	12.859	13.12	0.2616
10	20	HDR UNBIAS	13.014	13.219	0.2049
11	30	HDR BIAS	13.108	13.111	0.0024
12	30	HDR BIAS	13.21	13.146	-0.0641
13	30	HDR BIAS	12.969	12.997	0.0273
14	30	HDR BIAS	12.866	12.896	0.0294
15	30	HDR BIAS	12.953	12.886	-0.067
16	30	HDR UNBIAS	12.929	12.962	0.0328
17	30	HDR UNBIAS	12.972	13.109	0.1362
18	30	HDR UNBIAS	13.14	13.201	0.0614
19	30	HDR UNBIAS	12.752	12.827	0.075
20	30	HDR UNBIAS	13.13	13.168	0.0388
21	50	HDR BIAS	13.135	13.221	0.0867
22	50	HDR BIAS	12.763	12.854	0.0914
23	50	HDR BIAS	13.05	13.157	0.107
24	50	HDR BIAS	12.943	13.011	0.0681
25	50	HDR BIAS	12.824	12.884	0.0595
26	50	HDR UNBIAS	13.063	13.194	0.1308
27	50	HDR UNBIAS	12.977	13.292	0.3145
28	50	HDR UNBIAS	12.899	13.131	0.2319
29	50	HDR UNBIAS	13.004	13.198	0.1948
30	50	HDR UNBIAS	13.247	13.433	0.1863
41	0	CORRELATION	13.219	13.096	-0.1233
42	0	CORRELATION	12.684	12.769	0.0852
43	0	CORRELATION	12.88	12.912	0.0314
45	0	CORRELATION	12.929	12.878	-0.0518

### TID vs Post - Pre Exposure Delta

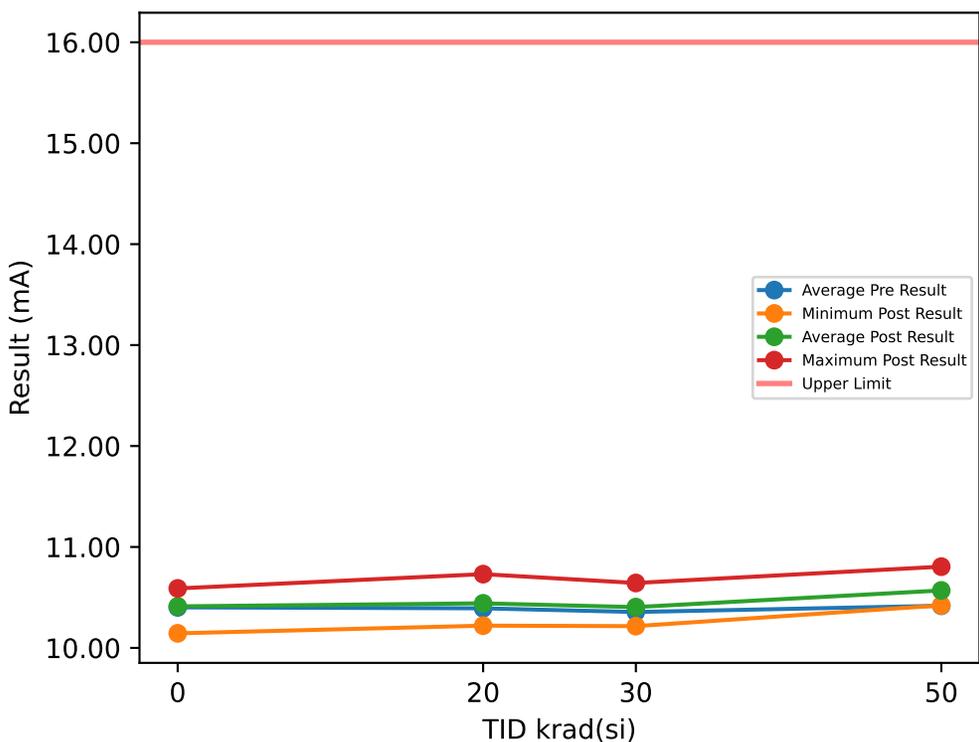


### Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	12.684	12.928	13.219	0.22126	12.769	12.913	13.096	0.13605	-0.1233	-0.014625	0.0852	0.091789
20	12.859	13.037	13.153	0.089112	12.859	13.05	13.224	0.13728	-0.1719	0.01297	0.2616	0.14749
30	12.752	13.003	13.21	0.14159	12.827	13.03	13.201	0.13348	-0.067	0.02722	0.1362	0.060856
50	12.763	12.99	13.247	0.14373	12.854	13.137	13.433	0.1784	0.0595	0.1471	0.3145	0.082708

# Device Test: 12.22 IOP|PWM/BOOT/14/14///1MHz/@I\_OP\_HS\_PWM\_1MHZ

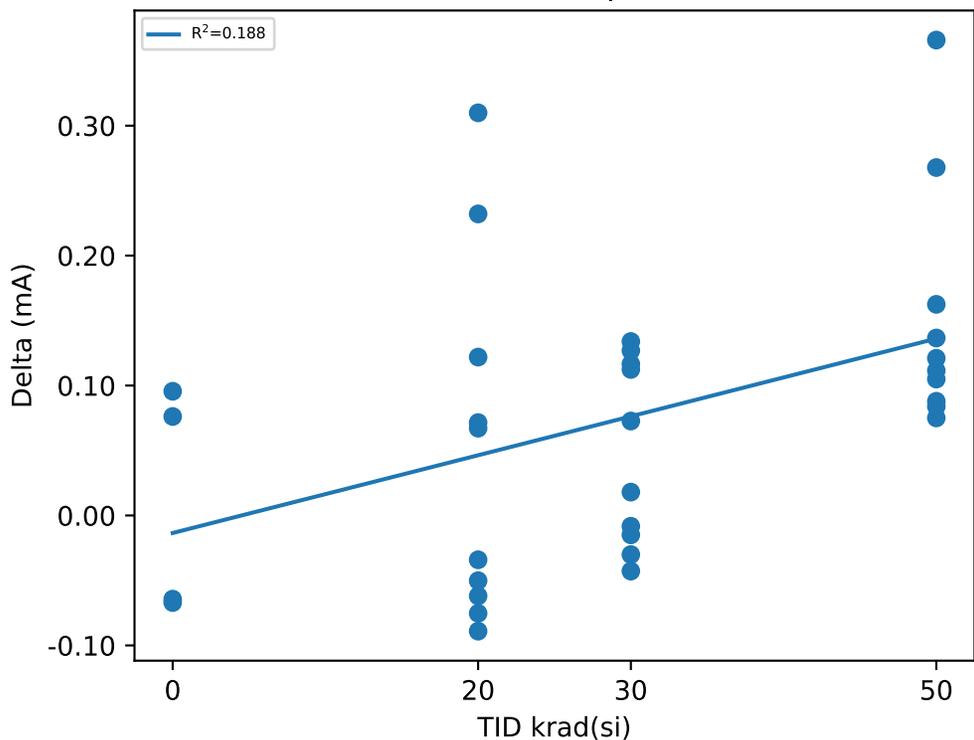
### TID vs Result Stats



### Test Results (Upper Limit = 16.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	10.505	10.416	-0.089
2	20	HDR BIAS	10.388	10.326	-0.0619
3	20	HDR BIAS	10.353	10.277	-0.0753
4	20	HDR BIAS	10.483	10.449	-0.0341
5	20	HDR BIAS	10.271	10.22	-0.0502
6	20	HDR UNBIAS	10.368	10.435	0.0672
7	20	HDR UNBIAS	10.609	10.731	0.1219
8	20	HDR UNBIAS	10.346	10.418	0.0715
9	20	HDR UNBIAS	10.292	10.602	0.3099
10	20	HDR UNBIAS	10.308	10.54	0.2321
11	30	HDR BIAS	10.274	10.292	0.018
12	30	HDR BIAS	10.43	10.4	-0.0301
13	30	HDR BIAS	10.29	10.275	-0.0149
14	30	HDR BIAS	10.515	10.473	-0.0428
15	30	HDR BIAS	10.366	10.358	-0.0083
16	30	HDR UNBIAS	10.414	10.548	0.1339
17	30	HDR UNBIAS	10.143	10.216	0.0727
18	30	HDR UNBIAS	10.332	10.449	0.1166
19	30	HDR UNBIAS	10.516	10.643	0.1269
20	30	HDR UNBIAS	10.277	10.389	0.1124
21	50	HDR BIAS	10.394	10.47	0.0751
22	50	HDR BIAS	10.365	10.449	0.0839
23	50	HDR BIAS	10.455	10.592	0.1366
24	50	HDR BIAS	10.7	10.805	0.105
25	50	HDR BIAS	10.441	10.529	0.0879
26	50	HDR UNBIAS	10.383	10.494	0.1115
27	50	HDR UNBIAS	10.335	10.701	0.3659
28	50	HDR UNBIAS	10.309	10.577	0.2678
29	50	HDR UNBIAS	10.493	10.655	0.1625
30	50	HDR UNBIAS	10.3	10.421	0.121
41	0	CORRELATION	10.209	10.144	-0.0644
42	0	CORRELATION	10.494	10.589	0.0956
43	0	CORRELATION	10.411	10.487	0.0762
45	0	CORRELATION	10.493	10.426	-0.067

### TID vs Post - Pre Exposure Delta

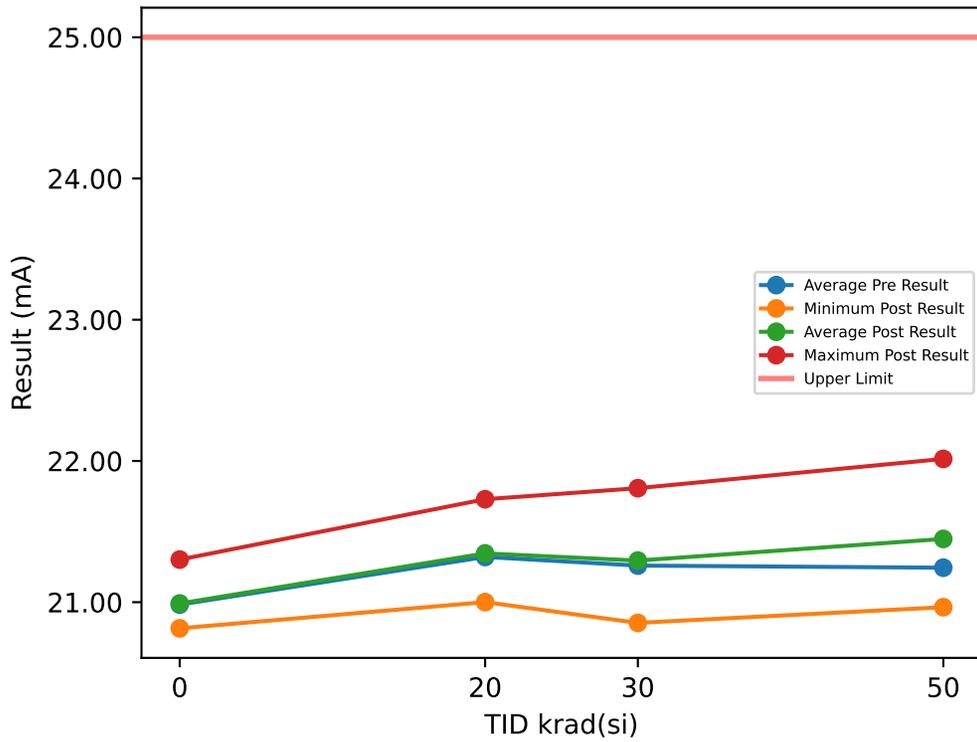


### Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	10.209	10.402	10.494	0.13428	10.144	10.412	10.589	0.19051	-0.067	0.0101	0.0956	0.08789
20	10.271	10.392	10.609	0.10754	10.22	10.441	10.731	0.15258	-0.089	0.04921	0.3099	0.13796
30	10.143	10.356	10.516	0.11706	10.216	10.404	10.643	0.12982	-0.0428	0.04844	0.1339	0.071052
50	10.3	10.418	10.7	0.11751	10.421	10.569	10.805	0.12223	0.0751	0.15172	0.3659	0.093678

# Device Test: 12.23 IOP|PWM/VIN/14/14///2MHz/@I\_OP\_LS\_PWM\_2MHZ

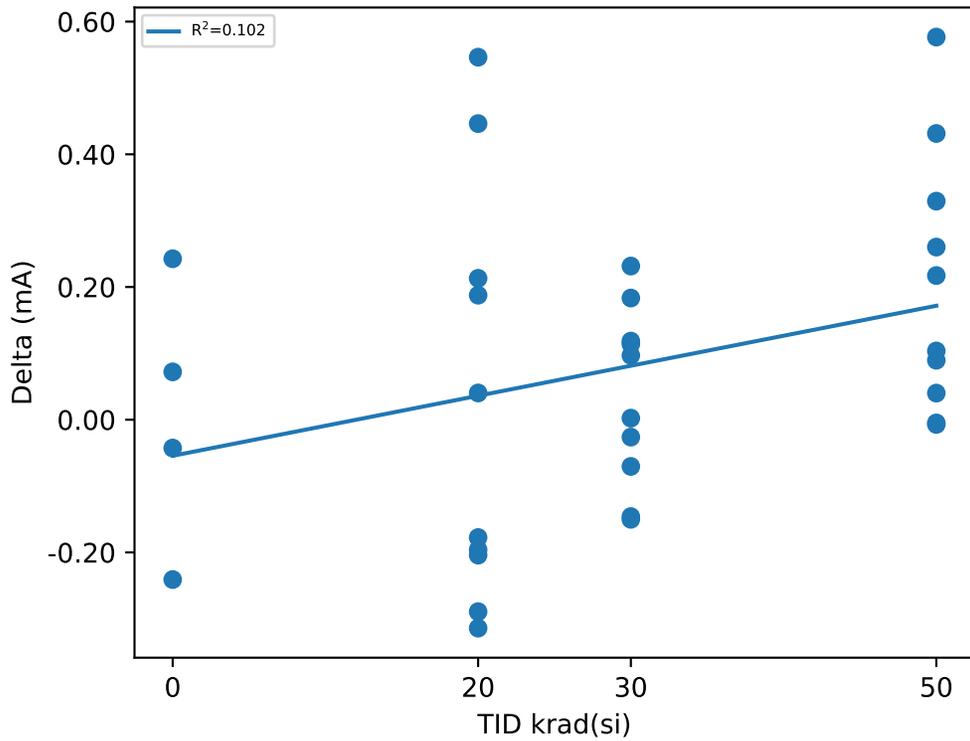
### TID vs Result Stats



### Test Results (Upper Limit = 25.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	21.206	21.01	-0.196
2	20	HDR BIAS	21.334	21.156	-0.1776
3	20	HDR BIAS	21.375	21.171	-0.2041
4	20	HDR BIAS	21.711	21.397	-0.3141
5	20	HDR BIAS	21.29	21	-0.2893
6	20	HDR UNBIAS	21.541	21.729	0.1877
7	20	HDR UNBIAS	21.439	21.652	0.2131
8	20	HDR UNBIAS	21.15	21.191	0.0403
9	20	HDR UNBIAS	20.977	21.523	0.5464
10	20	HDR UNBIAS	21.179	21.626	0.4463
11	30	HDR BIAS	21.378	21.308	-0.0704
12	30	HDR BIAS	21.671	21.525	-0.146
13	30	HDR BIAS	21.069	21.043	-0.0262
14	30	HDR BIAS	20.959	20.961	0.0024
15	30	HDR BIAS	21.232	21.082	-0.1501
16	30	HDR UNBIAS	21.128	21.242	0.114
17	30	HDR UNBIAS	21.228	21.459	0.2316
18	30	HDR UNBIAS	21.569	21.666	0.0969
19	30	HDR UNBIAS	20.735	20.854	0.1185
20	30	HDR UNBIAS	21.624	21.807	0.1834
21	50	HDR BIAS	21.515	21.604	0.0896
22	50	HDR BIAS	21.119	21.112	-0.0071
23	50	HDR BIAS	21.151	21.255	0.1036
24	50	HDR BIAS	21.086	21.126	0.0401
25	50	HDR BIAS	20.97	20.965	-0.0049
26	50	HDR UNBIAS	21.494	21.711	0.2173
27	50	HDR UNBIAS	21.109	21.686	0.5767
28	50	HDR UNBIAS	21.037	21.468	0.4314
29	50	HDR UNBIAS	21.279	21.539	0.2602
30	50	HDR UNBIAS	21.685	22.015	0.3294
41	0	CORRELATION	21.543	21.302	-0.2409
42	0	CORRELATION	20.572	20.815	0.2426
43	0	CORRELATION	20.824	20.896	0.0721
45	0	CORRELATION	20.994	20.951	-0.0427

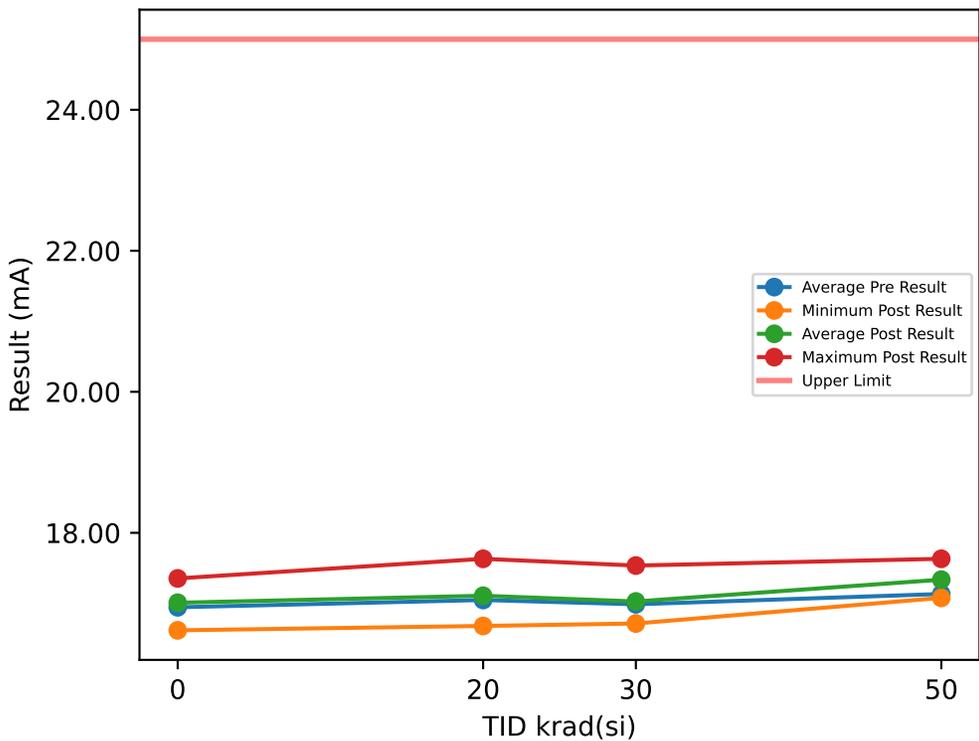
### TID vs Post - Pre Exposure Delta



### 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	20.572	20.983	21.543	0.41116	20.815	20.991	21.302	0.21459	-0.2409	0.007775	0.2426	0.20303
20	20.977	21.32	21.711	0.21063	21	21.346	21.729	0.27402	-0.3141	0.02527	0.5464	0.31048
30	20.735	21.259	21.671	0.30422	20.854	21.295	21.807	0.3159	-0.1501	0.03541	0.2316	0.13361
50	20.97	21.244	21.685	0.23973	20.965	21.448	22.015	0.32789	-0.0071	0.20363	0.5767	0.19661

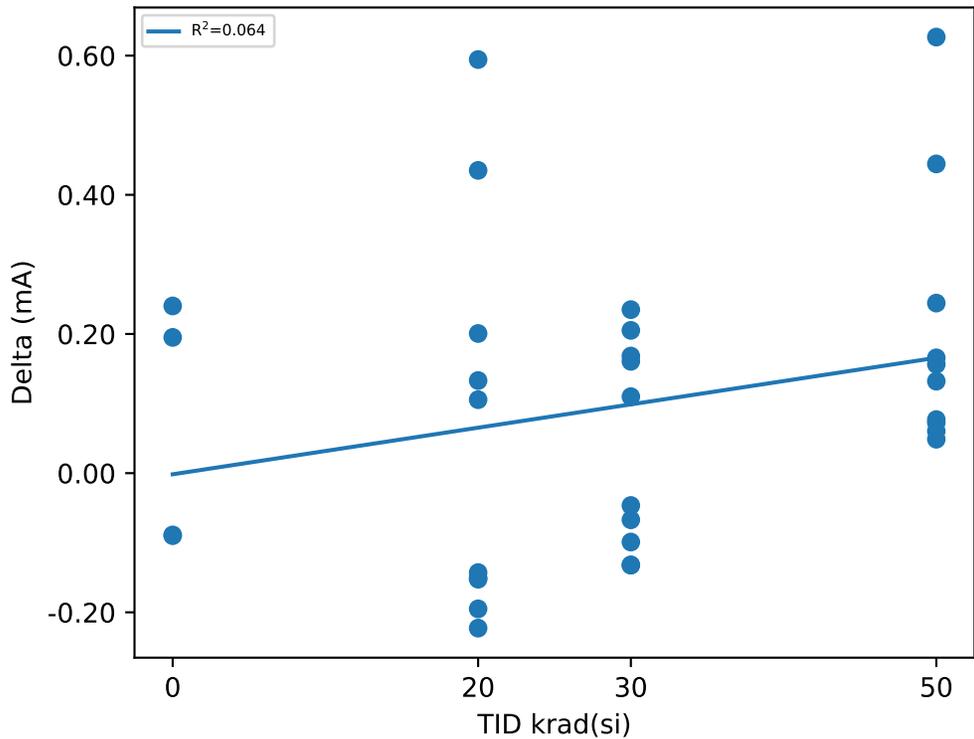
TID vs Result Stats



Test Results (Upper Limit = 25.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	17.296	17.073	-0.2227
2	20	HDR BIAS	17.008	16.865	-0.1429
3	20	HDR BIAS	17.043	16.848	-0.195
4	20	HDR BIAS	17.171	17.02	-0.1507
5	20	HDR BIAS	16.832	16.679	-0.1524
6	20	HDR UNBIAS	16.984	17.117	0.1331
7	20	HDR UNBIAS	17.431	17.631	0.2007
8	20	HDR UNBIAS	16.991	17.096	0.1056
9	20	HDR UNBIAS	16.889	17.484	0.5944
10	20	HDR UNBIAS	16.826	17.262	0.4351
11	30	HDR BIAS	16.794	16.748	-0.0465
12	30	HDR BIAS	17.145	17.012	-0.132
13	30	HDR BIAS	16.835	16.736	-0.099
14	30	HDR BIAS	17.295	17.163	-0.1321
15	30	HDR BIAS	16.925	16.858	-0.067
16	30	HDR UNBIAS	17.193	17.428	0.235
17	30	HDR UNBIAS	16.604	16.714	0.1099
18	30	HDR UNBIAS	16.903	17.072	0.1683
19	30	HDR UNBIAS	17.33	17.536	0.2052
20	30	HDR UNBIAS	16.838	16.999	0.1607
21	50	HDR BIAS	17.141	17.218	0.077
22	50	HDR BIAS	17.029	17.077	0.0488
23	50	HDR BIAS	17.099	17.232	0.1322
24	50	HDR BIAS	17.559	17.631	0.0726
25	50	HDR BIAS	17.215	17.275	0.0605
26	50	HDR UNBIAS	17.115	17.271	0.1564
27	50	HDR UNBIAS	16.97	17.597	0.6267
28	50	HDR UNBIAS	16.922	17.367	0.4444
29	50	HDR UNBIAS	17.268	17.513	0.2444
30	50	HDR UNBIAS	17.009	17.175	0.1657
41	0	CORRELATION	16.706	16.617	-0.0888
42	0	CORRELATION	17.113	17.353	0.2403
43	0	CORRELATION	16.844	17.039	0.1951
45	0	CORRELATION	17.113	17.023	-0.0898

TID vs Post - Pre Exposure Delta

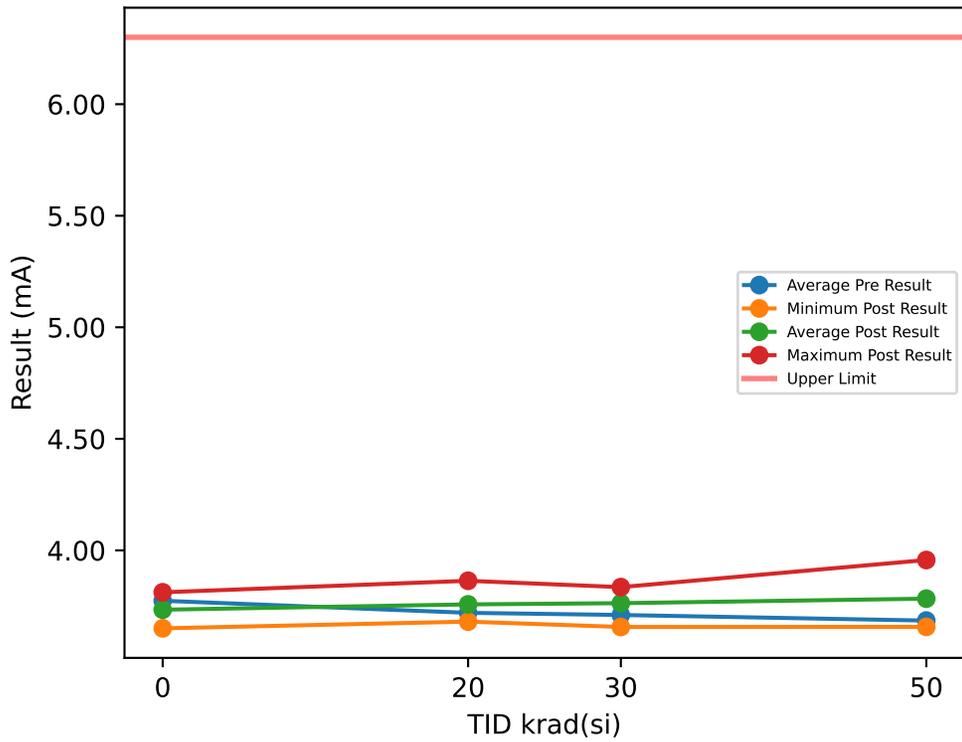


Test Statistics (mA)

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	16.706	16.944	17.113	0.20319	16.617	17.008	17.353	0.30184	-0.0898	0.0642	0.2403	0.1782
20	16.826	17.047	17.431	0.1981	16.679	17.108	17.631	0.29018	-0.2227	0.06052	0.5944	0.28463
30	16.604	16.986	17.33	0.24041	16.714	17.026	17.536	0.28484	-0.1321	0.04025	0.235	0.14858
50	16.922	17.133	17.559	0.1841	17.077	17.336	17.631	0.18653	0.0488	0.20287	0.6267	0.19004

# Device Test: 12.26 IQ|IIM\_EN/BOOT/10/8///0MHz/@IQ\_HS\_IIM

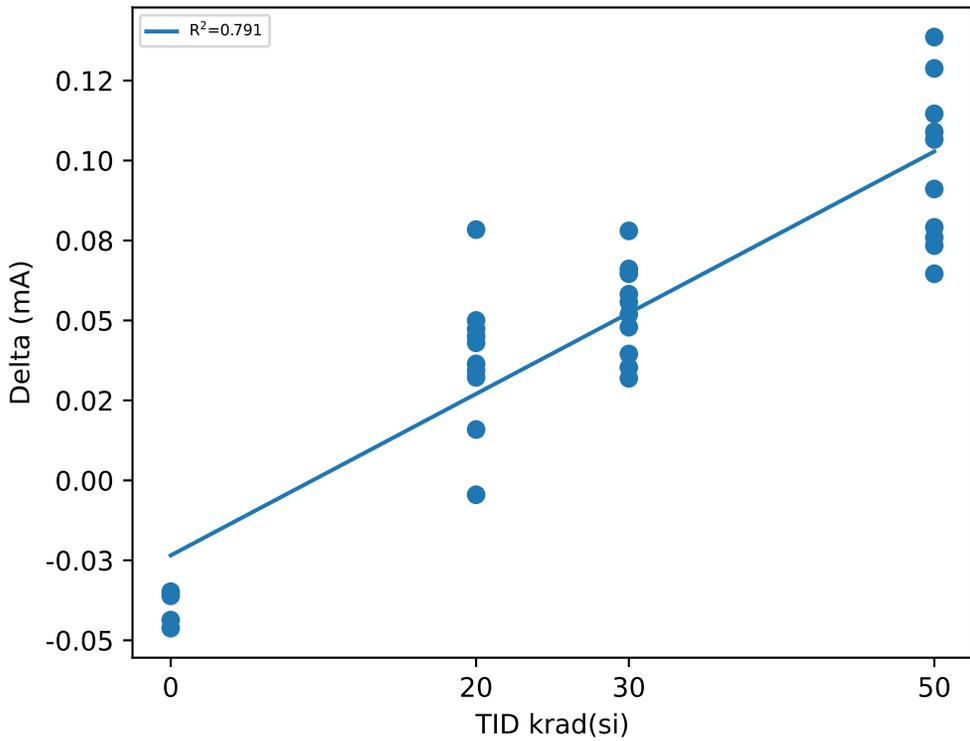
## TID vs Result Stats



## Test Results (Upper Limit = 6.3 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.6943	3.7393	0.045
2	20	HDR BIAS	3.7526	3.7685	0.0159
3	20	HDR BIAS	3.6377	3.6807	0.043
4	20	HDR BIAS	3.7853	3.8637	0.0784
5	20	HDR BIAS	3.6881	3.7381	0.05
6	20	HDR UNBIAS	3.7356	3.7311	-0.0045
7	20	HDR UNBIAS	3.7711	3.8184	0.0473
8	20	HDR UNBIAS	3.6882	3.7225	0.0343
9	20	HDR UNBIAS	3.6721	3.7043	0.0322
10	20	HDR UNBIAS	3.7764	3.8128	0.0364
11	30	HDR BIAS	3.7331	3.8111	0.078
12	30	HDR BIAS	3.7147	3.7808	0.0661
13	30	HDR BIAS	3.7249	3.7895	0.0646
14	30	HDR BIAS	3.7248	3.7643	0.0395
15	30	HDR BIAS	3.7874	3.8353	0.0479
16	30	HDR UNBIAS	3.6248	3.6567	0.0319
17	30	HDR UNBIAS	3.6607	3.696	0.0353
18	30	HDR UNBIAS	3.7464	3.8046	0.0582
19	30	HDR UNBIAS	3.6822	3.7341	0.0519
20	30	HDR UNBIAS	3.7057	3.7614	0.0557
21	50	HDR BIAS	3.6226	3.696	0.0734
22	50	HDR BIAS	3.6984	3.813	0.1146
23	50	HDR BIAS	3.7847	3.9233	0.1386
24	50	HDR BIAS	3.828	3.9568	0.1288
25	50	HDR BIAS	3.6411	3.7501	0.109
26	50	HDR UNBIAS	3.6415	3.7061	0.0646
27	50	HDR UNBIAS	3.6799	3.7865	0.1066
28	50	HDR UNBIAS	3.6845	3.7756	0.0911
29	50	HDR UNBIAS	3.6952	3.7711	0.0759
30	50	HDR UNBIAS	3.578	3.6571	0.0791
41	0	CORRELATION	3.6968	3.6506	-0.0462
42	0	CORRELATION	3.8371	3.801	-0.0361
43	0	CORRELATION	3.7165	3.6728	-0.0437
45	0	CORRELATION	3.8469	3.8121	-0.0348

## TID vs Post - Pre Exposure Delta

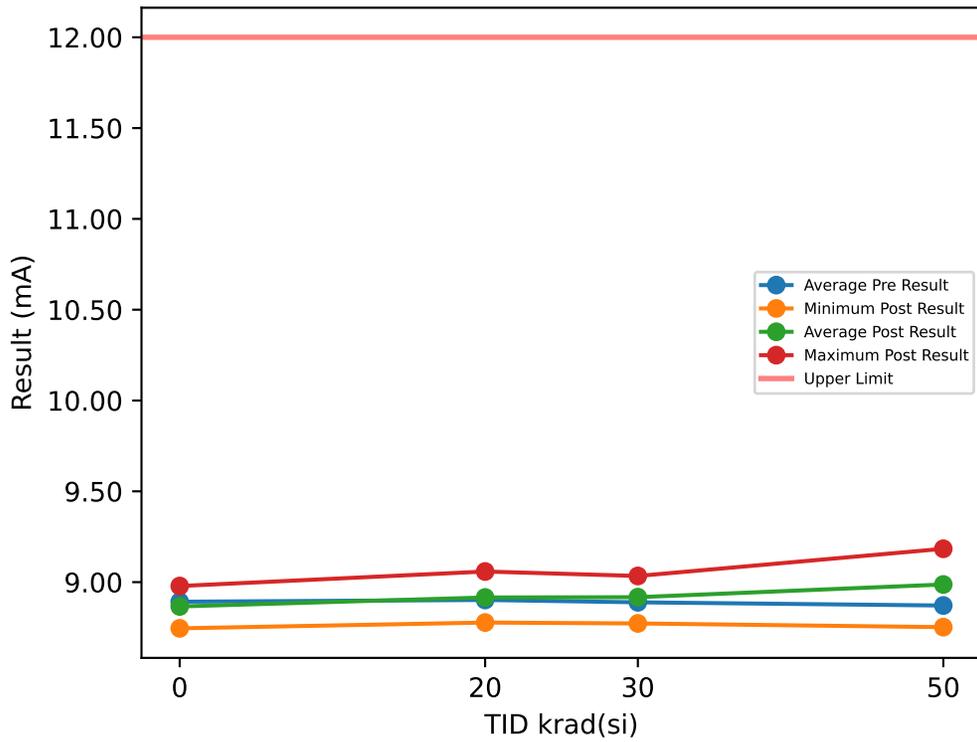


## Test Statistics (mA)

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	3.6968	3.7743	3.8469	0.078659	3.6506	3.7341	3.8121	0.084241	-0.0462	-0.0402	-0.0348	0.0056042
20	3.6377	3.7201	3.7853	0.050683	3.6807	3.7579	3.8637	0.057274	-0.0045	0.0378	0.0784	0.021809
30	3.6248	3.7105	3.7874	0.045694	3.6567	3.7634	3.8353	0.054688	0.0319	0.05291	0.078	0.014657
50	3.578	3.6854	3.828	0.074431	3.6571	3.7836	3.9568	0.095109	0.0646	0.09817	0.1386	0.025125

# Device Test: 12.3 IOP|PWM/VIN/10/8///0.5MHz/@I\_OP\_LS\_PWM\_500KHZ

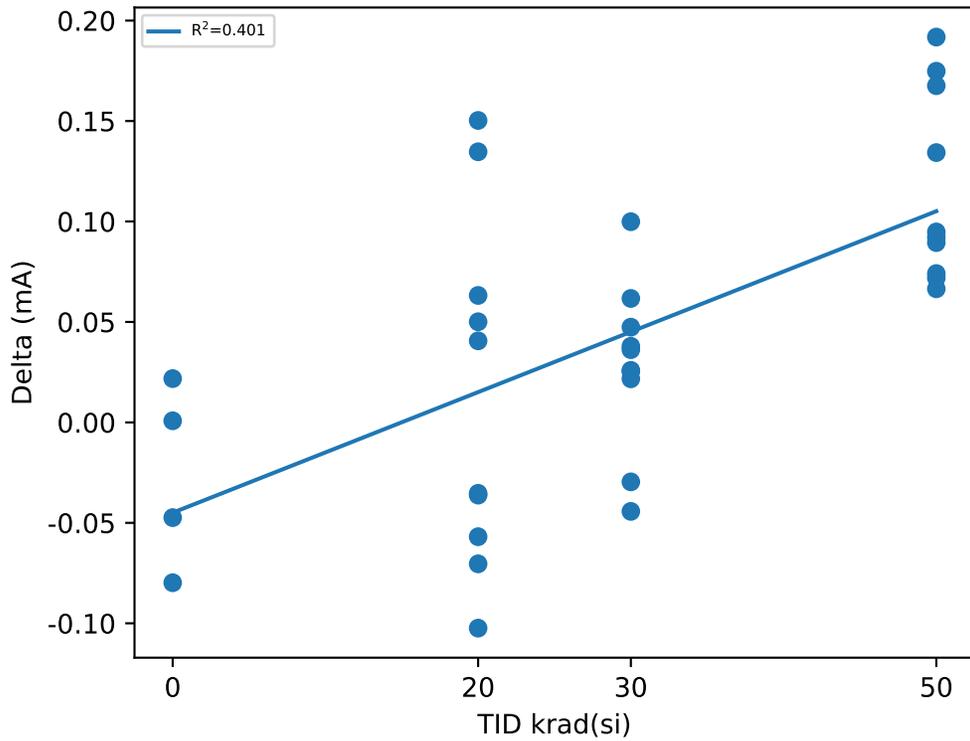
### TID vs Result Stats



### Test Results (Upper Limit = 12.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	8.8596	8.8027	-0.0569
2	20	HDR BIAS	8.9178	8.8825	-0.0353
3	20	HDR BIAS	8.9343	8.8981	-0.0362
4	20	HDR BIAS	8.9482	8.8458	-0.1024
5	20	HDR BIAS	8.8479	8.7775	-0.0704
6	20	HDR UNBIAS	8.9331	8.9963	0.0632
7	20	HDR UNBIAS	8.9558	9.0059	0.0501
8	20	HDR UNBIAS	8.9101	8.9507	0.0406
9	20	HDR UNBIAS	8.7875	8.9378	0.1503
10	20	HDR UNBIAS	8.9238	9.0585	0.1347
11	30	HDR BIAS	8.9637	8.9896	0.0259
12	30	HDR BIAS	8.9896	8.96	-0.0296
13	30	HDR BIAS	8.912	8.9499	0.0379
14	30	HDR BIAS	8.8128	8.849	0.0362
15	30	HDR BIAS	8.8169	8.7726	-0.0443
16	30	HDR UNBIAS	8.838	8.8597	0.0217
17	30	HDR UNBIAS	8.8574	8.9573	0.0999
18	30	HDR UNBIAS	8.9723	9.034	0.0617
19	30	HDR UNBIAS	8.7488	8.7962	0.0474
20	30	HDR UNBIAS	8.9777	9.0031	0.0254
21	50	HDR BIAS	8.9546	9.0211	0.0665
22	50	HDR BIAS	8.6627	8.7522	0.0895
23	50	HDR BIAS	8.9876	9.0824	0.0948
24	50	HDR BIAS	8.8665	8.9406	0.0741
25	50	HDR BIAS	8.74	8.8119	0.0719
26	50	HDR UNBIAS	8.8782	8.9704	0.0922
27	50	HDR UNBIAS	8.8923	9.0841	0.1918
28	50	HDR UNBIAS	8.8235	8.9911	0.1676
29	50	HDR UNBIAS	8.8585	9.0333	0.1748
30	50	HDR UNBIAS	9.0493	9.1836	0.1343
41	0	CORRELATION	9.0584	8.9786	-0.0798
42	0	CORRELATION	8.7239	8.7457	0.0218
43	0	CORRELATION	8.8939	8.8947	0.0008
45	0	CORRELATION	8.8931	8.8457	-0.0474

### TID vs Post - Pre Exposure Delta

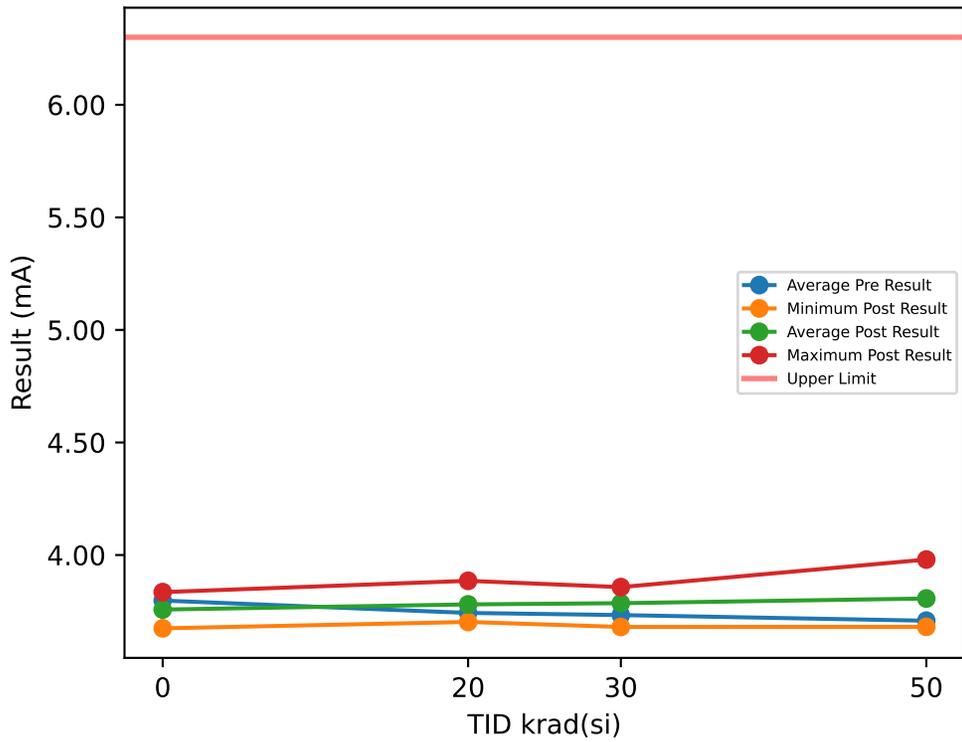


### Test Statistics (mA)

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	8.7239	8.8923	9.0584	0.13657	8.7457	8.8662	8.9786	0.097274	-0.0798	-0.02615	0.0218	0.046027
20	8.7875	8.9018	8.9558	0.0534	8.7775	8.9156	9.0585	0.091229	-0.1024	0.01377	0.1503	0.087067
30	8.7488	8.8889	8.9896	0.085177	8.7726	8.9171	9.034	0.090848	-0.0443	0.02822	0.0999	0.041422
50	8.6627	8.8713	9.0493	0.11346	8.7522	8.9871	9.1836	0.12855	0.0665	0.11575	0.1918	0.047221

# Device Test: 12.34 IQ|IIM\_EN/BOOT/12/10///0MHz/@IQ\_HS\_IIM

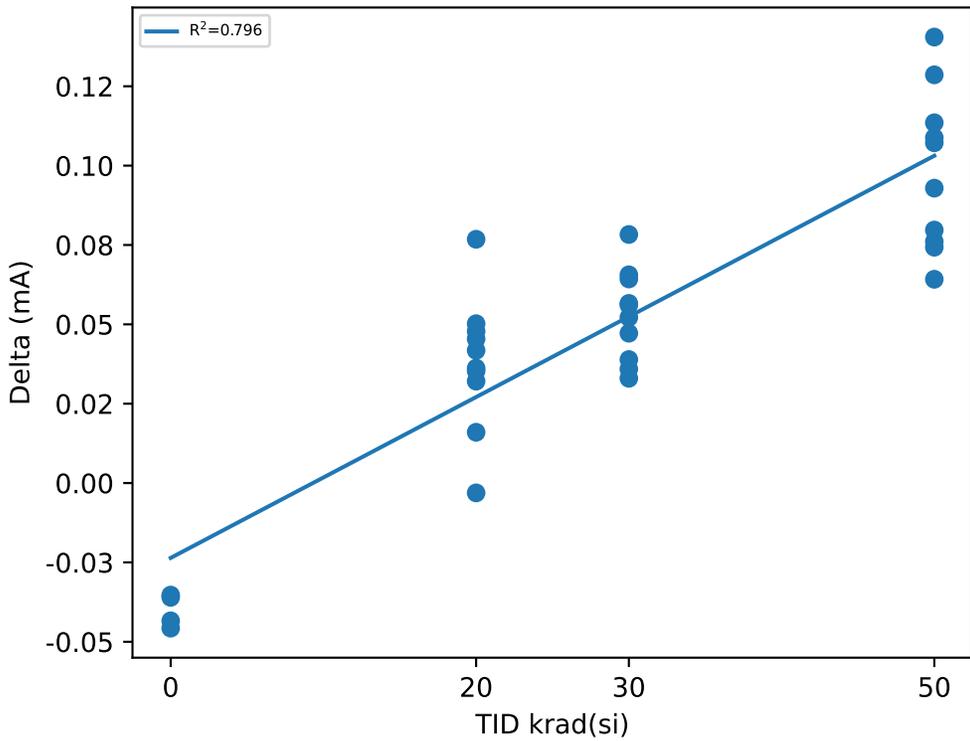
## TID vs Result Stats



## Test Results (Upper Limit = 6.3 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.7162	3.7616	0.0454
2	20	HDR BIAS	3.775	3.791	0.016
3	20	HDR BIAS	3.6609	3.7027	0.0418
4	20	HDR BIAS	3.8086	3.8854	0.0768
5	20	HDR BIAS	3.7113	3.7615	0.0502
6	20	HDR UNBIAS	3.7585	3.7554	-0.0031
7	20	HDR UNBIAS	3.7929	3.8407	0.0478
8	20	HDR UNBIAS	3.7105	3.7458	0.0353
9	20	HDR UNBIAS	3.6947	3.7268	0.0321
10	20	HDR UNBIAS	3.8001	3.8363	0.0362
11	30	HDR BIAS	3.7552	3.8335	0.0783
12	30	HDR BIAS	3.7377	3.8033	0.0656
13	30	HDR BIAS	3.7485	3.8128	0.0643
14	30	HDR BIAS	3.748	3.7869	0.0389
15	30	HDR BIAS	3.8103	3.8575	0.0472
16	30	HDR UNBIAS	3.6475	3.6805	0.033
17	30	HDR UNBIAS	3.6832	3.7191	0.0359
18	30	HDR UNBIAS	3.7694	3.826	0.0566
19	30	HDR UNBIAS	3.7044	3.7566	0.0522
20	30	HDR UNBIAS	3.7288	3.7849	0.0561
21	50	HDR BIAS	3.6453	3.7196	0.0743
22	50	HDR BIAS	3.7211	3.8346	0.1135
23	50	HDR BIAS	3.8071	3.9476	0.1405
24	50	HDR BIAS	3.8513	3.9799	0.1286
25	50	HDR BIAS	3.6643	3.7731	0.1088
26	50	HDR UNBIAS	3.6648	3.729	0.0642
27	50	HDR UNBIAS	3.702	3.8092	0.1072
28	50	HDR UNBIAS	3.7069	3.7998	0.0929
29	50	HDR UNBIAS	3.7185	3.7946	0.0761
30	50	HDR UNBIAS	3.6013	3.681	0.0797
41	0	CORRELATION	3.7201	3.6744	-0.0457
42	0	CORRELATION	3.8608	3.8248	-0.036
43	0	CORRELATION	3.7402	3.6968	-0.0434
45	0	CORRELATION	3.8705	3.8352	-0.0353

## TID vs Post - Pre Exposure Delta

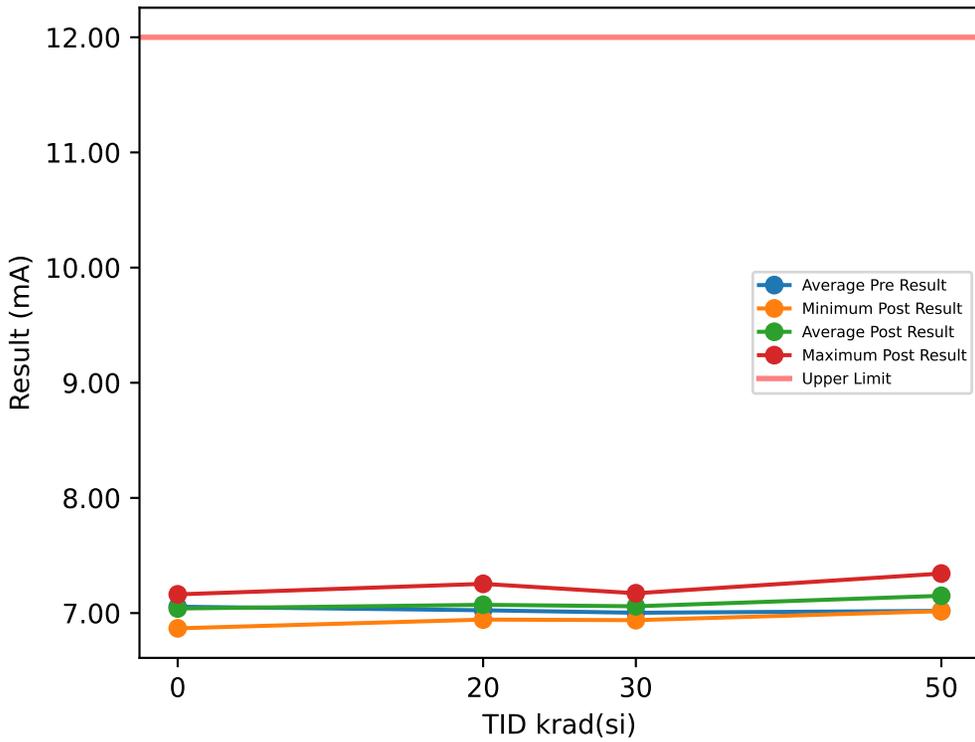


## Test Statistics (mA)

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	3.7201	3.7979	3.8705	0.07876	3.6744	3.7578	3.8352	0.083977	-0.0457	-0.0401	-0.0353	0.0052313
20	3.6609	3.7429	3.8086	0.05074	3.7027	3.7807	3.8854	0.057097	-0.0031	0.03785	0.0768	0.021181
30	3.6475	3.7333	3.8103	0.045832	3.6805	3.7861	3.8575	0.05422	0.033	0.05281	0.0783	0.014431
50	3.6013	3.7083	3.8513	0.074361	3.681	3.8068	3.9799	0.095092	0.0642	0.09858	0.1405	0.025222

# Device Test: 12.4 IOP|PWM/BOOT/10/8///0.5MHz/@I\_OP\_HS\_PWM\_500KHZ

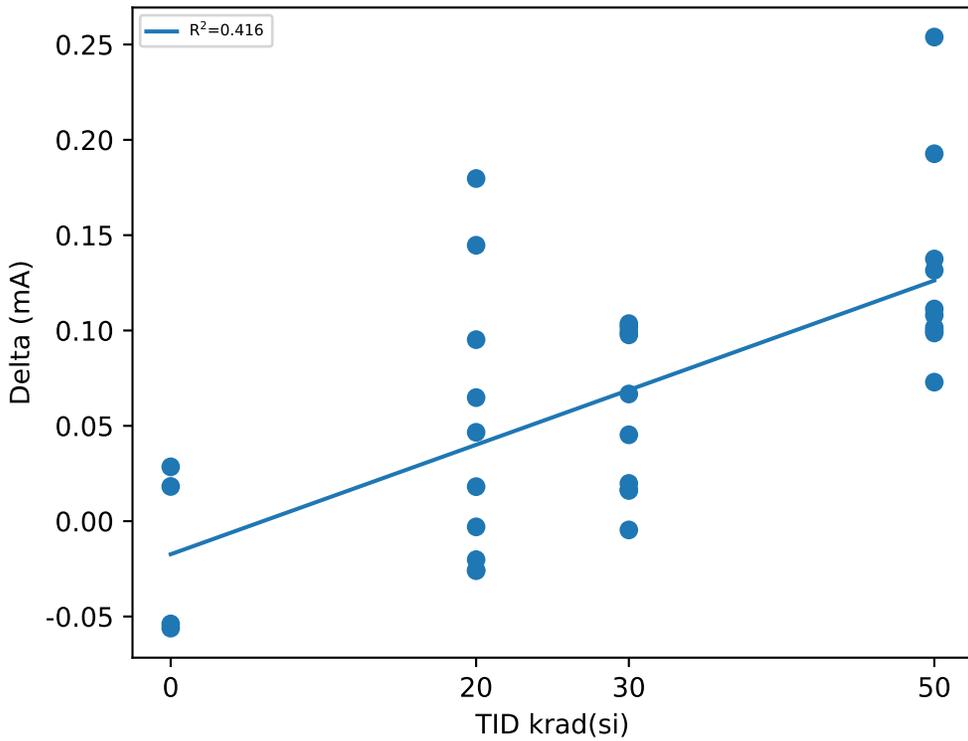
### TID vs Result Stats



### Test Results (Upper Limit = 12.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	7.0674	7.0415	-0.0259
2	20	HDR BIAS	7.0423	7.0165	-0.0258
3	20	HDR BIAS	6.9638	6.9436	-0.0202
4	20	HDR BIAS	7.1012	7.1193	0.0181
5	20	HDR BIAS	6.9495	6.9465	-0.003
6	20	HDR UNBIAS	7.0212	7.0678	0.0466
7	20	HDR UNBIAS	7.1587	7.2539	0.0952
8	20	HDR UNBIAS	6.9879	7.0527	0.0648
9	20	HDR UNBIAS	6.9462	7.1259	0.1797
10	20	HDR UNBIAS	7.0059	7.1506	0.1447
11	30	HDR BIAS	6.9742	7.0195	0.0453
12	30	HDR BIAS	7.04	7.0561	0.0161
13	30	HDR BIAS	6.9783	6.9981	0.0198
14	30	HDR BIAS	7.0888	7.0842	-0.0046
15	30	HDR BIAS	7.0477	7.0642	0.0165
16	30	HDR UNBIAS	6.9866	7.0843	0.0977
17	30	HDR UNBIAS	6.8718	6.9385	0.0667
18	30	HDR UNBIAS	7.0101	7.112	0.1019
19	30	HDR UNBIAS	7.0685	7.1721	0.1036
20	30	HDR UNBIAS	6.9616	7.0608	0.0992
21	50	HDR BIAS	6.9773	7.0502	0.0729
22	50	HDR BIAS	6.998	7.0979	0.0999
23	50	HDR BIAS	7.088	7.2255	0.1375
24	50	HDR BIAS	7.2319	7.3432	0.1113
25	50	HDR BIAS	7.0057	7.1044	0.0987
26	50	HDR UNBIAS	6.9811	7.0827	0.1016
27	50	HDR UNBIAS	6.9724	7.2263	0.2539
28	50	HDR UNBIAS	6.9652	7.1579	0.1927
29	50	HDR UNBIAS	7.0639	7.1955	0.1316
30	50	HDR UNBIAS	6.909	7.017	0.108
41	0	CORRELATION	6.9237	6.8676	-0.0561
42	0	CORRELATION	7.1341	7.1626	0.0285
43	0	CORRELATION	7.0262	7.0444	0.0182
45	0	CORRELATION	7.1381	7.0842	-0.0539

### TID vs Post - Pre Exposure Delta

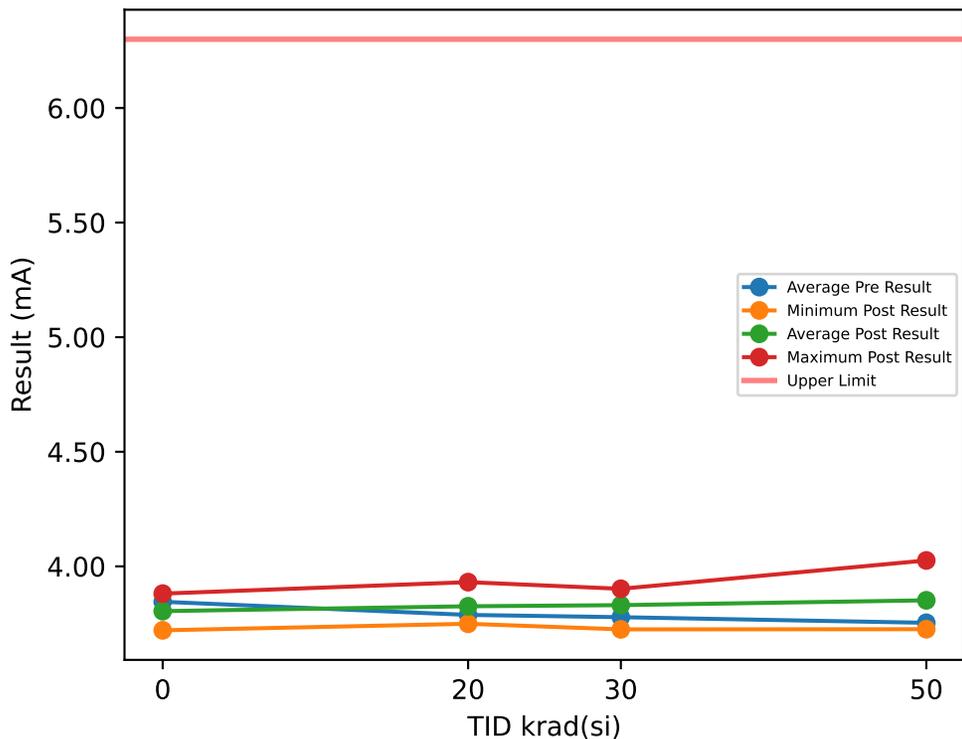


### Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	6.9237	7.0555	7.1381	0.10203	6.8676	7.0397	7.1626	0.1248	-0.0561	-0.015825	0.0285	0.045439
20	6.9462	7.0244	7.1587	0.069271	6.9436	7.0718	7.2539	0.094895	-0.0259	0.04742	0.1797	0.073226
30	6.8718	7.0028	7.0888	0.062986	6.9385	7.059	7.1721	0.063861	-0.0046	0.05622	0.1036	0.042611
50	6.909	7.0192	7.2319	0.0901	7.017	7.1501	7.3432	0.098856	0.0729	0.13081	0.2539	0.053873

# Device Test: 12.42 IQ|IIM\_EN/BOOT/14/14///0MHz/@IQ\_HS\_IIM

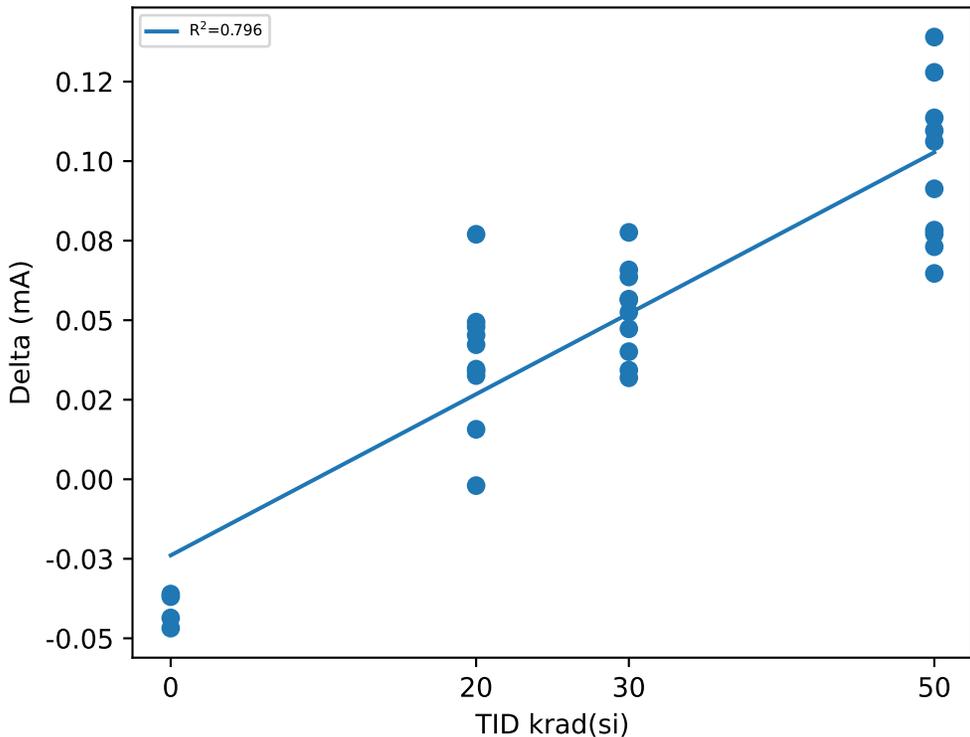
## TID vs Result Stats



## Test Results (Upper Limit = 6.3 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.7615	3.8068	0.0453
2	20	HDR BIAS	3.8197	3.8354	0.0157
3	20	HDR BIAS	3.7071	3.7494	0.0423
4	20	HDR BIAS	3.8541	3.9311	0.077
5	20	HDR BIAS	3.7557	3.8051	0.0494
6	20	HDR UNBIAS	3.8031	3.8011	-0.002
7	20	HDR UNBIAS	3.8366	3.8845	0.0479
8	20	HDR UNBIAS	3.7565	3.7905	0.034
9	20	HDR UNBIAS	3.7395	3.7721	0.0326
10	20	HDR UNBIAS	3.8473	3.8819	0.0346
11	30	HDR BIAS	3.7999	3.8775	0.0776
12	30	HDR BIAS	3.7826	3.8484	0.0658
13	30	HDR BIAS	3.7948	3.8584	0.0636
14	30	HDR BIAS	3.7922	3.8323	0.0401
15	30	HDR BIAS	3.8547	3.902	0.0473
16	30	HDR UNBIAS	3.6931	3.725	0.0319
17	30	HDR UNBIAS	3.728	3.7623	0.0343
18	30	HDR UNBIAS	3.8155	3.8721	0.0566
19	30	HDR UNBIAS	3.7482	3.8007	0.0525
20	30	HDR UNBIAS	3.7723	3.8287	0.0564
21	50	HDR BIAS	3.6913	3.7644	0.0731
22	50	HDR BIAS	3.7655	3.8791	0.1136
23	50	HDR BIAS	3.8535	3.9925	0.139
24	50	HDR BIAS	3.8978	4.0257	0.1279
25	50	HDR BIAS	3.7091	3.8187	0.1096
26	50	HDR UNBIAS	3.7087	3.7734	0.0647
27	50	HDR UNBIAS	3.7463	3.8525	0.1062
28	50	HDR UNBIAS	3.7527	3.844	0.0913
29	50	HDR UNBIAS	3.7642	3.8413	0.0771
30	50	HDR UNBIAS	3.6474	3.7257	0.0783
41	0	CORRELATION	3.7676	3.7208	-0.0468
42	0	CORRELATION	3.9084	3.8723	-0.0361
43	0	CORRELATION	3.7879	3.7443	-0.0436
45	0	CORRELATION	3.9179	3.881	-0.0369

## TID vs Post - Pre Exposure Delta

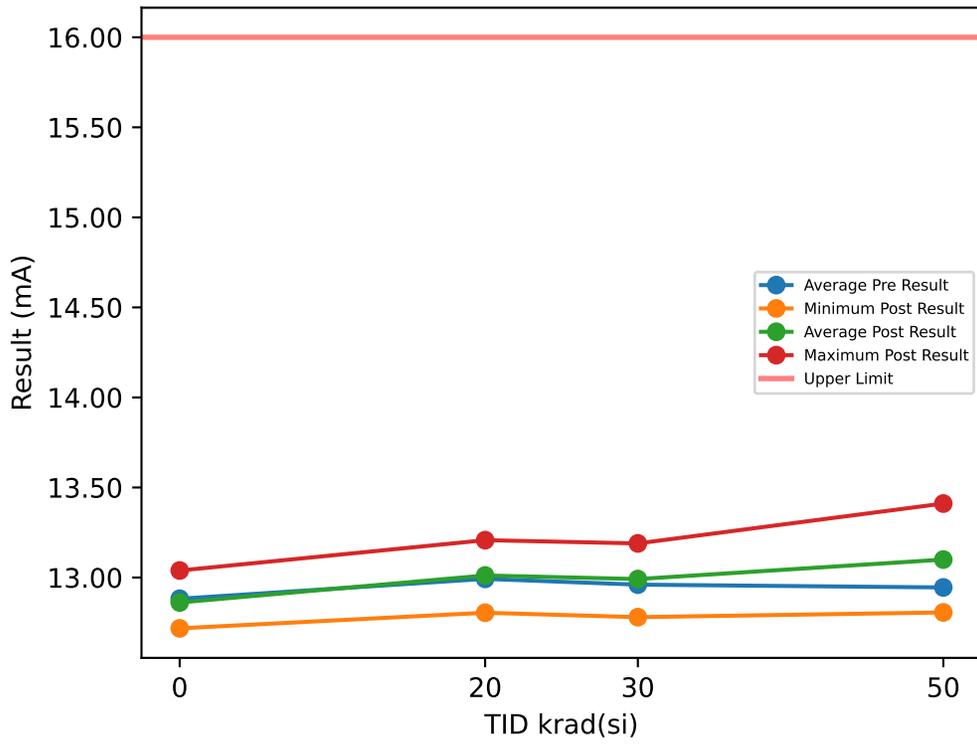


## Test Statistics (mA)

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	3.7676	3.8455	3.9179	0.078707	3.7208	3.8046	3.881	0.083823	-0.0468	-0.04085	-0.0361	0.0052003
20	3.7071	3.7881	3.8541	0.050679	3.7494	3.8258	3.9311	0.056901	-0.002	0.03768	0.077	0.021013
30	3.6931	3.7781	3.8547	0.045828	3.725	3.8307	3.902	0.054596	0.0319	0.05261	0.0776	0.014524
50	3.6474	3.7537	3.8978	0.074713	3.7257	3.8517	4.0257	0.095299	0.0647	0.09808	0.139	0.024986

# Device Test: 12.5 IOP|PWM/VIN/10/8///1MHz/@I\_OP\_LS\_PWM\_1MHZ

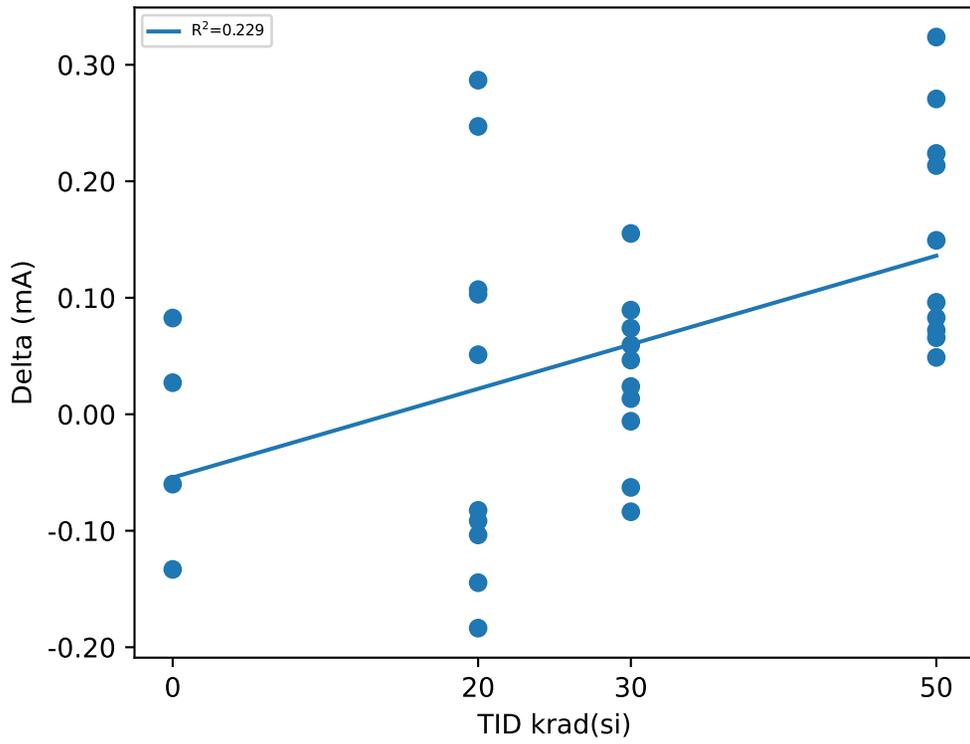
## TID vs Result Stats



## Test Results (Upper Limit = 16.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	12.932	12.829	-0.1036
2	20	HDR BIAS	13.011	12.928	-0.0825
3	20	HDR BIAS	13.037	12.946	-0.0916
4	20	HDR BIAS	13.114	12.931	-0.1836
5	20	HDR BIAS	12.949	12.805	-0.1446
6	20	HDR UNBIAS	13.089	13.192	0.103
7	20	HDR UNBIAS	13.077	13.184	0.107
8	20	HDR UNBIAS	12.948	12.999	0.0511
9	20	HDR UNBIAS	12.807	13.094	0.2868
10	20	HDR UNBIAS	12.96	13.207	0.2471
11	30	HDR BIAS	13.063	13.057	-0.006
12	30	HDR BIAS	13.163	13.1	-0.0628
13	30	HDR BIAS	12.93	12.943	0.0134
14	30	HDR BIAS	12.826	12.85	0.0238
15	30	HDR BIAS	12.913	12.829	-0.0837
16	30	HDR UNBIAS	12.886	12.933	0.0465
17	30	HDR UNBIAS	12.93	13.085	0.1552
18	30	HDR UNBIAS	13.1	13.189	0.0894
19	30	HDR UNBIAS	12.706	12.78	0.0739
20	30	HDR UNBIAS	13.089	13.148	0.0596
21	50	HDR BIAS	13.095	13.167	0.0721
22	50	HDR BIAS	12.723	12.806	0.0828
23	50	HDR BIAS	13.008	13.104	0.0961
24	50	HDR BIAS	12.897	12.963	0.0657
25	50	HDR BIAS	12.779	12.828	0.0488
26	50	HDR UNBIAS	13.018	13.167	0.1493
27	50	HDR UNBIAS	12.928	13.251	0.3238
28	50	HDR UNBIAS	12.85	13.121	0.2707
29	50	HDR UNBIAS	12.955	13.179	0.2239
30	50	HDR UNBIAS	13.197	13.411	0.2135
41	0	CORRELATION	13.172	13.039	-0.1332
42	0	CORRELATION	12.635	12.718	0.0826
43	0	CORRELATION	12.832	12.859	0.0271
45	0	CORRELATION	12.89	12.83	-0.06

## TID vs Post - Pre Exposure Delta

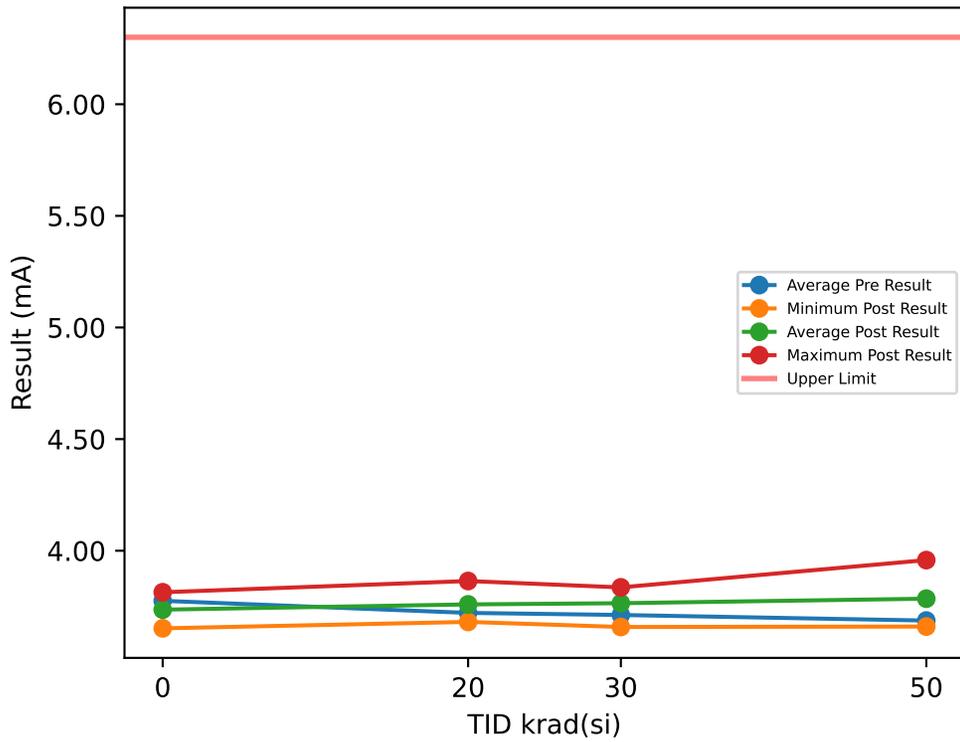


## Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	12.635	12.882	13.172	0.22183	12.718	12.861	13.039	0.13305	-0.1332	-0.020875	0.0826	0.095143
20	12.807	12.993	13.114	0.092154	12.805	13.011	13.207	0.14962	-0.1836	0.01891	0.2868	0.16498
30	12.706	12.961	13.163	0.14133	12.78	12.991	13.189	0.14358	-0.0837	0.03093	0.1552	0.07104
50	12.723	12.945	13.197	0.14277	12.806	13.1	13.411	0.18683	0.0488	0.15467	0.3238	0.097119

# Device Test: 12.50 IQ|IIM\_DIS/BOOT/10/8///0MHz/@IQ\_HS\_IIM

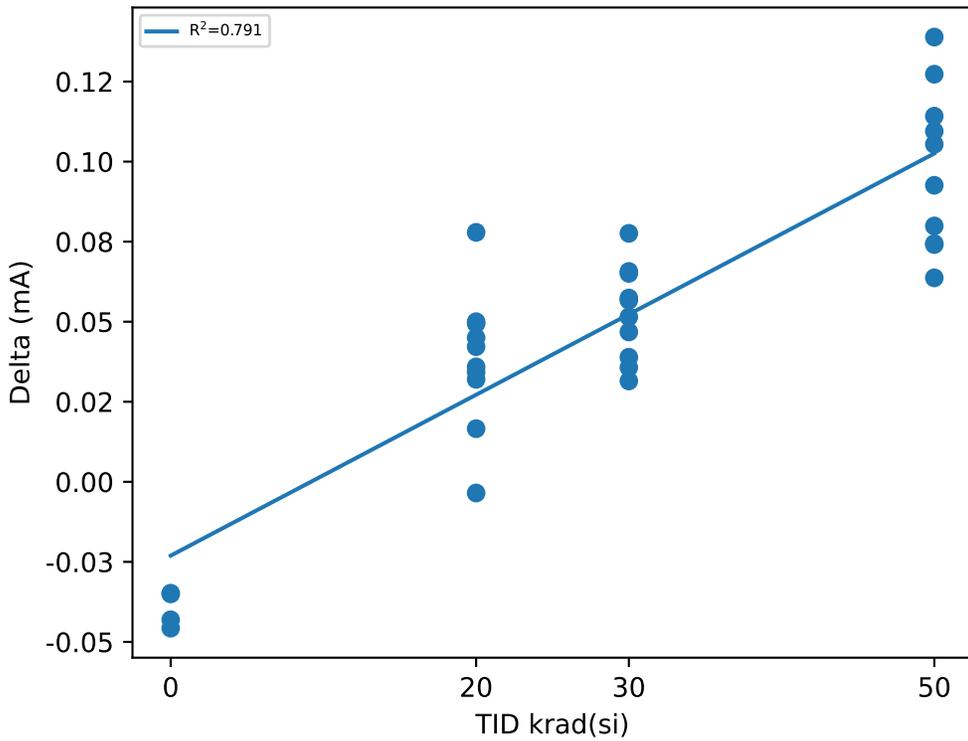
## TID vs Result Stats



## Test Results (Upper Limit = 6.3 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.6957	3.7407	0.045
2	20	HDR BIAS	3.7539	3.7705	0.0166
3	20	HDR BIAS	3.639	3.6812	0.0422
4	20	HDR BIAS	3.7864	3.8643	0.0779
5	20	HDR BIAS	3.6898	3.7398	0.05
6	20	HDR UNBIAS	3.7369	3.7334	-0.0035
7	20	HDR UNBIAS	3.7721	3.8215	0.0494
8	20	HDR UNBIAS	3.6893	3.7236	0.0343
9	20	HDR UNBIAS	3.6733	3.7053	0.032
10	20	HDR UNBIAS	3.7794	3.8153	0.0359
11	30	HDR BIAS	3.7351	3.8127	0.0776
12	30	HDR BIAS	3.7166	3.7823	0.0657
13	30	HDR BIAS	3.7262	3.7913	0.0651
14	30	HDR BIAS	3.7274	3.7663	0.0389
15	30	HDR BIAS	3.789	3.8358	0.0468
16	30	HDR UNBIAS	3.6269	3.6584	0.0315
17	30	HDR UNBIAS	3.6619	3.6976	0.0357
18	30	HDR UNBIAS	3.7488	3.8062	0.0574
19	30	HDR UNBIAS	3.6836	3.7351	0.0515
20	30	HDR UNBIAS	3.707	3.7637	0.0567
21	50	HDR BIAS	3.6238	3.6979	0.0741
22	50	HDR BIAS	3.7004	3.8146	0.1142
23	50	HDR BIAS	3.7859	3.9248	0.1389
24	50	HDR BIAS	3.8307	3.958	0.1273
25	50	HDR BIAS	3.6425	3.752	0.1095
26	50	HDR UNBIAS	3.6441	3.7078	0.0637
27	50	HDR UNBIAS	3.6808	3.7862	0.1054
28	50	HDR UNBIAS	3.6862	3.7788	0.0926
29	50	HDR UNBIAS	3.6972	3.7716	0.0744
30	50	HDR UNBIAS	3.5805	3.6604	0.0799
41	0	CORRELATION	3.6981	3.6524	-0.0457
42	0	CORRELATION	3.8382	3.8032	-0.035
43	0	CORRELATION	3.718	3.6749	-0.0431
45	0	CORRELATION	3.8487	3.8139	-0.0348

## TID vs Post - Pre Exposure Delta

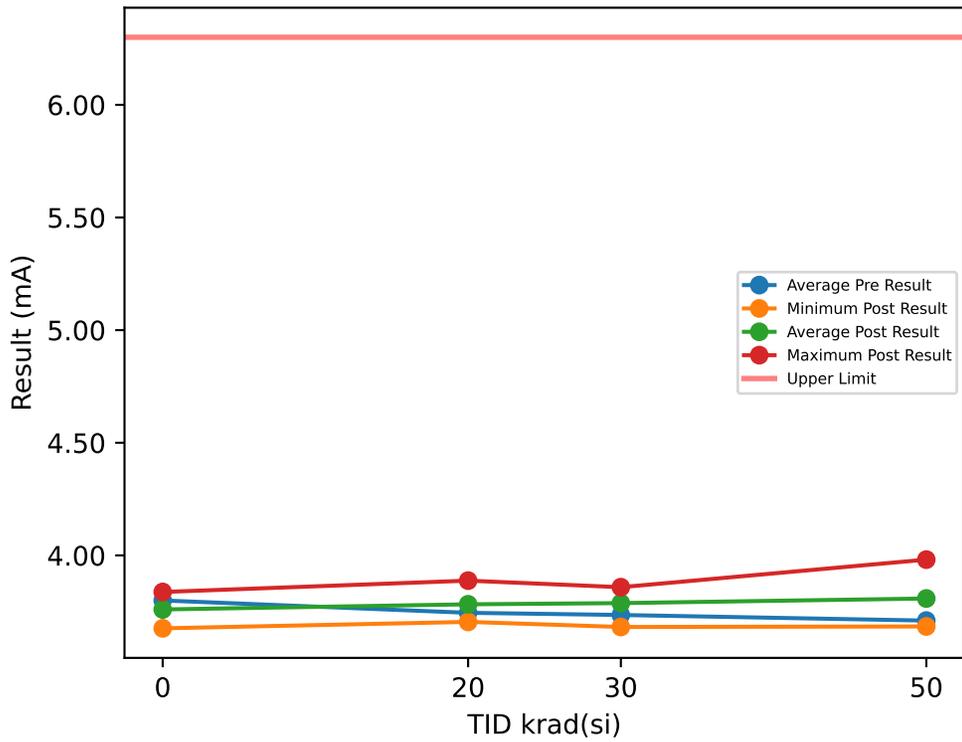


## Test Statistics (mA)

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	3.6981	3.7757	3.8487	0.078711	3.6524	3.7361	3.8139	0.084274	-0.0457	-0.03965	-0.0348	0.0055872
20	3.639	3.7216	3.7864	0.050825	3.6812	3.7596	3.8643	0.057583	-0.0035	0.03798	0.0779	0.021517
30	3.6269	3.7123	3.789	0.045777	3.6584	3.7649	3.8358	0.054549	0.0315	0.05269	0.0776	0.014704
50	3.5805	3.6872	3.8307	0.074469	3.6604	3.7852	3.958	0.094709	0.0637	0.098	0.1389	0.025038

# Device Test: 12.58 IQ|IIM\_DIS/BOOT/12/10///0MHz/@IQ\_HS\_IIM

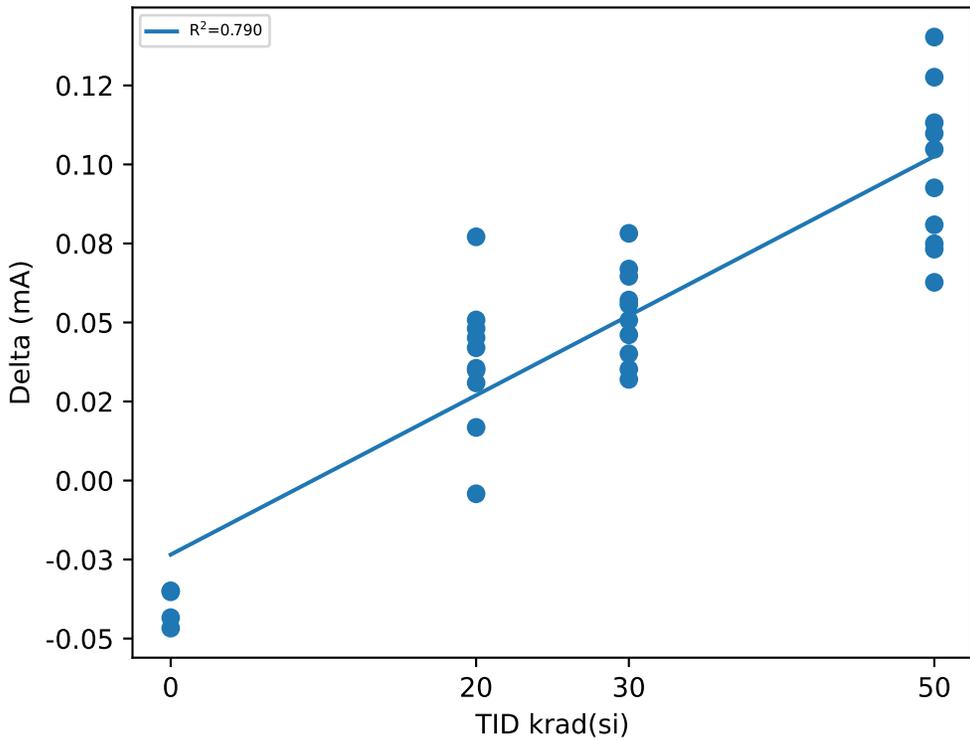
## TID vs Result Stats



## Test Results (Upper Limit = 6.3 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.7188	3.764	0.0452
2	20	HDR BIAS	3.7767	3.7935	0.0168
3	20	HDR BIAS	3.6629	3.7049	0.042
4	20	HDR BIAS	3.8109	3.888	0.0771
5	20	HDR BIAS	3.7134	3.7642	0.0508
6	20	HDR UNBIAS	3.7603	3.7561	-0.0042
7	20	HDR UNBIAS	3.7953	3.8434	0.0481
8	20	HDR UNBIAS	3.7129	3.7478	0.0349
9	20	HDR UNBIAS	3.6973	3.7282	0.0309
10	20	HDR UNBIAS	3.8037	3.8392	0.0355
11	30	HDR BIAS	3.7573	3.8355	0.0782
12	30	HDR BIAS	3.74	3.8069	0.0669
13	30	HDR BIAS	3.7506	3.8152	0.0646
14	30	HDR BIAS	3.75	3.7901	0.0401
15	30	HDR BIAS	3.8128	3.8589	0.0461
16	30	HDR UNBIAS	3.6503	3.6823	0.032
17	30	HDR UNBIAS	3.6853	3.7205	0.0352
18	30	HDR UNBIAS	3.7726	3.8283	0.0557
19	30	HDR UNBIAS	3.707	3.7577	0.0507
20	30	HDR UNBIAS	3.7301	3.7872	0.0571
21	50	HDR BIAS	3.648	3.7212	0.0732
22	50	HDR BIAS	3.7238	3.837	0.1132
23	50	HDR BIAS	3.8097	3.95	0.1403
24	50	HDR BIAS	3.8537	3.9813	0.1276
25	50	HDR BIAS	3.6666	3.7764	0.1098
26	50	HDR UNBIAS	3.6671	3.7298	0.0627
27	50	HDR UNBIAS	3.7038	3.8086	0.1048
28	50	HDR UNBIAS	3.7093	3.8019	0.0926
29	50	HDR UNBIAS	3.721	3.7959	0.0749
30	50	HDR UNBIAS	3.6037	3.6846	0.0809
41	0	CORRELATION	3.723	3.6763	-0.0467
42	0	CORRELATION	3.8621	3.8272	-0.0349
43	0	CORRELATION	3.7427	3.6993	-0.0434
45	0	CORRELATION	3.8728	3.8376	-0.0352

## TID vs Post - Pre Exposure Delta

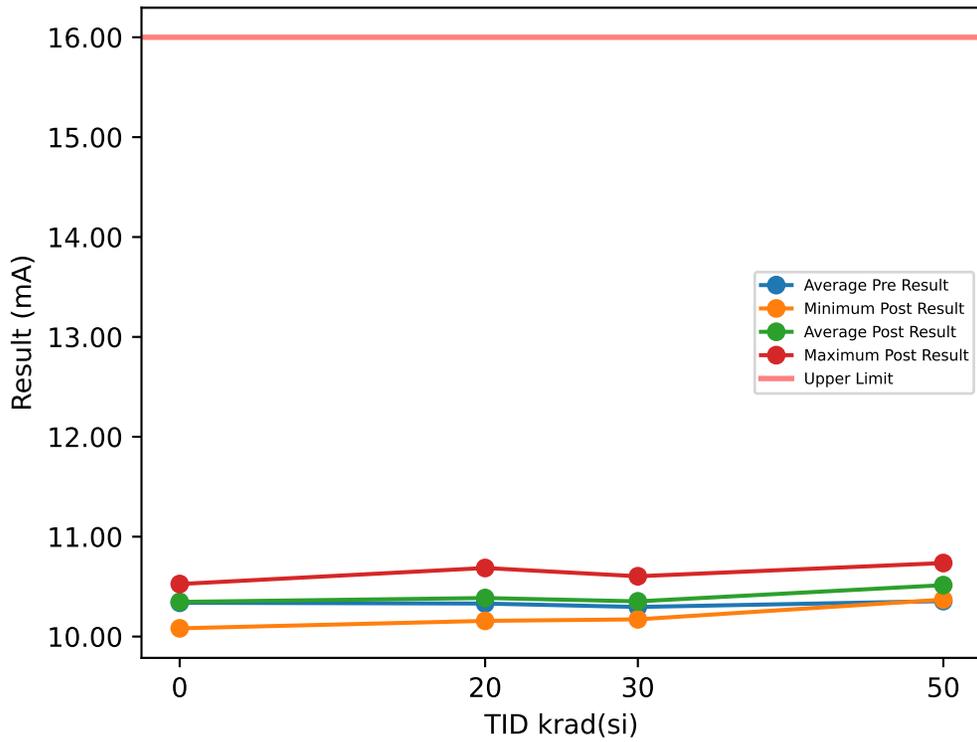


## Test Statistics (mA)

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	3.723	3.8001	3.8728	0.078248	3.6763	3.7601	3.8376	0.084118	-0.0467	-0.04005	-0.0349	0.0059299
20	3.6629	3.7452	3.8109	0.050868	3.7049	3.7829	3.888	0.057466	-0.0042	0.03771	0.0771	0.021495
30	3.6503	3.7356	3.8128	0.045833	3.6823	3.7883	3.8589	0.054422	0.032	0.05266	0.0782	0.014768
50	3.6037	3.7107	3.8537	0.074389	3.6846	3.8087	3.9813	0.094923	0.0627	0.098	0.1403	0.025382

# Device Test: 12.6 IOP|PWM/BOOT/10/8///1MHz/@I\_OP\_HS\_PWM\_1MHZ

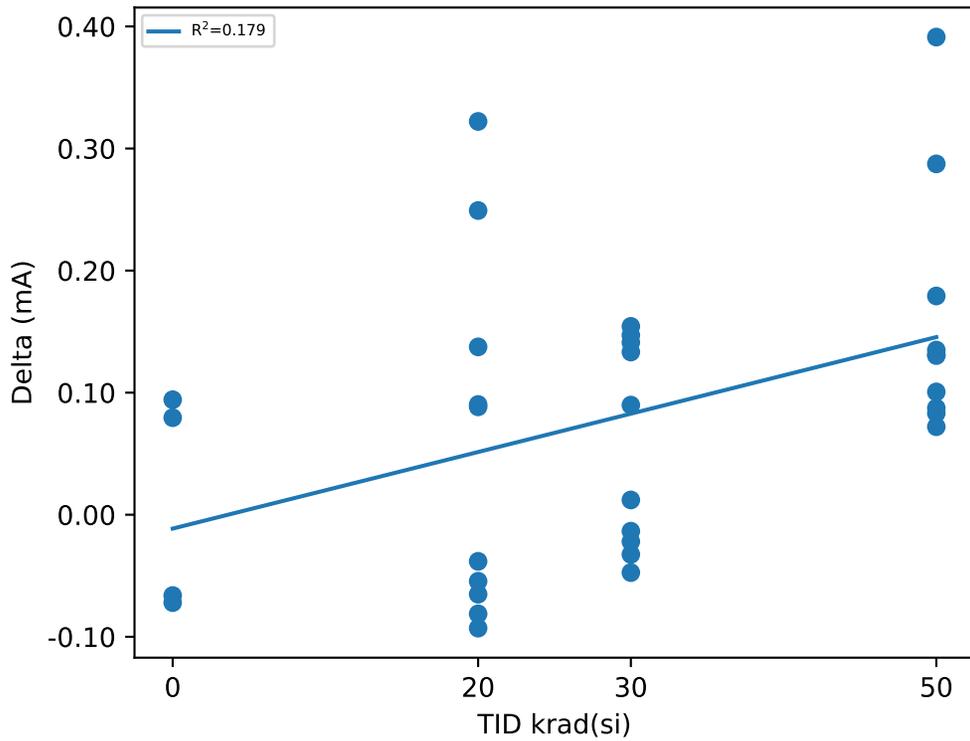
### TID vs Result Stats



### Test Results (Upper Limit = 16.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	10.444	10.351	-0.0929
2	20	HDR BIAS	10.33	10.265	-0.0651
3	20	HDR BIAS	10.292	10.211	-0.0812
4	20	HDR BIAS	10.42	10.381	-0.0382
5	20	HDR BIAS	10.212	10.157	-0.0545
6	20	HDR UNBIAS	10.307	10.398	0.0903
7	20	HDR UNBIAS	10.549	10.687	0.1375
8	20	HDR UNBIAS	10.287	10.375	0.0884
9	20	HDR UNBIAS	10.226	10.548	0.3222
10	20	HDR UNBIAS	10.238	10.487	0.2492
11	30	HDR BIAS	10.217	10.229	0.0121
12	30	HDR BIAS	10.367	10.335	-0.0325
13	30	HDR BIAS	10.23	10.208	-0.022
14	30	HDR BIAS	10.454	10.407	-0.0474
15	30	HDR BIAS	10.309	10.295	-0.0135
16	30	HDR UNBIAS	10.354	10.508	0.1543
17	30	HDR UNBIAS	10.082	10.172	0.0898
18	30	HDR UNBIAS	10.273	10.414	0.1411
19	30	HDR UNBIAS	10.457	10.604	0.147
20	30	HDR UNBIAS	10.22	10.353	0.1333
21	50	HDR BIAS	10.334	10.406	0.0721
22	50	HDR BIAS	10.302	10.385	0.0832
23	50	HDR BIAS	10.395	10.53	0.1349
24	50	HDR BIAS	10.635	10.736	0.1006
25	50	HDR BIAS	10.376	10.464	0.0874
26	50	HDR UNBIAS	10.322	10.452	0.1304
27	50	HDR UNBIAS	10.269	10.66	0.3913
28	50	HDR UNBIAS	10.246	10.533	0.2874
29	50	HDR UNBIAS	10.433	10.613	0.1792
30	50	HDR UNBIAS	10.238	10.37	0.1312
41	0	CORRELATION	10.149	10.082	-0.0662
42	0	CORRELATION	10.432	10.526	0.0942
43	0	CORRELATION	10.341	10.421	0.0795
45	0	CORRELATION	10.432	10.36	-0.072

