



# TOTAL DOSE RADIATION TEST REPORT

**Part Type : Am29F016D**

**2M x 8-Bit Flash Memory**

**Package : TSOP- 40**

**Manufacturer: AMD**

**Report Reference : ESA\_QCA0314T\_C**

**Issue : 01**




**Date : July 23rd 2003**

**ESA Contract No 13528/99/NL/MV COO-13 dated 11/10/02**

European Space Agency Contract Report

The work described in this report was done under ESA contract.  
Responsibility for the contents resides in the author or organization that prepared it

**ESTEC Technical Officer: R. Harboe Sorensen**

<b>Hirex reference :</b>	HRX/TID/0202	Issue : 01	Date :	July 23 <sup>rd</sup> 2003
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<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**CHANGE RECORD**

Issue	Date	Page	DESCRIPTION OF CHANGES
01	July 23rd 2003	All	Original Issue.

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**TOTAL DOSE RADIATION TEST REPORT**  
**on**  
**AMD Am29F016D 2M x 8-Bit Flash Memory**

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<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

## 1 Abstract

Under ESA Contract No 13528/99/NL/MV COO-13 dated 11/10/02 covering "Radiation Evaluation of COTS Semiconductor Components: "Radiation evaluation of parts for new VME design", Flash Memories were radiation assessed.

Results from these assessments covering Single Event Effects on AMD Am29F016D and Am29F032B can be found in ESA-QCA0211S\_C and on STMicroelectronics on M29F016B and M29F032D in ESA\_QCA0212S\_C.

Here Total Ionizing Dose effects (TID) will be reported for AMD Am29F016D.

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

## 2 Introduction

A total dose radiation verification test of the AMD Am29F016D 2M x 8-Bit Flash Memory has been performed with an accumulated dose of about 10 Krad(Si) at an average dose rate of 300 rad(Si)/hour, in response to ESA Contract No 13528/99/NL/MV COO-13 dated 11/10/02.

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 ESA.

Test has been performed in accordance with Hirex total dose irradiation test plan referenced: TDP n° 0080 issue 01 dated 03/06/2003.

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

## 3 Applicable and Reference Documents

### 3.1 Applicable Documents

- Hirex Total Dose Irradiation Test Plan TDP n° 0080 issue 01 dated 03/06/2003.
- Hirex proposal: HRX/PRO/0509 dated 16/09/2002.

### 3.2 Reference Documents

- Datasheet from AMD dated 03/23/2001, Pub.: 21444, Rev.: E, Amend.: +2

## 4 Test Samples

6 samples of the Am29F016D device were tested (4 ON + 1 OFF + 1 control sample).

TID Serial Number	Allocation
Ref. 1	Control
2	Bias ON
3	Bias ON
4	Bias ON
5	Bias ON
6	Bias OFF

Identification of the Am29F016D is given below:

<b>Part Number:</b>	AM29F016D	<b>Top Marking:</b>	AM29F016D -70E4C 0121FPA H 1999 AMD
<b>Date Code:</b>	1999	<b>Project:</b>	NA

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Part Type :	Am29F016D	Manufacturer :	AMD

## 5 Experimental Conditions

### 5.1 Radiation Source Dose Rate and Annealing

The dose exposures were performed at CERT-ONERA. 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. The irradiation conditions used for this test are provided in the following table:

Irradiation Steps	Dose rate	Annealing steps	Temperature
krads	krads/h	hours	°C
0			
5	0,30		25
10	0,30		25
		24	25
		168	100

### 5.2 Bias during Dose Exposures and Measurements conditions

#### 5.2.1 Bias conditions

During exposures dedicated test board was used mounted on a special board-holder made for irradiation. The test board allowed to bias the devices in accordance with the electrical circuit provided in Figure 1.

During annealing steps the same stress conditions were applied at 25°C and 100°C.

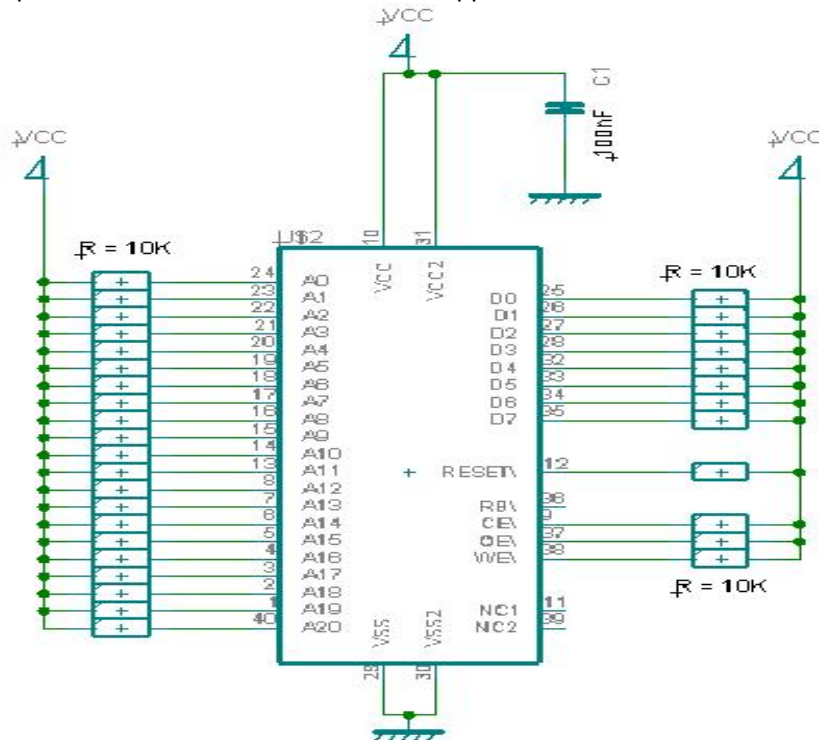


Figure 1 : Bias Conditions during Irradiation Exposures and Annealing steps

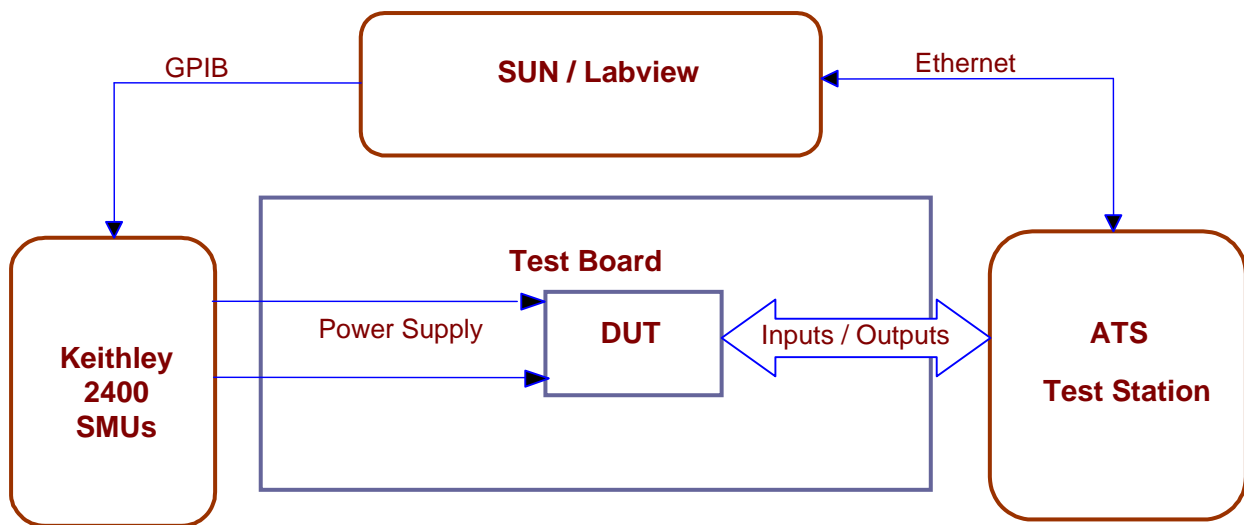
<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

### 5.2.2 Electrical Measurements

Electrical parameters test program principle for Am29F016D is provided in Figure 2.

The test Setup for this DUT includes an IMS ATS Test Station, a SUN workstation, a DC test system Keithley 2400 and a dedicated test fixture board.

**Figure 2 : Am29F016D test program principle**



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

Electrical Parameters to be tested					
Parameter Description	Symbol	Test Condition	Min.	Max.	Unit
Functional Test (Read & Write)	FT_00	Pattern : 00	-	-	-
Functional Test (Erase & Read)	FT_FF	Pattern : FF	-	-	-
Retention Test (Read)	FT_Ret	Patterns : 00; $V_{IN} = V_{IL}$ or $V_{IH}$ (Note 1)	-	-	-
Input Leakage Current	$I_{LI}$	$V_{IN} = V_{CC}$ or Gnd, $V_{CC} = V_{CCMax}$	-1	1	$\mu A$
Supply Current (Read)	$I_{CC1}$	$CE^* = V_{IL}$ , $OE^* = V_{IH}$	-	40	mA
Supply Current (Program/Erase)	$I_{CC2}$	$CE^* = V_{IL}$ , $OE^* = V_{IH}$	-	60	mA
Standby Current (CE* Controlled)	$I_{CC3}$	$CE^* = V_{IH}$ , $RESET^* = V_{IH}$ , $V_{CC} = V_{CCMax}$	-	1	mA
Input Low Voltage	$V_{IL}$	-	0.8	-	V
Input High Voltage	$V_{IH}$	-	-	2	V
Output Low Voltage	$V_{OL}$	$I_{OL} = 12mA$ , $V_{CC} = V_{CCMin}$	-	0.45	V
Output High Voltage	$V_{OH}$	$I_{OH} = -2.5mA$ , $V_{CC} = V_{CCMin}$	$0.85 V_{CC}$	-	V
Read Cycle Time	$t_{AVAV}$	-	-	70	ns
Address to Output Delay	$t_{AVQV}$	$CE^* = V_{IL}$ , $OE^* = V_{IL}$	-	70	ns
Chip Enable to Output Delay	$t_{ELQV}$	$OE^* = V_{IL}$	-	70	ns
Output Enable to Output Delay	$t_{GLQV}$	-	-	40	ns
Output Enable to Output HiZ	$t_{GHQZ}$	-	-	20	ns
Chip Enable to Output HiZ	$t_{EHQZ}$	-	-	20	ns
Write Cycle Time	$t_{AVAV}$	-	-	70	ns
Address Setup Time	$t_{AVWL}$	-	-	0	ns
Address Hold Time	$t_{WLAX}$	-	-	40	ns
Data Setup Time	$t_{DVWH}$	-	-	40	ns
Data Hold Time	$t_{WHDX}$	-	-	0	ns
CE* Setup Time	$t_{ELWL}$	-	-	0	ns
CE* Hold Time	$t_{WHEH}$	-	-	0	ns
Write Pulse Width	$t_{WLWH}$	-	-	40	ns
Write Pulse Width High	$t_{WHWL}$	-	-	20	ns

Note 1: This test consists in Writing 00 at exposure Step S-1 and Reading memory content at exposure Step S.

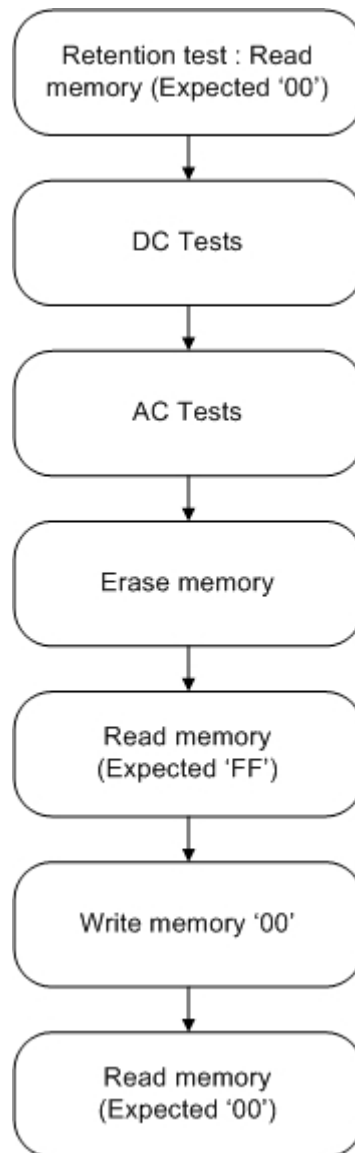
**Table 1: Measured electrical parameters**



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
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### 5.2.3 Electrical measurements test sequence

The test sequence organisation applied for each memory at any electrical measurement steps after exposures and annealing is provided in figure 3.



**Figure 3 : Electrical measurements test sequence**

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

## 6 Conclusion

A Total Ionizing Dose verification test was carried out by Hirex Engineering under ESA contract on the AMD Am29F016D 2M x 8-Bit Flash Memory in TSOP-40 package.

5 samples plus one control sample were used during testing. They were exposed to radiation using a Co-60 source at an average dose rate of 300 rad(Si)/hour at room temperature.

Functionality of the memories was lost at 10Krad(Si) step. Thus, writing into and reading from the memory became impossible.

It should be noted that no recovery of this functionality (including retention) was observed during annealing steps.

The most affected parameter was  $I_{CC3}$  (standby current CE\* controlled) at 10Krad(Si), where a significant drift was observed but within specification limits. This parameter has partially recovered during annealing.

In correlation with functional failures observed, some parameters were found out of specification limits, in particular: Output low and high voltages ( $V_{oh}$ ,  $V_{ol}$ ) and most of the timing parameters.

It is important to highlight that sample #6 biased off during exposures and annealing remained functional and did not exhibit any parametric failure during testing.

All other parameters remained within specification limits all along testing.

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

## 7 Test Results

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

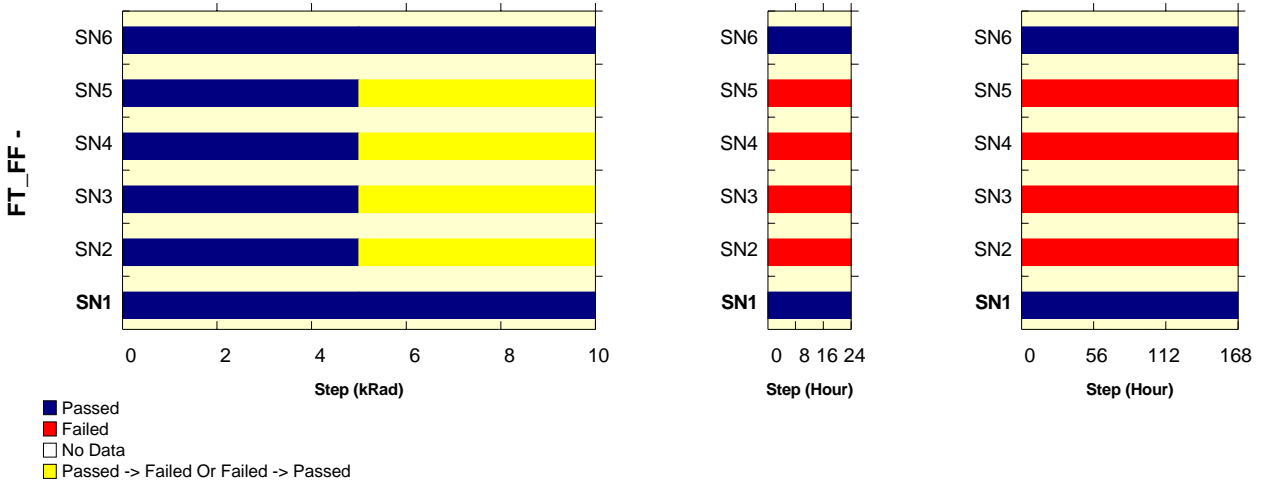
**Note on tables and graphics:**

In some cases, it may appear missing points in tables and graphs, this situation corresponds to a failure corresponding to an out of range measurement.

$I_{LIL}$  data has been inverted for a better visibility with log plots.

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID  
Parameter : Functional Test : FT\_FF  
Pattern = FF. Vin = Vil or Vih  
Unit :  
No spec limit applicable.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	PASS	PASS	PASS
SN2	PASS	PASS	FAIL
SN3	PASS	PASS	FAIL
SN4	PASS	PASS	FAIL
SN5	PASS	PASS	FAIL
SN6	PASS	PASS	PASS

Test TST002 : Annealing 24h

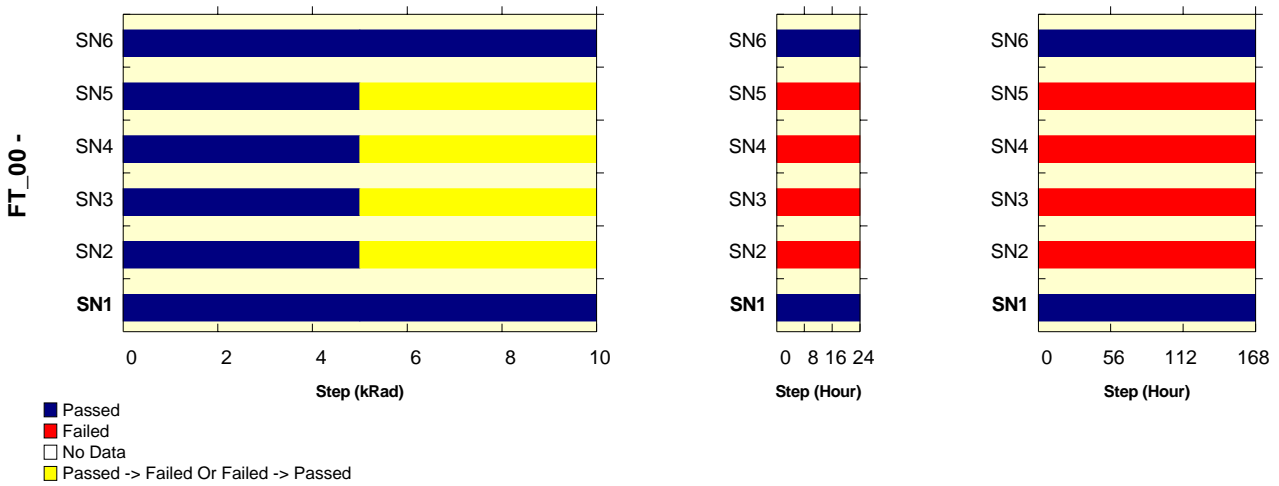
	0 Hour	24 Hour
SN1	PASS	PASS
SN2	FAIL	FAIL
SN3	FAIL	FAIL
SN4	FAIL	FAIL
SN5	FAIL	FAIL
SN6	PASS	PASS

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	PASS	PASS
SN2	FAIL	FAIL
SN3	FAIL	FAIL
SN4	FAIL	FAIL
SN5	FAIL	FAIL
SN6	PASS	PASS

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID  
Parameter : Functional Test : FT\_00  
Pattern = 00, Vin = Vil or Vih  
Unit :  
No spec limit applicable.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	PASS	PASS	PASS
SN2	PASS	PASS	FAIL
SN3	PASS	PASS	FAIL
SN4	PASS	PASS	FAIL
SN5	PASS	PASS	FAIL
SN6	PASS	PASS	PASS

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	PASS	PASS
SN2	FAIL	FAIL
SN3	FAIL	FAIL
SN4	FAIL	FAIL
SN5	FAIL	FAIL
SN6	PASS	PASS

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	PASS	PASS
SN2	FAIL	FAIL
SN3	FAIL	FAIL
SN4	FAIL	FAIL
SN5	FAIL	FAIL
SN6	PASS	PASS

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

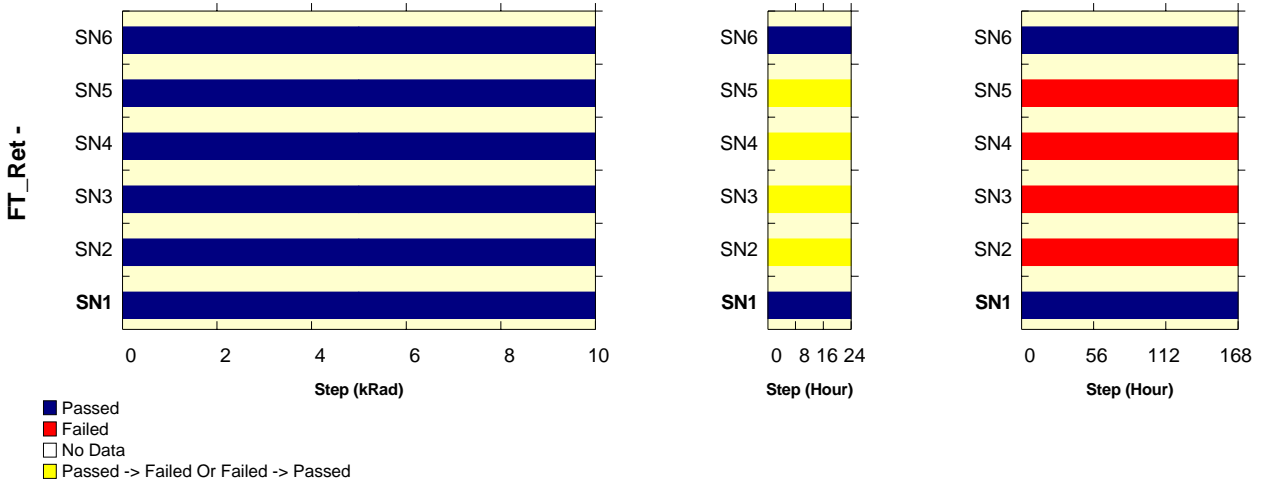
Test conditions : TID

Parameter : Functional Test : FT\_Ret

Retention Test. Pattern = 00. Vin = Vil or Vih

Unit :

No spec limit applicable.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	PASS	PASS	PASS
SN2	PASS	PASS	PASS
SN3	PASS	PASS	PASS
SN4	PASS	PASS	PASS
SN5	PASS	PASS	PASS
SN6	PASS	PASS	PASS

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	PASS	PASS
SN2	PASS	FAIL
SN3	PASS	FAIL
SN4	PASS	FAIL
SN5	PASS	FAIL
SN6	PASS	PASS

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	PASS	PASS
SN2	FAIL	FAIL
SN3	FAIL	FAIL
SN4	FAIL	FAIL
SN5	FAIL	FAIL
SN6	PASS	PASS

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

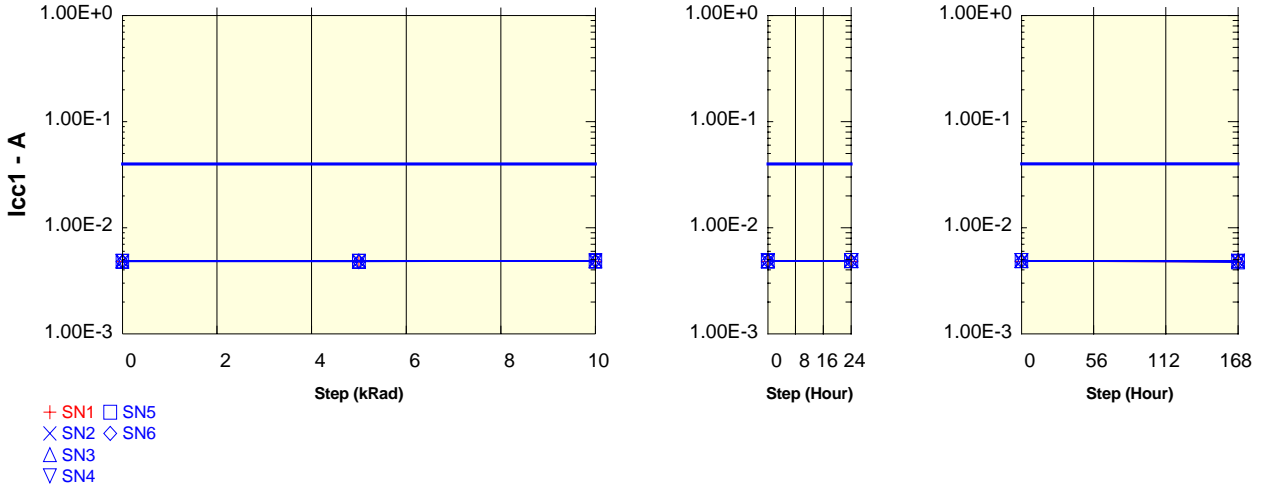
Parameter : Supply Current (Read) : Icc1

CE\* = Vil. OE\* = Vih

Unit : A

Spec Limit Max : 4.00E-2

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.82E-3	4.82E-3	4.82E-3
SN2	4.84E-3	4.84E-3	4.89E-3
SN3	4.86E-3	4.86E-3	4.90E-3
SN4	4.82E-3	4.82E-3	4.87E-3
SN5	4.82E-3	4.82E-3	4.85E-3
SN6	4.80E-3	4.80E-3	4.84E-3
Statistics			
Min	4.80E-3	4.80E-3	4.84E-3
Max	4.86E-3	4.86E-3	4.90E-3
Mean	4.83E-3	4.83E-3	4.87E-3
Sigma	2.25E-5	2.26E-5	2.56E-5

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.82E-3	4.82E-3
SN2	4.89E-3	4.89E-3
SN3	4.90E-3	4.90E-3
SN4	4.87E-3	4.91E-3
SN5	4.85E-3	4.90E-3
SN6	4.84E-3	4.83E-3
Statistics		
Min	4.84E-3	4.83E-3
Max	4.90E-3	4.91E-3
Mean	4.87E-3	4.89E-3
Sigma	2.56E-5	3.04E-5

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.82E-3	4.77E-3
SN2	4.89E-3	4.85E-3
SN3	4.90E-3	4.89E-3
SN4	4.91E-3	4.86E-3
SN5	4.90E-3	4.76E-3
SN6	4.83E-3	4.75E-3
Statistics		
Min	4.83E-3	4.75E-3
Max	4.91E-3	4.89E-3
Mean	4.89E-3	4.82E-3
Sigma	3.04E-5	6.23E-5

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

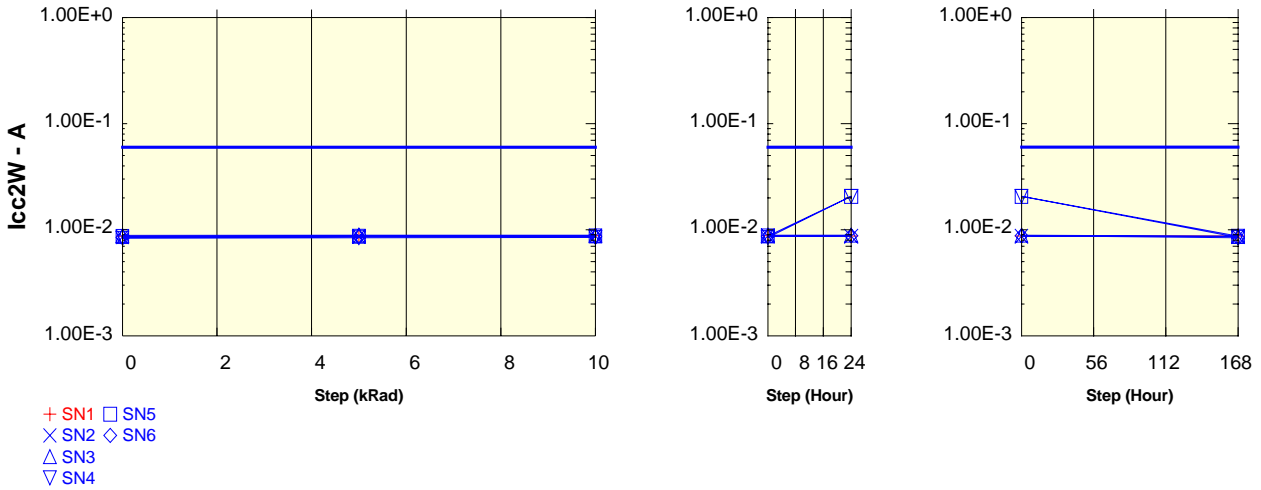
Parameter : Supply Current (Program) : Icc2W

CE\* = Vil. OE\* = Vih

Unit : A

Spec Limit Max : 6.00E-2

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	8.70E-3	8.64E-3	8.77E-3
SN2	8.56E-3	8.66E-3	8.72E-3
SN3	8.83E-3	8.89E-3	8.91E-3
SN4	8.29E-3	8.42E-3	8.46E-3
SN5	8.65E-3	8.71E-3	8.76E-3
SN6	8.51E-3	8.58E-3	8.63E-3
Statistics			
Min	8.29E-3	8.42E-3	8.46E-3
Max	8.83E-3	8.89E-3	8.91E-3
Mean	8.57E-3	8.65E-3	8.70E-3
Sigma	1.95E-4	1.73E-4	1.66E-4

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	8.77E-3	8.75E-3
SN2	8.72E-3	8.70E-3
SN3	8.91E-3	8.87E-3
SN4	8.46E-3	2.06E-2
SN5	8.76E-3	2.06E-2
SN6	8.63E-3	8.77E-3
Statistics		
Min	8.46E-3	8.70E-3
Max	8.91E-3	2.06E-2
Mean	8.70E-3	1.35E-2
Sigma	1.66E-4	6.50E-3

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	8.75E-3	8.72E-3
SN2	8.70E-3	8.65E-3
SN3	8.87E-3	8.70E-3
SN4	2.06E-2	8.45E-3
SN5	2.06E-2	8.70E-3
SN6	8.77E-3	8.40E-3
Statistics		
Min	8.70E-3	8.40E-3
Max	2.06E-2	8.70E-3
Mean	1.35E-2	8.58E-3
Sigma	6.50E-3	1.44E-4



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Test conditions : TID

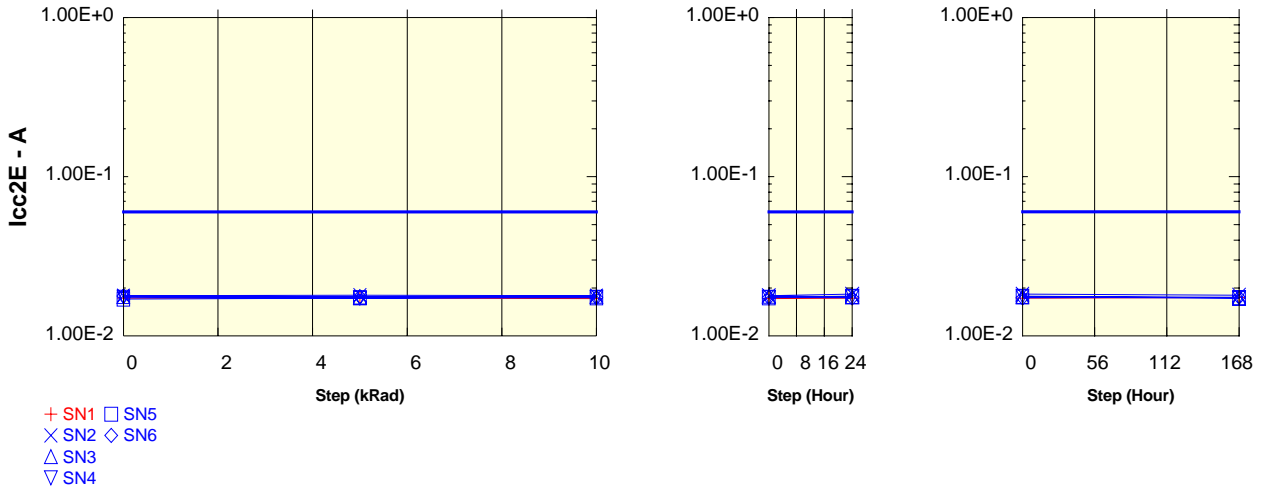
Parameter : Supply Current (Erase) : Icc2E

CE\* = Vil. OE\* = Vih

Unit : A

Spec Limit Max : 6.00E-2

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.73E-2	1.73E-2	1.71E-2
SN2	1.79E-2	1.80E-2	1.79E-2
SN3	1.77E-2	1.75E-2	1.78E-2
SN4	1.75E-2	1.73E-2	1.75E-2
SN5	1.70E-2	1.73E-2	1.73E-2
SN6	1.78E-2	1.76E-2	1.74E-2
Statistics			
Min	1.70E-2	1.73E-2	1.73E-2
Max	1.79E-2	1.80E-2	1.79E-2
Mean	1.76E-2	1.75E-2	1.76E-2
Sigma	3.38E-4	2.93E-4	2.24E-4

