

# **TPS7H5020-SEP Total Ionizing Dose (TID) Preliminary Report**

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## **ABSTRACT**

This report discusses the results of the total ionizing dose (TID) testing for the Texas Instruments TPS7H5020-SEP radiation hardness-assured 1.2A, PWM controller with integrated gate driver. The study was done to determine TID effects at 50krad (Si) High Dose Rate (HDR). The results show that all samples pass within device specified test limits.

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## **Trademarks**

All trademarks are the property of their respective owners.

## 1 Device Information

### 1.1 Product Description

The TPS7H5020 is a radiation-hardness-assured, current mode, single-ended PWM controller with an integrated gate driver that can be utilized in both silicon and gallium nitride (GaN) power semiconductor based converter designs. The TPS7H502x integrates several key functions, such as soft-start, enable, and adjustable slope compensation while maintaining a small package size. The controller also features a  $0.6V \pm 1\%$  voltage reference tolerance to support highly accurate power converter designs. The TPS7H5020-SEP is packaged in a plastic 24-pin HTSSOP PWP package.

### 1.2 Device Details

Testing was performed per MIL-STD-883, Test Method 1019, with a sample size per MIL-PRF-38535, Appendix C, test condition A (high dose rate).

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

| RHA TID Details: Up to 100krad(Si)     |  |
|--|--|
| TI Part Number                         | TPS7H5020-SEP  |
| Device Function                        | PWM Controller with Integrated Gate Driver   |
| Package                                | 24-pin HTSSOP-PWP  |
| Technology                             | LBC7 (250nm Linear BiCMOS)   |
| Quantity tested                        | HDR :<br>• Five biased and five unbiased units at 50krad(Si) levels<br>• One correlation unit                  |
| Lot Accept/Reject                      | Passes 50krad(Si); no observed fails   |
| HDR Radiation Facility                 | Texas Instruments CLAB Dallas, Texas   |
| Die Lot Number and Assembly Lot Number | DIE: 4087898<br>Assembly: 4628068  |
| HDR Dose Rate                          | 172.96 rad (Si) / s  |
| HDR Radiation Source                   | Gammacell 220 Excel (GC-220E) Co-60  |
| Irradiation and Test Temperature       | Ambient, room temperature controlled to $25^\circ\text{C} \pm 6^\circ\text{C}$ per MIL-STD-883 and MIL-STD-750 |



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

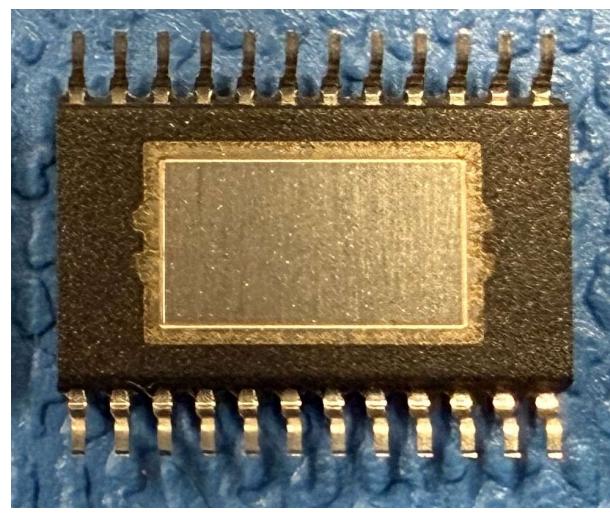


Figure 1-2. Device Used in Exposure (Back)

## 2 Total Dose Test Setup

## 2.1 Test Overview

The TPS7H5020-SEP was tested according to MIL-STD-883, Test Method 1019.9. For this testing, condition A was used. For this test, the product was irradiated up to the target radiation level, and then put through full electrical parametric testing on the production Automated Test Equipment (ATE). All devices remained functional passing all parametric test limits.

## **2.2 Test Description and Facilities**

The TPS7H5020-SEP HDR exposure was performed on biased devices in a Co-60 Gammacell at the TI Dallas C-Lab facility in Dallas, Texas. The unattenuated dose rate of this cell is 172.96 rad (Si) / s. After exposure, the devices were packed in dry ice (per MIL-STD-883 Method 1019.9 section 3.10) and post-radiation electrical testing at TI's Dallas Forest Lane facility. Test limit guard bands are set within SMD electrical test limits.

Post-radiation measurements were taken within 30 minutes after removing device 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 two conditions, biased and unbiased, as described in the following sections.

### **2.3.1 Unbiased**

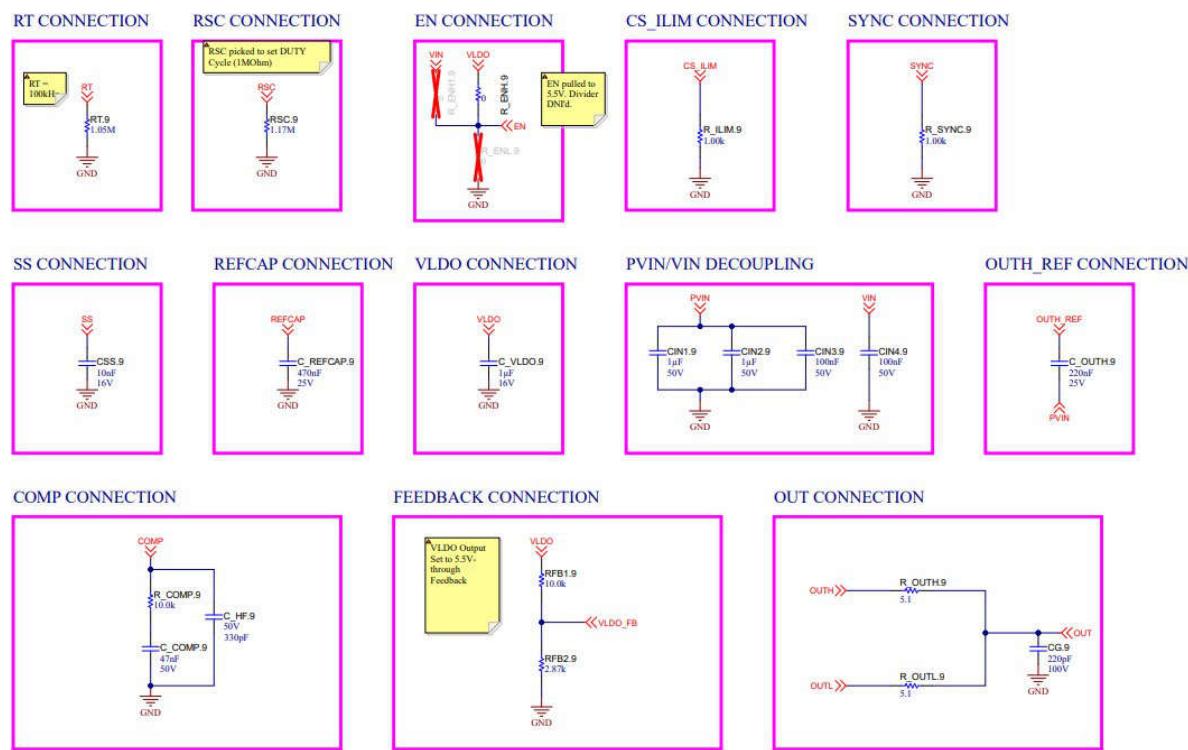
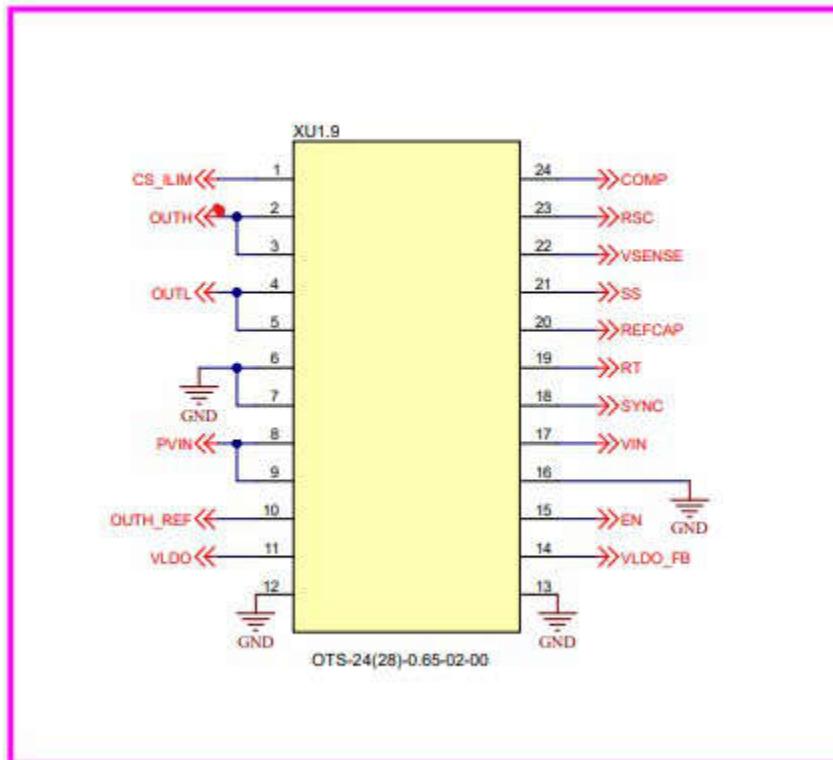
For the unbiased HDR conditions, the exposure was performed with all pins grounded.

### **2.3.2 Biased**

[Figure 2-1](#) through [Figure 2-3](#) and the HDR bias diagram and schematic.



**Figure 2-1. HDR TID Hardware**

**Figure 2-2. Supplies and GND HDR TID Bias Diagram****SITE - SOCKET PIN MAPPING****Figure 2-3. HDR TID Bias Diagram**

## 2.4 Test Configuration and Conditions

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

**Table 2-1. HDR Biased Device Information**

| Total Samples: 5 units + 2 control |               |
|------------------------------------|---------------|
| Exposure Levels:                   |               |
| Control                            | 50krad (Si)   |
| 1, 2                               | 4, 6, 7, 8, 9 |

**Table 2-2. HDR Unbiased Device Information**

| Total Samples: 5 units + 2 control |                    |
|------------------------------------|--------------------|
| Exposure Levels:                   |                    |
| Control                            | 50krad (Si)        |
| 1, 2                               | 11, 12, 13, 14, 15 |

## 3 TID Characterization Test Results

### 3.1 TID Characterization Results Summary

The results show that all TPS7H5020-SEP devices were fully functional and within specification limits up to 50krad (Si) HDR. Overall the TPS7H5020-SEP show a strong degree of hardness to TID HDR exposure levels at 50krad (Si) under bias and unbiased conditions. Performance is measured based on the difference between pre- and post-irradiation with respect to SMD electrical minimum and maximum specification. 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 [Section 3.2](#) for the electrical parameters). Note that test numbers are listed only for parameters tested post-TID.

See [Appendix: HDR TID Report](#) for HDR report.

### 3.2 Data Sheet Electrical Parameters

Specifications are at ambient temperature TA = 25°C, PVIN=VIN= 4.5V to 14V unless otherwise noted.

**Table 3-1. TPS7H5020-SEP Data Sheet Electrical Parameters**

| Parameters                             |  | Test Conditions   |   | Min  | Max  | Units                                    | Test Number             |
|--|--|---|---|------|------|--|-------------------------|
| <b>SUPPLY VOLTAGES AND CURRENTS</b>    |  |   |   |      |      |  |                         |
| IDD                                    | Operating supply current                 | No load for OUT, PVIN = VIN                                     | f <sub>SW</sub> = 100kHz                          | 10   | mA   | 14.1, 14.2, 14.3, 14.5                   |                         |
|  |  |   | f <sub>SW</sub> = 500kHz                          | 15.5 | mA   | 14.6, 14.8, 14.10, 14.12,                |                         |
|  |  |   | f <sub>SW</sub> = 1MHz                            | 18   | mA   | 14.14, 14.15, 14.16, 14.17               |                         |
|  |  | C <sub>LOAD</sub> = 1000pF for OUT, PVIN = VIN                  | f <sub>SW</sub> = 100kHz                          | 12   | mA   | 14.18, 14.19, 14.20, 14.21               |                         |
|  |  |   | f <sub>SW</sub> = 500kHz                          | 20   | mA   | 14.22, 14.23, 14.24, 14.25               |                         |
|  |  |   | f <sub>SW</sub> = 1MHz                            | 28   | mA   | 14.26, 14.27, 14.28, 14.29               |                         |
|  |  | C <sub>LOAD</sub> = 1000pF for OUT, VIN = 12V, PVIN = VLDO = 5V | f <sub>SW</sub> = 100kHz                          | 10   | mA   | 14.3                                     |                         |
|  |  |   | f <sub>SW</sub> = 500kHz                          | 13   | mA   | 14.31                                    |                         |
|  |  |   | f <sub>SW</sub> = 1MHz                            | 20   | mA   | 14.32                                    |                         |
| I <sub>start</sub>                     | Startup current                          | VIN = 3.5V  | VIN = 3.5V  | 5    | mA   | 14.5                                     |                         |
| I <sub>DD(dis)</sub>                   | Standby current                          | EN = 0V   | EN = 0V   | 7    | mA   | 14.7, 14.9, 14.11, 14.13,                |                         |
| VLDO                                   | Internal linear regulator output voltage | C <sub>VLDO</sub> = 1μF   | 5V ≤ VIN ≤ 14V, RVT = 10kΩ, RVB = 3.74kΩ          | 4.36 | 4.62 | V  | 15.1, 15.4, 15.5        |
|  |  |   | 5.5V ≤ VIN ≤ 14V, RVT = 10kΩ, RVB = 3.24kΩ        | 4.84 | 5.14 | V  | 15.8, 15.11, 15.12      |
|  |  |   | 6V ≤ VIN ≤ 14V, RVT = 10 kΩ, RVB = 2.87kΩ         | 5.31 | 5.65 | V  | 15.15, 15.18, 15.19     |
| VLDO_DO                                | Internal linear dropout voltage          | I <sub>VLDO</sub> = 25mA, C <sub>VLDO</sub> = 1μF               | I <sub>VLDO</sub> = 25mA, C <sub>VLDO</sub> = 1μF | 0.4  | V    | 15.40, 15.41, 15.42, 15.43, 15.44, 15.45 |                         |
| I_VLDO                                 | VLDO output current                      | VLDO ≥ 96% of VLDO at no load, C <sub>VLDO</sub> = 1μF          | VIN = VLDO + 0.5V                                 | 30   | mA   | 15.3, 15.10, 15.17                       |                         |
|  |  |   | VIN = VLDO + 1V                                   | 60   | mA   | 15.34, 15.35, 15.36                      |                         |
|  |  |   | VIN ≥ 7V  | 95   | mA   | 15.7, 15.14, 15.21, 15.37, 15.38, 15.39  |                         |
| <b>ENABLE AND UNDERVOLTAGE LOCKOUT</b> |  |   |   |      |      |  |                         |
| V <sub>ENR</sub>                       | Enable rising threshold                  |   |   | 0.57 | 0.66 | V  | 16.1, 16.4, 16.7, 16.10 |
| V <sub>ENF</sub>                       | Enable falling threshold                 |   |   | 0.48 | 0.55 | V  | 16.2, 16.5, 16.8, 16.11 |

**Table 3-1. TPS7H5020-SEP Data Sheet Electrical Parameters (continued)**

| Parameters             |                                      | Test Conditions  |  | Min  | Max  | Units     | Test Number   |
|------------------------|--------------------------------------|--|--|------|------|-----------|---|
| $I_{EN}$               | Enable input leakage current         | VIN = 14V  | EN = 1V  | 100  | nA   |           | 16.15, 16.17  |
|                        |                                      |  | EN = 7V  | 250  | nA   |           | 16.16, 16.18  |
| PVIN <sub>UVLOR</sub>  | PVIN UVLO rising                     |  |  | 3.65 | 3.95 | V         | 17.1, 17.10,<br>17.19   |
| PVIN <sub>UVLOF</sub>  | PVIN UVLO falling                    |  |  | 3.45 | 3.75 | V         | 17.2, 17.11,<br>17.20   |
| VIN <sub>UVLOR</sub>   | VIN UVLO rising                      |  |  | 3.85 | 4.15 | V         | 17.4, 17.13,<br>17.22   |
| VIN <sub>UVLOF</sub>   | VIN UVLO falling                     |  |  | 3.65 | 3.95 | V         | 17.5, 17.14,<br>17.23   |
| VLDO <sub>UVLOR</sub>  | VLDO UVLO rising                     |  |  | 3.65 | 3.95 | V         | 17.7, 17.16,<br>17.25   |
| VLDO <sub>UVLOF</sub>  | VLDO UVLO falling                    |  |  | 3.45 | 3.75 | V         | 17.8, 17.17,<br>17.26   |
| <b>SOFT START</b>      |                                      |  |  |      |      |           |   |
| $I_{SS}$               | Soft-start current                   | SS = 0.3V  | SS = 0.3V  | 2    | 3.3  | $\mu A$   | 18.1, 18.5, 18.9,<br>18.13, 18.17,<br>18.21, 18.25,<br>18.29, 18.33,<br>18.37, 18.41,<br>18.45  |
| <b>ERROR AMPLIFIER</b> |                                      |  |  |      |      |           |   |
| $EA_{gm}$              | Error amplifier transconductance     | $-10\mu A < I_{COMP} < 10\mu A$ ,<br>$V_{(COMP)} = 1V$ | $-10\mu A < I_{COMP} < 10\mu A$ ,<br>$V_{(COMP)} = 1V$ | 1150 | 2650 | $\mu A/V$ | 19.1, 19.5, 19.9,<br>19.13  |
| $EA_{ISRC}$            | Error amplifier source current       | $V_{(COMP)} = 1V$ , 100mV input overdrive              | $V_{(COMP)} = 1V$ , 100mV input overdrive              | 95   | 195  | $\mu A$   | 19.2, 19.6, 19.10,<br>19.14   |
| $EA_{ISNK}$            | Error amplifier sink current         | $V_{(COMP)} = 1V$ , 100mV input overdrive              | $V_{(COMP)} = 1V$ , 100mV input overdrive              | 95   | 195  | $\mu A$   | 19.3, 19.7, 19.11,<br>19.15   |
| $EA_{os}$              | Error amplifier input offset voltage |  |  | -4.5 | 5.5  | mV        | 19.27, 19.3,<br>19.33, 19.36,<br>19.39, 19.42,<br>19.45, 19.48,<br>19.51, 19.54,<br>19.57, 19.6 |
| $EA_{IB}$              | Error amplifier input bias current   |  |  | 25   | nA   |           | 19.4, 19.8, 19.12,<br>19.16, 19.17,<br>19.18, 19.19,<br>19.20, 19.21,<br>19.22, 19.23,<br>19.24 |
| <b>OSCILLATOR</b>      |                                      |  |  |      |      |           |   |

**Table 3-1. TPS7H5020-SEP Data Sheet Electrical Parameters (continued)**

| Parameters               |   | Test Conditions                 |                       | Min   | Max                    | Units | Test Number   |
|--------------------------|---|---------------------------------|-----------------------|-------|------------------------|-------|---|
| DT <sub>INT</sub>        | External clock to internal clock detection time | RT populated                    | RT populated          | 5     | (1/f <sub>sw</sub> ) s |       | 20.144, 20.146, 20.148, 20.150, 20.152, 20.154, 20.156, 20.158, 20.160, 20.162, 20.164, 20.166, 20.168, 20.170, 20.172, 20.174  |
| DT <sub>EXT</sub>        | Internal clock to external clock detection time | RT populated                    | RT populated          | 5     | (1/f <sub>sw</sub> ) s |       | 20.112, 2.114, 2.116, 2.118, 2.120, 2.122, 2.124, 2.126, 2.128, 2.130, 2.132, 2.134, 2.136, 2.138, 2.140, 2.142   |
| f <sub>sw</sub>          | RT programmed switching frequency               | RT = 1.18MΩ                     | RT = 1.18MΩ           | 80    | 110                    | kHz   | 20.15, 20.19, 20.23, 20.27, 20.71, 20.73, 20.75, 20.77  |
|                          |   | RT = 560kΩ                      | RT = 560kΩ            | 180   | 220                    | kHz   | 20.31, 20.33, 20.35, 20.37, 20.79, 20.81, 20.83, 20.85  |
|                          |   | RT = 210kΩ                      | RT = 210kΩ            | 475   | 550                    | kHz   | 20.39, 20.43, 20.47, 20.51, 20.87, 20.89, 20.91, 20.93  |
|                          |   | RT = 100kΩ                      | RT = 100kΩ            | 950   | 1100                   | kHz   | 20.55, 20.59, 20.63, 20.67, 20.95, 20.97, 20.99, 20.101   |
| <b>VOLTAGE REFERENCE</b> |   |                                 |                       |       |                        |       |   |
| VREF                     | Internal voltage reference                      | Measured at COMP, COMP = VSENSE | T <sub>A</sub> = 25°C | 0.597 | 0.603                  | V     | 19.25, 19.28, 19.31, 19.34, 19.37, 19.4, 19.43, 19.46, 19.49, 19.52, 19.55, 19.58, 19.61, 19.63, 19.65, 19.67, 19.69, 19.71, 19.73, 19.75, 19.77, 19.79, 19.81, 19.83 |

**Table 3-1. TPS7H5020-SEP Data Sheet Electrical Parameters (continued)**

| Parameters         |                       | Test Conditions                         |  | Min   | Max   | Units | Test Number   |
|--------------------|-----------------------|---|--|-------|-------|-------|---|
| REFCAP             | REFCAP voltage        | $C_{REFCAP} = 470\text{nF}$             | $C_{REFCAP} = 470\text{nF}$              | 1.211 | 1.235 | V     | 21.1, 21.3, 21.5,<br>21.7, 21.9, 21.11,<br>21.13, 21.15,<br>21.17, 21.19,<br>21.21, 21.23,<br>21.25, 21.27,<br>21.29, 21.31,<br>21.33, 21.35,<br>21.37, 21.39,<br>21.41, 21.43,<br>21.45, 21.47 |
| CURRENT SENSE      |                       |   |  |       |       |       |   |
| CCSR               | COMP to CS_ILIM ratio | RSC = open                              | RSC = open                               | 1.94  | 2.06  |       | 28.1, 28.2, 28.3,<br>28.4   |
| GATE DRIVER        |                       |   |  |       |       |       |   |
| $V_{OL}$           | Low-level voltage     | $I_{OL} = 50\text{mA}$                  | $I_{OL} = 50\text{mA}$                   | 0.15  |       | V     | 24.1, 24.3, 24.5,<br>24.7   |
| $PV_{IN} - V_{OH}$ | High-level voltage    | $I_{OH} = 50\text{mA}$                  | $I_{OH} = 50\text{mA}$                   | 0.25  |       | V     | 24.2, 24.4, 24.6,<br>24.8   |
| $t_{R\_OUT}$       | OUT rise time         | $C_{LOAD} = 1000\text{pF}$ , 10% to 90% | $V_{IN} = 12\text{V}$ , $PV_{IN} = VLDO$ | 16    |       | ns    | 24.17, 24.19,<br>24.21  |
|                    |                       | $C_{LOAD} = 220\text{pF}$ , 10% to 90%  | $V_{IN} = 12\text{V}$ , $PV_{IN} = VLDO$ | 12    |       | ns    | 24.23, 24.25,<br>24.27  |
| $t_{F\_OUT}$       | OUT fall time         | $C_{LOAD} = 1000\text{pF}$ , 90% to 10% | $V_{IN} = 12\text{V}$ , $PV_{IN} = VLDO$ | 16    |       | ns    | 24.18, 24.20,<br>24.22  |
|                    |                       | $C_{LOAD} = 220\text{pF}$ , 90% to 10%  | $V_{IN} = 12\text{V}$ , $PV_{IN} = VLDO$ | 12    |       | ns    | 24.24, 24.26,<br>24.28  |
| $I_{OH}$           | Peak source current   | $PV_{IN} = 4.5\text{V}$                 | $PV_{IN} = 4.5\text{V}$                  |       |       | A     | 23.1  |
|                    |                       | $PV_{IN} = 5\text{V}$                   | $PV_{IN} = 5\text{V}$                    |       |       | A     | 23.3  |

**Table 3-1. TPS7H5020-SEP Data Sheet Electrical Parameters (continued)**

| Parameters                |                             | Test Conditions   |  | Min | Max | Units    | Test Number              |
|---------------------------|-----------------------------|---|--|-----|-----|----------|--------------------------|
| $I_{OL}$                  | Peak sink current           | PVIN = 4.5V   | PVIN = 4.5V  |     |     | A        | 23.2                     |
|                           |                             | PVIN = 5V   | PVIN = 5V  |     |     | A        | 23.4                     |
| $R_{OH}$                  | Pull-Up Resistance          | 100mA from OUT  | 100mA from OUT                                       | 4.7 |     | $\Omega$ | 23.5, 23.7, 23.9, 23.11  |
| $R_{OL}$                  | Pull-Down Resistance        | 100mA into OUT  | 100mA into OUT                                       | 2.8 |     | $\Omega$ | 23.6, 23.8, 23.10, 23.12 |
| $V_{UCLAMP}$              | Unpowered OUT clamp voltage | Switching disabled,<br>SYS_ON = 0, 1mA pull-up applied to OUT | PVIN = 0V  | 1   |     | V        | 24.29                    |
|                           |                             |   | 0V < PVIN < 5V                                       | 2.5 |     | V        | 24.3                     |
| <b>PWM AND DUTY CYCLE</b> |                             |   |  |     |     |          |                          |
| $T_{LEB}$                 | Leading edge blank time     | 5V ≤ VIN ≤ 14V, 10% of OUT rising to end of blanking          | 5V ≤ VIN ≤ 14V, 10% of OUT rising to end of blanking | 80  |     | ns       | 25.1, 25.4, 25.7         |
| $t_{on\_min}$             | Minimum on-time             |   |  | 165 |     | ns       | 26.1, 26.2, 26.3, 26.4   |
| $t_{off\_min}$            | Minimum off-time            |   |  | 65  |     | ns       | 26.5, 26.6, 26.7, 26.8   |

## 4 Applicable and Reference Documents

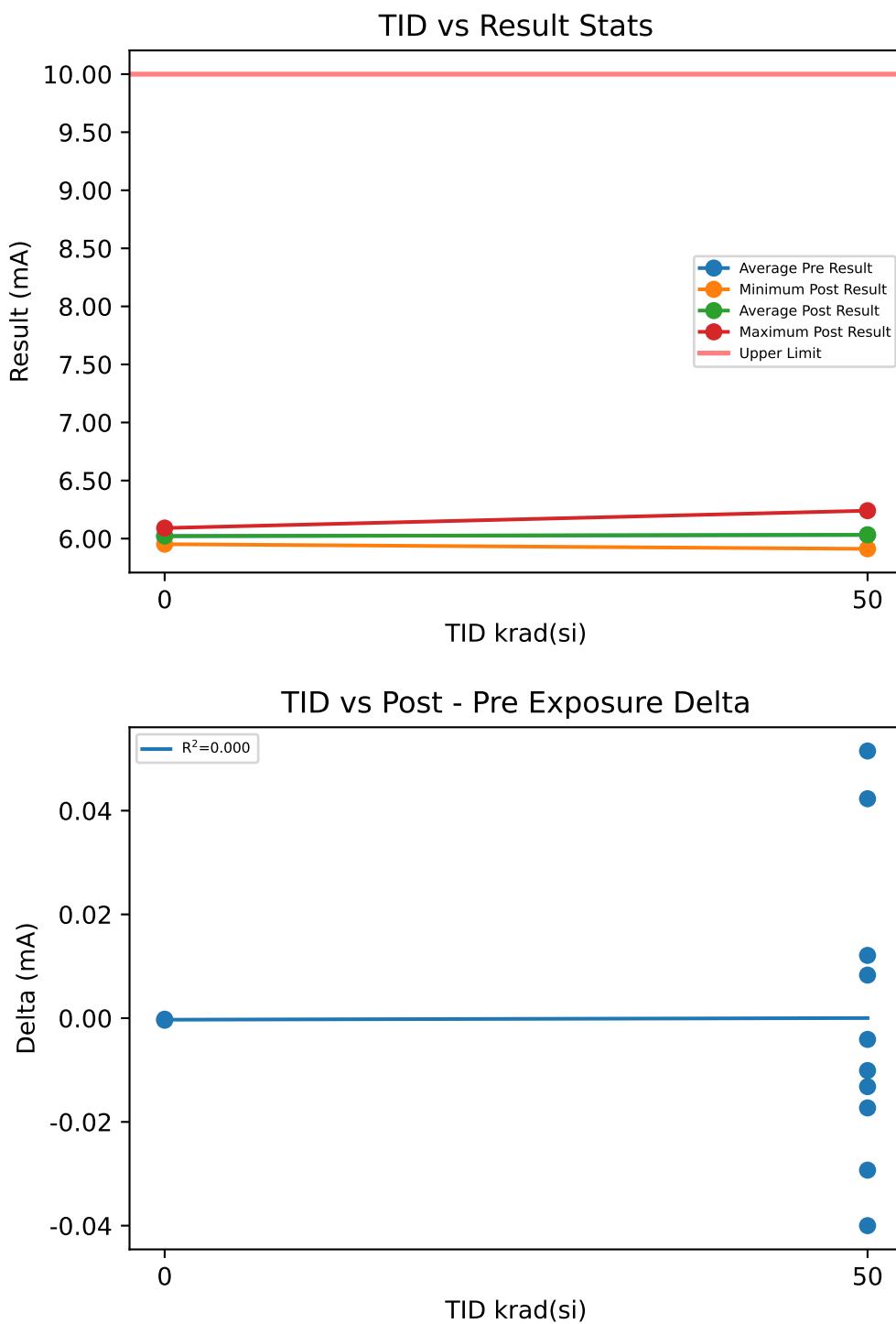
### 4.1 Applicable Documents

- Texas Instruments, *TPS7H502x-SEP Radiation-Hardness-Assured 1-MHz Current Mode PWM Controller with Integrated Gate Driver*, data sheet.
- Texas Instruments, *TPS7H5020EVM-CVAL Evaluation Module User's Guide*, EVM user's guide.

### 4.2 Reference Documents

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

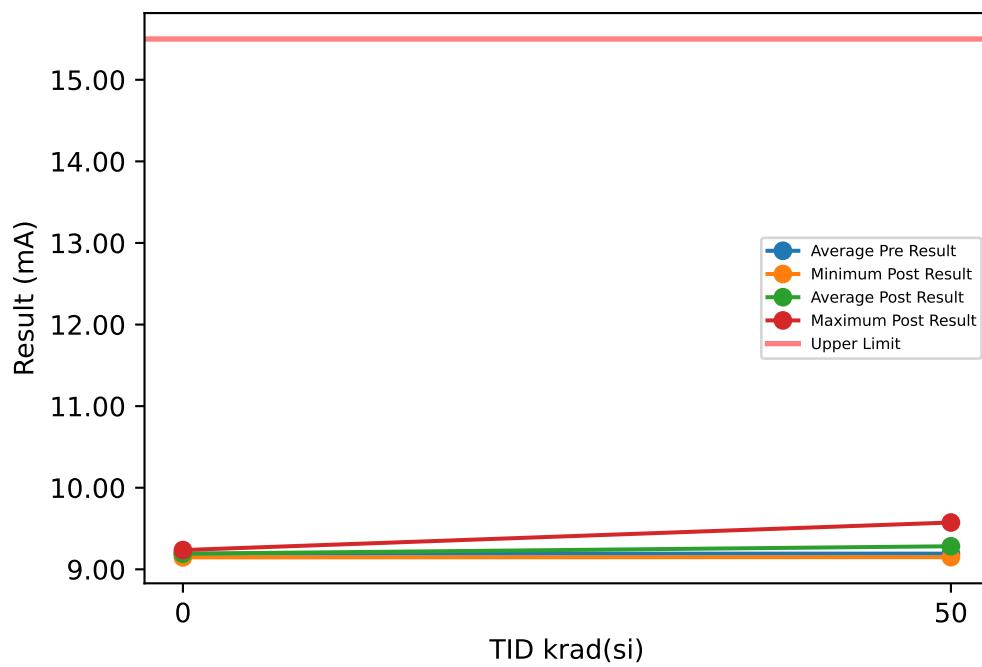
## A Appendix: HDR TID Report



| Test Results (Upper Limit = 10.0 (mA)) |          |                     |            |             |         |
|--|----------|---------------------|------------|-------------|---------|
| Serial #                               | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
| 1                                      | 0        | Correlation         | 6.0912     | 6.091       | -0.0002 |
| 2                                      | 0        | Correlation         | 5.9523     | 5.9519      | -0.0004 |
| 4                                      | 50       | Bias                | 6.0932     | 6.0759      | -0.0173 |
| 6                                      | 50       | Bias                | 6.0102     | 5.9702      | -0.04   |
| 7                                      | 50       | Bias                | 6.0144     | 6.0043      | -0.0101 |
| 8                                      | 50       | Bias                | 6.0864     | 6.0823      | -0.0041 |
| 9                                      | 50       | Bias                | 6.0377     | 6.0245      | -0.0132 |
| 11                                     | 50       | Unbias              | 5.9663     | 5.9746      | 0.0083  |
| 12                                     | 50       | Unbias              | 5.9413     | 5.912       | -0.0293 |
| 13                                     | 50       | Unbias              | 5.9752     | 6.0267      | 0.0515  |
| 14                                     | 50       | Unbias              | 5.9991     | 6.0112      | 0.0121  |
| 15                                     | 50       | Unbias              | 6.198      | 6.2403      | 0.0423  |

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 5.9523           | 6.0217           | 6.0912           | 0.098217         | 5.9519            | 6.0214            | 6.091             | 0.098359          | -0.0004   | -0.0003   | -0.0002   | 0.00014142 |
| 50       | 5.9413           | 6.0322           | 6.198            | 0.07596          | 5.912             | 6.0322            | 6.2403            | 0.088597          | -0.04     | 2e-05     | 0.0515    | 0.029264   |

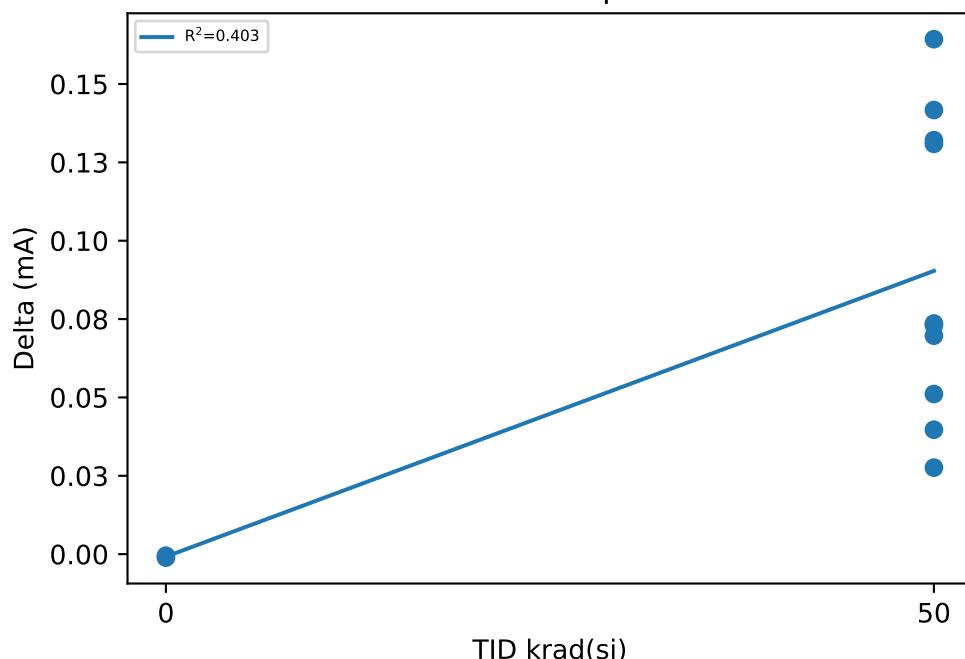
TID vs Result Stats



Test Results (Upper Limit = 15.5 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 9.2366     | 9.2361      | -0.0005 |
| 2        | 0        | Correlation         | 9.1473     | 9.1462      | -0.0011 |
| 4        | 50       | Bias                | 9.2286     | 9.2797      | 0.0511  |
| 6        | 50       | Bias                | 9.1976     | 9.2373      | 0.0397  |
| 7        | 50       | Bias                | 9.1276     | 9.1973      | 0.0697  |
| 8        | 50       | Bias                | 9.1921     | 9.2657      | 0.0736  |
| 9        | 50       | Bias                | 9.1439     | 9.2169      | 0.073   |
| 11       | 50       | Unbias              | 9.2278     | 9.3599      | 0.1321  |
| 12       | 50       | Unbias              | 9.1217     | 9.1493      | 0.0276  |
| 13       | 50       | Unbias              | 9.1507     | 9.2816      | 0.1309  |
| 14       | 50       | Unbias              | 9.1232     | 9.2649      | 0.1417  |
| 15       | 50       | Unbias              | 9.4097     | 9.574       | 0.1643  |

TID vs Post - Pre Exposure Delta

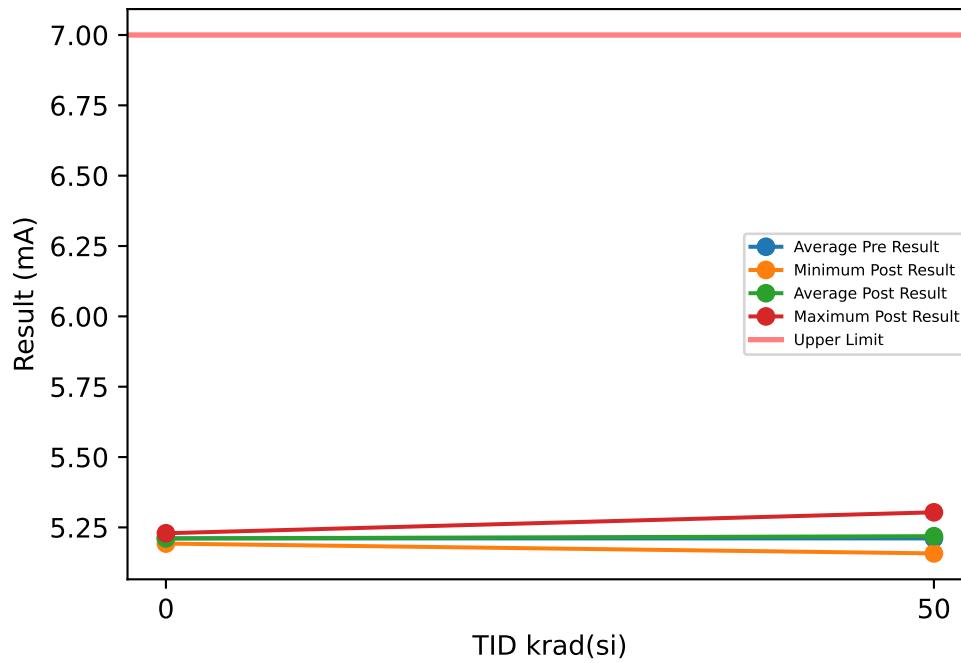


Test Statistics (mA)

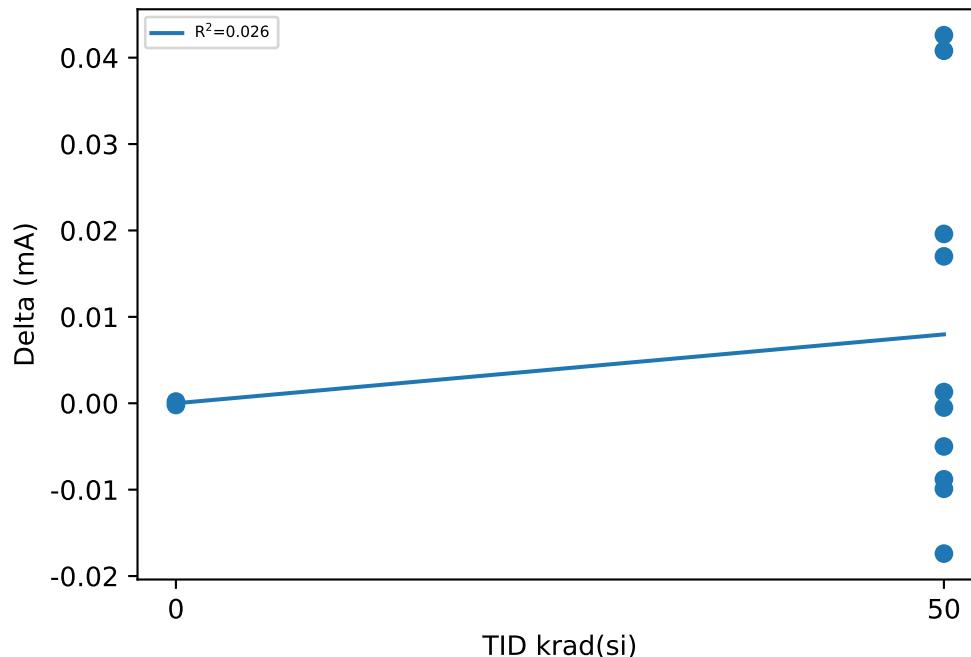
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 9.1473           | 9.192            | 9.2366           | 0.063145         | 9.1462            | 9.1912            | 9.2361            | 0.063569          | -0.0011   | -0.0008   | -0.0005   | 0.00042426 |
| 50       | 9.1217           | 9.1923           | 9.4097           | 0.086851         | 9.1493            | 9.2827            | 9.574             | 0.11686           | 0.0276    | 0.09037   | 0.1643    | 0.047778   |

# Device Test: 14.11 IDD\_DIS(IDD\_DIS|STANDBY CURRENT/IN/12/12/0/0/5/500kHz//@IDD\_DIS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



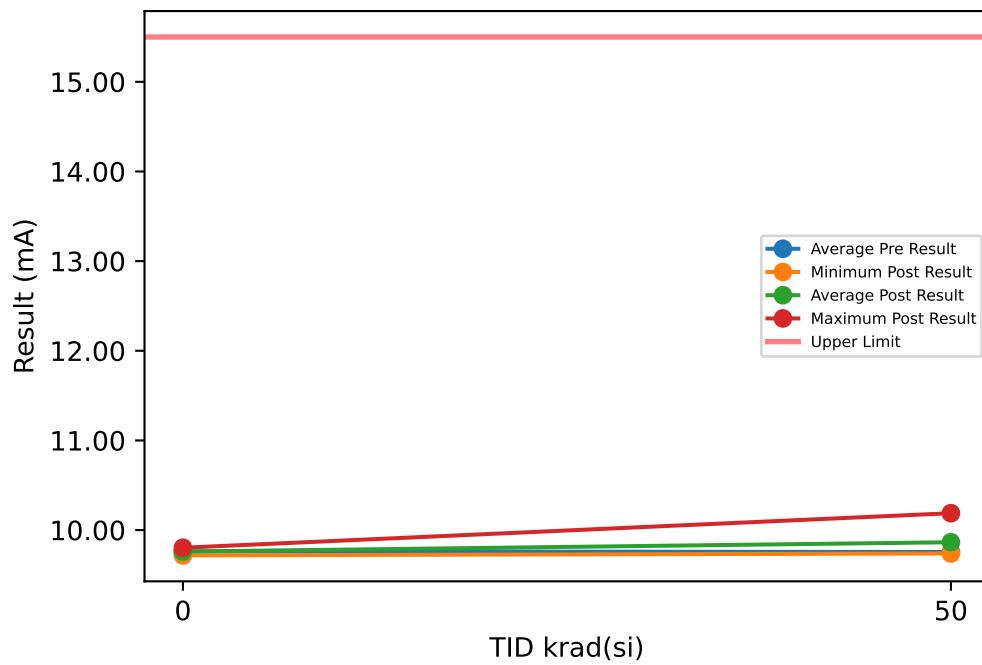
Test Results (Upper Limit = 7.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 5.229      | 5.2292      | 0.0002  |
| 2        | 0        | Correlation         | 5.1927     | 5.1925      | -0.0002 |
| 4        | 50       | Bias                | 5.2282     | 5.2194      | -0.0088 |
| 6        | 50       | Bias                | 5.2327     | 5.2153      | -0.0174 |
| 7        | 50       | Bias                | 5.203      | 5.198       | -0.005  |
| 8        | 50       | Bias                | 5.2025     | 5.202       | -0.0005 |
| 9        | 50       | Bias                | 5.2309     | 5.2322      | 0.0013  |
| 11       | 50       | Unbias              | 5.2081     | 5.2251      | 0.017   |
| 12       | 50       | Unbias              | 5.1675     | 5.1576      | -0.0099 |
| 13       | 50       | Unbias              | 5.1775     | 5.2201      | 0.0426  |
| 14       | 50       | Unbias              | 5.1951     | 5.2147      | 0.0196  |
| 15       | 50       | Unbias              | 5.2628     | 5.3036      | 0.0408  |

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        | 5.1927           | 5.2108           | 5.229            | 0.025668         | 5.1925            | 5.2108            | 5.2292            | 0.025951          | -0.0002   | 0         | 0.0002    | 0.00028284 |
| 50       | 5.1675           | 5.2108           | 5.2628           | 0.028397         | 5.1576            | 5.2188            | 5.3036            | 0.036365          | -0.0174   | 0.00797   | 0.0426    | 0.021141   |

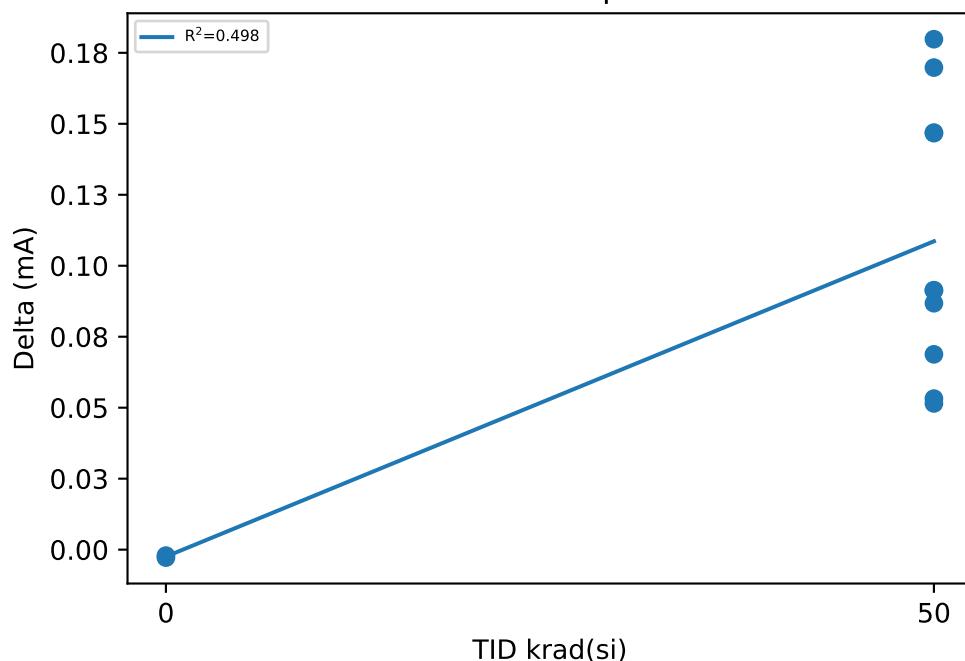
TID vs Result Stats



Test Results (Upper Limit = 15.5 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 9.805      | 9.8029      | -0.0021 |
| 2        | 0        | Correlation         | 9.7203     | 9.7175      | -0.0028 |
| 4        | 50       | Bias                | 9.802      | 9.8708      | 0.0688  |
| 6        | 50       | Bias                | 9.7485     | 9.8017      | 0.0532  |
| 7        | 50       | Bias                | 9.6768     | 9.7636      | 0.0868  |
| 8        | 50       | Bias                | 9.7508     | 9.8421      | 0.0913  |
| 9        | 50       | Bias                | 9.6879     | 9.7793      | 0.0914  |
| 11       | 50       | Unbias              | 9.8154     | 9.9621      | 0.1467  |
| 12       | 50       | Unbias              | 9.6875     | 9.739       | 0.0515  |
| 13       | 50       | Unbias              | 9.7131     | 9.86        | 0.1469  |
| 14       | 50       | Unbias              | 9.6657     | 9.8355      | 0.1698  |
| 15       | 50       | Unbias              | 10.008     | 10.188      | 0.1798  |

TID vs Post - Pre Exposure Delta

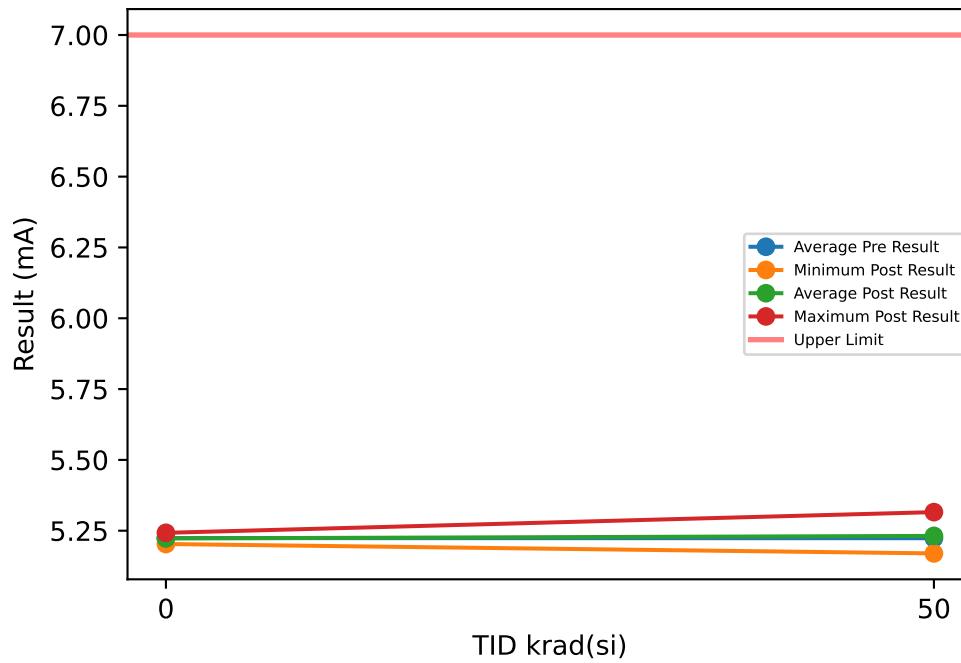


Test Statistics (mA)

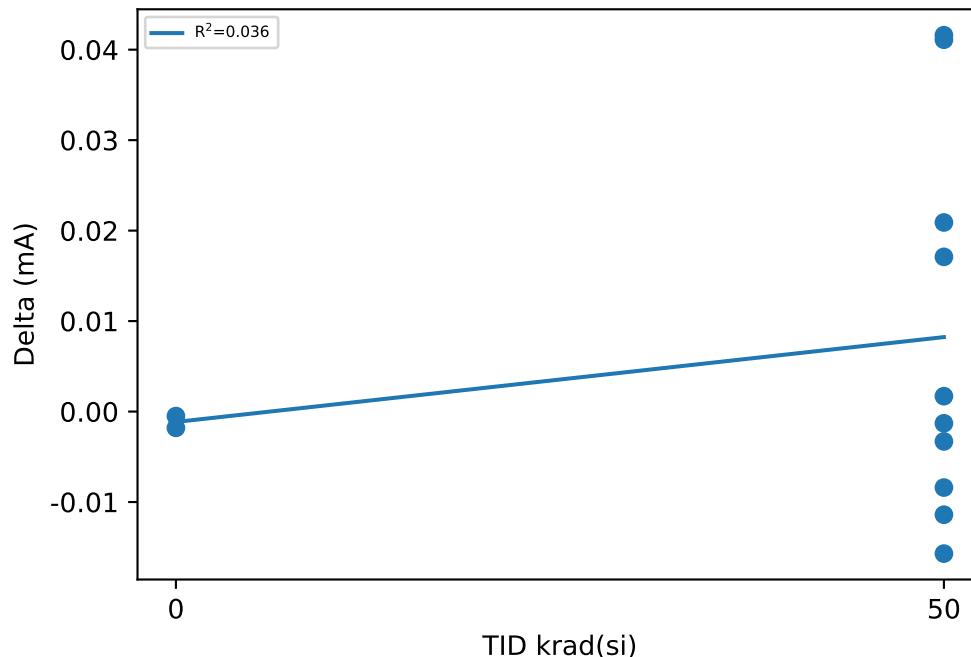
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 9.7203           | 9.7627           | 9.805            | 0.059892         | 9.7175            | 9.7602            | 9.8029            | 0.060387          | -0.0028   | -0.00245  | -0.0021   | 0.00049497 |
| 50       | 9.6657           | 9.7556           | 10.008           | 0.1027           | 9.739             | 9.8642            | 10.188            | 0.13026           | 0.0515    | 0.10862   | 0.1798    | 0.047978   |

# Device Test: 14.13 IDD\_DIS(IDD\_DIS|STANDBY CURRENT/IN/14/14/0/0/5/500kHz//@IDD\_DIS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



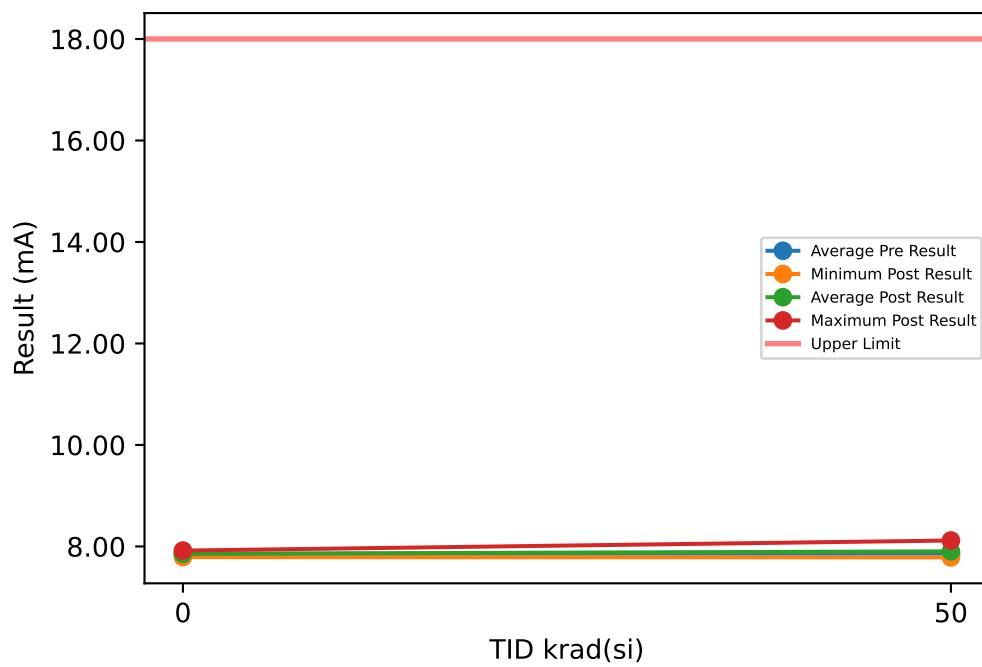
Test Results (Upper Limit = 7.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 5.243      | 5.2425      | -0.0005 |
| 2        | 0        | Correlation         | 5.2048     | 5.203       | -0.0018 |
| 4        | 50       | Bias                | 5.2416     | 5.2332      | -0.0084 |
| 6        | 50       | Bias                | 5.2452     | 5.2295      | -0.0157 |
| 7        | 50       | Bias                | 5.215      | 5.2117      | -0.0033 |
| 8        | 50       | Bias                | 5.214      | 5.2127      | -0.0013 |
| 9        | 50       | Bias                | 5.2435     | 5.2452      | 0.0017  |
| 11       | 50       | Unbias              | 5.2218     | 5.2389      | 0.0171  |
| 12       | 50       | Unbias              | 5.1813     | 5.1699      | -0.0114 |
| 13       | 50       | Unbias              | 5.192      | 5.2331      | 0.0411  |
| 14       | 50       | Unbias              | 5.2061     | 5.227       | 0.0209  |
| 15       | 50       | Unbias              | 5.274      | 5.3156      | 0.0416  |

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        | 5.2048           | 5.2239           | 5.243            | 0.027011         | 5.203             | 5.2227            | 5.2425            | 0.027931          | -0.0018   | -0.00115  | -0.0005   | 0.00091924 |
| 50       | 5.1813           | 5.2234           | 5.274            | 0.027869         | 5.1699            | 5.2317            | 5.3156            | 0.036339          | -0.0157   | 0.00823   | 0.0416    | 0.020908   |

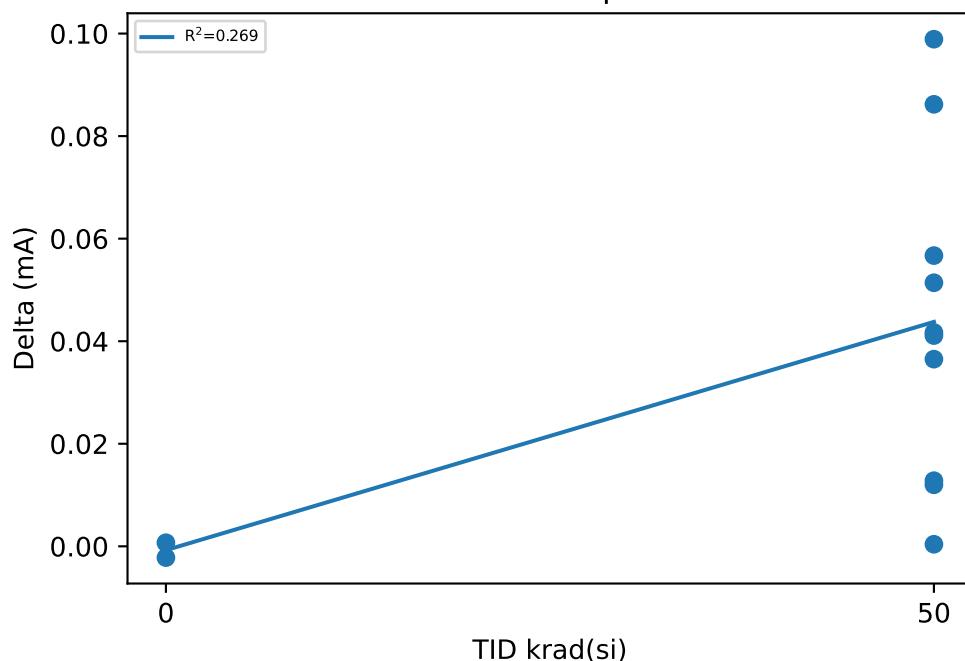
TID vs Result Stats



Test Results (Upper Limit = 18.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 7.921      | 7.9188      | -0.0022 |
| 2        | 0        | Correlation         | 7.7887     | 7.7894      | 0.0007  |
| 4        | 50       | Bias                | 7.9506     | 7.9626      | 0.012   |
| 6        | 50       | Bias                | 7.822      | 7.8224      | 0.0004  |
| 7        | 50       | Bias                | 7.8397     | 7.8814      | 0.0417  |
| 8        | 50       | Bias                | 7.8988     | 7.9399      | 0.0411  |
| 9        | 50       | Bias                | 7.8417     | 7.8782      | 0.0365  |
| 11       | 50       | Unbias              | 7.8078     | 7.8592      | 0.0514  |
| 12       | 50       | Unbias              | 7.7717     | 7.7845      | 0.0128  |
| 13       | 50       | Unbias              | 7.8117     | 7.9106      | 0.0989  |
| 14       | 50       | Unbias              | 7.8264     | 7.8831      | 0.0567  |
| 15       | 50       | Unbias              | 8.031      | 8.1172      | 0.0862  |

TID vs Post - Pre Exposure Delta

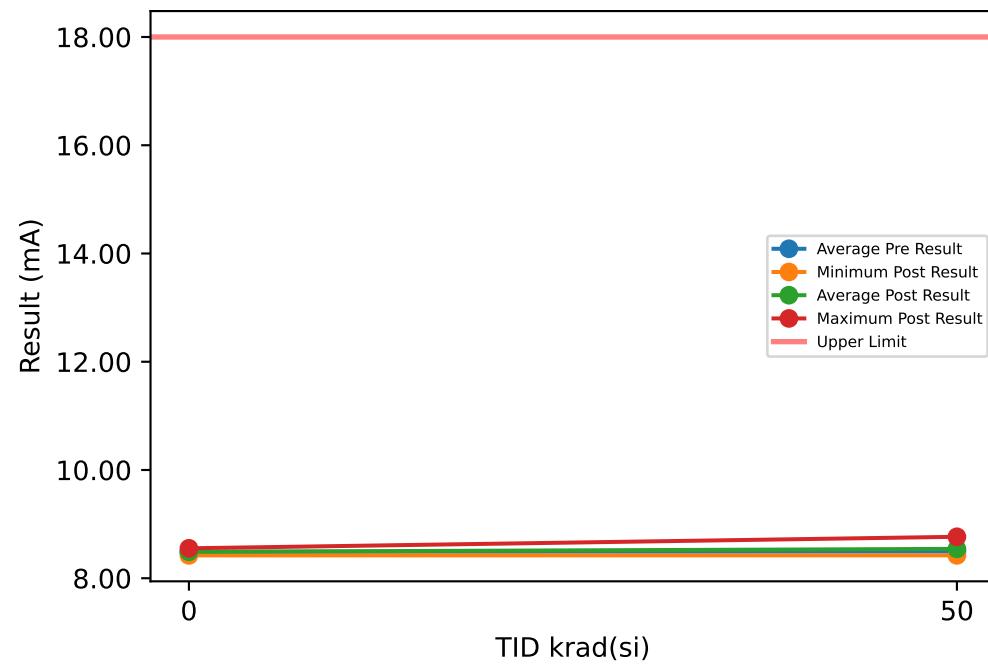


Test Statistics (mA)

| 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        | 7.7887           | 7.8548           | 7.921            | 0.09355          | 7.7894            | 7.8541            | 7.9188            | 0.0915            | -0.0022   | -0.00075  | 0.0007    | 0.0020506 |
| 50       | 7.7717           | 7.8601           | 8.031            | 0.078265         | 7.7845            | 7.9039            | 8.1172            | 0.091153          | 0.0004    | 0.04377   | 0.0989    | 0.031585  |

# Device Test: 14.15 IDD\_ACT\_1M\_NOLOAD(IDD|SUPPLY CURRENT/IN/5/5/0/0/5/1MHz//@IDD\_ACT\_1M\_NOLOAD)

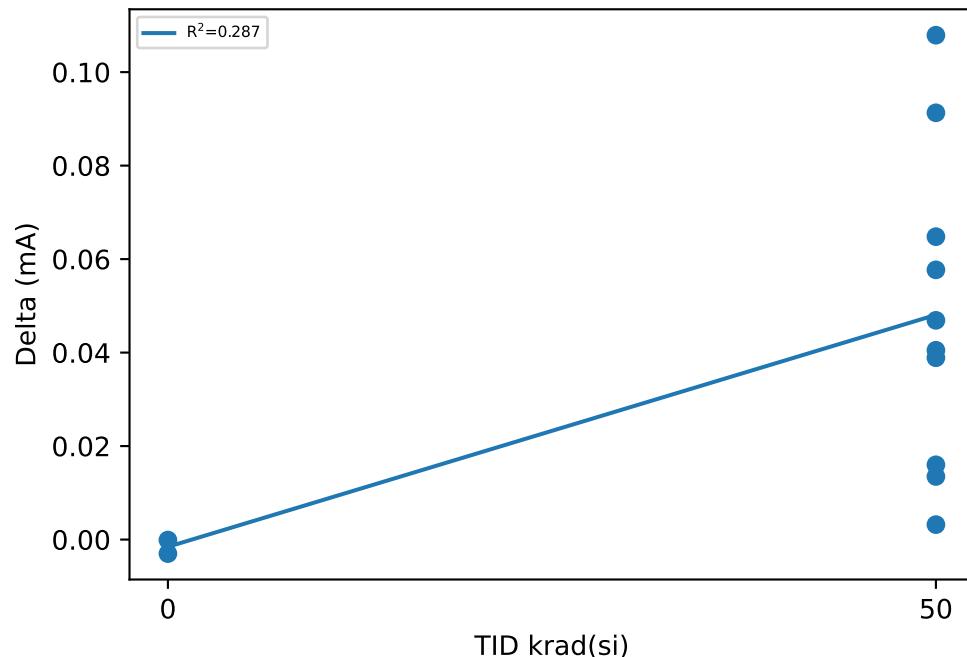
TID vs Result Stats



Test Results (Upper Limit = 18.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 8.5561     | 8.5531      | -0.003  |
| 2        | 0        | Correlation         | 8.4221     | 8.422       | -0.0001 |
| 4        | 50       | Bias                | 8.5951     | 8.6086      | 0.0135  |
| 6        | 50       | Bias                | 8.4533     | 8.4565      | 0.0032  |
| 7        | 50       | Bias                | 8.47       | 8.5105      | 0.0405  |
| 8        | 50       | Bias                | 8.5301     | 8.577       | 0.0469  |
| 9        | 50       | Bias                | 8.471      | 8.5099      | 0.0389  |
| 11       | 50       | Unbias              | 8.4423     | 8.5         | 0.0577  |
| 12       | 50       | Unbias              | 8.4069     | 8.4229      | 0.016   |
| 13       | 50       | Unbias              | 8.4441     | 8.552       | 0.1079  |
| 14       | 50       | Unbias              | 8.456      | 8.5208      | 0.0648  |
| 15       | 50       | Unbias              | 8.6745     | 8.7658      | 0.0913  |

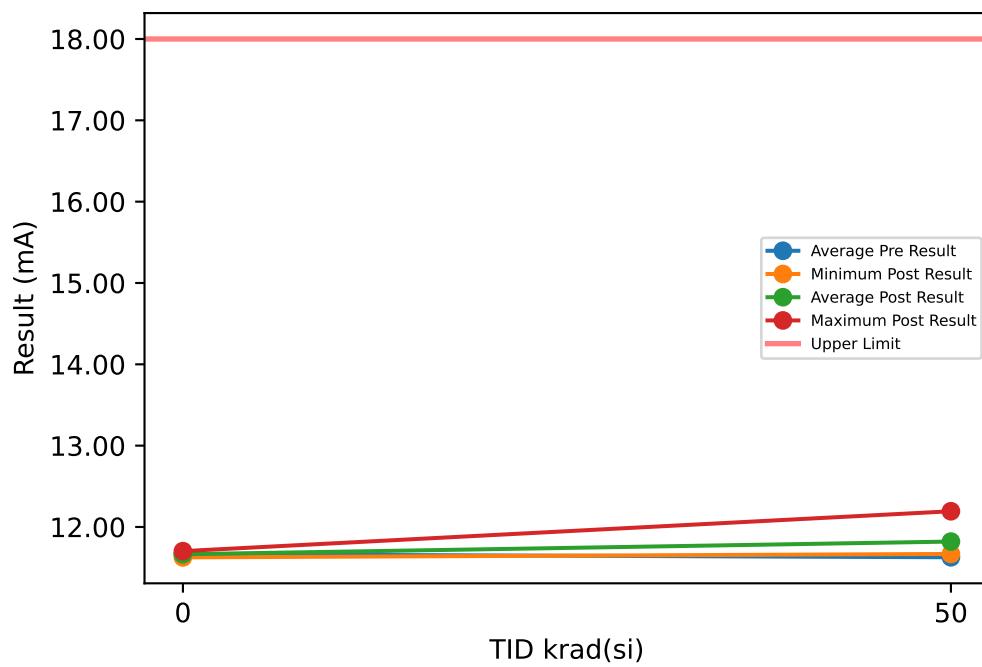
TID vs Post - Pre Exposure Delta



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        | 8.4221           | 8.4891           | 8.5561           | 0.094752         | 8.422             | 8.4875            | 8.5531            | 0.092702          | -0.003    | -0.00155  | -0.0001   | 0.0020506 |
| 50       | 8.4069           | 8.4943           | 8.6745           | 0.082367         | 8.4229            | 8.5424            | 8.7658            | 0.095205          | 0.0032    | 0.04807   | 0.1079    | 0.033666  |

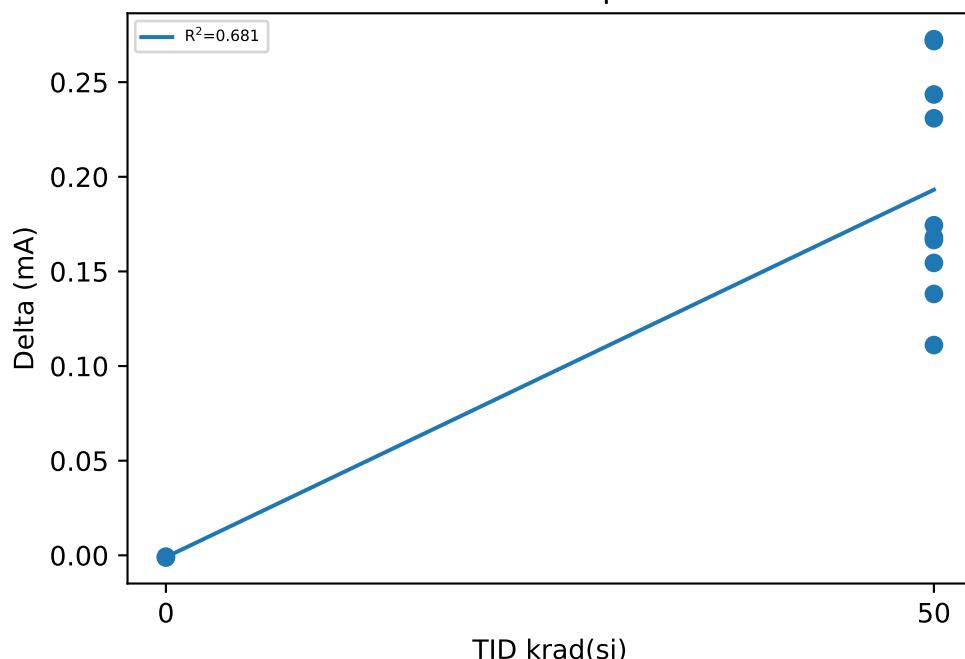
TID vs Result Stats



Test Results (Upper Limit = 18.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 11.704     | 11.703      | -0.0007 |
| 2        | 0        | Correlation         | 11.627     | 11.626      | -0.0012 |
| 4        | 50       | Bias                | 11.687     | 11.825      | 0.1381  |
| 6        | 50       | Bias                | 11.608     | 11.719      | 0.1111  |
| 7        | 50       | Bias                | 11.569     | 11.724      | 0.1545  |
| 8        | 50       | Bias                | 11.618     | 11.792      | 0.1744  |
| 9        | 50       | Bias                | 11.502     | 11.668      | 0.1666  |
| 11       | 50       | Unbias              | 11.709     | 11.94       | 0.2309  |
| 12       | 50       | Unbias              | 11.536     | 11.704      | 0.1681  |
| 13       | 50       | Unbias              | 11.596     | 11.869      | 0.2727  |
| 14       | 50       | Unbias              | 11.528     | 11.772      | 0.2435  |
| 15       | 50       | Unbias              | 11.922     | 12.193      | 0.2717  |

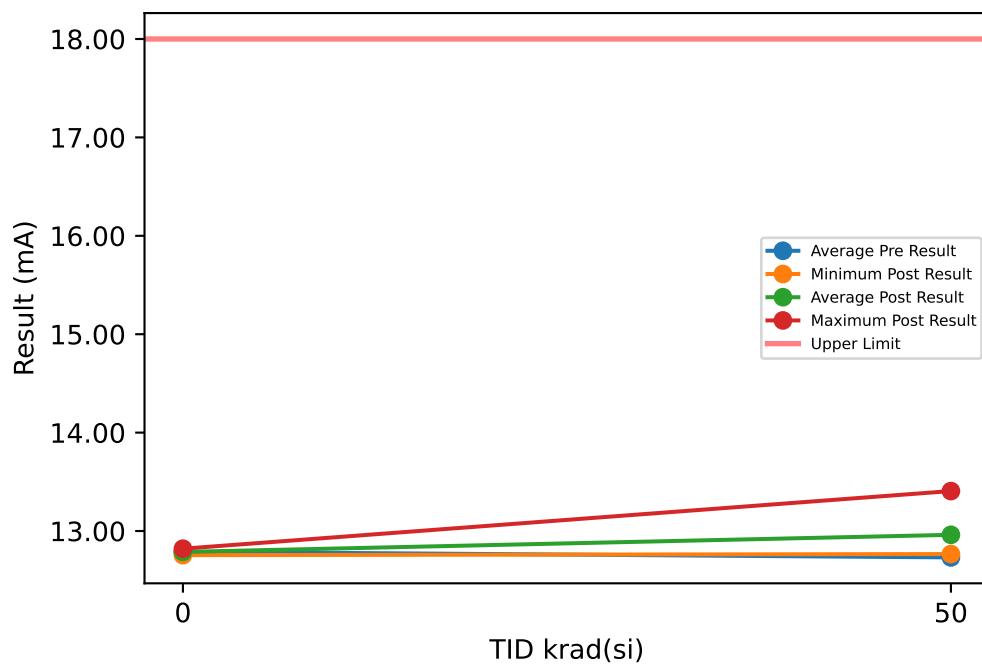
TID vs Post - Pre Exposure Delta



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        | 11.627           | 11.665           | 11.704           | 0.054094         | 11.626            | 11.665            | 11.703            | 0.054447          | -0.0012   | -0.00095  | -0.0007   | 0.00035355 |
| 50       | 11.502           | 11.627           | 11.922           | 0.12268          | 11.668            | 11.821            | 12.193            | 0.15458           | 0.1111    | 0.19316   | 0.2727    | 0.057154   |

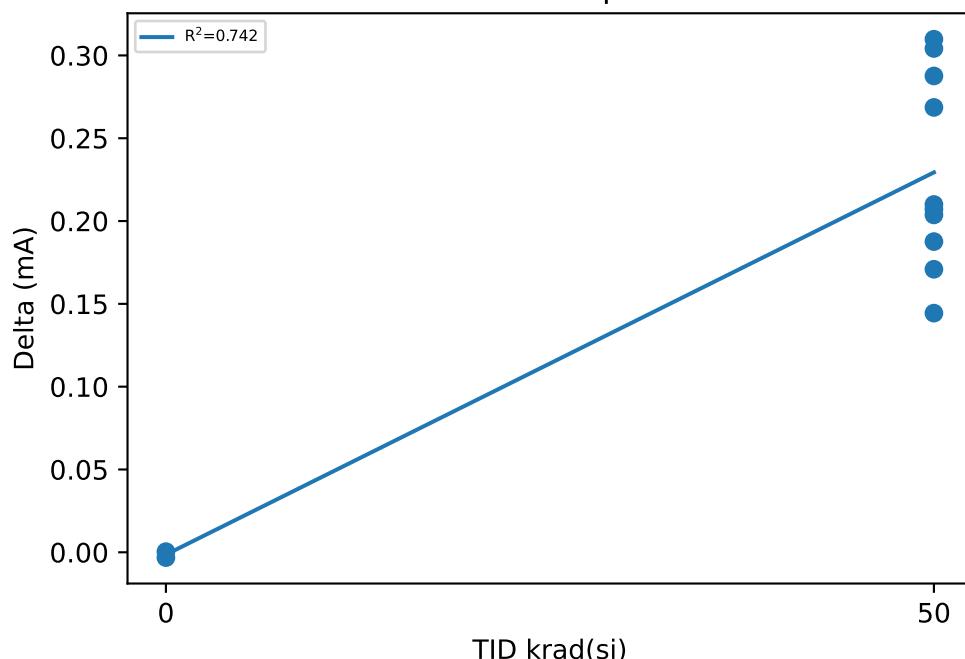
TID vs Result Stats



Test Results (Upper Limit = 18.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 12.82      | 12.82       | 0.0004  |
| 2        | 0        | Correlation         | 12.758     | 12.755      | -0.0032 |
| 4        | 50       | Bias                | 12.807     | 12.978      | 0.1709  |
| 6        | 50       | Bias                | 12.684     | 12.828      | 0.1444  |
| 7        | 50       | Bias                | 12.643     | 12.831      | 0.1876  |
| 8        | 50       | Bias                | 12.72      | 12.93       | 0.21    |
| 9        | 50       | Bias                | 12.562     | 12.766      | 0.2037  |
| 11       | 50       | Unbias              | 12.862     | 13.13       | 0.2686  |
| 12       | 50       | Unbias              | 12.643     | 12.85       | 0.207   |
| 13       | 50       | Unbias              | 12.705     | 13.009      | 0.3042  |
| 14       | 50       | Unbias              | 12.598     | 12.886      | 0.2876  |
| 15       | 50       | Unbias              | 13.096     | 13.406      | 0.3098  |

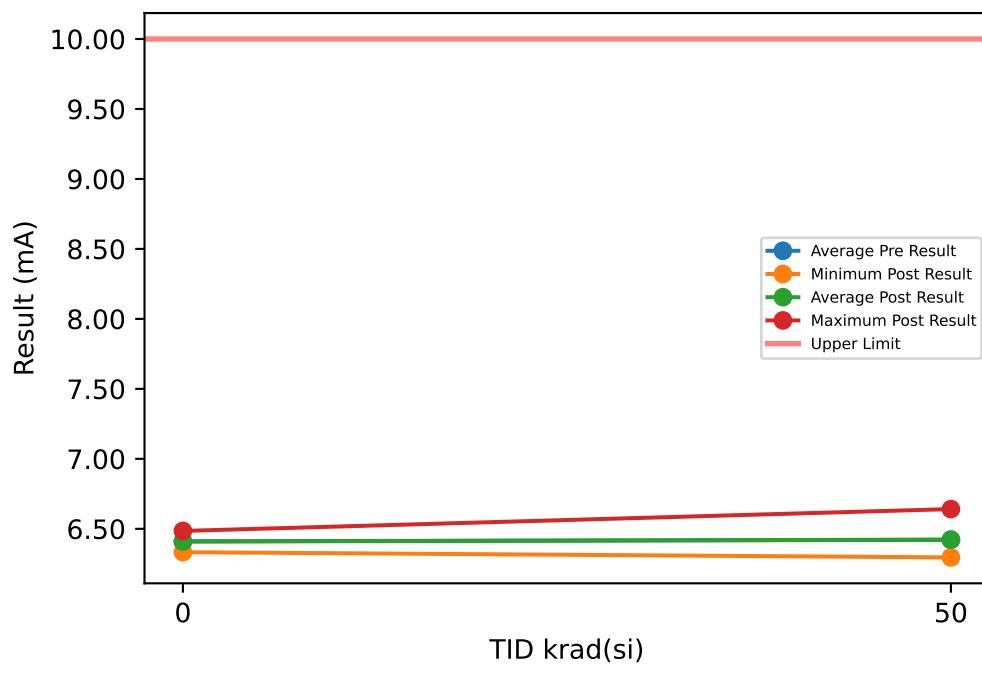
TID vs Post - Pre Exposure Delta



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        | 12.758           | 12.789           | 12.82            | 0.04377          | 12.755            | 12.788            | 12.82             | 0.046315          | -0.0032   | -0.0014   | 0.0004    | 0.0025456 |
| 50       | 12.562           | 12.732           | 13.096           | 0.15664          | 12.766            | 12.961            | 13.406            | 0.18885           | 0.1444    | 0.22938   | 0.3098    | 0.05861   |

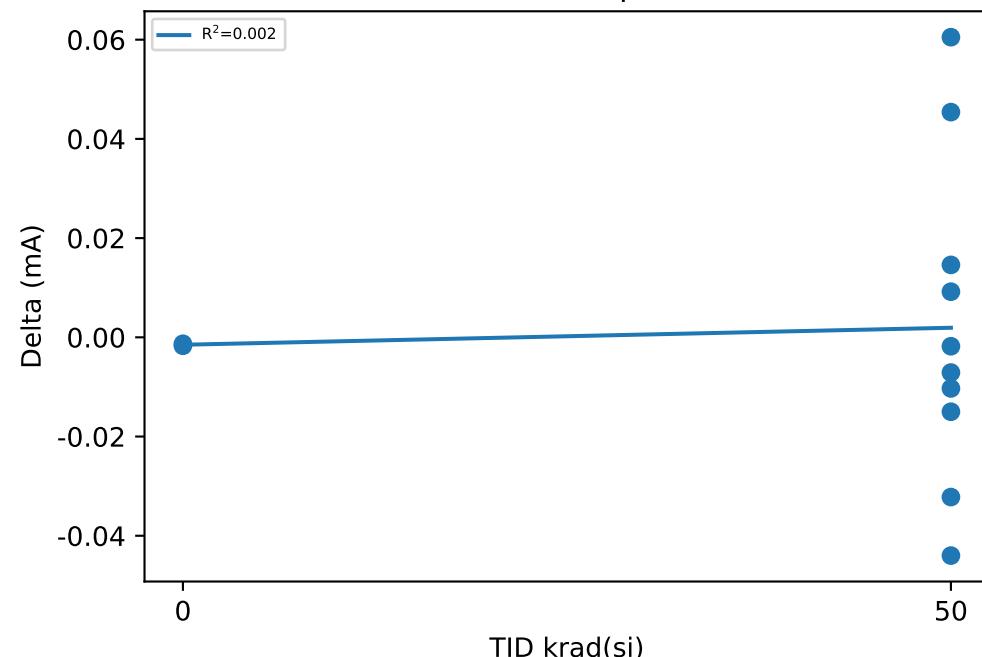
TID vs Result Stats



Test Results (Upper Limit = 10.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 6.4865     | 6.4848      | -0.0017 |
| 2        | 0        | Correlation         | 6.3343     | 6.333       | -0.0013 |
| 4        | 50       | Bias                | 6.4886     | 6.4736      | -0.015  |
| 6        | 50       | Bias                | 6.4011     | 6.3571      | -0.044  |
| 7        | 50       | Bias                | 6.4013     | 6.3942      | -0.0071 |
| 8        | 50       | Bias                | 6.4798     | 6.478       | -0.0018 |
| 9        | 50       | Bias                | 6.4227     | 6.4124      | -0.0103 |
| 11       | 50       | Unbias              | 6.3528     | 6.362       | 0.0092  |
| 12       | 50       | Unbias              | 6.3279     | 6.2957      | -0.0322 |
| 13       | 50       | Unbias              | 6.3598     | 6.4203      | 0.0605  |
| 14       | 50       | Unbias              | 6.3817     | 6.3963      | 0.0146  |
| 15       | 50       | Unbias              | 6.5955     | 6.6409      | 0.0454  |

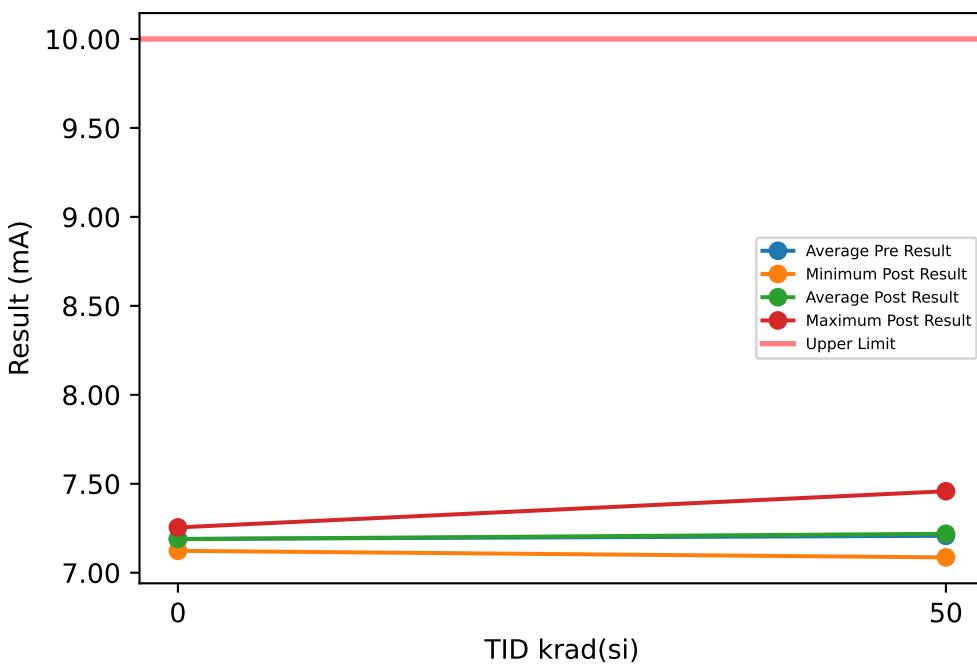
TID vs Post - Pre Exposure Delta



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        | 6.3343           | 6.4104           | 6.4865           | 0.10762          | 6.333             | 6.4089            | 6.4848            | 0.10734           | -0.0017   | -0.0015   | -0.0013   | 0.00028284 |
| 50       | 6.3279           | 6.4211           | 6.5955           | 0.080189         | 6.2957            | 6.4231            | 6.6409            | 0.093688          | -0.044    | 0.00193   | 0.0605    | 0.032214   |

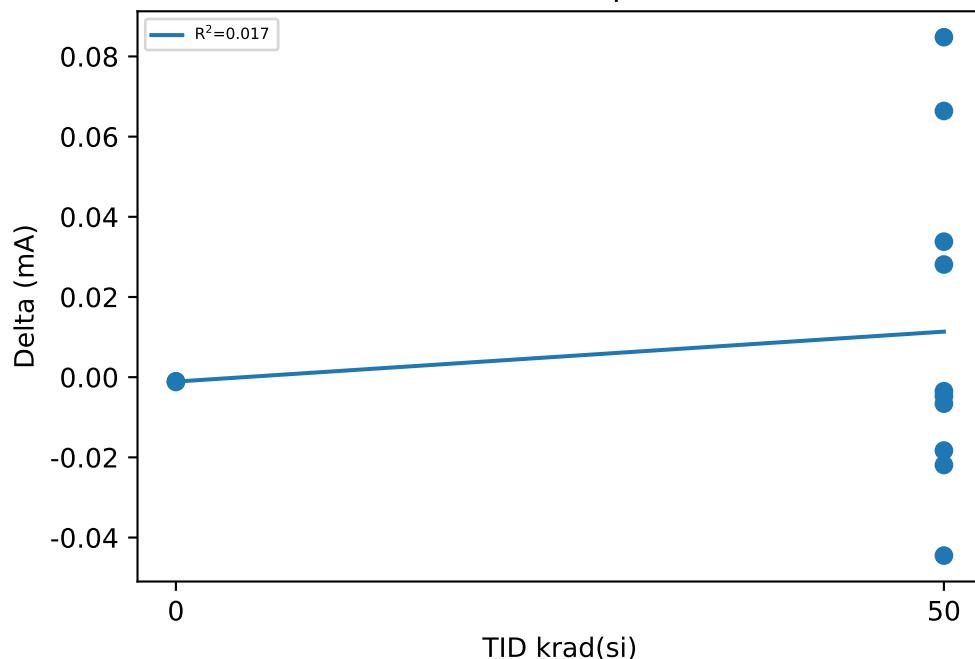
TID vs Result Stats



Test Results (Upper Limit = 10.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 7.2556     | 7.2546      | -0.001  |
| 2        | 0        | Correlation         | 7.1242     | 7.123       | -0.0012 |
| 4        | 50       | Bias                | 7.2822     | 7.2639      | -0.0183 |
| 6        | 50       | Bias                | 7.2252     | 7.1807      | -0.0445 |
| 7        | 50       | Bias                | 7.172      | 7.1685      | -0.0035 |
| 8        | 50       | Bias                | 7.243      | 7.2364      | -0.0066 |
| 9        | 50       | Bias                | 7.2082     | 7.2035      | -0.0047 |
| 11       | 50       | Unbias              | 7.1796     | 7.2077      | 0.0281  |
| 12       | 50       | Unbias              | 7.108      | 7.0861      | -0.0219 |
| 13       | 50       | Unbias              | 7.1241     | 7.2089      | 0.0848  |
| 14       | 50       | Unbias              | 7.1405     | 7.1743      | 0.0338  |
| 15       | 50       | Unbias              | 7.3915     | 7.4579      | 0.0664  |

TID vs Post - Pre Exposure Delta

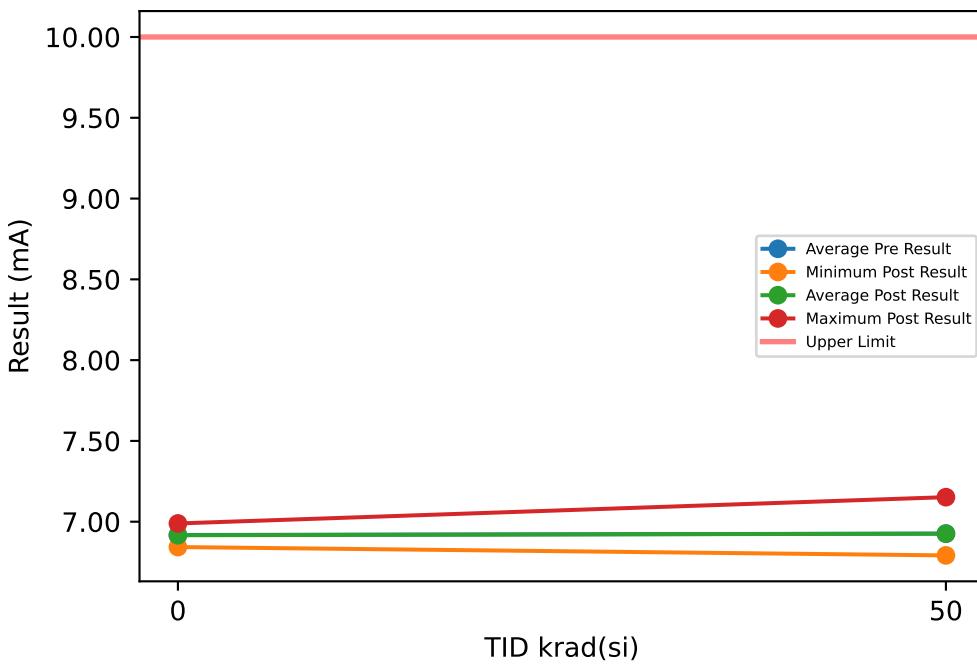


Test Statistics (mA)

| 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        | 7.1242           | 7.1899           | 7.2556           | 0.092914         | 7.123             | 7.1888            | 7.2546            | 0.093055          | -0.0012   | -0.0011   | -0.001    | 0.00014142 |
| 50       | 7.108            | 7.2074           | 7.3915           | 0.084586         | 7.0861            | 7.2188            | 7.4579            | 0.096344          | -0.0445   | 0.01136   | 0.0848    | 0.04098    |

e Test: 14.30 IDD\_ACT\_100K\_LOAD\_LDO(IDD|SUPPLY CURRENT/IN/5/12/0/1000/5/100kHz//@IDD\_ACT\_100K\_LOAD

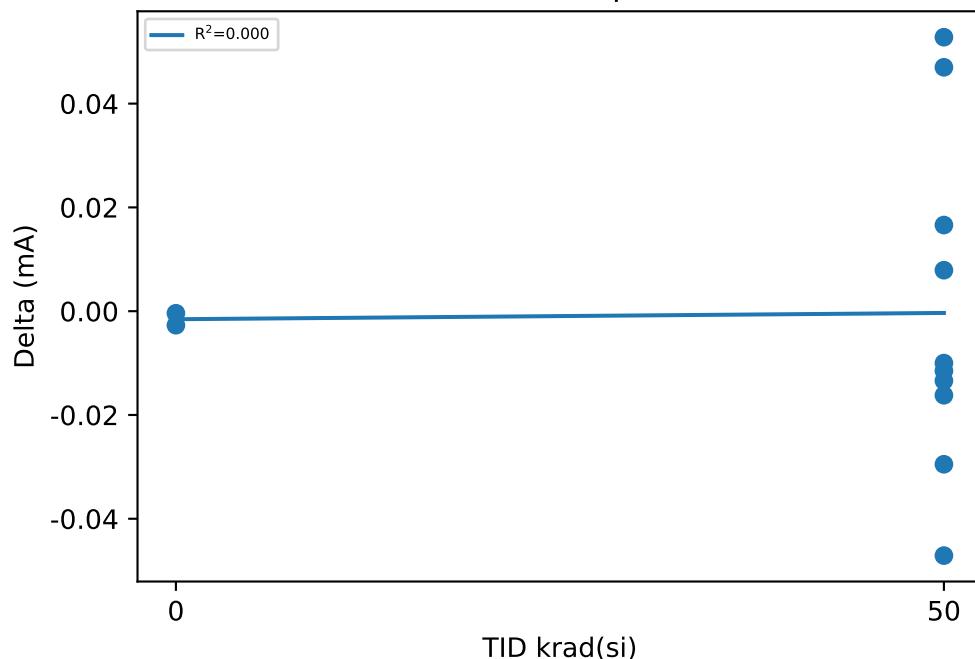
TID vs Result Stats



Test Results (Upper Limit = 10.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 6.9896     | 6.9892      | -0.0004 |
| 2        | 0        | Correlation         | 6.8459     | 6.8432      | -0.0027 |
| 4        | 50       | Bias                | 7.0023     | 6.9889      | -0.0134 |
| 6        | 50       | Bias                | 6.9069     | 6.8598      | -0.0471 |
| 7        | 50       | Bias                | 6.9136     | 6.9036      | -0.01   |
| 8        | 50       | Bias                | 6.982      | 6.9705      | -0.0115 |
| 9        | 50       | Bias                | 6.9376     | 6.9214      | -0.0162 |
| 11       | 50       | Unbias              | 6.8564     | 6.8643      | 0.0079  |
| 12       | 50       | Unbias              | 6.821      | 6.7915      | -0.0295 |
| 13       | 50       | Unbias              | 6.8658     | 6.9186      | 0.0528  |
| 14       | 50       | Unbias              | 6.8734     | 6.89        | 0.0166  |
| 15       | 50       | Unbias              | 7.1049     | 7.1519      | 0.047   |

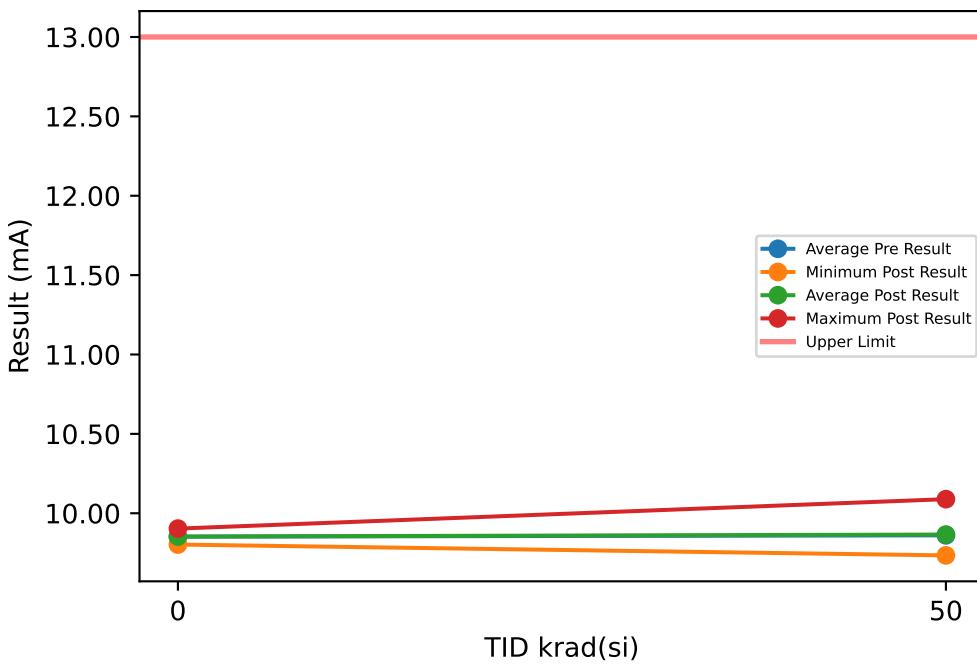
TID vs Post - Pre Exposure Delta



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        | 6.8459           | 6.9177           | 6.9896           | 0.10161          | 6.8432            | 6.9162            | 6.9892            | 0.10324           | -0.0027   | -0.00155  | -0.0004   | 0.0016263 |
| 50       | 6.821            | 6.9264           | 7.1049           | 0.084245         | 6.7915            | 6.9261            | 7.1519            | 0.097252          | -0.0471   | -0.00034  | 0.0528    | 0.031792  |

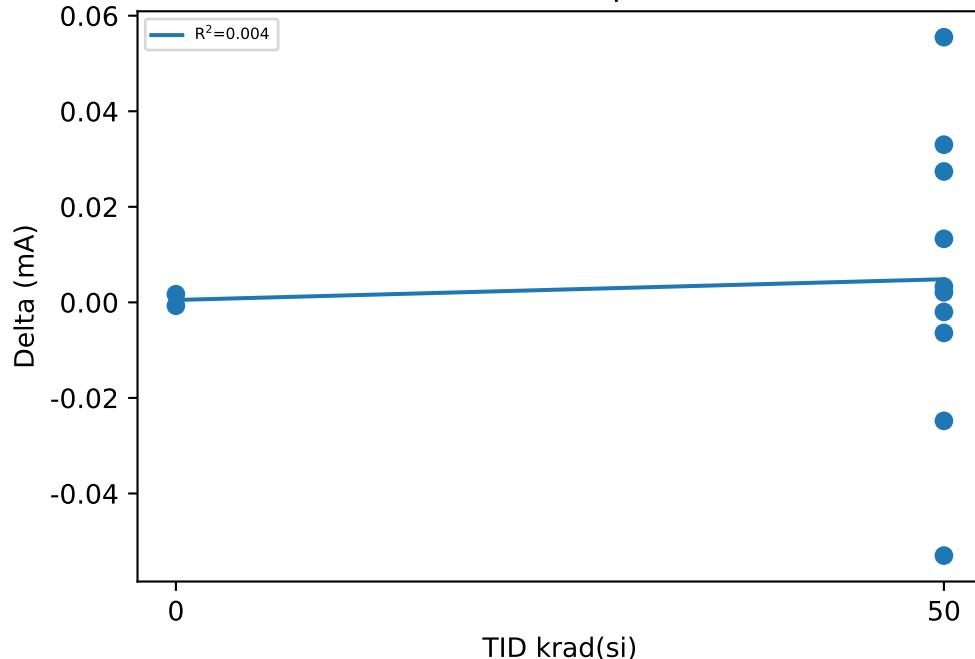
TID vs Result Stats



Test Results (Upper Limit = 13.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 9.904      | 9.9033      | -0.0007 |
| 2        | 0        | Correlation         | 9.8011     | 9.8028      | 0.0017  |
| 4        | 50       | Bias                | 9.9309     | 9.9245      | -0.0064 |
| 6        | 50       | Bias                | 9.8127     | 9.7879      | -0.0248 |
| 7        | 50       | Bias                | 9.8253     | 9.8274      | 0.0021  |
| 8        | 50       | Bias                | 9.8735     | 9.8768      | 0.0033  |
| 9        | 50       | Bias                | 9.8736     | 9.8716      | -0.002  |
| 11       | 50       | Unbias              | 9.8377     | 9.8651      | 0.0274  |
| 12       | 50       | Unbias              | 9.7875     | 9.7345      | -0.053  |
| 13       | 50       | Unbias              | 9.832      | 9.8453      | 0.0133  |
| 14       | 50       | Unbias              | 9.8029     | 9.8359      | 0.033   |
| 15       | 50       | Unbias              | 10.033     | 10.089      | 0.0555  |

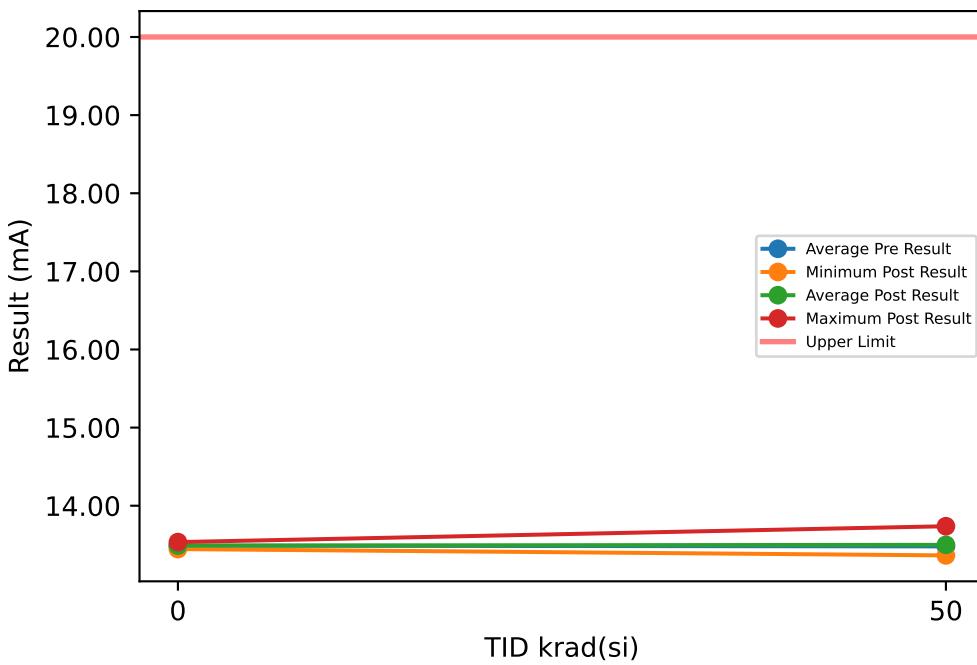
TID vs Post - Pre Exposure Delta



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        | 9.8011           | 9.8526           | 9.904            | 0.072761         | 9.8028            | 9.853             | 9.9033            | 0.071064          | -0.0007   | 0.0005    | 0.0017    | 0.0016971 |
| 50       | 9.7875           | 9.8609           | 10.033           | 0.073502         | 9.7345            | 9.8658            | 10.089            | 0.093916          | -0.053    | 0.00484   | 0.0555    | 0.030454  |

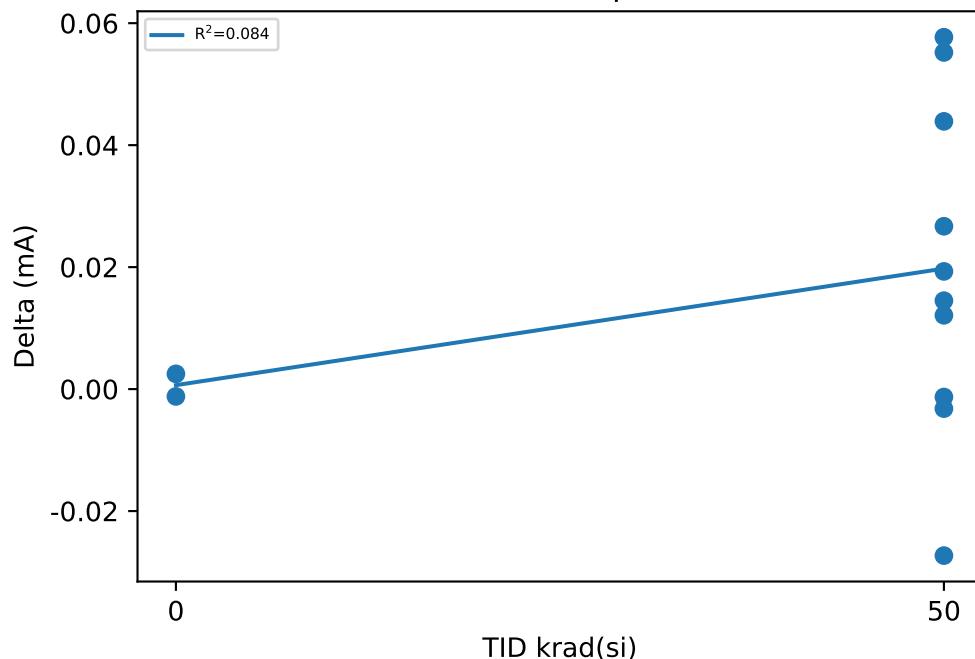
TID vs Result Stats



Test Results (Upper Limit = 20.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 13.536     | 13.534      | -0.0012 |
| 2        | 0        | Correlation         | 13.442     | 13.445      | 0.0025  |
| 4        | 50       | Bias                | 13.61      | 13.608      | -0.0013 |
| 6        | 50       | Bias                | 13.391     | 13.364      | -0.0273 |
| 7        | 50       | Bias                | 13.459     | 13.471      | 0.0121  |
| 8        | 50       | Bias                | 13.474     | 13.493      | 0.0193  |
| 9        | 50       | Bias                | 13.477     | 13.491      | 0.0145  |
| 11       | 50       | Unbias              | 13.476     | 13.503      | 0.0267  |
| 12       | 50       | Unbias              | 13.393     | 13.39       | -0.0032 |
| 13       | 50       | Unbias              | 13.448     | 13.503      | 0.0552  |
| 14       | 50       | Unbias              | 13.386     | 13.43       | 0.0439  |
| 15       | 50       | Unbias              | 13.68      | 13.737      | 0.0577  |

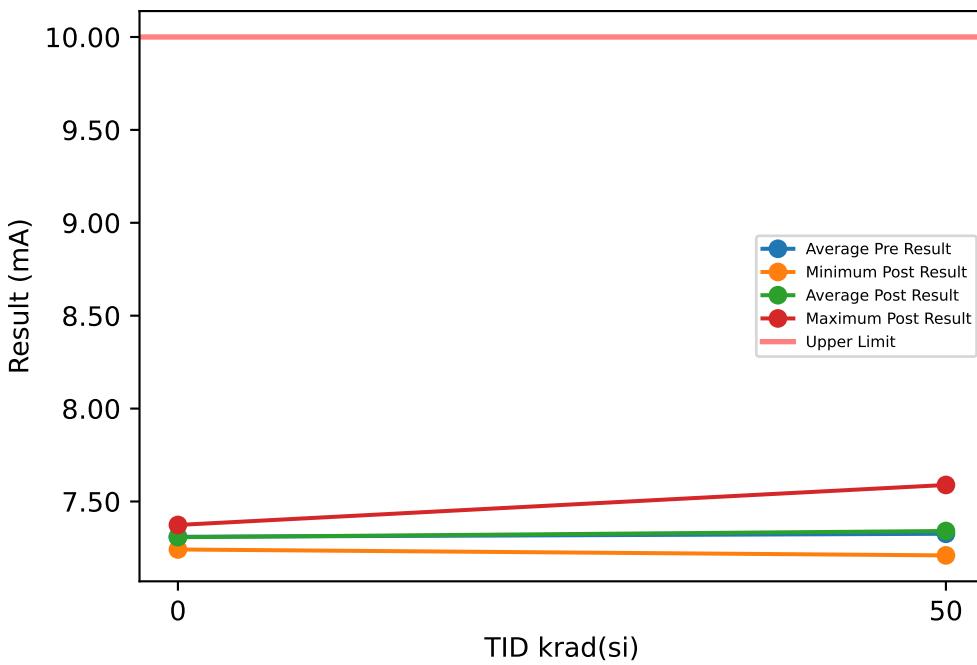
TID vs Post - Pre Exposure Delta



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        | 13.442           | 13.489           | 13.536           | 0.065973         | 13.445            | 13.49             | 13.534            | 0.063357          | -0.0012   | 0.00065   | 0.0025    | 0.0026163 |
| 50       | 13.386           | 13.479           | 13.68            | 0.095687         | 13.364            | 13.499            | 13.737            | 0.10777           | -0.0273   | 0.01976   | 0.0577    | 0.027076  |

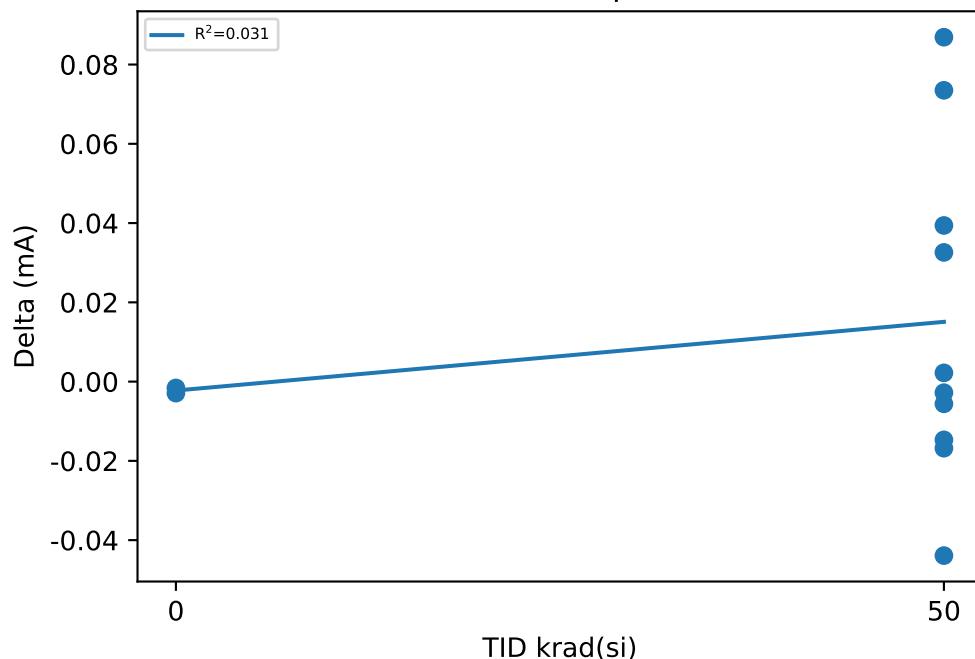
TID vs Result Stats



Test Results (Upper Limit = 10.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 7.3765     | 7.3736      | -0.0029 |
| 2        | 0        | Correlation         | 7.2432     | 7.2416      | -0.0016 |
| 4        | 50       | Bias                | 7.4036     | 7.3889      | -0.0147 |
| 6        | 50       | Bias                | 7.3415     | 7.2976      | -0.0439 |
| 7        | 50       | Bias                | 7.2887     | 7.2859      | -0.0028 |
| 8        | 50       | Bias                | 7.3606     | 7.355       | -0.0056 |
| 9        | 50       | Bias                | 7.3221     | 7.3243      | 0.0022  |
| 11       | 50       | Unbias              | 7.3039     | 7.3365      | 0.0326  |
| 12       | 50       | Unbias              | 7.2266     | 7.2098      | -0.0168 |
| 13       | 50       | Unbias              | 7.2433     | 7.3302      | 0.0869  |
| 14       | 50       | Unbias              | 7.2547     | 7.2941      | 0.0394  |
| 15       | 50       | Unbias              | 7.5154     | 7.5889      | 0.0735  |

TID vs Post - Pre Exposure Delta

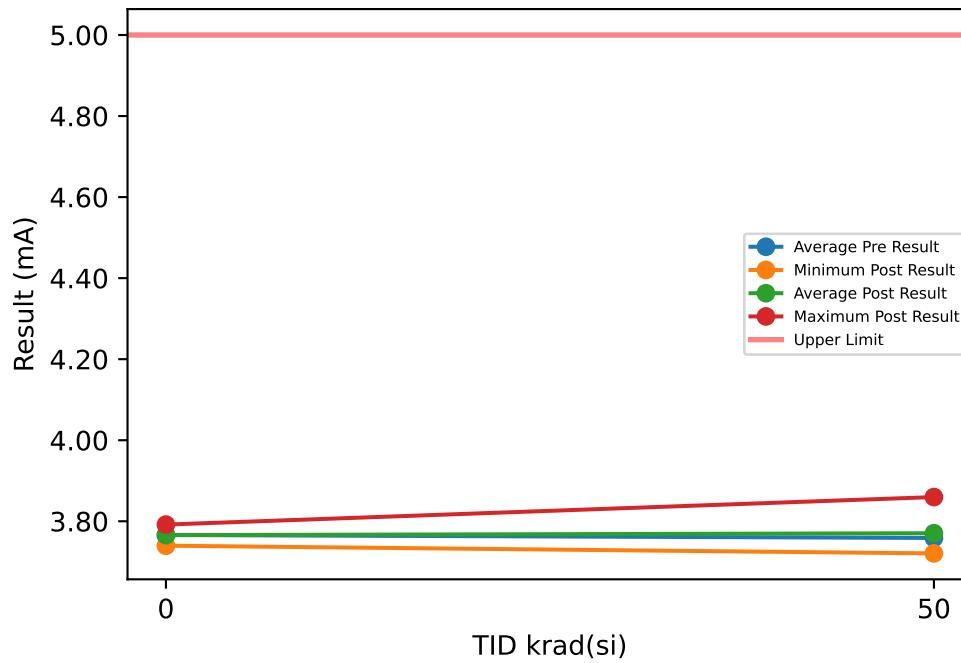


Test Statistics (mA)

| 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        | 7.2432           | 7.3098           | 7.3765           | 0.094257         | 7.2416            | 7.3076            | 7.3736            | 0.093338          | -0.0029   | -0.00225  | -0.0016   | 0.00091924 |
| 50       | 7.2266           | 7.326            | 7.5154           | 0.0863           | 7.2098            | 7.3411            | 7.5889            | 0.099271          | -0.0439   | 0.01508   | 0.0869    | 0.041852   |

# Device Test: 14.5 I\_START(ISTART|STARTUP CURRENT/IN/3.5/3.5/0/0/4.5/500kHz//@I\_START)

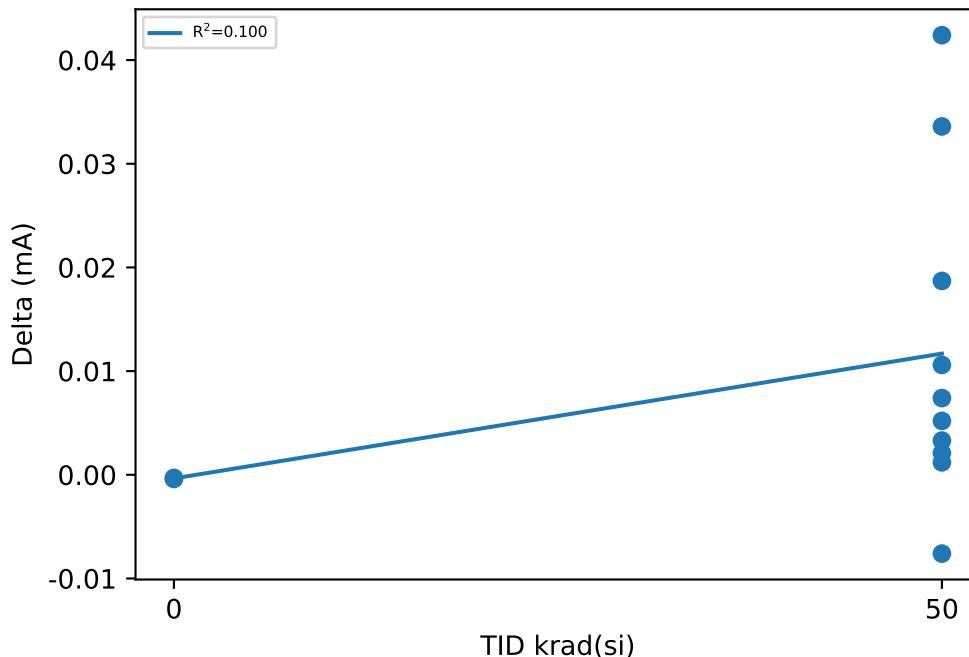
TID vs Result Stats



Test Results (Upper Limit = 5.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.7922     | 3.7918      | -0.0004 |
| 2        | 0        | Correlation         | 3.74       | 3.7397      | -0.0003 |
| 4        | 50       | Bias                | 3.7641     | 3.7747      | 0.0106  |
| 6        | 50       | Bias                | 3.7361     | 3.7285      | -0.0076 |
| 7        | 50       | Bias                | 3.7632     | 3.7644      | 0.0012  |
| 8        | 50       | Bias                | 3.778      | 3.7813      | 0.0033  |
| 9        | 50       | Bias                | 3.7702     | 3.7776      | 0.0074  |
| 11       | 50       | Unbias              | 3.735      | 3.7402      | 0.0052  |
| 12       | 50       | Unbias              | 3.7186     | 3.7207      | 0.0021  |
| 13       | 50       | Unbias              | 3.7422     | 3.7758      | 0.0336  |
| 14       | 50       | Unbias              | 3.7633     | 3.782       | 0.0187  |
| 15       | 50       | Unbias              | 3.8173     | 3.8597      | 0.0424  |

TID vs Post - Pre Exposure Delta

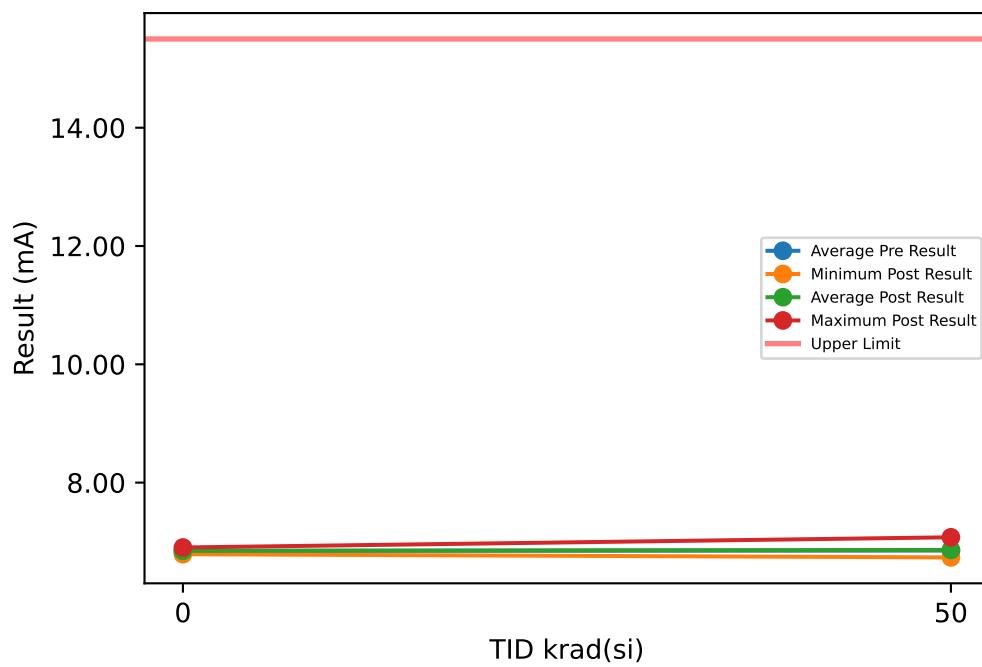


Test Statistics (mA)

| 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        | 3.74             | 3.7661           | 3.7922           | 0.036911         | 3.7397            | 3.7658            | 3.7918            | 0.03684           | -0.0004   | -0.00035  | -0.0003   | 7.0711e-05 |
| 50       | 3.7186           | 3.7588           | 3.8173           | 0.027813         | 3.7207            | 3.7705            | 3.8597            | 0.038731          | -0.0076   | 0.01169   | 0.0424    | 0.015558   |

vice Test: 14.6 IDD\_ACT\_500K\_NOLOAD(IDD|SUPPLY CURRENT/IN/4.5/4.5/0/0/4.5/500kHz//@IDD\_ACT\_500K\_NOLOA

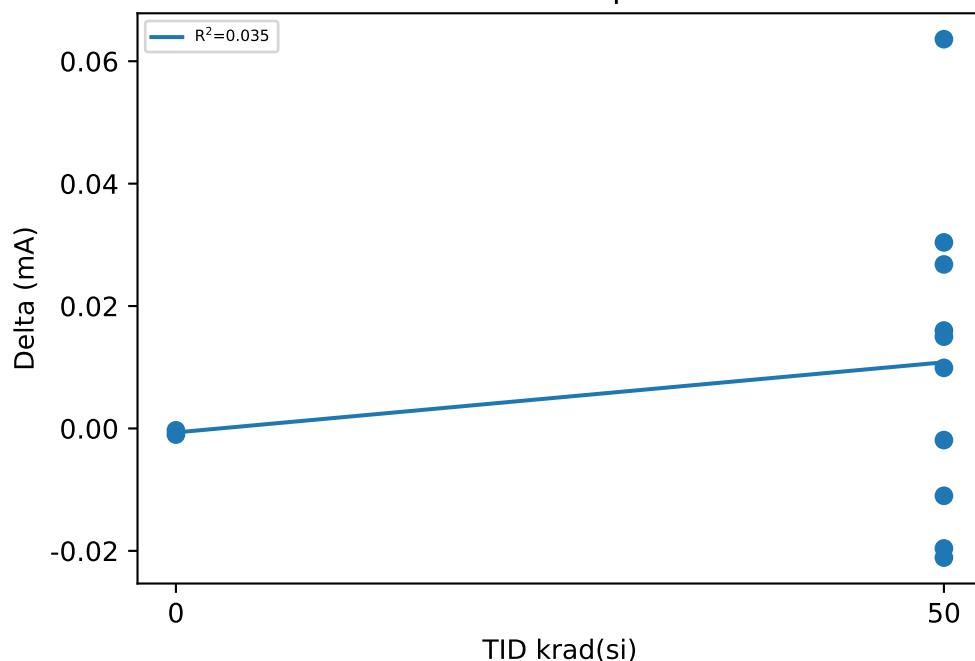
TID vs Result Stats



Test Results (Upper Limit = 15.5 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 6.9035     | 6.9032      | -0.0003 |
| 2        | 0        | Correlation         | 6.7903     | 6.7893      | -0.001  |
| 4        | 50       | Bias                | 6.8993     | 6.8974      | -0.0019 |
| 6        | 50       | Bias                | 6.8083     | 6.7872      | -0.0211 |
| 7        | 50       | Bias                | 6.8133     | 6.8283      | 0.015   |
| 8        | 50       | Bias                | 6.8868     | 6.9028      | 0.016   |
| 9        | 50       | Bias                | 6.8323     | 6.8422      | 0.0099  |
| 11       | 50       | Unbias              | 6.819      | 6.8458      | 0.0268  |
| 12       | 50       | Unbias              | 6.7552     | 6.7356      | -0.0196 |
| 13       | 50       | Unbias              | 6.8263     | 6.8567      | 0.0304  |
| 14       | 50       | Unbias              | 6.8569     | 6.8459      | -0.011  |
| 15       | 50       | Unbias              | 7.0118     | 7.0754      | 0.0636  |

TID vs Post - Pre Exposure Delta

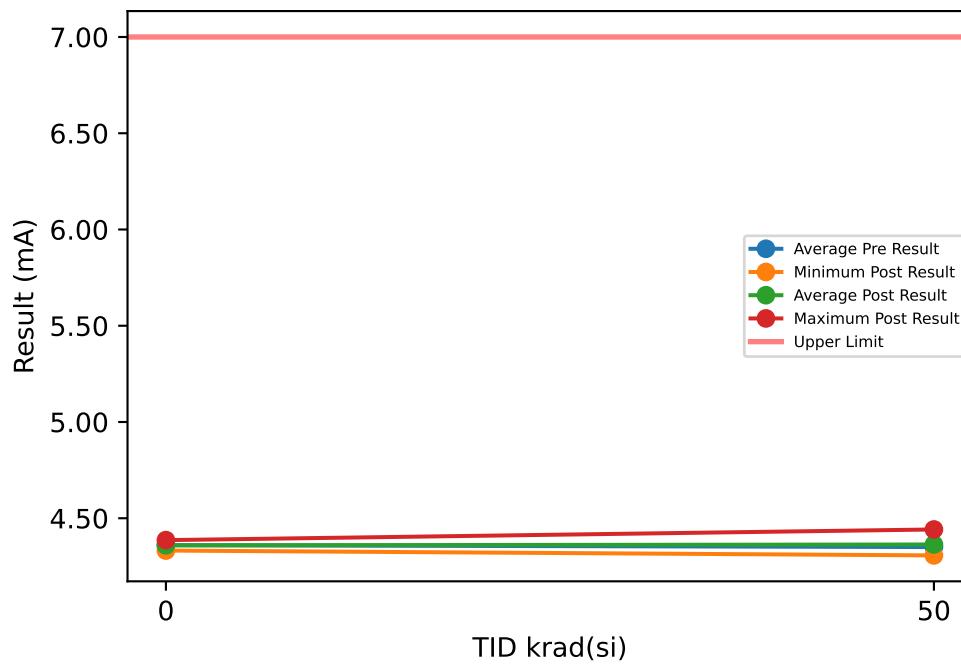


Test Statistics (mA)

| 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        | 6.7903           | 6.8469           | 6.9035           | 0.080044         | 6.7893            | 6.8462            | 6.9032            | 0.080539          | -0.001    | -0.00065  | -0.0003   | 0.00049497 |
| 50       | 6.7552           | 6.8509           | 7.0118           | 0.069851         | 6.7356            | 6.8617            | 7.0754            | 0.089509          | -0.0211   | 0.01081   | 0.0636    | 0.025931   |

# Device Test: 14.7 IDD\_DIS(IDD\_DIS|STANDBY CURRENT/IN/4.5/4.5/0/0/4.5/500kHz//@IDD\_DIS)

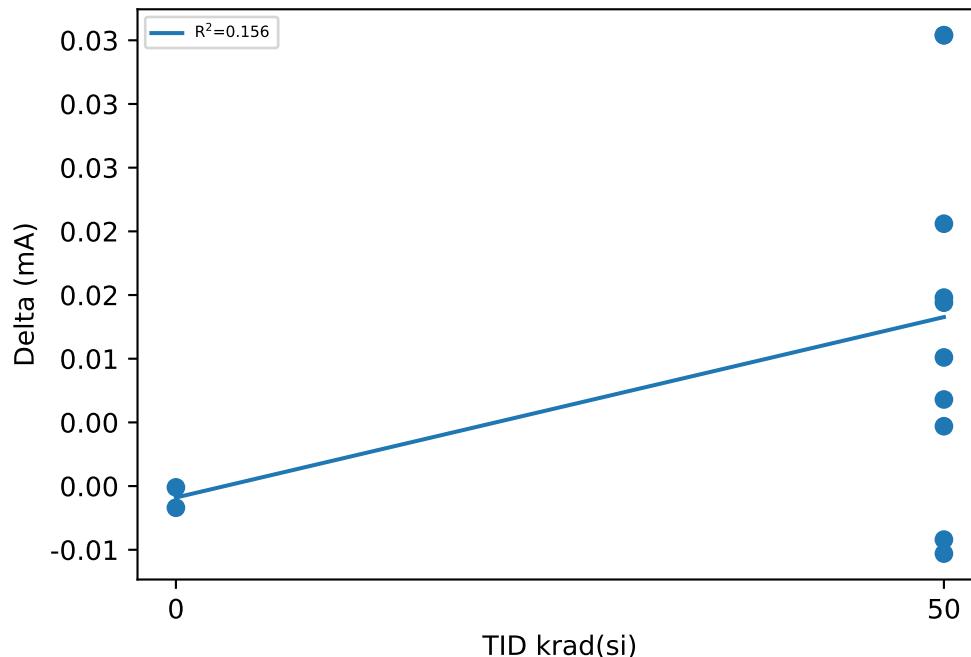
TID vs Result Stats



Test Results (Upper Limit = 7.0 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 4.3864     | 4.3863      | -0.0001 |
| 2        | 0        | Correlation         | 4.3339     | 4.3322      | -0.0017 |
| 4        | 50       | Bias                | 4.3586     | 4.3654      | 0.0068  |
| 6        | 50       | Bias                | 4.3294     | 4.3252      | -0.0042 |
| 7        | 50       | Bias                | 4.3576     | 4.3623      | 0.0047  |
| 8        | 50       | Bias                | 4.3639     | 4.3787      | 0.0148  |
| 9        | 50       | Bias                | 4.3619     | 4.372       | 0.0101  |
| 11       | 50       | Unbias              | 4.3178     | 4.3322      | 0.0144  |
| 12       | 50       | Unbias              | 4.3123     | 4.307       | -0.0053 |
| 13       | 50       | Unbias              | 4.3397     | 4.3751      | 0.0354  |
| 14       | 50       | Unbias              | 4.3564     | 4.377       | 0.0206  |
| 15       | 50       | Unbias              | 4.4063     | 4.4417      | 0.0354  |

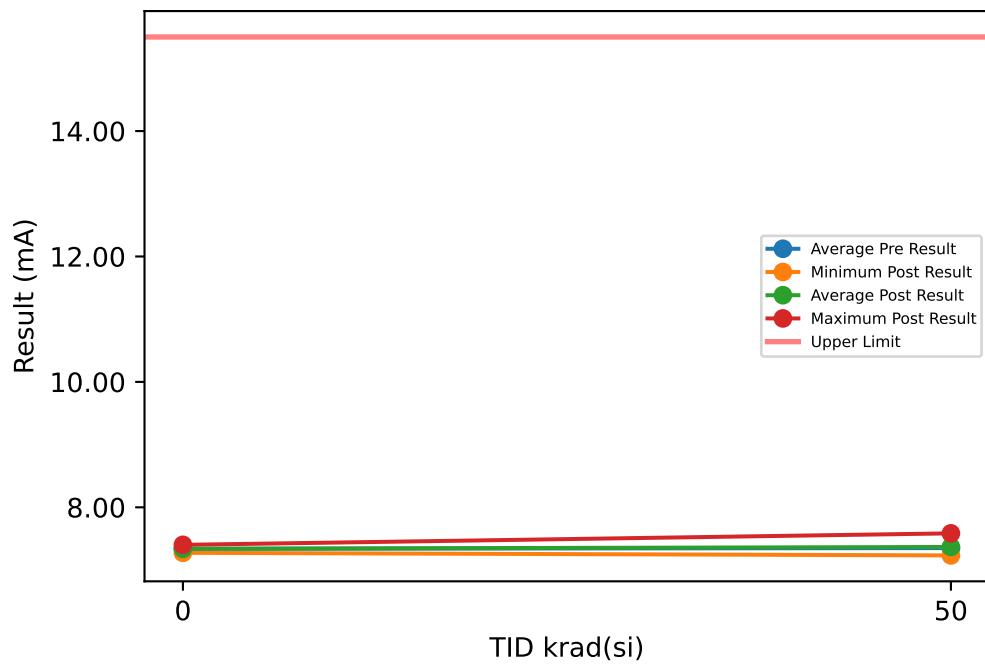
TID vs Post - Pre Exposure Delta



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        | 4.3339           | 4.3601           | 4.3864           | 0.037123         | 4.3322            | 4.3592            | 4.3863            | 0.038254          | -0.0017   | -0.0009   | -0.0001   | 0.0011314 |
| 50       | 4.3123           | 4.3504           | 4.4063           | 0.027212         | 4.307             | 4.3637            | 4.4417            | 0.037087          | -0.0053   | 0.01327   | 0.0354    | 0.01419   |

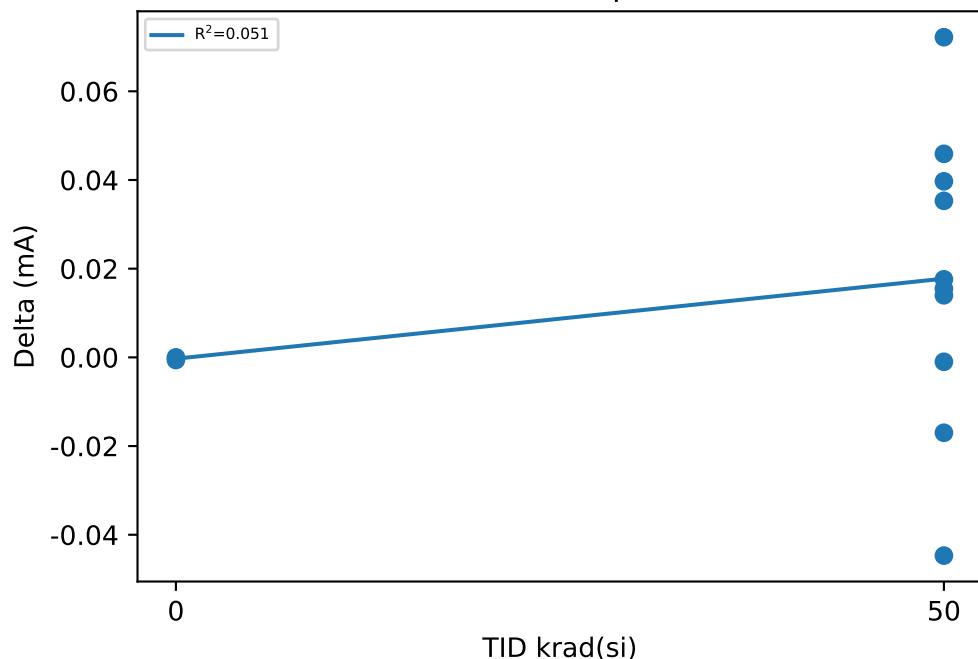
TID vs Result Stats



Test Results (Upper Limit = 15.5 (mA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 7.4022     | 7.4016      | -0.0006 |
| 2        | 0        | Correlation         | 7.2746     | 7.2746      | 0       |
| 4        | 50       | Bias                | 7.4017     | 7.4007      | -0.001  |
| 6        | 50       | Bias                | 7.3256     | 7.3086      | -0.017  |
| 7        | 50       | Bias                | 7.3095     | 7.325       | 0.0155  |
| 8        | 50       | Bias                | 7.3854     | 7.403       | 0.0176  |
| 9        | 50       | Bias                | 7.3441     | 7.3581      | 0.014   |
| 11       | 50       | Unbias              | 7.3037     | 7.3434      | 0.0397  |
| 12       | 50       | Unbias              | 7.278      | 7.2333      | -0.0447 |
| 13       | 50       | Unbias              | 7.3121     | 7.358       | 0.0459  |
| 14       | 50       | Unbias              | 7.3257     | 7.361       | 0.0353  |
| 15       | 50       | Unbias              | 7.5126     | 7.5848      | 0.0722  |

TID vs Post - Pre Exposure Delta

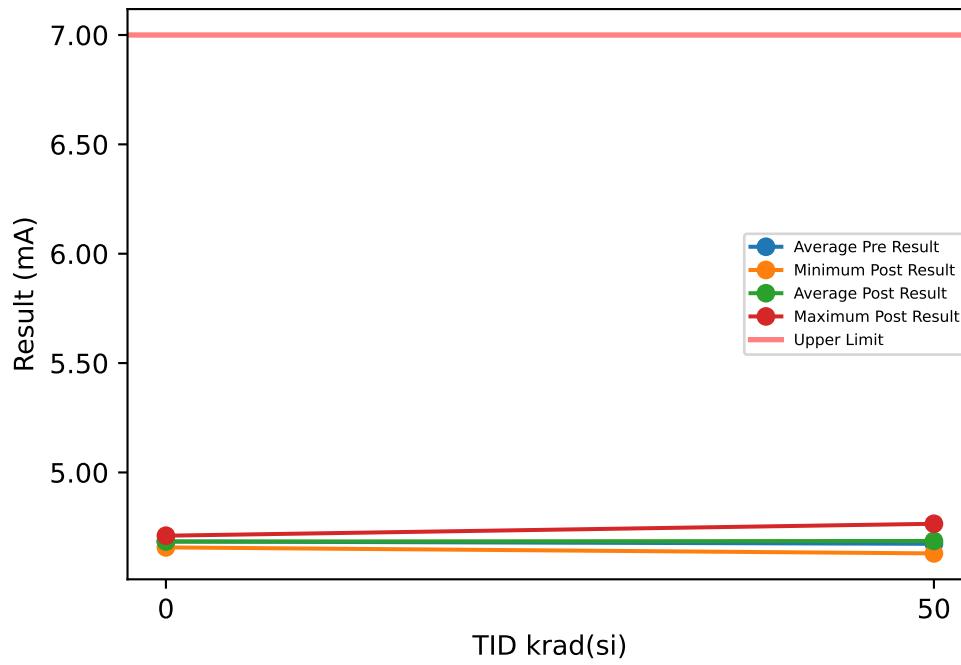


Test Statistics (mA)

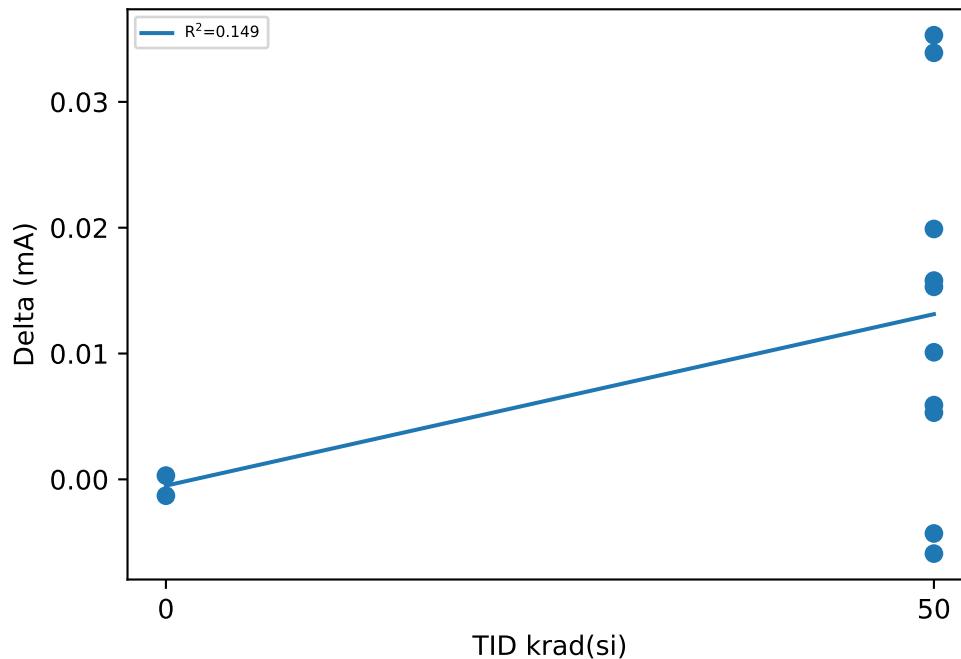
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 7.2746           | 7.3384           | 7.4022           | 0.090227         | 7.2746            | 7.3381            | 7.4016            | 0.089803          | -0.0006   | -0.0003   | 0         | 0.00042426 |
| 50       | 7.278            | 7.3498           | 7.5126           | 0.068305         | 7.2333            | 7.3676            | 7.5848            | 0.090473          | -0.0447   | 0.01775   | 0.0722    | 0.033375   |

# Device Test: 14.9 IDD\_DIS(IDD\_DIS|STANDBY CURRENT/IN/5/5/0/0/5/500kHz//@IDD\_DIS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 7.0 (mA))

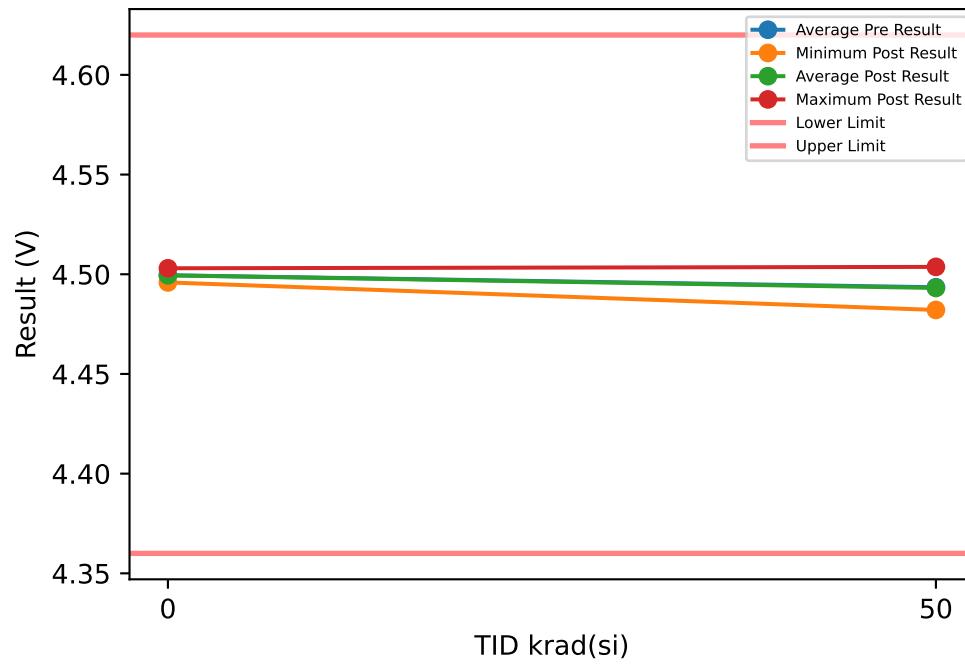
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 4.7121     | 4.7108      | -0.0013 |
| 2        | 0        | Correlation         | 4.657      | 4.6573      | 0.0003  |
| 4        | 50       | Bias                | 4.6836     | 4.6889      | 0.0053  |
| 6        | 50       | Bias                | 4.6525     | 4.6482      | -0.0043 |
| 7        | 50       | Bias                | 4.6809     | 4.6868      | 0.0059  |
| 8        | 50       | Bias                | 4.6858     | 4.7016      | 0.0158  |
| 9        | 50       | Bias                | 4.6847     | 4.6948      | 0.0101  |
| 11       | 50       | Unbias              | 4.6405     | 4.6558      | 0.0153  |
| 12       | 50       | Unbias              | 4.6358     | 4.6299      | -0.0059 |
| 13       | 50       | Unbias              | 4.6633     | 4.6972      | 0.0339  |
| 14       | 50       | Unbias              | 4.6791     | 4.699       | 0.0199  |
| 15       | 50       | Unbias              | 4.73       | 4.7653      | 0.0353  |

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        | 4.657            | 4.6845           | 4.7121           | 0.038962         | 4.6573            | 4.684             | 4.7108            | 0.03783           | -0.0013   | -0.0005   | 0.0003    | 0.0011314 |
| 50       | 4.6358           | 4.6736           | 4.73             | 0.02731          | 4.6299            | 4.6867            | 4.7653            | 0.037111          | -0.0059   | 0.01313   | 0.0353    | 0.014021  |

# Device Test: 15.1 V\_LDO\_4P5(VLDO|V\_VLDO/VLDO/5/5/0/0/4.5/500kHz//@V\_LDO\_4P5)

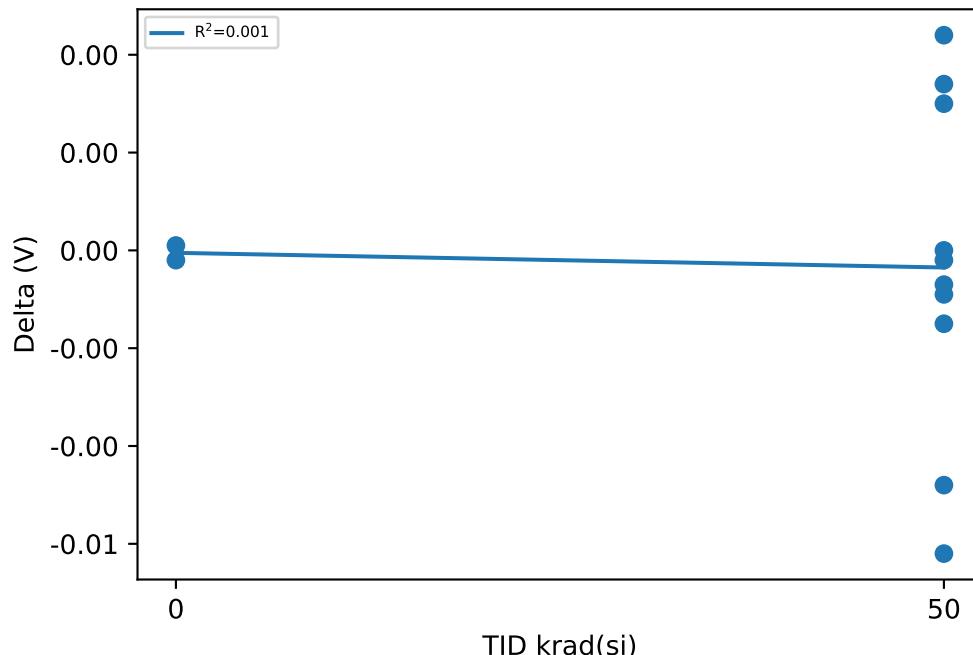
TID vs Result Stats



Test Results (Lower Limit = 4.36, Upper Limit = 4.62 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 4.4961     | 4.4959      | -0.0002 |
| 2        | 0        | Correlation         | 4.5029     | 4.503       | 0.0001  |
| 4        | 50       | Bias                | 4.492      | 4.4964      | 0.0044  |
| 6        | 50       | Bias                | 4.5052     | 4.5037      | -0.0015 |
| 7        | 50       | Bias                | 4.5001     | 4.4992      | -0.0009 |
| 8        | 50       | Bias                | 4.497      | 4.4922      | -0.0048 |
| 9        | 50       | Bias                | 4.5015     | 4.4953      | -0.0062 |
| 11       | 50       | Unbias              | 4.4851     | 4.4851      | 0       |
| 12       | 50       | Unbias              | 4.4787     | 4.4821      | 0.0034  |
| 13       | 50       | Unbias              | 4.4982     | 4.498       | -0.0002 |
| 14       | 50       | Unbias              | 4.4859     | 4.4852      | -0.0007 |
| 15       | 50       | Unbias              | 4.4911     | 4.4941      | 0.003   |

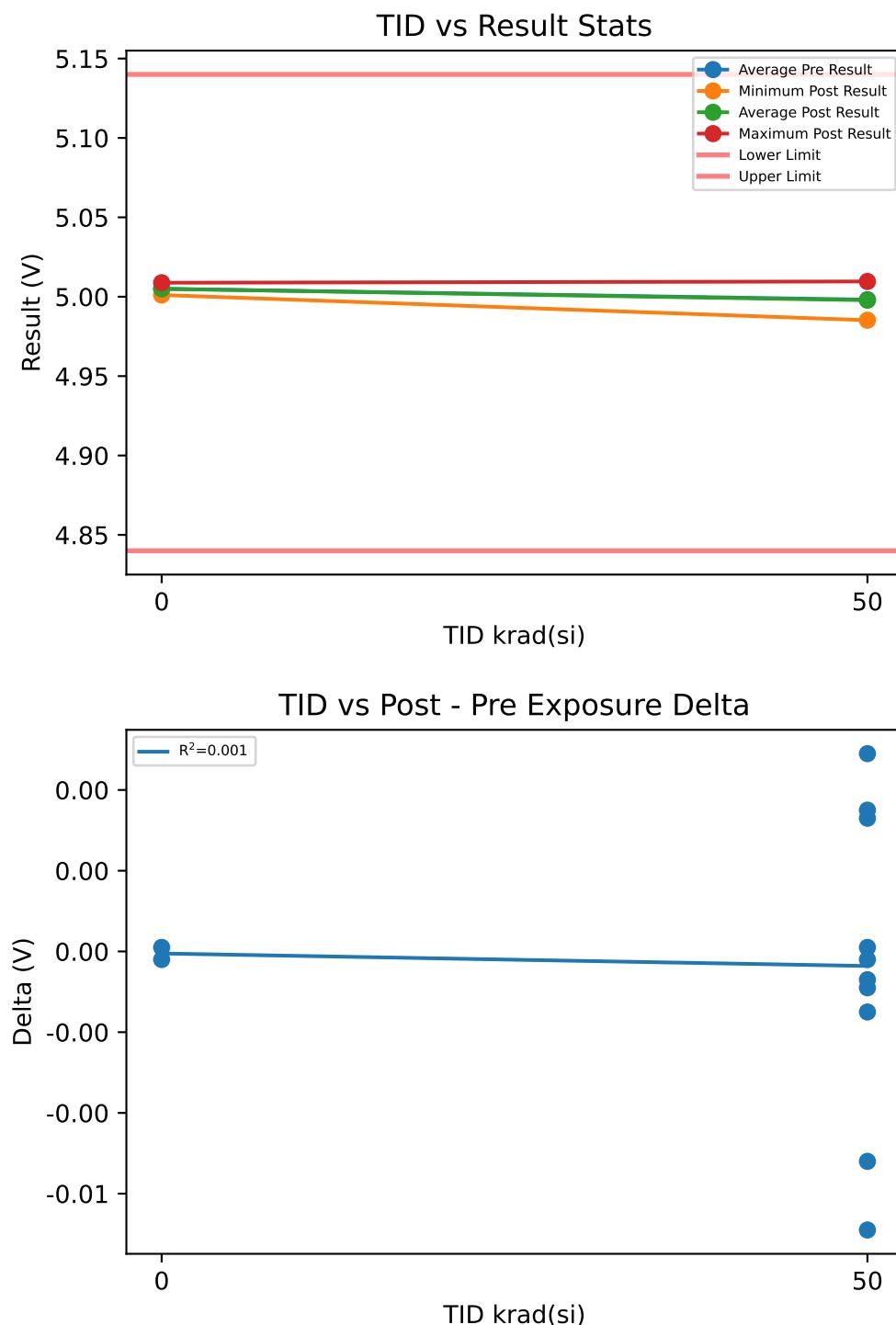
TID vs Post - Pre Exposure Delta



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        | 4.4961           | 4.4995           | 4.5029           | 0.0048083        | 4.4959            | 4.4994            | 4.503             | 0.0050205         | -0.0002   | -5e-05    | 0.0001    | 0.00021213 |
| 50       | 4.4787           | 4.4935           | 4.5052           | 0.0083942        | 4.4821            | 4.4931            | 4.5037            | 0.0069803         | -0.0062   | -0.00035  | 0.0044    | 0.0033955  |

# Device Test: 15.11 V\_LDO\_5(VLDO|V\_VLDO/VLDO/12/12/0/0/5/500kHz//@V\_LDO\_5)



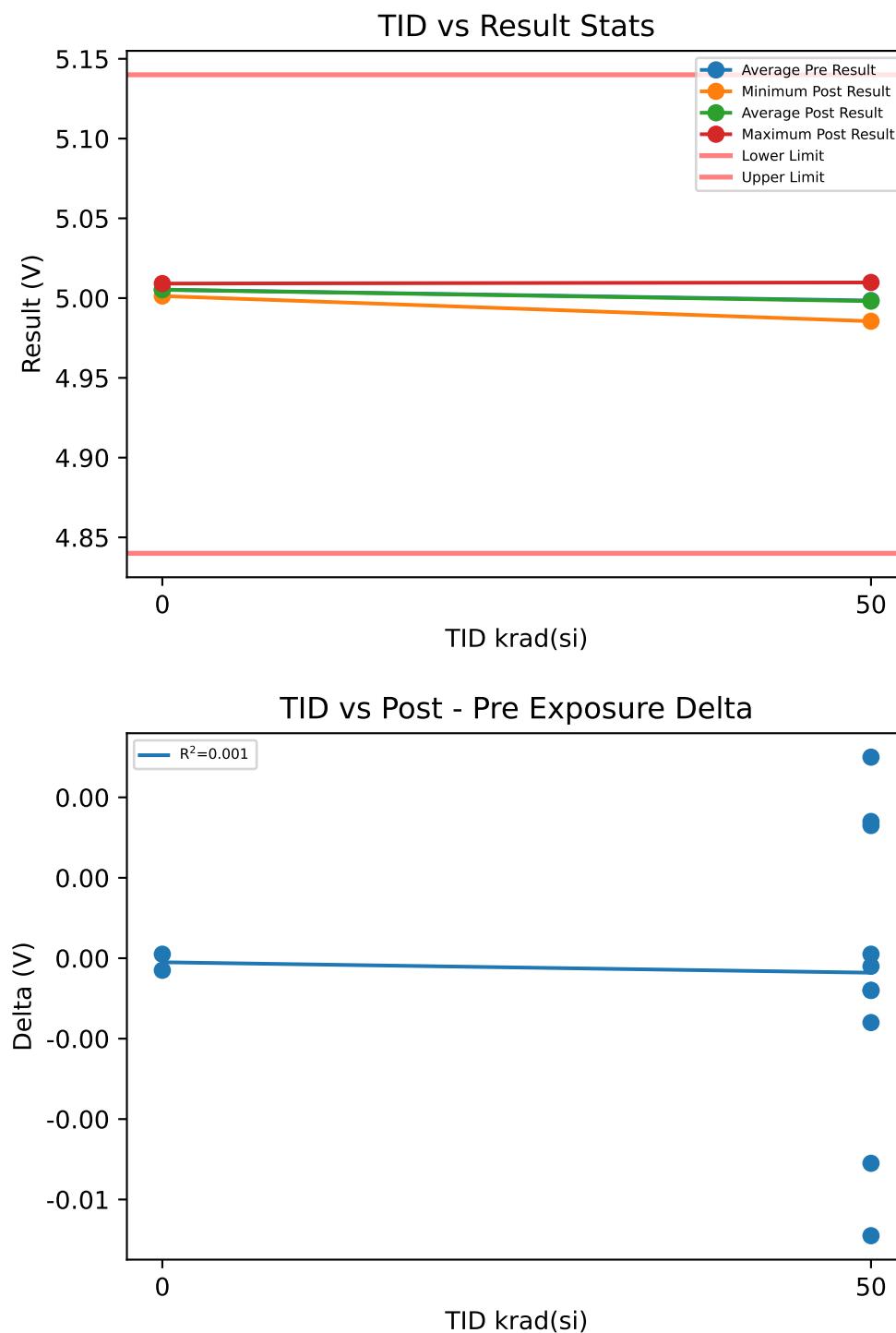
**Test Results (Lower Limit = 4.84, Upper Limit = 5.14 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 5.0013     | 5.0011      | -0.0002 |
| 2        | 0        | Correlation         | 5.0087     | 5.0088      | 0.0001  |
| 4        | 50       | Bias                | 4.9965     | 5.0014      | 0.0049  |
| 6        | 50       | Bias                | 5.0111     | 5.0096      | -0.0015 |
| 7        | 50       | Bias                | 5.0055     | 5.0046      | -0.0009 |
| 8        | 50       | Bias                | 5.0019     | 4.9967      | -0.0052 |
| 9        | 50       | Bias                | 5.0071     | 5.0002      | -0.0069 |
| 11       | 50       | Unbias              | 4.9889     | 4.989       | 0.0001  |
| 12       | 50       | Unbias              | 4.9817     | 4.9852      | 0.0035  |
| 13       | 50       | Unbias              | 5.0035     | 5.0033      | -0.0002 |
| 14       | 50       | Unbias              | 4.9898     | 4.9891      | -0.0007 |
| 15       | 50       | Unbias              | 4.9956     | 4.9989      | 0.0033  |

## 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        | 5.0013           | 5.005            | 5.0087           | 0.0052326        | 5.0011            | 5.005             | 5.0088            | 0.0054447         | -0.0002   | -5e-05    | 0.0001    | 0.00021213 |
| 50       | 4.9817           | 4.9982           | 5.0111           | 0.0093072        | 4.9852            | 4.9978            | 5.0096            | 0.0078085         | -0.0069   | -0.00036  | 0.0049    | 0.0037134  |

# Device Test: 15.12 V\_LDO\_5(VLDO|V\_VLDO/VLDO/14/14/0/0/5/500kHz//@V\_LDO\_5)



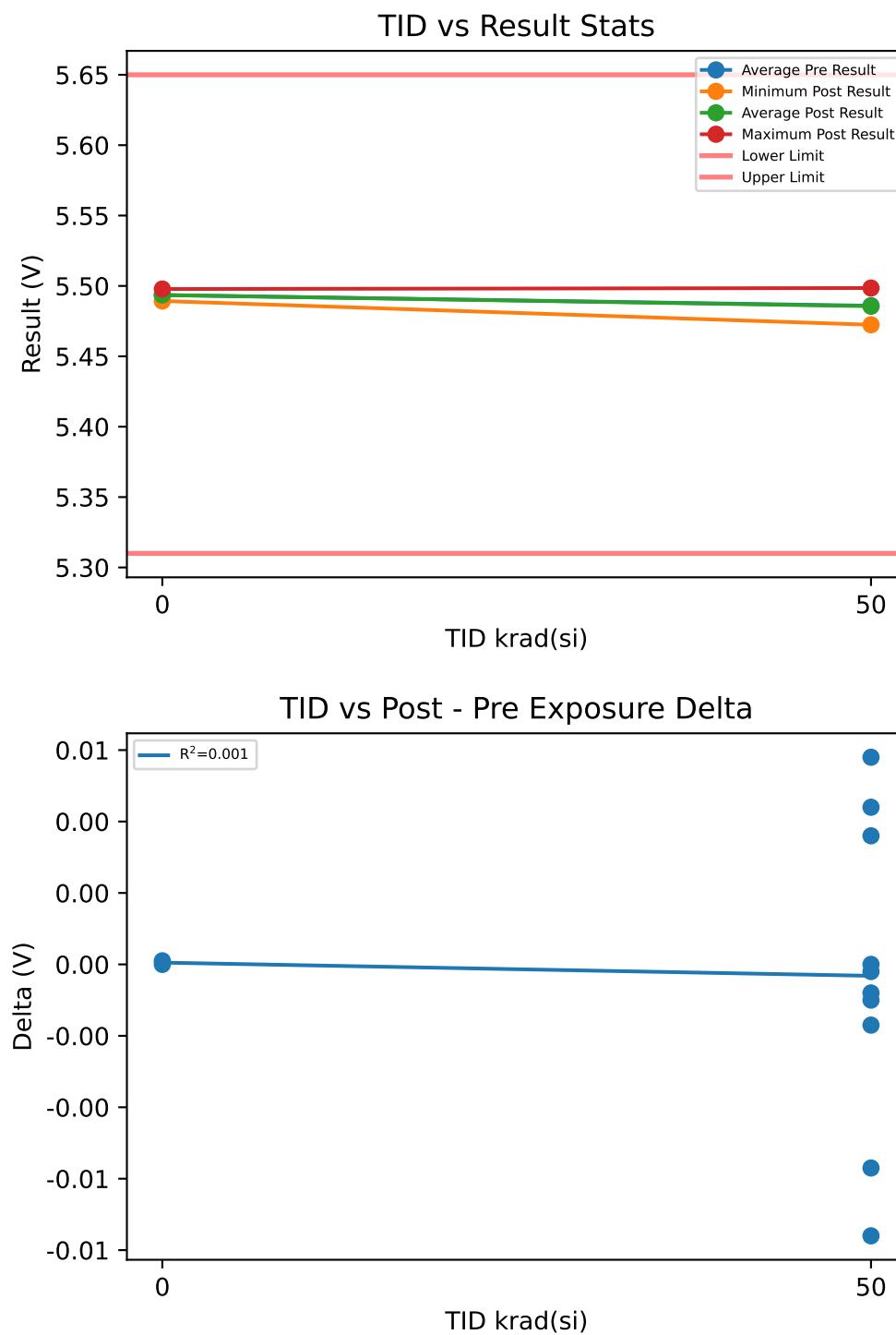
**Test Results (Lower Limit = 4.84, Upper Limit = 5.14 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 5.0016     | 5.0013      | -0.0003 |
| 2        | 0        | Correlation         | 5.009      | 5.0091      | 0.0001  |
| 4        | 50       | Bias                | 4.9967     | 5.0017      | 0.005   |
| 6        | 50       | Bias                | 5.0114     | 5.0098      | -0.0016 |
| 7        | 50       | Bias                | 5.0058     | 5.005       | -0.0008 |
| 8        | 50       | Bias                | 5.0022     | 4.9971      | -0.0051 |
| 9        | 50       | Bias                | 5.0074     | 5.0005      | -0.0069 |
| 11       | 50       | Unbias              | 4.9891     | 4.9892      | 0.0001  |
| 12       | 50       | Unbias              | 4.9821     | 4.9855      | 0.0034  |
| 13       | 50       | Unbias              | 5.0038     | 5.0036      | -0.0002 |
| 14       | 50       | Unbias              | 4.9902     | 4.9894      | -0.0008 |
| 15       | 50       | Unbias              | 4.9959     | 4.9992      | 0.0033  |

## 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        | 5.0016           | 5.0053           | 5.009            | 0.0052326        | 5.0013            | 5.0052            | 5.0091            | 0.0055154         | -0.0003   | -0.0001   | 0.0001    | 0.00028284 |
| 50       | 4.9821           | 4.9985           | 5.0114           | 0.0092909        | 4.9855            | 4.9981            | 5.0098            | 0.0078127         | -0.0069   | -0.00036  | 0.005     | 0.0037068  |

# Device Test: 15.15 V\_LDO\_5P5(VLDO|V\_VLDO/VLDO/6/6/0/0/5.5/500kHz//@V\_LDO\_5P5)



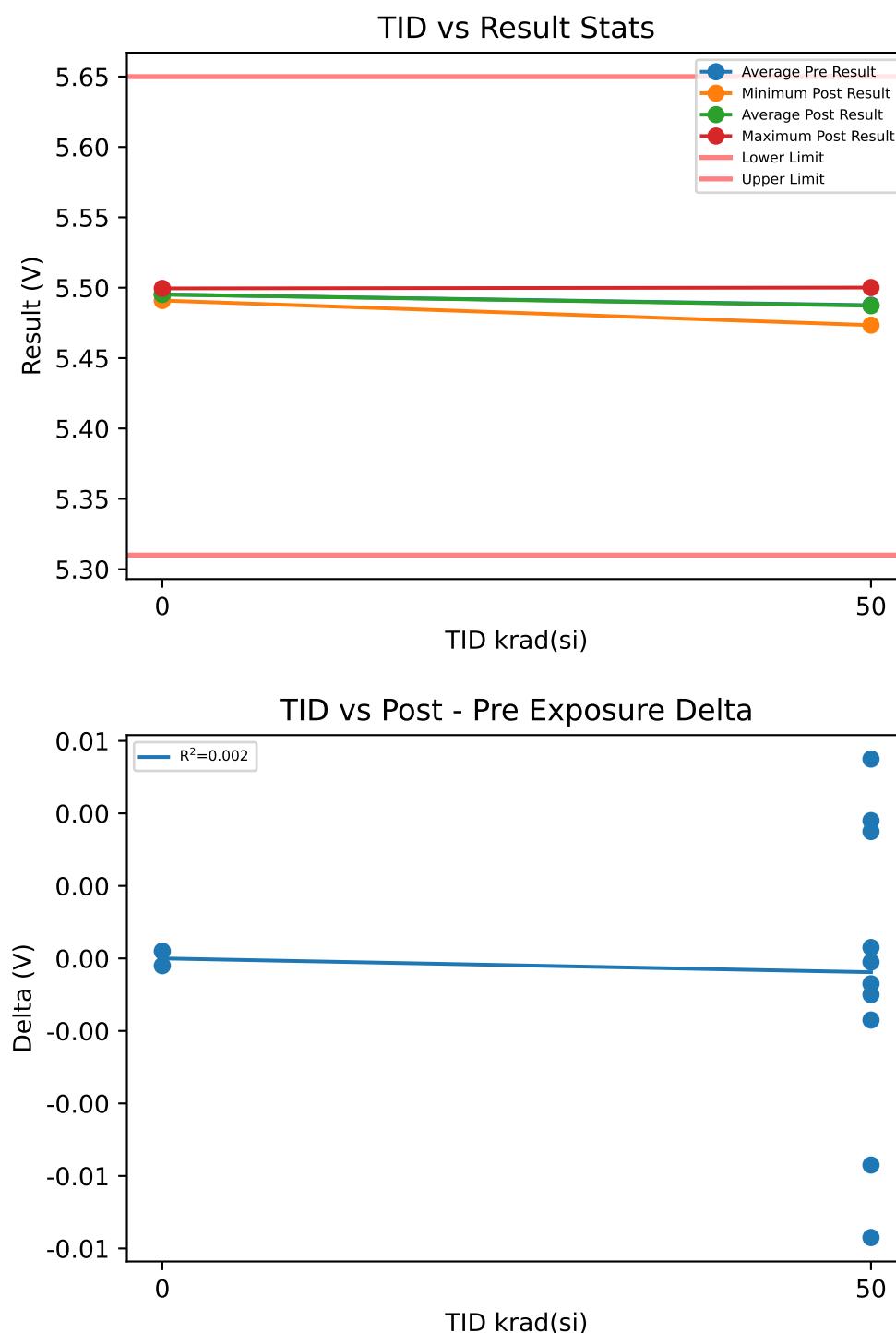
**Test Results (Lower Limit = 5.31, Upper Limit = 5.65 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 5.4893     | 5.4893      | 0       |
| 2        | 0        | Correlation         | 5.4977     | 5.4978      | 0.0001  |
| 4        | 50       | Bias                | 5.484      | 5.4898      | 0.0058  |
| 6        | 50       | Bias                | 5.5002     | 5.4985      | -0.0017 |
| 7        | 50       | Bias                | 5.494      | 5.493       | -0.001  |
| 8        | 50       | Bias                | 5.4901     | 5.4844      | -0.0057 |
| 9        | 50       | Bias                | 5.4956     | 5.488       | -0.0076 |
| 11       | 50       | Unbias              | 5.4757     | 5.4757      | 0       |
| 12       | 50       | Unbias              | 5.468      | 5.4724      | 0.0044  |
| 13       | 50       | Unbias              | 5.4917     | 5.4915      | -0.0002 |
| 14       | 50       | Unbias              | 5.4769     | 5.4761      | -0.0008 |
| 15       | 50       | Unbias              | 5.4831     | 5.4867      | 0.0036  |

## 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        | 5.4893           | 5.4935           | 5.4977           | 0.0059397        | 5.4893            | 5.4935            | 5.4978            | 0.0060104         | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 5.468            | 5.4859           | 5.5002           | 0.010178         | 5.4724            | 5.4856            | 5.4985            | 0.0084625         | -0.0076   | -0.00032  | 0.0058    | 0.0042132  |

# Device Test: 15.18 V\_LDO\_5P5(VLDO|V\_VLDO/VLDO/12/12/0/0/5.5/500kHz//@V\_LDO\_5P5)



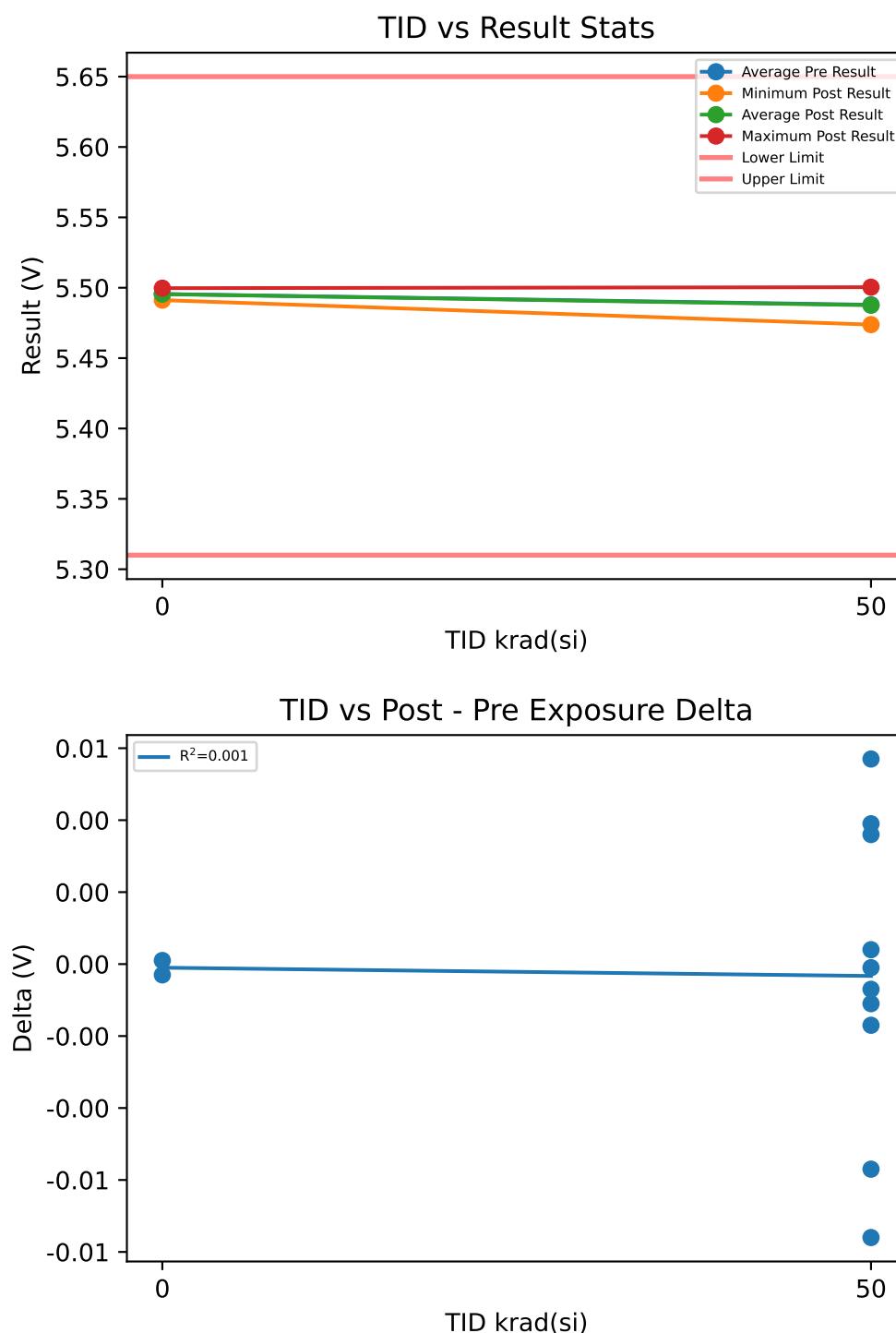
**Test Results (Lower Limit = 5.31, Upper Limit = 5.65 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 5.4911     | 5.4909      | -0.0002 |
| 2        | 0        | Correlation         | 5.4993     | 5.4995      | 0.0002  |
| 4        | 50       | Bias                | 5.4856     | 5.4911      | 0.0055  |
| 6        | 50       | Bias                | 5.5018     | 5.5001      | -0.0017 |
| 7        | 50       | Bias                | 5.4957     | 5.4947      | -0.001  |
| 8        | 50       | Bias                | 5.4917     | 5.486       | -0.0057 |
| 9        | 50       | Bias                | 5.4975     | 5.4898      | -0.0077 |
| 11       | 50       | Unbias              | 5.4774     | 5.4777      | 0.0003  |
| 12       | 50       | Unbias              | 5.4696     | 5.4734      | 0.0038  |
| 13       | 50       | Unbias              | 5.4934     | 5.4933      | -0.0001 |
| 14       | 50       | Unbias              | 5.4785     | 5.4778      | -0.0007 |
| 15       | 50       | Unbias              | 5.4848     | 5.4883      | 0.0035  |

**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        | 5.4911           | 5.4952           | 5.4993           | 0.0057983        | 5.4909            | 5.4952            | 5.4995            | 0.0060811         | -0.0002   | 0         | 0.0002    | 0.00028284 |
| 50       | 5.4696           | 5.4876           | 5.5018           | 0.010211         | 5.4734            | 5.4872            | 5.5001            | 0.0085215         | -0.0077   | -0.00038  | 0.0055    | 0.0041063  |

# Device Test: 15.19 V\_LDO\_5P5(VLDO|V\_VLDO/VLDO/14/14/0/0/5.5/500kHz//@V\_LDO\_5P5)



**Test Results (Lower Limit = 5.31, Upper Limit = 5.65 (V))**

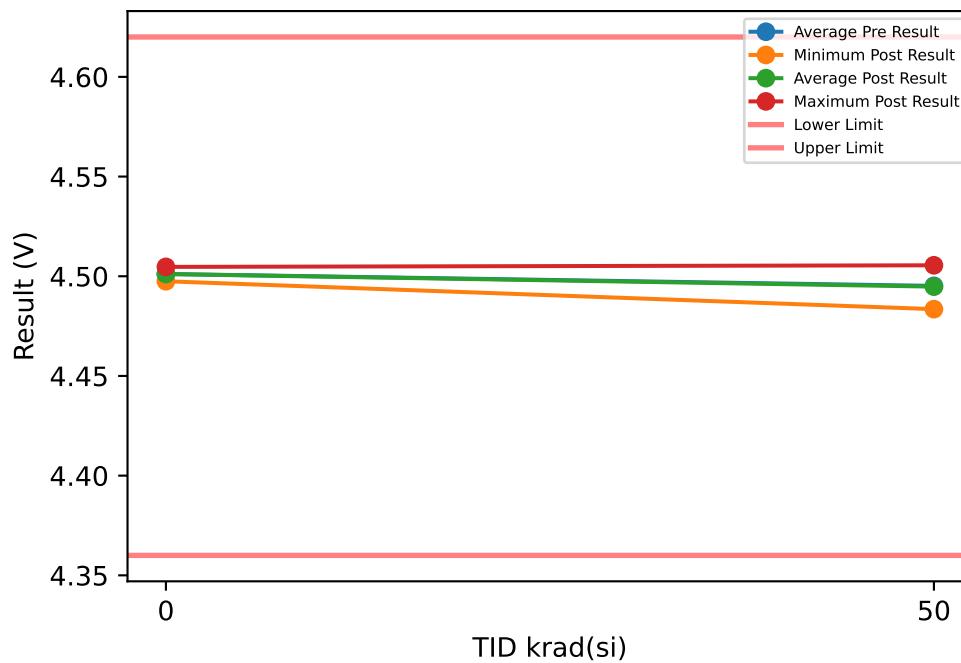
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 5.4915     | 5.4912      | -0.0003 |
| 2        | 0        | Correlation         | 5.4996     | 5.4997      | 0.0001  |
| 4        | 50       | Bias                | 5.4859     | 5.4916      | 0.0057  |
| 6        | 50       | Bias                | 5.5021     | 5.5004      | -0.0017 |
| 7        | 50       | Bias                | 5.496      | 5.4949      | -0.0011 |
| 8        | 50       | Bias                | 5.4921     | 5.4864      | -0.0057 |
| 9        | 50       | Bias                | 5.4978     | 5.4902      | -0.0076 |
| 11       | 50       | Unbias              | 5.4776     | 5.478       | 0.0004  |
| 12       | 50       | Unbias              | 5.4699     | 5.4738      | 0.0039  |
| 13       | 50       | Unbias              | 5.4937     | 5.4936      | -0.0001 |
| 14       | 50       | Unbias              | 5.4789     | 5.4782      | -0.0007 |
| 15       | 50       | Unbias              | 5.4851     | 5.4887      | 0.0036  |

**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        | 5.4915           | 5.4955           | 5.4996           | 0.0057276        | 5.4912            | 5.4954            | 5.4997            | 0.0060104         | -0.0003   | -0.0001   | 0.0001    | 0.00028284 |
| 50       | 5.4699           | 5.4879           | 5.5021           | 0.010217         | 5.4738            | 5.4876            | 5.5004            | 0.0084951         | -0.0076   | -0.00033  | 0.0057    | 0.0041444  |

# Device Test: 15.4 V\_LDO\_4P5(VLDO|V\_VLDO/VLDO/12/12/0/0/4.5/500kHz//@V\_LDO\_4P5)

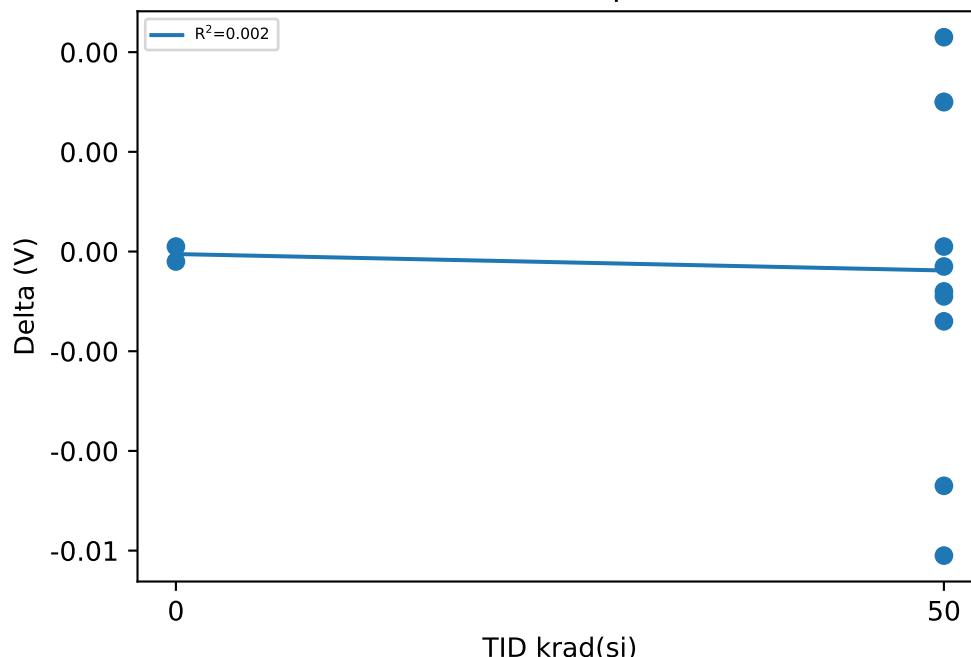
TID vs Result Stats



Test Results (Lower Limit = 4.36, Upper Limit = 4.62 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 4.4977     | 4.4975      | -0.0002 |
| 2        | 0        | Correlation         | 4.5046     | 4.5047      | 0.0001  |
| 4        | 50       | Bias                | 4.4936     | 4.4979      | 0.0043  |
| 6        | 50       | Bias                | 4.5069     | 4.5055      | -0.0014 |
| 7        | 50       | Bias                | 4.5018     | 4.5009      | -0.0009 |
| 8        | 50       | Bias                | 4.4986     | 4.4939      | -0.0047 |
| 9        | 50       | Bias                | 4.5032     | 4.4971      | -0.0061 |
| 11       | 50       | Unbias              | 4.4868     | 4.4869      | 0.0001  |
| 12       | 50       | Unbias              | 4.4805     | 4.4835      | 0.003   |
| 13       | 50       | Unbias              | 4.5        | 4.4997      | -0.0003 |
| 14       | 50       | Unbias              | 4.4876     | 4.4868      | -0.0008 |
| 15       | 50       | Unbias              | 4.4928     | 4.4958      | 0.003   |

TID vs Post - Pre Exposure Delta

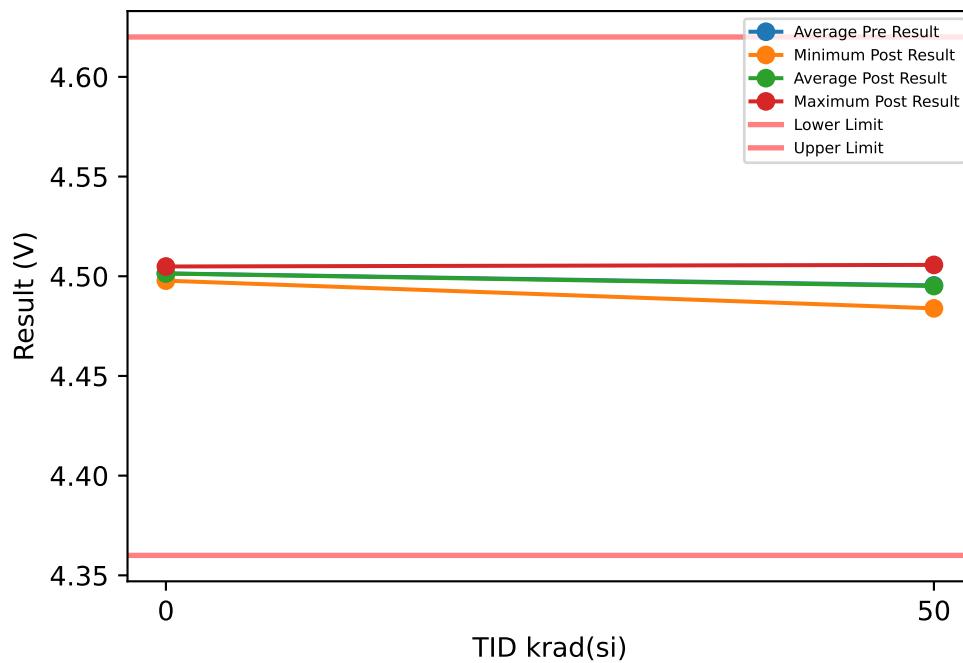


Test Statistics (V)

| 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        | 4.4977           | 4.5011           | 4.5046           | 0.004879         | 4.4975            | 4.5011            | 4.5047            | 0.0050912         | -0.0002   | -5e-05    | 0.0001    | 0.00021213 |
| 50       | 4.4805           | 4.4952           | 4.5069           | 0.0083784        | 4.4835            | 4.4948            | 4.5055            | 0.0070437         | -0.0061   | -0.00038  | 0.0043    | 0.0032974  |

# Device Test: 15.5 V\_LDO\_4P5(VLDO|V\_VLDO/VLDO/14/14/0/0/4.5/500kHz//@V\_LDO\_4P5)

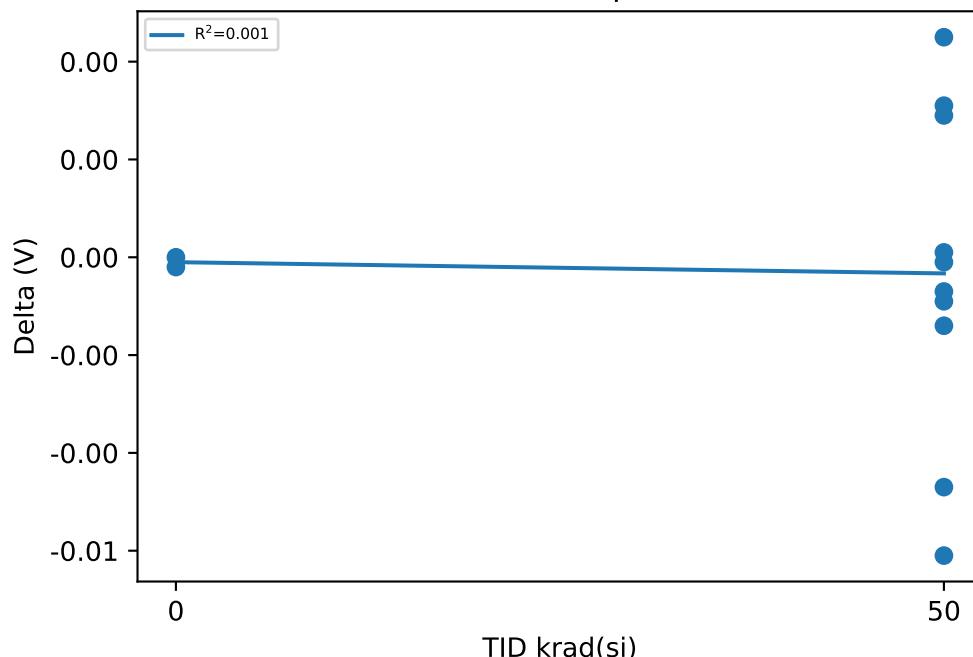
TID vs Result Stats



Test Results (Lower Limit = 4.36, Upper Limit = 4.62 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 4.498      | 4.4978      | -0.0002 |
| 2        | 0        | Correlation         | 4.5049     | 4.5049      | 0       |
| 4        | 50       | Bias                | 4.4938     | 4.4983      | 0.0045  |
| 6        | 50       | Bias                | 4.5071     | 4.5057      | -0.0014 |
| 7        | 50       | Bias                | 4.502      | 4.5013      | -0.0007 |
| 8        | 50       | Bias                | 4.4989     | 4.4942      | -0.0047 |
| 9        | 50       | Bias                | 4.5034     | 4.4973      | -0.0061 |
| 11       | 50       | Unbias              | 4.487      | 4.4871      | 0.0001  |
| 12       | 50       | Unbias              | 4.4808     | 4.4839      | 0.0031  |
| 13       | 50       | Unbias              | 4.5002     | 4.5001      | -0.0001 |
| 14       | 50       | Unbias              | 4.4879     | 4.487       | -0.0009 |
| 15       | 50       | Unbias              | 4.4931     | 4.496       | 0.0029  |

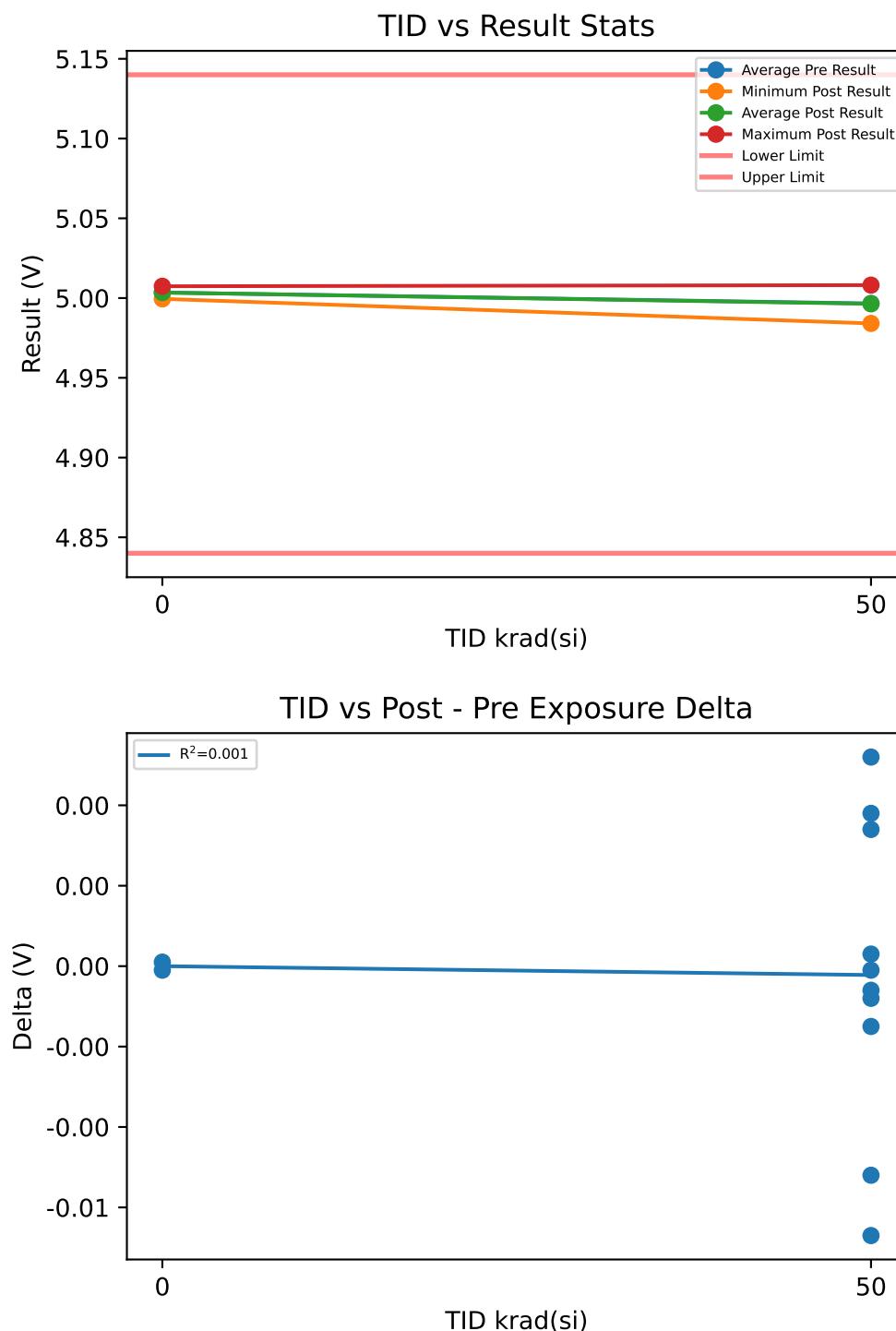
TID vs Post - Pre Exposure Delta



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        | 4.498            | 4.5015           | 4.5049           | 0.004879         | 4.4978            | 4.5014            | 4.5049            | 0.0050205         | -0.0002   | -0.0001   | 0         | 0.00014142 |
| 50       | 4.4808           | 4.4954           | 4.5071           | 0.0083504        | 4.4839            | 4.4951            | 4.5057            | 0.0070518         | -0.0061   | -0.00033  | 0.0045    | 0.0033293  |

