# TOTAL DOSE RADIATION TEST REPORT

**ESA study: "Survey of Critical Components for 150 kRad Power Systems"**

**ESTEC Contract N° 22831/09/NL/AF refers**

**Contract extension up to 400 kRad as per CCN: ATGSP-CN-0004 IS. 3**

## Final Report

**Part Type : RHF43BK-01V**

**Package : FP-08**

**Description : Precision Bipolar Single Operational Amplifier Radiation Hardened**

**Manufacturer : STMicroelectronics**

**Alter Technology Purchase Order N° ATGSP-TL-09-JC-CO-9 dated 11/27/2009**

**Alter Technology Project Manager: David NUNEZ**

| | | | | |
|---|---|---|---|---|
| **Hirex reference :** | HRX/TID/1022 | Issue : 01 | Date : | January 24th, 2012 |
| **Written by :** | G.COUPEZ | Test Lab Support Technician | | |
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| **Authorized by:** | J.F. PASCAL | Technical Director | | |

## CHANGE RECORD

| ISSUE | DATE | PAGE | DESCRIPTION OF CHANGES |
|---|---|---|---|
| 01 | January 24th, 2012 | All | Original Issue |

# TOTAL DOSE RADIATION TEST REPORT
# on
# STMicroelectronics
# RHF43BK-01V
# Precision Bipolar Single Operational Amplifier Radiation Hardened

## TABLE OF CONTENTS



**LIST OF FIGURES:**



**LIST OF TABLES:**

# 1 Introduction

In the scope of the ESA study: “Survey of Critical Components for 150 kRad Power Systems”, a total dose characterization test of the STMicroelectronics RHF43BK-01V, Precision Bipolar Single Operational Amplifier Radiation Hardened has been performed with an accumulated dose of about 442Krad(Si) at different dose rates of 36,100 & 300 rad(Si)/hour, in response to Alter Technology purchase order reference ATGSP-TL-09-JC-CO-9.

An Interim report, HRX/TID/0939 Issue 01, corresponding to the irradiation up to 163 Krad(Si) steps has been provided.

The purpose of this test was to evaluate total dose withstanding of this component, to investigate its suitability for being used in space applications. This test was conducted on samples provided by Alter Technology.
Test has been performed in accordance with Hirex Engineering Radiation Test Plan HRX/SPE/0241 issue 2 dated 09/13/2010.

A complete set of electrical measurements together with graphical representation of measured parameters with respect to total dose received, are provided for all samples.

# 2 Applicable and Reference Documents

## 2.1 Applicable Documents

- Hirex Engineering Radiation Test Plan: HRX/SPE/0241 issue 2 dated 09/13/2010
- Alter Technology Proposal: ATGSP-OF-648/2009 Issue 1
- Minutes of Meeting: MM-SRP-ATG-0001 dated 29/10/2009
- Hirex internal specification: Total Ionizing dose test general procedure.
- SMD detail specification: 5962F06237

## 2.2 Reference Documents

- STMicroelectronics datasheet

# 3 Test Samples

13 samples of the RHF43BK-01V device were tested (6 ON + 6 OFF + 1 control sample).

12 samples (including the 6 samples already submitted to protons test: see report HRX/TID/0938) have been biased according to the flow diagram given in Figure 1.

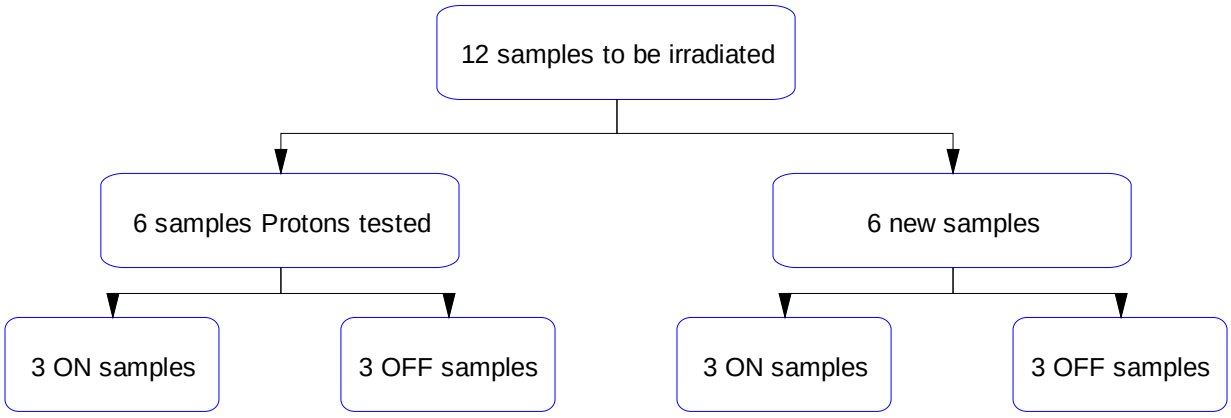



**Figure 1 : Samples bias flow diagram**

Samples were allocated into the bias conditions during exposures and annealing as provided in the following table. The different samples groups are also identified for an easier plots reading.

| SN attributed by Hirex | Date Code | Samples Allocation | Samples Group Naming |
|---|---|---|---|
| 255 | 0810A | Control sample | REF |
| 275 | 0810B | Biased ON | ON_PROTON |
| 276 | 0810B | Biased ON | ON_PROTON |
| 277 | 0810B | Biased ON | ON_PROTON |
| 279 | 0810B | Biased OFF | OFF_PROTON |
| 280 | 0810B | Biased OFF | OFF_PROTON |
| 281 | 0810B | Biased ON | ON_TID |
| 282 | 0810B | Biased ON | ON_TID |
| 283 | 0810B | Biased ON | ON_TID |
| 284 | 0810B | Biased OFF | OFF_TID |
| 285 | 0810B | Biased OFF | OFF_TID |
| 286 | 0810B | Biased OFF | OFF_TID |
| 290 | 0810B | Biased OFF | OFF_PROTON |

Identification of the RHF43BK-01V is given below:

**Part Type:** RHF43BK-01V

**Part Number:** 5962F0623701VXC

**Top Marking:** logo 0810A F0623701 VXC Q FR & logo 0810B F0623701 VXC Q FR

**Bottom Marking:** -

**Date Code:** 0810

# 4 Experimental Conditions

## 4.1 Radiation Source Dose Rate and Annealing

The dose exposures were performed at UCL in Louvain (Belgium). In this irradiation facility, a Cobalt 60 source is used with the possibility to vary the dose rate by simply adjusting the distance to the source.
During the dose exposures, devices under test have been irradiated in an ambient temperature of 24°C ±6°C.
The dose received by the devices has been controlled by the measurement of one Alanine pellet dosimeter placed onto the bias board.
Resulting test conditions are provided below.

| Irradiation Steps requested | Pellet dosimetry data | Dose rate | Annealing steps | Temperature |
|---|---|---|---|---|
| kRad | kRad | Rad/h | Hours | °C |
| 0 | 0 | | | |
| 10 | 8.1 | 36 | | Room |
| 20 | 22.5 | 36 | | Room |
| 50 | 53.1 | 36 | | Room |
| 100 | 108.9 | 36 | | Room |
| 150 | 162.9 | 100 [1] | | Room |
| 200 | 198 | 300 [1] | | Room |
| 250 | 238.5 | 300 [1] | | Room |
| 300 | 279.9 | 300 [1] | | Room |
| 350 | 351 | 300 [1] | | Room |
| 400 | 442.8 | 300 [1] | | Room |
| | | | 24 | Room |
| | | | 168 | 100 |

Note [1]: Due to the maintenance period planned at UCL at the end of December and in order to perform subsequent requested exposures steps up to 400 Krad(Si), the dose rates of several steps have been changed, in agreement with ESA, from 36 rad(Si)/h to 100 rad(Si)/h and from 100 rad(Si)/h to 300 rad(Si)/h as indicated.

## 4.2 Bias during Dose Exposures and Measurements conditions

### 4.2.1 Bias conditions

During exposures test board allowed to bias 6 samples in accordance with the electrical circuit provided in Figure 2.
6 other samples were biased OFF with all pins connected to ground.

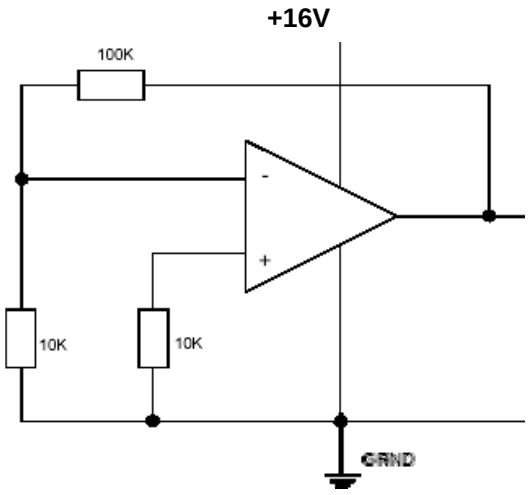



**Figure 2 : Bias ON Conditions during Irradiation Exposures**

4.2.2 Electrical Measurements

Electrical parameters test program principle for RHF43BK-01V is provided in Figure 3.

A HP4142 DC tester was used to perform required measurements

A dedicated test fixture was designed to ensure proper measurement conditions. In addition a faraday cage was used to ensure optimum conditions for low level measurements.

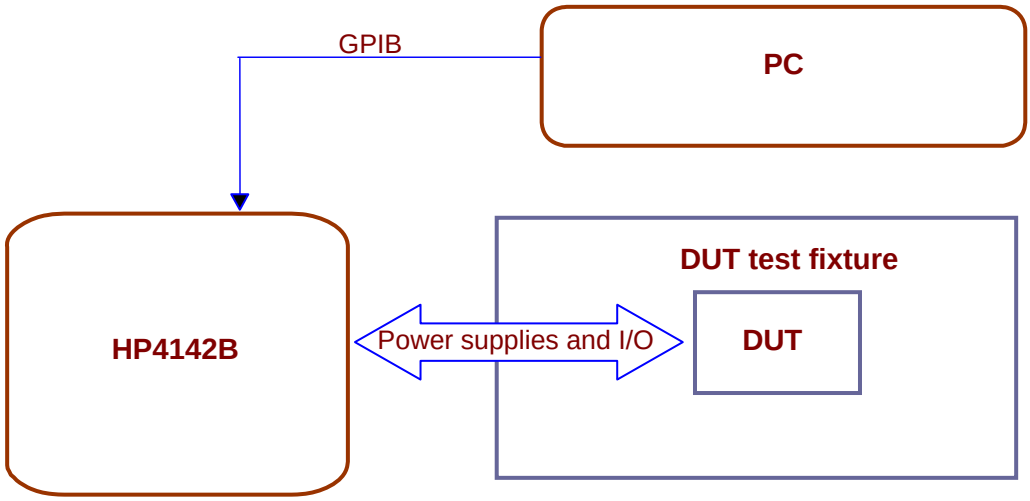



**Figure 3 : RHF43BK-01V test program principle**

Electrical parameters test conditions and limits used for performing this test are given in Table 1.

| Parameter | Description | Conditions | Spec | | Unit |
|---|---|---|---|---|---|
| | | | Min | Max | |
| VIO | Input Offset Voltage | +Vcc=+1.5V, Vdd=-1.5V, VICM=0 | -300 | 300 | µV |
| | | +Vcc=+8V, Vdd=-8V, VICM=0 | -300 | 300 | µV |
| IIO | Input Offset Current | +Vcc=+2V, Vdd=-2V, VICM=0 | -15 | 15 | nA |
| IIB+ | Input Bias Current | +Vcc=+2V, Vdd=-2V, VICM=0 | -60 | 60 | nA |
| | | +Vcc=+8V, Vdd=-8V, VICM=0 | -60 | 60 | nA |
| IIB- | Input Bias Current | +Vcc=+2V, Vdd=-2V, VICM=0 | -60 | 60 | nA |
| | | +Vcc=+8V, Vdd=-8V, VICM=0 | -60 | 60 | nA |
| SVR | Supply Rejection Ratio | +3V < +Vcc < 16V | 90 | - | dB |
| CMRR | Common Mode Rejection Ratio | Vdd<VICM<Vcc<br>Vcc=+1.5V, Vdd=-1.5V | 72 | - | dB |
| | | Vdd<VICM<Vcc<br>Vcc=+8V, Vdd=-8V | 72 | - | dB |
| ICC | Power Supply Current | +Vcc=+1.5V, VICM=0 | - | 2.6 | mA |
| | | Vdd=-1.5V, VICM=0 | -2.6 | 0 | mA |
| | | +Vcc=+8V, VICM=0 | - | 2.9 | mA |
| | | Vdd=-8V, VICM=0 | -2.9 | - | mA |
| AVD | Voltage Gain | +Vcc=+1.5V, Vdd=-1.5V, VICM=0V,<br>RL=1K, Vdd+0.5<Vout<Vcc-0.5 | 74 | - | dB |
| | | +Vcc=+8V, Vdd=-8V, VICM=0V,<br>RL=1K, Vdd+0.5<Vout<Vcc-0.5 | 74 | - | dB |

**Table 1 : Measured electrical parameters**

# 5 Conclusion

A Total Ionizing Dose verification test was carried out by Hirex Engineering under Alter Technology contract on the STMicroelectronics RHF43BK-01V Precision Bipolar Single Operational Amplifier Radiation Hardened in FP-08 package.

12 samples plus one control sample were used during testing. They were exposed to radiation using different dose rates of 36, 100 & 300 rad(Si)/hour at room temperature.

A summary of failed parameters is provided in the following table. The behavior of each parameter is recorded for both biased On and biased Off samples of each group.
Parameters not listed remained within specification limits all along testing.
Detail test results are presented in next section.

| Parameters | Failure Level between : | | Annealing Recovery [Note 1] | | | | | Comments |
|---|---|---|---|---|---|---|---|---|
| | | | NA | No | Partial | Complete | Rebound | |
| IIB1PL_IIB1+ | ON_PROTON samples | 108.9 & 162.9 kRad(Si) | | | | X | | |
| | ON_TID samples | 108.9 & 162.9 kRad(Si) | | | | X | | |
| | OFF_PROTON samples | No Failure | X | | | | | |
| | OFF_TID samples | No Failure | X | | | | | |
| IIB2PL_IIB2+ | ON_PROTON samples | 108.9 & 162.9 kRad(Si) | | | | X | | |
| | ON_TID samples | 108.9 & 162.9 kRad(Si) | | | | X | | |
| | OFF_PROTON samples | No Failure | X | | | | | |
| | OFF_TID samples | No Failure | X | | | | | |
| IIB1MO_IIB1- | ON_PROTON samples | 108.9 & 162.9 kRad(Si) | | | | X | | |
| | ON_TID samples | 108.9 & 162.9 kRad(Si) | | | | X | | |
| | OFF_PROTON samples | No Failure | X | | | | | |
| | OFF_TID samples | No Failure | X | | | | | |
| IIB2MO_IIB2- | ON_PROTON samples | 108.9 & 162.9 kRad(Si) | | | | X | | |
| | ON_TID samples | 108.9 & 162.9 kRad(Si) | | | | X | | |
| | OFF_PROTON samples | No Failure | X | | | | | |
| | OFF_TID samples | No Failure | X | | | | | |

[Note 1]: **NA** = Not applicable, **No:** means no sample has recovered, **Partial:** means at least one sample has recovered, **Complete:** means all samples have recovered, **Rebound**: means rebound has been observed on at least one sample.

**Table 2 : Summary of parameters failure levels**

# 6 Test Results

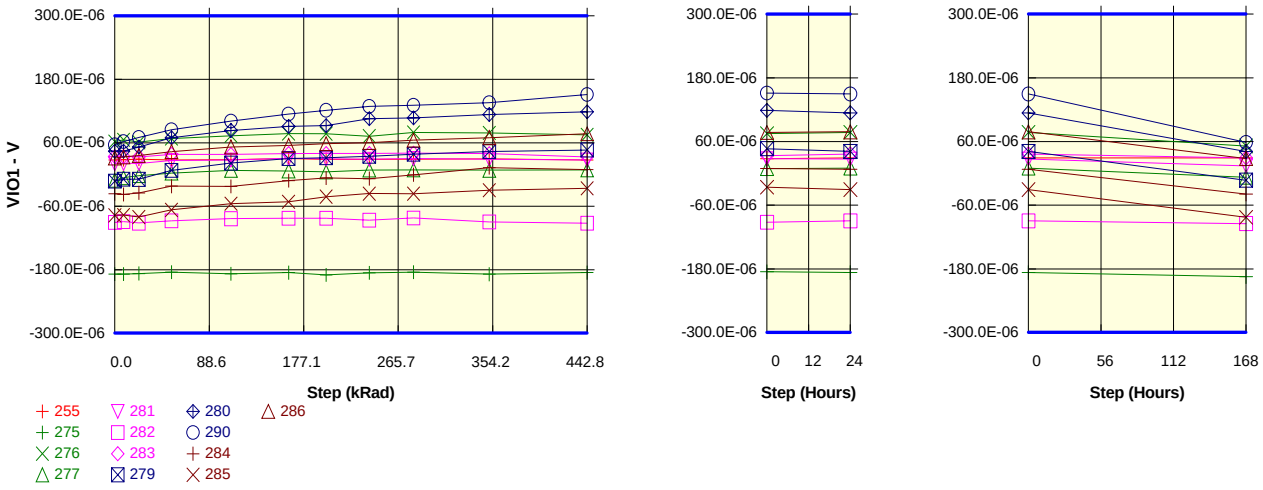
Test results including tables and graphics are provided in this section for each measured parameter.

Statistics are provided separately for biased ON & biased OFF samples of each group.

For each parameter, a drift calculation table is provided computing the drift between a given exposure step with respect to initial readings:

$$\Delta\text{(Parameter value)}=\text{(Parameter value}_{POSTRAD}\text{)} - \text{(Parameter value}_{PRERAD}\text{)}$$

**Parameter : Input Offset Voltage : VIO1**
**Test conditions : +Vcc=+1.5V. Vdd=-1.5V. VICM=0**
Unit : V
Spec Limit Min : -300.0E-06
Spec Limit Max : 300.0E-06
Spec limits are represented in bold lines on the graphic.




### Measurements

| VIO1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 27.4E-06 | 28.2E-06 | 29.0E-06 | 27.7E-06 | 27.9E-06 | 30.0E-06 | 28.5E-06 | 28.5E-06 | 29.0E-06 | 29.5E-06 | 27.7E-06 | 29.0E-06 | 29.1E-06 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | -188.3E-06 | -188.5E-06 | -187.2E-06 | -184.9E-06 | -187.8E-06 | -185.6E-06 | -189.9E-06 | -185.9E-06 | -184.9E-06 | -188.7E-06 | -185.5E-06 | -187.1E-06 | -194.6E-06 |
| 276 | 62.1E-06 | 65.4E-06 | 61.1E-06 | 68.2E-06 | 73.2E-06 | 77.4E-06 | 77.1E-06 | 72.5E-06 | 79.5E-06 | 78.4E-06 | 74.8E-06 | 77.2E-06 | 51.6E-06 |
| 277 | -10.9E-06 | -6.0E-06 | -2.2E-06 | 2.4E-06 | 8.0E-06 | 6.9E-06 | 5.0E-06 | 8.2E-06 | 8.8E-06 | 8.1E-06 | 8.9E-06 | 10.1E-06 | -7.2E-06 |
| Statistics | | | | | | | | | | | | | |
| Min | -188.3E-06 | -188.5E-06 | -187.2E-06 | -184.9E-06 | -187.8E-06 | -185.6E-06 | -189.9E-06 | -185.9E-06 | -184.9E-06 | -188.7E-06 | -185.5E-06 | -187.1E-06 | -194.6E-06 |
| Max | 62.1E-06 | 65.4E-06 | 61.1E-06 | 68.2E-06 | 73.2E-06 | 77.4E-06 | 77.1E-06 | 72.5E-06 | 79.5E-06 | 78.4E-06 | 74.8E-06 | 77.2E-06 | 51.6E-06 |
| Average | -45.7E-06 | -43.1E-06 | -42.8E-06 | -38.1E-06 | -35.6E-06 | -33.7E-06 | -35.9E-06 | -35.1E-06 | -32.2E-06 | -34.1E-06 | -33.9E-06 | -33.3E-06 | -50.0E-06 |
| Sigma | 105.1E-06 | 106.9E-06 | 105.3E-06 | 107.2E-06 | 110.9E-06 | 111.2E-06 | 112.8E-06 | 109.9E-06 | 111.8E-06 | 113.0E-06 | 110.5E-06 | 112.2E-06 | 105.0E-06 |

### Drift Calculation

| VIO1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | -240.0E-09 | 1.1E-06 | 3.4E-06 | 440.0E-09 | 2.7E-06 | -1.6E-06 | 2.4E-06 | 3.4E-06 | -400.0E-09 | 2.8E-06 | 1.2E-06 | -6.3E-06 |
| 276 | - | 3.3E-06 | -1.0E-06 | 6.1E-06 | 11.1E-06 | 15.3E-06 | 15.0E-06 | 10.4E-06 | 17.4E-06 | 16.3E-06 | 12.7E-06 | 15.0E-06 | -10.5E-06 |
| 277 | - | 4.8E-06 | 8.6E-06 | 13.3E-06 | 18.8E-06 | 17.8E-06 | 15.8E-06 | 19.1E-06 | 19.7E-06 | 19.0E-06 | 19.8E-06 | 21.0E-06 | 3.7E-06 |
| Average | - | 2.6E-06 | 2.9E-06 | 7.6E-06 | 10.1E-06 | 11.9E-06 | 9.7E-06 | 10.6E-06 | 13.5E-06 | 11.6E-06 | 11.8E-06 | 12.4E-06 | -4.3E-06 |
| Sigma | - | 2.1E-06 | 4.1E-06 | 4.2E-06 | 7.5E-06 | 6.6E-06 | 8.0E-06 | 6.8E-06 | 7.2E-06 | 8.6E-06 | 7.0E-06 | 8.3E-06 | 6.0E-06 |

### Measurements

| VIO1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 27.4E-06 | 28.2E-06 | 29.0E-06 | 27.7E-06 | 27.9E-06 | 30.0E-06 | 28.5E-06 | 28.5E-06 | 29.0E-06 | 29.5E-06 | 27.7E-06 | 29.0E-06 | 29.1E-06 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | 20.6E-06 | 21.0E-06 | 21.0E-06 | 26.2E-06 | 27.6E-06 | 30.4E-06 | 29.5E-06 | 29.0E-06 | 30.4E-06 | 29.3E-06 | 27.6E-06 | 27.1E-06 | 14.2E-06 |
| 282 | -90.6E-06 | -89.0E-06 | -91.9E-06 | -87.4E-06 | -83.5E-06 | -82.9E-06 | -82.7E-06 | -86.4E-06 | -82.3E-06 | -89.6E-06 | -92.0E-06 | -89.7E-06 | -94.6E-06 |
| 283 | 34.1E-06 | 34.0E-06 | 33.4E-06 | 38.2E-06 | 37.7E-06 | 39.6E-06 | 39.8E-06 | 39.9E-06 | 40.5E-06 | 39.6E-06 | 33.5E-06 | 36.6E-06 | 29.3E-06 |
| Statistics | | | | | | | | | | | | | |
| Min | -90.6E-06 | -89.0E-06 | -91.9E-06 | -87.4E-06 | -83.5E-06 | -82.9E-06 | -82.7E-06 | -86.4E-06 | -82.3E-06 | -89.6E-06 | -92.0E-06 | -89.7E-06 | -94.6E-06 |
| Max | 34.1E-06 | 34.0E-06 | 33.4E-06 | 38.2E-06 | 37.7E-06 | 39.6E-06 | 39.8E-06 | 39.9E-06 | 40.5E-06 | 39.6E-06 | 33.5E-06 | 36.6E-06 | 29.3E-06 |
| Average | -12.0E-06 | -11.3E-06 | -12.5E-06 | -7.7E-06 | -6.1E-06 | -4.3E-06 | -4.5E-06 | -5.8E-06 | -3.8E-06 | -6.9E-06 | -10.3E-06 | -8.7E-06 | -17.0E-06 |
| Sigma | 55.9E-06 | 55.2E-06 | 56.4E-06 | 56.6E-06 | 54.9E-06 | 55.7E-06 | 55.5E-06 | 57.1E-06 | 55.6E-06 | 58.6E-06 | 57.8E-06 | 57.4E-06 | 55.2E-06 |

### Drift Calculation

| VIO1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | 440.0E-09 | 400.0E-09 | 5.6E-06 | 7.0E-06 | 9.8E-06 | 8.9E-06 | 8.4E-06 | 9.8E-06 | 8.7E-06 | 7.0E-06 | 6.5E-06 | -6.4E-06 |
| 282 | - | 1.6E-06 | -1.3E-06 | 3.2E-06 | 7.1E-06 | 7.7E-06 | 7.9E-06 | 4.2E-06 | 8.3E-06 | 1.0E-06 | -1.4E-06 | 920.0E-09 | -4.0E-06 |
| 283 | - | -80.0E-09 | -720.0E-09 | 4.0E-06 | 3.6E-06 | 5.5E-06 | 5.6E-06 | 5.8E-06 | 6.4E-06 | 5.4E-06 | -640.0E-09 | 2.4E-06 | -4.8E-06 |
| Average | - | 640.0E-09 | -533.3E-09 | 4.3E-06 | 5.9E-06 | 7.7E-06 | 7.5E-06 | 6.1E-06 | 8.1E-06 | 5.0E-06 | 1.6E-06 | 3.3E-06 | -5.1E-06 |
| Sigma | - | 684.3E-09 | 698.4E-09 | 997.8E-09 | 1.6E-06 | 1.7E-06 | 1.4E-06 | 1.7E-06 | 1.4E-06 | 3.1E-06 | 3.8E-06 | 2.3E-06 | 1.0E-06 |

### Measurements

| VIO1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 27.4E-06 | 28.2E-06 | 29.0E-06 | 27.7E-06 | 27.9E-06 | 30.0E-06 | 28.5E-06 | 28.5E-06 | 29.0E-06 | 29.5E-06 | 27.7E-06 | 29.0E-06 | 29.1E-06 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | -12.6E-06 | -8.8E-06 | -9.1E-06 | 7.8E-06 | 21.6E-06 | 30.1E-06 | 31.8E-06 | 34.4E-06 | 38.5E-06 | 43.4E-06 | 46.4E-06 | 41.4E-06 | -12.9E-06 |
| 280 | 43.9E-06 | 44.1E-06 | 52.0E-06 | 69.4E-06 | 83.4E-06 | 91.0E-06 | 92.6E-06 | 105.4E-06 | 107.2E-06 | 113.4E-06 | 118.6E-06 | 114.0E-06 | 41.2E-06 |
| 290 | 55.9E-06 | 62.3E-06 | 70.0E-06 | 84.8E-06 | 100.9E-06 | 114.4E-06 | 121.4E-06 | 128.8E-06 | 131.1E-06 | 135.8E-06 | 151.2E-06 | 149.6E-06 | 58.1E-06 |
| Statistics | | | | | | | | | | | | | |
| Min | -12.6E-06 | -8.8E-06 | -9.1E-06 | 7.8E-06 | 21.6E-06 | 30.1E-06 | 31.8E-06 | 34.4E-06 | 38.5E-06 | 43.4E-06 | 46.4E-06 | 41.4E-06 | -12.9E-06 |
| Max | 55.9E-06 | 62.3E-06 | 70.0E-06 | 84.8E-06 | 100.9E-06 | 114.4E-06 | 121.4E-06 | 128.8E-06 | 131.1E-06 | 135.8E-06 | 151.2E-06 | 149.6E-06 | 58.1E-06 |
| Average | 29.1E-06 | 32.5E-06 | 37.6E-06 | 54.0E-06 | 68.6E-06 | 78.5E-06 | 81.9E-06 | 89.5E-06 | 92.3E-06 | 97.5E-06 | 105.4E-06 | 101.7E-06 | 28.8E-06 |
| Sigma | 29.9E-06 | 30.2E-06 | 33.8E-06 | 33.3E-06 | 34.0E-06 | 35.5E-06 | 37.3E-06 | 40.2E-06 | 39.2E-06 | 39.3E-06 | 43.8E-06 | 45.0E-06 | 30.3E-06 |

### Drift Calculation

| VIO1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | 3.8E-06 | 3.5E-06 | 20.4E-06 | 34.2E-06 | 42.7E-06 | 44.4E-06 | 47.0E-06 | 51.2E-06 | 56.0E-06 | 59.1E-06 | 54.0E-06 | -280.0E-09 |
| 280 | - | 200.0E-09 | 8.1E-06 | 25.5E-06 | 39.5E-06 | 47.1E-06 | 48.7E-06 | 61.5E-06 | 63.3E-06 | 69.4E-06 | 74.7E-06 | 70.1E-06 | -2.7E-06 |
| 290 | - | 6.4E-06 | 14.0E-06 | 28.8E-06 | 45.0E-06 | 58.5E-06 | 65.5E-06 | 72.9E-06 | 75.2E-06 | 79.8E-06 | 95.3E-06 | 93.7E-06 | 2.2E-06 |
| Average | - | 3.5E-06 | 8.5E-06 | 24.9E-06 | 39.6E-06 | 49.4E-06 | 52.9E-06 | 60.5E-06 | 63.2E-06 | 68.4E-06 | 76.4E-06 | 72.6E-06 | -266.7E-09 |
| Sigma | - | 2.5E-06 | 4.3E-06 | 3.5E-06 | 4.4E-06 | 6.6E-06 | 9.1E-06 | 10.6E-06 | 9.8E-06 | 9.7E-06 | 14.8E-06 | 16.3E-06 | 2.0E-06 |

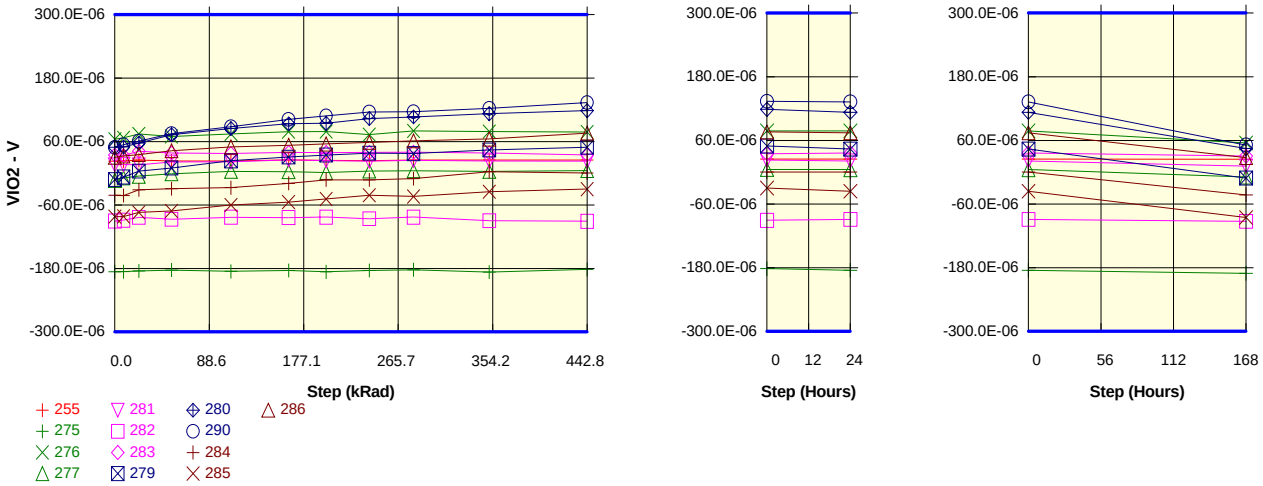
### Measurements

| VIO1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 27.4E-06 | 28.2E-06 | 29.0E-06 | 27.7E-06 | 27.9E-06 | 30.0E-06 | 28.5E-06 | 28.5E-06 | 29.0E-06 | 29.5E-06 | 27.7E-06 | 29.0E-06 | 29.1E-06 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | -36.4E-06 | -37.7E-06 | -34.7E-06 | -22.1E-06 | -22.4E-06 | -11.5E-06 | -6.5E-06 | -7.7E-06 | -360.0E-09 | 13.1E-06 | 9.6E-06 | 7.8E-06 | -38.8E-06 |
| 285 | -77.3E-06 | -76.7E-06 | -80.4E-06 | -66.8E-06 | -55.3E-06 | -51.5E-06 | -42.0E-06 | -36.2E-06 | -36.3E-06 | -29.6E-06 | -26.0E-06 | -30.5E-06 | -82.7E-06 |
| 286 | 31.4E-06 | 33.2E-06 | 35.8E-06 | 43.4E-06 | 52.2E-06 | 55.1E-06 | 58.2E-06 | 60.4E-06 | 65.1E-06 | 69.8E-06 | 76.8E-06 | 78.4E-06 | 28.3E-06 |
| Statistics | | | | | | | | | | | | | |
| Min | -77.3E-06 | -76.7E-06 | -80.4E-06 | -66.8E-06 | -55.3E-06 | -51.5E-06 | -42.0E-06 | -36.2E-06 | -36.3E-06 | -29.6E-06 | -26.0E-06 | -30.5E-06 | -82.7E-06 |
| Max | 31.4E-06 | 33.2E-06 | 35.8E-06 | 43.4E-06 | 52.2E-06 | 55.1E-06 | 58.2E-06 | 60.4E-06 | 65.1E-06 | 69.8E-06 | 76.8E-06 | 78.4E-06 | 28.3E-06 |
| Average | -27.4E-06 | -27.1E-06 | -26.4E-06 | -15.2E-06 | -8.5E-06 | -2.6E-06 | 3.2E-06 | 5.5E-06 | 9.5E-06 | 17.8E-06 | 20.1E-06 | 18.5E-06 | -31.1E-06 |
| Sigma | 44.8E-06 | 45.5E-06 | 47.8E-06 | 45.3E-06 | 45.0E-06 | 44.0E-06 | 41.5E-06 | 40.5E-06 | 42.0E-06 | 40.7E-06 | 42.6E-06 | 45.1E-06 | 45.6E-06 |

### Drift Calculation

| VIO1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -1.3E-06 | 1.7E-06 | 14.3E-06 | 14.0E-06 | 24.9E-06 | 29.9E-06 | 28.7E-06 | 36.0E-06 | 49.5E-06 | 46.0E-06 | 44.2E-06 | -2.4E-06 |
| 285 | - | 600.0E-09 | -3.1E-06 | 10.5E-06 | 22.0E-06 | 25.8E-06 | 35.3E-06 | 41.1E-06 | 41.0E-06 | 47.7E-06 | 51.4E-06 | 46.8E-06 | -5.4E-06 |
| 286 | - | 1.8E-06 | 4.4E-06 | 12.0E-06 | 20.8E-06 | 23.7E-06 | 26.8E-06 | 29.0E-06 | 33.7E-06 | 38.4E-06 | 45.4E-06 | 47.0E-06 | -3.1E-06 |
| Average | - | 360.0E-09 | 1.0E-06 | 12.3E-06 | 18.9E-06 | 24.8E-06 | 30.7E-06 | 32.9E-06 | 36.9E-06 | 45.2E-06 | 47.6E-06 | 46.0E-06 | -3.7E-06 |
| Sigma | - | 1.3E-06 | 3.1E-06 | 1.6E-06 | 3.5E-06 | 852.5E-09 | 3.5E-06 | 5.8E-06 | 3.1E-06 | 4.8E-06 | 2.7E-06 | 1.3E-06 | 1.3E-06 |

**Parameter : Input Offset Voltage : VIO2**
**Test conditions : +Vcc=+8V. Vdd=-8V. VICM=0**
Unit : V
Spec Limit Min : -300.0E-06
Spec Limit Max : 300.0E-06
Spec limits are represented in bold lines on the graphic.