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.71E-2	1.73E-2
SN2	1.79E-2	1.83E-2
SN3	1.78E-2	1.76E-2
SN4	1.75E-2	1.77E-2
SN5	1.73E-2	1.76E-2
SN6	1.74E-2	1.73E-2
Statistics		
Min	1.73E-2	1.73E-2
Max	1.79E-2	1.83E-2
Mean	1.76E-2	1.77E-2
Sigma	2.24E-4	3.66E-4

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.73E-2	1.74E-2
SN2	1.83E-2	1.80E-2
SN3	1.76E-2	1.73E-2
SN4	1.77E-2	1.74E-2
SN5	1.76E-2	1.72E-2
SN6	1.73E-2	1.74E-2
Statistics		
Min	1.73E-2	1.72E-2
Max	1.83E-2	1.80E-2
Mean	1.77E-2	1.75E-2
Sigma	3.66E-4	3.07E-4

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Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

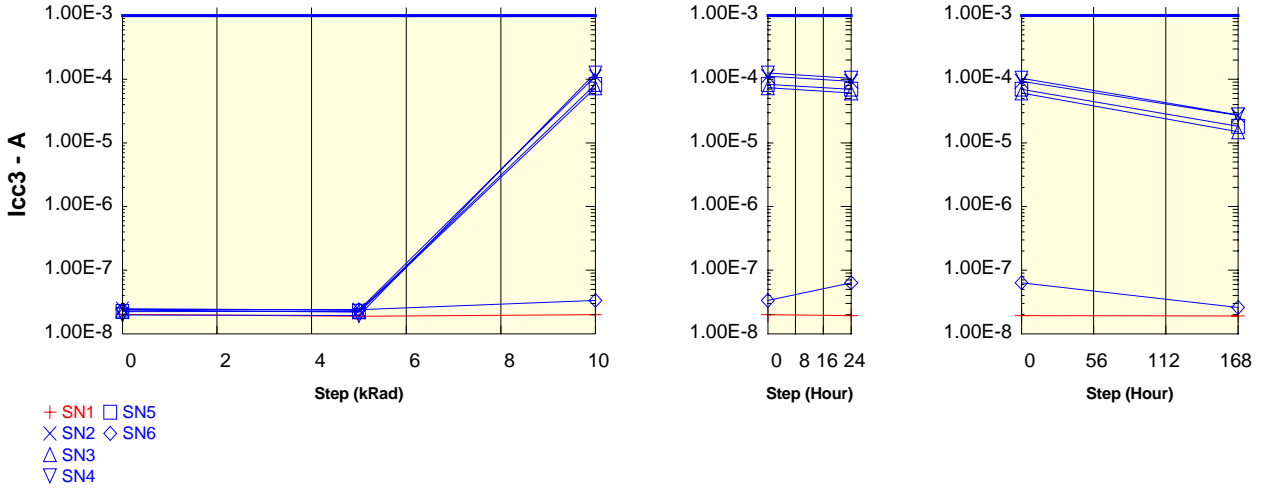
**Parameter : Standby Current (CE\* Controlled) : Icc3**

**CE\* = Vih. RESET\* = Vih. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-3

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.03E-8	1.89E-8	2.00E-8
SN2	2.47E-8	2.37E-8	1.11E-4
SN3	2.36E-8	2.21E-8	7.35E-5
SN4	1.99E-8	1.94E-8	1.25E-4
SN5	2.24E-8	2.27E-8	8.27E-5
SN6	2.42E-8	2.39E-8	3.34E-8
Statistics			
Min	1.99E-8	1.94E-8	3.34E-8
Max	2.47E-8	2.39E-8	1.25E-4
Mean	2.29E-8	2.23E-8	7.86E-5
Sigma	1.92E-9	1.83E-9	4.87E-5

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.00E-8	1.93E-8
SN2	1.11E-4	9.28E-5
SN3	7.35E-5	6.09E-5
SN4	1.25E-4	1.04E-4
SN5	8.27E-5	6.97E-5
SN6	3.34E-8	6.35E-8
Statistics		
Min	3.34E-8	6.35E-8
Max	1.25E-4	1.04E-4
Mean	7.86E-5	6.55E-5
Sigma	4.87E-5	4.05E-5

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.93E-8	1.91E-8
SN2	9.28E-5	2.69E-5
SN3	6.09E-5	1.49E-5
SN4	1.04E-4	2.76E-5
SN5	6.97E-5	1.82E-5
SN6	6.35E-8	2.61E-8
Statistics		
Min	6.35E-8	2.61E-8
Max	1.04E-4	2.76E-5
Mean	6.55E-5	1.75E-5
Sigma	4.05E-5	1.12E-5

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

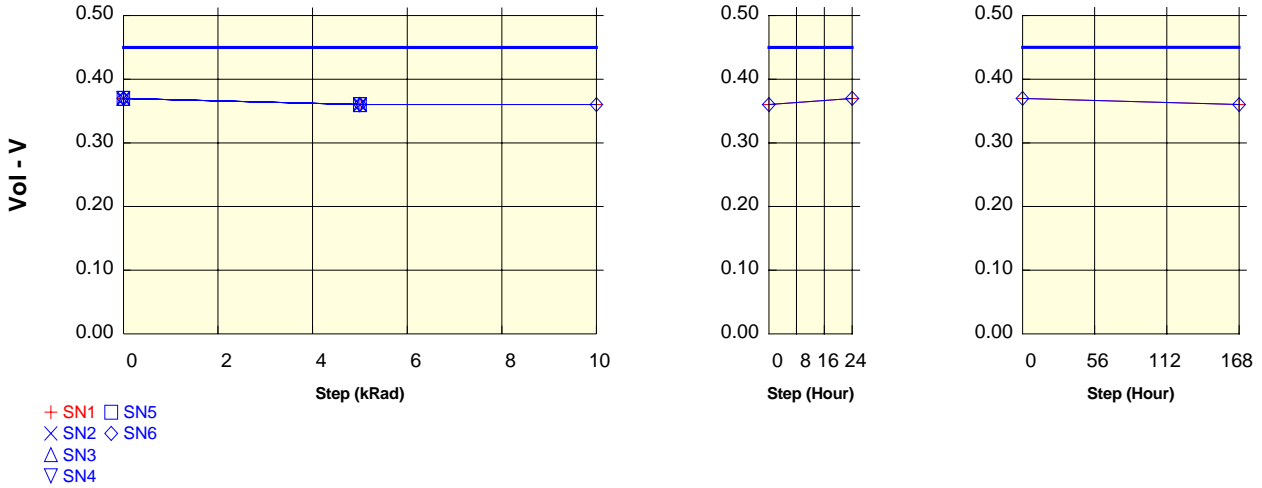
Parameter : Output Low Voltage : VoIDQ7

Iol = 12mA. Vcc = VccMin

Unit : V

Spec Limit Max : 0.45

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	0.37	0.36	0.36
SN2	0.37	0.36	
SN3	0.37	0.36	
SN4	0.37	0.36	
SN5	0.37	0.36	
SN6	0.37	0.36	0.36
Statistics			
Min	0.37	0.36	0.00
Max	0.37	0.36	0.36
Mean	0.37	0.36	0.07
Sigma	0.00	0.00	0.16

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	0.36	0.37
SN2		
SN3		
SN4		
SN5		
SN6	0.36	0.37
Statistics		
Min	0.00	0.00
Max	0.36	0.37
Mean	0.07	0.07
Sigma	0.16	0.17

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	0.37	0.36
SN2		
SN3		
SN4		
SN5		
SN6	0.37	0.36
Statistics		
Min	0.00	0.00
Max	0.37	0.36
Mean	0.07	0.07
Sigma	0.17	0.16

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

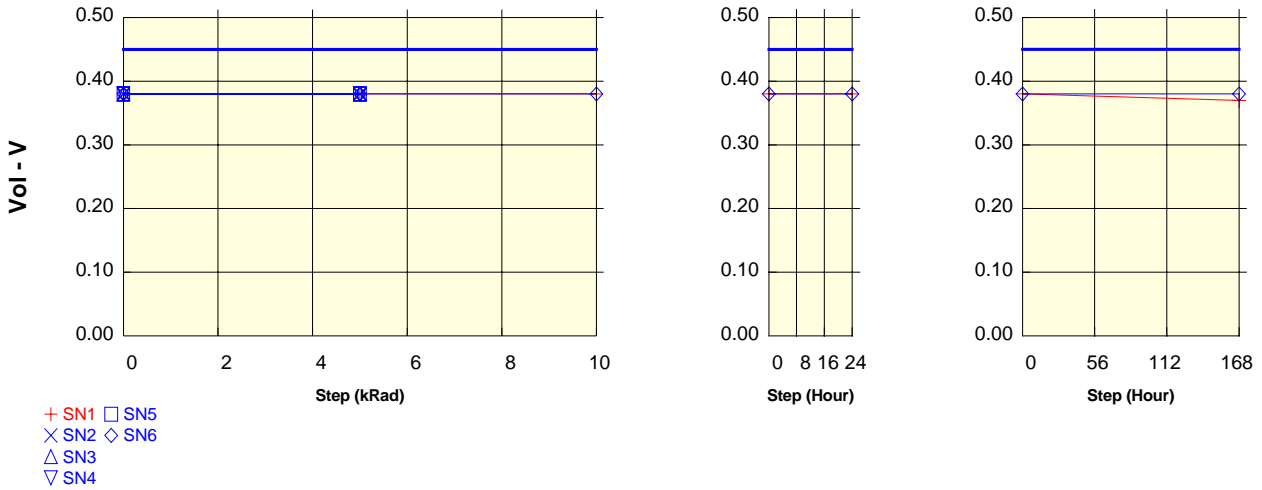
Parameter : Output Low Voltage : VoIDQ6

Iol = 12mA. Vcc = VccMin

Unit : V

Spec Limit Max : 0.45

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	0.38	0.38	0.38
SN2	0.38	0.38	
SN3	0.38	0.38	
SN4	0.38	0.38	
SN5	0.38	0.38	
SN6	0.38	0.38	0.38
Statistics			
Min	0.38	0.38	0.00
Max	0.38	0.38	0.38
Mean	0.38	0.38	0.08
Sigma	0.00	0.00	0.17

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	0.38	0.38
SN2		
SN3		
SN4		
SN5		
SN6	0.38	0.38
Statistics		
Min	0.00	0.00
Max	0.38	0.38
Mean	0.08	0.08
Sigma	0.17	0.17

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	0.38	0.37
SN2		
SN3		
SN4		
SN5		
SN6	0.38	0.38
Statistics		
Min	0.00	0.00
Max	0.38	0.38
Mean	0.08	0.08
Sigma	0.17	0.17

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

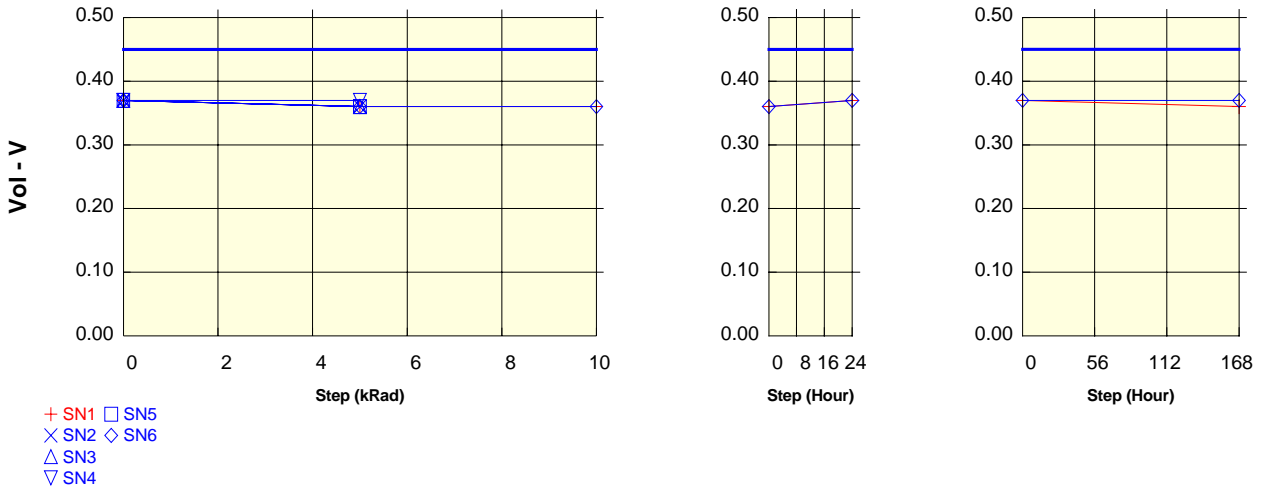
Parameter : Output Low Voltage : VoIDQ5

IoI = 12mA. Vcc = VccMin

Unit : V

Spec Limit Max : 0.45

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	0.37	0.36	0.36
SN2	0.37	0.36	
SN3	0.37	0.36	
SN4	0.37	0.37	
SN5	0.37	0.36	
SN6	0.37	0.36	0.36
Statistics			
Min	0.37	0.36	0.00
Max	0.37	0.37	0.36
Mean	0.37	0.36	0.07
Sigma	0.00	0.00	0.16

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	0.36	0.37
SN2		
SN3		
SN4		
SN5		
SN6	0.36	0.37
Statistics		
Min	0.00	0.00
Max	0.36	0.37
Mean	0.07	0.07
Sigma	0.16	0.17

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	0.37	0.36
SN2		
SN3		
SN4		
SN5		
SN6	0.37	0.37
Statistics		
Min	0.00	0.00
Max	0.37	0.37
Mean	0.07	0.07
Sigma	0.17	0.17

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

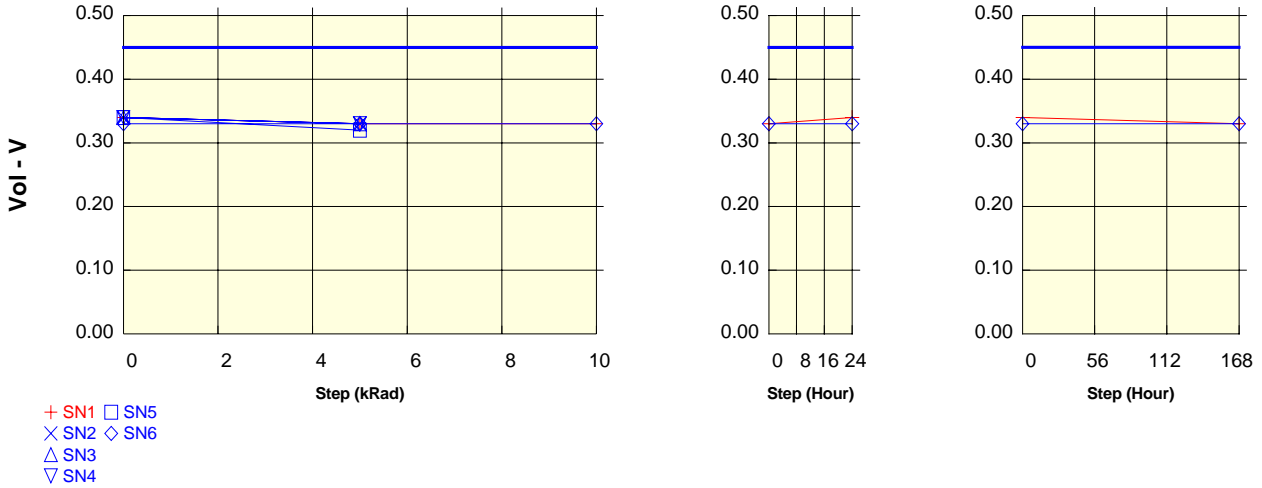
Parameter : Output Low Voltage : VoIDQ4

Iol = 12mA. Vcc = VccMin

Unit : V

Spec Limit Max : 0.45

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	0.34	0.33	0.33
SN2	0.34	0.33	
SN3	0.34	0.33	
SN4	0.34	0.33	
SN5	0.34	0.32	
SN6	0.33	0.33	0.33
Statistics			
Min	0.33	0.32	0.00
Max	0.34	0.33	0.33
Mean	0.34	0.33	0.07
Sigma	0.00	0.00	0.15

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	0.33	0.34
SN2		
SN3		
SN4		
SN5		
SN6	0.33	0.33
Statistics		
Min	0.00	0.00
Max	0.33	0.33
Mean	0.07	0.07
Sigma	0.15	0.15

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	0.34	0.33
SN2		
SN3		
SN4		
SN5		
SN6	0.33	0.33
Statistics		
Min	0.00	0.00
Max	0.33	0.33
Mean	0.07	0.07
Sigma	0.15	0.15

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

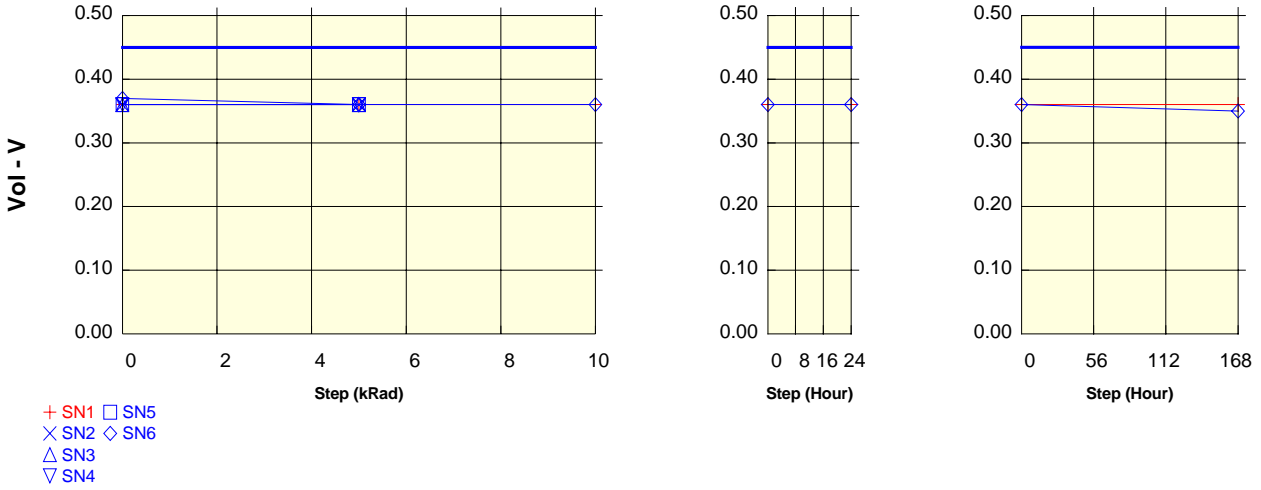
Parameter : Output Low Voltage : VoIDQ3

Iol = 12mA. Vcc = VccMin

Unit : V

Spec Limit Max : 0.45

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	0.36	0.36	0.36
SN2	0.36	0.36	
SN3	0.36	0.36	
SN4	0.36	0.36	
SN5	0.36	0.36	
SN6	0.37	0.36	0.36
Statistics			
Min	0.36	0.36	0.00
Max	0.37	0.36	0.36
Mean	0.36	0.36	0.07
Sigma	0.00	0.00	0.16

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	0.36	0.36
SN2		
SN3		
SN4		
SN5		
SN6	0.36	0.36
Statistics		
Min	0.00	0.00
Max	0.36	0.36
Mean	0.07	0.07
Sigma	0.16	0.16

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	0.36	0.36
SN2		
SN3		
SN4		
SN5		
SN6	0.36	0.35
Statistics		
Min	0.00	0.00
Max	0.36	0.35
Mean	0.07	0.07
Sigma	0.16	0.16

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

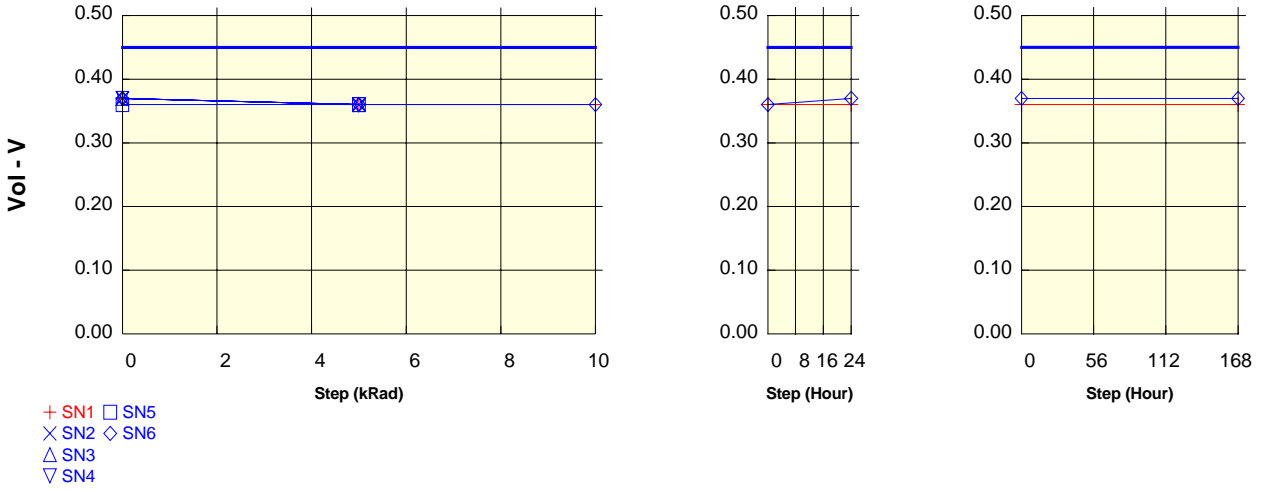
Parameter : Output Low Voltage : VoIDQ2

Iol = 12mA. Vcc = VccMin

Unit : V

Spec Limit Max : 0.45

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	0.37	0.36	0.36
SN2	0.37	0.36	
SN3	0.37	0.36	
SN4	0.37	0.36	
SN5	0.36	0.36	
SN6	0.37	0.36	0.36
Statistics			
Min	0.36	0.36	0.00
Max	0.37	0.36	0.36
Mean	0.37	0.36	0.07
Sigma	0.00	0.00	0.16

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	0.36	0.36
SN2		
SN3		
SN4		
SN5		
SN6	0.36	0.37
Statistics		
Min	0.00	0.00
Max	0.36	0.37
Mean	0.07	0.07
Sigma	0.16	0.17

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	0.36	0.36
SN2		
SN3		
SN4		
SN5		
SN6	0.37	0.37
Statistics		
Min	0.00	0.00
Max	0.37	0.37
Mean	0.07	0.07
Sigma	0.17	0.17



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

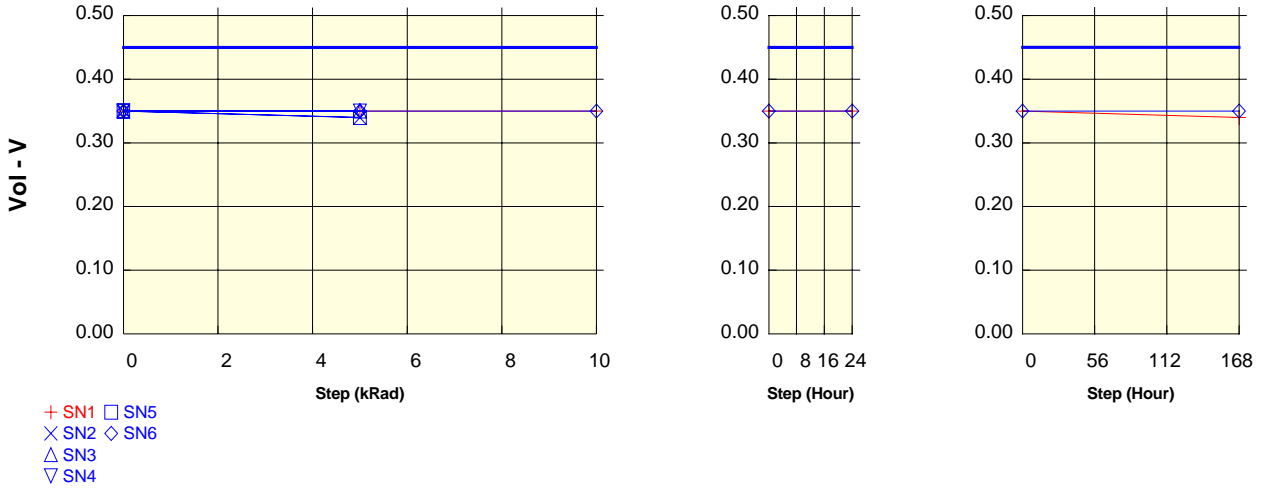
Parameter : Output Low Voltage : VoIDQ1

Iol = 12mA. Vcc = VccMin

Unit : V

Spec Limit Max : 0.45

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	0.35	0.35	0.35
SN2	0.35	0.34	
SN3	0.35	0.35	
SN4	0.35	0.35	
SN5	0.35	0.34	
SN6	0.35	0.35	0.35
Statistics			
Min	0.35	0.34	0.00
Max	0.35	0.35	0.35
Mean	0.35	0.35	0.07
Sigma	0.00	0.01	0.16

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	0.35	0.35
SN2		
SN3		
SN4		
SN5		
SN6	0.35	0.35
Statistics		
Min	0.00	0.00
Max	0.35	0.35
Mean	0.07	0.07
Sigma	0.16	0.16

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	0.35	0.34
SN2		
SN3		
SN4		
SN5		
SN6	0.35	0.35
Statistics		
Min	0.00	0.00
Max	0.35	0.35
Mean	0.07	0.07
Sigma	0.16	0.16

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

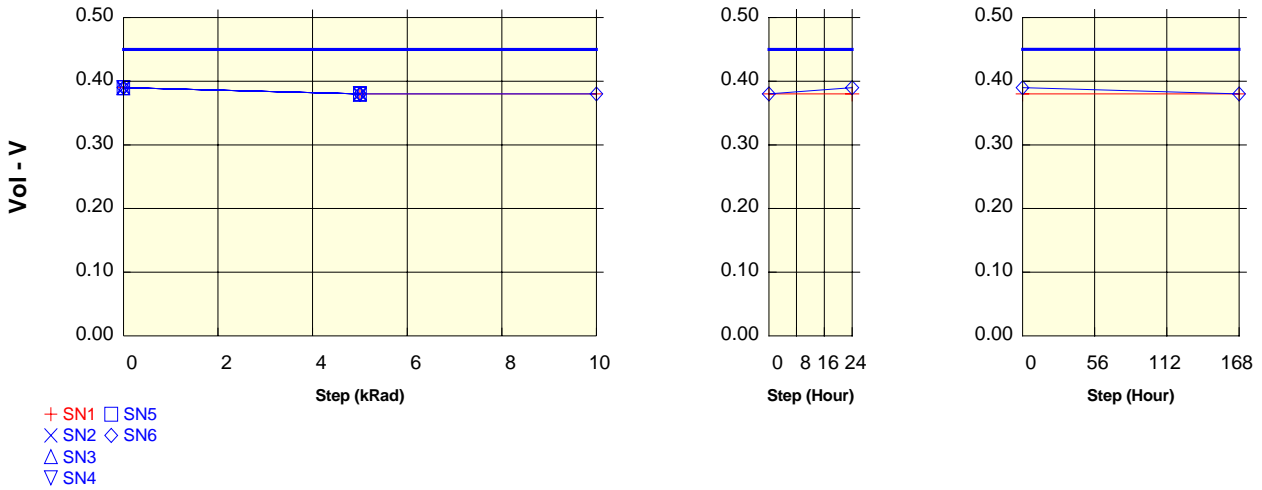
Parameter : Output Low Voltage : VoIDQ0

Iol = 12mA. Vcc = VccMin

Unit : V

Spec Limit Max : 0.45

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	0.39	0.38	0.38
SN2	0.39	0.38	
SN3	0.39	0.38	
SN4	0.39	0.38	
SN5	0.39	0.38	
SN6	0.39	0.38	0.38
Statistics			
Min	0.39	0.38	0.00
Max	0.39	0.38	0.38
Mean	0.39	0.38	0.08
Sigma	0.00	0.00	0.17

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	0.38	0.38
SN2		
SN3		
SN4		
SN5		
SN6	0.38	0.39
Statistics		
Min	0.00	0.00
Max	0.38	0.39
Mean	0.08	0.08
Sigma	0.17	0.17

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	0.38	0.38
SN2		
SN3		
SN4		
SN5		
SN6	0.39	0.38
Statistics		
Min	0.00	0.00
Max	0.39	0.38
Mean	0.08	0.08
Sigma	0.17	0.17

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

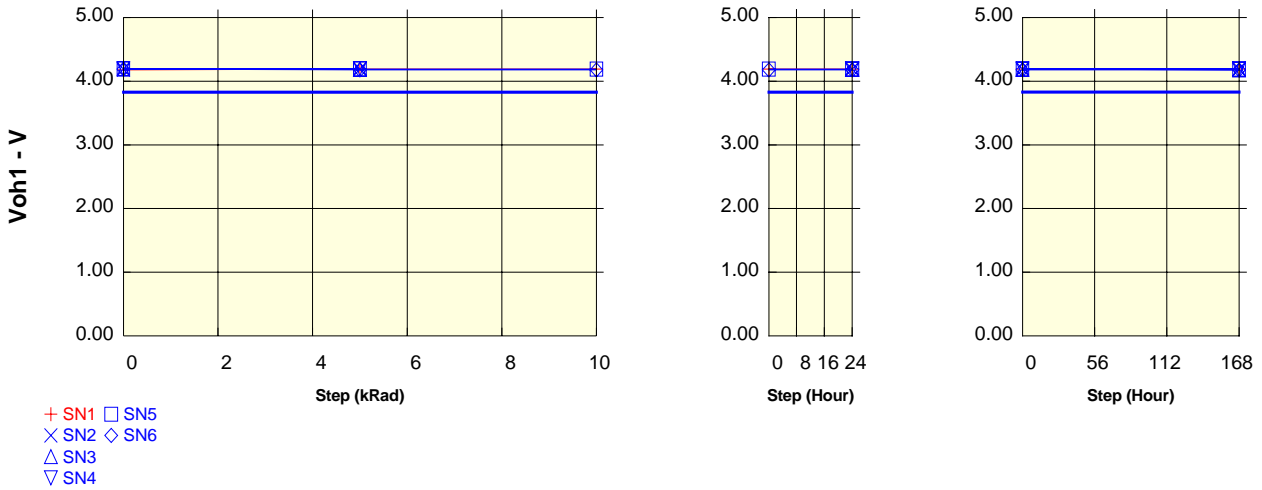
Parameter : Output High Voltage : Voh1DQ7

Ioh = -2.5mA. Vcc = VccMin

Unit : V

Spec Limit Min : 3.83

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.18	4.19	4.19
SN2	4.19	4.19	
SN3	4.19	4.19	
SN4	4.19	4.20	
SN5	4.20	4.19	4.19
SN6	4.19	4.18	4.18
Statistics			
Min	4.19	4.18	0.00
Max	4.20	4.20	4.19
Mean	4.19	4.19	1.67
Sigma	0.00	0.01	2.29

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.19	4.19
SN2		4.19
SN3		4.19
SN4		4.19
SN5	4.19	4.19
SN6	4.18	4.18
Statistics		
Min	0.00	4.18
Max	4.19	4.19
Mean	1.67	4.19
Sigma	2.29	0.00

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.19	4.19
SN2	4.19	4.19
SN3	4.19	4.18
SN4	4.19	4.19
SN5	4.19	4.19
SN6	4.18	4.18
Statistics		
Min	4.18	4.18
Max	4.19	4.19
Mean	4.19	4.19
Sigma	0.00	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