# Device Test: 15.8 V\_LDO\_5(VLDO|V\_VLDO/VLDO/5.5/5.5/0/0/5/500kHz//@V\_LDO\_5)



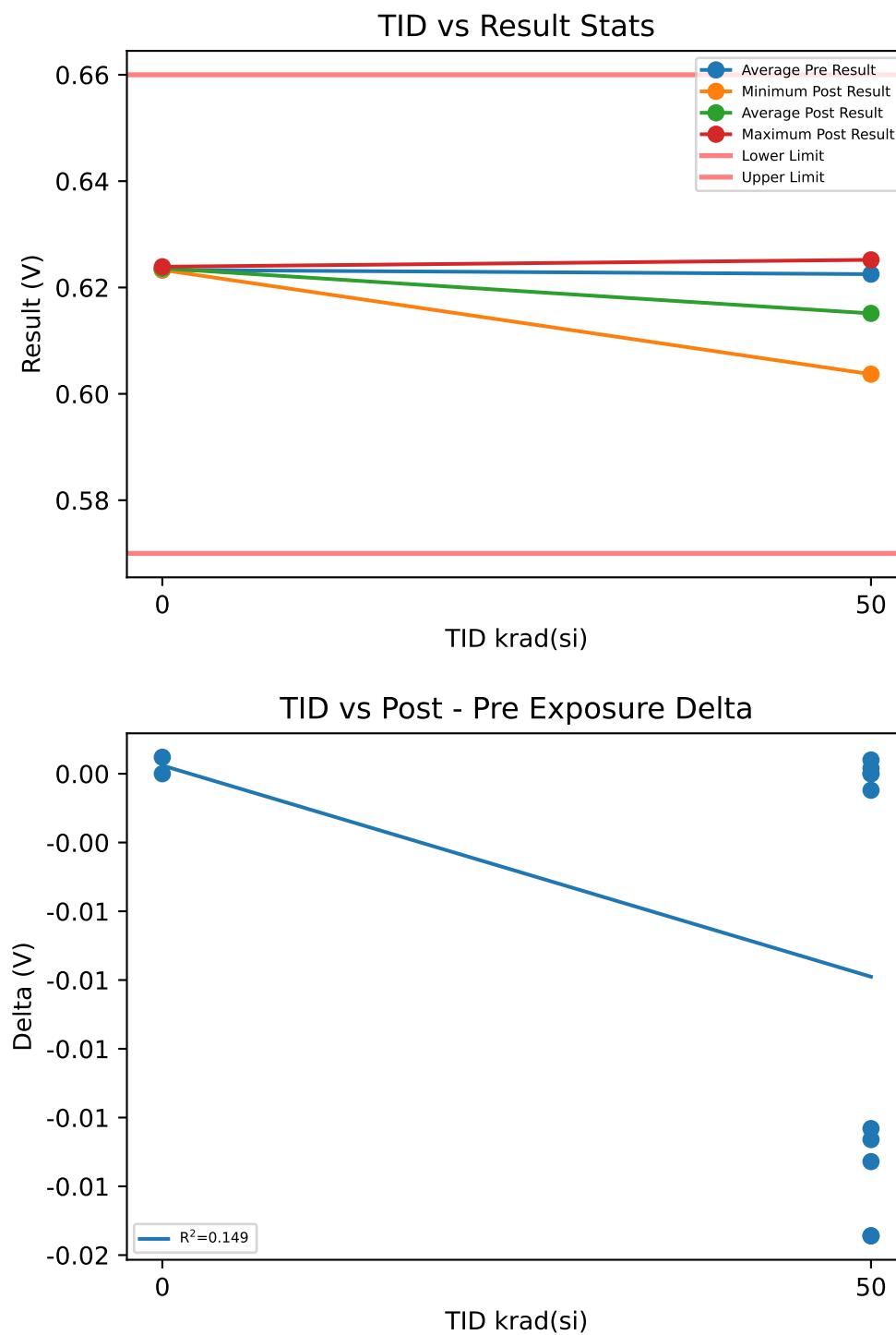
**Test Results (Lower Limit = 4.84, Upper Limit = 5.14 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 4.9996     | 4.9995      | -0.0001 |
| 2        | 0        | Correlation         | 5.0073     | 5.0074      | 0.0001  |
| 4        | 50       | Bias                | 4.9949     | 5.0001      | 0.0052  |
| 6        | 50       | Bias                | 5.0096     | 5.0081      | -0.0015 |
| 7        | 50       | Bias                | 5.0039     | 5.0031      | -0.0008 |
| 8        | 50       | Bias                | 5.0005     | 4.9953      | -0.0052 |
| 9        | 50       | Bias                | 5.0055     | 4.9988      | -0.0067 |
| 11       | 50       | Unbias              | 4.9873     | 4.9876      | 0.0003  |
| 12       | 50       | Unbias              | 4.9803     | 4.9841      | 0.0038  |
| 13       | 50       | Unbias              | 5.0019     | 5.0018      | -0.0001 |
| 14       | 50       | Unbias              | 4.9882     | 4.9876      | -0.0006 |
| 15       | 50       | Unbias              | 4.9941     | 4.9975      | 0.0034  |

## 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        | 4.9996           | 5.0034           | 5.0073           | 0.0054447        | 4.9995            | 5.0034            | 5.0074            | 0.0055861         | -0.0001   | 0         | 0.0001    | 0.00014142 |
| 50       | 4.9803           | 4.9966           | 5.0096           | 0.0092896        | 4.9841            | 4.9964            | 5.0081            | 0.0077386         | -0.0067   | -0.00022  | 0.0052    | 0.0037688  |

# Device Test: 16.1 V\_EN\_RISE(LEVEL|EN\_RISE/EN/4.5/4.5/0/0/4.5/500kHz//@V\_EN\_RISE)



**Test Results (Lower Limit = 0.57, Upper Limit = 0.66 (V))**

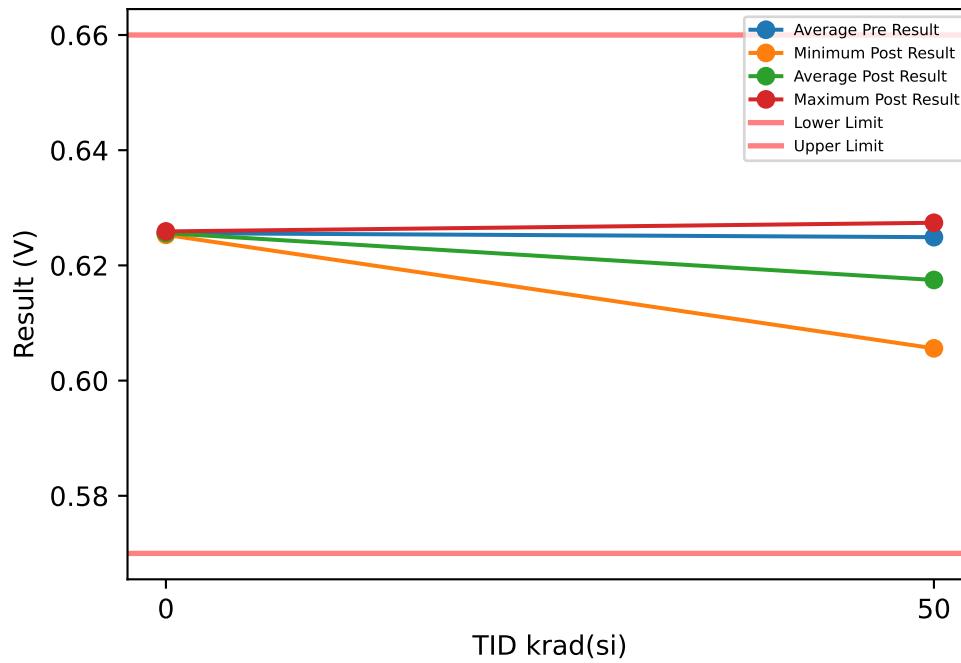
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.6233     | 0.6239      | 0.0006  |
| 2        | 0        | Correlation         | 0.6233     | 0.6233      | 0       |
| 4        | 50       | Bias                | 0.6178     | 0.6037      | -0.0141 |
| 6        | 50       | Bias                | 0.6224     | 0.6056      | -0.0168 |
| 7        | 50       | Bias                | 0.6225     | 0.6092      | -0.0133 |
| 8        | 50       | Bias                | 0.6212     | 0.6083      | -0.0129 |
| 9        | 50       | Bias                | 0.6225     | 0.6057      | -0.0168 |
| 11       | 50       | Unbias              | 0.621      | 0.6212      | 0.0002  |
| 12       | 50       | Unbias              | 0.6245     | 0.6245      | 0       |
| 13       | 50       | Unbias              | 0.6247     | 0.6247      | 0       |
| 14       | 50       | Unbias              | 0.6238     | 0.6232      | -0.0006 |
| 15       | 50       | Unbias              | 0.6247     | 0.6252      | 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        | 0.6233           | 0.6233           | 0.6233           | 0                | 0.6233            | 0.6236            | 0.6239            | 0.00042426        | 0         | 0.0003    | 0.0006    | 0.00042426 |
| 50       | 0.6178           | 0.62251          | 0.6247           | 0.002145         | 0.6037            | 0.61513           | 0.6252            | 0.0092794         | -0.0168   | -0.00738  | 0.0005    | 0.0079064  |

# Device Test: 16.10 V\_EN\_RISE(LEVEL|EN\_RISE/EN/14/14/0/0/5/500kHz//@V\_EN\_RISE)

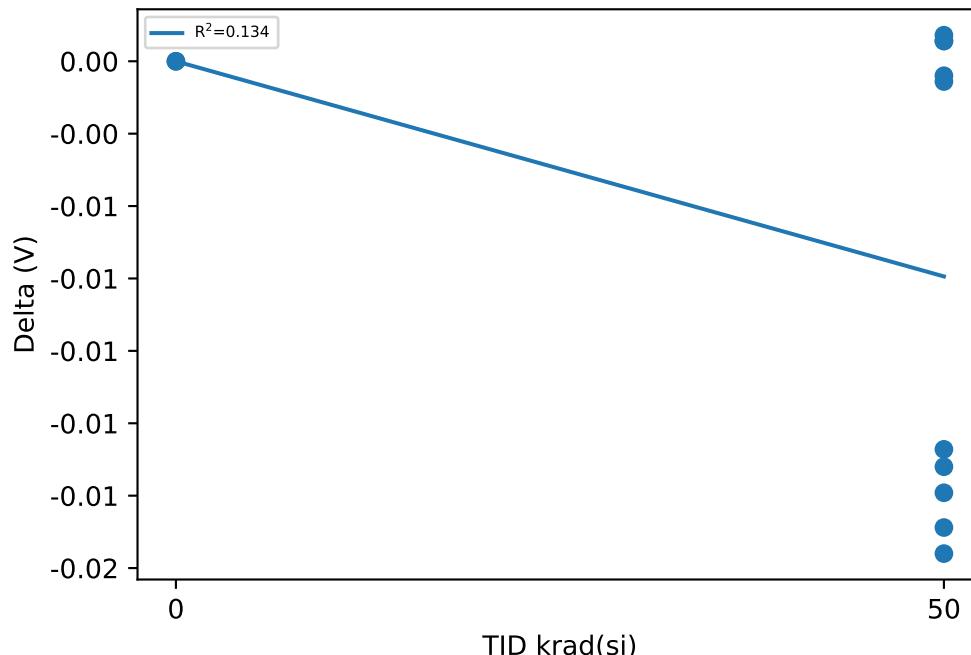
TID vs Result Stats



Test Results (Lower Limit = 0.57, Upper Limit = 0.66 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.6259     | 0.6259      | 0       |
| 2        | 0        | Correlation         | 0.6253     | 0.6253      | 0       |
| 4        | 50       | Bias                | 0.6205     | 0.6056      | -0.0149 |
| 6        | 50       | Bias                | 0.6245     | 0.6084      | -0.0161 |
| 7        | 50       | Bias                | 0.6252     | 0.6112      | -0.014  |
| 8        | 50       | Bias                | 0.6238     | 0.6104      | -0.0134 |
| 9        | 50       | Bias                | 0.6253     | 0.6083      | -0.017  |
| 11       | 50       | Unbias              | 0.6238     | 0.6233      | -0.0005 |
| 12       | 50       | Unbias              | 0.6265     | 0.6274      | 0.0009  |
| 13       | 50       | Unbias              | 0.6267     | 0.6274      | 0.0007  |
| 14       | 50       | Unbias              | 0.626      | 0.6253      | -0.0007 |
| 15       | 50       | Unbias              | 0.6267     | 0.6274      | 0.0007  |

TID vs Post - Pre Exposure Delta

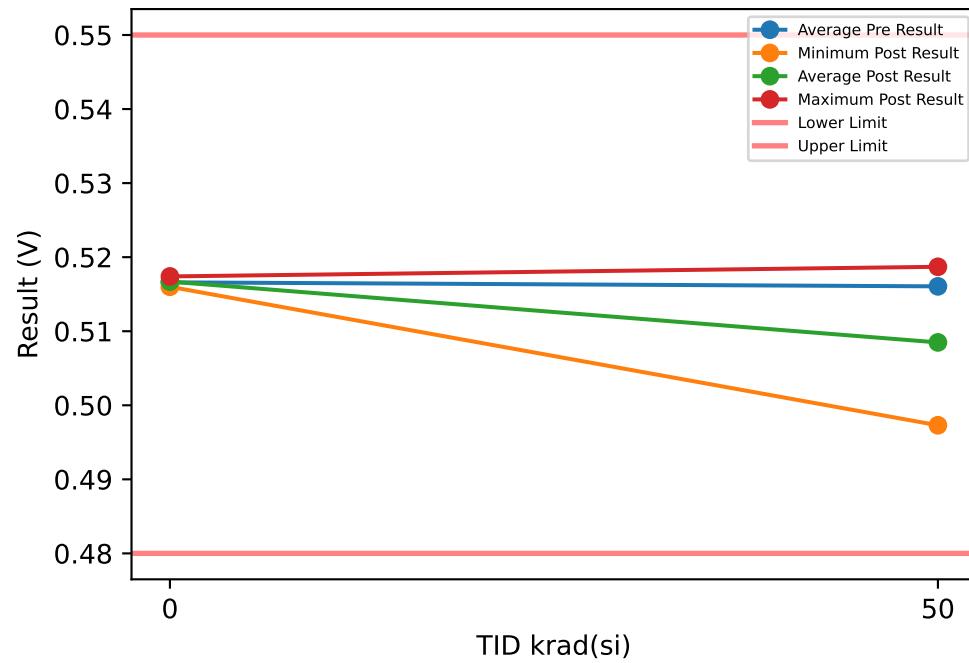


Test Statistics (V)

| 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        | 0.6253           | 0.6256           | 0.6259           | 0.00042426       | 0.6253            | 0.6256            | 0.6259            | 0.00042426        | 0         | 0         | 0         | 0         |
| 50       | 0.6205           | 0.6249           | 0.6267           | 0.0018985        | 0.6056            | 0.61747           | 0.6274            | 0.0093551         | -0.017    | -0.00743  | 0.0009    | 0.0081395 |

# Device Test: 16.11 V\_EN\_FALL(LEVEL|EN\_FALL/EN/14/14/0/0/5/500kHz//@V\_EN\_FALL)

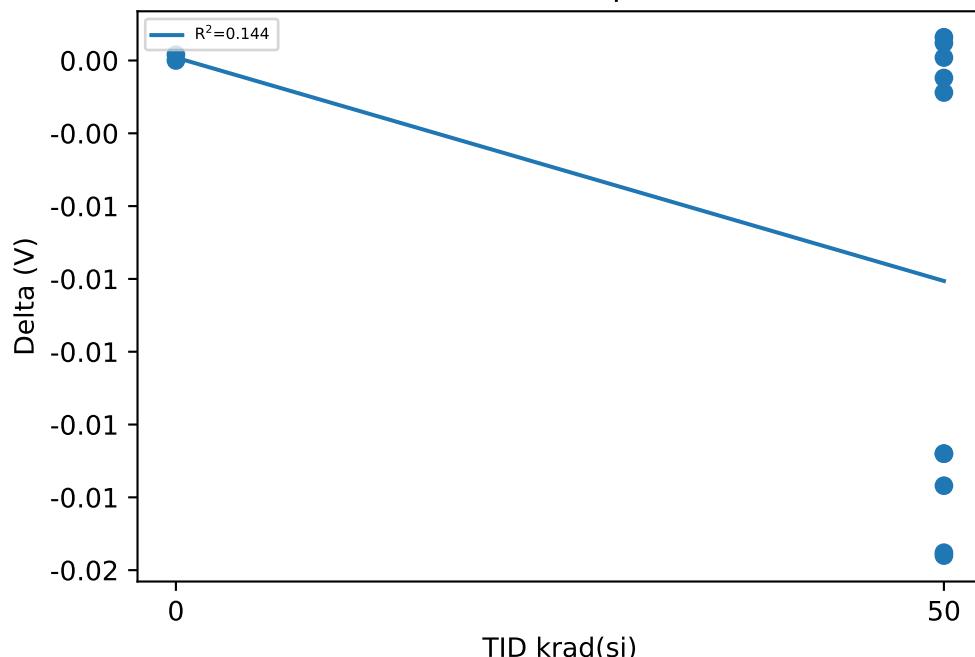
TID vs Result Stats



Test Results (Lower Limit = 0.48, Upper Limit = 0.55 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5172     | 0.5174      | 0.0002  |
| 2        | 0        | Correlation         | 0.516      | 0.516       | 0       |
| 4        | 50       | Bias                | 0.5119     | 0.4973      | -0.0146 |
| 6        | 50       | Bias                | 0.516      | 0.499       | -0.017  |
| 7        | 50       | Bias                | 0.5161     | 0.5026      | -0.0135 |
| 8        | 50       | Bias                | 0.5154     | 0.5019      | -0.0135 |
| 9        | 50       | Bias                | 0.516      | 0.4991      | -0.0169 |
| 11       | 50       | Unbias              | 0.5146     | 0.514       | -0.0006 |
| 12       | 50       | Unbias              | 0.5174     | 0.5182      | 0.0008  |
| 13       | 50       | Unbias              | 0.5181     | 0.5182      | 0.0001  |
| 14       | 50       | Unbias              | 0.517      | 0.5159      | -0.0011 |
| 15       | 50       | Unbias              | 0.5181     | 0.5187      | 0.0006  |

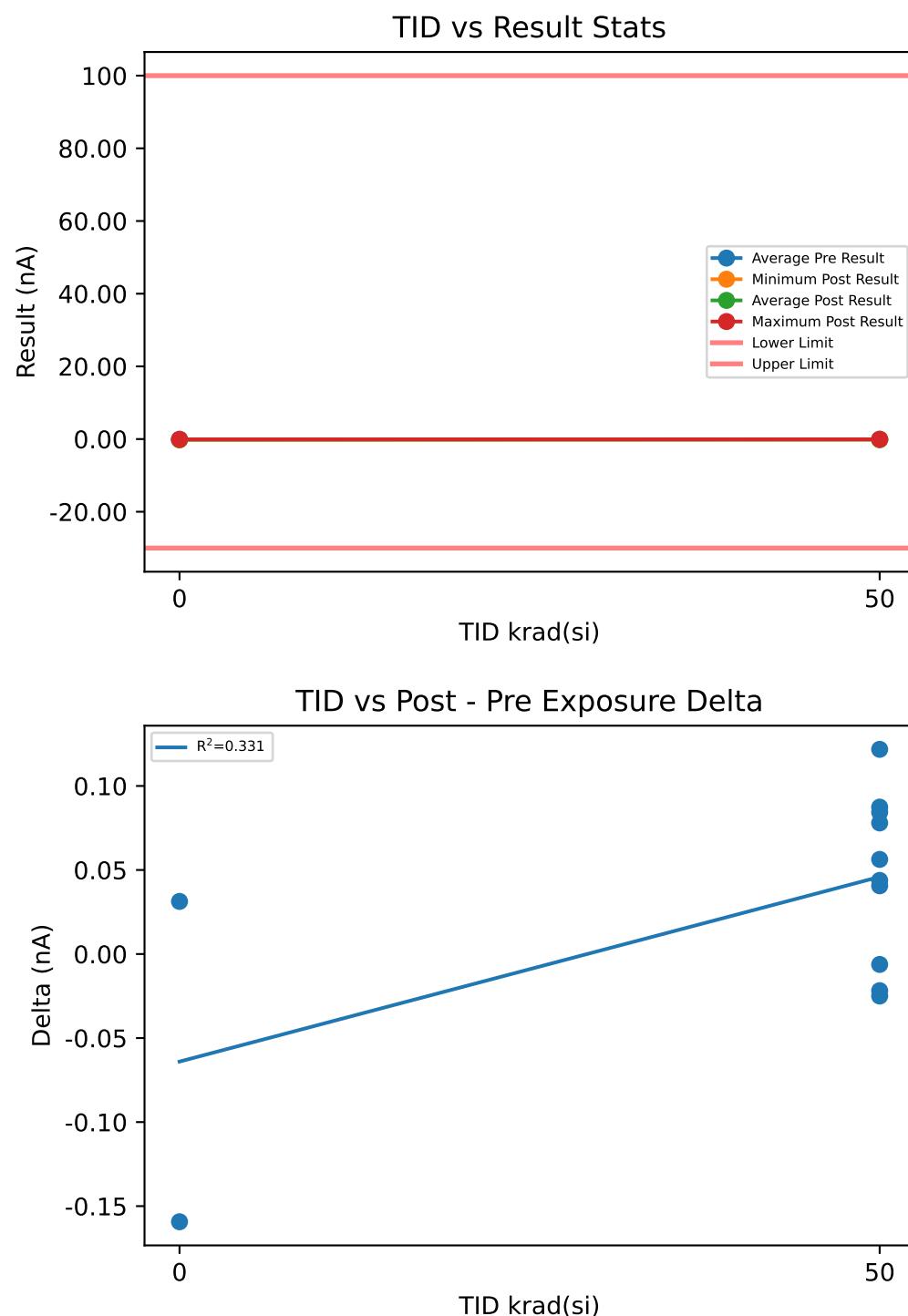
TID vs Post - Pre Exposure Delta



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        | 0.516            | 0.5166           | 0.5172           | 0.00084853       | 0.516             | 0.5167            | 0.5174            | 0.00098995        | 0         | 0.0001    | 0.0002    | 0.00014142 |
| 50       | 0.5119           | 0.51606          | 0.5181           | 0.0018524        | 0.4973            | 0.50849           | 0.5187            | 0.0091872         | -0.017    | -0.00757  | 0.0008    | 0.0080402  |

# Device Test: 16.15 I\_EN\_LEAK\_1V(LEAK|EN\_LEAK/EN/14/14/0/0/5/500kHz//@I\_EN\_LEAK\_1V)



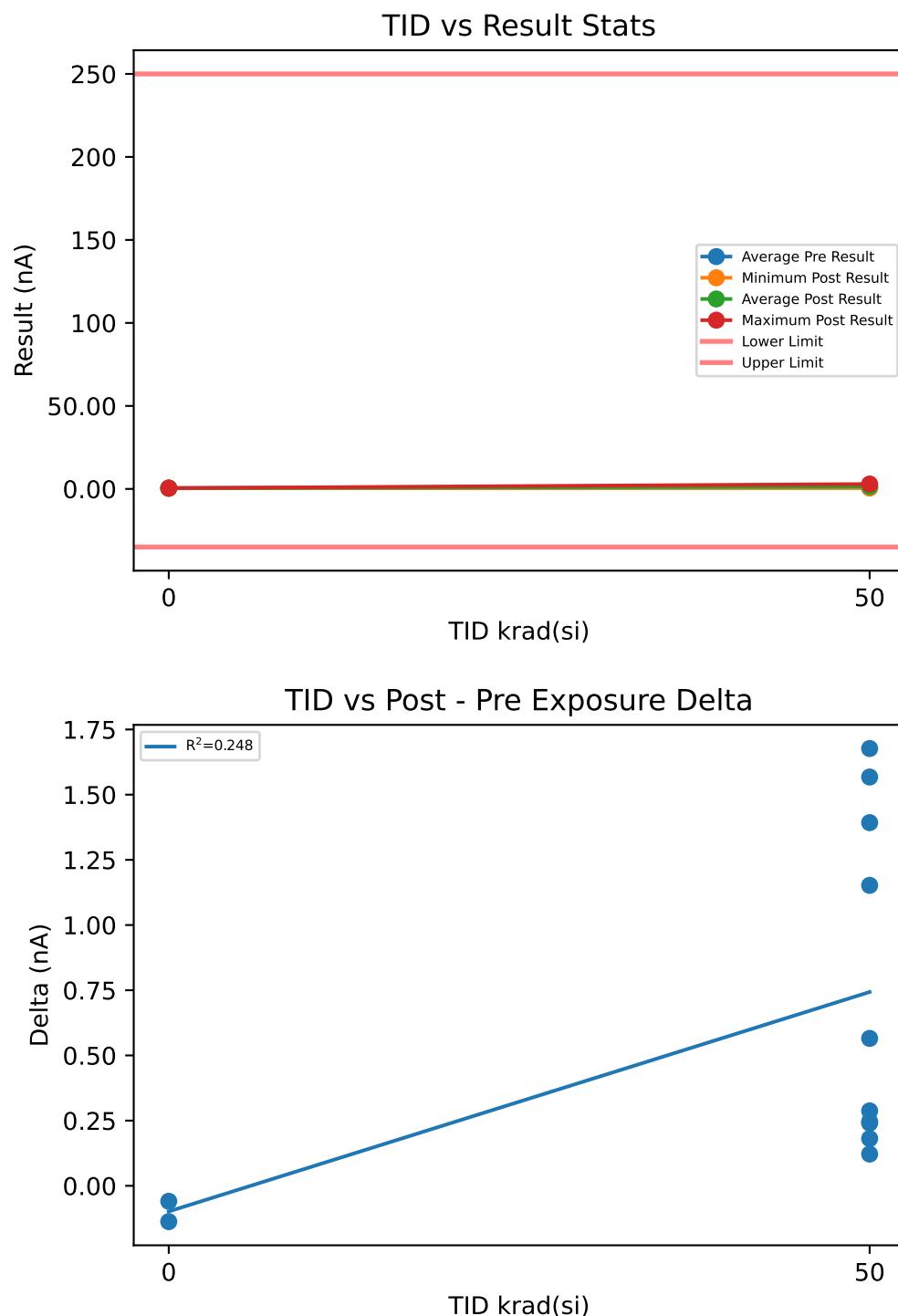
**Test Results (Lower Limit = -30.0, Upper Limit = 100.0 (nA))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.0802    | -0.2395     | -0.1593 |
| 2        | 0        | Correlation         | -0.1021    | -0.0708     | 0.0313  |
| 4        | 50       | Bias                | -0.1395    | -0.0521     | 0.0874  |
| 6        | 50       | Bias                | -0.1333    | -0.0927     | 0.0406  |
| 7        | 50       | Bias                | -0.0708    | -0.0958     | -0.025  |
| 8        | 50       | Bias                | -0.1021    | -0.1083     | -0.0062 |
| 9        | 50       | Bias                | -0.1833    | -0.127      | 0.0563  |
| 11       | 50       | Unbias              | -0.152     | -0.074      | 0.078   |
| 12       | 50       | Unbias              | -0.1302    | -0.0459     | 0.0843  |
| 13       | 50       | Unbias              | -0.1146    | -0.0708     | 0.0438  |
| 14       | 50       | Unbias              | -0.1458    | -0.1676     | -0.0218 |
| 15       | 50       | Unbias              | -0.177     | -0.0552     | 0.1218  |

**Test Statistics (nA)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.1021          | -0.09115         | -0.0802          | 0.015486         | -0.2395           | -0.15515          | -0.0708           | 0.11929           | -0.1593   | -0.064    | 0.0313    | 0.13477   |
| 50       | -0.1833          | -0.13486         | -0.0708          | 0.033613         | -0.1676           | -0.08894          | -0.0459           | 0.037965          | -0.025    | 0.04592   | 0.1218    | 0.049948  |

# Device Test: 16.16 I\_EN\_LEAK(LEAK|EN\_LEAK/EN/14/14/0/0/5/500kHz//@I\_EN\_LEAK)



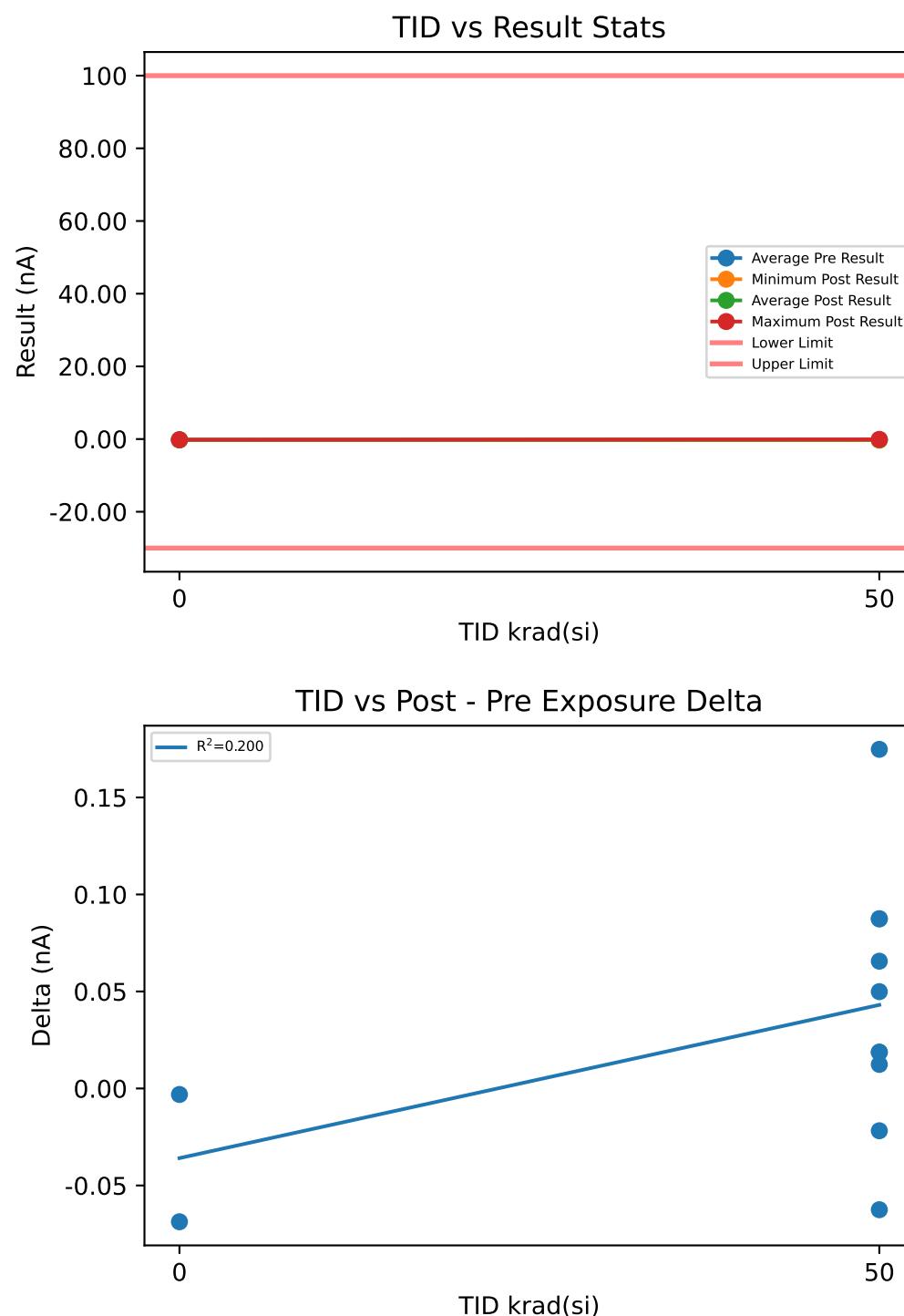
**Test Results (Lower Limit = -35.0, Upper Limit = 250.0 (nA))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5381     | 0.4007      | -0.1374 |
| 2        | 0        | Correlation         | 0.5256     | 0.4663      | -0.0593 |
| 4        | 50       | Bias                | 0.8066     | 2.3742      | 1.5676  |
| 6        | 50       | Bias                | 0.4319     | 0.6724      | 0.2405  |
| 7        | 50       | Bias                | 0.4819     | 0.7692      | 0.2873  |
| 8        | 50       | Bias                | 1.7903     | 2.9425      | 1.1522  |
| 9        | 50       | Bias                | 0.7879     | 2.1806      | 1.3927  |
| 11       | 50       | Unbias              | 0.3695     | 0.6161      | 0.2466  |
| 12       | 50       | Unbias              | 0.535      | 1.1002      | 0.5652  |
| 13       | 50       | Unbias              | 0.4475     | 0.6286      | 0.1811  |
| 14       | 50       | Unbias              | 0.4663     | 0.588       | 0.1217  |
| 15       | 50       | Unbias              | 0.8097     | 2.4866      | 1.6769  |

**Test Statistics (nA)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 0.5256           | 0.53185          | 0.5381           | 0.0088388        | 0.4007            | 0.4335            | 0.4663            | 0.046386          | -0.1374   | -0.09835  | -0.0593   | 0.055225  |
| 50       | 0.3695           | 0.69266          | 1.7903           | 0.42079          | 0.588             | 1.4358            | 2.9425            | 0.94232           | 0.1217    | 0.74318   | 1.6769    | 0.63084   |

# Device Test: 16.17 |\_EN\_LEAK\_1V(LEAK|EN\_LEAK/EN/14/14/0/1000/5/500kHz//@I\_EN\_LEAK\_1V)



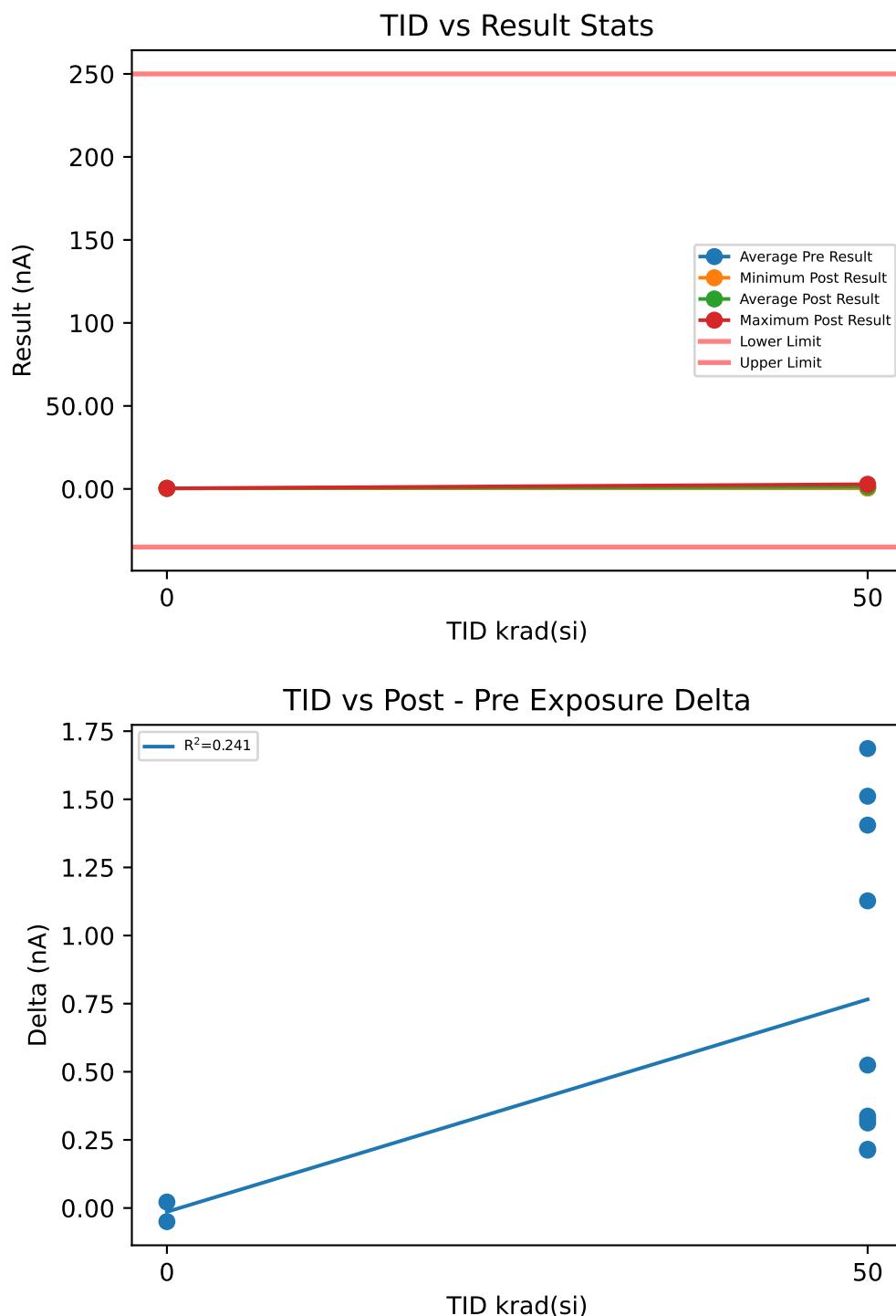
**Test Results (Lower Limit = -30.0, Upper Limit = 100.0 (nA))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.227     | -0.2301     | -0.0031 |
| 2        | 0        | Correlation         | -0.1239    | -0.1926     | -0.0687 |
| 4        | 50       | Bias                | -0.2801    | -0.1926     | 0.0875  |
| 6        | 50       | Bias                | -0.2582    | -0.1926     | 0.0656  |
| 7        | 50       | Bias                | -0.2145    | -0.2363     | -0.0218 |
| 8        | 50       | Bias                | -0.1645    | -0.1146     | 0.0499  |
| 9        | 50       | Bias                | -0.1957    | -0.177      | 0.0187  |
| 11       | 50       | Unbias              | -0.2488    | -0.1614     | 0.0874  |
| 12       | 50       | Unbias              | -0.1926    | -0.1739     | 0.0187  |
| 13       | 50       | Unbias              | -0.2488    | -0.3113     | -0.0625 |
| 14       | 50       | Unbias              | -0.2363    | -0.2239     | 0.0124  |
| 15       | 50       | Unbias              | -0.2613    | -0.0865     | 0.1748  |

**Test Statistics (nA)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.227           | -0.17545         | -0.1239          | 0.072903         | -0.2301           | -0.21135          | -0.1926           | 0.026517          | -0.0687   | -0.0359   | -0.0031   | 0.046386  |
| 50       | -0.2801          | -0.23008         | -0.1645          | 0.036723         | -0.3113           | -0.18701          | -0.0865           | 0.06287           | -0.0625   | 0.04307   | 0.1748    | 0.066104  |

# Device Test: 16.18 I\_EN\_LEAK(LEAK|EN\_LEAK/EN/14/14/0/1000/5/500kHz//@I\_EN\_LEAK)



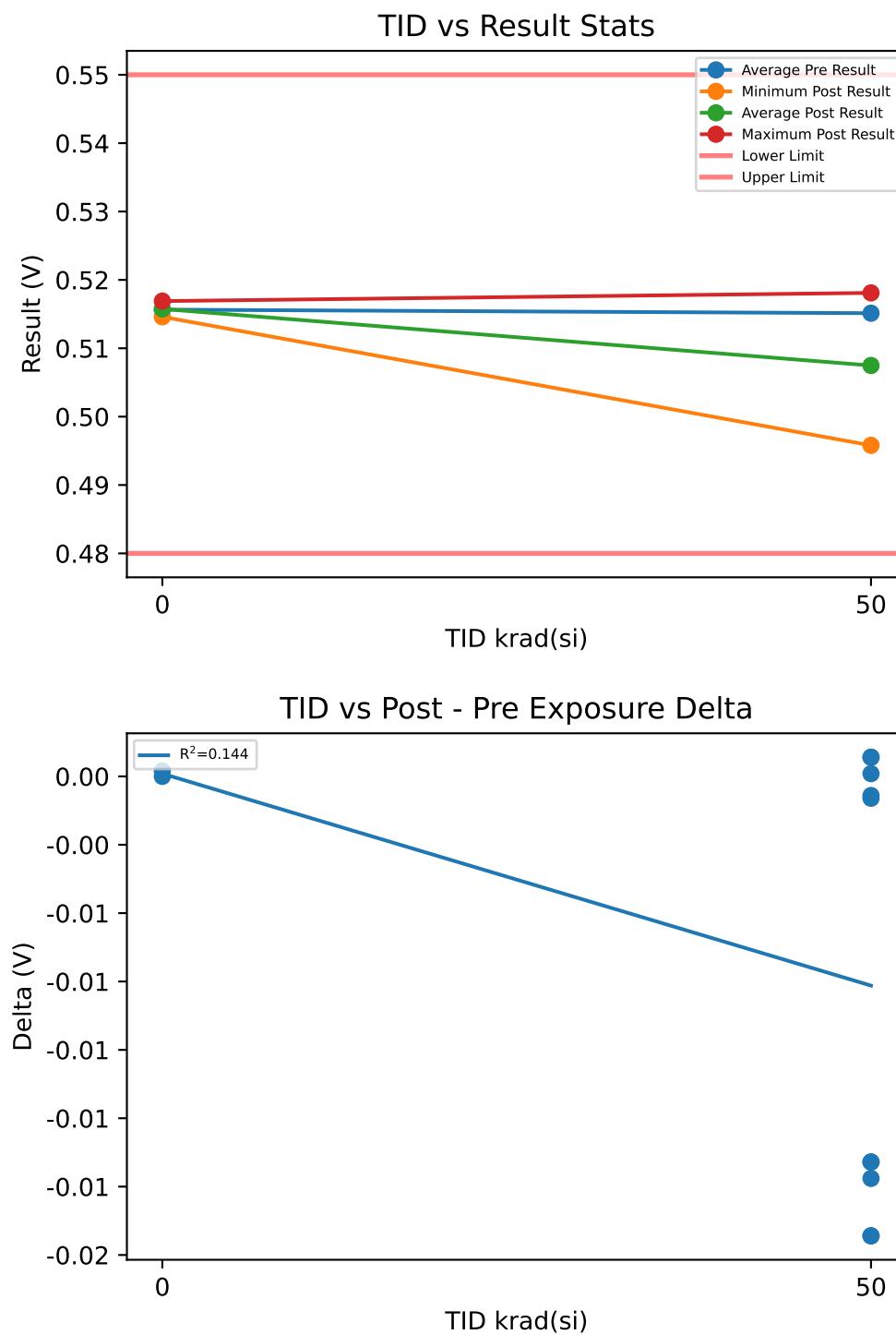
**Test Results (Lower Limit = -35.0, Upper Limit = 250.0 (nA))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 0.3257     | 0.3476      | 0.0219 |
| 2        | 0        | Correlation         | 0.3851     | 0.3351      | -0.05  |
| 4        | 50       | Bias                | 0.5755     | 2.2618      | 1.6863 |
| 6        | 50       | Bias                | 0.3382     | 0.663       | 0.3248 |
| 7        | 50       | Bias                | 0.3476     | 0.6848      | 0.3372 |
| 8        | 50       | Bias                | 1.6778     | 2.8051      | 1.1273 |
| 9        | 50       | Bias                | 0.613      | 2.0182      | 1.4052 |
| 11       | 50       | Unbias              | 0.3101     | 0.5225      | 0.2124 |
| 12       | 50       | Unbias              | 0.4694     | 0.994       | 0.5246 |
| 13       | 50       | Unbias              | 0.3164     | 0.5318      | 0.2154 |
| 14       | 50       | Unbias              | 0.257      | 0.5693      | 0.3123 |
| 15       | 50       | Unbias              | 0.7161     | 2.2274      | 1.5113 |

**Test Statistics (nA)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 0.3257           | 0.3554           | 0.3851           | 0.042002         | 0.3351            | 0.34135           | 0.3476            | 0.0088388         | -0.05     | -0.01405  | 0.0219    | 0.050841  |
| 50       | 0.257            | 0.56211          | 1.6778           | 0.42071          | 0.5225            | 1.3278            | 2.8051            | 0.89225           | 0.2124    | 0.76568   | 1.6863    | 0.59571   |

# Device Test: 16.2 V\_EN\_FALL(LEVEL|EN\_FALL/EN/4.5/4.5/0/0/4.5/500kHz//@V\_EN\_FALL)



**Test Results (Lower Limit = 0.48, Upper Limit = 0.55 (V))**

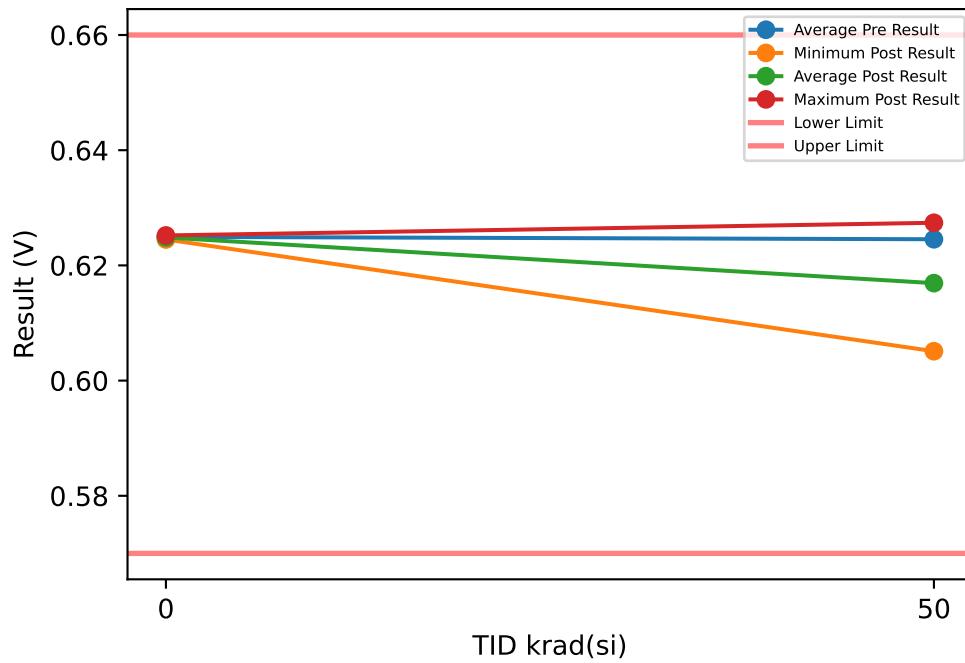
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5167     | 0.5169      | 0.0002  |
| 2        | 0        | Correlation         | 0.5146     | 0.5146      | 0       |
| 4        | 50       | Bias                | 0.5105     | 0.4958      | -0.0147 |
| 6        | 50       | Bias                | 0.5146     | 0.4978      | -0.0168 |
| 7        | 50       | Bias                | 0.5154     | 0.5013      | -0.0141 |
| 8        | 50       | Bias                | 0.5146     | 0.5005      | -0.0141 |
| 9        | 50       | Bias                | 0.5154     | 0.4986      | -0.0168 |
| 11       | 50       | Unbias              | 0.514      | 0.5132      | -0.0008 |
| 12       | 50       | Unbias              | 0.5166     | 0.5167      | 0.0001  |
| 13       | 50       | Unbias              | 0.5167     | 0.5174      | 0.0007  |
| 14       | 50       | Unbias              | 0.5161     | 0.5154      | -0.0007 |
| 15       | 50       | Unbias              | 0.5174     | 0.5181      | 0.0007  |

**Test Statistics (V)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.5146           | 0.51565          | 0.5167           | 0.0014849        | 0.5146            | 0.51575           | 0.5169            | 0.0016263         | 0         | 0.0001    | 0.0002    | 0.00014142 |
| 50       | 0.5105           | 0.51513          | 0.5174           | 0.0019477        | 0.4958            | 0.50748           | 0.5181            | 0.0093544         | -0.0168   | -0.00765  | 0.0007    | 0.0081315  |

# Device Test: 16.4 V\_EN\_RISE(LEVEL|EN\_RISE/EN/5/5/0/0/5/500kHz//@V\_EN\_RISE)

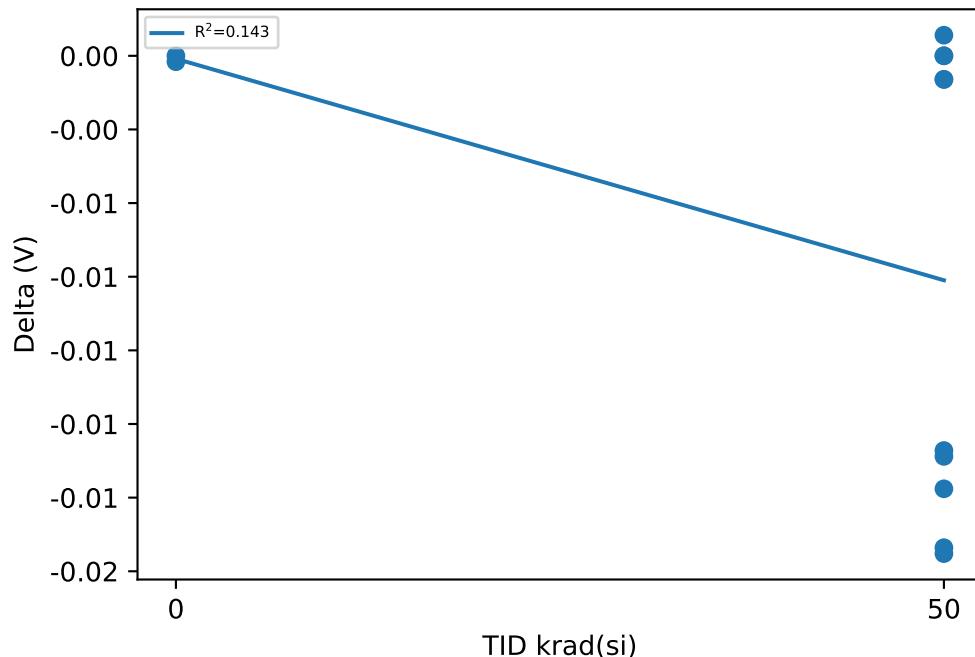
TID vs Result Stats



Test Results (Lower Limit = 0.57, Upper Limit = 0.66 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.6252     | 0.6252      | 0       |
| 2        | 0        | Correlation         | 0.6247     | 0.6245      | -0.0002 |
| 4        | 50       | Bias                | 0.6198     | 0.6051      | -0.0147 |
| 6        | 50       | Bias                | 0.6247     | 0.6078      | -0.0169 |
| 7        | 50       | Bias                | 0.6247     | 0.6111      | -0.0136 |
| 8        | 50       | Bias                | 0.6232     | 0.6098      | -0.0134 |
| 9        | 50       | Bias                | 0.6245     | 0.6078      | -0.0167 |
| 11       | 50       | Unbias              | 0.6233     | 0.6225      | -0.0008 |
| 12       | 50       | Unbias              | 0.6265     | 0.6265      | 0       |
| 13       | 50       | Unbias              | 0.6267     | 0.6267      | 0       |
| 14       | 50       | Unbias              | 0.6253     | 0.6245      | -0.0008 |
| 15       | 50       | Unbias              | 0.6267     | 0.6274      | 0.0007  |

TID vs Post - Pre Exposure Delta

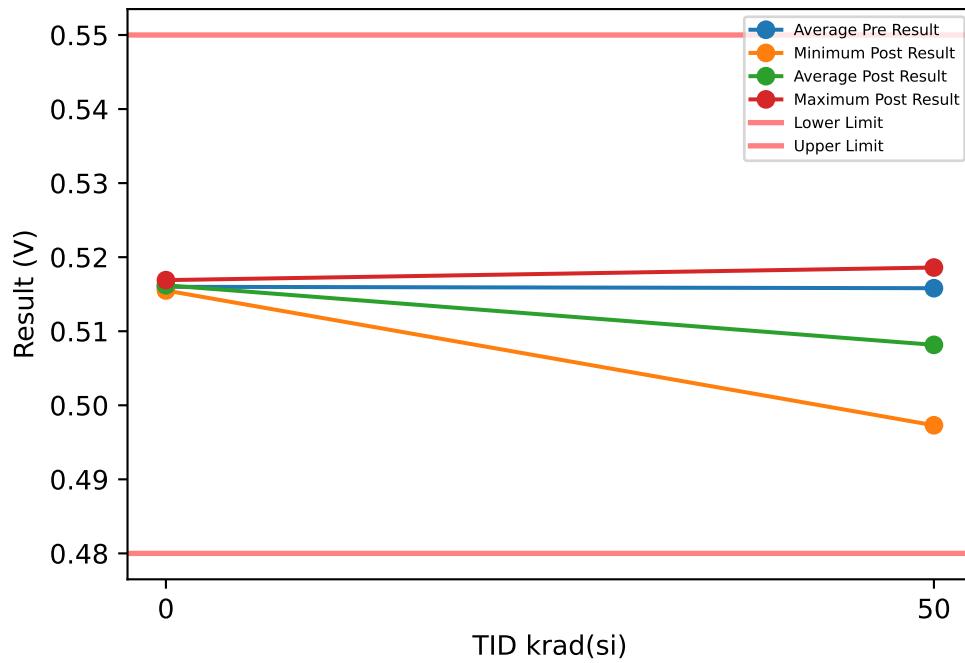


Test Statistics (V)

| 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        | 0.6247           | 0.62495          | 0.6252           | 0.00035355       | 0.6245            | 0.62485           | 0.6252            | 0.00049497        | -0.0002   | -0.0001   | 0         | 0.00014142 |
| 50       | 0.6198           | 0.62454          | 0.6267           | 0.0020977        | 0.6051            | 0.61692           | 0.6274            | 0.0092884         | -0.0169   | -0.00762  | 0.0007    | 0.0079319  |

# Device Test: 16.5 V\_EN\_FALL(LEVEL|EN\_FALL/EN/5/5/0/0/5/500kHz//@V\_EN\_FALL)

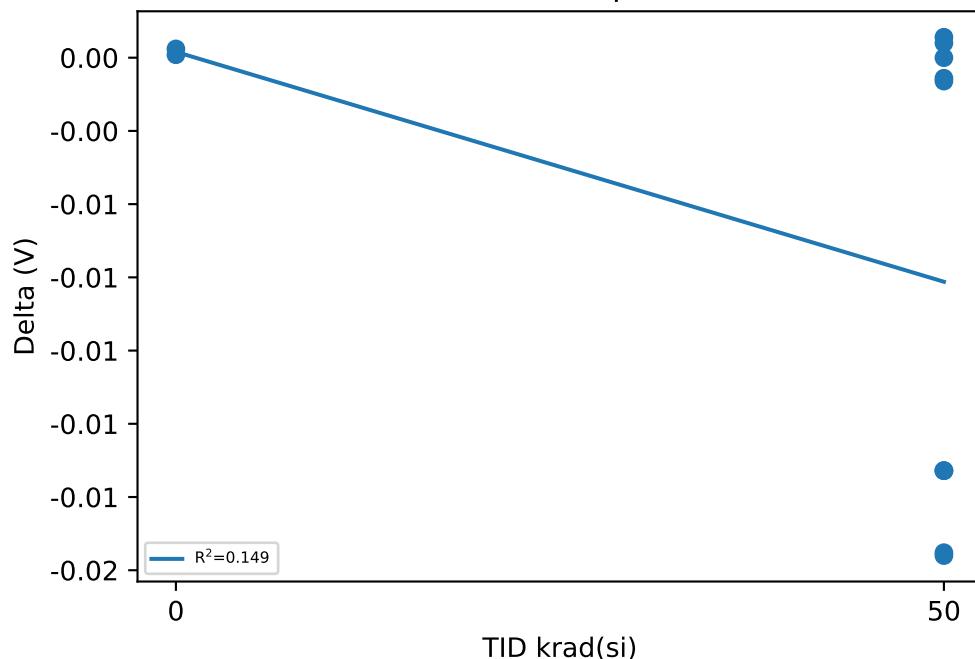
TID vs Result Stats



Test Results (Lower Limit = 0.48, Upper Limit = 0.55 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5166     | 0.5169      | 0.0003  |
| 2        | 0        | Correlation         | 0.5154     | 0.5155      | 0.0001  |
| 4        | 50       | Bias                | 0.5114     | 0.4973      | -0.0141 |
| 6        | 50       | Bias                | 0.5154     | 0.4984      | -0.017  |
| 7        | 50       | Bias                | 0.516      | 0.5019      | -0.0141 |
| 8        | 50       | Bias                | 0.5154     | 0.5013      | -0.0141 |
| 9        | 50       | Bias                | 0.5154     | 0.4985      | -0.0169 |
| 11       | 50       | Unbias              | 0.5147     | 0.514       | -0.0007 |
| 12       | 50       | Unbias              | 0.5174     | 0.5174      | 0       |
| 13       | 50       | Unbias              | 0.5174     | 0.5181      | 0.0007  |
| 14       | 50       | Unbias              | 0.5169     | 0.5161      | -0.0008 |
| 15       | 50       | Unbias              | 0.5181     | 0.5186      | 0.0005  |

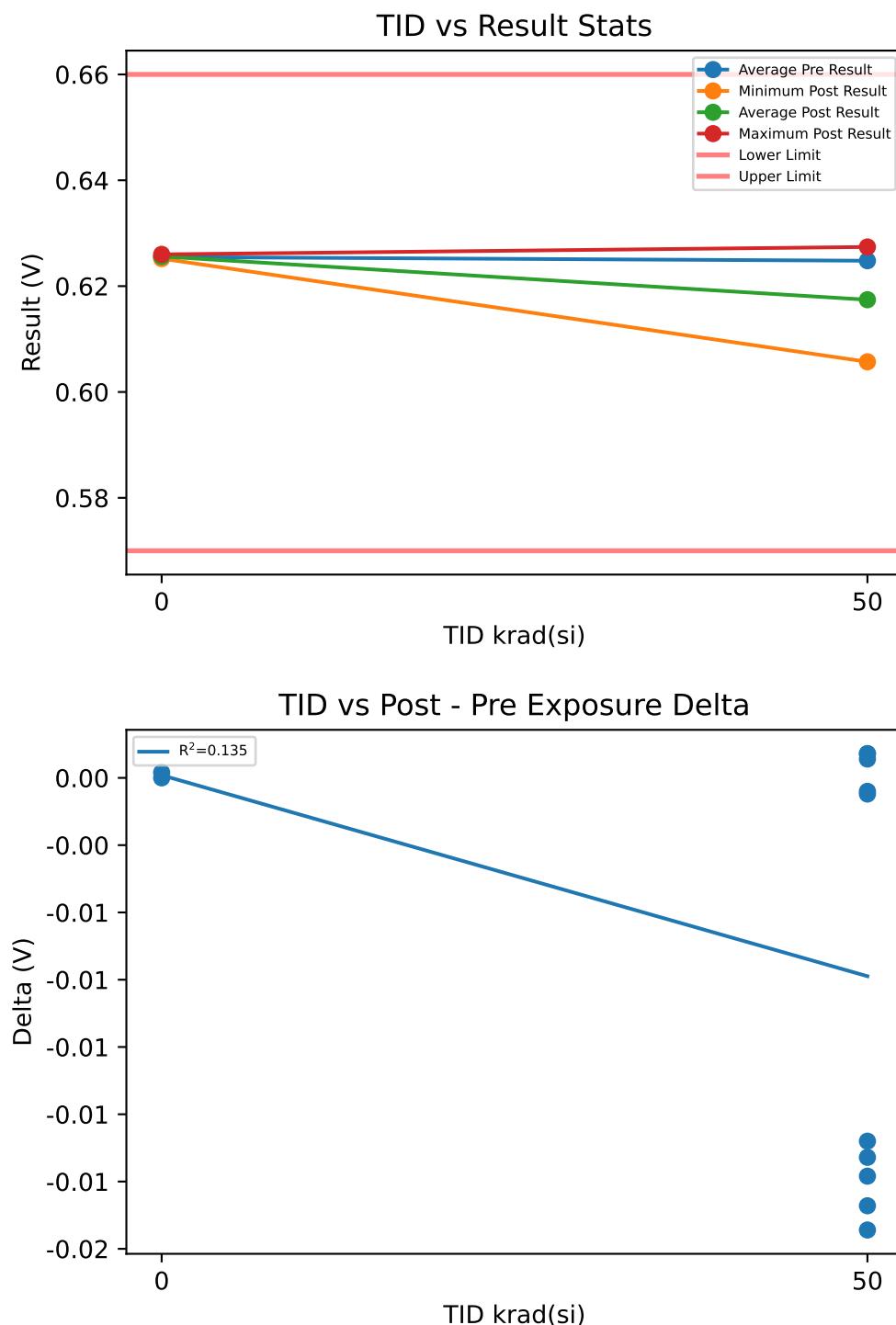
TID vs Post - Pre Exposure Delta



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        | 0.5154           | 0.516            | 0.5166           | 0.00084853       | 0.5155            | 0.5162            | 0.5169            | 0.00098995        | 0.0001    | 0.0002    | 0.0003    | 0.00014142 |
| 50       | 0.5114           | 0.51581          | 0.5181           | 0.0019064        | 0.4973            | 0.50816           | 0.5186            | 0.0093279         | -0.017    | -0.00765  | 0.0007    | 0.0080807  |

# Device Test: 16.7 V\_EN\_RISE(LEVEL|EN\_RISE/EN/12/12/0/0/5/500kHz//@V\_EN\_RISE)



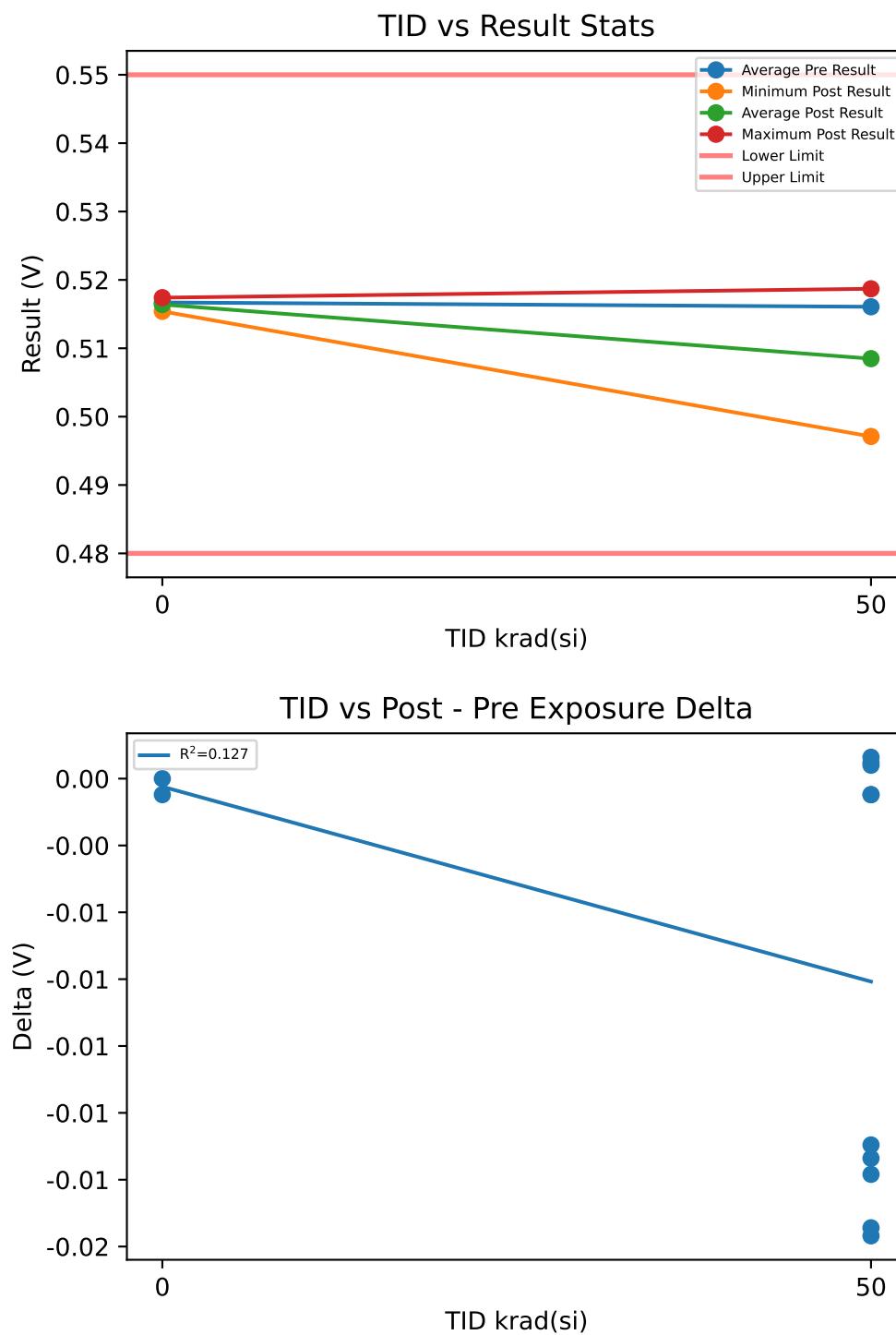
**Test Results (Lower Limit = 0.57, Upper Limit = 0.66 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.6258     | 0.626       | 0.0002  |
| 2        | 0        | Correlation         | 0.6252     | 0.6252      | 0       |
| 4        | 50       | Bias                | 0.6205     | 0.6057      | -0.0148 |
| 6        | 50       | Bias                | 0.6245     | 0.6077      | -0.0168 |
| 7        | 50       | Bias                | 0.6252     | 0.6111      | -0.0141 |
| 8        | 50       | Bias                | 0.6239     | 0.6104      | -0.0135 |
| 9        | 50       | Bias                | 0.6245     | 0.6086      | -0.0159 |
| 11       | 50       | Unbias              | 0.6238     | 0.6233      | -0.0005 |
| 12       | 50       | Unbias              | 0.6267     | 0.6274      | 0.0007  |
| 13       | 50       | Unbias              | 0.6265     | 0.6274      | 0.0009  |
| 14       | 50       | Unbias              | 0.6259     | 0.6253      | -0.0006 |
| 15       | 50       | Unbias              | 0.6265     | 0.6274      | 0.0009  |

**Test Statistics (V)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.6252           | 0.6255           | 0.6258           | 0.00042426       | 0.6252            | 0.6256            | 0.626             | 0.00056569        | 0         | 0.0001    | 0.0002    | 0.00014142 |
| 50       | 0.6205           | 0.6248           | 0.6267           | 0.0018631        | 0.6057            | 0.61743           | 0.6274            | 0.0093946         | -0.0168   | -0.00737  | 0.0009    | 0.0081288  |

# Device Test: 16.8 V\_EN\_FALL(LEVEL|EN\_FALL/EN/12/12/0/0/5/500kHz//@V\_EN\_FALL)



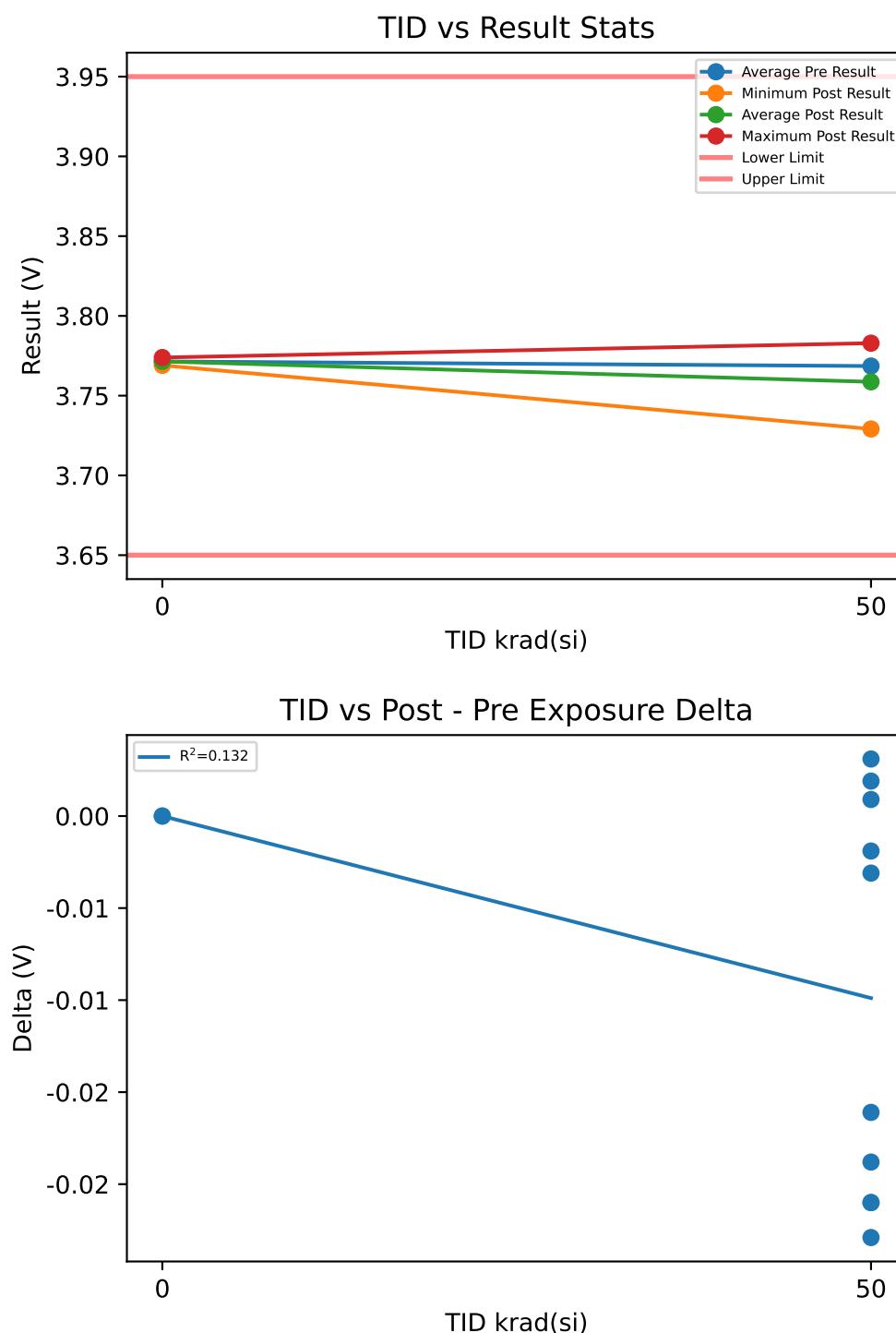
**Test Results (Lower Limit = 0.48, Upper Limit = 0.55 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5174     | 0.5174      | 0       |
| 2        | 0        | Correlation         | 0.516      | 0.5154      | -0.0006 |
| 4        | 50       | Bias                | 0.5119     | 0.4971      | -0.0148 |
| 6        | 50       | Bias                | 0.5161     | 0.499       | -0.0171 |
| 7        | 50       | Bias                | 0.5167     | 0.5025      | -0.0142 |
| 8        | 50       | Bias                | 0.5155     | 0.5018      | -0.0137 |
| 9        | 50       | Bias                | 0.5161     | 0.4993      | -0.0168 |
| 11       | 50       | Unbias              | 0.5146     | 0.514       | -0.0006 |
| 12       | 50       | Unbias              | 0.5174     | 0.5182      | 0.0008  |
| 13       | 50       | Unbias              | 0.5176     | 0.5181      | 0.0005  |
| 14       | 50       | Unbias              | 0.5167     | 0.5161      | -0.0006 |
| 15       | 50       | Unbias              | 0.5181     | 0.5187      | 0.0006  |

**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        | 0.516            | 0.5167           | 0.5174           | 0.00098995       | 0.5154            | 0.5164            | 0.5174            | 0.0014142         | -0.0006   | -0.0003   | 0         | 0.00042426 |
| 50       | 0.5119           | 0.51607          | 0.5181           | 0.001792         | 0.4971            | 0.50848           | 0.5187            | 0.0092137         | -0.0171   | -0.00759  | 0.0008    | 0.0082254  |

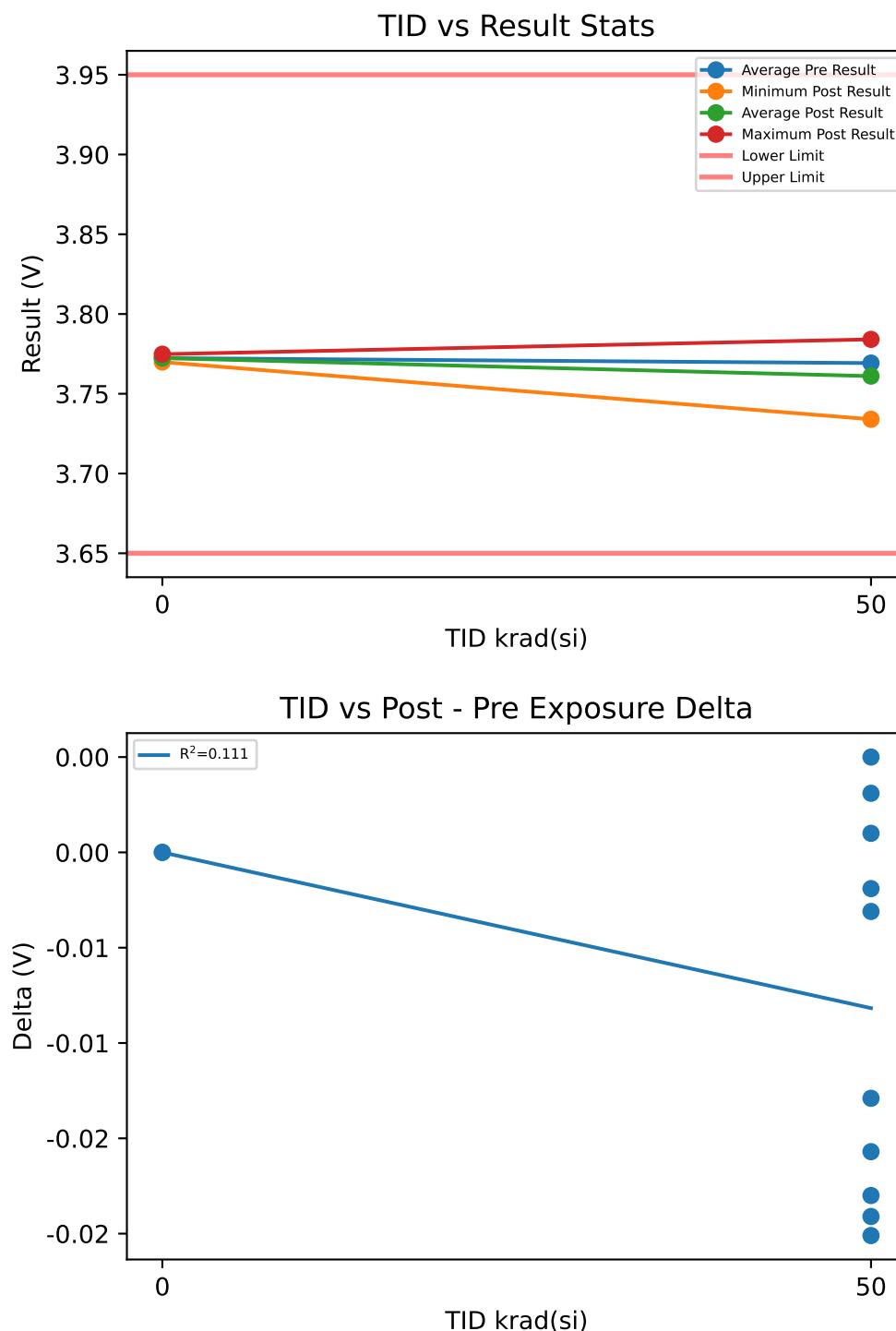
# Device Test: 17.1 PVIN\_UVLO\_RISE(UVLO|PVIN\_RISE/PVIN/4.5/4.5/0/1000/4.5/100kHz//@PVIN\_UVLO\_RISE)



| Test Results (Lower Limit = 3.65, Upper Limit = 3.95 (V)) |          |                     |            |             |         |
|---|----------|---------------------|------------|-------------|---------|
| Serial #  | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
| 1   | 0        | Correlation         | 3.7739     | 3.7739      | 0       |
| 2   | 0        | Correlation         | 3.769      | 3.769       | 0       |
| 4   | 50       | Bias                | 3.752      | 3.7291      | -0.0229 |
| 6   | 50       | Bias                | 3.7578     | 3.739       | -0.0188 |
| 7   | 50       | Bias                | 3.7739     | 3.7578      | -0.0161 |
| 8   | 50       | Bias                | 3.768      | 3.747       | -0.021  |
| 9   | 50       | Bias                | 3.7779     | 3.7569      | -0.021  |
| 11  | 50       | Unbias              | 3.7761     | 3.773       | -0.0031 |
| 12  | 50       | Unbias              | 3.782      | 3.7801      | -0.0019 |
| 13  | 50       | Unbias              | 3.7569     | 3.76        | 0.0031  |
| 14  | 50       | Unbias              | 3.76       | 3.7609      | 0.0009  |
| 15  | 50       | Unbias              | 3.781      | 3.7829      | 0.0019  |

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 3.769            | 3.7714           | 3.7739           | 0.0034648        | 3.769             | 3.7714            | 3.7739            | 0.0034648         | 0         | 0         | 0         | 0         |
| 50       | 3.752            | 3.7686           | 3.782            | 0.011093         | 3.7291            | 3.7587            | 3.7829            | 0.017191          | -0.0229   | -0.00989  | 0.0031    | 0.010894  |

# Device Test: 17.10 PVIN\_UVLO\_RISE(UVLO|PVIN\_RISE/PVIN/4.5/4.5/0/1000/4.5/500kHz//@PVIN\_UVLO\_RISE)



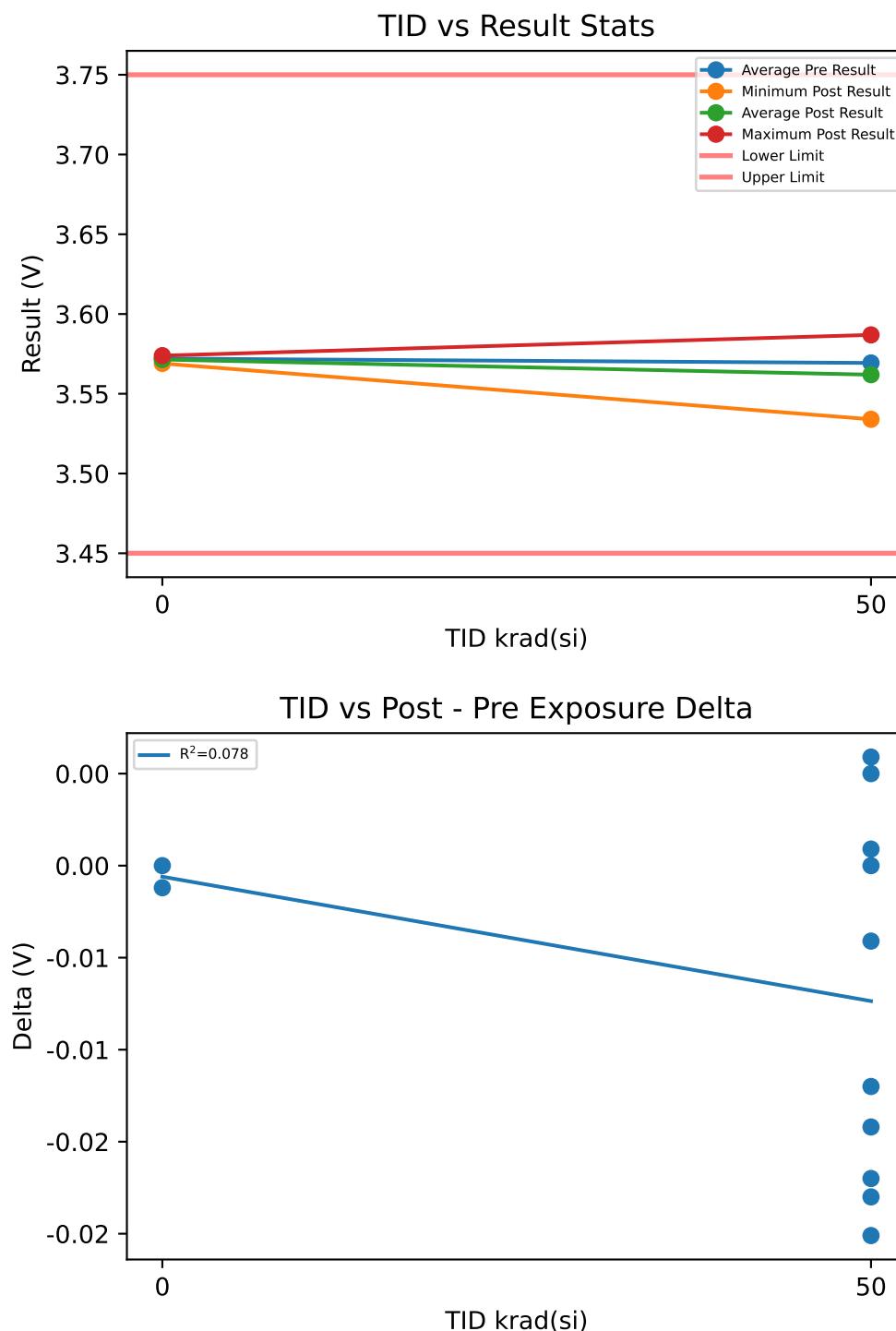
**Test Results (Lower Limit = 3.65, Upper Limit = 3.95 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.7748     | 3.7748      | 0       |
| 2        | 0        | Correlation         | 3.7699     | 3.7699      | 0       |
| 4        | 50       | Bias                | 3.752      | 3.734       | -0.018  |
| 6        | 50       | Bias                | 3.7578     | 3.7449      | -0.0129 |
| 7        | 50       | Bias                | 3.7748     | 3.7591      | -0.0157 |
| 8        | 50       | Bias                | 3.768      | 3.7489      | -0.0191 |
| 9        | 50       | Bias                | 3.7779     | 3.7578      | -0.0201 |
| 11       | 50       | Unbias              | 3.777      | 3.7739      | -0.0031 |
| 12       | 50       | Unbias              | 3.7829     | 3.781       | -0.0019 |
| 13       | 50       | Unbias              | 3.76       | 3.765       | 0.005   |
| 14       | 50       | Unbias              | 3.7609     | 3.7619      | 0.001   |
| 15       | 50       | Unbias              | 3.781      | 3.7841      | 0.0031  |

**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        | 3.7699           | 3.7723           | 3.7748           | 0.0034648        | 3.7699            | 3.7723            | 3.7748            | 0.0034648         | 0         | 0         | 0         | 0         |
| 50       | 3.752            | 3.7692           | 3.7829           | 0.010932         | 3.734             | 3.7611            | 3.7841            | 0.015865          | -0.0201   | -0.00817  | 0.005     | 0.0099279 |

# Device Test: 17.11 PVIN\_UVLO\_FALL(UVLO|PVIN\_FALL/PVIN/4.5/4.5/0/1000/4.5/500kHz//@PVIN\_UVLO\_FALL)



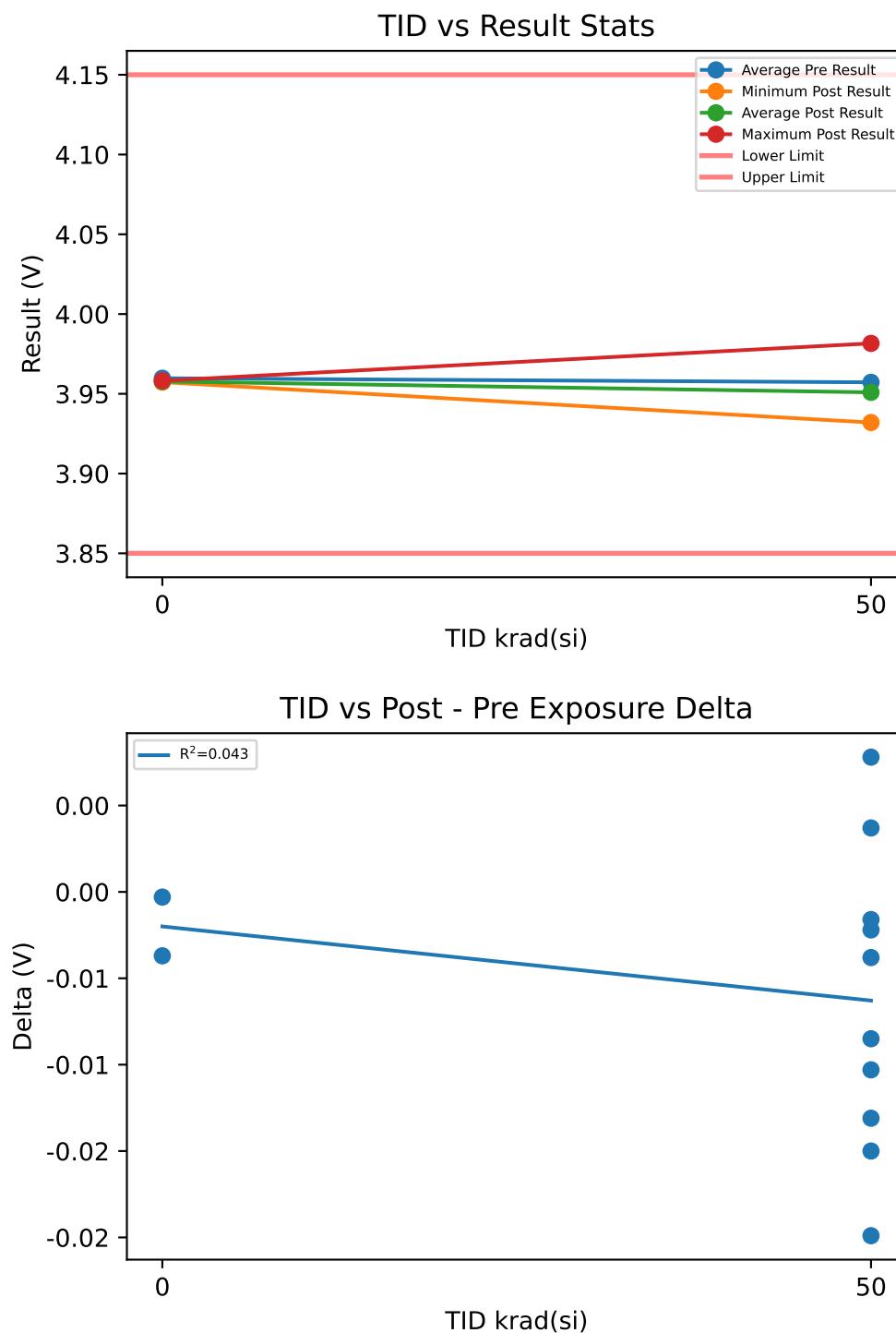
**Test Results (Lower Limit = 3.45, Upper Limit = 3.75 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.5751     | 3.5739      | -0.0012 |
| 2        | 0        | Correlation         | 3.569      | 3.569       | 0       |
| 4        | 50       | Bias                | 3.5541     | 3.534       | -0.0201 |
| 6        | 50       | Bias                | 3.5581     | 3.5461      | -0.012  |
| 7        | 50       | Bias                | 3.5751     | 3.5609      | -0.0142 |
| 8        | 50       | Bias                | 3.569      | 3.551       | -0.018  |
| 9        | 50       | Bias                | 3.577      | 3.56        | -0.017  |
| 11       | 50       | Unbias              | 3.5761     | 3.572       | -0.0041 |
| 12       | 50       | Unbias              | 3.581      | 3.581       | 0       |
| 13       | 50       | Unbias              | 3.56       | 3.5659      | 0.0059  |
| 14       | 50       | Unbias              | 3.5609     | 3.5618      | 0.0009  |
| 15       | 50       | Unbias              | 3.5819     | 3.5869      | 0.005   |

**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        | 3.569            | 3.572            | 3.5751           | 0.0043134        | 3.569             | 3.5715            | 3.5739            | 0.0034648         | -0.0012   | -0.0006   | 0         | 0.00084853 |
| 50       | 3.5541           | 3.5693           | 3.5819           | 0.010266         | 3.534             | 3.562             | 3.5869            | 0.015844          | -0.0201   | -0.00736  | 0.0059    | 0.009991   |

# Device Test: 17.13 VIN\_UVLO\_RISE(UVLO|VIN\_RISE/VIN/4.5/4.5/0/1000/4.5/500kHz//@VIN\_UVLO\_RISE)



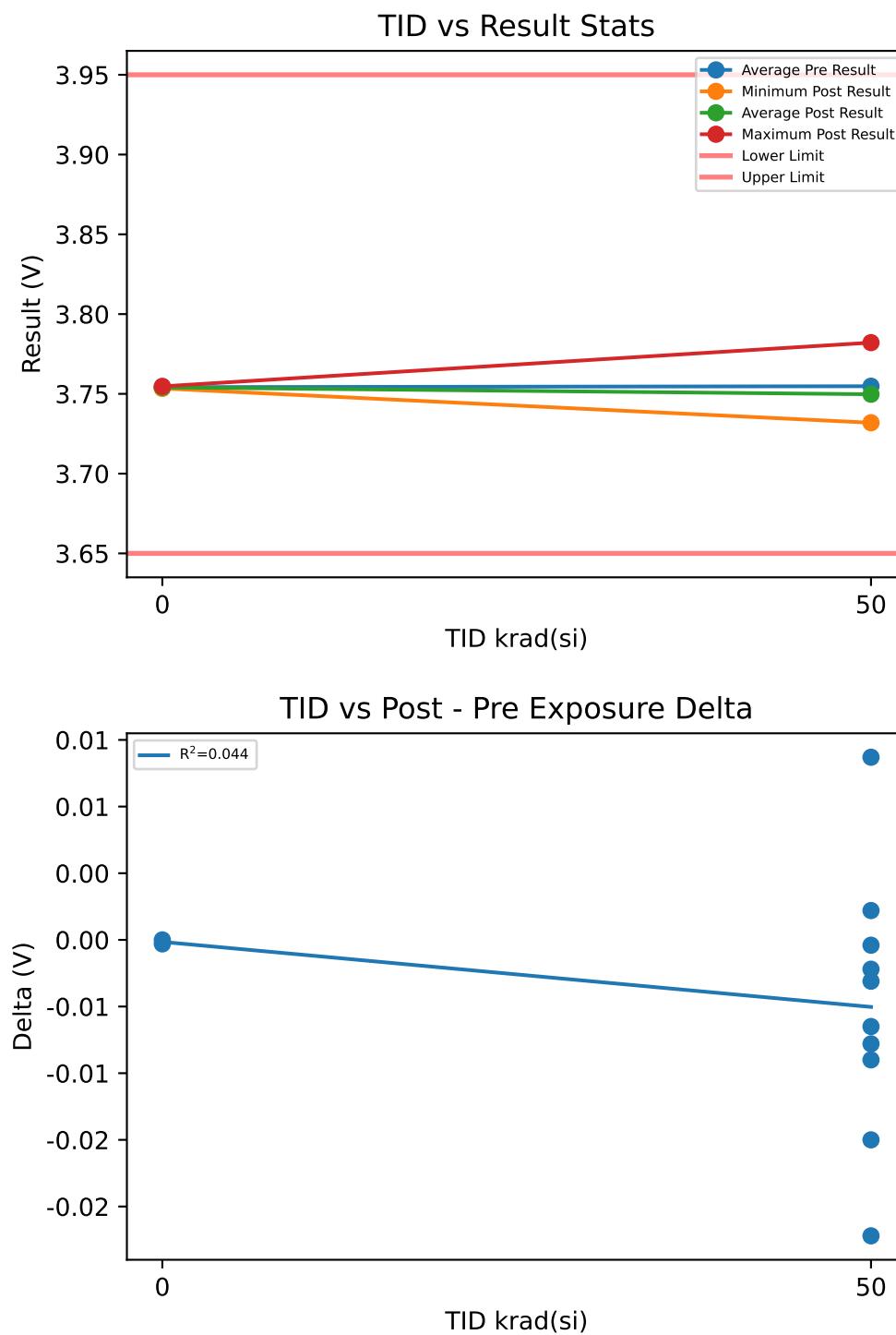
**Test Results (Lower Limit = 3.85, Upper Limit = 4.15 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.9585     | 3.9582      | -0.0003 |
| 2        | 0        | Correlation         | 3.961      | 3.9573      | -0.0037 |
| 4        | 50       | Bias                | 3.9519     | 3.932       | -0.0199 |
| 6        | 50       | Bias                | 3.9476     | 3.9391      | -0.0085 |
| 7        | 50       | Bias                | 3.9504     | 3.9354      | -0.015  |
| 8        | 50       | Bias                | 3.9526     | 3.9423      | -0.0103 |
| 9        | 50       | Bias                | 3.9607     | 3.9476      | -0.0131 |
| 11       | 50       | Unbias              | 3.9738     | 3.9816      | 0.0078  |
| 12       | 50       | Unbias              | 3.9573     | 3.9557      | -0.0016 |
| 13       | 50       | Unbias              | 3.9548     | 3.9526      | -0.0022 |
| 14       | 50       | Unbias              | 3.9573     | 3.9535      | -0.0038 |
| 15       | 50       | Unbias              | 3.9657     | 3.9694      | 0.0037  |

**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        | 3.9585           | 3.9597           | 3.961            | 0.0017678        | 3.9573            | 3.9577            | 3.9582            | 0.0006364         | -0.0037   | -0.002    | -0.0003   | 0.0024042 |
| 50       | 3.9476           | 3.9572           | 3.9738           | 0.0078421        | 3.932             | 3.9509            | 3.9816            | 0.015416          | -0.0199   | -0.00629  | 0.0078    | 0.008639  |

# Device Test: 17.14 VIN\_UVLO\_FALL(UVLO|VIN\_FALL/VIN/4.5/4.5/0/1000/4.5/500kHz//@VIN\_UVLO\_FALL)

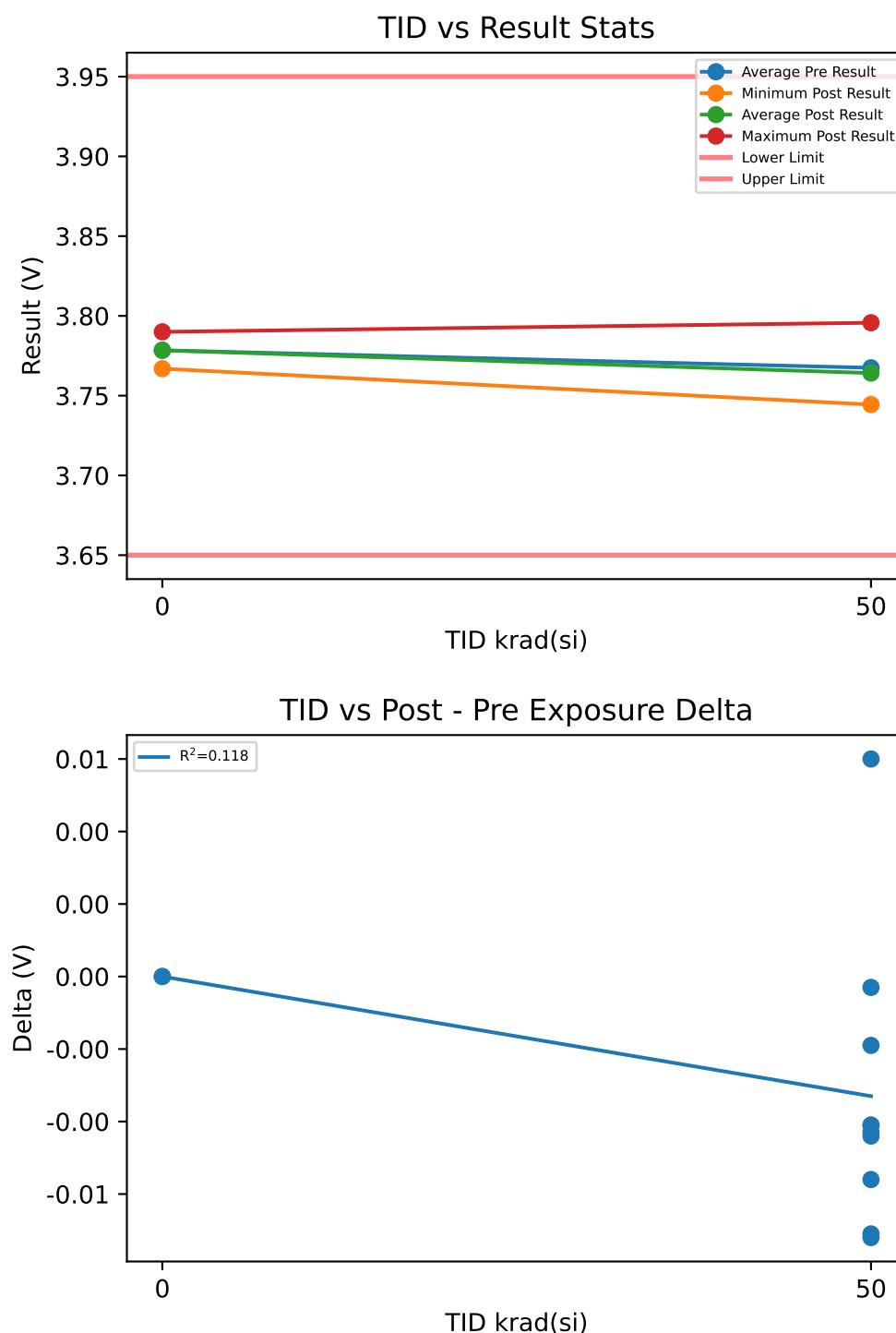


**Test Results (Lower Limit = 3.65, Upper Limit = 3.95 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.7547     | 3.7547      | 0       |
| 2        | 0        | Correlation         | 3.7537     | 3.7534      | -0.0003 |
| 4        | 50       | Bias                | 3.7541     | 3.7319      | -0.0222 |
| 6        | 50       | Bias                | 3.7478     | 3.7388      | -0.009  |
| 7        | 50       | Bias                | 3.7497     | 3.7347      | -0.015  |
| 8        | 50       | Bias                | 3.7506     | 3.7428      | -0.0078 |
| 9        | 50       | Bias                | 3.7537     | 3.7472      | -0.0065 |
| 11       | 50       | Unbias              | 3.7684     | 3.7821      | 0.0137  |
| 12       | 50       | Unbias              | 3.7541     | 3.7537      | -0.0004 |
| 13       | 50       | Unbias              | 3.7519     | 3.7497      | -0.0022 |
| 14       | 50       | Unbias              | 3.7578     | 3.7547      | -0.0031 |
| 15       | 50       | Unbias              | 3.7597     | 3.7619      | 0.0022  |

**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        | 3.7537           | 3.7542           | 3.7547           | 0.00070711       | 3.7534            | 3.7541            | 3.7547            | 0.00091924        | -0.0003   | -0.00015  | 0         | 0.00021213 |
| 50       | 3.7478           | 3.7548           | 3.7684           | 0.0059742        | 3.7319            | 3.7498            | 3.7821            | 0.014735          | -0.0222   | -0.00503  | 0.0137    | 0.0097528  |

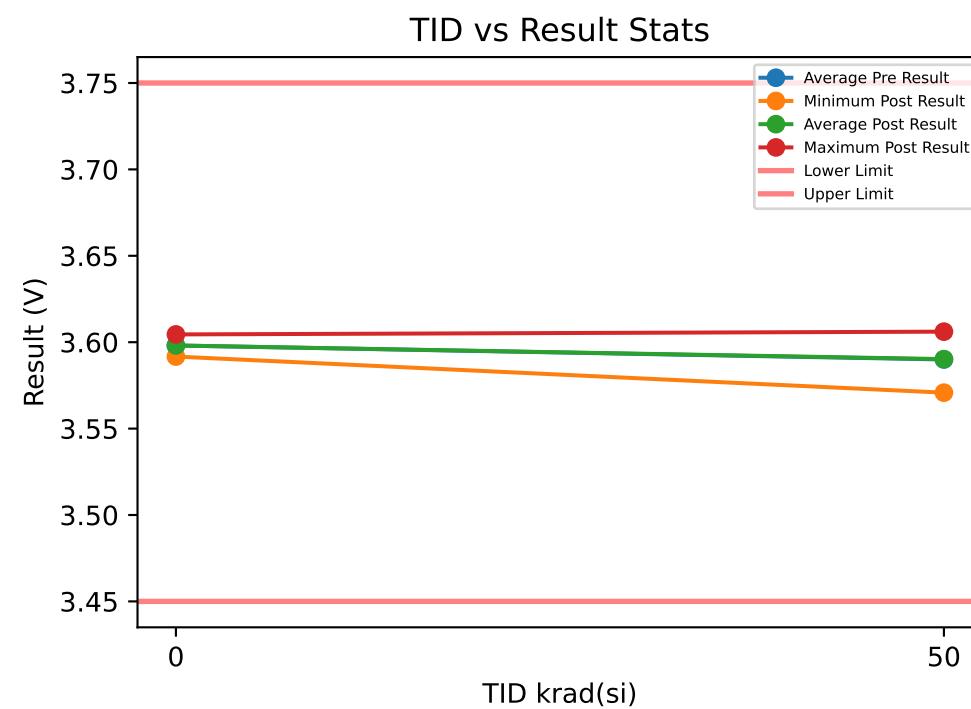


**Test Results (Lower Limit = 3.65, Upper Limit = 3.95 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.7669     | 3.7669      | 0       |
| 2        | 0        | Correlation         | 3.79       | 3.79        | 0       |
| 4        | 50       | Bias                | 3.7588     | 3.7544      | -0.0044 |
| 6        | 50       | Bias                | 3.7707     | 3.7666      | -0.0041 |
| 7        | 50       | Bias                | 3.7669     | 3.7626      | -0.0043 |
| 8        | 50       | Bias                | 3.7485     | 3.7444      | -0.0041 |
| 9        | 50       | Bias                | 3.7566     | 3.751       | -0.0056 |
| 11       | 50       | Unbias              | 3.7897     | 3.7957      | 0.006   |
| 12       | 50       | Unbias              | 3.7794     | 3.7775      | -0.0019 |
| 13       | 50       | Unbias              | 3.7704     | 3.7632      | -0.0072 |
| 14       | 50       | Unbias              | 3.7697     | 3.7626      | -0.0071 |
| 15       | 50       | Unbias              | 3.7638     | 3.7635      | -0.0003 |

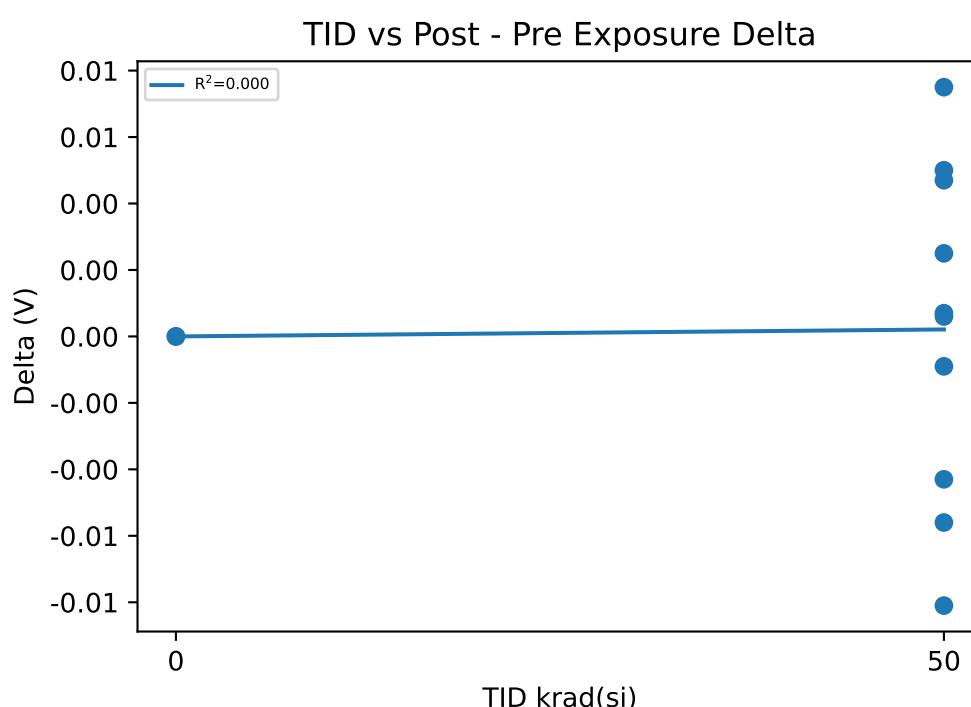
**Test Statistics (V)**

| 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        | 3.7669           | 3.7785           | 3.79             | 0.016334         | 3.7669            | 3.7785            | 3.79              | 0.016334          | 0         | 0         | 0         | 0         |
| 50       | 3.7485           | 3.7675           | 3.7897           | 0.011678         | 3.7444            | 3.7641            | 3.7957            | 0.014313          | -0.0072   | -0.0033   | 0.006     | 0.0038856 |



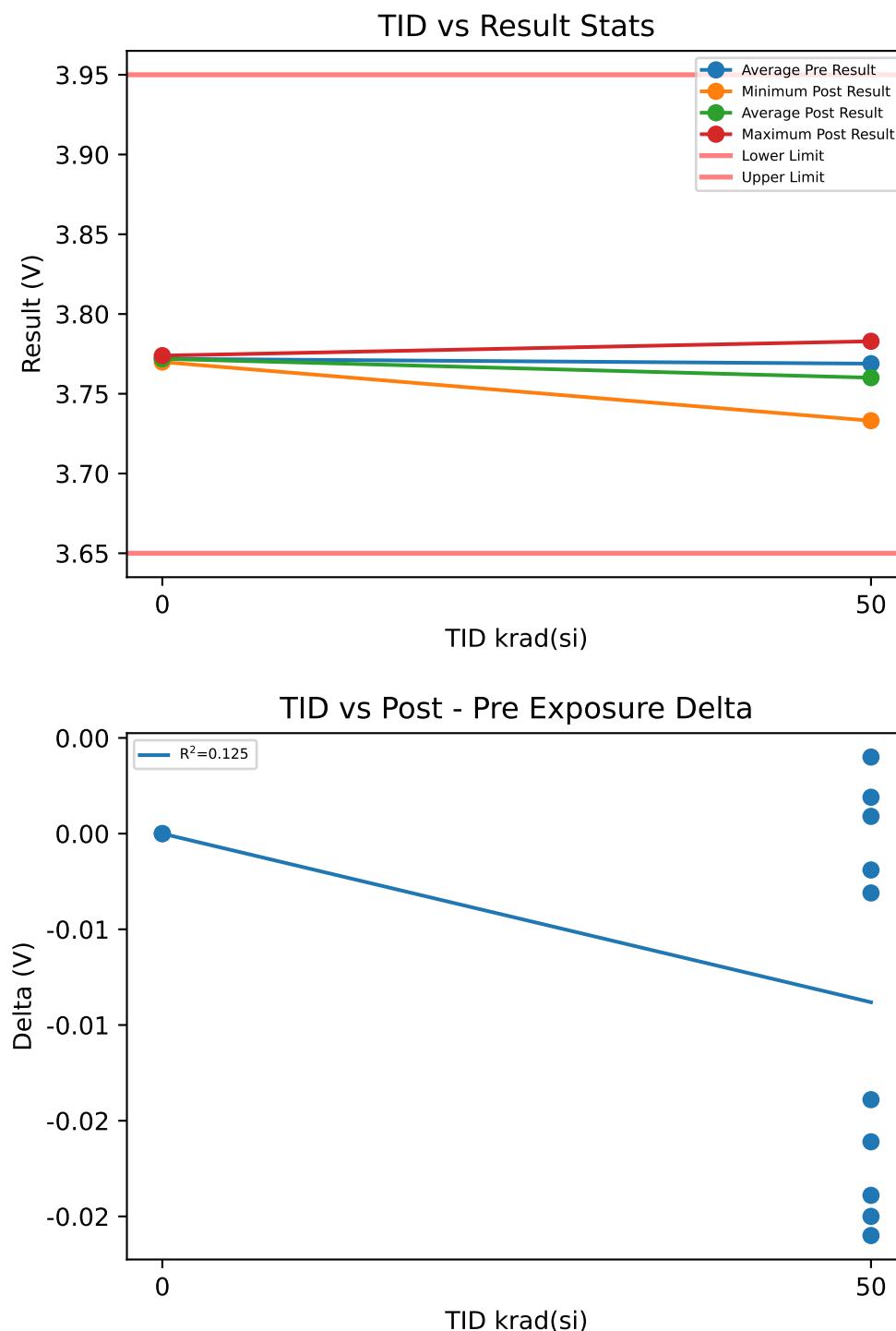
**Test Results (Lower Limit = 3.45, Upper Limit = 3.75 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.5917     | 3.5917      | 0       |
| 2        | 0        | Correlation         | 3.6045     | 3.6045      | 0       |
| 4        | 50       | Bias                | 3.5936     | 3.5927      | -0.0009 |
| 6        | 50       | Bias                | 3.5799     | 3.5874      | 0.0075  |
| 7        | 50       | Bias                | 3.5792     | 3.5799      | 0.0007  |
| 8        | 50       | Bias                | 3.5789     | 3.5708      | -0.0081 |
| 9        | 50       | Bias                | 3.587      | 3.5827      | -0.0043 |
| 11       | 50       | Unbias              | 3.6117     | 3.6061      | -0.0056 |
| 12       | 50       | Unbias              | 3.5995     | 3.6045      | 0.005   |
| 13       | 50       | Unbias              | 3.5974     | 3.598       | 0.0006  |
| 14       | 50       | Unbias              | 3.587      | 3.5917      | 0.0047  |
| 15       | 50       | Unbias              | 3.5858     | 3.5883      | 0.0025  |

**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        | 3.5917           | 3.5981           | 3.6045           | 0.009051         | 3.5917            | 3.5981            | 3.6045            | 0.009051          | 0         | 0         | 0         | 0         |
| 50       | 3.5789           | 3.59             | 3.6117           | 0.010574         | 3.5708            | 3.5902            | 3.6061            | 0.010938          | -0.0081   | 0.00021   | 0.0075    | 0.0050141 |

# Device Test: 17.19 PVIN\_UVLO\_RISE(UVLO|PVIN\_RISE/PVIN/4.5/4.5/0/1000/4.5/1MHz//@PVIN\_UVLO\_RISE)



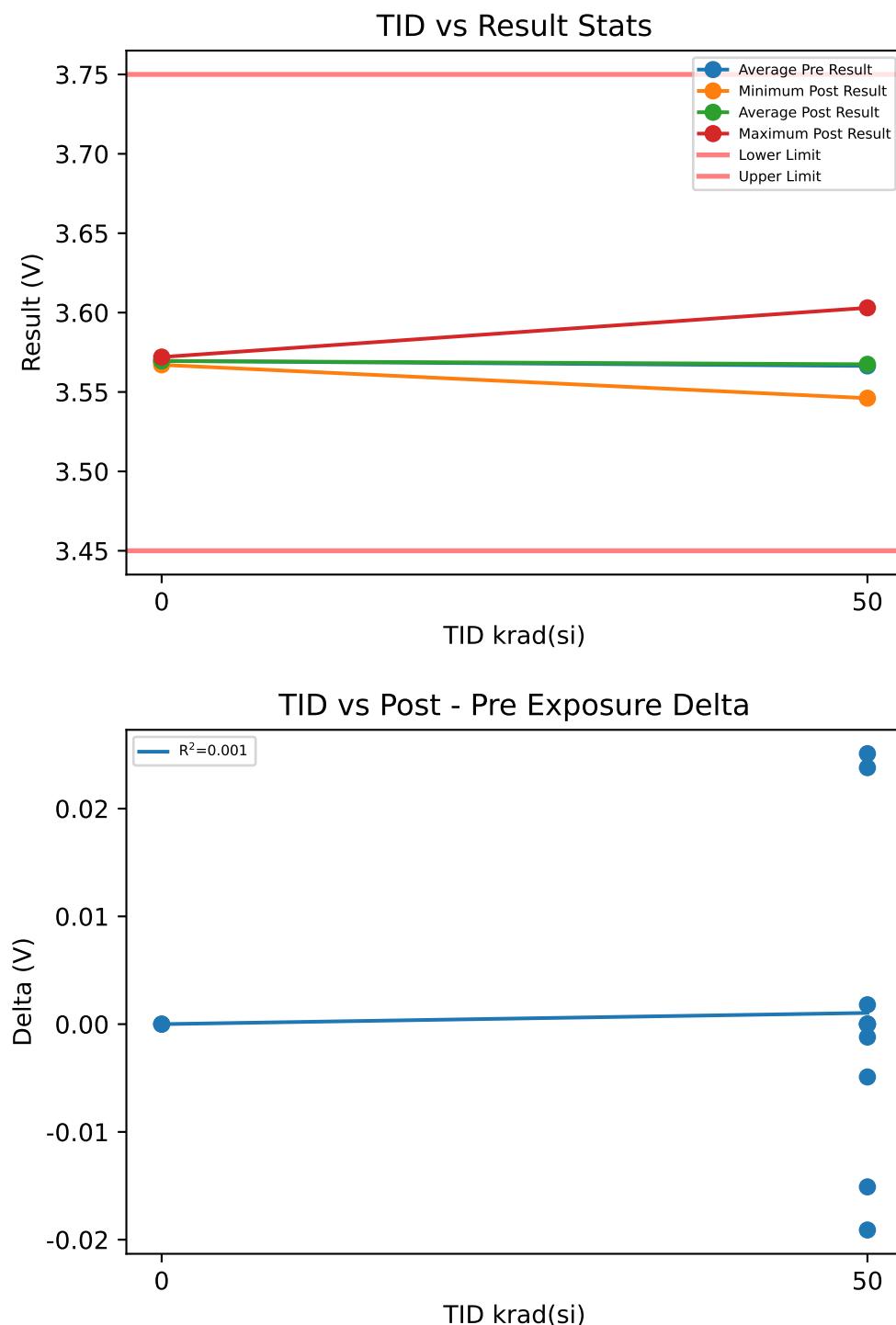
**Test Results (Lower Limit = 3.65, Upper Limit = 3.95 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.7739     | 3.7739      | 0       |
| 2        | 0        | Correlation         | 3.7699     | 3.7699      | 0       |
| 4        | 50       | Bias                | 3.752      | 3.7331      | -0.0189 |
| 6        | 50       | Bias                | 3.7578     | 3.7439      | -0.0139 |
| 7        | 50       | Bias                | 3.7739     | 3.7578      | -0.0161 |
| 8        | 50       | Bias                | 3.768      | 3.748       | -0.02   |
| 9        | 50       | Bias                | 3.7779     | 3.7569      | -0.021  |
| 11       | 50       | Unbias              | 3.7761     | 3.773       | -0.0031 |
| 12       | 50       | Unbias              | 3.782      | 3.7801      | -0.0019 |
| 13       | 50       | Unbias              | 3.76       | 3.764       | 0.004   |
| 14       | 50       | Unbias              | 3.76       | 3.7609      | 0.0009  |
| 15       | 50       | Unbias              | 3.781      | 3.7829      | 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        | 3.7699           | 3.7719           | 3.7739           | 0.0028284        | 3.7699            | 3.7719            | 3.7739            | 0.0028284         | 0         | 0         | 0         | 0         |
| 50       | 3.752            | 3.7689           | 3.782            | 0.01077          | 3.7331            | 3.7601            | 3.7829            | 0.015831          | -0.021    | -0.00881  | 0.004     | 0.010045  |

# Device Test: 17.2 PVIN\_UVLO\_FALL(UVLO|PVIN\_FALL/PVIN/4.5/4.5/0/1000/4.5/100kHz//@PVIN\_UVLO\_FALL)



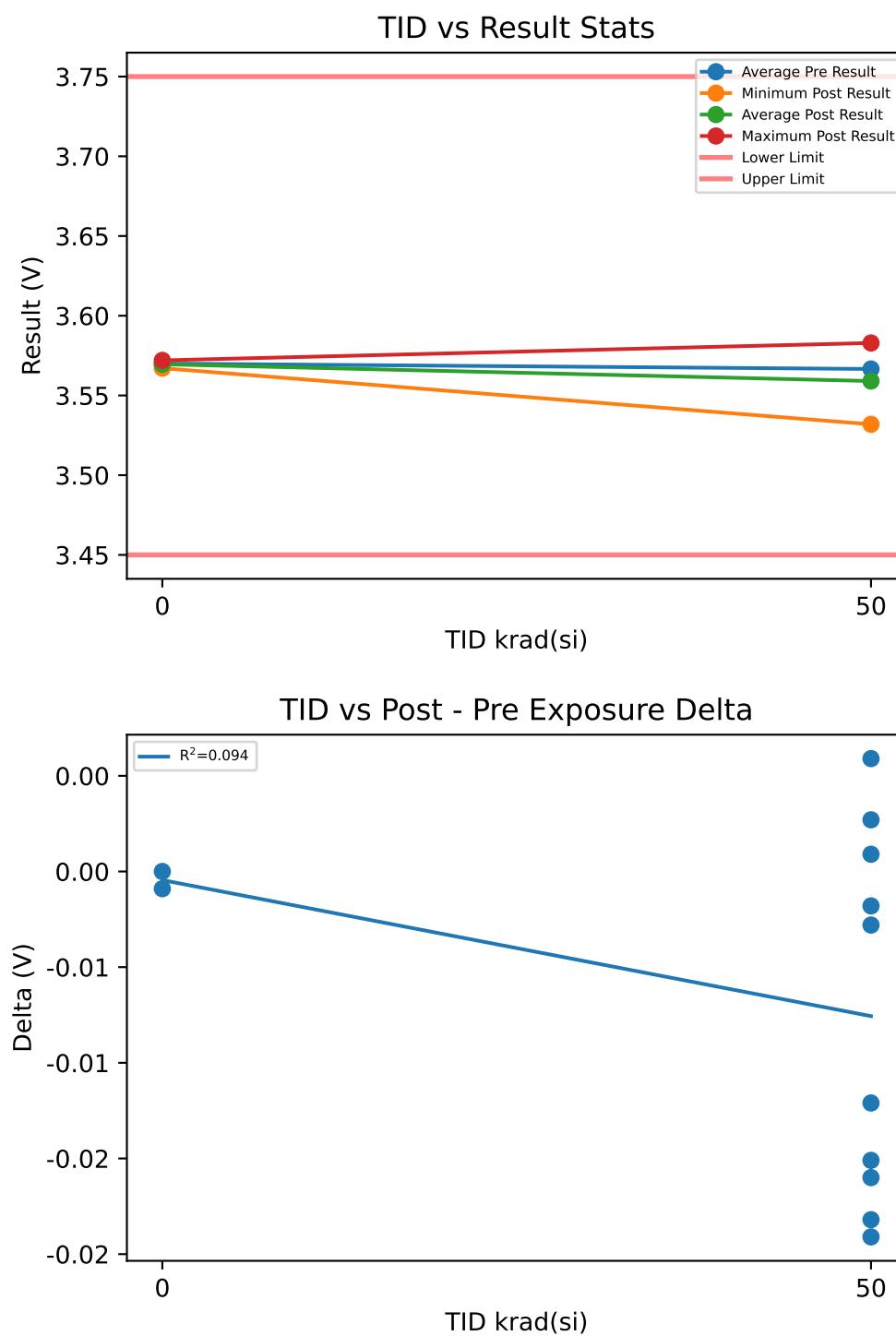
**Test Results (Lower Limit = 3.45, Upper Limit = 3.75 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.572      | 3.572       | 0       |
| 2        | 0        | Correlation         | 3.5671     | 3.5671      | 0       |
| 4        | 50       | Bias                | 3.551      | 3.5461      | -0.0049 |
| 6        | 50       | Bias                | 3.556      | 3.556       | 0       |
| 7        | 50       | Bias                | 3.572      | 3.5569      | -0.0151 |
| 8        | 50       | Bias                | 3.5659     | 3.5659      | 0       |
| 9        | 50       | Bias                | 3.5751     | 3.556       | -0.0191 |
| 11       | 50       | Unbias              | 3.5711     | 3.5699      | -0.0012 |
| 12       | 50       | Unbias              | 3.5779     | 3.5779      | 0       |
| 13       | 50       | Unbias              | 3.5581     | 3.5819      | 0.0238  |
| 14       | 50       | Unbias              | 3.5591     | 3.5609      | 0.0018  |
| 15       | 50       | Unbias              | 3.5779     | 3.603       | 0.0251  |

**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        | 3.5671           | 3.5696           | 3.572            | 0.0034648        | 3.5671            | 3.5696            | 3.572             | 0.0034648         | 0         | 0         | 0         | 0         |
| 50       | 3.551            | 3.5664           | 3.5779           | 0.0097831        | 3.5461            | 3.5675            | 3.603             | 0.016541          | -0.0191   | 0.00104   | 0.0251    | 0.01417   |

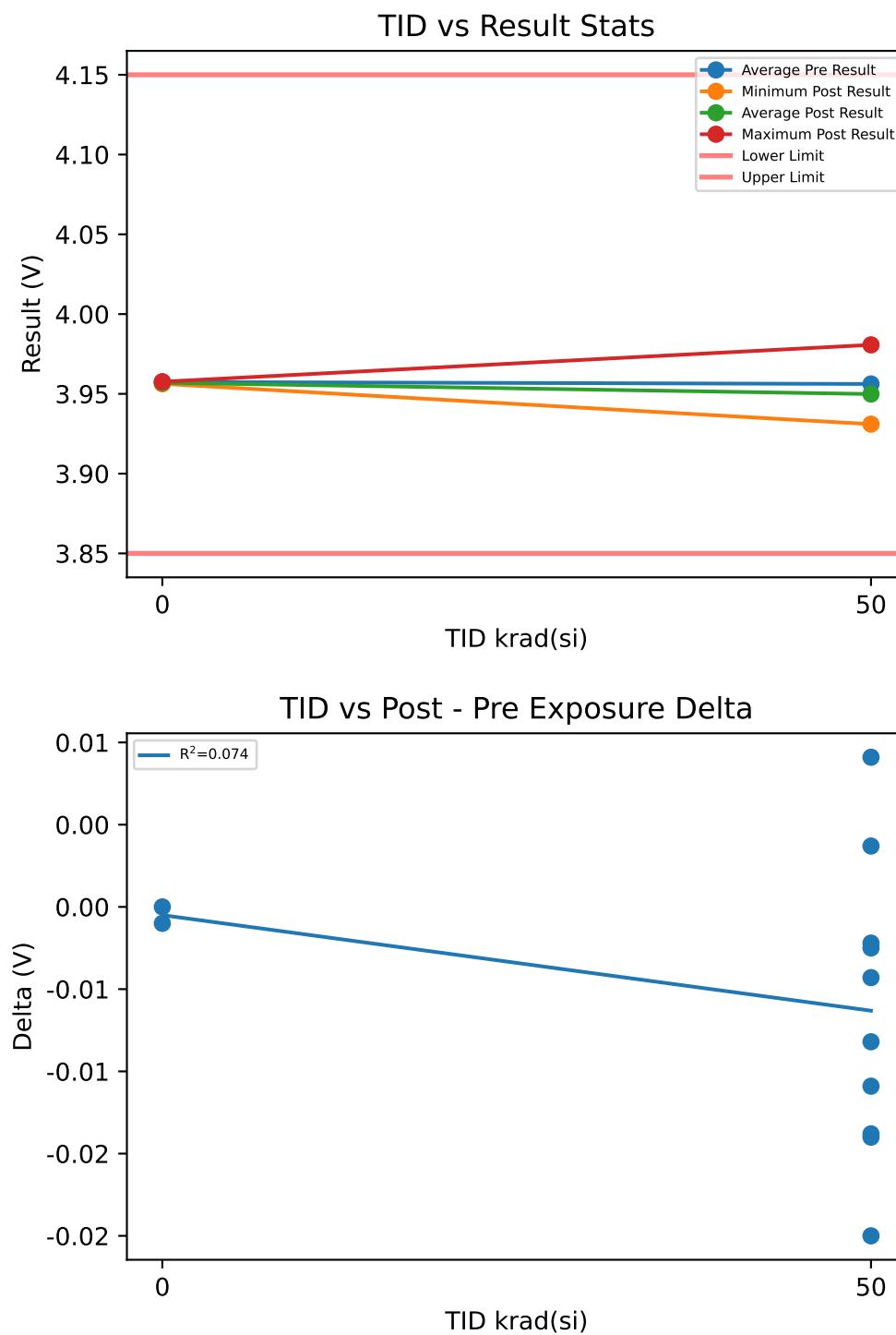
# Device Test: 17.20 PVIN\_UVLO\_FALL(UVLO|PVIN\_FALL/PVIN/4.5/4.5/0/1000/4.5/1MHz//@PVIN\_UVLO\_FALL)



| Test Results (Lower Limit = 3.45, Upper Limit = 3.75 (V)) |          |                     |            |             |         |
|---|----------|---------------------|------------|-------------|---------|
| Serial #  | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
| 1   | 0        | Correlation         | 3.572      | 3.572       | 0       |
| 2   | 0        | Correlation         | 3.568      | 3.5671      | -0.0009 |
| 4   | 50       | Bias                | 3.5501     | 3.5319      | -0.0182 |
| 6   | 50       | Bias                | 3.556      | 3.5439      | -0.0121 |
| 7   | 50       | Bias                | 3.572      | 3.5569      | -0.0151 |
| 8   | 50       | Bias                | 3.5649     | 3.5489      | -0.016  |
| 9   | 50       | Bias                | 3.5751     | 3.556       | -0.0191 |
| 11  | 50       | Unbias              | 3.5739     | 3.5711      | -0.0028 |
| 12  | 50       | Unbias              | 3.5788     | 3.577       | -0.0018 |
| 13  | 50       | Unbias              | 3.5591     | 3.5618      | 0.0027  |
| 14  | 50       | Unbias              | 3.5591     | 3.56        | 0.0009  |
| 15  | 50       | Unbias              | 3.577      | 3.5829      | 0.0059  |

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 3.568            | 3.57             | 3.572            | 0.0028284        | 3.5671            | 3.5696            | 3.572             | 0.0034648         | -0.0009   | -0.00045  | 0         | 0.0006364 |
| 50       | 3.5501           | 3.5666           | 3.5788           | 0.010065         | 3.5319            | 3.559             | 3.5829            | 0.015378          | -0.0191   | -0.00756  | 0.0059    | 0.0094805 |

# Device Test: 17.22 VIN\_UVLO\_RISE(UVLO|VIN\_RISE/VIN/4.5/4.5/0/1000/4.5/1MHz//@VIN\_UVLO\_RISE)



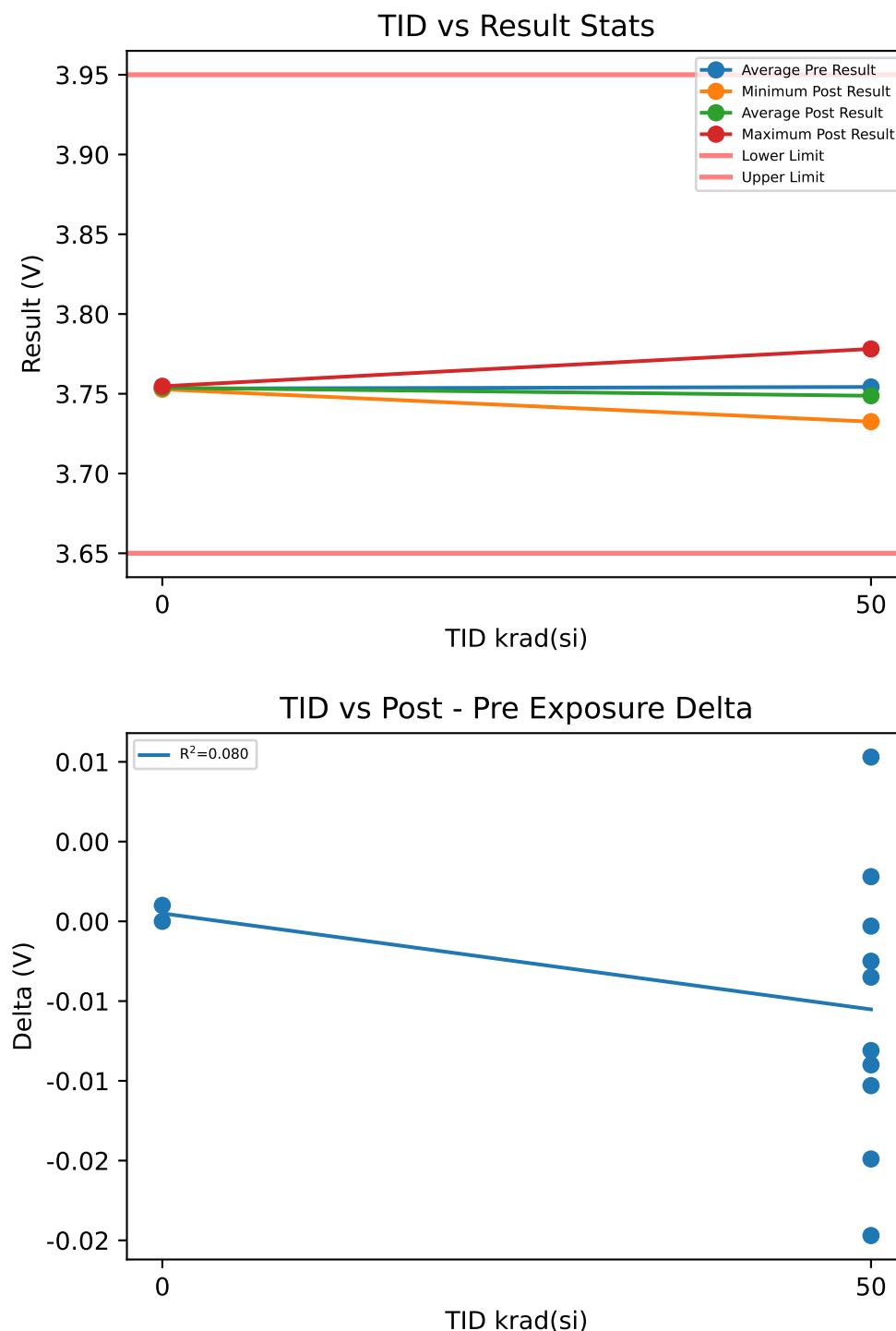
**Test Results (Lower Limit = 3.85, Upper Limit = 4.15 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.9576     | 3.9576      | 0       |
| 2        | 0        | Correlation         | 3.9573     | 3.9563      | -0.001  |
| 4        | 50       | Bias                | 3.951      | 3.931       | -0.02   |
| 6        | 50       | Bias                | 3.9473     | 3.9391      | -0.0082 |
| 7        | 50       | Bias                | 3.9485     | 3.9345      | -0.014  |
| 8        | 50       | Bias                | 3.9516     | 3.9407      | -0.0109 |
| 9        | 50       | Bias                | 3.9598     | 3.946       | -0.0138 |
| 11       | 50       | Unbias              | 3.9716     | 3.9807      | 0.0091  |
| 12       | 50       | Unbias              | 3.9566     | 3.9541      | -0.0025 |
| 13       | 50       | Unbias              | 3.9538     | 3.9516      | -0.0022 |
| 14       | 50       | Unbias              | 3.9566     | 3.9523      | -0.0043 |
| 15       | 50       | Unbias              | 3.9651     | 3.9688      | 0.0037  |

**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        | 3.9573           | 3.9574           | 3.9576           | 0.00021213       | 3.9563            | 3.9569            | 3.9576            | 0.00091924        | -0.001    | -0.0005   | 0         | 0.00070711 |
| 50       | 3.9473           | 3.9562           | 3.9716           | 0.0076166        | 3.931             | 3.9499            | 3.9807            | 0.015431          | -0.02     | -0.00631  | 0.0091    | 0.0088217  |

# Device Test: 17.23 VIN\_UVLO\_FALL(UVLO|VIN\_FALL/VIN/4.5/4.5/0/1000/4.5/1MHz//@VIN\_UVLO\_FALL)

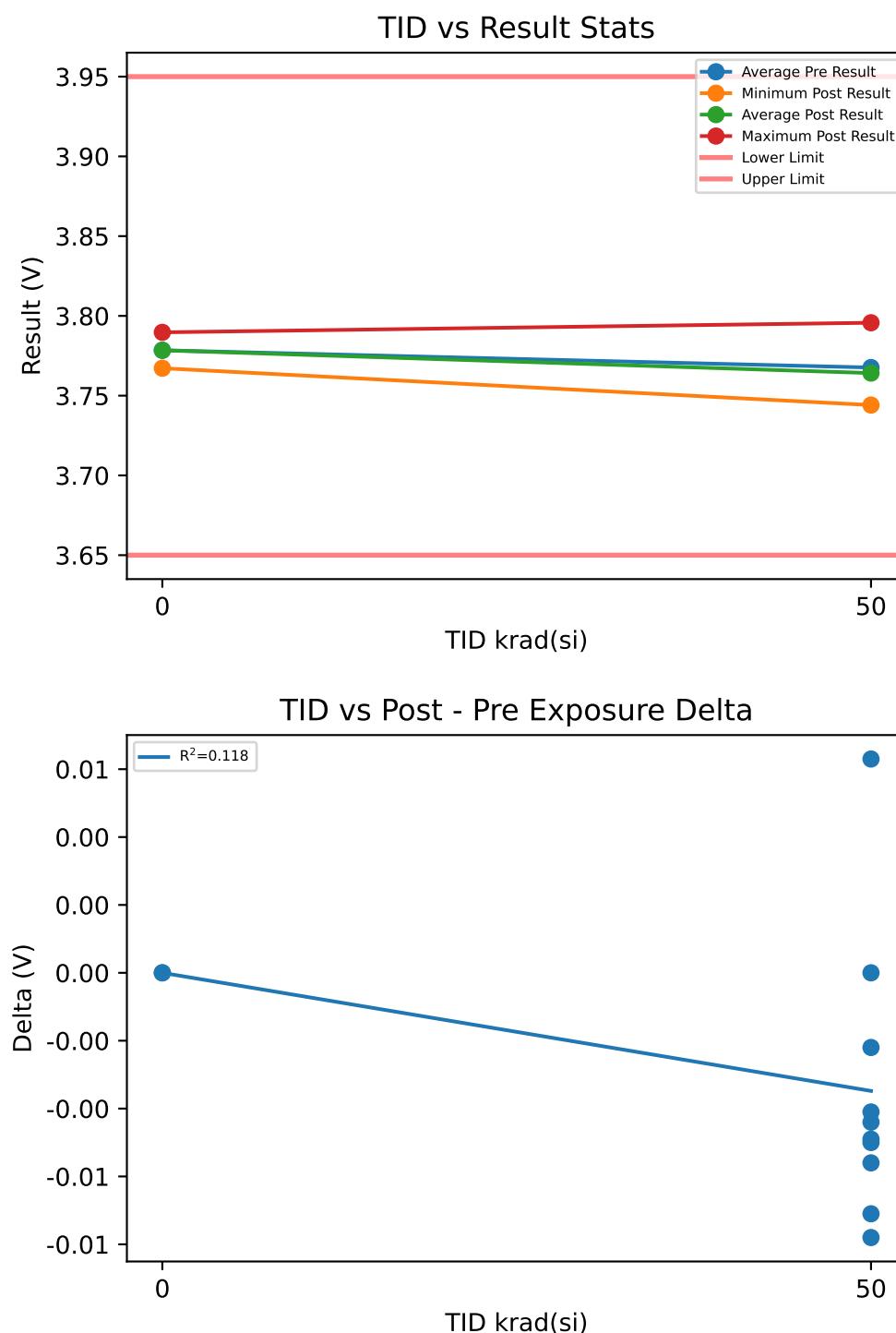


**Test Results (Lower Limit = 3.65, Upper Limit = 3.95 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.7537     | 3.7547      | 0.001   |
| 2        | 0        | Correlation         | 3.7528     | 3.7528      | 0       |
| 4        | 50       | Bias                | 3.7522     | 3.7325      | -0.0197 |
| 6        | 50       | Bias                | 3.7472     | 3.7369      | -0.0103 |
| 7        | 50       | Bias                | 3.7487     | 3.7338      | -0.0149 |
| 8        | 50       | Bias                | 3.7506     | 3.7416      | -0.009  |
| 9        | 50       | Bias                | 3.7537     | 3.7456      | -0.0081 |
| 11       | 50       | Unbias              | 3.7678     | 3.7781      | 0.0103  |
| 12       | 50       | Unbias              | 3.7531     | 3.7528      | -0.0003 |
| 13       | 50       | Unbias              | 3.7522     | 3.7497      | -0.0025 |
| 14       | 50       | Unbias              | 3.7572     | 3.7537      | -0.0035 |
| 15       | 50       | Unbias              | 3.76       | 3.7628      | 0.0028  |

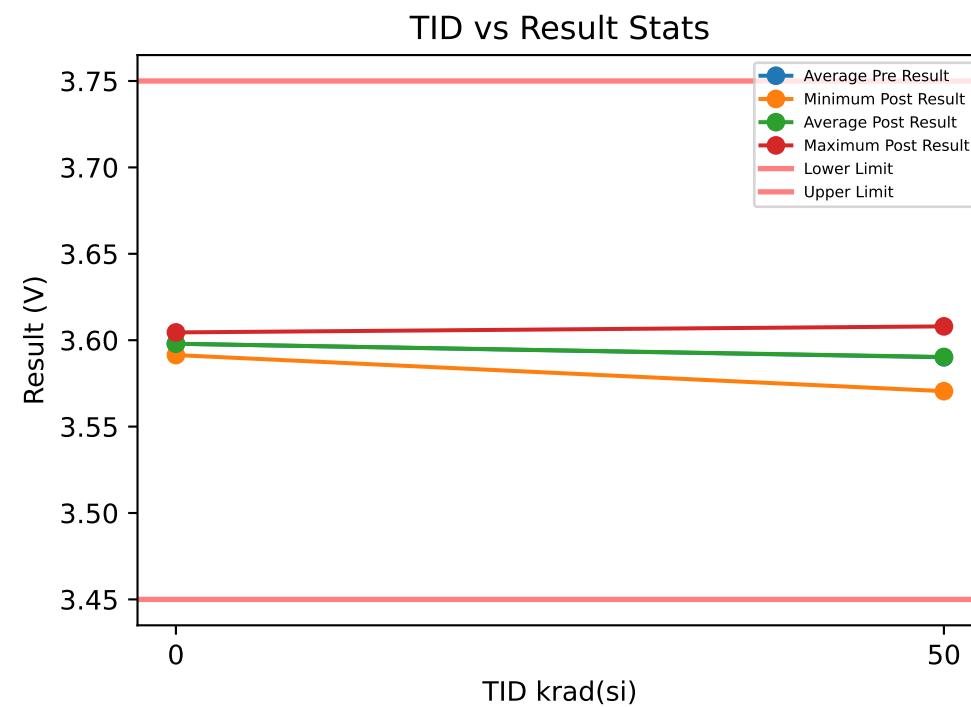
**Test Statistics (V)**

| 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        | 3.7528           | 3.7532           | 3.7537           | 0.0006364        | 3.7528            | 3.7538            | 3.7547            | 0.0013435         | 0         | 0.0005    | 0.001     | 0.00070711 |
| 50       | 3.7472           | 3.7543           | 3.7678           | 0.0060481        | 3.7325            | 3.7487            | 3.7781            | 0.014101          | -0.0197   | -0.00552  | 0.0103    | 0.0087599  |



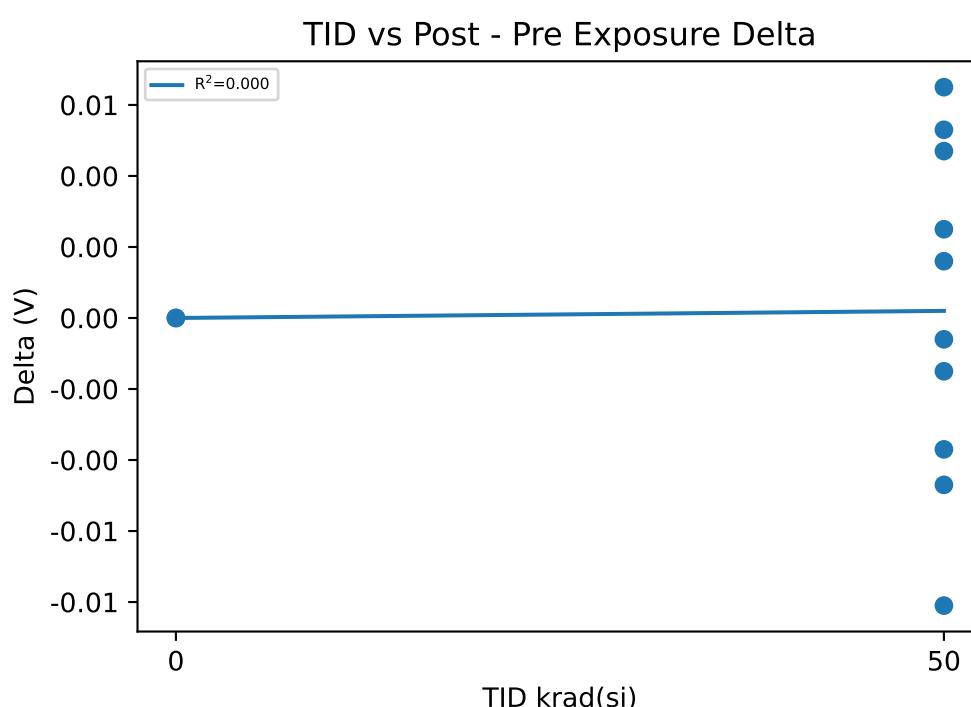
| Test Results (Lower Limit = 3.65, Upper Limit = 3.95 (V)) |          |                     |            |             |         |
|---|----------|---------------------|------------|-------------|---------|
| Serial #  | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
| 1   | 0        | Correlation         | 3.7672     | 3.7672      | 0       |
| 2   | 0        | Correlation         | 3.7897     | 3.7897      | 0       |
| 4   | 50       | Bias                | 3.7597     | 3.7548      | -0.0049 |
| 6   | 50       | Bias                | 3.771      | 3.7669      | -0.0041 |
| 7   | 50       | Bias                | 3.7669     | 3.7613      | -0.0056 |
| 8   | 50       | Bias                | 3.7485     | 3.7441      | -0.0044 |
| 9   | 50       | Bias                | 3.7566     | 3.7516      | -0.005  |
| 11  | 50       | Unbias              | 3.7894     | 3.7957      | 0.0063  |
| 12  | 50       | Unbias              | 3.7797     | 3.7775      | -0.0022 |
| 13  | 50       | Unbias              | 3.771      | 3.7632      | -0.0078 |
| 14  | 50       | Unbias              | 3.7697     | 3.7626      | -0.0071 |
| 15  | 50       | Unbias              | 3.7638     | 3.7638      | 0       |

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 3.7672           | 3.7784           | 3.7897           | 0.01591          | 3.7672            | 3.7784            | 3.7897            | 0.01591           | 0         | 0         | 0         | 0         |
| 50       | 3.7485           | 3.7676           | 3.7894           | 0.011606         | 3.7441            | 3.7641            | 3.7957            | 0.014297          | -0.0078   | -0.00348  | 0.0063    | 0.004099  |



**Test Results (Lower Limit = 3.45, Upper Limit = 3.75 (V))**

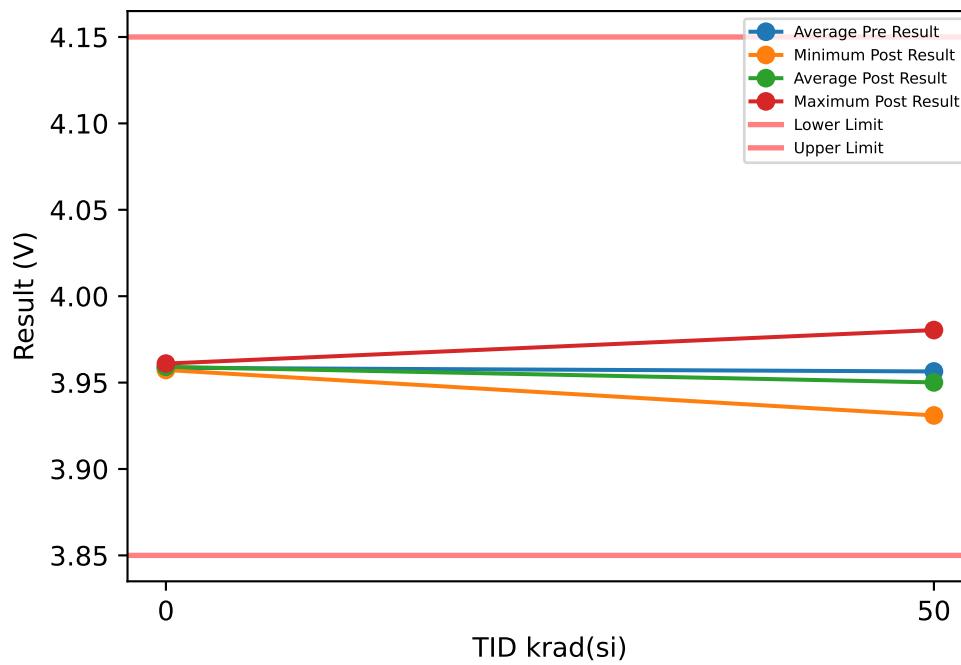
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.5914     | 3.5914      | 0       |
| 2        | 0        | Correlation         | 3.6045     | 3.6045      | 0       |
| 4        | 50       | Bias                | 3.5942     | 3.5927      | -0.0015 |
| 6        | 50       | Bias                | 3.5799     | 3.5864      | 0.0065  |
| 7        | 50       | Bias                | 3.5805     | 3.5799      | -0.0006 |
| 8        | 50       | Bias                | 3.5786     | 3.5705      | -0.0081 |
| 9        | 50       | Bias                | 3.5874     | 3.5827      | -0.0047 |
| 11       | 50       | Unbias              | 3.6117     | 3.608       | -0.0037 |
| 12       | 50       | Unbias              | 3.5995     | 3.6042      | 0.0047  |
| 13       | 50       | Unbias              | 3.597      | 3.5986      | 0.0016  |
| 14       | 50       | Unbias              | 3.5864     | 3.5917      | 0.0053  |
| 15       | 50       | Unbias              | 3.5858     | 3.5883      | 0.0025  |

**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        | 3.5914           | 3.5979           | 3.6045           | 0.0092631        | 3.5914            | 3.5979            | 3.6045            | 0.0092631         | 0         | 0         | 0         | 0         |
| 50       | 3.5786           | 3.5901           | 3.6117           | 0.010474         | 3.5705            | 3.5903            | 3.608             | 0.011354          | -0.0081   | 0.0002    | 0.0065    | 0.0047707 |

# Device Test: 17.4 VIN\_UVLO\_RISE(UVLO|VIN\_RISE/VIN/4.5/4.5/0/1000/4.5/100kHz//@VIN\_UVLO\_RISE)

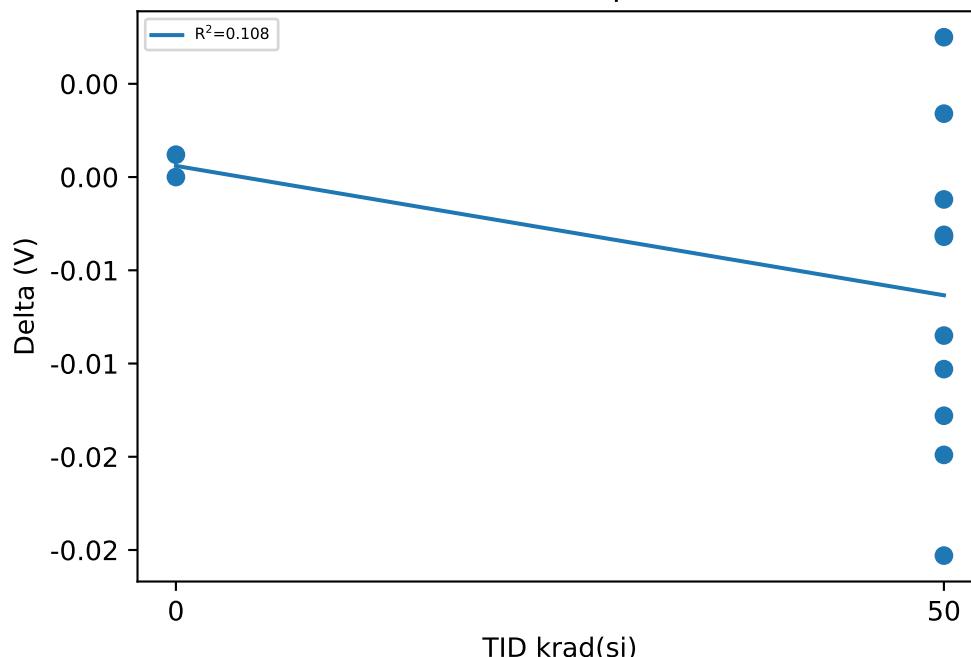
TID vs Result Stats



Test Results (Lower Limit = 3.85, Upper Limit = 4.15 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.9573     | 3.9573      | 0       |
| 2        | 0        | Correlation         | 3.9598     | 3.961       | 0.0012  |
| 4        | 50       | Bias                | 3.9513     | 3.931       | -0.0203 |
| 6        | 50       | Bias                | 3.9473     | 3.9388      | -0.0085 |
| 7        | 50       | Bias                | 3.9491     | 3.9342      | -0.0149 |
| 8        | 50       | Bias                | 3.9513     | 3.941       | -0.0103 |
| 9        | 50       | Bias                | 3.9598     | 3.947       | -0.0128 |
| 11       | 50       | Unbias              | 3.9729     | 3.9804      | 0.0075  |
| 12       | 50       | Unbias              | 3.9563     | 3.9551      | -0.0012 |
| 13       | 50       | Unbias              | 3.9548     | 3.9516      | -0.0032 |
| 14       | 50       | Unbias              | 3.9563     | 3.9532      | -0.0031 |
| 15       | 50       | Unbias              | 3.9654     | 3.9688      | 0.0034  |

TID vs Post - Pre Exposure Delta

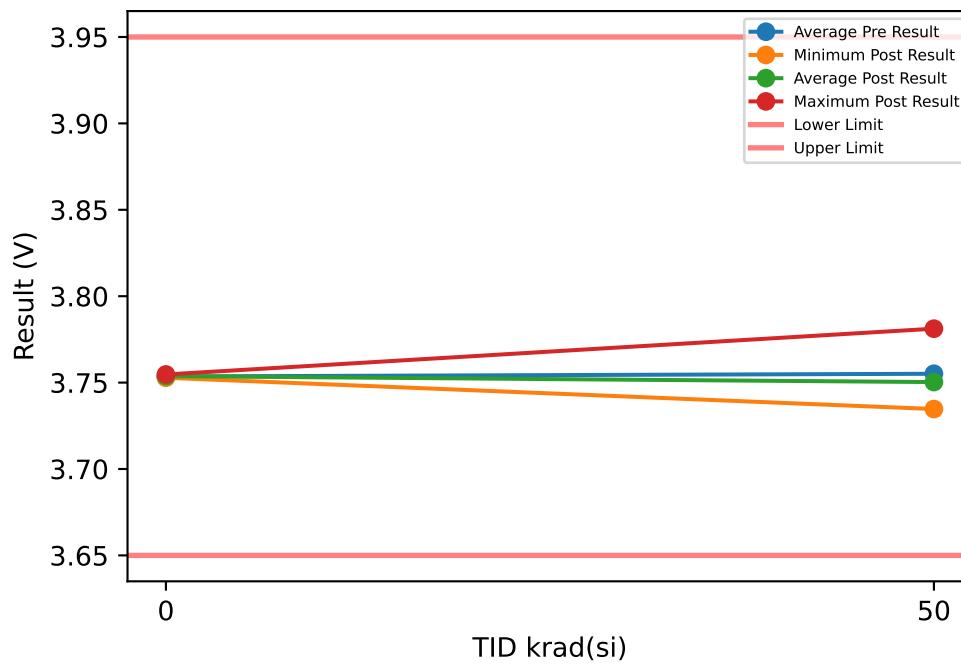


Test Statistics (V)

| 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        | 3.9573           | 3.9585           | 3.9598           | 0.0017678        | 3.9573            | 3.9592            | 3.961             | 0.0026163         | 0         | 0.0006    | 0.0012    | 0.00084853 |
| 50       | 3.9473           | 3.9565           | 3.9729           | 0.0078562        | 3.931             | 3.9501            | 3.9804            | 0.015429          | -0.0203   | -0.00634  | 0.0075    | 0.0085857  |

# Device Test: 17.5 VIN\_UVLO\_FALL(UVLO|VIN\_FALL/VIN/4.5/4.5/0/1000/4.5/100kHz//@VIN\_UVLO\_FALL)

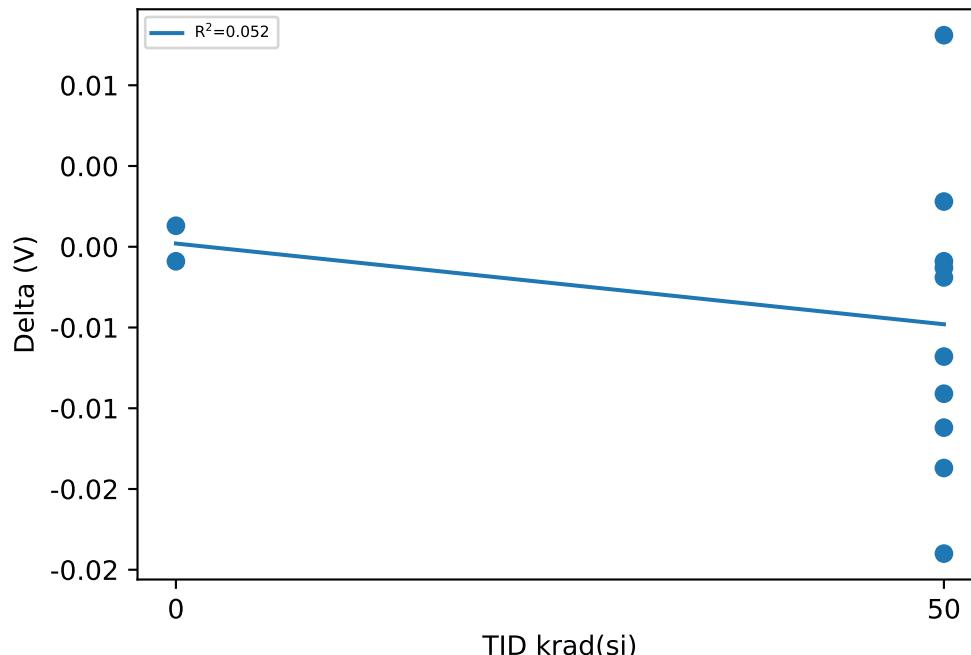
TID vs Result Stats



Test Results (Lower Limit = 3.65,  
Upper Limit = 3.95 (V))

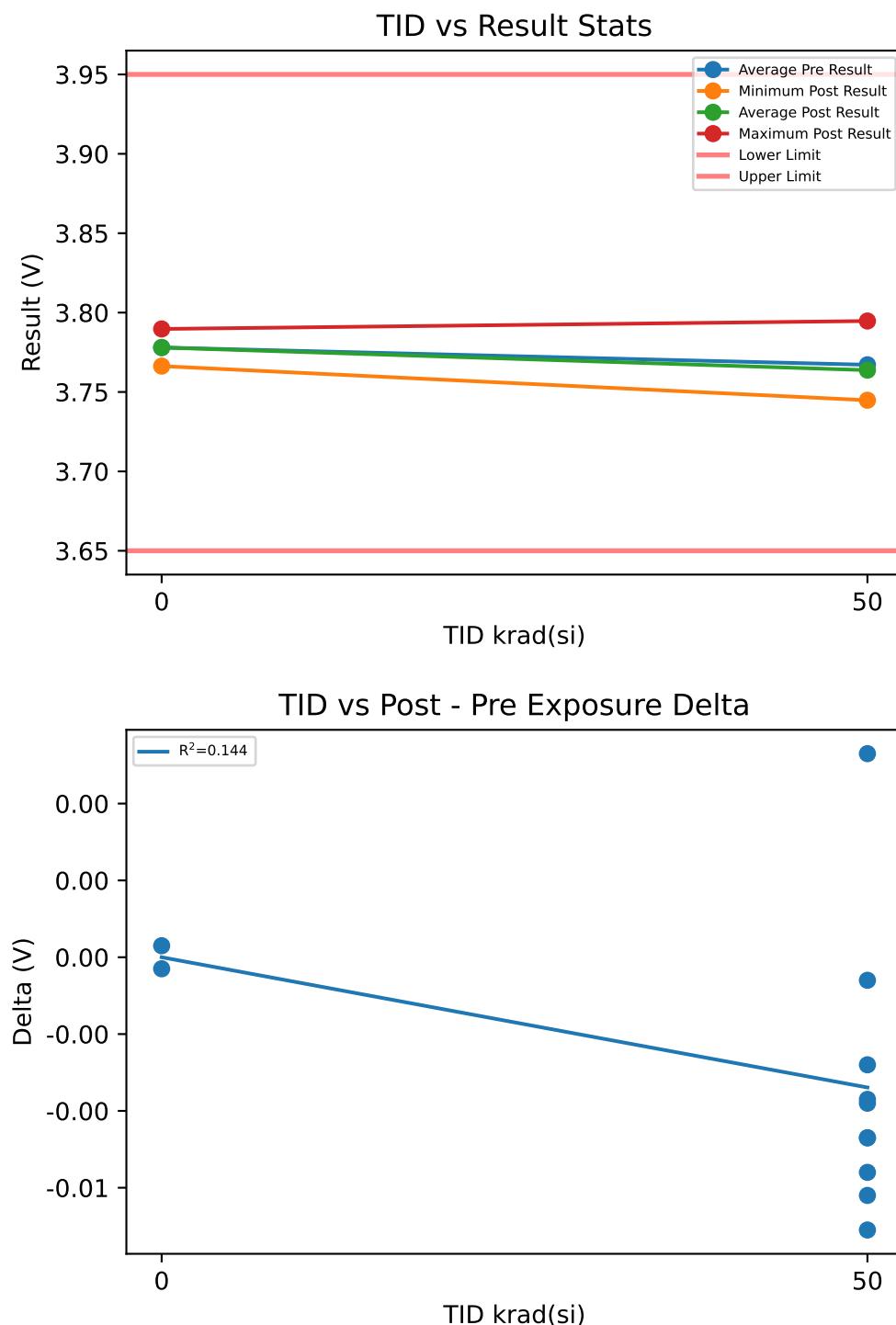
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.7534     | 3.7547      | 0.0013  |
| 2        | 0        | Correlation         | 3.7537     | 3.7528      | -0.0009 |
| 4        | 50       | Bias                | 3.7537     | 3.7347      | -0.019  |
| 6        | 50       | Bias                | 3.7481     | 3.7369      | -0.0112 |
| 7        | 50       | Bias                | 3.7497     | 3.736       | -0.0137 |
| 8        | 50       | Bias                | 3.7519     | 3.7428      | -0.0091 |
| 9        | 50       | Bias                | 3.7537     | 3.7469      | -0.0068 |
| 11       | 50       | Unbias              | 3.7681     | 3.7812      | 0.0131  |
| 12       | 50       | Unbias              | 3.755      | 3.7541      | -0.0009 |
| 13       | 50       | Unbias              | 3.7522     | 3.7509      | -0.0013 |
| 14       | 50       | Unbias              | 3.7578     | 3.7559      | -0.0019 |
| 15       | 50       | Unbias              | 3.7609     | 3.7637      | 0.0028  |

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        | 3.7534           | 3.7535           | 3.7537           | 0.00021213       | 3.7528            | 3.7538            | 3.7547            | 0.0013435         | -0.0009   | 0.0002    | 0.0013    | 0.0015556 |
| 50       | 3.7481           | 3.7551           | 3.7681           | 0.0058753        | 3.7347            | 3.7503            | 3.7812            | 0.014437          | -0.019    | -0.0048   | 0.0131    | 0.0091793 |

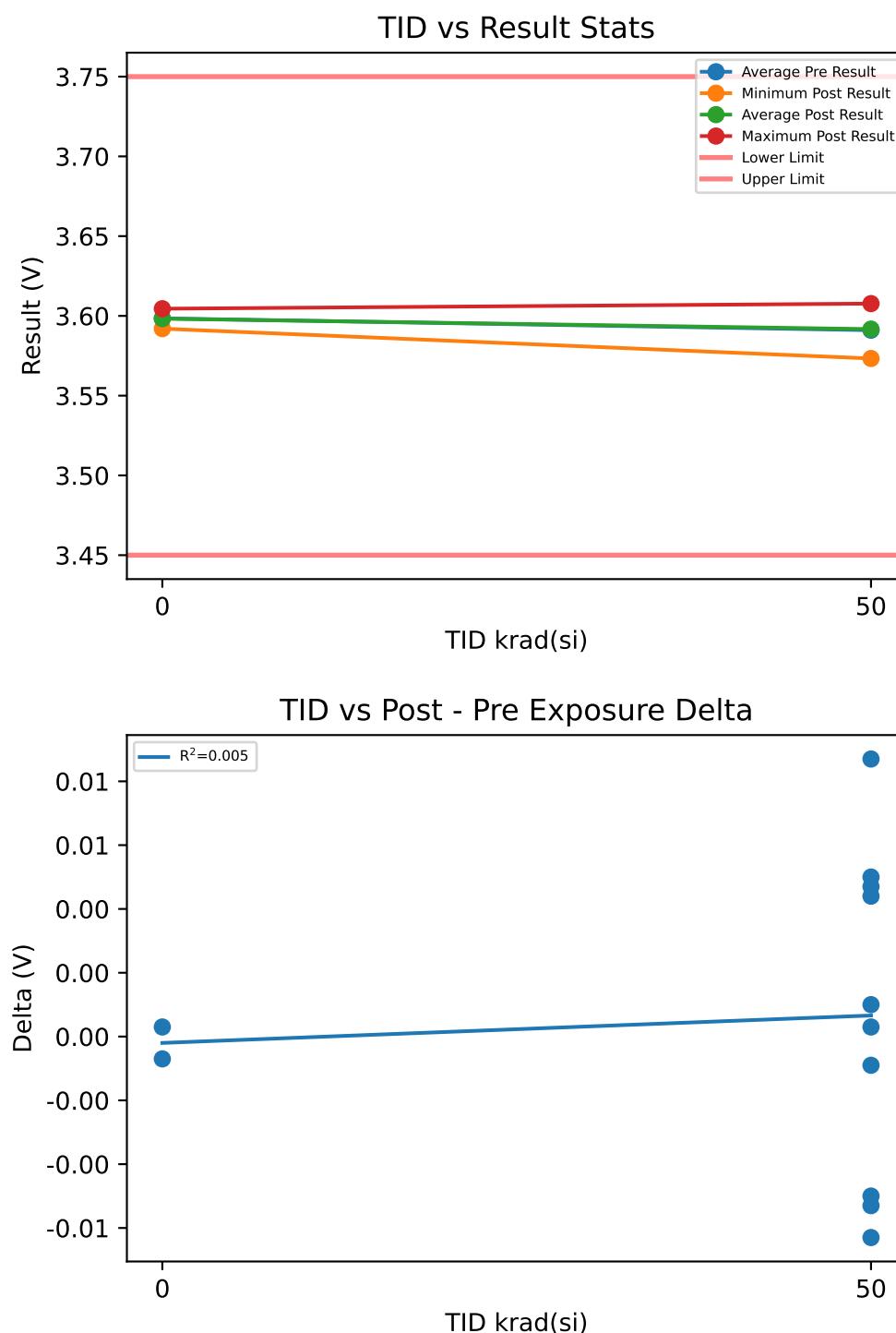


**Test Results (Lower Limit = 3.65, Upper Limit = 3.95 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 3.7666     | 3.7663      | -0.0003 |
| 2        | 0        | Correlation         | 3.7894     | 3.7897      | 0.0003  |
| 4        | 50       | Bias                | 3.7585     | 3.7538      | -0.0047 |
| 6        | 50       | Bias                | 3.7701     | 3.7663      | -0.0038 |
| 7        | 50       | Bias                | 3.766      | 3.7613      | -0.0047 |
| 8        | 50       | Bias                | 3.7485     | 3.7448      | -0.0037 |
| 9        | 50       | Bias                | 3.7566     | 3.751       | -0.0056 |
| 11       | 50       | Unbias              | 3.7894     | 3.7947      | 0.0053  |
| 12       | 50       | Unbias              | 3.7797     | 3.7769      | -0.0028 |
| 13       | 50       | Unbias              | 3.7697     | 3.7635      | -0.0062 |
| 14       | 50       | Unbias              | 3.7697     | 3.7626      | -0.0071 |
| 15       | 50       | Unbias              | 3.7632     | 3.7626      | -0.0006 |

**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        | 3.7666           | 3.778            | 3.7894           | 0.016122         | 3.7663            | 3.778             | 3.7897            | 0.016546          | -0.0003   | 0         | 0.0003    | 0.00042426 |
| 50       | 3.7485           | 3.7671           | 3.7894           | 0.011667         | 3.7448            | 3.7638            | 3.7947            | 0.014011          | -0.0071   | -0.00339  | 0.0053    | 0.0035573  |



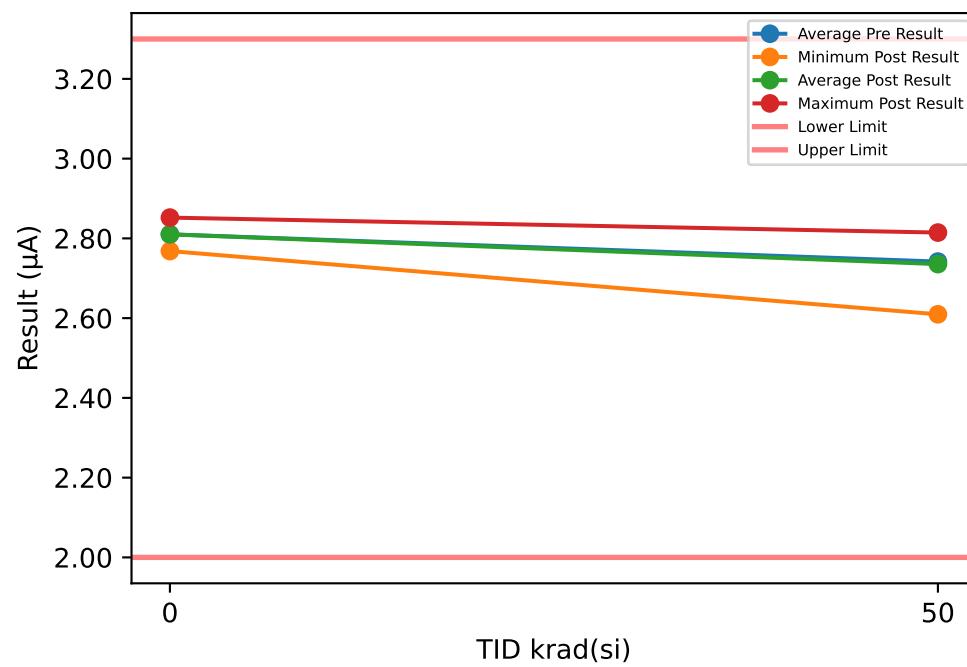
| Test Results (Lower Limit = 3.45, Upper Limit = 3.75 (V)) |          |                     |            |             |         |
|---|----------|---------------------|------------|-------------|---------|
| Serial #  | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
| 1   | 0        | Correlation         | 3.5927     | 3.592       | -0.0007 |
| 2   | 0        | Correlation         | 3.6042     | 3.6045      | 0.0003  |
| 4   | 50       | Bias                | 3.5942     | 3.5945      | 0.0003  |
| 6   | 50       | Bias                | 3.5799     | 3.5886      | 0.0087  |
| 7   | 50       | Bias                | 3.5805     | 3.5796      | -0.0009 |
| 8   | 50       | Bias                | 3.5796     | 3.5733      | -0.0063 |
| 9   | 50       | Bias                | 3.5889     | 3.5836      | -0.0053 |
| 11  | 50       | Unbias              | 3.6127     | 3.6077      | -0.005  |
| 12  | 50       | Unbias              | 3.6005     | 3.6055      | 0.005   |
| 13  | 50       | Unbias              | 3.5995     | 3.6005      | 0.001   |
| 14  | 50       | Unbias              | 3.5883     | 3.593       | 0.0047  |
| 15  | 50       | Unbias              | 3.5864     | 3.5908      | 0.0044  |

**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        | 3.5927           | 3.5984           | 3.6042           | 0.0081317        | 3.592             | 3.5983            | 3.6045            | 0.0088388         | -0.0007   | -0.0002   | 0.0003    | 0.00070711 |
| 50       | 3.5796           | 3.5911           | 3.6127           | 0.010749         | 3.5733            | 3.5917            | 3.6077            | 0.011027          | -0.0063   | 0.00066   | 0.0087    | 0.0050823  |

# Device Test: 18.1 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/4.5/4.5/0/1000/4.5/100kHz//@I<sub>SS</sub>)

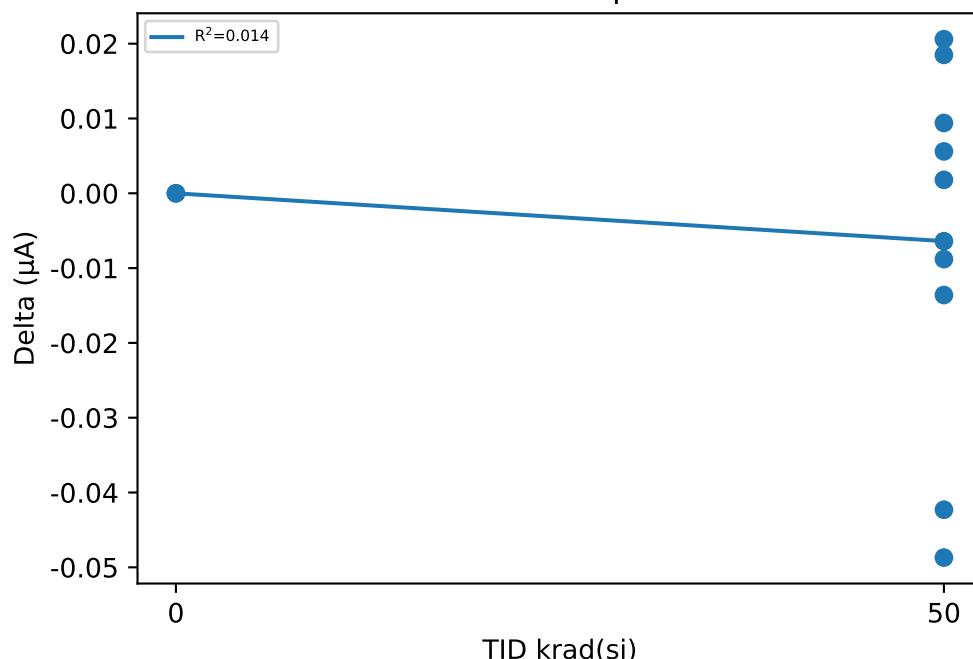
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8521     | 2.8521      | 0       |
| 2        | 0        | Correlation         | 2.7682     | 2.7682      | 0       |
| 4        | 50       | Bias                | 2.736      | 2.7545      | 0.0185  |
| 6        | 50       | Bias                | 2.7261     | 2.6838      | -0.0423 |
| 7        | 50       | Bias                | 2.7968     | 2.788       | -0.0088 |
| 8        | 50       | Bias                | 2.755      | 2.7644      | 0.0094  |
| 9        | 50       | Bias                | 2.7592     | 2.7456      | -0.0136 |
| 11       | 50       | Unbias              | 2.7311     | 2.7247      | -0.0064 |
| 12       | 50       | Unbias              | 2.6583     | 2.6096      | -0.0487 |
| 13       | 50       | Unbias              | 2.6746     | 2.6802      | 0.0056  |
| 14       | 50       | Unbias              | 2.7878     | 2.7896      | 0.0018  |
| 15       | 50       | Unbias              | 2.794      | 2.8146      | 0.0206  |

TID vs Post - Pre Exposure Delta

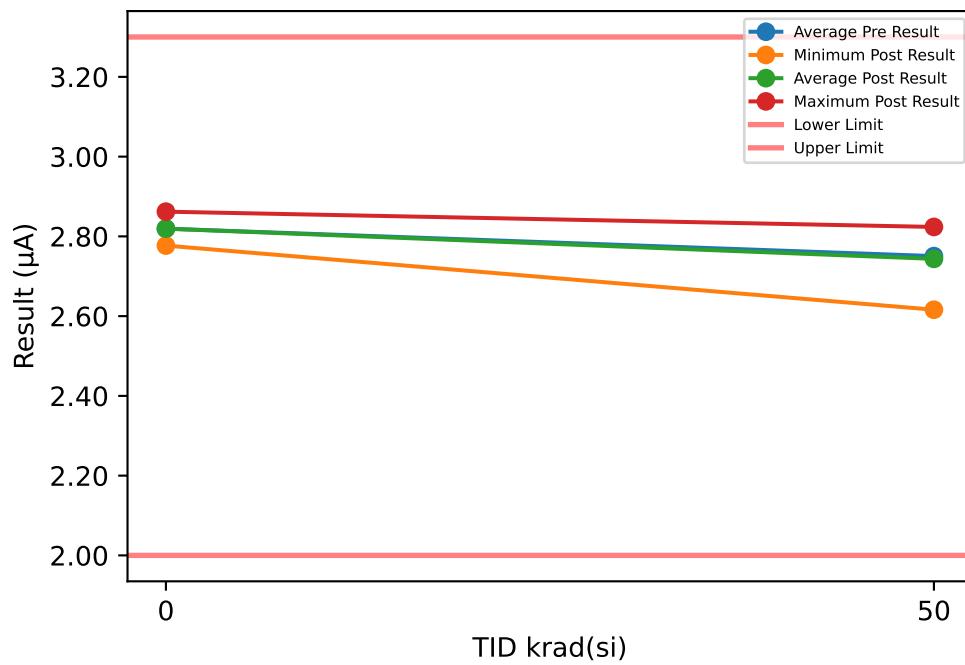


Test Statistics (μA)

| 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        | 2.7682           | 2.8102           | 2.8521           | 0.059326         | 2.7682            | 2.8102            | 2.8521            | 0.059326          | 0         | 0         | 0         | 0         |
| 50       | 2.6583           | 2.7419           | 2.7968           | 0.047405         | 2.6096            | 2.7355            | 2.8146            | 0.062304          | -0.0487   | -0.00639  | 0.0206    | 0.023442  |

# Device Test: 18.13 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/14/14/0/1000/5/100kHz//@I<sub>SS</sub>)

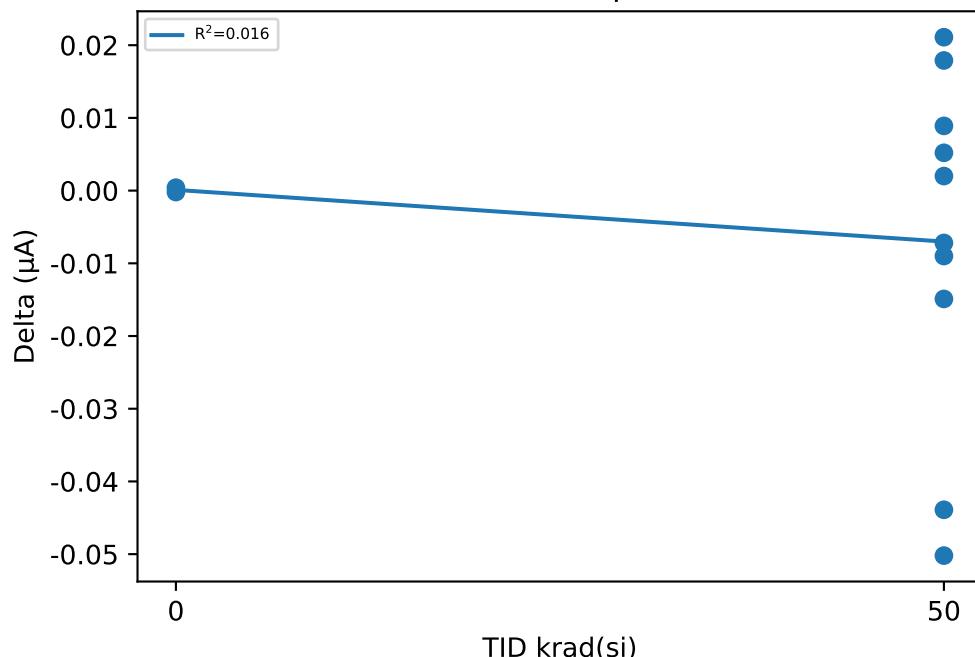
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8616     | 2.862       | 0.0004  |
| 2        | 0        | Correlation         | 2.7771     | 2.7769      | -0.0002 |
| 4        | 50       | Bias                | 2.7449     | 2.7628      | 0.0179  |
| 6        | 50       | Bias                | 2.7356     | 2.6917      | -0.0439 |
| 7        | 50       | Bias                | 2.806      | 2.797       | -0.009  |
| 8        | 50       | Bias                | 2.7639     | 2.7728      | 0.0089  |
| 9        | 50       | Bias                | 2.7682     | 2.7533      | -0.0149 |
| 11       | 50       | Unbias              | 2.7394     | 2.7322      | -0.0072 |
| 12       | 50       | Unbias              | 2.6663     | 2.6161      | -0.0502 |
| 13       | 50       | Unbias              | 2.6828     | 2.688       | 0.0052  |
| 14       | 50       | Unbias              | 2.7961     | 2.7981      | 0.002   |
| 15       | 50       | Unbias              | 2.8026     | 2.8237      | 0.0211  |

TID vs Post - Pre Exposure Delta

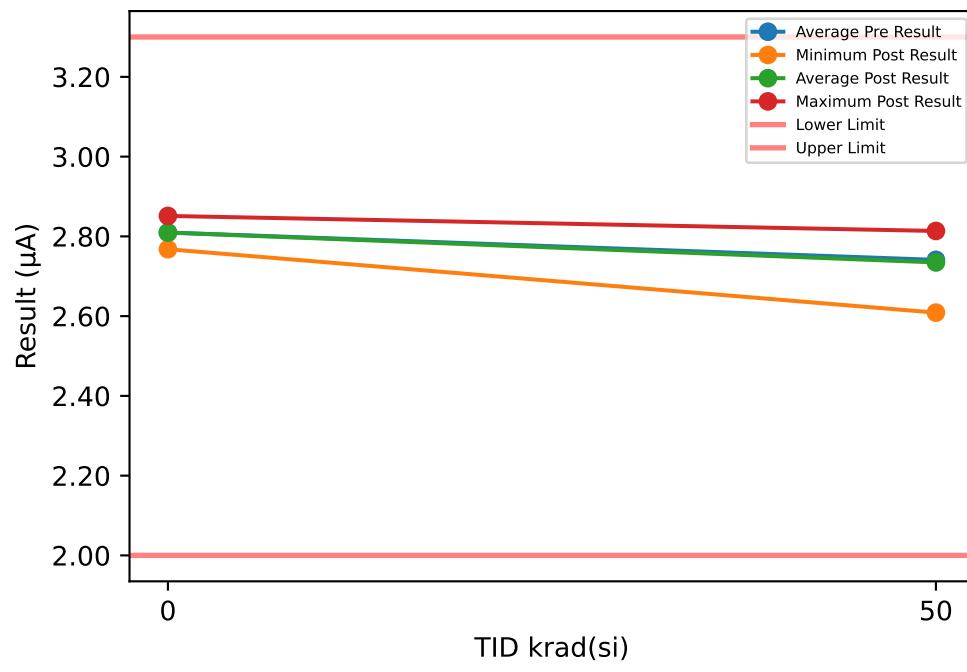


Test Statistics (μA)

| 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        | 2.7771           | 2.8194           | 2.8616           | 0.059751         | 2.7769            | 2.8194            | 2.862             | 0.060175          | -0.0002   | 0.0001    | 0.0004    | 0.00042426 |
| 50       | 2.6663           | 2.7506           | 2.806            | 0.047629         | 2.6161            | 2.7436            | 2.8237            | 0.063003          | -0.0502   | -0.00701  | 0.0211    | 0.024006   |

# Device Test: 18.17 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/4.5/4.5/0/1000/4.5/500kHz//@I<sub>SS</sub>)

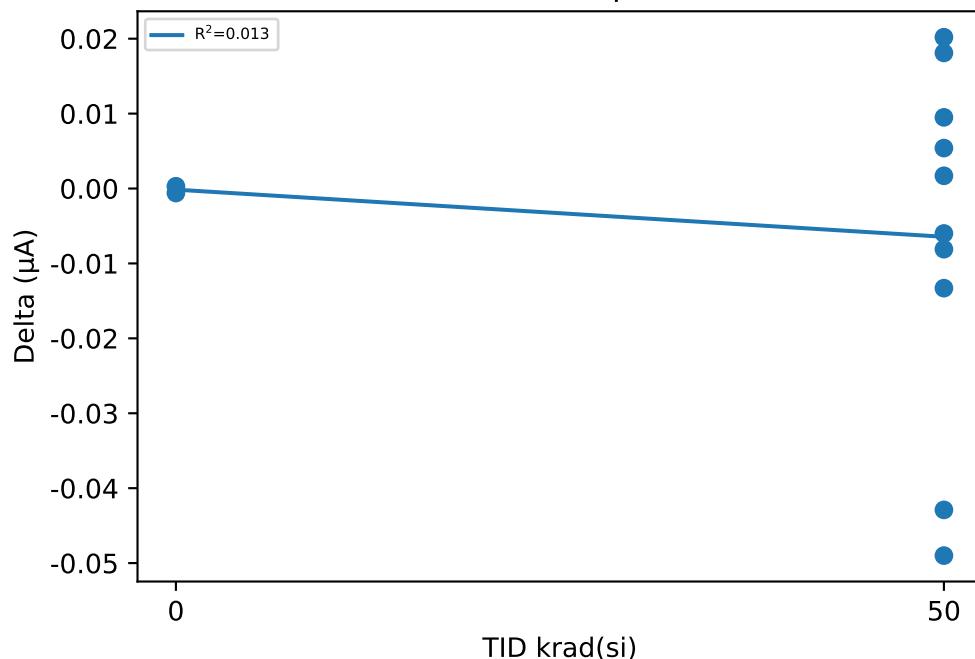
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8519     | 2.8513      | -0.0006 |
| 2        | 0        | Correlation         | 2.7675     | 2.7678      | 0.0003  |
| 4        | 50       | Bias                | 2.7353     | 2.7534      | 0.0181  |
| 6        | 50       | Bias                | 2.7254     | 2.6825      | -0.0429 |
| 7        | 50       | Bias                | 2.7961     | 2.788       | -0.0081 |
| 8        | 50       | Bias                | 2.7541     | 2.7636      | 0.0095  |
| 9        | 50       | Bias                | 2.7586     | 2.7453      | -0.0133 |
| 11       | 50       | Unbias              | 2.7302     | 2.7242      | -0.006  |
| 12       | 50       | Unbias              | 2.6578     | 2.6088      | -0.049  |
| 13       | 50       | Unbias              | 2.6738     | 2.6792      | 0.0054  |
| 14       | 50       | Unbias              | 2.7865     | 2.7882      | 0.0017  |
| 15       | 50       | Unbias              | 2.7934     | 2.8136      | 0.0202  |

TID vs Post - Pre Exposure Delta

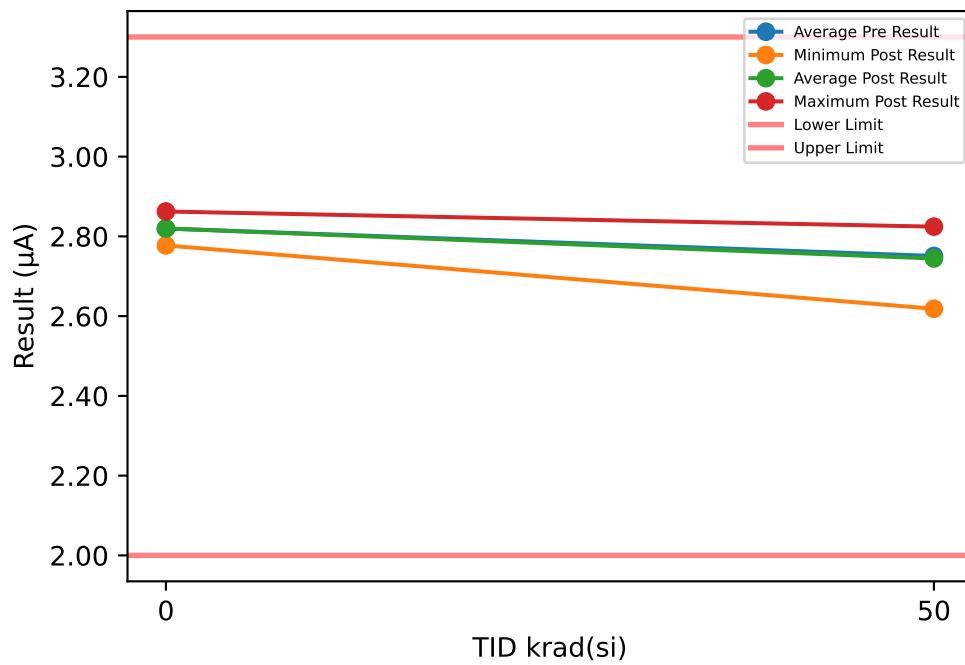


Test Statistics (μA)

| 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        | 2.7675           | 2.8097           | 2.8519           | 0.05968          | 2.7678            | 2.8095            | 2.8513            | 0.059043          | -0.0006   | -0.00015  | 0.0003    | 0.0006364 |
| 50       | 2.6578           | 2.7411           | 2.7961           | 0.047333         | 2.6088            | 2.7347            | 2.8136            | 0.062354          | -0.049    | -0.00644  | 0.0202    | 0.023483  |

# Device Test: 18.21 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/5/5/0/1000/5/500kHz//@I<sub>SS</sub>)

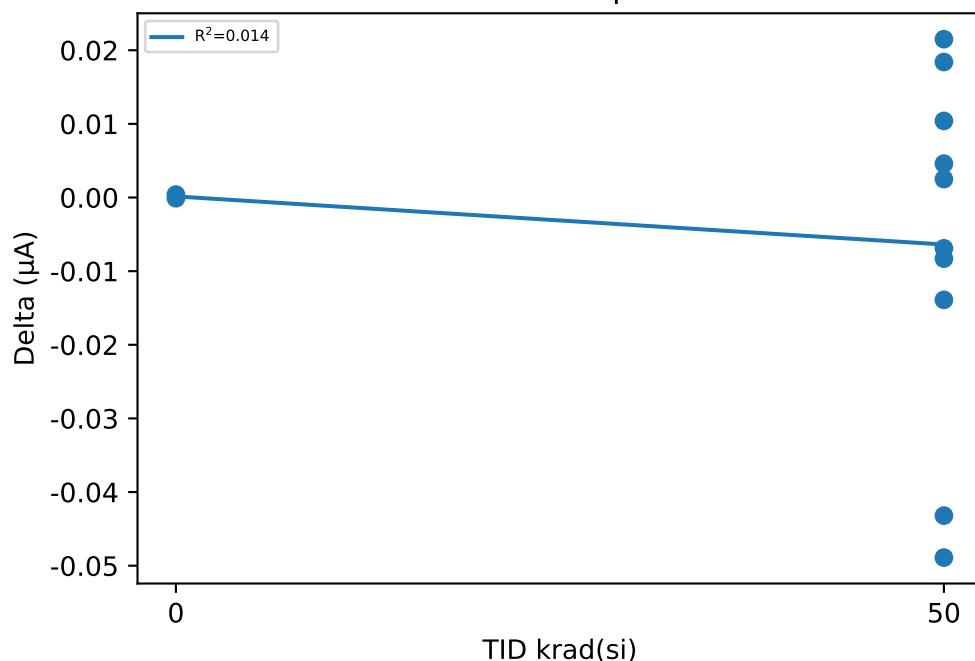
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8625     | 2.8624      | -0.0001 |
| 2        | 0        | Correlation         | 2.7769     | 2.7773      | 0.0004  |
| 4        | 50       | Bias                | 2.7447     | 2.7631      | 0.0184  |
| 6        | 50       | Bias                | 2.7353     | 2.6921      | -0.0432 |
| 7        | 50       | Bias                | 2.8065     | 2.7982      | -0.0083 |
| 8        | 50       | Bias                | 2.7642     | 2.7746      | 0.0104  |
| 9        | 50       | Bias                | 2.7683     | 2.7544      | -0.0139 |
| 11       | 50       | Unbias              | 2.7401     | 2.7332      | -0.0069 |
| 12       | 50       | Unbias              | 2.6674     | 2.6185      | -0.0489 |
| 13       | 50       | Unbias              | 2.6833     | 2.6879      | 0.0046  |
| 14       | 50       | Unbias              | 2.7967     | 2.7992      | 0.0025  |
| 15       | 50       | Unbias              | 2.8029     | 2.8244      | 0.0215  |

TID vs Post - Pre Exposure Delta

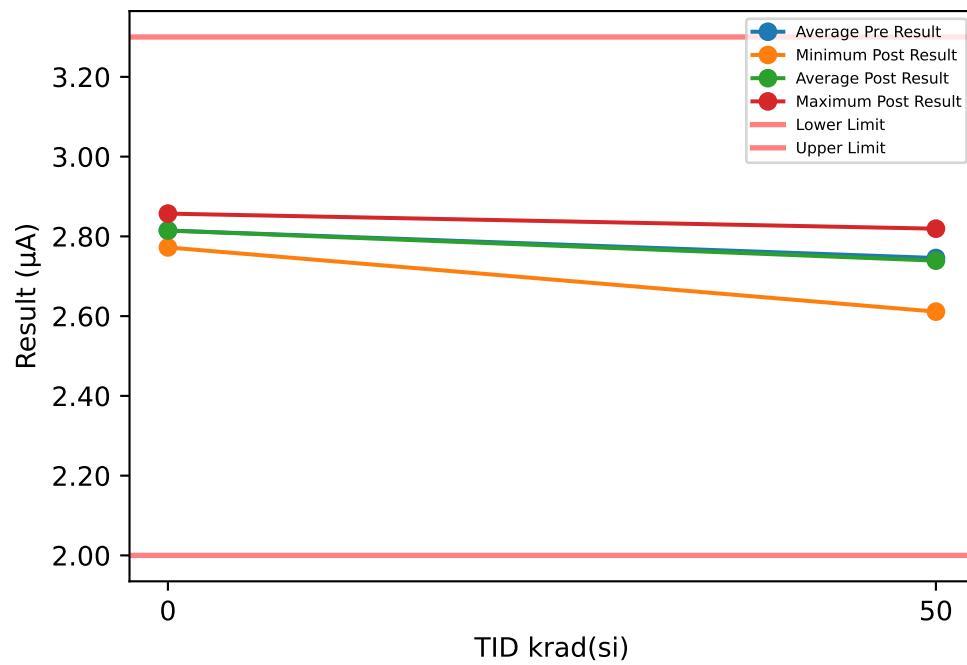


Test Statistics (μA)

| 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        | 2.7769           | 2.8197           | 2.8625           | 0.060528         | 2.7773            | 2.8198            | 2.8624            | 0.060175          | -0.0001   | 0.00015   | 0.0004    | 0.00035355 |
| 50       | 2.6674           | 2.7509           | 2.8065           | 0.047508         | 2.6185            | 2.7446            | 2.8244            | 0.06286           | -0.0489   | -0.00638  | 0.0215    | 0.023797   |