### TID vs Post - Pre Exposure Delta

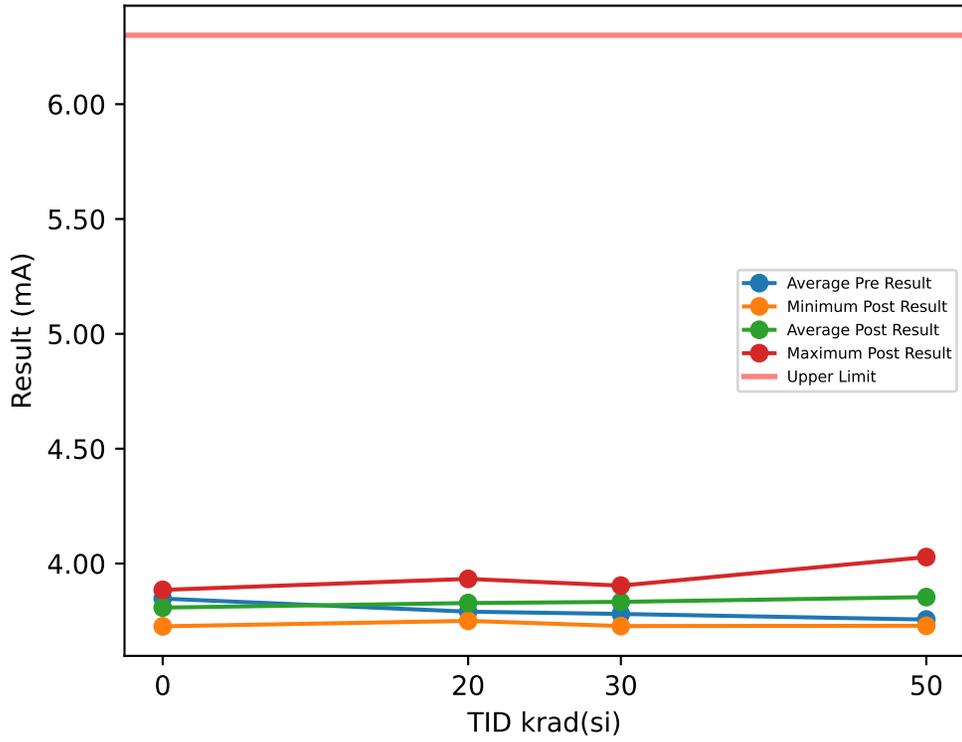


### Test Statistics (mA)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	10.149	10.338	10.432	0.13347	10.082	10.347	10.526	0.18941	-0.072	0.008875	0.0942	0.090269
20	10.212	10.33	10.549	0.10862	10.157	10.386	10.687	0.15841	-0.0929	0.05557	0.3222	0.14674
30	10.082	10.296	10.457	0.11641	10.172	10.352	10.604	0.13585	-0.0474	0.05622	0.1543	0.084109
50	10.238	10.355	10.635	0.11745	10.37	10.515	10.736	0.12313	0.0721	0.15977	0.3913	0.10266

# Device Test: 12.66 IQ|IIM\_DIS/BOOT/14/14///0MHz/@IQ\_HS\_IIM

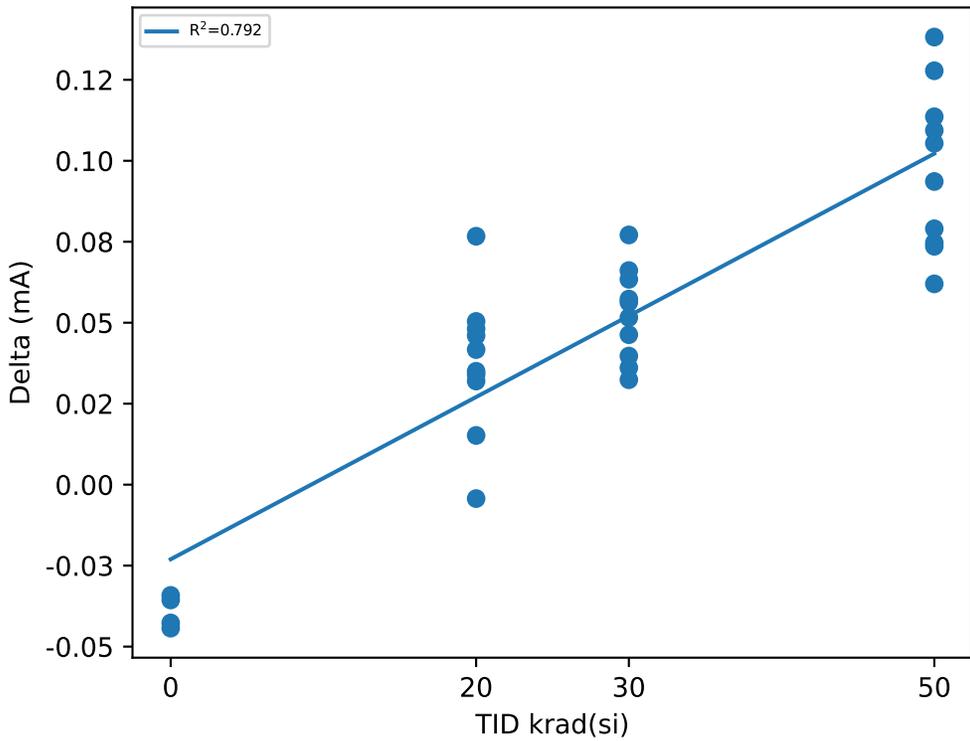
## TID vs Result Stats



## Test Results (Upper Limit = 6.3 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.7632	3.8092	0.046
2	20	HDR BIAS	3.8228	3.838	0.0152
3	20	HDR BIAS	3.7087	3.7504	0.0417
4	20	HDR BIAS	3.8564	3.9331	0.0767
5	20	HDR BIAS	3.7579	3.8083	0.0504
6	20	HDR UNBIAS	3.8064	3.8021	-0.0043
7	20	HDR UNBIAS	3.8396	3.8877	0.0481
8	20	HDR UNBIAS	3.7586	3.7926	0.034
9	20	HDR UNBIAS	3.7416	3.7736	0.032
10	20	HDR UNBIAS	3.8497	3.8847	0.035
11	30	HDR BIAS	3.8023	3.8794	0.0771
12	30	HDR BIAS	3.7856	3.8517	0.0661
13	30	HDR BIAS	3.7963	3.8597	0.0634
14	30	HDR BIAS	3.7947	3.8344	0.0397
15	30	HDR BIAS	3.8576	3.9039	0.0463
16	30	HDR UNBIAS	3.6954	3.7278	0.0324
17	30	HDR UNBIAS	3.7298	3.7659	0.0361
18	30	HDR UNBIAS	3.818	3.8743	0.0563
19	30	HDR UNBIAS	3.7509	3.8025	0.0516
20	30	HDR UNBIAS	3.7747	3.832	0.0573
21	50	HDR BIAS	3.6929	3.7665	0.0736
22	50	HDR BIAS	3.7683	3.8819	0.1136
23	50	HDR BIAS	3.8562	3.9944	0.1382
24	50	HDR BIAS	3.9002	4.028	0.1278
25	50	HDR BIAS	3.7121	3.8215	0.1094
26	50	HDR UNBIAS	3.7115	3.7735	0.062
27	50	HDR UNBIAS	3.7486	3.854	0.1054
28	50	HDR UNBIAS	3.7544	3.848	0.0936
29	50	HDR UNBIAS	3.7674	3.8421	0.0747
30	50	HDR UNBIAS	3.65	3.729	0.079
41	0	CORRELATION	3.7693	3.7266	-0.0427
42	0	CORRELATION	3.9102	3.8746	-0.0356
43	0	CORRELATION	3.7905	3.7462	-0.0443
45	0	CORRELATION	3.9195	3.8853	-0.0342

## TID vs Post - Pre Exposure Delta

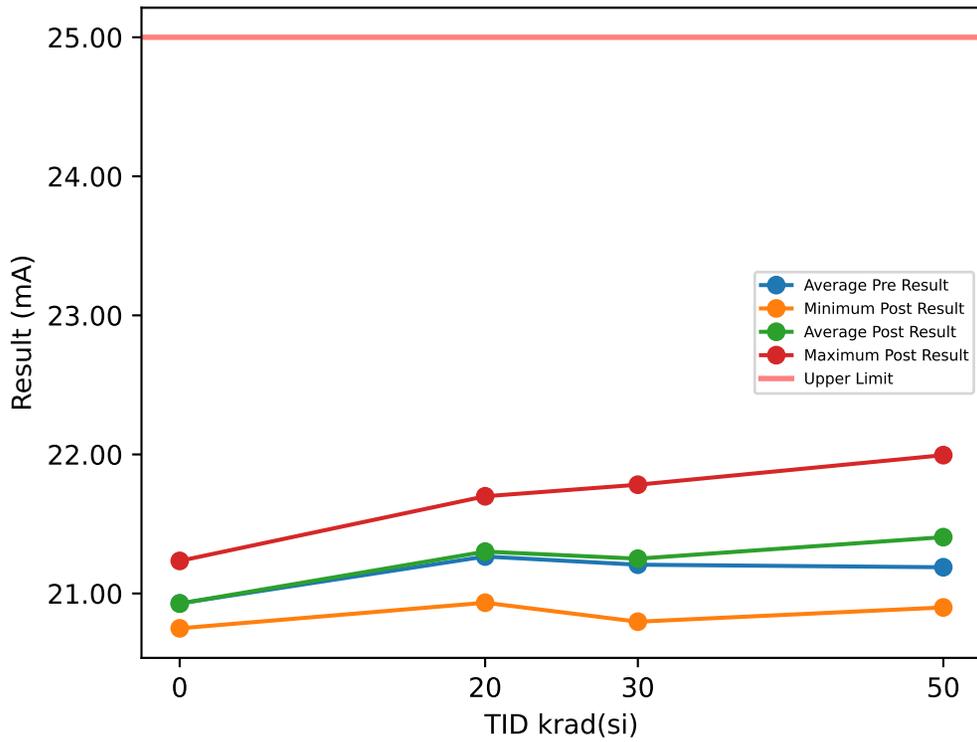


## Test Statistics (mA)

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	3.7693	3.8474	3.9195	0.078485	3.7266	3.8082	3.8853	0.083379	-0.0443	-0.0392	-0.0342	0.0050405
20	3.7087	3.7905	3.8564	0.051058	3.7504	3.828	3.9331	0.057321	-0.0043	0.03748	0.0767	0.021599
30	3.6954	3.7805	3.8576	0.045978	3.7278	3.8332	3.9039	0.054212	0.0324	0.05263	0.0771	0.014229
50	3.65	3.7562	3.9002	0.074757	3.729	3.8539	4.028	0.095313	0.062	0.09773	0.1382	0.025268

# Device Test: 12.7 IOP|PWM/VIN/10/8///2MHz/@I\_OP\_LS\_PWM\_2MHZ

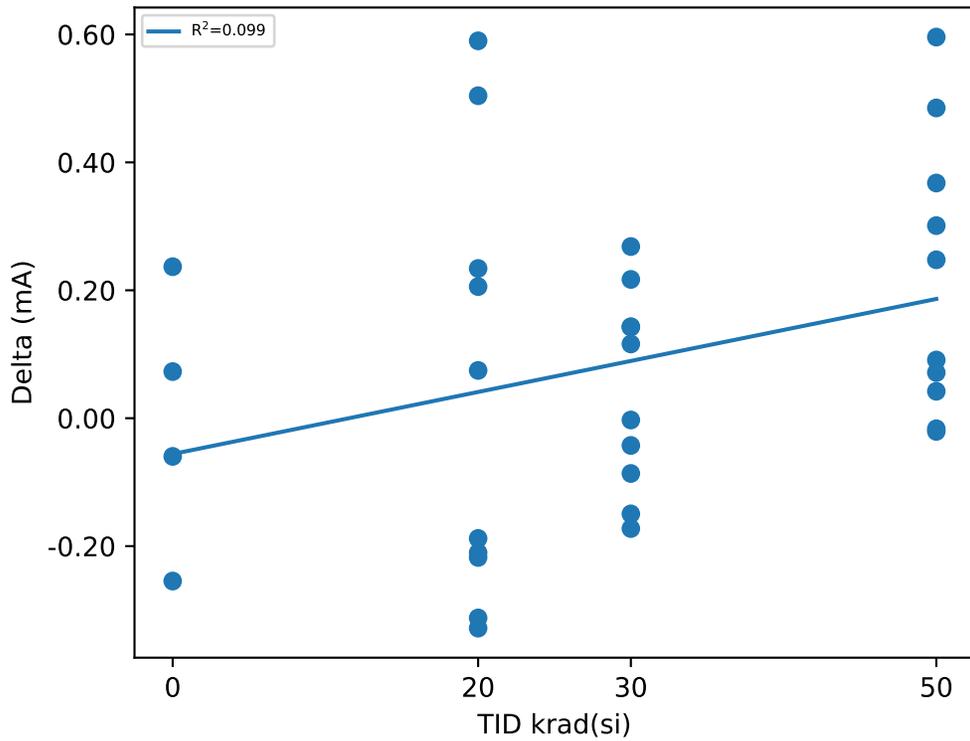
## TID vs Result Stats



## Test Results (Upper Limit = 25.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	21.153	20.943	-0.2102
2	20	HDR BIAS	21.28	21.092	-0.188
3	20	HDR BIAS	21.322	21.104	-0.2177
4	20	HDR BIAS	21.651	21.323	-0.3282
5	20	HDR BIAS	21.246	20.933	-0.3123
6	20	HDR UNBIAS	21.493	21.699	0.2058
7	20	HDR UNBIAS	21.386	21.62	0.2341
8	20	HDR UNBIAS	21.097	21.172	0.0747
9	20	HDR UNBIAS	20.913	21.503	0.59
10	20	HDR UNBIAS	21.117	21.621	0.5042
11	30	HDR BIAS	21.326	21.239	-0.0864
12	30	HDR BIAS	21.616	21.466	-0.1496
13	30	HDR BIAS	21.023	20.981	-0.0426
14	30	HDR BIAS	20.906	20.904	-0.0028
15	30	HDR BIAS	21.185	21.012	-0.1725
16	30	HDR UNBIAS	21.073	21.216	0.143
17	30	HDR UNBIAS	21.177	21.445	0.2684
18	30	HDR UNBIAS	21.517	21.659	0.1425
19	30	HDR UNBIAS	20.681	20.797	0.1161
20	30	HDR UNBIAS	21.565	21.782	0.217
21	50	HDR BIAS	21.466	21.537	0.0714
22	50	HDR BIAS	21.067	21.046	-0.0206
23	50	HDR BIAS	21.1	21.191	0.091
24	50	HDR BIAS	21.027	21.069	0.0421
25	50	HDR BIAS	20.916	20.9	-0.0165
26	50	HDR UNBIAS	21.436	21.683	0.2477
27	50	HDR UNBIAS	21.047	21.643	0.5959
28	50	HDR UNBIAS	20.977	21.462	0.4851
29	50	HDR UNBIAS	21.223	21.524	0.3011
30	50	HDR UNBIAS	21.627	21.995	0.3677
41	0	CORRELATION	21.489	21.234	-0.2546
42	0	CORRELATION	20.512	20.749	0.2369
43	0	CORRELATION	20.763	20.835	0.0729
45	0	CORRELATION	20.951	20.891	-0.0597

## TID vs Post - Pre Exposure Delta

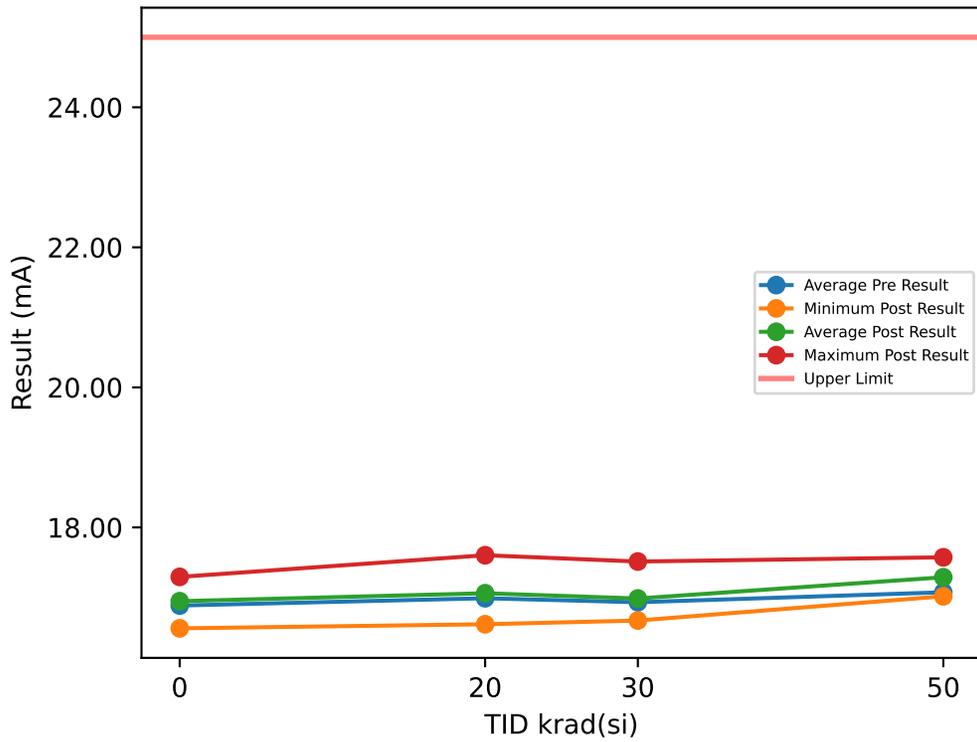


## Test Statistics (mA)

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	20.512	20.929	21.489	0.41428	20.749	20.928	21.234	0.21254	-0.2546	-0.001125	0.2369	0.20802
20	20.913	21.266	21.651	0.21246	20.933	21.301	21.699	0.29191	-0.3282	0.03524	0.59	0.33744
30	20.681	21.207	21.616	0.30286	20.797	21.25	21.782	0.33179	-0.1725	0.04331	0.2684	0.15493
50	20.916	21.189	21.627	0.24019	20.9	21.405	21.995	0.34313	-0.0206	0.21649	0.5959	0.21726

# Device Test: 12.8 IOP|PWM/BOOT/10/8///2MHz/@I\_OP\_HS\_PWM\_2MHZ

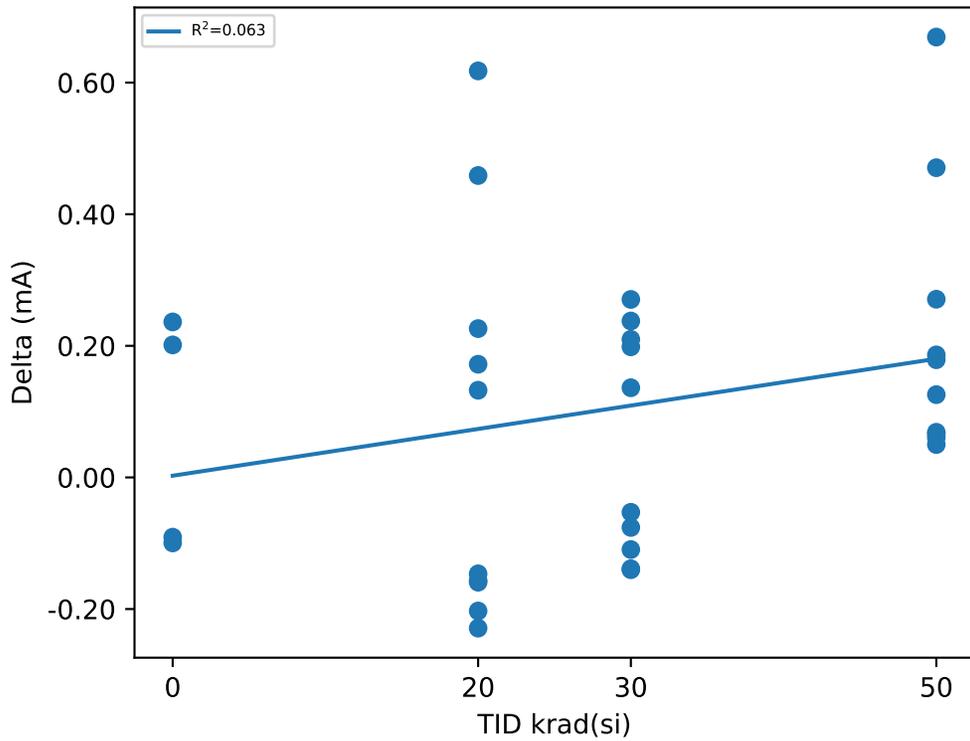
## TID vs Result Stats



## Test Results (Upper Limit = 25.0 (mA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	17.238	17.009	-0.229
2	20	HDR BIAS	16.953	16.806	-0.1465
3	20	HDR BIAS	16.986	16.783	-0.203
4	20	HDR BIAS	17.11	16.953	-0.1567
5	20	HDR BIAS	16.776	16.617	-0.1592
6	20	HDR UNBIAS	16.93	17.102	0.172
7	20	HDR UNBIAS	17.376	17.602	0.2262
8	20	HDR UNBIAS	16.937	17.069	0.1325
9	20	HDR UNBIAS	16.822	17.44	0.6178
10	20	HDR UNBIAS	16.756	17.215	0.4588
11	30	HDR BIAS	16.741	16.688	-0.053
12	30	HDR BIAS	17.086	16.947	-0.1388
13	30	HDR BIAS	16.78	16.67	-0.1096
14	30	HDR BIAS	17.238	17.098	-0.1402
15	30	HDR BIAS	16.872	16.796	-0.076
16	30	HDR UNBIAS	17.137	17.407	0.2705
17	30	HDR UNBIAS	16.549	16.685	0.1363
18	30	HDR UNBIAS	16.849	17.059	0.2098
19	30	HDR UNBIAS	17.275	17.513	0.2377
20	30	HDR UNBIAS	16.785	16.984	0.1985
21	50	HDR BIAS	17.084	17.153	0.0686
22	50	HDR BIAS	16.966	17.016	0.05
23	50	HDR BIAS	17.044	17.17	0.1258
24	50	HDR BIAS	17.498	17.563	0.0658
25	50	HDR BIAS	17.153	17.214	0.0605
26	50	HDR UNBIAS	17.058	17.244	0.1862
27	50	HDR UNBIAS	16.904	17.573	0.6692
28	50	HDR UNBIAS	16.859	17.33	0.4707
29	50	HDR UNBIAS	17.215	17.486	0.2708
30	50	HDR UNBIAS	16.952	17.131	0.1789
41	0	CORRELATION	16.649	16.559	-0.0908
42	0	CORRELATION	17.057	17.293	0.2363
43	0	CORRELATION	16.774	16.975	0.2014
45	0	CORRELATION	17.057	16.958	-0.0995

## TID vs Post - Pre Exposure Delta



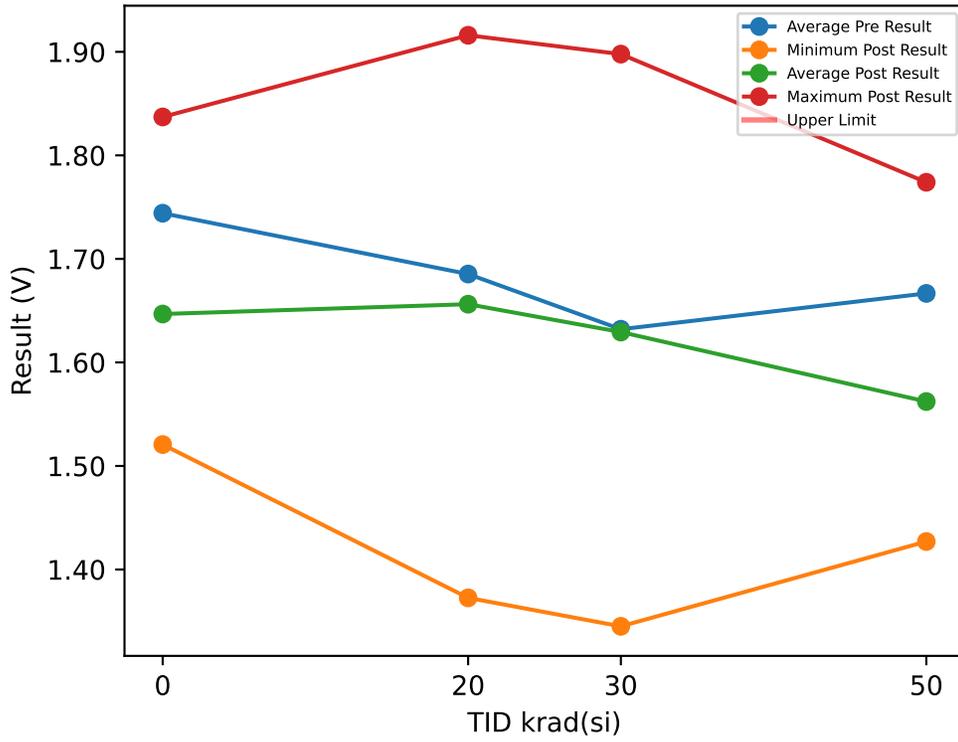
## Test Statistics (mA)

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	16.649	16.884	17.057	0.20581	16.559	16.946	17.293	0.30088	-0.0995	0.06185	0.2363	0.18188
20	16.756	16.988	17.376	0.20042	16.617	17.06	17.602	0.30108	-0.229	0.07129	0.6178	0.29901
30	16.549	16.931	17.275	0.23936	16.67	16.985	17.513	0.2962	-0.1402	0.05352	0.2705	0.1708
50	16.859	17.073	17.498	0.18511	17.016	17.288	17.573	0.19327	0.05	0.21465	0.6692	0.20539

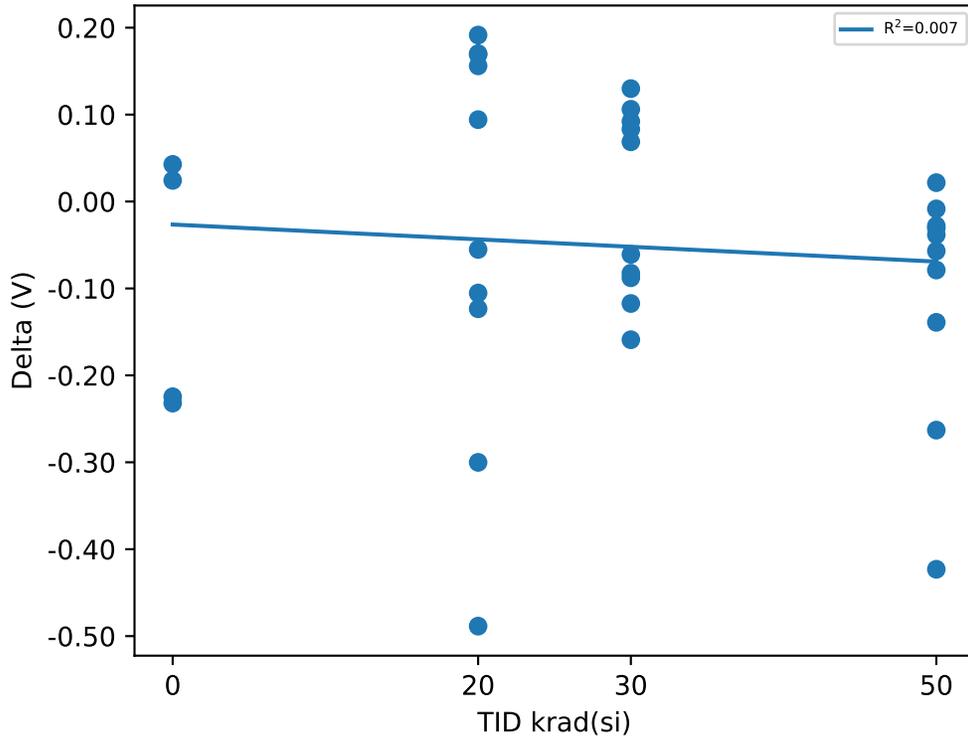


# Device Test: 14.11 GAN|3Q/HVIN///0p5A///@HS\_VSD\_0p5A

## TID vs Result Stats



## TID vs Post - Pre Exposure Delta



## Test Results (No Limits Specified (V))

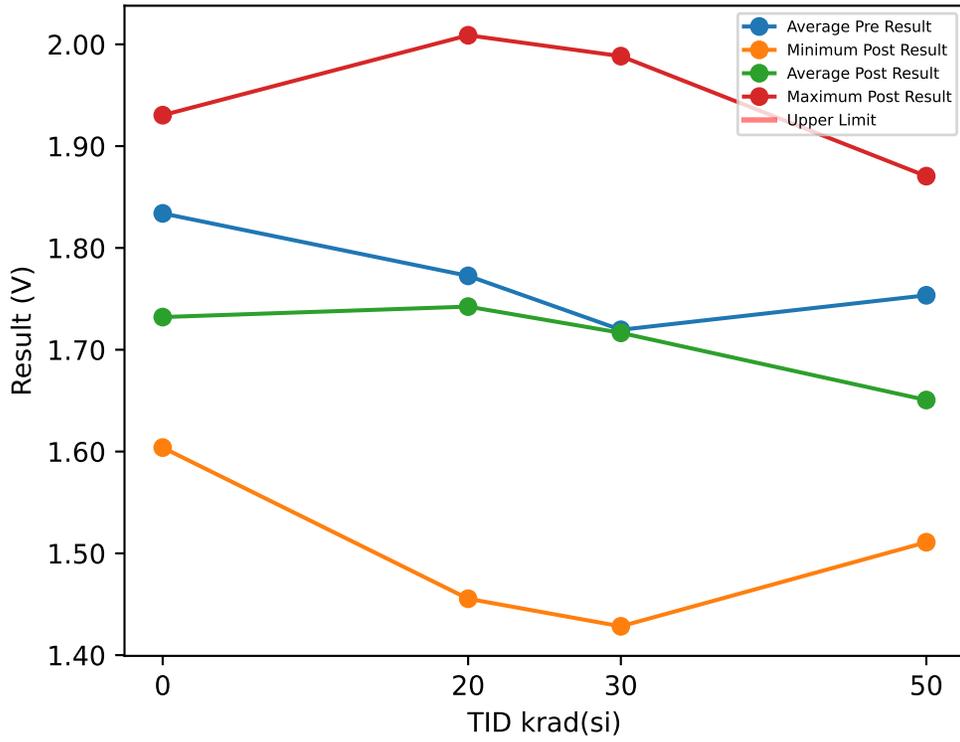
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	1.5417	1.7332	0.1915
2	20	HDR BIAS	1.8218	1.916	0.0942
3	20	HDR BIAS	1.5385	1.7086	0.1701
4	20	HDR BIAS	1.5489	1.718	0.1691
5	20	HDR BIAS	1.6352	1.7913	0.1561
6	20	HDR UNBIAS	1.5494	1.4441	-0.1053
7	20	HDR UNBIAS	1.5904	1.467	-0.1234
8	20	HDR UNBIAS	1.7494	1.6943	-0.0551
9	20	HDR UNBIAS	1.8611	1.3726	-0.4885
10	20	HDR UNBIAS	2.0174	1.7173	-0.3001
11	30	HDR BIAS	1.679	1.7622	0.0832
12	30	HDR BIAS	1.7679	1.8978	0.1299
13	30	HDR BIAS	1.7843	1.8765	0.0922
14	30	HDR BIAS	1.6382	1.7443	0.1061
15	30	HDR BIAS	1.5737	1.6424	0.0687
16	30	HDR UNBIAS	1.5041	1.3451	-0.159
17	30	HDR UNBIAS	1.6587	1.5979	-0.0608
18	30	HDR UNBIAS	1.5668	1.4843	-0.0825
19	30	HDR UNBIAS	1.5946	1.4773	-0.1173
20	30	HDR UNBIAS	1.5532	1.4655	-0.0877
21	50	HDR BIAS	1.5286	1.4903	-0.0383
22	50	HDR BIAS	1.5881	1.6098	0.0217
23	50	HDR BIAS	1.5154	1.4847	-0.0307
24	50	HDR BIAS	1.5347	1.5067	-0.028
25	50	HDR BIAS	1.5524	1.5439	-0.0085
26	50	HDR UNBIAS	1.6943	1.6155	-0.0788
27	50	HDR UNBIAS	1.8501	1.427	-0.4231
28	50	HDR UNBIAS	1.9707	1.7077	-0.263
29	50	HDR UNBIAS	1.6016	1.4626	-0.139
30	50	HDR UNBIAS	1.8309	1.774	-0.0569
41	0	CORRELATION	1.8128	1.8371	0.0243
42	0	CORRELATION	1.7526	1.5207	-0.2319
43	0	CORRELATION	1.7882	1.5636	-0.2246
45	0	CORRELATION	1.6229	1.6656	0.0427

## Test Statistics (V)

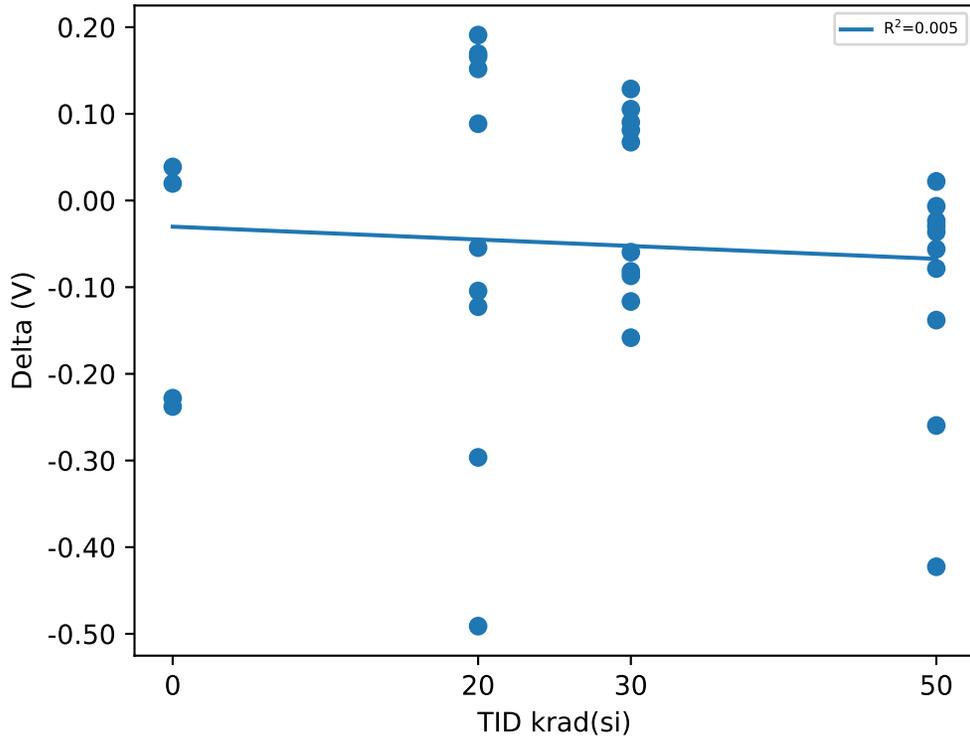
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.6229	1.7441	1.8128	0.084511	1.5207	1.6467	1.8371	0.1407	-0.2319	-0.097375	0.0427	0.15134
20	1.5385	1.6854	2.0174	0.16823	1.3726	1.6562	1.916	0.17148	-0.4885	-0.02914	0.1915	0.23022
30	1.5041	1.6321	1.7843	0.092039	1.3451	1.6293	1.8978	0.18767	-0.159	-0.00272	0.1299	0.10824
50	1.5154	1.6667	1.9707	0.16215	1.427	1.5622	1.774	0.11251	-0.4231	-0.10446	0.0217	0.13807

# Device Test: 14.13 GAN|3Q/HVIN///1A///@HS\_VSD\_1p0A

### TID vs Result Stats



### TID vs Post - Pre Exposure Delta



### Test Results (No Limits Specified (V))

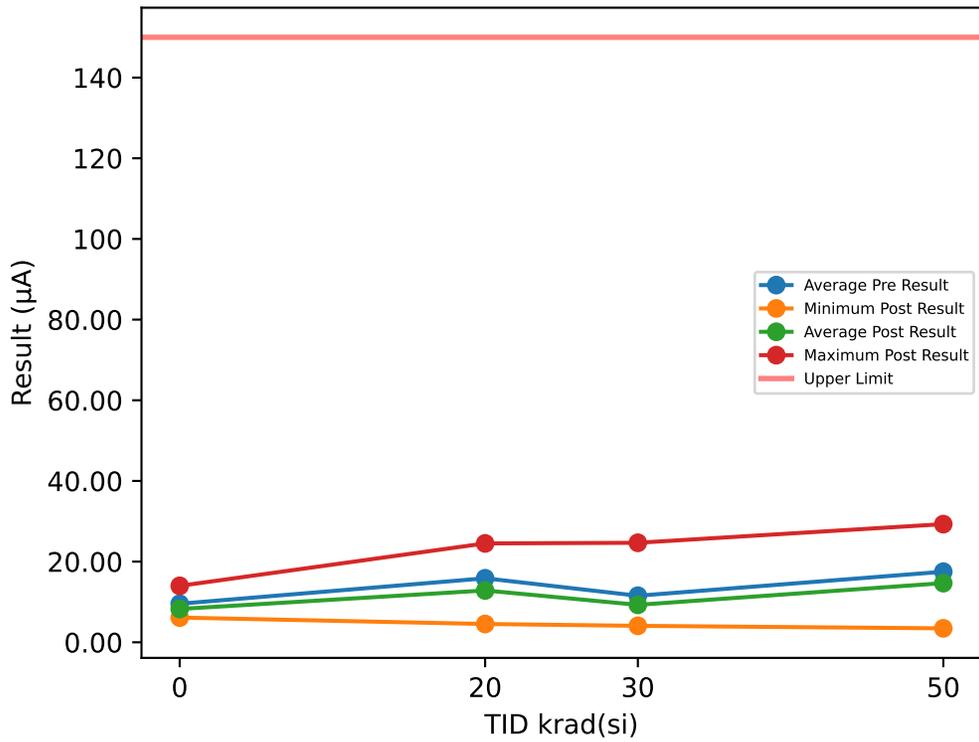
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	1.6246	1.8155	0.1909
2	20	HDR BIAS	1.9203	2.0089	0.0886
3	20	HDR BIAS	1.6221	1.7915	0.1694
4	20	HDR BIAS	1.633	1.7989	0.1659
5	20	HDR BIAS	1.7225	1.8744	0.1519
6	20	HDR UNBIAS	1.634	1.5296	-0.1044
7	20	HDR UNBIAS	1.6749	1.5524	-0.1225
8	20	HDR UNBIAS	1.8426	1.7882	-0.0544
9	20	HDR UNBIAS	1.9465	1.4554	-0.4911
10	20	HDR UNBIAS	2.1052	1.8088	-0.2964
11	30	HDR BIAS	1.7688	1.8501	0.0813
12	30	HDR BIAS	1.8597	1.9884	0.1287
13	30	HDR BIAS	1.8784	1.9687	0.0903
14	30	HDR BIAS	1.7254	1.8308	0.1054
15	30	HDR BIAS	1.6582	1.7255	0.0673
16	30	HDR UNBIAS	1.5866	1.4283	-0.1583
17	30	HDR UNBIAS	1.7474	1.6878	-0.0596
18	30	HDR UNBIAS	1.6525	1.5708	-0.0817
19	30	HDR UNBIAS	1.6802	1.5637	-0.1165
20	30	HDR UNBIAS	1.6386	1.5517	-0.0869
21	50	HDR BIAS	1.6137	1.5774	-0.0363
22	50	HDR BIAS	1.6742	1.6962	0.022
23	50	HDR BIAS	1.5969	1.5672	-0.0297
24	50	HDR BIAS	1.6183	1.5949	-0.0234
25	50	HDR BIAS	1.6352	1.6286	-0.0066
26	50	HDR UNBIAS	1.7844	1.7059	-0.0785
27	50	HDR UNBIAS	1.9335	1.5109	-0.4226
28	50	HDR UNBIAS	2.065	1.8054	-0.2596
29	50	HDR UNBIAS	1.6869	1.5489	-0.138
30	50	HDR UNBIAS	1.9266	1.8705	-0.0561
41	0	CORRELATION	1.9107	1.9304	0.0197
42	0	CORRELATION	1.8416	1.6039	-0.2377
43	0	CORRELATION	1.8709	1.6428	-0.2281
45	0	CORRELATION	1.7125	1.7512	0.0387

### 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	1.7125	1.8339	1.9107	0.08576	1.6039	1.7321	1.9304	0.14617	-0.2377	-0.10185	0.0387	0.15157
20	1.6221	1.7726	2.1052	0.17091	1.4554	1.7424	2.0089	0.17309	-0.4911	-0.03021	0.1909	0.22909
30	1.5866	1.7196	1.8784	0.095538	1.4283	1.7166	1.9884	0.18978	-0.1583	-0.003	0.1287	0.10713
50	1.5969	1.7535	2.065	0.1658	1.5109	1.6506	1.8705	0.11701	-0.4226	-0.10288	0.022	0.13815

# Device Test: 14.20 GAN|HVLEAK/SW\_LS////150V//@LS\_IDSS\_25C

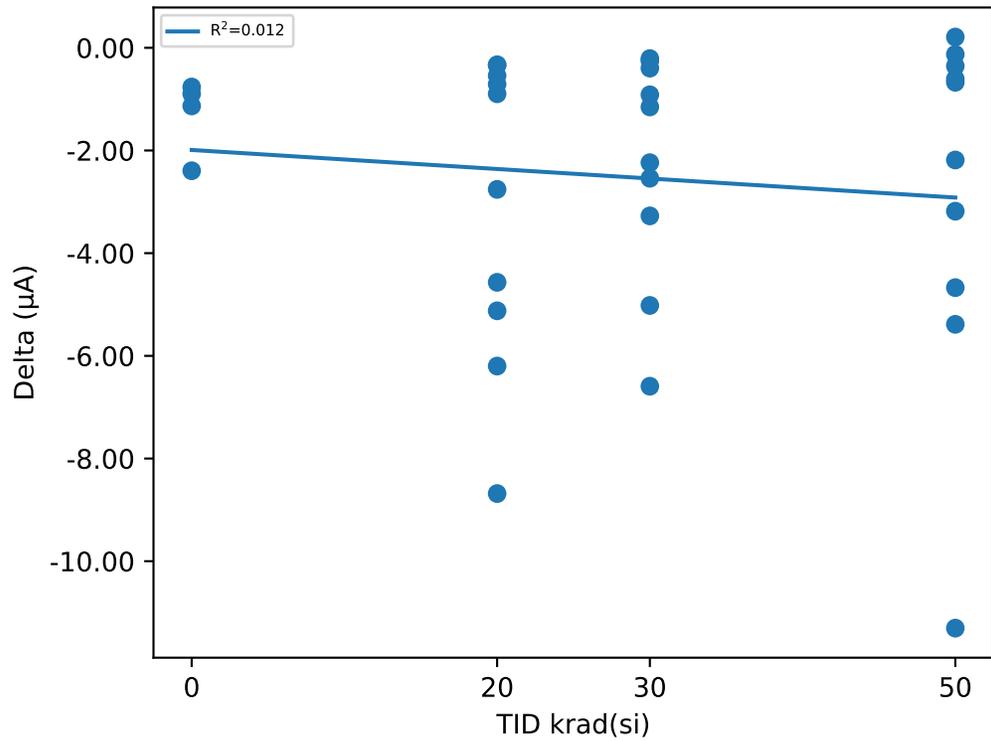
## TID vs Result Stats



## Test Results (Upper Limit = 150.0 (µA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	14.786	8.5868	-6.1993
2	20	HDR BIAS	13.018	7.8955	-5.1226
3	20	HDR BIAS	7.2944	4.5368	-2.7576
4	20	HDR BIAS	20.517	11.835	-8.6825
5	20	HDR BIAS	11.296	6.7284	-4.568
6	20	HDR UNBIAS	20.516	19.807	-0.7094
7	20	HDR UNBIAS	25.407	24.512	-0.8951
8	20	HDR UNBIAS	8.9639	8.4223	-0.5416
9	20	HDR UNBIAS	24.609	24.274	-0.3351
10	20	HDR UNBIAS	12.243	11.909	-0.3337
11	30	HDR BIAS	13.377	8.3583	-5.0182
12	30	HDR BIAS	7.3936	4.8531	-2.5405
13	30	HDR BIAS	8.2305	4.9564	-3.2741
14	30	HDR BIAS	6.3174	4.0799	-2.2375
15	30	HDR BIAS	16.383	9.7908	-6.5921
16	30	HDR UNBIAS	5.4205	5.21	-0.2105
17	30	HDR UNBIAS	5.6085	5.3551	-0.2534
18	30	HDR UNBIAS	25.82	24.668	-1.1515
19	30	HDR UNBIAS	7.4777	7.0819	-0.3958
20	30	HDR UNBIAS	19.397	18.482	-0.9155
21	50	HDR BIAS	13.349	7.9632	-5.3862
22	50	HDR BIAS	5.646	3.4608	-2.1852
23	50	HDR BIAS	8.2897	5.107	-3.1827
24	50	HDR BIAS	11.857	7.1858	-4.6716
25	50	HDR BIAS	25.431	14.128	-11.304
26	50	HDR UNBIAS	9.3975	9.042	-0.3555
27	50	HDR UNBIAS	29.081	29.29	0.209
28	50	HDR UNBIAS	24.252	24.124	-0.1276
29	50	HDR UNBIAS	27.745	27.14	-0.6055
30	50	HDR UNBIAS	19.925	19.253	-0.6717
41	0	CORRELATION	16.385	13.99	-2.395
42	0	CORRELATION	7.2891	6.3928	-0.8963
43	0	CORRELATION	7.2961	6.532	-0.7641
45	0	CORRELATION	7.2607	6.129	-1.1317

## TID vs Post - Pre Exposure Delta

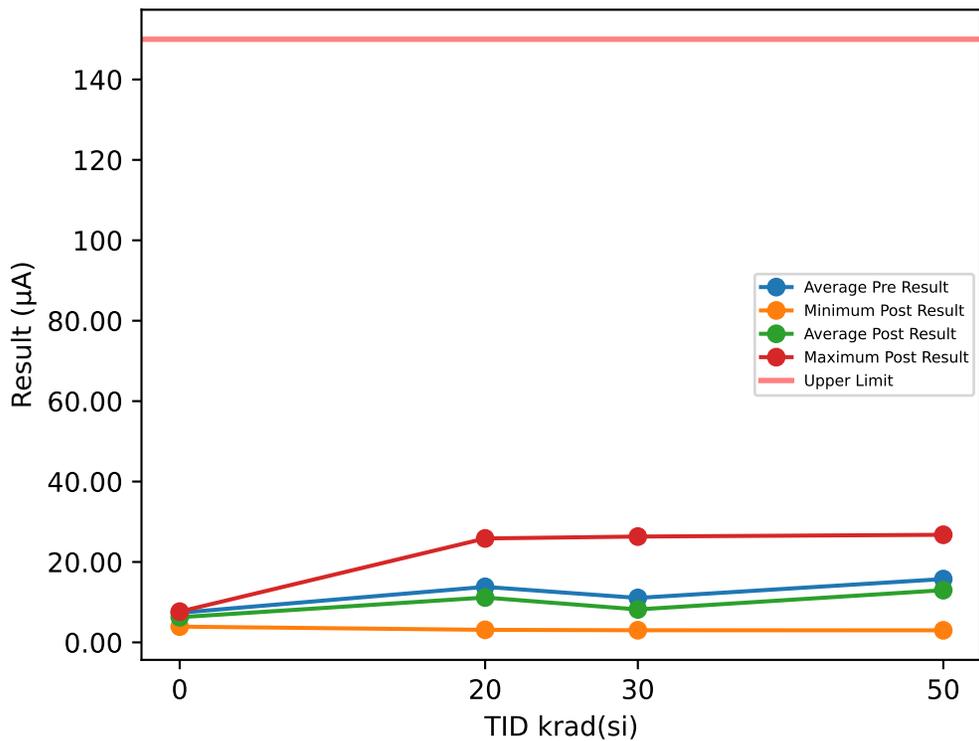


## Test Statistics (µA)

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	7.2607	9.5578	16.385	4.5517	6.129	8.261	13.99	3.8232	-2.395	-1.2968	-0.7641	0.74777
20	7.2944	15.865	25.407	6.4561	4.5368	12.851	24.512	7.3465	-8.6825	-3.0145	-0.3337	2.9717
30	5.4205	11.542	25.82	6.9684	4.0799	9.2835	24.668	6.8695	-6.5921	-2.2589	-0.2105	2.1659
50	5.646	17.497	29.081	8.7781	3.4608	14.669	29.29	9.6013	-11.304	-2.8281	0.209	3.5674

# Device Test: 14.27 GAN|HVLEAK/HVIN////150V//@HS\_IDSS\_25C

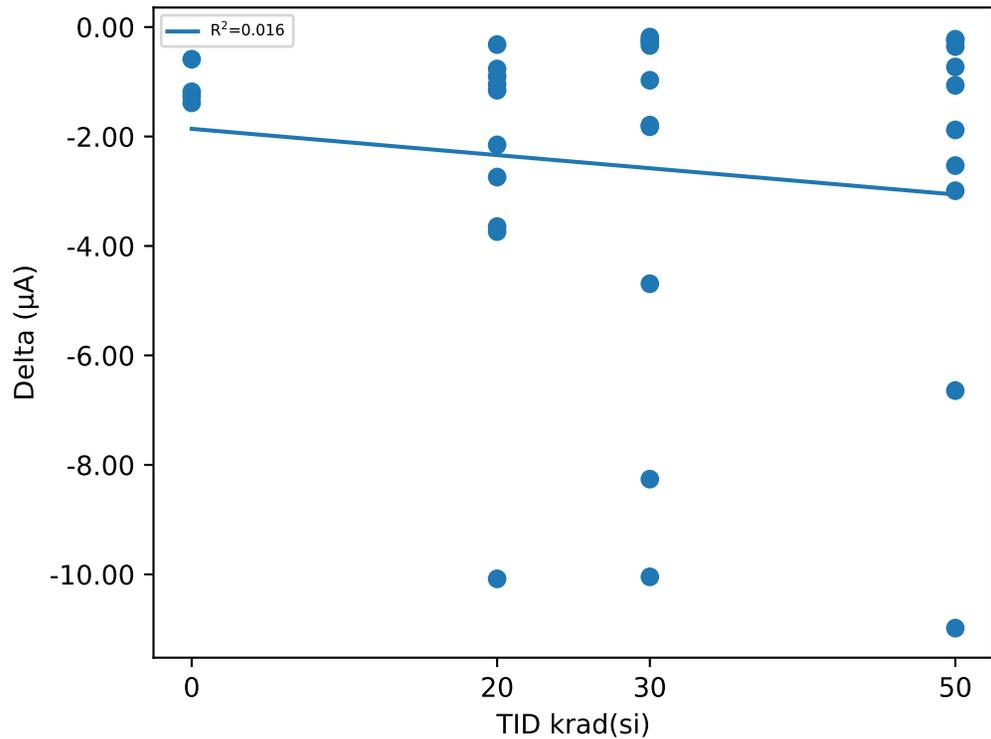
## TID vs Result Stats



## Test Results (Upper Limit = 150.0 (µA))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	23.214	13.132	-10.082
2	20	HDR BIAS	9.0894	5.4438	-3.6456
3	20	HDR BIAS	9.3869	5.6496	-3.7373
4	20	HDR BIAS	5.2764	3.1235	-2.1529
5	20	HDR BIAS	6.5992	3.858	-2.7412
6	20	HDR UNBIAS	5.042	4.7218	-0.3202
7	20	HDR UNBIAS	26.897	25.85	-1.0467
8	20	HDR UNBIAS	12.272	11.368	-0.9036
9	20	HDR UNBIAS	15.633	14.478	-1.1545
10	20	HDR UNBIAS	24.703	23.937	-0.7662
11	30	HDR BIAS	4.8112	3.0194	-1.7918
12	30	HDR BIAS	20.726	10.681	-10.046
13	30	HDR BIAS	11.972	7.2822	-4.6899
14	30	HDR BIAS	19.375	11.114	-8.2604
15	30	HDR BIAS	4.9663	3.1451	-1.8212
16	30	HDR UNBIAS	4.5916	4.2547	-0.3369
17	30	HDR UNBIAS	6.7527	6.5697	-0.183
18	30	HDR UNBIAS	5.1222	4.8805	-0.2417
19	30	HDR UNBIAS	27.294	26.322	-0.9721
20	30	HDR UNBIAS	4.9674	4.693	-0.2744
21	50	HDR BIAS	7.7492	4.7584	-2.9908
22	50	HDR BIAS	6.0053	3.4742	-2.5311
23	50	HDR BIAS	4.8809	3.0011	-1.8798
24	50	HDR BIAS	24.923	13.941	-10.982
25	50	HDR BIAS	15.613	8.9698	-6.6428
26	50	HDR UNBIAS	26.907	25.843	-1.0646
27	50	HDR UNBIAS	26.987	26.763	-0.2232
28	50	HDR UNBIAS	15.106	14.861	-0.2455
29	50	HDR UNBIAS	13.318	12.962	-0.3562
30	50	HDR UNBIAS	16.031	15.301	-0.7299
41	0	CORRELATION	9.0301	7.6459	-1.3842
42	0	CORRELATION	7.2264	6.0437	-1.1827
43	0	CORRELATION	4.5088	3.9211	-0.5877
45	0	CORRELATION	8.6841	7.419	-1.2651

## TID vs Post - Pre Exposure Delta

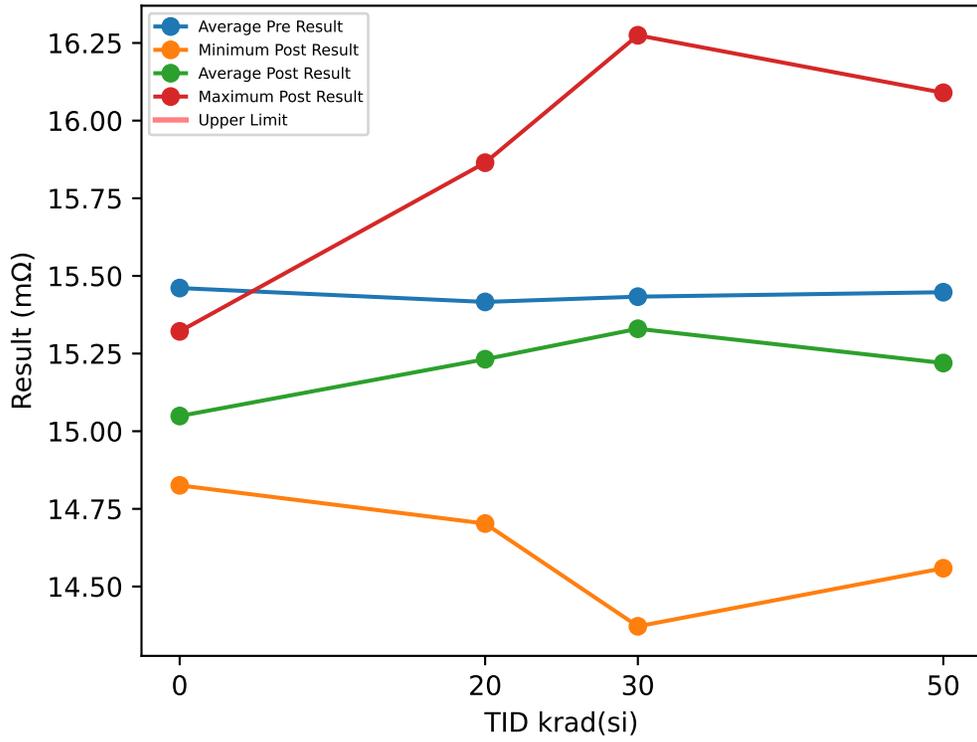


## Test Statistics (µA)

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	4.5088	7.3624	9.0301	2.0567	3.9211	6.2574	7.6459	1.7109	-1.3842	-1.1049	-0.5877	0.3546
20	5.042	13.811	26.897	8.3506	3.1235	11.156	25.85	8.2757	-10.082	-2.655	-0.3202	2.8771
30	4.5916	11.058	27.294	8.4058	3.0194	8.1962	26.322	6.9748	-10.046	-2.8617	-0.183	3.6056
50	4.8809	15.752	26.987	8.2894	3.0011	12.987	26.763	8.4254	-10.982	-2.7646	-0.2232	3.4817

# Device Test: 14.3 GAN|RDSON/SW\_LS/12/10/////@LS\_RDSON\_25C

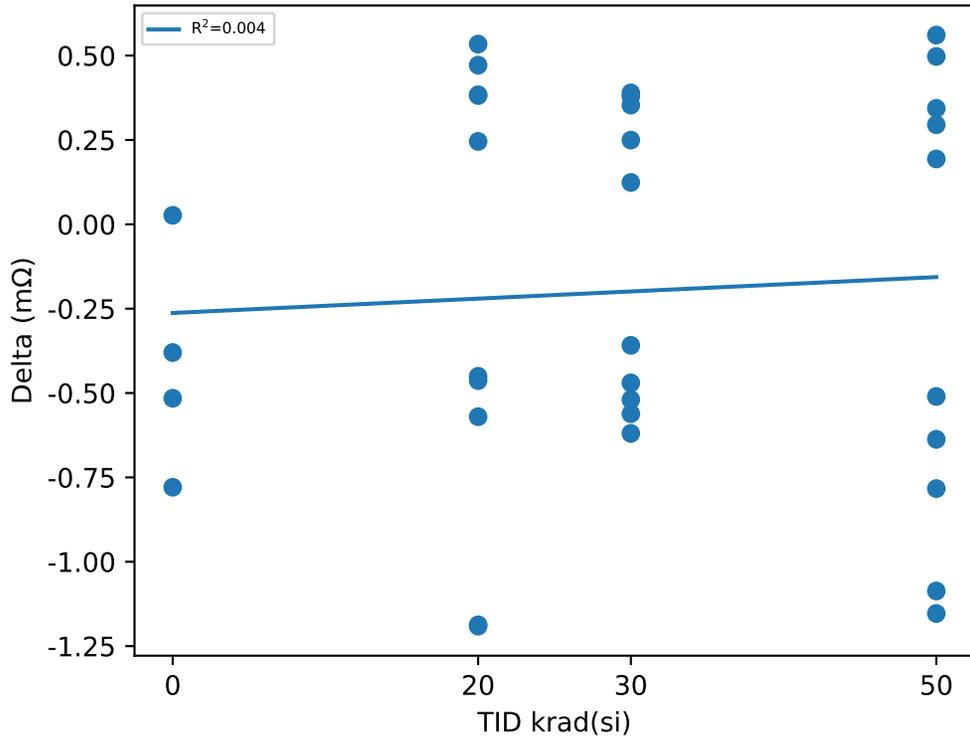
## TID vs Result Stats



## Test Results (No Limits Specified (mΩ))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	15.331	15.864	0.5339
2	20	HDR BIAS	15.422	15.668	0.2457
3	20	HDR BIAS	15.01	15.392	0.3818
4	20	HDR BIAS	15.4	15.784	0.3839
5	20	HDR BIAS	15.012	15.483	0.4716
6	20	HDR UNBIAS	15.448	14.878	-0.5701
7	20	HDR UNBIAS	15.162	14.712	-0.4505
8	20	HDR UNBIAS	15.324	14.861	-0.4632
9	20	HDR UNBIAS	15.89	14.703	-1.1869
10	20	HDR UNBIAS	16.163	14.972	-1.1908
11	30	HDR BIAS	15.564	15.918	0.3533
12	30	HDR BIAS	15.545	15.669	0.1239
13	30	HDR BIAS	14.982	15.362	0.3795
14	30	HDR BIAS	16.025	16.275	0.2495
15	30	HDR BIAS	15.247	15.636	0.3893
16	30	HDR UNBIAS	15.285	14.815	-0.47
17	30	HDR UNBIAS	14.891	14.372	-0.5195
18	30	HDR UNBIAS	15.542	14.981	-0.5612
19	30	HDR UNBIAS	15.601	15.242	-0.3588
20	30	HDR UNBIAS	15.648	15.029	-0.6196
21	50	HDR BIAS	14.99	15.285	0.2951
22	50	HDR BIAS	15.274	15.468	0.1936
23	50	HDR BIAS	15.529	16.09	0.5608
24	50	HDR BIAS	15.521	15.864	0.3436
25	50	HDR BIAS	15.232	15.729	0.4974
26	50	HDR UNBIAS	15.238	14.601	-0.6371
27	50	HDR UNBIAS	15.73	14.643	-1.0867
28	50	HDR UNBIAS	16.237	15.084	-1.1533
29	50	HDR UNBIAS	15.069	14.559	-0.5102
30	50	HDR UNBIAS	15.654	14.871	-0.7832
41	0	CORRELATION	15.213	14.833	-0.3801
42	0	CORRELATION	15.731	15.216	-0.5155
43	0	CORRELATION	16.101	15.321	-0.7792
45	0	CORRELATION	14.799	14.826	0.0267

## TID vs Post - Pre Exposure Delta

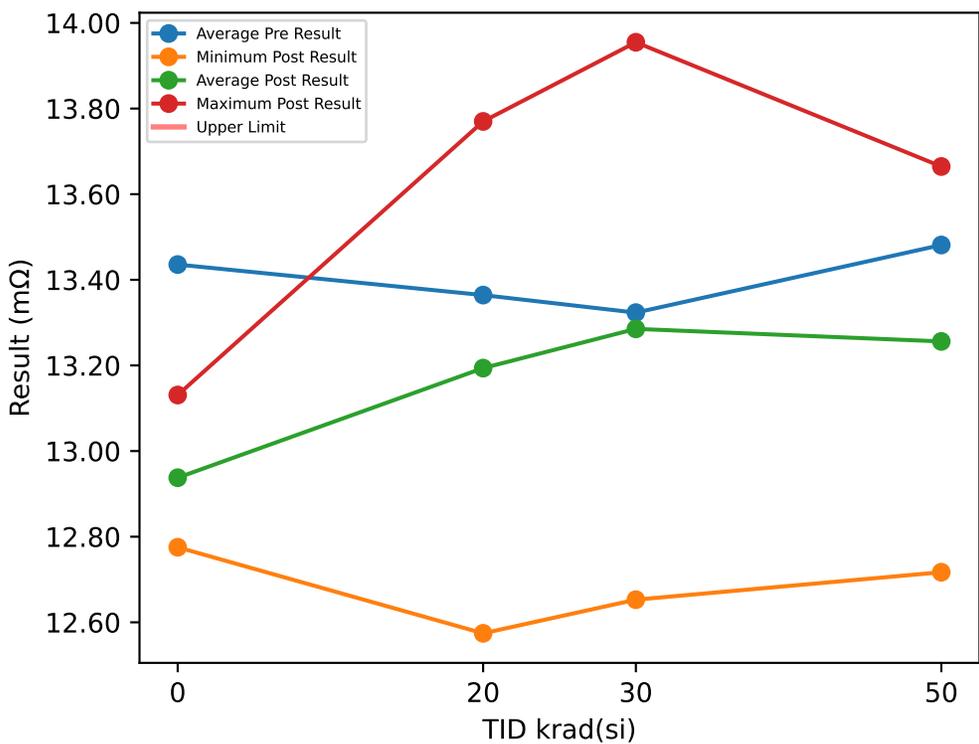


## Test Statistics (mΩ)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	14.799	15.461	16.101	0.5721	14.826	15.049	15.321	0.25728	-0.7792	-0.41202	0.0267	0.33617
20	15.01	15.416	16.163	0.36394	14.703	15.232	15.864	0.45525	-1.1908	-0.18446	0.5339	0.67412
30	14.891	15.433	16.025	0.33668	14.372	15.33	16.275	0.56282	-0.6196	-0.10336	0.3893	0.43583
50	14.99	15.447	16.237	0.36979	14.559	15.219	16.09	0.5567	-1.1533	-0.228	0.5608	0.67291

# Device Test: 14.6 GAN|RDSON/HVIN/12/10////@HS\_RDSON\_25C

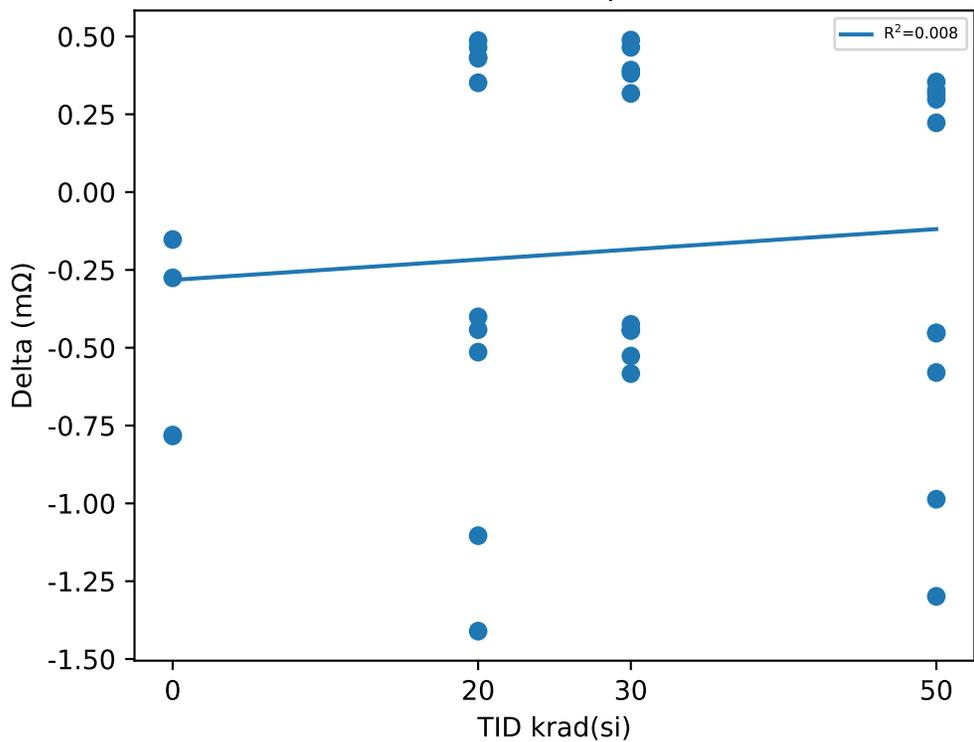
## TID vs Result Stats



## Test Results (No Limits Specified (mΩ))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	13.179	13.665	0.4865
2	20	HDR BIAS	13.419	13.77	0.3512
3	20	HDR BIAS	13.045	13.478	0.4332
4	20	HDR BIAS	12.977	13.407	0.4299
5	20	HDR BIAS	13.122	13.586	0.4644
6	20	HDR UNBIAS	13.016	12.574	-0.442
7	20	HDR UNBIAS	13.377	12.863	-0.5142
8	20	HDR UNBIAS	13.34	12.94	-0.4008
9	20	HDR UNBIAS	14.022	12.612	-1.4104
10	20	HDR UNBIAS	14.146	13.042	-1.1038
11	30	HDR BIAS	13.466	13.955	0.4884
12	30	HDR BIAS	13.488	13.953	0.465
13	30	HDR BIAS	13.412	13.804	0.392
14	30	HDR BIAS	13.463	13.844	0.3811
15	30	HDR BIAS	13.201	13.518	0.317
16	30	HDR UNBIAS	13.287	12.704	-0.5831
17	30	HDR UNBIAS	13.248	12.823	-0.4249
18	30	HDR UNBIAS	13.102	12.659	-0.4436
19	30	HDR UNBIAS	13.468	12.941	-0.5268
20	30	HDR UNBIAS	13.097	12.653	-0.4444
21	50	HDR BIAS	13.101	13.324	0.2226
22	50	HDR BIAS	13.061	13.415	0.3539
23	50	HDR BIAS	13.265	13.592	0.3276
24	50	HDR BIAS	13.249	13.547	0.2982
25	50	HDR BIAS	13.349	13.665	0.3158
26	50	HDR UNBIAS	13.517	13.065	-0.4526
27	50	HDR UNBIAS	14.016	12.717	-1.2986
28	50	HDR UNBIAS	14.055	13.068	-0.9867
29	50	HDR UNBIAS	13.496	12.916	-0.5797
30	50	HDR UNBIAS	13.705	13.252	-0.4527
41	0	CORRELATION	13.406	13.131	-0.2754
42	0	CORRELATION	13.611	12.828	-0.7833
43	0	CORRELATION	13.797	13.017	-0.7805
45	0	CORRELATION	12.928	12.775	-0.1524

## TID vs Post - Pre Exposure Delta

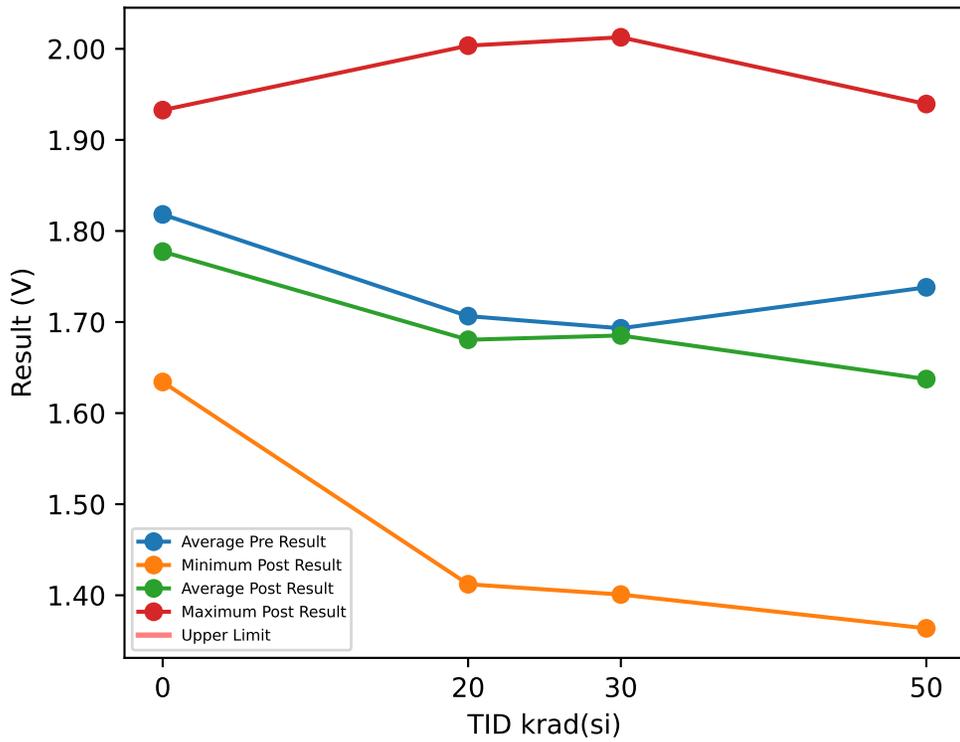


## Test Statistics (mΩ)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	12.928	13.436	13.797	0.37433	12.775	12.938	13.131	0.16523	-0.7833	-0.4979	-0.1524	0.33176
20	12.977	13.364	14.146	0.41019	12.574	13.194	13.77	0.44139	-1.4104	-0.1706	0.4865	0.70594
30	13.097	13.323	13.488	0.15561	12.653	13.285	13.955	0.57657	-0.5831	-0.03793	0.4884	0.47517
50	13.061	13.481	14.055	0.35045	12.717	13.256	13.665	0.31141	-1.2986	-0.22522	0.3539	0.61186

# Device Test: 14.7 GAN|3Q/SW\_LS///0p5A///@LS\_VSD\_0p5A

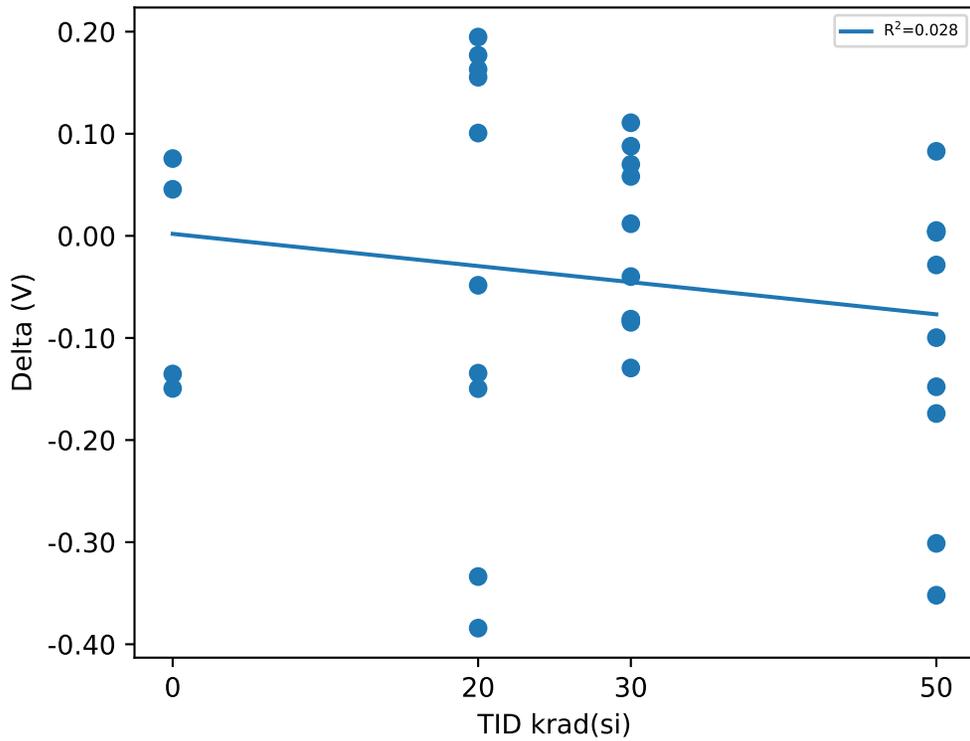
## TID vs Result Stats



## Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	1.8481	2.0035	0.1554
2	20	HDR BIAS	1.8072	1.9079	0.1007
3	20	HDR BIAS	1.5328	1.6959	0.1631
4	20	HDR BIAS	1.5368	1.7137	0.1769
5	20	HDR BIAS	1.5442	1.7389	0.1947
6	20	HDR UNBIAS	1.5617	1.4121	-0.1496
7	20	HDR UNBIAS	1.5831	1.4486	-0.1345
8	20	HDR UNBIAS	1.801	1.7526	-0.0484
9	20	HDR UNBIAS	1.9167	1.5325	-0.3842
10	20	HDR UNBIAS	1.9335	1.5998	-0.3337
11	30	HDR BIAS	1.671	1.7588	0.0878
12	30	HDR BIAS	1.5566	1.6148	0.0582
13	30	HDR BIAS	1.6492	1.7192	0.07
14	30	HDR BIAS	2.0008	2.0127	0.0119
15	30	HDR BIAS	1.5891	1.6999	0.1108
16	30	HDR UNBIAS	1.5709	1.4893	-0.0816
17	30	HDR UNBIAS	1.5302	1.4008	-0.1294
18	30	HDR UNBIAS	1.7078	1.6256	-0.0822
19	30	HDR UNBIAS	1.9669	1.927	-0.0399
20	30	HDR UNBIAS	1.689	1.6043	-0.0847
21	50	HDR BIAS	1.534	1.5055	-0.0285
22	50	HDR BIAS	1.5787	1.5839	0.0052
23	50	HDR BIAS	1.9351	1.9394	0.0043
24	50	HDR BIAS	1.8716	1.875	0.0034
25	50	HDR BIAS	1.7893	1.8721	0.0828
26	50	HDR UNBIAS	1.5291	1.3813	-0.1478
27	50	HDR UNBIAS	1.9169	1.5649	-0.352
28	50	HDR UNBIAS	1.9977	1.6965	-0.3012
29	50	HDR UNBIAS	1.6912	1.5915	-0.0997
30	50	HDR UNBIAS	1.5377	1.3637	-0.174
41	0	CORRELATION	1.5585	1.6342	0.0757
42	0	CORRELATION	2.0352	1.8858	-0.1494
43	0	CORRELATION	2.068	1.9327	-0.1353
45	0	CORRELATION	1.611	1.6566	0.0456

## TID vs Post - Pre Exposure Delta

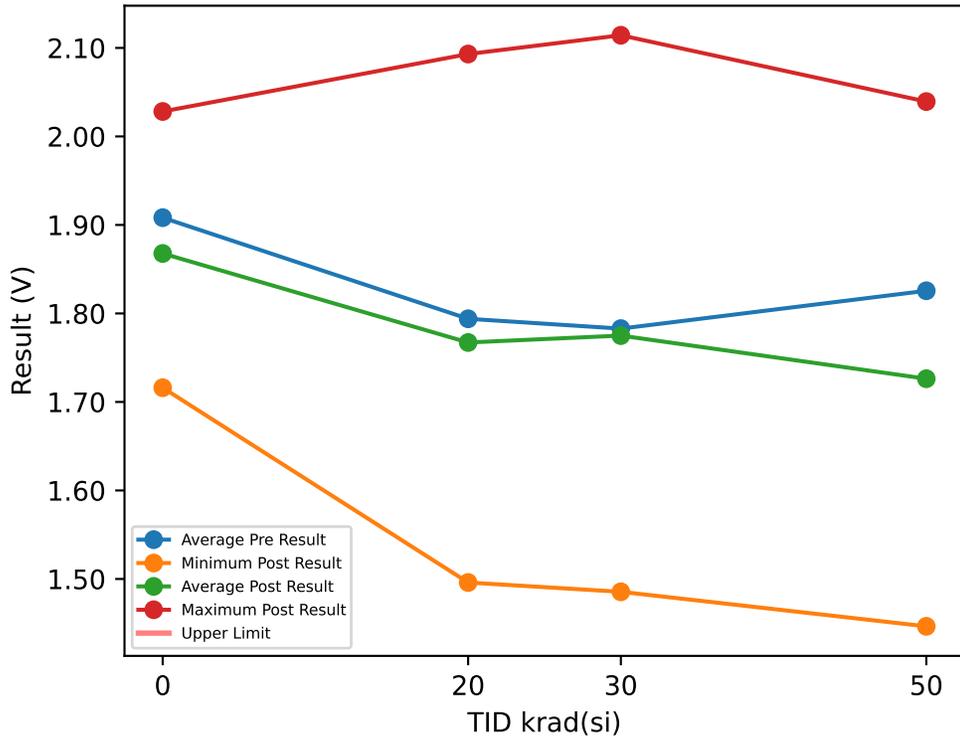


## Test Statistics (V)

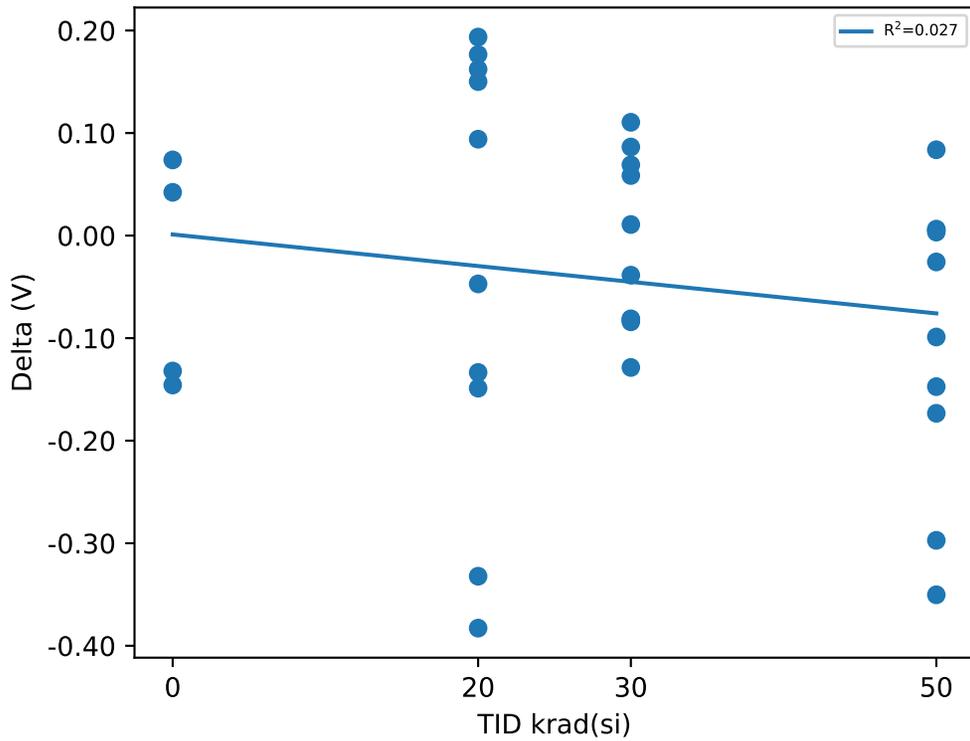
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.5585	1.8182	2.068	0.27072	1.6342	1.7773	1.9327	0.1538	-0.1494	-0.04085	0.0757	0.11799
20	1.5328	1.7065	1.9335	0.16877	1.4121	1.6805	2.0035	0.18863	-0.3842	-0.02596	0.1947	0.21734
30	1.5302	1.6931	2.0008	0.16439	1.4008	1.6852	2.0127	0.18464	-0.1294	-0.00791	0.1108	0.086097
50	1.5291	1.7381	1.9977	0.18611	1.3637	1.6374	1.9394	0.20395	-0.352	-0.10075	0.0828	0.14256

# Device Test: 14.9 GAN|3Q/SW\_LS///1A///@LS\_VSD\_1p0A

### TID vs Result Stats



### TID vs Post - Pre Exposure Delta



### Test Results (No Limits Specified (V))

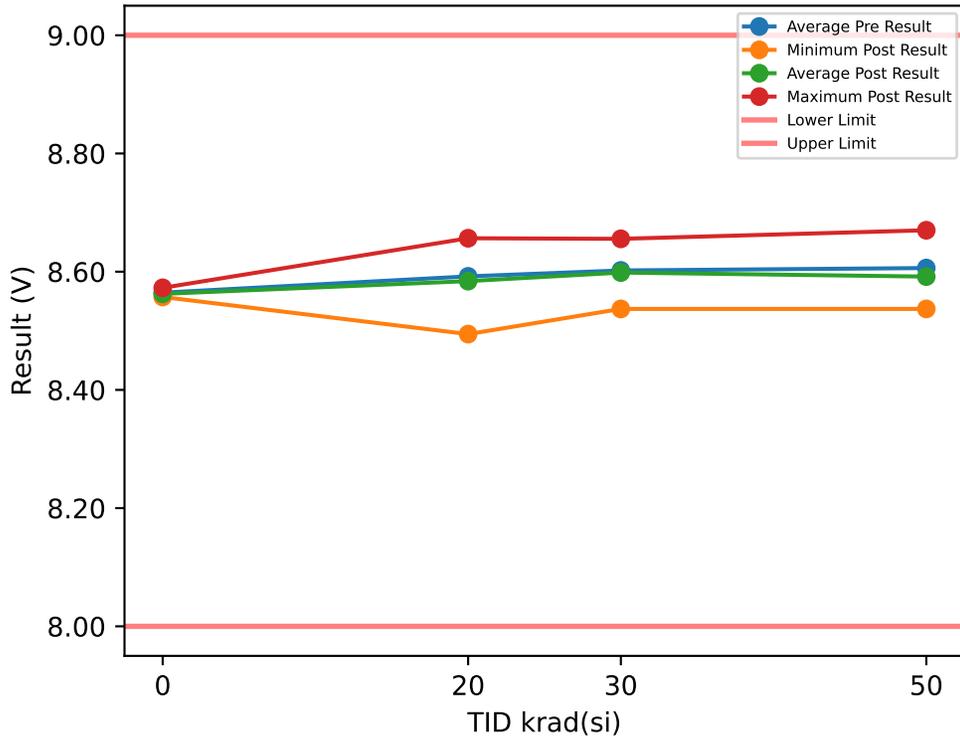
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	1.9429	2.0931	0.1502
2	20	HDR BIAS	1.9044	1.9984	0.094
3	20	HDR BIAS	1.6151	1.7773	0.1622
4	20	HDR BIAS	1.6193	1.7959	0.1766
5	20	HDR BIAS	1.627	1.8206	0.1936
6	20	HDR UNBIAS	1.6448	1.496	-0.1488
7	20	HDR UNBIAS	1.6665	1.533	-0.1335
8	20	HDR UNBIAS	1.899	1.8519	-0.0471
9	20	HDR UNBIAS	2.0005	1.6177	-0.3828
10	20	HDR UNBIAS	2.0201	1.6879	-0.3322
11	30	HDR BIAS	1.7592	1.8456	0.0864
12	30	HDR BIAS	1.6451	1.7037	0.0586
13	30	HDR BIAS	1.736	1.805	0.069
14	30	HDR BIAS	2.1035	2.1143	0.0108
15	30	HDR BIAS	1.6725	1.783	0.1105
16	30	HDR UNBIAS	1.656	1.5748	-0.0812
17	30	HDR UNBIAS	1.6141	1.4855	-0.1286
18	30	HDR UNBIAS	1.7961	1.7144	-0.0817
19	30	HDR UNBIAS	2.0683	2.0297	-0.0386
20	30	HDR UNBIAS	1.7778	1.6937	-0.0841
21	50	HDR BIAS	1.6174	1.5917	-0.0257
22	50	HDR BIAS	1.6633	1.6696	0.0063
23	50	HDR BIAS	2.0339	2.0394	0.0055
24	50	HDR BIAS	1.967	1.9704	0.0034
25	50	HDR BIAS	1.879	1.9627	0.0837
26	50	HDR UNBIAS	1.6136	1.4663	-0.1473
27	50	HDR UNBIAS	2.001	1.6507	-0.3503
28	50	HDR UNBIAS	2.0849	1.7877	-0.2972
29	50	HDR UNBIAS	1.7764	1.6775	-0.0989
30	50	HDR UNBIAS	1.6198	1.4465	-0.1733
41	0	CORRELATION	1.6423	1.7161	0.0738
42	0	CORRELATION	2.1323	1.9866	-0.1457
43	0	CORRELATION	2.1603	2.0282	-0.1321
45	0	CORRELATION	1.698	1.7402	0.0422

### 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	1.6423	1.9082	2.1603	0.27608	1.7161	1.8678	2.0282	0.16242	-0.1457	-0.04045	0.0738	0.11454
20	1.6151	1.794	2.0201	0.17259	1.496	1.7672	2.0931	0.1908	-0.3828	-0.02678	0.1936	0.21558
30	1.6141	1.7829	2.1035	0.17094	1.4855	1.775	2.1143	0.19009	-0.1286	-0.00789	0.1105	0.085462
50	1.6136	1.8256	2.0849	0.18963	1.4465	1.7262	2.0394	0.20886	-0.3503	-0.09938	0.0837	0.14202

# Device Test: 15.1 THRESHOLD|RISE/VIN//10////@V\_IN\_TH\_RISE

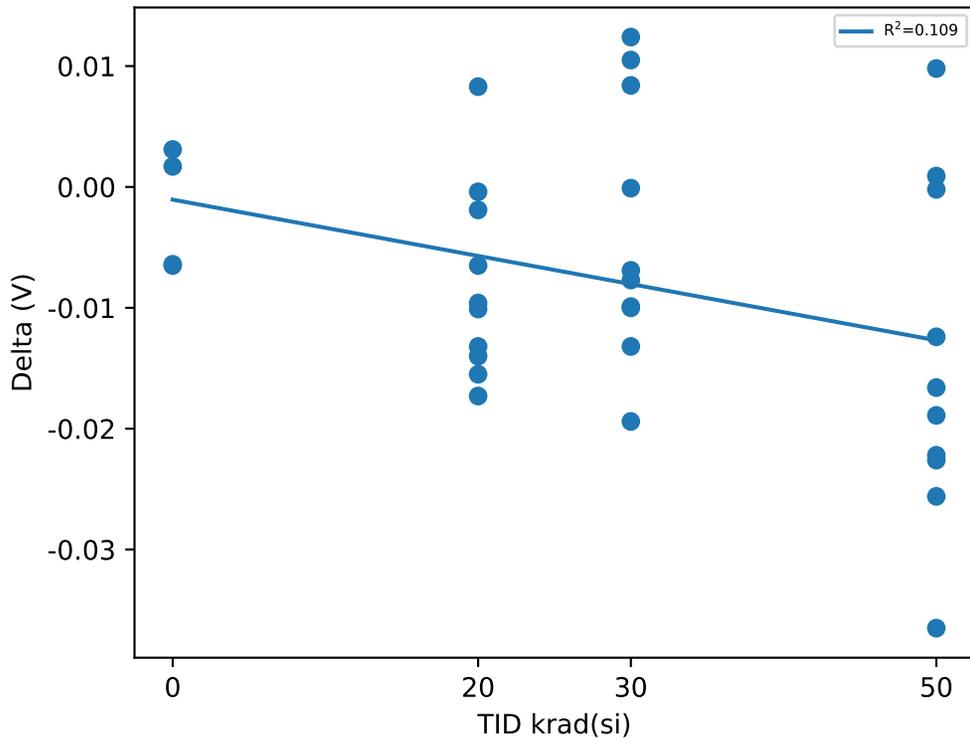
### TID vs Result Stats



### Test Results (Lower Limit = 8.0, Upper Limit = 9.0 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	8.5871	8.5806	-0.0065
2	20	HDR BIAS	8.5553	8.5534	-0.0019
3	20	HDR BIAS	8.6698	8.6566	-0.0132
4	20	HDR BIAS	8.5647	8.5551	-0.0096
5	20	HDR BIAS	8.6617	8.6462	-0.0155
6	20	HDR UNBIAS	8.6052	8.5912	-0.014
7	20	HDR UNBIAS	8.5768	8.5764	-0.0004
8	20	HDR UNBIAS	8.5714	8.5613	-0.0101
9	20	HDR UNBIAS	8.5117	8.4944	-0.0173
10	20	HDR UNBIAS	8.6171	8.6254	0.0083
11	30	HDR BIAS	8.6034	8.5902	-0.0132
12	30	HDR BIAS	8.6411	8.6312	-0.0099
13	30	HDR BIAS	8.5995	8.5801	-0.0194
14	30	HDR BIAS	8.547	8.537	-0.01
15	30	HDR BIAS	8.5971	8.5902	-0.0069
16	30	HDR UNBIAS	8.6451	8.6556	0.0105
17	30	HDR UNBIAS	8.6097	8.602	-0.0077
18	30	HDR UNBIAS	8.5474	8.5473	-0.0001
19	30	HDR UNBIAS	8.6177	8.6301	0.0124
20	30	HDR UNBIAS	8.6131	8.6215	0.0084
21	50	HDR BIAS	8.6629	8.6264	-0.0365
22	50	HDR BIAS	8.6358	8.6132	-0.0226
23	50	HDR BIAS	8.6957	8.6701	-0.0256
24	50	HDR BIAS	8.5876	8.5654	-0.0222
25	50	HDR BIAS	8.6271	8.6105	-0.0166
26	50	HDR UNBIAS	8.6094	8.6092	-0.0002
27	50	HDR UNBIAS	8.5512	8.5521	0.0009
28	50	HDR UNBIAS	8.5613	8.5711	0.0098
29	50	HDR UNBIAS	8.5813	8.5624	-0.0189
30	50	HDR UNBIAS	8.5494	8.537	-0.0124
41	0	CORRELATION	8.5696	8.5727	0.0031
42	0	CORRELATION	8.5637	8.5572	-0.0065
43	0	CORRELATION	8.5612	8.5629	0.0017
45	0	CORRELATION	8.5636	8.5572	-0.0064

### TID vs Post - Pre Exposure Delta

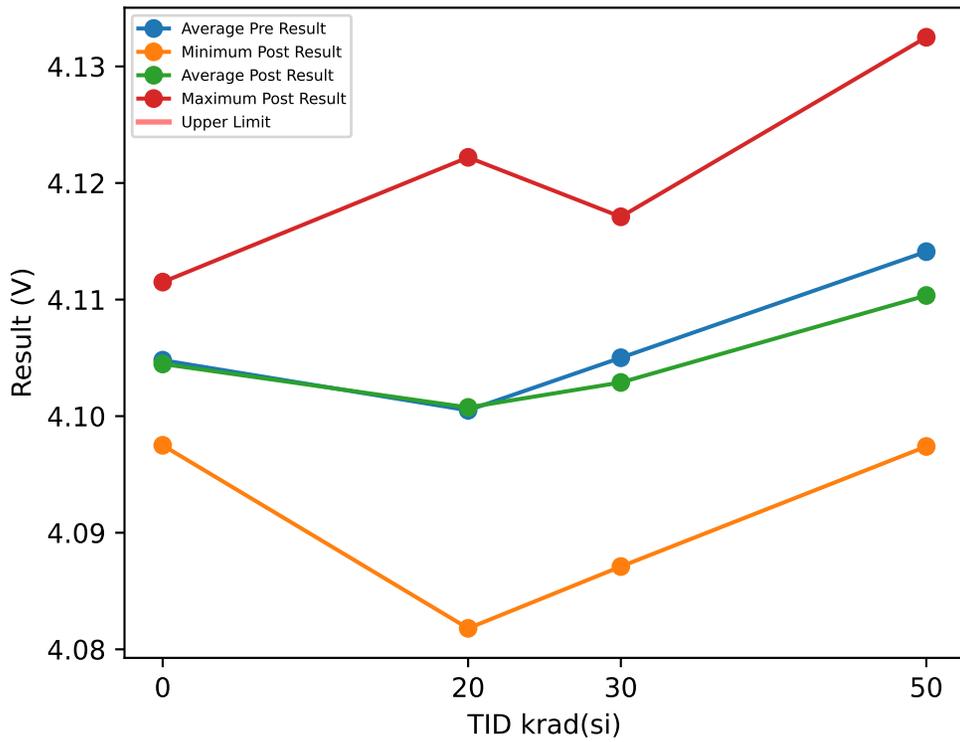


### Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	8.5612	8.5645	8.5696	0.0035753	8.5572	8.5625	8.5727	0.0073116	-0.0065	-0.002025	0.0031	0.0051416
20	8.5117	8.5921	8.6698	0.04823	8.4944	8.5841	8.6566	0.048637	-0.0173	-0.00802	0.0083	0.0079976
30	8.547	8.6021	8.6451	0.033089	8.537	8.5985	8.6556	0.037638	-0.0194	-0.00359	0.0124	0.010859
50	8.5494	8.6062	8.6957	0.049195	8.537	8.5917	8.6701	0.040835	-0.0365	-0.01443	0.0098	0.014112