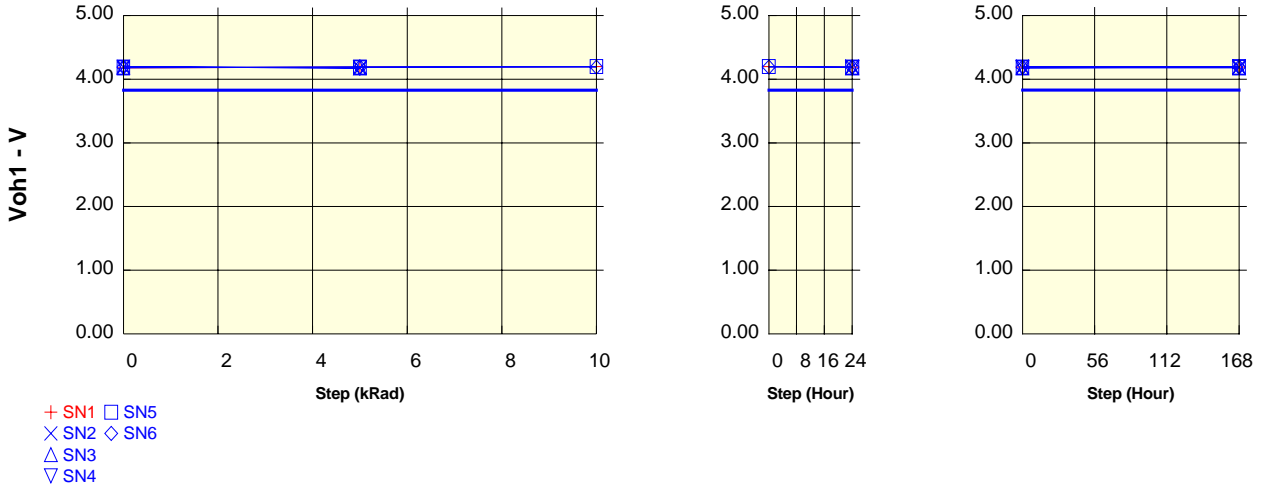
Parameter : Output High Voltage : Voh1DQ6

Ioh = -2.5mA. Vcc = VccMin

Unit : V

Spec Limit Min : 3.83

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.18	4.19	4.20
SN2	4.19	4.18	
SN3	4.19	4.18	
SN4	4.19	4.18	
SN5	4.18	4.19	4.20
SN6	4.19	4.19	4.19
Statistics			
Min	4.18	4.18	0.00
Max	4.19	4.19	4.20
Mean	4.19	4.18	1.68
Sigma	0.00	0.01	2.30

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.20	4.19
SN2		4.19
SN3		4.18
SN4		4.18
SN5	4.20	4.19
SN6	4.19	4.19
Statistics		
Min	0.00	4.18
Max	4.20	4.19
Mean	1.68	4.19
Sigma	2.30	0.01

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.19	4.19
SN2	4.19	4.19
SN3	4.18	4.18
SN4	4.18	4.19
SN5	4.19	4.19
SN6	4.19	4.19
Statistics		
Min	4.18	4.18
Max	4.19	4.19
Mean	4.19	4.19
Sigma	0.01	0.00

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

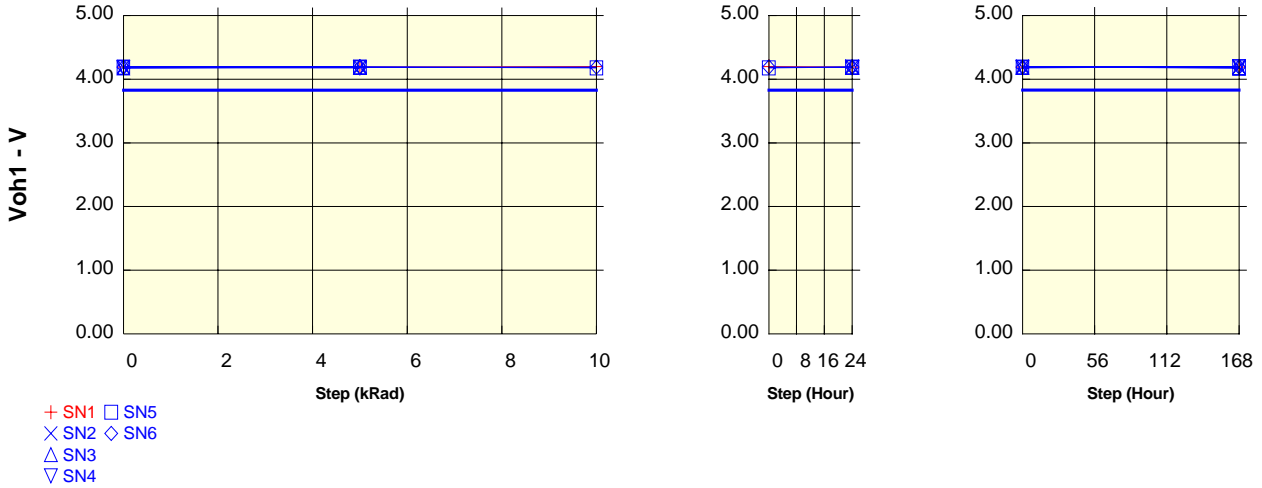
Parameter : Output High Voltage : Voh1DQ5

Ioh = -2.5mA. Vcc = VccMin

Unit : V

Spec Limit Min : 3.83

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.19	4.19	4.20
SN2	4.19	4.19	
SN3	4.18	4.19	
SN4	4.18	4.18	
SN5	4.19	4.19	4.18
SN6	4.19	4.19	4.19
Statistics			
Min	4.18	4.18	0.00
Max	4.19	4.19	4.19
Mean	4.19	4.19	1.67
Sigma	0.01	0.00	2.29

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.20	4.19
SN2		4.19
SN3		4.19
SN4		4.18
SN5	4.18	4.19
SN6	4.19	4.19
Statistics		
Min	0.00	4.18
Max	4.19	4.19
Mean	1.67	4.19
Sigma	2.29	0.00

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.19	4.19
SN2	4.19	4.19
SN3	4.19	4.18
SN4	4.18	4.20
SN5	4.19	4.18
SN6	4.19	4.19
Statistics		
Min	4.18	4.18
Max	4.19	4.20
Mean	4.19	4.19
Sigma	0.00	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

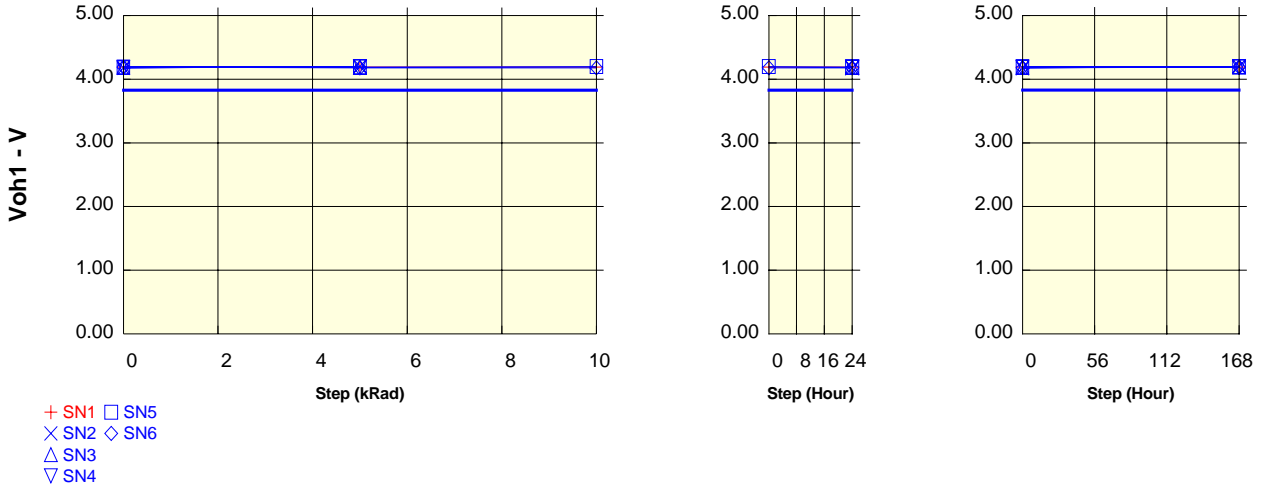
Parameter : Output High Voltage : Voh1DQ4

Ioh = -2.5mA. Vcc = VccMin

Unit : V

Spec Limit Min : 3.83

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.19	4.19	4.19
SN2	4.18	4.20	
SN3	4.19	4.19	
SN4	4.18	4.20	
SN5	4.19	4.19	4.20
SN6	4.19	4.18	4.18
Statistics			
Min	4.18	4.18	0.00
Max	4.19	4.20	4.20
Mean	4.19	4.19	1.68
Sigma	0.01	0.01	2.29

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.19	4.19
SN2		4.18
SN3		4.19
SN4		4.19
SN5	4.20	4.19
SN6	4.18	4.18
Statistics		
Min	0.00	4.18
Max	4.20	4.19
Mean	1.68	4.19
Sigma	2.29	0.01

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.19	4.19
SN2	4.18	4.20
SN3	4.19	4.19
SN4	4.19	4.19
SN5	4.19	4.20
SN6	4.18	4.19
Statistics		
Min	4.18	4.19
Max	4.19	4.20
Mean	4.19	4.19
Sigma	0.01	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

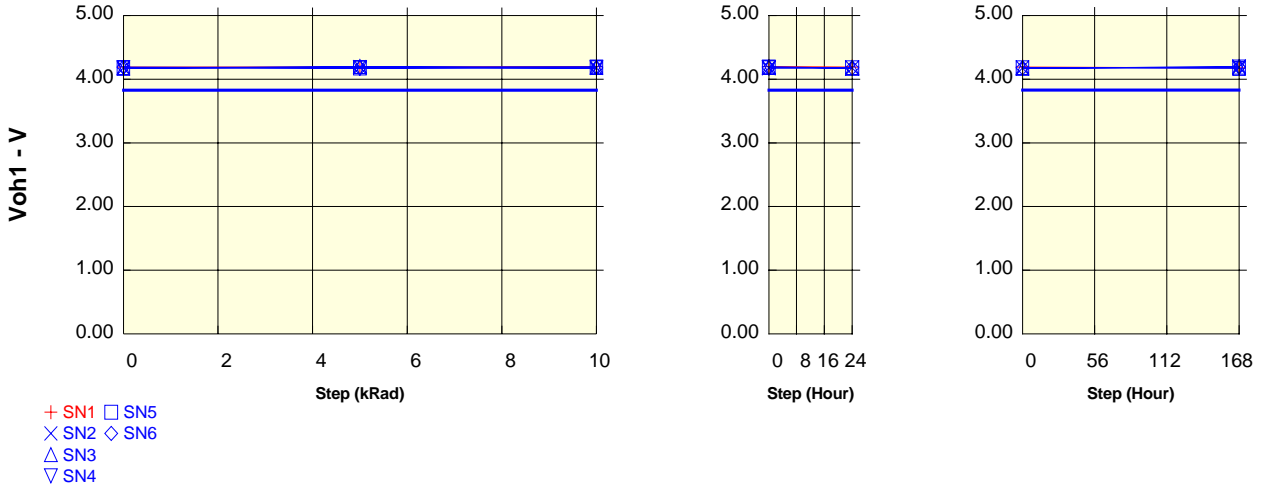
Parameter : Output High Voltage : Voh1DQ3

Ioh = -2.5mA. Vcc = VccMin

Unit : V

Spec Limit Min : 3.83

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.19	4.19	4.20
SN2	4.18	4.19	4.18
SN3	4.18	4.20	4.19
SN4	4.18	4.18	4.18
SN5	4.18	4.18	4.19
SN6	4.19	4.18	4.18
Statistics			
Min	4.18	4.18	4.18
Max	4.19	4.20	4.19
Mean	4.18	4.19	4.18
Sigma	0.00	0.01	0.01

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.20	4.19
SN2	4.18	4.18
SN3	4.19	4.18
SN4	4.18	
SN5	4.19	4.18
SN6	4.18	4.18
Statistics		
Min	4.18	0.00
Max	4.19	4.18
Mean	4.18	3.34
Sigma	0.01	1.87

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.19	4.18
SN2	4.18	4.19
SN3	4.18	4.19
SN4		4.19
SN5	4.18	4.17
SN6	4.18	4.19
Statistics		
Min	0.00	4.17
Max	4.18	4.19
Mean	3.34	4.19
Sigma	1.87	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

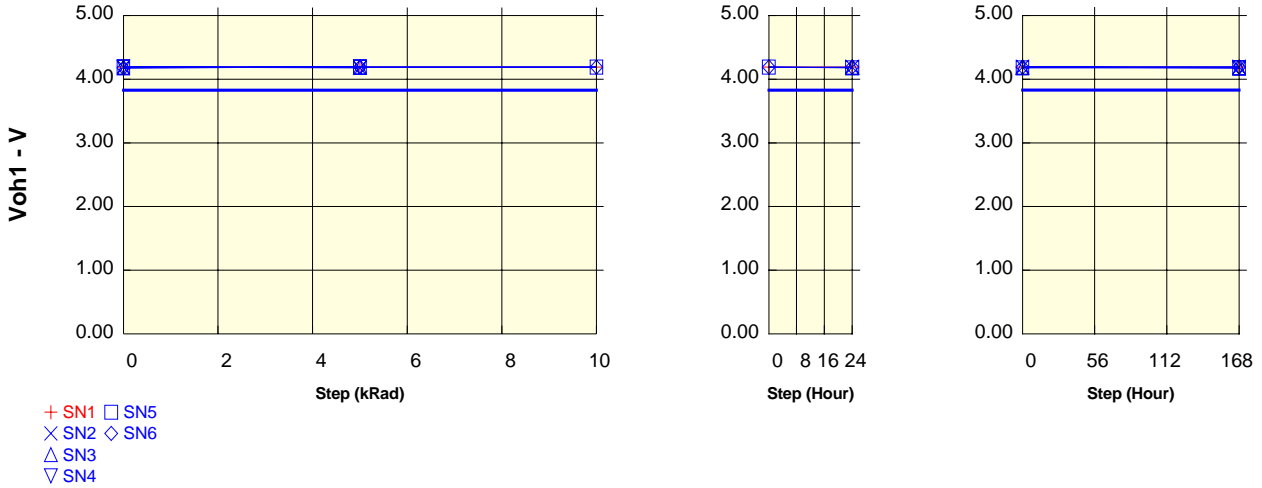
Parameter : Output High Voltage : Voh1DQ2

Ioh = -2.5mA. Vcc = VccMin

Unit : V

Spec Limit Min : 3.83

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.19	4.19	4.19
SN2	4.19	4.18	
SN3	4.18	4.19	
SN4	4.19	4.19	
SN5	4.19	4.19	4.19
SN6	4.18	4.19	4.19
Statistics			
Min	4.18	4.18	0.00
Max	4.19	4.19	4.19
Mean	4.19	4.19	1.68
Sigma	0.01	0.00	2.29

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.19	4.19
SN2		4.19
SN3		4.19
SN4		
SN5	4.19	4.18
SN6	4.19	4.19
Statistics		
Min	0.00	0.00
Max	4.19	4.19
Mean	1.68	3.35
Sigma	2.29	1.87

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.19	4.19
SN2	4.19	4.19
SN3	4.19	4.18
SN4		4.18
SN5	4.18	4.18
SN6	4.19	4.19
Statistics		
Min	0.00	4.18
Max	4.19	4.19
Mean	3.35	4.18
Sigma	1.87	0.01



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

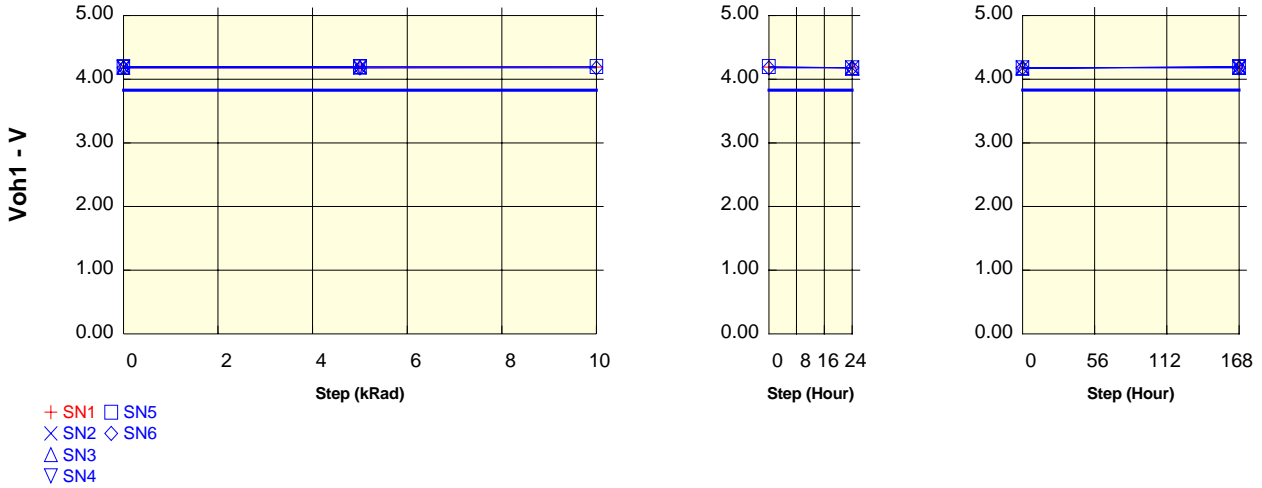
Parameter : Output High Voltage : Voh1DQ1

Ioh = -2.5mA. Vcc = VccMin

Unit : V

Spec Limit Min : 3.83

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.18	4.18	4.19
SN2	4.19	4.19	
SN3	4.19	4.19	
SN4	4.19	4.19	
SN5	4.19	4.20	4.20
SN6	4.18	4.18	4.18
Statistics			
Min	4.18	4.18	0.00
Max	4.19	4.20	4.20
Mean	4.19	4.19	1.68
Sigma	0.00	0.01	2.29

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.19	4.18
SN2		4.18
SN3		4.18
SN4		
SN5	4.20	4.18
SN6	4.18	4.18
Statistics		
Min	0.00	0.00
Max	4.20	4.18
Mean	1.68	3.34
Sigma	2.29	1.87

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.18	4.19
SN2	4.18	4.19
SN3	4.18	4.19
SN4		4.19
SN5	4.18	4.19
SN6	4.18	4.18
Statistics		
Min	0.00	4.18
Max	4.18	4.19
Mean	3.34	4.19
Sigma	1.87	0.00

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

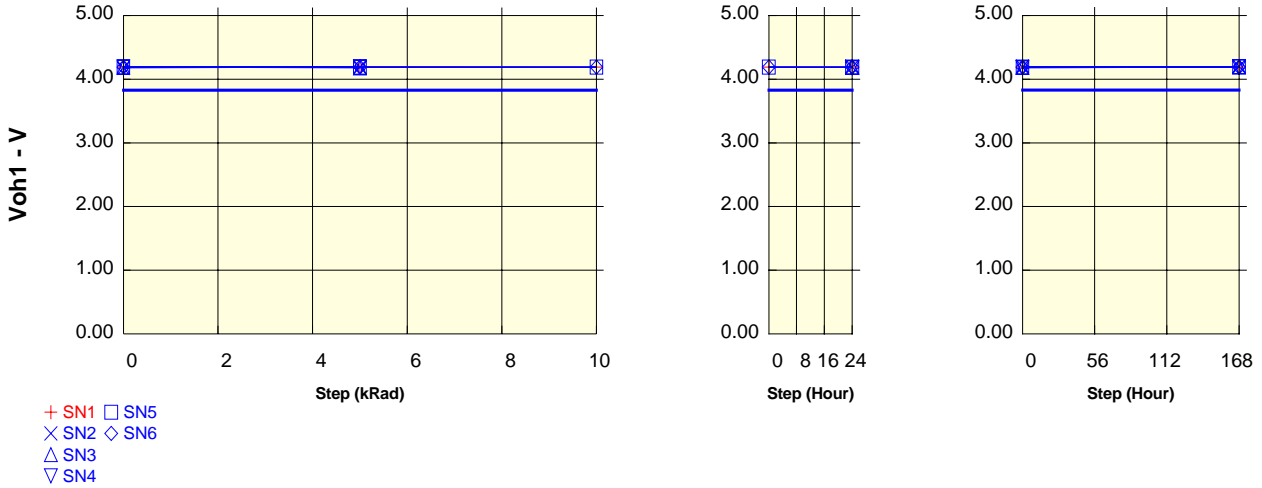
Parameter : Output High Voltage : Voh1DQ0

Ioh = -2.5mA. Vcc = VccMin

Unit : V

Spec Limit Min : 3.83

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.19	4.20	4.19
SN2	4.18	4.19	
SN3	4.19	4.18	
SN4	4.19	4.19	
SN5	4.19	4.19	4.19
SN6	4.19	4.19	4.19
Statistics			
Min	4.18	4.18	0.00
Max	4.19	4.19	4.19
Mean	4.19	4.19	1.68
Sigma	0.00	0.00	2.29

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.19	4.19
SN2		4.19
SN3		4.19
SN4		4.18
SN5	4.19	4.19
SN6	4.19	4.19
Statistics		
Min	0.00	4.18
Max	4.19	4.19
Mean	1.68	4.19
Sigma	2.29	0.00

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.19	4.19
SN2	4.19	4.20
SN3	4.19	4.19
SN4	4.18	4.19
SN5	4.19	4.20
SN6	4.19	4.19
Statistics		
Min	4.18	4.19
Max	4.19	4.20
Mean	4.19	4.19
Sigma	0.00	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

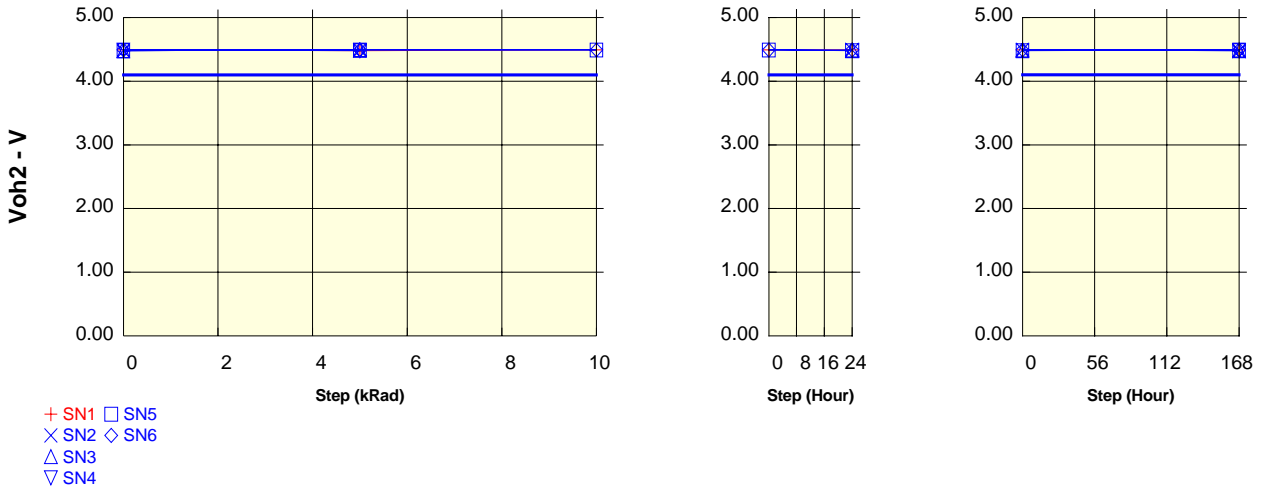
Parameter : Output High Voltage : Voh2DQ7

Ioh = -100µA. Vcc = VccMin

Unit : V

Spec Limit Min : 4.10

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.49	4.48	4.49
SN2	4.48	4.49	
SN3	4.48	4.49	
SN4	4.49	4.48	
SN5	4.48	4.49	4.49
SN6	4.49	4.49	4.49
Statistics			
Min	4.48	4.48	0.00
Max	4.49	4.49	4.49
Mean	4.48	4.49	1.80
Sigma	0.01	0.00	2.46

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.49	4.49
SN2		4.49
SN3		4.49
SN4		
SN5	4.49	4.48
SN6	4.49	4.49
Statistics		
Min	0.00	0.00
Max	4.49	4.49
Mean	1.80	3.59
Sigma	2.46	2.01

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.49	4.49
SN2	4.49	4.48
SN3	4.49	4.48
SN4		4.48
SN5	4.48	4.49
SN6	4.49	4.49
Statistics		
Min	0.00	4.48
Max	4.49	4.49
Mean	3.59	4.48
Sigma	2.01	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

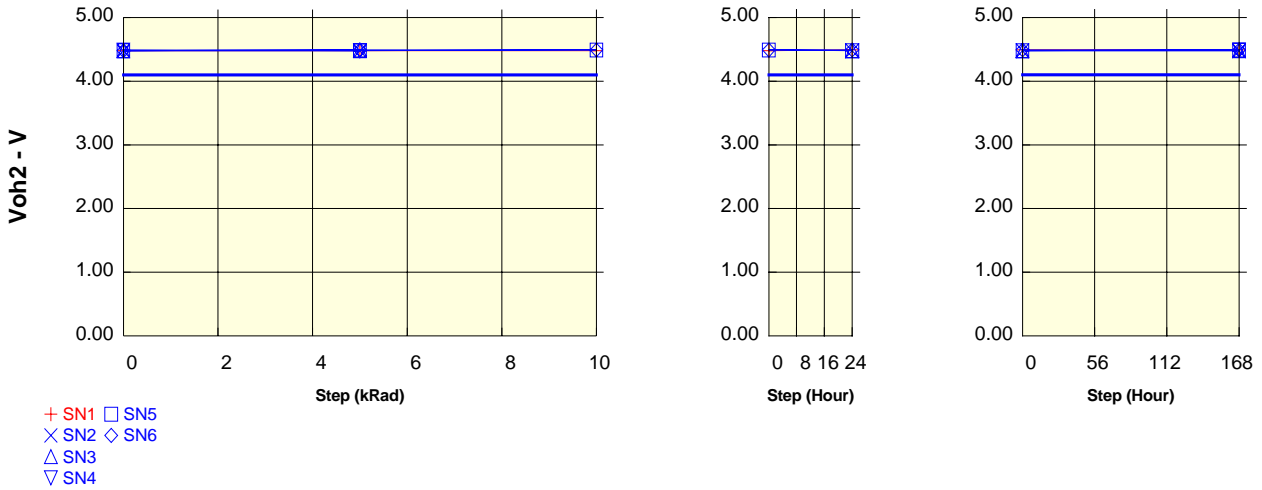
Parameter : Output High Voltage : Voh2DQ6

Ioh = -100µA. Vcc = VccMin

Unit : V

Spec Limit Min : 4.10

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.48	4.48	4.48
SN2	4.48	4.48	
SN3	4.48	4.49	
SN4	4.49	4.48	
SN5	4.48	4.48	4.49
SN6	4.48	4.49	4.49
Statistics			
Min	4.48	4.48	0.00
Max	4.49	4.49	4.49
Mean	4.48	4.48	1.80
Sigma	0.00	0.01	2.46

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.48	4.49
SN2		4.48
SN3		4.48
SN4		
SN5	4.49	4.48
SN6	4.49	4.49
Statistics		
Min	0.00	0.00
Max	4.49	4.49
Mean	1.80	3.59
Sigma	2.46	2.00

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.49	4.49
SN2	4.48	4.48
SN3	4.48	4.48
SN4		4.49
SN5	4.48	4.49
SN6	4.49	4.49
Statistics		
Min	0.00	4.48
Max	4.49	4.49
Mean	3.59	4.49
Sigma	2.00	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

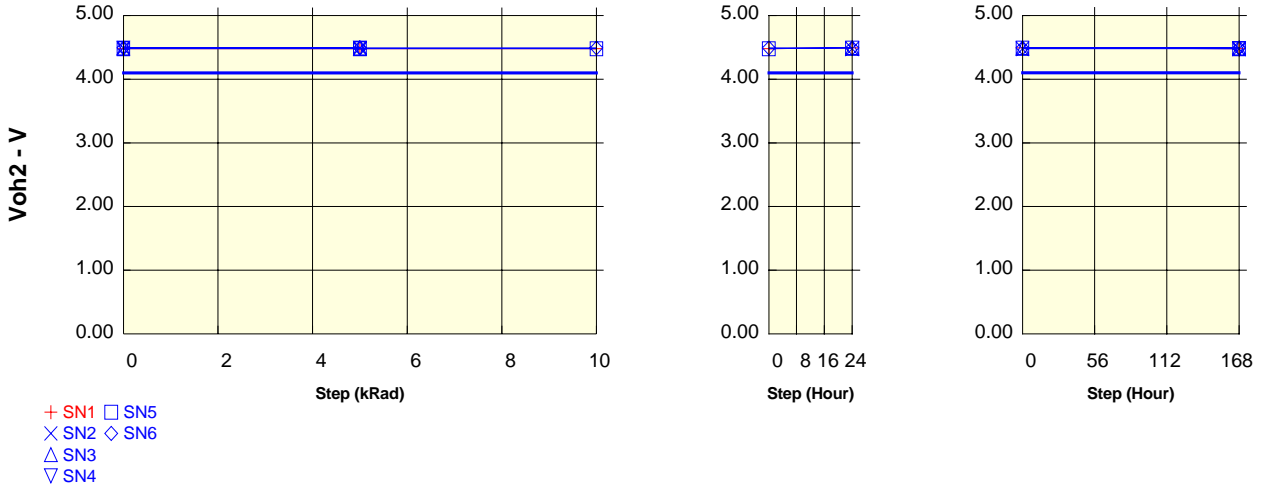
Parameter : Output High Voltage : Voh2DQ5

Ioh = -100µA. Vcc = VccMin

Unit : V

Spec Limit Min : 4.10

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.48	4.48	4.48
SN2	4.49	4.49	
SN3	4.49	4.49	
SN4	4.49	4.49	
SN5	4.48	4.48	4.48
SN6	4.49	4.49	4.49
Statistics			
Min	4.48	4.48	0.00
Max	4.49	4.49	4.49
Mean	4.49	4.49	1.79
Sigma	0.00	0.00	2.46

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.48	4.49
SN2		4.48
SN3		4.49
SN4		
SN5	4.48	4.49
SN6	4.49	4.49
Statistics		
Min	0.00	0.00
Max	4.49	4.49
Mean	1.79	3.59
Sigma	2.46	2.01

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.49	4.48
SN2	4.48	4.48
SN3	4.49	4.49
SN4		4.48
SN5	4.49	4.48
SN6	4.49	4.49
Statistics		
Min	0.00	4.48
Max	4.49	4.49
Mean	3.59	4.48
Sigma	2.01	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

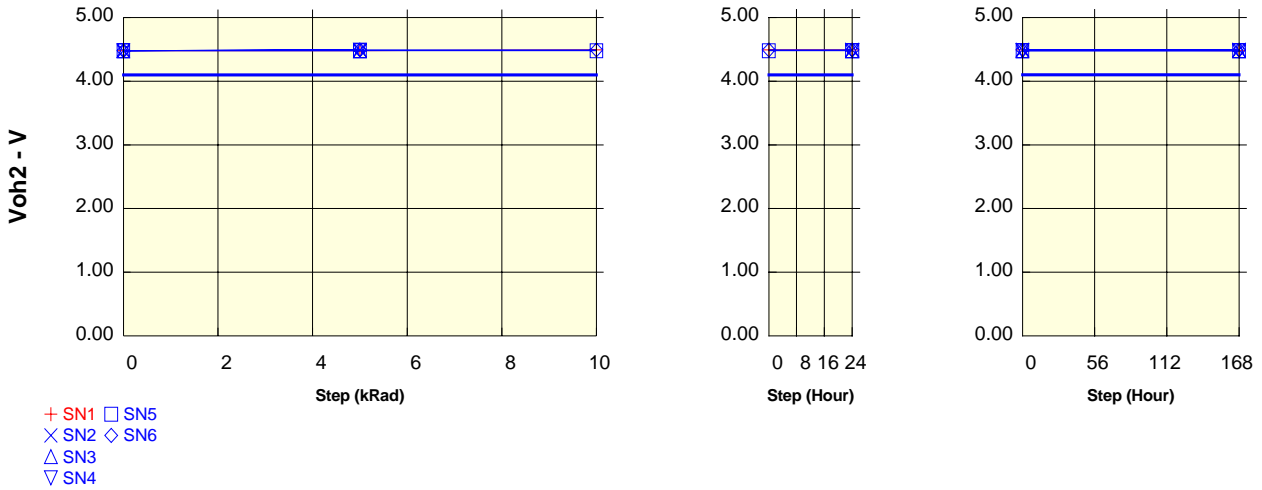
Parameter : Output High Voltage : Voh2DQ4