# Device Test: 18.25 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/12/12/0/1000/5/500kHz//@I<sub>SS</sub>)

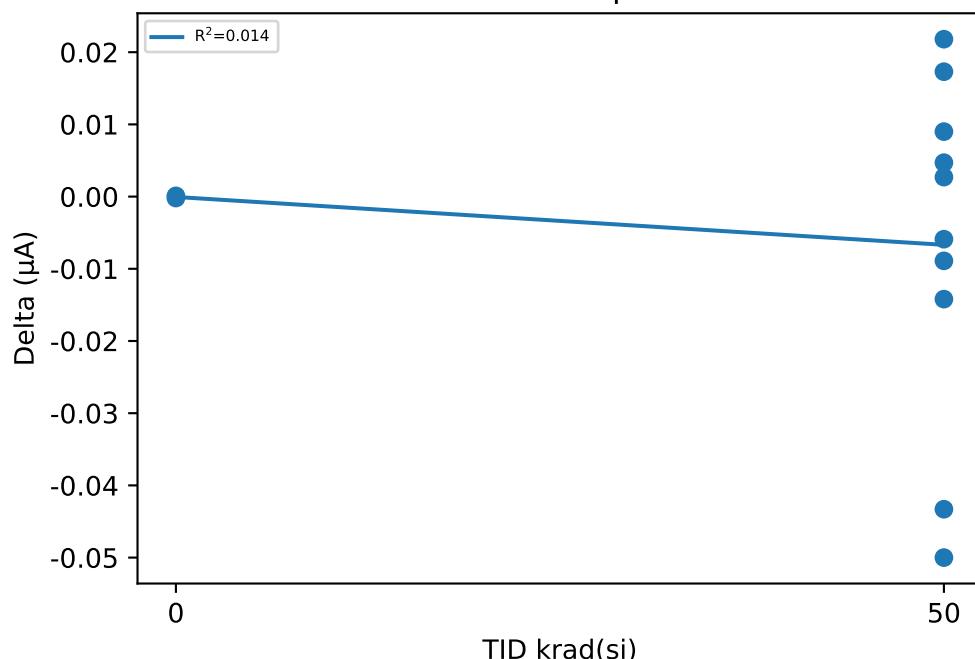
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8573     | 2.8571      | -0.0002 |
| 2        | 0        | Correlation         | 2.7722     | 2.7723      | 0.0001  |
| 4        | 50       | Bias                | 2.7403     | 2.7576      | 0.0173  |
| 6        | 50       | Bias                | 2.7302     | 2.6869      | -0.0433 |
| 7        | 50       | Bias                | 2.8015     | 2.7926      | -0.0089 |
| 8        | 50       | Bias                | 2.7594     | 2.7684      | 0.009   |
| 9        | 50       | Bias                | 2.7632     | 2.749       | -0.0142 |
| 11       | 50       | Unbias              | 2.735      | 2.7291      | -0.0059 |
| 12       | 50       | Unbias              | 2.6613     | 2.6113      | -0.05   |
| 13       | 50       | Unbias              | 2.6785     | 2.6832      | 0.0047  |
| 14       | 50       | Unbias              | 2.7911     | 2.7938      | 0.0027  |
| 15       | 50       | Unbias              | 2.7975     | 2.8193      | 0.0218  |

TID vs Post - Pre Exposure Delta

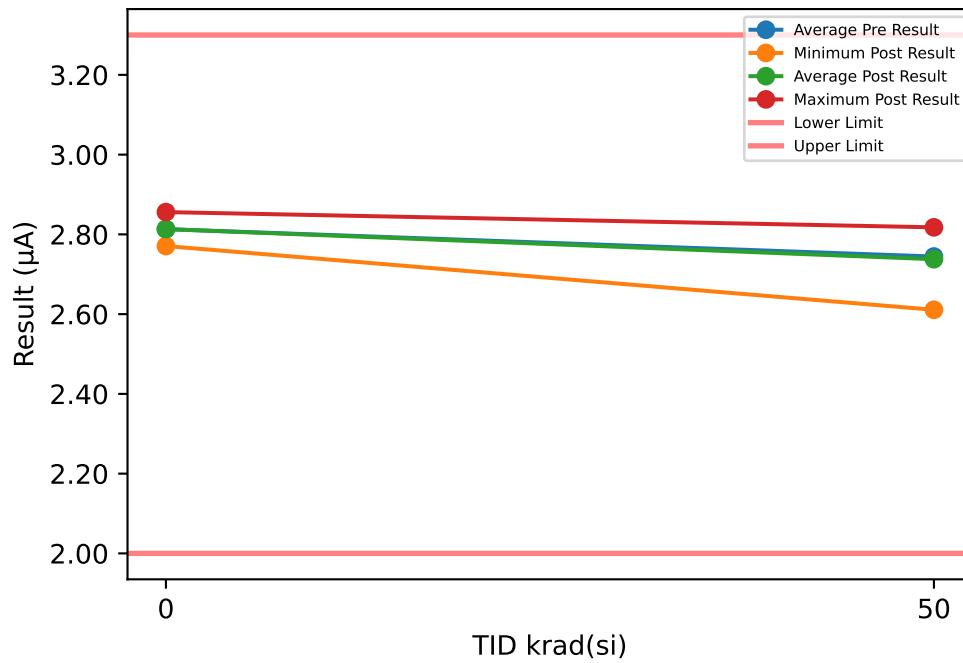


Test Statistics (μA)

| 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        | 2.7722           | 2.8148           | 2.8573           | 0.060175         | 2.7723            | 2.8147            | 2.8571            | 0.059963          | -0.0002   | -5e-05    | 0.0001    | 0.00021213 |
| 50       | 2.6613           | 2.7458           | 2.8015           | 0.04758          | 2.6113            | 2.7391            | 2.8193            | 0.063129          | -0.05     | -0.00668  | 0.0218    | 0.023873   |

# Device Test: 18.29 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/14/14/0/1000/5/500kHz//@I<sub>SS</sub>)

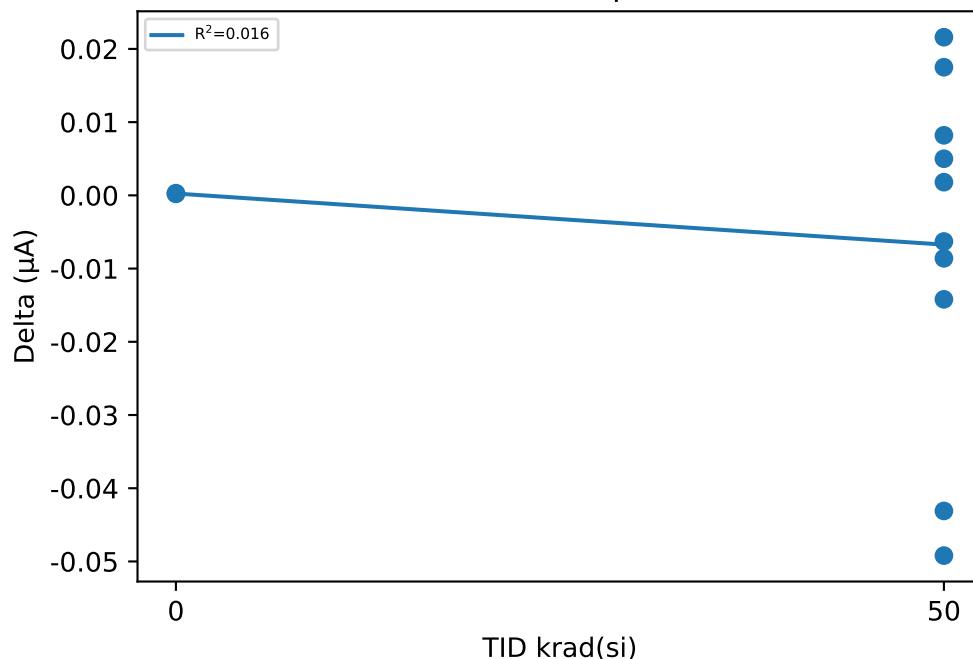
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8556     | 2.8559      | 0.0003  |
| 2        | 0        | Correlation         | 2.7706     | 2.7708      | 0.0002  |
| 4        | 50       | Bias                | 2.7386     | 2.7561      | 0.0175  |
| 6        | 50       | Bias                | 2.7291     | 2.686       | -0.0431 |
| 7        | 50       | Bias                | 2.8001     | 2.7915      | -0.0086 |
| 8        | 50       | Bias                | 2.7581     | 2.7663      | 0.0082  |
| 9        | 50       | Bias                | 2.7619     | 2.7477      | -0.0142 |
| 11       | 50       | Unbias              | 2.7333     | 2.727       | -0.0063 |
| 12       | 50       | Unbias              | 2.6601     | 2.6109      | -0.0492 |
| 13       | 50       | Unbias              | 2.6771     | 2.6821      | 0.005   |
| 14       | 50       | Unbias              | 2.7902     | 2.792       | 0.0018  |
| 15       | 50       | Unbias              | 2.7961     | 2.8177      | 0.0216  |

TID vs Post - Pre Exposure Delta

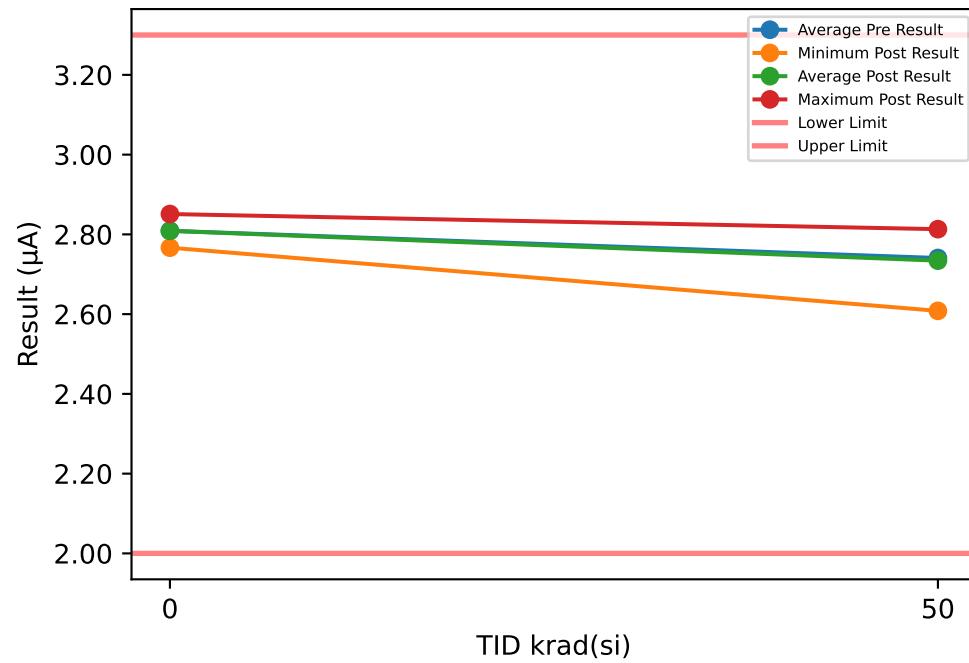


Test Statistics (μA)

| 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        | 2.7706           | 2.8131           | 2.8556           | 0.060104         | 2.7708            | 2.8133            | 2.8559            | 0.060175          | 0.0002    | 0.00025   | 0.0003    | 7.0711e-05 |
| 50       | 2.6601           | 2.7445           | 2.8001           | 0.047602         | 2.6109            | 2.7377            | 2.8177            | 0.062766          | -0.0492   | -0.00673  | 0.0216    | 0.023591   |

# Device Test: 18.33 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/4.5/4.5/0/1000/4.5/1MHz//@I<sub>SS</sub>)

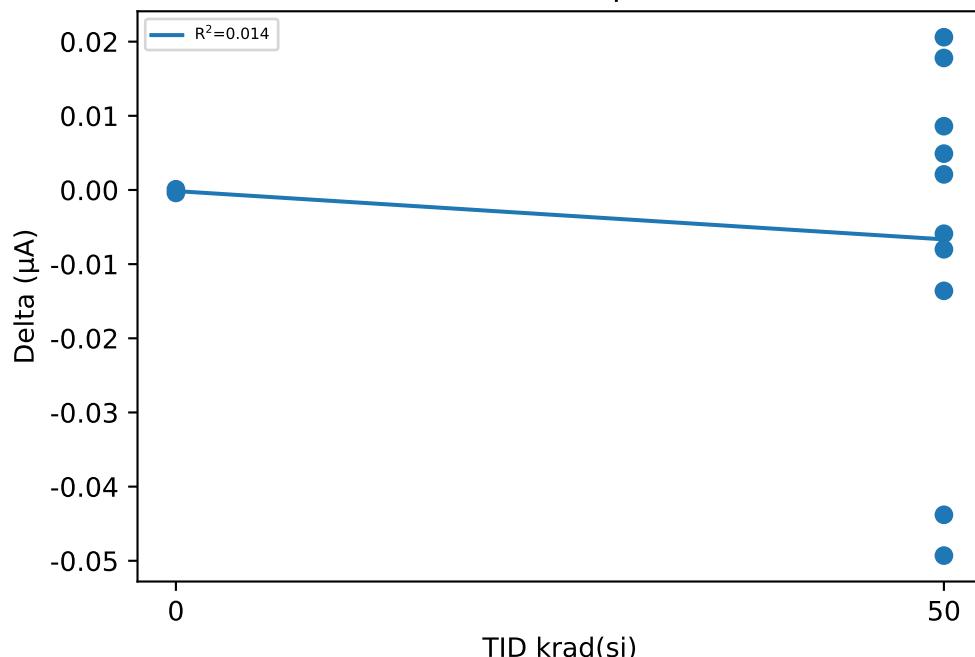
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8509     | 2.851       | 0.0001  |
| 2        | 0        | Correlation         | 2.7671     | 2.7667      | -0.0004 |
| 4        | 50       | Bias                | 2.7349     | 2.7527      | 0.0178  |
| 6        | 50       | Bias                | 2.7252     | 2.6814      | -0.0438 |
| 7        | 50       | Bias                | 2.7956     | 2.7876      | -0.008  |
| 8        | 50       | Bias                | 2.7539     | 2.7625      | 0.0086  |
| 9        | 50       | Bias                | 2.7582     | 2.7446      | -0.0136 |
| 11       | 50       | Unbias              | 2.7299     | 2.724       | -0.0059 |
| 12       | 50       | Unbias              | 2.6575     | 2.6082      | -0.0493 |
| 13       | 50       | Unbias              | 2.6737     | 2.6786      | 0.0049  |
| 14       | 50       | Unbias              | 2.7863     | 2.7884      | 0.0021  |
| 15       | 50       | Unbias              | 2.7925     | 2.8131      | 0.0206  |

TID vs Post - Pre Exposure Delta

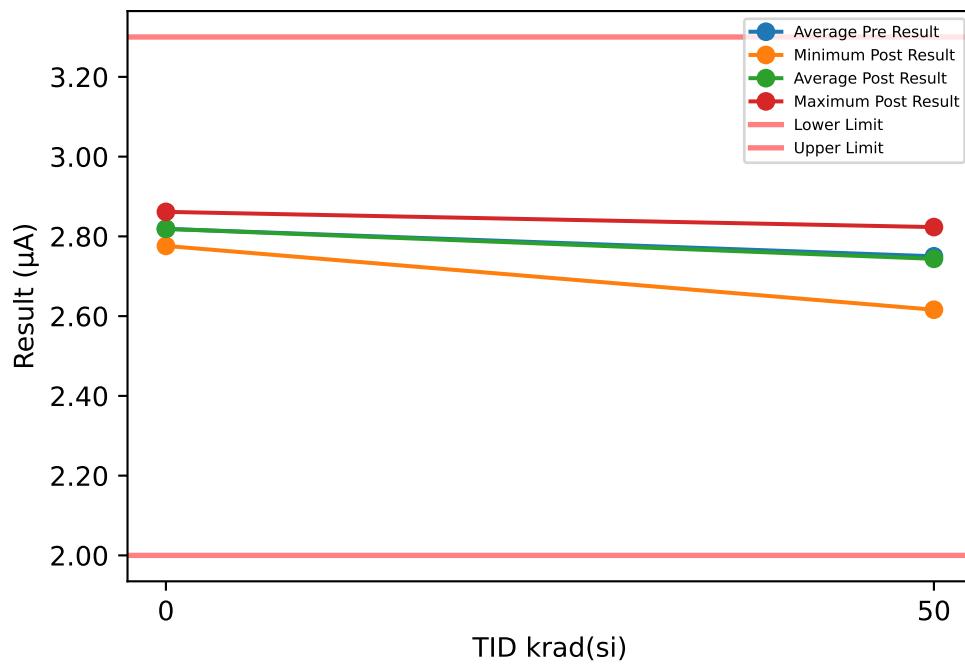


Test Statistics (μA)

| 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        | 2.7671           | 2.809            | 2.8509           | 0.059256         | 2.7667            | 2.8089            | 2.851             | 0.059609          | -0.0004   | -0.00015  | 0.0001    | 0.00035355 |
| 50       | 2.6575           | 2.7408           | 2.7956           | 0.04721          | 2.6082            | 2.7341            | 2.8131            | 0.062472          | -0.0493   | -0.00666  | 0.0206    | 0.023647   |

# Device Test: 18.37 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/5/5/0/1000/5/1MHz//@I<sub>SS</sub>)

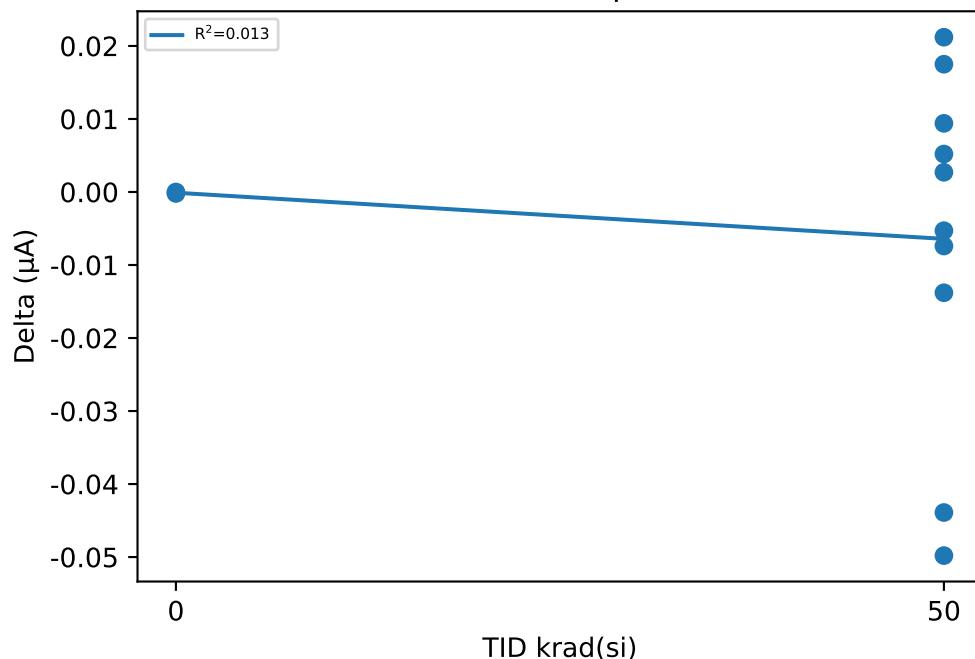
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8615     | 2.8615      | 0       |
| 2        | 0        | Correlation         | 2.7763     | 2.7761      | -0.0002 |
| 4        | 50       | Bias                | 2.7446     | 2.7621      | 0.0175  |
| 6        | 50       | Bias                | 2.7348     | 2.6909      | -0.0439 |
| 7        | 50       | Bias                | 2.8052     | 2.7978      | -0.0074 |
| 8        | 50       | Bias                | 2.7635     | 2.7729      | 0.0094  |
| 9        | 50       | Bias                | 2.7673     | 2.7535      | -0.0138 |
| 11       | 50       | Unbias              | 2.7392     | 2.7339      | -0.0053 |
| 12       | 50       | Unbias              | 2.6659     | 2.6161      | -0.0498 |
| 13       | 50       | Unbias              | 2.6823     | 2.6875      | 0.0052  |
| 14       | 50       | Unbias              | 2.7958     | 2.7985      | 0.0027  |
| 15       | 50       | Unbias              | 2.8021     | 2.8233      | 0.0212  |

TID vs Post - Pre Exposure Delta

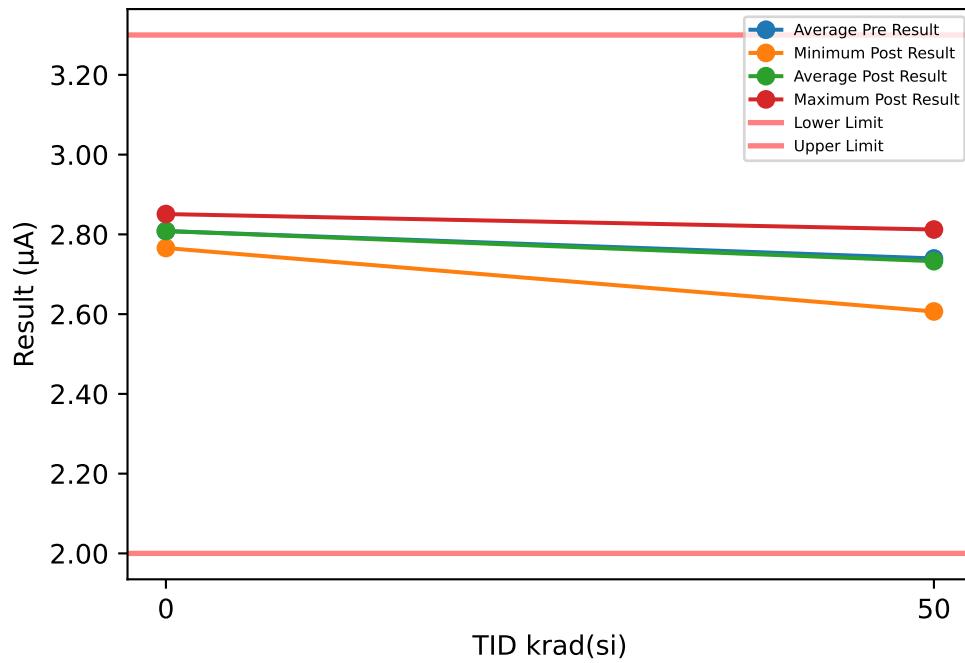


Test Statistics (μA)

| 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        | 2.7763           | 2.8189           | 2.8615           | 0.060245         | 2.7761            | 2.8188            | 2.8615            | 0.060387          | -0.0002   | -0.0001   | 0         | 0.00014142 |
| 50       | 2.6659           | 2.7501           | 2.8052           | 0.047579         | 2.6161            | 2.7437            | 2.8233            | 0.063138          | -0.0498   | -0.00642  | 0.0212    | 0.023914   |

# Device Test: 18.41 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/12/12/0/1000/5/1MHz//@I<sub>SS</sub>)

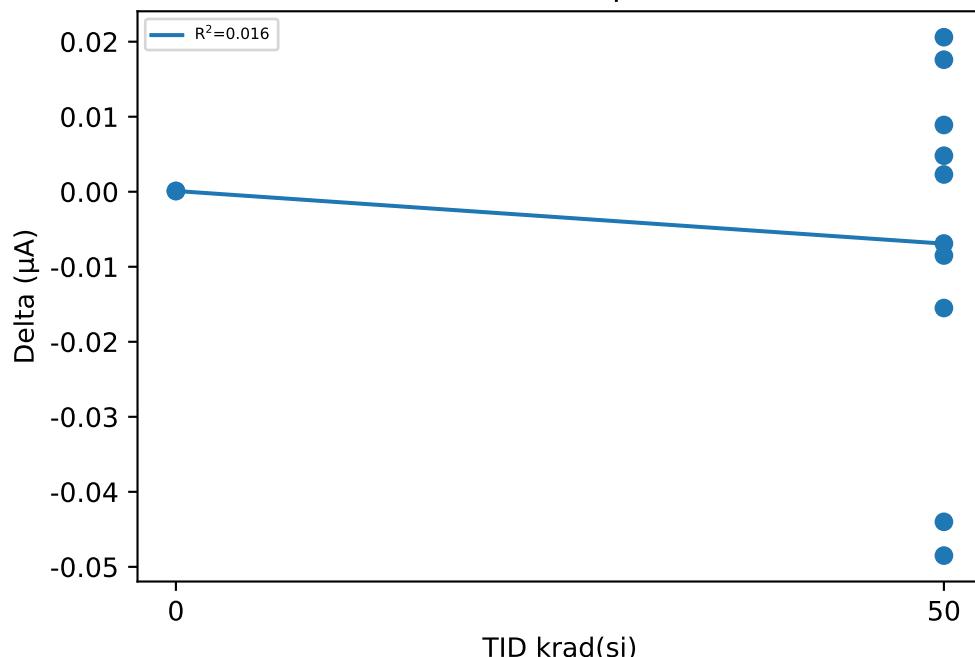
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8509     | 2.851       | 0.0001  |
| 2        | 0        | Correlation         | 2.7657     | 2.7658      | 0.0001  |
| 4        | 50       | Bias                | 2.734      | 2.7516      | 0.0176  |
| 6        | 50       | Bias                | 2.7243     | 2.6803      | -0.044  |
| 7        | 50       | Bias                | 2.795      | 2.7865      | -0.0085 |
| 8        | 50       | Bias                | 2.7532     | 2.7621      | 0.0089  |
| 9        | 50       | Bias                | 2.757      | 2.7415      | -0.0155 |
| 11       | 50       | Unbias              | 2.7286     | 2.7217      | -0.0069 |
| 12       | 50       | Unbias              | 2.6552     | 2.6067      | -0.0485 |
| 13       | 50       | Unbias              | 2.6728     | 2.6776      | 0.0048  |
| 14       | 50       | Unbias              | 2.7851     | 2.7874      | 0.0023  |
| 15       | 50       | Unbias              | 2.7916     | 2.8122      | 0.0206  |

TID vs Post - Pre Exposure Delta

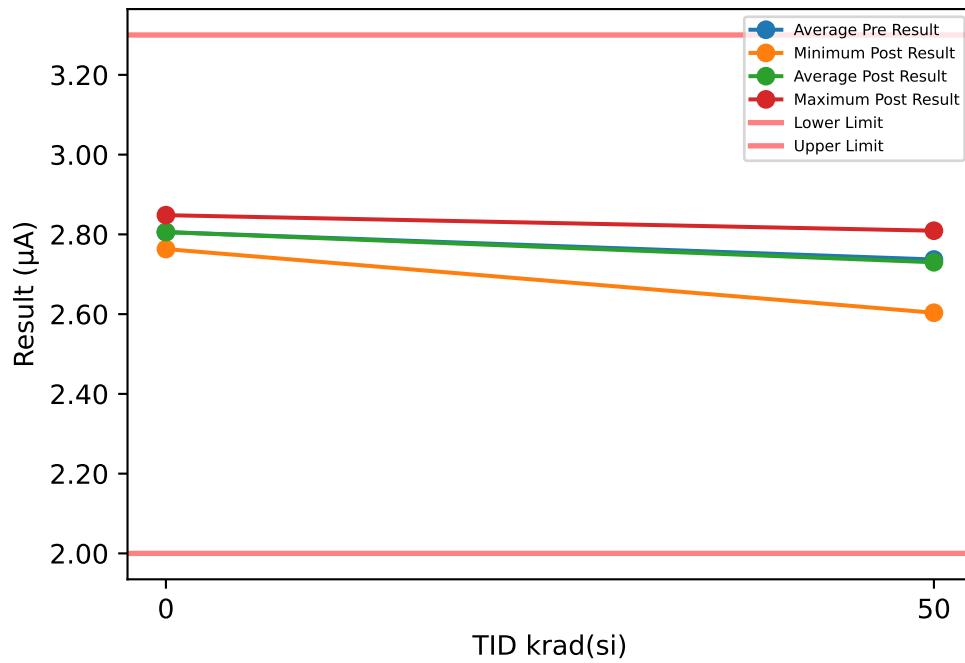


Test Statistics (μA)

| 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        | 2.7657           | 2.8083           | 2.8509           | 0.060245         | 2.7658            | 2.8084            | 2.851             | 0.060245          | 0.0001    | 0.0001    | 0.0001    | 0         |
| 50       | 2.6552           | 2.7397           | 2.795            | 0.047496         | 2.6067            | 2.7328            | 2.8122            | 0.062614          | -0.0485   | -0.00692  | 0.0206    | 0.023597  |

# Device Test: 18.45 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/14/14/0/1000/5/1MHz//@I<sub>SS</sub>)

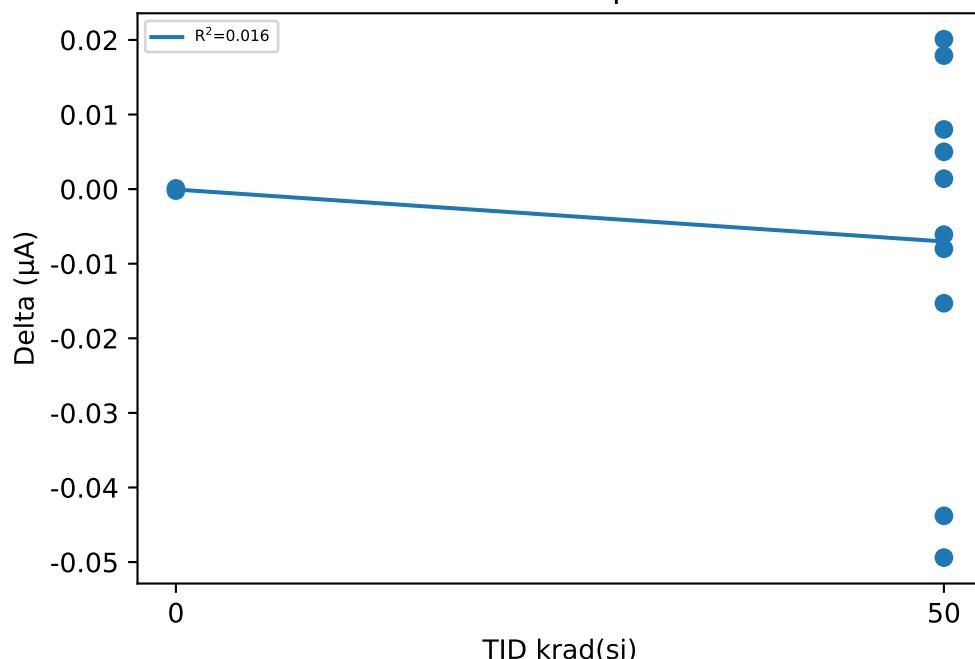
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8481     | 2.8482      | 0.0001  |
| 2        | 0        | Correlation         | 2.7634     | 2.7632      | -0.0002 |
| 4        | 50       | Bias                | 2.7312     | 2.7491      | 0.0179  |
| 6        | 50       | Bias                | 2.7212     | 2.6774      | -0.0438 |
| 7        | 50       | Bias                | 2.7922     | 2.7842      | -0.008  |
| 8        | 50       | Bias                | 2.7505     | 2.7585      | 0.008   |
| 9        | 50       | Bias                | 2.7548     | 2.7395      | -0.0153 |
| 11       | 50       | Unbias              | 2.7257     | 2.7196      | -0.0061 |
| 12       | 50       | Unbias              | 2.6529     | 2.6035      | -0.0494 |
| 13       | 50       | Unbias              | 2.67       | 2.675       | 0.005   |
| 14       | 50       | Unbias              | 2.783      | 2.7844      | 0.0014  |
| 15       | 50       | Unbias              | 2.7891     | 2.8092      | 0.0201  |

TID vs Post - Pre Exposure Delta

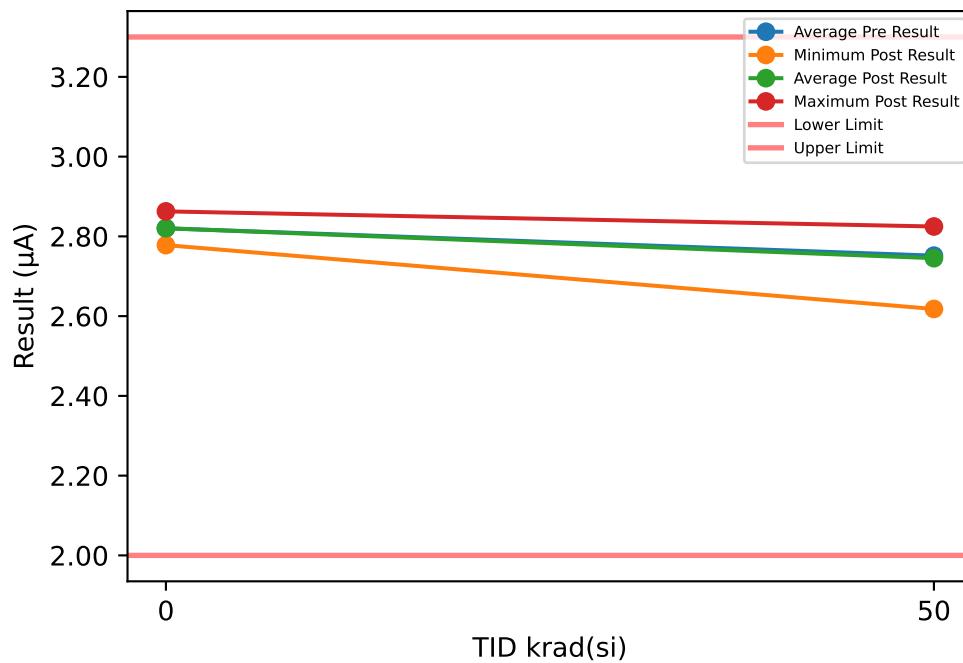


Test Statistics (μA)

| 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        | 2.7634           | 2.8058           | 2.8481           | 0.059892         | 2.7632            | 2.8057            | 2.8482            | 0.060104          | -0.0002   | -5e-05    | 0.0001    | 0.00021213 |
| 50       | 2.6529           | 2.7371           | 2.7922           | 0.04755          | 2.6035            | 2.73              | 2.8092            | 0.062662          | -0.0494   | -0.00702  | 0.0201    | 0.023609   |

# Device Test: 18.5 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/5/5/0/1000/5/100kHz//@I<sub>SS</sub>)

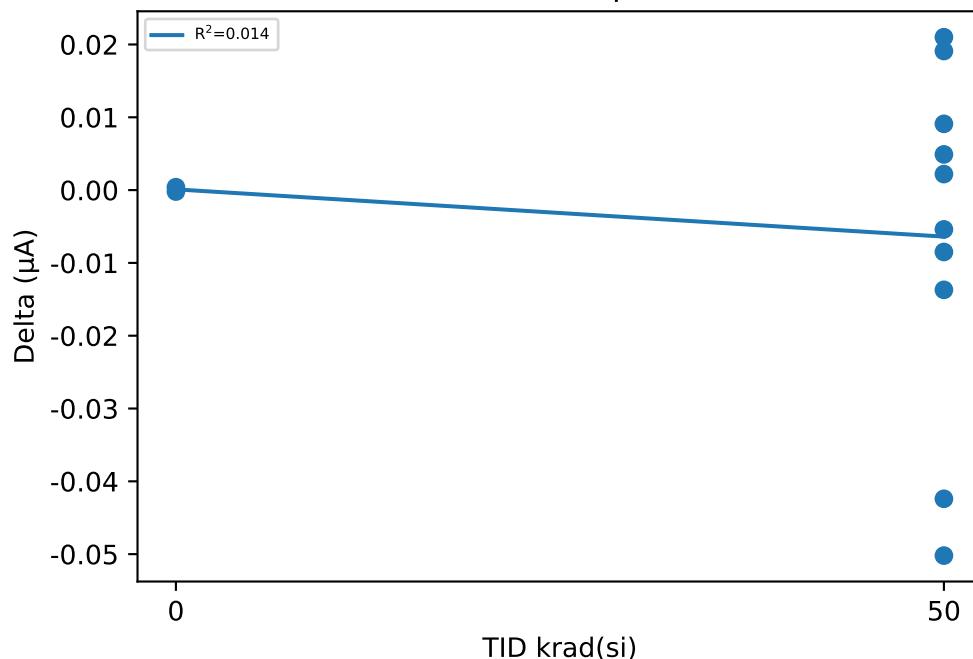
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8629     | 2.8627      | -0.0002 |
| 2        | 0        | Correlation         | 2.7777     | 2.7781      | 0.0004  |
| 4        | 50       | Bias                | 2.7457     | 2.7648      | 0.0191  |
| 6        | 50       | Bias                | 2.7359     | 2.6935      | -0.0424 |
| 7        | 50       | Bias                | 2.8069     | 2.7984      | -0.0085 |
| 8        | 50       | Bias                | 2.765      | 2.7741      | 0.0091  |
| 9        | 50       | Bias                | 2.769      | 2.7553      | -0.0137 |
| 11       | 50       | Unbias              | 2.7409     | 2.7355      | -0.0054 |
| 12       | 50       | Unbias              | 2.6682     | 2.618       | -0.0502 |
| 13       | 50       | Unbias              | 2.684      | 2.6889      | 0.0049  |
| 14       | 50       | Unbias              | 2.7975     | 2.7997      | 0.0022  |
| 15       | 50       | Unbias              | 2.8038     | 2.8248      | 0.021   |

TID vs Post - Pre Exposure Delta

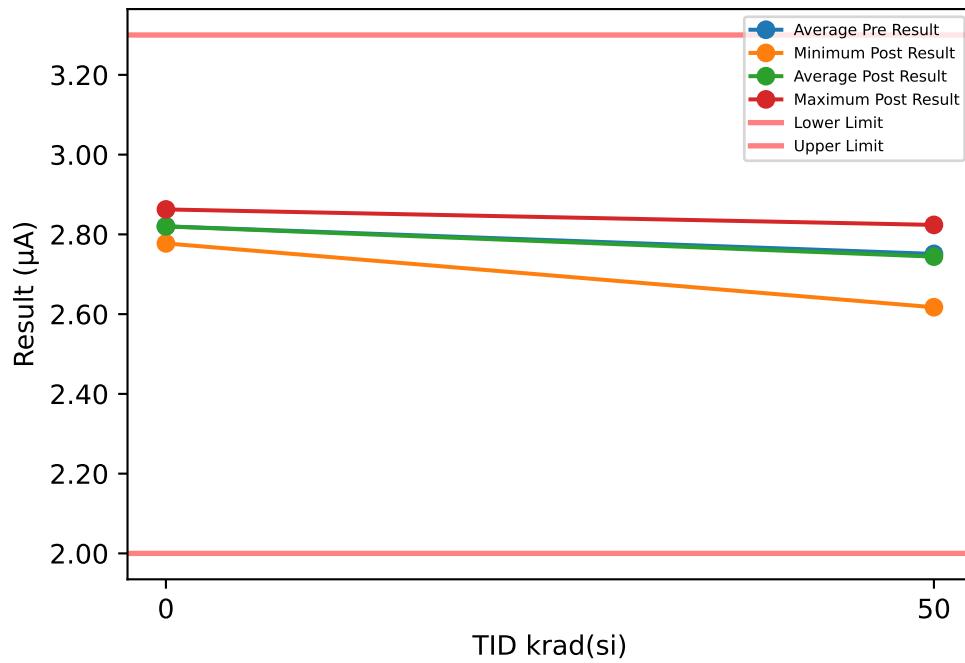


Test Statistics (μA)

| 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        | 2.7777           | 2.8203           | 2.8629           | 0.060245         | 2.7781            | 2.8204            | 2.8627            | 0.059821          | -0.0002   | 0.0001    | 0.0004    | 0.00042426 |
| 50       | 2.6682           | 2.7517           | 2.8069           | 0.047485         | 2.618             | 2.7453            | 2.8248            | 0.062871          | -0.0502   | -0.00639  | 0.021     | 0.023842   |

# Device Test: 18.9 I<sub>SS</sub>(CURRENT|SS\_0p3V/SS/12/12/0/1000/5/100kHz//@I<sub>SS</sub>)

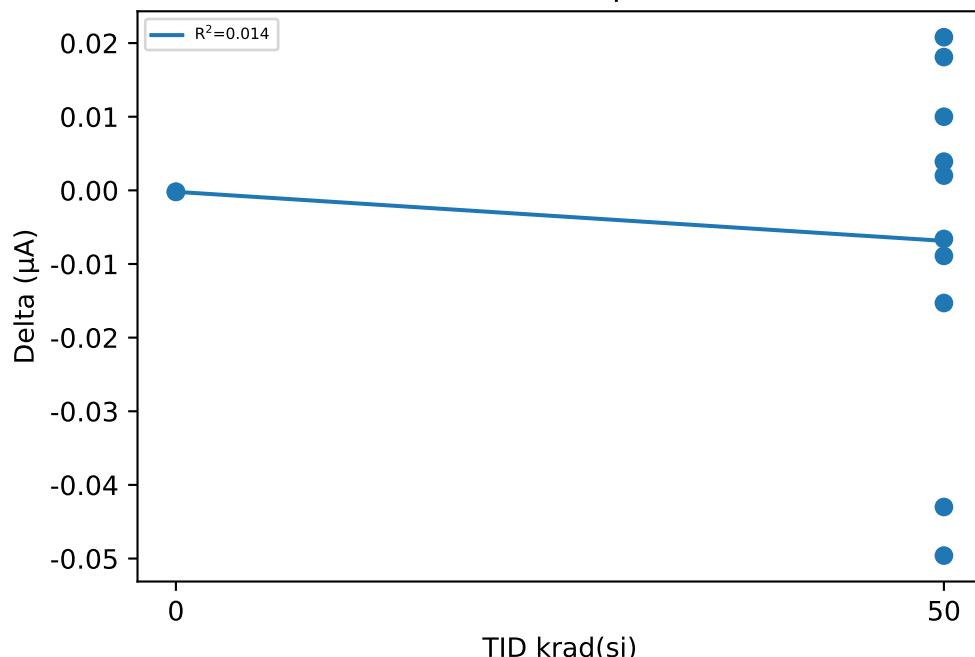
TID vs Result Stats



Test Results (Lower Limit = 2.0,  
Upper Limit = 3.3 (μA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.8628     | 2.8626      | -0.0002 |
| 2        | 0        | Correlation         | 2.7776     | 2.7774      | -0.0002 |
| 4        | 50       | Bias                | 2.7453     | 2.7634      | 0.0181  |
| 6        | 50       | Bias                | 2.7358     | 2.6928      | -0.043  |
| 7        | 50       | Bias                | 2.8063     | 2.7974      | -0.0089 |
| 8        | 50       | Bias                | 2.7643     | 2.7743      | 0.01    |
| 9        | 50       | Bias                | 2.7687     | 2.7534      | -0.0153 |
| 11       | 50       | Unbias              | 2.7399     | 2.7333      | -0.0066 |
| 12       | 50       | Unbias              | 2.6669     | 2.6173      | -0.0496 |
| 13       | 50       | Unbias              | 2.6837     | 2.6876      | 0.0039  |
| 14       | 50       | Unbias              | 2.7967     | 2.7987      | 0.002   |
| 15       | 50       | Unbias              | 2.803      | 2.8238      | 0.0208  |

TID vs Post - Pre Exposure Delta

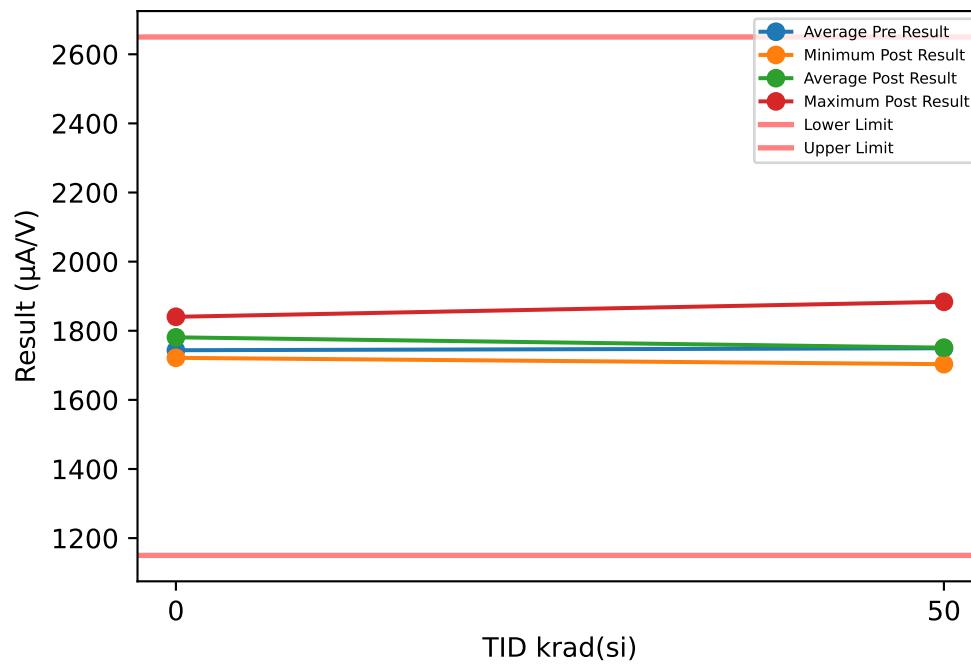


Test Statistics (μA)

| 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        | 2.7776           | 2.8202           | 2.8628           | 0.060245         | 2.7774            | 2.82              | 2.8626            | 0.060245          | -0.0002   | -0.0002   | -0.0002   | 0         |
| 50       | 2.6669           | 2.7511           | 2.8063           | 0.047527         | 2.6173            | 2.7442            | 2.8238            | 0.062861          | -0.0496   | -0.00686  | 0.0208    | 0.023746  |

# Device Test: 19.1 EA\_GM(LEVEL|TRANSCONDUCTANCE//4.5/4.5/0/0/4.5/500kHz//@EA\_GM)

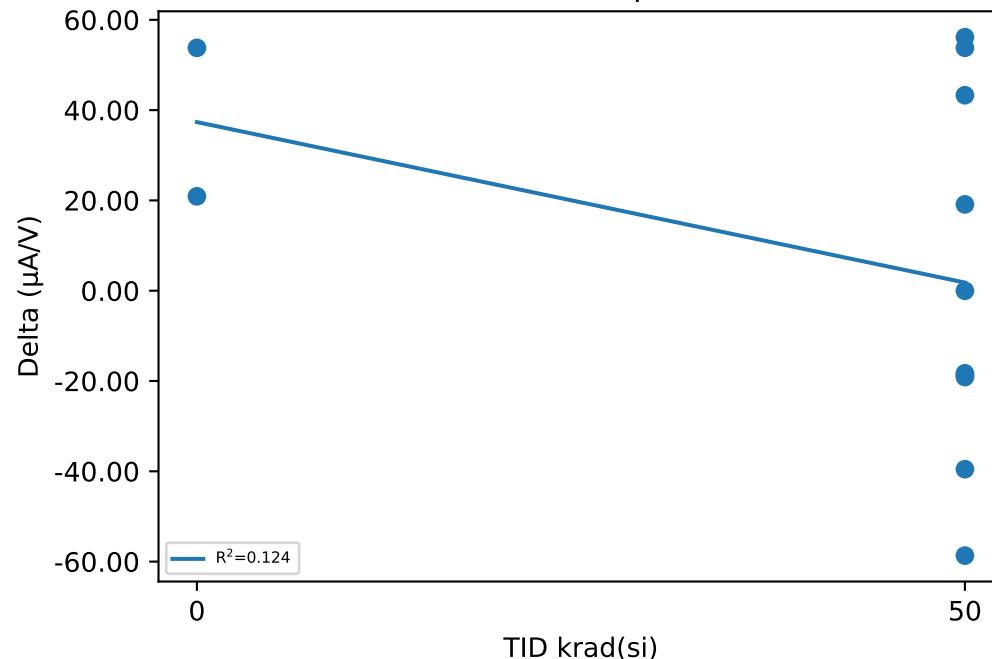
TID vs Result Stats



Test Results (Lower Limit = 1150.0, Upper Limit = 2650.0 (\muA/V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1819.5     | 1840.4      | 20.906  |
| 2        | 0        | Correlation         | 1667.8     | 1721.6      | 53.793  |
| 4        | 50       | Bias                | 1740.4     | 1759.5      | 19.119  |
| 6        | 50       | Bias                | 1799       | 1759.5      | -39.536 |
| 7        | 50       | Bias                | 1667.8     | 1721.6      | 53.81   |
| 8        | 50       | Bias                | 1703.3     | 1759.5      | 56.154  |
| 9        | 50       | Bias                | 1740.4     | 1721.6      | -18.708 |
| 11       | 50       | Unbias              | 1759.5     | 1740.4      | -19.128 |
| 12       | 50       | Unbias              | 1721.6     | 1703.3      | -18.301 |
| 13       | 50       | Unbias              | 1799       | 1740.4      | -58.673 |
| 14       | 50       | Unbias              | 1721.6     | 1721.6      | -0.0089 |
| 15       | 50       | Unbias              | 1840.4     | 1883.7      | 43.3    |

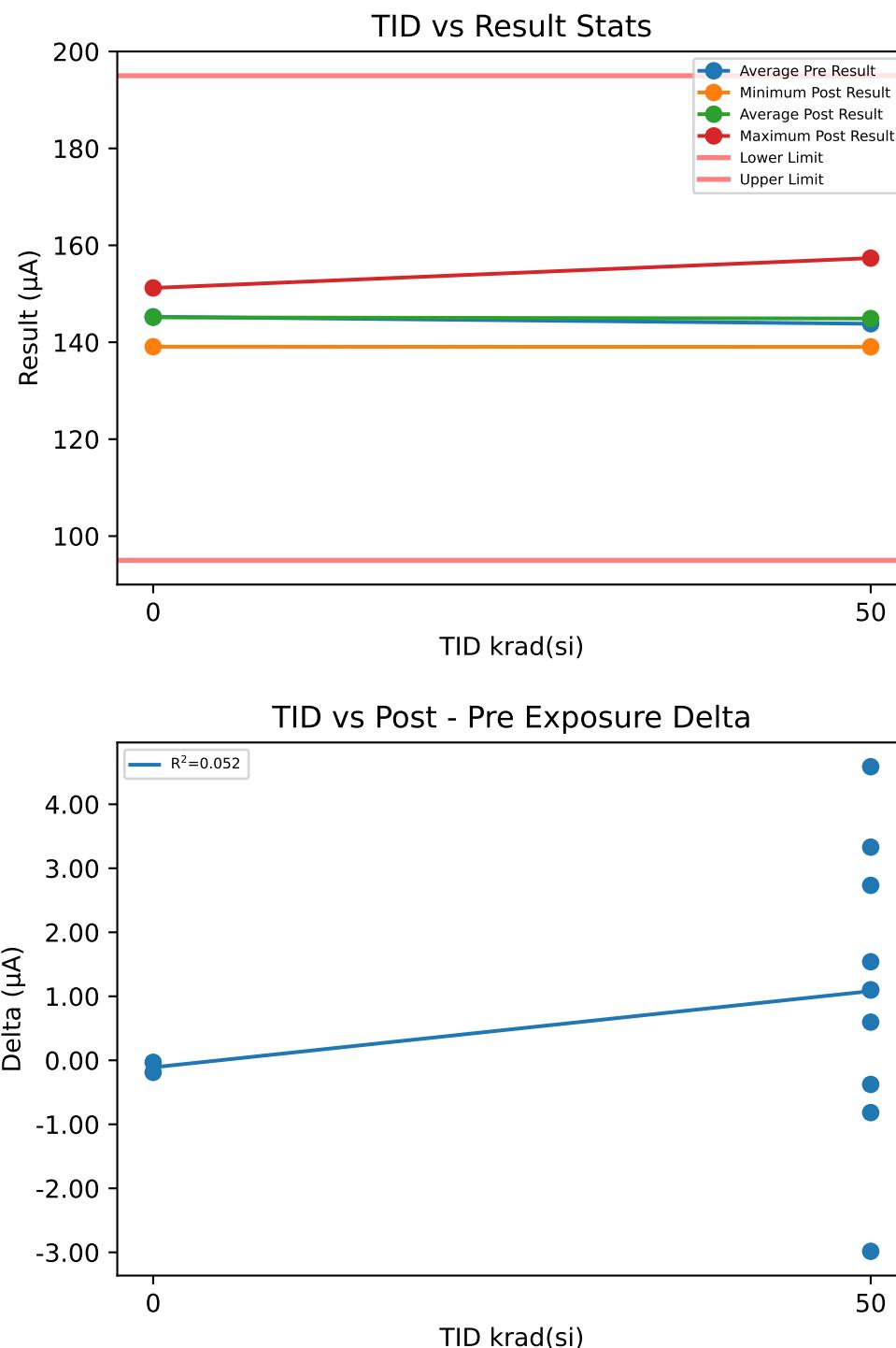
TID vs Post - Pre Exposure Delta



Test Statistics (\muA/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        | 1667.8           | 1743.7           | 1819.5           | 107.2            | 1721.6            | 1781              | 1840.4            | 83.95             | 20.906    | 37.35     | 53.793    | 23.254    |
| 50       | 1667.8           | 1749.3           | 1840.4           | 51.407           | 1703.3            | 1751.1            | 1883.7            | 50.447            | -58.673   | 1.8028    | 56.154    | 39.879    |

# Device Test: 19.10 EA\_I\_SOURCE(CURRENT|EA\_SOURCE//12/12/0/0/5/500kHz//@EA\_I\_SOURCE)



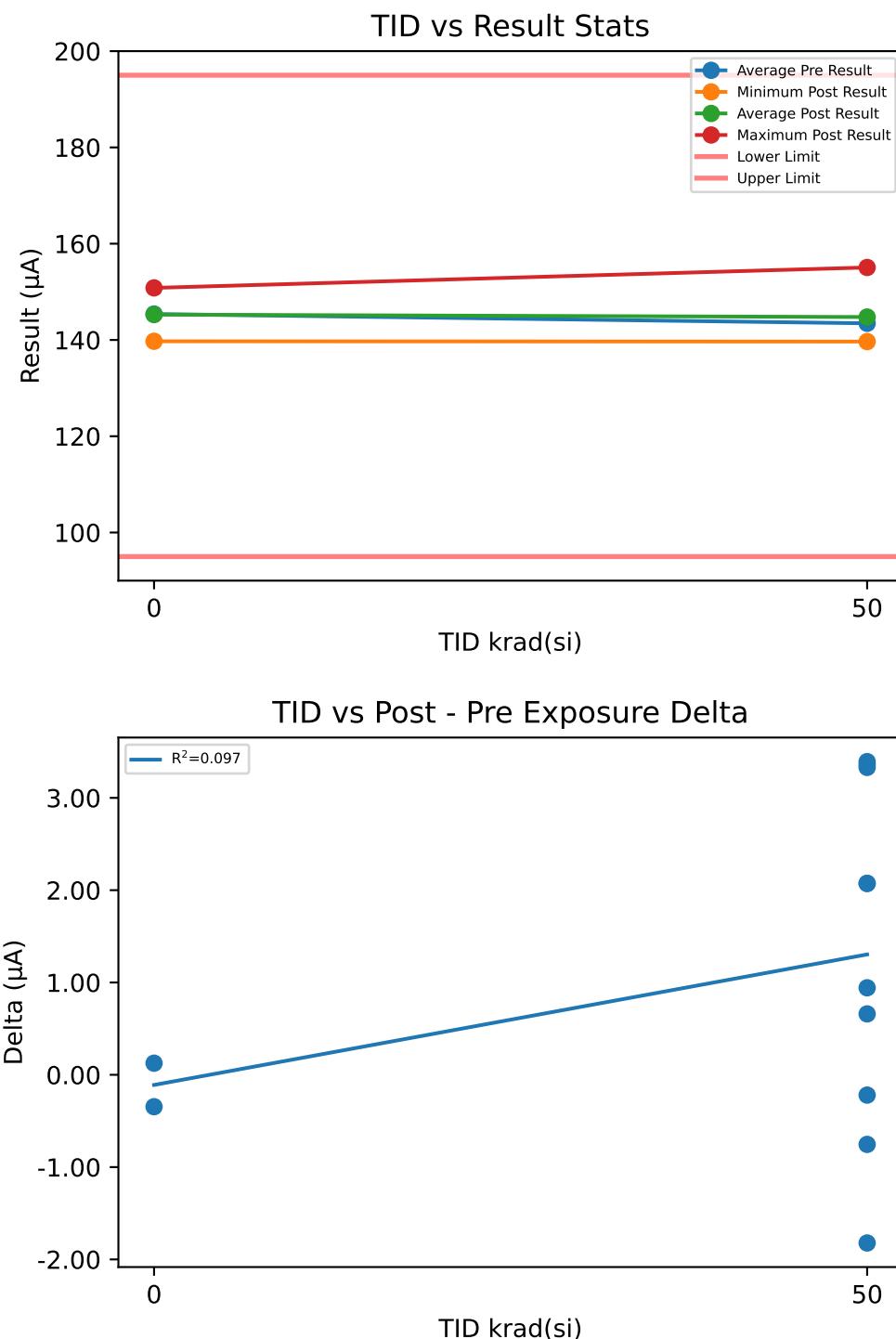
**Test Results (Lower Limit = 95.0, Upper Limit = 195.0 ( $\mu\text{A}$ ))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 151.39     | 151.2       | -0.1885 |
| 2        | 0        | Correlation         | 139.11     | 139.08      | -0.0314 |
| 4        | 50       | Bias                | 141.62     | 142.72      | 1.0995  |
| 6        | 50       | Bias                | 149.79     | 146.81      | -2.9844 |
| 7        | 50       | Bias                | 138.48     | 139.08      | 0.5969  |
| 8        | 50       | Bias                | 143.07     | 145.8       | 2.7331  |
| 9        | 50       | Bias                | 142.6      | 141.78      | -0.8168 |
| 11       | 50       | Unbias              | 144.26     | 145.8       | 1.5393  |
| 12       | 50       | Unbias              | 142.66     | 142.28      | -0.3769 |
| 13       | 50       | Unbias              | 144.95     | 148.28      | 3.33    |
| 14       | 50       | Unbias              | 137.95     | 139.05      | 1.0995  |
| 15       | 50       | Unbias              | 152.77     | 157.36      | 4.5865  |

**Test Statistics ( $\mu\text{A}$ )**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 139.11           | 145.25           | 151.39           | 8.6855           | 139.08            | 145.14            | 151.2             | 8.5744            | -0.1885   | -0.10995  | -0.0314   | 0.11109   |
| 50       | 137.95           | 143.81           | 152.77           | 4.5771           | 139.05            | 144.9             | 157.36            | 5.39              | -2.9844   | 1.0807    | 4.5865    | 2.1801    |

# Device Test: 19.11 EA\_I\_SINK(CURRENT|EA\_SINK//12/12/0/0/5/500kHz//@EA\_I\_SINK)



**Test Results (Lower Limit = 95.0, Upper Limit = 195.0 (\mu A))**

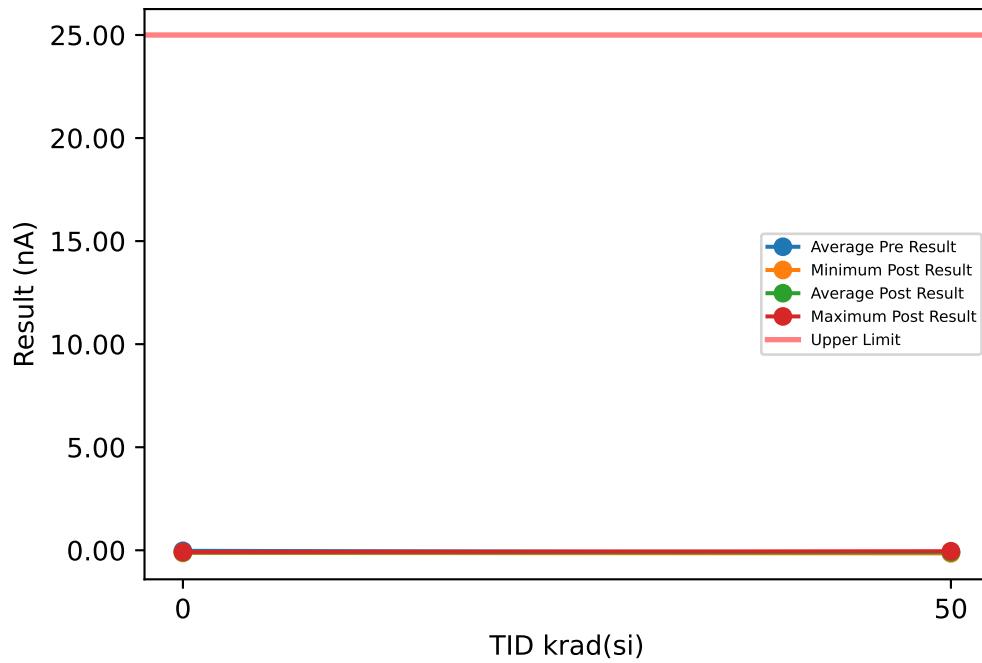
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 150.69     | 150.82      | 0.1256  |
| 2        | 0        | Correlation         | 140.07     | 139.73      | -0.3456 |
| 4        | 50       | Bias                | 142.34     | 144.41      | 2.0734  |
| 6        | 50       | Bias                | 149.75     | 147.93      | -1.822  |
| 7        | 50       | Bias                | 139.01     | 139.67      | 0.6597  |
| 8        | 50       | Bias                | 143.4      | 146.8       | 3.3928  |
| 9        | 50       | Bias                | 143.5      | 143.28      | -0.2199 |
| 11       | 50       | Unbias              | 142.37     | 143.31      | 0.9425  |
| 12       | 50       | Unbias              | 141.36     | 140.61      | -0.754  |
| 13       | 50       | Unbias              | 143.25     | 146.58      | 3.3299  |
| 14       | 50       | Unbias              | 137.94     | 140.01      | 2.0733  |
| 15       | 50       | Unbias              | 151.7      | 155.06      | 3.3614  |

**Test Statistics (\mu A)**

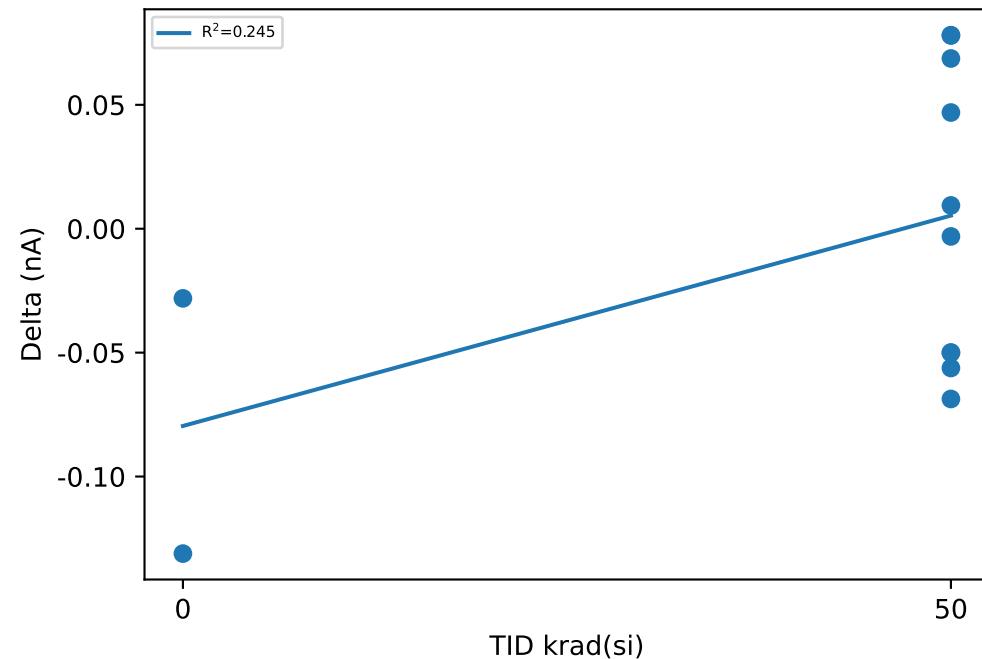
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 140.07           | 145.38           | 150.69           | 7.5082           | 139.73            | 145.27            | 150.82            | 7.8414            | -0.3456   | -0.11     | 0.1256    | 0.33319   |
| 50       | 137.94           | 143.46           | 151.7            | 4.2773           | 139.67            | 144.76            | 155.06            | 4.6394            | -1.822    | 1.3037    | 3.3928    | 1.8487    |

# Device Test: 19.12 EA\_IB(CURRENT|EA//12/12/0/0/5/500kHz//@EA\_IB)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 25.0 (nA))

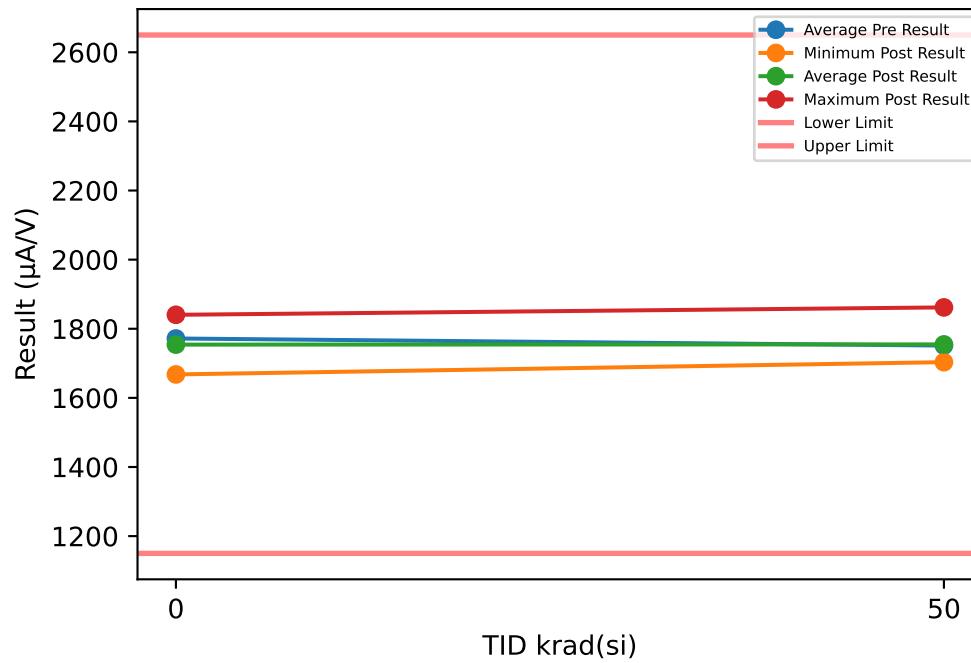
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.0514    | -0.0795     | -0.0281 |
| 2        | 0        | Correlation         | 0.0017     | -0.1294     | -0.1311 |
| 4        | 50       | Bias                | -0.0857    | -0.0763     | 0.0094  |
| 6        | 50       | Bias                | -0.1794    | -0.1107     | 0.0687  |
| 7        | 50       | Bias                | -0.1481    | -0.0701     | 0.078   |
| 8        | 50       | Bias                | -0.1232    | -0.1263     | -0.0031 |
| 9        | 50       | Bias                | -0.0482    | -0.1169     | -0.0687 |
| 11       | 50       | Unbias              | -0.1388    | -0.0919     | 0.0469  |
| 12       | 50       | Unbias              | -0.1013    | -0.1513     | -0.05   |
| 13       | 50       | Unbias              | -0.0919    | -0.1481     | -0.0562 |
| 14       | 50       | Unbias              | -0.1232    | -0.0451     | 0.0781  |
| 15       | 50       | Unbias              | -0.0326    | -0.0826     | -0.05   |

Test Statistics (nA)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.0514          | -0.02485         | 0.0017           | 0.037547         | -0.1294           | -0.10445          | -0.0795           | 0.035285          | -0.1311   | -0.0796   | -0.0281   | 0.072832  |
| 50       | -0.1794          | -0.10724         | -0.0326          | 0.044936         | -0.1513           | -0.10193          | -0.0451           | 0.034702          | -0.0687   | 0.00531   | 0.0781    | 0.059439  |

# Device Test: 19.13 EA\_GM(LEVEL|TRANSCONDUCTANCE//14/14/0/0/5/500kHz//@EA\_GM)

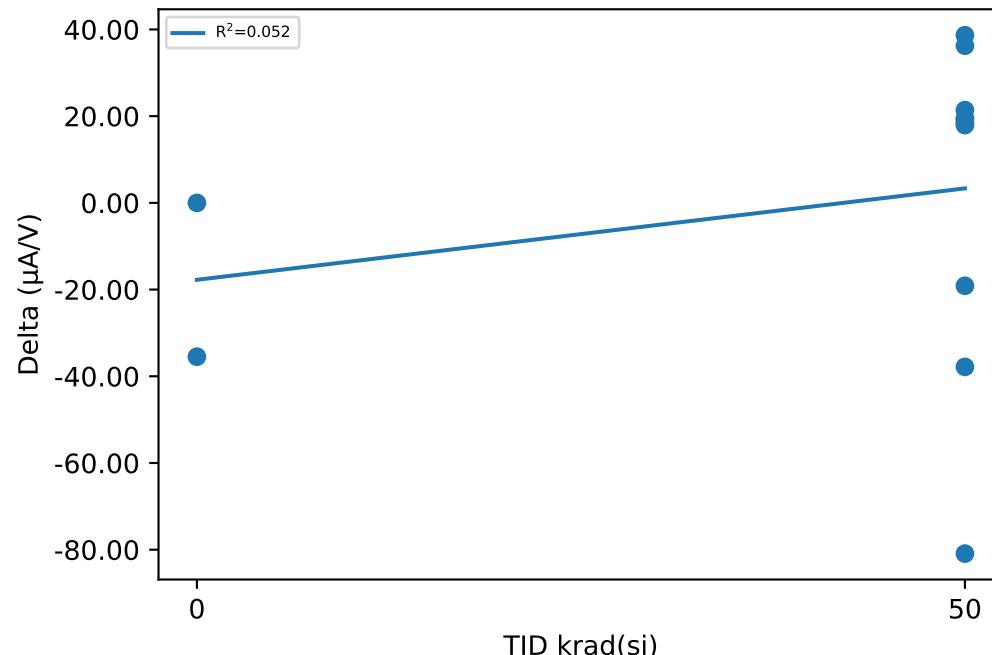
TID vs Result Stats



Test Results (Lower Limit = 1150.0, Upper Limit = 2650.0 ( $\mu\text{A}/\text{V}$ ))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1840.4     | 1840.4      | -0.0101 |
| 2        | 0        | Correlation         | 1703.3     | 1667.8      | -35.483 |
| 4        | 50       | Bias                | 1759.5     | 1779.0      | 19.553  |
| 6        | 50       | Bias                | 1840.4     | 1759.5      | -80.899 |
| 7        | 50       | Bias                | 1685.4     | 1703.3      | 17.933  |
| 8        | 50       | Bias                | 1740.4     | 1759.5      | 19.119  |
| 9        | 50       | Bias                | 1703.3     | 1721.6      | 18.327  |
| 11       | 50       | Unbias              | 1740.4     | 1779.0      | 38.671  |
| 12       | 50       | Unbias              | 1759.5     | 1721.6      | -37.835 |
| 13       | 50       | Unbias              | 1759.5     | 1740.4      | -19.128 |
| 14       | 50       | Unbias              | 1685.4     | 1721.6      | 36.242  |
| 15       | 50       | Unbias              | 1840.4     | 1861.8      | 21.393  |

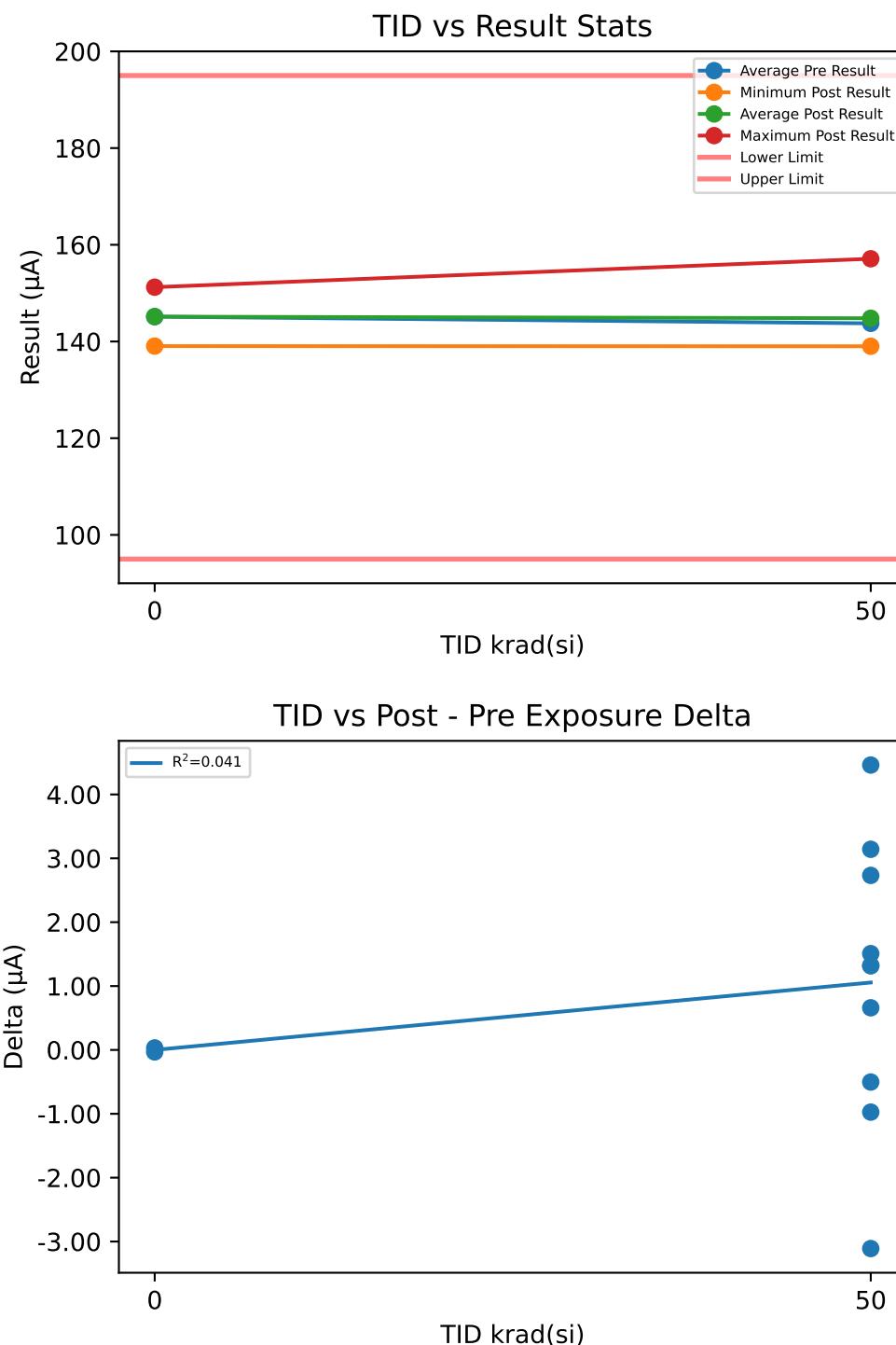
TID vs Post - Pre Exposure Delta



Test Statistics ( $\mu\text{A}/\text{V}$ )

| 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        | 1703.3           | 1771.9           | 1840.4           | 96.917           | 1667.8            | 1754.1            | 1840.4            | 122               | -35.483   | -17.746   | -0.0101   | 25.083    |
| 50       | 1685.4           | 1751.4           | 1840.4           | 55.074           | 1703.3            | 1754.7            | 1861.8            | 45.724            | -80.899   | 3.3375    | 38.671    | 37.863    |

# Device Test: 19.14 EA\_I\_SOURCE(CURRENT|EA\_SOURCE//14/14/0/0/5/500kHz//@EA\_I\_SOURCE)



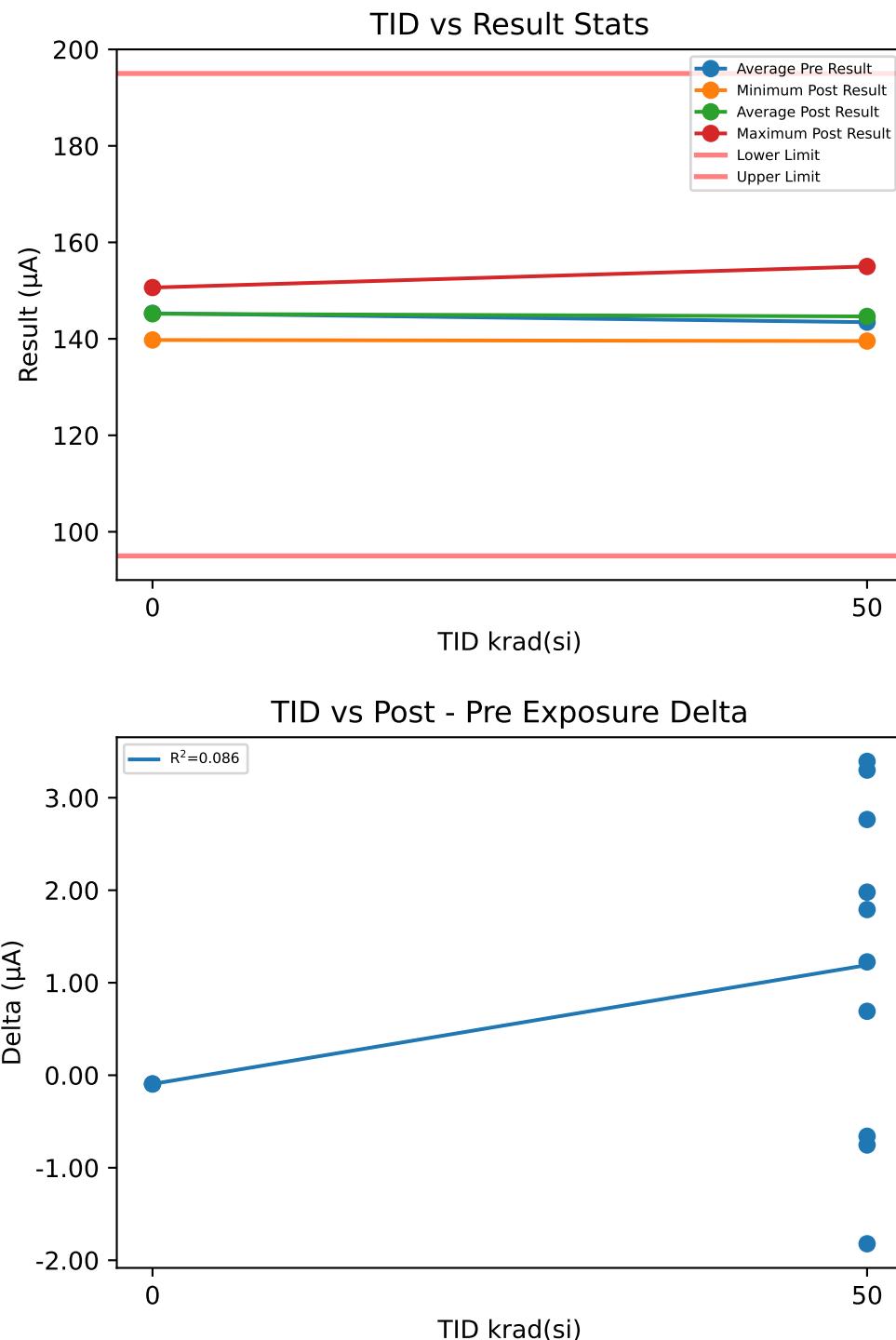
**Test Results (Lower Limit = 95.0, Upper Limit = 195.0 ( $\mu\text{A}$ ))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 151.27     | 151.23      | -0.0314 |
| 2        | 0        | Correlation         | 139.01     | 139.05      | 0.0314  |
| 4        | 50       | Bias                | 141.37     | 142.69      | 1.3194  |
| 6        | 50       | Bias                | 149.7      | 146.59      | -3.11   |
| 7        | 50       | Bias                | 138.35     | 139.01      | 0.6597  |
| 8        | 50       | Bias                | 142.97     | 145.71      | 2.7331  |
| 9        | 50       | Bias                | 142.72     | 141.75      | -0.9738 |
| 11       | 50       | Unbias              | 144.23     | 145.74      | 1.5079  |
| 12       | 50       | Unbias              | 142.66     | 142.16      | -0.5026 |
| 13       | 50       | Unbias              | 145.01     | 148.16      | 3.1415  |
| 14       | 50       | Unbias              | 137.85     | 139.17      | 1.3194  |
| 15       | 50       | Unbias              | 152.65     | 157.11      | 4.4609  |

**Test Statistics ( $\mu\text{A}$ )**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 139.01           | 145.14           | 151.27           | 8.6633           | 139.05            | 145.14            | 151.23            | 8.6189            | -0.0314   | 0         | 0.0314    | 0.044406  |
| 50       | 137.85           | 143.75           | 152.65           | 4.5798           | 139.01            | 144.81            | 157.11            | 5.3081            | -3.11     | 1.0556    | 4.4609    | 2.1899    |

# Device Test: 19.15 EA\_I\_SINK(CURRENT|EA\_SINK//14/14/0/0/5/500kHz//@EA\_I\_SINK)



**Test Results (Lower Limit = 95.0, Upper Limit = 195.0 (μA))**

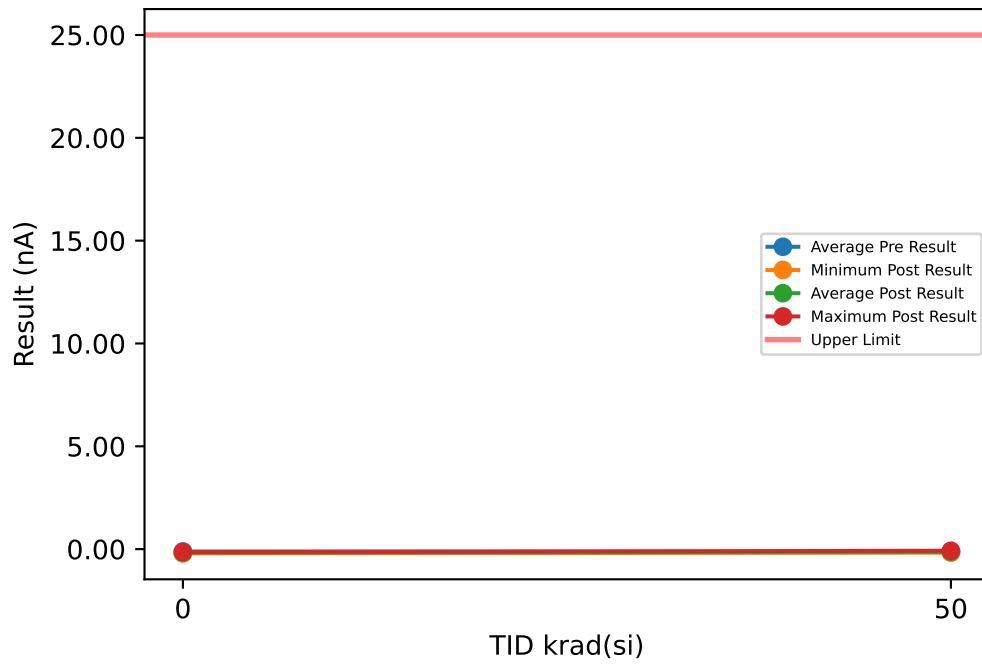
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 150.72     | 150.63      | -0.0943 |
| 2        | 0        | Correlation         | 139.85     | 139.76      | -0.0943 |
| 4        | 50       | Bias                | 142.37     | 144.16      | 1.7907  |
| 6        | 50       | Bias                | 149.59     | 147.77      | -1.822  |
| 7        | 50       | Bias                | 138.85     | 139.54      | 0.6911  |
| 8        | 50       | Bias                | 143.62     | 146.39      | 2.7645  |
| 9        | 50       | Bias                | 143.56     | 142.81      | -0.7539 |
| 11       | 50       | Unbias              | 142.27     | 143.5       | 1.2252  |
| 12       | 50       | Unbias              | 141.27     | 140.61      | -0.6597 |
| 13       | 50       | Unbias              | 143.18     | 146.58      | 3.3928  |
| 14       | 50       | Unbias              | 138.13     | 140.11      | 1.9791  |
| 15       | 50       | Unbias              | 151.7      | 155         | 3.2986  |

**Test Statistics (μA)**

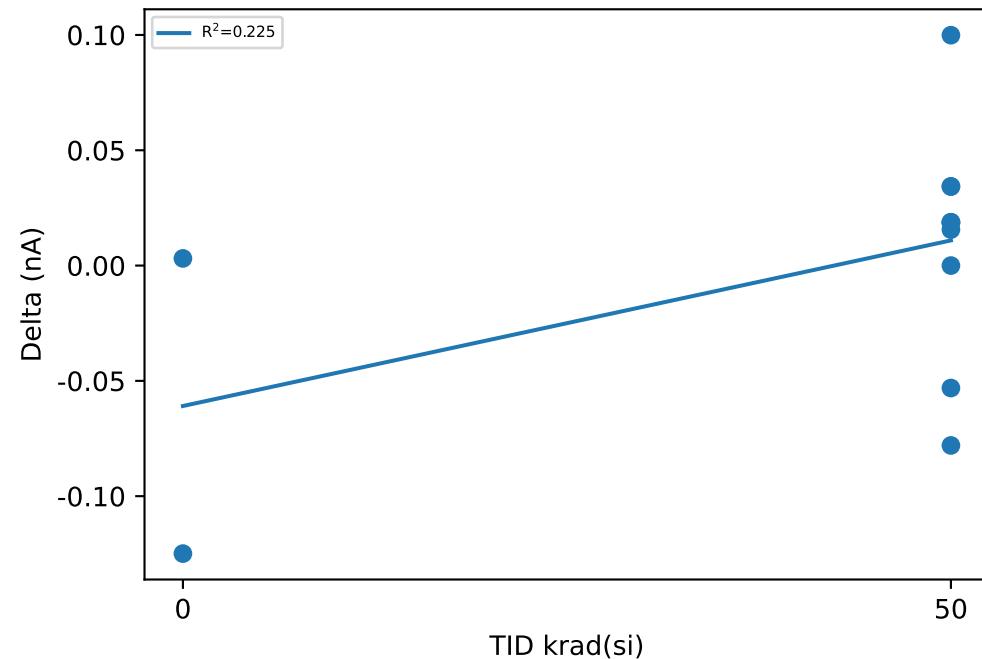
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 139.85           | 145.29           | 150.72           | 7.6859           | 139.76            | 145.19            | 150.63            | 7.6859            | -0.0943   | -0.0943   | -0.0943   | 2.0097e-14 |
| 50       | 138.13           | 143.45           | 151.7            | 4.2518           | 139.54            | 144.64            | 155               | 4.6138            | -1.822    | 1.1906    | 3.3928    | 1.8038     |

# Device Test: 19.16 EA\_IB(CURRENT|EA//14/14/0/0/5/500kHz//@EA\_IB)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 25.0 (nA))

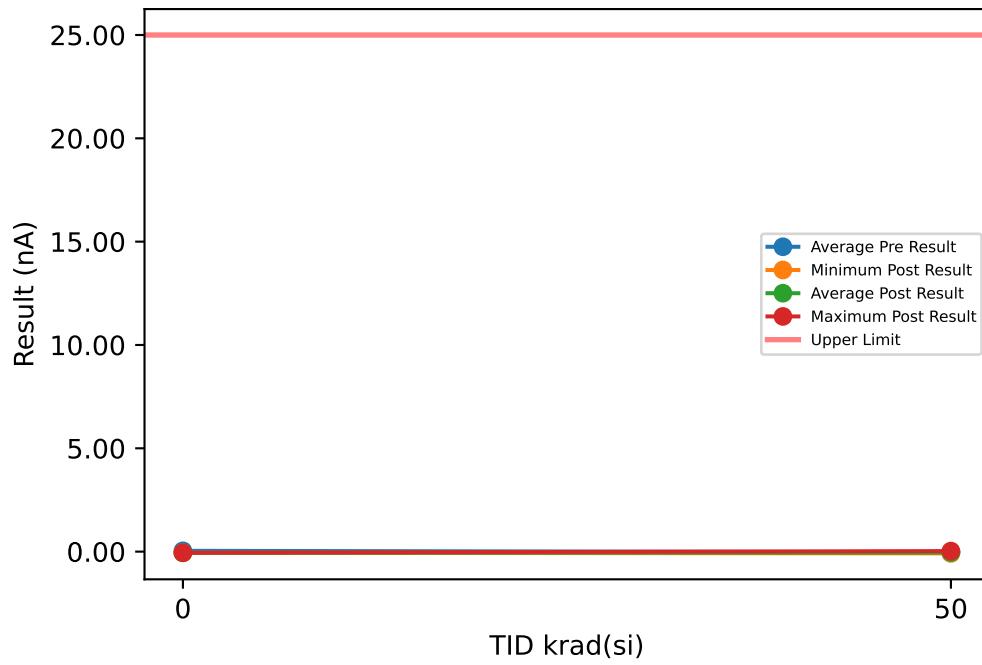
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.145     | -0.1419     | 0.0031  |
| 2        | 0        | Correlation         | -0.0826    | -0.2075     | -0.1249 |
| 4        | 50       | Bias                | -0.1731    | -0.1388     | 0.0343  |
| 6        | 50       | Bias                | -0.1513    | -0.1325     | 0.0188  |
| 7        | 50       | Bias                | -0.2293    | -0.1294     | 0.0999  |
| 8        | 50       | Bias                | -0.1138    | -0.0795     | 0.0343  |
| 9        | 50       | Bias                | -0.1169    | -0.1169     | 0       |
| 11       | 50       | Unbias              | -0.0732    | -0.1263     | -0.0531 |
| 12       | 50       | Unbias              | -0.0951    | -0.1731     | -0.078  |
| 13       | 50       | Unbias              | -0.1544    | -0.1357     | 0.0187  |
| 14       | 50       | Unbias              | -0.1263    | -0.1076     | 0.0187  |
| 15       | 50       | Unbias              | -0.1544    | -0.1388     | 0.0156  |

Test Statistics (nA)

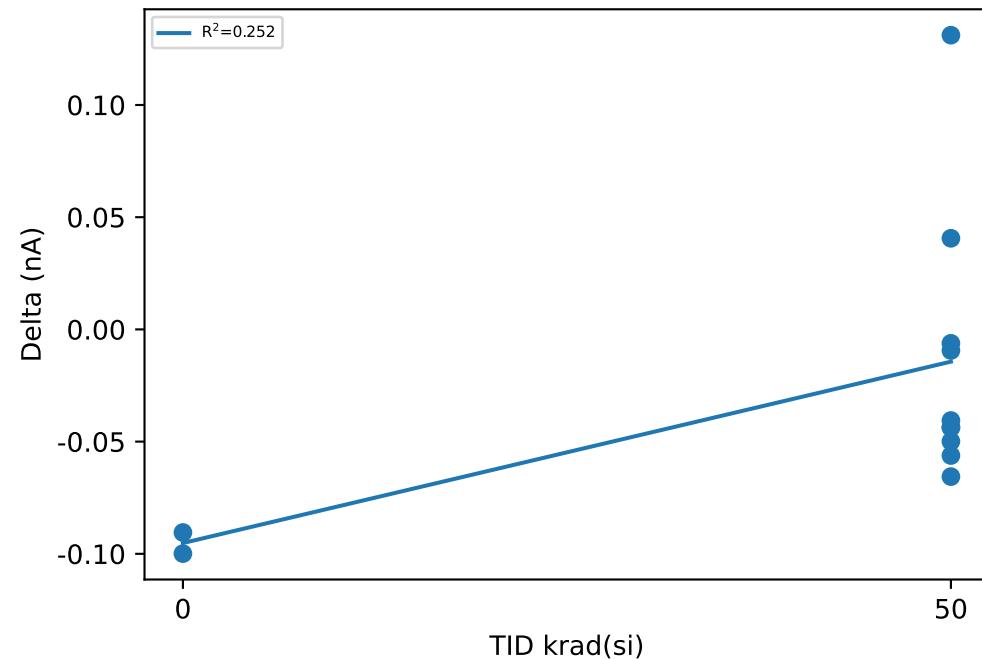
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.145           | -0.1138          | -0.0826          | 0.044123         | -0.2075           | -0.1747           | -0.1419           | 0.046386          | -0.1249   | -0.0609   | 0.0031    | 0.09051   |
| 50       | -0.2293          | -0.13878         | -0.0732          | 0.044075         | -0.1731           | -0.12786          | -0.0795           | 0.024136          | -0.078    | 0.01092   | 0.0999    | 0.048694  |

# Device Test: 19.17 EA\_IB(CURRENT|EA//4.5/4.5/0/0/4.5/100kHz//@EA\_IB)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 25.0 (nA))

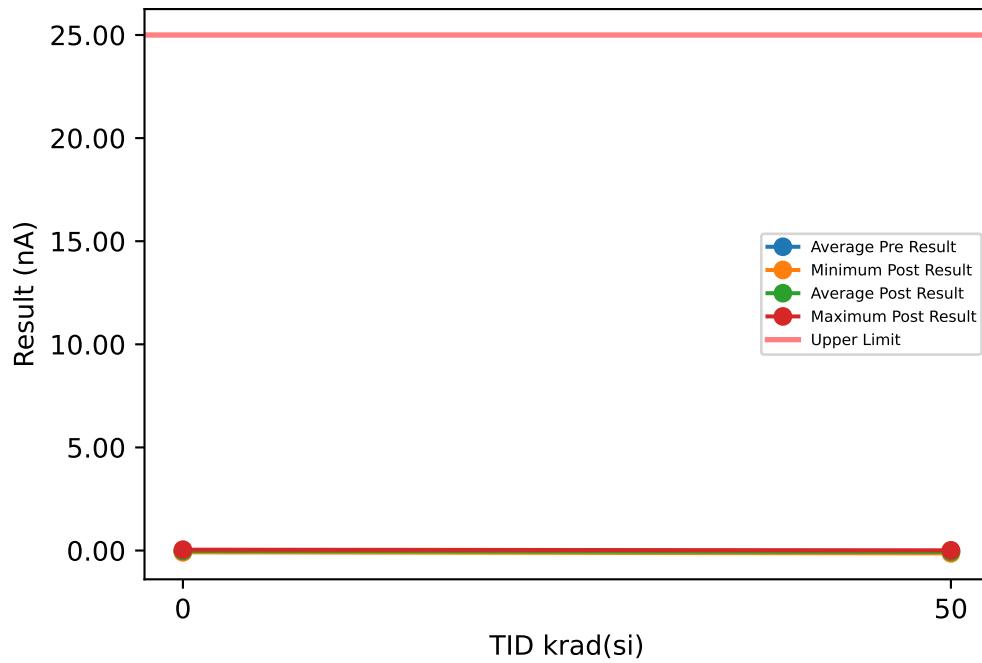
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.0329     | -0.0576     | -0.0905 |
| 2        | 0        | Correlation         | 0.0454     | -0.0545     | -0.0999 |
| 4        | 50       | Bias                | -0.017     | -0.0264     | -0.0094 |
| 6        | 50       | Bias                | -0.0264    | -0.0763     | -0.0499 |
| 7        | 50       | Bias                | 0.0423     | -0.0233     | -0.0656 |
| 8        | 50       | Bias                | -0.1044    | 0.0267      | 0.1311  |
| 9        | 50       | Bias                | -0.0639    | -0.0701     | -0.0062 |
| 11       | 50       | Unbias              | 0.0204     | -0.0358     | -0.0562 |
| 12       | 50       | Unbias              | -0.0077    | -0.0514     | -0.0437 |
| 13       | 50       | Unbias              | -0.042     | -0.0857     | -0.0437 |
| 14       | 50       | Unbias              | -0.042     | -0.0826     | -0.0406 |
| 15       | 50       | Unbias              | -0.0358    | 0.0048      | 0.0406  |

Test Statistics (nA)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 0.0329           | 0.03915          | 0.0454           | 0.0088388        | -0.0576           | -0.05605          | -0.0545           | 0.002192          | -0.0999   | -0.0952   | -0.0905   | 0.0066468 |
| 50       | -0.1044          | -0.02765         | 0.0423           | 0.041362         | -0.0857           | -0.04201          | 0.0267            | 0.03823           | -0.0656   | -0.01436  | 0.1311    | 0.059926  |

# Device Test: 19.18 EA\_IB(CURRENT|EA//4.5/4.5/0/0/4.5/1MHz//@EA\_IB)

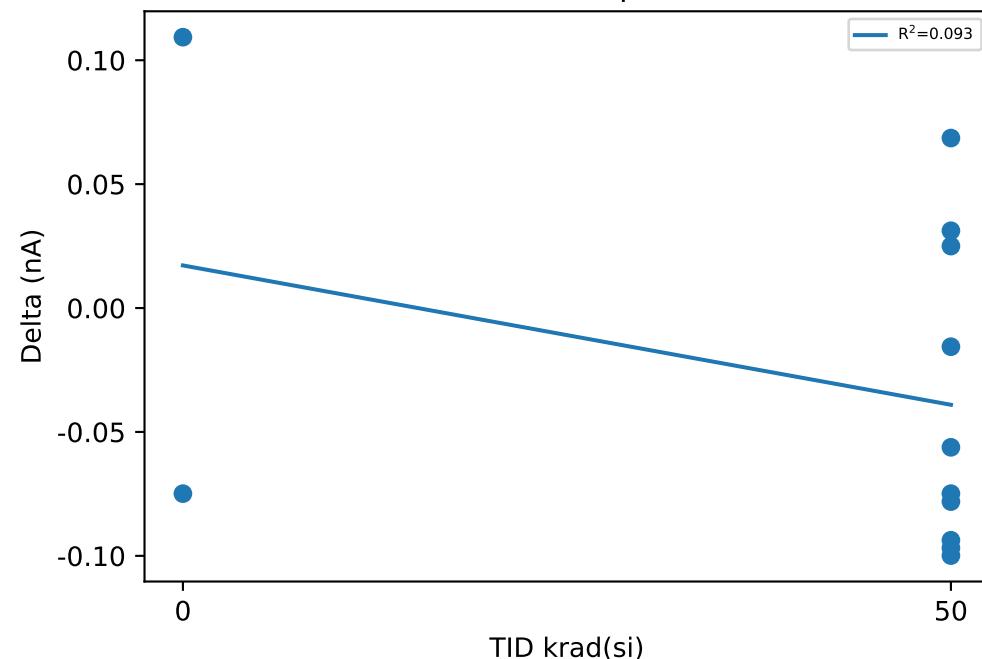
TID vs Result Stats



Test Results (Upper Limit = 25.0 (nA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.067     | 0.0423      | 0.1093  |
| 2        | 0        | Correlation         | -0.0139    | -0.0888     | -0.0749 |
| 4        | 50       | Bias                | 0.008      | -0.0701     | -0.0781 |
| 6        | 50       | Bias                | -0.0139    | 0.0111      | 0.025   |
| 7        | 50       | Bias                | -0.0919    | -0.0607     | 0.0312  |
| 8        | 50       | Bias                | -0.042     | -0.1388     | -0.0968 |
| 9        | 50       | Bias                | -0.0108    | -0.067      | -0.0562 |
| 11       | 50       | Unbias              | -0.0919    | -0.0233     | 0.0686  |
| 12       | 50       | Unbias              | 0.0361     | -0.0576     | -0.0937 |
| 13       | 50       | Unbias              | 0.0173     | -0.0826     | -0.0999 |
| 14       | 50       | Unbias              | -0.0295    | -0.1044     | -0.0749 |
| 15       | 50       | Unbias              | -0.0233    | -0.0389     | -0.0156 |

TID vs Post - Pre Exposure Delta

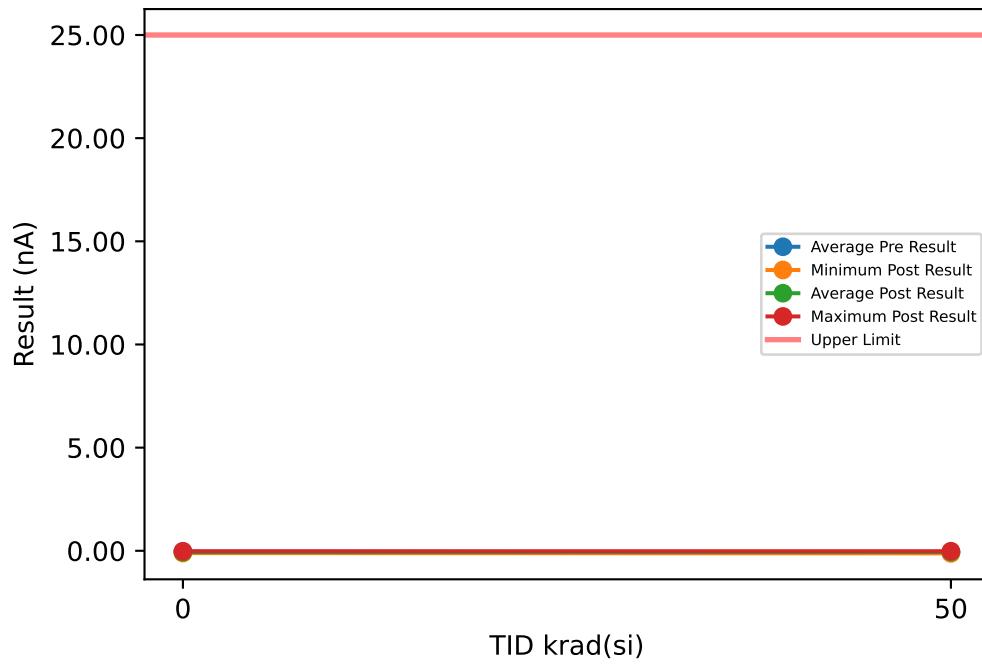


Test Statistics (nA)

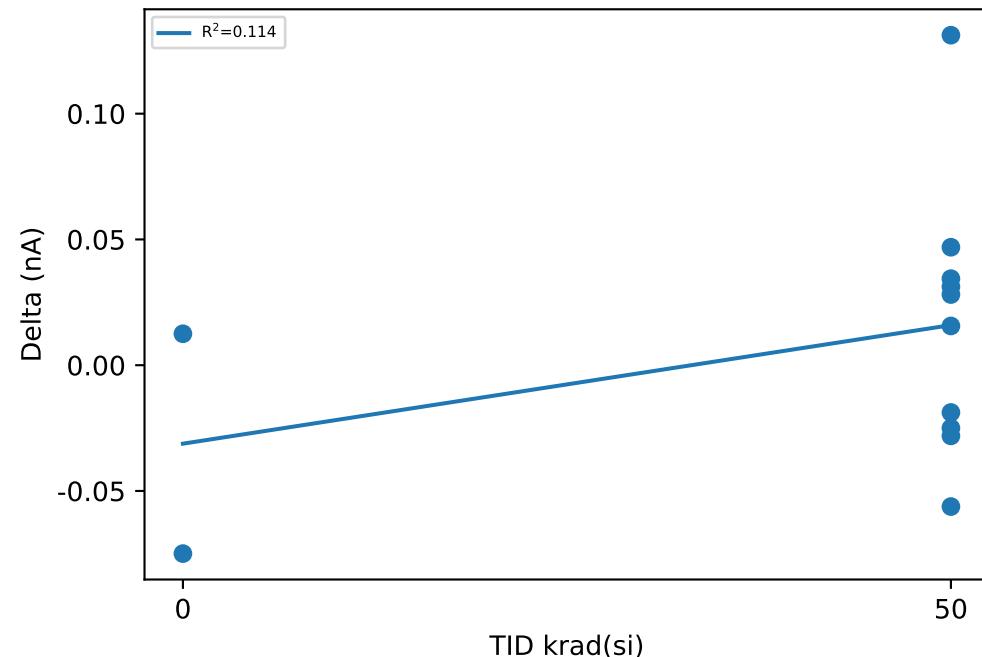
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.067           | -0.04045         | -0.0139          | 0.037547         | -0.0888           | -0.02325          | 0.0423            | 0.092702          | -0.0749   | 0.0172    | 0.1093    | 0.13025   |
| 50       | -0.0919          | -0.02419         | 0.0361           | 0.042417         | -0.1388           | -0.06323          | 0.0111            | 0.041622          | -0.0999   | -0.03904  | 0.0686    | 0.061738  |

# Device Test: 19.19 EA\_IB(CURRENT|EA//5/5/0/0/5/100kHz//@EA\_IB)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



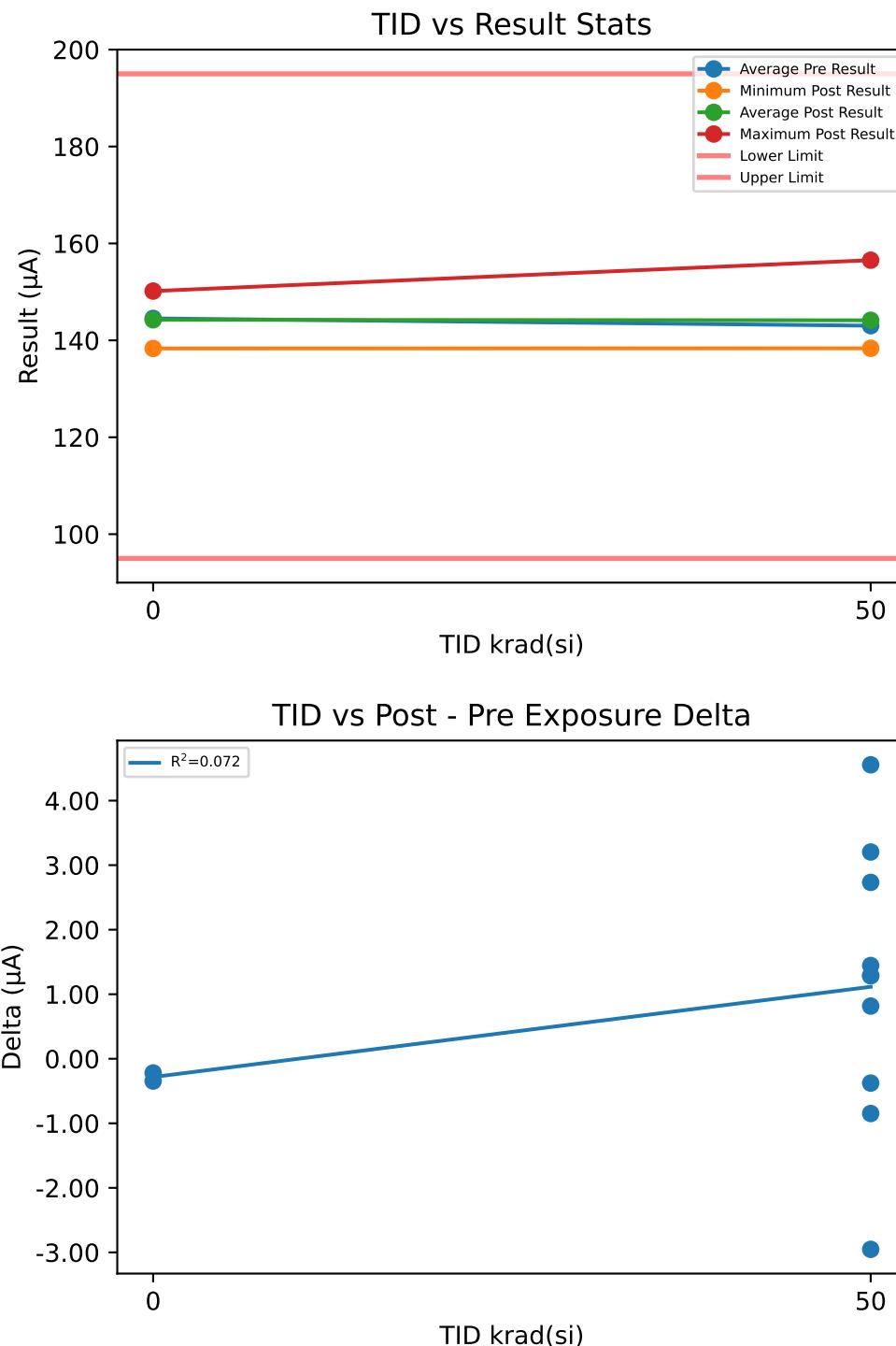
Test Results (Upper Limit = 25.0 (nA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.0358    | -0.1107     | -0.0749 |
| 2        | 0        | Correlation         | -0.0358    | -0.0233     | 0.0125  |
| 4        | 50       | Bias                | -0.0326    | -0.0514     | -0.0188 |
| 6        | 50       | Bias                | -0.0795    | -0.0326     | 0.0469  |
| 7        | 50       | Bias                | -0.0951    | -0.067      | 0.0281  |
| 8        | 50       | Bias                | -0.0857    | -0.1107     | -0.025  |
| 9        | 50       | Bias                | -0.1513    | -0.0201     | 0.1312  |
| 11       | 50       | Unbias              | -0.0701    | -0.1263     | -0.0562 |
| 12       | 50       | Unbias              | -0.0795    | -0.0451     | 0.0344  |
| 13       | 50       | Unbias              | -0.1013    | -0.0701     | 0.0312  |
| 14       | 50       | Unbias              | -0.017     | -0.0451     | -0.0281 |
| 15       | 50       | Unbias              | -0.0545    | -0.0389     | 0.0156  |

Test Statistics (nA)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.0358          | -0.0358          | -0.0358          | 0                | -0.1107           | -0.067            | -0.0233           | 0.061801          | -0.0749   | -0.0312   | 0.0125    | 0.061801  |
| 50       | -0.1513          | -0.07666         | -0.017           | 0.037492         | -0.1263           | -0.06073          | -0.0201           | 0.034023          | -0.0562   | 0.01593   | 0.1312    | 0.052696  |

# Device Test: 19.2 EA\_I\_SOURCE(CURRENT|EA\_SOURCE//4.5/4.5/0/0/4.5/500kHz//@EA\_I\_SOURCE)



**Test Results (Lower Limit = 95.0, Upper Limit = 195.0 (μA))**

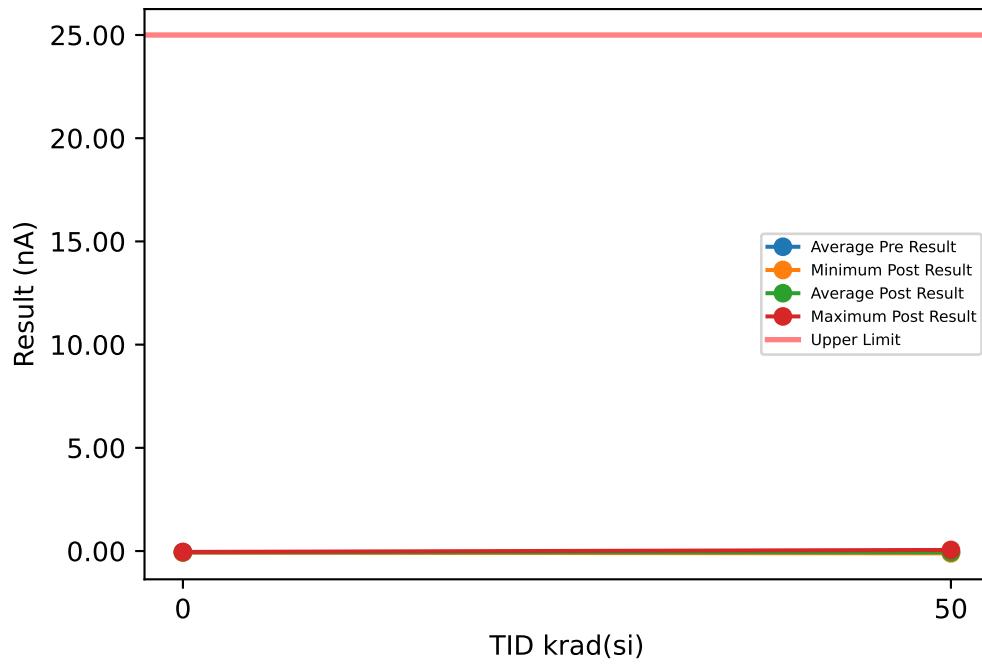
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 150.51     | 150.17      | -0.3455 |
| 2        | 0        | Correlation         | 138.54     | 138.32      | -0.2199 |
| 4        | 50       | Bias                | 140.65     | 141.94      | 1.288   |
| 6        | 50       | Bias                | 149        | 146.05      | -2.953  |
| 7        | 50       | Bias                | 137.54     | 138.35      | 0.8168  |
| 8        | 50       | Bias                | 142.19     | 144.92      | 2.7331  |
| 9        | 50       | Bias                | 141.94     | 141.09      | -0.8482 |
| 11       | 50       | Unbias              | 143.57     | 145.01      | 1.445   |
| 12       | 50       | Unbias              | 142        | 141.62      | -0.377  |
| 13       | 50       | Unbias              | 144.26     | 147.47      | 3.2043  |
| 14       | 50       | Unbias              | 137.1      | 138.39      | 1.288   |
| 15       | 50       | Unbias              | 151.99     | 156.54      | 4.5552  |

**Test Statistics (μA)**

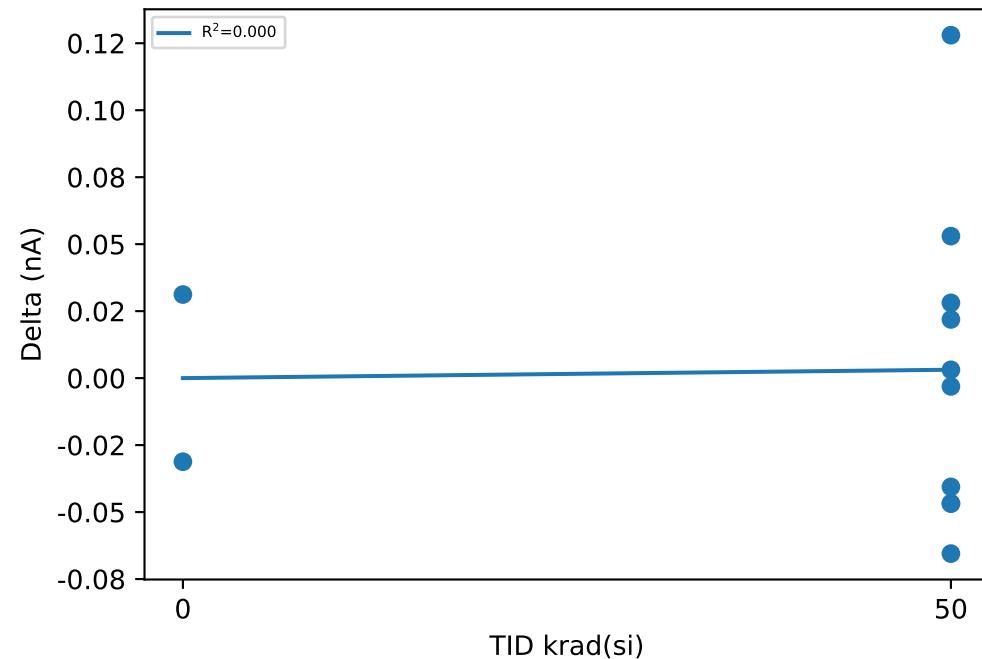
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 138.54           | 144.53           | 150.51           | 8.4634           | 138.32            | 144.25            | 150.17            | 8.3745            | -0.3455   | -0.2827   | -0.2199   | 0.088813  |
| 50       | 137.1            | 143.02           | 151.99           | 4.6158           | 138.35            | 144.14            | 156.54            | 5.3441            | -2.953    | 1.1152    | 4.5552    | 2.1526    |

# Device Test: 19.20 EA\_IB(CURRENT|EA//5/5/0/0/5/1MHz//@EA\_IB)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 25.0 (nA))

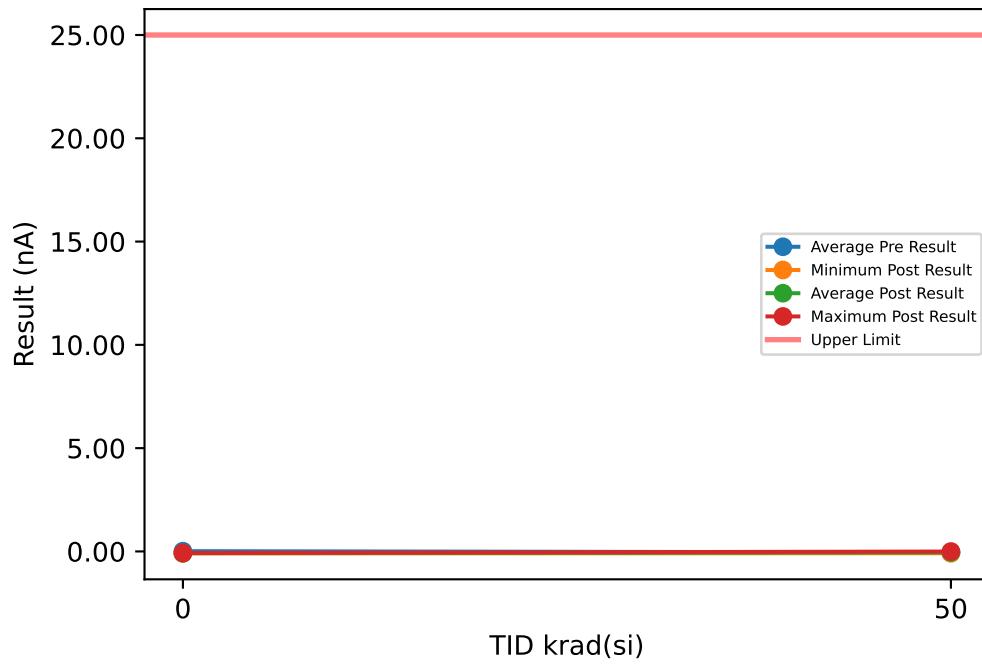
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.0732    | -0.042      | 0.0312  |
| 2        | 0        | Correlation         | -0.0451    | -0.0763     | -0.0312 |
| 4        | 50       | Bias                | -0.0982    | -0.0763     | 0.0219  |
| 6        | 50       | Bias                | -0.0264    | -0.0732     | -0.0468 |
| 7        | 50       | Bias                | -0.0201    | -0.0607     | -0.0406 |
| 8        | 50       | Bias                | -0.0888    | -0.0919     | -0.0031 |
| 9        | 50       | Bias                | -0.067     | -0.1138     | -0.0468 |
| 11       | 50       | Unbias              | -0.0077    | -0.0732     | -0.0655 |
| 12       | 50       | Unbias              | -0.0763    | -0.0233     | 0.053   |
| 13       | 50       | Unbias              | -0.0732    | 0.0548      | 0.128   |
| 14       | 50       | Unbias              | -0.0451    | -0.042      | 0.0031  |
| 15       | 50       | Unbias              | -0.1325    | -0.1044     | 0.0281  |

Test Statistics (nA)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta  | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|------------|-----------|-----------|
| 0        | -0.0732          | -0.05915         | -0.0451          | 0.01987          | -0.0763           | -0.05915          | -0.042            | 0.024254          | -0.0312   | 6.9389e-18 | 0.0312    | 0.044123  |
| 50       | -0.1325          | -0.06353         | -0.0077          | 0.038855         | -0.1138           | -0.0604           | 0.0548            | 0.048701          | -0.0655   | 0.00313    | 0.128     | 0.058407  |

# Device Test: 19.21 EA\_IB(CURRENT|EA//12/12/0/0/5/100kHz//@EA\_IB)

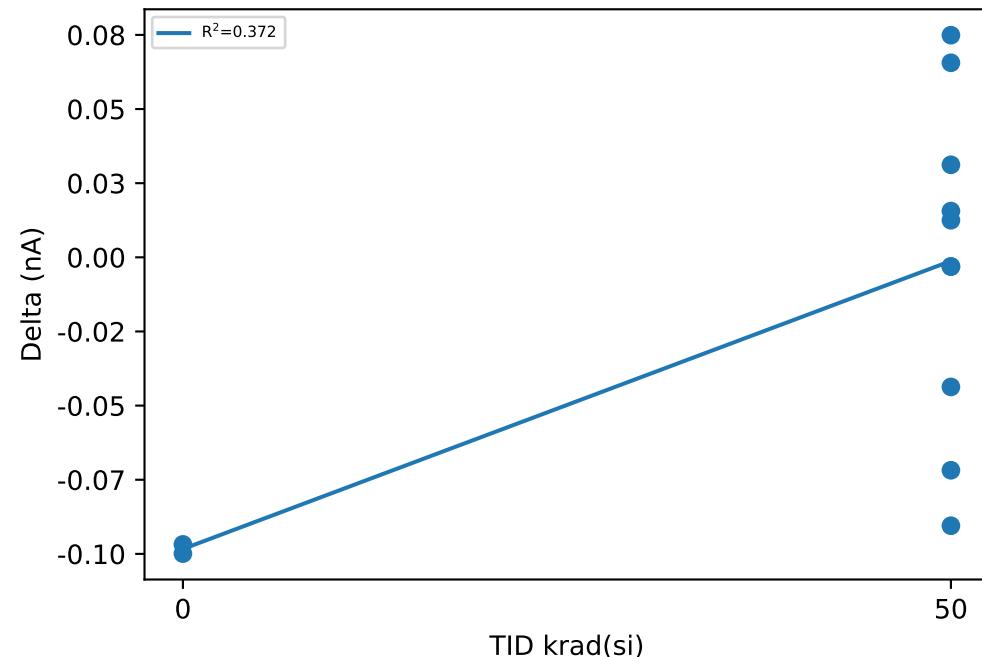
TID vs Result Stats



Test Results (Upper Limit = 25.0 (nA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.0017     | -0.0951     | -0.0968 |
| 2        | 0        | Correlation         | 0.0236     | -0.0763     | -0.0999 |
| 4        | 50       | Bias                | -0.067     | -0.0545     | 0.0125  |
| 6        | 50       | Bias                | -0.0389    | -0.042      | -0.0031 |
| 7        | 50       | Bias                | -0.1138    | -0.0389     | 0.0749  |
| 8        | 50       | Bias                | -0.0045    | -0.0482     | -0.0437 |
| 9        | 50       | Bias                | -0.042     | -0.0264     | 0.0156  |
| 11       | 50       | Unbias              | 0.0048     | -0.0857     | -0.0905 |
| 12       | 50       | Unbias              | -0.017     | -0.0888     | -0.0718 |
| 13       | 50       | Unbias              | -0.0514    | -0.0545     | -0.0031 |
| 14       | 50       | Unbias              | -0.0701    | -0.0389     | 0.0312  |
| 15       | 50       | Unbias              | -0.0701    | -0.0045     | 0.0656  |

TID vs Post - Pre Exposure Delta

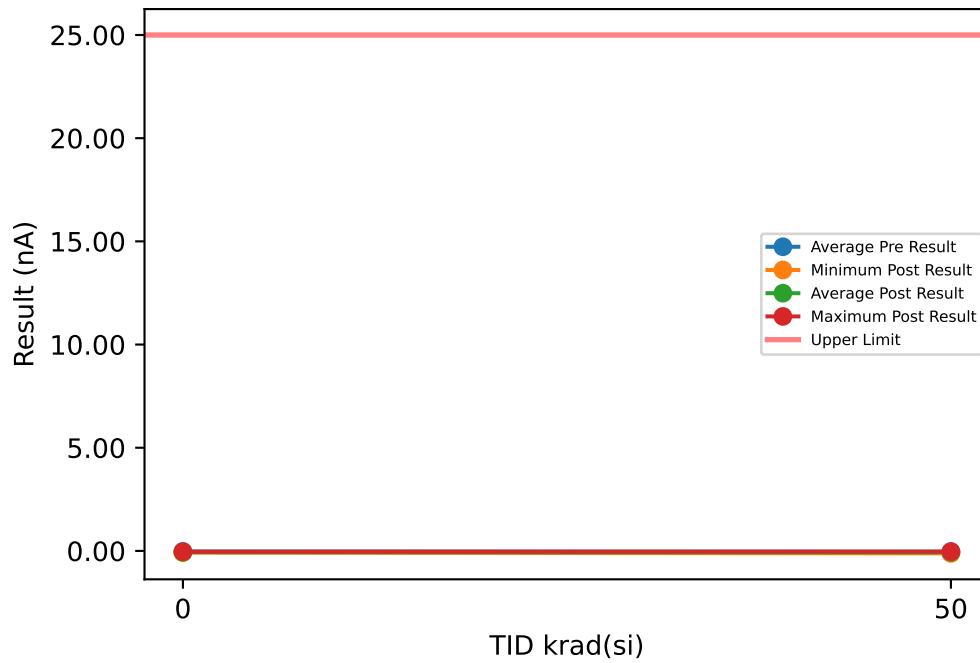


Test Statistics (nA)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 0.0017           | 0.01265          | 0.0236           | 0.015486         | -0.0951           | -0.0857           | -0.0763           | 0.013294          | -0.0999   | -0.09835  | -0.0968   | 0.002192  |
| 50       | -0.1138          | -0.047           | 0.0048           | 0.035635         | -0.0888           | -0.04824          | -0.0045           | 0.025233          | -0.0905   | -0.00124  | 0.0749    | 0.054309  |

# Device Test: 19.22 EA\_IB(CURRENT|EA//12/12/0/0/5/1MHz//@EA\_IB)

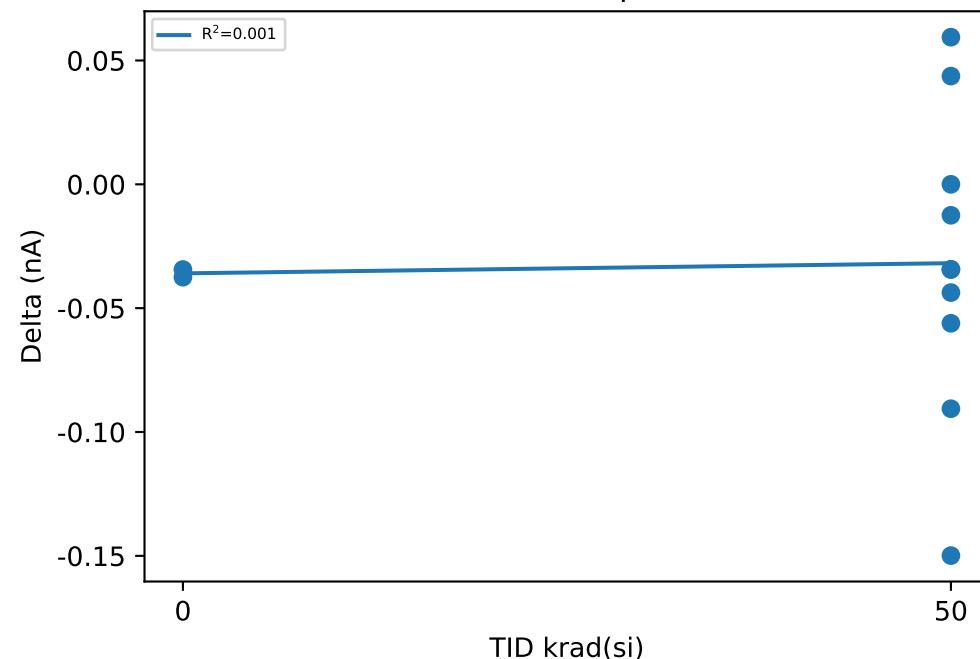
TID vs Result Stats



Test Results (Upper Limit = 25.0 (nA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.0482    | -0.0826     | -0.0344 |
| 2        | 0        | Correlation         | -0.0014    | -0.0389     | -0.0375 |
| 4        | 50       | Bias                | -0.0358    | -0.0358     | 0       |
| 6        | 50       | Bias                | -0.0201    | -0.1107     | -0.0906 |
| 7        | 50       | Bias                | -0.0826    | -0.0389     | 0.0437  |
| 8        | 50       | Bias                | -0.1076    | -0.0482     | 0.0594  |
| 9        | 50       | Bias                | -0.0389    | -0.0826     | -0.0437 |
| 11       | 50       | Unbias              | -0.0545    | -0.0888     | -0.0343 |
| 12       | 50       | Unbias              | -0.0201    | -0.0326     | -0.0125 |
| 13       | 50       | Unbias              | -0.0639    | -0.12       | -0.0561 |
| 14       | 50       | Unbias              | -0.0295    | -0.0639     | -0.0344 |
| 15       | 50       | Unbias              | 0.086      | -0.0639     | -0.1499 |

TID vs Post - Pre Exposure Delta

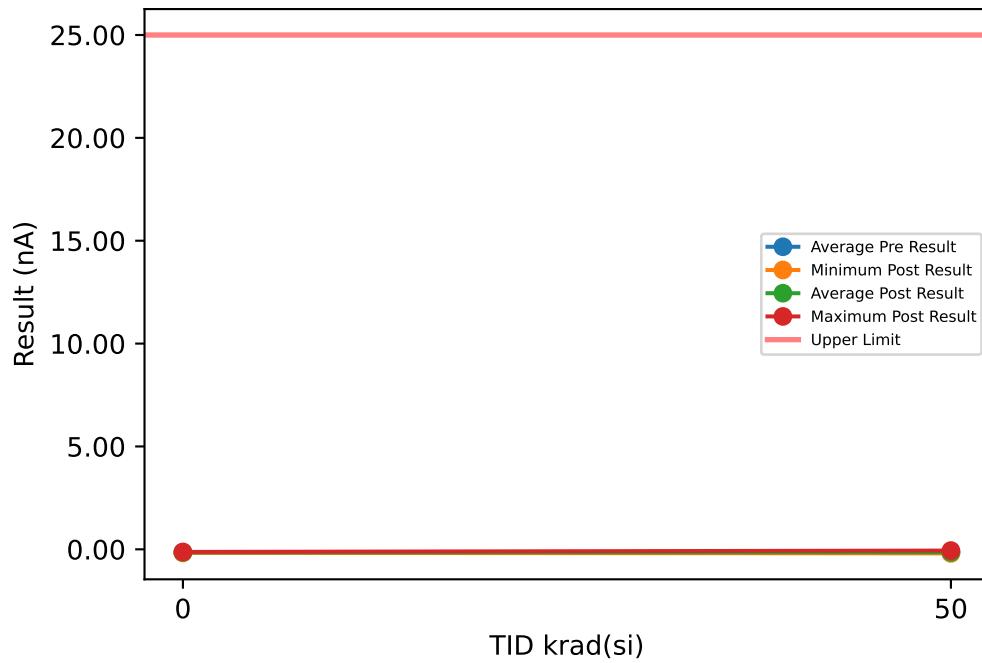


Test Statistics (nA)

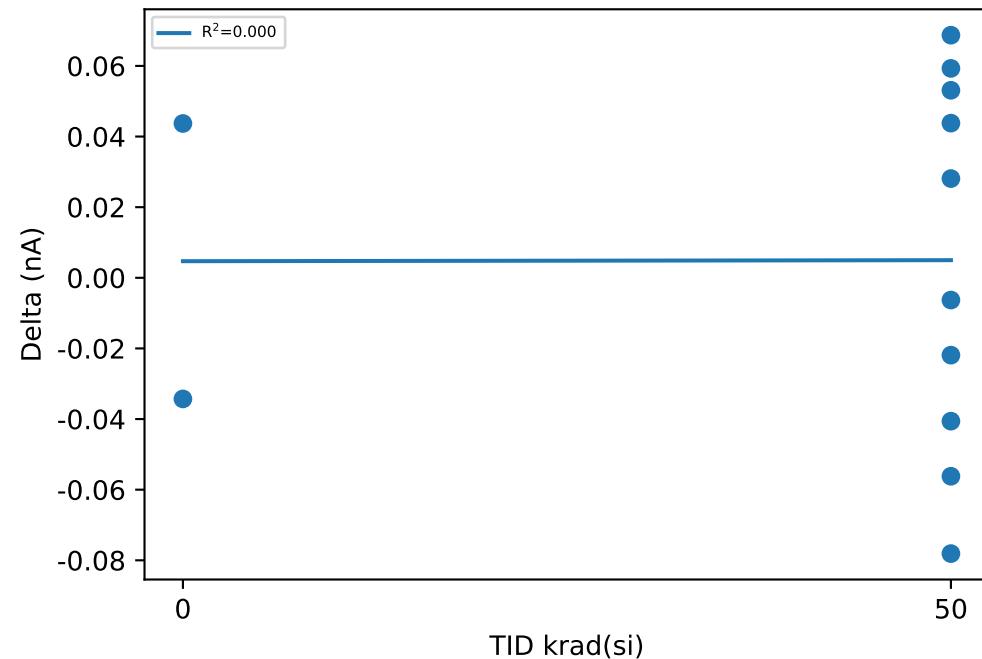
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.0482          | -0.0248          | -0.0014          | 0.033093         | -0.0826           | -0.06075          | -0.0389           | 0.030901          | -0.0375   | -0.03595  | -0.0344   | 0.002192  |
| 50       | -0.1076          | -0.0367          | 0.086            | 0.051483         | -0.12             | -0.06854          | -0.0326           | 0.03115           | -0.1499   | -0.03184  | 0.0594    | 0.061057  |

# Device Test: 19.23 EA\_IB(CURRENT|EA//14/14/0/0/5/100kHz//@EA\_IB)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 25.0 (nA))

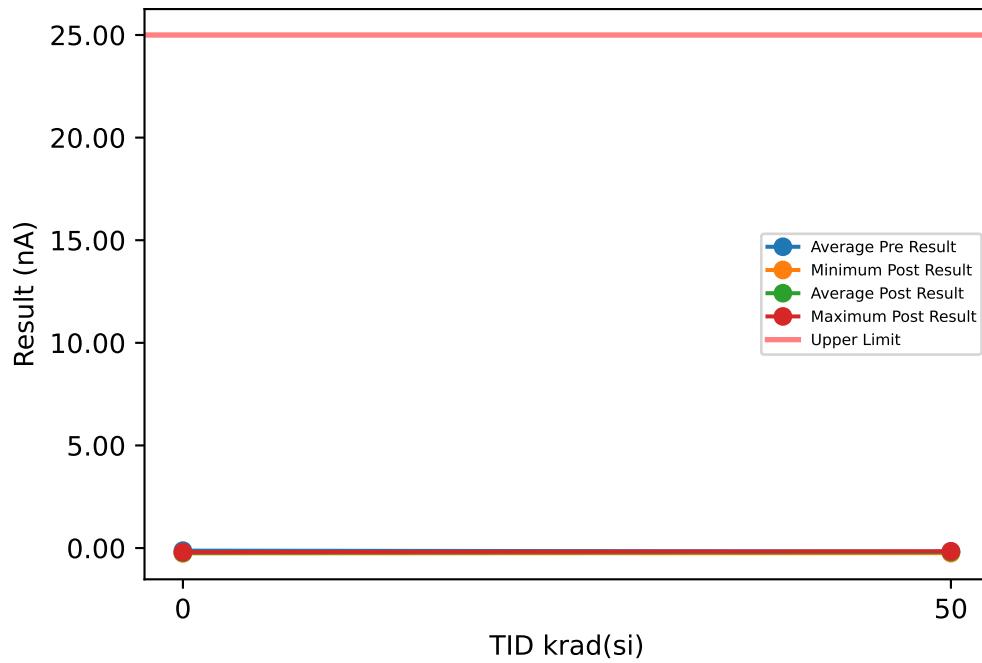
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.17      | -0.1263     | 0.0437  |
| 2        | 0        | Correlation         | -0.1388    | -0.1731     | -0.0343 |
| 4        | 50       | Bias                | -0.1669    | -0.1388     | 0.0281  |
| 6        | 50       | Bias                | -0.1325    | -0.1731     | -0.0406 |
| 7        | 50       | Bias                | -0.1794    | -0.1263     | 0.0531  |
| 8        | 50       | Bias                | -0.1169    | -0.1731     | -0.0562 |
| 9        | 50       | Bias                | -0.1606    | -0.1669     | -0.0063 |
| 11       | 50       | Unbias              | -0.2231    | -0.1638     | 0.0593  |
| 12       | 50       | Unbias              | -0.145     | -0.1669     | -0.0219 |
| 13       | 50       | Unbias              | -0.12      | -0.1981     | -0.0781 |
| 14       | 50       | Unbias              | -0.1357    | -0.0919     | 0.0438  |
| 15       | 50       | Unbias              | -0.1294    | -0.0607     | 0.0687  |

Test Statistics (nA)

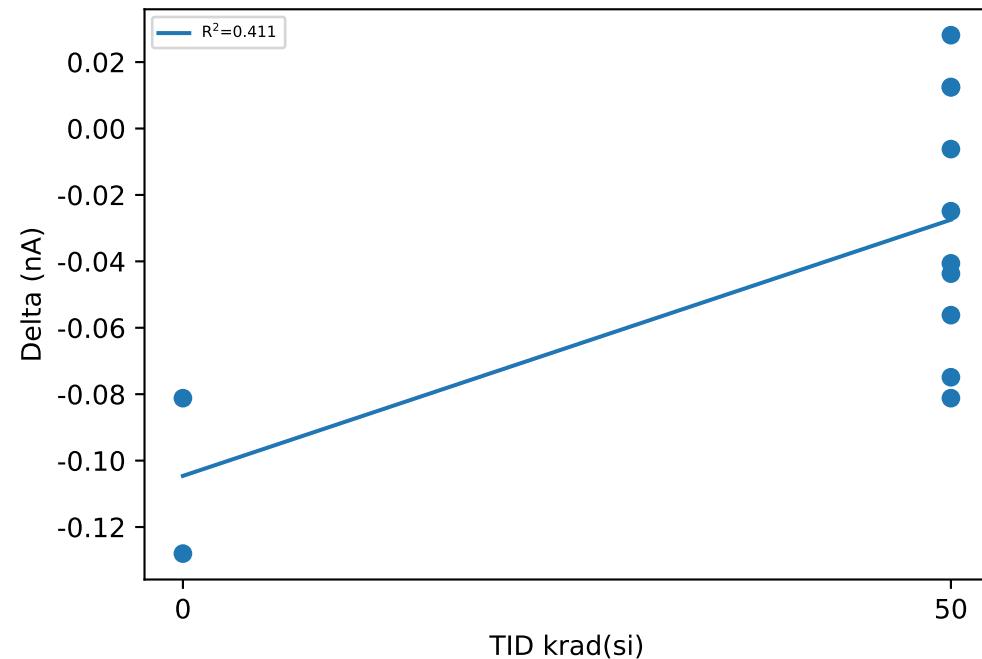
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.17            | -0.1544          | -0.1388          | 0.022062         | -0.1731           | -0.1497           | -0.1263           | 0.033093          | -0.0343   | 0.0047    | 0.0437    | 0.055154  |
| 50       | -0.2231          | -0.15095         | -0.1169          | 0.032579         | -0.1981           | -0.14596          | -0.0607           | 0.042185          | -0.0781   | 0.00499   | 0.0687    | 0.052642  |

# Device Test: 19.24 EA\_IB(CURRENT|EA//14/14/0/0/5/1MHz//@EA\_IB)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



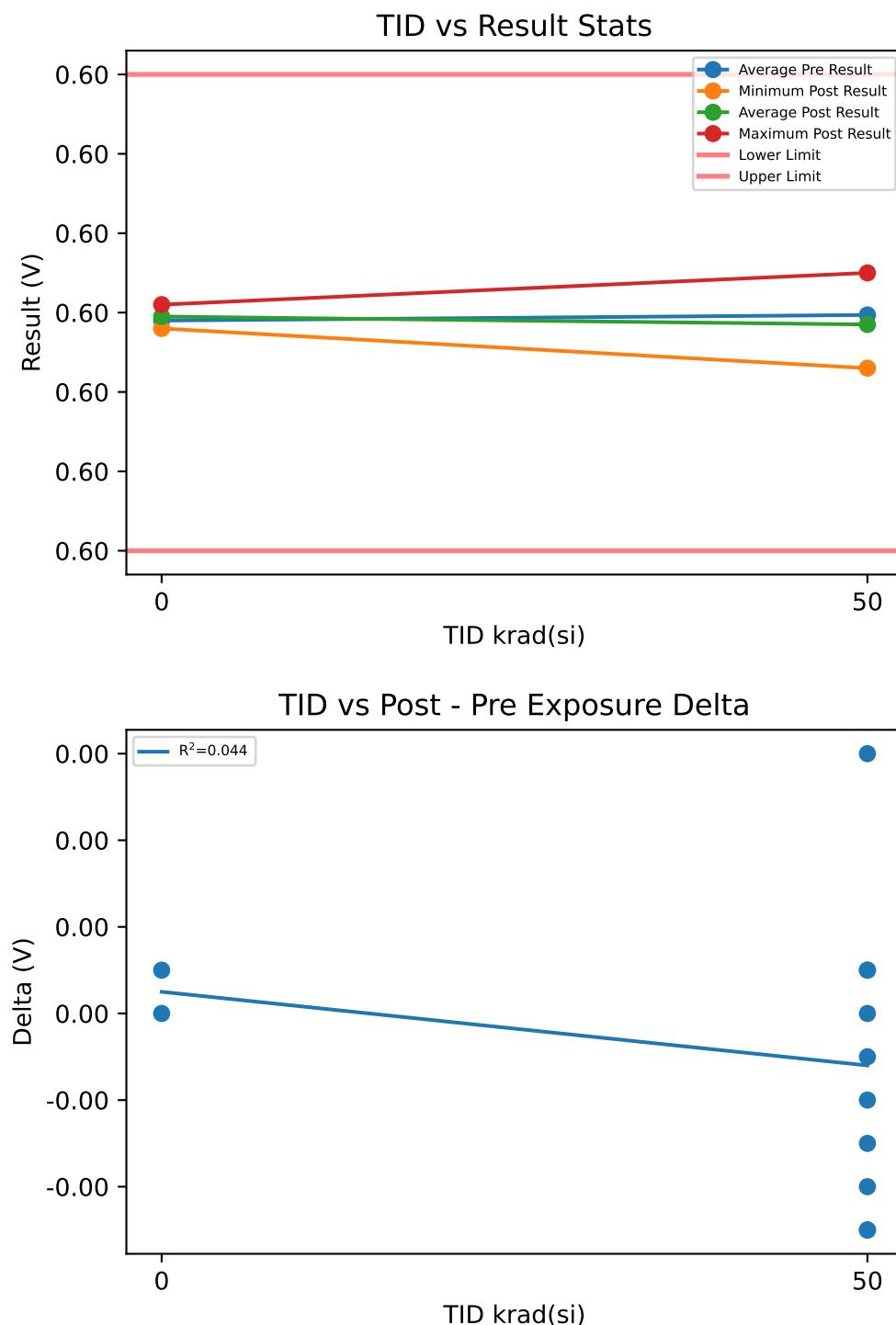
Test Results (Upper Limit = 25.0 (nA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.1325    | -0.2605     | -0.128  |
| 2        | 0        | Correlation         | -0.1169    | -0.1981     | -0.0812 |
| 4        | 50       | Bias                | -0.1981    | -0.2043     | -0.0062 |
| 6        | 50       | Bias                | -0.1669    | -0.2231     | -0.0562 |
| 7        | 50       | Bias                | -0.1263    | -0.2075     | -0.0812 |
| 8        | 50       | Bias                | -0.1794    | -0.22       | -0.0406 |
| 9        | 50       | Bias                | -0.2231    | -0.248      | -0.0249 |
| 11       | 50       | Unbias              | -0.1169    | -0.1606     | -0.0437 |
| 12       | 50       | Unbias              | -0.1794    | -0.1669     | 0.0125  |
| 13       | 50       | Unbias              | -0.1856    | -0.1575     | 0.0281  |
| 14       | 50       | Unbias              | -0.1388    | -0.2137     | -0.0749 |
| 15       | 50       | Unbias              | -0.1762    | -0.1638     | 0.0124  |

Test Statistics (nA)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.1325          | -0.1247          | -0.1169          | 0.011031         | -0.2605           | -0.2293           | -0.1981           | 0.044123          | -0.128    | -0.1046   | -0.0812   | 0.033093  |
| 50       | -0.2231          | -0.16907         | -0.1169          | 0.03295          | -0.248            | -0.19654          | -0.1575           | 0.031876          | -0.0812   | -0.02747  | 0.0281    | 0.038198  |

# Device Test: 19.25 VREF\_25C(VOLTAGE|VREF//4.5/4.5/0/0/4.5/100kHz//@VREF\_25C)



**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

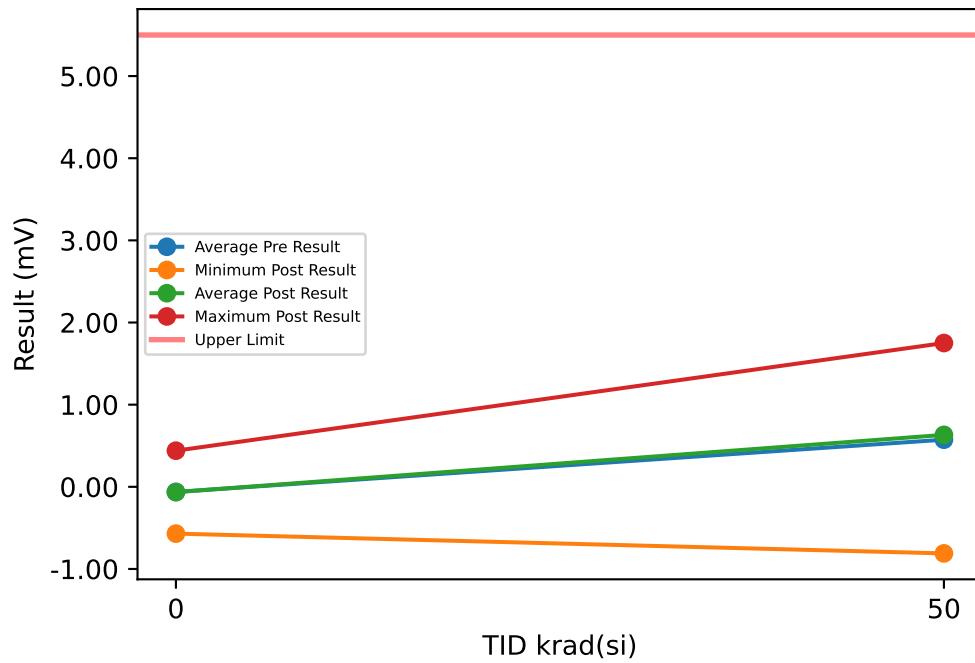
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6        | 0.6001      | 0.0001  |
| 4        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 6        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 7        | 50       | Bias                | 0.6003     | 0.6003      | 0       |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5996      | -0.0003 |
| 11       | 50       | Unbias              | 0.6001     | 0.6002      | 0.0001  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

## Test Statistics (V)

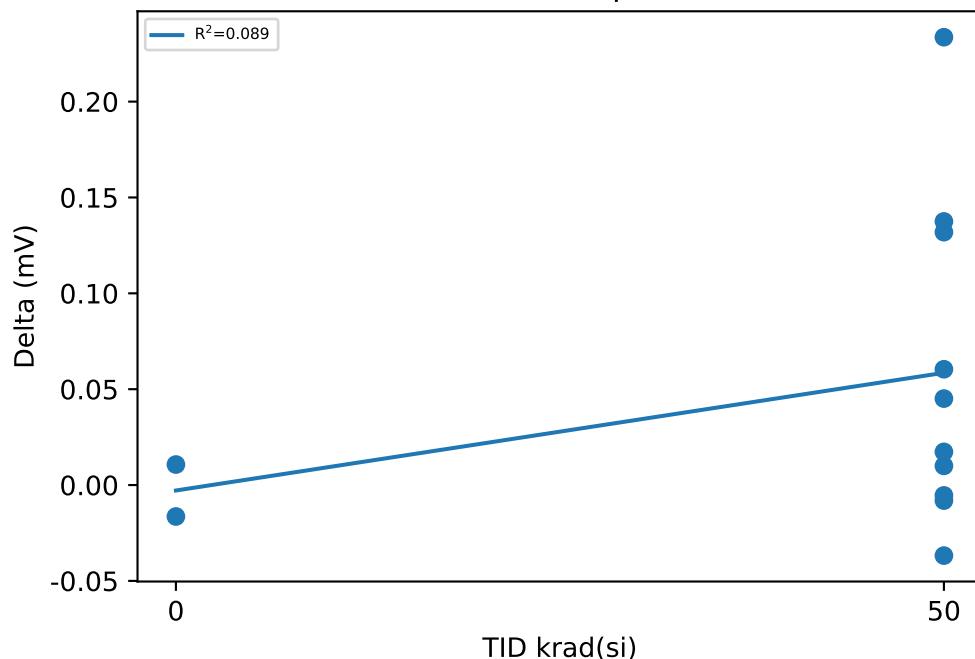
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.5998           | 0.5999           | 0.6              | 0.00014142       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 0.5997           | 0.59997          | 0.6003           | 0.00019465       | 0.5993            | 0.59985           | 0.6005            | 0.00046726        | -0.0005   | -0.00012  | 0.0006    | 0.00033928 |

# Device Test: 19.27 EA\_OS(VOLTAGE|OFFSET//4.5/4.5/0/0/4.5/100kHz//@EA\_OS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 5.5 (mV))

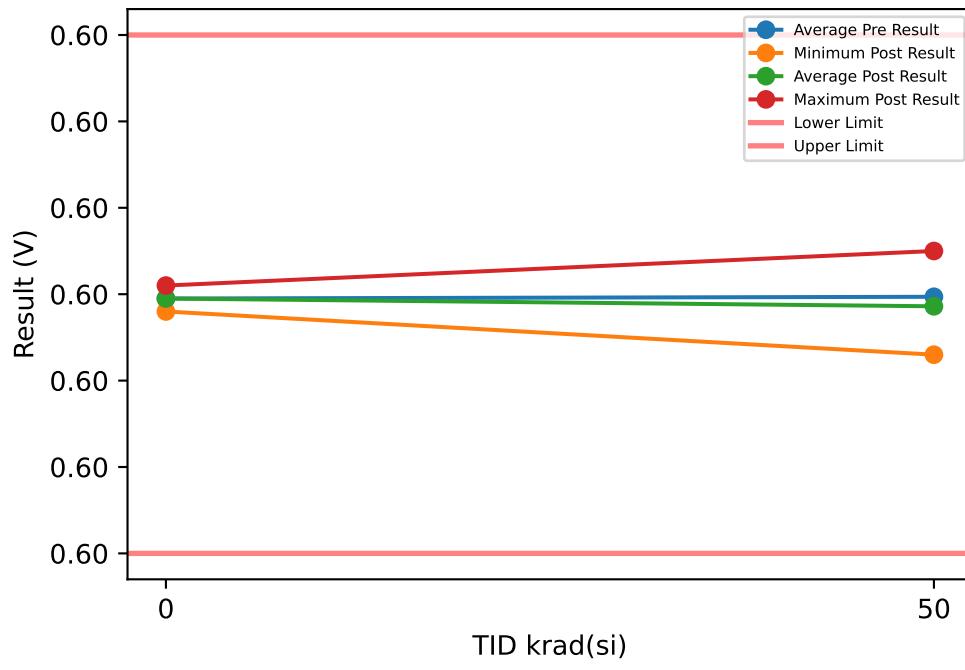
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.4562     | 0.4398      | -0.0164 |
| 2        | 0        | Correlation         | -0.5804    | -0.5697     | 0.0107  |
| 4        | 50       | Bias                | 0.1336     | 0.2655      | 0.1319  |
| 6        | 50       | Bias                | 0.6077     | 0.5709      | -0.0368 |
| 7        | 50       | Bias                | -0.2101    | -0.1497     | 0.0604  |
| 8        | 50       | Bias                | 0.0778     | 0.2153      | 0.1375  |
| 9        | 50       | Bias                | -0.8278    | -0.8105     | 0.0173  |
| 11       | 50       | Unbias              | 1.0548     | 1.0648      | 0.01    |
| 12       | 50       | Unbias              | 1.5166     | 1.7502      | 0.2336  |
| 13       | 50       | Unbias              | 1.4666     | 1.4585      | -0.0081 |
| 14       | 50       | Unbias              | 0.7494     | 0.744       | -0.0054 |
| 15       | 50       | Unbias              | 1.1678     | 1.2129      | 0.0451  |

Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.5804          | -0.0621          | 0.4562           | 0.73299          | -0.5697           | -0.06495          | 0.4398            | 0.71382           | -0.0164   | -0.00285  | 0.0107    | 0.019163  |
| 50       | -0.8278          | 0.57364          | 1.5166           | 0.7689           | -0.8105           | 0.63219           | 1.7502            | 0.77991           | -0.0368   | 0.05855   | 0.2336    | 0.084408  |

# Device Test: 19.28 VREF\_25C(VOLTAGE|VREF//5/5/0/0/5/100kHz//@VREF\_25C)

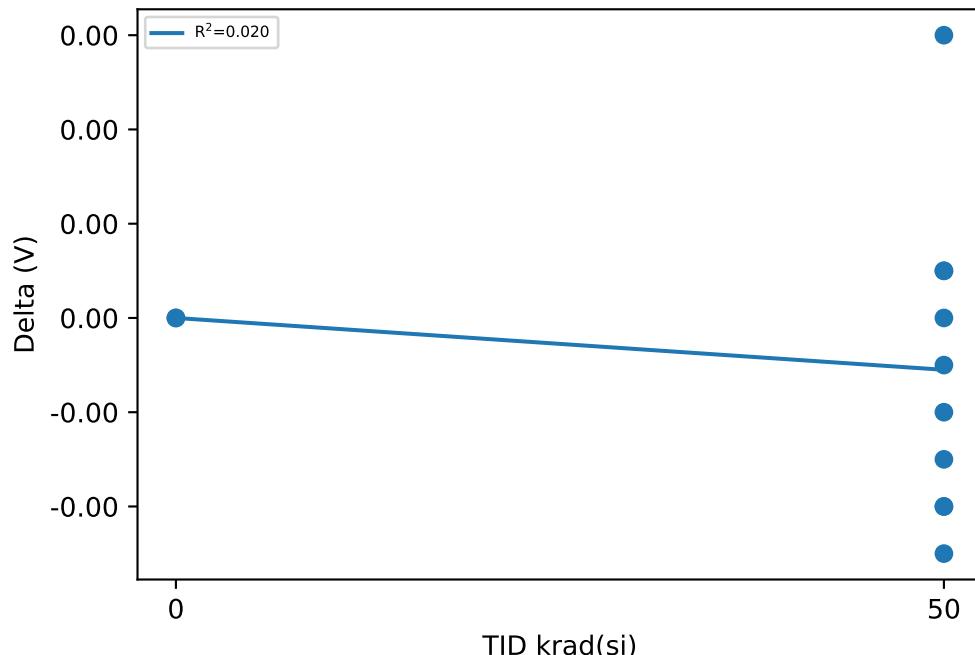
TID vs Result Stats



Test Results (Lower Limit = 0.597,  
Upper Limit = 0.603 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 6        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 7        | 50       | Bias                | 0.6003     | 0.6003      | 0       |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5996      | -0.0003 |
| 11       | 50       | Unbias              | 0.6001     | 0.6002      | 0.0001  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

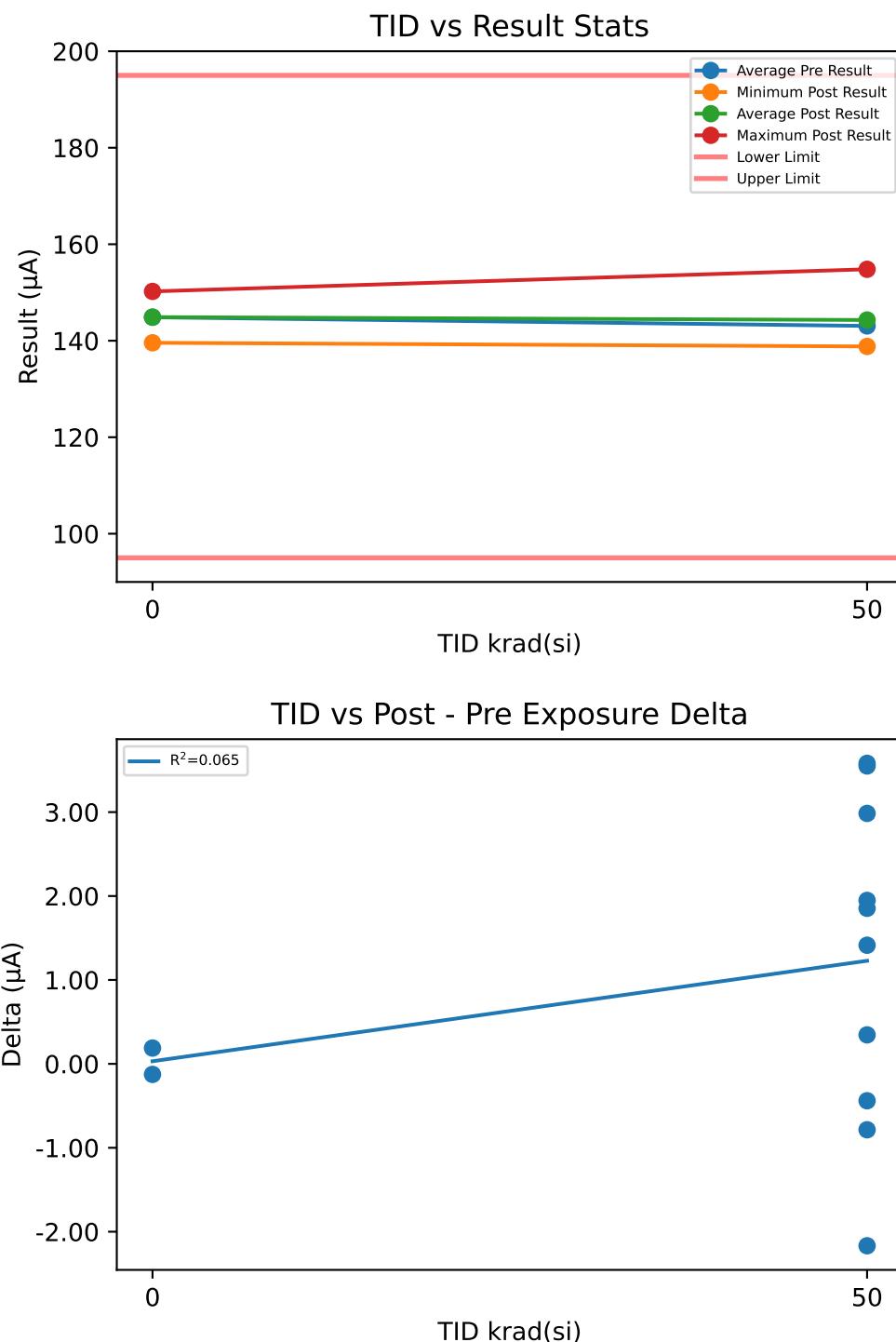
TID vs Post - Pre Exposure Delta



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        | 0.5998           | 0.59995          | 0.6001           | 0.00021213       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5997           | 0.59997          | 0.6003           | 0.00019465       | 0.5993            | 0.59986           | 0.6005            | 0.00045509        | -0.0005   | -0.00011  | 0.0006    | 0.00032813 |

# Device Test: 19.3 EA\_I\_SINK(CURRENT|EA\_SINK//4.5/4.5/0/0/4.5/500kHz//@EA\_I\_SINK)



**Test Results (Lower Limit = 95.0, Upper Limit = 195.0 ( $\mu\text{A}$ ))**

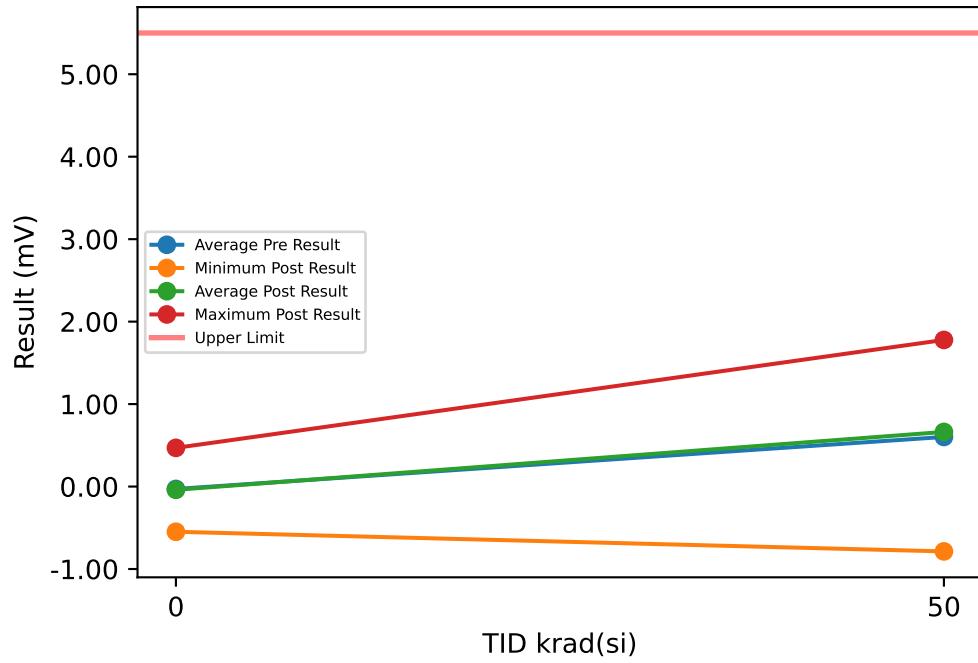
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 150.35     | 150.22      | -0.1257 |
| 2        | 0        | Correlation         | 139.38     | 139.57      | 0.1884  |
| 4        | 50       | Bias                | 142.08     | 143.94      | 1.8535  |
| 6        | 50       | Bias                | 149.47     | 147.3       | -2.1676 |
| 7        | 50       | Bias                | 138.47     | 138.82      | 0.3456  |
| 8        | 50       | Bias                | 143        | 145.98      | 2.9844  |
| 9        | 50       | Bias                | 143.28     | 142.84      | -0.4398 |
| 11       | 50       | Unbias              | 141.83     | 143.25      | 1.4137  |
| 12       | 50       | Unbias              | 140.95     | 140.17      | -0.7854 |
| 13       | 50       | Unbias              | 142.56     | 146.11      | 3.5499  |
| 14       | 50       | Unbias              | 137.81     | 139.76      | 1.9477  |
| 15       | 50       | Unbias              | 151.23     | 154.81      | 3.5813  |

**Test Statistics ( $\mu\text{A}$ )**

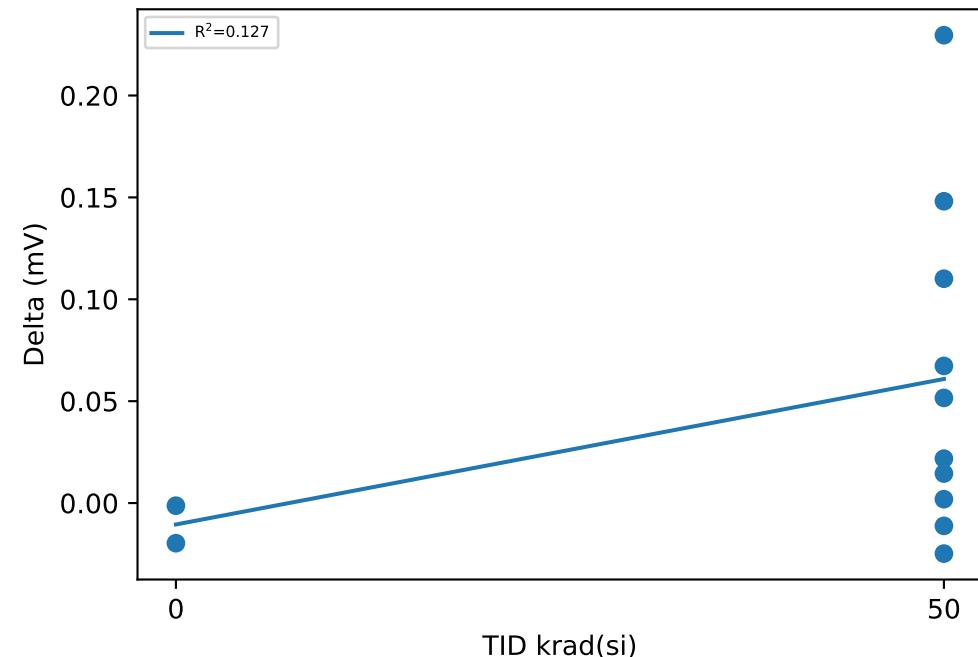
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 139.38           | 144.86           | 150.35           | 7.7525           | 139.57            | 144.9             | 150.22            | 7.5304            | -0.1257   | 0.03135   | 0.1884    | 0.2221    |
| 50       | 137.81           | 143.07           | 151.23           | 4.2626           | 138.82            | 144.3             | 154.81            | 4.6739            | -2.1676   | 1.2283    | 3.5813    | 1.9466    |

# Device Test: 19.30 EA\_OS(VOLTAGE|OFFSET//5/5/0/0/5/100kHz//@EA\_OS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



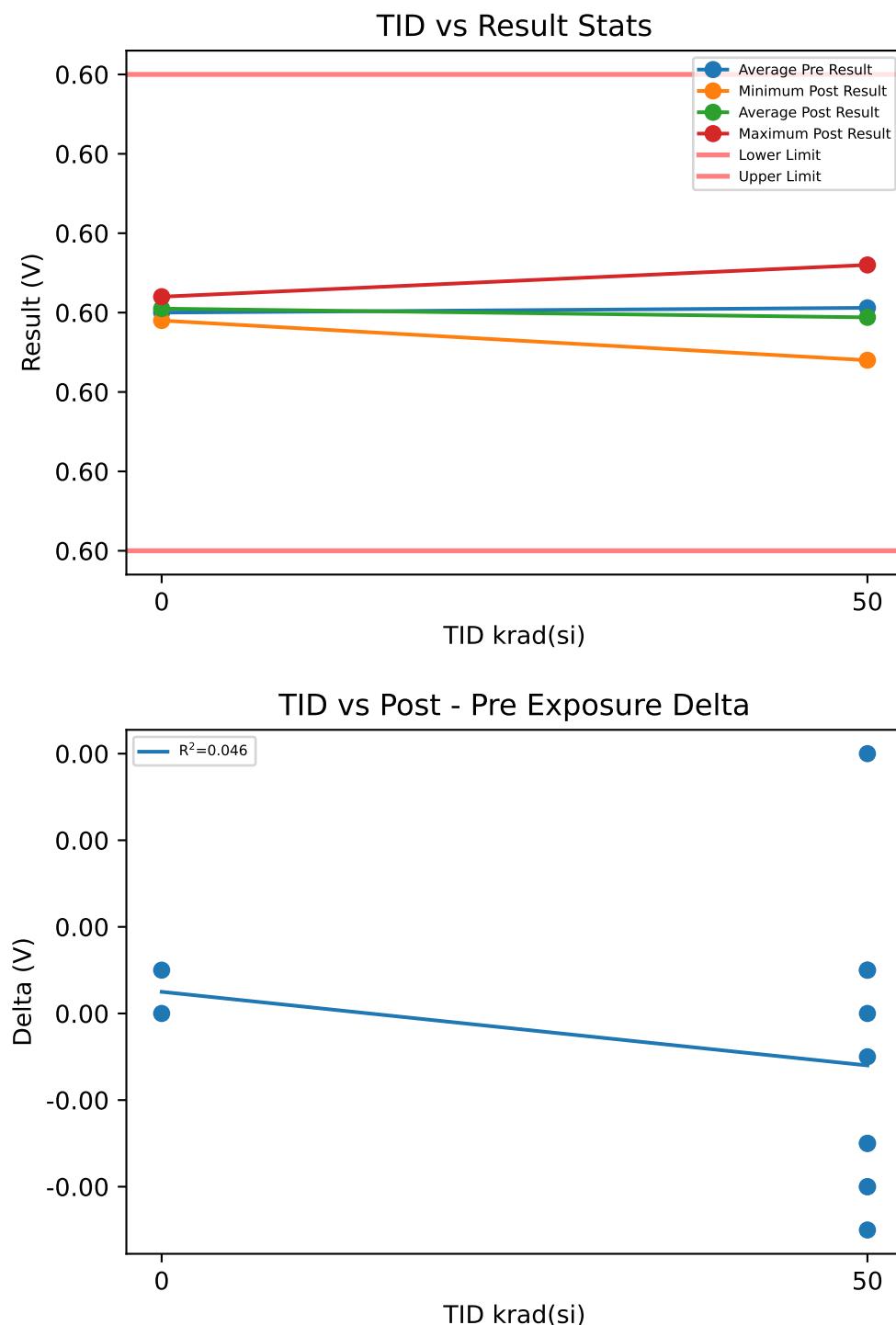
Test Results (Upper Limit = 5.5 (mV))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.4889     | 0.4692      | -0.0197 |
| 2        | 0        | Correlation         | -0.547     | -0.5483     | -0.0013 |
| 4        | 50       | Bias                | 0.177      | 0.2871      | 0.1101  |
| 6        | 50       | Bias                | 0.6355     | 0.6107      | -0.0248 |
| 7        | 50       | Bias                | -0.1885    | -0.1212     | 0.0673  |
| 8        | 50       | Bias                | 0.1022     | 0.2503      | 0.1481  |
| 9        | 50       | Bias                | -0.8008    | -0.7863     | 0.0145  |
| 11       | 50       | Unbias              | 1.065      | 1.0868      | 0.0218  |
| 12       | 50       | Unbias              | 1.5483     | 1.7779      | 0.2296  |
| 13       | 50       | Unbias              | 1.4898     | 1.4917      | 0.0019  |
| 14       | 50       | Unbias              | 0.783      | 0.7718      | -0.0112 |
| 15       | 50       | Unbias              | 1.2025     | 1.2541      | 0.0516  |

Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.547           | -0.02905         | 0.4889           | 0.73249          | -0.5483           | -0.03955          | 0.4692            | 0.71948           | -0.0197   | -0.0105   | -0.0013   | 0.013011  |
| 50       | -0.8008          | 0.6014           | 1.5483           | 0.76853          | -0.7863           | 0.66229           | 1.7779            | 0.78176           | -0.0248   | 0.06089   | 0.2296    | 0.080497  |

# Device Test: 19.31 VREF\_25C(VOLTAGE|VREF//12/12/0/0/5/100kHz//@VREF\_25C)



**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

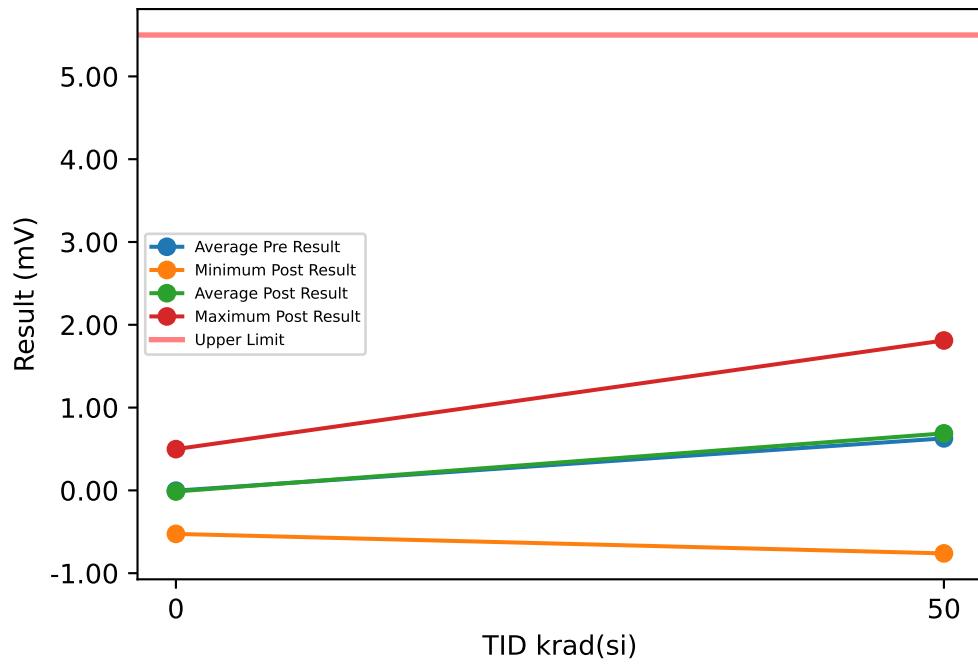
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5999     | 0.5999      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6002      | 0.0001  |
| 4        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 6        | 50       | Bias                | 0.5999     | 0.5994      | -0.0005 |
| 7        | 50       | Bias                | 0.6004     | 0.6004      | 0       |
| 8        | 50       | Bias                | 0.6        | 0.5997      | -0.0003 |
| 9        | 50       | Bias                | 0.6        | 0.5997      | -0.0003 |
| 11       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 12       | 50       | Unbias              | 0.6003     | 0.6004      | 0.0001  |
| 13       | 50       | Unbias              | 0.6002     | 0.6001      | -0.0001 |
| 14       | 50       | Unbias              | 0.5998     | 0.5994      | -0.0004 |
| 15       | 50       | Unbias              | 0.6        | 0.6006      | 0.0006  |

## Test Statistics (V)

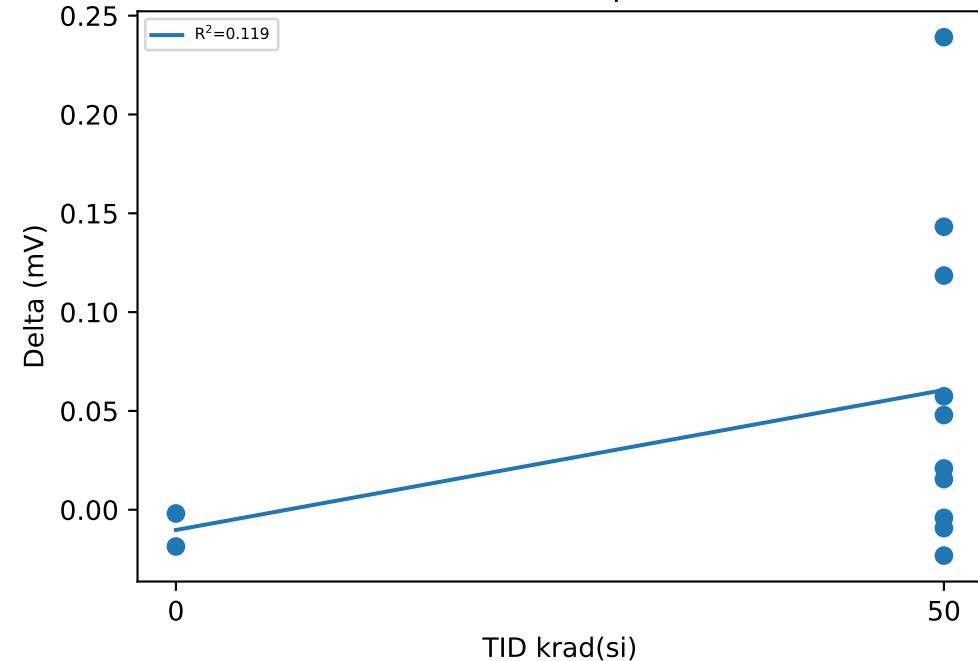
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.5999           | 0.6              | 0.6001           | 0.00014142       | 0.5999            | 0.60005           | 0.6002            | 0.00021213        | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 0.5998           | 0.60006          | 0.6004           | 0.00020656       | 0.5994            | 0.59994           | 0.6006            | 0.00047188        | -0.0005   | -0.00012  | 0.0006    | 0.00033267 |

# Device Test: 19.33 EA\_OS(VOLTAGE|OFFSET//12/12/0/0/5/100kHz//@EA\_OS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



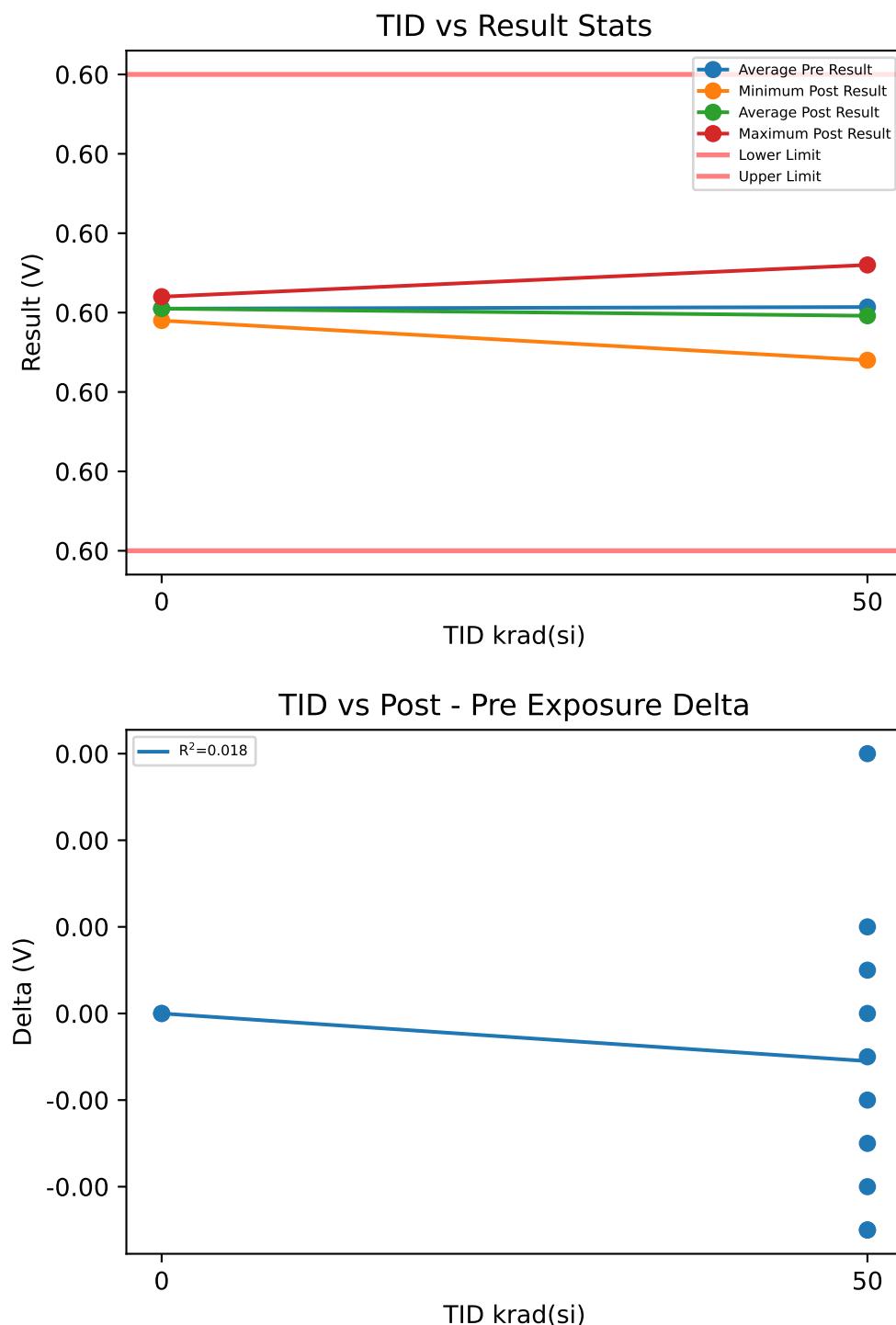
Test Results (Upper Limit = 5.5 (mV))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5169     | 0.4983      | -0.0186 |
| 2        | 0        | Correlation         | -0.5235    | -0.5254     | -0.0019 |
| 4        | 50       | Bias                | 0.1963     | 0.3148      | 0.1185  |
| 6        | 50       | Bias                | 0.6603     | 0.6371      | -0.0232 |
| 7        | 50       | Bias                | -0.1566    | -0.0992     | 0.0574  |
| 8        | 50       | Bias                | 0.1308     | 0.274       | 0.1432  |
| 9        | 50       | Bias                | -0.7765    | -0.761      | 0.0155  |
| 11       | 50       | Unbias              | 1.0966     | 1.1175      | 0.0209  |
| 12       | 50       | Unbias              | 1.5715     | 1.8106      | 0.2391  |
| 13       | 50       | Unbias              | 1.5217     | 1.5176      | -0.0041 |
| 14       | 50       | Unbias              | 0.8041     | 0.7948      | -0.0093 |
| 15       | 50       | Unbias              | 1.2345     | 1.2824      | 0.0479  |

Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.5235          | -0.0033          | 0.5169           | 0.73567          | -0.5254           | -0.01355          | 0.4983            | 0.72387           | -0.0186   | -0.01025  | -0.0019   | 0.011809  |
| 50       | -0.7765          | 0.62827          | 1.5715           | 0.76957          | -0.761            | 0.68886           | 1.8106            | 0.78388           | -0.0232   | 0.06059   | 0.2391    | 0.082941  |

# Device Test: 19.34 VREF\_25C(VOLTAGE|VREF//14/14/0/0/5/100kHz//@VREF\_25C)



**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

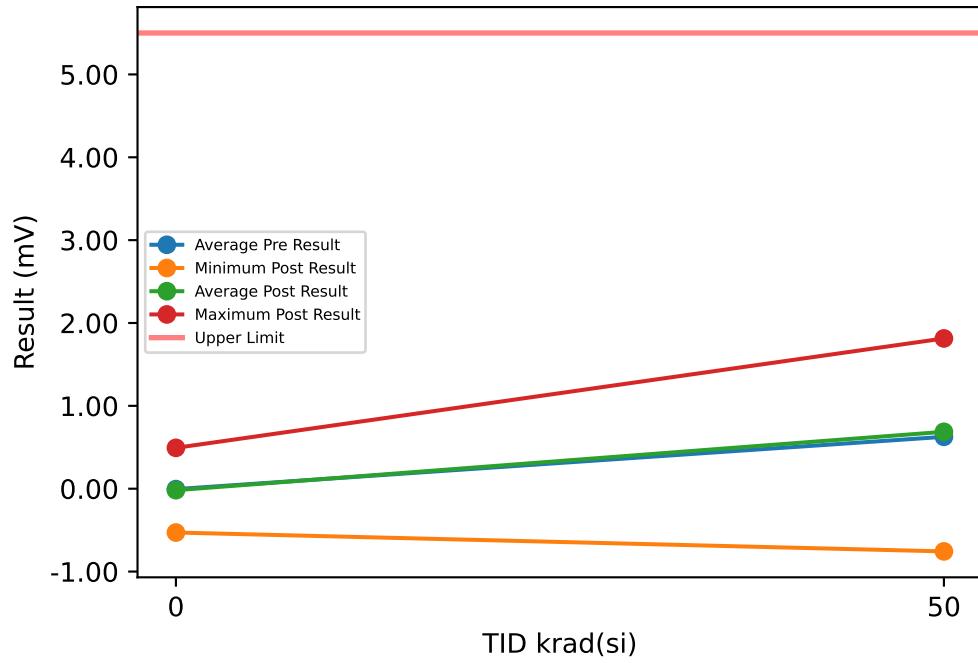
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5999     | 0.5999      | 0       |
| 2        | 0        | Correlation         | 0.6002     | 0.6002      | 0       |
| 4        | 50       | Bias                | 0.5999     | 0.5994      | -0.0005 |
| 6        | 50       | Bias                | 0.5999     | 0.5994      | -0.0005 |
| 7        | 50       | Bias                | 0.6004     | 0.6004      | 0       |
| 8        | 50       | Bias                | 0.6        | 0.5998      | -0.0002 |
| 9        | 50       | Bias                | 0.6        | 0.5997      | -0.0003 |
| 11       | 50       | Unbias              | 0.6002     | 0.6004      | 0.0002  |
| 12       | 50       | Unbias              | 0.6003     | 0.6004      | 0.0001  |
| 13       | 50       | Unbias              | 0.6002     | 0.6001      | -0.0001 |
| 14       | 50       | Unbias              | 0.5998     | 0.5994      | -0.0004 |
| 15       | 50       | Unbias              | 0.6        | 0.6006      | 0.0006  |

## Test Statistics (V)

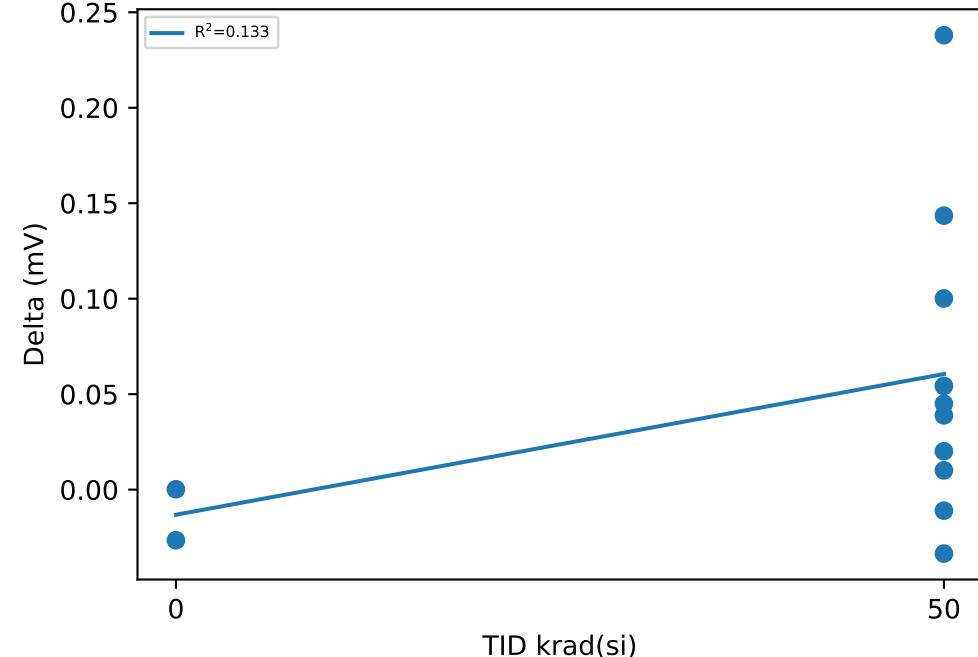
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.5999           | 0.60005          | 0.6002           | 0.00021213       | 0.5999            | 0.60005           | 0.6002            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5998           | 0.60007          | 0.6004           | 0.00019465       | 0.5994            | 0.59996           | 0.6006            | 0.00047656        | -0.0005   | -0.00011  | 0.0006    | 0.00034785 |

# Device Test: 19.36 EA\_OS(VOLTAGE|OFFSET//14/14/0/0/5/100kHz//@EA\_OS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



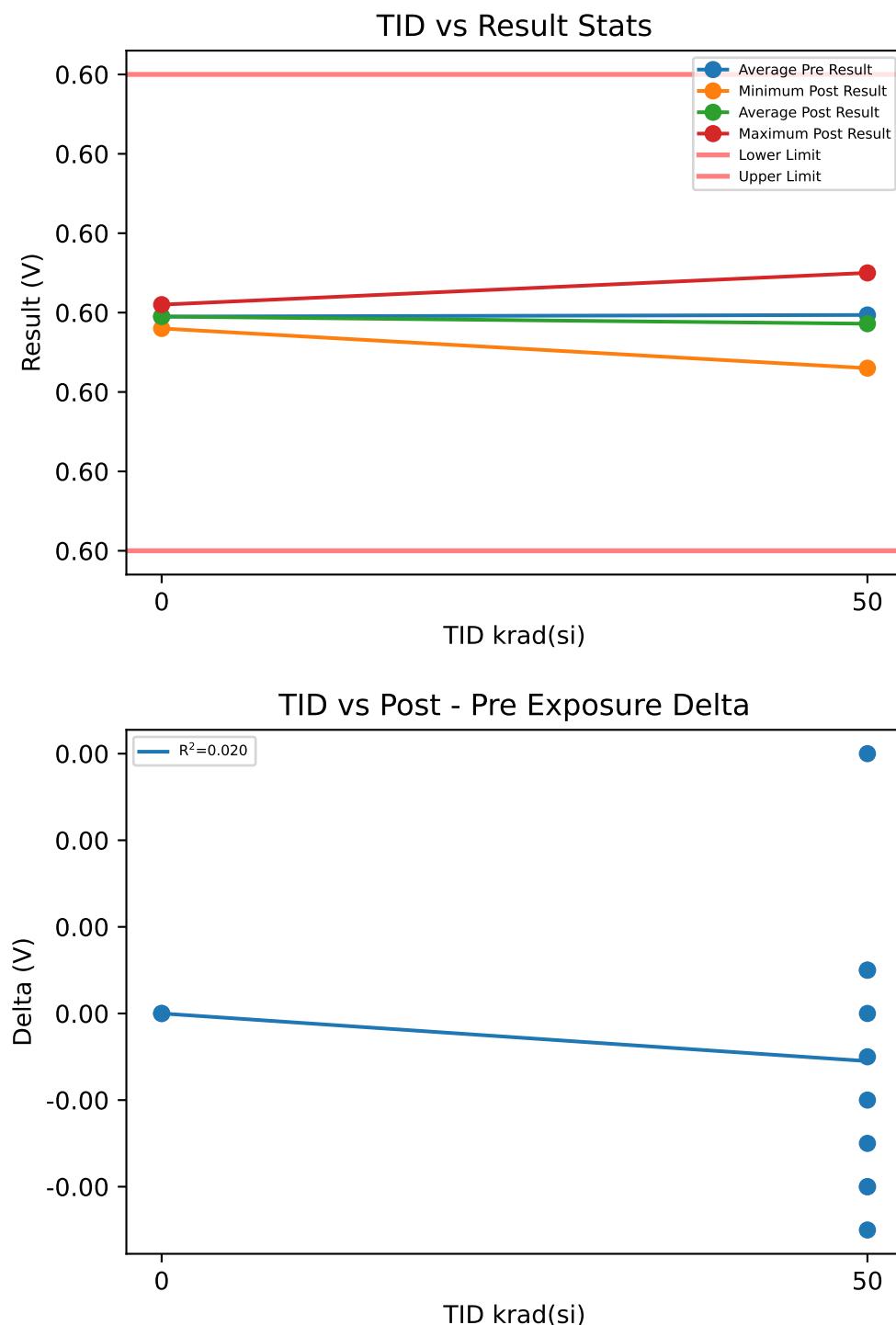
Test Results (Upper Limit = 5.5 (mV))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5195     | 0.493       | -0.0265 |
| 2        | 0        | Correlation         | -0.5291    | -0.5289     | 0.0002  |
| 4        | 50       | Bias                | 0.2055     | 0.3056      | 0.1001  |
| 6        | 50       | Bias                | 0.66       | 0.6265      | -0.0335 |
| 7        | 50       | Bias                | -0.1623    | -0.108      | 0.0543  |
| 8        | 50       | Bias                | 0.1265     | 0.27        | 0.1435  |
| 9        | 50       | Bias                | -0.7768    | -0.7567     | 0.0201  |
| 11       | 50       | Unbias              | 1.0876     | 1.1265      | 0.0389  |
| 12       | 50       | Unbias              | 1.5755     | 1.8135      | 0.238   |
| 13       | 50       | Unbias              | 1.514      | 1.5241      | 0.0101  |
| 14       | 50       | Unbias              | 0.8074     | 0.7964      | -0.011  |
| 15       | 50       | Unbias              | 1.2241     | 1.2691      | 0.045   |

Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.5291          | -0.0048          | 0.5195           | 0.74147          | -0.5289           | -0.01795          | 0.493             | 0.72259           | -0.0265   | -0.01315  | 0.0002    | 0.01888   |
| 50       | -0.7768          | 0.62615          | 1.5755           | 0.76815          | -0.7567           | 0.6867            | 1.8135            | 0.78549           | -0.0335   | 0.06055   | 0.238     | 0.080849  |

# Device Test: 19.37 VREF\_25C(VOLTAGE|VREF//4.5/4.5/0/0/4.5/500kHz//@VREF\_25C)



**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

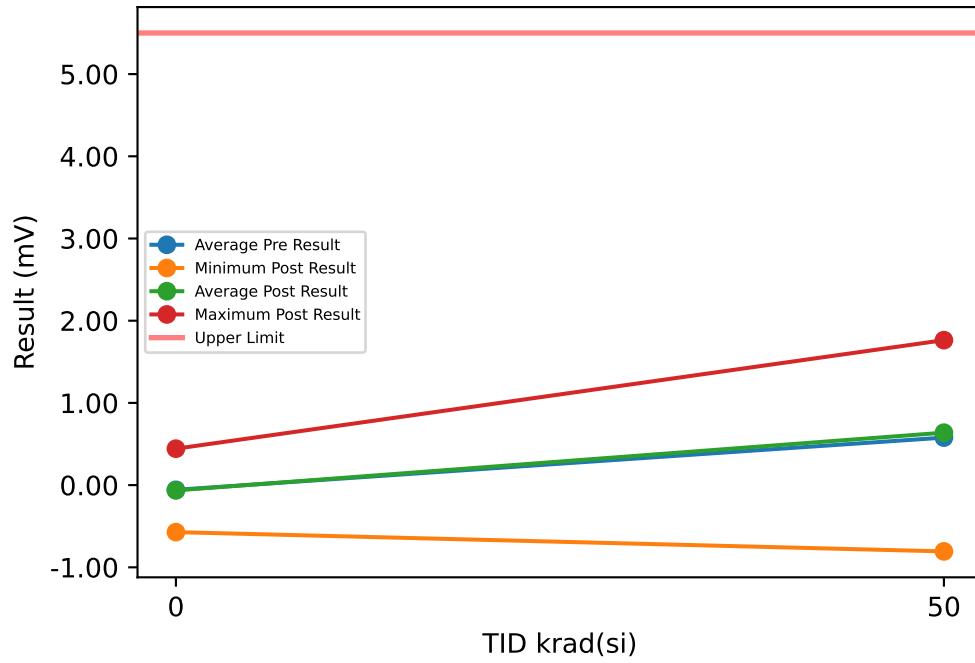
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 6        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 7        | 50       | Bias                | 0.6003     | 0.6003      | 0       |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5996      | -0.0003 |
| 11       | 50       | Unbias              | 0.6001     | 0.6002      | 0.0001  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

## Test Statistics (V)

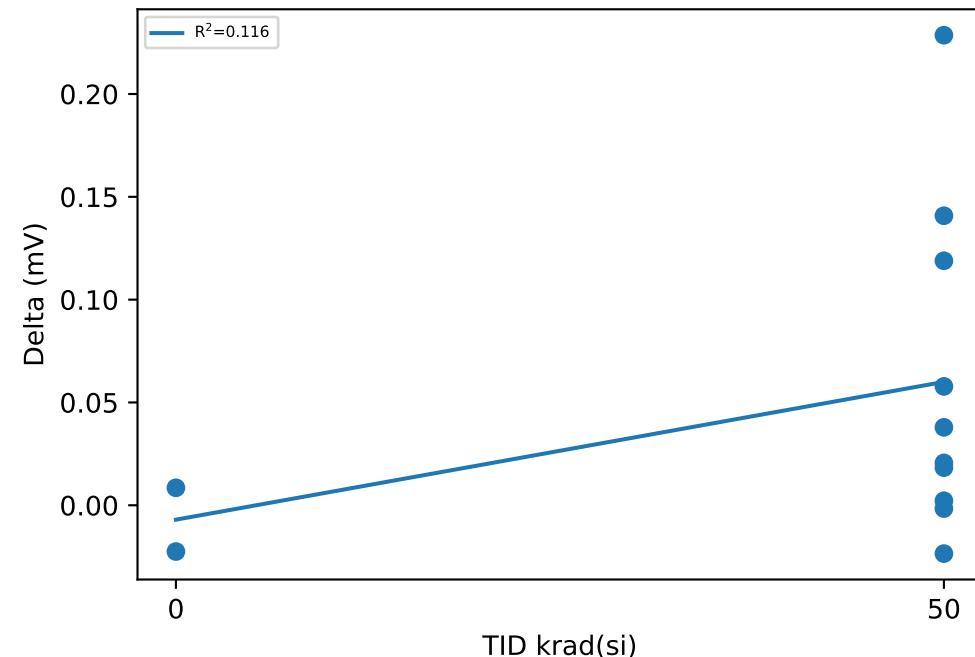
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.5998           | 0.59995          | 0.6001           | 0.00021213       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5997           | 0.59997          | 0.6003           | 0.00019465       | 0.5993            | 0.59986           | 0.6005            | 0.00045509        | -0.0005   | -0.00011  | 0.0006    | 0.00032813 |

# Device Test: 19.39 EA\_OS(VOLTAGE|OFFSET//4.5/4.5/0/0/4.5/500kHz//@EA\_OS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 5.5 (mV))

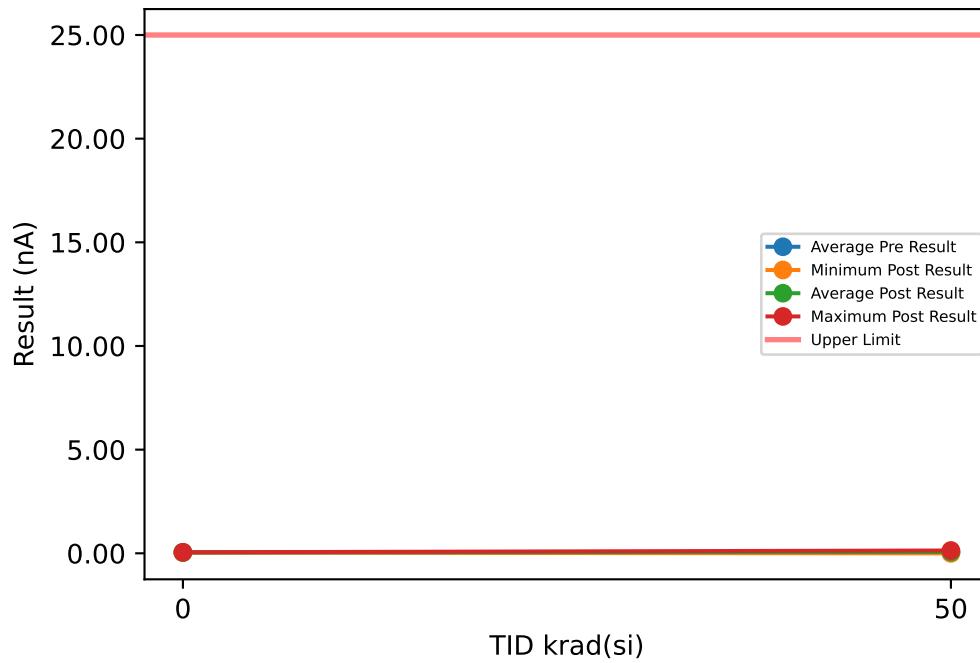
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.4656     | 0.4431      | -0.0225 |
| 2        | 0        | Correlation         | -0.5804    | -0.5719     | 0.0085  |
| 4        | 50       | Bias                | 0.1488     | 0.2677      | 0.1189  |
| 6        | 50       | Bias                | 0.6113     | 0.5878      | -0.0235 |
| 7        | 50       | Bias                | -0.2088    | -0.151      | 0.0578  |
| 8        | 50       | Bias                | 0.0834     | 0.2242      | 0.1408  |
| 9        | 50       | Bias                | -0.827     | -0.8064     | 0.0206  |
| 11       | 50       | Unbias              | 1.0417     | 1.06        | 0.0183  |
| 12       | 50       | Unbias              | 1.5348     | 1.7634      | 0.2286  |
| 13       | 50       | Unbias              | 1.4685     | 1.4707      | 0.0022  |
| 14       | 50       | Unbias              | 0.7544     | 0.7528      | -0.0016 |
| 15       | 50       | Unbias              | 1.1718     | 1.2097      | 0.0379  |

Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.5804          | -0.0574          | 0.4656           | 0.73963          | -0.5719           | -0.0644           | 0.4431            | 0.71771           | -0.0225   | -0.007    | 0.0085    | 0.02192   |
| 50       | -0.827           | 0.57789          | 1.5348           | 0.76958          | -0.8064           | 0.63789           | 1.7634            | 0.78157           | -0.0235   | 0.06      | 0.2286    | 0.079103  |

# Device Test: 19.4 EA\_IB(CURRENT|EA//4.5/4.5/0/0/4.5/500kHz//@EA\_IB)

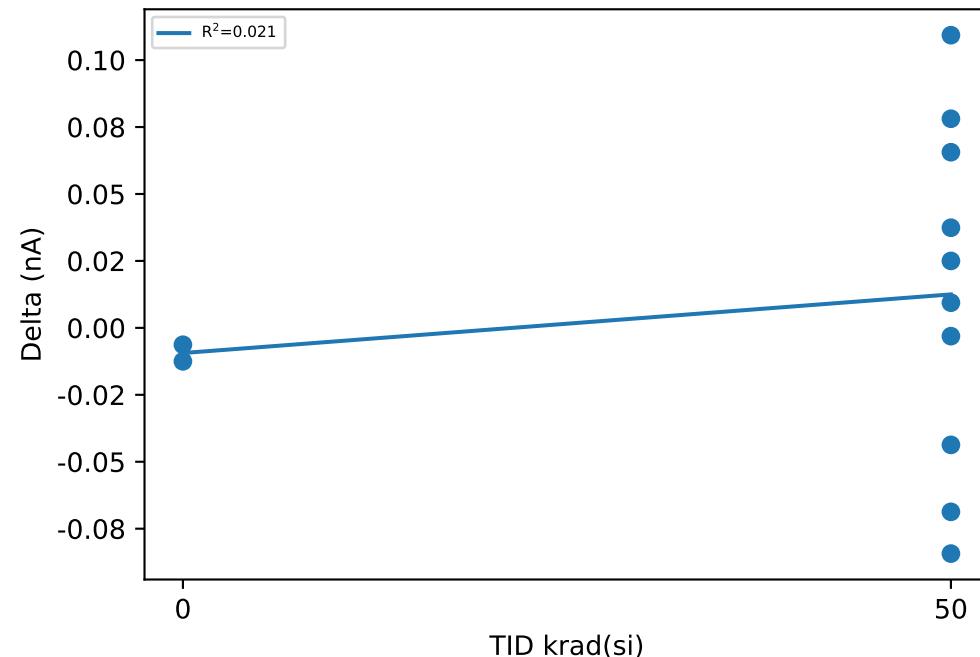
TID vs Result Stats



Test Results (Upper Limit = 25.0 (nA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.0454     | 0.0329      | -0.0125 |
| 2        | 0        | Correlation         | 0.0548     | 0.0485      | -0.0063 |
| 4        | 50       | Bias                | 0.061      | 0.0579      | -0.0031 |
| 6        | 50       | Bias                | 0.0048     | 0.1141      | 0.1093  |
| 7        | 50       | Bias                | 0.136      | 0.0517      | -0.0843 |
| 8        | 50       | Bias                | 0.0642     | -0.0045     | -0.0687 |
| 9        | 50       | Bias                | 0.0579     | 0.136       | 0.0781  |
| 11       | 50       | Unbias              | 0.0392     | 0.0766      | 0.0374  |
| 12       | 50       | Unbias              | 0.0017     | 0.0673      | 0.0656  |
| 13       | 50       | Unbias              | 0.0017     | 0.0111      | 0.0094  |
| 14       | 50       | Unbias              | 0.061      | 0.0173      | -0.0437 |
| 15       | 50       | Unbias              | 0.0891     | 0.1141      | 0.025   |

TID vs Post - Pre Exposure Delta

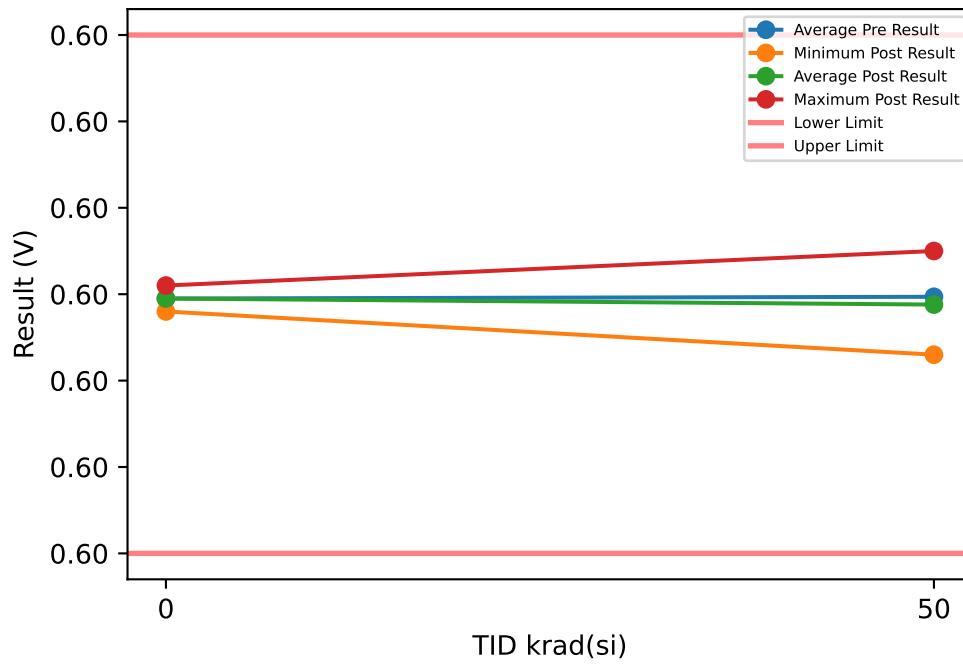


Test Statistics (nA)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 0.0454           | 0.0501           | 0.0548           | 0.0066468        | 0.0329            | 0.0407            | 0.0485            | 0.011031          | -0.0125   | -0.0094   | -0.0063   | 0.0043841 |
| 50       | 0.0017           | 0.05166          | 0.136            | 0.042464         | -0.0045           | 0.06416           | 0.136             | 0.047415          | -0.0843   | 0.0125    | 0.1093    | 0.063809  |

# Device Test: 19.40 VREF\_25C(VOLTAGE|VREF//5/5/0/0/5/500kHz//@VREF\_25C)

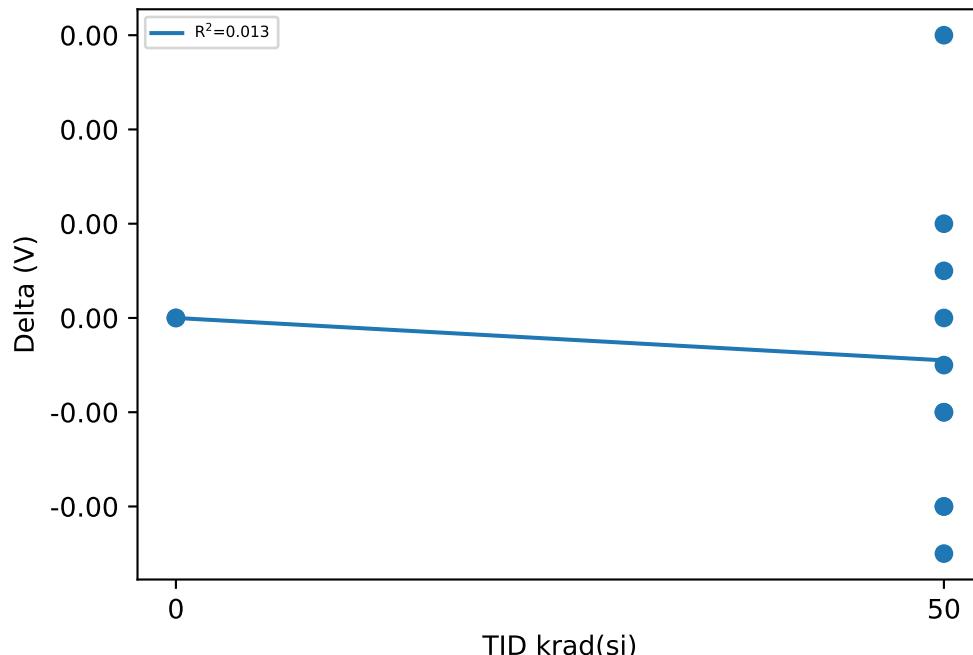
TID vs Result Stats



Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 6        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 7        | 50       | Bias                | 0.6003     | 0.6003      | 0       |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 11       | 50       | Unbias              | 0.6001     | 0.6003      | 0.0002  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

TID vs Post - Pre Exposure Delta

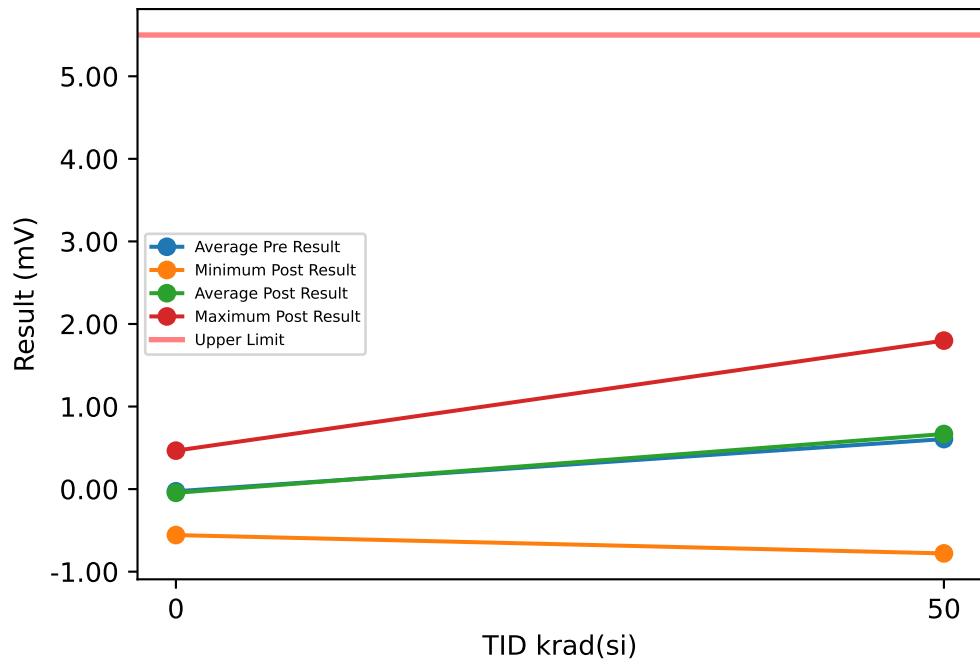


Test Statistics (V)

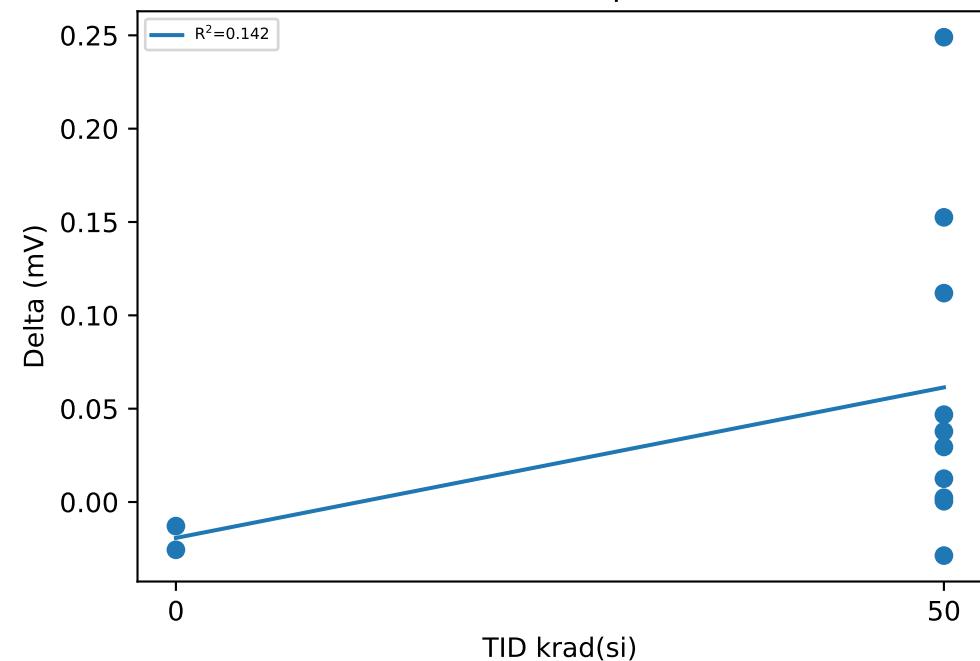
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.5998           | 0.59995          | 0.6001           | 0.00021213       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5997           | 0.59997          | 0.6003           | 0.00019465       | 0.5993            | 0.59988           | 0.6005            | 0.00045898        | -0.0005   | -9e-05    | 0.0006    | 0.00033149 |

# Device Test: 19.42 EA\_OS(VOLTAGE|OFFSET//5/5/0/0/5/500kHz//@EA\_OS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



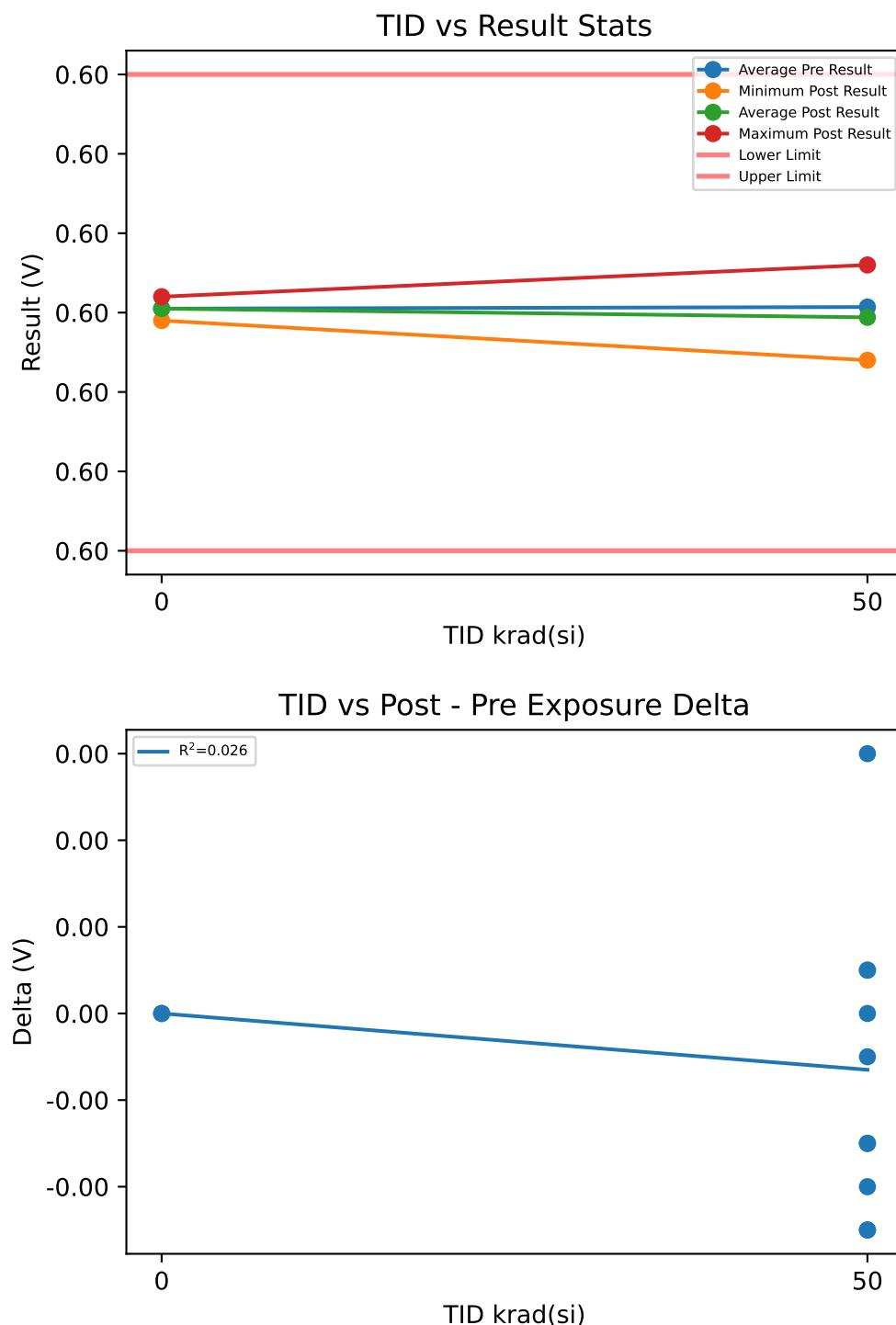
Test Results (Upper Limit = 5.5 (mV))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.4914     | 0.4658      | -0.0256 |
| 2        | 0        | Correlation         | -0.5436    | -0.5565     | -0.0129 |
| 4        | 50       | Bias                | 0.1747     | 0.2866      | 0.1119  |
| 6        | 50       | Bias                | 0.6399     | 0.6112      | -0.0287 |
| 7        | 50       | Bias                | -0.1699    | -0.1231     | 0.0468  |
| 8        | 50       | Bias                | 0.1029     | 0.2554      | 0.1525  |
| 9        | 50       | Bias                | -0.7912    | -0.7787     | 0.0125  |
| 11       | 50       | Unbias              | 1.0711     | 1.1006      | 0.0295  |
| 12       | 50       | Unbias              | 1.5495     | 1.7985      | 0.249   |
| 13       | 50       | Unbias              | 1.4996     | 1.5019      | 0.0023  |
| 14       | 50       | Unbias              | 0.7767     | 0.7771      | 0.0004  |
| 15       | 50       | Unbias              | 1.2067     | 1.2445      | 0.0378  |

Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.5436          | -0.0261          | 0.4914           | 0.73186          | -0.5565           | -0.04535          | 0.4658            | 0.72288           | -0.0256   | -0.01925  | -0.0129   | 0.0089803 |
| 50       | -0.7912          | 0.606            | 1.5495           | 0.76663          | -0.7787           | 0.6674            | 1.7985            | 0.78475           | -0.0287   | 0.0614    | 0.249     | 0.085345  |

# Device Test: 19.43 VREF\_25C(VOLTAGE|VREF//12/12/0/0/5/500kHz//@VREF\_25C)



**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

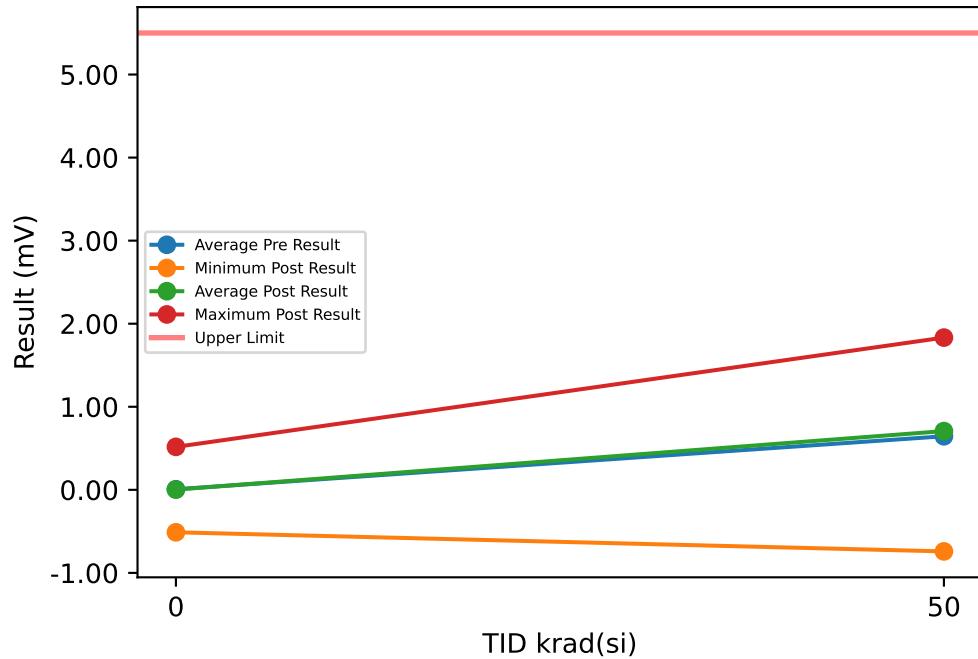
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5999     | 0.5999      | 0       |
| 2        | 0        | Correlation         | 0.6002     | 0.6002      | 0       |
| 4        | 50       | Bias                | 0.5999     | 0.5994      | -0.0005 |
| 6        | 50       | Bias                | 0.5999     | 0.5994      | -0.0005 |
| 7        | 50       | Bias                | 0.6004     | 0.6004      | 0       |
| 8        | 50       | Bias                | 0.6        | 0.5997      | -0.0003 |
| 9        | 50       | Bias                | 0.6        | 0.5997      | -0.0003 |
| 11       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 12       | 50       | Unbias              | 0.6003     | 0.6004      | 0.0001  |
| 13       | 50       | Unbias              | 0.6002     | 0.6001      | -0.0001 |
| 14       | 50       | Unbias              | 0.5998     | 0.5994      | -0.0004 |
| 15       | 50       | Unbias              | 0.6        | 0.6006      | 0.0006  |

## 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        | 0.5999           | 0.60005          | 0.6002           | 0.00021213       | 0.5999            | 0.60005           | 0.6002            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5998           | 0.60007          | 0.6004           | 0.00019465       | 0.5994            | 0.59994           | 0.6006            | 0.00047188        | -0.0005   | -0.00013  | 0.0006    | 0.00034335 |

# Device Test: 19.45 EA\_OS(VOLTAGE|OFFSET//12/12/0/0/5/500kHz//@EA\_OS)

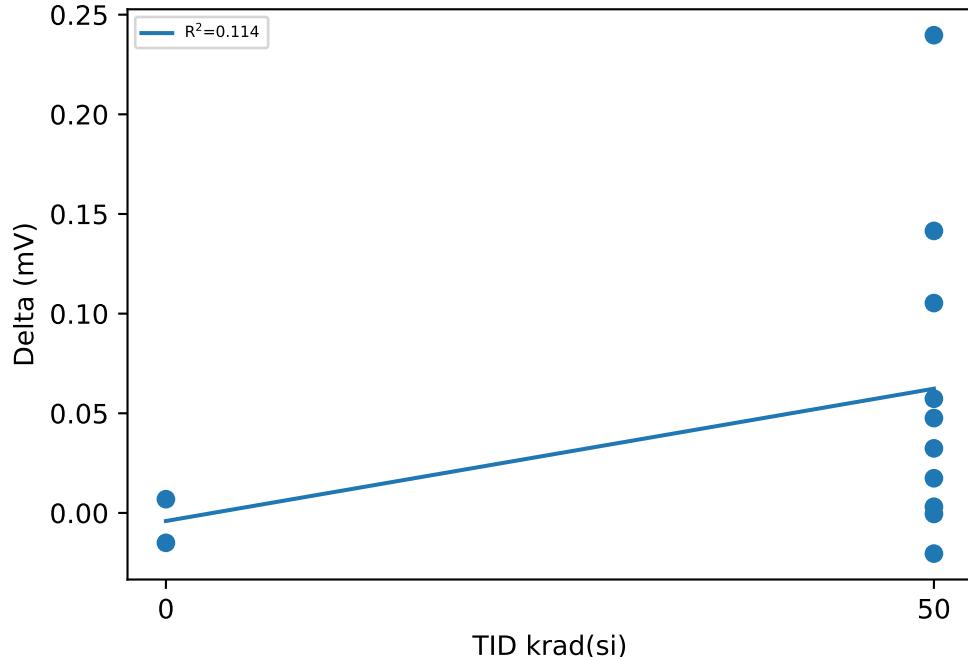
TID vs Result Stats



Test Results (Upper Limit = 5.5 (mV))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5322     | 0.5172      | -0.015  |
| 2        | 0        | Correlation         | -0.5181    | -0.5112     | 0.0069  |
| 4        | 50       | Bias                | 0.2189     | 0.3242      | 0.1053  |
| 6        | 50       | Bias                | 0.6763     | 0.6559      | -0.0204 |
| 7        | 50       | Bias                | -0.1337    | -0.0764     | 0.0573  |
| 8        | 50       | Bias                | 0.1456     | 0.2871      | 0.1415  |
| 9        | 50       | Bias                | -0.7586    | -0.7412     | 0.0174  |
| 11       | 50       | Unbias              | 1.111      | 1.1434      | 0.0324  |
| 12       | 50       | Unbias              | 1.5932     | 1.8329      | 0.2397  |
| 13       | 50       | Unbias              | 1.5405     | 1.54        | -0.0005 |
| 14       | 50       | Unbias              | 0.8191     | 0.8222      | 0.0031  |
| 15       | 50       | Unbias              | 1.2374     | 1.285       | 0.0476  |

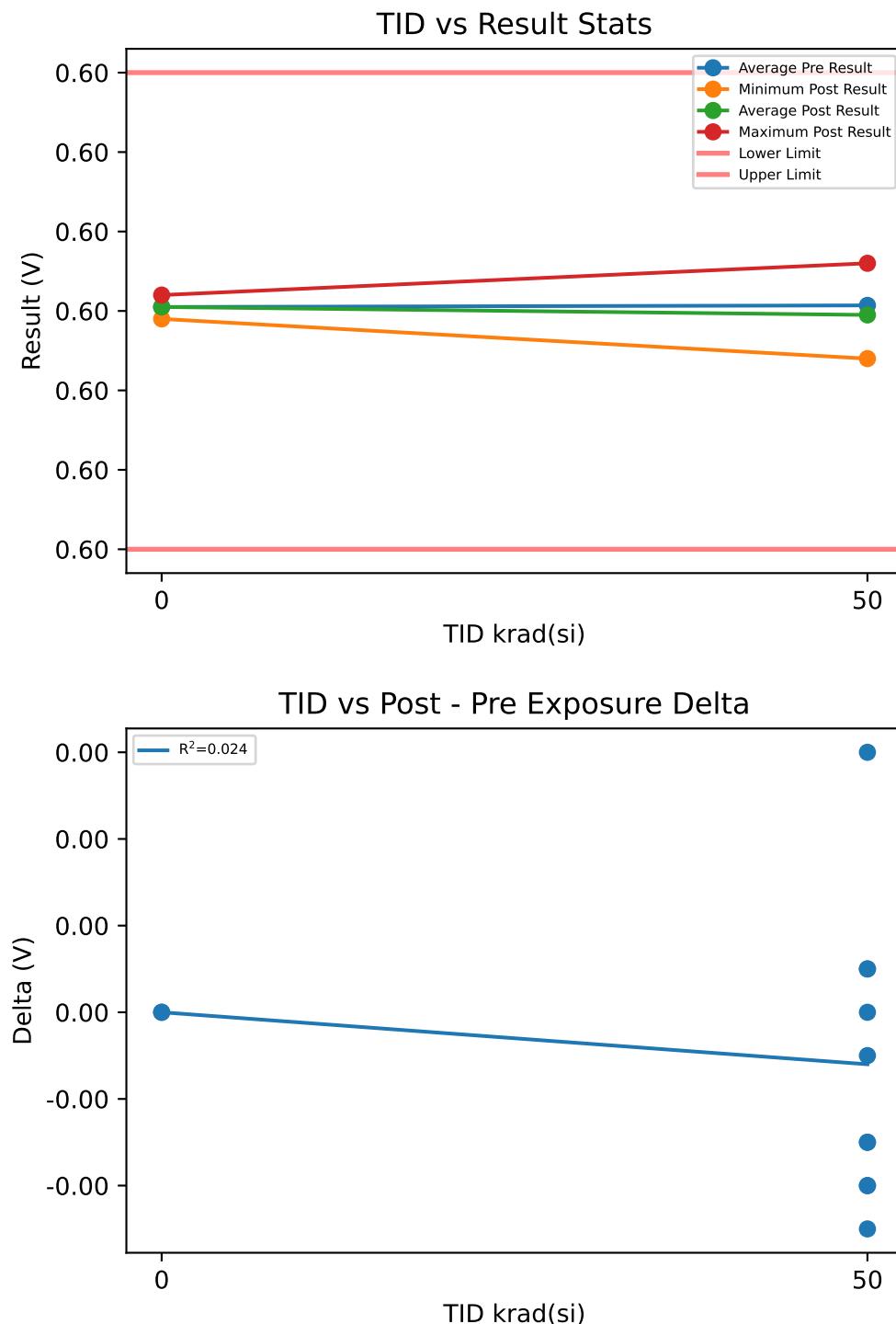
TID vs Post - Pre Exposure Delta



Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.5181          | 0.00705          | 0.5322           | 0.74267          | -0.5112           | 0.003             | 0.5172            | 0.72719           | -0.015    | -0.00405  | 0.0069    | 0.015486  |
| 50       | -0.7586          | 0.64497          | 1.5932           | 0.76796          | -0.7412           | 0.70731           | 1.8329            | 0.78428           | -0.0204   | 0.06234   | 0.2397    | 0.079604  |

# Device Test: 19.46 VREF\_25C(VOLTAGE|VREF//14/14/0/0/5/500kHz//@VREF\_25C)



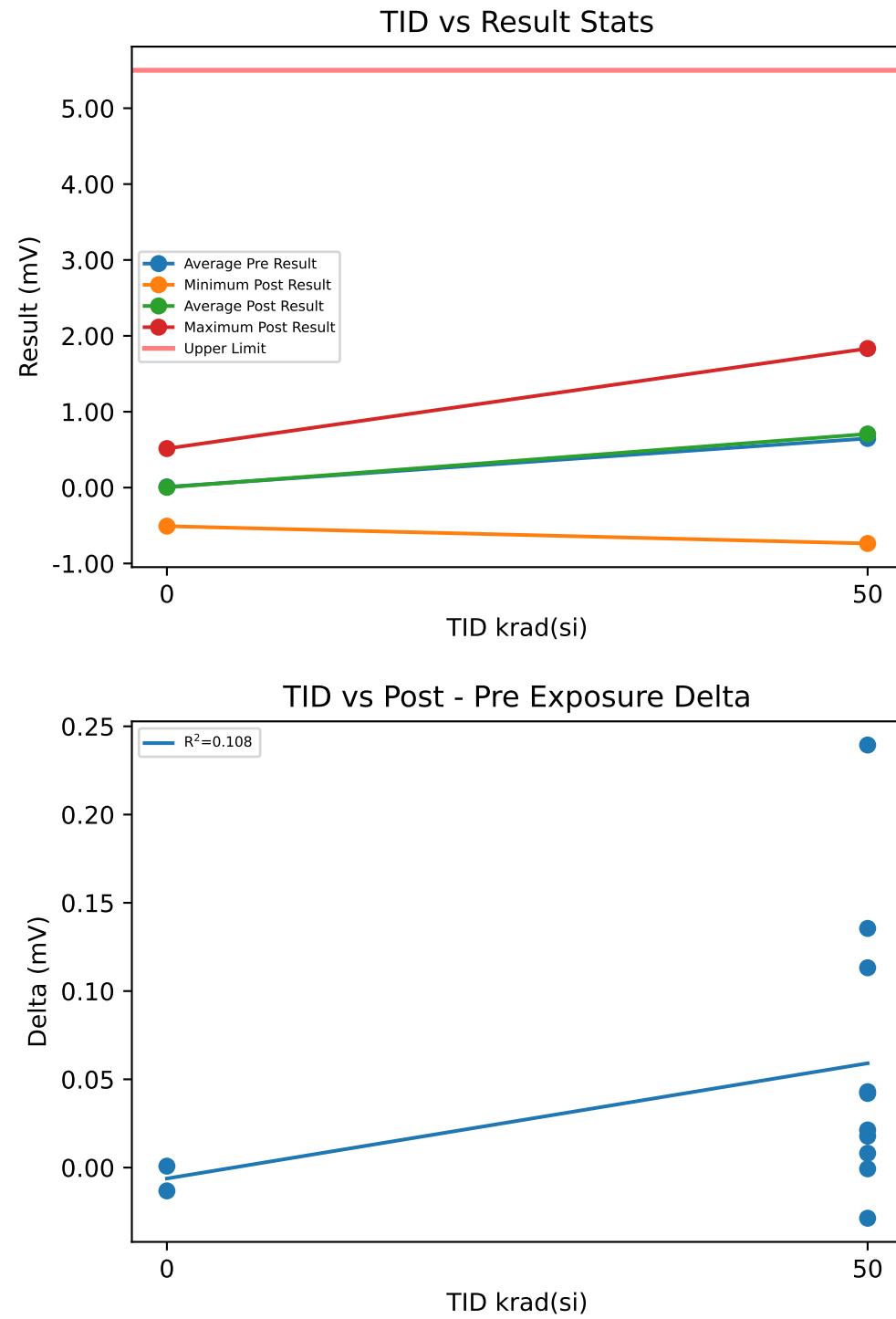
**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5999     | 0.5999      | 0       |
| 2        | 0        | Correlation         | 0.6002     | 0.6002      | 0       |
| 4        | 50       | Bias                | 0.5999     | 0.5994      | -0.0005 |
| 6        | 50       | Bias                | 0.5999     | 0.5995      | -0.0004 |
| 7        | 50       | Bias                | 0.6004     | 0.6004      | 0       |
| 8        | 50       | Bias                | 0.6        | 0.5997      | -0.0003 |
| 9        | 50       | Bias                | 0.6        | 0.5997      | -0.0003 |
| 11       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 12       | 50       | Unbias              | 0.6003     | 0.6004      | 0.0001  |
| 13       | 50       | Unbias              | 0.6002     | 0.6001      | -0.0001 |
| 14       | 50       | Unbias              | 0.5998     | 0.5994      | -0.0004 |
| 15       | 50       | Unbias              | 0.6        | 0.6006      | 0.0006  |

## 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        | 0.5999           | 0.60005          | 0.6002           | 0.00021213       | 0.5999            | 0.60005           | 0.6002            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5998           | 0.60007          | 0.6004           | 0.00019465       | 0.5994            | 0.59995           | 0.6006            | 0.00046007        | -0.0005   | -0.00012  | 0.0006    | 0.00033267 |

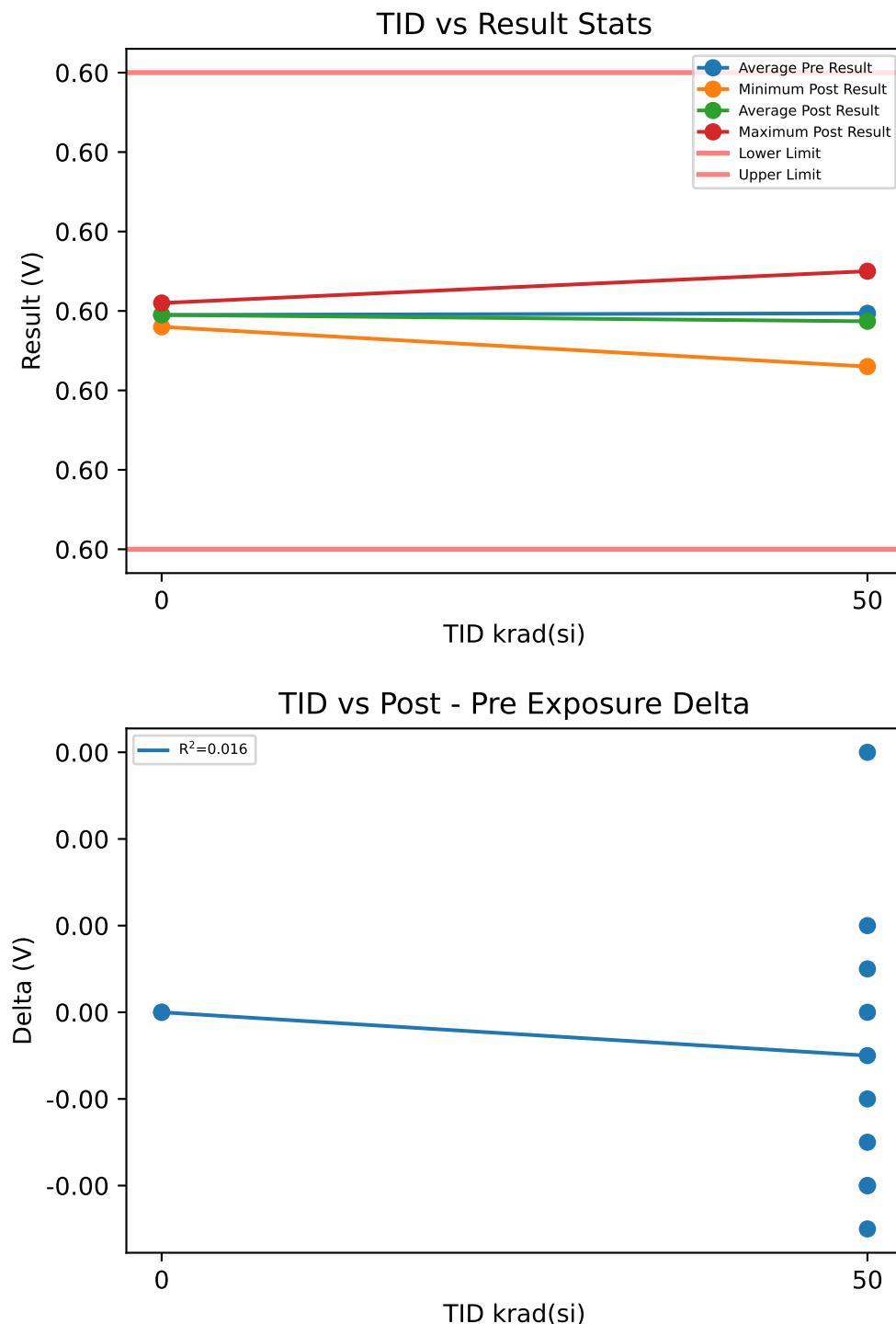
Device Test: 19.48 EA\_OS(VOLTAGE|OFFSET//14/14/0/0/5/500kHz//@EA\_OS)



## Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.509           | 0.0093           | 0.5276           | 0.73299          | -0.5082           | 0.0031            | 0.5144            | 0.72309           | -0.0132   | -0.0062   | 0.0008    | 0.0098995 |
| 50       | -0.7543          | 0.64761          | 1.5935           | 0.76698          | -0.7365           | 0.7067            | 1.8329            | 0.78445           | -0.0287   | 0.05909   | 0.2394    | 0.080859  |

# Device Test: 19.49 VREF\_25C(VOLTAGE|VREF//4.5/4.5/0/0/4.5/1MHz//@VREF\_25C)



**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

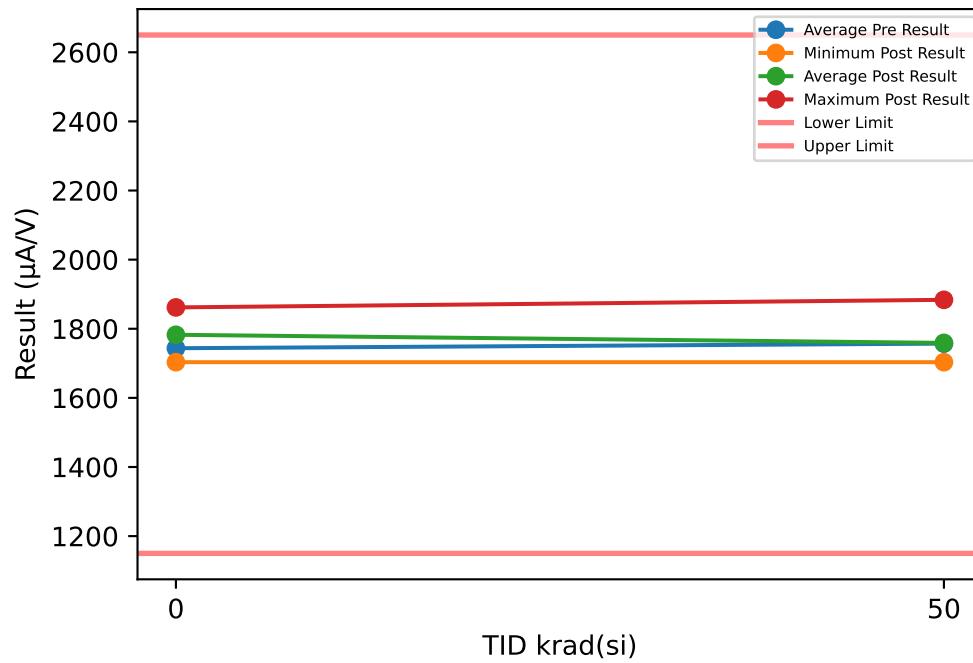
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 6        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 7        | 50       | Bias                | 0.6003     | 0.6003      | 0       |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5996      | -0.0003 |
| 11       | 50       | Unbias              | 0.6001     | 0.6003      | 0.0002  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

**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        | 0.5998           | 0.59995          | 0.6001           | 0.00021213       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5997           | 0.59997          | 0.6003           | 0.00019465       | 0.5993            | 0.59987           | 0.6005            | 0.0004644         | -0.0005   | -0.0001   | 0.0006    | 0.00033665 |

# Device Test: 19.5 EA\_GM(LEVEL|TRANSCONDUCTANCE//5/5/0/0/5/500kHz//@EA\_GM)

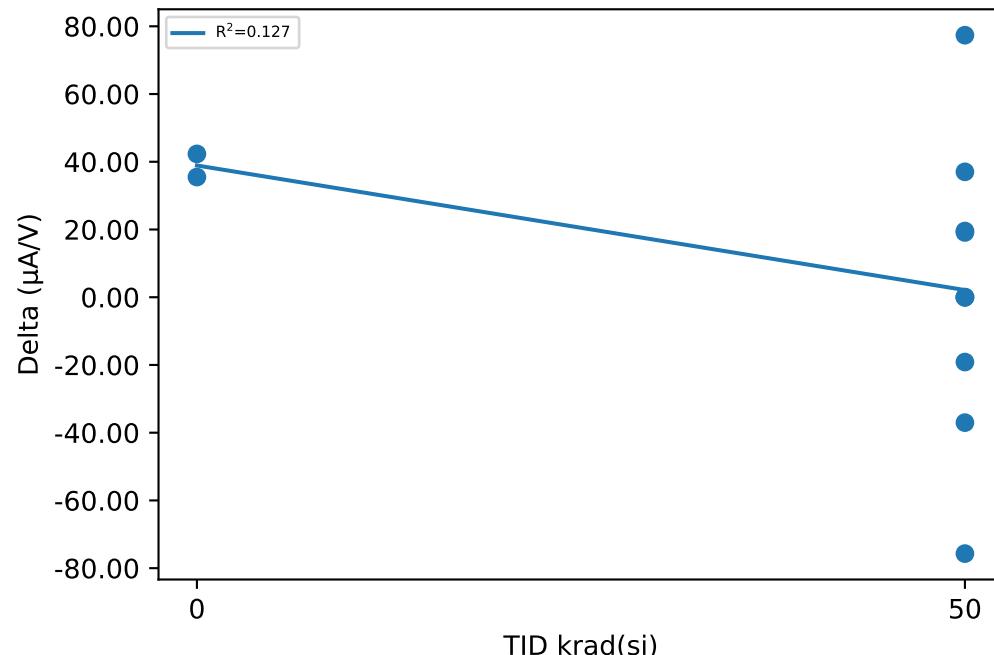
TID vs Result Stats



Test Results (Lower Limit = 1150.0, Upper Limit = 2650.0 (\muA/V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1819.5     | 1861.8      | 42.32   |
| 2        | 0        | Correlation         | 1667.8     | 1703.3      | 35.483  |
| 4        | 50       | Bias                | 1759.5     | 1740.3      | -19.137 |
| 6        | 50       | Bias                | 1779       | 1779        | 0       |
| 7        | 50       | Bias                | 1703.3     | 1703.3      | 0.0087  |
| 8        | 50       | Bias                | 1759.5     | 1779        | 19.553  |
| 9        | 50       | Bias                | 1779       | 1703.3      | -75.697 |
| 11       | 50       | Unbias              | 1740.4     | 1759.5      | 19.128  |
| 12       | 50       | Unbias              | 1740.4     | 1703.3      | -37.026 |
| 13       | 50       | Unbias              | 1721.6     | 1799        | 77.371  |
| 14       | 50       | Unbias              | 1703.3     | 1740.4      | 37.026  |
| 15       | 50       | Unbias              | 1883.7     | 1883.7      | 0.0106  |

TID vs Post - Pre Exposure Delta

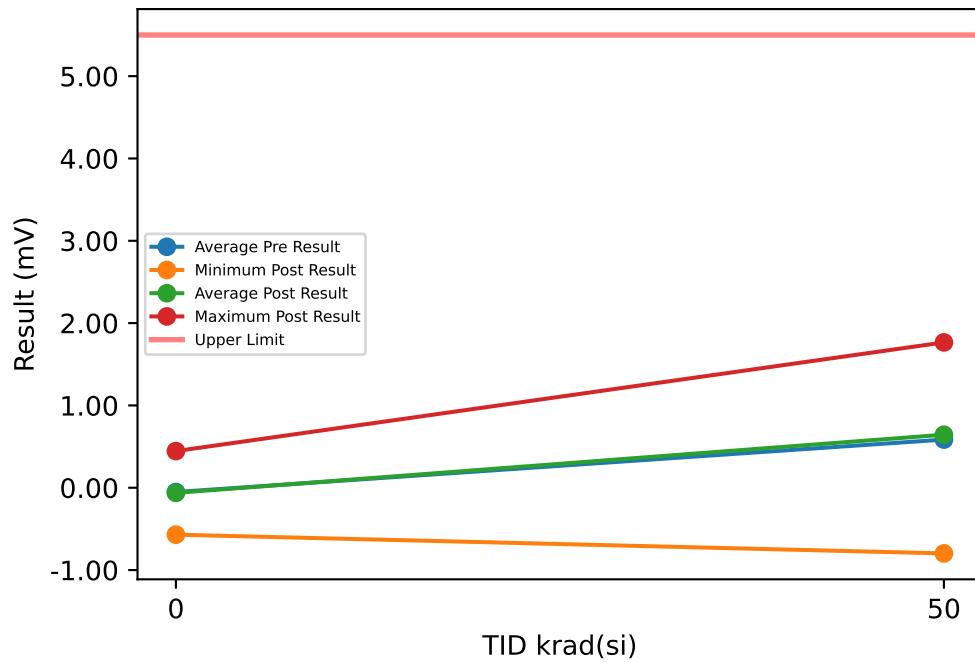


Test Statistics (\muA/V)

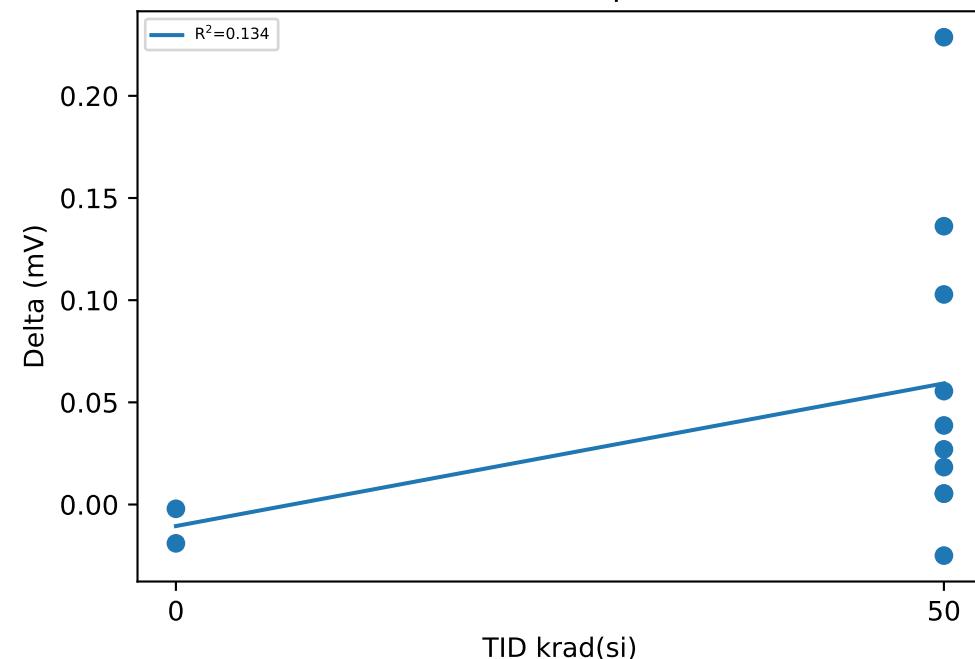
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 1667.8           | 1743.7           | 1819.5           | 107.2            | 1703.3            | 1782.6            | 1861.8            | 112.04            | 35.483    | 38.901    | 42.32     | 4.834     |
| 50       | 1703.3           | 1757             | 1883.7           | 52.275           | 1703.3            | 1759.1            | 1883.7            | 55.72             | -75.697   | 2.1237    | 77.371    | 41.536    |

# Device Test: 19.51 EA\_OS(VOLTAGE|OFFSET//4.5/4.5/0/0/4.5/1MHz//@EA\_OS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 5.5 (mV))

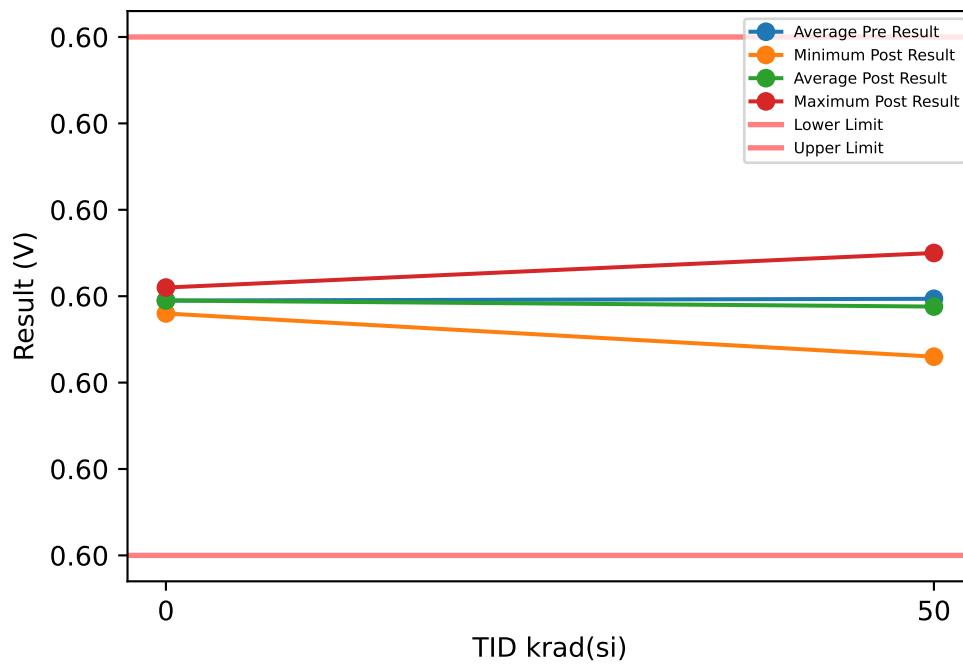
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.4644     | 0.4454      | -0.019  |
| 2        | 0        | Correlation         | -0.5678    | -0.5699     | -0.0021 |
| 4        | 50       | Bias                | 0.1608     | 0.2636      | 0.1028  |
| 6        | 50       | Bias                | 0.6117     | 0.5867      | -0.025  |
| 7        | 50       | Bias                | -0.1994    | -0.1439     | 0.0555  |
| 8        | 50       | Bias                | 0.0863     | 0.2225      | 0.1362  |
| 9        | 50       | Bias                | -0.8158    | -0.7975     | 0.0183  |
| 11       | 50       | Unbias              | 1.0471     | 1.0741      | 0.027   |
| 12       | 50       | Unbias              | 1.5369     | 1.7656      | 0.2287  |
| 13       | 50       | Unbias              | 1.4799     | 1.4852      | 0.0053  |
| 14       | 50       | Unbias              | 0.7585     | 0.7639      | 0.0054  |
| 15       | 50       | Unbias              | 1.1833     | 1.222       | 0.0387  |

Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.5678          | -0.0517          | 0.4644           | 0.72988          | -0.5699           | -0.06225          | 0.4454            | 0.71793           | -0.019    | -0.01055  | -0.0021   | 0.01195   |
| 50       | -0.8158          | 0.58493          | 1.5369           | 0.76851          | -0.7975           | 0.64422           | 1.7656            | 0.7834            | -0.025    | 0.05929   | 0.2287    | 0.076444  |

# Device Test: 19.52 VREF\_25C(VOLTAGE|VREF//5/5/0/0/5/1MHz//@VREF\_25C)

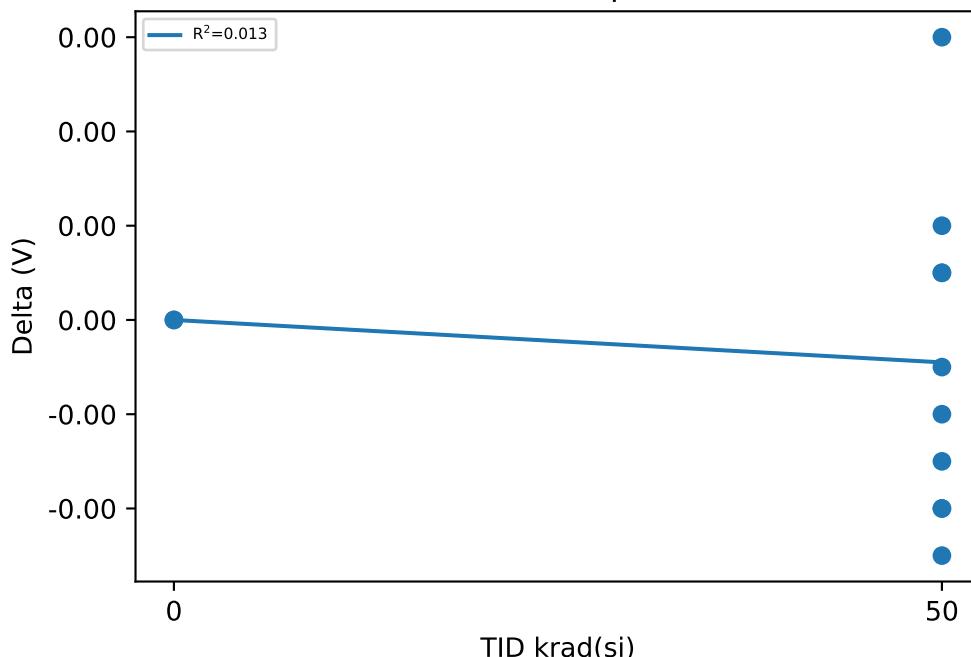
TID vs Result Stats



Test Results (Lower Limit = 0.597,  
Upper Limit = 0.603 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 6        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 7        | 50       | Bias                | 0.6003     | 0.6004      | 0.0001  |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5996      | -0.0003 |
| 11       | 50       | Unbias              | 0.6001     | 0.6003      | 0.0002  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

TID vs Post - Pre Exposure Delta

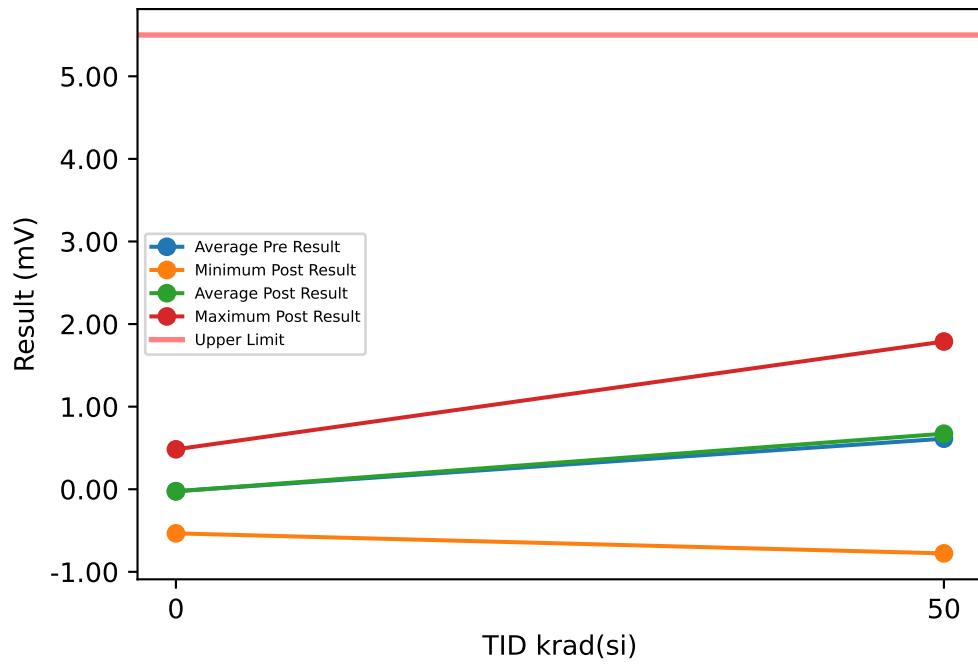


Test Statistics (V)

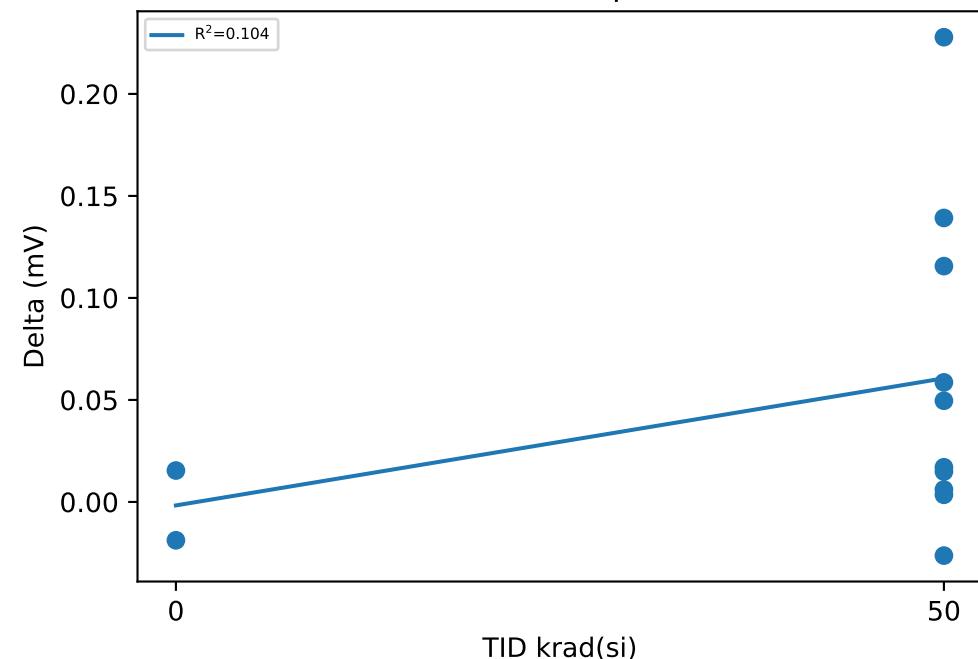
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 0.5998           | 0.59995          | 0.6001           | 0.00021213       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 0         | 0         | 0         |
| 50       | 0.5997           | 0.59997          | 0.6003           | 0.00019465       | 0.5993            | 0.59988           | 0.6005            | 0.00047563        | -0.0005   | -9e-05    | 0.0006    | 0.0003414 |

# Device Test: 19.54 EA\_OS(VOLTAGE|OFFSET//5/5/0/0/5/1MHz//@EA\_OS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



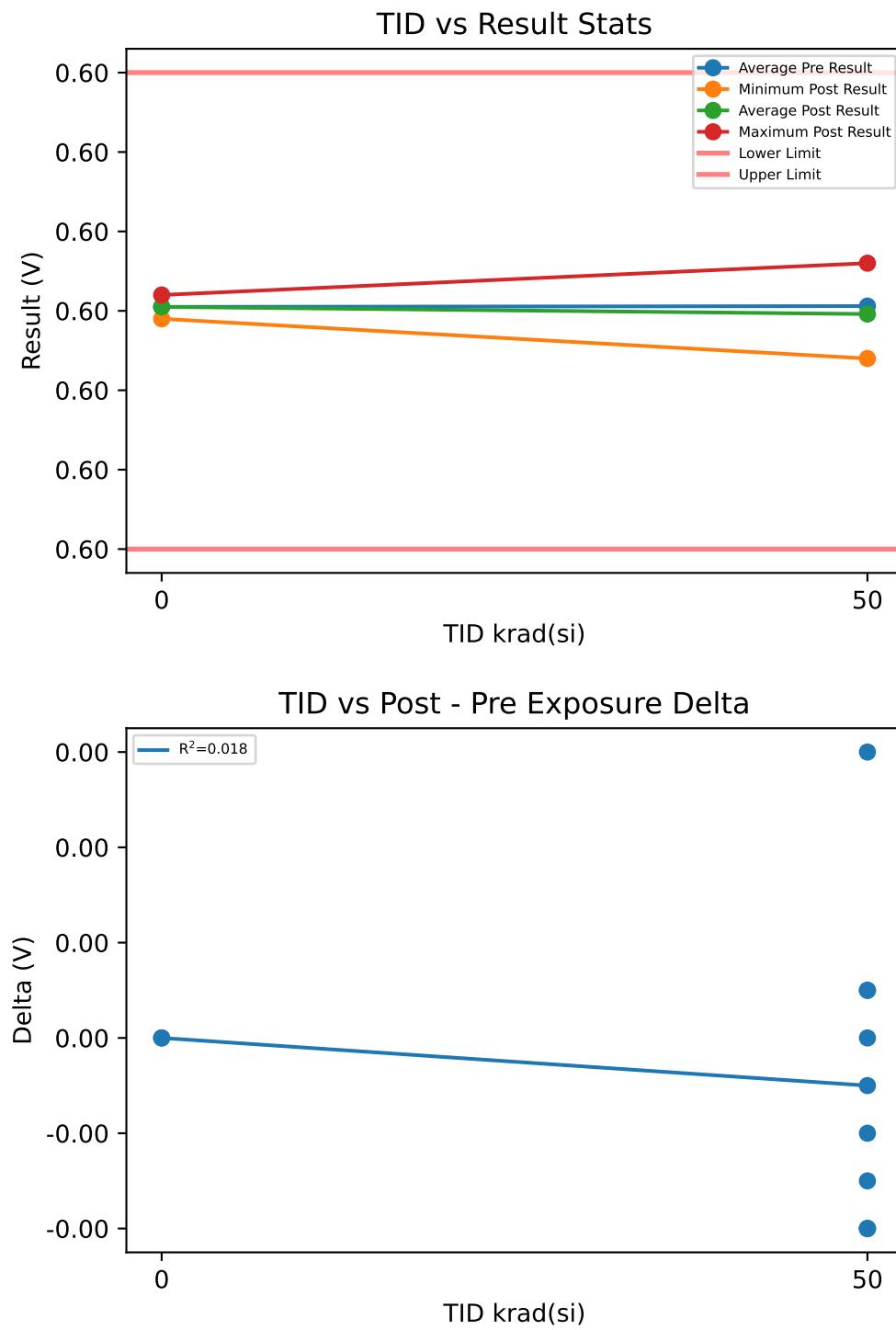
Test Results (Upper Limit = 5.5 (mV))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5023     | 0.4835      | -0.0188 |
| 2        | 0        | Correlation         | -0.5494    | -0.534      | 0.0154  |
| 4        | 50       | Bias                | 0.1788     | 0.2944      | 0.1156  |
| 6        | 50       | Bias                | 0.6445     | 0.6182      | -0.0263 |
| 7        | 50       | Bias                | -0.1704    | -0.1118     | 0.0586  |
| 8        | 50       | Bias                | 0.1143     | 0.2535      | 0.1392  |
| 9        | 50       | Bias                | -0.7916    | -0.7767     | 0.0149  |
| 11       | 50       | Unbias              | 1.0833     | 1.1003      | 0.017   |
| 12       | 50       | Unbias              | 1.5609     | 1.7887      | 0.2278  |
| 13       | 50       | Unbias              | 1.5037     | 1.5098      | 0.0061  |
| 14       | 50       | Unbias              | 0.7933     | 0.7968      | 0.0035  |
| 15       | 50       | Unbias              | 1.2043     | 1.2539      | 0.0496  |

Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.5494          | -0.02355         | 0.5023           | 0.74366          | -0.534            | -0.02525          | 0.4835            | 0.71948           | -0.0188   | -0.0017   | 0.0154    | 0.024183  |
| 50       | -0.7916          | 0.61211          | 1.5609           | 0.76884          | -0.7767           | 0.67271           | 1.7887            | 0.78317           | -0.0263   | 0.0606    | 0.2278    | 0.078213  |

# Device Test: 19.55 VREF\_25C(VOLTAGE|VREF//12/12/0/0/5/1MHz//@VREF\_25C)



**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

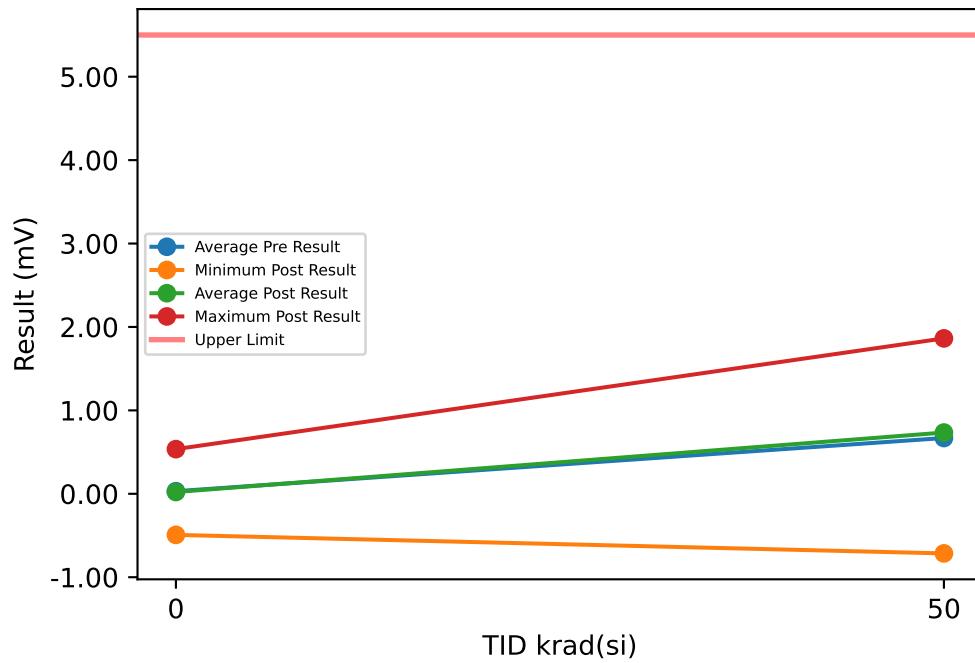
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5999     | 0.5999      | 0       |
| 2        | 0        | Correlation         | 0.6002     | 0.6002      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 6        | 50       | Bias                | 0.5999     | 0.5995      | -0.0004 |
| 7        | 50       | Bias                | 0.6004     | 0.6004      | 0       |
| 8        | 50       | Bias                | 0.6        | 0.5998      | -0.0002 |
| 9        | 50       | Bias                | 0.6        | 0.5997      | -0.0003 |
| 11       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 12       | 50       | Unbias              | 0.6003     | 0.6004      | 0.0001  |
| 13       | 50       | Unbias              | 0.6002     | 0.6001      | -0.0001 |
| 14       | 50       | Unbias              | 0.5998     | 0.5994      | -0.0004 |
| 15       | 50       | Unbias              | 0.6        | 0.6006      | 0.0006  |

## Test Statistics (V)

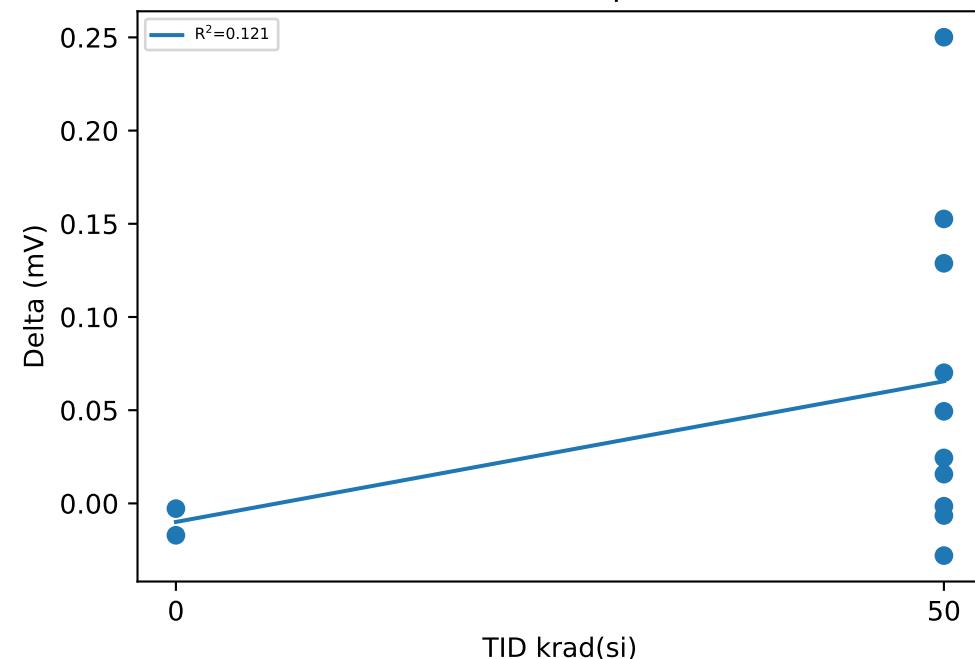
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.5999           | 0.60005          | 0.6002           | 0.00021213       | 0.5999            | 0.60005           | 0.6002            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5998           | 0.60006          | 0.6004           | 0.00020656       | 0.5994            | 0.59996           | 0.6006            | 0.00045509        | -0.0004   | -0.0001   | 0.0006    | 0.00031623 |

# Device Test: 19.57 EA\_OS(VOLTAGE|OFFSET//12/12/0/0/5/1MHz//@EA\_OS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



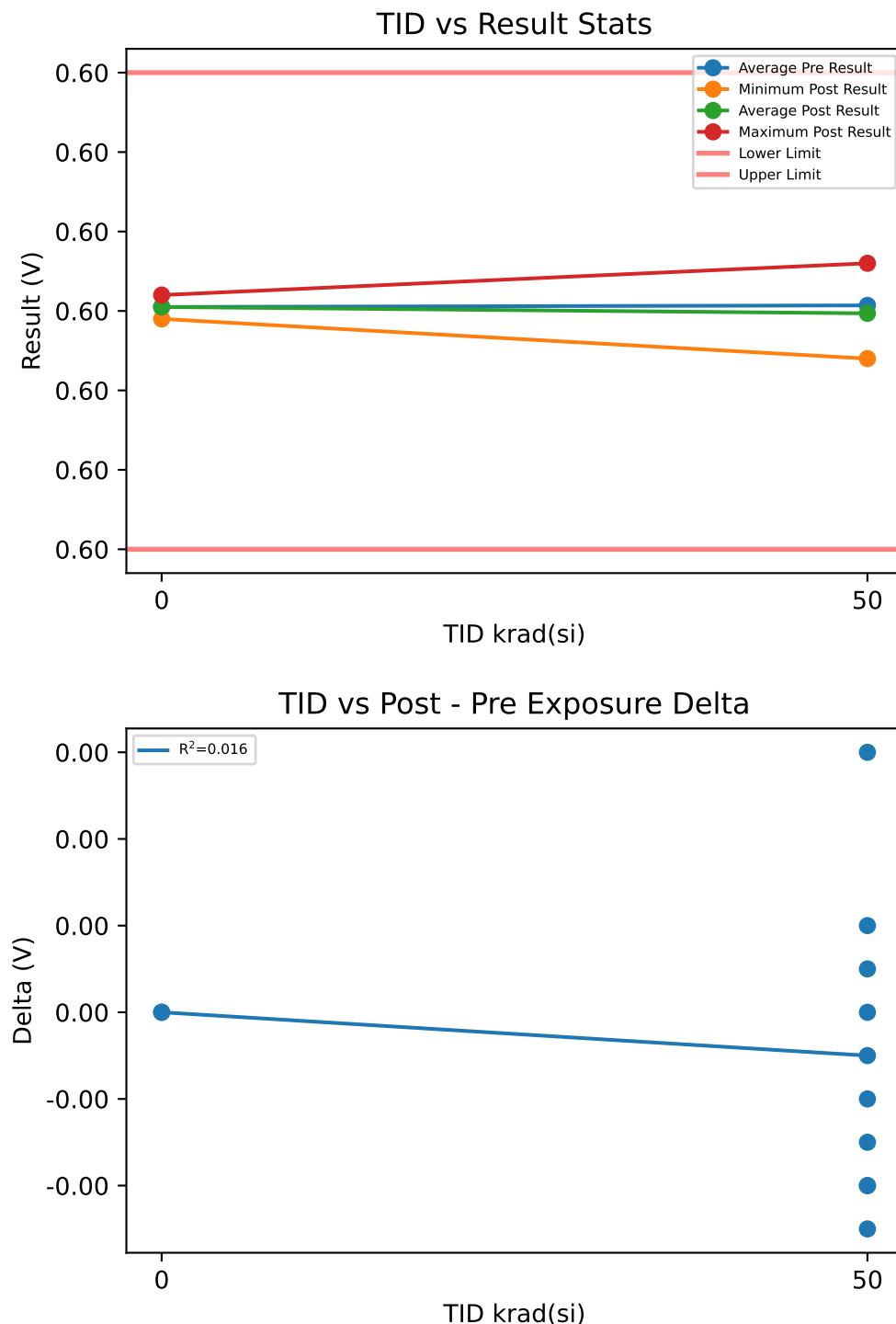
Test Results (Upper Limit = 5.5 (mV))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5525     | 0.5354      | -0.0171 |
| 2        | 0        | Correlation         | -0.4897    | -0.4925     | -0.0028 |
| 4        | 50       | Bias                | 0.2265     | 0.3553      | 0.1288  |
| 6        | 50       | Bias                | 0.7092     | 0.6812      | -0.028  |
| 7        | 50       | Bias                | -0.117     | -0.0469     | 0.0701  |
| 8        | 50       | Bias                | 0.1625     | 0.3151      | 0.1526  |
| 9        | 50       | Bias                | -0.7302    | -0.7145     | 0.0157  |
| 11       | 50       | Unbias              | 1.1403     | 1.1647      | 0.0244  |
| 12       | 50       | Unbias              | 1.6129     | 1.863       | 0.2501  |
| 13       | 50       | Unbias              | 1.5696     | 1.5681      | -0.0015 |
| 14       | 50       | Unbias              | 0.8497     | 0.8432      | -0.0065 |
| 15       | 50       | Unbias              | 1.2631     | 1.3125      | 0.0494  |

Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.4897          | 0.0314           | 0.5525           | 0.73695          | -0.4925           | 0.02145           | 0.5354            | 0.72684           | -0.0171   | -0.00995  | -0.0028   | 0.010112  |
| 50       | -0.7302          | 0.66866          | 1.6129           | 0.77023          | -0.7145           | 0.73417           | 1.863             | 0.78401           | -0.028    | 0.06551   | 0.2501    | 0.087264  |

# Device Test: 19.58 VREF\_25C(VOLTAGE|VREF//14/14/0/0/5/1MHz//@VREF\_25C)



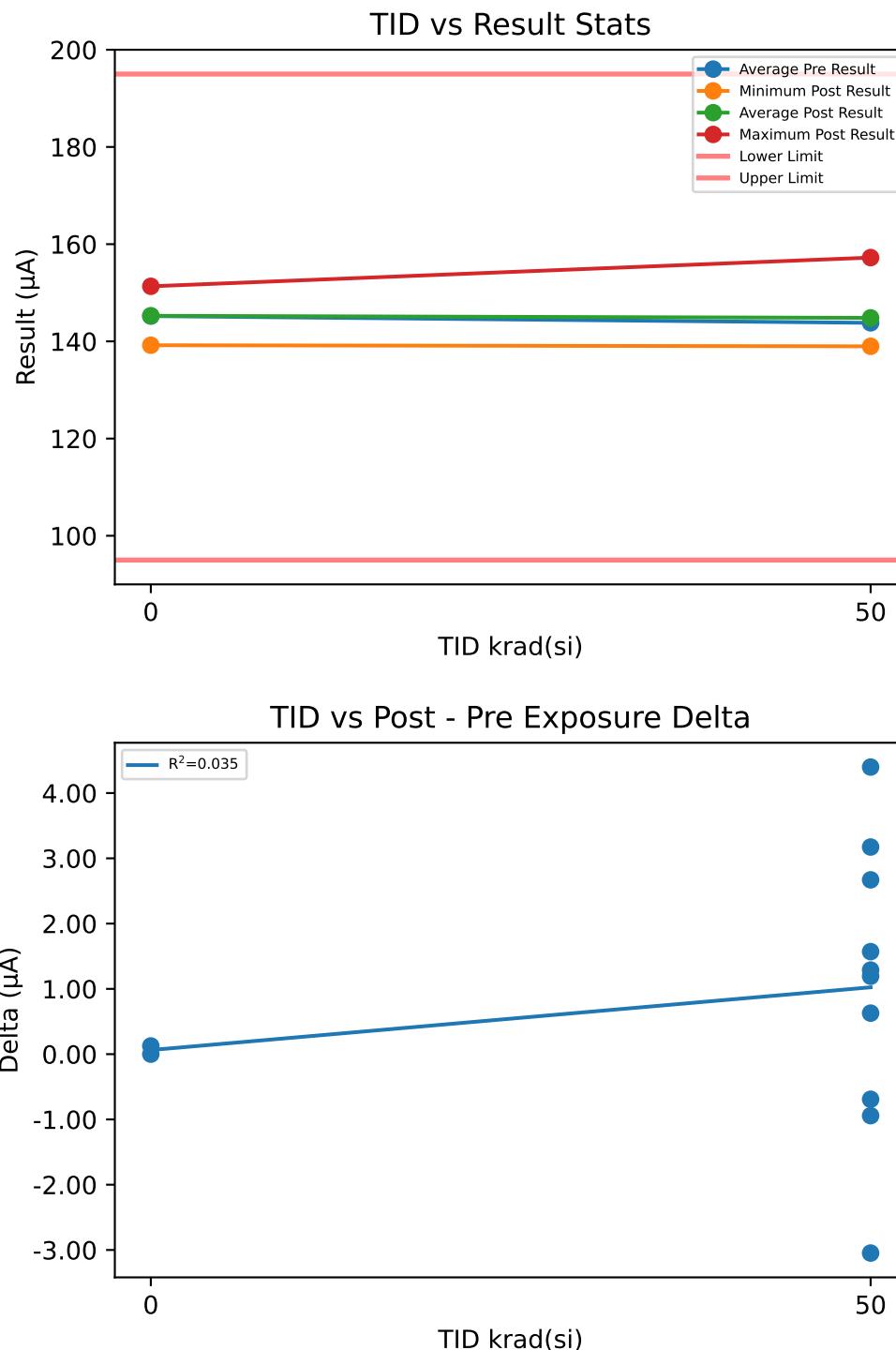
**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5999     | 0.5999      | 0       |
| 2        | 0        | Correlation         | 0.6002     | 0.6002      | 0       |
| 4        | 50       | Bias                | 0.5999     | 0.5994      | -0.0005 |
| 6        | 50       | Bias                | 0.5999     | 0.5995      | -0.0004 |
| 7        | 50       | Bias                | 0.6004     | 0.6004      | 0       |
| 8        | 50       | Bias                | 0.6        | 0.5998      | -0.0002 |
| 9        | 50       | Bias                | 0.6        | 0.5997      | -0.0003 |
| 11       | 50       | Unbias              | 0.6002     | 0.6004      | 0.0002  |
| 12       | 50       | Unbias              | 0.6003     | 0.6004      | 0.0001  |
| 13       | 50       | Unbias              | 0.6002     | 0.6001      | -0.0001 |
| 14       | 50       | Unbias              | 0.5998     | 0.5994      | -0.0004 |
| 15       | 50       | Unbias              | 0.6        | 0.6006      | 0.0006  |

## 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        | 0.5999           | 0.60005          | 0.6002           | 0.00021213       | 0.5999            | 0.60005           | 0.6002            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5998           | 0.60007          | 0.6004           | 0.00019465       | 0.5994            | 0.59997           | 0.6006            | 0.0004644         | -0.0005   | -0.0001   | 0.0006    | 0.00033665 |

# Device Test: 19.6 EA\_I\_SOURCE(CURRENT|EA\_SOURCE//5/5/0/0/5/500kHz//@EA\_I\_SOURCE)



**Test Results (Lower Limit = 95.0, Upper Limit = 195.0 ( $\mu\text{A}$ ))**

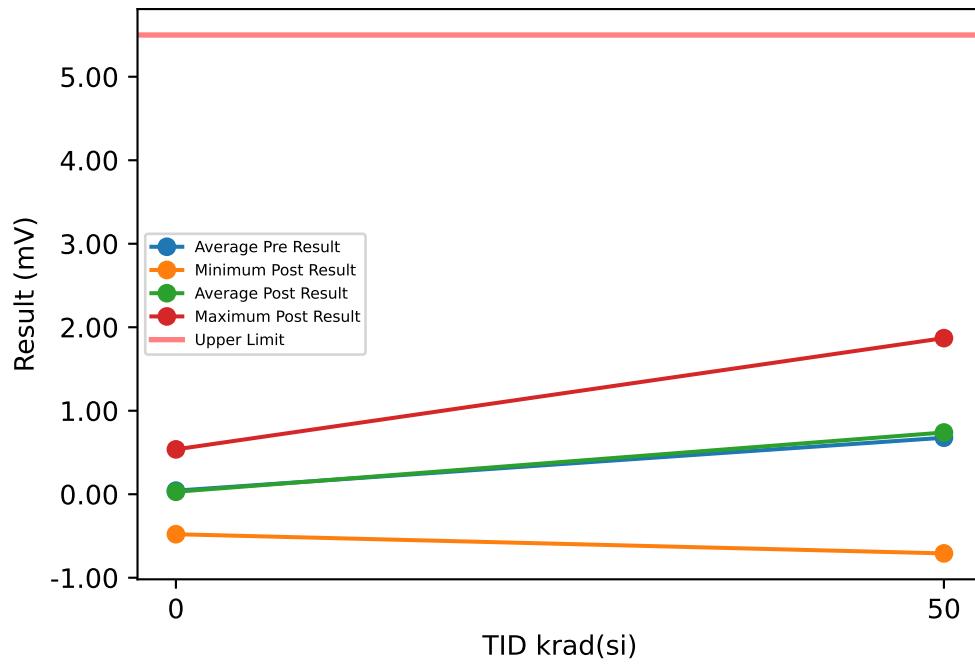
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 151.33     | 151.33      | 0       |
| 2        | 0        | Correlation         | 139.08     | 139.2       | 0.1256  |
| 4        | 50       | Bias                | 141.46     | 142.66      | 1.1937  |
| 6        | 50       | Bias                | 149.79     | 146.74      | -3.0472 |
| 7        | 50       | Bias                | 138.35     | 138.98      | 0.6283  |
| 8        | 50       | Bias                | 143.1      | 145.77      | 2.6703  |
| 9        | 50       | Bias                | 142.66     | 141.72      | -0.9424 |
| 11       | 50       | Unbias              | 144.23     | 145.8       | 1.5707  |
| 12       | 50       | Unbias              | 142.75     | 142.06      | -0.6912 |
| 13       | 50       | Unbias              | 144.98     | 148.16      | 3.1729  |
| 14       | 50       | Unbias              | 137.95     | 139.23      | 1.288   |
| 15       | 50       | Unbias              | 152.84     | 157.24      | 4.3981  |

**Test Statistics ( $\mu\text{A}$ )**

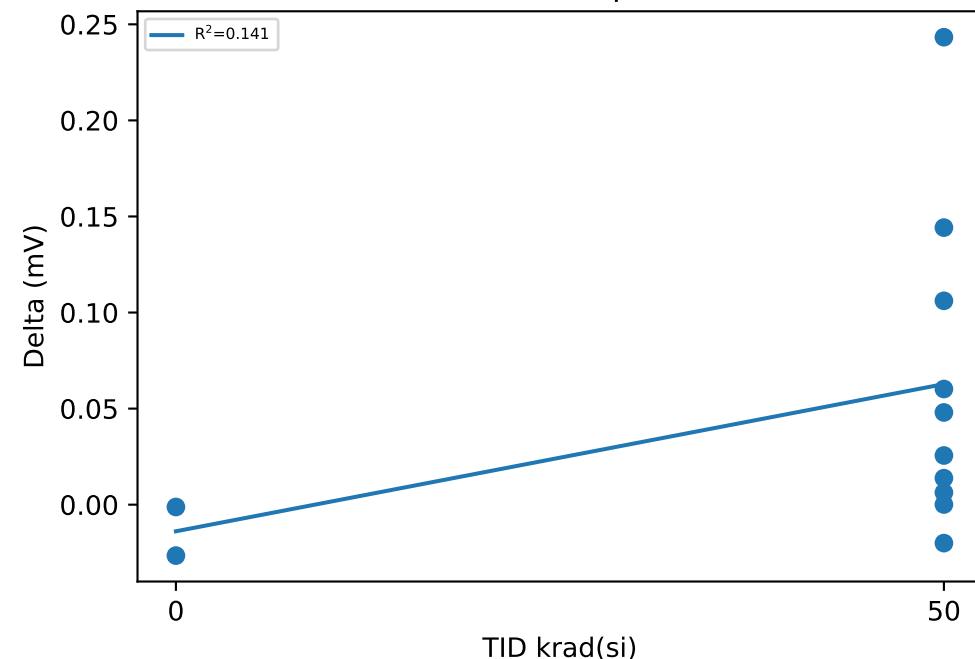
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 139.08           | 145.2            | 151.33           | 8.6633           | 139.2             | 145.27            | 151.33            | 8.5744            | 0         | 0.0628    | 0.1256    | 0.088813  |
| 50       | 137.95           | 143.81           | 152.84           | 4.6114           | 138.98            | 144.84            | 157.24            | 5.3541            | -3.0472   | 1.0241    | 4.3981    | 2.1769    |

# Device Test: 19.60 EA\_OS(VOLTAGE|OFFSET//14/14/0/0/5/1MHz//@EA\_OS)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



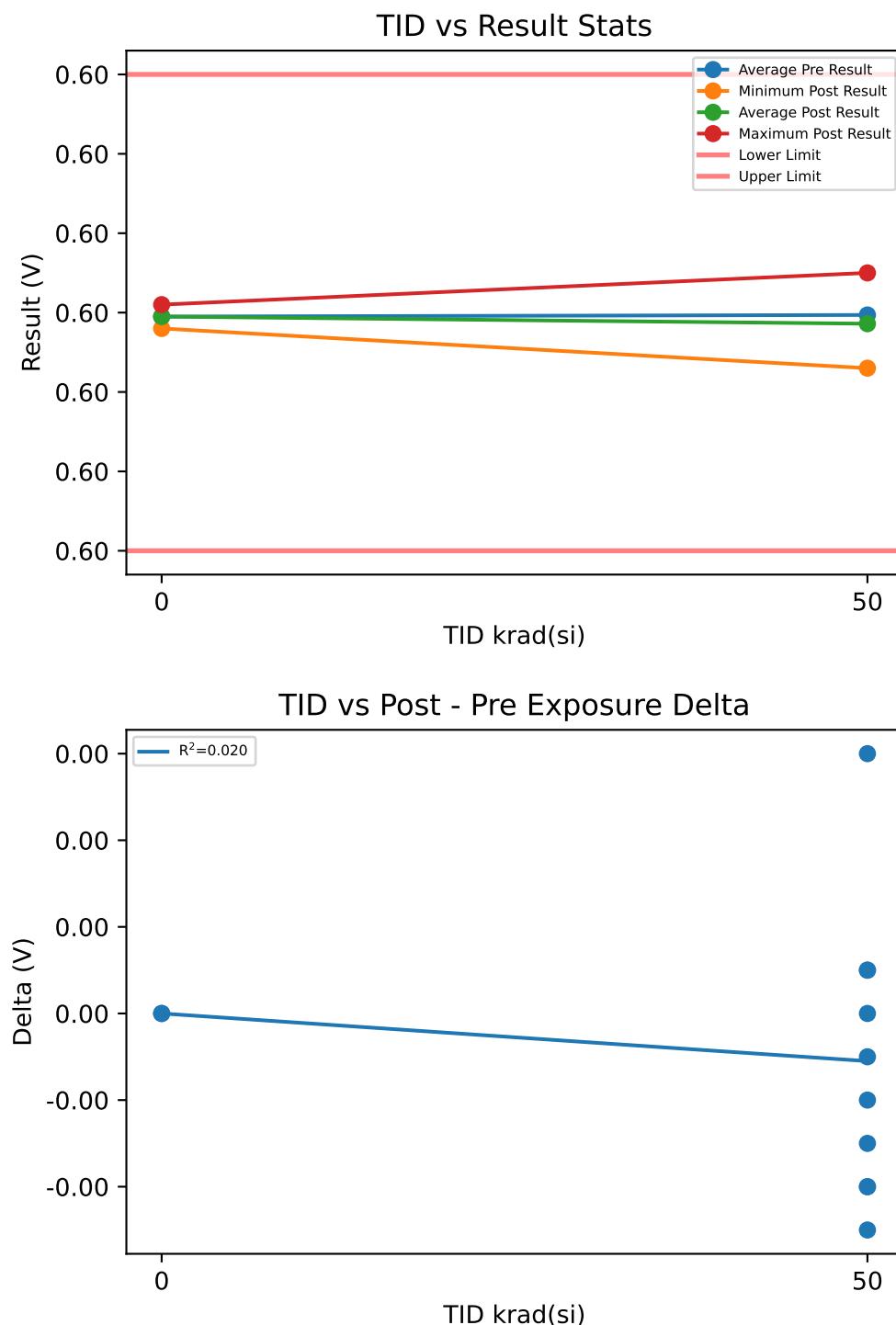
Test Results (Upper Limit = 5.5 (mV))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5638     | 0.5373      | -0.0265 |
| 2        | 0        | Correlation         | -0.4776    | -0.4788     | -0.0012 |
| 4        | 50       | Bias                | 0.2499     | 0.356       | 0.1061  |
| 6        | 50       | Bias                | 0.7077     | 0.6877      | -0.02   |
| 7        | 50       | Bias                | -0.1031    | -0.0429     | 0.0602  |
| 8        | 50       | Bias                | 0.1742     | 0.3184      | 0.1442  |
| 9        | 50       | Bias                | -0.7223    | -0.7085     | 0.0138  |
| 11       | 50       | Unbias              | 1.1387     | 1.1643      | 0.0256  |
| 12       | 50       | Unbias              | 1.6264     | 1.8697      | 0.2433  |
| 13       | 50       | Unbias              | 1.5754     | 1.5817      | 0.0063  |
| 14       | 50       | Unbias              | 0.85       | 0.8501      | 0.0001  |
| 15       | 50       | Unbias              | 1.2718     | 1.3198      | 0.048   |

Test Statistics (mV)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.4776          | 0.0431           | 0.5638           | 0.73638          | -0.4788           | 0.02925           | 0.5373            | 0.71849           | -0.0265   | -0.01385  | -0.0012   | 0.01789   |
| 50       | -0.7223          | 0.67687          | 1.6264           | 0.76798          | -0.7085           | 0.73963           | 1.8697            | 0.78542           | -0.02     | 0.06276   | 0.2433    | 0.081015  |

# Device Test: 19.61 VREF\_25C(VOLTAGE|VREF//4.5/4.5/0/1000/4.5/100kHz//@VREF\_25C)



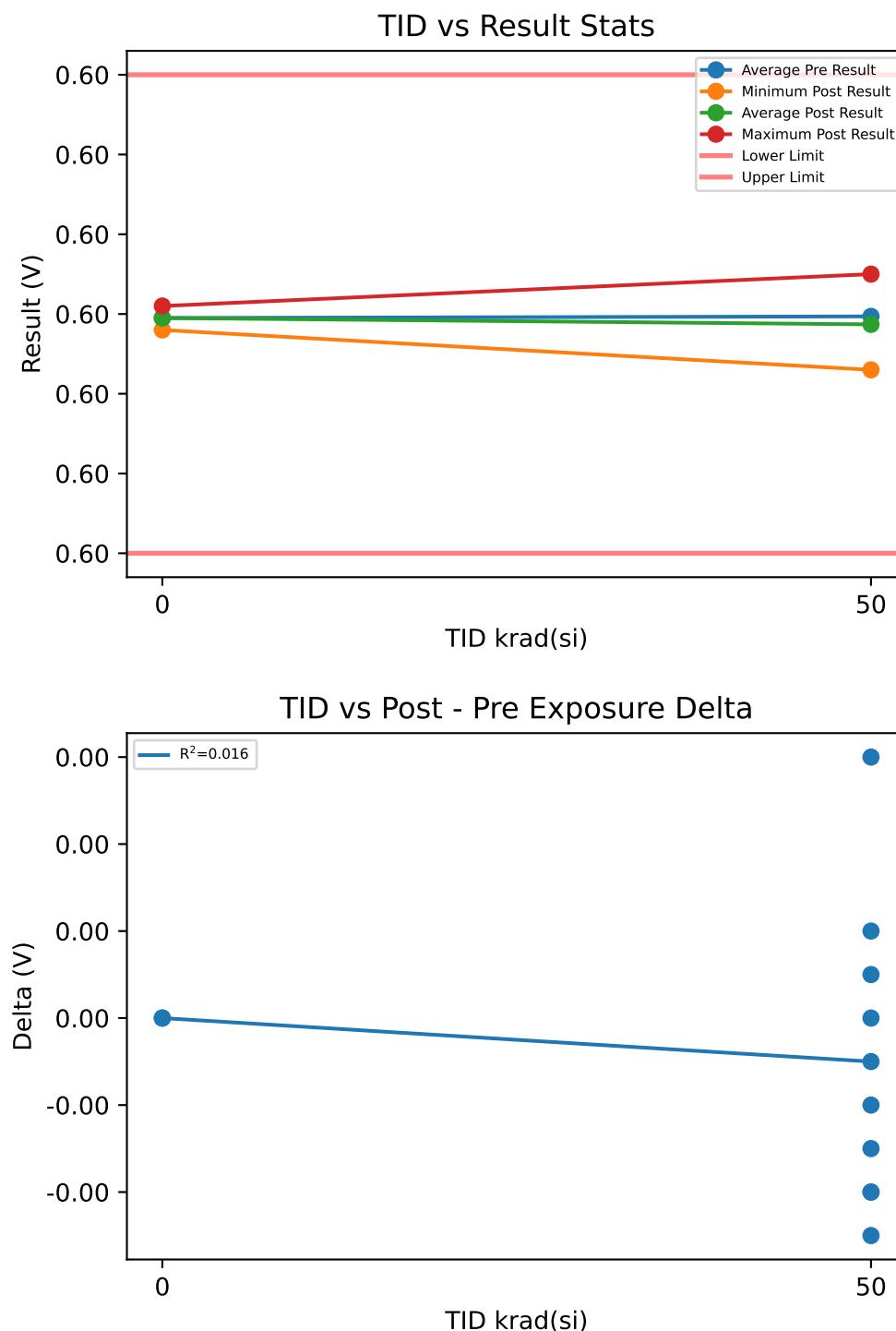
**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 6        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 7        | 50       | Bias                | 0.6003     | 0.6003      | 0       |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5996      | -0.0003 |
| 11       | 50       | Unbias              | 0.6001     | 0.6002      | 0.0001  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

**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        | 0.5998           | 0.59995          | 0.6001           | 0.00021213       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5997           | 0.59997          | 0.6003           | 0.00019465       | 0.5993            | 0.59986           | 0.6005            | 0.00045509        | -0.0005   | -0.00011  | 0.0006    | 0.00032813 |

# Device Test: 19.63 VREF\_25C(VOLTAGE|VREF//5/5/0/1000/5/100kHz//@VREF\_25C)



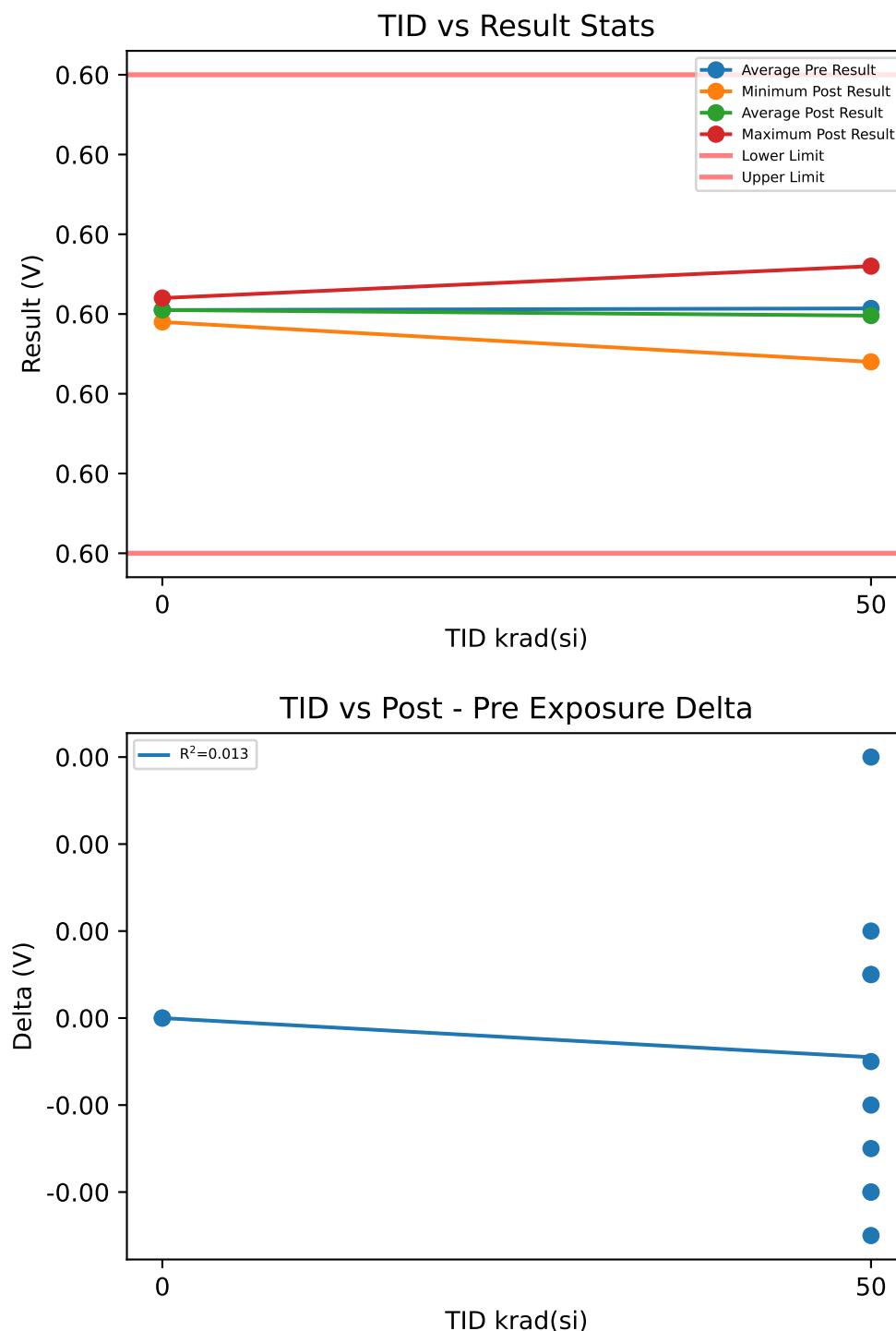
**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 6        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 7        | 50       | Bias                | 0.6003     | 0.6003      | 0       |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5996      | -0.0003 |
| 11       | 50       | Unbias              | 0.6001     | 0.6003      | 0.0002  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

## 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        | 0.5998           | 0.59995          | 0.6001           | 0.00021213       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5997           | 0.59997          | 0.6003           | 0.00019465       | 0.5993            | 0.59987           | 0.6005            | 0.0004644         | -0.0005   | -0.0001   | 0.0006    | 0.00033665 |

# Device Test: 19.65 VREF\_25C(VOLTAGE|VREF//12/12/0/1000/5/100kHz//@VREF\_25C)



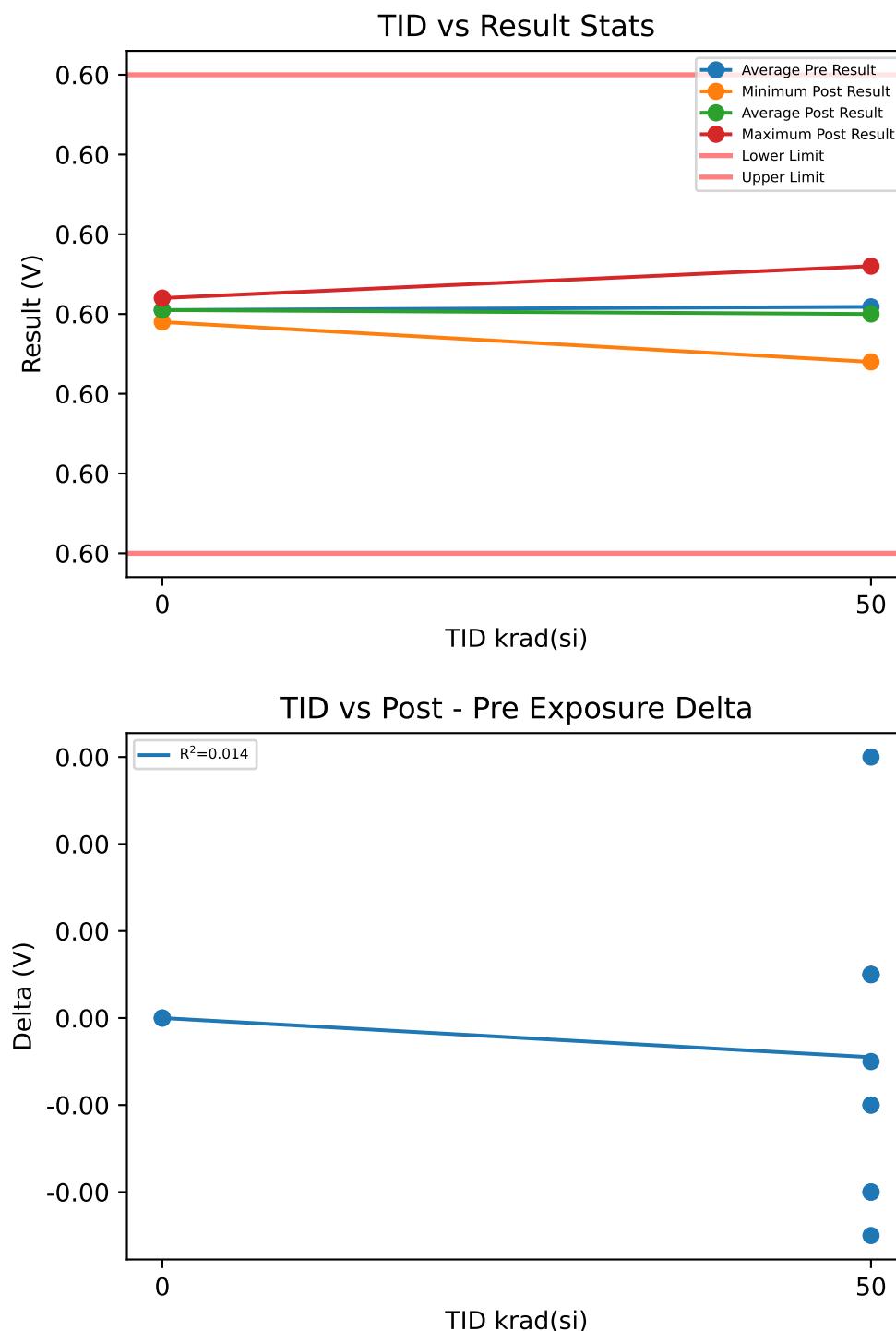
**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5999     | 0.5999      | 0       |
| 2        | 0        | Correlation         | 0.6002     | 0.6002      | 0       |
| 4        | 50       | Bias                | 0.5999     | 0.5994      | -0.0005 |
| 6        | 50       | Bias                | 0.5999     | 0.5995      | -0.0004 |
| 7        | 50       | Bias                | 0.6004     | 0.6005      | 0.0001  |
| 8        | 50       | Bias                | 0.6        | 0.5998      | -0.0002 |
| 9        | 50       | Bias                | 0.6        | 0.5997      | -0.0003 |
| 11       | 50       | Unbias              | 0.6002     | 0.6004      | 0.0002  |
| 12       | 50       | Unbias              | 0.6003     | 0.6004      | 0.0001  |
| 13       | 50       | Unbias              | 0.6002     | 0.6001      | -0.0001 |
| 14       | 50       | Unbias              | 0.5998     | 0.5994      | -0.0004 |
| 15       | 50       | Unbias              | 0.6        | 0.6006      | 0.0006  |

## 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        | 0.5999           | 0.60005          | 0.6002           | 0.00021213       | 0.5999            | 0.60005           | 0.6002            | 0.00021213        | 0         | 0         | 0         | 0         |
| 50       | 0.5998           | 0.60007          | 0.6004           | 0.00019465       | 0.5994            | 0.59998           | 0.6006            | 0.00047563        | -0.0005   | -9e-05    | 0.0006    | 0.0003414 |

# Device Test: 19.67 VREF\_25C(VOLTAGE|VREF//14/14/0/1000/5/100kHz//@VREF\_25C)



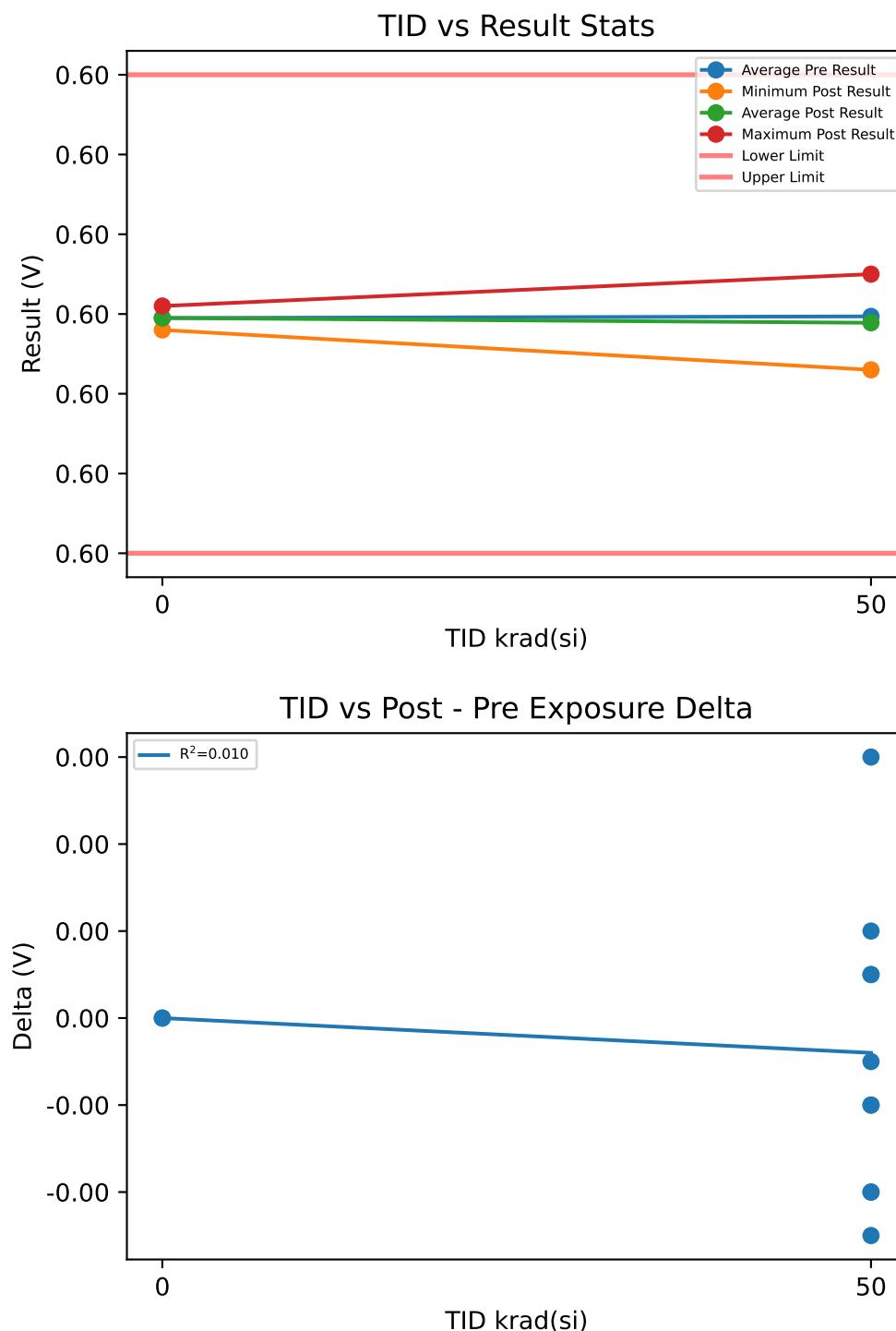
**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5999     | 0.5999      | 0       |
| 2        | 0        | Correlation         | 0.6002     | 0.6002      | 0       |
| 4        | 50       | Bias                | 0.5999     | 0.5995      | -0.0004 |
| 6        | 50       | Bias                | 0.5999     | 0.5995      | -0.0004 |
| 7        | 50       | Bias                | 0.6004     | 0.6005      | 0.0001  |
| 8        | 50       | Bias                | 0.6        | 0.5998      | -0.0002 |
| 9        | 50       | Bias                | 0.6        | 0.5998      | -0.0002 |
| 11       | 50       | Unbias              | 0.6003     | 0.6004      | 0.0001  |
| 12       | 50       | Unbias              | 0.6003     | 0.6004      | 0.0001  |
| 13       | 50       | Unbias              | 0.6002     | 0.6001      | -0.0001 |
| 14       | 50       | Unbias              | 0.5999     | 0.5994      | -0.0005 |
| 15       | 50       | Unbias              | 0.6        | 0.6006      | 0.0006  |

## 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        | 0.5999           | 0.60005          | 0.6002           | 0.00021213       | 0.5999            | 0.60005           | 0.6002            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5999           | 0.60009          | 0.6004           | 0.0001912        | 0.5994            | 0.6               | 0.6006            | 0.00045704        | -0.0005   | -9e-05    | 0.0006    | 0.00032813 |

# Device Test: 19.69 VREF\_25C(VOLTAGE|VREF//4.5/4.5/0/1000/4.5/500kHz//@VREF\_25C)



**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

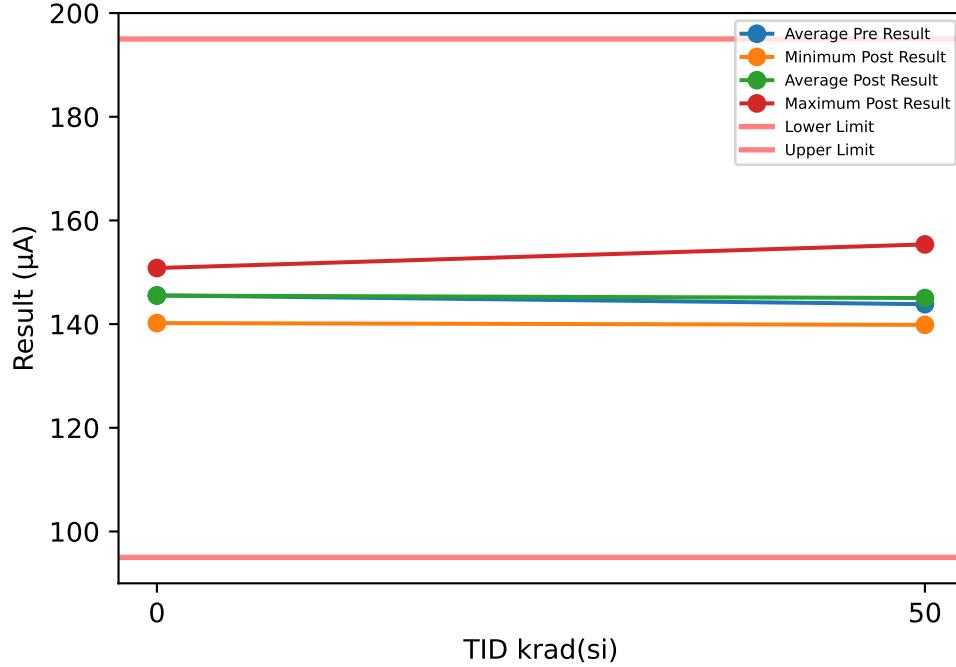
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 6        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 7        | 50       | Bias                | 0.6003     | 0.6004      | 0.0001  |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 11       | 50       | Unbias              | 0.6001     | 0.6003      | 0.0002  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

## 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        | 0.5998           | 0.59995          | 0.6001           | 0.00021213       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5997           | 0.59997          | 0.6003           | 0.00019465       | 0.5993            | 0.59989           | 0.6005            | 0.00047011        | -0.0005   | -8e-05    | 0.0006    | 0.00033599 |

# Device Test: 19.7 EA\_I\_SINK(CURRENT|EA\_SINK//5/5/0/0/5/500kHz//@EA\_I\_SINK)

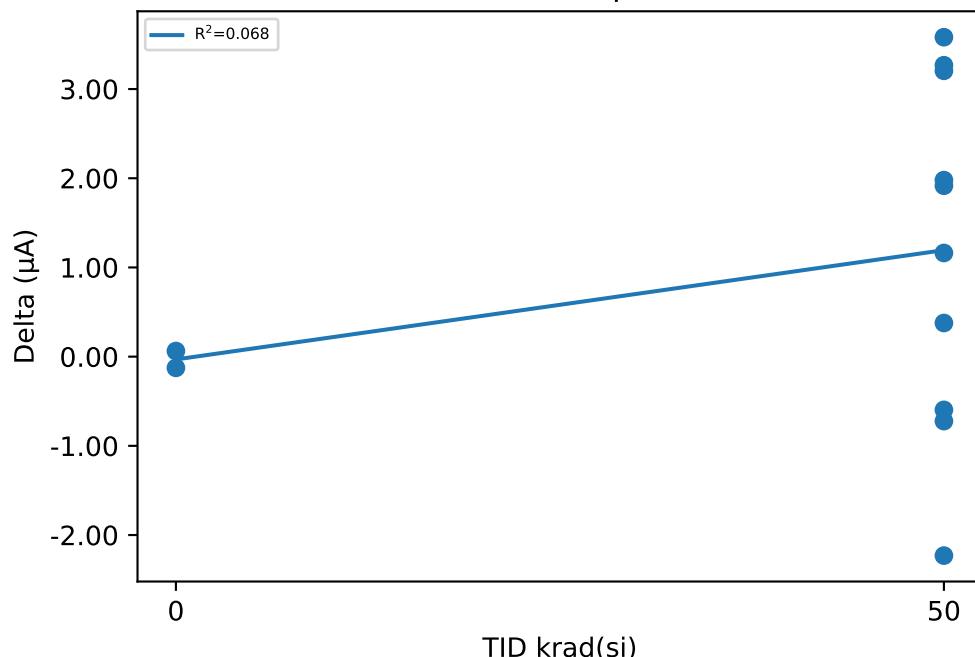
TID vs Result Stats



Test Results (Lower Limit = 95.0, Upper Limit = 195.0 (\muA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 150.94     | 150.82      | -0.1257 |
| 2        | 0        | Correlation         | 140.14     | 140.2       | 0.0628  |
| 4        | 50       | Bias                | 142.62     | 144.6       | 1.9791  |
| 6        | 50       | Bias                | 150.25     | 148.02      | -2.2305 |
| 7        | 50       | Bias                | 139.48     | 139.85      | 0.377   |
| 8        | 50       | Bias                | 143.75     | 146.95      | 3.2043  |
| 9        | 50       | Bias                | 143.97     | 143.37      | -0.5969 |
| 11       | 50       | Unbias              | 142.68     | 143.84      | 1.1623  |
| 12       | 50       | Unbias              | 141.64     | 140.92      | -0.7225 |
| 13       | 50       | Unbias              | 143.44     | 147.02      | 3.5813  |
| 14       | 50       | Unbias              | 138.5      | 140.42      | 1.9163  |
| 15       | 50       | Unbias              | 152.11     | 155.37      | 3.2672  |

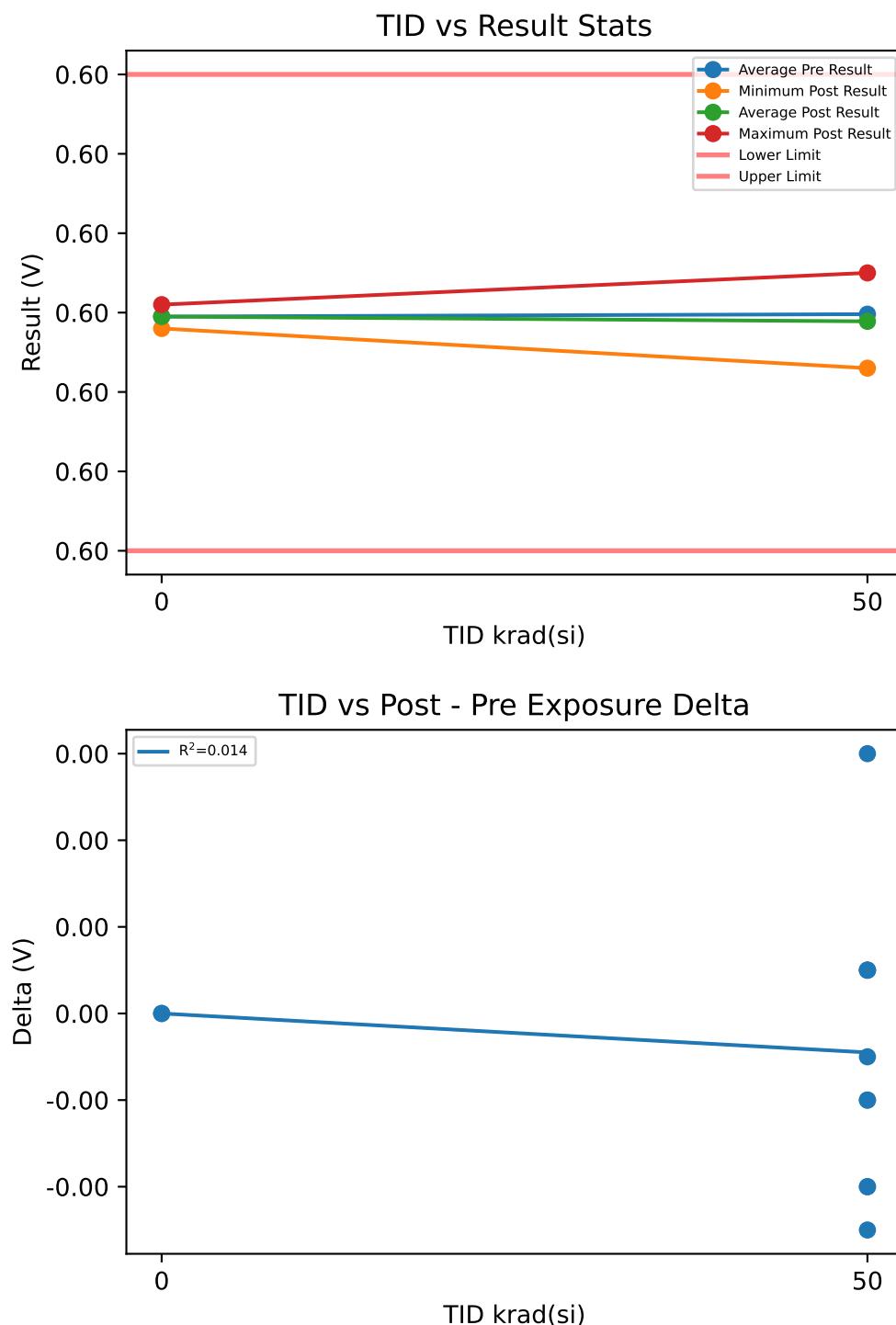
TID vs Post - Pre Exposure Delta



Test Statistics (\muA)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 140.14           | 145.54           | 150.94           | 7.6415           | 140.2             | 145.51            | 150.82            | 7.5082            | -0.1257   | -0.03145  | 0.0628    | 0.13329   |
| 50       | 138.5            | 143.84           | 152.11           | 4.2792           | 139.85            | 145.04            | 155.37            | 4.6289            | -2.2305   | 1.1938    | 3.5813    | 1.9565    |

# Device Test: 19.71 VREF\_25C(VOLTAGE|VREF//5/5/0/1000/5/500kHz//@VREF\_25C)



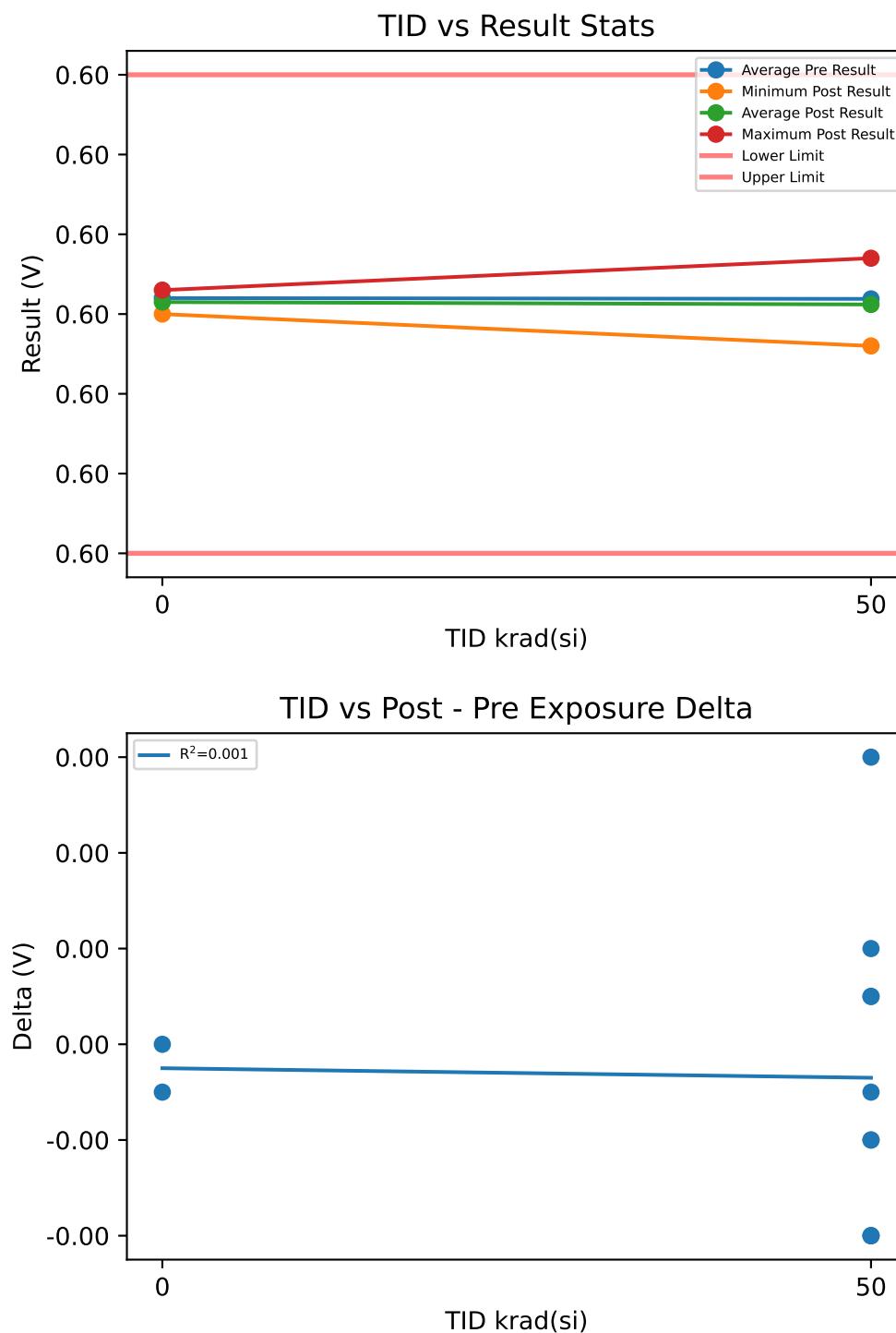
**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5993      | -0.0005 |
| 6        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 7        | 50       | Bias                | 0.6003     | 0.6004      | 0.0001  |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 11       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

## 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        | 0.5998           | 0.59995          | 0.6001           | 0.00021213       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5997           | 0.59998          | 0.6003           | 0.0002044        | 0.5993            | 0.59989           | 0.6005            | 0.00047011        | -0.0005   | -9e-05    | 0.0006    | 0.00032813 |

# Device Test: 19.73 VREF\_25C(VOLTAGE|VREF//12/12/0/1000/5/500kHz//@VREF\_25C)



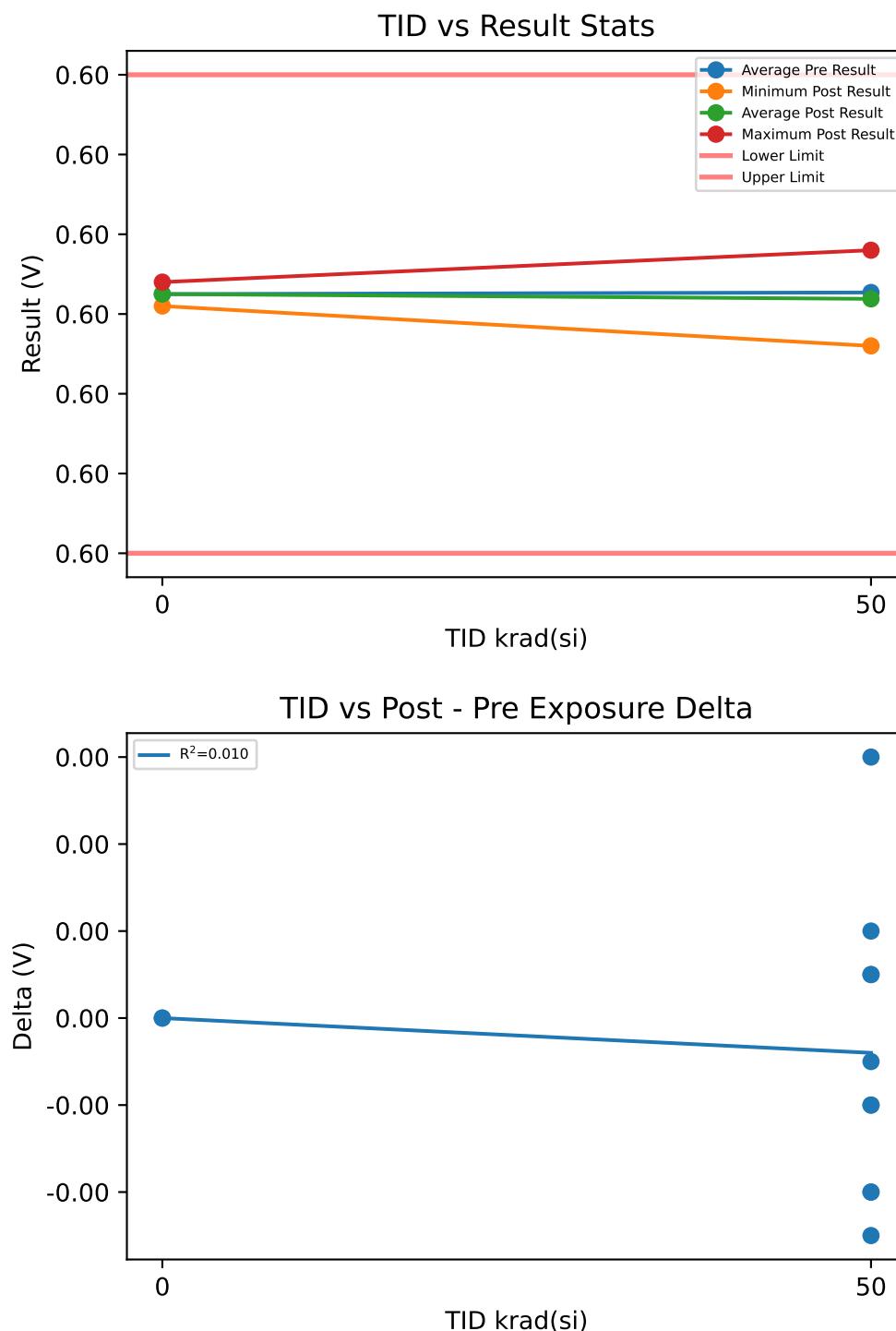
**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.6001     | 0.6         | -0.0001 |
| 2        | 0        | Correlation         | 0.6003     | 0.6003      | 0       |
| 4        | 50       | Bias                | 0.6        | 0.5996      | -0.0004 |
| 6        | 50       | Bias                | 0.6        | 0.5996      | -0.0004 |
| 7        | 50       | Bias                | 0.6005     | 0.6006      | 0.0001  |
| 8        | 50       | Bias                | 0.6001     | 0.5999      | -0.0002 |
| 9        | 50       | Bias                | 0.6001     | 0.5999      | -0.0002 |
| 11       | 50       | Unbias              | 0.6004     | 0.6005      | 0.0001  |
| 12       | 50       | Unbias              | 0.6004     | 0.6006      | 0.0002  |
| 13       | 50       | Unbias              | 0.6003     | 0.6002      | -0.0001 |
| 14       | 50       | Unbias              | 0.6        | 0.5996      | -0.0004 |
| 15       | 50       | Unbias              | 0.6001     | 0.6007      | 0.0006  |

## 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        | 0.6001           | 0.6002           | 0.6003           | 0.00014142       | 0.6               | 0.60015           | 0.6003            | 0.00021213        | -0.0001   | -5e-05    | 0         | 7.0711e-05 |
| 50       | 0.6              | 0.60019          | 0.6005           | 0.0001912        | 0.5996            | 0.60012           | 0.6007            | 0.00045412        | -0.0004   | -7e-05    | 0.0006    | 0.00032335 |

# Device Test: 19.75 VREF\_25C(VOLTAGE|VREF//14/14/0/1000/5/500kHz//@VREF\_25C)



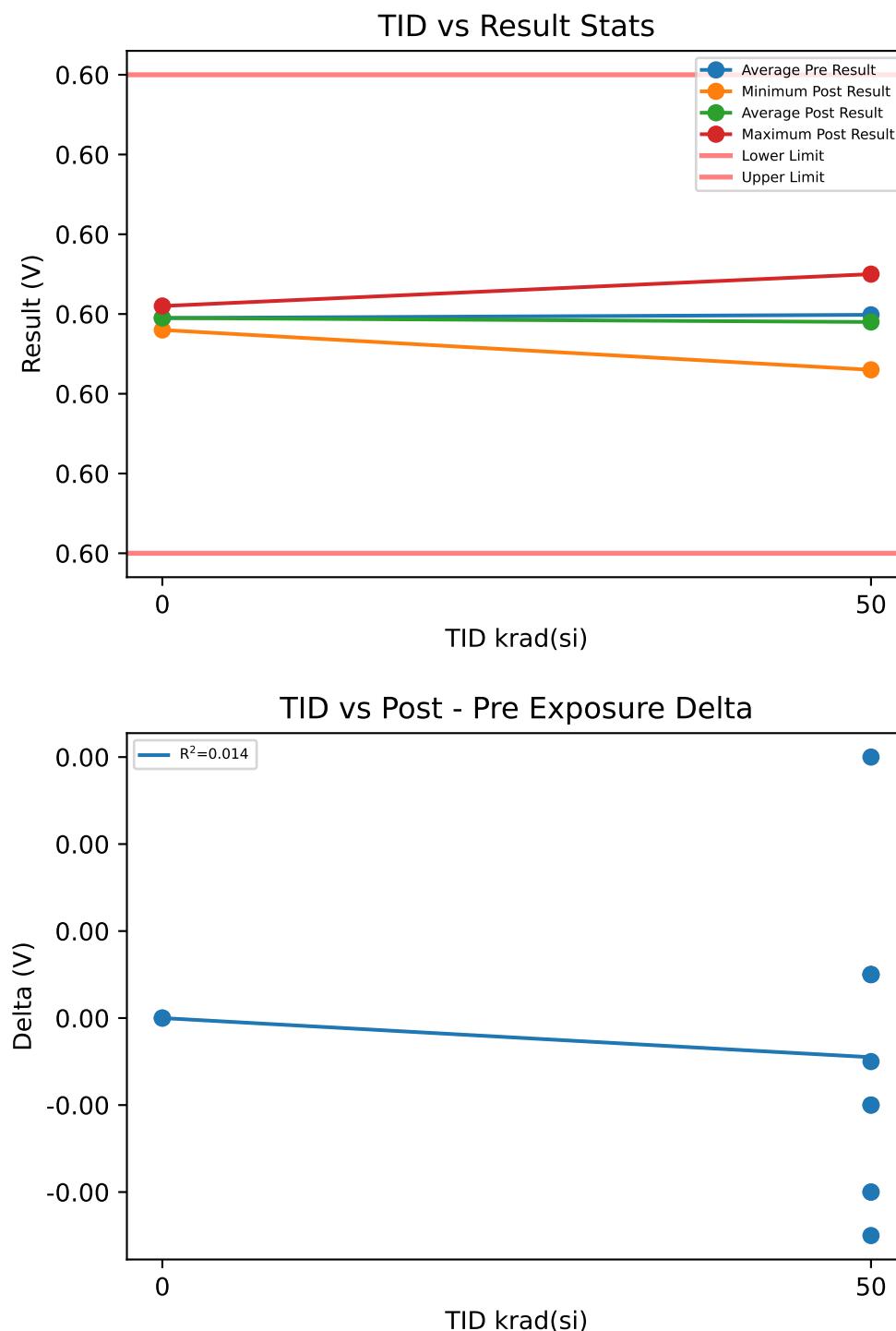
**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 2        | 0        | Correlation         | 0.6004     | 0.6004      | 0       |
| 4        | 50       | Bias                | 0.6001     | 0.5996      | -0.0005 |
| 6        | 50       | Bias                | 0.6001     | 0.5997      | -0.0004 |
| 7        | 50       | Bias                | 0.6006     | 0.6007      | 0.0001  |
| 8        | 50       | Bias                | 0.6002     | 0.6         | -0.0002 |
| 9        | 50       | Bias                | 0.6002     | 0.6         | -0.0002 |
| 11       | 50       | Unbias              | 0.6004     | 0.6006      | 0.0002  |
| 12       | 50       | Unbias              | 0.6005     | 0.6006      | 0.0001  |
| 13       | 50       | Unbias              | 0.6004     | 0.6003      | -0.0001 |
| 14       | 50       | Unbias              | 0.6        | 0.5996      | -0.0004 |
| 15       | 50       | Unbias              | 0.6002     | 0.6008      | 0.0006  |

**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        | 0.6001           | 0.60025          | 0.6004           | 0.00021213       | 0.6001            | 0.60025           | 0.6004            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.6              | 0.60027          | 0.6006           | 0.00019465       | 0.5996            | 0.60019           | 0.6008            | 0.00047011        | -0.0005   | -8e-05    | 0.0006    | 0.00033599 |

# Device Test: 19.77 VREF\_25C(VOLTAGE|VREF//4.5/4.5/0/1000/4.5/1MHz//@VREF\_25C)



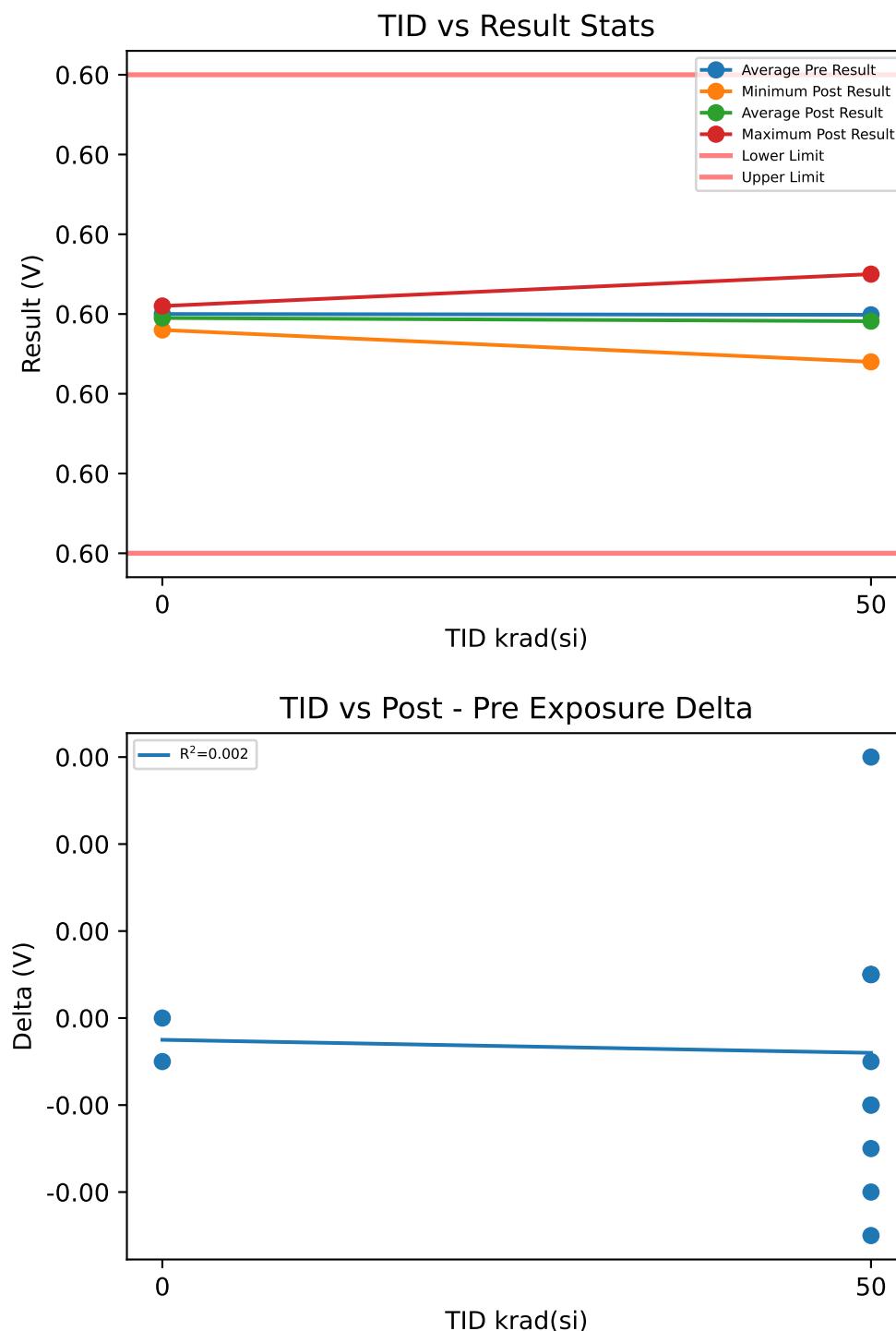
**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5998     | 0.5998      | 0       |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 6        | 50       | Bias                | 0.5999     | 0.5994      | -0.0005 |
| 7        | 50       | Bias                | 0.6003     | 0.6004      | 0.0001  |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 11       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5993      | -0.0004 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

## 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        | 0.5998           | 0.59995          | 0.6001           | 0.00021213       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.5997           | 0.59999          | 0.6003           | 0.00019692       | 0.5993            | 0.5999            | 0.6005            | 0.00045704        | -0.0005   | -9e-05    | 0.0006    | 0.00032813 |

# Device Test: 19.79 VREF\_25C(VOLTAGE|VREF//5/5/0/1000/5/1MHz//@VREF\_25C)



**Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))**

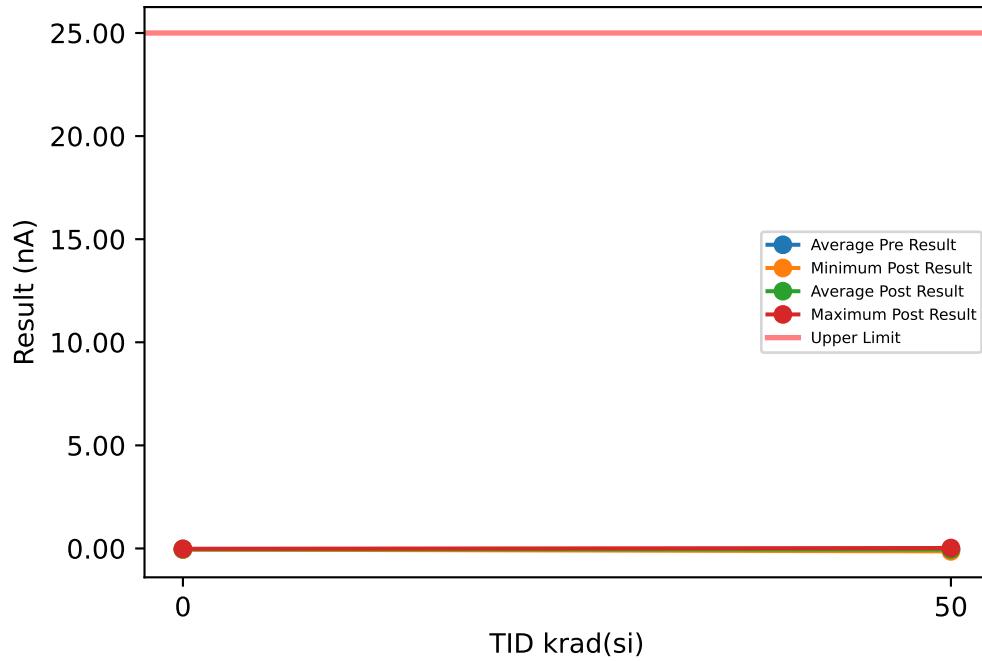
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5999     | 0.5998      | -0.0001 |
| 2        | 0        | Correlation         | 0.6001     | 0.6001      | 0       |
| 4        | 50       | Bias                | 0.5998     | 0.5994      | -0.0004 |
| 6        | 50       | Bias                | 0.5999     | 0.5994      | -0.0005 |
| 7        | 50       | Bias                | 0.6003     | 0.6004      | 0.0001  |
| 8        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 9        | 50       | Bias                | 0.5999     | 0.5997      | -0.0002 |
| 11       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 12       | 50       | Unbias              | 0.6002     | 0.6003      | 0.0001  |
| 13       | 50       | Unbias              | 0.6001     | 0.6         | -0.0001 |
| 14       | 50       | Unbias              | 0.5997     | 0.5994      | -0.0003 |
| 15       | 50       | Unbias              | 0.5999     | 0.6005      | 0.0006  |

## 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        | 0.5999           | 0.6              | 0.6001           | 0.00014142       | 0.5998            | 0.59995           | 0.6001            | 0.00021213        | -0.0001   | -5e-05    | 0         | 7.0711e-05 |
| 50       | 0.5997           | 0.59999          | 0.6003           | 0.00019692       | 0.5994            | 0.59991           | 0.6005            | 0.00044335        | -0.0005   | -8e-05    | 0.0006    | 0.00031903 |

# Device Test: 19.8 EA\_IB(CURRENT|EA//5/5/0/0/5/500kHz//@EA\_IB)

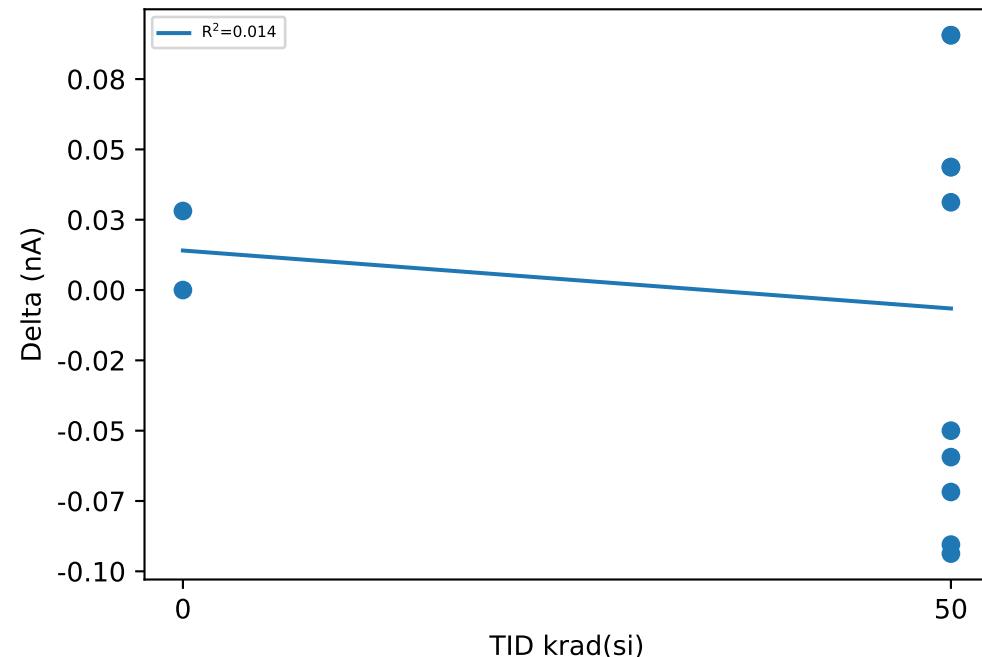
TID vs Result Stats



Test Results (Upper Limit = 25.0 (nA))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | -0.042     | -0.0139     | 0.0281  |
| 2        | 0        | Correlation         | -0.0545    | -0.0545     | 0       |
| 4        | 50       | Bias                | -0.067     | 0.0236      | 0.0906  |
| 6        | 50       | Bias                | -0.042     | -0.1138     | -0.0718 |
| 7        | 50       | Bias                | -0.0482    | -0.1076     | -0.0594 |
| 8        | 50       | Bias                | -0.0482    | -0.1419     | -0.0937 |
| 9        | 50       | Bias                | -0.0826    | -0.0514     | 0.0312  |
| 11       | 50       | Unbias              | -0.0607    | -0.017      | 0.0437  |
| 12       | 50       | Unbias              | -0.0826    | 0.008       | 0.0906  |
| 13       | 50       | Unbias              | 0.0392     | -0.0108     | -0.05   |
| 14       | 50       | Unbias              | 0.0142     | -0.0763     | -0.0905 |
| 15       | 50       | Unbias              | -0.0607    | -0.017      | 0.0437  |

TID vs Post - Pre Exposure Delta

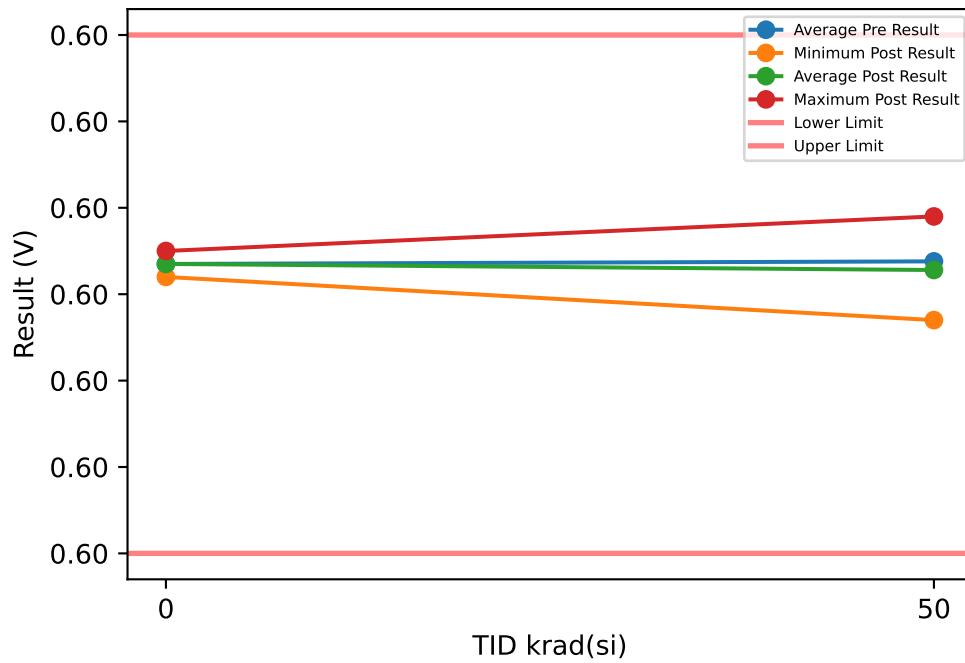


Test Statistics (nA)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | -0.0545          | -0.04825         | -0.042           | 0.0088388        | -0.0545           | -0.0342           | -0.0139           | 0.028709          | 0         | 0.01405   | 0.0281    | 0.01987   |
| 50       | -0.0826          | -0.04386         | 0.0392           | 0.040021         | -0.1419           | -0.05042          | 0.0236            | 0.056785          | -0.0937   | -0.00656  | 0.0906    | 0.073736  |

# Device Test: 19.81 VREF\_25C(VOLTAGE|VREF//12/12/0/1000/5/1MHz//@VREF\_25C)

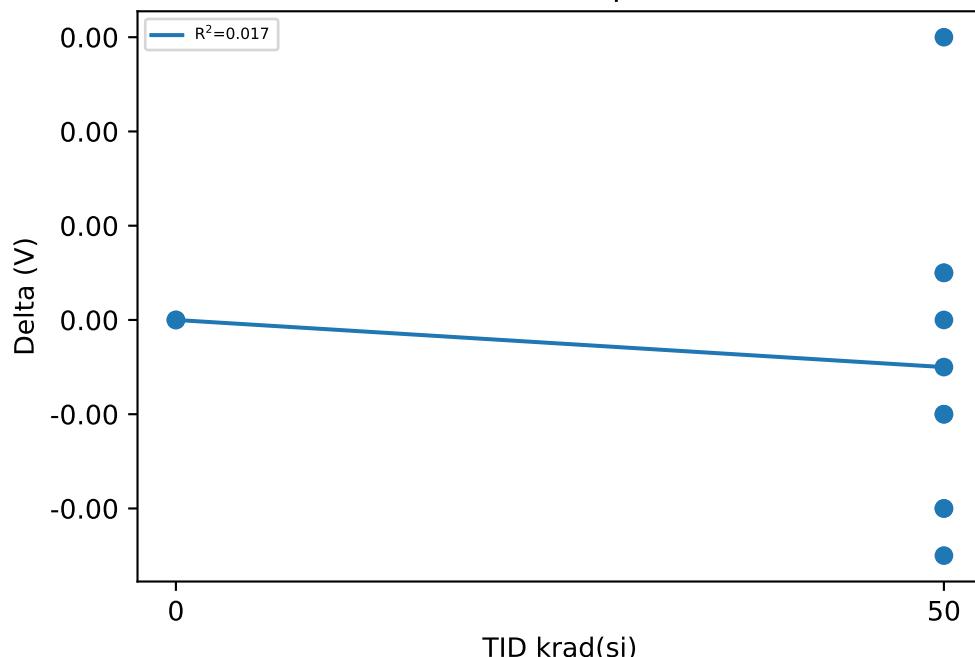
TID vs Result Stats



Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.6002     | 0.6002      | 0       |
| 2        | 0        | Correlation         | 0.6005     | 0.6005      | 0       |
| 4        | 50       | Bias                | 0.6002     | 0.5997      | -0.0005 |
| 6        | 50       | Bias                | 0.6002     | 0.5998      | -0.0004 |
| 7        | 50       | Bias                | 0.6007     | 0.6007      | 0       |
| 8        | 50       | Bias                | 0.6003     | 0.6001      | -0.0002 |
| 9        | 50       | Bias                | 0.6003     | 0.6001      | -0.0002 |
| 11       | 50       | Unbias              | 0.6006     | 0.6007      | 0.0001  |
| 12       | 50       | Unbias              | 0.6006     | 0.6007      | 0.0001  |
| 13       | 50       | Unbias              | 0.6005     | 0.6004      | -0.0001 |
| 14       | 50       | Unbias              | 0.6001     | 0.5997      | -0.0004 |
| 15       | 50       | Unbias              | 0.6003     | 0.6009      | 0.0006  |

TID vs Post - Pre Exposure Delta

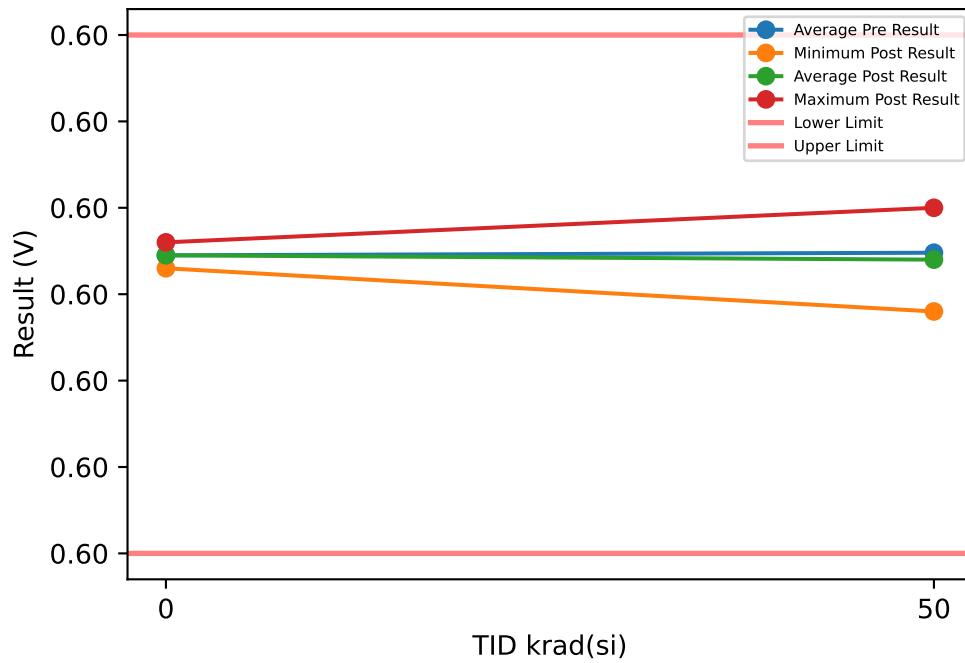


Test Statistics (V)

| 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        | 0.6002           | 0.60035          | 0.6005           | 0.00021213       | 0.6002            | 0.60035           | 0.6005            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.6001           | 0.60038          | 0.6007           | 0.0002044        | 0.5997            | 0.60028           | 0.6009            | 0.00045898        | -0.0005   | -0.0001   | 0.0006    | 0.00032318 |

# Device Test: 19.83 VREF\_25C(VOLTAGE|VREF//14/14/0/1000/5/1MHz//@VREF\_25C)

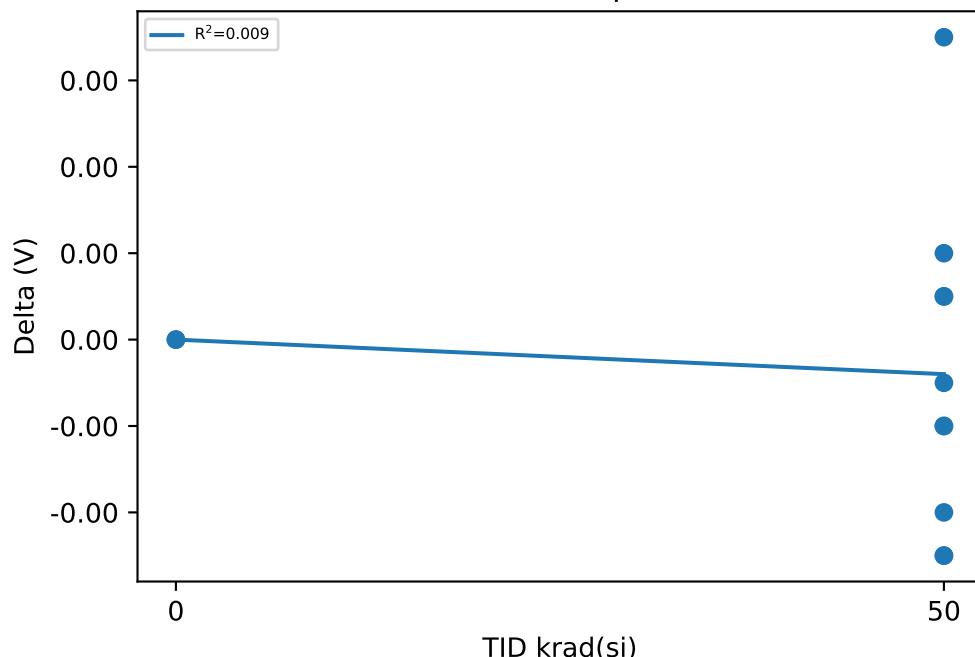
TID vs Result Stats



Test Results (Lower Limit = 0.597, Upper Limit = 0.603 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.6003     | 0.6003      | 0       |
| 2        | 0        | Correlation         | 0.6006     | 0.6006      | 0       |
| 4        | 50       | Bias                | 0.6003     | 0.5998      | -0.0005 |
| 6        | 50       | Bias                | 0.6003     | 0.5999      | -0.0004 |
| 7        | 50       | Bias                | 0.6008     | 0.6009      | 0.0001  |
| 8        | 50       | Bias                | 0.6004     | 0.6002      | -0.0002 |
| 9        | 50       | Bias                | 0.6004     | 0.6002      | -0.0002 |
| 11       | 50       | Unbias              | 0.6007     | 0.6008      | 0.0001  |
| 12       | 50       | Unbias              | 0.6007     | 0.6009      | 0.0002  |
| 13       | 50       | Unbias              | 0.6006     | 0.6005      | -0.0001 |
| 14       | 50       | Unbias              | 0.6003     | 0.5998      | -0.0005 |
| 15       | 50       | Unbias              | 0.6003     | 0.601       | 0.0007  |

TID vs Post - Pre Exposure Delta

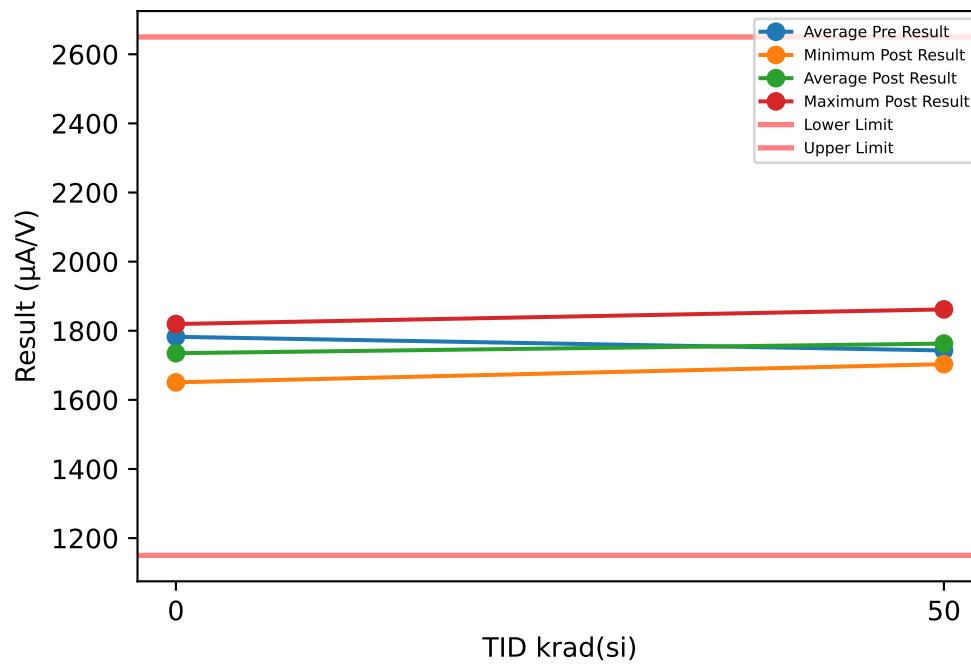


Test Statistics (V)

| 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        | 0.6003           | 0.60045          | 0.6006           | 0.00021213       | 0.6003            | 0.60045           | 0.6006            | 0.00021213        | 0         | 0         | 0         | 0          |
| 50       | 0.6003           | 0.60048          | 0.6008           | 0.00019889       | 0.5998            | 0.6004            | 0.601             | 0.00048074        | -0.0005   | -8e-05    | 0.0007    | 0.00037059 |

# Device Test: 19.9 EA\_GM(LEVEL|TRANSCONDUCTANCE//12/12/0/0/5/500kHz//@EA\_GM)

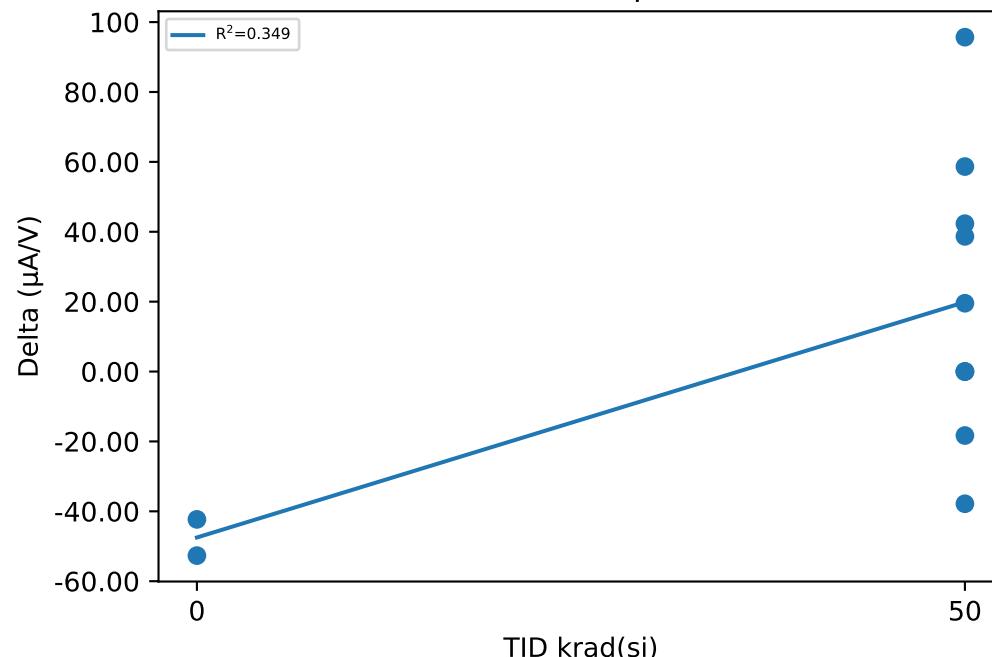
TID vs Result Stats



Test Results (Lower Limit = 1150.0, Upper Limit = 2650.0 (\muA/V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1861.8     | 1819.5      | -42.31  |
| 2        | 0        | Correlation         | 1703.3     | 1650.7      | -52.672 |
| 4        | 50       | Bias                | 1759.5     | 1779        | 19.543  |
| 6        | 50       | Bias                | 1779       | 1779        | 0       |
| 7        | 50       | Bias                | 1703.3     | 1703.3      | 0.0086  |
| 8        | 50       | Bias                | 1703.3     | 1799        | 95.68   |
| 9        | 50       | Bias                | 1721.6     | 1703.3      | -18.309 |
| 11       | 50       | Unbias              | 1740.4     | 1799        | 58.663  |
| 12       | 50       | Unbias              | 1759.5     | 1721.6      | -37.835 |
| 13       | 50       | Unbias              | 1740.4     | 1779        | 38.681  |
| 14       | 50       | Unbias              | 1703.3     | 1703.3      | 0       |
| 15       | 50       | Unbias              | 1819.5     | 1861.8      | 42.31   |

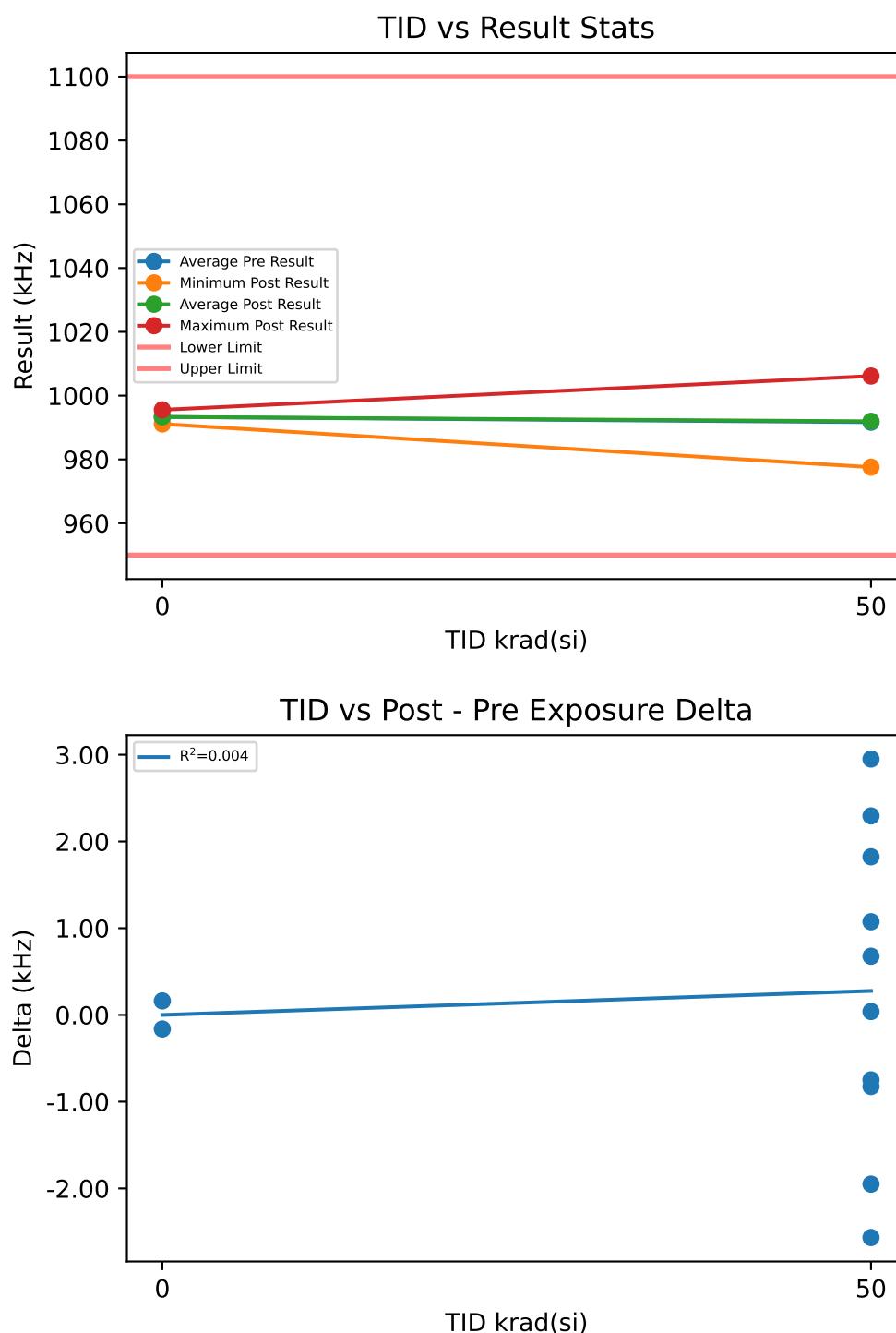
TID vs Post - Pre Exposure Delta



Test Statistics (\muA/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        | 1703.3           | 1782.5           | 1861.8           | 112.04           | 1650.7            | 1735.1            | 1819.5            | 119.37            | -52.672   | -47.491   | -42.31    | 7.327     |
| 50       | 1703.3           | 1743             | 1819.5           | 37.83            | 1703.3            | 1762.9            | 1861.8            | 53.241            | -37.835   | 19.874    | 95.68     | 39.555    |

# Device Test: 20.101 FSW\_EXT\_RT\_D(LEVEL|FREQ/RT/14/14/0/1000/5/1MHz//@FSW\_EXT\_RT\_D)



**Test Results (Lower Limit = 950.0, Upper Limit = 1100.0 (kHz))**

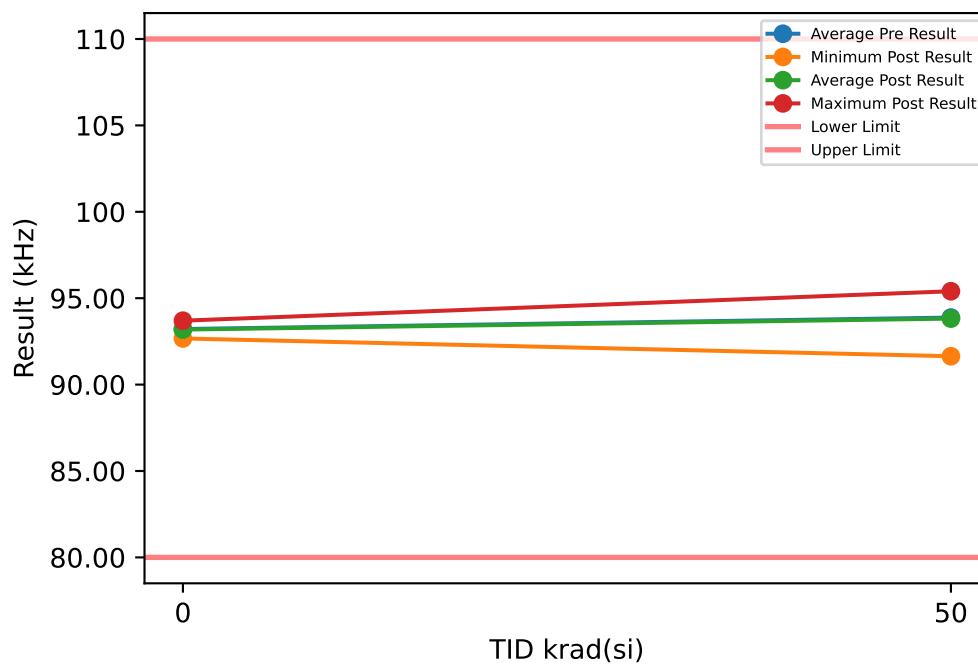
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 991.27     | 991.11      | -0.1617 |
| 2        | 0        | Correlation         | 995.39     | 995.55      | 0.1617  |
| 4        | 50       | Bias                | 993.84     | 993.01      | -0.8247 |
| 6        | 50       | Bias                | 978.32     | 977.57      | -0.7487 |
| 7        | 50       | Bias                | 991.79     | 991.83      | 0.0393  |
| 8        | 50       | Bias                | 981.31     | 983.13      | 1.8236  |
| 9        | 50       | Bias                | 989.01     | 991.31      | 2.2949  |
| 11       | 50       | Unbias              | 1005.5     | 1006.1      | 0.6772  |
| 12       | 50       | Unbias              | 999.36     | 1000.4      | 1.0747  |
| 13       | 50       | Unbias              | 995.51     | 992.94      | -2.5664 |
| 14       | 50       | Unbias              | 986.43     | 989.38      | 2.9508  |
| 15       | 50       | Unbias              | 995.77     | 993.82      | -1.9503 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta   | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-------------|-----------|-----------|
| 0        | 991.27           | 993.33           | 995.39           | 2.9129           | 991.11            | 993.33            | 995.55            | 3.1415            | -0.1617   | -5.6843e-14 | 0.1617    | 0.22868   |
| 50       | 978.32           | 991.68           | 1005.5           | 8.2022           | 977.57            | 991.96            | 1006.1            | 7.9599            | -2.5664   | 0.27704     | 2.9508    | 1.819     |

# Device Test: 20.15 FSW\_EXT\_RT\_A(LEVEL|FREQ/RT/4.5/4.5/0/0/4.5/100kHz//@FSW\_EXT\_RT\_A)

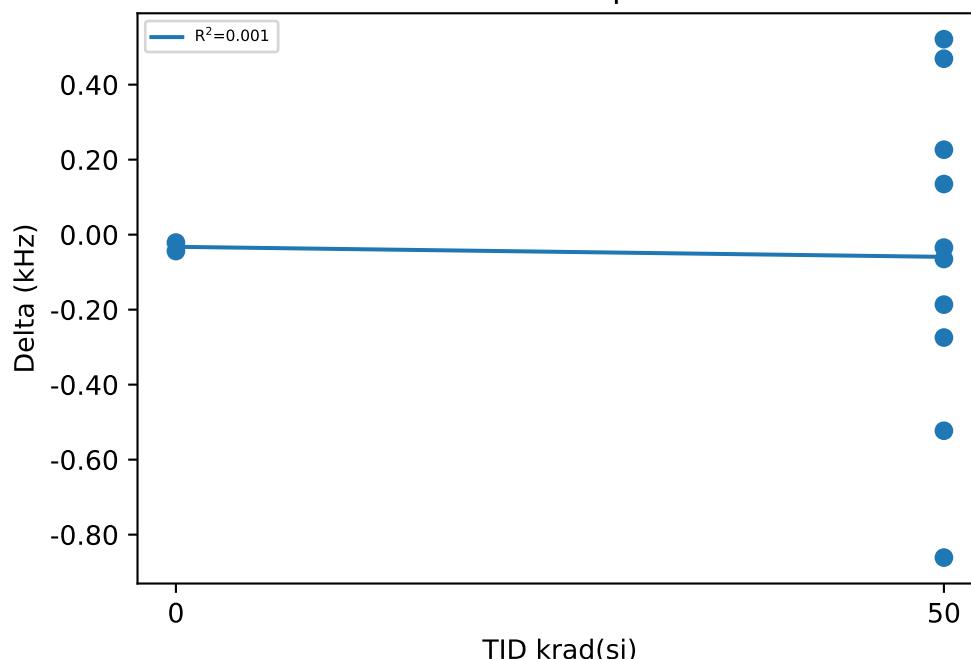
TID vs Result Stats



Test Results (Lower Limit = 80.0, Upper Limit = 110.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 92.714     | 92.67       | -0.0438 |
| 2        | 0        | Correlation         | 93.719     | 93.698      | -0.0211 |
| 4        | 50       | Bias                | 95.009     | 94.823      | -0.1866 |
| 6        | 50       | Bias                | 91.706     | 91.641      | -0.0649 |
| 7        | 50       | Bias                | 94.521     | 94.487      | -0.0345 |
| 8        | 50       | Bias                | 92.359     | 92.494      | 0.135   |
| 9        | 50       | Bias                | 93.981     | 94.502      | 0.5212  |
| 11       | 50       | Unbias              | 95.677     | 95.402      | -0.2744 |
| 12       | 50       | Unbias              | 94.616     | 94.842      | 0.2265  |
| 13       | 50       | Unbias              | 93.411     | 92.55       | -0.8612 |
| 14       | 50       | Unbias              | 92.983     | 93.452      | 0.4692  |
| 15       | 50       | Unbias              | 94.523     | 94          | -0.5229 |

TID vs Post - Pre Exposure Delta

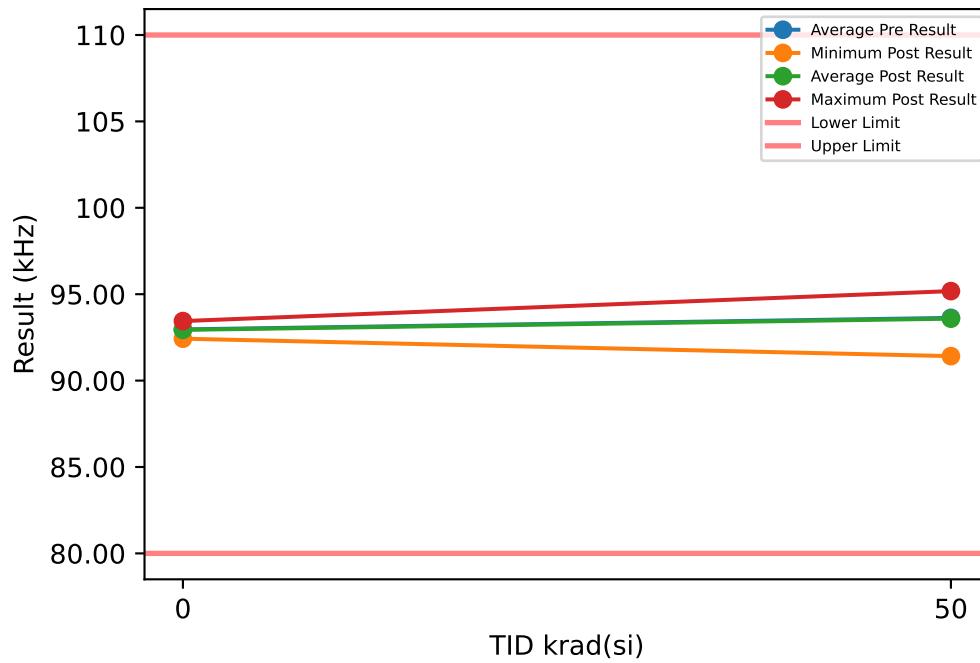


Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 92.714           | 93.216           | 93.719           | 0.71043          | 92.67             | 93.184            | 93.698            | 0.72648           | -0.0438   | -0.03245  | -0.0211   | 0.016051  |
| 50       | 91.706           | 93.879           | 95.677           | 1.2446           | 91.641            | 93.819            | 95.402            | 1.236             | -0.8612   | -0.05926  | 0.5212    | 0.42906   |