### Measurements

| VIO2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 23.0E-06 | 23.4E-06 | 24.7E-06 | 23.3E-06 | 23.6E-06 | 25.7E-06 | 24.6E-06 | 23.9E-06 | 24.7E-06 | 25.0E-06 | 24.9E-06 | 24.8E-06 | 24.6E-06 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | -186.2E-06 | -186.0E-06 | -184.6E-06 | -183.0E-06 | -185.5E-06 | -183.6E-06 | -186.5E-06 | -183.8E-06 | -182.5E-06 | -186.9E-06 | -181.8E-06 | -184.7E-06 | -190.4E-06 |
| 276 | 64.4E-06 | 66.9E-06 | 74.4E-06 | 69.6E-06 | 74.2E-06 | 78.6E-06 | 79.1E-06 | 73.2E-06 | 80.2E-06 | 79.0E-06 | 78.1E-06 | 78.0E-06 | 55.0E-06 |
| 277 | -13.3E-06 | -9.0E-06 | -5.5E-06 | -920.0E-09 | 3.7E-06 | 3.1E-06 | 1.7E-06 | 4.2E-06 | 4.5E-06 | 3.7E-06 | 5.2E-06 | 4.9E-06 | -9.1E-06 |
| Statistics | | | | | | | | | | | | | |
| Min | -186.2E-06 | -186.0E-06 | -184.6E-06 | -183.0E-06 | -185.5E-06 | -183.6E-06 | -186.5E-06 | -183.8E-06 | -182.5E-06 | -186.9E-06 | -181.8E-06 | -184.7E-06 | -190.4E-06 |
| Max | 64.4E-06 | 66.9E-06 | 74.4E-06 | 69.6E-06 | 74.2E-06 | 78.6E-06 | 79.1E-06 | 73.2E-06 | 80.2E-06 | 79.0E-06 | 78.1E-06 | 78.0E-06 | 55.0E-06 |
| Average | -45.1E-06 | -42.7E-06 | -38.6E-06 | -38.1E-06 | -35.9E-06 | -34.0E-06 | -35.3E-06 | -35.5E-06 | -32.6E-06 | -34.7E-06 | -32.9E-06 | -33.9E-06 | -48.2E-06 |
| Sigma | 104.7E-06 | 106.0E-06 | 108.3E-06 | 106.4E-06 | 109.7E-06 | 110.2E-06 | 111.5E-06 | 108.6E-06 | 110.4E-06 | 111.9E-06 | 109.5E-06 | 110.7E-06 | 103.9E-06 |

### Drift Calculation

| VIO2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | 240.0E-09 | 1.6E-06 | 3.3E-06 | 720.0E-09 | 2.6E-06 | -280.0E-09 | 2.4E-06 | 3.8E-06 | -640.0E-09 | 4.4E-06 | 1.6E-06 | -4.2E-06 |
| 276 | - | 2.6E-06 | 10.0E-06 | 5.3E-06 | 9.8E-06 | 14.3E-06 | 14.7E-06 | 8.8E-06 | 15.8E-06 | 14.6E-06 | 13.8E-06 | 13.6E-06 | -9.4E-06 |
| 277 | - | 4.4E-06 | 7.8E-06 | 12.4E-06 | 17.0E-06 | 16.4E-06 | 15.0E-06 | 17.6E-06 | 17.8E-06 | 17.0E-06 | 18.5E-06 | 18.2E-06 | 4.2E-06 |
| Average | - | 2.4E-06 | 6.5E-06 | 7.0E-06 | 9.2E-06 | 11.1E-06 | 9.8E-06 | 9.6E-06 | 12.5E-06 | 10.3E-06 | 12.2E-06 | 11.1E-06 | -3.1E-06 |
| Sigma | - | 1.7E-06 | 3.6E-06 | 3.9E-06 | 6.7E-06 | 6.0E-06 | 7.1E-06 | 6.2E-06 | 6.2E-06 | 7.8E-06 | 5.9E-06 | 7.0E-06 | 5.6E-06 |

### Measurements

| VIO2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 23.0E-06 | 23.4E-06 | 24.7E-06 | 23.3E-06 | 23.6E-06 | 25.7E-06 | 24.6E-06 | 23.9E-06 | 24.7E-06 | 25.0E-06 | 24.9E-06 | 24.8E-06 | 24.6E-06 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | 16.2E-06 | 16.4E-06 | 15.9E-06 | 21.2E-06 | 22.0E-06 | 25.2E-06 | 24.1E-06 | 23.1E-06 | 24.4E-06 | 23.4E-06 | 23.0E-06 | 21.4E-06 | 11.3E-06 |
| 282 | -90.4E-06 | -88.7E-06 | -83.3E-06 | -87.1E-06 | -83.2E-06 | -83.6E-06 | -83.0E-06 | -86.0E-06 | -83.0E-06 | -89.5E-06 | -90.8E-06 | -89.0E-06 | -92.6E-06 |
| 283 | 34.4E-06 | 33.8E-06 | 41.8E-06 | 38.6E-06 | 37.3E-06 | 39.3E-06 | 39.2E-06 | 39.3E-06 | 40.1E-06 | 38.6E-06 | 34.9E-06 | 36.6E-06 | 30.4E-06 |
| Statistics | | | | | | | | | | | | | |
| Min | -90.4E-06 | -88.7E-06 | -83.3E-06 | -87.1E-06 | -83.2E-06 | -83.6E-06 | -83.0E-06 | -86.0E-06 | -83.0E-06 | -89.5E-06 | -90.8E-06 | -89.0E-06 | -92.6E-06 |
| Max | 34.4E-06 | 33.8E-06 | 41.8E-06 | 38.6E-06 | 37.3E-06 | 39.3E-06 | 39.2E-06 | 39.3E-06 | 40.1E-06 | 38.6E-06 | 34.9E-06 | 36.6E-06 | 30.4E-06 |
| Average | -13.3E-06 | -12.8E-06 | -8.5E-06 | -9.1E-06 | -7.9E-06 | -6.4E-06 | -6.6E-06 | -7.9E-06 | -6.2E-06 | -9.2E-06 | -11.0E-06 | -10.3E-06 | -16.9E-06 |
| Sigma | 55.0E-06 | 54.1E-06 | 53.9E-06 | 55.6E-06 | 53.6E-06 | 54.9E-06 | 54.4E-06 | 55.6E-06 | 54.7E-06 | 57.1E-06 | 56.6E-06 | 56.0E-06 | 54.0E-06 |

### Drift Calculation

| VIO2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | 160.0E-09 | -280.0E-09 | 5.0E-06 | 5.8E-06 | 9.0E-06 | 7.9E-06 | 6.9E-06 | 8.2E-06 | 7.2E-06 | 6.8E-06 | 5.2E-06 | -4.9E-06 |
| 282 | - | 1.7E-06 | 7.0E-06 | 3.3E-06 | 7.2E-06 | 6.7E-06 | 7.4E-06 | 4.4E-06 | 7.3E-06 | 880.0E-09 | -440.0E-09 | 1.4E-06 | -2.2E-06 |
| 283 | - | -560.0E-09 | 7.4E-06 | 4.2E-06 | 2.9E-06 | 4.9E-06 | 4.8E-06 | 4.9E-06 | 5.7E-06 | 4.2E-06 | 480.0E-09 | 2.2E-06 | -4.0E-06 |
| Average | - | 426.7E-09 | 4.7E-06 | 4.1E-06 | 5.3E-06 | 6.9E-06 | 6.7E-06 | 5.4E-06 | 7.1E-06 | 4.1E-06 | 2.3E-06 | 2.9E-06 | -3.7E-06 |
| Sigma | - | 933.7E-09 | 3.5E-06 | 702.2E-09 | 1.8E-06 | 1.7E-06 | 1.4E-06 | 1.1E-06 | 1.1E-06 | 2.6E-06 | 3.2E-06 | 1.6E-06 | 1.1E-06 |

### Measurements

| VIO2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 23.0E-06 | 23.4E-06 | 24.7E-06 | 23.3E-06 | 23.6E-06 | 25.7E-06 | 24.6E-06 | 23.9E-06 | 24.7E-06 | 25.0E-06 | 24.9E-06 | 24.8E-06 | 24.6E-06 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | -12.0E-06 | -7.2E-06 | 4.0E-06 | 10.0E-06 | 23.7E-06 | 30.8E-06 | 34.5E-06 | 37.8E-06 | 37.2E-06 | 44.0E-06 | 49.5E-06 | 43.7E-06 | -10.9E-06 |
| 280 | 49.4E-06 | 49.7E-06 | 57.0E-06 | 72.9E-06 | 84.8E-06 | 93.6E-06 | 94.4E-06 | 103.6E-06 | 106.5E-06 | 112.6E-06 | 118.4E-06 | 112.8E-06 | 44.5E-06 |
| 290 | 48.8E-06 | 54.0E-06 | 60.7E-06 | 75.0E-06 | 87.9E-06 | 101.8E-06 | 108.5E-06 | 115.9E-06 | 116.5E-06 | 122.7E-06 | 133.8E-06 | 132.6E-06 | 51.2E-06 |
| Statistics | | | | | | | | | | | | | |
| Min | -12.0E-06 | -7.2E-06 | 4.0E-06 | 10.0E-06 | 23.7E-06 | 30.8E-06 | 34.5E-06 | 37.8E-06 | 37.2E-06 | 44.0E-06 | 49.5E-06 | 43.7E-06 | -10.9E-06 |
| Max | 49.4E-06 | 54.0E-06 | 60.7E-06 | 75.0E-06 | 87.9E-06 | 101.8E-06 | 108.5E-06 | 115.9E-06 | 116.5E-06 | 122.7E-06 | 133.8E-06 | 132.6E-06 | 51.2E-06 |
| Average | 28.7E-06 | 32.2E-06 | 40.5E-06 | 52.6E-06 | 65.5E-06 | 75.4E-06 | 79.1E-06 | 85.8E-06 | 86.7E-06 | 93.1E-06 | 100.6E-06 | 96.4E-06 | 28.3E-06 |
| Sigma | 28.8E-06 | 27.9E-06 | 25.9E-06 | 30.1E-06 | 29.6E-06 | 31.7E-06 | 32.1E-06 | 34.3E-06 | 35.3E-06 | 34.9E-06 | 36.7E-06 | 38.1E-06 | 27.8E-06 |

### Drift Calculation

| VIO2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | 4.8E-06 | 15.9E-06 | 22.0E-06 | 35.6E-06 | 42.7E-06 | 46.4E-06 | 49.8E-06 | 49.2E-06 | 56.0E-06 | 61.4E-06 | 55.7E-06 | 1.1E-06 |
| 280 | - | 360.0E-09 | 7.6E-06 | 23.5E-06 | 35.5E-06 | 44.2E-06 | 45.0E-06 | 54.2E-06 | 57.1E-06 | 63.2E-06 | 69.0E-06 | 63.4E-06 | -4.8E-06 |
| 290 | - | 5.2E-06 | 11.9E-06 | 26.2E-06 | 39.1E-06 | 53.0E-06 | 59.7E-06 | 67.1E-06 | 67.7E-06 | 73.9E-06 | 85.0E-06 | 83.8E-06 | 2.4E-06 |
| Average | - | 3.4E-06 | 11.8E-06 | 23.9E-06 | 36.7E-06 | 46.7E-06 | 50.4E-06 | 57.0E-06 | 58.0E-06 | 64.4E-06 | 71.8E-06 | 67.6E-06 | -466.7E-09 |
| Sigma | - | 2.2E-06 | 3.4E-06 | 1.7E-06 | 1.7E-06 | 4.6E-06 | 6.6E-06 | 7.4E-06 | 7.6E-06 | 7.3E-06 | 9.8E-06 | 11.9E-06 | 3.1E-06 |

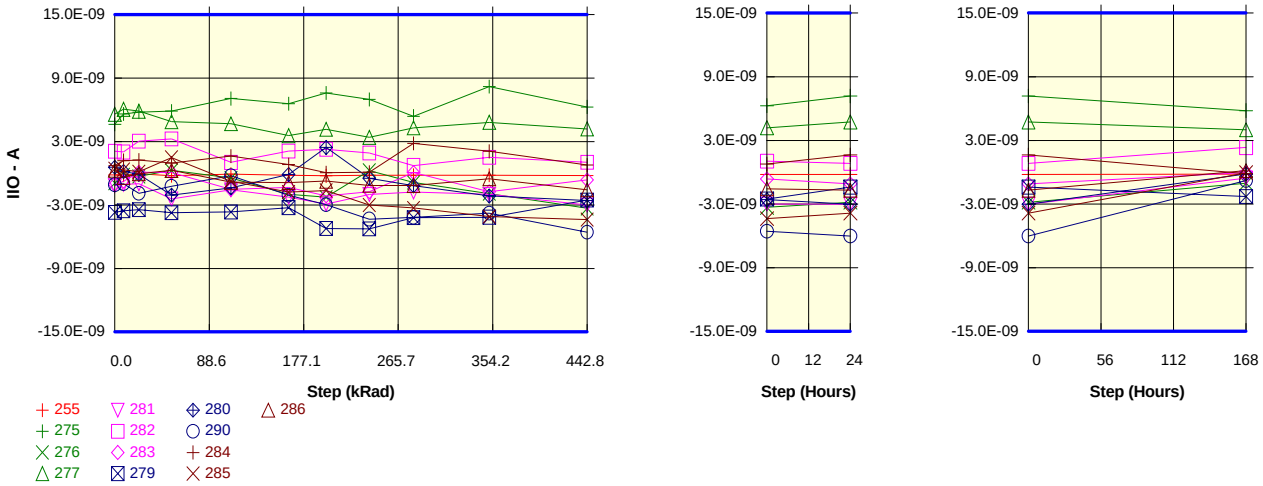
### Measurements

| VIO2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 23.0E-06 | 23.4E-06 | 24.7E-06 | 23.3E-06 | 23.6E-06 | 25.7E-06 | 24.6E-06 | 23.9E-06 | 24.7E-06 | 25.0E-06 | 24.9E-06 | 24.8E-06 | 24.6E-06 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | -41.9E-06 | -42.1E-06 | -31.4E-06 | -29.1E-06 | -27.4E-06 | -19.1E-06 | -12.4E-06 | -12.4E-06 | -10.0E-06 | 3.0E-06 | 400.0E-09 | 640.0E-09 | -42.6E-06 |
| 285 | -82.1E-06 | -81.5E-06 | -74.0E-06 | -71.4E-06 | -59.8E-06 | -54.4E-06 | -48.6E-06 | -41.6E-06 | -43.9E-06 | -34.9E-06 | -29.9E-06 | -35.9E-06 | -85.4E-06 |
| 286 | 30.0E-06 | 32.8E-06 | 35.2E-06 | 42.6E-06 | 49.7E-06 | 53.0E-06 | 55.4E-06 | 58.4E-06 | 61.3E-06 | 64.8E-06 | 75.8E-06 | 74.2E-06 | 27.6E-06 |
| Statistics | | | | | | | | | | | | | |
| Min | -82.1E-06 | -81.5E-06 | -74.0E-06 | -71.4E-06 | -59.8E-06 | -54.4E-06 | -48.6E-06 | -41.6E-06 | -43.9E-06 | -34.9E-06 | -29.9E-06 | -35.9E-06 | -85.4E-06 |
| Max | 30.0E-06 | 32.8E-06 | 35.2E-06 | 42.6E-06 | 49.7E-06 | 53.0E-06 | 55.4E-06 | 58.4E-06 | 61.3E-06 | 64.8E-06 | 75.8E-06 | 74.2E-06 | 27.6E-06 |
| Average | -31.3E-06 | -30.3E-06 | -23.4E-06 | -19.3E-06 | -12.5E-06 | -6.8E-06 | -1.9E-06 | 1.5E-06 | 2.4E-06 | 11.0E-06 | 15.4E-06 | 13.0E-06 | -33.5E-06 |
| Sigma | 46.4E-06 | 47.4E-06 | 44.9E-06 | 47.1E-06 | 45.9E-06 | 44.7E-06 | 43.1E-06 | 42.0E-06 | 43.8E-06 | 41.1E-06 | 44.4E-06 | 45.8E-06 | 46.5E-06 |

### Drift Calculation

| VIO2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -160.0E-09 | 10.6E-06 | 12.8E-06 | 14.6E-06 | 22.8E-06 | 29.6E-06 | 29.5E-06 | 31.9E-06 | 44.9E-06 | 42.3E-06 | 42.6E-06 | -640.0E-09 |
| 285 | - | 560.0E-09 | 8.1E-06 | 10.7E-06 | 22.2E-06 | 27.6E-06 | 33.5E-06 | 40.5E-06 | 38.2E-06 | 47.2E-06 | 52.2E-06 | 46.2E-06 | -3.3E-06 |
| 286 | - | 2.8E-06 | 5.2E-06 | 12.6E-06 | 19.7E-06 | 23.0E-06 | 25.4E-06 | 28.4E-06 | 31.3E-06 | 34.8E-06 | 45.8E-06 | 44.2E-06 | -2.4E-06 |
| Average | - | 1.1E-06 | 8.0E-06 | 12.1E-06 | 18.8E-06 | 24.5E-06 | 29.5E-06 | 32.8E-06 | 33.8E-06 | 42.3E-06 | 46.8E-06 | 44.3E-06 | -2.1E-06 |
| Sigma | - | 1.3E-06 | 2.2E-06 | 955.7E-09 | 3.2E-06 | 2.2E-06 | 3.3E-06 | 5.5E-06 | 3.1E-06 | 5.4E-06 | 4.1E-06 | 1.5E-06 | 1.1E-06 |

**Parameter : Input Offset Current : IIO**
**Test conditions : +Vcc=+2V. Vdd=-2V. VICM=0**
Unit : A
Spec Limit Min : -15.0E-09
Spec Limit Max : 15.0E-09
Spec limits are represented in bold lines on the graphic.




### Measurements

| IIO | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -165.6E-12 | -192.0E-12 | -55.6E-12 | -224.8E-12 | -79.2E-12 | -197.6E-12 | -247.6E-12 | -178.4E-12 | -192.0E-12 | -188.0E-12 | -223.2E-12 | -205.6E-12 | -195.2E-12 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | 4.6E-09 | 5.6E-09 | 5.8E-09 | 5.9E-09 | 7.1E-09 | 6.6E-09 | 7.6E-09 | 7.0E-09 | 5.4E-09 | 8.2E-09 | 6.3E-09 | 7.2E-09 | 5.8E-09 |
| 276 | -929.6E-12 | -132.4E-12 | -300.0E-12 | 270.8E-12 | -457.2E-12 | -2.0E-09 | -2.3E-09 | 269.6E-12 | -871.2E-12 | -1.9E-09 | -3.3E-09 | -2.8E-09 | -1.1E-09 |
| 277 | 5.6E-09 | 6.1E-09 | 5.9E-09 | 4.9E-09 | 4.7E-09 | 3.5E-09 | 4.2E-09 | 3.4E-09 | 4.3E-09 | 4.8E-09 | 4.2E-09 | 4.7E-09 | 4.0E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -929.6E-12 | -132.4E-12 | -300.0E-12 | 270.8E-12 | -457.2E-12 | -2.0E-09 | -2.3E-09 | 269.6E-12 | -871.2E-12 | -1.9E-09 | -3.3E-09 | -2.8E-09 | -1.1E-09 |
| Max | 5.6E-09 | 6.1E-09 | 5.9E-09 | 5.9E-09 | 7.1E-09 | 6.6E-09 | 7.6E-09 | 7.0E-09 | 5.4E-09 | 8.2E-09 | 6.3E-09 | 7.2E-09 | 5.8E-09 |
| Average | 3.1E-09 | 3.8E-09 | 3.8E-09 | 3.7E-09 | 3.8E-09 | 2.7E-09 | 3.2E-09 | 3.5E-09 | 2.9E-09 | 3.7E-09 | 2.4E-09 | 3.0E-09 | 2.9E-09 |
| Sigma | 2.9E-09 | 2.8E-09 | 2.9E-09 | 2.4E-09 | 3.1E-09 | 3.5E-09 | 4.1E-09 | 2.7E-09 | 2.7E-09 | 4.2E-09 | 4.1E-09 | 4.3E-09 | 2.9E-09 |

### Drift Calculation

| IIO | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | 982.0E-12 | 1.1E-09 | 1.2E-09 | 2.4E-09 | 1.9E-09 | 3.0E-09 | 2.4E-09 | 761.2E-12 | 3.6E-09 | 1.6E-09 | 2.6E-09 | 1.2E-09 |
| 276 | - | 797.2E-12 | 629.6E-12 | 1.2E-09 | 472.4E-12 | -1.1E-09 | -1.3E-09 | 1.2E-09 | 58.4E-12 | -992.0E-12 | -2.4E-09 | -1.9E-09 | -120.8E-12 |
| 277 | - | 469.6E-12 | 283.6E-12 | -701.2E-12 | -901.2E-12 | -2.0E-09 | -1.4E-09 | -2.2E-09 | -1.3E-09 | -763.2E-12 | -1.4E-09 | -840.8E-12 | -1.6E-09 |
| Average | - | 749.6E-12 | 683.6E-12 | 579.3E-12 | 668.3E-12 | -382.5E-12 | 65.6E-12 | 455.1E-12 | -153.5E-12 | 603.9E-12 | -709.2E-12 | -64.9E-12 | -170.8E-12 |
| Sigma | - | 211.9E-12 | 350.7E-12 | 905.6E-12 | 1.4E-09 | 1.7E-09 | 2.0E-09 | 1.9E-09 | 846.7E-12 | 2.1E-09 | 1.7E-09 | 1.9E-09 | 1.1E-09 |

### Measurements

| IIO | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -165.6E-12 | -192.0E-12 | -55.6E-12 | -224.8E-12 | -79.2E-12 | -197.6E-12 | -247.6E-12 | -178.4E-12 | -192.0E-12 | -188.0E-12 | -223.2E-12 | -205.6E-12 | -195.2E-12 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | -1.2E-09 | -1.0E-09 | -990.0E-12 | -2.4E-09 | -1.6E-09 | -2.3E-09 | -2.9E-09 | -2.0E-09 | -1.8E-09 | -2.0E-09 | -3.0E-09 | -3.0E-09 | -546.4E-12 |
| 282 | 2.1E-09 | 2.0E-09 | 3.0E-09 | 3.2E-09 | 1.0E-09 | 2.1E-09 | 2.3E-09 | 1.9E-09 | 736.0E-12 | 1.5E-09 | 1.0E-09 | 833.6E-12 | 2.3E-09 |
| 283 | -1.1E-09 | -761.6E-12 | 90.8E-12 | 81.2E-12 | -1.5E-09 | -1.3E-09 | -2.1E-09 | -1.7E-09 | 70.4E-12 | -1.7E-09 | -621.6E-12 | -1.1E-09 | -25.6E-12 |
| Statistics | | | | | | | | | | | | | |
| Min | -1.2E-09 | -1.0E-09 | -990.0E-12 | -2.4E-09 | -1.6E-09 | -2.3E-09 | -2.9E-09 | -2.0E-09 | -1.8E-09 | -2.0E-09 | -3.0E-09 | -3.0E-09 | -546.4E-12 |
| Max | 2.1E-09 | 2.0E-09 | 3.0E-09 | 3.2E-09 | 1.0E-09 | 2.1E-09 | 2.3E-09 | 1.9E-09 | 736.0E-12 | 1.5E-09 | 1.0E-09 | 833.6E-12 | 2.3E-09 |
| Average | -56.9E-12 | 68.9E-12 | 716.0E-12 | 300.1E-12 | -683.3E-12 | -498.9E-12 | -924.3E-12 | -606.1E-12 | -324.3E-12 | -737.9E-12 | -861.6E-12 | -1.1E-09 | 585.6E-12 |
| Sigma | 1.5E-09 | 1.4E-09 | 1.7E-09 | 2.3E-09 | 1.2E-09 | 1.9E-09 | 2.3E-09 | 1.8E-09 | 1.1E-09 | 1.6E-09 | 1.7E-09 | 1.6E-09 | 1.3E-09 |

### Drift Calculation

| IIO | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | 122.4E-12 | 178.8E-12 | -1.3E-09 | -389.2E-12 | -1.1E-09 | -1.7E-09 | -836.8E-12 | -610.4E-12 | -807.2E-12 | -1.8E-09 | -1.8E-09 | 622.4E-12 |
| 282 | - | -56.4E-12 | 976.0E-12 | 1.2E-09 | -1.0E-09 | 39.2E-12 | 199.6E-12 | -148.8E-12 | -1.3E-09 | -564.8E-12 | -1.0E-09 | -1.2E-09 | 257.6E-12 |
| 283 | - | 311.6E-12 | 1.2E-09 | 1.2E-09 | -446.4E-12 | -266.0E-12 | -1.1E-09 | -662.0E-12 | 1.1E-09 | -670.8E-12 | 451.6E-12 | -26.8E-12 | 1.0E-09 |
| Average | - | 125.9E-12 | 772.9E-12 | 357.1E-12 | -626.4E-12 | -442.0E-12 | -867.3E-12 | -549.2E-12 | -267.3E-12 | -680.9E-12 | -804.7E-12 | -1.0E-09 | 642.5E-12 |
| Sigma | - | 150.3E-12 | 427.1E-12 | 1.1E-09 | 295.9E-12 | 481.1E-12 | 804.9E-12 | 292.0E-12 | 1.0E-09 | 99.2E-12 | 945.6E-12 | 754.0E-12 | 322.8E-12 |

**Measurements**

| IIO | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -165.6E-12 | -192.0E-12 | -55.6E-12 | -224.8E-12 | -79.2E-12 | -197.6E-12 | -247.6E-12 | -178.4E-12 | -192.0E-12 | -188.0E-12 | -223.2E-12 | -205.6E-12 | -195.2E-12 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | -3.7E-09 | -3.5E-09 | -3.4E-09 | -3.7E-09 | -3.7E-09 | -3.2E-09 | -5.2E-09 | -5.3E-09 | -4.2E-09 | -4.2E-09 | -2.5E-09 | -1.4E-09 | -2.3E-09 |
| 280 | 571.2E-12 | 166.4E-12 | -98.4E-12 | -2.1E-09 | -1.4E-09 | -116.4E-12 | 2.4E-09 | -480.0E-12 | -1.2E-09 | -2.1E-09 | -2.6E-09 | -3.0E-09 | -160.0E-12 |
| 290 | -1.1E-09 | -987.2E-12 | -1.9E-09 | -1.2E-09 | -243.6E-12 | -2.1E-09 | -3.0E-09 | -4.3E-09 | -4.2E-09 | -3.8E-09 | -5.6E-09 | -6.0E-09 | -782.4E-12 |
| Statistics | | | | | | | | | | | | | |
| Min | -3.7E-09 | -3.5E-09 | -3.4E-09 | -3.7E-09 | -3.7E-09 | -3.2E-09 | -5.2E-09 | -5.3E-09 | -4.2E-09 | -4.2E-09 | -5.6E-09 | -6.0E-09 | -2.3E-09 |
| Max | 571.2E-12 | 166.4E-12 | -98.4E-12 | -1.2E-09 | -243.6E-12 | -116.4E-12 | 2.4E-09 | -480.0E-12 | -1.2E-09 | -2.1E-09 | -2.5E-09 | -1.4E-09 | -160.0E-12 |
| Average | -1.4E-09 | -1.5E-09 | -1.8E-09 | -2.3E-09 | -1.8E-09 | -1.8E-09 | -1.9E-09 | -3.4E-09 | -3.2E-09 | -3.4E-09 | -3.6E-09 | -3.5E-09 | -1.1E-09 |
| Sigma | 1.8E-09 | 1.5E-09 | 1.4E-09 | 1.0E-09 | 1.4E-09 | 1.3E-09 | 3.2E-09 | 2.1E-09 | 1.4E-09 | 873.4E-12 | 1.4E-09 | 1.9E-09 | 898.4E-12 |