Ioh = -100µA. Vcc = VccMin

Unit : V

Spec Limit Min : 4.10

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.48	4.48	4.49
SN2	4.48	4.49	
SN3	4.48	4.48	
SN4	4.48	4.49	
SN5	4.48	4.48	4.48
SN6	4.48	4.49	4.49
Statistics			
Min	4.48	4.48	0.00
Max	4.48	4.49	4.49
Mean	4.48	4.49	1.79
Sigma	0.00	0.01	2.46

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.49	4.49
SN2		4.49
SN3		4.48
SN4		4.48
SN5	4.48	4.48
SN6	4.49	4.49
Statistics		
Min	0.00	4.48
Max	4.49	4.49
Mean	1.79	4.48
Sigma	2.46	0.01

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.49	4.48
SN2	4.49	4.49
SN3	4.48	4.48
SN4	4.48	4.48
SN5	4.48	4.48
SN6	4.49	4.49
Statistics		
Min	4.48	4.48
Max	4.49	4.49
Mean	4.48	4.48
Sigma	0.01	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

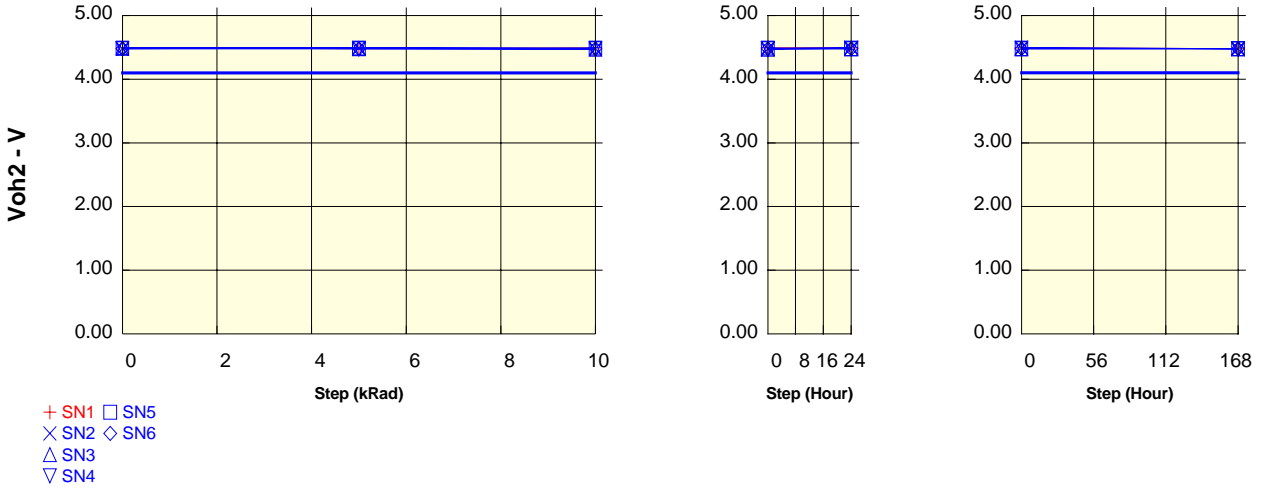
Parameter : Output High Voltage : Voh2DQ3

Ioh = -100µA. Vcc = VccMin

Unit : V

Spec Limit Min : 4.10

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.49	4.48	4.49
SN2	4.48	4.49	4.48
SN3	4.49	4.48	4.47
SN4	4.48	4.48	4.48
SN5	4.49	4.49	4.49
SN6	4.48	4.48	4.48
Statistics			
Min	4.48	4.48	4.47
Max	4.49	4.49	4.49
Mean	4.48	4.48	4.48
Sigma	0.01	0.01	0.01

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.49	4.49
SN2	4.48	4.49
SN3	4.47	4.48
SN4	4.48	4.49
SN5	4.49	4.48
SN6	4.48	4.48
Statistics		
Min	4.47	4.48
Max	4.49	4.49
Mean	4.48	4.48
Sigma	0.01	0.01

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.49	4.48
SN2	4.49	4.48
SN3	4.48	4.48
SN4	4.49	4.48
SN5	4.48	4.48
SN6	4.48	4.48
Statistics		
Min	4.48	4.48
Max	4.49	4.48
Mean	4.48	4.48
Sigma	0.01	0.00

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

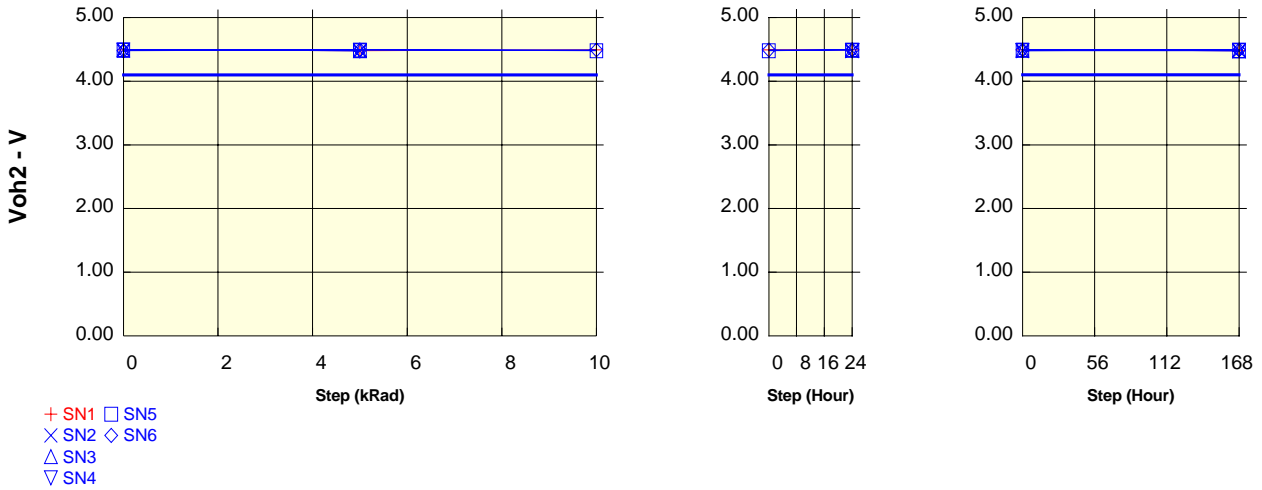
Parameter : Output High Voltage : Voh2DQ2

Ioh = -100µA. Vcc = VccMin

Unit : V

Spec Limit Min : 4.10

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.49	4.48	4.49
SN2	4.49	4.48	
SN3	4.49	4.48	
SN4	4.49	4.48	
SN5	4.49	4.49	4.48
SN6	4.48	4.49	4.49
Statistics			
Min	4.48	4.48	0.00
Max	4.49	4.49	4.49
Mean	4.49	4.48	1.79
Sigma	0.00	0.01	2.46

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.49	4.49
SN2		4.48
SN3		4.49
SN4		4.48
SN5	4.48	4.49
SN6	4.49	4.49
Statistics		
Min	0.00	4.48
Max	4.49	4.49
Mean	1.79	4.49
Sigma	2.46	0.01

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.49	4.48
SN2	4.48	4.48
SN3	4.49	4.48
SN4	4.48	4.49
SN5	4.49	4.48
SN6	4.49	4.49
Statistics		
Min	4.48	4.48
Max	4.49	4.49
Mean	4.49	4.48
Sigma	0.01	0.01



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

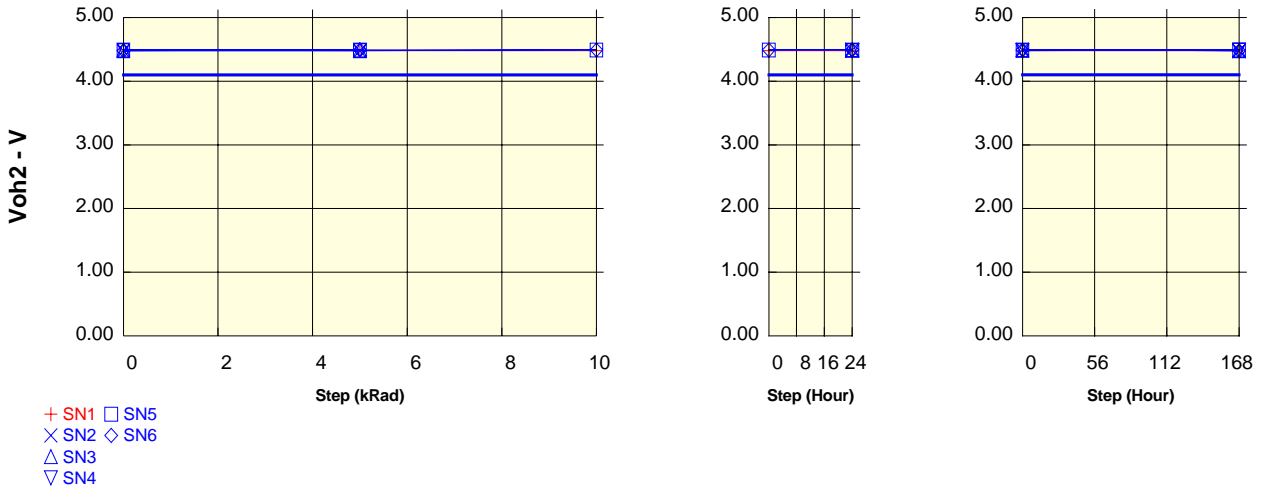
Parameter : Output High Voltage : Voh2DQ1

Ioh = -100µA. Vcc = VccMin

Unit : V

Spec Limit Min : 4.10

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.49	4.48	4.48
SN2	4.48	4.48	
SN3	4.49	4.49	
SN4	4.49	4.49	
SN5	4.48	4.48	4.49
SN6	4.48	4.49	4.49
Statistics			
Min	4.48	4.48	0.00
Max	4.49	4.49	4.49
Mean	4.48	4.49	1.80
Sigma	0.01	0.01	2.46

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.48	4.48
SN2		4.49
SN3		4.49
SN4		4.48
SN5	4.49	4.49
SN6	4.49	4.49
Statistics		
Min	0.00	4.48
Max	4.49	4.49
Mean	1.80	4.49
Sigma	2.46	0.00

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.48	4.48
SN2	4.49	4.48
SN3	4.49	4.48
SN4	4.48	4.49
SN5	4.49	4.49
SN6	4.49	4.48
Statistics		
Min	4.48	4.48
Max	4.49	4.49
Mean	4.49	4.48
Sigma	0.00	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

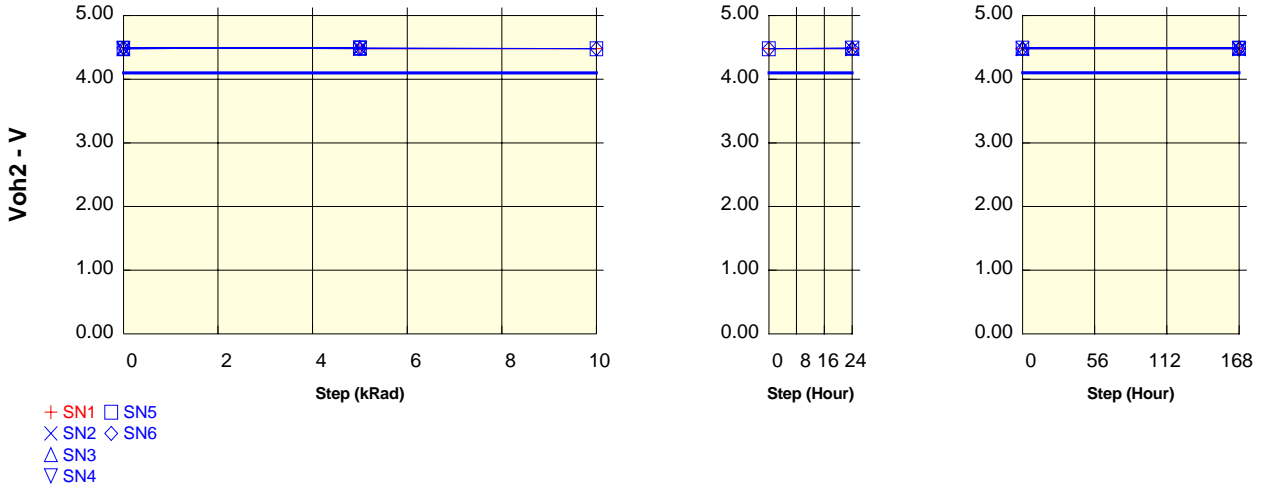
Parameter : Output High Voltage : Voh2DQ0

Ioh = -100µA. Vcc = VccMin

Unit : V

Spec Limit Min : 4.10

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.49	4.48	4.48
SN2	4.48	4.49	
SN3	4.48	4.49	
SN4	4.48	4.49	
SN5	4.49	4.49	4.48
SN6	4.49	4.48	4.48
Statistics			
Min	4.48	4.48	0.00
Max	4.49	4.49	4.48
Mean	4.48	4.49	1.79
Sigma	0.01	0.00	2.45

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.48	4.48
SN2		4.48
SN3		4.49
SN4		
SN5	4.48	4.49
SN6	4.48	4.48
Statistics		
Min	0.00	0.00
Max	4.48	4.49
Mean	1.79	3.59
Sigma	2.45	2.01

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.48	4.48
SN2	4.48	4.48
SN3	4.49	4.49
SN4		4.48
SN5	4.49	4.49
SN6	4.48	4.48
Statistics		
Min	0.00	4.48
Max	4.49	4.49
Mean	3.59	4.48
Sigma	2.01	0.01

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

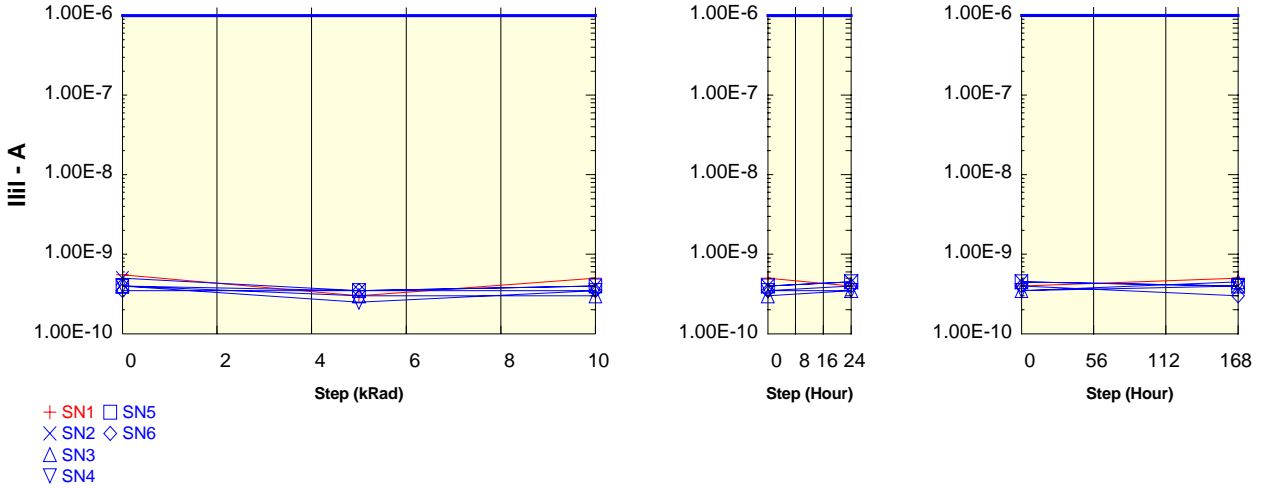
Parameter : Input Leakage Current Low : I<sub>IIIA20</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	5.50E-10	3.00E-10	5.00E-10
SN2	5.00E-10	3.50E-10	4.00E-10
SN3	4.00E-10	3.00E-10	3.00E-10
SN4	4.00E-10	2.50E-10	3.50E-10
SN5	4.00E-10	3.50E-10	4.00E-10
SN6	3.50E-10	3.50E-10	3.50E-10
Statistics			
Min	3.50E-10	2.50E-10	3.00E-10
Max	5.00E-10	3.50E-10	4.00E-10
Mean	4.10E-10	3.20E-10	3.60E-10
Sigma	5.48E-11	4.47E-11	4.18E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	5.00E-10	4.00E-10
SN2	4.00E-10	4.50E-10
SN3	3.00E-10	3.50E-10
SN4	3.50E-10	3.50E-10
SN5	4.00E-10	4.50E-10
SN6	3.50E-10	4.00E-10
Statistics		
Min	3.00E-10	3.50E-10
Max	4.00E-10	4.50E-10
Mean	3.60E-10	4.00E-10
Sigma	4.18E-11	5.00E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.00E-10	5.00E-10
SN2	4.50E-10	4.00E-10
SN3	3.50E-10	4.50E-10
SN4	3.50E-10	4.00E-10
SN5	4.50E-10	4.00E-10
SN6	4.00E-10	3.00E-10
Statistics		
Min	3.50E-10	3.00E-10
Max	4.50E-10	4.50E-10
Mean	4.00E-10	3.90E-10
Sigma	5.00E-11	5.48E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

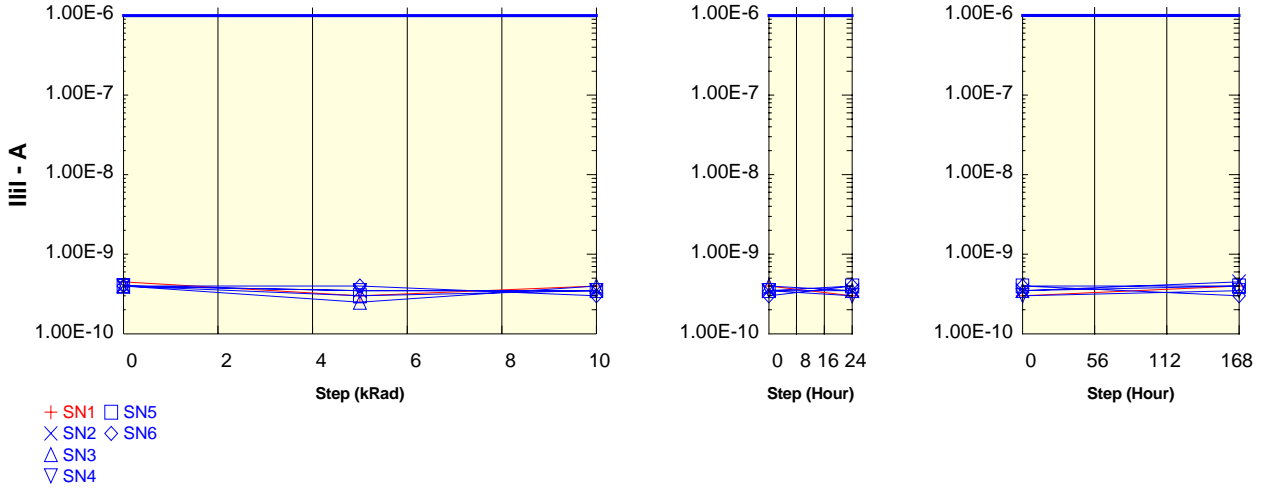
Parameter : Input Leakage Current Low : I<sub>IIIA19</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.50E-10	3.00E-10	4.00E-10
SN2	4.00E-10	3.50E-10	3.50E-10
SN3	4.00E-10	2.50E-10	4.00E-10
SN4	4.00E-10	3.50E-10	3.50E-10
SN5	4.00E-10	3.00E-10	3.50E-10
SN6	4.00E-10	4.00E-10	3.00E-10
Statistics			
Min	4.00E-10	2.50E-10	3.00E-10
Max	4.00E-10	4.00E-10	4.00E-10
Mean	4.00E-10	3.30E-10	3.50E-10
Sigma	0.00E+0	5.70E-11	3.54E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.00E-10	3.00E-10
SN2	3.50E-10	3.50E-10
SN3	4.00E-10	3.50E-10
SN4	3.50E-10	3.00E-10
SN5	3.50E-10	4.00E-10
SN6	3.00E-10	4.00E-10
Statistics		
Min	3.00E-10	3.00E-10
Max	4.00E-10	4.00E-10
Mean	3.50E-10	3.60E-10
Sigma	3.54E-11	4.18E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.00E-10	4.00E-10
SN2	3.50E-10	4.50E-10
SN3	3.50E-10	4.00E-10
SN4	3.00E-10	3.50E-10
SN5	4.00E-10	4.00E-10
SN6	4.00E-10	3.00E-10
Statistics		
Min	3.00E-10	3.00E-10
Max	4.00E-10	4.50E-10
Mean	3.60E-10	3.80E-10
Sigma	4.18E-11	5.70E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

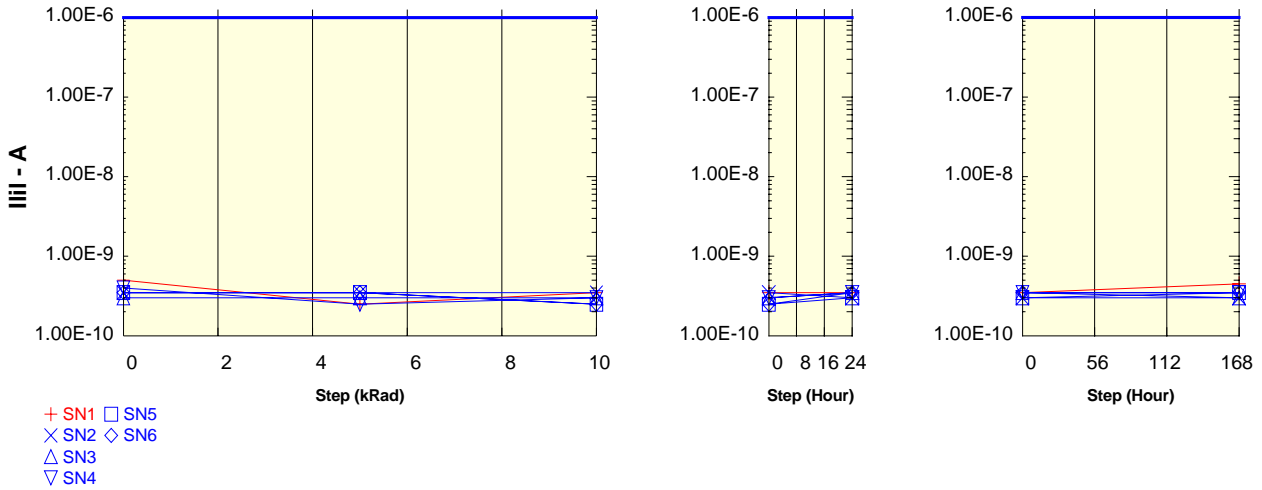
Parameter : Input Leakage Current Low : I<sub>IIIA18</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	5.00E-10	2.50E-10	3.50E-10
SN2	3.50E-10	3.50E-10	3.50E-10
SN3	3.00E-10	3.00E-10	3.00E-10
SN4	4.00E-10	2.50E-10	3.00E-10
SN5	3.50E-10	3.50E-10	2.50E-10
SN6	3.50E-10	3.50E-10	2.50E-10
Statistics			
Min	3.00E-10	2.50E-10	2.50E-10
Max	4.00E-10	3.50E-10	3.50E-10
Mean	3.50E-10	3.20E-10	2.90E-10
Sigma	3.54E-11	4.47E-11	4.18E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.50E-10	3.50E-10
SN2	3.50E-10	3.00E-10
SN3	3.00E-10	3.50E-10
SN4	3.00E-10	3.50E-10
SN5	2.50E-10	3.00E-10
SN6	2.50E-10	3.50E-10
Statistics		
Min	2.50E-10	3.00E-10
Max	3.50E-10	3.50E-10
Mean	2.90E-10	3.30E-10
Sigma	4.18E-11	2.74E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.50E-10	4.50E-10
SN2	3.00E-10	3.00E-10
SN3	3.50E-10	3.00E-10
SN4	3.50E-10	3.50E-10
SN5	3.00E-10	3.50E-10
SN6	3.50E-10	3.50E-10
Statistics		
Min	3.00E-10	3.00E-10
Max	3.50E-10	3.50E-10
Mean	3.30E-10	3.30E-10
Sigma	2.74E-11	2.74E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

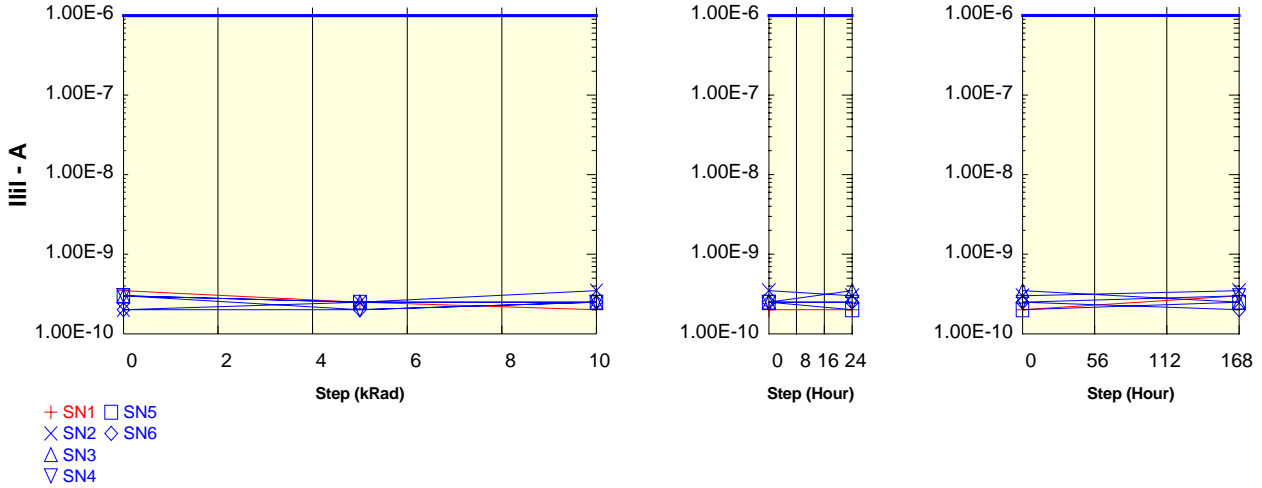
**Parameter : Input Leakage Current Low : I<sub>IIIA17</sub>**

**V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.50E-10	2.50E-10	2.00E-10
SN2	2.00E-10	2.50E-10	3.50E-10
SN3	3.00E-10	2.50E-10	2.50E-10
SN4	3.00E-10	2.00E-10	2.50E-10
SN5	3.00E-10	2.50E-10	2.50E-10
SN6	2.00E-10	2.00E-10	2.50E-10
Statistics			
Min	2.00E-10	2.00E-10	2.50E-10
Max	3.00E-10	2.50E-10	3.50E-10
Mean	2.60E-10	2.30E-10	2.70E-10
Sigma	5.48E-11	2.74E-11	4.47E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.00E-10	2.00E-10
SN2	3.50E-10	3.00E-10
SN3	2.50E-10	3.50E-10
SN4	2.50E-10	2.50E-10
SN5	2.50E-10	2.00E-10
SN6	2.50E-10	2.50E-10
Statistics		
Min	2.50E-10	2.00E-10
Max	3.50E-10	3.50E-10
Mean	2.70E-10	2.70E-10
Sigma	4.47E-11	5.70E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	3.00E-10
SN2	3.00E-10	3.50E-10
SN3	3.50E-10	2.50E-10
SN4	2.50E-10	3.00E-10
SN5	2.00E-10	2.50E-10
SN6	2.50E-10	2.00E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.50E-10	3.50E-10
Mean	2.70E-10	2.70E-10
Sigma	5.70E-11	5.70E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

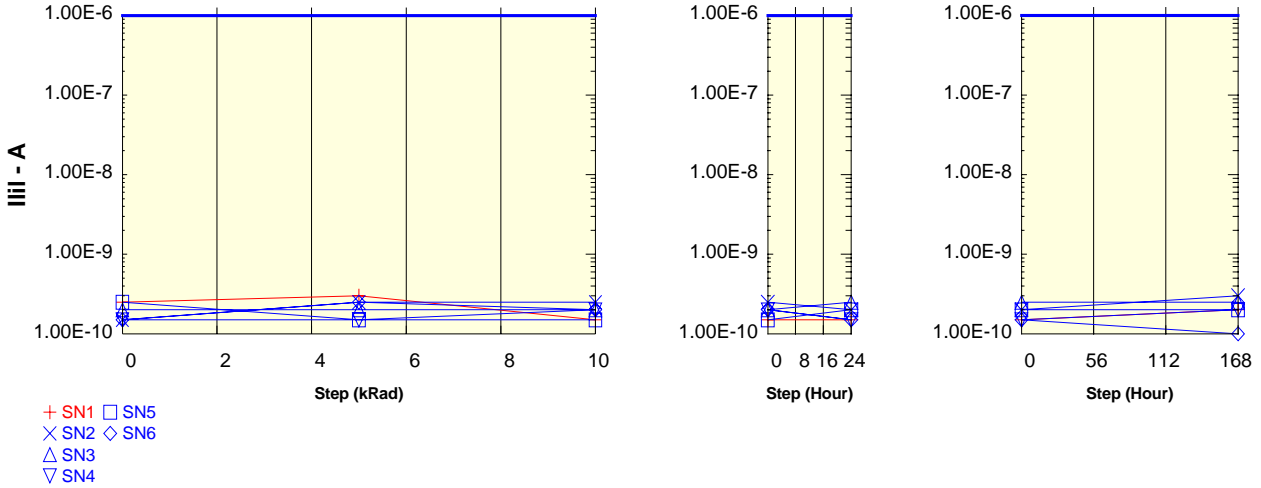
**Parameter : Input Leakage Current Low : I<sub>IIIA16</sub>**

**V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.50E-10	3.00E-10	1.50E-10
SN2	1.50E-10	2.50E-10	2.50E-10
SN3	2.00E-10	2.00E-10	2.00E-10
SN4	1.50E-10	1.50E-10	2.00E-10
SN5	2.50E-10	1.50E-10	1.50E-10
SN6	1.50E-10	2.50E-10	2.00E-10
Statistics			
Min	1.50E-10	1.50E-10	1.50E-10
Max	2.50E-10	2.50E-10	2.50E-10
Mean	1.80E-10	2.00E-10	2.00E-10
Sigma	4.47E-11	5.00E-11	3.54E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.50E-10	1.50E-10
SN2	2.50E-10	2.00E-10
SN3	2.00E-10	2.50E-10
SN4	2.00E-10	1.50E-10
SN5	1.50E-10	2.00E-10
SN6	2.00E-10	1.50E-10
Statistics		
Min	1.50E-10	1.50E-10
Max	2.50E-10	2.50E-10
Mean	2.00E-10	1.90E-10
Sigma	3.54E-11	4.18E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.50E-10	2.00E-10
SN2	2.00E-10	3.00E-10
SN3	2.50E-10	2.50E-10
SN4	1.50E-10	2.00E-10
SN5	2.00E-10	2.00E-10
SN6	1.50E-10	1.00E-10
Statistics		
Min	1.50E-10	1.00E-10
Max	2.50E-10	3.00E-10
Mean	1.90E-10	2.10E-10
Sigma	4.18E-11	7.42E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

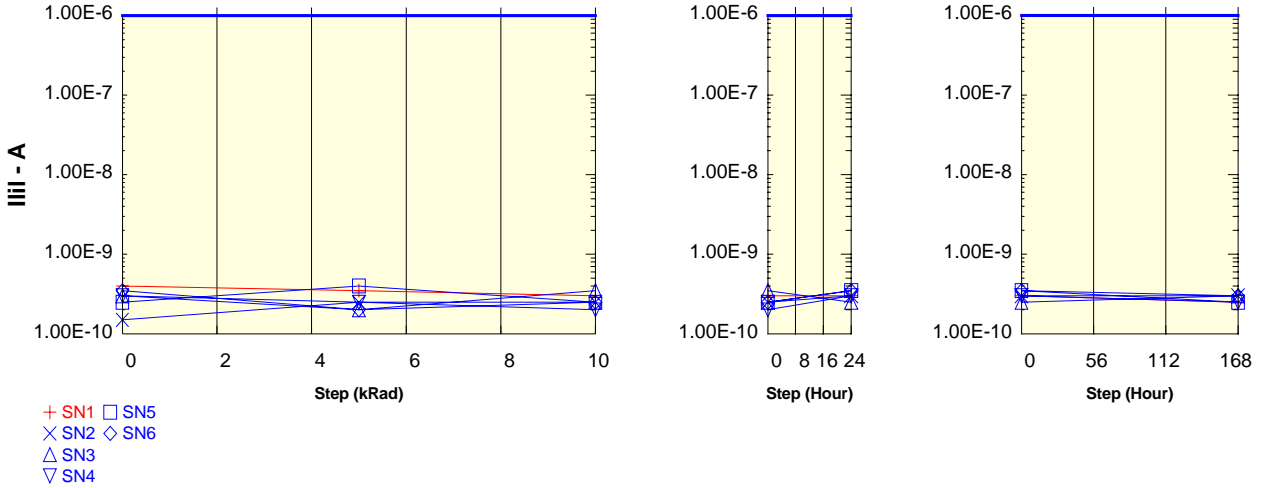
**Parameter : Input Leakage Current Low : I<sub>IIIA15</sub>**

