ESA study

"Test Methods, Requirements, and Guidelines for Evaluation of Radiation Sensitivity of Analog to Digital Converters (ADC), Digital to Analog Converters (DAC) and Vertical Power MOSFETs"

TOTAL IONIZING DOSE TEST REPORT

Part Type : AD976SD/883

Package : GDIP4-T28

Description : 16-Bit, 100 kSPS / 200 kSPS BiCMOS A/D Converter

Manufacturer : Analog Devices

Date Code: 1306

ESTEC Contract N° 4000105495/12/NL/SFe dated February 27th, 2012

ESTEC Technical Responsible: Christian Poivey

Hirex reference:	HRX/TID/1197	Issue: 02	Date:	August 11th, 2014
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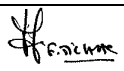
Approved by:	F.TILHAC	Test Lab Manager		

CHANGE RECORD

ISSUE	DATE	PAGE	DESCRIPTION OF CHANGES
01	June 05th, 2014	All	Original Issue
02	August 11th, 2014	9, 13 and 173	Linearity computation, parameter table and DNL functional trend plot

TOTAL DOSE RADIATION TEST REPORT
on Analog Devices
AD976SD/883
16-Bit, 100 kSPS / 200 kSPS BiCMOS A/D Converter

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1 Introduction

In the scope of the ESA study: “Test Methods, Requirements, and Guidelines for Evaluation of Radiation Sensitivity of Analog to Digital Converters (ADC), Digital to Analog Converters (DAC) and Vertical Power MOSFETs”, a total dose radiation evaluation test of the Analog Devices AD976SD/883, 16-Bit, 100 kSPS / 200 kSPS BiCMOS A/D Converter has been performed with an accumulated dose of about 102 krad(Si) at a dose rate of 310 rad(Si)/hour, in response to ESTEC purchase order reference 4000105495/12/NL/SFe.

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 ESTEC.
Test has been performed in accordance with Hirex Engineering proposal reference HRX/PRO/3624 Issue 01 dated 10/12/2012.

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 proposal: HRX/PRO/3624 Issue 01 dated 10/12/2012
- Hirex Engineerin Email reference “Irradiation test plan approval for AD976SD/883” dated 02/11/2014.
- Hirex Engineering irradiation test plan for AD976SD/883: HRX/SPE/0281 Issue 01 dated 01/29/2014.
- Hirex Engineering Detail Design Document for AD976SD/883: HRX/DDD/1856 Issue 01
- Hirex Engineering Test Conditions for AD976SD/883: HRX/TC/1419 Issue 01
- ESCC Basic Specification No. 22900 issue 04.

2.2 Reference Documents

- Analog Devices AD976SD/883 Datasheet revision C dated 1999.
- Specification Document: SMD 5962-97564 revision B dated April 1997.

3 Device architecture / functional diagram / technology

The AD976A 16-bit A/D converter is considered as it can be procured to HiRel level. Maximum sampling frequency is 200KSPS. The part contains a successive approximation, switched capacitor ADC, an internal 2.5V reference and a high speed parallel interface. The ADC is factory calibrated (Resistor trimming with laser) to minimize all linearity errors.

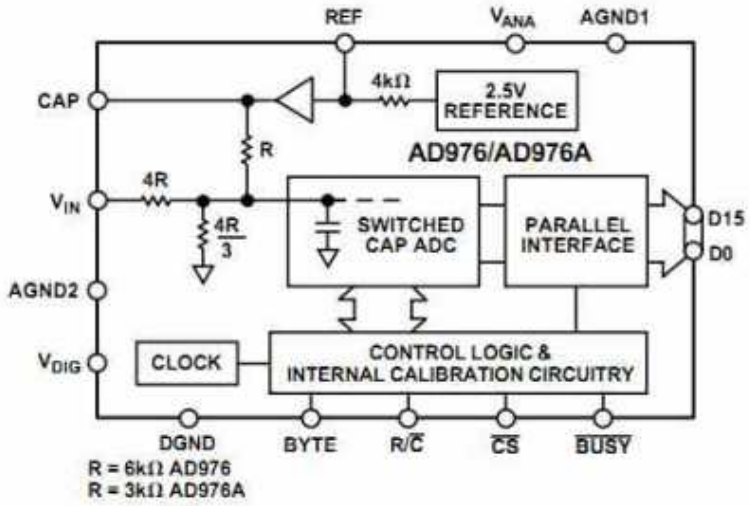


Figure 1: AD976SD/883 Block Diagram

Identification of the main blocks of the device is shown on Figure 2.

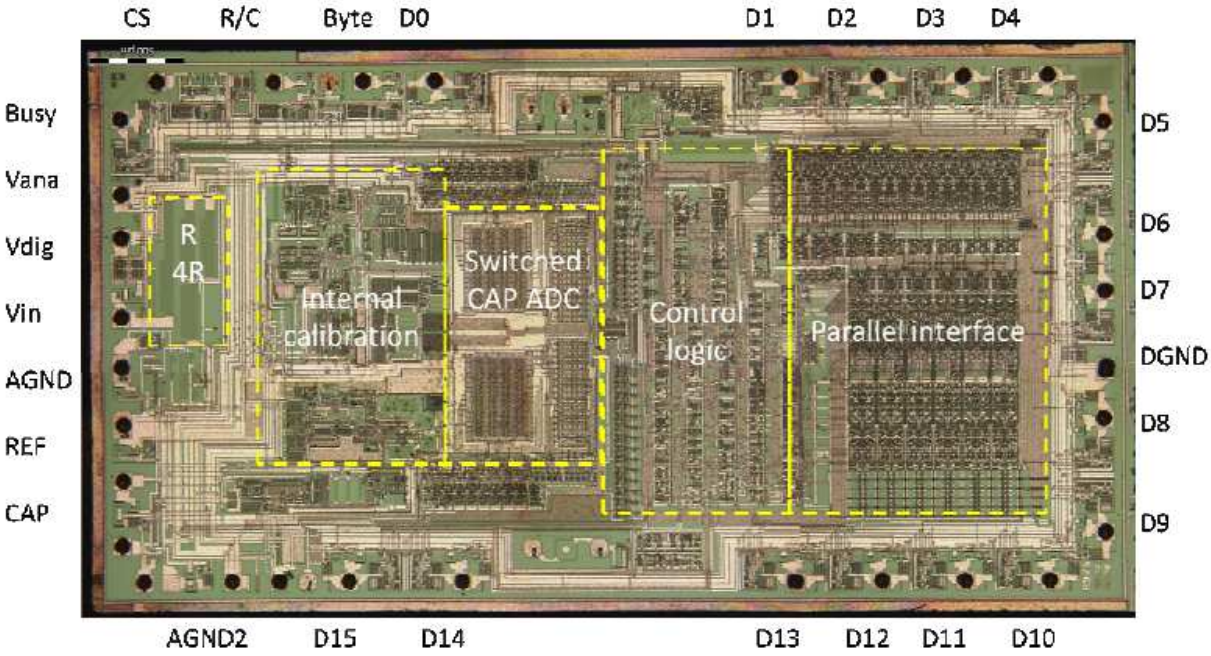


Figure 2: AD976SD/883 Die Floorplan

4 Test Samples

11 samples of the AD976SD/883 device were tested (5 ON + 5 OFF + 1 control sample).

Samples were allocated into the bias conditions during exposures and annealing as provided in the following table.

Serial Number (serialized by Hirex)	Allocation
1	Control
2	Biased ON
3	Biased ON
4	Biased ON
5	Biased ON
6	Biased ON
7	Biased OFF
8	Biased OFF
9	Biased OFF
10	Biased OFF
11	Biased OFF

Identification of the AD976SD/883 is given below:

Part Type:	AD976SD/883	**Part Number:**	AD5962-9756401QXA
Top Marking:	AD5962-9756401QXA logo Q 1306 A E233220	**Bottom Marking:**	E233220 PHILIPPINES
Date Code:	1306	**Lot Number:**	C6X410965

Complete traceability of the tested samples are provided on the following photos including die marking.

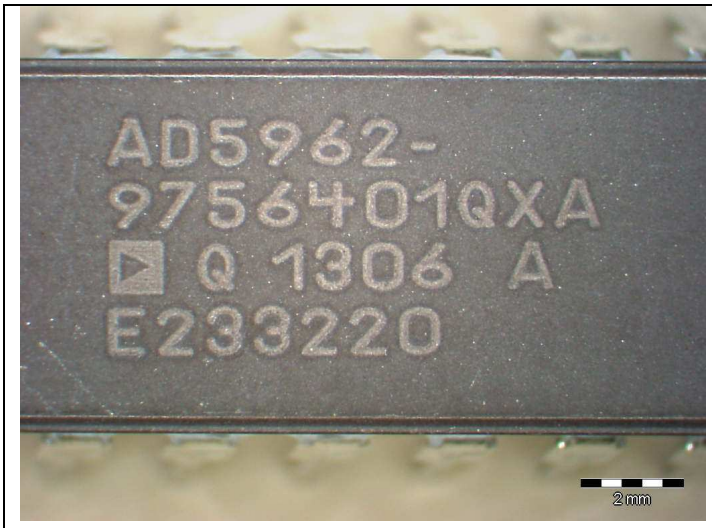


Photo 1 – Top Device Marking

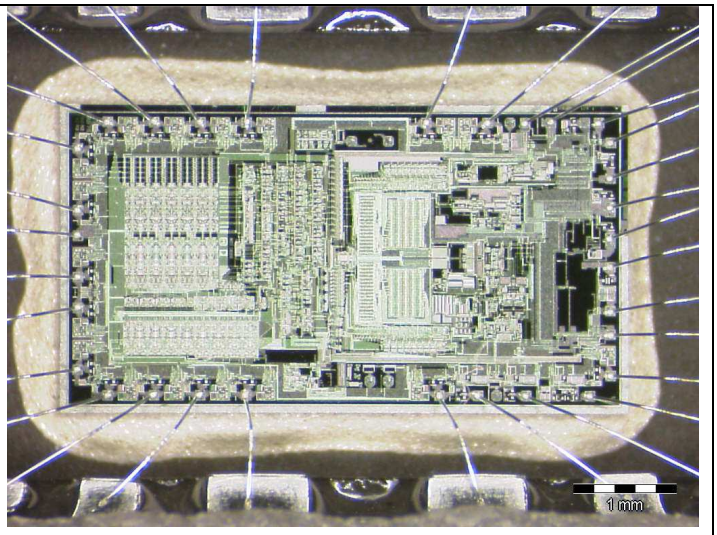


Photo 2 – Die View

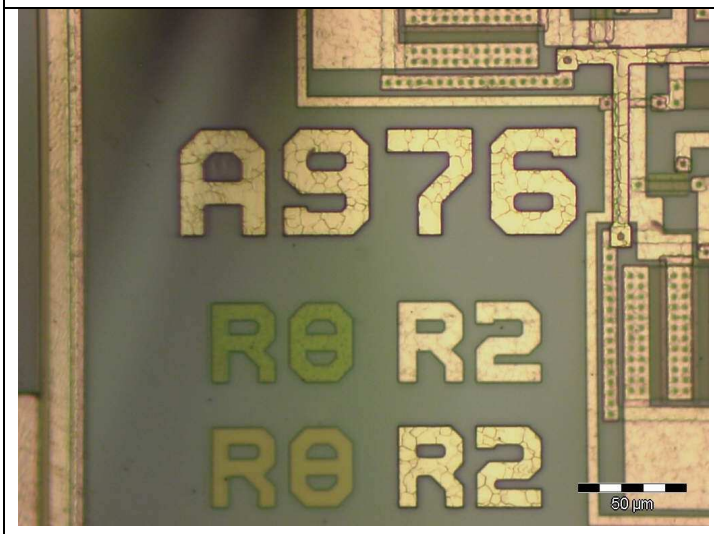


Photo 3 – Die Marking

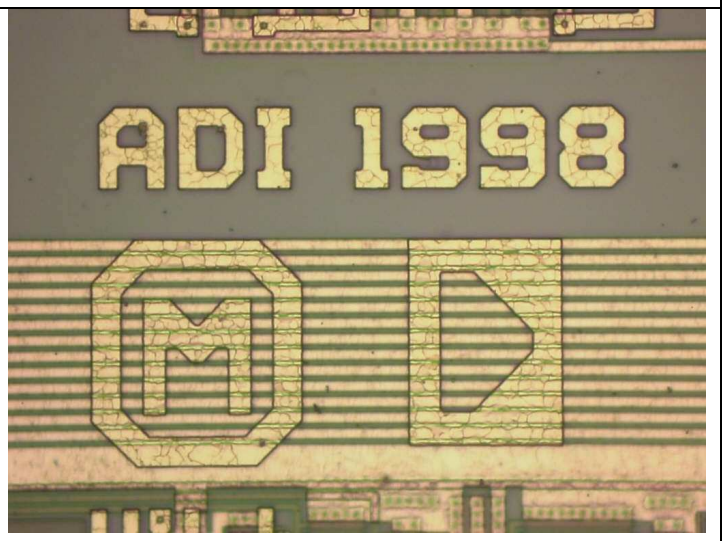


Photo 4 – Die marking

5 Experimental Conditions

5.1 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.

Prior to the test campaign the dose rate at board location is controlled using the Hirex calibrated dosimeter reference: Radcal Accu-Dose.

In addition, the dose received by the devices is verified 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
0 krad(Si)	0 krad(Si)		-	Room
10 krad(Si)	9 krad(Si)	310 rad(Si)/h	-	Room
20 krad(Si)	20.7 krad(Si)	310 rad(Si)/h	-	Room
30 krad(Si)	27.9 krad(Si)	310 rad(Si)/h	-	Room
50 krad(Si)	48.6 krad(Si)	310 rad(Si)/h	-	Room
100 krad(Si)	102.6 krad(Si)	310 rad(Si)/h	-	Room
-	-	-	24h	Room
-	-	-	+144h	Room
-	-	-	168h	100°C

5.2 Bias during Dose Exposures and Measurements conditions

5.2.1 Bias conditions

During exposures test board allowed to bias 5 samples in accordance with the electrical circuit provided in Figure 3.
5 other samples were biased OFF with all pins connected to ground.
During annealing steps the same stress conditions were applied at room and 100°C temperatures.

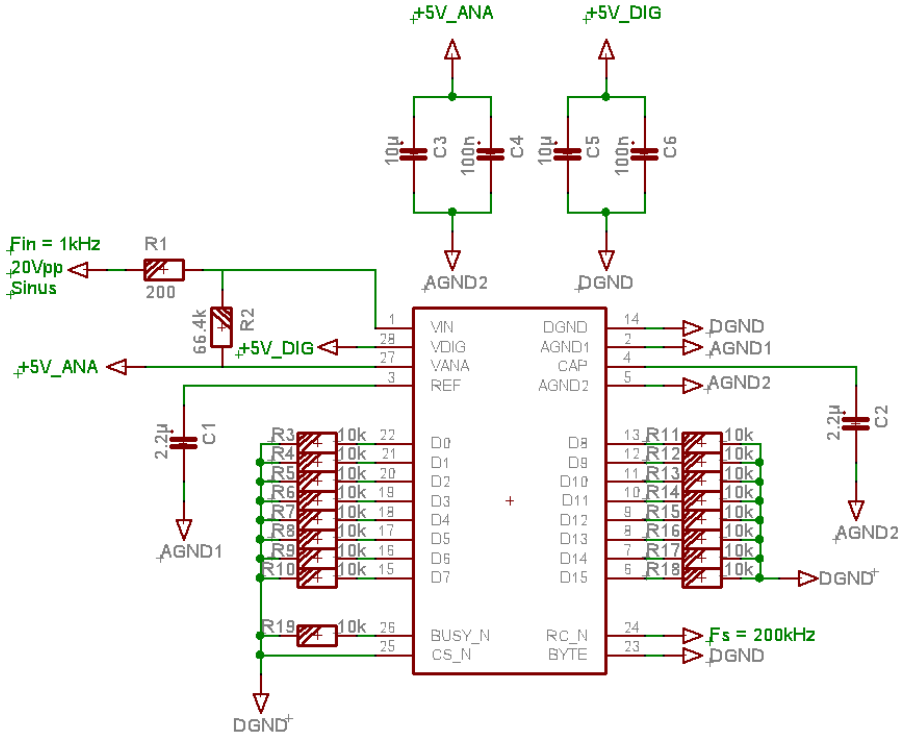


Figure 3: Bias Conditions during Irradiation Exposures and Annealing

5.2.2 Electrical Measurements

Electrical parameters test program principle for AD976SD/883 is provided in Figure 4.

A test bench including one IMS tester, one Converters Tester and one Keithley 2400 Power Supply were used to perform required measurements.

A dedicated test fixture was designed to ensure proper measurement conditions.

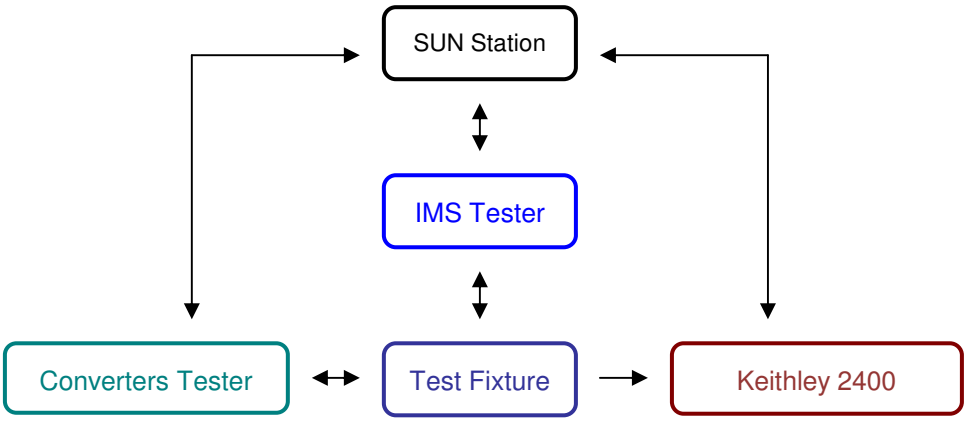


Figure 4: AD976SD/883 test program principle

5.2.3 Linearity and Dynamic Test methods description

In this paragraph the test methods used to measure the converter parameters are presented.

5.2.3.1 Linearity Test – Linear Ramp Histogram test method

A linear ramp histogram test method is used to perform linearity tests as depicted in Figure 5. The stimulus signal should be a very linear ramp waveform. It must swing slightly larger than the ADC input range, otherwise the linearity cannot be tested correctly. Its slope must be slow enough for the ADC under test to generate multiple times every code. Since histogram method is a kind of statistical method, each code had better to occur many times, for example at least 10 counts. An image of code occurrence by a ramp is shown in Figure 5. Since the input ramp overloads to the input range of the DUT, code 0 and the full-scale code (2^n -1) occur extremely many times than the rest of the codes. Here n denotes the number of bits.

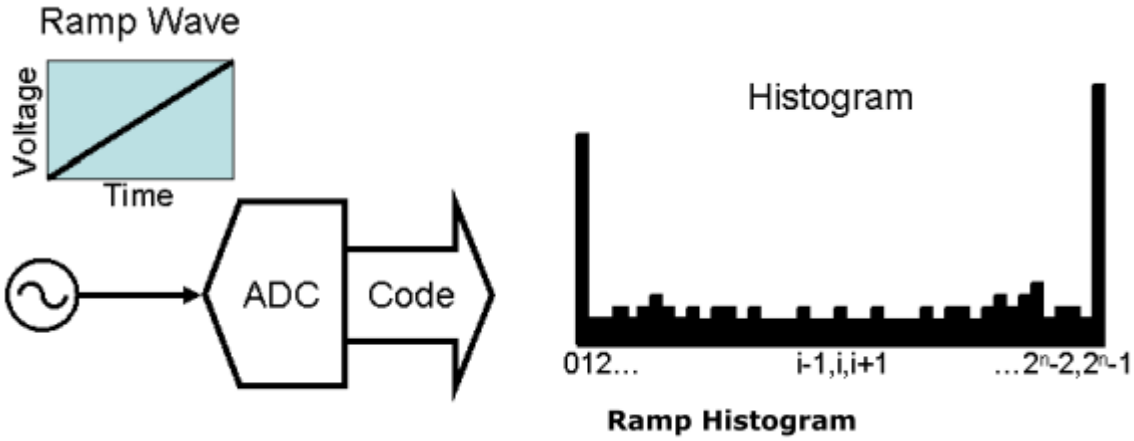


Figure 5: Linear Ramp Histogram test

A histogram by ramp signal looks as Figure 6

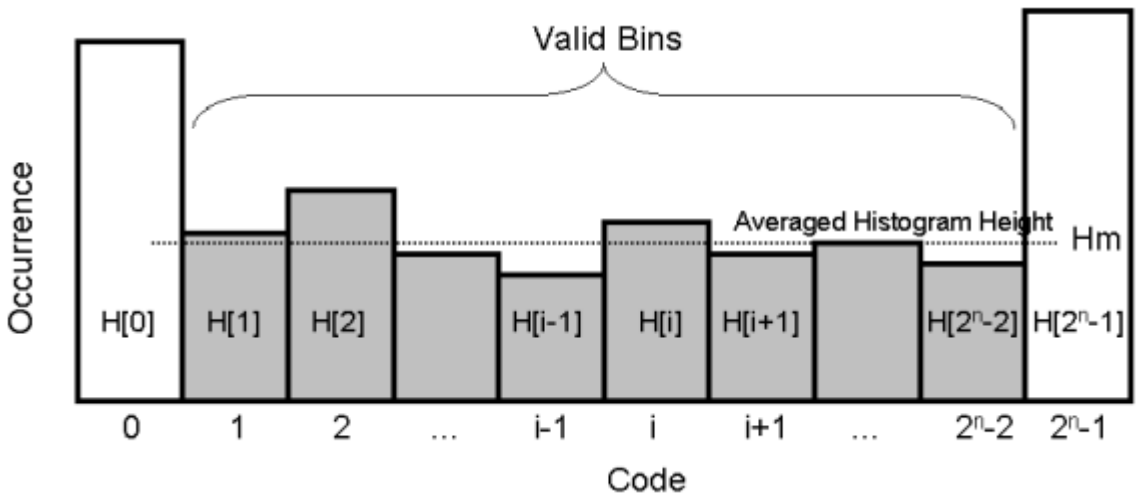


Figure 6: Ramp Histogram

The linearity is calculated as follows. Neglecting code 0 and code (2^n - 1) counts, all the counts from code 1 through (2^n - 2) are summed up. The average height (*Hm*) of the histogram from 1 through (2^n - 2) is calculated as below.

$$Hm = \frac{\sum_{i=1}^{2^n-2} H[i]}{2^n - 2} \quad (1)$$

A bin height is proportional to its code size. The average bin height *Hm* corresponds to the ideal code size so that *Hm* is the reference of each bin. Differential linearity error *DLE[i]* is described using Equation (1) as below.

$$DLE[i] = \frac{H[i] - Hm}{Hm} = \frac{H[i]}{Hm} - 1 \text{ [LSB]} \quad (2)$$

where i=1,2,3, … ,2 n -2, and DLE[0]=DLE[2 n -1]=0 perfunctory.

Integral linearity error ILE[i] is defined as Equation (3) below.

$$ILE[i] = \sum_{k=1}^{i} DLE[k] \quad \text{[LSB]} \quad (3)$$

where $Lm_0 = L_0$, and ILE[0]=ILE[2 n -1]=0 perfunctory.

Equation (3) shows that ILE[i] is derived as accumulation of DLE[i]. Equations (2) and (3) are the linearity equations by using a ramp stimulus.

5.2.3.2 Dynamic Tests computation

For the dynamic parameter calculations the captured sinewave must converted to the frequency domain, using the (fast) fourrier transform.
In some situations it is not possible to capture an integer number of sinewaves. This will lead to spectral leakage. In these situations signal windowing can be useful.

From the spectrum results the following parameters can be calculated:

$$SINAD = \frac{c}{n+d} \quad ENOB = \frac{SINAD - 1.8}{6.02} \quad SNR = \frac{c}{n} \quad THD = \frac{d}{c}$$

Where:

$$c = \sqrt{\mathrm{Re}^2{}_{carrier} + \mathrm{Im}^2{}_{carrier}} \quad d = \sqrt{\sum_{distortion} \mathrm{Re}^2{}_{dist.} + \mathrm{Im}^2{}_{dist.}}$$

$$n = \sqrt{\sum_{noise} \mathrm{Re}^2{}_{noise} + \mathrm{Im}^2{}_{noise}}$$

Where “c” stands for the amplitude of the carrier bin.

The signal “d” stands for the sum of all distorsion bins and “n” for the sum of all noise bins. The position of the carrier bin is equal to the number of periods of the carrier in the captured window.

5.2.3.2.1 Signal to Noise and Distorsion (SINAD) & Effective Number of Bits (ENOB)

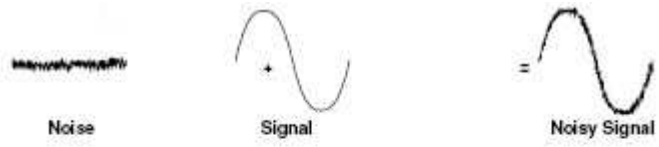
SINAD stands for Signal to Noise and Distorsion. It is the ratio signal (or carrier) and all other spectrum bins. The Effective Number of Bits (ENOB) is calculated from the SINAD.

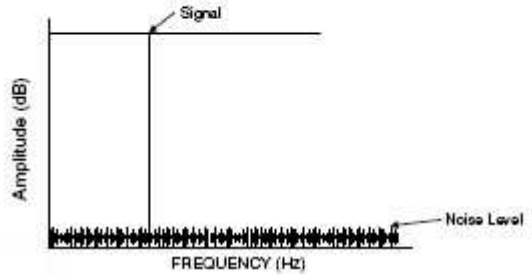
The theoretical maximum signal-to-noise-and-distorsion for a linear ADC with a full-scale sine-wave input derives from quantization noise (or resolution for a DAC) and is defined as 20 * log(2^(n-1) x sqrt(6)), or about 6.02n + 1.76 dB.

With a perfectly linear but noisy system SINAD and SNR are interchangeable.

5.2.3.2.2 Signal to Noise ratio (SNR)

The Signal to Noise ratio or SNR stands for the ratio signal (or carrier) and all noise bins. Noise bins are all bins not being the carrier, a harmonic or DC.





SNR usually degrades as frequency increases because the accuracy of the comparator(s) within the ADC degrades at higher input slew rates. This loss of accuracy shows up as noise at the ADC output. In an A/D converter, noise comes from four main sources: (1) quantization noise, (2) noise generated by the converter itself, (3) application circuit noise and (4) jitter.

Quantization noise results from the quantization process, the process of assigning an output code to a range of input values.

The amplitude of the quantization noise decreases as resolution increases because the size of an LSB is smaller at higher resolutions, which reduces the maximum quantization error.

The theoretical maximum signal-to-noise ratio for a linear ADC with a full-scale sine-wave input derives from quantization noise (or resolution for a DAC) and is defined as 20 * log(2^(n-1) x sqrt(6)), or about 6.02n + 1.76 dB. With a perfectly linear but noisy system SINAD and SNR are interchangeable.

Application circuit noise is that noise seen by the converter as a result of the way the circuit is designed and laid out. SNR increases with increasing input amplitude until the input gets close to full scale. The SNR increases at the same rate as the input signal until the input signal approaches full scale. That is, increasing the input signal amplitude by 1 dB will cause a 1 dB in increase in SNR.

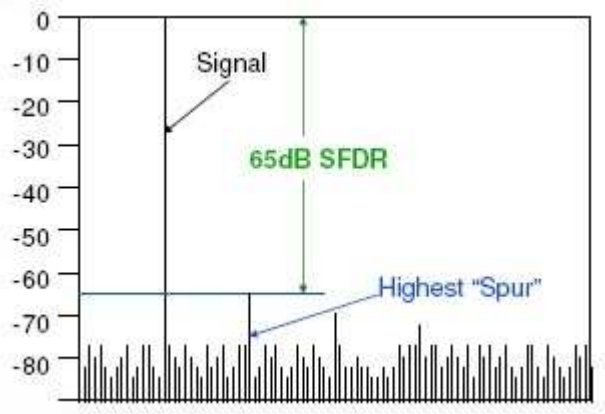
This is because the step size becomes a smaller part of the total signal amplitude as the the signal amplitude increases. When the input amplitude starts approaching full scale, however, the rate of increase of SNR vs. input signal decreases. SNR performance decreases at higher frequencies because the effects of jitter get worse.

5.2.3.2.3 Total Harmonic Distorsion (THD)

The Total Harmonic Distorsion or THD is the ratio distortion bins and signal (or carrier). Harmonics are mutiples of the carrier.

5.2.3.2.4 Spurious free dynamic range (SFDR)

The spurious free dynamic range is the difference in dB between the signal and the any other signal (spurious) in the spectrum with the highest peak.



5.2.3.2.5 Peak Distorsion

The peak distorsion is the highest distorsion bin.

Electrical parameters test conditions and limits used for performing this test are given in the following tables.

PARAMETERS	SYMBOLS	TEST CONDITIONS VANA=5V, VDIG=5V, VREF=2.5V	MIN	MAX	UNITS
Logic input high Voltage	**Vih**			2	V
Logic input low Voltage	**Vil**		0.8		V
Logic Input current	**ILINL**	Vih=5V, Vil=0V	-10.0E-6	10.0E-6	A
Logic Input current	**ILINH**	Vih=5V, Vil=0V	-10.0E-6	10.0E-6	A
Logic output high voltage	**VOH**	IOH=0.5mA	4		V
logic output low voltage	**VOL**	IOL=1.6mA		0.4	V
Three state output leakage	**IOLTL**		-5.00E-06	5.00E-06	A
Three state output leakage	**IOLTH**		-5.00E-06	5.00E-06	A
Power dissipation	**PD**			0.1	W
Integral nonlinearity Positive	**INL_Positive**	All codes, fs=200ksps		2.5	LSB
Integral nonlinearity Negative	**INL_Negative**	All codes, fs=200ksps	-2.5		LSB
Differential nonlinearity	**DNL**	Go-noGo test, All codes, fs=200ksps, Minimum resolution for which “no missing codes” is guaranteed.	16 Bits		P/F
Bipolar zero error	**BPZE**	Code = 32767.5, Ta=+25°C, fs=200ksps	-0.01	0.01	V
Negative full scale error	**AN**	Code=0.5, Ta=+25°C, fs=200ksps	-0.25	0.25	%
Positive full scale error	**AP**	Code=65535.5, Ta=+25°C, fs=200ksps	-0.25	0.25	%
Signal-to-noise + distorsion	**S/(N+D)**	Fin=45KHz, fs=200ksps **Note 1**	84		dB
Total Harmonic Distorsion	**THD**	Fin=45KHz, fs=200ksps **Note 1**		-94	dB
Spurious free dynamic range	**SFDR**	Fin=45KHz, fs=200ksps	94		dB
Voltage reference output	**Vref**	Ta=+25°C	2.48	2.52	V
Power supply rejection	**PSR**	Vdig=Vana=5V □5%	-8	8	LSB
Convert pulse width	**t1**	**Note 2**		50.0E-9	s
Data valid after R//C low	**t2**	**Note 2**		4.0E-6	s
/BUSY low delay	**t3**	**Note 2**		100.0E-9	s
/BUSY low time	**t4**	**Note 2**		4.0E-6	s
Conversion time	**t7**	GO NOGO		4.0E-6	s
Acquisition time	**t8**	GO NOGO		1.0E-6	s
Bus relinquish	**t9**	**Note 2, Note 3**	10.0E-9	100.0E-9	s
Throughput time	**t11**	**Note 2**		5.0E-6	s
R//C to /CS setup	**t12**	**Note 2**		10.0E-9	s
Time between conversions	**t13**	GO NOGO, **Note 4**	5.0E-6	1.0E-3	s
Bus access and byte delay	**t14**	**Note 2, Note 5**	10.0E-9	100.0E-9	s

Note 1: Vin=-0.5dB, Fin=45 kHz, all measurement referred to a 0dB (20Vpp) input signal. THD includes first six harmonics, Bandwidth = 50 kHz.
Note 2: Iol=1.6mA; Ioh=500uA, Vcrossover 2.1V, Vol=0.4V, Voh=4V, Vil=0.8V, Vih=2V
Note 3: Measurement decomposed in t9_DV & t9_Z. t9_DV: all data valid. T9_Z: all data Z.
Note 4: Functionality tested at 2 extreme values of t13.
Note 5: Measurement decomposed in t14_DV & t14_Z. t14_DV: all data valid. T14_Z: all data Z.

Table 1: Room Temperatures Electrical Measurements

6 Conclusion

A Total Ionizing Dose evaluation test was carried out by Hirex Engineering under ESTEC contract on the Analog Devices AD976SD/883 16-Bit, 100 kSPS / 200 kSPS BiCMOS A/D Converter in GDIP4-T28 package.

10 samples plus one control sample were used during testing. They were exposed to radiation using a dose rate of 310 rad(Si)/hour at room temperature.

A summary of the failed parameters is provided in the following table. The behavior of each parameter is recorded for both biased ON and biased OFF samples.
Parameters not listed remained within specification limits all along testing.

Detail test results are presented in the following section.

Parameters	Failure Level between :		Annealing Recovery [Note 1]					Comments
			NA	No	Partial	Complete	Rebound	
ILINH/CS	ON samples	9 & 20.7 kRad(Si)				X		
	OFF samples	No Failure	X					
VOL	ON samples	48.6 & 102.6 kRad(Si)				X		[Note 2]
	OFF samples	No Failure	X					
IOLTL	ON samples	48.6 & 102.6 kRad(Si)				X		
	OFF samples	No Failure	X					
INL_Positive	ON samples	27.9 & 48.6 kRad(Si)		X				
	OFF samples	No Failure	X					
INL_Negative	ON samples	20.7 & 27.9 kRad(Si)		X				
	OFF samples	48.6 & 102.6 kRad(Si)		X				
DNL	ON samples	27.9 & 48.6 kRad(Si)		X				[Note 2]
	OFF samples	No Failure	X					
BPZE	ON samples	9 & 20.7 kRad(Si)				X		
	OFF samples	No Failure	X					
AP	ON samples	9 & 20.7 kRad(Si)		X				
	OFF samples	20.7 & 27.9 kRad(Si)				X		
AN	ON samples	27.9 & 48.6 kRad(Si)			X			
	OFF samples	27.9 & 48.6 kRad(Si)				X		
SFDR	ON samples	48.6 & 102.6 kRad(Si)			X			
	OFF samples	No Failure	X					
THD	ON samples	27.9 & 48.6 kRad(Si)			X			
	OFF samples	No Failure	X					
SINAD	ON samples	27.9 & 48.6 kRad(Si)		X				
	OFF samples	No Failure	X					

Parameters	Failure Level between :		Annealing Recovery [Note 1]					Comments
			NA	No	Partial	Complete	Rebound	
T2	ON samples	48.6 & 102.6 kRad(Si)				X		[Note 2]
	OFF samples	No Failure	X					
T8	ON samples	48.6 & 102.6 kRad(Si)				X		
	OFF samples	No Failure	X					
T9_DV	ON samples	48.6 & 102.6 kRad(Si)				X		[Note 2]
	OFF samples	No Failure	X					
T12	ON samples	48.6 & 102.6 kRad(Si)				X		[Note 2]
	OFF samples	No Failure	X					
T13	ON samples	48.6 & 102.6 kRad(Si)				X		
	OFF samples	No Failure	X					
T14_DV	ON samples	48.6 & 102.6 kRad(Si)				X		[Note 2]
	OFF 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.
[Note 2]: Some or all biased ON parts, these parameters have been not measured at some irradiation steps due to device loss of functionality.

Table 2 : Summary of parameters failure levels

7 Test Results

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

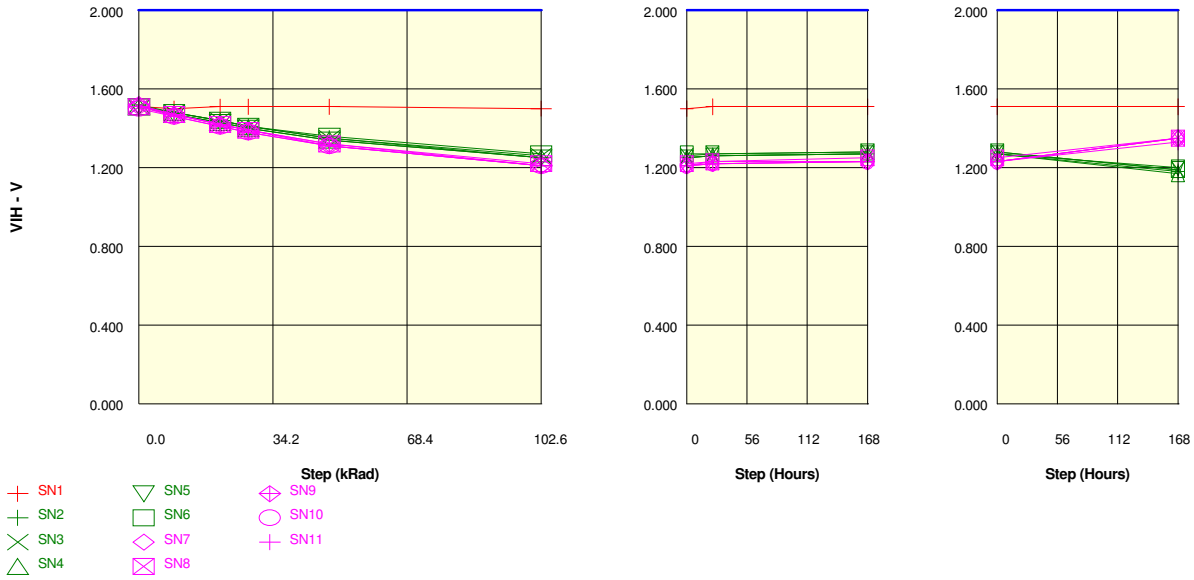
Failed values (if any) with respect to specified limits are highlighted in bold red font in the tables.

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

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

Note on tables and graphics:
In some cases, it may appear missing points in tables and graphs, this situation corresponds to a failure corresponding to a loss of functionality (Device not able to boot).

Parameter : Logic input high Voltage : VIH/CS
Test conditions :
Unit : V
Spec Limit Max : 2.000
Spec limits are represented in bold lines on the graphic.



Measurements

VIH/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.510	1.500	1.510	1.510	1.510	1.500	1.510	1.510	1.510
ON samples									
SN2	1.520	1.480	1.440	1.410	1.350	1.250	1.260	1.270	1.180
SN3	1.510	1.480	1.440	1.410	1.350	1.260	1.270	1.280	1.190
SN4	1.510	1.470	1.430	1.400	1.340	1.250	1.260	1.270	1.170
SN5	1.510	1.470	1.430	1.400	1.340	1.250	1.260	1.270	1.200
SN6	1.510	1.480	1.440	1.410	1.360	1.270	1.270	1.280	1.190
Statistics									
Min	1.510	1.470	1.430	1.400	1.340	1.250	1.260	1.270	1.170
Max	1.520	1.480	1.440	1.410	1.360	1.270	1.270	1.280	1.200
Average	1.512	1.476	1.436	1.406	1.348	1.256	1.264	1.274	1.186
Sigma	0.004	0.005	0.005	0.005	0.007	0.008	0.005	0.005	0.010

Drift Calculation

VIH/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-40.0E-03	-80.0E-03	-110.0E-03	-170.0E-03	-270.0E-03	-260.0E-03	-250.0E-03	-340.0E-03
SN3	-	-30.0E-03	-70.0E-03	-100.0E-03	-160.0E-03	-250.0E-03	-240.0E-03	-230.0E-03	-320.0E-03
SN4	-	-40.0E-03	-80.0E-03	-110.0E-03	-170.0E-03	-260.0E-03	-250.0E-03	-240.0E-03	-340.0E-03
SN5	-	-40.0E-03	-80.0E-03	-110.0E-03	-170.0E-03	-260.0E-03	-250.0E-03	-240.0E-03	-310.0E-03
SN6	-	-30.0E-03	-70.0E-03	-100.0E-03	-150.0E-03	-240.0E-03	-240.0E-03	-230.0E-03	-320.0E-03
Average	-	-36.0E-03	-76.0E-03	-106.0E-03	-164.0E-03	-256.0E-03	-248.0E-03	-238.0E-03	-326.0E-03
Sigma	-	4.9E-03	4.9E-03	4.9E-03	8.0E-03	10.2E-03	7.5E-03	7.5E-03	12.0E-03

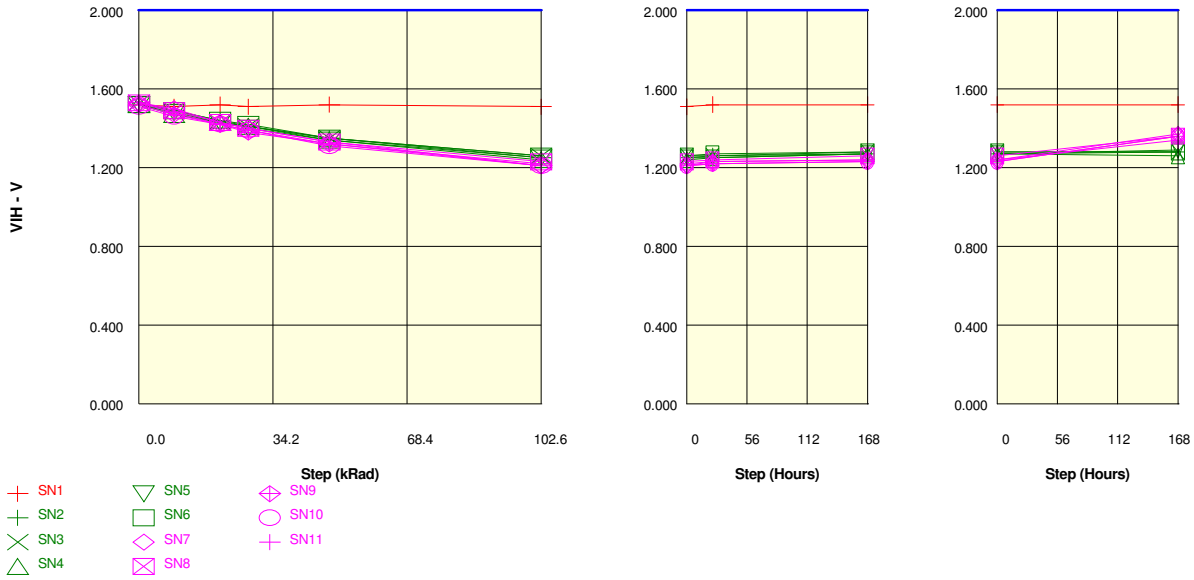
Measurements

VIH/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.510	1.500	1.510	1.510	1.510	1.500	1.510	1.510	1.510
OFF samples									
SN7	1.520	1.470	1.420	1.390	1.320	1.210	1.220	1.230	1.350
SN8	1.510	1.470	1.420	1.390	1.320	1.220	1.230	1.250	1.350
SN9	1.510	1.460	1.410	1.380	1.310	1.210	1.220	1.230	1.350
SN10	1.500	1.460	1.410	1.380	1.310	1.210	1.220	1.230	1.350
SN11	1.510	1.470	1.420	1.390	1.310	1.210	1.230	1.230	1.330
Statistics									
Min	1.500	1.460	1.410	1.380	1.310	1.210	1.220	1.230	1.330
Max	1.520	1.470	1.420	1.390	1.320	1.220	1.230	1.250	1.350
Average	1.510	1.466	1.416	1.386	1.314	1.212	1.224	1.234	1.346
Sigma	0.006	0.005	0.005	0.005	0.005	0.004	0.005	0.008	0.008

Drift Calculation

VIH/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-50.0E-03	-100.0E-03	-130.0E-03	-200.0E-03	-310.0E-03	-300.0E-03	-290.0E-03	-170.0E-03
SN8	-	-40.0E-03	-90.0E-03	-120.0E-03	-190.0E-03	-290.0E-03	-280.0E-03	-260.0E-03	-160.0E-03
SN9	-	-50.0E-03	-100.0E-03	-130.0E-03	-200.0E-03	-300.0E-03	-290.0E-03	-280.0E-03	-160.0E-03
SN10	-	-40.0E-03	-90.0E-03	-120.0E-03	-190.0E-03	-290.0E-03	-280.0E-03	-270.0E-03	-150.0E-03
SN11	-	-40.0E-03	-90.0E-03	-120.0E-03	-200.0E-03	-300.0E-03	-280.0E-03	-280.0E-03	-180.0E-03
Average	-	-44.0E-03	-94.0E-03	-124.0E-03	-196.0E-03	-298.0E-03	-286.0E-03	-276.0E-03	-164.0E-03
Sigma	-	4.9E-03	4.9E-03	4.9E-03	4.9E-03	7.5E-03	8.0E-03	10.2E-03	10.2E-03

Parameter : Logic input high Voltage : VIHR//C
Test conditions :
Unit : V
Spec Limit Max : 2.000
Spec limits are represented in bold lines on the graphic.



Measurements

VIHR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.520	1.510	1.520	1.510	1.520	1.510	1.520	1.520	1.520
ON samples									
SN2	1.530	1.490	1.440	1.410	1.350	1.250	1.260	1.270	1.280
SN3	1.530	1.490	1.430	1.410	1.350	1.260	1.260	1.280	1.280
SN4	1.520	1.470	1.430	1.410	1.340	1.240	1.250	1.270	1.260
SN5	1.520	1.480	1.430	1.400	1.340	1.250	1.250	1.270	1.290
SN6	1.520	1.490	1.440	1.420	1.350	1.260	1.270	1.280	1.280
Statistics									
Min	1.520	1.470	1.430	1.400	1.340	1.240	1.250	1.270	1.260
Max	1.530	1.490	1.440	1.420	1.350	1.260	1.270	1.280	1.290
Average	1.524	1.484	1.434	1.410	1.346	1.252	1.258	1.274	1.278
Sigma	0.005	0.008	0.005	0.006	0.005	0.007	0.007	0.005	0.010

Drift Calculation

VIHR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-40.0E-03	-90.0E-03	-120.0E-03	-180.0E-03	-280.0E-03	-270.0E-03	-260.0E-03	-250.0E-03
SN3	-	-40.0E-03	-100.0E-03	-120.0E-03	-180.0E-03	-270.0E-03	-270.0E-03	-250.0E-03	-250.0E-03
SN4	-	-50.0E-03	-90.0E-03	-110.0E-03	-180.0E-03	-280.0E-03	-270.0E-03	-250.0E-03	-260.0E-03
SN5	-	-40.0E-03	-90.0E-03	-120.0E-03	-180.0E-03	-270.0E-03	-270.0E-03	-250.0E-03	-230.0E-03
SN6	-	-30.0E-03	-80.0E-03	-100.0E-03	-170.0E-03	-260.0E-03	-250.0E-03	-240.0E-03	-240.0E-03
Average	-	-40.0E-03	-90.0E-03	-114.0E-03	-178.0E-03	-272.0E-03	-266.0E-03	-250.0E-03	-246.0E-03
Sigma	-	6.3E-03	6.3E-03	8.0E-03	4.0E-03	7.5E-03	8.0E-03	6.3E-03	10.2E-03

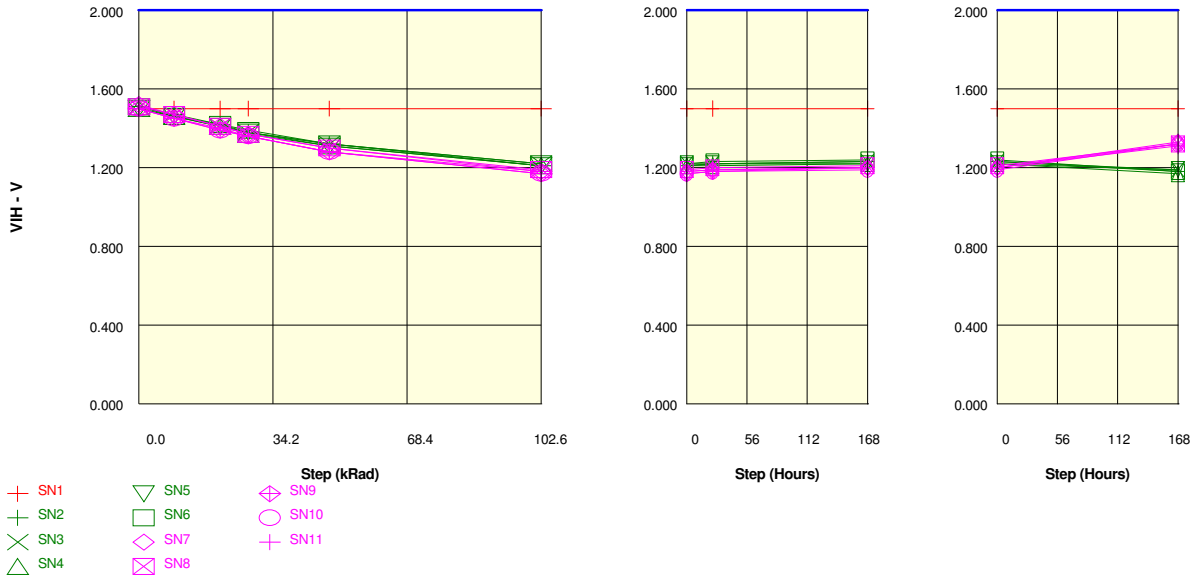
Measurements

VIHR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.520	1.510	1.520	1.510	1.520	1.510	1.520	1.520	1.520
OFF samples									
SN7	1.530	1.500	1.430	1.400	1.330	1.210	1.230	1.240	1.370
SN8	1.530	1.490	1.430	1.400	1.330	1.230	1.240	1.260	1.360
SN9	1.520	1.470	1.420	1.380	1.320	1.210	1.220	1.230	1.360
SN10	1.510	1.460	1.420	1.390	1.310	1.210	1.220	1.230	1.360
SN11	1.530	1.480	1.420	1.390	1.320	1.220	1.230	1.240	1.340
Statistics									
Min	1.510	1.460	1.420	1.380	1.310	1.210	1.220	1.230	1.340
Max	1.530	1.500	1.430	1.400	1.330	1.230	1.240	1.260	1.370
Average	1.524	1.480	1.424	1.392	1.322	1.216	1.228	1.240	1.358
Sigma	0.008	0.014	0.005	0.007	0.007	0.008	0.007	0.011	0.010

Drift Calculation

VIHR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-30.0E-03	-100.0E-03	-130.0E-03	-200.0E-03	-320.0E-03	-300.0E-03	-290.0E-03	-160.0E-03
SN8	-	-40.0E-03	-100.0E-03	-130.0E-03	-200.0E-03	-300.0E-03	-290.0E-03	-270.0E-03	-170.0E-03
SN9	-	-50.0E-03	-100.0E-03	-140.0E-03	-200.0E-03	-310.0E-03	-300.0E-03	-290.0E-03	-160.0E-03
SN10	-	-50.0E-03	-90.0E-03	-120.0E-03	-200.0E-03	-300.0E-03	-290.0E-03	-280.0E-03	-150.0E-03
SN11	-	-50.0E-03	-110.0E-03	-140.0E-03	-210.0E-03	-310.0E-03	-300.0E-03	-290.0E-03	-190.0E-03
Average	-	-44.0E-03	-100.0E-03	-132.0E-03	-202.0E-03	-308.0E-03	-296.0E-03	-284.0E-03	-166.0E-03
Sigma	-	8.0E-03	6.3E-03	7.5E-03	4.0E-03	7.5E-03	4.9E-03	8.0E-03	13.6E-03

Parameter : Logic input high Voltage : VIHBYTE
Test conditions :
Unit : V
Spec Limit Max : 2.000
Spec limits are represented in bold lines on the graphic.



Measurements

VIHBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
ON samples									
SN2	1.510	1.470	1.420	1.380	1.320	1.210	1.220	1.230	1.180
SN3	1.510	1.470	1.410	1.380	1.320	1.220	1.220	1.230	1.190
SN4	1.500	1.460	1.410	1.370	1.310	1.210	1.210	1.220	1.170
SN5	1.500	1.460	1.410	1.380	1.310	1.210	1.220	1.220	1.190
SN6	1.510	1.460	1.420	1.390	1.320	1.220	1.230	1.240	1.180
Statistics									
Min	1.500	1.460	1.410	1.370	1.310	1.210	1.210	1.220	1.170
Max	1.510	1.470	1.420	1.390	1.320	1.220	1.230	1.240	1.190
Average	1.506	1.464	1.414	1.380	1.316	1.214	1.220	1.228	1.182
Sigma	0.005	0.005	0.005	0.006	0.005	0.005	0.006	0.007	0.007

Drift Calculation

VIHBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-40.0E-03	-90.0E-03	-130.0E-03	-190.0E-03	-300.0E-03	-290.0E-03	-280.0E-03	-330.0E-03
SN3	-	-40.0E-03	-100.0E-03	-130.0E-03	-190.0E-03	-290.0E-03	-290.0E-03	-280.0E-03	-320.0E-03
SN4	-	-40.0E-03	-90.0E-03	-130.0E-03	-190.0E-03	-290.0E-03	-290.0E-03	-280.0E-03	-330.0E-03
SN5	-	-40.0E-03	-90.0E-03	-120.0E-03	-190.0E-03	-290.0E-03	-280.0E-03	-280.0E-03	-310.0E-03
SN6	-	-50.0E-03	-90.0E-03	-120.0E-03	-190.0E-03	-290.0E-03	-280.0E-03	-270.0E-03	-330.0E-03
Average	-	-42.0E-03	-92.0E-03	-126.0E-03	-190.0E-03	-292.0E-03	-286.0E-03	-278.0E-03	-324.0E-03
Sigma	-	4.0E-03	4.0E-03	4.9E-03	1.7E-09	4.0E-03	4.9E-03	4.0E-03	8.0E-03

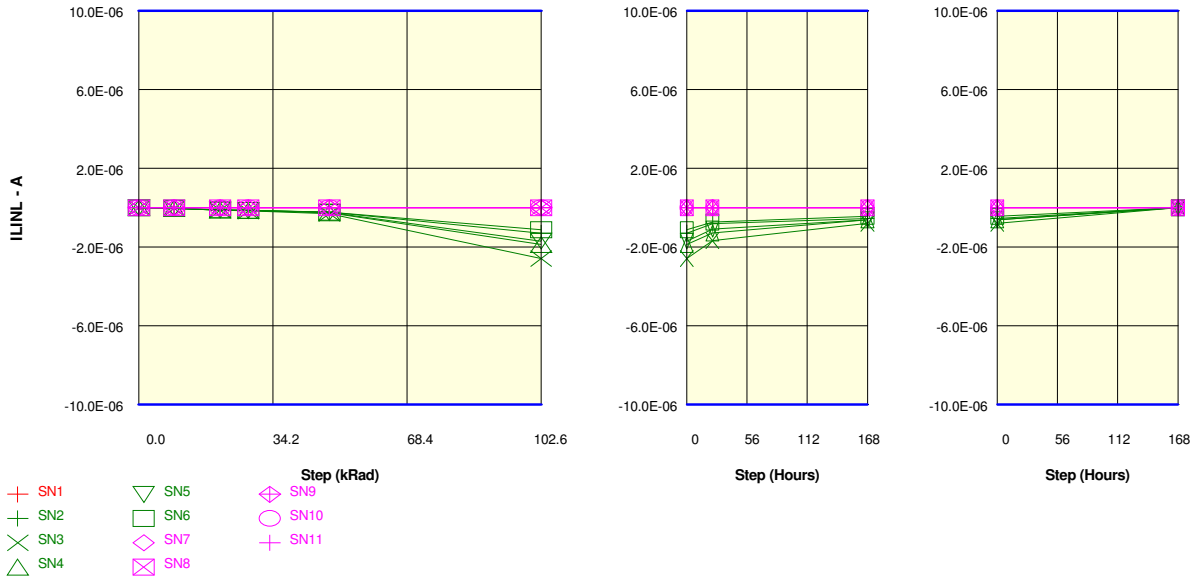
Measurements

VIHBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
OFF samples									
SN7	1.520	1.470	1.410	1.370	1.300	1.180	1.190	1.200	1.330
SN8	1.510	1.470	1.410	1.370	1.300	1.190	1.200	1.210	1.320
SN9	1.500	1.450	1.390	1.360	1.280	1.170	1.180	1.200	1.320
SN10	1.500	1.450	1.390	1.360	1.280	1.170	1.180	1.190	1.320
SN11	1.500	1.450	1.400	1.360	1.280	1.180	1.190	1.200	1.310
Statistics									
Min	1.500	1.450	1.390	1.360	1.280	1.170	1.180	1.190	1.310
Max	1.520	1.470	1.410	1.370	1.300	1.190	1.200	1.210	1.330
Average	1.506	1.458	1.400	1.364	1.288	1.178	1.188	1.200	1.320
Sigma	0.008	0.010	0.009	0.005	0.010	0.007	0.007	0.006	0.006

Drift Calculation

VIHBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-50.0E-03	-110.0E-03	-150.0E-03	-220.0E-03	-340.0E-03	-330.0E-03	-320.0E-03	-190.0E-03
SN8	-	-40.0E-03	-100.0E-03	-140.0E-03	-210.0E-03	-320.0E-03	-310.0E-03	-300.0E-03	-190.0E-03
SN9	-	-50.0E-03	-110.0E-03	-140.0E-03	-220.0E-03	-330.0E-03	-320.0E-03	-300.0E-03	-180.0E-03
SN10	-	-50.0E-03	-110.0E-03	-140.0E-03	-220.0E-03	-330.0E-03	-320.0E-03	-310.0E-03	-180.0E-03
SN11	-	-50.0E-03	-100.0E-03	-140.0E-03	-220.0E-03	-320.0E-03	-310.0E-03	-300.0E-03	-190.0E-03
Average	-	-48.0E-03	-106.0E-03	-142.0E-03	-218.0E-03	-328.0E-03	-318.0E-03	-306.0E-03	-186.0E-03
Sigma	-	4.0E-03	4.9E-03	4.0E-03	4.0E-03	7.5E-03	7.5E-03	8.0E-03	4.9E-03

Parameter : Logic Input current : ILINL/CS
Test conditions : Vih=5V. Vil=0V
Unit : A
Spec Limit Min : -10.0E-06
Spec Limit Max : 10.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

ILINL/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-50.0E-12	-100.0E-12	-150.0E-12	-50.0E-12	-100.0E-12	-300.0E-12	-100.0E-12	-50.0E-12	-100.0E-12
ON samples									
SN2	-50.0E-12	-25.5E-09	-113.5E-09	-141.5E-09	-227.5E-09	-1.3E-06	-807.0E-09	-548.0E-09	-1.3E-09
SN3	-100.0E-12	-31.1E-09	-130.0E-09	-168.0E-09	-302.0E-09	-2.6E-06	-1.7E-06	-796.5E-09	-1.2E-09
SN4	-100.0E-12	-26.0E-09	-119.5E-09	-147.0E-09	-260.0E-09	-1.9E-06	-1.3E-06	-620.0E-09	-1.1E-09
SN5	-50.0E-12	-29.3E-09	-123.0E-09	-136.5E-09	-237.5E-09	-1.7E-06	-1.1E-06	-611.0E-09	-1.5E-09
SN6	-50.0E-12	-25.5E-09	-110.5E-09	-135.0E-09	-224.0E-09	-1.1E-06	-726.5E-09	-439.0E-09	-1.3E-09
Statistics									
Min	-100.0E-12	-31.1E-09	-130.0E-09	-168.0E-09	-302.0E-09	-2.6E-06	-1.7E-06	-796.5E-09	-1.5E-09
Max	-50.0E-12	-25.5E-09	-110.5E-09	-135.0E-09	-224.0E-09	-1.1E-06	-726.5E-09	-439.0E-09	-1.1E-09
Average	-70.0E-12	-27.5E-09	-119.3E-09	-145.6E-09	-250.2E-09	-1.7E-06	-1.1E-06	-602.9E-09	-1.3E-09
Sigma	24.5E-12	2.3E-09	6.9E-09	12.0E-09	28.8E-09	512.4E-09	343.3E-09	116.4E-09	132.7E-12

Drift Calculation

ILINL/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-25.4E-09	-113.5E-09	-141.5E-09	-227.5E-09	-1.3E-06	-807.0E-09	-548.0E-09	-1.3E-09
SN3	-	-31.0E-09	-129.9E-09	-167.9E-09	-301.9E-09	-2.6E-06	-1.7E-06	-796.4E-09	-1.1E-09
SN4	-	-25.9E-09	-119.4E-09	-146.9E-09	-259.9E-09	-1.9E-06	-1.3E-06	-619.9E-09	-1.0E-09
SN5	-	-29.3E-09	-123.0E-09	-136.5E-09	-237.5E-09	-1.7E-06	-1.1E-06	-611.0E-09	-1.5E-09
SN6	-	-25.5E-09	-110.5E-09	-135.0E-09	-224.0E-09	-1.1E-06	-726.5E-09	-439.0E-09	-1.3E-09
Average	-	-27.4E-09	-119.2E-09	-145.5E-09	-250.1E-09	-1.7E-06	-1.1E-06	-602.8E-09	-1.2E-09
Sigma	-	2.3E-09	6.9E-09	11.9E-09	28.8E-09	512.4E-09	343.3E-09	116.4E-09	153.0E-12

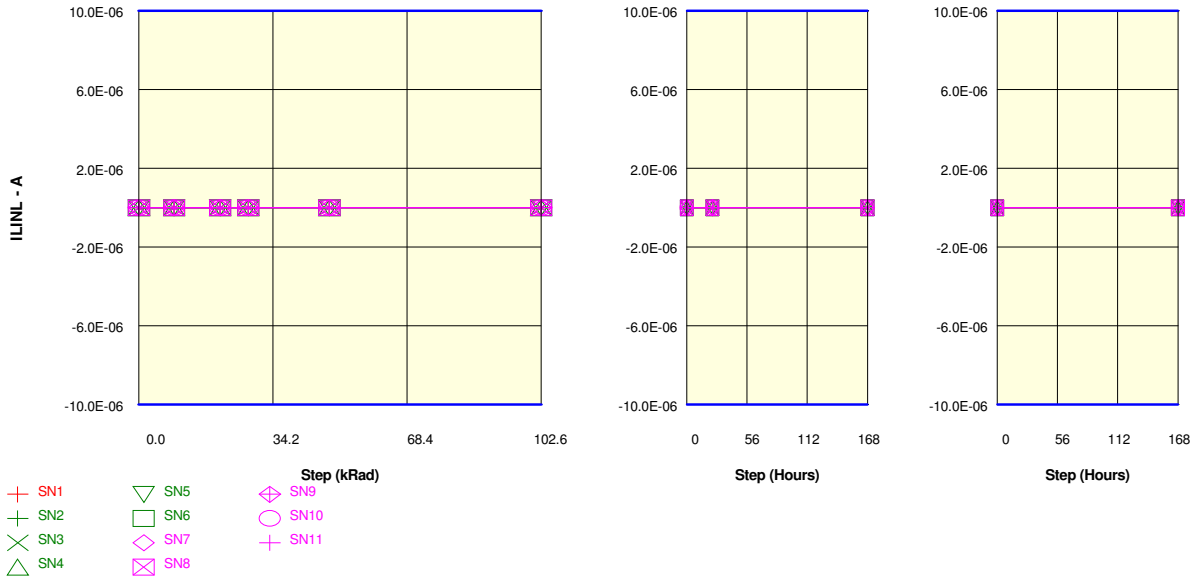
Measurements

ILINL/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-50.0E-12	-100.0E-12	-150.0E-12	-50.0E-12	-100.0E-12	-300.0E-12	-100.0E-12	-50.0E-12	-100.0E-12
OFF samples									
SN7	-100.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-150.0E-12	-300.0E-12	-150.0E-12	-150.0E-12	-50.0E-12
SN8	-150.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-150.0E-12	-250.0E-12	-150.0E-12	-150.0E-12	-100.0E-12
SN9	-100.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-250.0E-12	-150.0E-12	-150.0E-12	-100.0E-12
SN10	-100.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-350.0E-12	-100.0E-12	-100.0E-12	0.0E+00
SN11	-100.0E-12	-150.0E-12	-100.0E-12	-150.0E-12	-150.0E-12	-250.0E-12	-150.0E-12	-150.0E-12	-150.0E-12
Statistics									
Min	-150.0E-12	-150.0E-12	-150.0E-12	-150.0E-12	-150.0E-12	-350.0E-12	-150.0E-12	-150.0E-12	-150.0E-12
Max	-100.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-250.0E-12	-100.0E-12	-100.0E-12	0.0E+00
Average	-110.0E-12	-120.0E-12	-120.0E-12	-120.0E-12	-140.0E-12	-280.0E-12	-140.0E-12	-140.0E-12	-80.0E-12
Sigma	20.0E-12	24.5E-12	24.5E-12	24.5E-12	20.0E-12	40.0E-12	20.0E-12	20.0E-12	51.0E-12

Drift Calculation

ILINL/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	-50.0E-12	0.0E+00	-50.0E-12	-200.0E-12	-50.0E-12	-50.0E-12	50.0E-12
SN8	-	50.0E-12	0.0E+00	50.0E-12	0.0E+00	-100.0E-12	0.0E+00	0.0E+00	50.0E-12
SN9	-	-50.0E-12	0.0E+00	0.0E+00	-50.0E-12	-150.0E-12	-50.0E-12	-50.0E-12	0.0E+00
SN10	-	0.0E+00	0.0E+00	-50.0E-12	0.0E+00	-250.0E-12	0.0E+00	0.0E+00	100.0E-12
SN11	-	-50.0E-12	0.0E+00	-50.0E-12	-50.0E-12	-150.0E-12	-50.0E-12	-50.0E-12	-50.0E-12
Average	-	-10.0E-12	-10.0E-12	-10.0E-12	-30.0E-12	-170.0E-12	-30.0E-12	-30.0E-12	30.0E-12
Sigma	-	37.4E-12	20.0E-12	37.4E-12	24.5E-12	51.0E-12	24.5E-12	24.5E-12	51.0E-12

Parameter : Logic Input current : ILINLR//C
Test conditions : Vih=5V. Vil=0V
Unit : A
Spec Limit Min : -10.0E-06
Spec Limit Max : 10.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

ILINLR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-100.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-150.0E-12	-200.0E-12	-100.0E-12	-100.0E-12	-100.0E-12
ON samples									
SN2	-100.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-300.0E-12	-100.0E-12	-150.0E-12	-100.0E-12
SN3	-100.0E-12	-200.0E-12	-100.0E-12	-150.0E-12	-150.0E-12	-400.0E-12	-150.0E-12	-100.0E-12	-150.0E-12
SN4	-100.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-250.0E-12	-150.0E-12	-150.0E-12	-50.0E-12
SN5	-50.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-300.0E-12	-150.0E-12	-150.0E-12	-100.0E-12
SN6	-50.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-300.0E-12	-150.0E-12	-100.0E-12	-100.0E-12
Statistics									
Min	-100.0E-12	-200.0E-12	-100.0E-12	-150.0E-12	-150.0E-12	-400.0E-12	-150.0E-12	-150.0E-12	-150.0E-12
Max	-50.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-250.0E-12	-100.0E-12	-100.0E-12	-50.0E-12
Average	-80.0E-12	-140.0E-12	-100.0E-12	-110.0E-12	-130.0E-12	-310.0E-12	-140.0E-12	-130.0E-12	-100.0E-12
Sigma	24.5E-12	37.4E-12	0.0E+00	20.0E-12	24.5E-12	49.0E-12	20.0E-12	24.5E-12	31.6E-12

Drift Calculation

ILINLR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	0.0E+00	0.0E+00	-50.0E-12	-200.0E-12	0.0E+00	-50.0E-12	0.0E+00
SN3	-	-100.0E-12	0.0E+00	-50.0E-12	-50.0E-12	-300.0E-12	-50.0E-12	0.0E+00	-50.0E-12
SN4	-	-50.0E-12	0.0E+00	0.0E+00	0.0E+00	-150.0E-12	-50.0E-12	-50.0E-12	50.0E-12
SN5	-	-100.0E-12	-50.0E-12	-50.0E-12	-50.0E-12	-250.0E-12	-100.0E-12	-100.0E-12	-50.0E-12
SN6	-	-50.0E-12	-50.0E-12	-50.0E-12	-100.0E-12	-250.0E-12	-100.0E-12	-50.0E-12	-50.0E-12
Average	-	-60.0E-12	-20.0E-12	-30.0E-12	-50.0E-12	-230.0E-12	-60.0E-12	-50.0E-12	-20.0E-12
Sigma	-	37.4E-12	24.5E-12	24.5E-12	31.6E-12	51.0E-12	37.4E-12	31.6E-12	40.0E-12

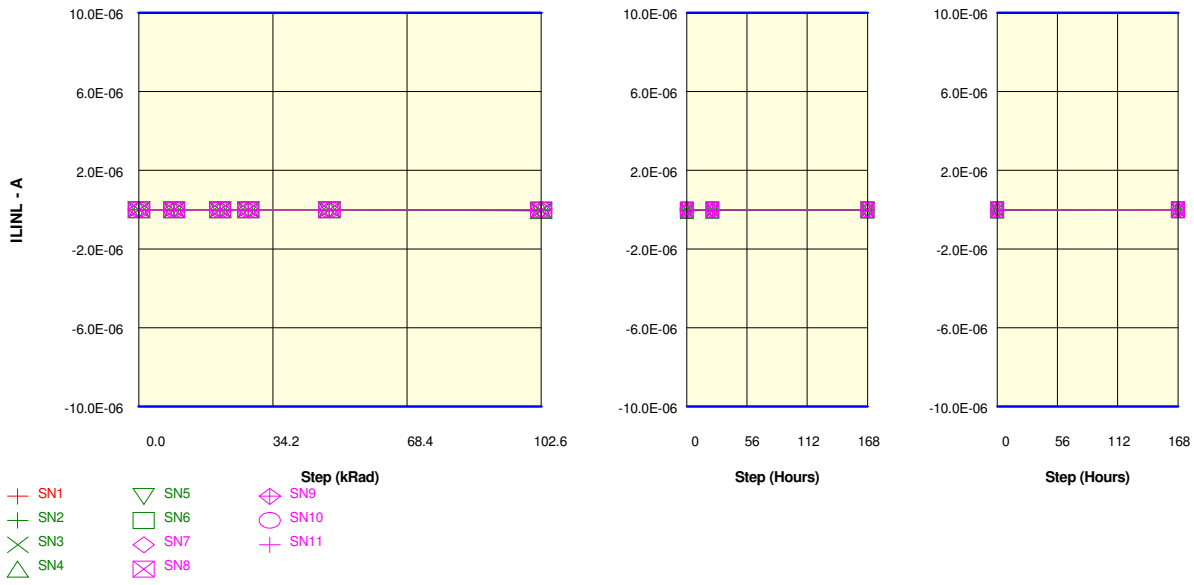
Measurements

ILINLR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-100.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-150.0E-12	-200.0E-12	-100.0E-12	-100.0E-12	-100.0E-12
OFF samples									
SN7	-100.0E-12	-100.0E-12	-50.0E-12	-150.0E-12	-150.0E-12	-100.0E-12	-150.0E-12	-150.0E-12	-100.0E-12
SN8	-50.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-200.0E-12	-100.0E-12	-100.0E-12	-100.0E-12
SN9	-100.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-150.0E-12	-100.0E-12
SN10	-100.0E-12	-100.0E-12	-50.0E-12	-150.0E-12	-100.0E-12	-200.0E-12	-100.0E-12	-150.0E-12	-50.0E-12
SN11	-50.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-50.0E-12	-150.0E-12
Statistics									
Min	-100.0E-12	-100.0E-12	-150.0E-12	-150.0E-12	-150.0E-12	-200.0E-12	-150.0E-12	-150.0E-12	-150.0E-12
Max	-50.0E-12	-100.0E-12	-50.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-50.0E-12	-50.0E-12
Average	-80.0E-12	-100.0E-12	-100.0E-12	-120.0E-12	-110.0E-12	-160.0E-12	-110.0E-12	-120.0E-12	-100.0E-12
Sigma	24.5E-12	0.0E+00	44.7E-12	24.5E-12	20.0E-12	37.4E-12	20.0E-12	40.0E-12	31.6E-12

Drift Calculation

ILINLR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	50.0E-12	-50.0E-12	-50.0E-12	0.0E+00	-50.0E-12	-50.0E-12	0.0E+00
SN8	-	-50.0E-12	-100.0E-12	-50.0E-12	-50.0E-12	-150.0E-12	-50.0E-12	-50.0E-12	-50.0E-12
SN9	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-50.0E-12	0.0E+00	-50.0E-12	0.0E+00
SN10	-	0.0E+00	50.0E-12	-50.0E-12	0.0E+00	-100.0E-12	0.0E+00	-50.0E-12	50.0E-12
SN11	-	-50.0E-12	-100.0E-12	-50.0E-12	-50.0E-12	-100.0E-12	-50.0E-12	0.0E+00	-100.0E-12
Average	-	-20.0E-12	-20.0E-12	-40.0E-12	-30.0E-12	-80.0E-12	-30.0E-12	-40.0E-12	-20.0E-12
Sigma	-	24.5E-12	67.8E-12	20.0E-12	24.5E-12	51.0E-12	24.5E-12	20.0E-12	51.0E-12

Parameter : Logic Input current : ILINLBYTE
Test conditions : Vih=5V. Vil=0V
Unit : A
Spec Limit Min : -10.0E-06
Spec Limit Max : 10.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

ILINLBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	2.9E-09	3.0E-09	2.6E-09	3.0E-09	3.2E-09	3.2E-09	2.8E-09	3.2E-09	3.1E-09
ON samples									
SN2	2.8E-09	250.0E-12	-50.0E-12	-50.0E-12	-200.0E-12	-32.5E-09	-16.0E-09	-11.8E-09	-50.0E-12
SN3	3.1E-09	350.0E-12	-50.0E-12	-100.0E-12	-200.0E-12	-55.8E-09	-29.7E-09	-18.5E-09	-100.0E-12
SN4	3.2E-09	500.0E-12	-50.0E-12	-100.0E-12	-150.0E-12	-25.8E-09	-14.4E-09	-9.3E-09	-50.0E-12
SN5	3.2E-09	400.0E-12	-50.0E-12	-50.0E-12	-250.0E-12	-43.8E-09	-23.1E-09	-15.1E-09	0.0E+00
SN6	3.1E-09	450.0E-12	-50.0E-12	-150.0E-12	-250.0E-12	-30.8E-09	-16.7E-09	-10.7E-09	-100.0E-12
Statistics									
Min	2.8E-09	250.0E-12	-50.0E-12	-150.0E-12	-250.0E-12	-55.8E-09	-29.7E-09	-18.5E-09	-100.0E-12
Max	3.2E-09	500.0E-12	-50.0E-12	-50.0E-12	-150.0E-12	-25.8E-09	-14.4E-09	-9.3E-09	0.0E+00
Average	3.1E-09	390.0E-12	-50.0E-12	-90.0E-12	-210.0E-12	-37.7E-09	-20.0E-09	-13.1E-09	-60.0E-12
Sigma	146.3E-12	86.0E-12	0.0E+00	37.4E-12	37.4E-12	10.8E-09	5.7E-09	3.3E-09	37.4E-12

Drift Calculation

ILINLBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-2.6E-09	-2.9E-09	-2.9E-09	-3.0E-09	-35.3E-09	-18.8E-09	-14.6E-09	-2.9E-09
SN3	-	-2.7E-09	-3.1E-09	-3.2E-09	-3.3E-09	-58.9E-09	-32.7E-09	-21.6E-09	-3.2E-09
SN4	-	-2.7E-09	-3.3E-09	-3.3E-09	-3.4E-09	-29.0E-09	-17.6E-09	-12.5E-09	-3.3E-09
SN5	-	-2.8E-09	-3.3E-09	-3.3E-09	-3.5E-09	-47.0E-09	-26.3E-09	-18.3E-09	-3.2E-09
SN6	-	-2.6E-09	-3.1E-09	-3.2E-09	-3.3E-09	-33.8E-09	-19.8E-09	-13.7E-09	-3.2E-09
Average	-	-2.7E-09	-3.1E-09	-3.2E-09	-3.3E-09	-40.8E-09	-23.0E-09	-16.1E-09	-3.1E-09
Sigma	-	87.2E-12	146.3E-12	158.1E-12	150.3E-12	10.8E-09	5.7E-09	3.3E-09	140.0E-12

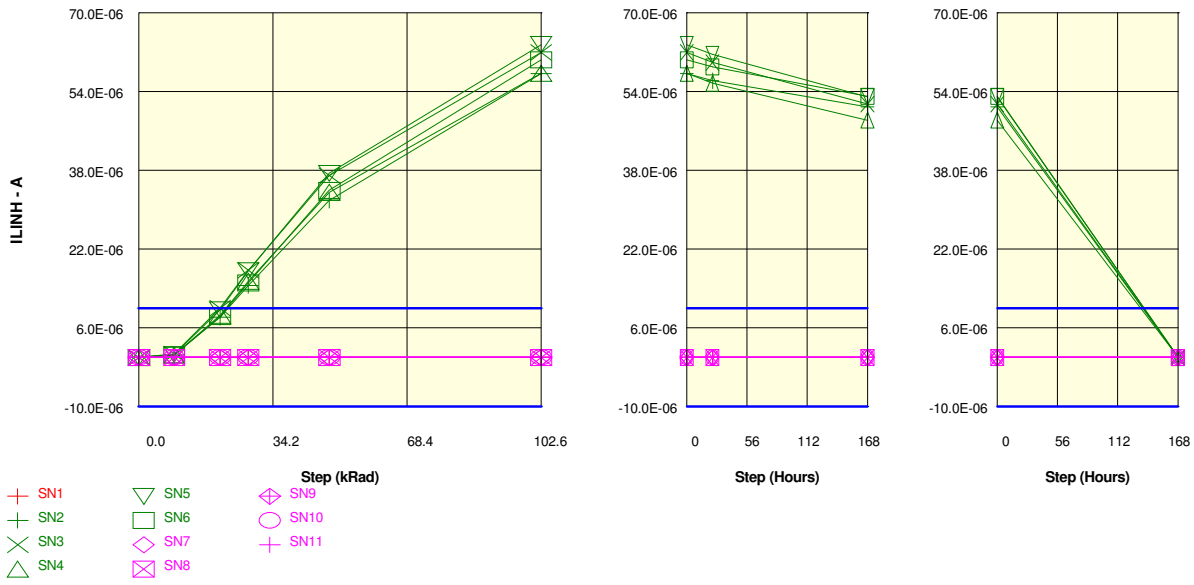
Measurements

ILINLBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	2.9E-09	3.0E-09	2.6E-09	3.0E-09	3.2E-09	3.2E-09	2.8E-09	3.2E-09	3.1E-09
OFF samples									
SN7	2.8E-09	350.0E-12	0.0E+00	-50.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-50.0E-12
SN8	3.2E-09	450.0E-12	0.0E+00	-50.0E-12	-50.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-100.0E-12
SN9	3.5E-09	450.0E-12	0.0E+00	-50.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-100.0E-12
SN10	3.0E-09	400.0E-12	-50.0E-12	-50.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-100.0E-12
SN11	3.4E-09	600.0E-12	0.0E+00	-50.0E-12	-150.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-50.0E-12
Statistics									
Min	2.8E-09	350.0E-12	-50.0E-12	-50.0E-12	-150.0E-12	-150.0E-12	-150.0E-12	-100.0E-12	-100.0E-12
Max	3.5E-09	600.0E-12	0.0E+00	-50.0E-12	-50.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-50.0E-12
Average	3.2E-09	450.0E-12	-10.0E-12	-50.0E-12	-110.0E-12	-130.0E-12	-110.0E-12	-100.0E-12	-80.0E-12
Sigma	243.7E-12	83.7E-12	20.0E-12	0.0E+00	37.4E-12	24.5E-12	20.0E-12	0.0E+00	24.5E-12

Drift Calculation

ILINLBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-2.5E-09	-2.8E-09	-2.9E-09	-2.9E-09	-3.0E-09	-2.9E-09	-2.9E-09	-2.9E-09
SN8	-	-2.7E-09	-3.2E-09	-3.2E-09	-3.2E-09	-3.3E-09	-3.3E-09	-3.3E-09	-3.3E-09
SN9	-	-3.0E-09	-3.5E-09	-3.5E-09	-3.6E-09	-3.6E-09	-3.6E-09	-3.6E-09	-3.6E-09
SN10	-	-2.6E-09	-3.1E-09	-3.1E-09	-3.2E-09	-3.1E-09	-3.1E-09	-3.1E-09	-3.1E-09
SN11	-	-2.8E-09	-3.4E-09	-3.5E-09	-3.6E-09	-3.6E-09	-3.5E-09	-3.5E-09	-3.5E-09
Average	-	-2.7E-09	-3.2E-09	-3.2E-09	-3.3E-09	-3.3E-09	-3.3E-09	-3.3E-09	-3.2E-09
Sigma	-	185.5E-12	237.9E-12	243.7E-12	250.2E-12	251.8E-12	244.1E-12	243.7E-12	249.8E-12

Parameter : Logic Input current : ILINH/CS
Test conditions : Vih=5V. Vil=0V
Unit : A
Spec Limit Min : -10.0E-06
Spec Limit Max : 10.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

ILINH/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	500.0E-12	500.0E-12	450.0E-12	450.0E-12	350.0E-12	1.0E-09	450.0E-12	400.0E-12	500.0E-12
ON samples									
SN2	550.0E-12	478.0E-09	8.1E-06	14.6E-06	31.9E-06	57.7E-06	56.2E-06	50.9E-06	6.6E-09
SN3	500.0E-12	677.0E-09	10.0E-06	17.7E-06	37.0E-06	62.0E-06	59.9E-06	51.5E-06	6.1E-09
SN4	500.0E-12	451.5E-09	8.6E-06	15.5E-06	33.6E-06	57.7E-06	55.7E-06	48.2E-06	6.0E-09
SN5	450.0E-12	586.0E-09	9.7E-06	17.6E-06	37.4E-06	63.6E-06	61.6E-06	53.0E-06	7.9E-09
SN6	400.0E-12	447.5E-09	8.3E-06	15.1E-06	34.0E-06	60.5E-06	59.0E-06	53.1E-06	6.6E-09
Statistics									
Min	400.0E-12	447.5E-09	8.1E-06	14.6E-06	31.9E-06	57.7E-06	55.7E-06	48.2E-06	6.0E-09
Max	550.0E-12	677.0E-09	10.0E-06	17.7E-06	37.4E-06	63.6E-06	61.6E-06	53.1E-06	7.9E-09
Average	480.0E-12	528.0E-09	8.9E-06	16.1E-06	34.8E-06	60.3E-06	58.5E-06	51.3E-06	6.6E-09
Sigma	51.0E-12	89.9E-09	759.1E-09	1.3E-06	2.1E-06	2.3E-06	2.2E-06	1.8E-06	668.9E-12

Drift Calculation

ILINH/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	477.5E-09	8.1E-06	14.6E-06	31.9E-06	57.6E-06	56.2E-06	50.9E-06	6.1E-09
SN3	-	676.5E-09	10.0E-06	17.7E-06	36.9E-06	61.9E-06	59.9E-06	51.4E-06	5.6E-09
SN4	-	451.0E-09	8.6E-06	15.4E-06	33.5E-06	57.7E-06	55.7E-06	48.2E-06	5.5E-09
SN5	-	585.6E-09	9.7E-06	17.6E-06	37.4E-06	63.5E-06	61.5E-06	52.9E-06	7.4E-09
SN6	-	447.1E-09	8.3E-06	15.1E-06	33.9E-06	60.4E-06	59.0E-06	53.0E-06	6.2E-09
Average	-	527.5E-09	8.9E-06	16.1E-06	34.7E-06	60.3E-06	58.5E-06	51.3E-06	6.1E-09
Sigma	-	89.9E-09	759.1E-09	1.3E-06	2.1E-06	2.3E-06	2.2E-06	1.8E-06	687.5E-12

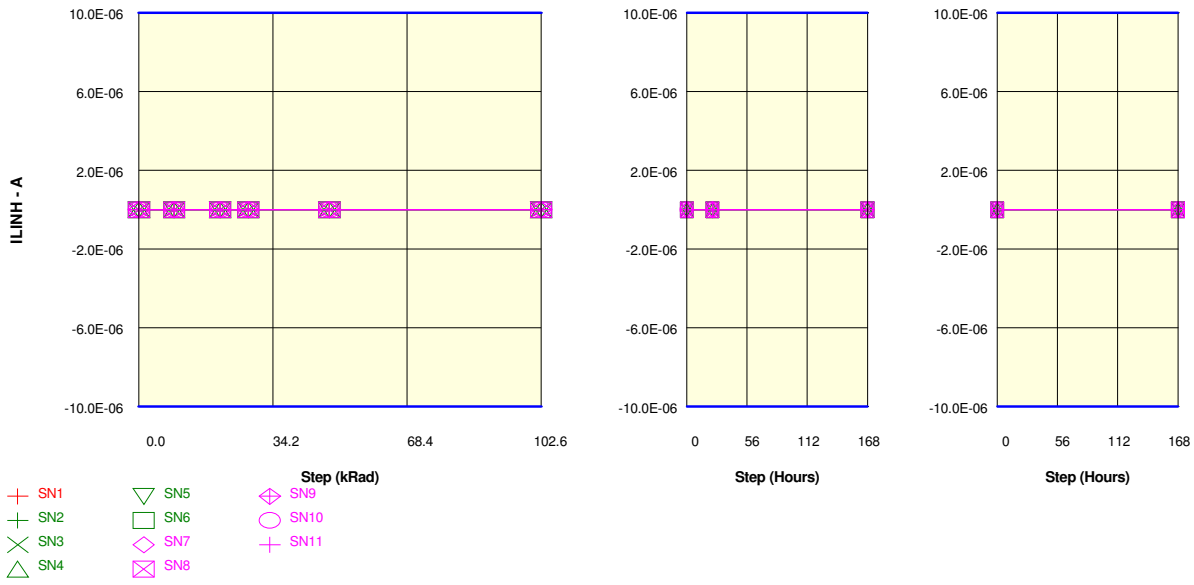
Measurements

ILINH/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	500.0E-12	500.0E-12	450.0E-12	450.0E-12	350.0E-12	1.0E-09	450.0E-12	400.0E-12	500.0E-12
OFF samples									
SN7	450.0E-12	450.0E-12	500.0E-12	500.0E-12	500.0E-12	1.1E-09	600.0E-12	550.0E-12	350.0E-12
SN8	350.0E-12	450.0E-12	450.0E-12	500.0E-12	550.0E-12	1.2E-09	600.0E-12	550.0E-12	400.0E-12
SN9	350.0E-12	500.0E-12	500.0E-12	450.0E-12	500.0E-12	1.2E-09	600.0E-12	550.0E-12	450.0E-12
SN10	450.0E-12	400.0E-12	500.0E-12	450.0E-12	550.0E-12	1.1E-09	650.0E-12	600.0E-12	350.0E-12
SN11	500.0E-12	450.0E-12	450.0E-12	450.0E-12	450.0E-12	1.1E-09	650.0E-12	700.0E-12	500.0E-12
Statistics									
Min	350.0E-12	400.0E-12	450.0E-12	450.0E-12	450.0E-12	1.1E-09	600.0E-12	550.0E-12	350.0E-12
Max	500.0E-12	500.0E-12	500.0E-12	500.0E-12	550.0E-12	1.2E-09	650.0E-12	700.0E-12	500.0E-12
Average	420.0E-12	450.0E-12	480.0E-12	470.0E-12	510.0E-12	1.1E-09	620.0E-12	590.0E-12	410.0E-12
Sigma	60.0E-12	31.6E-12	24.5E-12	24.5E-12	37.4E-12	40.0E-12	24.5E-12	58.3E-12	58.3E-12

Drift Calculation

ILINH/CS	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	50.0E-12	50.0E-12	50.0E-12	650.0E-12	150.0E-12	100.0E-12	-100.0E-12
SN8	-	100.0E-12	100.0E-12	150.0E-12	200.0E-12	800.0E-12	250.0E-12	200.0E-12	50.0E-12
SN9	-	150.0E-12	150.0E-12	100.0E-12	150.0E-12	850.0E-12	250.0E-12	200.0E-12	100.0E-12
SN10	-	-50.0E-12	50.0E-12	0.0E+00	100.0E-12	650.0E-12	200.0E-12	150.0E-12	-100.0E-12
SN11	-	-50.0E-12	-50.0E-12	-50.0E-12	-50.0E-12	600.0E-12	150.0E-12	200.0E-12	0.0E+00
Average	-	30.0E-12	60.0E-12	50.0E-12	90.0E-12	710.0E-12	200.0E-12	170.0E-12	-10.0E-12
Sigma	-	81.2E-12	66.3E-12	70.7E-12	86.0E-12	97.0E-12	44.7E-12	40.0E-12	80.0E-12

Parameter : Logic Input current : ILINHR//C
Test conditions : Vih=5V. Vil=0V
Unit : A
Spec Limit Min : -10.0E-06
Spec Limit Max : 10.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

ILINHR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	300.0E-12	350.0E-12	200.0E-12	300.0E-12	300.0E-12	650.0E-12	450.0E-12	250.0E-12	350.0E-12
ON samples									
SN2	300.0E-12	450.0E-12	500.0E-12	400.0E-12	450.0E-12	1.0E-09	600.0E-12	400.0E-12	350.0E-12
SN3	350.0E-12	350.0E-12	550.0E-12	500.0E-12	350.0E-12	1.1E-09	450.0E-12	500.0E-12	400.0E-12
SN4	300.0E-12	450.0E-12	450.0E-12	450.0E-12	500.0E-12	900.0E-12	450.0E-12	500.0E-12	450.0E-12
SN5	400.0E-12	450.0E-12	450.0E-12	400.0E-12	450.0E-12	1.0E-09	500.0E-12	400.0E-12	350.0E-12
SN6	400.0E-12	450.0E-12	400.0E-12	400.0E-12	400.0E-12	1.1E-09	450.0E-12	550.0E-12	350.0E-12
Statistics									
Min	300.0E-12	350.0E-12	400.0E-12	400.0E-12	350.0E-12	900.0E-12	450.0E-12	400.0E-12	350.0E-12
Max	400.0E-12	450.0E-12	550.0E-12	500.0E-12	500.0E-12	1.1E-09	600.0E-12	550.0E-12	450.0E-12
Average	350.0E-12	430.0E-12	470.0E-12	430.0E-12	430.0E-12	1.0E-09	490.0E-12	470.0E-12	380.0E-12
Sigma	44.7E-12	40.0E-12	51.0E-12	40.0E-12	51.0E-12	74.8E-12	58.3E-12	60.0E-12	40.0E-12