# Device Test: 15.10 THRESHOLD|RISE/BP5L/12/10/////@V\_BP5L\_TH\_RISE

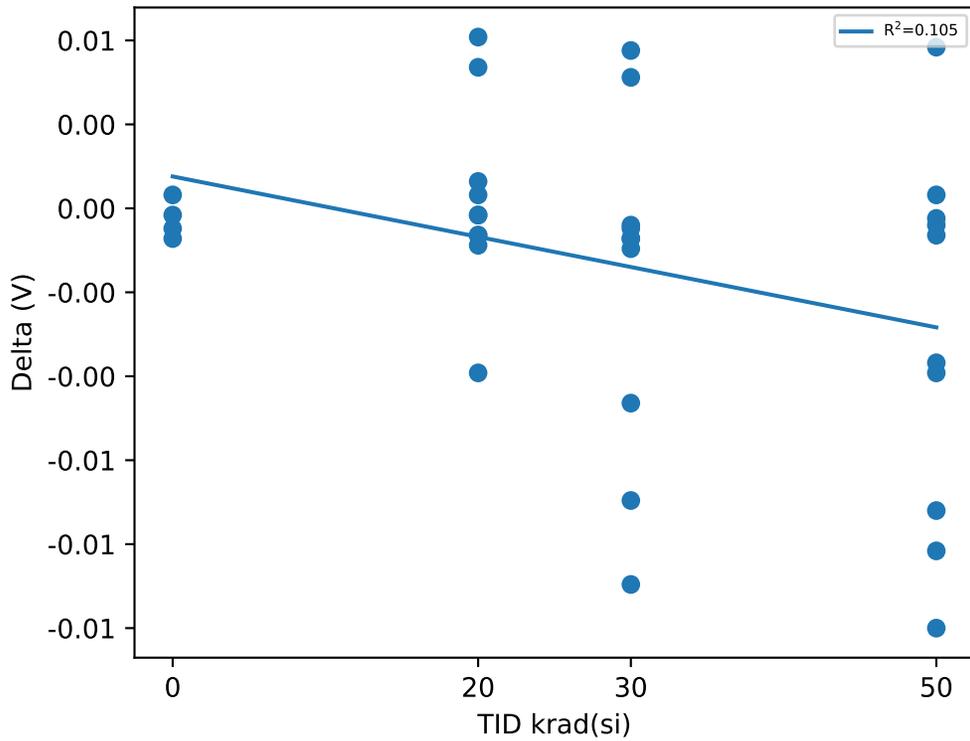
## TID vs Result Stats



## Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.0923	4.0931	0.0008
2	20	HDR BIAS	4.1033	4.1025	-0.0008
3	20	HDR BIAS	4.1223	4.1221	-0.0002
4	20	HDR BIAS	4.118	4.1222	0.0042
5	20	HDR BIAS	4.1167	4.1118	-0.0049
6	20	HDR UNBIAS	4.088	4.0869	-0.0011
7	20	HDR UNBIAS	4.1023	4.1074	0.0051
8	20	HDR UNBIAS	4.093	4.0922	-0.0008
9	20	HDR UNBIAS	4.0814	4.0818	0.0004
10	20	HDR UNBIAS	4.0877	4.0875	-0.0002
11	30	HDR BIAS	4.108	4.1074	-0.0006
12	30	HDR BIAS	4.1184	4.1072	-0.0112
13	30	HDR BIAS	4.1064	4.0977	-0.0087
14	30	HDR BIAS	4.113	4.1072	-0.0058
15	30	HDR BIAS	4.0883	4.0871	-0.0012
16	30	HDR UNBIAS	4.0927	4.0922	-0.0005
17	30	HDR UNBIAS	4.0933	4.098	0.0047
18	30	HDR UNBIAS	4.099	4.0981	-0.0009
19	30	HDR UNBIAS	4.118	4.1171	-0.0009
20	30	HDR UNBIAS	4.113	4.1169	0.0039
21	50	HDR BIAS	4.1126	4.108	-0.0046
22	50	HDR BIAS	4.1277	4.1325	0.0048
23	50	HDR BIAS	4.1314	4.1265	-0.0049
24	50	HDR BIAS	4.0986	4.0978	-0.0008
25	50	HDR BIAS	4.1117	4.1121	0.0004
26	50	HDR UNBIAS	4.108	4.0978	-0.0102
27	50	HDR UNBIAS	4.0977	4.0974	-0.0003
28	50	HDR UNBIAS	4.1127	4.1122	-0.0005
29	50	HDR UNBIAS	4.112	4.103	-0.009
30	50	HDR UNBIAS	4.1287	4.1162	-0.0125
41	0	CORRELATION	4.1124	4.1115	-0.0009
42	0	CORRELATION	4.1061	4.1065	0.0004
43	0	CORRELATION	4.103	4.1024	-0.0006
45	0	CORRELATION	4.0977	4.0975	-0.0002

## TID vs Post - Pre Exposure Delta

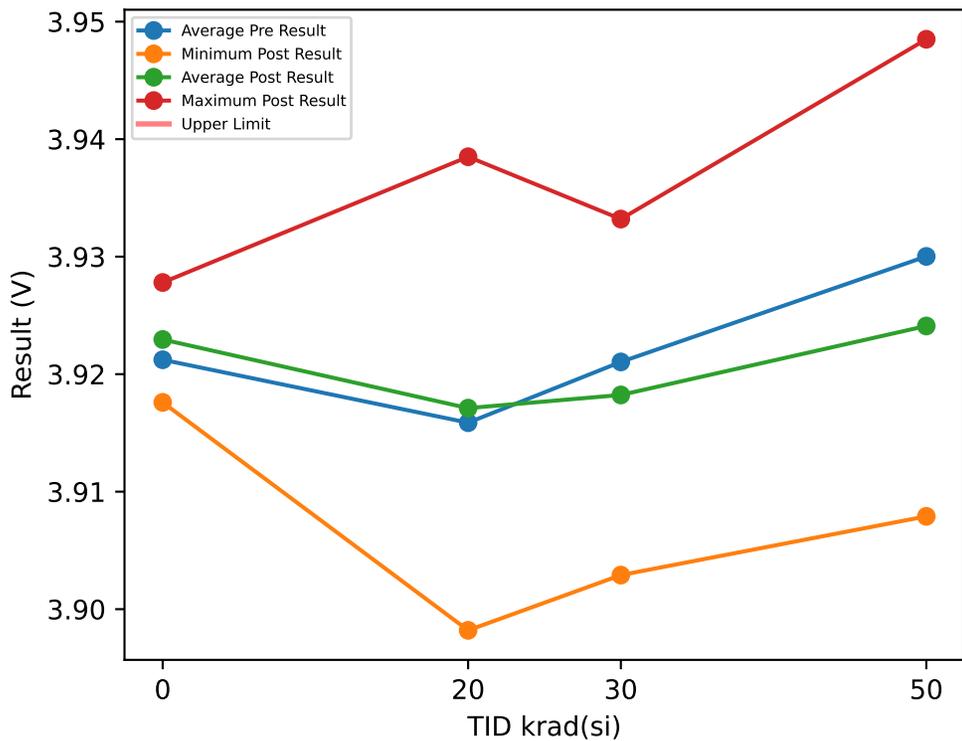


## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.0977	4.1048	4.1124	0.00614	4.0975	4.1045	4.1115	0.0059556	-0.0009	-0.000325	0.0004	0.00056199
20	4.0814	4.1005	4.1223	0.014389	4.0818	4.1007	4.1222	0.014695	-0.0049	0.00025	0.0051	0.0027969
30	4.0883	4.105	4.1184	0.011008	4.0871	4.1029	4.1171	0.0099615	-0.0112	-0.00212	0.0047	0.005064
50	4.0977	4.1141	4.1314	0.011824	4.0974	4.1103	4.1325	0.012177	-0.0125	-0.00376	0.0048	0.0054698

Device Test: 15.11 THRESHOLD|FALL/BP5L/12/10/////@V\_BP5L\_TH\_FALL

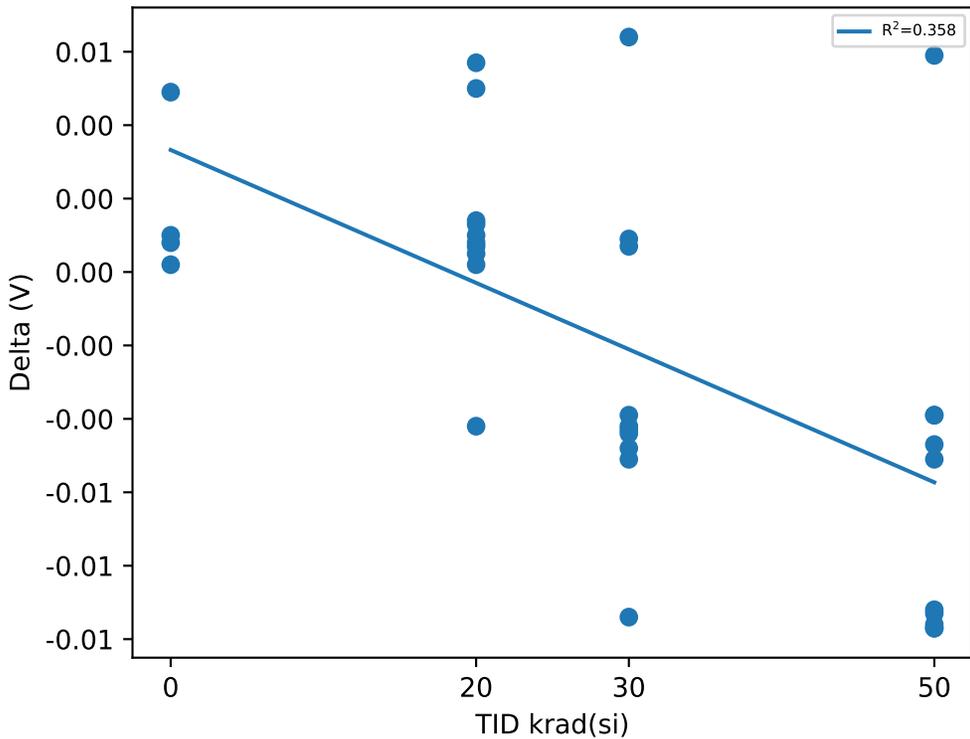
TID vs Result Stats



Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.9124	3.9129	0.0005
2	20	HDR BIAS	3.9122	3.9179	0.0057
3	20	HDR BIAS	3.9371	3.9385	0.0014
4	20	HDR BIAS	3.9326	3.9376	0.005
5	20	HDR BIAS	3.9327	3.9285	-0.0042
6	20	HDR UNBIAS	3.9019	3.9032	0.0013
7	20	HDR UNBIAS	3.9224	3.9232	0.0008
8	20	HDR UNBIAS	3.9072	3.9082	0.001
9	20	HDR UNBIAS	3.898	3.8982	0.0002
10	20	HDR UNBIAS	3.9022	3.9029	0.0007
11	30	HDR BIAS	3.9221	3.9182	-0.0039
12	30	HDR BIAS	3.9326	3.9232	-0.0094
13	30	HDR BIAS	3.9227	3.9185	-0.0042
14	30	HDR BIAS	3.9276	3.9232	-0.0044
15	30	HDR BIAS	3.908	3.9029	-0.0051
16	30	HDR UNBIAS	3.9075	3.9082	0.0007
17	30	HDR UNBIAS	3.9124	3.9188	0.0064
18	30	HDR UNBIAS	3.9122	3.9079	-0.0043
19	30	HDR UNBIAS	3.938	3.9332	-0.0048
20	30	HDR UNBIAS	3.9273	3.9282	0.0009
21	50	HDR BIAS	3.9324	3.9232	-0.0092
22	50	HDR BIAS	3.9426	3.9485	0.0059
23	50	HDR BIAS	3.9474	3.9435	-0.0039
24	50	HDR BIAS	3.9179	3.9132	-0.0047
25	50	HDR BIAS	3.9271	3.9232	-0.0039
26	50	HDR UNBIAS	3.9222	3.9129	-0.0093
27	50	HDR UNBIAS	3.913	3.9079	-0.0051
28	50	HDR UNBIAS	3.9329	3.9232	-0.0097
29	50	HDR UNBIAS	3.9274	3.9178	-0.0096
30	50	HDR UNBIAS	3.9373	3.9276	-0.0097
41	0	CORRELATION	3.9276	3.9278	0.0002
42	0	CORRELATION	3.9224	3.9232	0.0008
43	0	CORRELATION	3.9222	3.9232	0.001
45	0	CORRELATION	3.9127	3.9176	0.0049

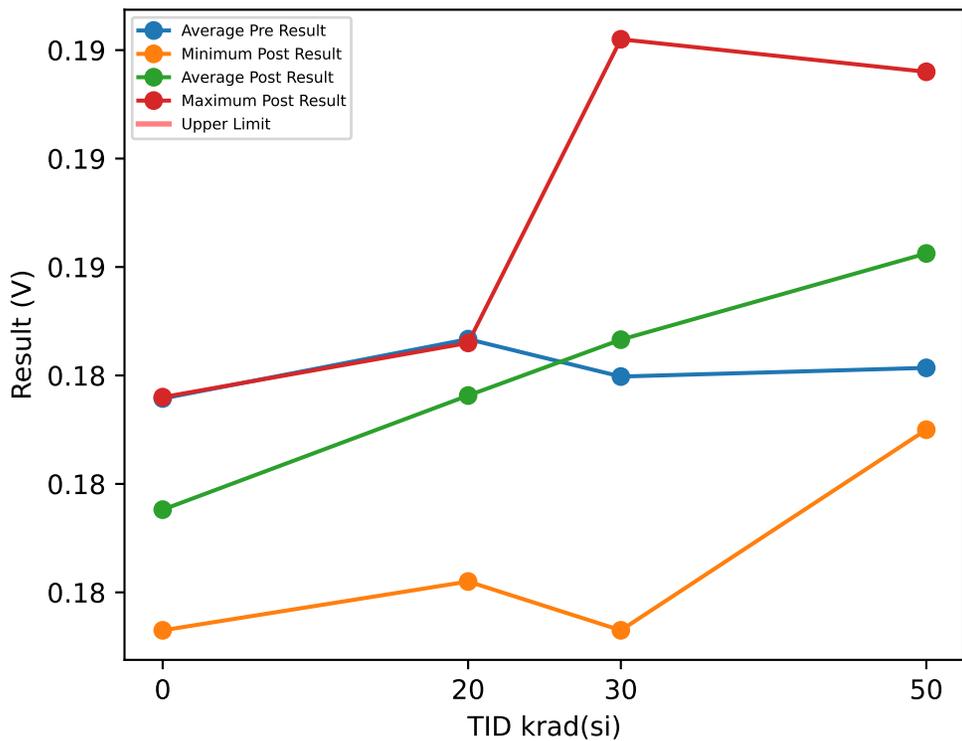
TID vs Post - Pre Exposure Delta



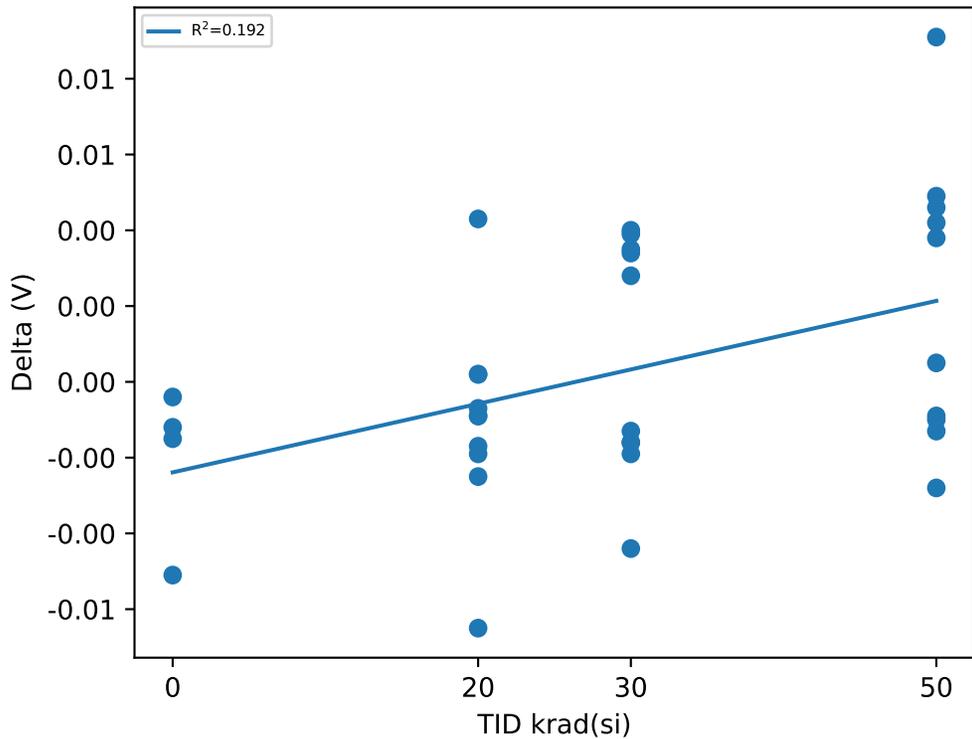
Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.9127	3.9212	3.9276	0.0062088	3.9176	3.923	3.9278	0.0041741	0.0002	0.001725	0.0049	0.0021438
20	3.898	3.9159	3.9371	0.01437	3.8982	3.9171	3.9385	0.01451	-0.0042	0.00124	0.0057	0.0027044
30	3.9075	3.921	3.938	0.010612	3.9029	3.9182	3.9332	0.0095197	-0.0094	-0.00281	0.0064	0.0043641
50	3.913	3.93	3.9474	0.010752	3.9079	3.9241	3.9485	0.01305	-0.0097	-0.00592	0.0059	0.0048801

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (No Limits Specified (V))

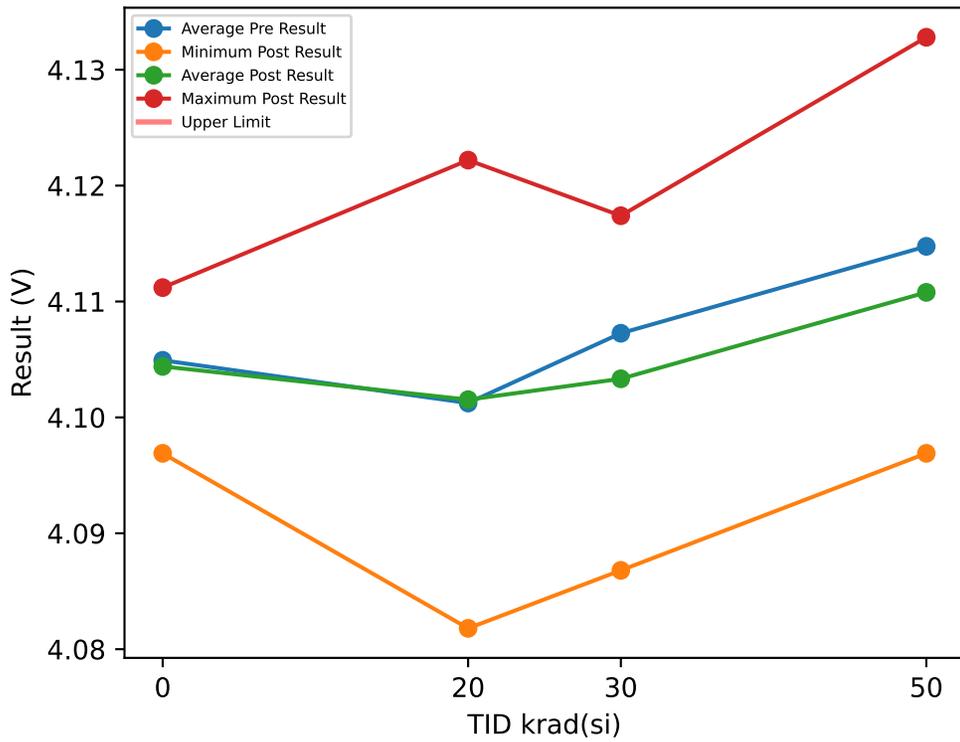
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.18	0.1802	0.0002
2	20	HDR BIAS	0.1911	0.1846	-0.0065
3	20	HDR BIAS	0.1853	0.1836	-0.0017
4	20	HDR BIAS	0.1855	0.1846	-0.0009
5	20	HDR BIAS	0.184	0.1833	-0.0007
6	20	HDR UNBIAS	0.1861	0.1836	-0.0025
7	20	HDR UNBIAS	0.18	0.1843	0.0043
8	20	HDR UNBIAS	0.1858	0.1839	-0.0019
9	20	HDR UNBIAS	0.1834	0.1836	0.0002
10	20	HDR UNBIAS	0.1855	0.1846	-0.0009
11	30	HDR BIAS	0.1859	0.1893	0.0034
12	30	HDR BIAS	0.1858	0.1839	-0.0019
13	30	HDR BIAS	0.1837	0.1793	-0.0044
14	30	HDR BIAS	0.1855	0.1839	-0.0016
15	30	HDR BIAS	0.1803	0.1843	0.004
16	30	HDR UNBIAS	0.1852	0.1839	-0.0013
17	30	HDR UNBIAS	0.1809	0.1793	-0.0016
18	30	HDR UNBIAS	0.1867	0.1902	0.0035
19	30	HDR UNBIAS	0.18	0.1839	0.0039
20	30	HDR UNBIAS	0.1858	0.1886	0.0028
21	50	HDR BIAS	0.1803	0.1849	0.0046
22	50	HDR BIAS	0.1852	0.1839	-0.0013
23	50	HDR BIAS	0.184	0.183	-0.001
24	50	HDR BIAS	0.1808	0.1846	0.0038
25	50	HDR BIAS	0.1847	0.1889	0.0042
26	50	HDR UNBIAS	0.1858	0.1849	-0.0009
27	50	HDR UNBIAS	0.1847	0.1896	0.0049
28	50	HDR UNBIAS	0.1798	0.1889	0.0091
29	50	HDR UNBIAS	0.1847	0.1852	0.0005
30	50	HDR UNBIAS	0.1914	0.1886	-0.0028
41	0	CORRELATION	0.1848	0.1836	-0.0012
42	0	CORRELATION	0.1837	0.1833	-0.0004
43	0	CORRELATION	0.1808	0.1793	-0.0015
45	0	CORRELATION	0.185	0.1799	-0.0051

Test Statistics (V)

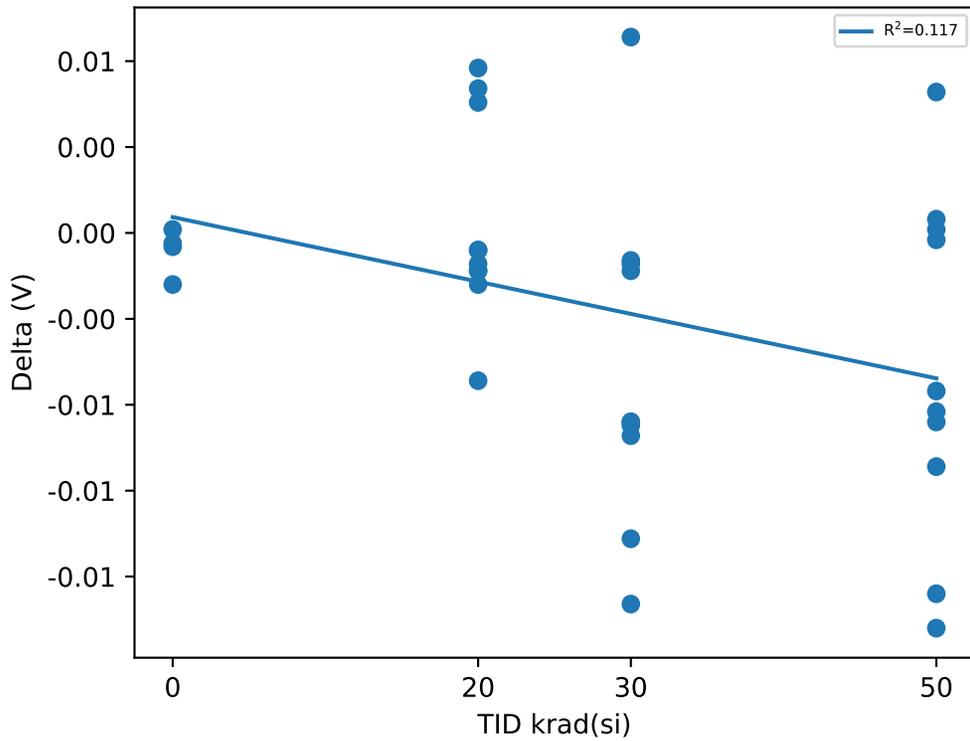
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.1808	0.18357	0.185	0.0019363	0.1793	0.18152	0.1836	0.0022396	-0.0051	-0.00205	-0.0004	0.0020857
20	0.18	0.18467	0.1911	0.0031993	0.1802	0.18363	0.1846	0.0013005	-0.0065	-0.00104	0.0043	0.0026846
30	0.18	0.18398	0.1867	0.0025918	0.1793	0.18466	0.1902	0.003766	-0.0044	0.00068	0.004	0.0031272
50	0.1798	0.18414	0.1914	0.0033712	0.183	0.18625	0.1896	0.0024573	-0.0028	0.00211	0.0091	0.0037584

# Device Test: 15.13 THRESHOLD|RISE/BP5L/14/14/////@V\_BP5L\_TH\_RISE

### TID vs Result Stats



### TID vs Post - Pre Exposure Delta



### Test Results (No Limits Specified (V))

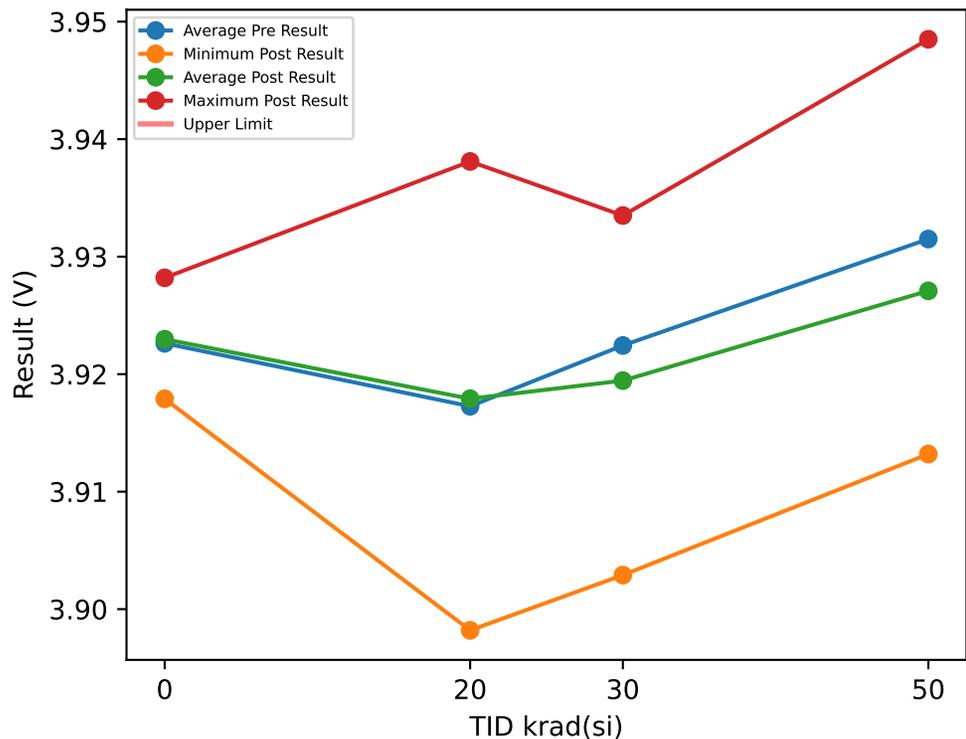
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.0923	4.0971	0.0048
2	20	HDR BIAS	4.1033	4.1022	-0.0011
3	20	HDR BIAS	4.1223	4.1218	-0.0005
4	20	HDR BIAS	4.1184	4.1222	0.0038
5	20	HDR BIAS	4.117	4.1127	-0.0043
6	20	HDR UNBIAS	4.0874	4.0869	-0.0005
7	20	HDR UNBIAS	4.1073	4.1115	0.0042
8	20	HDR UNBIAS	4.094	4.0925	-0.0015
9	20	HDR UNBIAS	4.0827	4.0818	-0.0009
10	20	HDR UNBIAS	4.0877	4.0866	-0.0011
11	30	HDR BIAS	4.1123	4.1068	-0.0055
12	30	HDR BIAS	4.118	4.1072	-0.0108
13	30	HDR BIAS	4.1076	4.0987	-0.0089
14	30	HDR BIAS	4.1127	4.1072	-0.0055
15	30	HDR BIAS	4.0927	4.0868	-0.0059
16	30	HDR UNBIAS	4.093	4.0919	-0.0011
17	30	HDR UNBIAS	4.0973	4.103	0.0057
18	30	HDR UNBIAS	4.0986	4.0978	-0.0008
19	30	HDR UNBIAS	4.123	4.1174	-0.0056
20	30	HDR UNBIAS	4.1174	4.1165	-0.0009
21	50	HDR BIAS	4.1126	4.108	-0.0046
22	50	HDR BIAS	4.1287	4.1328	0.0041
23	50	HDR BIAS	4.132	4.1268	-0.0052
24	50	HDR BIAS	4.1037	4.0969	-0.0068
25	50	HDR BIAS	4.1117	4.1118	0.0001
26	50	HDR UNBIAS	4.1083	4.0978	-0.0105
27	50	HDR UNBIAS	4.097	4.0974	0.0004
28	50	HDR UNBIAS	4.113	4.1128	-0.0002
29	50	HDR UNBIAS	4.1126	4.1071	-0.0055
30	50	HDR UNBIAS	4.128	4.1165	-0.0115
41	0	CORRELATION	4.1127	4.1112	-0.0015
42	0	CORRELATION	4.1064	4.1065	0.0001
43	0	CORRELATION	4.1033	4.103	-0.0003
45	0	CORRELATION	4.0973	4.0969	-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	4.0973	4.1049	4.1127	0.0064137	4.0969	4.1044	4.1112	0.0060238	-0.0015	-0.000525	0.0001	0.00068496
20	4.0827	4.1012	4.1223	0.014446	4.0818	4.1015	4.1222	0.01487	-0.0043	0.00029	0.0048	0.002958
30	4.0927	4.1073	4.123	0.011108	4.0868	4.1033	4.1174	0.0098286	-0.0108	-0.00393	0.0057	0.0047519
50	4.097	4.1148	4.132	0.011393	4.0969	4.1108	4.1328	0.012206	-0.0115	-0.00397	0.0041	0.0050178

Device Test: 15.14 THRESHOLD|FALL/BP5L/14/14/////@V\_BP5L\_TH\_FALL

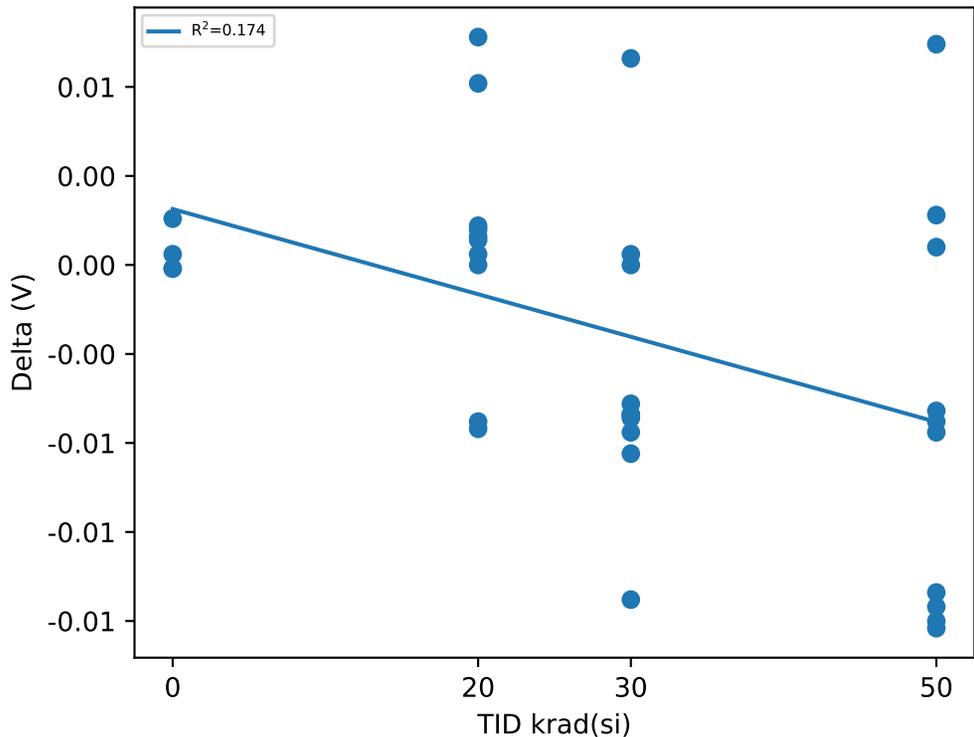
TID vs Result Stats



Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.9121	3.9129	0.0008
2	20	HDR BIAS	3.9176	3.9176	0
3	20	HDR BIAS	3.9371	3.9381	0.001
4	20	HDR BIAS	3.9373	3.9376	0.0003
5	20	HDR BIAS	3.9324	3.9278	-0.0046
6	20	HDR UNBIAS	3.9019	3.9026	0.0007
7	20	HDR UNBIAS	3.9221	3.9285	0.0064
8	20	HDR UNBIAS	3.9126	3.9082	-0.0044
9	20	HDR UNBIAS	3.8971	3.8982	0.0011
10	20	HDR UNBIAS	3.9025	3.9076	0.0051
11	30	HDR BIAS	3.9271	3.9228	-0.0043
12	30	HDR BIAS	3.9323	3.9229	-0.0094
13	30	HDR BIAS	3.9221	3.9182	-0.0039
14	30	HDR BIAS	3.9279	3.9232	-0.0047
15	30	HDR BIAS	3.9071	3.9029	-0.0042
16	30	HDR UNBIAS	3.9129	3.9076	-0.0053
17	30	HDR UNBIAS	3.9124	3.9182	0.0058
18	30	HDR UNBIAS	3.9126	3.9126	0
19	30	HDR UNBIAS	3.9377	3.9335	-0.0042
20	30	HDR UNBIAS	3.9323	3.9326	0.0003
21	50	HDR BIAS	3.9324	3.9228	-0.0096
22	50	HDR BIAS	3.9423	3.9485	0.0062
23	50	HDR BIAS	3.953	3.9428	-0.0102
24	50	HDR BIAS	3.9176	3.9132	-0.0044
25	50	HDR BIAS	3.9271	3.9285	0.0014
26	50	HDR UNBIAS	3.9226	3.9179	-0.0047
27	50	HDR UNBIAS	3.9127	3.9132	0.0005
28	50	HDR UNBIAS	3.9323	3.9282	-0.0041
29	50	HDR UNBIAS	3.9324	3.9232	-0.0092
30	50	HDR UNBIAS	3.9426	3.9326	-0.01
41	0	CORRELATION	3.9269	3.9282	0.0013
42	0	CORRELATION	3.9227	3.9226	-0.0001
43	0	CORRELATION	3.9229	3.9232	0.0003
45	0	CORRELATION	3.918	3.9179	-0.0001

TID vs Post - Pre Exposure Delta

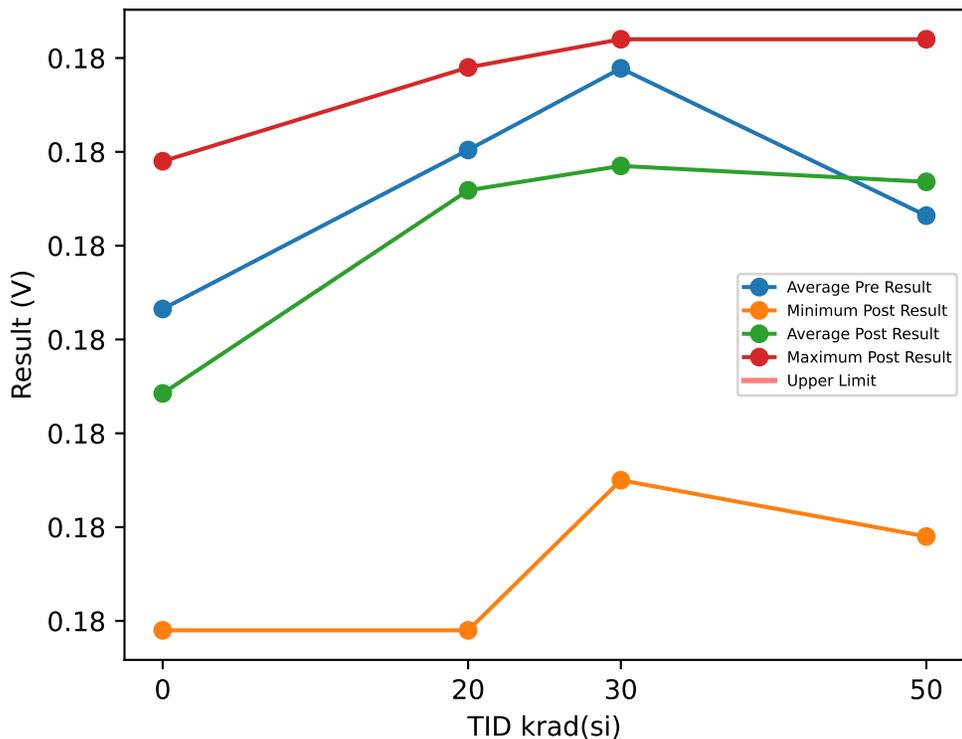


Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.918	3.9226	3.9269	0.0036399	3.9179	3.923	3.9282	0.004213	-0.0001	0.00035	0.0013	0.00066081
20	3.8971	3.9173	3.9373	0.014744	3.8982	3.9179	3.9381	0.014353	-0.0046	0.00064	0.0064	0.0034452
30	3.9071	3.9224	3.9377	0.010556	3.9029	3.9194	3.9335	0.0098426	-0.0094	-0.00299	0.0058	0.0041076
50	3.9127	3.9315	3.953	0.012246	3.9132	3.9271	3.9485	0.01175	-0.0102	-0.00441	0.0062	0.00563

Device Test: 15.15 THRESHOLD|HYST/BP5L/14/14////@V\_BP5L\_TH\_HYST

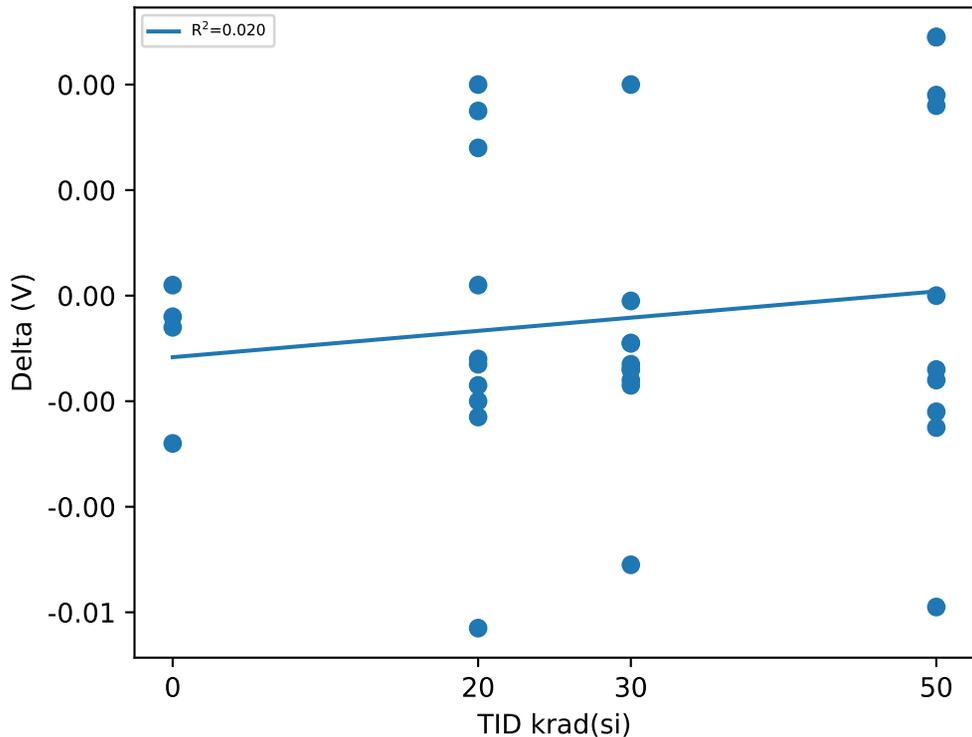
TID vs Result Stats



Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.1803	0.1843	0.004
2	20	HDR BIAS	0.1858	0.1846	-0.0012
3	20	HDR BIAS	0.1853	0.1836	-0.0017
4	20	HDR BIAS	0.1811	0.1846	0.0035
5	20	HDR BIAS	0.1847	0.1849	0.0002
6	20	HDR UNBIAS	0.1855	0.1842	-0.0013
7	20	HDR UNBIAS	0.1853	0.183	-0.0023
8	20	HDR UNBIAS	0.1814	0.1842	0.0028
9	20	HDR UNBIAS	0.1856	0.1836	-0.002
10	20	HDR UNBIAS	0.1852	0.1789	-0.0063
11	30	HDR BIAS	0.1853	0.1839	-0.0014
12	30	HDR BIAS	0.1858	0.1842	-0.0016
13	30	HDR BIAS	0.1856	0.1805	-0.0051
14	30	HDR BIAS	0.1848	0.1839	-0.0009
15	30	HDR BIAS	0.1856	0.1839	-0.0017
16	30	HDR UNBIAS	0.1802	0.1842	0.004
17	30	HDR UNBIAS	0.185	0.1849	-0.0001
18	30	HDR UNBIAS	0.1861	0.1852	-0.0009
19	30	HDR UNBIAS	0.1853	0.1839	-0.0014
20	30	HDR UNBIAS	0.1852	0.1839	-0.0013
21	50	HDR BIAS	0.1803	0.1852	0.0049
22	50	HDR BIAS	0.1864	0.1842	-0.0022
23	50	HDR BIAS	0.179	0.1839	0.0049
24	50	HDR BIAS	0.1861	0.1836	-0.0025
25	50	HDR BIAS	0.1847	0.1833	-0.0014
26	50	HDR UNBIAS	0.1858	0.1799	-0.0059
27	50	HDR UNBIAS	0.1843	0.1843	0
28	50	HDR UNBIAS	0.1808	0.1846	0.0038
29	50	HDR UNBIAS	0.1803	0.1839	0.0036
30	50	HDR UNBIAS	0.1855	0.1839	-0.0016
41	0	CORRELATION	0.1858	0.183	-0.0028
42	0	CORRELATION	0.1837	0.1839	0.0002
43	0	CORRELATION	0.1805	0.1799	-0.0006
45	0	CORRELATION	0.1793	0.1789	-0.0004

TID vs Post - Pre Exposure Delta

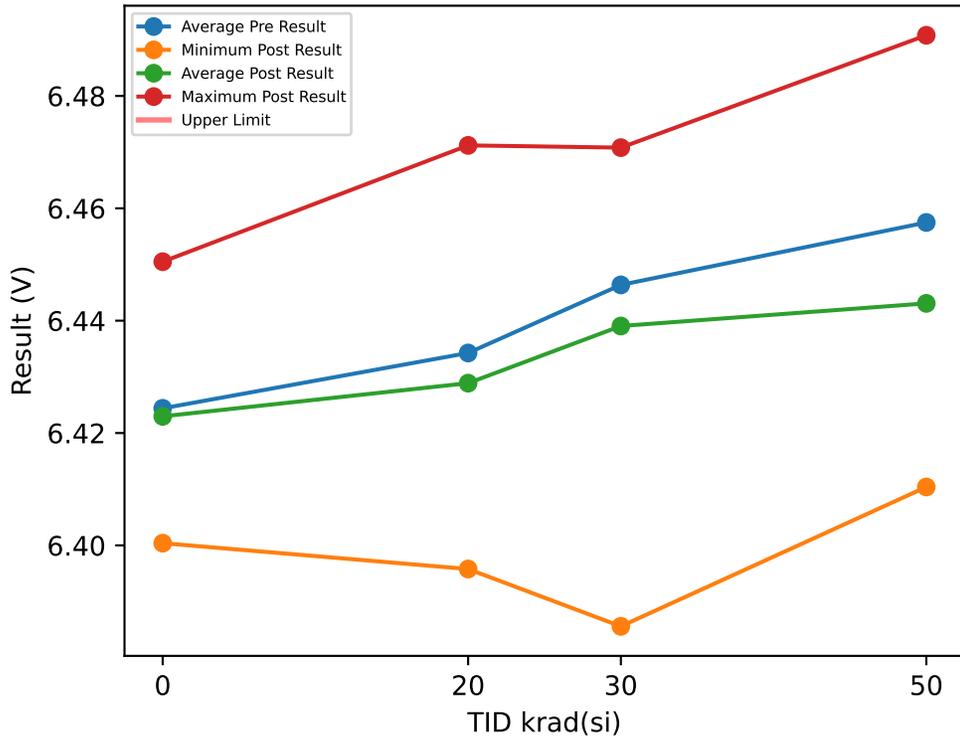


Test Statistics (V)

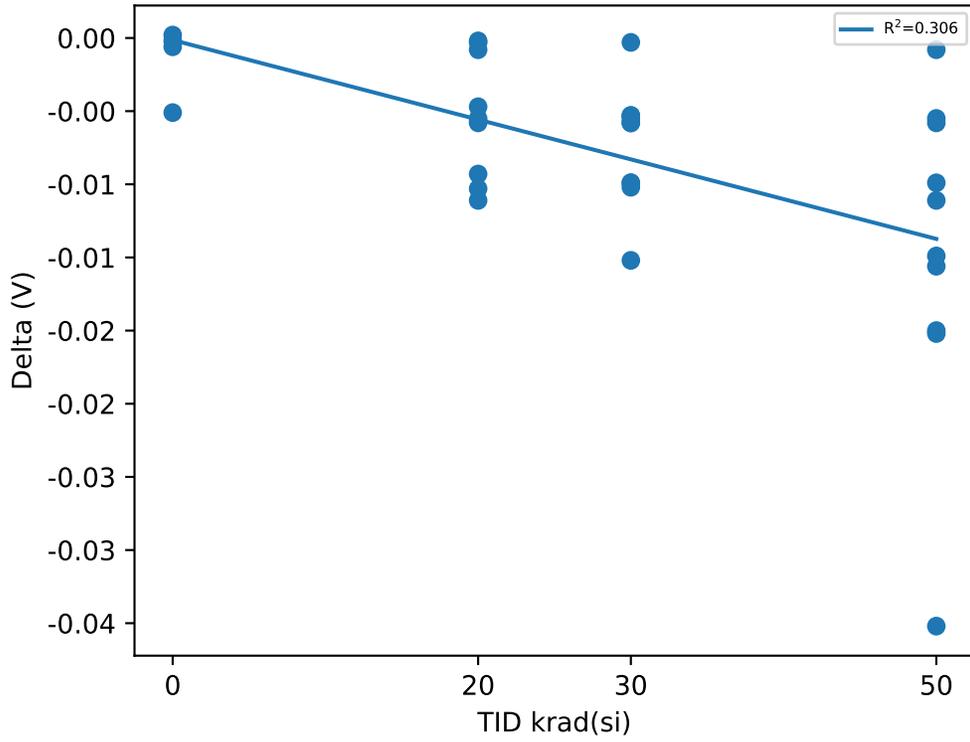
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.1793	0.18232	0.1858	0.0029691	0.1789	0.18143	0.1839	0.0024019	-0.0028	-0.0009	0.0002	0.0013115
20	0.1803	0.18402	0.1858	0.0021658	0.1789	0.18359	0.1849	0.0017432	-0.0063	-0.00043	0.004	0.0031496
30	0.1802	0.18489	0.1861	0.0016914	0.1805	0.18385	0.1852	0.0012651	-0.0051	-0.00104	0.004	0.0022082
50	0.179	0.18332	0.1864	0.002872	0.1799	0.18368	0.1852	0.0014297	-0.0059	0.00036	0.0049	0.00372

# Device Test: 15.16 THRESHOLD|RISE/BP7L/10/8////@V\_BP7L\_TH\_RISE

## TID vs Result Stats



## TID vs Post - Pre Exposure Delta



## Test Results (No Limits Specified (V))

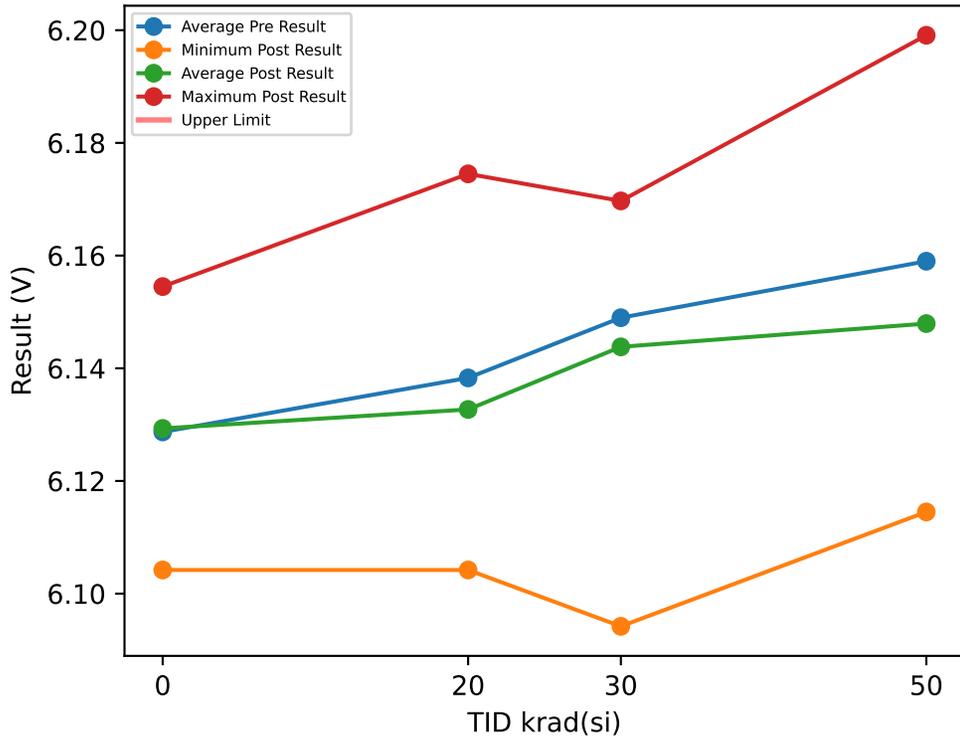
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	6.4209	6.4106	-0.0103
2	20	HDR BIAS	6.4353	6.4298	-0.0055
3	20	HDR BIAS	6.4661	6.4659	-0.0002
4	20	HDR BIAS	6.4359	6.4351	-0.0008
5	20	HDR BIAS	6.4805	6.4712	-0.0093
6	20	HDR UNBIAS	6.4156	6.4098	-0.0058
7	20	HDR UNBIAS	6.4309	6.4306	-0.0003
8	20	HDR UNBIAS	6.4005	6.3958	-0.0047
9	20	HDR UNBIAS	6.4309	6.4252	-0.0057
10	20	HDR UNBIAS	6.4259	6.4148	-0.0111
11	30	HDR BIAS	6.4558	6.4459	-0.0099
12	30	HDR BIAS	6.4715	6.4657	-0.0058
13	30	HDR BIAS	6.4408	6.4309	-0.0099
14	30	HDR BIAS	6.4356	6.4301	-0.0055
15	30	HDR BIAS	6.4259	6.4206	-0.0053
16	30	HDR UNBIAS	6.4353	6.4251	-0.0102
17	30	HDR UNBIAS	6.3909	6.3856	-0.0053
18	30	HDR UNBIAS	6.4759	6.4607	-0.0152
19	30	HDR UNBIAS	6.4711	6.4708	-0.0003
20	30	HDR UNBIAS	6.4609	6.4551	-0.0058
21	50	HDR BIAS	6.5108	6.4908	-0.02
22	50	HDR BIAS	6.4562	6.4554	-0.0008
23	50	HDR BIAS	6.4558	6.4156	-0.0402
24	50	HDR BIAS	6.4265	6.4154	-0.0111
25	50	HDR BIAS	6.4708	6.4559	-0.0149
26	50	HDR UNBIAS	6.4866	6.471	-0.0156
27	50	HDR UNBIAS	6.4455	6.4356	-0.0099
28	50	HDR UNBIAS	6.4509	6.4451	-0.0058
29	50	HDR UNBIAS	6.4558	6.4356	-0.0202
30	50	HDR UNBIAS	6.4159	6.4104	-0.0055
41	0	CORRELATION	6.4503	6.4505	0.0002
42	0	CORRELATION	6.4355	6.4304	-0.0051
43	0	CORRELATION	6.4112	6.4106	-0.0006
45	0	CORRELATION	6.4006	6.4004	-0.0002

## Test Statistics (V)

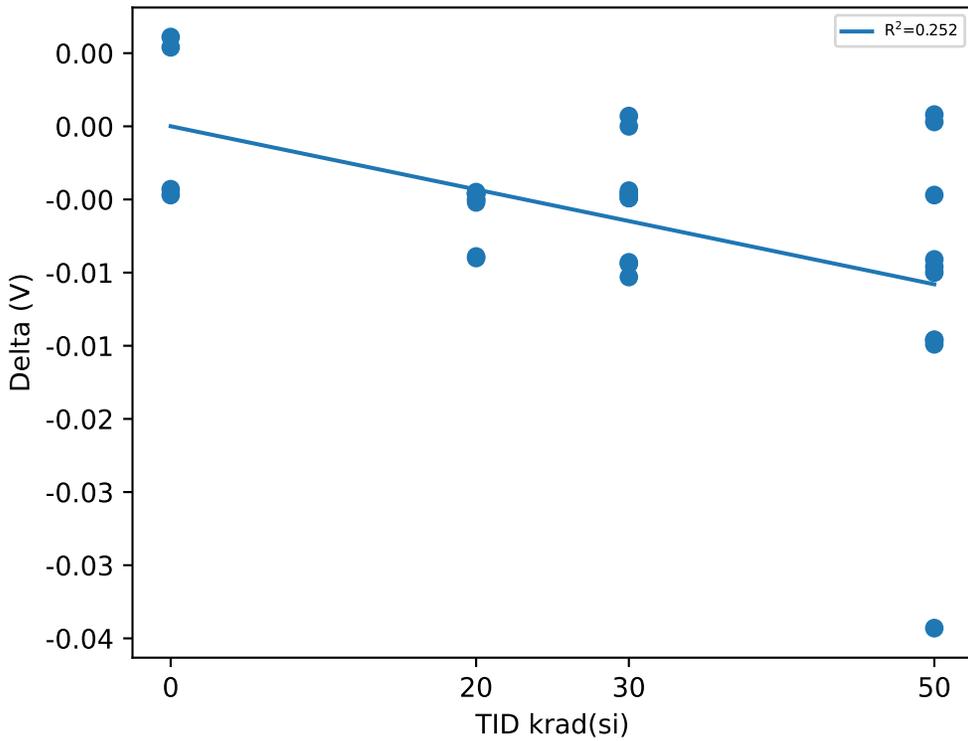
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	6.4006	6.4244	6.4503	0.022618	6.4004	6.423	6.4505	0.022178	-0.0051	-0.001425	0.0002	0.0024717
20	6.4005	6.4343	6.4805	0.023368	6.3958	6.4289	6.4712	0.024056	-0.0111	-0.00537	-0.0002	0.0040368
30	6.3909	6.4464	6.4759	0.026206	6.3856	6.439	6.4708	0.025884	-0.0152	-0.00732	-0.0003	0.0040699
50	6.4159	6.4575	6.5108	0.027389	6.4104	6.4431	6.4908	0.025988	-0.0402	-0.0144	-0.0008	0.011063

# Device Test: 15.17 THRESHOLD|FALL/BP7L/10/8////@V\_BP7L\_TH\_FALL

## TID vs Result Stats



## TID vs Post - Pre Exposure Delta



## Test Results (No Limits Specified (V))

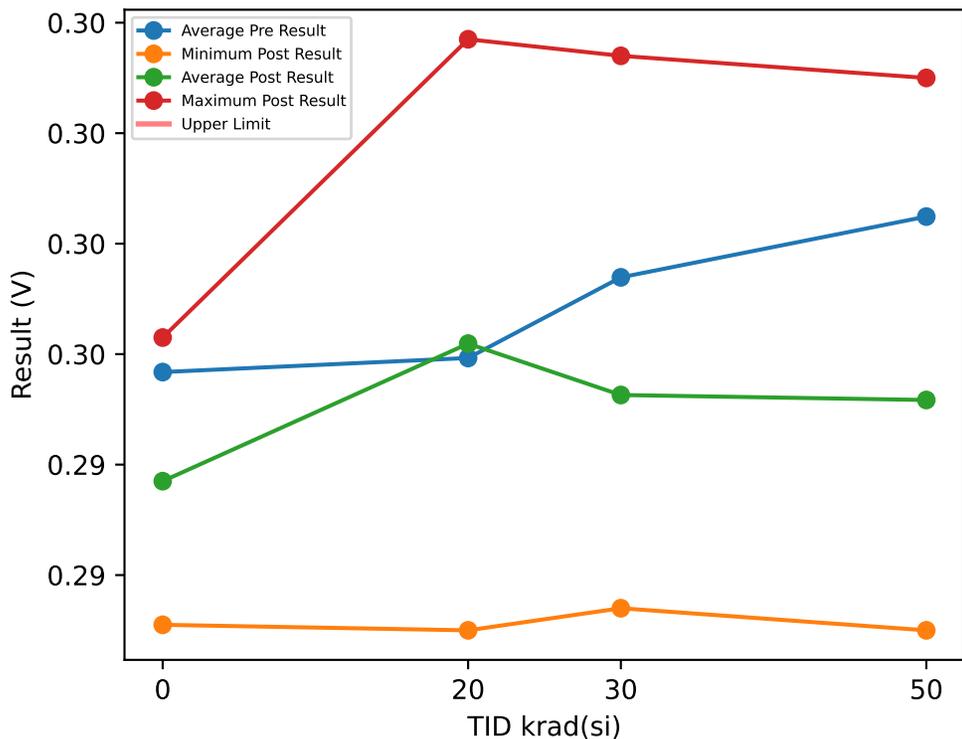
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	6.1285	6.1195	-0.009
2	20	HDR BIAS	6.1391	6.1341	-0.005
3	20	HDR BIAS	6.1691	6.1641	-0.005
4	20	HDR BIAS	6.1384	6.1338	-0.0046
5	20	HDR BIAS	6.1791	6.1745	-0.0046
6	20	HDR UNBIAS	6.124	6.1188	-0.0052
7	20	HDR UNBIAS	6.1388	6.1342	-0.0046
8	20	HDR UNBIAS	6.1087	6.1042	-0.0045
9	20	HDR UNBIAS	6.1338	6.1292	-0.0046
10	20	HDR UNBIAS	6.1234	6.1145	-0.0089
11	30	HDR BIAS	6.1588	6.1495	-0.0093
12	30	HDR BIAS	6.1741	6.1697	-0.0044
13	30	HDR BIAS	6.1441	6.1392	-0.0049
14	30	HDR BIAS	6.1387	6.1341	-0.0046
15	30	HDR BIAS	6.1341	6.1292	-0.0049
16	30	HDR UNBIAS	6.1394	6.1291	-0.0103
17	30	HDR UNBIAS	6.0988	6.0942	-0.0046
18	30	HDR UNBIAS	6.1738	6.1644	-0.0094
19	30	HDR UNBIAS	6.1688	6.1695	0.0007
20	30	HDR UNBIAS	6.1591	6.1591	0
21	50	HDR BIAS	6.2091	6.1991	-0.01
22	50	HDR BIAS	6.1588	6.1591	0.0003
23	50	HDR BIAS	6.1538	6.1195	-0.0343
24	50	HDR BIAS	6.1291	6.1145	-0.0146
25	50	HDR BIAS	6.1694	6.1598	-0.0096
26	50	HDR UNBIAS	6.1838	6.1747	-0.0091
27	50	HDR UNBIAS	6.1541	6.1395	-0.0146
28	50	HDR UNBIAS	6.1538	6.1491	-0.0047
29	50	HDR UNBIAS	6.1594	6.1445	-0.0149
30	50	HDR UNBIAS	6.1187	6.1195	0.0008
41	0	CORRELATION	6.1491	6.1545	0.0054
42	0	CORRELATION	6.1438	6.1391	-0.0047
43	0	CORRELATION	6.1134	6.1195	0.0061
45	0	CORRELATION	6.1085	6.1042	-0.0043

## Test Statistics (V)

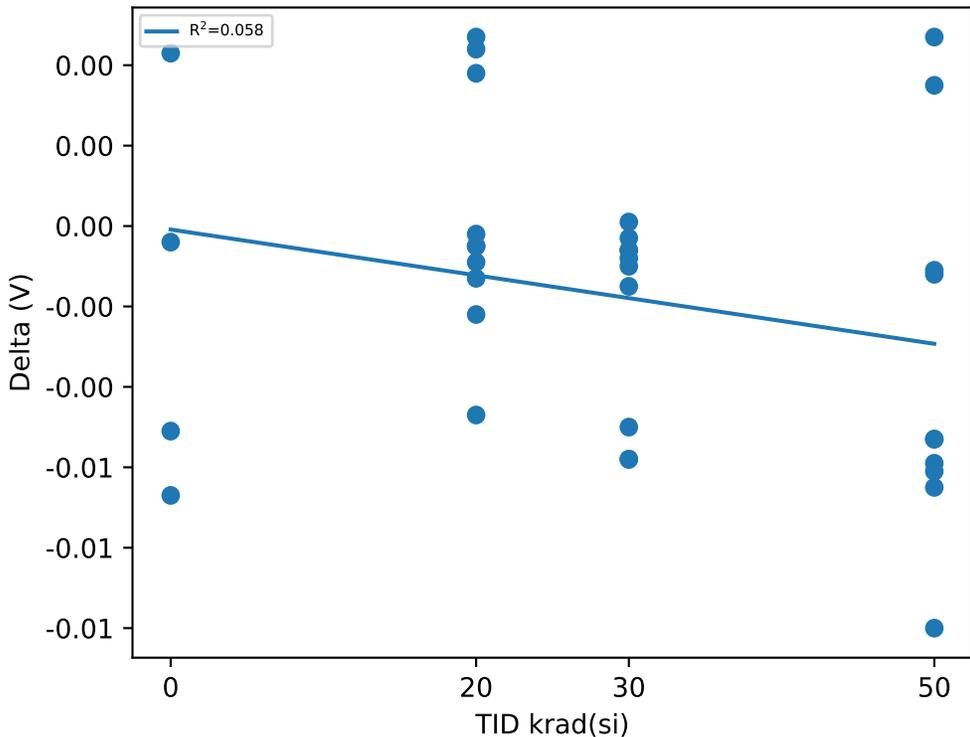
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	6.1085	6.1287	6.1491	0.020707	6.1042	6.1293	6.1545	0.022039	-0.0047	0.000625	0.0061	0.005927
20	6.1087	6.1383	6.1791	0.021169	6.1042	6.1327	6.1745	0.021761	-0.009	-0.0056	-0.0045	0.0017808
30	6.0988	6.149	6.1741	0.023093	6.0942	6.1438	6.1697	0.023634	-0.0103	-0.00517	0.0007	0.0037095
50	6.1187	6.159	6.2091	0.025451	6.1145	6.1479	6.1991	0.026706	-0.0343	-0.01107	0.0008	0.0099842

# Device Test: 15.18 THRESHOLD|HYST/BP7L/10/8////@V\_BP7L\_TH\_HYST

### TID vs Result Stats



### TID vs Post - Pre Exposure Delta



### Test Results (No Limits Specified (V))

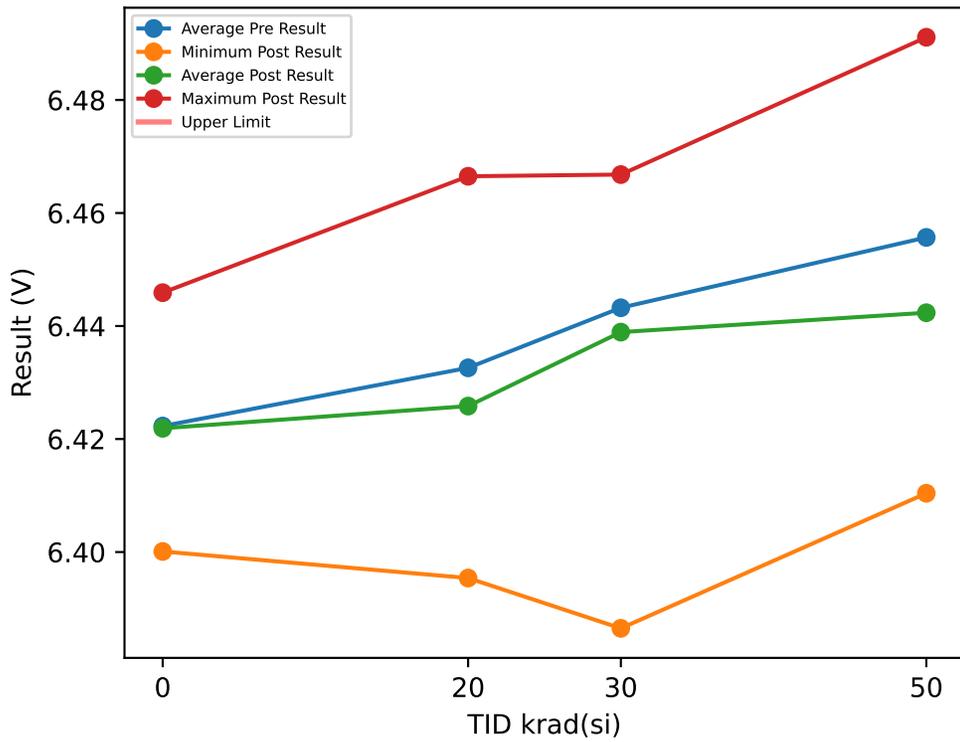
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.2924	0.2911	-0.0013
2	20	HDR BIAS	0.2962	0.2957	-0.0005
3	20	HDR BIAS	0.297	0.3017	0.0047
4	20	HDR BIAS	0.2975	0.3013	0.0038
5	20	HDR BIAS	0.3014	0.2967	-0.0047
6	20	HDR UNBIAS	0.2915	0.291	-0.0005
7	20	HDR UNBIAS	0.292	0.2964	0.0044
8	20	HDR UNBIAS	0.2918	0.2916	-0.0002
9	20	HDR UNBIAS	0.297	0.2961	-0.0009
10	20	HDR UNBIAS	0.3025	0.3003	-0.0022
11	30	HDR BIAS	0.297	0.2964	-0.0006
12	30	HDR BIAS	0.2975	0.296	-0.0015
13	30	HDR BIAS	0.2967	0.2917	-0.005
14	30	HDR BIAS	0.2968	0.296	-0.0008
15	30	HDR BIAS	0.2917	0.2914	-0.0003
16	30	HDR UNBIAS	0.2959	0.296	0.0001
17	30	HDR UNBIAS	0.292	0.2914	-0.0006
18	30	HDR UNBIAS	0.3021	0.2963	-0.0058
19	30	HDR UNBIAS	0.3024	0.3014	-0.001
20	30	HDR UNBIAS	0.3018	0.296	-0.0058
21	50	HDR BIAS	0.3017	0.2917	-0.01
22	50	HDR BIAS	0.2975	0.2963	-0.0012
23	50	HDR BIAS	0.302	0.2961	-0.0059
24	50	HDR BIAS	0.2975	0.301	0.0035
25	50	HDR BIAS	0.3014	0.2961	-0.0053
26	50	HDR UNBIAS	0.3028	0.2963	-0.0065
27	50	HDR UNBIAS	0.2914	0.2961	0.0047
28	50	HDR UNBIAS	0.2971	0.296	-0.0011
29	50	HDR UNBIAS	0.2964	0.2911	-0.0053
30	50	HDR UNBIAS	0.2971	0.291	-0.0061
41	0	CORRELATION	0.3012	0.2961	-0.0051
42	0	CORRELATION	0.2917	0.2913	-0.0004
43	0	CORRELATION	0.2978	0.2911	-0.0067
45	0	CORRELATION	0.292	0.2963	0.0043

### Test Statistics (V)

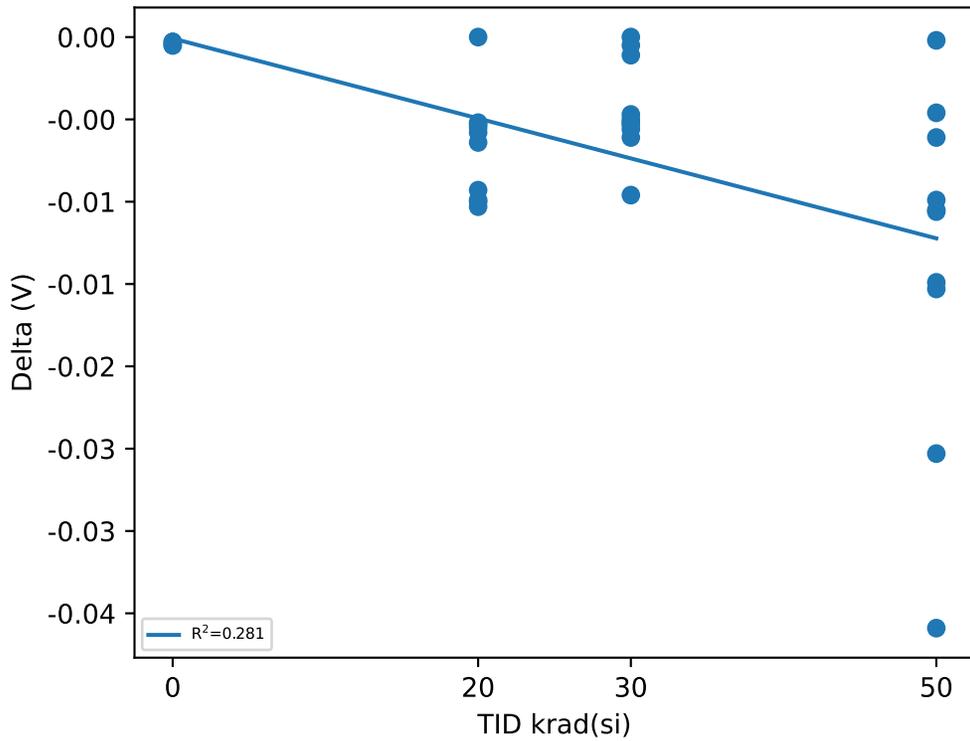
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.2917	0.29568	0.3012	0.0046313	0.2911	0.2937	0.2963	0.0028891	-0.0067	-0.001975	0.0043	0.0049648
20	0.2915	0.29593	0.3025	0.0039791	0.291	0.29619	0.3017	0.0040528	-0.0047	0.00026	0.0047	0.0030765
30	0.2917	0.29739	0.3024	0.0038205	0.2914	0.29526	0.3014	0.0030686	-0.0058	-0.00213	0.0001	0.0023949
50	0.2914	0.29849	0.3028	0.0034981	0.291	0.29517	0.301	0.003088	-0.01	-0.00332	0.0047	0.0046811

# Device Test: 15.19 THRESHOLD|RISE/BP7L/12/10////@V\_BP7L\_TH\_RISE

### TID vs Result Stats



### TID vs Post - Pre Exposure Delta



### Test Results (No Limits Specified (V))

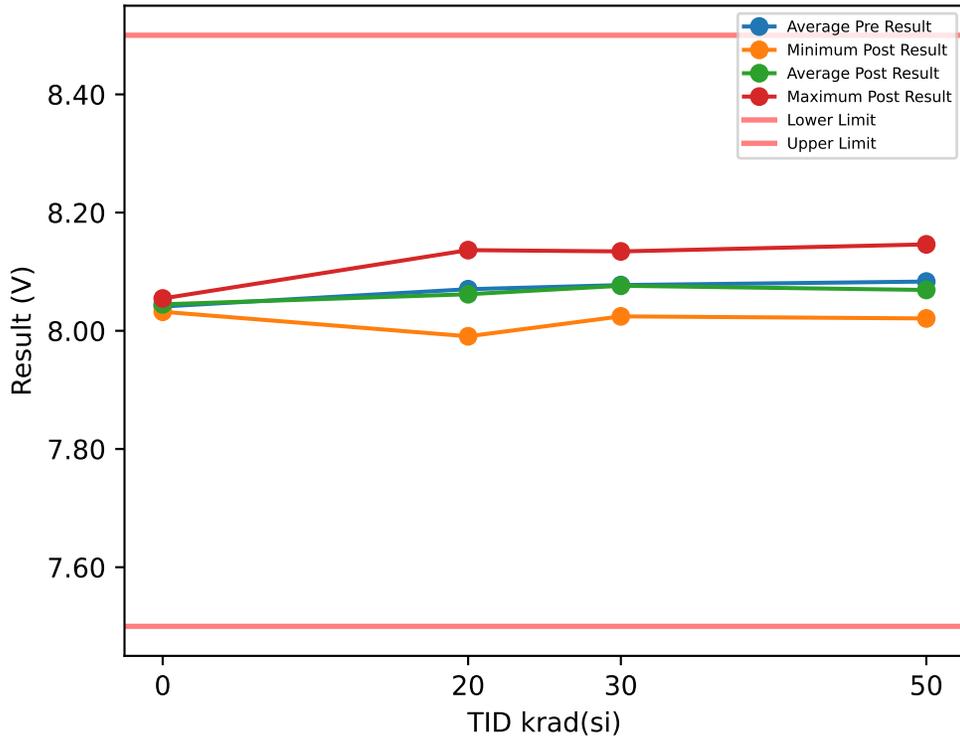
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	6.4202	6.4109	-0.0093
2	20	HDR BIAS	6.4312	6.4257	-0.0055
3	20	HDR BIAS	6.4665	6.4612	-0.0053
4	20	HDR BIAS	6.4359	6.4307	-0.0052
5	20	HDR BIAS	6.4765	6.4665	-0.01
6	20	HDR UNBIAS	6.4156	6.4057	-0.0099
7	20	HDR UNBIAS	6.4262	6.4262	0
8	20	HDR UNBIAS	6.4012	6.3954	-0.0058
9	20	HDR UNBIAS	6.4312	6.4209	-0.0103
10	20	HDR UNBIAS	6.4215	6.4151	-0.0064
11	30	HDR BIAS	6.4515	6.4459	-0.0056
12	30	HDR BIAS	6.4709	6.4657	-0.0052
13	30	HDR BIAS	6.4362	6.4312	-0.005
14	30	HDR BIAS	6.4315	6.4304	-0.0011
15	30	HDR BIAS	6.4259	6.4206	-0.0053
16	30	HDR UNBIAS	6.4312	6.4251	-0.0061
17	30	HDR UNBIAS	6.3912	6.3865	-0.0047
18	30	HDR UNBIAS	6.4709	6.4613	-0.0096
19	30	HDR UNBIAS	6.4668	6.4668	0
20	30	HDR UNBIAS	6.4562	6.4557	-0.0005
21	50	HDR BIAS	6.5064	6.4911	-0.0153
22	50	HDR BIAS	6.4562	6.456	-0.0002
23	50	HDR BIAS	6.4515	6.4156	-0.0359
24	50	HDR BIAS	6.4209	6.4104	-0.0105
25	50	HDR BIAS	6.4711	6.4562	-0.0149
26	50	HDR UNBIAS	6.4816	6.471	-0.0106
27	50	HDR UNBIAS	6.4458	6.4359	-0.0099
28	50	HDR UNBIAS	6.4503	6.4457	-0.0046
29	50	HDR UNBIAS	6.4565	6.4312	-0.0253
30	50	HDR UNBIAS	6.4165	6.4104	-0.0061
41	0	CORRELATION	6.4462	6.4459	-0.0003
42	0	CORRELATION	6.4312	6.4307	-0.0005
43	0	CORRELATION	6.4112	6.4109	-0.0003
45	0	CORRELATION	6.4006	6.4001	-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	6.4006	6.4223	6.4462	0.020368	6.4001	6.4219	6.4459	0.02041	-0.0005	-0.0004	-0.0003	0.00011547
20	6.4012	6.4326	6.4765	0.022814	6.3954	6.4258	6.4665	0.022663	-0.0103	-0.00677	0	0.0032014
30	6.3912	6.4432	6.4709	0.025083	6.3865	6.4389	6.4668	0.025237	-0.0096	-0.00431	0	0.0029561
50	6.4165	6.4557	6.5064	0.026608	6.4104	6.4424	6.4911	0.026895	-0.0359	-0.01333	-0.0002	0.010473

# Device Test: 15.2 THRESHOLD|FALL/VIN//10////@V\_IN\_TH\_FALL

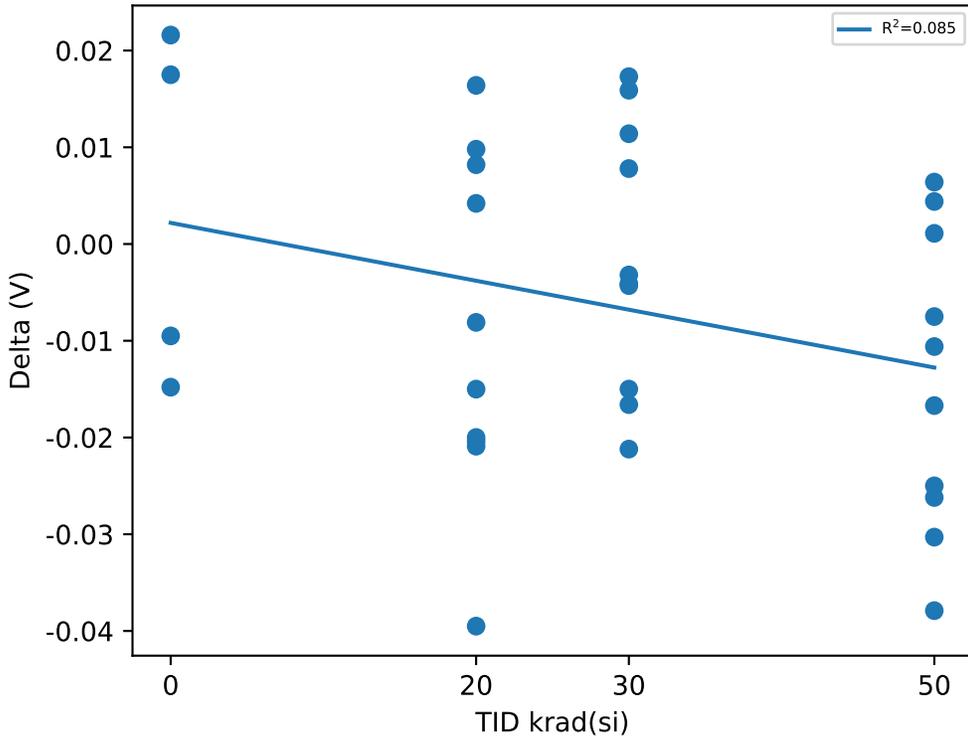
## TID vs Result Stats



## Test Results (Lower Limit = 7.5, Upper Limit = 8.5 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	8.0716	8.0516	-0.02
2	20	HDR BIAS	8.0273	8.0437	0.0164
3	20	HDR BIAS	8.1446	8.1365	-0.0081
4	20	HDR BIAS	8.042	8.0462	0.0042
5	20	HDR BIAS	8.1178	8.1028	-0.015
6	20	HDR UNBIAS	8.0976	8.0581	-0.0395
7	20	HDR UNBIAS	8.0597	8.0388	-0.0209
8	20	HDR UNBIAS	8.0585	8.0381	-0.0204
9	20	HDR UNBIAS	7.9825	7.9907	0.0082
10	20	HDR UNBIAS	8.1023	8.1121	0.0098
11	30	HDR BIAS	8.0797	8.0647	-0.015
12	30	HDR BIAS	8.1283	8.1071	-0.0212
13	30	HDR BIAS	8.0644	8.0478	-0.0166
14	30	HDR BIAS	8.0276	8.0244	-0.0032
15	30	HDR BIAS	8.0744	8.0703	-0.0041
16	30	HDR UNBIAS	8.117	8.1343	0.0173
17	30	HDR UNBIAS	8.0784	8.0741	-0.0043
18	30	HDR UNBIAS	8.0241	8.0319	0.0078
19	30	HDR UNBIAS	8.0847	8.1006	0.0159
20	30	HDR UNBIAS	8.0951	8.1065	0.0114
21	50	HDR BIAS	8.1206	8.0956	-0.025
22	50	HDR BIAS	8.1177	8.0874	-0.0303
23	50	HDR BIAS	8.1537	8.1462	-0.0075
24	50	HDR BIAS	8.0776	8.0397	-0.0379
25	50	HDR BIAS	8.089	8.0934	0.0044
26	50	HDR UNBIAS	8.0995	8.1006	0.0011
27	50	HDR UNBIAS	8.0338	8.0232	-0.0106
28	50	HDR UNBIAS	8.0504	8.0568	0.0064
29	50	HDR UNBIAS	8.0534	8.0272	-0.0262
30	50	HDR UNBIAS	8.0376	8.0209	-0.0167
41	0	CORRELATION	8.0642	8.0547	-0.0095
42	0	CORRELATION	8.0256	8.0472	0.0216
43	0	CORRELATION	8.047	8.0322	-0.0148
45	0	CORRELATION	8.0275	8.045	0.0175

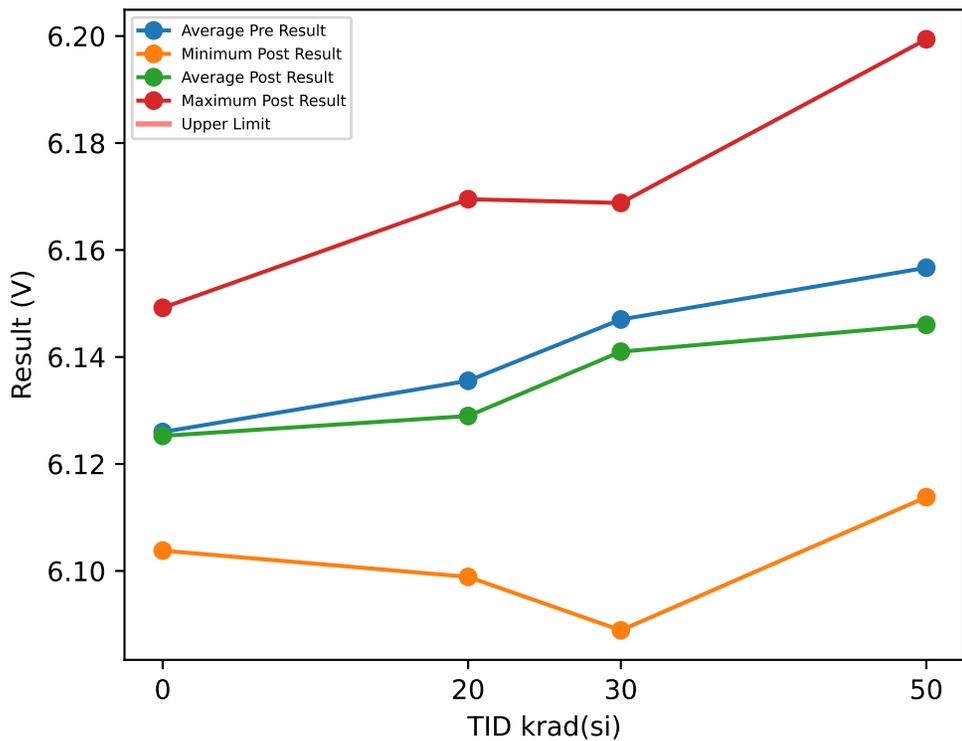
## TID vs Post - Pre Exposure Delta



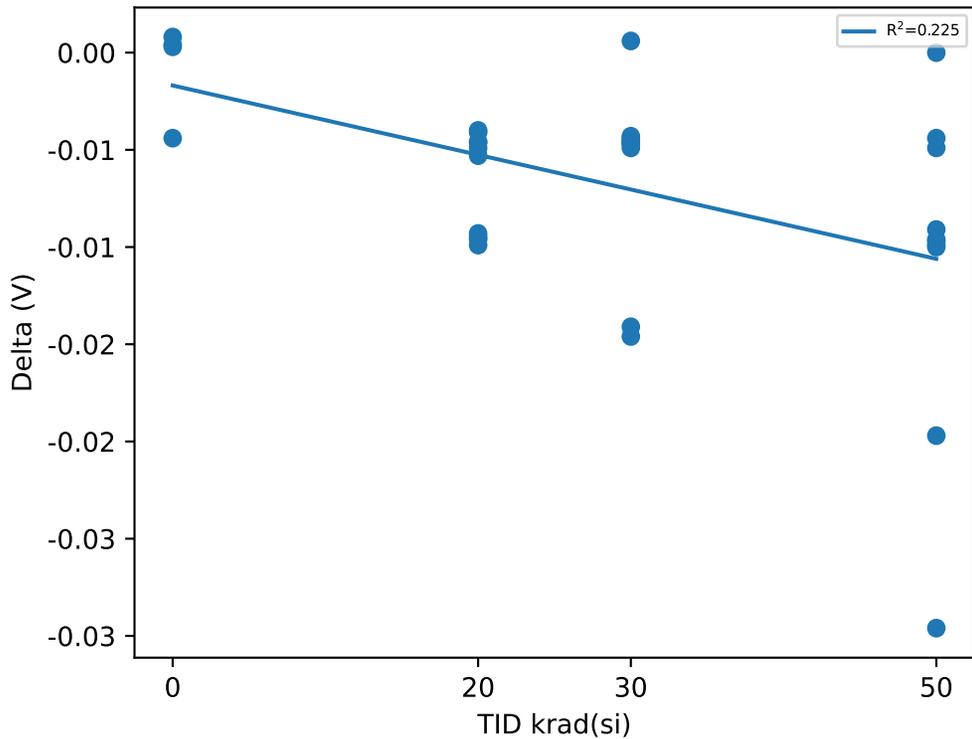
## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	8.0256	8.0411	8.0642	0.018199	8.0322	8.0448	8.0547	0.0093553	-0.0148	0.0037	0.0216	0.018505
20	7.9825	8.0704	8.1446	0.047326	7.9907	8.0619	8.1365	0.04298	-0.0395	-0.00853	0.0164	0.01772
30	8.0241	8.0774	8.1283	0.033385	8.0244	8.0762	8.1343	0.035696	-0.0212	-0.0012	0.0173	0.013841
50	8.0338	8.0833	8.1537	0.039963	8.0209	8.0691	8.1462	0.041854	-0.0379	-0.01423	0.0064	0.015456

TID vs Result Stats



TID vs Post - Pre Exposure Delta



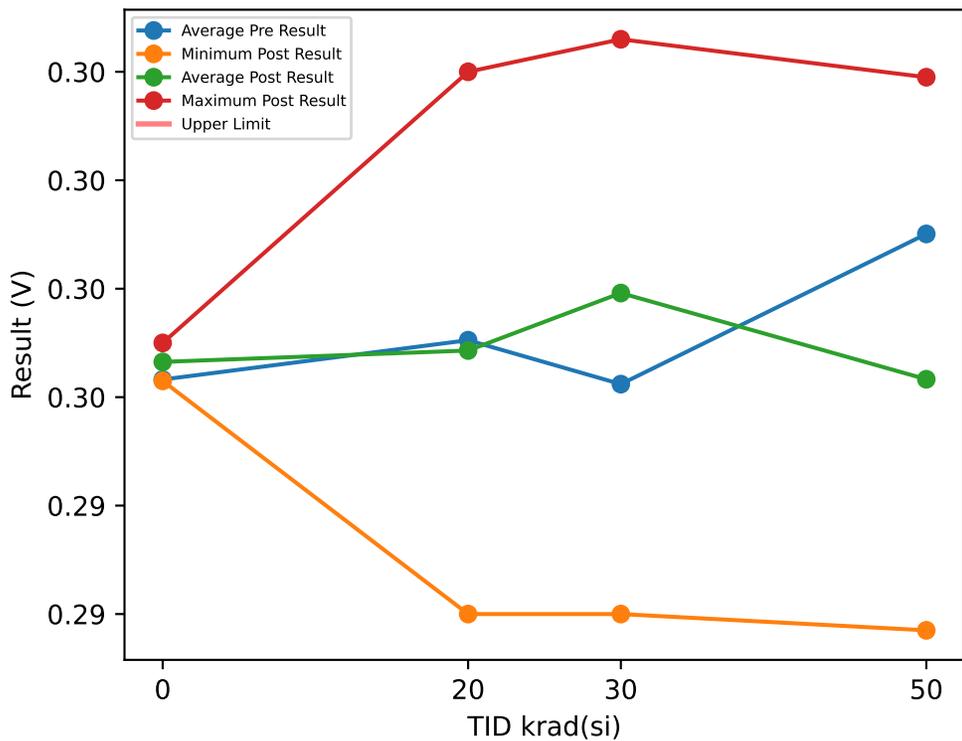
Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	6.1238	6.1189	-0.0049
2	20	HDR BIAS	6.1341	6.1288	-0.0053
3	20	HDR BIAS	6.1632	6.1591	-0.0041
4	20	HDR BIAS	6.1381	6.1341	-0.004
5	20	HDR BIAS	6.1788	6.1695	-0.0093
6	20	HDR UNBIAS	6.1231	6.1135	-0.0096
7	20	HDR UNBIAS	6.1338	6.1292	-0.0046
8	20	HDR UNBIAS	6.1084	6.0989	-0.0095
9	20	HDR UNBIAS	6.1338	6.1239	-0.0099
10	20	HDR UNBIAS	6.1184	6.1138	-0.0046
11	30	HDR BIAS	6.1538	6.1492	-0.0046
12	30	HDR BIAS	6.1732	6.1688	-0.0044
13	30	HDR BIAS	6.1438	6.1392	-0.0046
14	30	HDR BIAS	6.1384	6.1338	-0.0046
15	30	HDR BIAS	6.1288	6.1239	-0.0049
16	30	HDR UNBIAS	6.1384	6.1238	-0.0146
17	30	HDR UNBIAS	6.0932	6.0889	-0.0043
18	30	HDR UNBIAS	6.1732	6.1591	-0.0141
19	30	HDR UNBIAS	6.1688	6.1641	-0.0047
20	30	HDR UNBIAS	6.1585	6.1591	0.0006
21	50	HDR BIAS	6.2091	6.1994	-0.0097
22	50	HDR BIAS	6.1585	6.1541	-0.0044
23	50	HDR BIAS	6.1485	6.1189	-0.0296
24	50	HDR BIAS	6.1237	6.1138	-0.0099
25	50	HDR BIAS	6.1688	6.1588	-0.01
26	50	HDR UNBIAS	6.1835	6.1744	-0.0091
27	50	HDR UNBIAS	6.1488	6.1392	-0.0096
28	50	HDR UNBIAS	6.1488	6.1488	0
29	50	HDR UNBIAS	6.1585	6.1388	-0.0197
30	50	HDR UNBIAS	6.1187	6.1138	-0.0049
41	0	CORRELATION	6.1488	6.1492	0.0004
42	0	CORRELATION	6.1385	6.1341	-0.0044
43	0	CORRELATION	6.1131	6.1139	0.0008
45	0	CORRELATION	6.1035	6.1038	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	6.1035	6.126	6.1488	0.021203	6.1038	6.1253	6.1492	0.020338	-0.0044	-0.000725	0.0008	0.0024595
20	6.1084	6.1356	6.1788	0.021014	6.0989	6.129	6.1695	0.021286	-0.0099	-0.00658	-0.004	0.0026072
30	6.0932	6.147	6.1732	0.024519	6.0889	6.141	6.1688	0.024465	-0.0146	-0.00602	0.0006	0.0046828
50	6.1187	6.1567	6.2091	0.026545	6.1138	6.146	6.1994	0.027491	-0.0296	-0.01069	0	0.0083794