# Device Test: 20.19 FSW\_EXT\_RT\_A(LEVEL|FREQ/RT/5/5/0/0/5/100kHz//@FSW\_EXT\_RT\_A)

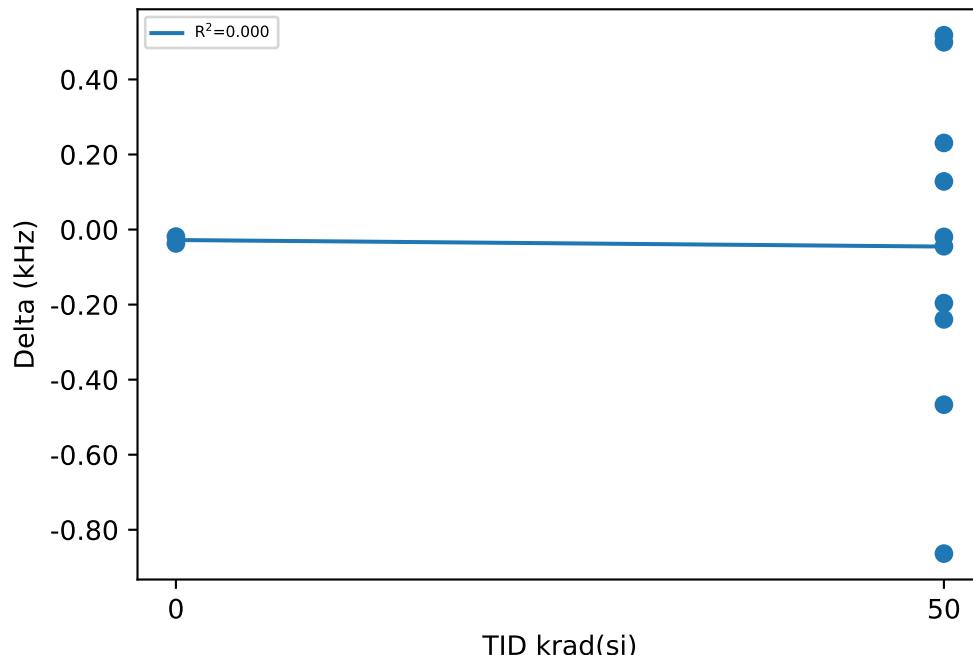
TID vs Result Stats



Test Results (Lower Limit = 80.0, Upper Limit = 110.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 92.463     | 92.426      | -0.037  |
| 2        | 0        | Correlation         | 93.463     | 93.445      | -0.0188 |
| 4        | 50       | Bias                | 94.775     | 94.579      | -0.196  |
| 6        | 50       | Bias                | 91.46      | 91.416      | -0.0445 |
| 7        | 50       | Bias                | 94.252     | 94.233      | -0.0196 |
| 8        | 50       | Bias                | 92.106     | 92.234      | 0.1283  |
| 9        | 50       | Bias                | 93.752     | 94.27       | 0.5179  |
| 11       | 50       | Unbias              | 95.418     | 95.179      | -0.2394 |
| 12       | 50       | Unbias              | 94.362     | 94.593      | 0.2308  |
| 13       | 50       | Unbias              | 93.167     | 92.304      | -0.8635 |
| 14       | 50       | Unbias              | 92.738     | 93.237      | 0.499   |
| 15       | 50       | Unbias              | 94.257     | 93.791      | -0.4667 |

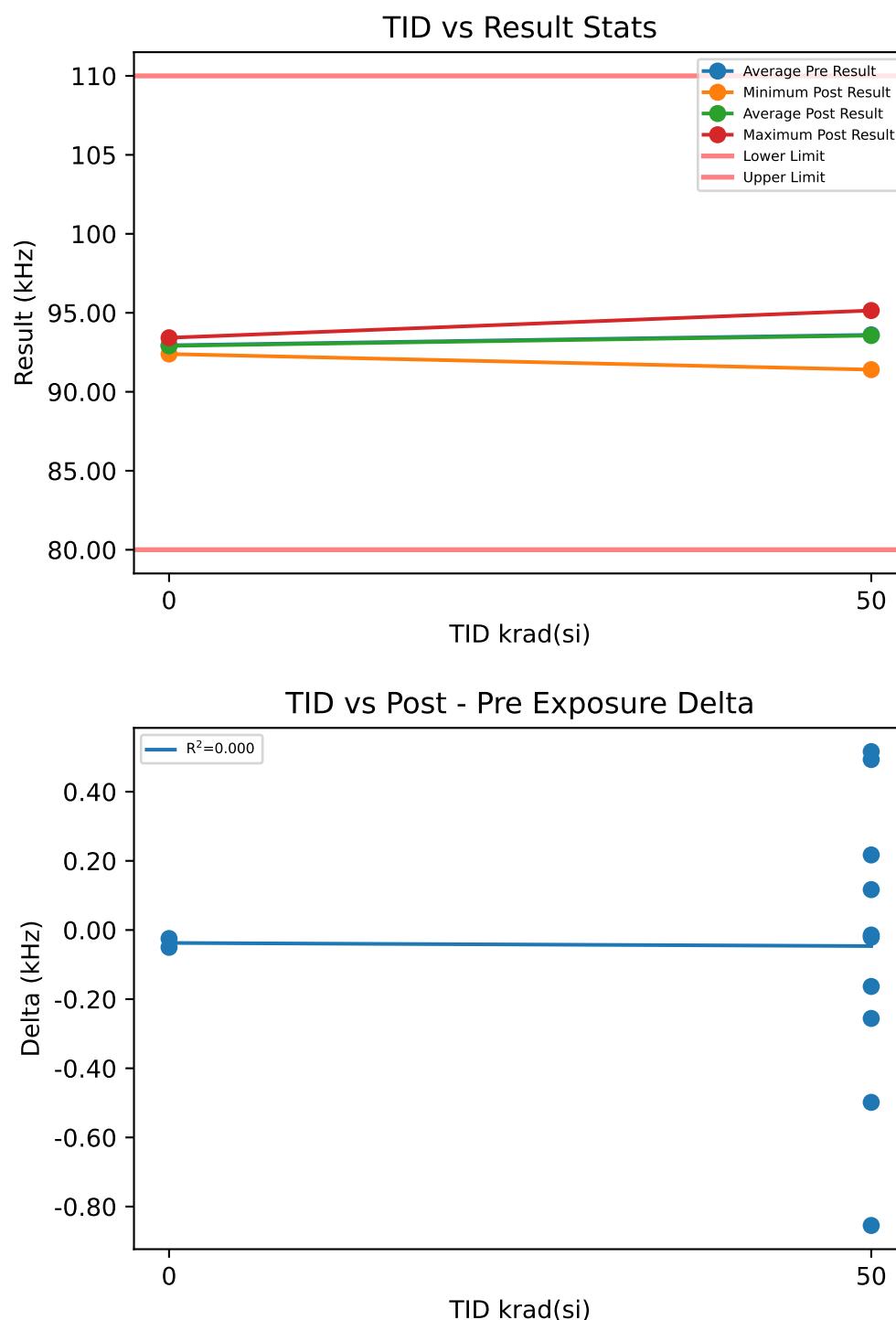
TID vs Post - Pre Exposure Delta



Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 92.463           | 92.963           | 93.463           | 0.70746          | 92.426            | 92.935            | 93.445            | 0.72033           | -0.037    | -0.0279   | -0.0188   | 0.012869  |
| 50       | 91.46            | 93.629           | 95.418           | 1.242            | 91.416            | 93.584            | 95.179            | 1.2369            | -0.8635   | -0.04537  | 0.5179    | 0.4253    |

# Device Test: 20.23 FSW\_EXT\_RT\_A(LEVEL|FREQ/RT/12/12/0/0/5/100kHz//@FSW\_EXT\_RT\_A)



**Test Results (Lower Limit = 80.0, Upper Limit = 110.0 (kHz))**

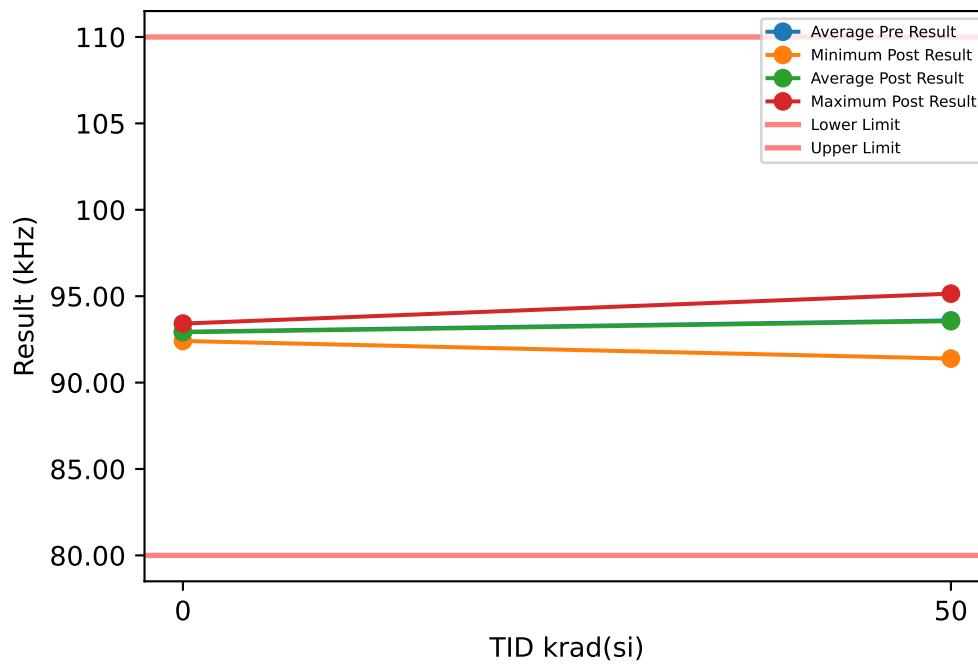
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 92.442     | 92.392      | -0.0501 |
| 2        | 0        | Correlation         | 93.445     | 93.42       | -0.0247 |
| 4        | 50       | Bias                | 94.738     | 94.575      | -0.1633 |
| 6        | 50       | Bias                | 91.423     | 91.402      | -0.021  |
| 7        | 50       | Bias                | 94.239     | 94.224      | -0.0145 |
| 8        | 50       | Bias                | 92.091     | 92.208      | 0.1168  |
| 9        | 50       | Bias                | 93.727     | 94.243      | 0.5161  |
| 11       | 50       | Unbias              | 95.4       | 95.144      | -0.2558 |
| 12       | 50       | Unbias              | 94.344     | 94.561      | 0.2171  |
| 13       | 50       | Unbias              | 93.129     | 92.274      | -0.8547 |
| 14       | 50       | Unbias              | 92.708     | 93.201      | 0.4931  |
| 15       | 50       | Unbias              | 94.253     | 93.755      | -0.4985 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 92.442           | 92.943           | 93.445           | 0.70909          | 92.392            | 92.906            | 93.42             | 0.72705           | -0.0501   | -0.0374   | -0.0247   | 0.017961  |
| 50       | 91.423           | 93.605           | 95.4             | 1.2459           | 91.402            | 93.559            | 95.144            | 1.2362            | -0.8547   | -0.04647  | 0.5161    | 0.42432   |

# Device Test: 20.27 FSW\_EXT\_RT\_A(LEVEL|FREQ/RT/14/14/0/0/5/100kHz//@FSW\_EXT\_RT\_A)

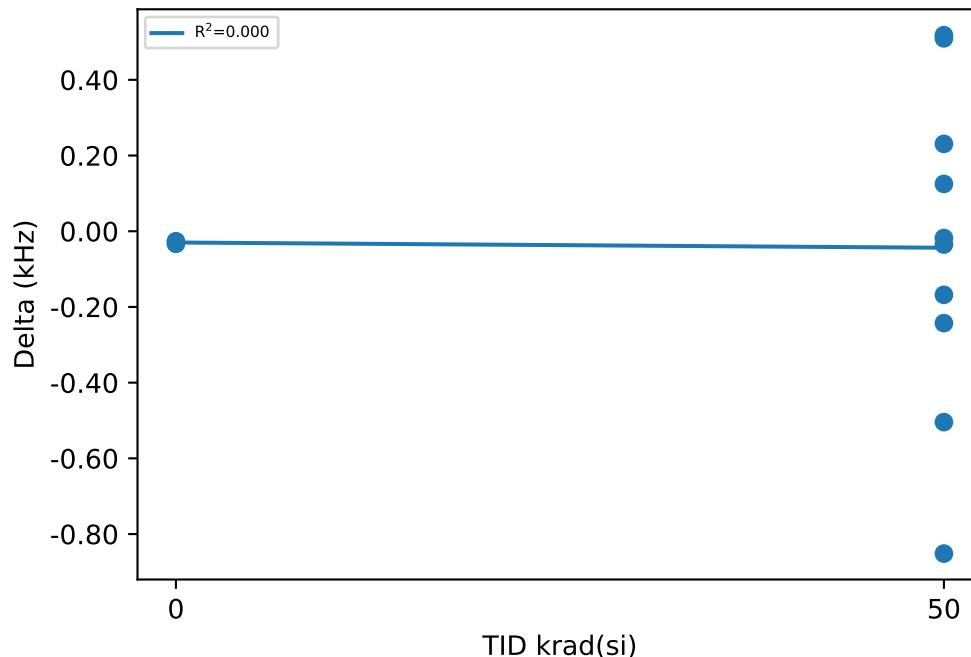
TID vs Result Stats



Test Results (Lower Limit = 80.0, Upper Limit = 110.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 92.435     | 92.409      | -0.0264 |
| 2        | 0        | Correlation         | 93.449     | 93.416      | -0.0331 |
| 4        | 50       | Bias                | 94.728     | 94.56       | -0.168  |
| 6        | 50       | Bias                | 91.424     | 91.389      | -0.035  |
| 7        | 50       | Bias                | 94.233     | 94.215      | -0.0179 |
| 8        | 50       | Bias                | 92.085     | 92.21       | 0.125   |
| 9        | 50       | Bias                | 93.721     | 94.239      | 0.5179  |
| 11       | 50       | Unbias              | 95.39      | 95.148      | -0.2427 |
| 12       | 50       | Unbias              | 94.327     | 94.558      | 0.2308  |
| 13       | 50       | Unbias              | 93.128     | 92.276      | -0.8516 |
| 14       | 50       | Unbias              | 92.697     | 93.207      | 0.5097  |
| 15       | 50       | Unbias              | 94.245     | 93.741      | -0.5042 |

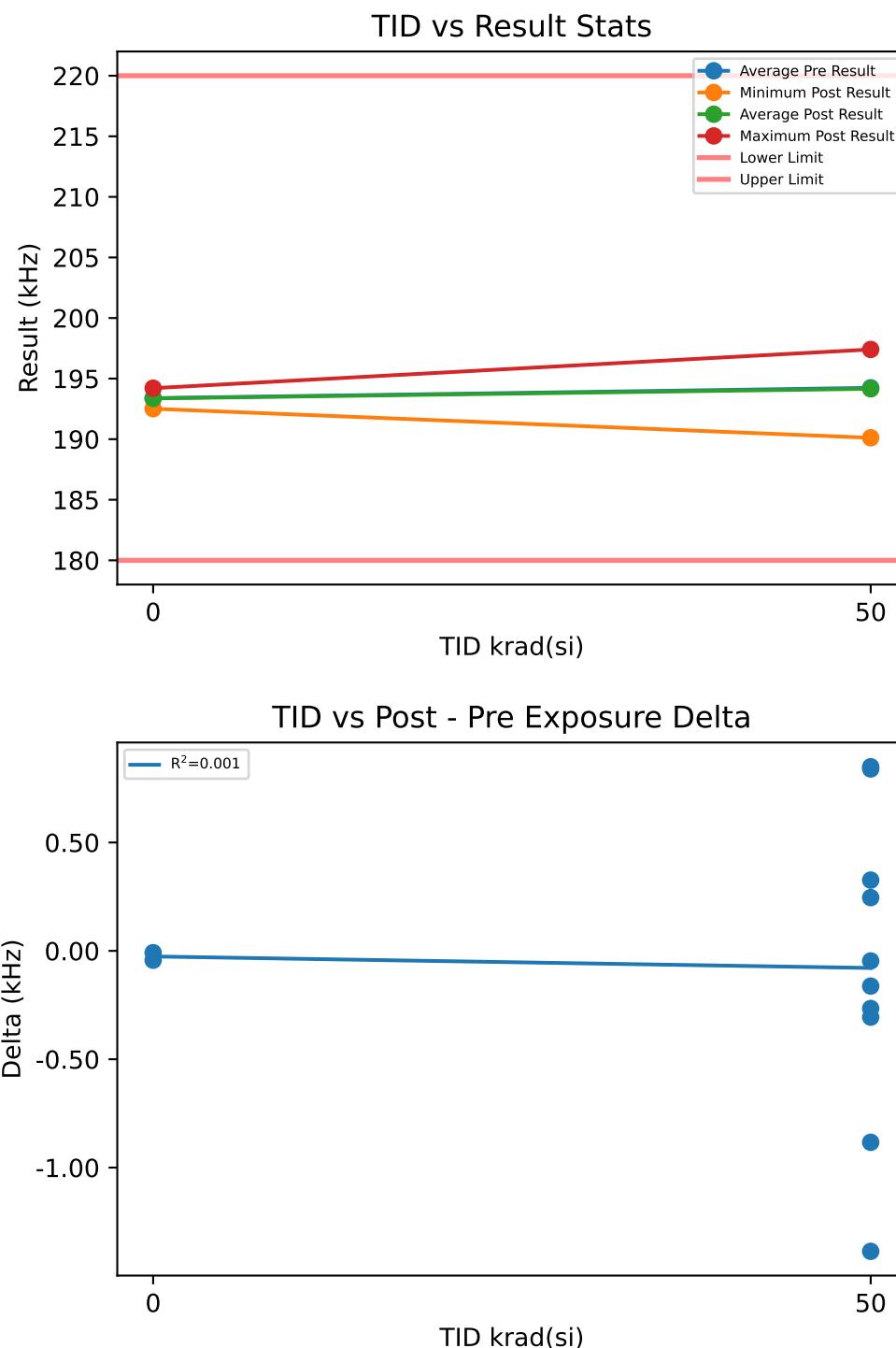
TID vs Post - Pre Exposure Delta



Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 92.435           | 92.942           | 93.449           | 0.71672          | 92.409            | 92.912            | 93.416            | 0.71199           | -0.0331   | -0.02975  | -0.0264   | 0.0047376 |
| 50       | 91.424           | 93.598           | 95.39            | 1.243            | 91.389            | 93.554            | 95.148            | 1.2358            | -0.8516   | -0.0436   | 0.5179    | 0.42766   |

# Device Test: 20.31 FSW\_EXT\_RT\_B(LEVEL|FREQ/RT/4.5/4.5/0/0/4.5/200kHz//@FSW\_EXT\_RT\_B)



**Test Results (Lower Limit = 180.0, Upper Limit = 220.0 (kHz))**

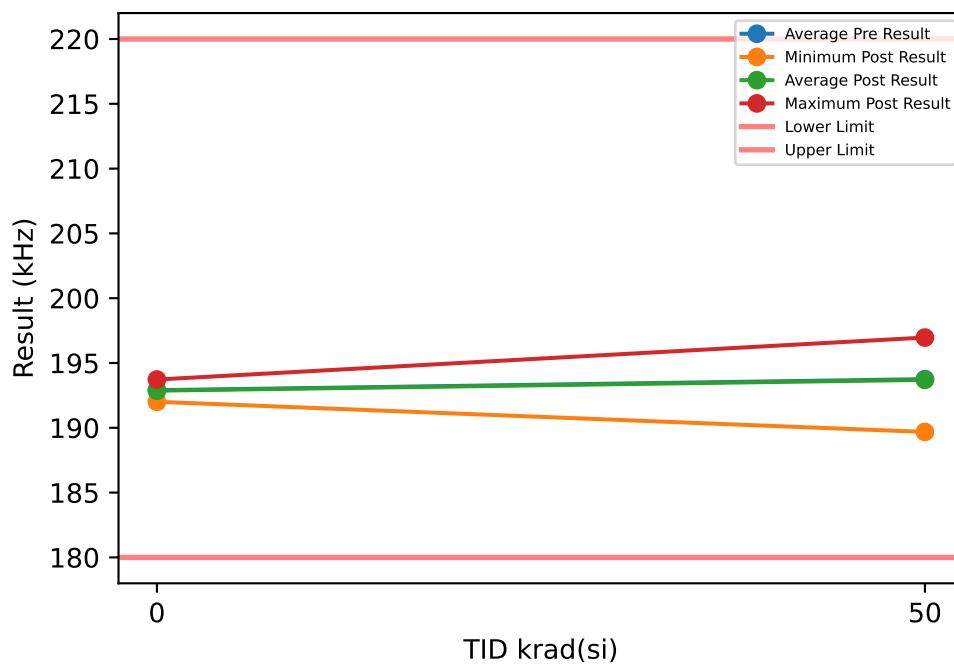
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 192.56     | 192.51      | -0.0432 |
| 2        | 0        | Correlation         | 194.22     | 194.21      | -0.0084 |
| 4        | 50       | Bias                | 195.76     | 195.45      | -0.3058 |
| 6        | 50       | Bias                | 190.28     | 190.11      | -0.1626 |
| 7        | 50       | Bias                | 194.91     | 194.87      | -0.0465 |
| 8        | 50       | Bias                | 191.6      | 191.85      | 0.2457  |
| 9        | 50       | Bias                | 194.14     | 194.99      | 0.8496  |
| 11       | 50       | Unbias              | 197.67     | 197.41      | -0.2659 |
| 12       | 50       | Unbias              | 195.91     | 196.24      | 0.3265  |
| 13       | 50       | Unbias              | 194.04     | 192.65      | -1.3864 |
| 14       | 50       | Unbias              | 192.7      | 193.54      | 0.8394  |
| 15       | 50       | Unbias              | 195.33     | 194.45      | -0.8833 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 192.56           | 193.39           | 194.22           | 1.1743           | 192.51            | 193.36            | 194.21            | 1.1989            | -0.0432   | -0.0258   | -0.0084   | 0.024607  |
| 50       | 190.28           | 194.24           | 197.67           | 2.2007           | 190.11            | 194.16            | 197.41            | 2.1641            | -1.3864   | -0.07893  | 0.8496    | 0.70129   |

# Device Test: 20.33 FSW\_EXT\_RT\_B(LEVEL|FREQ/RT/5/5/0/0/5/200kHz//@FSW\_EXT\_RT\_B)

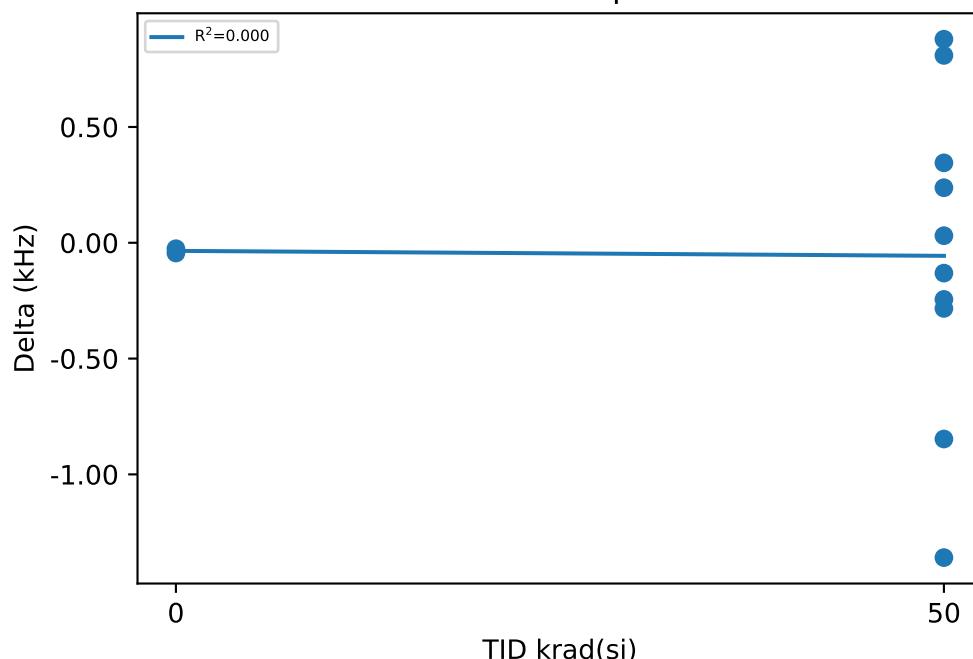
TID vs Result Stats



Test Results (Lower Limit = 180.0, Upper Limit = 220.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 192.05     | 192.01      | -0.0442 |
| 2        | 0        | Correlation         | 193.75     | 193.72      | -0.0257 |
| 4        | 50       | Bias                | 195.28     | 194.99      | -0.2834 |
| 6        | 50       | Bias                | 189.81     | 189.68      | -0.131  |
| 7        | 50       | Bias                | 194.38     | 194.41      | 0.0306  |
| 8        | 50       | Bias                | 191.14     | 191.37      | 0.2377  |
| 9        | 50       | Bias                | 193.72     | 194.53      | 0.809   |
| 11       | 50       | Unbias              | 197.21     | 196.96      | -0.2445 |
| 12       | 50       | Unbias              | 195.4      | 195.75      | 0.3451  |
| 13       | 50       | Unbias              | 193.53     | 192.17      | -1.3593 |
| 14       | 50       | Unbias              | 192.22     | 193.1       | 0.879   |
| 15       | 50       | Unbias              | 194.84     | 193.99      | -0.8473 |

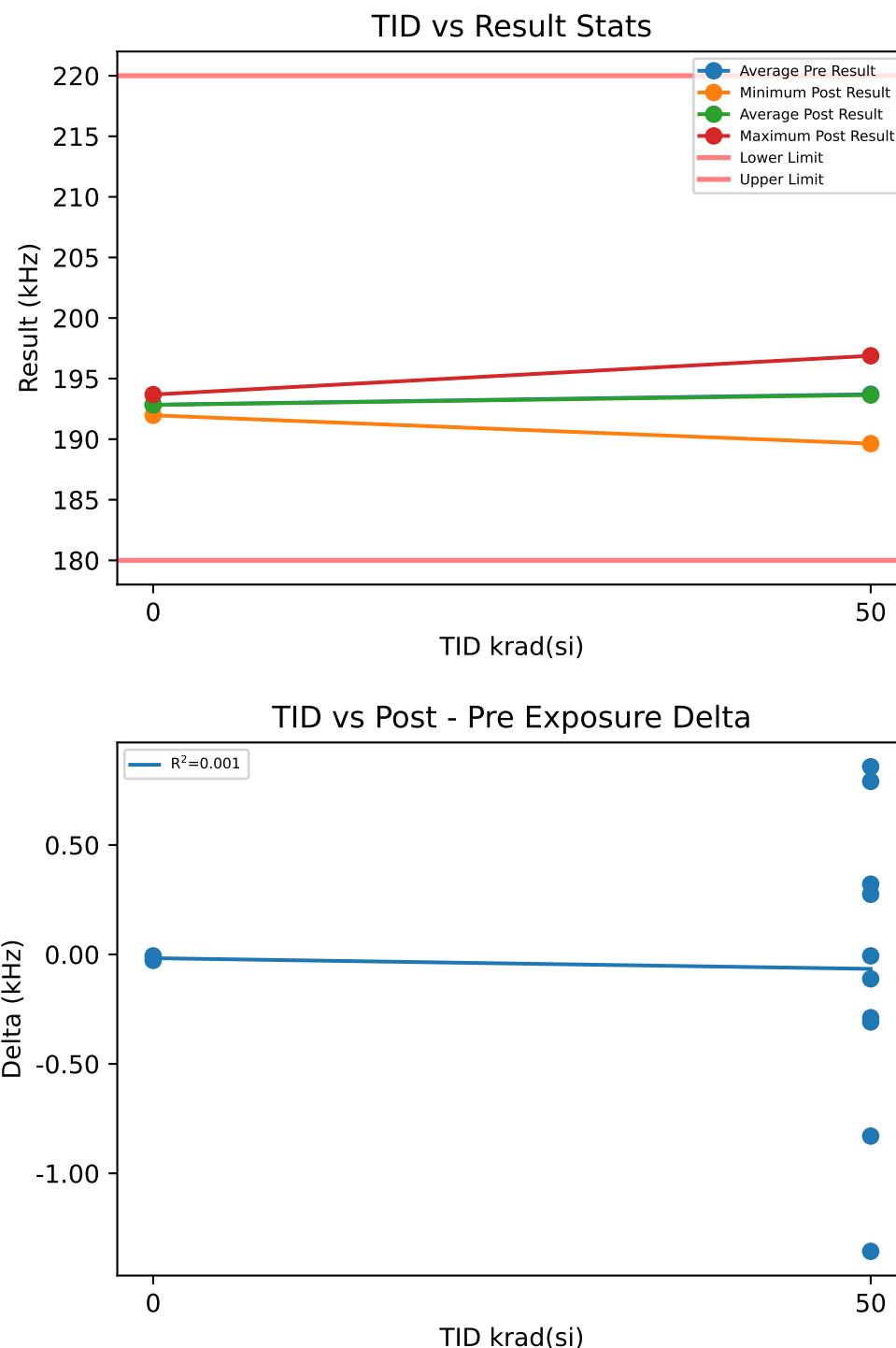
TID vs Post - Pre Exposure Delta



Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 192.05           | 192.9            | 193.75           | 1.1999           | 192.01            | 192.87            | 193.72            | 1.213             | -0.0442   | -0.03495  | -0.0257   | 0.013081  |
| 50       | 189.81           | 193.75           | 197.21           | 2.1943           | 189.68            | 193.7             | 196.96            | 2.1619            | -1.3593   | -0.05641  | 0.879     | 0.69079   |

# Device Test: 20.35 FSW\_EXT\_RT\_B(LEVEL|FREQ/RT/12/12/0/0/5/200kHz//@FSW\_EXT\_RT\_B)



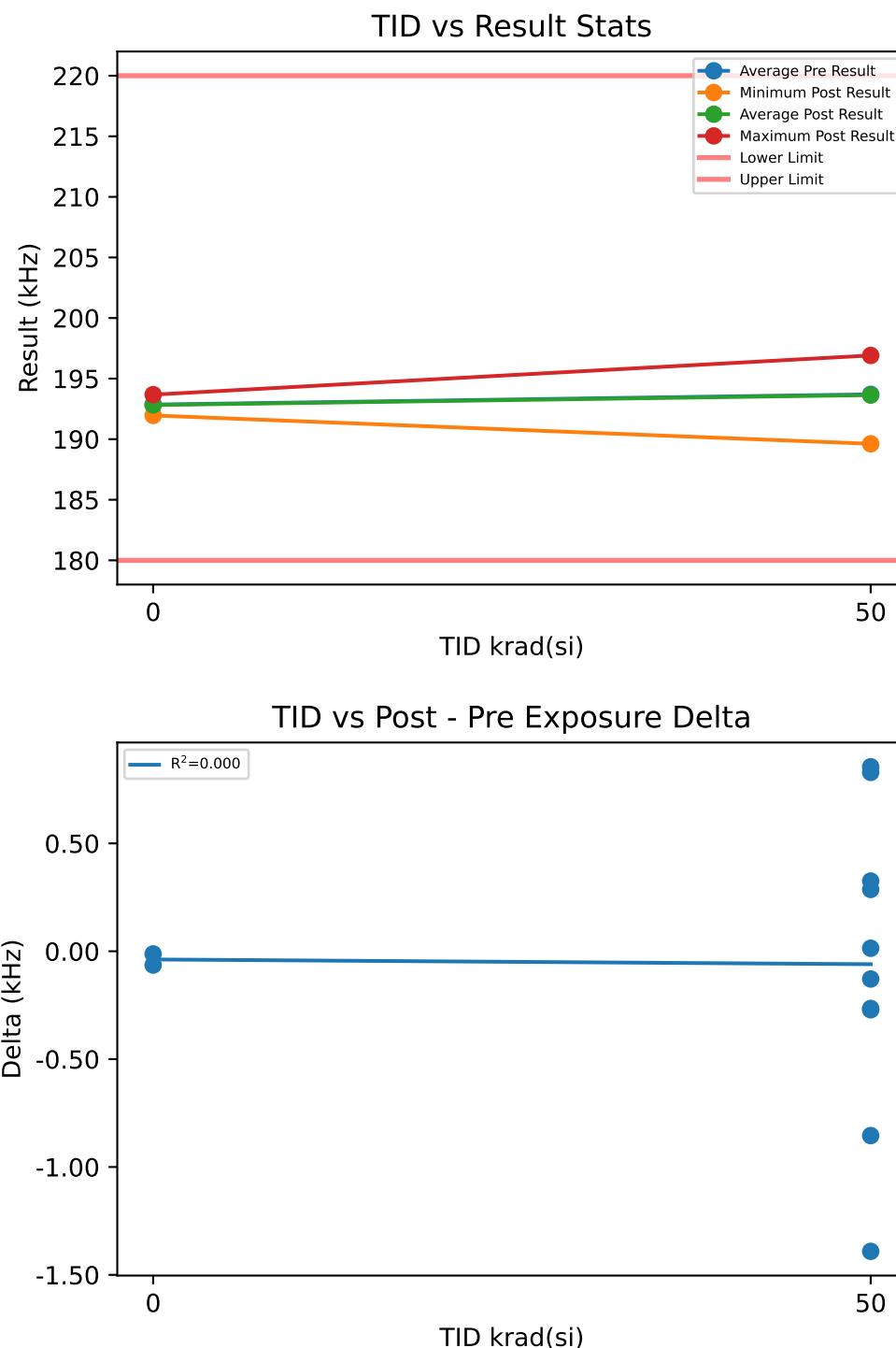
**Test Results (Lower Limit = 180.0, Upper Limit = 220.0 (kHz))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 192        | 191.97      | -0.0273 |
| 2        | 0        | Correlation         | 193.69     | 193.68      | -0.0065 |
| 4        | 50       | Bias                | 195.25     | 194.94      | -0.3085 |
| 6        | 50       | Bias                | 189.74     | 189.63      | -0.1114 |
| 7        | 50       | Bias                | 194.36     | 194.35      | -0.0065 |
| 8        | 50       | Bias                | 191.05     | 191.33      | 0.2746  |
| 9        | 50       | Bias                | 193.66     | 194.45      | 0.7906  |
| 11       | 50       | Unbias              | 197.17     | 196.88      | -0.2891 |
| 12       | 50       | Unbias              | 195.38     | 195.7       | 0.3212  |
| 13       | 50       | Unbias              | 193.48     | 192.13      | -1.3564 |
| 14       | 50       | Unbias              | 192.17     | 193.03      | 0.8577  |
| 15       | 50       | Unbias              | 194.8      | 193.97      | -0.8298 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 192              | 192.84           | 193.69           | 1.1964           | 191.97            | 192.83            | 193.68            | 1.2111            | -0.0273   | -0.0169   | -0.0065   | 0.014708  |
| 50       | 189.74           | 193.71           | 197.17           | 2.2101           | 189.63            | 193.64            | 196.88            | 2.1553            | -1.3564   | -0.06576  | 0.8577    | 0.6844    |

# Device Test: 20.37 FSW\_EXT\_RT\_B(LEVEL|FREQ/RT/14/14/0/0/5/200kHz//@FSW\_EXT\_RT\_B)



**Test Results (Lower Limit = 180.0, Upper Limit = 220.0 (kHz))**

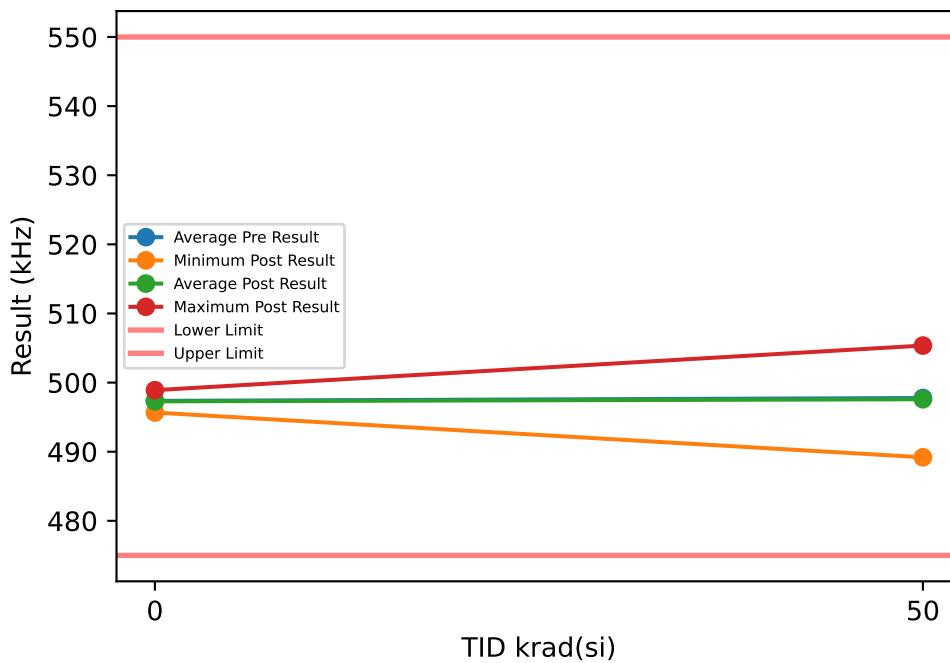
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 192.02     | 191.96      | -0.0638 |
| 2        | 0        | Correlation         | 193.69     | 193.68      | -0.0123 |
| 4        | 50       | Bias                | 195.21     | 194.94      | -0.2712 |
| 6        | 50       | Bias                | 189.75     | 189.62      | -0.1286 |
| 7        | 50       | Bias                | 194.35     | 194.36      | 0.014   |
| 8        | 50       | Bias                | 191.05     | 191.34      | 0.2865  |
| 9        | 50       | Bias                | 193.64     | 194.47      | 0.8292  |
| 11       | 50       | Unbias              | 197.18     | 196.91      | -0.2652 |
| 12       | 50       | Unbias              | 195.36     | 195.69      | 0.3254  |
| 13       | 50       | Unbias              | 193.47     | 192.08      | -1.3909 |
| 14       | 50       | Unbias              | 192.19     | 193.05      | 0.8553  |
| 15       | 50       | Unbias              | 194.78     | 193.92      | -0.8545 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 192.02           | 192.86           | 193.69           | 1.178            | 191.96            | 192.82            | 193.68            | 1.2144            | -0.0638   | -0.03805  | -0.0123   | 0.036416  |
| 50       | 189.75           | 193.7            | 197.18           | 2.2029           | 189.62            | 193.64            | 196.91            | 2.1633            | -1.3909   | -0.06     | 0.8553    | 0.69893   |

# Device Test: 20.39 FSW\_EXT\_RT\_C(LEVEL|FREQ/RT/4.5/4.5/0/0/4.5/500kHz//@FSW\_EXT\_RT\_C)

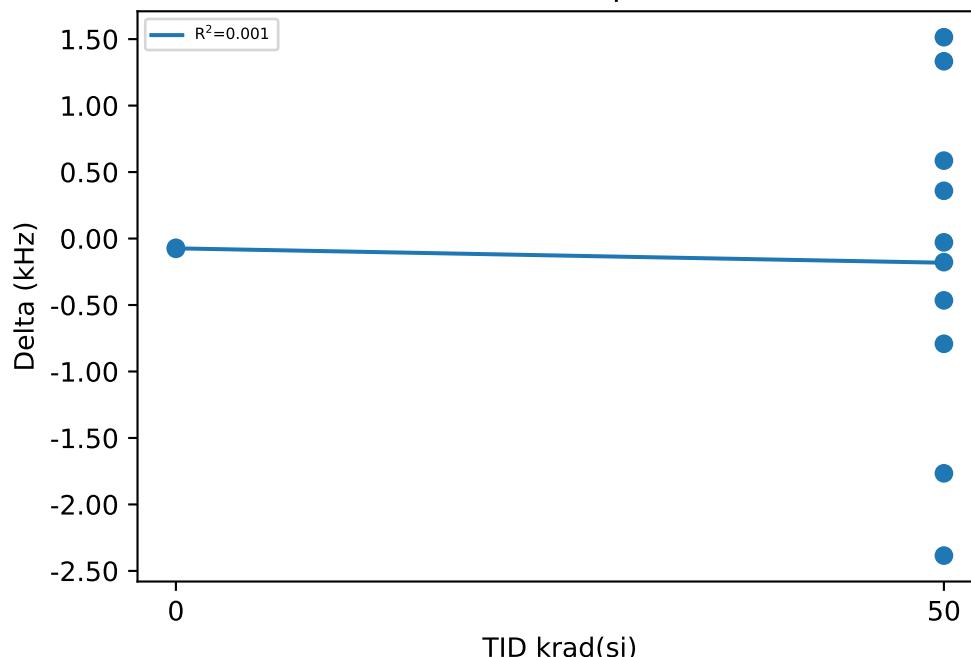
TID vs Result Stats



Test Results (Lower Limit = 475.0, Upper Limit = 550.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 495.74     | 495.67      | -0.0697 |
| 2        | 0        | Correlation         | 498.98     | 498.9       | -0.0776 |
| 4        | 50       | Bias                | 499.56     | 498.77      | -0.7915 |
| 6        | 50       | Bias                | 489.66     | 489.19      | -0.465  |
| 7        | 50       | Bias                | 498.26     | 498.23      | -0.0285 |
| 8        | 50       | Bias                | 492.02     | 492.61      | 0.5861  |
| 9        | 50       | Bias                | 496.85     | 498.18      | 1.3335  |
| 11       | 50       | Unbias              | 505.53     | 505.36      | -0.1775 |
| 12       | 50       | Unbias              | 502.06     | 502.41      | 0.3592  |
| 13       | 50       | Unbias              | 499.05     | 496.66      | -2.3848 |
| 14       | 50       | Unbias              | 494.7      | 496.21      | 1.5145  |
| 15       | 50       | Unbias              | 500.01     | 498.25      | -1.7659 |

TID vs Post - Pre Exposure Delta

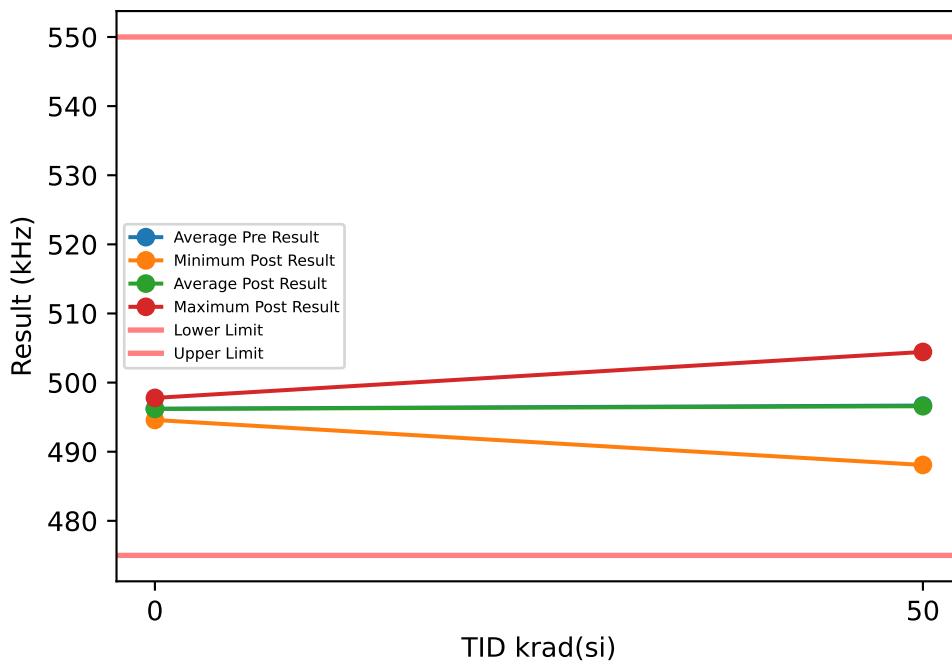


Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 495.74           | 497.36           | 498.98           | 2.2943           | 495.67            | 497.29            | 498.9             | 2.2887            | -0.0776   | -0.07365  | -0.0697   | 0.0055861 |
| 50       | 489.66           | 497.77           | 505.53           | 4.689            | 489.19            | 497.59            | 505.36            | 4.5247            | -2.3848   | -0.18199  | 1.5145    | 1.2425    |

# Device Test: 20.43 FSW\_EXT\_RT\_C(LEVEL|FREQ/RT/5/5/0/0/5/500kHz//@FSW\_EXT\_RT\_C)

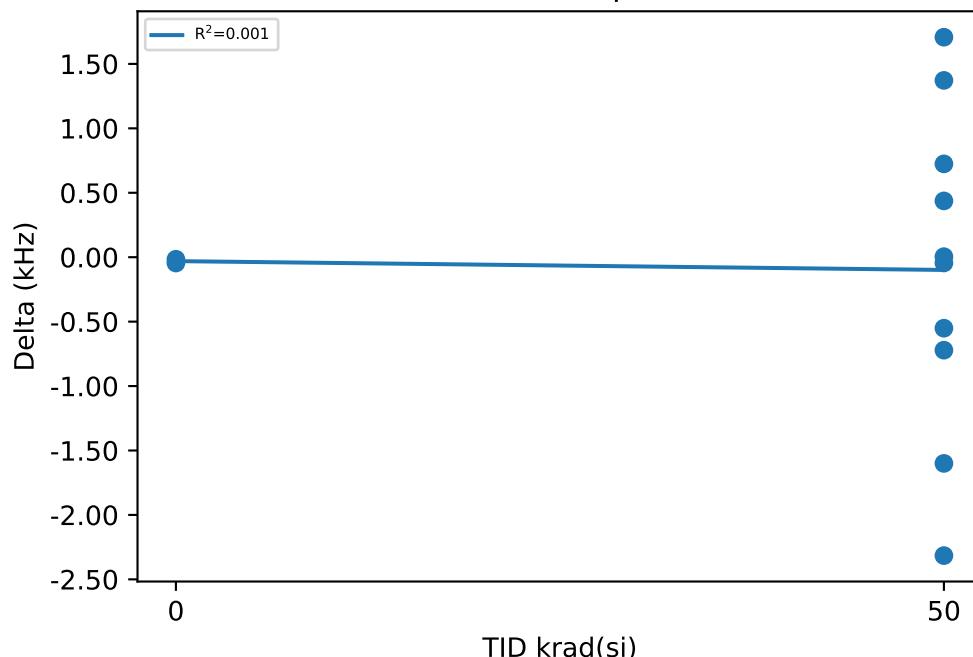
TID vs Result Stats



Test Results (Lower Limit = 475.0,  
Upper Limit = 550.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 494.61     | 494.59      | -0.0158 |
| 2        | 0        | Correlation         | 497.83     | 497.79      | -0.0451 |
| 4        | 50       | Bias                | 498.54     | 497.81      | -0.7215 |
| 6        | 50       | Bias                | 488.64     | 488.09      | -0.551  |
| 7        | 50       | Bias                | 497.1      | 497.1       | 0.0041  |
| 8        | 50       | Bias                | 490.89     | 491.62      | 0.7243  |
| 9        | 50       | Bias                | 495.84     | 497.21      | 1.3721  |
| 11       | 50       | Unbias              | 504.48     | 504.43      | -0.0446 |
| 12       | 50       | Unbias              | 500.92     | 501.36      | 0.4368  |
| 13       | 50       | Unbias              | 497.88     | 495.56      | -2.3156 |
| 14       | 50       | Unbias              | 493.64     | 495.34      | 1.7073  |
| 15       | 50       | Unbias              | 498.88     | 497.28      | -1.6001 |

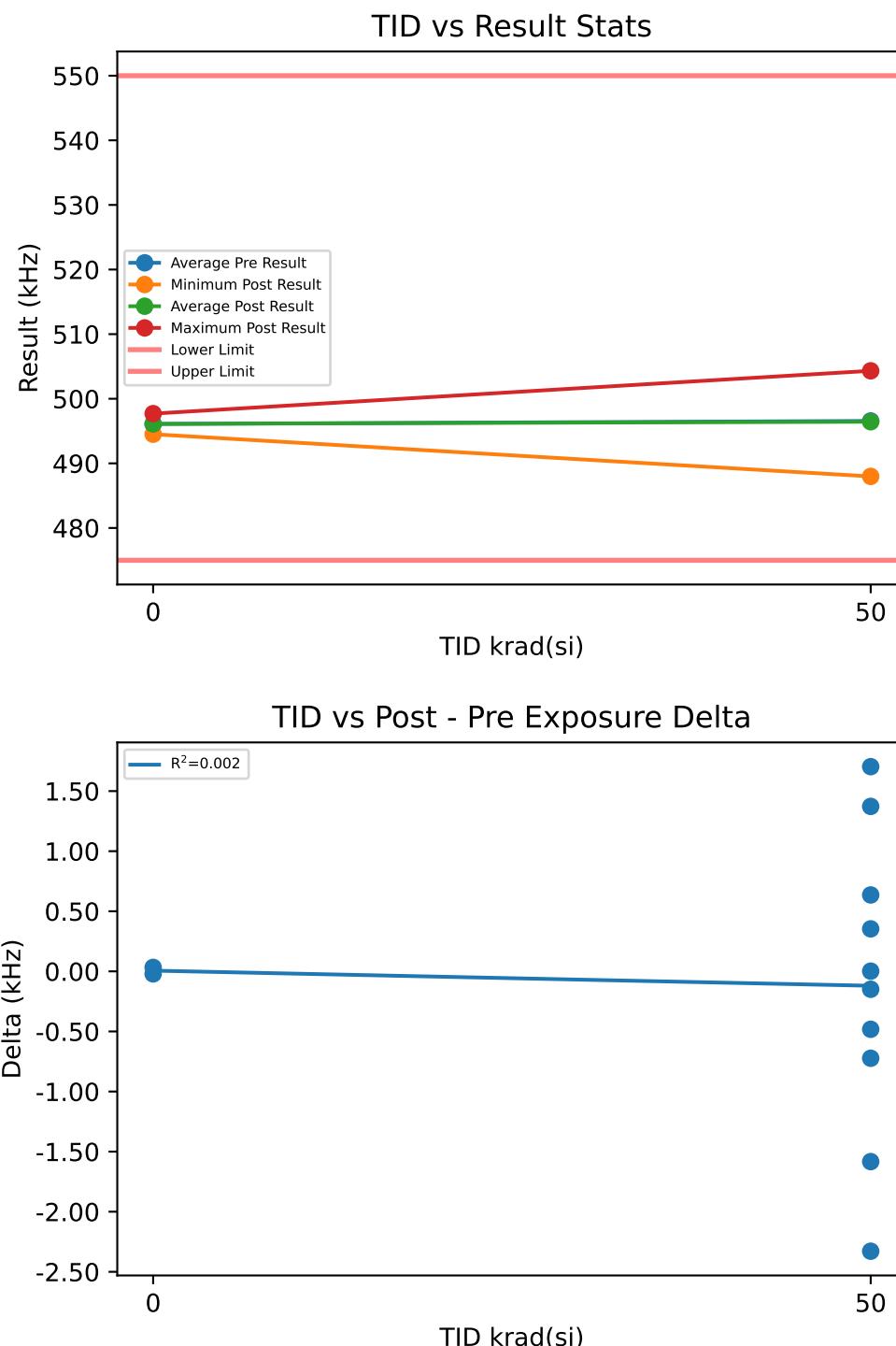
TID vs Post - Pre Exposure Delta



Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 494.61           | 496.22           | 497.83           | 2.2797           | 494.59            | 496.19            | 497.79            | 2.259             | -0.0451   | -0.03045  | -0.0158   | 0.020718  |
| 50       | 488.64           | 496.68           | 504.48           | 4.6771           | 488.09            | 496.58            | 504.43            | 4.553             | -2.3156   | -0.09882  | 1.7073    | 1.2545    |

# Device Test: 20.47 FSW\_EXT\_RT\_C(LEVEL|FREQ/RT/12/12/0/0/5/500kHz//@FSW\_EXT\_RT\_C)



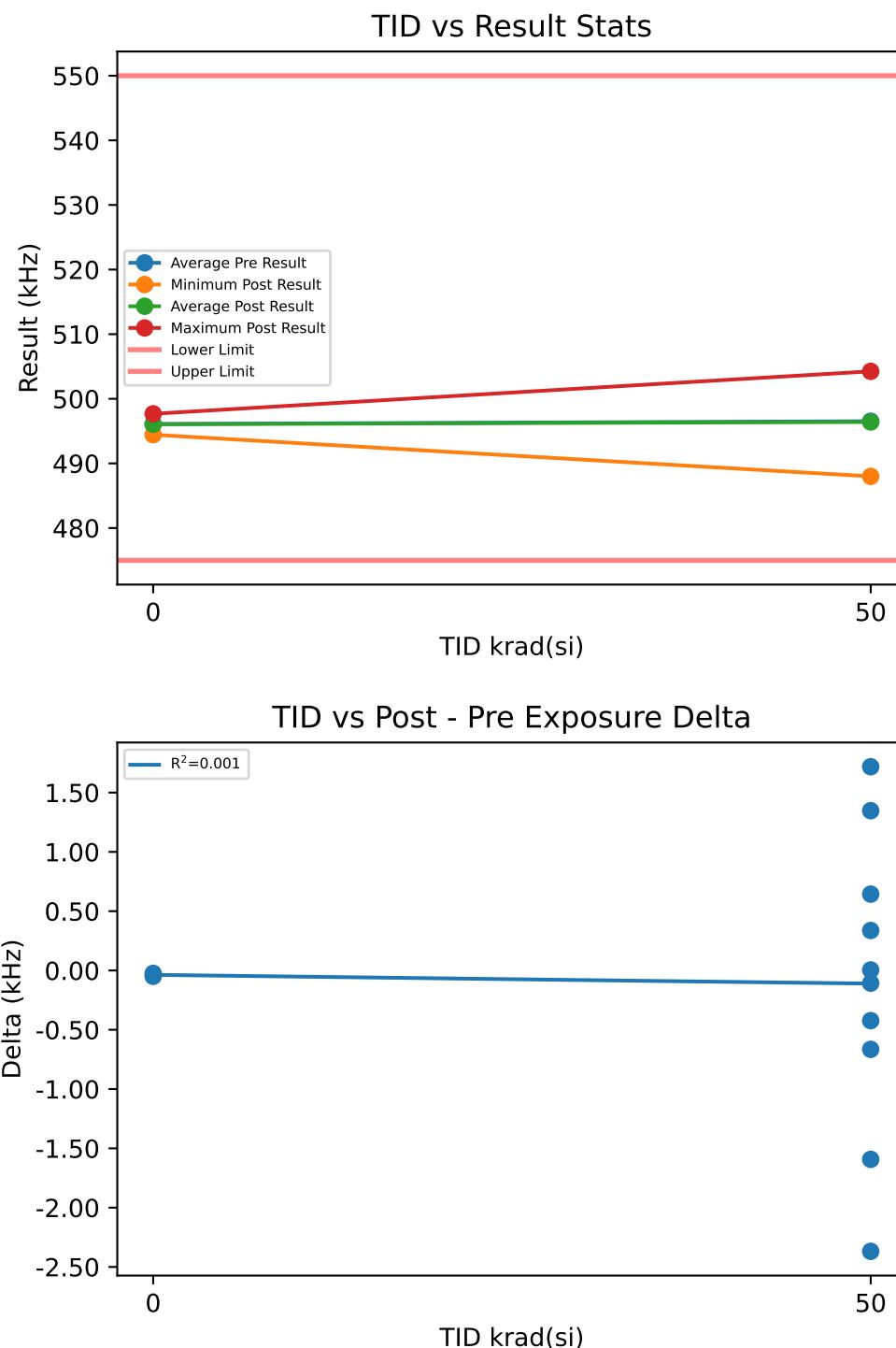
**Test Results (Lower Limit = 475.0, Upper Limit = 550.0 (kHz))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 494.48     | 494.51      | 0.0329  |
| 2        | 0        | Correlation         | 497.72     | 497.7       | -0.0211 |
| 4        | 50       | Bias                | 498.4      | 497.67      | -0.7231 |
| 6        | 50       | Bias                | 488.46     | 487.98      | -0.482  |
| 7        | 50       | Bias                | 496.97     | 496.97      | 0.0017  |
| 8        | 50       | Bias                | 490.84     | 491.47      | 0.6357  |
| 9        | 50       | Bias                | 495.66     | 497.04      | 1.3725  |
| 11       | 50       | Unbias              | 504.47     | 504.32      | -0.1489 |
| 12       | 50       | Unbias              | 500.84     | 501.2       | 0.3535  |
| 13       | 50       | Unbias              | 497.7      | 495.38      | -2.3288 |
| 14       | 50       | Unbias              | 493.53     | 495.23      | 1.7033  |
| 15       | 50       | Unbias              | 498.77     | 497.18      | -1.5832 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 494.48           | 496.1            | 497.72           | 2.292            | 494.51            | 496.11            | 497.7             | 2.2538            | -0.0211   | 0.0059    | 0.0329    | 0.038184  |
| 50       | 488.46           | 496.56           | 504.47           | 4.7024           | 487.98            | 496.44            | 504.32            | 4.5501            | -2.3288   | -0.11993  | 1.7033    | 1.2417    |

# Device Test: 20.51 FSW\_EXT\_RT\_C(LEVEL|FREQ/RT/14/14/0/0/5/500kHz//@FSW\_EXT\_RT\_C)



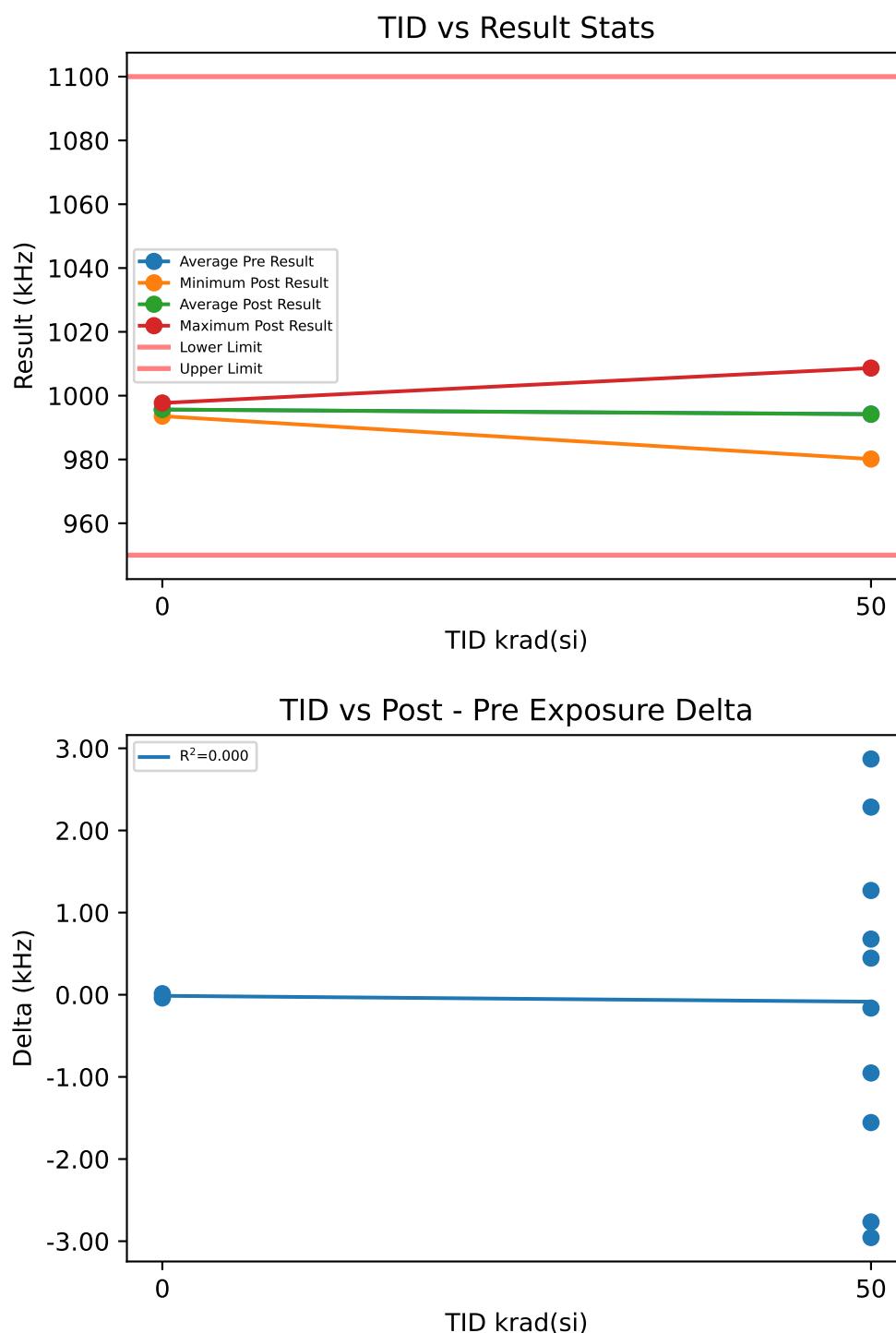
**Test Results (Lower Limit = 475.0, Upper Limit = 550.0 (kHz))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 494.47     | 494.44      | -0.0244 |
| 2        | 0        | Correlation         | 497.73     | 497.68      | -0.0494 |
| 4        | 50       | Bias                | 498.31     | 497.65      | -0.665  |
| 6        | 50       | Bias                | 488.42     | 487.99      | -0.4231 |
| 7        | 50       | Bias                | 496.93     | 496.94      | 0.0044  |
| 8        | 50       | Bias                | 490.75     | 491.4       | 0.6436  |
| 9        | 50       | Bias                | 495.69     | 497.04      | 1.3474  |
| 11       | 50       | Unbias              | 504.35     | 504.25      | -0.1068 |
| 12       | 50       | Unbias              | 500.87     | 501.2       | 0.3371  |
| 13       | 50       | Unbias              | 497.71     | 495.34      | -2.3685 |
| 14       | 50       | Unbias              | 493.49     | 495.21      | 1.7181  |
| 15       | 50       | Unbias              | 498.71     | 497.12      | -1.5929 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 494.47           | 496.1            | 497.73           | 2.3056           | 494.44            | 496.06            | 497.68            | 2.2879            | -0.0494   | -0.0369   | -0.0244   | 0.017678  |
| 50       | 488.42           | 496.52           | 504.35           | 4.698            | 487.99            | 496.41            | 504.25            | 4.5419            | -2.3685   | -0.11057  | 1.7181    | 1.2451    |

# Device Test: 20.55 FSW\_EXT\_RT\_D(LEVEL|FREQ/RT/4.5/4.5/0/0/4.5/1MHz//@FSW\_EXT\_RT\_D)



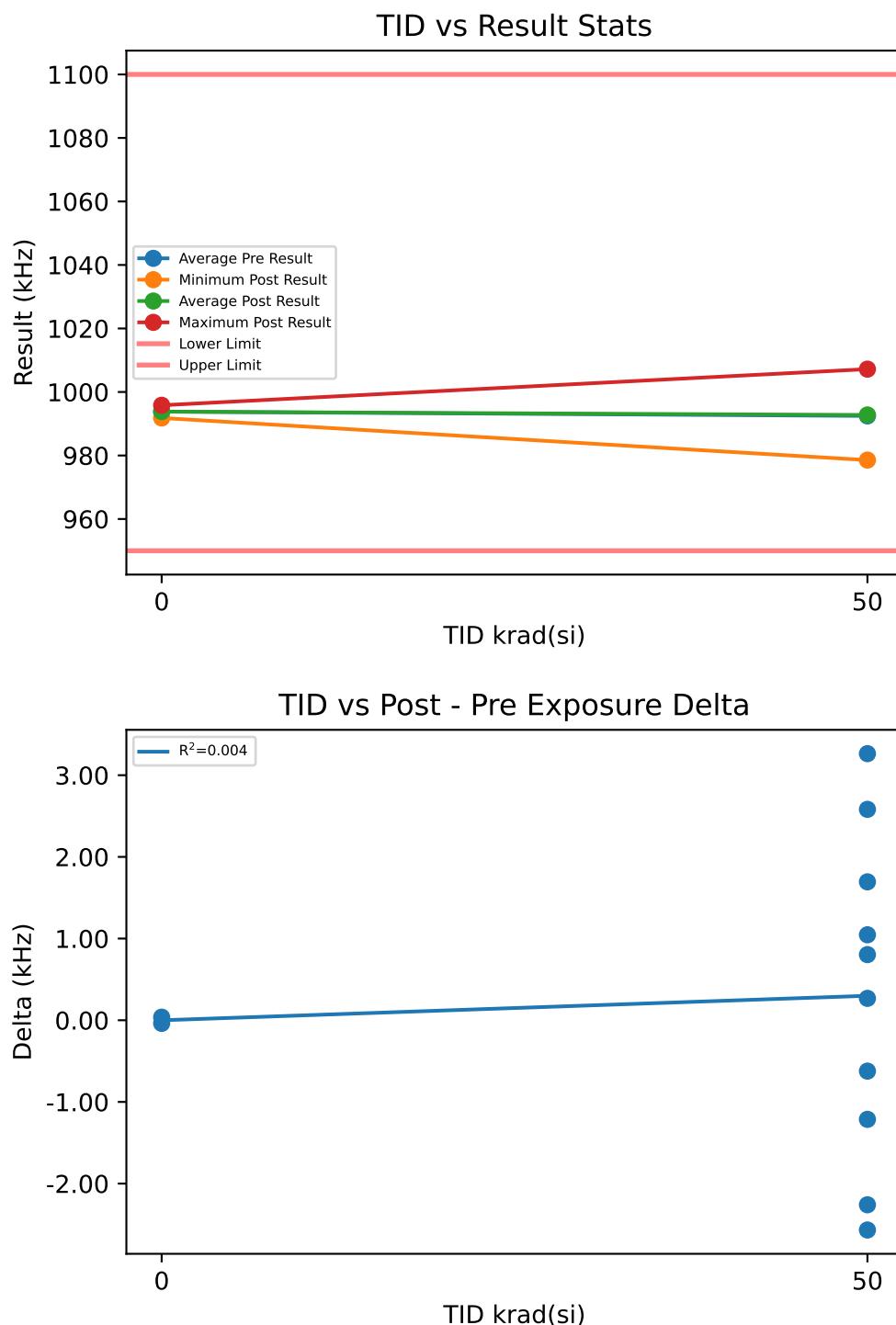
**Test Results (Lower Limit = 950.0, Upper Limit = 1100.0 (kHz))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 993.61     | 993.58      | -0.0393 |
| 2        | 0        | Correlation         | 997.69     | 997.7       | 0.013   |
| 4        | 50       | Bias                | 996.35     | 994.8       | -1.5558 |
| 6        | 50       | Bias                | 981.09     | 980.13      | -0.9524 |
| 7        | 50       | Bias                | 994.61     | 994.45      | -0.1622 |
| 8        | 50       | Bias                | 983.71     | 984.98      | 1.2692  |
| 9        | 50       | Bias                | 991.49     | 993.77      | 2.2842  |
| 11       | 50       | Unbias              | 1008       | 1008.6      | 0.6775  |
| 12       | 50       | Unbias              | 1002.1     | 1002.5      | 0.4459  |
| 13       | 50       | Unbias              | 998.07     | 995.11      | -2.9556 |
| 14       | 50       | Unbias              | 988.59     | 991.46      | 2.8698  |
| 15       | 50       | Unbias              | 998.42     | 995.66      | -2.7657 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 993.61           | 995.65           | 997.69           | 2.8815           | 993.58            | 995.64            | 997.7             | 2.9184            | -0.0393   | -0.01315  | 0.013     | 0.036982  |
| 50       | 981.09           | 994.24           | 1008             | 8.2315           | 980.13            | 994.15            | 1008.6            | 7.9695            | -2.9556   | -0.08451  | 2.8698    | 1.983     |

# Device Test: 20.59 FSW\_EXT\_RT\_D(LEVEL|FREQ/RT/5/5/0/0/5/1MHz//@FSW\_EXT\_RT\_D)



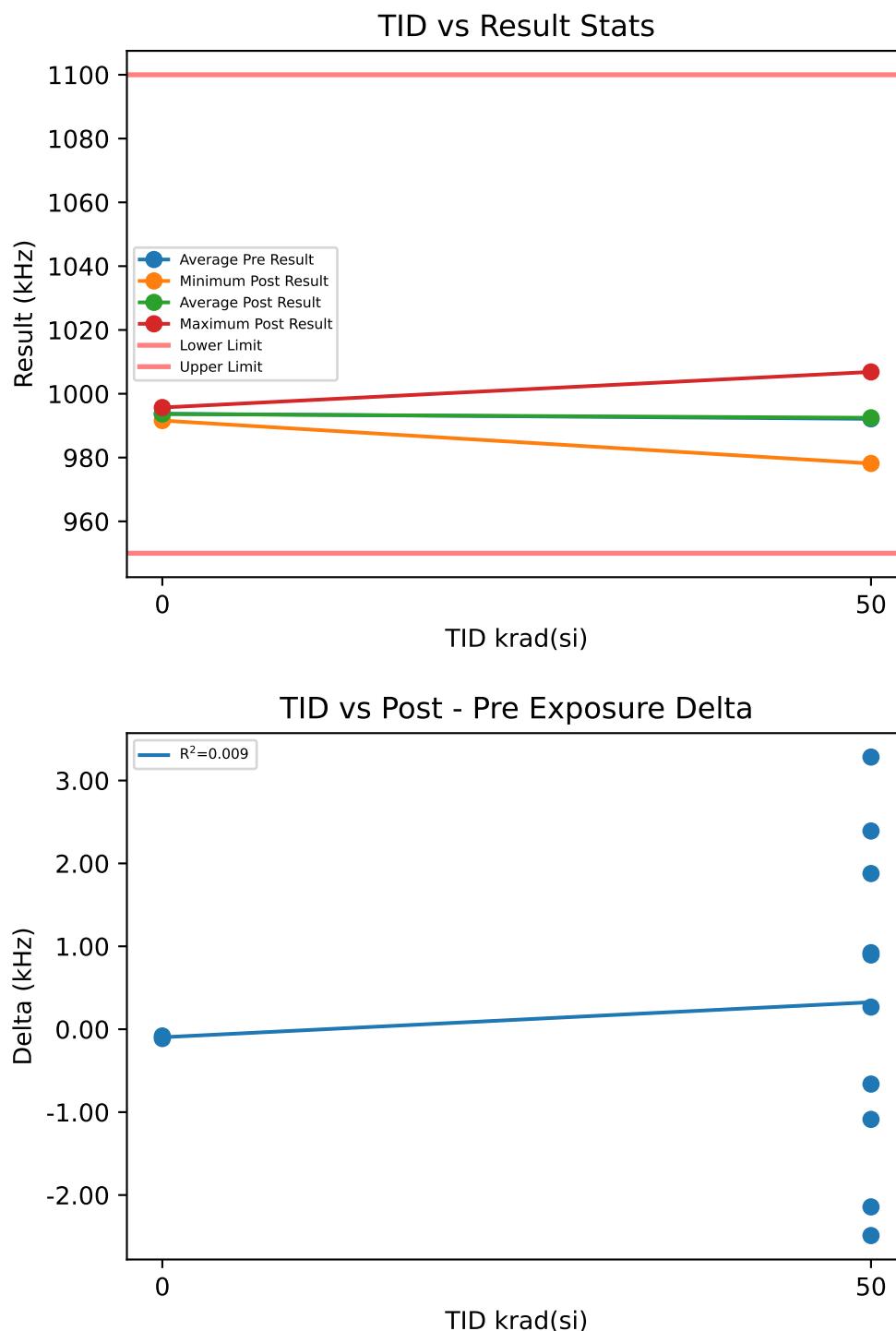
**Test Results (Lower Limit = 950.0, Upper Limit = 1100.0 (kHz))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 991.86     | 991.82      | -0.0384 |
| 2        | 0        | Correlation         | 995.78     | 995.82      | 0.0375  |
| 4        | 50       | Bias                | 994.71     | 993.5       | -1.2133 |
| 6        | 50       | Bias                | 979.18     | 978.55      | -0.623  |
| 7        | 50       | Bias                | 992.72     | 992.99      | 0.2679  |
| 8        | 50       | Bias                | 982.03     | 983.72      | 1.6944  |
| 9        | 50       | Bias                | 989.79     | 992.37      | 2.582   |
| 11       | 50       | Unbias              | 1006.1     | 1007.2      | 1.0462  |
| 12       | 50       | Unbias              | 1000.4     | 1001.2      | 0.8034  |
| 13       | 50       | Unbias              | 996.2      | 993.63      | -2.568  |
| 14       | 50       | Unbias              | 986.75     | 990.01      | 3.2639  |
| 15       | 50       | Unbias              | 996.72     | 994.46      | -2.2594 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 991.86           | 993.82           | 995.78           | 2.7772           | 991.82            | 993.82            | 995.82            | 2.8308            | -0.0384   | -0.00045  | 0.0375    | 0.053669  |
| 50       | 979.18           | 992.46           | 1006.1           | 8.2498           | 978.55            | 992.76            | 1007.2            | 7.9922            | -2.568    | 0.29941   | 3.2639    | 1.9626    |

# Device Test: 20.63 FSW\_EXT\_RT\_D(LEVEL|FREQ/RT/12/12/0/0/5/1MHz//@FSW\_EXT\_RT\_D)



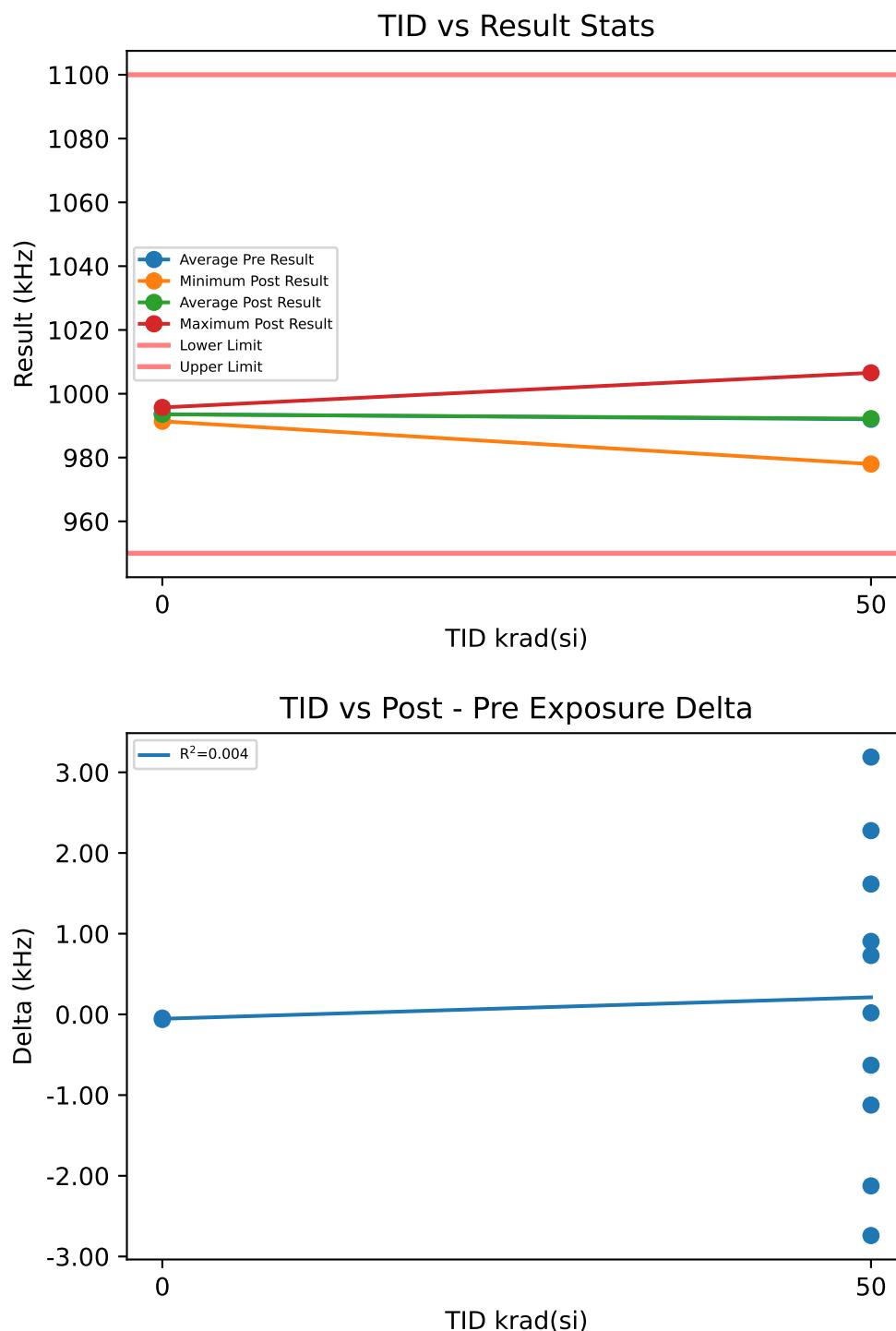
**Test Results (Lower Limit = 950.0, Upper Limit = 1100.0 (kHz))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 991.68     | 991.6       | -0.0815 |
| 2        | 0        | Correlation         | 995.8      | 995.69      | -0.1123 |
| 4        | 50       | Bias                | 994.37     | 993.28      | -1.0877 |
| 6        | 50       | Bias                | 978.81     | 978.15      | -0.6616 |
| 7        | 50       | Bias                | 992.22     | 992.48      | 0.2674  |
| 8        | 50       | Bias                | 981.67     | 983.55      | 1.8776  |
| 9        | 50       | Bias                | 989.5      | 991.89      | 2.3909  |
| 11       | 50       | Unbias              | 1005.9     | 1006.8      | 0.8954  |
| 12       | 50       | Unbias              | 999.96     | 1000.9      | 0.923   |
| 13       | 50       | Unbias              | 995.92     | 993.43      | -2.4886 |
| 14       | 50       | Unbias              | 986.59     | 989.87      | 3.2827  |
| 15       | 50       | Unbias              | 996.4      | 994.26      | -2.1431 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 991.68           | 993.74           | 995.8            | 2.915            | 991.6             | 993.64            | 995.69            | 2.8932            | -0.1123   | -0.0969   | -0.0815   | 0.021779  |
| 50       | 978.81           | 992.14           | 1005.9           | 8.2624           | 978.15            | 992.46            | 1006.8            | 7.986             | -2.4886   | 0.3256    | 3.2827    | 1.9175    |

# Device Test: 20.67 FSW\_EXT\_RT\_D(LEVEL|FREQ/RT/14/14/0/0/5/1MHz//@FSW\_EXT\_RT\_D)



**Test Results (Lower Limit = 950.0, Upper Limit = 1100.0 (kHz))**

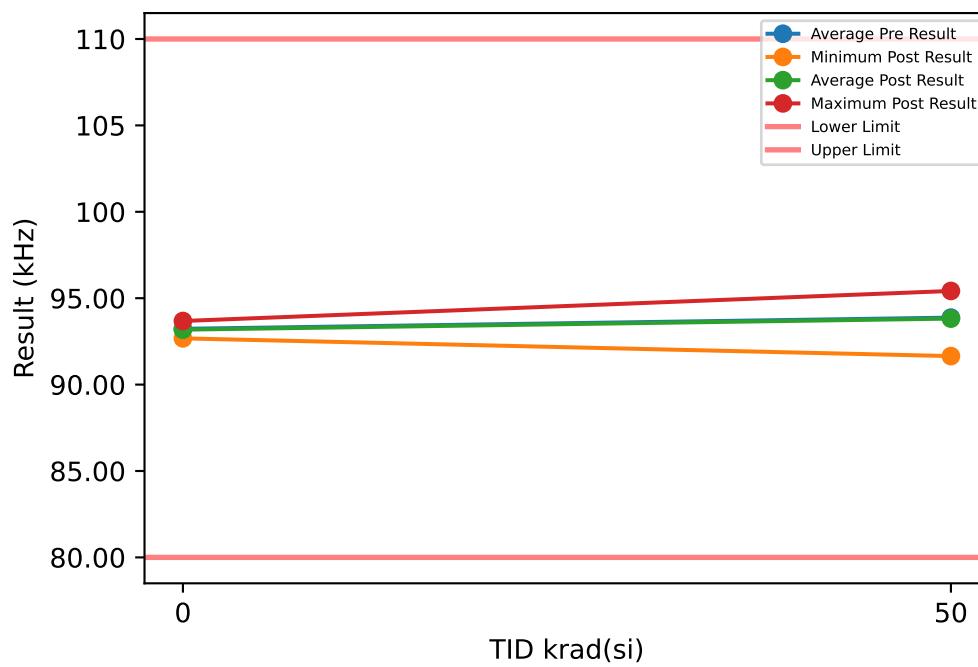
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 991.44     | 991.37      | -0.0629 |
| 2        | 0        | Correlation         | 995.75     | 995.71      | -0.0462 |
| 4        | 50       | Bias                | 994.11     | 992.99      | -1.1235 |
| 6        | 50       | Bias                | 978.6      | 977.97      | -0.6297 |
| 7        | 50       | Bias                | 992.2      | 992.22      | 0.019   |
| 8        | 50       | Bias                | 981.6      | 983.22      | 1.615   |
| 9        | 50       | Bias                | 989.34     | 991.62      | 2.2769  |
| 11       | 50       | Unbias              | 1005.8     | 1006.6      | 0.7301  |
| 12       | 50       | Unbias              | 999.68     | 1000.6      | 0.9046  |
| 13       | 50       | Unbias              | 995.93     | 993.19      | -2.7407 |
| 14       | 50       | Unbias              | 986.58     | 989.77      | 3.1888  |
| 15       | 50       | Unbias              | 996.12     | 994         | -2.1255 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 991.44           | 993.6            | 995.75           | 3.0531           | 991.37            | 993.54            | 995.71            | 3.0649            | -0.0629   | -0.05455  | -0.0462   | 0.011809  |
| 50       | 978.6            | 992              | 1005.8           | 8.2417           | 977.97            | 992.21            | 1006.6            | 7.964             | -2.7407   | 0.2115    | 3.1888    | 1.9018    |

# Device Test: 20.71 FSW\_EXT\_RT\_A(LEVEL|FREQ/RT/4.5/4.5/0/1000/4.5/100kHz//@FSW\_EXT\_RT\_A)

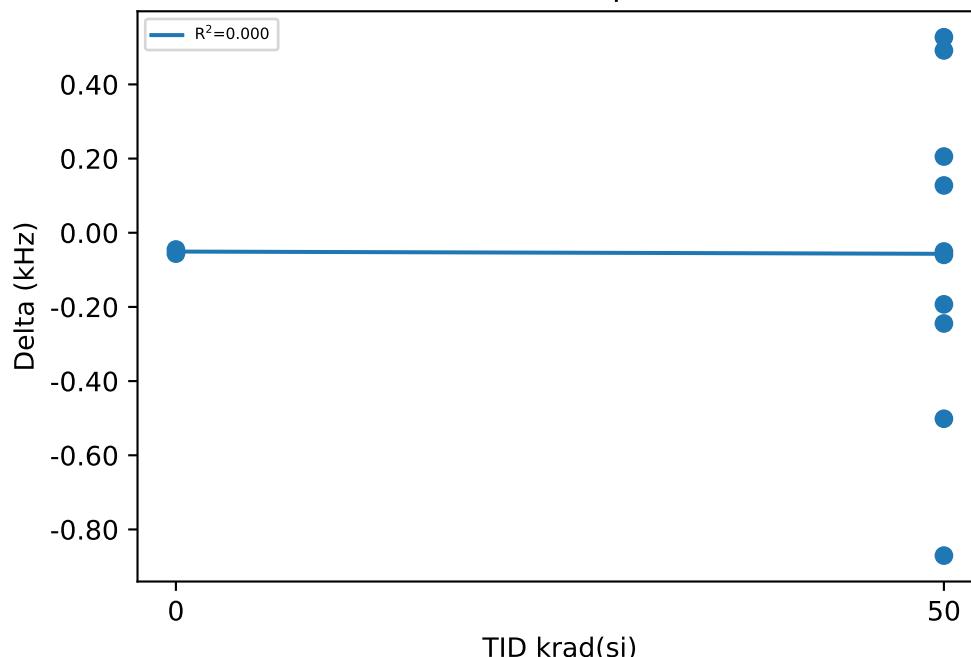
TID vs Result Stats



Test Results (Lower Limit = 80.0, Upper Limit = 110.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 92.722     | 92.677      | -0.0451 |
| 2        | 0        | Correlation         | 93.736     | 93.68       | -0.0563 |
| 4        | 50       | Bias                | 95.003     | 94.81       | -0.193  |
| 6        | 50       | Bias                | 91.71      | 91.65       | -0.0596 |
| 7        | 50       | Bias                | 94.519     | 94.468      | -0.0505 |
| 8        | 50       | Bias                | 92.35      | 92.478      | 0.1276  |
| 9        | 50       | Bias                | 93.98      | 94.507      | 0.5273  |
| 11       | 50       | Unbias              | 95.664     | 95.419      | -0.2446 |
| 12       | 50       | Unbias              | 94.626     | 94.832      | 0.2055  |
| 13       | 50       | Unbias              | 93.41      | 92.54       | -0.8705 |
| 14       | 50       | Unbias              | 92.973     | 93.464      | 0.4916  |
| 15       | 50       | Unbias              | 94.524     | 94.022      | -0.5015 |

TID vs Post - Pre Exposure Delta

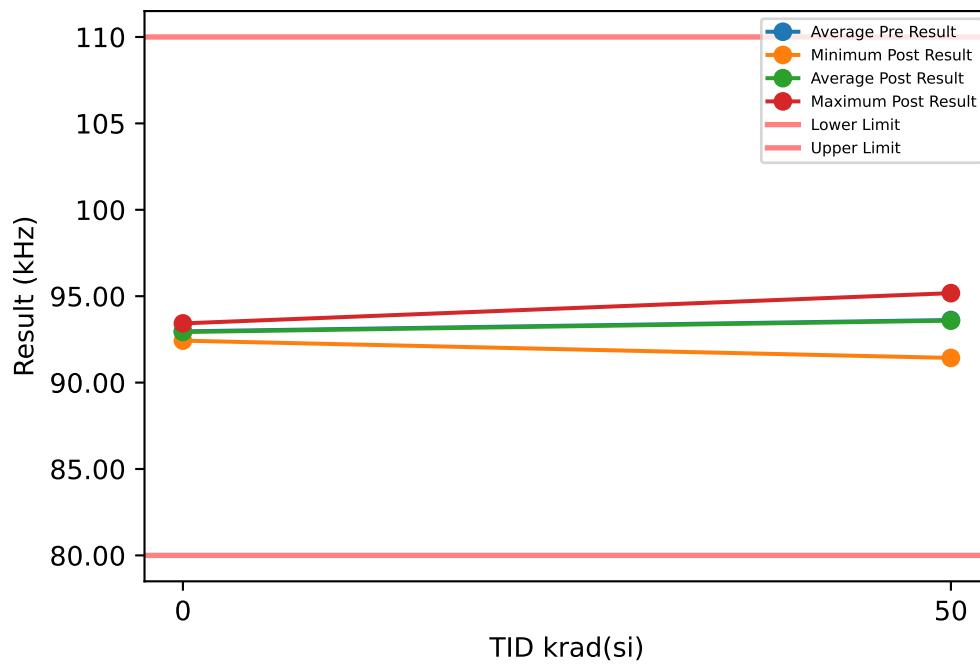


Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 92.722           | 93.229           | 93.736           | 0.71736          | 92.677            | 93.178            | 93.68             | 0.70944           | -0.0563   | -0.0507   | -0.0451   | 0.0079196 |
| 50       | 91.71            | 93.876           | 95.664           | 1.2439           | 91.65             | 93.819            | 95.419            | 1.2369            | -0.8705   | -0.05677  | 0.5273    | 0.42927   |

# Device Test: 20.73 FSW\_EXT\_RT\_A(LEVEL|FREQ/RT/5/5/0/1000/5/100kHz//@FSW\_EXT\_RT\_A)

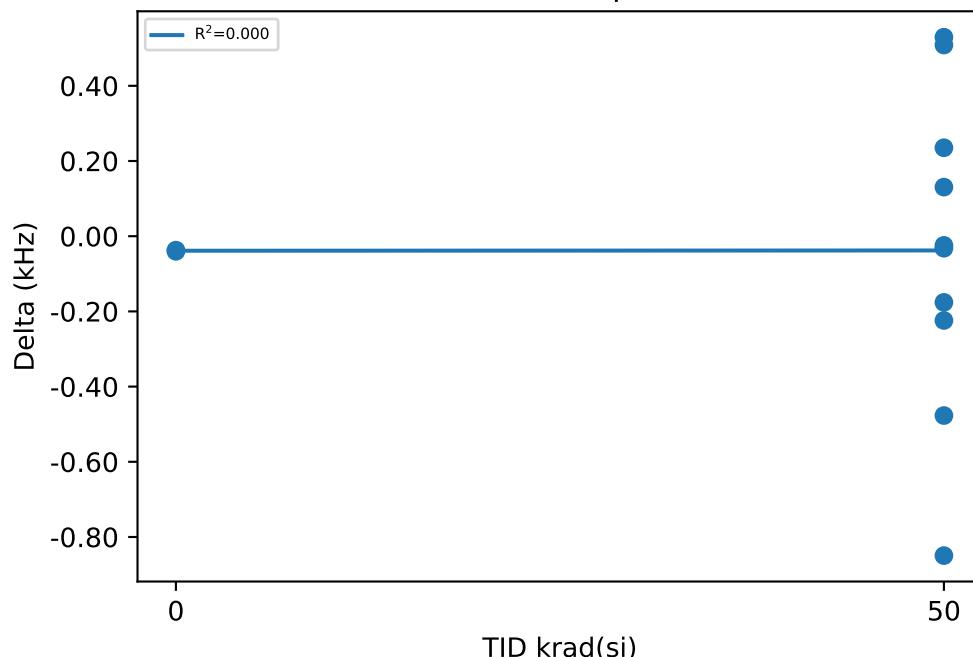
TID vs Result Stats



Test Results (Lower Limit = 80.0, Upper Limit = 110.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 92.465     | 92.428      | -0.0371 |
| 2        | 0        | Correlation         | 93.466     | 93.425      | -0.0402 |
| 4        | 50       | Bias                | 94.763     | 94.587      | -0.176  |
| 6        | 50       | Bias                | 91.451     | 91.427      | -0.0244 |
| 7        | 50       | Bias                | 94.256     | 94.224      | -0.032  |
| 8        | 50       | Bias                | 92.1       | 92.231      | 0.1306  |
| 9        | 50       | Bias                | 93.743     | 94.272      | 0.5293  |
| 11       | 50       | Unbias              | 95.401     | 95.176      | -0.2241 |
| 12       | 50       | Unbias              | 94.355     | 94.59       | 0.2353  |
| 13       | 50       | Unbias              | 93.155     | 92.306      | -0.8495 |
| 14       | 50       | Unbias              | 92.726     | 93.234      | 0.5085  |
| 15       | 50       | Unbias              | 94.267     | 93.79       | -0.477  |

TID vs Post - Pre Exposure Delta

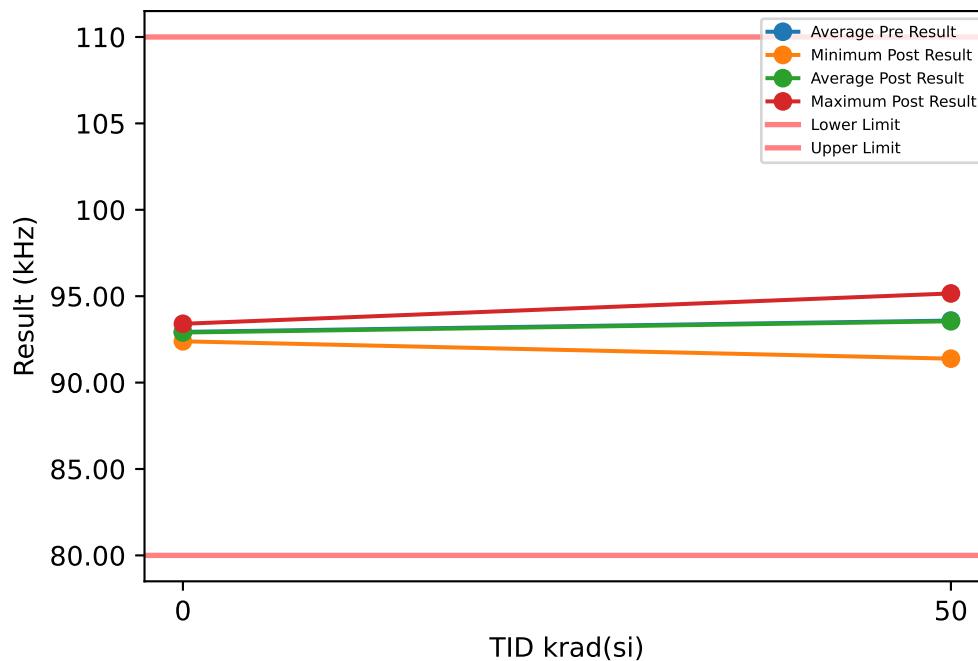


Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 92.465           | 92.965           | 93.466           | 0.70753          | 92.428            | 92.927            | 93.425            | 0.70534           | -0.0402   | -0.03865  | -0.0371   | 0.002192  |
| 50       | 91.451           | 93.622           | 95.401           | 1.242            | 91.427            | 93.584            | 95.176            | 1.2347            | -0.8495   | -0.03793  | 0.5293    | 0.42541   |

# Device Test: 20.75 FSW\_EXT\_RT\_A(LEVEL|FREQ/RT/12/12/0/1000/5/100kHz//@FSW\_EXT\_RT\_A)

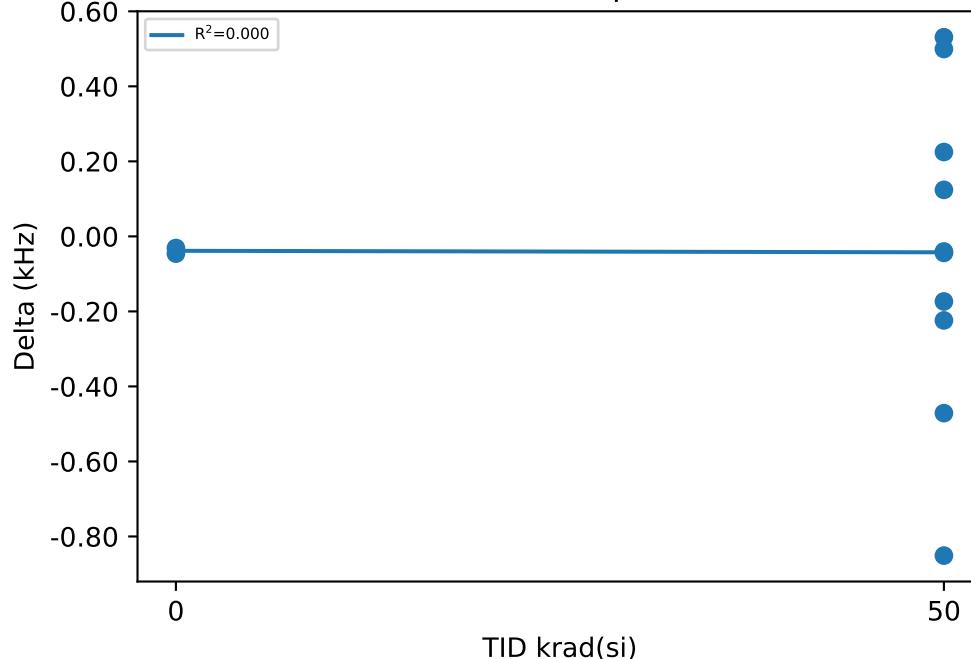
TID vs Result Stats



Test Results (Lower Limit = 80.0, Upper Limit = 110.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 92.436     | 92.39       | -0.0459 |
| 2        | 0        | Correlation         | 93.434     | 93.403      | -0.031  |
| 4        | 50       | Bias                | 94.727     | 94.554      | -0.1735 |
| 6        | 50       | Bias                | 91.429     | 91.385      | -0.0441 |
| 7        | 50       | Bias                | 94.224     | 94.184      | -0.0403 |
| 8        | 50       | Bias                | 92.071     | 92.195      | 0.124   |
| 9        | 50       | Bias                | 93.698     | 94.229      | 0.531   |
| 11       | 50       | Unbias              | 95.383     | 95.159      | -0.224  |
| 12       | 50       | Unbias              | 94.325     | 94.55       | 0.2249  |
| 13       | 50       | Unbias              | 93.116     | 92.265      | -0.851  |
| 14       | 50       | Unbias              | 92.705     | 93.205      | 0.4995  |
| 15       | 50       | Unbias              | 94.223     | 93.752      | -0.4712 |

TID vs Post - Pre Exposure Delta

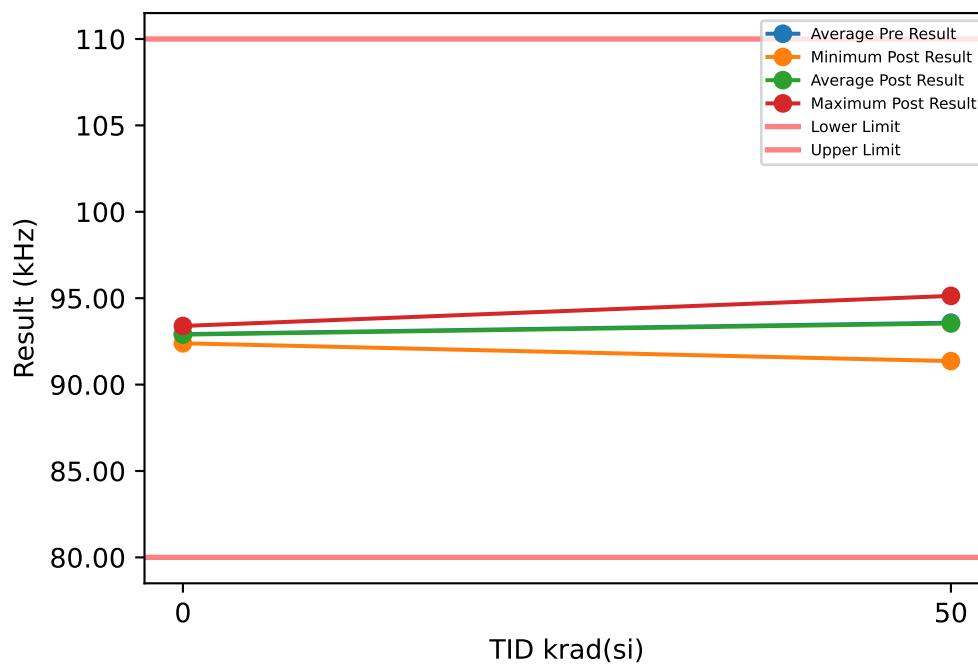


Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 92.436           | 92.935           | 93.434           | 0.70562          | 92.39             | 92.896            | 93.403            | 0.71616           | -0.0459   | -0.03845  | -0.031    | 0.010536  |
| 50       | 91.429           | 93.59            | 95.383           | 1.2404           | 91.385            | 93.548            | 95.159            | 1.238             | -0.851    | -0.04247  | 0.531     | 0.42288   |

# Device Test: 20.77 FSW\_EXT\_RT\_A(LEVEL|FREQ/RT/14/14/0/1000/5/100kHz//@FSW\_EXT\_RT\_A)

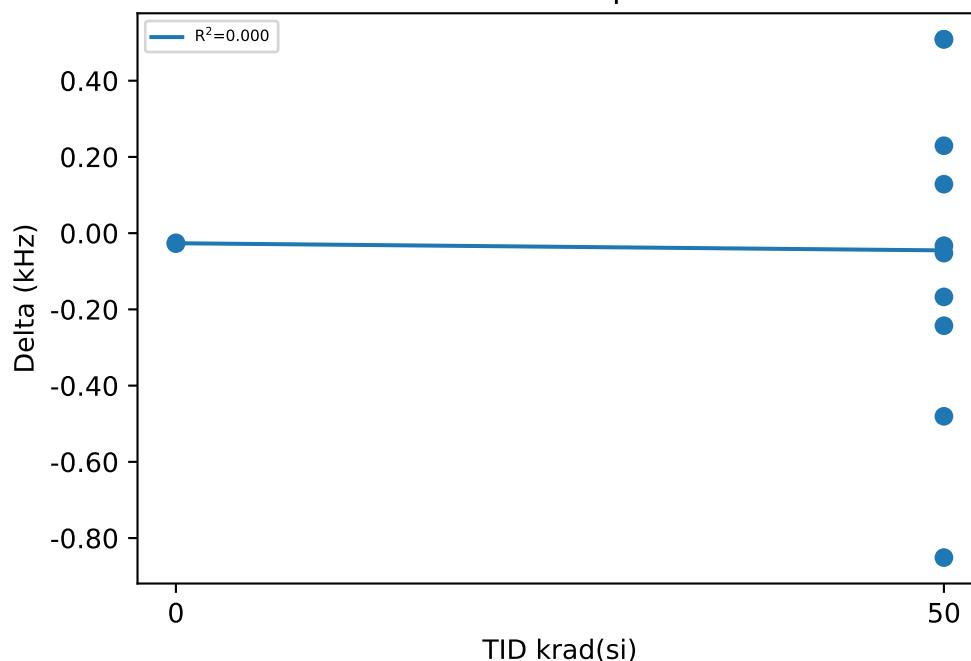
TID vs Result Stats



Test Results (Lower Limit = 80.0, Upper Limit = 110.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 92.416     | 92.391      | -0.0253 |
| 2        | 0        | Correlation         | 93.42      | 93.393      | -0.0275 |
| 4        | 50       | Bias                | 94.719     | 94.552      | -0.1672 |
| 6        | 50       | Bias                | 91.412     | 91.36       | -0.0524 |
| 7        | 50       | Bias                | 94.213     | 94.18       | -0.0329 |
| 8        | 50       | Bias                | 92.061     | 92.189      | 0.1285  |
| 9        | 50       | Bias                | 93.702     | 94.21       | 0.5085  |
| 11       | 50       | Unbias              | 95.376     | 95.133      | -0.2428 |
| 12       | 50       | Unbias              | 94.321     | 94.55       | 0.2294  |
| 13       | 50       | Unbias              | 93.107     | 92.256      | -0.8512 |
| 14       | 50       | Unbias              | 92.699     | 93.208      | 0.5089  |
| 15       | 50       | Unbias              | 94.211     | 93.73       | -0.4805 |

TID vs Post - Pre Exposure Delta

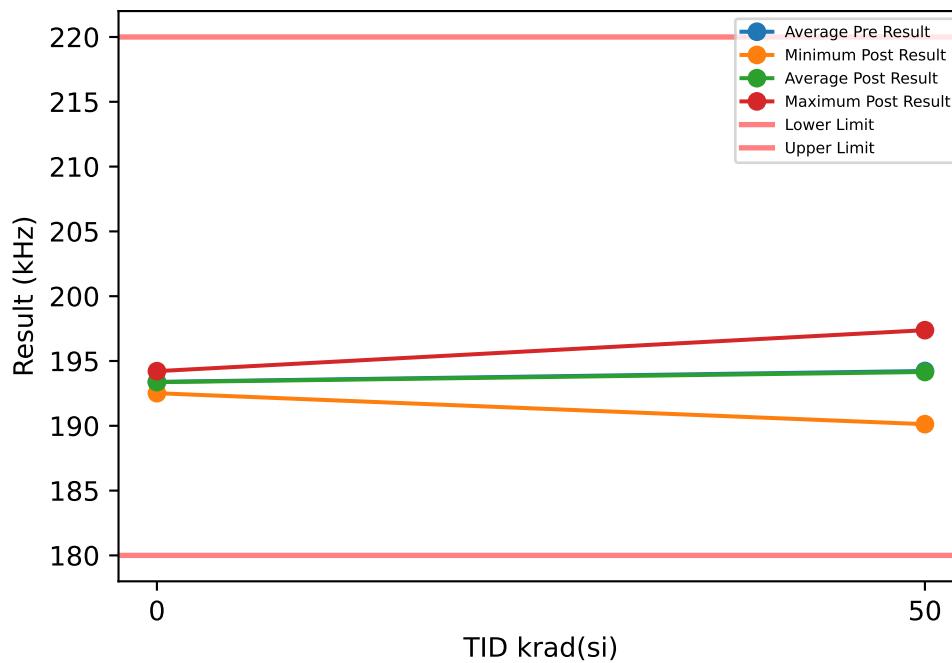


Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 92.416           | 92.918           | 93.42            | 0.70979          | 92.391            | 92.892            | 93.393            | 0.70824           | -0.0275   | -0.0264   | -0.0253   | 0.0015556 |
| 50       | 91.412           | 93.582           | 95.376           | 1.2424           | 91.36             | 93.537            | 95.133            | 1.2389            | -0.8512   | -0.04517  | 0.5089    | 0.42327   |

# Device Test: 20.79 FSW\_EXT\_RT\_B(LEVEL|FREQ/RT/4.5/4.5/0/1000/4.5/200kHz//@FSW\_EXT\_RT\_B)

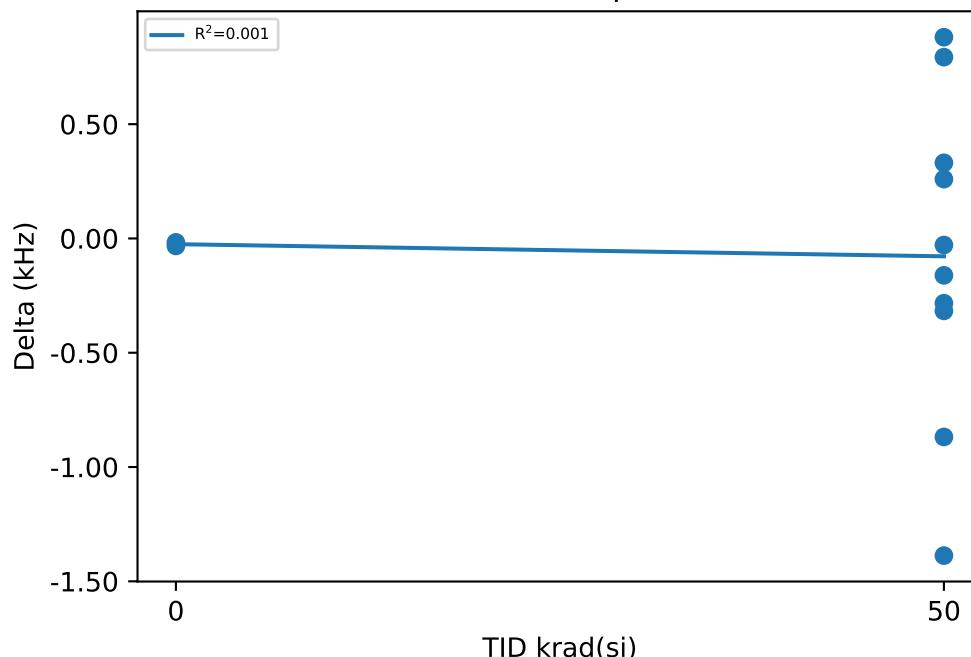
TID vs Result Stats



Test Results (Lower Limit = 180.0, Upper Limit = 220.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 192.55     | 192.52      | -0.0327 |
| 2        | 0        | Correlation         | 194.23     | 194.22      | -0.0173 |
| 4        | 50       | Bias                | 195.74     | 195.42      | -0.3169 |
| 6        | 50       | Bias                | 190.29     | 190.12      | -0.1614 |
| 7        | 50       | Bias                | 194.89     | 194.86      | -0.0288 |
| 8        | 50       | Bias                | 191.59     | 191.85      | 0.2596  |
| 9        | 50       | Bias                | 194.18     | 194.97      | 0.7933  |
| 11       | 50       | Unbias              | 197.66     | 197.38      | -0.2834 |
| 12       | 50       | Unbias              | 195.91     | 196.24      | 0.331   |
| 13       | 50       | Unbias              | 194.02     | 192.63      | -1.3875 |
| 14       | 50       | Unbias              | 192.68     | 193.56      | 0.8805  |
| 15       | 50       | Unbias              | 195.34     | 194.47      | -0.8684 |

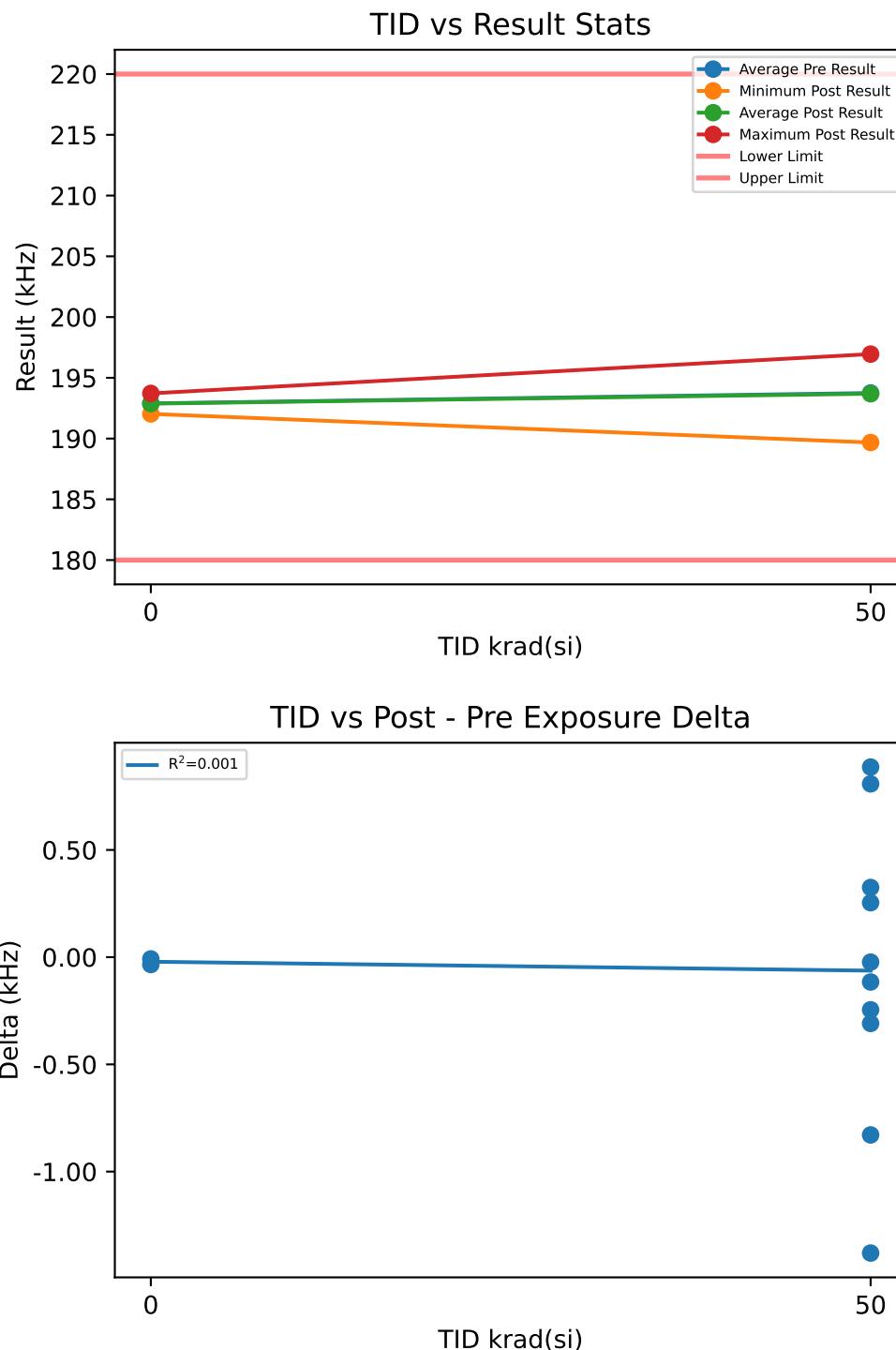
TID vs Post - Pre Exposure Delta



Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 192.55           | 193.39           | 194.23           | 1.191            | 192.52            | 193.37            | 194.22            | 1.2019            | -0.0327   | -0.025    | -0.0173   | 0.010889  |
| 50       | 190.29           | 194.23           | 197.66           | 2.1976           | 190.12            | 194.15            | 197.38            | 2.155             | -1.3875   | -0.0782   | 0.8805    | 0.69979   |

# Device Test: 20.81 FSW\_EXT\_RT\_B(LEVEL|FREQ/RT/5/5/0/1000/5/200kHz//@FSW\_EXT\_RT\_B)



**Test Results (Lower Limit = 180.0, Upper Limit = 220.0 (kHz))**

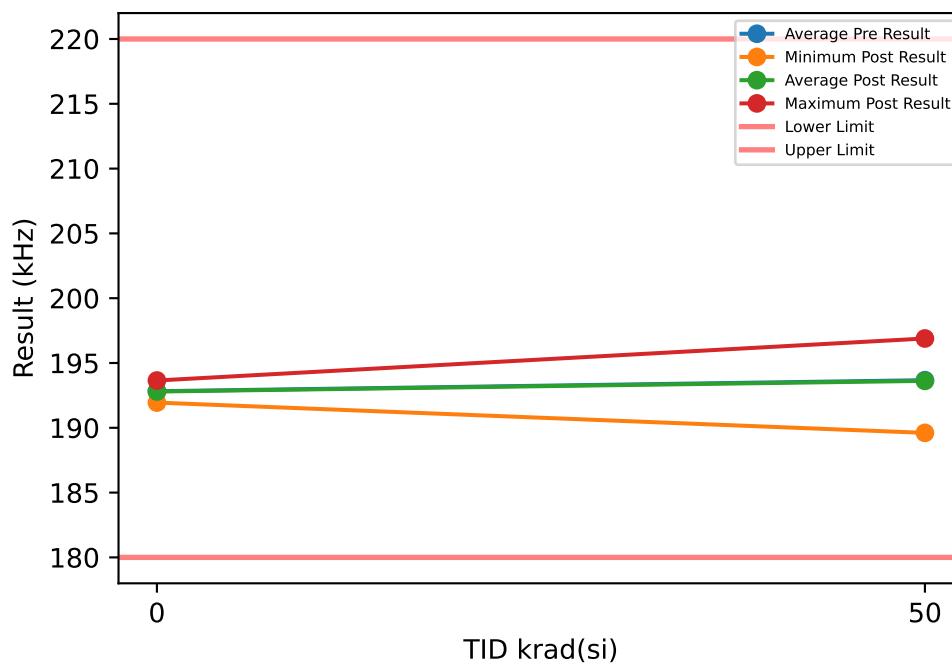
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 192.04     | 192.03      | -0.0082 |
| 2        | 0        | Correlation         | 193.75     | 193.72      | -0.0343 |
| 4        | 50       | Bias                | 195.28     | 194.97      | -0.3091 |
| 6        | 50       | Bias                | 189.79     | 189.68      | -0.1159 |
| 7        | 50       | Bias                | 194.42     | 194.4       | -0.0232 |
| 8        | 50       | Bias                | 191.13     | 191.38      | 0.2539  |
| 9        | 50       | Bias                | 193.7      | 194.51      | 0.8082  |
| 11       | 50       | Unbias              | 197.2      | 196.95      | -0.2453 |
| 12       | 50       | Unbias              | 195.41     | 195.74      | 0.3248  |
| 13       | 50       | Unbias              | 193.52     | 192.14      | -1.3799 |
| 14       | 50       | Unbias              | 192.22     | 193.1       | 0.8865  |
| 15       | 50       | Unbias              | 194.82     | 194         | -0.829  |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 192.04           | 192.89           | 193.75           | 1.2106           | 192.03            | 192.87            | 193.72            | 1.1922            | -0.0343   | -0.02125  | -0.0082   | 0.018455  |
| 50       | 189.79           | 193.75           | 197.2            | 2.1995           | 189.68            | 193.69            | 196.95            | 2.1583            | -1.3799   | -0.0629   | 0.8865    | 0.69366   |

# Device Test: 20.83 FSW\_EXT\_RT\_B(LEVEL|FREQ/RT/12/12/0/1000/5/200kHz//@FSW\_EXT\_RT\_B)

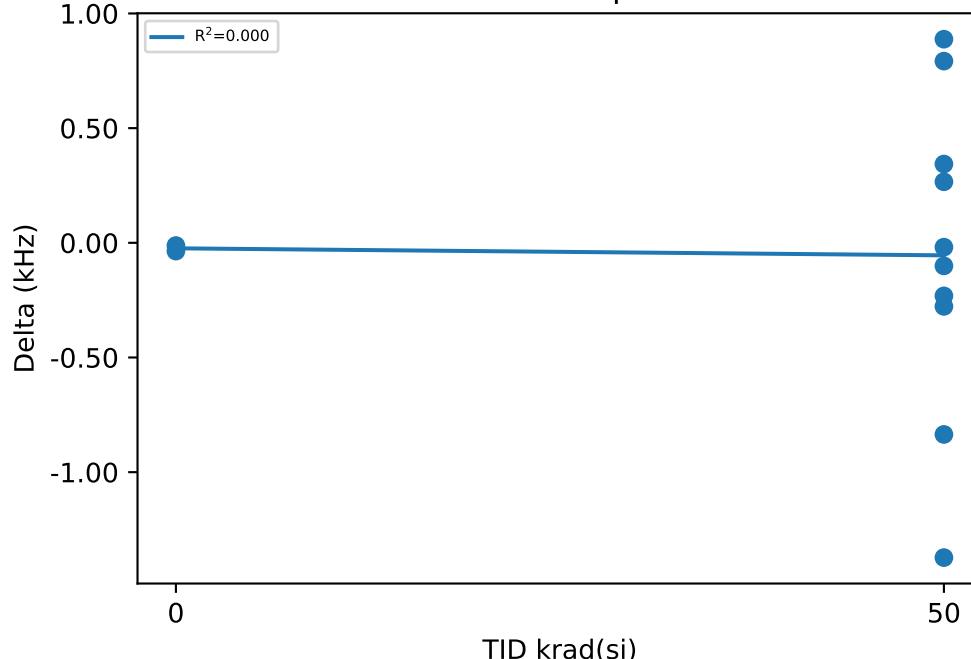
TID vs Result Stats



Test Results (Lower Limit = 180.0, Upper Limit = 220.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 191.98     | 191.95      | -0.0361 |
| 2        | 0        | Correlation         | 193.66     | 193.65      | -0.0119 |
| 4        | 50       | Bias                | 195.2      | 194.92      | -0.2772 |
| 6        | 50       | Bias                | 189.71     | 189.61      | -0.1006 |
| 7        | 50       | Bias                | 194.32     | 194.3       | -0.019  |
| 8        | 50       | Bias                | 191.04     | 191.3       | 0.2662  |
| 9        | 50       | Bias                | 193.66     | 194.45      | 0.7923  |
| 11       | 50       | Unbias              | 197.12     | 196.89      | -0.2314 |
| 12       | 50       | Unbias              | 195.35     | 195.69      | 0.3435  |
| 13       | 50       | Unbias              | 193.45     | 192.08      | -1.3725 |
| 14       | 50       | Unbias              | 192.15     | 193.04      | 0.8878  |
| 15       | 50       | Unbias              | 194.75     | 193.91      | -0.8355 |

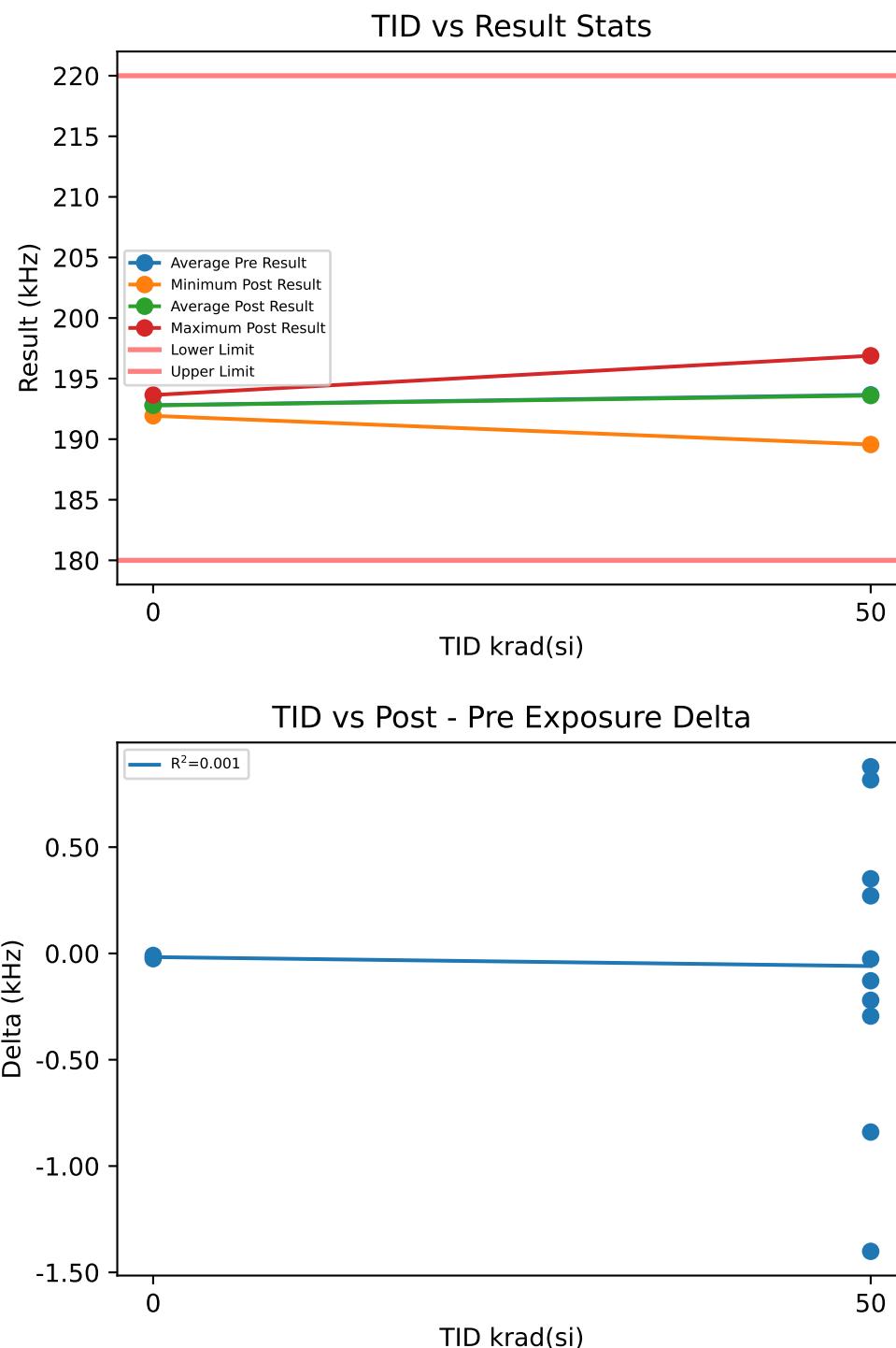
TID vs Post - Pre Exposure Delta



Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 191.98           | 192.82           | 193.66           | 1.1873           | 191.95            | 192.8             | 193.65            | 1.2044            | -0.0361   | -0.024    | -0.0119   | 0.017112  |
| 50       | 189.71           | 193.67           | 197.12           | 2.2015           | 189.61            | 193.62            | 196.89            | 2.1625            | -1.3725   | -0.05464  | 0.8878    | 0.69102   |

# Device Test: 20.85 FSW\_EXT\_RT\_B(LEVEL|FREQ/RT/14/14/0/1000/5/200kHz//@FSW\_EXT\_RT\_B)



**Test Results (Lower Limit = 180.0, Upper Limit = 220.0 (kHz))**

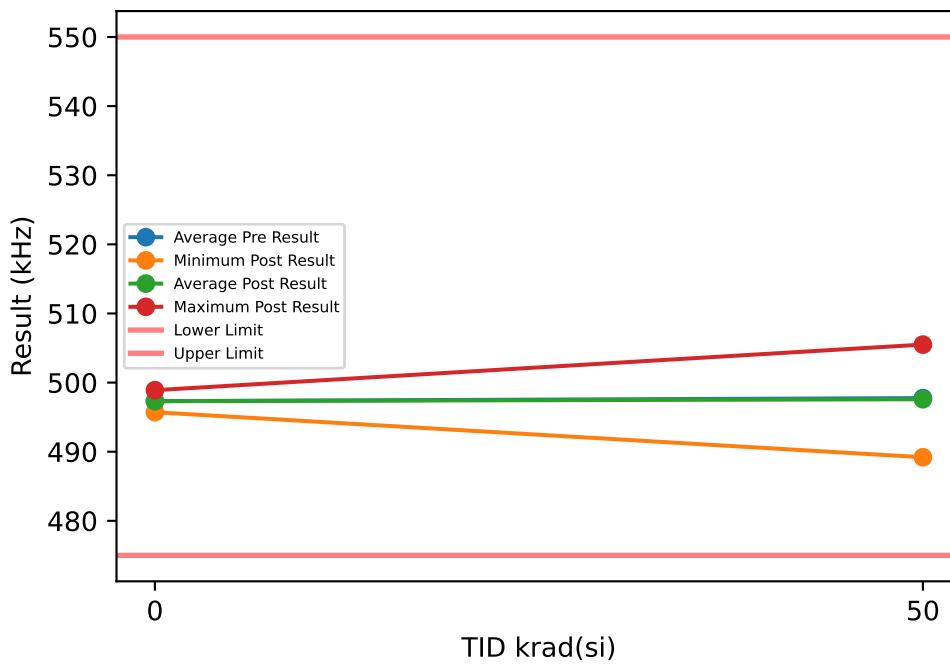
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 191.95     | 191.93      | -0.0249 |
| 2        | 0        | Correlation         | 193.65     | 193.64      | -0.0094 |
| 4        | 50       | Bias                | 195.18     | 194.89      | -0.2948 |
| 6        | 50       | Bias                | 189.69     | 189.56      | -0.1286 |
| 7        | 50       | Bias                | 194.31     | 194.29      | -0.0256 |
| 8        | 50       | Bias                | 191.04     | 191.31      | 0.2708  |
| 9        | 50       | Bias                | 193.61     | 194.43      | 0.8164  |
| 11       | 50       | Unbias              | 197.11     | 196.89      | -0.2203 |
| 12       | 50       | Unbias              | 195.31     | 195.66      | 0.3511  |
| 13       | 50       | Unbias              | 193.44     | 192.04      | -1.4011 |
| 14       | 50       | Unbias              | 192.15     | 193.03      | 0.8781  |
| 15       | 50       | Unbias              | 194.73     | 193.89      | -0.8401 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 191.95           | 192.8            | 193.65           | 1.202            | 191.93            | 192.79            | 193.64            | 1.213             | -0.0249   | -0.01715  | -0.0094   | 0.01096   |
| 50       | 189.69           | 193.66           | 197.11           | 2.1983           | 189.56            | 193.6             | 196.89            | 2.1682            | -1.4011   | -0.05941  | 0.8781    | 0.70082   |

# Device Test: 20.87 FSW\_EXT\_RT\_C(LEVEL|FREQ/RT/4.5/4.5/0/1000/4.5/500kHz//@FSW\_EXT\_RT\_C)

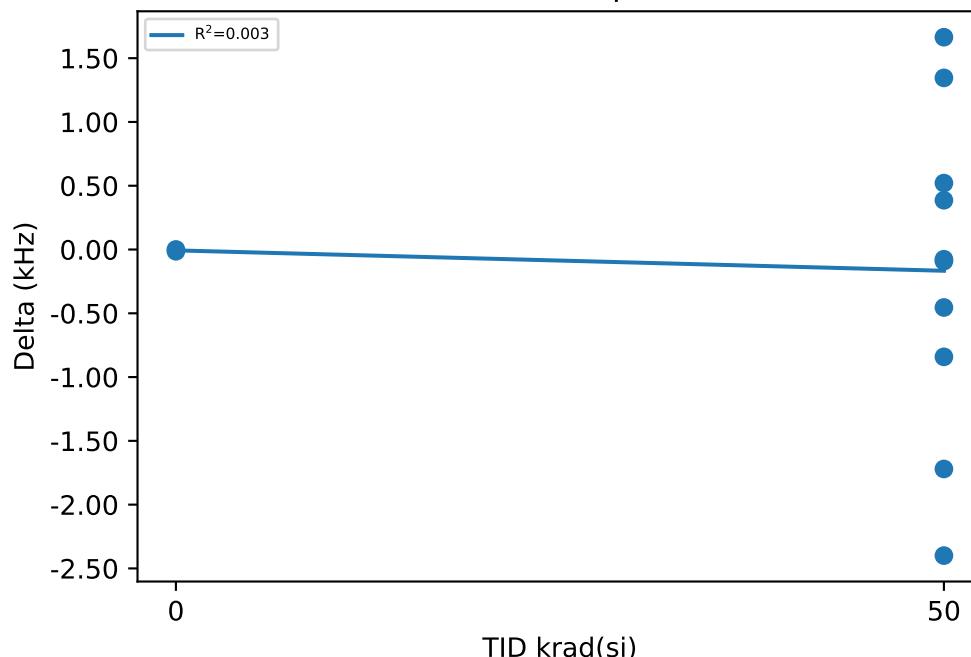
TID vs Result Stats



Test Results (Lower Limit = 475.0, Upper Limit = 550.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 495.73     | 495.72      | -0.0138 |
| 2        | 0        | Correlation         | 498.9      | 498.9       | 0.0005  |
| 4        | 50       | Bias                | 499.56     | 498.71      | -0.8414 |
| 6        | 50       | Bias                | 489.65     | 489.2       | -0.4545 |
| 7        | 50       | Bias                | 498.21     | 498.12      | -0.091  |
| 8        | 50       | Bias                | 492.02     | 492.54      | 0.5208  |
| 9        | 50       | Bias                | 496.84     | 498.19      | 1.3454  |
| 11       | 50       | Unbias              | 505.58     | 505.5       | -0.0761 |
| 12       | 50       | Unbias              | 502.03     | 502.42      | 0.3862  |
| 13       | 50       | Unbias              | 499.02     | 496.62      | -2.3995 |
| 14       | 50       | Unbias              | 494.67     | 496.34      | 1.6645  |
| 15       | 50       | Unbias              | 500        | 498.28      | -1.7203 |

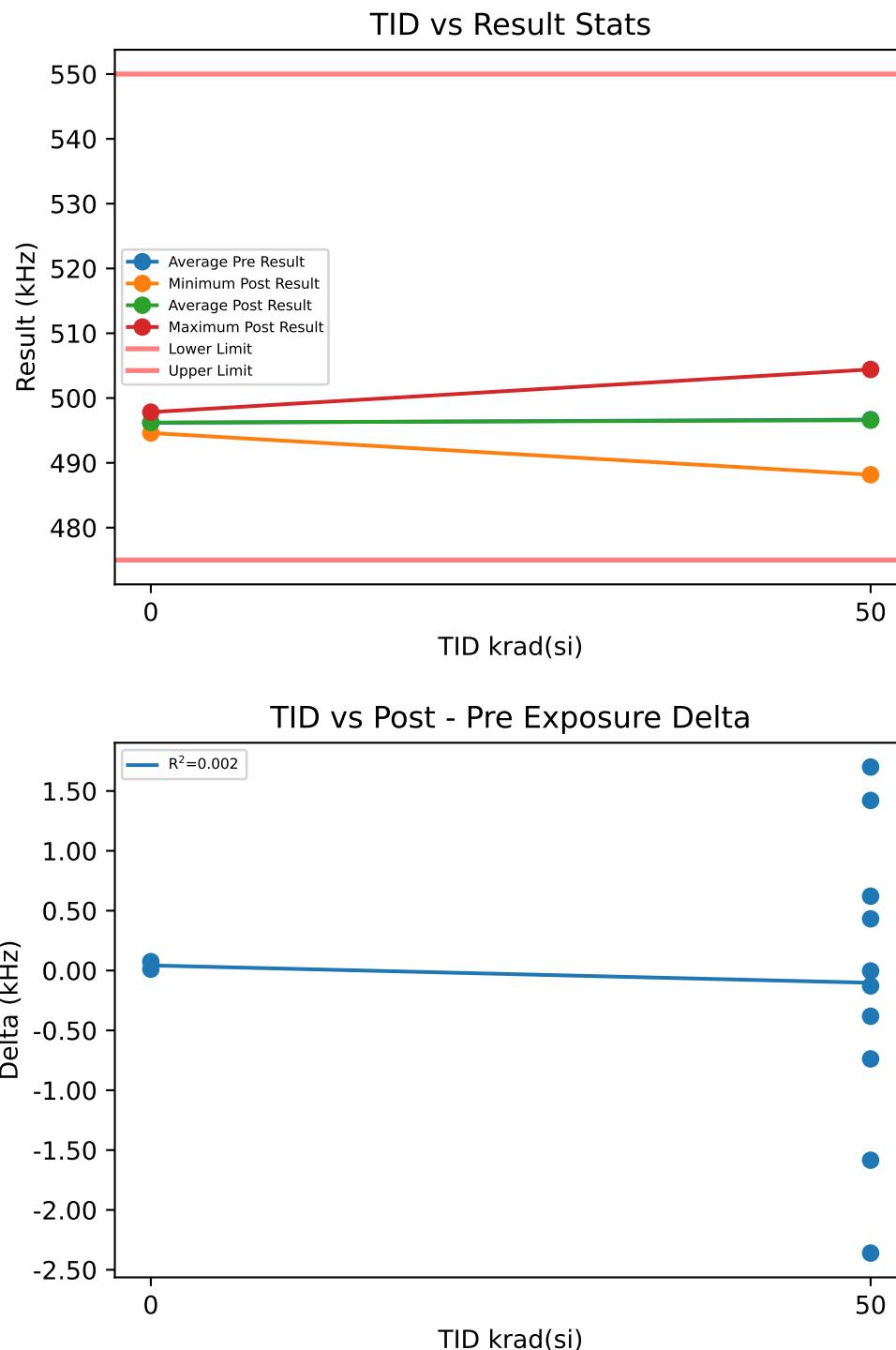
TID vs Post - Pre Exposure Delta



Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 495.73           | 497.32           | 498.9            | 2.2425           | 495.72            | 497.31            | 498.9             | 2.2526            | -0.0138   | -0.00665  | 0.0005    | 0.010112  |
| 50       | 489.65           | 497.76           | 505.58           | 4.6941           | 489.2             | 497.59            | 505.5             | 4.5535            | -2.3995   | -0.16659  | 1.6645    | 1.2636    |

# Device Test: 20.89 FSW\_EXT\_RT\_C(LEVEL|FREQ/RT/5/5/0/1000/5/500kHz//@FSW\_EXT\_RT\_C)



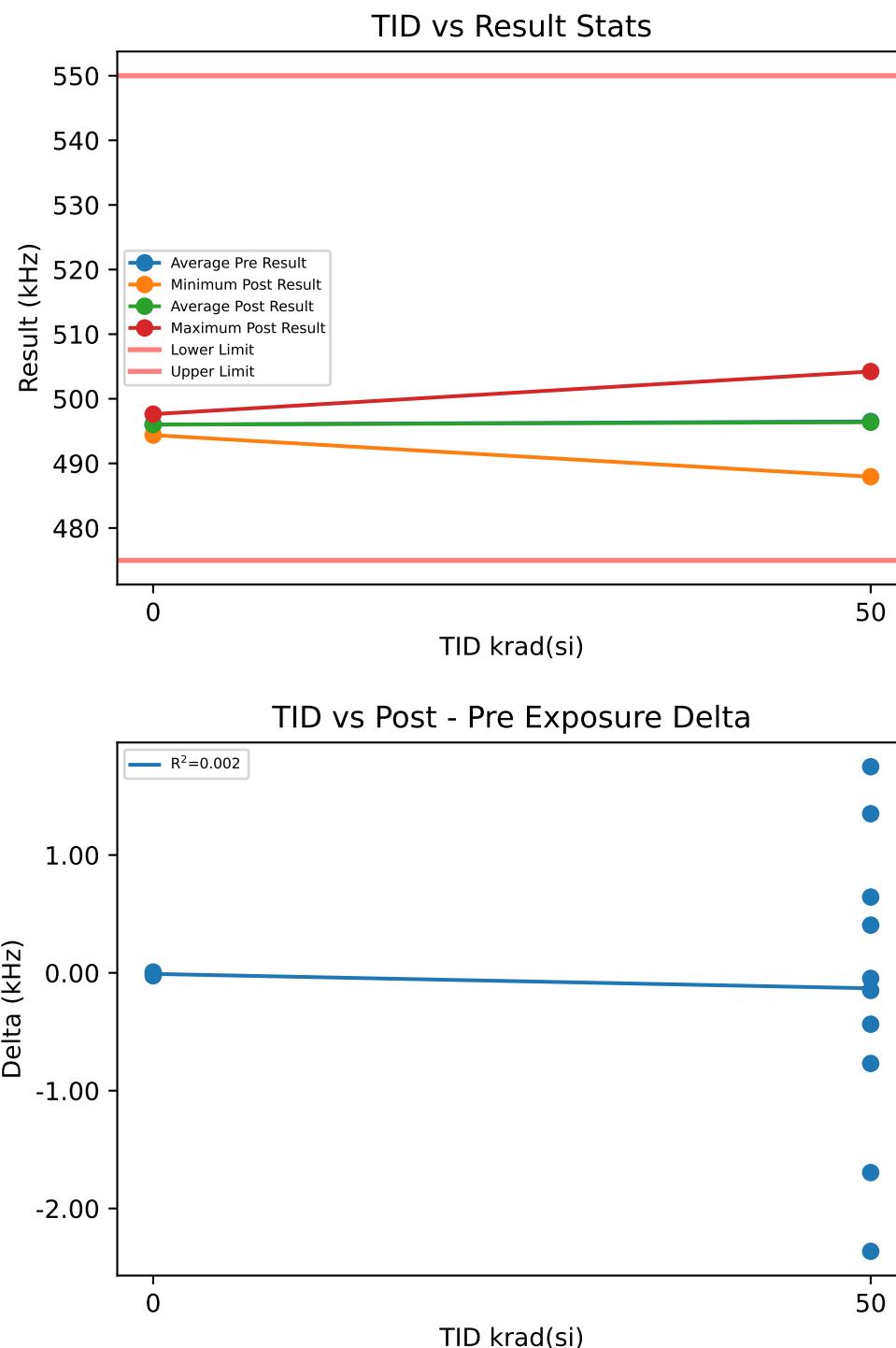
**Test Results (Lower Limit = 475.0, Upper Limit = 550.0 (kHz))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 494.54     | 494.61      | 0.0744  |
| 2        | 0        | Correlation         | 497.81     | 497.82      | 0.0112  |
| 4        | 50       | Bias                | 498.55     | 497.81      | -0.7382 |
| 6        | 50       | Bias                | 488.55     | 488.17      | -0.3817 |
| 7        | 50       | Bias                | 497.13     | 497.13      | -0.0034 |
| 8        | 50       | Bias                | 490.94     | 491.56      | 0.6211  |
| 9        | 50       | Bias                | 495.8      | 497.22      | 1.4207  |
| 11       | 50       | Unbias              | 504.55     | 504.42      | -0.1285 |
| 12       | 50       | Unbias              | 500.89     | 501.33      | 0.4316  |
| 13       | 50       | Unbias              | 497.84     | 495.48      | -2.3602 |
| 14       | 50       | Unbias              | 493.66     | 495.36      | 1.6998  |
| 15       | 50       | Unbias              | 498.87     | 497.29      | -1.5846 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 494.54           | 496.18           | 497.81           | 2.317            | 494.61            | 496.22            | 497.82            | 2.2723            | 0.0112    | 0.0428    | 0.0744    | 0.044689  |
| 50       | 488.55           | 496.68           | 504.55           | 4.6955           | 488.17            | 496.58            | 504.42            | 4.5377            | -2.3602   | -0.10234  | 1.6998    | 1.2545    |

# Device Test: 20.91 FSW\_EXT\_RT\_C(LEVEL|FREQ/RT/12/12/0/1000/5/500kHz//@FSW\_EXT\_RT\_C)



**Test Results (Lower Limit = 475.0, Upper Limit = 550.0 (kHz))**

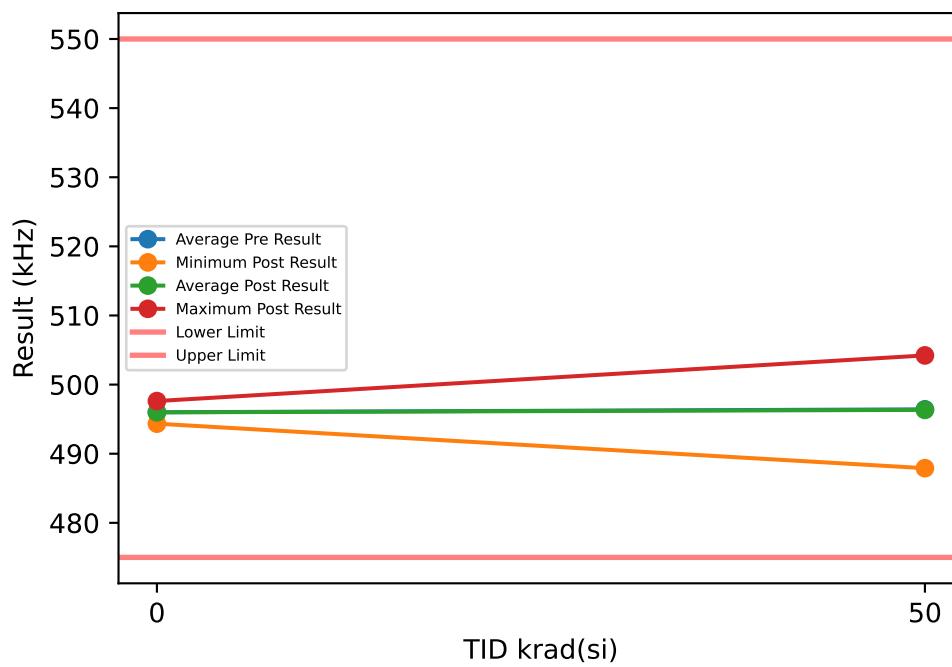
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 494.4      | 494.38      | -0.0249 |
| 2        | 0        | Correlation         | 497.62     | 497.62      | 0.0071  |
| 4        | 50       | Bias                | 498.32     | 497.55      | -0.7692 |
| 6        | 50       | Bias                | 488.37     | 487.94      | -0.4358 |
| 7        | 50       | Bias                | 496.92     | 496.87      | -0.0471 |
| 8        | 50       | Bias                | 490.74     | 491.38      | 0.6435  |
| 9        | 50       | Bias                | 495.62     | 496.98      | 1.3507  |
| 11       | 50       | Unbias              | 504.37     | 504.22      | -0.1491 |
| 12       | 50       | Unbias              | 500.8      | 501.2       | 0.4051  |
| 13       | 50       | Unbias              | 497.65     | 495.29      | -2.3637 |
| 14       | 50       | Unbias              | 493.46     | 495.21      | 1.7496  |
| 15       | 50       | Unbias              | 498.71     | 497.02      | -1.6951 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 494.4            | 496.01           | 497.62           | 2.2717           | 494.38            | 496               | 497.62            | 2.2943            | -0.0249   | -0.0089   | 0.0071    | 0.022627  |
| 50       | 488.37           | 496.5            | 504.37           | 4.7059           | 487.94            | 496.37            | 504.22            | 4.5443            | -2.3637   | -0.13111  | 1.7496    | 1.2718    |

# Device Test: 20.93 FSW\_EXT\_RT\_C(LEVEL|FREQ/RT/14/14/0/1000/5/500kHz//@FSW\_EXT\_RT\_C)

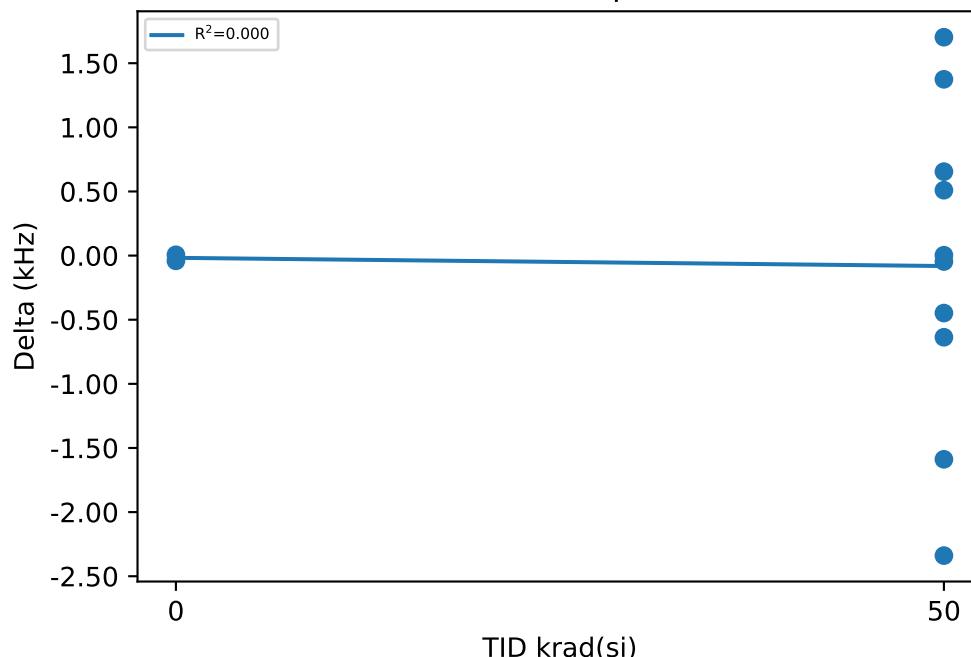
TID vs Result Stats



Test Results (Lower Limit = 475.0,  
Upper Limit = 550.0 (kHz))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 494.39     | 494.35      | -0.0412 |
| 2        | 0        | Correlation         | 497.61     | 497.62      | 0.0063  |
| 4        | 50       | Bias                | 498.22     | 497.58      | -0.6367 |
| 6        | 50       | Bias                | 488.36     | 487.91      | -0.4481 |
| 7        | 50       | Bias                | 496.84     | 496.84      | 0.0029  |
| 8        | 50       | Bias                | 490.69     | 491.34      | 0.6545  |
| 9        | 50       | Bias                | 495.57     | 496.94      | 1.3745  |
| 11       | 50       | Unbias              | 504.27     | 504.22      | -0.0461 |
| 12       | 50       | Unbias              | 500.66     | 501.17      | 0.5098  |
| 13       | 50       | Unbias              | 497.61     | 495.27      | -2.3391 |
| 14       | 50       | Unbias              | 493.4      | 495.1       | 1.7028  |
| 15       | 50       | Unbias              | 498.61     | 497.02      | -1.5883 |

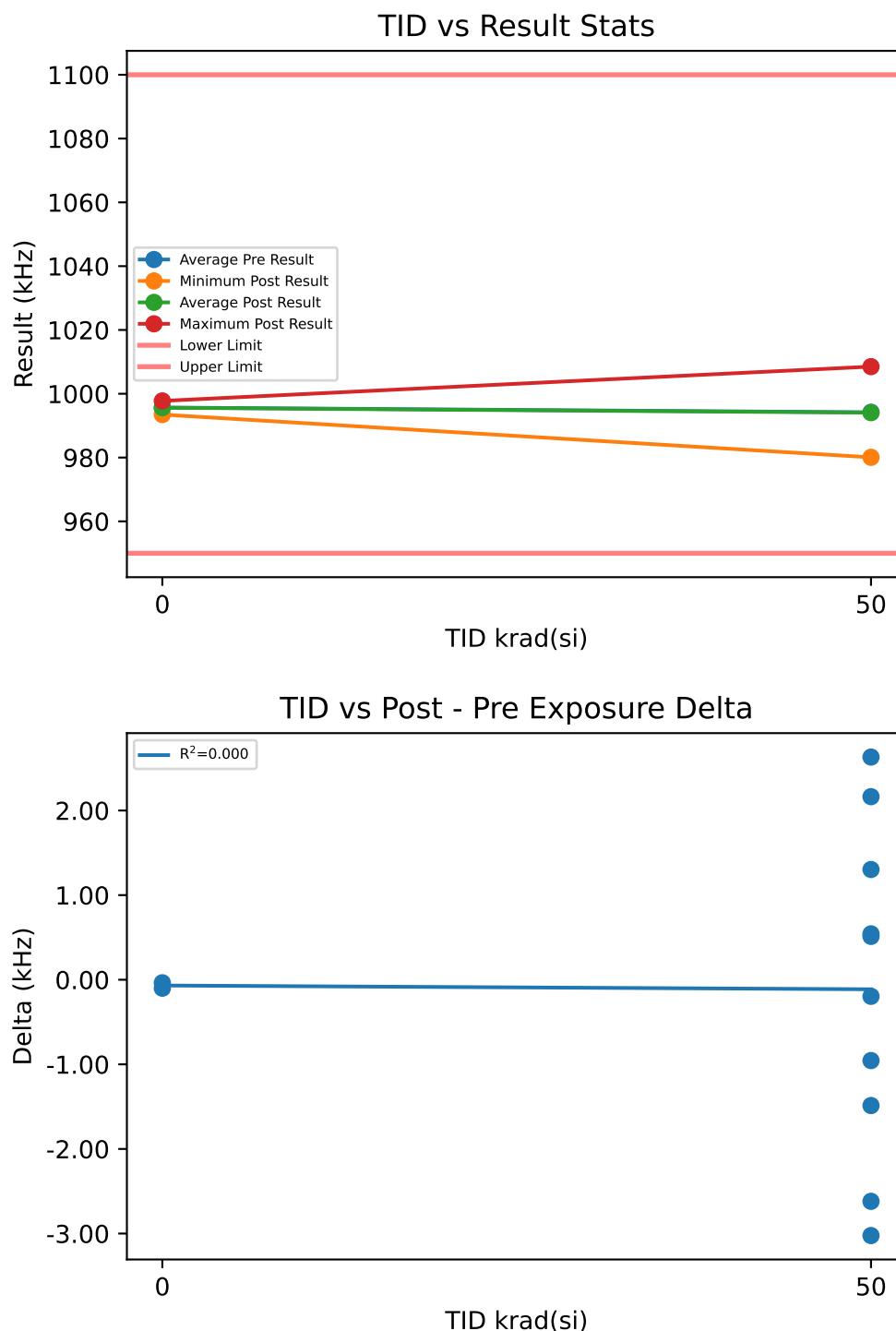
TID vs Post - Pre Exposure Delta



Test Statistics (kHz)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 494.39           | 496              | 497.61           | 2.2786           | 494.35            | 495.98            | 497.62            | 2.3122            | -0.0412   | -0.01745  | 0.0063    | 0.033588  |
| 50       | 488.36           | 496.42           | 504.27           | 4.6783           | 487.91            | 496.34            | 504.22            | 4.5568            | -2.3391   | -0.08138  | 1.7028    | 1.2478    |

# Device Test: 20.95 FSW\_EXT\_RT\_D(LEVEL|FREQ/RT/4.5/4.5/0/1000/4.5/1MHz//@FSW\_EXT\_RT\_D)



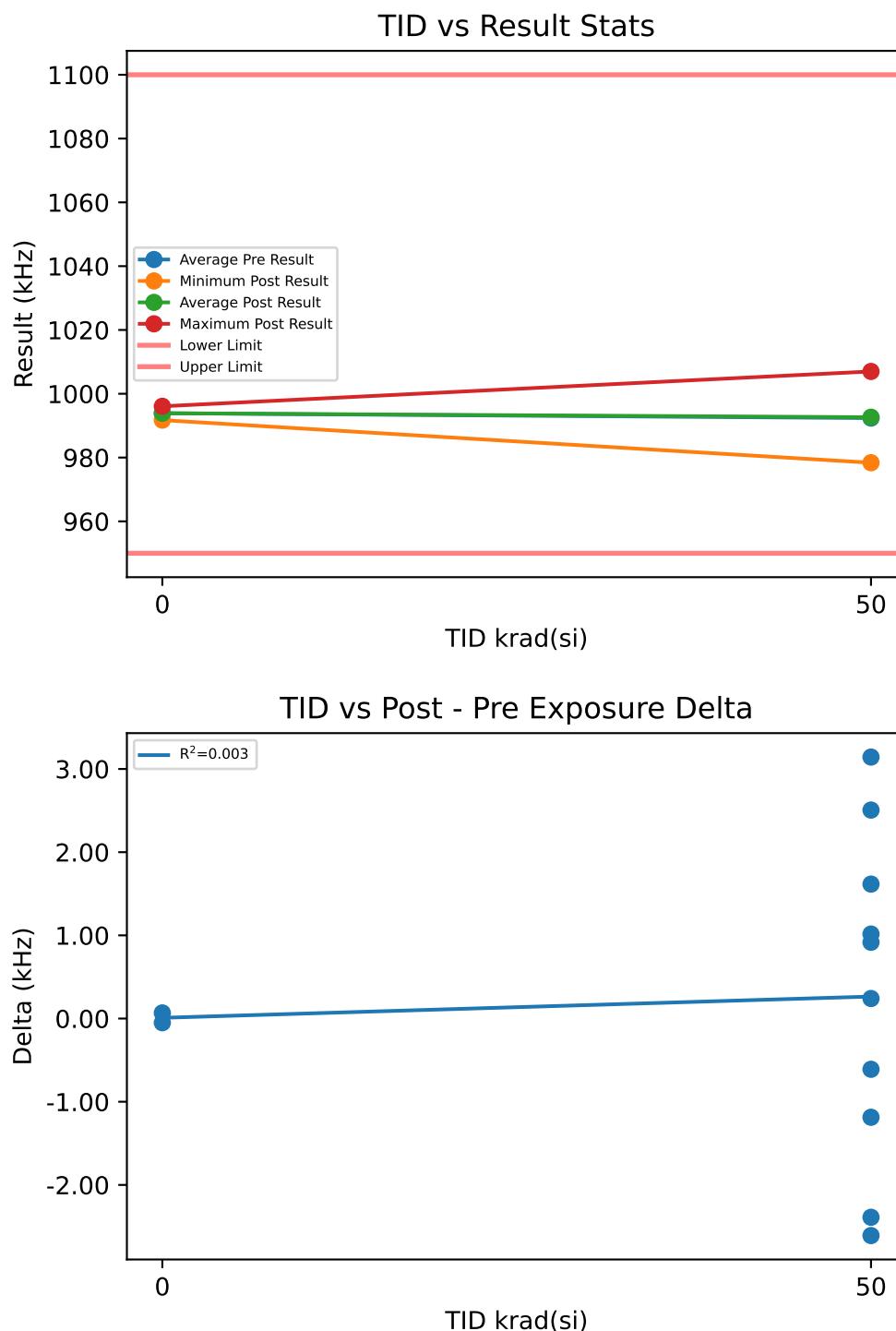
**Test Results (Lower Limit = 950.0, Upper Limit = 1100.0 (kHz))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 993.57     | 993.47      | -0.1002 |
| 2        | 0        | Correlation         | 997.79     | 997.76      | -0.0361 |
| 4        | 50       | Bias                | 996.26     | 994.77      | -1.4869 |
| 6        | 50       | Bias                | 981.03     | 980.08      | -0.9552 |
| 7        | 50       | Bias                | 994.5      | 994.31      | -0.196  |
| 8        | 50       | Bias                | 983.61     | 984.91      | 1.3029  |
| 9        | 50       | Bias                | 991.45     | 993.61      | 2.1636  |
| 11       | 50       | Unbias              | 1008       | 1008.5      | 0.5421  |
| 12       | 50       | Unbias              | 1002       | 1002.5      | 0.5122  |
| 13       | 50       | Unbias              | 998.11     | 995.09      | -3.0236 |
| 14       | 50       | Unbias              | 988.71     | 991.34      | 2.6317  |
| 15       | 50       | Unbias              | 998.3      | 995.68      | -2.619  |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 993.57           | 995.68           | 997.79           | 2.986            | 993.47            | 995.61            | 997.76            | 3.0314            | -0.1002   | -0.06815  | -0.0361   | 0.045326  |
| 50       | 981.03           | 994.19           | 1008             | 8.2303           | 980.08            | 994.08            | 1008.5            | 7.9636            | -3.0236   | -0.11282  | 2.6317    | 1.9118    |

# Device Test: 20.97 FSW\_EXT\_RT\_D(LEVEL|FREQ/RT/5/5/0/1000/5/1MHz//@FSW\_EXT\_RT\_D)



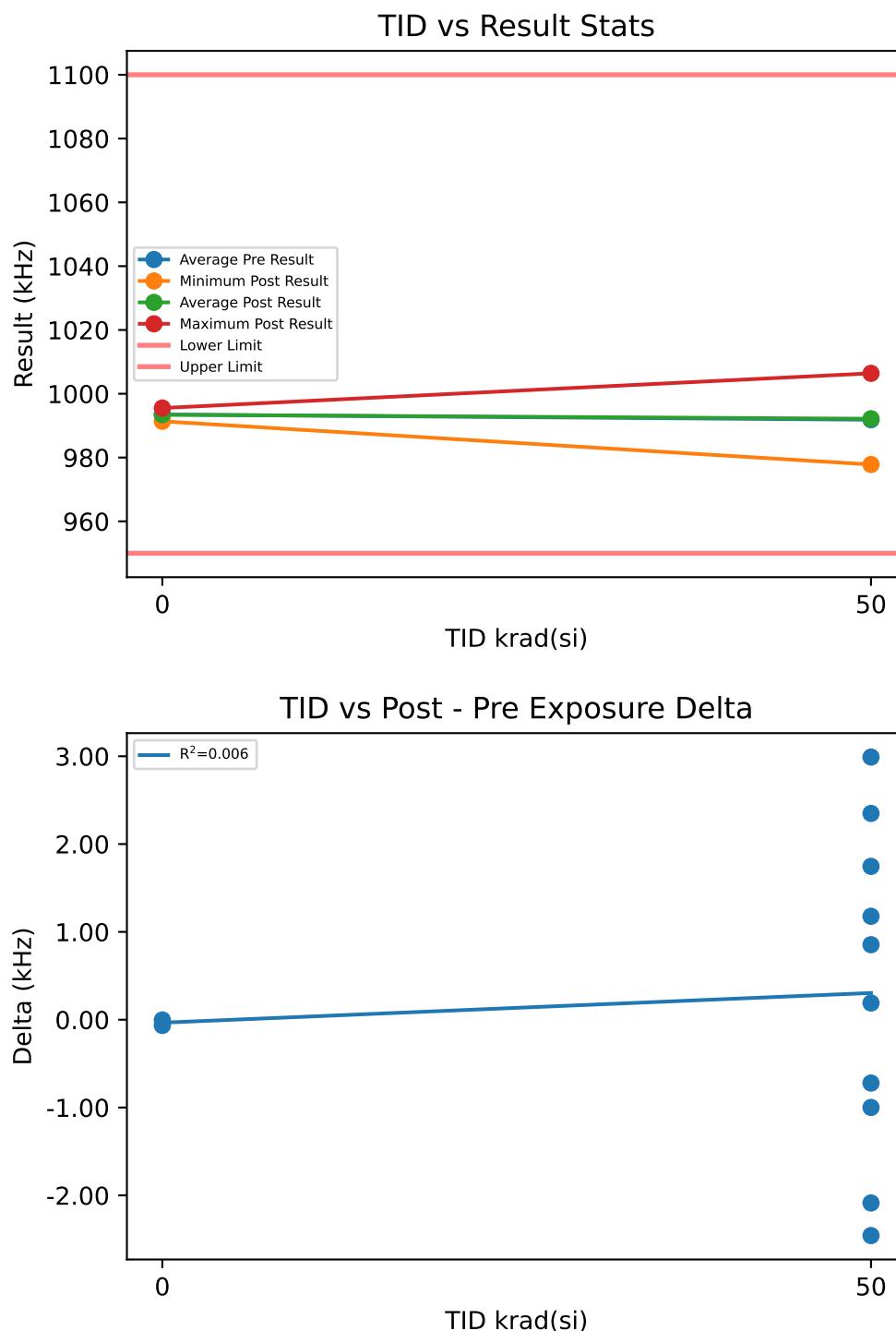
**Test Results (Lower Limit = 950.0, Upper Limit = 1100.0 (kHz))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 991.79     | 991.74      | -0.0502 |
| 2        | 0        | Correlation         | 996.01     | 996.08      | 0.0675  |
| 4        | 50       | Bias                | 994.62     | 993.44      | -1.1867 |
| 6        | 50       | Bias                | 978.99     | 978.38      | -0.6098 |
| 7        | 50       | Bias                | 992.5      | 992.74      | 0.2407  |
| 8        | 50       | Bias                | 982.01     | 983.63      | 1.616   |
| 9        | 50       | Bias                | 989.69     | 992.2       | 2.506   |
| 11       | 50       | Unbias              | 1006.1     | 1007        | 0.9166  |
| 12       | 50       | Unbias              | 1000.2     | 1001.3      | 1.0157  |
| 13       | 50       | Unbias              | 996.18     | 993.57      | -2.6086 |
| 14       | 50       | Unbias              | 986.86     | 990.01      | 3.1432  |
| 15       | 50       | Unbias              | 996.64     | 994.25      | -2.3889 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 991.79           | 993.9            | 996.01           | 2.985            | 991.74            | 993.91            | 996.08            | 3.0682            | -0.0502   | 0.00865   | 0.0675    | 0.083226  |
| 50       | 978.99           | 992.38           | 1006.1           | 8.2423           | 978.38            | 992.65            | 1007              | 8                 | -2.6086   | 0.26442   | 3.1432    | 1.952     |

# Device Test: 20.99 FSW\_EXT\_RT\_D(LEVEL|FREQ/RT/12/12/0/1000/5/1MHz//@FSW\_EXT\_RT\_D)



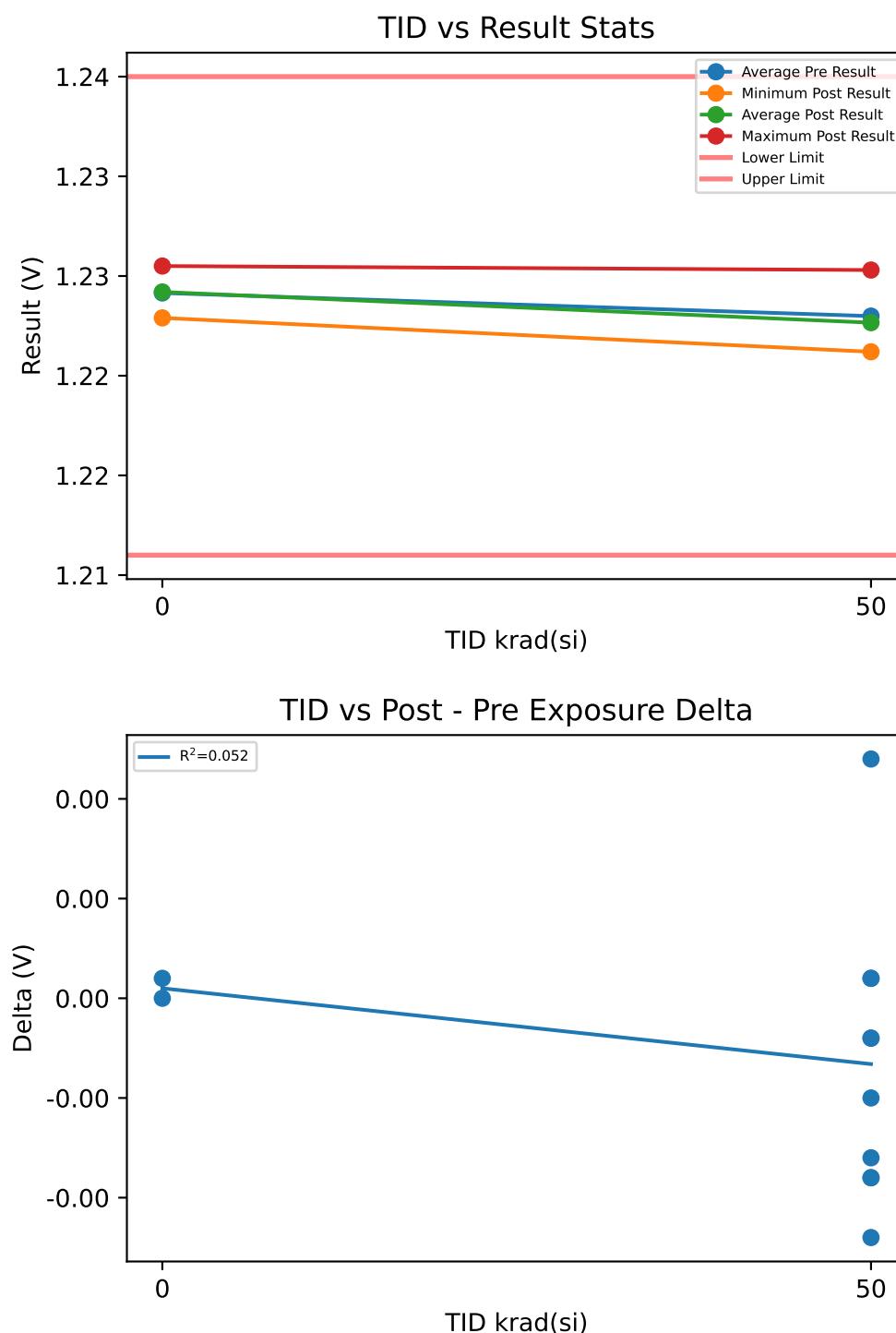
**Test Results (Lower Limit = 950.0, Upper Limit = 1100.0 (kHz))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 991.43     | 991.36      | -0.0654 |
| 2        | 0        | Correlation         | 995.52     | 995.52      | -0.0027 |
| 4        | 50       | Bias                | 994.11     | 993.11      | -0.9991 |
| 6        | 50       | Bias                | 978.55     | 977.83      | -0.7213 |
| 7        | 50       | Bias                | 991.92     | 992.11      | 0.1904  |
| 8        | 50       | Bias                | 981.49     | 983.24      | 1.7461  |
| 9        | 50       | Bias                | 989.17     | 991.51      | 2.3487  |
| 11       | 50       | Unbias              | 1005.5     | 1006.4      | 0.8541  |
| 12       | 50       | Unbias              | 999.61     | 1000.8      | 1.1776  |
| 13       | 50       | Unbias              | 995.65     | 993.19      | -2.4577 |
| 14       | 50       | Unbias              | 986.46     | 989.45      | 2.9906  |
| 15       | 50       | Unbias              | 996.1      | 994.01      | -2.0866 |

**Test Statistics (kHz)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 991.43           | 993.48           | 995.52           | 2.8948           | 991.36            | 993.44            | 995.52            | 2.9392            | -0.0654   | -0.03405  | -0.0027   | 0.044336  |
| 50       | 978.55           | 991.86           | 1005.5           | 8.2047           | 977.83            | 992.17            | 1006.4            | 7.9958            | -2.4577   | 0.30428   | 2.9906    | 1.8454    |

# Device Test: 21.1 V\_REF\_CAP(VOLTAGE|VREF/VREF/4.5/4.5/0/0/4.5/100kHz//@V\_REF\_CAP)



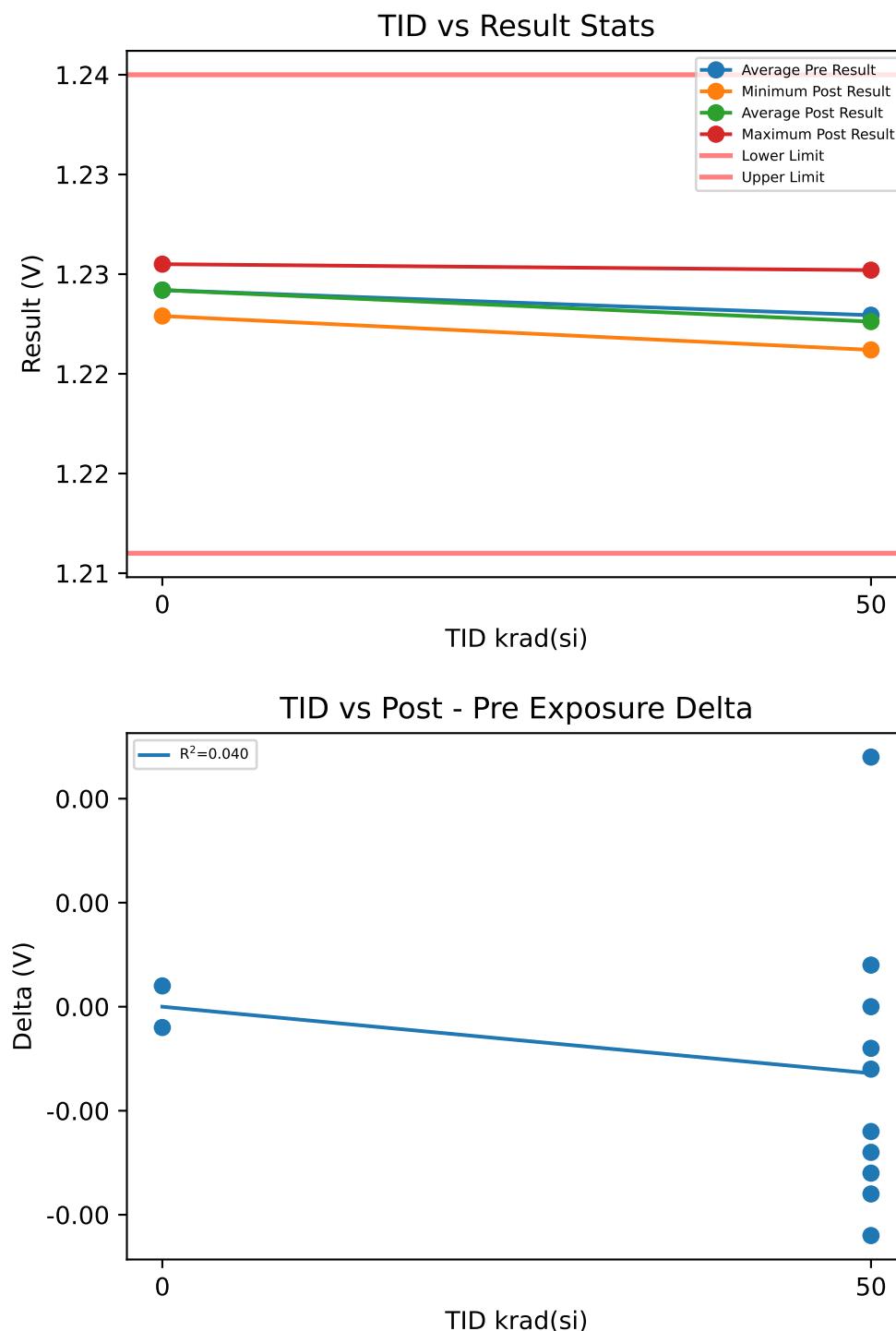
**Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2228     | 1.2229      | 0.0001  |
| 2        | 0        | Correlation         | 1.2255     | 1.2255      | 0       |
| 4        | 50       | Bias                | 1.2235     | 1.2223      | -0.0012 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2253      | 0.0001  |
| 8        | 50       | Bias                | 1.2239     | 1.2231      | -0.0008 |
| 9        | 50       | Bias                | 1.2257     | 1.2252      | -0.0005 |
| 11       | 50       | Unbias              | 1.2224     | 1.2225      | 0.0001  |
| 12       | 50       | Unbias              | 1.2215     | 1.2213      | -0.0002 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2221     | 1.2212      | -0.0009 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

## 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        | 1.2228           | 1.2242           | 1.2255           | 0.0019092        | 1.2229            | 1.2242            | 1.2255            | 0.0018385         | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 1.2214           | 1.223            | 1.2257           | 0.001538         | 1.2212            | 1.2227            | 1.2253            | 0.0015211         | -0.0012   | -0.00033  | 0.0012    | 0.00069929 |

# Device Test: 21.11 V\_REF\_CAP(VOLTAGE|VREF/VREF/5/5/0/0/5/500kHz//@V\_REF\_CAP)



**Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))**

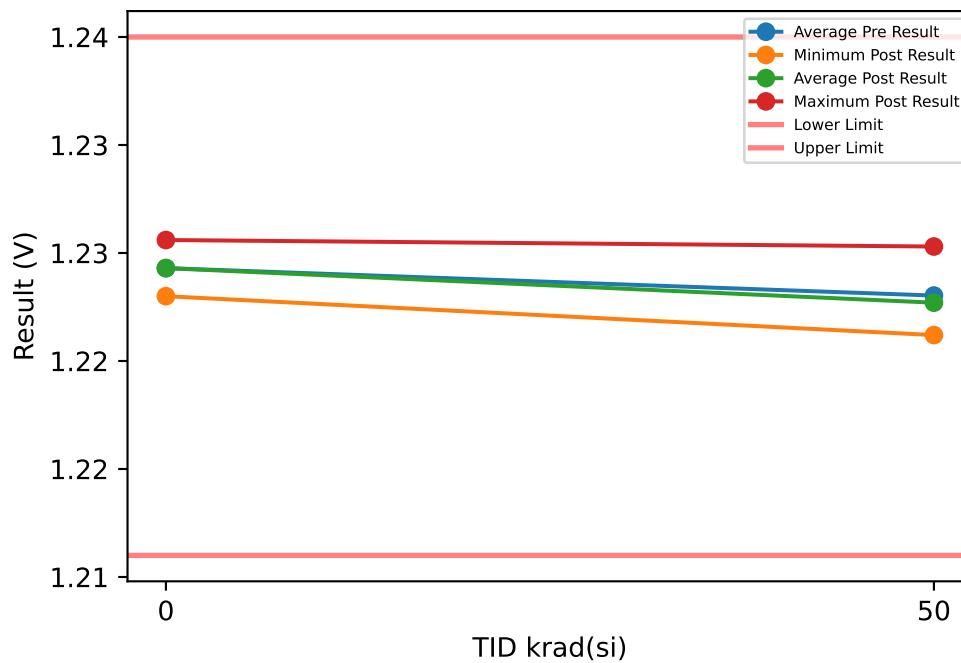
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2228     | 1.2229      | 0.0001  |
| 2        | 0        | Correlation         | 1.2256     | 1.2255      | -0.0001 |
| 4        | 50       | Bias                | 1.2234     | 1.2223      | -0.0011 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2252      | 0       |
| 8        | 50       | Bias                | 1.2238     | 1.2231      | -0.0007 |
| 9        | 50       | Bias                | 1.2257     | 1.2251      | -0.0006 |
| 11       | 50       | Unbias              | 1.2223     | 1.2225      | 0.0002  |
| 12       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.222      | 1.2212      | -0.0008 |
| 15       | 50       | Unbias              | 1.2215     | 1.2227      | 0.0012  |

## 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        | 1.2228           | 1.2242           | 1.2256           | 0.0019799        | 1.2229            | 1.2242            | 1.2255            | 0.0018385         | -0.0001   | 0         | 0.0001    | 0.00014142 |
| 50       | 1.2214           | 1.2229           | 1.2257           | 0.0015493        | 1.2212            | 1.2226            | 1.2252            | 0.0014928         | -0.0011   | -0.00032  | 0.0012    | 0.00067462 |

# Device Test: 21.13 V\_REF\_CAP(VOLTAGE|VREF/VREF/12/12/0/0/5/500kHz//@V\_REF\_CAP)

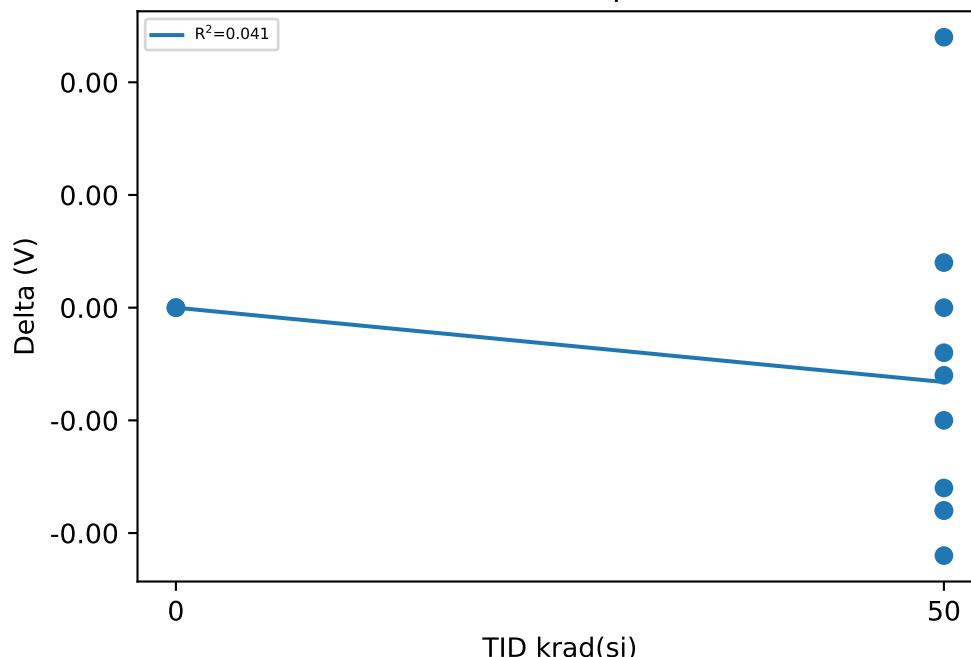
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.223      | 1.223       | 0       |
| 2        | 0        | Correlation         | 1.2256     | 1.2256      | 0       |
| 4        | 50       | Bias                | 1.2235     | 1.2224      | -0.0011 |
| 6        | 50       | Bias                | 1.2227     | 1.2218      | -0.0009 |
| 7        | 50       | Bias                | 1.2253     | 1.2253      | 0       |
| 8        | 50       | Bias                | 1.2239     | 1.2231      | -0.0008 |
| 9        | 50       | Bias                | 1.2257     | 1.2252      | -0.0005 |
| 11       | 50       | Unbias              | 1.2224     | 1.2226      | 0.0002  |
| 12       | 50       | Unbias              | 1.2215     | 1.2213      | -0.0002 |
| 13       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 14       | 50       | Unbias              | 1.2222     | 1.2213      | -0.0009 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

TID vs Post - Pre Exposure Delta

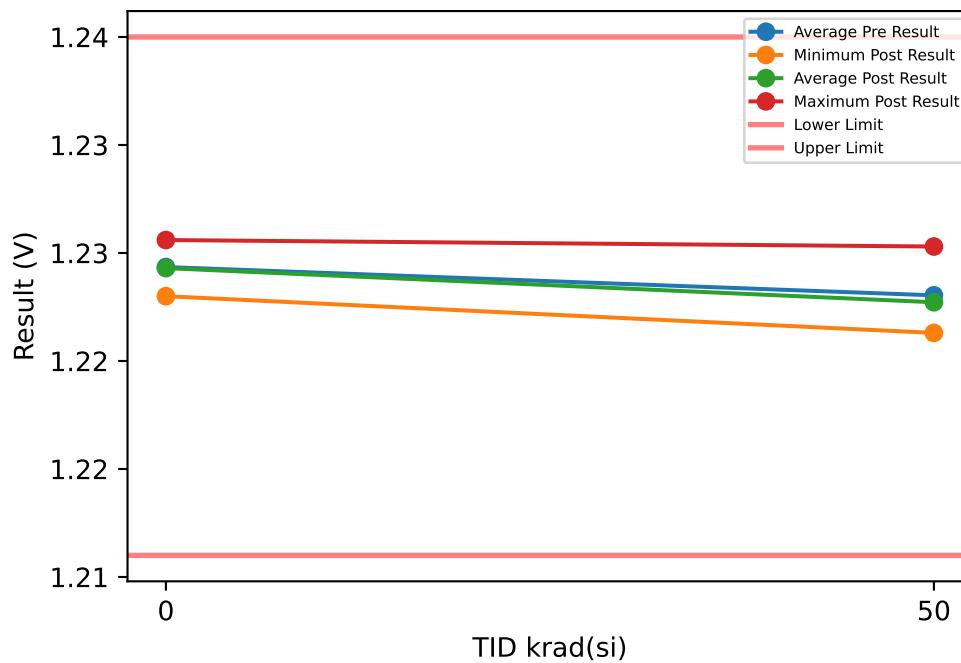


Test Statistics (V)

| 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        | 1.223            | 1.2243           | 1.2256           | 0.0018385        | 1.223             | 1.2243            | 1.2256            | 0.0018385         | 0         | 0         | 0         | 0          |
| 50       | 1.2215           | 1.223            | 1.2257           | 0.0015341        | 1.2212            | 1.2227            | 1.2253            | 0.0015004         | -0.0011   | -0.00033  | 0.0012    | 0.00068646 |

# Device Test: 21.15 V\_REF\_CAP(VOLTAGE|VREF/VREF/14/14/0/0/5/500kHz//@V\_REF\_CAP)

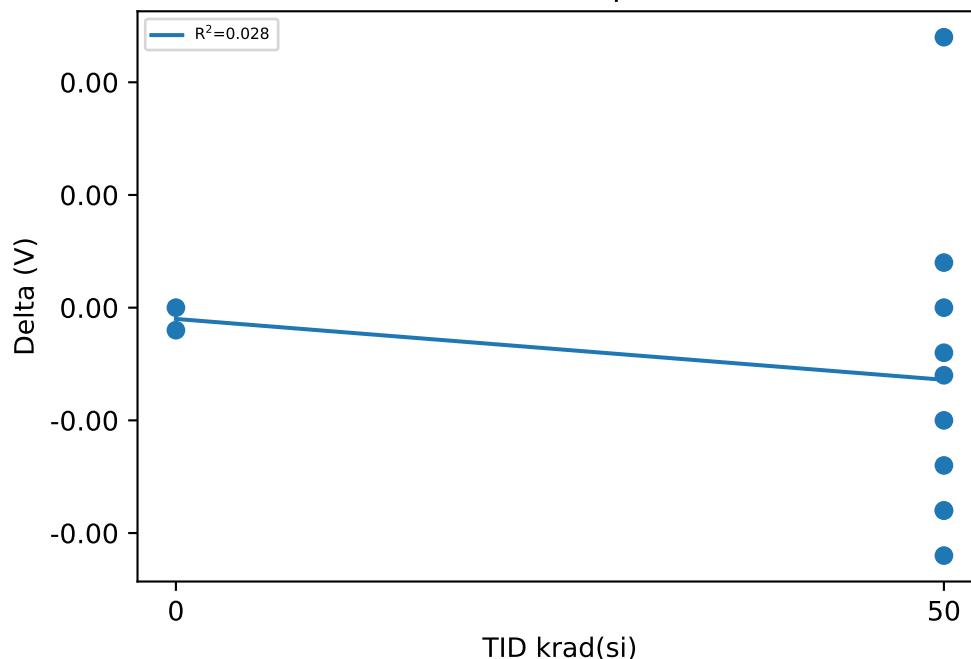
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.223      | 1.223       | 0       |
| 2        | 0        | Correlation         | 1.2257     | 1.2256      | -0.0001 |
| 4        | 50       | Bias                | 1.2235     | 1.2224      | -0.0011 |
| 6        | 50       | Bias                | 1.2227     | 1.2218      | -0.0009 |
| 7        | 50       | Bias                | 1.2253     | 1.2253      | 0       |
| 8        | 50       | Bias                | 1.2239     | 1.2232      | -0.0007 |
| 9        | 50       | Bias                | 1.2257     | 1.2252      | -0.0005 |
| 11       | 50       | Unbias              | 1.2224     | 1.2226      | 0.0002  |
| 12       | 50       | Unbias              | 1.2216     | 1.2213      | -0.0003 |
| 13       | 50       | Unbias              | 1.2215     | 1.2213      | -0.0002 |
| 14       | 50       | Unbias              | 1.2222     | 1.2213      | -0.0009 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

TID vs Post - Pre Exposure Delta

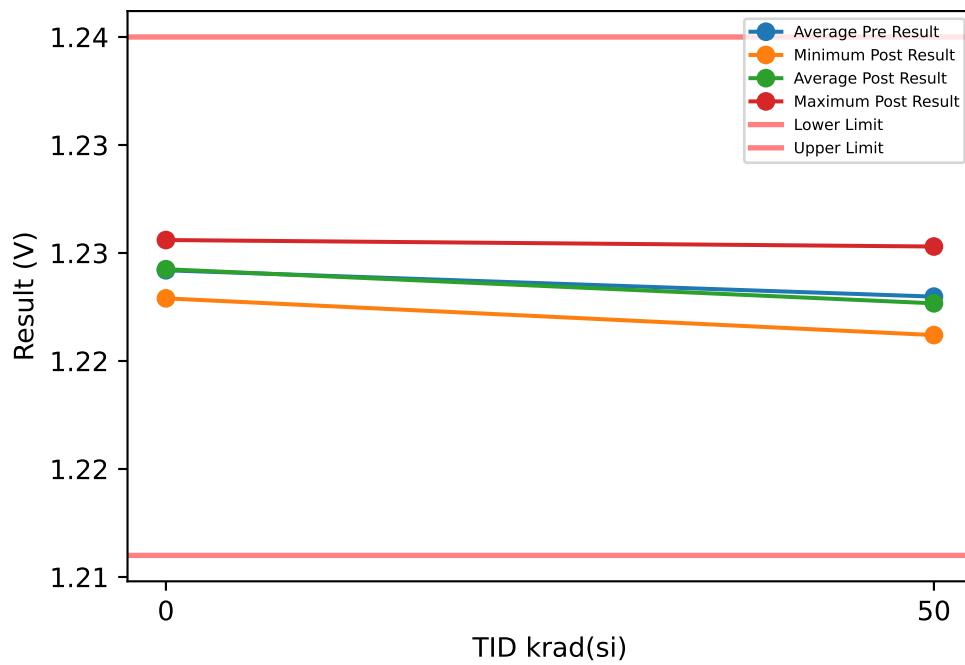


Test Statistics (V)

| 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        | 1.223            | 1.2244           | 1.2257           | 0.0019092        | 1.223             | 1.2243            | 1.2256            | 0.0018385         | -0.0001   | -5e-05    | 0         | 7.0711e-05 |
| 50       | 1.2215           | 1.223            | 1.2257           | 0.0015233        | 1.2213            | 1.2227            | 1.2253            | 0.0014928         | -0.0011   | -0.00032  | 0.0012    | 0.00067954 |

# Device Test: 21.17 V\_REF\_CAP(VOLTAGE|VREF/VREF/4.5/4.5/0/0/4.5/1MHz//@V\_REF\_CAP)

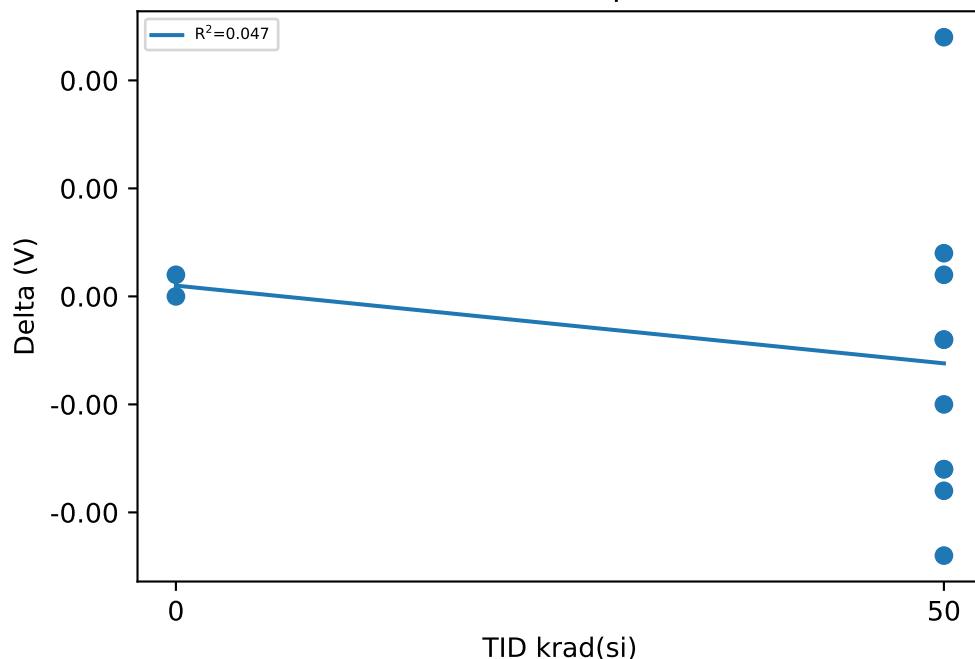
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2229      | 0       |
| 2        | 0        | Correlation         | 1.2255     | 1.2256      | 0.0001  |
| 4        | 50       | Bias                | 1.2235     | 1.2223      | -0.0012 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2253      | 0.0001  |
| 8        | 50       | Bias                | 1.2239     | 1.2231      | -0.0008 |
| 9        | 50       | Bias                | 1.2257     | 1.2252      | -0.0005 |
| 11       | 50       | Unbias              | 1.2223     | 1.2225      | 0.0002  |
| 12       | 50       | Unbias              | 1.2215     | 1.2213      | -0.0002 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2221     | 1.2213      | -0.0008 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