Drift Calculation

ILINHR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	150.0E-12	200.0E-12	100.0E-12	150.0E-12	700.0E-12	300.0E-12	100.0E-12	50.0E-12
SN3	-	0.0E+00	200.0E-12	150.0E-12	0.0E+00	750.0E-12	100.0E-12	150.0E-12	50.0E-12
SN4	-	150.0E-12	150.0E-12	150.0E-12	200.0E-12	600.0E-12	150.0E-12	200.0E-12	150.0E-12
SN5	-	50.0E-12	50.0E-12	0.0E+00	50.0E-12	600.0E-12	100.0E-12	0.0E+00	-50.0E-12
SN6	-	50.0E-12	0.0E+00	0.0E+00	0.0E+00	700.0E-12	50.0E-12	150.0E-12	-50.0E-12
Average	-	80.0E-12	120.0E-12	80.0E-12	80.0E-12	670.0E-12	140.0E-12	120.0E-12	30.0E-12
Sigma	-	60.0E-12	81.2E-12	67.8E-12	81.2E-12	60.0E-12	86.0E-12	67.8E-12	74.8E-12

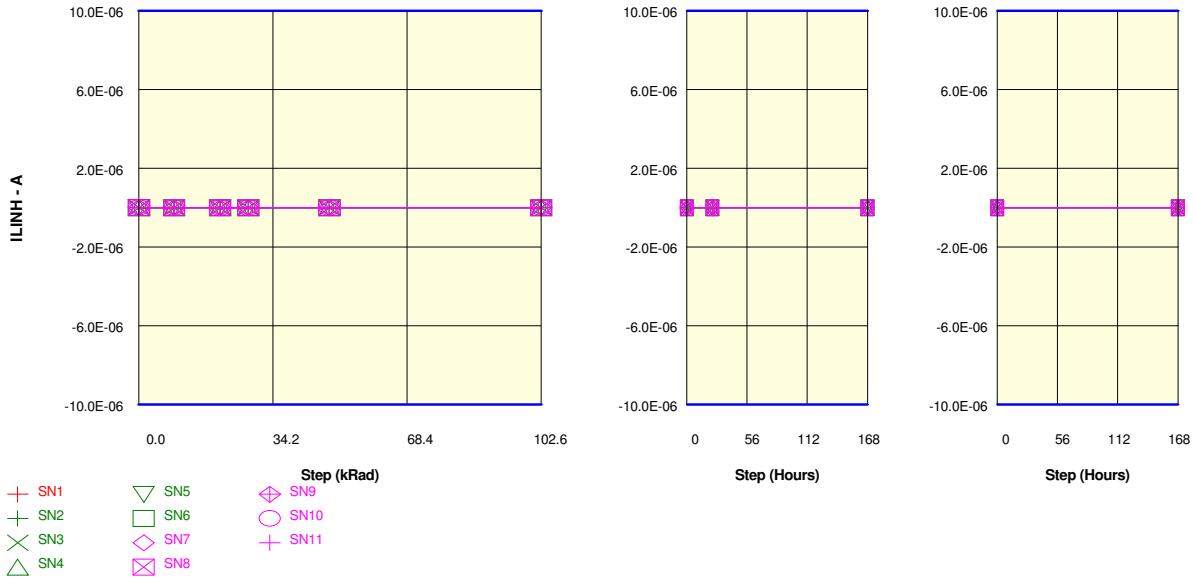
Measurements

ILINHR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	300.0E-12	350.0E-12	200.0E-12	300.0E-12	300.0E-12	650.0E-12	450.0E-12	250.0E-12	350.0E-12
OFF samples									
SN7	300.0E-12	350.0E-12	300.0E-12	300.0E-12	400.0E-12	700.0E-12	400.0E-12	300.0E-12	400.0E-12
SN8	350.0E-12	350.0E-12	400.0E-12	400.0E-12	350.0E-12	800.0E-12	350.0E-12	400.0E-12	350.0E-12
SN9	250.0E-12	250.0E-12	300.0E-12	300.0E-12	400.0E-12	700.0E-12	400.0E-12	350.0E-12	300.0E-12
SN10	300.0E-12	250.0E-12	300.0E-12	300.0E-12	400.0E-12	700.0E-12	400.0E-12	400.0E-12	300.0E-12
SN11	300.0E-12	350.0E-12	300.0E-12	350.0E-12	400.0E-12	650.0E-12	350.0E-12	350.0E-12	400.0E-12
Statistics									
Min	250.0E-12	250.0E-12	300.0E-12	300.0E-12	350.0E-12	650.0E-12	350.0E-12	300.0E-12	300.0E-12
Max	350.0E-12	350.0E-12	400.0E-12	400.0E-12	400.0E-12	800.0E-12	400.0E-12	400.0E-12	400.0E-12
Average	300.0E-12	310.0E-12	320.0E-12	330.0E-12	390.0E-12	710.0E-12	380.0E-12	360.0E-12	350.0E-12
Sigma	31.6E-12	49.0E-12	40.0E-12	40.0E-12	20.0E-12	49.0E-12	24.5E-12	37.4E-12	44.7E-12

Drift Calculation

ILINHR//C	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	50.0E-12	0.0E+00	0.0E+00	100.0E-12	400.0E-12	100.0E-12	0.0E+00	100.0E-12
SN8	-	0.0E+00	50.0E-12	50.0E-12	0.0E+00	450.0E-12	0.0E+00	50.0E-12	0.0E+00
SN9	-	0.0E+00	50.0E-12	50.0E-12	150.0E-12	450.0E-12	150.0E-12	100.0E-12	50.0E-12
SN10	-	-50.0E-12	0.0E+00	0.0E+00	100.0E-12	400.0E-12	100.0E-12	100.0E-12	0.0E+00
SN11	-	50.0E-12	0.0E+00	50.0E-12	100.0E-12	350.0E-12	50.0E-12	50.0E-12	100.0E-12
Average	-	10.0E-12	20.0E-12	30.0E-12	90.0E-12	410.0E-12	80.0E-12	60.0E-12	50.0E-12
Sigma	-	37.4E-12	24.5E-12	24.5E-12	49.0E-12	37.4E-12	51.0E-12	37.4E-12	44.7E-12

Parameter : Logic Input current : ILINHBYTE
Test conditions : Vih=5V. Vil=0V
Unit : A
Spec Limit Min : -10.0E-06
Spec Limit Max : 10.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

ILINHBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.5E-09	3.6E-09	3.2E-09	3.6E-09	3.8E-09	4.2E-09	3.4E-09	3.9E-09	3.6E-09
ON samples									
SN2	3.3E-09	700.0E-12	350.0E-12	350.0E-12	300.0E-12	700.0E-12	400.0E-12	300.0E-12	250.0E-12
SN3	3.6E-09	750.0E-12	450.0E-12	350.0E-12	350.0E-12	600.0E-12	300.0E-12	300.0E-12	250.0E-12
SN4	3.7E-09	700.0E-12	400.0E-12	350.0E-12	400.0E-12	600.0E-12	300.0E-12	400.0E-12	300.0E-12
SN5	3.8E-09	900.0E-12	350.0E-12	400.0E-12	300.0E-12	600.0E-12	400.0E-12	400.0E-12	300.0E-12
SN6	3.7E-09	900.0E-12	300.0E-12	350.0E-12	300.0E-12	700.0E-12	350.0E-12	400.0E-12	250.0E-12
Statistics									
Min	3.3E-09	700.0E-12	300.0E-12	350.0E-12	300.0E-12	600.0E-12	300.0E-12	300.0E-12	250.0E-12
Max	3.8E-09	900.0E-12	450.0E-12	400.0E-12	400.0E-12	700.0E-12	400.0E-12	400.0E-12	300.0E-12
Average	3.6E-09	790.0E-12	370.0E-12	360.0E-12	330.0E-12	640.0E-12	350.0E-12	360.0E-12	270.0E-12
Sigma	159.4E-12	91.7E-12	51.0E-12	20.0E-12	40.0E-12	49.0E-12	44.7E-12	49.0E-12	24.5E-12

Drift Calculation

ILINHBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-2.6E-09	-3.0E-09	-3.0E-09	-3.0E-09	-2.6E-09	-2.9E-09	-3.0E-09	-3.1E-09
SN3	-	-2.8E-09	-3.1E-09	-3.2E-09	-3.2E-09	-3.0E-09	-3.3E-09	-3.3E-09	-3.3E-09
SN4	-	-3.0E-09	-3.3E-09	-3.4E-09	-3.3E-09	-3.1E-09	-3.4E-09	-3.3E-09	-3.4E-09
SN5	-	-2.9E-09	-3.4E-09	-3.4E-09	-3.5E-09	-3.2E-09	-3.4E-09	-3.4E-09	-3.5E-09
SN6	-	-2.8E-09	-3.4E-09	-3.3E-09	-3.4E-09	-3.0E-09	-3.3E-09	-3.3E-09	-3.4E-09
Average	-	-2.8E-09	-3.2E-09	-3.2E-09	-3.3E-09	-3.0E-09	-3.2E-09	-3.2E-09	-3.3E-09
Sigma	-	130.4E-12	169.1E-12	150.3E-12	153.0E-12	192.4E-12	177.2E-12	120.8E-12	143.5E-12

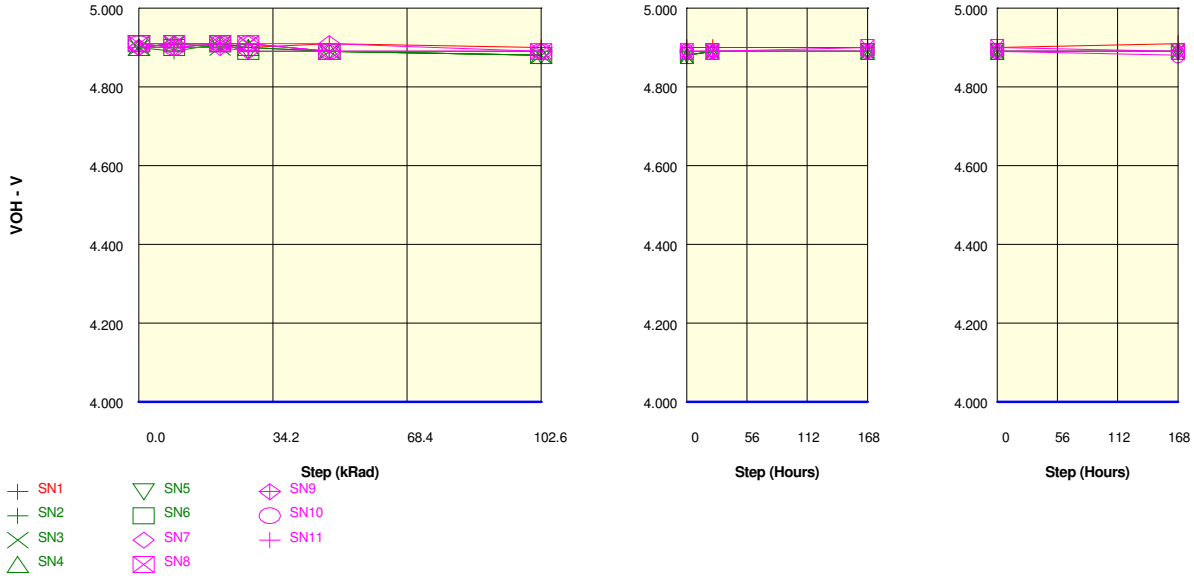
Measurements

ILINHBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.5E-09	3.6E-09	3.2E-09	3.6E-09	3.8E-09	4.2E-09	3.4E-09	3.9E-09	3.6E-09
OFF samples									
SN7	3.5E-09	850.0E-12	300.0E-12	250.0E-12	300.0E-12	550.0E-12	250.0E-12	250.0E-12	300.0E-12
SN8	3.9E-09	900.0E-12	350.0E-12	250.0E-12	350.0E-12	550.0E-12	250.0E-12	300.0E-12	250.0E-12
SN9	4.0E-09	900.0E-12	400.0E-12	350.0E-12	400.0E-12	550.0E-12	300.0E-12	300.0E-12	250.0E-12
SN10	3.7E-09	900.0E-12	350.0E-12	400.0E-12	250.0E-12	650.0E-12	250.0E-12	250.0E-12	250.0E-12
SN11	4.0E-09	950.0E-12	300.0E-12	300.0E-12	300.0E-12	600.0E-12	350.0E-12	400.0E-12	200.0E-12
Statistics									
Min	3.5E-09	850.0E-12	300.0E-12	250.0E-12	250.0E-12	550.0E-12	250.0E-12	250.0E-12	200.0E-12
Max	4.0E-09	950.0E-12	400.0E-12	400.0E-12	400.0E-12	650.0E-12	350.0E-12	400.0E-12	300.0E-12
Average	3.8E-09	900.0E-12	340.0E-12	310.0E-12	320.0E-12	580.0E-12	280.0E-12	300.0E-12	250.0E-12
Sigma	197.5E-12	31.6E-12	37.4E-12	58.3E-12	51.0E-12	40.0E-12	40.0E-12	54.8E-12	31.6E-12

Drift Calculation

ILINHBYTE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-2.7E-09	-3.2E-09	-3.3E-09	-3.2E-09	-3.0E-09	-3.3E-09	-3.3E-09	-3.2E-09
SN8	-	-3.0E-09	-3.5E-09	-3.6E-09	-3.5E-09	-3.3E-09	-3.6E-09	-3.6E-09	-3.6E-09
SN9	-	-3.1E-09	-3.6E-09	-3.7E-09	-3.6E-09	-3.5E-09	-3.7E-09	-3.7E-09	-3.8E-09
SN10	-	-2.8E-09	-3.3E-09	-3.3E-09	-3.4E-09	-3.0E-09	-3.4E-09	-3.4E-09	-3.4E-09
SN11	-	-3.1E-09	-3.7E-09	-3.7E-09	-3.7E-09	-3.4E-09	-3.7E-09	-3.6E-09	-3.8E-09
Average	-	-2.9E-09	-3.5E-09	-3.5E-09	-3.5E-09	-3.2E-09	-3.5E-09	-3.5E-09	-3.6E-09
Sigma	-	173.2E-12	185.5E-12	198.5E-12	172.0E-12	206.4E-12	169.1E-12	158.1E-12	223.6E-12

Parameter : Logic output high voltage : VOHD15
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.900	4.910	4.900	4.900	4.900	4.910
ON samples									
SN2	4.900	4.890	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN3	4.900	4.910	4.900	4.910	4.890	4.880	4.890	4.890	4.890
SN4	4.900	4.910	4.910	4.900	4.890	4.880	4.890	4.890	4.890
SN5	4.910	4.910	4.910	4.890	4.890	4.880	4.890	4.890	4.890
SN6	4.910	4.900	4.910	4.890	4.890	4.880	4.890	4.890	4.890
Statistics									
Min	4.900	4.890	4.900	4.890	4.890	4.880	4.890	4.890	4.890
Max	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890	4.890
Average	4.904	4.904	4.908	4.898	4.890	4.882	4.890	4.890	4.890
Sigma	0.005	0.008	0.004	0.007	0.000	0.004	0.000	0.000	0.000

Drift Calculation

VOHD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	10.0E-03	0.0E+00	10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN4	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN5	-	0.0E+00	0.0E+00	-20.0E-03	-20.0E-03	-30.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN6	-	-10.0E-03	0.0E+00	-20.0E-03	-20.0E-03	-30.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
Average	-	-177.6E-18	4.0E-03	-6.0E-03	-14.0E-03	-22.0E-03	-14.0E-03	-14.0E-03	-14.0E-03
Sigma	-	8.9E-03	4.9E-03	12.0E-03	4.9E-03	7.5E-03	4.9E-03	4.9E-03	4.9E-03

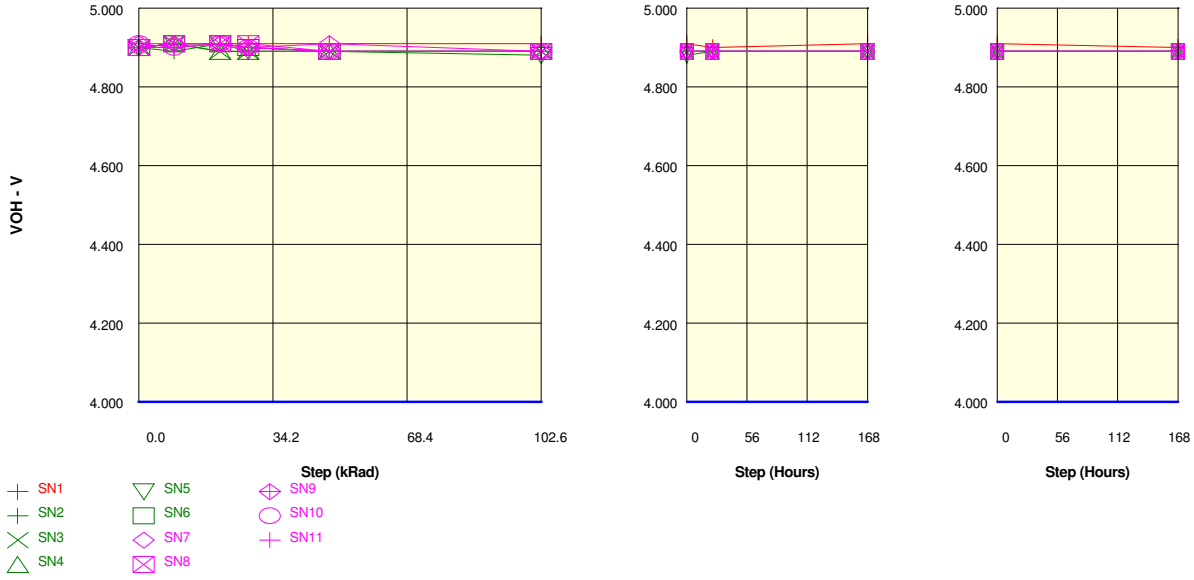
Measurements

VOHD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.900	4.910	4.900	4.900	4.900	4.910
OFF samples									
SN7	4.900	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
SN8	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.900	4.890
SN9	4.900	4.900	4.900	4.890	4.890	4.890	4.890	4.890	4.890
SN10	4.910	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.880
SN11	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.900	4.900	4.890	4.890	4.890	4.890	4.890	4.880
Max	4.910	4.910	4.910	4.910	4.910	4.890	4.890	4.900	4.890
Average	4.904	4.906	4.908	4.902	4.894	4.890	4.890	4.892	4.888
Sigma	0.005	0.005	0.004	0.010	0.008	0.000	0.000	0.004	0.004

Drift Calculation

VOHD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN8	-	0.0E+00	0.0E+00	0.0E+00	-20.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-20.0E-03
SN9	-	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN10	-	-10.0E-03	0.0E+00	0.0E+00	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-30.0E-03
SN11	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	2.0E-03	4.0E-03	-2.0E-03	-10.0E-03	-14.0E-03	-14.0E-03	-12.0E-03	-16.0E-03
Sigma	-	7.5E-03	4.9E-03	7.5E-03	11.0E-03	4.9E-03	4.9E-03	4.0E-03	8.0E-03

Parameter : Logic output high voltage : VOHD14
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
ON samples									
SN2	4.900	4.890	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN3	4.900	4.910	4.890	4.890	4.890	4.890	4.890	4.890	4.890
SN4	4.900	4.910	4.890	4.890	4.890	4.890	4.890	4.890	4.890
SN5	4.900	4.910	4.910	4.890	4.890	4.880	4.890	4.890	4.890
SN6	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.890	4.890	4.890
Max	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.906	4.902	4.894	4.890	4.888	4.890	4.890	4.890
Sigma	0.000	0.008	0.010	0.005	0.000	0.004	0.000	0.000	0.000

Drift Calculation

VOHD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN4	-	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN5	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN6	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	6.0E-03	2.0E-03	-6.0E-03	-10.0E-03	-12.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Sigma	-	8.0E-03	9.8E-03	4.9E-03	90.2E-12	4.0E-03	90.2E-12	90.2E-12	90.2E-12

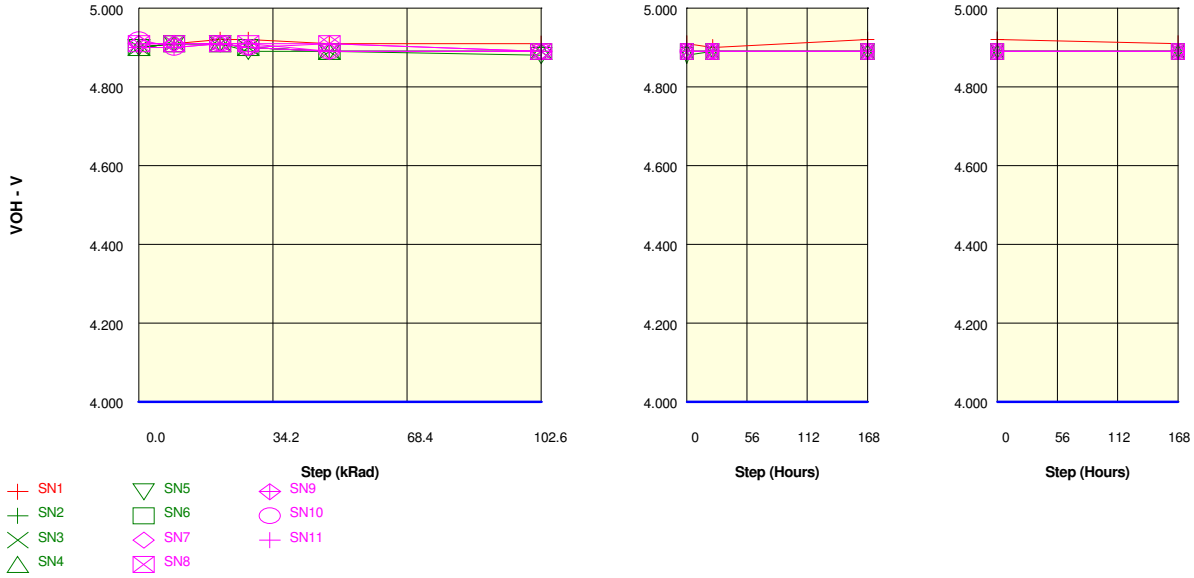
Measurements

VOHD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
OFF samples									
SN7	4.900	4.910	4.910	4.900	4.910	4.890	4.890	4.890	4.890
SN8	4.900	4.910	4.910	4.910	4.890	4.890	4.890	4.890	4.890
SN9	4.910	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN10	4.910	4.900	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN11	4.900	4.900	4.910	4.890	4.890	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.900	4.910	4.890	4.890	4.890	4.890	4.890	4.890
Max	4.910	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
Average	4.904	4.906	4.910	4.900	4.894	4.890	4.890	4.890	4.890
Sigma	0.005	0.005	0.000	0.006	0.008	0.000	0.000	0.000	0.000

Drift Calculation

VOHD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	10.0E-03	0.0E+00	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN8	-	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN9	-	0.0E+00	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN10	-	-10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN11	-	0.0E+00	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	2.0E-03	6.0E-03	-4.0E-03	-10.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.0E-03
Sigma	-	7.5E-03	4.9E-03	8.0E-03	11.0E-03	4.9E-03	4.9E-03	4.9E-03	4.9E-03

Parameter : Logic output high voltage : VOHD13
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.920	4.920	4.910	4.910	4.900	4.920	4.910
ON samples									
SN2	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN3	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN4	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN5	4.900	4.910	4.910	4.890	4.890	4.880	4.890	4.890	4.890
SN6	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.910	4.910	4.890	4.890	4.880	4.890	4.890	4.890
Max	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.910	4.910	4.898	4.890	4.888	4.890	4.890	4.890
Sigma	0.000	0.000	0.000	0.004	0.000	0.004	0.000	0.000	0.000

Drift Calculation

VOHD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN4	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN5	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN6	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	10.0E-03	10.0E-03	-2.0E-03	-10.0E-03	-12.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Sigma	-	127.5E-12	127.5E-12	4.0E-03	90.2E-12	4.0E-03	90.2E-12	90.2E-12	90.2E-12

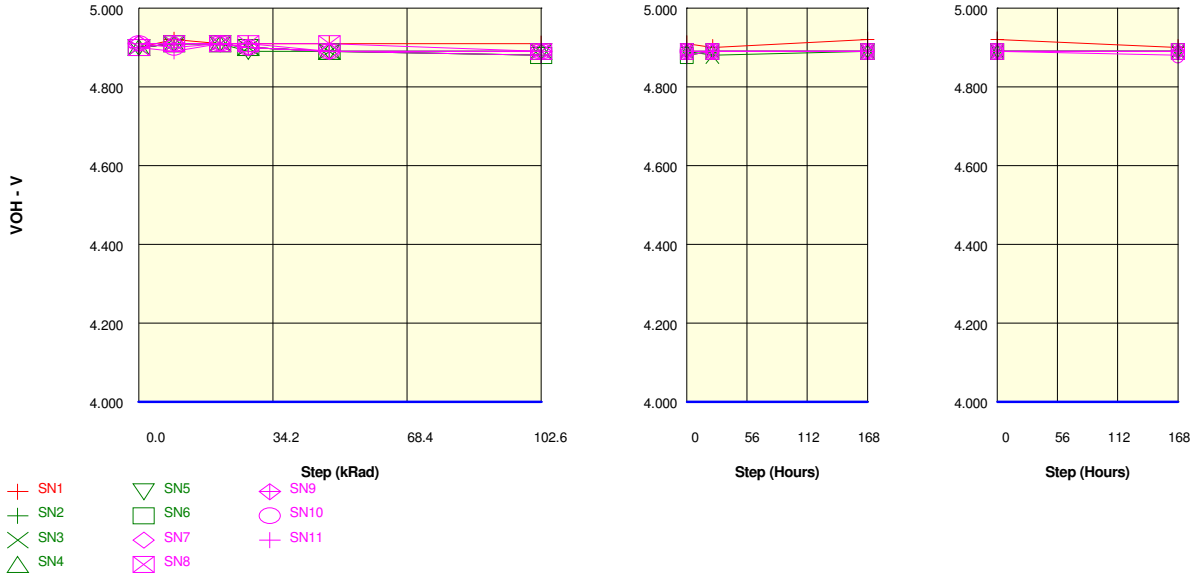
Measurements

VOHD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.920	4.920	4.910	4.910	4.900	4.920	4.910
OFF samples									
SN7	4.910	4.910	4.910	4.900	4.910	4.890	4.890	4.890	4.890
SN8	4.910	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
SN9	4.910	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN10	4.920	4.900	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN11	4.900	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.900	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Max	4.920	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
Average	4.910	4.906	4.910	4.904	4.898	4.890	4.890	4.890	4.890
Sigma	0.006	0.005	0.000	0.005	0.010	0.000	0.000	0.000	0.000

Drift Calculation

VOHD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	0.0E+00	-10.0E-03	0.0E+00	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN8	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN9	-	0.0E+00	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN10	-	-20.0E-03	-10.0E-03	-20.0E-03	-30.0E-03	-30.0E-03	-30.0E-03	-30.0E-03	-30.0E-03
SN11	-	0.0E+00	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	-4.0E-03	0.0E+00	-6.0E-03	-12.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
Sigma	-	8.0E-03	6.3E-03	10.2E-03	11.7E-03	6.3E-03	6.3E-03	6.3E-03	6.3E-03

Parameter : Logic output high voltage : VOHD12
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.920	4.910	4.910	4.910	4.910	4.900	4.920	4.900
ON samples									
SN2	4.900	4.910	4.910	4.900	4.890	4.880	4.890	4.890	4.890
SN3	4.900	4.910	4.910	4.900	4.890	4.890	4.880	4.890	4.890
SN4	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN5	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.890	4.890
SN6	4.900	4.910	4.910	4.900	4.890	4.880	4.890	4.890	4.890
Statistics									
Min	4.900	4.910	4.910	4.890	4.890	4.880	4.880	4.890	4.890
Max	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.910	4.910	4.898	4.890	4.886	4.888	4.890	4.890
Sigma	0.000	0.000	0.000	0.004	0.000	0.005	0.004	0.000	0.000

Drift Calculation

VOHD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN4	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN5	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN6	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	10.0E-03	10.0E-03	-2.0E-03	-10.0E-03	-14.0E-03	-12.0E-03	-10.0E-03	-10.0E-03
Sigma	-	127.5E-12	127.5E-12	4.0E-03	90.2E-12	4.9E-03	4.0E-03	90.2E-12	90.2E-12

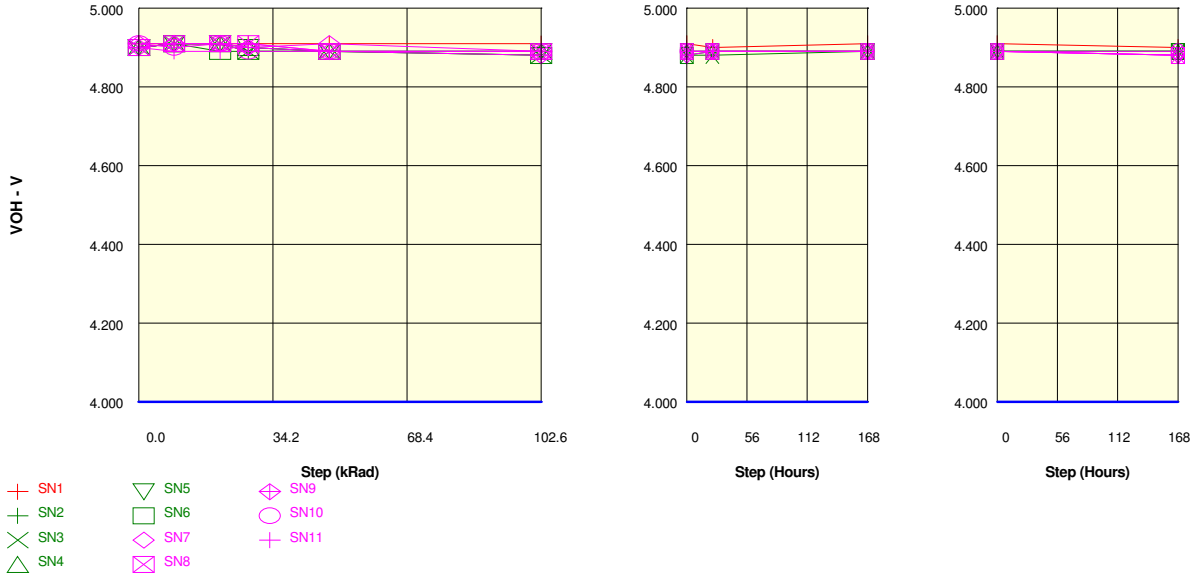
Measurements

VOHD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.920	4.910	4.910	4.910	4.910	4.900	4.920	4.900
OFF samples									
SN7	4.910	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN8	4.900	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
SN9	4.910	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN10	4.910	4.900	4.910	4.900	4.890	4.890	4.890	4.890	4.880
SN11	4.900	4.890	4.910	4.910	4.890	4.880	4.890	4.890	4.890
Statistics									
Min	4.900	4.890	4.910	4.900	4.890	4.880	4.890	4.890	4.880
Max	4.910	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
Average	4.906	4.904	4.910	4.904	4.894	4.888	4.890	4.890	4.888
Sigma	0.005	0.008	0.000	0.005	0.008	0.004	0.000	0.000	0.004

Drift Calculation

VOHD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN8	-	10.0E-03	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN9	-	0.0E+00	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN10	-	-10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-30.0E-03
SN11	-	-10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	-2.0E-03	4.0E-03	-2.0E-03	-12.0E-03	-18.0E-03	-16.0E-03	-16.0E-03	-18.0E-03
Sigma	-	7.5E-03	4.9E-03	9.8E-03	11.7E-03	4.0E-03	4.9E-03	4.9E-03	7.5E-03

Parameter : Logic output high voltage : VOHD11
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.910	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
ON samples									
SN2	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.890	4.890
SN3	4.900	4.910	4.910	4.890	4.890	4.880	4.880	4.890	4.890
SN4	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN5	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN6	4.900	4.910	4.890	4.890	4.890	4.880	4.890	4.890	4.890
Statistics									
Min	4.900	4.910	4.890	4.890	4.890	4.880	4.880	4.890	4.890
Max	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.910	4.906	4.894	4.890	4.886	4.888	4.890	4.890
Sigma	0.000	0.000	0.008	0.005	0.000	0.005	0.004	0.000	0.000

Drift Calculation

VOHD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN4	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN5	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN6	-	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	10.0E-03	6.0E-03	-6.0E-03	-10.0E-03	-14.0E-03	-12.0E-03	-10.0E-03	-10.0E-03
Sigma	-	127.5E-12	8.0E-03	4.9E-03	90.2E-12	4.9E-03	4.0E-03	90.2E-12	90.2E-12

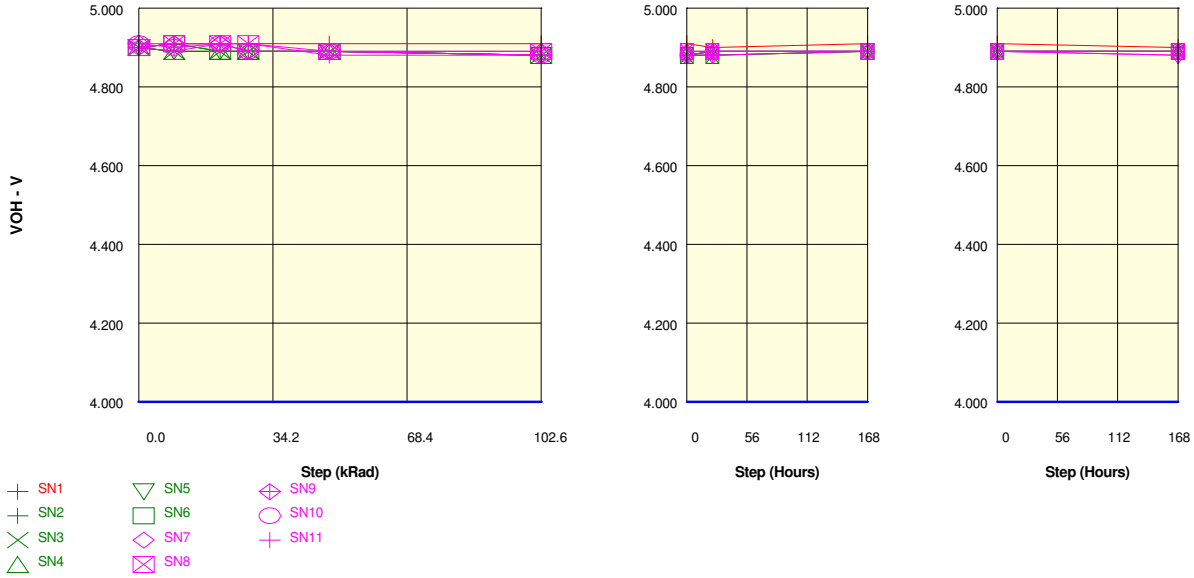
Measurements

VOHD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.910	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
OFF samples									
SN7	4.900	4.910	4.910	4.900	4.910	4.890	4.890	4.890	4.880
SN8	4.900	4.910	4.910	4.910	4.890	4.890	4.890	4.890	4.880
SN9	4.910	4.910	4.910	4.900	4.890	4.880	4.890	4.890	4.880
SN10	4.910	4.900	4.910	4.890	4.890	4.890	4.890	4.890	4.890
SN11	4.900	4.890	4.890	4.910	4.890	4.890	4.890	4.890	4.880
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.890	4.890	4.880
Max	4.910	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
Average	4.904	4.904	4.906	4.902	4.894	4.888	4.890	4.890	4.882
Sigma	0.005	0.008	0.008	0.007	0.008	0.004	0.000	0.000	0.004

Drift Calculation

VOHD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	10.0E-03	0.0E+00	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN8	-	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN9	-	0.0E+00	0.0E+00	-10.0E-03	-20.0E-03	-30.0E-03	-20.0E-03	-20.0E-03	-30.0E-03
SN10	-	-10.0E-03	0.0E+00	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN11	-	-10.0E-03	-10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
Average	-	-177.6E-18	2.0E-03	-2.0E-03	-10.0E-03	-16.0E-03	-14.0E-03	-14.0E-03	-22.0E-03
Sigma	-	8.9E-03	7.5E-03	11.7E-03	11.0E-03	8.0E-03	4.9E-03	4.9E-03	4.0E-03

Parameter : Logic output high voltage : VOHD10
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
ON samples									
SN2	4.900	4.910	4.890	4.890	4.890	4.880	4.890	4.890	4.890
SN3	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.890
SN4	4.900	4.890	4.890	4.890	4.890	4.890	4.890	4.890	4.890
SN5	4.900	4.890	4.890	4.890	4.890	4.880	4.890	4.890	4.890
SN6	4.900	4.910	4.890	4.890	4.890	4.880	4.880	4.890	4.890
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.890
Max	4.900	4.910	4.890	4.890	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.898	4.890	4.890	4.890	4.882	4.886	4.890	4.890
Sigma	0.000	0.010	0.000	0.000	0.000	0.004	0.005	0.000	0.000

Drift Calculation

VOHD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN4	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN5	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN6	-	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
Average	-	-2.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-18.0E-03	-14.0E-03	-10.0E-03	-10.0E-03
Sigma	-	9.8E-03	90.2E-12	90.2E-12	90.2E-12	4.0E-03	4.9E-03	90.2E-12	90.2E-12

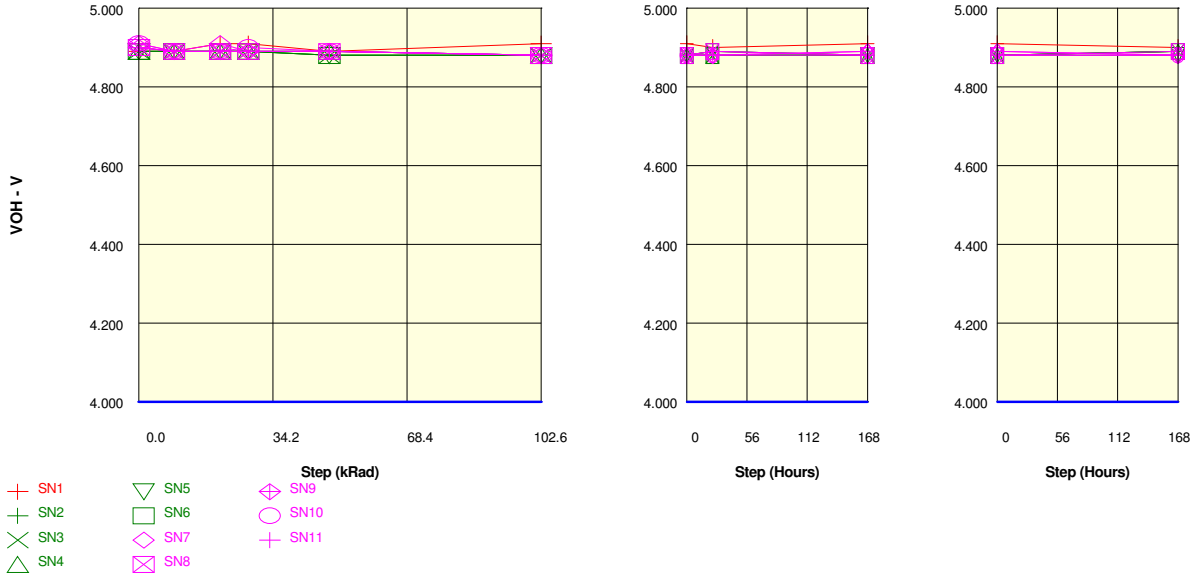
Measurements

VOHD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
OFF samples									
SN7	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.890	4.890
SN8	4.900	4.910	4.910	4.910	4.890	4.890	4.890	4.890	4.890
SN9	4.910	4.910	4.910	4.890	4.890	4.880	4.880	4.890	4.880
SN10	4.910	4.900	4.910	4.890	4.890	4.880	4.890	4.890	4.890
SN11	4.900	4.890	4.910	4.910	4.880	4.880	4.890	4.890	4.880
Statistics									
Min	4.900	4.890	4.910	4.890	4.880	4.880	4.880	4.890	4.880
Max	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890	4.890
Average	4.904	4.904	4.910	4.898	4.888	4.884	4.888	4.890	4.886
Sigma	0.005	0.008	0.000	0.010	0.004	0.005	0.004	0.000	0.005

Drift Calculation

VOHD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN8	-	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN9	-	0.0E+00	0.0E+00	-20.0E-03	-20.0E-03	-30.0E-03	-30.0E-03	-20.0E-03	-30.0E-03
SN10	-	-10.0E-03	0.0E+00	-20.0E-03	-20.0E-03	-30.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN11	-	-10.0E-03	10.0E-03	10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
Average	-	-177.6E-18	6.0E-03	-6.0E-03	-16.0E-03	-20.0E-03	-16.0E-03	-14.0E-03	-18.0E-03
Sigma	-	8.9E-03	4.9E-03	13.6E-03	4.9E-03	8.9E-03	8.0E-03	4.9E-03	7.5E-03

Parameter : Logic output high voltage : VOHD9
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.890	4.890	4.910	4.910	4.890	4.910	4.900	4.910	4.900
ON samples									
SN2	4.900	4.890	4.890	4.890	4.890	4.880	4.890	4.880	4.890
SN3	4.890	4.890	4.890	4.890	4.880	4.880	4.880	4.880	4.890
SN4	4.890	4.890	4.890	4.890	4.890	4.880	4.880	4.880	4.890
SN5	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.880	4.880
SN6	4.890	4.890	4.890	4.890	4.880	4.880	4.880	4.880	4.890
Statistics									
Min	4.890	4.890	4.890	4.890	4.880	4.880	4.880	4.880	4.880
Max	4.900	4.890	4.890	4.890	4.890	4.880	4.890	4.880	4.890
Average	4.892	4.890	4.890	4.890	4.884	4.880	4.884	4.880	4.888
Sigma	0.004	0.000	0.000	0.000	0.005	0.000	0.005	0.000	0.004

Drift Calculation

VOHD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-20.0E-03	-10.0E-03
SN3	-	0.0E+00	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	0.0E+00
SN4	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	0.0E+00
SN5	-	0.0E+00	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	0.0E+00	-10.0E-03	-10.0E-03
SN6	-	0.0E+00	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	0.0E+00
Average	-	-2.0E-03	-2.0E-03	-2.0E-03	-8.0E-03	-12.0E-03	-8.0E-03	-12.0E-03	-4.0E-03
Sigma	-	4.0E-03	4.0E-03	4.0E-03	4.0E-03	4.0E-03	4.0E-03	4.0E-03	4.9E-03

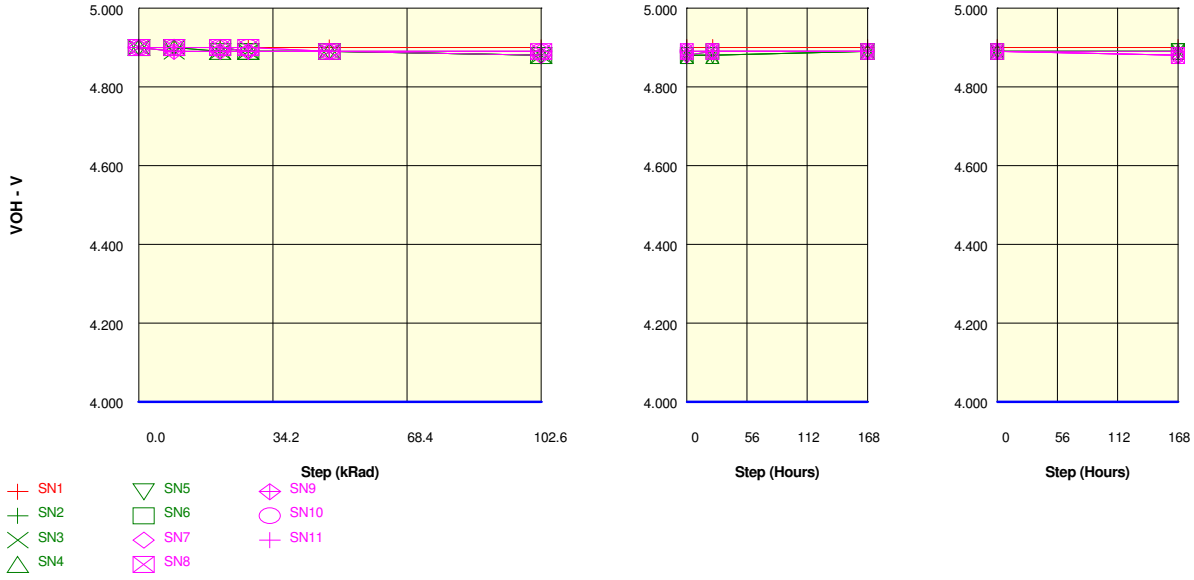
Measurements

VOHD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.890	4.890	4.910	4.910	4.890	4.910	4.900	4.910	4.900
OFF samples									
SN7	4.900	4.890	4.910	4.890	4.890	4.880	4.880	4.890	4.880
SN8	4.900	4.890	4.890	4.890	4.890	4.880	4.890	4.880	4.890
SN9	4.910	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.880
SN10	4.910	4.890	4.890	4.900	4.890	4.880	4.880	4.880	4.880
SN11	4.900	4.890	4.890	4.890	4.890	4.880	4.890	4.880	4.880
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.880	4.880
Max	4.910	4.890	4.910	4.900	4.890	4.880	4.890	4.890	4.890
Average	4.904	4.890	4.894	4.892	4.890	4.880	4.884	4.884	4.882
Sigma	0.005	0.000	0.008	0.004	0.000	0.000	0.005	0.005	0.004

Drift Calculation

VOHD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-20.0E-03
SN8	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-20.0E-03	-10.0E-03
SN9	-	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-30.0E-03	-30.0E-03	-20.0E-03	-30.0E-03
SN10	-	-20.0E-03	-20.0E-03	-10.0E-03	-20.0E-03	-30.0E-03	-30.0E-03	-30.0E-03	-30.0E-03
SN11	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-20.0E-03	-20.0E-03
Average	-	-14.0E-03	-10.0E-03	-12.0E-03	-14.0E-03	-24.0E-03	-20.0E-03	-20.0E-03	-22.0E-03
Sigma	-	4.9E-03	11.0E-03	4.0E-03	4.9E-03	4.9E-03	8.9E-03	6.3E-03	7.5E-03

Parameter : Logic output high voltage : VOHD8
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.900	4.900	4.900	4.900	4.900	4.900	4.900	4.900
ON samples									
SN2	4.900	4.900	4.900	4.890	4.890	4.890	4.890	4.890	4.890
SN3	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.890
SN4	4.900	4.900	4.890	4.890	4.890	4.880	4.880	4.890	4.890
SN5	4.900	4.900	4.890	4.890	4.890	4.880	4.880	4.890	4.890
SN6	4.900	4.900	4.900	4.890	4.890	4.880	4.890	4.890	4.890
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.890
Max	4.900	4.900	4.900	4.890	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.898	4.894	4.890	4.890	4.882	4.884	4.890	4.890
Sigma	0.000	0.004	0.005	0.000	0.000	0.004	0.005	0.000	0.000

Drift Calculation

VOHD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN4	-	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN5	-	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN6	-	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	-2.0E-03	-6.0E-03	-10.0E-03	-10.0E-03	-18.0E-03	-16.0E-03	-10.0E-03	-10.0E-03
Sigma	-	4.0E-03	4.9E-03	90.2E-12	90.2E-12	4.0E-03	4.9E-03	90.2E-12	90.2E-12

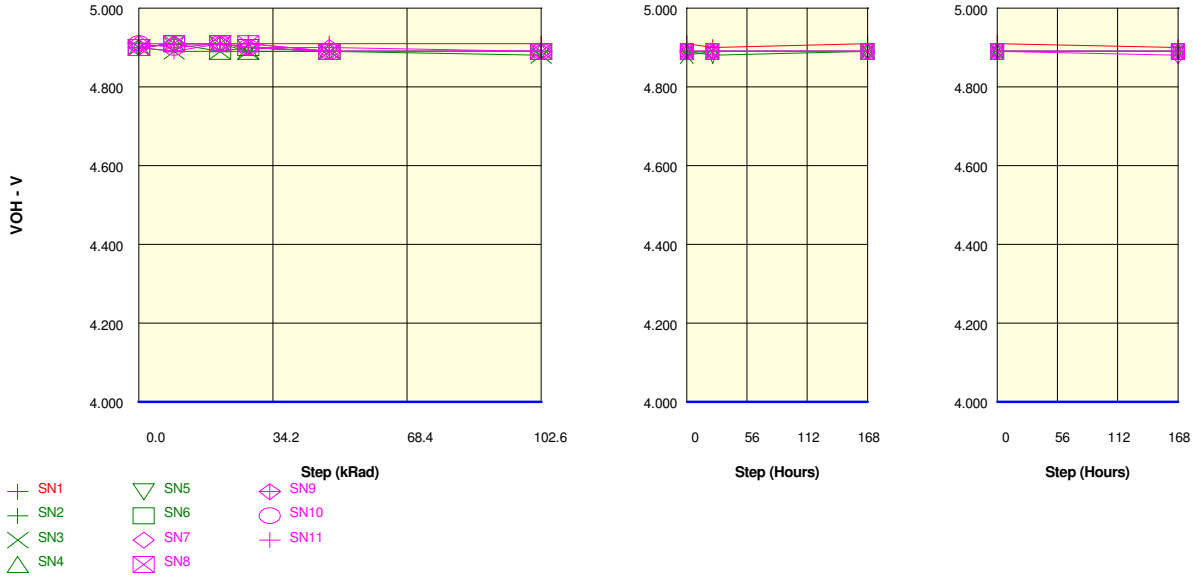
Measurements

VOHD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.900	4.900	4.900	4.900	4.900	4.900	4.900	4.900
OFF samples									
SN7	4.900	4.900	4.900	4.890	4.890	4.890	4.890	4.890	4.880
SN8	4.900	4.900	4.900	4.900	4.890	4.890	4.890	4.890	4.880
SN9	4.900	4.890	4.890	4.890	4.890	4.880	4.890	4.890	4.880
SN10	4.900	4.900	4.900	4.900	4.890	4.890	4.890	4.890	4.880
SN11	4.900	4.890	4.890	4.890	4.890	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.890	4.890	4.880
Max	4.900	4.900	4.900	4.900	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.896	4.896	4.894	4.890	4.888	4.890	4.890	4.882
Sigma	0.000	0.005	0.005	0.005	0.000	0.004	0.000	0.000	0.004

Drift Calculation

VOHD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN8	-	0.0E+00	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN9	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN10	-	0.0E+00	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN11	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	-4.0E-03	-4.0E-03	-6.0E-03	-10.0E-03	-12.0E-03	-10.0E-03	-10.0E-03	-18.0E-03
Sigma	-	4.9E-03	4.9E-03	4.9E-03	90.2E-12	4.0E-03	90.2E-12	90.2E-12	4.0E-03

Parameter : Logic output high voltage : VOHD7
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
ON samples									
SN2	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN3	4.900	4.890	4.890	4.890	4.890	4.880	4.890	4.890	4.890
SN4	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.890	4.890
SN5	4.900	4.910	4.910	4.900	4.890	4.890	4.880	4.890	4.890
SN6	4.900	4.910	4.890	4.900	4.890	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.890
Max	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.906	4.902	4.896	4.890	4.888	4.888	4.890	4.890
Sigma	0.000	0.008	0.010	0.005	0.000	0.004	0.004	0.000	0.000

Drift Calculation

VOHD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN4	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN5	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN6	-	10.0E-03	-10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	6.0E-03	2.0E-03	-4.0E-03	-10.0E-03	-12.0E-03	-12.0E-03	-10.0E-03	-10.0E-03
Sigma	-	8.0E-03	9.8E-03	4.9E-03	90.2E-12	4.0E-03	4.0E-03	90.2E-12	90.2E-12

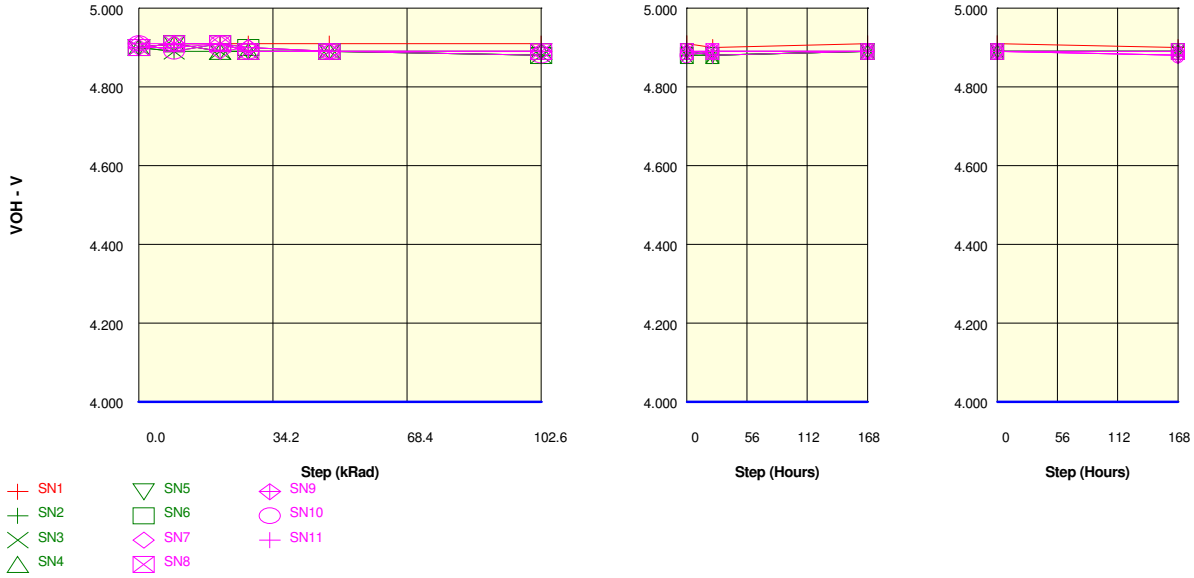
Measurements

VOHD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
OFF samples									
SN7	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.880
SN8	4.900	4.910	4.910	4.910	4.890	4.890	4.890	4.890	4.890
SN9	4.910	4.910	4.910	4.900	4.900	4.890	4.890	4.890	4.890
SN10	4.910	4.900	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN11	4.900	4.890	4.910	4.910	4.890	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.890	4.910	4.900	4.890	4.890	4.890	4.890	4.880
Max	4.910	4.910	4.910	4.910	4.900	4.890	4.890	4.890	4.890
Average	4.904	4.904	4.910	4.904	4.892	4.890	4.890	4.890	4.888
Sigma	0.005	0.008	0.000	0.005	0.004	0.000	0.000	0.000	0.004

Drift Calculation

VOHD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN8	-	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN9	-	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN10	-	-10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN11	-	-10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	-177.6E-18	6.0E-03	0.0E+00	-12.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-16.0E-03
Sigma	-	8.9E-03	4.9E-03	8.9E-03	4.0E-03	4.9E-03	4.9E-03	4.9E-03	4.9E-03

Parameter : Logic output high voltage : VOHD6
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
ON samples									
SN2	4.900	4.890	4.910	4.890	4.890	4.880	4.890	4.890	4.890
SN3	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.890
SN4	4.900	4.910	4.890	4.890	4.890	4.890	4.880	4.890	4.890
SN5	4.900	4.910	4.890	4.890	4.890	4.890	4.880	4.890	4.890
SN6	4.900	4.910	4.910	4.900	4.890	4.880	4.880	4.890	4.890
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.890
Max	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.902	4.898	4.892	4.890	4.884	4.882	4.890	4.890
Sigma	0.000	0.010	0.010	0.004	0.000	0.005	0.004	0.000	0.000

Drift Calculation

VOHD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN4	-	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN5	-	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN6	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
Average	-	2.0E-03	-2.0E-03	-8.0E-03	-10.0E-03	-16.0E-03	-18.0E-03	-10.0E-03	-10.0E-03
Sigma	-	9.8E-03	9.8E-03	4.0E-03	90.2E-12	4.9E-03	4.0E-03	90.2E-12	90.2E-12

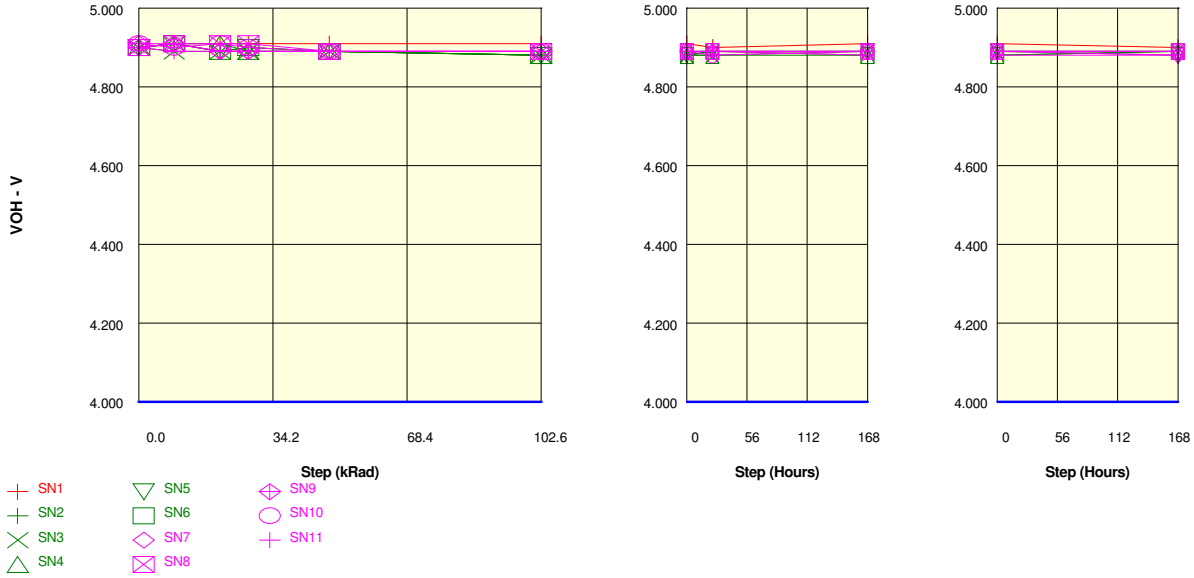
Measurements

VOHD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
OFF samples									
SN7	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN8	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.890	4.890
SN9	4.910	4.910	4.890	4.900	4.890	4.890	4.890	4.890	4.880
SN10	4.910	4.890	4.910	4.890	4.890	4.880	4.890	4.890	4.880
SN11	4.900	4.900	4.910	4.890	4.890	4.890	4.880	4.890	4.880
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.880
Max	4.910	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Average	4.904	4.904	4.906	4.894	4.890	4.888	4.888	4.890	4.884
Sigma	0.005	0.008	0.008	0.005	0.000	0.004	0.004	0.000	0.005

Drift Calculation

VOHD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN8	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN9	-	0.0E+00	-20.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-30.0E-03
SN10	-	-20.0E-03	0.0E+00	-20.0E-03	-20.0E-03	-30.0E-03	-20.0E-03	-20.0E-03	-30.0E-03
SN11	-	0.0E+00	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-20.0E-03
Average	-	-177.6E-18	2.0E-03	-10.0E-03	-14.0E-03	-16.0E-03	-16.0E-03	-14.0E-03	-20.0E-03
Sigma	-	11.0E-03	11.7E-03	6.3E-03	4.9E-03	8.0E-03	4.9E-03	4.9E-03	8.9E-03

Parameter : Logic output high voltage : VOHD5
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
ON samples									
SN2	4.900	4.910	4.890	4.890	4.890	4.880	4.890	4.890	4.890
SN3	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.890	4.890
SN4	4.900	4.910	4.910	4.890	4.890	4.880	4.880	4.880	4.890
SN5	4.900	4.910	4.890	4.900	4.890	4.880	4.890	4.890	4.880
SN6	4.900	4.910	4.890	4.900	4.890	4.880	4.890	4.880	4.890
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.880	4.880
Max	4.900	4.910	4.910	4.900	4.890	4.880	4.890	4.890	4.890
Average	4.900	4.906	4.894	4.894	4.890	4.880	4.886	4.886	4.888
Sigma	0.000	0.008	0.008	0.005	0.000	0.000	0.005	0.005	0.004

Drift Calculation

VOHD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN4	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-10.0E-03
SN5	-	10.0E-03	-10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN6	-	10.0E-03	-10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-10.0E-03	-20.0E-03	-10.0E-03
Average	-	6.0E-03	-6.0E-03	-6.0E-03	-10.0E-03	-20.0E-03	-14.0E-03	-14.0E-03	-12.0E-03
Sigma	-	8.0E-03	8.0E-03	4.9E-03	90.2E-12	180.3E-12	4.9E-03	4.9E-03	4.0E-03

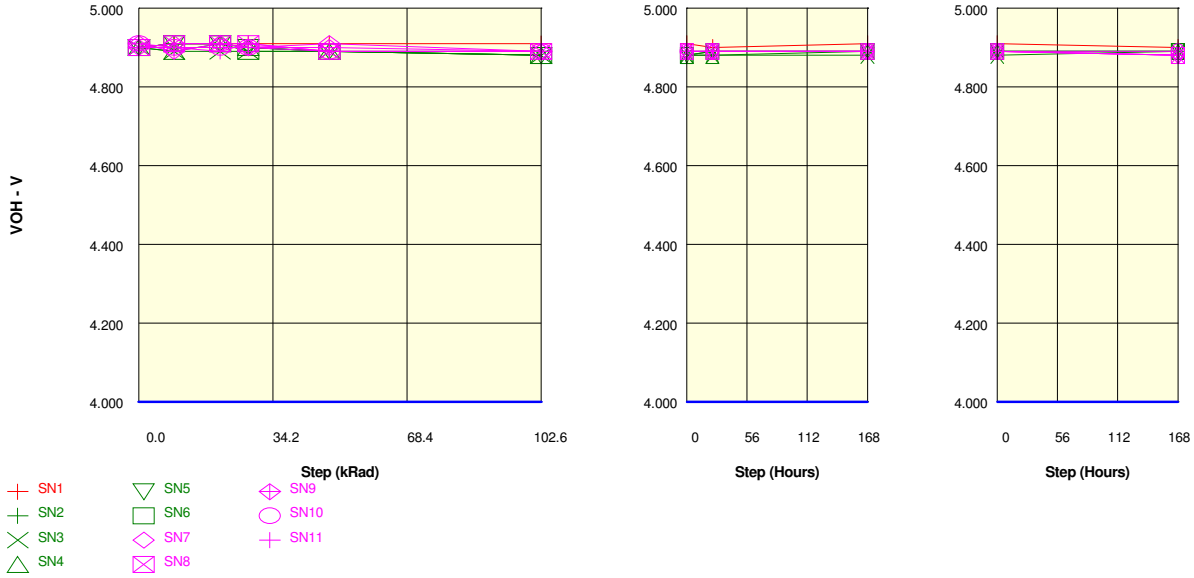
Measurements

VOHD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
OFF samples									
SN7	4.900	4.910	4.890	4.890	4.890	4.890	4.890	4.890	4.880
SN8	4.900	4.910	4.910	4.910	4.890	4.890	4.890	4.890	4.890
SN9	4.910	4.910	4.890	4.890	4.890	4.890	4.890	4.890	4.890
SN10	4.910	4.900	4.910	4.900	4.890	4.890	4.880	4.890	4.890
SN11	4.900	4.890	4.890	4.890	4.890	4.890	4.890	4.880	4.880
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.890	4.880	4.880	4.880
Max	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890	4.890
Average	4.904	4.904	4.898	4.896	4.890	4.890	4.888	4.888	4.886
Sigma	0.005	0.008	0.010	0.008	0.000	0.000	0.004	0.004	0.005

Drift Calculation

VOHD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN8	-	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN9	-	0.0E+00	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN10	-	-10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-30.0E-03	-20.0E-03	-20.0E-03
SN11	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03
Average	-	-177.6E-18	-6.0E-03	-8.0E-03	-14.0E-03	-14.0E-03	-16.0E-03	-16.0E-03	-18.0E-03
Sigma	-	8.9E-03	10.2E-03	9.8E-03	4.9E-03	4.9E-03	8.0E-03	4.9E-03	4.0E-03

Parameter : Logic output high voltage : VOHD4
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
ON samples									
SN2	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN3	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.880	4.890
SN4	4.900	4.890	4.910	4.900	4.890	4.880	4.880	4.890	4.890
SN5	4.900	4.910	4.910	4.900	4.890	4.880	4.890	4.890	4.890
SN6	4.900	4.910	4.910	4.890	4.890	4.880	4.890	4.890	4.890
Statistics									
Min	4.900	4.890	4.890	4.890	4.890	4.880	4.880	4.880	4.890
Max	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.902	4.906	4.896	4.890	4.882	4.886	4.888	4.890
Sigma	0.000	0.010	0.008	0.005	0.000	0.004	0.005	0.004	0.000

Drift Calculation

VOHD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-10.0E-03
SN4	-	-10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN5	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN6	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	2.0E-03	6.0E-03	-4.0E-03	-10.0E-03	-18.0E-03	-14.0E-03	-12.0E-03	-10.0E-03
Sigma	-	9.8E-03	8.0E-03	4.9E-03	90.2E-12	4.0E-03	4.9E-03	4.0E-03	90.2E-12

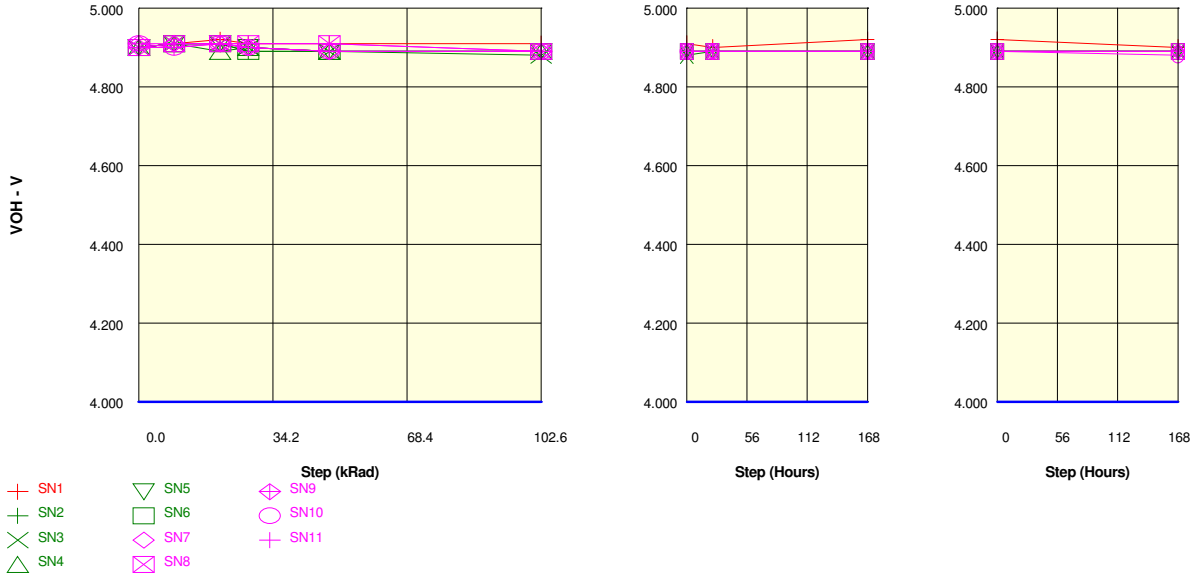
Measurements

VOHD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.900	4.910	4.900
OFF samples									
SN7	4.900	4.910	4.910	4.900	4.910	4.890	4.890	4.890	4.880
SN8	4.900	4.910	4.910	4.910	4.890	4.890	4.890	4.890	4.880
SN9	4.910	4.890	4.910	4.900	4.900	4.890	4.890	4.890	4.880
SN10	4.910	4.900	4.900	4.900	4.890	4.890	4.890	4.890	4.890
SN11	4.900	4.900	4.890	4.910	4.890	4.890	4.890	4.890	4.880
Statistics									
Min	4.900	4.890	4.890	4.900	4.890	4.890	4.890	4.890	4.880
Max	4.910	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
Average	4.904	4.902	4.904	4.904	4.896	4.890	4.890	4.890	4.882
Sigma	0.005	0.007	0.008	0.005	0.008	0.000	0.000	0.000	0.004

Drift Calculation

VOHD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	10.0E-03	0.0E+00	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN8	-	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
SN9	-	-20.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-30.0E-03
SN10	-	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN11	-	0.0E+00	-10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
Average	-	-2.0E-03	-177.6E-18	0.0E+00	-8.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-22.0E-03
Sigma	-	11.7E-03	8.9E-03	8.9E-03	9.8E-03	4.9E-03	4.9E-03	4.9E-03	4.0E-03

Parameter : Logic output high voltage : VOHD3
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.920	4.910	4.910	4.910	4.900	4.920	4.900
ON samples									
SN2	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.890	4.890
SN3	4.900	4.910	4.910	4.900	4.890	4.880	4.890	4.890	4.890
SN4	4.900	4.910	4.890	4.900	4.890	4.890	4.890	4.890	4.890
SN5	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN6	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.910	4.890	4.890	4.890	4.880	4.890	4.890	4.890
Max	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Average	4.900	4.910	4.906	4.896	4.890	4.888	4.890	4.890	4.890
Sigma	0.000	0.000	0.008	0.005	0.000	0.004	0.000	0.000	0.000

Drift Calculation

VOHD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN4	-	10.0E-03	-10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN5	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN6	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	10.0E-03	6.0E-03	-4.0E-03	-10.0E-03	-12.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Sigma	-	127.5E-12	8.0E-03	4.9E-03	90.2E-12	4.0E-03	90.2E-12	90.2E-12	90.2E-12

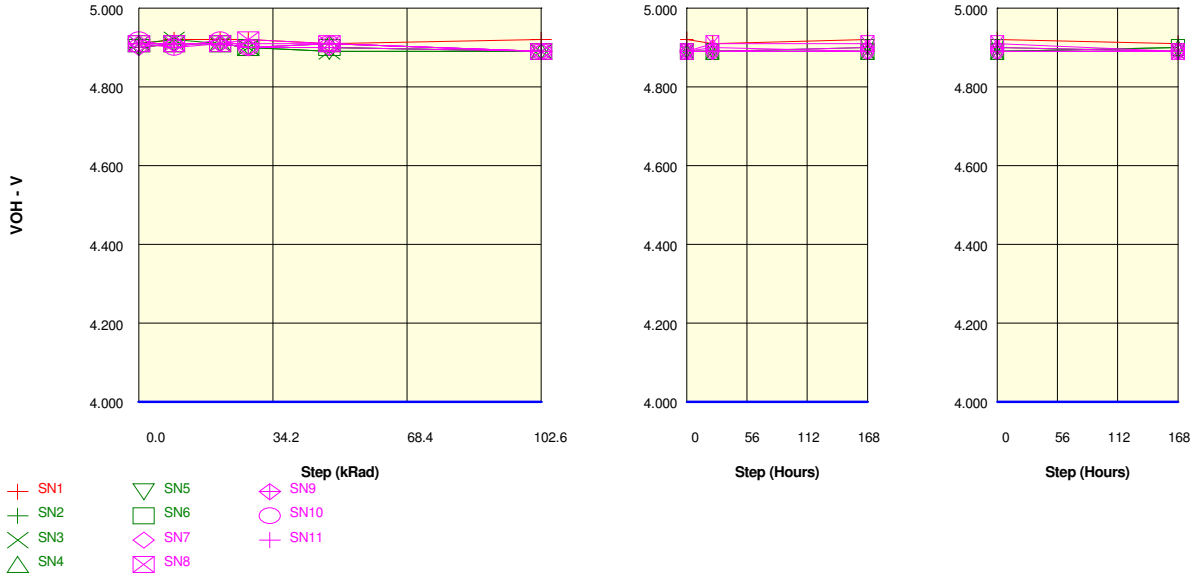
Measurements

VOHD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.920	4.910	4.910	4.910	4.900	4.920	4.900
OFF samples									
SN7	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN8	4.900	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
SN9	4.910	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN10	4.910	4.900	4.910	4.900	4.890	4.890	4.890	4.890	4.880
SN11	4.900	4.900	4.910	4.910	4.910	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.900	4.910	4.900	4.890	4.890	4.890	4.890	4.880
Max	4.910	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
Average	4.904	4.906	4.910	4.904	4.898	4.890	4.890	4.890	4.888
Sigma	0.005	0.005	0.000	0.005	0.010	0.000	0.000	0.000	0.004

Drift Calculation

VOHD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN8	-	10.0E-03	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN9	-	0.0E+00	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN10	-	-10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-30.0E-03
SN11	-	0.0E+00	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	2.0E-03	6.0E-03	0.0E+00	-6.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-16.0E-03
Sigma	-	7.5E-03	4.9E-03	8.9E-03	13.6E-03	4.9E-03	4.9E-03	4.9E-03	8.0E-03

Parameter : Logic output high voltage : VOHD2
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.910	4.920	4.920	4.920	4.910	4.920	4.910	4.920	4.910
ON samples									
SN2	4.900	4.910	4.910	4.900	4.900	4.890	4.890	4.890	4.890
SN3	4.910	4.920	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN4	4.910	4.910	4.910	4.900	4.910	4.890	4.890	4.890	4.900
SN5	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.900	4.890
SN6	4.910	4.910	4.910	4.900	4.900	4.890	4.890	4.890	4.900
Statistics									
Min	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
Max	4.910	4.920	4.910	4.900	4.910	4.890	4.890	4.900	4.900
Average	4.906	4.912	4.910	4.900	4.898	4.890	4.890	4.892	4.894
Sigma	0.005	0.004	0.000	0.000	0.007	0.000	0.000	0.004	0.005

Drift Calculation

VOHD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	10.0E-03	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN3	-	10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN4	-	0.0E+00	0.0E+00	-10.0E-03	0.0E+00	-20.0E-03	-20.0E-03	-20.0E-03	-10.0E-03
SN5	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	0.0E+00	-10.0E-03
SN6	-	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-10.0E-03
Average	-	6.0E-03	4.0E-03	-6.0E-03	-8.0E-03	-16.0E-03	-16.0E-03	-14.0E-03	-12.0E-03
Sigma	-	4.9E-03	4.9E-03	4.9E-03	7.5E-03	4.9E-03	4.9E-03	8.0E-03	4.0E-03

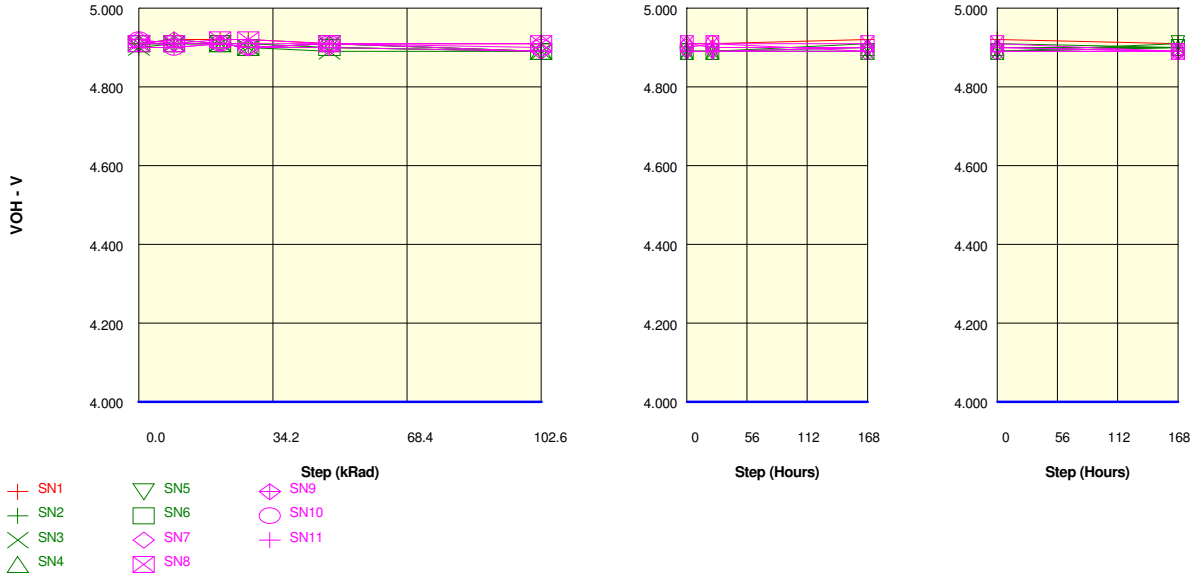
Measurements

VOHD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.910	4.920	4.920	4.920	4.910	4.920	4.910	4.920	4.910
OFF samples									
SN7	4.900	4.910	4.910	4.900	4.910	4.890	4.900	4.890	4.890
SN8	4.910	4.910	4.910	4.920	4.910	4.890	4.910	4.910	4.890
SN9	4.910	4.910	4.910	4.900	4.900	4.890	4.890	4.900	4.890
SN10	4.920	4.900	4.920	4.900	4.910	4.890	4.890	4.890	4.890
SN11	4.910	4.900	4.910	4.910	4.910	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.900	4.910	4.900	4.900	4.890	4.890	4.890	4.890
Max	4.920	4.910	4.920	4.920	4.910	4.890	4.910	4.910	4.890
Average	4.910	4.906	4.912	4.906	4.908	4.890	4.896	4.896	4.890
Sigma	0.006	0.005	0.004	0.008	0.004	0.000	0.008	0.008	0.000

Drift Calculation

VOHD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	10.0E-03	0.0E+00	10.0E-03	-10.0E-03	0.0E+00	-10.0E-03	-10.0E-03
SN8	-	0.0E+00	0.0E+00	10.0E-03	0.0E+00	-20.0E-03	0.0E+00	0.0E+00	-20.0E-03
SN9	-	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-20.0E-03
SN10	-	-20.0E-03	0.0E+00	-20.0E-03	-10.0E-03	-30.0E-03	-30.0E-03	-30.0E-03	-30.0E-03
SN11	-	-10.0E-03	0.0E+00	0.0E+00	0.0E+00	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
Average	-	-4.0E-03	2.0E-03	-4.0E-03	-2.0E-03	-20.0E-03	-14.0E-03	-14.0E-03	-20.0E-03
Sigma	-	10.2E-03	4.0E-03	10.2E-03	7.5E-03	6.3E-03	12.0E-03	10.2E-03	6.3E-03

Parameter : Logic output high voltage : VOHD1
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.910	4.920	4.920	4.920	4.910	4.910	4.910	4.920	4.910
ON samples									
SN2	4.910	4.920	4.910	4.910	4.900	4.890	4.890	4.910	4.900
SN3	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.900
SN4	4.910	4.910	4.910	4.900	4.910	4.890	4.890	4.900	4.900
SN5	4.910	4.910	4.910	4.900	4.910	4.890	4.890	4.890	4.910
SN6	4.910	4.910	4.910	4.900	4.900	4.890	4.890	4.890	4.900
Statistics									
Min	4.900	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.900
Max	4.910	4.920	4.910	4.910	4.910	4.890	4.890	4.910	4.910
Average	4.908	4.912	4.910	4.902	4.902	4.890	4.890	4.896	4.902
Sigma	0.004	0.004	0.000	0.004	0.007	0.000	0.000	0.008	0.004

Drift Calculation

VOHD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	0.0E+00	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	0.0E+00	-10.0E-03
SN3	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	0.0E+00
SN4	-	0.0E+00	0.0E+00	-10.0E-03	0.0E+00	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN5	-	0.0E+00	0.0E+00	-10.0E-03	0.0E+00	-20.0E-03	-20.0E-03	-20.0E-03	0.0E+00
SN6	-	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-10.0E-03
Average	-	4.0E-03	2.0E-03	-6.0E-03	-6.0E-03	-18.0E-03	-18.0E-03	-12.0E-03	-6.0E-03
Sigma	-	4.9E-03	4.0E-03	4.9E-03	4.9E-03	4.0E-03	4.0E-03	7.5E-03	4.9E-03

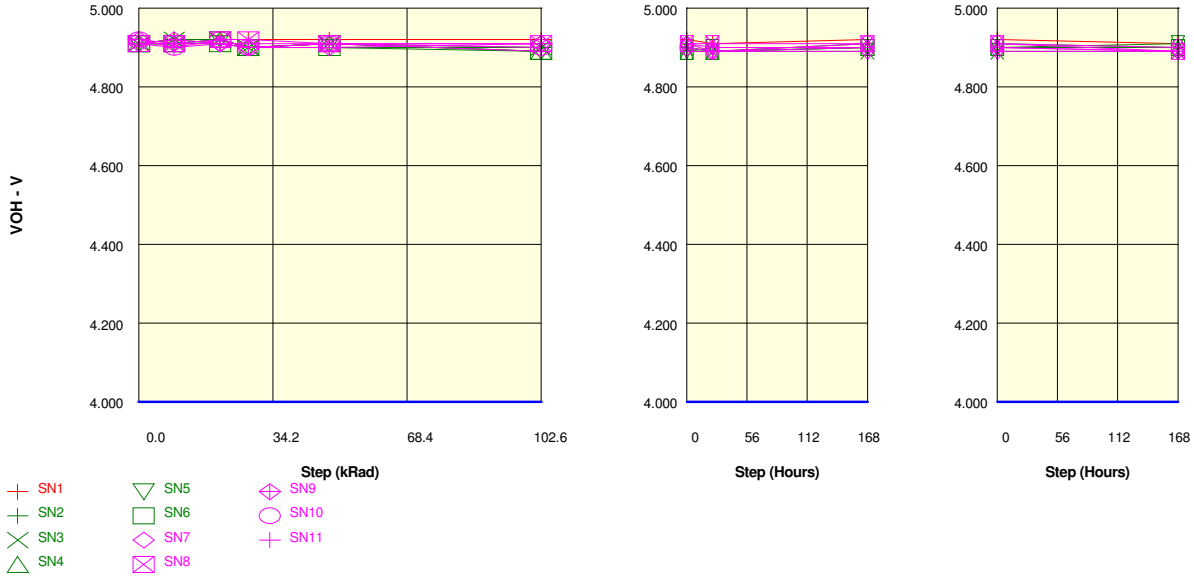
Measurements

VOHD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.910	4.920	4.920	4.920	4.910	4.910	4.910	4.920	4.910
OFF samples									
SN7	4.910	4.920	4.910	4.900	4.910	4.910	4.900	4.900	4.890
SN8	4.910	4.910	4.920	4.920	4.910	4.910	4.910	4.910	4.890
SN9	4.920	4.910	4.910	4.900	4.900	4.890	4.890	4.900	4.890
SN10	4.920	4.900	4.910	4.900	4.910	4.900	4.910	4.890	4.890
SN11	4.900	4.900	4.910	4.910	4.910	4.890	4.890	4.890	4.890
Statistics									
Min	4.900	4.900	4.910	4.900	4.900	4.890	4.890	4.890	4.890
Max	4.920	4.920	4.920	4.920	4.910	4.910	4.910	4.910	4.890
Average	4.912	4.908	4.912	4.906	4.908	4.900	4.900	4.898	4.890
Sigma	0.007	0.007	0.004	0.008	0.004	0.009	0.009	0.007	0.000

Drift Calculation

VOHD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	0.0E+00	-10.0E-03	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03
SN8	-	0.0E+00	10.0E-03	10.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-20.0E-03
SN9	-	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-30.0E-03	-30.0E-03	-20.0E-03	-30.0E-03
SN10	-	-20.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-20.0E-03	-10.0E-03	-30.0E-03	-30.0E-03
SN11	-	0.0E+00	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
Average	-	-4.0E-03	0.0E+00	-6.0E-03	-4.0E-03	-12.0E-03	-12.0E-03	-14.0E-03	-22.0E-03
Sigma	-	10.2E-03	8.9E-03	13.6E-03	10.2E-03	11.7E-03	9.8E-03	10.2E-03	7.5E-03

Parameter : Logic output high voltage : VOHD0
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.910	4.920	4.920	4.920	4.920	4.920	4.910	4.920	4.910
ON samples									
SN2	4.910	4.920	4.910	4.900	4.900	4.900	4.890	4.910	4.900
SN3	4.910	4.920	4.920	4.900	4.910	4.900	4.890	4.890	4.890
SN4	4.910	4.910	4.920	4.900	4.910	4.890	4.890	4.900	4.900
SN5	4.910	4.910	4.920	4.900	4.910	4.890	4.900	4.900	4.910
SN6	4.910	4.910	4.910	4.900	4.900	4.890	4.890	4.900	4.900
Statistics									
Min	4.910	4.910	4.910	4.900	4.900	4.890	4.890	4.890	4.890
Max	4.910	4.920	4.920	4.900	4.910	4.900	4.900	4.910	4.910
Average	4.910	4.914	4.916	4.900	4.906	4.894	4.892	4.900	4.900
Sigma	0.000	0.005	0.005	0.000	0.005	0.005	0.004	0.006	0.006

Drift Calculation

VOHD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	0.0E+00	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03	0.0E+00	-10.0E-03
SN3	-	10.0E-03	10.0E-03	-10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN4	-	0.0E+00	10.0E-03	-10.0E-03	0.0E+00	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN5	-	0.0E+00	10.0E-03	-10.0E-03	0.0E+00	-20.0E-03	-10.0E-03	-10.0E-03	0.0E+00
SN6	-	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
Average	-	4.0E-03	6.0E-03	-10.0E-03	-4.0E-03	-16.0E-03	-18.0E-03	-10.0E-03	-10.0E-03
Sigma	-	4.9E-03	4.9E-03	127.5E-12	4.9E-03	4.9E-03	4.0E-03	6.3E-03	6.3E-03

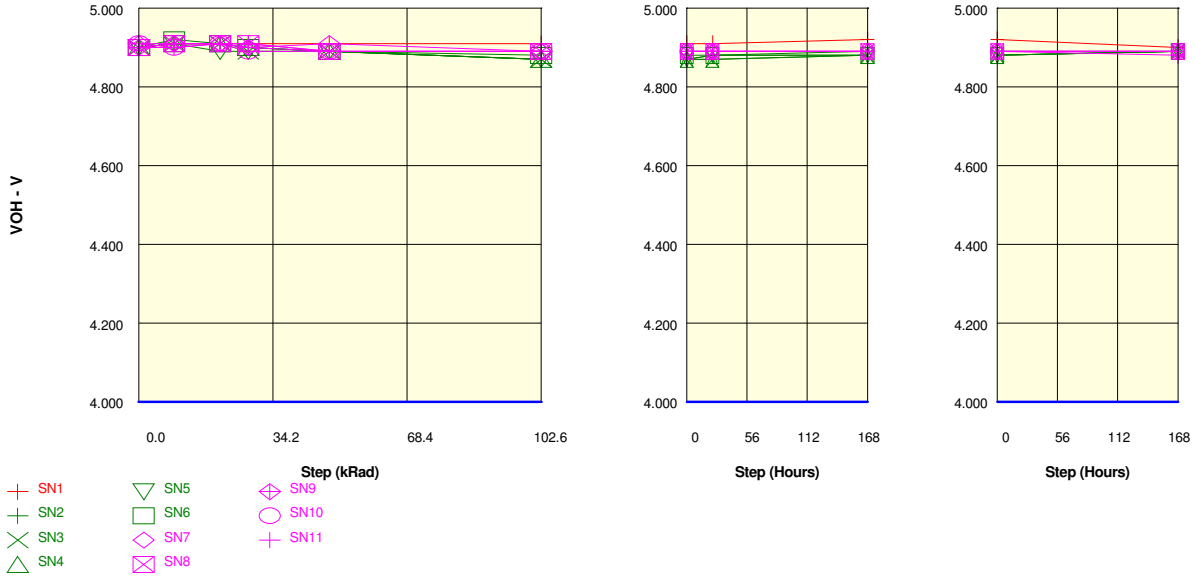
Measurements

VOHD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.910	4.920	4.920	4.920	4.920	4.920	4.910	4.920	4.910
OFF samples									
SN7	4.910	4.920	4.910	4.900	4.910	4.910	4.900	4.900	4.890
SN8	4.910	4.910	4.920	4.920	4.910	4.910	4.910	4.910	4.890
SN9	4.920	4.910	4.910	4.900	4.900	4.910	4.890	4.890	4.890
SN10	4.920	4.900	4.920	4.900	4.910	4.900	4.890	4.910	4.900
SN11	4.910	4.900	4.910	4.910	4.910	4.890	4.890	4.900	4.890
Statistics									
Min	4.910	4.900	4.910	4.900	4.900	4.890	4.890	4.890	4.890
Max	4.920	4.920	4.920	4.920	4.910	4.910	4.910	4.910	4.900
Average	4.914	4.908	4.914	4.906	4.908	4.904	4.896	4.902	4.892
Sigma	0.005	0.007	0.005	0.008	0.004	0.008	0.008	0.007	0.004

Drift Calculation

VOHD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	0.0E+00	-10.0E-03	0.0E+00	0.0E+00	-10.0E-03	-10.0E-03	-20.0E-03
SN8	-	0.0E+00	10.0E-03	10.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-20.0E-03
SN9	-	-10.0E-03	-10.0E-03	-20.0E-03	-20.0E-03	-10.0E-03	-30.0E-03	-30.0E-03	-30.0E-03
SN10	-	-20.0E-03	0.0E+00	-20.0E-03	-10.0E-03	-20.0E-03	-30.0E-03	-10.0E-03	-20.0E-03
SN11	-	-10.0E-03	0.0E+00	0.0E+00	0.0E+00	-20.0E-03	-20.0E-03	-10.0E-03	-20.0E-03
Average	-	-6.0E-03	0.0E+00	-8.0E-03	-6.0E-03	-10.0E-03	-18.0E-03	-12.0E-03	-22.0E-03
Sigma	-	10.2E-03	6.3E-03	11.7E-03	8.0E-03	8.9E-03	11.7E-03	9.8E-03	4.0E-03

Parameter : Logic output high voltage : VOHBUSY
Test conditions : IOH=0.5mA
Unit : V
Spec Limit Min : 4.000
Spec limits are represented in bold lines on the graphic.