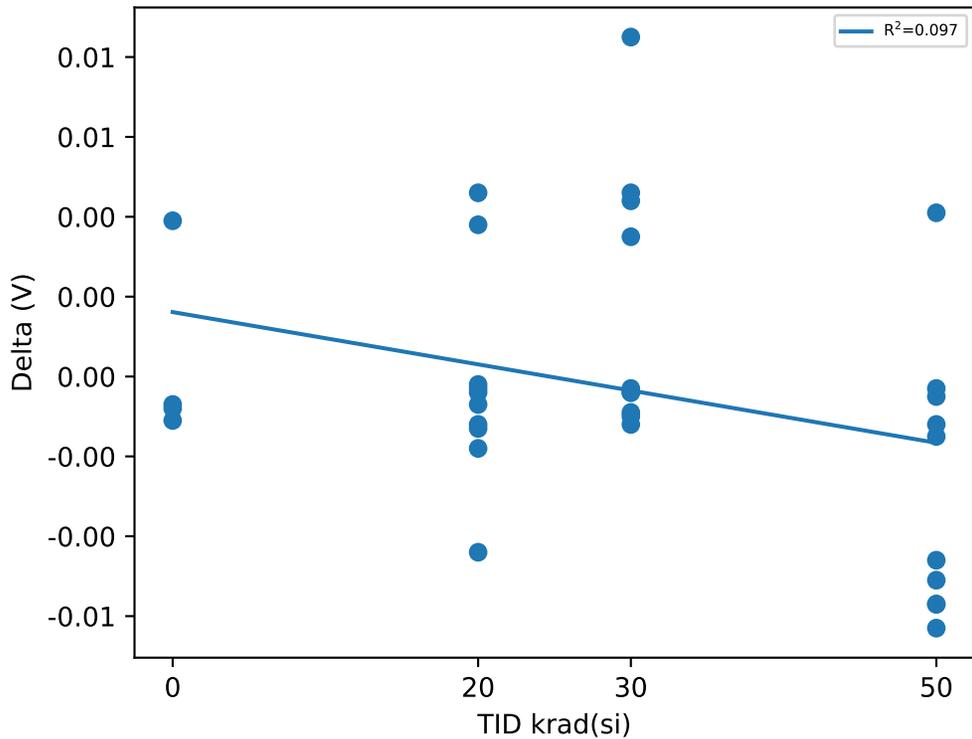
TID vs Result Stats



Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.2964	0.292	-0.0044
2	20	HDR BIAS	0.2971	0.2969	-0.0002
3	20	HDR BIAS	0.3033	0.302	-0.0013
4	20	HDR BIAS	0.2978	0.2966	-0.0012
5	20	HDR BIAS	0.2977	0.297	-0.0007
6	20	HDR UNBIAS	0.2925	0.2922	-0.0003
7	20	HDR UNBIAS	0.2924	0.297	0.0046
8	20	HDR UNBIAS	0.2928	0.2966	0.0038
9	20	HDR UNBIAS	0.2974	0.297	-0.0004
10	20	HDR UNBIAS	0.3031	0.3013	-0.0018
11	30	HDR BIAS	0.2977	0.2967	-0.001
12	30	HDR BIAS	0.2978	0.2969	-0.0009
13	30	HDR BIAS	0.2924	0.292	-0.0004
14	30	HDR BIAS	0.2931	0.2966	0.0035
15	30	HDR BIAS	0.297	0.2967	-0.0003
16	30	HDR UNBIAS	0.2928	0.3013	0.0085
17	30	HDR UNBIAS	0.298	0.2976	-0.0004
18	30	HDR UNBIAS	0.2978	0.3022	0.0044
19	30	HDR UNBIAS	0.298	0.3026	0.0046
20	30	HDR UNBIAS	0.2978	0.2966	-0.0012
21	50	HDR BIAS	0.2974	0.2917	-0.0057
22	50	HDR BIAS	0.2978	0.3019	0.0041
23	50	HDR BIAS	0.303	0.2967	-0.0063
24	50	HDR BIAS	0.2971	0.2966	-0.0005
25	50	HDR BIAS	0.3024	0.2973	-0.0051
26	50	HDR UNBIAS	0.2981	0.2966	-0.0015
27	50	HDR UNBIAS	0.297	0.2967	-0.0003
28	50	HDR UNBIAS	0.3015	0.2969	-0.0046
29	50	HDR UNBIAS	0.298	0.2923	-0.0057
30	50	HDR UNBIAS	0.2978	0.2966	-0.0012
41	0	CORRELATION	0.2975	0.2967	-0.0008
42	0	CORRELATION	0.2927	0.2966	0.0039
43	0	CORRELATION	0.2981	0.297	-0.0011
45	0	CORRELATION	0.297	0.2963	-0.0007

TID vs Post - Pre Exposure Delta

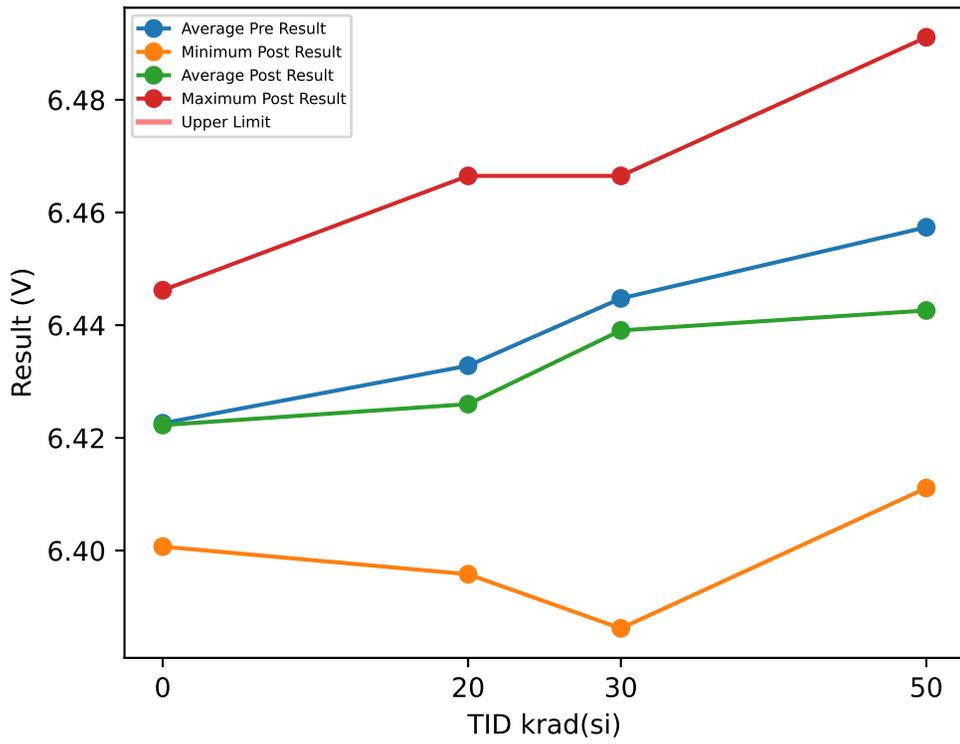


Test Statistics (V)

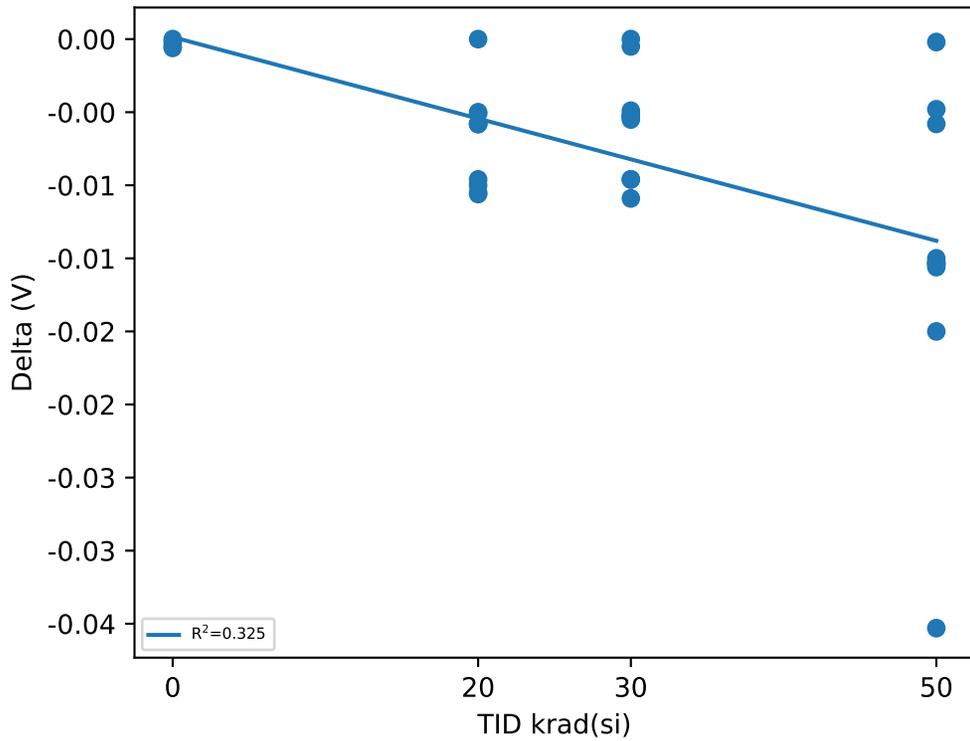
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.2927	0.29633	0.2981	0.0024581	0.2963	0.29665	0.297	0.00028868	-0.0011	0.000325	0.0039	0.0023894
20	0.2924	0.29705	0.3033	0.0039099	0.292	0.29686	0.302	0.0031914	-0.0044	-0.00019	0.0046	0.0026194
30	0.2924	0.29624	0.298	0.0024185	0.292	0.29792	0.3026	0.0032369	-0.0012	0.00168	0.0085	0.0033409
50	0.297	0.29901	0.303	0.0023254	0.2917	0.29633	0.3019	0.002798	-0.0063	-0.00268	0.0041	0.0033476

# Device Test: 15.22 THRESHOLD|RISE/BP7L/14/14////@V\_BP7L\_TH\_RISE

## TID vs Result Stats



## TID vs Post - Pre Exposure Delta



## Test Results (No Limits Specified (V))

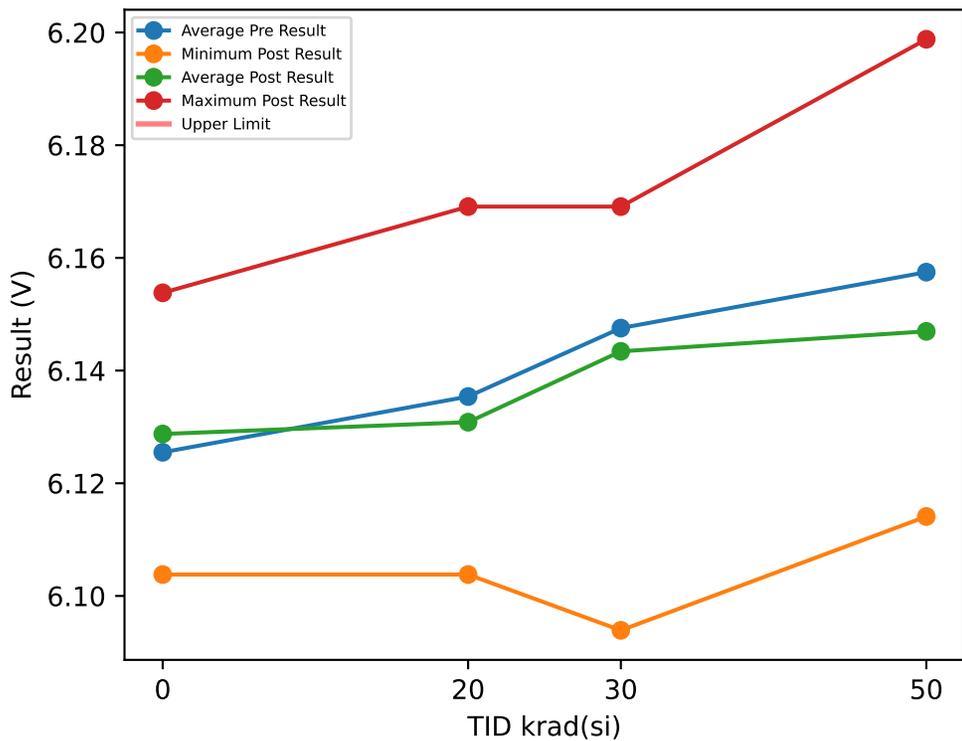
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	6.4212	6.4112	-0.01
2	20	HDR BIAS	6.4315	6.4257	-0.0058
3	20	HDR BIAS	6.4665	6.4615	-0.005
4	20	HDR BIAS	6.4365	6.4307	-0.0058
5	20	HDR BIAS	6.4761	6.4665	-0.0096
6	20	HDR UNBIAS	6.4162	6.4057	-0.0105
7	20	HDR UNBIAS	6.4262	6.4262	0
8	20	HDR UNBIAS	6.4009	6.3958	-0.0051
9	20	HDR UNBIAS	6.4315	6.4209	-0.0106
10	20	HDR UNBIAS	6.4215	6.4157	-0.0058
11	30	HDR BIAS	6.4558	6.4462	-0.0096
12	30	HDR BIAS	6.4715	6.4663	-0.0052
13	30	HDR BIAS	6.4408	6.4312	-0.0096
14	30	HDR BIAS	6.4356	6.4307	-0.0049
15	30	HDR BIAS	6.4262	6.4209	-0.0053
16	30	HDR UNBIAS	6.4315	6.426	-0.0055
17	30	HDR UNBIAS	6.3915	6.3862	-0.0053
18	30	HDR UNBIAS	6.4719	6.461	-0.0109
19	30	HDR UNBIAS	6.4665	6.4665	0
20	30	HDR UNBIAS	6.4562	6.4557	-0.0005
21	50	HDR BIAS	6.5064	6.4911	-0.0153
22	50	HDR BIAS	6.4562	6.456	-0.0002
23	50	HDR BIAS	6.4562	6.4159	-0.0403
24	50	HDR BIAS	6.4265	6.4111	-0.0154
25	50	HDR BIAS	6.4718	6.4562	-0.0156
26	50	HDR UNBIAS	6.4866	6.4716	-0.015
27	50	HDR UNBIAS	6.4465	6.4312	-0.0153
28	50	HDR UNBIAS	6.4515	6.4457	-0.0058
29	50	HDR UNBIAS	6.4562	6.4362	-0.02
30	50	HDR UNBIAS	6.4159	6.4111	-0.0048
41	0	CORRELATION	6.4468	6.4462	-0.0006
42	0	CORRELATION	6.4315	6.431	-0.0005
43	0	CORRELATION	6.4112	6.4112	0
45	0	CORRELATION	6.4009	6.4007	-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	6.4009	6.4226	6.4468	0.02054	6.4007	6.4223	6.4462	0.020303	-0.0006	-0.000325	0	0.00027538
20	6.4009	6.4328	6.4761	0.022673	6.3958	6.426	6.4665	0.022603	-0.0106	-0.00682	0	0.0033595
30	6.3915	6.4448	6.4719	0.025019	6.3862	6.4391	6.4665	0.025233	-0.0109	-0.00568	0	0.0036245
50	6.4159	6.4574	6.5064	0.026449	6.4111	6.4426	6.4911	0.026741	-0.0403	-0.01477	-0.0002	0.010919

Device Test: 15.23 THRESHOLD|FALL/BP7L/14/14/////@V\_BP7L\_TH\_FALL

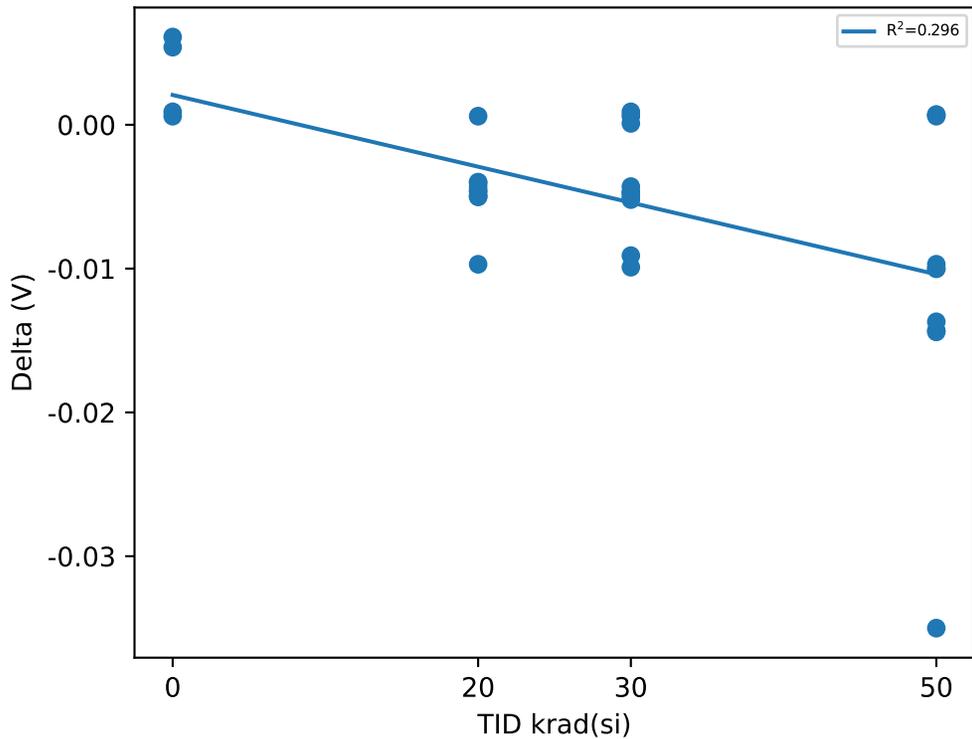
TID vs Result Stats



Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	6.1235	6.1185	-0.005
2	20	HDR BIAS	6.1378	6.1338	-0.004
3	20	HDR BIAS	6.1632	6.1638	0.0006
4	20	HDR BIAS	6.1384	6.1338	-0.0046
5	20	HDR BIAS	6.1788	6.1691	-0.0097
6	20	HDR UNBIAS	6.1184	6.1141	-0.0043
7	20	HDR UNBIAS	6.1385	6.1335	-0.005
8	20	HDR UNBIAS	6.1084	6.1038	-0.0046
9	20	HDR UNBIAS	6.1288	6.1239	-0.0049
10	20	HDR UNBIAS	6.1181	6.1141	-0.004
11	30	HDR BIAS	6.1535	6.1488	-0.0047
12	30	HDR BIAS	6.1738	6.1691	-0.0047
13	30	HDR BIAS	6.1438	6.1388	-0.005
14	30	HDR BIAS	6.1387	6.1335	-0.0052
15	30	HDR BIAS	6.1288	6.1289	0.0001
16	30	HDR UNBIAS	6.1387	6.1288	-0.0099
17	30	HDR UNBIAS	6.0982	6.0939	-0.0043
18	30	HDR UNBIAS	6.1732	6.1641	-0.0091
19	30	HDR UNBIAS	6.1682	6.1688	0.0006
20	30	HDR UNBIAS	6.1585	6.1594	0.0009
21	50	HDR BIAS	6.2085	6.1988	-0.0097
22	50	HDR BIAS	6.1585	6.1591	0.0006
23	50	HDR BIAS	6.1535	6.1185	-0.035
24	50	HDR BIAS	6.1284	6.1141	-0.0143
25	50	HDR BIAS	6.1682	6.1545	-0.0137
26	50	HDR UNBIAS	6.1838	6.1738	-0.01
27	50	HDR UNBIAS	6.1488	6.1388	-0.01
28	50	HDR UNBIAS	6.1484	6.1491	0.0007
29	50	HDR UNBIAS	6.1582	6.1438	-0.0144
30	50	HDR UNBIAS	6.1184	6.1191	0.0007
41	0	CORRELATION	6.1484	6.1538	0.0054
42	0	CORRELATION	6.1379	6.1385	0.0006
43	0	CORRELATION	6.1128	6.1189	0.0061
45	0	CORRELATION	6.1029	6.1038	0.0009

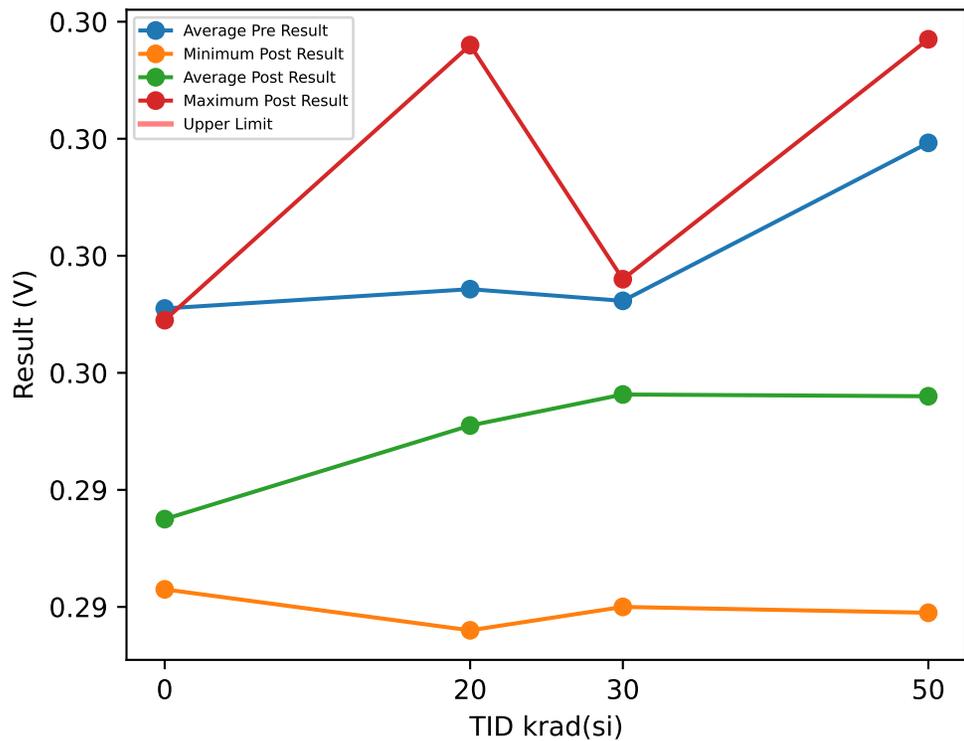
TID vs Post - Pre Exposure Delta



Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	6.1029	6.1255	6.1484	0.021215	6.1038	6.1288	6.1538	0.021925	0.0006	0.00325	0.0061	0.0029034
20	6.1084	6.1354	6.1788	0.021559	6.1038	6.1308	6.1691	0.021257	-0.0097	-0.00455	0.0006	0.002455
30	6.0982	6.1475	6.1738	0.023301	6.0939	6.1434	6.1691	0.023599	-0.0099	-0.00413	0.0009	0.0037438
50	6.1184	6.1575	6.2085	0.025731	6.1141	6.147	6.1988	0.026581	-0.035	-0.01051	0.0007	0.010622

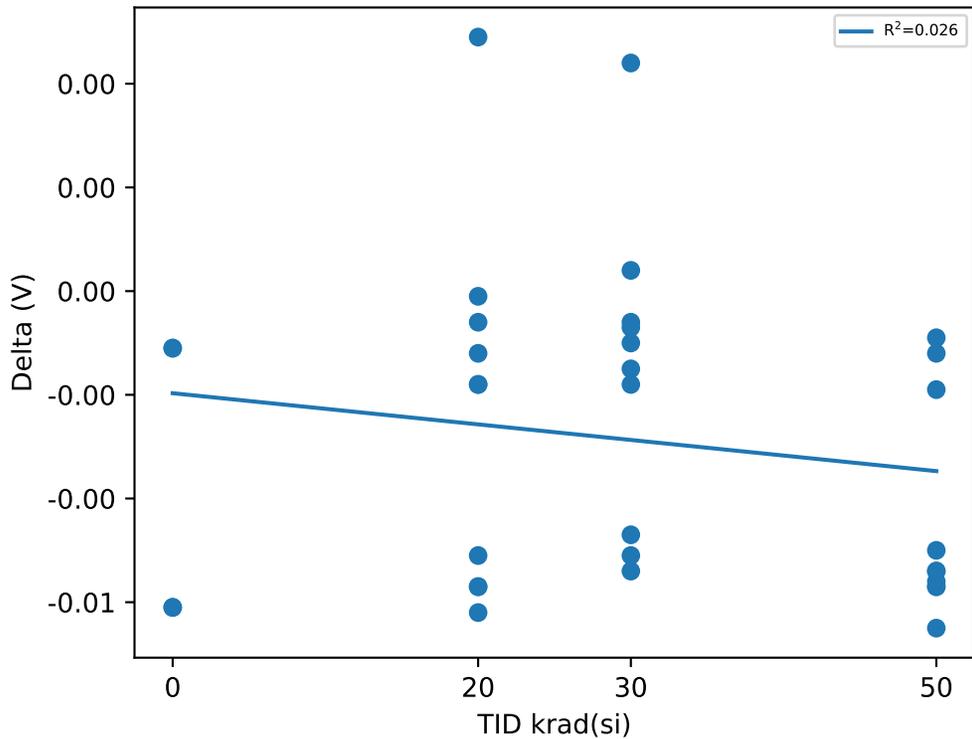
TID vs Result Stats



Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.2977	0.2926	-0.0051
2	20	HDR BIAS	0.2937	0.2919	-0.0018
3	20	HDR BIAS	0.3033	0.2976	-0.0057
4	20	HDR BIAS	0.2981	0.2969	-0.0012
5	20	HDR BIAS	0.2974	0.2973	-0.0001
6	20	HDR UNBIAS	0.2978	0.2916	-0.0062
7	20	HDR UNBIAS	0.2877	0.2926	0.0049
8	20	HDR UNBIAS	0.2925	0.2919	-0.0006
9	20	HDR UNBIAS	0.3027	0.297	-0.0057
10	20	HDR UNBIAS	0.3034	0.3016	-0.0018
11	30	HDR BIAS	0.3024	0.2973	-0.0051
12	30	HDR BIAS	0.2978	0.2972	-0.0006
13	30	HDR BIAS	0.297	0.2923	-0.0047
14	30	HDR BIAS	0.2968	0.2972	0.0004
15	30	HDR BIAS	0.2974	0.292	-0.0054
16	30	HDR UNBIAS	0.2928	0.2972	0.0044
17	30	HDR UNBIAS	0.2933	0.2923	-0.001
18	30	HDR UNBIAS	0.2987	0.2969	-0.0018
19	30	HDR UNBIAS	0.2983	0.2976	-0.0007
20	30	HDR UNBIAS	0.2978	0.2963	-0.0015
21	50	HDR BIAS	0.298	0.2923	-0.0057
22	50	HDR BIAS	0.2978	0.2969	-0.0009
23	50	HDR BIAS	0.3027	0.2973	-0.0054
24	50	HDR BIAS	0.2981	0.2969	-0.0012
25	50	HDR BIAS	0.3036	0.3017	-0.0019
26	50	HDR UNBIAS	0.3028	0.2978	-0.005
27	50	HDR UNBIAS	0.2977	0.2923	-0.0054
28	50	HDR UNBIAS	0.3031	0.2966	-0.0065
29	50	HDR UNBIAS	0.298	0.2923	-0.0057
30	50	HDR UNBIAS	0.2975	0.2919	-0.0056
41	0	CORRELATION	0.2984	0.2923	-0.0061
42	0	CORRELATION	0.2936	0.2925	-0.0011
43	0	CORRELATION	0.2984	0.2923	-0.0061
45	0	CORRELATION	0.298	0.2969	-0.0011

TID vs Post - Pre Exposure Delta

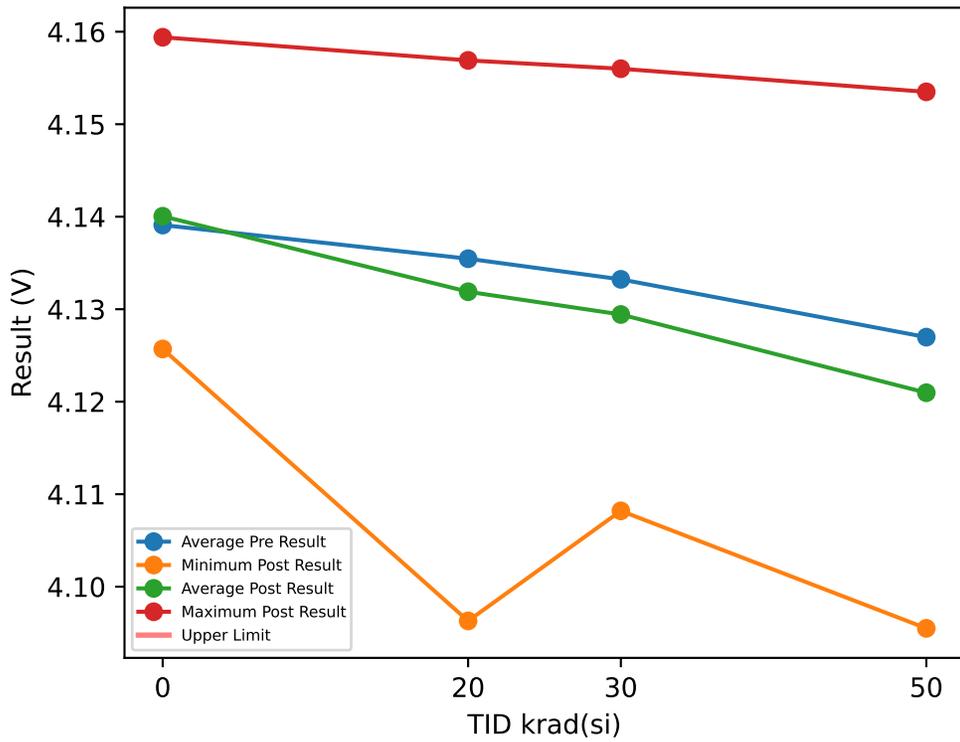


Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.2936	0.2971	0.2984	0.0023409	0.2923	0.2935	0.2969	0.0022686	-0.0061	-0.0036	-0.0011	0.0028868
20	0.2877	0.29743	0.3034	0.0050708	0.2916	0.2951	0.3016	0.0034225	-0.0062	-0.00233	0.0049	0.0034551
30	0.2928	0.29723	0.3024	0.0027084	0.292	0.29563	0.2976	0.0023917	-0.0054	-0.0016	0.0044	0.0029537
50	0.2975	0.29993	0.3036	0.0027006	0.2919	0.2956	0.3017	0.0032605	-0.0065	-0.00433	-0.0009	0.0021156

# Device Test: 15.25 THRESHOLD|RISE/BP5H/10/8////@V\_BP5H\_TH\_RISE

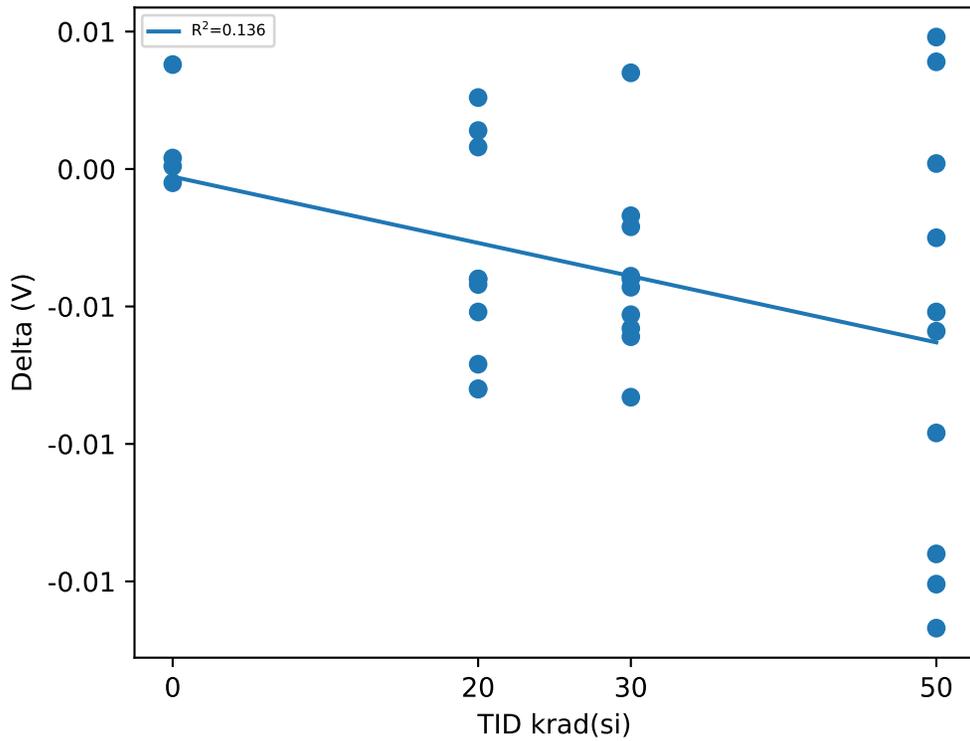
### TID vs Result Stats



### Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.1271	4.1279	0.0008
2	20	HDR BIAS	4.1315	4.1263	-0.0052
3	20	HDR BIAS	4.1346	4.136	0.0014
4	20	HDR BIAS	4.134	4.13	-0.004
5	20	HDR BIAS	4.1499	4.1525	0.0026
6	20	HDR UNBIAS	4.159	4.155	-0.004
7	20	HDR UNBIAS	4.164	4.1569	-0.0071
8	20	HDR UNBIAS	4.1043	4.0963	-0.008
9	20	HDR UNBIAS	4.124	4.1198	-0.0042
10	20	HDR UNBIAS	4.1262	4.1182	-0.008
11	30	HDR BIAS	4.1459	4.1438	-0.0021
12	30	HDR BIAS	4.1356	4.1303	-0.0053
13	30	HDR BIAS	4.1231	4.1173	-0.0058
14	30	HDR BIAS	4.1371	4.1288	-0.0083
15	30	HDR BIAS	4.1143	4.1082	-0.0061
16	30	HDR UNBIAS	4.1234	4.1194	-0.004
17	30	HDR UNBIAS	4.1287	4.1248	-0.0039
18	30	HDR UNBIAS	4.1577	4.156	-0.0017
19	30	HDR UNBIAS	4.1487	4.1444	-0.0043
20	30	HDR UNBIAS	4.1178	4.1213	0.0035
21	50	HDR BIAS	4.1334	4.1238	-0.0096
22	50	HDR BIAS	4.1368	4.1228	-0.014
23	50	HDR BIAS	4.139	4.1223	-0.0167
24	50	HDR BIAS	4.1075	4.105	-0.0025
25	50	HDR BIAS	4.1193	4.1042	-0.0151
26	50	HDR UNBIAS	4.1587	4.1535	-0.0052
27	50	HDR UNBIAS	4.124	4.1288	0.0048
28	50	HDR UNBIAS	4.1362	4.1303	-0.0059
29	50	HDR UNBIAS	4.0953	4.0955	0.0002
30	50	HDR UNBIAS	4.1196	4.1235	0.0039
41	0	CORRELATION	4.1328	4.1329	0.0001
42	0	CORRELATION	4.1427	4.1422	-0.0005
43	0	CORRELATION	4.1253	4.1257	0.0004
45	0	CORRELATION	4.1556	4.1594	0.0038

### TID vs Post - Pre Exposure Delta

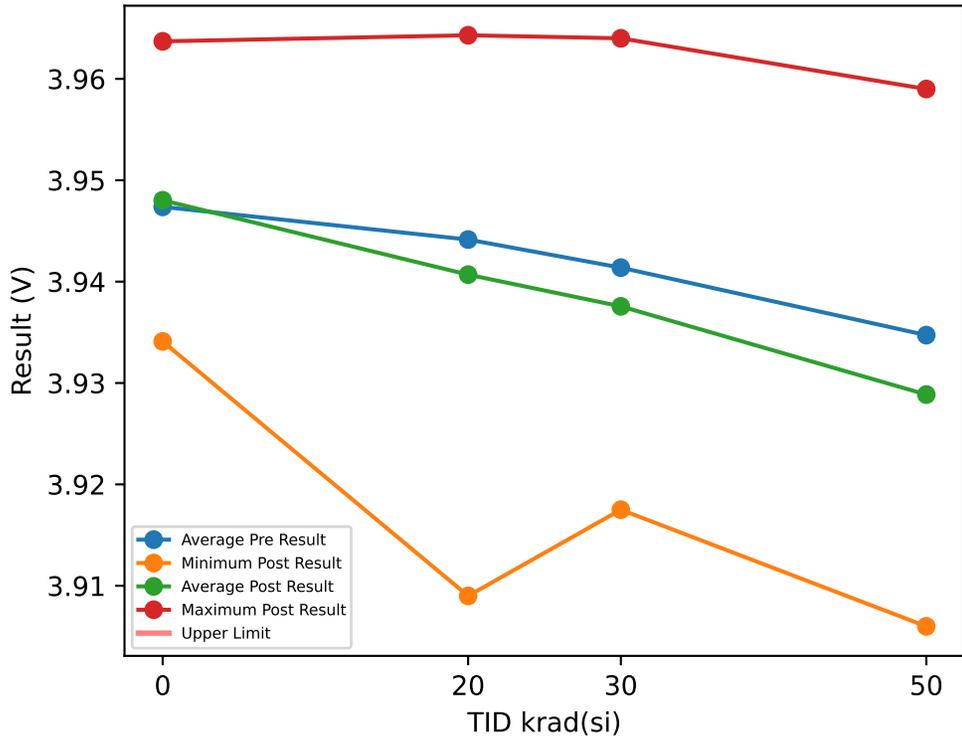


### Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.1253	4.1391	4.1556	0.013106	4.1257	4.1401	4.1594	0.014561	-0.0005	0.00095	0.0038	0.0019365
20	4.1043	4.1355	4.164	0.017807	4.0963	4.1319	4.1569	0.019009	-0.008	-0.00357	0.0026	0.0039016
30	4.1143	4.1332	4.1577	0.014281	4.1082	4.1294	4.156	0.01462	-0.0083	-0.0038	0.0035	0.003209
50	4.0953	4.127	4.1587	0.017885	4.0955	4.121	4.1535	0.016368	-0.0167	-0.00601	0.0048	0.0077478

# Device Test: 15.26 THRESHOLD|FALL/BP5H/10/8////@V\_BP5H\_TH\_FALL

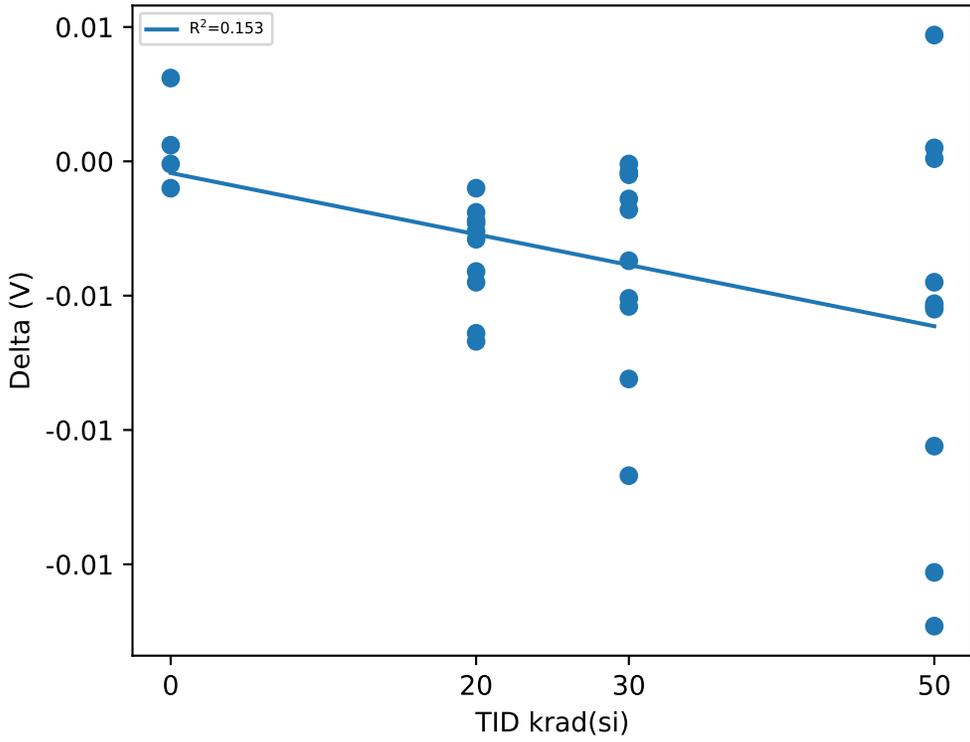
### TID vs Result Stats



### Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.9366	3.9344	-0.0022
2	20	HDR BIAS	3.9395	3.935	-0.0045
3	20	HDR BIAS	3.9444	3.9425	-0.0019
4	20	HDR BIAS	3.941	3.9387	-0.0023
5	20	HDR BIAS	3.9641	3.9612	-0.0029
6	20	HDR UNBIAS	3.9651	3.9625	-0.0026
7	20	HDR UNBIAS	3.9684	3.9643	-0.0041
8	20	HDR UNBIAS	3.9157	3.909	-0.0067
9	20	HDR UNBIAS	3.9319	3.9309	-0.001
10	20	HDR UNBIAS	3.9348	3.9284	-0.0064
11	30	HDR BIAS	3.9547	3.9493	-0.0054
12	30	HDR BIAS	3.9438	3.9387	-0.0051
13	30	HDR BIAS	3.9309	3.9272	-0.0037
14	30	HDR BIAS	3.9454	3.9337	-0.0117
15	30	HDR BIAS	3.9256	3.9175	-0.0081
16	30	HDR UNBIAS	3.9298	3.9284	-0.0014
17	30	HDR UNBIAS	3.9359	3.9341	-0.0018
18	30	HDR UNBIAS	3.9641	3.964	-0.0001
19	30	HDR UNBIAS	3.9544	3.954	-0.0004
20	30	HDR UNBIAS	3.9292	3.9287	-0.0005
21	50	HDR BIAS	3.9394	3.9341	-0.0053
22	50	HDR BIAS	3.9463	3.929	-0.0173
23	50	HDR BIAS	3.9447	3.9294	-0.0153
24	50	HDR BIAS	3.9188	3.9143	-0.0045
25	50	HDR BIAS	3.9244	3.9138	-0.0106
26	50	HDR UNBIAS	3.9644	3.959	-0.0054
27	50	HDR UNBIAS	3.9303	3.935	0.0047
28	50	HDR UNBIAS	3.9451	3.9396	-0.0055
29	50	HDR UNBIAS	3.9059	3.906	0.0001
30	50	HDR UNBIAS	3.9279	3.9284	0.0005
41	0	CORRELATION	3.941	3.9409	-0.0001
42	0	CORRELATION	3.9528	3.9534	0.0006
43	0	CORRELATION	3.931	3.9341	0.0031
45	0	CORRELATION	3.9647	3.9637	-0.001

### TID vs Post - Pre Exposure Delta

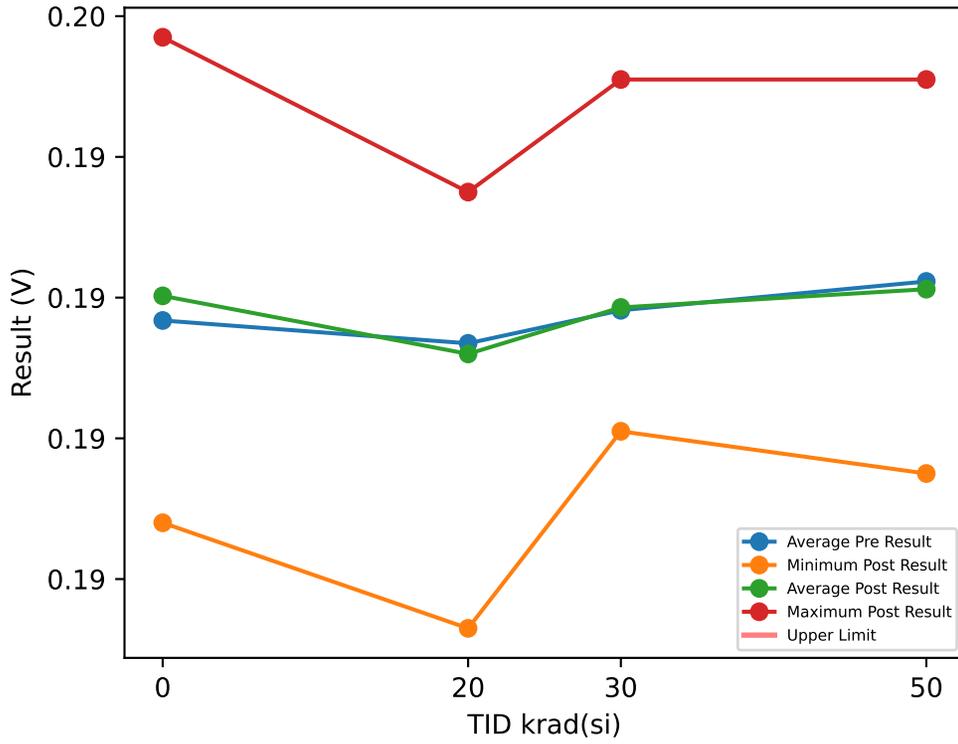


### Test Statistics (V)

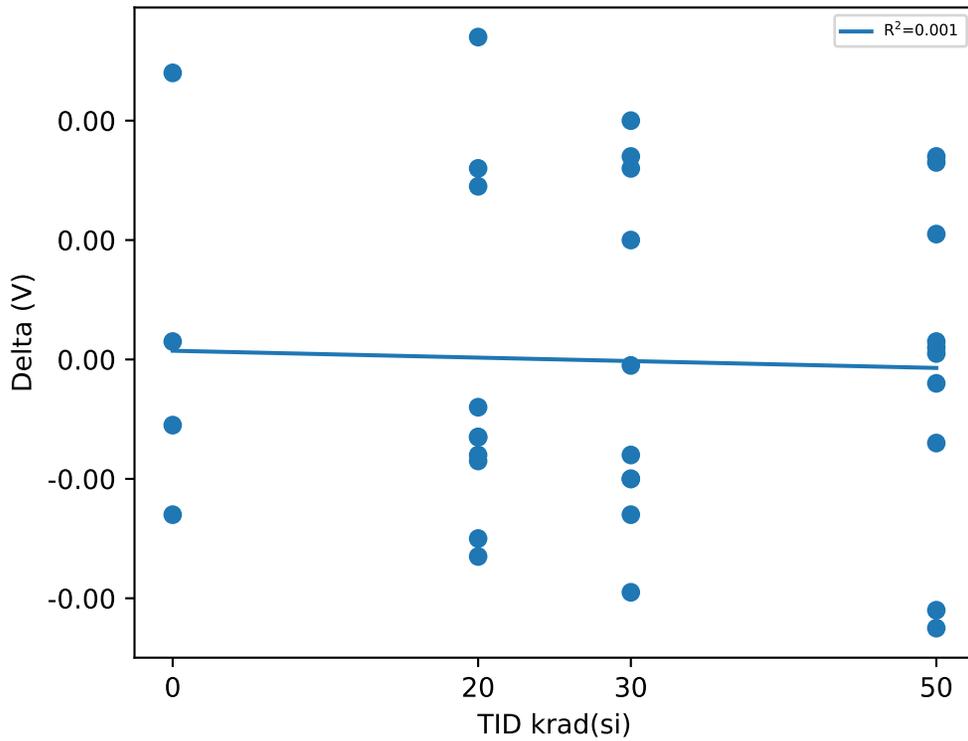
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.931	3.9474	3.9647	0.014587	3.9341	3.948	3.9637	0.013156	-0.001	0.00065	0.0031	0.0017597
20	3.9157	3.9441	3.9684	0.016867	3.909	3.9407	3.9643	0.017588	-0.0067	-0.00346	-0.001	0.0019179
30	3.9256	3.9414	3.9641	0.013151	3.9175	3.9376	3.964	0.014172	-0.0117	-0.00382	-0.0001	0.003816
50	3.9059	3.9347	3.9644	0.016669	3.906	3.9289	3.959	0.015095	-0.0173	-0.00586	0.0047	0.0069318

# Device Test: 15.27 THRESHOLD|HYST/BP5H/10/8////@V\_BP5H\_TH\_HYST

### TID vs Result Stats



### TID vs Post - Pre Exposure Delta



### Test Results (No Limits Specified (V))

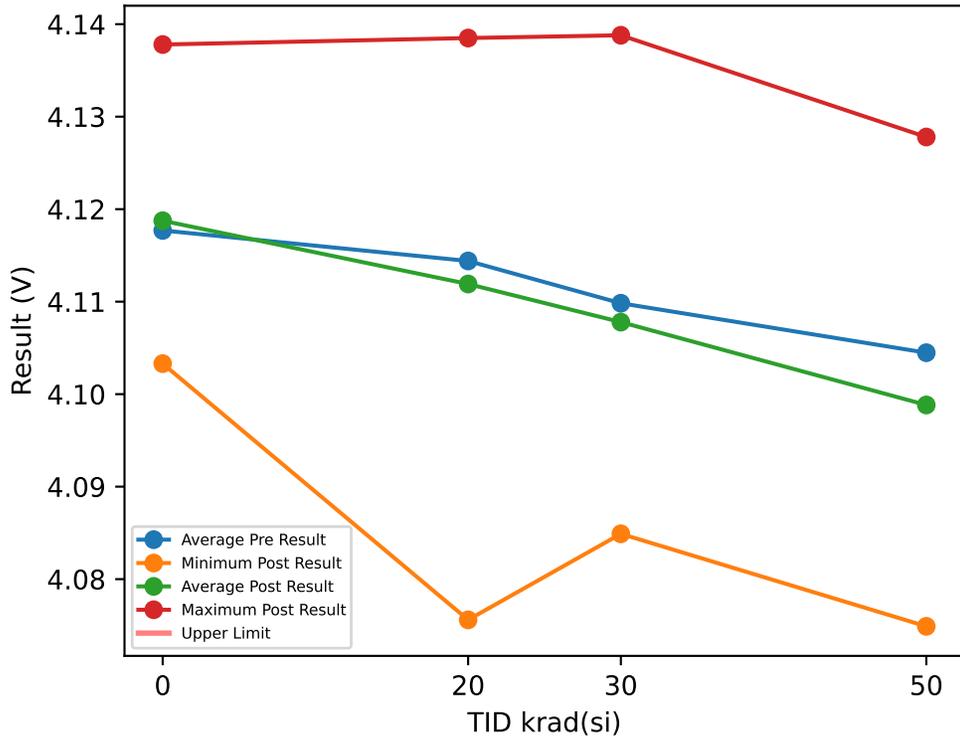
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.1906	0.1935	0.0029
2	20	HDR BIAS	0.1921	0.1913	-0.0008
3	20	HDR BIAS	0.1903	0.1935	0.0032
4	20	HDR BIAS	0.193	0.1913	-0.0017
5	20	HDR BIAS	0.1859	0.1913	0.0054
6	20	HDR UNBIAS	0.1939	0.1926	-0.0013
7	20	HDR UNBIAS	0.1956	0.1926	-0.003
8	20	HDR UNBIAS	0.1886	0.1873	-0.0013
9	20	HDR UNBIAS	0.1921	0.1888	-0.0033
10	20	HDR UNBIAS	0.1914	0.1898	-0.0016
11	30	HDR BIAS	0.1912	0.1944	0.0032
12	30	HDR BIAS	0.1917	0.1916	-0.0001
13	30	HDR BIAS	0.1921	0.1901	-0.002
14	30	HDR BIAS	0.1917	0.1951	0.0034
15	30	HDR BIAS	0.1887	0.1907	0.002
16	30	HDR UNBIAS	0.1936	0.191	-0.0026
17	30	HDR UNBIAS	0.1927	0.1907	-0.002
18	30	HDR UNBIAS	0.1936	0.192	-0.0016
19	30	HDR UNBIAS	0.1943	0.1904	-0.0039
20	30	HDR UNBIAS	0.1886	0.1926	0.004
21	50	HDR BIAS	0.194	0.1898	-0.0042
22	50	HDR BIAS	0.1905	0.1938	0.0033
23	50	HDR BIAS	0.1943	0.1929	-0.0014
24	50	HDR BIAS	0.1886	0.1907	0.0021
25	50	HDR BIAS	0.1949	0.1904	-0.0045
26	50	HDR UNBIAS	0.1942	0.1945	0.0003
27	50	HDR UNBIAS	0.1937	0.1938	0.0001
28	50	HDR UNBIAS	0.1911	0.1907	-0.0004
29	50	HDR UNBIAS	0.1893	0.1895	0.0002
30	50	HDR UNBIAS	0.1917	0.1951	0.0034
41	0	CORRELATION	0.1917	0.192	0.0003
42	0	CORRELATION	0.1899	0.1888	-0.0011
43	0	CORRELATION	0.1942	0.1916	-0.0026
45	0	CORRELATION	0.1909	0.1957	0.0048

### Test Statistics (V)

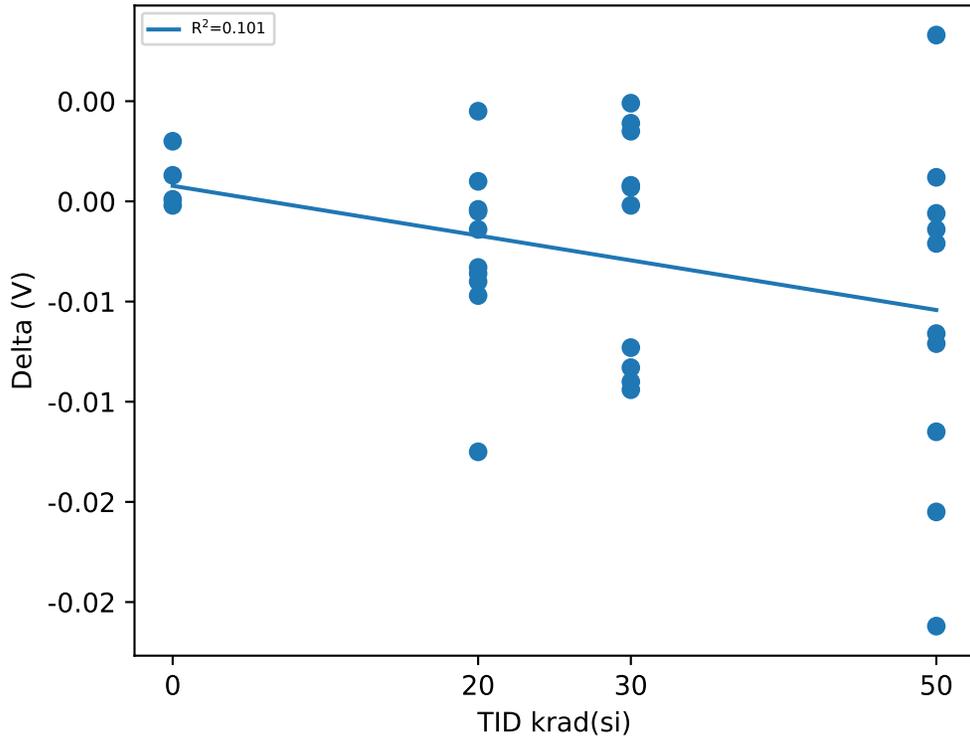
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.1899	0.19168	0.1942	0.0018373	0.1888	0.19203	0.1957	0.0028336	-0.0026	0.00035	0.0048	0.0031943
20	0.1859	0.19135	0.1956	0.0027355	0.1873	0.1912	0.1935	0.0020402	-0.0033	-0.00015	0.0054	0.0029239
30	0.1886	0.19182	0.1943	0.0019395	0.1901	0.19186	0.1951	0.0017076	-0.0039	4e-05	0.004	0.0028737
50	0.1886	0.19223	0.1949	0.0022828	0.1895	0.19212	0.1951	0.0021091	-0.0045	-0.00011	0.0034	0.0027262

# Device Test: 15.28 THRESHOLD|RISE/BP5H/12/10/////@V\_BP5H\_TH\_RISE

## TID vs Result Stats



## TID vs Post - Pre Exposure Delta



## Test Results (No Limits Specified (V))

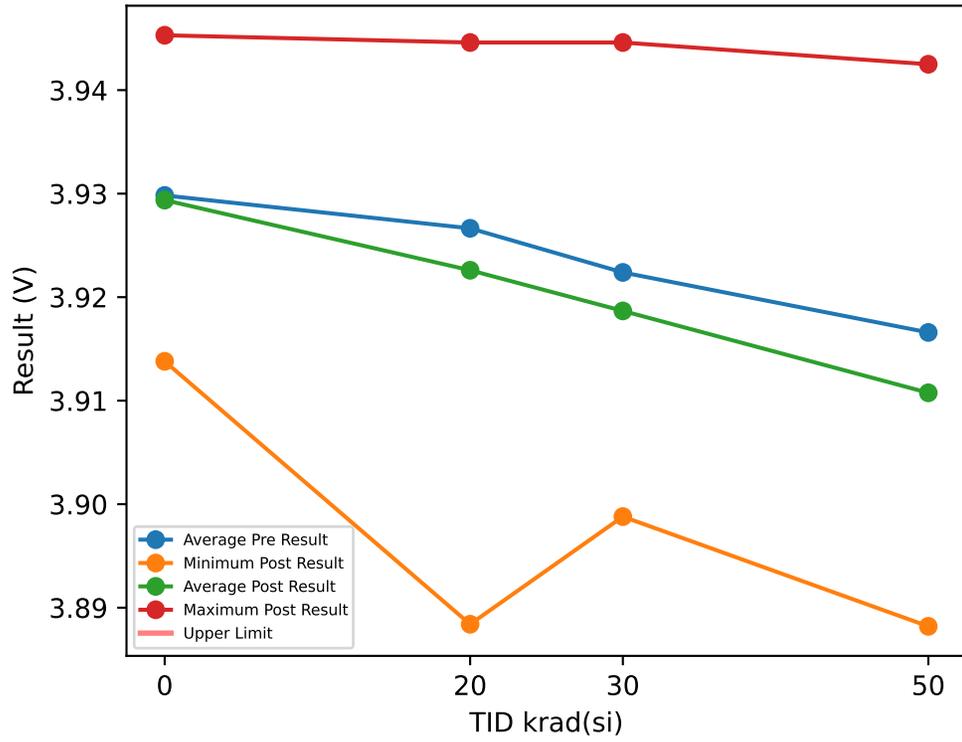
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.1065	4.1051	-0.0014
2	20	HDR BIAS	4.1131	4.1091	-0.004
3	20	HDR BIAS	4.1178	4.1145	-0.0033
4	20	HDR BIAS	4.1103	4.1113	0.001
5	20	HDR BIAS	4.1312	4.1276	-0.0036
6	20	HDR UNBIAS	4.1321	4.1366	0.0045
7	20	HDR UNBIAS	4.139	4.1385	-0.0005
8	20	HDR UNBIAS	4.0881	4.0756	-0.0125
9	20	HDR UNBIAS	4.1034	4.103	-0.0004
10	20	HDR UNBIAS	4.1025	4.0978	-0.0047
11	30	HDR BIAS	4.1256	4.1173	-0.0083
12	30	HDR BIAS	4.1096	4.1135	0.0039
13	30	HDR BIAS	4.1003	4.093	-0.0073
14	30	HDR BIAS	4.1128	4.1038	-0.009
15	30	HDR BIAS	4.0943	4.0849	-0.0094
16	30	HDR UNBIAS	4.0962	4.0969	0.0007
17	30	HDR UNBIAS	4.1037	4.1086	0.0049
18	30	HDR UNBIAS	4.1353	4.1388	0.0035
19	30	HDR UNBIAS	4.124	4.1248	0.0008
20	30	HDR UNBIAS	4.0965	4.0963	-0.0002
21	50	HDR BIAS	4.1056	4.1042	-0.0014
22	50	HDR BIAS	4.1181	4.0969	-0.0212
23	50	HDR BIAS	4.1181	4.1026	-0.0155
24	50	HDR BIAS	4.0837	4.0816	-0.0021
25	50	HDR BIAS	4.0949	4.0883	-0.0066
26	50	HDR UNBIAS	4.1349	4.1278	-0.0071
27	50	HDR UNBIAS	4.0996	4.1079	0.0083
28	50	HDR UNBIAS	4.1165	4.105	-0.0115
29	50	HDR UNBIAS	4.0737	4.0749	0.0012
30	50	HDR UNBIAS	4.0997	4.0991	-0.0006
41	0	CORRELATION	4.11	4.1098	-0.0002
42	0	CORRELATION	4.124	4.1241	0.0001
43	0	CORRELATION	4.1003	4.1033	0.003
45	0	CORRELATION	4.1365	4.1378	0.0013

## Test Statistics (V)

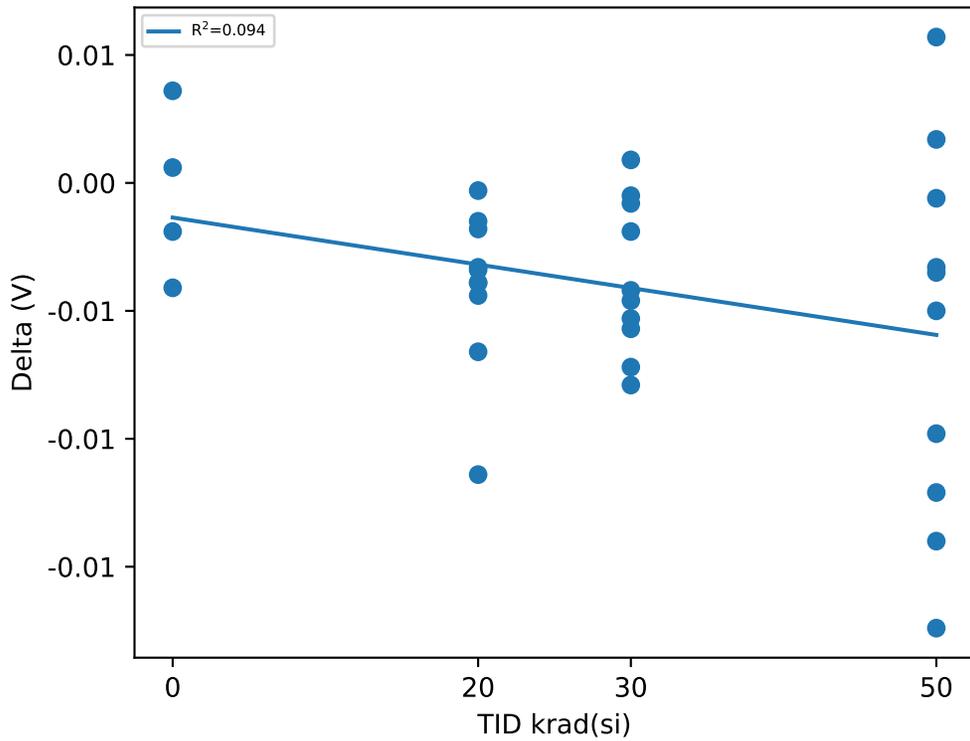
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.1003	4.1177	4.1365	0.015866	4.1033	4.1188	4.1378	0.015388	-0.0002	0.00105	0.003	0.0014526
20	4.0881	4.1144	4.139	0.015802	4.0756	4.1119	4.1385	0.018918	-0.0125	-0.00249	0.0045	0.0044698
30	4.0943	4.1098	4.1353	0.014299	4.0849	4.1078	4.1388	0.016275	-0.0094	-0.00204	0.0049	0.0057981
50	4.0737	4.1045	4.1349	0.018135	4.0749	4.0988	4.1278	0.014858	-0.0212	-0.00565	0.0083	0.0086522

# Device Test: 15.29 THRESHOLD|FALL/BP5H/12/10/////@V\_BP5H\_TH\_FALL

### TID vs Result Stats



### TID vs Post - Pre Exposure Delta



### Test Results (No Limits Specified (V))

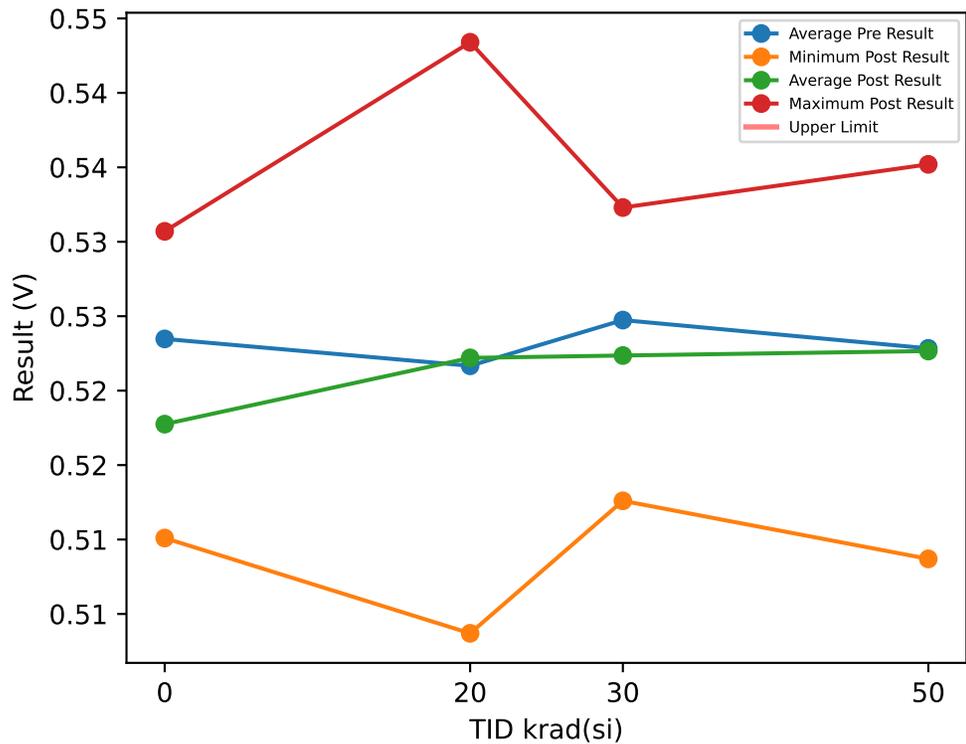
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.9194	3.916	-0.0034
2	20	HDR BIAS	3.922	3.9187	-0.0033
3	20	HDR BIAS	3.9253	3.9238	-0.0015
4	20	HDR BIAS	3.9235	3.9196	-0.0039
5	20	HDR BIAS	3.9469	3.9425	-0.0044
6	20	HDR UNBIAS	3.947	3.9431	-0.0039
7	20	HDR UNBIAS	3.9512	3.9446	-0.0066
8	20	HDR UNBIAS	3.8998	3.8884	-0.0114
9	20	HDR UNBIAS	3.9147	3.9144	-0.0003
10	20	HDR UNBIAS	3.9167	3.9149	-0.0018
11	30	HDR BIAS	3.9356	3.9284	-0.0072
12	30	HDR BIAS	3.9235	3.9193	-0.0042
13	30	HDR BIAS	3.9147	3.9101	-0.0046
14	30	HDR BIAS	3.9238	3.9159	-0.0079
15	30	HDR BIAS	3.9041	3.8988	-0.0053
16	30	HDR UNBIAS	3.9138	3.9081	-0.0057
17	30	HDR UNBIAS	3.9194	3.9175	-0.0019
18	30	HDR UNBIAS	3.9451	3.9446	-0.0005
19	30	HDR UNBIAS	3.935	3.9359	0.0009
20	30	HDR UNBIAS	3.9089	3.9081	-0.0008
21	50	HDR BIAS	3.9191	3.9141	-0.005
22	50	HDR BIAS	3.9267	3.9093	-0.0174
23	50	HDR BIAS	3.9266	3.9126	-0.014
24	50	HDR BIAS	3.9014	3.8981	-0.0033
25	50	HDR BIAS	3.9078	3.8957	-0.0121
26	50	HDR UNBIAS	3.946	3.9425	-0.0035
27	50	HDR UNBIAS	3.9134	3.9191	0.0057
28	50	HDR UNBIAS	3.9282	3.9184	-0.0098
29	50	HDR UNBIAS	3.8888	3.8882	-0.0006
30	50	HDR UNBIAS	3.9079	3.9096	0.0017
41	0	CORRELATION	3.9217	3.9253	0.0036
42	0	CORRELATION	3.9372	3.9331	-0.0041
43	0	CORRELATION	3.9132	3.9138	0.0006
45	0	CORRELATION	3.9472	3.9453	-0.0019

### Test Statistics (V)

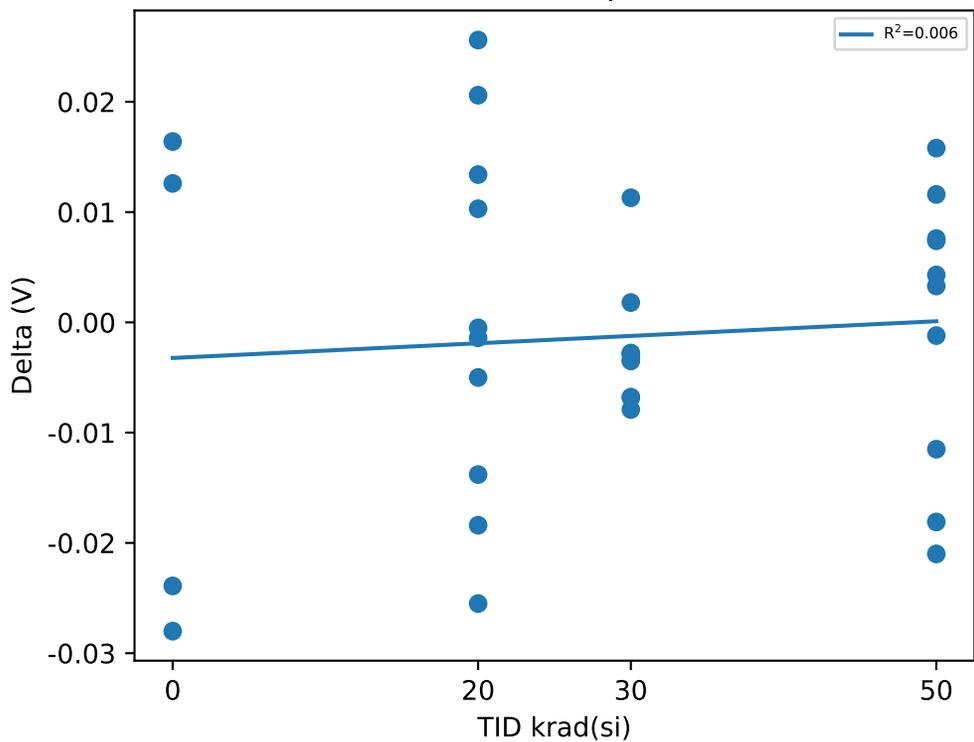
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.9132	3.9298	3.9472	0.015261	3.9138	3.9294	3.9453	0.01325	-0.0041	-0.00045	0.0036	0.0033131
20	3.8998	3.9266	3.9512	0.016585	3.8884	3.9226	3.9446	0.01721	-0.0114	-0.00405	-0.0003	0.0031146
30	3.9041	3.9224	3.9451	0.012957	3.8988	3.9187	3.9446	0.014004	-0.0079	-0.00372	0.0009	0.0029918
50	3.8888	3.9166	3.946	0.016243	3.8882	3.9108	3.9425	0.01509	-0.0174	-0.00583	0.0057	0.0073424

# Device Test: 15.3 THRESHOLD|HYST/VIN//10////@V\_IN\_TH\_HYST

## TID vs Result Stats



## TID vs Post - Pre Exposure Delta



## Test Results (No Limits Specified (V))

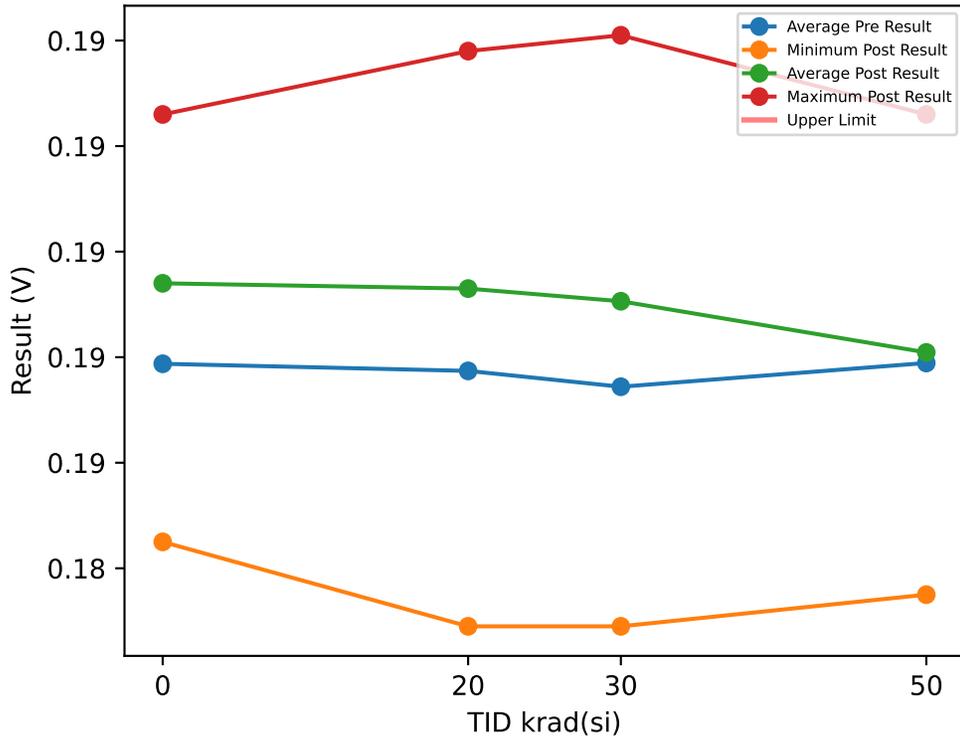
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.5156	0.529	0.0134
2	20	HDR BIAS	0.528	0.5096	-0.0184
3	20	HDR BIAS	0.5251	0.5201	-0.005
4	20	HDR BIAS	0.5227	0.5089	-0.0138
5	20	HDR BIAS	0.5439	0.5434	-0.0005
6	20	HDR UNBIAS	0.5075	0.5331	0.0256
7	20	HDR UNBIAS	0.5171	0.5377	0.0206
8	20	HDR UNBIAS	0.5129	0.5232	0.0103
9	20	HDR UNBIAS	0.5292	0.5037	-0.0255
10	20	HDR UNBIAS	0.5147	0.5133	-0.0014
11	30	HDR BIAS	0.5237	0.5255	0.0018
12	30	HDR BIAS	0.5128	0.5241	0.0113
13	30	HDR BIAS	0.5351	0.5323	-0.0028
14	30	HDR BIAS	0.5194	0.5126	-0.0068
15	30	HDR BIAS	0.5227	0.5199	-0.0028
16	30	HDR UNBIAS	0.5281	0.5213	-0.0068
17	30	HDR UNBIAS	0.5313	0.5279	-0.0034
18	30	HDR UNBIAS	0.5233	0.5154	-0.0079
19	30	HDR UNBIAS	0.533	0.5295	-0.0035
20	30	HDR UNBIAS	0.518	0.5151	-0.0029
21	50	HDR BIAS	0.5423	0.5308	-0.0115
22	50	HDR BIAS	0.5182	0.5258	0.0076
23	50	HDR BIAS	0.542	0.5239	-0.0181
24	50	HDR BIAS	0.51	0.5258	0.0158
25	50	HDR BIAS	0.5381	0.5171	-0.021
26	50	HDR UNBIAS	0.5099	0.5087	-0.0012
27	50	HDR UNBIAS	0.5174	0.529	0.0116
28	50	HDR UNBIAS	0.5109	0.5142	0.0033
29	50	HDR UNBIAS	0.5278	0.5352	0.0074
30	50	HDR UNBIAS	0.5118	0.5161	0.0043
41	0	CORRELATION	0.5054	0.518	0.0126
42	0	CORRELATION	0.5381	0.5101	-0.028
43	0	CORRELATION	0.5143	0.5307	0.0164
45	0	CORRELATION	0.5361	0.5122	-0.0239

## 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	0.5054	0.52348	0.5381	0.016168	0.5101	0.51775	0.5307	0.0092572	-0.028	-0.005725	0.0164	0.023465
20	0.5075	0.52167	0.5439	0.010476	0.5037	0.5222	0.5434	0.013405	-0.0255	0.00053	0.0256	0.016895
30	0.5128	0.52474	0.5351	0.0071001	0.5126	0.52236	0.5323	0.0066412	-0.0079	-0.00238	0.0113	0.0055485
50	0.5099	0.52284	0.5423	0.013545	0.5087	0.52266	0.5352	0.0083358	-0.021	-0.00018	0.0158	0.012597

# Device Test: 15.30 THRESHOLD|HYST/BP5H/12/10////@V\_BP5H\_TH\_HYST

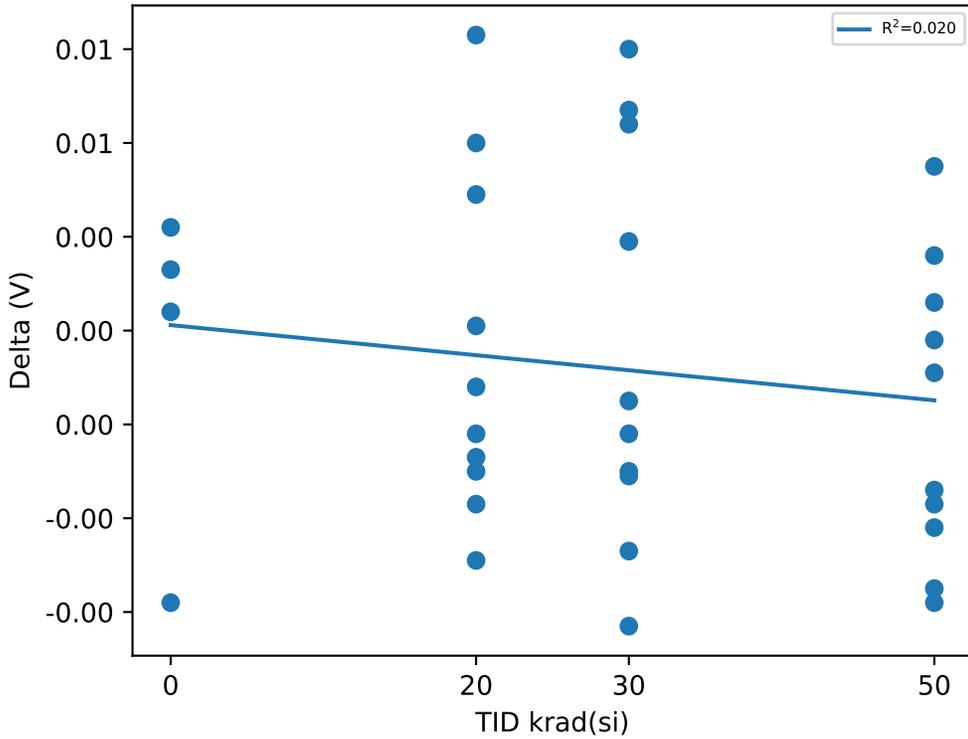
### TID vs Result Stats



### Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.1871	0.1892	0.0021
2	20	HDR BIAS	0.1911	0.1904	-0.0007
3	20	HDR BIAS	0.1924	0.1907	-0.0017
4	20	HDR BIAS	0.1867	0.1916	0.0049
5	20	HDR BIAS	0.1843	0.1851	0.0008
6	20	HDR UNBIAS	0.1852	0.1935	0.0083
7	20	HDR UNBIAS	0.1878	0.1938	0.006
8	20	HDR UNBIAS	0.1883	0.1873	-0.001
9	20	HDR UNBIAS	0.1887	0.1885	-0.0002
10	20	HDR UNBIAS	0.1858	0.1829	-0.0029
11	30	HDR BIAS	0.1899	0.1888	-0.0011
12	30	HDR BIAS	0.1861	0.1941	0.008
13	30	HDR BIAS	0.1856	0.1829	-0.0027
14	30	HDR BIAS	0.1889	0.1879	-0.001
15	30	HDR BIAS	0.1903	0.186	-0.0043
16	30	HDR UNBIAS	0.1824	0.1888	0.0064
17	30	HDR UNBIAS	0.1843	0.191	0.0067
18	30	HDR UNBIAS	0.1902	0.1941	0.0039
19	30	HDR UNBIAS	0.189	0.1888	-0.0002
20	30	HDR UNBIAS	0.1877	0.1882	0.0005
21	50	HDR BIAS	0.1865	0.1901	0.0036
22	50	HDR BIAS	0.1914	0.1876	-0.0038
23	50	HDR BIAS	0.1915	0.1901	-0.0014
24	50	HDR BIAS	0.1824	0.1835	0.0011
25	50	HDR BIAS	0.1871	0.1926	0.0055
26	50	HDR UNBIAS	0.1889	0.1854	-0.0035
27	50	HDR UNBIAS	0.1862	0.1888	0.0026
28	50	HDR UNBIAS	0.1883	0.1866	-0.0017
29	50	HDR UNBIAS	0.1849	0.1867	0.0018
30	50	HDR UNBIAS	0.1917	0.1895	-0.0022
41	0	CORRELATION	0.1883	0.1845	-0.0038
42	0	CORRELATION	0.1868	0.191	0.0042
43	0	CORRELATION	0.1871	0.1895	0.0024
45	0	CORRELATION	0.1893	0.1926	0.0033

### TID vs Post - Pre Exposure Delta

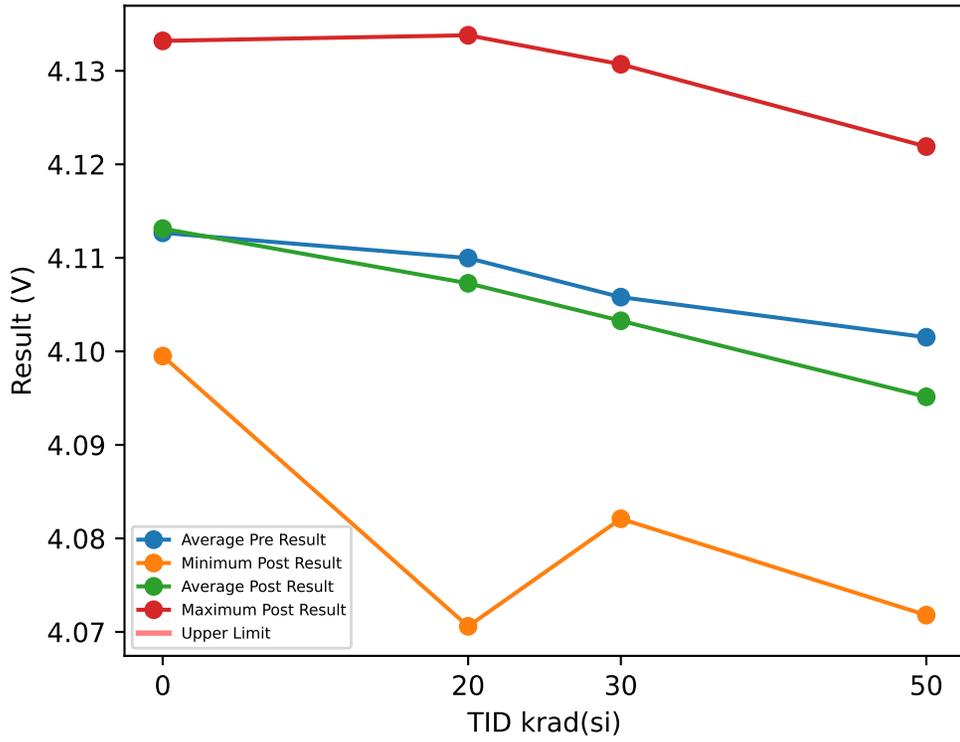


### Test Statistics (V)

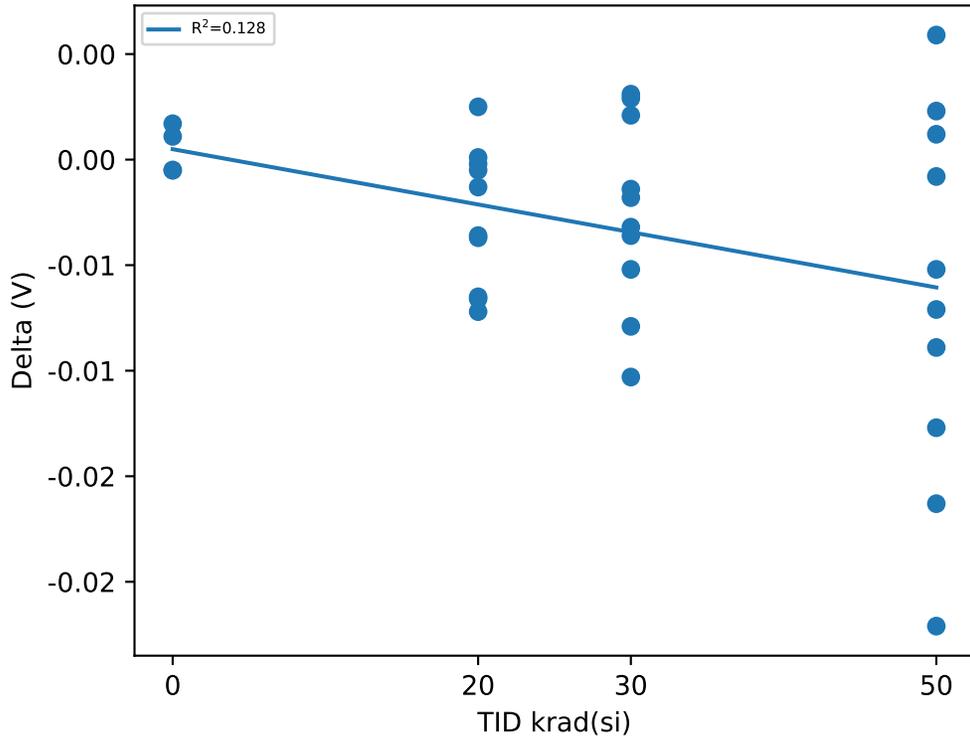
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.1868	0.18787	0.1893	0.00115	0.1845	0.1894	0.1926	0.0035033	-0.0038	0.001525	0.0042	0.0036253
20	0.1843	0.18774	0.1924	0.0025339	0.1829	0.1893	0.1938	0.0034897	-0.0029	0.00156	0.0083	0.0036885
30	0.1824	0.18744	0.1903	0.0027269	0.1829	0.18906	0.1941	0.003402	-0.0043	0.00162	0.008	0.0043089
50	0.1824	0.18789	0.1917	0.0030831	0.1835	0.18809	0.1926	0.0026585	-0.0038	0.0002	0.0055	0.0031693

# Device Test: 15.31 THRESHOLD|RISE/BP5H/14/14////@V\_BP5H\_TH\_RISE

### TID vs Result Stats



### TID vs Post - Pre Exposure Delta



### Test Results (No Limits Specified (V))

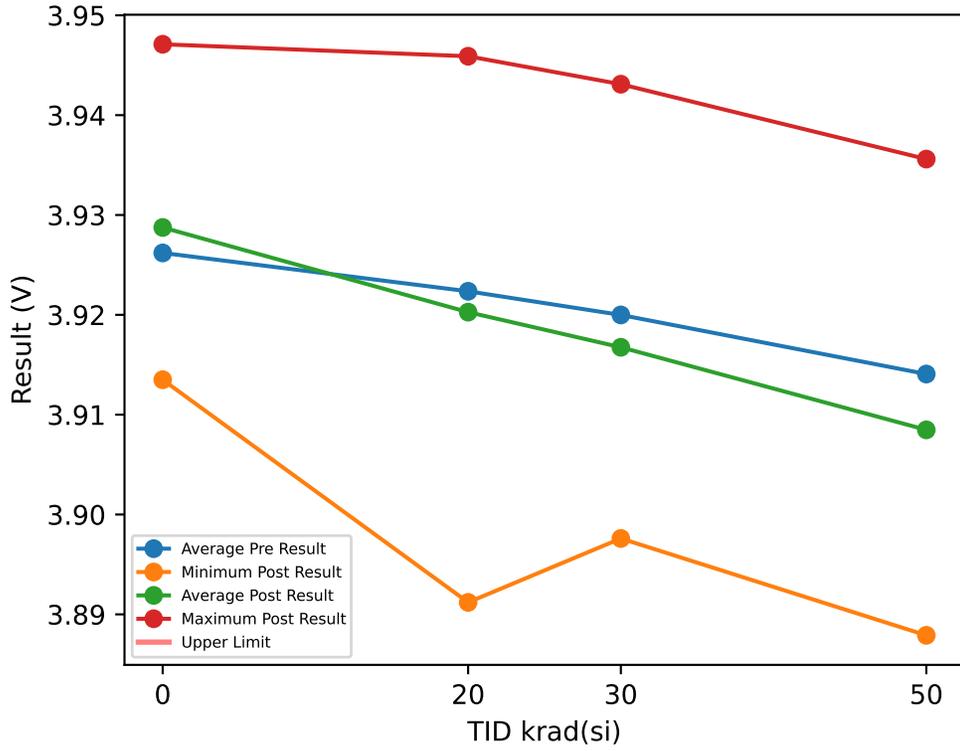
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.1043	4.0977	-0.0066
2	20	HDR BIAS	4.104	4.1041	0.0001
3	20	HDR BIAS	4.1137	4.1101	-0.0036
4	20	HDR BIAS	4.1065	4.1063	-0.0002
5	20	HDR BIAS	4.1281	4.1216	-0.0065
6	20	HDR UNBIAS	4.134	4.1303	-0.0037
7	20	HDR UNBIAS	4.1343	4.1338	-0.0005
8	20	HDR UNBIAS	4.0778	4.0706	-0.0072
9	20	HDR UNBIAS	4.0996	4.0983	-0.0013
10	20	HDR UNBIAS	4.0975	4.1	0.0025
11	30	HDR BIAS	4.1206	4.1154	-0.0052
12	30	HDR BIAS	4.1059	4.1088	0.0029
13	30	HDR BIAS	4.0987	4.0908	-0.0079
14	30	HDR BIAS	4.1106	4.1003	-0.0103
15	30	HDR BIAS	4.0853	4.0821	-0.0032
16	30	HDR UNBIAS	4.0934	4.0916	-0.0018
17	30	HDR UNBIAS	4.1024	4.1045	0.0021
18	30	HDR UNBIAS	4.1321	4.1307	-0.0014
19	30	HDR UNBIAS	4.1196	4.116	-0.0036
20	30	HDR UNBIAS	4.0894	4.0925	0.0031
21	50	HDR BIAS	4.1003	4.0995	-0.0008
22	50	HDR BIAS	4.114	4.0919	-0.0221
23	50	HDR BIAS	4.114	4.0977	-0.0163
24	50	HDR BIAS	4.0865	4.0813	-0.0052
25	50	HDR BIAS	4.0928	4.0839	-0.0089
26	50	HDR UNBIAS	4.129	4.1219	-0.0071
27	50	HDR UNBIAS	4.0971	4.103	0.0059
28	50	HDR UNBIAS	4.114	4.1013	-0.0127
29	50	HDR UNBIAS	4.0706	4.0718	0.0012
30	50	HDR UNBIAS	4.0968	4.0991	0.0023
41	0	CORRELATION	4.1059	4.1054	-0.0005
42	0	CORRELATION	4.1149	4.1144	-0.0005
43	0	CORRELATION	4.0978	4.0995	0.0017
45	0	CORRELATION	4.1321	4.1332	0.0011

### Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.0978	4.1127	4.1321	0.014713	4.0995	4.1131	4.1332	0.014719	-0.0005	0.00045	0.0017	0.001124
20	4.0778	4.11	4.1343	0.017919	4.0706	4.1073	4.1338	0.018343	-0.0072	-0.0027	0.0025	0.0033273
30	4.0853	4.1058	4.1321	0.015015	4.0821	4.1033	4.1307	0.014751	-0.0103	-0.00253	0.0031	0.0045014
50	4.0706	4.1015	4.129	0.016744	4.0718	4.0951	4.1219	0.013865	-0.0221	-0.00637	0.0059	0.0088723

# Device Test: 15.32 THRESHOLD|FALL/BP5H/14/14/////@V\_BP5H\_TH\_FALL

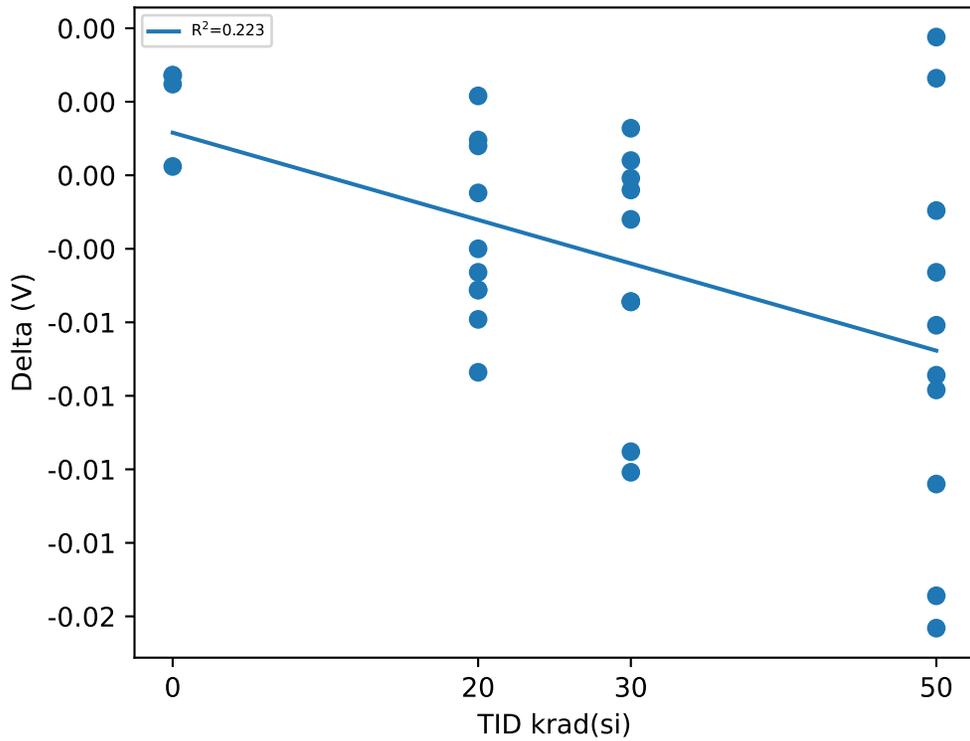
### TID vs Result Stats



### Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.9141	3.9135	-0.0006
2	20	HDR BIAS	3.9179	3.914	-0.0039
3	20	HDR BIAS	3.9259	3.921	-0.0049
4	20	HDR BIAS	3.9188	3.9215	0.0027
5	20	HDR BIAS	3.9406	3.9381	-0.0025
6	20	HDR UNBIAS	3.9432	3.9393	-0.0039
7	20	HDR UNBIAS	3.9447	3.9459	0.0012
8	20	HDR UNBIAS	3.8945	3.8912	-0.0033
9	20	HDR UNBIAS	3.9091	3.9101	0.001
10	20	HDR UNBIAS	3.9148	3.9081	-0.0067
11	30	HDR BIAS	3.9369	3.9275	-0.0094
12	30	HDR BIAS	3.9217	3.9174	-0.0043
13	30	HDR BIAS	3.9094	3.9051	-0.0043
14	30	HDR BIAS	3.9229	3.9128	-0.0101
15	30	HDR BIAS	3.9019	3.8976	-0.0043
16	30	HDR UNBIAS	3.9085	3.9084	-0.0001
17	30	HDR UNBIAS	3.9147	3.9132	-0.0015
18	30	HDR UNBIAS	3.9426	3.9431	0.0005
19	30	HDR UNBIAS	3.9334	3.935	0.0016
20	30	HDR UNBIAS	3.9079	3.9074	-0.0005
21	50	HDR BIAS	3.9197	3.9129	-0.0068
22	50	HDR BIAS	3.9235	3.9081	-0.0154
23	50	HDR BIAS	3.9234	3.9091	-0.0143
24	50	HDR BIAS	3.8976	3.8943	-0.0033
25	50	HDR BIAS	3.9034	3.8929	-0.0105
26	50	HDR UNBIAS	3.9429	3.9356	-0.0073
27	50	HDR UNBIAS	3.9091	3.9138	0.0047
28	50	HDR UNBIAS	3.9238	3.9187	-0.0051
29	50	HDR UNBIAS	3.8891	3.8879	-0.0012
30	50	HDR UNBIAS	3.9082	3.9115	0.0033
41	0	CORRELATION	3.9185	3.9216	0.0031
42	0	CORRELATION	3.9325	3.9328	0.0003
43	0	CORRELATION	3.9101	3.9135	0.0034
45	0	CORRELATION	3.9437	3.9471	0.0034