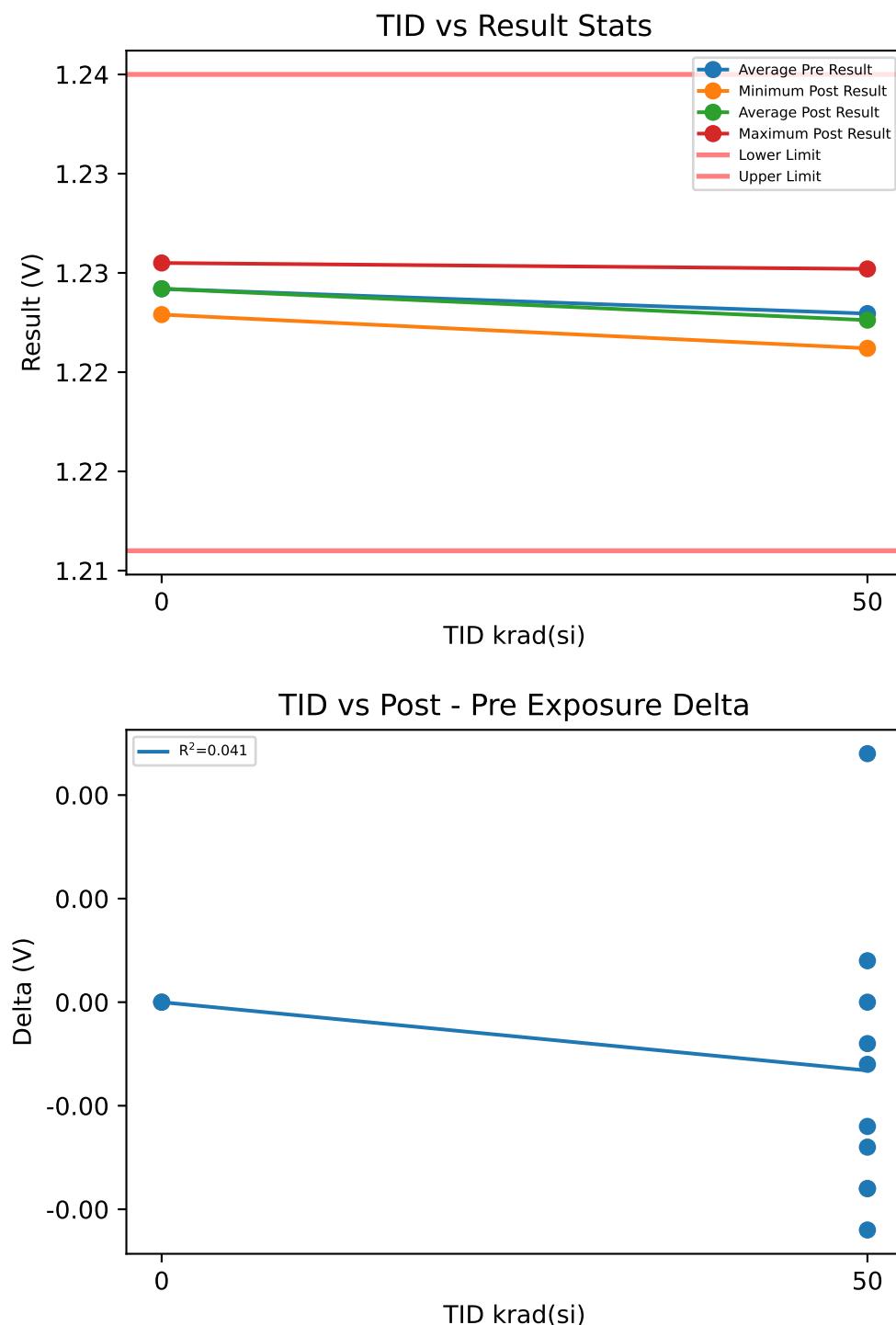
TID vs Post - Pre Exposure Delta



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        | 1.2229           | 1.2242           | 1.2255           | 0.0018385        | 1.2229            | 1.2243            | 1.2256            | 0.0019092         | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 1.2214           | 1.223            | 1.2257           | 0.0015426        | 1.2212            | 1.2227            | 1.2253            | 0.0015107         | -0.0012   | -0.00031  | 0.0012    | 0.00069833 |

# Device Test: 21.19 V\_REF\_CAP(VOLTAGE|VREF/VREF/5/5/0/0/5/1MHz//@V\_REF\_CAP)



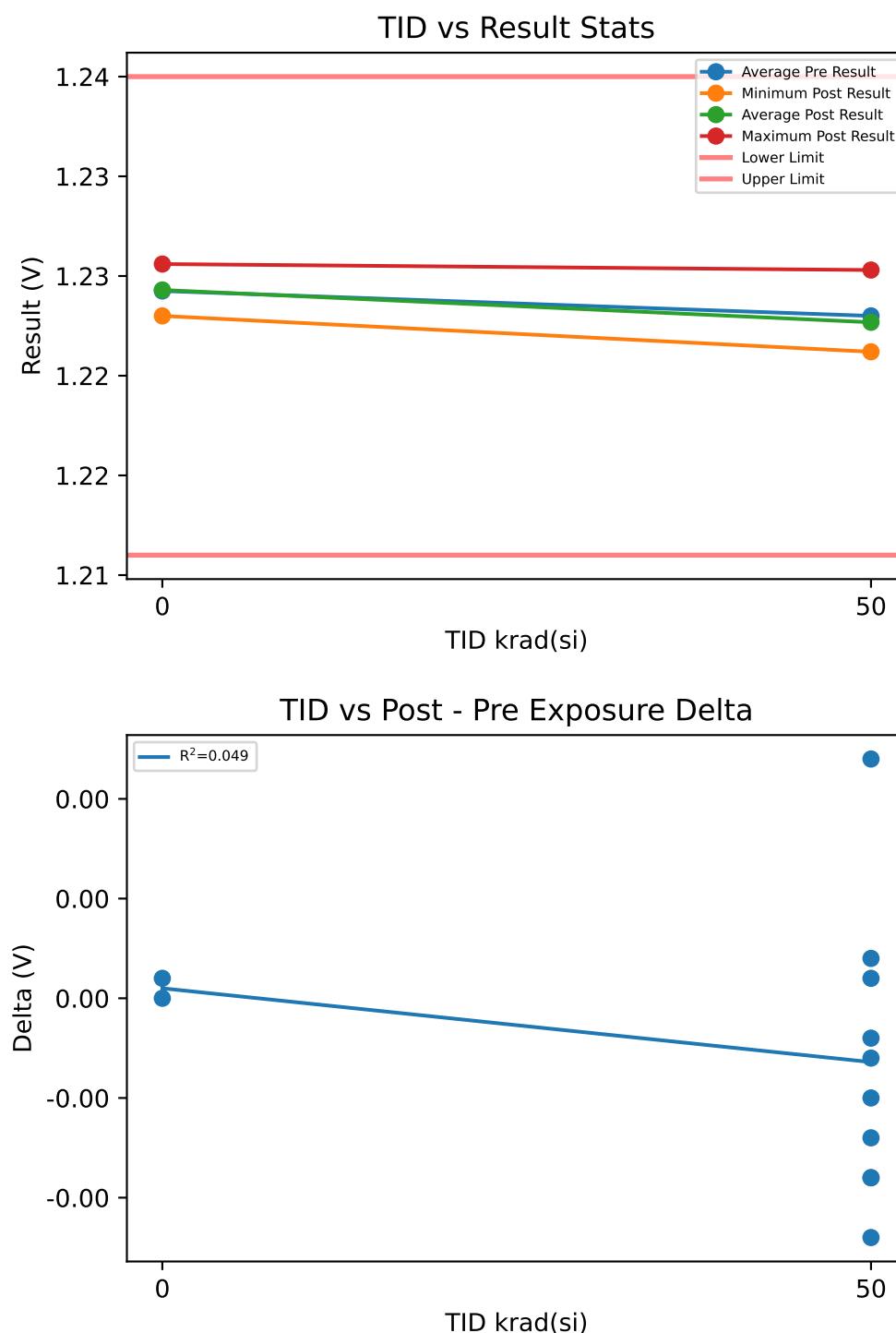
**Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2229      | 0       |
| 2        | 0        | Correlation         | 1.2255     | 1.2255      | 0       |
| 4        | 50       | Bias                | 1.2234     | 1.2223      | -0.0011 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2252      | 0       |
| 8        | 50       | Bias                | 1.2238     | 1.2231      | -0.0007 |
| 9        | 50       | Bias                | 1.2257     | 1.2251      | -0.0006 |
| 11       | 50       | Unbias              | 1.2223     | 1.2225      | 0.0002  |
| 12       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2221     | 1.2212      | -0.0009 |
| 15       | 50       | Unbias              | 1.2215     | 1.2227      | 0.0012  |

## 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        | 1.2229           | 1.2242           | 1.2255           | 0.0018385        | 1.2229            | 1.2242            | 1.2255            | 0.0018385         | 0         | 0         | 0         | 0          |
| 50       | 1.2214           | 1.2229           | 1.2257           | 0.0015429        | 1.2212            | 1.2226            | 1.2252            | 0.0014928         | -0.0011   | -0.00033  | 0.0012    | 0.00068321 |

# Device Test: 21.21 V\_REF\_CAP(VOLTAGE|VREF/VREF/12/12/0/0/5/1MHz//@V\_REF\_CAP)



**Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))**

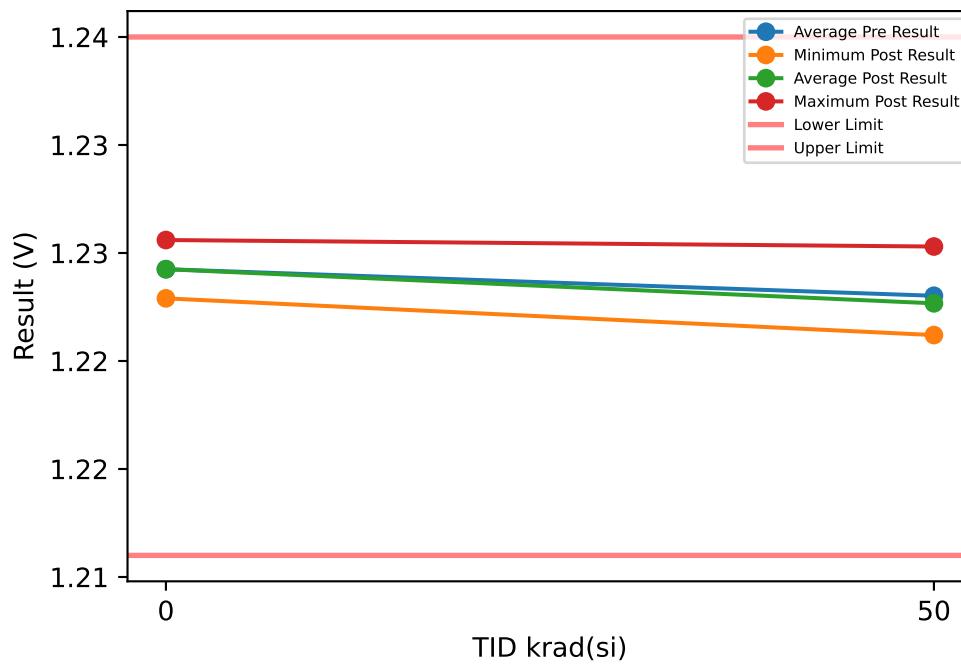
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.223       | 0.0001  |
| 2        | 0        | Correlation         | 1.2256     | 1.2256      | 0       |
| 4        | 50       | Bias                | 1.2235     | 1.2223      | -0.0012 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2253      | 0.0001  |
| 8        | 50       | Bias                | 1.2239     | 1.2232      | -0.0007 |
| 9        | 50       | Bias                | 1.2257     | 1.2252      | -0.0005 |
| 11       | 50       | Unbias              | 1.2224     | 1.2226      | 0.0002  |
| 12       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2222     | 1.2213      | -0.0009 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

## 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        | 1.2229           | 1.2243           | 1.2256           | 0.0019092        | 1.223             | 1.2243            | 1.2256            | 0.0018385         | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 1.2214           | 1.223            | 1.2257           | 0.0015319        | 1.2212            | 1.2227            | 1.2253            | 0.0015237         | -0.0012   | -0.00032  | 0.0012    | 0.00069889 |

# Device Test: 21.23 V\_REF\_CAP(VOLTAGE|VREF/VREF/14/14/0/0/5/1MHz//@V\_REF\_CAP)

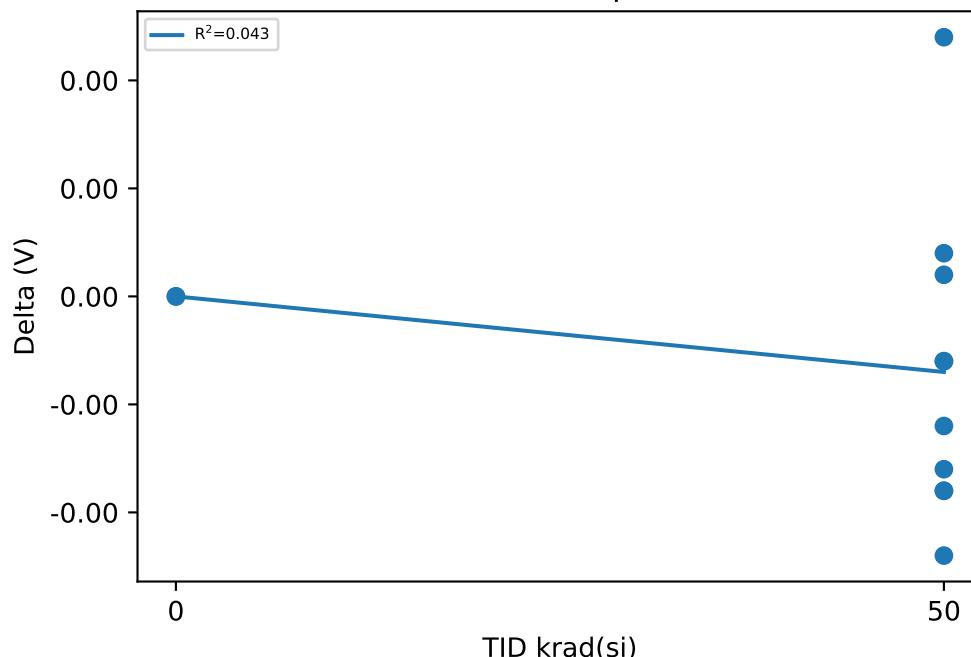
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2229      | 0       |
| 2        | 0        | Correlation         | 1.2256     | 1.2256      | 0       |
| 4        | 50       | Bias                | 1.2235     | 1.2223      | -0.0012 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2253      | 0.0001  |
| 8        | 50       | Bias                | 1.2239     | 1.2231      | -0.0008 |
| 9        | 50       | Bias                | 1.2258     | 1.2252      | -0.0006 |
| 11       | 50       | Unbias              | 1.2224     | 1.2226      | 0.0002  |
| 12       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 13       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 14       | 50       | Unbias              | 1.2222     | 1.2213      | -0.0009 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

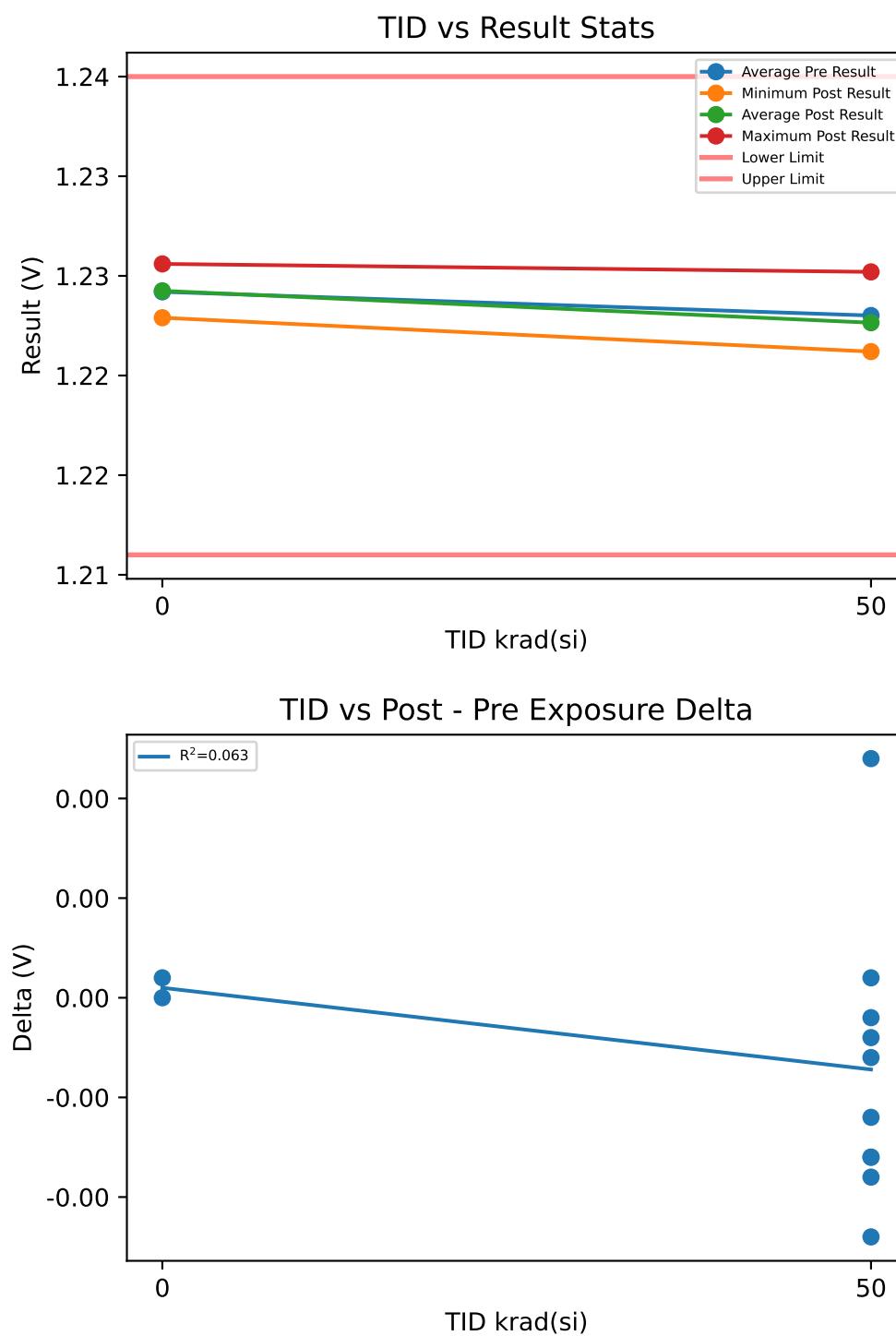
TID vs Post - Pre Exposure Delta



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        | 1.2229           | 1.2243           | 1.2256           | 0.0019092        | 1.2229            | 1.2243            | 1.2256            | 0.0019092         | 0         | 0         | 0         | 0         |
| 50       | 1.2215           | 1.223            | 1.2258           | 0.0015404        | 1.2212            | 1.2227            | 1.2253            | 0.0015203         | -0.0012   | -0.00035  | 0.0012    | 0.0007075 |

# Device Test: 21.25 V\_REF\_CAP(VOLTAGE|VREF/VREF/4.5/4.5/0/1000/4.5/100kHz//@V\_REF\_CAP)



**Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))**

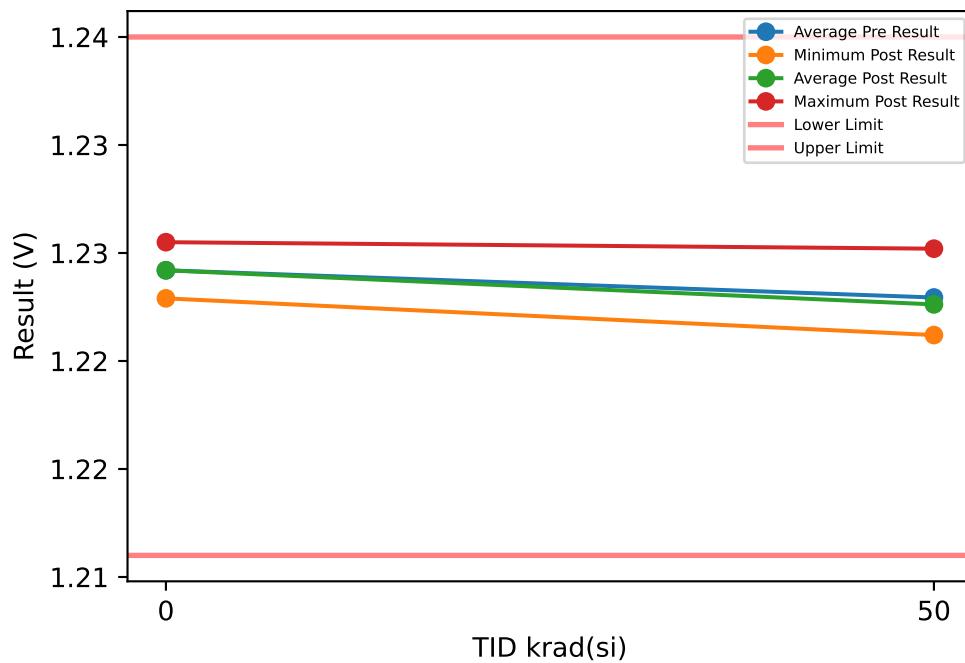
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2229      | 0       |
| 2        | 0        | Correlation         | 1.2255     | 1.2256      | 0.0001  |
| 4        | 50       | Bias                | 1.2235     | 1.2223      | -0.0012 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2253     | 1.2252      | -0.0001 |
| 8        | 50       | Bias                | 1.2239     | 1.2231      | -0.0008 |
| 9        | 50       | Bias                | 1.2257     | 1.2251      | -0.0006 |
| 11       | 50       | Unbias              | 1.2224     | 1.2225      | 0.0001  |
| 12       | 50       | Unbias              | 1.2215     | 1.2213      | -0.0002 |
| 13       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 14       | 50       | Unbias              | 1.2221     | 1.2213      | -0.0008 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

**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        | 1.2229           | 1.2242           | 1.2255           | 0.0018385        | 1.2229            | 1.2243            | 1.2256            | 0.0019092         | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 1.2215           | 1.223            | 1.2257           | 0.001543         | 1.2212            | 1.2227            | 1.2252            | 0.0014729         | -0.0012   | -0.00036  | 0.0012    | 0.00068183 |

# Device Test: 21.27 V\_REF\_CAP(VOLTAGE|VREF/VREF/5/5/0/1000/5/100kHz//@V\_REF\_CAP)

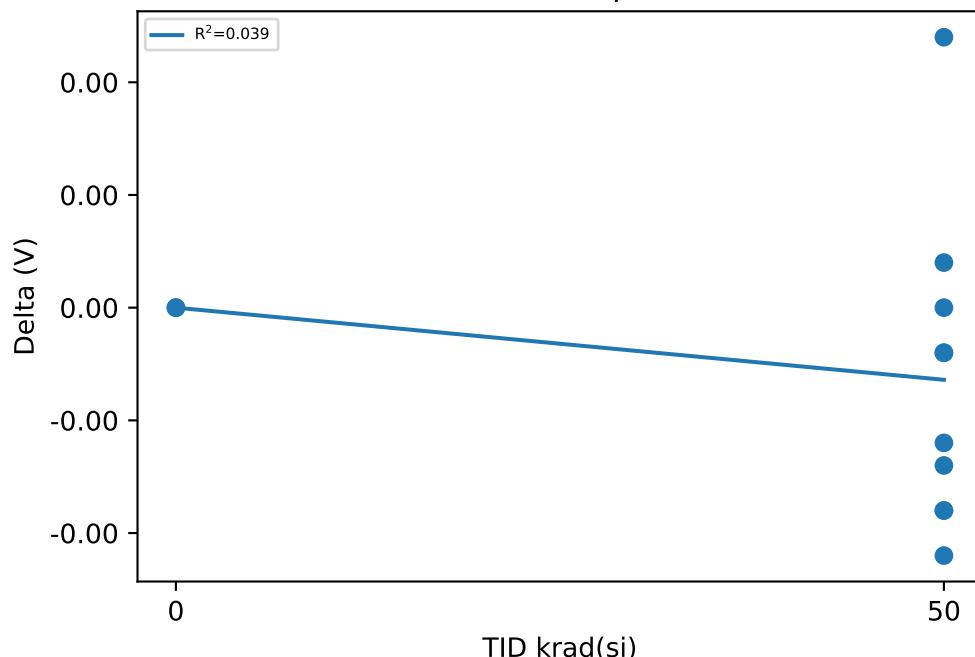
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2229      | 0       |
| 2        | 0        | Correlation         | 1.2255     | 1.2255      | 0       |
| 4        | 50       | Bias                | 1.2234     | 1.2223      | -0.0011 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2252      | 0       |
| 8        | 50       | Bias                | 1.2238     | 1.2231      | -0.0007 |
| 9        | 50       | Bias                | 1.2257     | 1.2251      | -0.0006 |
| 11       | 50       | Unbias              | 1.2223     | 1.2225      | 0.0002  |
| 12       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2221     | 1.2212      | -0.0009 |
| 15       | 50       | Unbias              | 1.2215     | 1.2227      | 0.0012  |

TID vs Post - Pre Exposure Delta

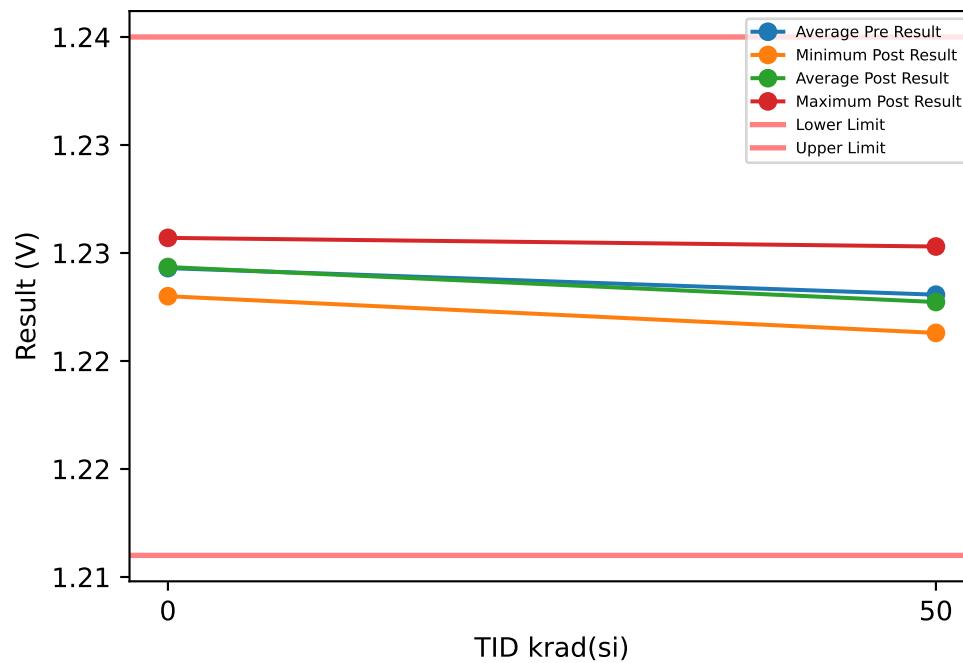


Test Statistics (V)

| 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        | 1.2229           | 1.2242           | 1.2255           | 0.0018385        | 1.2229            | 1.2242            | 1.2255            | 0.0018385         | 0         | 0         | 0         | 0          |
| 50       | 1.2214           | 1.2229           | 1.2257           | 0.0015536        | 1.2212            | 1.2226            | 1.2252            | 0.0014928         | -0.0011   | -0.00032  | 0.0012    | 0.00068443 |

# Device Test: 21.29 V\_REF\_CAP(VOLTAGE|VREF/VREF/12/12/0/1000/5/100kHz//@V\_REF\_CAP)

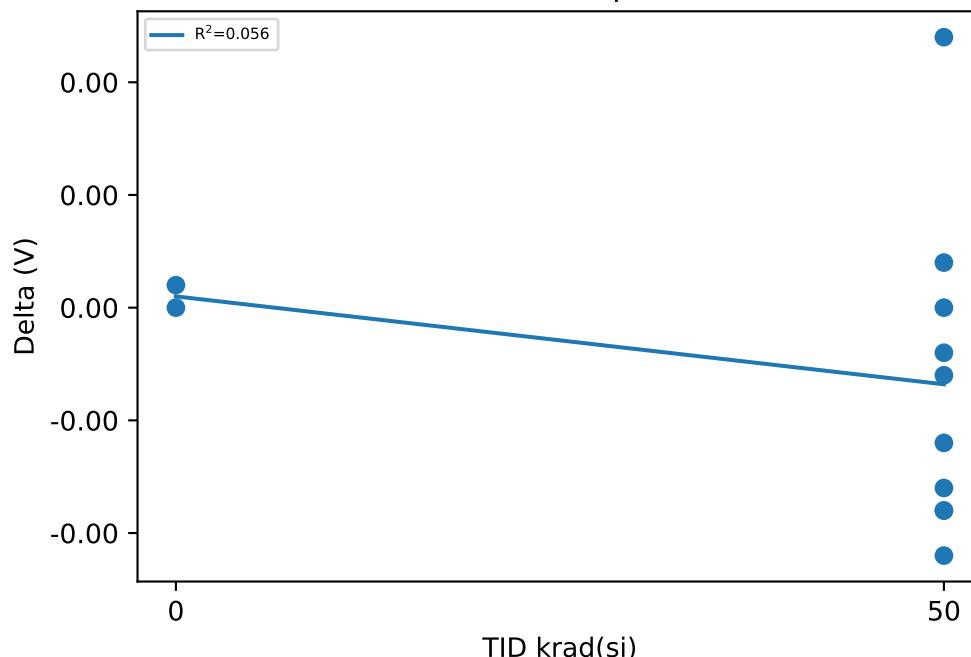
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.223      | 1.223       | 0       |
| 2        | 0        | Correlation         | 1.2256     | 1.2257      | 0.0001  |
| 4        | 50       | Bias                | 1.2235     | 1.2224      | -0.0011 |
| 6        | 50       | Bias                | 1.2227     | 1.2218      | -0.0009 |
| 7        | 50       | Bias                | 1.2253     | 1.2253      | 0       |
| 8        | 50       | Bias                | 1.224      | 1.2232      | -0.0008 |
| 9        | 50       | Bias                | 1.2258     | 1.2252      | -0.0006 |
| 11       | 50       | Unbias              | 1.2224     | 1.2226      | 0.0002  |
| 12       | 50       | Unbias              | 1.2216     | 1.2213      | -0.0003 |
| 13       | 50       | Unbias              | 1.2215     | 1.2213      | -0.0002 |
| 14       | 50       | Unbias              | 1.2222     | 1.2213      | -0.0009 |
| 15       | 50       | Unbias              | 1.2217     | 1.2229      | 0.0012  |

TID vs Post - Pre Exposure Delta

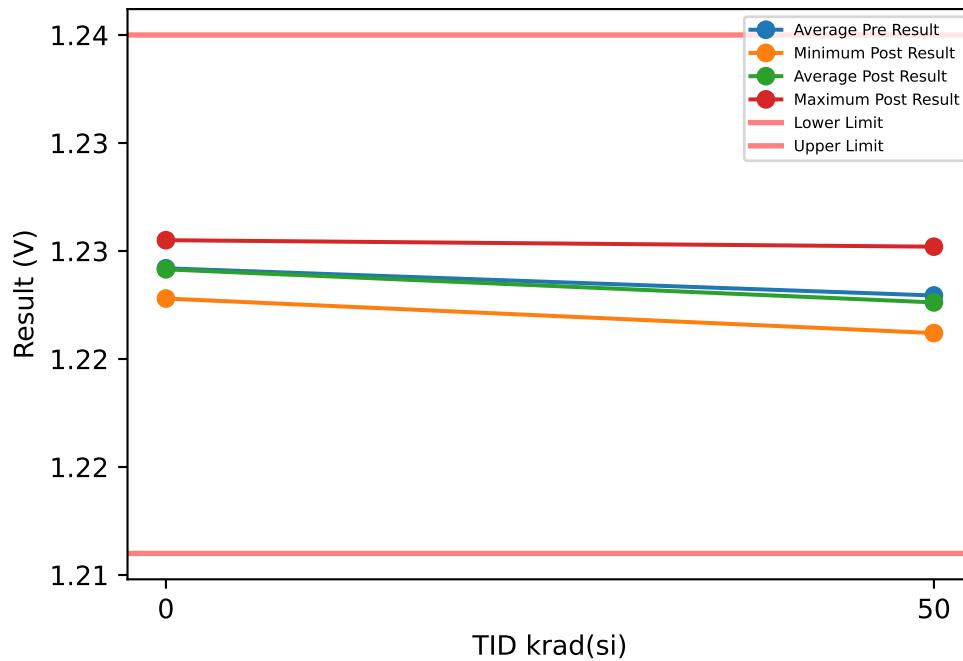


Test Statistics (V)

| 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        | 1.223            | 1.2243           | 1.2256           | 0.0018385        | 1.223             | 1.2244            | 1.2257            | 0.0019092         | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 1.2215           | 1.2231           | 1.2258           | 0.0015392        | 1.2213            | 1.2227            | 1.2253            | 0.0014937         | -0.0011   | -0.00034  | 0.0012    | 0.00068993 |

# Device Test: 21.3 V\_REF\_CAP(VOLTAGE|VREF/VREF/5/5/0/0/5/100kHz//@V\_REF\_CAP)

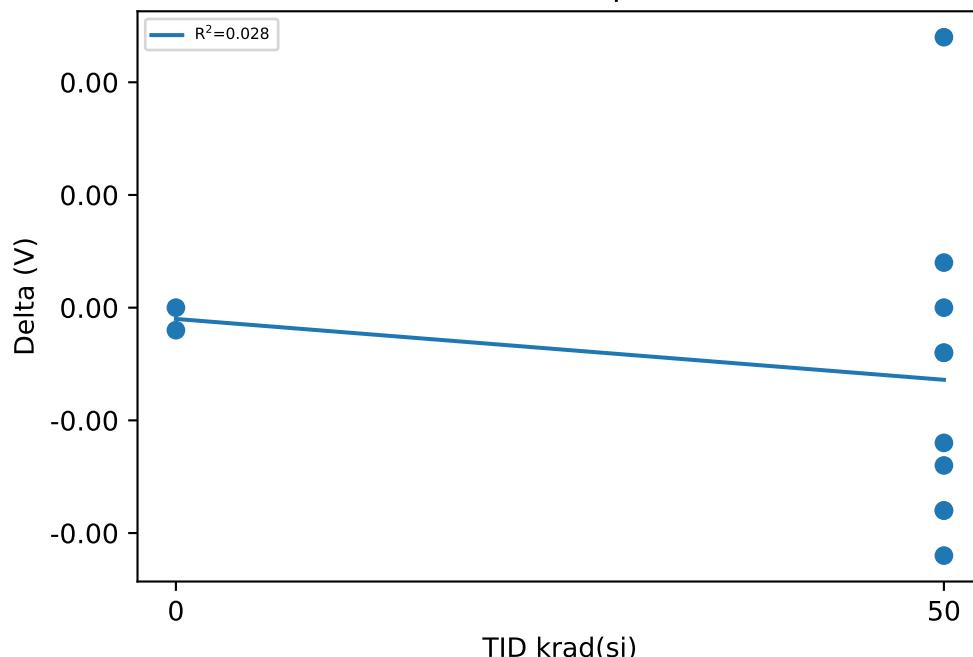
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2228      | -0.0001 |
| 2        | 0        | Correlation         | 1.2255     | 1.2255      | 0       |
| 4        | 50       | Bias                | 1.2234     | 1.2223      | -0.0011 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2252      | 0       |
| 8        | 50       | Bias                | 1.2238     | 1.2231      | -0.0007 |
| 9        | 50       | Bias                | 1.2257     | 1.2251      | -0.0006 |
| 11       | 50       | Unbias              | 1.2223     | 1.2225      | 0.0002  |
| 12       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2221     | 1.2212      | -0.0009 |
| 15       | 50       | Unbias              | 1.2215     | 1.2227      | 0.0012  |

TID vs Post - Pre Exposure Delta

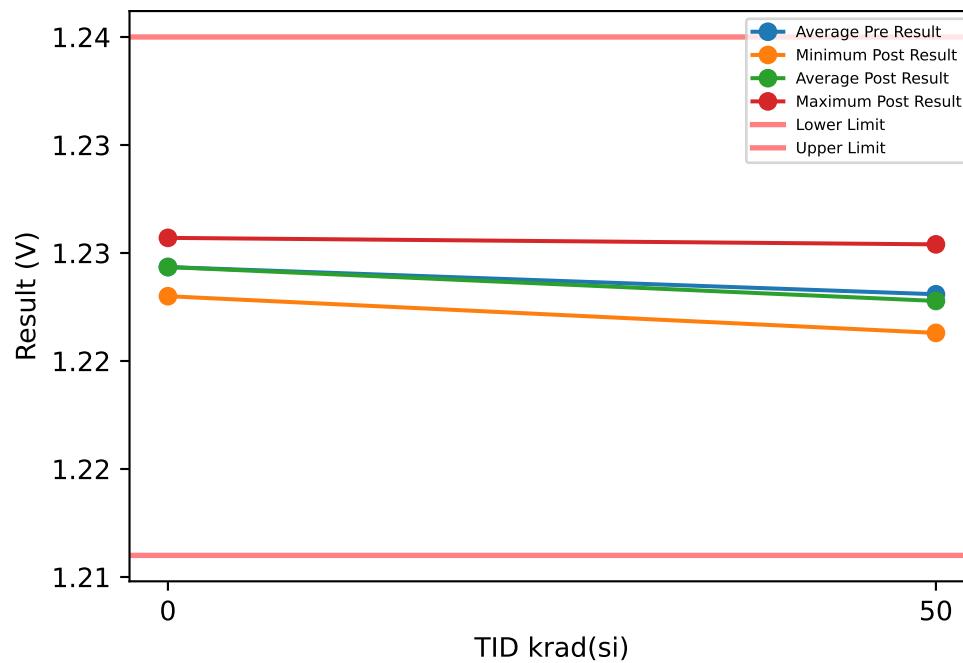


Test Statistics (V)

| 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        | 1.2229           | 1.2242           | 1.2255           | 0.0018385        | 1.2228            | 1.2242            | 1.2255            | 0.0019092         | -0.0001   | -5e-05    | 0         | 7.0711e-05 |
| 50       | 1.2214           | 1.2229           | 1.2257           | 0.0015536        | 1.2212            | 1.2226            | 1.2252            | 0.0014928         | -0.0011   | -0.00032  | 0.0012    | 0.00068443 |

# Device Test: 21.31 V\_REF\_CAP(VOLTAGE|VREF/VREF/14/14/0/1000/5/100kHz//@V\_REF\_CAP)

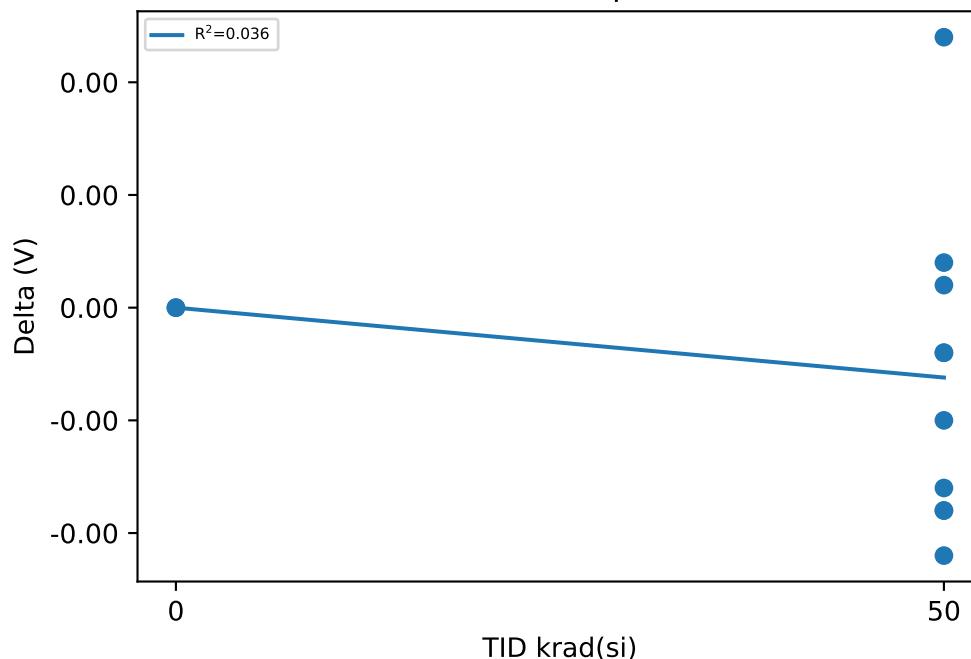
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.223      | 1.223       | 0       |
| 2        | 0        | Correlation         | 1.2257     | 1.2257      | 0       |
| 4        | 50       | Bias                | 1.2235     | 1.2224      | -0.0011 |
| 6        | 50       | Bias                | 1.2227     | 1.2218      | -0.0009 |
| 7        | 50       | Bias                | 1.2253     | 1.2254      | 0.0001  |
| 8        | 50       | Bias                | 1.224      | 1.2232      | -0.0008 |
| 9        | 50       | Bias                | 1.2258     | 1.2253      | -0.0005 |
| 11       | 50       | Unbias              | 1.2225     | 1.2227      | 0.0002  |
| 12       | 50       | Unbias              | 1.2216     | 1.2214      | -0.0002 |
| 13       | 50       | Unbias              | 1.2215     | 1.2213      | -0.0002 |
| 14       | 50       | Unbias              | 1.2223     | 1.2214      | -0.0009 |
| 15       | 50       | Unbias              | 1.2217     | 1.2229      | 0.0012  |

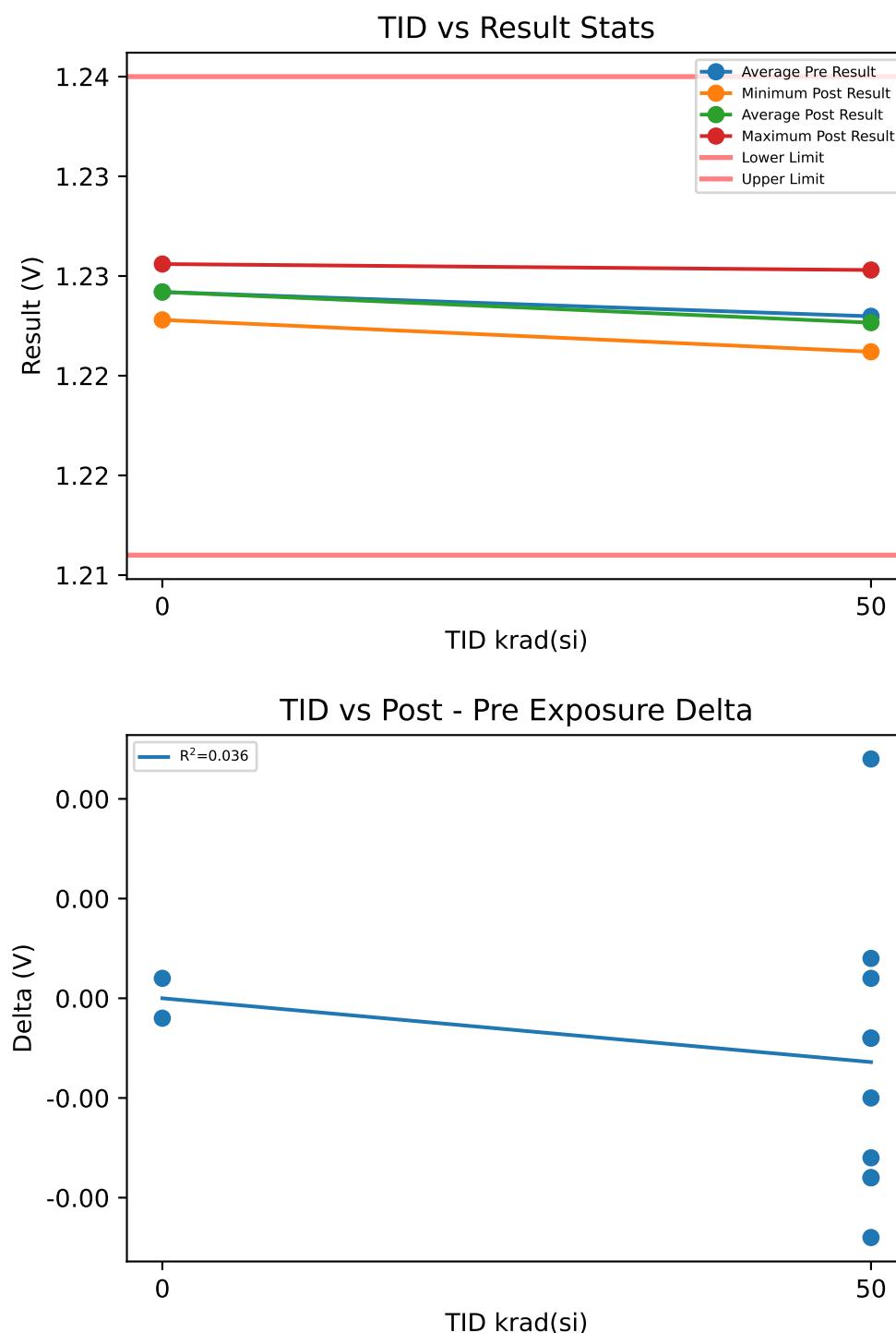
TID vs Post - Pre Exposure Delta



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        | 1.223            | 1.2244           | 1.2257           | 0.0019092        | 1.223             | 1.2244            | 1.2257            | 0.0019092         | 0         | 0         | 0         | 0          |
| 50       | 1.2215           | 1.2231           | 1.2258           | 0.0015286        | 1.2213            | 1.2228            | 1.2254            | 0.0015098         | -0.0011   | -0.00031  | 0.0012    | 0.00069354 |

Device Test: 21.33 V\_REF\_CAP(VOLTAGE|VREF/VREF/4.5/4.5/0/1000/4.5/500kHz//@V\_REF\_CAP)



**Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))**

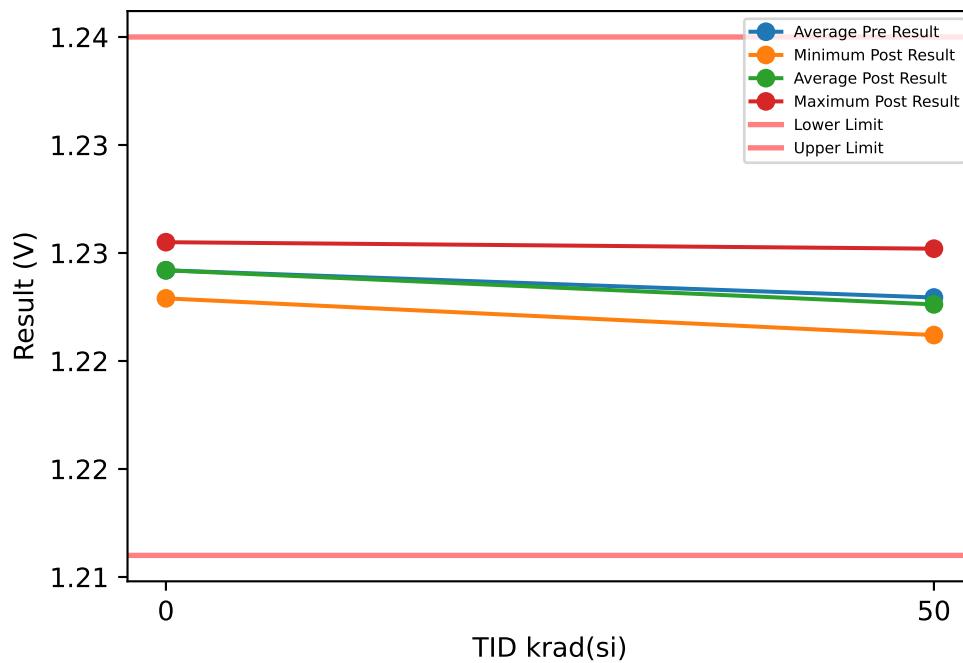
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2228      | -0.0001 |
| 2        | 0        | Correlation         | 1.2255     | 1.2256      | 0.0001  |
| 4        | 50       | Bias                | 1.2235     | 1.2223      | -0.0012 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2253      | 0.0001  |
| 8        | 50       | Bias                | 1.2239     | 1.2231      | -0.0008 |
| 9        | 50       | Bias                | 1.2257     | 1.2252      | -0.0005 |
| 11       | 50       | Unbias              | 1.2223     | 1.2225      | 0.0002  |
| 12       | 50       | Unbias              | 1.2215     | 1.2213      | -0.0002 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2221     | 1.2212      | -0.0009 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

**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        | 1.2229           | 1.2242           | 1.2255           | 0.0018385        | 1.2228            | 1.2242            | 1.2256            | 0.0019799         | -0.0001   | 0         | 0.0001    | 0.00014142 |
| 50       | 1.2214           | 1.223            | 1.2257           | 0.0015426        | 1.2212            | 1.2227            | 1.2253            | 0.0015211         | -0.0012   | -0.00032  | 0.0012    | 0.00070679 |

# Device Test: 21.35 V\_REF\_CAP(VOLTAGE|VREF/VREF/5/5/0/1000/5/500kHz//@V\_REF\_CAP)

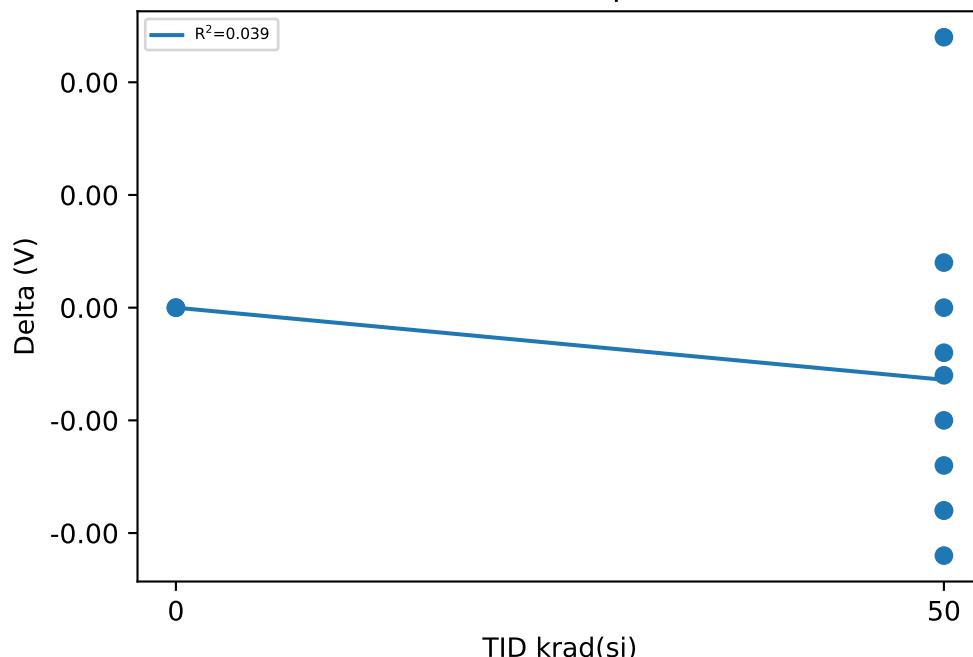
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2229      | 0       |
| 2        | 0        | Correlation         | 1.2255     | 1.2255      | 0       |
| 4        | 50       | Bias                | 1.2234     | 1.2223      | -0.0011 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2252      | 0       |
| 8        | 50       | Bias                | 1.2238     | 1.2231      | -0.0007 |
| 9        | 50       | Bias                | 1.2256     | 1.2251      | -0.0005 |
| 11       | 50       | Unbias              | 1.2223     | 1.2225      | 0.0002  |
| 12       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2221     | 1.2212      | -0.0009 |
| 15       | 50       | Unbias              | 1.2215     | 1.2227      | 0.0012  |

TID vs Post - Pre Exposure Delta

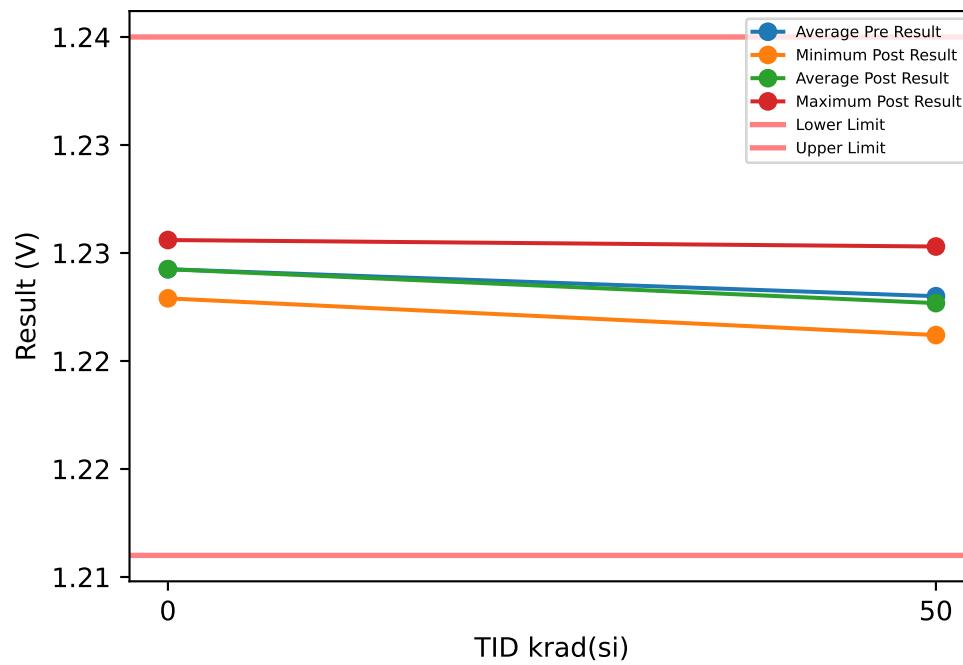


Test Statistics (V)

| 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        | 1.2229           | 1.2242           | 1.2255           | 0.0018385        | 1.2229            | 1.2242            | 1.2255            | 0.0018385         | 0         | 0         | 0         | 0          |
| 50       | 1.2214           | 1.2229           | 1.2256           | 0.0015233        | 1.2212            | 1.2226            | 1.2252            | 0.0014928         | -0.0011   | -0.00032  | 0.0012    | 0.00067954 |

Device Test: 21.37 V\_REF\_CAP(VOLTAGE|VREF/VREF/12/12/0/1000/5/500kHz//@V\_REF\_CAP)

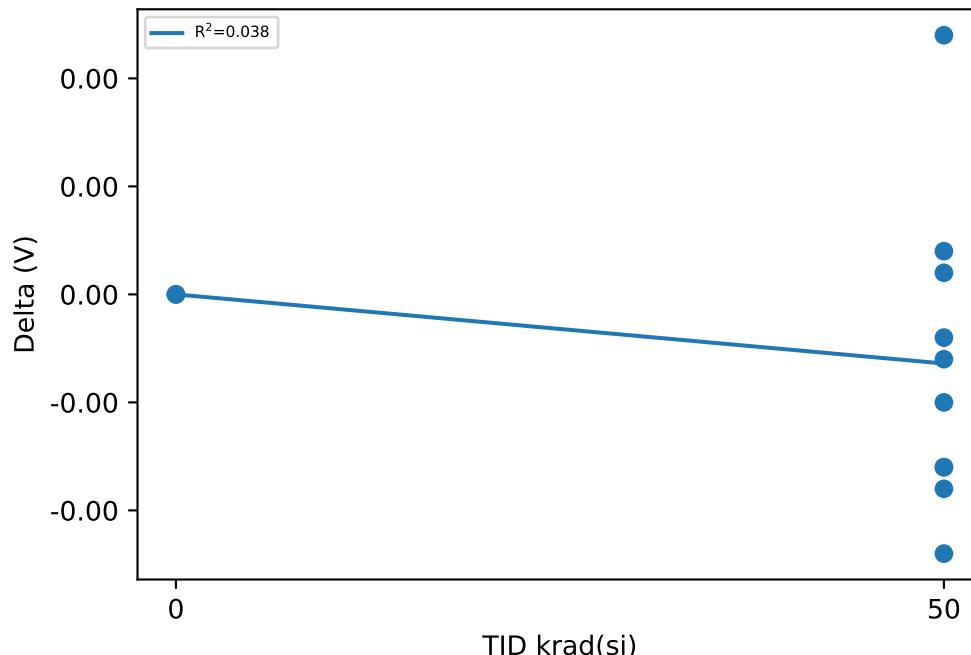
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2229      | 0       |
| 2        | 0        | Correlation         | 1.2256     | 1.2256      | 0       |
| 4        | 50       | Bias                | 1.2235     | 1.2223      | -0.0012 |
| 6        | 50       | Bias                | 1.2226     | 1.2218      | -0.0008 |
| 7        | 50       | Bias                | 1.2252     | 1.2253      | 0.0001  |
| 8        | 50       | Bias                | 1.2239     | 1.2231      | -0.0008 |
| 9        | 50       | Bias                | 1.2257     | 1.2252      | -0.0005 |
| 11       | 50       | Unbias              | 1.2224     | 1.2226      | 0.0002  |
| 12       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2222     | 1.2213      | -0.0009 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

TID vs Post - Pre Exposure Delta

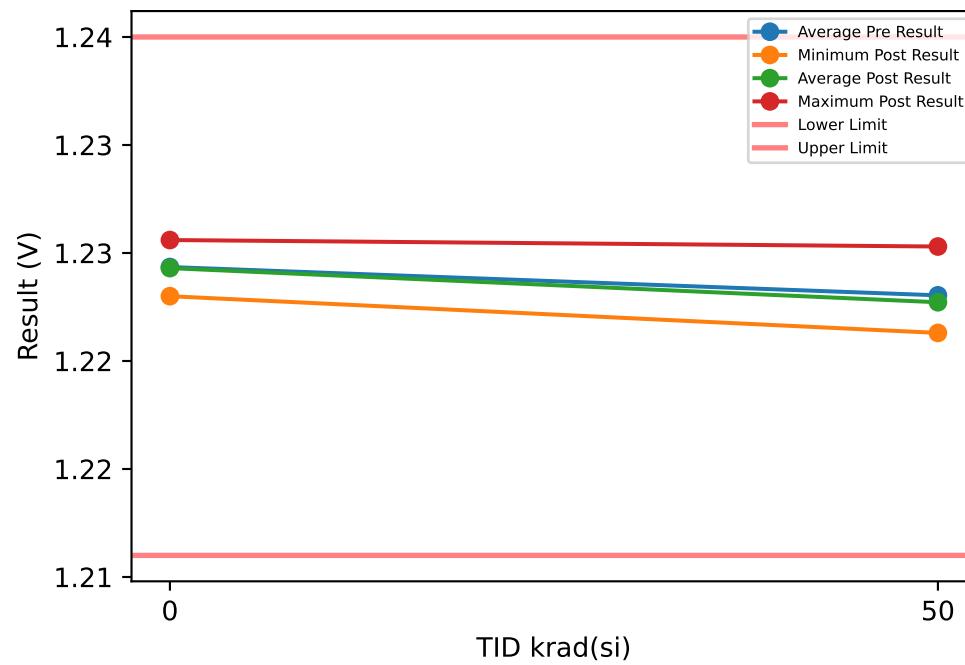


Test Statistics (V)

| 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        | 1.2229           | 1.2243           | 1.2256           | 0.0019092        | 1.2229            | 1.2243            | 1.2256            | 0.0019092         | 0         | 0         | 0         | 0         |
| 50       | 1.2214           | 1.223            | 1.2257           | 0.0015319        | 1.2212            | 1.2227            | 1.2253            | 0.0015135         | -0.0012   | -0.00032  | 0.0012    | 0.0006973 |

# Device Test: 21.39 V\_REF\_CAP(VOLTAGE|VREF/VREF/14/14/0/1000/5/500kHz//@V\_REF\_CAP)

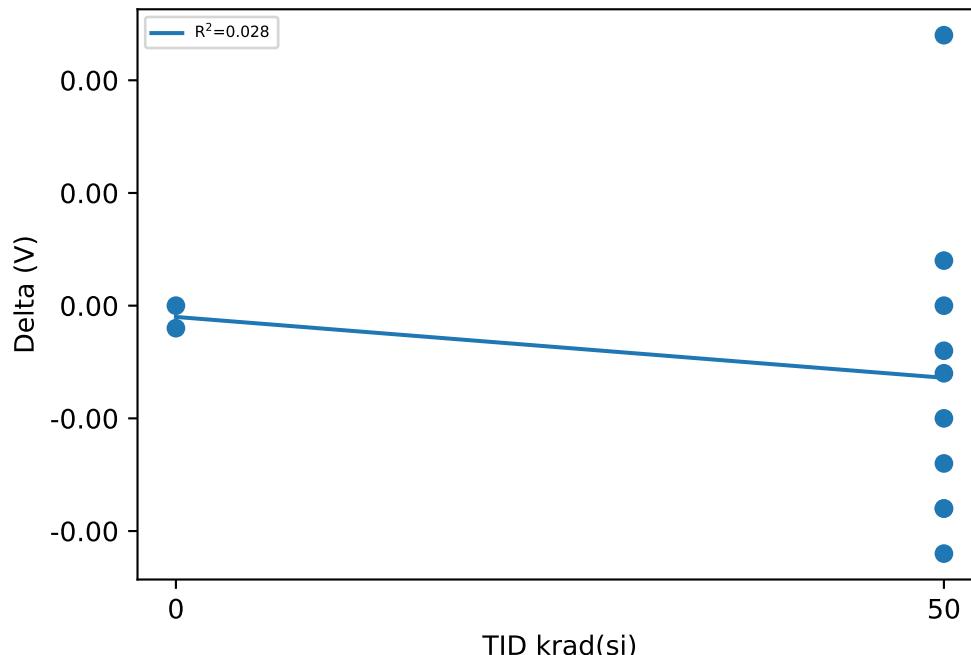
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.223      | 1.223       | 0       |
| 2        | 0        | Correlation         | 1.2257     | 1.2256      | -0.0001 |
| 4        | 50       | Bias                | 1.2235     | 1.2224      | -0.0011 |
| 6        | 50       | Bias                | 1.2227     | 1.2218      | -0.0009 |
| 7        | 50       | Bias                | 1.2253     | 1.2253      | 0       |
| 8        | 50       | Bias                | 1.2239     | 1.2232      | -0.0007 |
| 9        | 50       | Bias                | 1.2257     | 1.2252      | -0.0005 |
| 11       | 50       | Unbias              | 1.2224     | 1.2226      | 0.0002  |
| 12       | 50       | Unbias              | 1.2216     | 1.2213      | -0.0003 |
| 13       | 50       | Unbias              | 1.2215     | 1.2213      | -0.0002 |
| 14       | 50       | Unbias              | 1.2222     | 1.2213      | -0.0009 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

TID vs Post - Pre Exposure Delta

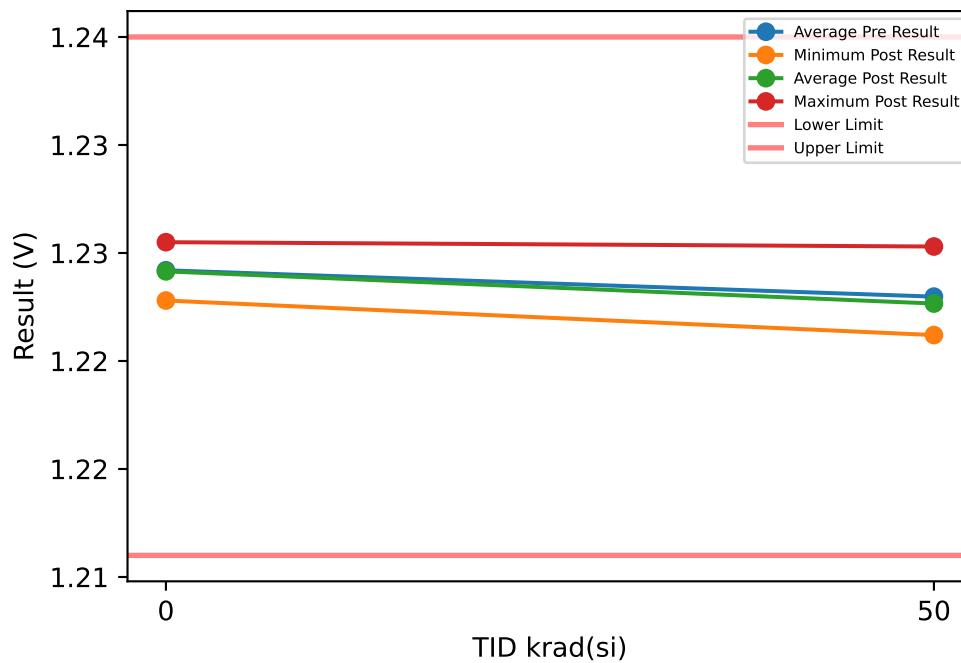


Test Statistics (V)

| 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        | 1.223            | 1.2244           | 1.2257           | 0.0019092        | 1.223             | 1.2243            | 1.2256            | 0.0018385         | -0.0001   | -5e-05    | 0         | 7.0711e-05 |
| 50       | 1.2215           | 1.223            | 1.2257           | 0.0015233        | 1.2213            | 1.2227            | 1.2253            | 0.0014928         | -0.0011   | -0.00032  | 0.0012    | 0.00067954 |

# Device Test: 21.41 V\_REF\_CAP(VOLTAGE|VREF/VREF/4.5/4.5/0/1000/4.5/1MHz//@V\_REF\_CAP)

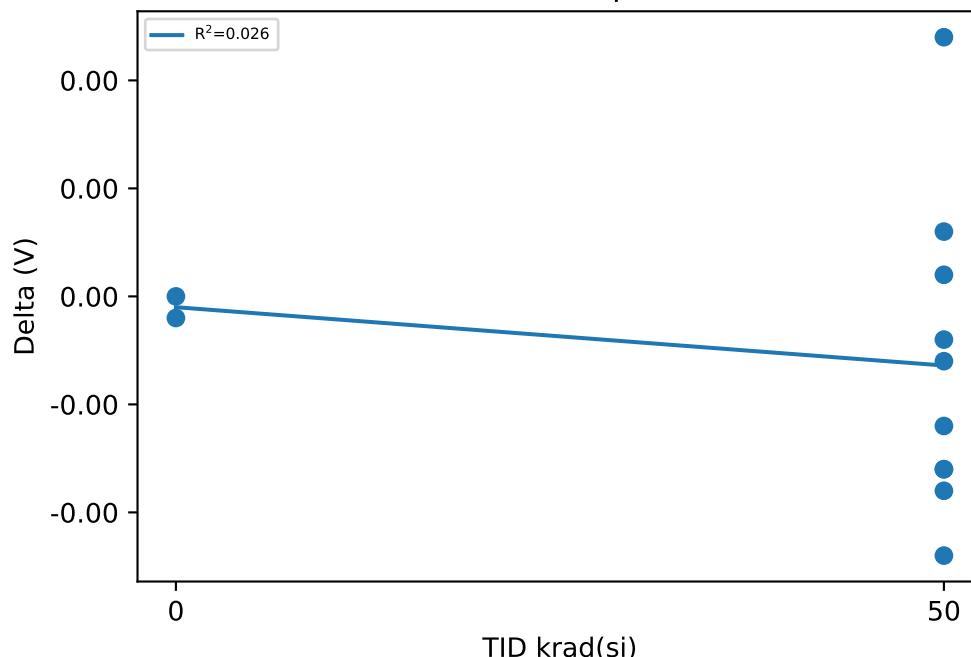
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2228      | -0.0001 |
| 2        | 0        | Correlation         | 1.2255     | 1.2255      | 0       |
| 4        | 50       | Bias                | 1.2235     | 1.2223      | -0.0012 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2253      | 0.0001  |
| 8        | 50       | Bias                | 1.2239     | 1.2231      | -0.0008 |
| 9        | 50       | Bias                | 1.2257     | 1.2251      | -0.0006 |
| 11       | 50       | Unbias              | 1.2223     | 1.2226      | 0.0003  |
| 12       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2221     | 1.2213      | -0.0008 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

TID vs Post - Pre Exposure Delta

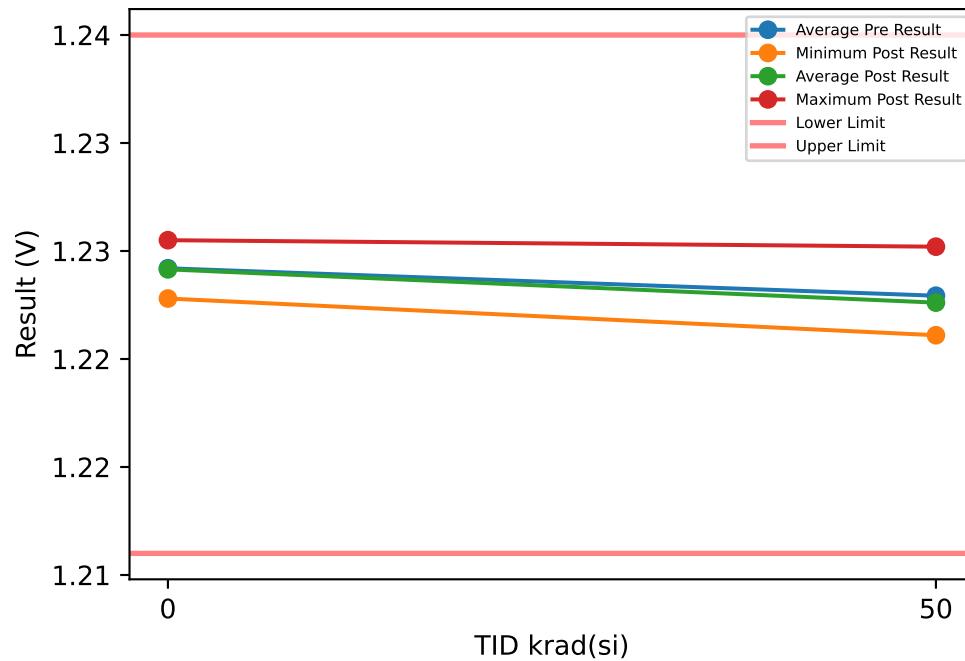


Test Statistics (V)

| 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        | 1.2229           | 1.2242           | 1.2255           | 0.0018385        | 1.2228            | 1.2242            | 1.2255            | 0.0019092         | -0.0001   | -5e-05    | 0         | 7.0711e-05 |
| 50       | 1.2214           | 1.223            | 1.2257           | 0.0015426        | 1.2212            | 1.2227            | 1.2253            | 0.001502          | -0.0012   | -0.00032  | 0.0012    | 0.00070993 |

# Device Test: 21.43 V\_REF\_CAP(VOLTAGE|VREF/VREF/5/5/0/1000/5/1MHz//@V\_REF\_CAP)

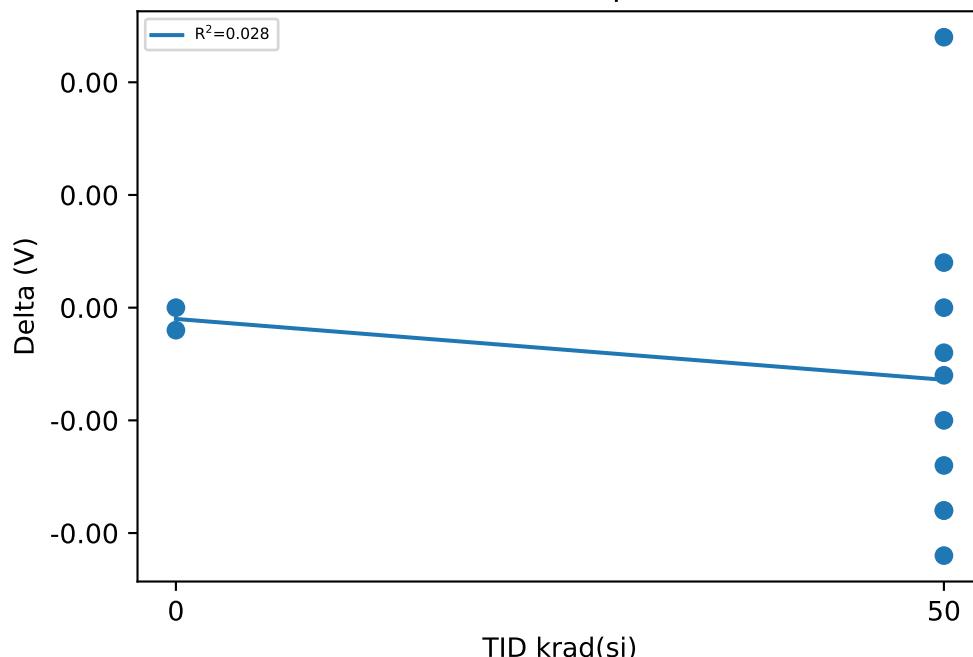
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2228      | -0.0001 |
| 2        | 0        | Correlation         | 1.2255     | 1.2255      | 0       |
| 4        | 50       | Bias                | 1.2234     | 1.2223      | -0.0011 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2252     | 1.2252      | 0       |
| 8        | 50       | Bias                | 1.2238     | 1.2231      | -0.0007 |
| 9        | 50       | Bias                | 1.2256     | 1.2251      | -0.0005 |
| 11       | 50       | Unbias              | 1.2223     | 1.2225      | 0.0002  |
| 12       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 13       | 50       | Unbias              | 1.2214     | 1.2211      | -0.0003 |
| 14       | 50       | Unbias              | 1.2221     | 1.2212      | -0.0009 |
| 15       | 50       | Unbias              | 1.2215     | 1.2227      | 0.0012  |

TID vs Post - Pre Exposure Delta

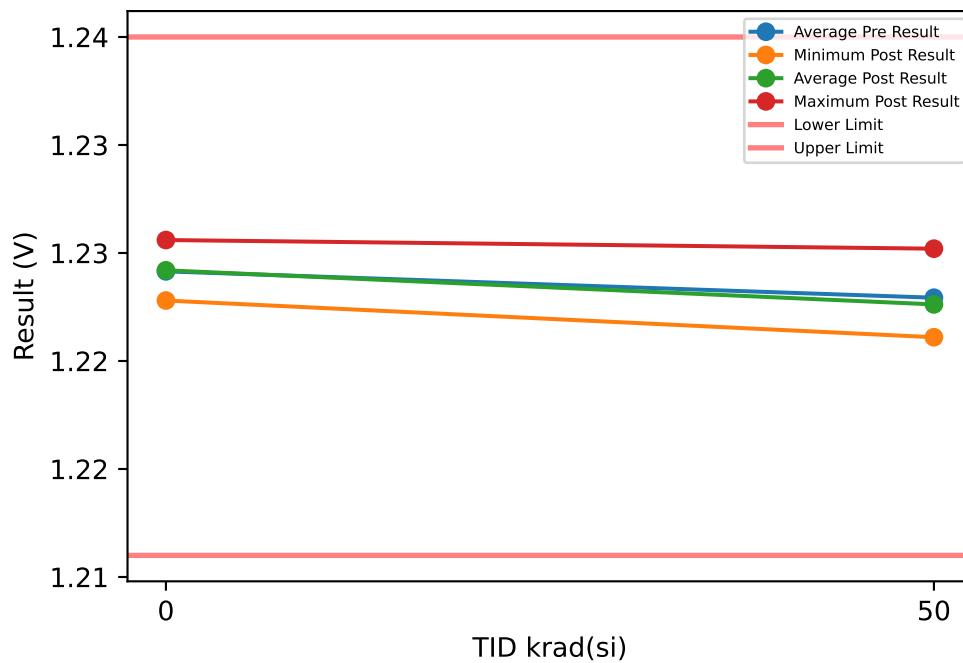


Test Statistics (V)

| 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        | 1.2229           | 1.2242           | 1.2255           | 0.0018385        | 1.2228            | 1.2242            | 1.2255            | 0.0019092         | -0.0001   | -5e-05    | 0         | 7.0711e-05 |
| 50       | 1.2214           | 1.2229           | 1.2256           | 0.0015341        | 1.2211            | 1.2226            | 1.2252            | 0.0015037         | -0.0011   | -0.00032  | 0.0012    | 0.00067954 |

# Device Test: 21.45 V\_REF\_CAP(VOLTAGE|VREF/VREF/12/12/0/1000/5/1MHz//@V\_REF\_CAP)

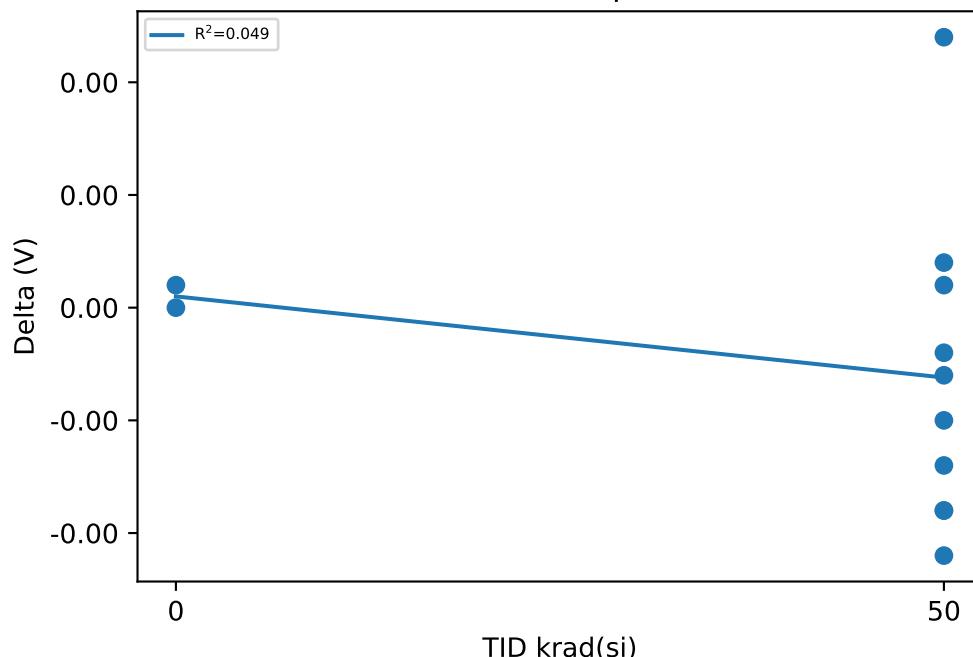
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2228     | 1.2228      | 0       |
| 2        | 0        | Correlation         | 1.2255     | 1.2256      | 0.0001  |
| 4        | 50       | Bias                | 1.2234     | 1.2223      | -0.0011 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2251     | 1.2252      | 0.0001  |
| 8        | 50       | Bias                | 1.2238     | 1.2231      | -0.0007 |
| 9        | 50       | Bias                | 1.2257     | 1.2252      | -0.0005 |
| 11       | 50       | Unbias              | 1.2223     | 1.2225      | 0.0002  |
| 12       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 13       | 50       | Unbias              | 1.2214     | 1.2211      | -0.0003 |
| 14       | 50       | Unbias              | 1.2221     | 1.2212      | -0.0009 |
| 15       | 50       | Unbias              | 1.2215     | 1.2227      | 0.0012  |

TID vs Post - Pre Exposure Delta

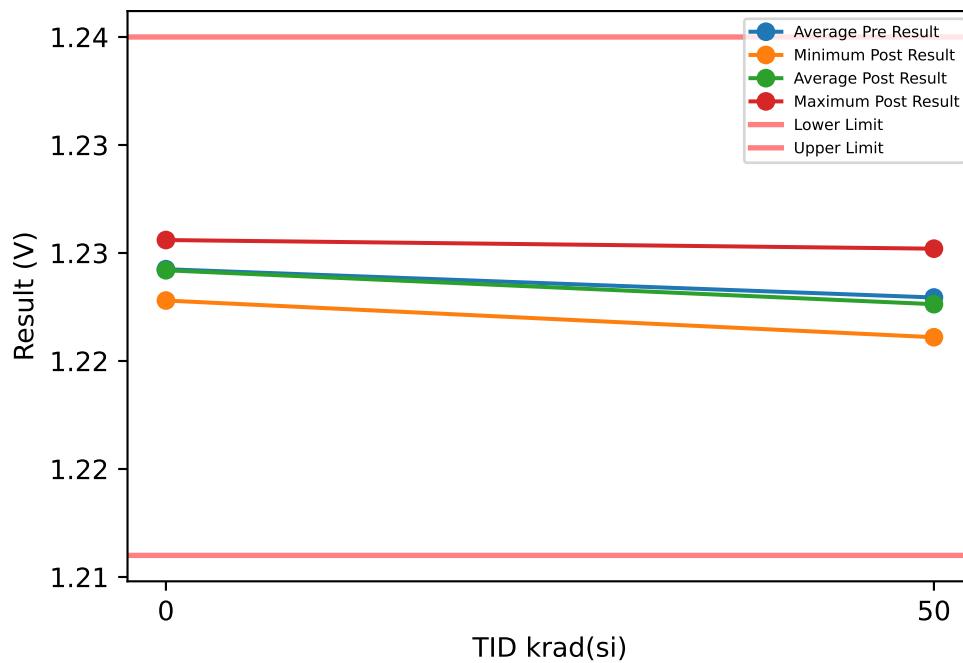


Test Statistics (V)

| 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        | 1.2228           | 1.2242           | 1.2255           | 0.0019092        | 1.2228            | 1.2242            | 1.2256            | 0.0019799         | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 1.2214           | 1.2229           | 1.2257           | 0.0015377        | 1.2211            | 1.2226            | 1.2252            | 0.0015223         | -0.0011   | -0.00031  | 0.0012    | 0.00068548 |

# Device Test: 21.47 V\_REF\_CAP(VOLTAGE|VREF/VREF/14/14/0/1000/5/1MHz//@V\_REF\_CAP)

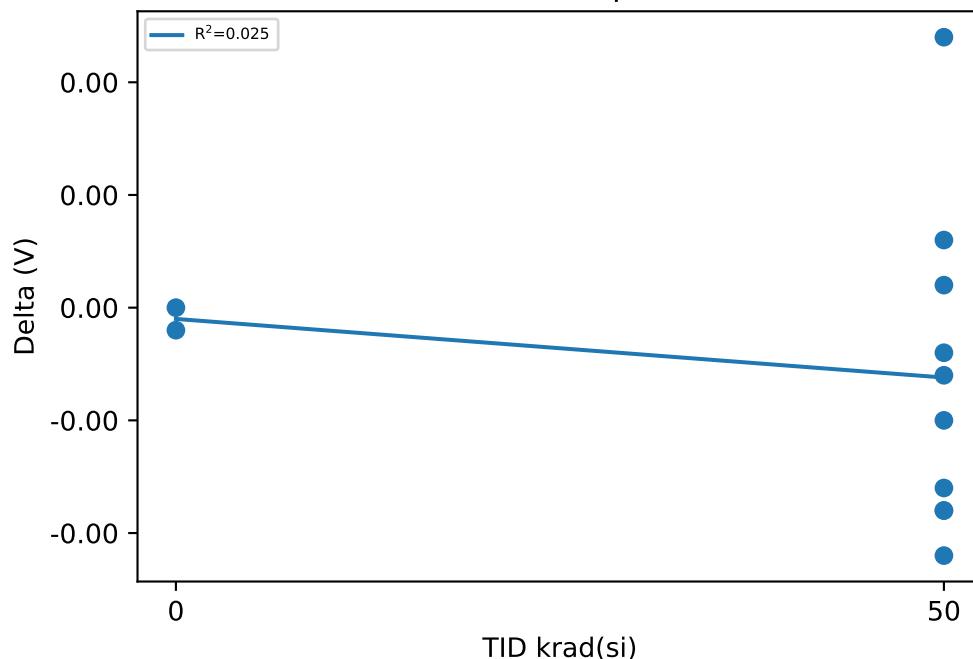
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2228      | -0.0001 |
| 2        | 0        | Correlation         | 1.2256     | 1.2256      | 0       |
| 4        | 50       | Bias                | 1.2234     | 1.2223      | -0.0011 |
| 6        | 50       | Bias                | 1.2226     | 1.2217      | -0.0009 |
| 7        | 50       | Bias                | 1.2251     | 1.2252      | 0.0001  |
| 8        | 50       | Bias                | 1.2239     | 1.2231      | -0.0008 |
| 9        | 50       | Bias                | 1.2257     | 1.2252      | -0.0005 |
| 11       | 50       | Unbias              | 1.2223     | 1.2226      | 0.0003  |
| 12       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 13       | 50       | Unbias              | 1.2213     | 1.2211      | -0.0002 |
| 14       | 50       | Unbias              | 1.2221     | 1.2212      | -0.0009 |
| 15       | 50       | Unbias              | 1.2215     | 1.2227      | 0.0012  |

TID vs Post - Pre Exposure Delta

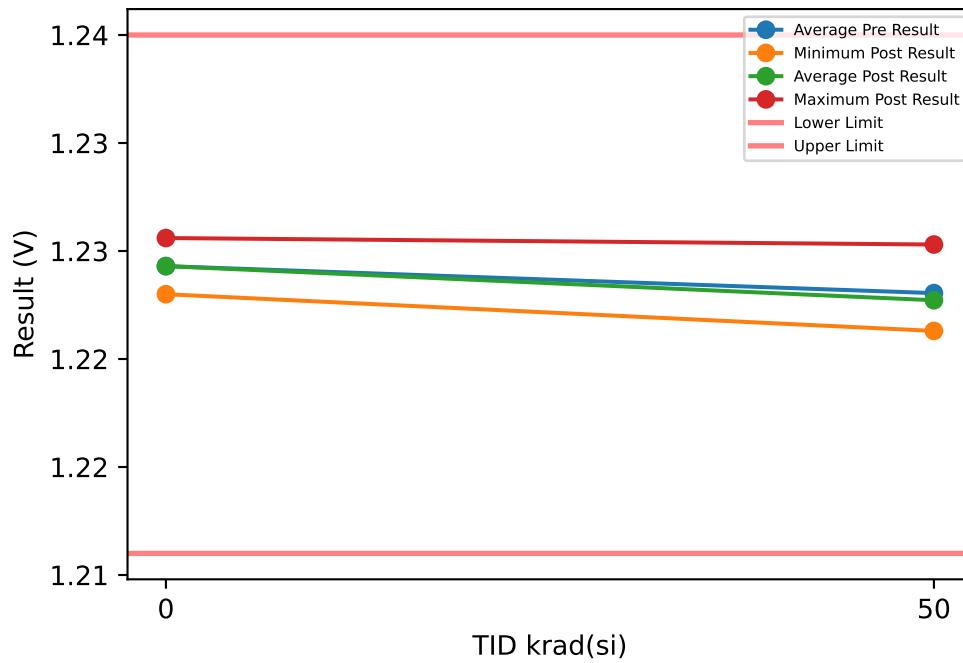


Test Statistics (V)

| 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        | 1.2229           | 1.2243           | 1.2256           | 0.0019092        | 1.2228            | 1.2242            | 1.2256            | 0.0019799         | -0.0001   | -5e-05    | 0         | 7.0711e-05 |
| 50       | 1.2213           | 1.2229           | 1.2257           | 0.001545         | 1.2211            | 1.2226            | 1.2252            | 0.0015217         | -0.0011   | -0.00031  | 0.0012    | 0.00070151 |

# Device Test: 21.5 V\_REF\_CAP(VOLTAGE|VREF/VREF/12/12/0/0/5/100kHz//@V\_REF\_CAP)

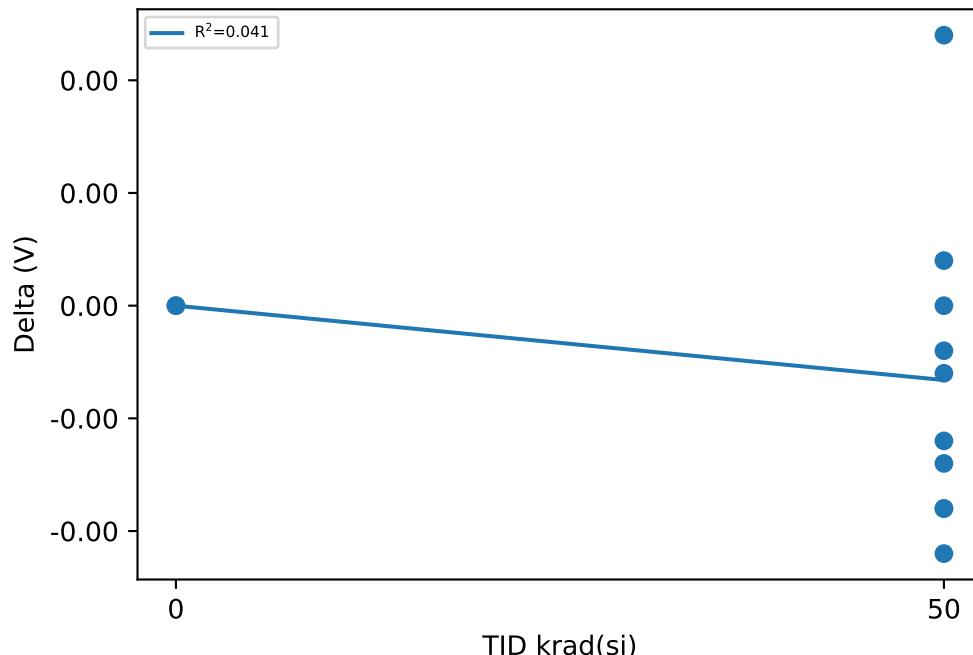
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.223      | 1.223       | 0       |
| 2        | 0        | Correlation         | 1.2256     | 1.2256      | 0       |
| 4        | 50       | Bias                | 1.2235     | 1.2224      | -0.0011 |
| 6        | 50       | Bias                | 1.2227     | 1.2218      | -0.0009 |
| 7        | 50       | Bias                | 1.2253     | 1.2253      | 0       |
| 8        | 50       | Bias                | 1.2239     | 1.2232      | -0.0007 |
| 9        | 50       | Bias                | 1.2258     | 1.2252      | -0.0006 |
| 11       | 50       | Unbias              | 1.2224     | 1.2226      | 0.0002  |
| 12       | 50       | Unbias              | 1.2216     | 1.2213      | -0.0003 |
| 13       | 50       | Unbias              | 1.2215     | 1.2213      | -0.0002 |
| 14       | 50       | Unbias              | 1.2222     | 1.2213      | -0.0009 |
| 15       | 50       | Unbias              | 1.2216     | 1.2228      | 0.0012  |

TID vs Post - Pre Exposure Delta

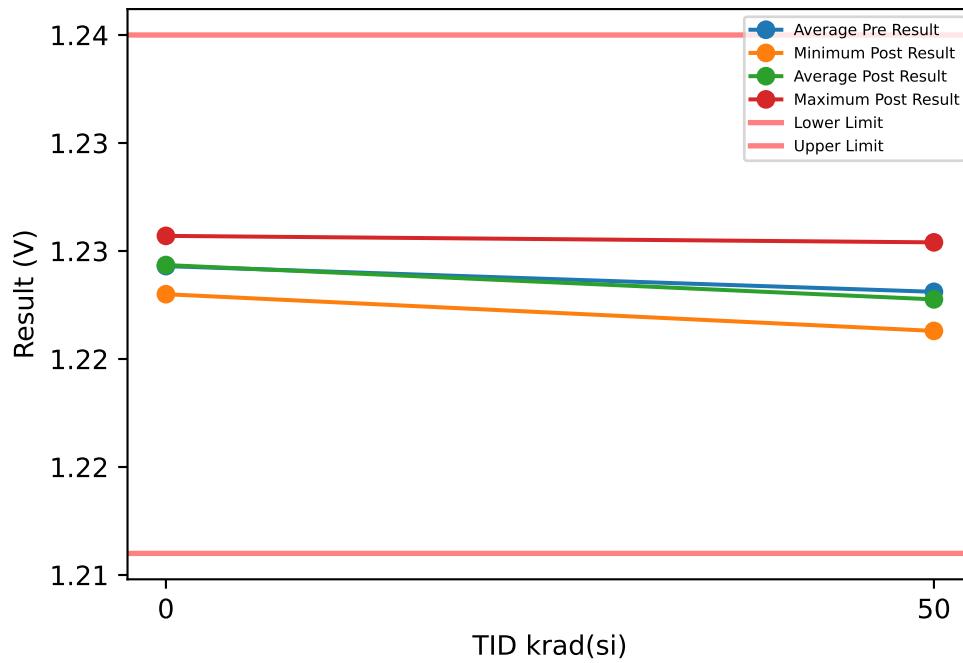


Test Statistics (V)

| 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        | 1.223            | 1.2243           | 1.2256           | 0.0018385        | 1.223             | 1.2243            | 1.2256            | 0.0018385         | 0         | 0         | 0         | 0          |
| 50       | 1.2215           | 1.223            | 1.2258           | 0.0015429        | 1.2213            | 1.2227            | 1.2253            | 0.0014928         | -0.0011   | -0.00033  | 0.0012    | 0.00068321 |

# Device Test: 21.7 V\_REF\_CAP(VOLTAGE|VREF/VREF/14/14/0/0/5/100kHz//@V\_REF\_CAP)

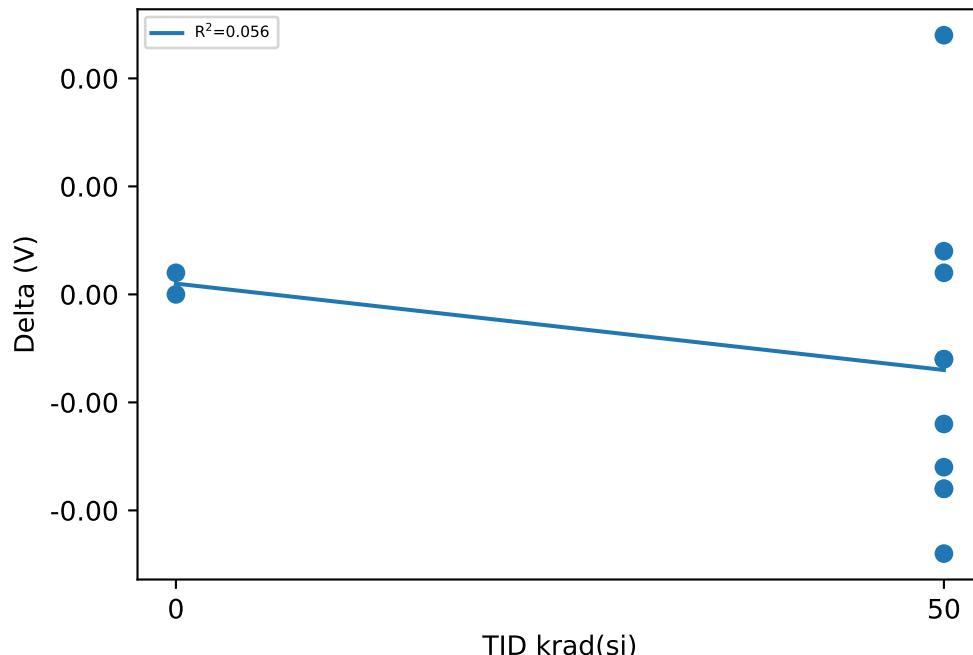
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.223      | 1.223       | 0       |
| 2        | 0        | Correlation         | 1.2256     | 1.2257      | 0.0001  |
| 4        | 50       | Bias                | 1.2236     | 1.2224      | -0.0012 |
| 6        | 50       | Bias                | 1.2227     | 1.2218      | -0.0009 |
| 7        | 50       | Bias                | 1.2253     | 1.2254      | 0.0001  |
| 8        | 50       | Bias                | 1.224      | 1.2232      | -0.0008 |
| 9        | 50       | Bias                | 1.2258     | 1.2252      | -0.0006 |
| 11       | 50       | Unbias              | 1.2225     | 1.2227      | 0.0002  |
| 12       | 50       | Unbias              | 1.2216     | 1.2213      | -0.0003 |
| 13       | 50       | Unbias              | 1.2216     | 1.2213      | -0.0003 |
| 14       | 50       | Unbias              | 1.2223     | 1.2214      | -0.0009 |
| 15       | 50       | Unbias              | 1.2217     | 1.2229      | 0.0012  |

TID vs Post - Pre Exposure Delta

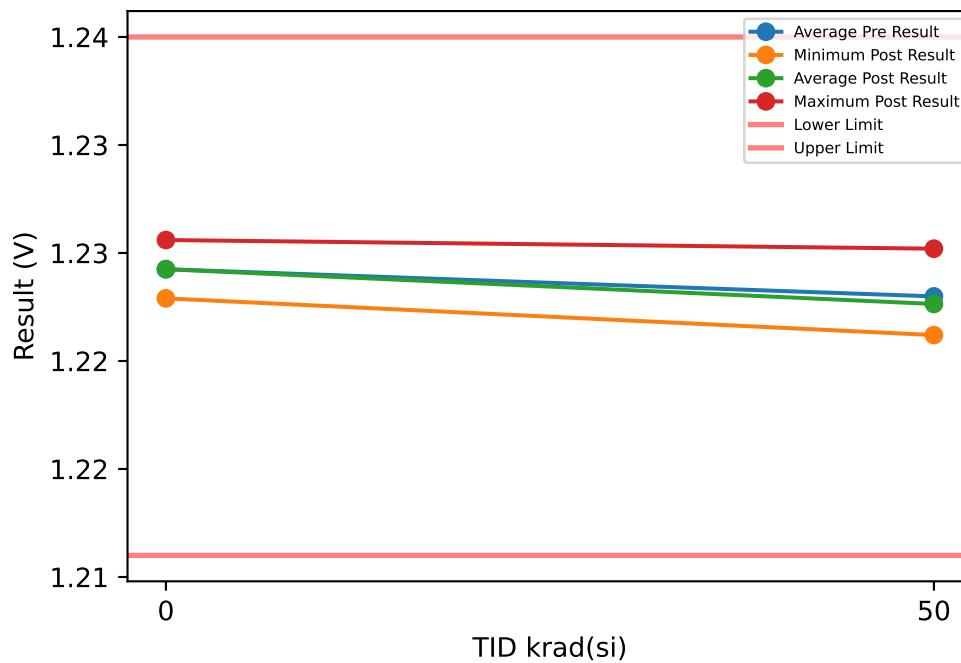


Test Statistics (V)

| 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        | 1.223            | 1.2243           | 1.2256           | 0.0018385        | 1.223             | 1.2244            | 1.2257            | 0.0019092         | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 1.2216           | 1.2231           | 1.2258           | 0.0015206        | 1.2213            | 1.2228            | 1.2254            | 0.001502          | -0.0012   | -0.00035  | 0.0012    | 0.0007075  |

# Device Test: 21.9 V\_REF\_CAP(VOLTAGE|VREF/VREF/4.5/4.5/0/0/4.5/500kHz//@V\_REF\_CAP)

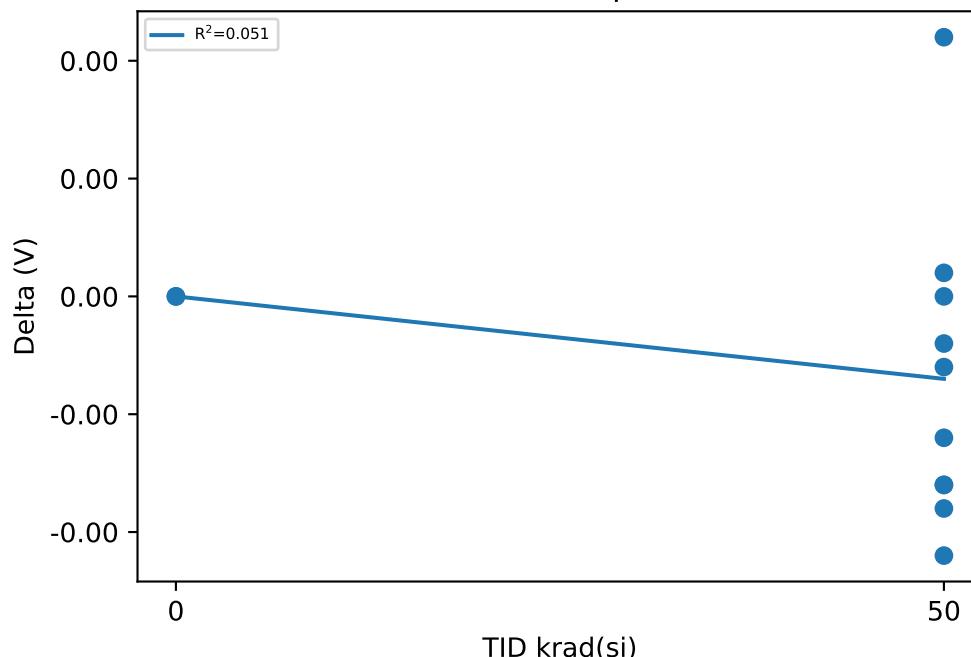
TID vs Result Stats



Test Results (Lower Limit = 1.211, Upper Limit = 1.235 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2229     | 1.2229      | 0       |
| 2        | 0        | Correlation         | 1.2256     | 1.2256      | 0       |
| 4        | 50       | Bias                | 1.2234     | 1.2223      | -0.0011 |
| 6        | 50       | Bias                | 1.2226     | 1.2218      | -0.0008 |
| 7        | 50       | Bias                | 1.2252     | 1.2252      | 0       |
| 8        | 50       | Bias                | 1.2239     | 1.2231      | -0.0008 |
| 9        | 50       | Bias                | 1.2257     | 1.2251      | -0.0006 |
| 11       | 50       | Unbias              | 1.2224     | 1.2225      | 0.0001  |
| 12       | 50       | Unbias              | 1.2215     | 1.2212      | -0.0003 |
| 13       | 50       | Unbias              | 1.2214     | 1.2212      | -0.0002 |
| 14       | 50       | Unbias              | 1.2222     | 1.2213      | -0.0009 |
| 15       | 50       | Unbias              | 1.2216     | 1.2227      | 0.0011  |

TID vs Post - Pre Exposure Delta

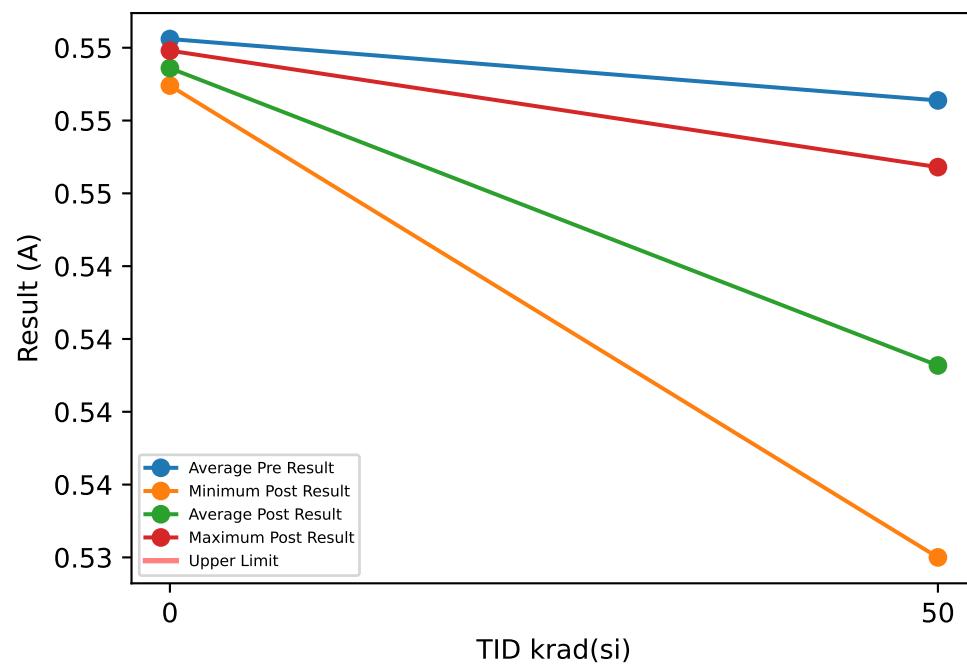


Test Statistics (V)

| 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        | 1.2229           | 1.2243           | 1.2256           | 0.0019092        | 1.2229            | 1.2243            | 1.2256            | 0.0019092         | 0         | 0         | 0         | 0         |
| 50       | 1.2214           | 1.223            | 1.2257           | 0.0015286        | 1.2212            | 1.2226            | 1.2252            | 0.0014759         | -0.0011   | -0.00035  | 0.0011    | 0.0006485 |

# Device Test: 23.1 OUT\_IOH\_4P5V(CURRENT|SOURCE/OUTH/4.5/4.5/0/0/4.5/500kHz//@OUT\_IOH\_4P5V)

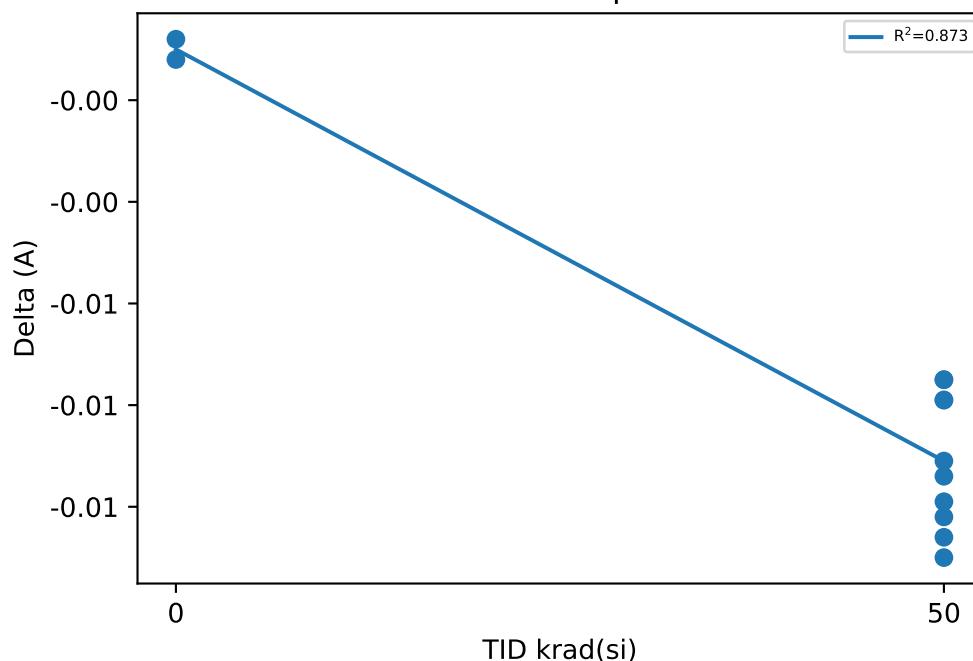
TID vs Result Stats



Test Results (No Limits Specified (A))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.5524     | 0.5512      | -0.0012 |
| 2        | 0        | Correlation         | 0.5532     | 0.5524      | -0.0008 |
| 4        | 50       | Bias                | 0.5469     | 0.5378      | -0.0091 |
| 6        | 50       | Bias                | 0.5469     | 0.5394      | -0.0075 |
| 7        | 50       | Bias                | 0.5465     | 0.539       | -0.0075 |
| 8        | 50       | Bias                | 0.5469     | 0.539       | -0.0079 |
| 9        | 50       | Bias                | 0.5429     | 0.535       | -0.0079 |
| 11       | 50       | Unbias              | 0.5567     | 0.5465      | -0.0102 |
| 12       | 50       | Unbias              | 0.5583     | 0.5484      | -0.0099 |
| 13       | 50       | Unbias              | 0.5575     | 0.5469      | -0.0106 |
| 14       | 50       | Unbias              | 0.5484     | 0.5374      | -0.011  |
| 15       | 50       | Unbias              | 0.5559     | 0.5465      | -0.0094 |

TID vs Post - Pre Exposure Delta

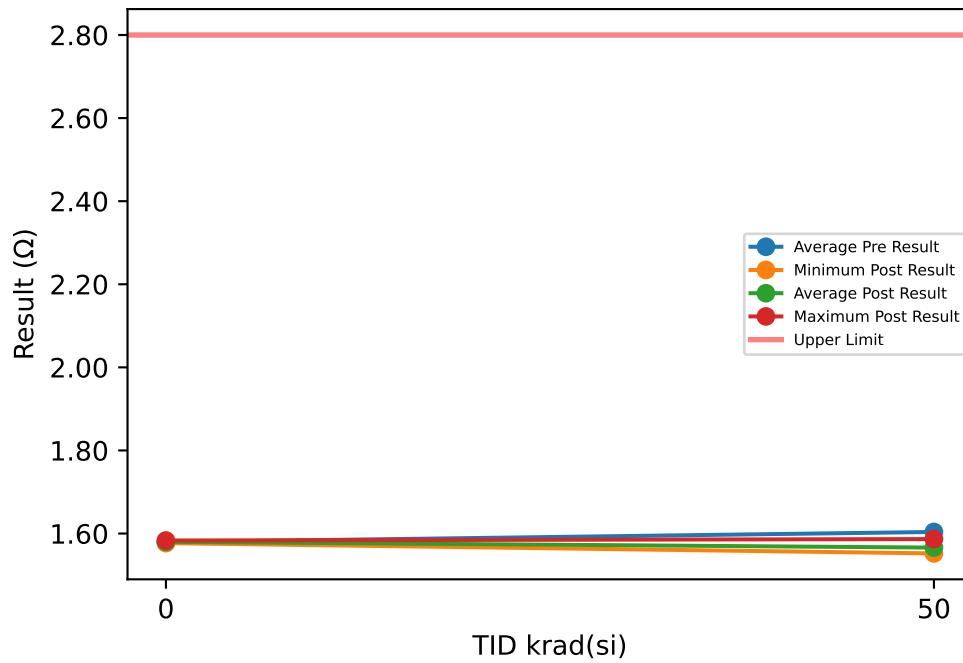


Test Statistics (A)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.5524           | 0.5528           | 0.5532           | 0.00056569       | 0.5512            | 0.5518            | 0.5524            | 0.00084853        | -0.0012   | -0.001    | -0.0008   | 0.00028284 |
| 50       | 0.5429           | 0.55069          | 0.5583           | 0.0057167        | 0.535             | 0.54159           | 0.5484            | 0.0049029         | -0.011    | -0.0091   | -0.0075   | 0.001325   |

# Device Test: 23.10 ROL(LEVEL|LS\_RDSON/OUTL/12/12/100/0/5/500kHz//@ROL)

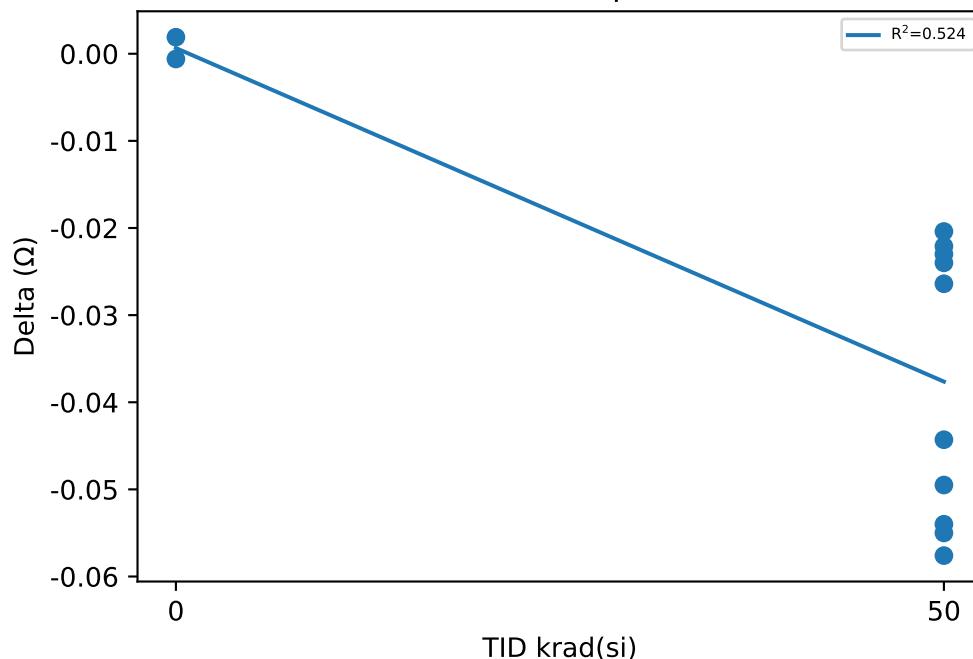
TID vs Result Stats



Test Results (Upper Limit = 2.8 ( $\Omega$ ))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.575      | 1.5769      | 0.0019  |
| 2        | 0        | Correlation         | 1.5838     | 1.5832      | -0.0006 |
| 4        | 50       | Bias                | 1.6231     | 1.5681      | -0.055  |
| 6        | 50       | Bias                | 1.5991     | 1.5548      | -0.0443 |
| 7        | 50       | Bias                | 1.6062     | 1.5522      | -0.054  |
| 8        | 50       | Bias                | 1.6151     | 1.5575      | -0.0576 |
| 9        | 50       | Bias                | 1.6122     | 1.5627      | -0.0495 |
| 11       | 50       | Unbias              | 1.5912     | 1.5682      | -0.023  |
| 12       | 50       | Unbias              | 1.5877     | 1.5673      | -0.0204 |
| 13       | 50       | Unbias              | 1.5849     | 1.5628      | -0.0221 |
| 14       | 50       | Unbias              | 1.6078     | 1.5814      | -0.0264 |
| 15       | 50       | Unbias              | 1.6107     | 1.5867      | -0.024  |

TID vs Post - Pre Exposure Delta

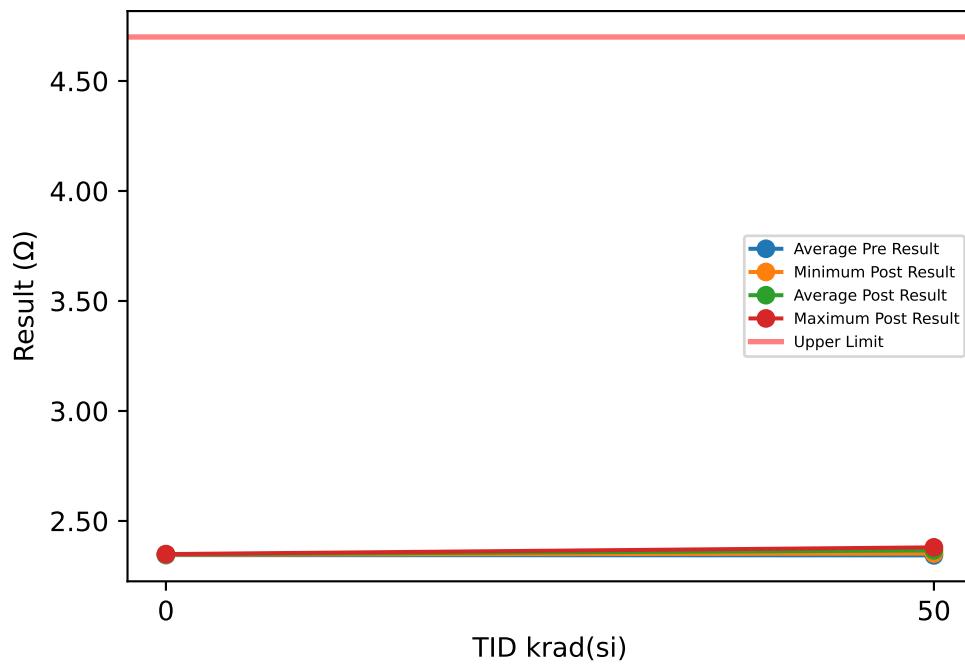


Test Statistics ( $\Omega$ )

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 1.575            | 1.5794           | 1.5838           | 0.0062225        | 1.5769            | 1.58              | 1.5832            | 0.0044548         | -0.0006   | 0.00065   | 0.0019    | 0.0017678 |
| 50       | 1.5849           | 1.6038           | 1.6231           | 0.012638         | 1.5522            | 1.5662            | 1.5867            | 0.010983          | -0.0576   | -0.03763  | -0.0204   | 0.015698  |

# Device Test: 23.11 ROH(LEVEL|HS\_RDS0N/OUTH/14/14/100/0/5/500kHz//@ROH)

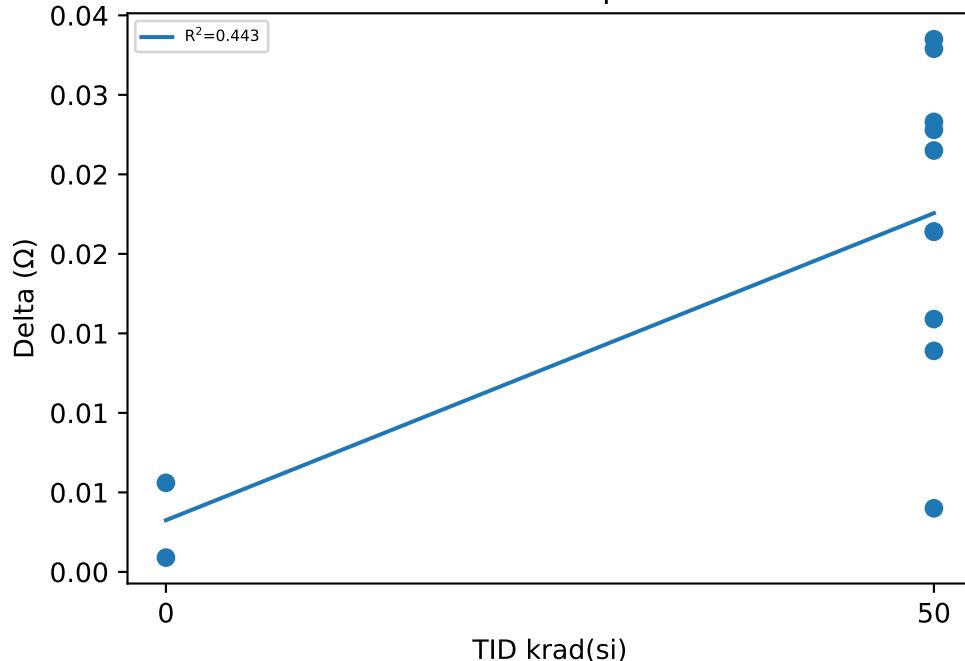
TID vs Result Stats



Test Results (Upper Limit = 4.7 (Ω))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 2.3459     | 2.3468      | 0.0009 |
| 2        | 0        | Correlation         | 2.3439     | 2.3495      | 0.0056 |
| 4        | 50       | Bias                | 2.3279     | 2.3608      | 0.0329 |
| 6        | 50       | Bias                | 2.335      | 2.3615      | 0.0265 |
| 7        | 50       | Bias                | 2.3448     | 2.3731      | 0.0283 |
| 8        | 50       | Bias                | 2.3467     | 2.3802      | 0.0335 |
| 9        | 50       | Bias                | 2.3412     | 2.369       | 0.0278 |
| 11       | 50       | Unbias              | 2.3378     | 2.3517      | 0.0139 |
| 12       | 50       | Unbias              | 2.3394     | 2.3608      | 0.0214 |
| 13       | 50       | Unbias              | 2.3611     | 2.3651      | 0.004  |
| 14       | 50       | Unbias              | 2.3454     | 2.3668      | 0.0214 |
| 15       | 50       | Unbias              | 2.3562     | 2.3721      | 0.0159 |

TID vs Post - Pre Exposure Delta

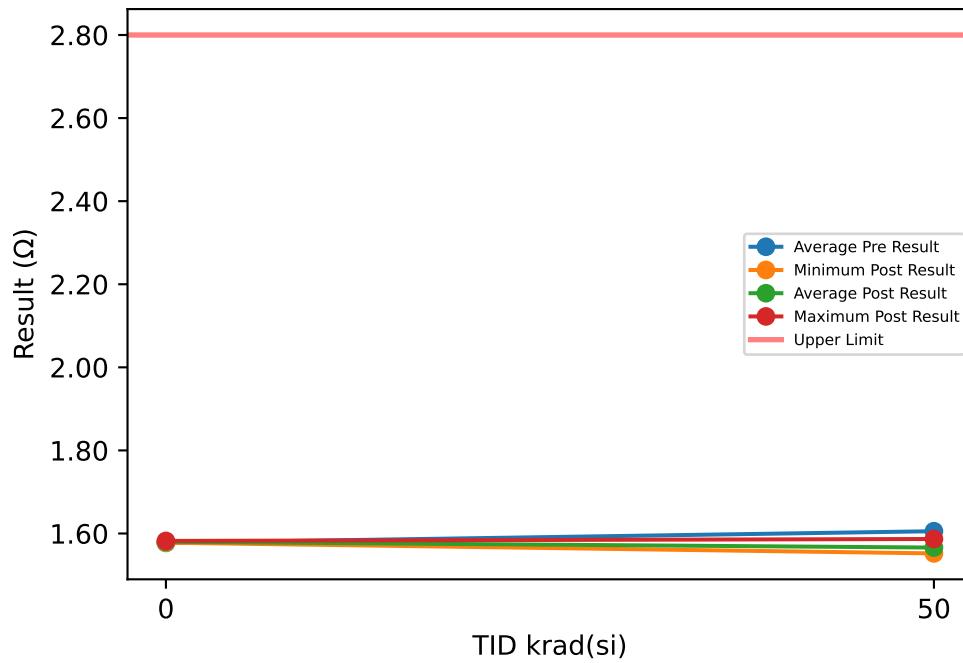


Test Statistics (Ω)

| 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        | 2.3439           | 2.3449           | 2.3459           | 0.0014142        | 2.3468            | 2.3481            | 2.3495            | 0.0019092         | 0.0009    | 0.00325   | 0.0056    | 0.0033234 |
| 50       | 2.3279           | 2.3436           | 2.3611           | 0.0097568        | 2.3517            | 2.3661            | 2.3802            | 0.0080167         | 0.004     | 0.02256   | 0.0335    | 0.0092439 |

# Device Test: 23.12 ROL(LEVEL|LS\_RDSON/OUTL/14/14/100/0/5/500kHz//@ROL)

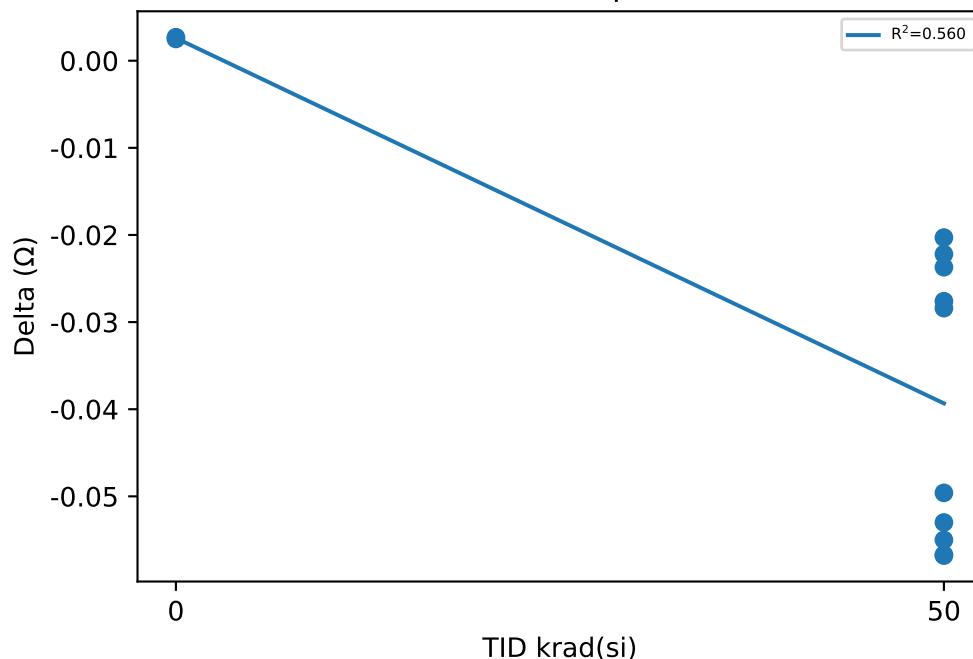
TID vs Result Stats



Test Results (Upper Limit = 2.8 (Ω))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.5752     | 1.5779      | 0.0027  |
| 2        | 0        | Correlation         | 1.5796     | 1.5821      | 0.0025  |
| 4        | 50       | Bias                | 1.623      | 1.568       | -0.055  |
| 6        | 50       | Bias                | 1.6017     | 1.5521      | -0.0496 |
| 7        | 50       | Bias                | 1.6107     | 1.5539      | -0.0568 |
| 8        | 50       | Bias                | 1.6159     | 1.5592      | -0.0567 |
| 9        | 50       | Bias                | 1.615      | 1.562       | -0.053  |
| 11       | 50       | Unbias              | 1.5912     | 1.5628      | -0.0284 |
| 12       | 50       | Unbias              | 1.5938     | 1.5662      | -0.0276 |
| 13       | 50       | Unbias              | 1.5849     | 1.5646      | -0.0203 |
| 14       | 50       | Unbias              | 1.6105     | 1.5868      | -0.0237 |
| 15       | 50       | Unbias              | 1.6081     | 1.5859      | -0.0222 |

TID vs Post - Pre Exposure Delta

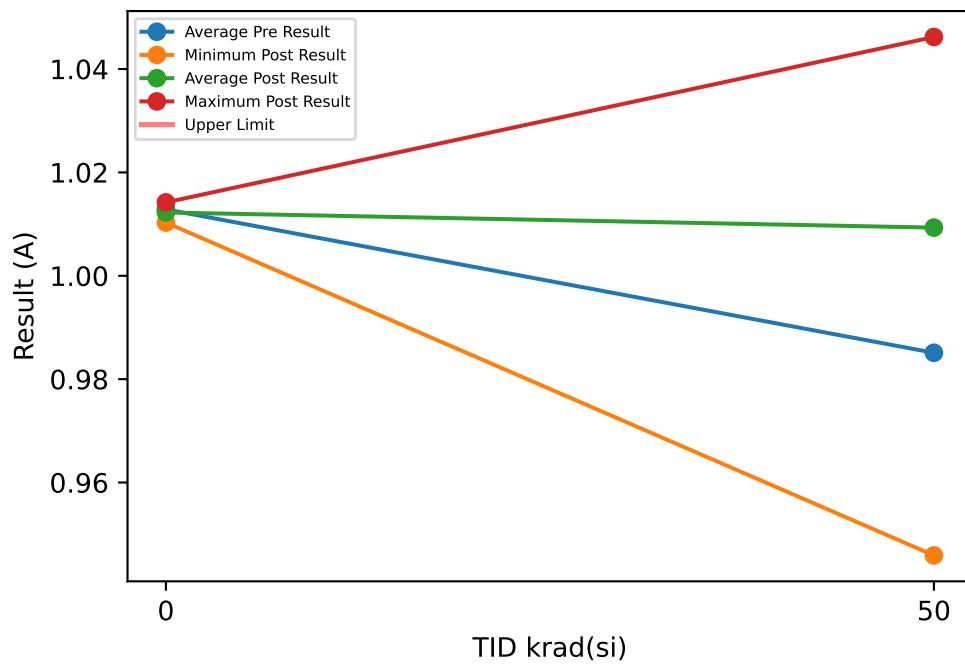


Test Statistics (Ω)

| 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        | 1.5752           | 1.5774           | 1.5796           | 0.0031113        | 1.5779            | 1.58              | 1.5821            | 0.0029698         | 0.0025    | 0.0026    | 0.0027    | 0.00014142 |
| 50       | 1.5849           | 1.6055           | 1.623            | 0.012219         | 1.5521            | 1.5661            | 1.5868            | 0.011769          | -0.0568   | -0.03933  | -0.0203   | 0.015992   |

# Device Test: 23.2 OUT\_IOL\_4P5V(CURRENT|SINK/OUTL/4.5/4.5/0/0/4.5/500kHz//@OUT\_IOL\_4P5V)

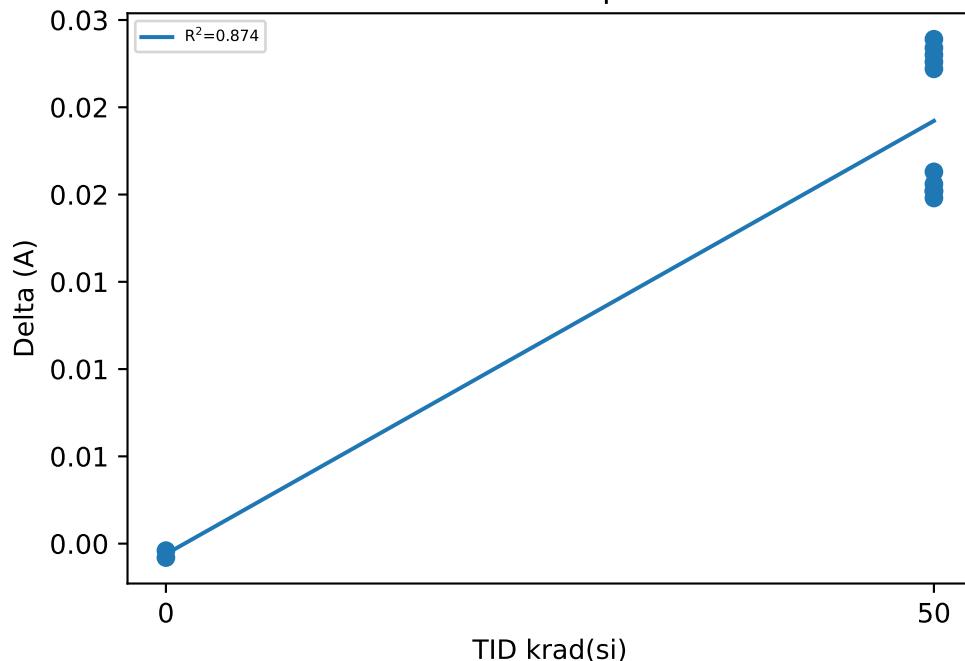
TID vs Result Stats



Test Results (No Limits Specified (A))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.0146     | 1.0142      | -0.0004 |
| 2        | 0        | Correlation         | 1.0111     | 1.0103      | -0.0008 |
| 4        | 50       | Bias                | 0.9257     | 0.9459      | 0.0202  |
| 6        | 50       | Bias                | 1.013      | 1.0328      | 0.0198  |
| 7        | 50       | Bias                | 1.0059     | 1.0265      | 0.0206  |
| 8        | 50       | Bias                | 0.9751     | 0.9964      | 0.0213  |
| 9        | 50       | Bias                | 0.9818     | 1.002       | 0.0202  |
| 11       | 50       | Unbias              | 1.0012     | 1.0292      | 0.028   |
| 12       | 50       | Unbias              | 0.9941     | 1.0213      | 0.0272  |
| 13       | 50       | Unbias              | 1.0186     | 1.0462      | 0.0276  |
| 14       | 50       | Unbias              | 1.0071     | 1.036       | 0.0289  |
| 15       | 50       | Unbias              | 0.9285     | 0.9569      | 0.0284  |

TID vs Post - Pre Exposure Delta

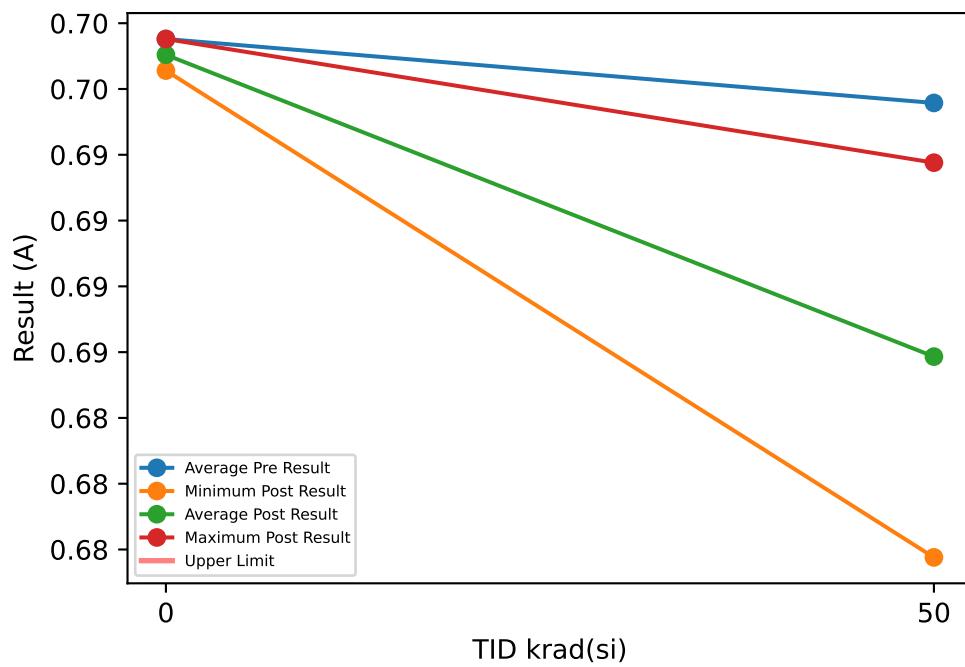


Test Statistics (A)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 1.0111           | 1.0129           | 1.0146           | 0.0024749        | 1.0103            | 1.0122            | 1.0142            | 0.0027577         | -0.0008   | -0.0006   | -0.0004   | 0.00028284 |
| 50       | 0.9257           | 0.9851           | 1.0186           | 0.033334         | 0.9459            | 1.0093            | 1.0462            | 0.034071          | 0.0198    | 0.02422   | 0.0289    | 0.0040477  |

# Device Test: 23.3 OUT\_IOH\_5V(CURRENT|SOURCE/OUTH/5/5/0/0/5/500kHz//@OUT\_IOH\_5V)

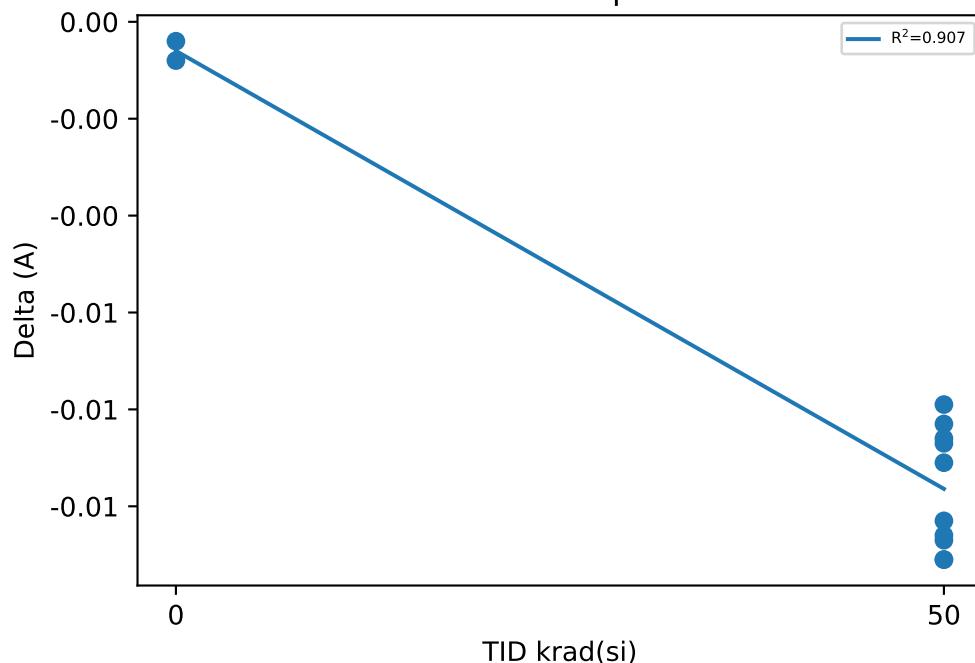
TID vs Result Stats



Test Results (No Limits Specified (A))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.6986     | 0.6982      | -0.0004 |
| 2        | 0        | Correlation         | 0.7002     | 0.6994      | -0.0008 |
| 4        | 50       | Bias                | 0.6927     | 0.684       | -0.0087 |
| 6        | 50       | Bias                | 0.6931     | 0.6852      | -0.0079 |
| 7        | 50       | Bias                | 0.6927     | 0.6844      | -0.0083 |
| 8        | 50       | Bias                | 0.6931     | 0.684       | -0.0091 |
| 9        | 50       | Bias                | 0.6883     | 0.6797      | -0.0086 |
| 11       | 50       | Unbias              | 0.7034     | 0.6931      | -0.0103 |
| 12       | 50       | Unbias              | 0.7053     | 0.6947      | -0.0106 |
| 13       | 50       | Unbias              | 0.7042     | 0.6931      | -0.0111 |
| 14       | 50       | Unbias              | 0.6947     | 0.6836      | -0.0111 |
| 15       | 50       | Unbias              | 0.7022     | 0.6915      | -0.0107 |

TID vs Post - Pre Exposure Delta

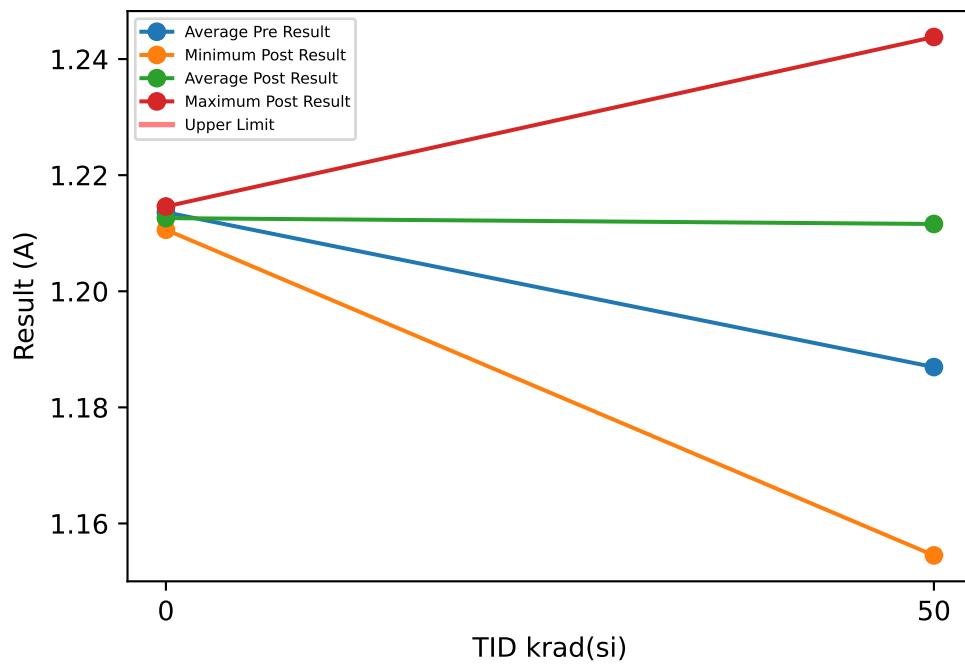


Test Statistics (A)

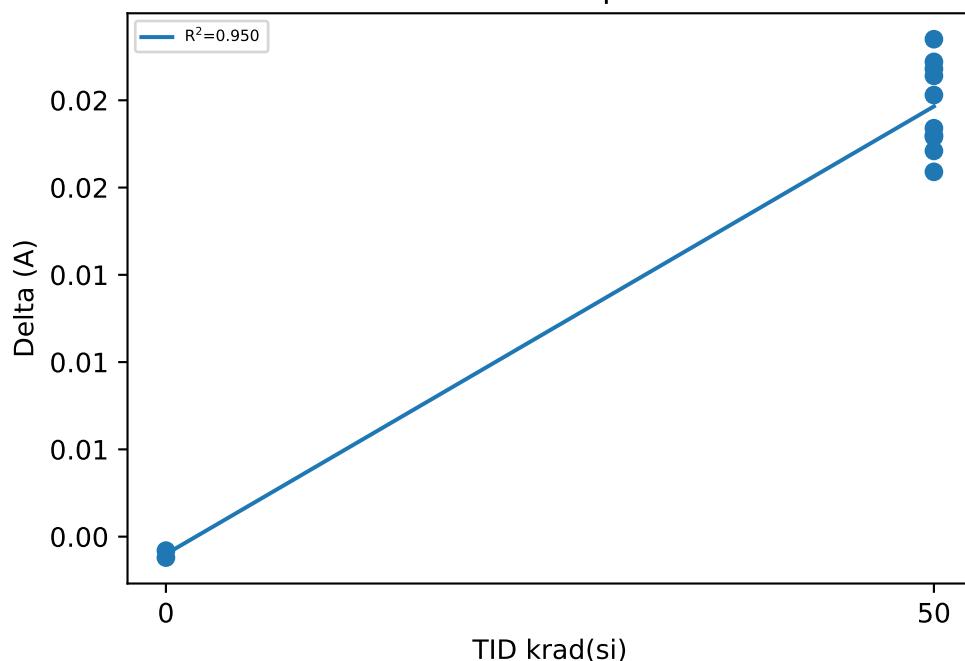
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.6986           | 0.6994           | 0.7002           | 0.0011314        | 0.6982            | 0.6988            | 0.6994            | 0.00084853        | -0.0008   | -0.0006   | -0.0004   | 0.00028284 |
| 50       | 0.6883           | 0.69697          | 0.7053           | 0.0061201        | 0.6797            | 0.68733           | 0.6947            | 0.0052252         | -0.0111   | -0.00964  | -0.0079   | 0.0012394  |

# Device Test: 23.4 OUT\_IOL\_5V(CURRENT|SINK/OUTL/5/5/0/0/5/500kHz//@OUT\_IOL\_5V)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (No Limits Specified (A))

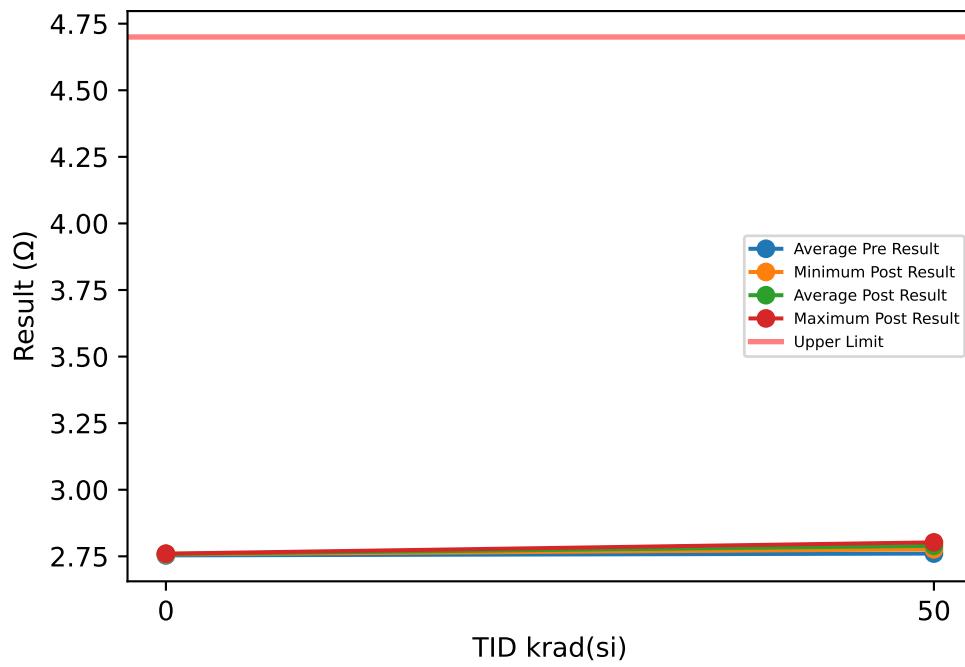
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.2158     | 1.2146      | -0.0012 |
| 2        | 0        | Correlation         | 1.2114     | 1.2106      | -0.0008 |
| 4        | 50       | Bias                | 1.1336     | 1.1545      | 0.0209  |
| 6        | 50       | Bias                | 1.2118     | 1.2348      | 0.023   |
| 7        | 50       | Bias                | 1.2055     | 1.2284      | 0.0229  |
| 8        | 50       | Bias                | 1.1778     | 1.2012      | 0.0234  |
| 9        | 50       | Bias                | 1.1846     | 1.2067      | 0.0221  |
| 11       | 50       | Unbias              | 1.2016     | 1.228       | 0.0264  |
| 12       | 50       | Unbias              | 1.1964     | 1.2217      | 0.0253  |
| 13       | 50       | Unbias              | 1.217      | 1.2438      | 0.0268  |
| 14       | 50       | Unbias              | 1.2059     | 1.2344      | 0.0285  |
| 15       | 50       | Unbias              | 1.1352     | 1.1624      | 0.0272  |

Test Statistics (A)

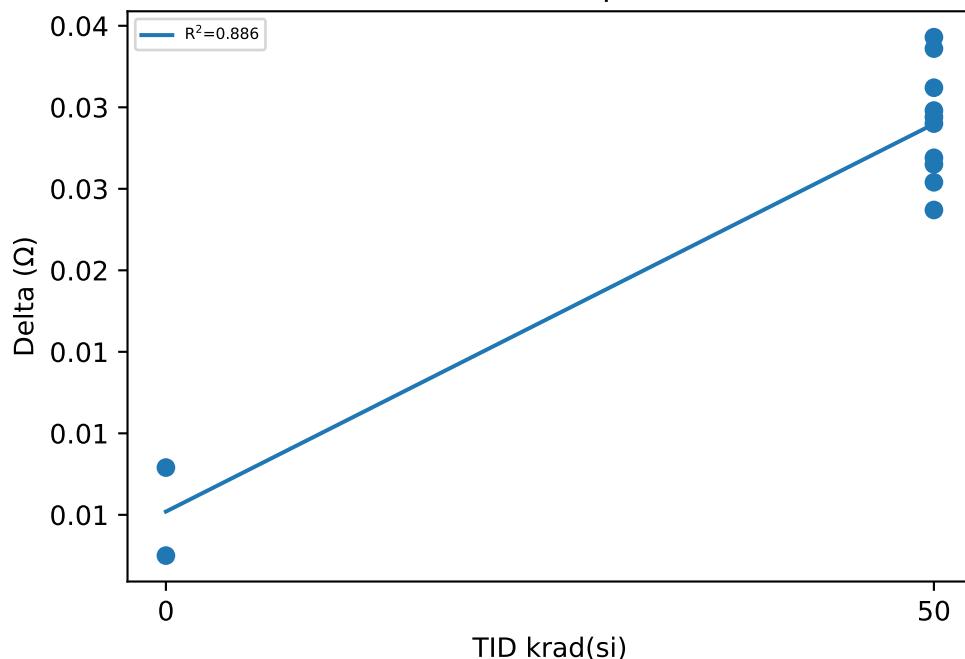
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 1.2114           | 1.2136           | 1.2158           | 0.0031113        | 1.2106            | 1.2126            | 1.2146            | 0.0028284         | -0.0012   | -0.001    | -0.0008   | 0.00028284 |
| 50       | 1.1336           | 1.1869           | 1.217            | 0.030076         | 1.1545            | 1.2116            | 1.2438            | 0.030843          | 0.0209    | 0.02465   | 0.0285    | 0.0025242  |

# Device Test: 23.5 ROH(LEVEL|HS\_RDS0N/OUTH/4.5/4.5/100/0/4.5/500kHz//@ROH)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 4.7 ( $\Omega$ ))

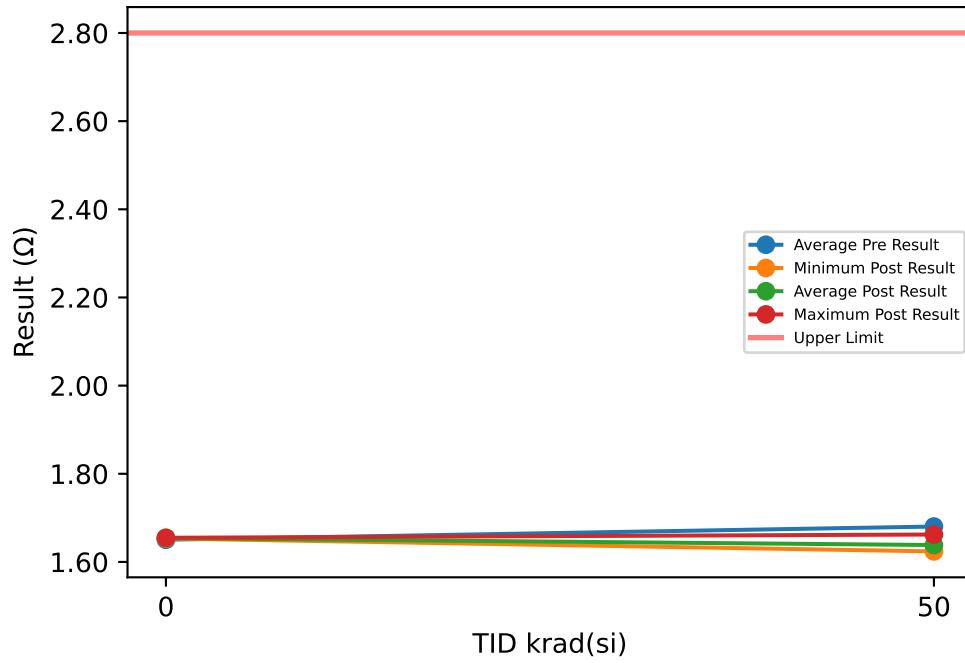
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 2.7522     | 2.7601      | 0.0079 |
| 2        | 0        | Correlation         | 2.7548     | 2.7573      | 0.0025 |
| 4        | 50       | Bias                | 2.7536     | 2.7848      | 0.0312 |
| 6        | 50       | Bias                | 2.7719     | 2.8009      | 0.029  |
| 7        | 50       | Bias                | 2.7582     | 2.7925      | 0.0343 |
| 8        | 50       | Bias                | 2.7649     | 2.7947      | 0.0298 |
| 9        | 50       | Bias                | 2.7689     | 2.8025      | 0.0336 |
| 11       | 50       | Unbias              | 2.7546     | 2.7783      | 0.0237 |
| 12       | 50       | Unbias              | 2.7494     | 2.7763      | 0.0269 |
| 13       | 50       | Unbias              | 2.758      | 2.7834      | 0.0254 |
| 14       | 50       | Unbias              | 2.7587     | 2.7881      | 0.0294 |
| 15       | 50       | Unbias              | 2.7649     | 2.7914      | 0.0265 |

Test Statistics ( $\Omega$ )

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 2.7522           | 2.7535           | 2.7548           | 0.0018385        | 2.7573            | 2.7587            | 2.7601            | 0.0019799         | 0.0025    | 0.0052    | 0.0079    | 0.0038184 |
| 50       | 2.7494           | 2.7603           | 2.7719           | 0.0071437        | 2.7763            | 2.7893            | 2.8025            | 0.0088136         | 0.0237    | 0.02898   | 0.0343    | 0.0034415 |

# Device Test: 23.6 ROL(LEVEL|LS\_RDS0N/OUTL/4.5/4.5/100/0/4.5/500kHz//@ROL)

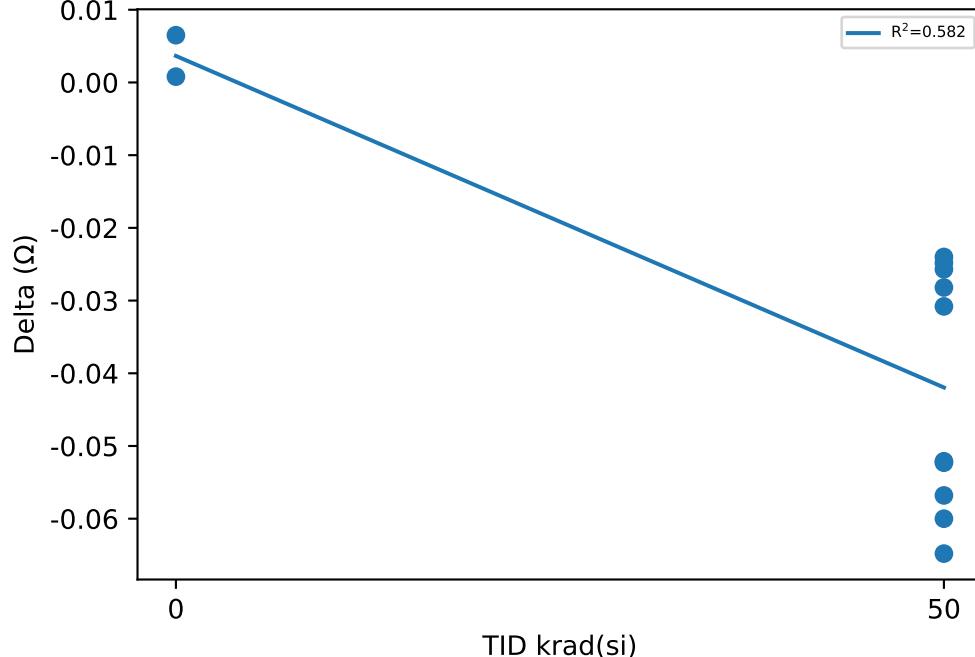
TID vs Result Stats



Test Results (Upper Limit = 2.8 ( $\Omega$ ))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.6467     | 1.6532      | 0.0065  |
| 2        | 0        | Correlation         | 1.654      | 1.6548      | 0.0008  |
| 4        | 50       | Bias                | 1.7073     | 1.6425      | -0.0648 |
| 6        | 50       | Bias                | 1.6762     | 1.6239      | -0.0523 |
| 7        | 50       | Bias                | 1.6798     | 1.6277      | -0.0521 |
| 8        | 50       | Bias                | 1.693      | 1.633       | -0.06   |
| 9        | 50       | Bias                | 1.6903     | 1.6335      | -0.0568 |
| 11       | 50       | Unbias              | 1.6647     | 1.6399      | -0.0248 |
| 12       | 50       | Unbias              | 1.6602     | 1.6345      | -0.0257 |
| 13       | 50       | Unbias              | 1.6602     | 1.6294      | -0.0308 |
| 14       | 50       | Unbias              | 1.6807     | 1.6567      | -0.024  |
| 15       | 50       | Unbias              | 1.6904     | 1.6622      | -0.0282 |

TID vs Post - Pre Exposure Delta

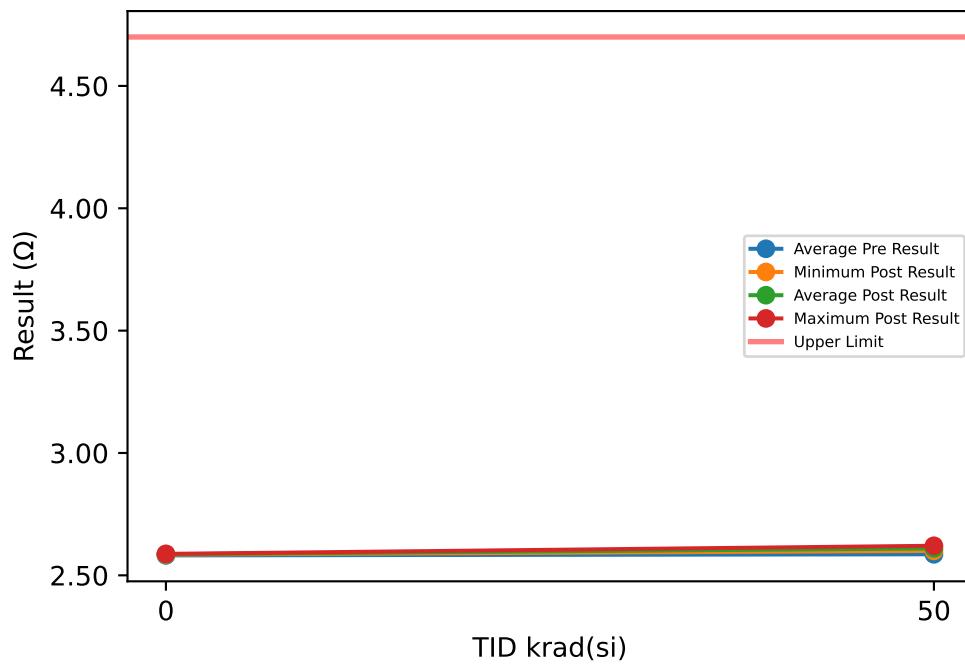


Test Statistics ( $\Omega$ )

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 1.6467           | 1.6503           | 1.654            | 0.0051619        | 1.6532            | 1.654             | 1.6548            | 0.0011314         | 0.0008    | 0.00365   | 0.0065    | 0.0040305 |
| 50       | 1.6602           | 1.6803           | 1.7073           | 0.015495         | 1.6239            | 1.6383            | 1.6622            | 0.012447          | -0.0648   | -0.04195  | -0.024    | 0.016574  |

# Device Test: 23.7 ROH(LEVEL|HS\_RDS0N/OUTH/5/5/100/0/5/500kHz//@ROH)

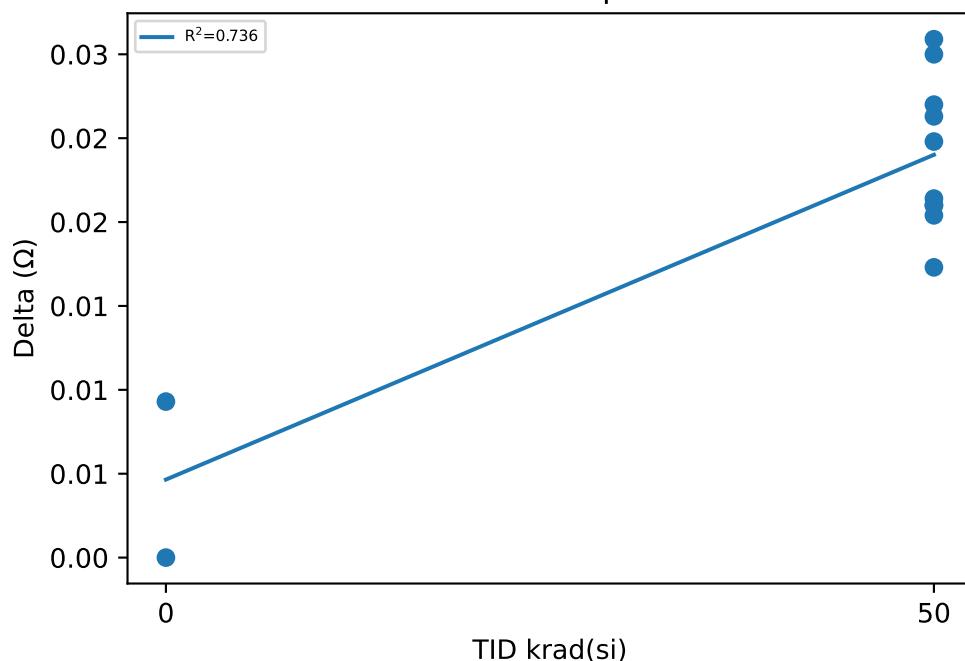
TID vs Result Stats



Test Results (Upper Limit = 4.7 (Ω))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 2.5784     | 2.5877      | 0.0093 |
| 2        | 0        | Correlation         | 2.5845     | 2.5845      | 0      |
| 4        | 50       | Bias                | 2.5796     | 2.6044      | 0.0248 |
| 6        | 50       | Bias                | 2.5938     | 2.6208      | 0.027  |
| 7        | 50       | Bias                | 2.5837     | 2.6137      | 0.03   |
| 8        | 50       | Bias                | 2.5876     | 2.6139      | 0.0263 |
| 9        | 50       | Bias                | 2.5886     | 2.6195      | 0.0309 |
| 11       | 50       | Unbias              | 2.5829     | 2.6002      | 0.0173 |
| 12       | 50       | Unbias              | 2.5793     | 2.5997      | 0.0204 |
| 13       | 50       | Unbias              | 2.5859     | 2.6073      | 0.0214 |
| 14       | 50       | Unbias              | 2.5843     | 2.6053      | 0.021  |
| 15       | 50       | Unbias              | 2.5938     | 2.6148      | 0.021  |

TID vs Post - Pre Exposure Delta

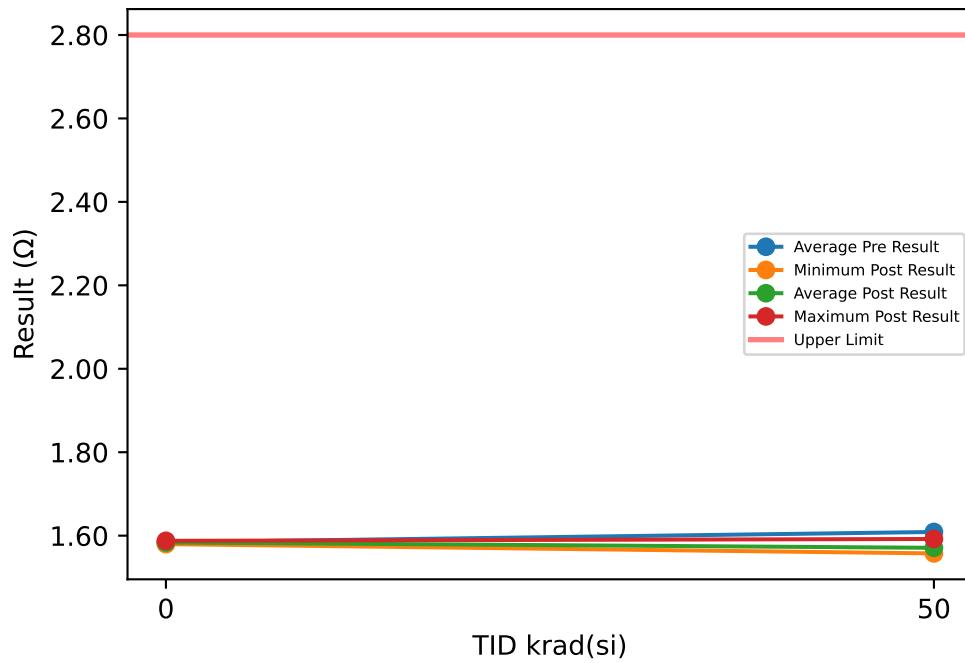


Test Statistics (Ω)

| 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        | 2.5784           | 2.5814           | 2.5845           | 0.0043134        | 2.5845            | 2.5861            | 2.5877            | 0.0022627         | 0         | 0.00465   | 0.0093    | 0.0065761 |
| 50       | 2.5793           | 2.5859           | 2.5938           | 0.0051058        | 2.5997            | 2.61              | 2.6208            | 0.0076135         | 0.0173    | 0.02401   | 0.0309    | 0.0044864 |

# Device Test: 23.8 ROL(LEVEL|LS\_RDS0N/OUTL/5/5/100/0/5/500kHz//@ROL)

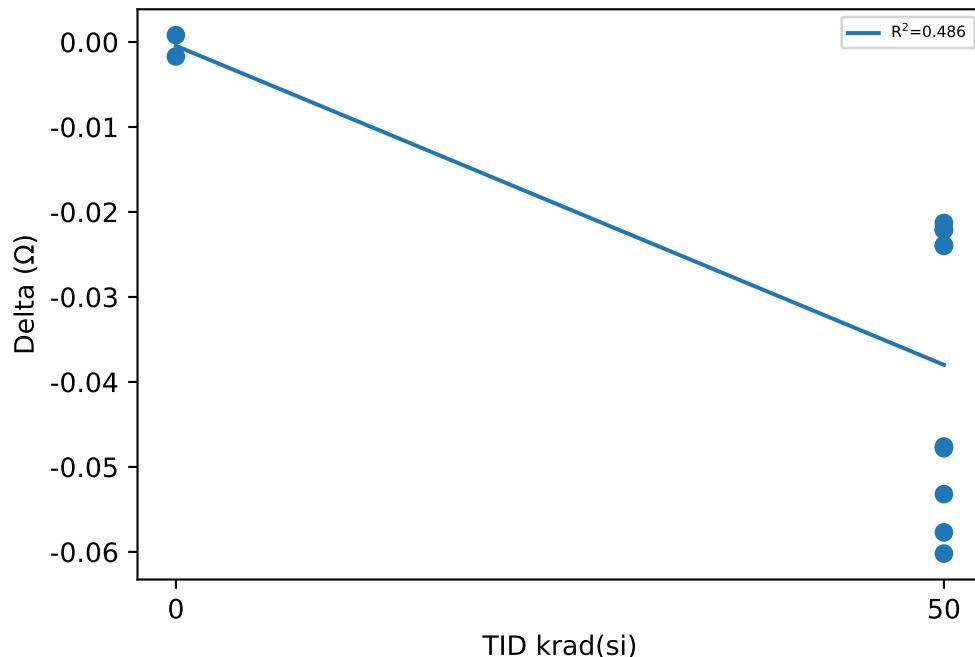
TID vs Result Stats



Test Results (Upper Limit = 2.8 (Ω))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.5814     | 1.5797      | -0.0017 |
| 2        | 0        | Correlation         | 1.5868     | 1.5876      | 0.0008  |
| 4        | 50       | Bias                | 1.6284     | 1.5707      | -0.0577 |
| 6        | 50       | Bias                | 1.6051     | 1.5575      | -0.0476 |
| 7        | 50       | Bias                | 1.6125     | 1.5593      | -0.0532 |
| 8        | 50       | Bias                | 1.6212     | 1.561       | -0.0602 |
| 9        | 50       | Bias                | 1.6168     | 1.569       | -0.0478 |
| 11       | 50       | Unbias              | 1.5929     | 1.569       | -0.0239 |
| 12       | 50       | Unbias              | 1.5948     | 1.5735      | -0.0213 |
| 13       | 50       | Unbias              | 1.5902     | 1.5681      | -0.0221 |
| 14       | 50       | Unbias              | 1.6125     | 1.5885      | -0.024  |
| 15       | 50       | Unbias              | 1.6142     | 1.5921      | -0.0221 |

TID vs Post - Pre Exposure Delta

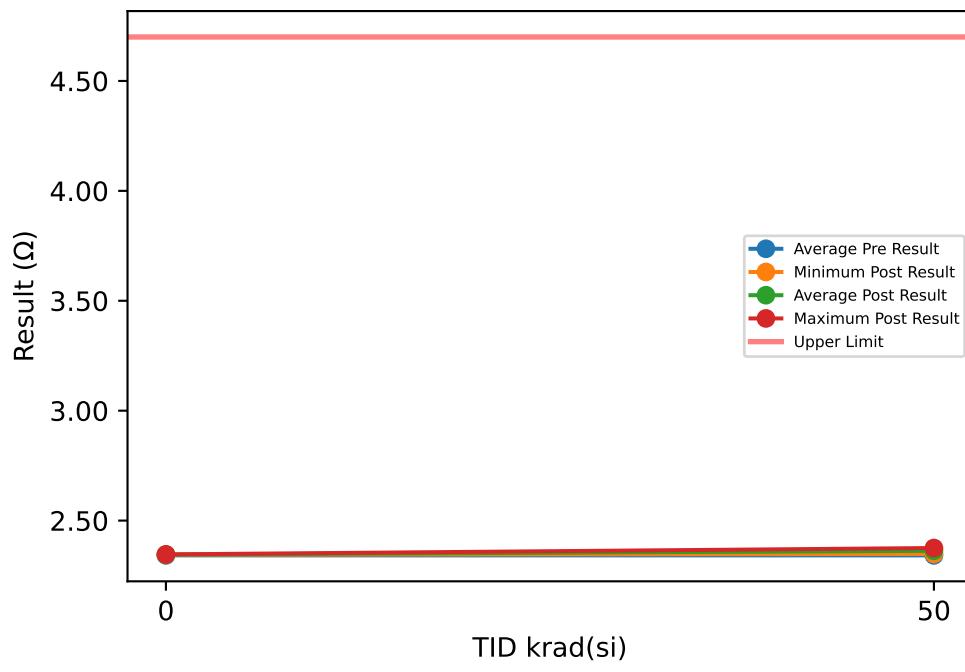


Test Statistics (Ω)

| 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        | 1.5814           | 1.5841           | 1.5868           | 0.0038184        | 1.5797            | 1.5837            | 1.5876            | 0.0055861         | -0.0017   | -0.00045  | 0.0008    | 0.0017678 |
| 50       | 1.5902           | 1.6089           | 1.6284           | 0.012767         | 1.5575            | 1.5709            | 1.5921            | 0.011514          | -0.0602   | -0.03799  | -0.0213   | 0.016598  |

# Device Test: 23.9 ROH(LEVEL|HS\_RDS0N/OUTH/12/12/100/0/5/500kHz//@ROH)

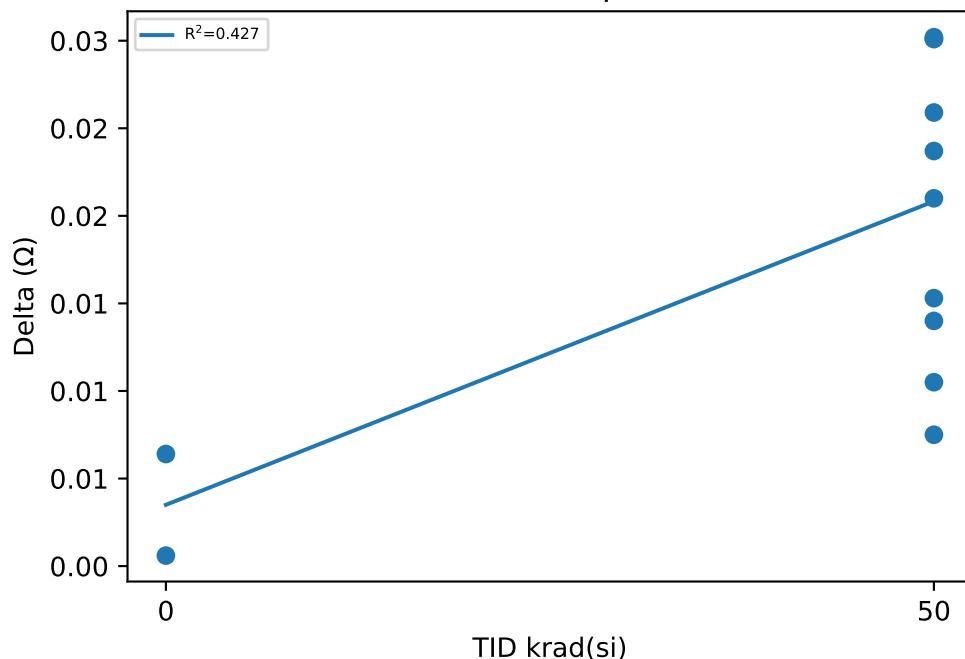
TID vs Result Stats



Test Results (Upper Limit = 4.7 (Ω))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 2.3398     | 2.3462      | 0.0064 |
| 2        | 0        | Correlation         | 2.3438     | 2.3444      | 0.0006 |
| 4        | 50       | Bias                | 2.3294     | 2.3531      | 0.0237 |
| 6        | 50       | Bias                | 2.3284     | 2.3585      | 0.0301 |
| 7        | 50       | Bias                | 2.3417     | 2.3718      | 0.0301 |
| 8        | 50       | Bias                | 2.345      | 2.3752      | 0.0302 |
| 9        | 50       | Bias                | 2.3363     | 2.3622      | 0.0259 |
| 11       | 50       | Unbias              | 2.3327     | 2.348       | 0.0153 |
| 12       | 50       | Unbias              | 2.3394     | 2.3604      | 0.021  |
| 13       | 50       | Unbias              | 2.3561     | 2.3701      | 0.014  |
| 14       | 50       | Unbias              | 2.3497     | 2.3602      | 0.0105 |
| 15       | 50       | Unbias              | 2.358      | 2.3655      | 0.0075 |

TID vs Post - Pre Exposure Delta

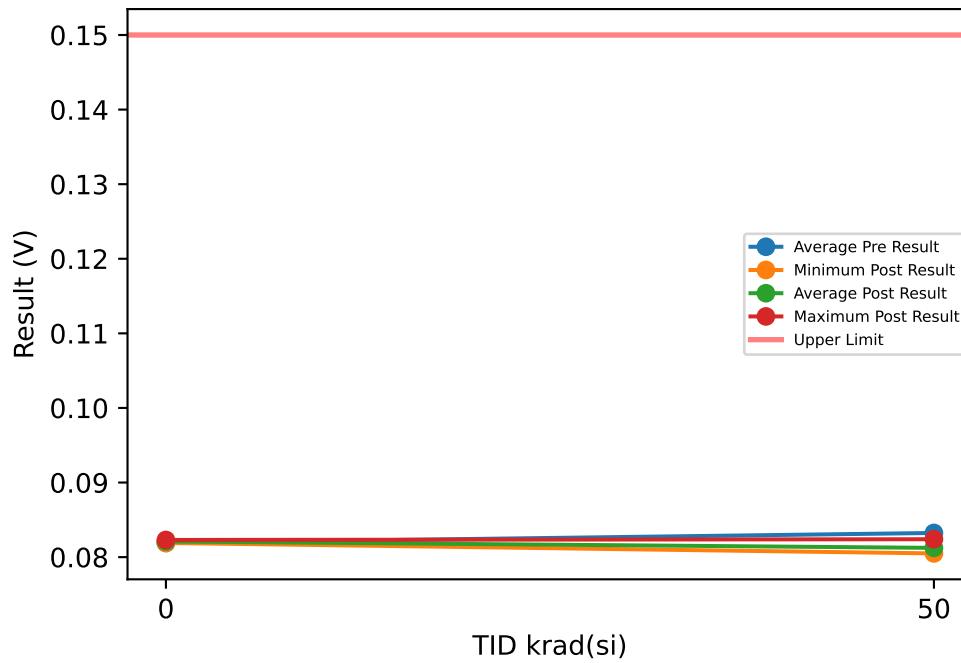


Test Statistics (Ω)

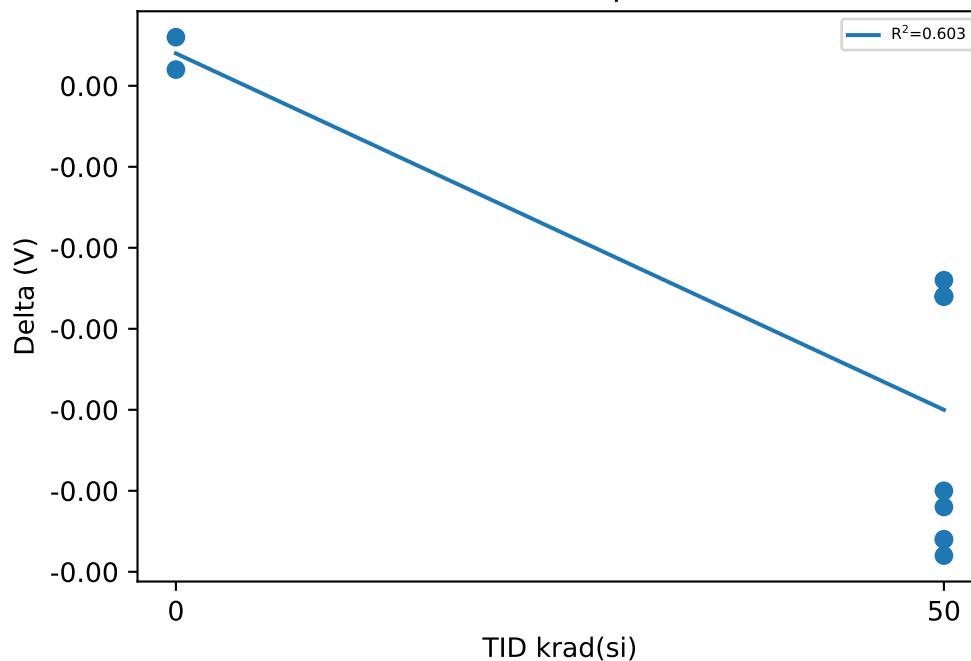
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 2.3398           | 2.3418           | 2.3438           | 0.0028284        | 2.3444            | 2.3453            | 2.3462            | 0.0012728         | 0.0006    | 0.0035    | 0.0064    | 0.0041012 |
| 50       | 2.3284           | 2.3417           | 2.358            | 0.010496         | 2.348             | 2.3625            | 2.3752            | 0.0084258         | 0.0075    | 0.02083   | 0.0302    | 0.0085327 |

# Device Test: 24.1 OUT\_VOL(LEVEL|LOW\_LEVEL/OUTL/4.5/4.5/0/0/4.5/500kHz//@OUT\_VOL)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



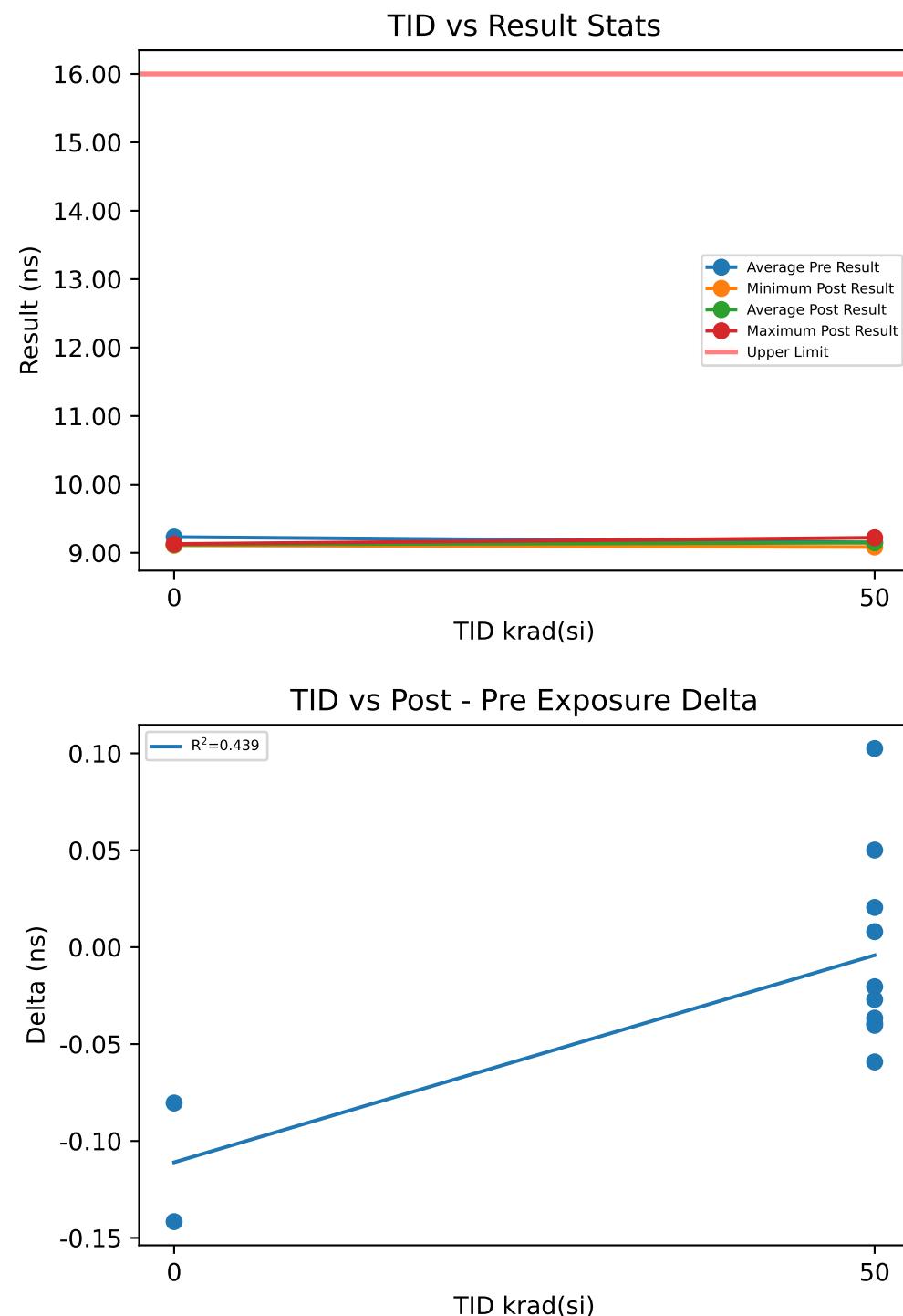
Test Results (Upper Limit = 0.15 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.0818     | 0.0819      | 0.0001  |
| 2        | 0        | Correlation         | 0.082      | 0.0823      | 0.0003  |
| 4        | 50       | Bias                | 0.0844     | 0.0816      | -0.0028 |
| 6        | 50       | Bias                | 0.0831     | 0.0805      | -0.0026 |
| 7        | 50       | Bias                | 0.0833     | 0.0805      | -0.0028 |
| 8        | 50       | Bias                | 0.0838     | 0.0809      | -0.0029 |
| 9        | 50       | Bias                | 0.0836     | 0.0811      | -0.0025 |
| 11       | 50       | Unbias              | 0.0825     | 0.0812      | -0.0013 |
| 12       | 50       | Unbias              | 0.0824     | 0.0811      | -0.0013 |
| 13       | 50       | Unbias              | 0.0823     | 0.081       | -0.0013 |
| 14       | 50       | Unbias              | 0.0834     | 0.0821      | -0.0013 |
| 15       | 50       | Unbias              | 0.0836     | 0.0824      | -0.0012 |

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        | 0.0818           | 0.0819           | 0.082            | 0.00014142       | 0.0819            | 0.0821            | 0.0823            | 0.00028284        | 0.0001    | 0.0002    | 0.0003    | 0.00014142 |
| 50       | 0.0823           | 0.08324          | 0.0844           | 0.00067528       | 0.0805            | 0.08124           | 0.0824            | 0.00062574        | -0.0029   | -0.002    | -0.0012   | 0.00076739 |

# Device Test: 24.17 OUT\_RISE\_LDO(TIMING|OUT\_RISE/OUTH/4.5/12/0/1000/4.5/500kHz//@OUT\_RISE\_LDO)



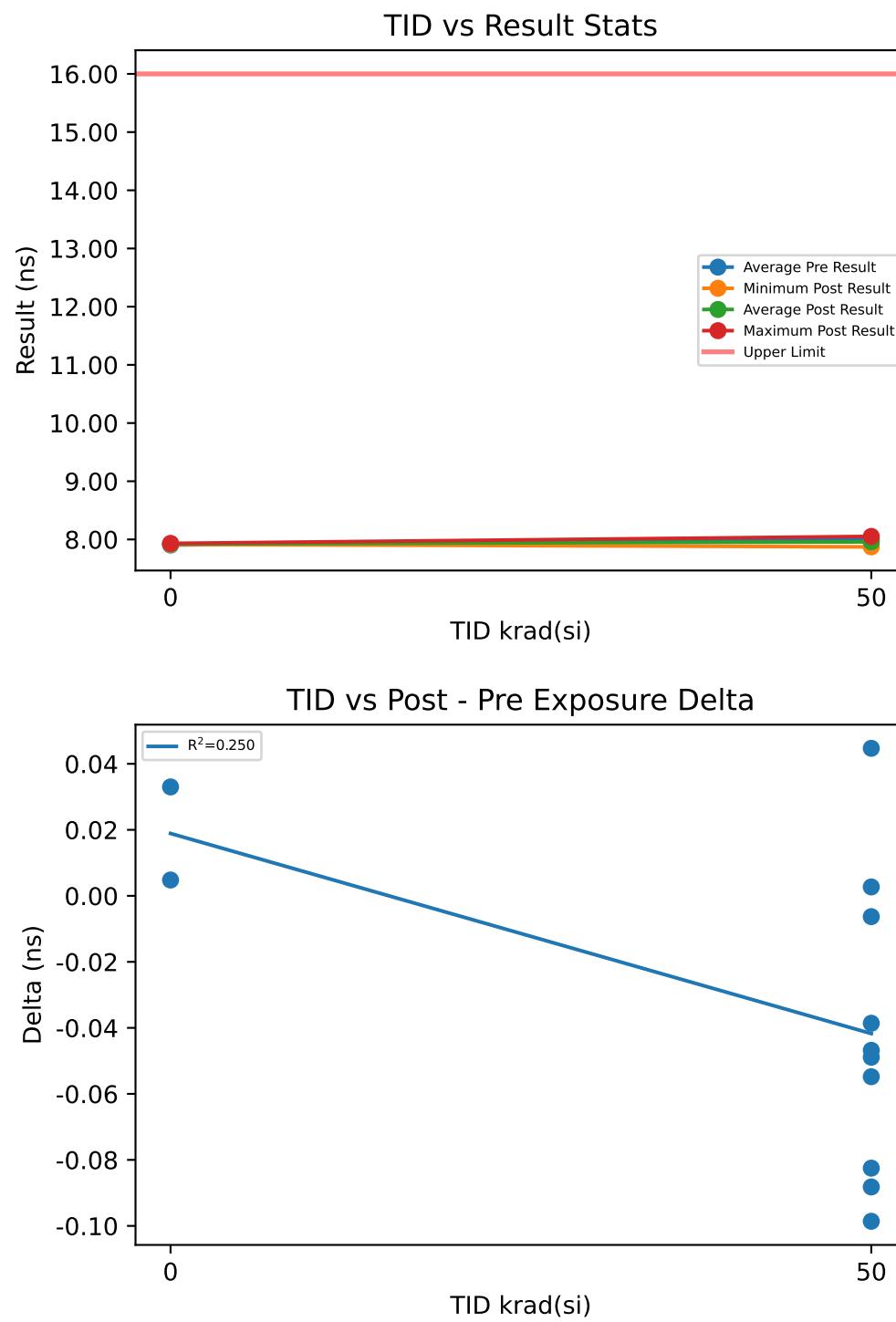
**Test Results (Upper Limit = 16.0 (ns))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 9.2516     | 9.11        | -0.1416 |
| 2        | 0        | Correlation         | 9.2093     | 9.1288      | -0.0804 |
| 4        | 50       | Bias                | 9.1707     | 9.2208      | 0.0501  |
| 6        | 50       | Bias                | 9.1423     | 9.1628      | 0.0205  |
| 7        | 50       | Bias                | 9.1366     | 9.1447      | 0.008   |
| 8        | 50       | Bias                | 9.2174     | 9.1771      | -0.0403 |
| 9        | 50       | Bias                | 9.1633     | 9.1267      | -0.0366 |
| 11       | 50       | Unbias              | 9.1806     | 9.1537      | -0.027  |
| 12       | 50       | Unbias              | 9.0991     | 9.2017      | 0.1025  |
| 13       | 50       | Unbias              | 9.1237     | 9.0846      | -0.0392 |
| 14       | 50       | Unbias              | 9.1393     | 9.1189      | -0.0204 |
| 15       | 50       | Unbias              | 9.148      | 9.0889      | -0.0592 |

**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        | 9.2093           | 9.2305           | 9.2516           | 0.029981         | 9.11              | 9.1195            | 9.1288            | 0.013294          | -0.1416   | -0.111    | -0.0804   | 0.043275  |
| 50       | 9.0991           | 9.1521           | 9.2174           | 0.032797         | 9.0846            | 9.148             | 9.2208            | 0.044854          | -0.0592   | -0.00416  | 0.1025    | 0.049975  |

# Device Test: 24.18 OUT\_FALL\_LDO(TIMING|OUT\_FALL/OUTH/4.5/12/0/1000/4.5/500kHz//@OUT\_FALL\_LDO)



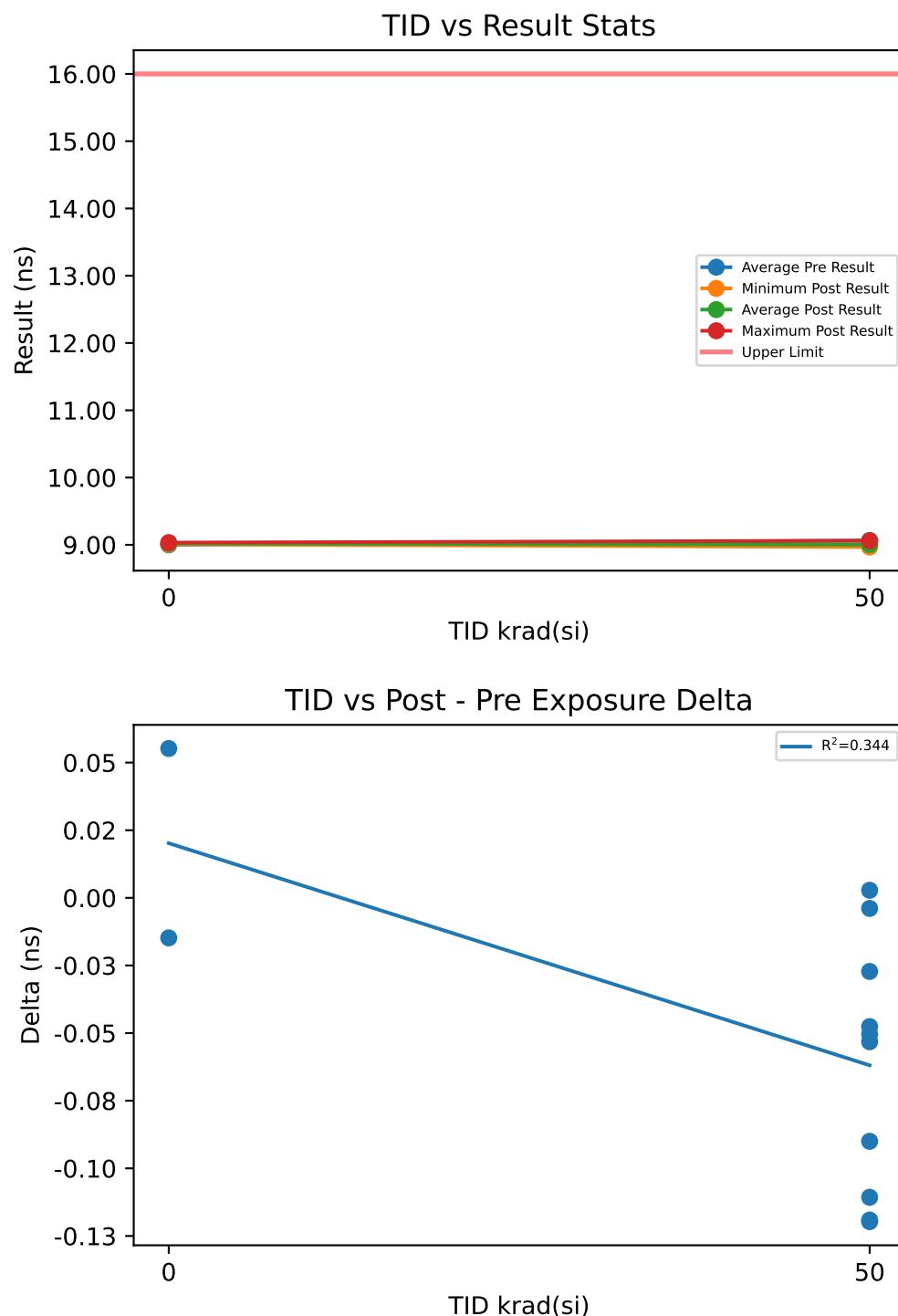
**Test Results (Upper Limit = 16.0 (ns))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 7.8993     | 7.9323      | 0.033   |
| 2        | 0        | Correlation         | 7.91       | 7.9148      | 0.0048  |
| 4        | 50       | Bias                | 8.0903     | 7.9917      | -0.0986 |
| 6        | 50       | Bias                | 7.9607     | 7.8725      | -0.0882 |
| 7        | 50       | Bias                | 7.979      | 7.9727      | -0.0063 |
| 8        | 50       | Bias                | 7.9759     | 7.9786      | 0.0027  |
| 9        | 50       | Bias                | 7.9982     | 7.9157      | -0.0825 |
| 11       | 50       | Unbias              | 8.0088     | 7.954       | -0.0548 |
| 12       | 50       | Unbias              | 7.9726     | 7.934       | -0.0386 |
| 13       | 50       | Unbias              | 7.949      | 7.9001      | -0.0489 |
| 14       | 50       | Unbias              | 7.9668     | 8.0115      | 0.0447  |
| 15       | 50       | Unbias              | 8.0988     | 8.052       | -0.0468 |