Measurements

VOHBUSY	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.910	4.920	4.900
ON samples									
SN2	4.900	4.910	4.910	4.900	4.890	4.870	4.880	4.890	4.890
SN3	4.900	4.910	4.910	4.890	4.890	4.870	4.870	4.880	4.890
SN4	4.900	4.910	4.910	4.900	4.890	4.870	4.870	4.880	4.890
SN5	4.900	4.910	4.890	4.890	4.890	4.870	4.880	4.880	4.890
SN6	4.900	4.920	4.910	4.900	4.890	4.880	4.880	4.880	4.890
Statistics									
Min	4.900	4.910	4.890	4.890	4.890	4.870	4.870	4.880	4.890
Max	4.900	4.920	4.910	4.900	4.890	4.880	4.880	4.890	4.890
Average	4.900	4.912	4.906	4.896	4.890	4.872	4.876	4.882	4.890
Sigma	0.000	0.004	0.008	0.005	0.000	0.004	0.005	0.004	0.000

Drift Calculation

VOHBUSY	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-30.0E-03	-20.0E-03	-10.0E-03	-10.0E-03
SN3	-	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-30.0E-03	-30.0E-03	-20.0E-03	-10.0E-03
SN4	-	10.0E-03	10.0E-03	0.0E+00	-10.0E-03	-30.0E-03	-30.0E-03	-20.0E-03	-10.0E-03
SN5	-	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-30.0E-03	-20.0E-03	-20.0E-03	-10.0E-03
SN6	-	20.0E-03	10.0E-03	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-10.0E-03
Average	-	12.0E-03	6.0E-03	-4.0E-03	-10.0E-03	-28.0E-03	-24.0E-03	-18.0E-03	-10.0E-03
Sigma	-	4.0E-03	8.0E-03	4.9E-03	90.2E-12	4.0E-03	4.9E-03	4.0E-03	90.2E-12

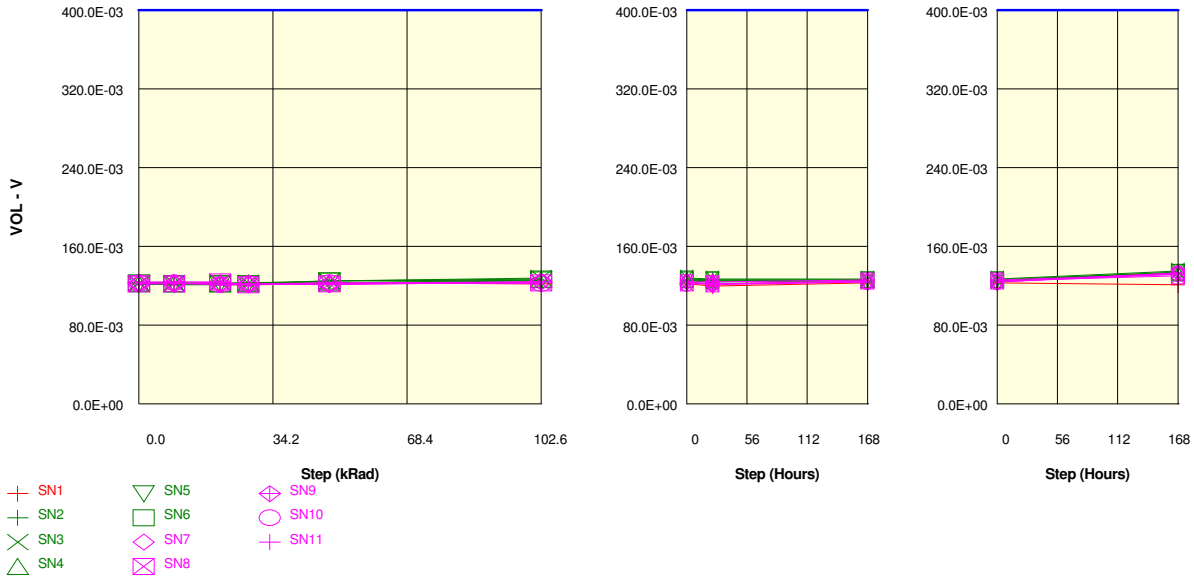
Measurements

VOHBUSY	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.900	4.910	4.910	4.910	4.910	4.910	4.910	4.920	4.900
OFF samples									
SN7	4.900	4.910	4.910	4.900	4.910	4.890	4.890	4.890	4.890
SN8	4.900	4.910	4.910	4.910	4.890	4.890	4.890	4.890	4.890
SN9	4.910	4.910	4.910	4.900	4.890	4.890	4.890	4.890	4.890
SN10	4.910	4.900	4.910	4.890	4.890	4.890	4.890	4.890	4.890
SN11	4.900	4.900	4.910	4.910	4.890	4.890	4.890	4.890	4.880
Statistics									
Min	4.900	4.900	4.910	4.890	4.890	4.890	4.890	4.890	4.880
Max	4.910	4.910	4.910	4.910	4.910	4.890	4.890	4.890	4.890
Average	4.904	4.906	4.910	4.902	4.894	4.890	4.890	4.890	4.888
Sigma	0.005	0.005	0.000	0.007	0.008	0.000	0.000	0.000	0.004

Drift Calculation

VOHBUSY	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	10.0E-03	10.0E-03	0.0E+00	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN8	-	10.0E-03	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03
SN9	-	0.0E+00	0.0E+00	-10.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN10	-	-10.0E-03	0.0E+00	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03	-20.0E-03
SN11	-	0.0E+00	10.0E-03	10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-10.0E-03	-20.0E-03
Average	-	2.0E-03	6.0E-03	-2.0E-03	-10.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-16.0E-03
Sigma	-	7.5E-03	4.9E-03	11.7E-03	11.0E-03	4.9E-03	4.9E-03	4.9E-03	4.9E-03

Parameter : logic output low voltage : VOLD15
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	123.0E-03	123.0E-03	122.0E-03	121.0E-03	123.0E-03	122.0E-03	120.0E-03	123.0E-03	121.0E-03
ON samples									
SN2	122.0E-03	121.0E-03	121.0E-03	121.0E-03	123.0E-03	125.0E-03	124.0E-03	125.0E-03	133.0E-03
SN3	123.0E-03	123.0E-03	123.0E-03	123.0E-03	125.0E-03	128.0E-03	127.0E-03	127.0E-03	135.0E-03
SN4	122.0E-03	122.0E-03	122.0E-03	123.0E-03	123.0E-03	126.0E-03	125.0E-03	126.0E-03	133.0E-03
SN5	122.0E-03	122.0E-03	122.0E-03	122.0E-03	125.0E-03	126.0E-03	126.0E-03	126.0E-03	133.0E-03
SN6	123.0E-03	122.0E-03	122.0E-03	122.0E-03	125.0E-03	127.0E-03	126.0E-03	126.0E-03	134.0E-03
Statistics									
Min	122.0E-03	121.0E-03	121.0E-03	121.0E-03	123.0E-03	125.0E-03	124.0E-03	125.0E-03	133.0E-03
Max	123.0E-03	123.0E-03	123.0E-03	123.0E-03	125.0E-03	128.0E-03	127.0E-03	127.0E-03	135.0E-03
Average	122.4E-03	122.0E-03	122.0E-03	122.2E-03	124.2E-03	126.4E-03	125.6E-03	126.0E-03	133.6E-03
Sigma	489.9E-06	632.5E-06	632.5E-06	748.3E-06	979.8E-06	1.0E-03	1.0E-03	632.5E-06	800.0E-06

Drift Calculation

VOLD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-1.0E-03	-1.0E-03	-1.0E-03	1.0E-03	3.0E-03	2.0E-03	3.0E-03	11.0E-03
SN3	-	0.0E+00	0.0E+00	0.0E+00	2.0E-03	5.0E-03	4.0E-03	4.0E-03	12.0E-03
SN4	-	0.0E+00	0.0E+00	1.0E-03	1.0E-03	4.0E-03	3.0E-03	4.0E-03	11.0E-03
SN5	-	0.0E+00	0.0E+00	0.0E+00	3.0E-03	4.0E-03	4.0E-03	4.0E-03	11.0E-03
SN6	-	-1.0E-03	-1.0E-03	-1.0E-03	2.0E-03	4.0E-03	3.0E-03	3.0E-03	11.0E-03
Average	-	-400.0E-06	-400.0E-06	-200.0E-06	1.8E-03	4.0E-03	3.2E-03	3.6E-03	11.2E-03
Sigma	-	489.9E-06	489.9E-06	748.3E-06	748.3E-06	632.5E-06	748.3E-06	489.9E-06	400.0E-06

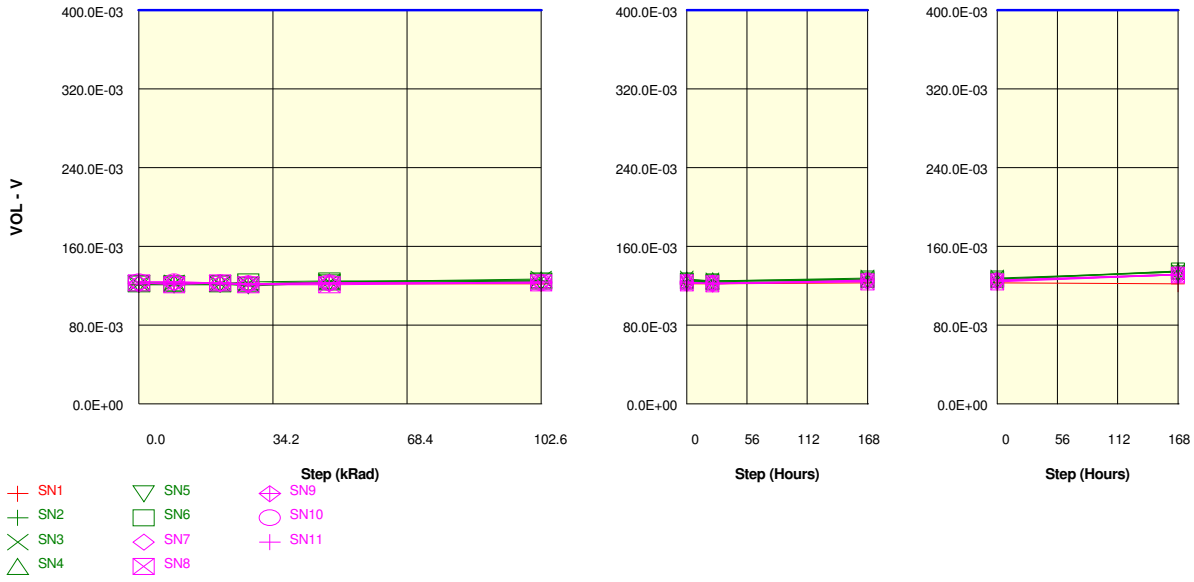
Measurements

VOLD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	123.0E-03	123.0E-03	122.0E-03	121.0E-03	123.0E-03	122.0E-03	120.0E-03	123.0E-03	121.0E-03
OFF samples									
SN7	123.0E-03	122.0E-03	122.0E-03	122.0E-03	121.0E-03	124.0E-03	122.0E-03	124.0E-03	133.0E-03
SN8	122.0E-03	122.0E-03	124.0E-03	121.0E-03	122.0E-03	123.0E-03	122.0E-03	125.0E-03	130.0E-03
SN9	122.0E-03	123.0E-03	121.0E-03	121.0E-03	122.0E-03	124.0E-03	121.0E-03	124.0E-03	133.0E-03
SN10	123.0E-03	123.0E-03	121.0E-03	122.0E-03	123.0E-03	122.0E-03	122.0E-03	124.0E-03	132.0E-03
SN11	124.0E-03	124.0E-03	124.0E-03	121.0E-03	123.0E-03	124.0E-03	124.0E-03	126.0E-03	132.0E-03
Statistics									
Min	122.0E-03	122.0E-03	121.0E-03	121.0E-03	121.0E-03	122.0E-03	121.0E-03	124.0E-03	130.0E-03
Max	124.0E-03	124.0E-03	124.0E-03	122.0E-03	123.0E-03	124.0E-03	124.0E-03	126.0E-03	133.0E-03
Average	122.8E-03	122.8E-03	122.4E-03	121.4E-03	122.2E-03	123.4E-03	122.2E-03	124.6E-03	132.0E-03
Sigma	748.3E-06	748.3E-06	1.4E-03	489.9E-06	748.3E-06	800.0E-06	979.8E-06	800.0E-06	1.1E-03

Drift Calculation

VOLD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-1.0E-03	-1.0E-03	-1.0E-03	-2.0E-03	1.0E-03	-1.0E-03	1.0E-03	10.0E-03
SN8	-	0.0E+00	2.0E-03	-1.0E-03	0.0E+00	1.0E-03	0.0E+00	3.0E-03	8.0E-03
SN9	-	1.0E-03	-1.0E-03	-1.0E-03	0.0E+00	2.0E-03	-1.0E-03	2.0E-03	11.0E-03
SN10	-	0.0E+00	-2.0E-03	-1.0E-03	0.0E+00	-1.0E-03	-1.0E-03	1.0E-03	9.0E-03
SN11	-	0.0E+00	0.0E+00	-3.0E-03	-1.0E-03	0.0E+00	0.0E+00	2.0E-03	8.0E-03
Average	-	0.0E+00	-400.0E-06	-1.4E-03	-600.0E-06	600.0E-06	-600.0E-06	1.8E-03	9.2E-03
Sigma	-	632.5E-06	1.4E-03	800.0E-06	800.0E-06	1.0E-03	489.9E-06	748.3E-06	1.2E-03

Parameter : logic output low voltage : VOLD14
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	121.0E-03	123.0E-03	122.0E-03	122.0E-03	122.0E-03	122.0E-03	122.0E-03	123.0E-03	122.0E-03
ON samples									
SN2	121.0E-03	121.0E-03	121.0E-03	122.0E-03	123.0E-03	125.0E-03	125.0E-03	127.0E-03	134.0E-03
SN3	122.0E-03	123.0E-03	122.0E-03	122.0E-03	124.0E-03	127.0E-03	125.0E-03	128.0E-03	134.0E-03
SN4	123.0E-03	123.0E-03	123.0E-03	122.0E-03	124.0E-03	126.0E-03	125.0E-03	126.0E-03	135.0E-03
SN5	122.0E-03	121.0E-03	122.0E-03	120.0E-03	123.0E-03	124.0E-03	123.0E-03	125.0E-03	132.0E-03
SN6	122.0E-03	122.0E-03	122.0E-03	124.0E-03	125.0E-03	125.0E-03	124.0E-03	127.0E-03	135.0E-03
Statistics									
Min	121.0E-03	121.0E-03	121.0E-03	120.0E-03	123.0E-03	124.0E-03	123.0E-03	125.0E-03	132.0E-03
Max	123.0E-03	123.0E-03	123.0E-03	124.0E-03	125.0E-03	127.0E-03	125.0E-03	128.0E-03	135.0E-03
Average	122.0E-03	122.0E-03	122.0E-03	122.0E-03	123.8E-03	125.4E-03	124.4E-03	126.6E-03	134.0E-03
Sigma	632.5E-06	894.4E-06	632.5E-06	1.3E-03	748.3E-06	1.0E-03	800.0E-06	1.0E-03	1.1E-03

Drift Calculation

VOLD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	0.0E+00	1.0E-03	2.0E-03	4.0E-03	4.0E-03	6.0E-03	13.0E-03
SN3	-	1.0E-03	0.0E+00	0.0E+00	2.0E-03	5.0E-03	3.0E-03	6.0E-03	12.0E-03
SN4	-	0.0E+00	0.0E+00	-1.0E-03	1.0E-03	3.0E-03	2.0E-03	3.0E-03	12.0E-03
SN5	-	-1.0E-03	0.0E+00	-2.0E-03	1.0E-03	2.0E-03	1.0E-03	3.0E-03	10.0E-03
SN6	-	0.0E+00	0.0E+00	2.0E-03	3.0E-03	3.0E-03	2.0E-03	5.0E-03	13.0E-03
Average	-	0.0E+00	0.0E+00	0.0E+00	1.8E-03	3.4E-03	2.4E-03	4.6E-03	12.0E-03
Sigma	-	632.5E-06	0.0E+00	1.4E-03	748.3E-06	1.0E-03	1.0E-03	1.4E-03	1.1E-03

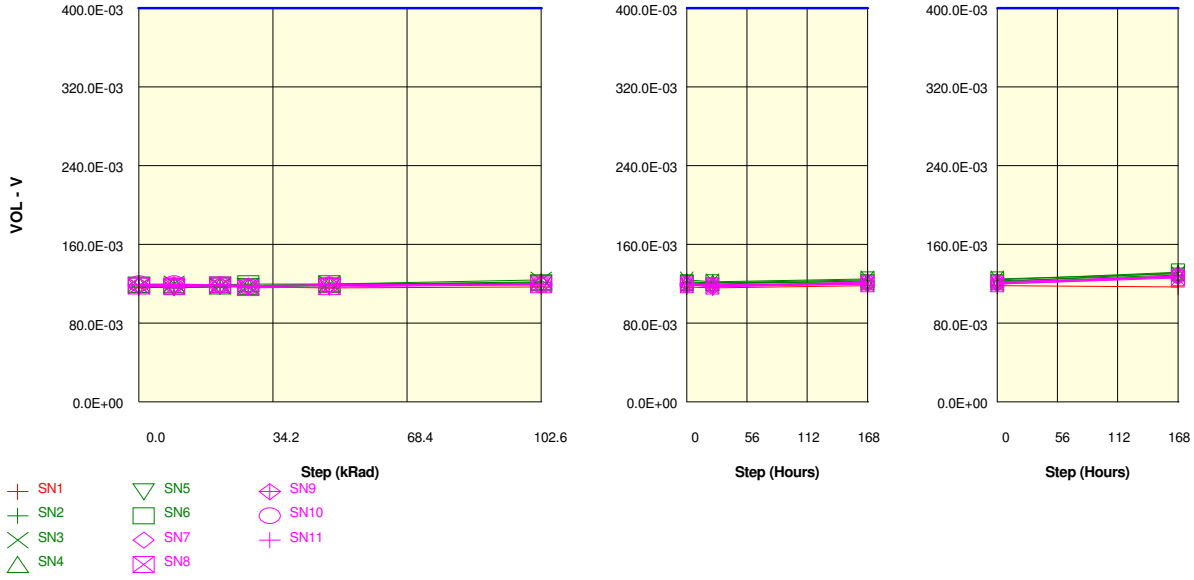
Measurements

VOLD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	121.0E-03	123.0E-03	122.0E-03	122.0E-03	122.0E-03	122.0E-03	122.0E-03	123.0E-03	122.0E-03
OFF samples									
SN7	122.0E-03	123.0E-03	122.0E-03	122.0E-03	123.0E-03	123.0E-03	123.0E-03	125.0E-03	131.0E-03
SN8	123.0E-03	121.0E-03	123.0E-03	121.0E-03	121.0E-03	123.0E-03	122.0E-03	124.0E-03	131.0E-03
SN9	122.0E-03	123.0E-03	122.0E-03	121.0E-03	122.0E-03	124.0E-03	122.0E-03	125.0E-03	131.0E-03
SN10	124.0E-03	124.0E-03	123.0E-03	122.0E-03	123.0E-03	123.0E-03	122.0E-03	125.0E-03	131.0E-03
SN11	124.0E-03	124.0E-03	123.0E-03	122.0E-03	123.0E-03	123.0E-03	122.0E-03	126.0E-03	132.0E-03
Statistics									
Min	122.0E-03	121.0E-03	122.0E-03	121.0E-03	121.0E-03	123.0E-03	122.0E-03	124.0E-03	131.0E-03
Max	124.0E-03	124.0E-03	123.0E-03	122.0E-03	123.0E-03	124.0E-03	123.0E-03	126.0E-03	132.0E-03
Average	123.0E-03	123.0E-03	122.6E-03	121.6E-03	122.4E-03	123.2E-03	122.2E-03	125.0E-03	131.2E-03
Sigma	894.4E-06	1.1E-03	489.9E-06	489.9E-06	800.0E-06	400.0E-06	400.0E-06	632.5E-06	400.0E-06

Drift Calculation

VOLD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1.0E-03	0.0E+00	0.0E+00	1.0E-03	1.0E-03	1.0E-03	3.0E-03	9.0E-03
SN8	-	-2.0E-03	0.0E+00	-2.0E-03	-2.0E-03	0.0E+00	-1.0E-03	1.0E-03	8.0E-03
SN9	-	1.0E-03	0.0E+00	-1.0E-03	0.0E+00	2.0E-03	0.0E+00	3.0E-03	9.0E-03
SN10	-	0.0E+00	-1.0E-03	-2.0E-03	-1.0E-03	-1.0E-03	-2.0E-03	1.0E-03	7.0E-03
SN11	-	0.0E+00	-1.0E-03	-2.0E-03	-1.0E-03	-1.0E-03	-2.0E-03	2.0E-03	8.0E-03
Average	-	0.0E+00	-400.0E-06	-1.4E-03	-600.0E-06	200.0E-06	-800.0E-06	2.0E-03	8.2E-03
Sigma	-	1.1E-03	489.9E-06	800.0E-06	1.0E-03	1.2E-03	1.2E-03	894.4E-06	748.3E-06

Parameter : logic output low voltage : VOLD13
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	116.0E-03	117.0E-03	117.0E-03	117.0E-03	116.0E-03	117.0E-03	116.0E-03	118.0E-03	117.0E-03
ON samples									
SN2	117.0E-03	116.0E-03	117.0E-03	118.0E-03	118.0E-03	121.0E-03	120.0E-03	123.0E-03	129.0E-03
SN3	118.0E-03	120.0E-03	118.0E-03	118.0E-03	120.0E-03	124.0E-03	122.0E-03	125.0E-03	130.0E-03
SN4	119.0E-03	119.0E-03	118.0E-03	117.0E-03	119.0E-03	122.0E-03	121.0E-03	122.0E-03	131.0E-03
SN5	118.0E-03	116.0E-03	118.0E-03	117.0E-03	118.0E-03	120.0E-03	118.0E-03	121.0E-03	128.0E-03
SN6	119.0E-03	118.0E-03	119.0E-03	120.0E-03	120.0E-03	121.0E-03	121.0E-03	124.0E-03	132.0E-03
Statistics									
Min	117.0E-03	116.0E-03	117.0E-03	117.0E-03	118.0E-03	120.0E-03	118.0E-03	121.0E-03	128.0E-03
Max	119.0E-03	120.0E-03	119.0E-03	120.0E-03	120.0E-03	124.0E-03	122.0E-03	125.0E-03	132.0E-03
Average	118.2E-03	117.8E-03	118.0E-03	118.0E-03	119.0E-03	121.6E-03	120.4E-03	123.0E-03	130.0E-03
Sigma	748.3E-06	1.6E-03	632.5E-06	1.1E-03	894.4E-06	1.4E-03	1.4E-03	1.4E-03	1.4E-03

Drift Calculation

VOLD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-1.0E-03	0.0E+00	1000.0E-06	1000.0E-06	4.0E-03	3.0E-03	6.0E-03	12.0E-03
SN3	-	2.0E-03	0.0E+00	0.0E+00	2.0E-03	6.0E-03	4.0E-03	7.0E-03	12.0E-03
SN4	-	0.0E+00	-1.0E-03	-2.0E-03	0.0E+00	3.0E-03	2.0E-03	3.0E-03	12.0E-03
SN5	-	-2.0E-03	0.0E+00	-1000.0E-06	0.0E+00	2.0E-03	0.0E+00	3.0E-03	10.0E-03
SN6	-	-1.0E-03	0.0E+00	1.0E-03	1.0E-03	2.0E-03	2.0E-03	5.0E-03	13.0E-03
Average	-	-400.0E-06	-200.0E-06	-200.0E-06	800.0E-06	3.4E-03	2.2E-03	4.8E-03	11.8E-03
Sigma	-	1.4E-03	400.0E-06	1.2E-03	748.3E-06	1.5E-03	1.3E-03	1.6E-03	979.8E-06

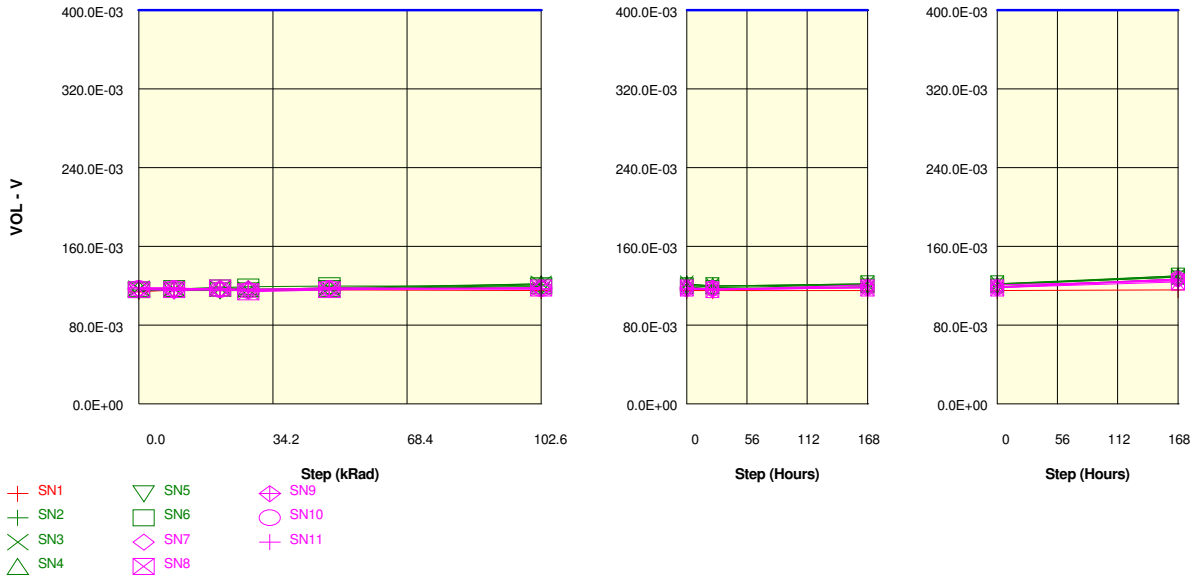
Measurements

VOLD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	116.0E-03	117.0E-03	117.0E-03	117.0E-03	116.0E-03	117.0E-03	116.0E-03	118.0E-03	117.0E-03
OFF samples									
SN7	118.0E-03	119.0E-03	119.0E-03	118.0E-03	119.0E-03	120.0E-03	119.0E-03	121.0E-03	128.0E-03
SN8	118.0E-03	117.0E-03	119.0E-03	116.0E-03	117.0E-03	119.0E-03	118.0E-03	120.0E-03	126.0E-03
SN9	118.0E-03	117.0E-03	118.0E-03	117.0E-03	119.0E-03	119.0E-03	117.0E-03	120.0E-03	127.0E-03
SN10	120.0E-03	120.0E-03	119.0E-03	117.0E-03	119.0E-03	119.0E-03	118.0E-03	121.0E-03	128.0E-03
SN11	119.0E-03	119.0E-03	119.0E-03	117.0E-03	119.0E-03	119.0E-03	117.0E-03	122.0E-03	127.0E-03
Statistics									
Min	118.0E-03	117.0E-03	118.0E-03	116.0E-03	117.0E-03	119.0E-03	117.0E-03	120.0E-03	126.0E-03
Max	120.0E-03	120.0E-03	119.0E-03	118.0E-03	119.0E-03	120.0E-03	119.0E-03	122.0E-03	128.0E-03
Average	118.6E-03	118.4E-03	118.8E-03	117.0E-03	118.6E-03	119.2E-03	117.8E-03	120.8E-03	127.2E-03
Sigma	800.0E-06	1.2E-03	400.0E-06	632.5E-06	800.0E-06	400.0E-06	748.3E-06	748.3E-06	748.3E-06

Drift Calculation

VOLD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1.0E-03	1.0E-03	0.0E+00	1.0E-03	2.0E-03	1.0E-03	3.0E-03	10.0E-03
SN8	-	-1000.0E-06	1.0E-03	-2.0E-03	-1000.0E-06	1.0E-03	0.0E+00	2.0E-03	8.0E-03
SN9	-	-1000.0E-06	0.0E+00	-1000.0E-06	1.0E-03	1.0E-03	-1000.0E-06	2.0E-03	9.0E-03
SN10	-	0.0E+00	-1.0E-03	-3.0E-03	-1.0E-03	-1.0E-03	-2.0E-03	1.0E-03	8.0E-03
SN11	-	0.0E+00	0.0E+00	-2.0E-03	0.0E+00	0.0E+00	-2.0E-03	3.0E-03	8.0E-03
Average	-	-200.0E-06	200.0E-06	-1.6E-03	2.8E-18	600.0E-06	-800.0E-06	2.2E-03	8.6E-03
Sigma	-	748.3E-06	748.3E-06	1.0E-03	894.4E-06	1.0E-03	1.2E-03	748.3E-06	800.0E-06

Parameter : logic output low voltage : VOLD12
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	114.0E-03	116.0E-03	115.0E-03	115.0E-03	116.0E-03	115.0E-03	115.0E-03	115.0E-03	116.0E-03
ON samples									
SN2	116.0E-03	116.0E-03	115.0E-03	116.0E-03	116.0E-03	121.0E-03	118.0E-03	121.0E-03	129.0E-03
SN3	117.0E-03	117.0E-03	117.0E-03	116.0E-03	118.0E-03	122.0E-03	120.0E-03	122.0E-03	129.0E-03
SN4	117.0E-03	117.0E-03	118.0E-03	117.0E-03	117.0E-03	122.0E-03	120.0E-03	121.0E-03	130.0E-03
SN5	115.0E-03	115.0E-03	115.0E-03	115.0E-03	117.0E-03	119.0E-03	117.0E-03	119.0E-03	127.0E-03
SN6	116.0E-03	117.0E-03	118.0E-03	119.0E-03	120.0E-03	120.0E-03	120.0E-03	122.0E-03	130.0E-03
Statistics									
Min	115.0E-03	115.0E-03	115.0E-03	115.0E-03	116.0E-03	119.0E-03	117.0E-03	119.0E-03	127.0E-03
Max	117.0E-03	117.0E-03	118.0E-03	119.0E-03	120.0E-03	122.0E-03	120.0E-03	122.0E-03	130.0E-03
Average	116.2E-03	116.4E-03	116.6E-03	116.6E-03	117.6E-03	120.8E-03	119.0E-03	121.0E-03	129.0E-03
Sigma	748.3E-06	800.0E-06	1.4E-03	1.4E-03	1.4E-03	1.2E-03	1.3E-03	1.1E-03	1.1E-03

Drift Calculation

VOLD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	-1.0E-03	0.0E+00	0.0E+00	5.0E-03	2.0E-03	5.0E-03	13.0E-03
SN3	-	0.0E+00	0.0E+00	-1.0E-03	1000.0E-06	5.0E-03	3.0E-03	5.0E-03	12.0E-03
SN4	-	0.0E+00	1000.0E-06	0.0E+00	0.0E+00	5.0E-03	3.0E-03	4.0E-03	13.0E-03
SN5	-	0.0E+00	0.0E+00	0.0E+00	2.0E-03	4.0E-03	2.0E-03	4.0E-03	12.0E-03
SN6	-	1.0E-03	2.0E-03	3.0E-03	4.0E-03	4.0E-03	4.0E-03	6.0E-03	14.0E-03
Average	-	200.0E-06	400.0E-06	400.0E-06	1.4E-03	4.6E-03	2.8E-03	4.8E-03	12.8E-03
Sigma	-	400.0E-06	1.0E-03	1.4E-03	1.5E-03	489.9E-06	748.3E-06	748.3E-06	748.3E-06

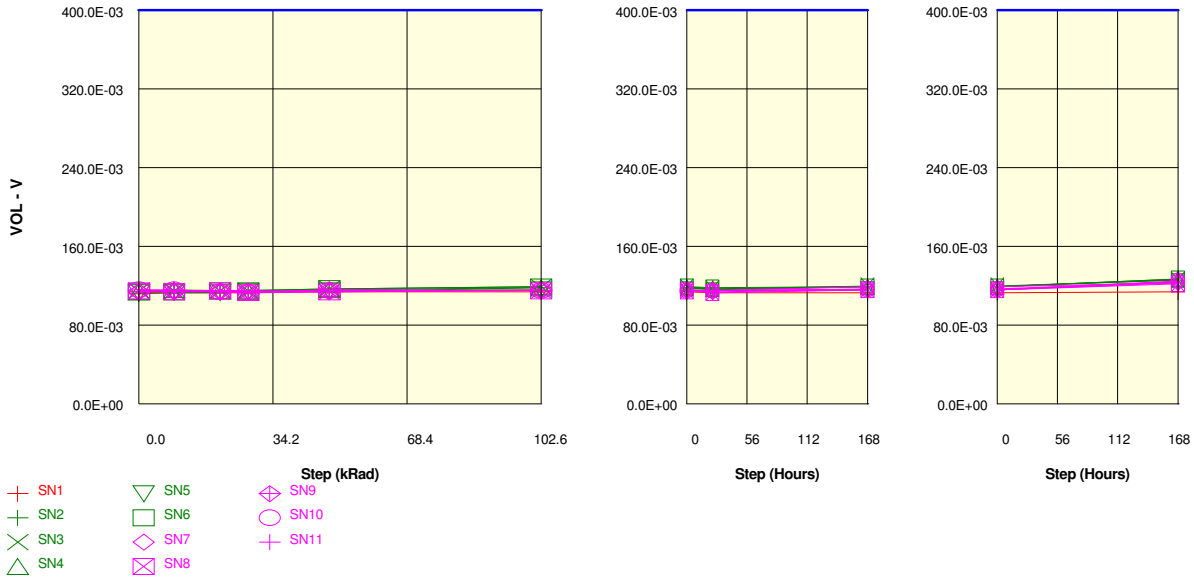
Measurements

VOLD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	114.0E-03	116.0E-03	115.0E-03	115.0E-03	116.0E-03	115.0E-03	115.0E-03	115.0E-03	116.0E-03
OFF samples									
SN7	117.0E-03	117.0E-03	117.0E-03	117.0E-03	117.0E-03	118.0E-03	117.0E-03	119.0E-03	127.0E-03
SN8	116.0E-03	116.0E-03	118.0E-03	114.0E-03	116.0E-03	118.0E-03	116.0E-03	118.0E-03	124.0E-03
SN9	117.0E-03	115.0E-03	116.0E-03	115.0E-03	117.0E-03	117.0E-03	116.0E-03	118.0E-03	126.0E-03
SN10	117.0E-03	117.0E-03	116.0E-03	115.0E-03	117.0E-03	117.0E-03	117.0E-03	118.0E-03	127.0E-03
SN11	118.0E-03	118.0E-03	116.0E-03	116.0E-03	118.0E-03	117.0E-03	116.0E-03	121.0E-03	125.0E-03
Statistics									
Min	116.0E-03	115.0E-03	116.0E-03	114.0E-03	116.0E-03	117.0E-03	116.0E-03	118.0E-03	124.0E-03
Max	118.0E-03	118.0E-03	118.0E-03	117.0E-03	118.0E-03	118.0E-03	117.0E-03	121.0E-03	127.0E-03
Average	117.0E-03	116.6E-03	116.6E-03	115.4E-03	117.0E-03	117.4E-03	116.4E-03	118.8E-03	125.8E-03
Sigma	632.5E-06	1.0E-03	800.0E-06	1.0E-03	632.5E-06	489.9E-06	489.9E-06	1.2E-03	1.2E-03

Drift Calculation

VOLD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1000.0E-06	0.0E+00	2.0E-03	10.0E-03
SN8	-	0.0E+00	2.0E-03	-2.0E-03	0.0E+00	2.0E-03	0.0E+00	2.0E-03	8.0E-03
SN9	-	-2.0E-03	-1.0E-03	-2.0E-03	0.0E+00	0.0E+00	-1.0E-03	1000.0E-06	9.0E-03
SN10	-	0.0E+00	-1.0E-03	-2.0E-03	0.0E+00	0.0E+00	0.0E+00	1000.0E-06	10.0E-03
SN11	-	0.0E+00	-2.0E-03	-2.0E-03	0.0E+00	-1000.0E-06	-2.0E-03	3.0E-03	7.0E-03
Average	-	-400.0E-06	-400.0E-06	-1.6E-03	0.0E+00	400.0E-06	-600.0E-06	1.8E-03	8.8E-03
Sigma	-	800.0E-06	1.4E-03	800.0E-06	0.0E+00	1.0E-03	800.0E-06	748.3E-06	1.2E-03

Parameter : logic output low voltage : VOLD11
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	112.0E-03	113.0E-03	113.0E-03	113.0E-03	114.0E-03	114.0E-03	113.0E-03	113.0E-03	114.0E-03
ON samples									
SN2	114.0E-03	114.0E-03	113.0E-03	115.0E-03	114.0E-03	118.0E-03	116.0E-03	119.0E-03	126.0E-03
SN3	115.0E-03	115.0E-03	115.0E-03	115.0E-03	117.0E-03	119.0E-03	117.0E-03	120.0E-03	126.0E-03
SN4	114.0E-03	116.0E-03	115.0E-03	114.0E-03	116.0E-03	118.0E-03	117.0E-03	119.0E-03	127.0E-03
SN5	113.0E-03	113.0E-03	113.0E-03	114.0E-03	115.0E-03	116.0E-03	115.0E-03	116.0E-03	124.0E-03
SN6	114.0E-03	114.0E-03	115.0E-03	115.0E-03	117.0E-03	119.0E-03	118.0E-03	119.0E-03	127.0E-03
Statistics									
Min	113.0E-03	113.0E-03	113.0E-03	114.0E-03	114.0E-03	116.0E-03	115.0E-03	116.0E-03	124.0E-03
Max	115.0E-03	116.0E-03	115.0E-03	115.0E-03	117.0E-03	119.0E-03	118.0E-03	120.0E-03	127.0E-03
Average	114.0E-03	114.4E-03	114.2E-03	114.6E-03	115.8E-03	118.0E-03	116.6E-03	118.6E-03	126.0E-03
Sigma	632.5E-06	1.0E-03	979.8E-06	489.9E-06	1.2E-03	1.1E-03	1.0E-03	1.4E-03	1.1E-03

Drift Calculation

VOLD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	-1.0E-03	1.0E-03	0.0E+00	4.0E-03	2.0E-03	5.0E-03	12.0E-03
SN3	-	0.0E+00	0.0E+00	0.0E+00	2.0E-03	4.0E-03	2.0E-03	5.0E-03	11.0E-03
SN4	-	2.0E-03	1.0E-03	0.0E+00	2.0E-03	4.0E-03	3.0E-03	5.0E-03	13.0E-03
SN5	-	0.0E+00	0.0E+00	1.0E-03	2.0E-03	3.0E-03	2.0E-03	3.0E-03	11.0E-03
SN6	-	0.0E+00	1.0E-03	1.0E-03	3.0E-03	5.0E-03	4.0E-03	5.0E-03	13.0E-03
Average	-	400.0E-06	200.0E-06	600.0E-06	1.8E-03	4.0E-03	2.6E-03	4.6E-03	12.0E-03
Sigma	-	800.0E-06	748.3E-06	489.9E-06	979.8E-06	632.5E-06	800.0E-06	800.0E-06	894.4E-06

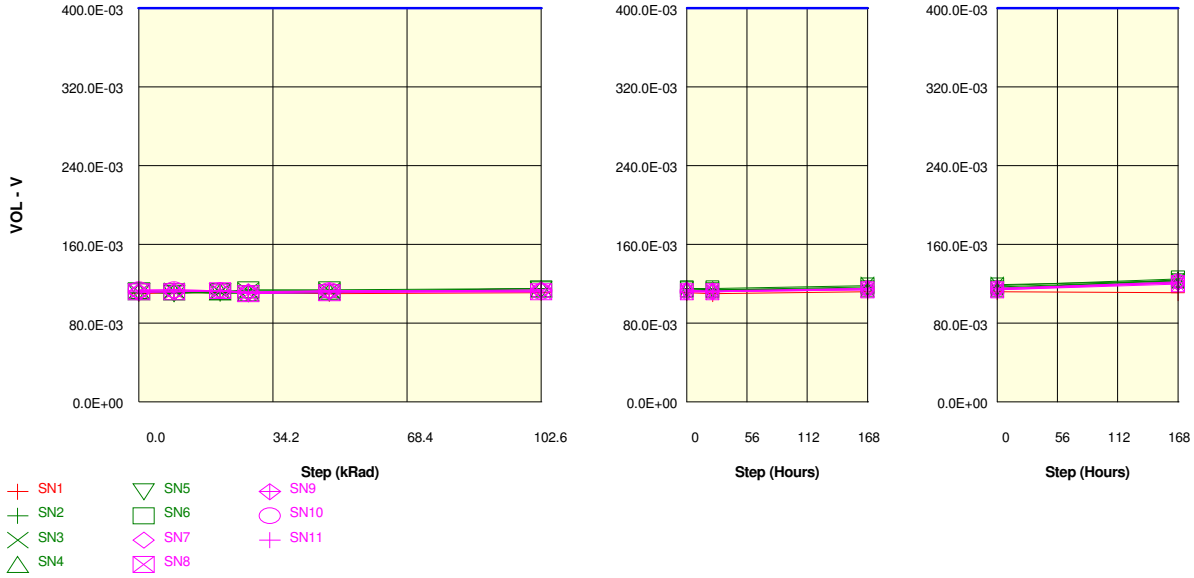
Measurements

VOLD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	112.0E-03	113.0E-03	113.0E-03	113.0E-03	114.0E-03	114.0E-03	113.0E-03	113.0E-03	114.0E-03
OFF samples									
SN7	114.0E-03	115.0E-03	115.0E-03	115.0E-03	114.0E-03	116.0E-03	115.0E-03	117.0E-03	124.0E-03
SN8	115.0E-03	114.0E-03	115.0E-03	113.0E-03	114.0E-03	115.0E-03	113.0E-03	116.0E-03	122.0E-03
SN9	114.0E-03	114.0E-03	114.0E-03	113.0E-03	116.0E-03	115.0E-03	114.0E-03	116.0E-03	123.0E-03
SN10	116.0E-03	116.0E-03	114.0E-03	113.0E-03	115.0E-03	115.0E-03	115.0E-03	116.0E-03	125.0E-03
SN11	116.0E-03	115.0E-03	115.0E-03	114.0E-03	116.0E-03	115.0E-03	115.0E-03	119.0E-03	123.0E-03
Statistics									
Min	114.0E-03	114.0E-03	114.0E-03	113.0E-03	114.0E-03	115.0E-03	113.0E-03	116.0E-03	122.0E-03
Max	116.0E-03	116.0E-03	115.0E-03	115.0E-03	116.0E-03	116.0E-03	115.0E-03	119.0E-03	125.0E-03
Average	115.0E-03	114.8E-03	114.6E-03	113.6E-03	115.0E-03	115.2E-03	114.4E-03	116.8E-03	123.4E-03
Sigma	894.4E-06	748.3E-06	489.9E-06	800.0E-06	894.4E-06	400.0E-06	800.0E-06	1.2E-03	1.0E-03

Drift Calculation

VOLD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1.0E-03	1.0E-03	1.0E-03	0.0E+00	2.0E-03	1.0E-03	3.0E-03	10.0E-03
SN8	-	-1.0E-03	0.0E+00	-2.0E-03	-1.0E-03	0.0E+00	-2.0E-03	1.0E-03	7.0E-03
SN9	-	0.0E+00	0.0E+00	-1.0E-03	2.0E-03	1.0E-03	0.0E+00	2.0E-03	9.0E-03
SN10	-	0.0E+00	-2.0E-03	-3.0E-03	-1.0E-03	-1.0E-03	-1.0E-03	0.0E+00	9.0E-03
SN11	-	-1.0E-03	-1.0E-03	-2.0E-03	0.0E+00	-1.0E-03	-1.0E-03	3.0E-03	7.0E-03
Average	-	-200.0E-06	-400.0E-06	-1.4E-03	0.0E+00	200.0E-06	-600.0E-06	1.8E-03	8.4E-03
Sigma	-	748.3E-06	1.0E-03	1.4E-03	1.1E-03	1.2E-03	1.0E-03	1.2E-03	1.2E-03

Parameter : logic output low voltage : VOLD10
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	110.0E-03	111.0E-03	111.0E-03	111.0E-03	110.0E-03	111.0E-03	110.0E-03	112.0E-03	111.0E-03
ON samples									
SN2	111.0E-03	112.0E-03	110.0E-03	111.0E-03	112.0E-03	115.0E-03	114.0E-03	117.0E-03	123.0E-03
SN3	112.0E-03	113.0E-03	112.0E-03	113.0E-03	113.0E-03			119.0E-03	123.0E-03
SN4	112.0E-03	112.0E-03	112.0E-03	111.0E-03	112.0E-03	115.0E-03	114.0E-03	115.0E-03	124.0E-03
SN5	112.0E-03	110.0E-03	112.0E-03	110.0E-03	111.0E-03	114.0E-03	113.0E-03	115.0E-03	122.0E-03
SN6	113.0E-03	112.0E-03	112.0E-03	114.0E-03	114.0E-03	115.0E-03	115.0E-03	118.0E-03	125.0E-03
Statistics									
Min	111.0E-03	110.0E-03	110.0E-03	110.0E-03	111.0E-03	114.0E-03	113.0E-03	115.0E-03	122.0E-03
Max	113.0E-03	113.0E-03	112.0E-03	114.0E-03	114.0E-03	115.0E-03	115.0E-03	119.0E-03	125.0E-03
Average	112.0E-03	111.8E-03	111.6E-03	111.8E-03	112.4E-03	114.8E-03	114.0E-03	116.8E-03	123.4E-03
Sigma	632.5E-06	979.8E-06	800.0E-06	1.5E-03	1.0E-03	433.0E-06	707.1E-06	1.6E-03	1.0E-03

Drift Calculation

VOLD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	1.0E-03	-1.0E-03	0.0E+00	1.0E-03	4.0E-03	3.0E-03	6.0E-03	12.0E-03
SN3	-	1.0E-03	0.0E+00	1.0E-03	1.0E-03			7.0E-03	11.0E-03
SN4	-	0.0E+00	0.0E+00	-1.0E-03	0.0E+00	3.0E-03	2.0E-03	3.0E-03	12.0E-03
SN5	-	-2.0E-03	0.0E+00	-2.0E-03	-1.0E-03	2.0E-03	1.0E-03	3.0E-03	10.0E-03
SN6	-	-1.0E-03	-1.0E-03	1.0E-03	1.0E-03	2.0E-03	2.0E-03	5.0E-03	12.0E-03
Average	-	-200.0E-06	-400.0E-06	-200.0E-06	400.0E-06	2.8E-03	2.0E-03	4.8E-03	11.4E-03
Sigma	-	1.2E-03	489.9E-06	1.2E-03	800.0E-06	829.2E-06	707.1E-06	1.6E-03	800.0E-06

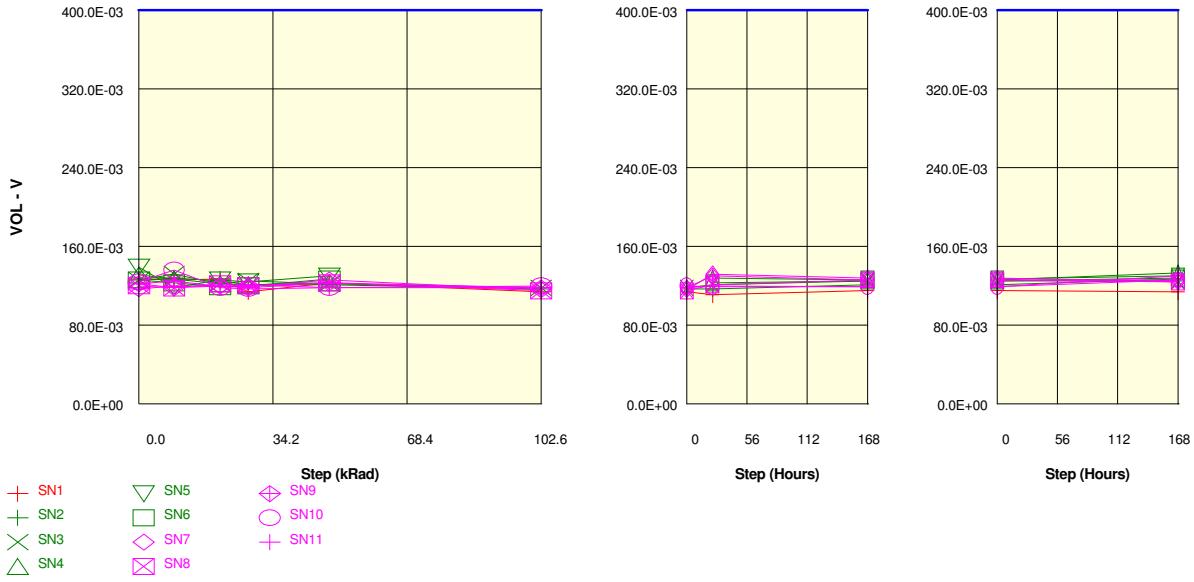
Measurements

VOLD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	110.0E-03	111.0E-03	111.0E-03	111.0E-03	110.0E-03	111.0E-03	110.0E-03	112.0E-03	111.0E-03
OFF samples									
SN7	111.0E-03	112.0E-03	113.0E-03	112.0E-03	113.0E-03	113.0E-03	113.0E-03	115.0E-03	121.0E-03
SN8	112.0E-03	112.0E-03	113.0E-03	110.0E-03	111.0E-03	112.0E-03	112.0E-03	114.0E-03	120.0E-03
SN9	112.0E-03	112.0E-03	113.0E-03	111.0E-03	112.0E-03	114.0E-03	112.0E-03	114.0E-03	121.0E-03
SN10	114.0E-03	114.0E-03	113.0E-03	110.0E-03	113.0E-03	112.0E-03	112.0E-03	115.0E-03	122.0E-03
SN11	113.0E-03	114.0E-03	113.0E-03	111.0E-03	113.0E-03	112.0E-03	112.0E-03	115.0E-03	121.0E-03
Statistics									
Min	111.0E-03	112.0E-03	113.0E-03	110.0E-03	111.0E-03	112.0E-03	112.0E-03	114.0E-03	120.0E-03
Max	114.0E-03	114.0E-03	113.0E-03	112.0E-03	113.0E-03	114.0E-03	113.0E-03	115.0E-03	122.0E-03
Average	112.4E-03	112.8E-03	113.0E-03	110.8E-03	112.4E-03	112.6E-03	112.2E-03	114.6E-03	121.0E-03
Sigma	1.0E-03	979.8E-06	2.1E-09	748.3E-06	800.0E-06	800.0E-06	400.0E-06	489.9E-06	632.5E-06

Drift Calculation

VOLD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1.0E-03	2.0E-03	1.0E-03	2.0E-03	2.0E-03	2.0E-03	4.0E-03	10.0E-03
SN8	-	0.0E+00	1.0E-03	-2.0E-03	-1.0E-03	0.0E+00	0.0E+00	2.0E-03	8.0E-03
SN9	-	0.0E+00	1.0E-03	-1.0E-03	0.0E+00	2.0E-03	0.0E+00	2.0E-03	9.0E-03
SN10	-	0.0E+00	-1.0E-03	-4.0E-03	-1.0E-03	-2.0E-03	-2.0E-03	1.0E-03	8.0E-03
SN11	-	1.0E-03	0.0E+00	-2.0E-03	0.0E+00	-1.0E-03	-1.0E-03	2.0E-03	8.0E-03
Average	-	400.0E-06	600.0E-06	-1.6E-03	0.0E+00	200.0E-06	-200.0E-06	2.2E-03	8.6E-03
Sigma	-	489.9E-06	1.0E-03	1.6E-03	1.1E-03	1.6E-03	1.3E-03	979.8E-06	800.0E-06

Parameter : logic output low voltage : VOLD9
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	127.0E-03	126.0E-03	127.0E-03	114.0E-03	123.0E-03	114.0E-03	111.0E-03	115.0E-03	114.0E-03
ON samples									
SN2	126.0E-03	128.0E-03	125.0E-03	121.0E-03	121.0E-03	117.0E-03	117.0E-03	121.0E-03	127.0E-03
SN3	126.0E-03	132.0E-03	122.0E-03	125.0E-03	122.0E-03	118.0E-03	121.0E-03	125.0E-03	125.0E-03
SN4	131.0E-03	127.0E-03	122.0E-03	121.0E-03	123.0E-03		128.0E-03	126.0E-03	133.0E-03
SN5	139.0E-03	118.0E-03	126.0E-03	124.0E-03	130.0E-03			127.0E-03	130.0E-03
SN6	126.0E-03	123.0E-03	119.0E-03	120.0E-03	127.0E-03		123.0E-03	125.0E-03	128.0E-03
Statistics									
Min	126.0E-03	118.0E-03	119.0E-03	120.0E-03	121.0E-03	117.0E-03	117.0E-03	121.0E-03	125.0E-03
Max	139.0E-03	132.0E-03	126.0E-03	125.0E-03	130.0E-03	118.0E-03	128.0E-03	127.0E-03	133.0E-03
Average	129.6E-03	125.6E-03	122.8E-03	122.2E-03	124.6E-03	117.5E-03	122.3E-03	124.8E-03	128.6E-03
Sigma	5.1E-03	4.8E-03	2.5E-03	1.9E-03	3.4E-03	500.0E-06	4.0E-03	2.0E-03	2.7E-03

Drift Calculation

VOLD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	2.0E-03	-1.0E-03	-5.0E-03	-5.0E-03	-9.0E-03	-9.0E-03	-5.0E-03	1.0E-03
SN3	-	6.0E-03	-4.0E-03	-1.0E-03	-4.0E-03	-8.0E-03	-5.0E-03	-1.0E-03	-1.0E-03
SN4	-	-4.0E-03	-9.0E-03	-10.0E-03	-8.0E-03		-3.0E-03	-5.0E-03	2.0E-03
SN5	-	-21.0E-03	-13.0E-03	-15.0E-03	-9.0E-03			-12.0E-03	-9.0E-03
SN6	-	-3.0E-03	-7.0E-03	-6.0E-03	1.0E-03		-3.0E-03	-1.0E-03	2.0E-03
Average	-	-4.0E-03	-6.8E-03	-7.4E-03	-5.0E-03	-8.5E-03	-5.0E-03	-4.8E-03	-1.0E-03
Sigma	-	9.2E-03	4.1E-03	4.8E-03	3.5E-03	500.0E-06	2.4E-03	4.0E-03	4.1E-03

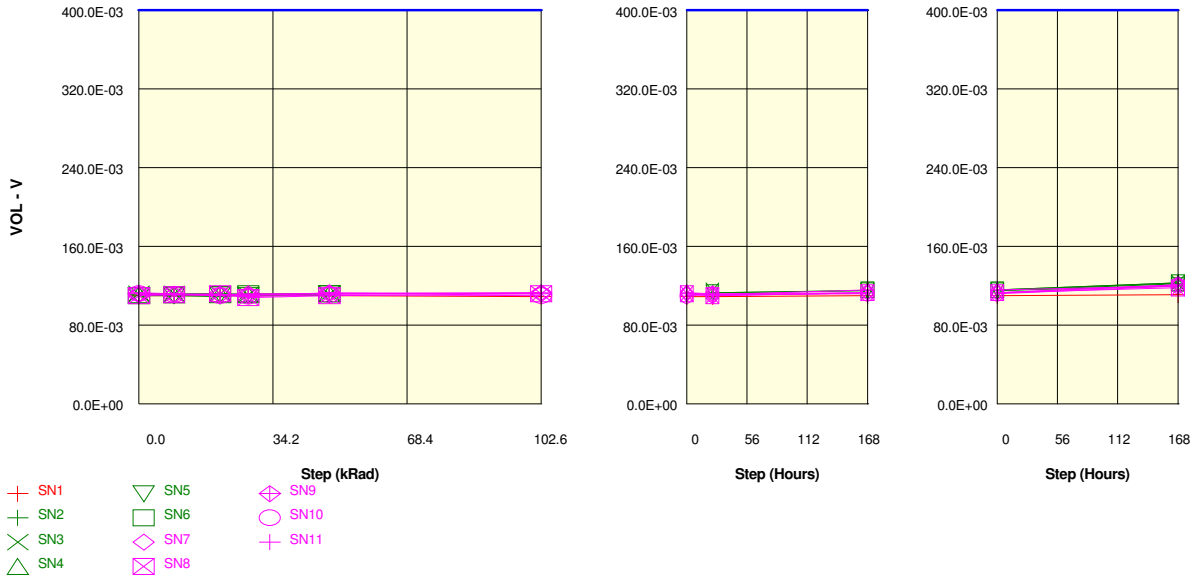
Measurements

VOLD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	127.0E-03	126.0E-03	127.0E-03	114.0E-03	123.0E-03	114.0E-03	111.0E-03	115.0E-03	114.0E-03
OFF samples									
SN7	122.0E-03	118.0E-03	120.0E-03	119.0E-03	126.0E-03	116.0E-03	132.0E-03	128.0E-03	124.0E-03
SN8	120.0E-03	118.0E-03	122.0E-03	120.0E-03	123.0E-03	115.0E-03	121.0E-03	126.0E-03	124.0E-03
SN9	117.0E-03	120.0E-03	120.0E-03	118.0E-03	123.0E-03	118.0E-03	130.0E-03	126.0E-03	126.0E-03
SN10	124.0E-03	136.0E-03	118.0E-03	117.0E-03	118.0E-03	120.0E-03	119.0E-03	119.0E-03	126.0E-03
SN11	122.0E-03	125.0E-03	119.0E-03	121.0E-03	118.0E-03	118.0E-03	120.0E-03	119.0E-03	130.0E-03
Statistics									
Min	117.0E-03	118.0E-03	118.0E-03	117.0E-03	118.0E-03	115.0E-03	119.0E-03	119.0E-03	124.0E-03
Max	124.0E-03	136.0E-03	122.0E-03	121.0E-03	126.0E-03	120.0E-03	132.0E-03	128.0E-03	130.0E-03
Average	121.0E-03	123.4E-03	119.8E-03	119.0E-03	121.6E-03	117.4E-03	124.4E-03	123.6E-03	126.0E-03
Sigma	2.4E-03	6.8E-03	1.3E-03	1.4E-03	3.1E-03	1.7E-03	5.5E-03	3.8E-03	2.2E-03

Drift Calculation

VOLD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-4.0E-03	-2.0E-03	-3.0E-03	4.0E-03	-6.0E-03	10.0E-03	6.0E-03	2.0E-03
SN8	-	-2.0E-03	2.0E-03	0.0E+00	3.0E-03	-5.0E-03	1.0E-03	6.0E-03	4.0E-03
SN9	-	3.0E-03	3.0E-03	1000.0E-06	6.0E-03	1000.0E-06	13.0E-03	9.0E-03	9.0E-03
SN10	-	12.0E-03	-6.0E-03	-7.0E-03	-6.0E-03	-4.0E-03	-5.0E-03	-5.0E-03	2.0E-03
SN11	-	3.0E-03	-3.0E-03	-1.0E-03	-4.0E-03	-4.0E-03	-2.0E-03	-3.0E-03	8.0E-03
Average	-	2.4E-03	-1.2E-03	-2.0E-03	600.0E-06	-3.6E-03	3.4E-03	2.6E-03	5.0E-03
Sigma	-	5.5E-03	3.3E-03	2.8E-03	4.7E-03	2.4E-03	6.9E-03	5.5E-03	3.0E-03

Parameter : logic output low voltage : VOLD8
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	110.0E-03	110.0E-03	110.0E-03	111.0E-03	110.0E-03	109.0E-03	109.0E-03	110.0E-03	111.0E-03
ON samples									
SN2	111.0E-03	110.0E-03	109.0E-03	111.0E-03	110.0E-03		113.0E-03	115.0E-03	122.0E-03
SN3	112.0E-03	112.0E-03	112.0E-03	111.0E-03	112.0E-03		115.0E-03		123.0E-03
SN4	111.0E-03	111.0E-03	112.0E-03	111.0E-03	112.0E-03			116.0E-03	123.0E-03
SN5	110.0E-03	110.0E-03	111.0E-03	110.0E-03	112.0E-03		113.0E-03	115.0E-03	120.0E-03
SN6	110.0E-03	111.0E-03	111.0E-03	112.0E-03	112.0E-03			116.0E-03	123.0E-03
Statistics									
Min	110.0E-03	110.0E-03	109.0E-03	110.0E-03	110.0E-03	-	113.0E-03	115.0E-03	120.0E-03
Max	112.0E-03	112.0E-03	112.0E-03	112.0E-03	112.0E-03	-	115.0E-03	116.0E-03	123.0E-03
Average	110.8E-03	110.8E-03	111.0E-03	111.0E-03	111.6E-03	-	113.7E-03	115.5E-03	122.2E-03
Sigma	748.3E-06	748.3E-06	1.1E-03	632.5E-06	800.0E-06	-	942.8E-06	500.0E-06	1.2E-03

Drift Calculation

VOLD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-1.0E-03	-2.0E-03	0.0E+00	-1.0E-03		2.0E-03	4.0E-03	11.0E-03
SN3	-	0.0E+00	0.0E+00	-1.0E-03	0.0E+00		3.0E-03		11.0E-03
SN4	-	0.0E+00	1.0E-03	0.0E+00	1.0E-03			5.0E-03	12.0E-03
SN5	-	0.0E+00	1.0E-03	0.0E+00	2.0E-03		3.0E-03	5.0E-03	10.0E-03
SN6	-	1.0E-03	1.0E-03	2.0E-03	2.0E-03			6.0E-03	13.0E-03
Average	-	0.0E+00	200.0E-06	200.0E-06	800.0E-06		2.7E-03	5.0E-03	11.4E-03
Sigma	-	632.5E-06	1.2E-03	979.8E-06	1.2E-03		471.4E-06	707.1E-06	1.0E-03

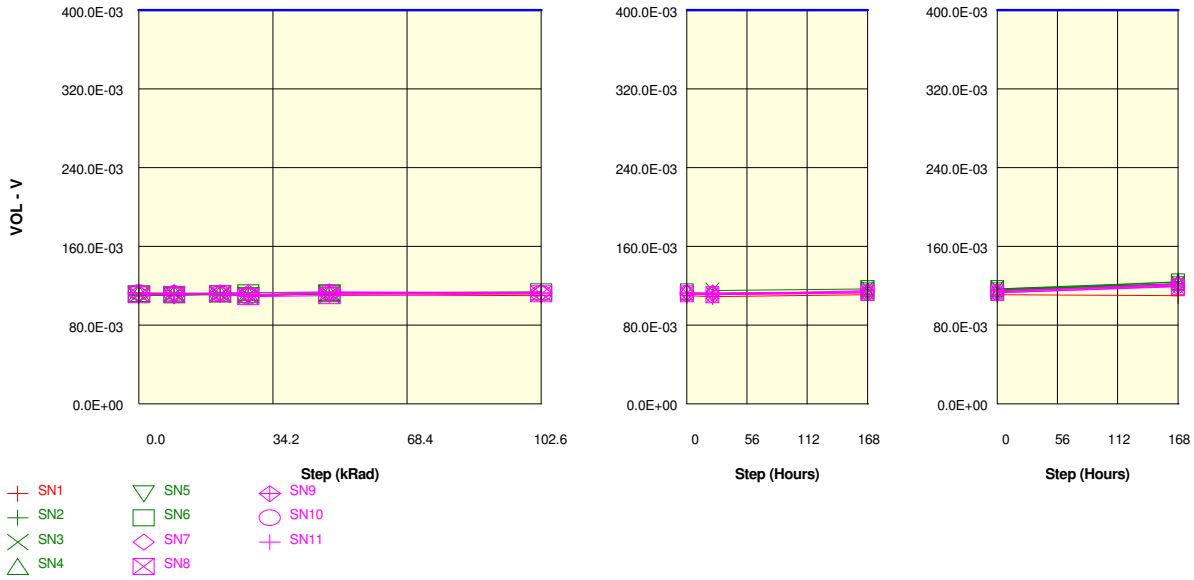
Measurements

VOLD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	110.0E-03	110.0E-03	110.0E-03	111.0E-03	110.0E-03	109.0E-03	109.0E-03	110.0E-03	111.0E-03
OFF samples									
SN7	111.0E-03	111.0E-03	111.0E-03	112.0E-03	112.0E-03	113.0E-03	112.0E-03	113.0E-03	121.0E-03
SN8	110.0E-03	111.0E-03	112.0E-03	108.0E-03	110.0E-03	112.0E-03	110.0E-03	113.0E-03	118.0E-03
SN9	112.0E-03	111.0E-03	111.0E-03	110.0E-03	113.0E-03	112.0E-03	110.0E-03	113.0E-03	121.0E-03
SN10	112.0E-03	111.0E-03	110.0E-03	109.0E-03	111.0E-03	110.0E-03	111.0E-03	112.0E-03	120.0E-03
SN11	113.0E-03	112.0E-03	111.0E-03	111.0E-03	112.0E-03	113.0E-03	111.0E-03	116.0E-03	120.0E-03
Statistics									
Min	110.0E-03	111.0E-03	110.0E-03	108.0E-03	110.0E-03	110.0E-03	110.0E-03	112.0E-03	118.0E-03
Max	113.0E-03	112.0E-03	112.0E-03	112.0E-03	113.0E-03	113.0E-03	112.0E-03	116.0E-03	121.0E-03
Average	111.6E-03	111.2E-03	111.0E-03	110.0E-03	111.6E-03	112.0E-03	110.8E-03	113.4E-03	120.0E-03
Sigma	1.0E-03	400.0E-06	632.5E-06	1.4E-03	1.0E-03	1.1E-03	748.3E-06	1.4E-03	1.1E-03

Drift Calculation

VOLD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	0.0E+00	1.0E-03	1.0E-03	2.0E-03	1.0E-03	2.0E-03	10.0E-03
SN8	-	1.0E-03	2.0E-03	-2.0E-03	0.0E+00	2.0E-03	0.0E+00	3.0E-03	8.0E-03
SN9	-	-1.0E-03	-1.0E-03	-2.0E-03	1.0E-03	0.0E+00	-2.0E-03	1.0E-03	9.0E-03
SN10	-	-1.0E-03	-2.0E-03	-3.0E-03	-1.0E-03	-2.0E-03	-1.0E-03	0.0E+00	8.0E-03
SN11	-	-1.0E-03	-2.0E-03	-2.0E-03	-1.0E-03	0.0E+00	-2.0E-03	3.0E-03	7.0E-03
Average	-	-400.0E-06	-600.0E-06	-1.6E-03	0.0E+00	400.0E-06	-800.0E-06	1.8E-03	8.4E-03
Sigma	-	800.0E-06	1.5E-03	1.4E-03	894.4E-06	1.5E-03	1.2E-03	1.2E-03	1.0E-03

Parameter : logic output low voltage : VOLD7
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	110.0E-03	111.0E-03	111.0E-03	111.0E-03	111.0E-03	110.0E-03	109.0E-03	111.0E-03	110.0E-03
ON samples									
SN2	111.0E-03	111.0E-03	111.0E-03	111.0E-03	112.0E-03			116.0E-03	122.0E-03
SN3	111.0E-03	112.0E-03	111.0E-03	111.0E-03	112.0E-03		115.0E-03	117.0E-03	122.0E-03
SN4	112.0E-03	112.0E-03	112.0E-03	111.0E-03	112.0E-03			115.0E-03	124.0E-03
SN5	111.0E-03	110.0E-03	112.0E-03	110.0E-03	112.0E-03			115.0E-03	121.0E-03
SN6	112.0E-03	111.0E-03	112.0E-03	113.0E-03	113.0E-03	114.0E-03		117.0E-03	124.0E-03
Statistics									
Min	111.0E-03	110.0E-03	111.0E-03	110.0E-03	112.0E-03	114.0E-03	115.0E-03	115.0E-03	121.0E-03
Max	112.0E-03	112.0E-03	112.0E-03	113.0E-03	113.0E-03	114.0E-03	115.0E-03	117.0E-03	124.0E-03
Average	111.4E-03	111.2E-03	111.6E-03	111.2E-03	112.2E-03	114.0E-03	115.0E-03	116.0E-03	122.6E-03
Sigma	489.9E-06	748.3E-06	489.9E-06	979.8E-06	400.0E-06	0.0E+00	0.0E+00	894.4E-06	1.2E-03

Drift Calculation

VOLD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	0.0E+00	0.0E+00	1.0E-03			5.0E-03	11.0E-03
SN3	-	1.0E-03	0.0E+00	0.0E+00	1.0E-03		4.0E-03	6.0E-03	11.0E-03
SN4	-	0.0E+00	0.0E+00	-1.0E-03	0.0E+00			3.0E-03	12.0E-03
SN5	-	-1.0E-03	1.0E-03	-1.0E-03	1.0E-03			4.0E-03	10.0E-03
SN6	-	-1.0E-03	0.0E+00	1.0E-03	1.0E-03	2.0E-03		5.0E-03	12.0E-03
Average	-	-200.0E-06	200.0E-06	-200.0E-06	800.0E-06	2.0E-03	4.0E-03	4.6E-03	11.2E-03
Sigma	-	748.3E-06	400.0E-06	748.3E-06	400.0E-06	0.0E+00	0.0E+00	1.0E-03	748.3E-06

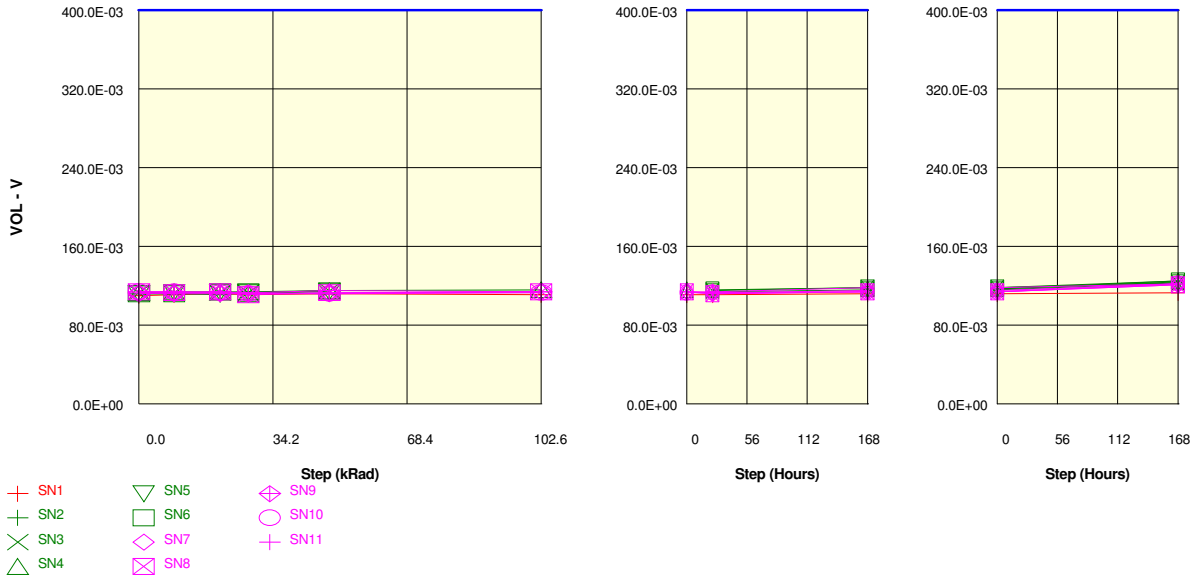
Measurements

VOLD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	110.0E-03	111.0E-03	111.0E-03	111.0E-03	111.0E-03	110.0E-03	109.0E-03	111.0E-03	110.0E-03
OFF samples									
SN7	112.0E-03	112.0E-03	113.0E-03	113.0E-03	114.0E-03	113.0E-03	113.0E-03	114.0E-03	121.0E-03
SN8	111.0E-03	111.0E-03	112.0E-03	109.0E-03	110.0E-03	112.0E-03	111.0E-03	113.0E-03	119.0E-03
SN9	112.0E-03	113.0E-03	112.0E-03	111.0E-03	112.0E-03	113.0E-03	112.0E-03	114.0E-03	122.0E-03
SN10	113.0E-03	112.0E-03	112.0E-03	109.0E-03	113.0E-03	112.0E-03	111.0E-03	113.0E-03	120.0E-03
SN11	113.0E-03	112.0E-03	112.0E-03	110.0E-03	113.0E-03	112.0E-03	111.0E-03	115.0E-03	120.0E-03
Statistics									
Min	111.0E-03	111.0E-03	112.0E-03	109.0E-03	110.0E-03	112.0E-03	111.0E-03	113.0E-03	119.0E-03
Max	113.0E-03	113.0E-03	113.0E-03	113.0E-03	114.0E-03	113.0E-03	113.0E-03	115.0E-03	122.0E-03
Average	112.2E-03	112.0E-03	112.2E-03	110.4E-03	112.4E-03	112.4E-03	111.6E-03	113.8E-03	120.4E-03
Sigma	748.3E-06	632.5E-06	400.0E-06	1.5E-03	1.4E-03	489.9E-06	800.0E-06	748.3E-06	1.0E-03

Drift Calculation

VOLD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	1.0E-03	1.0E-03	2.0E-03	1.0E-03	1.0E-03	2.0E-03	9.0E-03
SN8	-	0.0E+00	1.0E-03	-2.0E-03	-1.0E-03	1.0E-03	0.0E+00	2.0E-03	8.0E-03
SN9	-	1.0E-03	0.0E+00	-1.0E-03	0.0E+00	1.0E-03	0.0E+00	2.0E-03	10.0E-03
SN10	-	-1.0E-03	-1.0E-03	-4.0E-03	0.0E+00	-1.0E-03	-2.0E-03	0.0E+00	7.0E-03
SN11	-	-1.0E-03	-1.0E-03	-3.0E-03	0.0E+00	-1.0E-03	-2.0E-03	2.0E-03	7.0E-03
Average	-	-200.0E-06	0.0E+00	-1.8E-03	200.0E-06	200.0E-06	-600.0E-06	1.6E-03	8.2E-03
Sigma	-	748.3E-06	894.4E-06	1.7E-03	979.8E-06	979.8E-06	1.2E-03	800.0E-06	1.2E-03

Parameter : logic output low voltage : VOLD6
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	110.0E-03	111.0E-03	112.0E-03	111.0E-03	112.0E-03	111.0E-03	111.0E-03	112.0E-03	113.0E-03
ON samples									
SN2	112.0E-03	112.0E-03	111.0E-03	113.0E-03	112.0E-03			117.0E-03	124.0E-03
SN3	113.0E-03	113.0E-03	113.0E-03	113.0E-03	115.0E-03		115.0E-03	118.0E-03	123.0E-03
SN4	113.0E-03	114.0E-03	114.0E-03	112.0E-03	115.0E-03	116.0E-03		117.0E-03	125.0E-03
SN5	112.0E-03	113.0E-03	113.0E-03	113.0E-03	114.0E-03		114.0E-03	116.0E-03	123.0E-03
SN6	112.0E-03	112.0E-03	114.0E-03	114.0E-03	115.0E-03		116.0E-03	118.0E-03	125.0E-03
Statistics									
Min	112.0E-03	112.0E-03	111.0E-03	112.0E-03	112.0E-03	116.0E-03	114.0E-03	116.0E-03	123.0E-03
Max	113.0E-03	114.0E-03	114.0E-03	114.0E-03	115.0E-03	116.0E-03	116.0E-03	118.0E-03	125.0E-03
Average	112.4E-03	112.8E-03	113.0E-03	113.0E-03	114.2E-03	116.0E-03	115.0E-03	117.2E-03	124.0E-03
Sigma	489.9E-06	748.3E-06	1.1E-03	632.5E-06	1.2E-03	0.0E+00	816.5E-06	748.3E-06	894.4E-06

Drift Calculation

VOLD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	-1.0E-03	1.0E-03	0.0E+00			5.0E-03	12.0E-03
SN3	-	0.0E+00	0.0E+00	0.0E+00	2.0E-03		2.0E-03	5.0E-03	10.0E-03
SN4	-	1.0E-03	1.0E-03	-1.0E-03	2.0E-03	3.0E-03		4.0E-03	12.0E-03
SN5	-	1.0E-03	1.0E-03	1.0E-03	2.0E-03		2.0E-03	4.0E-03	11.0E-03
SN6	-	0.0E+00	2.0E-03	2.0E-03	3.0E-03		4.0E-03	6.0E-03	13.0E-03
Average	-	400.0E-06	600.0E-06	600.0E-06	1.8E-03	3.0E-03	2.7E-03	4.8E-03	11.6E-03
Sigma	-	489.9E-06	1.0E-03	1.0E-03	979.8E-06	0.0E+00	942.8E-06	748.3E-06	1.0E-03

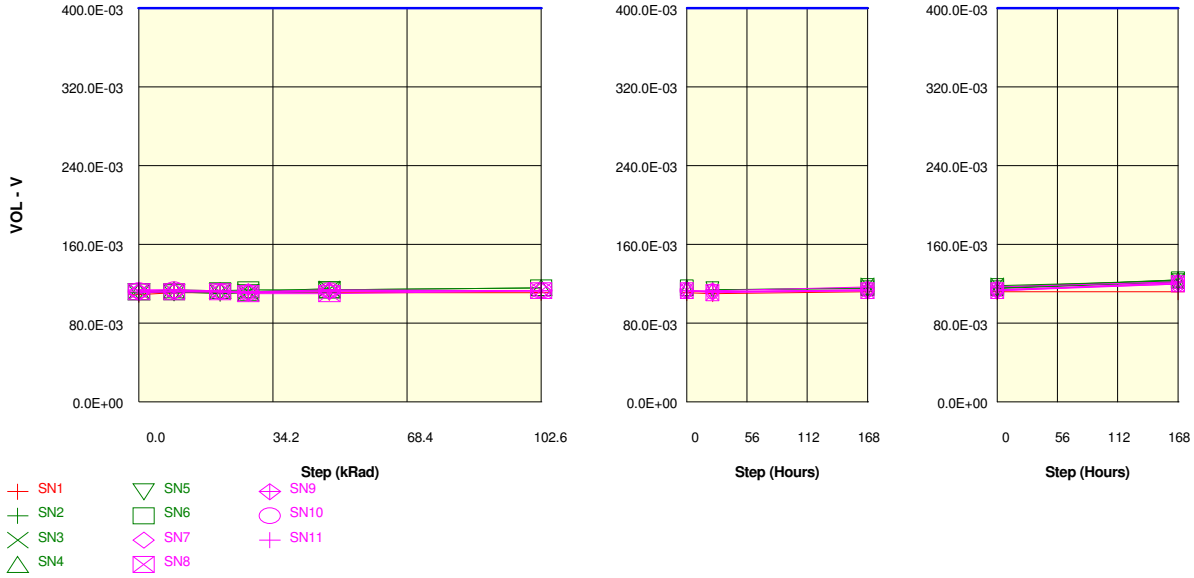
Measurements

VOLD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	110.0E-03	111.0E-03	112.0E-03	111.0E-03	112.0E-03	111.0E-03	111.0E-03	112.0E-03	113.0E-03
OFF samples									
SN7	112.0E-03	113.0E-03	113.0E-03	113.0E-03	112.0E-03	114.0E-03	113.0E-03	115.0E-03	122.0E-03
SN8	114.0E-03	113.0E-03	114.0E-03	111.0E-03	113.0E-03	114.0E-03	112.0E-03	114.0E-03	121.0E-03
SN9	113.0E-03	112.0E-03	112.0E-03	112.0E-03	113.0E-03	114.0E-03	112.0E-03	114.0E-03	121.0E-03
SN10	114.0E-03	114.0E-03	113.0E-03	112.0E-03	112.0E-03	113.0E-03	113.0E-03	114.0E-03	122.0E-03
SN11	114.0E-03	114.0E-03	114.0E-03	113.0E-03	115.0E-03	114.0E-03	114.0E-03	118.0E-03	122.0E-03
Statistics									
Min	112.0E-03	112.0E-03	112.0E-03	111.0E-03	112.0E-03	113.0E-03	112.0E-03	114.0E-03	121.0E-03
Max	114.0E-03	114.0E-03	114.0E-03	113.0E-03	115.0E-03	114.0E-03	114.0E-03	118.0E-03	122.0E-03
Average	113.4E-03	113.2E-03	113.2E-03	112.2E-03	113.0E-03	113.8E-03	112.8E-03	115.0E-03	121.6E-03
Sigma	800.0E-06	748.3E-06	748.3E-06	748.3E-06	1.1E-03	400.0E-06	748.3E-06	1.5E-03	489.9E-06

Drift Calculation

VOLD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1.0E-03	1.0E-03	1.0E-03	0.0E+00	2.0E-03	1.0E-03	3.0E-03	10.0E-03
SN8	-	-1.0E-03	0.0E+00	-3.0E-03	-1.0E-03	0.0E+00	-2.0E-03	0.0E+00	7.0E-03
SN9	-	-1.0E-03	-1.0E-03	-1.0E-03	0.0E+00	1.0E-03	-1.0E-03	1.0E-03	8.0E-03
SN10	-	0.0E+00	-1.0E-03	-2.0E-03	-2.0E-03	-1.0E-03	-1.0E-03	0.0E+00	8.0E-03
SN11	-	0.0E+00	0.0E+00	-1.0E-03	1.0E-03	0.0E+00	0.0E+00	4.0E-03	8.0E-03
Average	-	-200.0E-06	-200.0E-06	-1.2E-03	-400.0E-06	400.0E-06	-600.0E-06	1.6E-03	8.2E-03
Sigma	-	748.3E-06	748.3E-06	1.3E-03	1.0E-03	1.0E-03	1.0E-03	1.6E-03	979.8E-06

Parameter : logic output low voltage : VOLD5
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	109.0E-03	111.0E-03	111.0E-03	111.0E-03	111.0E-03	111.0E-03	110.0E-03	112.0E-03	112.0E-03
ON samples									
SN2	111.0E-03	112.0E-03	110.0E-03	111.0E-03	112.0E-03		114.0E-03	116.0E-03	122.0E-03
SN3	112.0E-03	112.0E-03	112.0E-03	112.0E-03	115.0E-03			118.0E-03	123.0E-03
SN4	112.0E-03	114.0E-03	113.0E-03	111.0E-03	114.0E-03	116.0E-03		116.0E-03	124.0E-03
SN5	112.0E-03	111.0E-03	112.0E-03	111.0E-03	114.0E-03		114.0E-03	115.0E-03	122.0E-03
SN6	112.0E-03	112.0E-03	113.0E-03	114.0E-03	114.0E-03	116.0E-03		117.0E-03	124.0E-03
Statistics									
Min	111.0E-03	111.0E-03	110.0E-03	111.0E-03	112.0E-03	116.0E-03	114.0E-03	115.0E-03	122.0E-03
Max	112.0E-03	114.0E-03	113.0E-03	114.0E-03	115.0E-03	116.0E-03	114.0E-03	118.0E-03	124.0E-03
Average	111.8E-03	112.2E-03	112.0E-03	111.8E-03	113.8E-03	116.0E-03	114.0E-03	116.4E-03	123.0E-03
Sigma	400.0E-06	979.8E-06	1.1E-03	1.2E-03	979.8E-06	0.0E+00	0.0E+00	1.0E-03	894.4E-06

Drift Calculation

VOLD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	1.0E-03	-1.0E-03	0.0E+00	1.0E-03		3.0E-03	5.0E-03	11.0E-03
SN3	-	0.0E+00	0.0E+00	0.0E+00	3.0E-03			6.0E-03	11.0E-03
SN4	-	2.0E-03	1.0E-03	-1.0E-03	2.0E-03	4.0E-03		4.0E-03	12.0E-03
SN5	-	-1.0E-03	0.0E+00	-1.0E-03	2.0E-03		2.0E-03	3.0E-03	10.0E-03
SN6	-	0.0E+00	1.0E-03	2.0E-03	2.0E-03	4.0E-03		5.0E-03	12.0E-03
Average	-	400.0E-06	200.0E-06	0.0E+00	2.0E-03	4.0E-03	2.5E-03	4.6E-03	11.2E-03
Sigma	-	1.0E-03	748.3E-06	1.1E-03	632.5E-06	0.0E+00	500.0E-06	1.0E-03	748.3E-06

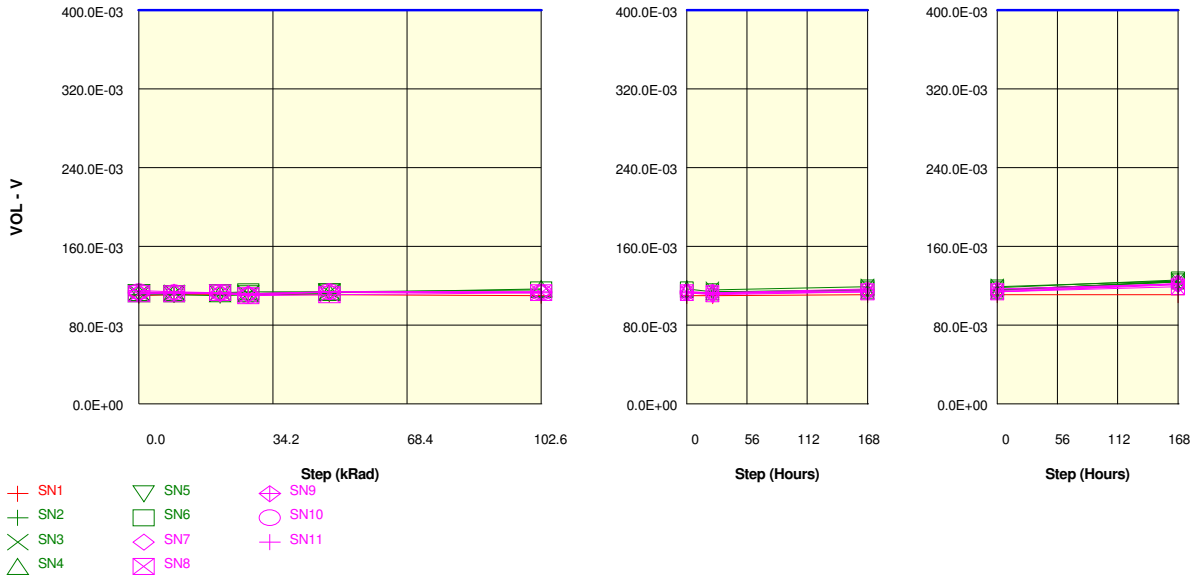
Measurements

VOLD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	109.0E-03	111.0E-03	111.0E-03	111.0E-03	111.0E-03	111.0E-03	110.0E-03	112.0E-03	112.0E-03
OFF samples									
SN7	111.0E-03	112.0E-03	112.0E-03	112.0E-03	113.0E-03	113.0E-03	112.0E-03	114.0E-03	121.0E-03
SN8	112.0E-03	112.0E-03	112.0E-03	110.0E-03	110.0E-03	113.0E-03	111.0E-03	113.0E-03	120.0E-03
SN9	112.0E-03	112.0E-03	112.0E-03	111.0E-03	112.0E-03	113.0E-03	112.0E-03	113.0E-03	121.0E-03
SN10	113.0E-03	114.0E-03	112.0E-03	111.0E-03	113.0E-03	113.0E-03	112.0E-03	114.0E-03	120.0E-03
SN11	114.0E-03	114.0E-03	113.0E-03	112.0E-03	114.0E-03	113.0E-03	113.0E-03	117.0E-03	122.0E-03
Statistics									
Min	111.0E-03	112.0E-03	112.0E-03	110.0E-03	110.0E-03	113.0E-03	111.0E-03	113.0E-03	120.0E-03
Max	114.0E-03	114.0E-03	113.0E-03	112.0E-03	114.0E-03	113.0E-03	113.0E-03	117.0E-03	122.0E-03
Average	112.4E-03	112.8E-03	112.2E-03	111.2E-03	112.4E-03	113.0E-03	112.0E-03	114.2E-03	120.8E-03
Sigma	1.0E-03	979.8E-06	400.0E-06	748.3E-06	1.4E-03	2.1E-09	632.5E-06	1.5E-03	748.3E-06

Drift Calculation

VOLD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1.0E-03	1.0E-03	1.0E-03	2.0E-03	2.0E-03	1.0E-03	3.0E-03	10.0E-03
SN8	-	0.0E+00	0.0E+00	-2.0E-03	-2.0E-03	1.0E-03	-1.0E-03	1.0E-03	8.0E-03
SN9	-	0.0E+00	0.0E+00	-1.0E-03	0.0E+00	1.0E-03	0.0E+00	1.0E-03	9.0E-03
SN10	-	1.0E-03	-1.0E-03	-2.0E-03	0.0E+00	0.0E+00	-1.0E-03	1.0E-03	7.0E-03
SN11	-	0.0E+00	-1.0E-03	-2.0E-03	0.0E+00	-1.0E-03	-1.0E-03	3.0E-03	8.0E-03
Average	-	400.0E-06	-200.0E-06	-1.2E-03	0.0E+00	600.0E-06	-400.0E-06	1.8E-03	8.4E-03
Sigma	-	489.9E-06	748.3E-06	1.2E-03	1.3E-03	1.0E-03	800.0E-06	979.8E-06	1.0E-03

Parameter : logic output low voltage : VOLD4
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	110.0E-03	111.0E-03	111.0E-03	111.0E-03	111.0E-03	110.0E-03	110.0E-03	111.0E-03	111.0E-03
ON samples									
SN2	111.0E-03	111.0E-03	110.0E-03	111.0E-03	112.0E-03		113.0E-03	116.0E-03	124.0E-03
SN3	113.0E-03	113.0E-03	113.0E-03	112.0E-03	114.0E-03		116.0E-03	119.0E-03	125.0E-03
SN4	112.0E-03	113.0E-03	112.0E-03	112.0E-03	113.0E-03	117.0E-03	114.0E-03	115.0E-03	125.0E-03
SN5	113.0E-03	112.0E-03	113.0E-03	112.0E-03	114.0E-03		114.0E-03	116.0E-03	124.0E-03
SN6	113.0E-03	112.0E-03	113.0E-03	114.0E-03	114.0E-03	116.0E-03		118.0E-03	126.0E-03
Statistics									
Min	111.0E-03	111.0E-03	110.0E-03	111.0E-03	112.0E-03	116.0E-03	113.0E-03	115.0E-03	124.0E-03
Max	113.0E-03	113.0E-03	113.0E-03	114.0E-03	114.0E-03	117.0E-03	116.0E-03	119.0E-03	126.0E-03
Average	112.4E-03	112.2E-03	112.2E-03	112.2E-03	113.4E-03	116.5E-03	114.3E-03	116.8E-03	124.8E-03
Sigma	800.0E-06	748.3E-06	1.2E-03	979.8E-06	800.0E-06	500.0E-06	1.1E-03	1.5E-03	748.3E-06

Drift Calculation

VOLD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	-1.0E-03	0.0E+00	1.0E-03		2.0E-03	5.0E-03	13.0E-03
SN3	-	0.0E+00	0.0E+00	-1.0E-03	1.0E-03		3.0E-03	6.0E-03	12.0E-03
SN4	-	1.0E-03	0.0E+00	0.0E+00	1.0E-03	5.0E-03	2.0E-03	3.0E-03	13.0E-03
SN5	-	-1.0E-03	0.0E+00	-1.0E-03	1.0E-03		1.0E-03	3.0E-03	11.0E-03
SN6	-	-1.0E-03	0.0E+00	1.0E-03	1.0E-03	3.0E-03		5.0E-03	13.0E-03
Average	-	-200.0E-06	-200.0E-06	-200.0E-06	1.0E-03	4.0E-03	2.0E-03	4.4E-03	12.4E-03
Sigma	-	748.3E-06	400.0E-06	748.3E-06	9.2E-12	1.0E-03	707.1E-06	1.2E-03	800.0E-06