### TID vs Post - Pre Exposure Delta

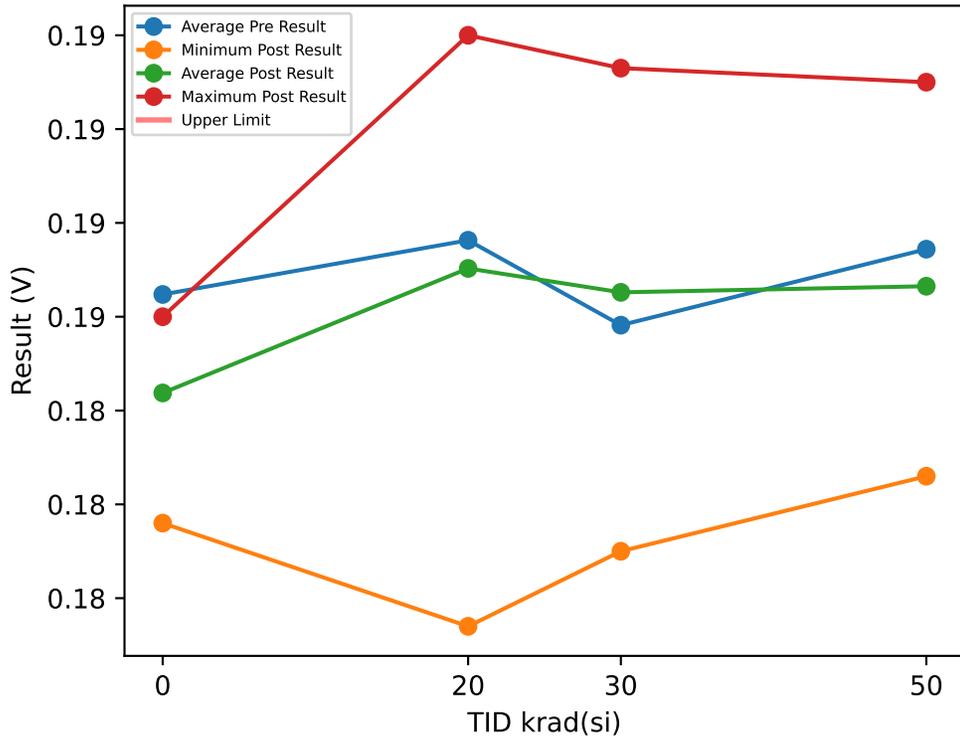


### Test Statistics (V)

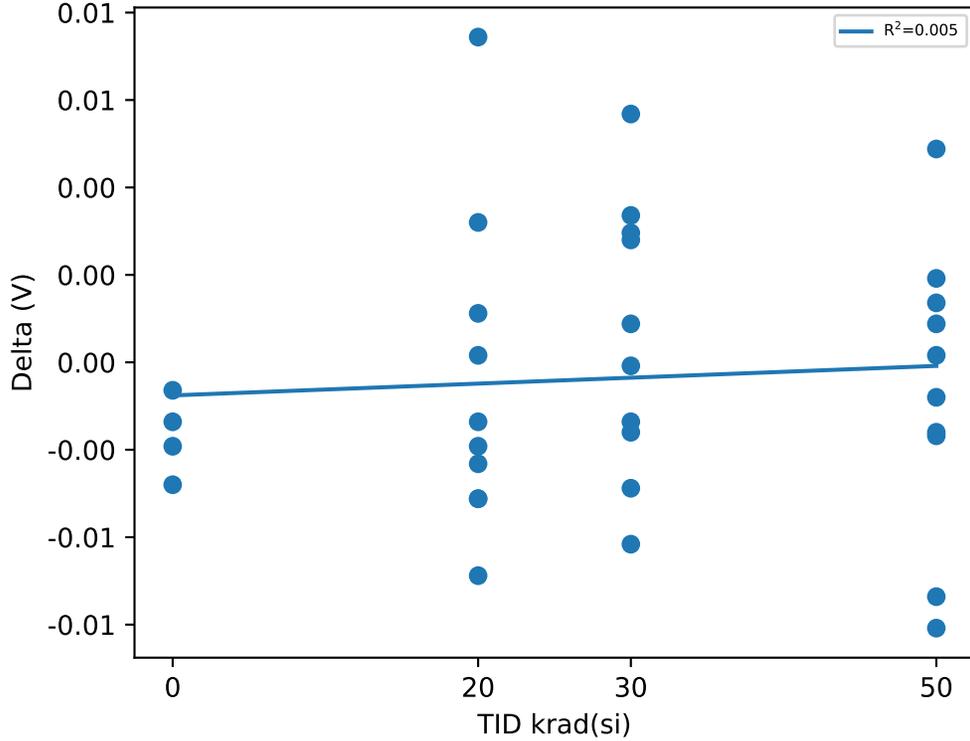
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.9101	3.9262	3.9437	0.014882	3.9135	3.9287	3.9471	0.014569	0.0003	0.00255	0.0034	0.0015067
20	3.8945	3.9224	3.9447	0.016291	3.8912	3.9203	3.9459	0.016736	-0.0067	-0.00209	0.0027	0.0030344
30	3.9019	3.92	3.9426	0.01388	3.8976	3.9167	3.9431	0.014264	-0.0101	-0.00324	0.0016	0.0040302
50	3.8891	3.9141	3.9429	0.015639	3.8879	3.9085	3.9356	0.014003	-0.0154	-0.00559	0.0047	0.0067517

# Device Test: 15.33 THRESHOLD|HYST/BP5H/14/14////@V\_BP5H\_TH\_HYST

### TID vs Result Stats



### TID vs Post - Pre Exposure Delta



### Test Results (No Limits Specified (V))

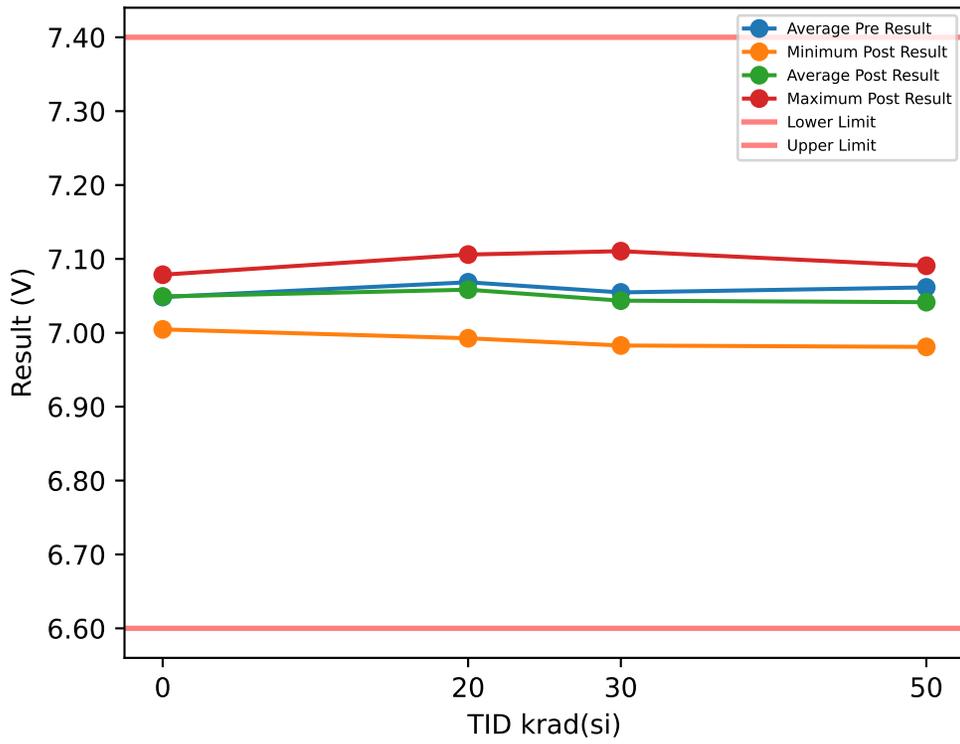
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.1903	0.1842	-0.0061
2	20	HDR BIAS	0.1861	0.1901	0.004
3	20	HDR BIAS	0.1878	0.1892	0.0014
4	20	HDR BIAS	0.1877	0.1848	-0.0029
5	20	HDR BIAS	0.1874	0.1835	-0.0039
6	20	HDR UNBIAS	0.1908	0.191	0.0002
7	20	HDR UNBIAS	0.1896	0.1879	-0.0017
8	20	HDR UNBIAS	0.1833	0.1794	-0.0039
9	20	HDR UNBIAS	0.1906	0.1882	-0.0024
10	20	HDR UNBIAS	0.1827	0.192	0.0093
11	30	HDR BIAS	0.1837	0.1879	0.0042
12	30	HDR BIAS	0.1842	0.1913	0.0071
13	30	HDR BIAS	0.1893	0.1857	-0.0036
14	30	HDR BIAS	0.1877	0.1876	-0.0001
15	30	HDR BIAS	0.1834	0.1845	0.0011
16	30	HDR UNBIAS	0.1849	0.1832	-0.0017
17	30	HDR UNBIAS	0.1878	0.1913	0.0035
18	30	HDR UNBIAS	0.1896	0.1876	-0.002
19	30	HDR UNBIAS	0.1862	0.181	-0.0052
20	30	HDR UNBIAS	0.1814	0.1851	0.0037
21	50	HDR BIAS	0.1806	0.1867	0.0061
22	50	HDR BIAS	0.1905	0.1838	-0.0067
23	50	HDR BIAS	0.1906	0.1885	-0.0021
24	50	HDR BIAS	0.1889	0.1869	-0.002
25	50	HDR BIAS	0.1893	0.191	0.0017
26	50	HDR UNBIAS	0.1861	0.1863	0.0002
27	50	HDR UNBIAS	0.1881	0.1892	0.0011
28	50	HDR UNBIAS	0.1902	0.1826	-0.0076
29	50	HDR UNBIAS	0.1815	0.1839	0.0024
30	50	HDR UNBIAS	0.1886	0.1876	-0.001
41	0	CORRELATION	0.1874	0.1839	-0.0035
42	0	CORRELATION	0.1824	0.1816	-0.0008
43	0	CORRELATION	0.1877	0.186	-0.0017
45	0	CORRELATION	0.1884	0.186	-0.0024

### 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	0.1824	0.18648	0.1884	0.0027488	0.1816	0.18438	0.186	0.0020982	-0.0035	-0.0021	-0.0008	0.0011402
20	0.1827	0.18763	0.1908	0.0028937	0.1794	0.18703	0.192	0.0039494	-0.0061	-0.0006	0.0093	0.0045409
30	0.1814	0.18582	0.1896	0.0027357	0.181	0.18652	0.1913	0.0033031	-0.0052	0.0007	0.0071	0.0039044
50	0.1806	0.18744	0.1906	0.0036241	0.1826	0.18665	0.191	0.0026252	-0.0076	-0.00079	0.0061	0.0041221

# Device Test: 15.4 THRESHOLD|RISE/BOOT/12/////@V\_BOOT\_TH\_RISE

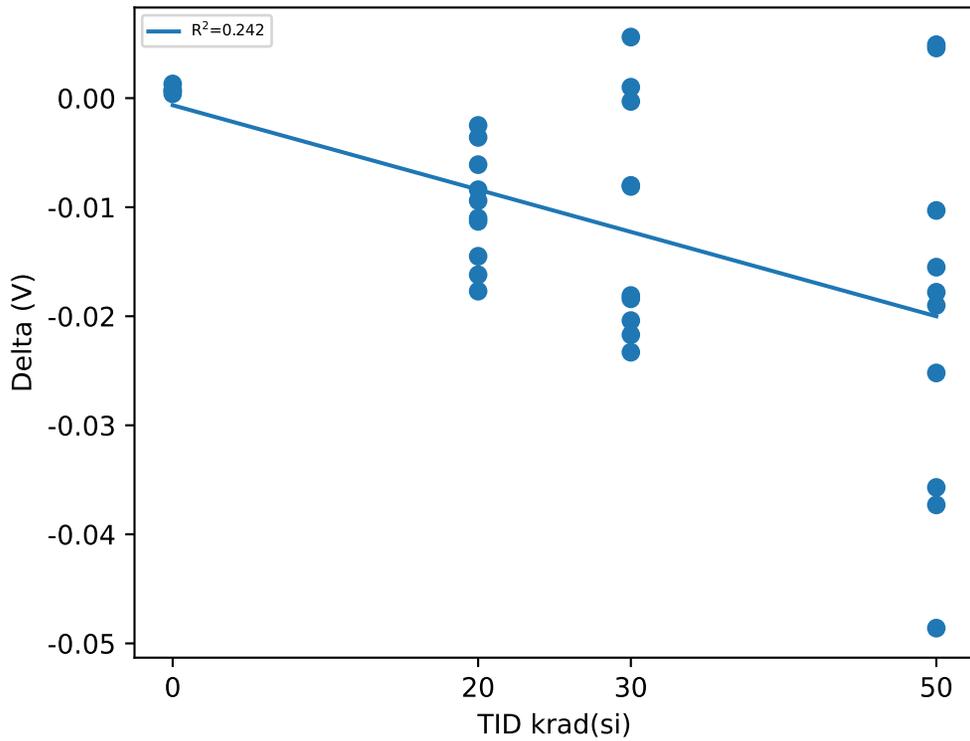
### TID vs Result Stats



### Test Results (Lower Limit = 6.6, Upper Limit = 7.4 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	7.098	7.0803	-0.0177
2	20	HDR BIAS	7.0916	7.0822	-0.0094
3	20	HDR BIAS	7.1221	7.1059	-0.0162
4	20	HDR BIAS	7.0782	7.0637	-0.0145
5	20	HDR BIAS	7.1003	7.0893	-0.011
6	20	HDR UNBIAS	7.0377	7.0341	-0.0036
7	20	HDR UNBIAS	7.1052	7.0939	-0.0113
8	20	HDR UNBIAS	7.001	6.9926	-0.0084
9	20	HDR UNBIAS	7.0445	7.0384	-0.0061
10	20	HDR UNBIAS	7.0055	7.003	-0.0025
11	30	HDR BIAS	7.0912	7.0679	-0.0233
12	30	HDR BIAS	7.1165	7.0981	-0.0184
13	30	HDR BIAS	7.0198	6.9994	-0.0204
14	30	HDR BIAS	7.1286	7.1105	-0.0181
15	30	HDR BIAS	7.0045	6.9828	-0.0217
16	30	HDR UNBIAS	7.0042	6.9961	-0.0081
17	30	HDR UNBIAS	7.0474	7.0484	0.001
18	30	HDR UNBIAS	7.0656	7.0653	-0.0003
19	30	HDR UNBIAS	7.0477	7.0397	-0.008
20	30	HDR UNBIAS	7.0211	7.0267	0.0056
21	50	HDR BIAS	7.0045	6.9867	-0.0178
22	50	HDR BIAS	7.0964	7.0591	-0.0373
23	50	HDR BIAS	7.0295	6.9809	-0.0486
24	50	HDR BIAS	7.0841	7.0484	-0.0357
25	50	HDR BIAS	7.0503	7.0251	-0.0252
26	50	HDR UNBIAS	7.076	7.0806	0.0046
27	50	HDR UNBIAS	7.0273	7.0322	0.0049
28	50	HDR UNBIAS	7.1097	7.0907	-0.019
29	50	HDR UNBIAS	7.0691	7.0536	-0.0155
30	50	HDR UNBIAS	7.0675	7.0572	-0.0103
41	0	CORRELATION	7.0039	7.0046	0.0007
42	0	CORRELATION	7.0685	7.0689	0.0004
43	0	CORRELATION	7.0779	7.0786	0.0007
45	0	CORRELATION	7.0432	7.0445	0.0013

### TID vs Post - Pre Exposure Delta

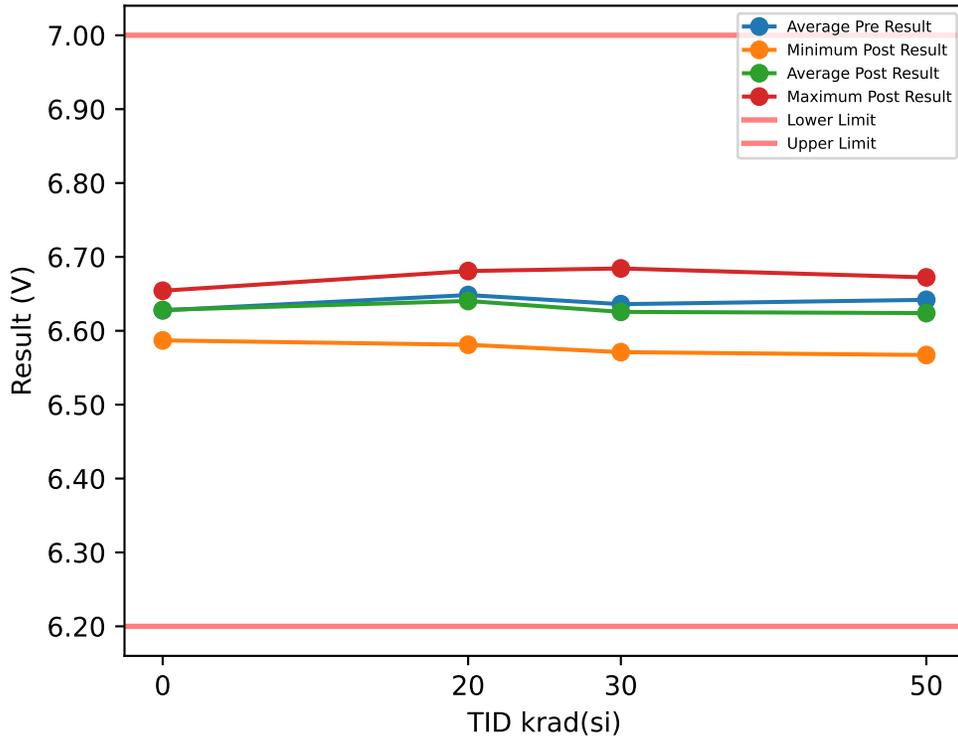


### Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	7.0039	7.0484	7.0779	0.033073	7.0046	7.0492	7.0786	0.032983	0.0004	0.000775	0.0013	0.00037749
20	7.001	7.0684	7.1221	0.043178	6.9926	7.0583	7.1059	0.039348	-0.0177	-0.01007	-0.0025	0.0051203
30	7.0042	7.0547	7.1286	0.045032	6.9828	7.0435	7.1105	0.043125	-0.0233	-0.01117	0.0056	0.010596
50	7.0045	7.0614	7.1097	0.033207	6.9809	7.0415	7.0907	0.036103	-0.0486	-0.01999	0.0049	0.017436

# Device Test: 15.5 THRESHOLD|FALL/BOOT/12/////@V\_BOOT\_TH\_FALL

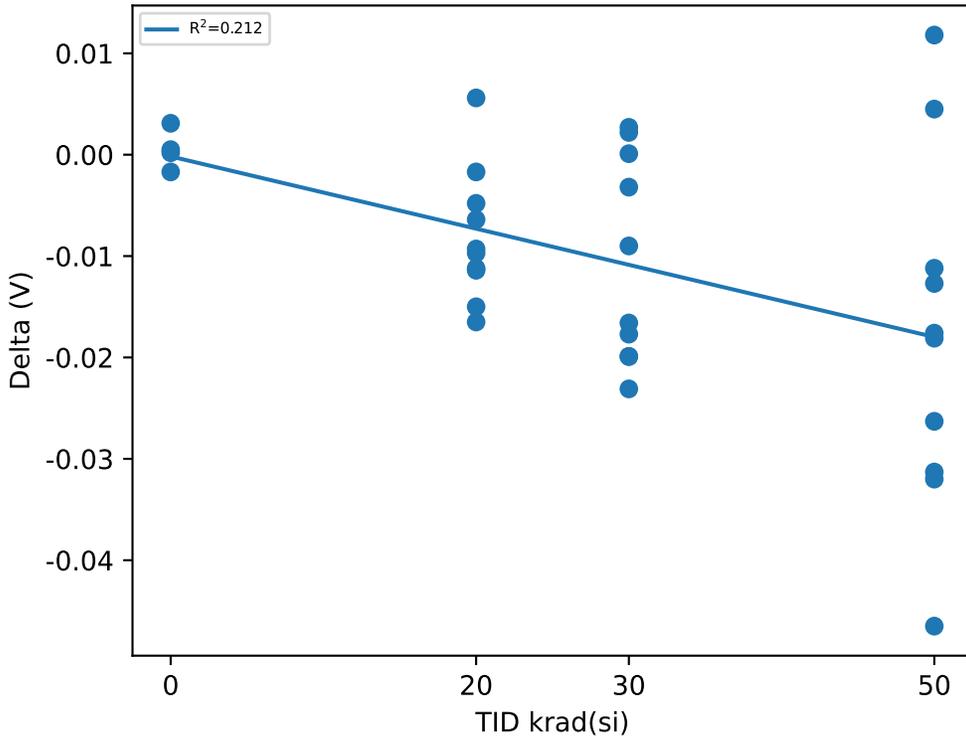
### TID vs Result Stats



### Test Results (Lower Limit = 6.2, Upper Limit = 7.0 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	6.676	6.6646	-0.0114
2	20	HDR BIAS	6.6738	6.6626	-0.0112
3	20	HDR BIAS	6.6974	6.6809	-0.0165
4	20	HDR BIAS	6.6547	6.6454	-0.0093
5	20	HDR BIAS	6.6763	6.6666	-0.0097
6	20	HDR UNBIAS	6.6242	6.6194	-0.0048
7	20	HDR UNBIAS	6.6822	6.6672	-0.015
8	20	HDR UNBIAS	6.5875	6.5811	-0.0064
9	20	HDR UNBIAS	6.6267	6.625	-0.0017
10	20	HDR UNBIAS	6.5852	6.5908	0.0056
11	30	HDR BIAS	6.6705	6.6474	-0.0231
12	30	HDR BIAS	6.6982	6.6805	-0.0177
13	30	HDR BIAS	6.6059	6.5893	-0.0166
14	30	HDR BIAS	6.7043	6.6844	-0.0199
15	30	HDR BIAS	6.591	6.5711	-0.0199
16	30	HDR UNBIAS	6.5859	6.5769	-0.009
17	30	HDR UNBIAS	6.628	6.6302	0.0022
18	30	HDR UNBIAS	6.6485	6.6486	0.0001
19	30	HDR UNBIAS	6.6276	6.6244	-0.0032
20	30	HDR UNBIAS	6.6005	6.6032	0.0027
21	50	HDR BIAS	6.5848	6.5672	-0.0176
22	50	HDR BIAS	6.6709	6.6389	-0.032
23	50	HDR BIAS	6.6147	6.5682	-0.0465
24	50	HDR BIAS	6.6621	6.6308	-0.0313
25	50	HDR BIAS	6.639	6.6127	-0.0263
26	50	HDR UNBIAS	6.6508	6.6626	0.0118
27	50	HDR UNBIAS	6.6134	6.6179	0.0045
28	50	HDR UNBIAS	6.6904	6.6723	-0.0181
29	50	HDR UNBIAS	6.6484	6.6357	-0.0127
30	50	HDR UNBIAS	6.6446	6.6334	-0.0112
41	0	CORRELATION	6.5868	6.587	0.0002
42	0	CORRELATION	6.6458	6.6441	-0.0017
43	0	CORRELATION	6.6537	6.6542	0.0005
45	0	CORRELATION	6.6244	6.6275	0.0031

### TID vs Post - Pre Exposure Delta

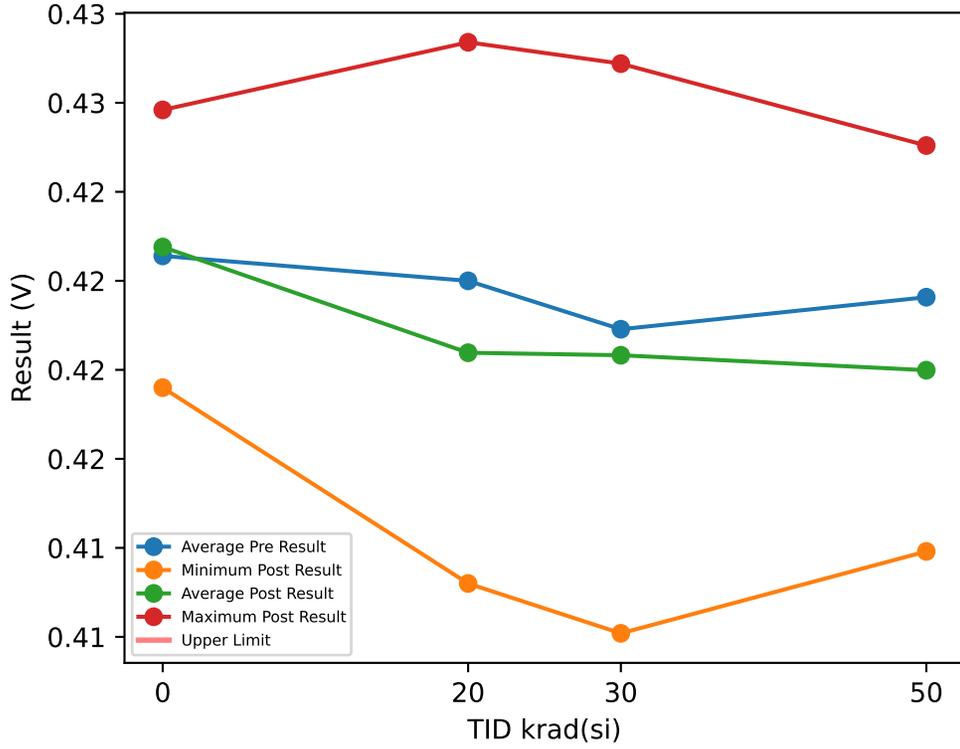


### Test Statistics (V)

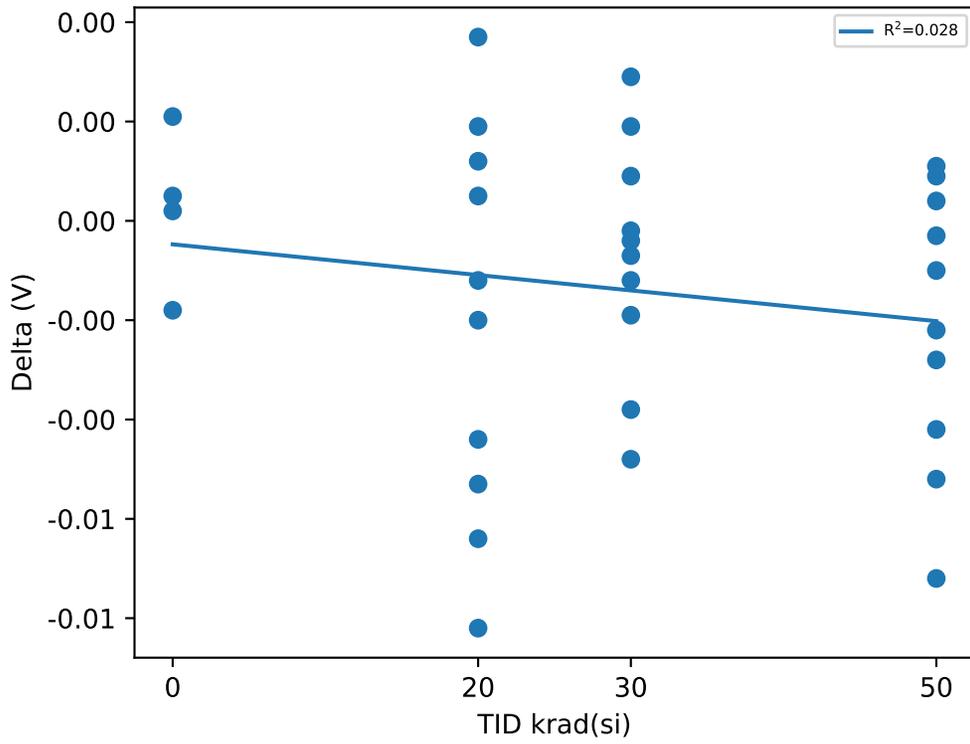
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	6.5868	6.6277	6.6537	0.029929	6.587	6.6282	6.6542	0.02959	-0.0017	0.000525	0.0031	0.0019738
20	6.5852	6.6484	6.6974	0.040177	6.5811	6.6404	6.6809	0.034646	-0.0165	-0.00804	0.0056	0.006541
30	6.5859	6.636	6.7043	0.043097	6.5711	6.6256	6.6844	0.040359	-0.0231	-0.01044	0.0027	0.010154
50	6.5848	6.6419	6.6904	0.030824	6.5672	6.624	6.6723	0.034675	-0.0465	-0.01794	0.0118	0.017393

# Device Test: 15.6 THRESHOLD|HYST/BOOT/12/////@V\_BOOT\_TH\_HYST

## TID vs Result Stats



## TID vs Post - Pre Exposure Delta



## Test Results (No Limits Specified (V))

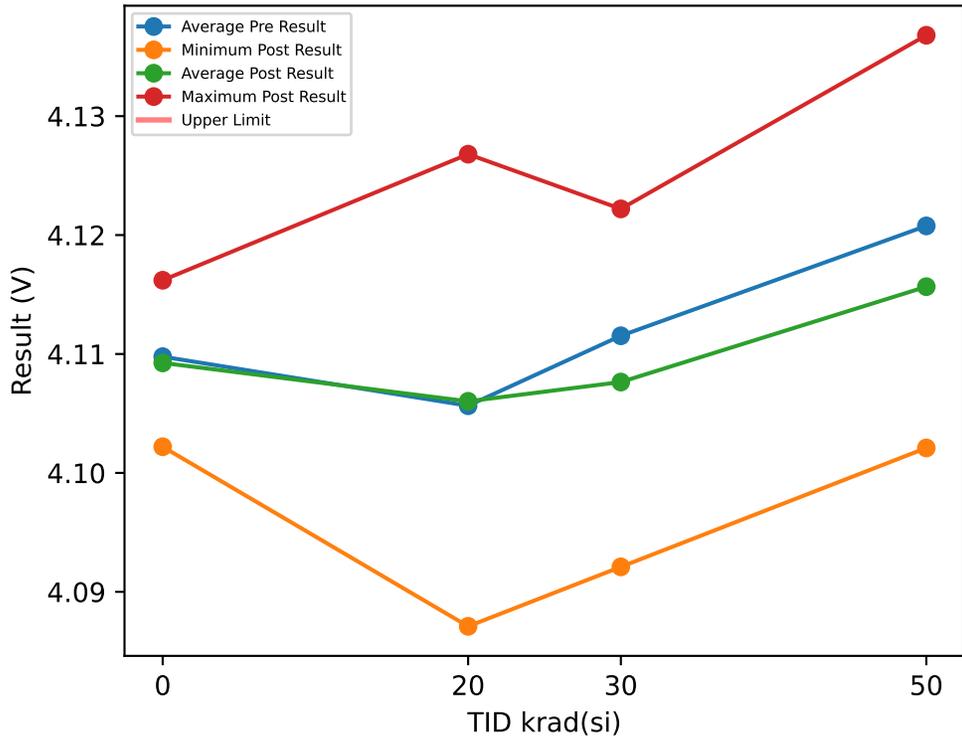
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.422	0.4156	-0.0064
2	20	HDR BIAS	0.4177	0.4196	0.0019
3	20	HDR BIAS	0.4246	0.4251	0.0005
4	20	HDR BIAS	0.4236	0.4183	-0.0053
5	20	HDR BIAS	0.424	0.4228	-0.0012
6	20	HDR UNBIAS	0.4135	0.4147	0.0012
7	20	HDR UNBIAS	0.423	0.4267	0.0037
8	20	HDR UNBIAS	0.4135	0.4115	-0.002
9	20	HDR UNBIAS	0.4178	0.4134	-0.0044
10	20	HDR UNBIAS	0.4203	0.4121	-0.0082
11	30	HDR BIAS	0.4207	0.4205	-0.0002
12	30	HDR BIAS	0.4184	0.4177	-0.0007
13	30	HDR BIAS	0.4139	0.4101	-0.0038
14	30	HDR BIAS	0.4242	0.4261	0.0019
15	30	HDR BIAS	0.4136	0.4117	-0.0019
16	30	HDR UNBIAS	0.4184	0.4193	0.0009
17	30	HDR UNBIAS	0.4194	0.4182	-0.0012
18	30	HDR UNBIAS	0.4171	0.4167	-0.0004
19	30	HDR UNBIAS	0.4201	0.4153	-0.0048
20	30	HDR UNBIAS	0.4206	0.4235	0.0029
21	50	HDR BIAS	0.4198	0.4195	-0.0003
22	50	HDR BIAS	0.4255	0.4203	-0.0052
23	50	HDR BIAS	0.4149	0.4127	-0.0022
24	50	HDR BIAS	0.4219	0.4177	-0.0042
25	50	HDR BIAS	0.4113	0.4124	0.0011
26	50	HDR UNBIAS	0.4252	0.418	-0.0072
27	50	HDR UNBIAS	0.4139	0.4143	0.0004
28	50	HDR UNBIAS	0.4193	0.4183	-0.001
29	50	HDR UNBIAS	0.4207	0.4179	-0.0028
30	50	HDR UNBIAS	0.4229	0.4238	0.0009
41	0	CORRELATION	0.4171	0.4176	0.0005
42	0	CORRELATION	0.4227	0.4248	0.0021
43	0	CORRELATION	0.4242	0.4244	0.0002
45	0	CORRELATION	0.4188	0.417	-0.0018

## 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	0.4171	0.4207	0.4242	0.0033076	0.417	0.42095	0.4248	0.0042249	-0.0018	0.00025	0.0021	0.001601
20	0.4135	0.42	0.4246	0.0041878	0.4115	0.41798	0.4267	0.0054432	-0.0082	-0.00202	0.0037	0.0039338
30	0.4136	0.41864	0.4242	0.0031983	0.4101	0.41791	0.4261	0.0048868	-0.0048	-0.00073	0.0029	0.002374
50	0.4113	0.41954	0.4255	0.0047973	0.4124	0.41749	0.4238	0.0035262	-0.0072	-0.00205	0.0011	0.0027977

# Device Test: 15.7 THRESHOLD|RISE/BP5L/10/8////@V\_BP5L\_TH\_RISE

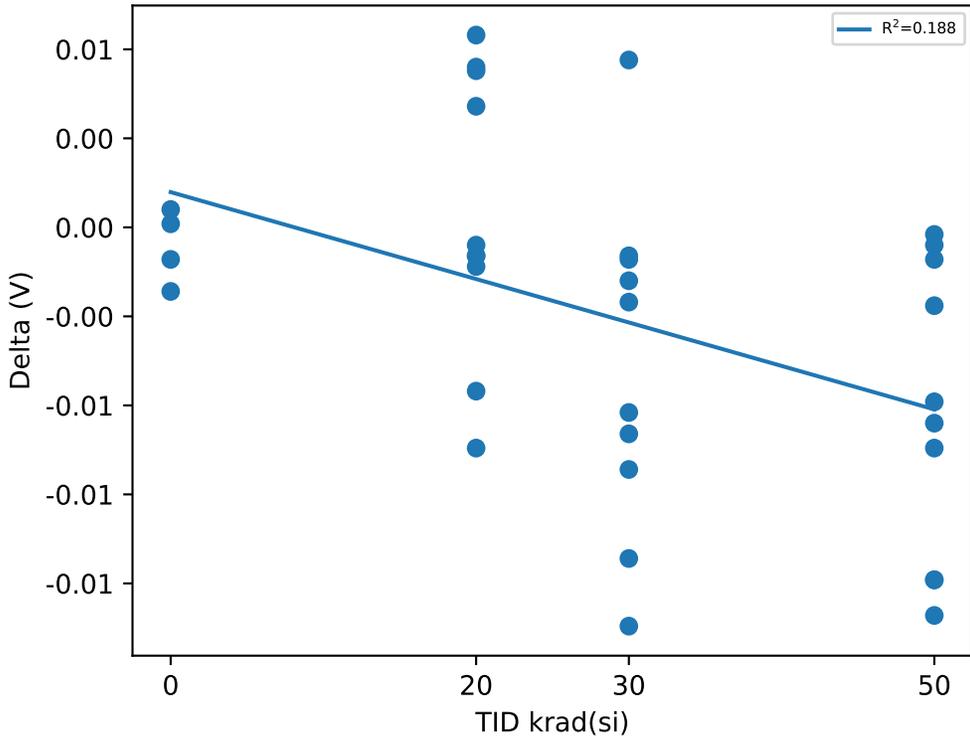
### TID vs Result Stats



### Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.097	4.1024	0.0054
2	20	HDR BIAS	4.1077	4.1069	-0.0008
3	20	HDR BIAS	4.127	4.1265	-0.0005
4	20	HDR BIAS	4.1234	4.1268	0.0034
5	20	HDR BIAS	4.1217	4.1171	-0.0046
6	20	HDR UNBIAS	4.0927	4.0916	-0.0011
7	20	HDR UNBIAS	4.1076	4.1121	0.0045
8	20	HDR UNBIAS	4.1037	4.0975	-0.0062
9	20	HDR UNBIAS	4.0827	4.0871	0.0044
10	20	HDR UNBIAS	4.093	4.0922	-0.0008
11	30	HDR BIAS	4.118	4.1112	-0.0068
12	30	HDR BIAS	4.1227	4.1115	-0.0112
13	30	HDR BIAS	4.1123	4.103	-0.0093
14	30	HDR BIAS	4.1171	4.1119	-0.0052
15	30	HDR BIAS	4.0942	4.0921	-0.0021
16	30	HDR UNBIAS	4.098	4.0972	-0.0008
17	30	HDR UNBIAS	4.098	4.1027	0.0047
18	30	HDR UNBIAS	4.1037	4.1028	-0.0009
19	30	HDR UNBIAS	4.1276	4.1218	-0.0058
20	30	HDR UNBIAS	4.1237	4.1222	-0.0015
21	50	HDR BIAS	4.1226	4.1171	-0.0055
22	50	HDR BIAS	4.139	4.1368	-0.0022
23	50	HDR BIAS	4.137	4.1321	-0.0049
24	50	HDR BIAS	4.1087	4.1025	-0.0062
25	50	HDR BIAS	4.1173	4.1168	-0.0005
26	50	HDR UNBIAS	4.1127	4.1028	-0.0099
27	50	HDR UNBIAS	4.103	4.1021	-0.0009
28	50	HDR UNBIAS	4.1174	4.1172	-0.0002
29	50	HDR UNBIAS	4.1173	4.1074	-0.0099
30	50	HDR UNBIAS	4.1327	4.1218	-0.0109
41	0	CORRELATION	4.118	4.1162	-0.0018
42	0	CORRELATION	4.1114	4.1115	0.0001
43	0	CORRELATION	4.108	4.1071	-0.0009
45	0	CORRELATION	4.1017	4.1022	0.0005

### TID vs Post - Pre Exposure Delta

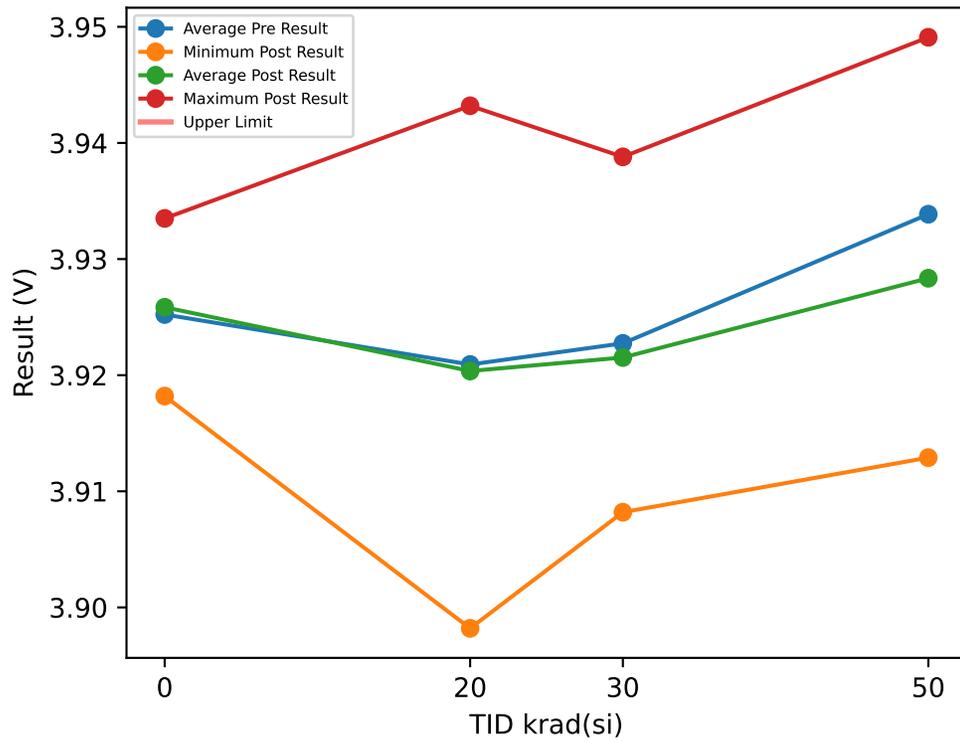


### Test Statistics (V)

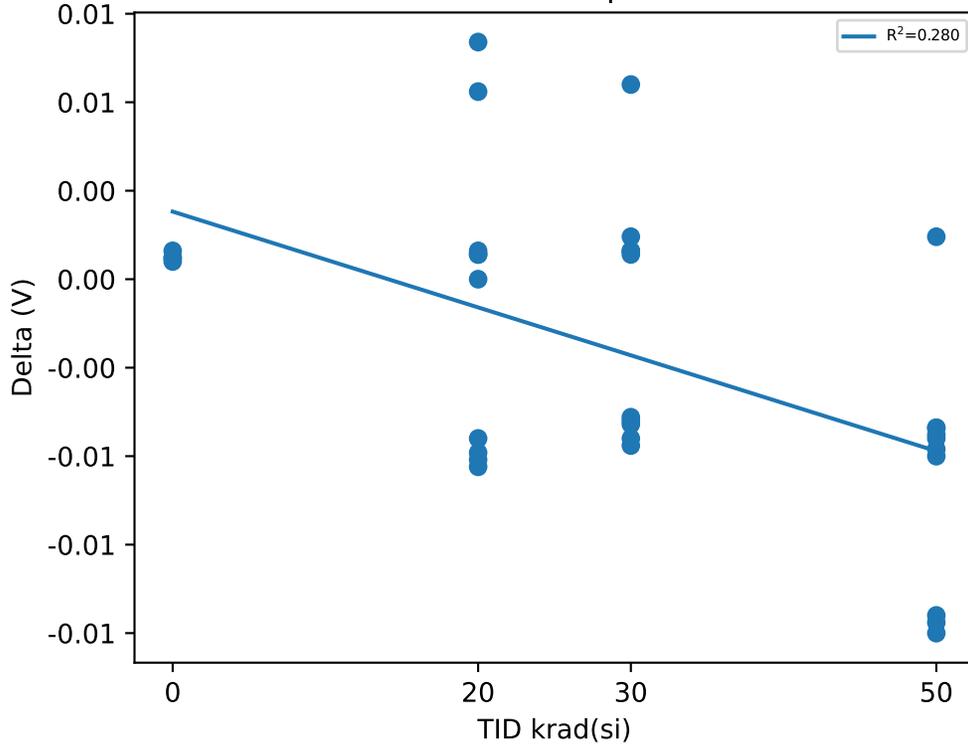
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.1017	4.1098	4.118	0.0067982	4.1022	4.1093	4.1162	0.0059914	-0.0018	-0.000525	0.0005	0.001034
20	4.0827	4.1056	4.127	0.014793	4.0871	4.106	4.1268	0.014354	-0.0062	0.00037	0.0054	0.0039623
30	4.0942	4.1115	4.1276	0.012167	4.0921	4.1076	4.1222	0.0098774	-0.0112	-0.00389	0.0047	0.0046872
50	4.103	4.1208	4.139	0.012034	4.1021	4.1157	4.1368	0.012253	-0.0109	-0.00511	-0.0002	0.0041143

# Device Test: 15.8 THRESHOLD|FALL/BP5L/10/8////@V\_BP5L\_TH\_FALL

## TID vs Result Stats



## TID vs Post - Pre Exposure Delta



## Test Results (No Limits Specified (V))

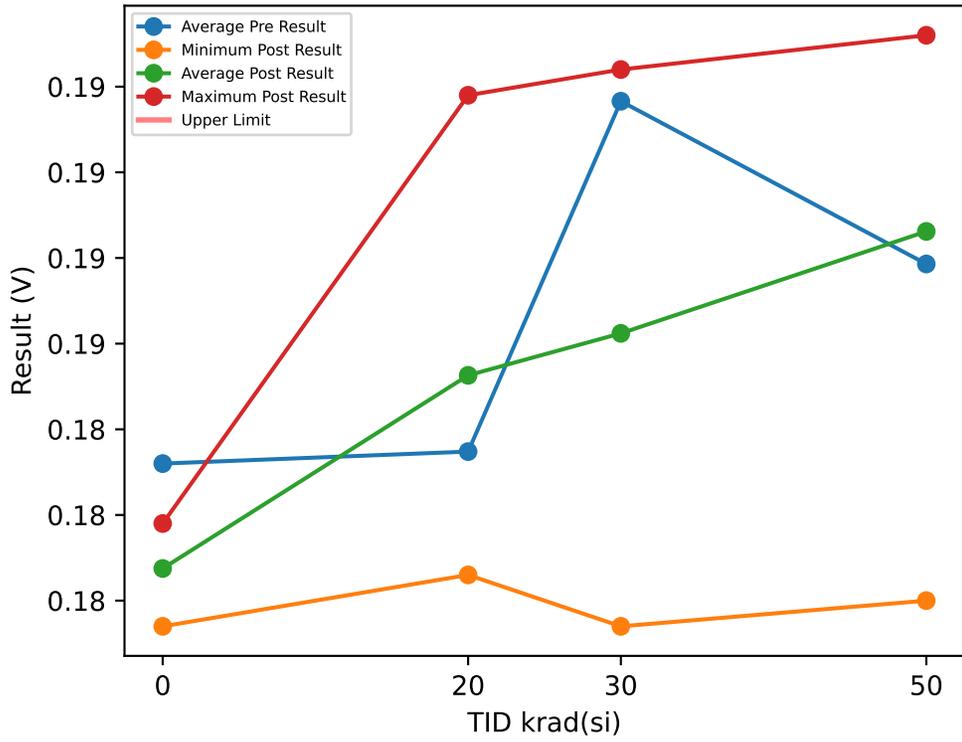
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.9177	3.9185	0.0008
2	20	HDR BIAS	3.9179	3.9186	0.0007
3	20	HDR BIAS	3.943	3.9381	-0.0049
4	20	HDR BIAS	3.9379	3.9432	0.0053
5	20	HDR BIAS	3.9383	3.9338	-0.0045
6	20	HDR UNBIAS	3.9079	3.9026	-0.0053
7	20	HDR UNBIAS	3.9221	3.9288	0.0067
8	20	HDR UNBIAS	3.9129	3.9136	0.0007
9	20	HDR UNBIAS	3.9033	3.8982	-0.0051
10	20	HDR UNBIAS	3.9082	3.9082	0
11	30	HDR BIAS	3.9277	3.9238	-0.0039
12	30	HDR BIAS	3.9329	3.9289	-0.004
13	30	HDR BIAS	3.9227	3.9182	-0.0045
14	30	HDR BIAS	3.9276	3.9235	-0.0041
15	30	HDR BIAS	3.9077	3.9085	0.0008
16	30	HDR UNBIAS	3.9129	3.9082	-0.0047
17	30	HDR UNBIAS	3.9127	3.9182	0.0055
18	30	HDR UNBIAS	3.9129	3.9136	0.0007
19	30	HDR UNBIAS	3.938	3.9388	0.0008
20	30	HDR UNBIAS	3.9323	3.9335	0.0012
21	50	HDR BIAS	3.9324	3.9282	-0.0042
22	50	HDR BIAS	3.9473	3.9485	0.0012
23	50	HDR BIAS	3.9533	3.9491	-0.0042
24	50	HDR BIAS	3.9179	3.9129	-0.005
25	50	HDR BIAS	3.9333	3.9288	-0.0045
26	50	HDR UNBIAS	3.9279	3.9182	-0.0097
27	50	HDR UNBIAS	3.918	3.9132	-0.0048
28	50	HDR UNBIAS	3.9326	3.9282	-0.0044
29	50	HDR UNBIAS	3.9327	3.9232	-0.0095
30	50	HDR UNBIAS	3.9432	3.9332	-0.01
41	0	CORRELATION	3.9329	3.9335	0.0006
42	0	CORRELATION	3.9274	3.9282	0.0008
43	0	CORRELATION	3.9229	3.9235	0.0006
45	0	CORRELATION	3.9177	3.9182	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	3.9177	3.9252	3.9329	0.0064722	3.9182	3.9259	3.9335	0.0065343	0.0005	0.000625	0.0008	0.00012583
20	3.9033	3.9209	3.943	0.014161	3.8982	3.9204	3.9432	0.015256	-0.0053	-0.00056	0.0067	0.0043439
30	3.9077	3.9227	3.938	0.010522	3.9082	3.9215	3.9388	0.010206	-0.0047	-0.00122	0.0055	0.0034791
50	3.9179	3.9339	3.9533	0.011513	3.9129	3.9283	3.9491	0.012728	-0.01	-0.00551	0.0012	0.0034174

# Device Test: 15.9 THRESHOLD|HYST/BP5L/10/8////@V\_BP5L\_TH\_HYST

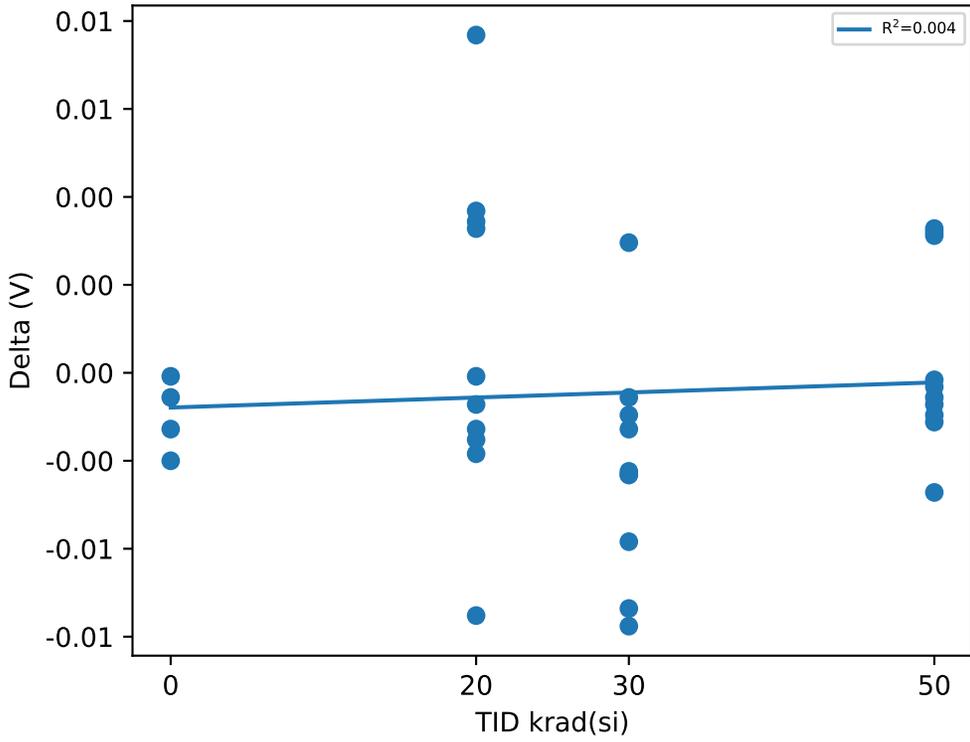
## TID vs Result Stats



## Test Results (No Limits Specified (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.1793	0.1839	0.0046
2	20	HDR BIAS	0.1899	0.1883	-0.0016
3	20	HDR BIAS	0.184	0.1883	0.0043
4	20	HDR BIAS	0.1855	0.1836	-0.0019
5	20	HDR BIAS	0.1834	0.1833	-0.0001
6	20	HDR UNBIAS	0.1848	0.1889	0.0041
7	20	HDR UNBIAS	0.1856	0.1833	-0.0023
8	20	HDR UNBIAS	0.1908	0.1839	-0.0069
9	20	HDR UNBIAS	0.1793	0.1889	0.0096
10	20	HDR UNBIAS	0.1848	0.1839	-0.0009
11	30	HDR BIAS	0.1903	0.1874	-0.0029
12	30	HDR BIAS	0.1899	0.1827	-0.0072
13	30	HDR BIAS	0.1897	0.1849	-0.0048
14	30	HDR BIAS	0.1895	0.1883	-0.0012
15	30	HDR BIAS	0.1865	0.1836	-0.0029
16	30	HDR UNBIAS	0.1852	0.1889	0.0037
17	30	HDR UNBIAS	0.1853	0.1846	-0.0007
18	30	HDR UNBIAS	0.1908	0.1892	-0.0016
19	30	HDR UNBIAS	0.1897	0.183	-0.0067
20	30	HDR UNBIAS	0.1914	0.1886	-0.0028
21	50	HDR BIAS	0.1903	0.1889	-0.0014
22	50	HDR BIAS	0.1917	0.1883	-0.0034
23	50	HDR BIAS	0.1837	0.183	-0.0007
24	50	HDR BIAS	0.1908	0.1896	-0.0012
25	50	HDR BIAS	0.184	0.188	0.004
26	50	HDR UNBIAS	0.1848	0.1846	-0.0002
27	50	HDR UNBIAS	0.185	0.1889	0.0039
28	50	HDR UNBIAS	0.1848	0.1889	0.0041
29	50	HDR UNBIAS	0.1847	0.1843	-0.0004
30	50	HDR UNBIAS	0.1895	0.1886	-0.0009
41	0	CORRELATION	0.1852	0.1827	-0.0025
42	0	CORRELATION	0.184	0.1833	-0.0007
43	0	CORRELATION	0.1852	0.1836	-0.0016
45	0	CORRELATION	0.184	0.1839	-0.0001

## TID vs Post - Pre Exposure Delta

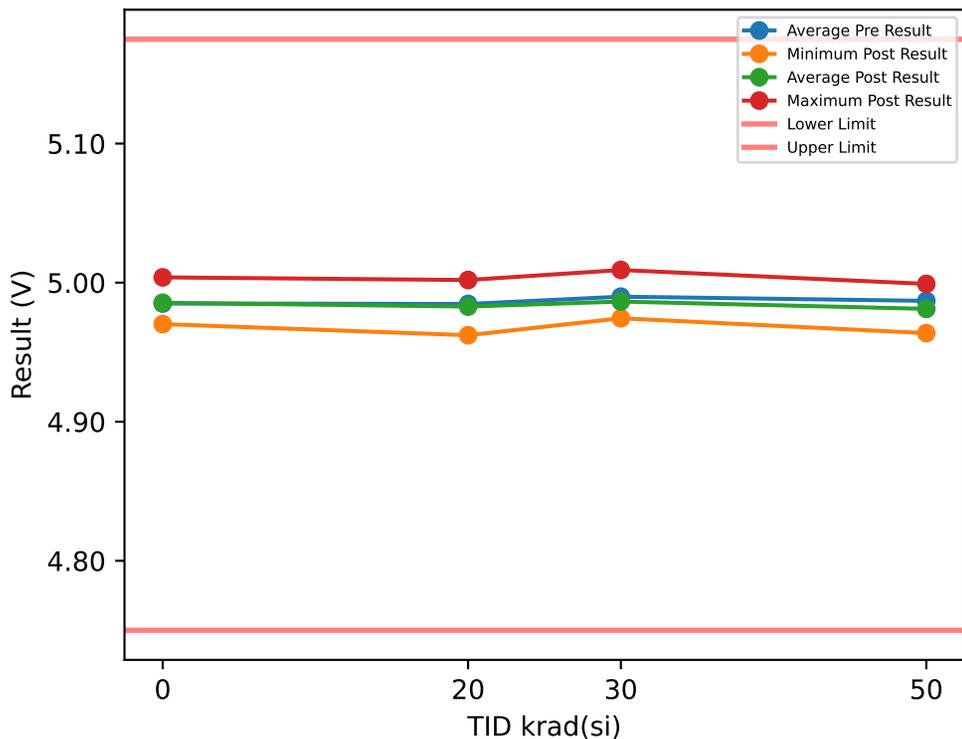


## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.184	0.1846	0.1852	0.00069282	0.1827	0.18338	0.1839	0.00051235	-0.0025	-0.001225	-0.0001	0.00105
20	0.1793	0.18474	0.1908	0.0037447	0.1833	0.18563	0.1889	0.0025734	-0.0069	0.00089	0.0096	0.004721
30	0.1852	0.18883	0.1914	0.0022809	0.1827	0.18612	0.1892	0.0026106	-0.0072	-0.00271	0.0037	0.0031476
50	0.1837	0.18693	0.1917	0.0032056	0.183	0.18731	0.1896	0.0023788	-0.0034	0.00038	0.0041	0.0026465

# Device Test: 16.1 LEVEL|OUT/BP5L/10/8////@V\_BP5L

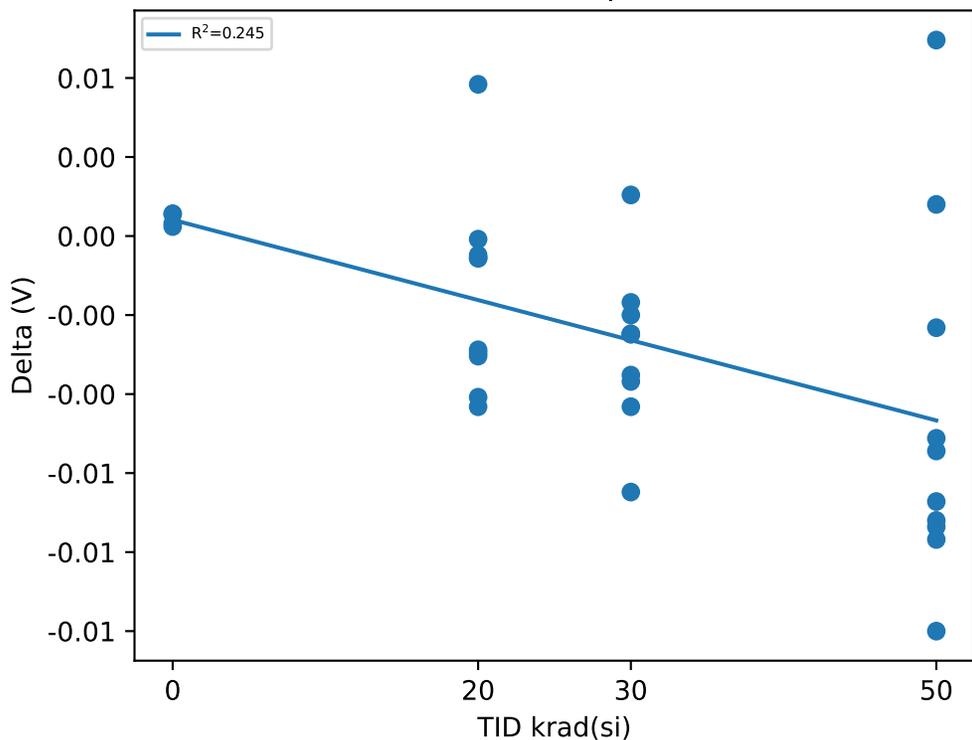
## TID vs Result Stats



## Test Results (Lower Limit = 4.75, Upper Limit = 5.175 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.9868	4.9916	0.0048
2	20	HDR BIAS	4.9944	4.9937	-0.0007
3	20	HDR BIAS	4.9855	4.9848	-0.0007
4	20	HDR BIAS	4.9773	4.9767	-0.0006
5	20	HDR BIAS	4.9676	4.9622	-0.0054
6	20	HDR UNBIAS	4.977	4.9733	-0.0037
7	20	HDR UNBIAS	4.9824	4.9823	-0.0001
8	20	HDR UNBIAS	5.007	5.0019	-0.0051
9	20	HDR UNBIAS	4.9801	4.9765	-0.0036
10	20	HDR UNBIAS	4.9887	4.9849	-0.0038
11	30	HDR BIAS	4.9842	4.9796	-0.0046
12	30	HDR BIAS	5.0017	4.9986	-0.0031
13	30	HDR BIAS	5.0005	4.9974	-0.0031
14	30	HDR BIAS	5.0078	5.0091	0.0013
15	30	HDR BIAS	4.9879	4.9848	-0.0031
16	30	HDR UNBIAS	4.9875	4.9831	-0.0044
17	30	HDR UNBIAS	4.9882	4.9801	-0.0081
18	30	HDR UNBIAS	4.9869	4.9815	-0.0054
19	30	HDR UNBIAS	4.9769	4.9744	-0.0025
20	30	HDR UNBIAS	4.9775	4.9754	-0.0021
21	50	HDR BIAS	5.0051	4.9983	-0.0068
22	50	HDR BIAS	4.994	4.995	0.001
23	50	HDR BIAS	5.0081	4.9991	-0.009
24	50	HDR BIAS	4.9783	4.9719	-0.0064
25	50	HDR BIAS	4.9744	4.9715	-0.0029
26	50	HDR UNBIAS	4.9795	4.9711	-0.0084
27	50	HDR UNBIAS	5.0055	4.9963	-0.0092
28	50	HDR UNBIAS	4.9733	4.9637	-0.0096
29	50	HDR UNBIAS	4.9795	4.967	-0.0125
30	50	HDR UNBIAS	4.9714	4.9776	0.0062
41	0	CORRELATION	4.9798	4.9802	0.0004
42	0	CORRELATION	5.0031	5.0038	0.0007
43	0	CORRELATION	4.9876	4.9879	0.0003
45	0	CORRELATION	4.9695	4.9702	0.0007

## TID vs Post - Pre Exposure Delta

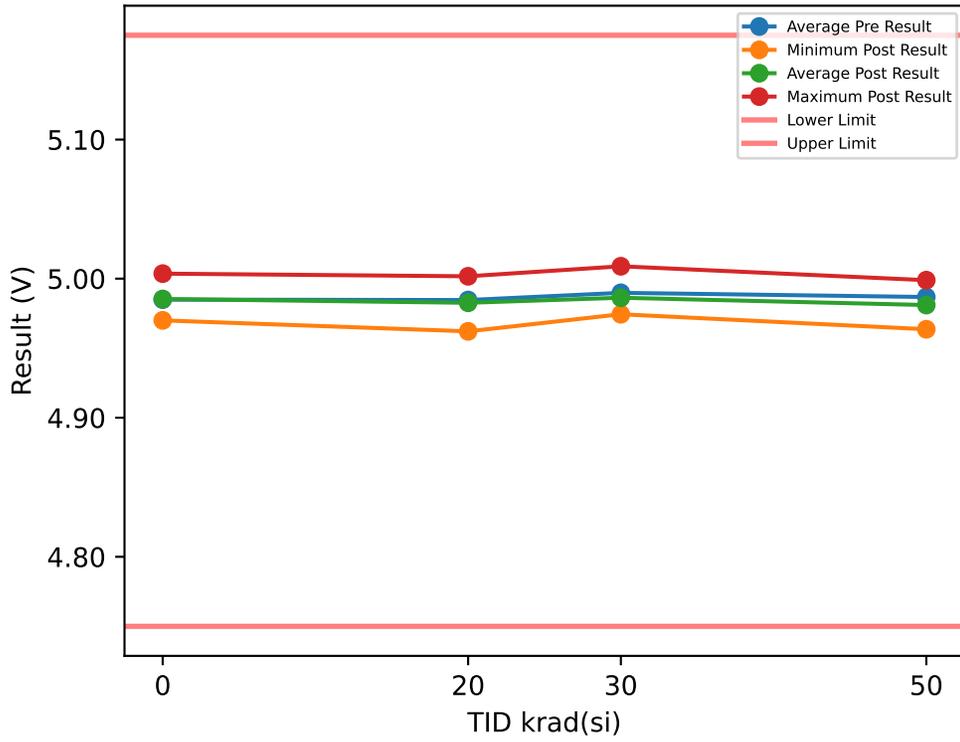


## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.9695	4.985	5.0031	0.014162	4.9702	4.9855	5.0038	0.014175	0.0003	0.000525	0.0007	0.00020616
20	4.9676	4.9847	5.007	0.010777	4.9622	4.9828	5.0019	0.011359	-0.0054	-0.00189	0.0048	0.0030719
30	4.9769	4.9899	5.0078	0.010268	4.9744	4.9864	5.0091	0.011419	-0.0081	-0.00351	0.0013	0.0024329
50	4.9714	4.9869	5.0081	0.014689	4.9637	4.9812	4.9991	0.014278	-0.0125	-0.00576	0.0062	0.0056557

# Device Test: 16.2 LEVEL|OUT/BP5L/12/10////@V\_BP5L

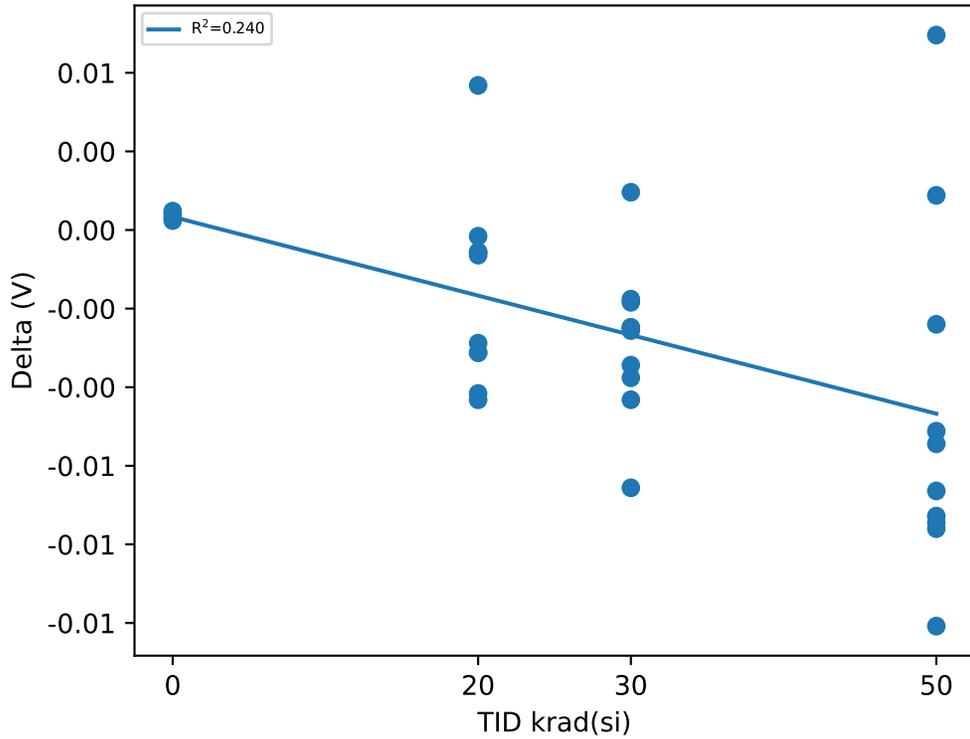
## TID vs Result Stats



## Test Results (Lower Limit = 4.75, Upper Limit = 5.175 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.9868	4.9914	0.0046
2	20	HDR BIAS	4.9944	4.9936	-0.0008
3	20	HDR BIAS	4.9853	4.9846	-0.0007
4	20	HDR BIAS	4.9773	4.9766	-0.0007
5	20	HDR BIAS	4.9675	4.9621	-0.0054
6	20	HDR UNBIAS	4.977	4.9731	-0.0039
7	20	HDR UNBIAS	4.9824	4.9822	-0.0002
8	20	HDR UNBIAS	5.0069	5.0017	-0.0052
9	20	HDR UNBIAS	4.98	4.9764	-0.0036
10	20	HDR UNBIAS	4.9886	4.9847	-0.0039
11	30	HDR BIAS	4.9841	4.9794	-0.0047
12	30	HDR BIAS	5.0016	4.9985	-0.0031
13	30	HDR BIAS	5.0003	4.9972	-0.0031
14	30	HDR BIAS	5.0077	5.0089	0.0012
15	30	HDR BIAS	4.9878	4.9846	-0.0032
16	30	HDR UNBIAS	4.9874	4.9831	-0.0043
17	30	HDR UNBIAS	4.9882	4.98	-0.0082
18	30	HDR UNBIAS	4.9868	4.9814	-0.0054
19	30	HDR UNBIAS	4.9767	4.9744	-0.0023
20	30	HDR UNBIAS	4.9774	4.9752	-0.0022
21	50	HDR BIAS	5.005	4.9982	-0.0068
22	50	HDR BIAS	4.9939	4.995	0.0011
23	50	HDR BIAS	5.008	4.9989	-0.0091
24	50	HDR BIAS	4.9783	4.9719	-0.0064
25	50	HDR BIAS	4.9743	4.9713	-0.003
26	50	HDR UNBIAS	4.9794	4.9711	-0.0083
27	50	HDR UNBIAS	5.0054	4.9961	-0.0093
28	50	HDR UNBIAS	4.9731	4.9636	-0.0095
29	50	HDR UNBIAS	4.9794	4.9668	-0.0126
30	50	HDR UNBIAS	4.9712	4.9774	0.0062
41	0	CORRELATION	4.9797	4.9801	0.0004
42	0	CORRELATION	5.003	5.0036	0.0006
43	0	CORRELATION	4.9875	4.9878	0.0003
45	0	CORRELATION	4.9695	4.97	0.0005

## TID vs Post - Pre Exposure Delta

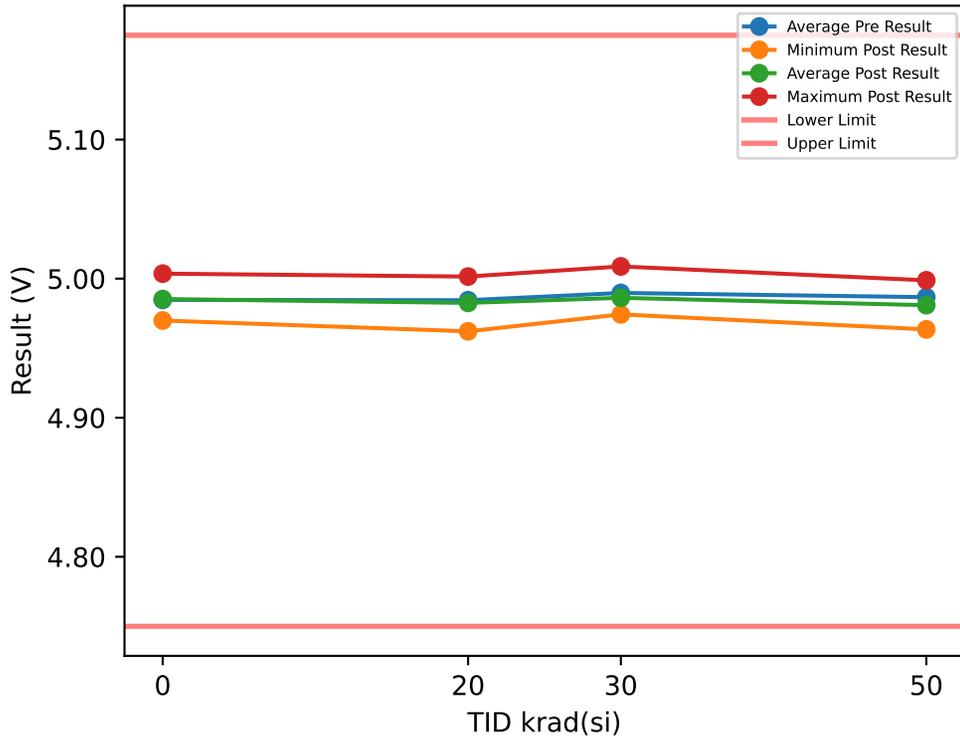


## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.9695	4.9849	5.003	0.014125	4.97	4.9854	5.0036	0.014169	0.0003	0.00045	0.0006	0.0001291
20	4.9675	4.9846	5.0069	0.010771	4.9621	4.9826	5.0017	0.011337	-0.0054	-0.00198	0.0046	0.0030404
30	4.9767	4.9898	5.0077	0.010269	4.9744	4.9863	5.0089	0.01139	-0.0082	-0.00353	0.0012	0.0024359
50	4.9712	4.9868	5.008	0.014705	4.9636	4.981	4.9989	0.014269	-0.0126	-0.00577	0.0062	0.0056776

# Device Test: 16.3 LEVEL|OUT/BP5L/14/14////@V\_BP5L

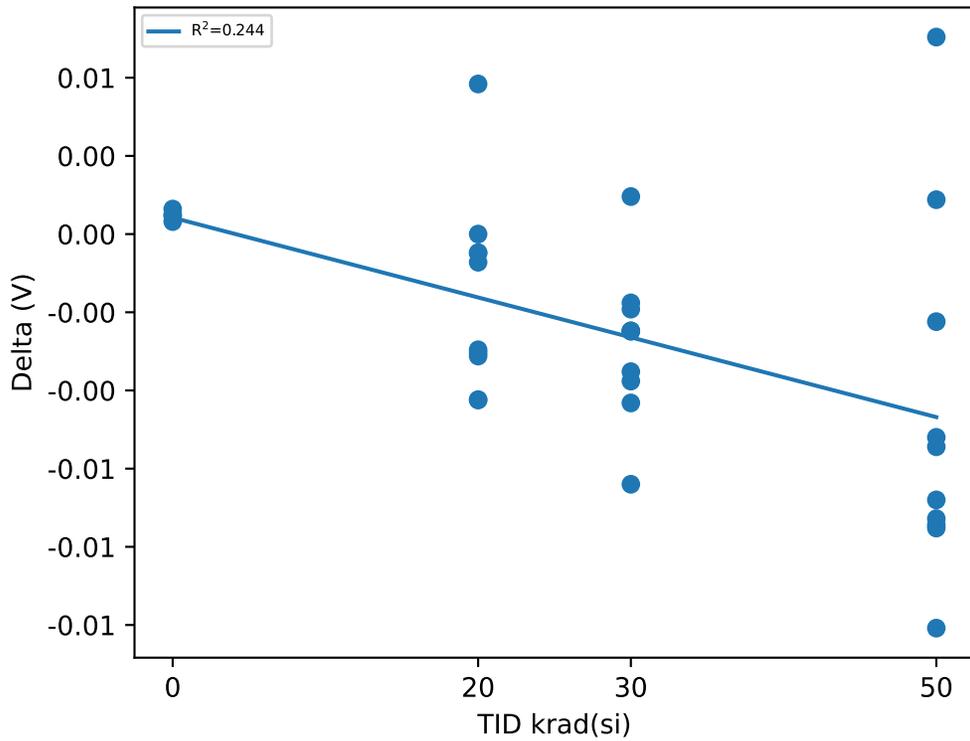
## TID vs Result Stats



## Test Results (Lower Limit = 4.75, Upper Limit = 5.175 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.9866	4.9914	0.0048
2	20	HDR BIAS	4.9943	4.9934	-0.0009
3	20	HDR BIAS	4.9852	4.9846	-0.0006
4	20	HDR BIAS	4.9771	4.9765	-0.0006
5	20	HDR BIAS	4.9674	4.9621	-0.0053
6	20	HDR UNBIAS	4.9769	4.973	-0.0039
7	20	HDR UNBIAS	4.9822	4.9822	0
8	20	HDR UNBIAS	5.0068	5.0015	-0.0053
9	20	HDR UNBIAS	4.9799	4.9762	-0.0037
10	20	HDR UNBIAS	4.9885	4.9847	-0.0038
11	30	HDR BIAS	4.9841	4.9794	-0.0047
12	30	HDR BIAS	5.0015	4.9984	-0.0031
13	30	HDR BIAS	5.0003	4.9972	-0.0031
14	30	HDR BIAS	5.0076	5.0088	0.0012
15	30	HDR BIAS	4.9876	4.9845	-0.0031
16	30	HDR UNBIAS	4.9874	4.983	-0.0044
17	30	HDR UNBIAS	4.988	4.98	-0.008
18	30	HDR UNBIAS	4.9866	4.9812	-0.0054
19	30	HDR UNBIAS	4.9767	4.9743	-0.0024
20	30	HDR UNBIAS	4.9774	4.9752	-0.0022
21	50	HDR BIAS	5.0048	4.998	-0.0068
22	50	HDR BIAS	4.9938	4.9949	0.0011
23	50	HDR BIAS	5.0079	4.9988	-0.0091
24	50	HDR BIAS	4.9782	4.9717	-0.0065
25	50	HDR BIAS	4.9742	4.9714	-0.0028
26	50	HDR UNBIAS	4.9793	4.9708	-0.0085
27	50	HDR UNBIAS	5.0053	4.996	-0.0093
28	50	HDR UNBIAS	4.9729	4.9635	-0.0094
29	50	HDR UNBIAS	4.9793	4.9667	-0.0126
30	50	HDR UNBIAS	4.9711	4.9774	0.0063
41	0	CORRELATION	4.9795	4.9801	0.0006
42	0	CORRELATION	5.0028	5.0036	0.0008
43	0	CORRELATION	4.9873	4.9877	0.0004
45	0	CORRELATION	4.9693	4.9699	0.0006

## TID vs Post - Pre Exposure Delta

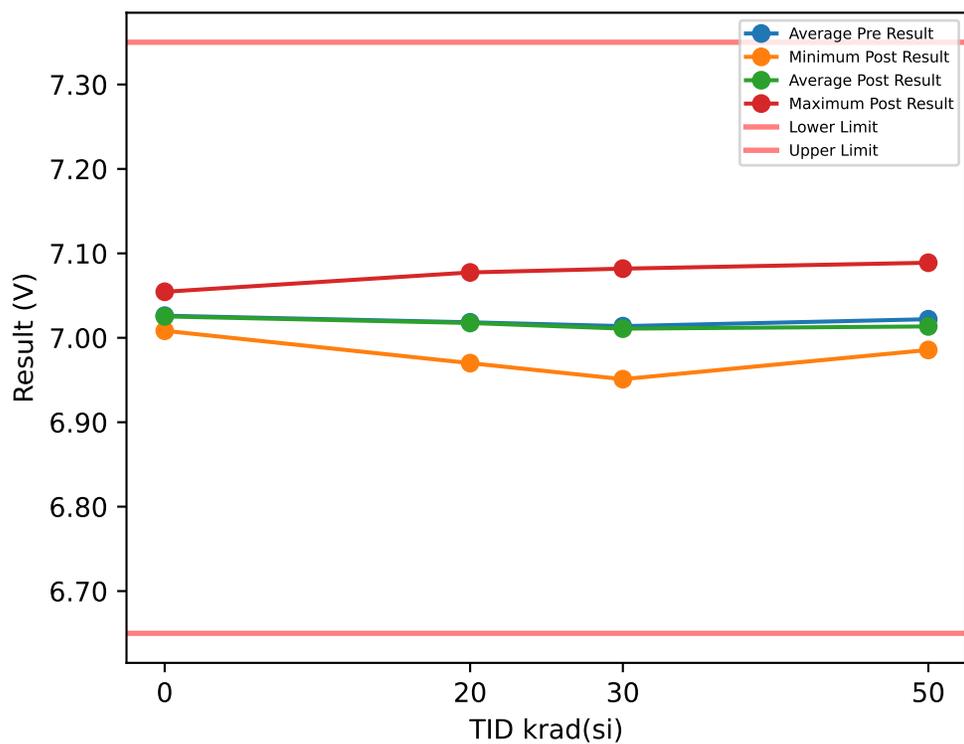


## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.9693	4.9847	5.0028	0.014125	4.9699	4.9853	5.0036	0.014199	0.0004	0.0006	0.0008	0.0001633
20	4.9674	4.9845	5.0068	0.010779	4.9621	4.9826	5.0015	0.011306	-0.0053	-0.00193	0.0048	0.0031063
30	4.9767	4.9897	5.0076	0.010252	4.9743	4.9862	5.0088	0.011382	-0.008	-0.00352	0.0012	0.0023939
50	4.9711	4.9867	5.0079	0.014702	4.9635	4.9809	4.9988	0.014261	-0.0126	-0.00576	0.0063	0.0057167

# Device Test: 16.4 LEVEL|OUT/BP7L/10/8////@V\_BP7L

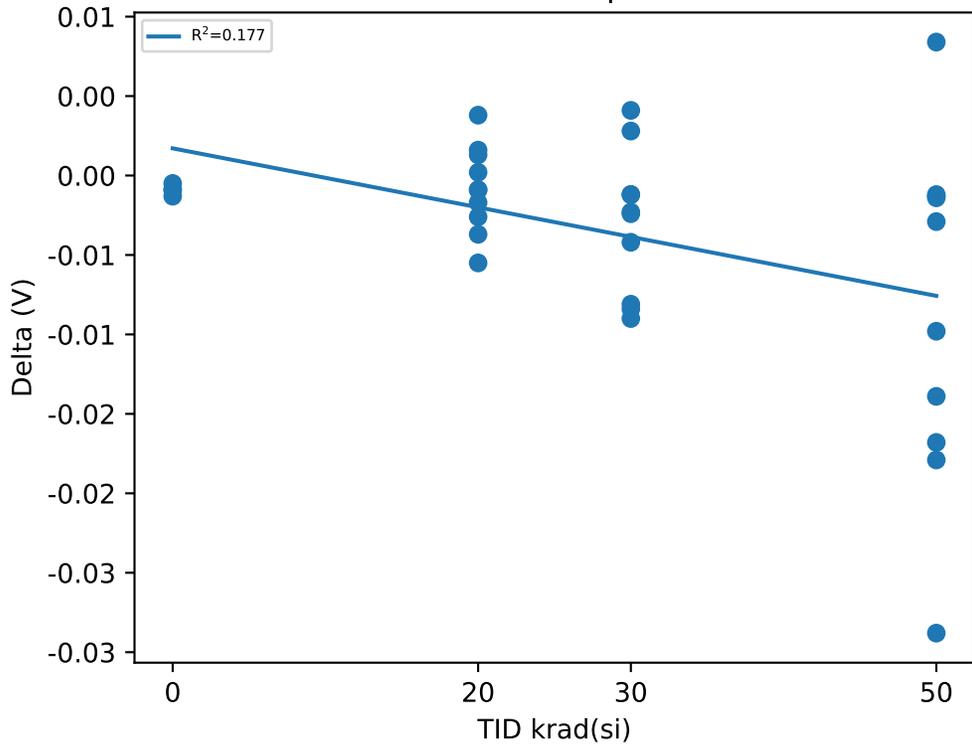
## TID vs Result Stats



## Test Results (Lower Limit = 6.65, Upper Limit = 7.35 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	6.9966	6.994	-0.0026
2	20	HDR BIAS	7.0758	7.0774	0.0016
3	20	HDR BIAS	7.0202	7.0165	-0.0037
4	20	HDR BIAS	7.0059	7.0042	-0.0017
5	20	HDR BIAS	7.0089	7.0034	-0.0055
6	20	HDR UNBIAS	7.0437	7.045	0.0013
7	20	HDR UNBIAS	7.013	7.0168	0.0038
8	20	HDR UNBIAS	7.0303	7.0305	0.0002
9	20	HDR UNBIAS	6.9709	6.97	-0.0009
10	20	HDR UNBIAS	7.0183	7.0174	-0.0009
11	30	HDR BIAS	7.0314	7.029	-0.0024
12	30	HDR BIAS	7.0474	7.0432	-0.0042
13	30	HDR BIAS	7.0041	6.996	-0.0081
14	30	HDR BIAS	6.9986	6.9974	-0.0012
15	30	HDR BIAS	6.9594	6.951	-0.0084
16	30	HDR UNBIAS	7.0285	7.0313	0.0028
17	30	HDR UNBIAS	6.9827	6.9737	-0.009
18	30	HDR UNBIAS	7.0055	7.0043	-0.0012
19	30	HDR UNBIAS	7.0842	7.0819	-0.0023
20	30	HDR UNBIAS	6.9963	7.0004	0.0041
21	50	HDR BIAS	7.0024	6.9856	-0.0168
22	50	HDR BIAS	7.0805	7.0889	0.0084
23	50	HDR BIAS	7.0173	6.9994	-0.0179
24	50	HDR BIAS	7.0262	6.9974	-0.0288
25	50	HDR BIAS	7.03	7.0271	-0.0029
26	50	HDR UNBIAS	7.0273	7.0259	-0.0014
27	50	HDR UNBIAS	6.9943	6.993	-0.0013
28	50	HDR UNBIAS	7.0015	7.0003	-0.0012
29	50	HDR UNBIAS	7.0172	7.0033	-0.0139
30	50	HDR UNBIAS	7.0234	7.0136	-0.0098
41	0	CORRELATION	7.0554	7.0545	-0.0009
42	0	CORRELATION	7.0285	7.0272	-0.0013
43	0	CORRELATION	7.0117	7.0112	-0.0005
45	0	CORRELATION	7.0092	7.0083	-0.0009

## TID vs Post - Pre Exposure Delta

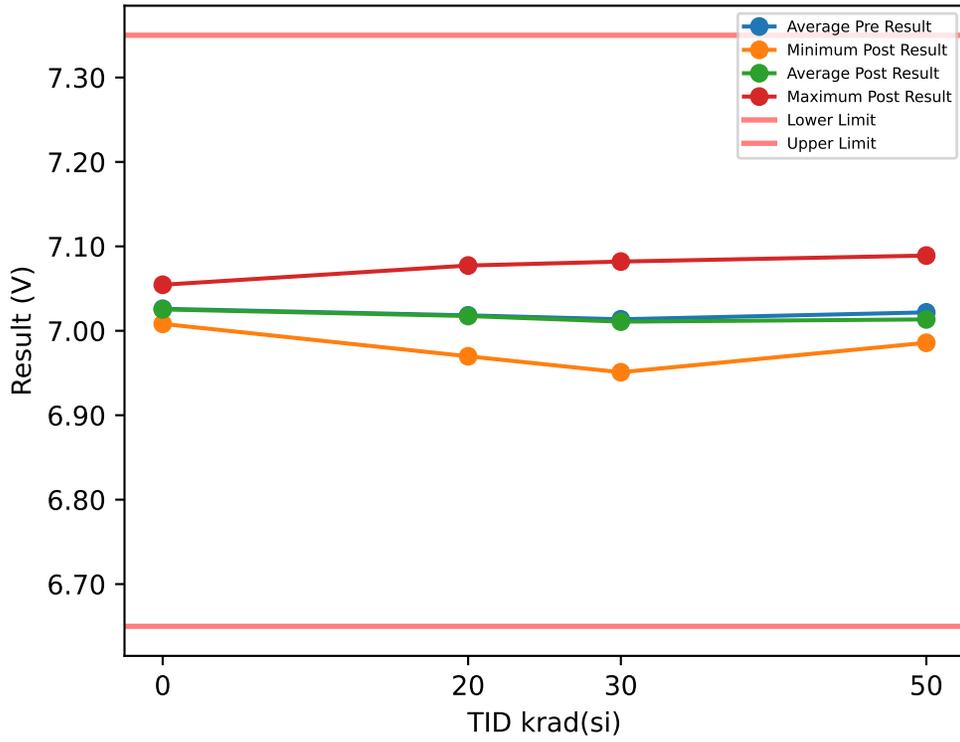


## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	7.0092	7.0262	7.0554	0.02127	7.0083	7.0253	7.0545	0.021166	-0.0013	-0.0009	-0.0005	0.0003266
20	6.9709	7.0184	7.0758	0.028061	6.97	7.0175	7.0774	0.029248	-0.0055	-0.00084	0.0038	0.0027261
30	6.9594	7.0138	7.0842	0.035336	6.951	7.0108	7.0819	0.037055	-0.009	-0.00299	0.0041	0.0045214
50	6.9943	7.022	7.0805	0.023923	6.9856	7.0135	7.0889	0.029737	-0.0288	-0.00856	0.0084	0.010917

# Device Test: 16.5 LEVEL|OUT/BP7L/12/10////@V\_BP7L

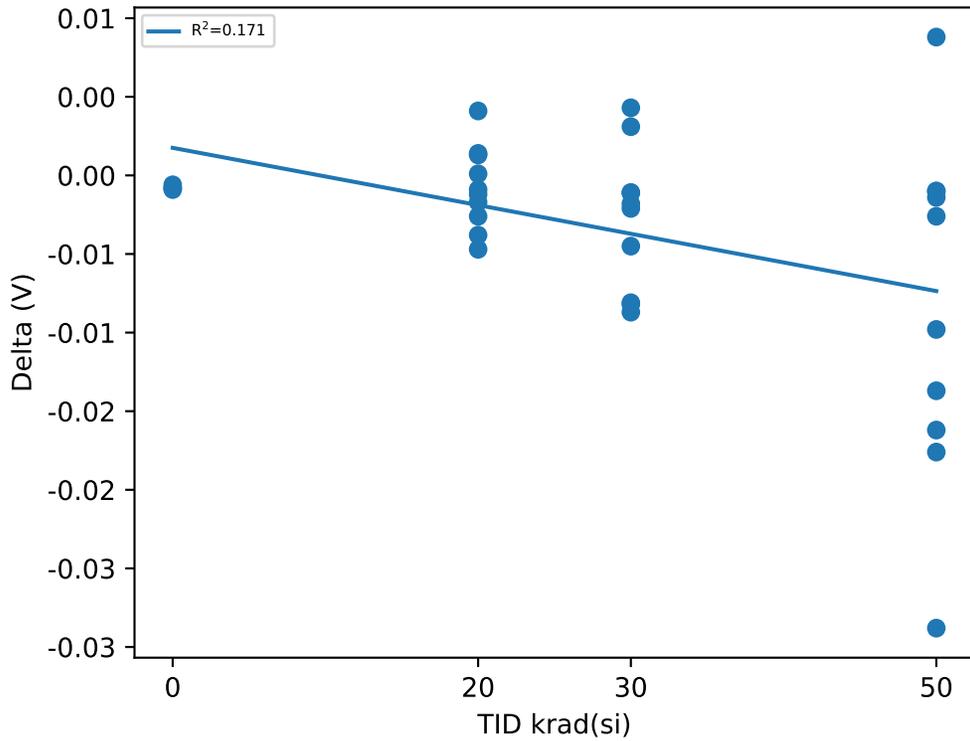
## TID vs Result Stats



## Test Results (Lower Limit = 6.65, Upper Limit = 7.35 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	6.9967	6.9941	-0.0026
2	20	HDR BIAS	7.0759	7.0773	0.0014
3	20	HDR BIAS	7.02	7.0162	-0.0038
4	20	HDR BIAS	7.0059	7.0042	-0.0017
5	20	HDR BIAS	7.0085	7.0038	-0.0047
6	20	HDR UNBIAS	7.0437	7.045	0.0013
7	20	HDR UNBIAS	7.0126	7.0167	0.0041
8	20	HDR UNBIAS	7.0304	7.0305	0.0001
9	20	HDR UNBIAS	6.9707	6.9698	-0.0009
10	20	HDR UNBIAS	7.0184	7.0172	-0.0012
11	30	HDR BIAS	7.0311	7.029	-0.0021
12	30	HDR BIAS	7.0475	7.043	-0.0045
13	30	HDR BIAS	7.0039	6.9958	-0.0081
14	30	HDR BIAS	6.9986	6.9975	-0.0011
15	30	HDR BIAS	6.9591	6.9509	-0.0082
16	30	HDR UNBIAS	7.0284	7.0315	0.0031
17	30	HDR UNBIAS	6.9824	6.9737	-0.0087
18	30	HDR UNBIAS	7.0054	7.0043	-0.0011
19	30	HDR UNBIAS	7.0838	7.082	-0.0018
20	30	HDR UNBIAS	6.9962	7.0005	0.0043
21	50	HDR BIAS	7.002	6.9858	-0.0162
22	50	HDR BIAS	7.0803	7.0891	0.0088
23	50	HDR BIAS	7.0169	6.9993	-0.0176
24	50	HDR BIAS	7.0264	6.9976	-0.0288
25	50	HDR BIAS	7.0298	7.0272	-0.0026
26	50	HDR UNBIAS	7.0272	7.0258	-0.0014
27	50	HDR UNBIAS	6.9939	6.9929	-0.001
28	50	HDR UNBIAS	7.0013	7.0003	-0.001
29	50	HDR UNBIAS	7.017	7.0033	-0.0137
30	50	HDR UNBIAS	7.0234	7.0136	-0.0098
41	0	CORRELATION	7.0553	7.0545	-0.0008
42	0	CORRELATION	7.0283	7.0274	-0.0009
43	0	CORRELATION	7.0117	7.0111	-0.0006
45	0	CORRELATION	7.009	7.0082	-0.0008