**Drift Calculation**

| IIO | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | 166.0E-12 | 262.4E-12 | -17.6E-12 | 44.4E-12 | 457.2E-12 | -1.5E-09 | -1.6E-09 | -492.4E-12 | -455.6E-12 | 1.2E-09 | 2.3E-09 | 1.4E-09 |
| 280 | - | -404.8E-12 | -669.6E-12 | -2.6E-09 | -1.9E-09 | -687.6E-12 | 1.9E-09 | -1.1E-09 | -1.8E-09 | -2.7E-09 | -3.2E-09 | -3.6E-09 | -731.2E-12 |
| 290 | - | 100.4E-12 | -808.0E-12 | -144.8E-12 | 844.0E-12 | -999.2E-12 | -1.9E-09 | -3.3E-09 | -3.1E-09 | -2.7E-09 | -4.5E-09 | -4.9E-09 | 305.2E-12 |
| Average | - | -46.1E-12 | -405.1E-12 | -930.3E-12 | -353.6E-12 | -409.9E-12 | -511.5E-12 | -2.0E-09 | -1.8E-09 | -2.0E-09 | -2.2E-09 | -2.1E-09 | 325.9E-12 |
| Sigma | - | 255.0E-12 | 475.3E-12 | 1.2E-09 | 1.2E-09 | 626.2E-12 | 1.7E-09 | 940.3E-12 | 1.1E-09 | 1.1E-09 | 2.4E-09 | 3.1E-09 | 871.7E-12 |

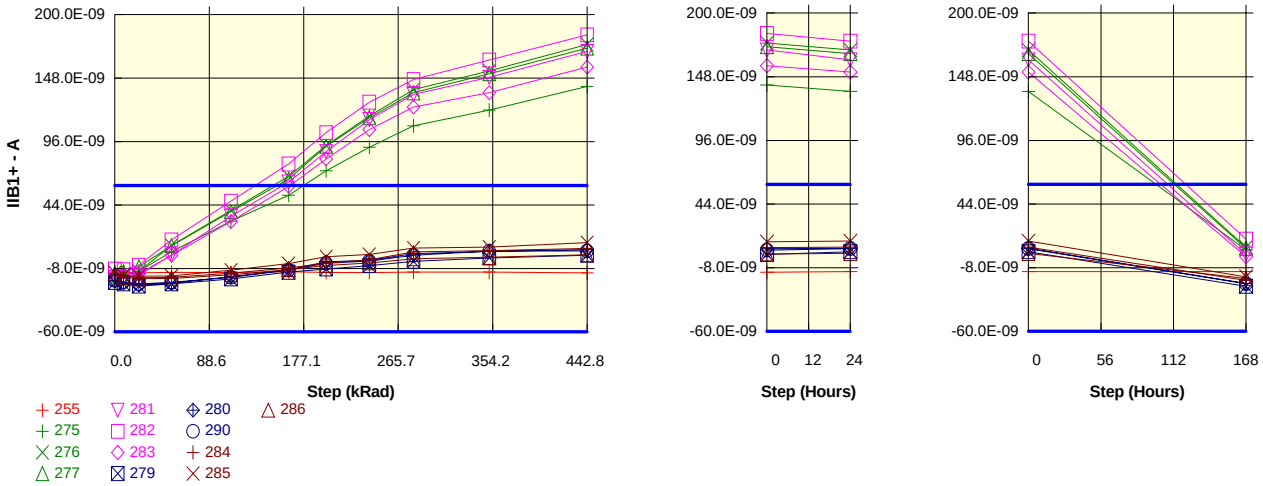
**Measurements**

| IIO | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -165.6E-12 | -192.0E-12 | -55.6E-12 | -224.8E-12 | -79.2E-12 | -197.6E-12 | -247.6E-12 | -178.4E-12 | -192.0E-12 | -188.0E-12 | -223.2E-12 | -205.6E-12 | -195.2E-12 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | 724.0E-12 | 1.2E-09 | 1.3E-09 | 968.8E-12 | 1.6E-09 | 816.8E-12 | 43.2E-12 | 105.6E-12 | 2.8E-09 | 2.1E-09 | 771.2E-12 | 1.6E-09 | -136.8E-12 |
| 285 | 446.0E-12 | 346.4E-12 | 142.0E-12 | 1.5E-09 | -750.8E-12 | -1.8E-09 | -1.6E-09 | -3.0E-09 | -3.3E-09 | -4.1E-09 | -4.4E-09 | -3.9E-09 | -44.8E-12 |
| 286 | 287.6E-12 | -384.4E-12 | -47.6E-12 | 272.0E-12 | -847.2E-12 | -893.6E-12 | -743.6E-12 | -1.1E-09 | -1.2E-09 | -523.2E-12 | -1.6E-09 | -1.7E-09 | 160.0E-12 |
| Statistics | | | | | | | | | | | | | |
| Min | 287.6E-12 | -384.4E-12 | -47.6E-12 | 272.0E-12 | -847.2E-12 | -1.8E-09 | -1.6E-09 | -3.0E-09 | -3.3E-09 | -4.1E-09 | -4.4E-09 | -3.9E-09 | -136.8E-12 |
| Max | 724.0E-12 | 1.2E-09 | 1.3E-09 | 1.5E-09 | 1.6E-09 | 816.8E-12 | 43.2E-12 | 105.6E-12 | 2.8E-09 | 2.1E-09 | 771.2E-12 | 1.6E-09 | 160.0E-12 |
| Average | 485.9E-12 | 388.7E-12 | 448.8E-12 | 910.8E-12 | 8.4E-12 | -619.7E-12 | -778.0E-12 | -1.3E-09 | -537.6E-12 | -845.9E-12 | -1.7E-09 | -1.3E-09 | -7.2E-12 |
| Sigma | 180.4E-12 | 649.1E-12 | 573.2E-12 | 499.6E-12 | 1.1E-09 | 1.1E-09 | 685.0E-12 | 1.3E-09 | 2.5E-09 | 2.5E-09 | 2.1E-09 | 2.3E-09 | 124.1E-12 |

**Drift Calculation**

| IIO | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | 480.0E-12 | 528.0E-12 | 244.8E-12 | 899.2E-12 | 92.8E-12 | -680.8E-12 | -618.4E-12 | 2.1E-09 | 1.3E-09 | 47.2E-12 | 916.0E-12 | -860.8E-12 |
| 285 | - | -99.6E-12 | -304.0E-12 | 1.0E-09 | -1.2E-09 | -2.2E-09 | -2.1E-09 | -3.4E-09 | -3.7E-09 | -4.5E-09 | -4.8E-09 | -4.3E-09 | -490.8E-12 |
| 286 | - | -672.0E-12 | -335.2E-12 | -15.6E-12 | -1.1E-09 | -1.2E-09 | -1.0E-09 | -1.4E-09 | -1.4E-09 | -810.8E-12 | -1.9E-09 | -2.0E-09 | -127.6E-12 |
| Average | - | -97.2E-12 | -37.1E-12 | 424.9E-12 | -477.5E-12 | -1.1E-09 | -1.3E-09 | -1.8E-09 | -1.0E-09 | -1.3E-09 | -2.2E-09 | -1.8E-09 | -493.1E-12 |
| Sigma | - | 470.3E-12 | 399.8E-12 | 451.6E-12 | 973.8E-12 | 949.1E-12 | 594.3E-12 | 1.2E-09 | 2.4E-09 | 2.4E-09 | 2.0E-09 | 2.1E-09 | 299.3E-12 |

**Parameter : Plus Input Bias Current : IIB1+**
**Test conditions : +Vcc=+2V. Vdd=-2V. VICM=0**
Unit : A
Spec Limit Min : -60.0E-09
Spec Limit Max : 60.0E-09
Spec limits are represented in bold lines on the graphic.




### Measurements

| IIB1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -11.0E-09 | -11.0E-09 | -11.7E-09 | -11.3E-09 | -11.4E-09 | -10.8E-09 | -11.1E-09 | -11.4E-09 | -11.0E-09 | -11.0E-09 | -11.6E-09 | -11.3E-09 | -11.2E-09 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | -16.0E-09 | -13.3E-09 | -10.3E-09 | 5.8E-09 | 30.8E-09 | 51.9E-09 | 72.0E-09 | 91.3E-09 | 108.9E-09 | 121.9E-09 | 141.3E-09 | 136.1E-09 | 6.6E-09 |
| 276 | -17.2E-09 | -13.7E-09 | -10.3E-09 | 10.8E-09 | 39.5E-09 | 67.6E-09 | 92.7E-09 | 116.8E-09 | 138.6E-09 | 153.8E-09 | 175.6E-09 | 169.8E-09 | 8.7E-09 |
| 277 | -12.1E-09 | -10.5E-09 | -6.8E-09 | 10.7E-09 | 38.6E-09 | 65.2E-09 | 92.1E-09 | 115.6E-09 | 136.0E-09 | 151.6E-09 | 172.6E-09 | 166.9E-09 | 7.8E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -17.2E-09 | -13.7E-09 | -10.3E-09 | 5.8E-09 | 30.8E-09 | 51.9E-09 | 72.0E-09 | 91.3E-09 | 108.9E-09 | 121.9E-09 | 141.3E-09 | 136.1E-09 | 6.6E-09 |
| Max | -12.1E-09 | -10.5E-09 | -6.8E-09 | 10.8E-09 | 39.5E-09 | 67.6E-09 | 92.7E-09 | 116.8E-09 | 138.6E-09 | 153.8E-09 | 175.6E-09 | 169.8E-09 | 8.7E-09 |
| Average | -15.1E-09 | -12.5E-09 | -9.1E-09 | 9.1E-09 | 36.3E-09 | 61.5E-09 | 85.6E-09 | 107.9E-09 | 127.8E-09 | 142.4E-09 | 163.1E-09 | 157.6E-09 | 7.7E-09 |
| Sigma | 2.2E-09 | 1.4E-09 | 1.7E-09 | 2.4E-09 | 3.9E-09 | 6.9E-09 | 9.6E-09 | 11.7E-09 | 13.4E-09 | 14.6E-09 | 15.5E-09 | 15.2E-09 | 893.0E-12 |

### Drift Calculation

| IIB1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | 2.7E-09 | 5.7E-09 | 21.8E-09 | 46.8E-09 | 67.9E-09 | 88.0E-09 | 107.3E-09 | 124.9E-09 | 137.9E-09 | 157.3E-09 | 152.1E-09 | 22.6E-09 |
| 276 | - | 3.5E-09 | 7.0E-09 | 28.1E-09 | 56.7E-09 | 84.8E-09 | 109.9E-09 | 134.0E-09 | 155.8E-09 | 171.0E-09 | 192.8E-09 | 187.0E-09 | 25.9E-09 |
| 277 | - | 1.5E-09 | 5.3E-09 | 22.8E-09 | 50.7E-09 | 77.2E-09 | 104.2E-09 | 127.7E-09 | 148.0E-09 | 163.7E-09 | 184.6E-09 | 178.9E-09 | 19.9E-09 |
| Average | - | 2.6E-09 | 6.0E-09 | 24.2E-09 | 51.4E-09 | 76.6E-09 | 100.7E-09 | 123.0E-09 | 142.9E-09 | 157.5E-09 | 178.2E-09 | 172.7E-09 | 22.8E-09 |
| Sigma | - | 796.4E-12 | 699.4E-12 | 2.8E-09 | 4.1E-09 | 6.9E-09 | 9.3E-09 | 11.4E-09 | 13.1E-09 | 14.2E-09 | 15.2E-09 | 14.9E-09 | 2.5E-09 |

### Measurements

| IIB1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -11.0E-09 | -11.0E-09 | -11.7E-09 | -11.3E-09 | -11.4E-09 | -10.8E-09 | -11.1E-09 | -11.4E-09 | -11.0E-09 | -11.0E-09 | -11.6E-09 | -11.3E-09 | -11.2E-09 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | -15.2E-09 | -15.9E-09 | -13.6E-09 | 3.0E-09 | 34.8E-09 | 62.8E-09 | 87.7E-09 | 114.0E-09 | 134.7E-09 | 148.7E-09 | 169.8E-09 | 161.7E-09 | 3.0E-09 |
| 282 | -8.5E-09 | -8.9E-09 | -5.3E-09 | 15.4E-09 | 47.1E-09 | 77.6E-09 | 103.3E-09 | 128.3E-09 | 146.8E-09 | 162.9E-09 | 183.4E-09 | 177.0E-09 | 15.5E-09 |
| 283 | -14.1E-09 | -14.5E-09 | -12.3E-09 | 2.8E-09 | 30.4E-09 | 59.2E-09 | 81.7E-09 | 105.9E-09 | 124.3E-09 | 136.1E-09 | 157.0E-09 | 151.7E-09 | 999.2E-12 |
| Statistics | | | | | | | | | | | | | |
| Min | -15.2E-09 | -15.9E-09 | -13.6E-09 | 2.8E-09 | 30.4E-09 | 59.2E-09 | 81.7E-09 | 105.9E-09 | 124.3E-09 | 136.1E-09 | 157.0E-09 | 151.7E-09 | 999.2E-12 |
| Max | -8.5E-09 | -8.9E-09 | -5.3E-09 | 15.4E-09 | 47.1E-09 | 77.6E-09 | 103.3E-09 | 128.3E-09 | 146.8E-09 | 162.9E-09 | 183.4E-09 | 177.0E-09 | 15.5E-09 |
| Average | -12.6E-09 | -13.1E-09 | -10.4E-09 | 7.1E-09 | 37.4E-09 | 66.5E-09 | 90.9E-09 | 116.0E-09 | 135.3E-09 | 149.2E-09 | 170.1E-09 | 163.5E-09 | 6.5E-09 |
| Sigma | 2.9E-09 | 3.0E-09 | 3.6E-09 | 5.9E-09 | 7.1E-09 | 7.9E-09 | 9.1E-09 | 9.2E-09 | 9.2E-09 | 10.9E-09 | 10.7E-09 | 10.4E-09 | 6.4E-09 |

### Drift Calculation

| IIB1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | -636.8E-12 | 1.7E-09 | 18.3E-09 | 50.1E-09 | 78.1E-09 | 103.0E-09 | 129.2E-09 | 150.0E-09 | 163.9E-09 | 185.0E-09 | 176.9E-09 | 18.3E-09 |
| 282 | - | -378.8E-12 | 3.2E-09 | 23.9E-09 | 55.6E-09 | 86.1E-09 | 111.8E-09 | 136.8E-09 | 155.3E-09 | 171.4E-09 | 191.9E-09 | 185.6E-09 | 24.0E-09 |
| 283 | - | -316.8E-12 | 1.8E-09 | 16.9E-09 | 44.6E-09 | 73.4E-09 | 95.8E-09 | 120.0E-09 | 138.5E-09 | 150.2E-09 | 171.2E-09 | 165.9E-09 | 15.1E-09 |
| Average | - | -444.1E-12 | 2.2E-09 | 19.7E-09 | 50.1E-09 | 79.2E-09 | 103.5E-09 | 128.7E-09 | 147.9E-09 | 161.8E-09 | 182.7E-09 | 176.1E-09 | 19.1E-09 |
| Sigma | - | 138.6E-12 | 693.7E-12 | 3.0E-09 | 4.5E-09 | 5.3E-09 | 6.5E-09 | 6.8E-09 | 7.0E-09 | 8.8E-09 | 8.6E-09 | 8.1E-09 | 3.7E-09 |

**Measurements**

| IIB1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -11.0E-09 | -11.0E-09 | -11.7E-09 | -11.3E-09 | -11.4E-09 | -10.8E-09 | -11.1E-09 | -11.4E-09 | -11.0E-09 | -11.0E-09 | -11.6E-09 | -11.3E-09 | -11.2E-09 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | -19.4E-09 | -20.7E-09 | -22.4E-09 | -20.6E-09 | -16.6E-09 | -11.1E-09 | -8.4E-09 | -5.7E-09 | -2.1E-09 | 605.6E-12 | 2.8E-09 | 5.0E-09 | -23.1E-09 |
| 280 | -17.8E-09 | -19.7E-09 | -21.6E-09 | -20.0E-09 | -14.7E-09 | -9.0E-09 | -2.7E-09 | -1.4E-09 | 4.1E-09 | 6.0E-09 | 7.4E-09 | 7.9E-09 | -21.0E-09 |
| 290 | -17.6E-09 | -19.0E-09 | -20.7E-09 | -19.4E-09 | -15.3E-09 | -9.4E-09 | -3.7E-09 | -2.0E-09 | 2.8E-09 | 6.1E-09 | 6.3E-09 | 7.6E-09 | -21.1E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -19.4E-09 | -20.7E-09 | -22.4E-09 | -20.6E-09 | -16.6E-09 | -11.1E-09 | -8.4E-09 | -5.7E-09 | -2.1E-09 | 605.6E-12 | 2.8E-09 | 5.0E-09 | -23.1E-09 |
| Max | -17.6E-09 | -19.0E-09 | -20.7E-09 | -19.4E-09 | -14.7E-09 | -9.0E-09 | -2.7E-09 | -1.4E-09 | 4.1E-09 | 6.1E-09 | 7.4E-09 | 7.9E-09 | -21.0E-09 |
| Average | -18.3E-09 | -19.8E-09 | -21.6E-09 | -20.0E-09 | -15.5E-09 | -9.8E-09 | -4.9E-09 | -3.0E-09 | 1.6E-09 | 4.2E-09 | 5.5E-09 | 6.9E-09 | -21.7E-09 |
| Sigma | 799.1E-12 | 669.8E-12 | 684.9E-12 | 514.2E-12 | 768.2E-12 | 914.0E-12 | 2.5E-09 | 1.9E-09 | 2.7E-09 | 2.6E-09 | 2.0E-09 | 1.3E-09 | 976.5E-12 |

**Drift Calculation**

| IIB1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | -1.3E-09 | -3.0E-09 | -1.3E-09 | 2.8E-09 | 8.3E-09 | 11.0E-09 | 13.7E-09 | 17.3E-09 | 20.0E-09 | 22.2E-09 | 24.4E-09 | -3.7E-09 |
| 280 | - | -1.9E-09 | -3.8E-09 | -2.2E-09 | 3.1E-09 | 8.8E-09 | 15.1E-09 | 16.4E-09 | 21.9E-09 | 23.8E-09 | 25.3E-09 | 25.8E-09 | -3.2E-09 |
| 290 | - | -1.4E-09 | -3.1E-09 | -1.8E-09 | 2.3E-09 | 8.2E-09 | 13.9E-09 | 15.6E-09 | 20.4E-09 | 23.7E-09 | 23.9E-09 | 25.2E-09 | -3.5E-09 |
| Average | - | -1.5E-09 | -3.3E-09 | -1.7E-09 | 2.7E-09 | 8.5E-09 | 13.3E-09 | 15.2E-09 | 19.9E-09 | 22.5E-09 | 23.8E-09 | 25.1E-09 | -3.5E-09 |
| Sigma | - | 258.4E-12 | 346.7E-12 | 374.5E-12 | 336.0E-12 | 264.9E-12 | 1.7E-09 | 1.2E-09 | 1.9E-09 | 1.8E-09 | 1.3E-09 | 541.0E-12 | 216.1E-12 |

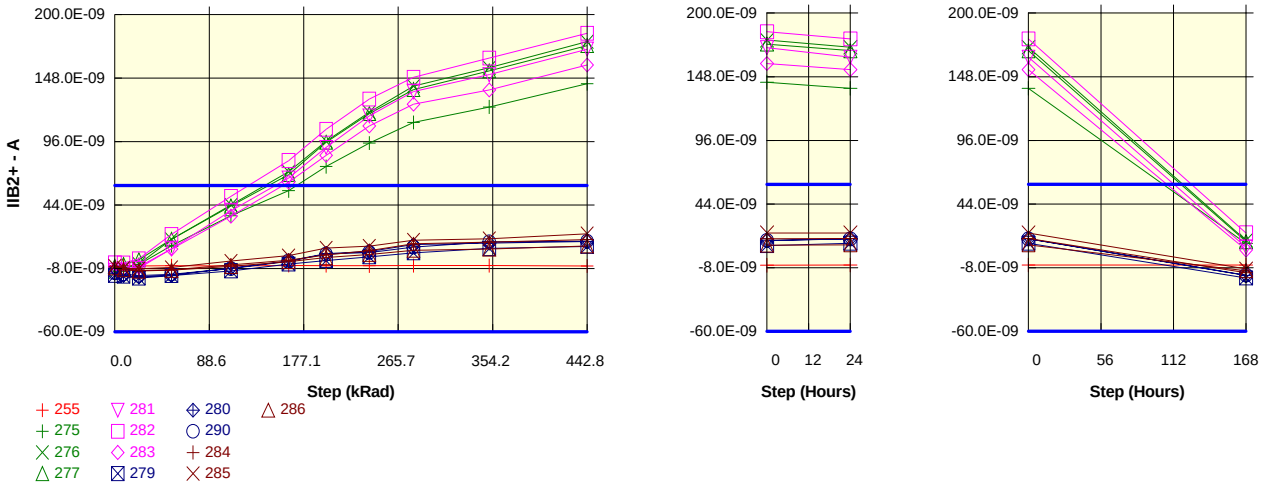
**Measurements**

| IIB1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -11.0E-09 | -11.0E-09 | -11.7E-09 | -11.3E-09 | -11.4E-09 | -10.8E-09 | -11.1E-09 | -11.4E-09 | -11.0E-09 | -11.0E-09 | -11.6E-09 | -11.3E-09 | -11.2E-09 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | -12.2E-09 | -14.0E-09 | -15.8E-09 | -15.3E-09 | -11.9E-09 | -7.6E-09 | -3.7E-09 | -916.0E-12 | 5.5E-09 | 6.6E-09 | 8.5E-09 | 8.8E-09 | -18.5E-09 |
| 285 | -11.6E-09 | -14.0E-09 | -14.4E-09 | -14.1E-09 | -9.5E-09 | -4.1E-09 | 1.5E-09 | 3.5E-09 | 8.6E-09 | 9.5E-09 | 13.2E-09 | 13.8E-09 | -15.4E-09 |
| 286 | -13.1E-09 | -15.2E-09 | -16.5E-09 | -16.2E-09 | -13.1E-09 | -8.9E-09 | -5.5E-09 | -3.5E-09 | -109.6E-12 | 1.1E-09 | 3.2E-09 | 3.6E-09 | -16.8E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -13.1E-09 | -15.2E-09 | -16.5E-09 | -16.2E-09 | -13.1E-09 | -8.9E-09 | -5.5E-09 | -3.5E-09 | -109.6E-12 | 1.1E-09 | 3.2E-09 | 3.6E-09 | -18.5E-09 |
| Max | -11.6E-09 | -14.0E-09 | -14.4E-09 | -14.1E-09 | -9.5E-09 | -4.1E-09 | 1.5E-09 | 3.5E-09 | 8.6E-09 | 9.5E-09 | 13.2E-09 | 13.8E-09 | -15.4E-09 |
| Average | -12.3E-09 | -14.4E-09 | -15.6E-09 | -15.2E-09 | -11.5E-09 | -6.8E-09 | -2.6E-09 | -329.9E-12 | 4.7E-09 | 5.7E-09 | 8.3E-09 | 8.7E-09 | -16.9E-09 |
| Sigma | 604.4E-12 | 579.7E-12 | 844.0E-12 | 840.2E-12 | 1.5E-09 | 2.0E-09 | 3.0E-09 | 2.9E-09 | 3.6E-09 | 3.5E-09 | 4.1E-09 | 4.2E-09 | 1.2E-09 |

**Drift Calculation**

| IIB1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -1.8E-09 | -3.6E-09 | -3.1E-09 | 269.6E-12 | 4.7E-09 | 8.5E-09 | 11.3E-09 | 17.7E-09 | 18.8E-09 | 20.7E-09 | 21.1E-09 | -6.3E-09 |
| 285 | - | -2.4E-09 | -2.9E-09 | -2.5E-09 | 2.1E-09 | 7.5E-09 | 13.1E-09 | 15.0E-09 | 20.2E-09 | 21.1E-09 | 24.7E-09 | 25.4E-09 | -3.8E-09 |
| 286 | - | -2.2E-09 | -3.4E-09 | -3.1E-09 | -78.4E-12 | 4.1E-09 | 7.6E-09 | 9.5E-09 | 12.9E-09 | 14.1E-09 | 16.3E-09 | 16.7E-09 | -3.7E-09 |
| Average | - | -2.1E-09 | -3.3E-09 | -2.9E-09 | 757.5E-12 | 5.4E-09 | 9.7E-09 | 12.0E-09 | 16.9E-09 | 18.0E-09 | 20.6E-09 | 21.0E-09 | -4.6E-09 |
| Sigma | - | 255.6E-12 | 301.4E-12 | 273.7E-12 | 946.7E-12 | 1.5E-09 | 2.4E-09 | 2.3E-09 | 3.0E-09 | 2.9E-09 | 3.4E-09 | 3.6E-09 | 1.2E-09 |

**Parameter : Plus Input Bias Current : IIB2+**
**Test conditions : +Vcc=+8V. Vdd=-8V. VICM=0**
Unit : A
Spec Limit Min : -60.0E-09
Spec Limit Max : 60.0E-09
Spec limits are represented in bold lines on the graphic.




### Measurements

| IIB2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -5.6E-09 | -5.6E-09 | -6.1E-09 | -5.8E-09 | -5.9E-09 | -5.5E-09 | -5.7E-09 | -5.9E-09 | -5.7E-09 | -5.7E-09 | -6.0E-09 | -5.8E-09 | -5.8E-09 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | -10.2E-09 | -7.6E-09 | -4.6E-09 | 10.7E-09 | 35.2E-09 | 55.7E-09 | **75.5E-09** | **94.8E-09** | **111.7E-09** | **124.4E-09** | **143.6E-09** | **138.6E-09** | 11.8E-09 |
| 276 | -11.2E-09 | -7.8E-09 | -4.3E-09 | 15.8E-09 | 44.0E-09 | **71.3E-09** | **96.3E-09** | **119.9E-09** | **141.5E-09** | **156.6E-09** | **177.9E-09** | **172.1E-09** | 14.2E-09 |
| 277 | -6.2E-09 | -4.8E-09 | -927.2E-12 | 15.8E-09 | 43.1E-09 | **68.8E-09** | **95.5E-09** | **118.9E-09** | **138.6E-09** | **153.9E-09** | **174.7E-09** | **169.3E-09** | 13.3E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -11.2E-09 | -7.8E-09 | -4.6E-09 | 10.7E-09 | 35.2E-09 | 55.7E-09 | 75.5E-09 | 94.8E-09 | 111.7E-09 | 124.4E-09 | 143.6E-09 | 138.6E-09 | 11.8E-09 |
| Max | -6.2E-09 | -4.8E-09 | -927.2E-12 | 15.8E-09 | 44.0E-09 | 71.3E-09 | 96.3E-09 | 119.9E-09 | 141.5E-09 | 156.6E-09 | 177.9E-09 | 172.1E-09 | 14.2E-09 |
| Average | -9.2E-09 | -6.7E-09 | -3.3E-09 | 14.1E-09 | 40.8E-09 | 65.3E-09 | 89.1E-09 | 111.2E-09 | 130.6E-09 | 145.0E-09 | 165.4E-09 | 160.0E-09 | 13.1E-09 |
| Sigma | 2.2E-09 | 1.4E-09 | 1.7E-09 | 2.4E-09 | 3.9E-09 | 6.9E-09 | 9.6E-09 | 11.6E-09 | 13.4E-09 | 14.6E-09 | 15.5E-09 | 15.2E-09 | 1.0E-09 |

### Drift Calculation

| IIB2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | 2.6E-09 | 5.6E-09 | 20.9E-09 | 45.4E-09 | 65.9E-09 | 85.7E-09 | 105.0E-09 | 121.9E-09 | 134.6E-09 | 153.8E-09 | 148.8E-09 | 22.0E-09 |
| 276 | - | 3.4E-09 | 6.8E-09 | 27.0E-09 | 55.2E-09 | 82.5E-09 | 107.4E-09 | 131.1E-09 | 152.7E-09 | 167.7E-09 | 189.1E-09 | 183.2E-09 | 25.4E-09 |
| 277 | - | 1.4E-09 | 5.3E-09 | 22.1E-09 | 49.3E-09 | 75.0E-09 | 101.7E-09 | 125.1E-09 | 144.8E-09 | 160.1E-09 | 180.9E-09 | 175.5E-09 | 19.5E-09 |
| Average | - | 2.5E-09 | 5.9E-09 | 23.3E-09 | 50.0E-09 | 74.5E-09 | 98.3E-09 | 120.4E-09 | 139.8E-09 | 154.1E-09 | 174.6E-09 | 169.2E-09 | 22.3E-09 |
| Sigma | - | 806.7E-12 | 674.2E-12 | 2.7E-09 | 4.0E-09 | 6.8E-09 | 9.2E-09 | 11.2E-09 | 13.0E-09 | 14.2E-09 | 15.1E-09 | 14.8E-09 | 2.4E-09 |

### Measurements

| IIB2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -5.6E-09 | -5.6E-09 | -6.1E-09 | -5.8E-09 | -5.9E-09 | -5.5E-09 | -5.7E-09 | -5.9E-09 | -5.7E-09 | -5.7E-09 | -6.0E-09 | -5.8E-09 | -5.8E-09 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | -9.5E-09 | -10.0E-09 | -7.8E-09 | 8.2E-09 | 39.3E-09 | **66.2E-09** | **91.1E-09** | **117.1E-09** | **136.9E-09** | **150.8E-09** | **171.7E-09** | **163.9E-09** | 8.6E-09 |
| 282 | -3.3E-09 | -3.6E-09 | -123.2E-12 | 19.9E-09 | 51.0E-09 | **80.4E-09** | **106.1E-09** | **130.9E-09** | **148.7E-09** | **164.4E-09** | **184.8E-09** | **178.9E-09** | 20.5E-09 |
| 283 | -8.5E-09 | -8.7E-09 | -6.6E-09 | 8.0E-09 | 34.9E-09 | **62.7E-09** | **84.7E-09** | **108.8E-09** | **126.5E-09** | **138.3E-09** | **158.8E-09** | **153.8E-09** | 6.5E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -9.5E-09 | -10.0E-09 | -7.8E-09 | 8.0E-09 | 34.9E-09 | 62.7E-09 | 84.7E-09 | 108.8E-09 | 126.5E-09 | 138.3E-09 | 158.8E-09 | 153.8E-09 | 6.5E-09 |
| Max | -3.3E-09 | -3.6E-09 | -123.2E-12 | 19.9E-09 | 51.0E-09 | 80.4E-09 | 106.1E-09 | 130.9E-09 | 148.7E-09 | 164.4E-09 | 184.8E-09 | 178.9E-09 | 20.5E-09 |
| Average | -7.1E-09 | -7.4E-09 | -4.8E-09 | 12.0E-09 | 41.7E-09 | 69.8E-09 | 94.0E-09 | 118.9E-09 | 137.4E-09 | 151.2E-09 | 171.8E-09 | 165.6E-09 | 11.9E-09 |
| Sigma | 2.7E-09 | 2.7E-09 | 3.4E-09 | 5.6E-09 | 6.8E-09 | 7.7E-09 | 9.0E-09 | 9.1E-09 | 9.0E-09 | 10.7E-09 | 10.6E-09 | 10.3E-09 | 6.1E-09 |