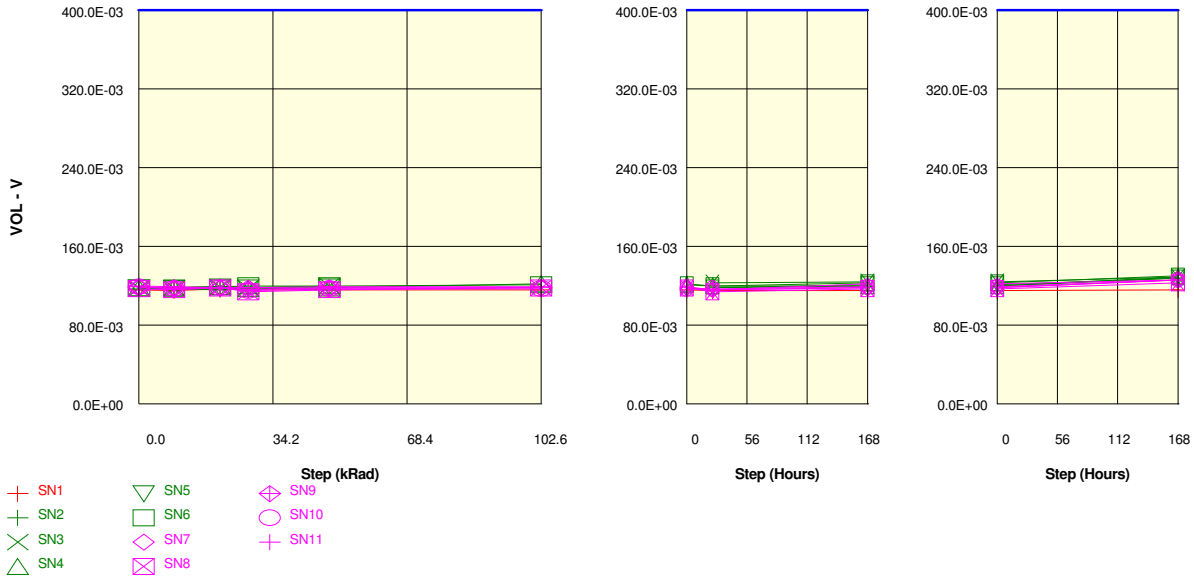
Measurements

VOLD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	110.0E-03	111.0E-03	111.0E-03	111.0E-03	111.0E-03	110.0E-03	110.0E-03	111.0E-03	111.0E-03
OFF samples									
SN7	112.0E-03	113.0E-03	113.0E-03	112.0E-03	114.0E-03	114.0E-03	113.0E-03	114.0E-03	121.0E-03
SN8	112.0E-03	112.0E-03	113.0E-03	110.0E-03	111.0E-03	113.0E-03	112.0E-03	114.0E-03	119.0E-03
SN9	113.0E-03	113.0E-03	112.0E-03	111.0E-03	114.0E-03	113.0E-03	111.0E-03	114.0E-03	122.0E-03
SN10	114.0E-03	113.0E-03	113.0E-03	110.0E-03	114.0E-03	113.0E-03	113.0E-03	115.0E-03	122.0E-03
SN11	115.0E-03	114.0E-03	113.0E-03	112.0E-03	114.0E-03	114.0E-03	113.0E-03	117.0E-03	122.0E-03
Statistics									
Min	112.0E-03	112.0E-03	112.0E-03	110.0E-03	111.0E-03	113.0E-03	111.0E-03	114.0E-03	119.0E-03
Max	115.0E-03	114.0E-03	113.0E-03	112.0E-03	114.0E-03	114.0E-03	113.0E-03	117.0E-03	122.0E-03
Average	113.2E-03	113.0E-03	112.8E-03	111.0E-03	113.4E-03	113.4E-03	112.4E-03	114.8E-03	121.2E-03
Sigma	1.2E-03	632.5E-06	400.0E-06	894.4E-06	1.2E-03	489.9E-06	800.0E-06	1.2E-03	1.2E-03

Drift Calculation

VOLD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1.0E-03	1.0E-03	0.0E+00	2.0E-03	2.0E-03	1.0E-03	2.0E-03	9.0E-03
SN8	-	0.0E+00	1.0E-03	-2.0E-03	-1.0E-03	1.0E-03	0.0E+00	2.0E-03	7.0E-03
SN9	-	0.0E+00	-1.0E-03	-2.0E-03	1.0E-03	0.0E+00	-2.0E-03	1.0E-03	9.0E-03
SN10	-	-1.0E-03	-1.0E-03	-4.0E-03	0.0E+00	-1.0E-03	-1.0E-03	1.0E-03	8.0E-03
SN11	-	-1.0E-03	-2.0E-03	-3.0E-03	-1.0E-03	-1.0E-03	-2.0E-03	2.0E-03	7.0E-03
Average	-	-200.0E-06	-400.0E-06	-2.2E-03	200.0E-06	200.0E-06	-800.0E-06	1.6E-03	8.0E-03
Sigma	-	748.3E-06	1.2E-03	1.3E-03	1.2E-03	1.2E-03	1.2E-03	489.9E-06	894.4E-06

Parameter : logic output low voltage : VOLD3
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	116.0E-03	115.0E-03	117.0E-03	116.0E-03	116.0E-03	116.0E-03	115.0E-03	115.0E-03	116.0E-03
ON samples									
SN2	117.0E-03	117.0E-03	116.0E-03	118.0E-03	116.0E-03		118.0E-03	120.0E-03	128.0E-03
SN3	118.0E-03	118.0E-03	119.0E-03	118.0E-03	120.0E-03		123.0E-03	124.0E-03	129.0E-03
SN4	118.0E-03	118.0E-03	119.0E-03	117.0E-03	118.0E-03	122.0E-03	120.0E-03	120.0E-03	129.0E-03
SN5	118.0E-03	117.0E-03	118.0E-03	118.0E-03	119.0E-03		118.0E-03	121.0E-03	128.0E-03
SN6	118.0E-03	118.0E-03	119.0E-03	120.0E-03	120.0E-03	121.0E-03	120.0E-03	123.0E-03	130.0E-03
Statistics									
Min	117.0E-03	117.0E-03	116.0E-03	117.0E-03	116.0E-03	121.0E-03	118.0E-03	120.0E-03	128.0E-03
Max	118.0E-03	118.0E-03	119.0E-03	120.0E-03	120.0E-03	122.0E-03	123.0E-03	124.0E-03	130.0E-03
Average	117.8E-03	117.6E-03	118.2E-03	118.2E-03	118.6E-03	121.5E-03	119.8E-03	121.6E-03	128.8E-03
Sigma	400.0E-06	489.9E-06	1.2E-03	979.8E-06	1.5E-03	500.0E-06	1.8E-03	1.6E-03	748.3E-06

Drift Calculation

VOLD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	-1.0E-03	1000.0E-06	-1.0E-03		1000.0E-06	3.0E-03	11.0E-03
SN3	-	0.0E+00	1.0E-03	0.0E+00	2.0E-03		5.0E-03	6.0E-03	11.0E-03
SN4	-	0.0E+00	1.0E-03	-1000.0E-06	0.0E+00	4.0E-03	2.0E-03	2.0E-03	11.0E-03
SN5	-	-1000.0E-06	0.0E+00	0.0E+00	1.0E-03		0.0E+00	3.0E-03	10.0E-03
SN6	-	0.0E+00	1.0E-03	2.0E-03	2.0E-03	3.0E-03	2.0E-03	5.0E-03	12.0E-03
Average	-	-200.0E-06	400.0E-06	400.0E-06	800.0E-06	3.5E-03	2.0E-03	3.8E-03	11.0E-03
Sigma	-	400.0E-06	800.0E-06	1.0E-03	1.2E-03	500.0E-06	1.7E-03	1.5E-03	632.5E-06

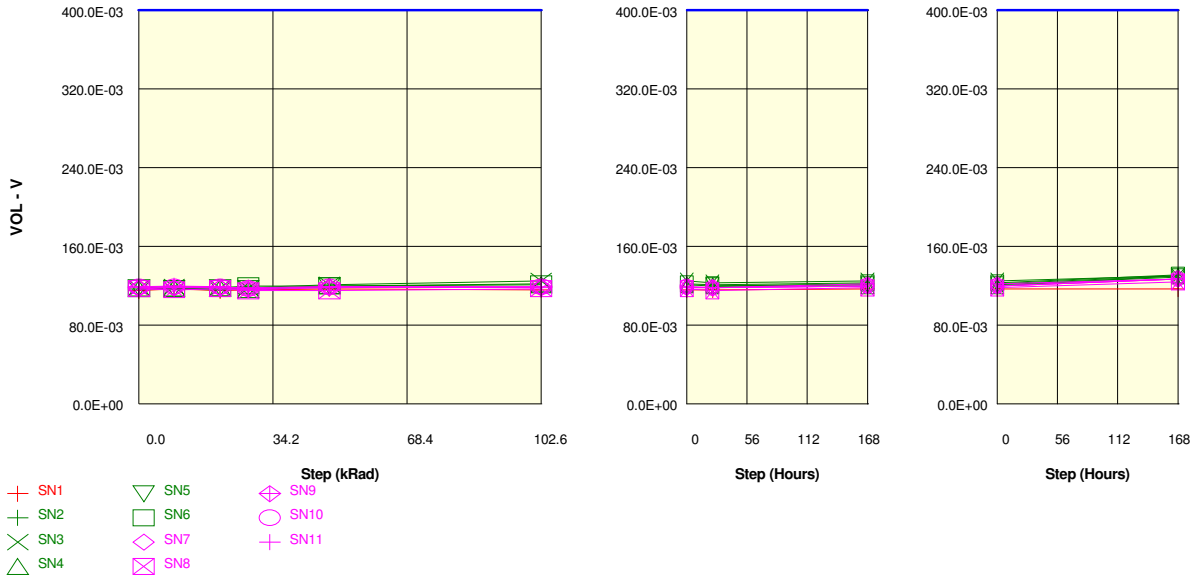
Measurements

VOLD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	116.0E-03	115.0E-03	117.0E-03	116.0E-03	116.0E-03	116.0E-03	115.0E-03	115.0E-03	116.0E-03
OFF samples									
SN7	118.0E-03	118.0E-03	118.0E-03	118.0E-03	117.0E-03	118.0E-03	116.0E-03	118.0E-03	126.0E-03
SN8	117.0E-03	116.0E-03	118.0E-03	114.0E-03	116.0E-03	118.0E-03	114.0E-03	117.0E-03	123.0E-03
SN9	119.0E-03	117.0E-03	118.0E-03	116.0E-03	118.0E-03	118.0E-03	116.0E-03	118.0E-03	126.0E-03
SN10	119.0E-03	117.0E-03	118.0E-03	115.0E-03	117.0E-03	117.0E-03	117.0E-03	119.0E-03	126.0E-03
SN11	120.0E-03	119.0E-03	118.0E-03	118.0E-03	119.0E-03	119.0E-03	116.0E-03	122.0E-03	126.0E-03
Statistics									
Min	117.0E-03	116.0E-03	118.0E-03	114.0E-03	116.0E-03	117.0E-03	114.0E-03	117.0E-03	123.0E-03
Max	120.0E-03	119.0E-03	118.0E-03	118.0E-03	119.0E-03	119.0E-03	117.0E-03	122.0E-03	126.0E-03
Average	118.6E-03	117.4E-03	118.0E-03	116.2E-03	117.4E-03	118.0E-03	115.8E-03	118.8E-03	125.4E-03
Sigma	1.0E-03	1.0E-03	1.2E-09	1.6E-03	1.0E-03	632.5E-06	979.8E-06	1.7E-03	1.2E-03

Drift Calculation

VOLD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	0.0E+00	0.0E+00	-1000.0E-06	0.0E+00	-2.0E-03	0.0E+00	8.0E-03
SN8	-	-1.0E-03	1000.0E-06	-3.0E-03	-1.0E-03	1000.0E-06	-3.0E-03	0.0E+00	6.0E-03
SN9	-	-2.0E-03	-1.0E-03	-3.0E-03	-1.0E-03	-1.0E-03	-3.0E-03	-1.0E-03	7.0E-03
SN10	-	-2.0E-03	-1.0E-03	-4.0E-03	-2.0E-03	-2.0E-03	-2.0E-03	0.0E+00	7.0E-03
SN11	-	-1.0E-03	-2.0E-03	-2.0E-03	-1.0E-03	-1.0E-03	-4.0E-03	2.0E-03	6.0E-03
Average	-	-1.2E-03	-600.0E-06	-2.4E-03	-1.2E-03	-600.0E-06	-2.8E-03	200.0E-06	6.8E-03
Sigma	-	748.3E-06	1.0E-03	1.4E-03	400.0E-06	1.0E-03	748.3E-06	979.8E-06	748.3E-06

Parameter : logic output low voltage : VOLD2
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	115.0E-03	117.0E-03	115.0E-03	116.0E-03	117.0E-03	116.0E-03	116.0E-03	117.0E-03	117.0E-03
ON samples									
SN2	117.0E-03	117.0E-03	116.0E-03	118.0E-03	118.0E-03		120.0E-03	122.0E-03	130.0E-03
SN3	118.0E-03	119.0E-03	118.0E-03	118.0E-03	121.0E-03	125.0E-03	123.0E-03	125.0E-03	130.0E-03
SN4	117.0E-03	118.0E-03	118.0E-03	116.0E-03	120.0E-03	121.0E-03	120.0E-03	120.0E-03	130.0E-03
SN5	118.0E-03	117.0E-03	118.0E-03	117.0E-03	120.0E-03		120.0E-03	121.0E-03	129.0E-03
SN6	118.0E-03	117.0E-03	118.0E-03	120.0E-03	120.0E-03	122.0E-03	121.0E-03	123.0E-03	131.0E-03
Statistics									
Min	117.0E-03	117.0E-03	116.0E-03	116.0E-03	118.0E-03	121.0E-03	120.0E-03	120.0E-03	129.0E-03
Max	118.0E-03	119.0E-03	118.0E-03	120.0E-03	121.0E-03	125.0E-03	123.0E-03	125.0E-03	131.0E-03
Average	117.6E-03	117.6E-03	117.6E-03	117.8E-03	119.8E-03	122.7E-03	120.8E-03	122.2E-03	130.0E-03
Sigma	489.9E-06	800.0E-06	800.0E-06	1.3E-03	979.8E-06	1.7E-03	1.2E-03	1.7E-03	632.5E-06

Drift Calculation

VOLD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	-1.0E-03	1000.0E-06	1000.0E-06		3.0E-03	5.0E-03	13.0E-03
SN3	-	1.0E-03	0.0E+00	0.0E+00	3.0E-03	7.0E-03	5.0E-03	7.0E-03	12.0E-03
SN4	-	1000.0E-06	1000.0E-06	-1.0E-03	3.0E-03	4.0E-03	3.0E-03	3.0E-03	13.0E-03
SN5	-	-1000.0E-06	0.0E+00	-1000.0E-06	2.0E-03		2.0E-03	3.0E-03	11.0E-03
SN6	-	-1000.0E-06	0.0E+00	2.0E-03	2.0E-03	4.0E-03	3.0E-03	5.0E-03	13.0E-03
Average	-	2.8E-18	-2.8E-18	200.0E-06	2.2E-03	5.0E-03	3.2E-03	4.6E-03	12.4E-03
Sigma	-	894.4E-06	632.5E-06	1.2E-03	748.3E-06	1.4E-03	979.8E-06	1.5E-03	800.0E-06

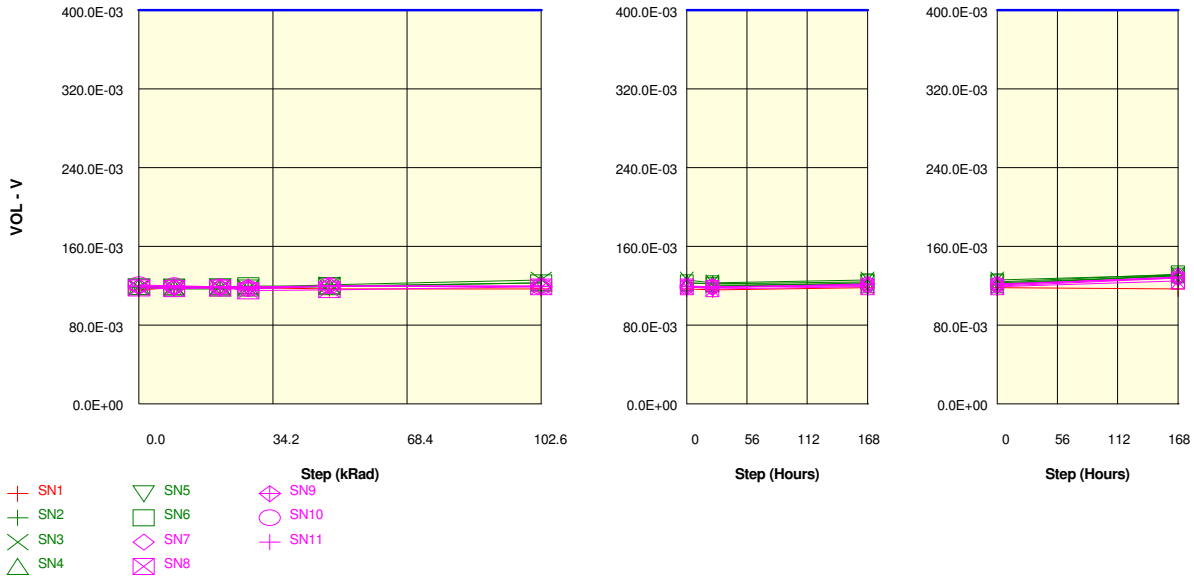
Measurements

VOLD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	115.0E-03	117.0E-03	115.0E-03	116.0E-03	117.0E-03	116.0E-03	116.0E-03	117.0E-03	117.0E-03
OFF samples									
SN7	117.0E-03	118.0E-03	118.0E-03	118.0E-03	119.0E-03	118.0E-03	118.0E-03	120.0E-03	127.0E-03
SN8	117.0E-03	116.0E-03	117.0E-03	115.0E-03	115.0E-03	117.0E-03	115.0E-03	118.0E-03	124.0E-03
SN9	118.0E-03	118.0E-03	118.0E-03	116.0E-03	118.0E-03	119.0E-03	118.0E-03	120.0E-03	127.0E-03
SN10	119.0E-03	119.0E-03	119.0E-03	117.0E-03	119.0E-03	119.0E-03	118.0E-03	120.0E-03	127.0E-03
SN11	119.0E-03	120.0E-03	119.0E-03	117.0E-03	119.0E-03	118.0E-03	118.0E-03	122.0E-03	127.0E-03
Statistics									
Min	117.0E-03	116.0E-03	117.0E-03	115.0E-03	115.0E-03	117.0E-03	115.0E-03	118.0E-03	124.0E-03
Max	119.0E-03	120.0E-03	119.0E-03	118.0E-03	119.0E-03	119.0E-03	118.0E-03	122.0E-03	127.0E-03
Average	118.0E-03	118.2E-03	118.2E-03	116.6E-03	118.0E-03	118.2E-03	117.4E-03	120.0E-03	126.4E-03
Sigma	894.4E-06	1.3E-03	748.3E-06	1.0E-03	1.5E-03	748.3E-06	1.2E-03	1.3E-03	1.2E-03

Drift Calculation

VOLD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1000.0E-06	1000.0E-06	1000.0E-06	2.0E-03	1000.0E-06	1000.0E-06	3.0E-03	10.0E-03
SN8	-	-1.0E-03	0.0E+00	-2.0E-03	-2.0E-03	0.0E+00	-2.0E-03	1000.0E-06	7.0E-03
SN9	-	0.0E+00	0.0E+00	-2.0E-03	0.0E+00	1.0E-03	0.0E+00	2.0E-03	9.0E-03
SN10	-	0.0E+00	0.0E+00	-2.0E-03	0.0E+00	0.0E+00	-1.0E-03	1.0E-03	8.0E-03
SN11	-	1.0E-03	0.0E+00	-2.0E-03	0.0E+00	-1.0E-03	-1.0E-03	3.0E-03	8.0E-03
Average	-	200.0E-06	200.0E-06	-1.4E-03	-2.8E-18	200.0E-06	-600.0E-06	2.0E-03	8.4E-03
Sigma	-	748.3E-06	400.0E-06	1.2E-03	1.3E-03	748.3E-06	1.0E-03	894.4E-06	1.0E-03

Parameter : logic output low voltage : VOLD1
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	116.0E-03	118.0E-03	118.0E-03	118.0E-03	117.0E-03	117.0E-03	116.0E-03	118.0E-03	117.0E-03
ON samples									
SN2	118.0E-03	117.0E-03	117.0E-03	119.0E-03	119.0E-03		120.0E-03	122.0E-03	130.0E-03
SN3	119.0E-03	119.0E-03	119.0E-03	118.0E-03	121.0E-03	126.0E-03	123.0E-03	126.0E-03	131.0E-03
SN4	119.0E-03	118.0E-03	118.0E-03	118.0E-03	119.0E-03	123.0E-03	122.0E-03	121.0E-03	131.0E-03
SN5	119.0E-03	118.0E-03	119.0E-03	118.0E-03	120.0E-03		120.0E-03	123.0E-03	130.0E-03
SN6	119.0E-03	119.0E-03	119.0E-03	120.0E-03	120.0E-03	123.0E-03	122.0E-03	124.0E-03	132.0E-03
Statistics									
Min	118.0E-03	117.0E-03	117.0E-03	118.0E-03	119.0E-03	123.0E-03	120.0E-03	121.0E-03	130.0E-03
Max	119.0E-03	119.0E-03	119.0E-03	120.0E-03	121.0E-03	126.0E-03	123.0E-03	126.0E-03	132.0E-03
Average	118.8E-03	118.2E-03	118.4E-03	118.6E-03	119.8E-03	124.0E-03	121.4E-03	123.2E-03	130.8E-03
Sigma	400.0E-06	748.3E-06	800.0E-06	800.0E-06	748.3E-06	1.4E-03	1.2E-03	1.7E-03	748.3E-06

Drift Calculation

VOLD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-1000.0E-06	-1000.0E-06	1.0E-03	1.0E-03		2.0E-03	4.0E-03	12.0E-03
SN3	-	0.0E+00	0.0E+00	-1.0E-03	2.0E-03	7.0E-03	4.0E-03	7.0E-03	12.0E-03
SN4	-	-1.0E-03	-1.0E-03	-1.0E-03	0.0E+00	4.0E-03	3.0E-03	2.0E-03	12.0E-03
SN5	-	-1.0E-03	0.0E+00	-1.0E-03	1.0E-03		1.0E-03	4.0E-03	11.0E-03
SN6	-	0.0E+00	0.0E+00	1.0E-03	1.0E-03	4.0E-03	3.0E-03	5.0E-03	13.0E-03
Average	-	-600.0E-06	-400.0E-06	-200.0E-06	1.0E-03	5.0E-03	2.6E-03	4.4E-03	12.0E-03
Sigma	-	489.9E-06	489.9E-06	979.8E-06	632.5E-06	1.4E-03	1.0E-03	1.6E-03	632.5E-06

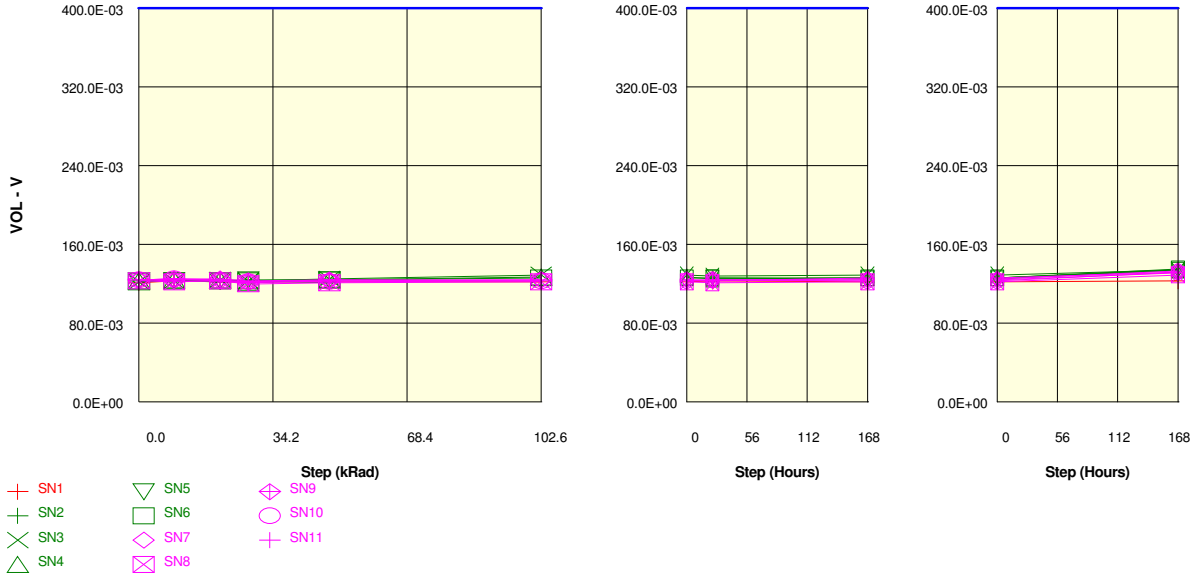
Measurements

VOLD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	116.0E-03	118.0E-03	118.0E-03	118.0E-03	117.0E-03	117.0E-03	116.0E-03	118.0E-03	117.0E-03
OFF samples									
SN7	119.0E-03	119.0E-03	119.0E-03	119.0E-03	120.0E-03	120.0E-03	119.0E-03	120.0E-03	128.0E-03
SN8	118.0E-03	117.0E-03	118.0E-03	115.0E-03	116.0E-03	119.0E-03	117.0E-03	119.0E-03	125.0E-03
SN9	119.0E-03	118.0E-03	118.0E-03	117.0E-03	120.0E-03	119.0E-03	118.0E-03	121.0E-03	129.0E-03
SN10	121.0E-03	120.0E-03	119.0E-03	117.0E-03	120.0E-03	119.0E-03	119.0E-03	121.0E-03	129.0E-03
SN11	120.0E-03	120.0E-03	119.0E-03	118.0E-03	120.0E-03	120.0E-03	118.0E-03	122.0E-03	128.0E-03
Statistics									
Min	118.0E-03	117.0E-03	118.0E-03	115.0E-03	116.0E-03	119.0E-03	117.0E-03	119.0E-03	125.0E-03
Max	121.0E-03	120.0E-03	119.0E-03	119.0E-03	120.0E-03	120.0E-03	119.0E-03	122.0E-03	129.0E-03
Average	119.4E-03	118.8E-03	118.6E-03	117.2E-03	119.2E-03	119.4E-03	118.2E-03	120.6E-03	127.8E-03
Sigma	1.0E-03	1.2E-03	489.9E-06	1.3E-03	1.6E-03	489.9E-06	748.3E-06	1.0E-03	1.5E-03

Drift Calculation

VOLD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	0.0E+00	0.0E+00	1.0E-03	1.0E-03	0.0E+00	1.0E-03	9.0E-03
SN8	-	-1000.0E-06	0.0E+00	-3.0E-03	-2.0E-03	1.0E-03	-1000.0E-06	1.0E-03	7.0E-03
SN9	-	-1.0E-03	-1.0E-03	-2.0E-03	1.0E-03	0.0E+00	-1.0E-03	2.0E-03	10.0E-03
SN10	-	-1.0E-03	-2.0E-03	-4.0E-03	-1.0E-03	-2.0E-03	-2.0E-03	0.0E+00	8.0E-03
SN11	-	0.0E+00	-1.0E-03	-2.0E-03	0.0E+00	0.0E+00	-2.0E-03	2.0E-03	8.0E-03
Average	-	-600.0E-06	-800.0E-06	-2.2E-03	-200.0E-06	0.0E+00	-1.2E-03	1.2E-03	8.4E-03
Sigma	-	489.9E-06	748.3E-06	1.3E-03	1.2E-03	1.1E-03	748.3E-06	748.3E-06	1.0E-03

Parameter : logic output low voltage : VOLD0
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	121.0E-03	123.0E-03	122.0E-03	122.0E-03	122.0E-03	122.0E-03	123.0E-03	122.0E-03	123.0E-03
ON samples									
SN2	123.0E-03	123.0E-03	122.0E-03	123.0E-03	121.0E-03		125.0E-03	126.0E-03	134.0E-03
SN3	122.0E-03	123.0E-03	124.0E-03	123.0E-03	125.0E-03	129.0E-03	128.0E-03	129.0E-03	134.0E-03
SN4	123.0E-03	124.0E-03	124.0E-03	121.0E-03	124.0E-03	127.0E-03	125.0E-03	126.0E-03	134.0E-03
SN5	123.0E-03	123.0E-03	123.0E-03	124.0E-03	124.0E-03		126.0E-03	125.0E-03	134.0E-03
SN6	122.0E-03	123.0E-03	123.0E-03	123.0E-03	124.0E-03	126.0E-03	126.0E-03	126.0E-03	135.0E-03
Statistics									
Min	122.0E-03	123.0E-03	122.0E-03	121.0E-03	121.0E-03	126.0E-03	125.0E-03	125.0E-03	134.0E-03
Max	123.0E-03	124.0E-03	124.0E-03	124.0E-03	125.0E-03	129.0E-03	128.0E-03	129.0E-03	135.0E-03
Average	122.6E-03	123.2E-03	123.2E-03	122.8E-03	123.6E-03	127.3E-03	126.0E-03	126.4E-03	134.2E-03
Sigma	489.9E-06	400.0E-06	748.3E-06	979.8E-06	1.4E-03	1.2E-03	1.1E-03	1.4E-03	400.0E-06

Drift Calculation

VOLD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	-1.0E-03	0.0E+00	-2.0E-03		2.0E-03	3.0E-03	11.0E-03
SN3	-	1.0E-03	2.0E-03	1.0E-03	3.0E-03	7.0E-03	6.0E-03	7.0E-03	12.0E-03
SN4	-	1.0E-03	1.0E-03	-2.0E-03	1.0E-03	4.0E-03	2.0E-03	3.0E-03	11.0E-03
SN5	-	0.0E+00	0.0E+00	1.0E-03	1.0E-03		3.0E-03	2.0E-03	11.0E-03
SN6	-	1.0E-03	1.0E-03	1.0E-03	2.0E-03	4.0E-03	4.0E-03	4.0E-03	13.0E-03
Average	-	600.0E-06	600.0E-06	200.0E-06	1.0E-03	5.0E-03	3.4E-03	3.8E-03	11.6E-03
Sigma	-	489.9E-06	1.0E-03	1.2E-03	1.7E-03	1.4E-03	1.5E-03	1.7E-03	800.0E-06

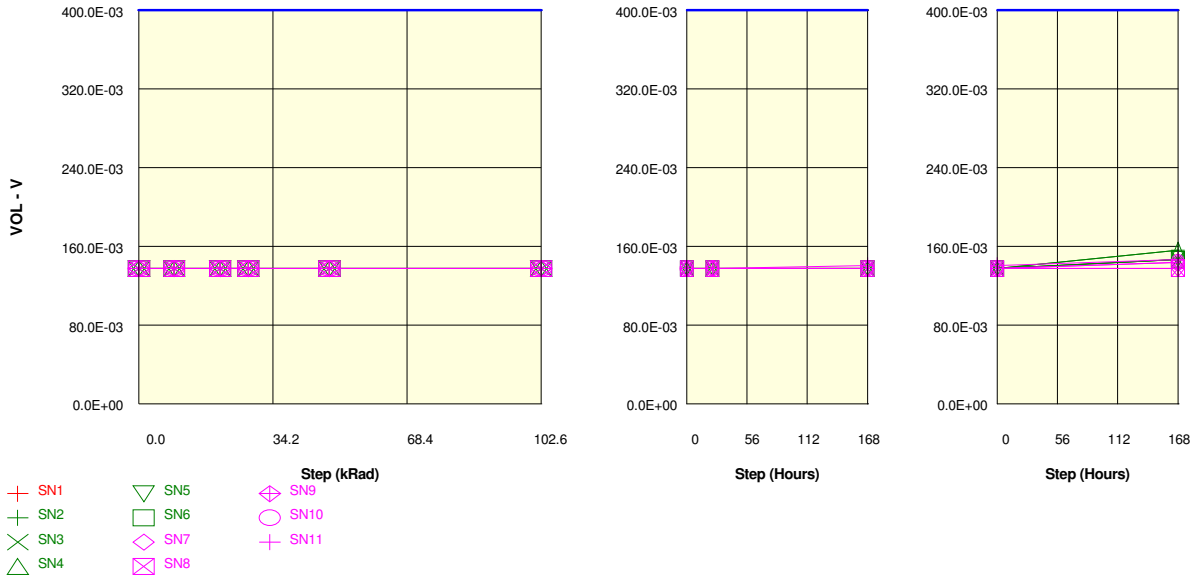
Measurements

VOLD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	121.0E-03	123.0E-03	122.0E-03	122.0E-03	122.0E-03	122.0E-03	123.0E-03	122.0E-03	123.0E-03
OFF samples									
SN7	124.0E-03	125.0E-03	125.0E-03	123.0E-03	124.0E-03	124.0E-03	124.0E-03	125.0E-03	133.0E-03
SN8	123.0E-03	122.0E-03	123.0E-03	120.0E-03	121.0E-03	122.0E-03	121.0E-03	122.0E-03	129.0E-03
SN9	124.0E-03	123.0E-03	123.0E-03	121.0E-03	123.0E-03	124.0E-03	123.0E-03	124.0E-03	131.0E-03
SN10	124.0E-03	125.0E-03	123.0E-03	122.0E-03	122.0E-03	123.0E-03	124.0E-03	123.0E-03	132.0E-03
SN11	124.0E-03	125.0E-03	124.0E-03	122.0E-03	124.0E-03	123.0E-03	123.0E-03	126.0E-03	132.0E-03
Statistics									
Min	123.0E-03	122.0E-03	123.0E-03	120.0E-03	121.0E-03	122.0E-03	121.0E-03	122.0E-03	129.0E-03
Max	124.0E-03	125.0E-03	125.0E-03	123.0E-03	124.0E-03	124.0E-03	124.0E-03	126.0E-03	133.0E-03
Average	123.8E-03	124.0E-03	123.6E-03	121.6E-03	122.8E-03	123.2E-03	123.0E-03	124.0E-03	131.4E-03
Sigma	400.0E-06	1.3E-03	800.0E-06	1.0E-03	1.2E-03	748.3E-06	1.1E-03	1.4E-03	1.4E-03

Drift Calculation

VOLD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1.0E-03	1.0E-03	-1.0E-03	0.0E+00	0.0E+00	0.0E+00	1.0E-03	9.0E-03
SN8	-	-1.0E-03	0.0E+00	-3.0E-03	-2.0E-03	-1.0E-03	-2.0E-03	-1.0E-03	6.0E-03
SN9	-	-1.0E-03	-1.0E-03	-3.0E-03	-1.0E-03	0.0E+00	-1.0E-03	0.0E+00	7.0E-03
SN10	-	1.0E-03	-1.0E-03	-2.0E-03	-2.0E-03	-1.0E-03	0.0E+00	-1.0E-03	8.0E-03
SN11	-	1.0E-03	0.0E+00	-2.0E-03	0.0E+00	-1.0E-03	-1.0E-03	2.0E-03	8.0E-03
Average	-	200.0E-06	-200.0E-06	-2.2E-03	-1.0E-03	-600.0E-06	-800.0E-06	200.0E-06	7.6E-03
Sigma	-	979.8E-06	748.3E-06	748.3E-06	894.4E-06	489.9E-06	748.3E-06	1.2E-03	1.0E-03

Parameter : logic output low voltage : VOLBUSY
Test conditions : IOL=1.6mA
Unit : V
Spec Limit Max : 400.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

VOLBUSY	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03
ON samples									
SN2	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	156.3E-03
SN3	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	146.9E-03
SN4	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	156.3E-03
SN5	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	146.9E-03
SN6	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	146.9E-03
Statistics									
Min	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	146.9E-03
Max	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	156.3E-03
Average	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	150.6E-03
Sigma	833.0E-12	833.0E-12	833.0E-12	833.0E-12	833.0E-12	833.0E-12	833.0E-12	833.0E-12	4.6E-03

Drift Calculation

VOLBUSY	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.8E-03
SN3	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.4E-03
SN4	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	18.8E-03
SN5	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.4E-03
SN6	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.4E-03
Average	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	13.1E-03
Sigma	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.6E-03

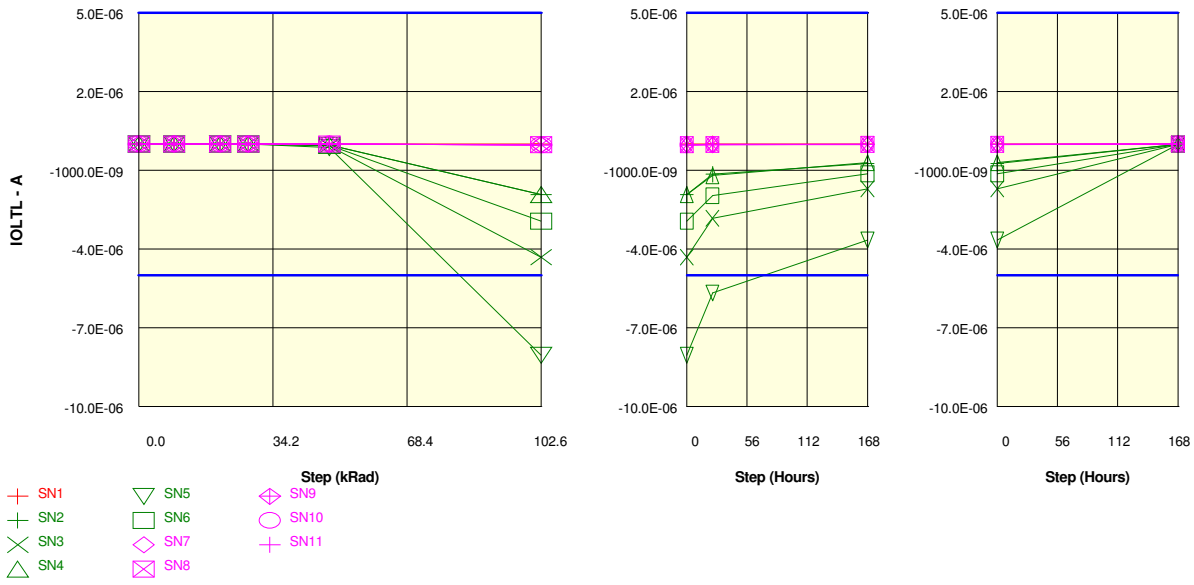
Measurements

VOLBUSY	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03
OFF samples									
SN7	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	143.8E-03
SN8	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03
SN9	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03
SN10	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	143.8E-03
SN11	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	140.6E-03	146.9E-03
Statistics									
Min	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03
Max	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	140.6E-03	146.9E-03
Average	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	137.5E-03	138.1E-03	141.9E-03
Sigma	833.0E-12	833.0E-12	833.0E-12	833.0E-12	833.0E-12	833.0E-12	833.0E-12	1.2E-03	3.8E-03

Drift Calculation

VOLBUSY	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.2E-03
SN8	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
SN9	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
SN10	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.2E-03
SN11	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.1E-03	9.4E-03
Average	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	624.0E-06	4.4E-03
Sigma	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.2E-03	3.8E-03

Parameter : Three state output leakage : IOLTLD15
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-50.0E-12	-100.0E-12	-100.0E-12	-50.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-150.0E-12
ON samples									
SN2	-150.0E-12	-150.0E-12	-150.0E-12	-450.0E-12	-35.4E-09	-1.9E-06	-1.2E-06	-736.5E-09	-2.5E-09
SN3	-150.0E-12	-150.0E-12	-150.0E-12	-550.0E-12	-69.0E-09	-4.3E-06	-2.8E-06	-1.7E-06	-3.9E-09
SN4	-150.0E-12	-150.0E-12	-100.0E-12	-400.0E-12	-33.7E-09	-1.9E-06	-1.2E-06	-712.0E-09	-2.7E-09
SN5	-100.0E-12	-150.0E-12	-150.0E-12	-600.0E-12	-133.0E-09	**-8.0E-06**	**-5.7E-06**	-3.7E-06	-5.8E-09
SN6	-100.0E-12	-100.0E-12	-150.0E-12	-500.0E-12	-46.8E-09	-2.9E-06	-2.0E-06	-1.1E-06	-3.7E-09
Statistics									
Min	-150.0E-12	-150.0E-12	-150.0E-12	-600.0E-12	-133.0E-09	-8.0E-06	-5.7E-06	-3.7E-06	-5.8E-09
Max	-100.0E-12	-100.0E-12	-100.0E-12	-400.0E-12	-33.7E-09	-1.9E-06	-1.2E-06	-712.0E-09	-2.5E-09
Average	-130.0E-12	-140.0E-12	-140.0E-12	-500.0E-12	-63.6E-09	-3.8E-06	-2.6E-06	-1.6E-06	-3.7E-09
Sigma	24.5E-12	20.0E-12	20.0E-12	70.7E-12	36.9E-09	2.3E-06	1.7E-06	1.1E-06	1.2E-09

Drift Calculation

IOLTLD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	0.0E+00	-300.0E-12	-35.2E-09	-1.9E-06	-1.1E-06	-736.4E-09	-2.4E-09
SN3	-	0.0E+00	0.0E+00	-400.0E-12	-68.8E-09	-4.3E-06	-2.8E-06	-1.7E-06	-3.8E-09
SN4	-	0.0E+00	50.0E-12	-250.0E-12	-33.6E-09	-1.9E-06	-1.2E-06	-711.9E-09	-2.6E-09
SN5	-	-50.0E-12	-50.0E-12	-500.0E-12	-132.9E-09	-8.0E-06	-5.7E-06	-3.7E-06	-5.7E-09
SN6	-	0.0E+00	-50.0E-12	-400.0E-12	-46.7E-09	-2.9E-06	-2.0E-06	-1.1E-06	-3.6E-09
Average	-	-10.0E-12	-10.0E-12	-370.0E-12	-63.4E-09	-3.8E-06	-2.6E-06	-1.6E-06	-3.6E-09
Sigma	-	20.0E-12	37.4E-12	87.2E-12	36.9E-09	2.3E-06	1.7E-06	1.1E-06	1.2E-09

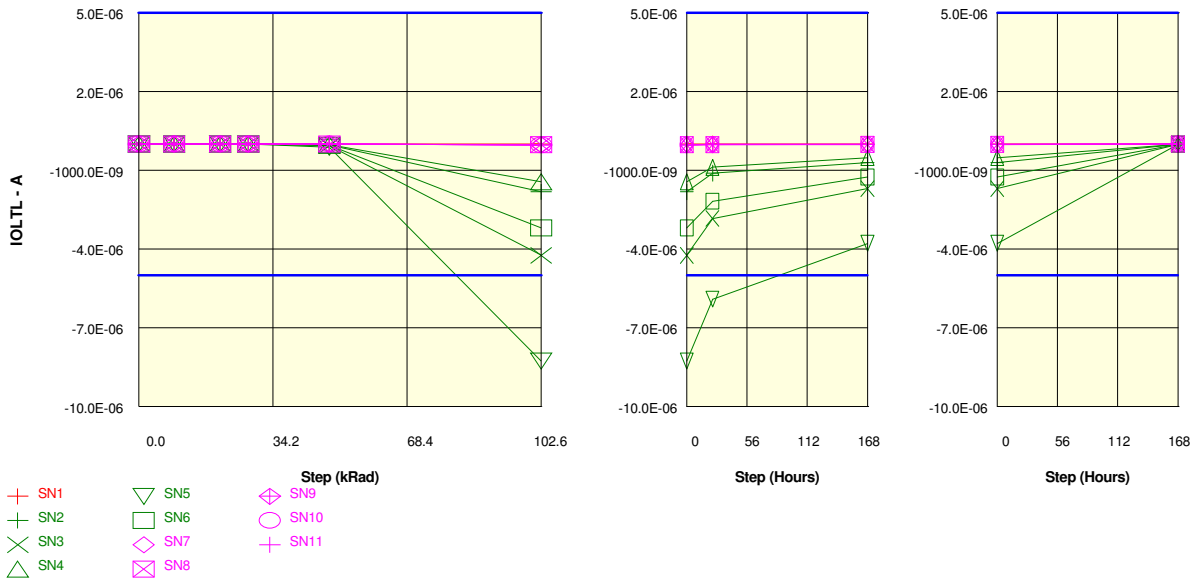
Measurements

IOLTLD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-50.0E-12	-100.0E-12	-100.0E-12	-50.0E-12	-100.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-150.0E-12
OFF samples									
SN7	-50.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-1.3E-09	-28.0E-09	-22.8E-09	-16.3E-09	-1.3E-09
SN8	-50.0E-12	-100.0E-12	-150.0E-12	-150.0E-12	-850.0E-12	-20.3E-09	-14.6E-09	-11.7E-09	-1.4E-09
SN9	-100.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-1.1E-09	-29.0E-09	-18.2E-09	-14.7E-09	-1.1E-09
SN10	-150.0E-12	-100.0E-12	-150.0E-12	-150.0E-12	-1.4E-09	-33.3E-09	-20.6E-09	-19.1E-09	-1.2E-09
SN11	-150.0E-12	-100.0E-12	-100.0E-12	-200.0E-12	-1.1E-09	-27.5E-09	-16.4E-09	-15.2E-09	-1.6E-09
Statistics									
Min	-150.0E-12	-100.0E-12	-150.0E-12	-200.0E-12	-1.4E-09	-33.3E-09	-22.8E-09	-19.1E-09	-1.6E-09
Max	-50.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	-850.0E-12	-20.3E-09	-14.6E-09	-11.7E-09	-1.1E-09
Average	-100.0E-12	-100.0E-12	-120.0E-12	-150.0E-12	-1.1E-09	-27.6E-09	-18.5E-09	-15.4E-09	-1.3E-09
Sigma	44.7E-12	0.0E+00	24.5E-12	31.6E-12	174.4E-12	4.2E-09	2.9E-09	2.4E-09	160.0E-12

Drift Calculation

IOLTLD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-50.0E-12	-50.0E-12	-50.0E-12	-1.2E-09	-28.0E-09	-22.8E-09	-16.2E-09	-1.2E-09
SN8	-	-50.0E-12	-100.0E-12	-100.0E-12	-800.0E-12	-20.2E-09	-14.6E-09	-11.6E-09	-1.3E-09
SN9	-	0.0E+00	0.0E+00	-50.0E-12	-950.0E-12	-28.9E-09	-18.1E-09	-14.6E-09	-1.0E-09
SN10	-	50.0E-12	0.0E+00	0.0E+00	-1.2E-09	-33.2E-09	-20.5E-09	-19.0E-09	-1.0E-09
SN11	-	50.0E-12	50.0E-12	-50.0E-12	-900.0E-12	-27.3E-09	-16.3E-09	-15.1E-09	-1.4E-09
Average	-	-2.6E-27	-20.0E-12	-50.0E-12	-1.0E-09	-27.5E-09	-18.4E-09	-15.3E-09	-1.2E-09
Sigma	-	44.7E-12	51.0E-12	31.6E-12	162.5E-12	4.2E-09	2.9E-09	2.4E-09	160.0E-12

Parameter : Three state output leakage : IOLTLD14
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-150.0E-12	-200.0E-12	-150.0E-12	-150.0E-12	-100.0E-12	-250.0E-12	-100.0E-12	-200.0E-12	-100.0E-12
ON samples									
SN2	-150.0E-12	-100.0E-12	-150.0E-12	-450.0E-12	-30.1E-09	-1.8E-06	-1.1E-06	-711.0E-09	-2.8E-09
SN3	-150.0E-12	-100.0E-12	-150.0E-12	-450.0E-12	-59.0E-09	-4.2E-06	-2.8E-06	-1.7E-06	-4.2E-09
SN4	-100.0E-12	-100.0E-12	-150.0E-12	-350.0E-12	-25.1E-09	-1.4E-06	-885.0E-09	-518.5E-09	-2.6E-09
SN5	-150.0E-12	-150.0E-12	-200.0E-12	-450.0E-12	-121.5E-09	**-8.3E-06**	**-5.9E-06**	-3.8E-06	-5.8E-09
SN6	-100.0E-12	-100.0E-12	-100.0E-12	-450.0E-12	-48.1E-09	-3.2E-06	-2.2E-06	-1.3E-06	-3.9E-09
Statistics									
Min	-150.0E-12	-150.0E-12	-200.0E-12	-450.0E-12	-121.5E-09	-8.3E-06	-5.9E-06	-3.8E-06	-5.8E-09
Max	-100.0E-12	-100.0E-12	-100.0E-12	-350.0E-12	-25.1E-09	-1.4E-06	-885.0E-09	-518.5E-09	-2.6E-09
Average	-130.0E-12	-110.0E-12	-150.0E-12	-430.0E-12	-56.8E-09	-3.8E-06	-2.6E-06	-1.6E-06	-3.9E-09
Sigma	24.5E-12	20.0E-12	31.6E-12	40.0E-12	34.6E-09	2.4E-06	1.8E-06	1.2E-06	1.1E-09

Drift Calculation

IOLTLD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	50.0E-12	0.0E+00	-300.0E-12	-30.0E-09	-1.8E-06	-1.1E-06	-710.9E-09	-2.7E-09
SN3	-	50.0E-12	0.0E+00	-300.0E-12	-58.9E-09	-4.2E-06	-2.8E-06	-1.7E-06	-4.1E-09
SN4	-	0.0E+00	-50.0E-12	-250.0E-12	-25.0E-09	-1.4E-06	-884.9E-09	-518.4E-09	-2.5E-09
SN5	-	0.0E+00	-50.0E-12	-300.0E-12	-121.4E-09	-8.3E-06	-5.9E-06	-3.8E-06	-5.7E-09
SN6	-	0.0E+00	0.0E+00	-350.0E-12	-48.0E-09	-3.2E-06	-2.2E-06	-1.3E-06	-3.8E-09
Average	-	20.0E-12	-20.0E-12	-300.0E-12	-56.6E-09	-3.8E-06	-2.6E-06	-1.6E-06	-3.7E-09
Sigma	-	24.5E-12	24.5E-12	31.6E-12	34.6E-09	2.4E-06	1.8E-06	1.2E-06	1.1E-09

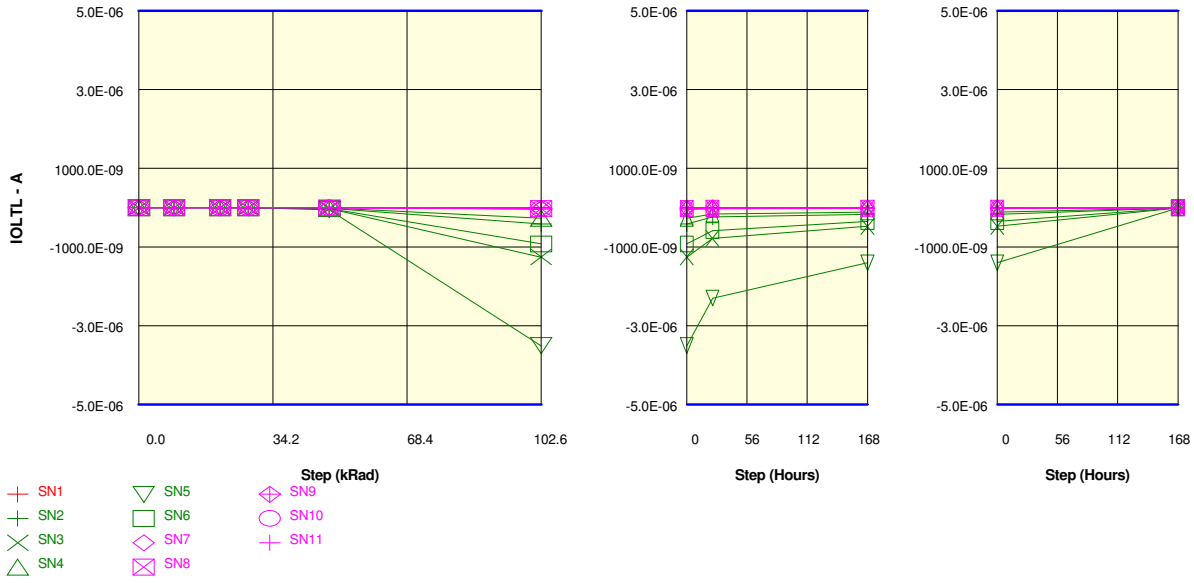
Measurements

IOLTLD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-150.0E-12	-200.0E-12	-150.0E-12	-150.0E-12	-100.0E-12	-250.0E-12	-100.0E-12	-200.0E-12	-100.0E-12
OFF samples									
SN7	-100.0E-12	-200.0E-12	-200.0E-12	-150.0E-12	-1.3E-09	-27.5E-09	-22.2E-09	-15.8E-09	-1.2E-09
SN8	-100.0E-12	-150.0E-12	-100.0E-12	-200.0E-12	-900.0E-12	-20.9E-09	-15.1E-09	-12.2E-09	-1.3E-09
SN9	-150.0E-12	-150.0E-12	-150.0E-12	-150.0E-12	-1.1E-09	-27.0E-09	-16.9E-09	-14.0E-09	-1.2E-09
SN10	-100.0E-12	-150.0E-12	-150.0E-12	-200.0E-12	-1.4E-09	-33.9E-09	-20.9E-09	-19.8E-09	-1.2E-09
SN11	-100.0E-12	-150.0E-12	-200.0E-12	-250.0E-12	-1.1E-09	-27.3E-09	-16.2E-09	-14.9E-09	-1.5E-09
Statistics									
Min	-150.0E-12	-200.0E-12	-200.0E-12	-250.0E-12	-1.4E-09	-33.9E-09	-22.2E-09	-19.8E-09	-1.5E-09
Max	-100.0E-12	-150.0E-12	-100.0E-12	-150.0E-12	-900.0E-12	-20.9E-09	-15.1E-09	-12.2E-09	-1.2E-09
Average	-110.0E-12	-160.0E-12	-160.0E-12	-190.0E-12	-1.1E-09	-27.3E-09	-18.2E-09	-15.3E-09	-1.3E-09
Sigma	20.0E-12	20.0E-12	37.4E-12	37.4E-12	153.0E-12	4.1E-09	2.8E-09	2.5E-09	124.9E-12

Drift Calculation

IOLTLD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-100.0E-12	-100.0E-12	-50.0E-12	-1.2E-09	-27.4E-09	-22.1E-09	-15.7E-09	-1.1E-09
SN8	-	-50.0E-12	0.0E+00	-100.0E-12	-800.0E-12	-20.8E-09	-15.0E-09	-12.1E-09	-1.2E-09
SN9	-	0.0E+00	0.0E+00	0.0E+00	-950.0E-12	-26.9E-09	-16.7E-09	-13.8E-09	-1.0E-09
SN10	-	-50.0E-12	-50.0E-12	-100.0E-12	-1.3E-09	-33.8E-09	-20.8E-09	-19.7E-09	-1.1E-09
SN11	-	-50.0E-12	-100.0E-12	-150.0E-12	-1.0E-09	-27.2E-09	-16.1E-09	-14.8E-09	-1.4E-09
Average	-	-50.0E-12	-50.0E-12	-80.0E-12	-1.0E-09	-27.2E-09	-18.1E-09	-15.2E-09	-1.2E-09
Sigma	-	31.6E-12	44.7E-12	51.0E-12	156.8E-12	4.1E-09	2.8E-09	2.5E-09	135.6E-12

Parameter : Three state output leakage : IOLTLD13
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-200.0E-12	-100.0E-12	-50.0E-12	-150.0E-12	-250.0E-12	-350.0E-12	-50.0E-12	-50.0E-12	-200.0E-12
ON samples									
SN2	-250.0E-12	-100.0E-12	-200.0E-12	-550.0E-12	-12.7E-09	-408.5E-09	-232.0E-09	-170.5E-09	-2.7E-09
SN3	-300.0E-12	-100.0E-12	-100.0E-12	-450.0E-12	-24.8E-09	-1.3E-06	-778.5E-09	-474.0E-09	-3.8E-09
SN4	-250.0E-12	-100.0E-12	-150.0E-12	-450.0E-12	-9.5E-09	-269.5E-09	-161.0E-09	-109.5E-09	-2.5E-09
SN5	-150.0E-12	-150.0E-12	-150.0E-12	-500.0E-12	-49.0E-09	-3.5E-06	-2.3E-06	-1.4E-06	-5.5E-09
SN6	-250.0E-12	-100.0E-12	-200.0E-12	-550.0E-12	-21.3E-09	-919.5E-09	-582.0E-09	-348.5E-09	-3.9E-09
Statistics									
Min	-300.0E-12	-150.0E-12	-200.0E-12	-550.0E-12	-49.0E-09	-3.5E-06	-2.3E-06	-1.4E-06	-5.5E-09
Max	-150.0E-12	-100.0E-12	-100.0E-12	-450.0E-12	-9.5E-09	-269.5E-09	-161.0E-09	-109.5E-09	-2.5E-09
Average	-240.0E-12	-110.0E-12	-160.0E-12	-500.0E-12	-23.4E-09	-1.3E-06	-809.7E-09	-500.5E-09	-3.7E-09
Sigma	49.0E-12	20.0E-12	37.4E-12	44.7E-12	13.9E-09	1.2E-06	776.3E-09	467.9E-09	1.1E-09

Drift Calculation

IOLTLD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	150.0E-12	50.0E-12	-300.0E-12	-12.4E-09	-408.3E-09	-231.8E-09	-170.3E-09	-2.5E-09
SN3	-	200.0E-12	200.0E-12	-150.0E-12	-24.5E-09	-1.3E-06	-778.2E-09	-473.7E-09	-3.5E-09
SN4	-	150.0E-12	100.0E-12	-200.0E-12	-9.3E-09	-269.3E-09	-160.8E-09	-109.3E-09	-2.2E-09
SN5	-	0.0E+00	0.0E+00	-350.0E-12	-48.9E-09	-3.5E-06	-2.3E-06	-1.4E-06	-5.3E-09
SN6	-	150.0E-12	50.0E-12	-300.0E-12	-21.1E-09	-919.3E-09	-581.8E-09	-348.3E-09	-3.6E-09
Average	-	130.0E-12	80.0E-12	-260.0E-12	-23.2E-09	-1.3E-06	-809.5E-09	-500.3E-09	-3.4E-09
Sigma	-	67.8E-12	67.8E-12	73.5E-12	14.0E-09	1.2E-06	776.4E-09	467.9E-09	1.1E-09

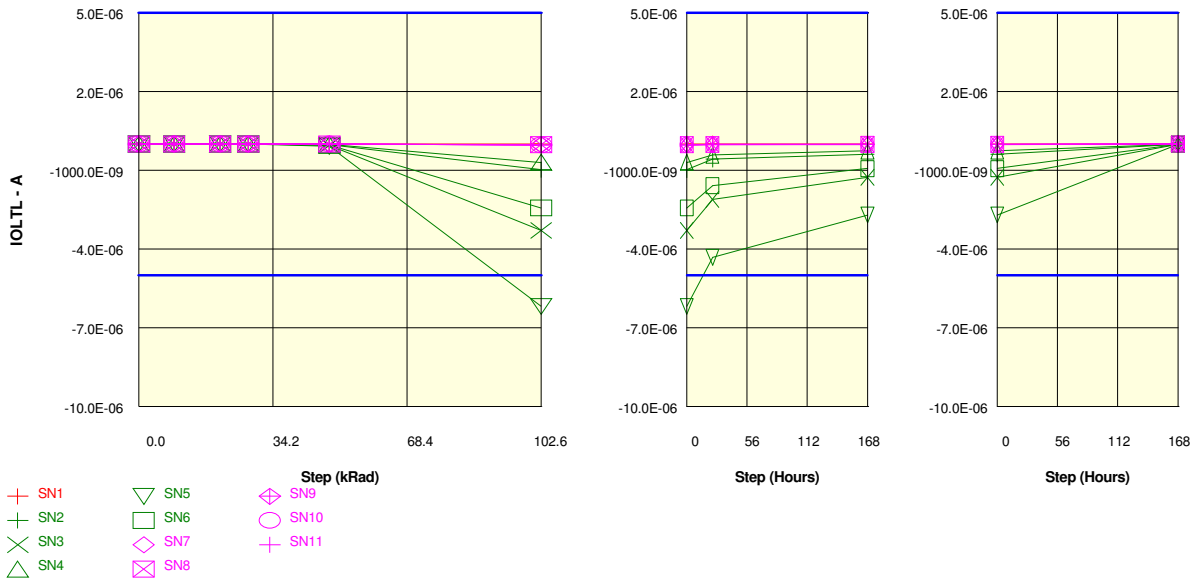
Measurements

IOLTLD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-200.0E-12	-100.0E-12	-50.0E-12	-150.0E-12	-250.0E-12	-350.0E-12	-50.0E-12	-50.0E-12	-200.0E-12
OFF samples									
SN7	-250.0E-12	-100.0E-12	-150.0E-12	-250.0E-12	-1.5E-09	-25.5E-09	-20.5E-09	-14.8E-09	-1.3E-09
SN8	-250.0E-12	-100.0E-12	-100.0E-12	-250.0E-12	-950.0E-12	-20.7E-09	-14.7E-09	-11.9E-09	-1.4E-09
SN9	-250.0E-12	-200.0E-12	-150.0E-12	-200.0E-12	-1.4E-09	-28.1E-09	-17.8E-09	-14.6E-09	-1.2E-09
SN10	-250.0E-12	-100.0E-12	-100.0E-12	-250.0E-12	-1.5E-09	-33.4E-09	-20.7E-09	-19.6E-09	-1.3E-09
SN11	-200.0E-12	-100.0E-12	-150.0E-12	-200.0E-12	-1.2E-09	-28.7E-09	-17.4E-09	-15.8E-09	-1.7E-09
Statistics									
Min	-250.0E-12	-200.0E-12	-150.0E-12	-250.0E-12	-1.5E-09	-33.4E-09	-20.7E-09	-19.6E-09	-1.7E-09
Max	-200.0E-12	-100.0E-12	-100.0E-12	-200.0E-12	-950.0E-12	-20.7E-09	-14.7E-09	-11.9E-09	-1.2E-09
Average	-240.0E-12	-120.0E-12	-130.0E-12	-230.0E-12	-1.3E-09	-27.3E-09	-18.2E-09	-15.3E-09	-1.4E-09
Sigma	20.0E-12	40.0E-12	24.5E-12	24.5E-12	198.5E-12	4.2E-09	2.2E-09	2.5E-09	177.8E-12

Drift Calculation

IOLTLD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	150.0E-12	100.0E-12	0.0E+00	-1.2E-09	-25.3E-09	-20.2E-09	-14.5E-09	-1.1E-09
SN8	-	150.0E-12	150.0E-12	0.0E+00	-700.0E-12	-20.4E-09	-14.5E-09	-11.6E-09	-1.2E-09
SN9	-	50.0E-12	100.0E-12	50.0E-12	-1.1E-09	-27.9E-09	-17.5E-09	-14.4E-09	-950.0E-12
SN10	-	150.0E-12	150.0E-12	0.0E+00	-1.3E-09	-33.2E-09	-20.4E-09	-19.3E-09	-1.0E-09
SN11	-	100.0E-12	50.0E-12	0.0E+00	-1.0E-09	-28.5E-09	-17.2E-09	-15.6E-09	-1.5E-09
Average	-	120.0E-12	110.0E-12	10.0E-12	-1.1E-09	-27.0E-09	-17.9E-09	-15.1E-09	-1.1E-09
Sigma	-	40.0E-12	37.4E-12	20.0E-12	194.9E-12	4.2E-09	2.2E-09	2.5E-09	196.5E-12

Parameter : Three state output leakage : IOLTLD12
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-450.0E-12	-150.0E-12	-100.0E-12	-350.0E-12	-600.0E-12	-450.0E-12	-100.0E-12	-350.0E-12	-550.0E-12
ON samples									
SN2	-550.0E-12	-150.0E-12	-450.0E-12	-750.0E-12	-21.3E-09	-970.0E-09	-570.5E-09	-385.5E-09	-3.2E-09
SN3	-600.0E-12	-100.0E-12	-300.0E-12	-650.0E-12	-46.6E-09	-3.3E-06	-2.1E-06	-1.3E-06	-4.4E-09
SN4	-550.0E-12	-250.0E-12	-250.0E-12	-550.0E-12	-15.8E-09	-698.5E-09	-419.0E-09	-259.5E-09	-2.8E-09
SN5	-500.0E-12	-150.0E-12	-300.0E-12	-650.0E-12	-85.0E-09	**-6.2E-06**	-4.3E-06	-2.7E-06	-5.8E-09
SN6	-500.0E-12	-200.0E-12	-450.0E-12	-650.0E-12	-41.2E-09	-2.4E-06	-1.6E-06	-932.0E-09	-4.4E-09
Statistics									
Min	-600.0E-12	-250.0E-12	-450.0E-12	-750.0E-12	-85.0E-09	-6.2E-06	-4.3E-06	-2.7E-06	-5.8E-09
Max	-500.0E-12	-100.0E-12	-250.0E-12	-550.0E-12	-15.8E-09	-698.5E-09	-419.0E-09	-259.5E-09	-2.8E-09
Average	-540.0E-12	-170.0E-12	-350.0E-12	-650.0E-12	-42.0E-09	-2.7E-06	-1.8E-06	-1.1E-06	-4.1E-09
Sigma	37.4E-12	51.0E-12	83.7E-12	63.2E-12	24.5E-09	2.0E-06	1.4E-06	875.4E-09	1.1E-09

Drift Calculation

IOLTLD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	400.0E-12	100.0E-12	-200.0E-12	-20.7E-09	-969.5E-09	-570.0E-09	-385.0E-09	-2.6E-09
SN3	-	500.0E-12	300.0E-12	-50.0E-12	-46.0E-09	-3.3E-06	-2.1E-06	-1.3E-06	-3.8E-09
SN4	-	300.0E-12	300.0E-12	0.0E+00	-15.2E-09	-698.0E-09	-418.5E-09	-259.0E-09	-2.2E-09
SN5	-	350.0E-12	200.0E-12	-150.0E-12	-84.5E-09	-6.2E-06	-4.3E-06	-2.7E-06	-5.3E-09
SN6	-	300.0E-12	50.0E-12	-150.0E-12	-40.7E-09	-2.4E-06	-1.6E-06	-931.5E-09	-3.9E-09
Average	-	370.0E-12	190.0E-12	-110.0E-12	-41.4E-09	-2.7E-06	-1.8E-06	-1.1E-06	-3.6E-09
Sigma	-	74.8E-12	102.0E-12	73.5E-12	24.5E-09	2.0E-06	1.4E-06	875.5E-09	1.1E-09

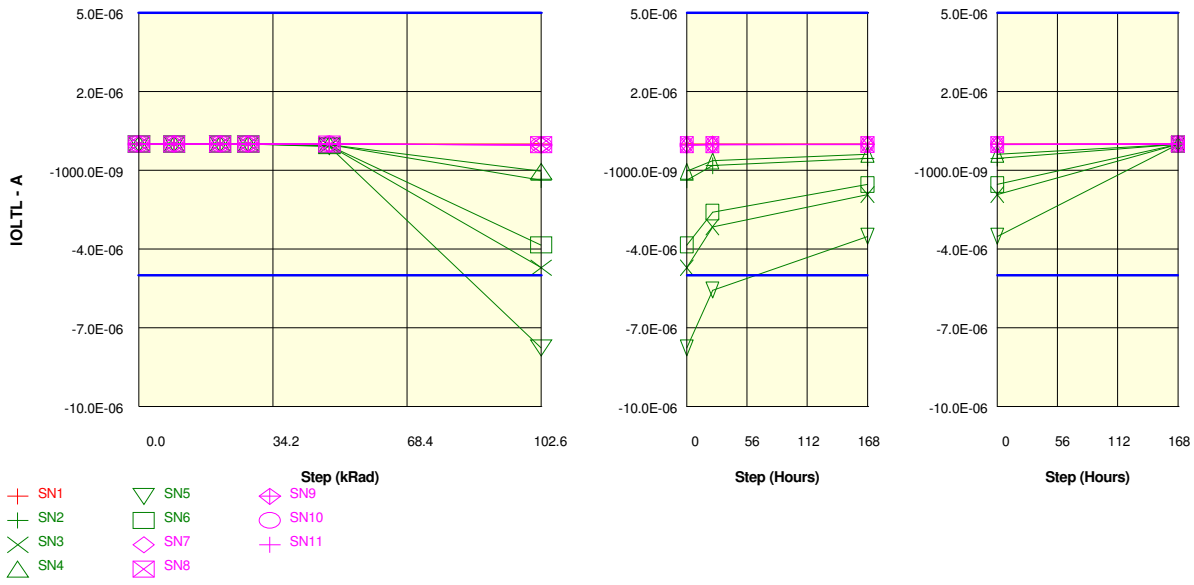
Measurements

IOLTLD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-450.0E-12	-150.0E-12	-100.0E-12	-350.0E-12	-600.0E-12	-450.0E-12	-100.0E-12	-350.0E-12	-550.0E-12
OFF samples									
SN7	-550.0E-12	-150.0E-12	-350.0E-12	-500.0E-12	-1.9E-09	-26.3E-09	-21.1E-09	-15.5E-09	-1.6E-09
SN8	-550.0E-12	-150.0E-12	-200.0E-12	-550.0E-12	-1.3E-09	-20.2E-09	-14.2E-09	-11.6E-09	-1.7E-09
SN9	-450.0E-12	-200.0E-12	-300.0E-12	-400.0E-12	-1.7E-09	-27.7E-09	-17.2E-09	-14.1E-09	-1.5E-09
SN10	-450.0E-12	-200.0E-12	-300.0E-12	-450.0E-12	-1.9E-09	-32.2E-09	-20.0E-09	-19.4E-09	-1.4E-09
SN11	-450.0E-12	-200.0E-12	-350.0E-12	-450.0E-12	-1.6E-09	-27.1E-09	-16.3E-09	-15.1E-09	-2.0E-09
Statistics									
Min	-550.0E-12	-200.0E-12	-350.0E-12	-550.0E-12	-1.9E-09	-32.2E-09	-21.1E-09	-19.4E-09	-2.0E-09
Max	-450.0E-12	-150.0E-12	-200.0E-12	-400.0E-12	-1.3E-09	-20.2E-09	-14.2E-09	-11.6E-09	-1.4E-09
Average	-490.0E-12	-180.0E-12	-300.0E-12	-470.0E-12	-1.7E-09	-26.7E-09	-17.7E-09	-15.1E-09	-1.6E-09
Sigma	49.0E-12	24.5E-12	54.8E-12	51.0E-12	217.7E-12	3.8E-09	2.5E-09	2.5E-09	205.9E-12

Drift Calculation

IOLTLD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	400.0E-12	200.0E-12	50.0E-12	-1.3E-09	-25.8E-09	-20.5E-09	-15.0E-09	-1.1E-09
SN8	-	400.0E-12	350.0E-12	0.0E+00	-750.0E-12	-19.6E-09	-13.7E-09	-11.1E-09	-1.2E-09
SN9	-	250.0E-12	150.0E-12	50.0E-12	-1.3E-09	-27.2E-09	-16.8E-09	-13.7E-09	-1.1E-09
SN10	-	250.0E-12	150.0E-12	0.0E+00	-1.5E-09	-31.7E-09	-19.5E-09	-19.0E-09	-950.0E-12
SN11	-	250.0E-12	100.0E-12	0.0E+00	-1.1E-09	-26.6E-09	-15.9E-09	-14.6E-09	-1.6E-09
Average	-	310.0E-12	190.0E-12	20.0E-12	-1.2E-09	-26.2E-09	-17.3E-09	-14.6E-09	-1.2E-09
Sigma	-	73.5E-12	86.0E-12	24.5E-12	237.9E-12	3.9E-09	2.5E-09	2.6E-09	209.8E-12

Parameter : Three state output leakage : IOLTLD11
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-50.0E-12	0.0E+00	-50.0E-12	-50.0E-12	0.0E+00	-50.0E-12	-50.0E-12	-50.0E-12	0.0E+00
ON samples									
SN2	-50.0E-12	-100.0E-12	-50.0E-12	-350.0E-12	-25.1E-09	-1.4E-06	-821.0E-09	-540.5E-09	-3.1E-09
SN3	0.0E+00	-100.0E-12	-100.0E-12	-350.0E-12	-59.2E-09	-4.7E-06	-3.2E-06	-1.9E-06	-4.6E-09
SN4	-50.0E-12	-50.0E-12	-150.0E-12	-250.0E-12	-18.4E-09	-1.0E-06	-639.0E-09	-386.5E-09	-2.6E-09
SN5	0.0E+00	0.0E+00	-100.0E-12	-350.0E-12	-96.5E-09	**-7.8E-06**	**-5.6E-06**	-3.5E-06	-5.7E-09
SN6	50.0E-12	-50.0E-12	-50.0E-12	-450.0E-12	-58.0E-09	-3.8E-06	-2.6E-06	-1.5E-06	-4.4E-09
Statistics									
Min	-50.0E-12	-100.0E-12	-150.0E-12	-450.0E-12	-96.5E-09	-7.8E-06	-5.6E-06	-3.5E-06	-5.7E-09
Max	50.0E-12	0.0E+00	-50.0E-12	-250.0E-12	-18.4E-09	-1.0E-06	-639.0E-09	-386.5E-09	-2.6E-09
Average	-10.0E-12	-60.0E-12	-90.0E-12	-350.0E-12	-51.4E-09	-3.7E-06	-2.6E-06	-1.6E-06	-4.1E-09
Sigma	37.4E-12	37.4E-12	37.4E-12	63.2E-12	28.0E-09	2.5E-06	1.8E-06	1.1E-06	1.1E-09

Drift Calculation

IOLTLD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-50.0E-12	0.0E+00	-300.0E-12	-25.1E-09	-1.4E-06	-821.0E-09	-540.5E-09	-3.1E-09
SN3	-	-100.0E-12	-100.0E-12	-350.0E-12	-59.2E-09	-4.7E-06	-3.2E-06	-1.9E-06	-4.6E-09
SN4	-	0.0E+00	-100.0E-12	-200.0E-12	-18.3E-09	-1.0E-06	-639.0E-09	-386.5E-09	-2.6E-09
SN5	-	0.0E+00	-100.0E-12	-350.0E-12	-96.5E-09	-7.8E-06	-5.6E-06	-3.5E-06	-5.7E-09
SN6	-	-100.0E-12	-100.0E-12	-500.0E-12	-58.1E-09	-3.8E-06	-2.6E-06	-1.5E-06	-4.4E-09
Average	-	-50.0E-12	-80.0E-12	-340.0E-12	-51.4E-09	-3.7E-06	-2.6E-06	-1.6E-06	-4.1E-09
Sigma	-	44.7E-12	40.0E-12	97.0E-12	28.0E-09	2.5E-06	1.8E-06	1.1E-06	1.1E-09

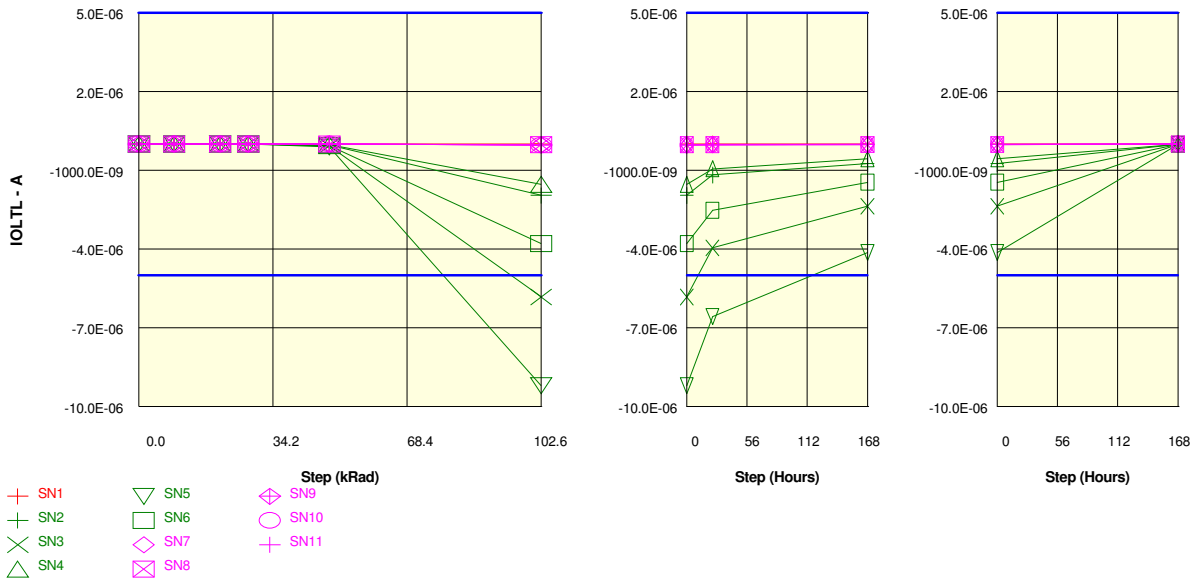
Measurements

IOLTLD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-50.0E-12	0.0E+00	-50.0E-12	-50.0E-12	0.0E+00	-50.0E-12	-50.0E-12	-50.0E-12	0.0E+00
OFF samples									
SN7	-50.0E-12	-50.0E-12	-100.0E-12	-150.0E-12	-1.3E-09	-29.3E-09	-23.2E-09	-16.8E-09	-1.2E-09
SN8	-50.0E-12	0.0E+00	-50.0E-12	-100.0E-12	-900.0E-12	-23.6E-09	-16.7E-09	-13.4E-09	-1.4E-09
SN9	50.0E-12	-100.0E-12	0.0E+00	-150.0E-12	-1.1E-09	-31.2E-09	-19.5E-09	-16.3E-09	-1.2E-09
SN10	-50.0E-12	-50.0E-12	0.0E+00	-150.0E-12	-1.4E-09	-38.2E-09	-24.4E-09	-22.7E-09	-1.2E-09
SN11	-50.0E-12	-50.0E-12	-100.0E-12	-100.0E-12	-1.1E-09	-30.1E-09	-17.9E-09	-16.6E-09	-1.7E-09
Statistics									
Min	-50.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-1.4E-09	-38.2E-09	-24.4E-09	-22.7E-09	-1.7E-09
Max	50.0E-12	0.0E+00	0.0E+00	-100.0E-12	-900.0E-12	-23.6E-09	-16.7E-09	-13.4E-09	-1.2E-09
Average	-30.0E-12	-50.0E-12	-50.0E-12	-130.0E-12	-1.2E-09	-30.5E-09	-20.3E-09	-17.1E-09	-1.3E-09
Sigma	40.0E-12	31.6E-12	44.7E-12	24.5E-12	174.4E-12	4.7E-09	3.0E-09	3.0E-09	193.4E-12

Drift Calculation

IOLTLD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	-50.0E-12	-100.0E-12	-1.3E-09	-29.3E-09	-23.2E-09	-16.8E-09	-1.1E-09
SN8	-	50.0E-12	0.0E+00	-50.0E-12	-850.0E-12	-23.5E-09	-16.7E-09	-13.3E-09	-1.4E-09
SN9	-	-150.0E-12	-50.0E-12	-200.0E-12	-1.2E-09	-31.2E-09	-19.6E-09	-16.4E-09	-1.2E-09
SN10	-	0.0E+00	50.0E-12	-100.0E-12	-1.4E-09	-38.2E-09	-24.3E-09	-22.6E-09	-1.2E-09
SN11	-	0.0E+00	-50.0E-12	-50.0E-12	-1.1E-09	-30.0E-09	-17.9E-09	-16.5E-09	-1.6E-09
Average	-	-20.0E-12	-20.0E-12	-100.0E-12	-1.1E-09	-30.4E-09	-20.3E-09	-17.1E-09	-1.3E-09
Sigma	-	67.8E-12	40.0E-12	54.8E-12	172.0E-12	4.7E-09	3.0E-09	3.0E-09	180.6E-12

Parameter : Three state output leakage : IOLTLD10
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	450.0E-12	450.0E-12	450.0E-12	450.0E-12	450.0E-12	400.0E-12	450.0E-12	500.0E-12	400.0E-12
ON samples									
SN2	500.0E-12	-50.0E-12	-100.0E-12	-300.0E-12	-30.2E-09	-2.0E-06	-1.2E-06	-751.0E-09	-4.2E-09
SN3	450.0E-12	-50.0E-12	-100.0E-12	-400.0E-12	-67.2E-09	**-5.8E-06**	-4.0E-06	-2.4E-06	-6.5E-09
SN4	650.0E-12	-50.0E-12	-100.0E-12	-350.0E-12	-23.6E-09	-1.5E-06	-941.5E-09	-555.5E-09	-3.5E-09
SN5	450.0E-12	-50.0E-12	-100.0E-12	-350.0E-12	-112.5E-09	**-9.2E-06**	**-6.6E-06**	-4.1E-06	-8.1E-09
SN6	600.0E-12	-50.0E-12	-50.0E-12	-450.0E-12	-58.7E-09	-3.8E-06	-2.5E-06	-1.5E-06	-5.9E-09
Statistics									
Min	450.0E-12	-50.0E-12	-100.0E-12	-450.0E-12	-112.5E-09	-9.2E-06	-6.6E-06	-4.1E-06	-8.1E-09
Max	650.0E-12	-50.0E-12	-50.0E-12	-300.0E-12	-23.6E-09	-1.5E-06	-941.5E-09	-555.5E-09	-3.5E-09
Average	530.0E-12	-50.0E-12	-90.0E-12	-370.0E-12	-58.4E-09	-4.5E-06	-3.0E-06	-1.9E-06	-5.6E-09
Sigma	81.2E-12	0.0E+00	20.0E-12	51.0E-12	31.7E-09	2.8E-06	2.1E-06	1.3E-06	1.6E-09

Drift Calculation

IOLTLD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-550.0E-12	-600.0E-12	-800.0E-12	-30.7E-09	-2.0E-06	-1.2E-06	-751.5E-09	-4.7E-09
SN3	-	-500.0E-12	-550.0E-12	-850.0E-12	-67.6E-09	-5.8E-06	-4.0E-06	-2.4E-06	-7.0E-09
SN4	-	-700.0E-12	-750.0E-12	-1.0E-09	-24.2E-09	-1.5E-06	-942.2E-09	-556.2E-09	-4.1E-09
SN5	-	-500.0E-12	-550.0E-12	-800.0E-12	-113.0E-09	-9.2E-06	-6.6E-06	-4.1E-06	-8.5E-09
SN6	-	-650.0E-12	-650.0E-12	-1.1E-09	-59.3E-09	-3.8E-06	-2.5E-06	-1.5E-06	-6.5E-09
Average	-	-580.0E-12	-620.0E-12	-900.0E-12	-59.0E-09	-4.5E-06	-3.0E-06	-1.9E-06	-6.2E-09
Sigma	-	81.2E-12	74.8E-12	104.9E-12	31.6E-09	2.8E-06	2.1E-06	1.3E-06	1.6E-09

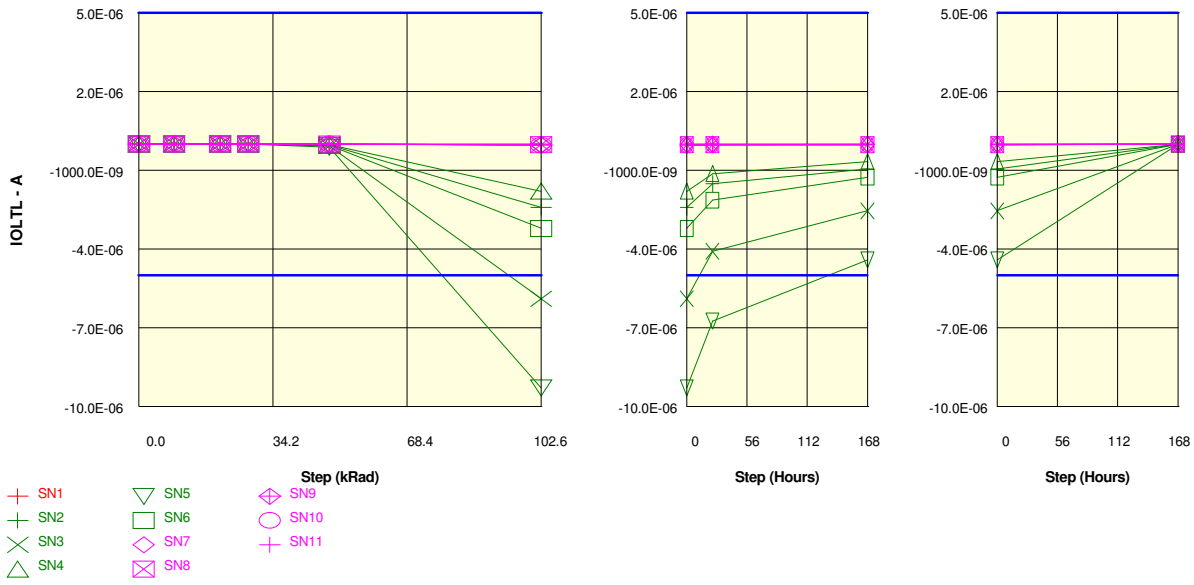
Measurements

IOLTLD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	450.0E-12	450.0E-12	450.0E-12	450.0E-12	450.0E-12	400.0E-12	450.0E-12	500.0E-12	400.0E-12
OFF samples									
SN7	400.0E-12	-50.0E-12	-100.0E-12	-150.0E-12	-1.5E-09	-33.8E-09	-26.6E-09	-19.4E-09	-1.4E-09
SN8	500.0E-12	-50.0E-12	-100.0E-12	-100.0E-12	-1.0E-09	-23.5E-09	-16.6E-09	-13.4E-09	-1.5E-09
SN9	650.0E-12	-50.0E-12	-100.0E-12	-100.0E-12	-1.3E-09	-32.9E-09	-20.9E-09	-17.1E-09	-1.3E-09
SN10	500.0E-12	-50.0E-12	-100.0E-12	-200.0E-12	-1.6E-09	-40.3E-09	-25.4E-09	-23.7E-09	-1.4E-09
SN11	600.0E-12	-50.0E-12	-100.0E-12	-100.0E-12	-1.2E-09	-32.1E-09	-19.2E-09	-17.7E-09	-1.8E-09
Statistics									
Min	400.0E-12	-50.0E-12	-100.0E-12	-200.0E-12	-1.6E-09	-40.3E-09	-26.6E-09	-23.7E-09	-1.8E-09
Max	650.0E-12	-50.0E-12	-100.0E-12	-100.0E-12	-1.0E-09	-23.5E-09	-16.6E-09	-13.4E-09	-1.3E-09
Average	530.0E-12	-50.0E-12	-100.0E-12	-130.0E-12	-1.3E-09	-32.5E-09	-21.7E-09	-18.2E-09	-1.5E-09
Sigma	87.2E-12	0.0E+00	0.0E+00	40.0E-12	199.0E-12	5.4E-09	3.8E-09	3.4E-09	187.1E-12

Drift Calculation

IOLTLD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-450.0E-12	-500.0E-12	-550.0E-12	-1.9E-09	-34.2E-09	-27.0E-09	-19.8E-09	-1.8E-09
SN8	-	-550.0E-12	-600.0E-12	-600.0E-12	-1.5E-09	-24.0E-09	-17.1E-09	-13.9E-09	-2.0E-09
SN9	-	-700.0E-12	-750.0E-12	-750.0E-12	-1.9E-09	-33.5E-09	-21.5E-09	-17.8E-09	-1.9E-09
SN10	-	-550.0E-12	-600.0E-12	-700.0E-12	-2.1E-09	-40.8E-09	-25.9E-09	-24.2E-09	-1.9E-09
SN11	-	-650.0E-12	-700.0E-12	-700.0E-12	-1.8E-09	-32.7E-09	-19.8E-09	-18.3E-09	-2.4E-09
Average	-	-580.0E-12	-630.0E-12	-660.0E-12	-1.8E-09	-33.0E-09	-22.2E-09	-18.8E-09	-2.0E-09
Sigma	-	87.2E-12	87.2E-12	73.5E-12	182.8E-12	5.4E-09	3.7E-09	3.3E-09	220.5E-12

Parameter : Three state output leakage : IOLTLD9
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	50.0E-12	550.0E-12	350.0E-12	350.0E-12	450.0E-12	550.0E-12	450.0E-12	450.0E-12	450.0E-12
ON samples									
SN2	500.0E-12	-350.0E-12	-450.0E-12	-700.0E-12	-32.1E-09	-2.4E-06	-1.5E-06	-953.5E-09	-4.3E-09
SN3	100.0E-12	-250.0E-12	-450.0E-12	-850.0E-12	-73.0E-09	**-5.9E-06**	-4.1E-06	-2.5E-06	-6.3E-09
SN4	700.0E-12	-200.0E-12	-400.0E-12	-800.0E-12	-25.5E-09	-1.8E-06	-1.1E-06	-665.5E-09	-4.1E-09
SN5	500.0E-12	-300.0E-12	-400.0E-12	-800.0E-12	-118.0E-09	**-9.3E-06**	**-6.7E-06**	-4.4E-06	-7.9E-09
SN6	650.0E-12	-250.0E-12	-400.0E-12	-850.0E-12	-48.0E-09	-3.2E-06	-2.1E-06	-1.3E-06	-5.6E-09
Statistics									
Min	100.0E-12	-350.0E-12	-450.0E-12	-850.0E-12	-118.0E-09	-9.3E-06	-6.7E-06	-4.4E-06	-7.9E-09
Max	700.0E-12	-200.0E-12	-400.0E-12	-700.0E-12	-25.5E-09	-1.8E-06	-1.1E-06	-665.5E-09	-4.1E-09
Average	490.0E-12	-270.0E-12	-420.0E-12	-800.0E-12	-59.3E-09	-4.5E-06	-3.1E-06	-2.0E-06	-5.6E-09
Sigma	210.7E-12	51.0E-12	24.5E-12	54.8E-12	33.6E-09	2.8E-06	2.1E-06	1.4E-06	1.4E-09

Drift Calculation

IOLTLD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-850.0E-12	-950.0E-12	-1.2E-09	-32.6E-09	-2.4E-06	-1.5E-06	-954.0E-09	-4.8E-09
SN3	-	-350.0E-12	-550.0E-12	-950.0E-12	-73.1E-09	-5.9E-06	-4.1E-06	-2.5E-06	-6.4E-09
SN4	-	-900.0E-12	-1.1E-09	-1.5E-09	-26.2E-09	-1.8E-06	-1.1E-06	-666.2E-09	-4.8E-09
SN5	-	-800.0E-12	-900.0E-12	-1.3E-09	-118.5E-09	-9.3E-06	-6.7E-06	-4.4E-06	-8.4E-09
SN6	-	-900.0E-12	-1.1E-09	-1.5E-09	-48.6E-09	-3.2E-06	-2.1E-06	-1.3E-06	-6.2E-09
Average	-	-760.0E-12	-910.0E-12	-1.3E-09	-59.8E-09	-4.5E-06	-3.1E-06	-2.0E-06	-6.1E-09
Sigma	-	208.3E-12	193.4E-12	205.9E-12	33.5E-09	2.8E-06	2.1E-06	1.4E-06	1.3E-09