**V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.00E-10	3.50E-10	3.00E-10
SN2	1.50E-10	2.50E-10	2.50E-10
SN3	3.00E-10	2.00E-10	3.50E-10
SN4	3.00E-10	2.50E-10	2.00E-10
SN5	2.50E-10	4.00E-10	2.50E-10
SN6	3.50E-10	2.00E-10	2.50E-10
Statistics			
Min	1.50E-10	2.00E-10	2.00E-10
Max	3.50E-10	4.00E-10	3.50E-10
Mean	2.70E-10	2.60E-10	2.60E-10
Sigma	7.58E-11	8.22E-11	5.48E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.00E-10	3.00E-10
SN2	2.50E-10	3.00E-10
SN3	3.50E-10	2.50E-10
SN4	2.00E-10	3.00E-10
SN5	2.50E-10	3.50E-10
SN6	2.50E-10	3.50E-10
Statistics		
Min	2.00E-10	2.50E-10
Max	3.50E-10	3.50E-10
Mean	2.60E-10	3.10E-10
Sigma	5.48E-11	4.18E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.00E-10	2.50E-10
SN2	3.00E-10	3.00E-10
SN3	2.50E-10	3.00E-10
SN4	3.00E-10	2.50E-10
SN5	3.50E-10	2.50E-10
SN6	3.50E-10	3.00E-10
Statistics		
Min	2.50E-10	2.50E-10
Max	3.50E-10	3.00E-10
Mean	3.10E-10	2.80E-10
Sigma	4.18E-11	2.74E-11



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

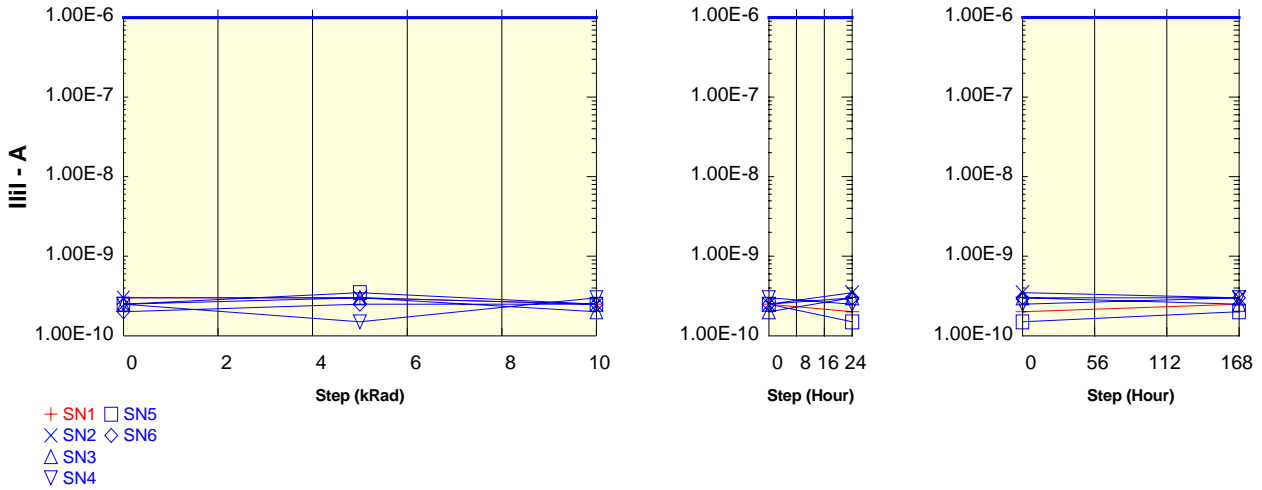
**Parameter : Input Leakage Current Low : I<sub>IIIA14</sub>**

**V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.00E-10	3.00E-10	2.50E-10
SN2	3.00E-10	3.00E-10	2.50E-10
SN3	2.50E-10	3.00E-10	2.00E-10
SN4	2.50E-10	1.50E-10	3.00E-10
SN5	2.50E-10	3.50E-10	2.50E-10
SN6	2.00E-10	2.50E-10	2.50E-10
Statistics			
Min	2.00E-10	1.50E-10	2.00E-10
Max	3.00E-10	3.50E-10	3.00E-10
Mean	2.50E-10	2.70E-10	2.50E-10
Sigma	3.54E-11	7.58E-11	3.54E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	2.00E-10
SN2	2.50E-10	3.50E-10
SN3	2.00E-10	3.00E-10
SN4	3.00E-10	2.50E-10
SN5	2.50E-10	1.50E-10
SN6	2.50E-10	3.00E-10
Statistics		
Min	2.00E-10	1.50E-10
Max	3.00E-10	3.50E-10
Mean	2.50E-10	2.70E-10
Sigma	3.54E-11	7.58E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	2.50E-10
SN2	3.50E-10	3.00E-10
SN3	3.00E-10	2.50E-10
SN4	2.50E-10	3.00E-10
SN5	1.50E-10	2.00E-10
SN6	3.00E-10	3.00E-10
Statistics		
Min	1.50E-10	2.00E-10
Max	3.50E-10	3.00E-10
Mean	2.70E-10	2.70E-10
Sigma	7.58E-11	4.47E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

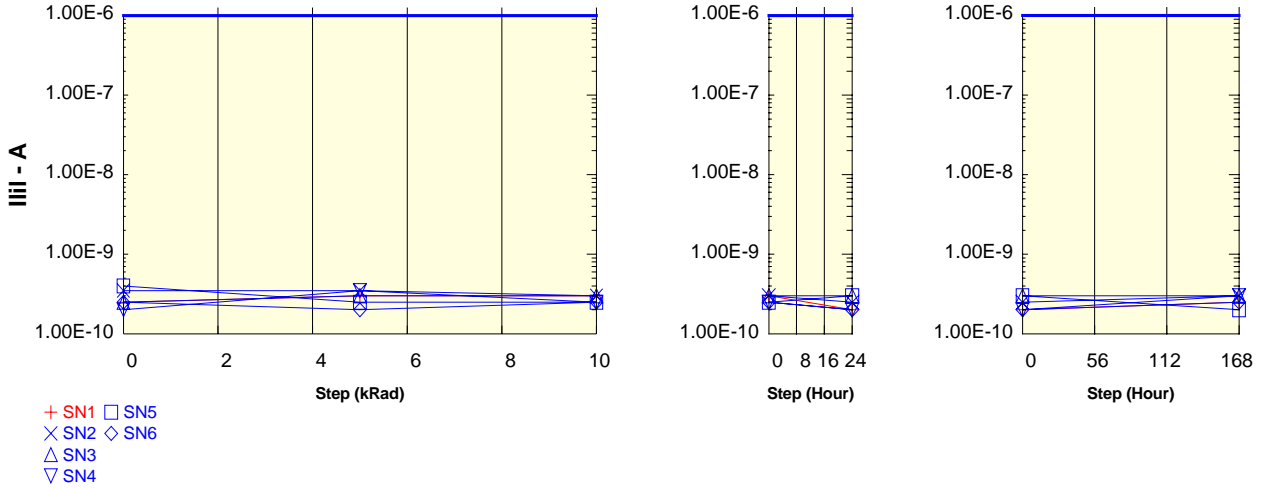
**Parameter : Input Leakage Current Low : I<sub>IIIA13</sub>**

**V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.50E-10	3.00E-10	3.00E-10
SN2	3.50E-10	3.50E-10	3.00E-10
SN3	2.50E-10	3.00E-10	3.00E-10
SN4	2.00E-10	3.50E-10	2.50E-10
SN5	4.00E-10	2.50E-10	2.50E-10
SN6	2.50E-10	2.00E-10	2.50E-10
Statistics			
Min	2.00E-10	2.00E-10	2.50E-10
Max	4.00E-10	3.50E-10	3.00E-10
Mean	2.90E-10	2.90E-10	2.70E-10
Sigma	8.22E-11	6.52E-11	2.74E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.00E-10	2.00E-10
SN2	3.00E-10	2.50E-10
SN3	3.00E-10	3.00E-10
SN4	2.50E-10	2.00E-10
SN5	2.50E-10	3.00E-10
SN6	2.50E-10	2.00E-10
Statistics		
Min	2.50E-10	2.00E-10
Max	3.00E-10	3.00E-10
Mean	2.70E-10	2.50E-10
Sigma	2.74E-11	5.00E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	2.50E-10
SN2	2.50E-10	3.00E-10
SN3	3.00E-10	3.00E-10
SN4	2.00E-10	3.00E-10
SN5	3.00E-10	2.00E-10
SN6	2.00E-10	2.50E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.00E-10	3.00E-10
Mean	2.50E-10	2.70E-10
Sigma	5.00E-11	4.47E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

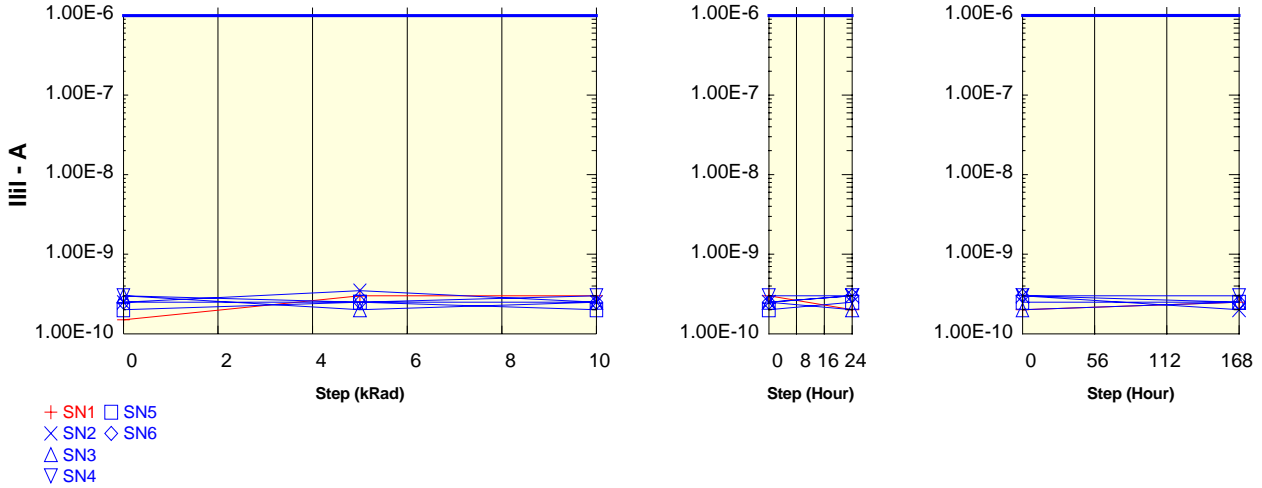
**Parameter : Input Leakage Current Low : I<sub>IIIA12</sub>**

**V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.50E-10	3.00E-10	3.00E-10
SN2	2.50E-10	3.50E-10	2.50E-10
SN3	3.00E-10	2.00E-10	2.50E-10
SN4	3.00E-10	2.50E-10	3.00E-10
SN5	2.00E-10	2.50E-10	2.00E-10
SN6	2.50E-10	2.50E-10	2.50E-10
Statistics			
Min	2.00E-10	2.00E-10	2.00E-10
Max	3.00E-10	3.50E-10	3.00E-10
Mean	2.60E-10	2.60E-10	2.50E-10
Sigma	4.18E-11	5.48E-11	3.54E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.00E-10	2.00E-10
SN2	2.50E-10	3.00E-10
SN3	2.50E-10	2.00E-10
SN4	3.00E-10	3.00E-10
SN5	2.00E-10	2.50E-10
SN6	2.50E-10	3.00E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.00E-10	3.00E-10
Mean	2.50E-10	2.70E-10
Sigma	3.54E-11	4.47E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	2.50E-10
SN2	3.00E-10	2.00E-10
SN3	2.00E-10	2.50E-10
SN4	3.00E-10	3.00E-10
SN5	2.50E-10	2.50E-10
SN6	3.00E-10	2.50E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.00E-10	3.00E-10
Mean	2.70E-10	2.50E-10
Sigma	4.47E-11	3.54E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

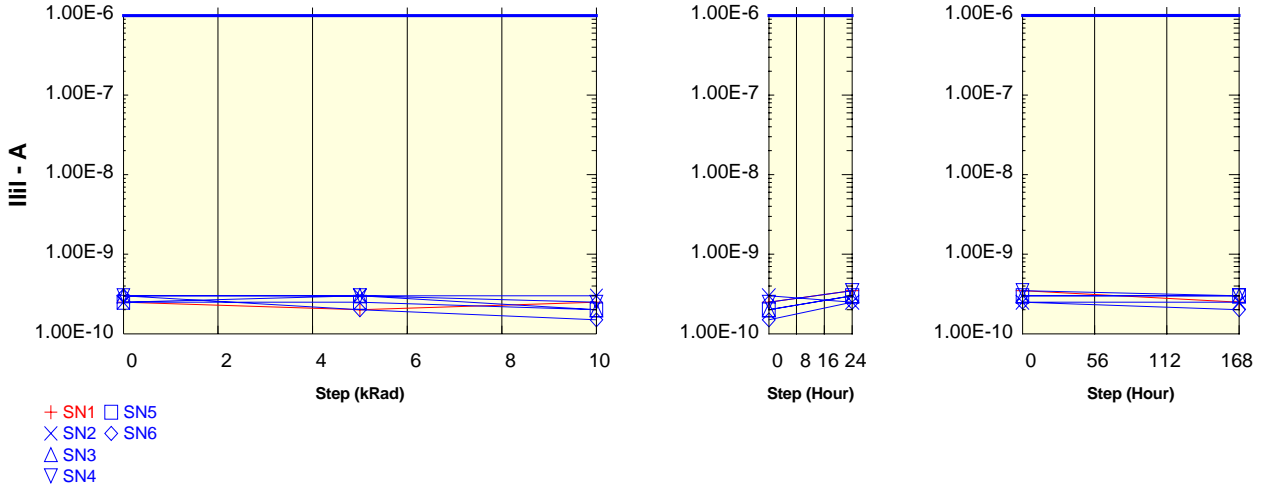
**Parameter : Input Leakage Current Low : I<sub>IIIA11</sub>**

**V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.50E-10	2.00E-10	2.50E-10
SN2	2.50E-10	3.00E-10	3.00E-10
SN3	3.00E-10	3.00E-10	2.00E-10
SN4	3.00E-10	3.00E-10	2.50E-10
SN5	2.50E-10	2.50E-10	2.00E-10
SN6	3.00E-10	2.00E-10	1.50E-10
Statistics			
Min	2.50E-10	2.00E-10	1.50E-10
Max	3.00E-10	3.00E-10	3.00E-10
Mean	2.80E-10	2.70E-10	2.20E-10
Sigma	2.74E-11	4.47E-11	5.70E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	3.50E-10
SN2	3.00E-10	2.50E-10
SN3	2.00E-10	3.00E-10
SN4	2.50E-10	3.50E-10
SN5	2.00E-10	3.00E-10
SN6	1.50E-10	2.50E-10
Statistics		
Min	1.50E-10	2.50E-10
Max	3.00E-10	3.50E-10
Mean	2.20E-10	2.90E-10
Sigma	5.70E-11	4.18E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.50E-10	2.50E-10
SN2	2.50E-10	2.50E-10
SN3	3.00E-10	3.00E-10
SN4	3.50E-10	3.00E-10
SN5	3.00E-10	3.00E-10
SN6	2.50E-10	2.00E-10
Statistics		
Min	2.50E-10	2.00E-10
Max	3.50E-10	3.00E-10
Mean	2.90E-10	2.70E-10
Sigma	4.18E-11	4.47E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

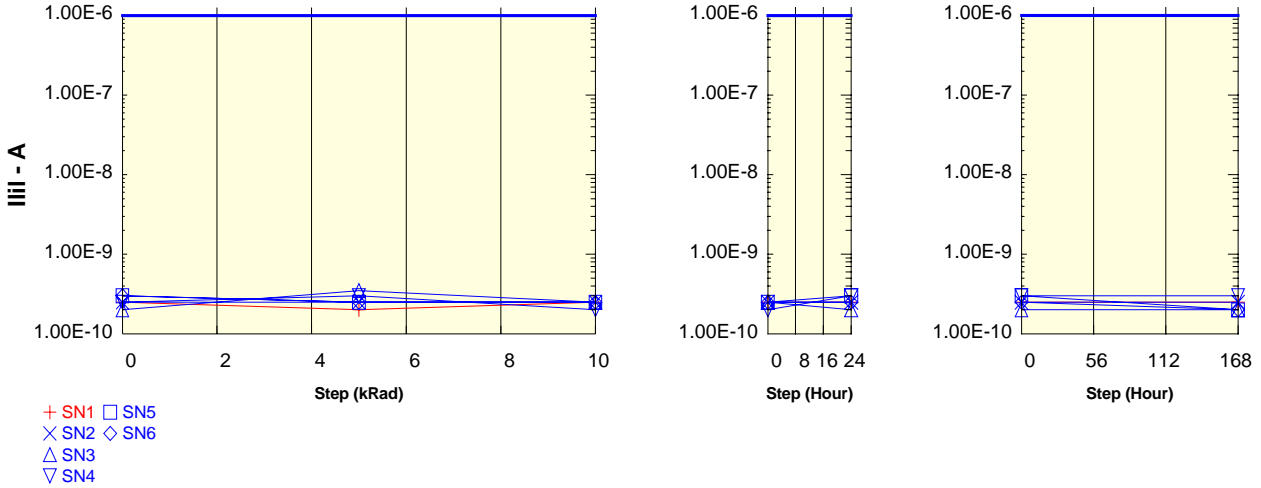
**Parameter : Input Leakage Current Low : I<sub>IIIA10</sub>**

**V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.50E-10	2.00E-10	2.50E-10
SN2	2.50E-10	2.50E-10	2.50E-10
SN3	2.00E-10	3.50E-10	2.50E-10
SN4	2.50E-10	3.00E-10	2.00E-10
SN5	3.00E-10	2.50E-10	2.50E-10
SN6	3.00E-10	2.50E-10	2.50E-10
Statistics			
Min	2.00E-10	2.50E-10	2.00E-10
Max	3.00E-10	3.50E-10	2.50E-10
Mean	2.60E-10	2.80E-10	2.40E-10
Sigma	4.18E-11	4.47E-11	2.24E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	2.50E-10
SN2	2.50E-10	2.50E-10
SN3	2.50E-10	2.00E-10
SN4	2.00E-10	3.00E-10
SN5	2.50E-10	3.00E-10
SN6	2.50E-10	2.50E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	2.50E-10	3.00E-10
Mean	2.40E-10	2.60E-10
Sigma	2.24E-11	4.18E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.50E-10	2.50E-10
SN2	2.50E-10	2.50E-10
SN3	2.00E-10	2.00E-10
SN4	3.00E-10	3.00E-10
SN5	3.00E-10	2.00E-10
SN6	2.50E-10	2.00E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.00E-10	3.00E-10
Mean	2.60E-10	2.30E-10
Sigma	4.18E-11	4.47E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

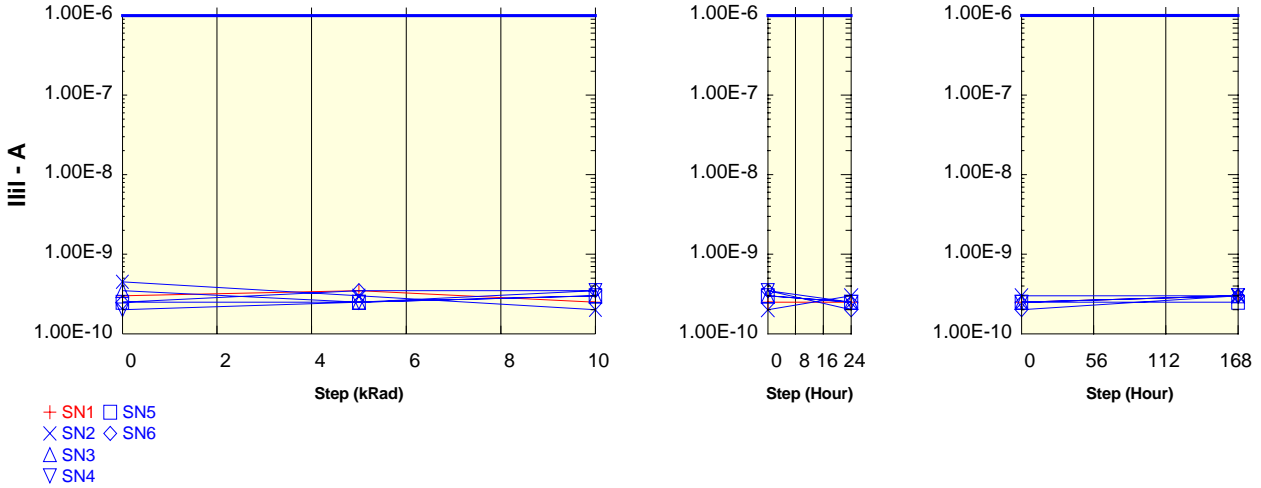
**Parameter : Input Leakage Current Low : I<sub>IIIA9</sub>**

**V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.00E-10	3.50E-10	2.50E-10
SN2	4.50E-10	3.00E-10	2.00E-10
SN3	3.50E-10	2.50E-10	3.00E-10
SN4	2.00E-10	2.50E-10	3.50E-10
SN5	2.50E-10	2.50E-10	3.00E-10
SN6	2.50E-10	3.50E-10	3.50E-10
Statistics			
Min	2.00E-10	2.50E-10	2.00E-10
Max	4.50E-10	3.50E-10	3.50E-10
Mean	3.00E-10	2.80E-10	3.00E-10
Sigma	1.00E-10	4.47E-11	6.12E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	2.50E-10
SN2	2.00E-10	3.00E-10
SN3	3.00E-10	2.50E-10
SN4	3.50E-10	2.50E-10
SN5	3.00E-10	2.50E-10
SN6	3.50E-10	2.00E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.50E-10	3.00E-10
Mean	3.00E-10	2.50E-10
Sigma	6.12E-11	3.54E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.50E-10	3.00E-10
SN2	3.00E-10	3.00E-10
SN3	2.50E-10	3.00E-10
SN4	2.50E-10	3.00E-10
SN5	2.50E-10	2.50E-10
SN6	2.00E-10	3.00E-10
Statistics		
Min	2.00E-10	2.50E-10
Max	3.00E-10	3.00E-10
Mean	2.50E-10	2.90E-10
Sigma	3.54E-11	2.24E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

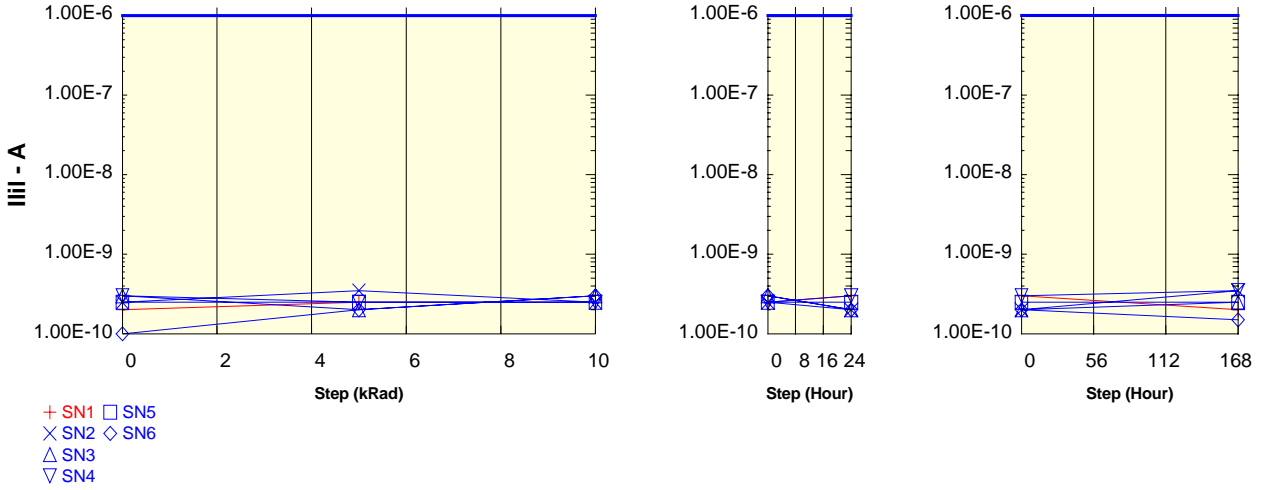
Parameter : Input Leakage Current Low : I<sub>IIIA8</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.00E-10	2.50E-10	2.50E-10
SN2	2.50E-10	3.50E-10	2.50E-10
SN3	3.00E-10	2.00E-10	3.00E-10
SN4	3.00E-10	2.50E-10	2.50E-10
SN5	2.50E-10	2.50E-10	2.50E-10
SN6	1.00E-10	2.00E-10	3.00E-10
Statistics			
Min	1.00E-10	2.00E-10	2.50E-10
Max	3.00E-10	3.50E-10	3.00E-10
Mean	2.40E-10	2.50E-10	2.70E-10
Sigma	8.22E-11	6.12E-11	2.74E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	3.00E-10
SN2	2.50E-10	2.00E-10
SN3	3.00E-10	2.00E-10
SN4	2.50E-10	3.00E-10
SN5	2.50E-10	2.50E-10
SN6	3.00E-10	2.00E-10
Statistics		
Min	2.50E-10	2.00E-10
Max	3.00E-10	3.00E-10
Mean	2.70E-10	2.30E-10
Sigma	2.74E-11	4.47E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.00E-10	2.00E-10
SN2	2.00E-10	3.50E-10
SN3	2.00E-10	2.50E-10
SN4	3.00E-10	3.50E-10
SN5	2.50E-10	2.50E-10
SN6	2.00E-10	1.50E-10
Statistics		
Min	2.00E-10	1.50E-10
Max	3.00E-10	3.50E-10
Mean	2.30E-10	2.70E-10
Sigma	4.47E-11	8.37E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

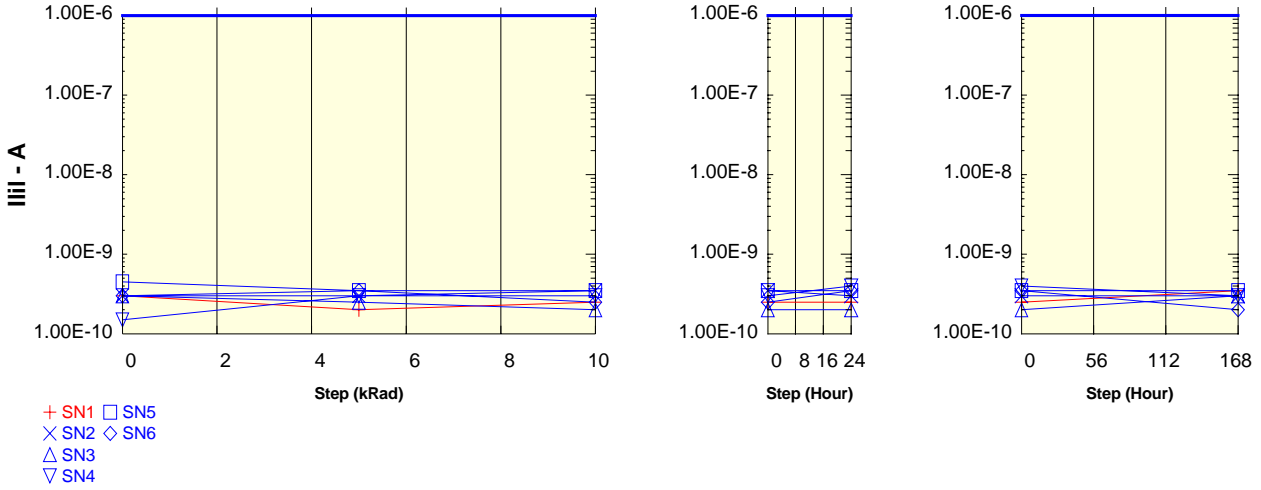
Parameter : Input Leakage Current Low : I<sub>IIIA7</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.00E-10	2.00E-10	2.50E-10
SN2	3.00E-10	3.00E-10	3.50E-10
SN3	3.00E-10	2.50E-10	2.00E-10
SN4	1.50E-10	3.00E-10	3.00E-10
SN5	4.50E-10	3.50E-10	3.50E-10
SN6	3.00E-10	3.50E-10	2.50E-10
Statistics			
Min	1.50E-10	2.50E-10	2.00E-10
Max	4.50E-10	3.50E-10	3.50E-10
Mean	3.00E-10	3.10E-10	2.90E-10
Sigma	1.06E-10	4.18E-11	6.52E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	2.50E-10
SN2	3.50E-10	3.00E-10
SN3	2.00E-10	2.00E-10
SN4	3.00E-10	4.00E-10
SN5	3.50E-10	3.50E-10
SN6	2.50E-10	3.50E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.50E-10	4.00E-10
Mean	2.90E-10	3.20E-10
Sigma	6.52E-11	7.58E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.50E-10	3.50E-10
SN2	3.00E-10	3.00E-10
SN3	2.00E-10	3.00E-10
SN4	4.00E-10	3.00E-10
SN5	3.50E-10	3.50E-10
SN6	3.50E-10	2.00E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	4.00E-10	3.50E-10
Mean	3.20E-10	2.90E-10
Sigma	7.58E-11	5.48E-11



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

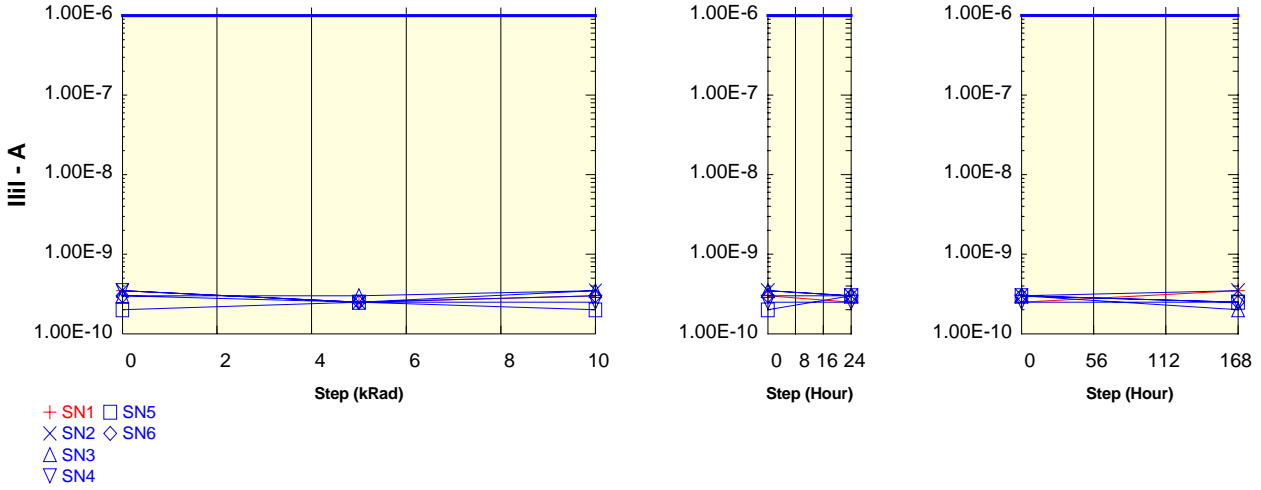
Parameter : Input Leakage Current Low : I<sub>IIIA6</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.50E-10	2.50E-10	3.00E-10
SN2	3.50E-10	2.50E-10	3.50E-10
SN3	3.00E-10	3.00E-10	3.50E-10
SN4	3.50E-10	2.50E-10	2.50E-10
SN5	2.00E-10	2.50E-10	2.00E-10
SN6	3.00E-10	2.50E-10	3.00E-10
Statistics			
Min	2.00E-10	2.50E-10	2.00E-10
Max	3.50E-10	3.00E-10	3.50E-10
Mean	3.00E-10	2.60E-10	2.90E-10
Sigma	6.12E-11	2.24E-11	6.52E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.00E-10	2.50E-10
SN2	3.50E-10	3.00E-10
SN3	3.50E-10	3.00E-10
SN4	2.50E-10	2.50E-10
SN5	2.00E-10	3.00E-10
SN6	3.00E-10	3.00E-10
Statistics		
Min	2.00E-10	2.50E-10
Max	3.50E-10	3.00E-10
Mean	2.90E-10	2.90E-10
Sigma	6.52E-11	2.24E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.50E-10	3.50E-10
SN2	3.00E-10	3.50E-10
SN3	3.00E-10	2.00E-10
SN4	2.50E-10	2.50E-10
SN5	3.00E-10	2.50E-10
SN6	3.00E-10	2.50E-10
Statistics		
Min	2.50E-10	2.00E-10
Max	3.00E-10	3.50E-10
Mean	2.90E-10	2.60E-10
Sigma	2.24E-11	5.48E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