### Drift Calculation

| IIB2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | -434.4E-12 | 1.8E-09 | 17.7E-09 | 48.8E-09 | 75.7E-09 | 100.7E-09 | 126.6E-09 | 146.4E-09 | 160.3E-09 | 181.2E-09 | 173.5E-09 | 18.1E-09 |
| 282 | - | -304.8E-12 | 3.2E-09 | 23.2E-09 | 54.3E-09 | 83.7E-09 | 109.4E-09 | 134.2E-09 | 152.0E-09 | 167.7E-09 | 188.1E-09 | 182.3E-09 | 23.8E-09 |
| 283 | - | -203.6E-12 | 1.9E-09 | 16.4E-09 | 43.3E-09 | 71.2E-09 | 93.2E-09 | 117.3E-09 | 135.0E-09 | 146.7E-09 | 167.2E-09 | 162.3E-09 | 15.0E-09 |
| Average | - | -314.3E-12 | 2.3E-09 | 19.1E-09 | 48.8E-09 | 76.9E-09 | 101.1E-09 | 126.0E-09 | 144.5E-09 | 158.3E-09 | 178.9E-09 | 172.7E-09 | 19.0E-09 |
| Sigma | - | 94.5E-12 | 646.0E-12 | 3.0E-09 | 4.5E-09 | 5.2E-09 | 6.6E-09 | 6.9E-09 | 7.1E-09 | 8.7E-09 | 8.7E-09 | 8.2E-09 | 3.6E-09 |

### Measurements

| IIB2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -5.6E-09 | -5.6E-09 | -6.1E-09 | -5.8E-09 | -5.9E-09 | -5.5E-09 | -5.7E-09 | -5.9E-09 | -5.7E-09 | -5.7E-09 | -6.0E-09 | -5.8E-09 | -5.8E-09 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | -13.5E-09 | -14.4E-09 | -15.9E-09 | -13.9E-09 | -10.0E-09 | -4.5E-09 | -1.5E-09 | 1.4E-09 | 4.8E-09 | 8.3E-09 | 9.9E-09 | 12.1E-09 | -16.4E-09 |
| 280 | -11.9E-09 | -13.7E-09 | -15.0E-09 | -13.4E-09 | -7.7E-09 | -1.8E-09 | 4.2E-09 | 6.0E-09 | 11.5E-09 | 12.7E-09 | 14.2E-09 | 15.7E-09 | -14.3E-09 |
| 290 | -11.5E-09 | -12.5E-09 | -13.8E-09 | -12.8E-09 | -8.1E-09 | -2.1E-09 | 3.8E-09 | 5.1E-09 | 9.6E-09 | 13.9E-09 | 14.3E-09 | 15.6E-09 | -14.1E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -13.5E-09 | -14.4E-09 | -15.9E-09 | -13.9E-09 | -10.0E-09 | -4.5E-09 | -1.5E-09 | 1.4E-09 | 4.8E-09 | 8.3E-09 | 9.9E-09 | 12.1E-09 | -16.4E-09 |
| Max | -11.5E-09 | -12.5E-09 | -13.8E-09 | -12.8E-09 | -7.7E-09 | -1.8E-09 | 4.2E-09 | 6.0E-09 | 11.5E-09 | 13.9E-09 | 14.3E-09 | 15.7E-09 | -14.1E-09 |
| Average | -12.3E-09 | -13.5E-09 | -14.9E-09 | -13.4E-09 | -8.6E-09 | -2.8E-09 | 2.2E-09 | 4.2E-09 | 8.6E-09 | 11.6E-09 | 12.8E-09 | 14.5E-09 | -14.9E-09 |
| Sigma | 875.2E-12 | 757.6E-12 | 852.8E-12 | 425.4E-12 | 994.1E-12 | 1.2E-09 | 2.6E-09 | 2.0E-09 | 2.8E-09 | 2.4E-09 | 2.0E-09 | 1.7E-09 | 1.1E-09 |

### Drift Calculation

| IIB2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | -848.4E-12 | -2.4E-09 | -340.0E-12 | 3.5E-09 | 9.1E-09 | 12.1E-09 | 14.9E-09 | 18.3E-09 | 21.8E-09 | 23.5E-09 | 25.6E-09 | -2.9E-09 |
| 280 | - | -1.8E-09 | -3.2E-09 | -1.5E-09 | 4.1E-09 | 10.1E-09 | 16.1E-09 | 17.9E-09 | 23.3E-09 | 24.6E-09 | 26.0E-09 | 27.6E-09 | -2.4E-09 |
| 290 | - | -1.0E-09 | -2.3E-09 | -1.3E-09 | 3.4E-09 | 9.4E-09 | 15.4E-09 | 16.6E-09 | 21.2E-09 | 25.4E-09 | 25.8E-09 | 27.1E-09 | -2.5E-09 |
| Average | - | -1.2E-09 | -2.6E-09 | -1.1E-09 | 3.7E-09 | 9.5E-09 | 14.5E-09 | 16.5E-09 | 20.9E-09 | 23.9E-09 | 25.1E-09 | 26.8E-09 | -2.6E-09 |
| Sigma | - | 406.7E-12 | 382.0E-12 | 512.9E-12 | 321.5E-12 | 428.5E-12 | 1.7E-09 | 1.2E-09 | 2.1E-09 | 1.5E-09 | 1.2E-09 | 841.0E-12 | 190.2E-12 |

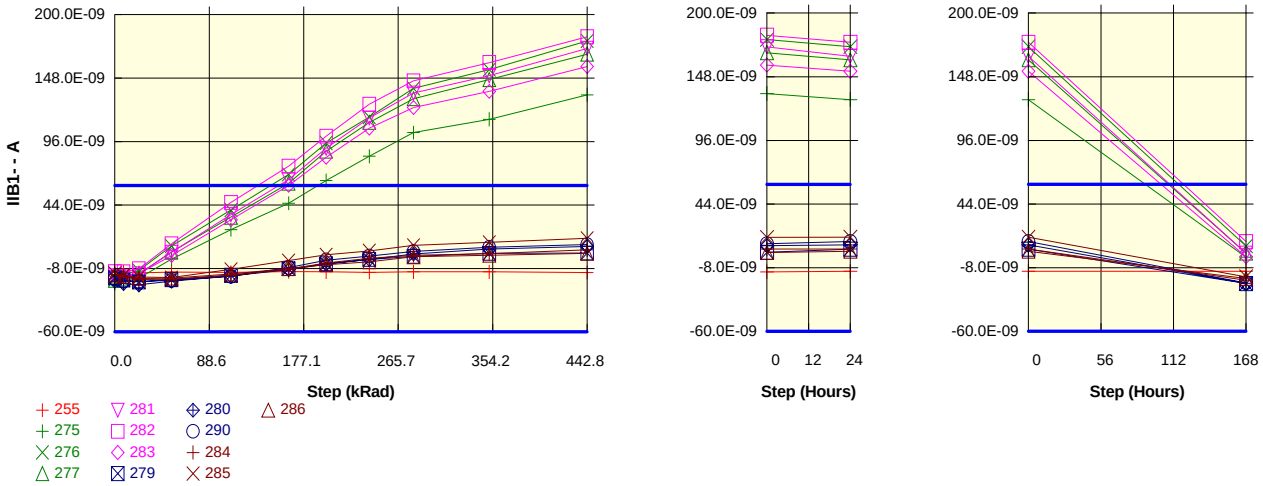
### Measurements

| IIB2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -5.6E-09 | -5.6E-09 | -6.1E-09 | -5.8E-09 | -5.9E-09 | -5.5E-09 | -5.7E-09 | -5.9E-09 | -5.7E-09 | -5.7E-09 | -6.0E-09 | -5.8E-09 | -5.8E-09 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | -6.7E-09 | -7.9E-09 | -9.7E-09 | -9.2E-09 | -5.1E-09 | -1.2E-09 | 3.0E-09 | 6.6E-09 | 12.3E-09 | 13.6E-09 | 15.5E-09 | 15.8E-09 | -12.0E-09 |
| 285 | -6.0E-09 | -7.8E-09 | -8.3E-09 | -7.2E-09 | -2.0E-09 | 2.5E-09 | 8.7E-09 | 10.3E-09 | 15.3E-09 | 16.4E-09 | 20.5E-09 | 20.4E-09 | -9.0E-09 |
| 286 | -7.5E-09 | -9.2E-09 | -10.2E-09 | -9.5E-09 | -6.3E-09 | -2.4E-09 | 896.8E-12 | 3.6E-09 | 6.9E-09 | 7.9E-09 | 10.5E-09 | 10.7E-09 | -10.5E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -7.5E-09 | -9.2E-09 | -10.2E-09 | -9.5E-09 | -6.3E-09 | -2.4E-09 | 896.8E-12 | 3.6E-09 | 6.9E-09 | 7.9E-09 | 10.5E-09 | 10.7E-09 | -12.0E-09 |
| Max | -6.0E-09 | -7.8E-09 | -8.3E-09 | -7.2E-09 | -2.0E-09 | 2.5E-09 | 8.7E-09 | 10.3E-09 | 15.3E-09 | 16.4E-09 | 20.5E-09 | 20.4E-09 | -9.0E-09 |
| Average | -6.7E-09 | -8.3E-09 | -9.4E-09 | -8.6E-09 | -4.5E-09 | -367.3E-12 | 4.2E-09 | 6.8E-09 | 11.5E-09 | 12.6E-09 | 15.5E-09 | 15.7E-09 | -10.5E-09 |
| Sigma | 608.2E-12 | 654.6E-12 | 787.7E-12 | 1.0E-09 | 1.8E-09 | 2.1E-09 | 3.3E-09 | 2.8E-09 | 3.5E-09 | 3.5E-09 | 4.1E-09 | 4.0E-09 | 1.2E-09 |

### Drift Calculation

| IIB2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -1.2E-09 | -3.0E-09 | -2.5E-09 | 1.6E-09 | 5.5E-09 | 9.7E-09 | 13.3E-09 | 19.0E-09 | 20.2E-09 | 22.2E-09 | 22.5E-09 | -5.3E-09 |
| 285 | - | -1.8E-09 | -2.3E-09 | -1.2E-09 | 4.0E-09 | 8.5E-09 | 14.7E-09 | 16.3E-09 | 21.3E-09 | 22.4E-09 | 26.5E-09 | 26.4E-09 | -3.0E-09 |
| 286 | - | -1.7E-09 | -2.7E-09 | -2.0E-09 | 1.2E-09 | 5.1E-09 | 8.4E-09 | 11.0E-09 | 14.4E-09 | 15.4E-09 | 18.0E-09 | 18.2E-09 | -3.0E-09 |
| Average | - | -1.6E-09 | -2.7E-09 | -1.9E-09 | 2.3E-09 | 6.4E-09 | 10.9E-09 | 13.6E-09 | 18.2E-09 | 19.3E-09 | 22.2E-09 | 22.4E-09 | -3.8E-09 |
| Sigma | - | 258.5E-12 | 285.6E-12 | 537.7E-12 | 1.2E-09 | 1.5E-09 | 2.7E-09 | 2.2E-09 | 2.9E-09 | 2.9E-09 | 3.5E-09 | 3.4E-09 | 1.1E-09 |

**Parameter : Minus Input Bias Current : IIB1-**
**Test conditions : +Vcc=+2V. Vdd=-2V. VICM=0**
Unit : A
Spec Limit Min : -60.0E-09
Spec Limit Max : 60.0E-09
Spec limits are represented in bold lines on the graphic.




### Measurements

| IIB1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -10.8E-09 | -10.8E-09 | -11.6E-09 | -11.0E-09 | -11.2E-09 | -10.6E-09 | -10.8E-09 | -11.2E-09 | -10.8E-09 | -10.8E-09 | -11.3E-09 | -11.1E-09 | -11.0E-09 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | -20.7E-09 | -18.9E-09 | -15.9E-09 | -264.4E-12 | 23.7E-09 | 45.4E-09 | 64.1E-09 | 83.9E-09 | 103.4E-09 | 114.3E-09 | 134.3E-09 | 129.4E-09 | 613.6E-12 |
| 276 | -16.3E-09 | -13.6E-09 | -9.6E-09 | 10.4E-09 | 39.9E-09 | 69.0E-09 | 94.9E-09 | 116.1E-09 | 139.6E-09 | 155.0E-09 | 178.4E-09 | 172.6E-09 | 9.8E-09 |
| 277 | -17.7E-09 | -16.5E-09 | -12.6E-09 | 5.6E-09 | 34.0E-09 | 61.9E-09 | 88.0E-09 | 111.7E-09 | 131.1E-09 | 146.8E-09 | 167.7E-09 | 161.8E-09 | 3.9E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -20.7E-09 | -18.9E-09 | -15.9E-09 | -264.4E-12 | 23.7E-09 | 45.4E-09 | 64.1E-09 | 83.9E-09 | 103.4E-09 | 114.3E-09 | 134.3E-09 | 129.4E-09 | 613.6E-12 |
| Max | -16.3E-09 | -13.6E-09 | -9.6E-09 | 10.4E-09 | 39.9E-09 | 69.0E-09 | 94.9E-09 | 116.1E-09 | 139.6E-09 | 155.0E-09 | 178.4E-09 | 172.6E-09 | 9.8E-09 |
| Average | -18.2E-09 | -16.3E-09 | -12.7E-09 | 5.2E-09 | 32.5E-09 | 58.8E-09 | 82.3E-09 | 103.9E-09 | 124.7E-09 | 138.7E-09 | 160.1E-09 | 154.6E-09 | 4.8E-09 |
| Sigma | 1.8E-09 | 2.2E-09 | 2.5E-09 | 4.4E-09 | 6.7E-09 | 9.9E-09 | 13.2E-09 | 14.3E-09 | 15.5E-09 | 17.6E-09 | 18.8E-09 | 18.4E-09 | 3.8E-09 |

### Drift Calculation

| IIB1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | 1.7E-09 | 4.8E-09 | 20.4E-09 | 44.4E-09 | 66.1E-09 | 84.8E-09 | 104.5E-09 | 124.0E-09 | 134.9E-09 | 155.0E-09 | 150.0E-09 | 21.3E-09 |
| 276 | - | 2.8E-09 | 6.7E-09 | 26.8E-09 | 56.2E-09 | 85.3E-09 | 111.2E-09 | 132.4E-09 | 155.9E-09 | 171.3E-09 | 194.7E-09 | 188.9E-09 | 26.1E-09 |
| 277 | - | 1.3E-09 | 5.2E-09 | 23.3E-09 | 51.8E-09 | 79.7E-09 | 105.8E-09 | 129.5E-09 | 148.9E-09 | 164.5E-09 | 185.4E-09 | 179.5E-09 | 21.6E-09 |
| Average | - | 1.9E-09 | 5.6E-09 | 23.5E-09 | 50.8E-09 | 77.0E-09 | 100.6E-09 | 122.1E-09 | 142.9E-09 | 156.9E-09 | 178.4E-09 | 172.8E-09 | 23.0E-09 |
| Sigma | - | 620.8E-12 | 822.1E-12 | 2.6E-09 | 4.9E-09 | 8.1E-09 | 11.4E-09 | 12.5E-09 | 13.7E-09 | 15.8E-09 | 17.0E-09 | 16.6E-09 | 2.2E-09 |

### Measurements

| IIB1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -10.8E-09 | -10.8E-09 | -11.6E-09 | -11.0E-09 | -11.2E-09 | -10.6E-09 | -10.8E-09 | -11.2E-09 | -10.8E-09 | -10.8E-09 | -11.3E-09 | -11.1E-09 | -11.0E-09 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | -14.0E-09 | -14.8E-09 | -12.5E-09 | 5.3E-09 | 36.2E-09 | 64.8E-09 | 90.4E-09 | 115.3E-09 | 135.8E-09 | 150.1E-09 | 172.4E-09 | 164.6E-09 | 3.8E-09 |
| 282 | -10.6E-09 | -10.8E-09 | -8.4E-09 | 12.3E-09 | 46.1E-09 | 75.8E-09 | 100.3E-09 | 126.5E-09 | 145.7E-09 | 160.7E-09 | 181.9E-09 | 176.2E-09 | 13.3E-09 |
| 283 | -13.1E-09 | -13.6E-09 | -12.4E-09 | 2.7E-09 | 32.0E-09 | 60.0E-09 | 83.1E-09 | 106.9E-09 | 123.9E-09 | 137.1E-09 | 157.5E-09 | 152.4E-09 | 1.0E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -14.0E-09 | -14.8E-09 | -12.5E-09 | 2.7E-09 | 32.0E-09 | 60.0E-09 | 83.1E-09 | 106.9E-09 | 123.9E-09 | 137.1E-09 | 157.5E-09 | 152.4E-09 | 1.0E-09 |
| Max | -10.6E-09 | -10.8E-09 | -8.4E-09 | 12.3E-09 | 46.1E-09 | 75.8E-09 | 100.3E-09 | 126.5E-09 | 145.7E-09 | 160.7E-09 | 181.9E-09 | 176.2E-09 | 13.3E-09 |
| Average | -12.6E-09 | -13.1E-09 | -11.1E-09 | 6.8E-09 | 38.1E-09 | 66.9E-09 | 91.3E-09 | 116.2E-09 | 135.1E-09 | 149.3E-09 | 170.6E-09 | 164.4E-09 | 6.1E-09 |
| Sigma | 1.5E-09 | 1.7E-09 | 1.9E-09 | 4.1E-09 | 5.9E-09 | 6.6E-09 | 7.1E-09 | 8.0E-09 | 8.9E-09 | 9.6E-09 | 10.0E-09 | 9.7E-09 | 5.2E-09 |

### Drift Calculation

| IIB1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | -801.6E-12 | 1.6E-09 | 19.3E-09 | 50.3E-09 | 78.8E-09 | 104.5E-09 | 129.3E-09 | 149.8E-09 | 164.1E-09 | 186.4E-09 | 178.7E-09 | 17.8E-09 |
| 282 | - | -271.2E-12 | 2.2E-09 | 22.9E-09 | 56.6E-09 | 86.4E-09 | 110.9E-09 | 137.1E-09 | 156.3E-09 | 171.3E-09 | 192.4E-09 | 186.8E-09 | 23.9E-09 |
| 283 | - | -539.2E-12 | 652.0E-12 | 15.7E-09 | 45.0E-09 | 73.1E-09 | 96.2E-09 | 120.0E-09 | 137.0E-09 | 150.2E-09 | 170.6E-09 | 165.5E-09 | 14.1E-09 |
| Average | - | -537.3E-12 | 1.5E-09 | 19.3E-09 | 50.6E-09 | 79.4E-09 | 103.9E-09 | 128.8E-09 | 147.7E-09 | 161.9E-09 | 183.2E-09 | 177.0E-09 | 18.6E-09 |
| Sigma | - | 216.5E-12 | 623.9E-12 | 2.9E-09 | 4.8E-09 | 5.5E-09 | 6.0E-09 | 7.0E-09 | 8.0E-09 | 8.8E-09 | 9.2E-09 | 8.8E-09 | 4.0E-09 |

**Measurements**

| IIB1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -10.8E-09 | -10.8E-09 | -11.6E-09 | -11.0E-09 | -11.2E-09 | -10.6E-09 | -10.8E-09 | -11.2E-09 | -10.8E-09 | -10.8E-09 | -11.3E-09 | -11.1E-09 | -11.0E-09 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | -15.7E-09 | -17.5E-09 | -19.0E-09 | -17.2E-09 | -13.6E-09 | -8.2E-09 | -4.2E-09 | -567.2E-12 | 1.9E-09 | 4.3E-09 | 4.6E-09 | 7.2E-09 | -21.0E-09 |
| 280 | -18.5E-09 | -20.4E-09 | -21.4E-09 | -18.4E-09 | -14.2E-09 | -8.9E-09 | -4.4E-09 | -531.2E-12 | 4.0E-09 | 8.1E-09 | 10.0E-09 | 10.6E-09 | -20.8E-09 |
| 290 | -16.4E-09 | -18.4E-09 | -18.6E-09 | -17.8E-09 | -14.6E-09 | -7.3E-09 | -1.2E-09 | 2.1E-09 | 6.0E-09 | 9.2E-09 | 11.6E-09 | 13.3E-09 | -20.4E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -18.5E-09 | -20.4E-09 | -21.4E-09 | -18.4E-09 | -14.6E-09 | -8.9E-09 | -4.4E-09 | -567.2E-12 | 1.9E-09 | 4.3E-09 | 4.6E-09 | 7.2E-09 | -21.0E-09 |
| Max | -15.7E-09 | -17.5E-09 | -18.6E-09 | -17.2E-09 | -13.6E-09 | -7.3E-09 | -1.2E-09 | 2.1E-09 | 6.0E-09 | 9.2E-09 | 11.6E-09 | 13.3E-09 | -20.4E-09 |
| Average | -16.9E-09 | -18.7E-09 | -19.7E-09 | -17.8E-09 | -14.1E-09 | -8.1E-09 | -3.2E-09 | 322.7E-12 | 4.0E-09 | 7.2E-09 | 8.7E-09 | 10.3E-09 | -20.7E-09 |
| Sigma | 1.2E-09 | 1.2E-09 | 1.2E-09 | 481.8E-12 | 441.8E-12 | 680.5E-12 | 1.5E-09 | 1.2E-09 | 1.7E-09 | 2.1E-09 | 3.0E-09 | 2.5E-09 | 238.8E-12 |

**Drift Calculation**

| IIB1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | -1.8E-09 | -3.4E-09 | -1.5E-09 | 2.1E-09 | 7.5E-09 | 11.5E-09 | 15.1E-09 | 17.6E-09 | 20.0E-09 | 20.3E-09 | 22.8E-09 | -5.3E-09 |
| 280 | - | -1.8E-09 | -2.9E-09 | 160.4E-12 | 4.3E-09 | 9.6E-09 | 14.1E-09 | 18.0E-09 | 22.5E-09 | 26.6E-09 | 28.5E-09 | 29.1E-09 | -2.3E-09 |
| 290 | - | -2.0E-09 | -2.2E-09 | -1.4E-09 | 1.8E-09 | 9.2E-09 | 15.3E-09 | 18.5E-09 | 22.4E-09 | 25.7E-09 | 28.0E-09 | 29.7E-09 | -4.0E-09 |
| Average | - | -1.9E-09 | -2.8E-09 | -897.3E-12 | 2.7E-09 | 8.7E-09 | 13.6E-09 | 17.2E-09 | 20.8E-09 | 24.1E-09 | 25.6E-09 | 27.2E-09 | -3.9E-09 |
| Sigma | - | 92.2E-12 | 480.8E-12 | 749.5E-12 | 1.1E-09 | 916.3E-12 | 1.6E-09 | 1.5E-09 | 2.3E-09 | 2.9E-09 | 3.8E-09 | 3.1E-09 | 1.3E-09 |

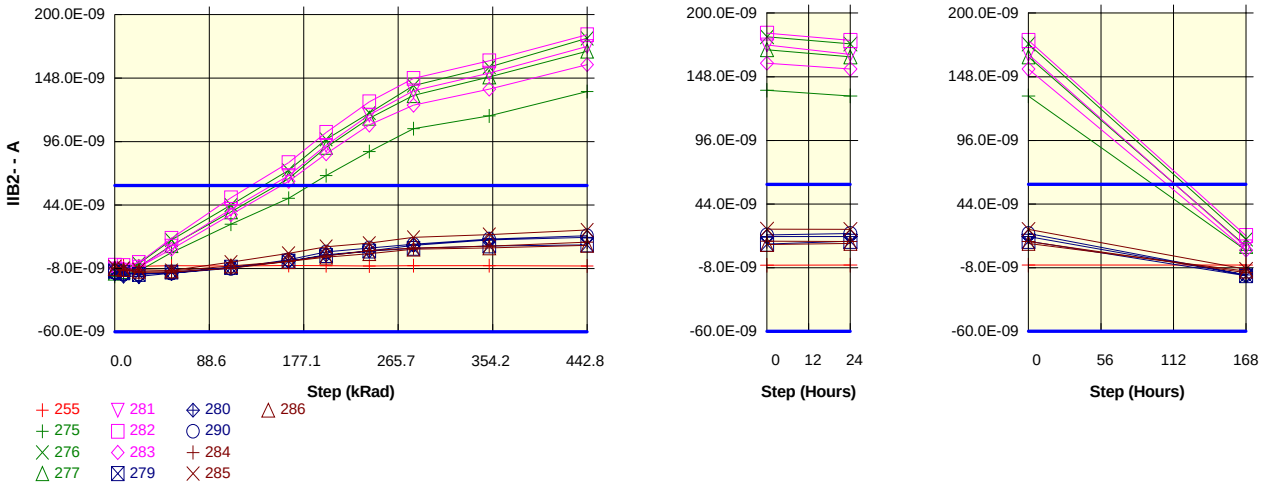
**Measurements**

| IIB1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -10.8E-09 | -10.8E-09 | -11.6E-09 | -11.0E-09 | -11.2E-09 | -10.6E-09 | -10.8E-09 | -11.2E-09 | -10.8E-09 | -10.8E-09 | -11.3E-09 | -11.1E-09 | -11.0E-09 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | -12.9E-09 | -15.0E-09 | -17.0E-09 | -16.9E-09 | -13.8E-09 | -8.7E-09 | -3.6E-09 | 217.6E-12 | 2.7E-09 | 4.0E-09 | 7.3E-09 | 7.2E-09 | -18.3E-09 |
| 285 | -12.0E-09 | -13.7E-09 | -15.0E-09 | -15.5E-09 | -8.8E-09 | -1.6E-09 | 3.3E-09 | 6.5E-09 | 10.8E-09 | 13.4E-09 | 16.8E-09 | 17.0E-09 | -15.4E-09 |
| 286 | -13.3E-09 | -14.5E-09 | -16.2E-09 | -15.9E-09 | -12.5E-09 | -8.1E-09 | -4.9E-09 | -2.6E-09 | 1.6E-09 | 2.8E-09 | 4.4E-09 | 5.5E-09 | -16.8E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -13.3E-09 | -15.0E-09 | -17.0E-09 | -16.9E-09 | -13.8E-09 | -8.7E-09 | -4.9E-09 | -2.6E-09 | 1.6E-09 | 2.8E-09 | 4.4E-09 | 5.5E-09 | -18.3E-09 |
| Max | -12.0E-09 | -13.7E-09 | -15.0E-09 | -15.5E-09 | -8.8E-09 | -1.6E-09 | 3.3E-09 | 6.5E-09 | 10.8E-09 | 13.4E-09 | 16.8E-09 | 17.0E-09 | -15.4E-09 |
| Average | -12.8E-09 | -14.4E-09 | -16.0E-09 | -16.1E-09 | -11.7E-09 | -6.1E-09 | -1.7E-09 | 1.4E-09 | 5.0E-09 | 6.7E-09 | 9.5E-09 | 9.9E-09 | -16.8E-09 |
| Sigma | 552.6E-12 | 532.6E-12 | 834.8E-12 | 553.0E-12 | 2.1E-09 | 3.2E-09 | 3.6E-09 | 3.8E-09 | 4.1E-09 | 4.7E-09 | 5.3E-09 | 5.1E-09 | 1.2E-09 |

**Drift Calculation**

| IIB1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -2.0E-09 | -4.1E-09 | -3.9E-09 | -863.6E-12 | 4.2E-09 | 9.3E-09 | 13.1E-09 | 15.6E-09 | 17.0E-09 | 20.2E-09 | 20.1E-09 | -5.3E-09 |
| 285 | - | -1.7E-09 | -2.9E-09 | -3.5E-09 | 3.2E-09 | 10.4E-09 | 15.3E-09 | 18.5E-09 | 22.9E-09 | 25.4E-09 | 28.8E-09 | 29.0E-09 | -3.4E-09 |
| 286 | - | -1.2E-09 | -2.8E-09 | -2.6E-09 | 832.8E-12 | 5.2E-09 | 8.5E-09 | 10.7E-09 | 14.9E-09 | 16.1E-09 | 17.7E-09 | 18.8E-09 | -3.5E-09 |
| Average | - | -1.6E-09 | -3.3E-09 | -3.4E-09 | 1.1E-09 | 6.6E-09 | 11.0E-09 | 14.1E-09 | 17.8E-09 | 19.5E-09 | 22.2E-09 | 22.7E-09 | -4.1E-09 |
| Sigma | - | 351.3E-12 | 557.9E-12 | 557.7E-12 | 1.7E-09 | 2.7E-09 | 3.0E-09 | 3.3E-09 | 3.6E-09 | 4.2E-09 | 4.8E-09 | 4.5E-09 | 897.8E-12 |

**Parameter : Minus Input Bias Current : IIB2-**
**Test conditions : +Vcc=+8V. Vdd=-8V. VICM=0**
Unit : A
Spec Limit Min : -60.0E-09
Spec Limit Max : 60.0E-09
Spec limits are represented in bold lines on the graphic.