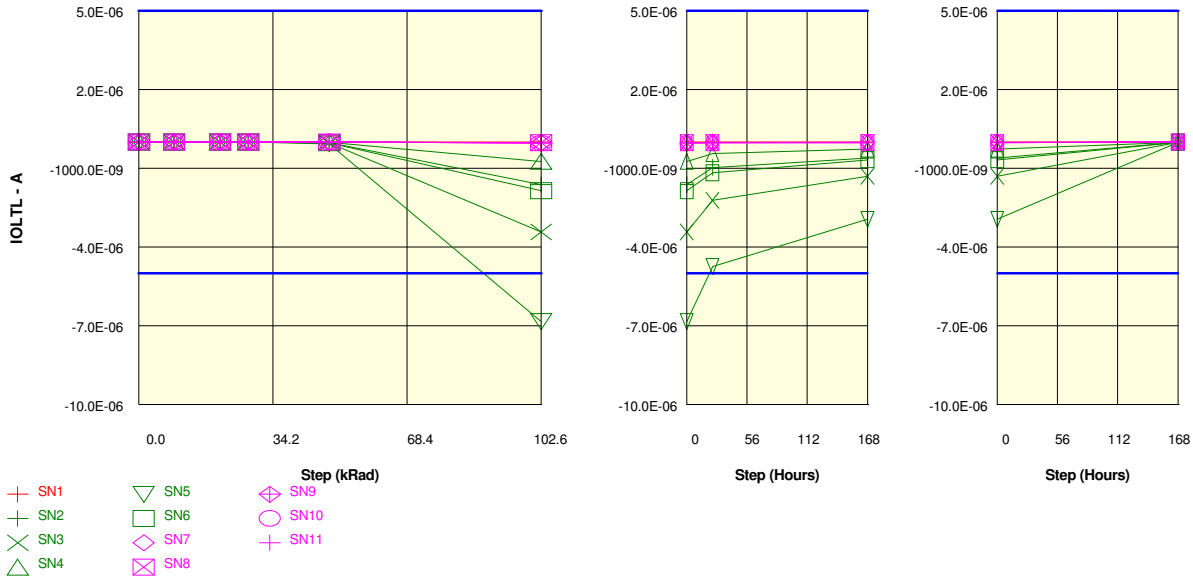
Measurements

IOLTLD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	50.0E-12	550.0E-12	350.0E-12	350.0E-12	450.0E-12	550.0E-12	450.0E-12	450.0E-12	450.0E-12
OFF samples									
SN7	250.0E-12	-300.0E-12	-450.0E-12	-650.0E-12	-2.0E-09	-36.2E-09	-28.7E-09	-20.8E-09	-1.8E-09
SN8	500.0E-12	-250.0E-12	-400.0E-12	-500.0E-12	-1.4E-09	-26.4E-09	-19.1E-09	-16.0E-09	-2.0E-09
SN9	700.0E-12	-150.0E-12	-450.0E-12	-400.0E-12	-1.7E-09	-35.0E-09	-22.8E-09	-19.2E-09	-1.8E-09
SN10	650.0E-12	-200.0E-12	-400.0E-12	-600.0E-12	-1.9E-09	-44.9E-09	-27.9E-09	-26.9E-09	-2.0E-09
SN11	700.0E-12	-200.0E-12	-400.0E-12	-650.0E-12	-1.8E-09	-33.0E-09	-20.9E-09	-19.2E-09	-2.4E-09
Statistics									
Min	250.0E-12	-300.0E-12	-450.0E-12	-650.0E-12	-2.0E-09	-44.9E-09	-28.7E-09	-26.9E-09	-2.4E-09
Max	700.0E-12	-150.0E-12	-400.0E-12	-400.0E-12	-1.4E-09	-26.4E-09	-19.1E-09	-16.0E-09	-1.8E-09
Average	560.0E-12	-220.0E-12	-420.0E-12	-560.0E-12	-1.7E-09	-35.1E-09	-23.9E-09	-20.4E-09	-2.0E-09
Sigma	171.5E-12	51.0E-12	24.5E-12	97.0E-12	193.4E-12	6.0E-09	3.8E-09	3.6E-09	201.5E-12

Drift Calculation

IOLTLD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-550.0E-12	-700.0E-12	-900.0E-12	-2.2E-09	-36.5E-09	-29.0E-09	-21.0E-09	-2.1E-09
SN8	-	-750.0E-12	-900.0E-12	-1.0E-09	-1.9E-09	-26.9E-09	-19.6E-09	-16.5E-09	-2.5E-09
SN9	-	-850.0E-12	-1.2E-09	-1.1E-09	-2.4E-09	-35.7E-09	-23.5E-09	-19.9E-09	-2.5E-09
SN10	-	-850.0E-12	-1.1E-09	-1.3E-09	-2.6E-09	-45.6E-09	-28.6E-09	-27.5E-09	-2.6E-09
SN11	-	-900.0E-12	-1.1E-09	-1.4E-09	-2.5E-09	-33.7E-09	-21.6E-09	-19.9E-09	-3.1E-09
Average	-	-780.0E-12	-980.0E-12	-1.1E-09	-2.3E-09	-35.6E-09	-24.4E-09	-21.0E-09	-2.5E-09
Sigma	-	124.9E-12	163.1E-12	163.1E-12	230.2E-12	6.0E-09	3.7E-09	3.6E-09	320.3E-12

Parameter : Three state output leakage : IOLTLD8
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-1.2E-09	-450.0E-12	-600.0E-12	-800.0E-12	-550.0E-12	-600.0E-12	-850.0E-12	-850.0E-12	-650.0E-12
ON samples									
SN2	-550.0E-12	-650.0E-12	-750.0E-12	-1.0E-09	-21.5E-09	-1.6E-06	-965.0E-09	-607.5E-09	-4.3E-09
SN3	-950.0E-12	-450.0E-12	-850.0E-12	-1.2E-09	-37.1E-09	-3.4E-06	-2.2E-06	-1.3E-06	-5.8E-09
SN4	-550.0E-12	-450.0E-12	-850.0E-12	-950.0E-12	-13.6E-09	-736.0E-09	-440.0E-09	-268.0E-09	-3.9E-09
SN5	-500.0E-12	-450.0E-12	-650.0E-12	-1.0E-09	-66.7E-09	**-6.8E-06**	-4.7E-06	-2.9E-06	-6.7E-09
SN6	-550.0E-12	-450.0E-12	-650.0E-12	-1.2E-09	-29.0E-09	-1.9E-06	-1.2E-06	-675.5E-09	-5.2E-09
Statistics									
Min	-950.0E-12	-650.0E-12	-850.0E-12	-1.2E-09	-66.7E-09	-6.8E-06	-4.7E-06	-2.9E-06	-6.7E-09
Max	-500.0E-12	-450.0E-12	-650.0E-12	-950.0E-12	-13.6E-09	-736.0E-09	-440.0E-09	-268.0E-09	-3.9E-09
Average	-620.0E-12	-490.0E-12	-750.0E-12	-1.1E-09	-33.6E-09	-2.9E-06	-1.9E-06	-1.2E-06	-5.2E-09
Sigma	166.1E-12	80.0E-12	89.4E-12	83.7E-12	18.3E-09	2.2E-06	1.5E-06	951.3E-09	1.0E-09

Drift Calculation

IOLTLD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-100.0E-12	-200.0E-12	-450.0E-12	-20.9E-09	-1.6E-06	-964.5E-09	-607.0E-09	-3.7E-09
SN3	-	500.0E-12	100.0E-12	-200.0E-12	-36.2E-09	-3.4E-06	-2.2E-06	-1.3E-06	-4.9E-09
SN4	-	100.0E-12	-300.0E-12	-400.0E-12	-13.0E-09	-735.5E-09	-439.5E-09	-267.5E-09	-3.3E-09
SN5	-	50.0E-12	-150.0E-12	-500.0E-12	-66.2E-09	-6.8E-06	-4.7E-06	-2.9E-06	-6.2E-09
SN6	-	100.0E-12	-100.0E-12	-600.0E-12	-28.5E-09	-1.8E-06	-1.2E-06	-675.0E-09	-4.7E-09
Average	-	130.0E-12	-130.0E-12	-430.0E-12	-32.9E-09	-2.9E-06	-1.9E-06	-1.2E-06	-4.5E-09
Sigma	-	199.0E-12	132.7E-12	132.7E-12	18.3E-09	2.2E-06	1.5E-06	951.3E-09	1.0E-09

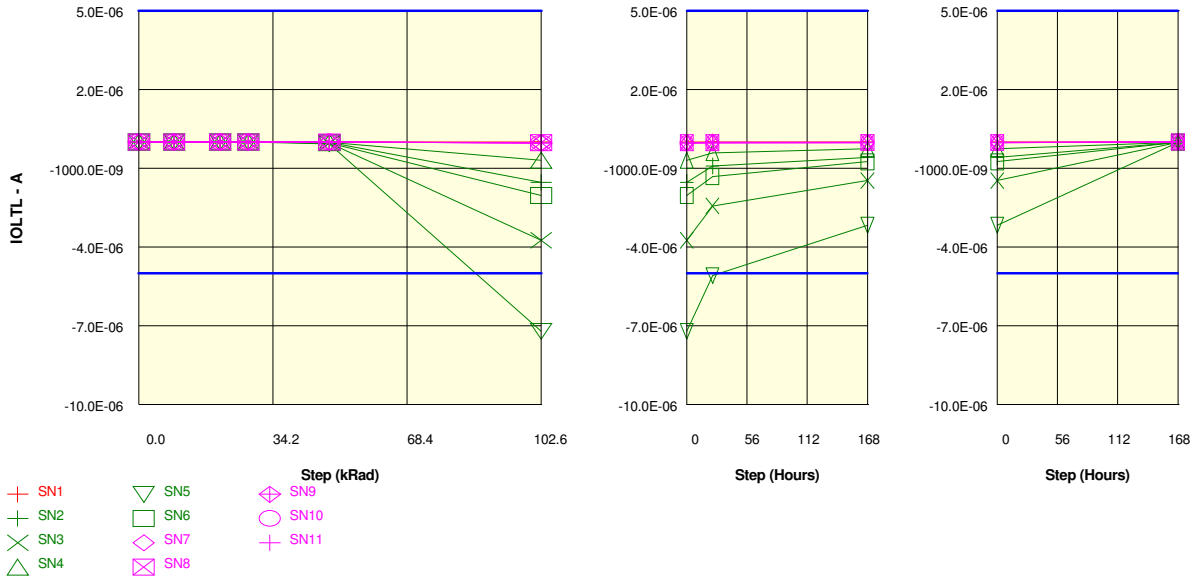
Measurements

IOLTLD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-1.2E-09	-450.0E-12	-600.0E-12	-800.0E-12	-550.0E-12	-600.0E-12	-850.0E-12	-850.0E-12	-650.0E-12
OFF samples									
SN7	-650.0E-12	-550.0E-12	-950.0E-12	-1.3E-09	-2.2E-09	-31.6E-09	-25.9E-09	-18.7E-09	-1.9E-09
SN8	-750.0E-12	-450.0E-12	-750.0E-12	-750.0E-12	-1.5E-09	-22.5E-09	-16.1E-09	-14.7E-09	-1.9E-09
SN9	-600.0E-12	-400.0E-12	-700.0E-12	-700.0E-12	-2.0E-09	-32.7E-09	-21.1E-09	-18.6E-09	-2.0E-09
SN10	-600.0E-12	-400.0E-12	-700.0E-12	-1.0E-09	-2.0E-09	-39.2E-09	-24.8E-09	-23.9E-09	-2.1E-09
SN11	-300.0E-12	-450.0E-12	-750.0E-12	-850.0E-12	-2.1E-09	-28.7E-09	-18.3E-09	-17.2E-09	-2.5E-09
Statistics									
Min	-750.0E-12	-550.0E-12	-950.0E-12	-1.3E-09	-2.2E-09	-39.2E-09	-25.9E-09	-23.9E-09	-2.5E-09
Max	-300.0E-12	-400.0E-12	-700.0E-12	-700.0E-12	-1.5E-09	-22.5E-09	-16.1E-09	-14.7E-09	-1.9E-09
Average	-580.0E-12	-450.0E-12	-770.0E-12	-910.0E-12	-1.9E-09	-30.9E-09	-21.2E-09	-18.6E-09	-2.1E-09
Sigma	150.3E-12	54.8E-12	92.7E-12	198.5E-12	254.2E-12	5.4E-09	3.7E-09	3.0E-09	208.3E-12

Drift Calculation

IOLTLD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	100.0E-12	-300.0E-12	-600.0E-12	-1.6E-09	-30.9E-09	-25.2E-09	-18.0E-09	-1.3E-09
SN8	-	300.0E-12	0.0E+00	0.0E+00	-700.0E-12	-21.8E-09	-15.3E-09	-14.0E-09	-1.2E-09
SN9	-	200.0E-12	-100.0E-12	-100.0E-12	-1.4E-09	-32.1E-09	-20.5E-09	-18.0E-09	-1.4E-09
SN10	-	200.0E-12	-100.0E-12	-400.0E-12	-1.4E-09	-38.6E-09	-24.2E-09	-23.3E-09	-1.5E-09
SN11	-	-150.0E-12	-450.0E-12	-550.0E-12	-1.8E-09	-28.4E-09	-18.0E-09	-16.9E-09	-2.2E-09
Average	-	130.0E-12	-190.0E-12	-330.0E-12	-1.4E-09	-30.3E-09	-20.6E-09	-18.0E-09	-1.5E-09
Sigma	-	153.6E-12	162.5E-12	240.0E-12	353.6E-12	5.4E-09	3.7E-09	3.0E-09	354.4E-12

Parameter : Three state output leakage : IOLTLD7
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.0E-09	3.2E-09	2.8E-09	3.2E-09	3.2E-09	3.0E-09	2.8E-09	3.5E-09	3.2E-09
ON samples									
SN2	3.0E-09	250.0E-12	-200.0E-12	-400.0E-12	-17.3E-09	-1.5E-06	-914.0E-09	-583.5E-09	-3.7E-09
SN3	3.2E-09	450.0E-12	0.0E+00	-300.0E-12	-36.0E-09	-3.7E-06	-2.4E-06	-1.5E-06	-5.2E-09
SN4	3.4E-09	400.0E-12	-50.0E-12	-300.0E-12	-10.6E-09	-693.0E-09	-406.0E-09	-248.0E-09	-2.8E-09
SN5	3.4E-09	400.0E-12	0.0E+00	-200.0E-12	-65.6E-09	**-7.2E-06**	**-5.1E-06**	-3.2E-06	-6.5E-09
SN6	3.4E-09	400.0E-12	-50.0E-12	-350.0E-12	-26.9E-09	-2.0E-06	-1.3E-06	-749.0E-09	-4.3E-09
Statistics									
Min	3.0E-09	250.0E-12	-200.0E-12	-400.0E-12	-65.6E-09	-7.2E-06	-5.1E-06	-3.2E-06	-6.5E-09
Max	3.4E-09	450.0E-12	0.0E+00	-200.0E-12	-10.6E-09	-693.0E-09	-406.0E-09	-248.0E-09	-2.8E-09
Average	3.2E-09	380.0E-12	-60.0E-12	-310.0E-12	-31.3E-09	-3.0E-06	-2.0E-06	-1.2E-06	-4.5E-09
Sigma	168.5E-12	67.8E-12	73.5E-12	66.3E-12	19.2E-09	2.3E-06	1.7E-06	1.0E-06	1.3E-09

Drift Calculation

IOLTLD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-2.7E-09	-3.2E-09	-3.4E-09	-20.2E-09	-1.5E-06	-917.0E-09	-586.5E-09	-6.6E-09
SN3	-	-2.7E-09	-3.2E-09	-3.5E-09	-39.1E-09	-3.7E-06	-2.4E-06	-1.5E-06	-8.3E-09
SN4	-	-3.0E-09	-3.5E-09	-3.7E-09	-14.0E-09	-696.4E-09	-409.4E-09	-251.4E-09	-6.2E-09
SN5	-	-3.0E-09	-3.4E-09	-3.6E-09	-69.0E-09	-7.2E-06	-5.1E-06	-3.2E-06	-9.8E-09
SN6	-	-3.0E-09	-3.4E-09	-3.7E-09	-30.2E-09	-2.0E-06	-1.3E-06	-752.4E-09	-7.7E-09
Average	-	-2.9E-09	-3.3E-09	-3.6E-09	-34.5E-09	-3.0E-06	-2.0E-06	-1.2E-06	-7.7E-09
Sigma	-	131.9E-12	126.5E-12	137.8E-12	19.2E-09	2.3E-06	1.7E-06	1.0E-06	1.3E-09

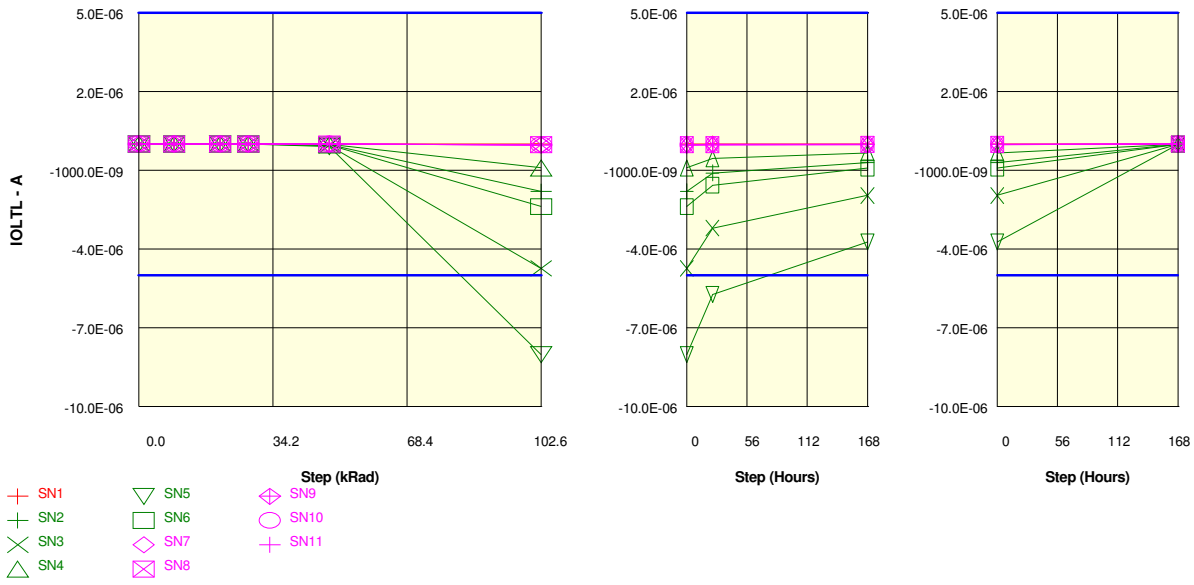
Measurements

IOLTLD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.0E-09	3.2E-09	2.8E-09	3.2E-09	3.2E-09	3.0E-09	2.8E-09	3.5E-09	3.2E-09
OFF samples									
SN7	3.3E-09	600.0E-12	-50.0E-12	-50.0E-12	-1.4E-09	-34.1E-09	-27.6E-09	-20.0E-09	-1.4E-09
SN8	3.6E-09	650.0E-12	-50.0E-12	0.0E+00	-750.0E-12	-23.3E-09	-16.7E-09	-13.5E-09	-1.4E-09
SN9	3.7E-09	550.0E-12	50.0E-12	-100.0E-12	-1.1E-09	-35.6E-09	-22.8E-09	-18.8E-09	-1.5E-09
SN10	3.5E-09	550.0E-12	-150.0E-12	-100.0E-12	-1.3E-09	-38.1E-09	-24.3E-09	-22.7E-09	-1.5E-09
SN11	3.8E-09	650.0E-12	-50.0E-12	-350.0E-12	-1.0E-09	-28.0E-09	-16.9E-09	-15.9E-09	-1.7E-09
Statistics									
Min	3.3E-09	550.0E-12	-150.0E-12	-350.0E-12	-1.4E-09	-38.1E-09	-27.6E-09	-22.7E-09	-1.7E-09
Max	3.8E-09	650.0E-12	50.0E-12	0.0E+00	-750.0E-12	-23.3E-09	-16.7E-09	-13.5E-09	-1.4E-09
Average	3.5E-09	600.0E-12	-50.0E-12	-120.0E-12	-1.1E-09	-31.8E-09	-21.6E-09	-18.2E-09	-1.5E-09
Sigma	174.4E-12	44.7E-12	63.2E-12	120.8E-12	216.8E-12	5.4E-09	4.3E-09	3.2E-09	120.8E-12

Drift Calculation

IOLTLD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-2.7E-09	-3.3E-09	-3.3E-09	-4.6E-09	-37.3E-09	-30.9E-09	-23.3E-09	-4.6E-09
SN8	-	-3.0E-09	-3.7E-09	-3.6E-09	-4.4E-09	-26.9E-09	-20.3E-09	-17.1E-09	-5.0E-09
SN9	-	-3.1E-09	-3.6E-09	-3.8E-09	-4.8E-09	-39.2E-09	-26.4E-09	-22.5E-09	-5.2E-09
SN10	-	-2.9E-09	-3.6E-09	-3.6E-09	-4.8E-09	-41.5E-09	-27.8E-09	-26.2E-09	-4.9E-09
SN11	-	-3.1E-09	-3.8E-09	-4.1E-09	-4.8E-09	-31.7E-09	-20.6E-09	-19.6E-09	-5.5E-09
Average	-	-2.9E-09	-3.6E-09	-3.7E-09	-4.6E-09	-35.3E-09	-25.2E-09	-21.7E-09	-5.0E-09
Sigma	-	165.5E-12	162.5E-12	263.4E-12	156.2E-12	5.3E-09	4.1E-09	3.1E-09	280.4E-12

Parameter : Three state output leakage : IOLTLD6
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.5E-09	3.5E-09	3.0E-09	3.6E-09	3.6E-09	3.2E-09	3.3E-09	3.9E-09	3.6E-09
ON samples									
SN2	3.4E-09	300.0E-12	-200.0E-12	-400.0E-12	-21.9E-09	-1.8E-06	-1.1E-06	-708.5E-09	-4.0E-09
SN3	3.9E-09	600.0E-12	-50.0E-12	-450.0E-12	-51.9E-09	-4.7E-06	-3.2E-06	-2.0E-06	-5.9E-09
SN4	3.9E-09	300.0E-12	-50.0E-12	-400.0E-12	-14.2E-09	-907.0E-09	-553.5E-09	-335.5E-09	-3.3E-09
SN5	4.0E-09	500.0E-12	-50.0E-12	-300.0E-12	-97.5E-09	**-8.0E-06**	**-5.7E-06**	-3.7E-06	-7.2E-09
SN6	4.2E-09	350.0E-12	-50.0E-12	-350.0E-12	-32.8E-09	-2.4E-06	-1.6E-06	-913.5E-09	-4.6E-09
Statistics									
Min	3.4E-09	300.0E-12	-200.0E-12	-450.0E-12	-97.5E-09	-8.0E-06	-5.7E-06	-3.7E-06	-7.2E-09
Max	4.2E-09	600.0E-12	-50.0E-12	-300.0E-12	-14.2E-09	-907.0E-09	-553.5E-09	-335.5E-09	-3.3E-09
Average	3.9E-09	410.0E-12	-80.0E-12	-380.0E-12	-43.6E-09	-3.6E-06	-2.4E-06	-1.5E-06	-5.0E-09
Sigma	260.0E-12	120.0E-12	60.0E-12	51.0E-12	29.8E-09	2.6E-06	1.9E-06	1.2E-06	1.4E-09

Drift Calculation

IOLTLD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-3.1E-09	-3.6E-09	-3.8E-09	-25.3E-09	-1.8E-06	-1.1E-06	-711.9E-09	-7.4E-09
SN3	-	-3.3E-09	-4.0E-09	-4.4E-09	-55.8E-09	-4.7E-06	-3.2E-06	-2.0E-06	-9.8E-09
SN4	-	-3.6E-09	-4.0E-09	-4.3E-09	-18.1E-09	-910.9E-09	-557.4E-09	-339.4E-09	-7.2E-09
SN5	-	-3.5E-09	-4.0E-09	-4.3E-09	-101.5E-09	-8.0E-06	-5.7E-06	-3.7E-06	-11.1E-09
SN6	-	-3.9E-09	-4.3E-09	-4.6E-09	-37.0E-09	-2.4E-06	-1.6E-06	-917.7E-09	-8.8E-09
Average	-	-3.5E-09	-4.0E-09	-4.3E-09	-47.5E-09	-3.6E-06	-2.4E-06	-1.5E-06	-8.8E-09
Sigma	-	255.7E-12	207.4E-12	247.0E-12	29.8E-09	2.6E-06	1.9E-06	1.2E-06	1.5E-09

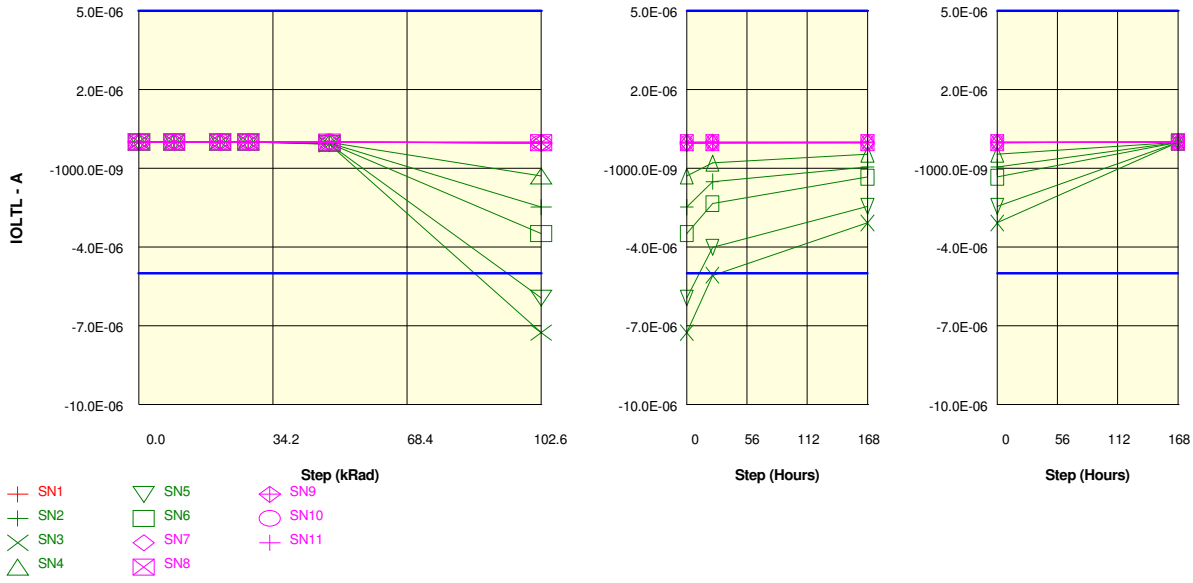
Measurements

IOLTLD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.5E-09	3.5E-09	3.0E-09	3.6E-09	3.6E-09	3.2E-09	3.3E-09	3.9E-09	3.6E-09
OFF samples									
SN7	3.8E-09	750.0E-12	0.0E+00	0.0E+00	-1.5E-09	-33.8E-09	-27.3E-09	-19.5E-09	-1.4E-09
SN8	4.2E-09	800.0E-12	0.0E+00	0.0E+00	-700.0E-12	-21.1E-09	-15.2E-09	-12.3E-09	-1.3E-09
SN9	4.0E-09	650.0E-12	-50.0E-12	-50.0E-12	-950.0E-12	-32.4E-09	-20.9E-09	-17.4E-09	-1.4E-09
SN10	4.1E-09	600.0E-12	-250.0E-12	-100.0E-12	-1.2E-09	-36.4E-09	-22.7E-09	-21.8E-09	-1.4E-09
SN11	4.4E-09	850.0E-12	-50.0E-12	-350.0E-12	-1.0E-09	-29.2E-09	-17.8E-09	-16.4E-09	-1.8E-09
Statistics									
Min	3.8E-09	600.0E-12	-250.0E-12	-350.0E-12	-1.5E-09	-36.4E-09	-27.3E-09	-21.8E-09	-1.8E-09
Max	4.4E-09	850.0E-12	0.0E+00	0.0E+00	-700.0E-12	-21.1E-09	-15.2E-09	-12.3E-09	-1.3E-09
Average	4.1E-09	730.0E-12	-70.0E-12	-100.0E-12	-1.1E-09	-30.6E-09	-20.8E-09	-17.5E-09	-1.4E-09
Sigma	196.5E-12	92.7E-12	92.7E-12	130.4E-12	263.4E-12	5.3E-09	4.1E-09	3.2E-09	169.1E-12

Drift Calculation

IOLTLD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-3.1E-09	-3.8E-09	-3.8E-09	-5.3E-09	-37.6E-09	-31.1E-09	-23.3E-09	-5.2E-09
SN8	-	-3.4E-09	-4.2E-09	-4.2E-09	-4.9E-09	-25.3E-09	-19.4E-09	-16.4E-09	-5.4E-09
SN9	-	-3.4E-09	-4.1E-09	-4.1E-09	-5.0E-09	-36.4E-09	-24.9E-09	-21.4E-09	-5.4E-09
SN10	-	-3.5E-09	-4.3E-09	-4.2E-09	-5.2E-09	-40.4E-09	-26.8E-09	-25.8E-09	-5.4E-09
SN11	-	-3.6E-09	-4.5E-09	-4.8E-09	-5.4E-09	-33.6E-09	-22.2E-09	-20.8E-09	-6.2E-09
Average	-	-3.4E-09	-4.2E-09	-4.2E-09	-5.1E-09	-34.6E-09	-24.9E-09	-21.5E-09	-5.5E-09
Sigma	-	167.3E-12	221.4E-12	312.4E-12	208.3E-12	5.2E-09	4.0E-09	3.1E-09	329.2E-12

Parameter : Three state output leakage : IOLTLD5
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	900.0E-12	850.0E-12	800.0E-12	950.0E-12	950.0E-12	350.0E-12	800.0E-12	1.0E-09	900.0E-12
ON samples									
SN2	950.0E-12	-150.0E-12	-250.0E-12	-450.0E-12	-29.6E-09	-2.5E-06	-1.5E-06	-953.5E-09	-4.1E-09
SN3	850.0E-12	-150.0E-12	-200.0E-12	-450.0E-12	-79.1E-09	**-7.3E-06**	**-5.1E-06**	-3.1E-06	-5.4E-09
SN4	1.1E-09	-250.0E-12	-250.0E-12	-400.0E-12	-16.6E-09	-1.3E-06	-797.0E-09	-463.0E-09	-3.1E-09
SN5	950.0E-12	-200.0E-12	-250.0E-12	-450.0E-12	-67.2E-09	**-5.9E-06**	-4.0E-06	-2.5E-06	-6.5E-09
SN6	1.0E-09	-100.0E-12	-200.0E-12	-450.0E-12	-43.9E-09	-3.5E-06	-2.3E-06	-1.3E-06	-4.4E-09
Statistics									
Min	850.0E-12	-250.0E-12	-250.0E-12	-450.0E-12	-79.1E-09	-7.3E-06	-5.1E-06	-3.1E-06	-6.5E-09
Max	1.1E-09	-100.0E-12	-200.0E-12	-400.0E-12	-16.6E-09	-1.3E-06	-797.0E-09	-463.0E-09	-3.1E-09
Average	960.0E-12	-170.0E-12	-230.0E-12	-440.0E-12	-47.3E-09	-4.1E-06	-2.7E-06	-1.7E-06	-4.7E-09
Sigma	66.3E-12	51.0E-12	24.5E-12	20.0E-12	23.1E-09	2.2E-06	1.6E-06	965.8E-09	1.2E-09

Drift Calculation

IOLTLD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-1.1E-09	-1.2E-09	-1.4E-09	-30.5E-09	-2.5E-06	-1.5E-06	-954.5E-09	-5.0E-09
SN3	-	-1.0E-09	-1.1E-09	-1.3E-09	-80.0E-09	-7.3E-06	-5.1E-06	-3.1E-06	-6.2E-09
SN4	-	-1.3E-09	-1.3E-09	-1.5E-09	-17.6E-09	-1.3E-06	-798.1E-09	-464.1E-09	-4.1E-09
SN5	-	-1.2E-09	-1.2E-09	-1.4E-09	-68.2E-09	-5.9E-06	-4.0E-06	-2.5E-06	-7.4E-09
SN6	-	-1.1E-09	-1.2E-09	-1.5E-09	-44.9E-09	-3.5E-06	-2.3E-06	-1.3E-06	-5.4E-09
Average	-	-1.1E-09	-1.2E-09	-1.4E-09	-48.2E-09	-4.1E-06	-2.7E-06	-1.7E-06	-5.6E-09
Sigma	-	98.0E-12	80.0E-12	54.8E-12	23.1E-09	2.2E-06	1.6E-06	965.7E-09	1.1E-09

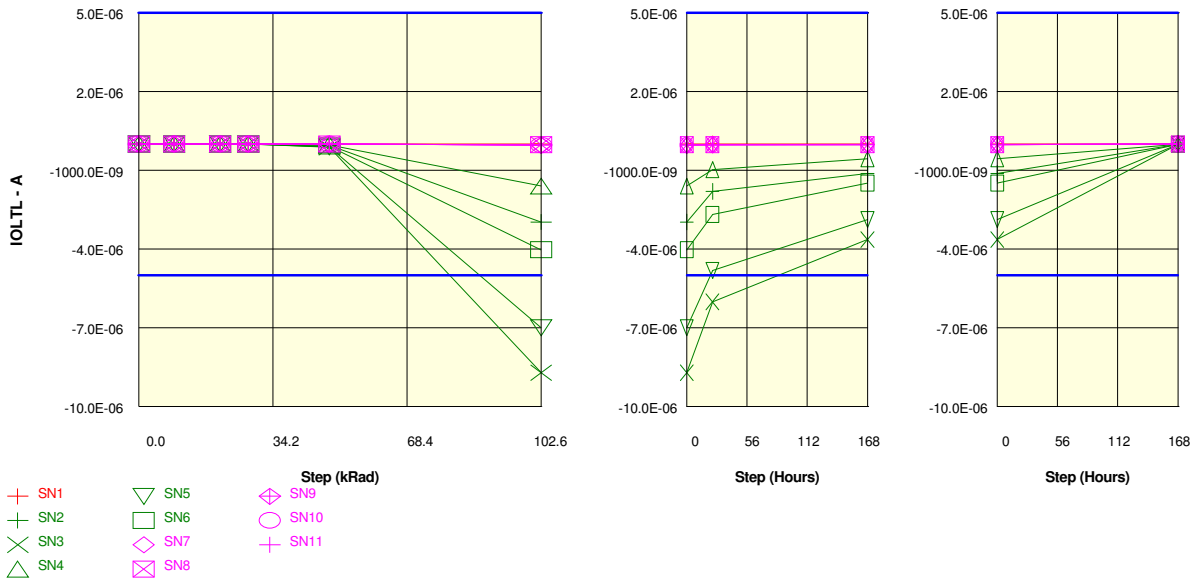
Measurements

IOLTLD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	900.0E-12	850.0E-12	800.0E-12	950.0E-12	950.0E-12	350.0E-12	800.0E-12	1.0E-09	900.0E-12
OFF samples									
SN7	800.0E-12	-200.0E-12	-250.0E-12	-300.0E-12	-1.5E-09	-36.3E-09	-29.1E-09	-20.8E-09	-1.8E-09
SN8	1.0E-09	-100.0E-12	-250.0E-12	-300.0E-12	-1.2E-09	-26.5E-09	-18.6E-09	-15.4E-09	-1.8E-09
SN9	1.3E-09	-100.0E-12	-250.0E-12	-300.0E-12	-1.5E-09	-39.4E-09	-25.5E-09	-20.6E-09	-1.8E-09
SN10	1.0E-09	-150.0E-12	-200.0E-12	-300.0E-12	-1.7E-09	-42.8E-09	-27.3E-09	-25.2E-09	-1.8E-09
SN11	1.0E-09	-150.0E-12	-250.0E-12	-300.0E-12	-1.4E-09	-36.0E-09	-21.8E-09	-20.1E-09	-2.2E-09
Statistics									
Min	800.0E-12	-200.0E-12	-250.0E-12	-300.0E-12	-1.7E-09	-42.8E-09	-29.1E-09	-25.2E-09	-2.2E-09
Max	1.3E-09	-100.0E-12	-200.0E-12	-300.0E-12	-1.2E-09	-26.5E-09	-18.6E-09	-15.4E-09	-1.8E-09
Average	1.0E-09	-140.0E-12	-240.0E-12	-300.0E-12	-1.4E-09	-36.2E-09	-24.4E-09	-20.4E-09	-1.8E-09
Sigma	142.8E-12	37.4E-12	20.0E-12	0.0E+00	166.1E-12	5.4E-09	3.8E-09	3.1E-09	180.0E-12

Drift Calculation

IOLTLD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-1.0E-09	-1.1E-09	-1.1E-09	-2.3E-09	-37.1E-09	-29.9E-09	-21.6E-09	-2.6E-09
SN8	-	-1.1E-09	-1.3E-09	-1.3E-09	-2.2E-09	-27.5E-09	-19.6E-09	-16.4E-09	-2.8E-09
SN9	-	-1.4E-09	-1.5E-09	-1.6E-09	-2.7E-09	-40.6E-09	-26.7E-09	-21.8E-09	-3.0E-09
SN10	-	-1.2E-09	-1.2E-09	-1.3E-09	-2.7E-09	-43.8E-09	-28.3E-09	-26.2E-09	-2.8E-09
SN11	-	-1.2E-09	-1.3E-09	-1.3E-09	-2.4E-09	-37.0E-09	-22.8E-09	-21.1E-09	-3.2E-09
Average	-	-1.2E-09	-1.3E-09	-1.3E-09	-2.4E-09	-37.2E-09	-25.4E-09	-21.4E-09	-2.9E-09
Sigma	-	114.0E-12	144.9E-12	142.8E-12	211.2E-12	5.5E-09	3.8E-09	3.1E-09	225.8E-12

Parameter : Three state output leakage : IOLTLD4
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	450.0E-12	350.0E-12	350.0E-12	350.0E-12	450.0E-12	-350.0E-12	300.0E-12	450.0E-12	350.0E-12
ON samples									
SN2	500.0E-12	-350.0E-12	-350.0E-12	-650.0E-12	-46.1E-09	-3.0E-06	-1.8E-06	-1.1E-06	-5.0E-09
SN3	450.0E-12	-350.0E-12	-300.0E-12	-600.0E-12	-119.5E-09	**-8.7E-06**	**-6.0E-06**	-3.6E-06	-6.6E-09
SN4	550.0E-12	-250.0E-12	-300.0E-12	-500.0E-12	-26.5E-09	-1.6E-06	-970.0E-09	-561.5E-09	-3.8E-09
SN5	400.0E-12	-300.0E-12	-300.0E-12	-700.0E-12	-110.0E-09	**-7.0E-06**	-4.8E-06	-2.9E-06	-7.8E-09
SN6	450.0E-12	-300.0E-12	-300.0E-12	-700.0E-12	-74.6E-09	-4.0E-06	-2.7E-06	-1.5E-06	-5.9E-09
Statistics									
Min	400.0E-12	-350.0E-12	-350.0E-12	-700.0E-12	-119.5E-09	-8.7E-06	-6.0E-06	-3.6E-06	-7.8E-09
Max	550.0E-12	-250.0E-12	-300.0E-12	-500.0E-12	-26.5E-09	-1.6E-06	-970.0E-09	-561.5E-09	-3.8E-09
Average	470.0E-12	-310.0E-12	-310.0E-12	-630.0E-12	-75.3E-09	-4.9E-06	-3.3E-06	-1.9E-06	-5.8E-09
Sigma	51.0E-12	37.4E-12	20.0E-12	74.8E-12	35.8E-09	2.6E-06	1.9E-06	1.1E-06	1.4E-09

Drift Calculation

IOLTLD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-850.0E-12	-850.0E-12	-1.2E-09	-46.6E-09	-3.0E-06	-1.8E-06	-1.1E-06	-5.5E-09
SN3	-	-800.0E-12	-750.0E-12	-1.1E-09	-120.0E-09	-8.7E-06	-6.0E-06	-3.6E-06	-7.1E-09
SN4	-	-800.0E-12	-850.0E-12	-1.1E-09	-27.1E-09	-1.6E-06	-970.6E-09	-562.1E-09	-4.3E-09
SN5	-	-700.0E-12	-700.0E-12	-1.1E-09	-110.4E-09	-7.0E-06	-4.8E-06	-2.9E-06	-8.2E-09
SN6	-	-750.0E-12	-750.0E-12	-1.2E-09	-75.0E-09	-4.0E-06	-2.7E-06	-1.5E-06	-6.4E-09
Average	-	-780.0E-12	-780.0E-12	-1.1E-09	-75.8E-09	-4.9E-06	-3.3E-06	-1.9E-06	-6.3E-09
Sigma	-	51.0E-12	60.0E-12	44.7E-12	35.7E-09	2.6E-06	1.9E-06	1.1E-06	1.3E-09

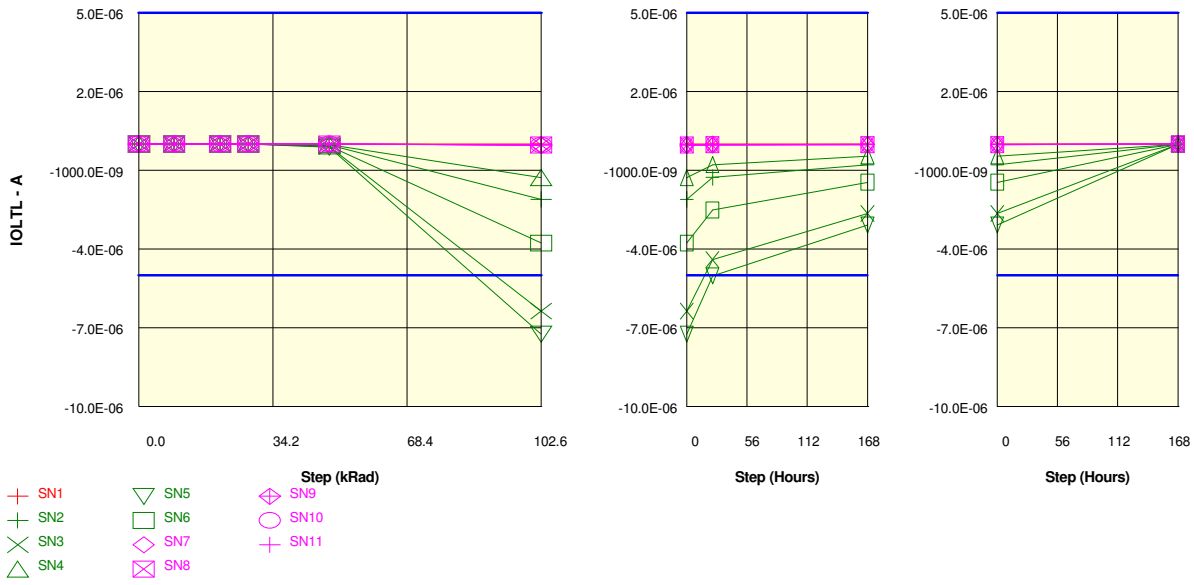
Measurements

IOLTLD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	450.0E-12	350.0E-12	350.0E-12	350.0E-12	450.0E-12	-350.0E-12	300.0E-12	450.0E-12	350.0E-12
OFF samples									
SN7	350.0E-12	-300.0E-12	-350.0E-12	-400.0E-12	-1.8E-09	-40.0E-09	-31.0E-09	-22.4E-09	-1.8E-09
SN8	400.0E-12	-300.0E-12	-300.0E-12	-350.0E-12	-1.3E-09	-26.9E-09	-19.0E-09	-15.2E-09	-2.0E-09
SN9	650.0E-12	-200.0E-12	-350.0E-12	-400.0E-12	-1.6E-09	-40.1E-09	-25.4E-09	-20.8E-09	-1.9E-09
SN10	450.0E-12	-250.0E-12	-350.0E-12	-400.0E-12	-1.8E-09	-41.2E-09	-25.6E-09	-24.6E-09	-1.8E-09
SN11	450.0E-12	-250.0E-12	-300.0E-12	-450.0E-12	-1.4E-09	-39.0E-09	-20.2E-09	-18.6E-09	-2.2E-09
Statistics									
Min	350.0E-12	-300.0E-12	-350.0E-12	-450.0E-12	-1.8E-09	-41.2E-09	-31.0E-09	-24.6E-09	-2.2E-09
Max	650.0E-12	-200.0E-12	-300.0E-12	-350.0E-12	-1.3E-09	-26.9E-09	-19.0E-09	-15.2E-09	-1.8E-09
Average	460.0E-12	-260.0E-12	-330.0E-12	-400.0E-12	-1.6E-09	-37.4E-09	-24.2E-09	-20.3E-09	-1.9E-09
Sigma	102.0E-12	37.4E-12	24.5E-12	31.6E-12	216.8E-12	5.3E-09	4.3E-09	3.2E-09	131.9E-12

Drift Calculation

IOLTLD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-650.0E-12	-700.0E-12	-750.0E-12	-2.2E-09	-40.3E-09	-31.4E-09	-22.7E-09	-2.2E-09
SN8	-	-700.0E-12	-700.0E-12	-750.0E-12	-1.7E-09	-27.3E-09	-19.4E-09	-15.6E-09	-2.4E-09
SN9	-	-850.0E-12	-1.0E-09	-1.1E-09	-2.3E-09	-40.7E-09	-26.1E-09	-21.4E-09	-2.5E-09
SN10	-	-700.0E-12	-800.0E-12	-850.0E-12	-2.2E-09	-41.7E-09	-26.1E-09	-25.0E-09	-2.3E-09
SN11	-	-700.0E-12	-750.0E-12	-900.0E-12	-1.8E-09	-39.5E-09	-20.6E-09	-19.1E-09	-2.6E-09
Average	-	-720.0E-12	-790.0E-12	-860.0E-12	-2.0E-09	-37.9E-09	-24.7E-09	-20.8E-09	-2.4E-09
Sigma	-	67.8E-12	111.4E-12	111.4E-12	239.6E-12	5.4E-09	4.3E-09	3.2E-09	163.1E-12

Parameter : Three state output leakage : IOLTLD3
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	100.0E-12	0.0E+00	50.0E-12	0.0E+00	50.0E-12	0.0E+00	50.0E-12	50.0E-12	50.0E-12
ON samples									
SN2	100.0E-12	-50.0E-12	-100.0E-12	-300.0E-12	-35.4E-09	-2.1E-06	-1.3E-06	-790.0E-09	-4.2E-09
SN3	50.0E-12	-150.0E-12	-100.0E-12	-400.0E-12	-97.5E-09	**-6.4E-06**	-4.4E-06	-2.6E-06	-5.2E-09
SN4	100.0E-12	-50.0E-12	-50.0E-12	-350.0E-12	-23.8E-09	-1.3E-06	-783.5E-09	-456.0E-09	-3.3E-09
SN5	100.0E-12	-100.0E-12	0.0E+00	-400.0E-12	-118.0E-09	**-7.2E-06**	**-5.0E-06**	-3.1E-06	-6.3E-09
SN6	50.0E-12	-100.0E-12	-100.0E-12	-450.0E-12	-70.4E-09	-3.8E-06	-2.5E-06	-1.5E-06	-4.6E-09
Statistics									
Min	50.0E-12	-150.0E-12	-100.0E-12	-450.0E-12	-118.0E-09	-7.2E-06	-5.0E-06	-3.1E-06	-6.3E-09
Max	100.0E-12	-50.0E-12	0.0E+00	-300.0E-12	-23.8E-09	-1.3E-06	-783.5E-09	-456.0E-09	-3.3E-09
Average	80.0E-12	-90.0E-12	-70.0E-12	-380.0E-12	-69.0E-09	-4.2E-06	-2.8E-06	-1.7E-06	-4.7E-09
Sigma	24.5E-12	37.4E-12	40.0E-12	51.0E-12	35.8E-09	2.3E-06	1.7E-06	1.0E-06	1.0E-09

Drift Calculation

IOLTLD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-150.0E-12	-200.0E-12	-400.0E-12	-35.5E-09	-2.1E-06	-1.3E-06	-790.1E-09	-4.3E-09
SN3	-	-200.0E-12	-150.0E-12	-450.0E-12	-97.6E-09	-6.4E-06	-4.4E-06	-2.6E-06	-5.3E-09
SN4	-	-150.0E-12	-150.0E-12	-450.0E-12	-23.9E-09	-1.3E-06	-783.6E-09	-456.1E-09	-3.4E-09
SN5	-	-200.0E-12	-100.0E-12	-500.0E-12	-118.1E-09	-7.2E-06	-5.0E-06	-3.1E-06	-6.4E-09
SN6	-	-150.0E-12	-150.0E-12	-500.0E-12	-70.4E-09	-3.8E-06	-2.5E-06	-1.5E-06	-4.7E-09
Average	-	-170.0E-12	-150.0E-12	-460.0E-12	-69.1E-09	-4.2E-06	-2.8E-06	-1.7E-06	-4.8E-09
Sigma	-	24.5E-12	31.6E-12	37.4E-12	35.7E-09	2.3E-06	1.7E-06	1.0E-06	997.8E-12

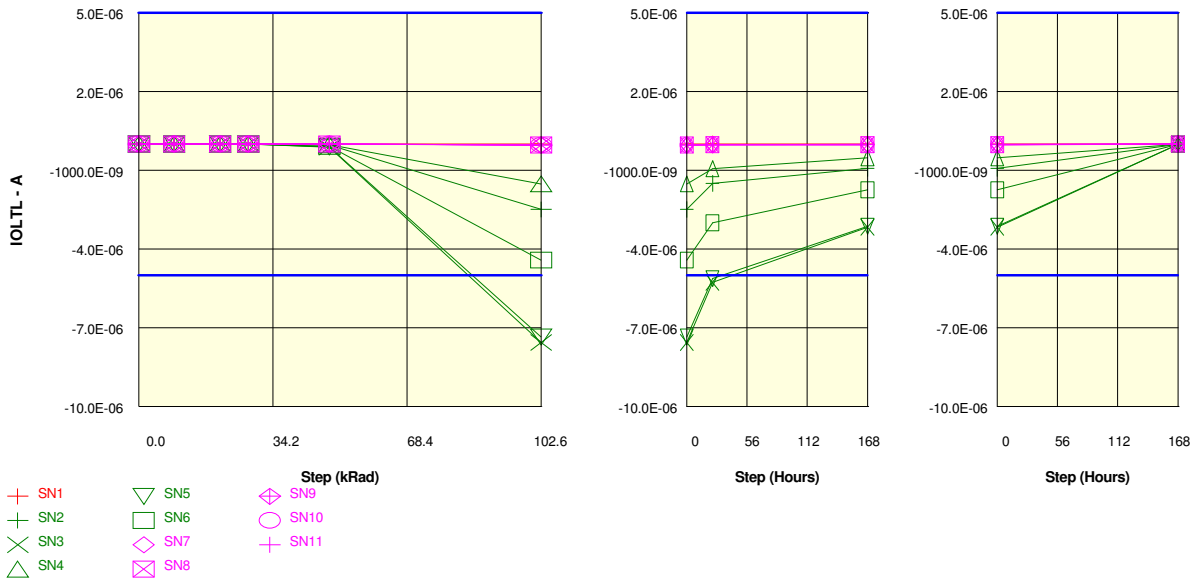
Measurements

IOLTLD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	100.0E-12	0.0E+00	50.0E-12	0.0E+00	50.0E-12	0.0E+00	50.0E-12	50.0E-12	50.0E-12
OFF samples									
SN7	50.0E-12	-100.0E-12	-50.0E-12	-150.0E-12	-1.6E-09	-44.1E-09	-35.7E-09	-25.6E-09	-1.7E-09
SN8	50.0E-12	-50.0E-12	0.0E+00	-150.0E-12	-1.1E-09	-31.1E-09	-22.3E-09	-17.5E-09	-1.7E-09
SN9	150.0E-12	-100.0E-12	0.0E+00	-100.0E-12	-1.2E-09	-34.3E-09	-21.6E-09	-17.8E-09	-1.3E-09
SN10	100.0E-12	-100.0E-12	-50.0E-12	-150.0E-12	-1.6E-09	-41.4E-09	-26.9E-09	-25.2E-09	-1.4E-09
SN11	100.0E-12	-50.0E-12	-100.0E-12	-200.0E-12	-1.2E-09	-34.2E-09	-20.4E-09	-19.0E-09	-1.8E-09
Statistics									
Min	50.0E-12	-100.0E-12	-100.0E-12	-200.0E-12	-1.6E-09	-44.1E-09	-35.7E-09	-25.6E-09	-1.8E-09
Max	150.0E-12	-50.0E-12	0.0E+00	-100.0E-12	-1.1E-09	-31.1E-09	-20.4E-09	-17.5E-09	-1.3E-09
Average	90.0E-12	-80.0E-12	-40.0E-12	-150.0E-12	-1.3E-09	-37.0E-09	-25.4E-09	-21.0E-09	-1.6E-09
Sigma	37.4E-12	24.5E-12	37.4E-12	31.6E-12	211.2E-12	4.9E-09	5.6E-09	3.6E-09	203.5E-12

Drift Calculation

IOLTLD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-150.0E-12	-100.0E-12	-200.0E-12	-1.7E-09	-44.2E-09	-35.8E-09	-25.7E-09	-1.7E-09
SN8	-	-100.0E-12	-50.0E-12	-200.0E-12	-1.2E-09	-31.2E-09	-22.3E-09	-17.6E-09	-1.8E-09
SN9	-	-250.0E-12	-150.0E-12	-250.0E-12	-1.4E-09	-34.5E-09	-21.8E-09	-17.9E-09	-1.4E-09
SN10	-	-200.0E-12	-150.0E-12	-250.0E-12	-1.7E-09	-41.5E-09	-27.0E-09	-25.3E-09	-1.5E-09
SN11	-	-150.0E-12	-200.0E-12	-300.0E-12	-1.3E-09	-34.3E-09	-20.5E-09	-19.1E-09	-1.9E-09
Average	-	-170.0E-12	-130.0E-12	-240.0E-12	-1.4E-09	-37.1E-09	-25.4E-09	-21.1E-09	-1.7E-09
Sigma	-	51.0E-12	51.0E-12	37.4E-12	205.9E-12	4.9E-09	5.6E-09	3.6E-09	178.9E-12

Parameter : Three state output leakage : IOLTLD2
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-50.0E-12	-50.0E-12	0.0E+00	50.0E-12	0.0E+00	-150.0E-12	-50.0E-12	-50.0E-12	0.0E+00
ON samples									
SN2	50.0E-12	-150.0E-12	-100.0E-12	-300.0E-12	-40.5E-09	-2.5E-06	-1.5E-06	-924.0E-09	-4.0E-09
SN3	-50.0E-12	-150.0E-12	-150.0E-12	-500.0E-12	-122.0E-09	**-7.6E-06**	**-5.3E-06**	-3.2E-06	-5.2E-09
SN4	0.0E+00	-100.0E-12	-100.0E-12	-300.0E-12	-25.5E-09	-1.5E-06	-934.0E-09	-523.5E-09	-3.1E-09
SN5	0.0E+00	-150.0E-12	-150.0E-12	-450.0E-12	-109.0E-09	**-7.4E-06**	**-5.1E-06**	-3.1E-06	-6.1E-09
SN6	50.0E-12	-100.0E-12	-150.0E-12	-450.0E-12	-82.0E-09	-4.4E-06	-3.0E-06	-1.7E-06	-4.4E-09
Statistics									
Min	-50.0E-12	-150.0E-12	-150.0E-12	-500.0E-12	-122.0E-09	-7.6E-06	-5.3E-06	-3.2E-06	-6.1E-09
Max	50.0E-12	-100.0E-12	-100.0E-12	-300.0E-12	-25.5E-09	-1.5E-06	-934.0E-09	-523.5E-09	-3.1E-09
Average	10.0E-12	-130.0E-12	-130.0E-12	-400.0E-12	-75.8E-09	-4.7E-06	-3.2E-06	-1.9E-06	-4.5E-09
Sigma	37.4E-12	24.5E-12	24.5E-12	83.7E-12	37.6E-09	2.5E-06	1.8E-06	1.1E-06	1.0E-09

Drift Calculation

IOLTLD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-200.0E-12	-150.0E-12	-350.0E-12	-40.5E-09	-2.5E-06	-1.5E-06	-924.1E-09	-4.0E-09
SN3	-	-100.0E-12	-100.0E-12	-450.0E-12	-122.0E-09	-7.6E-06	-5.3E-06	-3.2E-06	-5.1E-09
SN4	-	-100.0E-12	-100.0E-12	-300.0E-12	-25.5E-09	-1.5E-06	-934.0E-09	-523.5E-09	-3.1E-09
SN5	-	-150.0E-12	-150.0E-12	-450.0E-12	-109.0E-09	-7.4E-06	-5.1E-06	-3.1E-06	-6.1E-09
SN6	-	-150.0E-12	-200.0E-12	-500.0E-12	-82.0E-09	-4.4E-06	-3.0E-06	-1.7E-06	-4.4E-09
Average	-	-140.0E-12	-140.0E-12	-410.0E-12	-75.8E-09	-4.7E-06	-3.2E-06	-1.9E-06	-4.5E-09
Sigma	-	37.4E-12	37.4E-12	73.5E-12	37.6E-09	2.5E-06	1.8E-06	1.1E-06	1.0E-09

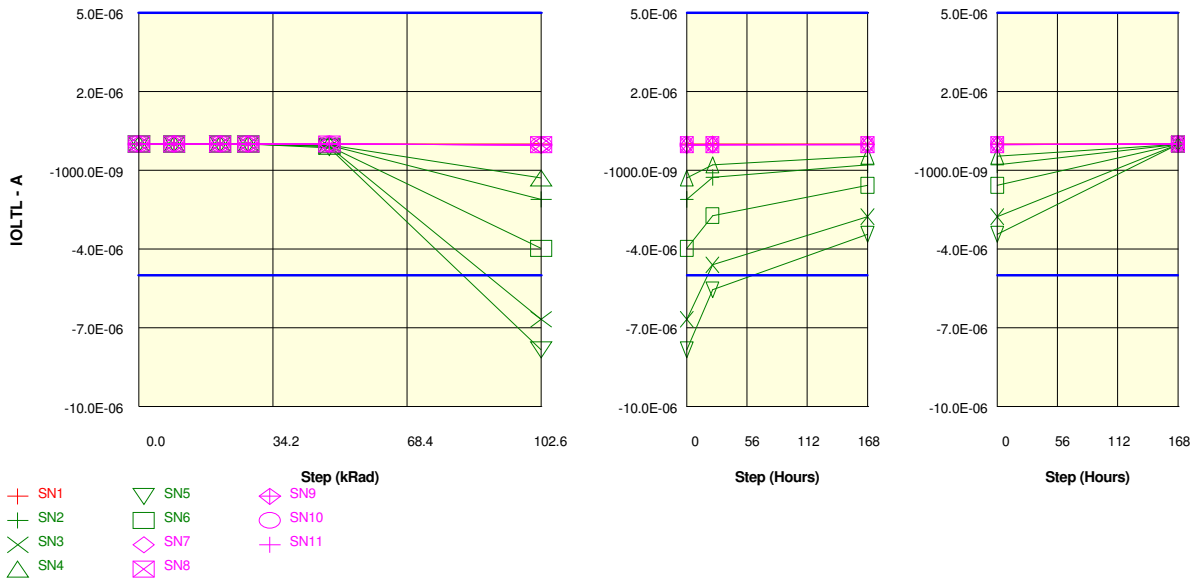
Measurements

IOLTLD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-50.0E-12	-50.0E-12	0.0E+00	50.0E-12	0.0E+00	-150.0E-12	-50.0E-12	-50.0E-12	0.0E+00
OFF samples									
SN7	0.0E+00	-100.0E-12	-150.0E-12	-250.0E-12	-1.7E-09	-45.7E-09	-36.5E-09	-26.0E-09	-1.7E-09
SN8	-50.0E-12	-100.0E-12	-100.0E-12	-150.0E-12	-1.2E-09	-31.2E-09	-22.3E-09	-17.9E-09	-1.8E-09
SN9	50.0E-12	-100.0E-12	-100.0E-12	-200.0E-12	-1.3E-09	-34.2E-09	-22.0E-09	-17.8E-09	-1.4E-09
SN10	0.0E+00	-50.0E-12	-150.0E-12	-200.0E-12	-1.6E-09	-40.4E-09	-25.7E-09	-24.0E-09	-1.4E-09
SN11	50.0E-12	-50.0E-12	-100.0E-12	-250.0E-12	-1.2E-09	-34.9E-09	-21.1E-09	-19.5E-09	-1.9E-09
Statistics									
Min	-50.0E-12	-100.0E-12	-150.0E-12	-250.0E-12	-1.7E-09	-45.7E-09	-36.5E-09	-26.0E-09	-1.9E-09
Max	50.0E-12	-50.0E-12	-100.0E-12	-150.0E-12	-1.2E-09	-31.2E-09	-21.1E-09	-17.8E-09	-1.4E-09
Average	10.0E-12	-80.0E-12	-120.0E-12	-210.0E-12	-1.4E-09	-37.3E-09	-25.5E-09	-21.0E-09	-1.6E-09
Sigma	37.4E-12	24.5E-12	24.5E-12	37.4E-12	201.5E-12	5.1E-09	5.7E-09	3.4E-09	203.5E-12

Drift Calculation

IOLTLD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-100.0E-12	-150.0E-12	-250.0E-12	-1.7E-09	-45.7E-09	-36.5E-09	-26.0E-09	-1.7E-09
SN8	-	-50.0E-12	-50.0E-12	-100.0E-12	-1.2E-09	-31.2E-09	-22.2E-09	-17.8E-09	-1.8E-09
SN9	-	-150.0E-12	-150.0E-12	-250.0E-12	-1.3E-09	-34.3E-09	-22.1E-09	-17.9E-09	-1.4E-09
SN10	-	-50.0E-12	-150.0E-12	-200.0E-12	-1.6E-09	-40.4E-09	-25.7E-09	-24.0E-09	-1.4E-09
SN11	-	-100.0E-12	-150.0E-12	-300.0E-12	-1.3E-09	-35.0E-09	-21.2E-09	-19.6E-09	-1.9E-09
Average	-	-90.0E-12	-130.0E-12	-220.0E-12	-1.4E-09	-37.3E-09	-25.5E-09	-21.0E-09	-1.6E-09
Sigma	-	37.4E-12	40.0E-12	67.8E-12	198.5E-12	5.1E-09	5.7E-09	3.4E-09	196.5E-12

Parameter : Three state output leakage : IOLTLD1
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	0.0E+00	-50.0E-12	-100.0E-12	0.0E+00	0.0E+00	-150.0E-12	-50.0E-12	-50.0E-12	0.0E+00
ON samples									
SN2	50.0E-12	-100.0E-12	-150.0E-12	-450.0E-12	-42.3E-09	-2.1E-06	-1.3E-06	-788.0E-09	-3.7E-09
SN3	0.0E+00	-200.0E-12	-150.0E-12	-450.0E-12	-94.7E-09	**-6.7E-06**	-4.6E-06	-2.8E-06	-5.0E-09
SN4	0.0E+00	-150.0E-12	-100.0E-12	-350.0E-12	-26.3E-09	-1.3E-06	-793.0E-09	-457.5E-09	-3.1E-09
SN5	0.0E+00	-100.0E-12	-100.0E-12	-450.0E-12	-138.0E-09	**-7.8E-06**	**-5.6E-06**	-3.4E-06	-6.0E-09
SN6	50.0E-12	-150.0E-12	-150.0E-12	-650.0E-12	-83.6E-09	-4.0E-06	-2.7E-06	-1.6E-06	-4.6E-09
Statistics									
Min	0.0E+00	-200.0E-12	-150.0E-12	-650.0E-12	-138.0E-09	-7.8E-06	-5.6E-06	-3.4E-06	-6.0E-09
Max	50.0E-12	-100.0E-12	-100.0E-12	-350.0E-12	-26.3E-09	-1.3E-06	-793.0E-09	-457.5E-09	-3.1E-09
Average	20.0E-12	-140.0E-12	-130.0E-12	-470.0E-12	-77.0E-09	-4.4E-06	-3.0E-06	-1.8E-06	-4.5E-09
Sigma	24.5E-12	37.4E-12	24.5E-12	98.0E-12	39.6E-09	2.5E-06	1.8E-06	1.1E-06	1.0E-09

Drift Calculation

IOLTLD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-150.0E-12	-200.0E-12	-500.0E-12	-42.3E-09	-2.1E-06	-1.3E-06	-788.1E-09	-3.8E-09
SN3	-	-200.0E-12	-150.0E-12	-450.0E-12	-94.7E-09	-6.7E-06	-4.6E-06	-2.8E-06	-5.0E-09
SN4	-	-150.0E-12	-100.0E-12	-350.0E-12	-26.3E-09	-1.3E-06	-793.0E-09	-457.5E-09	-3.1E-09
SN5	-	-100.0E-12	-100.0E-12	-450.0E-12	-138.0E-09	-7.8E-06	-5.6E-06	-3.4E-06	-6.0E-09
SN6	-	-200.0E-12	-200.0E-12	-700.0E-12	-83.7E-09	-4.0E-06	-2.7E-06	-1.6E-06	-4.6E-09
Average	-	-160.0E-12	-150.0E-12	-490.0E-12	-77.0E-09	-4.4E-06	-3.0E-06	-1.8E-06	-4.5E-09
Sigma	-	37.4E-12	44.7E-12	115.8E-12	39.6E-09	2.5E-06	1.8E-06	1.1E-06	998.3E-12

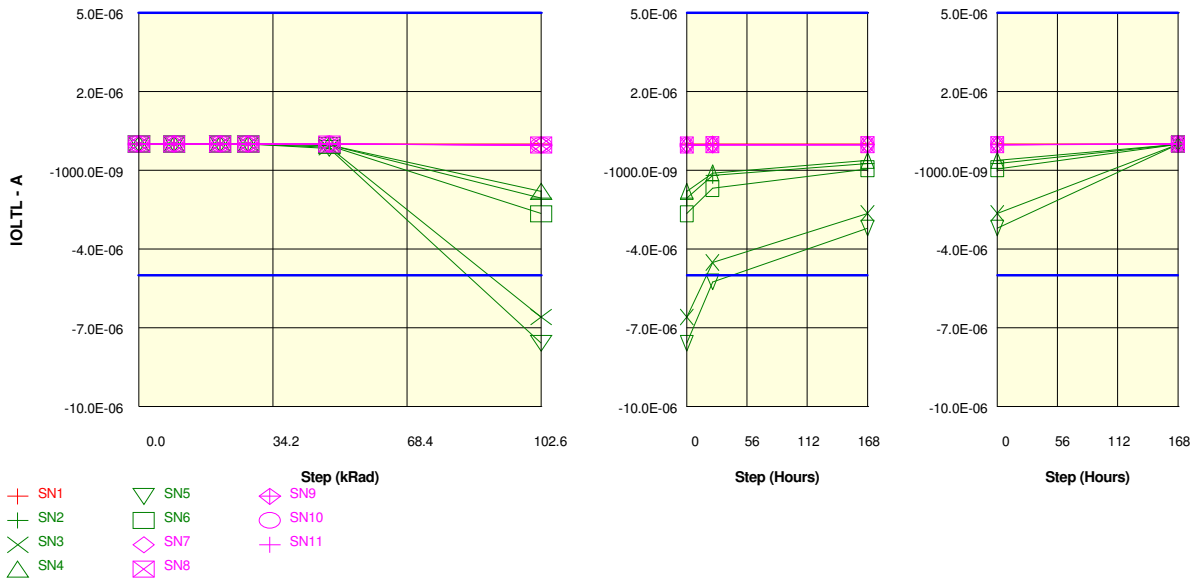
Measurements

IOLTLD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	0.0E+00	-50.0E-12	-100.0E-12	0.0E+00	0.0E+00	-150.0E-12	-50.0E-12	-50.0E-12	0.0E+00
OFF samples									
SN7	0.0E+00	-100.0E-12	-150.0E-12	-150.0E-12	-1.6E-09	-40.2E-09	-32.7E-09	-23.1E-09	-1.6E-09
SN8	0.0E+00	-100.0E-12	-150.0E-12	-200.0E-12	-1.2E-09	-27.6E-09	-19.9E-09	-15.8E-09	-1.6E-09
SN9	-50.0E-12	-150.0E-12	-100.0E-12	-150.0E-12	-1.2E-09	-32.0E-09	-19.8E-09	-16.4E-09	-1.2E-09
SN10	-50.0E-12	-100.0E-12	-100.0E-12	-200.0E-12	-1.5E-09	-36.5E-09	-22.4E-09	-21.8E-09	-1.3E-09
SN11	50.0E-12	-100.0E-12	0.0E+00	-100.0E-12	-1.3E-09	-35.5E-09	-21.3E-09	-19.2E-09	-1.8E-09
Statistics									
Min	-50.0E-12	-150.0E-12	-150.0E-12	-200.0E-12	-1.6E-09	-40.2E-09	-32.7E-09	-23.1E-09	-1.8E-09
Max	50.0E-12	-100.0E-12	0.0E+00	-100.0E-12	-1.2E-09	-27.6E-09	-19.8E-09	-15.8E-09	-1.2E-09
Average	-10.0E-12	-110.0E-12	-100.0E-12	-160.0E-12	-1.3E-09	-34.4E-09	-23.2E-09	-19.3E-09	-1.5E-09
Sigma	37.4E-12	20.0E-12	54.8E-12	37.4E-12	153.6E-12	4.3E-09	4.8E-09	2.9E-09	215.4E-12

Drift Calculation

IOLTLD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-100.0E-12	-150.0E-12	-150.0E-12	-1.6E-09	-40.2E-09	-32.7E-09	-23.1E-09	-1.6E-09
SN8	-	-100.0E-12	-150.0E-12	-200.0E-12	-1.2E-09	-27.6E-09	-19.9E-09	-15.8E-09	-1.6E-09
SN9	-	-100.0E-12	-50.0E-12	-100.0E-12	-1.2E-09	-32.0E-09	-19.8E-09	-16.4E-09	-1.2E-09
SN10	-	-50.0E-12	-50.0E-12	-150.0E-12	-1.4E-09	-36.5E-09	-22.4E-09	-21.8E-09	-1.3E-09
SN11	-	-150.0E-12	-50.0E-12	-150.0E-12	-1.3E-09	-35.5E-09	-21.3E-09	-19.3E-09	-1.9E-09
Average	-	-100.0E-12	-90.0E-12	-150.0E-12	-1.3E-09	-34.3E-09	-23.2E-09	-19.2E-09	-1.5E-09
Sigma	-	31.6E-12	49.0E-12	31.6E-12	153.0E-12	4.3E-09	4.8E-09	2.9E-09	252.2E-12

Parameter : Three state output leakage : IOLTLD0
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTLD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-50.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-50.0E-12	-350.0E-12	-150.0E-12	-150.0E-12	0.0E+00
ON samples									
SN2	-50.0E-12	-100.0E-12	-200.0E-12	-600.0E-12	-40.7E-09	-2.1E-06	-1.2E-06	-746.5E-09	-3.5E-09
SN3	-50.0E-12	-100.0E-12	-150.0E-12	-650.0E-12	-120.5E-09	**-6.6E-06**	-4.5E-06	-2.6E-06	-4.2E-09
SN4	50.0E-12	-150.0E-12	-150.0E-12	-550.0E-12	-37.7E-09	-1.8E-06	-1.1E-06	-618.0E-09	-3.1E-09
SN5	-50.0E-12	-200.0E-12	-150.0E-12	-850.0E-12	-164.5E-09	**-7.6E-06**	**-5.3E-06**	-3.2E-06	-5.4E-09
SN6	0.0E+00	-200.0E-12	-200.0E-12	-600.0E-12	-54.2E-09	-2.7E-06	-1.7E-06	-941.5E-09	-3.5E-09
Statistics									
Min	-50.0E-12	-200.0E-12	-200.0E-12	-850.0E-12	-164.5E-09	-7.6E-06	-5.3E-06	-3.2E-06	-5.4E-09
Max	50.0E-12	-100.0E-12	-150.0E-12	-550.0E-12	-37.7E-09	-1.8E-06	-1.1E-06	-618.0E-09	-3.1E-09
Average	-20.0E-12	-150.0E-12	-170.0E-12	-650.0E-12	-83.5E-09	-4.1E-06	-2.7E-06	-1.6E-06	-3.9E-09
Sigma	40.0E-12	44.7E-12	24.5E-12	104.9E-12	50.4E-09	2.4E-06	1.8E-06	1.1E-06	824.3E-12

Drift Calculation

IOLTLD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-50.0E-12	-150.0E-12	-550.0E-12	-40.6E-09	-2.1E-06	-1.2E-06	-746.5E-09	-3.5E-09
SN3	-	-50.0E-12	-100.0E-12	-600.0E-12	-120.5E-09	-6.6E-06	-4.5E-06	-2.6E-06	-4.1E-09
SN4	-	-200.0E-12	-200.0E-12	-600.0E-12	-37.8E-09	-1.8E-06	-1.1E-06	-618.1E-09	-3.1E-09
SN5	-	-150.0E-12	-100.0E-12	-800.0E-12	-164.5E-09	-7.6E-06	-5.2E-06	-3.2E-06	-5.4E-09
SN6	-	-200.0E-12	-200.0E-12	-600.0E-12	-54.2E-09	-2.7E-06	-1.7E-06	-941.5E-09	-3.5E-09
Average	-	-130.0E-12	-150.0E-12	-630.0E-12	-83.5E-09	-4.1E-06	-2.7E-06	-1.6E-06	-3.9E-09
Sigma	-	67.8E-12	44.7E-12	87.2E-12	50.4E-09	2.4E-06	1.8E-06	1.1E-06	798.4E-12

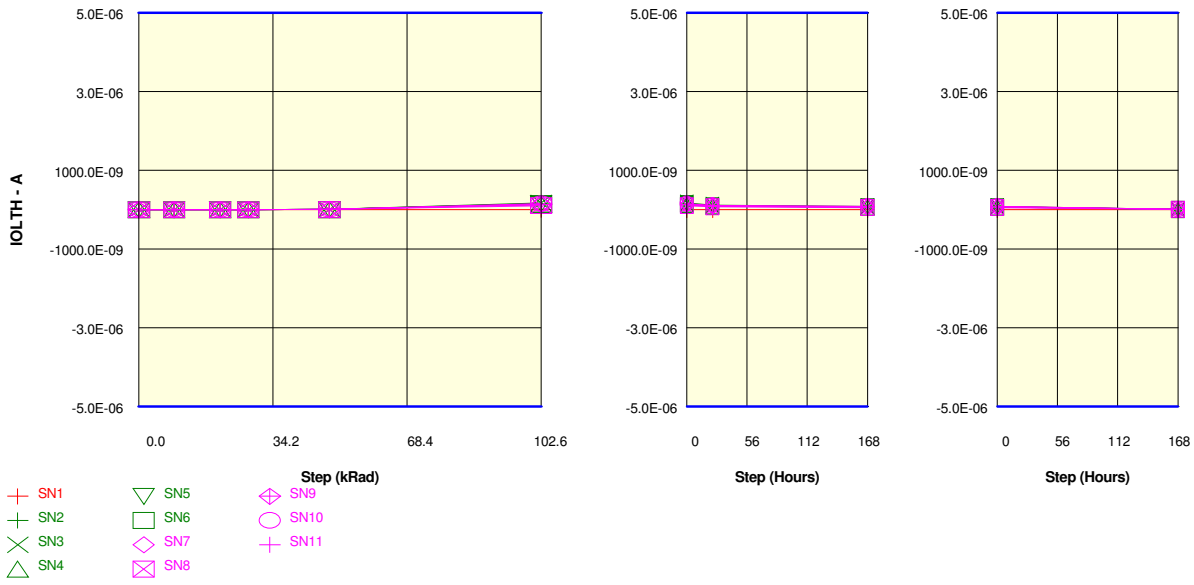
Measurements

IOLTLD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-50.0E-12	-150.0E-12	-100.0E-12	-100.0E-12	-50.0E-12	-350.0E-12	-150.0E-12	-150.0E-12	0.0E+00
OFF samples									
SN7	0.0E+00	-150.0E-12	-250.0E-12	-250.0E-12	-1.7E-09	-42.5E-09	-34.2E-09	-24.4E-09	-1.6E-09
SN8	-50.0E-12	-150.0E-12	-100.0E-12	-250.0E-12	-1.3E-09	-32.7E-09	-23.6E-09	-18.8E-09	-1.7E-09
SN9	50.0E-12	-150.0E-12	-100.0E-12	-250.0E-12	-1.4E-09	-37.5E-09	-23.8E-09	-19.4E-09	-1.4E-09
SN10	-50.0E-12	-150.0E-12	-100.0E-12	-300.0E-12	-1.9E-09	-45.1E-09	-28.2E-09	-26.3E-09	-1.6E-09
SN11	0.0E+00	-100.0E-12	-100.0E-12	-250.0E-12	-1.4E-09	-34.4E-09	-20.9E-09	-19.2E-09	-1.8E-09
Statistics									
Min	-50.0E-12	-150.0E-12	-250.0E-12	-300.0E-12	-1.9E-09	-45.1E-09	-34.2E-09	-26.3E-09	-1.8E-09
Max	50.0E-12	-100.0E-12	-100.0E-12	-250.0E-12	-1.3E-09	-32.7E-09	-20.9E-09	-18.8E-09	-1.4E-09
Average	-10.0E-12	-140.0E-12	-130.0E-12	-260.0E-12	-1.5E-09	-38.4E-09	-26.1E-09	-21.6E-09	-1.6E-09
Sigma	37.4E-12	20.0E-12	60.0E-12	20.0E-12	231.5E-12	4.7E-09	4.7E-09	3.1E-09	122.5E-12

Drift Calculation

IOLTLD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-150.0E-12	-250.0E-12	-250.0E-12	-1.7E-09	-42.5E-09	-34.2E-09	-24.4E-09	-1.6E-09
SN8	-	-100.0E-12	-50.0E-12	-200.0E-12	-1.3E-09	-32.6E-09	-23.5E-09	-18.8E-09	-1.7E-09
SN9	-	-200.0E-12	-150.0E-12	-300.0E-12	-1.5E-09	-37.5E-09	-23.8E-09	-19.4E-09	-1.5E-09
SN10	-	-100.0E-12	-50.0E-12	-250.0E-12	-1.9E-09	-45.0E-09	-28.1E-09	-26.3E-09	-1.5E-09
SN11	-	-100.0E-12	-100.0E-12	-250.0E-12	-1.4E-09	-34.4E-09	-20.9E-09	-19.2E-09	-1.8E-09
Average	-	-130.0E-12	-120.0E-12	-250.0E-12	-1.5E-09	-38.4E-09	-26.1E-09	-21.6E-09	-1.6E-09
Sigma	-	40.0E-12	74.8E-12	31.6E-12	222.7E-12	4.7E-09	4.7E-09	3.1E-09	106.8E-12

Parameter : Three state output leakage : IOLTHD15
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	400.0E-12	400.0E-12	250.0E-12	400.0E-12	350.0E-12	950.0E-12	400.0E-12	450.0E-12	350.0E-12
ON samples									
SN2	400.0E-12	400.0E-12	400.0E-12	700.0E-12	5.1E-09	148.0E-09	96.0E-09	74.8E-09	5.1E-09
SN3	350.0E-12	300.0E-12	450.0E-12	650.0E-12	5.7E-09	173.0E-09	117.0E-09	81.4E-09	6.7E-09
SN4	350.0E-12	400.0E-12	450.0E-12	650.0E-12	5.1E-09	138.0E-09	94.5E-09	66.7E-09	5.2E-09
SN5	300.0E-12	400.0E-12	450.0E-12	700.0E-12	5.4E-09	154.5E-09	103.5E-09	75.2E-09	7.8E-09
SN6	450.0E-12	400.0E-12	450.0E-12	700.0E-12	5.0E-09	133.5E-09	90.2E-09	63.1E-09	6.0E-09
Statistics									
Min	300.0E-12	300.0E-12	400.0E-12	650.0E-12	5.0E-09	133.5E-09	90.2E-09	63.1E-09	5.1E-09
Max	450.0E-12	400.0E-12	450.0E-12	700.0E-12	5.7E-09	173.0E-09	117.0E-09	81.4E-09	7.8E-09
Average	370.0E-12	380.0E-12	440.0E-12	680.0E-12	5.3E-09	149.4E-09	100.2E-09	72.2E-09	6.1E-09
Sigma	51.0E-12	40.0E-12	20.0E-12	24.5E-12	253.0E-12	13.9E-09	9.4E-09	6.5E-09	1.0E-09

Drift Calculation

IOLTHD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	0.0E+00	300.0E-12	4.7E-09	147.6E-09	95.6E-09	74.4E-09	4.7E-09
SN3	-	-50.0E-12	100.0E-12	300.0E-12	5.4E-09	172.7E-09	116.7E-09	81.0E-09	6.3E-09
SN4	-	50.0E-12	100.0E-12	300.0E-12	4.8E-09	137.7E-09	94.1E-09	66.3E-09	4.8E-09
SN5	-	100.0E-12	150.0E-12	400.0E-12	5.1E-09	154.2E-09	103.2E-09	74.9E-09	7.5E-09
SN6	-	-50.0E-12	0.0E+00	250.0E-12	4.6E-09	133.1E-09	89.8E-09	62.7E-09	5.6E-09
Average	-	10.0E-12	70.0E-12	310.0E-12	4.9E-09	149.0E-09	99.9E-09	71.8E-09	5.8E-09
Sigma	-	58.3E-12	60.0E-12	49.0E-12	285.7E-12	13.9E-09	9.5E-09	6.5E-09	1.0E-09

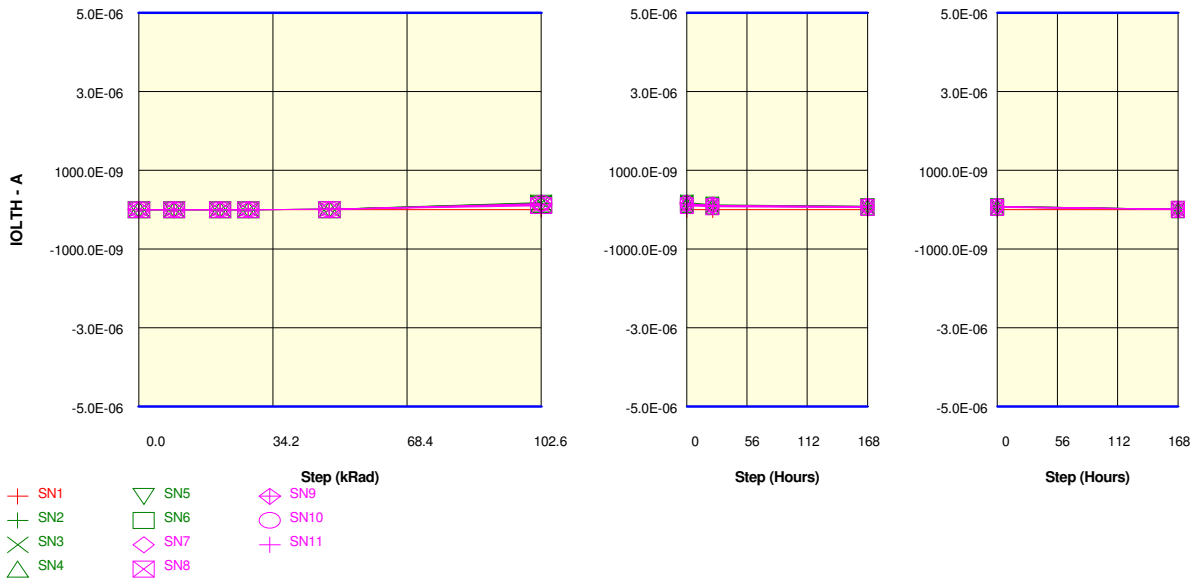
Measurements

IOLTHD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	400.0E-12	400.0E-12	250.0E-12	400.0E-12	350.0E-12	950.0E-12	400.0E-12	450.0E-12	350.0E-12
OFF samples									
SN7	350.0E-12	400.0E-12	450.0E-12	700.0E-12	5.0E-09	144.0E-09	103.5E-09	78.1E-09	6.1E-09
SN8	400.0E-12	400.0E-12	400.0E-12	650.0E-12	3.9E-09	103.0E-09	74.4E-09	55.8E-09	7.1E-09
SN9	500.0E-12	350.0E-12	400.0E-12	700.0E-12	4.8E-09	132.0E-09	94.1E-09	71.4E-09	6.5E-09
SN10	500.0E-12	300.0E-12	450.0E-12	700.0E-12	5.5E-09	153.5E-09	108.5E-09	84.5E-09	6.9E-09
SN11	300.0E-12	450.0E-12	450.0E-12	600.0E-12	4.6E-09	128.5E-09	86.3E-09	74.6E-09	8.8E-09
Statistics									
Min	300.0E-12	300.0E-12	400.0E-12	600.0E-12	3.9E-09	103.0E-09	74.4E-09	55.8E-09	6.1E-09
Max	500.0E-12	450.0E-12	450.0E-12	700.0E-12	5.5E-09	153.5E-09	108.5E-09	84.5E-09	8.8E-09
Average	410.0E-12	380.0E-12	430.0E-12	670.0E-12	4.7E-09	132.2E-09	93.3E-09	72.9E-09	7.1E-09
Sigma	80.0E-12	51.0E-12	24.5E-12	40.0E-12	522.1E-12	17.1E-09	12.2E-09	9.6E-09	926.1E-12

Drift Calculation

IOLTHD15	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	50.0E-12	100.0E-12	350.0E-12	4.6E-09	143.7E-09	103.2E-09	77.8E-09	5.8E-09
SN8	-	0.0E+00	0.0E+00	250.0E-12	3.5E-09	102.6E-09	74.0E-09	55.4E-09	6.7E-09
SN9	-	-150.0E-12	-100.0E-12	200.0E-12	4.3E-09	131.5E-09	93.6E-09	70.9E-09	6.0E-09
SN10	-	-200.0E-12	-50.0E-12	200.0E-12	5.0E-09	153.0E-09	108.0E-09	84.0E-09	6.4E-09
SN11	-	150.0E-12	150.0E-12	300.0E-12	4.3E-09	128.2E-09	86.0E-09	74.3E-09	8.5E-09
Average	-	-30.0E-12	20.0E-12	260.0E-12	4.3E-09	131.8E-09	92.9E-09	72.4E-09	6.7E-09
Sigma	-	128.8E-12	92.7E-12	58.3E-12	496.6E-12	17.1E-09	12.2E-09	9.6E-09	971.4E-12

Parameter : Three state output leakage : IOLTHD14
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	550.0E-12	550.0E-12	500.0E-12	550.0E-12	600.0E-12	1.3E-09	500.0E-12	500.0E-12	600.0E-12
ON samples									
SN2	550.0E-12	500.0E-12	600.0E-12	800.0E-12	5.4E-09	161.5E-09	104.0E-09	80.7E-09	5.2E-09
SN3	500.0E-12	500.0E-12	600.0E-12	850.0E-12	6.1E-09	178.0E-09	120.5E-09	82.4E-09	6.6E-09
SN4	500.0E-12	500.0E-12	700.0E-12	900.0E-12	5.1E-09	134.5E-09	92.7E-09	64.7E-09	4.9E-09
SN5	550.0E-12	550.0E-12	600.0E-12	900.0E-12	5.7E-09	166.5E-09	112.0E-09	79.7E-09	7.7E-09
SN6	450.0E-12	450.0E-12	650.0E-12	850.0E-12	4.8E-09	135.0E-09	92.3E-09	63.7E-09	5.7E-09
Statistics									
Min	450.0E-12	450.0E-12	600.0E-12	800.0E-12	4.8E-09	134.5E-09	92.3E-09	63.7E-09	4.9E-09
Max	550.0E-12	550.0E-12	700.0E-12	900.0E-12	6.1E-09	178.0E-09	120.5E-09	82.4E-09	7.7E-09
Average	510.0E-12	500.0E-12	630.0E-12	860.0E-12	5.4E-09	155.1E-09	104.3E-09	74.2E-09	6.0E-09
Sigma	37.4E-12	31.6E-12	40.0E-12	37.4E-12	455.4E-12	17.5E-09	11.0E-09	8.2E-09	1.0E-09

Drift Calculation

IOLTHD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-50.0E-12	50.0E-12	250.0E-12	4.8E-09	161.0E-09	103.5E-09	80.1E-09	4.7E-09
SN3	-	0.0E+00	100.0E-12	350.0E-12	5.6E-09	177.5E-09	120.0E-09	81.9E-09	6.1E-09
SN4	-	0.0E+00	200.0E-12	400.0E-12	4.6E-09	134.0E-09	92.2E-09	64.2E-09	4.4E-09
SN5	-	0.0E+00	50.0E-12	350.0E-12	5.1E-09	166.0E-09	111.5E-09	79.1E-09	7.1E-09
SN6	-	0.0E+00	200.0E-12	400.0E-12	4.4E-09	134.6E-09	91.8E-09	63.3E-09	5.3E-09
Average	-	-10.0E-12	120.0E-12	350.0E-12	4.9E-09	154.6E-09	103.8E-09	73.7E-09	5.5E-09
Sigma	-	20.0E-12	67.8E-12	54.8E-12	438.9E-12	17.4E-09	11.0E-09	8.2E-09	991.5E-12

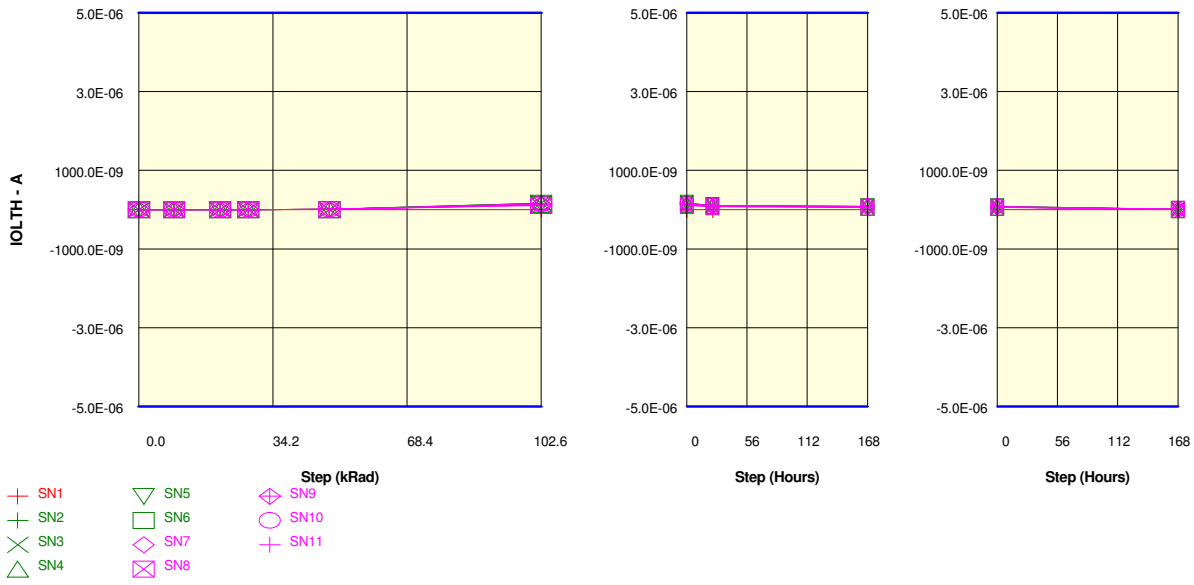
Measurements

IOLTHD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	550.0E-12	550.0E-12	500.0E-12	550.0E-12	600.0E-12	1.3E-09	500.0E-12	500.0E-12	600.0E-12
OFF samples									
SN7	500.0E-12	550.0E-12	700.0E-12	900.0E-12	5.1E-09	141.5E-09	102.5E-09	76.7E-09	6.3E-09
SN8	500.0E-12	600.0E-12	600.0E-12	800.0E-12	3.9E-09	103.0E-09	74.3E-09	56.6E-09	7.3E-09
SN9	600.0E-12	500.0E-12	550.0E-12	850.0E-12	4.8E-09	125.5E-09	89.5E-09	68.1E-09	6.5E-09
SN10	600.0E-12	500.0E-12	600.0E-12	1.0E-09	5.7E-09	159.5E-09	113.0E-09	87.7E-09	7.1E-09
SN11	500.0E-12	550.0E-12	600.0E-12	800.0E-12	4.7E-09	122.0E-09	82.7E-09	70.8E-09	8.5E-09
Statistics									
Min	500.0E-12	500.0E-12	550.0E-12	800.0E-12	3.9E-09	103.0E-09	74.3E-09	56.6E-09	6.3E-09
Max	600.0E-12	600.0E-12	700.0E-12	1.0E-09	5.7E-09	159.5E-09	113.0E-09	87.7E-09	8.5E-09
Average	540.0E-12	540.0E-12	610.0E-12	870.0E-12	4.8E-09	130.3E-09	92.4E-09	71.9E-09	7.1E-09
Sigma	49.0E-12	37.4E-12	49.0E-12	74.8E-12	569.2E-12	19.1E-09	13.9E-09	10.2E-09	790.8E-12