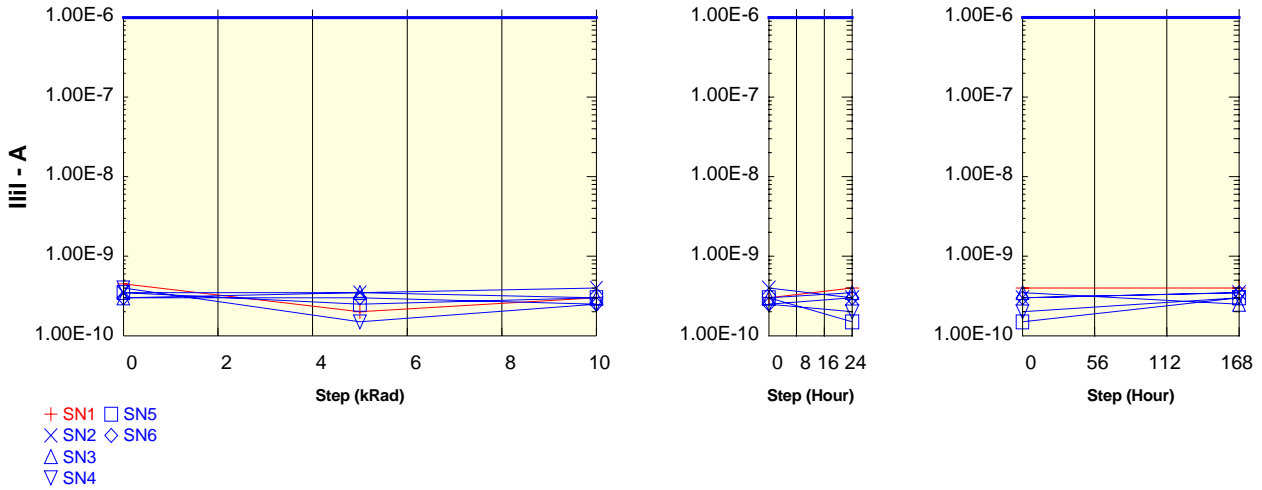
Parameter : Input Leakage Current Low : I<sub>IIIA5</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.50E-10	2.00E-10	3.00E-10
SN2	3.50E-10	3.50E-10	4.00E-10
SN3	3.00E-10	3.50E-10	3.00E-10
SN4	4.00E-10	1.50E-10	2.50E-10
SN5	3.50E-10	2.50E-10	3.00E-10
SN6	3.00E-10	3.00E-10	2.50E-10
Statistics			
Min	3.00E-10	1.50E-10	2.50E-10
Max	4.00E-10	3.50E-10	4.00E-10
Mean	3.40E-10	2.80E-10	3.00E-10
Sigma	4.18E-11	8.37E-11	6.12E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.00E-10	4.00E-10
SN2	4.00E-10	3.00E-10
SN3	3.00E-10	3.50E-10
SN4	2.50E-10	2.00E-10
SN5	3.00E-10	1.50E-10
SN6	2.50E-10	3.00E-10
Statistics		
Min	2.50E-10	1.50E-10
Max	4.00E-10	3.50E-10
Mean	3.00E-10	2.60E-10
Sigma	6.12E-11	8.22E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.00E-10	4.00E-10
SN2	3.00E-10	3.50E-10
SN3	3.50E-10	2.50E-10
SN4	2.00E-10	3.00E-10
SN5	1.50E-10	3.00E-10
SN6	3.00E-10	3.50E-10
Statistics		
Min	1.50E-10	2.50E-10
Max	3.50E-10	3.50E-10
Mean	2.60E-10	3.10E-10
Sigma	8.22E-11	4.18E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

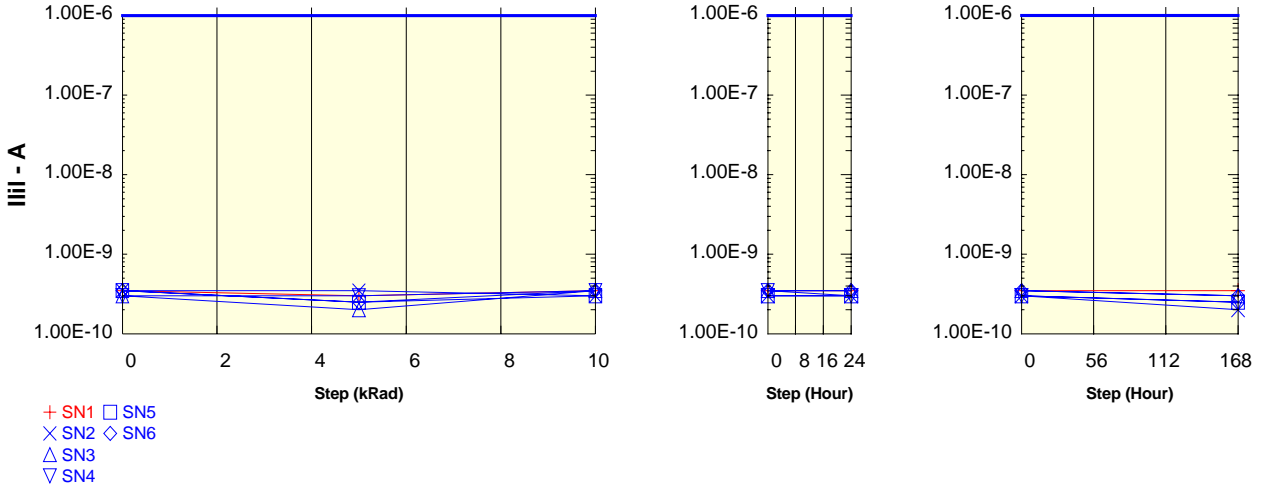
Parameter : Input Leakage Current Low : I<sub>IIIA4</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.50E-10	3.00E-10	3.50E-10
SN2	3.50E-10	3.50E-10	3.00E-10
SN3	3.00E-10	2.00E-10	3.50E-10
SN4	3.00E-10	3.00E-10	3.50E-10
SN5	3.50E-10	2.50E-10	3.00E-10
SN6	3.50E-10	2.50E-10	3.50E-10
Statistics			
Min	3.00E-10	2.00E-10	3.00E-10
Max	3.50E-10	3.50E-10	3.50E-10
Mean	3.30E-10	2.70E-10	3.30E-10
Sigma	2.74E-11	5.70E-11	2.74E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.50E-10	3.50E-10
SN2	3.00E-10	3.00E-10
SN3	3.50E-10	3.50E-10
SN4	3.50E-10	3.00E-10
SN5	3.00E-10	3.00E-10
SN6	3.50E-10	3.50E-10
Statistics		
Min	3.00E-10	3.00E-10
Max	3.50E-10	3.50E-10
Mean	3.30E-10	3.20E-10
Sigma	2.74E-11	2.74E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.50E-10	3.50E-10
SN2	3.00E-10	2.00E-10
SN3	3.50E-10	3.00E-10
SN4	3.00E-10	2.50E-10
SN5	3.00E-10	2.50E-10
SN6	3.50E-10	3.00E-10
Statistics		
Min	3.00E-10	2.00E-10
Max	3.50E-10	3.00E-10
Mean	3.20E-10	2.60E-10
Sigma	2.74E-11	4.18E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

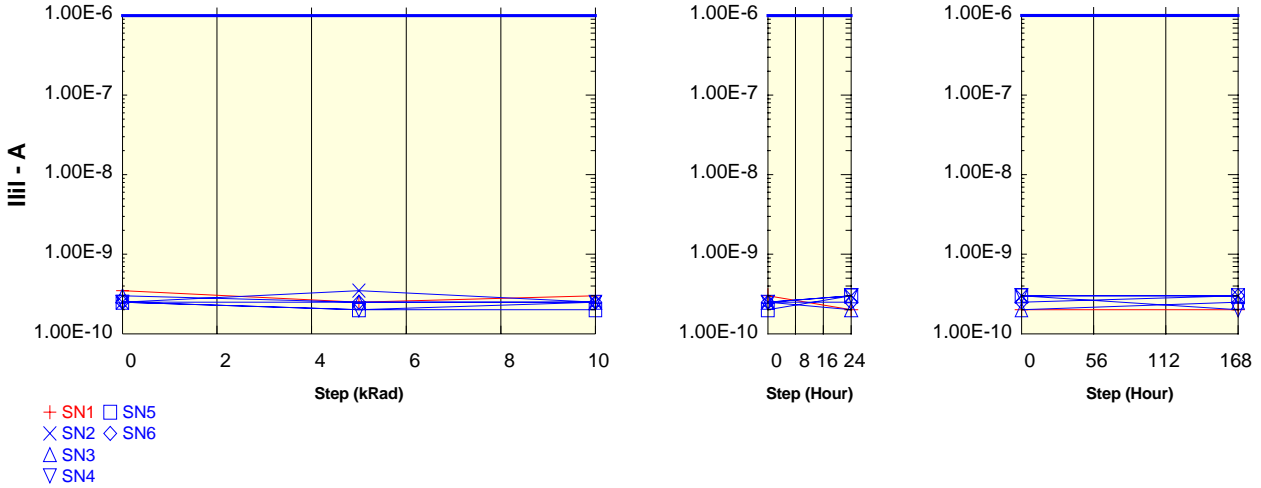
Parameter : Input Leakage Current Low : I<sub>IIIA3</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.50E-10	2.50E-10	3.00E-10
SN2	2.50E-10	3.50E-10	2.50E-10
SN3	3.00E-10	2.50E-10	2.50E-10
SN4	2.50E-10	2.00E-10	2.50E-10
SN5	2.50E-10	2.00E-10	2.00E-10
SN6	2.50E-10	2.50E-10	2.50E-10
Statistics			
Min	2.50E-10	2.00E-10	2.00E-10
Max	3.00E-10	3.50E-10	2.50E-10
Mean	2.60E-10	2.50E-10	2.40E-10
Sigma	2.24E-11	6.12E-11	2.24E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.00E-10	2.00E-10
SN2	2.50E-10	3.00E-10
SN3	2.50E-10	2.00E-10
SN4	2.50E-10	3.00E-10
SN5	2.00E-10	3.00E-10
SN6	2.50E-10	2.50E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	2.50E-10	3.00E-10
Mean	2.40E-10	2.70E-10
Sigma	2.24E-11	4.47E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	2.00E-10
SN2	3.00E-10	3.00E-10
SN3	2.00E-10	2.50E-10
SN4	3.00E-10	2.00E-10
SN5	3.00E-10	3.00E-10
SN6	2.50E-10	3.00E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.00E-10	3.00E-10
Mean	2.70E-10	2.70E-10
Sigma	4.47E-11	4.47E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

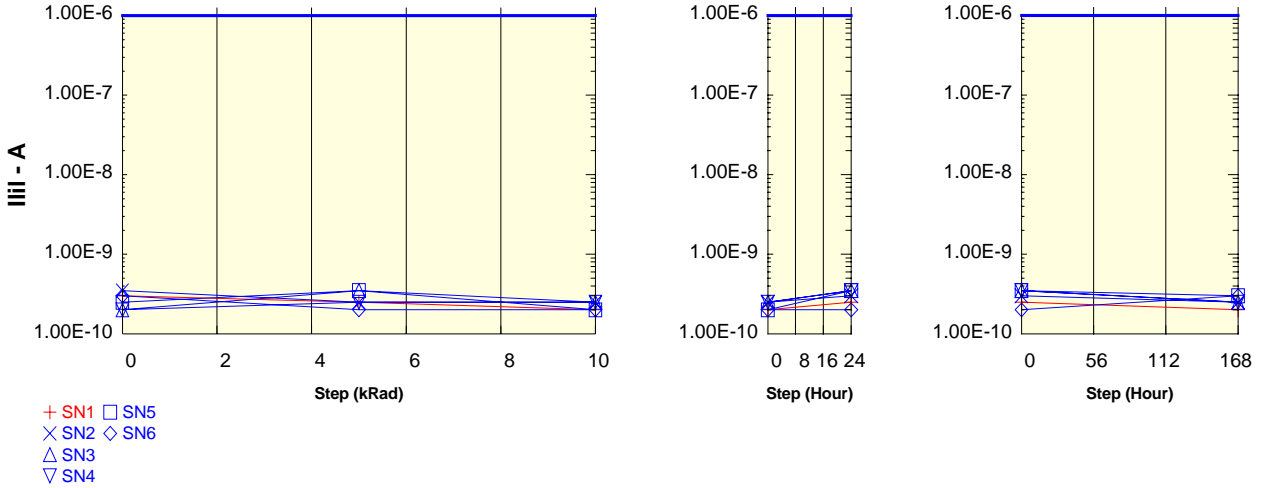
Parameter : Input Leakage Current Low : I<sub>IIIA2</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.00E-10	2.50E-10	2.00E-10
SN2	3.50E-10	2.50E-10	2.50E-10
SN3	2.00E-10	3.50E-10	2.50E-10
SN4	2.00E-10	2.50E-10	2.50E-10
SN5	2.50E-10	3.50E-10	2.00E-10
SN6	3.00E-10	2.00E-10	2.00E-10
Statistics			
Min	2.00E-10	2.00E-10	2.00E-10
Max	3.50E-10	3.50E-10	2.50E-10
Mean	2.60E-10	2.80E-10	2.30E-10
Sigma	6.52E-11	6.71E-11	2.74E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.00E-10	2.50E-10
SN2	2.50E-10	3.00E-10
SN3	2.50E-10	3.50E-10
SN4	2.50E-10	3.50E-10
SN5	2.00E-10	3.50E-10
SN6	2.00E-10	2.00E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	2.50E-10	3.50E-10
Mean	2.30E-10	3.10E-10
Sigma	2.74E-11	6.52E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.50E-10	2.00E-10
SN2	3.00E-10	2.50E-10
SN3	3.50E-10	2.50E-10
SN4	3.50E-10	2.50E-10
SN5	3.50E-10	3.00E-10
SN6	2.00E-10	3.00E-10
Statistics		
Min	2.00E-10	2.50E-10
Max	3.50E-10	3.00E-10
Mean	3.10E-10	2.70E-10
Sigma	6.52E-11	2.74E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

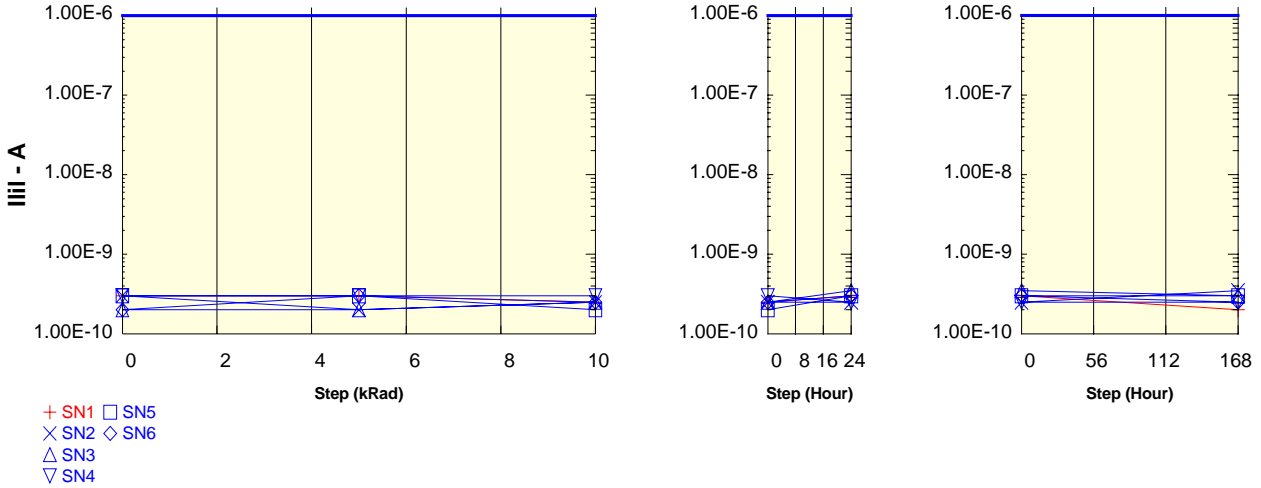
**Parameter : Input Leakage Current Low : I<sub>IIIA1</sub>**

**V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.00E-10	3.00E-10	2.50E-10
SN2	3.00E-10	2.00E-10	2.50E-10
SN3	2.00E-10	2.00E-10	2.50E-10
SN4	3.00E-10	3.00E-10	3.00E-10
SN5	3.00E-10	3.00E-10	2.00E-10
SN6	2.00E-10	3.00E-10	2.50E-10
Statistics			
Min	2.00E-10	2.00E-10	2.00E-10
Max	3.00E-10	3.00E-10	3.00E-10
Mean	2.60E-10	2.60E-10	2.50E-10
Sigma	5.48E-11	5.48E-11	3.54E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	3.00E-10
SN2	2.50E-10	2.50E-10
SN3	2.50E-10	3.50E-10
SN4	3.00E-10	2.50E-10
SN5	2.00E-10	3.00E-10
SN6	2.50E-10	3.00E-10
Statistics		
Min	2.00E-10	2.50E-10
Max	3.00E-10	3.50E-10
Mean	2.50E-10	2.90E-10
Sigma	3.54E-11	4.18E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.00E-10	2.00E-10
SN2	2.50E-10	3.50E-10
SN3	3.50E-10	3.00E-10
SN4	2.50E-10	2.50E-10
SN5	3.00E-10	3.00E-10
SN6	3.00E-10	2.50E-10
Statistics		
Min	2.50E-10	2.50E-10
Max	3.50E-10	3.50E-10
Mean	2.90E-10	2.90E-10
Sigma	4.18E-11	4.18E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

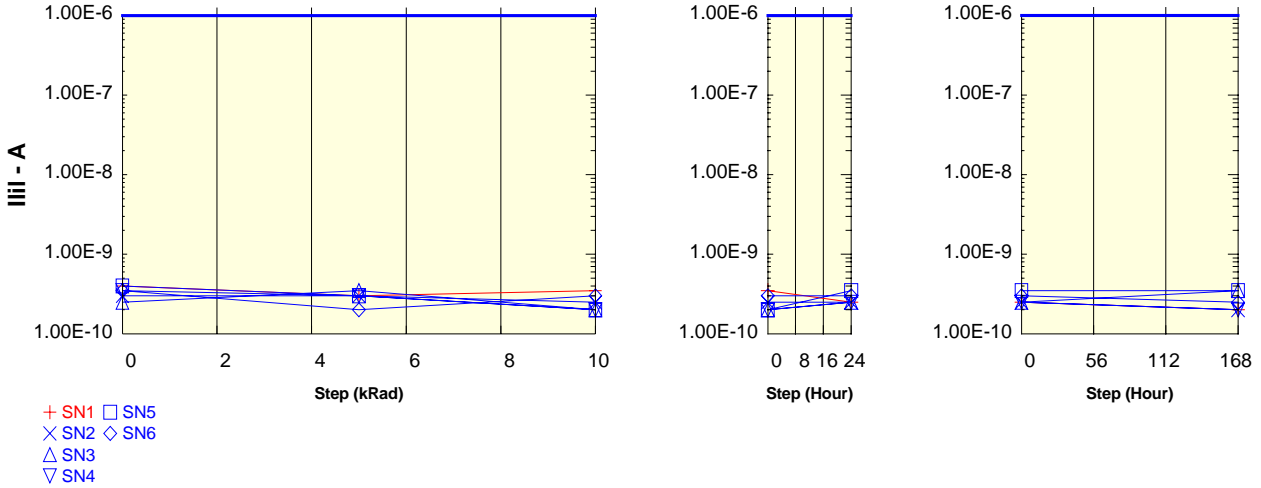
Parameter : Input Leakage Current Low : I<sub>IIIA0</sub>

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.00E-10	3.00E-10	3.50E-10
SN2	3.00E-10	3.00E-10	2.50E-10
SN3	2.50E-10	3.50E-10	2.00E-10
SN4	3.50E-10	3.00E-10	2.00E-10
SN5	4.00E-10	3.00E-10	2.00E-10
SN6	3.50E-10	2.00E-10	3.00E-10
Statistics			
Min	2.50E-10	2.00E-10	2.00E-10
Max	4.00E-10	3.50E-10	3.00E-10
Mean	3.30E-10	2.90E-10	2.30E-10
Sigma	5.70E-11	5.48E-11	4.47E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.50E-10	2.50E-10
SN2	2.50E-10	2.50E-10
SN3	2.00E-10	2.50E-10
SN4	2.00E-10	2.50E-10
SN5	2.00E-10	3.50E-10
SN6	3.00E-10	3.00E-10
Statistics		
Min	2.00E-10	2.50E-10
Max	3.00E-10	3.50E-10
Mean	2.30E-10	2.80E-10
Sigma	4.47E-11	4.47E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.50E-10	2.00E-10
SN2	2.50E-10	2.00E-10
SN3	2.50E-10	3.50E-10
SN4	2.50E-10	2.00E-10
SN5	3.50E-10	3.50E-10
SN6	3.00E-10	2.50E-10
Statistics		
Min	2.50E-10	2.00E-10
Max	3.50E-10	3.50E-10
Mean	2.80E-10	2.70E-10
Sigma	4.47E-11	7.58E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

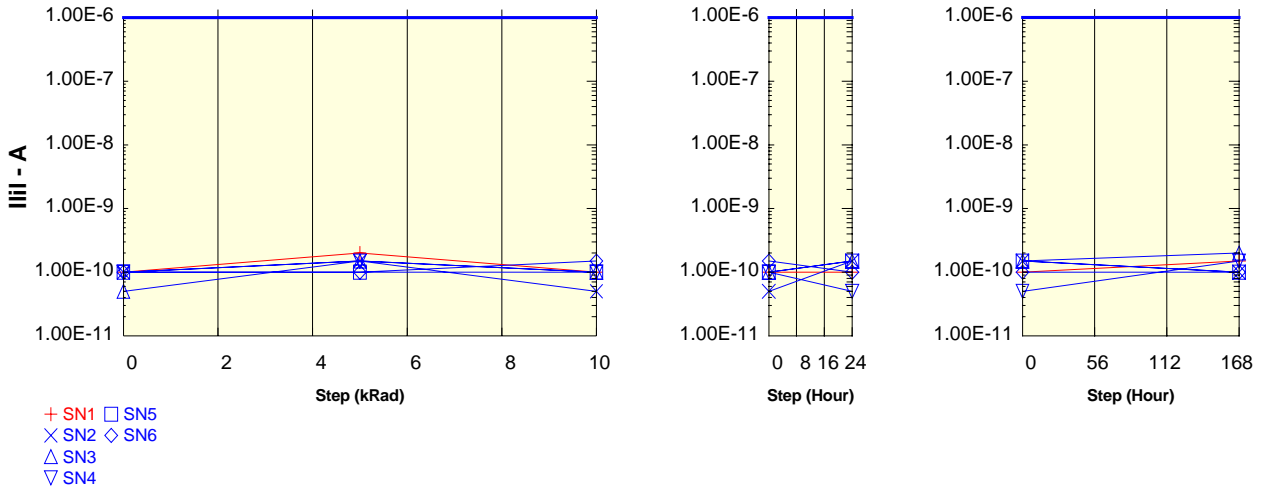
Parameter : Input Leakage Current Low : I<sub>il</sub>/RST

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.00E-10	2.00E-10	1.00E-10
SN2	1.00E-10	1.50E-10	5.00E-11
SN3	5.00E-11	1.50E-10	1.00E-10
SN4	1.00E-10	1.50E-10	1.00E-10
SN5	1.00E-10	1.00E-10	1.00E-10
SN6	1.00E-10	1.00E-10	1.50E-10
Statistics			
Min	5.00E-11	1.00E-10	5.00E-11
Max	1.00E-10	1.50E-10	1.50E-10
Mean	9.00E-11	1.30E-10	1.00E-10
Sigma	2.24E-11	2.74E-11	3.54E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.00E-10	1.00E-10
SN2	5.00E-11	1.50E-10
SN3	1.00E-10	1.50E-10
SN4	1.00E-10	5.00E-11
SN5	1.00E-10	1.50E-10
SN6	1.50E-10	1.00E-10
Statistics		
Min	5.00E-11	5.00E-11
Max	1.50E-10	1.50E-10
Mean	1.00E-10	1.20E-10
Sigma	3.54E-11	4.47E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.00E-10	1.50E-10
SN2	1.50E-10	1.00E-10
SN3	1.50E-10	2.00E-10
SN4	5.00E-11	1.50E-10
SN5	1.50E-10	1.00E-10
SN6	1.00E-10	1.00E-10
Statistics		
Min	5.00E-11	1.00E-10
Max	1.50E-10	2.00E-10
Mean	1.20E-10	1.30E-10
Sigma	4.47E-11	4.47E-11



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

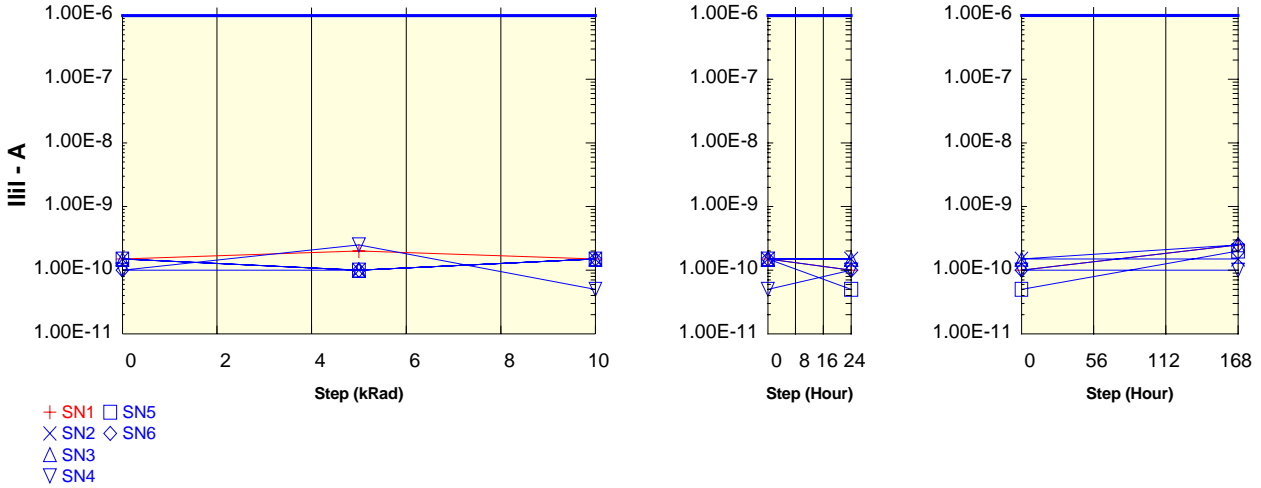
Parameter : Input Leakage Current Low : I<sub>il</sub>/CE

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>cc</sub>Max

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.50E-10	2.00E-10	1.50E-10
SN2	1.50E-10	1.00E-10	1.50E-10
SN3	1.50E-10	1.00E-10	1.50E-10
SN4	1.00E-10	2.50E-10	5.00E-11
SN5	1.50E-10	1.00E-10	1.50E-10
SN6	1.00E-10	1.00E-10	1.50E-10
Statistics			
Min	1.00E-10	1.00E-10	5.00E-11
Max	1.50E-10	2.50E-10	1.50E-10
Mean	1.30E-10	1.30E-10	1.30E-10
Sigma	2.74E-11	6.71E-11	4.47E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.50E-10	1.00E-10
SN2	1.50E-10	1.50E-10
SN3	1.50E-10	1.50E-10
SN4	5.00E-11	1.00E-10
SN5	1.50E-10	5.00E-11
SN6	1.50E-10	1.00E-10
Statistics		
Min	5.00E-11	5.00E-11
Max	1.50E-10	1.50E-10
Mean	1.30E-10	1.10E-10
Sigma	4.47E-11	4.18E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.00E-10	2.50E-10
SN2	1.50E-10	1.50E-10
SN3	1.50E-10	2.50E-10
SN4	1.00E-10	1.00E-10
SN5	5.00E-11	2.00E-10
SN6	1.00E-10	2.50E-10
Statistics		
Min	5.00E-11	1.00E-10
Max	1.50E-10	2.50E-10
Mean	1.10E-10	1.90E-10
Sigma	4.18E-11	6.52E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

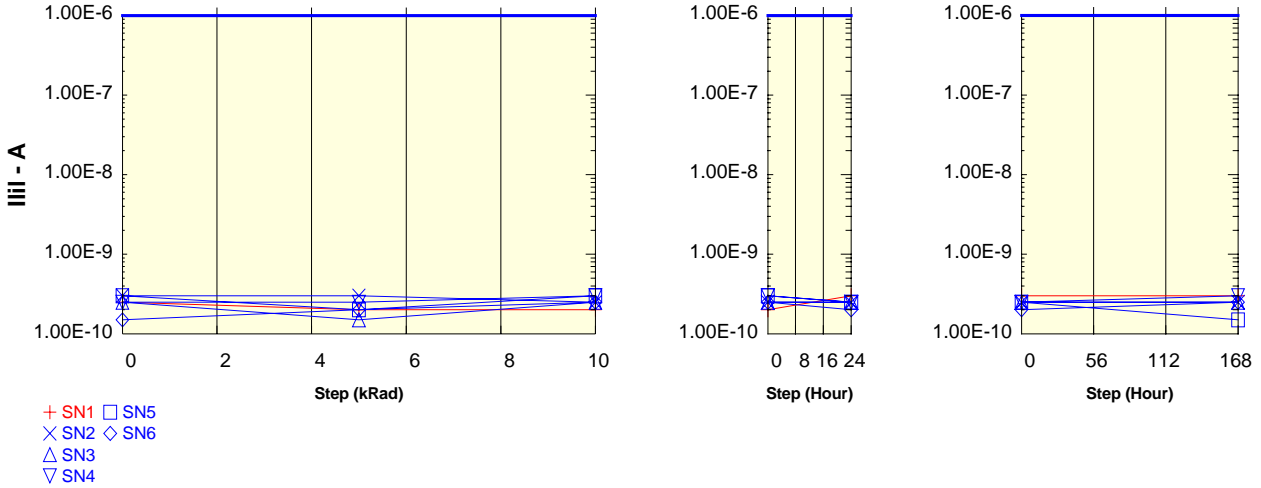
Parameter : Input Leakage Current Low : I<sub>ii</sub>/OE