### Measurements

| IIB2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -5.8E-09 | -5.7E-09 | -6.3E-09 | -5.9E-09 | -6.1E-09 | -5.6E-09 | -5.8E-09 | -6.0E-09 | -5.8E-09 | -5.8E-09 | -6.0E-09 | -5.9E-09 | -5.8E-09 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | -14.5E-09 | -13.0E-09 | -10.0E-09 | 5.1E-09 | 28.3E-09 | 49.4E-09 | **68.1E-09** | **87.8E-09** | **106.5E-09** | **117.0E-09** | **136.9E-09** | **132.3E-09** | 6.2E-09 |
| 276 | -10.5E-09 | -7.8E-09 | -4.0E-09 | 15.4E-09 | 44.0E-09 | **72.5E-09** | **97.7E-09** | **119.4E-09** | **141.9E-09** | **157.0E-09** | **180.6E-09** | **174.7E-09** | 15.2E-09 |
| 277 | -11.7E-09 | -10.5E-09 | -6.6E-09 | 10.8E-09 | 38.5E-09 | **65.6E-09** | **91.2E-09** | **115.1E-09** | **133.7E-09** | **149.0E-09** | **170.1E-09** | **164.3E-09** | 9.5E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -14.5E-09 | -13.0E-09 | -10.0E-09 | 5.1E-09 | 28.3E-09 | 49.4E-09 | 68.1E-09 | 87.8E-09 | 106.5E-09 | 117.0E-09 | 136.9E-09 | 132.3E-09 | 6.2E-09 |
| Max | -10.5E-09 | -7.8E-09 | -4.0E-09 | 15.4E-09 | 44.0E-09 | 72.5E-09 | 97.7E-09 | 119.4E-09 | 141.9E-09 | 157.0E-09 | 180.6E-09 | 174.7E-09 | 15.2E-09 |
| Average | -12.2E-09 | -10.5E-09 | -6.9E-09 | 10.4E-09 | 36.9E-09 | 62.5E-09 | 85.7E-09 | 107.4E-09 | 127.4E-09 | 141.0E-09 | 162.6E-09 | 157.1E-09 | 10.3E-09 |
| Sigma | 1.7E-09 | 2.1E-09 | 2.5E-09 | 4.2E-09 | 6.5E-09 | 9.7E-09 | 12.7E-09 | 14.0E-09 | 15.1E-09 | 17.3E-09 | 18.6E-09 | 18.1E-09 | 3.7E-09 |

### Drift Calculation

| IIB2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | 1.5E-09 | 4.5E-09 | 19.6E-09 | 42.8E-09 | 63.9E-09 | 82.6E-09 | 102.3E-09 | 121.0E-09 | 131.5E-09 | 151.4E-09 | 146.8E-09 | 20.7E-09 |
| 276 | - | 2.6E-09 | 6.5E-09 | 25.9E-09 | 54.5E-09 | 82.9E-09 | 108.2E-09 | 129.9E-09 | 152.4E-09 | 167.5E-09 | 191.1E-09 | 185.2E-09 | 25.7E-09 |
| 277 | - | 1.2E-09 | 5.1E-09 | 22.5E-09 | 50.2E-09 | 77.3E-09 | 103.0E-09 | 126.8E-09 | 145.5E-09 | 160.7E-09 | 181.8E-09 | 176.0E-09 | 21.2E-09 |
| Average | - | 1.8E-09 | 5.4E-09 | 22.7E-09 | 49.2E-09 | 74.7E-09 | 97.9E-09 | 119.7E-09 | 139.6E-09 | 153.2E-09 | 174.8E-09 | 169.3E-09 | 22.5E-09 |
| Sigma | - | 618.4E-12 | 837.6E-12 | 2.6E-09 | 4.8E-09 | 8.0E-09 | 11.1E-09 | 12.3E-09 | 13.5E-09 | 15.6E-09 | 16.9E-09 | 16.4E-09 | 2.2E-09 |

### Measurements

| IIB2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -5.8E-09 | -5.7E-09 | -6.3E-09 | -5.9E-09 | -6.1E-09 | -5.6E-09 | -5.8E-09 | -6.0E-09 | -5.8E-09 | -5.8E-09 | -6.0E-09 | -5.9E-09 | -5.8E-09 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | -8.6E-09 | -9.4E-09 | -7.0E-09 | 10.1E-09 | 40.4E-09 | **68.1E-09** | **93.0E-09** | **117.8E-09** | **137.7E-09** | **152.0E-09** | **173.9E-09** | **166.2E-09** | 8.9E-09 |
| 282 | -5.4E-09 | -5.6E-09 | -3.2E-09 | 16.8E-09 | 49.8E-09 | **78.7E-09** | **103.4E-09** | **128.6E-09** | **147.7E-09** | **162.2E-09** | **183.6E-09** | **177.7E-09** | 18.2E-09 |
| 283 | -7.6E-09 | -8.2E-09 | -7.0E-09 | 7.7E-09 | 36.1E-09 | **63.3E-09** | **86.0E-09** | **109.6E-09** | **125.8E-09** | **138.9E-09** | **159.1E-09** | **154.2E-09** | 6.4E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -8.6E-09 | -9.4E-09 | -7.0E-09 | 7.7E-09 | 36.1E-09 | 63.3E-09 | 86.0E-09 | 109.6E-09 | 125.8E-09 | 138.9E-09 | 159.1E-09 | 154.2E-09 | 6.4E-09 |
| Max | -5.4E-09 | -5.6E-09 | -3.2E-09 | 16.8E-09 | 49.8E-09 | 78.7E-09 | 103.4E-09 | 128.6E-09 | 147.7E-09 | 162.2E-09 | 183.6E-09 | 177.7E-09 | 18.2E-09 |
| Average | -7.2E-09 | -7.7E-09 | -5.7E-09 | 11.6E-09 | 42.1E-09 | 70.0E-09 | 94.2E-09 | 118.7E-09 | 137.1E-09 | 151.0E-09 | 172.2E-09 | 166.0E-09 | 11.2E-09 |
| Sigma | 1.4E-09 | 1.6E-09 | 1.8E-09 | 3.8E-09 | 5.7E-09 | 6.4E-09 | 7.2E-09 | 7.8E-09 | 8.9E-09 | 9.5E-09 | 10.1E-09 | 9.6E-09 | 5.1E-09 |

### Drift Calculation

| IIB2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | -715.2E-12 | 1.7E-09 | 18.8E-09 | 49.0E-09 | 76.8E-09 | 101.6E-09 | 126.5E-09 | 146.3E-09 | 160.6E-09 | 182.6E-09 | 174.9E-09 | 17.6E-09 |
| 282 | - | -253.2E-12 | 2.2E-09 | 22.2E-09 | 55.2E-09 | 84.1E-09 | 108.8E-09 | 134.0E-09 | 153.1E-09 | 167.6E-09 | 189.0E-09 | 183.0E-09 | 23.6E-09 |
| 283 | - | -538.0E-12 | 602.8E-12 | 15.4E-09 | 43.7E-09 | 71.0E-09 | 93.7E-09 | 117.2E-09 | 133.4E-09 | 146.5E-09 | 166.7E-09 | 161.8E-09 | 14.0E-09 |
| Average | - | -502.1E-12 | 1.5E-09 | 18.8E-09 | 49.3E-09 | 77.3E-09 | 101.4E-09 | 125.9E-09 | 144.3E-09 | 158.3E-09 | 179.4E-09 | 173.3E-09 | 18.4E-09 |
| Sigma | - | 190.3E-12 | 650.2E-12 | 2.8E-09 | 4.7E-09 | 5.4E-09 | 6.2E-09 | 6.9E-09 | 8.2E-09 | 8.8E-09 | 9.4E-09 | 8.7E-09 | 3.9E-09 |

**Measurements**

| IIB2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -5.8E-09 | -5.7E-09 | -6.3E-09 | -5.9E-09 | -6.1E-09 | -5.6E-09 | -5.8E-09 | -6.0E-09 | -5.8E-09 | -5.8E-09 | -6.0E-09 | -5.9E-09 | -5.8E-09 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | -10.2E-09 | -11.5E-09 | -12.8E-09 | -10.9E-09 | -7.0E-09 | -1.9E-09 | 2.5E-09 | 6.1E-09 | 8.4E-09 | 10.6E-09 | 11.3E-09 | 13.5E-09 | -14.5E-09 |
| 280 | -12.6E-09 | -14.2E-09 | -14.7E-09 | -11.8E-09 | -7.2E-09 | -2.2E-09 | 3.1E-09 | 6.4E-09 | 10.9E-09 | 15.4E-09 | 17.4E-09 | 17.5E-09 | -13.8E-09 |
| 290 | -10.8E-09 | -12.5E-09 | -12.5E-09 | -11.8E-09 | -7.9E-09 | -882.0E-12 | 5.5E-09 | 8.6E-09 | 11.8E-09 | 16.1E-09 | 18.8E-09 | 19.9E-09 | -13.9E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -12.6E-09 | -14.2E-09 | -14.7E-09 | -11.8E-09 | -7.9E-09 | -2.2E-09 | 2.5E-09 | 6.1E-09 | 8.4E-09 | 10.6E-09 | 11.3E-09 | 13.5E-09 | -14.5E-09 |
| Max | -10.2E-09 | -11.5E-09 | -12.5E-09 | -10.9E-09 | -7.0E-09 | -882.0E-12 | 5.5E-09 | 8.6E-09 | 11.8E-09 | 16.1E-09 | 18.8E-09 | 19.9E-09 | -13.8E-09 |
| Average | -11.2E-09 | -12.7E-09 | -13.4E-09 | -11.5E-09 | -7.4E-09 | -1.7E-09 | 3.7E-09 | 7.0E-09 | 10.4E-09 | 14.0E-09 | 15.8E-09 | 17.0E-09 | -14.1E-09 |
| Sigma | 1.0E-09 | 1.1E-09 | 956.3E-12 | 403.7E-12 | 385.2E-12 | 555.7E-12 | 1.3E-09 | 1.1E-09 | 1.4E-09 | 2.5E-09 | 3.3E-09 | 2.6E-09 | 328.7E-12 |

**Drift Calculation**

| IIB2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | -1.3E-09 | -2.6E-09 | -736.4E-12 | 3.2E-09 | 8.3E-09 | 12.7E-09 | 16.3E-09 | 18.6E-09 | 20.8E-09 | 21.5E-09 | 23.7E-09 | -4.3E-09 |
| 280 | - | -1.6E-09 | -2.1E-09 | 811.6E-12 | 5.4E-09 | 10.4E-09 | 15.7E-09 | 19.0E-09 | 23.5E-09 | 28.0E-09 | 29.9E-09 | 30.1E-09 | -1.2E-09 |
| 290 | - | -1.6E-09 | -1.7E-09 | -1.0E-09 | 2.9E-09 | 9.9E-09 | 16.3E-09 | 19.4E-09 | 22.6E-09 | 26.9E-09 | 29.6E-09 | 30.7E-09 | -3.1E-09 |
| Average | - | -1.5E-09 | -2.2E-09 | -312.9E-12 | 3.8E-09 | 9.5E-09 | 14.9E-09 | 18.2E-09 | 21.6E-09 | 25.2E-09 | 27.0E-09 | 28.2E-09 | -2.9E-09 |
| Sigma | - | 153.7E-12 | 383.4E-12 | 803.2E-12 | 1.1E-09 | 911.9E-12 | 1.6E-09 | 1.4E-09 | 2.1E-09 | 3.2E-09 | 3.9E-09 | 3.2E-09 | 1.3E-09 |

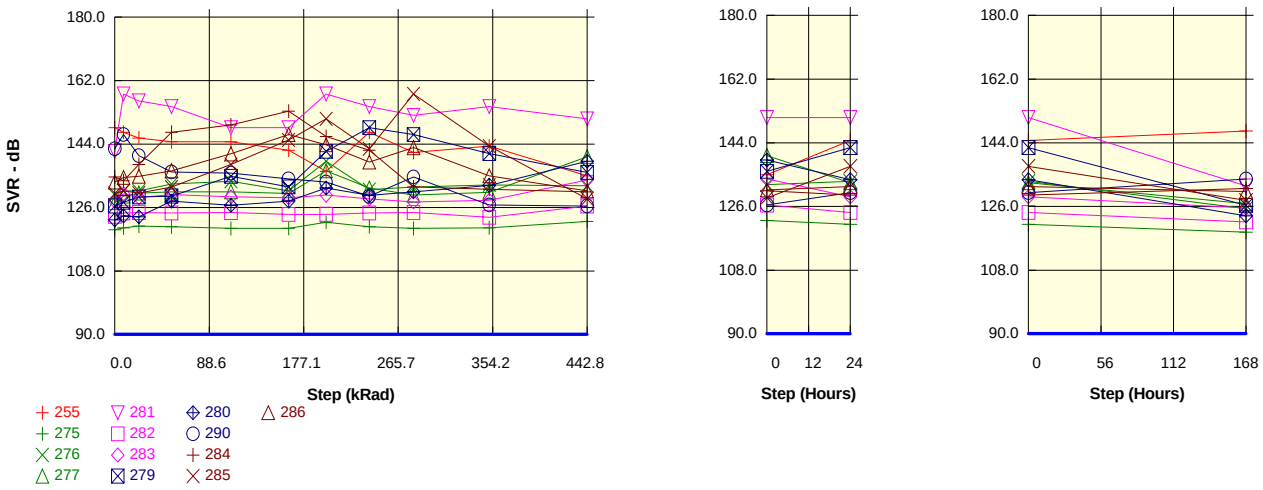
**Measurements**

| IIB2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -5.8E-09 | -5.7E-09 | -6.3E-09 | -5.9E-09 | -6.1E-09 | -5.6E-09 | -5.8E-09 | -6.0E-09 | -5.8E-09 | -5.8E-09 | -6.0E-09 | -5.9E-09 | -5.8E-09 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | -7.6E-09 | -9.5E-09 | -11.2E-09 | -10.9E-09 | -7.8E-09 | -2.2E-09 | 2.4E-09 | 6.7E-09 | 8.6E-09 | 10.1E-09 | 13.6E-09 | 13.3E-09 | -12.1E-09 |
| 285 | -6.7E-09 | -8.1E-09 | -9.0E-09 | -9.7E-09 | -2.8E-09 | 4.4E-09 | 9.9E-09 | 12.7E-09 | 17.4E-09 | 19.8E-09 | 23.5E-09 | 23.3E-09 | -9.3E-09 |
| 286 | -7.9E-09 | -8.9E-09 | -10.3E-09 | -10.0E-09 | -6.0E-09 | -2.3E-09 | 1.3E-09 | 4.1E-09 | 7.8E-09 | 8.9E-09 | 10.9E-09 | 11.9E-09 | -10.7E-09 |
| Statistics | | | | | | | | | | | | | |
| Min | -7.9E-09 | -9.5E-09 | -11.2E-09 | -10.9E-09 | -7.8E-09 | -2.3E-09 | 1.3E-09 | 4.1E-09 | 7.8E-09 | 8.9E-09 | 10.9E-09 | 11.9E-09 | -12.1E-09 |
| Max | -6.7E-09 | -8.1E-09 | -9.0E-09 | -9.7E-09 | -2.8E-09 | 4.4E-09 | 9.9E-09 | 12.7E-09 | 17.4E-09 | 19.8E-09 | 23.5E-09 | 23.3E-09 | -9.3E-09 |
| Average | -7.4E-09 | -8.8E-09 | -10.1E-09 | -10.2E-09 | -5.6E-09 | -21.5E-12 | 4.5E-09 | 7.8E-09 | 11.3E-09 | 12.9E-09 | 16.0E-09 | 16.1E-09 | -10.7E-09 |
| Sigma | 532.1E-12 | 562.0E-12 | 913.0E-12 | 532.1E-12 | 2.1E-09 | 3.1E-09 | 3.8E-09 | 3.6E-09 | 4.3E-09 | 4.8E-09 | 5.4E-09 | 5.1E-09 | 1.1E-09 |

**Drift Calculation**

| IIB2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -1.8E-09 | -3.5E-09 | -3.3E-09 | -184.8E-12 | 5.5E-09 | 10.1E-09 | 14.3E-09 | 16.3E-09 | 17.8E-09 | 21.3E-09 | 20.9E-09 | -4.4E-09 |
| 285 | - | -1.4E-09 | -2.3E-09 | -3.0E-09 | 3.9E-09 | 11.1E-09 | 16.5E-09 | 19.4E-09 | 24.0E-09 | 26.5E-09 | 30.2E-09 | 30.0E-09 | -2.6E-09 |
| 286 | - | -987.2E-12 | -2.3E-09 | -2.1E-09 | 1.9E-09 | 5.7E-09 | 9.2E-09 | 12.1E-09 | 15.7E-09 | 16.9E-09 | 18.8E-09 | 19.8E-09 | -2.8E-09 |
| Average | - | -1.4E-09 | -2.7E-09 | -2.8E-09 | 1.9E-09 | 7.4E-09 | 11.9E-09 | 15.3E-09 | 18.7E-09 | 20.4E-09 | 23.4E-09 | 23.6E-09 | -3.3E-09 |
| Sigma | - | 342.8E-12 | 587.4E-12 | 506.9E-12 | 1.7E-09 | 2.6E-09 | 3.3E-09 | 3.1E-09 | 3.8E-09 | 4.3E-09 | 4.9E-09 | 4.6E-09 | 838.2E-12 |

**Parameter : Supply Rejection Ratio : SVR**
**Test conditions : +3V < +Vcc < 16V**
Unit : dB
Spec Limit Min : 90.0
Spec limits are represented in bold lines on the graphic.




### Measurements

| SVR | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 148.7 | 147.3 | 145.7 | 144.7 | 144.7 | 142.3 | 136.3 | 147.3 | 141.6 | 143.4 | 135.0 | 144.7 | 147.3 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | 119.7 | 120.2 | 120.7 | 120.5 | 120.1 | 120.1 | 121.8 | 120.6 | 120.1 | 120.3 | 122.0 | 120.9 | 118.8 |
| 276 | 129.5 | 130.7 | 130.7 | 132.6 | 133.5 | 130.7 | 139.1 | 131.1 | 131.8 | 132.4 | 132.2 | 133.1 | 125.4 |
| 277 | 127.4 | 129.3 | 130.1 | 130.5 | 130.5 | 130.0 | 136.4 | 131.5 | 129.5 | 130.3 | 140.4 | 132.7 | 126.8 |
| Statistics | | | | | | | | | | | | | |
| Min | 119.7 | 120.2 | 120.7 | 120.5 | 120.1 | 120.1 | 121.8 | 120.6 | 120.1 | 120.3 | 122.0 | 120.9 | 118.8 |
| Max | 129.5 | 130.7 | 130.7 | 132.6 | 133.5 | 130.7 | 139.1 | 131.5 | 131.8 | 132.4 | 140.4 | 133.1 | 126.8 |
| Average | 125.5 | 126.7 | 127.2 | 127.9 | 128.0 | 126.9 | 132.5 | 127.7 | 127.1 | 127.7 | 131.5 | 128.9 | 123.7 |
| Sigma | 4.2 | 4.6 | 4.6 | 5.3 | 5.8 | 4.8 | 7.6 | 5.1 | 5.1 | 5.3 | 7.5 | 5.7 | 3.5 |

### Drift Calculation

| SVR | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | 505.6E-03 | 1.0E+00 | 812.4E-03 | 342.7E-03 | 369.7E-03 | 2.1E+00 | 869.3E-03 | 342.7E-03 | 560.6E-03 | 2.3E+00 | 1.2E+00 | -953.8E-03 |
| 276 | - | 1.2E+00 | 1.2E+00 | 3.1E+00 | 4.0E+00 | 1.2E+00 | 9.6E+00 | 1.6E+00 | 2.3E+00 | 2.9E+00 | 2.7E+00 | 3.6E+00 | -4.1E+00 |
| 277 | - | 1.8E+00 | 2.6E+00 | 3.1E+00 | 3.1E+00 | 2.5E+00 | 9.0E+00 | 4.1E+00 | 2.0E+00 | 2.9E+00 | 13.0E+00 | 5.3E+00 | -666.1E-03 |
| Average | - | 1.2E+00 | 1.6E+00 | 2.3E+00 | 2.5E+00 | 1.4E+00 | 6.9E+00 | 2.2E+00 | 1.6E+00 | 2.1E+00 | 6.0E+00 | 3.4E+00 | -1.9E+00 |
| Sigma | - | 534.1E-03 | 717.4E-03 | 1.1E+00 | 1.5E+00 | 894.9E-03 | 3.4E+00 | 1.4E+00 | 859.2E-03 | 1.1E+00 | 4.9E+00 | 1.7E+00 | 1.5E+00 |

### Measurements

| SVR | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 148.7 | 147.3 | 145.7 | 144.7 | 144.7 | 142.3 | 136.3 | 147.3 | 141.6 | 143.4 | 135.0 | 144.7 | 147.3 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | 141.9 | 158.2 | 156.3 | 154.7 | 148.7 | 148.7 | 158.2 | 154.7 | 152.2 | 154.7 | 151.2 | 151.2 | 131.8 |
| 282 | 123.5 | 124.5 | 124.6 | 124.4 | 124.6 | 124.0 | 124.1 | 124.4 | 124.6 | 123.2 | 126.4 | 124.3 | 121.6 |
| 283 | 127.8 | 129.9 | 128.8 | 129.6 | 129.0 | 128.7 | 129.5 | 128.4 | 127.6 | 128.0 | 133.8 | 128.7 | 125.6 |
| Statistics | | | | | | | | | | | | | |
| Min | 123.5 | 124.5 | 124.6 | 124.4 | 124.6 | 124.0 | 124.1 | 124.4 | 124.6 | 123.2 | 126.4 | 124.3 | 121.6 |
| Max | 141.9 | 158.2 | 156.3 | 154.7 | 148.7 | 148.7 | 158.2 | 154.7 | 152.2 | 154.7 | 151.2 | 151.2 | 131.8 |
| Average | 131.1 | 137.5 | 136.5 | 136.3 | 134.1 | 133.8 | 137.3 | 135.9 | 134.8 | 135.3 | 137.1 | 134.7 | 126.3 |
| Sigma | 7.9 | 14.8 | 14.0 | 13.2 | 10.5 | 10.7 | 15.0 | 13.4 | 12.4 | 13.8 | 10.4 | 11.8 | 4.2 |

### Drift Calculation

| SVR | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | 16.3E+00 | 14.3E+00 | 12.7E+00 | 6.7E+00 | 6.7E+00 | 16.3E+00 | 12.7E+00 | 10.2E+00 | 12.7E+00 | 9.2E+00 | 9.2E+00 | -10.2E+00 |
| 282 | - | 973.2E-03 | 1.1E+00 | 928.5E-03 | 1.1E+00 | 536.6E-03 | 579.3E-03 | 928.5E-03 | 1.1E+00 | -314.5E-03 | 2.9E+00 | 795.9E-03 | -1.9E+00 |
| 283 | - | 2.1E+00 | 1.0E+00 | 1.9E+00 | 1.3E+00 | 966.1E-03 | 1.7E+00 | 678.9E-03 | -193.7E-03 | 265.2E-03 | 6.1E+00 | 966.1E-03 | -2.2E+00 |
| Average | - | 6.5E+00 | 5.5E+00 | 5.2E+00 | 3.0E+00 | 2.7E+00 | 6.2E+00 | 4.8E+00 | 3.7E+00 | 4.2E+00 | 6.1E+00 | 3.7E+00 | -4.7E+00 |
| Sigma | - | 6.9E+00 | 6.3E+00 | 5.4E+00 | 2.6E+00 | 2.8E+00 | 7.1E+00 | 5.6E+00 | 4.6E+00 | 6.0E+00 | 2.6E+00 | 3.9E+00 | 3.8E+00 |

### Measurements

| SVR | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 148.7 | 147.3 | 145.7 | 144.7 | 144.7 | 142.3 | 136.3 | 147.3 | 141.6 | 143.4 | 135.0 | 144.7 | 147.3 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | 126.4 | 127.5 | 129.0 | 129.3 | 134.8 | 131.9 | 141.9 | 148.7 | 146.7 | 141.3 | 135.9 | 142.6 | 126.3 |
| 280 | 122.5 | 123.6 | 123.3 | 127.8 | 126.7 | 127.8 | 131.5 | 129.4 | 130.5 | 132.3 | 139.1 | 133.6 | 123.3 |
| 290 | 142.6 | 146.7 | 140.7 | 136.1 | 135.8 | 134.1 | 133.2 | 129.2 | 134.7 | 126.7 | 126.4 | 129.9 | 133.7 |
| Statistics | | | | | | | | | | | | | |
| Min | 122.5 | 123.6 | 123.3 | 127.8 | 126.7 | 127.8 | 131.5 | 129.2 | 130.5 | 126.7 | 126.4 | 129.9 | 123.3 |
| Max | 142.6 | 146.7 | 140.7 | 136.1 | 135.8 | 134.1 | 141.9 | 148.7 | 146.7 | 141.3 | 139.1 | 142.6 | 133.7 |
| Average | 130.5 | 132.6 | 131.0 | 131.1 | 132.4 | 131.3 | 135.6 | 135.7 | 137.3 | 133.4 | 133.8 | 135.4 | 127.8 |
| Sigma | 8.7 | 10.1 | 7.2 | 3.6 | 4.1 | 2.6 | 4.6 | 9.1 | 6.9 | 6.0 | 5.4 | 5.4 | 4.4 |

### Drift Calculation

| SVR | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | 1.1E+00 | 2.5E+00 | 2.8E+00 | 8.4E+00 | 5.4E+00 | 15.5E+00 | 22.2E+00 | 20.3E+00 | 14.9E+00 | 9.5E+00 | 16.2E+00 | -111.3E-03 |
| 280 | - | 1.1E+00 | 860.0E-03 | 5.3E+00 | 4.2E+00 | 5.3E+00 | 9.1E+00 | 6.9E+00 | 8.0E+00 | 9.8E+00 | 16.6E+00 | 11.1E+00 | 860.0E-03 |
| 290 | - | 4.1E+00 | -2.0E+00 | -6.5E+00 | -6.9E+00 | -8.5E+00 | -9.4E+00 | -13.5E+00 | -8.0E+00 | -15.9E+00 | -16.2E+00 | -12.7E+00 | -8.9E+00 |
| Average | - | 2.1E+00 | 479.8E-03 | 537.1E-03 | 1.9E+00 | 747.4E-03 | 5.0E+00 | 5.2E+00 | 6.8E+00 | 2.9E+00 | 3.3E+00 | 4.9E+00 | -2.7E+00 |
| Sigma | - | 1.4E+00 | 1.9E+00 | 5.1E+00 | 6.4E+00 | 6.6E+00 | 10.6E+00 | 14.6E+00 | 11.6E+00 | 13.5E+00 | 14.1E+00 | 12.6E+00 | 4.4E+00 |

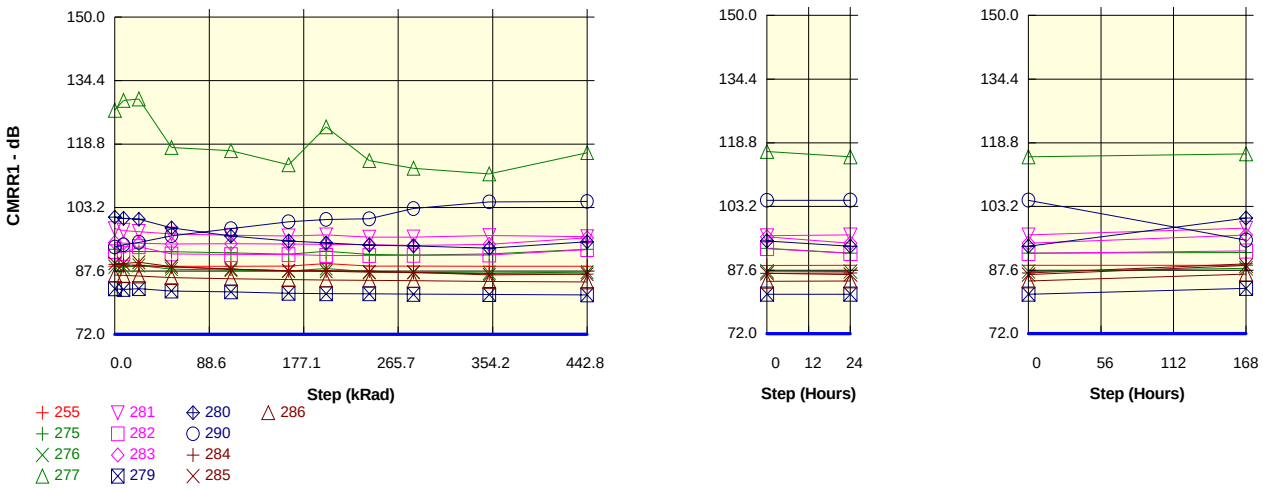
### Measurements

| SVR | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 148.7 | 147.3 | 145.7 | 144.7 | 144.7 | 142.3 | 136.3 | 147.3 | 141.6 | 143.4 | 135.0 | 144.7 | 147.3 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | 134.7 | 133.6 | 138.2 | 147.3 | 149.4 | 153.3 | 146.2 | 142.3 | 131.9 | 131.2 | 130.5 | 129.2 | 131.1 |
| 285 | 130.0 | 130.7 | 130.1 | 131.8 | 138.2 | 145.1 | 151.2 | 142.6 | 158.2 | 143.4 | 128.4 | 137.4 | 127.7 |
| 286 | 133.2 | 134.5 | 134.8 | 136.4 | 141.2 | 146.7 | 143.8 | 138.9 | 143.0 | 135.0 | 130.7 | 131.6 | 130.2 |
| Statistics | | | | | | | | | | | | | |
| Min | 130.0 | 130.7 | 130.1 | 131.8 | 138.2 | 145.1 | 143.8 | 138.9 | 131.9 | 131.2 | 128.4 | 129.2 | 127.7 |
| Max | 134.7 | 134.5 | 138.2 | 147.3 | 149.4 | 153.3 | 151.2 | 142.6 | 158.2 | 143.4 | 130.7 | 137.4 | 131.1 |
| Average | 132.6 | 132.9 | 134.4 | 138.5 | 142.9 | 148.4 | 147.0 | 141.3 | 144.4 | 136.5 | 129.9 | 132.7 | 129.7 |
| Sigma | 2.0 | 1.6 | 3.3 | 6.5 | 4.7 | 3.6 | 3.1 | 1.7 | 10.8 | 5.1 | 1.0 | 3.4 | 1.4 |

### Drift Calculation

| SVR | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -1.1E+00 | 3.5E+00 | 12.6E+00 | 14.7E+00 | 18.7E+00 | 11.5E+00 | 7.6E+00 | -2.8E+00 | -3.5E+00 | -4.2E+00 | -5.5E+00 | -3.6E+00 |
| 285 | - | 702.2E-03 | 78.5E-03 | 1.8E+00 | 8.2E+00 | 15.2E+00 | 21.2E+00 | 12.7E+00 | 28.2E+00 | 13.4E+00 | -1.5E+00 | 7.4E+00 | -2.3E+00 |
| 286 | - | 1.3E+00 | 1.6E+00 | 3.2E+00 | 8.0E+00 | 13.5E+00 | 10.6E+00 | 5.7E+00 | 9.8E+00 | 1.8E+00 | -2.5E+00 | -1.6E+00 | -3.0E+00 |
| Average | - | 311.2E-03 | 1.7E+00 | 5.9E+00 | 10.3E+00 | 15.8E+00 | 14.4E+00 | 8.6E+00 | 11.7E+00 | 3.9E+00 | -2.7E+00 | 108.6E-03 | -3.0E+00 |
| Sigma | - | 1.0E+00 | 1.4E+00 | 4.8E+00 | 3.1E+00 | 2.2E+00 | 4.8E+00 | 2.9E+00 | 12.7E+00 | 7.1E+00 | 1.1E+00 | 5.4E+00 | 544.1E-03 |

**Parameter : Common Mode Rejection Ratio : CMRR1**
**Test conditions : Vdd<VICM<Vcc. Vcc=+1.5V. Vdd=-1.5V**
Unit : dB
Spec Limit Min : 72.0
Spec limits are represented in bold lines on the graphic.