## TID vs Post - Pre Exposure Delta

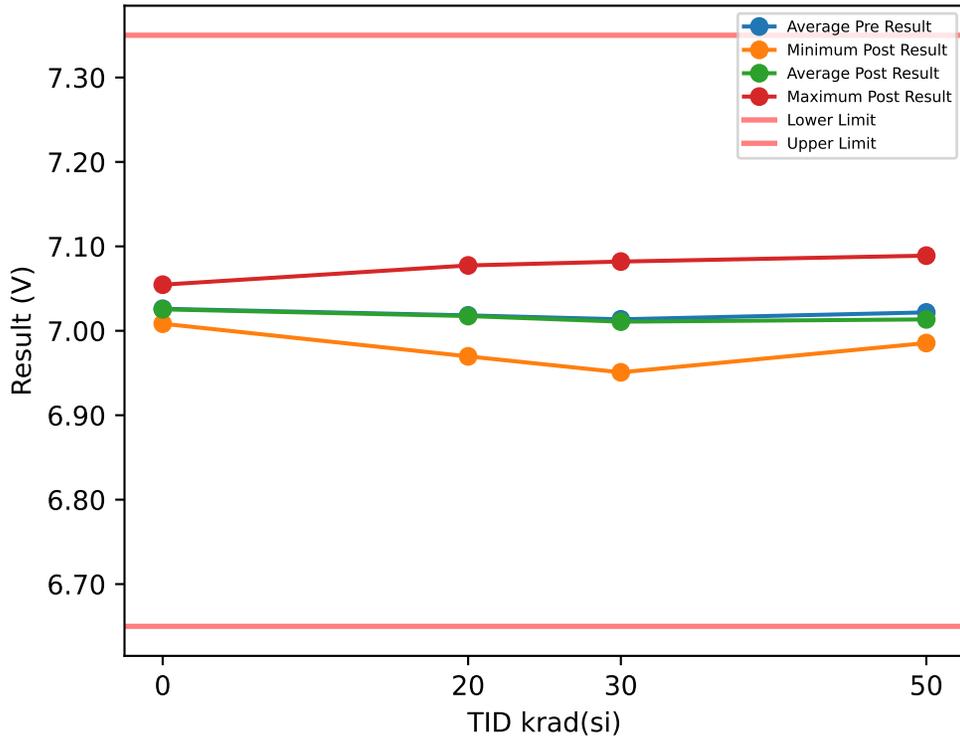


## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	7.009	7.0261	7.0553	0.02127	7.0082	7.0253	7.0545	0.021222	-0.0009	-0.000775	-0.0006	0.00012583
20	6.9707	7.0183	7.0759	0.02814	6.9698	7.0175	7.0773	0.029233	-0.0047	-0.0008	0.0041	0.0026352
30	6.9591	7.0136	7.0838	0.035332	6.9509	7.0108	7.082	0.037089	-0.0087	-0.00282	0.0043	0.0045636
50	6.9939	7.0218	7.0803	0.023984	6.9858	7.0135	7.0891	0.029775	-0.0288	-0.00833	0.0088	0.010953

# Device Test: 16.6 LEVEL|OUT/BP7L/14/14////@V\_BP7L

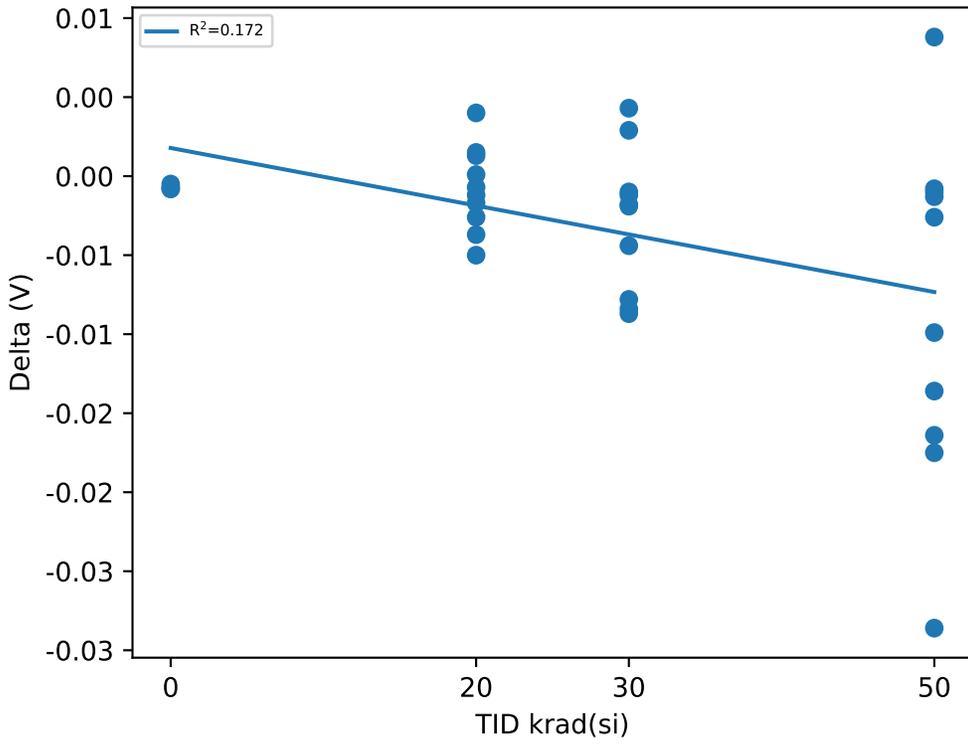
## TID vs Result Stats



## Test Results (Lower Limit = 6.65, Upper Limit = 7.35 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	6.9966	6.994	-0.0026
2	20	HDR BIAS	7.0759	7.0774	0.0015
3	20	HDR BIAS	7.02	7.0163	-0.0037
4	20	HDR BIAS	7.0059	7.0042	-0.0017
5	20	HDR BIAS	7.0086	7.0036	-0.005
6	20	HDR UNBIAS	7.0437	7.045	0.0013
7	20	HDR UNBIAS	7.0127	7.0167	0.004
8	20	HDR UNBIAS	7.0304	7.0305	0.0001
9	20	HDR UNBIAS	6.9704	6.9697	-0.0007
10	20	HDR UNBIAS	7.0184	7.0172	-0.0012
11	30	HDR BIAS	7.0309	7.029	-0.0019
12	30	HDR BIAS	7.0475	7.0431	-0.0044
13	30	HDR BIAS	7.0039	6.9961	-0.0078
14	30	HDR BIAS	6.9985	6.9975	-0.001
15	30	HDR BIAS	6.9592	6.9508	-0.0084
16	30	HDR UNBIAS	7.0284	7.0313	0.0029
17	30	HDR UNBIAS	6.9824	6.9737	-0.0087
18	30	HDR UNBIAS	7.0054	7.0042	-0.0012
19	30	HDR UNBIAS	7.0838	7.082	-0.0018
20	30	HDR UNBIAS	6.9961	7.0004	0.0043
21	50	HDR BIAS	7.0019	6.9855	-0.0164
22	50	HDR BIAS	7.0802	7.089	0.0088
23	50	HDR BIAS	7.017	6.9995	-0.0175
24	50	HDR BIAS	7.0262	6.9976	-0.0286
25	50	HDR BIAS	7.0298	7.0272	-0.0026
26	50	HDR UNBIAS	7.0272	7.0259	-0.0013
27	50	HDR UNBIAS	6.9938	6.993	-0.0008
28	50	HDR UNBIAS	7.0014	7.0004	-0.001
29	50	HDR UNBIAS	7.0169	7.0033	-0.0136
30	50	HDR UNBIAS	7.0235	7.0136	-0.0099
41	0	CORRELATION	7.0554	7.0546	-0.0008
42	0	CORRELATION	7.0283	7.0275	-0.0008
43	0	CORRELATION	7.0116	7.0111	-0.0005
45	0	CORRELATION	7.0091	7.0084	-0.0007

## TID vs Post - Pre Exposure Delta

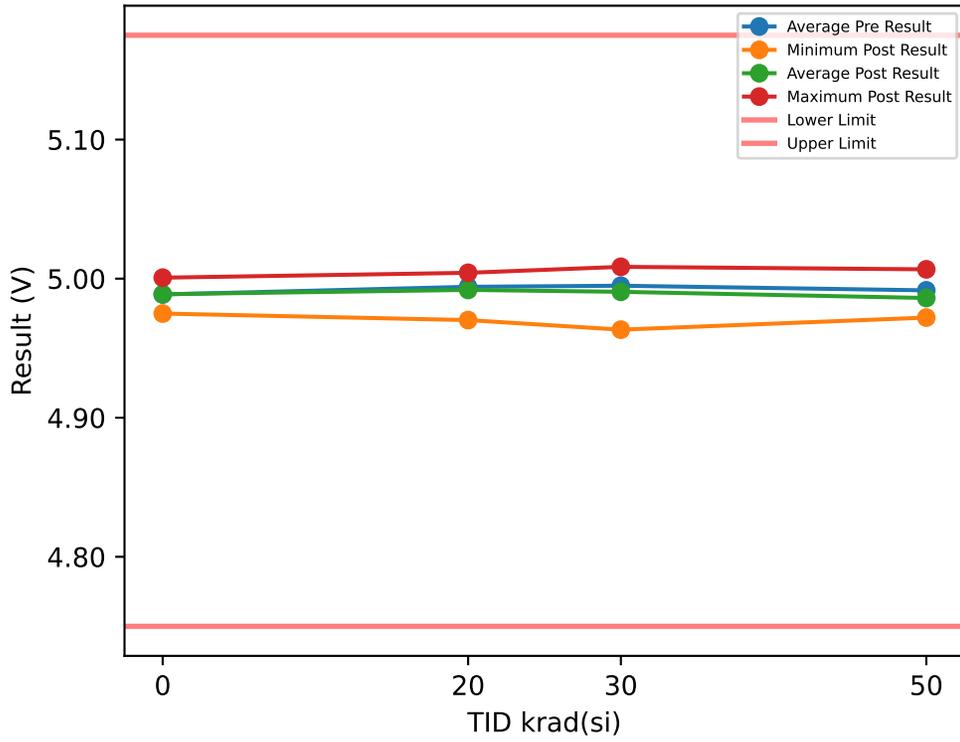


## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	7.0091	7.0261	7.0554	0.021312	7.0084	7.0254	7.0546	0.021217	-0.0008	-0.0007	-0.0005	0.00014142
20	6.9704	7.0183	7.0759	0.028199	6.9697	7.0175	7.0774	0.029293	-0.005	-0.0008	0.004	0.0026629
30	6.9592	7.0136	7.0838	0.035314	6.9508	7.0108	7.082	0.037096	-0.0087	-0.0028	0.0043	0.0045245
50	6.9938	7.0218	7.0802	0.023966	6.9855	7.0135	7.089	0.029759	-0.0286	-0.00829	0.0088	0.010936

# Device Test: 16.7 LEVEL|OUT/BP5H/10/8/////@V\_BP5H

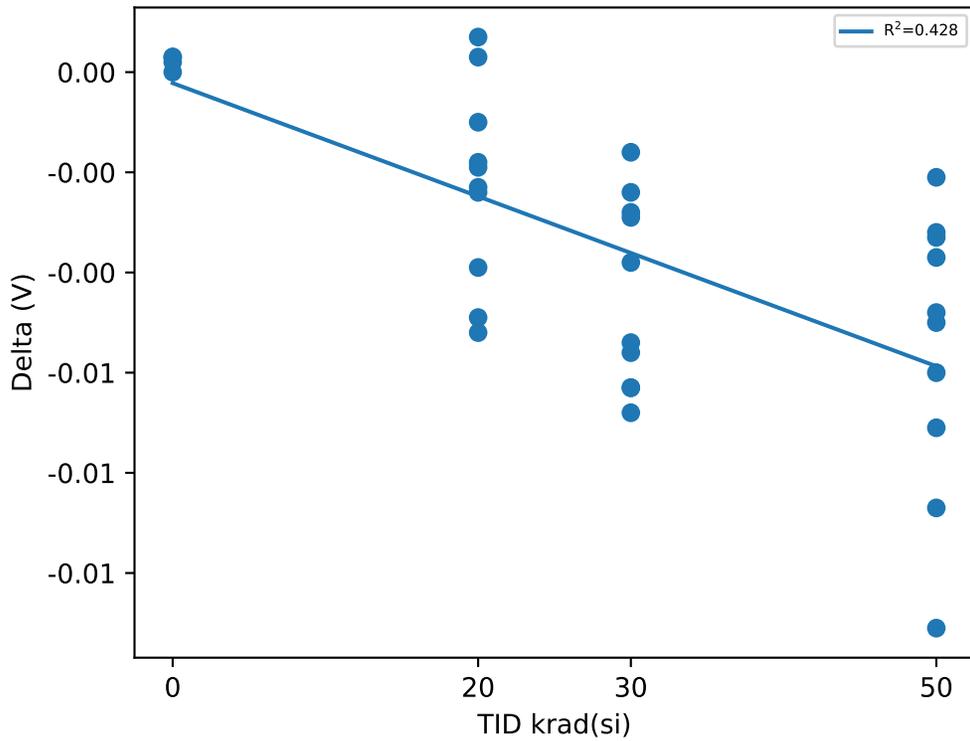
### TID vs Result Stats



### Test Results (Lower Limit = 4.75, Upper Limit = 5.175 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.9996	4.9957	-0.0039
2	20	HDR BIAS	4.9806	4.9796	-0.001
3	20	HDR BIAS	4.9721	4.9702	-0.0019
4	20	HDR BIAS	5.0014	4.999	-0.0024
5	20	HDR BIAS	4.995	4.9957	0.0007
6	20	HDR UNBIAS	4.9853	4.9835	-0.0018
7	20	HDR UNBIAS	5.0094	5.0042	-0.0052
8	20	HDR UNBIAS	4.9994	4.9945	-0.0049
9	20	HDR UNBIAS	5.0027	5.0004	-0.0023
10	20	HDR UNBIAS	4.9959	4.9962	0.0003
11	30	HDR BIAS	4.9945	4.9891	-0.0054
12	30	HDR BIAS	5.008	5.0064	-0.0016
13	30	HDR BIAS	5.0009	4.9941	-0.0068
14	30	HDR BIAS	5.0109	5.0085	-0.0024
15	30	HDR BIAS	5.0064	5.0008	-0.0056
16	30	HDR UNBIAS	5.0045	5.0016	-0.0029
17	30	HDR UNBIAS	4.9741	4.9678	-0.0063
18	30	HDR UNBIAS	4.9765	4.9737	-0.0028
19	30	HDR UNBIAS	5.0038	5	-0.0038
20	30	HDR UNBIAS	4.9696	4.9633	-0.0063
21	50	HDR BIAS	4.9826	4.9794	-0.0032
22	50	HDR BIAS	5.0117	5.0067	-0.005
23	50	HDR BIAS	4.9967	4.9919	-0.0048
24	50	HDR BIAS	4.9978	4.9867	-0.0111
25	50	HDR BIAS	5.0041	4.9954	-0.0087
26	50	HDR UNBIAS	4.9791	4.972	-0.0071
27	50	HDR UNBIAS	4.9864	4.9831	-0.0033
28	50	HDR UNBIAS	4.9994	4.9957	-0.0037
29	50	HDR UNBIAS	4.9827	4.9767	-0.006
30	50	HDR UNBIAS	4.9754	4.9733	-0.0021
41	0	CORRELATION	4.9746	4.9749	0.0003
42	0	CORRELATION	5.0007	5.0007	0
43	0	CORRELATION	4.9832	4.9835	0.0003
45	0	CORRELATION	4.996	4.9962	0.0002

### TID vs Post - Pre Exposure Delta

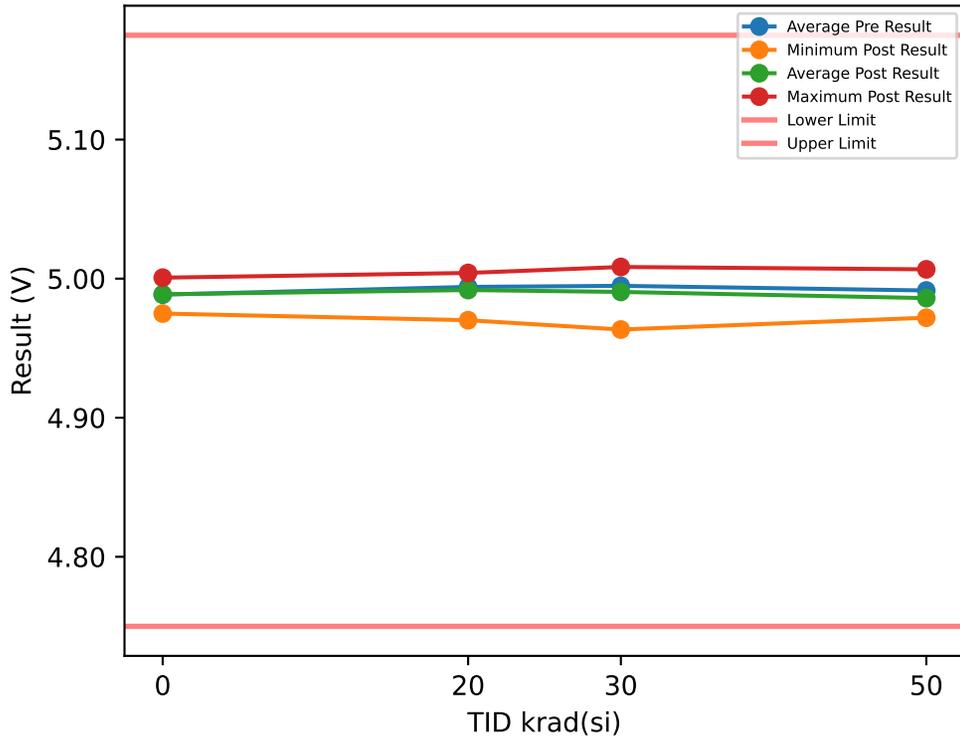


### Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.9746	4.9886	5.0007	0.011921	4.9749	4.9888	5.0007	0.011799	0	0.0002	0.0003	0.00014142
20	4.9721	4.9941	5.0094	0.011389	4.9702	4.9919	5.0042	0.01065	-0.0052	-0.00224	0.0007	0.0019879
30	4.9696	4.9949	5.0109	0.015559	4.9633	4.9905	5.0085	0.016495	-0.0068	-0.00439	-0.0016	0.0018982
50	4.9754	4.9916	5.0117	0.011979	4.972	4.9861	5.0067	0.011264	-0.0111	-0.0055	-0.0021	0.0027905

# Device Test: 16.8 LEVEL|OUT/BP5H/12/10////@V\_BP5H

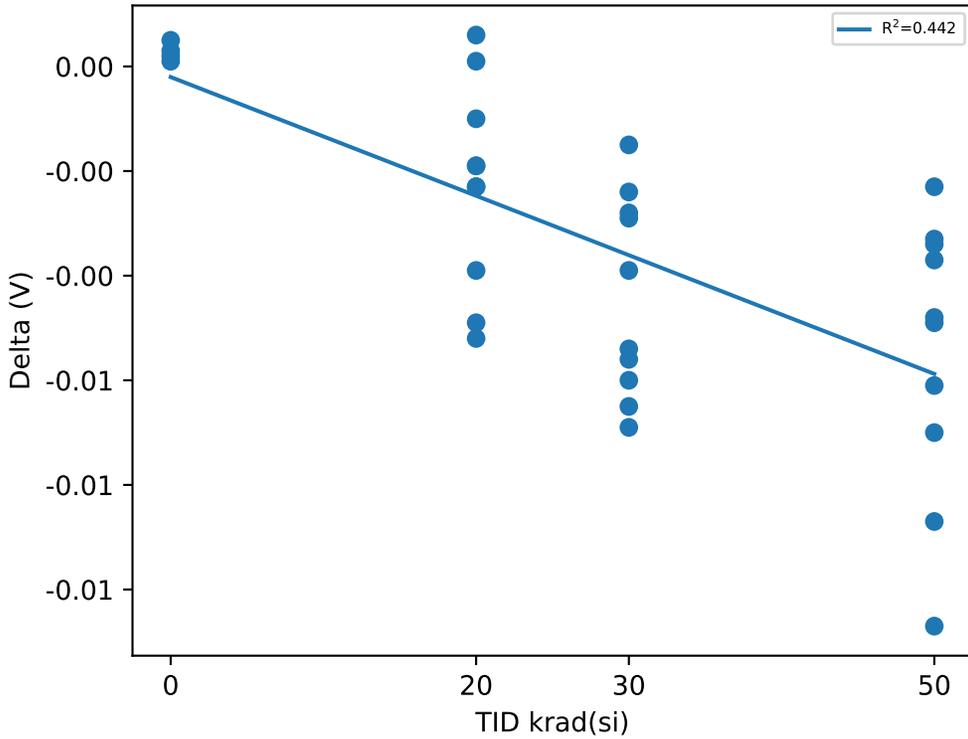
### TID vs Result Stats



### Test Results (Lower Limit = 4.75, Upper Limit = 5.175 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.9995	4.9956	-0.0039
2	20	HDR BIAS	4.9806	4.9796	-0.001
3	20	HDR BIAS	4.972	4.9701	-0.0019
4	20	HDR BIAS	5.0013	4.999	-0.0023
5	20	HDR BIAS	4.9949	4.9955	0.0006
6	20	HDR UNBIAS	4.9852	4.9833	-0.0019
7	20	HDR UNBIAS	5.0093	5.0041	-0.0052
8	20	HDR UNBIAS	4.9993	4.9944	-0.0049
9	20	HDR UNBIAS	5.0027	5.0004	-0.0023
10	20	HDR UNBIAS	4.9959	4.996	0.0001
11	30	HDR BIAS	4.9945	4.9891	-0.0054
12	30	HDR BIAS	5.0078	5.0063	-0.0015
13	30	HDR BIAS	5.0009	4.994	-0.0069
14	30	HDR BIAS	5.0108	5.0084	-0.0024
15	30	HDR BIAS	5.0063	5.0007	-0.0056
16	30	HDR UNBIAS	5.0044	5.0015	-0.0029
17	30	HDR UNBIAS	4.9741	4.9676	-0.0065
18	30	HDR UNBIAS	4.9764	4.9736	-0.0028
19	30	HDR UNBIAS	5.0038	4.9999	-0.0039
20	30	HDR UNBIAS	4.9694	4.9634	-0.006
21	50	HDR BIAS	4.9826	4.9793	-0.0033
22	50	HDR BIAS	5.0116	5.0067	-0.0049
23	50	HDR BIAS	4.9966	4.9918	-0.0048
24	50	HDR BIAS	4.9975	4.9868	-0.0107
25	50	HDR BIAS	5.004	4.9953	-0.0087
26	50	HDR UNBIAS	4.9789	4.9719	-0.007
27	50	HDR UNBIAS	4.9864	4.983	-0.0034
28	50	HDR UNBIAS	4.9994	4.9957	-0.0037
29	50	HDR UNBIAS	4.9827	4.9766	-0.0061
30	50	HDR UNBIAS	4.9753	4.973	-0.0023
41	0	CORRELATION	4.9744	4.9749	0.0005
42	0	CORRELATION	5.0006	5.0007	0.0001
43	0	CORRELATION	4.9831	4.9834	0.0003
45	0	CORRELATION	4.9959	4.9961	0.0002

### TID vs Post - Pre Exposure Delta

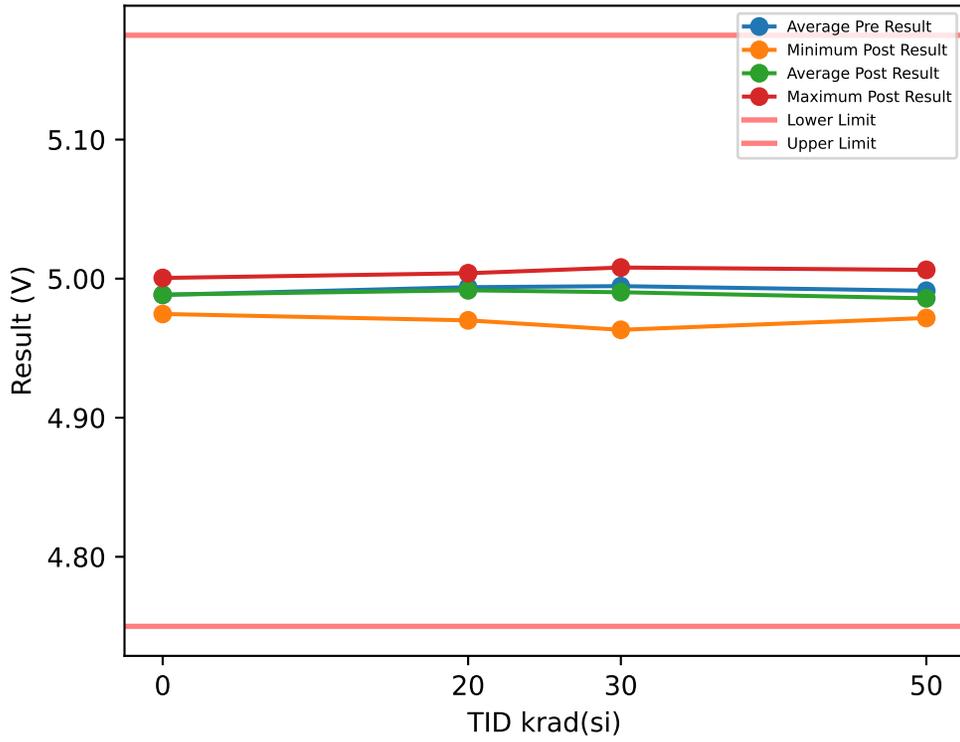


### Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.9744	4.9885	5.0006	0.01196	4.9749	4.9888	5.0007	0.011794	0.0001	0.000275	0.0005	0.00017078
20	4.972	4.9941	5.0093	0.011386	4.9701	4.9918	5.0041	0.010654	-0.0052	-0.00227	0.0006	0.0019408
30	4.9694	4.9948	5.0108	0.015563	4.9634	4.9905	5.0084	0.016472	-0.0069	-0.00439	-0.0015	0.0019186
50	4.9753	4.9915	5.0116	0.011965	4.9719	4.986	5.0067	0.011321	-0.0107	-0.00549	-0.0023	0.0026556

# Device Test: 16.9 LEVEL|OUT/BP5H/14/14////@V\_BP5H

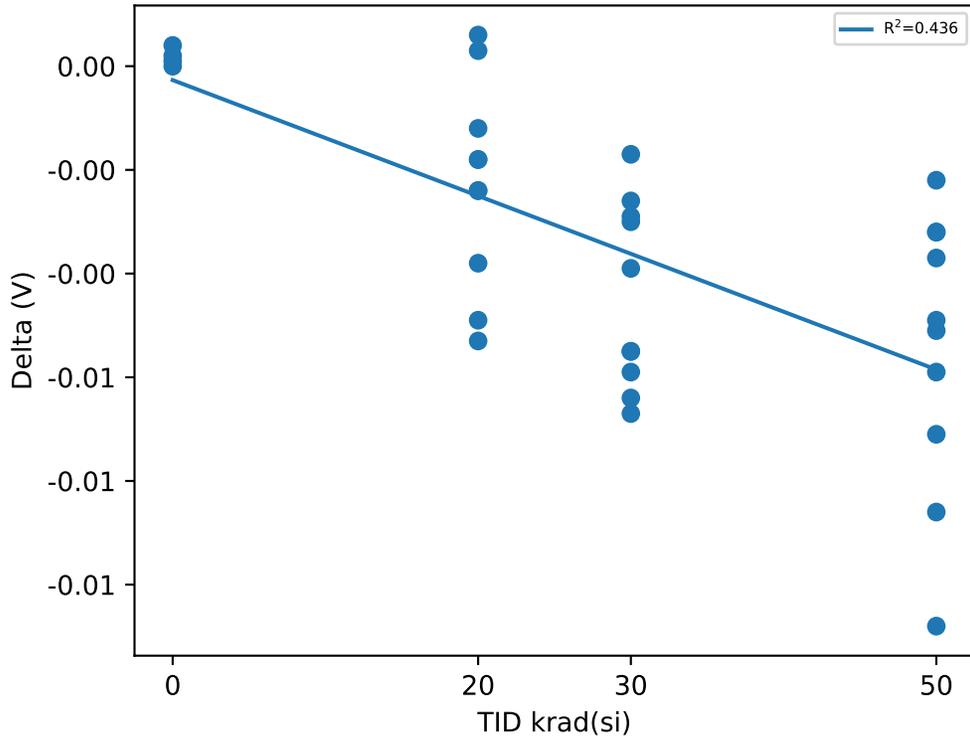
## TID vs Result Stats



## Test Results (Lower Limit = 4.75, Upper Limit = 5.175 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	4.9993	4.9955	-0.0038
2	20	HDR BIAS	4.9804	4.9792	-0.0012
3	20	HDR BIAS	4.9718	4.97	-0.0018
4	20	HDR BIAS	5.0011	4.9987	-0.0024
5	20	HDR BIAS	4.9947	4.9953	0.0006
6	20	HDR UNBIAS	4.985	4.9832	-0.0018
7	20	HDR UNBIAS	5.0092	5.0039	-0.0053
8	20	HDR UNBIAS	4.9991	4.9942	-0.0049
9	20	HDR UNBIAS	5.0025	5.0001	-0.0024
10	20	HDR UNBIAS	4.9956	4.9959	0.0003
11	30	HDR BIAS	4.9943	4.9888	-0.0055
12	30	HDR BIAS	5.0078	5.0061	-0.0017
13	30	HDR BIAS	5.0006	4.9939	-0.0067
14	30	HDR BIAS	5.0106	5.008	-0.0026
15	30	HDR BIAS	5.0061	5.0006	-0.0055
16	30	HDR UNBIAS	5.0042	5.0012	-0.003
17	30	HDR UNBIAS	4.9739	4.9675	-0.0064
18	30	HDR UNBIAS	4.9762	4.9733	-0.0029
19	30	HDR UNBIAS	5.0035	4.9996	-0.0039
20	30	HDR UNBIAS	4.9691	4.9632	-0.0059
21	50	HDR BIAS	4.9823	4.9791	-0.0032
22	50	HDR BIAS	5.0114	5.0063	-0.0051
23	50	HDR BIAS	4.9965	4.9916	-0.0049
24	50	HDR BIAS	4.9974	4.9866	-0.0108
25	50	HDR BIAS	5.0039	4.9953	-0.0086
26	50	HDR UNBIAS	4.9788	4.9717	-0.0071
27	50	HDR UNBIAS	4.986	4.9828	-0.0032
28	50	HDR UNBIAS	4.9992	4.9955	-0.0037
29	50	HDR UNBIAS	4.9824	4.9765	-0.0059
30	50	HDR UNBIAS	4.9752	4.973	-0.0022
41	0	CORRELATION	4.9742	4.9746	0.0004
42	0	CORRELATION	5.0004	5.0005	0.0001
43	0	CORRELATION	4.9829	4.9831	0.0002
45	0	CORRELATION	4.9958	4.9958	0

## TID vs Post - Pre Exposure Delta

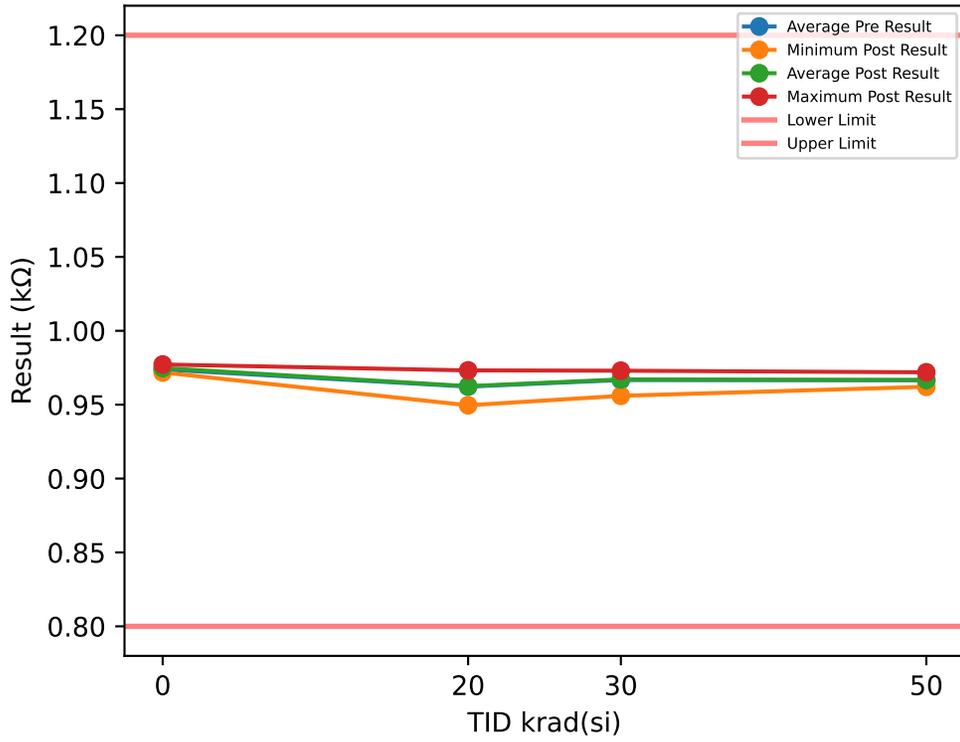


## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.9742	4.9883	5.0004	0.011981	4.9746	4.9885	5.0005	0.011827	0	0.000175	0.0004	0.00017078
20	4.9718	4.9939	5.0092	0.011399	4.97	4.9916	5.0039	0.01064	-0.0053	-0.00227	0.0006	0.0019692
30	4.9691	4.9946	5.0106	0.015589	4.9632	4.9902	5.008	0.016441	-0.0067	-0.00441	-0.0017	0.0017935
50	4.9752	4.9913	5.0114	0.011987	4.9717	4.9858	5.0063	0.011264	-0.0108	-0.00547	-0.0022	0.0027006

# Device Test: 17.10 BST|RES/BST/10/8////@R\_BST\_SW\_PARALLEL

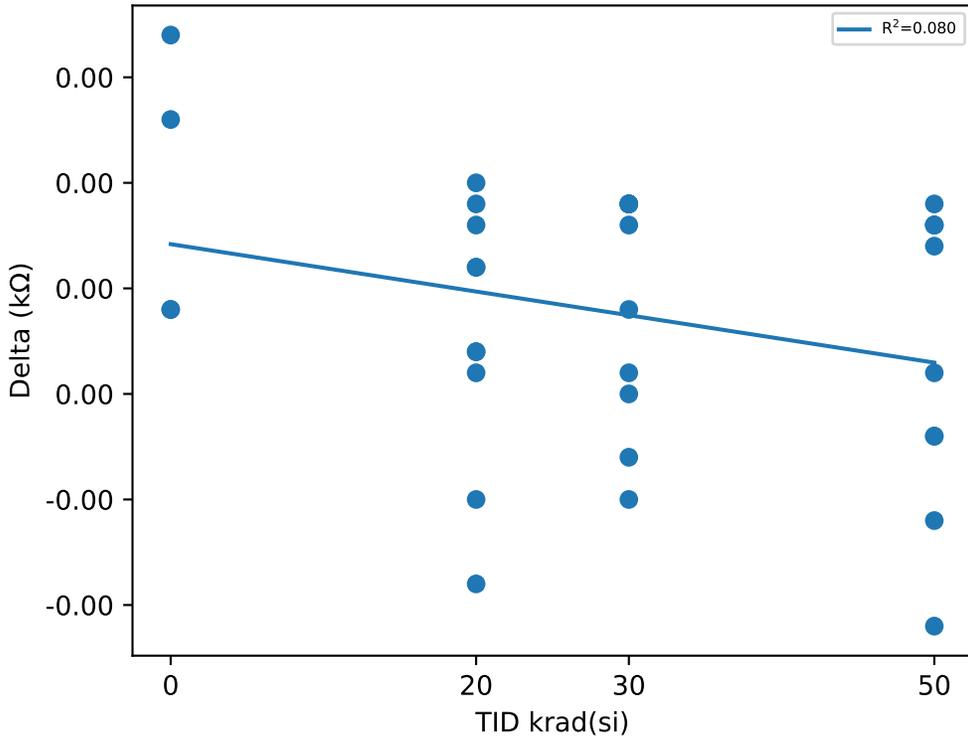
## TID vs Result Stats



## Test Results (Lower Limit = 0.8, Upper Limit = 1.2 (kΩ))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.968	0.9686	0.0006
2	20	HDR BIAS	0.9669	0.9671	0.0002
3	20	HDR BIAS	0.9487	0.9496	0.0009
4	20	HDR BIAS	0.9519	0.9514	-0.0005
5	20	HDR BIAS	0.9645	0.9653	0.0008
6	20	HDR UNBIAS	0.9519	0.9521	0.0002
7	20	HDR UNBIAS	0.9726	0.9732	0.0006
8	20	HDR UNBIAS	0.9618	0.9619	0.0001
9	20	HDR UNBIAS	0.972	0.973	0.001
10	20	HDR UNBIAS	0.9641	0.9632	-0.0009
11	30	HDR BIAS	0.9684	0.9693	0.0009
12	30	HDR BIAS	0.956	0.956	0
13	30	HDR BIAS	0.9609	0.9618	0.0009
14	30	HDR BIAS	0.9682	0.9683	0.0001
15	30	HDR BIAS	0.9721	0.973	0.0009
16	30	HDR UNBIAS	0.9708	0.9705	-0.0003
17	30	HDR UNBIAS	0.968	0.9688	0.0008
18	30	HDR UNBIAS	0.9654	0.9649	-0.0005
19	30	HDR UNBIAS	0.9687	0.9696	0.0009
20	30	HDR UNBIAS	0.9683	0.9687	0.0004
21	50	HDR BIAS	0.966	0.9667	0.0007
22	50	HDR BIAS	0.9652	0.9646	-0.0006
23	50	HDR BIAS	0.9664	0.9672	0.0008
24	50	HDR BIAS	0.9661	0.9659	-0.0002
25	50	HDR BIAS	0.9687	0.9696	0.0009
26	50	HDR UNBIAS	0.9657	0.9646	-0.0011
27	50	HDR UNBIAS	0.9711	0.9719	0.0008
28	50	HDR UNBIAS	0.9682	0.968	-0.0002
29	50	HDR UNBIAS	0.9613	0.9621	0.0008
30	50	HDR UNBIAS	0.9668	0.9669	0.0001
41	0	CORRELATION	0.9759	0.9772	0.0013
42	0	CORRELATION	0.9714	0.9718	0.0004
43	0	CORRELATION	0.9717	0.9734	0.0017
45	0	CORRELATION	0.9764	0.9768	0.0004

## TID vs Post - Pre Exposure Delta

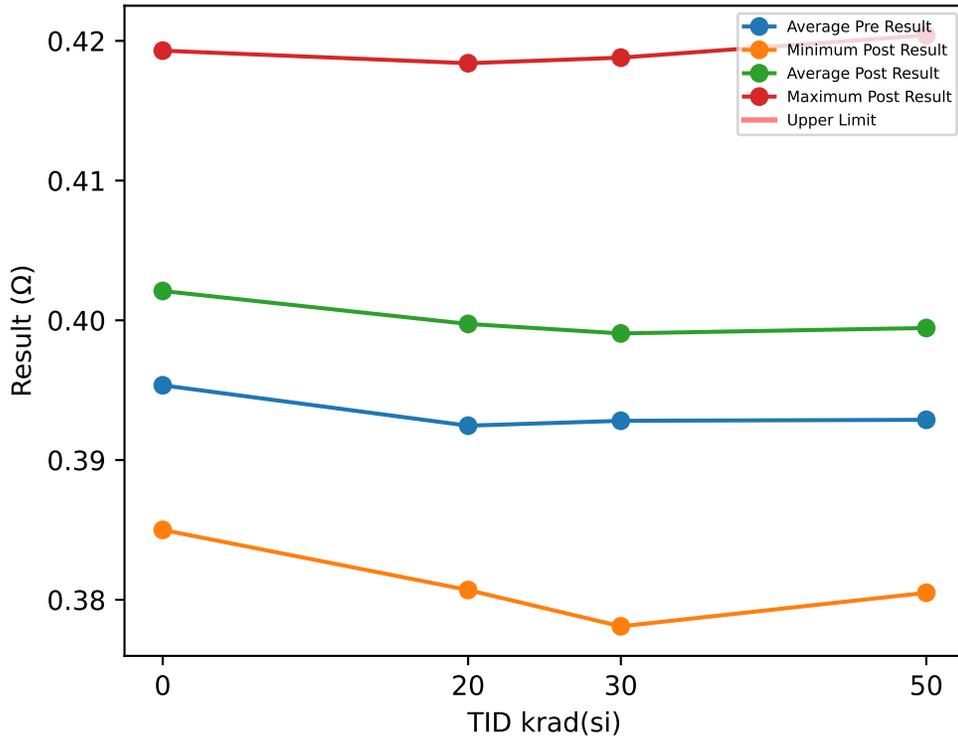


## Test Statistics (kΩ)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.9714	0.97385	0.9764	0.0026665	0.9718	0.9748	0.9772	0.0026281	0.0004	0.00095	0.0017	0.00065574
20	0.9487	0.96224	0.9726	0.0085855	0.9496	0.96254	0.9732	0.0087532	-0.0009	0.0003	0.001	0.00061644
30	0.956	0.96668	0.9721	0.004821	0.956	0.96709	0.973	0.0049496	-0.0005	0.00041	0.0009	0.00054863
50	0.9613	0.96655	0.9711	0.0025548	0.9621	0.96675	0.9719	0.0027492	-0.0011	0.0002	0.0009	0.00070553

# Device Test: 17.19 BST|RES/BST/12/10/////@R\_BST\_SW

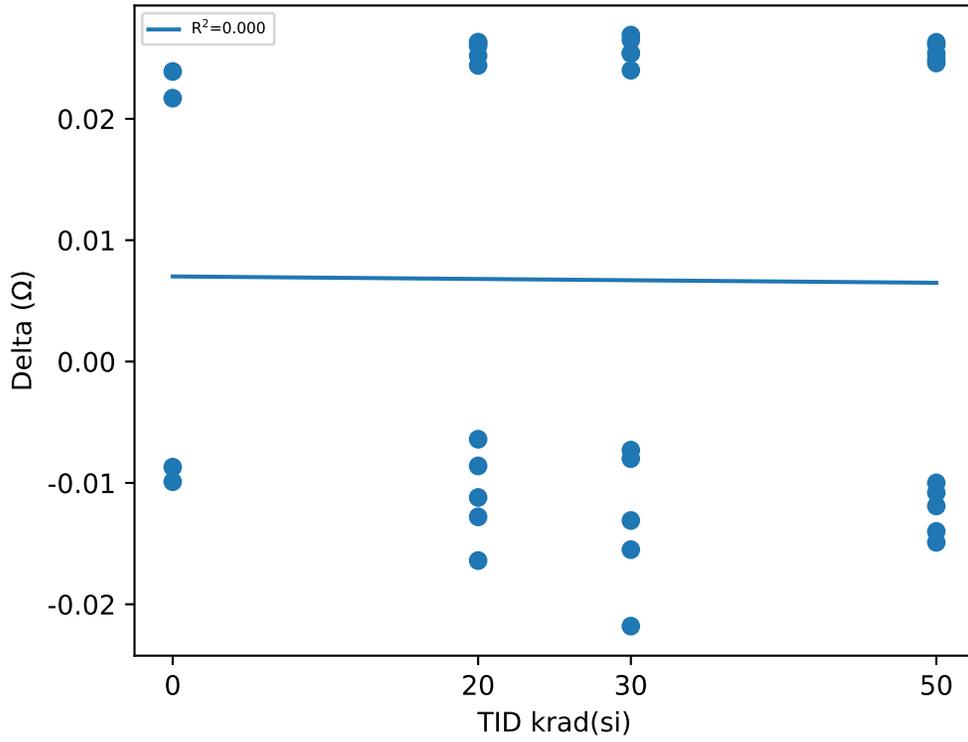
## TID vs Result Stats



## Test Results (No Limits Specified (Ω))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.3892	0.4155	0.0263
2	20	HDR BIAS	0.3871	0.3807	-0.0064
3	20	HDR BIAS	0.3919	0.4171	0.0252
4	20	HDR BIAS	0.3954	0.3842	-0.0112
5	20	HDR BIAS	0.3908	0.4168	0.026
6	20	HDR UNBIAS	0.3995	0.3831	-0.0164
7	20	HDR UNBIAS	0.3921	0.4184	0.0263
8	20	HDR UNBIAS	0.3918	0.3832	-0.0086
9	20	HDR UNBIAS	0.3912	0.4156	0.0244
10	20	HDR UNBIAS	0.3956	0.3828	-0.0128
11	30	HDR BIAS	0.3896	0.4161	0.0265
12	30	HDR BIAS	0.3982	0.3827	-0.0155
13	30	HDR BIAS	0.3932	0.4186	0.0254
14	30	HDR BIAS	0.3954	0.3823	-0.0131
15	30	HDR BIAS	0.3872	0.4126	0.0254
16	30	HDR UNBIAS	0.3895	0.3822	-0.0073
17	30	HDR UNBIAS	0.3944	0.4184	0.024
18	30	HDR UNBIAS	0.4026	0.3808	-0.0218
19	30	HDR UNBIAS	0.3919	0.4188	0.0269
20	30	HDR UNBIAS	0.3861	0.3781	-0.008
21	50	HDR BIAS	0.3943	0.4204	0.0261
22	50	HDR BIAS	0.3931	0.3823	-0.0108
23	50	HDR BIAS	0.3907	0.4153	0.0246
24	50	HDR BIAS	0.3927	0.3827	-0.01
25	50	HDR BIAS	0.3921	0.4175	0.0254
26	50	HDR UNBIAS	0.3925	0.3806	-0.0119
27	50	HDR UNBIAS	0.3897	0.4146	0.0249
28	50	HDR UNBIAS	0.3945	0.3805	-0.014
29	50	HDR UNBIAS	0.3914	0.4177	0.0263
30	50	HDR UNBIAS	0.3978	0.3829	-0.0149
41	0	CORRELATION	0.3972	0.4189	0.0217
42	0	CORRELATION	0.3951	0.3852	-0.0099
43	0	CORRELATION	0.3954	0.4193	0.0239
45	0	CORRELATION	0.3937	0.385	-0.0087

## TID vs Post - Pre Exposure Delta

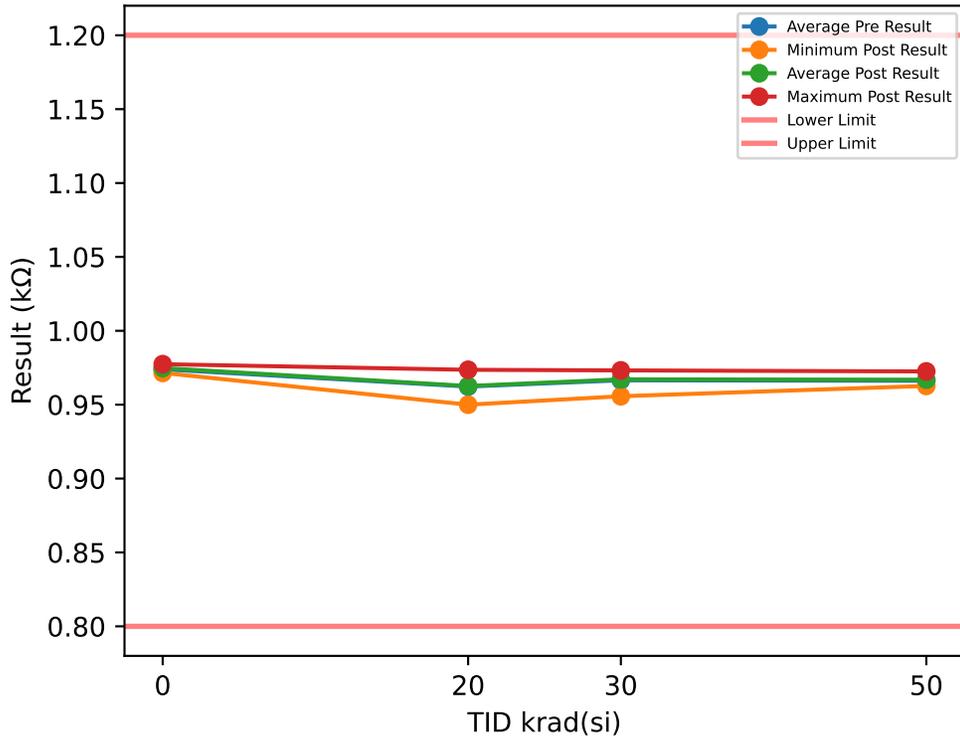


## Test Statistics (Ω)

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	0.3937	0.39535	0.3972	0.0014387	0.385	0.4021	0.4193	0.019631	-0.0099	0.00675	0.0239	0.018561
20	0.3871	0.39246	0.3995	0.0035378	0.3807	0.39974	0.4184	0.017895	-0.0164	0.00728	0.0263	0.01953
30	0.3861	0.39281	0.4026	0.0050867	0.3781	0.39906	0.4188	0.018929	-0.0218	0.00625	0.0269	0.020833
50	0.3897	0.39288	0.3978	0.0022788	0.3805	0.39945	0.4204	0.018683	-0.0149	0.00657	0.0263	0.019966

# Device Test: 17.20 BST|RES/BST/12/10////@R\_BST\_SW\_PARALLEL

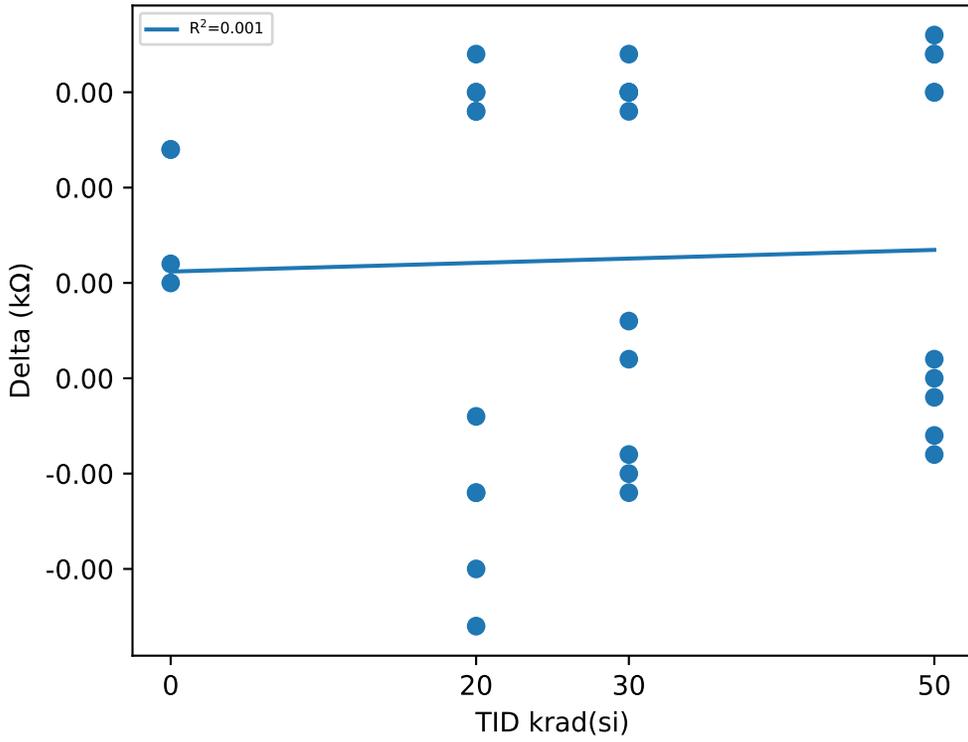
## TID vs Result Stats



## Test Results (Lower Limit = 0.8, Upper Limit = 1.2 (kΩ))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.9676	0.9693	0.0017
2	20	HDR BIAS	0.9671	0.9669	-0.0002
3	20	HDR BIAS	0.9486	0.95	0.0014
4	20	HDR BIAS	0.9523	0.951	-0.0013
5	20	HDR BIAS	0.9642	0.9657	0.0015
6	20	HDR UNBIAS	0.9526	0.952	-0.0006
7	20	HDR UNBIAS	0.9722	0.9736	0.0014
8	20	HDR UNBIAS	0.9627	0.9617	-0.001
9	20	HDR UNBIAS	0.9718	0.9733	0.0015
10	20	HDR UNBIAS	0.9635	0.9629	-0.0006
11	30	HDR BIAS	0.9682	0.9699	0.0017
12	30	HDR BIAS	0.9562	0.9557	-0.0005
13	30	HDR BIAS	0.9608	0.9623	0.0015
14	30	HDR BIAS	0.9683	0.9679	-0.0004
15	30	HDR BIAS	0.9717	0.9732	0.0015
16	30	HDR UNBIAS	0.9701	0.9704	0.0003
17	30	HDR UNBIAS	0.9676	0.969	0.0014
18	30	HDR UNBIAS	0.9651	0.9645	-0.0006
19	30	HDR UNBIAS	0.9686	0.9701	0.0015
20	30	HDR UNBIAS	0.9683	0.9684	0.0001
21	50	HDR BIAS	0.9657	0.9672	0.0015
22	50	HDR BIAS	0.9648	0.9644	-0.0004
23	50	HDR BIAS	0.966	0.9677	0.0017
24	50	HDR BIAS	0.9656	0.9657	0.0001
25	50	HDR BIAS	0.9685	0.9702	0.0017
26	50	HDR UNBIAS	0.9644	0.9644	0
27	50	HDR UNBIAS	0.9707	0.9725	0.0018
28	50	HDR UNBIAS	0.968	0.9677	-0.0003
29	50	HDR UNBIAS	0.9612	0.9627	0.0015
30	50	HDR UNBIAS	0.9667	0.9666	-0.0001
41	0	CORRELATION	0.9762	0.9774	0.0012
42	0	CORRELATION	0.971	0.9715	0.0005
43	0	CORRELATION	0.9725	0.9737	0.0012
45	0	CORRELATION	0.976	0.9766	0.0006

## TID vs Post - Pre Exposure Delta

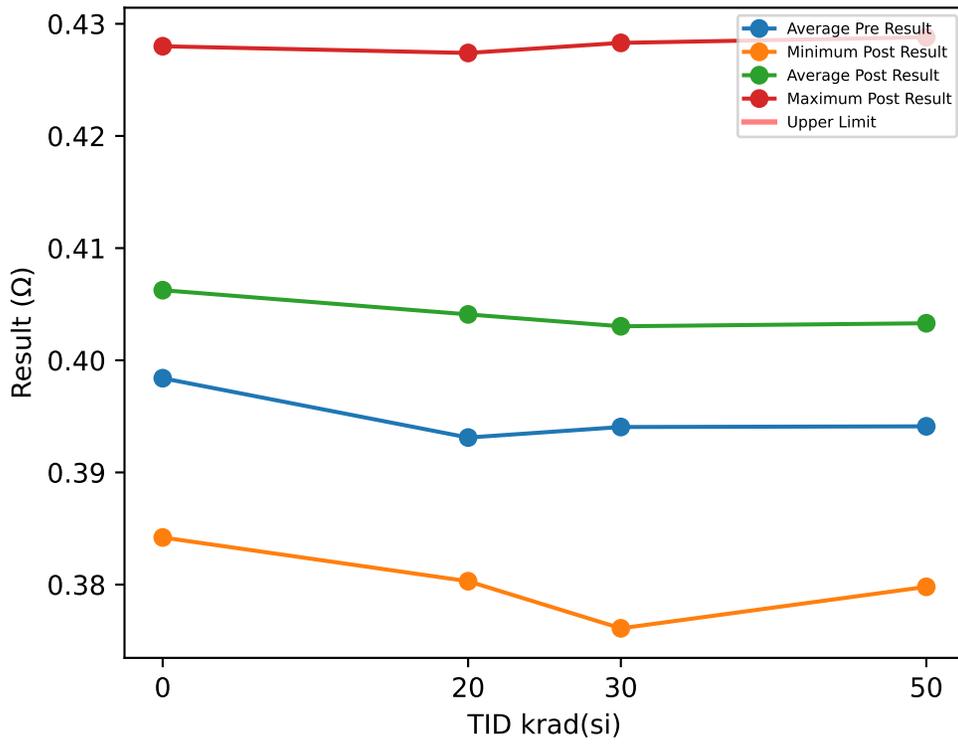


## Test Statistics (kΩ)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.971	0.97392	0.9762	0.0025863	0.9715	0.9748	0.9774	0.0027142	0.0005	0.000875	0.0012	0.00037749
20	0.9486	0.96226	0.9722	0.0083424	0.95	0.96264	0.9736	0.0089134	-0.0013	0.00038	0.0017	0.0012164
30	0.9562	0.96649	0.9717	0.0046611	0.9557	0.96714	0.9732	0.0050621	-0.0006	0.00065	0.0017	0.00095714
50	0.9612	0.96616	0.9707	0.0025791	0.9627	0.96691	0.9725	0.0028923	-0.0004	0.00075	0.0018	0.00095248

# Device Test: 17.29 BST|RES/BST/14/14/////@R\_BST\_SW

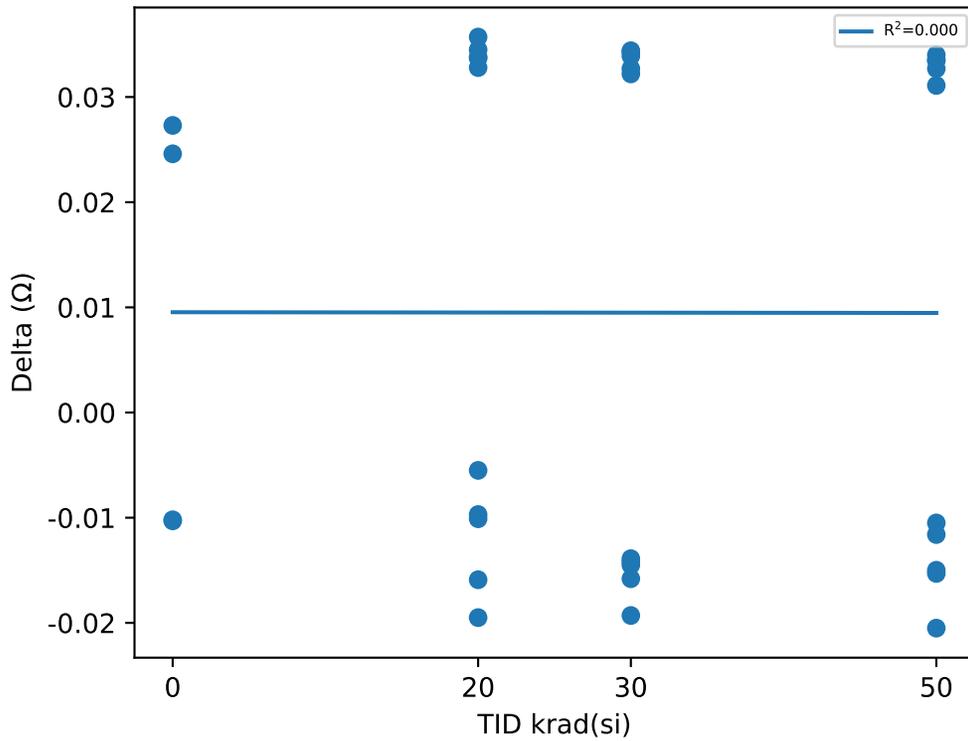
## TID vs Result Stats



## Test Results (No Limits Specified (Ω))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.3899	0.4244	0.0345
2	20	HDR BIAS	0.39	0.3803	-0.0097
3	20	HDR BIAS	0.3919	0.4256	0.0337
4	20	HDR BIAS	0.3868	0.3813	-0.0055
5	20	HDR BIAS	0.39	0.4257	0.0357
6	20	HDR UNBIAS	0.3919	0.3818	-0.0101
7	20	HDR UNBIAS	0.3936	0.4274	0.0338
8	20	HDR UNBIAS	0.4006	0.3847	-0.0159
9	20	HDR UNBIAS	0.3927	0.4255	0.0328
10	20	HDR UNBIAS	0.4037	0.3842	-0.0195
11	30	HDR BIAS	0.3905	0.4232	0.0327
12	30	HDR BIAS	0.397	0.3828	-0.0142
13	30	HDR BIAS	0.394	0.4283	0.0343
14	30	HDR BIAS	0.3943	0.3804	-0.0139
15	30	HDR BIAS	0.3876	0.4215	0.0339
16	30	HDR UNBIAS	0.3978	0.382	-0.0158
17	30	HDR UNBIAS	0.3944	0.4266	0.0322
18	30	HDR UNBIAS	0.3957	0.3812	-0.0145
19	30	HDR UNBIAS	0.3938	0.4282	0.0344
20	30	HDR UNBIAS	0.3954	0.3761	-0.0193
21	50	HDR BIAS	0.3948	0.4288	0.034
22	50	HDR BIAS	0.3958	0.3808	-0.015
23	50	HDR BIAS	0.3919	0.4246	0.0327
24	50	HDR BIAS	0.3926	0.381	-0.0116
25	50	HDR BIAS	0.3929	0.4264	0.0335
26	50	HDR UNBIAS	0.3961	0.3808	-0.0153
27	50	HDR UNBIAS	0.3901	0.4236	0.0335
28	50	HDR UNBIAS	0.3903	0.3798	-0.0105
29	50	HDR UNBIAS	0.3951	0.4262	0.0311
30	50	HDR UNBIAS	0.4015	0.381	-0.0205
41	0	CORRELATION	0.4001	0.4274	0.0273
42	0	CORRELATION	0.3957	0.3854	-0.0103
43	0	CORRELATION	0.4034	0.428	0.0246
45	0	CORRELATION	0.3944	0.3842	-0.0102

## TID vs Post - Pre Exposure Delta

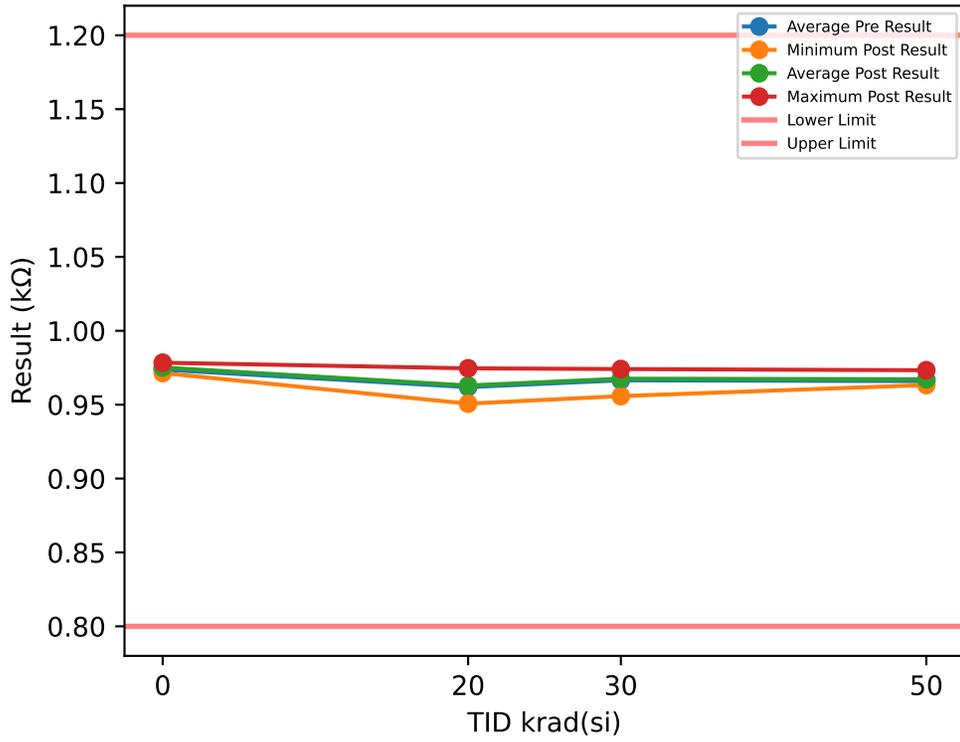


## Test Statistics (Ω)

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	0.3944	0.3984	0.4034	0.0041304	0.3842	0.40625	0.428	0.024774	-0.0103	0.00785	0.0273	0.020929
20	0.3868	0.39311	0.4037	0.0051753	0.3803	0.40409	0.4274	0.022847	-0.0195	0.01098	0.0357	0.024659
30	0.3876	0.39405	0.3978	0.0030141	0.3761	0.40303	0.4283	0.0239	-0.0193	0.00898	0.0344	0.025897
50	0.3901	0.39411	0.4015	0.0033683	0.3798	0.4033	0.4288	0.023883	-0.0205	0.00919	0.034	0.025203

# Device Test: 17.30 BST|RES/BST/14/14////@R\_BST\_SW\_PARALLEL

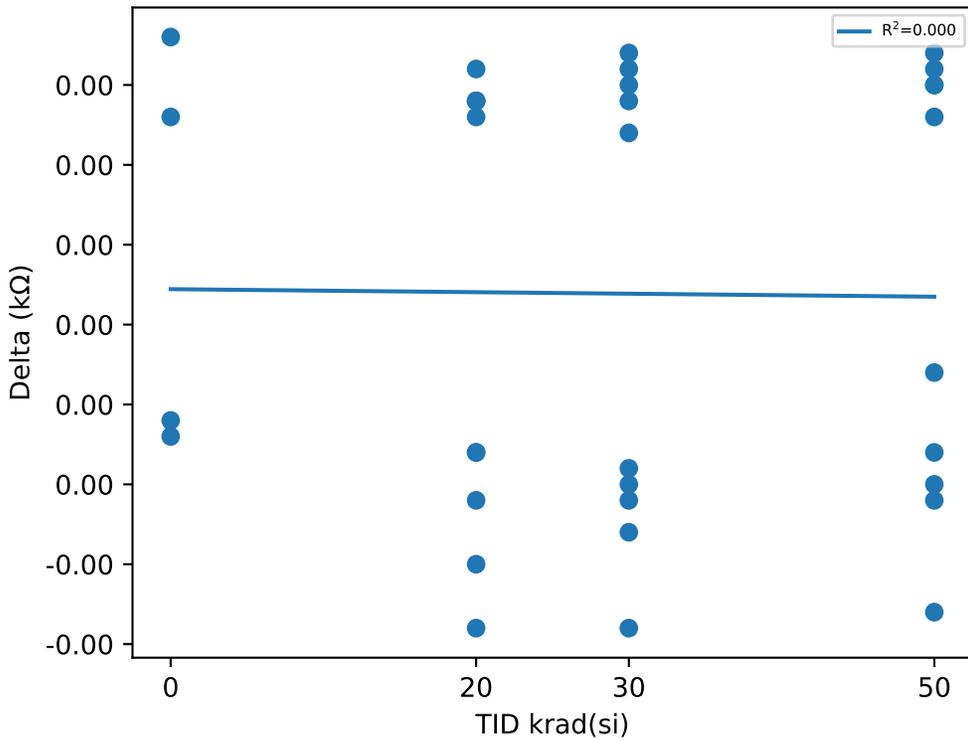
## TID vs Result Stats



## Test Results (Lower Limit = 0.8, Upper Limit = 1.2 (kΩ))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.9677	0.97	0.0023
2	20	HDR BIAS	0.9667	0.9666	-0.0001
3	20	HDR BIAS	0.9483	0.9507	0.0024
4	20	HDR BIAS	0.9514	0.9509	-0.0005
5	20	HDR BIAS	0.9642	0.9666	0.0024
6	20	HDR UNBIAS	0.9516	0.9518	0.0002
7	20	HDR UNBIAS	0.9722	0.9746	0.0024
8	20	HDR UNBIAS	0.9624	0.9615	-0.0009
9	20	HDR UNBIAS	0.9718	0.9744	0.0026
10	20	HDR UNBIAS	0.9625	0.9627	0.0002
11	30	HDR BIAS	0.968	0.9707	0.0027
12	30	HDR BIAS	0.9558	0.9558	0
13	30	HDR BIAS	0.9607	0.9632	0.0025
14	30	HDR BIAS	0.9683	0.968	-0.0003
15	30	HDR BIAS	0.9719	0.9741	0.0022
16	30	HDR UNBIAS	0.9704	0.9703	-0.0001
17	30	HDR UNBIAS	0.9675	0.9701	0.0026
18	30	HDR UNBIAS	0.9645	0.9646	0.0001
19	30	HDR UNBIAS	0.9684	0.9708	0.0024
20	30	HDR UNBIAS	0.9692	0.9683	-0.0009
21	50	HDR BIAS	0.9656	0.9681	0.0025
22	50	HDR BIAS	0.9635	0.9642	0.0007
23	50	HDR BIAS	0.9659	0.9684	0.0025
24	50	HDR BIAS	0.9657	0.9656	-0.0001
25	50	HDR BIAS	0.9683	0.971	0.0027
26	50	HDR UNBIAS	0.964	0.964	0
27	50	HDR UNBIAS	0.9707	0.9733	0.0026
28	50	HDR UNBIAS	0.9675	0.9677	0.0002
29	50	HDR UNBIAS	0.961	0.9633	0.0023
30	50	HDR UNBIAS	0.9673	0.9665	-0.0008
41	0	CORRELATION	0.9756	0.9784	0.0028
42	0	CORRELATION	0.9711	0.9714	0.0003
43	0	CORRELATION	0.9721	0.9744	0.0023
45	0	CORRELATION	0.976	0.9764	0.0004

## TID vs Post - Pre Exposure Delta

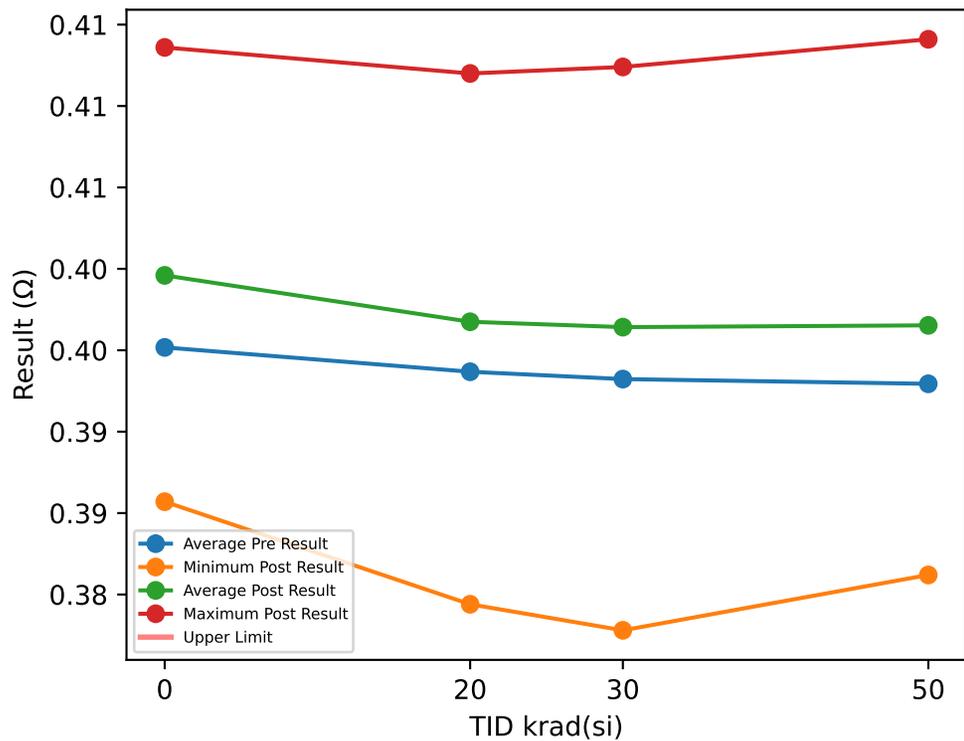


## Test Statistics (kΩ)

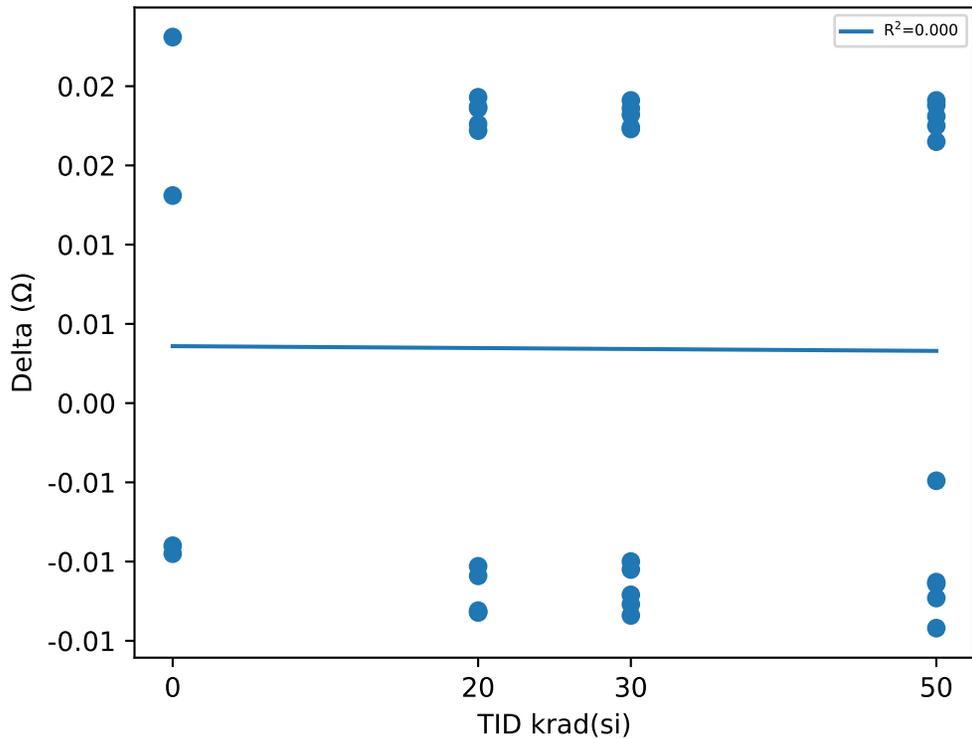
krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.9711	0.9737	0.976	0.0024644	0.9714	0.97515	0.9784	0.0029861	0.0003	0.00145	0.0028	0.0012871
20	0.9483	0.96188	0.9722	0.0086151	0.9507	0.96298	0.9746	0.009219	-0.0009	0.0011	0.0026	0.0014291
30	0.9558	0.96647	0.9719	0.0048749	0.9558	0.96759	0.9741	0.0052056	-0.0009	0.00112	0.0027	0.0014635
50	0.961	0.96595	0.9707	0.0027245	0.9633	0.96721	0.9733	0.0031911	-0.0008	0.00126	0.0027	0.0013802

# Device Test: 17.9 BST|RES/BST/10/8////@R\_BST\_SW

## TID vs Result Stats



## TID vs Post - Pre Exposure Delta



## Test Results (No Limits Specified (Ω))

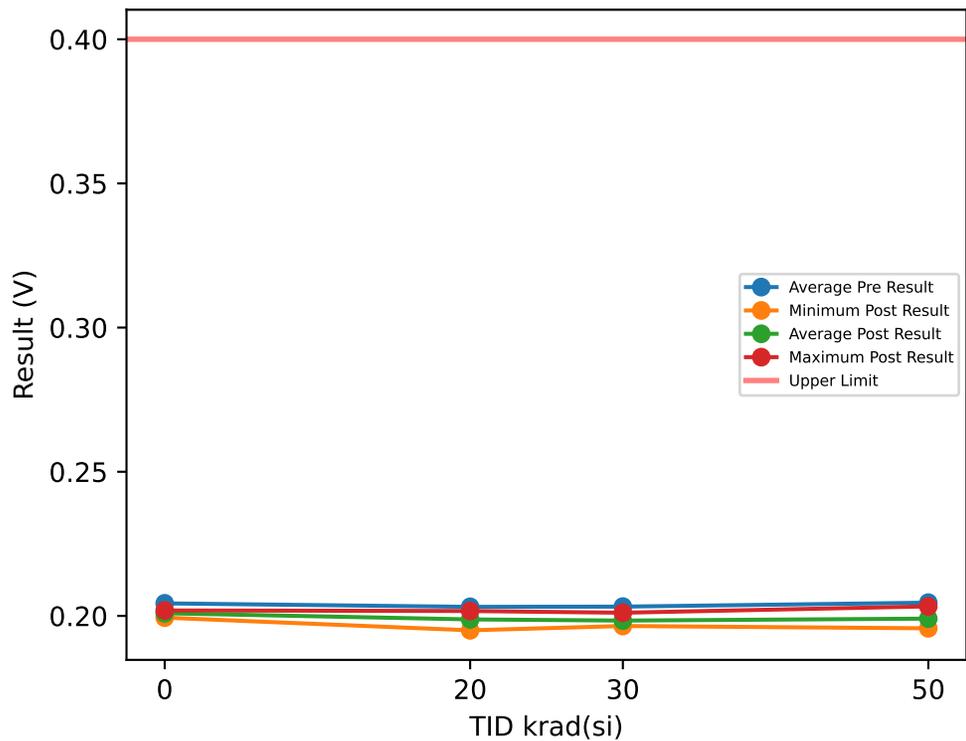
Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.3906	0.4099	0.0193
2	20	HDR BIAS	0.3897	0.3794	-0.0103
3	20	HDR BIAS	0.3925	0.4112	0.0187
4	20	HDR BIAS	0.396	0.3828	-0.0132
5	20	HDR BIAS	0.3929	0.4105	0.0176
6	20	HDR UNBIAS	0.3939	0.383	-0.0109
7	20	HDR UNBIAS	0.3934	0.412	0.0186
8	20	HDR UNBIAS	0.3967	0.3836	-0.0131
9	20	HDR UNBIAS	0.3929	0.4101	0.0172
10	20	HDR UNBIAS	0.3982	0.385	-0.0132
11	30	HDR BIAS	0.3903	0.4094	0.0191
12	30	HDR BIAS	0.3973	0.3846	-0.0127
13	30	HDR BIAS	0.3946	0.412	0.0174
14	30	HDR BIAS	0.393	0.3825	-0.0105
15	30	HDR BIAS	0.3885	0.4071	0.0186
16	30	HDR UNBIAS	0.3959	0.3838	-0.0121
17	30	HDR UNBIAS	0.3951	0.4124	0.0173
18	30	HDR UNBIAS	0.3928	0.3828	-0.01
19	30	HDR UNBIAS	0.3936	0.4118	0.0182
20	30	HDR UNBIAS	0.3912	0.3778	-0.0134
21	50	HDR BIAS	0.3953	0.4141	0.0188
22	50	HDR BIAS	0.3963	0.3821	-0.0142
23	50	HDR BIAS	0.3923	0.4098	0.0175
24	50	HDR BIAS	0.3927	0.3814	-0.0113
25	50	HDR BIAS	0.393	0.4121	0.0191
26	50	HDR UNBIAS	0.3938	0.3815	-0.0123
27	50	HDR UNBIAS	0.392	0.4085	0.0165
28	50	HDR UNBIAS	0.3861	0.3812	-0.0049
29	50	HDR UNBIAS	0.3935	0.4116	0.0181
30	50	HDR UNBIAS	0.3944	0.383	-0.0114
41	0	CORRELATION	0.3989	0.412	0.0131
42	0	CORRELATION	0.3961	0.3871	-0.009
43	0	CORRELATION	0.3905	0.4136	0.0231
45	0	CORRELATION	0.3952	0.3857	-0.0095

## 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	0.3905	0.39517	0.3989	0.0034923	0.3857	0.3996	0.4136	0.015267	-0.0095	0.004425	0.0231	0.016311
20	0.3897	0.39368	0.3982	0.0026457	0.3794	0.39675	0.412	0.014822	-0.0132	0.00307	0.0193	0.016071
30	0.3885	0.39323	0.3973	0.0026775	0.3778	0.39642	0.4124	0.015063	-0.0134	0.00319	0.0191	0.015776
50	0.3861	0.39294	0.3963	0.0027525	0.3812	0.39653	0.4141	0.015559	-0.0142	0.00359	0.0191	0.015384

# Device Test: 18.1 LEVEL|VOL/PGOOD/7.5/////@V\_PGOOD\_OL

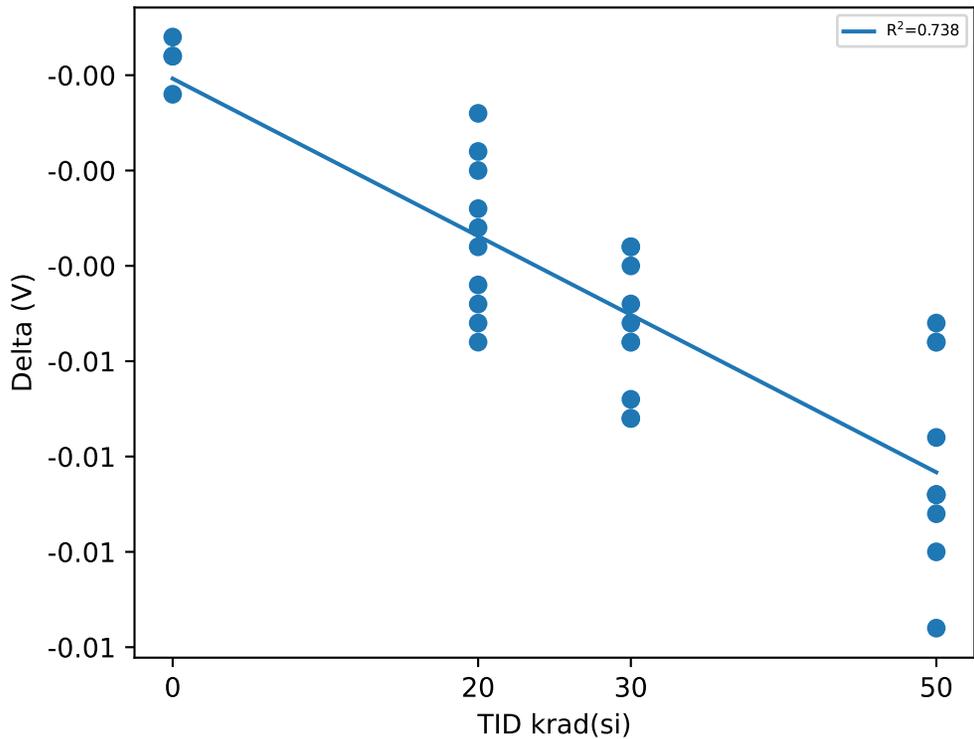
## TID vs Result Stats



## Test Results (Upper Limit = 0.4 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	0.2016	0.1977	-0.0039
2	20	HDR BIAS	0.1999	0.1956	-0.0043
3	20	HDR BIAS	0.203	0.199	-0.004
4	20	HDR BIAS	0.2057	0.2011	-0.0046
5	20	HDR BIAS	0.2037	0.2	-0.0037
6	20	HDR UNBIAS	0.2065	0.2017	-0.0048
7	20	HDR UNBIAS	0.1992	0.195	-0.0042
8	20	HDR UNBIAS	0.2025	0.1978	-0.0047
9	20	HDR UNBIAS	0.206	0.2016	-0.0044
10	20	HDR UNBIAS	0.2033	0.1984	-0.0049
11	30	HDR BIAS	0.2016	0.1972	-0.0044
12	30	HDR BIAS	0.2046	0.1997	-0.0049
13	30	HDR BIAS	0.2056	0.2011	-0.0045
14	30	HDR BIAS	0.2015	0.1966	-0.0049
15	30	HDR BIAS	0.2046	0.2002	-0.0044
16	30	HDR UNBIAS	0.2028	0.1976	-0.0052
17	30	HDR UNBIAS	0.2024	0.1976	-0.0048
18	30	HDR UNBIAS	0.2046	0.1993	-0.0053
19	30	HDR UNBIAS	0.2012	0.1965	-0.0047
20	30	HDR UNBIAS	0.2033	0.198	-0.0053
21	50	HDR BIAS	0.2047	0.1998	-0.0049
22	50	HDR BIAS	0.2011	0.1957	-0.0054
23	50	HDR BIAS	0.2067	0.2018	-0.0049
24	50	HDR BIAS	0.209	0.2033	-0.0057
25	50	HDR BIAS	0.2038	0.199	-0.0048
26	50	HDR UNBIAS	0.202	0.196	-0.006
27	50	HDR UNBIAS	0.2043	0.1986	-0.0057
28	50	HDR UNBIAS	0.2025	0.1967	-0.0058
29	50	HDR UNBIAS	0.2069	0.2012	-0.0057
30	50	HDR UNBIAS	0.2049	0.1985	-0.0064
41	0	CORRELATION	0.203	0.1994	-0.0036
42	0	CORRELATION	0.2052	0.2018	-0.0034
43	0	CORRELATION	0.204	0.2006	-0.0034
45	0	CORRELATION	0.2052	0.2019	-0.0033

## TID vs Post - Pre Exposure Delta

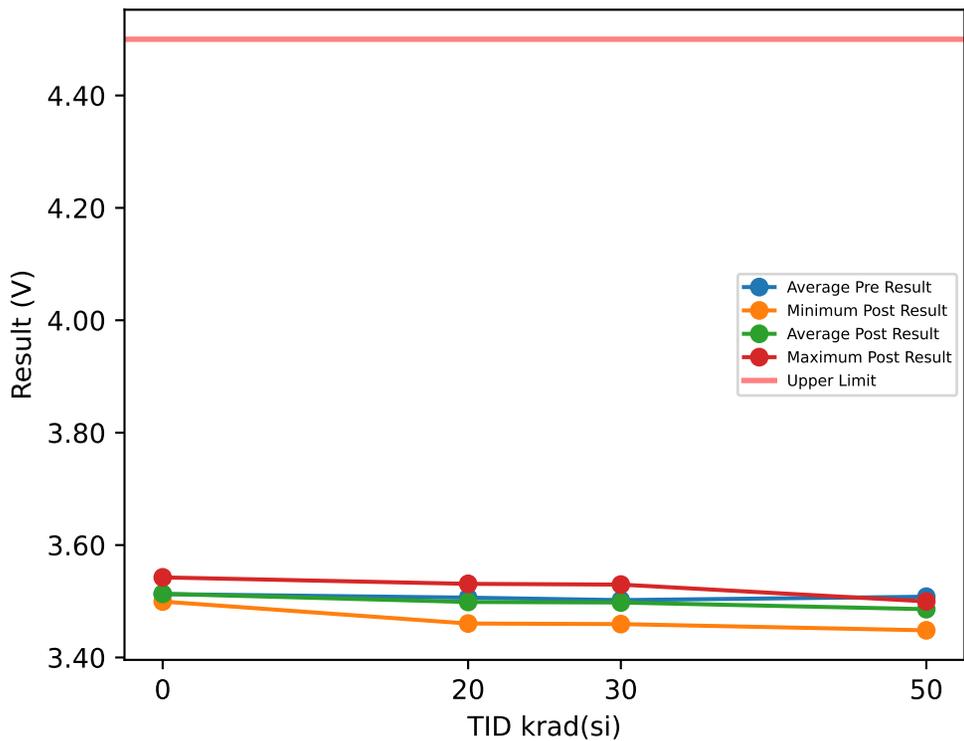


## Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.203	0.20435	0.2052	0.001063	0.1994	0.20092	0.2019	0.0011758	-0.0036	-0.003425	-0.0033	0.00012583
20	0.1992	0.20314	0.2065	0.0024762	0.195	0.19879	0.2017	0.0023586	-0.0049	-0.00435	-0.0037	0.00040346
30	0.2012	0.20322	0.2056	0.0015598	0.1965	0.19838	0.2011	0.0015901	-0.0053	-0.00484	-0.0044	0.00034705
50	0.2011	0.20459	0.209	0.0024338	0.1957	0.19906	0.2033	0.0025246	-0.0064	-0.00553	-0.0048	0.00052504

Device Test: 18.2 THRESHOLD|MINBP7L/PGOOD////////@V\_BP7L\_MIN\_FOR\_PGOOD

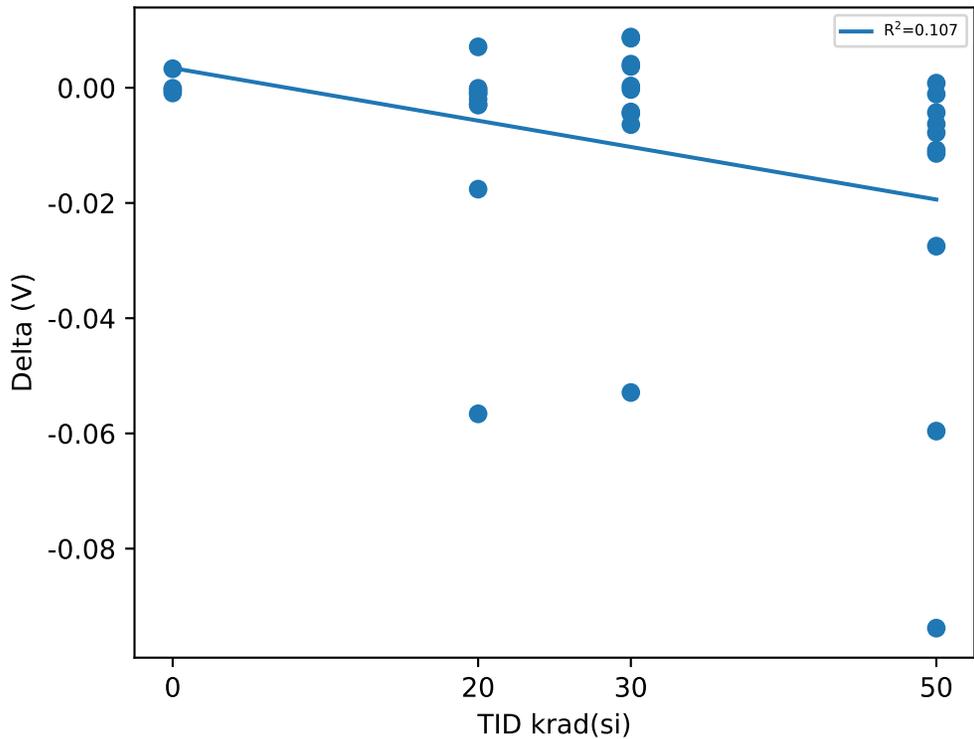
TID vs Result Stats



Test Results (Upper Limit = 4.5 (V))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	3.5036	3.5016	-0.002
2	20	HDR BIAS	3.517	3.4604	-0.0566
3	20	HDR BIAS	3.5076	3.5047	-0.0029
4	20	HDR BIAS	3.4967	3.4957	-0.001
5	20	HDR BIAS	3.4908	3.4878	-0.003
6	20	HDR UNBIAS	3.5217	3.5216	-0.0001
7	20	HDR UNBIAS	3.5001	3.4825	-0.0176
8	20	HDR UNBIAS	3.5239	3.531	0.0071
9	20	HDR UNBIAS	3.4879	3.4875	-0.0004
10	20	HDR UNBIAS	3.5154	3.5145	-0.0009
11	30	HDR BIAS	3.5211	3.5297	0.0086
12	30	HDR BIAS	3.5204	3.5207	0.0003
13	30	HDR BIAS	3.5089	3.5044	-0.0045
14	30	HDR BIAS	3.4985	3.5073	0.0088
15	30	HDR BIAS	3.4636	3.4594	-0.0042
16	30	HDR UNBIAS	3.5064	3.5101	0.0037
17	30	HDR UNBIAS	3.4717	3.4653	-0.0064
18	30	HDR UNBIAS	3.5029	3.5026	-0.0003
19	30	HDR UNBIAS	3.532	3.4791	-0.0529
20	30	HDR UNBIAS	3.4951	3.4992	0.0041
21	50	HDR BIAS	3.5011	3.4903	-0.0108
22	50	HDR BIAS	3.5586	3.4648	-0.0938
23	50	HDR BIAS	3.5098	3.4984	-0.0114
24	50	HDR BIAS	3.5173	3.4898	-0.0275
25	50	HDR BIAS	3.4886	3.4875	-0.0011
26	50	HDR UNBIAS	3.5079	3.4483	-0.0596
27	50	HDR UNBIAS	3.492	3.4928	0.0008
28	50	HDR UNBIAS	3.4957	3.4914	-0.0043
29	50	HDR UNBIAS	3.5026	3.4963	-0.0063
30	50	HDR UNBIAS	3.5076	3.4998	-0.0078
41	0	CORRELATION	3.5392	3.5425	0.0033
42	0	CORRELATION	3.5004	3.4995	-0.0009
43	0	CORRELATION	3.5079	3.5078	-0.0001
45	0	CORRELATION	3.5036	3.5032	-0.0004