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>cc</sub>Max

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.50E-10	2.00E-10	2.00E-10
SN2	3.00E-10	3.00E-10	2.50E-10
SN3	2.50E-10	1.50E-10	2.50E-10
SN4	2.50E-10	2.50E-10	3.00E-10
SN5	3.00E-10	2.00E-10	3.00E-10
SN6	1.50E-10	2.00E-10	2.50E-10
Statistics			
Min	1.50E-10	1.50E-10	2.50E-10
Max	3.00E-10	3.00E-10	3.00E-10
Mean	2.50E-10	2.20E-10	2.70E-10
Sigma	6.12E-11	5.70E-11	2.74E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.00E-10	3.00E-10
SN2	2.50E-10	2.50E-10
SN3	2.50E-10	2.50E-10
SN4	3.00E-10	2.50E-10
SN5	3.00E-10	2.50E-10
SN6	2.50E-10	2.00E-10
Statistics		
Min	2.50E-10	2.00E-10
Max	3.00E-10	2.50E-10
Mean	2.70E-10	2.40E-10
Sigma	2.74E-11	2.24E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.00E-10	3.00E-10
SN2	2.50E-10	2.50E-10
SN3	2.50E-10	2.50E-10
SN4	2.50E-10	3.00E-10
SN5	2.50E-10	1.50E-10
SN6	2.00E-10	2.50E-10
Statistics		
Min	2.00E-10	1.50E-10
Max	2.50E-10	3.00E-10
Mean	2.40E-10	2.40E-10
Sigma	2.24E-11	5.48E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

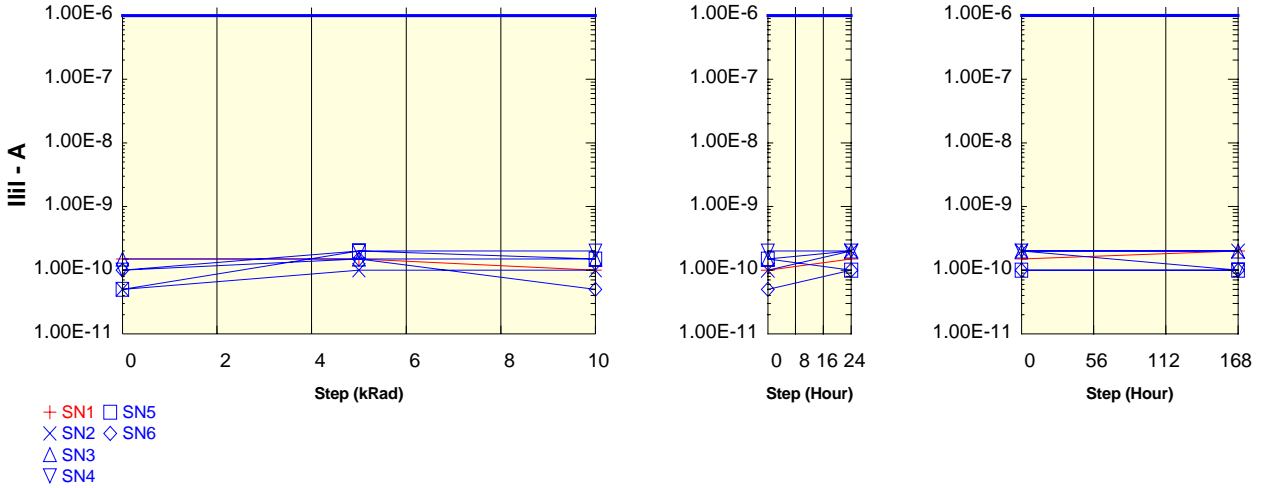
Parameter : Input Leakage Current Low : I<sub>il</sub>/WE

V<sub>in</sub> = Gnd. V<sub>cc</sub> = V<sub>ccMax</sub>

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.50E-10	1.50E-10	1.00E-10
SN2	5.00E-11	1.00E-10	1.00E-10
SN3	1.50E-10	1.50E-10	1.50E-10
SN4	1.00E-10	2.00E-10	2.00E-10
SN5	5.00E-11	2.00E-10	1.50E-10
SN6	1.00E-10	1.50E-10	5.00E-11
Statistics			
Min	5.00E-11	1.00E-10	5.00E-11
Max	1.50E-10	2.00E-10	2.00E-10
Mean	9.00E-11	1.60E-10	1.30E-10
Sigma	4.18E-11	4.18E-11	5.70E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.00E-10	1.50E-10
SN2	1.00E-10	2.00E-10
SN3	1.50E-10	2.00E-10
SN4	2.00E-10	2.00E-10
SN5	1.50E-10	1.00E-10
SN6	5.00E-11	1.00E-10
Statistics		
Min	5.00E-11	1.00E-10
Max	2.00E-10	2.00E-10
Mean	1.30E-10	1.60E-10
Sigma	5.70E-11	5.48E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.50E-10	2.00E-10
SN2	2.00E-10	2.00E-10
SN3	2.00E-10	2.00E-10
SN4	2.00E-10	1.00E-10
SN5	1.00E-10	1.00E-10
SN6	1.00E-10	1.00E-10
Statistics		
Min	1.00E-10	1.00E-10
Max	2.00E-10	2.00E-10
Mean	1.60E-10	1.40E-10
Sigma	5.48E-11	5.48E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

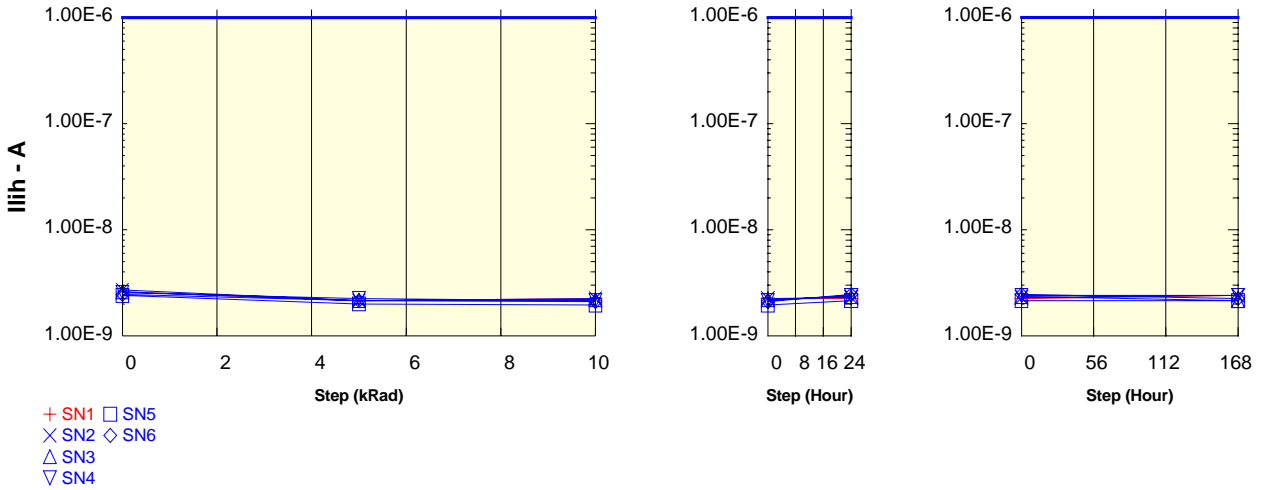
Parameter : Input Leakage Current High : IlihA20

Vin = Vcc. Vcc = VccMax

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.60E-9	2.15E-9	2.25E-9
SN2	2.70E-9	2.15E-9	2.25E-9
SN3	2.60E-9	2.15E-9	2.20E-9
SN4	2.55E-9	2.25E-9	2.15E-9
SN5	2.40E-9	2.00E-9	1.95E-9
SN6	2.45E-9	2.15E-9	2.10E-9
Statistics			
Min	2.40E-9	2.00E-9	1.95E-9
Max	2.70E-9	2.25E-9	2.25E-9
Mean	2.54E-9	2.14E-9	2.13E-9
Sigma	1.19E-10	8.94E-11	1.15E-10

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.25E-9	2.25E-9
SN2	2.25E-9	2.30E-9
SN3	2.20E-9	2.35E-9
SN4	2.15E-9	2.40E-9
SN5	1.95E-9	2.15E-9
SN6	2.10E-9	2.45E-9
Statistics		
Min	1.95E-9	2.15E-9
Max	2.25E-9	2.45E-9
Mean	2.13E-9	2.33E-9
Sigma	1.15E-10	1.15E-10

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.25E-9	2.40E-9
SN2	2.30E-9	2.40E-9
SN3	2.35E-9	2.15E-9
SN4	2.40E-9	2.40E-9
SN5	2.15E-9	2.15E-9
SN6	2.45E-9	2.25E-9
Statistics		
Min	2.15E-9	2.15E-9
Max	2.45E-9	2.40E-9
Mean	2.33E-9	2.27E-9
Sigma	1.15E-10	1.25E-10

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

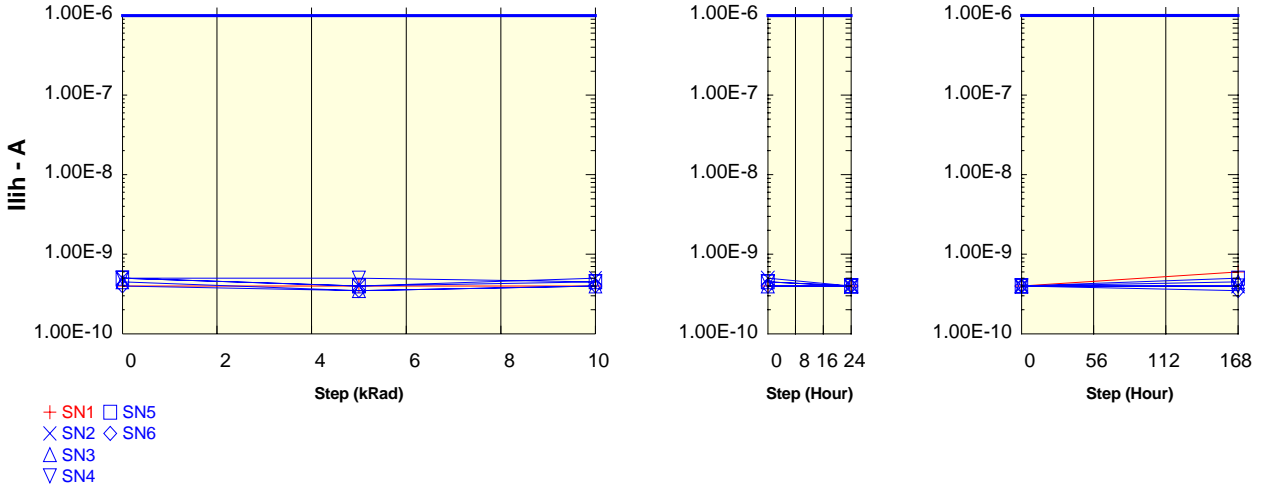
Parameter : Input Leakage Current High : I<sub>ih</sub>A19

V<sub>in</sub> = V<sub>cc</sub>. V<sub>cc</sub> = V<sub>cc</sub>Max

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.00E-10	4.00E-10	4.00E-10
SN2	5.00E-10	4.00E-10	5.00E-10
SN3	4.50E-10	3.50E-10	4.00E-10
SN4	5.00E-10	5.00E-10	4.50E-10
SN5	5.00E-10	4.00E-10	4.50E-10
SN6	4.00E-10	3.50E-10	4.00E-10
Statistics			
Min	4.00E-10	3.50E-10	4.00E-10
Max	5.00E-10	5.00E-10	5.00E-10
Mean	4.70E-10	4.00E-10	4.40E-10
Sigma	4.47E-11	6.12E-11	4.18E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.00E-10	4.00E-10
SN2	5.00E-10	4.00E-10
SN3	4.00E-10	4.00E-10
SN4	4.50E-10	4.00E-10
SN5	4.50E-10	4.00E-10
SN6	4.00E-10	4.00E-10
Statistics		
Min	4.00E-10	4.00E-10
Max	5.00E-10	4.00E-10
Mean	4.40E-10	4.00E-10
Sigma	4.18E-11	0.00E+0

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.00E-10	6.00E-10
SN2	4.00E-10	4.00E-10
SN3	4.00E-10	4.50E-10
SN4	4.00E-10	4.00E-10
SN5	4.00E-10	5.00E-10
SN6	4.00E-10	3.50E-10
Statistics		
Min	4.00E-10	3.50E-10
Max	4.00E-10	5.00E-10
Mean	4.00E-10	4.20E-10
Sigma	0.00E+0	5.70E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

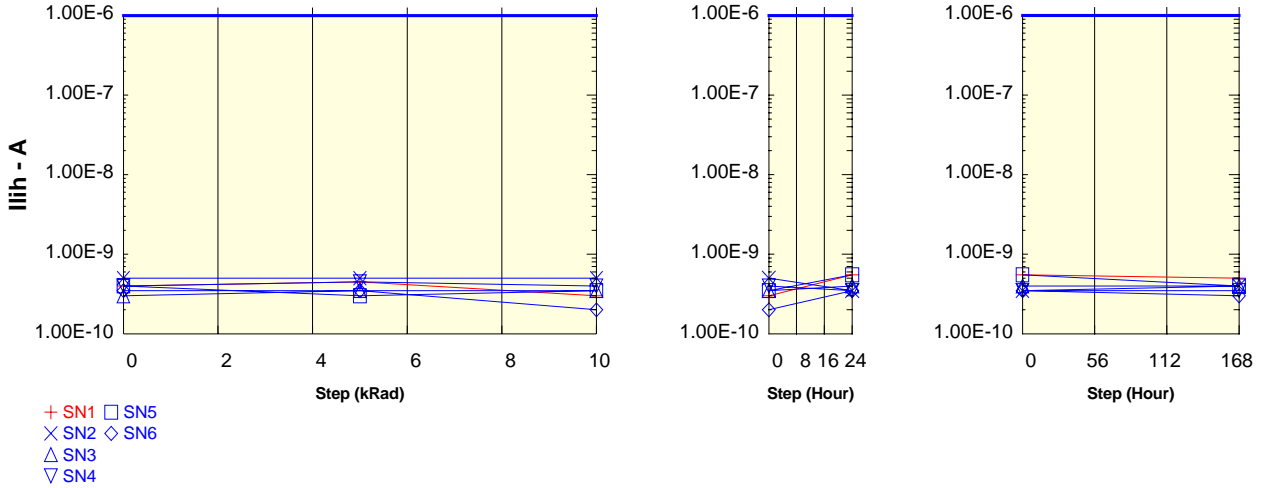
**Parameter : Input Leakage Current High : IlihA18**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.00E-10	4.50E-10	3.00E-10
SN2	5.00E-10	5.00E-10	5.00E-10
SN3	3.00E-10	3.50E-10	3.50E-10
SN4	4.00E-10	4.50E-10	4.00E-10
SN5	4.00E-10	3.00E-10	3.50E-10
SN6	3.50E-10	3.50E-10	2.00E-10
Statistics			
Min	3.00E-10	3.00E-10	2.00E-10
Max	5.00E-10	5.00E-10	5.00E-10
Mean	3.90E-10	3.90E-10	3.60E-10
Sigma	7.42E-11	8.22E-11	1.08E-10

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.00E-10	5.50E-10
SN2	5.00E-10	3.50E-10
SN3	3.50E-10	4.00E-10
SN4	4.00E-10	3.50E-10
SN5	3.50E-10	5.50E-10
SN6	2.00E-10	3.50E-10
Statistics		
Min	2.00E-10	3.50E-10
Max	5.00E-10	5.50E-10
Mean	3.60E-10	4.00E-10
Sigma	1.08E-10	8.66E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	5.50E-10	5.00E-10
SN2	3.50E-10	4.00E-10
SN3	4.00E-10	4.00E-10
SN4	3.50E-10	3.50E-10
SN5	5.50E-10	4.00E-10
SN6	3.50E-10	3.00E-10
Statistics		
Min	3.50E-10	3.00E-10
Max	5.50E-10	4.00E-10
Mean	4.00E-10	3.70E-10
Sigma	8.66E-11	4.47E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

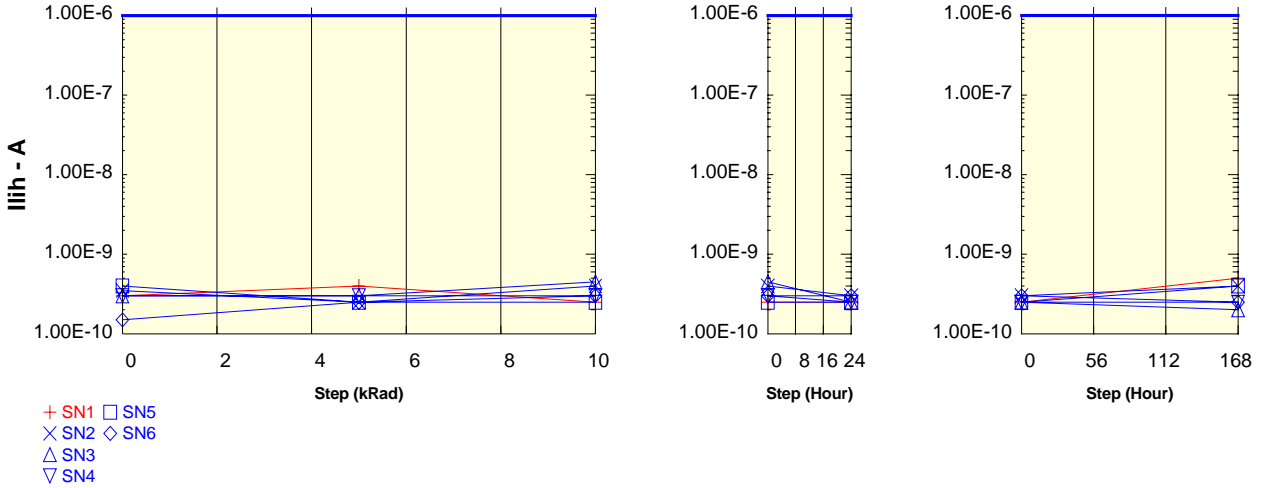
**Parameter : Input Leakage Current High : IlihA17**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.00E-10	4.00E-10	2.50E-10
SN2	3.50E-10	2.50E-10	4.00E-10
SN3	3.00E-10	3.00E-10	4.50E-10
SN4	3.00E-10	3.00E-10	3.00E-10
SN5	4.00E-10	2.50E-10	2.50E-10
SN6	1.50E-10	2.50E-10	3.00E-10
Statistics			
Min	1.50E-10	2.50E-10	2.50E-10
Max	4.00E-10	3.00E-10	4.50E-10
Mean	3.00E-10	2.70E-10	3.40E-10
Sigma	9.35E-11	2.74E-11	8.22E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	2.50E-10
SN2	4.00E-10	3.00E-10
SN3	4.50E-10	2.50E-10
SN4	3.00E-10	2.50E-10
SN5	2.50E-10	2.50E-10
SN6	3.00E-10	3.00E-10
Statistics		
Min	2.50E-10	2.50E-10
Max	4.50E-10	3.00E-10
Mean	3.40E-10	2.70E-10
Sigma	8.22E-11	2.74E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.50E-10	5.00E-10
SN2	3.00E-10	4.00E-10
SN3	2.50E-10	2.00E-10
SN4	2.50E-10	2.50E-10
SN5	2.50E-10	4.00E-10
SN6	3.00E-10	2.50E-10
Statistics		
Min	2.50E-10	2.00E-10
Max	3.00E-10	4.00E-10
Mean	2.70E-10	3.00E-10
Sigma	2.74E-11	9.35E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

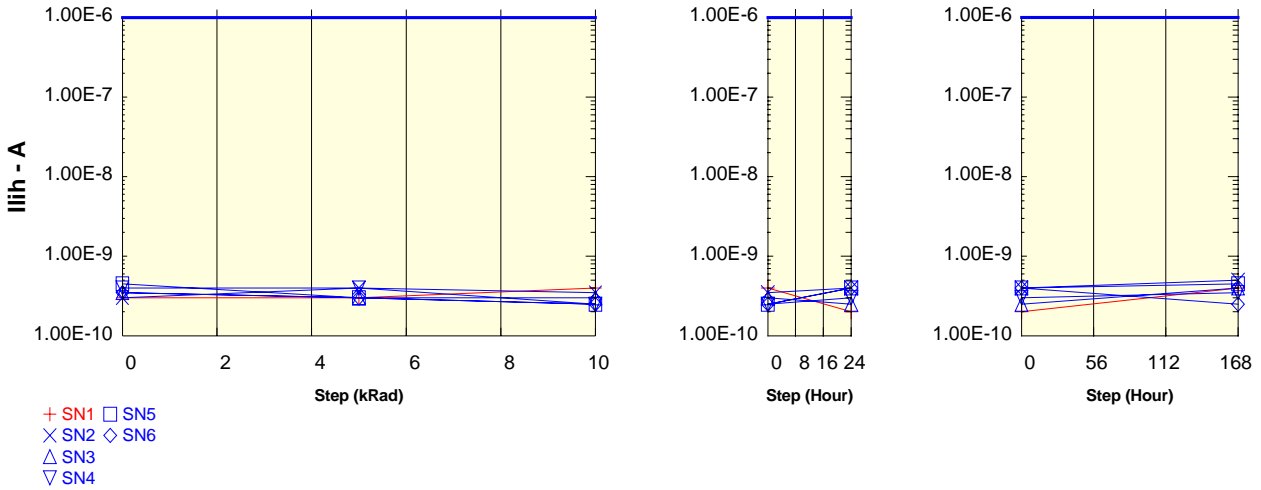
Parameter : Input Leakage Current High : IlihA16

Vin = Vcc. Vcc = VccMax

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.00E-10	3.00E-10	4.00E-10
SN2	3.00E-10	4.00E-10	3.50E-10
SN3	3.50E-10	3.00E-10	3.00E-10
SN4	4.00E-10	4.00E-10	2.50E-10
SN5	4.50E-10	3.00E-10	2.50E-10
SN6	3.50E-10	3.00E-10	2.50E-10
Statistics			
Min	3.00E-10	3.00E-10	2.50E-10
Max	4.50E-10	4.00E-10	3.50E-10
Mean	3.70E-10	3.40E-10	2.80E-10
Sigma	5.70E-11	5.48E-11	4.47E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.00E-10	2.00E-10
SN2	3.50E-10	4.00E-10
SN3	3.00E-10	2.50E-10
SN4	2.50E-10	3.00E-10
SN5	2.50E-10	4.00E-10
SN6	2.50E-10	4.00E-10
Statistics		
Min	2.50E-10	2.50E-10
Max	3.50E-10	4.00E-10
Mean	2.80E-10	3.50E-10
Sigma	4.47E-11	7.07E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	4.00E-10
SN2	4.00E-10	5.00E-10
SN3	2.50E-10	4.00E-10
SN4	3.00E-10	3.50E-10
SN5	4.00E-10	4.50E-10
SN6	4.00E-10	2.50E-10
Statistics		
Min	2.50E-10	2.50E-10
Max	4.00E-10	5.00E-10
Mean	3.50E-10	3.90E-10
Sigma	7.07E-11	9.62E-11



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

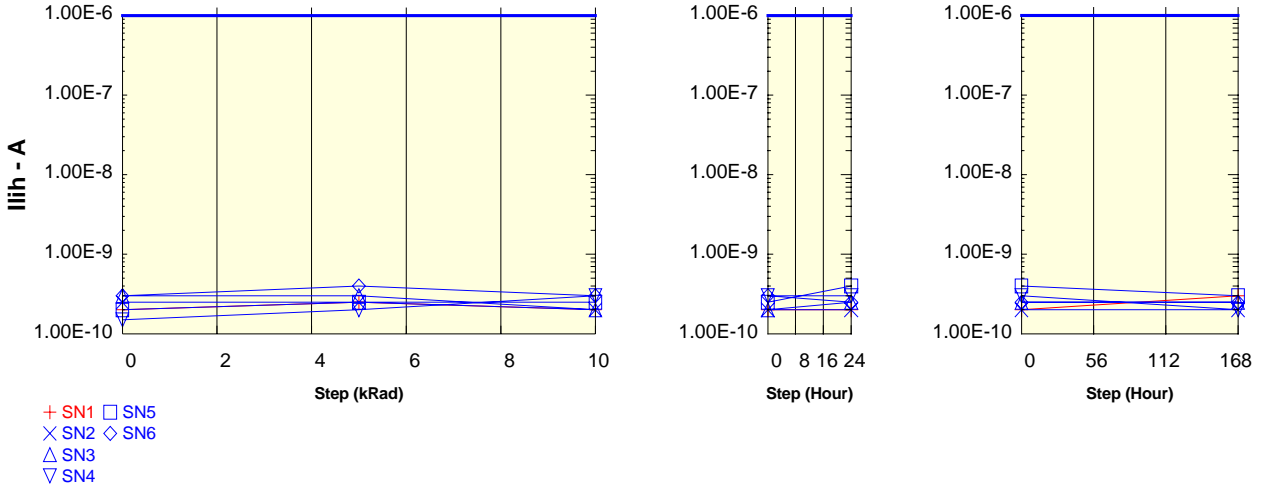
**Parameter : Input Leakage Current High : IlihA15**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.00E-10	2.50E-10	2.00E-10
SN2	2.50E-10	2.50E-10	2.00E-10
SN3	3.00E-10	3.00E-10	2.00E-10
SN4	1.50E-10	2.00E-10	3.00E-10
SN5	2.00E-10	2.50E-10	2.50E-10
SN6	3.00E-10	4.00E-10	3.00E-10
Statistics			
Min	1.50E-10	2.00E-10	2.00E-10
Max	3.00E-10	4.00E-10	3.00E-10
Mean	2.40E-10	2.80E-10	2.50E-10
Sigma	6.52E-11	7.58E-11	5.00E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.00E-10	2.00E-10
SN2	2.00E-10	2.00E-10
SN3	2.00E-10	2.50E-10
SN4	3.00E-10	3.00E-10
SN5	2.50E-10	4.00E-10
SN6	3.00E-10	2.50E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.00E-10	4.00E-10
Mean	2.50E-10	2.80E-10
Sigma	5.00E-11	7.58E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	3.00E-10
SN2	2.00E-10	2.00E-10
SN3	2.50E-10	2.50E-10
SN4	3.00E-10	2.00E-10
SN5	4.00E-10	3.00E-10
SN6	2.50E-10	2.50E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	4.00E-10	3.00E-10
Mean	2.80E-10	2.40E-10
Sigma	7.58E-11	4.18E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

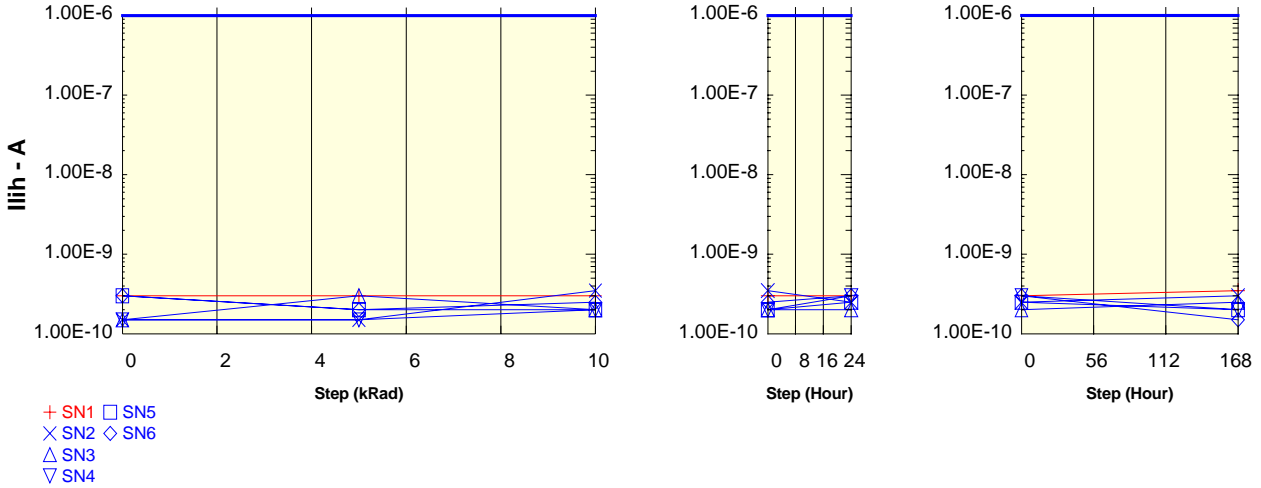
**Parameter : Input Leakage Current High : IlihA14**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.00E-10	3.00E-10	3.00E-10
SN2	1.50E-10	1.50E-10	3.50E-10
SN3	1.50E-10	3.00E-10	2.00E-10
SN4	1.50E-10	1.50E-10	2.00E-10
SN5	3.00E-10	2.00E-10	2.00E-10
SN6	3.00E-10	2.00E-10	2.50E-10
Statistics			
Min	1.50E-10	1.50E-10	2.00E-10
Max	3.00E-10	3.00E-10	3.50E-10
Mean	2.10E-10	2.00E-10	2.40E-10
Sigma	8.22E-11	6.12E-11	6.52E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.00E-10	3.00E-10
SN2	3.50E-10	2.50E-10
SN3	2.00E-10	2.00E-10
SN4	2.00E-10	3.00E-10
SN5	2.00E-10	2.50E-10
SN6	2.50E-10	3.00E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.50E-10	3.00E-10
Mean	2.40E-10	2.60E-10
Sigma	6.52E-11	4.18E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.00E-10	3.50E-10
SN2	2.50E-10	3.00E-10
SN3	2.00E-10	2.50E-10
SN4	3.00E-10	2.00E-10
SN5	2.50E-10	2.00E-10
SN6	3.00E-10	1.50E-10
Statistics		
Min	2.00E-10	1.50E-10
Max	3.00E-10	3.00E-10
Mean	2.60E-10	2.20E-10
Sigma	4.18E-11	5.70E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

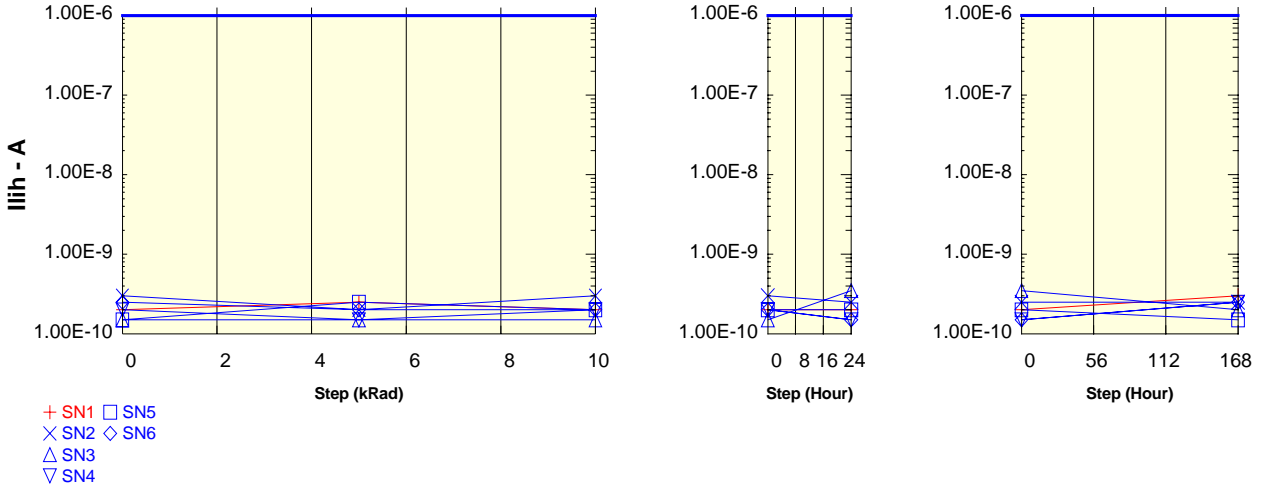
**Parameter : Input Leakage Current High : IlihA13**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.00E-10	2.50E-10	2.00E-10
SN2	3.00E-10	2.00E-10	3.00E-10
SN3	1.50E-10	1.50E-10	1.50E-10
SN4	2.00E-10	1.50E-10	2.00E-10
SN5	1.50E-10	2.50E-10	2.00E-10
SN6	2.50E-10	2.00E-10	2.00E-10
Statistics			
Min	1.50E-10	1.50E-10	1.50E-10
Max	3.00E-10	2.50E-10	3.00E-10
Mean	2.10E-10	1.90E-10	2.10E-10
Sigma	6.52E-11	4.18E-11	5.48E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.00E-10	2.00E-10
SN2	3.00E-10	2.50E-10
SN3	1.50E-10	3.50E-10
SN4	2.00E-10	1.50E-10
SN5	2.00E-10	2.00E-10
SN6	2.00E-10	1.50E-10
Statistics		
Min	1.50E-10	1.50E-10
Max	3.00E-10	3.50E-10
Mean	2.10E-10	2.20E-10
Sigma	5.48E-11	8.37E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	3.00E-10
SN2	2.50E-10	2.50E-10
SN3	3.50E-10	2.00E-10
SN4	1.50E-10	2.50E-10
SN5	2.00E-10	1.50E-10
SN6	1.50E-10	2.50E-10
Statistics		
Min	1.50E-10	1.50E-10
Max	3.50E-10	2.50E-10
Mean	2.20E-10	2.20E-10
Sigma	8.37E-11	4.47E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