Drift Calculation

IOLTHD14	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	50.0E-12	200.0E-12	400.0E-12	4.6E-09	141.0E-09	102.0E-09	76.2E-09	5.8E-09
SN8	-	100.0E-12	100.0E-12	300.0E-12	3.4E-09	102.5E-09	73.8E-09	56.1E-09	6.8E-09
SN9	-	-100.0E-12	-50.0E-12	250.0E-12	4.2E-09	124.9E-09	88.9E-09	67.5E-09	5.9E-09
SN10	-	-100.0E-12	0.0E+00	400.0E-12	5.1E-09	158.9E-09	112.4E-09	87.1E-09	6.5E-09
SN11	-	50.0E-12	100.0E-12	300.0E-12	4.2E-09	121.5E-09	82.2E-09	70.3E-09	8.0E-09
Average	-	-20.7E-27	70.0E-12	330.0E-12	4.3E-09	129.8E-09	91.8E-09	71.4E-09	6.6E-09
Sigma	-	83.7E-12	87.2E-12	60.0E-12	542.6E-12	19.0E-09	13.8E-09	10.2E-09	809.1E-12

Parameter : Three state output leakage : IOLTHD13
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	500.0E-12	300.0E-12	300.0E-12	400.0E-12	400.0E-12	1.2E-09	350.0E-12	400.0E-12	500.0E-12
ON samples									
SN2	400.0E-12	300.0E-12	400.0E-12	700.0E-12	5.4E-09	146.5E-09	94.0E-09	73.5E-09	4.9E-09
SN3	650.0E-12	250.0E-12	500.0E-12	750.0E-12	5.8E-09	163.0E-09	111.0E-09	77.4E-09	5.9E-09
SN4	550.0E-12	250.0E-12	350.0E-12	700.0E-12	5.4E-09	142.5E-09	99.5E-09	68.5E-09	4.6E-09
SN5	450.0E-12	300.0E-12	450.0E-12	650.0E-12	5.8E-09	165.0E-09	109.5E-09	78.0E-09	7.4E-09
SN6	600.0E-12	300.0E-12	350.0E-12	700.0E-12	5.1E-09	134.5E-09	90.8E-09	63.0E-09	5.4E-09
Statistics									
Min	400.0E-12	250.0E-12	350.0E-12	650.0E-12	5.1E-09	134.5E-09	90.8E-09	63.0E-09	4.6E-09
Max	650.0E-12	300.0E-12	500.0E-12	750.0E-12	5.8E-09	165.0E-09	111.0E-09	78.0E-09	7.4E-09
Average	530.0E-12	280.0E-12	410.0E-12	700.0E-12	5.5E-09	150.3E-09	101.0E-09	72.1E-09	5.6E-09
Sigma	92.7E-12	24.5E-12	58.3E-12	31.6E-12	273.1E-12	11.9E-09	8.1E-09	5.7E-09	978.1E-12

Drift Calculation

IOLTHD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-100.0E-12	0.0E+00	300.0E-12	5.0E-09	146.1E-09	93.6E-09	73.1E-09	4.5E-09
SN3	-	-400.0E-12	-150.0E-12	100.0E-12	5.1E-09	162.4E-09	110.4E-09	76.8E-09	5.3E-09
SN4	-	-300.0E-12	-200.0E-12	150.0E-12	4.9E-09	142.0E-09	99.0E-09	67.9E-09	4.0E-09
SN5	-	-150.0E-12	0.0E+00	200.0E-12	5.4E-09	164.6E-09	109.1E-09	77.6E-09	6.9E-09
SN6	-	-300.0E-12	-250.0E-12	100.0E-12	4.5E-09	133.9E-09	90.2E-09	62.4E-09	4.8E-09
Average	-	-250.0E-12	-120.0E-12	170.0E-12	5.0E-09	149.8E-09	100.4E-09	71.5E-09	5.1E-09
Sigma	-	109.5E-12	103.0E-12	74.8E-12	298.3E-12	11.9E-09	8.1E-09	5.7E-09	992.2E-12

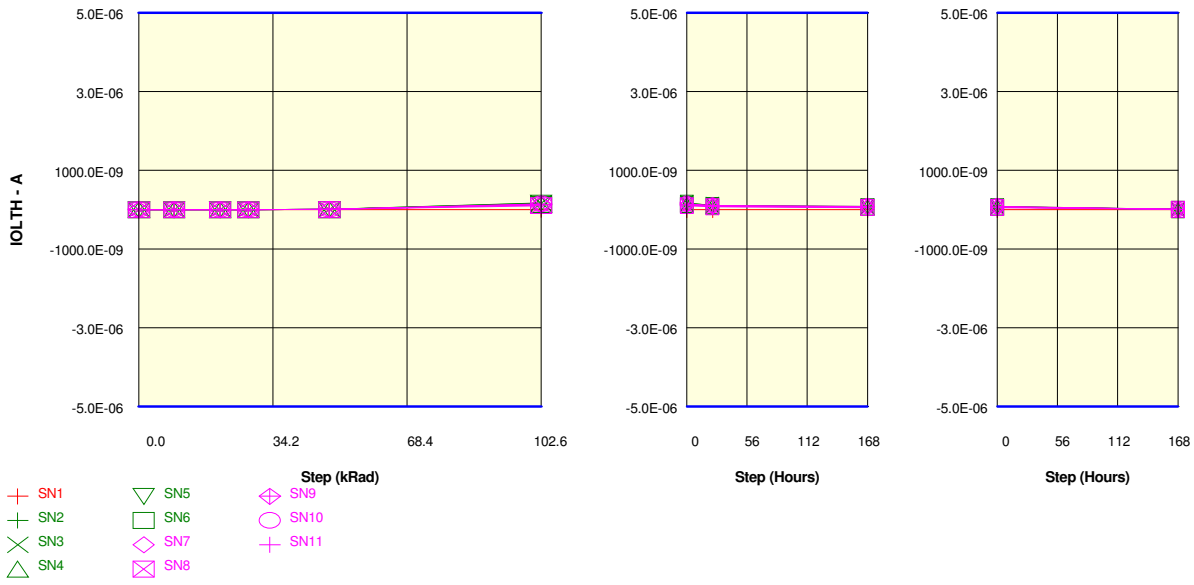
Measurements

IOLTHD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	500.0E-12	300.0E-12	300.0E-12	400.0E-12	400.0E-12	1.2E-09	350.0E-12	400.0E-12	500.0E-12
OFF samples									
SN7	450.0E-12	200.0E-12	400.0E-12	600.0E-12	4.9E-09	132.5E-09	95.0E-09	71.5E-09	5.7E-09
SN8	450.0E-12	300.0E-12	350.0E-12	600.0E-12	4.1E-09	105.0E-09	75.3E-09	57.2E-09	7.0E-09
SN9	450.0E-12	300.0E-12	450.0E-12	600.0E-12	4.9E-09	129.0E-09	91.8E-09	70.0E-09	6.0E-09
SN10	600.0E-12	350.0E-12	450.0E-12	650.0E-12	5.4E-09	154.5E-09	109.0E-09	84.8E-09	6.2E-09
SN11	400.0E-12	400.0E-12	350.0E-12	550.0E-12	4.6E-09	128.5E-09	86.6E-09	74.8E-09	8.5E-09
Statistics									
Min	400.0E-12	200.0E-12	350.0E-12	550.0E-12	4.1E-09	105.0E-09	75.3E-09	57.2E-09	5.7E-09
Max	600.0E-12	400.0E-12	450.0E-12	650.0E-12	5.4E-09	154.5E-09	109.0E-09	84.8E-09	8.5E-09
Average	470.0E-12	310.0E-12	400.0E-12	600.0E-12	4.8E-09	129.9E-09	91.5E-09	71.6E-09	6.7E-09
Sigma	67.8E-12	66.3E-12	44.7E-12	31.6E-12	428.3E-12	15.7E-09	11.0E-09	8.9E-09	995.5E-12

Drift Calculation

IOLTHD13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-250.0E-12	-50.0E-12	150.0E-12	4.5E-09	132.1E-09	94.6E-09	71.0E-09	5.2E-09
SN8	-	-150.0E-12	-100.0E-12	150.0E-12	3.7E-09	104.6E-09	74.9E-09	56.7E-09	6.5E-09
SN9	-	-150.0E-12	0.0E+00	150.0E-12	4.4E-09	128.6E-09	91.4E-09	69.6E-09	5.6E-09
SN10	-	-250.0E-12	-150.0E-12	50.0E-12	4.8E-09	153.9E-09	108.4E-09	84.2E-09	5.6E-09
SN11	-	0.0E+00	-50.0E-12	150.0E-12	4.2E-09	128.1E-09	86.2E-09	74.4E-09	8.1E-09
Average	-	-160.0E-12	-70.0E-12	130.0E-12	4.3E-09	129.4E-09	91.1E-09	71.2E-09	6.2E-09
Sigma	-	91.7E-12	51.0E-12	40.0E-12	381.3E-12	15.7E-09	11.0E-09	8.9E-09	1.0E-09

Parameter : Three state output leakage : IOLTHD12
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.1E-09	400.0E-12	450.0E-12	700.0E-12	800.0E-12	1.5E-09	300.0E-12	600.0E-12	1.0E-09
ON samples									
SN2	600.0E-12	400.0E-12	450.0E-12	650.0E-12	5.6E-09	143.0E-09	91.9E-09	72.2E-09	5.3E-09
SN3	1.3E-09	450.0E-12	650.0E-12	900.0E-12	6.4E-09	168.0E-09	114.0E-09	79.3E-09	6.4E-09
SN4	900.0E-12	450.0E-12	500.0E-12	900.0E-12	5.8E-09	139.5E-09	97.5E-09	67.3E-09	5.0E-09
SN5	800.0E-12	400.0E-12	550.0E-12	750.0E-12	5.9E-09	161.5E-09	108.0E-09	77.0E-09	7.5E-09
SN6	900.0E-12	400.0E-12	500.0E-12	900.0E-12	5.6E-09	130.5E-09	88.8E-09	61.9E-09	5.4E-09
Statistics									
Min	600.0E-12	400.0E-12	450.0E-12	650.0E-12	5.6E-09	130.5E-09	88.8E-09	61.9E-09	5.0E-09
Max	1.3E-09	450.0E-12	650.0E-12	900.0E-12	6.4E-09	168.0E-09	114.0E-09	79.3E-09	7.5E-09
Average	890.0E-12	420.0E-12	530.0E-12	820.0E-12	5.8E-09	148.5E-09	100.0E-09	71.5E-09	5.9E-09
Sigma	210.7E-12	24.5E-12	67.8E-12	103.0E-12	305.6E-12	14.0E-09	9.6E-09	6.3E-09	914.1E-12

Drift Calculation

IOLTHD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-200.0E-12	-150.0E-12	50.0E-12	5.0E-09	142.4E-09	91.3E-09	71.6E-09	4.7E-09
SN3	-	-800.0E-12	-600.0E-12	-350.0E-12	5.2E-09	166.8E-09	112.8E-09	78.1E-09	5.1E-09
SN4	-	-450.0E-12	-400.0E-12	0.0E+00	4.9E-09	138.6E-09	96.6E-09	66.4E-09	4.1E-09
SN5	-	-400.0E-12	-250.0E-12	-50.0E-12	5.1E-09	160.7E-09	107.2E-09	76.2E-09	6.7E-09
SN6	-	-500.0E-12	-400.0E-12	0.0E+00	4.7E-09	129.6E-09	87.9E-09	61.0E-09	4.5E-09
Average	-	-470.0E-12	-360.0E-12	-70.0E-12	5.0E-09	147.6E-09	99.2E-09	70.7E-09	5.0E-09
Sigma	-	193.9E-12	153.0E-12	143.5E-12	164.3E-12	13.9E-09	9.4E-09	6.3E-09	895.2E-12

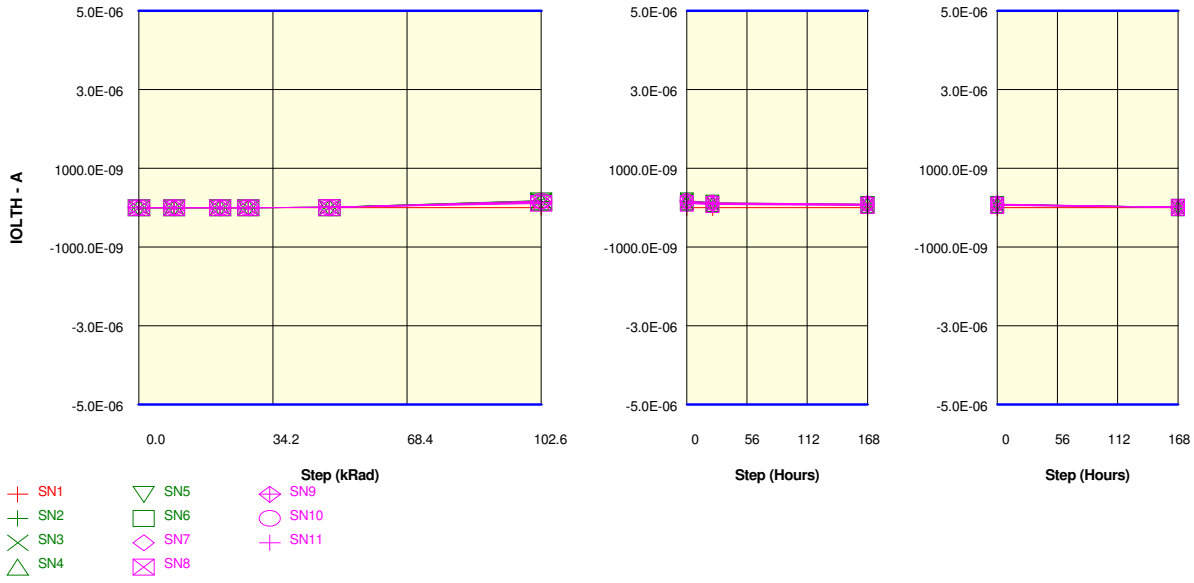
Measurements

IOLTHD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.1E-09	400.0E-12	450.0E-12	700.0E-12	800.0E-12	1.5E-09	300.0E-12	600.0E-12	1.0E-09
OFF samples									
SN7	900.0E-12	350.0E-12	500.0E-12	800.0E-12	5.5E-09	136.0E-09	98.0E-09	73.2E-09	6.1E-09
SN8	800.0E-12	400.0E-12	500.0E-12	900.0E-12	4.3E-09	102.0E-09	72.7E-09	55.5E-09	7.7E-09
SN9	900.0E-12	350.0E-12	500.0E-12	1.1E-09	5.3E-09	128.0E-09	90.2E-09	69.4E-09	6.2E-09
SN10	950.0E-12	400.0E-12	450.0E-12	950.0E-12	5.8E-09	147.5E-09	104.0E-09	81.2E-09	6.6E-09
SN11	850.0E-12	350.0E-12	600.0E-12	850.0E-12	4.9E-09	121.5E-09	82.1E-09	71.3E-09	8.7E-09
Statistics									
Min	800.0E-12	350.0E-12	450.0E-12	800.0E-12	4.3E-09	102.0E-09	72.7E-09	55.5E-09	6.1E-09
Max	950.0E-12	400.0E-12	600.0E-12	1.1E-09	5.8E-09	147.5E-09	104.0E-09	81.2E-09	8.7E-09
Average	880.0E-12	370.0E-12	510.0E-12	910.0E-12	5.2E-09	127.0E-09	89.4E-09	70.1E-09	7.0E-09
Sigma	51.0E-12	24.5E-12	49.0E-12	86.0E-12	507.9E-12	15.2E-09	11.1E-09	8.4E-09	997.2E-12

Drift Calculation

IOLTHD12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-550.0E-12	-400.0E-12	-100.0E-12	4.6E-09	135.1E-09	97.1E-09	72.3E-09	5.2E-09
SN8	-	-400.0E-12	-300.0E-12	100.0E-12	3.5E-09	101.2E-09	71.9E-09	54.7E-09	6.9E-09
SN9	-	-550.0E-12	-400.0E-12	150.0E-12	4.4E-09	127.1E-09	89.3E-09	68.5E-09	5.3E-09
SN10	-	-550.0E-12	-500.0E-12	0.0E+00	4.8E-09	146.6E-09	103.1E-09	80.3E-09	5.6E-09
SN11	-	-500.0E-12	-250.0E-12	0.0E+00	4.1E-09	120.7E-09	81.2E-09	70.5E-09	7.8E-09
Average	-	-510.0E-12	-370.0E-12	30.0E-12	4.3E-09	126.1E-09	88.5E-09	69.2E-09	6.1E-09
Sigma	-	58.3E-12	87.2E-12	87.2E-12	457.8E-12	15.2E-09	11.1E-09	8.3E-09	1.0E-09

Parameter : Three state output leakage : IOLTHD11
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	150.0E-12	150.0E-12	100.0E-12	200.0E-12	150.0E-12	450.0E-12	250.0E-12	200.0E-12	150.0E-12
ON samples									
SN2	200.0E-12	150.0E-12	150.0E-12	500.0E-12	5.1E-09	157.5E-09	102.5E-09	79.7E-09	4.7E-09
SN3	150.0E-12	200.0E-12	250.0E-12	500.0E-12	5.7E-09	178.5E-09	121.5E-09	84.6E-09	6.5E-09
SN4	200.0E-12	250.0E-12	150.0E-12	500.0E-12	5.2E-09	146.5E-09	102.5E-09	72.4E-09	4.4E-09
SN5	200.0E-12	200.0E-12	250.0E-12	450.0E-12	5.5E-09	171.0E-09	115.0E-09	82.3E-09	7.3E-09
SN6	100.0E-12	150.0E-12	250.0E-12	450.0E-12	4.9E-09	139.0E-09	94.0E-09	65.4E-09	5.4E-09
Statistics									
Min	100.0E-12	150.0E-12	150.0E-12	450.0E-12	4.9E-09	139.0E-09	94.0E-09	65.4E-09	4.4E-09
Max	200.0E-12	250.0E-12	250.0E-12	500.0E-12	5.7E-09	178.5E-09	121.5E-09	84.6E-09	7.3E-09
Average	170.0E-12	190.0E-12	210.0E-12	480.0E-12	5.3E-09	158.5E-09	107.1E-09	76.9E-09	5.6E-09
Sigma	40.0E-12	37.4E-12	49.0E-12	24.5E-12	263.4E-12	14.7E-09	9.8E-09	7.0E-09	1.1E-09

Drift Calculation

IOLTHD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-50.0E-12	-50.0E-12	300.0E-12	4.9E-09	157.3E-09	102.3E-09	79.5E-09	4.5E-09
SN3	-	50.0E-12	100.0E-12	350.0E-12	5.5E-09	178.4E-09	121.4E-09	84.4E-09	6.4E-09
SN4	-	50.0E-12	-50.0E-12	300.0E-12	5.0E-09	146.3E-09	102.3E-09	72.2E-09	4.2E-09
SN5	-	0.0E+00	50.0E-12	250.0E-12	5.3E-09	170.8E-09	114.8E-09	82.1E-09	7.1E-09
SN6	-	50.0E-12	150.0E-12	350.0E-12	4.8E-09	138.9E-09	93.9E-09	65.3E-09	5.3E-09
Average	-	20.0E-12	40.0E-12	310.0E-12	5.1E-09	158.3E-09	106.9E-09	76.7E-09	5.5E-09
Sigma	-	40.0E-12	80.0E-12	37.4E-12	253.8E-12	14.7E-09	9.8E-09	7.0E-09	1.1E-09

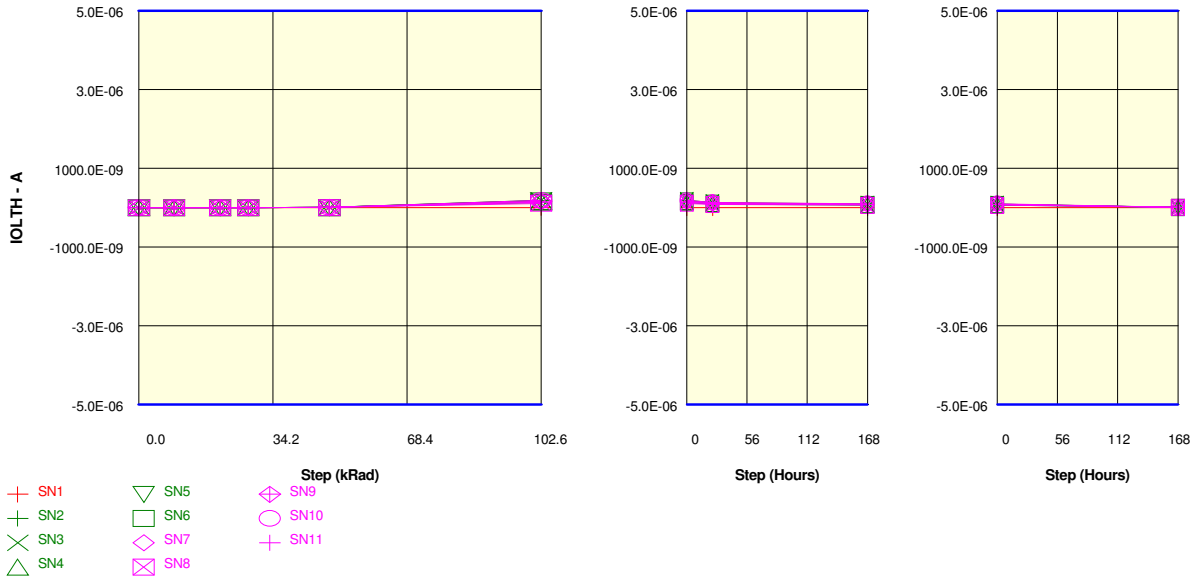
Measurements

IOLTHD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	150.0E-12	150.0E-12	100.0E-12	200.0E-12	150.0E-12	450.0E-12	250.0E-12	200.0E-12	150.0E-12
OFF samples									
SN7	200.0E-12	150.0E-12	200.0E-12	450.0E-12	4.9E-09	141.0E-09	104.5E-09	79.5E-09	5.8E-09
SN8	200.0E-12	150.0E-12	150.0E-12	350.0E-12	4.1E-09	111.5E-09	81.0E-09	61.2E-09	7.3E-09
SN9	250.0E-12	200.0E-12	250.0E-12	400.0E-12	4.6E-09	134.5E-09	96.5E-09	74.9E-09	6.3E-09
SN10	200.0E-12	150.0E-12	250.0E-12	500.0E-12	5.2E-09	168.0E-09	119.5E-09	93.0E-09	6.6E-09
SN11	200.0E-12	150.0E-12	200.0E-12	450.0E-12	4.4E-09	124.0E-09	84.8E-09	73.7E-09	8.7E-09
Statistics									
Min	200.0E-12	150.0E-12	150.0E-12	350.0E-12	4.1E-09	111.5E-09	81.0E-09	61.2E-09	5.8E-09
Max	250.0E-12	200.0E-12	250.0E-12	500.0E-12	5.2E-09	168.0E-09	119.5E-09	93.0E-09	8.7E-09
Average	210.0E-12	160.0E-12	210.0E-12	430.0E-12	4.6E-09	135.8E-09	97.3E-09	76.4E-09	6.9E-09
Sigma	20.0E-12	20.0E-12	37.4E-12	51.0E-12	390.6E-12	18.9E-09	13.9E-09	10.2E-09	1.0E-09

Drift Calculation

IOLTHD11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-50.0E-12	0.0E+00	250.0E-12	4.7E-09	140.8E-09	104.3E-09	79.3E-09	5.6E-09
SN8	-	-50.0E-12	-50.0E-12	150.0E-12	3.9E-09	111.3E-09	80.8E-09	61.0E-09	7.1E-09
SN9	-	-50.0E-12	0.0E+00	150.0E-12	4.4E-09	134.3E-09	96.3E-09	74.7E-09	6.0E-09
SN10	-	-50.0E-12	50.0E-12	300.0E-12	5.0E-09	167.8E-09	119.3E-09	92.8E-09	6.4E-09
SN11	-	-50.0E-12	0.0E+00	250.0E-12	4.2E-09	123.8E-09	84.6E-09	73.5E-09	8.5E-09
Average	-	-50.0E-12	0.0E+00	220.0E-12	4.4E-09	135.6E-09	97.1E-09	76.2E-09	6.7E-09
Sigma	-	909.7E-21	31.6E-12	60.0E-12	391.7E-12	18.9E-09	13.9E-09	10.2E-09	1.0E-09

Parameter : Three state output leakage : IOLTHD10
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	800.0E-12	750.0E-12	650.0E-12	850.0E-12	800.0E-12	1.1E-09	850.0E-12	800.0E-12	750.0E-12
ON samples									
SN2	850.0E-12	300.0E-12	250.0E-12	600.0E-12	5.6E-09	179.5E-09	117.5E-09	90.8E-09	5.7E-09
SN3	750.0E-12	250.0E-12	300.0E-12	600.0E-12	6.1E-09	191.5E-09	130.5E-09	91.6E-09	7.5E-09
SN4	900.0E-12	350.0E-12	350.0E-12	600.0E-12	5.3E-09	155.0E-09	109.0E-09	75.5E-09	5.0E-09
SN5	850.0E-12	300.0E-12	250.0E-12	500.0E-12	5.8E-09	174.0E-09	117.0E-09	84.5E-09	8.5E-09
SN6	1.0E-09	300.0E-12	350.0E-12	550.0E-12	4.7E-09	133.5E-09	91.3E-09	64.1E-09	6.1E-09
Statistics									
Min	750.0E-12	250.0E-12	250.0E-12	500.0E-12	4.7E-09	133.5E-09	91.3E-09	64.1E-09	5.0E-09
Max	1.0E-09	350.0E-12	350.0E-12	600.0E-12	6.1E-09	191.5E-09	130.5E-09	91.6E-09	8.5E-09
Average	870.0E-12	300.0E-12	300.0E-12	570.0E-12	5.5E-09	166.7E-09	113.1E-09	81.3E-09	6.5E-09
Sigma	81.2E-12	31.6E-12	44.7E-12	40.0E-12	463.2E-12	20.4E-09	12.9E-09	10.4E-09	1.3E-09

Drift Calculation

IOLTHD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-550.0E-12	-600.0E-12	-250.0E-12	4.7E-09	178.7E-09	116.7E-09	89.9E-09	4.8E-09
SN3	-	-500.0E-12	-450.0E-12	-150.0E-12	5.3E-09	190.8E-09	129.8E-09	90.8E-09	6.7E-09
SN4	-	-550.0E-12	-550.0E-12	-300.0E-12	4.4E-09	154.1E-09	108.1E-09	74.6E-09	4.1E-09
SN5	-	-550.0E-12	-600.0E-12	-350.0E-12	5.0E-09	173.2E-09	116.2E-09	83.6E-09	7.6E-09
SN6	-	-700.0E-12	-650.0E-12	-450.0E-12	3.7E-09	132.5E-09	90.3E-09	63.1E-09	5.1E-09
Average	-	-570.0E-12	-570.0E-12	-300.0E-12	4.6E-09	165.8E-09	112.2E-09	80.4E-09	5.7E-09
Sigma	-	67.8E-12	67.8E-12	100.0E-12	542.6E-12	20.4E-09	13.0E-09	10.4E-09	1.3E-09

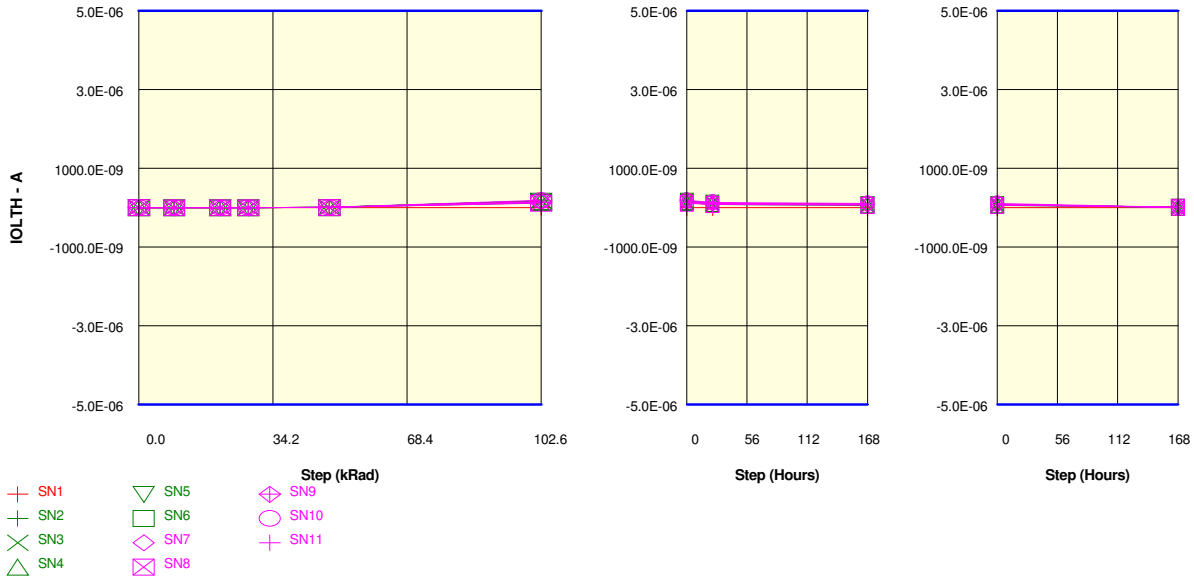
Measurements

IOLTHD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	800.0E-12	750.0E-12	650.0E-12	850.0E-12	800.0E-12	1.1E-09	850.0E-12	800.0E-12	750.0E-12
OFF samples									
SN7	600.0E-12	250.0E-12	300.0E-12	550.0E-12	5.5E-09	165.0E-09	119.5E-09	86.7E-09	7.0E-09
SN8	700.0E-12	250.0E-12	300.0E-12	450.0E-12	4.2E-09	113.5E-09	82.2E-09	62.5E-09	7.9E-09
SN9	1.0E-09	250.0E-12	300.0E-12	500.0E-12	5.2E-09	149.5E-09	108.0E-09	82.1E-09	7.2E-09
SN10	950.0E-12	300.0E-12	250.0E-12	550.0E-12	5.8E-09	183.5E-09	131.0E-09	103.0E-09	7.9E-09
SN11	800.0E-12	300.0E-12	300.0E-12	500.0E-12	4.8E-09	141.5E-09	97.0E-09	83.7E-09	10.0E-09
Statistics									
Min	600.0E-12	250.0E-12	250.0E-12	450.0E-12	4.2E-09	113.5E-09	82.2E-09	62.5E-09	7.0E-09
Max	1.0E-09	300.0E-12	300.0E-12	550.0E-12	5.8E-09	183.5E-09	131.0E-09	103.0E-09	10.0E-09
Average	810.0E-12	270.0E-12	290.0E-12	510.0E-12	5.1E-09	150.6E-09	107.5E-09	83.6E-09	8.0E-09
Sigma	149.7E-12	24.5E-12	20.0E-12	37.4E-12	553.5E-12	23.5E-09	17.0E-09	12.9E-09	1.1E-09

Drift Calculation

IOLTHD10	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-350.0E-12	-300.0E-12	-50.0E-12	4.9E-09	164.4E-09	118.9E-09	86.1E-09	6.4E-09
SN8	-	-450.0E-12	-400.0E-12	-250.0E-12	3.5E-09	112.8E-09	81.5E-09	61.8E-09	7.2E-09
SN9	-	-750.0E-12	-700.0E-12	-500.0E-12	4.2E-09	148.5E-09	107.0E-09	81.1E-09	6.2E-09
SN10	-	-650.0E-12	-700.0E-12	-400.0E-12	4.8E-09	182.6E-09	130.1E-09	102.1E-09	7.0E-09
SN11	-	-500.0E-12	-500.0E-12	-300.0E-12	4.0E-09	140.7E-09	96.2E-09	82.9E-09	9.2E-09
Average	-	-540.0E-12	-520.0E-12	-300.0E-12	4.3E-09	149.8E-09	106.7E-09	82.8E-09	7.2E-09
Sigma	-	142.8E-12	160.0E-12	151.7E-12	524.4E-12	23.4E-09	17.0E-09	12.8E-09	1.1E-09

Parameter : Three state output leakage : IOLTHD9
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	2.1E-09	1.8E-09	1.7E-09	2.1E-09	2.1E-09	2.1E-09	1.7E-09	2.1E-09	2.2E-09
ON samples									
SN2	2.1E-09	850.0E-12	900.0E-12	1.3E-09	6.0E-09	170.5E-09	110.0E-09	86.1E-09	6.6E-09
SN3	2.2E-09	800.0E-12	1.0E-09	1.3E-09	6.5E-09	169.0E-09	118.0E-09	81.5E-09	8.5E-09
SN4	2.6E-09	800.0E-12	850.0E-12	1.4E-09	6.0E-09	154.0E-09	108.0E-09	74.5E-09	6.4E-09
SN5	2.3E-09	750.0E-12	1.0E-09	1.4E-09	6.8E-09	163.5E-09	112.0E-09	79.7E-09	9.6E-09
SN6	2.3E-09	850.0E-12	900.0E-12	1.3E-09	5.4E-09	129.0E-09	85.5E-09	60.3E-09	6.9E-09
Statistics									
Min	2.1E-09	750.0E-12	850.0E-12	1.3E-09	5.4E-09	129.0E-09	85.5E-09	60.3E-09	6.4E-09
Max	2.6E-09	850.0E-12	1.0E-09	1.4E-09	6.8E-09	170.5E-09	118.0E-09	86.1E-09	9.6E-09
Average	2.3E-09	810.0E-12	930.0E-12	1.3E-09	6.1E-09	157.2E-09	106.7E-09	76.4E-09	7.6E-09
Sigma	156.8E-12	37.4E-12	60.0E-12	60.0E-12	469.7E-12	15.2E-09	11.1E-09	8.9E-09	1.2E-09

Drift Calculation

IOLTHD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-1.3E-09	-1.2E-09	-800.0E-12	3.9E-09	168.4E-09	107.9E-09	84.0E-09	4.5E-09
SN3	-	-1.4E-09	-1.2E-09	-850.0E-12	4.4E-09	166.9E-09	115.9E-09	79.4E-09	6.3E-09
SN4	-	-1.8E-09	-1.7E-09	-1.2E-09	3.4E-09	151.5E-09	105.5E-09	72.0E-09	3.9E-09
SN5	-	-1.5E-09	-1.3E-09	-850.0E-12	4.5E-09	161.3E-09	109.8E-09	77.5E-09	7.4E-09
SN6	-	-1.5E-09	-1.4E-09	-1.1E-09	3.1E-09	126.7E-09	83.2E-09	58.0E-09	4.6E-09
Average	-	-1.5E-09	-1.3E-09	-940.0E-12	3.9E-09	154.9E-09	104.4E-09	74.2E-09	5.3E-09
Sigma	-	168.5E-12	198.5E-12	135.6E-12	536.7E-12	15.3E-09	11.2E-09	9.0E-09	1.3E-09

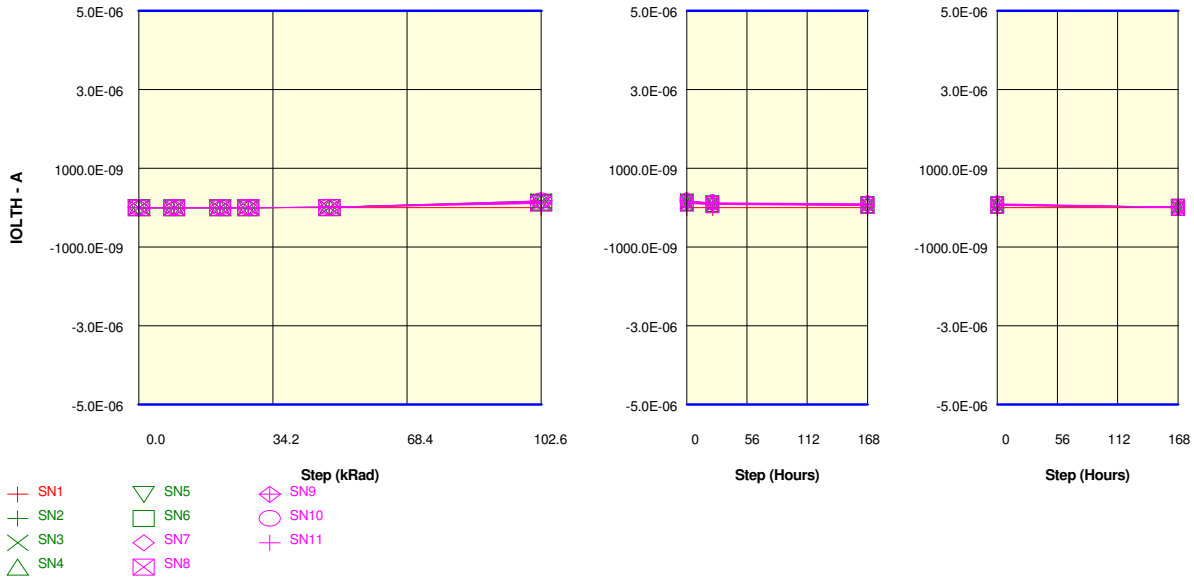
Measurements

IOLTHD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	2.1E-09	1.8E-09	1.7E-09	2.1E-09	2.1E-09	2.1E-09	1.7E-09	2.1E-09	2.2E-09
OFF samples									
SN7	2.2E-09	800.0E-12	1.0E-09	1.4E-09	6.1E-09	160.5E-09	117.5E-09	84.1E-09	8.3E-09
SN8	2.4E-09	750.0E-12	950.0E-12	1.1E-09	5.1E-09	114.5E-09	82.1E-09	62.7E-09	9.1E-09
SN9	2.4E-09	850.0E-12	1.0E-09	1.3E-09	5.8E-09	145.0E-09	105.5E-09	79.4E-09	8.8E-09
SN10	2.3E-09	850.0E-12	1.2E-09	1.3E-09	6.8E-09	185.0E-09	133.0E-09	106.0E-09	9.5E-09
SN11	2.5E-09	800.0E-12	850.0E-12	1.2E-09	5.4E-09	131.0E-09	87.6E-09	76.7E-09	10.5E-09
Statistics									
Min	2.2E-09	750.0E-12	850.0E-12	1.1E-09	5.1E-09	114.5E-09	82.1E-09	62.7E-09	8.3E-09
Max	2.5E-09	850.0E-12	1.2E-09	1.4E-09	6.8E-09	185.0E-09	133.0E-09	106.0E-09	10.5E-09
Average	2.3E-09	810.0E-12	1.0E-09	1.2E-09	5.8E-09	147.2E-09	105.1E-09	81.8E-09	9.2E-09
Sigma	106.8E-12	37.4E-12	114.0E-12	97.0E-12	609.4E-12	24.3E-09	18.8E-09	14.1E-09	741.9E-12

Drift Calculation

IOLTHD9	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-1.4E-09	-1.2E-09	-800.0E-12	4.0E-09	158.4E-09	115.4E-09	82.0E-09	6.2E-09
SN8	-	-1.7E-09	-1.5E-09	-1.3E-09	2.7E-09	112.1E-09	79.7E-09	60.3E-09	6.7E-09
SN9	-	-1.6E-09	-1.4E-09	-1.1E-09	3.4E-09	142.6E-09	103.1E-09	77.0E-09	6.4E-09
SN10	-	-1.5E-09	-1.1E-09	-1.0E-09	4.5E-09	182.7E-09	130.7E-09	103.7E-09	7.2E-09
SN11	-	-1.7E-09	-1.6E-09	-1.3E-09	2.9E-09	128.6E-09	85.2E-09	74.3E-09	8.1E-09
Average	-	-1.5E-09	-1.3E-09	-1.1E-09	3.5E-09	144.9E-09	102.8E-09	79.4E-09	6.9E-09
Sigma	-	116.6E-12	188.1E-12	189.7E-12	678.7E-12	24.3E-09	18.9E-09	14.1E-09	673.1E-12

Parameter : Three state output leakage : IOLTHD8
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.5E-09	950.0E-12	1.1E-09	1.6E-09	1.5E-09	1.3E-09	1.1E-09	1.1E-09	2.0E-09
ON samples									
SN2	1.7E-09	900.0E-12	1.3E-09	1.4E-09	6.4E-09	171.0E-09	111.0E-09	87.8E-09	7.4E-09
SN3	1.8E-09	900.0E-12	1.1E-09	1.8E-09	6.5E-09	156.0E-09	110.0E-09	76.1E-09	8.4E-09
SN4	1.6E-09	950.0E-12	950.0E-12	1.9E-09	5.9E-09	140.5E-09	101.0E-09	69.6E-09	6.5E-09
SN5	1.5E-09	950.0E-12	1.1E-09	1.4E-09	6.8E-09	143.5E-09	100.0E-09	71.6E-09	9.4E-09
SN6	1.7E-09	750.0E-12	1.2E-09	1.3E-09	5.7E-09	136.0E-09	90.5E-09	64.8E-09	7.4E-09
Statistics									
Min	1.5E-09	750.0E-12	950.0E-12	1.3E-09	5.7E-09	136.0E-09	90.5E-09	64.8E-09	6.5E-09
Max	1.8E-09	950.0E-12	1.3E-09	1.9E-09	6.8E-09	171.0E-09	111.0E-09	87.8E-09	9.4E-09
Average	1.7E-09	890.0E-12	1.1E-09	1.5E-09	6.2E-09	149.4E-09	102.5E-09	74.0E-09	7.8E-09
Sigma	100.0E-12	73.5E-12	120.8E-12	259.6E-12	425.9E-12	12.7E-09	7.5E-09	7.8E-09	992.8E-12

Drift Calculation

IOLTHD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-750.0E-12	-350.0E-12	-300.0E-12	4.8E-09	169.4E-09	109.4E-09	86.2E-09	5.8E-09
SN3	-	-900.0E-12	-700.0E-12	0.0E+00	4.7E-09	154.2E-09	108.2E-09	74.3E-09	6.6E-09
SN4	-	-650.0E-12	-650.0E-12	300.0E-12	4.3E-09	138.9E-09	99.4E-09	68.0E-09	4.9E-09
SN5	-	-550.0E-12	-450.0E-12	-100.0E-12	5.3E-09	142.0E-09	98.5E-09	70.1E-09	7.9E-09
SN6	-	-950.0E-12	-500.0E-12	-450.0E-12	4.0E-09	134.3E-09	88.8E-09	63.1E-09	5.7E-09
Average	-	-760.0E-12	-530.0E-12	-110.0E-12	4.6E-09	147.8E-09	100.9E-09	72.3E-09	6.2E-09
Sigma	-	149.7E-12	128.8E-12	257.7E-12	462.0E-12	12.7E-09	7.5E-09	7.8E-09	1.0E-09

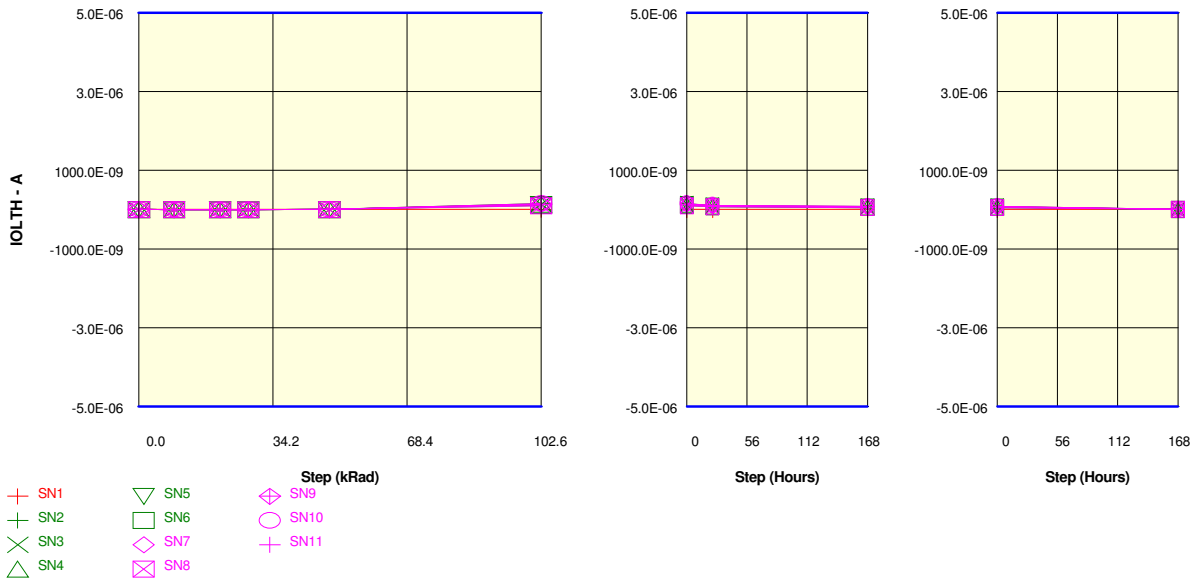
Measurements

IOLTHD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.5E-09	950.0E-12	1.1E-09	1.6E-09	1.5E-09	1.3E-09	1.1E-09	1.1E-09	2.0E-09
OFF samples									
SN7	1.6E-09	800.0E-12	1.5E-09	1.7E-09	6.0E-09	154.5E-09	115.5E-09	83.9E-09	8.7E-09
SN8	1.5E-09	850.0E-12	1.4E-09	1.6E-09	4.9E-09	111.0E-09	78.6E-09	60.1E-09	9.1E-09
SN9	1.7E-09	900.0E-12	1.2E-09	1.8E-09	5.8E-09	145.5E-09	105.5E-09	80.2E-09	9.6E-09
SN10	1.7E-09	850.0E-12	1.3E-09	1.7E-09	7.2E-09	176.0E-09	129.0E-09	102.0E-09	9.9E-09
SN11	2.0E-09	750.0E-12	1.3E-09	1.3E-09	5.6E-09	126.5E-09	84.5E-09	74.6E-09	10.2E-09
Statistics									
Min	1.5E-09	750.0E-12	1.2E-09	1.3E-09	4.9E-09	111.0E-09	78.6E-09	60.1E-09	8.7E-09
Max	2.0E-09	900.0E-12	1.5E-09	1.8E-09	7.2E-09	176.0E-09	129.0E-09	102.0E-09	10.2E-09
Average	1.7E-09	830.0E-12	1.3E-09	1.6E-09	5.9E-09	142.7E-09	102.6E-09	80.1E-09	9.5E-09
Sigma	168.5E-12	51.0E-12	92.7E-12	187.1E-12	765.9E-12	22.5E-09	18.8E-09	13.6E-09	562.7E-12

Drift Calculation

IOLTHD8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-800.0E-12	-150.0E-12	100.0E-12	4.4E-09	152.9E-09	113.9E-09	82.3E-09	7.1E-09
SN8	-	-650.0E-12	-100.0E-12	100.0E-12	3.4E-09	109.5E-09	77.1E-09	58.6E-09	7.6E-09
SN9	-	-800.0E-12	-500.0E-12	100.0E-12	4.1E-09	143.8E-09	103.8E-09	78.5E-09	7.9E-09
SN10	-	-800.0E-12	-350.0E-12	0.0E+00	5.6E-09	174.4E-09	127.4E-09	100.4E-09	8.3E-09
SN11	-	-1.3E-09	-750.0E-12	-750.0E-12	3.6E-09	124.5E-09	82.5E-09	72.6E-09	8.2E-09
Average	-	-860.0E-12	-370.0E-12	-90.0E-12	4.2E-09	141.0E-09	100.9E-09	78.4E-09	7.8E-09
Sigma	-	203.5E-12	237.9E-12	332.3E-12	776.8E-12	22.5E-09	18.9E-09	13.6E-09	446.5E-12

Parameter : Three state output leakage : IOLTHD7
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.3E-09	4.4E-09	4.2E-09	4.6E-09	4.7E-09	5.3E-09	4.3E-09	4.9E-09	4.7E-09
ON samples									
SN2	4.3E-09	1.3E-09	850.0E-12	1.1E-09	5.3E-09	155.5E-09	103.0E-09	80.9E-09	6.3E-09
SN3	4.5E-09	1.4E-09	850.0E-12	1.1E-09	5.4E-09	142.5E-09	100.0E-09	72.6E-09	7.2E-09
SN4	5.0E-09	1.5E-09	850.0E-12	1.2E-09	5.2E-09	133.0E-09	95.0E-09	67.2E-09	5.8E-09
SN5	4.8E-09	1.4E-09	800.0E-12	1.1E-09	5.4E-09	134.5E-09	91.0E-09	67.9E-09	8.7E-09
SN6	4.8E-09	1.6E-09	850.0E-12	950.0E-12	4.5E-09	109.5E-09	75.7E-09	54.3E-09	6.1E-09
Statistics									
Min	4.3E-09	1.3E-09	800.0E-12	950.0E-12	4.5E-09	109.5E-09	75.7E-09	54.3E-09	5.8E-09
Max	5.0E-09	1.6E-09	850.0E-12	1.2E-09	5.4E-09	155.5E-09	103.0E-09	80.9E-09	8.7E-09
Average	4.6E-09	1.4E-09	840.0E-12	1.1E-09	5.1E-09	135.0E-09	92.9E-09	68.6E-09	6.8E-09
Sigma	248.2E-12	103.0E-12	20.0E-12	81.2E-12	326.5E-12	15.0E-09	9.6E-09	8.6E-09	1.0E-09

Drift Calculation

IOLTHD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-3.0E-09	-3.4E-09	-3.2E-09	1.0E-09	151.3E-09	98.8E-09	76.6E-09	2.1E-09
SN3	-	-3.1E-09	-3.6E-09	-3.4E-09	900.0E-12	138.1E-09	95.6E-09	68.1E-09	2.8E-09
SN4	-	-3.5E-09	-4.1E-09	-3.8E-09	200.0E-12	128.1E-09	90.1E-09	62.2E-09	800.0E-12
SN5	-	-3.4E-09	-4.0E-09	-3.7E-09	650.0E-12	129.8E-09	86.3E-09	63.2E-09	3.9E-09
SN6	-	-3.2E-09	-3.9E-09	-3.8E-09	-250.0E-12	104.8E-09	71.0E-09	49.6E-09	1.4E-09
Average	-	-3.2E-09	-3.8E-09	-3.6E-09	500.0E-12	130.4E-09	88.3E-09	63.9E-09	2.2E-09
Sigma	-	193.4E-12	253.8E-12	247.8E-12	465.8E-12	15.2E-09	9.7E-09	8.8E-09	1.1E-09

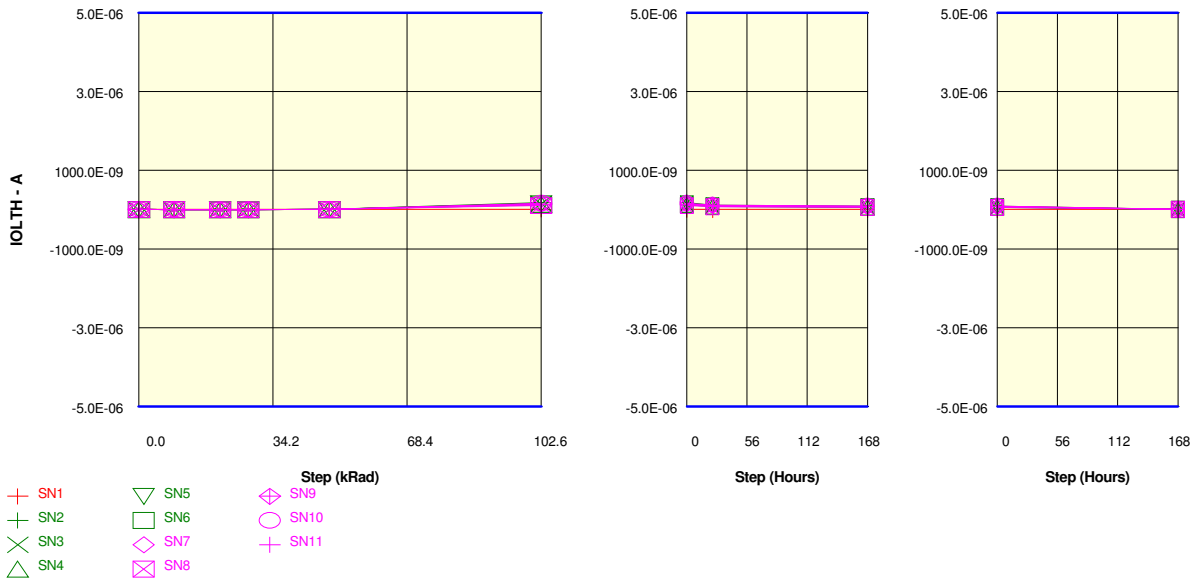
Measurements

IOLTHD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.3E-09	4.4E-09	4.2E-09	4.6E-09	4.7E-09	5.3E-09	4.3E-09	4.9E-09	4.7E-09
OFF samples									
SN7	4.7E-09	1.3E-09	900.0E-12	1.1E-09	4.7E-09	141.0E-09	106.5E-09	79.5E-09	7.3E-09
SN8	5.2E-09	1.6E-09	900.0E-12	1.0E-09	4.0E-09	97.5E-09	73.0E-09	53.7E-09	7.8E-09
SN9	5.1E-09	1.6E-09	850.0E-12	1.0E-09	5.0E-09	137.0E-09	103.0E-09	76.9E-09	8.4E-09
SN10	4.8E-09	1.4E-09	900.0E-12	1.1E-09	5.3E-09	158.5E-09	113.0E-09	87.0E-09	8.7E-09
SN11	5.2E-09	1.6E-09	850.0E-12	900.0E-12	4.6E-09	123.5E-09	84.4E-09	70.4E-09	9.7E-09
Statistics									
Min	4.7E-09	1.3E-09	850.0E-12	900.0E-12	4.0E-09	97.5E-09	73.0E-09	53.7E-09	7.3E-09
Max	5.2E-09	1.6E-09	900.0E-12	1.1E-09	5.3E-09	158.5E-09	113.0E-09	87.0E-09	9.7E-09
Average	5.0E-09	1.5E-09	880.0E-12	1.0E-09	4.7E-09	131.5E-09	96.0E-09	73.5E-09	8.3E-09
Sigma	201.0E-12	128.8E-12	24.5E-12	74.8E-12	438.6E-12	20.3E-09	14.9E-09	11.2E-09	818.8E-12

Drift Calculation

IOLTHD7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-3.4E-09	-3.8E-09	-3.6E-09	50.0E-12	136.4E-09	101.9E-09	74.9E-09	2.6E-09
SN8	-	-3.6E-09	-4.3E-09	-4.2E-09	-1.2E-09	92.4E-09	67.8E-09	48.6E-09	2.6E-09
SN9	-	-3.5E-09	-4.2E-09	-4.1E-09	-50.0E-12	132.0E-09	98.0E-09	71.9E-09	3.4E-09
SN10	-	-3.5E-09	-3.9E-09	-3.7E-09	500.0E-12	153.7E-09	108.2E-09	82.2E-09	3.9E-09
SN11	-	-3.6E-09	-4.3E-09	-4.3E-09	-600.0E-12	118.4E-09	79.2E-09	65.2E-09	4.5E-09
Average	-	-3.5E-09	-4.1E-09	-3.9E-09	-250.0E-12	126.5E-09	91.0E-09	68.5E-09	3.4E-09
Sigma	-	87.2E-12	215.9E-12	269.1E-12	570.1E-12	20.5E-09	15.1E-09	11.4E-09	733.9E-12

Parameter : Three state output leakage : IOLTHD6
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.9E-09	5.2E-09	4.8E-09	5.5E-09	5.4E-09	6.0E-09	5.2E-09	5.7E-09	5.3E-09
ON samples									
SN2	4.9E-09	1.8E-09	1.1E-09	1.4E-09	6.2E-09	178.0E-09	115.0E-09	89.3E-09	6.6E-09
SN3	5.5E-09	2.0E-09	1.1E-09	1.3E-09	5.9E-09	154.0E-09	106.0E-09	75.6E-09	8.0E-09
SN4	5.6E-09	1.9E-09	1.2E-09	1.4E-09	5.3E-09	135.5E-09	95.0E-09	65.6E-09	5.7E-09
SN5	5.7E-09	2.0E-09	1.3E-09	1.5E-09	6.1E-09	151.5E-09	101.5E-09	73.6E-09	9.1E-09
SN6	5.8E-09	2.2E-09	1.3E-09	1.3E-09	5.3E-09	121.0E-09	82.2E-09	57.6E-09	7.0E-09
Statistics									
Min	4.9E-09	1.8E-09	1.1E-09	1.3E-09	5.3E-09	121.0E-09	82.2E-09	57.6E-09	5.7E-09
Max	5.8E-09	2.2E-09	1.3E-09	1.5E-09	6.2E-09	178.0E-09	115.0E-09	89.3E-09	9.1E-09
Average	5.5E-09	2.0E-09	1.2E-09	1.4E-09	5.7E-09	148.0E-09	99.9E-09	72.3E-09	7.3E-09
Sigma	314.0E-12	132.7E-12	80.0E-12	70.7E-12	400.7E-12	19.1E-09	11.0E-09	10.6E-09	1.2E-09

Drift Calculation

IOLTHD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-3.1E-09	-3.8E-09	-3.5E-09	1.3E-09	173.1E-09	110.1E-09	84.4E-09	1.7E-09
SN3	-	-3.5E-09	-4.4E-09	-4.2E-09	450.0E-12	148.6E-09	100.6E-09	70.2E-09	2.6E-09
SN4	-	-3.7E-09	-4.4E-09	-4.2E-09	-300.0E-12	130.0E-09	89.5E-09	60.0E-09	150.0E-12
SN5	-	-3.7E-09	-4.5E-09	-4.3E-09	400.0E-12	145.8E-09	95.8E-09	67.9E-09	3.4E-09
SN6	-	-3.6E-09	-4.5E-09	-4.6E-09	-550.0E-12	115.2E-09	76.4E-09	51.8E-09	1.2E-09
Average	-	-3.5E-09	-4.3E-09	-4.1E-09	250.0E-12	142.5E-09	94.5E-09	66.8E-09	1.8E-09
Sigma	-	215.4E-12	251.8E-12	344.4E-12	633.2E-12	19.4E-09	11.3E-09	10.9E-09	1.1E-09

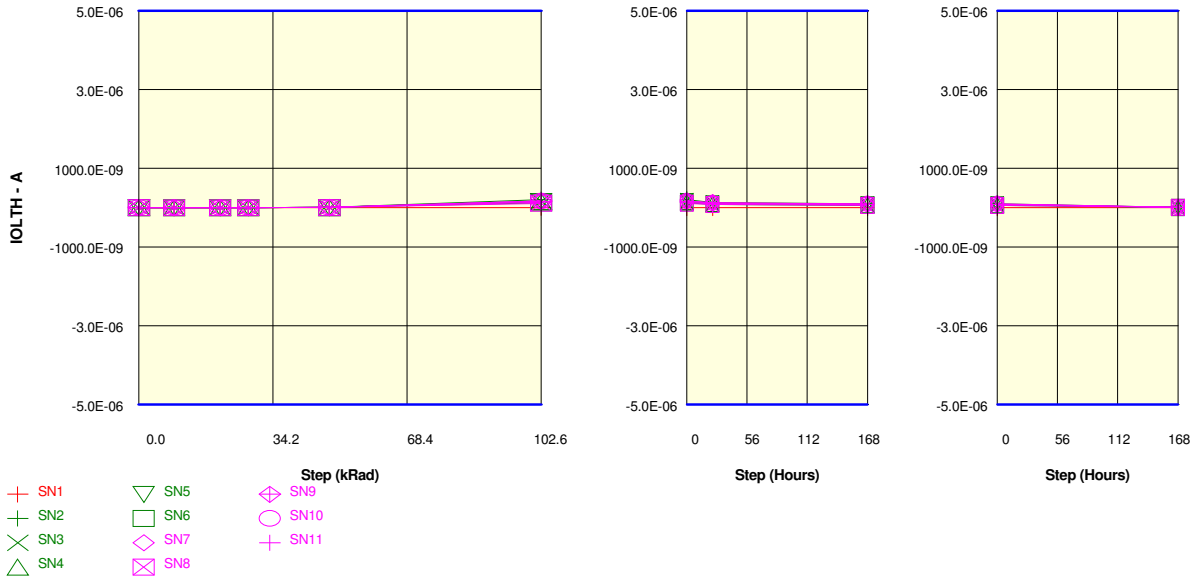
Measurements

IOLTHD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	4.9E-09	5.2E-09	4.8E-09	5.5E-09	5.4E-09	6.0E-09	5.2E-09	5.7E-09	5.3E-09
OFF samples									
SN7	5.5E-09	2.0E-09	1.3E-09	1.6E-09	5.5E-09	148.5E-09	110.0E-09	79.9E-09	7.7E-09
SN8	6.1E-09	1.8E-09	1.1E-09	1.5E-09	4.5E-09	105.5E-09	75.7E-09	57.4E-09	8.4E-09
SN9	5.7E-09	2.3E-09	1.2E-09	1.3E-09	5.3E-09	144.0E-09	104.0E-09	80.1E-09	8.9E-09
SN10	5.8E-09	2.0E-09	1.3E-09	1.4E-09	5.8E-09	163.5E-09	116.5E-09	92.5E-09	9.1E-09
SN11	6.1E-09	2.1E-09	1.3E-09	1.3E-09	5.1E-09	128.5E-09	84.2E-09	76.0E-09	10.7E-09
Statistics									
Min	5.5E-09	1.8E-09	1.1E-09	1.3E-09	4.5E-09	105.5E-09	75.7E-09	57.4E-09	7.7E-09
Max	6.1E-09	2.3E-09	1.3E-09	1.6E-09	5.8E-09	163.5E-09	116.5E-09	92.5E-09	10.7E-09
Average	5.8E-09	2.0E-09	1.2E-09	1.4E-09	5.2E-09	138.0E-09	98.1E-09	77.2E-09	8.9E-09
Sigma	239.6E-12	163.1E-12	92.7E-12	120.0E-12	417.9E-12	19.7E-09	15.6E-09	11.3E-09	982.1E-12

Drift Calculation

IOLTHD6	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-3.5E-09	-4.2E-09	-3.9E-09	0.0E+00	143.1E-09	104.6E-09	74.5E-09	2.3E-09
SN8	-	-4.3E-09	-5.0E-09	-4.6E-09	-1.6E-09	99.5E-09	69.6E-09	51.4E-09	2.3E-09
SN9	-	-3.5E-09	-4.5E-09	-4.4E-09	-400.0E-12	138.3E-09	98.3E-09	74.4E-09	3.2E-09
SN10	-	-3.8E-09	-4.5E-09	-4.4E-09	0.0E+00	157.8E-09	110.8E-09	86.8E-09	3.3E-09
SN11	-	-4.0E-09	-4.9E-09	-4.8E-09	-1.0E-09	122.4E-09	78.1E-09	69.9E-09	4.6E-09
Average	-	-3.8E-09	-4.6E-09	-4.4E-09	-590.0E-12	132.2E-09	92.3E-09	71.4E-09	3.1E-09
Sigma	-	327.7E-12	302.3E-12	311.4E-12	603.7E-12	19.9E-09	15.8E-09	11.5E-09	838.2E-12

Parameter : Three state output leakage : IOLTHD5
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.5E-09	1.7E-09	1.4E-09	1.7E-09	1.7E-09	2.4E-09	1.5E-09	1.8E-09	1.7E-09
ON samples									
SN2	1.6E-09	650.0E-12	400.0E-12	700.0E-12	5.9E-09	208.0E-09	133.0E-09	102.0E-09	6.7E-09
SN3	1.5E-09	600.0E-12	400.0E-12	750.0E-12	5.4E-09	161.5E-09	110.5E-09	77.3E-09	7.2E-09
SN4	1.7E-09	550.0E-12	400.0E-12	750.0E-12	5.2E-09	154.5E-09	107.5E-09	74.2E-09	5.3E-09
SN5	1.6E-09	500.0E-12	400.0E-12	700.0E-12	5.6E-09	158.5E-09	106.0E-09	75.3E-09	8.9E-09
SN6	1.7E-09	550.0E-12	450.0E-12	650.0E-12	4.6E-09	123.0E-09	84.1E-09	58.9E-09	6.1E-09
Statistics									
Min	1.5E-09	500.0E-12	400.0E-12	650.0E-12	4.6E-09	123.0E-09	84.1E-09	58.9E-09	5.3E-09
Max	1.7E-09	650.0E-12	450.0E-12	750.0E-12	5.9E-09	208.0E-09	133.0E-09	102.0E-09	8.9E-09
Average	1.6E-09	570.0E-12	410.0E-12	710.0E-12	5.3E-09	161.1E-09	108.2E-09	77.5E-09	6.8E-09
Sigma	73.5E-12	51.0E-12	20.0E-12	37.4E-12	432.9E-12	27.2E-09	15.5E-09	13.9E-09	1.2E-09

Drift Calculation

IOLTHD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-950.0E-12	-1.2E-09	-900.0E-12	4.3E-09	206.4E-09	131.4E-09	100.4E-09	5.1E-09
SN3	-	-850.0E-12	-1.1E-09	-700.0E-12	3.9E-09	160.1E-09	109.1E-09	75.9E-09	5.8E-09
SN4	-	-1.1E-09	-1.3E-09	-900.0E-12	3.5E-09	152.9E-09	105.9E-09	72.6E-09	3.7E-09
SN5	-	-1.1E-09	-1.2E-09	-900.0E-12	4.0E-09	156.9E-09	104.4E-09	73.7E-09	7.3E-09
SN6	-	-1.1E-09	-1.2E-09	-1.0E-09	3.0E-09	121.4E-09	82.5E-09	57.2E-09	4.4E-09
Average	-	-1.0E-09	-1.2E-09	-880.0E-12	3.7E-09	159.5E-09	106.6E-09	75.9E-09	5.2E-09
Sigma	-	103.0E-12	67.8E-12	98.0E-12	461.1E-12	27.2E-09	15.6E-09	13.9E-09	1.2E-09

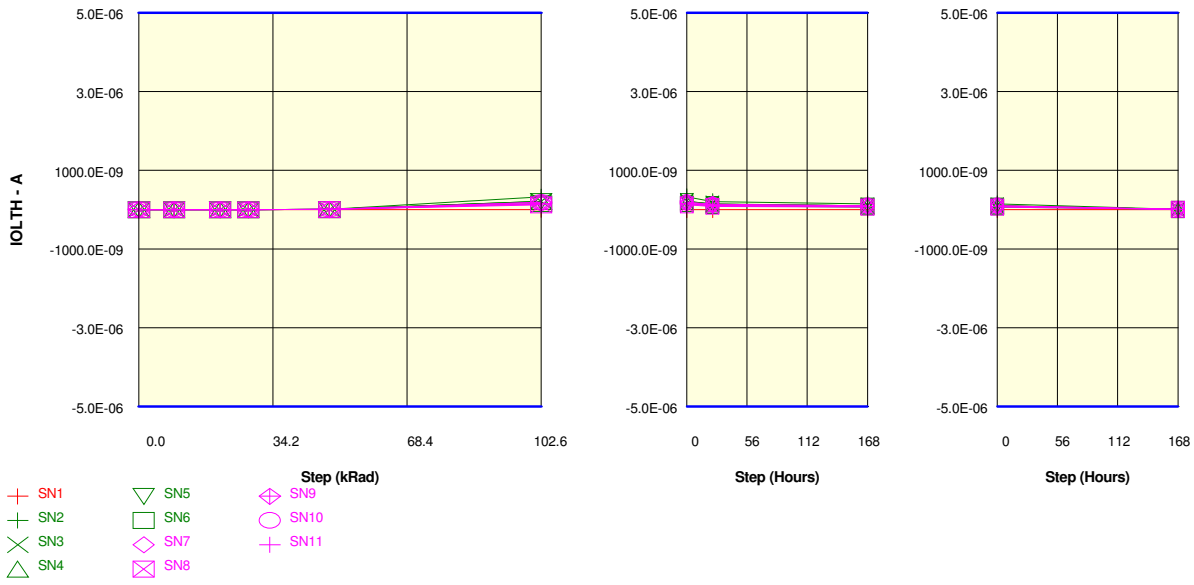
Measurements

IOLTHD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.5E-09	1.7E-09	1.4E-09	1.7E-09	1.7E-09	2.4E-09	1.5E-09	1.8E-09	1.7E-09
OFF samples									
SN7	1.5E-09	600.0E-12	400.0E-12	700.0E-12	5.5E-09	173.0E-09	129.0E-09	98.0E-09	7.8E-09
SN8	1.6E-09	650.0E-12	500.0E-12	600.0E-12	4.1E-09	113.5E-09	84.3E-09	61.4E-09	8.2E-09
SN9	1.9E-09	550.0E-12	500.0E-12	600.0E-12	5.3E-09	155.0E-09	115.0E-09	85.1E-09	8.3E-09
SN10	1.6E-09	600.0E-12	450.0E-12	700.0E-12	5.3E-09	168.0E-09	120.0E-09	92.1E-09	8.1E-09
SN11	1.7E-09	600.0E-12	350.0E-12	650.0E-12	4.8E-09	139.0E-09	91.4E-09	78.8E-09	10.3E-09
Statistics									
Min	1.5E-09	550.0E-12	350.0E-12	600.0E-12	4.1E-09	113.5E-09	84.3E-09	61.4E-09	7.8E-09
Max	1.9E-09	650.0E-12	500.0E-12	700.0E-12	5.5E-09	173.0E-09	129.0E-09	98.0E-09	10.3E-09
Average	1.6E-09	600.0E-12	440.0E-12	650.0E-12	5.0E-09	149.7E-09	107.9E-09	83.1E-09	8.5E-09
Sigma	115.8E-12	31.6E-12	58.3E-12	44.7E-12	494.6E-12	21.6E-09	17.2E-09	12.6E-09	887.7E-12

Drift Calculation

IOLTHD5	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-900.0E-12	-1.1E-09	-800.0E-12	4.0E-09	171.5E-09	127.5E-09	96.5E-09	6.3E-09
SN8	-	-950.0E-12	-1.1E-09	-1.0E-09	2.5E-09	111.9E-09	82.7E-09	59.8E-09	6.6E-09
SN9	-	-1.3E-09	-1.4E-09	-1.3E-09	3.4E-09	153.2E-09	113.2E-09	83.2E-09	6.4E-09
SN10	-	-1.0E-09	-1.2E-09	-900.0E-12	3.7E-09	166.4E-09	118.4E-09	90.5E-09	6.5E-09
SN11	-	-1.1E-09	-1.3E-09	-1.0E-09	3.2E-09	137.4E-09	89.7E-09	77.1E-09	8.6E-09
Average	-	-1.0E-09	-1.2E-09	-990.0E-12	3.3E-09	148.1E-09	106.3E-09	81.4E-09	6.9E-09
Sigma	-	139.3E-12	104.9E-12	149.7E-12	505.4E-12	21.6E-09	17.2E-09	12.6E-09	873.7E-12

Parameter : Three state output leakage : IOLTHD4
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.2E-09	1.3E-09	950.0E-12	1.2E-09	1.2E-09	2.2E-09	1.2E-09	1.3E-09	1.2E-09
ON samples									
SN2	1.2E-09	550.0E-12	400.0E-12	900.0E-12	7.0E-09	325.0E-09	207.0E-09	150.5E-09	6.4E-09
SN3	1.2E-09	600.0E-12	450.0E-12	800.0E-12	6.2E-09	214.5E-09	145.0E-09	100.0E-09	7.3E-09
SN4	1.3E-09	550.0E-12	550.0E-12	800.0E-12	6.1E-09	213.5E-09	146.0E-09	98.5E-09	5.8E-09
SN5	1.1E-09	600.0E-12	500.0E-12	800.0E-12	6.1E-09	206.5E-09	136.5E-09	93.3E-09	8.7E-09
SN6	1.3E-09	650.0E-12	500.0E-12	850.0E-12	5.2E-09	154.0E-09	103.5E-09	70.5E-09	6.2E-09
Statistics									
Min	1.1E-09	550.0E-12	400.0E-12	800.0E-12	5.2E-09	154.0E-09	103.5E-09	70.5E-09	5.8E-09
Max	1.3E-09	650.0E-12	550.0E-12	900.0E-12	7.0E-09	325.0E-09	207.0E-09	150.5E-09	8.7E-09
Average	1.2E-09	590.0E-12	480.0E-12	830.0E-12	6.1E-09	222.7E-09	147.6E-09	102.5E-09	6.9E-09
Sigma	94.9E-12	37.4E-12	51.0E-12	40.0E-12	554.4E-12	55.9E-09	33.5E-09	26.2E-09	1.0E-09

Drift Calculation

IOLTHD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-650.0E-12	-800.0E-12	-300.0E-12	5.8E-09	323.8E-09	205.8E-09	149.3E-09	5.2E-09
SN3	-	-550.0E-12	-700.0E-12	-350.0E-12	5.0E-09	213.4E-09	143.9E-09	98.9E-09	6.1E-09
SN4	-	-750.0E-12	-750.0E-12	-500.0E-12	4.8E-09	212.2E-09	144.7E-09	97.2E-09	4.5E-09
SN5	-	-450.0E-12	-550.0E-12	-250.0E-12	5.1E-09	205.5E-09	135.5E-09	92.2E-09	7.7E-09
SN6	-	-650.0E-12	-800.0E-12	-450.0E-12	3.9E-09	152.7E-09	102.2E-09	69.2E-09	4.9E-09
Average	-	-610.0E-12	-720.0E-12	-370.0E-12	4.9E-09	221.5E-09	146.4E-09	101.3E-09	5.7E-09
Sigma	-	102.0E-12	92.7E-12	92.7E-12	596.2E-12	55.9E-09	33.5E-09	26.2E-09	1.1E-09

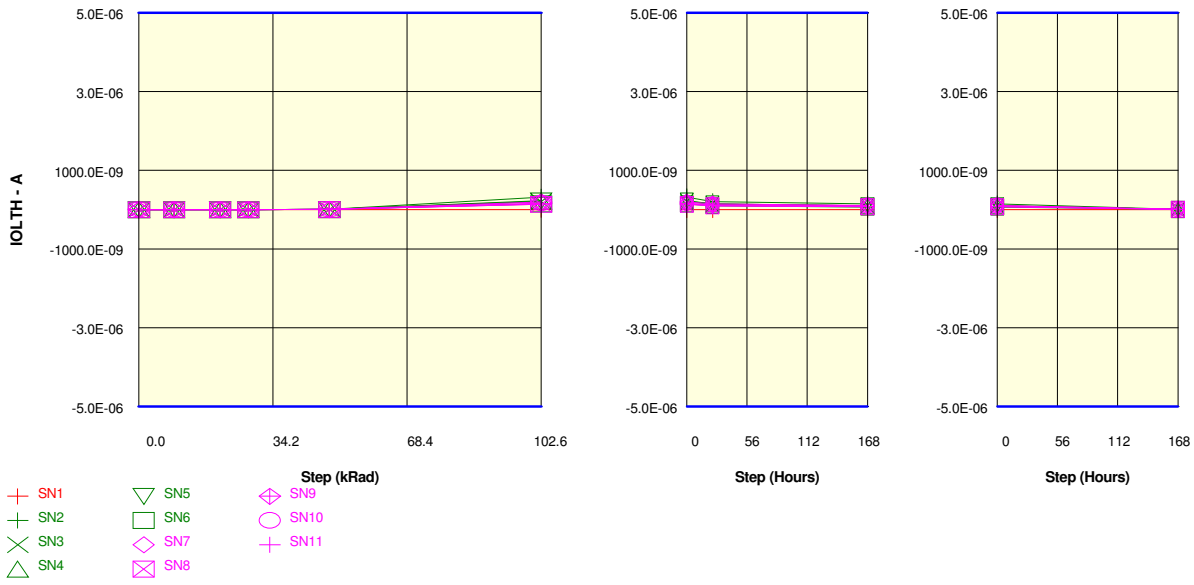
Measurements

IOLTHD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.2E-09	1.3E-09	950.0E-12	1.2E-09	1.2E-09	2.2E-09	1.2E-09	1.3E-09	1.2E-09
OFF samples									
SN7	1.2E-09	700.0E-12	450.0E-12	800.0E-12	6.2E-09	190.0E-09	139.5E-09	102.0E-09	7.9E-09
SN8	1.3E-09	650.0E-12	450.0E-12	750.0E-12	4.5E-09	123.0E-09	87.7E-09	68.4E-09	8.9E-09
SN9	1.4E-09	550.0E-12	450.0E-12	700.0E-12	5.3E-09	158.0E-09	113.5E-09	82.9E-09	8.1E-09
SN10	1.2E-09	550.0E-12	500.0E-12	800.0E-12	6.1E-09	183.0E-09	126.5E-09	96.5E-09	8.3E-09
SN11	1.3E-09	550.0E-12	400.0E-12	800.0E-12	4.8E-09	141.0E-09	96.0E-09	80.2E-09	10.5E-09
Statistics									
Min	1.2E-09	550.0E-12	400.0E-12	700.0E-12	4.5E-09	123.0E-09	87.7E-09	68.4E-09	7.9E-09
Max	1.4E-09	700.0E-12	500.0E-12	800.0E-12	6.2E-09	190.0E-09	139.5E-09	102.0E-09	10.5E-09
Average	1.2E-09	600.0E-12	450.0E-12	770.0E-12	5.3E-09	159.0E-09	112.6E-09	86.0E-09	8.7E-09
Sigma	66.3E-12	63.2E-12	31.6E-12	40.0E-12	691.7E-12	25.1E-09	19.1E-09	12.0E-09	955.3E-12

Drift Calculation

IOLTHD4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-450.0E-12	-700.0E-12	-350.0E-12	5.1E-09	188.9E-09	138.4E-09	100.9E-09	6.7E-09
SN8	-	-600.0E-12	-800.0E-12	-500.0E-12	3.2E-09	121.8E-09	86.4E-09	67.1E-09	7.7E-09
SN9	-	-800.0E-12	-900.0E-12	-650.0E-12	3.9E-09	156.7E-09	112.2E-09	81.6E-09	6.8E-09
SN10	-	-650.0E-12	-700.0E-12	-400.0E-12	4.9E-09	181.8E-09	125.3E-09	95.3E-09	7.1E-09
SN11	-	-700.0E-12	-850.0E-12	-450.0E-12	3.5E-09	139.8E-09	94.8E-09	79.0E-09	9.3E-09
Average	-	-640.0E-12	-790.0E-12	-470.0E-12	4.1E-09	157.8E-09	111.4E-09	84.8E-09	7.5E-09
Sigma	-	115.8E-12	80.0E-12	103.0E-12	731.4E-12	25.2E-09	19.1E-09	12.0E-09	947.4E-12

Parameter : Three state output leakage : IOLTHD3
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	550.0E-12	500.0E-12	500.0E-12	600.0E-12	600.0E-12	700.0E-12	500.0E-12	600.0E-12	650.0E-12
ON samples									
SN2	600.0E-12	450.0E-12	600.0E-12	850.0E-12	6.8E-09	323.5E-09	205.0E-09	148.5E-09	7.0E-09
SN3	550.0E-12	400.0E-12	450.0E-12	800.0E-12	6.2E-09	205.5E-09	138.0E-09	95.5E-09	8.1E-09
SN4	700.0E-12	400.0E-12	450.0E-12	900.0E-12	6.4E-09	218.0E-09	149.5E-09	99.0E-09	5.8E-09
SN5	650.0E-12	450.0E-12	500.0E-12	850.0E-12	6.4E-09	226.0E-09	147.5E-09	101.5E-09	8.9E-09
SN6	600.0E-12	450.0E-12	400.0E-12	800.0E-12	5.3E-09	150.0E-09	102.0E-09	67.9E-09	6.5E-09
Statistics									
Min	550.0E-12	400.0E-12	400.0E-12	800.0E-12	5.3E-09	150.0E-09	102.0E-09	67.9E-09	5.8E-09
Max	700.0E-12	450.0E-12	600.0E-12	900.0E-12	6.8E-09	323.5E-09	205.0E-09	148.5E-09	8.9E-09
Average	620.0E-12	430.0E-12	480.0E-12	840.0E-12	6.2E-09	224.6E-09	148.4E-09	102.5E-09	7.2E-09
Sigma	51.0E-12	24.5E-12	67.8E-12	37.4E-12	496.4E-12	56.1E-09	33.1E-09	26.0E-09	1.1E-09

Drift Calculation

IOLTHD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-150.0E-12	0.0E+00	250.0E-12	6.2E-09	322.9E-09	204.4E-09	147.9E-09	6.4E-09
SN3	-	-150.0E-12	-100.0E-12	250.0E-12	5.7E-09	205.0E-09	137.5E-09	95.0E-09	7.6E-09
SN4	-	-300.0E-12	-250.0E-12	200.0E-12	5.7E-09	217.3E-09	148.8E-09	98.3E-09	5.1E-09
SN5	-	-200.0E-12	-150.0E-12	200.0E-12	5.8E-09	225.4E-09	146.9E-09	100.9E-09	8.3E-09
SN6	-	-150.0E-12	-200.0E-12	200.0E-12	4.7E-09	149.4E-09	101.4E-09	67.3E-09	5.9E-09
Average	-	-190.0E-12	-140.0E-12	220.0E-12	5.6E-09	224.0E-09	147.8E-09	101.9E-09	6.6E-09
Sigma	-	58.3E-12	86.0E-12	24.5E-12	489.3E-12	56.1E-09	33.1E-09	26.0E-09	1.2E-09

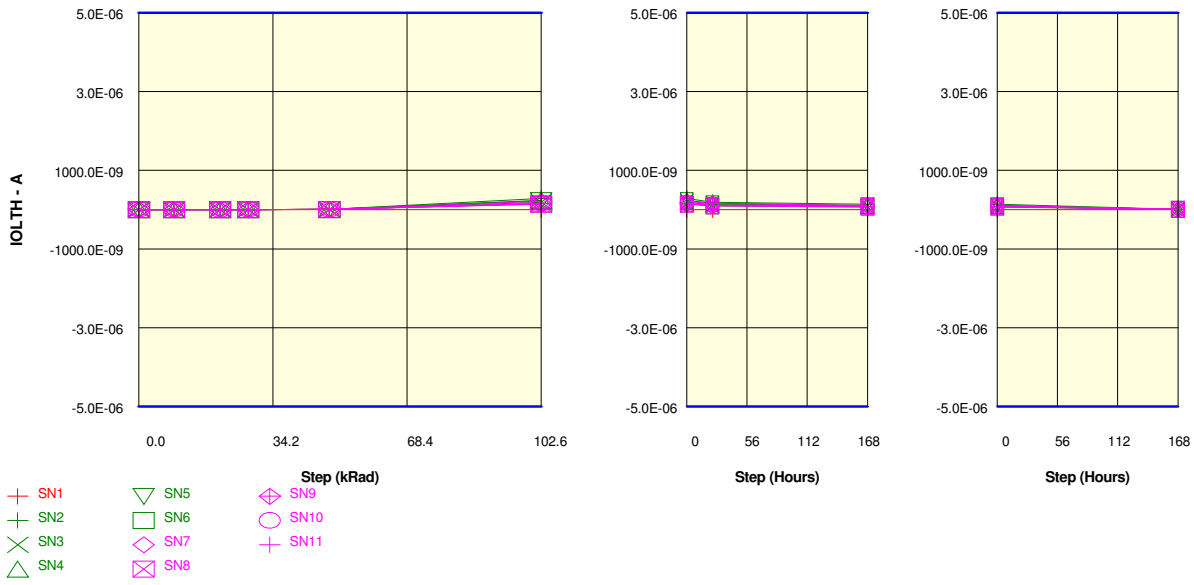
Measurements

IOLTHD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	550.0E-12	500.0E-12	500.0E-12	600.0E-12	600.0E-12	700.0E-12	500.0E-12	600.0E-12	650.0E-12
OFF samples									
SN7	700.0E-12	450.0E-12	500.0E-12	900.0E-12	6.5E-09	199.5E-09	146.5E-09	105.5E-09	8.4E-09
SN8	650.0E-12	450.0E-12	500.0E-12	800.0E-12	5.2E-09	136.0E-09	98.5E-09	75.1E-09	9.2E-09
SN9	650.0E-12	500.0E-12	550.0E-12	850.0E-12	5.5E-09	156.5E-09	112.0E-09	85.7E-09	7.7E-09
SN10	600.0E-12	450.0E-12	500.0E-12	850.0E-12	5.9E-09	166.0E-09	124.0E-09	97.5E-09	7.8E-09
SN11	600.0E-12	500.0E-12	550.0E-12	850.0E-12	5.4E-09	145.5E-09	96.5E-09	85.1E-09	10.7E-09
Statistics									
Min	600.0E-12	450.0E-12	500.0E-12	800.0E-12	5.2E-09	136.0E-09	96.5E-09	75.1E-09	7.7E-09
Max	700.0E-12	500.0E-12	550.0E-12	900.0E-12	6.5E-09	199.5E-09	146.5E-09	105.5E-09	10.7E-09
Average	640.0E-12	470.0E-12	520.0E-12	850.0E-12	5.7E-09	160.7E-09	115.5E-09	89.8E-09	8.7E-09
Sigma	37.4E-12	24.5E-12	24.5E-12	31.6E-12	477.9E-12	21.9E-09	18.4E-09	10.6E-09	1.1E-09

Drift Calculation

IOLTHD3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-250.0E-12	-200.0E-12	200.0E-12	5.8E-09	198.8E-09	145.8E-09	104.8E-09	7.7E-09
SN8	-	-200.0E-12	-150.0E-12	150.0E-12	4.5E-09	135.4E-09	97.9E-09	74.4E-09	8.5E-09
SN9	-	-150.0E-12	-100.0E-12	200.0E-12	4.8E-09	155.9E-09	111.4E-09	85.0E-09	7.1E-09
SN10	-	-150.0E-12	-100.0E-12	250.0E-12	5.3E-09	165.4E-09	123.4E-09	96.9E-09	7.2E-09
SN11	-	-100.0E-12	-50.0E-12	250.0E-12	4.8E-09	144.9E-09	95.9E-09	84.5E-09	10.1E-09
Average	-	-170.0E-12	-120.0E-12	210.0E-12	5.0E-09	160.1E-09	114.9E-09	89.1E-09	8.1E-09
Sigma	-	51.0E-12	51.0E-12	37.4E-12	458.9E-12	21.9E-09	18.4E-09	10.6E-09	1.1E-09

Parameter : Three state output leakage : IOLTHD2
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	500.0E-12	550.0E-12	500.0E-12	650.0E-12	650.0E-12	800.0E-12	550.0E-12	600.0E-12	800.0E-12
ON samples									
SN2	600.0E-12	500.0E-12	550.0E-12	1.0E-09	6.8E-09	290.5E-09	183.5E-09	135.5E-09	6.7E-09
SN3	600.0E-12	500.0E-12	500.0E-12	900.0E-12	6.0E-09	190.5E-09	129.5E-09	88.1E-09	6.9E-09
SN4	800.0E-12	550.0E-12	550.0E-12	950.0E-12	6.5E-09	240.0E-09	161.5E-09	106.5E-09	6.0E-09
SN5	650.0E-12	600.0E-12	550.0E-12	850.0E-12	6.5E-09	229.0E-09	147.5E-09	100.5E-09	9.0E-09
SN6	650.0E-12	550.0E-12	600.0E-12	900.0E-12	5.2E-09	150.0E-09	100.0E-09	66.8E-09	6.4E-09
Statistics									
Min	600.0E-12	500.0E-12	500.0E-12	850.0E-12	5.2E-09	150.0E-09	100.0E-09	66.8E-09	6.0E-09
Max	800.0E-12	600.0E-12	600.0E-12	1.0E-09	6.8E-09	290.5E-09	183.5E-09	135.5E-09	9.0E-09
Average	660.0E-12	540.0E-12	550.0E-12	920.0E-12	6.2E-09	220.0E-09	144.4E-09	99.5E-09	7.0E-09
Sigma	73.5E-12	37.4E-12	31.6E-12	51.0E-12	546.4E-12	47.4E-09	28.4E-09	22.6E-09	1.0E-09

Drift Calculation

IOLTHD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-100.0E-12	-50.0E-12	400.0E-12	6.2E-09	289.9E-09	182.9E-09	134.9E-09	6.1E-09
SN3	-	-100.0E-12	-100.0E-12	300.0E-12	5.4E-09	189.9E-09	128.9E-09	87.5E-09	6.3E-09
SN4	-	-250.0E-12	-250.0E-12	150.0E-12	5.7E-09	239.2E-09	160.7E-09	105.7E-09	5.2E-09
SN5	-	-50.0E-12	-100.0E-12	200.0E-12	5.8E-09	228.4E-09	146.9E-09	99.9E-09	8.3E-09
SN6	-	-100.0E-12	-50.0E-12	250.0E-12	4.6E-09	149.4E-09	99.4E-09	66.1E-09	5.8E-09
Average	-	-120.0E-12	-110.0E-12	260.0E-12	5.5E-09	219.3E-09	143.7E-09	98.8E-09	6.3E-09
Sigma	-	67.8E-12	73.5E-12	86.0E-12	540.9E-12	47.4E-09	28.4E-09	22.6E-09	1.1E-09