TID vs Post - Pre Exposure Delta

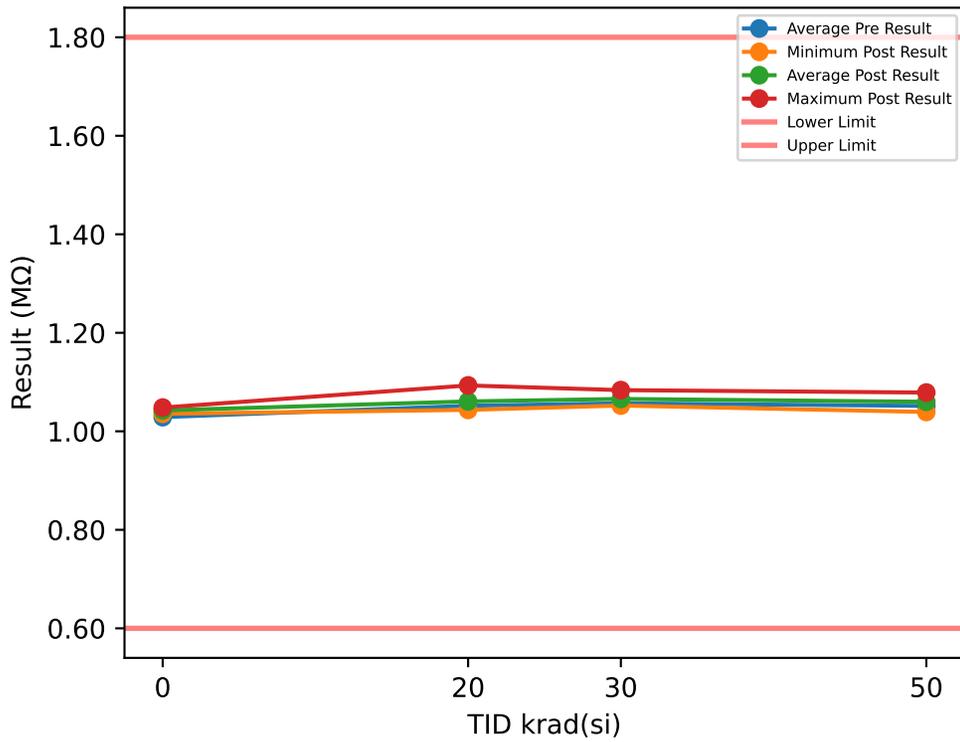


Test Statistics (V)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.5004	3.5128	3.5392	0.017883	3.4995	3.5133	3.5425	0.019793	-0.0009	0.000475	0.0033	0.001912
20	3.4879	3.5065	3.5239	0.012747	3.4604	3.4987	3.531	0.020668	-0.0566	-0.00774	0.0071	0.018221
30	3.4636	3.5021	3.532	0.021405	3.4594	3.4978	3.5297	0.022931	-0.0529	-0.00428	0.0088	0.017877
50	3.4886	3.5081	3.5586	0.01975	3.4483	3.4859	3.4998	0.016437	-0.0938	-0.02218	0.0008	0.030831

# Device Test: 18.3 LEVEL|RES/PGOOD/10/8////@I\_PGOOD\_PD\_RES

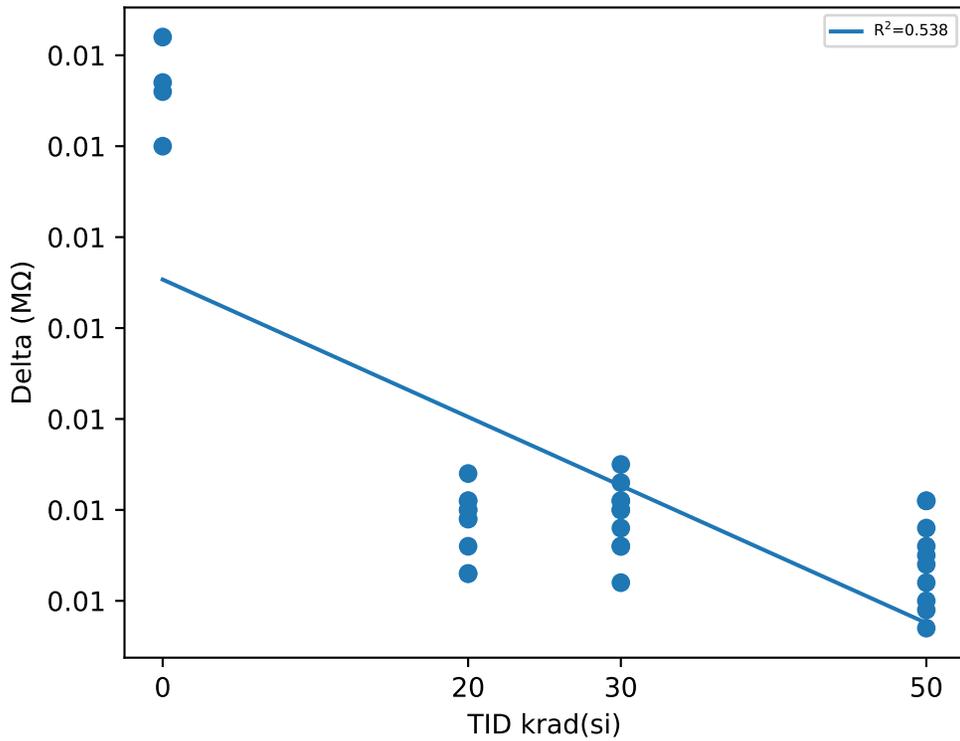
## TID vs Result Stats



## Test Results (Lower Limit = 0.6, Upper Limit = 1.8 (MΩ))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	1.0557	1.064	0.0083
2	20	HDR BIAS	1.0594	1.0684	0.009
3	20	HDR BIAS	1.0352	1.0435	0.0083
4	20	HDR BIAS	1.0465	1.0554	0.0089
5	20	HDR BIAS	1.0602	1.0688	0.0086
6	20	HDR UNBIAS	1.0463	1.0552	0.0089
7	20	HDR UNBIAS	1.084	1.0931	0.0091
8	20	HDR UNBIAS	1.0397	1.0487	0.009
9	20	HDR UNBIAS	1.0557	1.0648	0.0091
10	20	HDR UNBIAS	1.0356	1.045	0.0094
11	30	HDR BIAS	1.07	1.0786	0.0086
12	30	HDR BIAS	1.0478	1.0569	0.0091
13	30	HDR BIAS	1.0449	1.0531	0.0082
14	30	HDR BIAS	1.0511	1.0601	0.009
15	30	HDR BIAS	1.067	1.0756	0.0086
16	30	HDR UNBIAS	1.0477	1.0568	0.0091
17	30	HDR UNBIAS	1.0533	1.0621	0.0088
18	30	HDR UNBIAS	1.043	1.0523	0.0093
19	30	HDR UNBIAS	1.0693	1.0783	0.009
20	30	HDR UNBIAS	1.0741	1.0836	0.0095
21	50	HDR BIAS	1.0564	1.0646	0.0082
22	50	HDR BIAS	1.0693	1.0781	0.0088
23	50	HDR BIAS	1.0393	1.047	0.0077
24	50	HDR BIAS	1.0363	1.0447	0.0084
25	50	HDR BIAS	1.0441	1.0521	0.008
26	50	HDR UNBIAS	1.0696	1.0787	0.0091
27	50	HDR UNBIAS	1.0663	1.0748	0.0085
28	50	HDR UNBIAS	1.0579	1.067	0.0091
29	50	HDR UNBIAS	1.0314	1.0393	0.0079
30	50	HDR UNBIAS	1.0448	1.0534	0.0086
41	0	CORRELATION	1.0337	1.0479	0.0142
42	0	CORRELATION	1.022	1.0356	0.0136
43	0	CORRELATION	1.0242	1.0379	0.0137
45	0	CORRELATION	1.0352	1.0482	0.013

## TID vs Post - Pre Exposure Delta

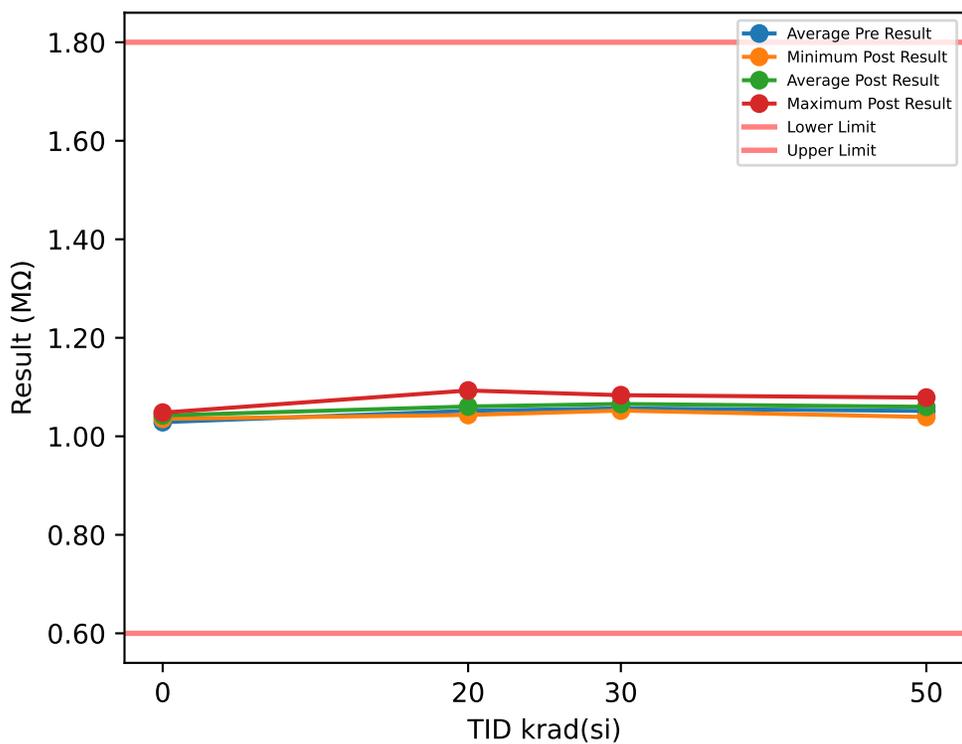


## Test Statistics (MΩ)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.022	1.0288	1.0352	0.0066425	1.0356	1.0424	1.0482	0.0065924	0.013	0.013625	0.0142	0.00049244
20	1.0352	1.0518	1.084	0.014675	1.0435	1.0607	1.0931	0.014708	0.0083	0.00886	0.0094	0.00035653
30	1.043	1.0568	1.0741	0.0119	1.0523	1.0657	1.0836	0.011939	0.0082	0.00892	0.0095	0.00037947
50	1.0314	1.0515	1.0696	0.014189	1.0393	1.06	1.0787	0.014545	0.0077	0.00843	0.0091	0.00048546

# Device Test: 18.4 LEVEL|RES/PGOOD/12/10////@I\_PGOOD\_PD\_RES

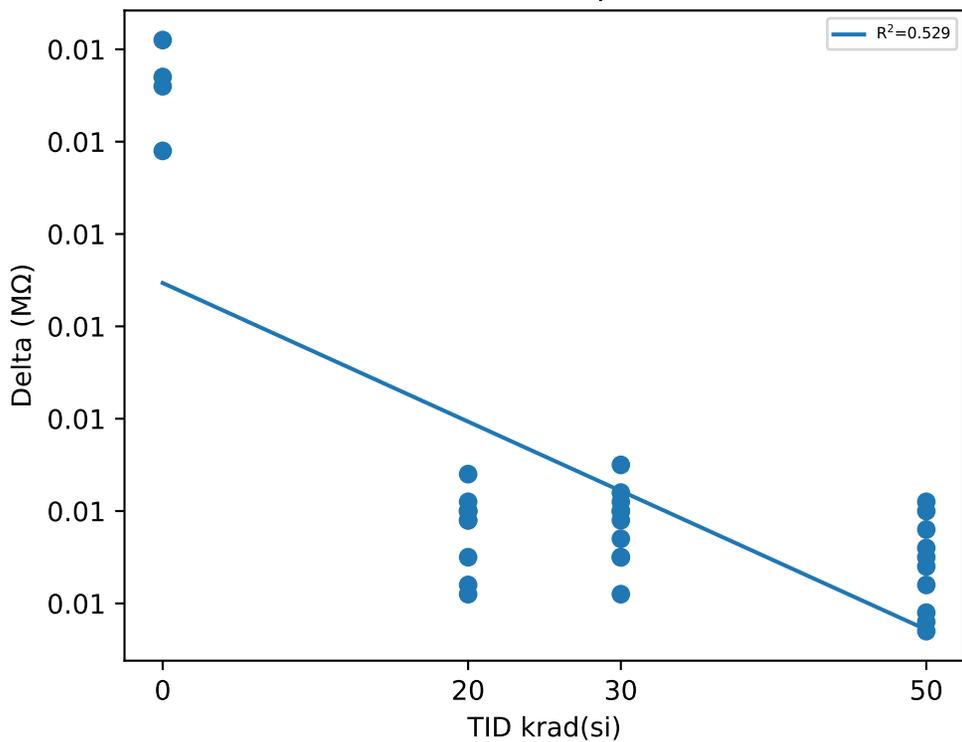
## TID vs Result Stats



## Test Results (Lower Limit = 0.6, Upper Limit = 1.8 (MΩ))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	1.0557	1.0638	0.0081
2	20	HDR BIAS	1.0593	1.0683	0.009
3	20	HDR BIAS	1.0351	1.0433	0.0082
4	20	HDR BIAS	1.0464	1.0553	0.0089
5	20	HDR BIAS	1.0602	1.0687	0.0085
6	20	HDR UNBIAS	1.0462	1.0551	0.0089
7	20	HDR UNBIAS	1.0839	1.093	0.0091
8	20	HDR UNBIAS	1.0396	1.0486	0.009
9	20	HDR UNBIAS	1.0556	1.0646	0.009
10	20	HDR UNBIAS	1.0355	1.0449	0.0094
11	30	HDR BIAS	1.07	1.0785	0.0085
12	30	HDR BIAS	1.0477	1.0567	0.009
13	30	HDR BIAS	1.0449	1.053	0.0081
14	30	HDR BIAS	1.051	1.06	0.009
15	30	HDR BIAS	1.067	1.0755	0.0085
16	30	HDR UNBIAS	1.0476	1.0567	0.0091
17	30	HDR UNBIAS	1.0533	1.062	0.0087
18	30	HDR UNBIAS	1.043	1.0522	0.0092
19	30	HDR UNBIAS	1.0692	1.0781	0.0089
20	30	HDR UNBIAS	1.074	1.0835	0.0095
21	50	HDR BIAS	1.0563	1.0645	0.0082
22	50	HDR BIAS	1.0692	1.078	0.0088
23	50	HDR BIAS	1.0392	1.0469	0.0077
24	50	HDR BIAS	1.0362	1.0446	0.0084
25	50	HDR BIAS	1.0441	1.052	0.0079
26	50	HDR UNBIAS	1.0695	1.0786	0.0091
27	50	HDR UNBIAS	1.0662	1.0747	0.0085
28	50	HDR UNBIAS	1.0578	1.0668	0.009
29	50	HDR UNBIAS	1.0314	1.0392	0.0078
30	50	HDR UNBIAS	1.0447	1.0533	0.0086
41	0	CORRELATION	1.0336	1.0477	0.0141
42	0	CORRELATION	1.0219	1.0355	0.0136
43	0	CORRELATION	1.0241	1.0378	0.0137
45	0	CORRELATION	1.0352	1.0481	0.0129

## TID vs Post - Pre Exposure Delta



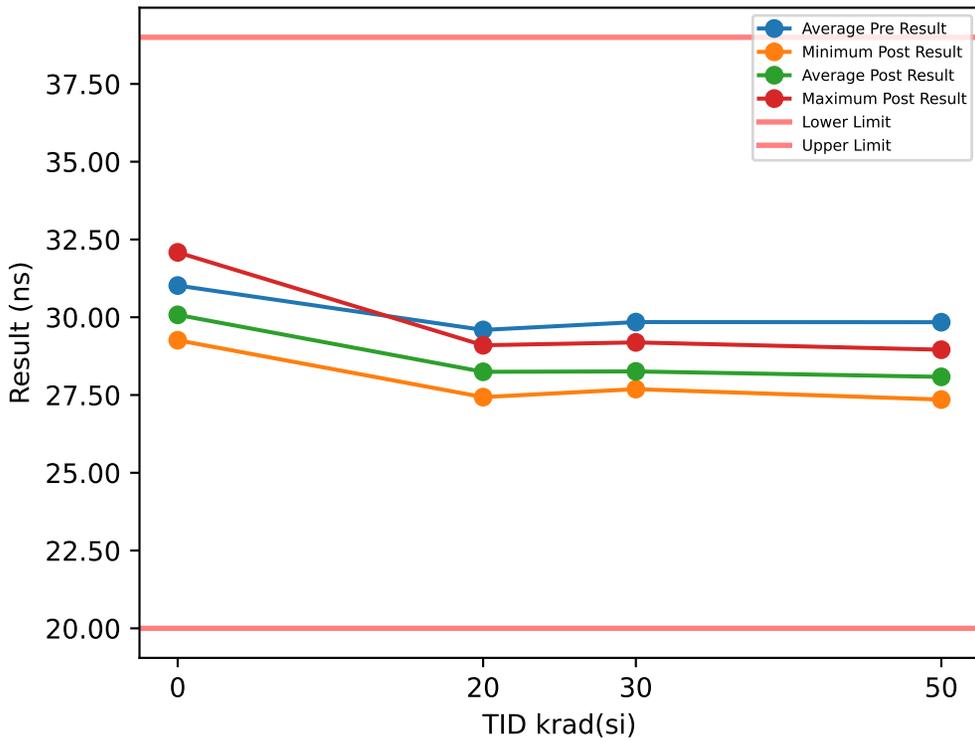
## Test Statistics (MΩ)

krad(si)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.0219	1.0287	1.0352	0.0066748	1.0355	1.0423	1.0481	0.0065647	0.0129	0.013575	0.0141	0.00049917
20	1.0351	1.0517	1.0839	0.014685	1.0433	1.0606	1.093	0.014716	0.0081	0.00881	0.0094	0.00041218
30	1.043	1.0568	1.074	0.011894	1.0522	1.0656	1.0835	0.011936	0.0081	0.00885	0.0095	0.0004062
50	1.0314	1.0515	1.0695	0.014168	1.0392	1.0599	1.0786	0.01454	0.0077	0.0084	0.0091	0.00049441



# Device Test: 19.1 PWM|DEADTIME/GATE/10/8///0MHz/@T\_RLH

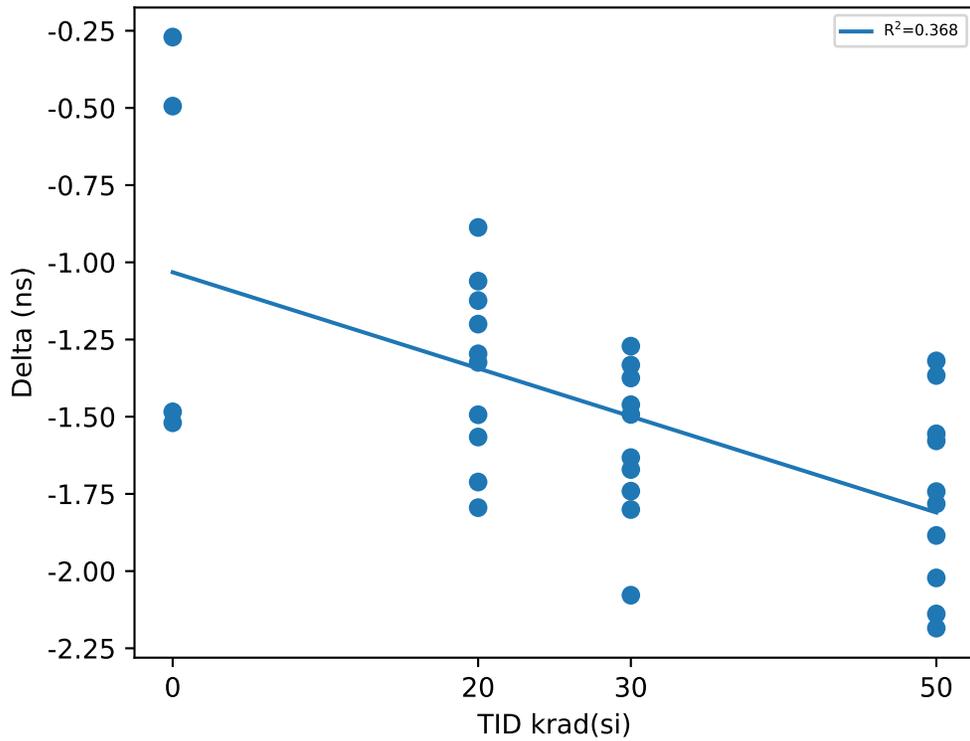
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	29.113	27.989	-1.1238
2	20	HDR BIAS	29.398	28.198	-1.2001
3	20	HDR BIAS	29.93	29.043	-0.8871
4	20	HDR BIAS	29.996	28.502	-1.4936
5	20	HDR BIAS	30.081	28.287	-1.7946
6	20	HDR UNBIAS	29.107	28.046	-1.0609
7	20	HDR UNBIAS	29.144	27.432	-1.7115
8	20	HDR UNBIAS	29.41	28.113	-1.2964
9	20	HDR UNBIAS	29.317	27.751	-1.5658
10	20	HDR UNBIAS	30.423	29.099	-1.3241
11	30	HDR BIAS	29.889	27.81	-2.0781
12	30	HDR BIAS	29.662	27.991	-1.671
13	30	HDR BIAS	30.364	28.731	-1.6325
14	30	HDR BIAS	29.702	28.431	-1.2715
15	30	HDR BIAS	29.764	27.963	-1.8007
16	30	HDR UNBIAS	30.524	29.191	-1.3327
17	30	HDR UNBIAS	29.984	28.523	-1.4612
18	30	HDR UNBIAS	29.808	28.433	-1.3746
19	30	HDR UNBIAS	29.563	27.822	-1.7411
20	30	HDR UNBIAS	29.182	27.689	-1.4926
21	50	HDR BIAS	28.673	27.354	-1.3193
22	50	HDR BIAS	30.271	28.387	-1.8846
23	50	HDR BIAS	29.869	27.73	-2.1388
24	50	HDR BIAS	29.606	28.028	-1.5782
25	50	HDR BIAS	29.129	27.763	-1.3665
26	50	HDR UNBIAS	30.881	28.859	-2.0221
27	50	HDR UNBIAS	29.893	28.337	-1.5554
28	50	HDR UNBIAS	29.749	28.006	-1.7425
29	50	HDR UNBIAS	29.596	27.411	-2.1847
30	50	HDR UNBIAS	30.738	28.956	-1.7822
41	0	CORRELATION	30.904	29.42	-1.4842
42	0	CORRELATION	30.036	29.542	-0.4941
43	0	CORRELATION	33.605	32.085	-1.5196
45	0	CORRELATION	29.532	29.261	-0.2705

## TID vs Post - Pre Exposure Delta

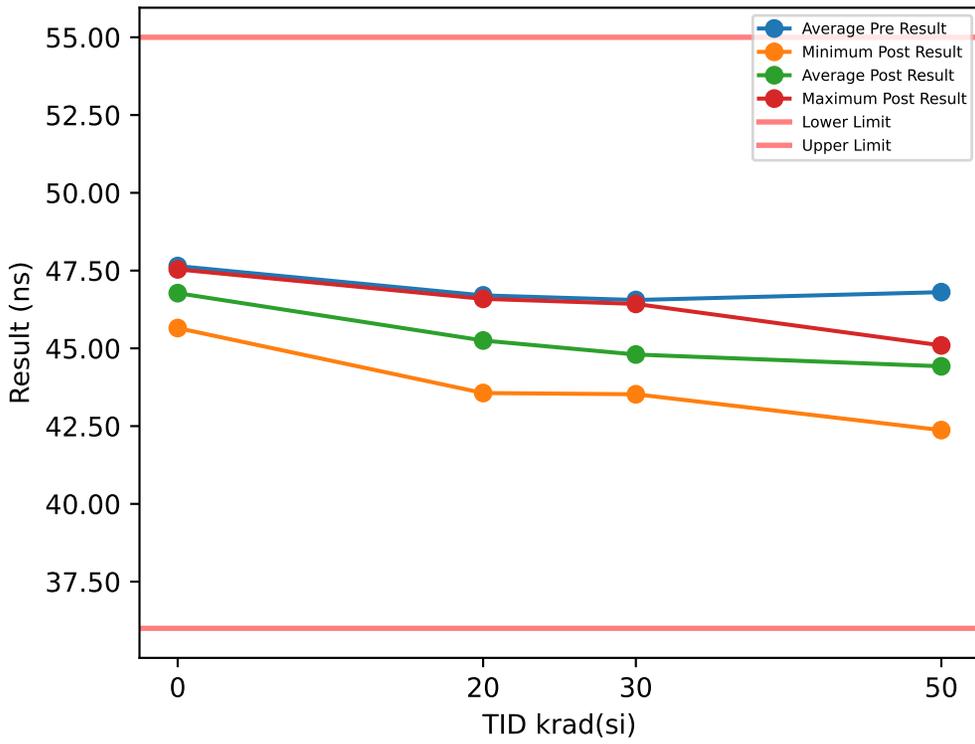


## Test Statistics (ns)

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	29.532	31.019	33.605	1.8147	29.261	30.077	32.085	1.3438	-1.5196	-0.9421	-0.2705	0.65298
20	29.107	29.592	30.423	0.47377	27.432	28.246	29.099	0.52312	-1.7946	-1.3458	-0.8871	0.29257
30	29.182	29.844	30.524	0.38483	27.689	28.258	29.191	0.48287	-2.0781	-1.5856	-1.2715	0.24805
50	28.673	29.841	30.881	0.67241	27.354	28.083	28.956	0.55168	-2.1847	-1.7574	-1.3193	0.30419

# Device Test: 19.10 PWM|DEADTIME/GATE/12/10///0MHz/@T\_RHL

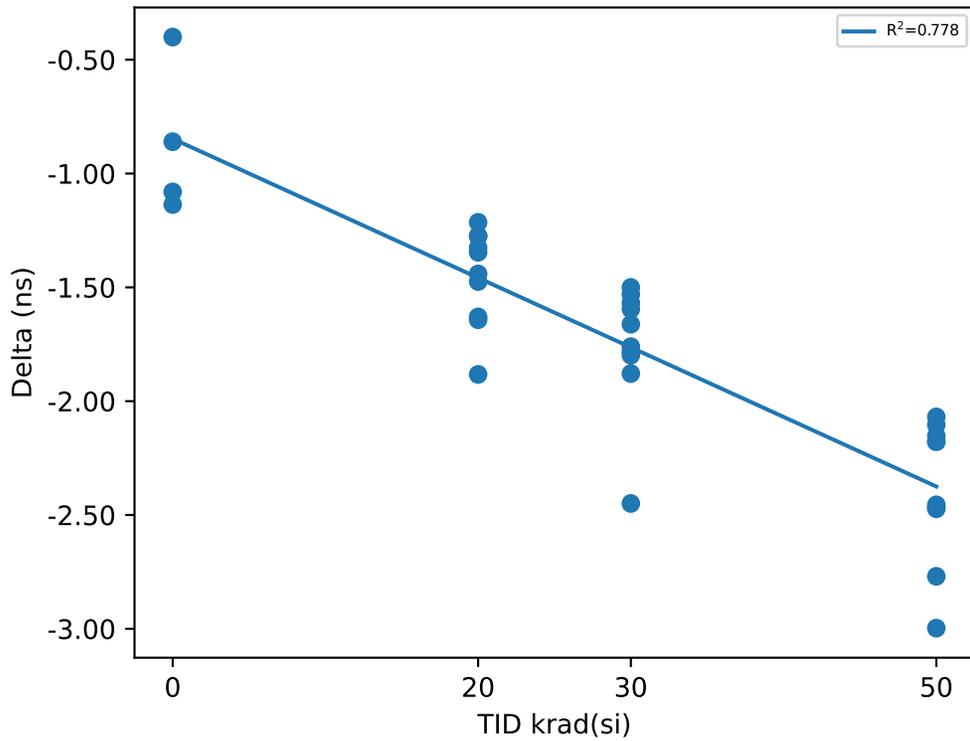
## TID vs Result Stats



## Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	46.059	44.177	-1.8826
2	20	HDR BIAS	44.84	43.564	-1.2759
3	20	HDR BIAS	45.864	44.423	-1.4411
4	20	HDR BIAS	46.797	45.523	-1.2739
5	20	HDR BIAS	46.98	45.506	-1.4744
6	20	HDR UNBIAS	47.367	45.737	-1.6299
7	20	HDR UNBIAS	47.266	45.624	-1.6422
8	20	HDR UNBIAS	47.937	46.591	-1.3459
9	20	HDR UNBIAS	46.885	45.671	-1.2146
10	20	HDR UNBIAS	47.033	45.707	-1.3262
11	30	HDR BIAS	45.284	43.523	-1.7608
12	30	HDR BIAS	45.271	43.676	-1.5954
13	30	HDR BIAS	46.91	45.38	-1.5307
14	30	HDR BIAS	47.088	45.588	-1.5004
15	30	HDR BIAS	46.624	44.746	-1.8788
16	30	HDR UNBIAS	46.935	45.137	-1.798
17	30	HDR UNBIAS	46.552	44.769	-1.7826
18	30	HDR UNBIAS	48.09	46.429	-1.6619
19	30	HDR UNBIAS	46.631	44.181	-2.4495
20	30	HDR UNBIAS	46.157	44.589	-1.5678
21	50	HDR BIAS	47.05	44.897	-2.153
22	50	HDR BIAS	46.731	44.662	-2.0693
23	50	HDR BIAS	47.272	45.094	-2.1774
24	50	HDR BIAS	47.101	44.923	-2.1779
25	50	HDR BIAS	47.459	44.689	-2.7696
26	50	HDR UNBIAS	47.344	44.888	-2.4555
27	50	HDR UNBIAS	44.845	42.372	-2.4726
28	50	HDR UNBIAS	46.755	44.287	-2.468
29	50	HDR UNBIAS	47.689	44.692	-2.9971
30	50	HDR UNBIAS	45.824	43.72	-2.1042
41	0	CORRELATION	46.789	45.653	-1.1361
42	0	CORRELATION	47.94	47.539	-0.4005
43	0	CORRELATION	47.781	46.7	-1.0808
45	0	CORRELATION	48.07	47.21	-0.86

## TID vs Post - Pre Exposure Delta

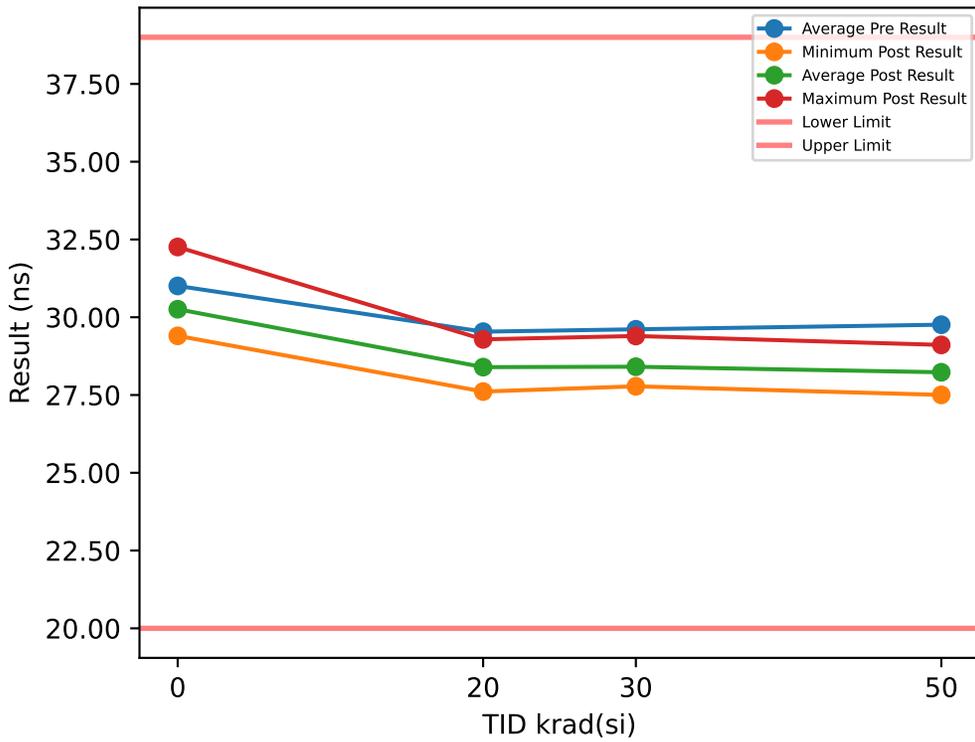


## Test Statistics (ns)

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	46.789	47.645	48.07	0.58278	45.653	46.775	47.539	0.82432	-1.1361	-0.86935	-0.4005	0.33455
20	44.84	46.703	47.937	0.88804	43.564	45.252	46.591	0.9055	-1.8826	-1.4507	-1.2146	0.21082
30	45.271	46.554	48.09	0.83968	43.523	44.802	46.429	0.88491	-2.4495	-1.7526	-1.5004	0.27579
50	44.845	46.807	47.689	0.86131	42.372	44.422	45.094	0.82058	-2.9971	-2.3845	-2.0693	0.3092

# Device Test: 19.11 PWM|DEADTIME/GATE/12/10///0.5MHz/@T\_RLH

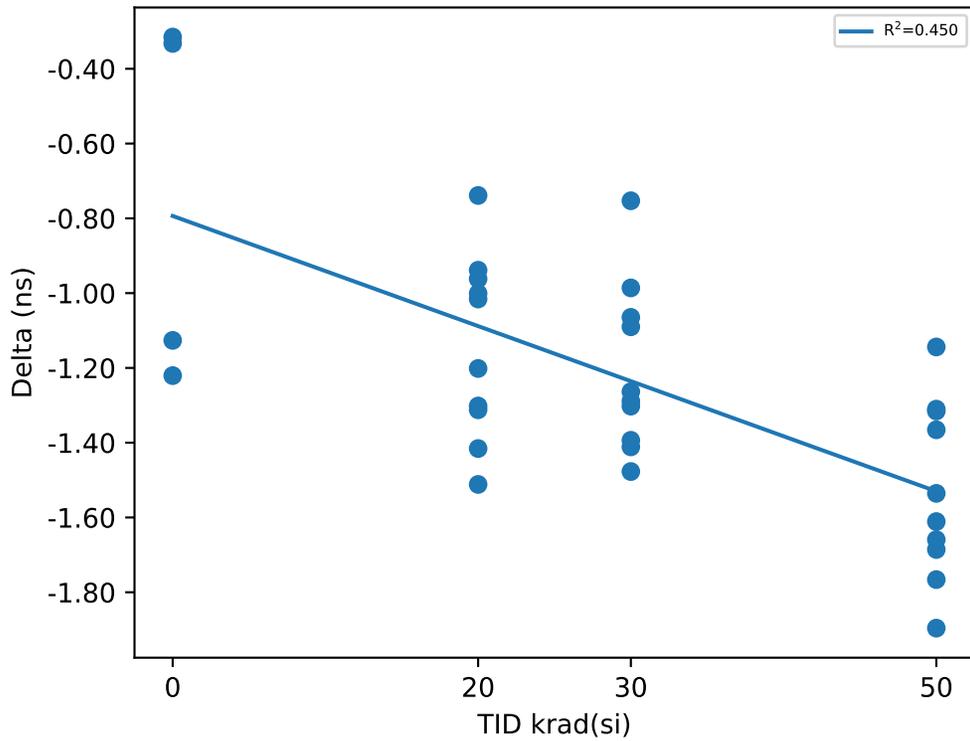
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	29.429	28.127	-1.3019
2	20	HDR BIAS	29.302	28.287	-1.0157
3	20	HDR BIAS	30.601	29.289	-1.3119
4	20	HDR BIAS	29.899	28.698	-1.2015
5	20	HDR BIAS	29.809	28.394	-1.4156
6	20	HDR UNBIAS	29.031	28.092	-0.9388
7	20	HDR UNBIAS	29.122	27.611	-1.5116
8	20	HDR UNBIAS	29.277	28.316	-0.9618
9	20	HDR UNBIAS	28.62	27.882	-0.7388
10	20	HDR UNBIAS	30.271	29.27	-1.0008
11	30	HDR BIAS	29.468	27.991	-1.4771
12	30	HDR BIAS	29.365	28.101	-1.2636
13	30	HDR BIAS	30.233	28.84	-1.3936
14	30	HDR BIAS	29.607	28.542	-1.0648
15	30	HDR BIAS	29.435	28.133	-1.3022
16	30	HDR UNBIAS	30.383	29.397	-0.986
17	30	HDR UNBIAS	29.434	28.681	-0.753
18	30	HDR UNBIAS	29.661	28.571	-1.09
19	30	HDR UNBIAS	29.464	28.053	-1.4111
20	30	HDR UNBIAS	29.069	27.78	-1.2887
21	50	HDR BIAS	29.27	27.503	-1.7661
22	50	HDR BIAS	30.14	28.529	-1.611
23	50	HDR BIAS	29.811	27.915	-1.8959
24	50	HDR BIAS	29.477	28.166	-1.3103
25	50	HDR BIAS	29.361	27.826	-1.5355
26	50	HDR UNBIAS	30.694	29.035	-1.6593
27	50	HDR UNBIAS	30.199	28.513	-1.6856
28	50	HDR UNBIAS	29.558	28.192	-1.3655
29	50	HDR UNBIAS	28.663	27.519	-1.144
30	50	HDR UNBIAS	30.426	29.111	-1.3152
41	0	CORRELATION	30.771	29.645	-1.1264
42	0	CORRELATION	30.06	29.728	-0.3322
43	0	CORRELATION	33.48	32.259	-1.2206
45	0	CORRELATION	29.717	29.402	-0.3152

## TID vs Post - Pre Exposure Delta

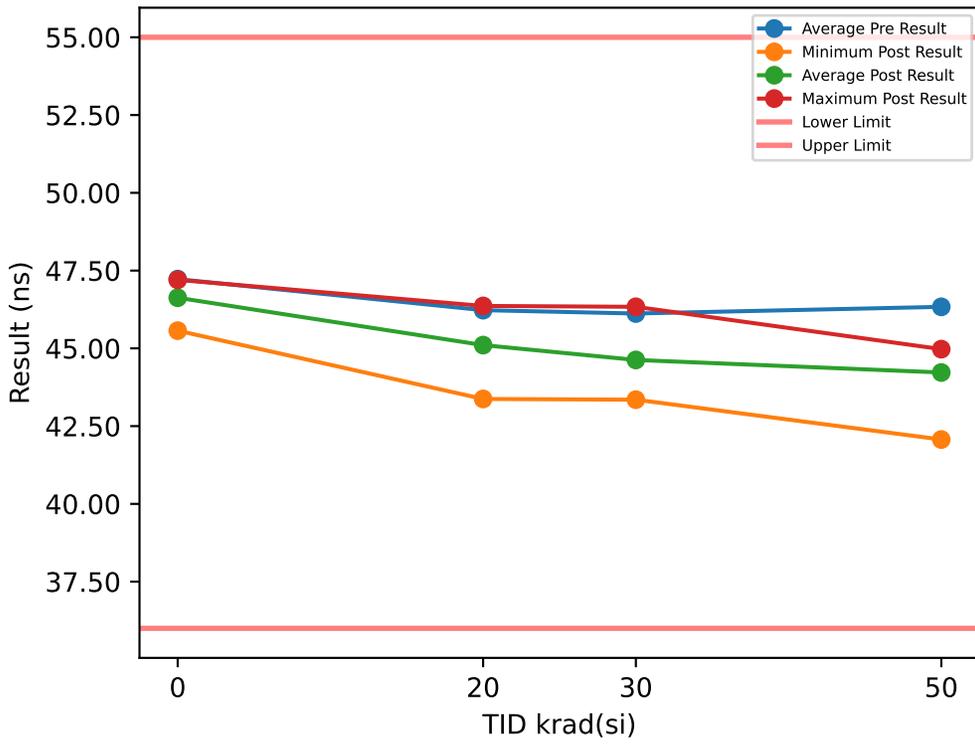


## Test Statistics (ns)

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	29.717	31.007	33.48	1.7059	29.402	30.258	32.259	1.3409	-1.2206	-0.7486	-0.3152	0.49219
20	28.62	29.536	30.601	0.60338	27.611	28.396	29.289	0.54932	-1.5116	-1.1398	-0.7388	0.24531
30	29.069	29.612	30.383	0.40053	27.78	28.409	29.397	0.48839	-1.4771	-1.203	-0.753	0.22536
50	28.663	29.76	30.694	0.61262	27.503	28.231	29.111	0.56698	-1.8959	-1.5288	-1.144	0.23749

# Device Test: 19.12 PWM|DEADTIME/GATE/12/10///0.5MHz/@T\_RHL

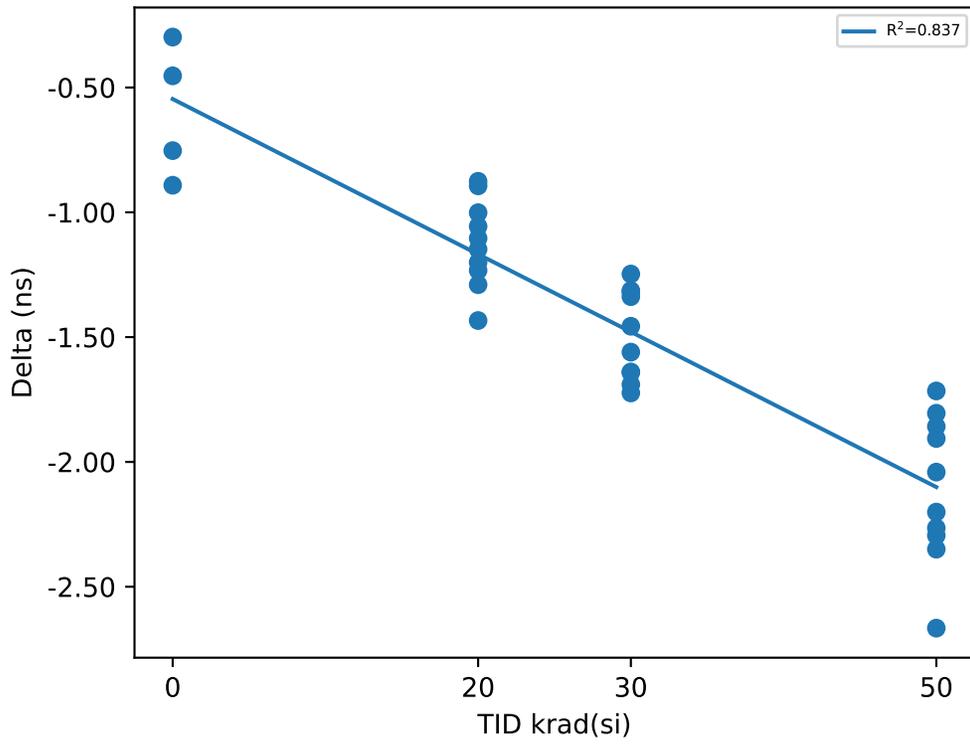
## TID vs Result Stats



## Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	45.406	43.972	-1.4335
2	20	HDR BIAS	44.477	43.373	-1.1039
3	20	HDR BIAS	45.328	44.326	-1.0016
4	20	HDR BIAS	46.383	45.489	-0.894
5	20	HDR BIAS	46.251	45.375	-0.8758
6	20	HDR UNBIAS	46.824	45.624	-1.2006
7	20	HDR UNBIAS	46.723	45.49	-1.2326
8	20	HDR UNBIAS	47.512	46.364	-1.148
9	20	HDR UNBIAS	46.813	45.523	-1.29
10	20	HDR UNBIAS	46.561	45.505	-1.0563
11	30	HDR BIAS	45.04	43.35	-1.69
12	30	HDR BIAS	44.814	43.476	-1.3378
13	30	HDR BIAS	46.766	45.125	-1.6404
14	30	HDR BIAS	46.651	45.404	-1.2473
15	30	HDR BIAS	45.882	44.564	-1.3175
16	30	HDR UNBIAS	46.577	44.937	-1.6407
17	30	HDR UNBIAS	46.362	44.639	-1.7236
18	30	HDR UNBIAS	47.649	46.336	-1.3137
19	30	HDR UNBIAS	45.631	44.071	-1.5602
20	30	HDR UNBIAS	45.824	44.368	-1.4565
21	50	HDR BIAS	46.522	44.717	-1.805
22	50	HDR BIAS	46.24	44.525	-1.7157
23	50	HDR BIAS	47.015	44.974	-2.0408
24	50	HDR BIAS	46.605	44.747	-1.8579
25	50	HDR BIAS	46.815	44.614	-2.201
26	50	HDR UNBIAS	46.908	44.614	-2.2946
27	50	HDR UNBIAS	44.419	42.07	-2.3495
28	50	HDR UNBIAS	46.359	44.094	-2.2647
29	50	HDR UNBIAS	47.143	44.477	-2.6658
30	50	HDR UNBIAS	45.315	43.409	-1.906
41	0	CORRELATION	46.46	45.569	-0.8916
42	0	CORRELATION	47.655	47.202	-0.4533
43	0	CORRELATION	47.307	46.555	-0.7529
45	0	CORRELATION	47.481	47.183	-0.298

## TID vs Post - Pre Exposure Delta

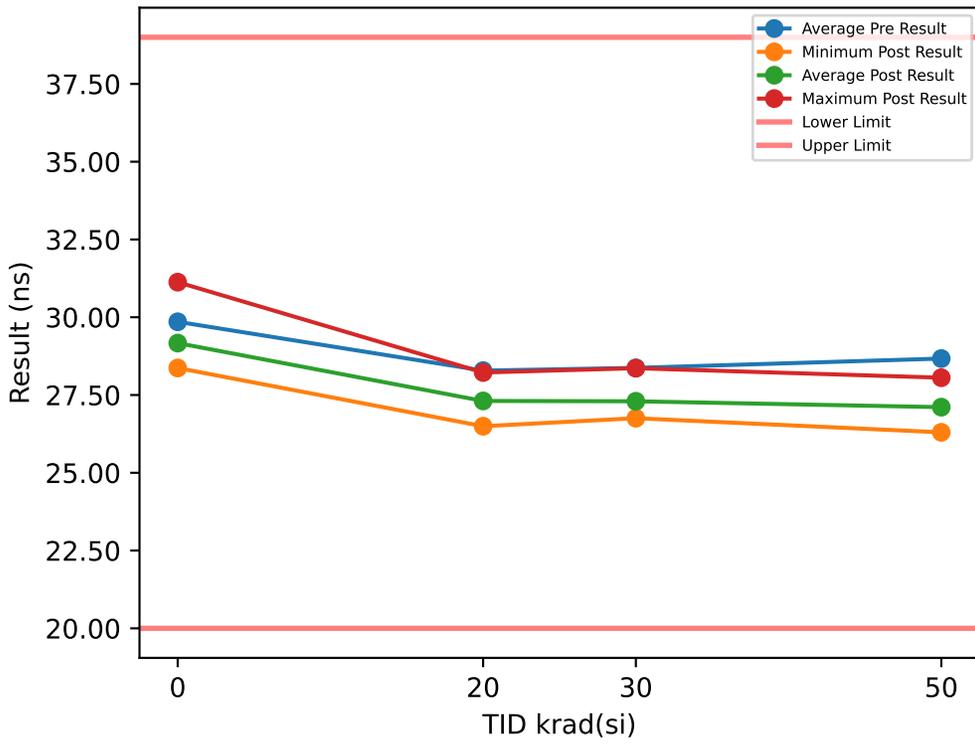


## Test Statistics (ns)

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	46.46	47.226	47.655	0.52988	45.569	46.627	47.202	0.76705	-0.8916	-0.59895	-0.298	0.2715
20	44.477	46.228	47.512	0.89927	43.373	45.104	46.364	0.90954	-1.4335	-1.1236	-0.8758	0.17514
30	44.814	46.12	47.649	0.85377	43.35	44.627	46.336	0.89454	-1.7236	-1.4928	-1.2473	0.17913
50	44.419	46.334	47.143	0.84998	42.07	44.224	44.974	0.87305	-2.6658	-2.1101	-1.7157	0.29646

# Device Test: 19.13 PWM|DEADTIME/GATE/12/10///1MHz/@T\_RLH

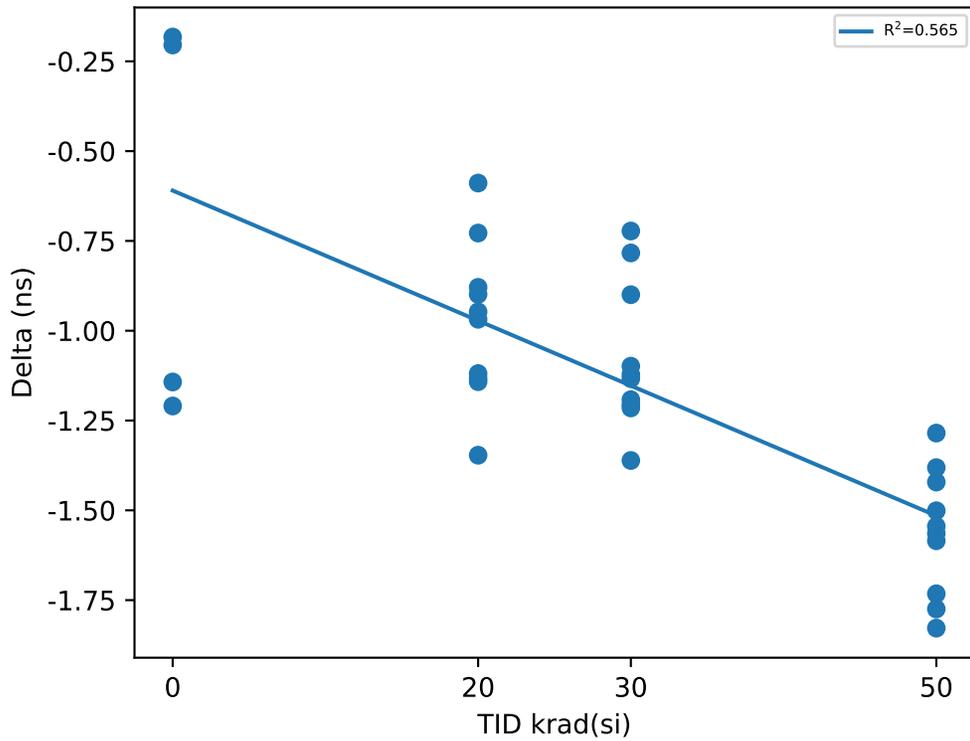
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	28.153	27.034	-1.1193
2	20	HDR BIAS	28.11	27.163	-0.9473
3	20	HDR BIAS	29.365	28.223	-1.1418
4	20	HDR BIAS	28.784	27.652	-1.1321
5	20	HDR BIAS	28.161	27.262	-0.8987
6	20	HDR UNBIAS	27.837	27.109	-0.7281
7	20	HDR UNBIAS	27.843	26.497	-1.3465
8	20	HDR UNBIAS	28.064	27.185	-0.8792
9	20	HDR UNBIAS	27.347	26.758	-0.5889
10	20	HDR UNBIAS	29.18	28.212	-0.9681
11	30	HDR BIAS	27.622	26.838	-0.7834
12	30	HDR BIAS	28.218	27.003	-1.2149
13	30	HDR BIAS	28.927	27.735	-1.192
14	30	HDR BIAS	28.511	27.412	-1.0987
15	30	HDR BIAS	28.29	26.929	-1.3612
16	30	HDR UNBIAS	29.261	28.361	-0.8997
17	30	HDR UNBIAS	28.746	27.54	-1.2058
18	30	HDR UNBIAS	28.602	27.469	-1.1333
19	30	HDR UNBIAS	27.669	26.947	-0.7224
20	30	HDR UNBIAS	27.877	26.755	-1.1216
21	50	HDR BIAS	28.09	26.358	-1.7323
22	50	HDR BIAS	28.966	27.402	-1.5641
23	50	HDR BIAS	28.589	26.761	-1.8279
24	50	HDR BIAS	28.364	27.079	-1.2849
25	50	HDR BIAS	28.227	26.726	-1.5011
26	50	HDR UNBIAS	29.641	28.056	-1.5847
27	50	HDR UNBIAS	29.13	27.355	-1.7746
28	50	HDR UNBIAS	28.447	27.066	-1.3811
29	50	HDR UNBIAS	27.845	26.3	-1.5443
30	50	HDR UNBIAS	29.412	27.99	-1.4213
41	0	CORRELATION	29.707	28.564	-1.1427
42	0	CORRELATION	28.819	28.615	-0.2045
43	0	CORRELATION	32.337	31.128	-1.2095
45	0	CORRELATION	28.552	28.369	-0.1825

## TID vs Post - Pre Exposure Delta

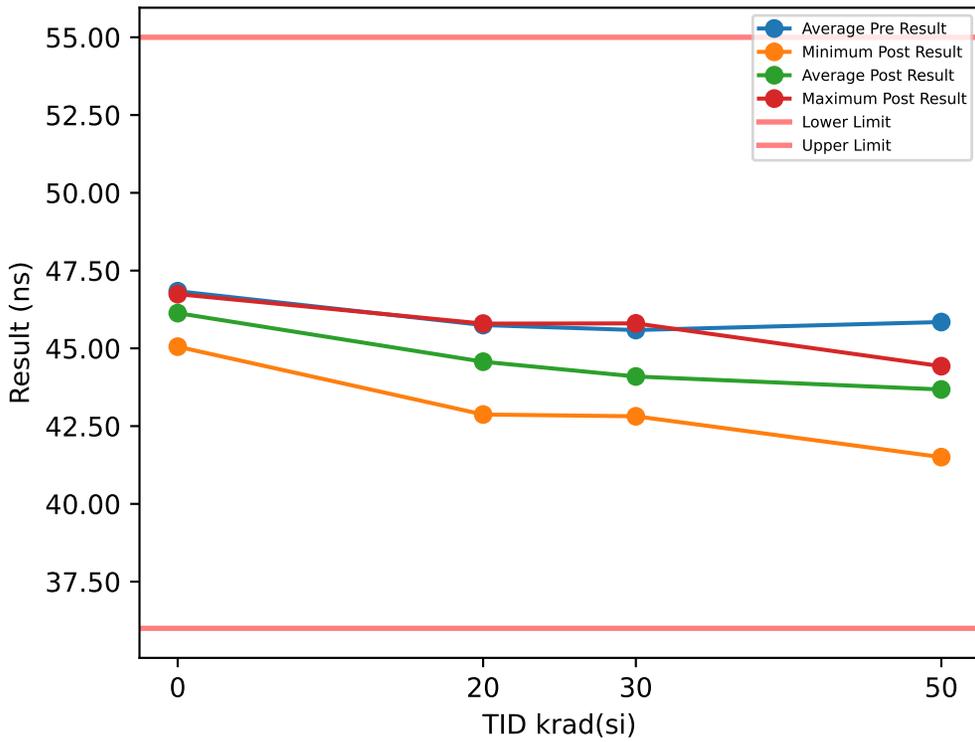


## Test Statistics (ns)

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	28.552	29.854	32.337	1.7278	28.369	29.169	31.128	1.3102	-1.2095	-0.6848	-0.1825	0.56803
20	27.347	28.284	29.365	0.6329	26.497	27.309	28.223	0.56639	-1.3465	-0.975	-0.5889	0.2204
30	27.622	28.372	29.261	0.54183	26.755	27.299	28.361	0.50271	-1.3612	-1.0733	-0.7224	0.20507
50	27.845	28.671	29.641	0.59193	26.3	27.11	28.056	0.6062	-1.8279	-1.5616	-1.2849	0.17599

# Device Test: 19.14 PWM|DEADTIME/GATE/12/10///1MHz/@T\_RHL

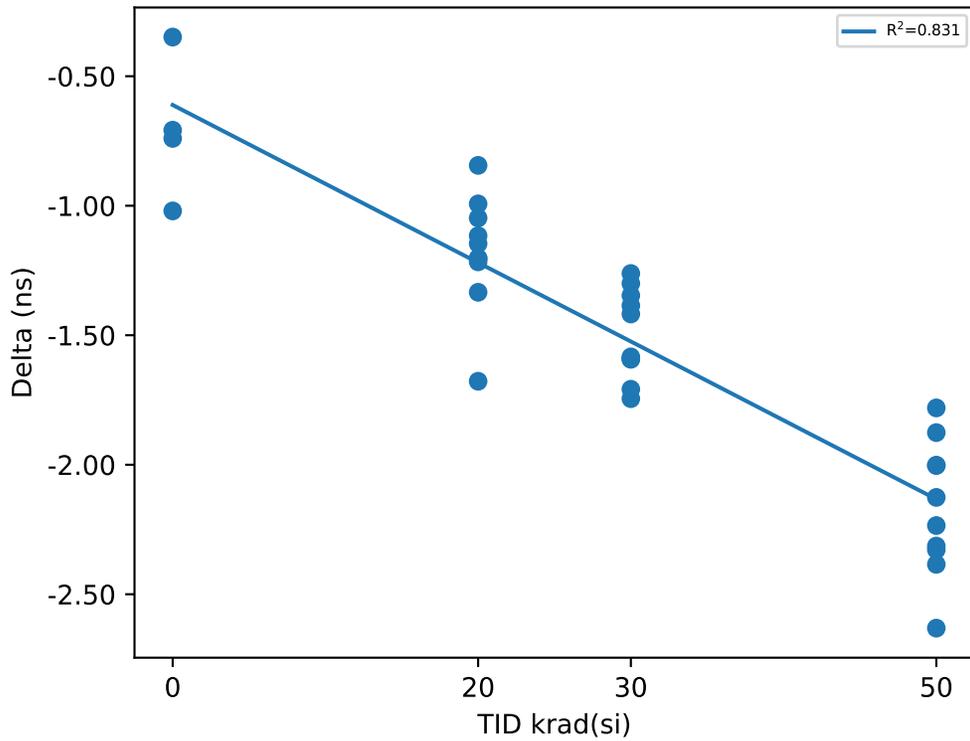
## TID vs Result Stats



## Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	45.188	43.511	-1.6777
2	20	HDR BIAS	44.02	42.873	-1.1462
3	20	HDR BIAS	44.868	43.821	-1.0473
4	20	HDR BIAS	45.955	44.962	-0.9929
5	20	HDR BIAS	45.741	44.897	-0.8442
6	20	HDR UNBIAS	46.377	45.043	-1.3341
7	20	HDR UNBIAS	46.072	44.87	-1.2027
8	20	HDR UNBIAS	46.999	45.796	-1.2032
9	20	HDR UNBIAS	46.19	44.974	-1.2166
10	20	HDR UNBIAS	46.07	44.955	-1.1157
11	30	HDR BIAS	44.409	42.816	-1.5927
12	30	HDR BIAS	44.352	42.967	-1.3855
13	30	HDR BIAS	46.331	44.587	-1.7448
14	30	HDR BIAS	46.171	44.87	-1.3002
15	30	HDR BIAS	45.282	44.02	-1.2617
16	30	HDR UNBIAS	46.094	44.385	-1.7086
17	30	HDR UNBIAS	45.731	44.14	-1.5915
18	30	HDR UNBIAS	47.149	45.802	-1.3464
19	30	HDR UNBIAS	45.073	43.489	-1.5836
20	30	HDR UNBIAS	45.294	43.876	-1.4179
21	50	HDR BIAS	46.394	44.159	-2.2348
22	50	HDR BIAS	45.778	43.997	-1.7806
23	50	HDR BIAS	46.429	44.427	-2.002
24	50	HDR BIAS	46.099	44.223	-1.8759
25	50	HDR BIAS	46.182	44.056	-2.1261
26	50	HDR UNBIAS	46.438	44.11	-2.3283
27	50	HDR UNBIAS	43.817	41.503	-2.314
28	50	HDR UNBIAS	45.885	43.501	-2.3846
29	50	HDR UNBIAS	46.574	43.943	-2.6308
30	50	HDR UNBIAS	44.86	42.857	-2.0027
41	0	CORRELATION	46.074	45.054	-1.02
42	0	CORRELATION	46.981	46.632	-0.3488
43	0	CORRELATION	46.844	46.104	-0.74
45	0	CORRELATION	47.451	46.743	-0.7083

## TID vs Post - Pre Exposure Delta

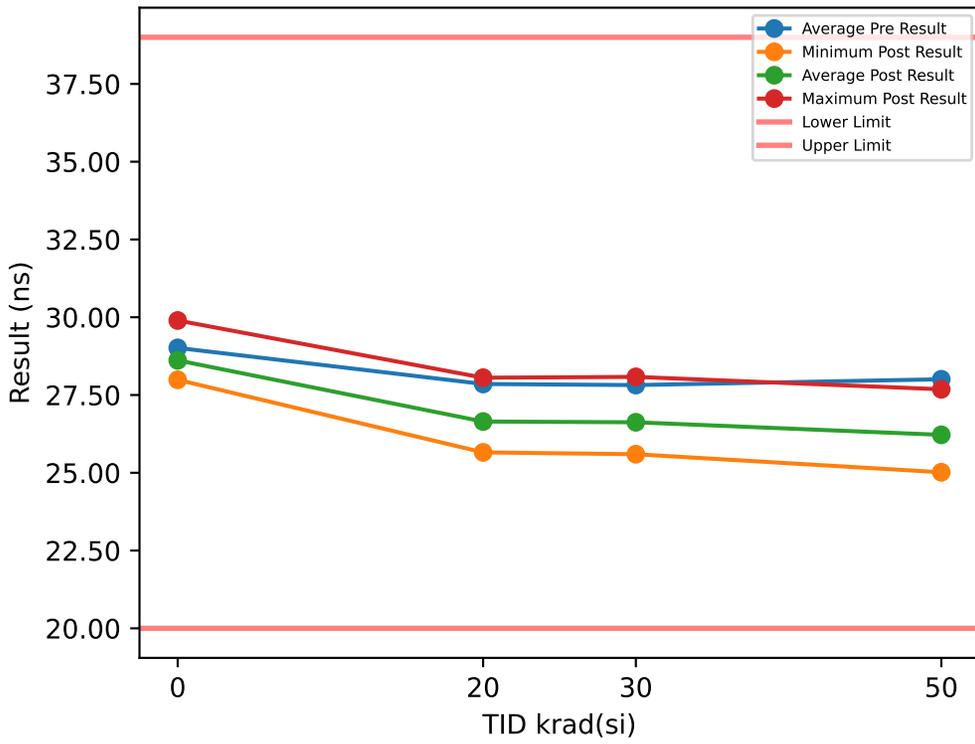


## Test Statistics (ns)

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	46.074	46.837	47.451	0.57142	45.054	46.133	46.743	0.77142	-1.02	-0.70427	-0.3488	0.27528
20	44.02	45.748	46.999	0.84867	42.873	44.57	45.796	0.87868	-1.6777	-1.1781	-0.8442	0.22223
30	44.352	45.588	47.149	0.87981	42.816	44.095	45.802	0.8927	-1.7448	-1.4933	-1.2617	0.17227
50	43.817	45.845	46.574	0.86881	41.503	43.677	44.427	0.88363	-2.6308	-2.168	-1.7806	0.25919

# Device Test: 19.15 PWM|DEADTIME/GATE/12/10///2MHz/@T\_RLH

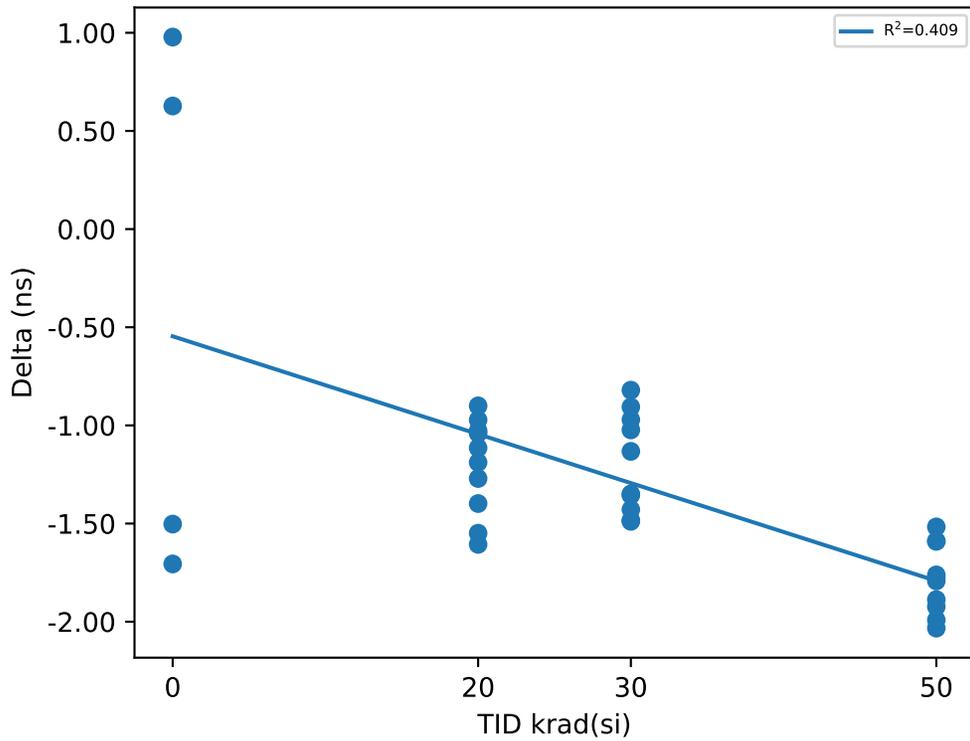
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	26.926	25.656	-1.2704
2	20	HDR BIAS	27.348	26.32	-1.0273
3	20	HDR BIAS	28.69	27.292	-1.3981
4	20	HDR BIAS	29.023	27.835	-1.1885
5	20	HDR BIAS	27.883	26.334	-1.5492
6	20	HDR UNBIAS	27.622	26.721	-0.9005
7	20	HDR UNBIAS	27.461	25.855	-1.606
8	20	HDR UNBIAS	27.58	26.465	-1.1145
9	20	HDR UNBIAS	26.984	25.943	-1.0403
10	20	HDR UNBIAS	29.028	28.056	-0.9722
11	30	HDR BIAS	27.086	25.598	-1.4887
12	30	HDR BIAS	28.23	26.801	-1.4287
13	30	HDR BIAS	28.046	26.562	-1.4832
14	30	HDR BIAS	27.669	26.646	-1.023
15	30	HDR BIAS	27.245	25.896	-1.3491
16	30	HDR UNBIAS	29.054	28.083	-0.9708
17	30	HDR UNBIAS	27.584	26.678	-0.9062
18	30	HDR UNBIAS	28.494	27.138	-1.3554
19	30	HDR UNBIAS	26.954	26.134	-0.8206
20	30	HDR UNBIAS	27.833	26.7	-1.1323
21	50	HDR BIAS	27.282	25.249	-2.0327
22	50	HDR BIAS	29.143	27.351	-1.7923
23	50	HDR BIAS	27.371	25.38	-1.9913
24	50	HDR BIAS	27.724	26.207	-1.5171
25	50	HDR BIAS	27.183	25.408	-1.7753
26	50	HDR UNBIAS	29.366	27.604	-1.7615
27	50	HDR UNBIAS	27.945	26.057	-1.8875
28	50	HDR UNBIAS	27.831	26.241	-1.5902
29	50	HDR UNBIAS	26.94	25.017	-1.9235
30	50	HDR UNBIAS	29.273	27.684	-1.5894
41	0	CORRELATION	29.694	27.988	-1.7058
42	0	CORRELATION	27.239	28.218	0.9781
43	0	CORRELATION	31.399	29.896	-1.5028
45	0	CORRELATION	27.725	28.352	0.627

## TID vs Post - Pre Exposure Delta

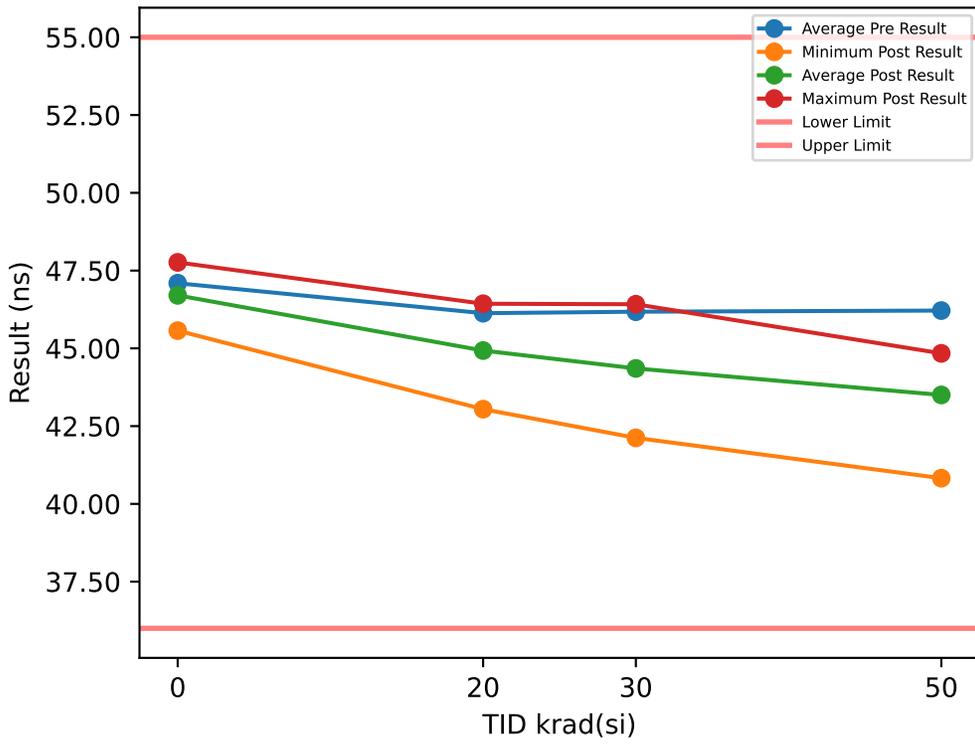


## Test Statistics (ns)

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	27.239	29.014	31.399	1.9114	27.988	28.614	29.896	0.86809	-1.7058	-0.40088	0.9781	1.3994
20	26.926	27.854	29.028	0.78911	25.656	26.648	28.056	0.82732	-1.606	-1.2067	-0.9005	0.24379
30	26.954	27.82	29.054	0.65748	25.598	26.624	28.083	0.68803	-1.4887	-1.1958	-0.8206	0.25403
50	26.94	28.006	29.366	0.91912	25.017	26.22	27.684	1.0067	-2.0327	-1.7861	-1.5171	0.1771

# Device Test: 19.16 PWM|DEADTIME/GATE/12/10///2MHz/@T\_RHL

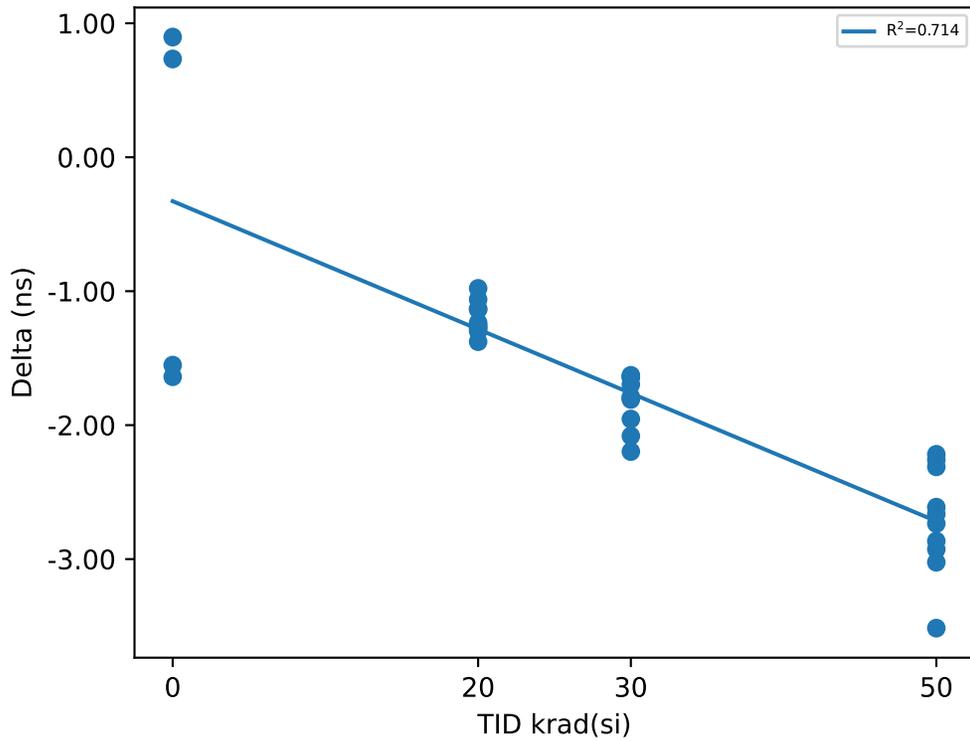
## TID vs Result Stats



## Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	44.297	43.045	-1.2515
2	20	HDR BIAS	44.231	43.169	-1.0618
3	20	HDR BIAS	44.888	43.653	-1.235
4	20	HDR BIAS	47.137	46.158	-0.979
5	20	HDR BIAS	45.973	44.837	-1.136
6	20	HDR UNBIAS	46.807	45.43	-1.3769
7	20	HDR UNBIAS	46.598	45.3	-1.2979
8	20	HDR UNBIAS	47.705	46.434	-1.2717
9	20	HDR UNBIAS	46.399	45.127	-1.272
10	20	HDR UNBIAS	47.269	46.137	-1.1317
11	30	HDR BIAS	44.078	42.123	-1.9546
12	30	HDR BIAS	45.414	43.718	-1.6963
13	30	HDR BIAS	46.159	44.078	-2.0806
14	30	HDR BIAS	46.794	45.166	-1.6281
15	30	HDR BIAS	45.773	44.128	-1.6442
16	30	HDR UNBIAS	47.121	45.313	-1.8082
17	30	HDR UNBIAS	46.173	43.976	-2.197
18	30	HDR UNBIAS	48.208	46.418	-1.7893
19	30	HDR UNBIAS	45.359	43.561	-1.7985
20	30	HDR UNBIAS	46.7	45.064	-1.6364
21	50	HDR BIAS	46.115	43.503	-2.6123
22	50	HDR BIAS	47.098	44.839	-2.259
23	50	HDR BIAS	46.087	43.423	-2.6637
24	50	HDR BIAS	46.566	44.255	-2.3112
25	50	HDR BIAS	46.103	43.238	-2.8653
26	50	HDR UNBIAS	47.665	44.738	-2.9267
27	50	HDR UNBIAS	43.849	40.826	-3.0234
28	50	HDR UNBIAS	46.482	43.747	-2.7347
29	50	HDR UNBIAS	46.632	43.117	-3.5152
30	50	HDR UNBIAS	45.548	43.331	-2.2177
41	0	CORRELATION	47.208	45.569	-1.6386
42	0	CORRELATION	46.867	47.764	0.897
43	0	CORRELATION	47.292	45.74	-1.5521
45	0	CORRELATION	47.009	47.743	0.7335

## TID vs Post - Pre Exposure Delta

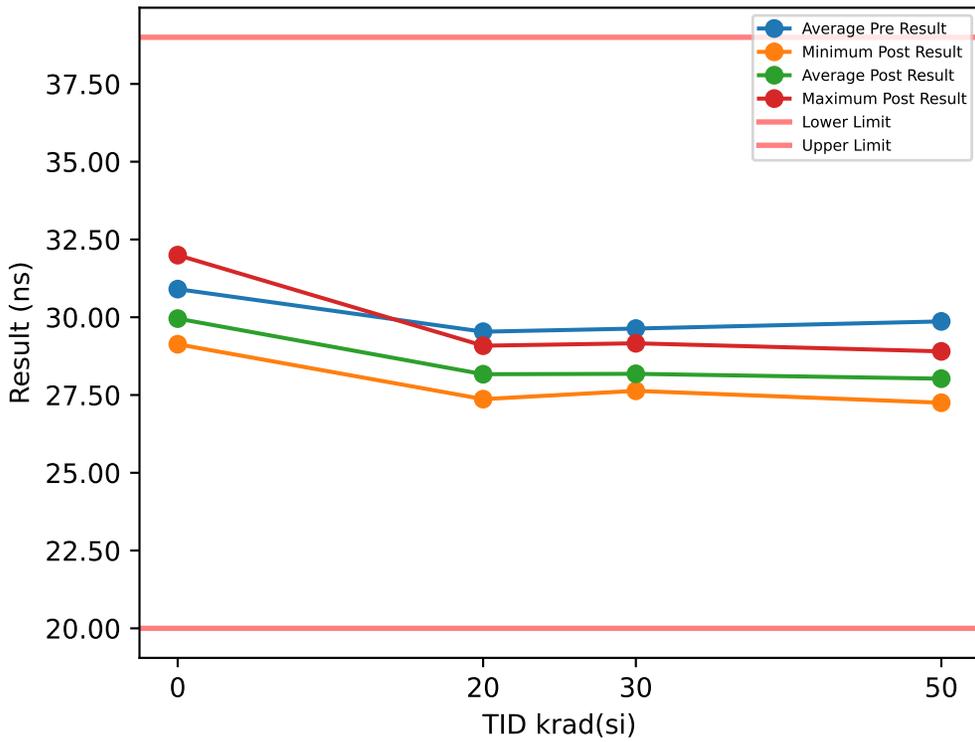


## Test Statistics (ns)

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	46.867	47.094	47.292	0.19238	45.569	46.704	47.764	1.2136	-1.6386	-0.39005	0.897	1.3938
20	44.231	46.13	47.705	1.2507	43.045	44.929	46.434	1.2448	-1.3769	-1.2013	-0.979	0.121
30	44.078	46.178	48.208	1.1299	42.123	44.354	46.418	1.1844	-2.197	-1.8233	-1.6281	0.19617
50	43.849	46.215	47.665	1.0182	40.826	43.502	44.839	1.1234	-3.5152	-2.7129	-2.2177	0.39926

# Device Test: 19.17 PWM|DEADTIME/GATE/14/14///0MHz/@T\_RLH

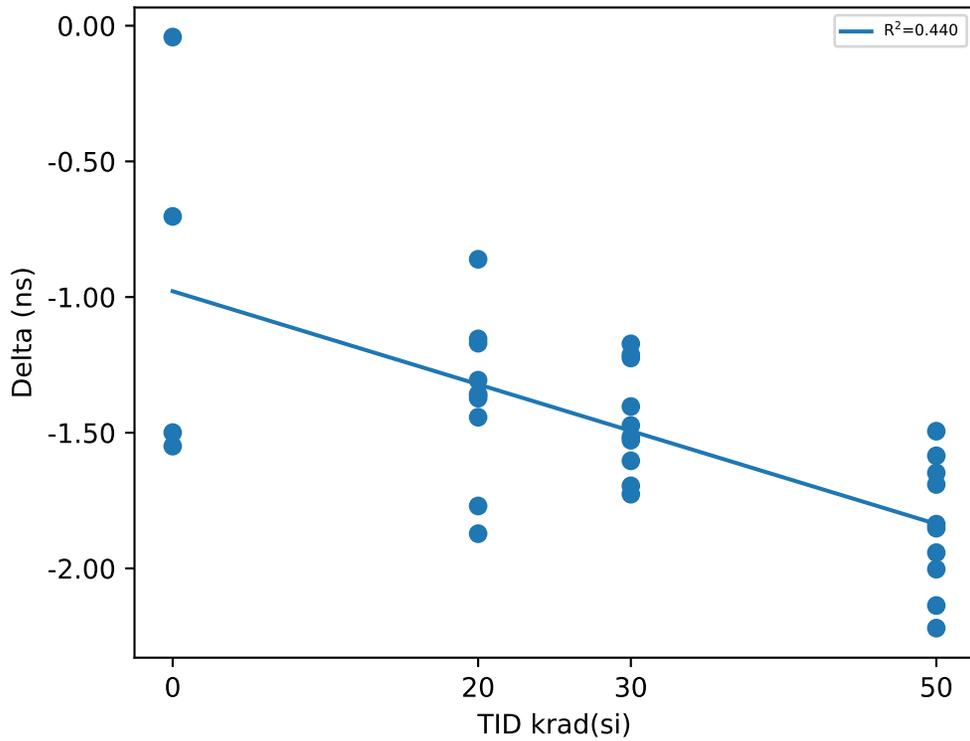
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	29.302	27.929	-1.3725
2	20	HDR BIAS	29.409	28.047	-1.3617
3	20	HDR BIAS	30.923	29.051	-1.8721
4	20	HDR BIAS	29.899	28.456	-1.4429
5	20	HDR BIAS	29.316	28.146	-1.17
6	20	HDR UNBIAS	29.058	27.904	-1.1541
7	20	HDR UNBIAS	29.138	27.368	-1.7699
8	20	HDR UNBIAS	29.401	28.043	-1.3579
9	20	HDR UNBIAS	28.518	27.657	-0.8608
10	20	HDR UNBIAS	30.392	29.085	-1.3064
11	30	HDR BIAS	28.939	27.767	-1.1724
12	30	HDR BIAS	29.384	27.869	-1.515
13	30	HDR BIAS	30.148	28.62	-1.5276
14	30	HDR BIAS	29.569	28.345	-1.2246
15	30	HDR BIAS	29.47	27.866	-1.6035
16	30	HDR UNBIAS	30.375	29.163	-1.2124
17	30	HDR UNBIAS	30.055	28.359	-1.6958
18	30	HDR UNBIAS	29.812	28.409	-1.4034
19	30	HDR UNBIAS	29.504	27.777	-1.7265
20	30	HDR UNBIAS	29.108	27.634	-1.4733
21	50	HDR BIAS	28.828	27.333	-1.4943
22	50	HDR BIAS	30.155	28.318	-1.837
23	50	HDR BIAS	29.796	27.66	-2.1368
24	50	HDR BIAS	29.554	27.969	-1.585
25	50	HDR BIAS	29.612	27.67	-1.9421
26	50	HDR UNBIAS	30.754	28.902	-1.8518
27	50	HDR UNBIAS	30.52	28.3	-2.2201
28	50	HDR UNBIAS	29.591	27.943	-1.648
29	50	HDR UNBIAS	29.255	27.252	-2.0029
30	50	HDR UNBIAS	30.594	28.903	-1.6907
41	0	CORRELATION	30.805	29.306	-1.4995
42	0	CORRELATION	29.433	29.391	-0.0418
43	0	CORRELATION	33.547	31.997	-1.5493
45	0	CORRELATION	29.835	29.132	-0.7028

## TID vs Post - Pre Exposure Delta

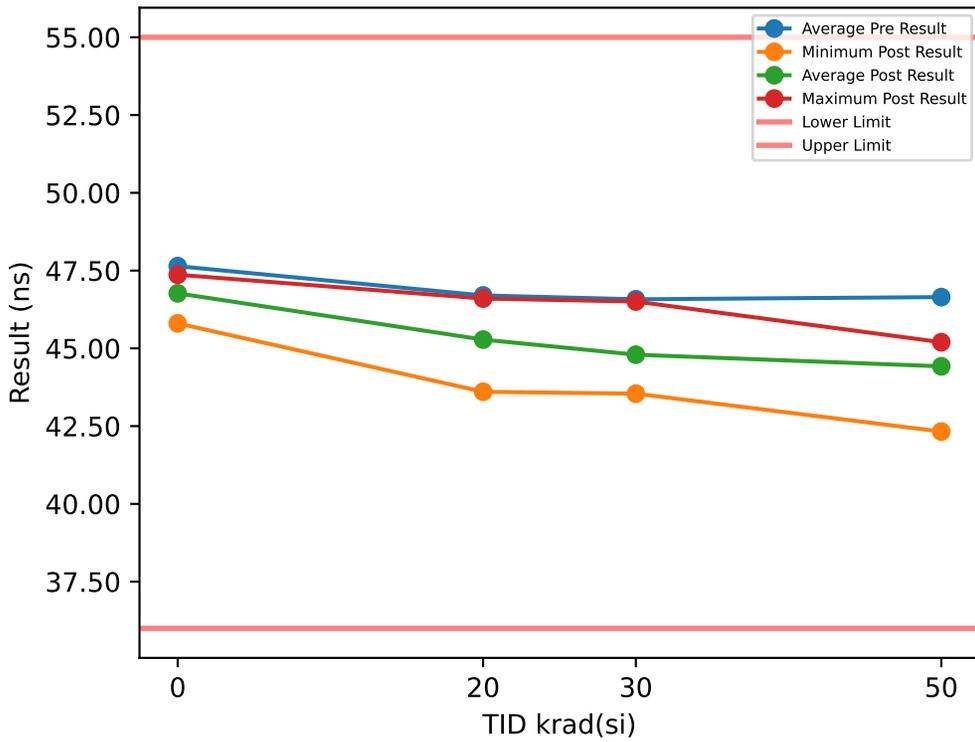


## Test Statistics (ns)

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	29.433	30.905	33.547	1.8531	29.132	29.956	31.997	1.3648	-1.5493	-0.94835	-0.0418	0.71811
20	28.518	29.535	30.923	0.69514	27.368	28.168	29.085	0.55402	-1.8721	-1.3668	-0.8608	0.29201
30	28.939	29.636	30.375	0.45852	27.634	28.181	29.163	0.48265	-1.7265	-1.4555	-1.1724	0.19928
50	28.828	29.866	30.754	0.62561	27.252	28.025	28.903	0.58181	-2.2201	-1.8409	-1.4943	0.23883

# Device Test: 19.18 PWM|DEADTIME/GATE/14/14///0MHz/@T\_RHL

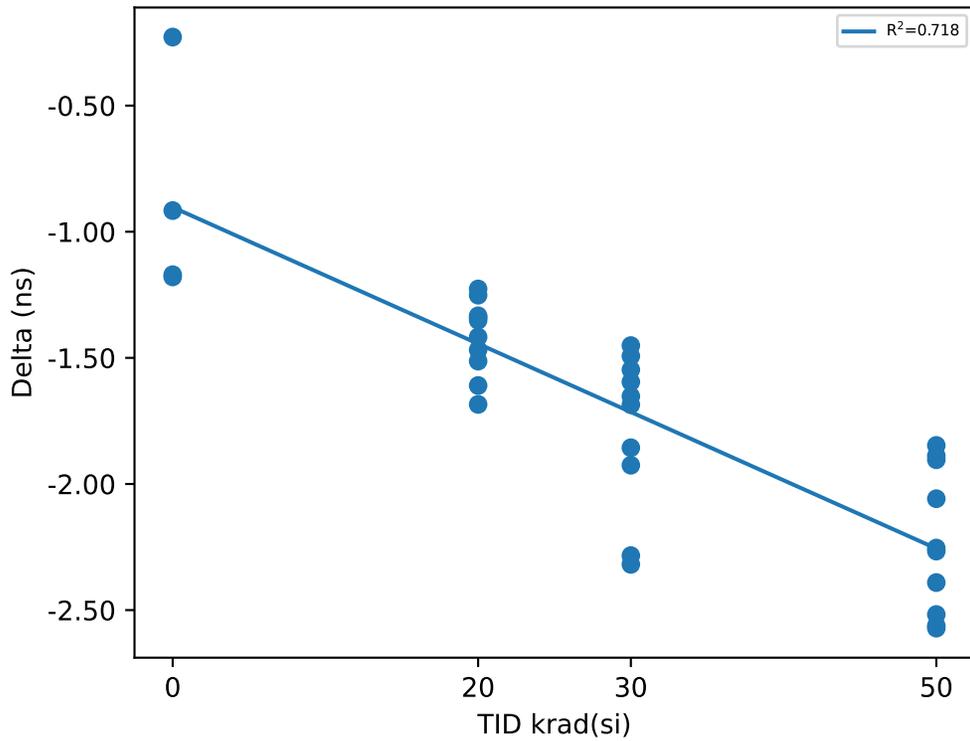
## TID vs Result Stats



## Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	45.764	44.251	-1.5129
2	20	HDR BIAS	44.831	43.605	-1.2269
3	20	HDR BIAS	45.812	44.461	-1.351
4	20	HDR BIAS	46.876	45.625	-1.2514
5	20	HDR BIAS	47.132	45.448	-1.6845
6	20	HDR UNBIAS	47.353	45.744	-1.6097
7	20	HDR UNBIAS	47.24	45.771	-1.4684
8	20	HDR UNBIAS	47.942	46.602	-1.3406
9	20	HDR UNBIAS	47.026	45.693	-1.3334
10	20	HDR UNBIAS	47.03	45.613	-1.4174
11	30	HDR BIAS	45.468	43.543	-1.9256
12	30	HDR BIAS	45.178	43.631	-1.547
13	30	HDR BIAS	47.569	45.285	-2.284
14	30	HDR BIAS	47.171	45.576	-1.5953
15	30	HDR BIAS	46.185	44.734	-1.4514
16	30	HDR UNBIAS	46.974	45.118	-1.8563
17	30	HDR UNBIAS	47.011	44.692	-2.3187
18	30	HDR UNBIAS	48.157	46.505	-1.6525
19	30	HDR UNBIAS	45.799	44.306	-1.4929
20	30	HDR UNBIAS	46.257	44.572	-1.6856
21	50	HDR BIAS	46.855	44.797	-2.0584
22	50	HDR BIAS	46.611	44.707	-1.9039
23	50	HDR BIAS	47.085	45.197	-1.8879
24	50	HDR BIAS	47.09	44.836	-2.2541
25	50	HDR BIAS	46.718	44.87	-1.8472
26	50	HDR UNBIAS	47.401	44.829	-2.5714
27	50	HDR UNBIAS	44.843	42.326	-2.5175
28	50	HDR UNBIAS	46.883	44.321	-2.5618
29	50	HDR UNBIAS	47.103	44.712	-2.3908
30	50	HDR UNBIAS	45.887	43.621	-2.2661
41	0	CORRELATION	46.973	45.803	-1.1703
42	0	CORRELATION	47.596	47.367	-0.2283
43	0	CORRELATION	47.826	46.647	-1.179
45	0	CORRELATION	48.177	47.261	-0.9161

## TID vs Post - Pre Exposure Delta

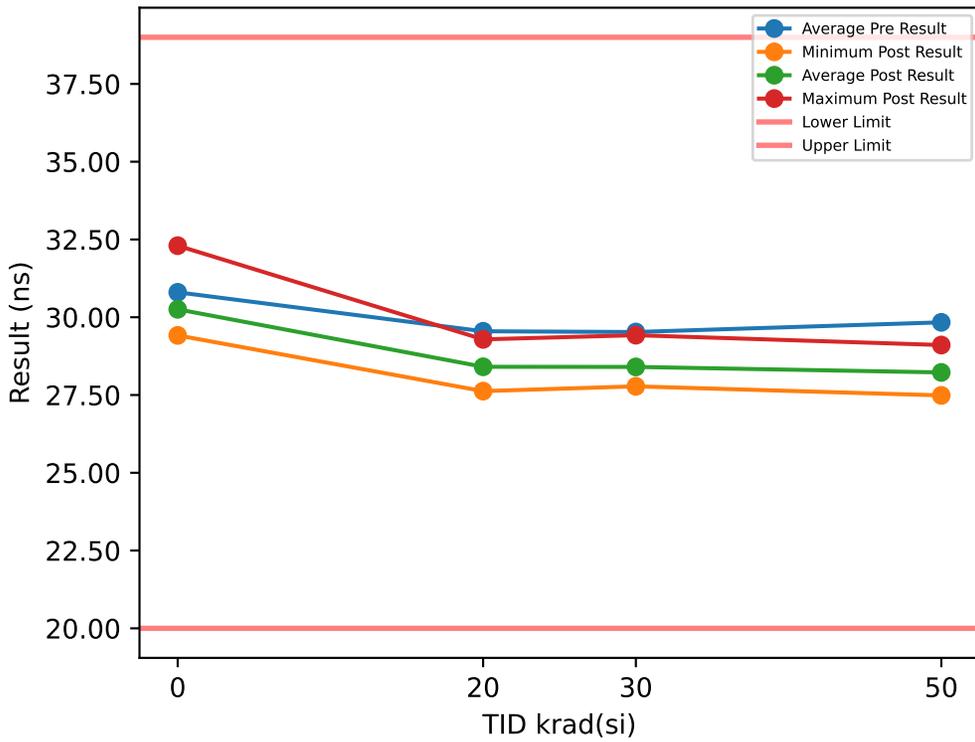


## Test Statistics (ns)

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	46.973	47.643	48.177	0.50632	45.803	46.769	47.367	0.71823	-1.179	-0.87343	-0.2283	0.44703
20	44.831	46.701	47.942	0.93395	43.605	45.281	46.602	0.89239	-1.6845	-1.4196	-1.2269	0.14952
30	45.178	46.577	48.157	0.95613	43.543	44.796	46.505	0.88843	-2.3187	-1.7809	-1.4514	0.31184
50	44.843	46.648	47.401	0.75273	42.326	44.422	45.197	0.84924	-2.5714	-2.2259	-1.8472	0.28601