### Measurements

| CMRR1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 88.7 | 88.8 | 88.7 | 88.7 | 88.8 | 88.8 | 89.4 | 88.8 | 88.8 | 88.8 | 88.7 | 88.8 | 88.8 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | 92.9 | 92.4 | 92.4 | 92.3 | 92.1 | 91.7 | 92.4 | 91.6 | 91.5 | 91.8 | 92.9 | 91.8 | 91.9 |
| 276 | 88.6 | 88.4 | 89.0 | 88.1 | 87.8 | 87.6 | 88.2 | 87.4 | 87.3 | 87.1 | 87.3 | 87.3 | 88.1 |
| 277 | 127.1 | 129.5 | 129.9 | 117.9 | 117.2 | 113.7 | 123.0 | 114.7 | 112.8 | 111.5 | 116.7 | 115.4 | 116.1 |
| Statistics | | | | | | | | | | | | | |
| Min | 88.6 | 88.4 | 89.0 | 88.1 | 87.8 | 87.6 | 88.2 | 87.4 | 87.3 | 87.1 | 87.3 | 87.3 | 88.1 |
| Max | 127.1 | 129.5 | 129.9 | 117.9 | 117.2 | 113.7 | 123.0 | 114.7 | 112.8 | 111.5 | 116.7 | 115.4 | 116.1 |
| Average | 102.9 | 103.5 | 103.7 | 99.5 | 99.0 | 97.7 | 101.2 | 97.9 | 97.2 | 96.8 | 99.0 | 98.1 | 98.7 |
| Sigma | 17.2 | 18.5 | 18.5 | 13.2 | 13.0 | 11.5 | 15.5 | 12.0 | 11.2 | 10.6 | 12.7 | 12.3 | 12.4 |

### Drift Calculation

| CMRR1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | -523.0E-03 | -542.3E-03 | -600.0E-03 | -873.5E-03 | -1.2E+00 | -498.8E-03 | -1.3E+00 | -1.4E+00 | -1.2E+00 | 0.0E+00 | -1.1E+00 | -993.3E-03 |
| 276 | - | -182.5E-03 | 337.8E-03 | -533.4E-03 | -845.2E-03 | -1.0E+00 | -435.8E-03 | -1.2E+00 | -1.3E+00 | -1.5E+00 | -1.3E+00 | -1.4E+00 | -559.8E-03 |
| 277 | - | 2.4E+00 | 2.8E+00 | -9.2E+00 | -10.0E+00 | -13.4E+00 | -4.1E+00 | -12.4E+00 | -14.3E+00 | -15.7E+00 | -10.5E+00 | -11.8E+00 | -11.1E+00 |
| Average | - | 568.7E-03 | 853.9E-03 | -3.4E+00 | -3.9E+00 | -5.2E+00 | -1.7E+00 | -5.0E+00 | -5.7E+00 | -6.1E+00 | -3.9E+00 | -4.8E+00 | -4.2E+00 |
| Sigma | - | 1.3E+00 | 1.4E+00 | 4.1E+00 | 4.3E+00 | 5.8E+00 | 1.7E+00 | 5.3E+00 | 6.1E+00 | 6.8E+00 | 4.7E+00 | 5.0E+00 | 4.9E+00 |

### Measurements

| CMRR1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 88.7 | 88.8 | 88.7 | 88.7 | 88.8 | 88.8 | 89.4 | 88.8 | 88.8 | 88.8 | 88.7 | 88.8 | 88.8 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | 98.0 | 97.6 | 97.3 | 96.7 | 96.4 | 96.2 | 96.4 | 95.9 | 95.9 | 96.3 | 96.0 | 96.2 | 97.8 |
| 282 | 92.3 | 92.0 | 93.6 | 91.8 | 91.6 | 91.6 | 91.4 | 91.4 | 91.5 | 91.5 | 92.9 | 91.7 | 92.3 |
| 283 | 94.6 | 94.4 | 94.4 | 94.2 | 94.3 | 94.2 | 94.2 | 94.1 | 93.9 | 94.1 | 95.7 | 94.2 | 96.2 |
| Statistics | | | | | | | | | | | | | |
| Min | 92.3 | 92.0 | 93.6 | 91.8 | 91.6 | 91.6 | 91.4 | 91.4 | 91.5 | 91.5 | 92.9 | 91.7 | 92.3 |
| Max | 98.0 | 97.6 | 97.3 | 96.7 | 96.4 | 96.2 | 96.4 | 95.9 | 95.9 | 96.3 | 96.0 | 96.2 | 97.8 |
| Average | 95.0 | 94.6 | 95.1 | 94.2 | 94.1 | 94.0 | 94.0 | 93.8 | 93.8 | 94.0 | 94.9 | 94.1 | 95.4 |
| Sigma | 2.3 | 2.3 | 1.6 | 2.0 | 2.0 | 1.9 | 2.1 | 1.9 | 1.8 | 2.0 | 1.4 | 1.9 | 2.3 |

### Drift Calculation

| CMRR1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | -421.2E-03 | -696.7E-03 | -1.3E+00 | -1.6E+00 | -1.8E+00 | -1.6E+00 | -2.1E+00 | -2.0E+00 | -1.7E+00 | -1.9E+00 | -1.7E+00 | -136.7E-03 |
| 282 | - | -355.7E-03 | 1.3E+00 | -541.7E-03 | -688.6E-03 | -688.6E-03 | -915.2E-03 | -945.2E-03 | -837.4E-03 | -789.6E-03 | 567.6E-03 | -622.2E-03 | -19.1E-03 |
| 283 | - | -190.6E-03 | -160.2E-03 | -389.1E-03 | -299.4E-03 | -395.0E-03 | -424.7E-03 | -507.2E-03 | -687.1E-03 | -466.0E-03 | 1.1E+00 | -359.3E-03 | 1.6E+00 |
| Average | - | -322.5E-03 | 135.3E-03 | -728.5E-03 | -861.8E-03 | -954.2E-03 | -963.8E-03 | -1.2E+00 | -1.2E+00 | -981.4E-03 | -77.7E-03 | -905.1E-03 | 473.9E-03 |
| Sigma | - | 97.0E-03 | 826.8E-03 | 377.2E-03 | 543.9E-03 | 595.3E-03 | 461.3E-03 | 676.0E-03 | 607.4E-03 | 517.2E-03 | 1.3E+00 | 595.7E-03 | 781.8E-03 |

### Measurements

| CMRR1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 88.7 | 88.8 | 88.7 | 88.7 | 88.8 | 88.8 | 89.4 | 88.8 | 88.8 | 88.8 | 88.7 | 88.8 | 88.8 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | 83.2 | 83.1 | 83.3 | 82.7 | 82.4 | 82.1 | 82.0 | 82.0 | 81.9 | 81.8 | 81.7 | 81.7 | 83.1 |
| 280 | 100.8 | 100.5 | 100.3 | 98.2 | 96.2 | 94.9 | 94.5 | 94.0 | 93.7 | 93.2 | 94.8 | 93.5 | 100.4 |
| 290 | 93.5 | 94.0 | 94.7 | 96.2 | 98.0 | 99.7 | 100.3 | 100.4 | 102.9 | 104.6 | 104.7 | 104.7 | 94.9 |
| Statistics | | | | | | | | | | | | | |
| Min | 83.2 | 83.1 | 83.3 | 82.7 | 82.4 | 82.1 | 82.0 | 82.0 | 81.9 | 81.8 | 81.7 | 81.7 | 83.1 |
| Max | 100.8 | 100.5 | 100.3 | 98.2 | 98.0 | 99.7 | 100.3 | 100.4 | 102.9 | 104.6 | 104.7 | 104.7 | 100.4 |
| Average | 92.5 | 92.5 | 92.7 | 92.4 | 92.2 | 92.3 | 92.3 | 92.1 | 92.8 | 93.2 | 93.7 | 93.3 | 92.8 |
| Sigma | 7.2 | 7.2 | 7.1 | 6.9 | 6.9 | 7.4 | 7.6 | 7.6 | 8.6 | 9.3 | 9.4 | 9.4 | 7.2 |

### Drift Calculation

| CMRR1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | -158.0E-03 | 38.7E-03 | -540.0E-03 | -774.9E-03 | -1.1E+00 | -1.2E+00 | -1.2E+00 | -1.3E+00 | -1.4E+00 | -1.5E+00 | -1.5E+00 | -113.4E-03 |
| 280 | - | -300.8E-03 | -519.8E-03 | -2.6E+00 | -4.7E+00 | -5.9E+00 | -6.4E+00 | -6.9E+00 | -7.1E+00 | -7.6E+00 | -6.1E+00 | -7.4E+00 | -459.5E-03 |
| 290 | - | 529.7E-03 | 1.2E+00 | 2.8E+00 | 4.5E+00 | 6.2E+00 | 6.8E+00 | 6.9E+00 | 9.4E+00 | 11.1E+00 | 11.2E+00 | 11.3E+00 | 1.4E+00 |
| Average | - | 23.6E-03 | 231.2E-03 | -141.8E-03 | -311.3E-03 | -260.8E-03 | -257.5E-03 | -384.0E-03 | 333.2E-03 | 686.3E-03 | 1.2E+00 | 794.1E-03 | 291.7E-03 |
| Sigma | - | 362.5E-03 | 705.0E-03 | 2.2E+00 | 3.8E+00 | 5.0E+00 | 5.4E+00 | 5.7E+00 | 6.9E+00 | 7.8E+00 | 7.3E+00 | 7.8E+00 | 829.8E-03 |

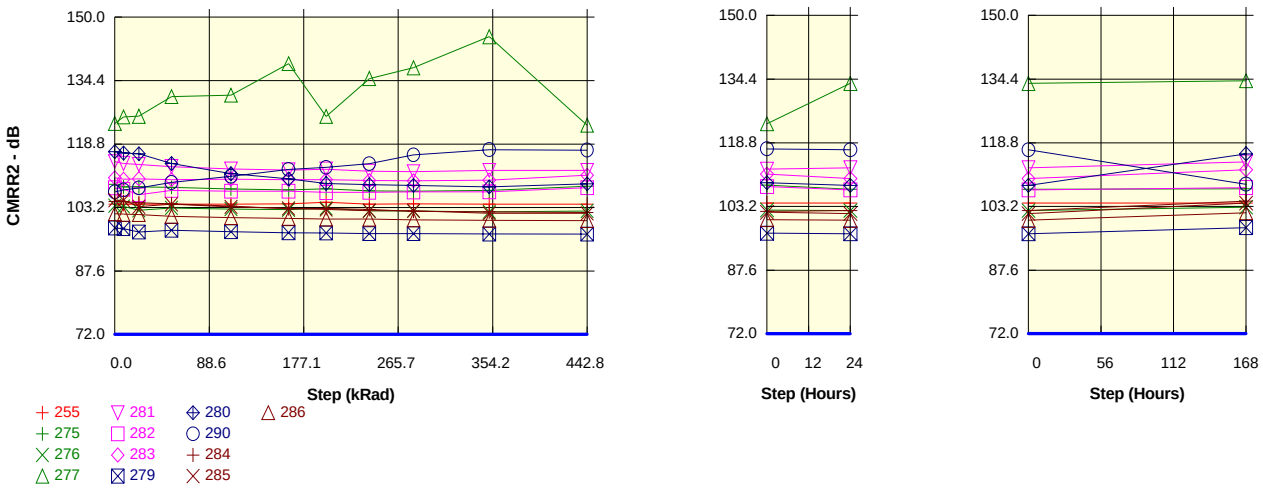
### Measurements

| CMRR1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 88.7 | 88.8 | 88.7 | 88.7 | 88.8 | 88.8 | 89.4 | 88.8 | 88.8 | 88.8 | 88.7 | 88.8 | 88.8 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | 89.2 | 89.1 | 89.0 | 88.6 | 88.1 | 87.7 | 87.6 | 87.6 | 87.2 | 86.9 | 86.8 | 86.9 | 89.2 |
| 285 | 89.5 | 89.4 | 89.7 | 88.7 | 88.1 | 87.7 | 87.5 | 87.3 | 87.3 | 86.6 | 86.8 | 86.5 | 88.7 |
| 286 | 86.6 | 86.5 | 86.4 | 86.0 | 85.7 | 85.5 | 85.4 | 85.3 | 85.2 | 85.0 | 84.9 | 84.9 | 86.6 |
| Statistics | | | | | | | | | | | | | |
| Min | 86.6 | 86.5 | 86.4 | 86.0 | 85.7 | 85.5 | 85.4 | 85.3 | 85.2 | 85.0 | 84.9 | 84.9 | 86.6 |
| Max | 89.5 | 89.4 | 89.7 | 88.7 | 88.1 | 87.7 | 87.6 | 87.6 | 87.3 | 86.9 | 86.8 | 86.9 | 89.2 |
| Average | 88.4 | 88.3 | 88.4 | 87.8 | 87.3 | 87.0 | 86.8 | 86.7 | 86.6 | 86.2 | 86.2 | 86.1 | 88.2 |
| Sigma | 1.3 | 1.3 | 1.4 | 1.3 | 1.1 | 1.0 | 1.0 | 1.0 | 0.9 | 0.8 | 0.9 | 0.8 | 1.1 |

### Drift Calculation

| CMRR1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -106.4E-03 | -182.0E-03 | -597.7E-03 | -1.1E+00 | -1.5E+00 | -1.6E+00 | -1.6E+00 | -2.0E+00 | -2.3E+00 | -2.4E+00 | -2.3E+00 | -60.0E-03 |
| 285 | - | -72.1E-03 | 276.5E-03 | -777.3E-03 | -1.4E+00 | -1.8E+00 | -2.0E+00 | -2.2E+00 | -2.2E+00 | -2.8E+00 | -2.6E+00 | -3.0E+00 | -761.5E-03 |
| 286 | - | -66.3E-03 | -170.9E-03 | -572.4E-03 | -840.6E-03 | -1.1E+00 | -1.2E+00 | -1.3E+00 | -1.3E+00 | -1.6E+00 | -1.7E+00 | -1.6E+00 | 59.4E-03 |
| Average | - | -81.6E-03 | -25.5E-03 | -649.1E-03 | -1.1E+00 | -1.5E+00 | -1.6E+00 | -1.7E+00 | -1.8E+00 | -2.2E+00 | -2.2E+00 | -2.3E+00 | -254.0E-03 |
| Sigma | - | 17.7E-03 | 213.6E-03 | 91.2E-03 | 220.8E-03 | 304.3E-03 | 305.8E-03 | 379.5E-03 | 370.8E-03 | 531.1E-03 | 409.4E-03 | 548.4E-03 | 362.1E-03 |

**Parameter : Common Mode Rejection Ratio : CMRR2**
**Test conditions : Vdd<VICM<Vcc. Vcc=+8V. Vdd=-8V**
Unit : dB
Spec Limit Min : 72.0
Spec limits are represented in bold lines on the graphic.




### Measurements

| CMRR2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 104.0 | 104.0 | 104.0 | 104.0 | 104.0 | 104.1 | 104.5 | 104.1 | 104.1 | 104.1 | 104.0 | 104.1 | 104.1 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | 108.9 | 108.3 | 108.3 | 108.1 | 107.8 | 107.5 | 107.8 | 107.3 | 107.2 | 107.4 | 108.4 | 107.4 | 107.6 |
| 276 | 103.7 | 103.5 | 102.5 | 103.1 | 102.8 | 102.6 | 103.0 | 102.4 | 102.3 | 102.1 | 102.4 | 102.2 | 103.0 |
| 277 | 123.8 | 125.5 | 125.6 | 130.5 | 130.8 | 138.6 | 125.6 | 134.9 | 137.6 | 145.2 | 123.4 | 133.4 | 134.0 |
| Statistics | | | | | | | | | | | | | |
| Min | 103.7 | 103.5 | 102.5 | 103.1 | 102.8 | 102.6 | 103.0 | 102.4 | 102.3 | 102.1 | 102.4 | 102.2 | 103.0 |
| Max | 123.8 | 125.5 | 125.6 | 130.5 | 130.8 | 138.6 | 125.6 | 134.9 | 137.6 | 145.2 | 123.4 | 133.4 | 134.0 |
| Average | 112.1 | 112.4 | 112.2 | 113.9 | 113.8 | 116.3 | 112.1 | 114.9 | 115.7 | 118.2 | 111.4 | 114.3 | 114.9 |
| Sigma | 8.5 | 9.4 | 9.8 | 11.9 | 12.2 | 15.9 | 9.7 | 14.3 | 15.6 | 19.2 | 8.9 | 13.6 | 13.7 |

### Drift Calculation

| CMRR2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | -648.9E-03 | -615.0E-03 | -788.6E-03 | -1.2E+00 | -1.4E+00 | -1.1E+00 | -1.6E+00 | -1.7E+00 | -1.6E+00 | -495.5E-03 | -1.5E+00 | -1.4E+00 |
| 276 | - | -160.7E-03 | -1.2E+00 | -554.6E-03 | -832.7E-03 | -1.0E+00 | -659.5E-03 | -1.3E+00 | -1.3E+00 | -1.5E+00 | -1.3E+00 | -1.5E+00 | -644.2E-03 |
| 277 | - | 1.6E+00 | 1.8E+00 | 6.6E+00 | 7.0E+00 | 14.8E+00 | 1.8E+00 | 11.1E+00 | 13.7E+00 | 21.4E+00 | -396.4E-03 | 9.5E+00 | 10.1E+00 |
| Average | - | 273.8E-03 | 9.7E-03 | 1.8E+00 | 1.7E+00 | 4.1E+00 | 4.0E-03 | 2.7E+00 | 3.6E+00 | 6.1E+00 | -729.1E-03 | 2.2E+00 | 2.7E+00 |
| Sigma | - | 980.2E-03 | 1.3E+00 | 3.4E+00 | 3.8E+00 | 7.5E+00 | 1.2E+00 | 5.9E+00 | 7.2E+00 | 10.8E+00 | 402.5E-03 | 5.2E+00 | 5.3E+00 |

### Measurements

| CMRR2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 104.0 | 104.0 | 104.0 | 104.0 | 104.0 | 104.1 | 104.5 | 104.1 | 104.1 | 104.1 | 104.0 | 104.1 | 104.1 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | 114.5 | 114.1 | 113.8 | 113.3 | 112.7 | 112.4 | 112.6 | 112.1 | 112.0 | 112.4 | 112.4 | 112.7 | 114.1 |
| 282 | 108.0 | 107.7 | 106.3 | 107.4 | 107.2 | 107.2 | 106.9 | 106.9 | 107.0 | 107.1 | 108.1 | 107.3 | 107.8 |
| 283 | 110.5 | 110.2 | 110.3 | 110.1 | 110.2 | 110.1 | 110.0 | 109.8 | 109.8 | 109.9 | 111.1 | 110.0 | 112.2 |
| Statistics | | | | | | | | | | | | | |
| Min | 108.0 | 107.7 | 106.3 | 107.4 | 107.2 | 107.2 | 106.9 | 106.9 | 107.0 | 107.1 | 108.1 | 107.3 | 107.8 |
| Max | 114.5 | 114.1 | 113.8 | 113.3 | 112.7 | 112.4 | 112.6 | 112.1 | 112.0 | 112.4 | 112.4 | 112.7 | 114.1 |
| Average | 111.0 | 110.6 | 110.1 | 110.2 | 110.0 | 109.9 | 109.9 | 109.6 | 109.6 | 109.8 | 110.5 | 110.0 | 111.4 |
| Sigma | 2.7 | 2.6 | 3.1 | 2.4 | 2.2 | 2.1 | 2.3 | 2.1 | 2.0 | 2.2 | 1.8 | 2.2 | 2.6 |

### Drift Calculation

| CMRR2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | -449.6E-03 | -708.5E-03 | -1.3E+00 | -1.8E+00 | -2.1E+00 | -1.9E+00 | -2.4E+00 | -2.5E+00 | -2.2E+00 | -2.2E+00 | -1.8E+00 | -394.6E-03 |
| 282 | - | -375.1E-03 | -1.7E+00 | -608.0E-03 | -834.8E-03 | -814.9E-03 | -1.1E+00 | -1.1E+00 | -992.6E-03 | -948.5E-03 | 32.9E-03 | -754.9E-03 | -200.3E-03 |
| 283 | - | -307.3E-03 | -229.7E-03 | -446.6E-03 | -342.3E-03 | -439.7E-03 | -474.2E-03 | -665.0E-03 | -745.5E-03 | -570.1E-03 | 602.4E-03 | -481.1E-03 | 1.7E+00 |
| Average | - | -377.3E-03 | -888.6E-03 | -769.7E-03 | -997.4E-03 | -1.1E+00 | -1.2E+00 | -1.4E+00 | -1.4E+00 | -1.2E+00 | -506.4E-03 | -1.0E+00 | 361.8E-03 |
| Sigma | - | 58.1E-03 | 624.6E-03 | 349.1E-03 | 612.1E-03 | 698.6E-03 | 570.6E-03 | 720.1E-03 | 766.8E-03 | 675.7E-03 | 1.2E+00 | 575.3E-03 | 935.6E-03 |

### Measurements

| CMRR2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 104.0 | 104.0 | 104.0 | 104.0 | 104.0 | 104.1 | 104.5 | 104.1 | 104.1 | 104.1 | 104.0 | 104.1 | 104.1 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | 98.2 | 98.0 | 97.2 | 97.6 | 97.3 | 97.0 | 96.9 | 96.8 | 96.8 | 96.7 | 96.6 | 96.5 | 98.0 |
| 280 | 117.0 | 116.6 | 116.4 | 114.0 | 111.5 | 110.2 | 109.1 | 108.8 | 108.6 | 108.3 | 109.0 | 108.4 | 116.1 |
| 290 | 107.0 | 107.5 | 108.0 | 109.3 | 110.9 | 112.6 | 113.1 | 114.0 | 116.1 | 117.4 | 117.3 | 117.1 | 108.7 |
| Statistics | | | | | | | | | | | | | |
| Min | 98.2 | 98.0 | 97.2 | 97.6 | 97.3 | 97.0 | 96.9 | 96.8 | 96.8 | 96.7 | 96.6 | 96.5 | 98.0 |
| Max | 117.0 | 116.6 | 116.4 | 114.0 | 111.5 | 112.6 | 113.1 | 114.0 | 116.1 | 117.4 | 117.3 | 117.1 | 116.1 |
| Average | 107.4 | 107.4 | 107.2 | 107.0 | 106.5 | 106.6 | 106.4 | 106.5 | 107.2 | 107.5 | 107.7 | 107.3 | 107.6 |
| Sigma | 7.7 | 7.6 | 7.9 | 6.9 | 6.6 | 6.8 | 6.9 | 7.2 | 8.0 | 8.5 | 8.5 | 8.4 | 7.4 |

### Drift Calculation

| CMRR2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | -129.1E-03 | -957.8E-03 | -571.4E-03 | -908.8E-03 | -1.2E+00 | -1.3E+00 | -1.4E+00 | -1.4E+00 | -1.5E+00 | -1.5E+00 | -1.7E+00 | -141.2E-03 |
| 280 | - | -374.1E-03 | -562.5E-03 | -2.9E+00 | -5.5E+00 | -6.7E+00 | -7.8E+00 | -8.1E+00 | -8.3E+00 | -8.7E+00 | -7.9E+00 | -8.6E+00 | -858.4E-03 |
| 290 | - | 497.0E-03 | 964.1E-03 | 2.3E+00 | 3.8E+00 | 5.5E+00 | 6.0E+00 | 6.9E+00 | 9.1E+00 | 10.4E+00 | 10.3E+00 | 10.0E+00 | 1.6E+00 |
| Average | - | -2.1E-03 | -185.4E-03 | -396.9E-03 | -837.7E-03 | -789.9E-03 | -1.0E+00 | -851.0E-03 | -209.3E-03 | 82.9E-03 | 282.6E-03 | -71.9E-03 | 207.1E-03 |
| Sigma | - | 366.8E-03 | 828.7E-03 | 2.1E+00 | 3.8E+00 | 5.0E+00 | 5.7E+00 | 6.2E+00 | 7.2E+00 | 7.9E+00 | 7.5E+00 | 7.7E+00 | 1.0E+00 |

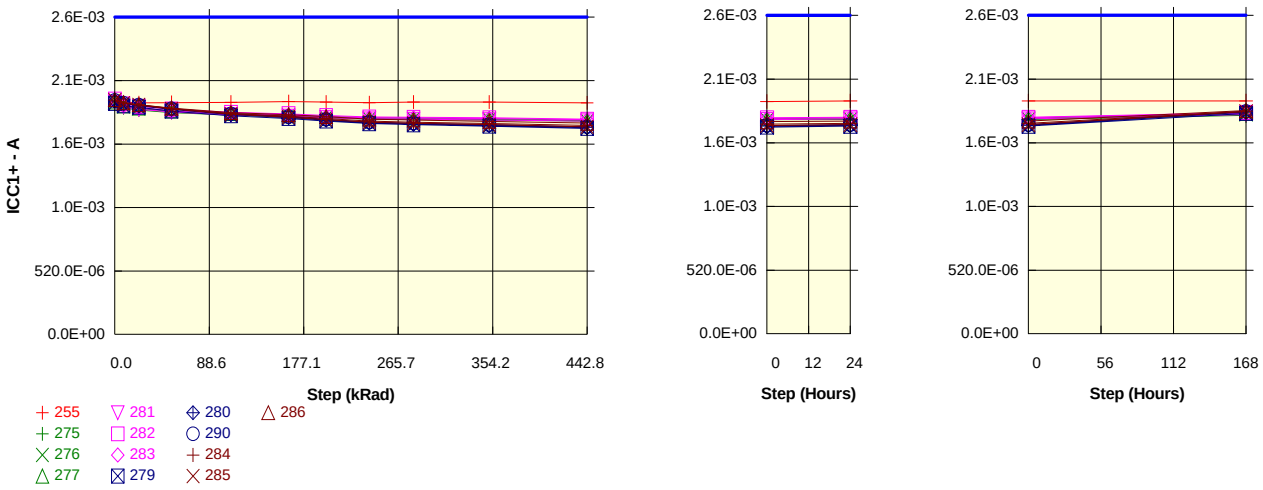
### Measurements

| CMRR2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 104.0 | 104.0 | 104.0 | 104.0 | 104.0 | 104.1 | 104.5 | 104.1 | 104.1 | 104.1 | 104.0 | 104.1 | 104.1 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | 104.7 | 104.6 | 104.4 | 104.1 | 103.5 | 102.9 | 102.9 | 102.8 | 102.3 | 102.1 | 102.0 | 102.2 | 104.5 |
| 285 | 105.0 | 105.0 | 103.4 | 104.0 | 103.4 | 103.0 | 102.7 | 102.4 | 102.4 | 101.8 | 101.8 | 101.4 | 104.0 |
| 286 | 101.7 | 101.6 | 101.4 | 101.0 | 100.7 | 100.5 | 100.4 | 100.3 | 100.2 | 100.0 | 99.9 | 99.8 | 101.7 |
| Statistics | | | | | | | | | | | | | |
| Min | 101.7 | 101.6 | 101.4 | 101.0 | 100.7 | 100.5 | 100.4 | 100.3 | 100.2 | 100.0 | 99.9 | 99.8 | 101.7 |
| Max | 105.0 | 105.0 | 104.4 | 104.1 | 103.5 | 103.0 | 102.9 | 102.8 | 102.4 | 102.1 | 102.0 | 102.2 | 104.5 |
| Average | 103.8 | 103.7 | 103.1 | 103.1 | 102.5 | 102.1 | 102.0 | 101.8 | 101.6 | 101.3 | 101.2 | 101.1 | 103.4 |
| Sigma | 1.5 | 1.5 | 1.2 | 1.4 | 1.3 | 1.1 | 1.1 | 1.1 | 1.0 | 0.9 | 0.9 | 1.0 | 1.2 |

### Drift Calculation

| CMRR2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -77.9E-03 | -321.9E-03 | -566.2E-03 | -1.2E+00 | -1.8E+00 | -1.7E+00 | -1.9E+00 | -2.4E+00 | -2.6E+00 | -2.7E+00 | -2.5E+00 | -169.7E-03 |
| 285 | - | -23.1E-03 | -1.6E+00 | -997.7E-03 | -1.6E+00 | -2.0E+00 | -2.3E+00 | -2.6E+00 | -2.6E+00 | -3.2E+00 | -3.2E+00 | -3.5E+00 | -956.3E-03 |
| 286 | - | -91.5E-03 | -220.6E-03 | -616.4E-03 | -948.0E-03 | -1.1E+00 | -1.3E+00 | -1.3E+00 | -1.5E+00 | -1.6E+00 | -1.7E+00 | -1.9E+00 | 13.2E-03 |
| Average | - | -64.2E-03 | -717.1E-03 | -726.8E-03 | -1.2E+00 | -1.6E+00 | -1.8E+00 | -1.9E+00 | -2.2E+00 | -2.5E+00 | -2.6E+00 | -2.6E+00 | -371.0E-03 |
| Sigma | - | 29.6E-03 | 631.8E-03 | 192.7E-03 | 282.8E-03 | 374.0E-03 | 417.7E-03 | 513.3E-03 | 497.8E-03 | 648.0E-03 | 628.5E-03 | 697.6E-03 | 420.6E-03 |

**Parameter : Power Supply Current : ICC1+**
**Test conditions : +Vcc=+1.5V. Vdd=-1.5V. VICM=0**
Unit : A
Spec Limit Max : 2.6E-03
Spec limits are represented in bold lines on the graphic.