**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        | 7.8993           | 7.9047           | 7.91             | 0.007566         | 7.9148            | 7.9235            | 7.9323            | 0.012374          | 0.0048    | 0.0189    | 0.033     | 0.01994   |
| 50       | 7.949            | 8                | 8.0988           | 0.052722         | 7.8725            | 7.9583            | 8.052             | 0.054281          | -0.0986   | -0.04173  | 0.0447    | 0.044738  |

# Device Test: 24.19 OUT\_RISE\_LDO(TIMING|OUT\_RISE/OUTH/5/12/0/1000/5/500kHz//@OUT\_RISE\_LDO)



**Test Results (Upper Limit = 16.0 (ns))**

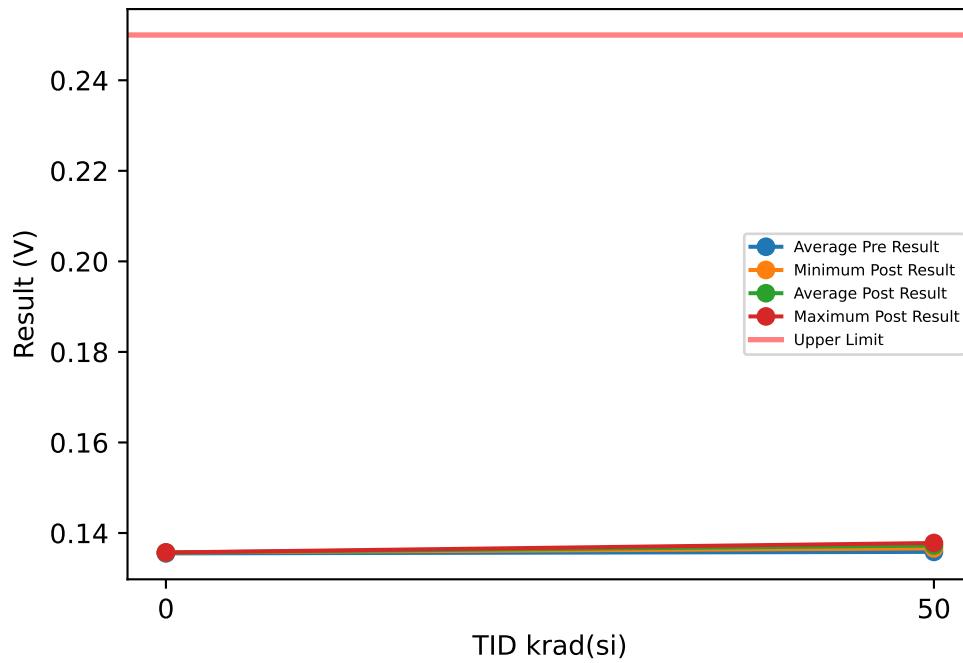
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 9.0223     | 9.0076      | -0.0148 |
| 2        | 0        | Correlation         | 8.9779     | 9.0331      | 0.0552  |
| 4        | 50       | Bias                | 9.1027     | 8.983       | -0.1197 |
| 6        | 50       | Bias                | 9.0184     | 8.968       | -0.0504 |
| 7        | 50       | Bias                | 9.0457     | 9.0419      | -0.0039 |
| 8        | 50       | Bias                | 9.1129     | 8.9939      | -0.1191 |
| 9        | 50       | Bias                | 9.0782     | 8.9674      | -0.1107 |
| 11       | 50       | Unbias              | 9.0607     | 9.013       | -0.0476 |
| 12       | 50       | Unbias              | 9.0777     | 8.9877      | -0.09   |
| 13       | 50       | Unbias              | 9.0231     | 8.996       | -0.0272 |
| 14       | 50       | Unbias              | 9.0695     | 9.0163      | -0.0532 |
| 15       | 50       | Unbias              | 9.0585     | 9.0612      | 0.0028  |

**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        | 8.9779           | 9.0001           | 9.0223           | 0.031396         | 9.0076            | 9.0204            | 9.0331            | 0.018102          | -0.0148   | 0.0202    | 0.0552    | 0.049497  |
| 50       | 9.0184           | 9.0647           | 9.1129           | 0.030588         | 8.9674            | 9.0028            | 9.0612            | 0.030619          | -0.1197   | -0.0619   | 0.0028    | 0.045887  |

# Device Test: 24.2 OUT\_VOH(LEVEL|HIGH\_LEVEL/OUTH/4.5/4.5/0/0/4.5/500kHz//@OUT\_VOH)

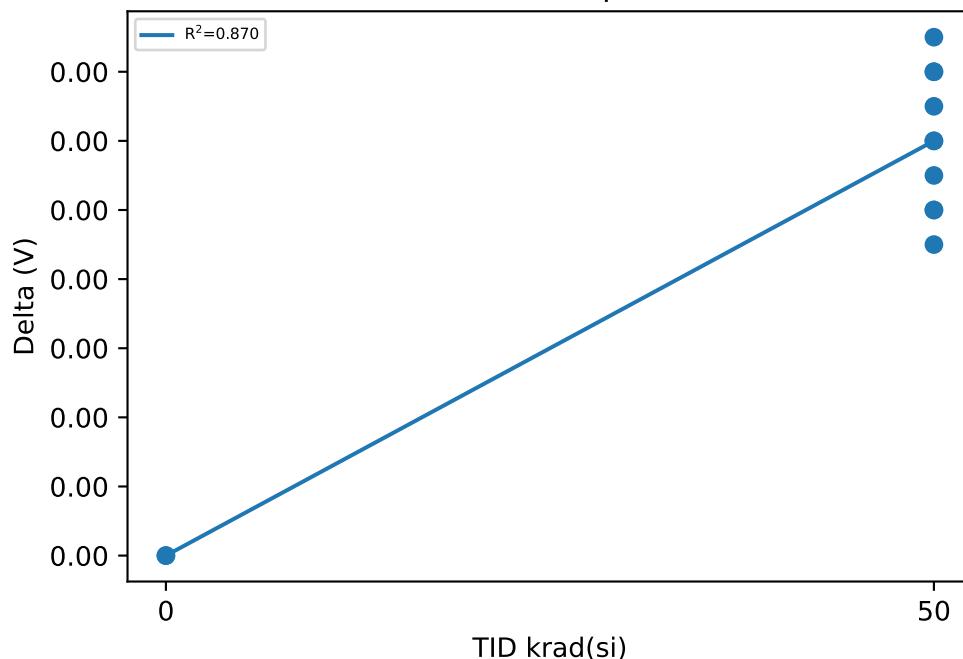
TID vs Result Stats



Test Results (Upper Limit = 0.25 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 0.1355     | 0.1357      | 0.0002 |
| 2        | 0        | Correlation         | 0.1355     | 0.1357      | 0.0002 |
| 4        | 50       | Bias                | 0.1354     | 0.137       | 0.0016 |
| 6        | 50       | Bias                | 0.1364     | 0.1378      | 0.0014 |
| 7        | 50       | Bias                | 0.1357     | 0.1374      | 0.0017 |
| 8        | 50       | Bias                | 0.1359     | 0.1375      | 0.0016 |
| 9        | 50       | Bias                | 0.1363     | 0.1378      | 0.0015 |
| 11       | 50       | Unbias              | 0.1356     | 0.1368      | 0.0012 |
| 12       | 50       | Unbias              | 0.1354     | 0.1366      | 0.0012 |
| 13       | 50       | Unbias              | 0.1357     | 0.137       | 0.0013 |
| 14       | 50       | Unbias              | 0.1357     | 0.1371      | 0.0014 |
| 15       | 50       | Unbias              | 0.1362     | 0.1373      | 0.0011 |

TID vs Post - Pre Exposure Delta

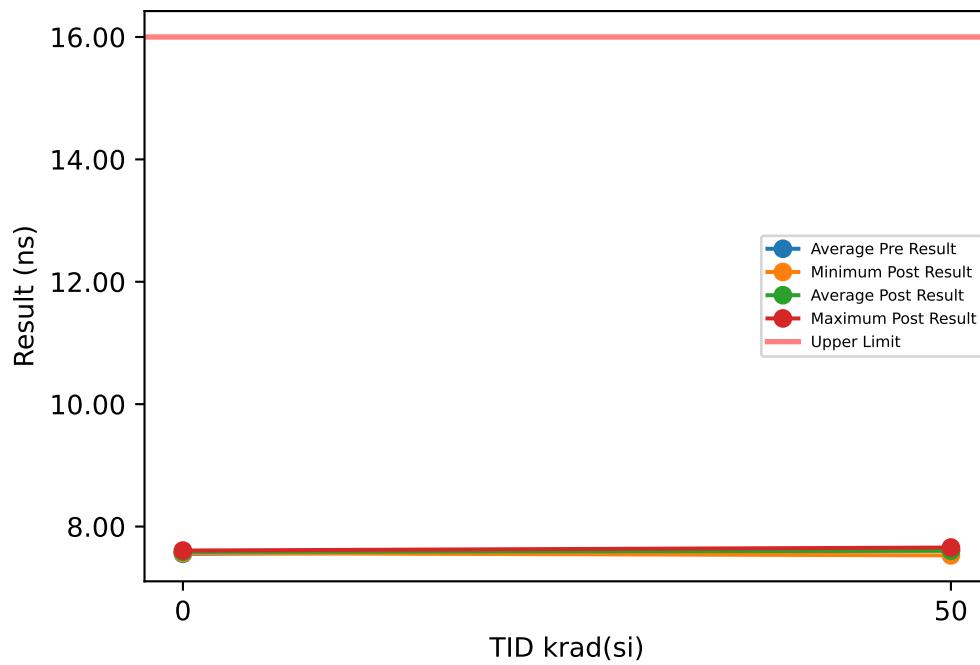


Test Statistics (V)

| 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        | 0.1355           | 0.1355           | 0.1355           | 0                | 0.1357            | 0.1357            | 0.1357            | 0                 | 0.0002    | 0.0002    | 0.0002    | 0         |
| 50       | 0.1354           | 0.13583          | 0.1364           | 0.00035917       | 0.1366            | 0.13723           | 0.1378            | 0.00040291        | 0.0011    | 0.0014    | 0.0017    | 0.0002    |

# Device Test: 24.20 OUT\_FALL\_LDO(TIMING|OUT\_FALL/OUTH/5/12/0/1000/5/500kHz//@OUT\_FALL\_LDO)

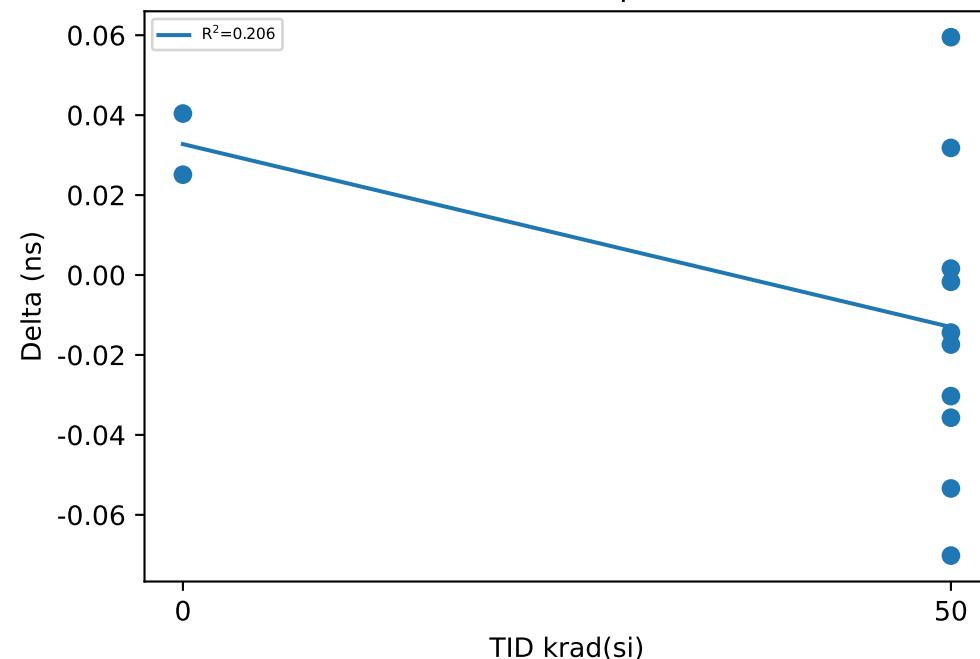
TID vs Result Stats



Test Results (Upper Limit = 16.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 7.583      | 7.6081      | 0.0251  |
| 2        | 0        | Correlation         | 7.5252     | 7.5656      | 0.0404  |
| 4        | 50       | Bias                | 7.7274     | 7.6572      | -0.0702 |
| 6        | 50       | Bias                | 7.5518     | 7.5836      | 0.0318  |
| 7        | 50       | Bias                | 7.5543     | 7.6138      | 0.0595  |
| 8        | 50       | Bias                | 7.5892     | 7.5535      | -0.0357 |
| 9        | 50       | Bias                | 7.6339     | 7.6036      | -0.0303 |
| 11       | 50       | Unbias              | 7.637      | 7.6386      | 0.0016  |
| 12       | 50       | Unbias              | 7.6731     | 7.6197      | -0.0534 |
| 13       | 50       | Unbias              | 7.5429     | 7.5285      | -0.0144 |
| 14       | 50       | Unbias              | 7.6348     | 7.6174      | -0.0174 |
| 15       | 50       | Unbias              | 7.6188     | 7.6171      | -0.0017 |

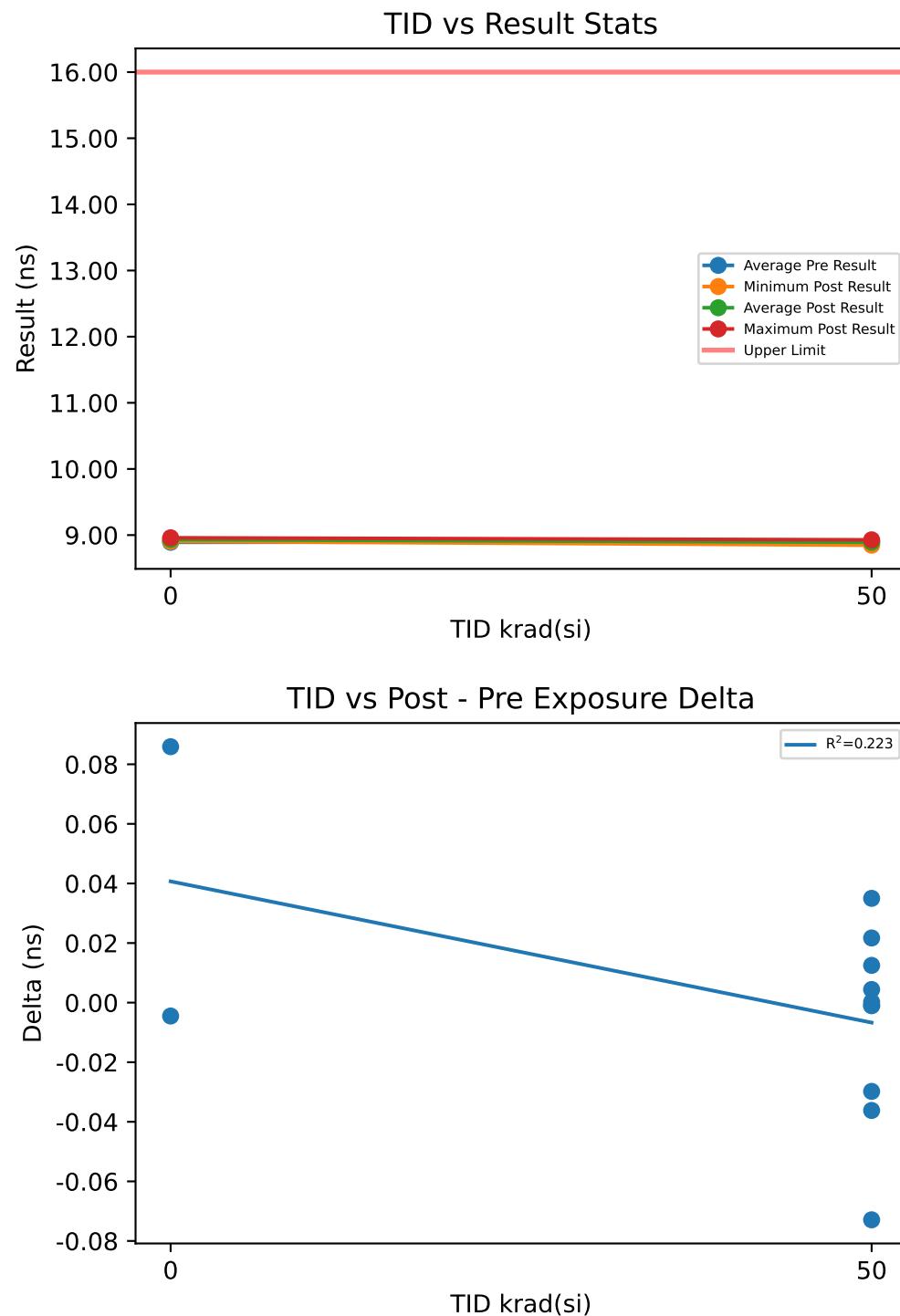
TID vs Post - Pre Exposure Delta



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        | 7.5252           | 7.5541           | 7.583            | 0.040871         | 7.5656            | 7.5869            | 7.6081            | 0.030052          | 0.0251    | 0.03275   | 0.0404    | 0.010819  |
| 50       | 7.5429           | 7.6163           | 7.7274           | 0.058483         | 7.5285            | 7.6033            | 7.6572            | 0.038562          | -0.0702   | -0.01302  | 0.0595    | 0.038505  |

# Device Test: 24.21 OUT\_RISE\_LDO(TIMING|OUT\_RISE/OUTH/5.5/12/0/1000/5.5/500kHz//@OUT\_RISE\_LDO)

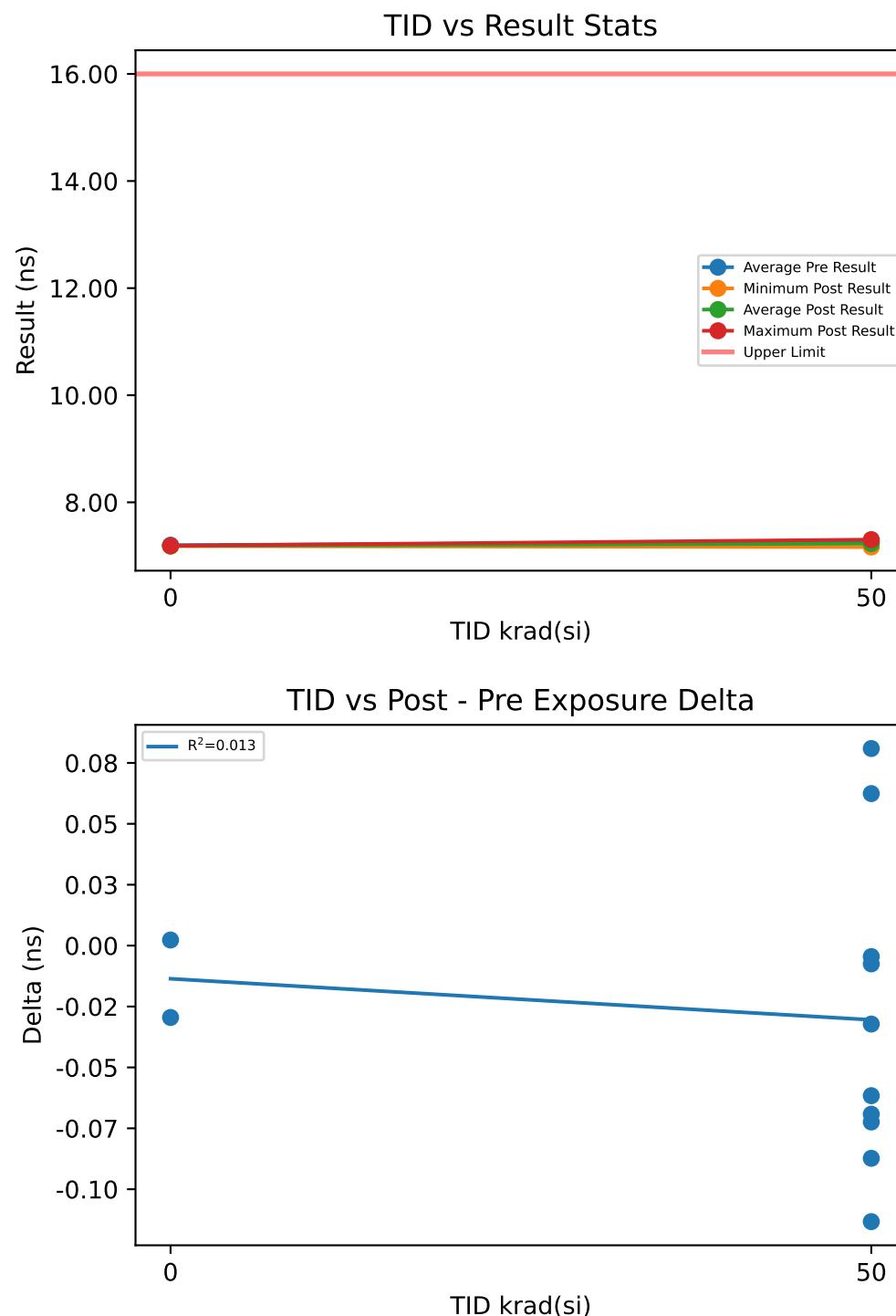


**Test Results (Upper Limit = 16.0 (ns))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 8.8733     | 8.9591      | 0.0859  |
| 2        | 0        | Correlation         | 8.9094     | 8.9049      | -0.0045 |
| 4        | 50       | Bias                | 8.8788     | 8.849       | -0.0298 |
| 6        | 50       | Bias                | 8.8806     | 8.8809      | 0.0002  |
| 7        | 50       | Bias                | 8.8994     | 8.9038      | 0.0044  |
| 8        | 50       | Bias                | 8.9697     | 8.8969      | -0.0729 |
| 9        | 50       | Bias                | 8.9038     | 8.9027      | -0.001  |
| 11       | 50       | Unbias              | 8.9142     | 8.9132      | -0.001  |
| 12       | 50       | Unbias              | 8.8799     | 8.9017      | 0.0217  |
| 13       | 50       | Unbias              | 8.8834     | 8.8473      | -0.0362 |
| 14       | 50       | Unbias              | 8.8931     | 8.9281      | 0.035   |
| 15       | 50       | Unbias              | 8.8798     | 8.8924      | 0.0125  |

**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        | 8.8733           | 8.8913           | 8.9094           | 0.025597         | 8.9049            | 8.9321            | 8.9591            | 0.038325          | -0.0045   | 0.0407    | 0.0859    | 0.063922  |
| 50       | 8.8788           | 8.8983           | 8.9697           | 0.027907         | 8.8473            | 8.8916            | 8.9281            | 0.026034          | -0.0729   | -0.00671  | 0.035     | 0.03151   |

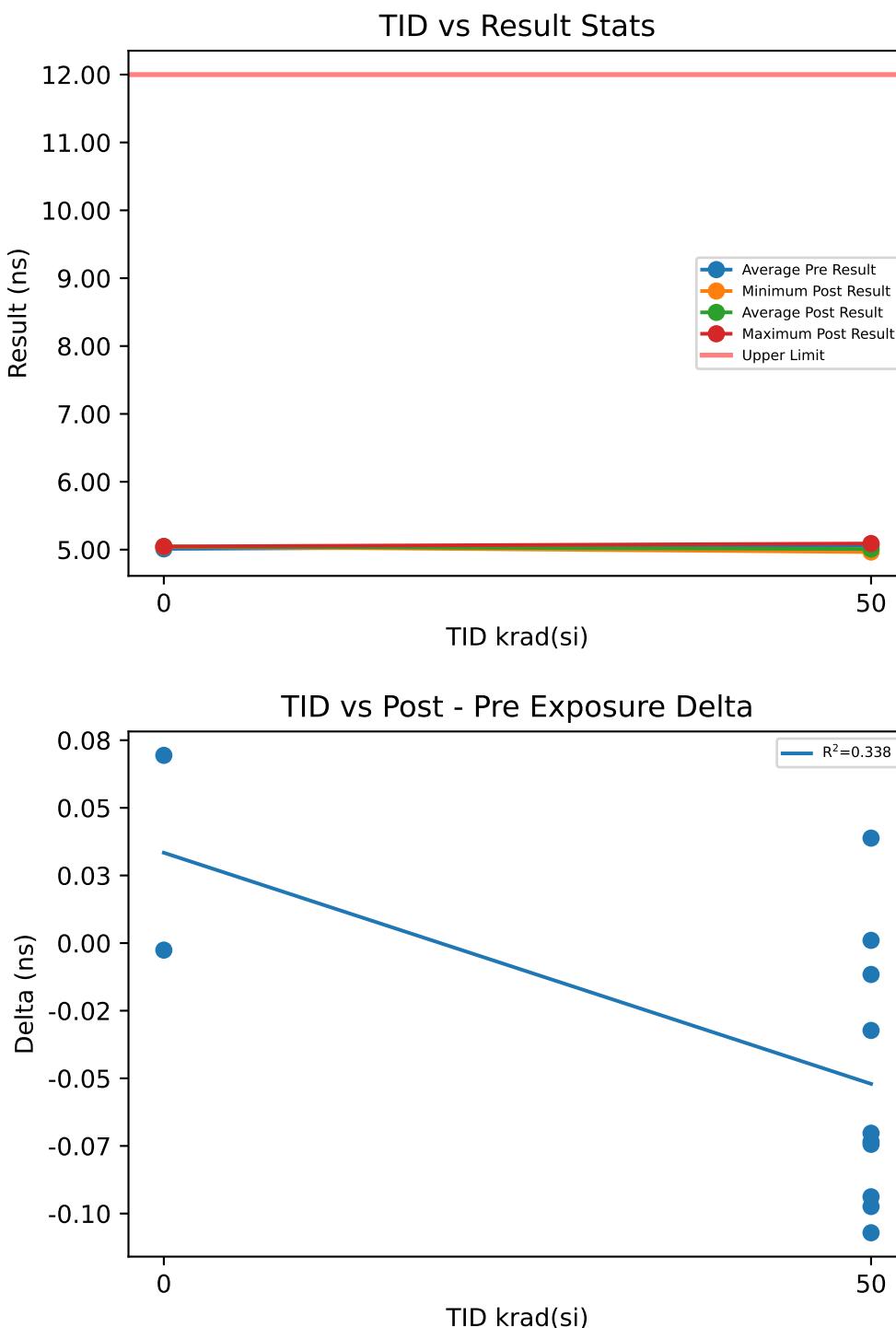


**Test Results (Upper Limit = 16.0 (ns))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 7.2119     | 7.1824      | -0.0295 |
| 2        | 0        | Correlation         | 7.1875     | 7.1898      | 0.0023  |
| 4        | 50       | Bias                | 7.3934     | 7.2801      | -0.1133 |
| 6        | 50       | Bias                | 7.2438     | 7.1714      | -0.0724 |
| 7        | 50       | Bias                | 7.2354     | 7.2309      | -0.0045 |
| 8        | 50       | Bias                | 7.2354     | 7.2032      | -0.0322 |
| 9        | 50       | Bias                | 7.2227     | 7.3036      | 0.0809  |
| 11       | 50       | Unbias              | 7.2288     | 7.2213      | -0.0075 |
| 12       | 50       | Unbias              | 7.2673     | 7.2057      | -0.0616 |
| 13       | 50       | Unbias              | 7.2345     | 7.1653      | -0.0692 |
| 14       | 50       | Unbias              | 7.1983     | 7.2607      | 0.0624  |
| 15       | 50       | Unbias              | 7.337      | 7.2497      | -0.0873 |

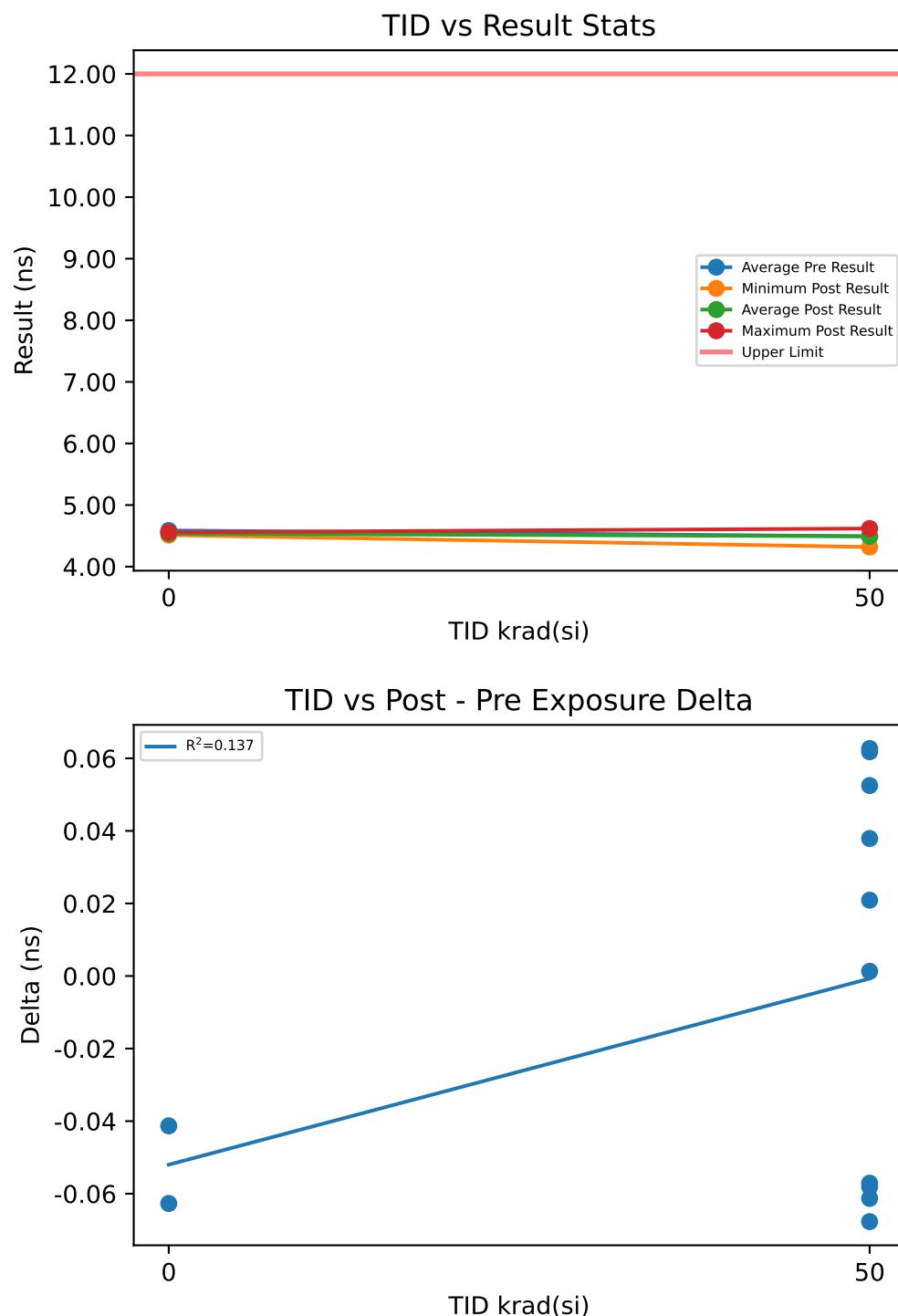
**Test Statistics (ns)**

| 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        | 7.1875           | 7.1997           | 7.2119           | 0.017253         | 7.1824            | 7.1861            | 7.1898            | 0.0052326         | -0.0295   | -0.0136   | 0.0023    | 0.022486  |
| 50       | 7.1983           | 7.2597           | 7.3934           | 0.059695         | 7.1653            | 7.2292            | 7.3036            | 0.045039          | -0.1133   | -0.03047  | 0.0809    | 0.063728  |



| Test Results (Upper Limit = 12.0 (ns)) |          |                     |            |             |         |
|--|----------|---------------------|------------|-------------|---------|
| Serial #                               | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
| 1                                      | 0        | Correlation         | 5.0457     | 5.0431      | -0.0026 |
| 2                                      | 0        | Correlation         | 4.977      | 5.0464      | 0.0694  |
| 4                                      | 50       | Bias                | 5.1044     | 5.007       | -0.0974 |
| 6                                      | 50       | Bias                | 5.0071     | 4.9955      | -0.0116 |
| 7                                      | 50       | Bias                | 5.0722     | 4.9651      | -0.1071 |
| 8                                      | 50       | Bias                | 5.0661     | 4.9927      | -0.0734 |
| 9                                      | 50       | Bias                | 5.023      | 5.0618      | 0.0388  |
| 11                                     | 50       | Unbias              | 5.0469     | 4.9725      | -0.0744 |
| 12                                     | 50       | Unbias              | 5.0517     | 4.9814      | -0.0703 |
| 13                                     | 50       | Unbias              | 5.0655     | 4.9717      | -0.0938 |
| 14                                     | 50       | Unbias              | 5.0892     | 5.0902      | 0.001   |
| 15                                     | 50       | Unbias              | 5.0855     | 5.0532      | -0.0323 |

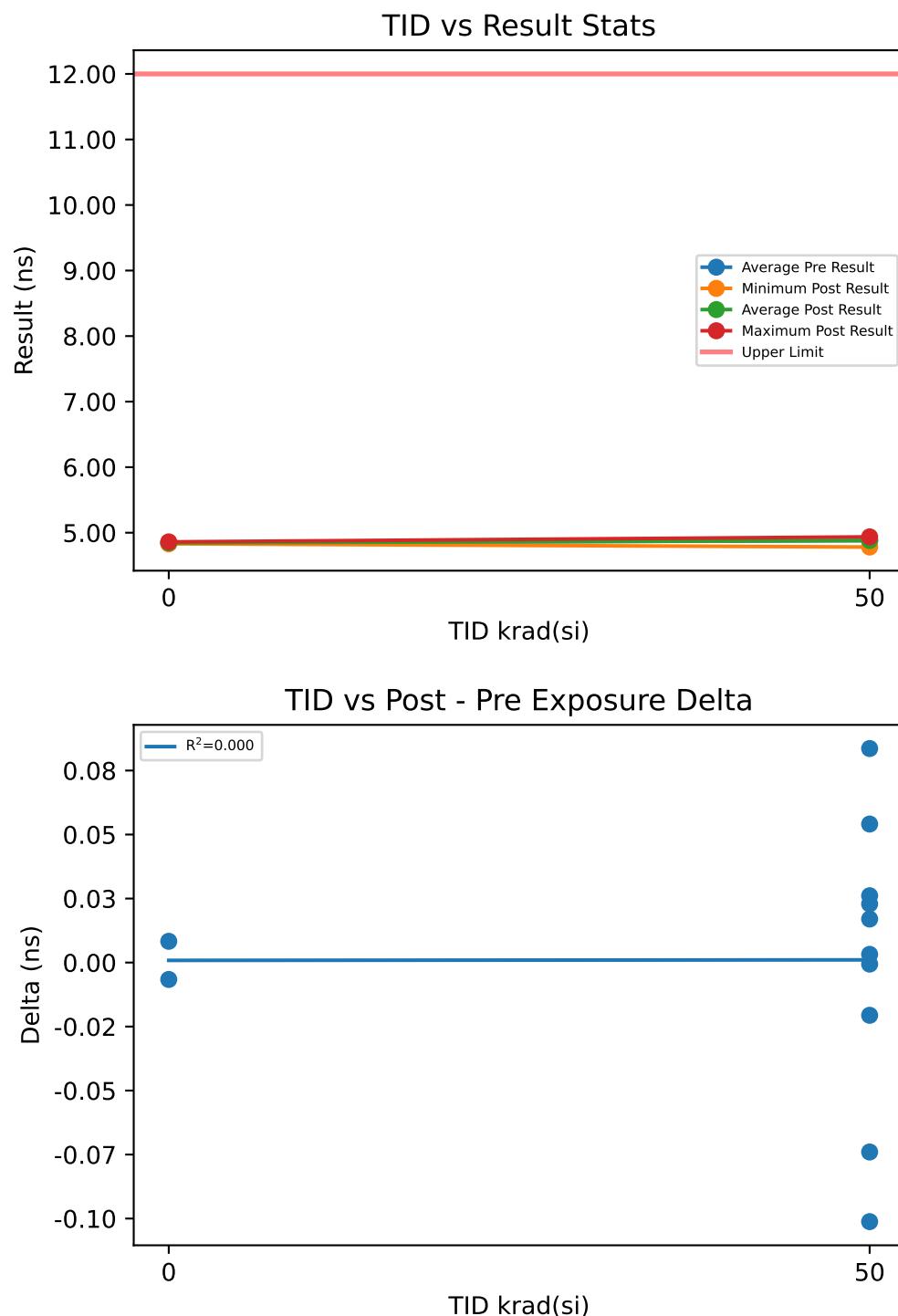
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 4.977            | 5.0114           | 5.0457           | 0.048578         | 5.0431            | 5.0448            | 5.0464            | 0.0023335         | -0.0026   | 0.0334    | 0.0694    | 0.050912  |
| 50       | 5.0071           | 5.0612           | 5.1044           | 0.029972         | 4.9651            | 5.0091            | 5.0902            | 0.043715          | -0.1071   | -0.05205  | 0.0388    | 0.048549  |



| Test Results (Upper Limit = 12.0 (ns)) |          |                     |            |             |         |
|--|----------|---------------------|------------|-------------|---------|
| Serial #                               | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
| 1                                      | 0        | Correlation         | 4.5751     | 4.5125      | -0.0627 |
| 2                                      | 0        | Correlation         | 4.5988     | 4.5575      | -0.0413 |
| 4                                      | 50       | Bias                | 4.3768     | 4.3186      | -0.0581 |
| 6                                      | 50       | Bias                | 4.5736     | 4.506       | -0.0677 |
| 7                                      | 50       | Bias                | 4.45       | 4.4878      | 0.0379  |
| 8                                      | 50       | Bias                | 4.4843     | 4.423       | -0.0613 |
| 9                                      | 50       | Bias                | 4.4108     | 4.4734      | 0.0627  |
| 11                                     | 50       | Unbias              | 4.6018     | 4.5447      | -0.0571 |
| 12                                     | 50       | Unbias              | 4.5502     | 4.571       | 0.0209  |
| 13                                     | 50       | Unbias              | 4.5126     | 4.5651      | 0.0525  |
| 14                                     | 50       | Unbias              | 4.5571     | 4.6189      | 0.0618  |
| 15                                     | 50       | Unbias              | 4.4135     | 4.4147      | 0.0013  |

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 4.5751           | 4.587            | 4.5988           | 0.016758         | 4.5125            | 4.535             | 4.5575            | 0.031891          | -0.0627   | -0.052    | -0.0413   | 0.015132  |
| 50       | 4.3768           | 4.493            | 4.6018           | 0.077918         | 4.3186            | 4.4923            | 4.6189            | 0.089318          | -0.0677   | -0.00071  | 0.0627    | 0.05513   |

# Device Test: 24.25 OUT\_RISE\_220PF(TIMING|OUT\_RISE/OUTH/5/12/0/220/5/500kHz//@OUT\_RISE\_220PF)



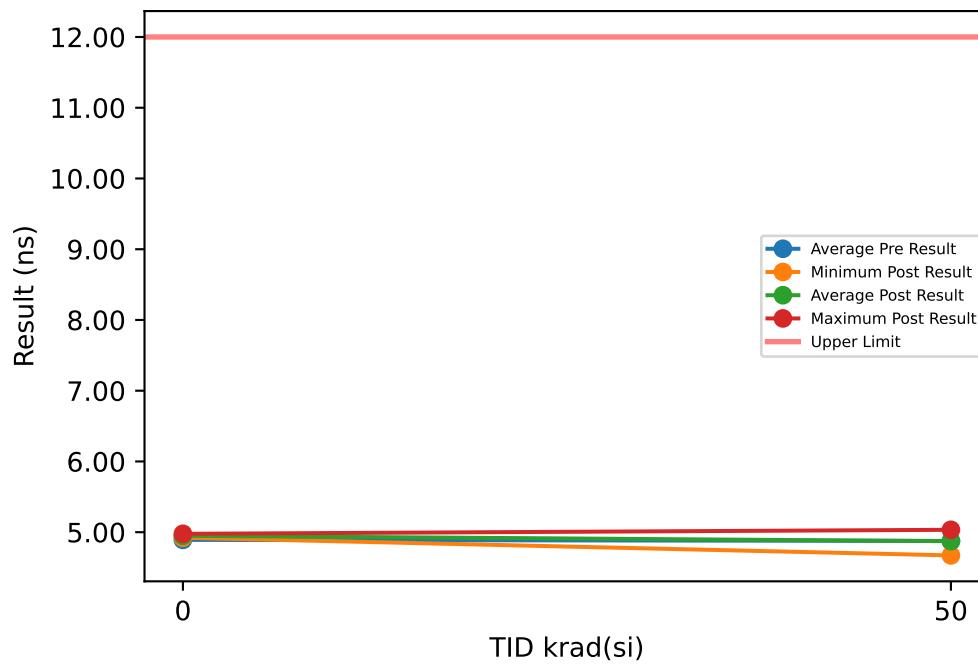
**Test Results (Upper Limit = 12.0 (ns))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 4.8375     | 4.8309      | -0.0066 |
| 2        | 0        | Correlation         | 4.8518     | 4.8601      | 0.0083  |
| 4        | 50       | Bias                | 4.8982     | 4.9211      | 0.0229  |
| 6        | 50       | Bias                | 4.8344     | 4.8885      | 0.0541  |
| 7        | 50       | Bias                | 4.8466     | 4.8636      | 0.017   |
| 8        | 50       | Bias                | 4.8757     | 4.9018      | 0.0261  |
| 9        | 50       | Bias                | 4.8994     | 4.9026      | 0.0032  |
| 11       | 50       | Unbias              | 4.8829     | 4.7817      | -0.1012 |
| 12       | 50       | Unbias              | 4.9371     | 4.9365      | -0.0006 |
| 13       | 50       | Unbias              | 4.9002     | 4.8262      | -0.074  |
| 14       | 50       | Unbias              | 4.853      | 4.9366      | 0.0836  |
| 15       | 50       | Unbias              | 4.8699     | 4.8493      | -0.0206 |

**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        | 4.8375           | 4.8446           | 4.8518           | 0.010112         | 4.8309            | 4.8455            | 4.8601            | 0.020648          | -0.0066   | 0.00085   | 0.0083    | 0.010536  |
| 50       | 4.8344           | 4.8797           | 4.9371           | 0.030602         | 4.7817            | 4.8808            | 4.9366            | 0.050449          | -0.1012   | 0.00105   | 0.0836    | 0.055329  |

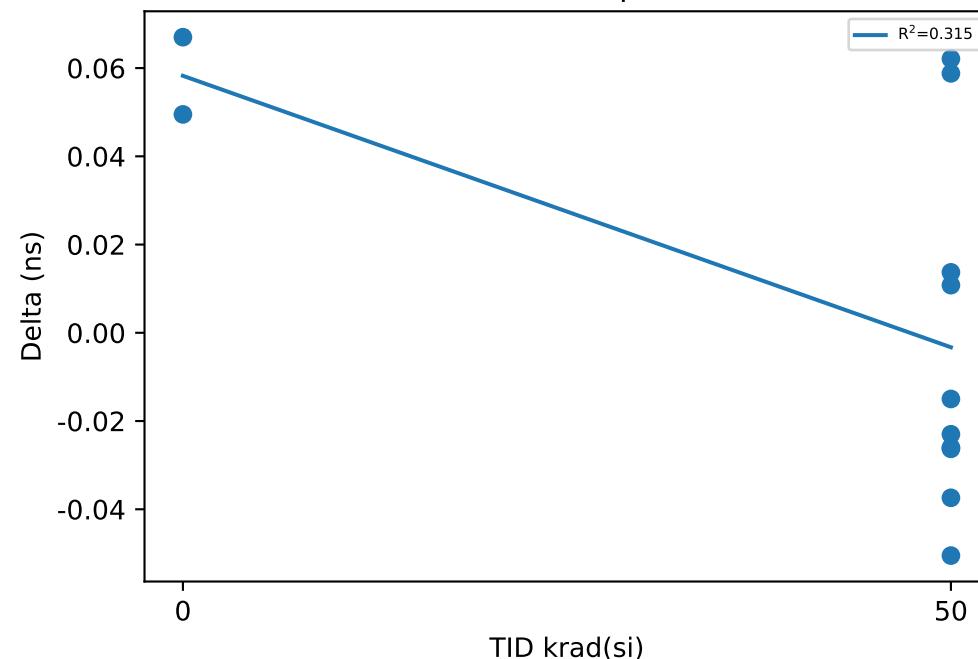
TID vs Result Stats



Test Results (Upper Limit = 12.0 (ns))

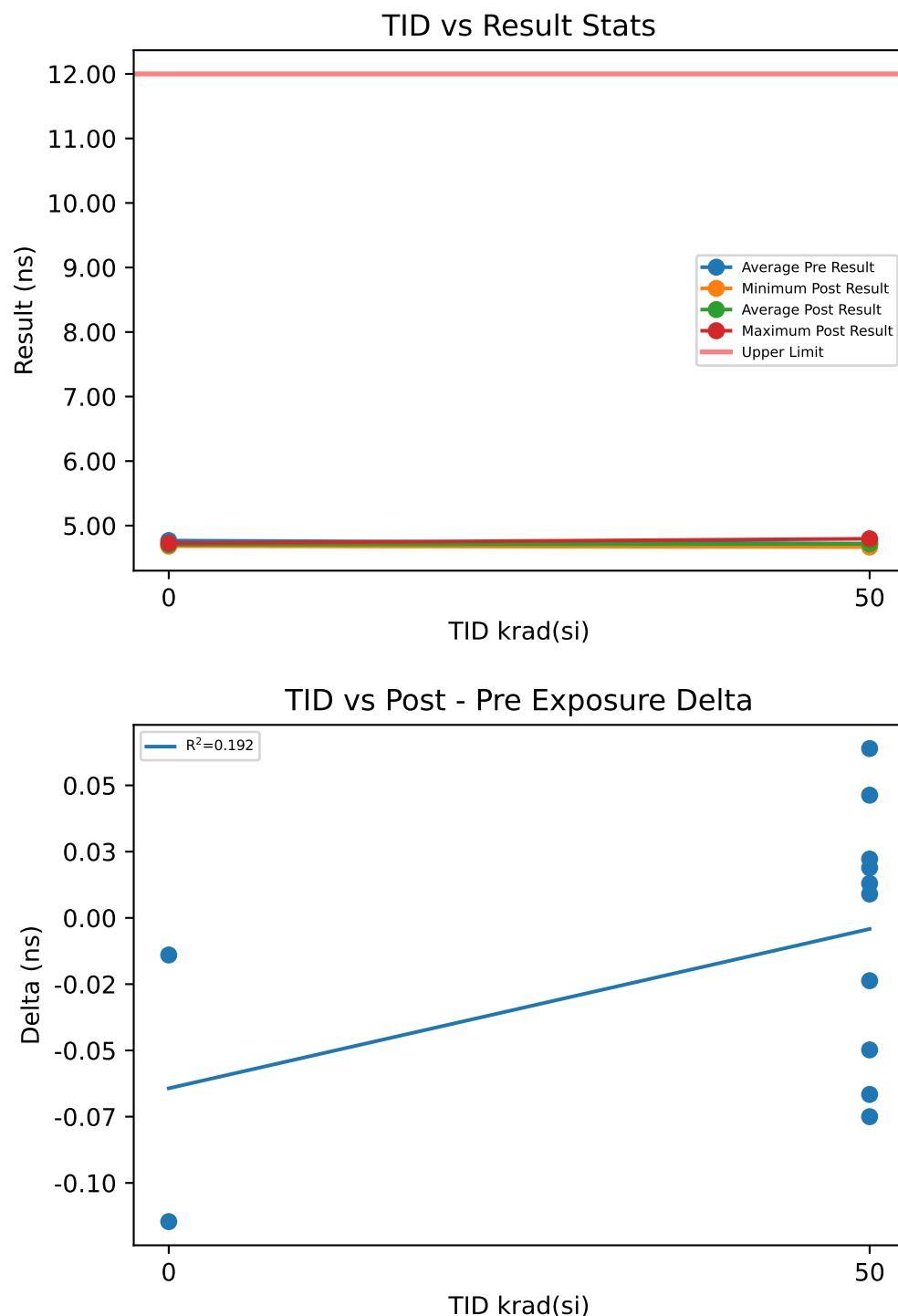
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 4.9276     | 4.9771      | 0.0495  |
| 2        | 0        | Correlation         | 4.8551     | 4.922       | 0.067   |
| 4        | 50       | Bias                | 4.7095     | 4.672       | -0.0374 |
| 6        | 50       | Bias                | 4.9111     | 4.8848      | -0.0263 |
| 7        | 50       | Bias                | 4.9089     | 4.8829      | -0.026  |
| 8        | 50       | Bias                | 4.814      | 4.7989      | -0.015  |
| 9        | 50       | Bias                | 4.8347     | 4.8484      | 0.0137  |
| 11       | 50       | Unbias              | 4.937      | 4.9139      | -0.023  |
| 12       | 50       | Unbias              | 4.9098     | 4.9687      | 0.0588  |
| 13       | 50       | Unbias              | 4.9718     | 5.0339      | 0.0621  |
| 14       | 50       | Unbias              | 4.93       | 4.9409      | 0.0108  |
| 15       | 50       | Unbias              | 4.8399     | 4.7893      | -0.0505 |

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        | 4.8551           | 4.8913           | 4.9276           | 0.051265         | 4.922             | 4.9496            | 4.9771            | 0.038891          | 0.0495    | 0.05825   | 0.067     | 0.012374  |
| 50       | 4.7095           | 4.8766           | 4.9718           | 0.077353         | 4.672             | 4.8734            | 5.0339            | 0.10274           | -0.0505   | -0.00328  | 0.0621    | 0.038846  |



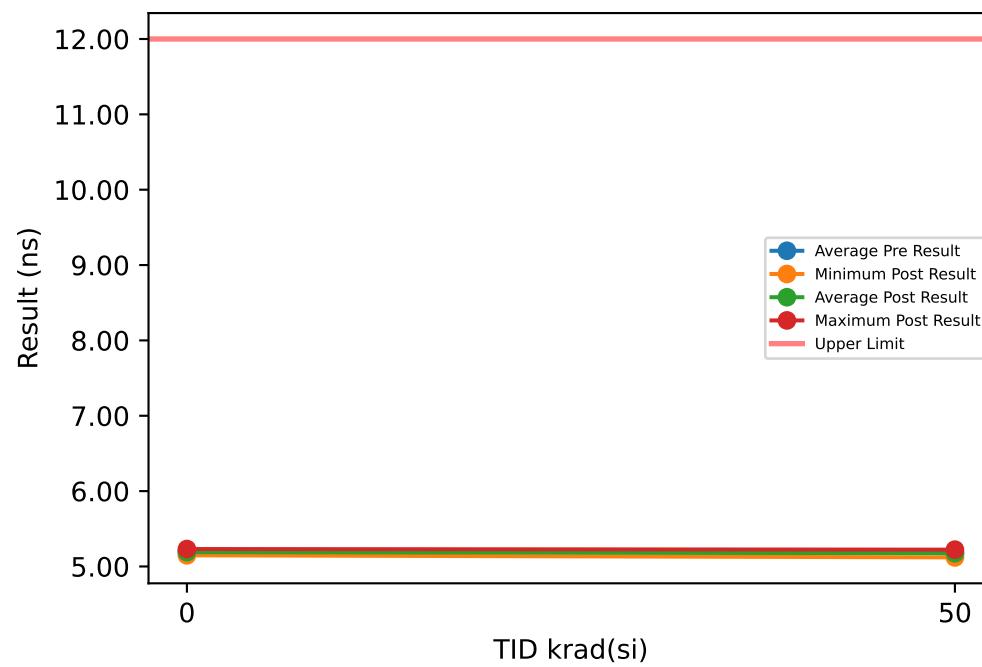
**Test Results (Upper Limit = 12.0 (ns))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 4.796      | 4.6814      | -0.1146 |
| 2        | 0        | Correlation         | 4.7397     | 4.7257      | -0.014  |
| 4        | 50       | Bias                | 4.692      | 4.6683      | -0.0237 |
| 6        | 50       | Bias                | 4.74       | 4.6902      | -0.0498 |
| 7        | 50       | Bias                | 4.7282     | 4.7504      | 0.0222  |
| 8        | 50       | Bias                | 4.753      | 4.6864      | -0.0666 |
| 9        | 50       | Bias                | 4.6693     | 4.6783      | 0.009   |
| 11       | 50       | Unbias              | 4.7321     | 4.796       | 0.0639  |
| 12       | 50       | Unbias              | 4.722      | 4.7683      | 0.0463  |
| 13       | 50       | Unbias              | 4.7381     | 4.757       | 0.0189  |
| 14       | 50       | Unbias              | 4.747      | 4.672       | -0.075  |
| 15       | 50       | Unbias              | 4.6902     | 4.7032      | 0.013   |

**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        | 4.7397           | 4.7679           | 4.796            | 0.03981          | 4.6814            | 4.7035            | 4.7257            | 0.031325          | -0.1146   | -0.0643   | -0.014    | 0.071135  |
| 50       | 4.6693           | 4.7212           | 4.753            | 0.027872         | 4.6683            | 4.717             | 4.796             | 0.046341          | -0.075    | -0.00418  | 0.0639    | 0.047439  |

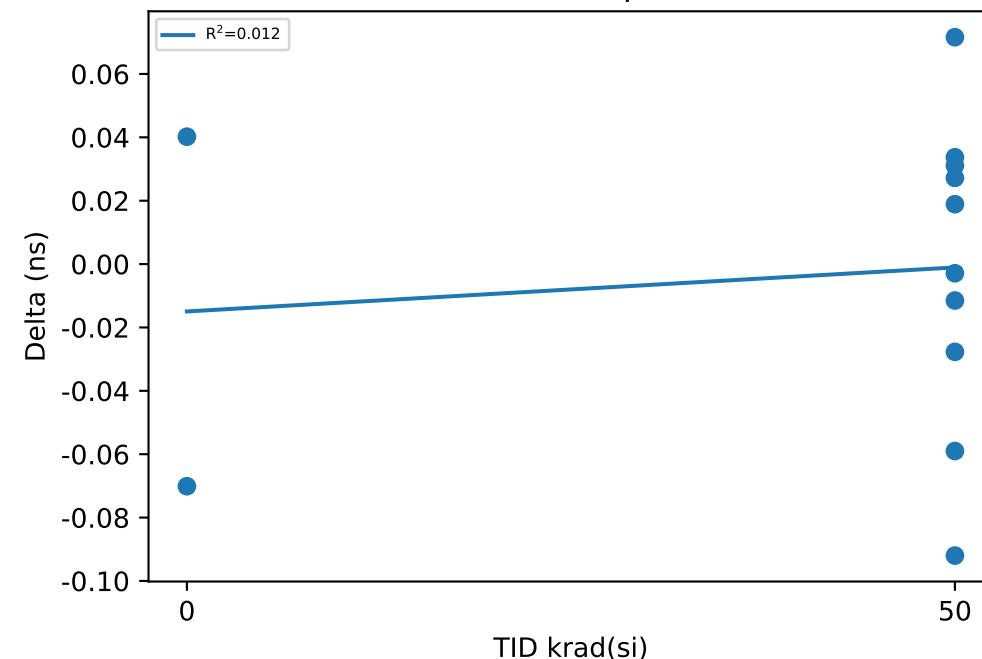
TID vs Result Stats



Test Results (Upper Limit = 12.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 5.1912     | 5.2313      | 0.0402  |
| 2        | 0        | Correlation         | 5.218      | 5.1479      | -0.0701 |
| 4        | 50       | Bias                | 5.0931     | 5.1204      | 0.0272  |
| 6        | 50       | Bias                | 5.167      | 5.1555      | -0.0115 |
| 7        | 50       | Bias                | 5.1567     | 5.1905      | 0.0337  |
| 8        | 50       | Bias                | 5.1433     | 5.1405      | -0.0029 |
| 9        | 50       | Bias                | 5.1913     | 5.1323      | -0.059  |
| 11       | 50       | Unbias              | 5.1921     | 5.2232      | 0.0311  |
| 12       | 50       | Unbias              | 5.2756     | 5.1837      | -0.092  |
| 13       | 50       | Unbias              | 5.1715     | 5.1903      | 0.0189  |
| 14       | 50       | Unbias              | 5.2341     | 5.2065      | -0.0277 |
| 15       | 50       | Unbias              | 5.1428     | 5.2143      | 0.0716  |

TID vs Post - Pre Exposure Delta

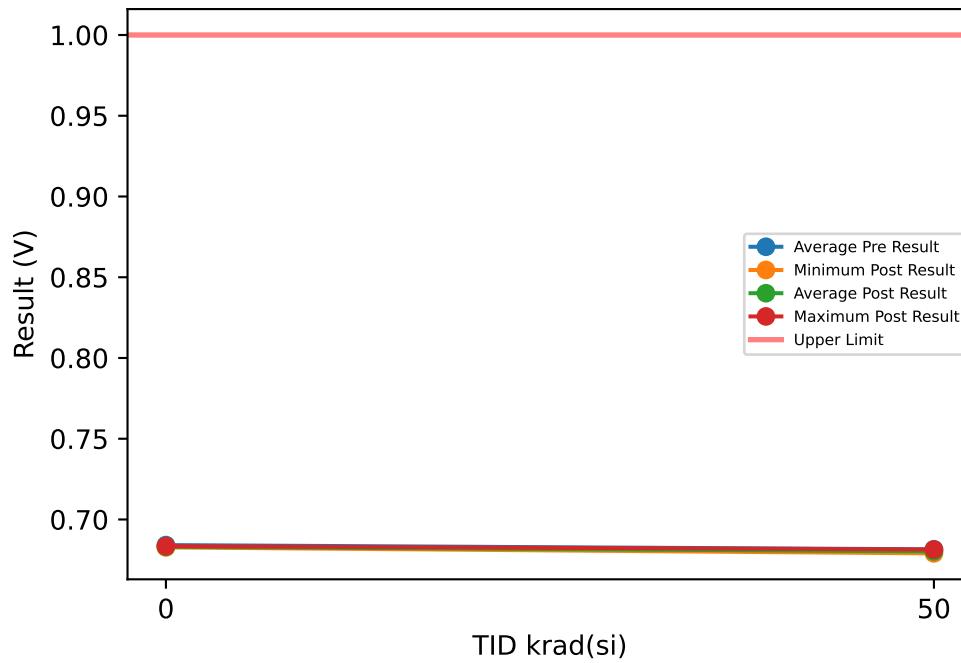


Test Statistics (ns)

| 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        | 5.1912           | 5.2046           | 5.218            | 0.019021         | 5.1479            | 5.1897            | 5.2313            | 0.058973          | -0.0701   | -0.01495  | 0.0402    | 0.077994  |
| 50       | 5.0931           | 5.1768           | 5.2756           | 0.050888         | 5.1204            | 5.1757            | 5.2232            | 0.036175          | -0.092    | -0.00106  | 0.0716    | 0.048498  |

# Device Test: 24.29 OUT\_CLAMP\_0V(VOLTAGE|OUT\_CLAMP/OUTL/0/0/0/0/0//@OUT\_CLAMP\_0V)

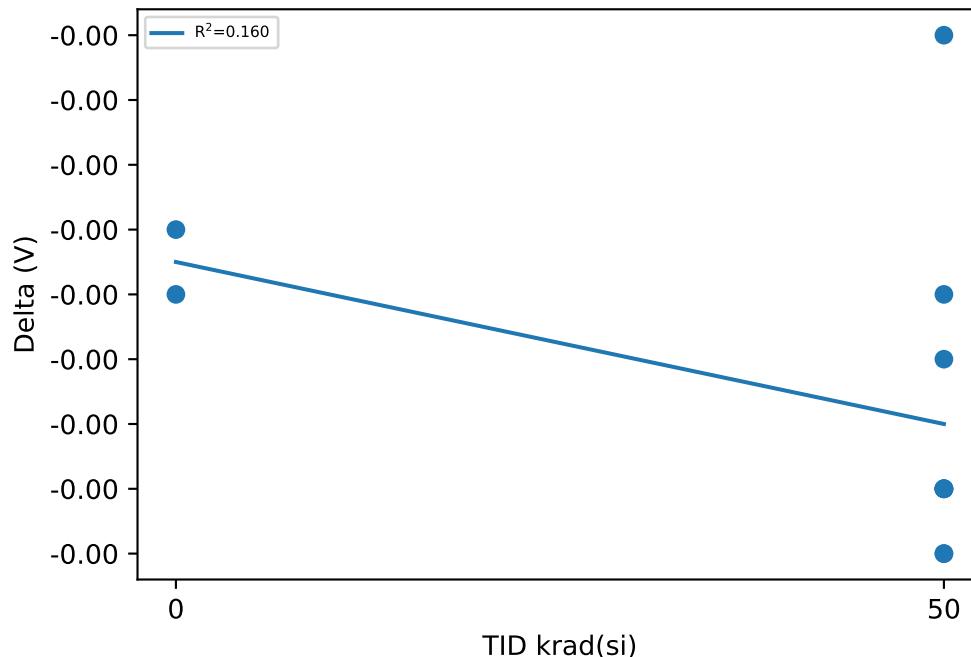
TID vs Result Stats



Test Results (Upper Limit = 1.0 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.6845     | 0.6835      | -0.001  |
| 2        | 0        | Correlation         | 0.6838     | 0.6827      | -0.0011 |
| 4        | 50       | Bias                | 0.682      | 0.6809      | -0.0011 |
| 6        | 50       | Bias                | 0.6814     | 0.68        | -0.0014 |
| 7        | 50       | Bias                | 0.681      | 0.6796      | -0.0014 |
| 8        | 50       | Bias                | 0.6808     | 0.6794      | -0.0014 |
| 9        | 50       | Bias                | 0.681      | 0.6796      | -0.0014 |
| 11       | 50       | Unbias              | 0.6823     | 0.6809      | -0.0014 |
| 12       | 50       | Unbias              | 0.6824     | 0.6809      | -0.0015 |
| 13       | 50       | Unbias              | 0.6821     | 0.6806      | -0.0015 |
| 14       | 50       | Unbias              | 0.6802     | 0.679       | -0.0012 |
| 15       | 50       | Unbias              | 0.6821     | 0.6814      | -0.0007 |

TID vs Post - Pre Exposure Delta

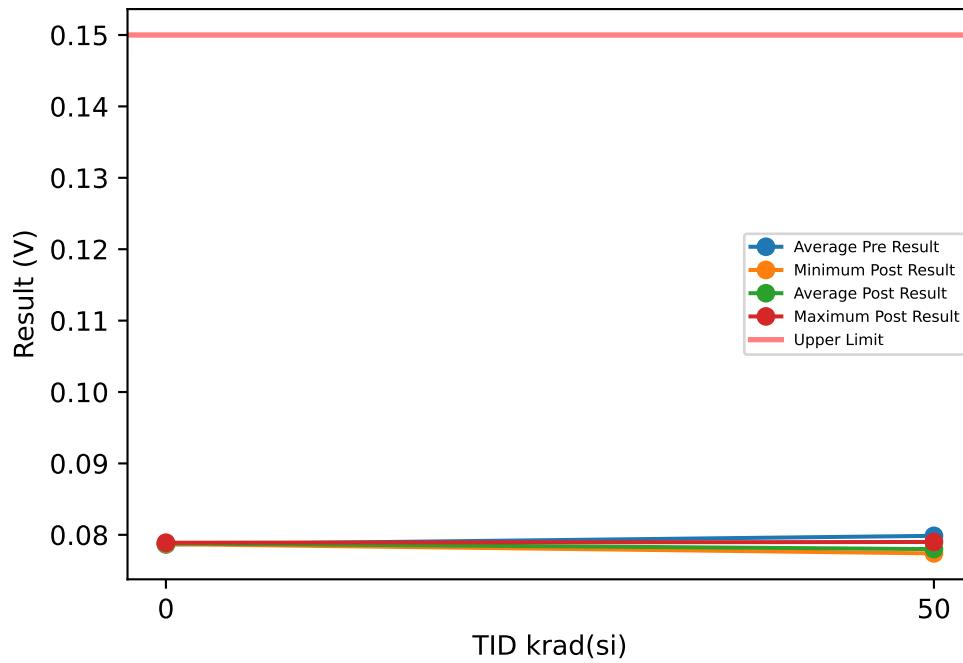


Test Statistics (V)

| 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        | 0.6838           | 0.68415          | 0.6845           | 0.00049497       | 0.6827            | 0.6831            | 0.6835            | 0.00056569        | -0.0011   | -0.00105  | -0.001    | 7.0711e-05 |
| 50       | 0.6802           | 0.68153          | 0.6824           | 0.00075285       | 0.679             | 0.68023           | 0.6814            | 0.00080973        | -0.0015   | -0.0013   | -0.0007   | 0.00024495 |

# Device Test: 24.3 OUT\_VOL(LEVEL|LOW\_LEVEL/OUTL/5/5/0/0/5/500kHz//@OUT\_VOL)

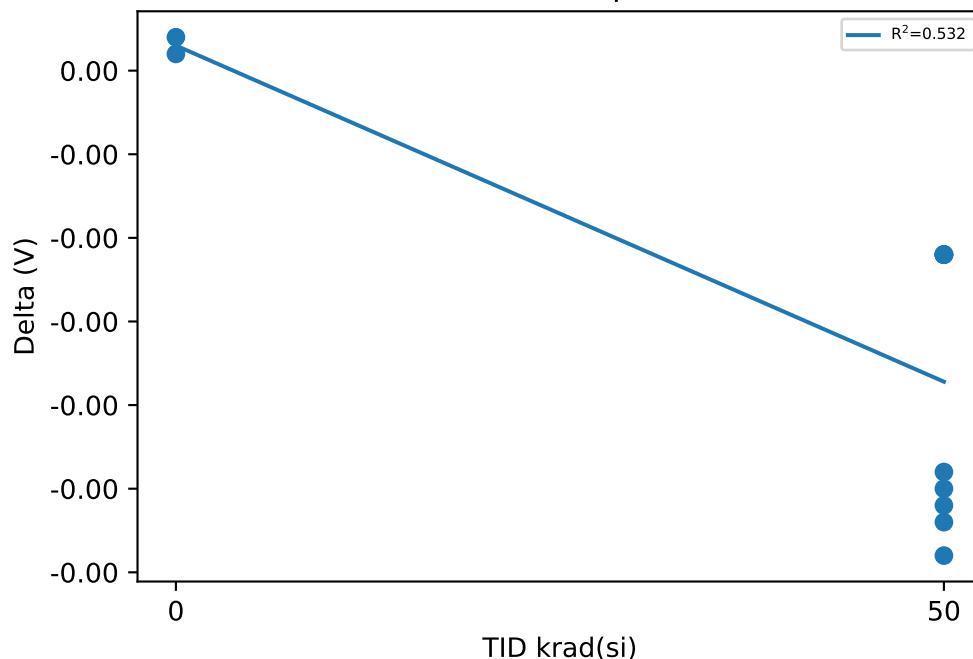
TID vs Result Stats



Test Results (Upper Limit = 0.15 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.0785     | 0.0787      | 0.0002  |
| 2        | 0        | Correlation         | 0.0788     | 0.0789      | 0.0001  |
| 4        | 50       | Bias                | 0.0807     | 0.078       | -0.0027 |
| 6        | 50       | Bias                | 0.0798     | 0.0774      | -0.0024 |
| 7        | 50       | Bias                | 0.08       | 0.0774      | -0.0026 |
| 8        | 50       | Bias                | 0.0805     | 0.0776      | -0.0029 |
| 9        | 50       | Bias                | 0.0803     | 0.0778      | -0.0025 |
| 11       | 50       | Unbias              | 0.0791     | 0.078       | -0.0011 |
| 12       | 50       | Unbias              | 0.0791     | 0.078       | -0.0011 |
| 13       | 50       | Unbias              | 0.079      | 0.0779      | -0.0011 |
| 14       | 50       | Unbias              | 0.08       | 0.0789      | -0.0011 |
| 15       | 50       | Unbias              | 0.0801     | 0.079       | -0.0011 |

TID vs Post - Pre Exposure Delta

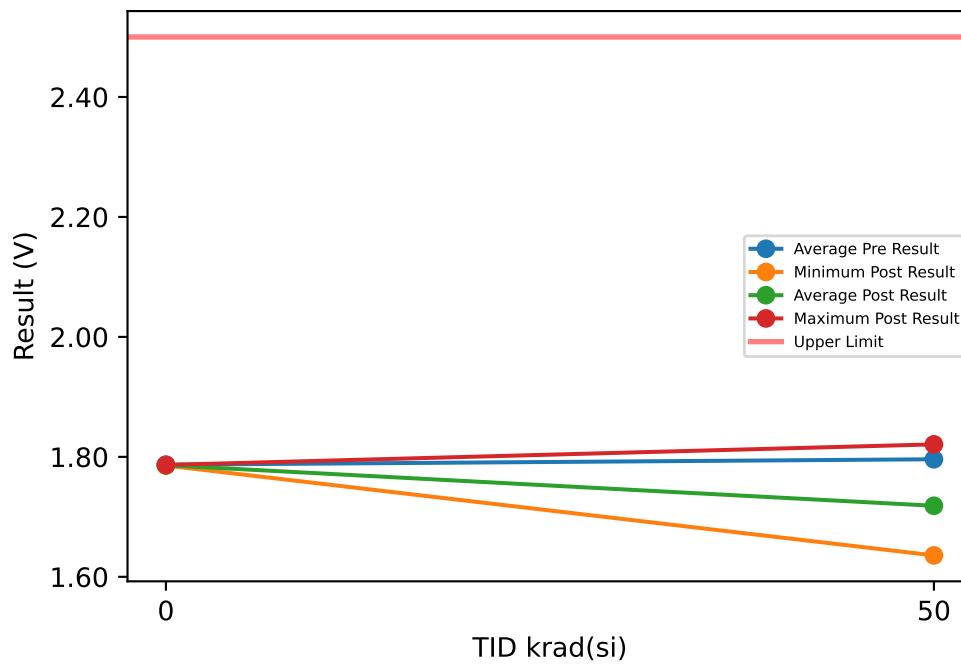


Test Statistics (V)

| 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        | 0.0785           | 0.07865          | 0.0788           | 0.00021213       | 0.0787            | 0.0788            | 0.0789            | 0.00014142        | 0.0001    | 0.00015   | 0.0002    | 7.0711e-05 |
| 50       | 0.079            | 0.07986          | 0.0807           | 0.0006059        | 0.0774            | 0.078             | 0.079             | 0.00055176        | -0.0029   | -0.00186  | -0.0011   | 0.00081131 |

# Device Test: 24.30 OUT\_CLAMP\_FULL(VOLTAGE|OUT\_CLAMP/OUTL/5/0/0/0/0/0//@OUT\_CLAMP\_FULL)

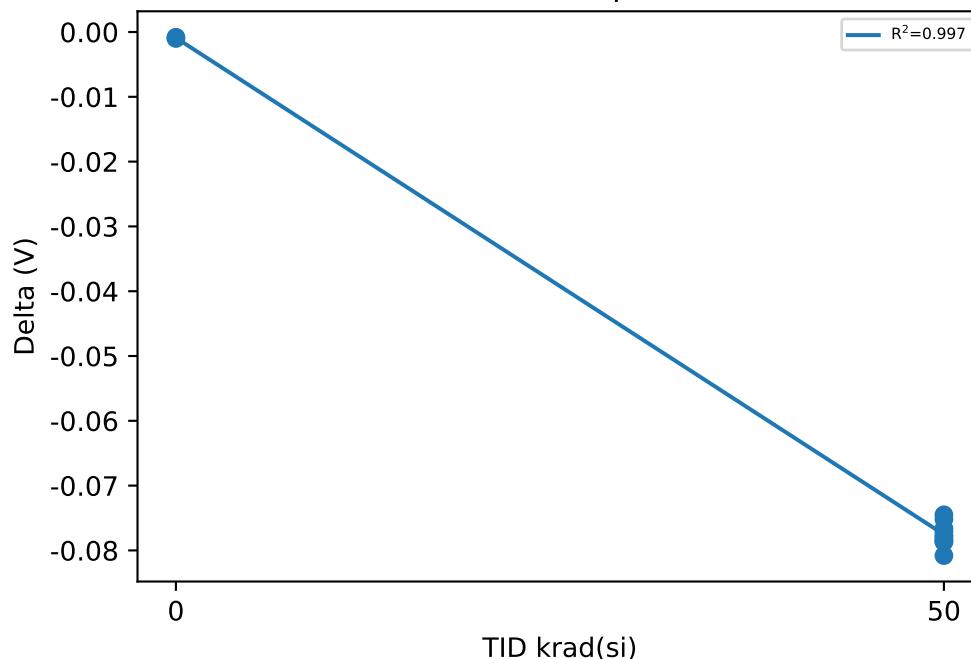
TID vs Result Stats



Test Results (Upper Limit = 2.5 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.7875     | 1.7865      | -0.001  |
| 2        | 0        | Correlation         | 1.7863     | 1.7855      | -0.0008 |
| 4        | 50       | Bias                | 1.8994     | 1.8208      | -0.0786 |
| 6        | 50       | Bias                | 1.7291     | 1.6546      | -0.0745 |
| 7        | 50       | Bias                | 1.7109     | 1.6357      | -0.0752 |
| 8        | 50       | Bias                | 1.8164     | 1.7381      | -0.0783 |
| 9        | 50       | Bias                | 1.8164     | 1.7393      | -0.0771 |
| 11       | 50       | Unbias              | 1.8121     | 1.7334      | -0.0787 |
| 12       | 50       | Unbias              | 1.8091     | 1.7325      | -0.0766 |
| 13       | 50       | Unbias              | 1.7717     | 1.6938      | -0.0779 |
| 14       | 50       | Unbias              | 1.7184     | 1.6376      | -0.0808 |
| 15       | 50       | Unbias              | 1.8763     | 1.7986      | -0.0777 |

TID vs Post - Pre Exposure Delta

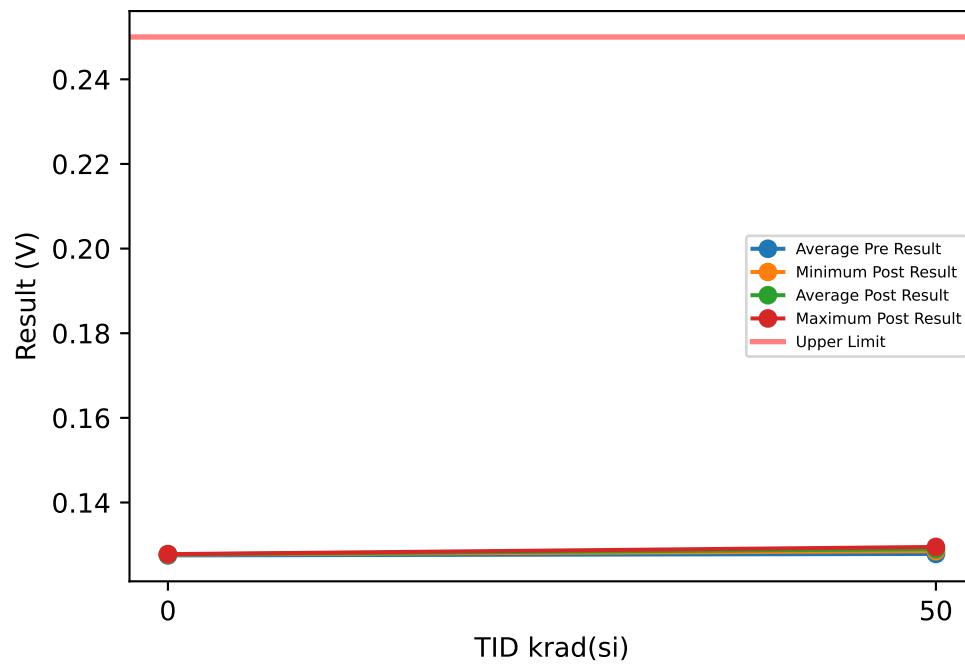


Test Statistics (V)

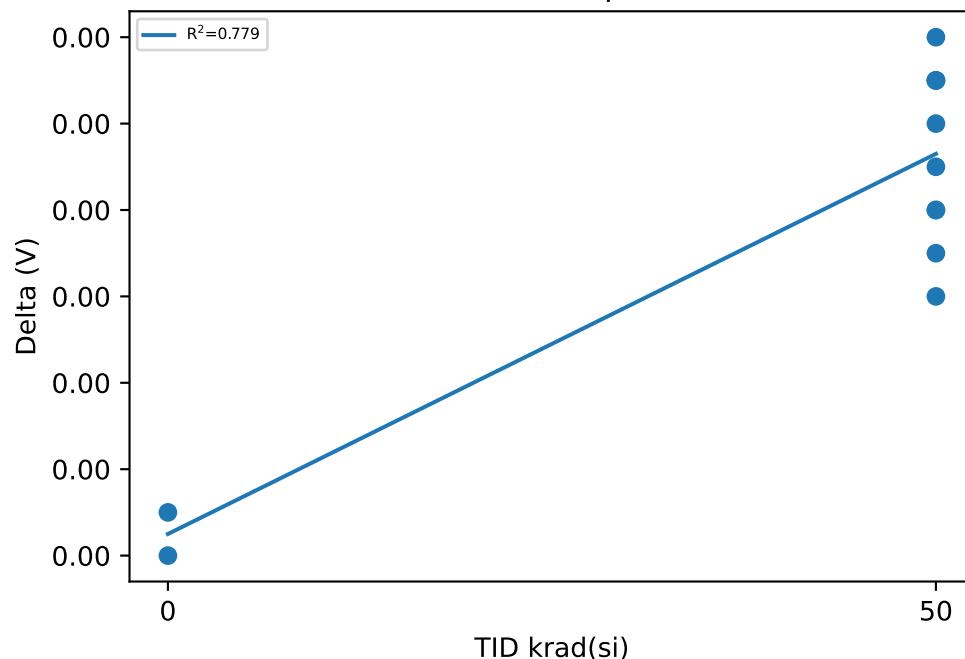
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 1.7863           | 1.7869           | 1.7875           | 0.00084853       | 1.7855            | 1.786             | 1.7865            | 0.00070711        | -0.001    | -0.0009   | -0.0008   | 0.00014142 |
| 50       | 1.7109           | 1.796            | 1.8994           | 0.063886         | 1.6357            | 1.7184            | 1.8208            | 0.06343           | -0.0808   | -0.07754  | -0.0745   | 0.0018143  |

# Device Test: 24.4 OUT\_VOH(LEVEL|HIGH\_LEVEL/OUTH/5/5/0/0/5/500kHz//@OUT\_VOH)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 0.25 (V))

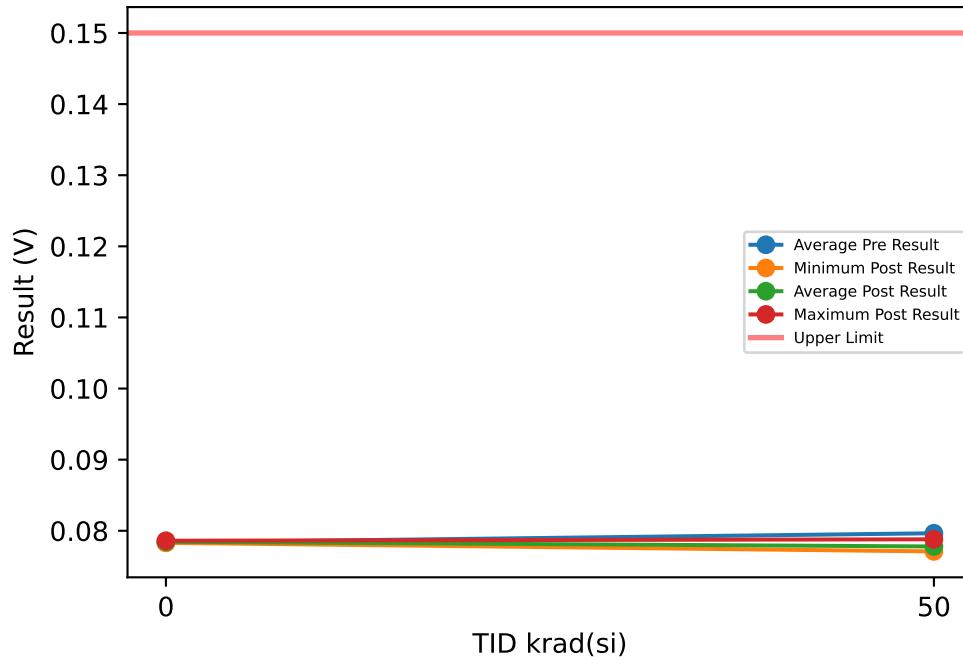
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 0.1274     | 0.1277      | 0.0003 |
| 2        | 0        | Correlation         | 0.1276     | 0.1278      | 0.0002 |
| 4        | 50       | Bias                | 0.1274     | 0.1287      | 0.0013 |
| 6        | 50       | Bias                | 0.1283     | 0.1295      | 0.0012 |
| 7        | 50       | Bias                | 0.1276     | 0.129       | 0.0014 |
| 8        | 50       | Bias                | 0.1278     | 0.1291      | 0.0013 |
| 9        | 50       | Bias                | 0.1281     | 0.1294      | 0.0013 |
| 11       | 50       | Unbias              | 0.1278     | 0.1287      | 0.0009 |
| 12       | 50       | Unbias              | 0.1275     | 0.1285      | 0.001  |
| 13       | 50       | Unbias              | 0.1278     | 0.1288      | 0.001  |
| 14       | 50       | Unbias              | 0.1277     | 0.1288      | 0.0011 |
| 15       | 50       | Unbias              | 0.1284     | 0.1292      | 0.0008 |

Test Statistics (V)

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.1274           | 0.1275           | 0.1276           | 0.00014142       | 0.1277            | 0.12775           | 0.1278            | 7.0711e-05        | 0.0002    | 0.00025   | 0.0003    | 7.0711e-05 |
| 50       | 0.1274           | 0.12784          | 0.1284           | 0.00033066       | 0.1285            | 0.12897           | 0.1295            | 0.00032677        | 0.0008    | 0.00113   | 0.0014    | 0.00020028 |

# Device Test: 24.5 OUT\_VOL(LEVEL|LOW\_LEVEL/OUTL/12/12/0/0/5/500kHz//@OUT\_VOL)

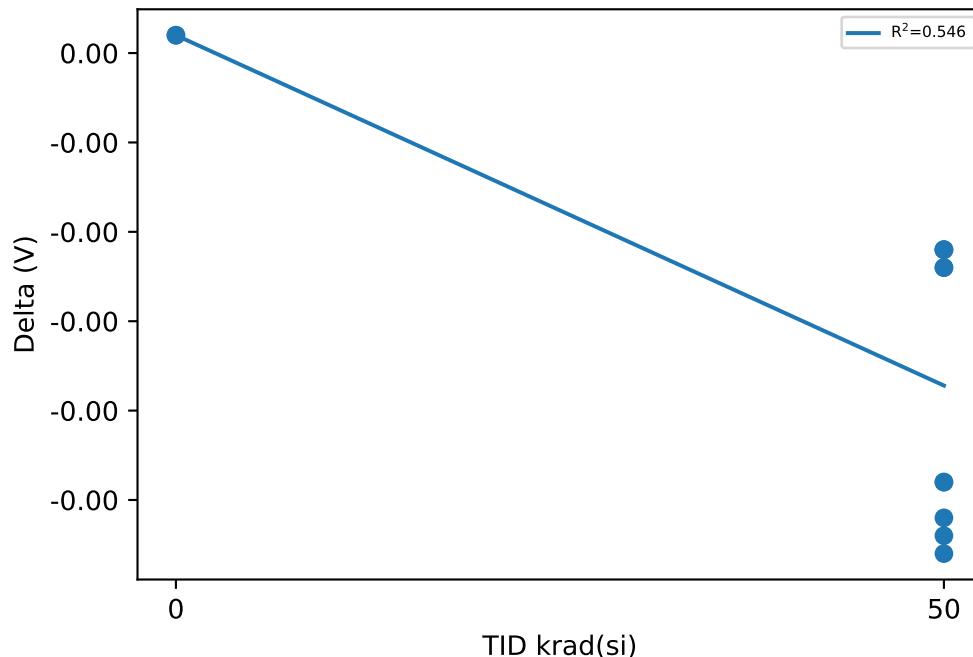
TID vs Result Stats



Test Results (Upper Limit = 0.15 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.0782     | 0.0783      | 0.0001  |
| 2        | 0        | Correlation         | 0.0785     | 0.0786      | 0.0001  |
| 4        | 50       | Bias                | 0.0805     | 0.0778      | -0.0027 |
| 6        | 50       | Bias                | 0.0795     | 0.0771      | -0.0024 |
| 7        | 50       | Bias                | 0.0797     | 0.0771      | -0.0026 |
| 8        | 50       | Bias                | 0.0802     | 0.0774      | -0.0028 |
| 9        | 50       | Bias                | 0.08       | 0.0776      | -0.0024 |
| 11       | 50       | Unbias              | 0.079      | 0.0779      | -0.0011 |
| 12       | 50       | Unbias              | 0.079      | 0.0778      | -0.0012 |
| 13       | 50       | Unbias              | 0.0788     | 0.0777      | -0.0011 |
| 14       | 50       | Unbias              | 0.0799     | 0.0787      | -0.0012 |
| 15       | 50       | Unbias              | 0.0799     | 0.0788      | -0.0011 |

TID vs Post - Pre Exposure Delta

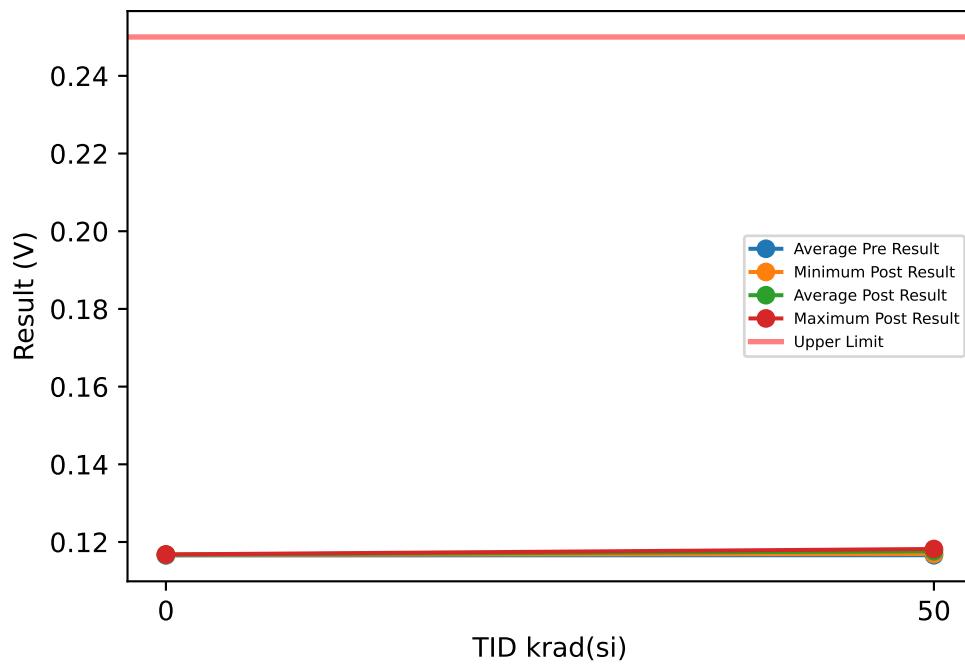


Test Statistics (V)

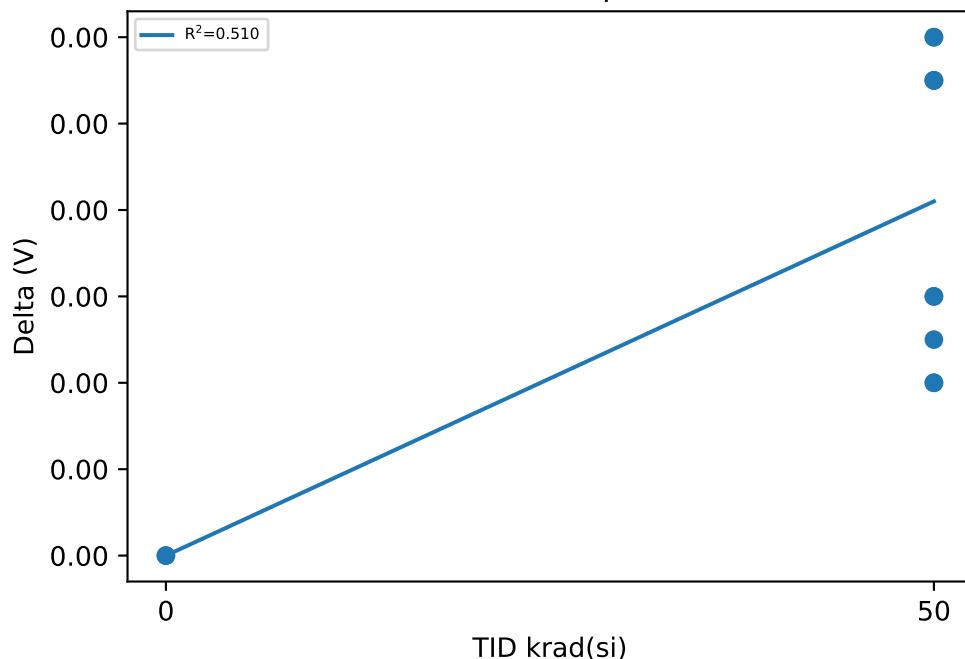
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.0782           | 0.07835          | 0.0785           | 0.00021213       | 0.0783            | 0.07845           | 0.0786            | 0.00021213        | 0.0001    | 0.0001    | 0.0001    | 9.8131e-18 |
| 50       | 0.0788           | 0.07965          | 0.0805           | 0.00056421       | 0.0771            | 0.07779           | 0.0788            | 0.00057822        | -0.0028   | -0.00186  | -0.0011   | 0.00076913 |

# Device Test: 24.6 OUT\_VOH(LEVEL|HIGH\_LEVEL/OUTH/12/12/0/0/5/500kHz//@OUT\_VOH)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 0.25 (V))

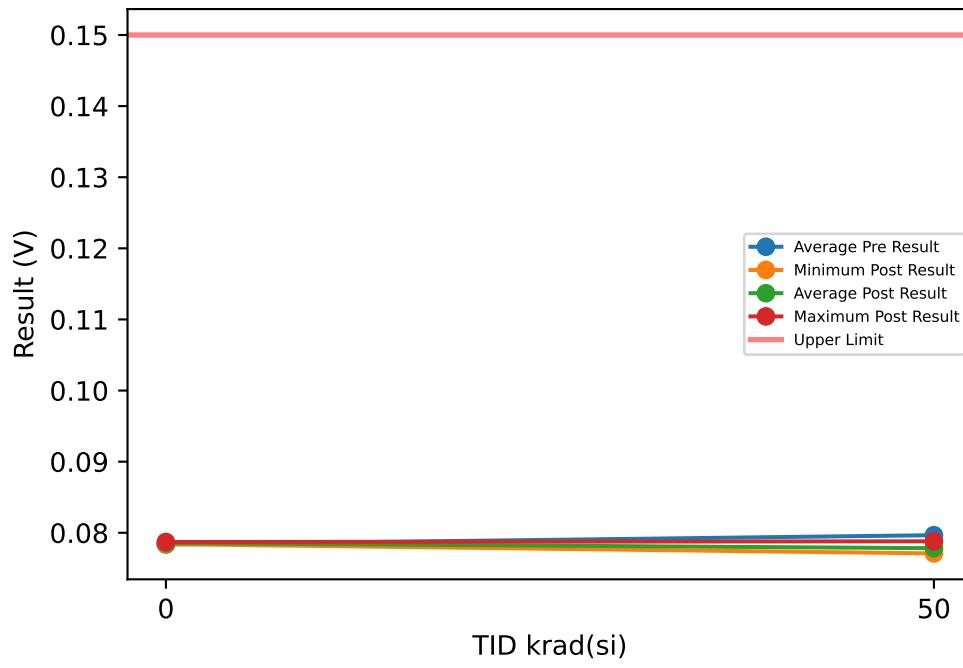
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 0.1166     | 0.1168      | 0.0002 |
| 2        | 0        | Correlation         | 0.1165     | 0.1167      | 0.0002 |
| 4        | 50       | Bias                | 0.1159     | 0.1173      | 0.0014 |
| 6        | 50       | Bias                | 0.1161     | 0.1174      | 0.0013 |
| 7        | 50       | Bias                | 0.1166     | 0.1179      | 0.0013 |
| 8        | 50       | Bias                | 0.1168     | 0.1182      | 0.0014 |
| 9        | 50       | Bias                | 0.1165     | 0.1178      | 0.0013 |
| 11       | 50       | Unbias              | 0.1162     | 0.1169      | 0.0007 |
| 12       | 50       | Unbias              | 0.1166     | 0.1174      | 0.0008 |
| 13       | 50       | Unbias              | 0.1172     | 0.1178      | 0.0006 |
| 14       | 50       | Unbias              | 0.1167     | 0.1175      | 0.0008 |
| 15       | 50       | Unbias              | 0.1173     | 0.1179      | 0.0006 |

Test Statistics (V)

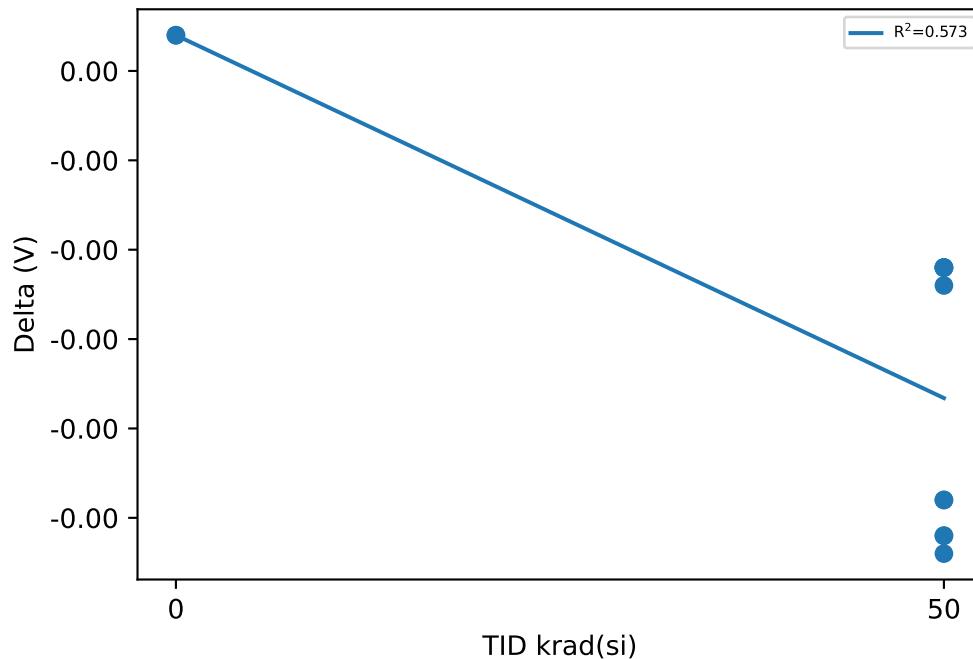
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.1165           | 0.11655          | 0.1166           | 7.0711e-05       | 0.1167            | 0.11675           | 0.1168            | 7.0711e-05        | 0.0002    | 0.0002    | 0.0002    | 9.8131e-18 |
| 50       | 0.1159           | 0.11659          | 0.1173           | 0.00044833       | 0.1169            | 0.11761           | 0.1182            | 0.00037845        | 0.0006    | 0.00102   | 0.0014    | 0.00034577 |

# Device Test: 24.7 OUT\_VOL(LEVEL|LOW\_LEVEL/OUTL/14/14/0/0/5/500kHz//@OUT\_VOL)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 0.15 (V))

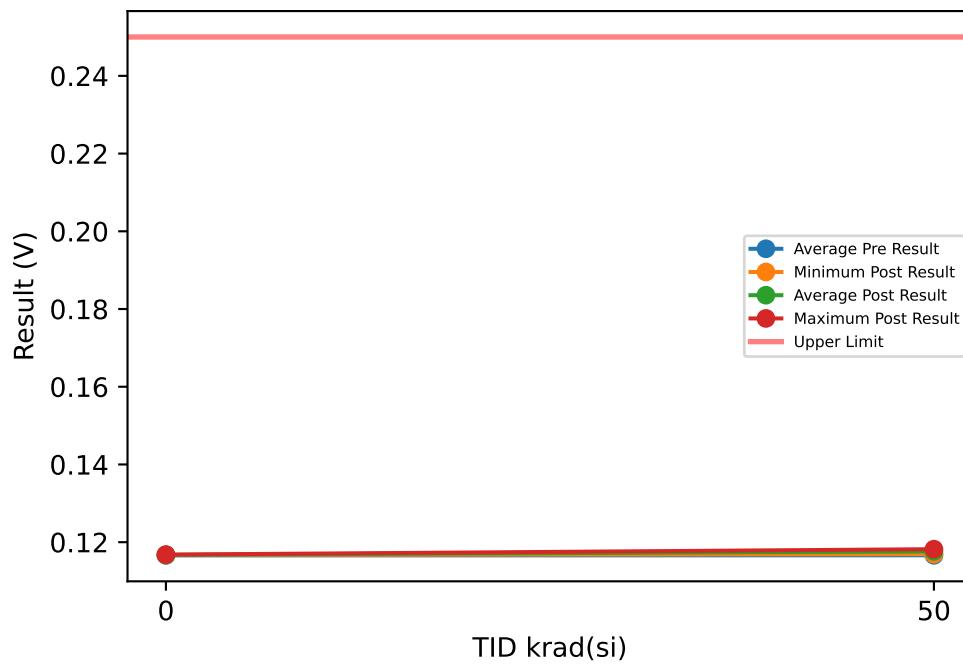
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.0782     | 0.0784      | 0.0002  |
| 2        | 0        | Correlation         | 0.0785     | 0.0787      | 0.0002  |
| 4        | 50       | Bias                | 0.0805     | 0.0779      | -0.0026 |
| 6        | 50       | Bias                | 0.0795     | 0.0771      | -0.0024 |
| 7        | 50       | Bias                | 0.0798     | 0.0772      | -0.0026 |
| 8        | 50       | Bias                | 0.0802     | 0.0775      | -0.0027 |
| 9        | 50       | Bias                | 0.08       | 0.0776      | -0.0024 |
| 11       | 50       | Unbias              | 0.079      | 0.0779      | -0.0011 |
| 12       | 50       | Unbias              | 0.079      | 0.0778      | -0.0012 |
| 13       | 50       | Unbias              | 0.0788     | 0.0777      | -0.0011 |
| 14       | 50       | Unbias              | 0.0799     | 0.0788      | -0.0011 |
| 15       | 50       | Unbias              | 0.0799     | 0.0788      | -0.0011 |

Test Statistics (V)

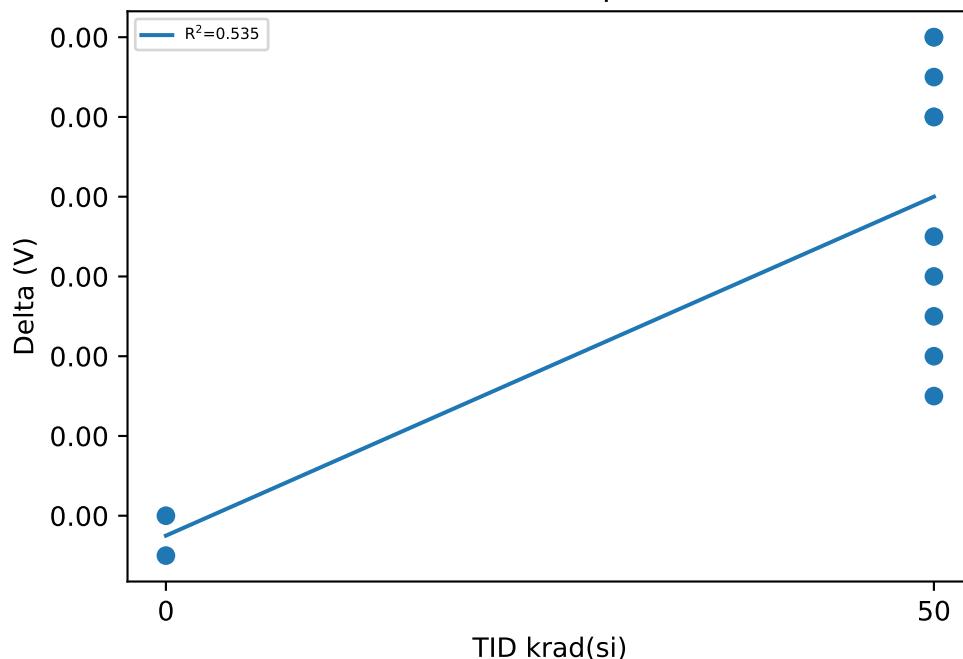
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.0782           | 0.07835          | 0.0785           | 0.00021213       | 0.0784            | 0.07855           | 0.0787            | 0.00021213        | 0.0002    | 0.0002    | 0.0002    | 9.8131e-18 |
| 50       | 0.0788           | 0.07966          | 0.0805           | 0.00056608       | 0.0771            | 0.07783           | 0.0788            | 0.00057745        | -0.0027   | -0.00183  | -0.0011   | 0.00075432 |

# Device Test: 24.8 OUT\_VOH(LEVEL|HIGH\_LEVEL/OUTH/14/14/0/0/5/500kHz//@OUT\_VOH)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



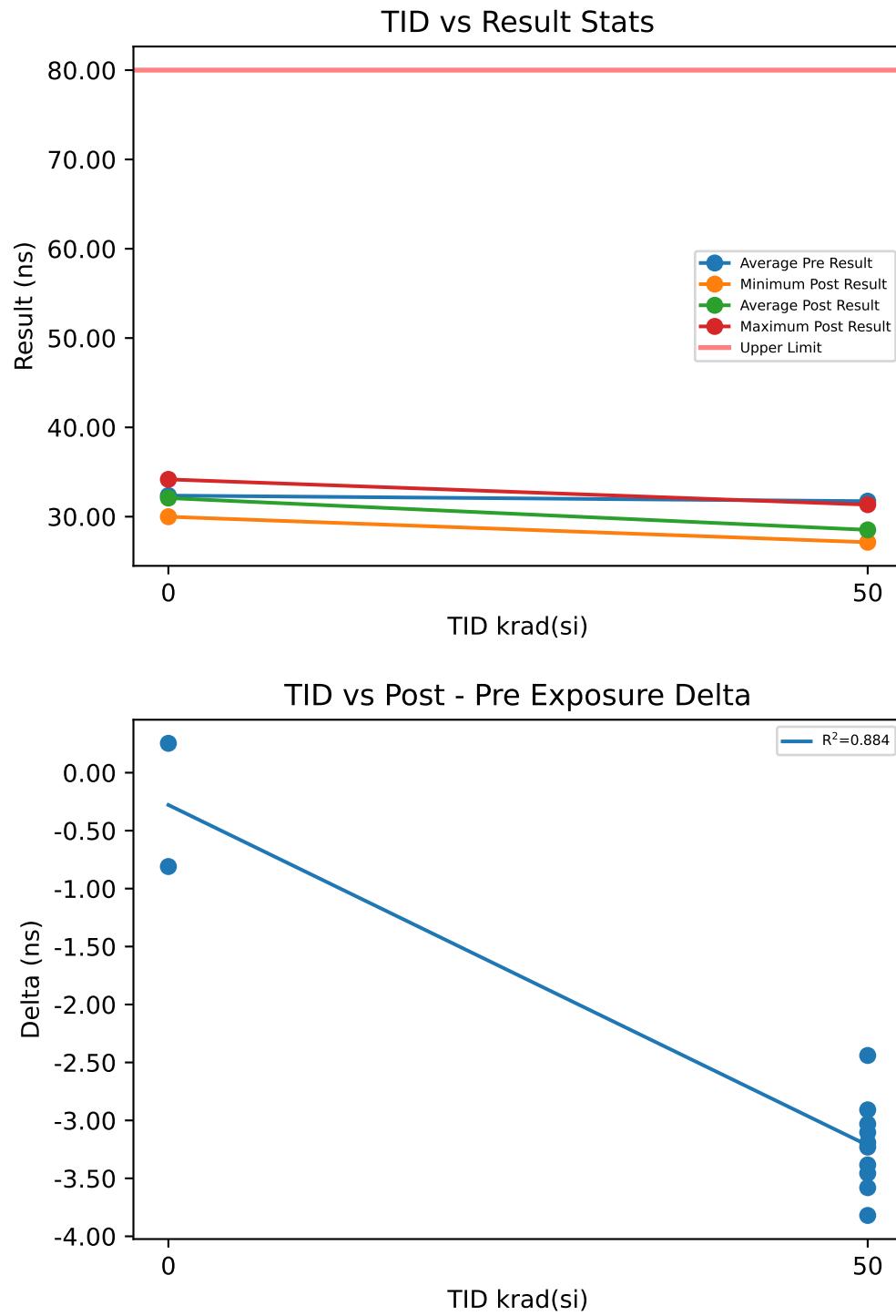
Test Results (Upper Limit = 0.25 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 0.1166     | 0.1168      | 0.0002 |
| 2        | 0        | Correlation         | 0.1166     | 0.1167      | 0.0001 |
| 4        | 50       | Bias                | 0.116      | 0.1173      | 0.0013 |
| 6        | 50       | Bias                | 0.1162     | 0.1174      | 0.0012 |
| 7        | 50       | Bias                | 0.1166     | 0.118       | 0.0014 |
| 8        | 50       | Bias                | 0.1168     | 0.1182      | 0.0014 |
| 9        | 50       | Bias                | 0.1165     | 0.1177      | 0.0012 |
| 11       | 50       | Unbias              | 0.1162     | 0.1169      | 0.0007 |
| 12       | 50       | Unbias              | 0.1166     | 0.1174      | 0.0008 |
| 13       | 50       | Unbias              | 0.1173     | 0.1178      | 0.0005 |
| 14       | 50       | Unbias              | 0.1167     | 0.1176      | 0.0009 |
| 15       | 50       | Unbias              | 0.1173     | 0.1179      | 0.0006 |

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        | 0.1166           | 0.1166           | 0.1166           | 0                | 0.1167            | 0.11675           | 0.1168            | 7.0711e-05        | 0.0001    | 0.00015   | 0.0002    | 7.0711e-05 |
| 50       | 0.116            | 0.11662          | 0.1173           | 0.00043665       | 0.1169            | 0.11762           | 0.1182            | 0.00038239        | 0.0005    | 0.001     | 0.0014    | 0.00033993 |

# Device Test: 25.1 T\_LEB(TIMING|LEB/EN/5/5/0/0/5/500kHz//@T\_LEB)



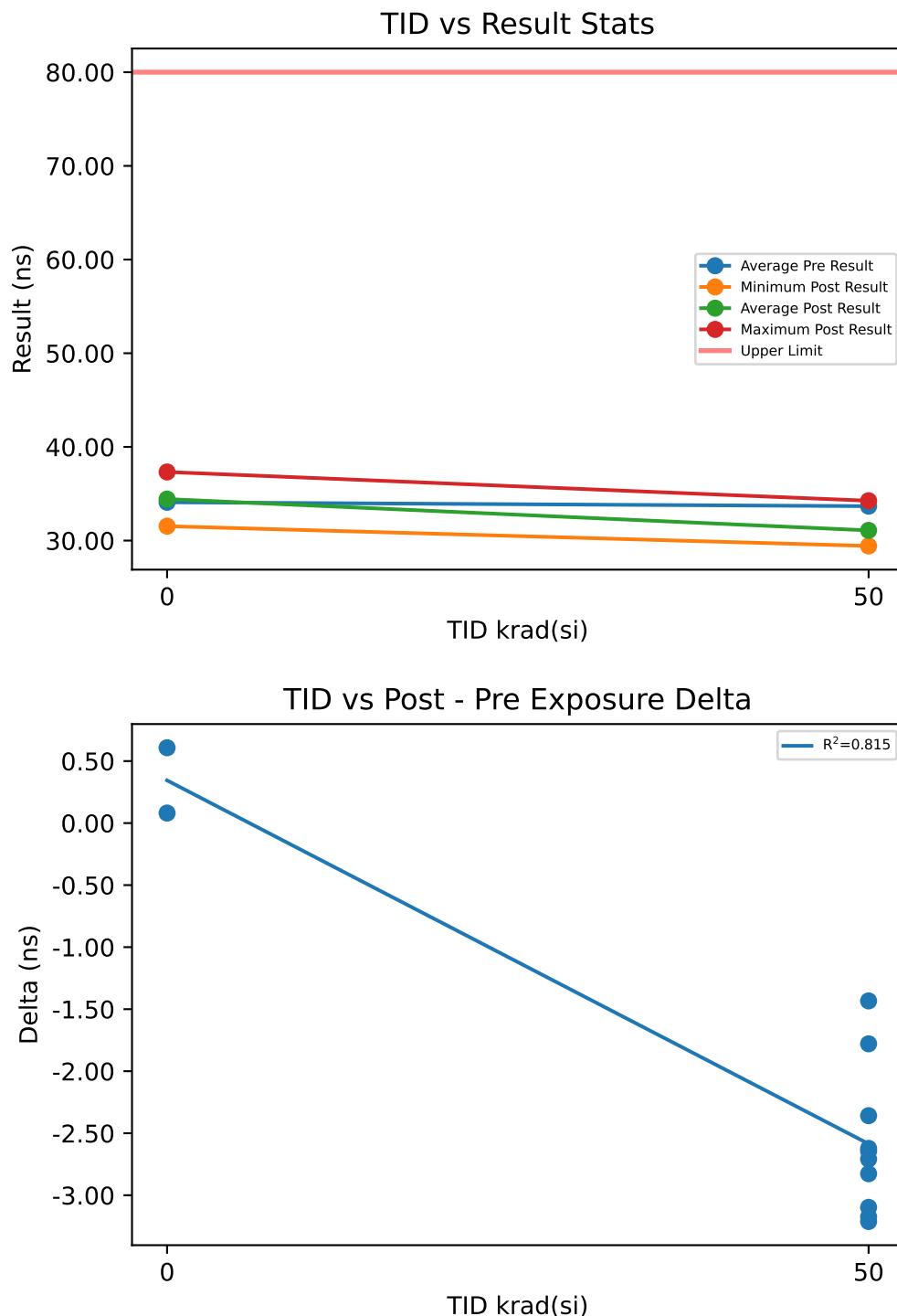
**Test Results (Upper Limit = 80.0 (ns))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 34.982     | 34.173      | -0.8097 |
| 2        | 0        | Correlation         | 29.739     | 29.992      | 0.2533  |
| 4        | 50       | Bias                | 32.617     | 29.16       | -3.4566 |
| 6        | 50       | Bias                | 30.527     | 27.297      | -3.2302 |
| 7        | 50       | Bias                | 32.351     | 28.531      | -3.8201 |
| 8        | 50       | Bias                | 34.448     | 31.344      | -3.1036 |
| 9        | 50       | Bias                | 31.539     | 27.958      | -3.5804 |
| 11       | 50       | Unbias              | 30.044     | 27.135      | -2.9088 |
| 12       | 50       | Unbias              | 32.242     | 29.051      | -3.1908 |
| 13       | 50       | Unbias              | 30.933     | 28.493      | -2.4399 |
| 14       | 50       | Unbias              | 30.495     | 27.464      | -3.0312 |
| 15       | 50       | Unbias              | 32.148     | 28.764      | -3.384  |

**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        | 29.739           | 32.36            | 34.982           | 3.7079           | 29.992            | 32.082            | 34.173            | 2.9562            | -0.8097   | -0.2782   | 0.2533    | 0.75165   |
| 50       | 30.044           | 31.734           | 34.448           | 1.3116           | 27.135            | 28.52             | 31.344            | 1.2281            | -3.8201   | -3.2146   | -2.4399   | 0.38415   |

# Device Test: 25.4 T\_LEB(TIMING|LEB/EN/12/12/0/0/5/500kHz//@T\_LEB)



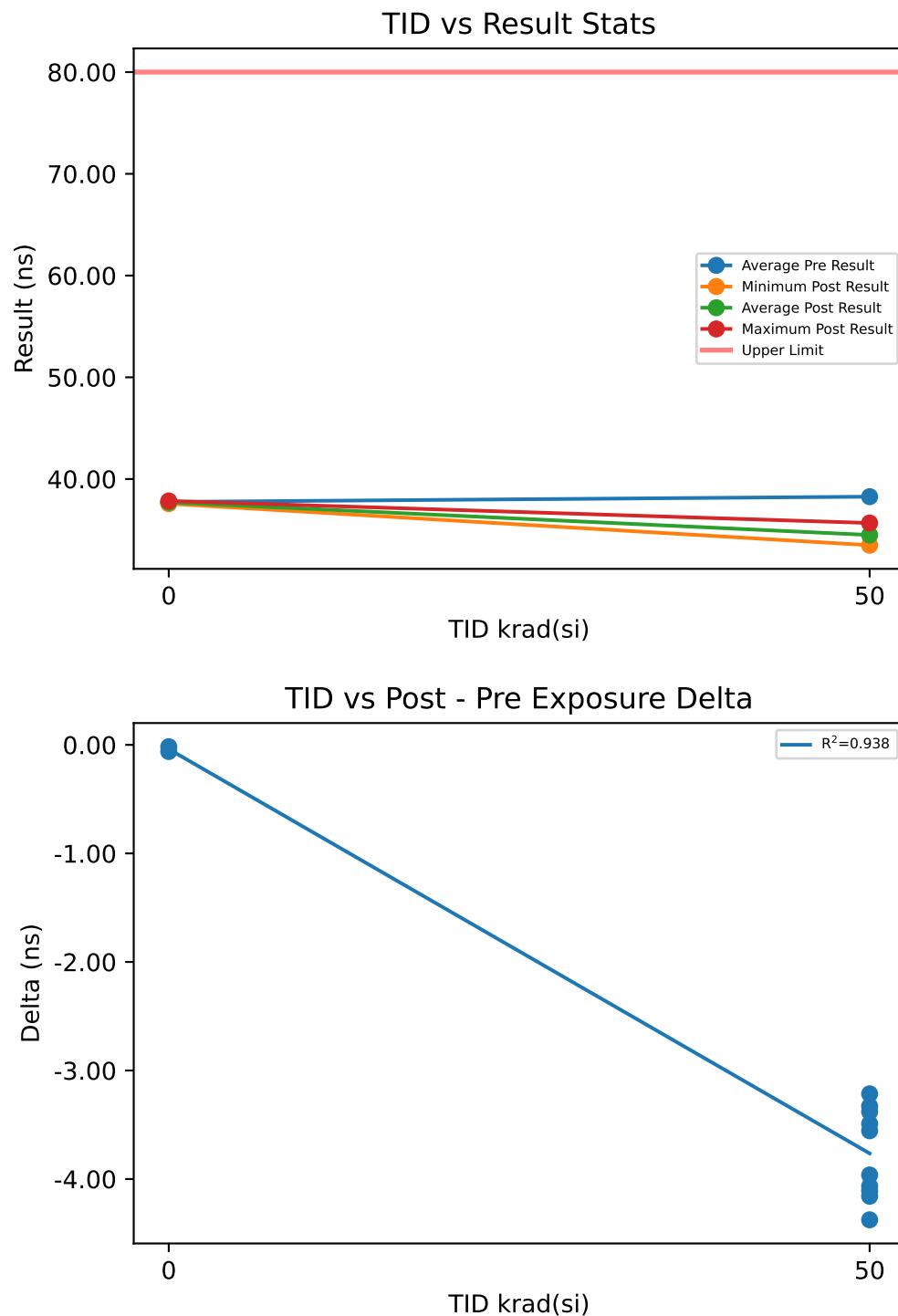
**Test Results (Upper Limit = 80.0 (ns))**

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 36.717     | 37.324      | 0.6075  |
| 2        | 0        | Correlation         | 31.458     | 31.539      | 0.0809  |
| 4        | 50       | Bias                | 34.873     | 32.164      | -2.7089 |
| 6        | 50       | Bias                | 32.581     | 30.223      | -2.3586 |
| 7        | 50       | Bias                | 34.336     | 31.238      | -3.0977 |
| 8        | 50       | Bias                | 36.033     | 34.254      | -1.7793 |
| 9        | 50       | Bias                | 33.646     | 30.82       | -2.8267 |
| 11       | 50       | Unbias              | 32.072     | 29.427      | -2.645  |
| 12       | 50       | Unbias              | 34.387     | 31.213      | -3.1735 |
| 13       | 50       | Unbias              | 32.169     | 30.735      | -1.4335 |
| 14       | 50       | Unbias              | 32.203     | 29.581      | -2.6223 |
| 15       | 50       | Unbias              | 34.441     | 31.229      | -3.2117 |

**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        | 31.458           | 34.087           | 36.717           | 3.7185           | 31.539            | 34.431            | 37.324            | 4.0908            | 0.0809    | 0.3442    | 0.6075    | 0.37236   |
| 50       | 32.072           | 33.674           | 36.033           | 1.3633           | 29.427            | 31.088            | 34.254            | 1.3829            | -3.2117   | -2.5857   | -1.4335   | 0.58756   |

# Device Test: 25.7 T<sub>LEB</sub>(TIMING|LEB/EN/14/14/0/0/5/500kHz//@T<sub>LEB</sub>)



**Test Results (Upper Limit = 80.0 (ns))**

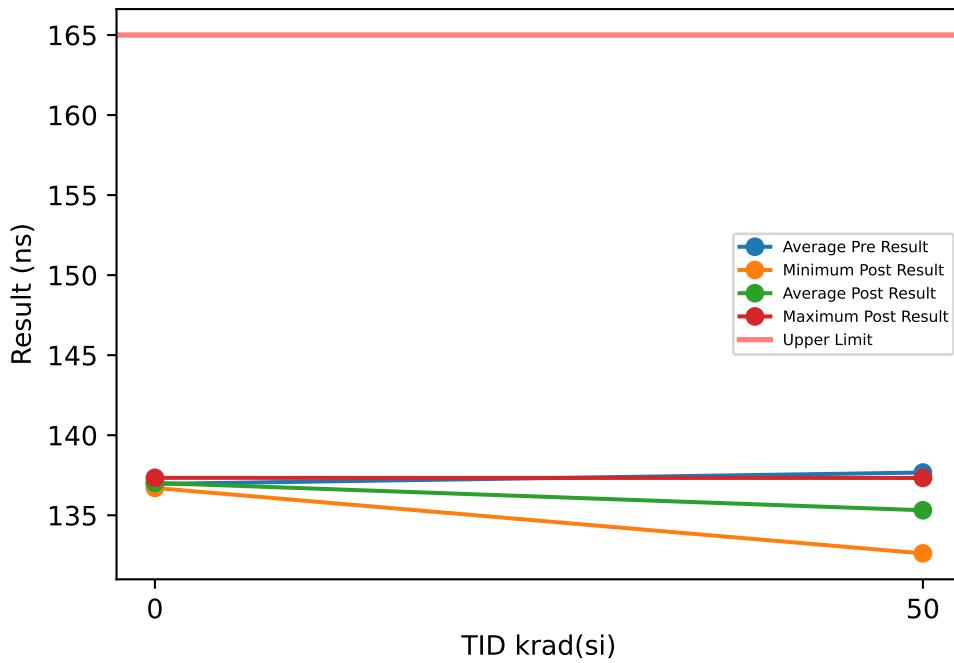
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 37.907     | 37.846      | -0.0614 |
| 2        | 0        | Correlation         | 37.597     | 37.58       | -0.017  |
| 4        | 50       | Bias                | 38.617     | 35.288      | -3.329  |
| 6        | 50       | Bias                | 37.661     | 34.446      | -3.215  |
| 7        | 50       | Bias                | 39.058     | 35.678      | -3.3802 |
| 8        | 50       | Bias                | 38.59      | 35.099      | -3.4908 |
| 9        | 50       | Bias                | 38.559     | 35.004      | -3.5554 |
| 11       | 50       | Unbias              | 37.572     | 33.609      | -3.9627 |
| 12       | 50       | Unbias              | 38.666     | 34.602      | -4.0645 |
| 13       | 50       | Unbias              | 37.604     | 33.497      | -4.1072 |
| 14       | 50       | Unbias              | 38.126     | 33.968      | -4.1583 |
| 15       | 50       | Unbias              | 38.199     | 33.823      | -4.3757 |

**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        | 37.597           | 37.752           | 37.907           | 0.2197           | 37.58             | 37.713            | 37.846            | 0.1883            | -0.0614   | -0.0392   | -0.017    | 0.031396  |
| 50       | 37.572           | 38.265           | 39.058           | 0.51775          | 33.497            | 34.501            | 35.678            | 0.75848           | -4.3757   | -3.7639   | -3.215    | 0.41275   |

# Device Test: 26.1 TON\_MIN(TIMING|MIN/OUT/4.5/4.5/0/0/4.5/500kHz//@TON\_MIN)

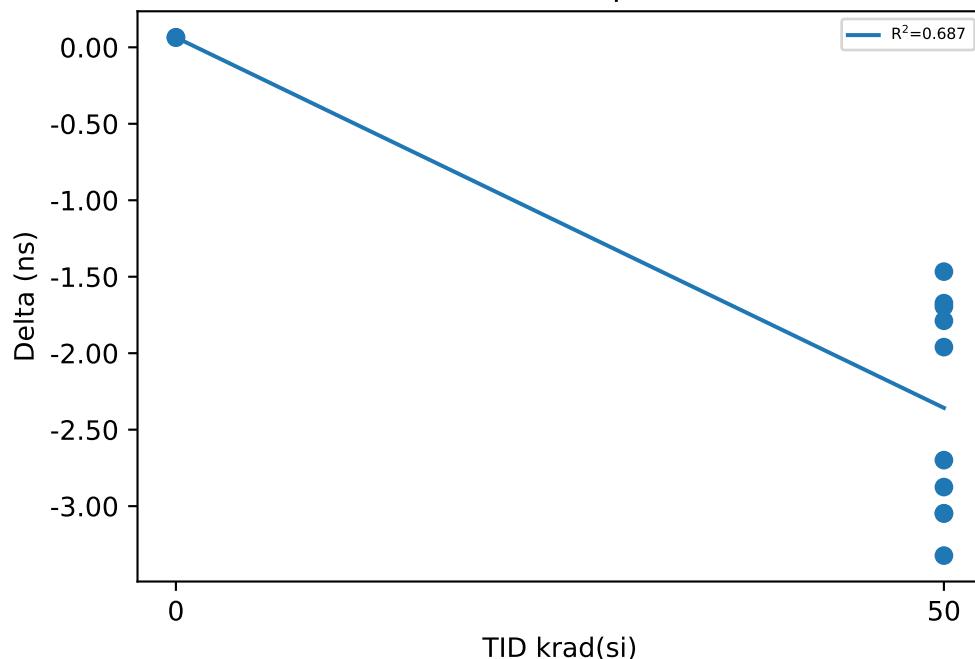
TID vs Result Stats



Test Results (Upper Limit = 165.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 136.64     | 136.71      | 0.0661  |
| 2        | 0        | Correlation         | 137.27     | 137.34      | 0.0629  |
| 4        | 50       | Bias                | 138.04     | 136.37      | -1.6727 |
| 6        | 50       | Bias                | 137.31     | 135.85      | -1.4667 |
| 7        | 50       | Bias                | 139.12     | 137.33      | -1.788  |
| 8        | 50       | Bias                | 137.98     | 136.29      | -1.6951 |
| 9        | 50       | Bias                | 138.84     | 136.88      | -1.9602 |
| 11       | 50       | Unbias              | 136.51     | 133.64      | -2.8753 |
| 12       | 50       | Unbias              | 137.72     | 135.02      | -2.6992 |
| 13       | 50       | Unbias              | 136.84     | 133.51      | -3.3233 |
| 14       | 50       | Unbias              | 138.67     | 135.63      | -3.0482 |
| 15       | 50       | Unbias              | 135.67     | 132.62      | -3.0462 |

TID vs Post - Pre Exposure Delta

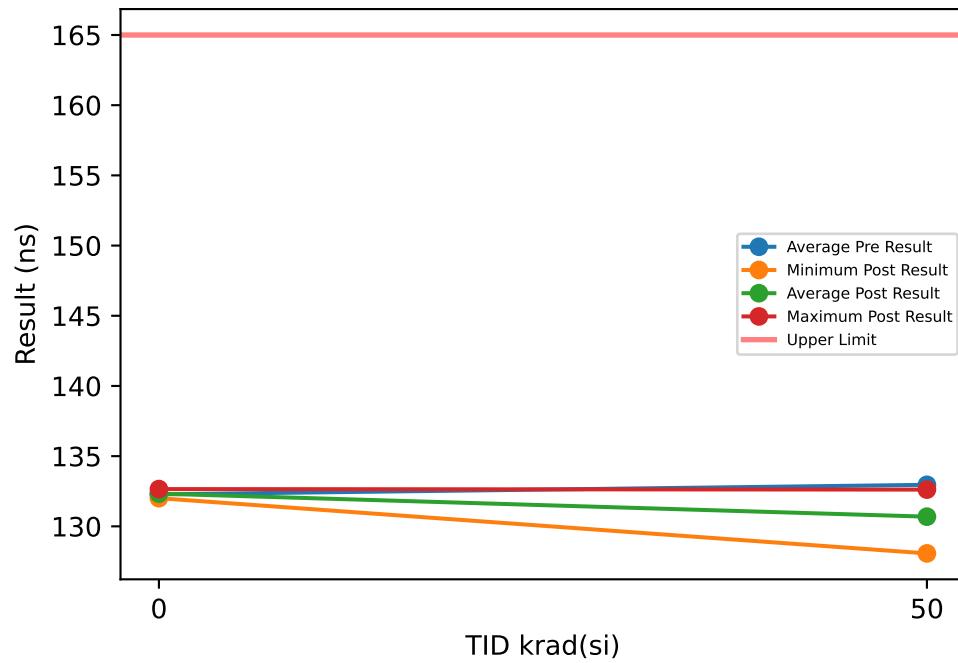


Test Statistics (ns)

| 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        | 136.64           | 136.96           | 137.27           | 0.4488           | 136.71            | 137.02            | 137.34            | 0.44654           | 0.0629    | 0.0645    | 0.0661    | 0.0022627 |
| 50       | 135.67           | 137.67           | 139.12           | 1.1008           | 132.62            | 135.31            | 137.33            | 1.577             | -3.3233   | -2.3575   | -1.4667   | 0.70336   |

# Device Test: 26.2 TON\_MIN(TIMING|MIN/OUT/5/5/0/0/5/500kHz//@TON\_MIN)

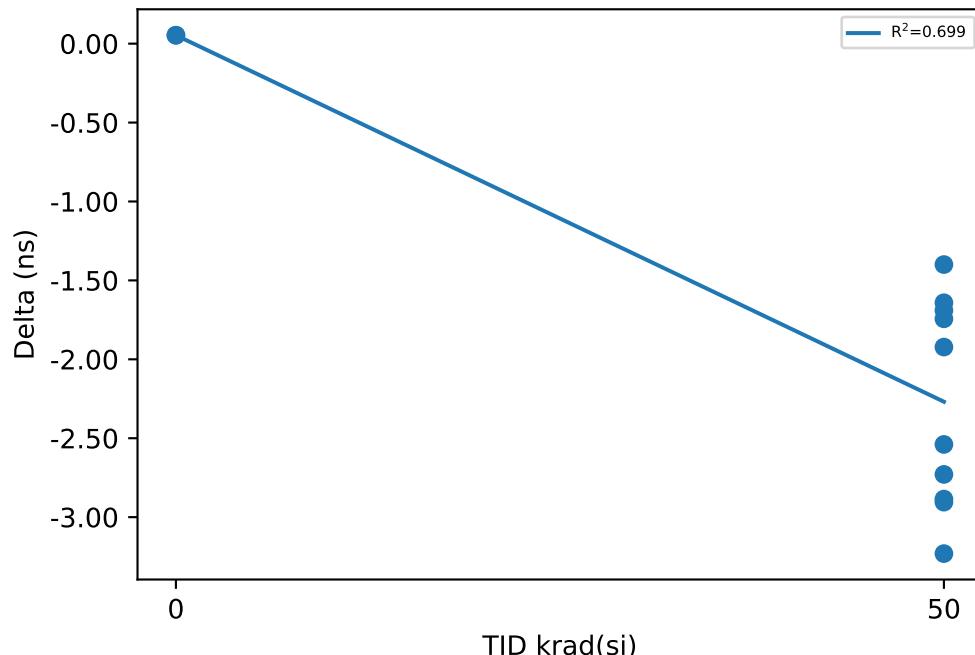
TID vs Result Stats



Test Results (Upper Limit = 165.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 131.95     | 132.01      | 0.0536  |
| 2        | 0        | Correlation         | 132.6      | 132.66      | 0.0533  |
| 4        | 50       | Bias                | 133.22     | 131.58      | -1.6415 |
| 6        | 50       | Bias                | 132.6      | 131.2       | -1.3996 |
| 7        | 50       | Bias                | 134.36     | 132.62      | -1.7435 |
| 8        | 50       | Bias                | 133.24     | 131.55      | -1.69   |
| 9        | 50       | Bias                | 134.08     | 132.15      | -1.9224 |
| 11       | 50       | Unbias              | 131.86     | 129.13      | -2.7293 |
| 12       | 50       | Unbias              | 133.08     | 130.54      | -2.5393 |
| 13       | 50       | Unbias              | 132.23     | 129         | -3.231  |
| 14       | 50       | Unbias              | 133.93     | 131.05      | -2.8855 |
| 15       | 50       | Unbias              | 130.98     | 128.07      | -2.9051 |

TID vs Post - Pre Exposure Delta

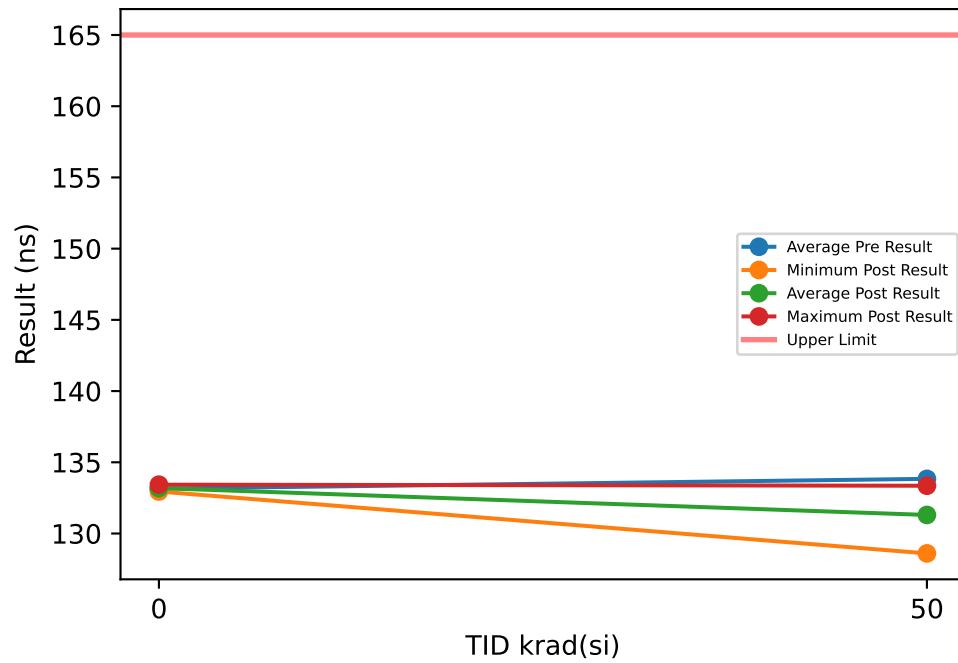


Test Statistics (ns)

| 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        | 131.95           | 132.28           | 132.6            | 0.4587           | 132.01            | 132.33            | 132.66            | 0.45849           | 0.0533    | 0.05345   | 0.0536    | 0.00021213 |
| 50       | 130.98           | 132.96           | 134.36           | 1.0601           | 128.07            | 130.69            | 132.62            | 1.4881            | -3.231    | -2.2687   | -1.3996   | 0.65627    |

# Device Test: 26.3 TON\_MIN(TIMING|MIN/OUT/12/12/0/0/5/500kHz//@TON\_MIN)

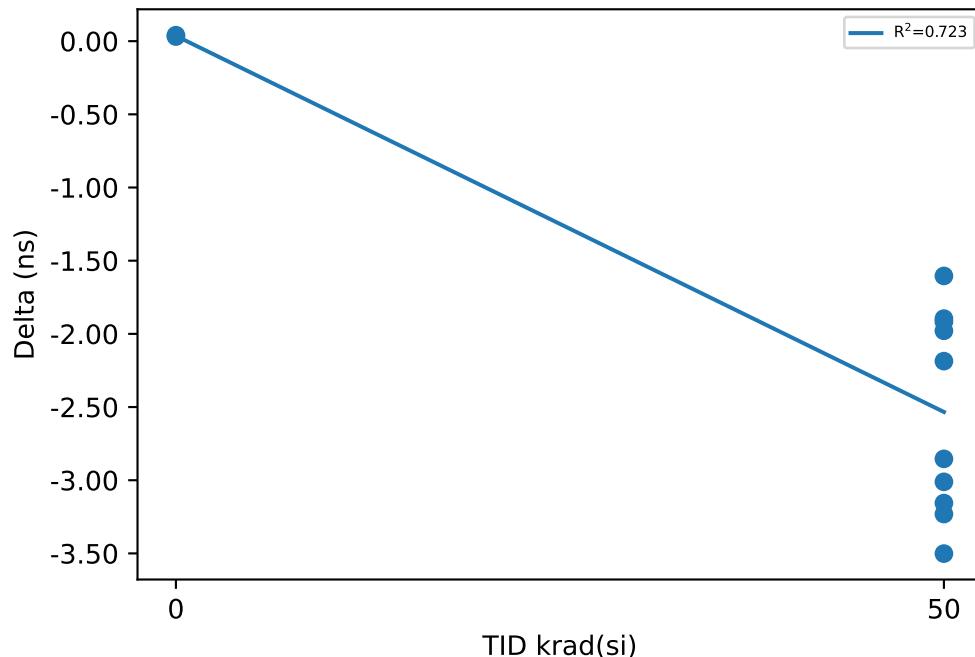
TID vs Result Stats



Test Results (Upper Limit = 165.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 132.91     | 132.95      | 0.0407  |
| 2        | 0        | Correlation         | 133.4      | 133.43      | 0.0316  |
| 4        | 50       | Bias                | 134.16     | 132.24      | -1.9168 |
| 6        | 50       | Bias                | 133.15     | 131.55      | -1.6042 |
| 7        | 50       | Bias                | 135.33     | 133.35      | -1.979  |
| 8        | 50       | Bias                | 134.05     | 132.16      | -1.8958 |
| 9        | 50       | Bias                | 134.98     | 132.8       | -2.1863 |
| 11       | 50       | Unbias              | 132.68     | 129.67      | -3.0111 |
| 12       | 50       | Unbias              | 134.26     | 131.41      | -2.8542 |
| 13       | 50       | Unbias              | 133.07     | 129.56      | -3.5013 |
| 14       | 50       | Unbias              | 134.85     | 131.69      | -3.1561 |
| 15       | 50       | Unbias              | 131.83     | 128.6       | -3.231  |

TID vs Post - Pre Exposure Delta

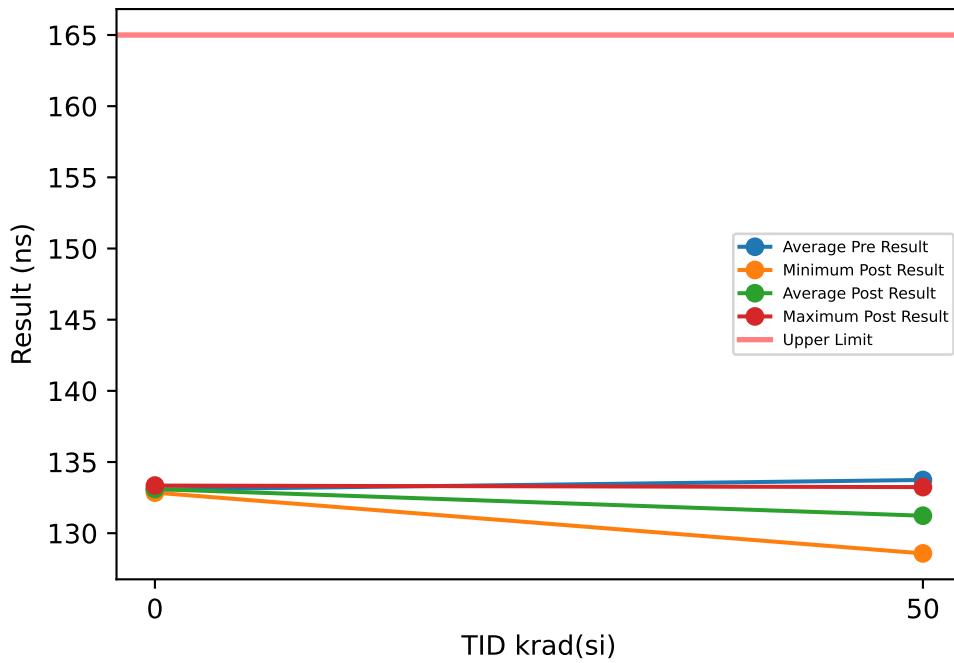


Test Statistics (ns)

| 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        | 132.91           | 133.15           | 133.4            | 0.34641          | 132.95            | 133.19            | 133.43            | 0.33998           | 0.0316    | 0.03615   | 0.0407    | 0.0064347 |
| 50       | 131.83           | 133.84           | 135.33           | 1.1208           | 128.6             | 131.3             | 133.35            | 1.5359            | -3.5013   | -2.5336   | -1.6042   | 0.68478   |

# Device Test: 26.4 TON\_MIN(TIMING|MIN/OUT/14/14/0/0/5/500kHz//@TON\_MIN)

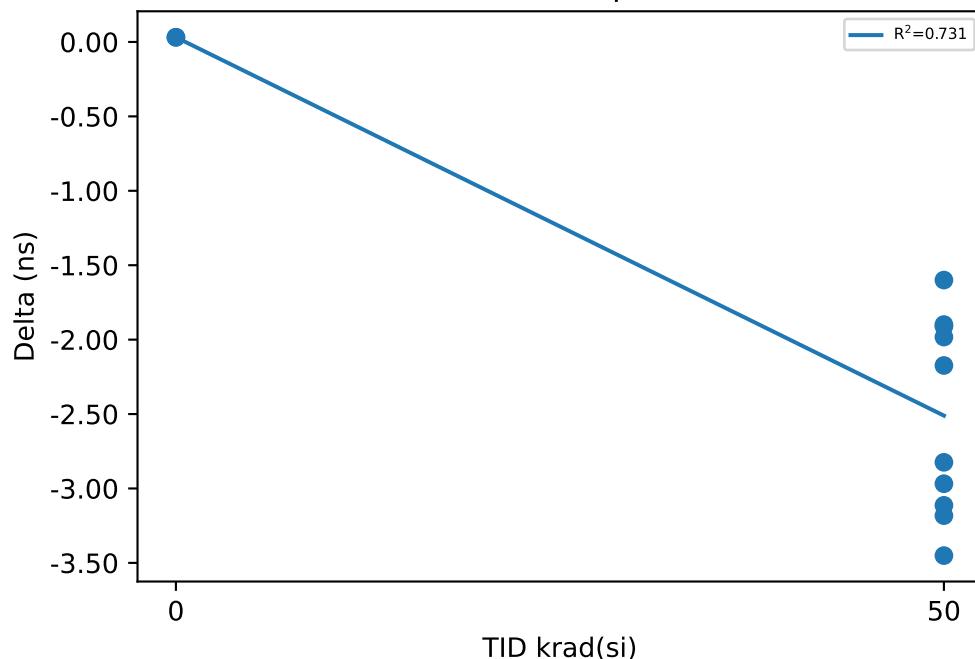
TID vs Result Stats



Test Results (Upper Limit = 165.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 132.82     | 132.85      | 0.0312  |
| 2        | 0        | Correlation         | 133.32     | 133.35      | 0.032   |
| 4        | 50       | Bias                | 134.06     | 132.15      | -1.9109 |
| 6        | 50       | Bias                | 133.07     | 131.47      | -1.5998 |
| 7        | 50       | Bias                | 135.22     | 133.24      | -1.9827 |
| 8        | 50       | Bias                | 133.97     | 132.07      | -1.8987 |
| 9        | 50       | Bias                | 134.87     | 132.69      | -2.1736 |
| 11       | 50       | Unbias              | 132.6      | 129.63      | -2.968  |
| 12       | 50       | Unbias              | 134.15     | 131.32      | -2.8243 |
| 13       | 50       | Unbias              | 132.96     | 129.51      | -3.451  |
| 14       | 50       | Unbias              | 134.74     | 131.63      | -3.1133 |
| 15       | 50       | Unbias              | 131.76     | 128.58      | -3.1825 |

TID vs Post - Pre Exposure Delta

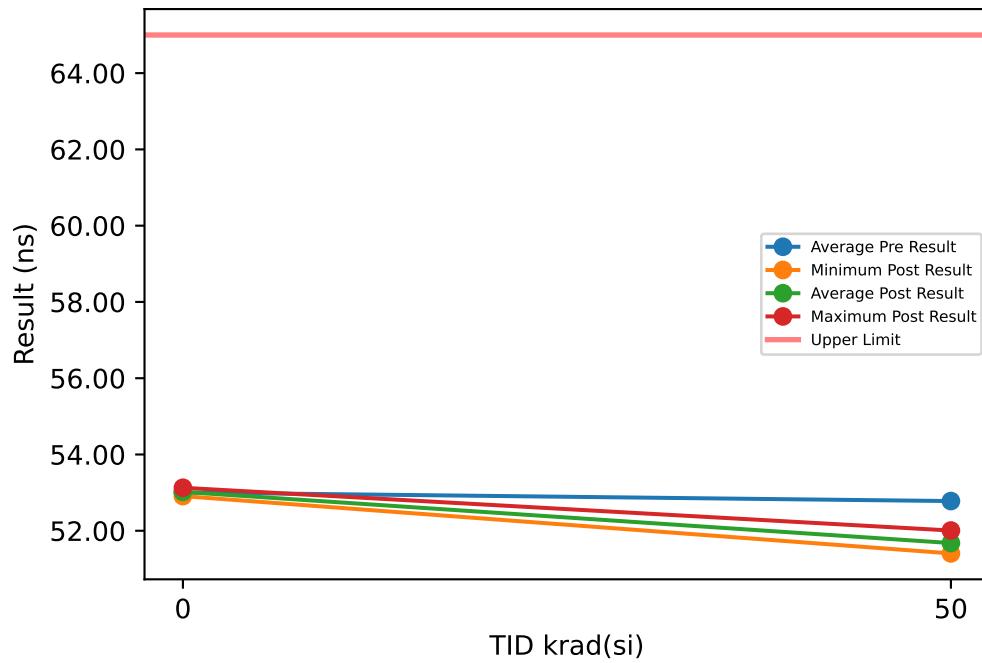


Test Statistics (ns)

| 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        | 132.82           | 133.07           | 133.32           | 0.3508           | 132.85            | 133.1             | 133.35            | 0.35136           | 0.0312    | 0.0316    | 0.032     | 0.00056569 |
| 50       | 131.76           | 133.74           | 135.22           | 1.1092           | 128.58            | 131.23            | 133.24            | 1.5093            | -3.451    | -2.5105   | -1.5998   | 0.66354    |

# Device Test: 26.5 T\_OFF\_EXTENDER(TIMING|EXT/OUT/4.5/4.5/0/0/4.5/500kHz//@T\_OFF\_EXTENDER)

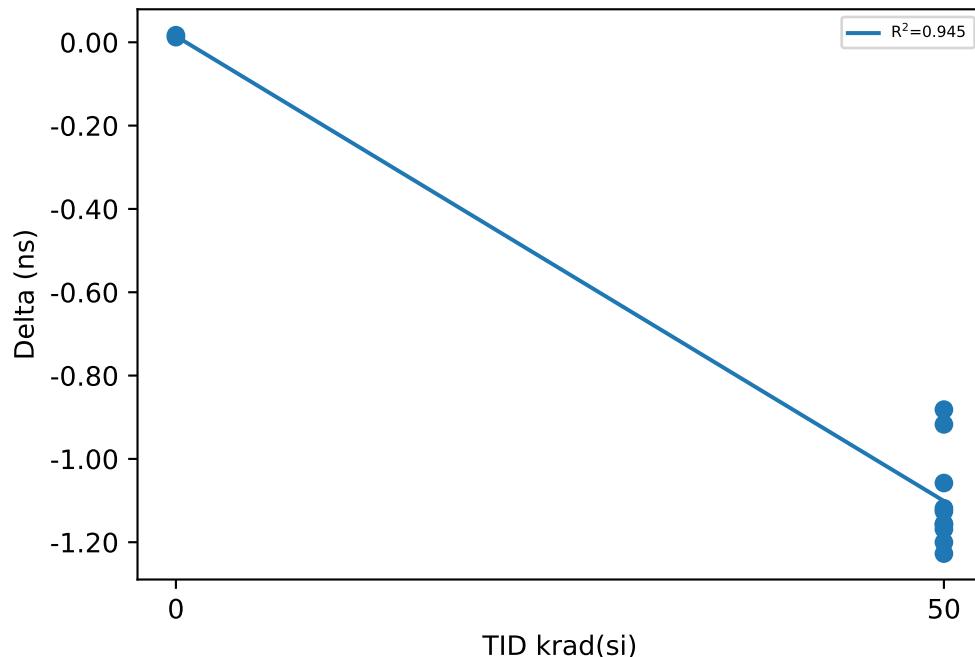
TID vs Result Stats



Test Results (Upper Limit = 65.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 52.896     | 52.909      | 0.0123  |
| 2        | 0        | Correlation         | 53.111     | 53.128      | 0.017   |
| 4        | 50       | Bias                | 52.462     | 51.545      | -0.9172 |
| 6        | 50       | Bias                | 52.462     | 51.581      | -0.8817 |
| 7        | 50       | Bias                | 52.74      | 51.572      | -1.1686 |
| 8        | 50       | Bias                | 52.464     | 51.406      | -1.0579 |
| 9        | 50       | Bias                | 52.873     | 51.673      | -1.2002 |
| 11       | 50       | Unbias              | 53.161     | 51.934      | -1.2273 |
| 12       | 50       | Unbias              | 53.162     | 52.006      | -1.1557 |
| 13       | 50       | Unbias              | 52.783     | 51.625      | -1.1581 |
| 14       | 50       | Unbias              | 52.733     | 51.607      | -1.1257 |
| 15       | 50       | Unbias              | 52.949     | 51.831      | -1.1186 |

TID vs Post - Pre Exposure Delta

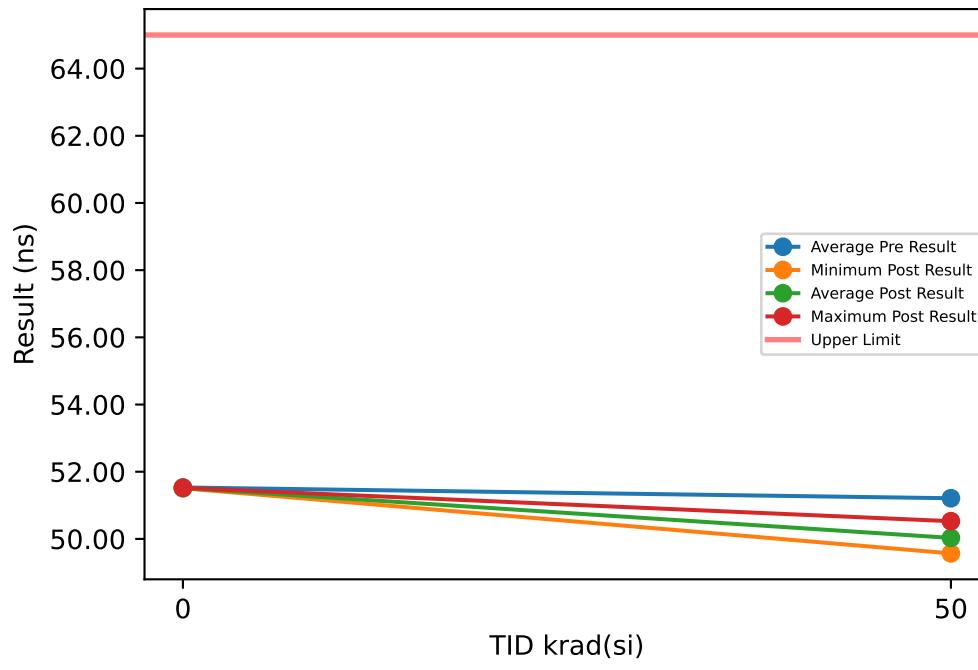


Test Statistics (ns)

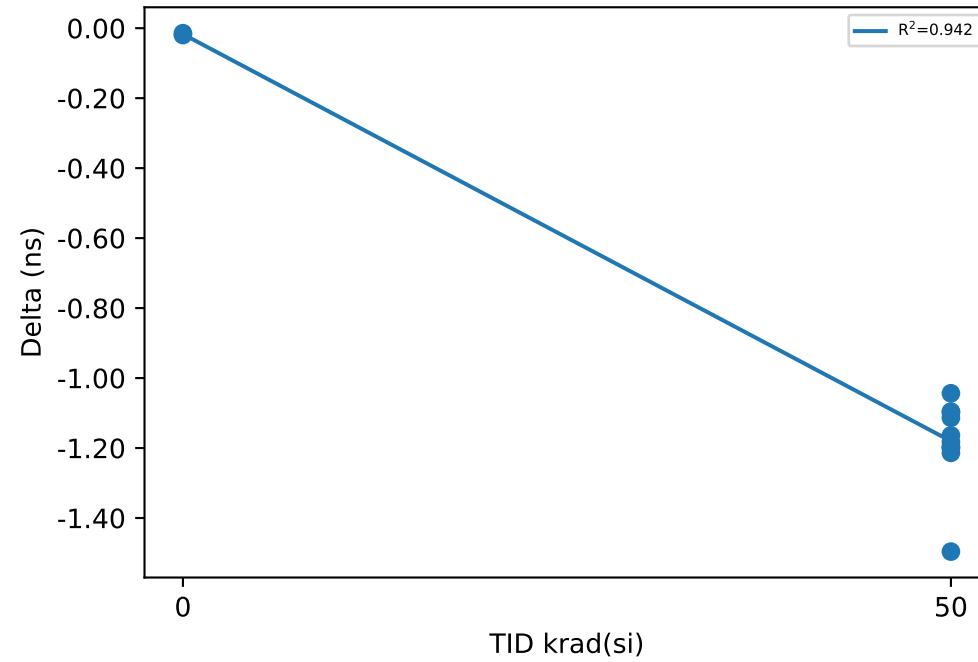
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 52.896           | 53.003           | 53.111           | 0.15153          | 52.909            | 53.018            | 53.128            | 0.15486           | 0.0123    | 0.01465   | 0.017     | 0.0033234 |
| 50       | 52.462           | 52.779           | 53.162           | 0.26533          | 51.406            | 51.678            | 52.006            | 0.18753           | -1.2273   | -1.1011   | -0.8817   | 0.11608   |

# Device Test: 26.7 T\_OFF\_EXTENDER(TIMING|EXT/OUT/14/14/0/0/5/500kHz//@T\_OFF\_EXTENDER)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 65.0 (ns))

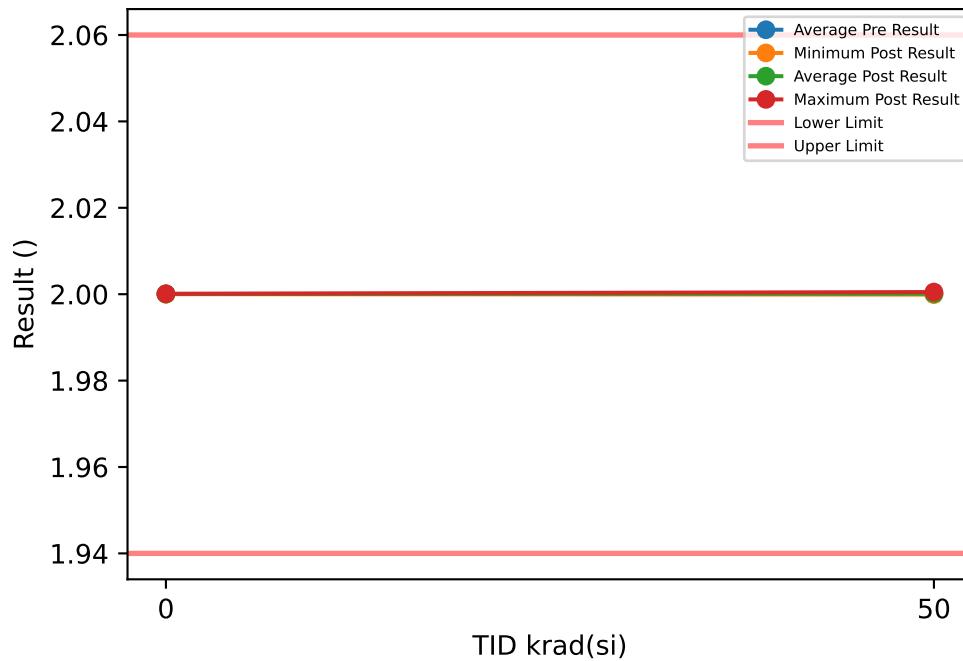
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 51.539     | 51.52       | -0.0196 |
| 2        | 0        | Correlation         | 51.523     | 51.509      | -0.0143 |
| 4        | 50       | Bias                | 50.769     | 49.569      | -1.1997 |
| 6        | 50       | Bias                | 50.912     | 49.816      | -1.096  |
| 7        | 50       | Bias                | 51.013     | 49.799      | -1.2138 |
| 8        | 50       | Bias                | 50.948     | 49.851      | -1.0973 |
| 9        | 50       | Bias                | 51.181     | 50.017      | -1.1639 |
| 11       | 50       | Unbias              | 51.636     | 50.523      | -1.1134 |
| 12       | 50       | Unbias              | 51.71      | 50.528      | -1.1828 |
| 13       | 50       | Unbias              | 51.386     | 49.89       | -1.496  |
| 14       | 50       | Unbias              | 51.185     | 49.988      | -1.1966 |
| 15       | 50       | Unbias              | 51.37      | 50.326      | -1.0435 |

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        | 51.523           | 51.531           | 51.539           | 0.011172         | 51.509            | 51.514            | 51.52             | 0.0074246         | -0.0196   | -0.01695  | -0.0143   | 0.0037477 |
| 50       | 50.769           | 51.211           | 51.71            | 0.31294          | 49.569            | 50.031            | 50.528            | 0.32381           | -1.496    | -1.1803   | -1.0435   | 0.12423   |

# Device Test: 28.1 C\_CS\_R(LEVEL|RATIO/CS/4.5/4.5/0/0/4.5/500kHz//@C\_CS\_R)

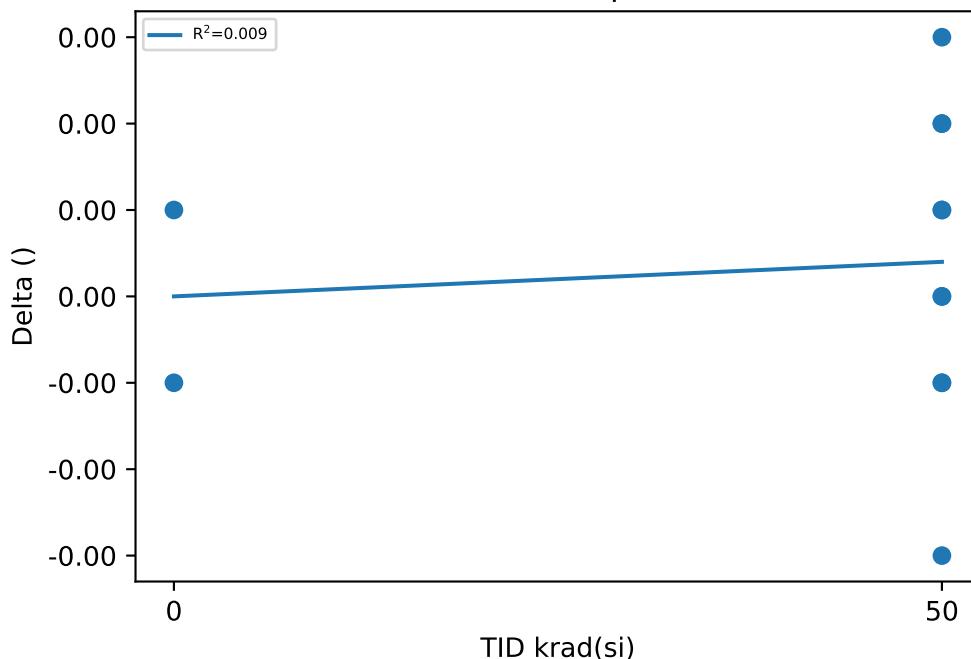
TID vs Result Stats



Test Results (Lower Limit = 1.94, Upper Limit = 2.06 ())

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.0001     | 2           | -0.0001 |
| 2        | 0        | Correlation         | 2          | 2.0001      | 0.0001  |
| 4        | 50       | Bias                | 1.9999     | 2.0001      | 0.0002  |
| 6        | 50       | Bias                | 2          | 1.9999      | -0.0001 |
| 7        | 50       | Bias                | 2          | 2.0001      | 0.0001  |
| 8        | 50       | Bias                | 2.0001     | 2           | -0.0001 |
| 9        | 50       | Bias                | 2.0003     | 2           | -0.0003 |
| 11       | 50       | Unbias              | 2          | 2           | 0       |
| 12       | 50       | Unbias              | 2.0002     | 2.0005      | 0.0003  |
| 13       | 50       | Unbias              | 2.0001     | 2.0001      | 0       |
| 14       | 50       | Unbias              | 1.9998     | 2           | 0.0002  |
| 15       | 50       | Unbias              | 2.0003     | 2.0004      | 0.0001  |

TID vs Post - Pre Exposure Delta

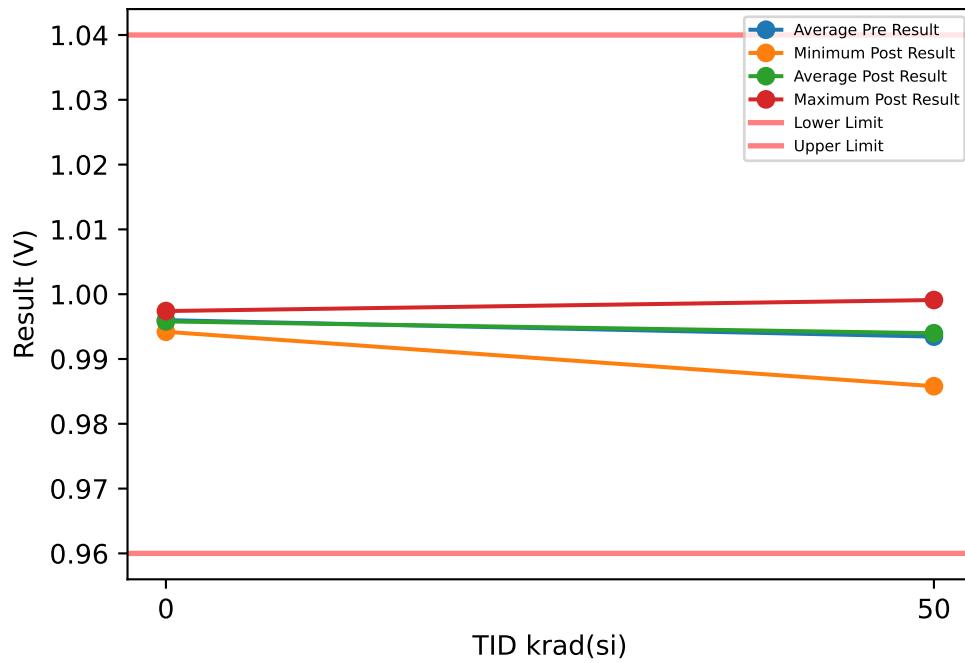


Test Statistics ()

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 2                | 2                | 2.0001           | 7.0711e-05       | 2                 | 2                 | 2.0001            | 7.0711e-05        | -0.0001   | 0         | 0.0001    | 0.00014142 |
| 50       | 1.9998           | 2.0001           | 2.0003           | 0.00016364       | 1.9999            | 2.0001            | 2.0005            | 0.0001912         | -0.0003   | 4e-05     | 0.0003    | 0.00017764 |

# Device Test: 28.10 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/5/5/0/0/5/100kHz//@V\_CS\_ILIM\_OC)

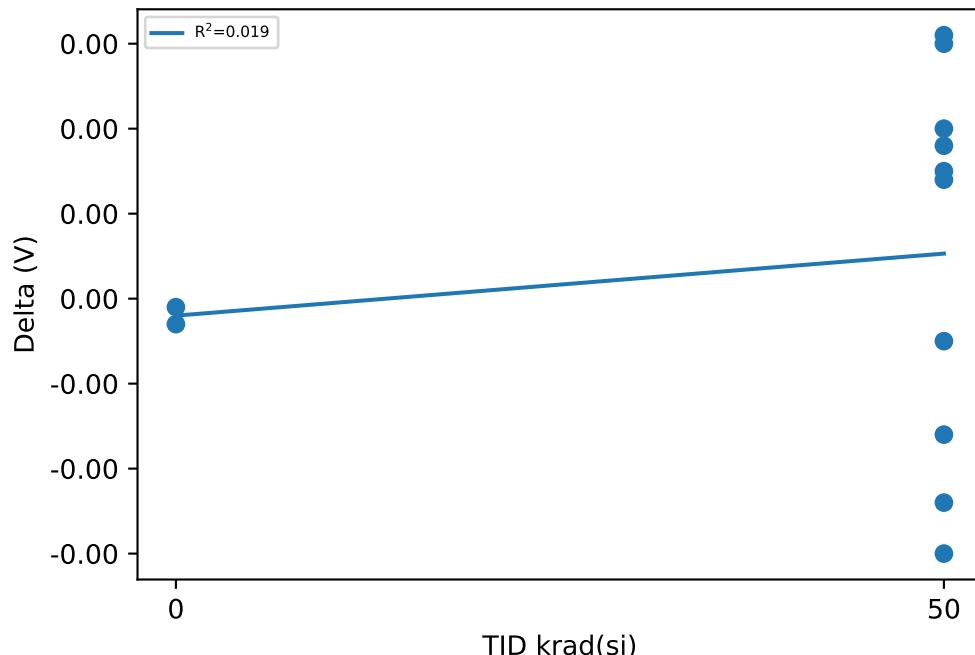
TID vs Result Stats



Test Results (Lower Limit = 0.96, Upper Limit = 1.04 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9945     | 0.9942      | -0.0003 |
| 2        | 0        | Correlation         | 0.9975     | 0.9974      | -0.0001 |
| 4        | 50       | Bias                | 0.9882     | 0.9858      | -0.0024 |
| 6        | 50       | Bias                | 0.99       | 0.9914      | 0.0014  |
| 7        | 50       | Bias                | 0.9943     | 0.9973      | 0.003   |
| 8        | 50       | Bias                | 0.9943     | 0.9974      | 0.0031  |
| 9        | 50       | Bias                | 0.9955     | 0.9973      | 0.0018  |
| 11       | 50       | Unbias              | 0.9913     | 0.9897      | -0.0016 |
| 12       | 50       | Unbias              | 0.9902     | 0.9917      | 0.0015  |
| 13       | 50       | Unbias              | 0.9918     | 0.9913      | -0.0005 |
| 14       | 50       | Unbias              | 1.0018     | 0.9988      | -0.003  |
| 15       | 50       | Unbias              | 0.9971     | 0.9991      | 0.002   |

TID vs Post - Pre Exposure Delta

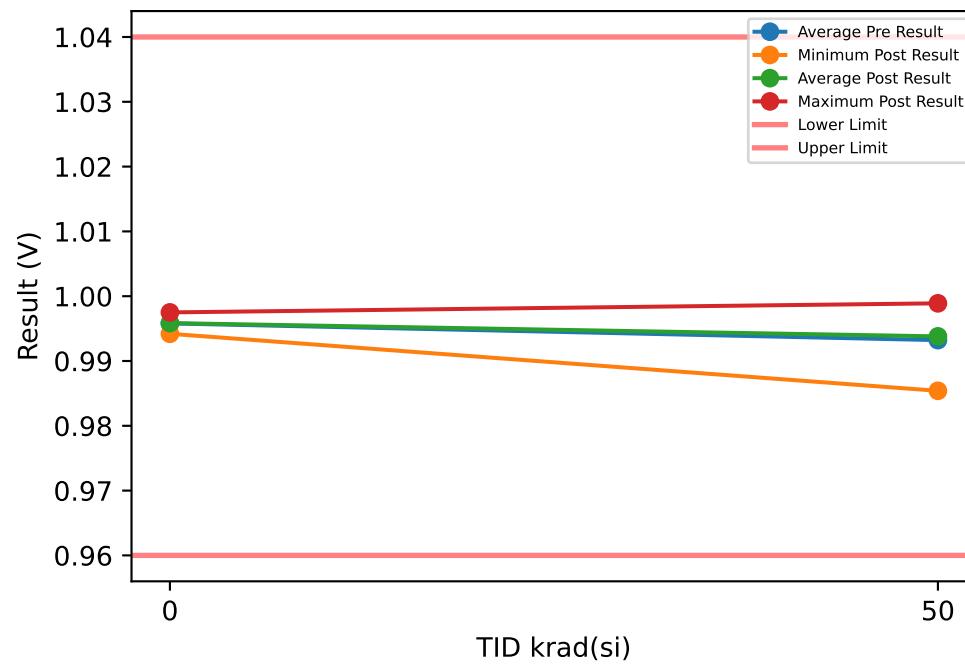


Test Statistics (V)

| 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        | 0.9945           | 0.996            | 0.9975           | 0.0021213        | 0.9942            | 0.9958            | 0.9974            | 0.0022627         | -0.0003   | -0.0002   | -0.0001   | 0.00014142 |
| 50       | 0.9882           | 0.99345          | 1.0018           | 0.0040286        | 0.9858            | 0.99398           | 0.9991            | 0.0045638         | -0.003    | 0.00053   | 0.0031    | 0.0022316  |

# Device Test: 28.11 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/12/12/0/0/5/100kHz//@V\_CS\_ILIM\_OC)

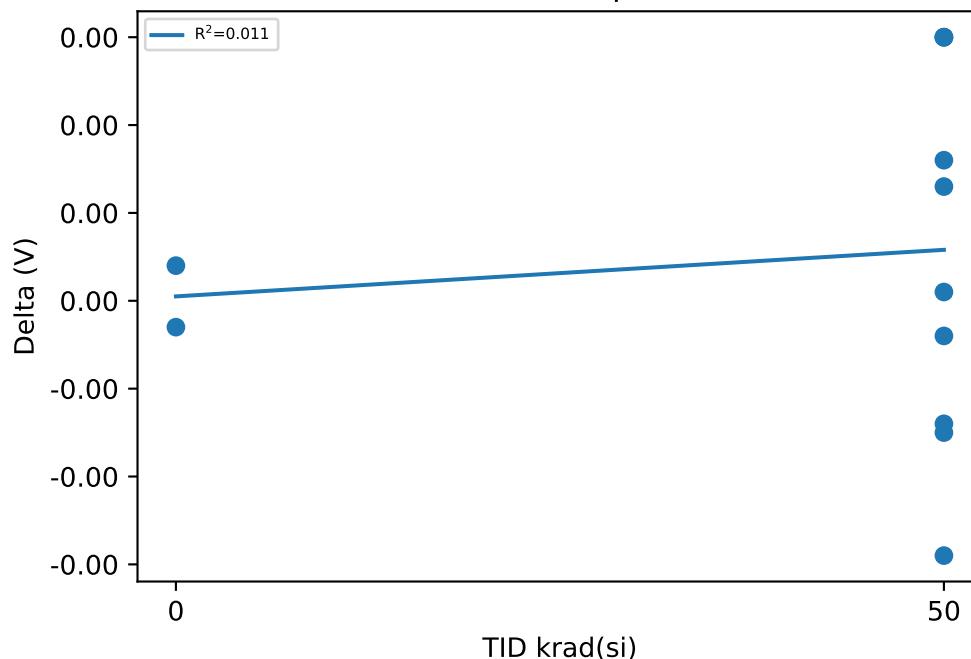
TID vs Result Stats



Test Results (Lower Limit = 0.96, Upper Limit = 1.04 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9945     | 0.9942      | -0.0003 |
| 2        | 0        | Correlation         | 0.9971     | 0.9975      | 0.0004  |
| 4        | 50       | Bias                | 0.9883     | 0.9854      | -0.0029 |
| 6        | 50       | Bias                | 0.9883     | 0.9913      | 0.003   |
| 7        | 50       | Bias                | 0.9945     | 0.9975      | 0.003   |
| 8        | 50       | Bias                | 0.9943     | 0.9973      | 0.003   |
| 9        | 50       | Bias                | 0.996      | 0.9973      | 0.0013  |
| 11       | 50       | Unbias              | 0.9914     | 0.9899      | -0.0015 |
| 12       | 50       | Unbias              | 0.9902     | 0.9918      | 0.0016  |
| 13       | 50       | Unbias              | 0.9914     | 0.9915      | 0.0001  |
| 14       | 50       | Unbias              | 1.0003     | 0.9989      | -0.0014 |
| 15       | 50       | Unbias              | 0.9975     | 0.9971      | -0.0004 |

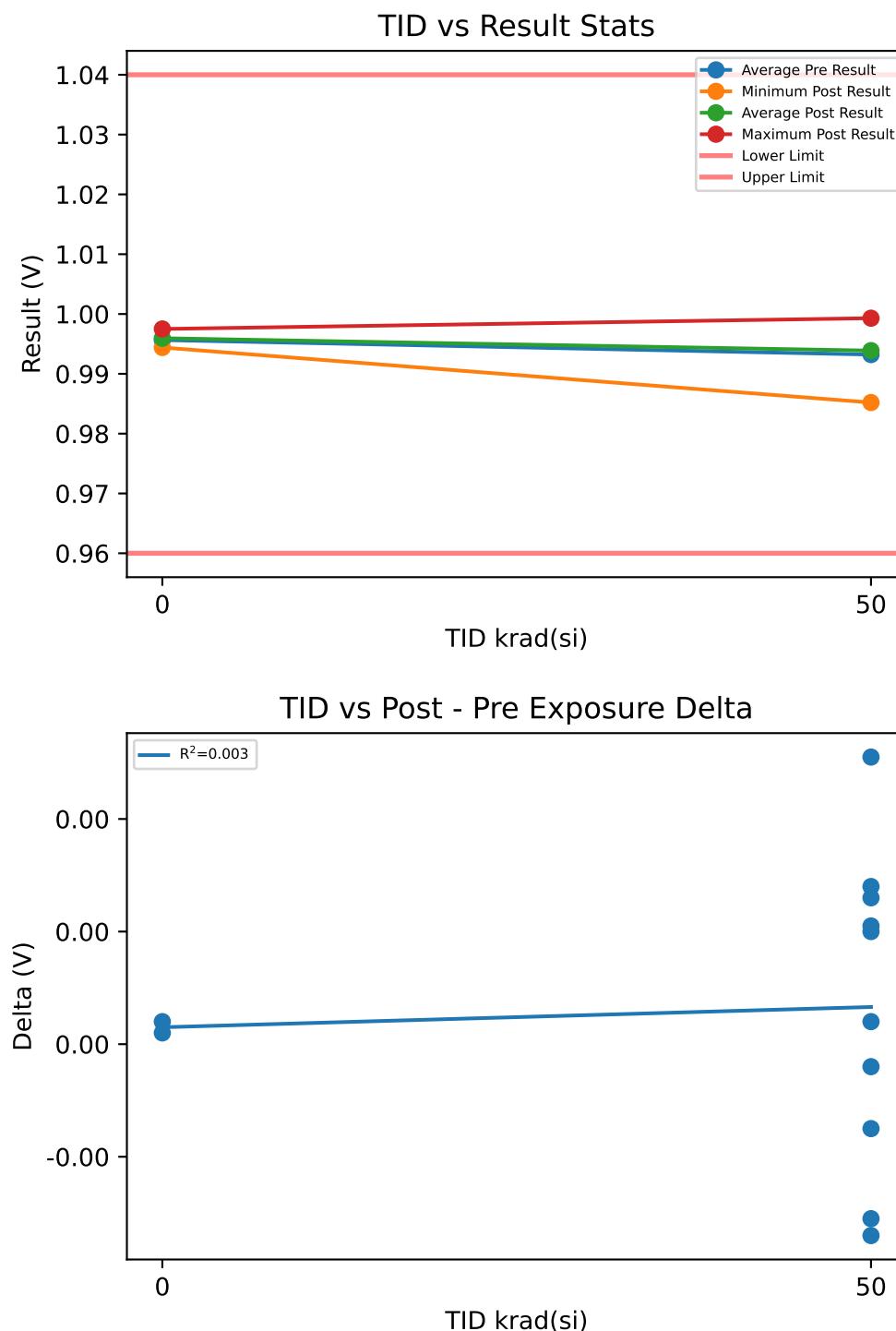
TID vs Post - Pre Exposure Delta



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        | 0.9945           | 0.9958           | 0.9971           | 0.0018385        | 0.9942            | 0.99585           | 0.9975            | 0.0023335         | -0.0003   | 5e-05     | 0.0004    | 0.00049497 |
| 50       | 0.9883           | 0.99322          | 1.0003           | 0.003988         | 0.9854            | 0.9938            | 0.9989            | 0.0044272         | -0.0029   | 0.00058   | 0.003     | 0.0021259  |

# Device Test: 28.12 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/14/14/0/0/5/100kHz//@V\_CS\_ILIM\_OC)



**Test Results (Lower Limit = 0.96, Upper Limit = 1.04 (V))**

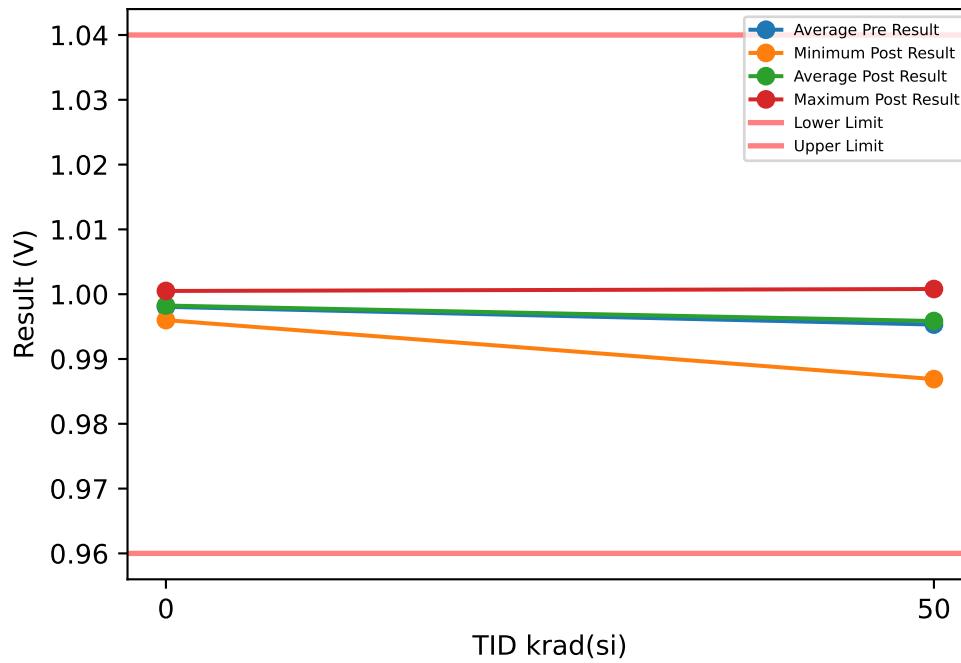
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.994      | 0.9944      | 0.0004  |
| 2        | 0        | Correlation         | 0.9973     | 0.9975      | 0.0002  |
| 4        | 50       | Bias                | 0.9883     | 0.9852      | -0.0031 |
| 6        | 50       | Bias                | 0.9897     | 0.9918      | 0.0021  |
| 7        | 50       | Bias                | 0.9945     | 0.9971      | 0.0026  |
| 8        | 50       | Bias                | 0.9948     | 0.9976      | 0.0028  |
| 9        | 50       | Bias                | 0.9942     | 0.9993      | 0.0051  |
| 11       | 50       | Unbias              | 0.9917     | 0.9883      | -0.0034 |
| 12       | 50       | Unbias              | 0.9895     | 0.9915      | 0.002   |
| 13       | 50       | Unbias              | 0.9913     | 0.9917      | 0.0004  |
| 14       | 50       | Unbias              | 1.0004     | 0.9989      | -0.0015 |
| 15       | 50       | Unbias              | 0.9978     | 0.9974      | -0.0004 |

**Test Statistics (V)**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 0.994            | 0.99565          | 0.9973           | 0.0023335        | 0.9944            | 0.99595           | 0.9975            | 0.002192          | 0.0002    | 0.0003    | 0.0004    | 0.00014142 |
| 50       | 0.9883           | 0.99322          | 1.0004           | 0.0038594        | 0.9852            | 0.99388           | 0.9993            | 0.0048579         | -0.0034   | 0.00066   | 0.0051    | 0.0027569  |

# Device Test: 28.13 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/4.5/4.5/0/0/4.5/500kHz//@V\_CS\_ILIM\_OC)

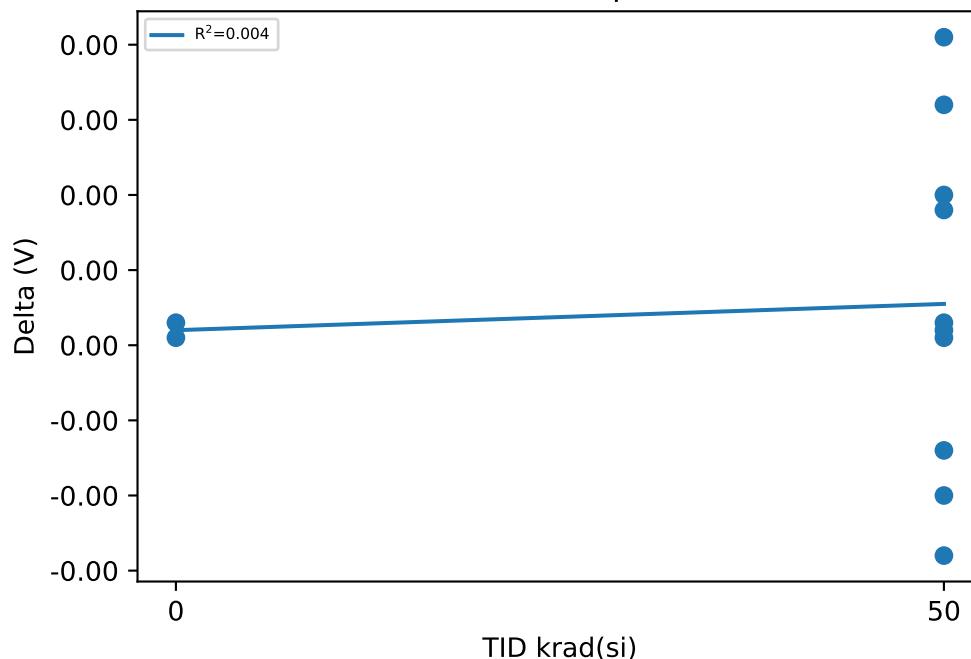
TID vs Result Stats



Test Results (Lower Limit = 0.96,  
Upper Limit = 1.04 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9957     | 0.996       | 0.0003  |
| 2        | 0        | Correlation         | 1.0004     | 1.0005      | 0.0001  |
| 4        | 50       | Bias                | 0.9897     | 0.9869      | -0.0028 |
| 6        | 50       | Bias                | 0.9913     | 0.9933      | 0.002   |
| 7        | 50       | Bias                | 0.9959     | 0.9991      | 0.0032  |
| 8        | 50       | Bias                | 0.996      | 1.0001      | 0.0041  |
| 9        | 50       | Bias                | 0.9973     | 0.9991      | 0.0018  |
| 11       | 50       | Unbias              | 0.9932     | 0.9918      | -0.0014 |
| 12       | 50       | Unbias              | 0.9927     | 0.9929      | 0.0002  |
| 13       | 50       | Unbias              | 0.9944     | 0.9945      | 0.0001  |
| 14       | 50       | Unbias              | 1.0021     | 1.0001      | -0.002  |
| 15       | 50       | Unbias              | 1.0005     | 1.0008      | 0.0003  |

TID vs Post - Pre Exposure Delta

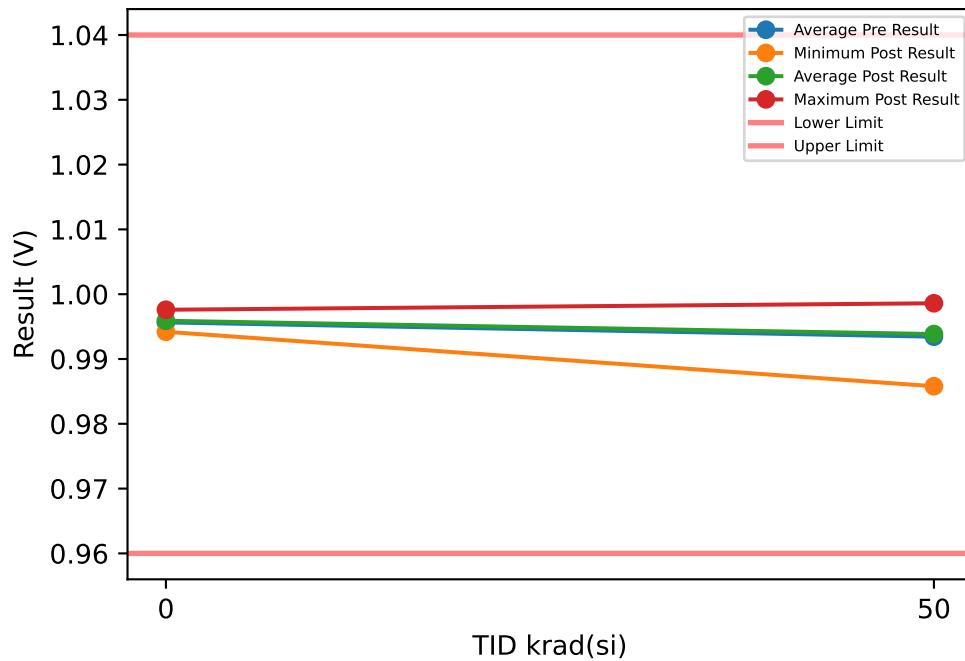


Test Statistics (V)

| 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        | 0.9957           | 0.99805          | 1.0004           | 0.0033234        | 0.996             | 0.99825           | 1.0005            | 0.003182          | 0.0001    | 0.0002    | 0.0003    | 0.00014142 |
| 50       | 0.9897           | 0.99531          | 1.0021           | 0.0039082        | 0.9869            | 0.99586           | 1.0008            | 0.0046581         | -0.0028   | 0.00055   | 0.0041    | 0.0022412  |

# Device Test: 28.14 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/5/5/0/0/5/500kHz//@V\_CS\_ILIM\_OC)

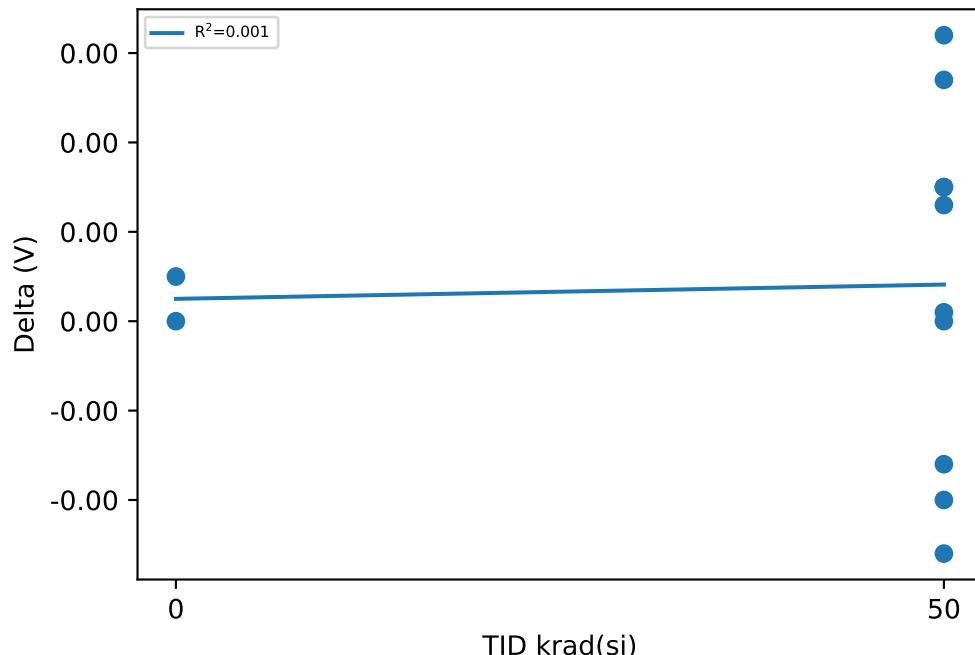
TID vs Result Stats



Test Results (Lower Limit = 0.96, Upper Limit = 1.04 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9942     | 0.9942      | 0       |
| 2        | 0        | Correlation         | 0.9971     | 0.9976      | 0.0005  |
| 4        | 50       | Bias                | 0.9884     | 0.9858      | -0.0026 |
| 6        | 50       | Bias                | 0.9899     | 0.9914      | 0.0015  |
| 7        | 50       | Bias                | 0.9944     | 0.9971      | 0.0027  |
| 8        | 50       | Bias                | 0.9944     | 0.9976      | 0.0032  |
| 9        | 50       | Bias                | 0.996      | 0.9973      | 0.0013  |
| 11       | 50       | Unbias              | 0.9918     | 0.9902      | -0.0016 |
| 12       | 50       | Unbias              | 0.9898     | 0.9913      | 0.0015  |
| 13       | 50       | Unbias              | 0.9918     | 0.9918      | 0       |
| 14       | 50       | Unbias              | 1.0006     | 0.9986      | -0.002  |
| 15       | 50       | Unbias              | 0.9973     | 0.9974      | 0.0001  |

TID vs Post - Pre Exposure Delta

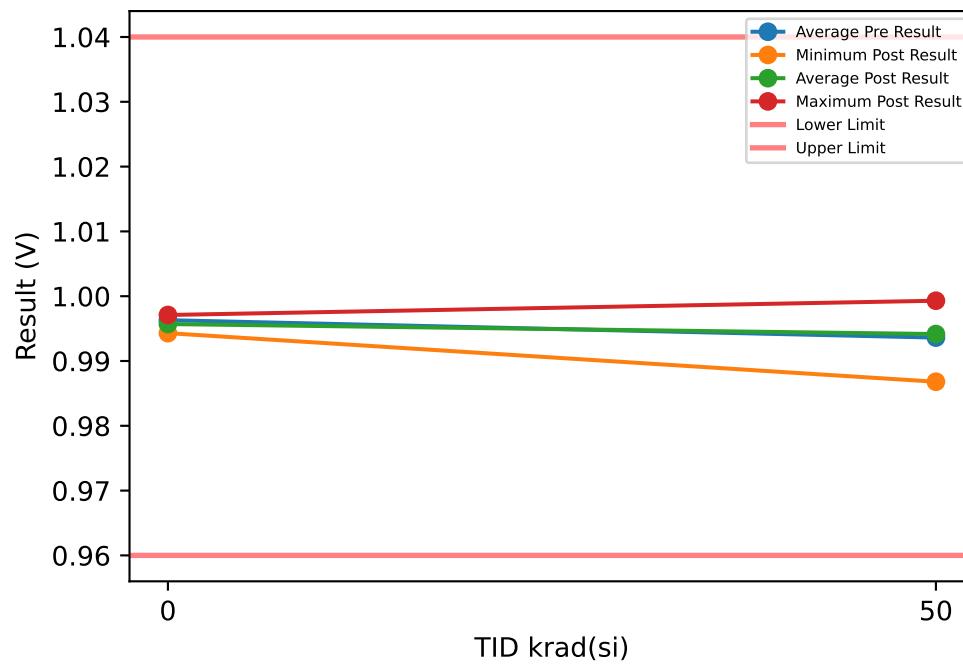


Test Statistics (V)

| 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        | 0.9942           | 0.99565          | 0.9971           | 0.0020506        | 0.9942            | 0.9959            | 0.9976            | 0.0024042         | 0         | 0.00025   | 0.0005    | 0.00035355 |
| 50       | 0.9884           | 0.99344          | 1.0006           | 0.003817         | 0.9858            | 0.99385           | 0.9986            | 0.0043015         | -0.0026   | 0.00041   | 0.0032    | 0.0019824  |