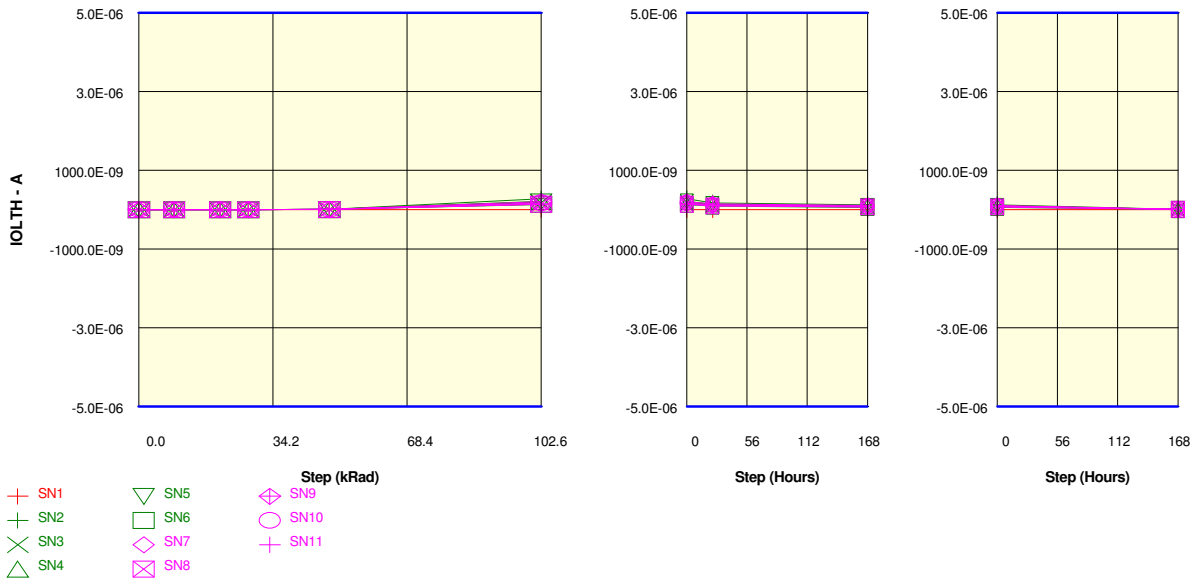
Measurements

IOLTHD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	500.0E-12	550.0E-12	500.0E-12	650.0E-12	650.0E-12	800.0E-12	550.0E-12	600.0E-12	800.0E-12
OFF samples									
SN7	800.0E-12	550.0E-12	500.0E-12	850.0E-12	6.4E-09	211.0E-09	155.0E-09	109.5E-09	8.0E-09
SN8	800.0E-12	550.0E-12	600.0E-12	900.0E-12	5.0E-09	137.0E-09	99.0E-09	73.2E-09	9.0E-09
SN9	650.0E-12	500.0E-12	550.0E-12	800.0E-12	5.6E-09	152.0E-09	113.0E-09	82.9E-09	7.5E-09
SN10	650.0E-12	600.0E-12	550.0E-12	900.0E-12	5.9E-09	159.0E-09	108.5E-09	89.4E-09	7.6E-09
SN11	550.0E-12	550.0E-12	650.0E-12	900.0E-12	5.3E-09	152.5E-09	104.0E-09	85.8E-09	10.8E-09
Statistics									
Min	550.0E-12	500.0E-12	500.0E-12	800.0E-12	5.0E-09	137.0E-09	99.0E-09	73.2E-09	7.5E-09
Max	800.0E-12	600.0E-12	650.0E-12	900.0E-12	6.4E-09	211.0E-09	155.0E-09	109.5E-09	10.8E-09
Average	690.0E-12	550.0E-12	570.0E-12	870.0E-12	5.6E-09	162.3E-09	115.9E-09	88.1E-09	8.6E-09
Sigma	97.0E-12	31.6E-12	51.0E-12	40.0E-12	479.2E-12	25.4E-09	20.1E-09	12.0E-09	1.2E-09

Drift Calculation

IOLTHD2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-250.0E-12	-300.0E-12	50.0E-12	5.6E-09	210.2E-09	154.2E-09	108.7E-09	7.2E-09
SN8	-	-250.0E-12	-200.0E-12	100.0E-12	4.2E-09	136.2E-09	98.2E-09	72.4E-09	8.2E-09
SN9	-	-150.0E-12	-100.0E-12	150.0E-12	5.0E-09	151.4E-09	112.4E-09	82.2E-09	6.9E-09
SN10	-	-50.0E-12	-100.0E-12	250.0E-12	5.2E-09	158.4E-09	107.9E-09	88.8E-09	7.0E-09
SN11	-	0.0E+00	100.0E-12	350.0E-12	4.8E-09	152.0E-09	103.5E-09	85.3E-09	10.3E-09
Average	-	-140.0E-12	-120.0E-12	180.0E-12	4.9E-09	161.6E-09	115.2E-09	87.5E-09	7.9E-09
Sigma	-	102.0E-12	132.7E-12	107.7E-12	466.3E-12	25.4E-09	20.1E-09	11.9E-09	1.3E-09

Parameter : Three state output leakage : IOLTHD1
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	800.0E-12	600.0E-12	650.0E-12	700.0E-12	750.0E-12	1.0E-09	550.0E-12	600.0E-12	1.0E-09
ON samples									
SN2	800.0E-12	600.0E-12	550.0E-12	900.0E-12	6.6E-09	275.5E-09	173.5E-09	128.0E-09	5.7E-09
SN3	850.0E-12	550.0E-12	850.0E-12	950.0E-12	6.5E-09	182.5E-09	123.0E-09	84.3E-09	6.9E-09
SN4	950.0E-12	550.0E-12	600.0E-12	900.0E-12	6.1E-09	211.0E-09	143.5E-09	95.5E-09	5.6E-09
SN5	850.0E-12	700.0E-12	700.0E-12	950.0E-12	6.0E-09	200.5E-09	130.5E-09	88.5E-09	8.3E-09
SN6	1.0E-09	600.0E-12	550.0E-12	1.1E-09	5.2E-09	134.0E-09	89.3E-09	60.6E-09	6.2E-09
Statistics									
Min	800.0E-12	550.0E-12	550.0E-12	900.0E-12	5.2E-09	134.0E-09	89.3E-09	60.6E-09	5.6E-09
Max	1.0E-09	700.0E-12	850.0E-12	1.1E-09	6.6E-09	275.5E-09	173.5E-09	128.0E-09	8.3E-09
Average	890.0E-12	600.0E-12	650.0E-12	950.0E-12	6.1E-09	200.7E-09	132.0E-09	91.4E-09	6.5E-09
Sigma	73.5E-12	54.8E-12	114.0E-12	54.8E-12	505.4E-12	45.8E-09	27.4E-09	21.7E-09	999.3E-12

Drift Calculation

IOLTHD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-200.0E-12	-250.0E-12	100.0E-12	5.8E-09	274.7E-09	172.7E-09	127.2E-09	4.9E-09
SN3	-	-300.0E-12	0.0E+00	100.0E-12	5.6E-09	181.7E-09	122.2E-09	83.5E-09	6.0E-09
SN4	-	-400.0E-12	-350.0E-12	-50.0E-12	5.2E-09	210.1E-09	142.6E-09	94.6E-09	4.6E-09
SN5	-	-150.0E-12	-150.0E-12	100.0E-12	5.2E-09	199.7E-09	129.7E-09	87.6E-09	7.5E-09
SN6	-	-400.0E-12	-450.0E-12	50.0E-12	4.2E-09	133.0E-09	88.3E-09	59.6E-09	5.2E-09
Average	-	-290.0E-12	-240.0E-12	60.0E-12	5.2E-09	199.8E-09	131.1E-09	90.5E-09	5.6E-09
Sigma	-	102.0E-12	156.2E-12	58.3E-12	569.7E-12	45.8E-09	27.5E-09	21.8E-09	1.0E-09

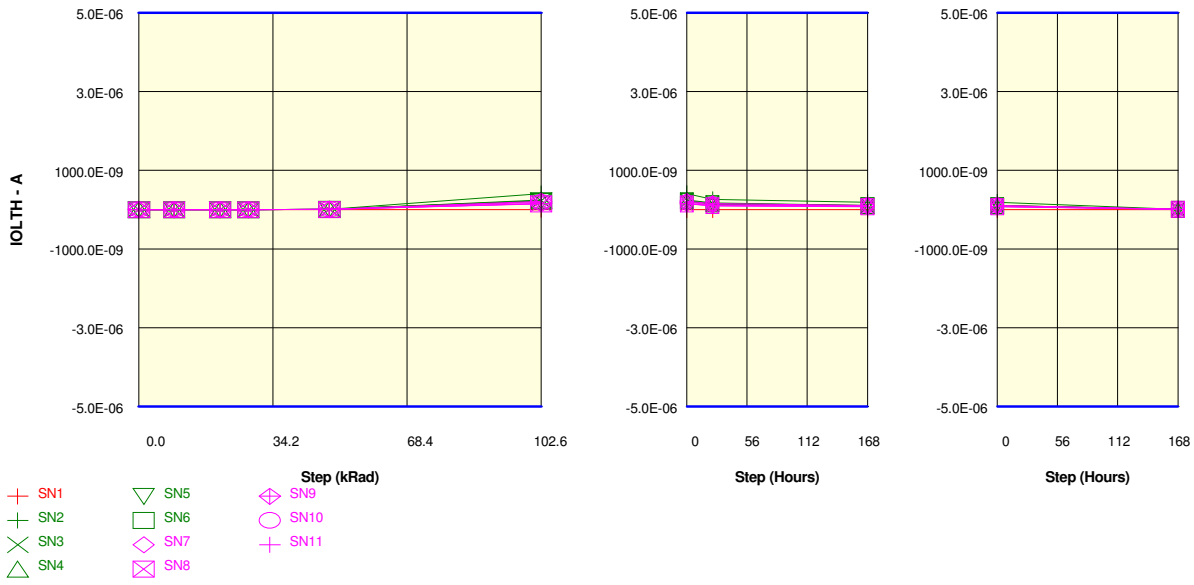
Measurements

IOLTHD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	800.0E-12	600.0E-12	650.0E-12	700.0E-12	750.0E-12	1.0E-09	550.0E-12	600.0E-12	1.0E-09
OFF samples									
SN7	900.0E-12	650.0E-12	550.0E-12	1.0E-09	6.3E-09	203.5E-09	149.5E-09	106.0E-09	8.0E-09
SN8	800.0E-12	600.0E-12	700.0E-12	1.0E-09	5.0E-09	139.0E-09	95.5E-09	69.6E-09	9.0E-09
SN9	950.0E-12	650.0E-12	700.0E-12	850.0E-12	5.4E-09	145.0E-09	105.0E-09	75.5E-09	6.9E-09
SN10	1.0E-09	650.0E-12	700.0E-12	1.1E-09	6.3E-09	171.5E-09	121.0E-09	87.9E-09	7.3E-09
SN11	850.0E-12	650.0E-12	700.0E-12	900.0E-12	5.4E-09	149.5E-09	102.0E-09	89.6E-09	10.3E-09
Statistics									
Min	800.0E-12	600.0E-12	550.0E-12	850.0E-12	5.0E-09	139.0E-09	95.5E-09	69.6E-09	6.9E-09
Max	1.0E-09	650.0E-12	700.0E-12	1.1E-09	6.3E-09	203.5E-09	149.5E-09	106.0E-09	10.3E-09
Average	900.0E-12	640.0E-12	670.0E-12	960.0E-12	5.7E-09	161.7E-09	114.6E-09	85.7E-09	8.3E-09
Sigma	70.7E-12	20.0E-12	60.0E-12	73.5E-12	538.0E-12	23.6E-09	19.4E-09	12.6E-09	1.2E-09

Drift Calculation

IOLTHD1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-250.0E-12	-350.0E-12	100.0E-12	5.4E-09	202.6E-09	148.6E-09	105.1E-09	7.1E-09
SN8	-	-200.0E-12	-100.0E-12	200.0E-12	4.2E-09	138.2E-09	94.7E-09	68.8E-09	8.2E-09
SN9	-	-300.0E-12	-250.0E-12	-100.0E-12	4.4E-09	144.1E-09	104.1E-09	74.5E-09	6.0E-09
SN10	-	-350.0E-12	-300.0E-12	50.0E-12	5.3E-09	170.5E-09	120.0E-09	86.9E-09	6.3E-09
SN11	-	-200.0E-12	-150.0E-12	50.0E-12	4.5E-09	148.7E-09	101.2E-09	88.7E-09	9.5E-09
Average	-	-260.0E-12	-230.0E-12	60.0E-12	4.8E-09	160.8E-09	113.7E-09	84.8E-09	7.4E-09
Sigma	-	58.3E-12	92.7E-12	97.0E-12	492.3E-12	23.6E-09	19.3E-09	12.6E-09	1.3E-09

Parameter : Three state output leakage : IOLTHD0
Test conditions :
Unit : A
Spec Limit Min : -5.0E-06
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

IOLTHD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.2E-09	850.0E-12	600.0E-12	800.0E-12	1.1E-09	1.5E-09	900.0E-12	850.0E-12	1.4E-09
ON samples									
SN2	1.1E-09	800.0E-12	650.0E-12	1.3E-09	8.1E-09	411.0E-09	258.0E-09	186.0E-09	7.6E-09
SN3	1.7E-09	700.0E-12	750.0E-12	1.2E-09	6.9E-09	231.0E-09	156.0E-09	104.0E-09	7.0E-09
SN4	1.6E-09	750.0E-12	900.0E-12	1.1E-09	6.9E-09	246.0E-09	167.5E-09	109.0E-09	6.2E-09
SN5	1.4E-09	800.0E-12	700.0E-12	1.2E-09	6.9E-09	221.0E-09	145.0E-09	100.0E-09	8.3E-09
SN6	1.5E-09	700.0E-12	850.0E-12	1.3E-09	6.5E-09	221.0E-09	147.0E-09	97.0E-09	6.8E-09
Statistics									
Min	1.1E-09	700.0E-12	650.0E-12	1.1E-09	6.5E-09	221.0E-09	145.0E-09	97.0E-09	6.2E-09
Max	1.7E-09	800.0E-12	900.0E-12	1.3E-09	8.1E-09	411.0E-09	258.0E-09	186.0E-09	8.3E-09
Average	1.5E-09	750.0E-12	770.0E-12	1.2E-09	7.1E-09	266.0E-09	174.7E-09	119.2E-09	7.2E-09
Sigma	204.9E-12	44.7E-12	92.7E-12	73.5E-12	553.2E-12	73.1E-09	42.4E-09	33.6E-09	730.1E-12

Drift Calculation

IOLTHD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-300.0E-12	-450.0E-12	200.0E-12	7.0E-09	409.9E-09	256.9E-09	184.9E-09	6.5E-09
SN3	-	-1.0E-09	-950.0E-12	-550.0E-12	5.2E-09	229.3E-09	154.3E-09	102.3E-09	5.3E-09
SN4	-	-850.0E-12	-700.0E-12	-500.0E-12	5.3E-09	244.4E-09	165.9E-09	107.4E-09	4.6E-09
SN5	-	-600.0E-12	-700.0E-12	-250.0E-12	5.5E-09	219.6E-09	143.6E-09	98.6E-09	6.9E-09
SN6	-	-750.0E-12	-600.0E-12	-200.0E-12	5.0E-09	219.6E-09	145.6E-09	95.6E-09	5.3E-09
Average	-	-700.0E-12	-680.0E-12	-260.0E-12	5.6E-09	264.6E-09	173.3E-09	117.8E-09	5.7E-09
Sigma	-	238.7E-12	163.1E-12	267.2E-12	718.3E-12	73.2E-09	42.6E-09	33.8E-09	853.8E-12

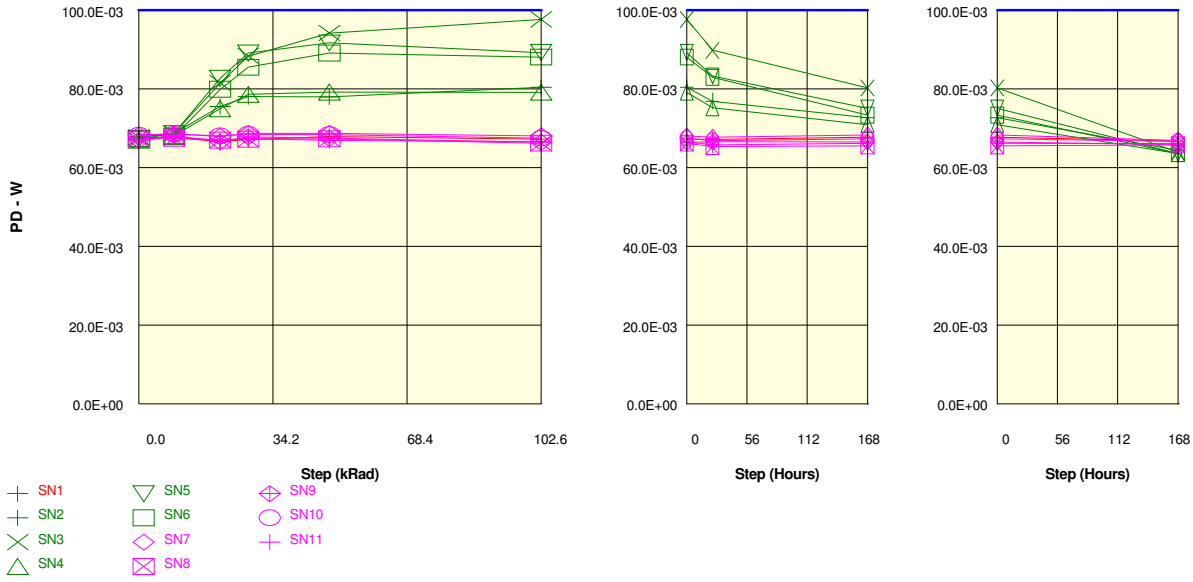
Measurements

IOLTHD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.2E-09	850.0E-12	600.0E-12	800.0E-12	1.1E-09	1.5E-09	900.0E-12	850.0E-12	1.4E-09
OFF samples									
SN7	1.5E-09	700.0E-12	650.0E-12	1.1E-09	6.9E-09	219.0E-09	156.5E-09	112.0E-09	8.2E-09
SN8	1.5E-09	750.0E-12	850.0E-12	1.1E-09	5.3E-09	147.0E-09	102.0E-09	76.1E-09	8.8E-09
SN9	1.6E-09	800.0E-12	700.0E-12	1.1E-09	5.7E-09	153.0E-09	113.0E-09	83.6E-09	7.4E-09
SN10	1.5E-09	750.0E-12	900.0E-12	1.2E-09	6.9E-09	183.0E-09	129.0E-09	102.5E-09	8.1E-09
SN11	1.4E-09	800.0E-12	700.0E-12	1.2E-09	5.4E-09	152.0E-09	103.5E-09	83.8E-09	10.3E-09
Statistics									
Min	1.4E-09	700.0E-12	650.0E-12	1.1E-09	5.3E-09	147.0E-09	102.0E-09	76.1E-09	7.4E-09
Max	1.6E-09	800.0E-12	900.0E-12	1.2E-09	6.9E-09	219.0E-09	156.5E-09	112.0E-09	10.3E-09
Average	1.5E-09	760.0E-12	760.0E-12	1.1E-09	6.0E-09	170.8E-09	120.8E-09	91.6E-09	8.5E-09
Sigma	67.8E-12	37.4E-12	97.0E-12	67.8E-12	711.8E-12	27.2E-09	20.3E-09	13.4E-09	976.0E-12

Drift Calculation

IOLTHD0	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-750.0E-12	-800.0E-12	-350.0E-12	5.5E-09	217.6E-09	155.1E-09	110.6E-09	6.8E-09
SN8	-	-750.0E-12	-650.0E-12	-450.0E-12	3.8E-09	145.5E-09	100.5E-09	74.6E-09	7.3E-09
SN9	-	-800.0E-12	-900.0E-12	-550.0E-12	4.1E-09	151.4E-09	111.4E-09	82.0E-09	5.8E-09
SN10	-	-700.0E-12	-550.0E-12	-250.0E-12	5.4E-09	181.6E-09	127.6E-09	101.1E-09	6.6E-09
SN11	-	-600.0E-12	-700.0E-12	-200.0E-12	4.0E-09	150.6E-09	102.1E-09	82.4E-09	8.9E-09
Average	-	-720.0E-12	-720.0E-12	-360.0E-12	4.5E-09	169.3E-09	119.3E-09	90.1E-09	7.1E-09
Sigma	-	67.8E-12	120.8E-12	128.1E-12	729.0E-12	27.3E-09	20.3E-09	13.4E-09	1.0E-09

Parameter : Power dissipation : PD
Test conditions :
Unit : W
Spec Limit Max : 100.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

PD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	67.6E-03	67.7E-03	66.7E-03	67.2E-03	68.0E-03	67.3E-03	67.2E-03	67.8E-03	66.8E-03
ON samples									
SN2	67.8E-03	68.7E-03	75.6E-03	78.1E-03	78.0E-03	80.4E-03	76.9E-03	72.8E-03	64.4E-03
SN3	67.8E-03	68.8E-03	81.5E-03	88.4E-03	94.2E-03	97.7E-03	89.8E-03	80.3E-03	63.9E-03
SN4	67.0E-03	68.2E-03	75.0E-03	78.6E-03	79.2E-03	79.2E-03	75.2E-03	71.0E-03	63.6E-03
SN5	67.3E-03	68.7E-03	82.7E-03	89.1E-03	91.7E-03	89.3E-03	83.3E-03	75.1E-03	63.6E-03
SN6	67.5E-03	67.9E-03	79.9E-03	85.5E-03	89.1E-03	88.1E-03	83.0E-03	73.4E-03	63.6E-03
Statistics									
Min	67.0E-03	67.9E-03	75.0E-03	78.1E-03	78.0E-03	79.2E-03	75.2E-03	71.0E-03	63.6E-03
Max	67.8E-03	68.8E-03	82.7E-03	89.1E-03	94.2E-03	97.7E-03	89.8E-03	80.3E-03	64.4E-03
Average	67.5E-03	68.4E-03	78.9E-03	83.9E-03	86.4E-03	86.9E-03	81.6E-03	74.5E-03	63.8E-03
Sigma	301.7E-06	341.5E-06	3.1E-03	4.7E-03	6.6E-03	6.7E-03	5.2E-03	3.2E-03	327.1E-06

Drift Calculation

PD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	900.0E-06	7.8E-03	10.3E-03	10.2E-03	12.6E-03	9.1E-03	5.0E-03	-3.4E-03
SN3	-	1.0E-03	13.8E-03	20.6E-03	26.5E-03	29.9E-03	22.1E-03	12.5E-03	-3.9E-03
SN4	-	1.2E-03	8.0E-03	11.6E-03	12.2E-03	12.2E-03	8.2E-03	4.0E-03	-3.5E-03
SN5	-	1.4E-03	15.5E-03	21.9E-03	24.5E-03	22.0E-03	16.0E-03	7.9E-03	-3.7E-03
SN6	-	450.0E-06	12.5E-03	18.1E-03	21.7E-03	20.7E-03	15.5E-03	5.9E-03	-3.9E-03
Average	-	980.0E-06	11.5E-03	16.5E-03	19.0E-03	19.5E-03	14.2E-03	7.0E-03	-3.7E-03
Sigma	-	314.0E-06	3.1E-03	4.7E-03	6.6E-03	6.6E-03	5.1E-03	3.0E-03	202.5E-06

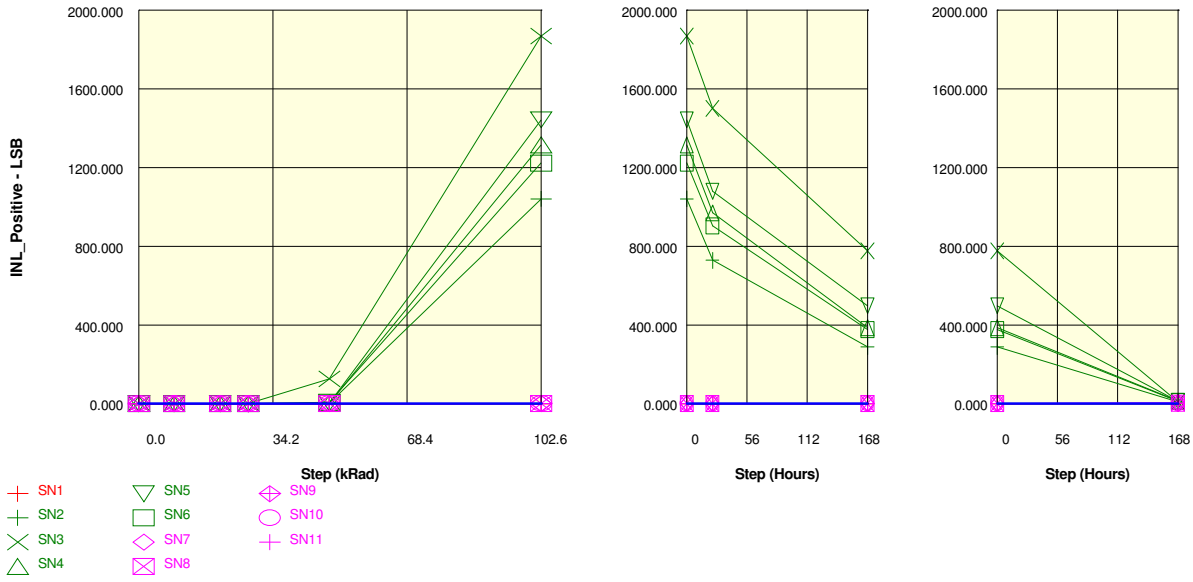
Measurements

PD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	67.6E-03	67.7E-03	66.7E-03	67.2E-03	68.0E-03	67.3E-03	67.2E-03	67.8E-03	66.8E-03
OFF samples									
SN7	68.3E-03	68.6E-03	68.0E-03	68.7E-03	68.8E-03	68.1E-03	67.8E-03	68.3E-03	66.9E-03
SN8	67.1E-03	67.5E-03	67.0E-03	67.3E-03	67.4E-03	66.2E-03	65.4E-03	65.5E-03	65.8E-03
SN9	67.0E-03	68.2E-03	66.6E-03	67.8E-03	67.5E-03	66.5E-03	66.6E-03	66.5E-03	65.9E-03
SN10	68.3E-03	68.5E-03	68.1E-03	68.5E-03	68.4E-03	67.5E-03	66.9E-03	67.3E-03	66.7E-03
SN11	67.2E-03	67.9E-03	67.1E-03	67.4E-03	66.9E-03	66.6E-03	65.8E-03	66.2E-03	66.1E-03
Statistics									
Min	67.0E-03	67.5E-03	66.6E-03	67.3E-03	66.9E-03	66.2E-03	65.4E-03	65.5E-03	65.8E-03
Max	68.3E-03	68.6E-03	68.1E-03	68.7E-03	68.8E-03	68.1E-03	67.8E-03	68.3E-03	66.9E-03
Average	67.6E-03	68.1E-03	67.3E-03	67.9E-03	67.8E-03	66.9E-03	66.5E-03	66.8E-03	66.3E-03
Sigma	579.3E-06	408.2E-06	582.8E-06	569.7E-06	691.8E-06	697.4E-06	823.8E-06	962.5E-06	449.0E-06

Drift Calculation

PD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	300.0E-06	-350.0E-06	400.0E-06	450.0E-06	-250.0E-06	-550.0E-06	0.0E+00	-1.4E-03
SN8	-	400.0E-06	-100.0E-06	150.0E-06	250.0E-06	-900.0E-06	-1.7E-03	-1.6E-03	-1.3E-03
SN9	-	1.2E-03	-450.0E-06	800.0E-06	450.0E-06	-550.0E-06	-400.0E-06	-500.0E-06	-1.2E-03
SN10	-	250.0E-06	-200.0E-06	200.0E-06	150.0E-06	-800.0E-06	-1.4E-03	-950.0E-06	-1.6E-03
SN11	-	650.0E-06	-150.0E-06	200.0E-06	-300.0E-06	-650.0E-06	-1.4E-03	-1.0E-03	-1.1E-03
Average	-	550.0E-06	-250.0E-06	350.0E-06	200.0E-06	-630.0E-06	-1.1E-03	-810.0E-06	-1.3E-03
Sigma	-	330.2E-06	130.4E-06	240.8E-06	275.7E-06	224.9E-06	516.1E-06	535.2E-06	164.3E-06

Parameter : Integral nonlinearity Positive : INL_Positive
Test conditions : All codes
Unit : LSB
Spec Limit Max : 2.500
Spec limits are represented in bold lines on the graphic.



Measurements

INL_Positive	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.293	1.169	1.435	1.350	1.170	1.461	1.592	1.238	1.246
ON samples									
SN2	1.373	1.349	1.336	1.409	4.365	1041.263	729.547	290.908	9.968
SN3	1.337	1.314	1.579	2.331	127.746	1867.891	1501.044	777.391	10.120
SN4	1.276	1.177	1.264	1.232	4.665	1316.099	970.860	387.273	14.769
SN5	1.984	1.212	1.639	2.114	4.378	1443.334	1079.714	498.567	12.506
SN6	1.426	1.373	1.689	1.922	8.381	1223.818	904.530	378.026	13.158
Statistics									
Min	1.276	1.177	1.264	1.232	4.365	1041.263	729.547	290.908	9.968
Max	1.984	1.373	1.689	2.331	127.746	1867.891	1501.044	777.391	14.769
Average	1.479	1.285	1.501	1.802	29.907	1378.481	1037.139	466.433	12.104
Sigma	0.257	0.077	0.170	0.417	48.943	277.581	258.307	168.890	1.837

Drift Calculation

INL_Positive	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-24.0E-03	-37.0E-03	36.0E-03	3.0E+00	1.0E+03	728.2E+00	289.5E+00	8.6E+00
SN3	-	-23.0E-03	242.0E-03	994.0E-03	126.4E+00	1.9E+03	1.5E+03	776.1E+00	8.8E+00
SN4	-	-99.0E-03	-12.0E-03	-44.0E-03	3.4E+00	1.3E+03	969.6E+00	386.0E+00	13.5E+00
SN5	-	-772.0E-03	-345.0E-03	130.0E-03	2.4E+00	1.4E+03	1.1E+03	496.6E+00	10.5E+00
SN6	-	-53.0E-03	263.0E-03	496.0E-03	7.0E+00	1.2E+03	903.1E+00	376.6E+00	11.7E+00
Average	-	-194.2E-03	22.2E-03	322.4E-03	28.4E+00	1.4E+03	1.0E+03	465.0E+00	10.6E+00
Sigma	-	290.2E-03	221.7E-03	383.3E-03	49.0E+00	277.6E+00	258.3E+00	168.9E+00	1.8E+00

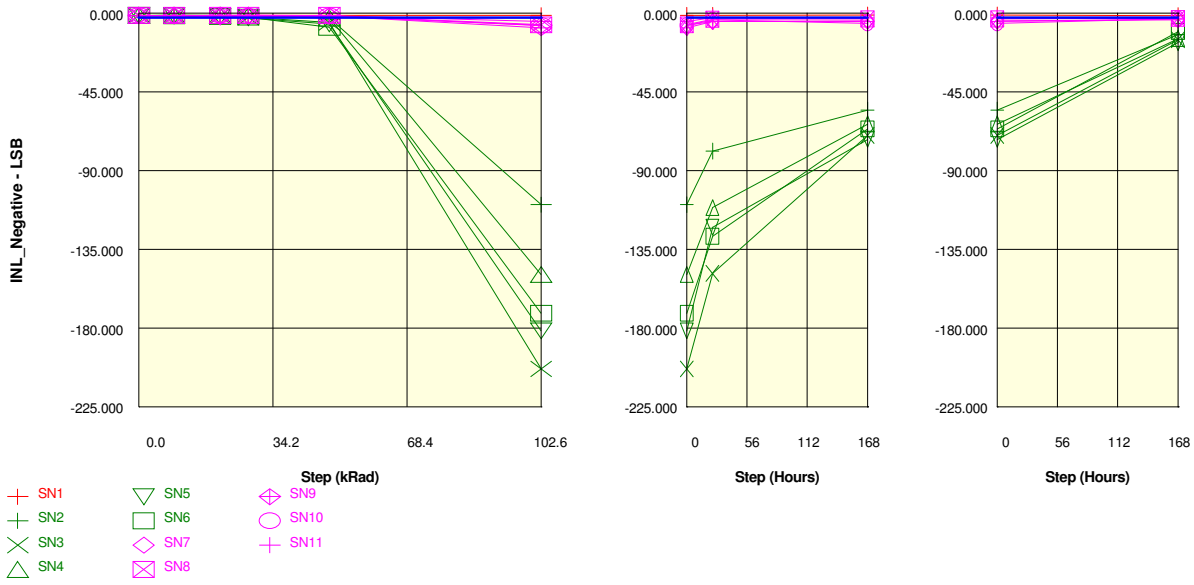
Measurements

INL_Positive	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.293	1.169	1.435	1.350	1.170	1.461	1.592	1.238	1.246
OFF samples									
SN7	1.846	1.391	1.499	1.130	1.792	1.933	1.965	2.216	4.175
SN8	1.243	1.218	1.187	1.225	1.348	1.870	2.182	1.725	3.672
SN9	1.309	1.224	1.722	1.109	1.303	2.049	1.898	2.018	3.599
SN10	1.507	1.432	1.303	1.339	1.581	2.262	2.123	2.460	3.758
SN11	1.372	1.262	1.320	1.301	1.354	2.007	1.733	1.852	3.780
Statistics									
Min	1.243	1.218	1.187	1.109	1.303	1.870	1.733	1.725	3.599
Max	1.846	1.432	1.722	1.339	1.792	2.262	2.182	2.460	4.175
Average	1.455	1.305	1.406	1.221	1.476	2.024	1.980	2.054	3.797
Sigma	0.214	0.089	0.187	0.091	0.186	0.134	0.161	0.261	0.200

Drift Calculation

INL_Positive	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-455.0E-03	-347.0E-03	-716.0E-03	-54.0E-03	87.0E-03	119.0E-03	370.0E-03	2.3E+00
SN8	-	-25.0E-03	-56.0E-03	-18.0E-03	105.0E-03	627.0E-03	939.0E-03	482.0E-03	2.4E+00
SN9	-	-85.0E-03	413.0E-03	-200.0E-03	-6.0E-03	740.0E-03	589.0E-03	709.0E-03	2.3E+00
SN10	-	-75.0E-03	-204.0E-03	-168.0E-03	74.0E-03	755.0E-03	616.0E-03	953.0E-03	2.3E+00
SN11	-	-110.0E-03	-52.0E-03	-71.0E-03	-18.0E-03	635.0E-03	361.0E-03	480.0E-03	2.4E+00
Average	-	-150.0E-03	-49.2E-03	-234.6E-03	20.2E-03	568.8E-03	524.8E-03	598.8E-03	2.3E+00
Sigma	-	155.0E-03	255.5E-03	249.4E-03	59.6E-03	246.5E-03	274.0E-03	208.7E-03	67.9E-03

Parameter : Integral nonlinearity Negative : INL_Negative
Test conditions : All codes
Unit : LSB
Spec Limit Min : -2.500
Spec limits are represented in bold lines on the graphic.



Measurements

INL_Negative	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-1.222	-1.453	-1.694	-1.226	-1.264	-1.303	-1.270	-1.135	-1.382
ON samples									
SN2	-1.478	-1.472	-1.396	-1.396	**-2.782**	**-109.447**	**-78.856**	**-55.436**	**-12.152**
SN3	-1.252	-1.317	-1.639	-2.354	**-5.239**	**-203.263**	**-148.642**	**-69.813**	**-15.180**
SN4	-1.349	-1.163	-1.293	-1.258	**-2.793**	**-149.328**	**-111.065**	**-63.363**	**-14.469**
SN5	-1.341	-1.456	-1.919	**-2.685**	**-6.111**	**-181.567**	**-122.340**	**-72.095**	**-16.871**
SN6	-1.401	-1.404	-1.875	-2.306	**-7.982**	**-171.462**	**-127.481**	**-66.103**	**-10.463**
Statistics									
Min	-1.478	-1.472	-1.919	-2.685	-7.982	-203.263	-148.642	-72.095	-16.871
Max	-1.252	-1.163	-1.293	-1.258	-2.782	-109.447	-78.856	-55.436	-10.463
Average	-1.364	-1.362	-1.624	-2.000	-4.981	-163.013	-117.677	-65.362	-13.827
Sigma	0.074	0.113	0.250	0.566	1.999	31.913	22.924	5.800	2.264

Drift Calculation

INL_Negative	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	6.0E-03	82.0E-03	82.0E-03	-1.3E+00	-108.0E+00	-77.4E+00	-54.0E+00	-10.7E+00
SN3	-	-65.0E-03	-387.0E-03	-1.1E+00	-4.0E+00	-202.0E+00	-147.4E+00	-68.6E+00	-13.9E+00
SN4	-	186.0E-03	56.0E-03	91.0E-03	-1.4E+00	-148.0E+00	-109.7E+00	-62.0E+00	-13.1E+00
SN5	-	-115.0E-03	-578.0E-03	-1.3E+00	-4.8E+00	-180.2E+00	-121.0E+00	-70.8E+00	-15.5E+00
SN6	-	-3.0E-03	-474.0E-03	-905.0E-03	-6.6E+00	-170.1E+00	-126.1E+00	-64.7E+00	-9.1E+00
Average	-	1.8E-03	-260.2E-03	-635.6E-03	-3.6E+00	-161.6E+00	-116.3E+00	-64.0E+00	-12.5E+00
Sigma	-	102.1E-03	275.6E-03	605.8E-03	2.0E+00	32.0E+00	23.0E+00	5.9E+00	2.3E+00

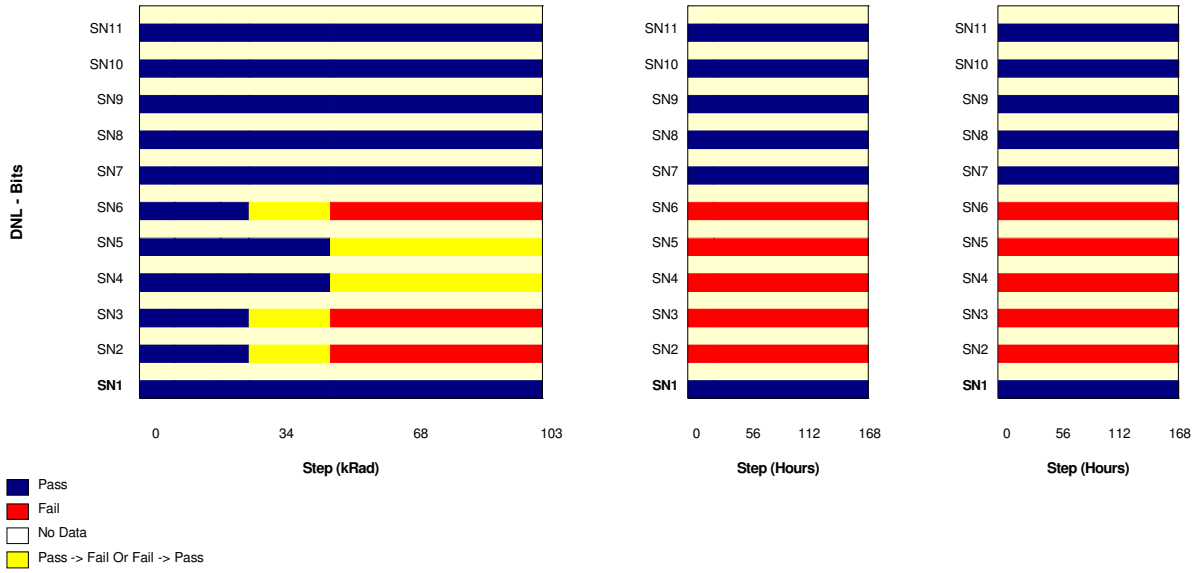
Measurements

INL_Negative	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-1.222	-1.453	-1.694	-1.226	-1.264	-1.303	-1.270	-1.135	-1.382
OFF samples									
SN7	-1.274	-1.489	-1.266	-1.476	-1.691	**-6.980**	**-4.794**	**-4.323**	**-3.821**
SN8	-1.316	-1.355	-1.297	-1.187	-1.340	**-6.641**	**-3.448**	**-3.322**	**-2.924**
SN9	-1.424	-1.517	-2.094	-1.351	-1.595	**-8.322**	**-4.730**	**-4.691**	**-3.346**
SN10	-1.441	-1.326	-1.224	-1.748	-1.533	**-7.062**	**-3.926**	**-5.720**	**-3.188**
SN11	-1.378	-1.434	-1.249	-1.361	-1.352	**-4.835**	**-2.504**	**-2.653**	**-2.885**
Statistics									
Min	-1.441	-1.517	-2.094	-1.748	-1.691	-8.322	-4.794	-5.720	-3.821
Max	-1.274	-1.326	-1.224	-1.187	-1.340	-4.835	-2.504	-2.653	-2.885
Average	-1.367	-1.424	-1.426	-1.425	-1.502	-6.768	-3.880	-4.142	-3.233
Sigma	0.063	0.074	0.335	0.186	0.137	1.122	0.853	1.069	0.340

Drift Calculation

INL_Negative	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-215.0E-03	8.0E-03	-202.0E-03	-417.0E-03	-5.7E+00	-3.5E+00	-3.0E+00	-2.5E+00
SN8	-	-39.0E-03	19.0E-03	129.0E-03	-24.0E-03	-5.3E+00	-2.1E+00	-2.0E+00	-1.6E+00
SN9	-	-93.0E-03	-670.0E-03	73.0E-03	-171.0E-03	-6.9E+00	-3.3E+00	-3.3E+00	-1.9E+00
SN10	-	115.0E-03	217.0E-03	-307.0E-03	-92.0E-03	-5.6E+00	-2.5E+00	-4.3E+00	-1.7E+00
SN11	-	-56.0E-03	129.0E-03	17.0E-03	26.0E-03	-3.5E+00	-1.1E+00	-1.3E+00	-1.5E+00
Average	-	-57.6E-03	-59.4E-03	-58.0E-03	-135.6E-03	-5.4E+00	-2.5E+00	-2.8E+00	-1.9E+00
Sigma	-	106.0E-03	314.8E-03	167.6E-03	155.5E-03	1.1E+00	861.7E-03	1.0E+00	367.8E-03

Parameter : Differential nonlinearity : DNL
Test conditions : All codes? Minimum resolution for which "no missing codes" is guaranteed.
Unit : Bits
Spec Limit Min : 16
Spec limits are represented in bold lines on the graphic.



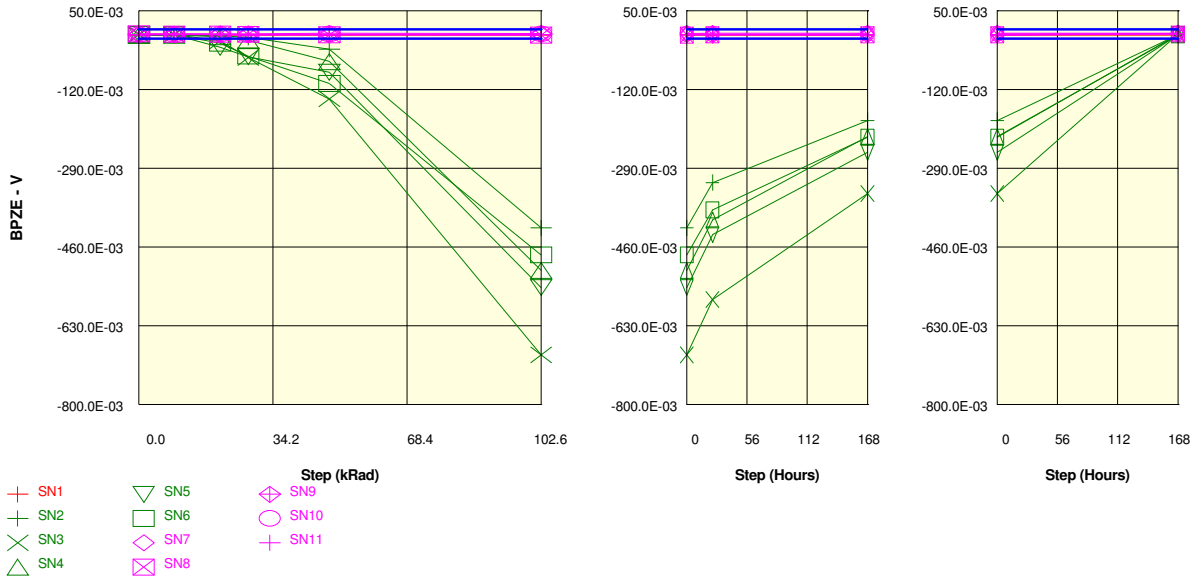
Measurements

DNL	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
ON samples									
SN2	PASS	PASS	PASS	PASS	FAIL	FAIL	FAIL	FAIL	FAIL
SN3	PASS	PASS	PASS	PASS	FAIL	FAIL	FAIL	FAIL	FAIL
SN4	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	FAIL	FAIL
SN5	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	FAIL	FAIL
SN6	PASS	PASS	PASS	PASS	FAIL	FAIL	FAIL	FAIL	FAIL

Measurements

DNL	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
OFF samples									
SN7	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN8	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN9	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN10	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN11	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Parameter : Bipolar zero error : BPZE
Test conditions : Code = 32767.5. Ta=+25°C
Unit : V
Spec Limit Min : -10.0E-03
Spec Limit Max : 10.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

BPZE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-2.2E-03	-2.3E-03	-2.0E-03	-2.2E-03	-2.2E-03	-2.3E-03	-2.5E-03	-2.5E-03	-2.5E-03
ON samples									
SN2	-1.7E-03	-2.3E-03	-4.2E-03	-7.2E-03	**-32.7E-03**	**-418.7E-03**	**-320.9E-03**	**-187.1E-03**	-1.7E-03
SN3	-2.1E-03	-1.3E-03	**-15.1E-03**	**-50.8E-03**	**-140.2E-03**	**-692.8E-03**	**-573.0E-03**	**-344.4E-03**	-371.1E-06
SN4	-2.9E-03	-2.5E-03	-6.0E-03	**-13.9E-03**	**-59.6E-03**	**-510.5E-03**	**-401.5E-03**	**-221.8E-03**	-2.1E-03
SN5	-1.2E-03	-1.9E-03	**-28.7E-03**	**-49.1E-03**	**-82.7E-03**	**-547.4E-03**	**-433.0E-03**	**-255.4E-03**	-1.6E-03
SN6	-1.2E-03	-1.8E-03	**-19.8E-03**	**-47.7E-03**	**-106.7E-03**	**-476.8E-03**	**-379.5E-03**	**-222.6E-03**	-859.4E-06
Statistics									
Min	-2.9E-03	-2.5E-03	-28.7E-03	-50.8E-03	-140.2E-03	-692.8E-03	-573.0E-03	-344.4E-03	-2.1E-03
Max	-1.2E-03	-1.3E-03	-4.2E-03	-7.2E-03	-32.7E-03	-418.7E-03	-320.9E-03	-187.1E-03	-371.1E-06
Average	-1.8E-03	-2.0E-03	-14.8E-03	-33.7E-03	-84.4E-03	-529.2E-03	-421.6E-03	-246.3E-03	-1.3E-03
Sigma	632.2E-06	422.8E-06	9.0E-03	19.1E-03	37.1E-03	92.1E-03	84.1E-03	53.6E-03	614.5E-06

Drift Calculation

BPZE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-527.3E-06	-2.4E-03	-5.5E-03	-31.0E-03	-417.0E-03	-319.1E-03	-185.4E-03	48.8E-06
SN3	-	791.0E-06	-13.1E-03	-48.8E-03	-138.1E-03	-690.7E-03	-570.9E-03	-342.3E-03	1.7E-03
SN4	-	400.4E-06	-3.1E-03	-11.0E-03	-56.7E-03	-507.6E-03	-398.6E-03	-218.9E-03	839.8E-06
SN5	-	-654.3E-06	-27.5E-03	-47.8E-03	-81.4E-03	-546.2E-03	-431.8E-03	-254.2E-03	-351.6E-06
SN6	-	-615.2E-06	-18.6E-03	-46.5E-03	-105.5E-03	-475.6E-03	-378.3E-03	-221.4E-03	332.0E-06
Average	-	-121.1E-06	-12.9E-03	-31.9E-03	-82.6E-03	-527.4E-03	-419.7E-03	-244.4E-03	513.7E-06
Sigma	-	599.6E-06	9.5E-03	19.4E-03	37.3E-03	92.0E-03	84.0E-03	53.6E-03	708.5E-06

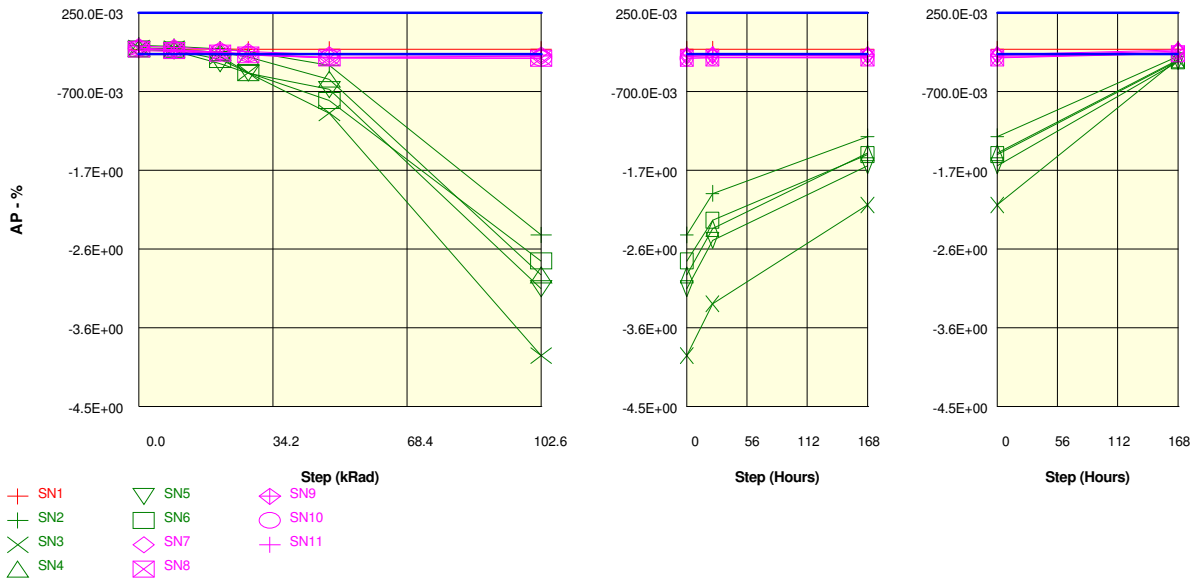
Measurements

BPZE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-2.2E-03	-2.3E-03	-2.0E-03	-2.2E-03	-2.2E-03	-2.3E-03	-2.5E-03	-2.5E-03	-2.5E-03
OFF samples									
SN7	-361.3E-06	-136.7E-06	527.3E-06	351.6E-06	1.2E-03	1.1E-03	1.4E-03	1.6E-03	1.8E-03
SN8	322.3E-06	-127.0E-06	-322.3E-06	-849.6E-06	-1.4E-03	-2.5E-03	-1.9E-03	-2.0E-03	78.1E-06
SN9	-2.1E-03	-1.7E-03	-1.3E-03	-1.7E-03	-1.6E-03	-957.0E-06	-810.5E-06	-1.1E-03	146.5E-06
SN10	-1.4E-03	-1.5E-03	-849.6E-06	-1.5E-03	-556.6E-06	-332.0E-06	-498.0E-06	-117.2E-06	576.2E-06
SN11	-1.4E-03	-1.1E-03	-1.5E-03	-2.0E-03	-1.6E-03	-1.9E-03	-1.9E-03	-2.0E-03	-136.7E-06
Statistics									
Min	-2.1E-03	-1.7E-03	-1.5E-03	-2.0E-03	-1.6E-03	-2.5E-03	-1.9E-03	-2.0E-03	-136.7E-06
Max	322.3E-06	-127.0E-06	527.3E-06	351.6E-06	1.2E-03	1.1E-03	1.4E-03	1.6E-03	1.8E-03
Average	-1.0E-03	-919.9E-06	-697.3E-06	-1.1E-03	-794.9E-06	-923.8E-06	-740.2E-06	-716.8E-06	502.0E-06
Sigma	868.5E-06	672.8E-06	740.4E-06	828.7E-06	1.1E-03	1.2E-03	1.2E-03	1.4E-03	710.6E-06

Drift Calculation

BPZE	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	224.6E-06	888.7E-06	712.9E-06	1.5E-03	1.4E-03	1.8E-03	2.0E-03	2.2E-03
SN8	-	-449.2E-06	-644.5E-06	-1.2E-03	-1.8E-03	-2.8E-03	-2.2E-03	-2.4E-03	-244.1E-06
SN9	-	390.6E-06	820.3E-06	468.8E-06	546.9E-06	1.2E-03	1.3E-03	1.1E-03	2.3E-03
SN10	-	-68.4E-06	576.2E-06	-39.1E-06	869.1E-06	1.1E-03	927.7E-06	1.3E-03	2.0E-03
SN11	-	312.5E-06	-117.2E-06	-585.9E-06	-146.5E-06	-498.0E-06	-468.8E-06	-556.6E-06	1.3E-03
Average	-	82.0E-06	304.7E-06	-123.0E-06	207.0E-06	78.1E-06	261.7E-06	285.2E-06	1.5E-03
Sigma	-	307.7E-06	593.2E-06	688.5E-06	1.1E-03	1.6E-03	1.5E-03	1.6E-03	940.7E-06

Parameter : Positive full scale error : AP
Test conditions : Code=65535.5. Ta=+25°C
Unit : %
Spec Limit Min : -250.0E-03
Spec Limit Max : 250.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

AP	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-188.5E-03	-188.9E-03	-187.3E-03	-189.1E-03	-189.2E-03	-190.2E-03	-188.9E-03	-190.3E-03	-189.5E-03
ON samples									
SN2	-140.6E-03	-154.2E-03	-185.8E-03	-217.2E-03	**-383.7E-03**	**-2.4E+00**	**-1.9E+00**	**-1.2E+00**	**-275.5E-03**
SN3	-174.1E-03	-180.1E-03	**-276.0E-03**	**-472.8E-03**	**-960.4E-03**	**-3.9E+00**	**-3.3E+00**	**-2.1E+00**	**-311.6E-03**
SN4	-178.0E-03	-186.6E-03	-228.3E-03	**-283.0E-03**	**-551.2E-03**	**-2.9E+00**	**-2.4E+00**	**-1.4E+00**	**-317.1E-03**
SN5	-193.5E-03	-208.1E-03	**-364.7E-03**	**-478.6E-03**	**-673.9E-03**	**-3.1E+00**	**-2.5E+00**	**-1.6E+00**	**-337.9E-03**
SN6	-185.3E-03	-197.7E-03	**-312.8E-03**	**-471.5E-03**	**-806.8E-03**	**-2.7E+00**	**-2.3E+00**	**-1.5E+00**	**-328.8E-03**
Statistics									
Min	-193.5E-03	-208.1E-03	-364.7E-03	-478.6E-03	-960.4E-03	-3.9E+00	-3.3E+00	-2.1E+00	-337.9E-03
Max	-140.6E-03	-154.2E-03	-185.8E-03	-217.2E-03	-383.7E-03	-2.4E+00	-1.9E+00	-1.2E+00	-275.5E-03
Average	-174.3E-03	-185.3E-03	-273.5E-03	-384.6E-03	-675.2E-03	-3.0E+00	-2.5E+00	-1.6E+00	-314.2E-03
Sigma	18.1E-03	18.3E-03	62.6E-03	111.8E-03	199.5E-03	487.2E-03	442.2E-03	277.1E-03	21.4E-03

Drift Calculation

AP	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-13.6E-03	-45.2E-03	-76.6E-03	-243.1E-03	-2.3E+00	-1.8E+00	-1.1E+00	-134.9E-03
SN3	-	-5.9E-03	-101.9E-03	-298.6E-03	-786.3E-03	-3.7E+00	-3.1E+00	-1.9E+00	-137.5E-03
SN4	-	-8.6E-03	-50.3E-03	-105.0E-03	-373.2E-03	-2.7E+00	-2.2E+00	-1.3E+00	-139.1E-03
SN5	-	-14.6E-03	-171.2E-03	-285.0E-03	-480.4E-03	-2.9E+00	-2.3E+00	-1.4E+00	-144.3E-03
SN6	-	-12.4E-03	-127.5E-03	-286.2E-03	-621.5E-03	-2.6E+00	-2.1E+00	-1.3E+00	-143.5E-03
Average	-	-11.0E-03	-99.2E-03	-210.3E-03	-500.9E-03	-2.8E+00	-2.3E+00	-1.4E+00	-139.9E-03
Sigma	-	3.3E-03	47.5E-03	98.1E-03	189.3E-03	480.3E-03	435.4E-03	270.6E-03	3.6E-03

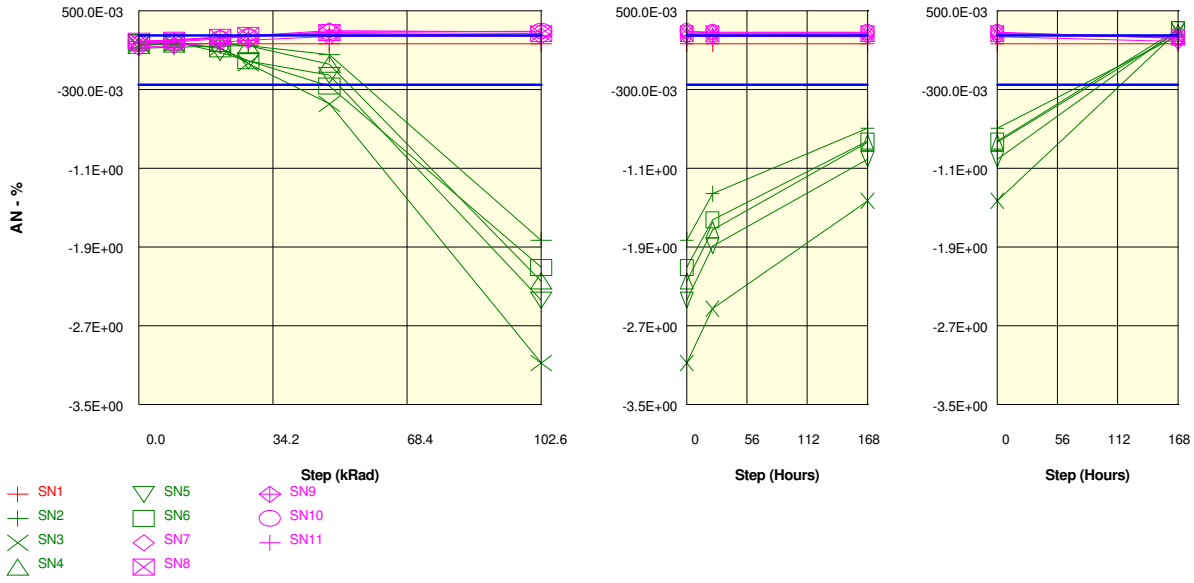
Measurements

AP	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-188.5E-03	-188.9E-03	-187.3E-03	-189.1E-03	-189.2E-03	-190.2E-03	-188.9E-03	-190.3E-03	-189.5E-03
OFF samples									
SN7	-177.2E-03	-194.2E-03	-225.6E-03	-245.8E-03	**-286.2E-03**	**-278.3E-03**	**-269.2E-03**	**-264.4E-03**	-213.1E-03
SN8	-187.5E-03	-204.5E-03	-236.0E-03	**-257.7E-03**	**-293.3E-03**	**-296.7E-03**	**-291.7E-03**	**-292.7E-03**	-241.9E-03
SN9	-151.3E-03	-165.5E-03	-194.0E-03	-216.7E-03	**-255.1E-03**	**-257.9E-03**	**-252.2E-03**	**-253.6E-03**	-196.4E-03
SN10	-179.7E-03	-196.2E-03	-226.1E-03	**-251.6E-03**	**-292.8E-03**	**-299.2E-03**	**-291.2E-03**	**-290.3E-03**	-228.4E-03
SN11	-204.2E-03	-216.7E-03	-244.8E-03	**-260.1E-03**	**-288.8E-03**	**-271.8E-03**	**-265.8E-03**	**-275.1E-03**	-244.3E-03
Statistics									
Min	-204.2E-03	-216.7E-03	-244.8E-03	-260.1E-03	-293.3E-03	-299.2E-03	-291.7E-03	-292.7E-03	-244.3E-03
Max	-151.3E-03	-165.5E-03	-194.0E-03	-216.7E-03	-255.1E-03	-257.9E-03	-252.2E-03	-253.6E-03	-196.4E-03
Average	-180.0E-03	-195.4E-03	-225.3E-03	-246.4E-03	-283.2E-03	-280.8E-03	-274.0E-03	-275.2E-03	-224.8E-03
Sigma	17.2E-03	16.9E-03	17.2E-03	15.7E-03	14.3E-03	15.5E-03	15.4E-03	14.9E-03	18.1E-03

Drift Calculation

AP	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-17.0E-03	-48.4E-03	-68.6E-03	-109.0E-03	-101.1E-03	-92.0E-03	-87.2E-03	-35.9E-03
SN8	-	-17.0E-03	-48.5E-03	-70.3E-03	-105.9E-03	-109.3E-03	-104.2E-03	-105.2E-03	-54.5E-03
SN9	-	-14.2E-03	-42.7E-03	-65.4E-03	-103.8E-03	-106.6E-03	-100.9E-03	-102.3E-03	-45.1E-03
SN10	-	-16.5E-03	-46.4E-03	-71.9E-03	-113.1E-03	-119.5E-03	-111.5E-03	-110.6E-03	-48.7E-03
SN11	-	-12.5E-03	-40.7E-03	-55.9E-03	-84.6E-03	-67.6E-03	-61.6E-03	-71.0E-03	-40.1E-03
Average	-	-15.5E-03	-45.4E-03	-66.4E-03	-103.3E-03	-100.8E-03	-94.1E-03	-95.2E-03	-44.9E-03
Sigma	-	1.8E-03	3.1E-03	5.7E-03	9.8E-03	17.6E-03	17.4E-03	14.4E-03	6.5E-03

Parameter : Negative full scale error : AN
Test conditions : Code=0.5. Ta=+25°C
Unit : %
Spec Limit Min : -250.0E-03
Spec Limit Max : 250.0E-03
Spec limits are represented in bold lines on the graphic.



Measurements

AN	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	166.2E-03	164.8E-03	164.5E-03	164.9E-03	165.5E-03	165.4E-03	164.2E-03	165.3E-03	164.7E-03
ON samples									
SN2	120.2E-03	129.8E-03	142.3E-03	144.3E-03	55.0E-03	**-1.8E+00**	**-1.4E+00**	**-692.2E-03**	245.6E-03
SN3	154.2E-03	167.7E-03	126.2E-03	-35.3E-03	**-444.6E-03**	**-3.1E+00**	**-2.5E+00**	**-1.4E+00**	**294.3E-03**
SN4	148.6E-03	161.9E-03	167.5E-03	145.4E-03	-43.7E-03	**-2.2E+00**	**-1.7E+00**	**-838.1E-03**	**284.0E-03**
SN5	180.5E-03	186.1E-03	78.5E-03	-11.3E-03	-154.4E-03	**-2.4E+00**	**-1.9E+00**	**-1.0E+00**	**307.2E-03**
SN6	173.2E-03	179.6E-03	115.3E-03	-6.7E-03	**-263.4E-03**	**-2.1E+00**	**-1.6E+00**	**-823.9E-03**	**311.3E-03**
Statistics									
Min	120.2E-03	129.8E-03	78.5E-03	-35.3E-03	-444.6E-03	-3.1E+00	-2.5E+00	-1.4E+00	245.6E-03
Max	180.5E-03	186.1E-03	167.5E-03	145.4E-03	55.0E-03	-1.8E+00	-1.4E+00	-692.2E-03	311.3E-03
Average	155.3E-03	165.0E-03	126.0E-03	47.3E-03	-170.2E-03	-2.3E+00	-1.8E+00	-958.1E-03	288.5E-03
Sigma	21.1E-03	19.6E-03	29.5E-03	80.3E-03	173.8E-03	419.0E-03	390.7E-03	256.0E-03	23.5E-03

Drift Calculation

AN	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	9.6E-03	22.1E-03	24.1E-03	-65.1E-03	-2.0E+00	-1.5E+00	-812.3E-03	125.4E-03
SN3	-	13.6E-03	-28.0E-03	-189.4E-03	-598.8E-03	-3.2E+00	-2.7E+00	-1.6E+00	140.1E-03
SN4	-	13.3E-03	18.9E-03	-3.3E-03	-192.4E-03	-2.4E+00	-1.9E+00	-986.7E-03	135.4E-03
SN5	-	5.6E-03	-102.0E-03	-191.8E-03	-334.9E-03	-2.6E+00	-2.1E+00	-1.2E+00	126.8E-03
SN6	-	6.4E-03	-57.9E-03	-179.9E-03	-436.7E-03	-2.3E+00	-1.8E+00	-997.1E-03	138.1E-03
Average	-	9.7E-03	-29.4E-03	-108.1E-03	-325.6E-03	-2.5E+00	-2.0E+00	-1.1E+00	133.2E-03
Sigma	-	3.3E-03	47.1E-03	97.2E-03	185.8E-03	427.1E-03	398.5E-03	263.3E-03	6.0E-03

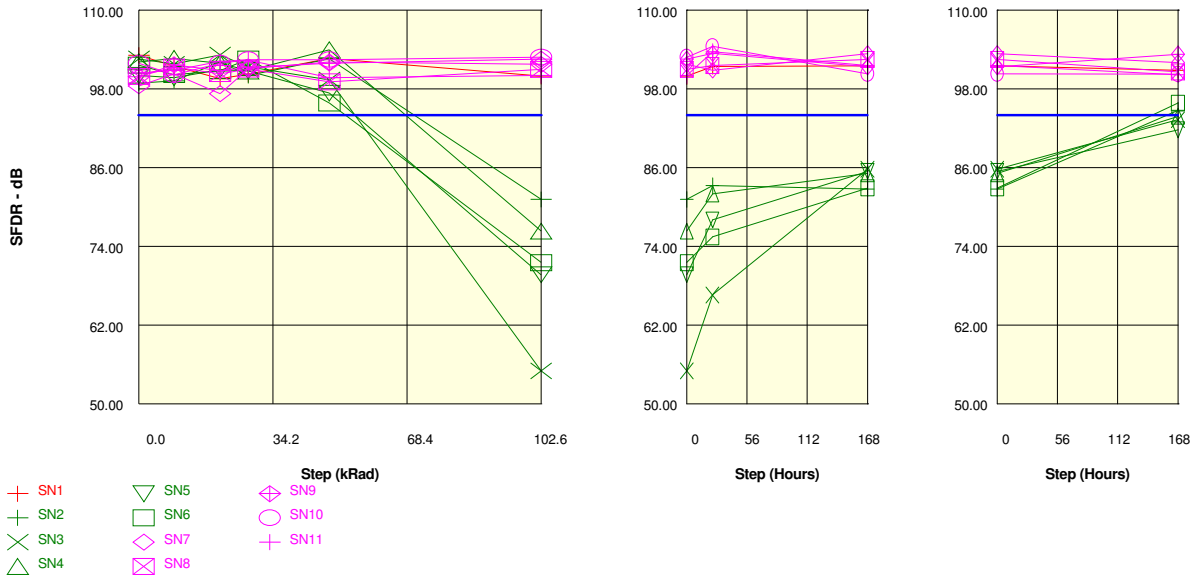
Measurements

AN	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	166.2E-03	164.8E-03	164.5E-03	164.9E-03	165.5E-03	165.4E-03	164.2E-03	165.3E-03	164.7E-03
OFF samples									
SN7	170.5E-03	190.5E-03	228.6E-03	248.7E-03	297.9E-03	286.3E-03	278.6E-03	274.7E-03	220.9E-03
SN8	190.6E-03	203.6E-03	232.4E-03	249.3E-03	279.0E-03	269.2E-03	266.4E-03	268.4E-03	232.8E-03
SN9	129.2E-03	146.1E-03	179.7E-03	199.4E-03	239.6E-03	242.9E-03	238.8E-03	238.3E-03	187.3E-03
SN10	163.2E-03	180.1E-03	215.7E-03	237.3E-03	285.5E-03	292.1E-03	282.7E-03	283.5E-03	223.6E-03
SN11	189.7E-03	204.5E-03	228.7E-03	240.8E-03	273.0E-03	248.6E-03	242.6E-03	251.4E-03	232.9E-03
Statistics									
Min	129.2E-03	146.1E-03	179.7E-03	199.4E-03	239.6E-03	242.9E-03	238.8E-03	238.3E-03	187.3E-03
Max	190.6E-03	204.5E-03	232.4E-03	249.3E-03	297.9E-03	292.1E-03	282.7E-03	283.5E-03	232.9E-03
Average	168.6E-03	185.0E-03	217.0E-03	235.1E-03	275.0E-03	267.8E-03	261.8E-03	263.3E-03	219.5E-03
Sigma	22.4E-03	21.4E-03	19.5E-03	18.4E-03	19.5E-03	19.6E-03	18.1E-03	16.3E-03	16.8E-03

Drift Calculation

AN	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	20.0E-03	58.1E-03	78.2E-03	127.4E-03	115.8E-03	108.1E-03	104.1E-03	50.4E-03
SN8	-	13.0E-03	41.8E-03	58.7E-03	88.4E-03	78.6E-03	75.8E-03	77.8E-03	42.2E-03
SN9	-	16.8E-03	50.4E-03	70.2E-03	110.3E-03	113.7E-03	109.6E-03	109.1E-03	58.0E-03
SN10	-	16.9E-03	52.6E-03	74.2E-03	122.3E-03	128.9E-03	119.6E-03	120.4E-03	60.4E-03
SN11	-	14.8E-03	39.0E-03	51.0E-03	83.2E-03	58.9E-03	52.9E-03	61.7E-03	43.2E-03
Average	-	16.3E-03	48.4E-03	66.5E-03	106.3E-03	99.2E-03	93.2E-03	94.6E-03	50.8E-03
Sigma	-	2.3E-03	7.0E-03	10.1E-03	17.7E-03	26.2E-03	25.0E-03	21.6E-03	7.4E-03

Parameter : Spurious free dynamic range : SFDR
Test conditions : Fin=45KHz
Unit : dB
Spec Limit Min : 94.00
Spec limits are represented in bold lines on the graphic.



Measurements

SFDR	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	103.12	101.45	99.57	100.22	102.66	99.94	101.42	101.54	100.87
ON samples									
SN2	98.92	99.25	102.09	100.06	102.59	81.16	83.24	82.75	94.73
SN3	102.58	101.81	103.18	101.41	99.38	55.04	66.63	85.77	93.31
SN4	102.13	102.64	101.95	100.76	103.96	76.34	82.02	85.11	93.84
SN5	100.06	99.69	100.96	100.74	97.36	69.69	78.05	85.45	91.76
SN6	101.62	100.17	100.76	102.54	95.86	71.54	75.45	82.92	95.85
Statistics									
Min	98.92	99.25	100.76	100.06	95.86	55.04	66.63	82.75	91.76
Max	102.58	102.64	103.18	102.54	103.96	81.16	83.24	85.77	95.85
Average	101.06	100.71	101.79	101.10	99.83	70.76	77.08	84.40	93.90
Sigma	1.37	1.30	0.87	0.83	3.06	8.81	5.92	1.29	1.37

Drift Calculation

SFDR	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	335.0E-03	3.2E+00	1.1E+00	3.7E+00	-17.8E+00	-15.7E+00	-16.2E+00	-4.2E+00
SN3	-	-770.0E-03	603.0E-03	-1.2E+00	-3.2E+00	-47.5E+00	-36.0E+00	-16.8E+00	-9.3E+00
SN4	-	508.0E-03	-187.0E-03	-1.4E+00	1.8E+00	-25.8E+00	-20.1E+00	-17.0E+00	-8.3E+00
SN5	-	-369.0E-03	901.0E-03	679.0E-03	-2.7E+00	-30.4E+00	-22.0E+00	-14.6E+00	-8.3E+00
SN6	-	-1.4E+00	-856.0E-03	916.0E-03	-5.8E+00	-30.1E+00	-26.2E+00	-18.7E+00	-5.8E+00
Average	-	-349.0E-03	727.8E-03	40.2E-03	-1.2E+00	-30.3E+00	-24.0E+00	-16.7E+00	-7.2E+00
Sigma	-	719.7E-03	1.4E+00	1.1E+00	3.5E+00	9.7E+00	6.9E+00	1.3E+00	1.9E+00

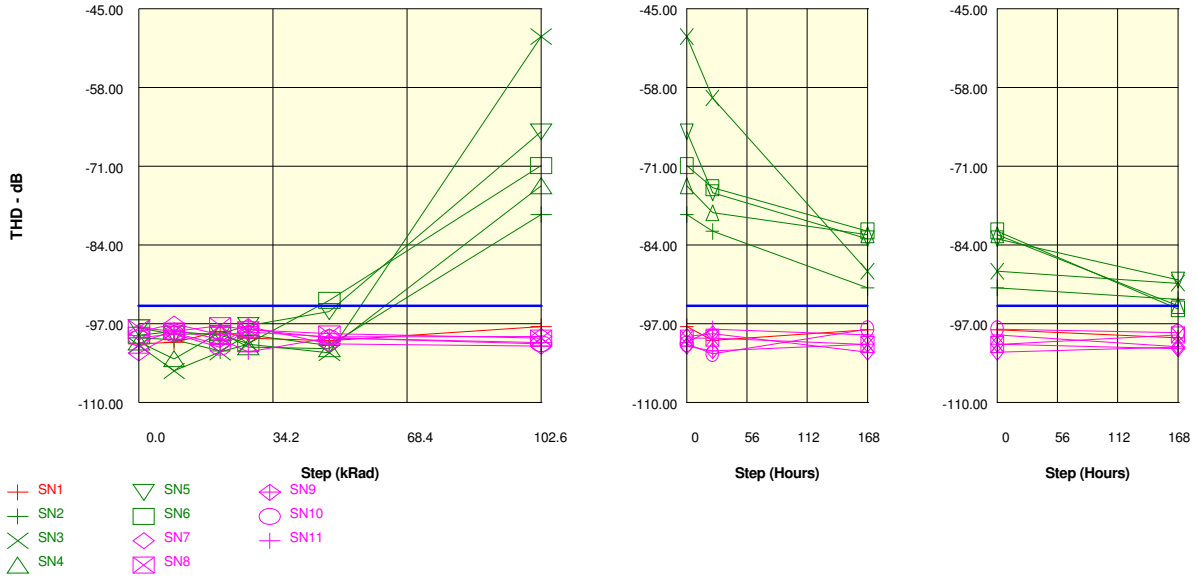
Measurements

SFDR	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	103.12	101.45	99.57	100.22	102.66	99.94	101.42	101.54	100.87
OFF samples									
SN7	98.46	100.29	97.28	101.08	102.09	101.74	100.86	103.40	102.02
SN8	99.93	101.34	100.33	101.04	99.07	100.99	101.57	102.49	100.60
SN9	99.84	101.67	100.78	101.28	101.94	102.54	103.40	101.36	103.29
SN10	101.90	100.16	101.92	102.45	102.45	102.84	104.48	100.30	100.26
SN11	100.43	100.87	102.22	102.41	99.68	100.07	103.66	101.56	100.15
Statistics									
Min	98.46	100.16	97.28	101.04	99.07	100.07	100.86	100.30	100.15
Max	101.90	101.67	102.22	102.45	102.45	102.84	104.48	103.40	103.29
Average	100.11	100.86	100.51	101.65	101.05	101.64	102.79	101.82	101.26
Sigma	1.11	0.58	1.76	0.64	1.39	1.02	1.36	1.05	1.21

Drift Calculation

SFDR	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1.8E+00	-1.2E+00	2.6E+00	3.6E+00	3.3E+00	2.4E+00	4.9E+00	3.6E+00
SN8	-	1.4E+00	405.0E-03	1.1E+00	-855.0E-03	1.1E+00	1.6E+00	2.6E+00	672.0E-03
SN9	-	1.8E+00	948.0E-03	1.4E+00	2.1E+00	2.7E+00	3.6E+00	1.5E+00	3.5E+00
SN10	-	-1.7E+00	14.0E-03	544.0E-03	550.0E-03	941.0E-03	2.6E+00	-1.6E+00	-1.6E+00
SN11	-	433.0E-03	1.8E+00	2.0E+00	-757.0E-03	-367.0E-03	3.2E+00	1.1E+00	-287.0E-03
Average	-	752.2E-03	394.2E-03	1.5E+00	935.0E-03	1.5E+00	2.7E+00	1.7E+00	1.2E+00
Sigma	-	1.3E+00	986.0E-03	710.9E-03	1.7E+00	1.3E+00	669.2E-03	2.1E+00	2.1E+00

Parameter : Total Harmonic Distorsion : THD
Test conditions : Fin=45KHz. Vin=-0.5dB. Fin=45KHz. all measurement referred to a 0dB (20Vpp) input signal. THD includes first six harmonics. Bandwidth =50kHz
Unit : dB
Spec Limit Max : -94.00
Spec limits are represented in bold lines on the graphic.



Measurements

THD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-100.31	-100.06	-98.24	-99.37	-99.81	-97.47	-99.73	-97.99	-99.35
ON samples									
SN2	-99.31	-99.65	-101.48	-98.81	-100.61	**-78.98**	**-81.74**	**-91.07**	**-92.97**
SN3	-100.58	-104.77	-101.66	-100.34	-101.78	**-49.60**	**-59.72**	**-88.31**	**-90.30**
SN4	-99.99	-102.79	-98.42	-100.82	-101.11	**-74.23**	**-78.67**	**-82.30**	**-93.99**
SN5	-97.68	-98.73	-98.63	-97.28	-94.99	**-65.30**	**-75.36**	**-82.96**	**-89.77**
SN6	-98.89	-98.26	-98.87	-100.24	**-93.14**	**-70.88**	**-74.54**	**-81.69**	-94.54
Statistics									
Min	-100.58	-104.77	-101.66	-100.82	-101.78	-78.98	-81.74	-91.07	-94.54
Max	-97.68	-98.26	-98.42	-97.28	-93.14	-49.60	-59.72	-81.69	-89.77
Average	-99.29	-100.84	-99.81	-99.50	-98.32	-67.80	-74.01	-85.27	-92.31
Sigma	0.99	2.52	1.44	1.30	3.55	10.13	7.59	3.74	1.93

Drift Calculation

THD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-344.0E-03	-2.2E+00	496.0E-03	-1.3E+00	20.3E+00	17.6E+00	8.2E+00	6.3E+00
SN3	-	-4.2E+00	-1.1E+00	234.0E-03	-1.2E+00	51.0E+00	40.9E+00	12.3E+00	10.3E+00
SN4	-	-2.8E+00	1.6E+00	-831.0E-03	-1.1E+00	25.8E+00	21.3E+00	17.7E+00	6.0E+00
SN5	-	-1.1E+00	-950.0E-03	397.0E-03	2.7E+00	32.4E+00	22.3E+00	14.7E+00	7.9E+00
SN6	-	634.0E-03	20.0E-03	-1.4E+00	5.8E+00	28.0E+00	24.4E+00	17.2E+00	4.4E+00
Average	-	-1.6E+00	-522.8E-03	-211.2E-03	964.8E-03	31.5E+00	25.3E+00	14.0E+00	7.0E+00
Sigma	-	1.7E+00	1.3E+00	742.1E-03	2.8E+00	10.5E+00	8.1E+00	3.5E+00	2.0E+00

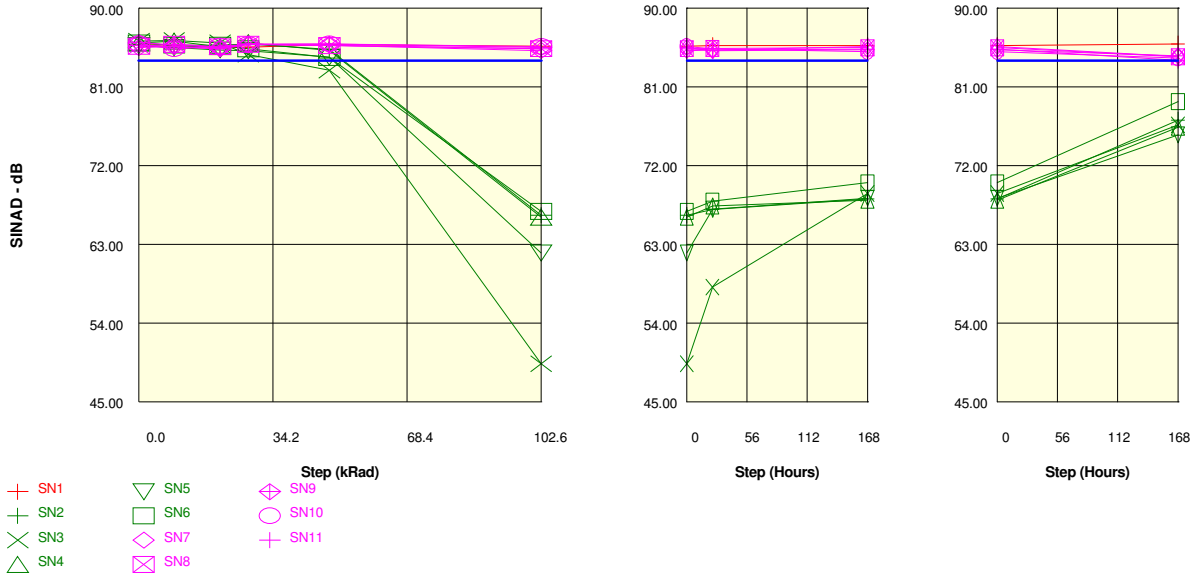
Measurements

THD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-100.31	-100.06	-98.24	-99.37	-99.81	-97.47	-99.73	-97.99	-99.35
OFF samples									
SN7	-98.39	-97.01	-98.81	-98.38	-99.14	-99.08	-98.64	-101.70	-100.83
SN8	-97.61	-98.22	-97.30	-97.99	-98.66	-99.35	-99.38	-100.41	-98.82
SN9	-101.82	-98.50	-100.43	-97.48	-100.30	-100.69	-101.44	-100.38	-101.11
SN10	-99.34	-98.67	-100.88	-97.85	-99.30	-100.30	-101.94	-97.86	-98.43
SN11	-100.27	-98.04	-99.54	-101.63	-99.34	-100.11	-97.85	-98.86	-100.79
Statistics									
Min	-101.82	-98.67	-100.88	-101.63	-100.30	-100.69	-101.94	-101.70	-101.11
Max	-97.61	-97.01	-97.30	-97.48	-98.66	-99.08	-97.85	-97.86	-98.43
Average	-99.49	-98.09	-99.39	-98.66	-99.35	-99.90	-99.85	-99.84	-100.00
Sigma	1.47	0.58	1.27	1.51	0.54	0.60	1.58	1.34	1.13

Drift Calculation

THD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	1.4E+00	-425.0E-03	8.0E-03	-755.0E-03	-688.0E-03	-255.0E-03	-3.3E+00	-2.4E+00
SN8	-	-609.0E-03	317.0E-03	-379.0E-03	-1.0E+00	-1.7E+00	-1.8E+00	-2.8E+00	-1.2E+00
SN9	-	3.3E+00	1.4E+00	4.3E+00	1.5E+00	1.1E+00	383.0E-03	1.4E+00	713.0E-03
SN10	-	671.0E-03	-1.5E+00	1.5E+00	36.0E-03	-958.0E-03	-2.6E+00	1.5E+00	906.0E-03
SN11	-	2.2E+00	733.0E-03	-1.4E+00	929.0E-03	160.0E-03	2.4E+00	1.4E+00	-523.0E-03
Average	-	1.4E+00	95.4E-03	820.8E-03	136.0E-03	-419.4E-03	-362.2E-03	-355.6E-03	-510.6E-03
Sigma	-	1.3E+00	1.0E+00	2.0E+00	972.0E-03	983.8E-03	1.7E+00	2.2E+00	1.2E+00

Parameter : Signal-to-noise + distorsion : SINAD
Test conditions : Fin=45KHz. Vin=-0.5dB. Fin=45KHz. all measurement referred to a 0dB (20Vpp) input signal
Unit : dB
Spec Limit Min : 84.00
Spec limits are represented in bold lines on the graphic.



Measurements

SINAD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	85.79	85.81	85.47	85.55	85.81	85.66	85.71	85.72	85.91
ON samples									
SN2	85.87	85.52	85.75	85.89	85.30	66.33	67.02	68.20	77.22
SN3	86.25	86.31	86.04	84.72	82.91	49.38	58.13	68.83	76.67
SN4	86.03	86.22	85.58	86.04	85.19	66.12	67.40	68.07	76.39
SN5	85.72	85.49	85.23	85.15	84.41	62.02	67.04	68.29	75.51
SN6	86.02	85.78	85.76	85.36	84.36	66.78	67.95	70.05	79.33
Statistics									
Min	85.72	85.49	85.23	84.72	82.91	49.38	58.13	68.07	75.51
Max	86.25	86.31	86.04	86.04	85.30	66.78	67.95	70.05	79.33
Average	85.98	85.86	85.67	85.43	84.44	62.13	65.51	68.69	77.02
Sigma	0.18	0.34	0.27	0.48	0.85	6.60	3.71	0.73	1.28

Drift Calculation

SINAD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-344.9E-03	-118.5E-03	20.0E-03	-563.9E-03	-19.5E+00	-18.9E+00	-17.7E+00	-8.6E+00
SN3	-	53.1E-03	-211.3E-03	-1.5E+00	-3.3E+00	-36.9E+00	-28.1E+00	-17.4E+00	-9.6E+00
SN4	-	190.3E-03	-451.6E-03	3.5E-03	-844.3E-03	-19.9E+00	-18.6E+00	-18.0E+00	-9.6E+00
SN5	-	-230.1E-03	-492.3E-03	-567.6E-03	-1.3E+00	-23.7E+00	-18.7E+00	-17.4E+00	-10.2E+00
SN6	-	-240.5E-03	-262.2E-03	-659.2E-03	-1.7E+00	-19.2E+00	-18.1E+00	-16.0E+00	-6.7E+00
Average	-	-114.4E-03	-307.2E-03	-547.7E-03	-1.5E+00	-23.9E+00	-20.5E+00	-17.3E+00	-9.0E+00
Sigma	-	201.7E-03	142.8E-03	568.1E-03	973.3E-03	6.7E+00	3.8E+00	691.6E-03	1.2E+00

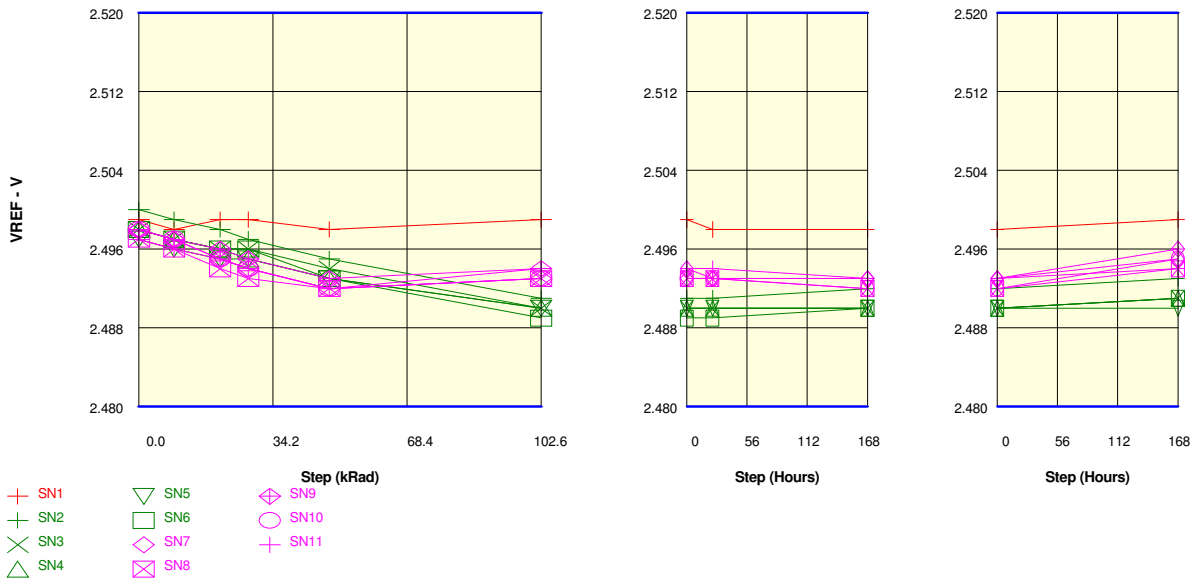
Measurements

SINAD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	85.79	85.81	85.47	85.55	85.81	85.66	85.71	85.72	85.91
OFF samples									
SN7	85.50	85.60	85.35	85.82	85.77	85.16	85.23	85.62	84.48
SN8	85.63	85.88	85.59	85.87	85.74	85.37	85.39	85.48	84.44
SN9	86.07	85.80	85.48	85.89	85.88	85.50	85.13	85.26	84.57
SN10	85.93	85.33	85.68	85.85	85.91	85.63	85.35	85.02	84.29
SN11	85.73	85.59	85.34	85.90	85.73	85.34	85.20	85.33	84.05
Statistics									
Min	85.50	85.33	85.34	85.82	85.73	85.16	85.13	85.02	84.05
Max	86.07	85.88	85.68	85.90	85.91	85.63	85.39	85.62	84.57
Average	85.77	85.64	85.49	85.87	85.80	85.40	85.26	85.34	84.37
Sigma	0.20	0.19	0.13	0.03	0.07	0.16	0.10	0.20	0.18

Drift Calculation

SINAD	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	102.1E-03	-148.0E-03	315.7E-03	266.0E-03	-344.4E-03	-267.4E-03	113.0E-03	-1.0E+00
SN8	-	247.4E-03	-44.1E-03	237.4E-03	101.9E-03	-264.7E-03	-238.7E-03	-152.5E-03	-1.2E+00
SN9	-	-269.3E-03	-588.2E-03	-174.6E-03	-189.5E-03	-562.6E-03	-936.8E-03	-806.6E-03	-1.5E+00
SN10	-	-593.7E-03	-250.5E-03	-80.1E-03	-16.0E-03	-300.2E-03	-572.9E-03	-903.6E-03	-1.6E+00
SN11	-	-143.7E-03	-390.0E-03	169.7E-03	3.0E-03	-391.8E-03	-527.5E-03	-400.6E-03	-1.7E+00
Average	-	-131.5E-03	-284.2E-03	93.6E-03	33.1E-03	-372.7E-03	-508.7E-03	-430.0E-03	-1.4E+00
Sigma	-	293.6E-03	190.2E-03	188.6E-03	149.6E-03	104.1E-03	252.6E-03	384.4E-03	253.8E-03

Parameter : Voltage reference output : VREF
Test conditions : Ta=+25°C
Unit : V
Spec Limit Min : 2.480
Spec Limit Max : 2.520
Spec limits are represented in bold lines on the graphic.