### Measurements

| ICC1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.8E-03 | 1.8E-03 |
| 276 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 |
| 277 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.8E-03 | 1.8E-03 |
| Max | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 |
| Average | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 |
| Sigma | 6.8E-06 | 7.0E-06 | 7.3E-06 | 5.9E-06 | 5.2E-06 | 5.0E-06 | 4.3E-06 | 4.4E-06 | 4.2E-06 | 3.9E-06 | 3.8E-06 | 4.6E-06 | 7.0E-06 |

### Drift Calculation

| ICC1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | -30.4E-06 | -48.8E-06 | -68.4E-06 | -89.4E-06 | -99.8E-06 | -112.2E-06 | -123.6E-06 | -124.6E-06 | -129.4E-06 | -138.2E-06 | -137.2E-06 | -103.6E-06 |
| 276 | - | -30.8E-06 | -45.0E-06 | -71.0E-06 | -93.4E-06 | -104.0E-06 | -118.2E-06 | -130.2E-06 | -132.0E-06 | -137.4E-06 | -147.4E-06 | -143.8E-06 | -105.0E-06 |
| 277 | - | -29.8E-06 | -48.8E-06 | -70.4E-06 | -93.0E-06 | -104.0E-06 | -118.0E-06 | -129.2E-06 | -131.0E-06 | -136.6E-06 | -145.8E-06 | -142.4E-06 | -103.0E-06 |
| Average | - | -30.3E-06 | -47.5E-06 | -69.9E-06 | -91.9E-06 | -102.6E-06 | -116.1E-06 | -127.7E-06 | -129.2E-06 | -134.5E-06 | -143.8E-06 | -141.1E-06 | -103.9E-06 |
| Sigma | - | 411.0E-09 | 1.8E-06 | 1.1E-06 | 1.8E-06 | 2.0E-06 | 2.8E-06 | 2.9E-06 | 3.3E-06 | 3.6E-06 | 4.0E-06 | 2.8E-06 | 838.0E-09 |

### Measurements

| ICC1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.8E-03 | 1.8E-03 |
| 282 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 |
| 283 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.8E-03 | 1.8E-03 |
| Max | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 |
| Average | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 |
| Sigma | 10.2E-06 | 10.2E-06 | 9.6E-06 | 9.6E-06 | 8.6E-06 | 7.7E-06 | 7.2E-06 | 6.9E-06 | 6.8E-06 | 6.9E-06 | 6.3E-06 | 5.8E-06 | 7.1E-06 |

### Drift Calculation

| ICC1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | -38.8E-06 | -58.4E-06 | -81.4E-06 | -105.0E-06 | -115.0E-06 | -127.8E-06 | -138.6E-06 | -140.4E-06 | -145.8E-06 | -154.6E-06 | -149.2E-06 | -113.0E-06 |
| 282 | - | -39.0E-06 | -59.4E-06 | -82.6E-06 | -108.6E-06 | -120.8E-06 | -134.8E-06 | -146.4E-06 | -148.4E-06 | -153.6E-06 | -164.0E-06 | -159.8E-06 | -120.6E-06 |
| 283 | - | -39.4E-06 | -54.6E-06 | -81.0E-06 | -105.4E-06 | -115.6E-06 | -128.6E-06 | -137.8E-06 | -139.2E-06 | -144.8E-06 | -153.0E-06 | -149.4E-06 | -110.4E-06 |
| Average | - | -39.1E-06 | -57.5E-06 | -81.7E-06 | -106.3E-06 | -117.1E-06 | -130.4E-06 | -140.9E-06 | -142.7E-06 | -148.1E-06 | -157.2E-06 | -152.8E-06 | -114.7E-06 |
| Sigma | - | 249.5E-09 | 2.1E-06 | 679.9E-09 | 1.6E-06 | 2.6E-06 | 3.1E-06 | 3.9E-06 | 4.1E-06 | 3.9E-06 | 4.9E-06 | 5.0E-06 | 4.3E-06 |

### Measurements

| ICC1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| 280 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| 290 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| Max | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| Average | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| Sigma | 10.2E-06 | 9.9E-06 | 7.0E-06 | 8.5E-06 | 6.9E-06 | 5.9E-06 | 5.7E-06 | 5.2E-06 | 5.5E-06 | 4.9E-06 | 5.1E-06 | 5.1E-06 | 6.9E-06 |

### Drift Calculation

| ICC1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | -21.0E-06 | -31.4E-06 | -63.2E-06 | -102.6E-06 | -124.2E-06 | -145.4E-06 | -166.2E-06 | -175.6E-06 | -187.2E-06 | -205.0E-06 | -198.0E-06 | -93.4E-06 |
| 280 | - | -21.8E-06 | -39.4E-06 | -67.8E-06 | -111.0E-06 | -135.2E-06 | -156.0E-06 | -178.4E-06 | -188.4E-06 | -200.0E-06 | -217.8E-06 | -211.0E-06 | -100.8E-06 |
| 290 | - | -21.4E-06 | -37.6E-06 | -66.4E-06 | -109.0E-06 | -133.0E-06 | -154.8E-06 | -176.6E-06 | -185.2E-06 | -198.2E-06 | -215.6E-06 | -208.6E-06 | -100.4E-06 |
| Average | - | -21.4E-06 | -36.1E-06 | -65.8E-06 | -107.5E-06 | -130.8E-06 | -152.1E-06 | -173.7E-06 | -183.1E-06 | -195.1E-06 | -212.8E-06 | -205.9E-06 | -98.2E-06 |
| Sigma | - | 326.6E-09 | 3.4E-06 | 1.9E-06 | 3.6E-06 | 4.8E-06 | 4.7E-06 | 5.4E-06 | 5.4E-06 | 5.7E-06 | 5.6E-06 | 5.6E-06 | 3.4E-06 |

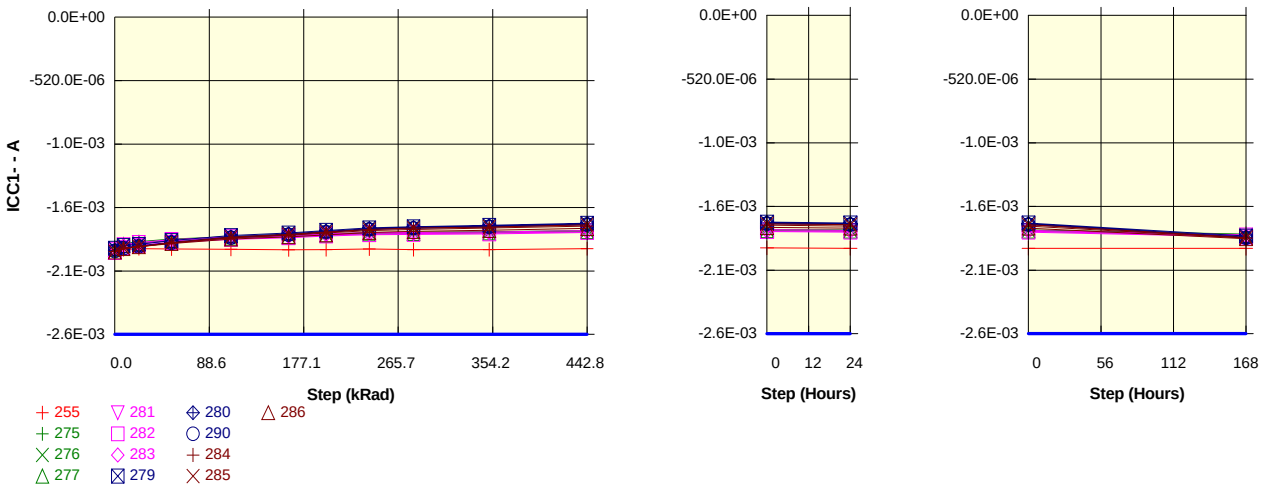
### Measurements

| ICC1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| 285 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| 286 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| Max | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| Average | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.9E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.8E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.7E-03 | 1.8E-03 |
| Sigma | 1.7E-06 | 1.7E-06 | 816.5E-09 | 3.3E-06 | 5.9E-06 | 8.1E-06 | 9.9E-06 | 10.4E-06 | 11.3E-06 | 12.0E-06 | 12.5E-06 | 12.0E-06 | 3.5E-06 |

### Drift Calculation

| ICC1+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -25.4E-06 | -38.2E-06 | -68.8E-06 | -110.0E-06 | -131.4E-06 | -150.8E-06 | -171.4E-06 | -180.8E-06 | -192.2E-06 | -208.4E-06 | -202.0E-06 | -101.2E-06 |
| 285 | - | -26.4E-06 | -40.4E-06 | -73.0E-06 | -116.4E-06 | -139.8E-06 | -160.0E-06 | -180.4E-06 | -190.4E-06 | -202.2E-06 | -218.8E-06 | -212.0E-06 | -105.8E-06 |
| 286 | - | -26.0E-06 | -43.0E-06 | -68.6E-06 | -105.6E-06 | -123.6E-06 | -139.6E-06 | -158.8E-06 | -166.8E-06 | -176.8E-06 | -192.2E-06 | -186.6E-06 | -100.8E-06 |
| Average | - | -25.9E-06 | -40.5E-06 | -70.1E-06 | -110.7E-06 | -131.6E-06 | -150.1E-06 | -170.2E-06 | -179.3E-06 | -190.4E-06 | -206.5E-06 | -200.2E-06 | -102.6E-06 |
| Sigma | - | 411.0E-09 | 2.0E-06 | 2.0E-06 | 4.4E-06 | 6.6E-06 | 8.3E-06 | 8.9E-06 | 9.7E-06 | 10.4E-06 | 10.9E-06 | 10.4E-06 | 2.3E-06 |

**Parameter : Power Supply Current : ICC1-**
**Test conditions : +Vcc=+1.5V. Vdd=-1.5V. VICM=0**
Unit : A
Spec Limit Min : -2.6E-03
Spec limits are represented in bold lines on the graphic.




### Measurements

| ICC1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.8E-03 | -1.8E-03 |
| 276 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 |
| 277 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 |
| Max | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.8E-03 | -1.8E-03 |
| Average | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 |
| Sigma | 6.8E-06 | 6.9E-06 | 7.3E-06 | 5.9E-06 | 5.2E-06 | 5.0E-06 | 4.3E-06 | 4.5E-06 | 4.2E-06 | 3.8E-06 | 3.9E-06 | 4.6E-06 | 6.9E-06 |

### Drift Calculation

| ICC1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | 30.8E-06 | 48.8E-06 | 68.6E-06 | 89.6E-06 | 99.6E-06 | 112.0E-06 | 123.6E-06 | 124.6E-06 | 128.6E-06 | 138.0E-06 | 136.8E-06 | 103.2E-06 |
| 276 | - | 31.0E-06 | 45.0E-06 | 71.0E-06 | 93.4E-06 | 103.6E-06 | 117.8E-06 | 129.8E-06 | 131.8E-06 | 136.4E-06 | 146.8E-06 | 143.2E-06 | 104.4E-06 |
| 277 | - | 30.4E-06 | 48.8E-06 | 70.6E-06 | 93.2E-06 | 103.8E-06 | 117.8E-06 | 129.0E-06 | 130.8E-06 | 136.0E-06 | 145.4E-06 | 142.0E-06 | 102.8E-06 |
| Average | - | 30.7E-06 | 47.5E-06 | 70.1E-06 | 92.1E-06 | 102.3E-06 | 115.9E-06 | 127.5E-06 | 129.1E-06 | 133.7E-06 | 143.4E-06 | 140.7E-06 | 103.5E-06 |
| Sigma | - | 249.4E-09 | 1.8E-06 | 1.0E-06 | 1.7E-06 | 1.9E-06 | 2.7E-06 | 2.8E-06 | 3.2E-06 | 3.6E-06 | 3.9E-06 | 2.8E-06 | 679.9E-09 |

### Measurements

| ICC1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 |
| 282 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 |
| 283 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 |
| Max | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 |
| Average | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 |
| Sigma | 10.3E-06 | 10.2E-06 | 9.7E-06 | 9.6E-06 | 8.7E-06 | 7.7E-06 | 7.2E-06 | 6.9E-06 | 6.7E-06 | 6.9E-06 | 6.3E-06 | 5.7E-06 | 7.1E-06 |

### Drift Calculation

| ICC1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | 39.2E-06 | 58.4E-06 | 81.4E-06 | 105.0E-06 | 114.6E-06 | 127.4E-06 | 138.2E-06 | 140.0E-06 | 144.8E-06 | 154.0E-06 | 148.6E-06 | 112.8E-06 |
| 282 | - | 39.6E-06 | 59.4E-06 | 82.8E-06 | 108.6E-06 | 120.6E-06 | 134.6E-06 | 146.2E-06 | 148.4E-06 | 152.8E-06 | 163.6E-06 | 159.4E-06 | 120.4E-06 |
| 283 | - | 40.0E-06 | 54.6E-06 | 81.0E-06 | 105.4E-06 | 115.2E-06 | 128.0E-06 | 137.6E-06 | 139.0E-06 | 143.8E-06 | 152.6E-06 | 149.0E-06 | 110.0E-06 |
| Average | - | 39.6E-06 | 57.5E-06 | 81.7E-06 | 106.3E-06 | 116.8E-06 | 130.0E-06 | 140.7E-06 | 142.5E-06 | 147.1E-06 | 156.7E-06 | 152.3E-06 | 114.4E-06 |
| Sigma | - | 326.6E-09 | 2.1E-06 | 771.7E-09 | 1.6E-06 | 2.7E-06 | 3.3E-06 | 3.9E-06 | 4.2E-06 | 4.0E-06 | 4.9E-06 | 5.0E-06 | 4.4E-06 |

### Measurements

| ICC1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| 280 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| 290 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| Max | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| Average | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| Sigma | 10.3E-06 | 9.9E-06 | 7.1E-06 | 8.4E-06 | 7.0E-06 | 5.9E-06 | 5.6E-06 | 5.3E-06 | 5.6E-06 | 5.0E-06 | 5.0E-06 | 5.2E-06 | 6.9E-06 |

### Drift Calculation

| ICC1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | 21.6E-06 | 31.4E-06 | 63.4E-06 | 103.4E-06 | 124.6E-06 | 145.4E-06 | 166.6E-06 | 176.0E-06 | 187.0E-06 | 205.0E-06 | 198.0E-06 | 93.0E-06 |
| 280 | - | 22.8E-06 | 39.6E-06 | 68.6E-06 | 112.2E-06 | 135.8E-06 | 156.8E-06 | 179.2E-06 | 188.8E-06 | 200.2E-06 | 218.2E-06 | 211.2E-06 | 100.8E-06 |
| 290 | - | 22.2E-06 | 37.6E-06 | 67.0E-06 | 109.8E-06 | 133.6E-06 | 155.2E-06 | 177.0E-06 | 185.6E-06 | 198.0E-06 | 216.0E-06 | 208.6E-06 | 100.2E-06 |
| Average | - | 22.2E-06 | 36.2E-06 | 66.3E-06 | 108.5E-06 | 131.3E-06 | 152.5E-06 | 174.3E-06 | 183.5E-06 | 195.1E-06 | 213.1E-06 | 205.9E-06 | 98.0E-06 |
| Sigma | - | 489.9E-09 | 3.5E-06 | 2.2E-06 | 3.7E-06 | 4.8E-06 | 5.0E-06 | 5.5E-06 | 5.4E-06 | 5.8E-06 | 5.8E-06 | 5.7E-06 | 3.5E-06 |

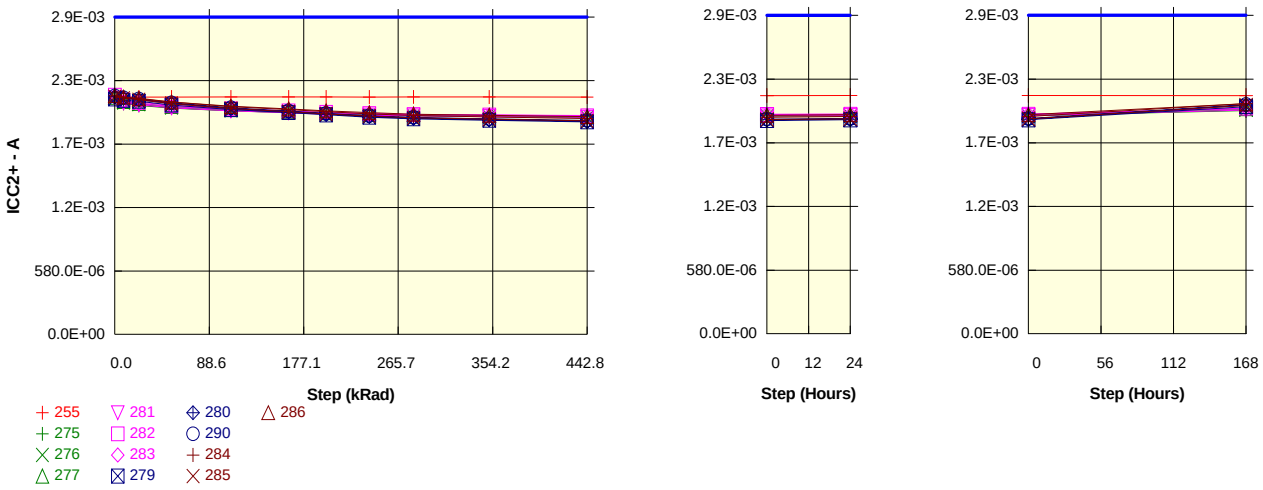
### Measurements

| ICC1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| 285 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| 286 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| Max | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| Average | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.9E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.8E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.7E-03 | -1.8E-03 |
| Sigma | 1.7E-06 | 1.7E-06 | 821.9E-09 | 3.2E-06 | 5.7E-06 | 8.1E-06 | 9.9E-06 | 10.4E-06 | 11.2E-06 | 11.9E-06 | 12.5E-06 | 11.9E-06 | 3.6E-06 |

### Drift Calculation

| ICC1- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | 26.2E-06 | 38.6E-06 | 69.2E-06 | 110.4E-06 | 132.0E-06 | 151.0E-06 | 171.8E-06 | 181.2E-06 | 191.8E-06 | 208.4E-06 | 201.8E-06 | 101.0E-06 |
| 285 | - | 27.2E-06 | 40.8E-06 | 73.2E-06 | 116.8E-06 | 140.2E-06 | 160.2E-06 | 180.8E-06 | 190.8E-06 | 202.0E-06 | 219.0E-06 | 212.0E-06 | 105.6E-06 |
| 286 | - | 26.8E-06 | 43.2E-06 | 69.0E-06 | 106.4E-06 | 124.0E-06 | 139.8E-06 | 159.4E-06 | 167.4E-06 | 176.8E-06 | 192.4E-06 | 186.8E-06 | 100.4E-06 |
| Average | - | 26.7E-06 | 40.9E-06 | 70.5E-06 | 111.2E-06 | 132.1E-06 | 150.3E-06 | 170.7E-06 | 179.8E-06 | 190.2E-06 | 206.6E-06 | 200.2E-06 | 102.3E-06 |
| Sigma | - | 411.0E-09 | 1.9E-06 | 1.9E-06 | 4.3E-06 | 6.6E-06 | 8.3E-06 | 8.8E-06 | 9.6E-06 | 10.3E-06 | 10.9E-06 | 10.3E-06 | 2.3E-06 |

**Parameter : Power Supply Current : ICC2+**
**Test conditions : +Vcc=+8V. Vdd=-8V. VICM=0**
Unit : A
Spec Limit Max : 2.9E-03
Spec limits are represented in bold lines on the graphic.




### Measurements

| ICC2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 |
| 276 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 |
| 277 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 |
| Max | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| Average | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 |
| Sigma | 7.0E-06 | 7.2E-06 | 6.7E-06 | 6.3E-06 | 5.6E-06 | 5.1E-06 | 4.9E-06 | 5.0E-06 | 4.9E-06 | 5.1E-06 | 4.7E-06 | 5.1E-06 | 7.1E-06 |

### Drift Calculation

| ICC2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | -38.4E-06 | -56.6E-06 | -81.6E-06 | -107.4E-06 | -123.8E-06 | -136.0E-06 | -145.8E-06 | -151.8E-06 | -157.2E-06 | -164.4E-06 | -163.4E-06 | -117.6E-06 |
| 276 | - | -38.8E-06 | -53.4E-06 | -84.4E-06 | -111.8E-06 | -129.4E-06 | -142.6E-06 | -153.2E-06 | -160.4E-06 | -167.8E-06 | -173.4E-06 | -171.2E-06 | -116.6E-06 |
| 277 | - | -38.0E-06 | -57.0E-06 | -83.8E-06 | -111.6E-06 | -129.6E-06 | -142.8E-06 | -152.8E-06 | -159.8E-06 | -166.2E-06 | -173.0E-06 | -170.4E-06 | -117.2E-06 |
| Average | - | -38.4E-06 | -55.7E-06 | -83.3E-06 | -110.3E-06 | -127.6E-06 | -140.5E-06 | -150.6E-06 | -157.3E-06 | -163.7E-06 | -170.3E-06 | -168.3E-06 | -117.1E-06 |
| Sigma | - | 326.5E-09 | 1.6E-06 | 1.2E-06 | 2.0E-06 | 2.7E-06 | 3.2E-06 | 3.4E-06 | 3.9E-06 | 4.7E-06 | 4.2E-06 | 3.5E-06 | 411.1E-09 |

### Measurements

| ICC2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 |
| 282 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| 283 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 |
| Max | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| Average | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 |
| Sigma | 10.6E-06 | 10.4E-06 | 9.8E-06 | 9.1E-06 | 7.9E-06 | 7.0E-06 | 6.8E-06 | 6.4E-06 | 6.3E-06 | 6.6E-06 | 6.3E-06 | 6.2E-06 | 7.4E-06 |

### Drift Calculation

| ICC2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | -42.6E-06 | -61.2E-06 | -89.4E-06 | -116.8E-06 | -133.6E-06 | -146.4E-06 | -155.8E-06 | -162.4E-06 | -168.2E-06 | -174.2E-06 | -171.6E-06 | -121.6E-06 |
| 282 | - | -43.0E-06 | -62.8E-06 | -92.8E-06 | -123.2E-06 | -142.8E-06 | -156.4E-06 | -167.4E-06 | -174.2E-06 | -179.6E-06 | -187.0E-06 | -184.4E-06 | -129.4E-06 |
| 283 | - | -41.6E-06 | -56.6E-06 | -86.6E-06 | -113.6E-06 | -130.2E-06 | -142.4E-06 | -151.8E-06 | -158.4E-06 | -163.4E-06 | -169.2E-06 | -167.2E-06 | -118.8E-06 |
| Average | - | -42.4E-06 | -60.2E-06 | -89.6E-06 | -117.9E-06 | -135.5E-06 | -148.4E-06 | -158.3E-06 | -165.0E-06 | -170.4E-06 | -176.8E-06 | -174.4E-06 | -123.3E-06 |
| Sigma | - | 588.8E-09 | 2.6E-06 | 2.5E-06 | 4.0E-06 | 5.3E-06 | 5.9E-06 | 6.6E-06 | 6.7E-06 | 6.8E-06 | 7.5E-06 | 7.3E-06 | 4.5E-06 |

### Measurements

| ICC2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 1.9E-03 | 1.9E-03 | 2.1E-03 |
| 280 | 2.2E-03 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 1.9E-03 | 2.0E-03 | 2.1E-03 |
| 290 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 1.9E-03 | 1.9E-03 | 2.1E-03 |
| Max | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| Average | 2.2E-03 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 1.9E-03 | 2.0E-03 | 2.1E-03 |
| Sigma | 11.4E-06 | 11.0E-06 | 8.5E-06 | 8.7E-06 | 7.0E-06 | 5.6E-06 | 5.3E-06 | 4.9E-06 | 5.4E-06 | 5.0E-06 | 5.0E-06 | 5.0E-06 | 7.8E-06 |

### Drift Calculation

| ICC2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | -12.8E-06 | -21.2E-06 | -55.8E-06 | -97.0E-06 | -124.0E-06 | -145.2E-06 | -165.4E-06 | -181.6E-06 | -194.2E-06 | -209.4E-06 | -203.0E-06 | -83.2E-06 |
| 280 | - | -14.2E-06 | -29.0E-06 | -63.0E-06 | -108.6E-06 | -138.2E-06 | -159.6E-06 | -180.4E-06 | -196.2E-06 | -209.8E-06 | -224.6E-06 | -218.4E-06 | -91.6E-06 |
| 290 | - | -13.4E-06 | -26.8E-06 | -61.2E-06 | -106.0E-06 | -136.2E-06 | -158.4E-06 | -179.4E-06 | -194.4E-06 | -208.0E-06 | -223.2E-06 | -216.8E-06 | -90.8E-06 |
| Average | - | -13.5E-06 | -25.7E-06 | -60.0E-06 | -103.9E-06 | -132.8E-06 | -154.4E-06 | -175.1E-06 | -190.7E-06 | -204.0E-06 | -219.1E-06 | -212.7E-06 | -88.5E-06 |
| Sigma | - | 573.5E-09 | 3.3E-06 | 3.1E-06 | 5.0E-06 | 6.3E-06 | 6.5E-06 | 6.8E-06 | 6.5E-06 | 7.0E-06 | 6.9E-06 | 6.9E-06 | 3.8E-06 |

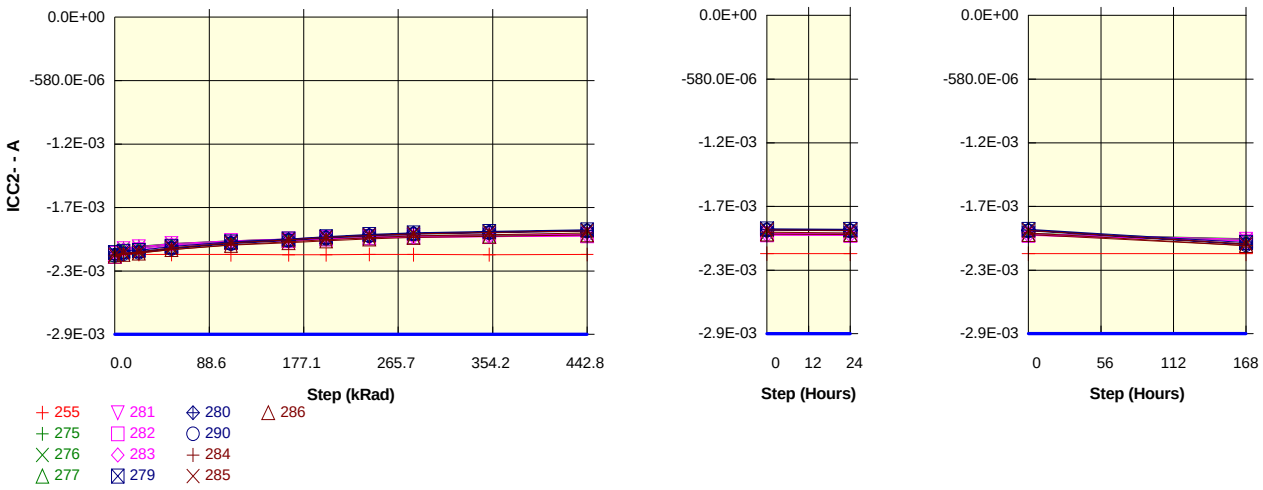
### Measurements

| ICC2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.2E-03 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| 285 | 2.2E-03 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| 286 | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | 2.2E-03 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| Max | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| Average | 2.2E-03 | 2.2E-03 | 2.2E-03 | 2.1E-03 | 2.1E-03 | 2.1E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.0E-03 | 2.1E-03 |
| Sigma | 5.1E-06 | 5.0E-06 | 5.0E-06 | 6.6E-06 | 8.8E-06 | 11.2E-06 | 12.5E-06 | 13.2E-06 | 14.0E-06 | 14.8E-06 | 15.5E-06 | 15.0E-06 | 6.2E-06 |

### Drift Calculation

| ICC2+ | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -13.8E-06 | -23.2E-06 | -57.2E-06 | -99.2E-06 | -126.4E-06 | -146.6E-06 | -166.0E-06 | -181.8E-06 | -193.6E-06 | -207.8E-06 | -201.8E-06 | -86.0E-06 |
| 285 | - | -14.6E-06 | -26.2E-06 | -62.6E-06 | -107.4E-06 | -137.0E-06 | -158.0E-06 | -177.2E-06 | -192.6E-06 | -205.0E-06 | -220.0E-06 | -213.6E-06 | -90.4E-06 |
| 286 | - | -15.2E-06 | -29.4E-06 | -60.6E-06 | -99.4E-06 | -122.4E-06 | -140.0E-06 | -157.2E-06 | -170.4E-06 | -180.8E-06 | -194.0E-06 | -189.0E-06 | -89.2E-06 |
| Average | - | -14.5E-06 | -26.3E-06 | -60.1E-06 | -102.0E-06 | -128.6E-06 | -148.2E-06 | -166.8E-06 | -181.6E-06 | -193.1E-06 | -207.3E-06 | -201.5E-06 | -88.5E-06 |
| Sigma | - | 573.5E-09 | 2.5E-06 | 2.2E-06 | 3.8E-06 | 6.2E-06 | 7.4E-06 | 8.2E-06 | 9.1E-06 | 9.9E-06 | 10.6E-06 | 10.0E-06 | 1.9E-06 |

**Parameter : Power Supply Current : ICC2-**
**Test conditions : +Vcc=+8V. Vdd=-8V. VICM=0**
Unit : A
Spec Limit Min : -2.9E-03
Spec limits are represented in bold lines on the graphic.




### Measurements

| ICC2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 |
| 276 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 |
| 277 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| Max | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 |
| Average | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 |
| Sigma | 6.9E-06 | 7.1E-06 | 6.7E-06 | 6.1E-06 | 5.7E-06 | 5.0E-06 | 4.9E-06 | 4.9E-06 | 5.0E-06 | 4.6E-06 | 4.9E-06 | 5.1E-06 | 7.1E-06 |

### Drift Calculation

| ICC2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | 39.0E-06 | 56.8E-06 | 82.0E-06 | 108.2E-06 | 124.0E-06 | 136.2E-06 | 145.8E-06 | 152.2E-06 | 157.0E-06 | 164.6E-06 | 163.2E-06 | 117.4E-06 |
| 276 | - | 39.6E-06 | 53.6E-06 | 84.6E-06 | 112.4E-06 | 129.6E-06 | 142.8E-06 | 153.2E-06 | 160.8E-06 | 166.0E-06 | 173.4E-06 | 170.8E-06 | 116.4E-06 |
| 277 | - | 38.6E-06 | 57.0E-06 | 84.2E-06 | 112.0E-06 | 129.8E-06 | 142.8E-06 | 152.8E-06 | 159.8E-06 | 165.6E-06 | 172.6E-06 | 169.8E-06 | 116.8E-06 |
| Average | - | 39.1E-06 | 55.8E-06 | 83.6E-06 | 110.9E-06 | 127.8E-06 | 140.6E-06 | 150.6E-06 | 157.6E-06 | 162.9E-06 | 170.2E-06 | 167.9E-06 | 116.9E-06 |
| Sigma | - | 410.9E-09 | 1.6E-06 | 1.1E-06 | 1.9E-06 | 2.7E-06 | 3.1E-06 | 3.4E-06 | 3.8E-06 | 4.2E-06 | 4.0E-06 | 3.4E-06 | 411.1E-09 |

### Measurements

| ICC2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 |
| 282 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| 283 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| Max | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 |
| Average | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 |
| Sigma | 10.7E-06 | 10.4E-06 | 11.0E-06 | 9.0E-06 | 7.9E-06 | 7.1E-06 | 6.7E-06 | 6.4E-06 | 6.2E-06 | 6.6E-06 | 6.2E-06 | 6.2E-06 | 7.5E-06 |

### Drift Calculation

| ICC2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | 43.2E-06 | 61.2E-06 | 89.6E-06 | 117.0E-06 | 133.8E-06 | 146.2E-06 | 155.6E-06 | 162.4E-06 | 167.8E-06 | 173.8E-06 | 171.0E-06 | 121.2E-06 |
| 282 | - | 43.6E-06 | 60.0E-06 | 93.4E-06 | 123.8E-06 | 142.8E-06 | 156.6E-06 | 167.4E-06 | 174.6E-06 | 179.6E-06 | 187.0E-06 | 184.0E-06 | 129.0E-06 |
| 283 | - | 42.4E-06 | 56.8E-06 | 87.2E-06 | 113.8E-06 | 130.4E-06 | 142.6E-06 | 151.8E-06 | 158.8E-06 | 163.2E-06 | 169.2E-06 | 166.8E-06 | 118.6E-06 |
| Average | - | 43.1E-06 | 59.3E-06 | 90.1E-06 | 118.2E-06 | 135.7E-06 | 148.5E-06 | 158.3E-06 | 165.3E-06 | 170.2E-06 | 176.7E-06 | 173.9E-06 | 122.9E-06 |
| Sigma | - | 498.9E-09 | 1.9E-06 | 2.6E-06 | 4.2E-06 | 5.2E-06 | 5.9E-06 | 6.6E-06 | 6.8E-06 | 6.9E-06 | 7.5E-06 | 7.3E-06 | 4.4E-06 |

### Measurements

| ICC2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -1.9E-03 | -1.9E-03 | -2.1E-03 |
| 280 | -2.2E-03 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -1.9E-03 | -2.0E-03 | -2.1E-03 |
| 290 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| Max | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -1.9E-03 | -1.9E-03 | -2.1E-03 |
| Average | -2.2E-03 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -1.9E-03 | -2.0E-03 | -2.1E-03 |
| Sigma | 11.4E-06 | 10.9E-06 | 8.5E-06 | 8.7E-06 | 6.9E-06 | 5.7E-06 | 5.3E-06 | 5.1E-06 | 5.3E-06 | 4.7E-06 | 5.2E-06 | 5.1E-06 | 7.8E-06 |

### Drift Calculation

| ICC2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | 13.6E-06 | 21.2E-06 | 56.4E-06 | 97.6E-06 | 124.6E-06 | 145.4E-06 | 165.8E-06 | 181.8E-06 | 193.8E-06 | 209.6E-06 | 203.2E-06 | 83.2E-06 |
| 280 | - | 15.0E-06 | 29.0E-06 | 63.4E-06 | 109.2E-06 | 138.2E-06 | 159.6E-06 | 180.2E-06 | 196.6E-06 | 209.4E-06 | 224.4E-06 | 218.2E-06 | 91.2E-06 |
| 290 | - | 14.4E-06 | 26.8E-06 | 61.6E-06 | 106.8E-06 | 136.6E-06 | 158.6E-06 | 179.4E-06 | 194.8E-06 | 208.2E-06 | 223.0E-06 | 216.8E-06 | 90.8E-06 |
| Average | - | 14.3E-06 | 25.7E-06 | 60.5E-06 | 104.5E-06 | 133.1E-06 | 154.5E-06 | 175.1E-06 | 191.1E-06 | 203.8E-06 | 219.0E-06 | 212.7E-06 | 88.4E-06 |
| Sigma | - | 573.5E-09 | 3.3E-06 | 3.0E-06 | 5.0E-06 | 6.1E-06 | 6.5E-06 | 6.6E-06 | 6.6E-06 | 7.1E-06 | 6.7E-06 | 6.8E-06 | 3.7E-06 |