# Device Test: 19.19 PWM|DEADTIME/GATE/14/14///0.5MHz/@T\_RLH

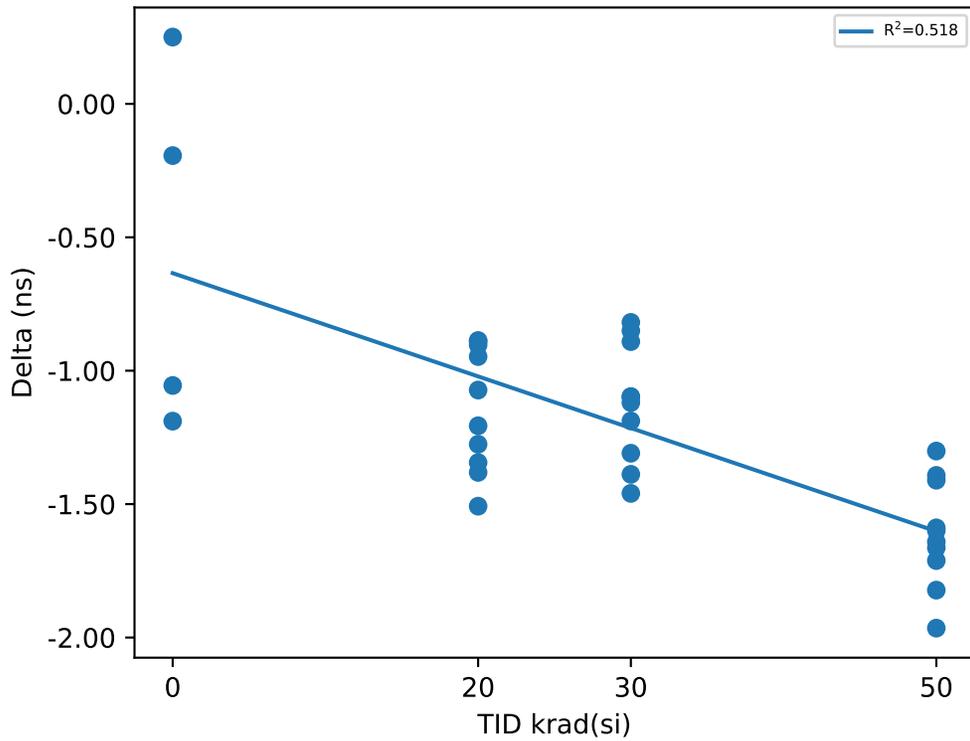
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	29.437	28.162	-1.2757
2	20	HDR BIAS	29.27	28.323	-0.947
3	20	HDR BIAS	30.661	29.28	-1.3811
4	20	HDR BIAS	29.898	28.691	-1.2064
5	20	HDR BIAS	29.911	28.404	-1.5078
6	20	HDR UNBIAS	29.027	28.137	-0.8897
7	20	HDR UNBIAS	28.529	27.625	-0.9035
8	20	HDR UNBIAS	29.189	28.302	-0.8869
9	20	HDR UNBIAS	29.205	27.86	-1.3444
10	20	HDR UNBIAS	30.361	29.288	-1.0725
11	30	HDR BIAS	29.073	27.975	-1.0984
12	30	HDR BIAS	29.301	28.113	-1.1883
13	30	HDR BIAS	30.219	28.831	-1.3884
14	30	HDR BIAS	29.613	28.516	-1.0971
15	30	HDR BIAS	29.015	28.124	-0.8909
16	30	HDR UNBIAS	30.273	29.423	-0.8504
17	30	HDR UNBIAS	29.49	28.671	-0.819
18	30	HDR UNBIAS	29.693	28.574	-1.1195
19	30	HDR UNBIAS	29.485	28.026	-1.4598
20	30	HDR UNBIAS	29.088	27.779	-1.3093
21	50	HDR BIAS	29.321	27.498	-1.8224
22	50	HDR BIAS	30.118	28.529	-1.5891
23	50	HDR BIAS	29.835	27.87	-1.9648
24	50	HDR BIAS	29.481	28.18	-1.3011
25	50	HDR BIAS	29.483	27.883	-1.5994
26	50	HDR UNBIAS	30.72	29.056	-1.6638
27	50	HDR UNBIAS	30.199	28.488	-1.7116
28	50	HDR UNBIAS	29.555	28.163	-1.3924
29	50	HDR UNBIAS	29.128	27.487	-1.641
30	50	HDR UNBIAS	30.517	29.106	-1.4104
41	0	CORRELATION	30.796	29.607	-1.1891
42	0	CORRELATION	29.445	29.696	0.2504
43	0	CORRELATION	33.356	32.301	-1.0554
45	0	CORRELATION	29.61	29.417	-0.1938

## TID vs Post - Pre Exposure Delta

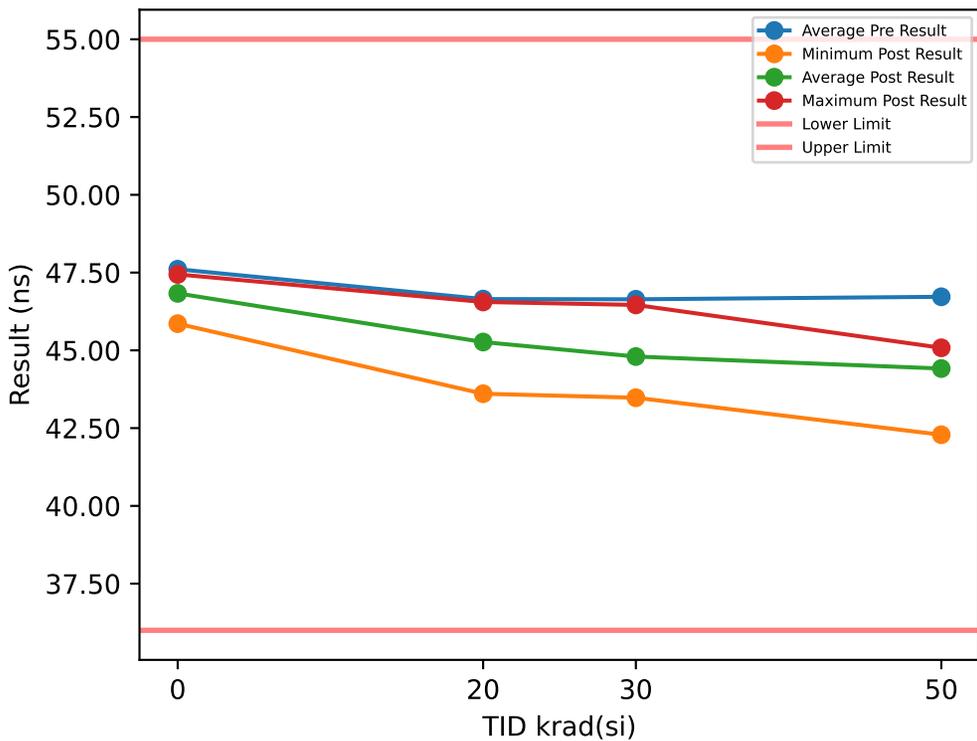


## Test Statistics (ns)

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	29.445	30.802	33.356	1.806	29.417	30.255	32.301	1.3689	-1.1891	-0.54697	0.2504	0.69074
20	28.529	29.549	30.661	0.64996	27.625	28.407	29.288	0.54586	-1.5078	-1.1415	-0.8869	0.23152
30	29.015	29.525	30.273	0.44551	27.779	28.403	29.423	0.49604	-1.4598	-1.1221	-0.819	0.22229
50	29.128	29.836	30.72	0.5325	27.487	28.226	29.106	0.57246	-1.9648	-1.6096	-1.3011	0.2023

# Device Test: 19.2 PWM|DEADTIME/GATE/10/8///0MHz/@T\_RHL

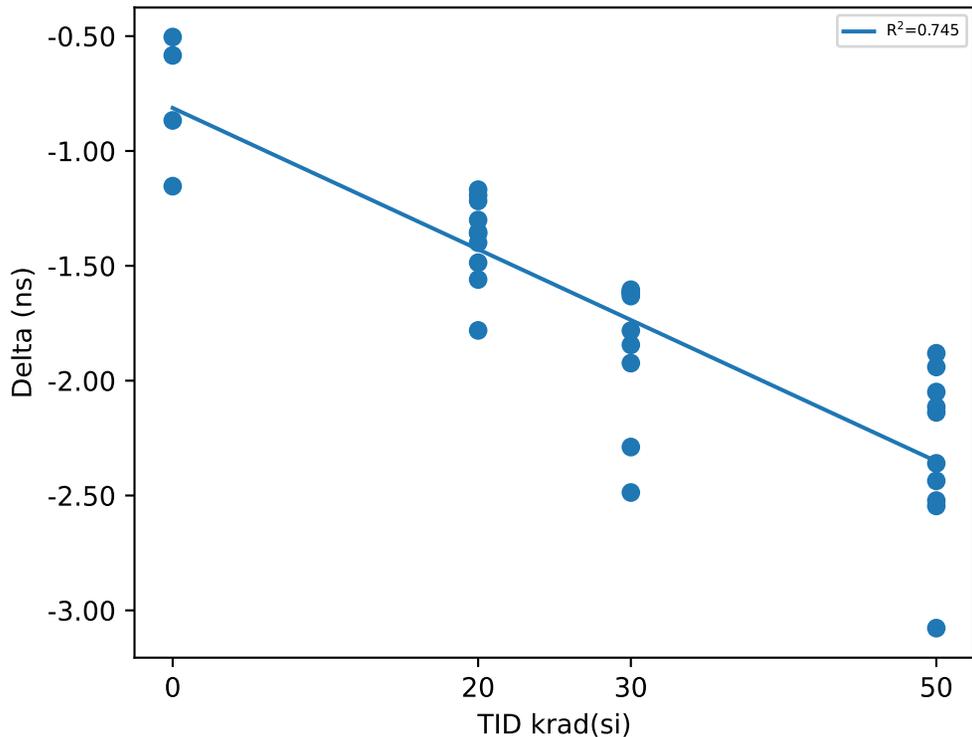
### TID vs Result Stats



### Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	45.36	44.191	-1.1686
2	20	HDR BIAS	44.822	43.605	-1.2172
3	20	HDR BIAS	45.69	44.497	-1.1929
4	20	HDR BIAS	46.924	45.565	-1.3594
5	20	HDR BIAS	46.805	45.505	-1.3006
6	20	HDR UNBIAS	47.194	45.635	-1.5595
7	20	HDR UNBIAS	47.171	45.685	-1.4864
8	20	HDR UNBIAS	47.908	46.555	-1.3527
9	20	HDR UNBIAS	47.53	45.749	-1.7812
10	20	HDR UNBIAS	47.085	45.686	-1.3992
11	30	HDR BIAS	45.259	43.477	-1.7823
12	30	HDR BIAS	45.26	43.64	-1.6192
13	30	HDR BIAS	47.772	45.285	-2.4869
14	30	HDR BIAS	47.136	45.532	-1.604
15	30	HDR BIAS	47.05	44.761	-2.2889
16	30	HDR UNBIAS	47.004	45.16	-1.844
17	30	HDR UNBIAS	46.451	44.839	-1.6125
18	30	HDR UNBIAS	48.092	46.46	-1.6317
19	30	HDR UNBIAS	46.172	44.248	-1.9236
20	30	HDR UNBIAS	46.222	44.607	-1.6154
21	50	HDR BIAS	46.728	44.788	-1.9404
22	50	HDR BIAS	46.706	44.657	-2.0495
23	50	HDR BIAS	47.442	45.082	-2.36
24	50	HDR BIAS	47.014	44.9	-2.1142
25	50	HDR BIAS	46.707	44.826	-1.8808
26	50	HDR UNBIAS	47.392	44.87	-2.5221
27	50	HDR UNBIAS	44.832	42.287	-2.5453
28	50	HDR UNBIAS	46.827	44.391	-2.4361
29	50	HDR UNBIAS	47.804	44.727	-3.0773
30	50	HDR UNBIAS	45.761	43.623	-2.138
41	0	CORRELATION	46.725	45.858	-0.8669
42	0	CORRELATION	47.946	47.441	-0.5041
43	0	CORRELATION	47.848	46.695	-1.1533
45	0	CORRELATION	47.916	47.332	-0.5839

### TID vs Post - Pre Exposure Delta



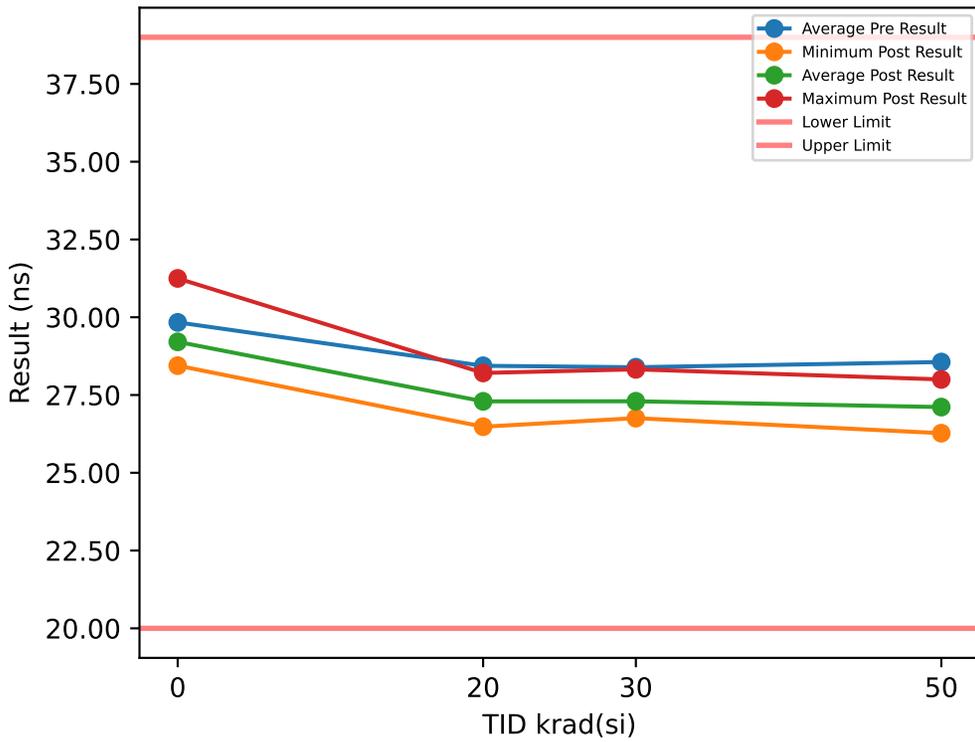
### Test Statistics (ns)

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	46.725	47.609	47.946	0.59075	45.858	46.832	47.441	0.72799	-1.1533	-0.77705	-0.5041	0.29521
20	44.822	46.649	47.908	1.0077	43.605	45.267	46.555	0.88405	-1.7812	-1.3818	-1.1686	0.18812
30	45.259	46.642	48.092	0.95319	43.477	44.801	46.46	0.88799	-2.4869	-1.8409	-1.604	0.31276
50	44.832	46.721	47.804	0.8647	42.287	44.415	45.082	0.85028	-3.0773	-2.3064	-1.8808	0.35962



# Device Test: 19.21 PWM|DEADTIME/GATE/14/14///1MHz/@T\_RLH

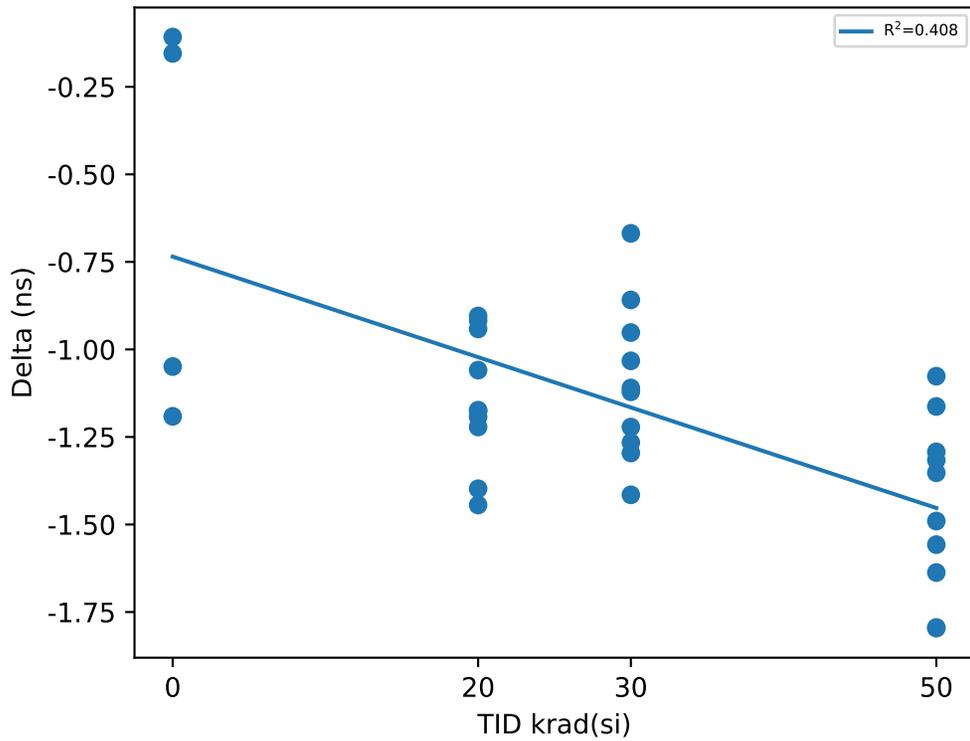
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	28.169	26.995	-1.1736
2	20	HDR BIAS	28.125	27.183	-0.9414
3	20	HDR BIAS	29.402	28.209	-1.1926
4	20	HDR BIAS	28.814	27.638	-1.1754
5	20	HDR BIAS	28.701	27.303	-1.3979
6	20	HDR UNBIAS	27.912	26.995	-0.9171
7	20	HDR UNBIAS	27.925	26.481	-1.4443
8	20	HDR UNBIAS	28.089	27.185	-0.9045
9	20	HDR UNBIAS	27.991	26.77	-1.2214
10	20	HDR UNBIAS	29.262	28.203	-1.0591
11	30	HDR BIAS	28.263	26.848	-1.4152
12	30	HDR BIAS	28.268	27.003	-1.2656
13	30	HDR BIAS	28.361	27.692	-0.6685
14	30	HDR BIAS	28.424	27.392	-1.0326
15	30	HDR BIAS	27.932	26.98	-0.9518
16	30	HDR UNBIAS	29.184	28.325	-0.8586
17	30	HDR UNBIAS	28.67	27.549	-1.121
18	30	HDR UNBIAS	28.623	27.513	-1.1101
19	30	HDR UNBIAS	28.231	26.936	-1.2957
20	30	HDR UNBIAS	27.978	26.757	-1.2217
21	50	HDR BIAS	27.997	26.36	-1.6372
22	50	HDR BIAS	28.974	27.416	-1.5575
23	50	HDR BIAS	28.62	26.826	-1.7941
24	50	HDR BIAS	28.367	27.074	-1.2925
25	50	HDR BIAS	27.801	26.724	-1.0764
26	50	HDR UNBIAS	29.491	28.001	-1.4901
27	50	HDR UNBIAS	29.215	27.419	-1.7959
28	50	HDR UNBIAS	28.426	27.074	-1.3522
29	50	HDR UNBIAS	27.436	26.273	-1.1629
30	50	HDR UNBIAS	29.272	27.956	-1.3163
41	0	CORRELATION	29.734	28.543	-1.191
42	0	CORRELATION	28.709	28.601	-0.1079
43	0	CORRELATION	32.297	31.249	-1.0488
45	0	CORRELATION	28.599	28.444	-0.1546

## TID vs Post - Pre Exposure Delta

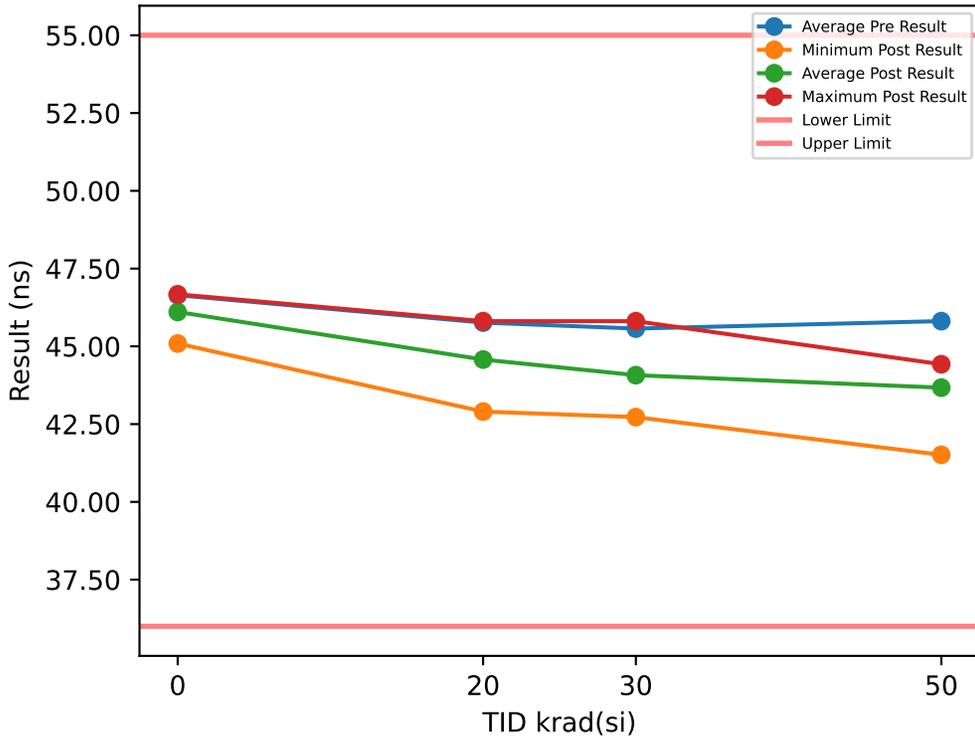


## Test Statistics (ns)

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	28.599	29.835	32.297	1.7194	28.444	29.209	31.249	1.3612	-1.191	-0.62558	-0.1079	0.57406
20	27.912	28.439	29.402	0.5628	26.481	27.296	28.209	0.56984	-1.4443	-1.1427	-0.9045	0.18913
30	27.932	28.393	29.184	0.36508	26.757	27.299	28.325	0.48801	-1.4152	-1.0941	-0.6685	0.22387
50	27.436	28.56	29.491	0.68239	26.273	27.112	28.001	0.59574	-1.7959	-1.4475	-1.0764	0.24954

# Device Test: 19.22 PWM|DEADTIME/GATE/14/14///1MHz/@T\_RHL

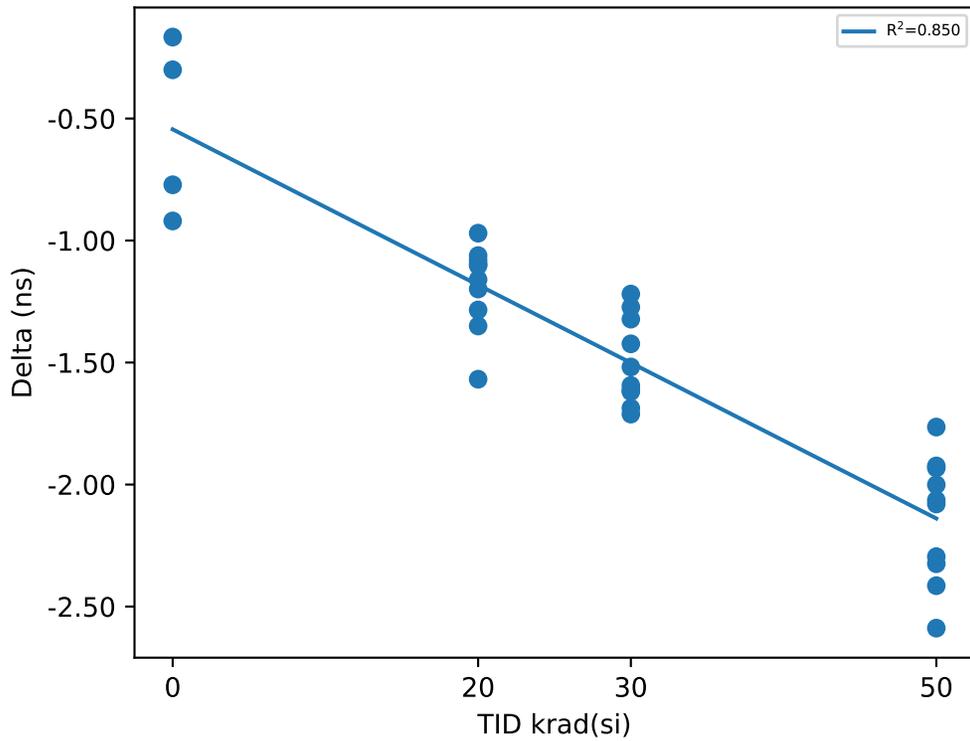
## TID vs Result Stats



## Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	44.598	43.501	-1.0971
2	20	HDR BIAS	43.965	42.903	-1.0618
3	20	HDR BIAS	44.905	43.803	-1.1024
4	20	HDR BIAS	45.924	44.955	-0.9699
5	20	HDR BIAS	46.17	44.82	-1.3502
6	20	HDR UNBIAS	46.337	45.052	-1.2845
7	20	HDR UNBIAS	46.05	44.89	-1.1601
8	20	HDR UNBIAS	47.009	45.81	-1.1987
9	20	HDR UNBIAS	46.587	45.019	-1.5684
10	20	HDR UNBIAS	46.085	45.004	-1.0814
11	30	HDR BIAS	44.437	42.726	-1.7112
12	30	HDR BIAS	44.401	42.977	-1.4233
13	30	HDR BIAS	46.151	44.532	-1.6189
14	30	HDR BIAS	46.11	44.891	-1.2194
15	30	HDR BIAS	45.243	43.971	-1.2729
16	30	HDR UNBIAS	46.042	44.355	-1.6869
17	30	HDR UNBIAS	45.741	44.127	-1.6138
18	30	HDR UNBIAS	47.131	45.809	-1.3221
19	30	HDR UNBIAS	45.094	43.5	-1.5941
20	30	HDR UNBIAS	45.363	43.844	-1.5182
21	50	HDR BIAS	46.213	44.133	-2.0796
22	50	HDR BIAS	45.763	43.998	-1.7644
23	50	HDR BIAS	46.348	44.424	-1.9238
24	50	HDR BIAS	46.102	44.17	-1.932
25	50	HDR BIAS	46.131	44.067	-2.0639
26	50	HDR UNBIAS	46.396	44.1	-2.2956
27	50	HDR UNBIAS	43.927	41.513	-2.4145
28	50	HDR UNBIAS	45.874	43.55	-2.3245
29	50	HDR UNBIAS	46.521	43.932	-2.5884
30	50	HDR UNBIAS	44.83	42.83	-2.0009
41	0	CORRELATION	46.01	45.09	-0.9198
42	0	CORRELATION	46.942	46.642	-0.3003
43	0	CORRELATION	46.787	46.015	-0.7716
45	0	CORRELATION	46.84	46.674	-0.1662

## TID vs Post - Pre Exposure Delta

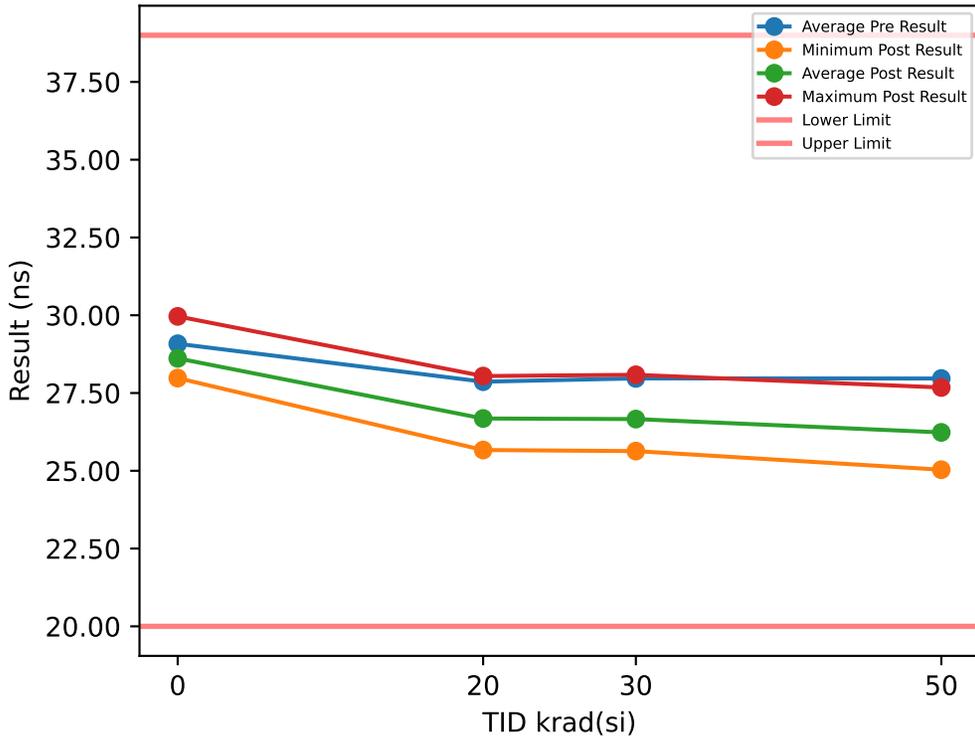


## Test Statistics (ns)

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	46.01	46.645	46.942	0.42797	45.09	46.105	46.674	0.74142	-0.9198	-0.53947	-0.1662	0.36289
20	43.965	45.763	47.009	0.9582	42.903	44.576	45.81	0.88073	-1.5684	-1.1874	-0.9699	0.17374
30	44.401	45.571	47.131	0.83966	42.726	44.073	45.809	0.90566	-1.7112	-1.4981	-1.2194	0.17752
50	43.927	45.81	46.521	0.81647	41.513	43.672	44.424	0.87739	-2.5884	-2.1388	-1.7644	0.25702

# Device Test: 19.23 PWM|DEADTIME/GATE/14/14///2MHz/@T\_RLH

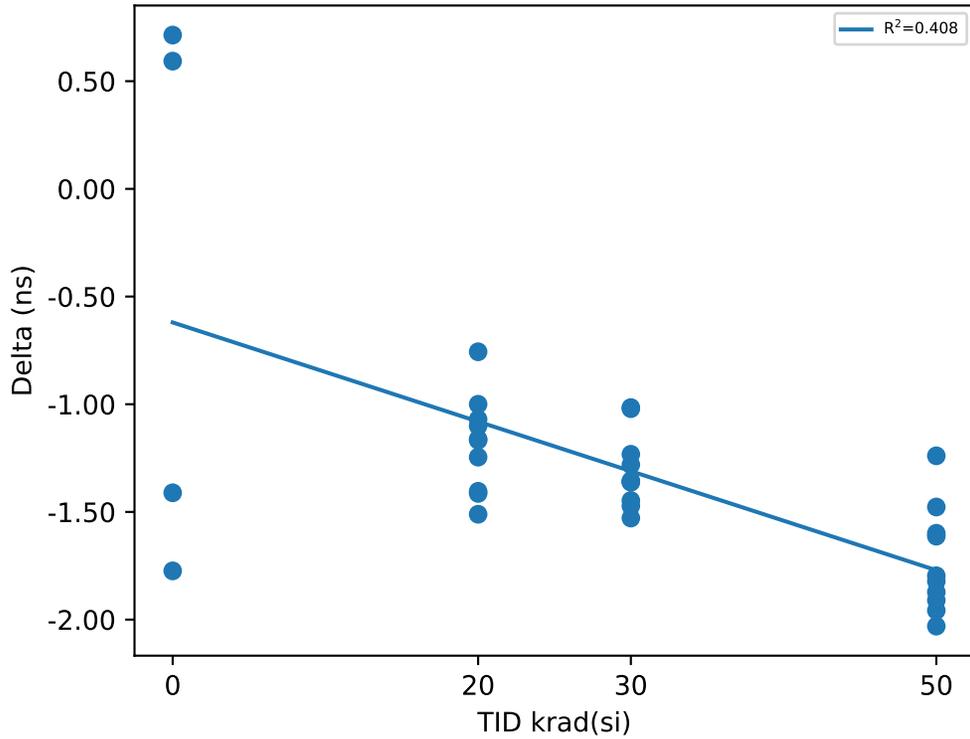
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	26.913	25.667	-1.2456
2	20	HDR BIAS	27.466	26.365	-1.1005
3	20	HDR BIAS	28.712	27.298	-1.4141
4	20	HDR BIAS	29.04	27.878	-1.1622
5	20	HDR BIAS	27.85	26.446	-1.4043
6	20	HDR UNBIAS	27.533	26.776	-0.7564
7	20	HDR UNBIAS	27.402	25.891	-1.5109
8	20	HDR UNBIAS	27.567	26.567	-1.0002
9	20	HDR UNBIAS	27.043	25.876	-1.1669
10	20	HDR UNBIAS	29.115	28.045	-1.0699
11	30	HDR BIAS	27.162	25.633	-1.5285
12	30	HDR BIAS	28.245	26.798	-1.447
13	30	HDR BIAS	28.089	26.616	-1.4725
14	30	HDR BIAS	27.7	26.685	-1.0155
15	30	HDR BIAS	27.282	25.921	-1.3606
16	30	HDR UNBIAS	29.106	28.085	-1.0205
17	30	HDR UNBIAS	28.041	26.76	-1.2808
18	30	HDR UNBIAS	28.559	27.197	-1.3619
19	30	HDR UNBIAS	27.564	26.209	-1.3555
20	30	HDR UNBIAS	27.949	26.717	-1.2324
21	50	HDR BIAS	27.276	25.318	-1.9574
22	50	HDR BIAS	29.171	27.374	-1.7966
23	50	HDR BIAS	27.384	25.353	-2.0303
24	50	HDR BIAS	27.739	26.262	-1.4772
25	50	HDR BIAS	26.64	25.401	-1.2395
26	50	HDR UNBIAS	29.381	27.559	-1.8218
27	50	HDR UNBIAS	27.976	26.065	-1.9103
28	50	HDR UNBIAS	27.909	26.296	-1.6127
29	50	HDR UNBIAS	26.906	25.034	-1.8723
30	50	HDR UNBIAS	29.277	27.678	-1.5992
41	0	CORRELATION	29.754	27.98	-1.7738
42	0	CORRELATION	27.449	28.163	0.7141
43	0	CORRELATION	31.375	29.963	-1.4112
45	0	CORRELATION	27.755	28.348	0.5931

## TID vs Post - Pre Exposure Delta

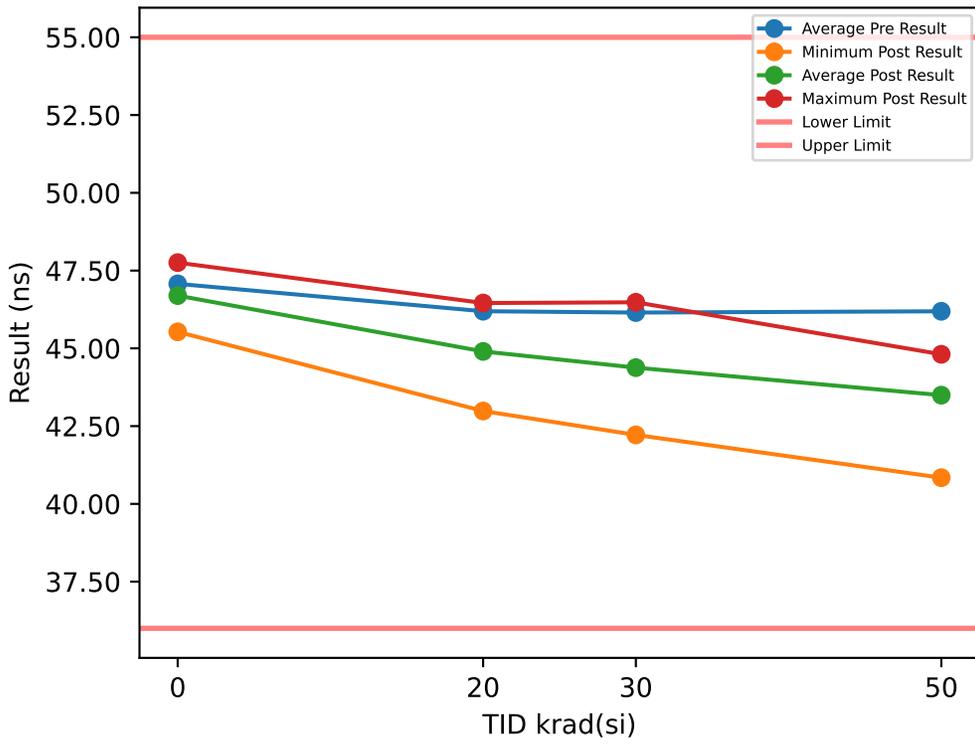


## Test Statistics (ns)

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	27.449	29.083	31.375	1.8379	27.98	28.614	29.963	0.91228	-1.7738	-0.46945	0.7141	1.3061
20	26.913	27.864	29.115	0.80392	25.667	26.681	28.045	0.82669	-1.5109	-1.1831	-0.7564	0.22349
30	27.162	27.97	29.106	0.5867	25.633	26.662	28.085	0.67988	-1.5285	-1.3075	-1.0155	0.17562
50	26.64	27.966	29.381	0.99571	25.034	26.234	27.678	0.99565	-2.0303	-1.7317	-1.2395	0.24559

# Device Test: 19.24 PWM|DEADTIME/GATE/14/14///2MHz/@T\_RHL

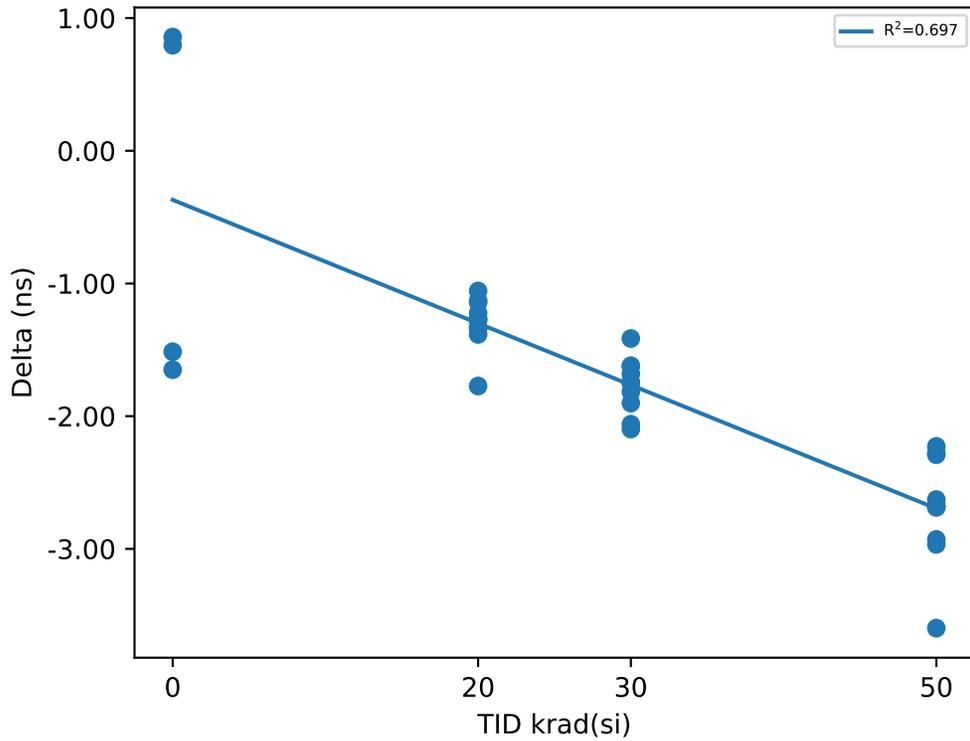
## TID vs Result Stats



## Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	44.261	42.986	-1.2751
2	20	HDR BIAS	44.223	43.095	-1.1286
3	20	HDR BIAS	44.902	43.681	-1.2213
4	20	HDR BIAS	47.218	46.161	-1.0567
5	20	HDR BIAS	46.202	44.818	-1.384
6	20	HDR UNBIAS	46.761	45.431	-1.3307
7	20	HDR UNBIAS	46.935	45.162	-1.7728
8	20	HDR UNBIAS	47.722	46.457	-1.2645
9	20	HDR UNBIAS	46.443	45.103	-1.3397
10	20	HDR UNBIAS	47.266	46.123	-1.1431
11	30	HDR BIAS	44.12	42.218	-1.9016
12	30	HDR BIAS	45.405	43.722	-1.6823
13	30	HDR BIAS	46.15	44.089	-2.0608
14	30	HDR BIAS	46.779	45.158	-1.6211
15	30	HDR BIAS	45.537	44.122	-1.415
16	30	HDR UNBIAS	47.113	45.363	-1.7499
17	30	HDR UNBIAS	46.18	44.083	-2.0969
18	30	HDR UNBIAS	48.223	46.481	-1.7428
19	30	HDR UNBIAS	45.351	43.534	-1.8172
20	30	HDR UNBIAS	46.65	45.027	-1.6227
21	50	HDR BIAS	46.138	43.509	-2.6286
22	50	HDR BIAS	47.099	44.809	-2.2904
23	50	HDR BIAS	46.056	43.373	-2.6836
24	50	HDR BIAS	46.557	44.279	-2.2781
25	50	HDR BIAS	46.163	43.197	-2.9662
26	50	HDR UNBIAS	47.652	44.723	-2.9292
27	50	HDR UNBIAS	43.514	40.842	-2.6725
28	50	HDR UNBIAS	46.443	43.756	-2.6869
29	50	HDR UNBIAS	46.724	43.127	-3.5974
30	50	HDR UNBIAS	45.565	43.337	-2.2279
41	0	CORRELATION	47.181	45.531	-1.6497
42	0	CORRELATION	46.857	47.714	0.8569
43	0	CORRELATION	47.297	45.782	-1.5149
45	0	CORRELATION	46.96	47.756	0.7956

## TID vs Post - Pre Exposure Delta

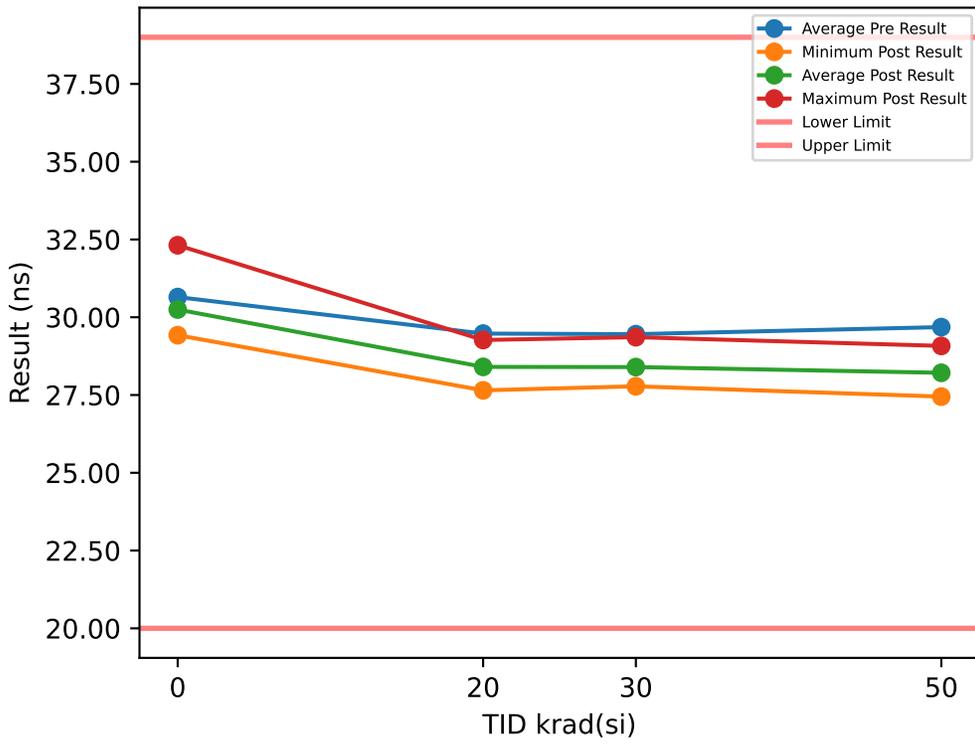


## Test Statistics (ns)

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	46.857	47.074	47.297	0.20092	45.531	46.696	47.756	1.2045	-1.6497	-0.37803	0.8569	1.3919
20	44.223	46.193	47.722	1.2803	42.986	44.902	46.457	1.2613	-1.7728	-1.2917	-1.0567	0.19824
30	44.12	46.151	48.223	1.1335	42.218	44.38	46.481	1.1768	-2.0969	-1.771	-1.415	0.20808
50	43.514	46.191	47.652	1.1064	40.842	43.495	44.809	1.1164	-3.5974	-2.6961	-2.2279	0.40873

# Device Test: 19.3 PWM|DEADTIME/GATE/10/8///0.5MHz/@T\_RLH

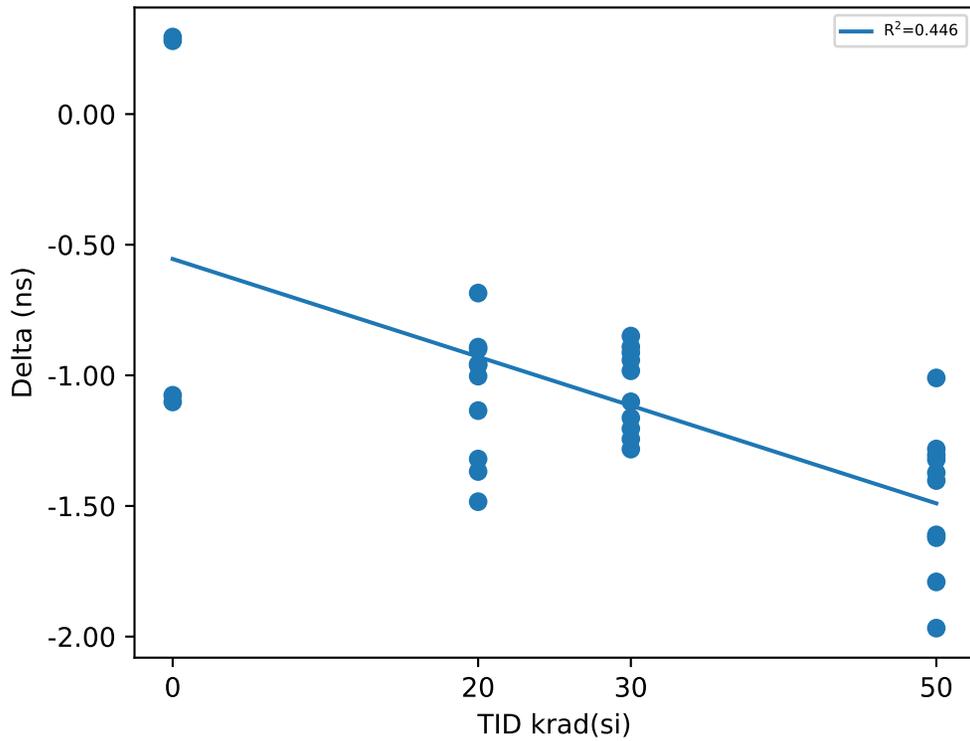
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	29.433	28.113	-1.3203
2	20	HDR BIAS	29.261	28.304	-0.9573
3	20	HDR BIAS	30.168	29.269	-0.8996
4	20	HDR BIAS	29.83	28.695	-1.135
5	20	HDR BIAS	29.912	28.428	-1.4836
6	20	HDR UNBIAS	29.032	28.14	-0.8921
7	20	HDR UNBIAS	29.018	27.65	-1.3679
8	20	HDR UNBIAS	29.283	28.322	-0.9611
9	20	HDR UNBIAS	28.553	27.869	-0.685
10	20	HDR UNBIAS	30.255	29.252	-1.003
11	30	HDR BIAS	29.084	27.983	-1.1013
12	30	HDR BIAS	29.302	28.098	-1.204
13	30	HDR BIAS	29.751	28.838	-0.9132
14	30	HDR BIAS	29.551	28.568	-0.9825
15	30	HDR BIAS	28.985	28.094	-0.8912
16	30	HDR UNBIAS	30.301	29.359	-0.9418
17	30	HDR UNBIAS	29.921	28.638	-1.2823
18	30	HDR UNBIAS	29.727	28.565	-1.1628
19	30	HDR UNBIAS	28.908	28.058	-0.8497
20	30	HDR UNBIAS	29.024	27.78	-1.2438
21	50	HDR BIAS	29.265	27.474	-1.7907
22	50	HDR BIAS	30.094	28.473	-1.6213
23	50	HDR BIAS	29.823	27.856	-1.9676
24	50	HDR BIAS	29.507	28.185	-1.3225
25	50	HDR BIAS	28.877	27.867	-1.0099
26	50	HDR UNBIAS	30.612	29.001	-1.6107
27	50	HDR UNBIAS	29.851	28.545	-1.3056
28	50	HDR UNBIAS	29.495	28.213	-1.2819
29	50	HDR UNBIAS	28.821	27.448	-1.3727
30	50	HDR UNBIAS	30.481	29.079	-1.4026
41	0	CORRELATION	30.663	29.561	-1.1018
42	0	CORRELATION	29.412	29.692	0.2808
43	0	CORRELATION	33.391	32.315	-1.0762
45	0	CORRELATION	29.128	29.423	0.2949

## TID vs Post - Pre Exposure Delta

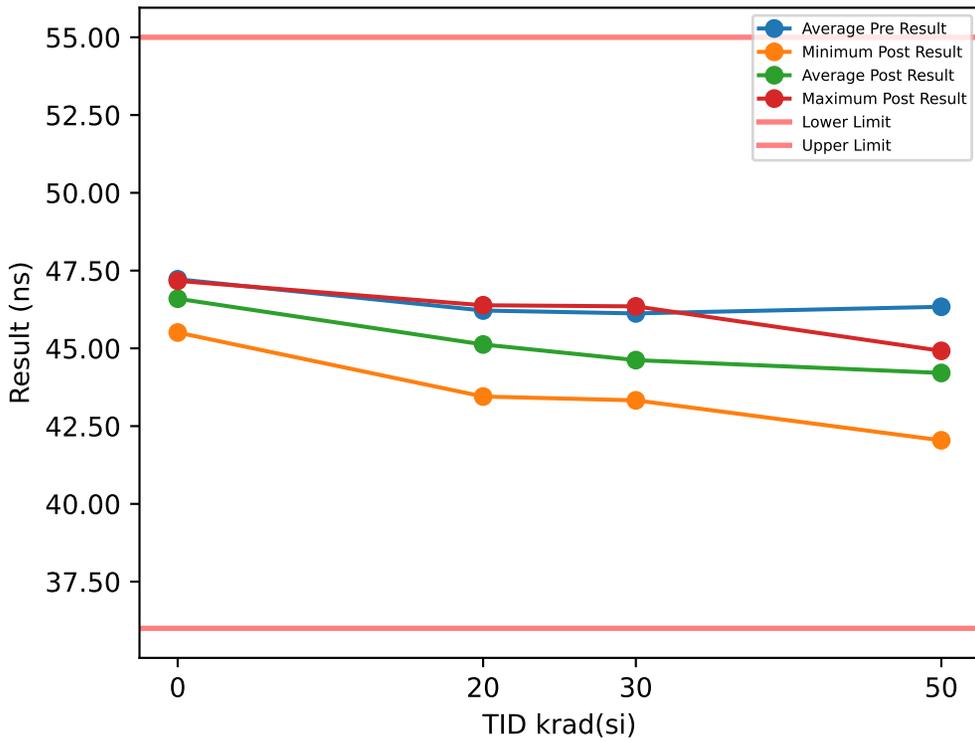


## Test Statistics (ns)

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	29.128	30.648	33.391	1.9463	29.423	30.248	32.315	1.3825	-1.1018	-0.40058	0.2949	0.79501
20	28.553	29.475	30.255	0.55218	27.65	28.404	29.269	0.53523	-1.4836	-1.0705	-0.685	0.25048
30	28.908	29.455	30.301	0.46784	27.78	28.398	29.359	0.48114	-1.2823	-1.0573	-0.8497	0.15999
50	28.821	29.683	30.612	0.61015	27.448	28.214	29.079	0.57024	-1.9676	-1.4686	-1.0099	0.27948

# Device Test: 19.4 PWM|DEADTIME/GATE/10/8///0.5MHz/@T\_RHL

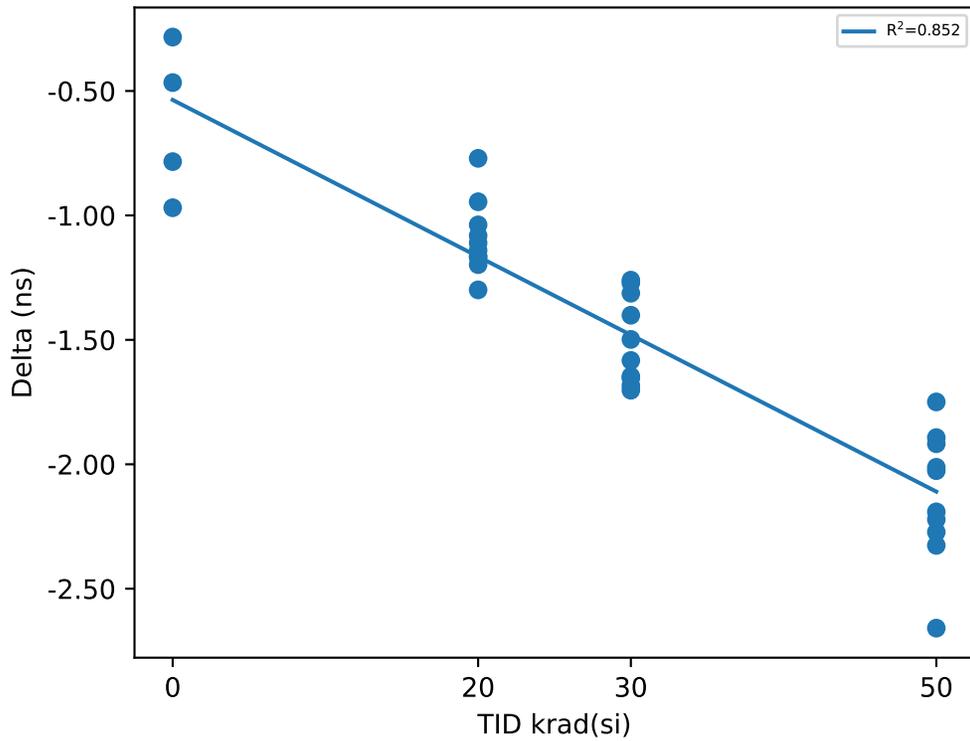
## TID vs Result Stats



## Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	45.211	44.07	-1.1408
2	20	HDR BIAS	44.489	43.452	-1.038
3	20	HDR BIAS	45.445	44.334	-1.1107
4	20	HDR BIAS	46.405	45.46	-0.9451
5	20	HDR BIAS	46.224	45.453	-0.7706
6	20	HDR UNBIAS	46.803	45.605	-1.1977
7	20	HDR UNBIAS	46.656	45.492	-1.1643
8	20	HDR UNBIAS	47.553	46.385	-1.1676
9	20	HDR UNBIAS	46.797	45.497	-1.2992
10	20	HDR UNBIAS	46.575	45.493	-1.0813
11	30	HDR BIAS	45.031	43.328	-1.7024
12	30	HDR BIAS	44.884	43.483	-1.4011
13	30	HDR BIAS	46.764	45.111	-1.6532
14	30	HDR BIAS	46.638	45.378	-1.2602
15	30	HDR BIAS	45.856	44.543	-1.3125
16	30	HDR UNBIAS	46.497	44.914	-1.5829
17	30	HDR UNBIAS	46.36	44.676	-1.6835
18	30	HDR UNBIAS	47.621	46.349	-1.2715
19	30	HDR UNBIAS	45.718	44.071	-1.6466
20	30	HDR UNBIAS	45.86	44.362	-1.4983
21	50	HDR BIAS	46.688	44.662	-2.0256
22	50	HDR BIAS	46.245	44.495	-1.7495
23	50	HDR BIAS	46.931	44.919	-2.0121
24	50	HDR BIAS	46.608	44.715	-1.8928
25	50	HDR BIAS	46.807	44.616	-2.1912
26	50	HDR UNBIAS	46.891	44.669	-2.222
27	50	HDR UNBIAS	44.369	42.044	-2.3259
28	50	HDR UNBIAS	46.353	44.08	-2.2724
29	50	HDR UNBIAS	47.131	44.473	-2.6584
30	50	HDR UNBIAS	45.336	43.419	-1.9174
41	0	CORRELATION	46.478	45.509	-0.9691
42	0	CORRELATION	47.626	47.16	-0.4662
43	0	CORRELATION	47.328	46.544	-0.7838
45	0	CORRELATION	47.454	47.17	-0.2833

## TID vs Post - Pre Exposure Delta

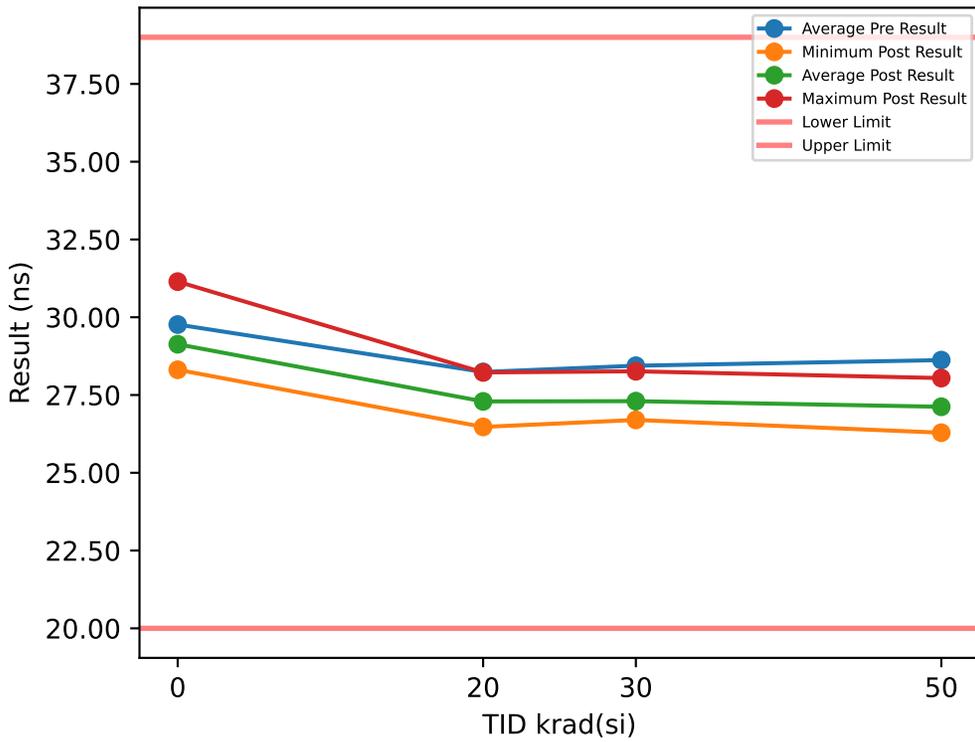


## Test Statistics (ns)

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	46.478	47.221	47.626	0.51037	45.509	46.596	47.17	0.78141	-0.9691	-0.6256	-0.2833	0.30854
20	44.489	46.216	47.553	0.90748	43.452	45.124	46.385	0.88101	-1.2992	-1.0915	-0.7706	0.14745
30	44.884	46.123	47.621	0.82663	43.328	44.622	46.349	0.89641	-1.7024	-1.5012	-1.2602	0.17673
50	44.369	46.336	47.131	0.85565	42.044	44.209	44.919	0.87077	-2.6584	-2.1267	-1.7495	0.26268

# Device Test: 19.5 PWM|DEADTIME/GATE/10/8///1MHz/@T\_RLH

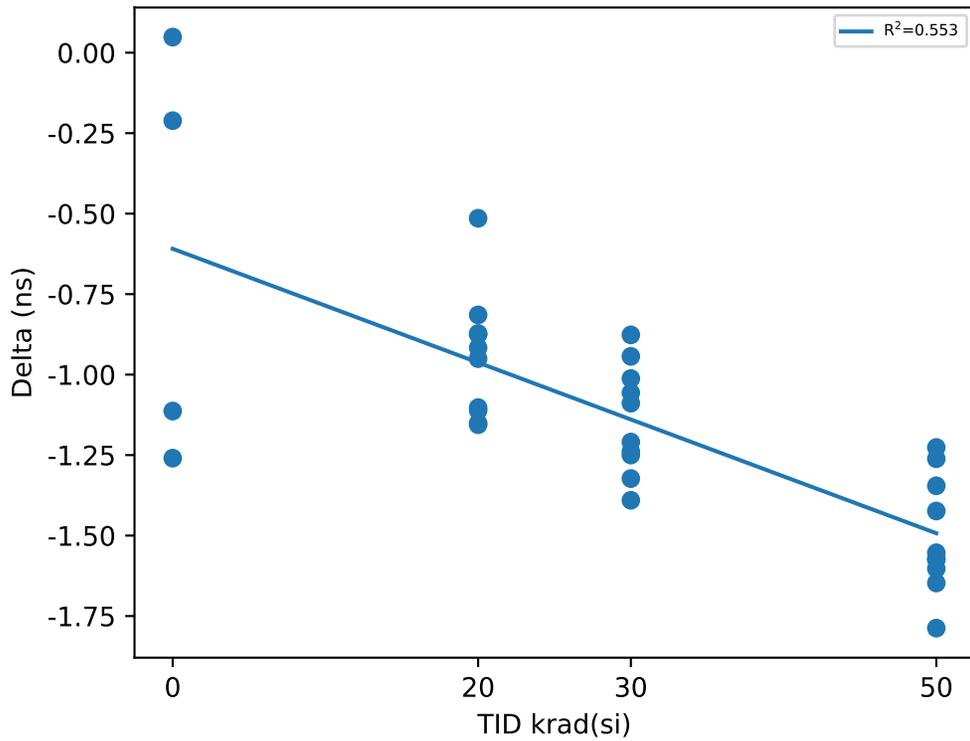
### TID vs Result Stats



### Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	28.12	27.018	-1.1026
2	20	HDR BIAS	28.105	27.154	-0.9504
3	20	HDR BIAS	29.075	28.201	-0.8748
4	20	HDR BIAS	28.726	27.615	-1.1113
5	20	HDR BIAS	28.43	27.279	-1.1508
6	20	HDR UNBIAS	27.835	27.02	-0.8146
7	20	HDR UNBIAS	27.63	26.474	-1.1556
8	20	HDR UNBIAS	28.067	27.194	-0.8724
9	20	HDR UNBIAS	27.277	26.763	-0.5144
10	20	HDR UNBIAS	29.142	28.225	-0.9166
11	30	HDR BIAS	28.194	26.871	-1.3229
12	30	HDR BIAS	28.257	27.018	-1.2392
13	30	HDR BIAS	29.004	27.755	-1.2498
14	30	HDR BIAS	28.436	27.424	-1.0123
15	30	HDR BIAS	28.352	26.961	-1.3904
16	30	HDR UNBIAS	29.319	28.262	-1.0565
17	30	HDR UNBIAS	28.466	27.59	-0.8766
18	30	HDR UNBIAS	28.576	27.488	-1.0887
19	30	HDR UNBIAS	27.903	26.96	-0.9434
20	30	HDR UNBIAS	27.908	26.699	-1.2095
21	50	HDR BIAS	27.992	26.389	-1.6027
22	50	HDR BIAS	29.011	27.436	-1.5752
23	50	HDR BIAS	28.399	26.752	-1.6473
24	50	HDR BIAS	28.362	27.1	-1.2613
25	50	HDR BIAS	28.025	26.799	-1.2264
26	50	HDR UNBIAS	29.616	28.044	-1.5719
27	50	HDR UNBIAS	29.197	27.409	-1.7875
28	50	HDR UNBIAS	28.387	27.041	-1.3454
29	50	HDR UNBIAS	27.842	26.289	-1.5535
30	50	HDR UNBIAS	29.384	27.96	-1.4237
41	0	CORRELATION	29.742	28.483	-1.2595
42	0	CORRELATION	28.541	28.589	0.0485
43	0	CORRELATION	32.258	31.145	-1.1132
45	0	CORRELATION	28.523	28.311	-0.2112

### TID vs Post - Pre Exposure Delta

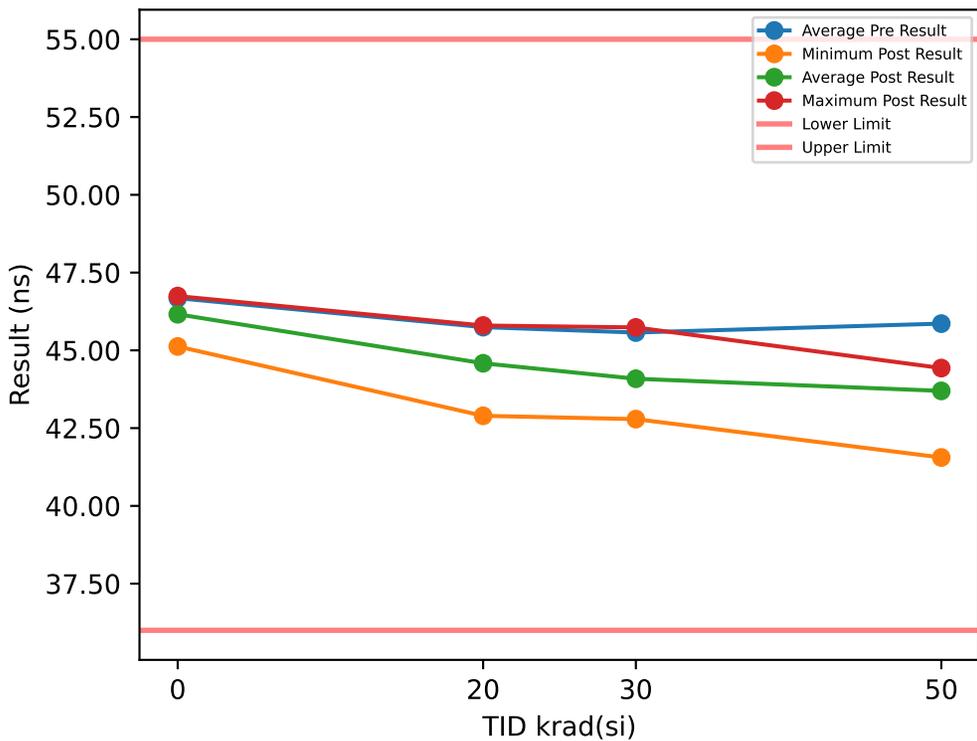


### Test Statistics (ns)

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	28.523	29.766	32.258	1.7568	28.311	29.132	31.145	1.3468	-1.2595	-0.63385	0.0485	0.64947
20	27.277	28.241	29.142	0.60645	26.474	27.294	28.225	0.57035	-1.1556	-0.94635	-0.5144	0.19794
30	27.903	28.442	29.319	0.44511	26.699	27.303	28.262	0.48566	-1.3904	-1.1389	-0.8766	0.16892
50	27.842	28.621	29.616	0.63111	26.289	27.122	28.044	0.59758	-1.7875	-1.4995	-1.2264	0.17955

# Device Test: 19.6 PWM|DEADTIME/GATE/10/8///1MHz/@T\_RHL

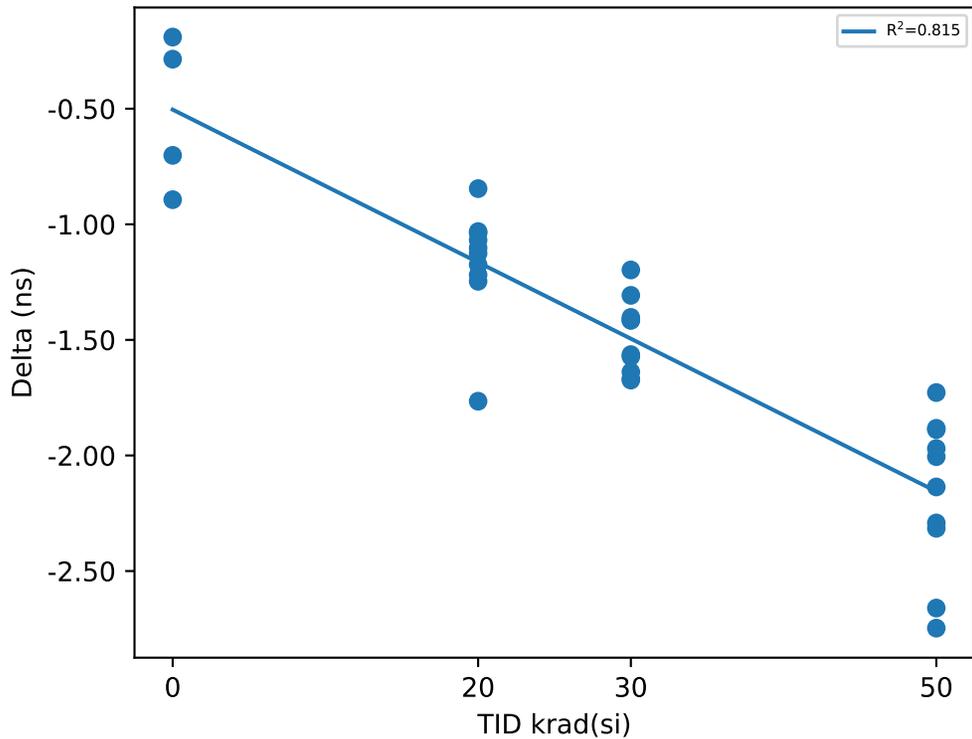
### TID vs Result Stats



### Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	45.245	43.479	-1.7654
2	20	HDR BIAS	43.998	42.896	-1.1023
3	20	HDR BIAS	44.873	43.805	-1.0684
4	20	HDR BIAS	45.96	44.929	-1.0316
5	20	HDR BIAS	45.718	44.872	-0.8457
6	20	HDR UNBIAS	46.336	45.089	-1.2465
7	20	HDR UNBIAS	46.036	44.91	-1.1259
8	20	HDR UNBIAS	47.017	45.799	-1.2188
9	20	HDR UNBIAS	46.217	45.042	-1.1747
10	20	HDR UNBIAS	46.06	45.023	-1.0373
11	30	HDR BIAS	44.463	42.789	-1.6739
12	30	HDR BIAS	44.403	43	-1.4027
13	30	HDR BIAS	46.114	44.55	-1.5639
14	30	HDR BIAS	46.129	44.822	-1.3074
15	30	HDR BIAS	45.238	44.041	-1.1975
16	30	HDR UNBIAS	46.054	44.385	-1.6686
17	30	HDR UNBIAS	45.761	44.123	-1.6388
18	30	HDR UNBIAS	47.153	45.738	-1.415
19	30	HDR UNBIAS	45.093	43.521	-1.5722
20	30	HDR UNBIAS	45.317	43.902	-1.4148
21	50	HDR BIAS	46.074	44.191	-1.8825
22	50	HDR BIAS	45.768	44.04	-1.7279
23	50	HDR BIAS	46.401	44.431	-1.97
24	50	HDR BIAS	46.084	44.196	-1.888
25	50	HDR BIAS	46.203	44.067	-2.1362
26	50	HDR UNBIAS	46.44	44.124	-2.3151
27	50	HDR UNBIAS	44.303	41.556	-2.7469
28	50	HDR UNBIAS	45.852	43.56	-2.292
29	50	HDR UNBIAS	46.579	43.919	-2.6601
30	50	HDR UNBIAS	44.887	42.881	-2.0052
41	0	CORRELATION	46.018	45.125	-0.8935
42	0	CORRELATION	46.967	46.681	-0.2857
43	0	CORRELATION	46.793	46.091	-0.7018
45	0	CORRELATION	46.935	46.745	-0.1901

### TID vs Post - Pre Exposure Delta

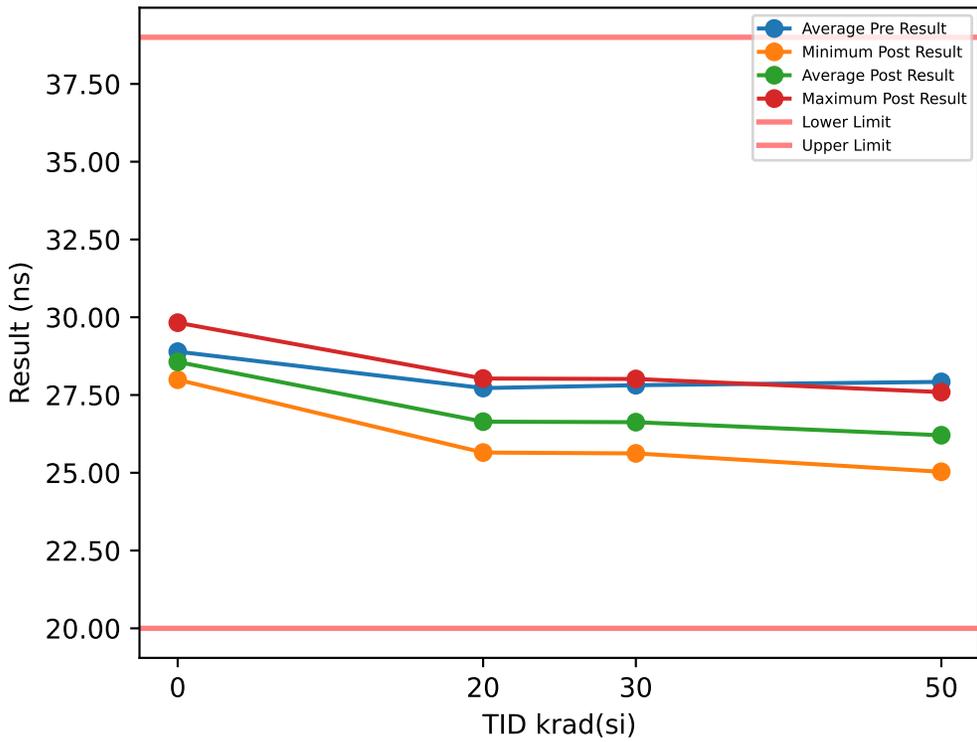


### Test Statistics (ns)

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	46.018	46.678	46.967	0.44639	45.125	46.16	46.745	0.75054	-0.8935	-0.51778	-0.1901	0.3348
20	43.998	45.746	47.017	0.84879	42.896	44.584	45.799	0.88937	-1.7654	-1.1617	-0.8457	0.24057
30	44.403	45.572	47.153	0.84142	42.789	44.087	45.738	0.86861	-1.6739	-1.4855	-1.1975	0.16251
50	44.303	45.859	46.579	0.72558	41.556	43.697	44.431	0.86825	-2.7469	-2.1624	-1.7279	0.339

# Device Test: 19.7 PWM|DEADTIME/GATE/10/8///2MHz/@T\_RLH

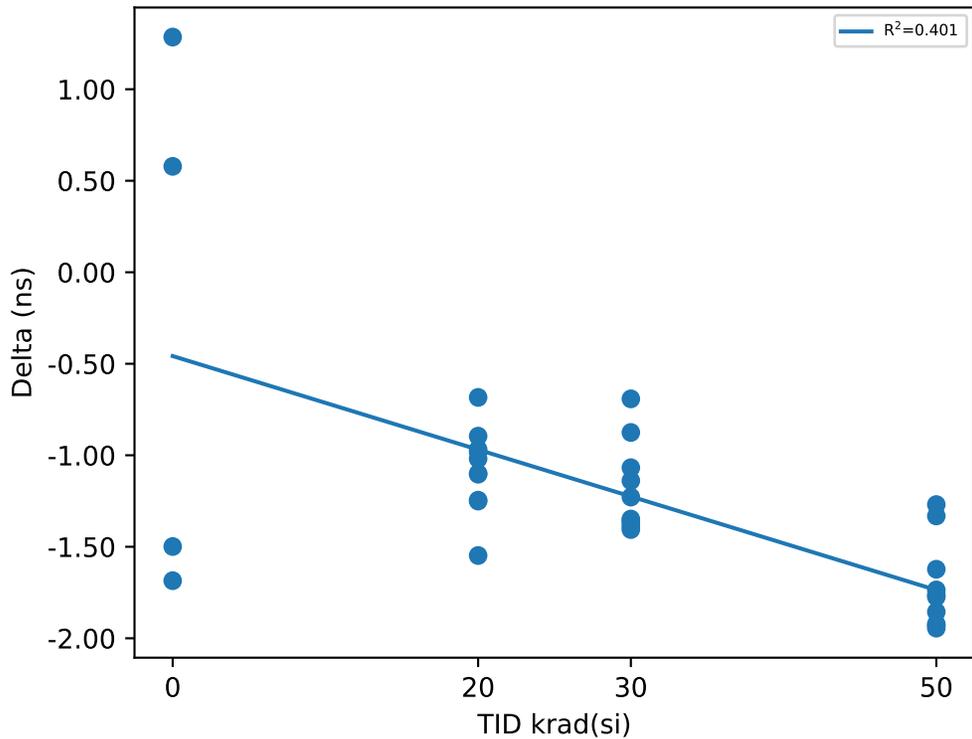
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	26.901	25.651	-1.2503
2	20	HDR BIAS	27.421	26.322	-1.0995
3	20	HDR BIAS	28.016	27.332	-0.6838
4	20	HDR BIAS	28.916	27.812	-1.1034
5	20	HDR BIAS	27.906	26.358	-1.5478
6	20	HDR UNBIAS	27.6	26.704	-0.8955
7	20	HDR UNBIAS	27.082	25.837	-1.2453
8	20	HDR UNBIAS	27.462	26.481	-0.9811
9	20	HDR UNBIAS	26.93	25.911	-1.0191
10	20	HDR UNBIAS	28.998	28.03	-0.9679
11	30	HDR BIAS	27.029	25.623	-1.4059
12	30	HDR BIAS	28.138	26.789	-1.3485
13	30	HDR BIAS	27.735	26.596	-1.1388
14	30	HDR BIAS	27.528	26.653	-0.8754
15	30	HDR BIAS	27.291	25.899	-1.3922
16	30	HDR UNBIAS	29.084	28.016	-1.068
17	30	HDR UNBIAS	27.41	26.719	-0.6918
18	30	HDR UNBIAS	28.537	27.179	-1.3571
19	30	HDR UNBIAS	27.515	26.143	-1.3726
20	30	HDR UNBIAS	27.881	26.652	-1.2285
21	50	HDR BIAS	26.613	25.344	-1.2694
22	50	HDR BIAS	29.094	27.32	-1.774
23	50	HDR BIAS	27.305	25.36	-1.9445
24	50	HDR BIAS	27.601	26.269	-1.3316
25	50	HDR BIAS	27.141	25.378	-1.7629
26	50	HDR UNBIAS	29.449	27.593	-1.8558
27	50	HDR UNBIAS	27.921	25.991	-1.93
28	50	HDR UNBIAS	27.828	26.205	-1.6228
29	50	HDR UNBIAS	26.954	25.032	-1.9217
30	50	HDR UNBIAS	29.315	27.579	-1.7358
41	0	CORRELATION	29.677	27.991	-1.6853
42	0	CORRELATION	26.881	28.166	1.2851
43	0	CORRELATION	31.323	29.825	-1.4986
45	0	CORRELATION	27.696	28.274	0.5786

## TID vs Post - Pre Exposure Delta

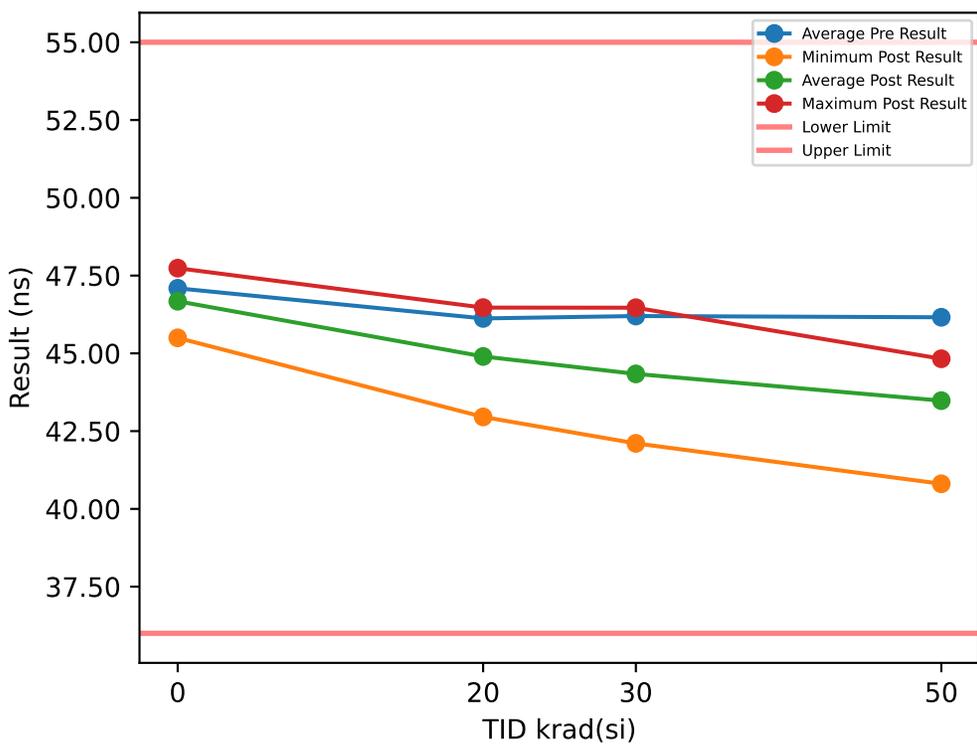


## Test Statistics (ns)

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	26.881	28.894	31.323	2.0002	27.991	28.564	29.825	0.84847	-1.6853	-0.33005	1.2851	1.4873
20	26.901	27.723	28.998	0.74965	25.651	26.644	28.03	0.82677	-1.5478	-1.0794	-0.6838	0.23408
30	27.029	27.815	29.084	0.62123	25.623	26.627	28.016	0.67027	-1.4059	-1.1879	-0.6918	0.24495
50	26.613	27.922	29.449	1.022	25.032	26.207	27.593	0.97888	-1.9445	-1.7149	-1.2694	0.24076

# Device Test: 19.8 PWM|DEADTIME/GATE/10/8///2MHz/@T\_RHL

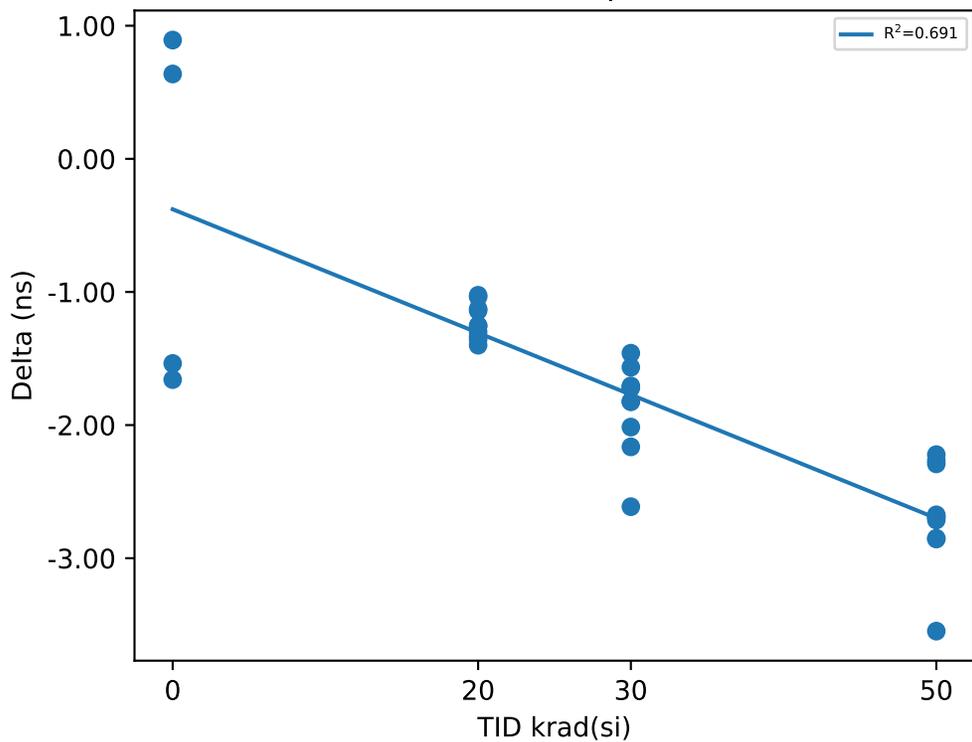
### TID vs Result Stats



### Test Results (Lower Limit = 36.0, Upper Limit = 55.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	44.213	42.956	-1.2563
2	20	HDR BIAS	44.196	43.159	-1.0368
3	20	HDR BIAS	44.926	43.569	-1.357
4	20	HDR BIAS	47.142	46.117	-1.0248
5	20	HDR BIAS	45.928	44.788	-1.1401
6	20	HDR UNBIAS	46.791	45.455	-1.3359
7	20	HDR UNBIAS	46.636	45.236	-1.4
8	20	HDR UNBIAS	47.723	46.471	-1.2518
9	20	HDR UNBIAS	46.415	45.115	-1.3002
10	20	HDR UNBIAS	47.256	46.129	-1.1267
11	30	HDR BIAS	44.719	42.106	-2.613
12	30	HDR BIAS	45.427	43.712	-1.7154
13	30	HDR BIAS	46.094	44.079	-2.015
14	30	HDR BIAS	46.773	45.208	-1.5655
15	30	HDR BIAS	45.53	44.07	-1.4601
16	30	HDR UNBIAS	47.118	45.294	-1.824
17	30	HDR UNBIAS	46.137	43.974	-2.1635
18	30	HDR UNBIAS	48.187	46.467	-1.7198
19	30	HDR UNBIAS	45.3	43.478	-1.8226
20	30	HDR UNBIAS	46.71	45.004	-1.7059
21	50	HDR BIAS	46.113	43.425	-2.6876
22	50	HDR BIAS	47.093	44.826	-2.2667
23	50	HDR BIAS	46.052	43.358	-2.6937
24	50	HDR BIAS	46.595	44.304	-2.2913
25	50	HDR BIAS	46.07	43.219	-2.8504
26	50	HDR UNBIAS	47.573	44.717	-2.8558
27	50	HDR UNBIAS	43.481	40.807	-2.6744
28	50	HDR UNBIAS	46.453	43.739	-2.7133
29	50	HDR UNBIAS	46.595	43.047	-3.5478
30	50	HDR UNBIAS	45.573	43.351	-2.2221
41	0	CORRELATION	47.157	45.498	-1.6583
42	0	CORRELATION	46.835	47.727	0.8923
43	0	CORRELATION	47.274	45.737	-1.5372
45	0	CORRELATION	47.101	47.739	0.6376

### TID vs Post - Pre Exposure Delta

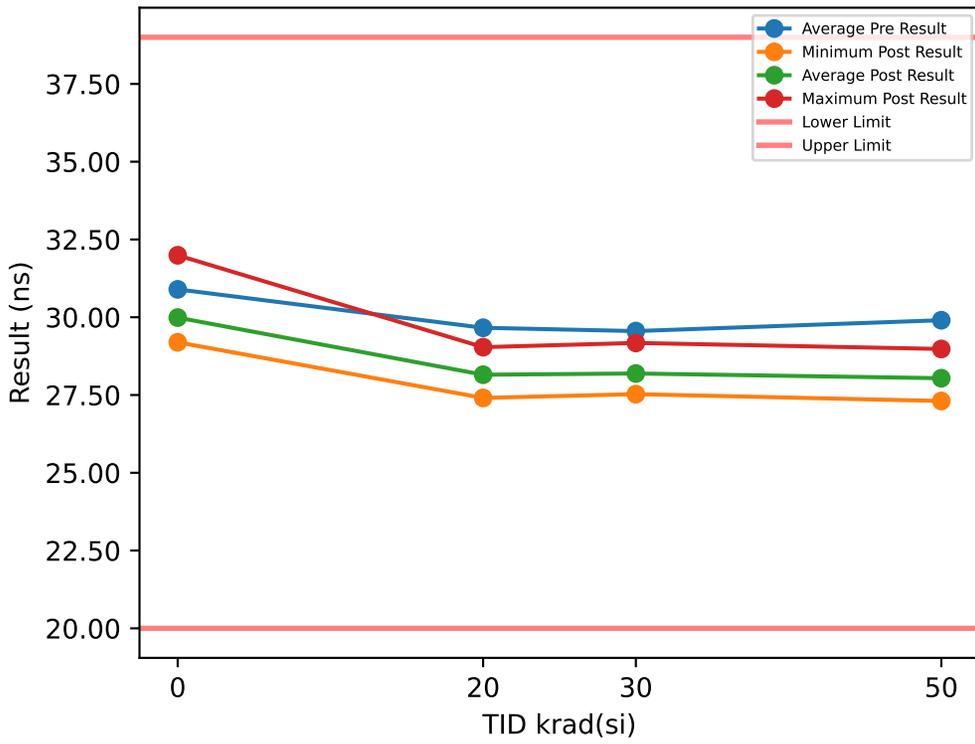


### Test Statistics (ns)

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	46.835	47.092	47.274	0.18584	45.498	46.675	47.739	1.2251	-1.6583	-0.4164	0.8923	1.369
20	44.196	46.123	47.723	1.2697	42.956	44.9	46.471	1.2702	-1.4	-1.223	-1.0248	0.13335
30	44.719	46.2	48.187	1.0243	42.106	44.339	46.467	1.2033	-2.613	-1.8605	-1.4601	0.3328
50	43.481	46.16	47.573	1.0992	40.807	43.479	44.826	1.1316	-3.5478	-2.6803	-2.2221	0.38672

# Device Test: 19.9 PWM|DEADTIME/GATE/12/10///0MHz/@T\_RLH

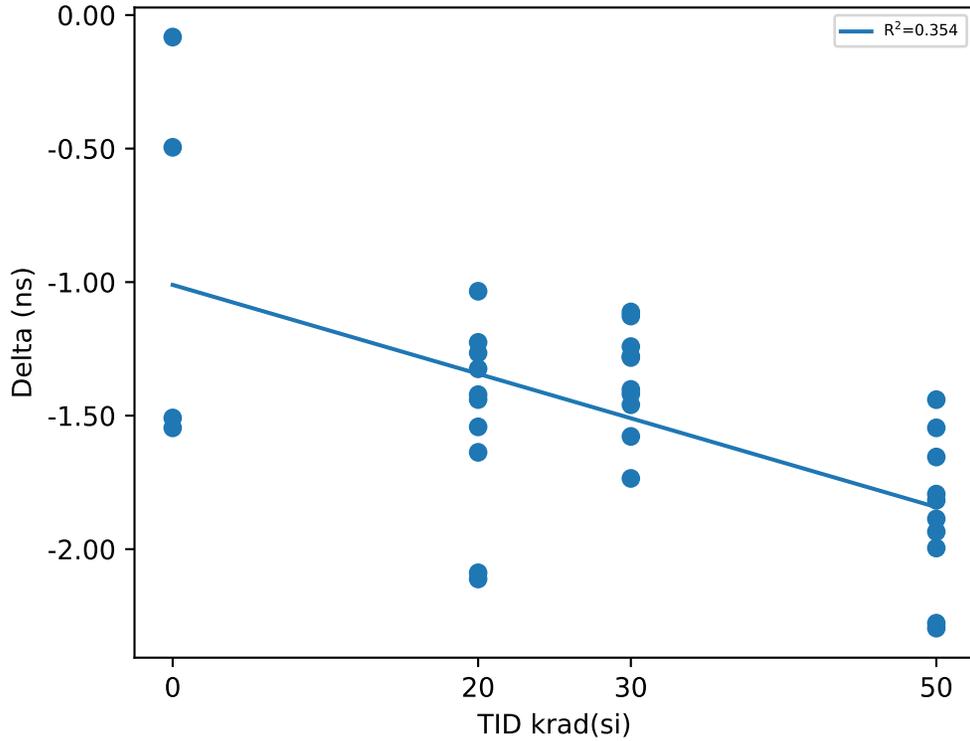
## TID vs Result Stats



## Test Results (Lower Limit = 20.0, Upper Limit = 39.0 (ns))

Serial #	krad(si)	Exposure Conditions	Pre Result	Post Result	Delta
1	20	HDR BIAS	29.948	27.859	-2.0885
2	20	HDR BIAS	29.317	28.052	-1.2653
3	20	HDR BIAS	30.662	29.025	-1.6374
4	20	HDR BIAS	29.967	28.425	-1.5421
5	20	HDR BIAS	30.218	28.106	-2.1117
6	20	HDR UNBIAS	28.949	27.915	-1.0342
7	20	HDR UNBIAS	28.846	27.407	-1.4398
8	20	HDR UNBIAS	29.379	28.054	-1.3246
9	20	HDR UNBIAS	29.062	27.641	-1.4215
10	20	HDR UNBIAS	30.264	29.038	-1.2257
11	30	HDR BIAS	29.038	27.796	-1.2416
12	30	HDR BIAS	29.449	27.871	-1.5779
13	30	HDR BIAS	29.737	28.61	-1.1271
14	30	HDR BIAS	29.594	28.316	-1.278
15	30	HDR BIAS	29.268	27.849	-1.419
16	30	HDR UNBIAS	30.456	29.174	-1.2823
17	30	HDR UNBIAS	29.579	28.467	-1.1117
18	30	HDR UNBIAS	29.824	28.422	-1.4018
19	30	HDR UNBIAS	29.342	27.883	-1.4592
20	30	HDR UNBIAS	29.263	27.528	-1.7351
21	50	HDR BIAS	29.116	27.322	-1.7938
22	50	HDR BIAS	30.163	28.276	-1.8867
23	50	HDR BIAS	29.599	27.665	-1.9346
24	50	HDR BIAS	29.445	28.005	-1.4402
25	50	HDR BIAS	29.847	27.57	-2.2772
26	50	HDR UNBIAS	30.902	28.906	-1.9958
27	50	HDR UNBIAS	30.581	28.286	-2.2957
28	50	HDR UNBIAS	29.626	28.08	-1.5457
29	50	HDR UNBIAS	29.125	27.308	-1.817
30	50	HDR UNBIAS	30.634	28.98	-1.6549
41	0	CORRELATION	30.808	29.299	-1.5087
42	0	CORRELATION	29.551	29.469	-0.0824
43	0	CORRELATION	33.538	31.992	-1.5457
45	0	CORRELATION	29.689	29.194	-0.4952

## TID vs Post - Pre Exposure Delta



## 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	29.551	30.897	33.538	1.8485	29.194	29.989	31.992	1.3404	-1.5457	-0.908	-0.0824	0.73474
20	28.846	29.661	30.662	0.63057	27.407	28.152	29.038	0.5377	-2.1117	-1.5091	-1.0342	0.35405
30	29.038	29.555	30.456	0.39587	27.528	28.192	29.174	0.49387	-1.7351	-1.3634	-1.1117	0.19602
50	29.116	29.904	30.902	0.63832	27.308	28.04	28.98	0.593	-2.2957	-1.8642	-1.4402	0.28122

## 6 Revision History

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

<b>Changes from Revision * (May 2025) to Revision A (January 2026)</b>	<b>Page</b>
• Production flow device used compared to proto device used for lookahead report.....	10
• ATE test coverage is 100% at 25°C for pre/post HDR irradiation.....	10
• 23 units used for 50 Krad(Si) to cover RLAT for the die lot.....	10

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