Measurements

VREF	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	2.499	2.498	2.499	2.499	2.498	2.499	2.498	2.498	2.499
ON samples									
SN2	2.500	2.499	2.498	2.497	2.495	2.491	2.491	2.492	2.493
SN3	2.498	2.497	2.496	2.496	2.494	2.490	2.490	2.490	2.491
SN4	2.498	2.497	2.496	2.495	2.493	2.490	2.490	2.490	2.491
SN5	2.497	2.496	2.495	2.495	2.493	2.490	2.490	2.490	2.490
SN6	2.498	2.497	2.496	2.496	2.493	2.489	2.489	2.490	2.491
Statistics									
Min	2.497	2.496	2.495	2.495	2.493	2.489	2.489	2.490	2.490
Max	2.500	2.499	2.498	2.497	2.495	2.491	2.491	2.492	2.493
Average	2.498	2.497	2.496	2.496	2.494	2.490	2.490	2.490	2.491
Sigma	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Drift Calculation

VREF	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-1000.0E-06	-2.0E-03	-3.0E-03	-5.0E-03	-9.0E-03	-9.0E-03	-8.0E-03	-7.0E-03
SN3	-	-1.0E-03	-2.0E-03	-2.0E-03	-4.0E-03	-8.0E-03	-8.0E-03	-8.0E-03	-7.0E-03
SN4	-	-1.0E-03	-2.0E-03	-3.0E-03	-5.0E-03	-8.0E-03	-8.0E-03	-8.0E-03	-7.0E-03
SN5	-	-1000.0E-06	-2.0E-03	-2.0E-03	-4.0E-03	-7.0E-03	-7.0E-03	-7.0E-03	-7.0E-03
SN6	-	-1.0E-03	-2.0E-03	-2.0E-03	-5.0E-03	-9.0E-03	-9.0E-03	-8.0E-03	-7.0E-03
Average	-	-1.0E-03	-2.0E-03	-2.4E-03	-4.6E-03	-8.2E-03	-8.2E-03	-7.8E-03	-7.0E-03
Sigma	-	9.2E-12	41.2E-12	489.9E-06	489.9E-06	748.3E-06	748.3E-06	400.0E-06	73.6E-12

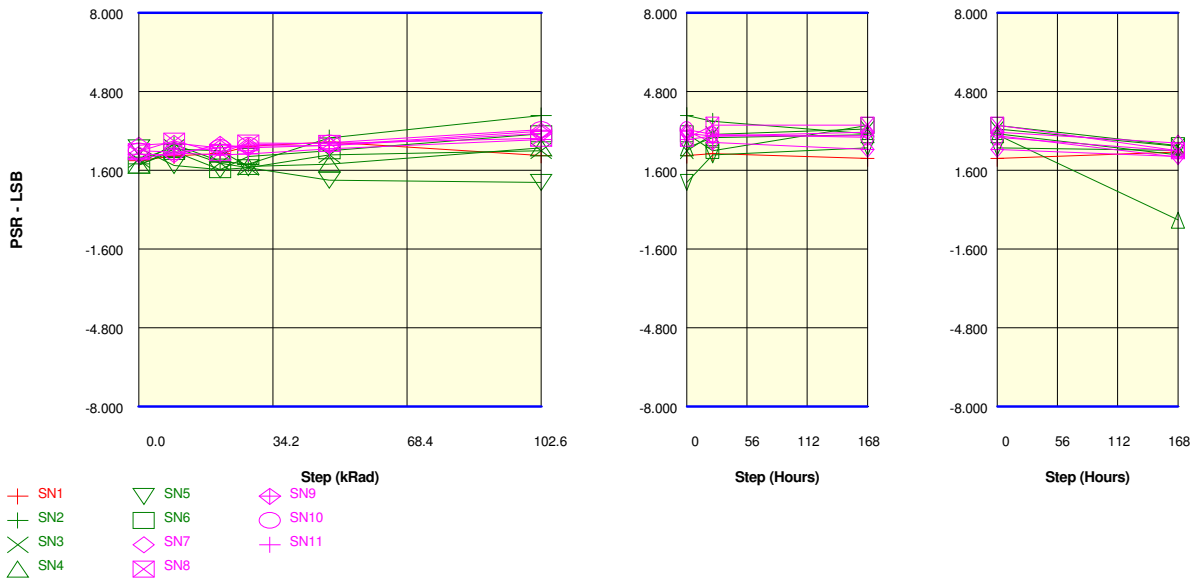
Measurements

VREF	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	2.499	2.498	2.499	2.499	2.498	2.499	2.498	2.498	2.499
OFF samples									
SN7	2.498	2.497	2.495	2.494	2.492	2.493	2.493	2.493	2.495
SN8	2.497	2.496	2.494	2.493	2.492	2.493	2.493	2.492	2.494
SN9	2.498	2.497	2.496	2.495	2.493	2.494	2.493	2.493	2.496
SN10	2.498	2.497	2.495	2.494	2.492	2.493	2.493	2.492	2.495
SN11	2.497	2.496	2.495	2.494	2.492	2.494	2.494	2.493	2.494
Statistics									
Min	2.497	2.496	2.494	2.493	2.492	2.493	2.493	2.492	2.494
Max	2.498	2.497	2.496	2.495	2.493	2.494	2.494	2.493	2.496
Average	2.498	2.497	2.495	2.494	2.492	2.493	2.493	2.493	2.495
Sigma	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.001

Drift Calculation

VREF	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-1.0E-03	-3.0E-03	-4.0E-03	-6.0E-03	-5.0E-03	-5.0E-03	-5.0E-03	-3.0E-03
SN8	-	-1000.0E-06	-3.0E-03	-4.0E-03	-5.0E-03	-4.0E-03	-4.0E-03	-5.0E-03	-3.0E-03
SN9	-	-1.0E-03	-2.0E-03	-3.0E-03	-5.0E-03	-4.0E-03	-5.0E-03	-5.0E-03	-2.0E-03
SN10	-	-1.0E-03	-3.0E-03	-4.0E-03	-6.0E-03	-5.0E-03	-5.0E-03	-6.0E-03	-3.0E-03
SN11	-	-1000.0E-06	-2.0E-03	-3.0E-03	-5.0E-03	-3.0E-03	-3.0E-03	-4.0E-03	-3.0E-03
Average	-	-1.0E-03	-2.6E-03	-3.6E-03	-5.4E-03	-4.2E-03	-4.4E-03	-5.0E-03	-2.8E-03
Sigma	-	9.2E-12	489.9E-06	489.9E-06	489.9E-06	748.3E-06	800.0E-06	632.5E-06	400.0E-06

Parameter : Power supply rejection : PSR
Test conditions : Vdig=Vana=5V +/-5%
Unit : LSB
Spec Limit Min : -8.000
Spec Limit Max : 8.000
Spec limits are represented in bold lines on the graphic.



Measurements

PSR	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.991	2.188	2.282	2.585	2.743	2.209	2.282	2.083	2.337
ON samples									
SN2	1.862	2.655	1.974	1.850	2.925	3.828	3.596	3.086	2.220
SN3	2.029	2.539	1.897	1.713	2.226	2.397	3.063	3.279	2.579
SN4	1.807	2.470	2.390	1.756	1.854	2.513	2.930	3.046	-0.420
SN5	2.513	1.795	1.622	1.705	1.203	1.110	2.222	2.520	2.411
SN6	1.816	2.371	1.622	2.157	2.397	3.083	2.403	3.425	2.608
Statistics									
Min	1.807	1.795	1.622	1.705	1.203	1.110	2.222	2.520	-0.420
Max	2.513	2.655	2.390	2.157	2.925	3.828	3.596	3.425	2.608
Average	2.005	2.366	1.901	1.836	2.121	2.586	2.843	3.071	1.880
Sigma	0.266	0.300	0.283	0.168	0.574	0.895	0.490	0.308	1.158

Drift Calculation

PSR	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	793.0E-03	112.0E-03	-12.0E-03	1.1E+00	2.0E+00	1.7E+00	1.2E+00	358.0E-03
SN3	-	510.0E-03	-132.0E-03	-316.0E-03	197.0E-03	368.0E-03	1.0E+00	1.3E+00	550.0E-03
SN4	-	663.0E-03	583.0E-03	-51.0E-03	47.0E-03	706.0E-03	1.1E+00	1.2E+00	-2.2E+00
SN5	-	-718.0E-03	-891.0E-03	-808.0E-03	-1.3E+00	-1.4E+00	-291.0E-03	7.0E-03	-102.0E-03
SN6	-	555.0E-03	-194.0E-03	341.0E-03	581.0E-03	1.3E+00	587.0E-03	1.6E+00	792.0E-03
Average	-	360.6E-03	-104.4E-03	-169.2E-03	115.6E-03	580.8E-03	837.4E-03	1.1E+00	-125.8E-03
Sigma	-	548.1E-03	478.9E-03	381.7E-03	794.7E-03	1.1E+00	672.3E-03	548.6E-03	1.1E+00

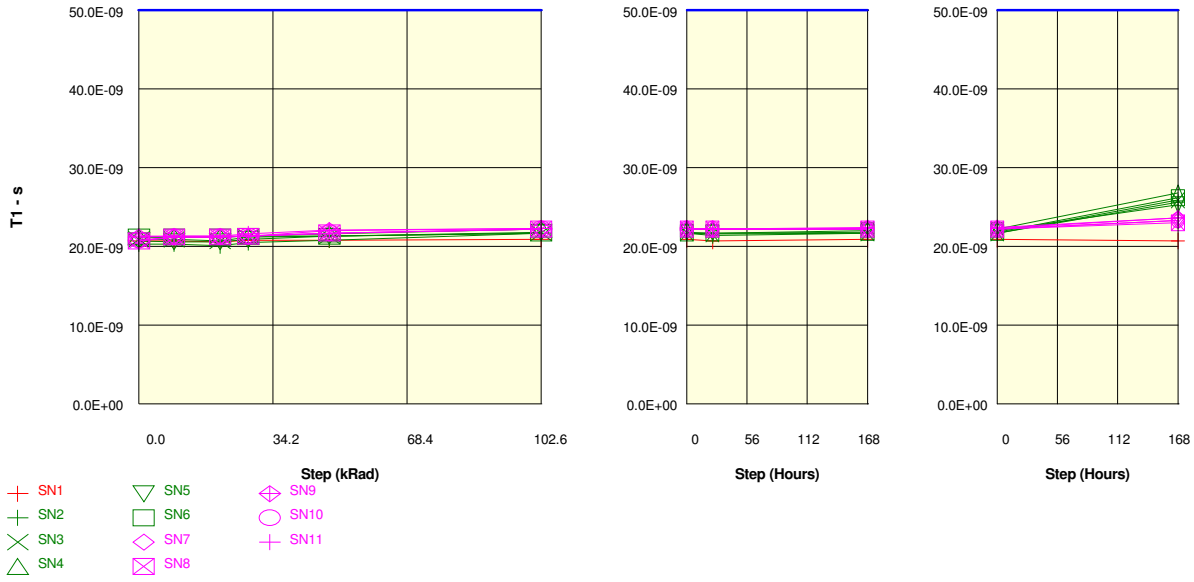
Measurements

PSR	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	1.991	2.188	2.282	2.585	2.743	2.209	2.282	2.083	2.337
OFF samples									
SN7	2.618	2.702	2.512	2.596	2.610	3.100	2.986	3.150	2.711
SN8	2.363	2.791	2.310	2.713	2.695	2.903	3.441	3.435	2.397
SN9	2.246	2.235	2.659	2.510	2.617	3.189	2.738	2.452	2.157
SN10	2.390	2.346	2.521	2.624	2.716	3.254	3.054	2.934	2.380
SN11	2.072	2.309	2.235	2.265	2.471	2.850	2.999	3.008	2.140
Statistics									
Min	2.072	2.235	2.235	2.265	2.471	2.850	2.738	2.452	2.140
Max	2.618	2.791	2.659	2.713	2.716	3.254	3.441	3.435	2.711
Average	2.338	2.477	2.447	2.542	2.622	3.059	3.044	2.996	2.357
Sigma	0.179	0.225	0.154	0.153	0.086	0.158	0.227	0.321	0.207

Drift Calculation

PSR	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	84.0E-03	-106.0E-03	-22.0E-03	-8.0E-03	482.0E-03	368.0E-03	532.0E-03	93.0E-03
SN8	-	428.0E-03	-53.0E-03	350.0E-03	332.0E-03	540.0E-03	1.1E+00	1.1E+00	34.0E-03
SN9	-	-11.0E-03	413.0E-03	264.0E-03	371.0E-03	943.0E-03	492.0E-03	206.0E-03	-89.0E-03
SN10	-	-44.0E-03	131.0E-03	234.0E-03	326.0E-03	864.0E-03	664.0E-03	544.0E-03	-10.0E-03
SN11	-	237.0E-03	163.0E-03	193.0E-03	399.0E-03	778.0E-03	927.0E-03	936.0E-03	68.0E-03
Average	-	138.8E-03	109.6E-03	203.8E-03	284.0E-03	721.4E-03	705.8E-03	658.0E-03	19.2E-03
Sigma	-	174.4E-03	183.5E-03	124.1E-03	148.4E-03	180.5E-03	264.2E-03	310.4E-03	64.2E-03

Parameter : Convert pulse width : T1
Test conditions : Iol=1.6mA; Ioh=500uA. Vcrossover 2.1V. Vol=0.4V. Voh=4V
Unit : s
Spec Limit Max : 50.0E-09
Spec limits are represented in bold lines on the graphic.



Measurements

T1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	20.7E-09	20.7E-09	20.6E-09	20.8E-09	20.8E-09	20.9E-09	20.7E-09	20.9E-09	20.7E-09
ON samples									
SN2	20.3E-09	20.3E-09	20.1E-09	20.5E-09	20.8E-09	21.7E-09	21.4E-09	21.7E-09	25.6E-09
SN3	20.9E-09	20.9E-09	20.7E-09	21.2E-09	21.3E-09	21.7E-09	21.6E-09	21.7E-09	25.9E-09
SN4	21.2E-09	21.2E-09	21.2E-09	21.3E-09	21.6E-09	22.2E-09	22.2E-09	22.2E-09	26.8E-09
SN5	20.7E-09	20.6E-09	20.6E-09	20.9E-09	21.3E-09	21.8E-09	21.7E-09	22.0E-09	25.3E-09
SN6	21.2E-09	21.2E-09	21.2E-09	21.3E-09	21.3E-09	21.7E-09	21.7E-09	21.8E-09	26.2E-09
Statistics									
Min	20.3E-09	20.3E-09	20.1E-09	20.5E-09	20.8E-09	21.7E-09	21.4E-09	21.7E-09	25.3E-09
Max	21.2E-09	21.2E-09	21.2E-09	21.3E-09	21.6E-09	22.2E-09	22.2E-09	22.2E-09	26.8E-09
Average	20.9E-09	20.8E-09	20.8E-09	21.0E-09	21.3E-09	21.8E-09	21.7E-09	21.9E-09	26.0E-09
Sigma	338.2E-12	349.9E-12	412.8E-12	307.2E-12	257.7E-12	193.9E-12	263.8E-12	193.9E-12	516.1E-12

Drift Calculation

T1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	-200.0E-12	200.0E-12	500.0E-12	1.4E-09	1.1E-09	1.4E-09	5.3E-09
SN3	-	0.0E+00	-200.0E-12	300.0E-12	400.0E-12	800.0E-12	700.0E-12	800.0E-12	5.0E-09
SN4	-	0.0E+00	0.0E+00	100.0E-12	400.0E-12	1000.0E-12	1000.0E-12	1000.0E-12	5.6E-09
SN5	-	-100.0E-12	-100.0E-12	200.0E-12	600.0E-12	1.1E-09	1000.0E-12	1.3E-09	4.6E-09
SN6	-	0.0E+00	0.0E+00	100.0E-12	100.0E-12	500.0E-12	500.0E-12	600.0E-12	5.0E-09
Average	-	-20.0E-12	-100.0E-12	180.0E-12	400.0E-12	960.0E-12	860.0E-12	1.0E-09	5.1E-09
Sigma	-	40.0E-12	89.4E-12	74.8E-12	167.3E-12	300.7E-12	224.5E-12	299.3E-12	334.7E-12

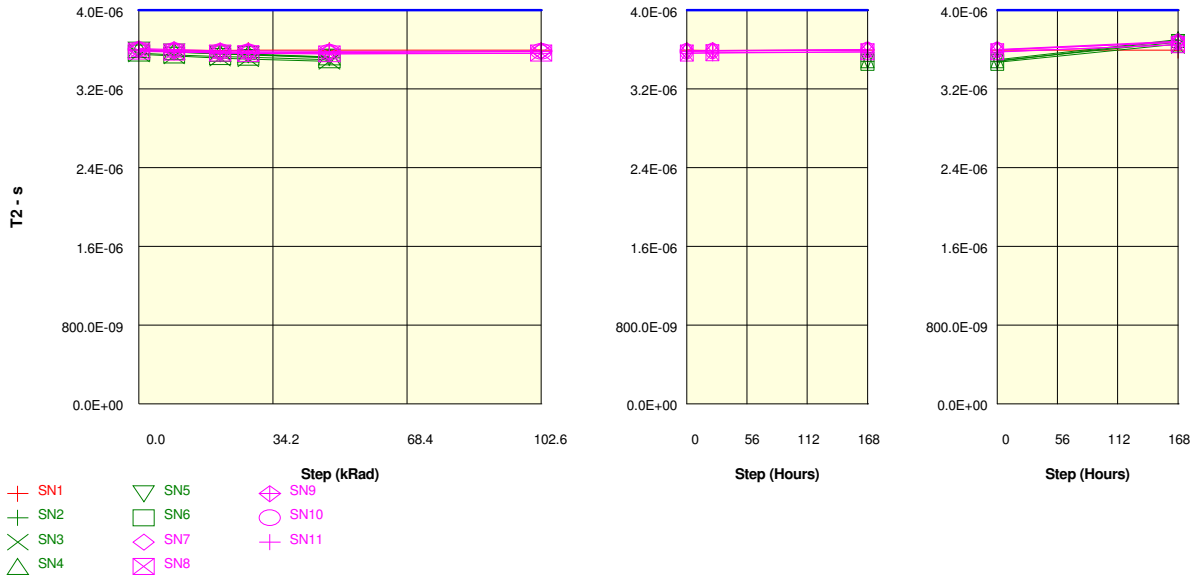
Measurements

T1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	20.7E-09	20.7E-09	20.6E-09	20.8E-09	20.8E-09	20.9E-09	20.7E-09	20.9E-09	20.7E-09
OFF samples									
SN7	20.7E-09	21.2E-09	21.2E-09	21.3E-09	21.7E-09	22.2E-09	22.2E-09	22.2E-09	23.3E-09
SN8	20.7E-09	21.2E-09	21.2E-09	21.3E-09	21.7E-09	22.2E-09	22.2E-09	22.2E-09	23.0E-09
SN9	21.2E-09	21.3E-09	21.3E-09	21.3E-09	22.0E-09	22.3E-09	22.2E-09	22.3E-09	23.6E-09
SN10	20.8E-09	21.2E-09	21.2E-09	21.3E-09	21.7E-09	22.2E-09	22.2E-09	22.2E-09	23.3E-09
SN11	21.3E-09	21.3E-09	21.3E-09	21.6E-09	22.1E-09	22.3E-09	22.2E-09	22.4E-09	23.6E-09
Statistics									
Min	20.7E-09	21.2E-09	21.2E-09	21.3E-09	21.7E-09	22.2E-09	22.2E-09	22.2E-09	23.0E-09
Max	21.3E-09	21.3E-09	21.3E-09	21.6E-09	22.1E-09	22.3E-09	22.2E-09	22.4E-09	23.6E-09
Average	20.9E-09	21.2E-09	21.2E-09	21.4E-09	21.8E-09	22.2E-09	22.2E-09	22.3E-09	23.4E-09
Sigma	257.7E-12	49.0E-12	49.0E-12	120.0E-12	174.4E-12	49.0E-12	140.4E-18	80.0E-12	224.5E-12

Drift Calculation

T1	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	500.0E-12	500.0E-12	600.0E-12	1000.0E-12	1.5E-09	1.5E-09	1.5E-09	2.6E-09
SN8	-	500.0E-12	500.0E-12	600.0E-12	1000.0E-12	1.5E-09	1.5E-09	1.5E-09	2.3E-09
SN9	-	100.0E-12	100.0E-12	100.0E-12	800.0E-12	1.1E-09	1000.0E-12	1.1E-09	2.4E-09
SN10	-	400.0E-12	400.0E-12	500.0E-12	900.0E-12	1.4E-09	1.4E-09	1.4E-09	2.5E-09
SN11	-	0.0E+00	0.0E+00	300.0E-12	800.0E-12	1.0E-09	900.0E-12	1.1E-09	2.3E-09
Average	-	300.0E-12	300.0E-12	420.0E-12	900.0E-12	1.3E-09	1.3E-09	1.3E-09	2.4E-09
Sigma	-	209.8E-12	209.8E-12	193.9E-12	89.4E-12	209.8E-12	257.7E-12	183.3E-12	116.6E-12

Parameter : Data valid after R//C low : T2
Test conditions : Iol=1.6mA; Ioh=500uA. Vcrossover 2.1V. Vol=0.4V. Voh=4V
Unit : s
Spec Limit Max : 4.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

T2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06
ON samples									
SN2	3.6E-06	3.6E-06	3.6E-06	3.5E-06	3.5E-06			3.5E-06	3.7E-06
SN3	3.6E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06				3.6E-06
SN4	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.5E-06			3.5E-06	3.7E-06
SN5	3.6E-06	3.6E-06	3.6E-06	3.5E-06	3.5E-06			3.5E-06	3.7E-06
SN6	3.6E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06			3.5E-06	3.7E-06
Statistics									
Min	3.6E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	-	-	3.5E-06	3.6E-06
Max	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.5E-06	-	-	3.5E-06	3.7E-06
Average	3.6E-06	3.6E-06	3.5E-06	3.5E-06	3.5E-06	-	-	3.5E-06	3.7E-06
Sigma	19.3E-09	19.1E-09	18.9E-09	18.6E-09	17.4E-09	-	-	9.6E-09	22.3E-09

Drift Calculation

T2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-20.3E-09	-42.5E-09	-51.2E-09	-82.4E-09			-118.0E-09	96.7E-09
SN3	-	-18.1E-09	-39.8E-09	-47.7E-09	-74.0E-09				88.0E-09
SN4	-	-18.6E-09	-38.5E-09	-46.4E-09	-74.5E-09			-104.4E-09	100.6E-09
SN5	-	-19.1E-09	-38.0E-09	-46.3E-09	-73.1E-09			-107.6E-09	79.4E-09
SN6	-	-19.9E-09	-36.4E-09	-43.1E-09	-68.0E-09			-94.3E-09	92.4E-09
Average	-	-19.2E-09	-39.0E-09	-46.9E-09	-74.4E-09			-106.1E-09	91.4E-09
Sigma	-	809.9E-12	2.0E-09	2.6E-09	4.6E-09			8.5E-09	7.3E-09

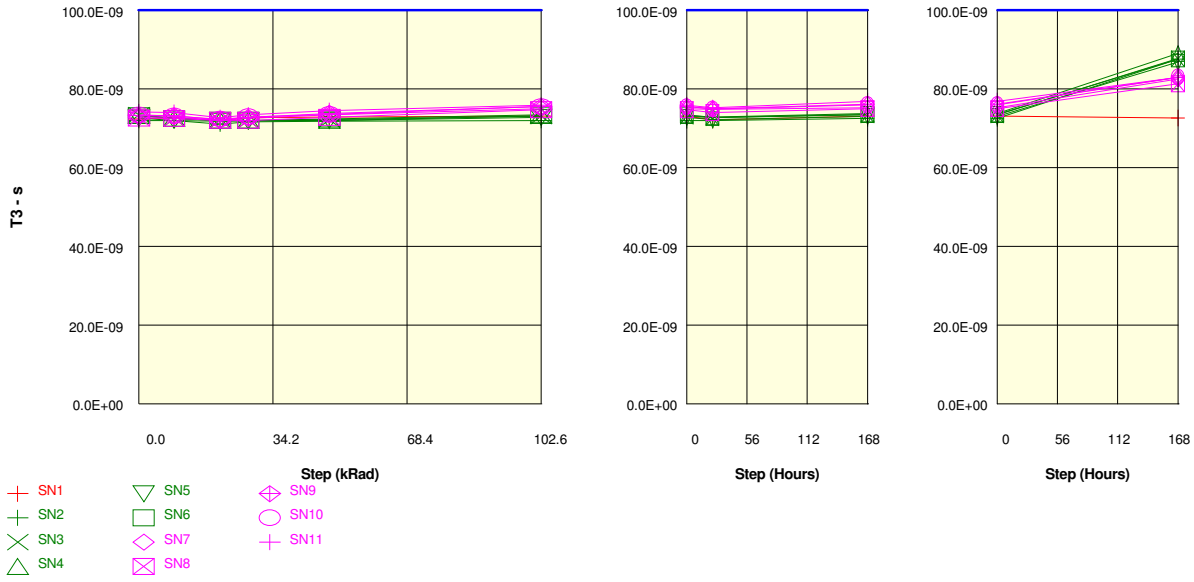
Measurements

T2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06
OFF samples									
SN7	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.7E-06
SN8	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06
SN9	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.7E-06
SN10	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.7E-06
SN11	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.7E-06
Statistics									
Min	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06
Max	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.7E-06
Average	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.7E-06
Sigma	9.6E-09	9.5E-09	9.2E-09	9.5E-09	9.5E-09	10.3E-09	10.2E-09	9.4E-09	14.5E-09

Drift Calculation

T2	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-8.3E-09	-20.4E-09	-23.3E-09	-28.7E-09	-21.4E-09	-18.9E-09	-10.3E-09	76.3E-09
SN8	-	-7.9E-09	-18.7E-09	-21.7E-09	-25.7E-09	-17.9E-09	-14.3E-09	-4.9E-09	65.9E-09
SN9	-	-8.8E-09	-21.7E-09	-22.7E-09	-26.1E-09	-15.0E-09	-11.7E-09	-2.0E-09	74.8E-09
SN10	-	-8.4E-09	-21.3E-09	-23.6E-09	-28.3E-09	-17.8E-09	-14.4E-09	-4.7E-09	75.9E-09
SN11	-	-8.3E-09	-21.2E-09	-24.3E-09	-30.2E-09	-23.8E-09	-21.0E-09	-8.8E-09	64.5E-09
Average	-	-8.3E-09	-20.7E-09	-23.1E-09	-27.8E-09	-19.2E-09	-16.1E-09	-6.1E-09	71.5E-09
Sigma	-	287.1E-12	1.1E-09	877.3E-12	1.7E-09	3.1E-09	3.4E-09	3.0E-09	5.2E-09

Parameter : /BUSY low delay : T3
Test conditions : Iol=1.6mA; Ioh=500uA. Vcrossover 2.1V. Vol=0.4V. Voh=4V
Unit : s
Spec Limit Max : 100.0E-09
Spec limits are represented in bold lines on the graphic.



Measurements

T3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	72.4E-09	72.7E-09	72.0E-09	72.7E-09	72.9E-09	73.1E-09	72.1E-09	73.1E-09	72.6E-09
ON samples									
SN2	72.0E-09	72.0E-09	71.1E-09	71.6E-09	71.8E-09	72.0E-09	72.0E-09	72.5E-09	87.6E-09
SN3	73.4E-09	72.5E-09	72.0E-09	72.0E-09	72.2E-09	73.1E-09	72.7E-09	73.4E-09	87.7E-09
SN4	73.3E-09	72.5E-09	72.0E-09	72.0E-09	72.0E-09	73.2E-09	72.9E-09	73.7E-09	89.0E-09
SN5	72.6E-09	72.0E-09	71.8E-09	71.9E-09	72.0E-09	72.8E-09	72.2E-09	73.0E-09	86.8E-09
SN6	73.2E-09	72.5E-09	72.0E-09	72.0E-09	72.4E-09	73.4E-09	72.8E-09	73.5E-09	87.6E-09
Statistics									
Min	72.0E-09	72.0E-09	71.1E-09	71.6E-09	71.8E-09	72.0E-09	72.0E-09	72.5E-09	86.8E-09
Max	73.4E-09	72.5E-09	72.0E-09	72.0E-09	72.4E-09	73.4E-09	72.9E-09	73.7E-09	89.0E-09
Average	72.9E-09	72.3E-09	71.8E-09	71.9E-09	72.1E-09	72.9E-09	72.5E-09	73.2E-09	87.7E-09
Sigma	529.2E-12	244.9E-12	348.7E-12	154.9E-12	204.0E-12	489.9E-12	354.4E-12	426.1E-12	708.8E-12

Drift Calculation

T3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	-900.0E-12	-400.0E-12	-200.0E-12	0.0E+00	0.0E+00	500.0E-12	15.6E-09
SN3	-	-900.0E-12	-1.4E-09	-1.4E-09	-1.2E-09	-300.0E-12	-700.0E-12	0.0E+00	14.3E-09
SN4	-	-800.0E-12	-1.3E-09	-1.3E-09	-1.3E-09	-100.0E-12	-400.0E-12	400.0E-12	15.7E-09
SN5	-	-600.0E-12	-800.0E-12	-700.0E-12	-600.0E-12	200.0E-12	-400.0E-12	400.0E-12	14.2E-09
SN6	-	-700.0E-12	-1.2E-09	-1.2E-09	-800.0E-12	200.0E-12	-400.0E-12	300.0E-12	14.4E-09
Average	-	-600.0E-12	-1.1E-09	-1000.0E-12	-820.0E-12	0.0E+00	-380.0E-12	320.0E-12	14.8E-09
Sigma	-	316.2E-12	231.5E-12	384.7E-12	402.0E-12	189.7E-12	222.7E-12	172.0E-12	665.1E-12

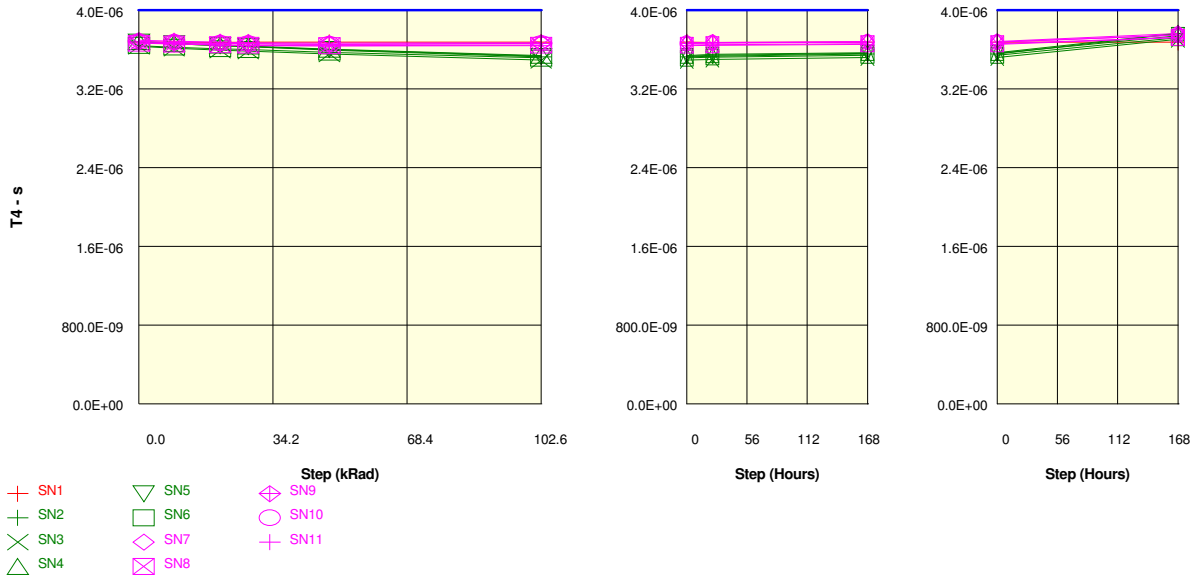
Measurements

T3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	72.4E-09	72.7E-09	72.0E-09	72.7E-09	72.9E-09	73.1E-09	72.1E-09	73.1E-09	72.6E-09
OFF samples									
SN7	72.9E-09	72.9E-09	72.0E-09	72.5E-09	73.4E-09	75.0E-09	74.8E-09	75.2E-09	82.5E-09
SN8	72.6E-09	72.5E-09	72.0E-09	72.0E-09	72.8E-09	74.7E-09	74.0E-09	75.0E-09	81.3E-09
SN9	73.3E-09	73.2E-09	72.1E-09	72.8E-09	73.8E-09	75.5E-09	75.0E-09	76.1E-09	83.0E-09
SN10	73.4E-09	73.1E-09	72.3E-09	72.9E-09	73.5E-09	75.5E-09	74.9E-09	76.0E-09	83.0E-09
SN11	74.2E-09	74.0E-09	72.7E-09	73.4E-09	74.5E-09	75.9E-09	75.2E-09	76.9E-09	82.9E-09
Statistics									
Min	72.6E-09	72.5E-09	72.0E-09	72.0E-09	72.8E-09	74.7E-09	74.0E-09	75.0E-09	81.3E-09
Max	74.2E-09	74.0E-09	72.7E-09	73.4E-09	74.5E-09	75.9E-09	75.2E-09	76.9E-09	83.0E-09
Average	73.3E-09	73.1E-09	72.2E-09	72.7E-09	73.6E-09	75.3E-09	74.8E-09	75.8E-09	82.5E-09
Sigma	541.8E-12	492.3E-12	263.8E-12	462.2E-12	555.0E-12	421.4E-12	411.8E-12	682.9E-12	646.8E-12

Drift Calculation

T3	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	0.0E+00	-900.0E-12	-400.0E-12	500.0E-12	2.1E-09	1.9E-09	2.3E-09	9.6E-09
SN8	-	-100.0E-12	-600.0E-12	-600.0E-12	200.0E-12	2.1E-09	1.4E-09	2.4E-09	8.7E-09
SN9	-	-100.0E-12	-1.2E-09	-500.0E-12	500.0E-12	2.2E-09	1.7E-09	2.8E-09	9.7E-09
SN10	-	-300.0E-12	-1.1E-09	-500.0E-12	100.0E-12	2.1E-09	1.5E-09	2.6E-09	9.6E-09
SN11	-	-200.0E-12	-1.5E-09	-800.0E-12	300.0E-12	1.7E-09	1000.0E-12	2.7E-09	8.7E-09
Average	-	-140.0E-12	-1.1E-09	-560.0E-12	320.0E-12	2.0E-09	1.5E-09	2.6E-09	9.3E-09
Sigma	-	102.0E-12	300.7E-12	135.6E-12	160.0E-12	174.4E-12	303.3E-12	185.5E-12	458.7E-12

Parameter : /BUSY low time : T4
Test conditions : Iol=1.6mA; Ioh=500uA. Vcrossover 2.1V. Vol=0.4V. Voh=4V
Unit : s
Spec Limit Max : 4.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

T4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06
ON samples									
SN2	3.7E-06	3.7E-06	3.6E-06	3.6E-06	3.6E-06	3.5E-06	3.5E-06	3.6E-06	3.8E-06
SN3	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.5E-06	3.5E-06	3.5E-06	3.7E-06
SN4	3.7E-06	3.7E-06	3.6E-06	3.6E-06	3.6E-06	3.5E-06	3.6E-06	3.6E-06	3.8E-06
SN5	3.7E-06	3.7E-06	3.6E-06	3.6E-06	3.6E-06	3.5E-06	3.5E-06	3.6E-06	3.7E-06
SN6	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.5E-06	3.5E-06	3.5E-06	3.7E-06
Statistics									
Min	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.5E-06	3.5E-06	3.5E-06	3.7E-06
Max	3.7E-06	3.7E-06	3.6E-06	3.6E-06	3.6E-06	3.5E-06	3.6E-06	3.6E-06	3.8E-06
Average	3.7E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.5E-06	3.5E-06	3.5E-06	3.7E-06
Sigma	21.2E-09	20.4E-09	20.3E-09	20.1E-09	18.9E-09	16.9E-09	17.1E-09	17.9E-09	23.7E-09

Drift Calculation

T4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-20.6E-09	-41.6E-09	-52.5E-09	-86.1E-09	-156.5E-09	-146.8E-09	-126.5E-09	82.6E-09
SN3	-	-17.4E-09	-38.2E-09	-47.7E-09	-77.3E-09	-140.8E-09	-131.3E-09	-113.3E-09	73.8E-09
SN4	-	-18.1E-09	-37.1E-09	-45.8E-09	-77.0E-09	-140.8E-09	-131.0E-09	-111.3E-09	85.8E-09
SN5	-	-18.7E-09	-37.1E-09	-46.7E-09	-76.5E-09	-145.6E-09	-134.6E-09	-115.1E-09	65.5E-09
SN6	-	-17.3E-09	-34.3E-09	-42.7E-09	-69.6E-09	-127.5E-09	-117.7E-09	-100.1E-09	79.7E-09
Average	-	-18.4E-09	-37.7E-09	-47.1E-09	-77.3E-09	-142.2E-09	-132.3E-09	-113.3E-09	77.5E-09
Sigma	-	1.2E-09	2.4E-09	3.2E-09	5.2E-09	9.3E-09	9.3E-09	8.4E-09	7.2E-09

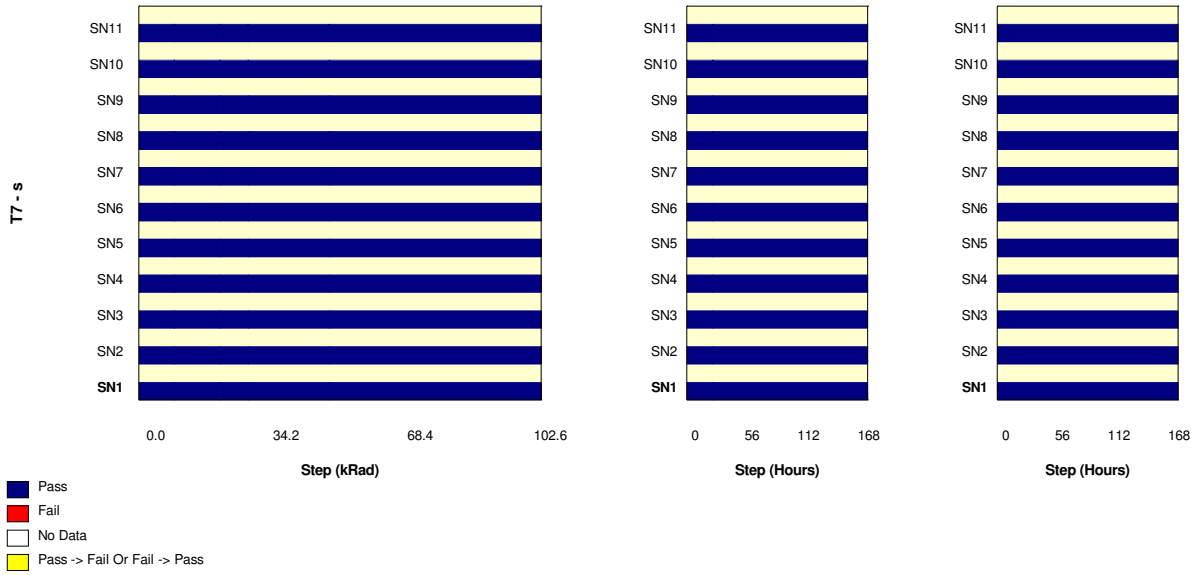
Measurements

T4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06
OFF samples									
SN7	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.8E-06
SN8	3.7E-06	3.7E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.7E-06	3.7E-06
SN9	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06
SN10	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06
SN11	3.7E-06	3.7E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.7E-06	3.7E-06
Statistics									
Min	3.7E-06	3.7E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.6E-06	3.7E-06	3.7E-06
Max	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.8E-06
Average	3.7E-06	3.7E-06	3.7E-06	3.7E-06	3.6E-06	3.7E-06	3.7E-06	3.7E-06	3.7E-06
Sigma	11.0E-09	10.9E-09	10.7E-09	10.8E-09	10.7E-09	11.6E-09	11.4E-09	11.0E-09	15.8E-09

Drift Calculation

T4	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-8.2E-09	-18.7E-09	-22.3E-09	-29.9E-09	-24.7E-09	-21.2E-09	-12.4E-09	68.8E-09
SN8	-	-7.7E-09	-16.6E-09	-20.0E-09	-24.8E-09	-18.9E-09	-14.1E-09	-5.8E-09	59.1E-09
SN9	-	-8.5E-09	-18.3E-09	-20.9E-09	-25.8E-09	-16.4E-09	-11.8E-09	-3.5E-09	67.0E-09
SN10	-	-7.9E-09	-17.9E-09	-21.6E-09	-27.7E-09	-19.0E-09	-14.2E-09	-5.7E-09	68.8E-09
SN11	-	-8.3E-09	-19.2E-09	-23.4E-09	-31.1E-09	-26.8E-09	-22.4E-09	-12.2E-09	56.4E-09
Average	-	-8.1E-09	-18.1E-09	-21.6E-09	-27.9E-09	-21.2E-09	-16.7E-09	-7.9E-09	64.0E-09
Sigma	-	285.7E-12	882.3E-12	1.2E-09	2.4E-09	3.9E-09	4.2E-09	3.7E-09	5.2E-09

Parameter : Conversion time : T7
Test conditions : GO NOGO
Unit : s
Spec Limit Max : 4.0E-06
Spec limits are represented in bold lines on the graphic.



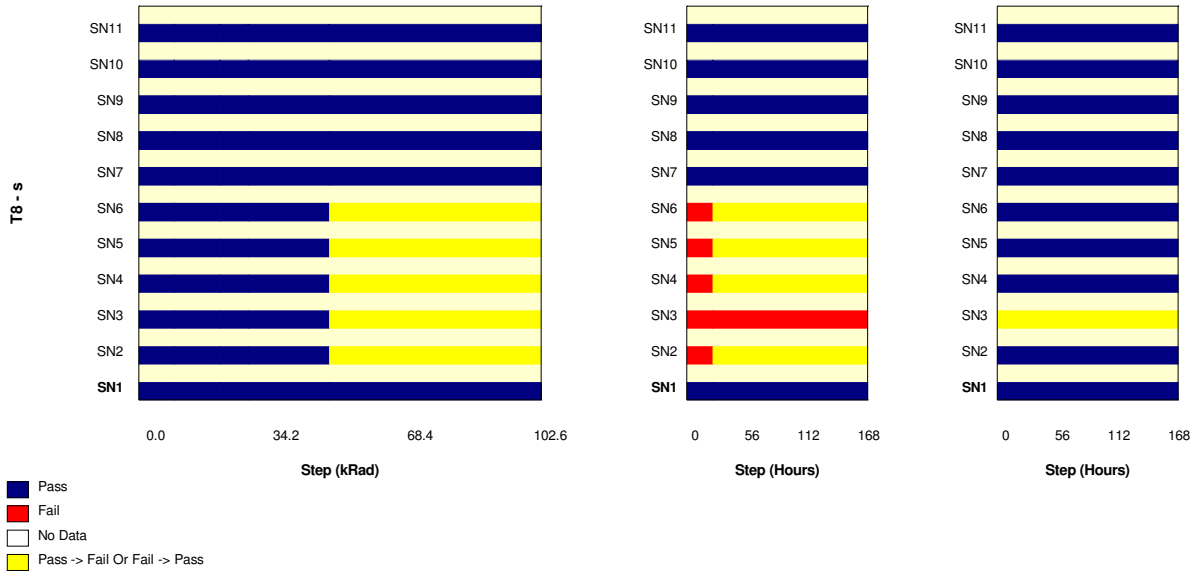
Measurements

T7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
ON samples									
SN2	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN3	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN4	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN5	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN6	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Measurements

T7	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
OFF samples									
SN7	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN8	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN9	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN10	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN11	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Parameter : Acquisition time : T8
Test conditions : GO NOGO
Unit : s
Spec Limit Max : 1.0E-06
Spec limits are represented in bold lines on the graphic.



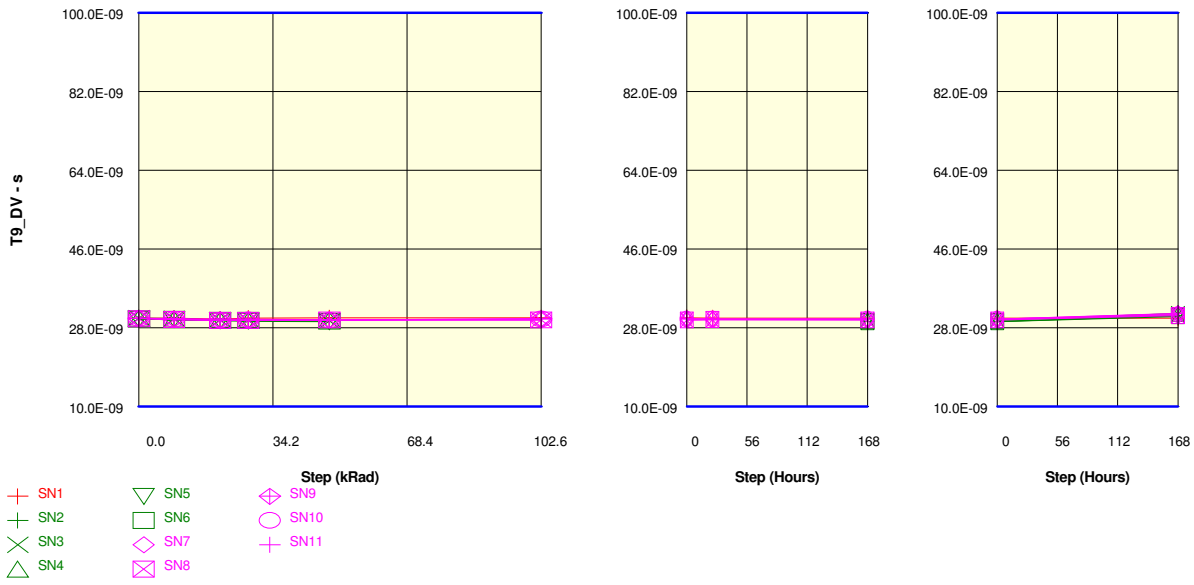
Measurements

T8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
ON samples									
SN2	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	PASS	PASS
SN3	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	FAIL	PASS
SN4	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	PASS	PASS
SN5	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	PASS	PASS
SN6	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	PASS	PASS

Measurements

T8	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
OFF samples									
SN7	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN8	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN9	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN10	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN11	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Parameter : Bus relinquish : T9_DV
Test conditions : Iol=1.6mA; Ioh=500uA. Vcrossover 2.1V. Vol=0.4V. Voh=4V. all data valid
Unit : s
Spec Limit Min : 10.0E-09
Spec Limit Max : 100.0E-09
Spec limits are represented in bold lines on the graphic.



Measurements

T9_DV	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	30.2E-09	30.2E-09	30.0E-09	30.2E-09	30.3E-09	30.3E-09	30.2E-09	30.2E-09	30.2E-09
ON samples									
SN2	30.1E-09	29.8E-09	29.7E-09	29.7E-09	29.7E-09			29.5E-09	30.8E-09
SN3	30.2E-09	30.1E-09	29.8E-09	29.7E-09	29.6E-09				31.1E-09
SN4	30.2E-09	30.0E-09	29.8E-09	29.7E-09	29.8E-09			29.7E-09	31.3E-09
SN5	30.0E-09	29.9E-09	29.6E-09	29.5E-09	29.4E-09			29.4E-09	30.6E-09
SN6	30.0E-09	29.9E-09	29.7E-09	29.7E-09	29.5E-09			29.4E-09	30.8E-09
Statistics									
Min	30.0E-09	29.8E-09	29.6E-09	29.5E-09	29.4E-09	-	-	29.4E-09	30.6E-09
Max	30.2E-09	30.1E-09	29.8E-09	29.7E-09	29.8E-09	-	-	29.7E-09	31.3E-09
Average	30.1E-09	29.9E-09	29.7E-09	29.7E-09	29.6E-09	-	-	29.5E-09	30.9E-09
Sigma	89.4E-12	102.0E-12	74.8E-12	80.0E-12	141.4E-12	-	-	122.5E-12	248.2E-12

Drift Calculation

T9_DV	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-300.0E-12	-400.0E-12	-400.0E-12	-400.0E-12			-600.0E-12	700.0E-12
SN3	-	-100.0E-12	-400.0E-12	-500.0E-12	-600.0E-12				900.0E-12
SN4	-	-200.0E-12	-400.0E-12	-500.0E-12	-400.0E-12			-500.0E-12	1.1E-09
SN5	-	-100.0E-12	-400.0E-12	-500.0E-12	-600.0E-12			-600.0E-12	600.0E-12
SN6	-	-100.0E-12	-300.0E-12	-300.0E-12	-500.0E-12			-600.0E-12	800.0E-12
Average	-	-160.0E-12	-380.0E-12	-440.0E-12	-500.0E-12			-575.0E-12	820.0E-12
Sigma	-	80.0E-12	40.0E-12	80.0E-12	89.4E-12			43.3E-12	172.0E-12

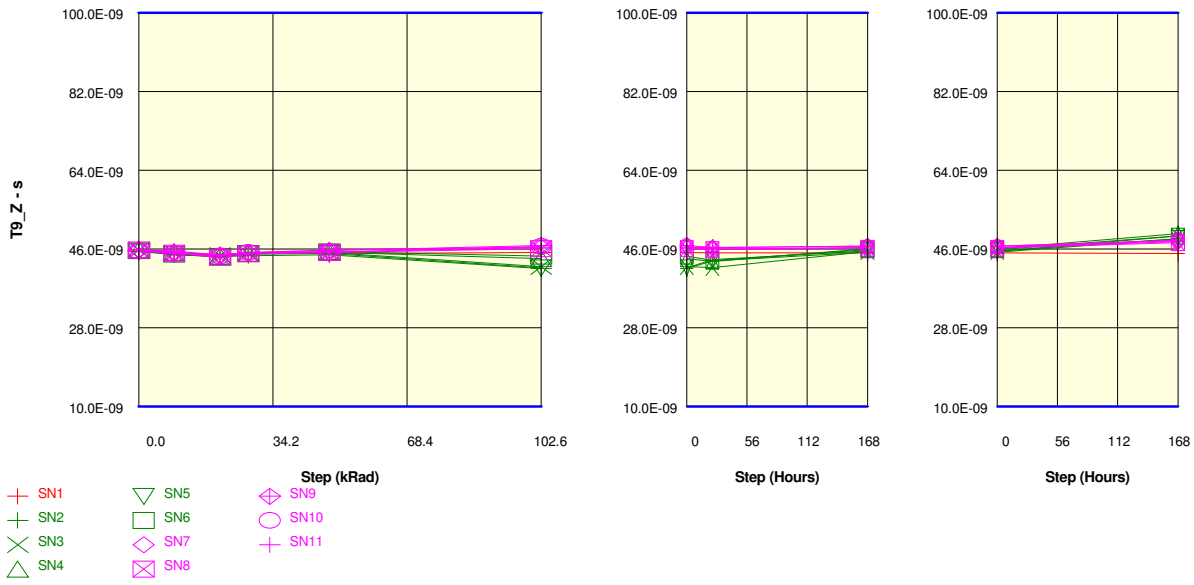
Measurements

T9_DV	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	30.2E-09	30.2E-09	30.0E-09	30.2E-09	30.3E-09	30.3E-09	30.2E-09	30.2E-09	30.2E-09
OFF samples									
SN7	30.2E-09	30.0E-09	29.8E-09	29.7E-09	29.8E-09	29.8E-09	29.9E-09	29.9E-09	31.0E-09
SN8	30.1E-09	29.9E-09	29.7E-09	29.7E-09	29.8E-09	29.8E-09	29.9E-09	29.8E-09	30.8E-09
SN9	30.1E-09	30.0E-09	29.7E-09	29.8E-09	29.8E-09	30.1E-09	30.0E-09	30.0E-09	31.3E-09
SN10	30.1E-09	29.9E-09	29.7E-09	29.8E-09	29.7E-09	30.0E-09	30.0E-09	30.0E-09	31.0E-09
SN11	30.2E-09	30.1E-09	30.0E-09	30.0E-09	29.9E-09	30.0E-09	30.0E-09	30.0E-09	31.2E-09
Statistics									
Min	30.1E-09	29.9E-09	29.7E-09	29.7E-09	29.7E-09	29.8E-09	29.9E-09	29.8E-09	30.8E-09
Max	30.2E-09	30.1E-09	30.0E-09	30.0E-09	29.9E-09	30.1E-09	30.0E-09	30.0E-09	31.3E-09
Average	30.1E-09	30.0E-09	29.8E-09	29.8E-09	29.8E-09	29.9E-09	30.0E-09	29.9E-09	31.1E-09
Sigma	49.0E-12	74.8E-12	116.6E-12	109.5E-12	63.2E-12	120.0E-12	49.0E-12	80.0E-12	174.4E-12

Drift Calculation

T9_DV	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-200.0E-12	-400.0E-12	-500.0E-12	-400.0E-12	-400.0E-12	-300.0E-12	-300.0E-12	800.0E-12
SN8	-	-200.0E-12	-400.0E-12	-400.0E-12	-300.0E-12	-300.0E-12	-200.0E-12	-300.0E-12	700.0E-12
SN9	-	-100.0E-12	-400.0E-12	-300.0E-12	-300.0E-12	0.0E+00	-100.0E-12	-100.0E-12	1.2E-09
SN10	-	-200.0E-12	-400.0E-12	-300.0E-12	-400.0E-12	-100.0E-12	-100.0E-12	-100.0E-12	900.0E-12
SN11	-	-100.0E-12	-200.0E-12	-200.0E-12	-300.0E-12	-200.0E-12	-200.0E-12	-200.0E-12	1.0E-09
Average	-	-160.0E-12	-360.0E-12	-340.0E-12	-340.0E-12	-200.0E-12	-180.0E-12	-200.0E-12	920.0E-12
Sigma	-	49.0E-12	80.0E-12	102.0E-12	49.0E-12	141.4E-12	74.8E-12	89.4E-12	172.0E-12

Parameter : Bus relinquish : T9_Z
Test conditions : Iol=1.6mA; Ioh=500uA. Vcrossover 2.1V. Vol=0.4V. Voh=4V. all data Z
Unit : s
Spec Limit Min : 10.0E-09
Spec Limit Max : 100.0E-09
Spec limits are represented in bold lines on the graphic.



Measurements

T9_Z	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	45.4E-09	45.2E-09	44.8E-09	45.1E-09	45.0E-09	45.2E-09	45.1E-09	45.1E-09	45.0E-09
ON samples									
SN2	45.8E-09	44.7E-09	44.3E-09	44.5E-09	44.7E-09	41.5E-09	43.3E-09	45.3E-09	48.4E-09
SN3	45.8E-09	45.1E-09	44.6E-09	45.1E-09	45.2E-09	42.0E-09	41.8E-09	45.4E-09	49.0E-09
SN4	45.9E-09	45.2E-09	44.4E-09	45.1E-09	45.3E-09	43.8E-09	43.2E-09	46.1E-09	49.5E-09
SN5	45.4E-09	44.8E-09	44.2E-09	44.9E-09	45.0E-09	41.7E-09	43.6E-09	45.6E-09	48.4E-09
SN6	45.6E-09	44.8E-09	44.3E-09	45.0E-09	45.4E-09	44.4E-09	43.4E-09	45.9E-09	49.0E-09
Statistics									
Min	45.4E-09	44.7E-09	44.2E-09	44.5E-09	44.7E-09	41.5E-09	41.8E-09	45.3E-09	48.4E-09
Max	45.9E-09	45.2E-09	44.6E-09	45.1E-09	45.4E-09	44.4E-09	43.6E-09	46.1E-09	49.5E-09
Average	45.7E-09	44.9E-09	44.4E-09	44.9E-09	45.1E-09	42.7E-09	43.1E-09	45.7E-09	48.9E-09
Sigma	178.9E-12	193.9E-12	135.6E-12	222.7E-12	248.2E-12	1.2E-09	643.7E-12	300.7E-12	417.6E-12

Drift Calculation

T9_Z	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-1.1E-09	-1.5E-09	-1.3E-09	-1.1E-09	-4.3E-09	-2.5E-09	-500.0E-12	2.6E-09
SN3	-	-700.0E-12	-1.2E-09	-700.0E-12	-600.0E-12	-3.8E-09	-4.0E-09	-400.0E-12	3.2E-09
SN4	-	-700.0E-12	-1.5E-09	-800.0E-12	-600.0E-12	-2.1E-09	-2.7E-09	200.0E-12	3.6E-09
SN5	-	-600.0E-12	-1.2E-09	-500.0E-12	-400.0E-12	-3.7E-09	-1.8E-09	200.0E-12	3.0E-09
SN6	-	-800.0E-12	-1.3E-09	-600.0E-12	-200.0E-12	-1.2E-09	-2.2E-09	300.0E-12	3.4E-09
Average	-	-780.0E-12	-1.3E-09	-780.0E-12	-580.0E-12	-3.0E-09	-2.6E-09	-40.0E-12	3.2E-09
Sigma	-	172.0E-12	135.6E-12	278.6E-12	299.3E-12	1.2E-09	744.6E-12	338.2E-12	344.1E-12

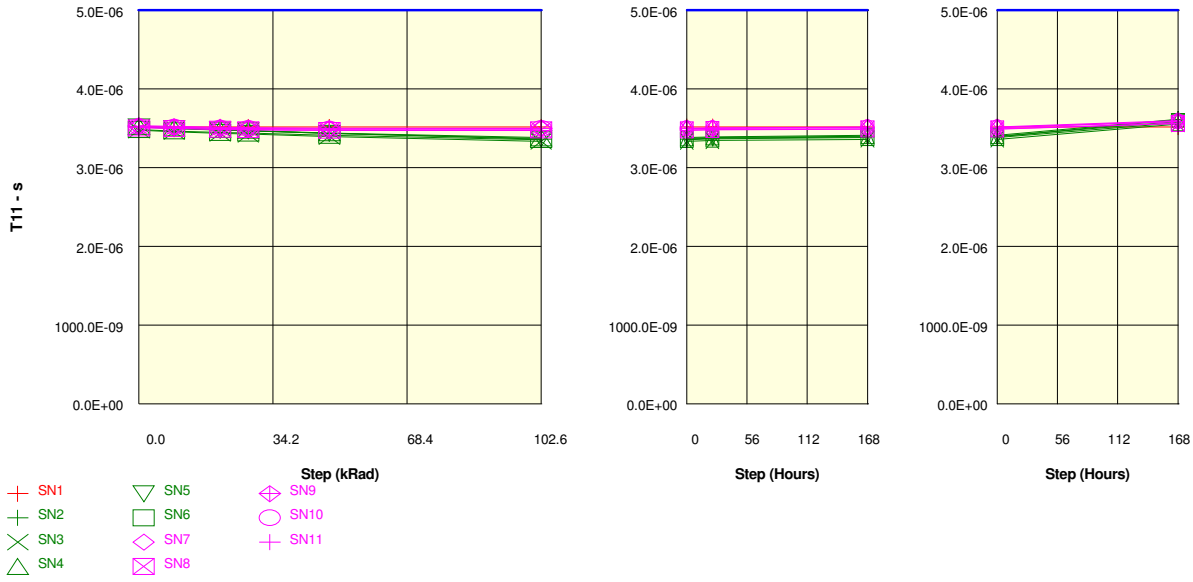
Measurements

T9_Z	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	45.4E-09	45.2E-09	44.8E-09	45.1E-09	45.0E-09	45.2E-09	45.1E-09	45.1E-09	45.0E-09
OFF samples									
SN7	45.9E-09	45.0E-09	44.5E-09	45.1E-09	45.3E-09	46.4E-09	46.0E-09	46.3E-09	47.7E-09
SN8	45.8E-09	45.1E-09	44.1E-09	44.9E-09	45.2E-09	46.1E-09	45.9E-09	46.2E-09	47.5E-09
SN9	45.8E-09	45.3E-09	44.6E-09	45.2E-09	45.7E-09	46.8E-09	46.4E-09	46.7E-09	48.0E-09
SN10	45.5E-09	45.0E-09	44.4E-09	45.2E-09	45.3E-09	46.6E-09	45.9E-09	46.4E-09	48.0E-09
SN11	45.8E-09	45.6E-09	44.6E-09	45.2E-09	45.8E-09	46.5E-09	46.3E-09	46.7E-09	47.9E-09
Statistics									
Min	45.5E-09	45.0E-09	44.1E-09	44.9E-09	45.2E-09	46.1E-09	45.9E-09	46.2E-09	47.5E-09
Max	45.9E-09	45.6E-09	44.6E-09	45.2E-09	45.8E-09	46.8E-09	46.4E-09	46.7E-09	48.0E-09
Average	45.8E-09	45.2E-09	44.4E-09	45.1E-09	45.5E-09	46.5E-09	46.1E-09	46.5E-09	47.8E-09
Sigma	135.6E-12	228.0E-12	185.5E-12	116.6E-12	241.7E-12	231.5E-12	209.8E-12	205.9E-12	193.9E-12

Drift Calculation

T9_Z	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-900.0E-12	-1.4E-09	-800.0E-12	-600.0E-12	500.0E-12	100.0E-12	400.0E-12	1.8E-09
SN8	-	-700.0E-12	-1.7E-09	-900.0E-12	-600.0E-12	300.0E-12	100.0E-12	400.0E-12	1.7E-09
SN9	-	-500.0E-12	-1.2E-09	-600.0E-12	-100.0E-12	1.0E-09	600.0E-12	900.0E-12	2.2E-09
SN10	-	-500.0E-12	-1.1E-09	-300.0E-12	-200.0E-12	1.1E-09	400.0E-12	900.0E-12	2.5E-09
SN11	-	-200.0E-12	-1.2E-09	-600.0E-12	0.0E+00	700.0E-12	500.0E-12	900.0E-12	2.1E-09
Average	-	-560.0E-12	-1.3E-09	-640.0E-12	-300.0E-12	720.0E-12	340.0E-12	700.0E-12	2.1E-09
Sigma	-	233.2E-12	213.5E-12	205.9E-12	253.0E-12	299.3E-12	205.9E-12	244.9E-12	287.1E-12

Parameter : Throughput time : T11
Test conditions : Iol=1.6mA; Ioh=500uA. Vcrossover 2.1V. Vol=0.4V. Voh=4V
Unit : s
Spec Limit Max : 5.0E-06
Spec limits are represented in bold lines on the graphic.



Measurements

T11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06
ON samples									
SN2	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.4E-06	3.4E-06	3.4E-06	3.4E-06	3.6E-06
SN3	3.5E-06	3.5E-06	3.4E-06	3.4E-06	3.4E-06	3.3E-06	3.3E-06	3.4E-06	3.6E-06
SN4	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.4E-06	3.4E-06	3.4E-06	3.4E-06	3.6E-06
SN5	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.4E-06	3.4E-06	3.4E-06	3.4E-06	3.6E-06
SN6	3.5E-06	3.5E-06	3.4E-06	3.4E-06	3.4E-06	3.4E-06	3.4E-06	3.4E-06	3.6E-06
Statistics									
Min	3.5E-06	3.5E-06	3.4E-06	3.4E-06	3.4E-06	3.3E-06	3.3E-06	3.4E-06	3.6E-06
Max	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.4E-06	3.4E-06	3.4E-06	3.4E-06	3.6E-06
Average	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.4E-06	3.4E-06	3.4E-06	3.4E-06	3.6E-06
Sigma	19.9E-09	19.2E-09	19.2E-09	19.0E-09	17.5E-09	16.2E-09	15.7E-09	16.4E-09	22.5E-09

Drift Calculation

T11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-20.8E-09	-43.9E-09	-54.1E-09	-88.1E-09	-157.9E-09	-148.0E-09	-128.8E-09	87.5E-09
SN3	-	-19.0E-09	-41.5E-09	-51.3E-09	-81.0E-09	-143.9E-09	-132.5E-09	-115.5E-09	79.0E-09
SN4	-	-19.6E-09	-39.1E-09	-49.8E-09	-81.0E-09	-143.3E-09	-132.9E-09	-114.4E-09	91.5E-09
SN5	-	-20.0E-09	-40.7E-09	-49.9E-09	-81.0E-09	-145.8E-09	-137.5E-09	-119.4E-09	69.4E-09
SN6	-	-18.5E-09	-36.7E-09	-46.0E-09	-73.0E-09	-129.0E-09	-119.9E-09	-103.8E-09	84.8E-09
Average	-	-19.6E-09	-40.4E-09	-50.2E-09	-80.8E-09	-144.0E-09	-134.2E-09	-116.4E-09	82.4E-09
Sigma	-	796.0E-12	2.4E-09	2.6E-09	4.8E-09	9.2E-09	9.1E-09	8.1E-09	7.7E-09

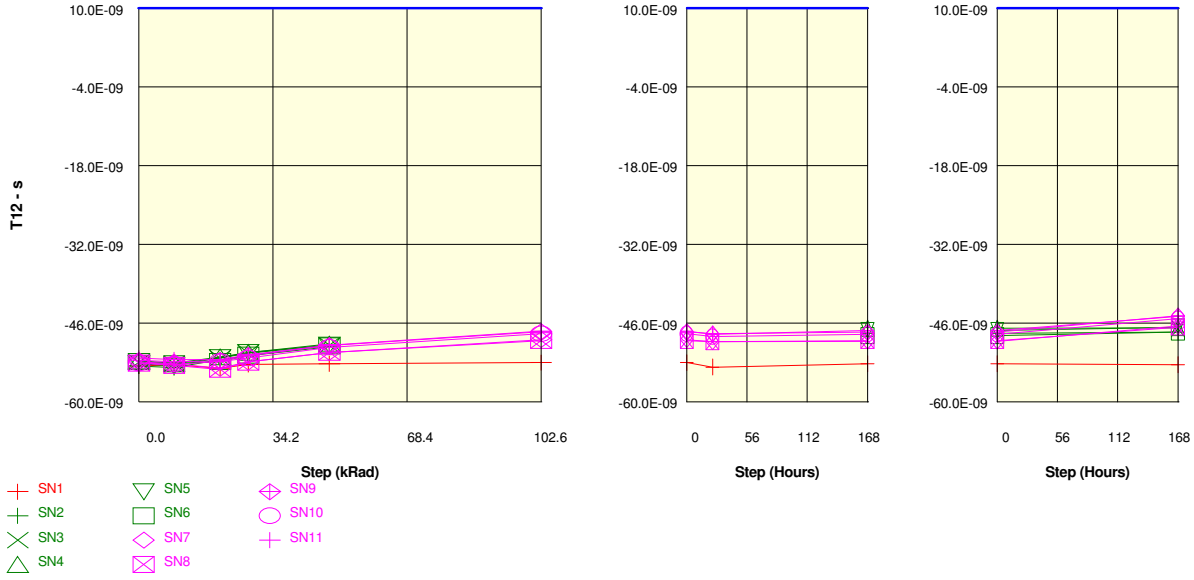
Measurements

T11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06
OFF samples									
SN7	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.6E-06
SN8	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.6E-06
SN9	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.6E-06
SN10	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.6E-06
SN11	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.6E-06
Statistics									
Min	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.6E-06
Max	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.6E-06
Average	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.5E-06	3.6E-06
Sigma	9.9E-09	9.4E-09	9.6E-09	9.5E-09	9.9E-09	10.6E-09	10.5E-09	9.9E-09	14.9E-09

Drift Calculation

T11	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-10.1E-09	-21.4E-09	-26.3E-09	-33.6E-09	-30.7E-09	-26.8E-09	-18.5E-09	64.9E-09
SN8	-	-8.4E-09	-19.9E-09	-23.3E-09	-30.9E-09	-26.5E-09	-21.7E-09	-13.2E-09	54.8E-09
SN9	-	-9.4E-09	-21.0E-09	-24.6E-09	-31.5E-09	-24.4E-09	-19.9E-09	-11.0E-09	63.6E-09
SN10	-	-9.2E-09	-20.9E-09	-25.3E-09	-33.6E-09	-26.9E-09	-22.2E-09	-13.7E-09	65.2E-09
SN11	-	-8.7E-09	-21.2E-09	-26.2E-09	-34.8E-09	-32.6E-09	-28.3E-09	-17.6E-09	53.3E-09
Average	-	-9.2E-09	-20.9E-09	-25.1E-09	-32.9E-09	-28.2E-09	-23.8E-09	-14.8E-09	60.4E-09
Sigma	-	588.6E-12	519.2E-12	1.1E-09	1.5E-09	3.0E-09	3.2E-09	2.8E-09	5.2E-09

Parameter : R//C to /CS setup : T12
Test conditions : Iol=1.6mA; Ioh=500uA. Vcrossover 2.1V. Vol=0.4V. Voh=4V
Unit : s
Spec Limit Max : 10.0E-09
Spec limits are represented in bold lines on the graphic.



Measurements

T12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-53.6E-09	-53.4E-09	-54.0E-09	-53.3E-09	-53.2E-09	-53.0E-09	-53.8E-09	-53.2E-09	-53.4E-09
ON samples									
SN2	-53.6E-09	-53.9E-09	-52.5E-09	-51.8E-09	-50.2E-09			-47.8E-09	-47.6E-09
SN3	-52.9E-09	-53.2E-09	-52.2E-09	-51.3E-09	-49.9E-09				-47.0E-09
SN4	-52.7E-09	-53.1E-09	-52.0E-09	-51.2E-09	-49.7E-09			-46.9E-09	-46.8E-09
SN5	-53.2E-09	-53.6E-09	-52.1E-09	-51.2E-09	-49.9E-09			-47.3E-09	-46.7E-09
SN6	-52.8E-09	-53.2E-09	-52.8E-09	-51.7E-09	-50.0E-09			-48.2E-09	-47.6E-09
Statistics									
Min	-53.6E-09	-53.9E-09	-52.8E-09	-51.8E-09	-50.2E-09	-	-	-48.2E-09	-47.6E-09
Max	-52.7E-09	-53.1E-09	-52.0E-09	-51.2E-09	-49.7E-09	-	-	-46.9E-09	-46.7E-09
Average	-53.0E-09	-53.4E-09	-52.3E-09	-51.4E-09	-49.9E-09	-	-	-47.6E-09	-47.1E-09
Sigma	326.2E-12	303.3E-12	292.6E-12	257.7E-12	162.5E-12	-	-	492.4E-12	387.8E-12

Drift Calculation

T12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-300.0E-12	1.1E-09	1.8E-09	3.4E-09			5.8E-09	6.0E-09
SN3	-	-300.0E-12	700.0E-12	1.6E-09	3.0E-09				5.9E-09
SN4	-	-400.0E-12	700.0E-12	1.5E-09	3.0E-09			5.8E-09	5.9E-09
SN5	-	-400.0E-12	1.1E-09	2.0E-09	3.3E-09			5.9E-09	6.5E-09
SN6	-	-400.0E-12	0.0E+00	1.1E-09	2.8E-09			4.6E-09	5.2E-09
Average	-	-360.0E-12	720.0E-12	1.6E-09	3.1E-09			5.5E-09	5.9E-09
Sigma	-	49.0E-12	402.0E-12	303.3E-12	219.1E-12			535.6E-12	414.7E-12

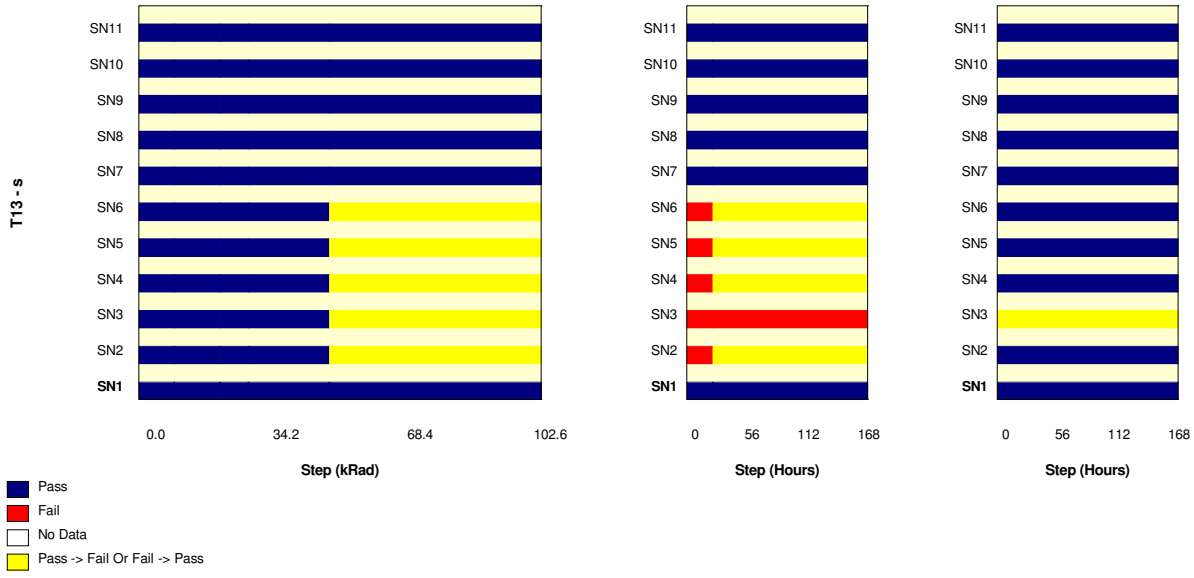
Measurements

T12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	-53.6E-09	-53.4E-09	-54.0E-09	-53.3E-09	-53.2E-09	-53.0E-09	-53.8E-09	-53.2E-09	-53.4E-09
OFF samples									
SN7	-52.9E-09	-53.2E-09	-54.0E-09	-52.9E-09	-51.2E-09	-48.9E-09	-49.3E-09	-49.2E-09	-46.5E-09
SN8	-53.1E-09	-53.5E-09	-54.2E-09	-52.9E-09	-51.2E-09	-49.1E-09	-49.3E-09	-49.1E-09	-46.7E-09
SN9	-52.6E-09	-52.9E-09	-52.7E-09	-51.8E-09	-50.0E-09	-47.5E-09	-47.9E-09	-47.6E-09	-44.7E-09
SN10	-53.1E-09	-53.3E-09	-52.8E-09	-52.2E-09	-50.3E-09	-47.9E-09	-48.4E-09	-48.0E-09	-45.2E-09
SN11	-52.2E-09	-52.5E-09	-52.5E-09	-51.6E-09	-49.9E-09	-47.4E-09	-48.0E-09	-47.3E-09	-44.8E-09
Statistics									
Min	-53.1E-09	-53.5E-09	-54.2E-09	-52.9E-09	-51.2E-09	-49.1E-09	-49.3E-09	-49.2E-09	-46.7E-09
Max	-52.2E-09	-52.5E-09	-52.5E-09	-51.6E-09	-49.9E-09	-47.4E-09	-47.9E-09	-47.3E-09	-44.7E-09
Average	-52.8E-09	-53.1E-09	-53.2E-09	-52.3E-09	-50.5E-09	-48.2E-09	-48.6E-09	-48.2E-09	-45.6E-09
Sigma	342.9E-12	348.7E-12	711.6E-12	541.8E-12	570.6E-12	708.8E-12	611.2E-12	776.1E-12	851.8E-12

Drift Calculation

T12	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-300.0E-12	-1.1E-09	0.0E+00	1.7E-09	4.0E-09	3.6E-09	3.7E-09	6.4E-09
SN8	-	-400.0E-12	-1.1E-09	200.0E-12	1.9E-09	4.0E-09	3.8E-09	4.0E-09	6.4E-09
SN9	-	-300.0E-12	-100.0E-12	800.0E-12	2.6E-09	5.1E-09	4.7E-09	5.0E-09	7.9E-09
SN10	-	-200.0E-12	300.0E-12	900.0E-12	2.8E-09	5.2E-09	4.7E-09	5.1E-09	7.9E-09
SN11	-	-300.0E-12	-300.0E-12	600.0E-12	2.3E-09	4.8E-09	4.2E-09	4.9E-09	7.4E-09
Average	-	-300.0E-12	-460.0E-12	500.0E-12	2.3E-09	4.6E-09	4.2E-09	4.5E-09	7.2E-09
Sigma	-	63.2E-12	557.1E-12	346.4E-12	412.8E-12	523.1E-12	451.7E-12	574.8E-12	678.2E-12

Parameter : Time between conversions : T13
Test conditions : GO NOGO Functionality tested for the two extreme values of T13
Unit : s
Spec Limit Min : 5.0E-06
Spec Limit Max : 1.0E-03
Spec limits are represented in bold lines on the graphic.



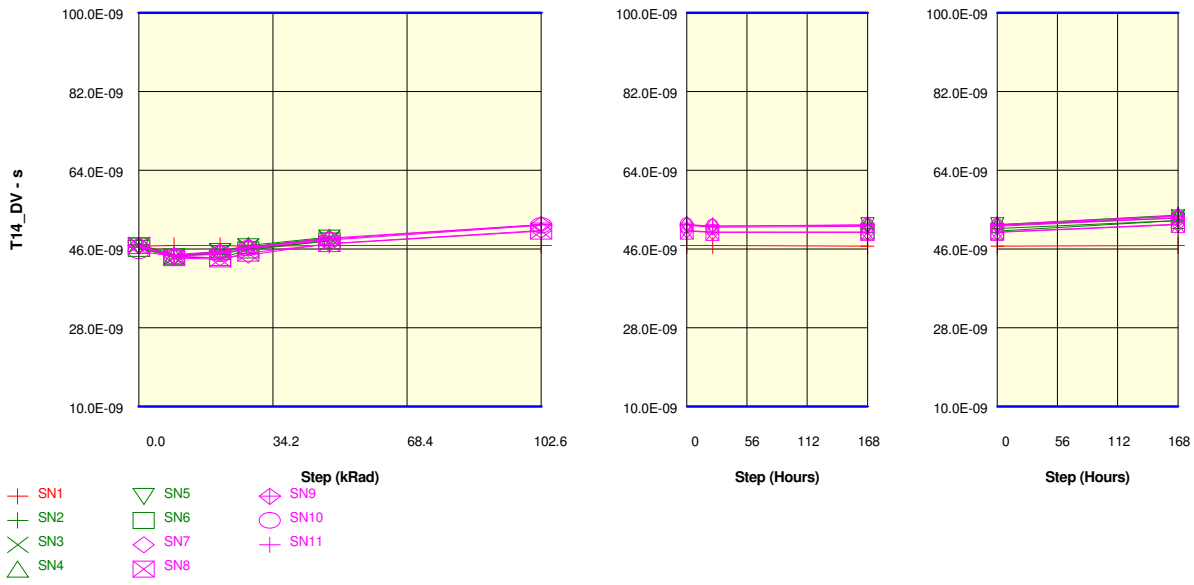
Measurements

T13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
ON samples									
SN2	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	PASS	PASS
SN3	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	FAIL	PASS
SN4	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	PASS	PASS
SN5	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	PASS	PASS
SN6	PASS	PASS	PASS	PASS	PASS	FAIL	FAIL	PASS	PASS

Measurements

T13	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
OFF samples									
SN7	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN8	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN9	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN10	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
SN11	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Parameter : Bus access and byte delay : T14_DV
Test conditions : Iol=1.6mA; Ioh=500uA. Vcrossover 2.1V. Vol=0.4V. Voh=4V. all data valid
Unit : s
Spec Limit Min : 10.0E-09
Spec Limit Max : 100.0E-09
Spec limits are represented in bold lines on the graphic.



Measurements

T14_DV	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	46.7E-09	46.8E-09	46.8E-09	46.7E-09	46.8E-09	46.8E-09	46.8E-09	46.7E-09	46.8E-09
ON samples									
SN2	47.0E-09	44.8E-09	44.8E-09	46.1E-09	47.8E-09			50.7E-09	52.5E-09
SN3	47.0E-09	44.3E-09	45.4E-09	46.5E-09	48.4E-09				53.3E-09
SN4	46.8E-09	44.4E-09	45.5E-09	46.8E-09	48.7E-09			51.6E-09	53.8E-09
SN5	46.7E-09	44.1E-09	45.5E-09	46.5E-09	48.5E-09			51.4E-09	53.1E-09
SN6	46.2E-09	44.2E-09	44.0E-09	45.8E-09	47.9E-09			50.1E-09	52.5E-09
Statistics									
Min	46.2E-09	44.1E-09	44.0E-09	45.8E-09	47.8E-09	-	-	50.1E-09	52.5E-09
Max	47.0E-09	44.8E-09	45.5E-09	46.8E-09	48.7E-09	-	-	51.6E-09	53.8E-09
Average	46.7E-09	44.4E-09	45.0E-09	46.3E-09	48.3E-09	-	-	51.0E-09	53.0E-09
Sigma	293.9E-12	241.7E-12	581.7E-12	349.9E-12	349.9E-12	-	-	593.7E-12	496.4E-12

Drift Calculation

T14_DV	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	-2.2E-09	-2.2E-09	-900.0E-12	800.0E-12			3.7E-09	5.5E-09
SN3	-	-2.7E-09	-1.6E-09	-500.0E-12	1.4E-09				6.3E-09
SN4	-	-2.4E-09	-1.3E-09	0.0E+00	1.9E-09			4.8E-09	7.0E-09
SN5	-	-2.6E-09	-1.2E-09	-200.0E-12	1.8E-09			4.7E-09	6.4E-09
SN6	-	-2.0E-09	-2.2E-09	-400.0E-12	1.7E-09			3.9E-09	6.3E-09
Average	-	-2.4E-09	-1.7E-09	-400.0E-12	1.5E-09			4.3E-09	6.3E-09
Sigma	-	256.1E-12	429.0E-12	303.3E-12	397.0E-12			481.5E-12	477.5E-12

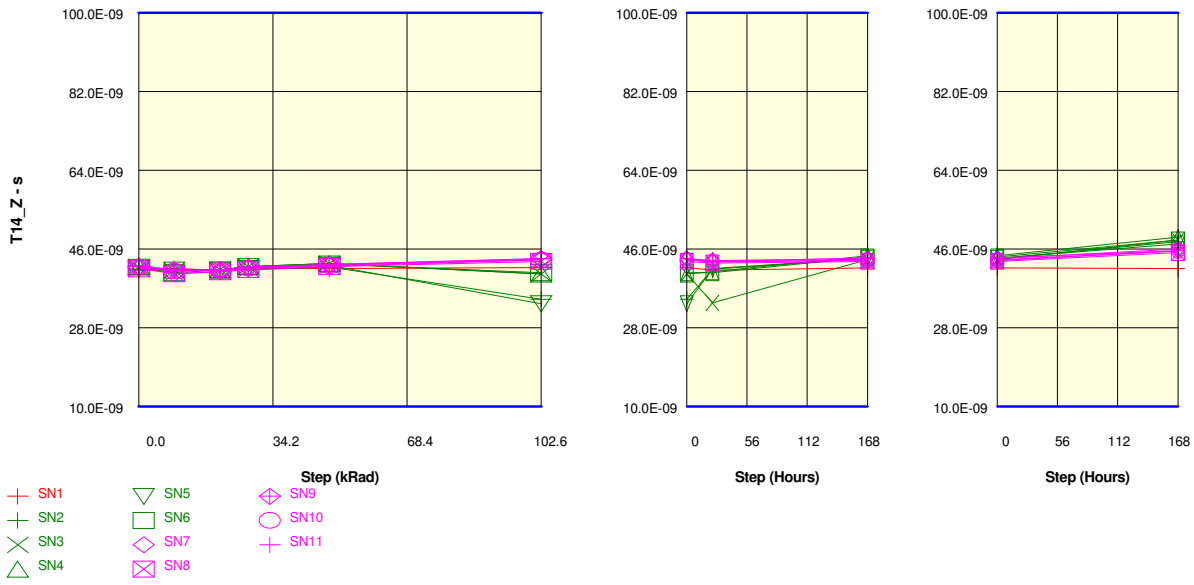
Measurements

T14_DV	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	46.7E-09	46.8E-09	46.8E-09	46.7E-09	46.8E-09	46.8E-09	46.8E-09	46.7E-09	46.8E-09
OFF samples									
SN7	46.8E-09	44.4E-09	44.0E-09	44.6E-09	47.3E-09	50.3E-09	49.9E-09	49.9E-09	51.7E-09
SN8	46.8E-09	44.0E-09	43.7E-09	45.1E-09	47.2E-09	50.1E-09	49.8E-09	49.8E-09	51.6E-09
SN9	46.8E-09	44.5E-09	45.3E-09	46.4E-09	48.3E-09	51.6E-09	51.3E-09	51.4E-09	53.5E-09
SN10	45.5E-09	44.3E-09	44.9E-09	46.2E-09	48.1E-09	51.4E-09	51.0E-09	51.2E-09	53.1E-09
SN11	46.4E-09	44.7E-09	45.5E-09	46.5E-09	48.5E-09	51.6E-09	51.2E-09	51.6E-09	53.6E-09
Statistics									
Min	45.5E-09	44.0E-09	43.7E-09	44.6E-09	47.2E-09	50.1E-09	49.8E-09	49.8E-09	51.6E-09
Max	46.8E-09	44.7E-09	45.5E-09	46.5E-09	48.5E-09	51.6E-09	51.3E-09	51.6E-09	53.6E-09
Average	46.5E-09	44.4E-09	44.7E-09	45.8E-09	47.9E-09	51.0E-09	50.6E-09	50.8E-09	52.7E-09
Sigma	504.4E-12	231.5E-12	711.1E-12	765.8E-12	530.7E-12	660.3E-12	653.0E-12	770.5E-12	874.1E-12

Drift Calculation

T14_DV	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-2.4E-09	-2.8E-09	-2.2E-09	500.0E-12	3.5E-09	3.1E-09	3.1E-09	4.9E-09
SN8	-	-2.8E-09	-3.1E-09	-1.7E-09	400.0E-12	3.3E-09	3.0E-09	3.0E-09	4.8E-09
SN9	-	-2.3E-09	-1.5E-09	-400.0E-12	1.5E-09	4.8E-09	4.5E-09	4.6E-09	6.7E-09
SN10	-	-1.2E-09	-600.0E-12	700.0E-12	2.6E-09	5.9E-09	5.5E-09	5.7E-09	7.6E-09
SN11	-	-1.7E-09	-900.0E-12	100.0E-12	2.1E-09	5.2E-09	4.8E-09	5.2E-09	7.2E-09
Average	-	-2.1E-09	-1.8E-09	-700.0E-12	1.4E-09	4.5E-09	4.2E-09	4.3E-09	6.2E-09
Sigma	-	563.6E-12	1.0E-09	1.1E-09	865.8E-12	997.2E-12	978.6E-12	1.1E-09	1.2E-09

Parameter : Bus access and byte delay : T14_Z
Test conditions : Iol=1.6mA; Ioh=500uA. Vcrossover 2.1V. Vol=0.4V. Voh=4V. all data Z
Unit : s
Spec Limit Min : 10.0E-09
Spec Limit Max : 100.0E-09
Spec limits are represented in bold lines on the graphic.



Measurements

T14_Z	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	41.4E-09	41.5E-09	41.2E-09	41.5E-09	41.5E-09	41.8E-09	41.2E-09	41.7E-09	41.5E-09
ON samples									
SN2	41.2E-09	41.2E-09	41.2E-09	41.3E-09	41.9E-09	34.5E-09	41.4E-09	43.8E-09	47.7E-09
SN3	41.9E-09	41.1E-09	41.3E-09	42.0E-09	42.7E-09	40.3E-09	33.7E-09	43.6E-09	48.1E-09
SN4	42.0E-09	41.2E-09	41.3E-09	42.0E-09	42.7E-09	40.3E-09	40.8E-09	44.5E-09	48.7E-09
SN5	41.6E-09	41.2E-09	41.2E-09	41.6E-09	42.3E-09	33.5E-09	41.5E-09	43.9E-09	47.2E-09
SN6	41.9E-09	40.6E-09	41.2E-09	42.0E-09	42.6E-09	40.6E-09	40.6E-09	44.2E-09	48.1E-09
Statistics									
Min	41.2E-09	40.6E-09	41.2E-09	41.3E-09	41.9E-09	33.5E-09	33.7E-09	43.6E-09	47.2E-09
Max	42.0E-09	41.2E-09	41.3E-09	42.0E-09	42.7E-09	40.6E-09	41.5E-09	44.5E-09	48.7E-09
Average	41.7E-09	41.1E-09	41.2E-09	41.8E-09	42.4E-09	37.8E-09	39.6E-09	44.0E-09	48.0E-09
Sigma	292.6E-12	233.2E-12	49.0E-12	285.7E-12	307.2E-12	3.2E-09	3.0E-09	316.2E-12	496.4E-12

Drift Calculation

T14_Z	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
ON samples									
SN2	-	0.0E+00	0.0E+00	100.0E-12	700.0E-12	-6.7E-09	200.0E-12	2.6E-09	6.5E-09
SN3	-	-800.0E-12	-600.0E-12	100.0E-12	800.0E-12	-1.6E-09	-8.2E-09	1.7E-09	6.2E-09
SN4	-	-800.0E-12	-700.0E-12	0.0E+00	700.0E-12	-1.7E-09	-1.2E-09	2.5E-09	6.7E-09
SN5	-	-400.0E-12	-400.0E-12	0.0E+00	700.0E-12	-8.1E-09	-100.0E-12	2.3E-09	5.6E-09
SN6	-	-1.3E-09	-700.0E-12	100.0E-12	700.0E-12	-1.3E-09	-1.3E-09	2.3E-09	6.2E-09
Average	-	-660.0E-12	-480.0E-12	60.0E-12	720.0E-12	-3.9E-09	-2.1E-09	2.3E-09	6.2E-09
Sigma	-	436.3E-12	263.8E-12	49.0E-12	40.0E-12	2.9E-09	3.1E-09	312.4E-12	372.0E-12

Measurements

T14_Z	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
SN1_REF	41.4E-09	41.5E-09	41.2E-09	41.5E-09	41.5E-09	41.8E-09	41.2E-09	41.7E-09	41.5E-09
OFF samples									
SN7	41.8E-09	40.4E-09	40.8E-09	41.7E-09	42.3E-09	43.6E-09	43.2E-09	43.4E-09	45.6E-09
SN8	41.5E-09	40.4E-09	40.8E-09	41.3E-09	42.0E-09	43.2E-09	42.8E-09	43.2E-09	45.2E-09
SN9	42.0E-09	41.2E-09	41.2E-09	41.8E-09	42.4E-09	43.8E-09	43.4E-09	43.8E-09	46.0E-09
SN10	41.9E-09	41.0E-09	41.2E-09	41.6E-09	42.1E-09	43.5E-09	43.0E-09	43.5E-09	45.6E-09
SN11	42.3E-09	41.3E-09	41.3E-09	41.9E-09	42.5E-09	43.8E-09	43.2E-09	44.0E-09	45.7E-09
Statistics									
Min	41.5E-09	40.4E-09	40.8E-09	41.3E-09	42.0E-09	43.2E-09	42.8E-09	43.2E-09	45.2E-09
Max	42.3E-09	41.3E-09	41.3E-09	41.9E-09	42.5E-09	43.8E-09	43.4E-09	44.0E-09	46.0E-09
Average	41.9E-09	40.9E-09	41.1E-09	41.7E-09	42.3E-09	43.6E-09	43.1E-09	43.6E-09	45.6E-09
Sigma	260.8E-12	387.8E-12	215.4E-12	205.9E-12	185.5E-12	222.7E-12	204.0E-12	285.7E-12	256.1E-12

Drift Calculation

T14_Z	0 kRad	9 kRad	20.7 kRad	27.9 kRad	48.6 kRad	102.6 kRad	24 Hours	168 Hours	168 Hours
OFF samples									
SN7	-	-1.4E-09	-1000.0E-12	-100.0E-12	500.0E-12	1.8E-09	1.4E-09	1.6E-09	3.8E-09
SN8	-	-1.1E-09	-700.0E-12	-200.0E-12	500.0E-12	1.7E-09	1.3E-09	1.7E-09	3.7E-09
SN9	-	-800.0E-12	-800.0E-12	-200.0E-12	400.0E-12	1.8E-09	1.4E-09	1.8E-09	4.0E-09
SN10	-	-900.0E-12	-700.0E-12	-300.0E-12	200.0E-12	1.6E-09	1.1E-09	1.6E-09	3.7E-09
SN11	-	-1.0E-09	-1.0E-09	-400.0E-12	200.0E-12	1.5E-09	900.0E-12	1.7E-09	3.4E-09
Average	-	-1.0E-09	-840.0E-12	-240.0E-12	360.0E-12	1.7E-09	1.2E-09	1.7E-09	3.7E-09
Sigma	-	205.9E-12	135.6E-12	102.0E-12	135.6E-12	116.6E-12	193.9E-12	74.8E-12	193.9E-12