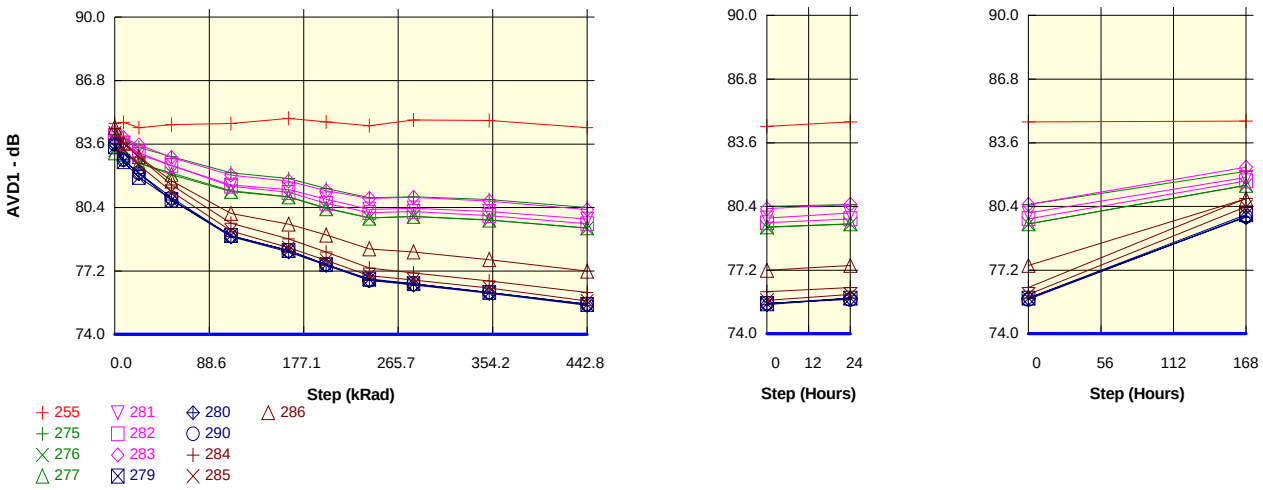
### Measurements

| ICC2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.2E-03 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| 285 | -2.2E-03 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| 286 | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| Statistics | | | | | | | | | | | | | |
| Min | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| Max | -2.2E-03 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| Average | -2.2E-03 | -2.2E-03 | -2.2E-03 | -2.1E-03 | -2.1E-03 | -2.1E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.0E-03 | -2.1E-03 |
| Sigma | 5.0E-06 | 5.0E-06 | 4.3E-06 | 6.6E-06 | 8.9E-06 | 11.0E-06 | 12.5E-06 | 13.1E-06 | 13.9E-06 | 14.7E-06 | 15.3E-06 | 15.0E-06 | 6.1E-06 |

### Drift Calculation

| ICC2- | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | 14.6E-06 | 23.4E-06 | 57.8E-06 | 99.8E-06 | 126.8E-06 | 146.6E-06 | 166.4E-06 | 182.2E-06 | 193.4E-06 | 208.0E-06 | 201.8E-06 | 86.0E-06 |
| 285 | - | 15.6E-06 | 25.0E-06 | 63.2E-06 | 108.4E-06 | 137.4E-06 | 158.4E-06 | 177.8E-06 | 193.2E-06 | 205.4E-06 | 220.2E-06 | 213.8E-06 | 90.4E-06 |
| 286 | - | 16.0E-06 | 29.6E-06 | 60.8E-06 | 100.0E-06 | 123.2E-06 | 140.2E-06 | 157.8E-06 | 171.0E-06 | 181.2E-06 | 194.6E-06 | 189.0E-06 | 89.2E-06 |
| Average | - | 15.4E-06 | 26.0E-06 | 60.6E-06 | 102.7E-06 | 129.1E-06 | 148.4E-06 | 167.3E-06 | 182.1E-06 | 193.3E-06 | 207.6E-06 | 201.5E-06 | 88.5E-06 |
| Sigma | - | 588.8E-09 | 2.6E-06 | 2.2E-06 | 4.0E-06 | 6.0E-06 | 7.5E-06 | 8.2E-06 | 9.1E-06 | 9.9E-06 | 10.5E-06 | 10.1E-06 | 1.9E-06 |

**Parameter : Voltage Gain : AVD1**
**Test conditions : +Vcc=+1.5V. Vdd=-1.5V. VICM=0V.RL=1K. Vdd+0.5<Vout<Vcc-0.5**
Unit : dB
Spec Limit Min : 74.0
Spec limits are represented in bold lines on the graphic.




### Measurements

| AVD1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 84.6 | 84.7 | 84.4 | 84.6 | 84.6 | 84.9 | 84.7 | 84.5 | 84.8 | 84.8 | 84.4 | 84.6 | 84.7 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | 84.0 | 83.9 | 83.4 | 83.0 | 82.1 | 81.9 | 81.4 | 80.9 | 80.9 | 80.8 | 80.4 | 80.5 | 82.2 |
| 276 | 83.3 | 83.2 | 82.6 | 82.1 | 81.2 | 80.9 | 80.4 | 79.9 | 79.9 | 79.8 | 79.3 | 79.5 | 81.5 |
| 277 | 83.2 | 83.1 | 82.7 | 82.1 | 81.2 | 80.9 | 80.3 | 79.9 | 79.9 | 79.8 | 79.4 | 79.5 | 81.5 |
| Statistics | | | | | | | | | | | | | |
| Min | 83.2 | 83.1 | 82.6 | 82.1 | 81.2 | 80.9 | 80.3 | 79.9 | 79.9 | 79.8 | 79.3 | 79.5 | 81.5 |
| Max | 84.0 | 83.9 | 83.4 | 83.0 | 82.1 | 81.9 | 81.4 | 80.9 | 80.9 | 80.8 | 80.4 | 80.5 | 82.2 |
| Average | 83.5 | 83.4 | 82.9 | 82.4 | 81.5 | 81.2 | 80.7 | 80.2 | 80.3 | 80.1 | 79.7 | 79.8 | 81.7 |
| Sigma | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 |

### Drift Calculation

| AVD1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | -112.2E-03 | -578.1E-03 | -1.0E+00 | -1.9E+00 | -2.1E+00 | -2.6E+00 | -3.1E+00 | -3.1E+00 | -3.2E+00 | -3.6E+00 | -3.5E+00 | -1.8E+00 |
| 276 | - | -108.4E-03 | -657.1E-03 | -1.2E+00 | -2.0E+00 | -2.3E+00 | -2.9E+00 | -3.4E+00 | -3.3E+00 | -3.5E+00 | -3.9E+00 | -3.8E+00 | -1.8E+00 |
| 277 | - | -77.1E-03 | -504.8E-03 | -1.1E+00 | -2.0E+00 | -2.2E+00 | -2.8E+00 | -3.3E+00 | -3.2E+00 | -3.4E+00 | -3.8E+00 | -3.6E+00 | -1.7E+00 |
| Average | - | -99.3E-03 | -580.0E-03 | -1.1E+00 | -2.0E+00 | -2.2E+00 | -2.8E+00 | -3.3E+00 | -3.2E+00 | -3.4E+00 | -3.8E+00 | -3.6E+00 | -1.8E+00 |
| Sigma | - | 15.7E-03 | 62.2E-03 | 49.0E-03 | 75.0E-03 | 82.4E-03 | 111.2E-03 | 126.7E-03 | 114.7E-03 | 130.2E-03 | 138.4E-03 | 110.9E-03 | 60.3E-03 |

### Measurements

| AVD1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 84.6 | 84.7 | 84.4 | 84.6 | 84.6 | 84.9 | 84.7 | 84.5 | 84.8 | 84.8 | 84.4 | 84.6 | 84.7 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | 83.9 | 83.6 | 83.2 | 82.5 | 81.5 | 81.3 | 80.8 | 80.3 | 80.4 | 80.2 | 79.8 | 80.1 | 81.9 |
| 282 | 84.0 | 83.7 | 83.1 | 82.5 | 81.5 | 81.2 | 80.6 | 80.1 | 80.2 | 80.0 | 79.6 | 79.8 | 81.7 |
| 283 | 84.2 | 83.9 | 83.6 | 82.9 | 82.0 | 81.7 | 81.2 | 80.9 | 80.9 | 80.7 | 80.3 | 80.5 | 82.4 |
| Statistics | | | | | | | | | | | | | |
| Min | 83.9 | 83.6 | 83.1 | 82.5 | 81.5 | 81.2 | 80.6 | 80.1 | 80.2 | 80.0 | 79.6 | 79.8 | 81.7 |
| Max | 84.2 | 83.9 | 83.6 | 82.9 | 82.0 | 81.7 | 81.2 | 80.9 | 80.9 | 80.7 | 80.3 | 80.5 | 82.4 |
| Average | 84.0 | 83.7 | 83.3 | 82.7 | 81.7 | 81.4 | 80.9 | 80.4 | 80.5 | 80.3 | 79.9 | 80.1 | 82.0 |
| Sigma | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |

### Drift Calculation

| AVD1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | -256.5E-03 | -710.5E-03 | -1.4E+00 | -2.3E+00 | -2.6E+00 | -3.0E+00 | -3.6E+00 | -3.5E+00 | -3.7E+00 | -4.1E+00 | -3.8E+00 | -2.0E+00 |
| 282 | - | -318.3E-03 | -899.7E-03 | -1.5E+00 | -2.5E+00 | -2.8E+00 | -3.4E+00 | -3.8E+00 | -3.8E+00 | -4.0E+00 | -4.4E+00 | -4.2E+00 | -2.3E+00 |
| 283 | - | -271.8E-03 | -635.4E-03 | -1.3E+00 | -2.2E+00 | -2.5E+00 | -3.0E+00 | -3.3E+00 | -3.3E+00 | -3.5E+00 | -3.9E+00 | -3.7E+00 | -1.8E+00 |
| Average | - | -282.2E-03 | -748.5E-03 | -1.4E+00 | -2.3E+00 | -2.6E+00 | -3.1E+00 | -3.6E+00 | -3.5E+00 | -3.7E+00 | -4.1E+00 | -3.9E+00 | -2.0E+00 |
| Sigma | - | 26.3E-03 | 111.2E-03 | 76.5E-03 | 137.1E-03 | 152.2E-03 | 178.7E-03 | 204.1E-03 | 208.3E-03 | 210.6E-03 | 206.0E-03 | 217.7E-03 | 191.7E-03 |

### Measurements

| AVD1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 84.6 | 84.7 | 84.4 | 84.6 | 84.6 | 84.9 | 84.7 | 84.5 | 84.8 | 84.8 | 84.4 | 84.6 | 84.7 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | 83.5 | 82.7 | 81.9 | 80.8 | 79.0 | 78.2 | 77.5 | 76.8 | 76.6 | 76.1 | 75.5 | 75.8 | 80.0 |
| 280 | 83.6 | 82.8 | 82.1 | 80.8 | 78.9 | 78.2 | 77.5 | 76.7 | 76.5 | 76.1 | 75.5 | 75.8 | 79.9 |
| 290 | 83.6 | 82.8 | 82.1 | 80.9 | 79.0 | 78.2 | 77.5 | 76.7 | 76.5 | 76.1 | 75.5 | 75.7 | 79.9 |
| Statistics | | | | | | | | | | | | | |
| Min | 83.5 | 82.7 | 81.9 | 80.8 | 78.9 | 78.2 | 77.5 | 76.7 | 76.5 | 76.1 | 75.5 | 75.7 | 79.9 |
| Max | 83.6 | 82.8 | 82.1 | 80.9 | 79.0 | 78.2 | 77.5 | 76.8 | 76.6 | 76.1 | 75.5 | 75.8 | 80.0 |
| Average | 83.6 | 82.8 | 82.1 | 80.8 | 79.0 | 78.2 | 77.5 | 76.7 | 76.5 | 76.1 | 75.5 | 75.8 | 79.9 |
| Sigma | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |

### Drift Calculation

| AVD1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | -742.8E-03 | -1.5E+00 | -2.7E+00 | -4.5E+00 | -5.2E+00 | -5.9E+00 | -6.7E+00 | -6.9E+00 | -7.3E+00 | -7.9E+00 | -7.7E+00 | -3.5E+00 |
| 280 | - | -811.1E-03 | -1.5E+00 | -2.8E+00 | -4.7E+00 | -5.5E+00 | -6.1E+00 | -6.9E+00 | -7.1E+00 | -7.5E+00 | -8.1E+00 | -7.8E+00 | -3.8E+00 |
| 290 | - | -785.7E-03 | -1.5E+00 | -2.7E+00 | -4.6E+00 | -5.4E+00 | -6.1E+00 | -6.9E+00 | -7.0E+00 | -7.5E+00 | -8.1E+00 | -7.9E+00 | -3.7E+00 |
| Average | - | -779.9E-03 | -1.5E+00 | -2.7E+00 | -4.6E+00 | -5.3E+00 | -6.0E+00 | -6.8E+00 | -7.0E+00 | -7.4E+00 | -8.0E+00 | -7.8E+00 | -3.6E+00 |
| Sigma | - | 28.2E-03 | 32.6E-03 | 74.7E-03 | 92.7E-03 | 92.6E-03 | 76.4E-03 | 99.9E-03 | 92.6E-03 | 84.2E-03 | 83.8E-03 | 89.8E-03 | 126.7E-03 |

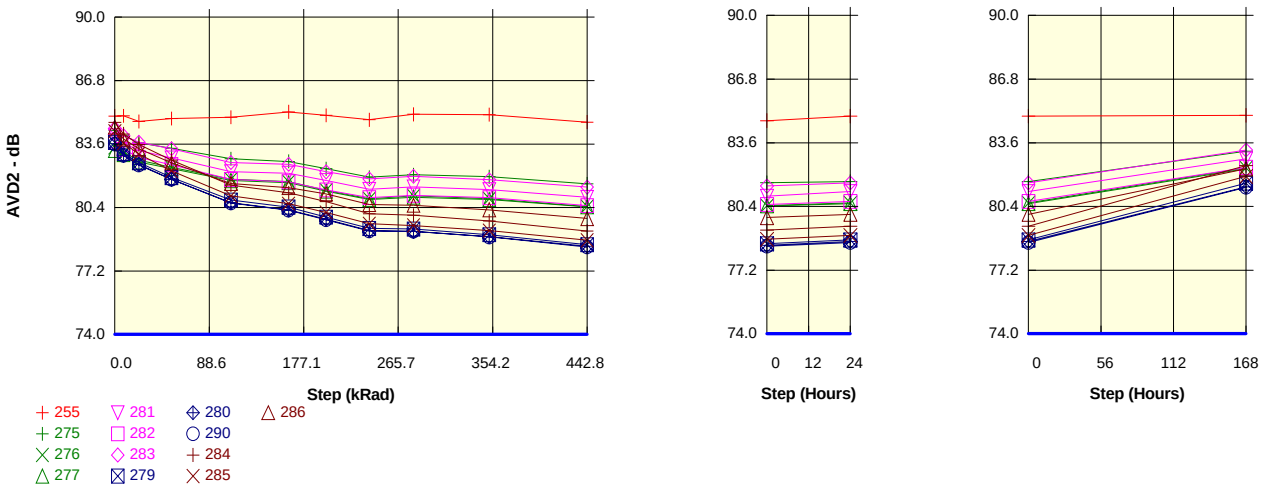
### Measurements

| AVD1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 84.6 | 84.7 | 84.4 | 84.6 | 84.6 | 84.9 | 84.7 | 84.5 | 84.8 | 84.8 | 84.4 | 84.6 | 84.7 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | 84.4 | 83.6 | 82.9 | 81.5 | 79.6 | 78.8 | 78.2 | 77.4 | 77.1 | 76.7 | 76.1 | 76.3 | 80.8 |
| 285 | 84.1 | 83.3 | 82.5 | 81.2 | 79.2 | 78.4 | 77.7 | 77.0 | 76.7 | 76.3 | 75.7 | 76.0 | 80.4 |
| 286 | 84.4 | 83.6 | 83.0 | 81.7 | 80.1 | 79.6 | 79.0 | 78.3 | 78.2 | 77.8 | 77.2 | 77.4 | 80.8 |
| Statistics | | | | | | | | | | | | | |
| Min | 84.1 | 83.3 | 82.5 | 81.2 | 79.2 | 78.4 | 77.7 | 77.0 | 76.7 | 76.3 | 75.7 | 76.0 | 80.4 |
| Max | 84.4 | 83.6 | 83.0 | 81.7 | 80.1 | 79.6 | 79.0 | 78.3 | 78.2 | 77.8 | 77.2 | 77.4 | 80.8 |
| Average | 84.3 | 83.5 | 82.8 | 81.5 | 79.6 | 78.9 | 78.3 | 77.5 | 77.3 | 76.9 | 76.3 | 76.6 | 80.7 |
| Sigma | 0.1 | 0.1 | 0.2 | 0.2 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.2 |

### Drift Calculation

| AVD1 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -747.4E-03 | -1.5E+00 | -2.9E+00 | -4.8E+00 | -5.6E+00 | -6.2E+00 | -7.0E+00 | -7.3E+00 | -7.7E+00 | -8.3E+00 | -8.1E+00 | -3.6E+00 |
| 285 | - | -799.5E-03 | -1.6E+00 | -2.9E+00 | -4.9E+00 | -5.8E+00 | -6.4E+00 | -7.2E+00 | -7.4E+00 | -7.8E+00 | -8.5E+00 | -8.2E+00 | -3.8E+00 |
| 286 | - | -802.3E-03 | -1.5E+00 | -2.7E+00 | -4.4E+00 | -4.9E+00 | -5.4E+00 | -6.1E+00 | -6.3E+00 | -6.7E+00 | -7.3E+00 | -7.0E+00 | -3.7E+00 |
| Average | - | -783.1E-03 | -1.5E+00 | -2.8E+00 | -4.7E+00 | -5.4E+00 | -6.0E+00 | -6.8E+00 | -7.0E+00 | -7.4E+00 | -8.0E+00 | -7.8E+00 | -3.7E+00 |
| Sigma | - | 25.3E-03 | 66.5E-03 | 101.0E-03 | 242.9E-03 | 379.4E-03 | 426.0E-03 | 465.6E-03 | 504.5E-03 | 509.5E-03 | 531.6E-03 | 525.5E-03 | 69.7E-03 |

**Parameter : Voltage Gain : AVD2**
**Test conditions : +Vcc=+8V. Vdd=-8V. VICM=0V.RL=1K. Vdd+0.5<Vout<Vcc-0.5**
Unit : dB
Spec Limit Min : 74.0
Spec limits are represented in bold lines on the graphic.




### Measurements

| AVD2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 85.0 | 85.0 | 84.7 | 84.9 | 85.0 | 85.2 | 85.1 | 84.8 | 85.1 | 85.1 | 84.7 | 84.9 | 85.0 |
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | 84.3 | 84.0 | 83.7 | 83.4 | 82.9 | 82.7 | 82.4 | 81.9 | 82.1 | 82.0 | 81.6 | 81.6 | 83.2 |
| 276 | 83.4 | 83.2 | 82.8 | 82.4 | 81.8 | 81.7 | 81.3 | 80.8 | 81.0 | 80.8 | 80.4 | 80.6 | 82.3 |
| 277 | 83.3 | 83.1 | 82.7 | 82.4 | 81.8 | 81.6 | 81.2 | 80.8 | 80.9 | 80.8 | 80.4 | 80.5 | 82.3 |
| Statistics | | | | | | | | | | | | | |
| Min | 83.3 | 83.1 | 82.7 | 82.4 | 81.8 | 81.6 | 81.2 | 80.8 | 80.9 | 80.8 | 80.4 | 80.5 | 82.3 |
| Max | 84.3 | 84.0 | 83.7 | 83.4 | 82.9 | 82.7 | 82.4 | 81.9 | 82.1 | 82.0 | 81.6 | 81.6 | 83.2 |
| Average | 83.7 | 83.4 | 83.0 | 82.7 | 82.1 | 82.0 | 81.6 | 81.2 | 81.3 | 81.2 | 80.8 | 80.9 | 82.6 |
| Sigma | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 |

### Drift Calculation

| AVD2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_PROTON samples | | | | | | | | | | | | | |
| 275 | - | -247.9E-03 | -624.4E-03 | -902.6E-03 | -1.4E+00 | -1.6E+00 | -1.9E+00 | -2.4E+00 | -2.2E+00 | -2.3E+00 | -2.7E+00 | -2.6E+00 | -1.1E+00 |
| 276 | - | -252.0E-03 | -645.0E-03 | -1.0E+00 | -1.6E+00 | -1.7E+00 | -2.2E+00 | -2.6E+00 | -2.5E+00 | -2.6E+00 | -3.0E+00 | -2.9E+00 | -1.1E+00 |
| 277 | - | -217.6E-03 | -587.1E-03 | -923.2E-03 | -1.5E+00 | -1.6E+00 | -2.1E+00 | -2.5E+00 | -2.4E+00 | -2.5E+00 | -2.9E+00 | -2.7E+00 | -998.6E-03 |
| Average | - | -239.2E-03 | -618.8E-03 | -943.0E-03 | -1.5E+00 | -1.6E+00 | -2.0E+00 | -2.5E+00 | -2.3E+00 | -2.5E+00 | -2.8E+00 | -2.7E+00 | -1.1E+00 |
| Sigma | - | 15.3E-03 | 24.0E-03 | 43.4E-03 | 73.6E-03 | 67.7E-03 | 94.3E-03 | 91.9E-03 | 92.5E-03 | 101.9E-03 | 121.1E-03 | 87.2E-03 | 46.6E-03 |

### Measurements

| AVD2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 85.0 | 85.0 | 84.7 | 84.9 | 85.0 | 85.2 | 85.1 | 84.8 | 85.1 | 85.1 | 84.7 | 84.9 | 85.0 |
| ON_TID samples | | | | | | | | | | | | | |
| 281 | 84.0 | 83.6 | 83.3 | 82.9 | 82.2 | 82.1 | 81.8 | 81.3 | 81.4 | 81.3 | 80.9 | 81.2 | 82.8 |
| 282 | 83.7 | 83.3 | 82.9 | 82.6 | 81.8 | 81.7 | 81.3 | 80.9 | 81.0 | 80.9 | 80.5 | 80.7 | 82.4 |
| 283 | 84.4 | 84.0 | 83.7 | 83.4 | 82.7 | 82.6 | 82.2 | 81.8 | 82.0 | 81.8 | 81.4 | 81.6 | 83.2 |
| Statistics | | | | | | | | | | | | | |
| Min | 83.7 | 83.3 | 82.9 | 82.6 | 81.8 | 81.7 | 81.3 | 80.9 | 81.0 | 80.9 | 80.5 | 80.7 | 82.4 |
| Max | 84.4 | 84.0 | 83.7 | 83.4 | 82.7 | 82.6 | 82.2 | 81.8 | 82.0 | 81.8 | 81.4 | 81.6 | 83.2 |
| Average | 84.1 | 83.7 | 83.3 | 82.9 | 82.2 | 82.1 | 81.8 | 81.4 | 81.5 | 81.3 | 80.9 | 81.1 | 82.8 |
| Sigma | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |

### Drift Calculation

| AVD2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ON_TID samples | | | | | | | | | | | | | |
| 281 | - | -379.3E-03 | -746.8E-03 | -1.1E+00 | -1.8E+00 | -1.9E+00 | -2.3E+00 | -2.7E+00 | -2.6E+00 | -2.7E+00 | -3.1E+00 | -2.9E+00 | -1.2E+00 |
| 282 | - | -420.2E-03 | -825.1E-03 | -1.2E+00 | -1.9E+00 | -2.1E+00 | -2.5E+00 | -2.9E+00 | -2.7E+00 | -2.9E+00 | -3.3E+00 | -3.1E+00 | -1.4E+00 |
| 283 | - | -385.5E-03 | -712.1E-03 | -1.0E+00 | -1.7E+00 | -1.8E+00 | -2.2E+00 | -2.6E+00 | -2.4E+00 | -2.6E+00 | -3.0E+00 | -2.8E+00 | -1.2E+00 |
| Average | - | -395.0E-03 | -761.3E-03 | -1.1E+00 | -1.8E+00 | -1.9E+00 | -2.3E+00 | -2.7E+00 | -2.6E+00 | -2.7E+00 | -3.1E+00 | -2.9E+00 | -1.3E+00 |
| Sigma | - | 18.0E-03 | 47.3E-03 | 58.7E-03 | 83.9E-03 | 96.6E-03 | 108.5E-03 | 117.0E-03 | 122.0E-03 | 103.7E-03 | 110.6E-03 | 118.5E-03 | 88.7E-03 |

### Measurements

| AVD2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 85.0 | 85.0 | 84.7 | 84.9 | 85.0 | 85.2 | 85.1 | 84.8 | 85.1 | 85.1 | 84.7 | 84.9 | 85.0 |
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | 83.7 | 83.1 | 82.7 | 81.9 | 80.8 | 80.4 | 79.9 | 79.3 | 79.3 | 79.0 | 78.5 | 78.7 | 81.6 |
| 280 | 83.6 | 83.0 | 82.6 | 81.8 | 80.6 | 80.3 | 79.8 | 79.2 | 79.2 | 78.9 | 78.5 | 78.6 | 81.4 |
| 290 | 83.6 | 83.0 | 82.5 | 81.8 | 80.6 | 80.3 | 79.8 | 79.2 | 79.2 | 78.9 | 78.4 | 78.6 | 81.4 |
| Statistics | | | | | | | | | | | | | |
| Min | 83.6 | 83.0 | 82.5 | 81.8 | 80.6 | 80.3 | 79.8 | 79.2 | 79.2 | 78.9 | 78.4 | 78.6 | 81.4 |
| Max | 83.7 | 83.1 | 82.7 | 81.9 | 80.8 | 80.4 | 79.9 | 79.3 | 79.3 | 79.0 | 78.5 | 78.7 | 81.6 |
| Average | 83.6 | 83.1 | 82.6 | 81.8 | 80.7 | 80.3 | 79.8 | 79.3 | 79.2 | 79.0 | 78.5 | 78.6 | 81.4 |
| Sigma | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 |

### Drift Calculation

| AVD2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_PROTON samples | | | | | | | | | | | | | |
| 279 | - | -554.8E-03 | -1.0E+00 | -1.8E+00 | -2.9E+00 | -3.3E+00 | -3.8E+00 | -4.3E+00 | -4.4E+00 | -4.6E+00 | -5.2E+00 | -5.0E+00 | -2.1E+00 |
| 280 | - | -578.4E-03 | -1.1E+00 | -1.8E+00 | -3.0E+00 | -3.3E+00 | -3.8E+00 | -4.4E+00 | -4.4E+00 | -4.7E+00 | -5.2E+00 | -5.0E+00 | -2.2E+00 |
| 290 | - | -564.7E-03 | -1.1E+00 | -1.8E+00 | -3.0E+00 | -3.3E+00 | -3.8E+00 | -4.4E+00 | -4.4E+00 | -4.7E+00 | -5.2E+00 | -5.0E+00 | -2.2E+00 |
| Average | - | -566.0E-03 | -1.0E+00 | -1.8E+00 | -2.9E+00 | -3.3E+00 | -3.8E+00 | -4.4E+00 | -4.4E+00 | -4.7E+00 | -5.2E+00 | -5.0E+00 | -2.2E+00 |
| Sigma | - | 9.7E-03 | 16.1E-03 | 16.9E-03 | 35.6E-03 | 39.4E-03 | 24.0E-03 | 21.7E-03 | 25.5E-03 | 19.0E-03 | 15.5E-03 | 20.9E-03 | 58.2E-03 |

### Measurements

| AVD2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255_REF | 85.0 | 85.0 | 84.7 | 84.9 | 85.0 | 85.2 | 85.1 | 84.8 | 85.1 | 85.1 | 84.7 | 84.9 | 85.0 |
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | 84.7 | 84.1 | 83.6 | 82.8 | 81.5 | 81.1 | 80.7 | 80.1 | 80.0 | 79.7 | 79.2 | 79.4 | 82.5 |
| 285 | 84.2 | 83.6 | 83.1 | 82.2 | 81.0 | 80.6 | 80.2 | 79.6 | 79.5 | 79.2 | 78.7 | 78.9 | 81.9 |
| 286 | 84.5 | 83.9 | 83.4 | 82.7 | 81.6 | 81.4 | 81.1 | 80.5 | 80.5 | 80.3 | 79.8 | 80.0 | 82.3 |
| Statistics | | | | | | | | | | | | | |
| Min | 84.2 | 83.6 | 83.1 | 82.2 | 81.0 | 80.6 | 80.2 | 79.6 | 79.5 | 79.2 | 78.7 | 78.9 | 81.9 |
| Max | 84.7 | 84.1 | 83.6 | 82.8 | 81.6 | 81.4 | 81.1 | 80.5 | 80.5 | 80.3 | 79.8 | 80.0 | 82.5 |
| Average | 84.5 | 83.9 | 83.3 | 82.6 | 81.4 | 81.0 | 80.6 | 80.1 | 80.0 | 79.7 | 79.3 | 79.5 | 82.2 |
| Sigma | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 |

### Drift Calculation

| AVD2 | 0 kRad | 8.1 kRad | 22.5 kRad | 53.1 kRad | 108.9 kRad | 162.9 kRad | 198 kRad | 238.5 kRad | 279.9 kRad | 351 kRad | 442.8 kRad | 24 Hours | 168 Hours |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OFF_TID samples | | | | | | | | | | | | | |
| 284 | - | -583.6E-03 | -1.1E+00 | -1.9E+00 | -3.2E+00 | -3.6E+00 | -4.0E+00 | -4.6E+00 | -4.7E+00 | -5.0E+00 | -5.5E+00 | -5.3E+00 | -2.2E+00 |
| 285 | - | -604.3E-03 | -1.1E+00 | -2.0E+00 | -3.3E+00 | -3.7E+00 | -4.1E+00 | -4.7E+00 | -4.8E+00 | -5.0E+00 | -5.5E+00 | -5.3E+00 | -2.3E+00 |
| 286 | - | -596.6E-03 | -1.1E+00 | -1.8E+00 | -2.8E+00 | -3.0E+00 | -3.4E+00 | -3.9E+00 | -3.9E+00 | -4.2E+00 | -4.6E+00 | -4.4E+00 | -2.2E+00 |
| Average | - | -594.9E-03 | -1.1E+00 | -1.9E+00 | -3.1E+00 | -3.4E+00 | -3.8E+00 | -4.4E+00 | -4.5E+00 | -4.7E+00 | -5.2E+00 | -5.0E+00 | -2.2E+00 |
| Sigma | - | 8.5E-03 | 18.4E-03 | 81.3E-03 | 177.9E-03 | 266.0E-03 | 323.4E-03 | 347.2E-03 | 371.4E-03 | 387.7E-03 | 415.1E-03 | 400.3E-03 | 68.9E-03 |