# Device Test: 28.15 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/12/12/0/0/5/500kHz//@V\_CS\_ILIM\_OC)

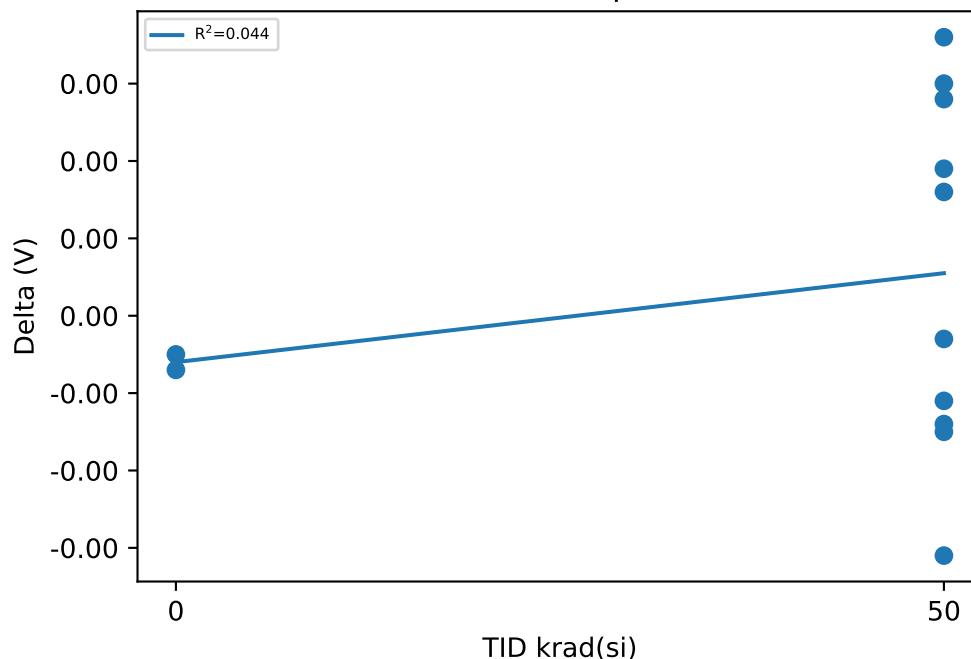
TID vs Result Stats



Test Results (Lower Limit = 0.96, Upper Limit = 1.04 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9948     | 0.9943      | -0.0005 |
| 2        | 0        | Correlation         | 0.9978     | 0.9971      | -0.0007 |
| 4        | 50       | Bias                | 0.9899     | 0.9868      | -0.0031 |
| 6        | 50       | Bias                | 0.9898     | 0.9917      | 0.0019  |
| 7        | 50       | Bias                | 0.9945     | 0.9973      | 0.0028  |
| 8        | 50       | Bias                | 0.9943     | 0.9973      | 0.003   |
| 9        | 50       | Bias                | 0.9957     | 0.9993      | 0.0036  |
| 11       | 50       | Unbias              | 0.9912     | 0.9898      | -0.0014 |
| 12       | 50       | Unbias              | 0.9897     | 0.9913      | 0.0016  |
| 13       | 50       | Unbias              | 0.9928     | 0.9917      | -0.0011 |
| 14       | 50       | Unbias              | 1.0006     | 0.9991      | -0.0015 |
| 15       | 50       | Unbias              | 0.9976     | 0.9973      | -0.0003 |

TID vs Post - Pre Exposure Delta

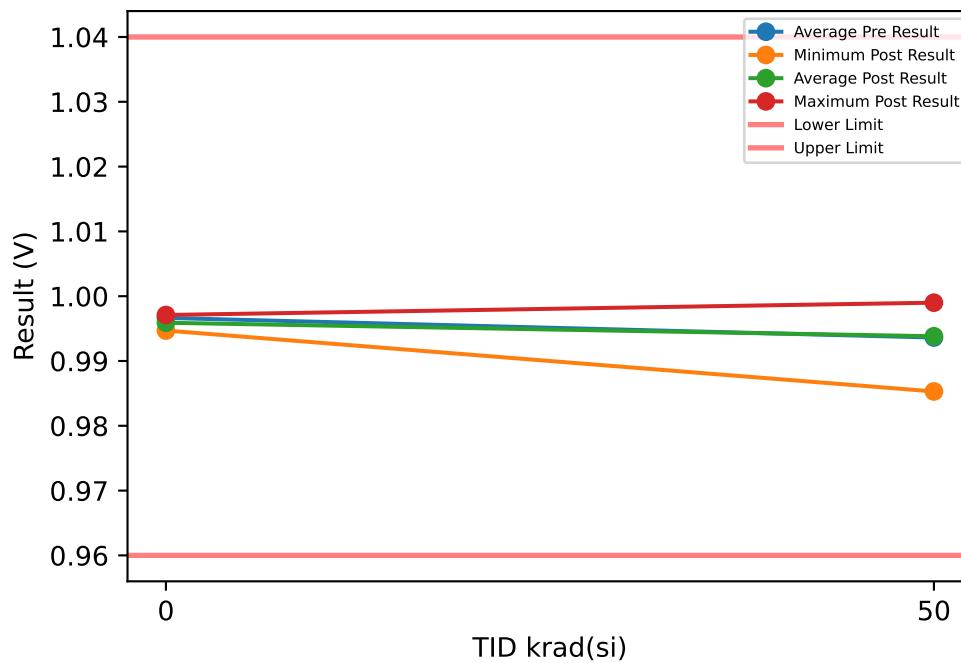


Test Statistics (V)

| 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        | 0.9948           | 0.9963           | 0.9978           | 0.0021213        | 0.9943            | 0.9957            | 0.9971            | 0.0019799         | -0.0007   | -0.0006   | -0.0005   | 0.00014142 |
| 50       | 0.9897           | 0.99361          | 1.0006           | 0.0036583        | 0.9868            | 0.99416           | 0.9993            | 0.0043952         | -0.0031   | 0.00055   | 0.0036    | 0.002311   |

# Device Test: 28.16 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/14/14/0/0/5/500kHz//@V\_CS\_ILIM\_OC)

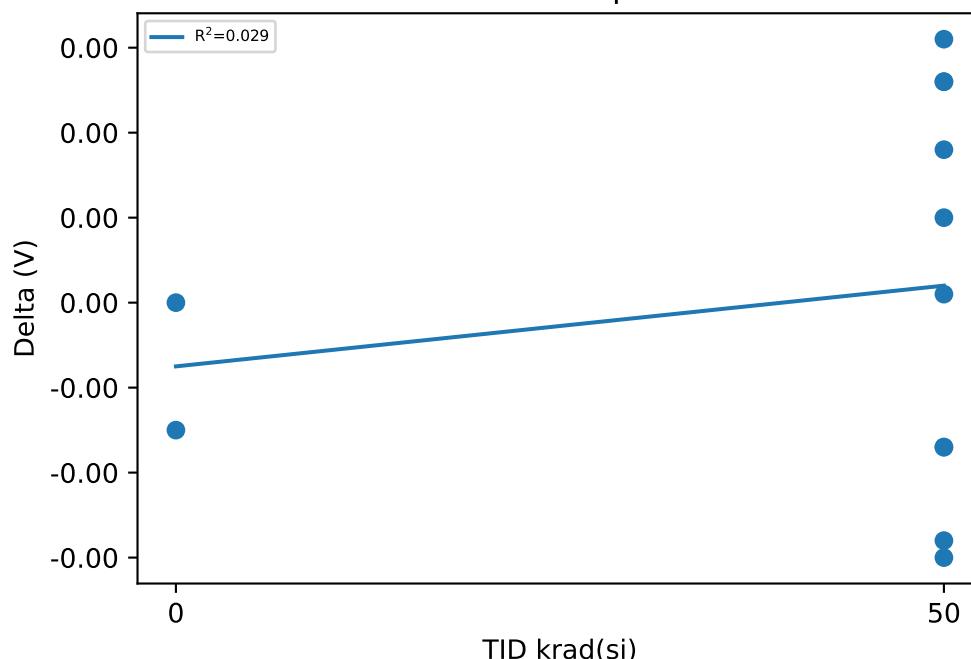
TID vs Result Stats



Test Results (Lower Limit = 0.96, Upper Limit = 1.04 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9947     | 0.9947      | 0       |
| 2        | 0        | Correlation         | 0.9986     | 0.9971      | -0.0015 |
| 4        | 50       | Bias                | 0.9883     | 0.9853      | -0.003  |
| 6        | 50       | Bias                | 0.9895     | 0.9913      | 0.0018  |
| 7        | 50       | Bias                | 0.9945     | 0.9971      | 0.0026  |
| 8        | 50       | Bias                | 0.9945     | 0.9971      | 0.0026  |
| 9        | 50       | Bias                | 0.9957     | 0.9988      | 0.0031  |
| 11       | 50       | Unbias              | 0.9914     | 0.9897      | -0.0017 |
| 12       | 50       | Unbias              | 0.9902     | 0.9912      | 0.001   |
| 13       | 50       | Unbias              | 0.993      | 0.9913      | -0.0017 |
| 14       | 50       | Unbias              | 1.0018     | 0.999       | -0.0028 |
| 15       | 50       | Unbias              | 0.9973     | 0.9974      | 0.0001  |

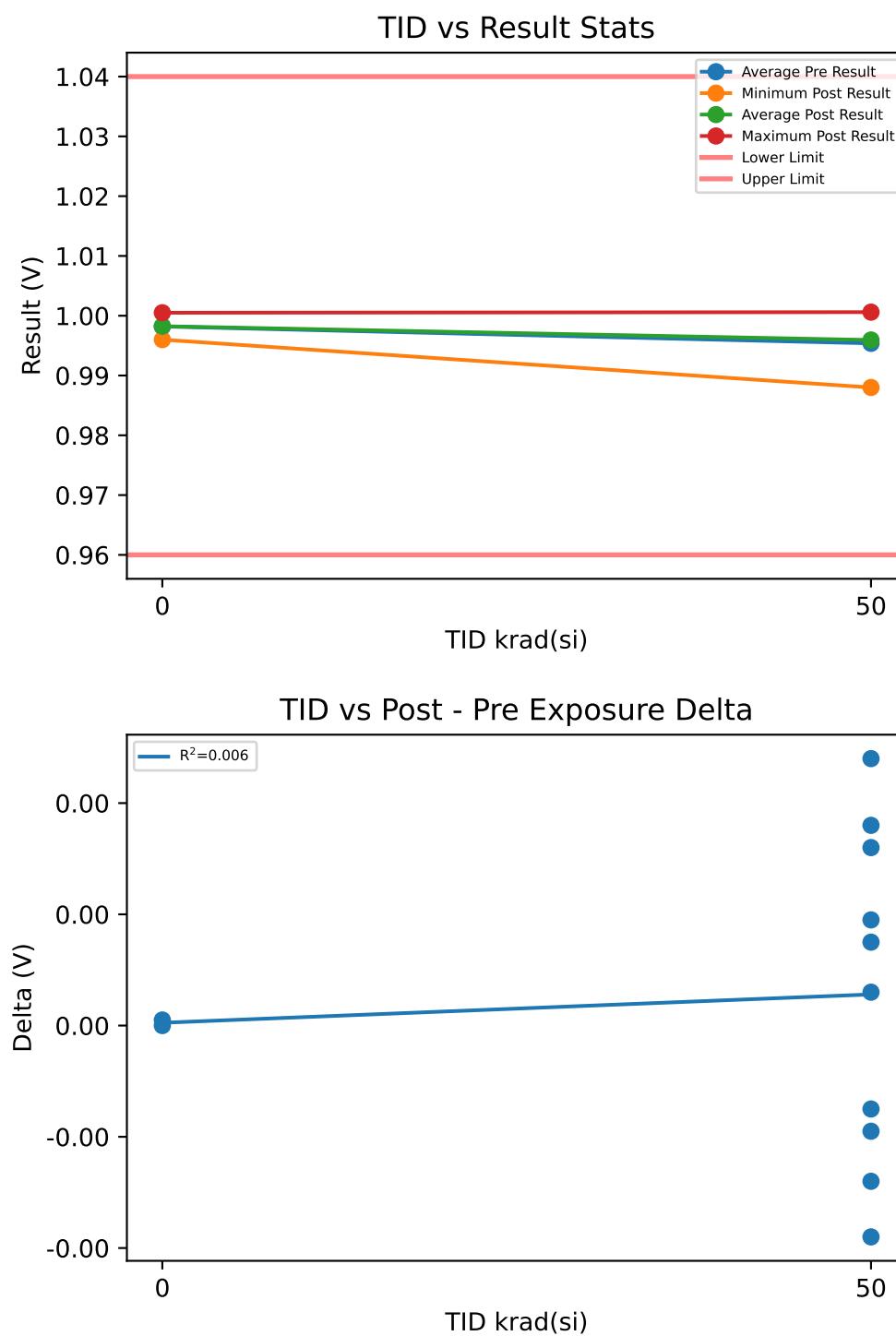
TID vs Post - Pre Exposure Delta



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        | 0.9947           | 0.99665          | 0.9986           | 0.0027577        | 0.9947            | 0.9959            | 0.9971            | 0.0016971         | -0.0015   | -0.00075  | 0         | 0.0010607 |
| 50       | 0.9883           | 0.99362          | 1.0018           | 0.0040636        | 0.9853            | 0.99382           | 0.999             | 0.0046559         | -0.003    | 0.0002    | 0.0031    | 0.0023476 |

# Device Test: 28.17 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/4.5/4.5/0/0/4.5/1MHz//@V\_CS\_ILIM\_OC)



**Test Results (Lower Limit = 0.96, Upper Limit = 1.04 (V))**

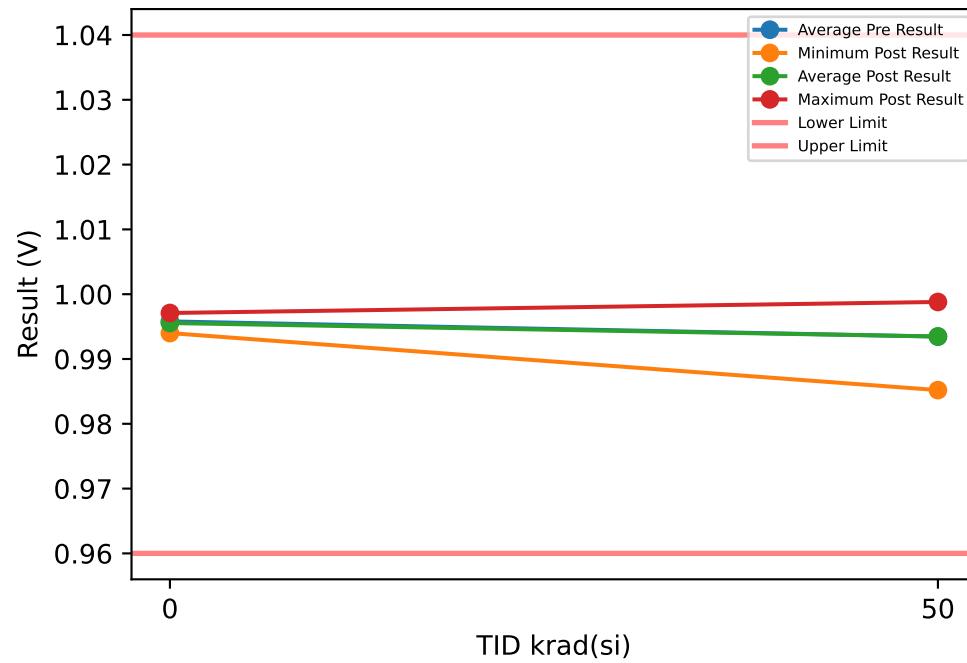
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9959     | 0.996       | 0.0001  |
| 2        | 0        | Correlation         | 1.0005     | 1.0005      | 0       |
| 4        | 50       | Bias                | 0.9918     | 0.988       | -0.0038 |
| 6        | 50       | Bias                | 0.9915     | 0.993       | 0.0015  |
| 7        | 50       | Bias                | 0.9957     | 0.9993      | 0.0036  |
| 8        | 50       | Bias                | 0.9958     | 1.0006      | 0.0048  |
| 9        | 50       | Bias                | 0.9971     | 1.0003      | 0.0032  |
| 11       | 50       | Unbias              | 0.9932     | 0.9913      | -0.0019 |
| 12       | 50       | Unbias              | 0.9927     | 0.9933      | 0.0006  |
| 13       | 50       | Unbias              | 0.9943     | 0.9928      | -0.0015 |
| 14       | 50       | Unbias              | 1.0031     | 1.0003      | -0.0028 |
| 15       | 50       | Unbias              | 0.9986     | 1.0005      | 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        | 0.9959           | 0.9982           | 1.0005           | 0.0032527        | 0.996             | 0.99825           | 1.0005            | 0.003182          | 0         | 5e-05     | 0.0001    | 7.0711e-05 |
| 50       | 0.9915           | 0.99538          | 1.0031           | 0.0035618        | 0.988             | 0.99594           | 1.0006            | 0.004736          | -0.0038   | 0.00056   | 0.0048    | 0.0029338  |

# Device Test: 28.18 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/5/5/0/0/5/1MHz//@V\_CS\_ILIM\_OC)

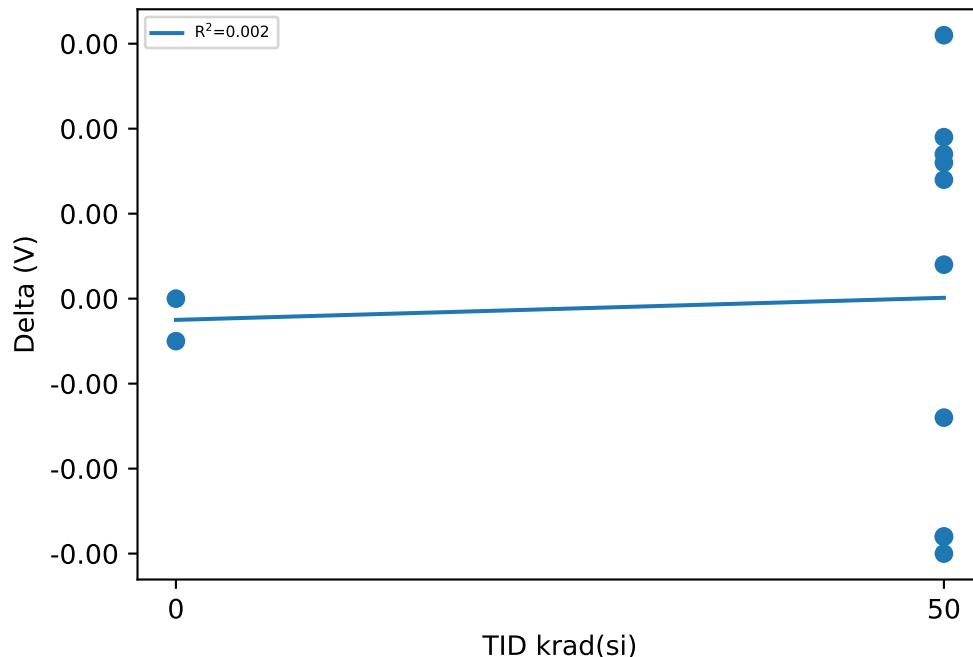
TID vs Result Stats



Test Results (Lower Limit = 0.96, Upper Limit = 1.04 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9945     | 0.994       | -0.0005 |
| 2        | 0        | Correlation         | 0.9971     | 0.9971      | 0       |
| 4        | 50       | Bias                | 0.988      | 0.9852      | -0.0028 |
| 6        | 50       | Bias                | 0.9895     | 0.9914      | 0.0019  |
| 7        | 50       | Bias                | 0.9942     | 0.9959      | 0.0017  |
| 8        | 50       | Bias                | 0.9943     | 0.9974      | 0.0031  |
| 9        | 50       | Bias                | 0.9962     | 0.9976      | 0.0014  |
| 11       | 50       | Unbias              | 0.9912     | 0.9882      | -0.003  |
| 12       | 50       | Unbias              | 0.9897     | 0.9913      | 0.0016  |
| 13       | 50       | Unbias              | 0.9928     | 0.9914      | -0.0014 |
| 14       | 50       | Unbias              | 1.0016     | 0.9988      | -0.0028 |
| 15       | 50       | Unbias              | 0.9971     | 0.9975      | 0.0004  |

TID vs Post - Pre Exposure Delta

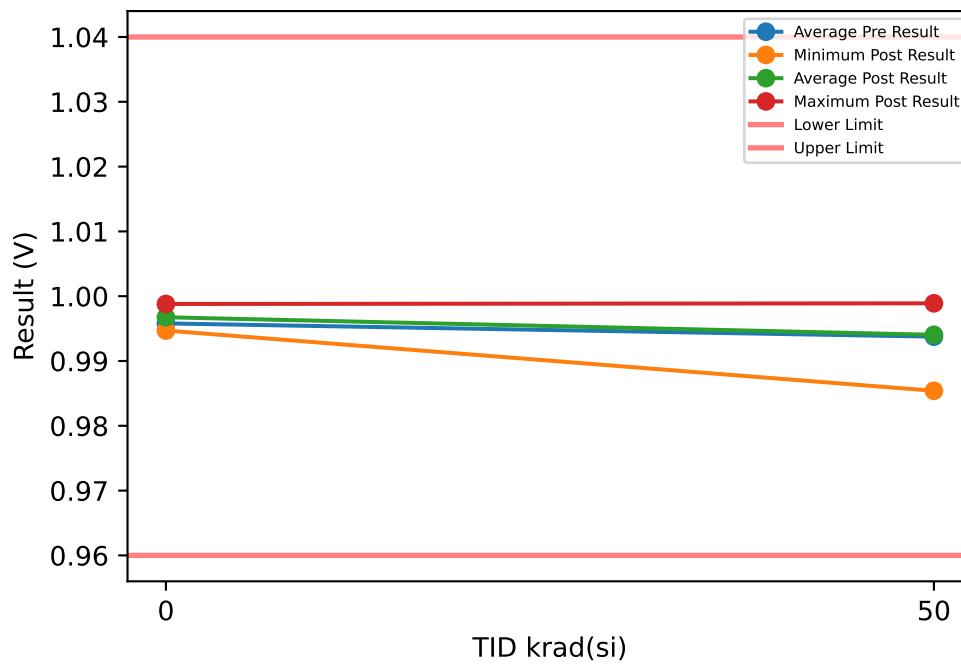


Test Statistics (V)

| 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        | 0.9945           | 0.9958           | 0.9971           | 0.0018385        | 0.994             | 0.99555           | 0.9971            | 0.002192          | -0.0005   | -0.00025  | 0         | 0.00035355 |
| 50       | 0.988            | 0.99346          | 1.0016           | 0.0041291        | 0.9852            | 0.99347           | 0.9988            | 0.0046248         | -0.003    | 1e-05     | 0.0031    | 0.0022956  |

# Device Test: 28.19 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/12/12/0/0/5/1MHz//@V\_CS\_ILIM\_OC)

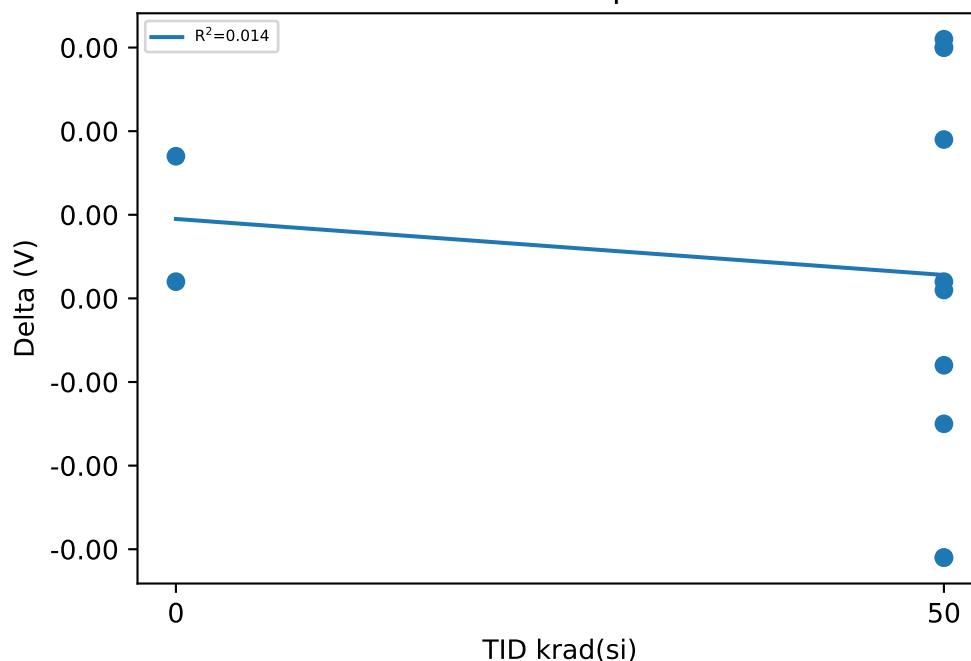
TID vs Result Stats



Test Results (Lower Limit = 0.96,  
Upper Limit = 1.04 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9945     | 0.9947      | 0.0002  |
| 2        | 0        | Correlation         | 0.9971     | 0.9988      | 0.0017  |
| 4        | 50       | Bias                | 0.9885     | 0.9854      | -0.0031 |
| 6        | 50       | Bias                | 0.9898     | 0.9917      | 0.0019  |
| 7        | 50       | Bias                | 0.9945     | 0.9976      | 0.0031  |
| 8        | 50       | Bias                | 0.9945     | 0.9975      | 0.003   |
| 9        | 50       | Bias                | 0.9959     | 0.9989      | 0.003   |
| 11       | 50       | Unbias              | 0.9912     | 0.9897      | -0.0015 |
| 12       | 50       | Unbias              | 0.9915     | 0.9917      | 0.0002  |
| 13       | 50       | Unbias              | 0.9925     | 0.9917      | -0.0008 |
| 14       | 50       | Unbias              | 1.0019     | 0.9988      | -0.0031 |
| 15       | 50       | Unbias              | 0.9973     | 0.9974      | 0.0001  |

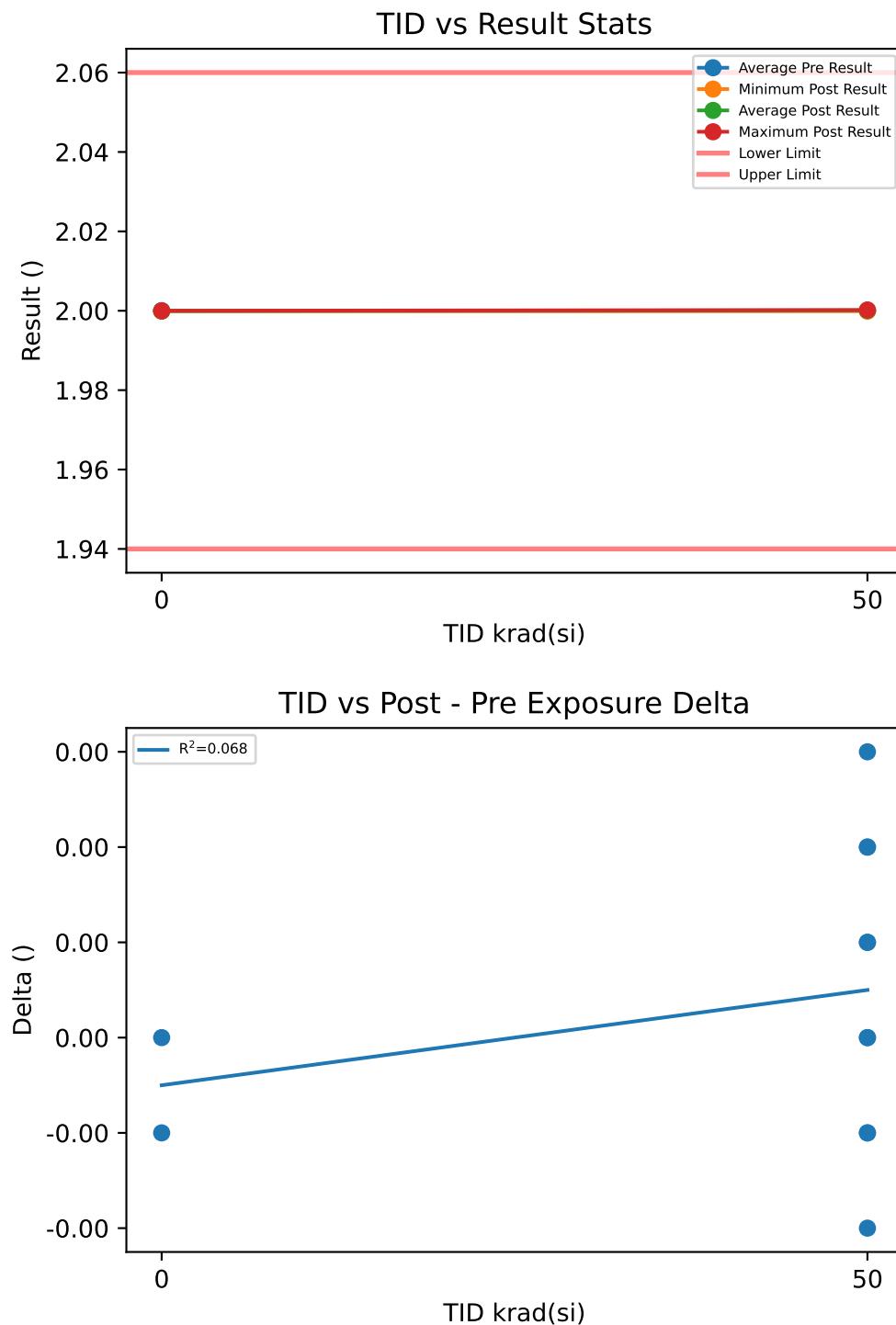
TID vs Post - Pre Exposure Delta



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        | 0.9945           | 0.9958           | 0.9971           | 0.0018385        | 0.9947            | 0.99675           | 0.9988            | 0.0028991         | 0.0002    | 0.00095   | 0.0017    | 0.0010607 |
| 50       | 0.9885           | 0.99376          | 1.0019           | 0.003959         | 0.9854            | 0.99404           | 0.9989            | 0.0046203         | -0.0031   | 0.00028   | 0.0031    | 0.0024174 |

# Device Test: 28.2 C\_CS\_R(LEVEL|RATIO/CS/5/5/0/0/5/500kHz//@C\_CS\_R)



**Test Results (Lower Limit = 1.94, Upper Limit = 2.06 ())**

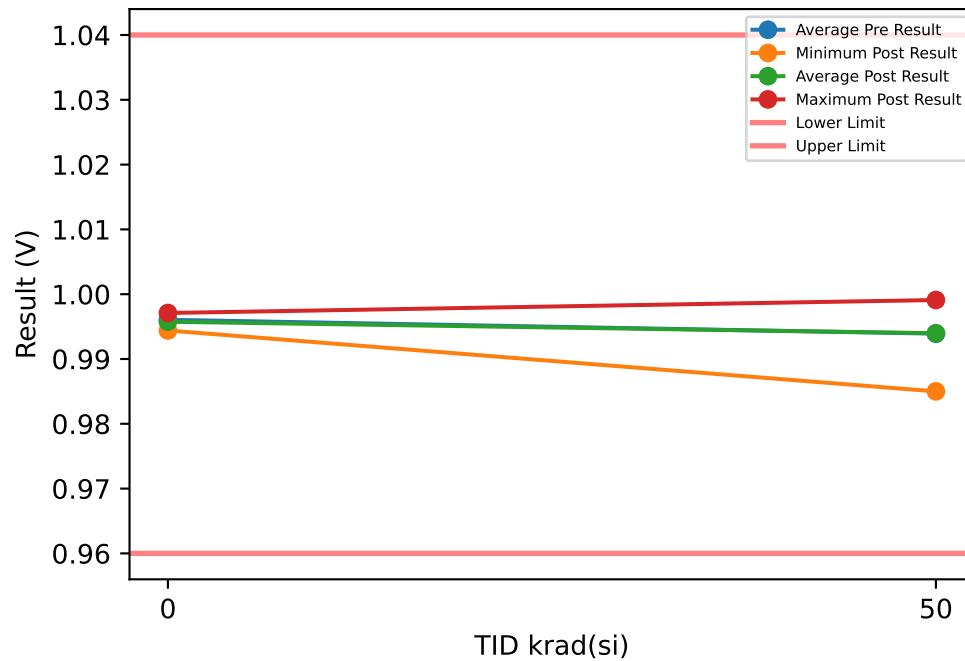
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 1.9999     | 1.9999      | 0       |
| 2        | 0        | Correlation         | 2.0001     | 2           | -0.0001 |
| 4        | 50       | Bias                | 1.9998     | 2.0001      | 0.0003  |
| 6        | 50       | Bias                | 2.0001     | 1.9999      | -0.0002 |
| 7        | 50       | Bias                | 2          | 2.0001      | 0.0001  |
| 8        | 50       | Bias                | 2.0001     | 2.0001      | 0       |
| 9        | 50       | Bias                | 2.0001     | 2           | -0.0001 |
| 11       | 50       | Unbias              | 2.0001     | 2.0001      | 0       |
| 12       | 50       | Unbias              | 2          | 2.0002      | 0.0002  |
| 13       | 50       | Unbias              | 1.9999     | 2.0001      | 0.0002  |
| 14       | 50       | Unbias              | 2          | 2.0001      | 0.0001  |
| 15       | 50       | Unbias              | 2.0002     | 2.0001      | -0.0001 |

## Test Statistics ()

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 1.9999           | 2                | 2.0001           | 0.00014142       | 1.9999            | 2                 | 2                 | 7.0711e-05        | -0.0001   | -5e-05    | 0         | 7.0711e-05 |
| 50       | 1.9998           | 2                | 2.0002           | 0.00011595       | 1.9999            | 2.0001            | 2.0002            | 7.8881e-05        | -0.0002   | 5e-05     | 0.0003    | 0.00015811 |

# Device Test: 28.20 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/14/14/0/0/5/1MHz//@V\_CS\_ILIM\_OC)

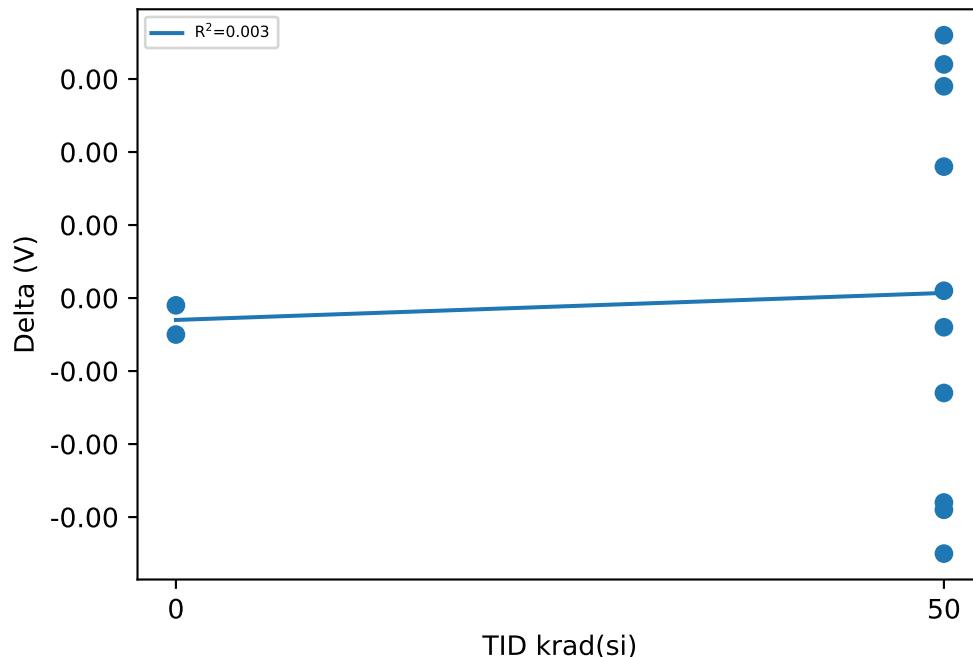
TID vs Result Stats



Test Results (Lower Limit = 0.96, Upper Limit = 1.04 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9945     | 0.9944      | -0.0001 |
| 2        | 0        | Correlation         | 0.9976     | 0.9971      | -0.0005 |
| 4        | 50       | Bias                | 0.9885     | 0.9850      | -0.0035 |
| 6        | 50       | Bias                | 0.9897     | 0.9915      | 0.0018  |
| 7        | 50       | Bias                | 0.9944     | 0.9973      | 0.0029  |
| 8        | 50       | Bias                | 0.9942     | 0.9974      | 0.0032  |
| 9        | 50       | Bias                | 0.9955     | 0.9991      | 0.0036  |
| 11       | 50       | Unbias              | 0.9930     | 0.9902      | -0.0028 |
| 12       | 50       | Unbias              | 0.9917     | 0.9913      | -0.0004 |
| 13       | 50       | Unbias              | 0.9930     | 0.9917      | -0.0013 |
| 14       | 50       | Unbias              | 1.0018     | 0.9989      | -0.0029 |
| 15       | 50       | Unbias              | 0.9973     | 0.9974      | 0.0001  |

TID vs Post - Pre Exposure Delta

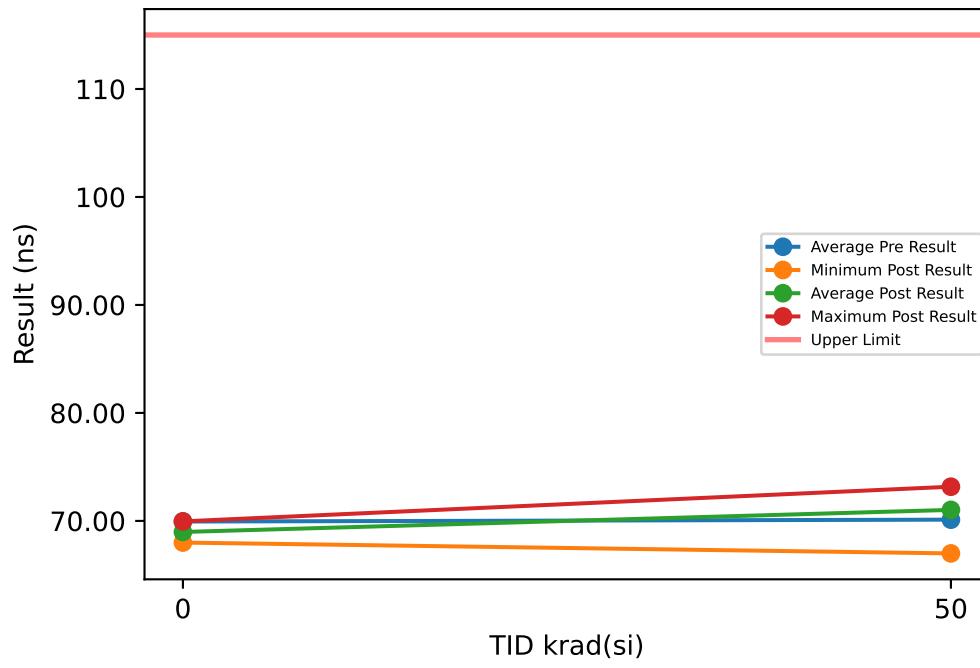


Test Statistics (V)

| 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        | 0.9945           | 0.99605          | 0.9976           | 0.002192         | 0.9944            | 0.99575           | 0.9971            | 0.0019092         | -0.0005   | -0.0003   | -0.0001   | 0.00028284 |
| 50       | 0.9885           | 0.99391          | 1.0018           | 0.0038025        | 0.9850            | 0.99398           | 0.9991            | 0.0046939         | -0.0035   | 7e-05     | 0.0036    | 0.0026907  |

# Device Test: 28.21 CS\_ILIM\_DELAY(TIMING|DELAY/CS/4.5/4.5/0/0/4.5/100kHz//@CS\_ILIM\_DELAY)

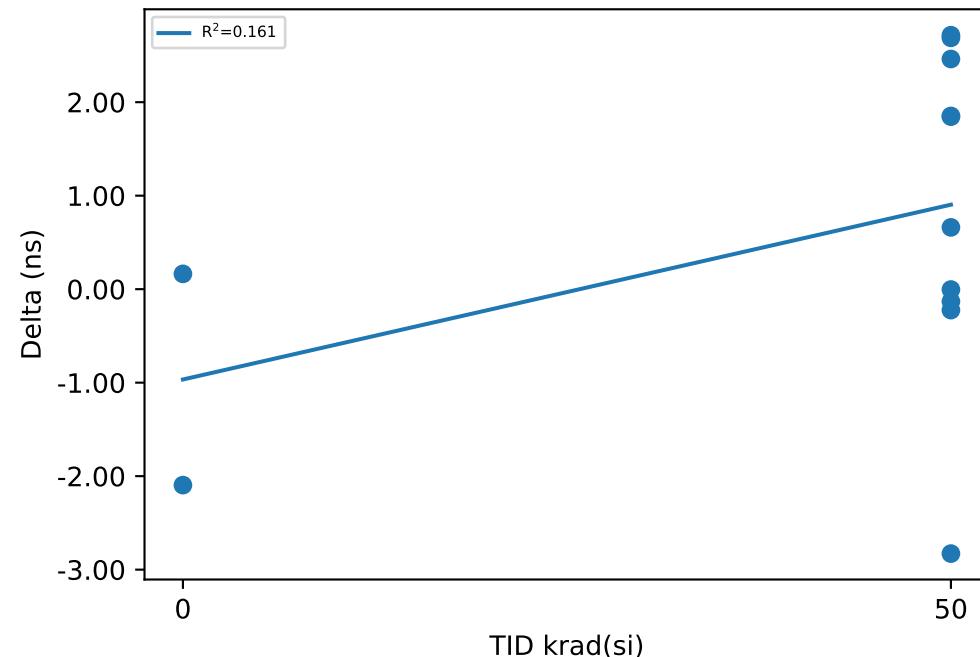
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 69.794     | 69.957      | 0.1635  |
| 2        | 0        | Correlation         | 70.091     | 67.995      | -2.0959 |
| 4        | 50       | Bias                | 69.837     | 71.69       | 1.8527  |
| 6        | 50       | Bias                | 69.913     | 72.375      | 2.4619  |
| 7        | 50       | Bias                | 70.835     | 72.681      | 1.8454  |
| 8        | 50       | Bias                | 70.216     | 72.933      | 2.7165  |
| 9        | 50       | Bias                | 70.479     | 73.167      | 2.6883  |
| 11       | 50       | Unbias              | 69.58      | 69.448      | -0.1313 |
| 12       | 50       | Unbias              | 69.316     | 69.976      | 0.6609  |
| 13       | 50       | Unbias              | 69.82      | 66.992      | -2.8284 |
| 14       | 50       | Unbias              | 71.327     | 71.323      | -0.0041 |
| 15       | 50       | Unbias              | 69.844     | 69.62       | -0.224  |

TID vs Post - Pre Exposure Delta

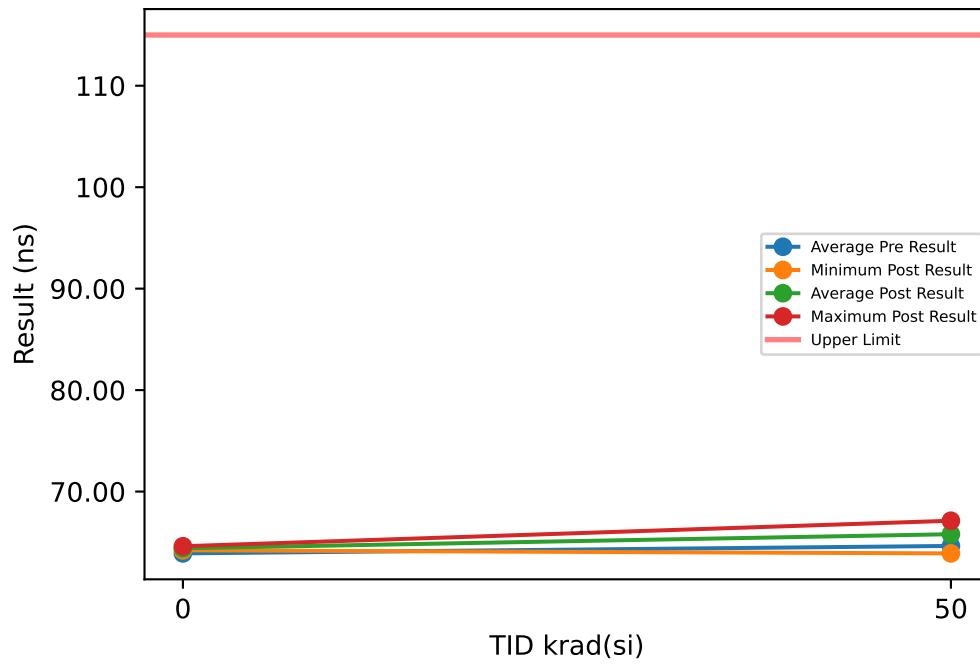


Test Statistics (ns)

| 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        | 69.794           | 69.942           | 70.091           | 0.2098           | 67.995            | 68.976            | 69.957            | 1.3878            | -2.0959   | -0.9662   | 0.1635    | 1.5976    |
| 50       | 69.316           | 70.117           | 71.327           | 0.6087           | 66.992            | 71.021            | 73.167            | 1.9762            | -2.8284   | 0.90379   | 2.7165    | 1.7588    |

# Device Test: 28.22 CS\_ILIM\_DELAY(TIMING|DELAY/CS/5/5/0/0/5/100kHz//@CS\_ILIM\_DELAY)

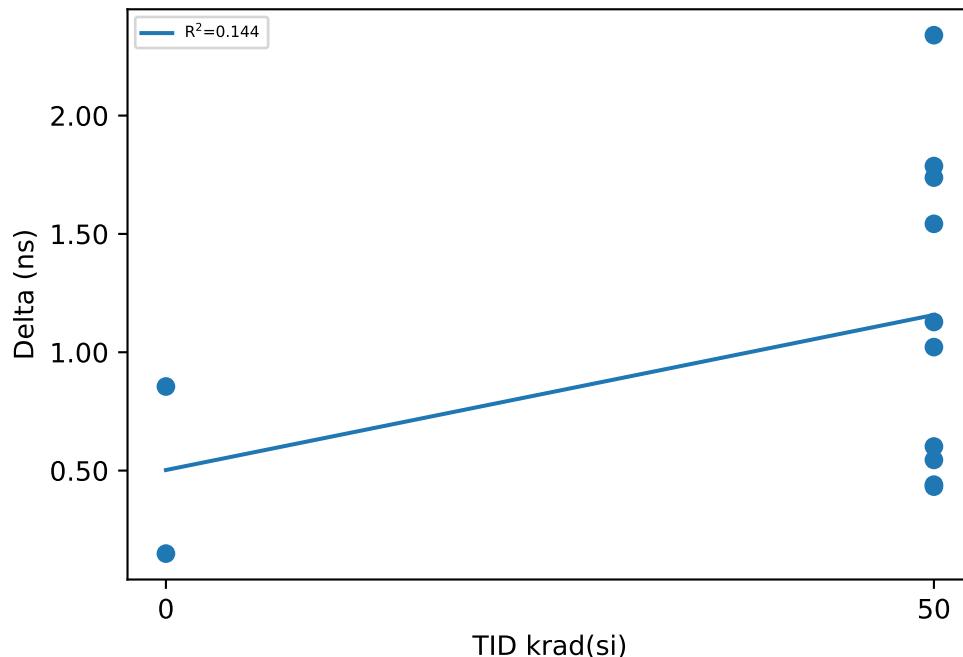
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 63.753     | 64.608      | 0.8553 |
| 2        | 0        | Correlation         | 64.06      | 64.209      | 0.1492 |
| 4        | 50       | Bias                | 64.325     | 66.063      | 1.738  |
| 6        | 50       | Bias                | 65.137     | 66.68       | 1.5426 |
| 7        | 50       | Bias                | 65.265     | 67.051      | 1.7867 |
| 8        | 50       | Bias                | 64.784     | 67.123      | 2.3397 |
| 9        | 50       | Bias                | 65.624     | 66.752      | 1.1279 |
| 11       | 50       | Unbias              | 63.473     | 63.905      | 0.4321 |
| 12       | 50       | Unbias              | 63.971     | 64.573      | 0.6017 |
| 13       | 50       | Unbias              | 63.744     | 64.766      | 1.0217 |
| 14       | 50       | Unbias              | 65.757     | 66.302      | 0.5451 |
| 15       | 50       | Unbias              | 64.311     | 64.751      | 0.4404 |

TID vs Post - Pre Exposure Delta

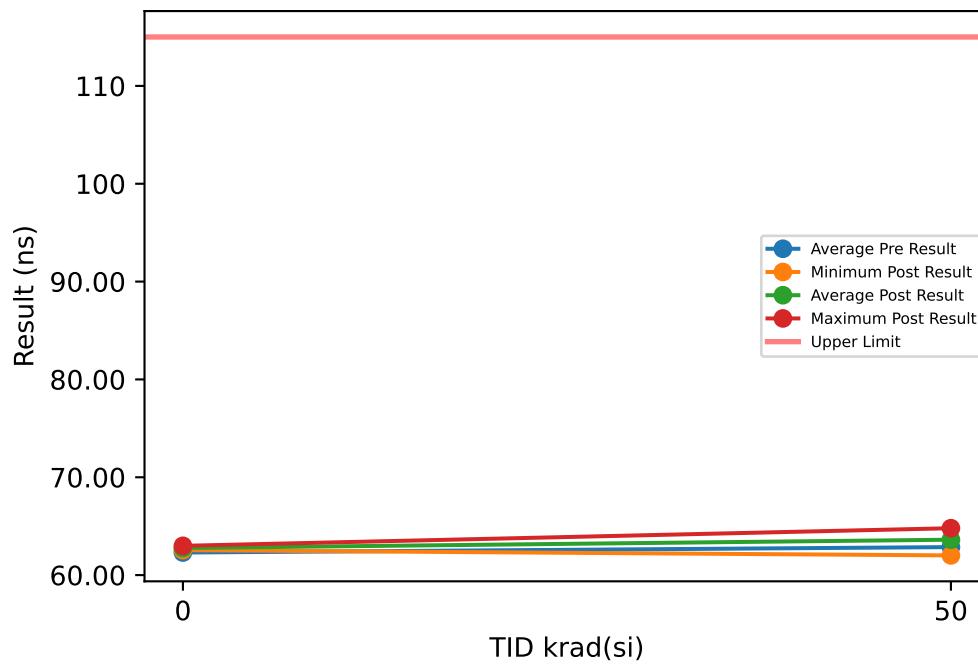


Test Statistics (ns)

| 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        | 63.753           | 63.906           | 64.06            | 0.2168           | 64.209            | 64.409            | 64.608            | 0.28249           | 0.1492    | 0.50225   | 0.8553    | 0.49929   |
| 50       | 63.473           | 64.639           | 65.757           | 0.79548          | 63.905            | 65.797            | 67.123            | 1.1826            | 0.4321    | 1.1576    | 2.3397    | 0.66854   |

# Device Test: 28.23 CS\_ILIM\_DELAY(TIMING|DELAY/CS/12/12/0/0/5/100kHz//@CS\_ILIM\_DELAY)

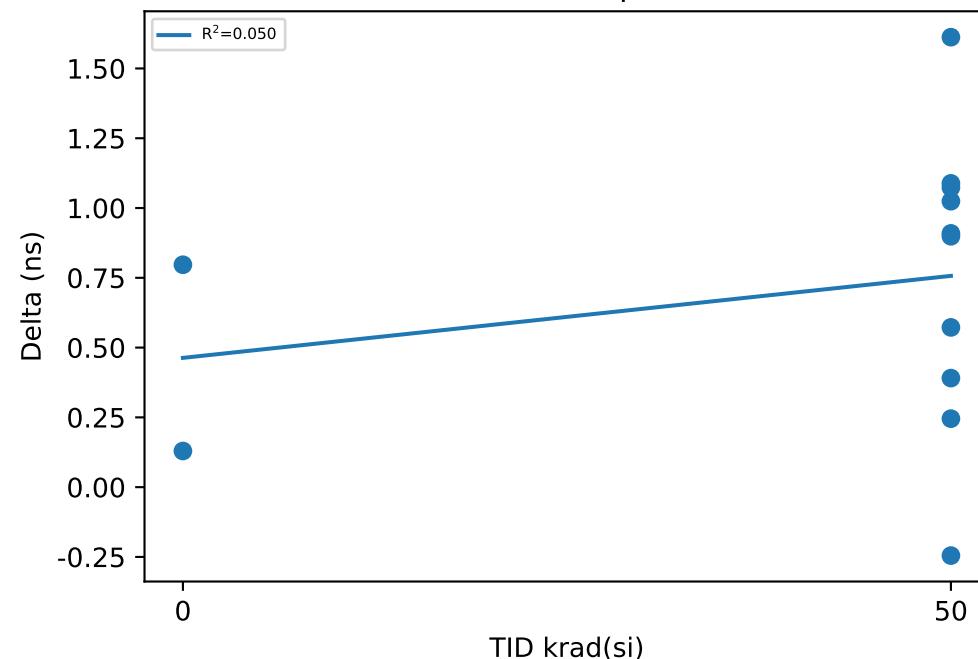
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 62.193     | 62.99       | 0.7968  |
| 2        | 0        | Correlation         | 62.418     | 62.547      | 0.1295  |
| 4        | 50       | Bias                | 63.201     | 64.1        | 0.8988  |
| 6        | 50       | Bias                | 62.437     | 63.51       | 1.0733  |
| 7        | 50       | Bias                | 63.115     | 64.203      | 1.0883  |
| 8        | 50       | Bias                | 63.096     | 64.708      | 1.612   |
| 9        | 50       | Bias                | 63.767     | 64.791      | 1.0244  |
| 11       | 50       | Unbias              | 61.622     | 62.013      | 0.3907  |
| 12       | 50       | Unbias              | 62.306     | 62.879      | 0.5723  |
| 13       | 50       | Unbias              | 62.262     | 63.171      | 0.9091  |
| 14       | 50       | Unbias              | 64.273     | 64.518      | 0.2454  |
| 15       | 50       | Unbias              | 62.523     | 62.278      | -0.2452 |

TID vs Post - Pre Exposure Delta

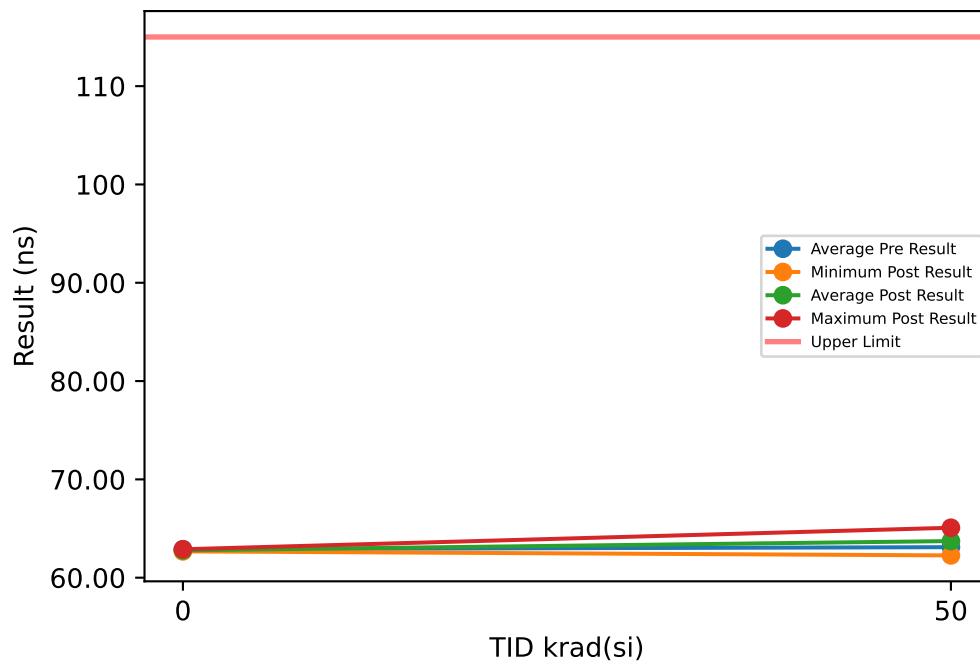


Test Statistics (ns)

| 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        | 62.193           | 62.306           | 62.418           | 0.15896          | 62.547            | 62.769            | 62.99             | 0.31289           | 0.1295    | 0.46315   | 0.7968    | 0.47185   |
| 50       | 61.622           | 62.86            | 64.273           | 0.78484          | 62.013            | 63.617            | 64.791            | 1.0044            | -0.2452   | 0.75691   | 1.612     | 0.52599   |

# Device Test: 28.24 CS\_ILIM\_DELAY(TIMING|DELAY/CS/14/14/0/0/5/100kHz//@CS\_ILIM\_DELAY)

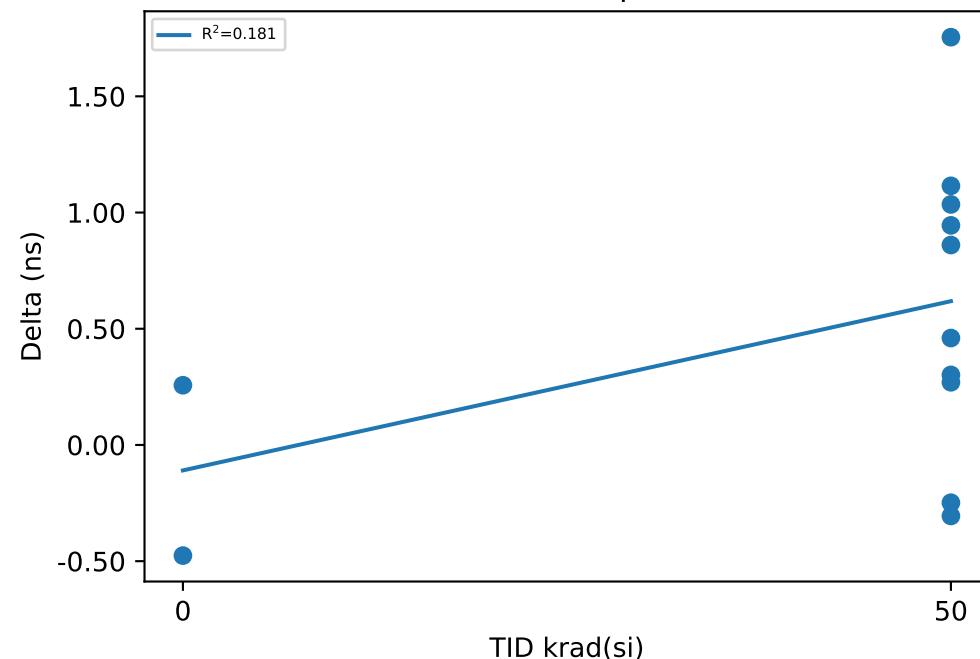
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 63.152     | 62.676      | -0.476  |
| 2        | 0        | Correlation         | 62.631     | 62.888      | 0.257   |
| 4        | 50       | Bias                | 63.384     | 64.419      | 1.0349  |
| 6        | 50       | Bias                | 63.301     | 63.57       | 0.2697  |
| 7        | 50       | Bias                | 63.504     | 63.199      | -0.3054 |
| 8        | 50       | Bias                | 63.405     | 64.52       | 1.1149  |
| 9        | 50       | Bias                | 63.325     | 65.079      | 1.7544  |
| 11       | 50       | Unbias              | 61.966     | 62.267      | 0.3014  |
| 12       | 50       | Unbias              | 62.252     | 63.113      | 0.8603  |
| 13       | 50       | Unbias              | 62.458     | 63.403      | 0.9448  |
| 14       | 50       | Unbias              | 64.584     | 65.044      | 0.4601  |
| 15       | 50       | Unbias              | 62.864     | 62.615      | -0.2485 |

TID vs Post - Pre Exposure Delta

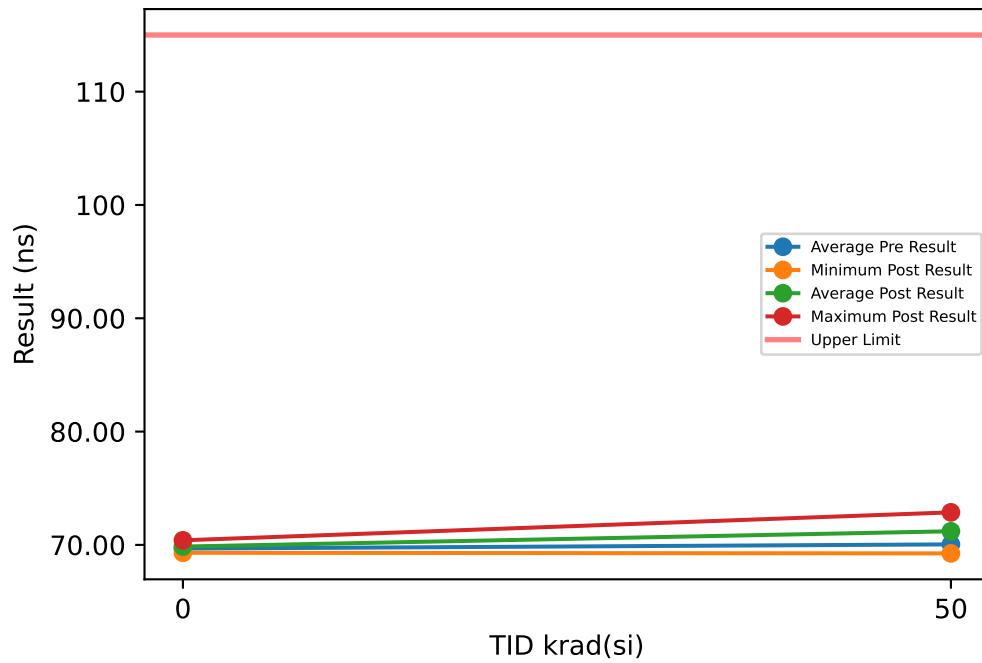


Test Statistics (ns)

| 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        | 62.631           | 62.892           | 63.152           | 0.36847          | 62.676            | 62.782            | 62.888            | 0.14984           | -0.476    | -0.1095   | 0.257     | 0.51831   |
| 50       | 61.966           | 63.104           | 64.584           | 0.75299          | 62.267            | 63.723            | 65.079            | 0.99014           | -0.3054   | 0.61866   | 1.7544    | 0.64357   |

# Device Test: 28.25 CS\_ILIM\_DELAY(TIMING|DELAY/CS/4.5/4.5/0/0/4.5/500kHz//@CS\_ILIM\_DELAY)

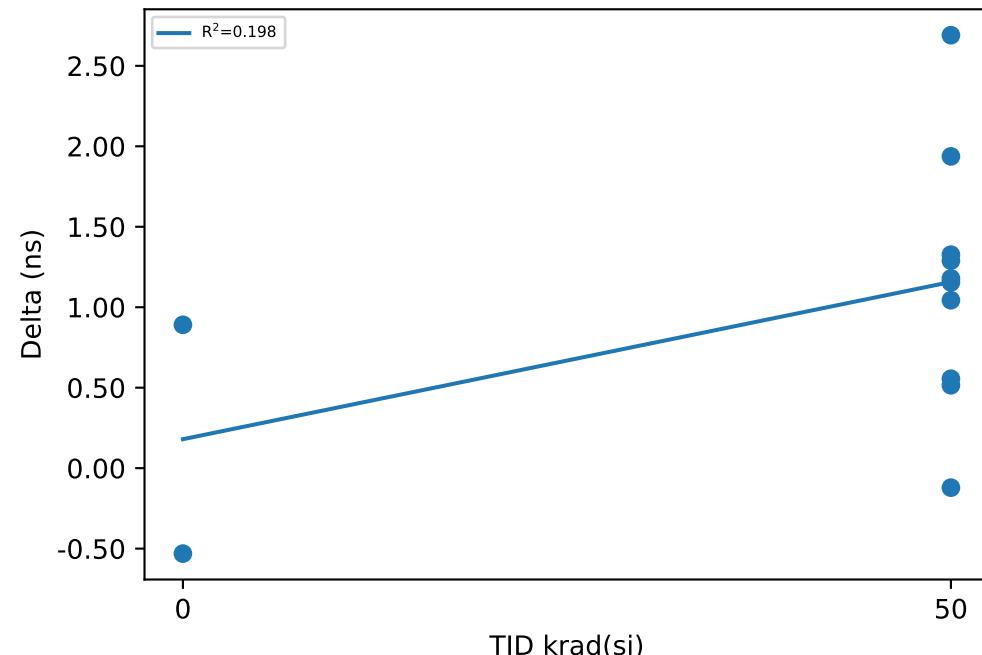
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 69.835     | 69.304      | -0.5309 |
| 2        | 0        | Correlation         | 69.514     | 70.405      | 0.8908  |
| 4        | 50       | Bias                | 70.77      | 71.813      | 1.0434  |
| 6        | 50       | Bias                | 70.575     | 71.754      | 1.179   |
| 7        | 50       | Bias                | 70.761     | 72.698      | 1.9373  |
| 8        | 50       | Bias                | 70.182     | 72.872      | 2.6904  |
| 9        | 50       | Bias                | 71.226     | 72.381      | 1.1543  |
| 11       | 50       | Unbias              | 68.775     | 69.29       | 0.515   |
| 12       | 50       | Unbias              | 69.372     | 69.251      | -0.1211 |
| 13       | 50       | Unbias              | 69.178     | 70.467      | 1.2894  |
| 14       | 50       | Unbias              | 70.609     | 71.165      | 0.5556  |
| 15       | 50       | Unbias              | 69.018     | 70.345      | 1.3267  |

TID vs Post - Pre Exposure Delta

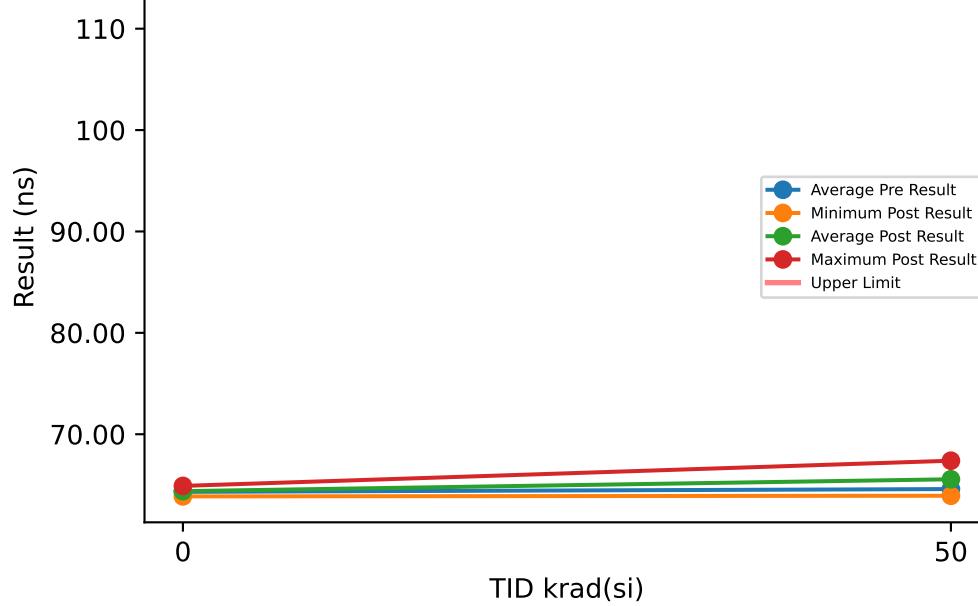


Test Statistics (ns)

| 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        | 69.514           | 69.674           | 69.835           | 0.22677          | 69.304            | 69.854            | 70.405            | 0.77852           | -0.5309   | 0.17995   | 0.8908    | 1.0053    |
| 50       | 68.775           | 70.047           | 71.226           | 0.87721          | 69.251            | 71.204            | 72.872            | 1.3265            | -0.1211   | 1.157     | 2.6904    | 0.77655   |

# Device Test: 28.26 CS\_ILIM\_DELAY(TIMING|DELAY/CS/5/5/0/0/5/500kHz//@CS\_ILIM\_DELAY)

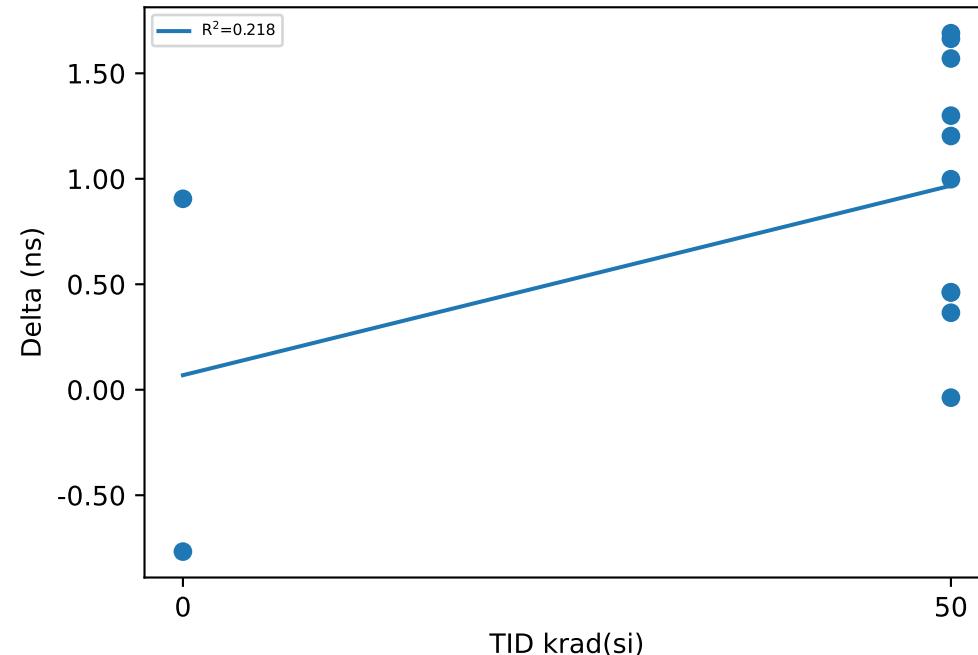
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 64.636     | 63.869      | -0.7672 |
| 2        | 0        | Correlation         | 63.998     | 64.903      | 0.9051  |
| 4        | 50       | Bias                | 64.246     | 65.909      | 1.6636  |
| 6        | 50       | Bias                | 65.138     | 66.136      | 0.998   |
| 7        | 50       | Bias                | 65.359     | 67.049      | 1.6901  |
| 8        | 50       | Bias                | 65.327     | 66.626      | 1.2992  |
| 9        | 50       | Bias                | 65.818     | 67.388      | 1.5701  |
| 11       | 50       | Unbias              | 63.579     | 63.944      | 0.365   |
| 12       | 50       | Unbias              | 63.97      | 63.932      | -0.0376 |
| 13       | 50       | Unbias              | 63.77      | 64.231      | 0.4611  |
| 14       | 50       | Unbias              | 65.084     | 65.546      | 0.4625  |
| 15       | 50       | Unbias              | 63.616     | 64.819      | 1.2028  |

TID vs Post - Pre Exposure Delta

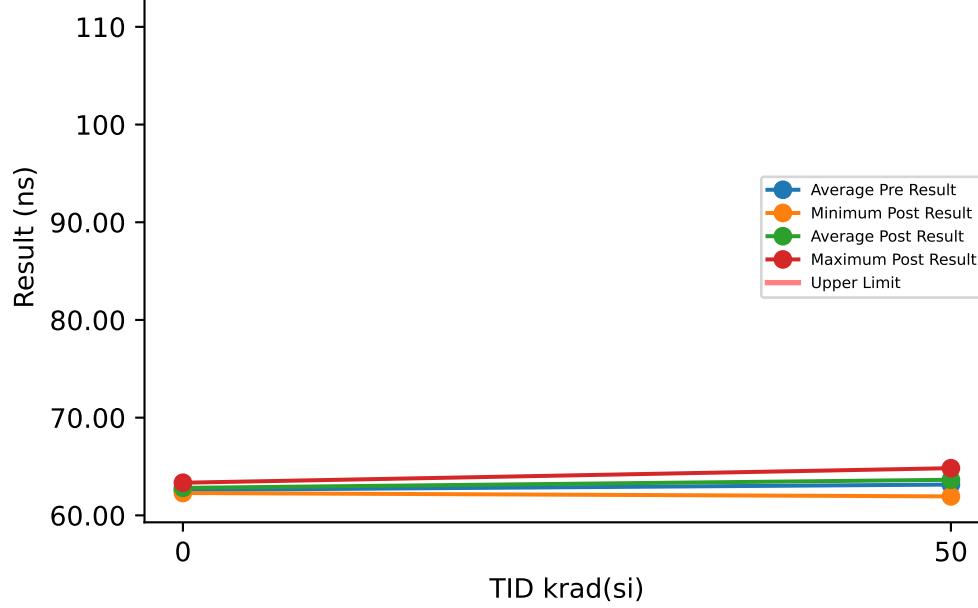


Test Statistics (ns)

| 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        | 63.998           | 64.317           | 64.636           | 0.45085          | 63.869            | 64.386            | 64.903            | 0.73164           | -0.7672   | 0.06895   | 0.9051    | 1.1825    |
| 50       | 63.579           | 64.591           | 65.818           | 0.83878          | 63.932            | 65.558            | 67.388            | 1.2791            | -0.0376   | 0.96748   | 1.6901    | 0.61652   |

# Device Test: 28.27 CS\_ILIM\_DELAY(TIMING|DELAY/CS/12/12/0/0/5/500kHz//@CS\_ILIM\_DELAY)

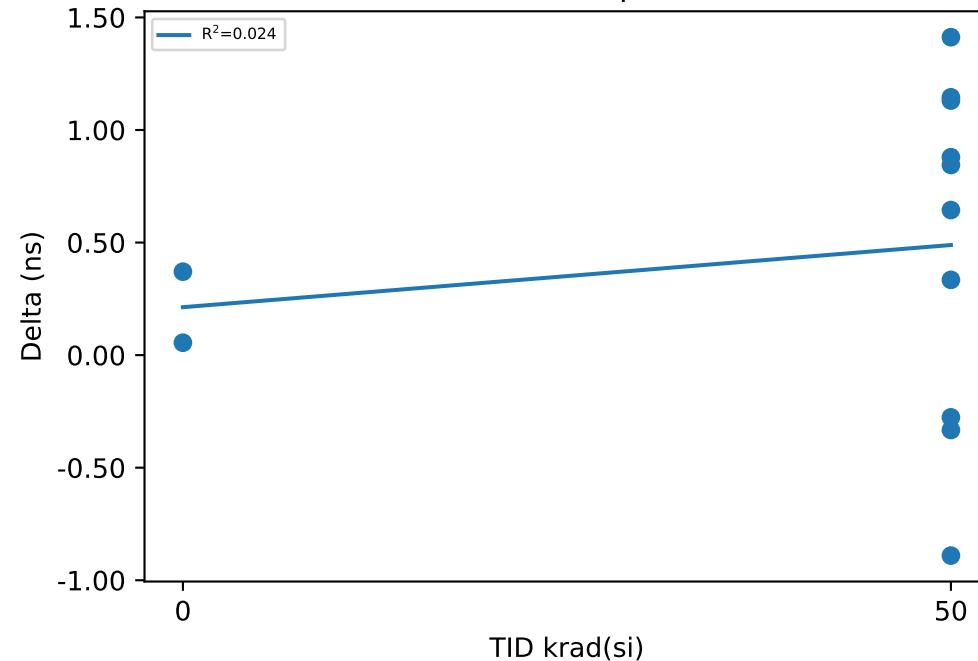
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 62.233     | 62.288      | 0.0551  |
| 2        | 0        | Correlation         | 62.969     | 63.34       | 0.3707  |
| 4        | 50       | Bias                | 63.212     | 64.091      | 0.879   |
| 6        | 50       | Bias                | 63.026     | 63.871      | 0.8446  |
| 7        | 50       | Bias                | 63.62      | 64.765      | 1.1452  |
| 8        | 50       | Bias                | 63.699     | 64.829      | 1.1306  |
| 9        | 50       | Bias                | 63.289     | 64.701      | 1.4122  |
| 11       | 50       | Unbias              | 62.218     | 61.941      | -0.2764 |
| 12       | 50       | Unbias              | 62.324     | 62.968      | 0.6444  |
| 13       | 50       | Unbias              | 62.816     | 62.483      | -0.3326 |
| 14       | 50       | Unbias              | 64.296     | 64.63       | 0.3343  |
| 15       | 50       | Unbias              | 63.03      | 62.139      | -0.8905 |

TID vs Post - Pre Exposure Delta

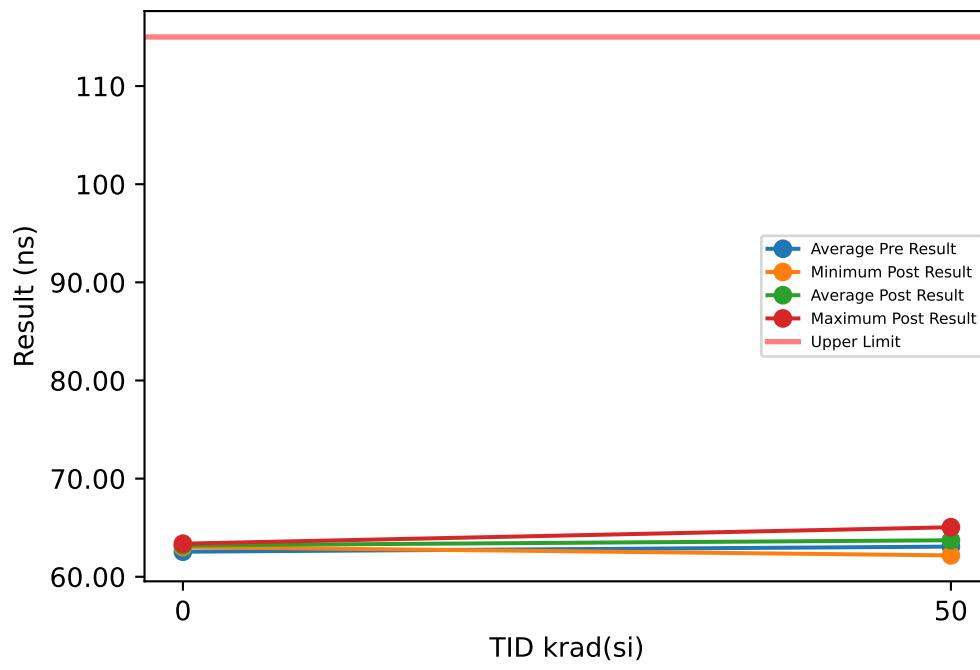


Test Statistics (ns)

| 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        | 62.233           | 62.601           | 62.969           | 0.52064          | 62.288            | 62.814            | 63.34             | 0.74381           | 0.0551    | 0.2129    | 0.3707    | 0.22316   |
| 50       | 62.218           | 63.153           | 64.296           | 0.62815          | 61.941            | 63.642            | 64.829            | 1.1533            | -0.8905   | 0.48908   | 1.4122    | 0.75902   |

# Device Test: 28.28 CS\_ILIM\_DELAY(TIMING|DELAY/CS/14/14/0/0/5/500kHz//@CS\_ILIM\_DELAY)

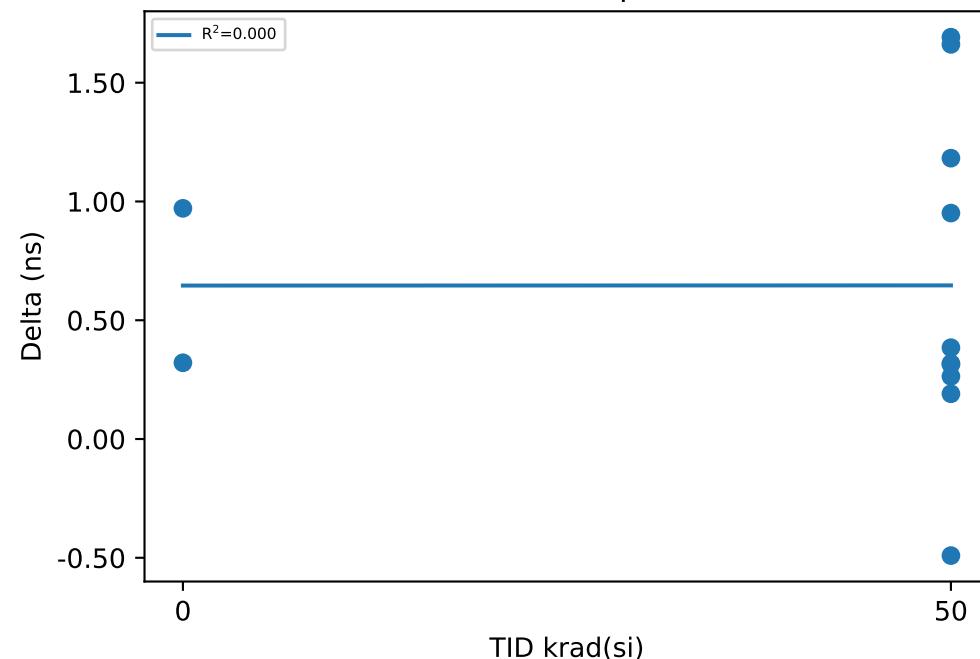
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 62.401     | 63.372      | 0.9711  |
| 2        | 0        | Correlation         | 62.704     | 63.025      | 0.321   |
| 4        | 50       | Bias                | 63.494     | 64.445      | 0.9512  |
| 6        | 50       | Bias                | 63.228     | 63.546      | 0.318   |
| 7        | 50       | Bias                | 63.354     | 65.046      | 1.6916  |
| 8        | 50       | Bias                | 63.346     | 65.007      | 1.6614  |
| 9        | 50       | Bias                | 64.091     | 64.476      | 0.3845  |
| 11       | 50       | Unbias              | 62.668     | 62.177      | -0.4908 |
| 12       | 50       | Unbias              | 61.896     | 63.078      | 1.1823  |
| 13       | 50       | Unbias              | 62.456     | 62.72       | 0.2638  |
| 14       | 50       | Unbias              | 64.003     | 64.318      | 0.3144  |
| 15       | 50       | Unbias              | 62.196     | 62.387      | 0.1905  |

TID vs Post - Pre Exposure Delta

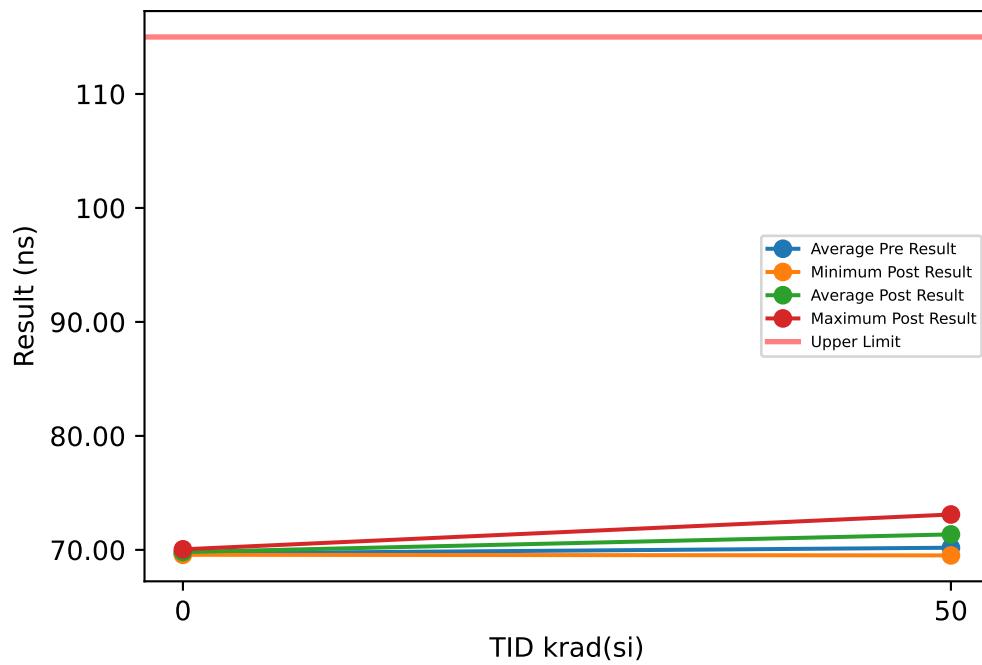


Test Statistics (ns)

| 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        | 62.401           | 62.553           | 62.704           | 0.21397          | 63.025            | 63.199            | 63.372            | 0.24572           | 0.321     | 0.64605   | 0.9711    | 0.45969   |
| 50       | 61.896           | 63.073           | 64.091           | 0.74208          | 62.177            | 63.72             | 65.046            | 1.0786            | -0.4908   | 0.64669   | 1.6916    | 0.70213   |

# Device Test: 28.29 CS\_ILIM\_DELAY(TIMING|DELAY/CS/4.5/4.5/0/0/4.5/1MHz//@CS\_ILIM\_DELAY)

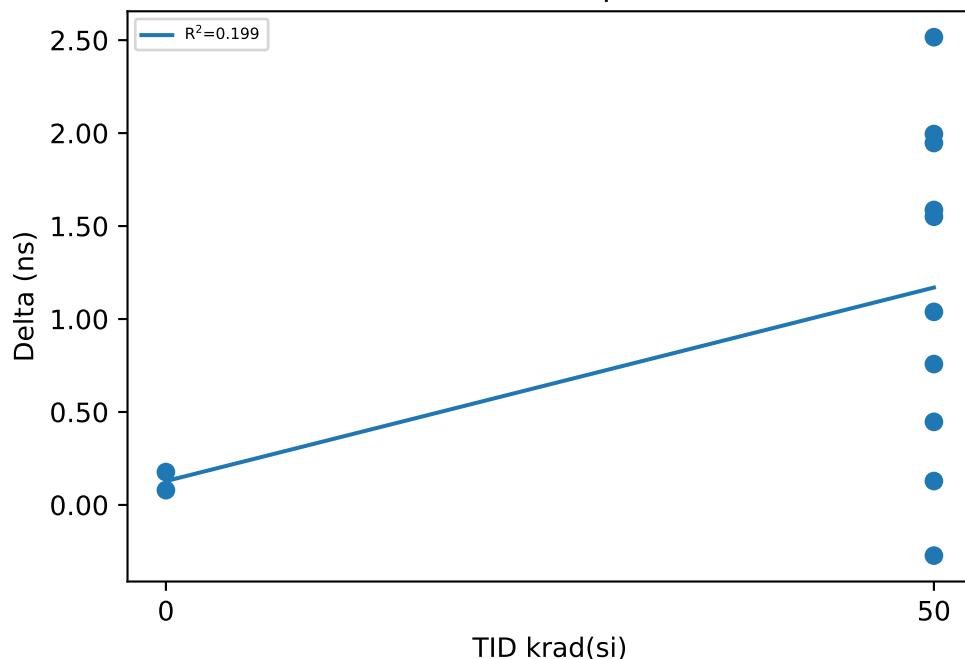
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 69.871     | 70.048      | 0.1768  |
| 2        | 0        | Correlation         | 69.489     | 69.568      | 0.0795  |
| 4        | 50       | Bias                | 69.917     | 72.433      | 2.5159  |
| 6        | 50       | Bias                | 70.237     | 71.788      | 1.5502  |
| 7        | 50       | Bias                | 70.12      | 72.066      | 1.9467  |
| 8        | 50       | Bias                | 71.518     | 73.105      | 1.5866  |
| 9        | 50       | Bias                | 70.318     | 72.313      | 1.995   |
| 11       | 50       | Unbias              | 69.523     | 70.562      | 1.0385  |
| 12       | 50       | Unbias              | 69.387     | 69.516      | 0.1284  |
| 13       | 50       | Unbias              | 69.788     | 69.515      | -0.2725 |
| 14       | 50       | Unbias              | 71.306     | 71.753      | 0.4468  |
| 15       | 50       | Unbias              | 69.773     | 70.531      | 0.7577  |

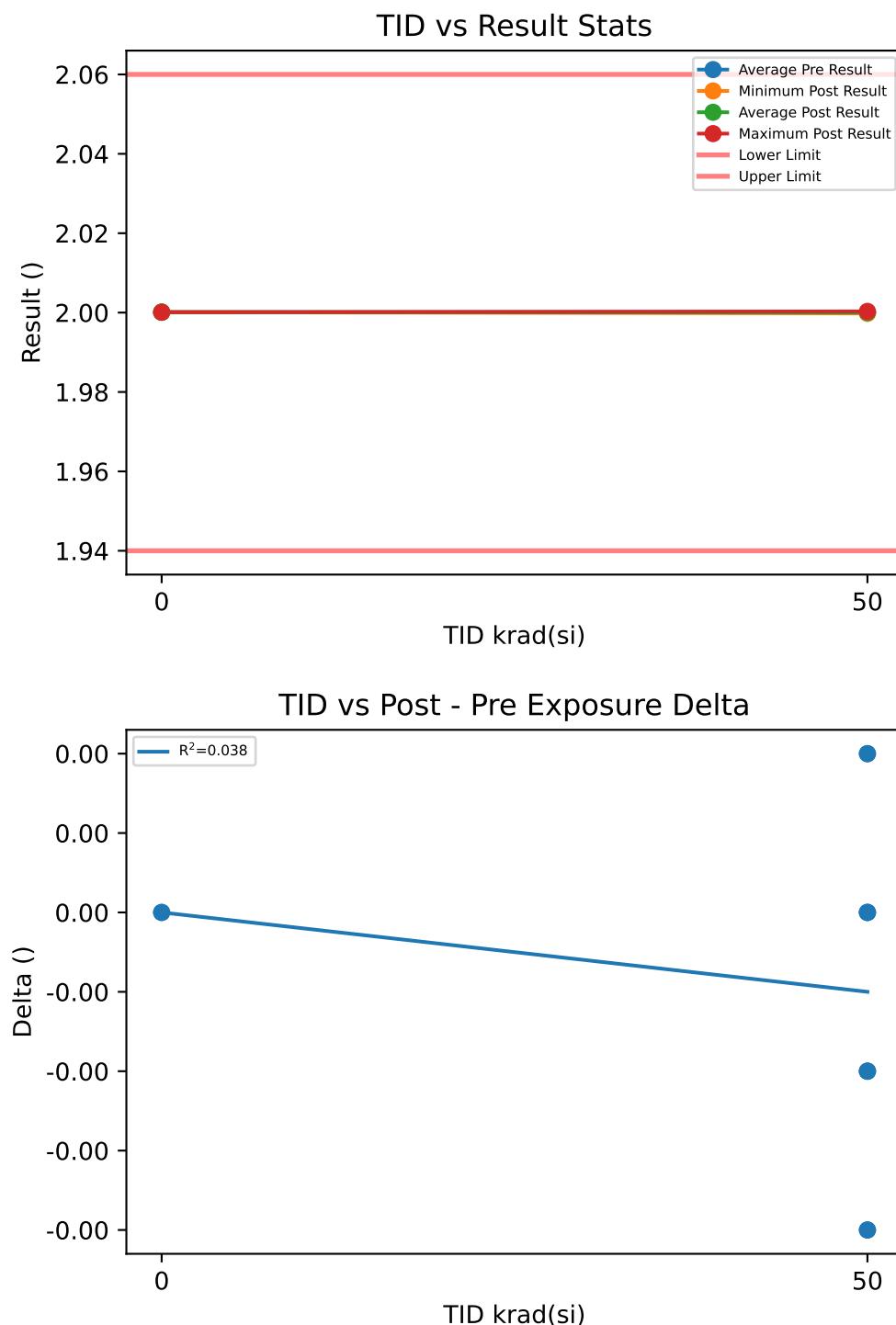
TID vs Post - Pre Exposure Delta



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        | 69.489           | 69.68            | 69.871           | 0.27019          | 69.568            | 69.808            | 70.048            | 0.33899           | 0.0795    | 0.12815   | 0.1768    | 0.068801  |
| 50       | 69.387           | 70.189           | 71.518           | 0.70964          | 69.515            | 71.358            | 73.105            | 1.2503            | -0.2725   | 1.1693    | 2.5159    | 0.89997   |

# Device Test: 28.3 C\_CS\_R(LEVEL|RATIO/CS/12/12/0/0/5/500kHz//@C\_CS\_R)



**Test Results (Lower Limit = 1.94, Upper Limit = 2.06 ())**

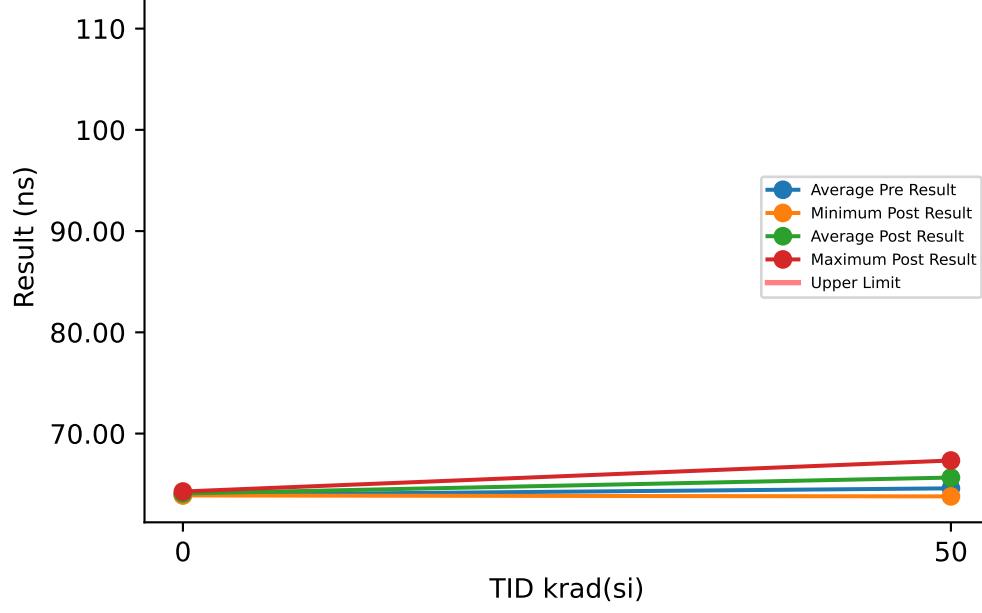
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.0001     | 2.0001      | 0       |
| 2        | 0        | Correlation         | 2.0001     | 2.0001      | 0       |
| 4        | 50       | Bias                | 2.0001     | 1.9999      | -0.0002 |
| 6        | 50       | Bias                | 2          | 2           | 0       |
| 7        | 50       | Bias                | 2.0001     | 2           | -0.0001 |
| 8        | 50       | Bias                | 2.0001     | 1.9999      | -0.0002 |
| 9        | 50       | Bias                | 2.0001     | 2           | -0.0001 |
| 11       | 50       | Unbias              | 2.0002     | 2.0003      | 0.0001  |
| 12       | 50       | Unbias              | 2.0001     | 2.0001      | 0       |
| 13       | 50       | Unbias              | 2          | 2.0001      | 0.0001  |
| 14       | 50       | Unbias              | 1.9999     | 1.9998      | -0.0001 |
| 15       | 50       | Unbias              | 2.0001     | 2.0001      | 0       |

## Test Statistics ()

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|------------|
| 0        | 2.0001           | 2.0001           | 2.0001           | 0                | 2.0001            | 2.0001            | 2.0001            | 0                 | 0         | 0         | 0         | 0          |
| 50       | 1.9999           | 2.0001           | 2.0002           | 8.2327e-05       | 1.9998            | 2                 | 2.0003            | 0.00013984        | -0.0002   | -5e-05    | 0.0001    | 0.00010801 |

# Device Test: 28.30 CS\_ILIM\_DELAY(TIMING|DELAY/CS/5/5/0/0/5/1MHz//@CS\_ILIM\_DELAY)

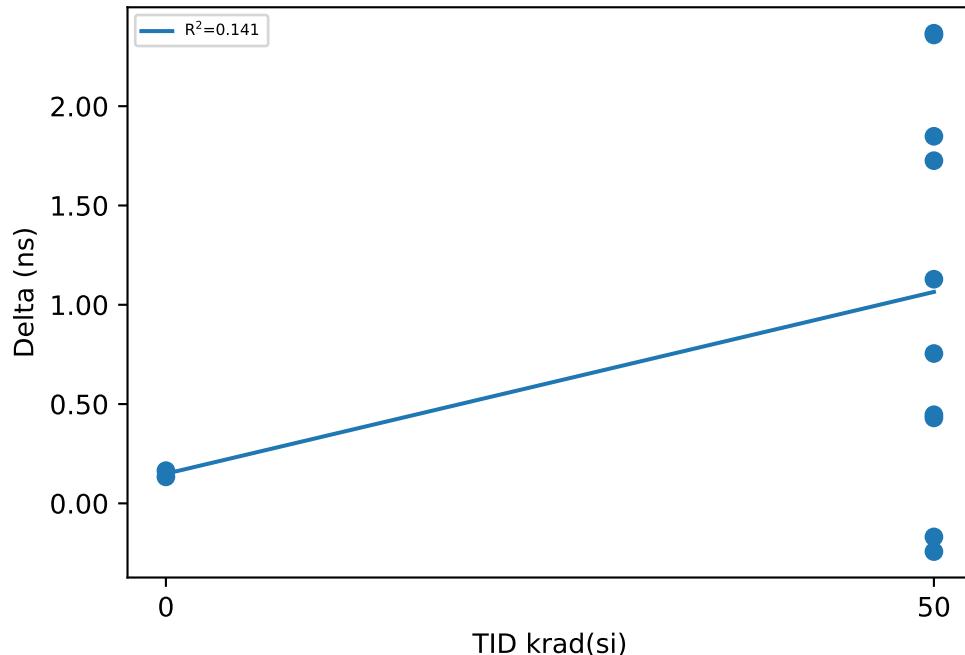
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 63.722     | 63.886      | 0.1648  |
| 2        | 0        | Correlation         | 64.144     | 64.278      | 0.1334  |
| 4        | 50       | Bias                | 64.311     | 66.037      | 1.7257  |
| 6        | 50       | Bias                | 65.152     | 65.907      | 0.7546  |
| 7        | 50       | Bias                | 64.701     | 66.55       | 1.8485  |
| 8        | 50       | Bias                | 64.76      | 67.118      | 2.3586  |
| 9        | 50       | Bias                | 64.972     | 67.34       | 2.3676  |
| 11       | 50       | Unbias              | 64.177     | 64.607      | 0.4303  |
| 12       | 50       | Unbias              | 63.963     | 63.794      | -0.1689 |
| 13       | 50       | Unbias              | 64.495     | 64.253      | -0.2429 |
| 14       | 50       | Unbias              | 65.734     | 66.18       | 0.4462  |
| 15       | 50       | Unbias              | 63.641     | 64.77       | 1.1287  |

TID vs Post - Pre Exposure Delta

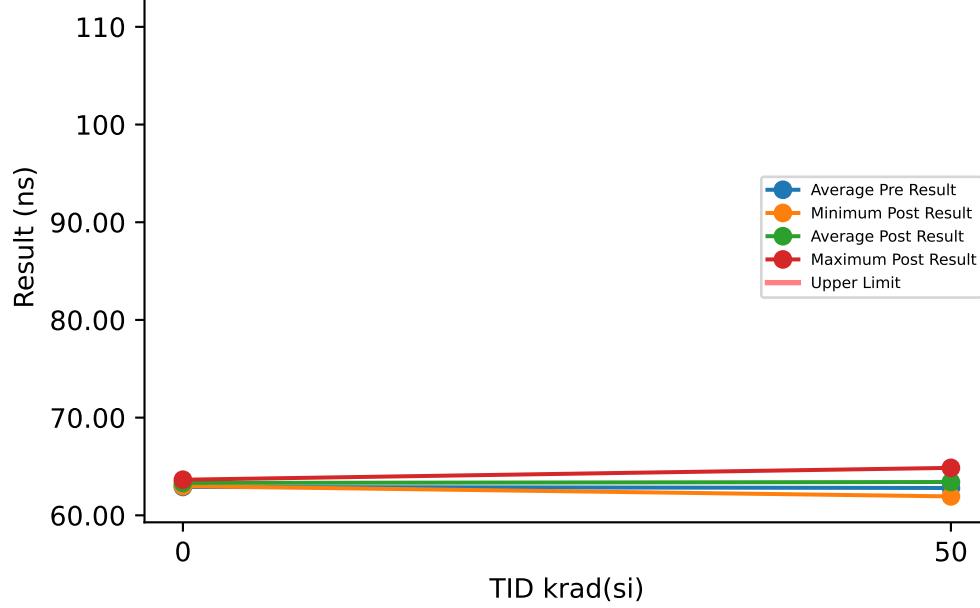


Test Statistics (ns)

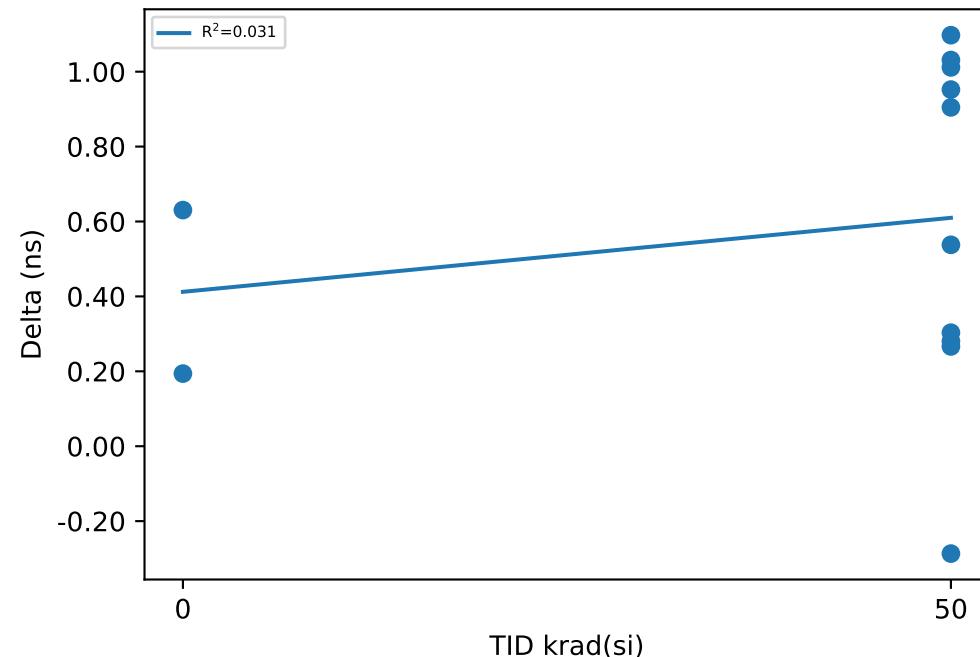
| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta | Max Delta | Std Delta |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-----------|-----------|-----------|
| 0        | 63.722           | 63.933           | 64.144           | 0.29889          | 63.886            | 64.082            | 64.278            | 0.27669           | 0.1334    | 0.1491    | 0.1648    | 0.022203  |
| 50       | 63.641           | 64.591           | 65.734           | 0.61109          | 63.794            | 65.656            | 67.34             | 1.2281            | -0.2429   | 1.0648    | 2.3676    | 0.9741    |

# Device Test: 28.31 CS\_ILIM\_DELAY(TIMING|DELAY/CS/12/12/0/0/5/1MHz//@CS\_ILIM\_DELAY)

TID vs Result Stats



TID vs Post - Pre Exposure Delta



Test Results (Upper Limit = 115.0 (ns))

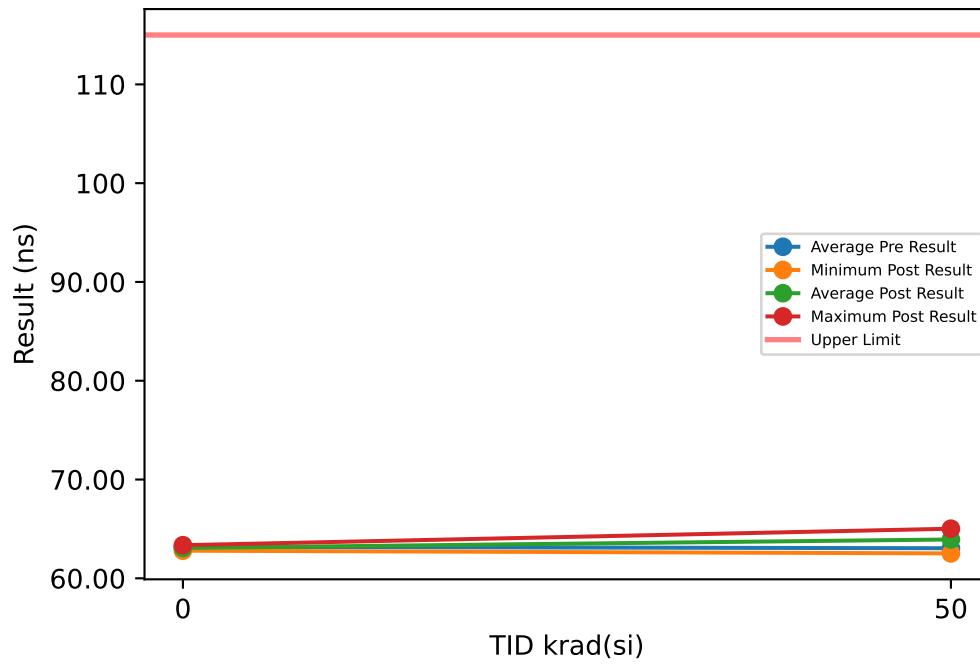
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 62.793     | 62.987      | 0.1939  |
| 2        | 0        | Correlation         | 63.015     | 63.646      | 0.6305  |
| 4        | 50       | Bias                | 62.526     | 63.43       | 0.9047  |
| 6        | 50       | Bias                | 62.971     | 63.509      | 0.5377  |
| 7        | 50       | Bias                | 63.057     | 64.068      | 1.0114  |
| 8        | 50       | Bias                | 63.761     | 64.858      | 1.0974  |
| 9        | 50       | Bias                | 63.099     | 64.13       | 1.0311  |
| 11       | 50       | Unbias              | 61.635     | 61.938      | 0.3031  |
| 12       | 50       | Unbias              | 61.811     | 62.764      | 0.9522  |
| 13       | 50       | Unbias              | 62.87      | 62.584      | -0.2867 |
| 14       | 50       | Unbias              | 63.718     | 63.984      | 0.2664  |
| 15       | 50       | Unbias              | 62.548     | 62.829      | 0.2807  |

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        | 62.793           | 62.904           | 63.015           | 0.15733          | 62.987            | 63.316            | 63.646            | 0.46605           | 0.1939    | 0.4122    | 0.6305    | 0.30872   |
| 50       | 61.635           | 62.8             | 63.761           | 0.70156          | 61.938            | 63.409            | 64.858            | 0.88163           | -0.2867   | 0.6098    | 1.0974    | 0.46067   |

# Device Test: 28.32 CS\_ILIM\_DELAY(TIMING|DELAY/CS/14/14/0/0/5/1MHz//@CS\_ILIM\_DELAY)

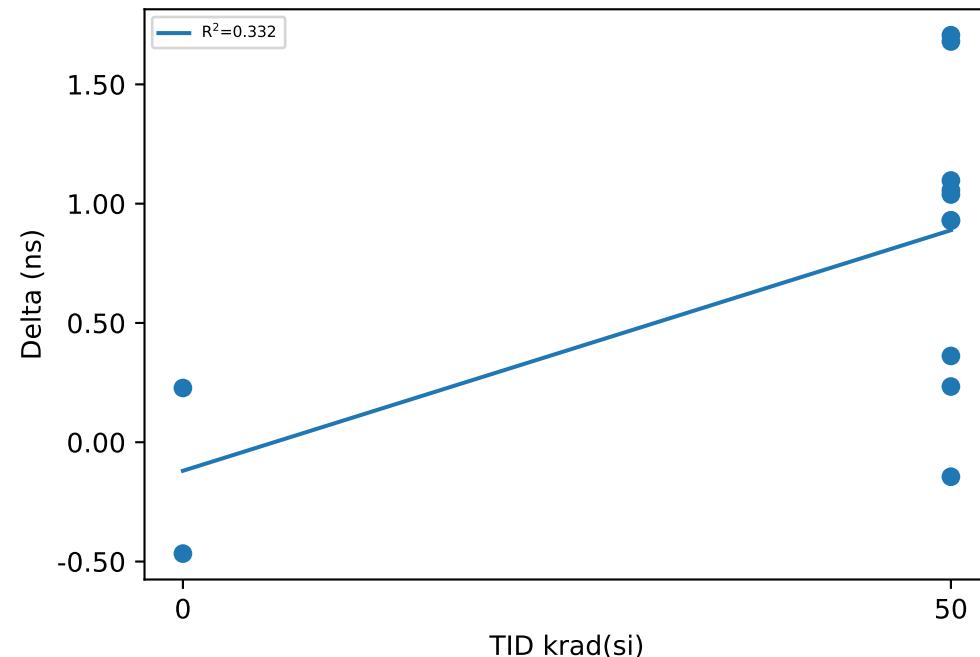
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 63.124     | 63.351      | 0.2274  |
| 2        | 0        | Correlation         | 63.263     | 62.797      | -0.4667 |
| 4        | 50       | Bias                | 62.717     | 64.423      | 1.7061  |
| 6        | 50       | Bias                | 62.577     | 63.633      | 1.0564  |
| 7        | 50       | Bias                | 63.995     | 64.229      | 0.2335  |
| 8        | 50       | Bias                | 63.341     | 65.021      | 1.6797  |
| 9        | 50       | Bias                | 64.023     | 64.954      | 0.9303  |
| 11       | 50       | Unbias              | 62.512     | 62.874      | 0.3617  |
| 12       | 50       | Unbias              | 62.667     | 62.522      | -0.1446 |
| 13       | 50       | Unbias              | 62.51      | 63.439      | 0.929   |
| 14       | 50       | Unbias              | 63.923     | 65.02       | 1.0972  |
| 15       | 50       | Unbias              | 62.159     | 63.197      | 1.0384  |

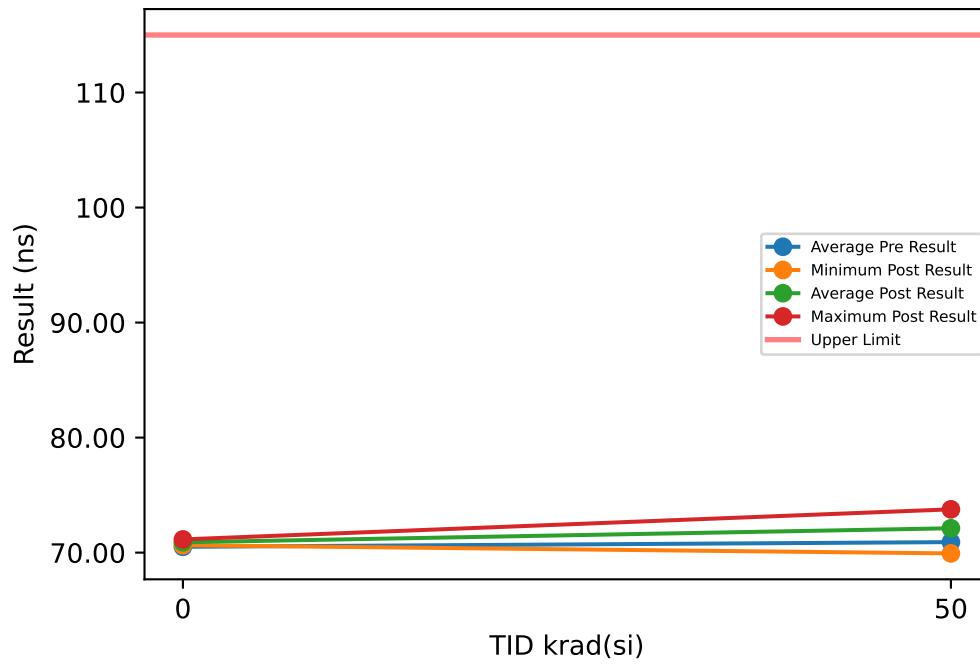
TID vs Post - Pre Exposure Delta



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        | 63.124           | 63.194           | 63.263           | 0.0985           | 62.797            | 63.074            | 63.351            | 0.3923            | -0.4667   | -0.11965  | 0.2274    | 0.4908    |
| 50       | 62.159           | 63.042           | 64.023           | 0.71061          | 62.522            | 63.931            | 65.021            | 0.92631           | -0.1446   | 0.88877   | 1.7061    | 0.5931    |

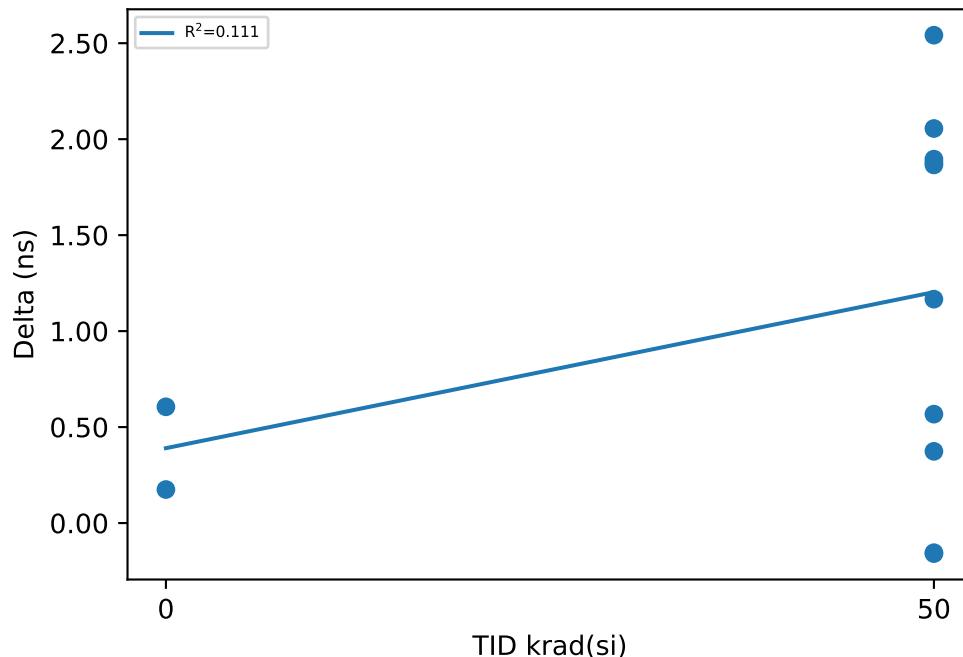
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 70.038     | 70.643      | 0.6056  |
| 2        | 0        | Correlation         | 70.975     | 71.15       | 0.1747  |
| 4        | 50       | Bias                | 71.355     | 73.233      | 1.8783  |
| 6        | 50       | Bias                | 70.498     | 72.393      | 1.8959  |
| 7        | 50       | Bias                | 71.54      | 73.406      | 1.8658  |
| 8        | 50       | Bias                | 71.673     | 73.728      | 2.0556  |
| 9        | 50       | Bias                | 71.222     | 73.764      | 2.5417  |
| 11       | 50       | Unbias              | 69.525     | 70.692      | 1.1664  |
| 12       | 50       | Unbias              | 70.092     | 69.933      | -0.1591 |
| 13       | 50       | Unbias              | 70.633     | 71.007      | 0.3736  |
| 14       | 50       | Unbias              | 72.04      | 72.608      | 0.5674  |
| 15       | 50       | Unbias              | 70.56      | 70.406      | -0.1544 |

TID vs Post - Pre Exposure Delta

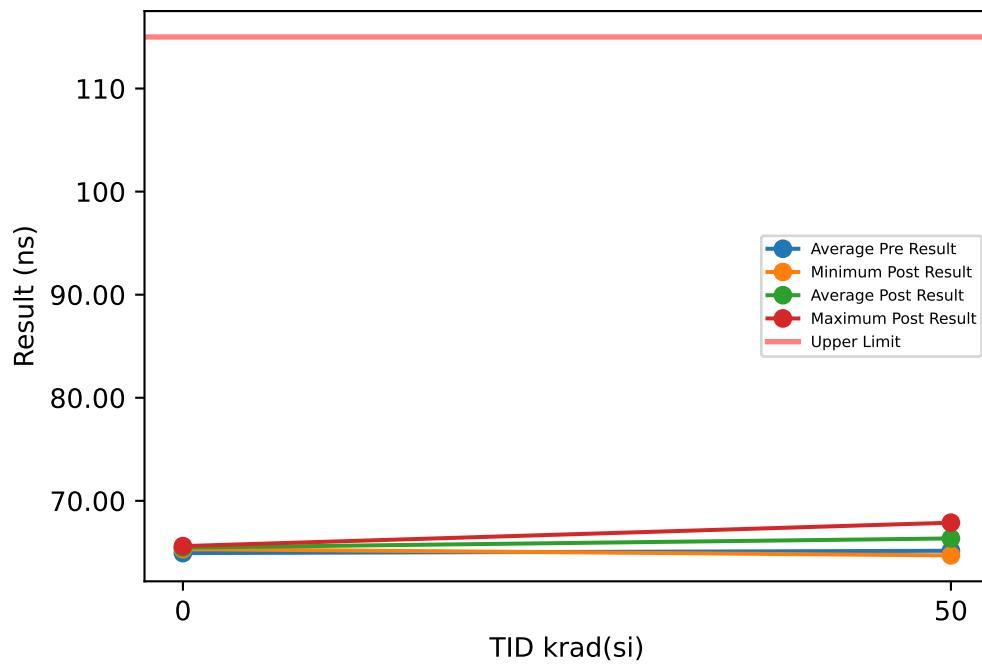


Test Statistics (ns)

| 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        | 70.038           | 70.506           | 70.975           | 0.66277          | 70.643            | 70.897            | 71.15             | 0.35808           | 0.1747    | 0.39015   | 0.6056    | 0.30469   |
| 50       | 69.525           | 70.914           | 72.04            | 0.78223          | 69.933            | 72.117            | 73.764            | 1.4718            | -0.1591   | 1.2031    | 2.5417    | 0.98238   |

# Device Test: 28.34 CS\_ILIM\_DELAY(TIMING|DELAY/CS/5/5/0/1000/5/100kHz//@CS\_ILIM\_DELAY)

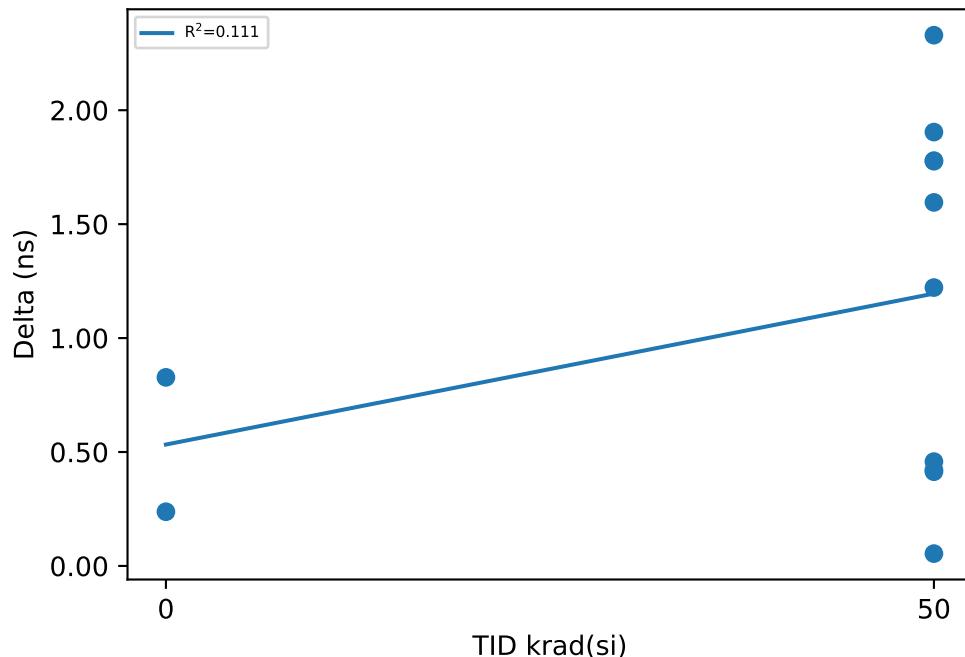
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 65.077     | 65.315      | 0.2379 |
| 2        | 0        | Correlation         | 64.779     | 65.607      | 0.8276 |
| 4        | 50       | Bias                | 65.581     | 67.485      | 1.904  |
| 6        | 50       | Bias                | 65.111     | 67.44       | 2.3292 |
| 7        | 50       | Bias                | 65.446     | 67.041      | 1.5954 |
| 8        | 50       | Bias                | 66.1       | 67.879      | 1.7788 |
| 9        | 50       | Bias                | 65.627     | 67.403      | 1.7761 |
| 11       | 50       | Unbias              | 64.87      | 65.328      | 0.4579 |
| 12       | 50       | Unbias              | 64.652     | 64.706      | 0.0542 |
| 13       | 50       | Unbias              | 63.862     | 65.084      | 1.2217 |
| 14       | 50       | Unbias              | 65.901     | 66.323      | 0.4217 |
| 15       | 50       | Unbias              | 64.413     | 64.827      | 0.4136 |

TID vs Post - Pre Exposure Delta

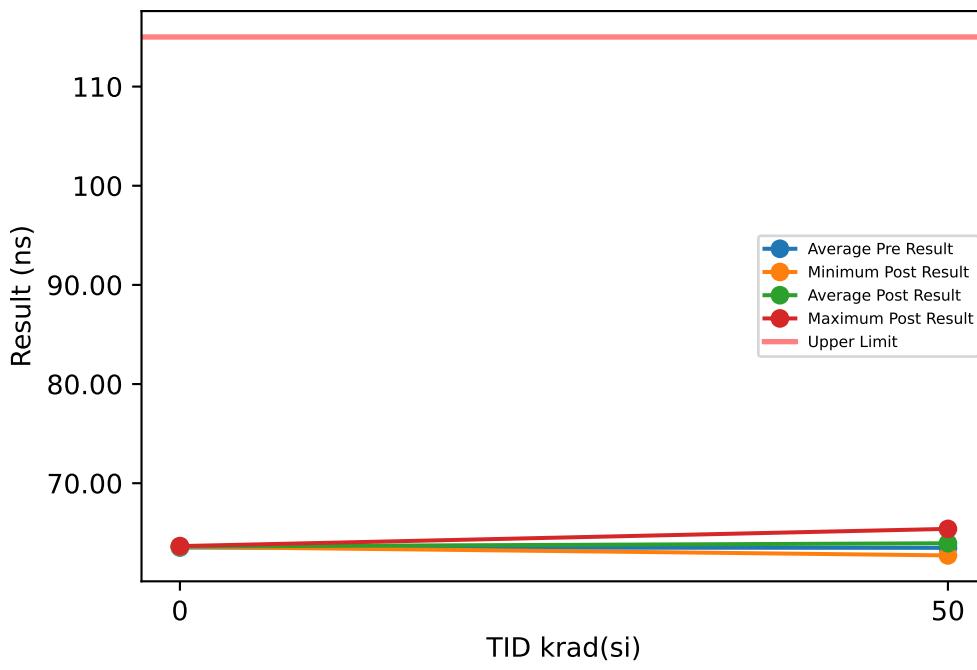


Test Statistics (ns)

| 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        | 64.779           | 64.928           | 65.077           | 0.21029          | 65.315            | 65.461            | 65.607            | 0.20669           | 0.2379    | 0.53275   | 0.8276    | 0.41698   |
| 50       | 63.862           | 65.156           | 66.1             | 0.70702          | 64.706            | 66.352            | 67.879            | 1.2506            | 0.0542    | 1.1953    | 2.3292    | 0.79456   |

# Device Test: 28.35 CS\_ILIM\_DELAY(TIMING|DELAY/CS/12/12/0/1000/5/100kHz//@CS\_ILIM\_DELAY)

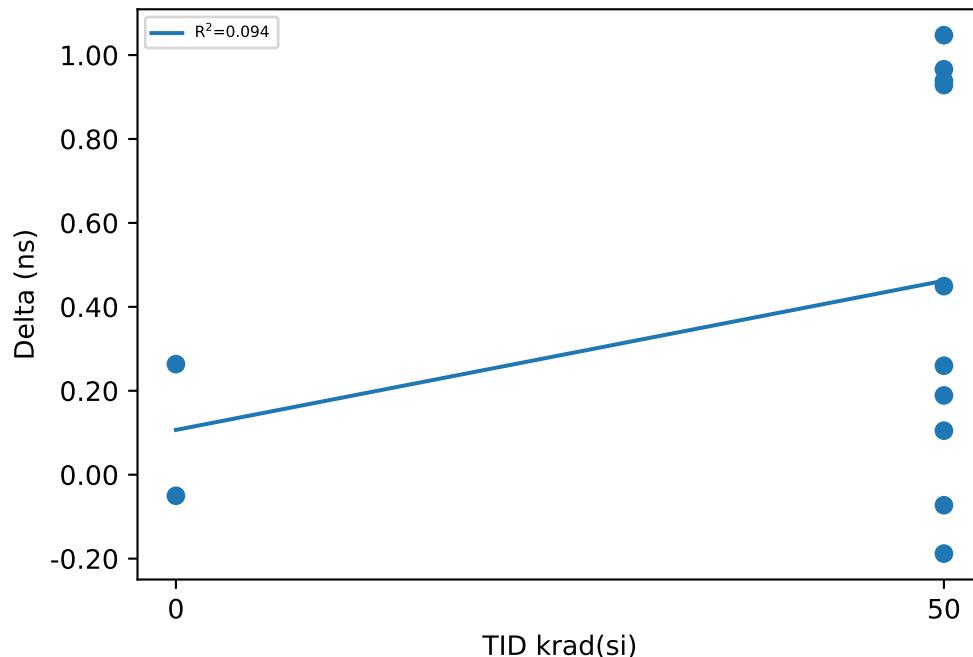
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 63.393     | 63.657      | 0.2635  |
| 2        | 0        | Correlation         | 63.635     | 63.585      | -0.0502 |
| 4        | 50       | Bias                | 63.158     | 64.124      | 0.9662  |
| 6        | 50       | Bias                | 63.611     | 64.061      | 0.4493  |
| 7        | 50       | Bias                | 64.392     | 64.652      | 0.2597  |
| 8        | 50       | Bias                | 64.347     | 65.394      | 1.0473  |
| 9        | 50       | Bias                | 63.697     | 64.636      | 0.9387  |
| 11       | 50       | Unbias              | 62.909     | 62.721      | -0.188  |
| 12       | 50       | Unbias              | 62.971     | 62.898      | -0.0727 |
| 13       | 50       | Unbias              | 62.925     | 63.03       | 0.105   |
| 14       | 50       | Unbias              | 64.283     | 64.472      | 0.1889  |
| 15       | 50       | Unbias              | 62.537     | 63.465      | 0.9283  |

TID vs Post - Pre Exposure Delta

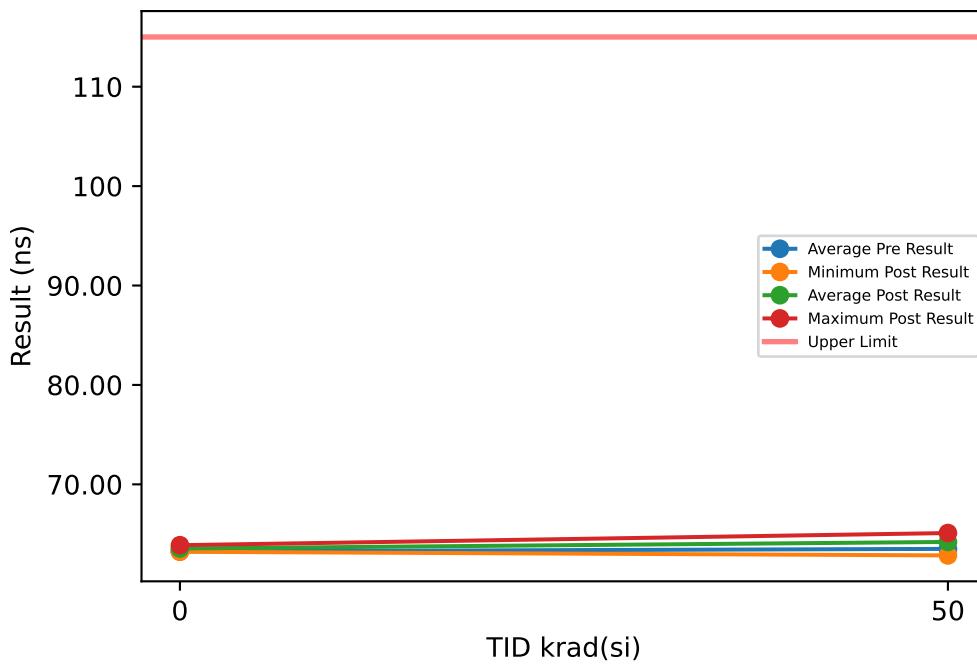


Test Statistics (ns)

| 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        | 63.393           | 63.514           | 63.635           | 0.17098          | 63.585            | 63.621            | 63.657            | 0.050841          | -0.0502   | 0.10665   | 0.2635    | 0.22182   |
| 50       | 62.537           | 63.483           | 64.392           | 0.68146          | 62.721            | 63.945            | 65.394            | 0.8859            | -0.188    | 0.46227   | 1.0473    | 0.47058   |

# Device Test: 28.36 CS\_ILIM\_DELAY(TIMING|DELAY/CS/14/14/0/1000/5/100kHz//@CS\_ILIM\_DELAY)

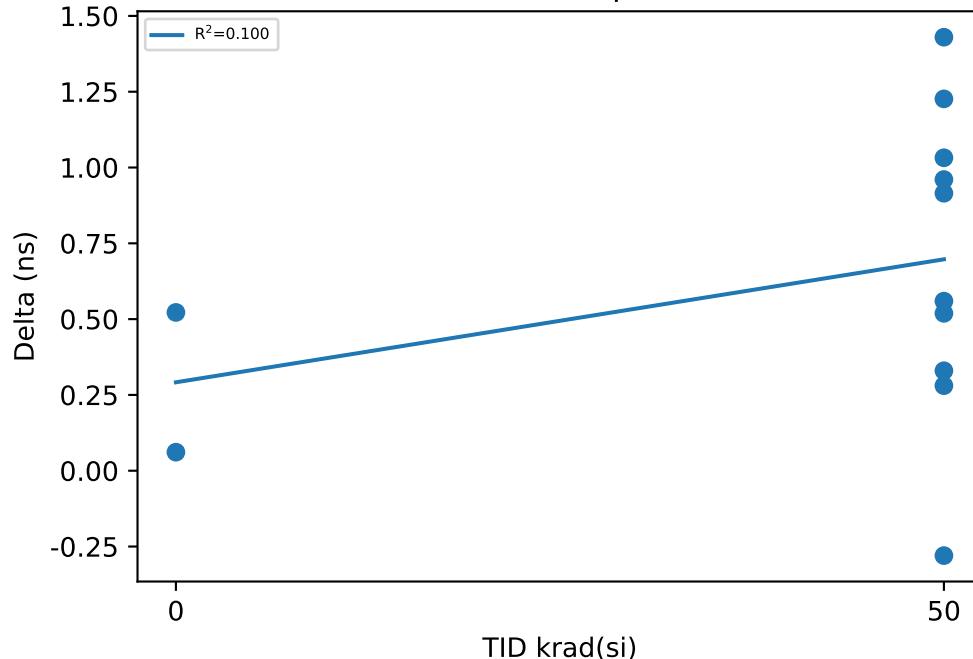
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 63.357     | 63.879      | 0.5221  |
| 2        | 0        | Correlation         | 63.157     | 63.218      | 0.0612  |
| 4        | 50       | Bias                | 63.467     | 64.382      | 0.9151  |
| 6        | 50       | Bias                | 63.909     | 64.469      | 0.5594  |
| 7        | 50       | Bias                | 63.683     | 64.91       | 1.2263  |
| 8        | 50       | Bias                | 64.07      | 65.102      | 1.0321  |
| 9        | 50       | Bias                | 64.738     | 65.019      | 0.2806  |
| 11       | 50       | Unbias              | 63.133     | 62.853      | -0.2799 |
| 12       | 50       | Unbias              | 62.62      | 63.139      | 0.5191  |
| 13       | 50       | Unbias              | 62.04      | 63.47       | 1.4298  |
| 14       | 50       | Unbias              | 64.632     | 64.962      | 0.3298  |
| 15       | 50       | Unbias              | 62.795     | 63.755      | 0.9604  |

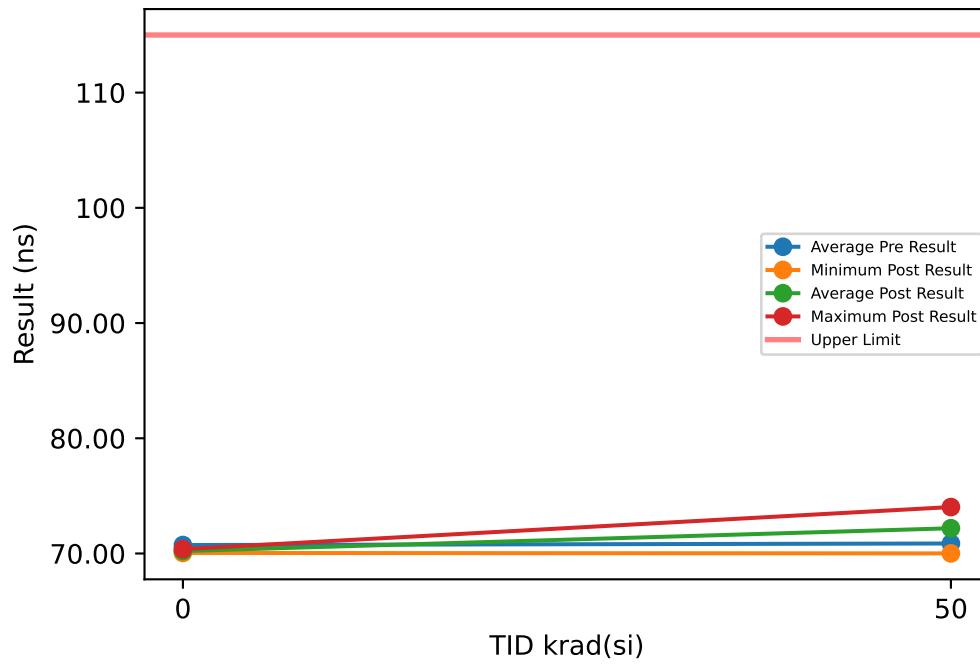
TID vs Post - Pre Exposure Delta



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        | 63.157           | 63.257           | 63.357           | 0.14121          | 63.218            | 63.549            | 63.879            | 0.46711           | 0.0612    | 0.29165   | 0.5221    | 0.32591   |
| 50       | 62.04            | 63.509           | 64.738           | 0.87415          | 62.853            | 64.206            | 65.102            | 0.83949           | -0.2799   | 0.69727   | 1.4298    | 0.51203   |

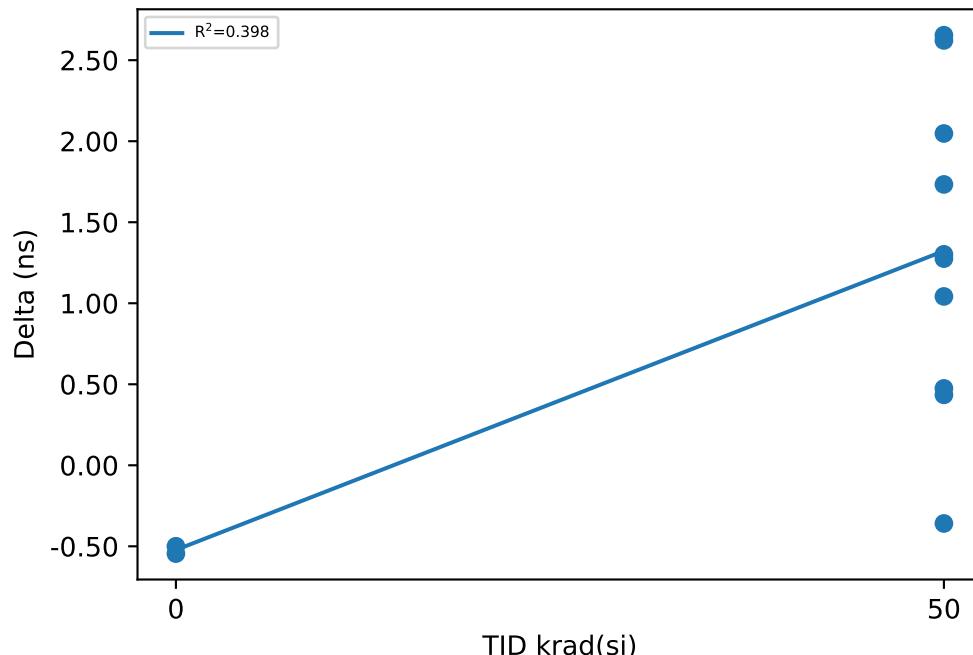
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 70.547     | 70.047      | -0.4998 |
| 2        | 0        | Correlation         | 70.923     | 70.378      | -0.545  |
| 4        | 50       | Bias                | 71.34      | 72.382      | 1.042   |
| 6        | 50       | Bias                | 71.408     | 73.141      | 1.7333  |
| 7        | 50       | Bias                | 70.782     | 73.404      | 2.6218  |
| 8        | 50       | Bias                | 71.024     | 73.678      | 2.6542  |
| 9        | 50       | Bias                | 71.983     | 74.031      | 2.0476  |
| 11       | 50       | Unbias              | 70.368     | 70.009      | -0.359  |
| 12       | 50       | Unbias              | 69.399     | 70.674      | 1.2753  |
| 13       | 50       | Unbias              | 70.633     | 71.107      | 0.4745  |
| 14       | 50       | Unbias              | 71.174     | 72.476      | 1.3019  |
| 15       | 50       | Unbias              | 70.574     | 71.009      | 0.4346  |

TID vs Post - Pre Exposure Delta

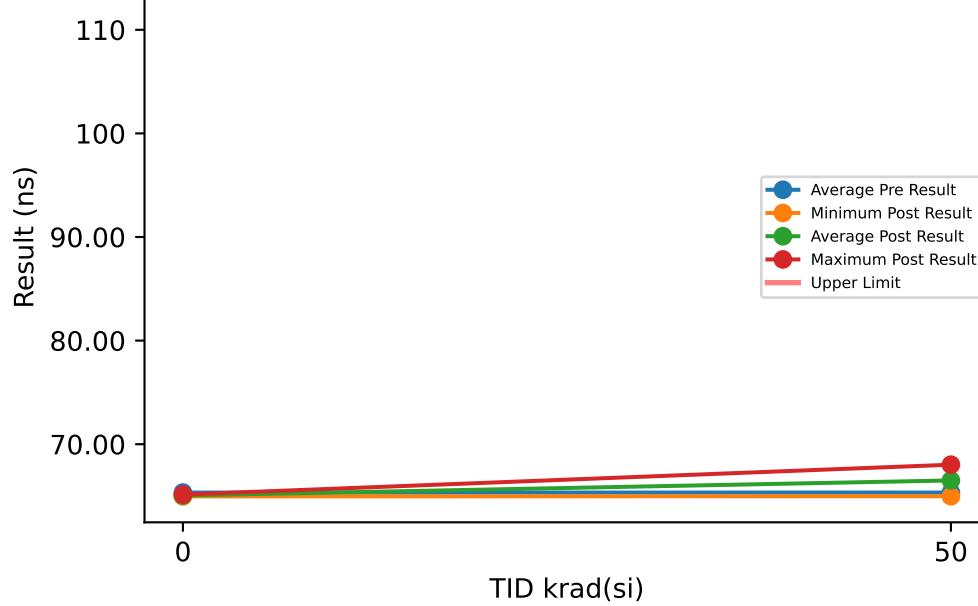


Test Statistics (ns)

| 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        | 70.547           | 70.735           | 70.923           | 0.26615          | 70.047            | 70.213            | 70.378            | 0.23419           | -0.545    | -0.5224   | -0.4998   | 0.031961  |
| 50       | 69.399           | 70.868           | 71.983           | 0.70174          | 70.009            | 72.191            | 74.031            | 1.4032            | -0.359    | 1.3226    | 2.6542    | 0.97595   |

# Device Test: 28.38 CS\_ILIM\_DELAY(TIMING|DELAY/CS/5/5/0/1000/5/500kHz//@CS\_ILIM\_DELAY)

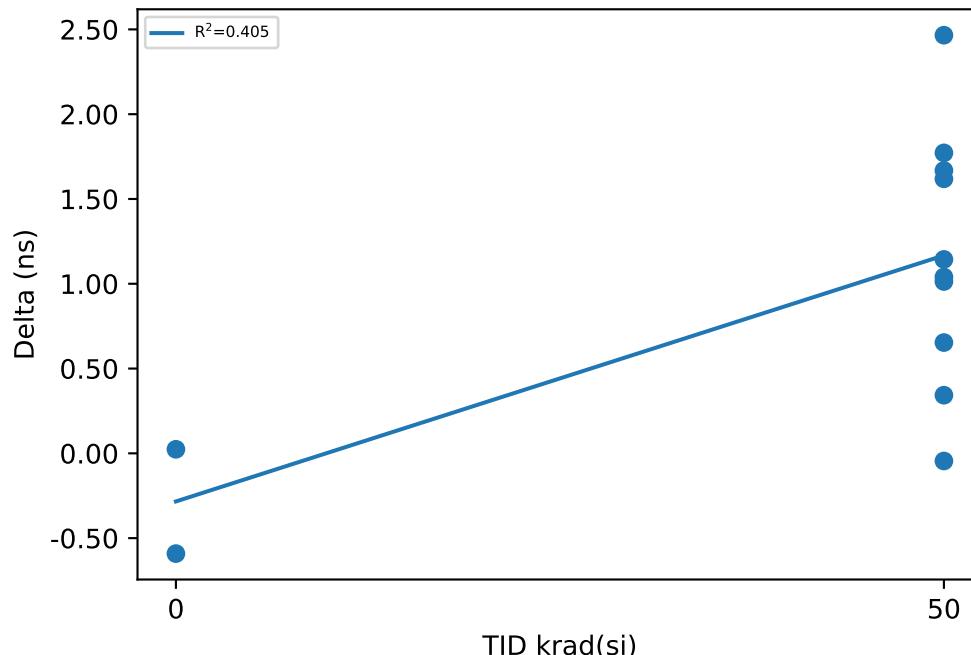
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 65.114     | 65.138      | 0.0239  |
| 2        | 0        | Correlation         | 65.554     | 64.963      | -0.5912 |
| 4        | 50       | Bias                | 65.666     | 66.679      | 1.0134  |
| 6        | 50       | Bias                | 65.029     | 67.494      | 2.4658  |
| 7        | 50       | Bias                | 65.435     | 67.054      | 1.6187  |
| 8        | 50       | Bias                | 66.098     | 67.87       | 1.7718  |
| 9        | 50       | Bias                | 66.354     | 68.022      | 1.668   |
| 11       | 50       | Unbias              | 64.2       | 65.24       | 1.0399  |
| 12       | 50       | Unbias              | 64.598     | 65.251      | 0.6533  |
| 13       | 50       | Unbias              | 64.358     | 65.502      | 1.1436  |
| 14       | 50       | Unbias              | 66.583     | 66.926      | 0.3429  |
| 15       | 50       | Unbias              | 65.025     | 64.98       | -0.045  |

TID vs Post - Pre Exposure Delta

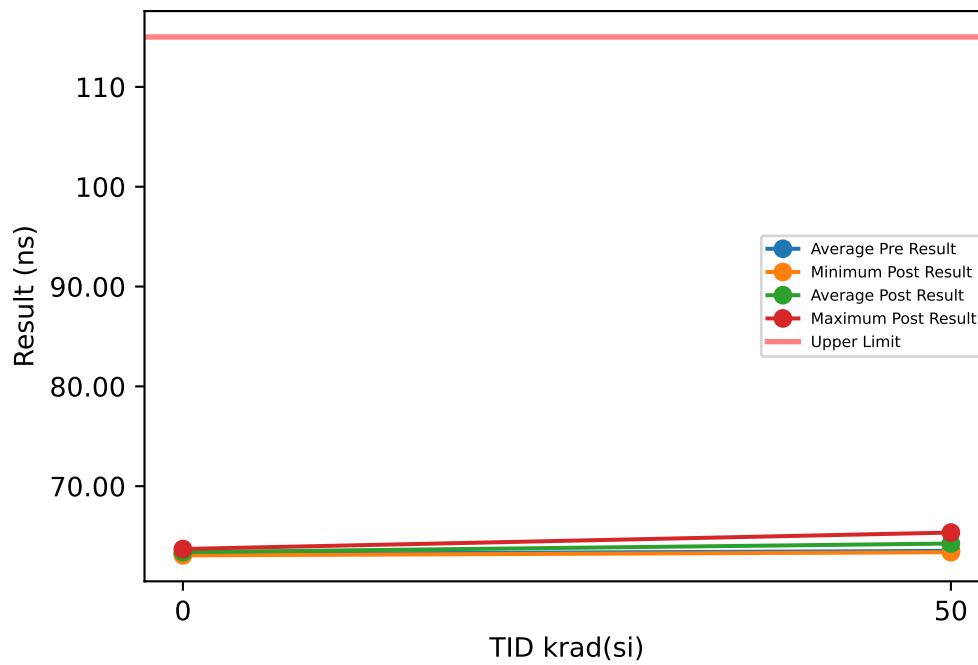


Test Statistics (ns)

| 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        | 65.114           | 65.334           | 65.554           | 0.31099          | 64.963            | 65.051            | 65.138            | 0.12396           | -0.5912   | -0.28365  | 0.0239    | 0.43494   |
| 50       | 64.2             | 65.334           | 66.583           | 0.83504          | 64.98             | 66.502            | 68.022            | 1.1623            | -0.045    | 1.1672    | 2.4658    | 0.74237   |

# Device Test: 28.39 CS\_ILIM\_DELAY(TIMING|DELAY/CS/12/12/0/1000/5/500kHz//@CS\_ILIM\_DELAY)

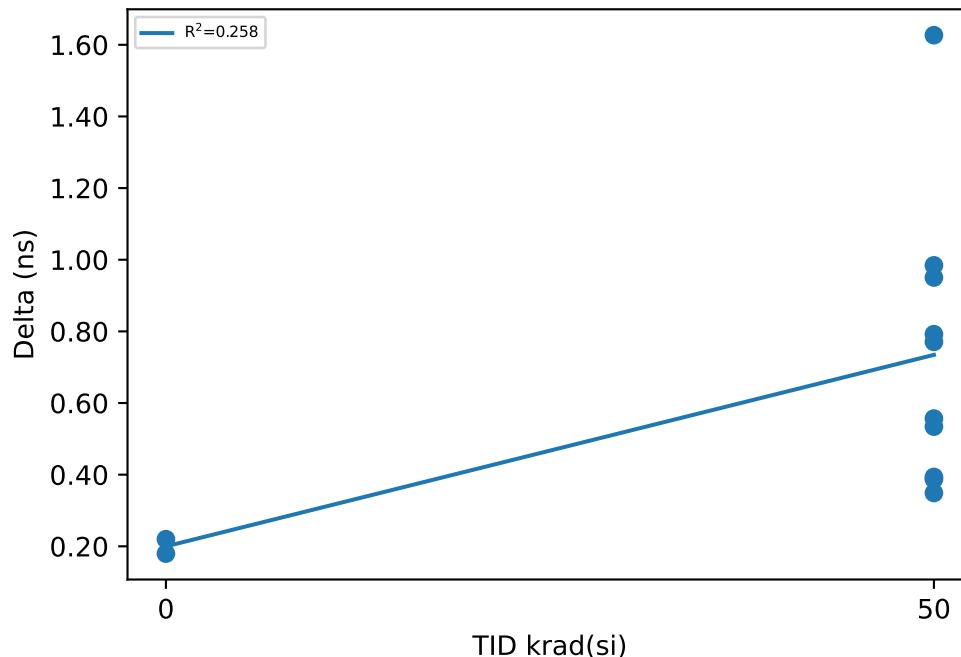
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 63.489     | 63.709      | 0.2199 |
| 2        | 0        | Correlation         | 62.887     | 63.067      | 0.1797 |
| 4        | 50       | Bias                | 63.302     | 64.072      | 0.7708 |
| 6        | 50       | Bias                | 63.95      | 64.506      | 0.5566 |
| 7        | 50       | Bias                | 63.826     | 64.618      | 0.7921 |
| 8        | 50       | Bias                | 63.73      | 65.356      | 1.6268 |
| 9        | 50       | Bias                | 64.343     | 64.737      | 0.3936 |
| 11       | 50       | Unbias              | 62.867     | 63.401      | 0.5342 |
| 12       | 50       | Unbias              | 62.996     | 63.383      | 0.3873 |
| 13       | 50       | Unbias              | 62.728     | 63.712      | 0.9843 |
| 14       | 50       | Unbias              | 64.917     | 65.266      | 0.3489 |
| 15       | 50       | Unbias              | 62.546     | 63.497      | 0.9504 |

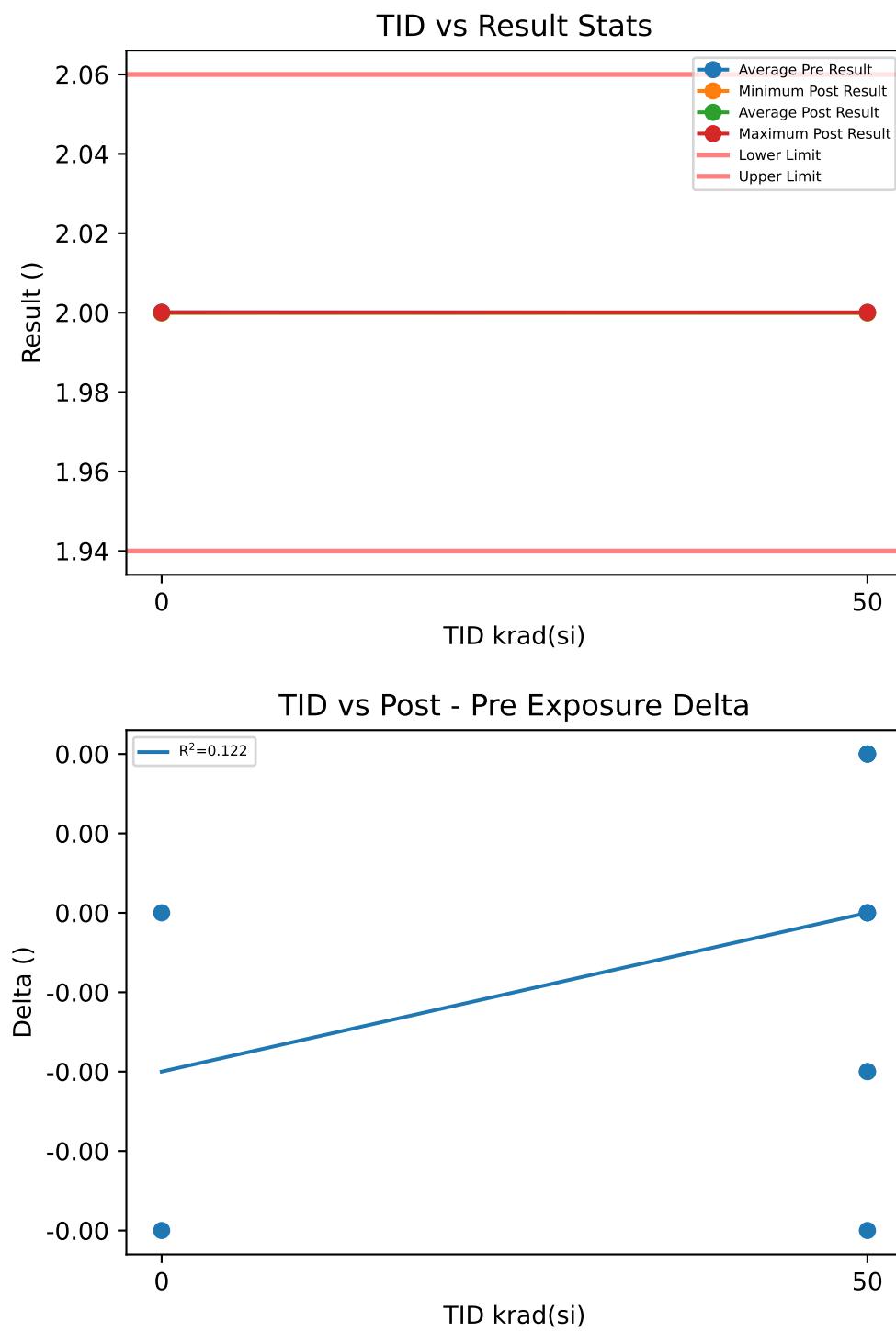
TID vs Post - Pre Exposure Delta



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        | 62.887           | 63.188           | 63.489           | 0.42582          | 63.067            | 63.388            | 63.709            | 0.45425           | 0.1797    | 0.1998    | 0.2199    | 0.028426  |
| 50       | 62.546           | 63.52            | 64.917           | 0.76582          | 63.383            | 64.255            | 65.356            | 0.74956           | 0.3489    | 0.7345    | 1.6268    | 0.38974   |

# Device Test: 28.4 C\_CS\_R(LEVEL|RATIO/CS/14/14/0/0/5/500kHz//@C\_CS\_R)



**Test Results (Lower Limit = 1.94, Upper Limit = 2.06 ())**

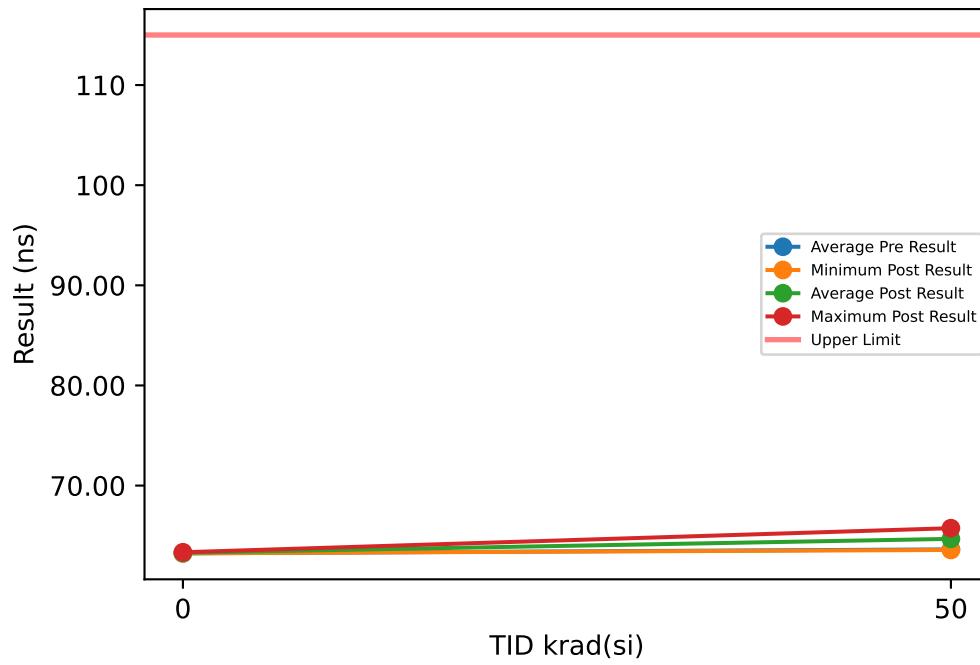
| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 2.0001     | 2.0001      | 0       |
| 2        | 0        | Correlation         | 2.0001     | 1.9999      | -0.0002 |
| 4        | 50       | Bias                | 1.9999     | 2           | 0.0001  |
| 6        | 50       | Bias                | 2          | 2           | 0       |
| 7        | 50       | Bias                | 2.0001     | 2.0001      | 0       |
| 8        | 50       | Bias                | 2          | 2.0001      | 0.0001  |
| 9        | 50       | Bias                | 1.9999     | 2           | 0.0001  |
| 11       | 50       | Unbias              | 2.0001     | 2           | -0.0001 |
| 12       | 50       | Unbias              | 2.0001     | 2           | -0.0001 |
| 13       | 50       | Unbias              | 2          | 2           | 0       |
| 14       | 50       | Unbias              | 1.9999     | 2           | 0.0001  |
| 15       | 50       | Unbias              | 2.0001     | 1.9999      | -0.0002 |

**Test Statistics ()**

| krad(si) | Pre Exposure Min | Pre Exposure Avg | Pre Exposure Max | Pre Exposure Std | Post Exposure Min | Post Exposure Avg | Post Exposure Max | Post Exposure Std | Min Delta | Avg Delta   | Max Delta | Std Delta  |
|----------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------|-------------|-----------|------------|
| 0        | 2.0001           | 2.0001           | 2.0001           | 0                | 1.9999            | 2                 | 2.0001            | 0.00014142        | -0.0002   | -0.0001     | 0         | 0.00014142 |
| 50       | 1.9999           | 2                | 2.0001           | 8.756e-05        | 1.9999            | 2                 | 2.0001            | 5.6765e-05        | -0.0002   | -4.4409e-17 | 0.0001    | 0.00010541 |

# Device Test: 28.40 CS\_ILIM\_DELAY(TIMING|DELAY/CS/14/14/0/1000/5/500kHz//@CS\_ILIM\_DELAY)

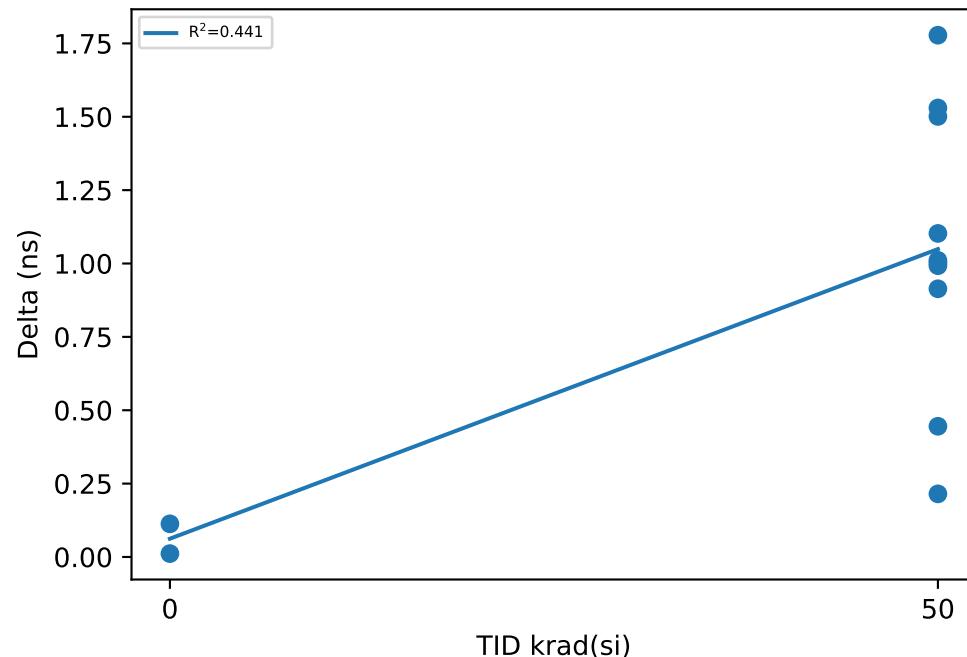
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 63.126     | 63.239      | 0.1129 |
| 2        | 0        | Correlation         | 63.329     | 63.34       | 0.0115 |
| 4        | 50       | Bias                | 63.458     | 64.46       | 1.002  |
| 6        | 50       | Bias                | 63.261     | 64.762      | 1.5012 |
| 7        | 50       | Bias                | 64.566     | 65.558      | 0.9926 |
| 8        | 50       | Bias                | 64.156     | 65.686      | 1.53   |
| 9        | 50       | Bias                | 63.967     | 65.745      | 1.778  |
| 11       | 50       | Unbias              | 62.466     | 63.569      | 1.1025 |
| 12       | 50       | Unbias              | 62.621     | 63.632      | 1.0109 |
| 13       | 50       | Unbias              | 63.047     | 63.961      | 0.9139 |
| 14       | 50       | Unbias              | 65.182     | 65.628      | 0.4454 |
| 15       | 50       | Unbias              | 63.558     | 63.773      | 0.215  |

TID vs Post - Pre Exposure Delta

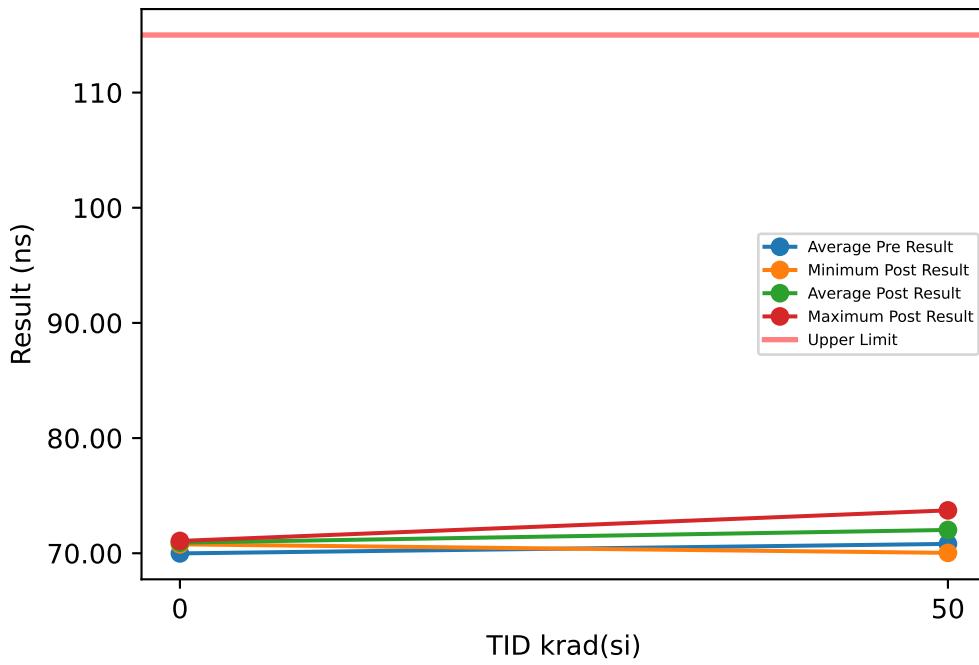


Test Statistics (ns)

| 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        | 63.126           | 63.227           | 63.329           | 0.14361          | 63.239            | 63.289            | 63.34             | 0.071913          | 0.0115    | 0.0622    | 0.1129    | 0.071701  |
| 50       | 62.466           | 63.628           | 65.182           | 0.85364          | 63.569            | 64.677            | 65.745            | 0.91561           | 0.215     | 1.0492    | 1.778     | 0.47786   |

# Device Test: 28.41 CS\_ILIM\_DELAY(TIMING|DELAY/CS/4.5/4.5/0/1000/4.5/1MHz//@CS\_ILIM\_DELAY)

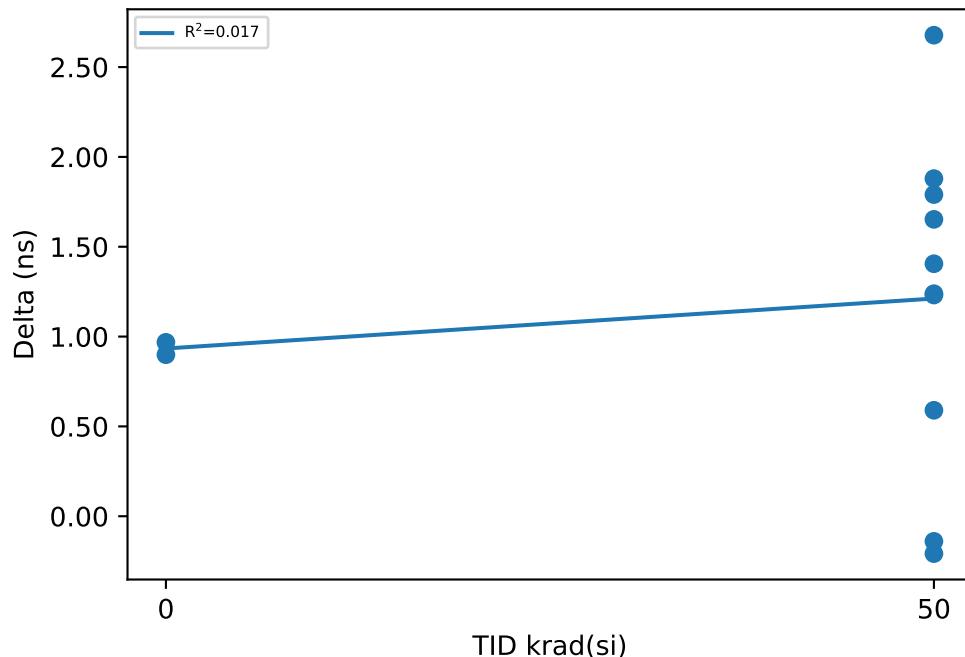
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 69.806     | 70.774      | 0.968   |
| 2        | 0        | Correlation         | 70.169     | 71.068      | 0.8991  |
| 4        | 50       | Bias                | 71.296     | 73.175      | 1.8792  |
| 6        | 50       | Bias                | 70.711     | 72.364      | 1.6524  |
| 7        | 50       | Bias                | 71.553     | 72.791      | 1.2387  |
| 8        | 50       | Bias                | 71.026     | 73.703      | 2.6775  |
| 9        | 50       | Bias                | 71.932     | 73.723      | 1.7905  |
| 11       | 50       | Unbias              | 69.501     | 70.732      | 1.2313  |
| 12       | 50       | Unbias              | 69.445     | 70.034      | 0.5897  |
| 13       | 50       | Unbias              | 69.953     | 71.358      | 1.4054  |
| 14       | 50       | Unbias              | 72.088     | 71.948      | -0.1398 |
| 15       | 50       | Unbias              | 70.614     | 70.406      | -0.208  |

TID vs Post - Pre Exposure Delta

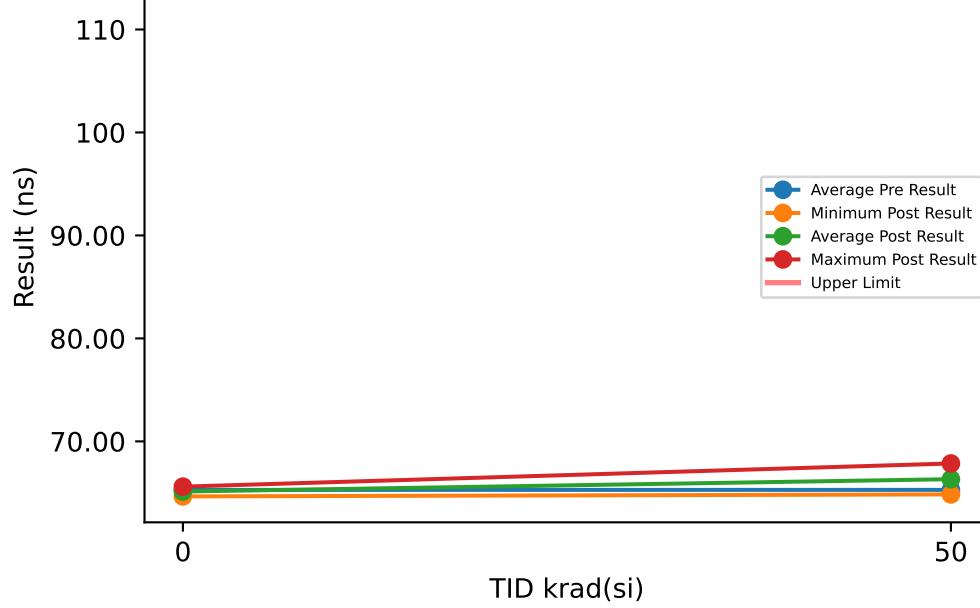


Test Statistics (ns)

| 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        | 69.806           | 69.988           | 70.169           | 0.25661          | 70.774            | 70.921            | 71.068            | 0.20789           | 0.8991    | 0.93355   | 0.968     | 0.04872   |
| 50       | 69.445           | 70.812           | 72.088           | 0.94794          | 70.034            | 72.024            | 73.723            | 1.351             | -0.208    | 1.2117    | 2.6775    | 0.90621   |

# Device Test: 28.42 CS\_ILIM\_DELAY(TIMING|DELAY/CS/5/5/0/1000/5/1MHz//@CS\_ILIM\_DELAY)

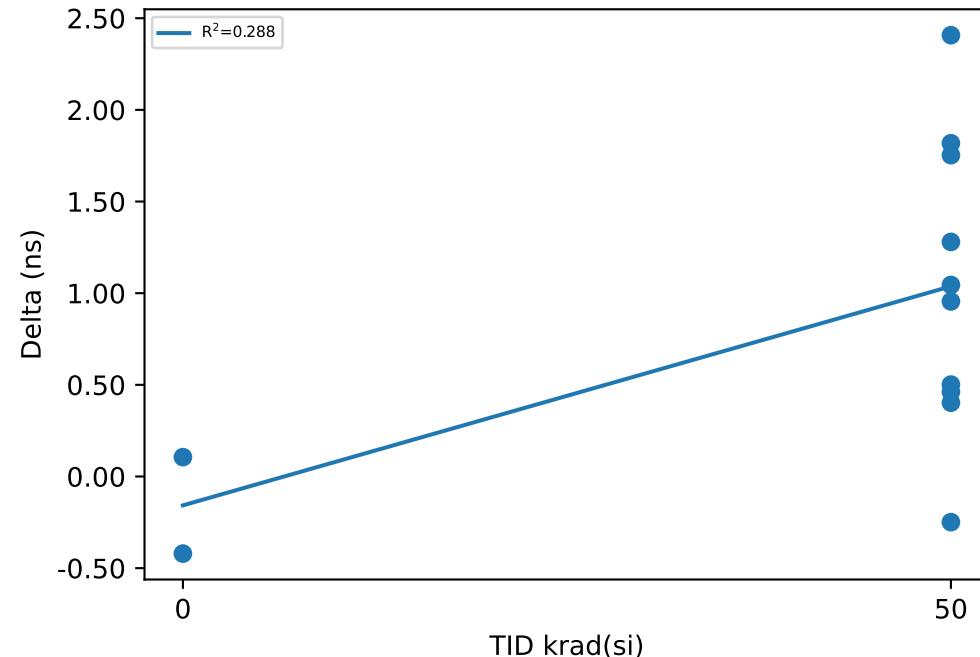
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 65.078     | 64.657      | -0.4206 |
| 2        | 0        | Correlation         | 65.498     | 65.604      | 0.1056  |
| 4        | 50       | Bias                | 65.01      | 67.417      | 2.4074  |
| 6        | 50       | Bias                | 65.778     | 66.733      | 0.955   |
| 7        | 50       | Bias                | 66.036     | 67.854      | 1.8179  |
| 8        | 50       | Bias                | 65.41      | 67.163      | 1.753   |
| 9        | 50       | Bias                | 66.286     | 67.566      | 1.2797  |
| 11       | 50       | Unbias              | 64.905     | 65.366      | 0.4613  |
| 12       | 50       | Unbias              | 64.146     | 65.191      | 1.0449  |
| 13       | 50       | Unbias              | 64.483     | 64.885      | 0.4026  |
| 14       | 50       | Unbias              | 66.505     | 66.256      | -0.2491 |
| 15       | 50       | Unbias              | 64.349     | 64.85       | 0.5015  |

TID vs Post - Pre Exposure Delta

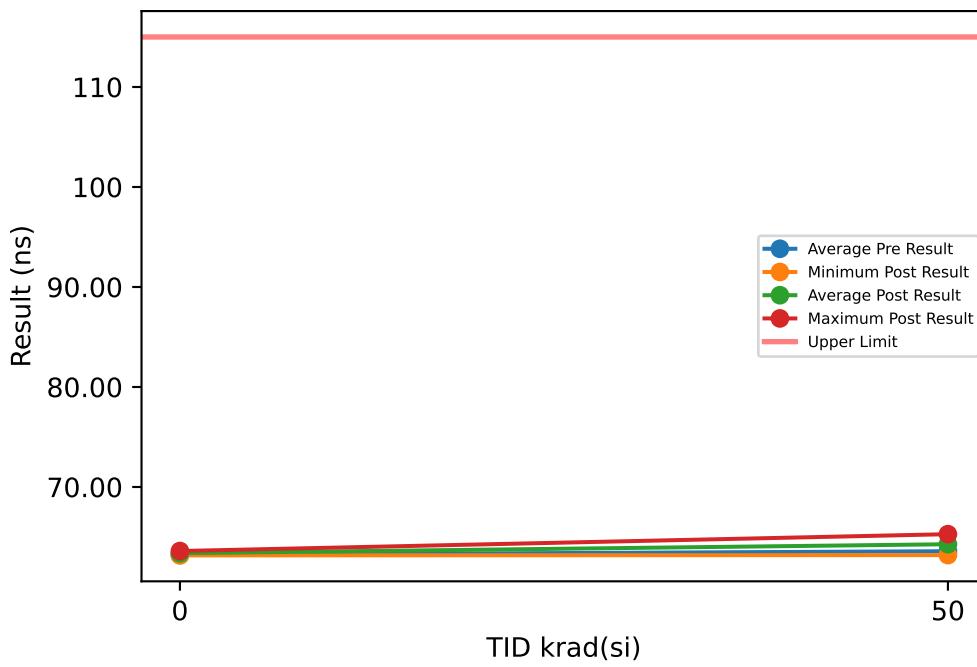


Test Statistics (ns)

| 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        | 65.078           | 65.288           | 65.498           | 0.29713          | 64.657            | 65.13             | 65.604            | 0.66921           | -0.4206   | -0.1575   | 0.1056    | 0.37208   |
| 50       | 64.146           | 65.291           | 66.505           | 0.84012          | 64.85             | 66.328            | 67.854            | 1.1737            | -0.2491   | 1.0374    | 2.4074    | 0.79867   |

# Device Test: 28.43 CS\_ILIM\_DELAY(TIMING|DELAY/CS/12/12/0/1000/5/1MHz//@CS\_ILIM\_DELAY)

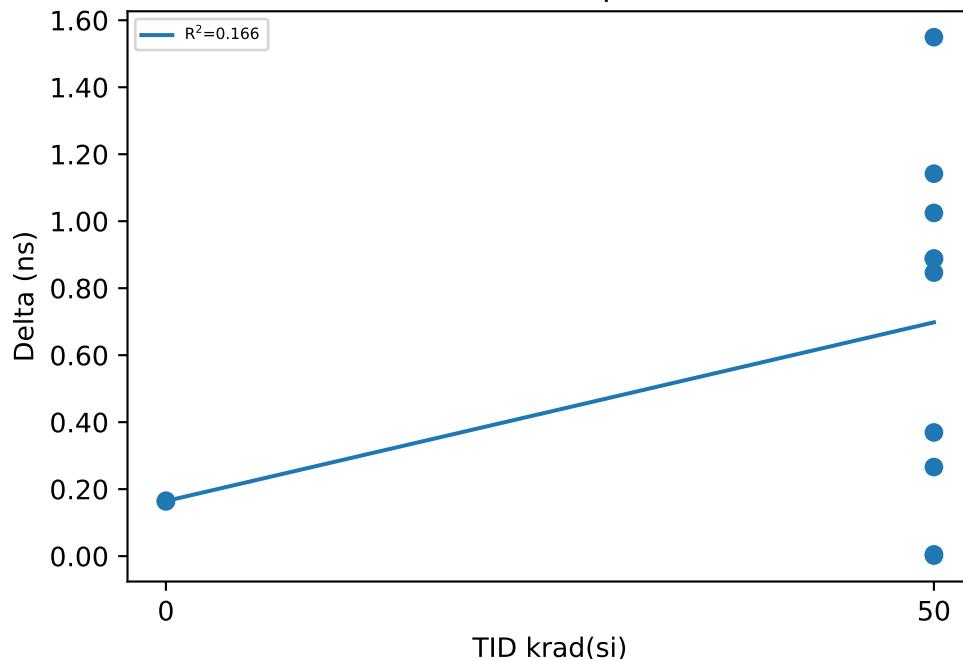
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta  |
|----------|----------|---------------------|------------|-------------|--------|
| 1        | 0        | Correlation         | 63.434     | 63.597      | 0.1634 |
| 2        | 0        | Correlation         | 62.994     | 63.16       | 0.1654 |
| 4        | 50       | Bias                | 64.019     | 64.024      | 0.0053 |
| 6        | 50       | Bias                | 62.945     | 63.833      | 0.8883 |
| 7        | 50       | Bias                | 63.695     | 65.244      | 1.5494 |
| 8        | 50       | Bias                | 64.354     | 65.242      | 0.8881 |
| 9        | 50       | Bias                | 64.435     | 65.281      | 0.8465 |
| 11       | 50       | Unbias              | 62.165     | 63.189      | 1.0247 |
| 12       | 50       | Unbias              | 62.298     | 63.44       | 1.1419 |
| 13       | 50       | Unbias              | 63.516     | 63.782      | 0.266  |
| 14       | 50       | Unbias              | 65.179     | 65.181      | 0.0016 |
| 15       | 50       | Unbias              | 63.166     | 63.535      | 0.3693 |

TID vs Post - Pre Exposure Delta

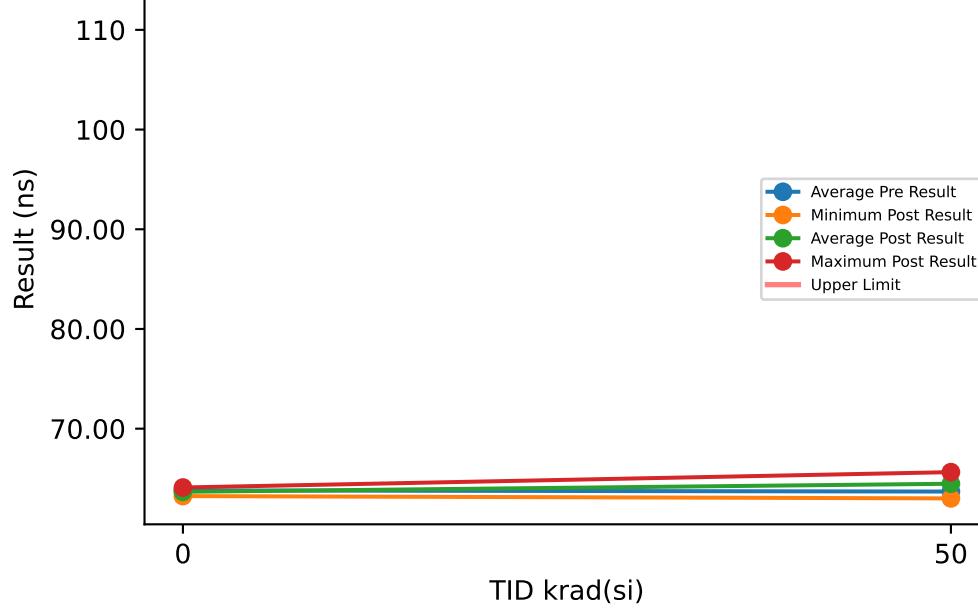


Test Statistics (ns)

| 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        | 62.994           | 63.214           | 63.434           | 0.31091          | 63.16             | 63.378            | 63.597            | 0.3095            | 0.1634    | 0.1644    | 0.1654    | 0.0014142 |
| 50       | 62.165           | 63.577           | 65.179           | 0.96145          | 63.189            | 64.275            | 65.281            | 0.85847           | 0.0016    | 0.69811   | 1.5494    | 0.51452   |

# Device Test: 28.44 CS\_ILIM\_DELAY(TIMING|DELAY/CS/14/14/0/1000/5/1MHz//@CS\_ILIM\_DELAY)

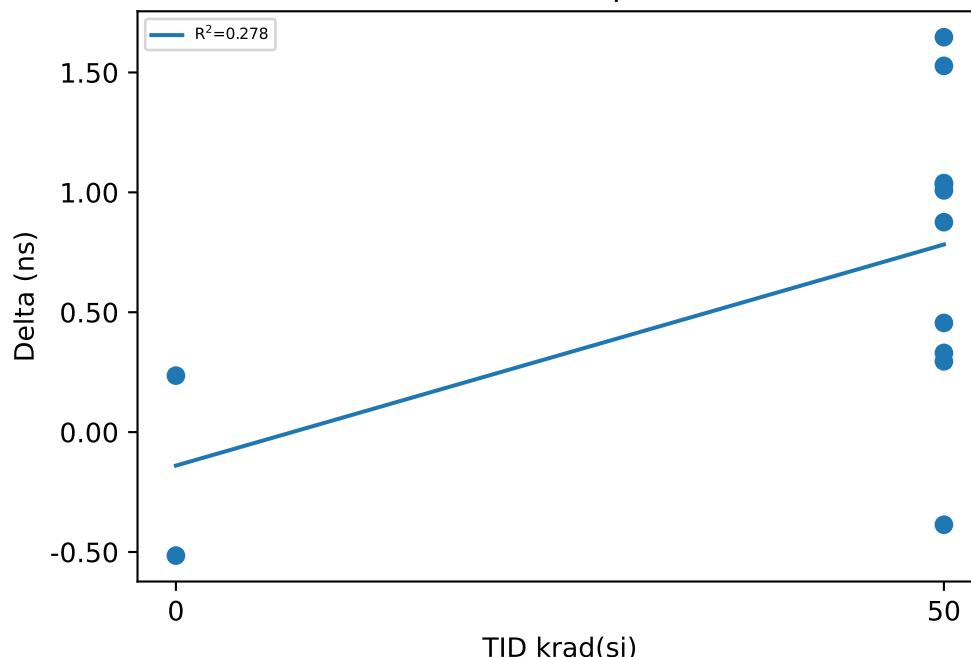
TID vs Result Stats



Test Results (Upper Limit = 115.0 (ns))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 63.754     | 63.239      | -0.515  |
| 2        | 0        | Correlation         | 63.864     | 64.099      | 0.2356  |
| 4        | 50       | Bias                | 63.508     | 64.383      | 0.8756  |
| 6        | 50       | Bias                | 63.28      | 64.808      | 1.5275  |
| 7        | 50       | Bias                | 63.978     | 65.016      | 1.0387  |
| 8        | 50       | Bias                | 64.534     | 64.99       | 0.4553  |
| 9        | 50       | Bias                | 63.993     | 65.641      | 1.6471  |
| 11       | 50       | Unbias              | 62.534     | 63.542      | 1.0083  |
| 12       | 50       | Unbias              | 63.393     | 63.007      | -0.3862 |
| 13       | 50       | Unbias              | 63.04      | 64.073      | 1.0327  |
| 14       | 50       | Unbias              | 65.224     | 65.554      | 0.3304  |
| 15       | 50       | Unbias              | 63.447     | 63.743      | 0.2953  |

TID vs Post - Pre Exposure Delta

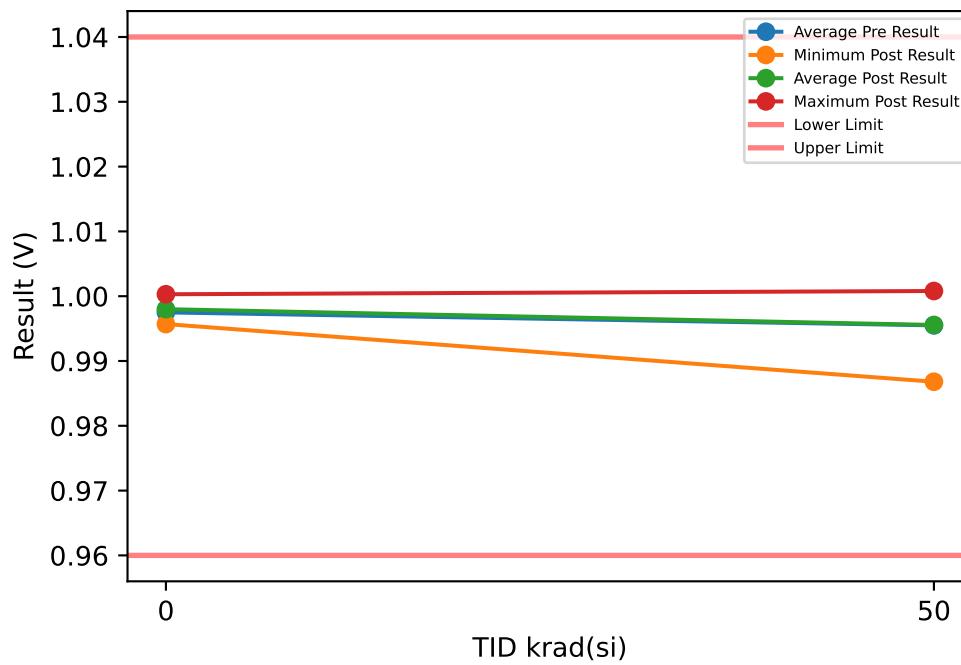


Test Statistics (ns)

| 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        | 63.754           | 63.809           | 63.864           | 0.077852         | 63.239            | 63.669            | 64.099            | 0.60861           | -0.515    | -0.1397   | 0.2356    | 0.53075   |
| 50       | 62.534           | 63.693           | 65.224           | 0.77084          | 63.007            | 64.476            | 65.641            | 0.87712           | -0.3862   | 0.78247   | 1.6471    | 0.6151    |

# Device Test: 28.9 V\_CS\_ILIM\_OC(VOLTAGE|OC/CS/4.5/4.5/0/0/4.5/100kHz//@V\_CS\_ILIM\_OC)

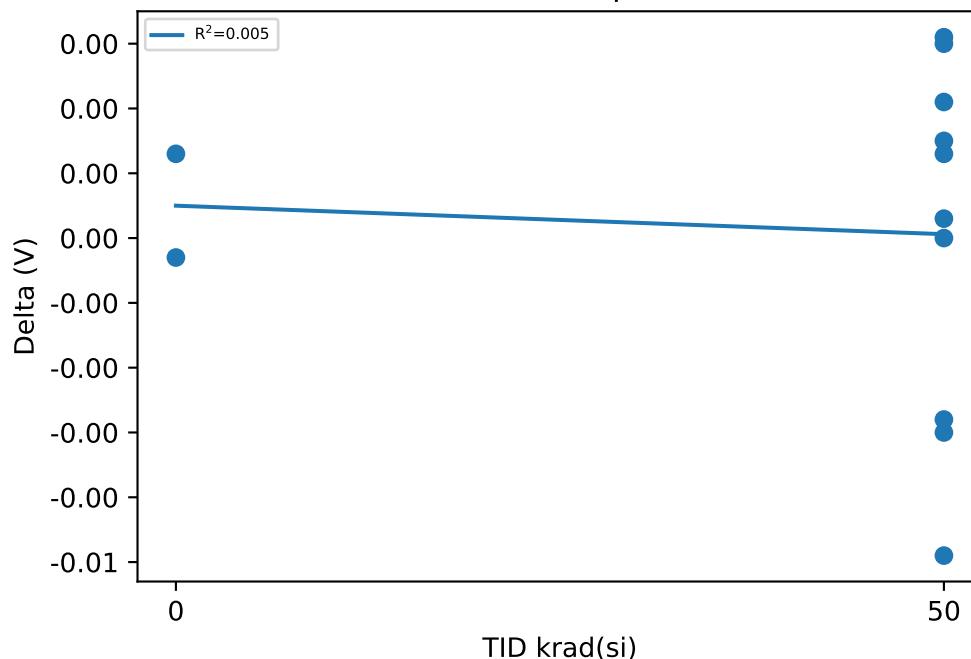
TID vs Result Stats



Test Results (Lower Limit = 0.96, Upper Limit = 1.04 (V))

| Serial # | krad(si) | Exposure Conditions | Pre Result | Post Result | Delta   |
|----------|----------|---------------------|------------|-------------|---------|
| 1        | 0        | Correlation         | 0.9944     | 0.9957      | 0.0013  |
| 2        | 0        | Correlation         | 1.0006     | 1.0003      | -0.0003 |
| 4        | 50       | Bias                | 0.9917     | 0.9868      | -0.0049 |
| 6        | 50       | Bias                | 0.9917     | 0.9932      | 0.0015  |
| 7        | 50       | Bias                | 0.996      | 0.9991      | 0.0031  |
| 8        | 50       | Bias                | 0.9958     | 0.9988      | 0.003   |
| 9        | 50       | Bias                | 0.9976     | 0.9989      | 0.0013  |
| 11       | 50       | Unbias              | 0.9927     | 0.9897      | -0.003  |
| 12       | 50       | Unbias              | 0.993      | 0.993       | 0       |
| 13       | 50       | Unbias              | 0.9927     | 0.9948      | 0.0021  |
| 14       | 50       | Unbias              | 1.0033     | 1.0005      | -0.0028 |
| 15       | 50       | Unbias              | 1.0005     | 1.0008      | 0.0003  |

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        | 0.9944           | 0.9975           | 1.0006           | 0.0043841        | 0.9957            | 0.998             | 1.0003            | 0.0032527         | -0.0003   | 0.0005    | 0.0013    | 0.0011314 |
| 50       | 0.9917           | 0.9955           | 1.0033           | 0.0039637        | 0.9868            | 0.99556           | 1.0008            | 0.0048284         | -0.0049   | 6e-05     | 0.0031    | 0.002746  |

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