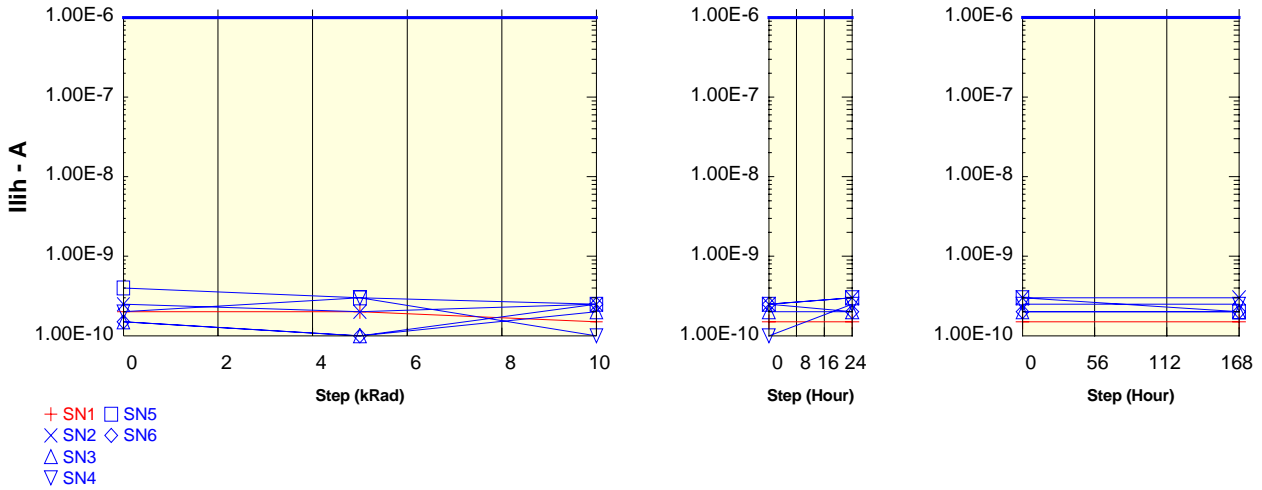
**Parameter : Input Leakage Current High : IlihA12**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.00E-10	2.00E-10	1.50E-10
SN2	2.50E-10	2.00E-10	2.50E-10
SN3	1.50E-10	1.00E-10	2.00E-10
SN4	2.00E-10	3.00E-10	1.00E-10
SN5	4.00E-10	3.00E-10	2.50E-10
SN6	1.50E-10	1.00E-10	2.50E-10
Statistics			
Min	1.50E-10	1.00E-10	1.00E-10
Max	4.00E-10	3.00E-10	2.50E-10
Mean	2.30E-10	2.00E-10	2.10E-10
Sigma	1.04E-10	1.00E-10	6.52E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.50E-10	1.50E-10
SN2	2.50E-10	3.00E-10
SN3	2.00E-10	2.00E-10
SN4	1.00E-10	2.50E-10
SN5	2.50E-10	3.00E-10
SN6	2.50E-10	2.00E-10
Statistics		
Min	1.00E-10	2.00E-10
Max	2.50E-10	3.00E-10
Mean	2.10E-10	2.50E-10
Sigma	6.52E-11	5.00E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.50E-10	1.50E-10
SN2	3.00E-10	3.00E-10
SN3	2.00E-10	2.00E-10
SN4	2.50E-10	2.50E-10
SN5	3.00E-10	2.00E-10
SN6	2.00E-10	2.00E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.00E-10	3.00E-10
Mean	2.50E-10	2.30E-10
Sigma	5.00E-11	4.47E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

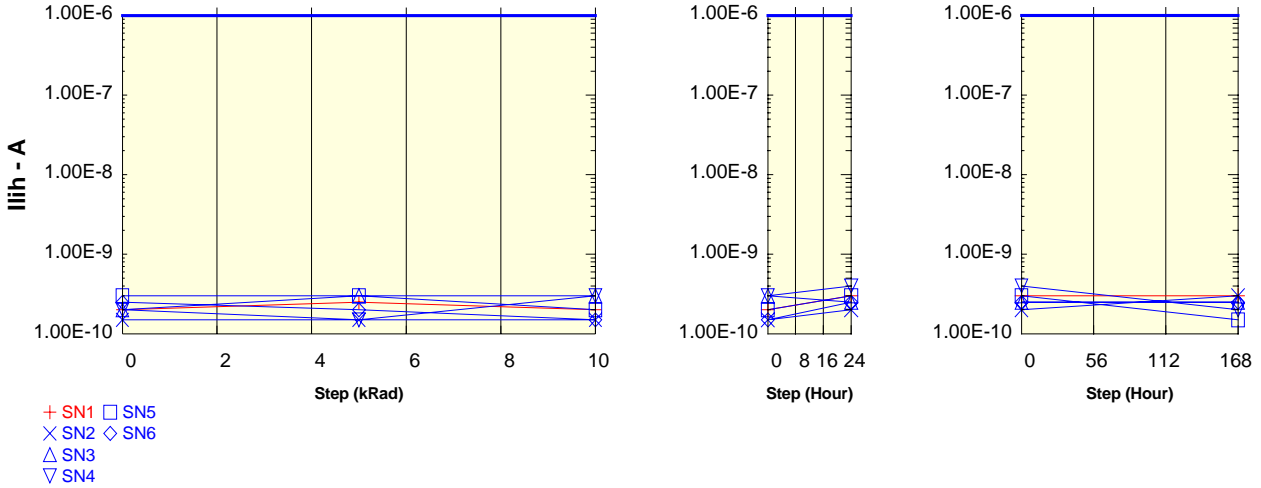
**Parameter : Input Leakage Current High : IlihA11**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.00E-10	2.50E-10	2.00E-10
SN2	1.50E-10	1.50E-10	1.50E-10
SN3	2.00E-10	3.00E-10	3.00E-10
SN4	2.00E-10	1.50E-10	3.00E-10
SN5	3.00E-10	3.00E-10	2.00E-10
SN6	2.50E-10	2.00E-10	1.50E-10
Statistics			
Min	1.50E-10	1.50E-10	1.50E-10
Max	3.00E-10	3.00E-10	3.00E-10
Mean	2.20E-10	2.20E-10	2.20E-10
Sigma	5.70E-11	7.58E-11	7.58E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.00E-10	3.00E-10
SN2	1.50E-10	2.00E-10
SN3	3.00E-10	2.50E-10
SN4	3.00E-10	4.00E-10
SN5	2.00E-10	3.00E-10
SN6	1.50E-10	2.50E-10
Statistics		
Min	1.50E-10	2.00E-10
Max	3.00E-10	4.00E-10
Mean	2.20E-10	2.80E-10
Sigma	7.58E-11	7.58E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.00E-10	3.00E-10
SN2	2.00E-10	3.00E-10
SN3	2.50E-10	2.50E-10
SN4	4.00E-10	2.00E-10
SN5	3.00E-10	1.50E-10
SN6	2.50E-10	2.50E-10
Statistics		
Min	2.00E-10	1.50E-10
Max	4.00E-10	3.00E-10
Mean	2.80E-10	2.30E-10
Sigma	7.58E-11	5.70E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

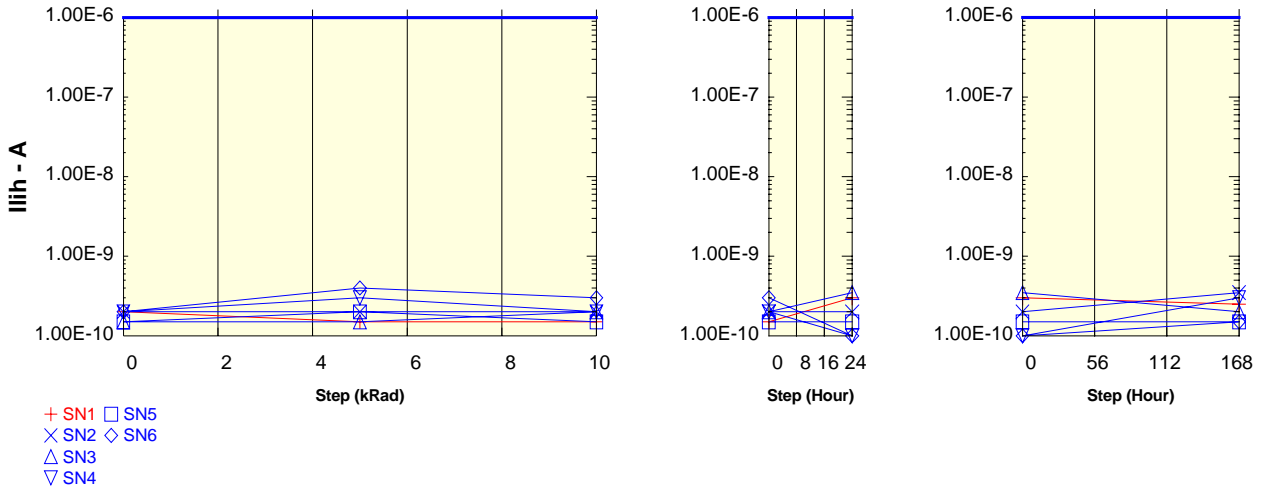
**Parameter : Input Leakage Current High : IlihA10**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.00E-10	1.50E-10	1.50E-10
SN2	2.00E-10	2.00E-10	2.00E-10
SN3	1.50E-10	1.50E-10	2.00E-10
SN4	2.00E-10	3.00E-10	2.00E-10
SN5	1.50E-10	2.00E-10	1.50E-10
SN6	2.00E-10	4.00E-10	3.00E-10
Statistics			
Min	1.50E-10	1.50E-10	1.50E-10
Max	2.00E-10	4.00E-10	3.00E-10
Mean	1.80E-10	2.50E-10	2.10E-10
Sigma	2.74E-11	1.00E-10	5.48E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.50E-10	3.00E-10
SN2	2.00E-10	2.00E-10
SN3	2.00E-10	3.50E-10
SN4	2.00E-10	1.00E-10
SN5	1.50E-10	1.50E-10
SN6	3.00E-10	1.00E-10
Statistics		
Min	1.50E-10	1.00E-10
Max	3.00E-10	3.50E-10
Mean	2.10E-10	1.80E-10
Sigma	5.48E-11	1.04E-10

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.00E-10	2.50E-10
SN2	2.00E-10	3.50E-10
SN3	3.50E-10	2.00E-10
SN4	1.00E-10	3.00E-10
SN5	1.50E-10	1.50E-10
SN6	1.00E-10	1.50E-10
Statistics		
Min	1.00E-10	1.50E-10
Max	3.50E-10	3.50E-10
Mean	1.80E-10	2.30E-10
Sigma	1.04E-10	9.08E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

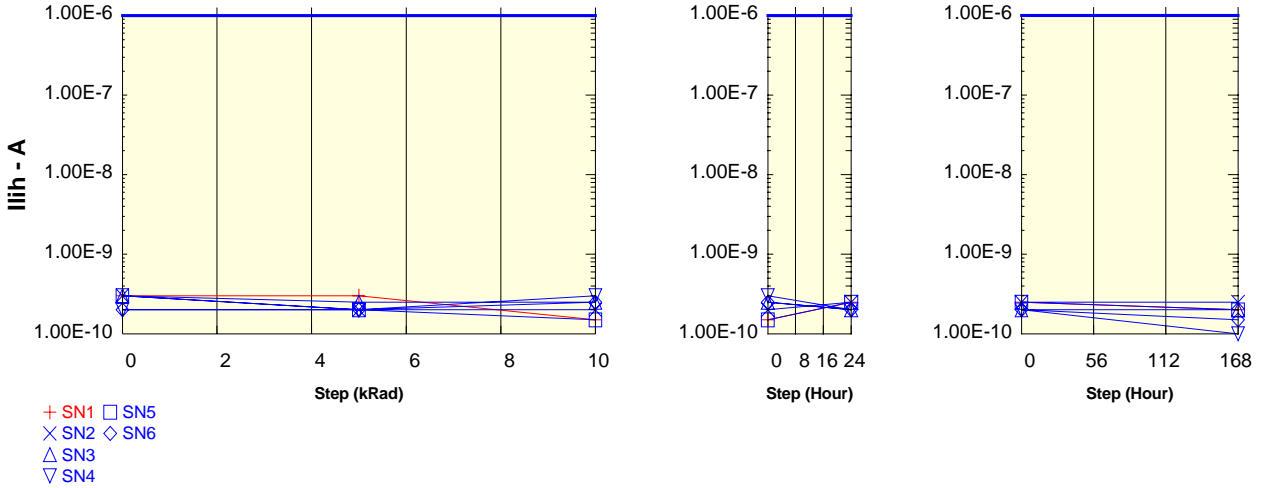
**Parameter : Input Leakage Current High : IlihA9**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.00E-10	3.00E-10	1.50E-10
SN2	3.00E-10	2.00E-10	2.00E-10
SN3	3.00E-10	2.50E-10	2.50E-10
SN4	2.00E-10	2.00E-10	3.00E-10
SN5	3.00E-10	2.00E-10	1.50E-10
SN6	2.00E-10	2.00E-10	2.50E-10
Statistics			
Min	2.00E-10	2.00E-10	1.50E-10
Max	3.00E-10	2.50E-10	3.00E-10
Mean	2.60E-10	2.10E-10	2.30E-10
Sigma	5.48E-11	2.24E-11	5.70E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.50E-10	2.50E-10
SN2	2.00E-10	2.50E-10
SN3	2.50E-10	2.00E-10
SN4	3.00E-10	2.00E-10
SN5	1.50E-10	2.50E-10
SN6	2.50E-10	2.00E-10
Statistics		
Min	1.50E-10	2.00E-10
Max	3.00E-10	2.50E-10
Mean	2.30E-10	2.20E-10
Sigma	5.70E-11	2.74E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.50E-10	2.00E-10
SN2	2.50E-10	2.50E-10
SN3	2.00E-10	2.00E-10
SN4	2.00E-10	1.00E-10
SN5	2.50E-10	2.00E-10
SN6	2.00E-10	1.50E-10
Statistics		
Min	2.00E-10	1.00E-10
Max	2.50E-10	2.50E-10
Mean	2.20E-10	1.80E-10
Sigma	2.74E-11	5.70E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

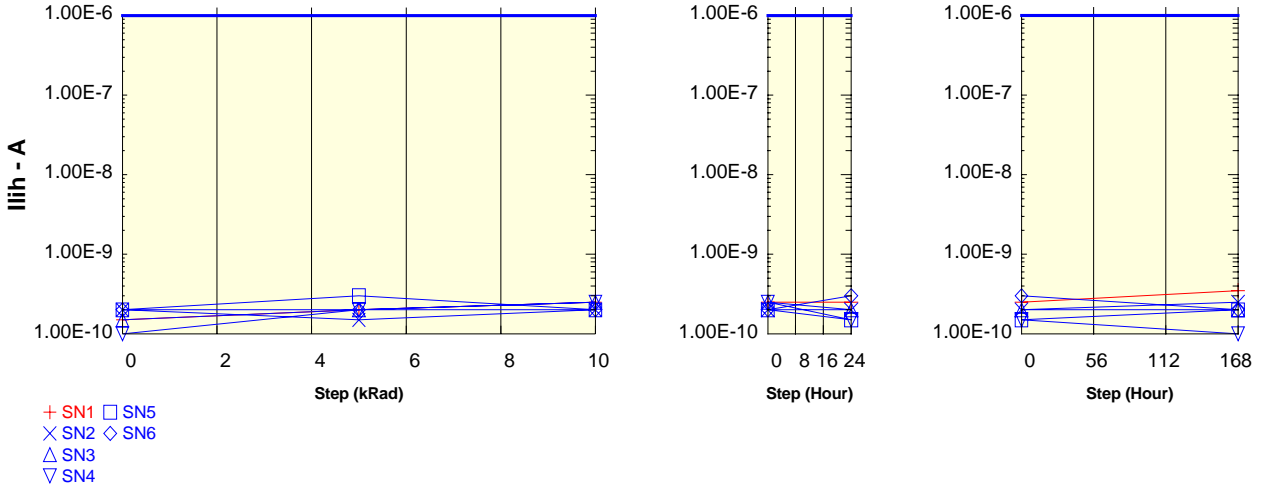
**Parameter : Input Leakage Current High : IlihA8**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.50E-10	2.00E-10	2.50E-10
SN2	2.00E-10	1.50E-10	2.00E-10
SN3	1.50E-10	2.00E-10	2.50E-10
SN4	1.00E-10	2.00E-10	2.50E-10
SN5	2.00E-10	3.00E-10	2.00E-10
SN6	2.00E-10	2.00E-10	2.00E-10
Statistics			
Min	1.00E-10	1.50E-10	2.00E-10
Max	2.00E-10	3.00E-10	2.50E-10
Mean	1.70E-10	2.10E-10	2.20E-10
Sigma	4.47E-11	5.48E-11	2.74E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	2.50E-10
SN2	2.00E-10	2.00E-10
SN3	2.50E-10	2.00E-10
SN4	2.50E-10	1.50E-10
SN5	2.00E-10	1.50E-10
SN6	2.00E-10	3.00E-10
Statistics		
Min	2.00E-10	1.50E-10
Max	2.50E-10	3.00E-10
Mean	2.20E-10	2.00E-10
Sigma	2.74E-11	6.12E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.50E-10	3.50E-10
SN2	2.00E-10	2.50E-10
SN3	2.00E-10	2.00E-10
SN4	1.50E-10	1.00E-10
SN5	1.50E-10	2.00E-10
SN6	3.00E-10	2.00E-10
Statistics		
Min	1.50E-10	1.00E-10
Max	3.00E-10	2.50E-10
Mean	2.00E-10	1.90E-10
Sigma	6.12E-11	5.48E-11



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

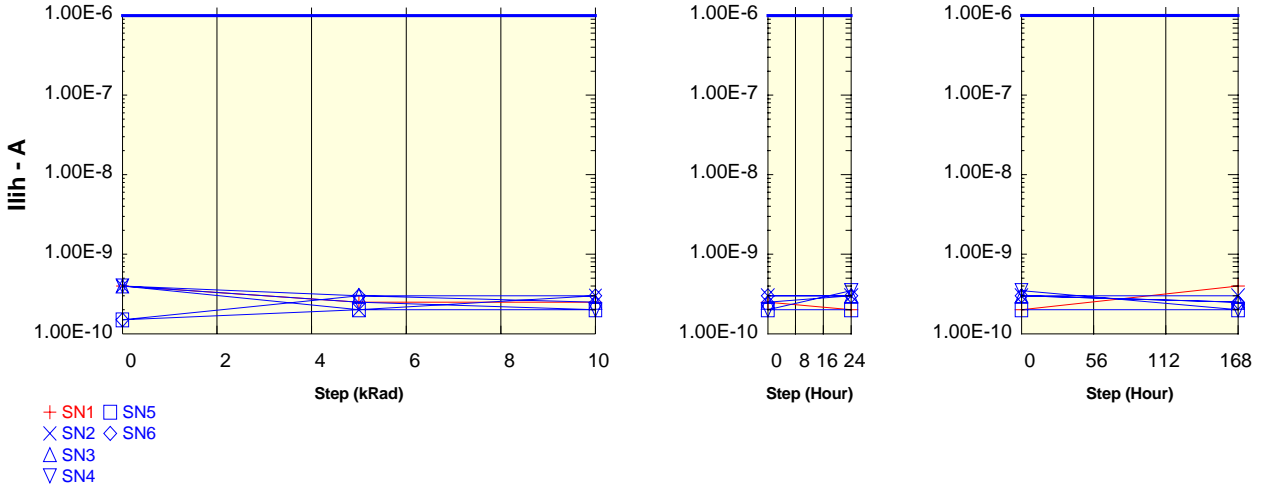
**Parameter : Input Leakage Current High : IlihA7**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.00E-10	2.50E-10	2.50E-10
SN2	4.00E-10	2.00E-10	3.00E-10
SN3	4.00E-10	3.00E-10	2.50E-10
SN4	4.00E-10	2.50E-10	2.00E-10
SN5	1.50E-10	2.00E-10	2.00E-10
SN6	1.50E-10	3.00E-10	3.00E-10
Statistics			
Min	1.50E-10	2.00E-10	2.00E-10
Max	4.00E-10	3.00E-10	3.00E-10
Mean	3.00E-10	2.50E-10	2.50E-10
Sigma	1.37E-10	5.00E-11	5.00E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	2.00E-10
SN2	3.00E-10	3.00E-10
SN3	2.50E-10	3.00E-10
SN4	2.00E-10	3.50E-10
SN5	2.00E-10	2.00E-10
SN6	3.00E-10	3.00E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.00E-10	3.50E-10
Mean	2.50E-10	2.90E-10
Sigma	5.00E-11	5.48E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	4.00E-10
SN2	3.00E-10	3.00E-10
SN3	3.00E-10	2.50E-10
SN4	3.50E-10	2.00E-10
SN5	2.00E-10	2.00E-10
SN6	3.00E-10	2.50E-10
Statistics		
Min	2.00E-10	2.00E-10
Max	3.50E-10	3.00E-10
Mean	2.90E-10	2.40E-10
Sigma	5.48E-11	4.18E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

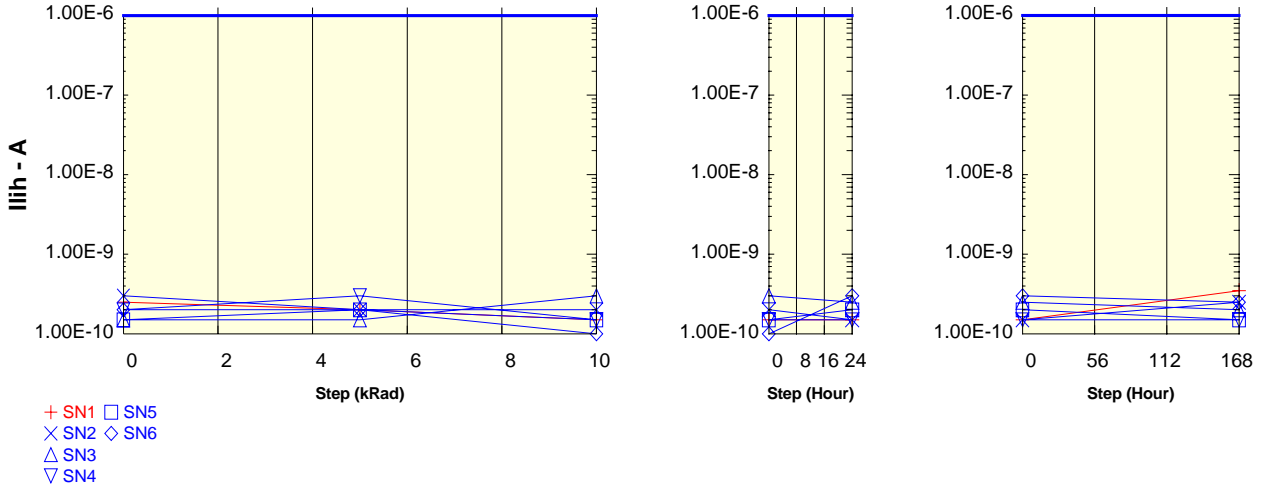
Parameter : Input Leakage Current High : IlihA6

Vin = Vcc. Vcc = VccMax

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.50E-10	2.00E-10	1.50E-10
SN2	3.00E-10	2.00E-10	2.00E-10
SN3	1.50E-10	1.50E-10	3.00E-10
SN4	2.00E-10	3.00E-10	1.50E-10
SN5	1.50E-10	2.00E-10	1.50E-10
SN6	2.00E-10	2.00E-10	1.00E-10
Statistics			
Min	1.50E-10	1.50E-10	1.00E-10
Max	3.00E-10	3.00E-10	3.00E-10
Mean	2.00E-10	2.10E-10	1.80E-10
Sigma	6.12E-11	5.48E-11	7.58E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.50E-10	1.50E-10
SN2	2.00E-10	1.50E-10
SN3	3.00E-10	2.50E-10
SN4	1.50E-10	1.50E-10
SN5	1.50E-10	2.00E-10
SN6	1.00E-10	3.00E-10
Statistics		
Min	1.00E-10	1.50E-10
Max	3.00E-10	3.00E-10
Mean	1.80E-10	2.10E-10
Sigma	7.58E-11	6.52E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.50E-10	3.50E-10
SN2	1.50E-10	2.50E-10
SN3	2.50E-10	2.00E-10
SN4	1.50E-10	1.50E-10
SN5	2.00E-10	1.50E-10
SN6	3.00E-10	2.50E-10
Statistics		
Min	1.50E-10	1.50E-10
Max	3.00E-10	2.50E-10
Mean	2.10E-10	2.00E-10
Sigma	6.52E-11	5.00E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

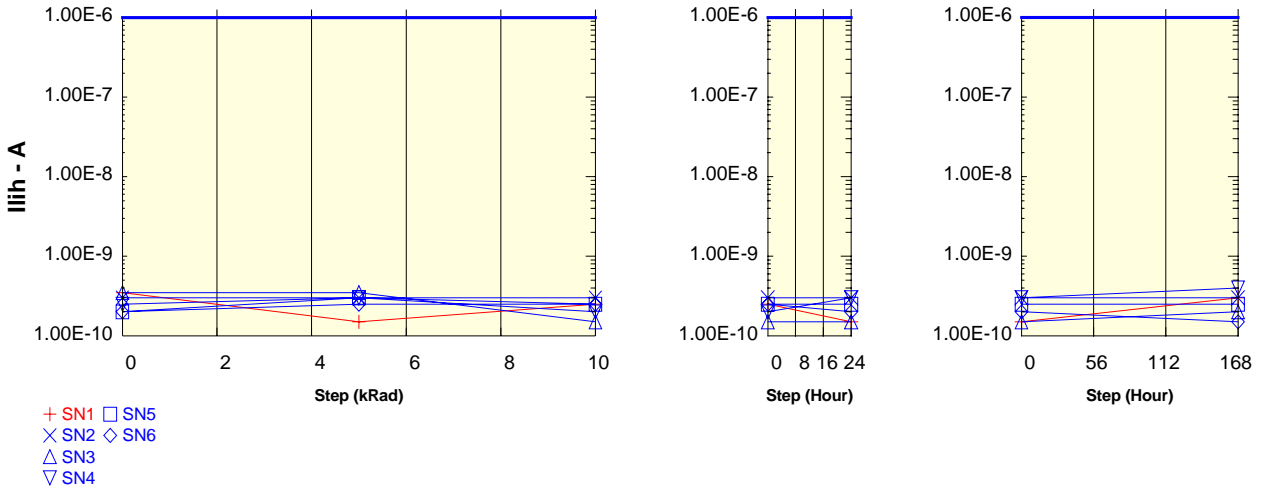
**Parameter : Input Leakage Current High : IlihA5**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.50E-10	1.50E-10	2.50E-10
SN2	3.00E-10	3.00E-10	3.00E-10
SN3	3.50E-10	3.50E-10	1.50E-10
SN4	2.50E-10	3.00E-10	2.00E-10
SN5	2.00E-10	3.00E-10	2.50E-10
SN6	2.00E-10	2.50E-10	2.50E-10
Statistics			
Min	2.00E-10	2.50E-10	1.50E-10
Max	3.50E-10	3.50E-10	3.00E-10
Mean	2.60E-10	3.00E-10	2.30E-10
Sigma	6.52E-11	3.54E-11	5.70E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	1.50E-10
SN2	3.00E-10	3.00E-10
SN3	1.50E-10	1.50E-10
SN4	2.00E-10	3.00E-10
SN5	2.50E-10	2.50E-10
SN6	2.50E-10	2.00E-10
Statistics		
Min	1.50E-10	1.50E-10
Max	3.00E-10	3.00E-10
Mean	2.30E-10	2.40E-10
Sigma	5.70E-11	6.52E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.50E-10	3.00E-10
SN2	3.00E-10	3.00E-10
SN3	1.50E-10	2.00E-10
SN4	3.00E-10	4.00E-10
SN5	2.50E-10	2.50E-10
SN6	2.00E-10	1.50E-10
Statistics		
Min	1.50E-10	1.50E-10
Max	3.00E-10	4.00E-10
Mean	2.40E-10	2.60E-10
Sigma	6.52E-11	9.62E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

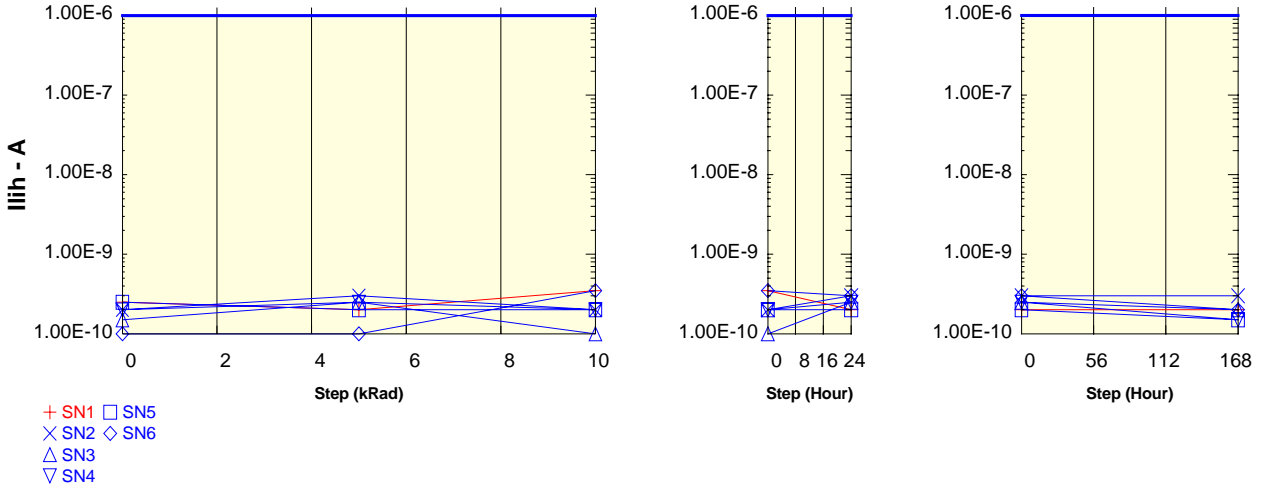
**Parameter : Input Leakage Current High : IlihA4**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.50E-10	2.00E-10	3.50E-10
SN2	2.00E-10	3.00E-10	2.00E-10
SN3	1.50E-10	2.50E-10	1.00E-10
SN4	2.00E-10	2.50E-10	2.00E-10
SN5	2.50E-10	2.00E-10	2.00E-10
SN6	1.00E-10	1.00E-10	3.50E-10
Statistics			
Min	1.00E-10	1.00E-10	1.00E-10
Max	2.50E-10	3.00E-10	3.50E-10
Mean	1.80E-10	2.20E-10	2.10E-10
Sigma	5.70E-11	7.58E-11	8.94E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.50E-10	2.00E-10
SN2	2.00E-10	3.00E-10
SN3	1.00E-10	2.50E-10
SN4	2.00E-10	2.50E-10
SN5	2.00E-10	2.00E-10
SN6	3.50E-10	3.00E-10
Statistics		
Min	1.00E-10	2.00E-10
Max	3.50E-10	3.00E-10
Mean	2.10E-10	2.60E-10
Sigma	8.94E-11	4.18E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	2.00E-10
SN2	3.00E-10	3.00E-10
SN3	2.50E-10	2.00E-10
SN4	2.50E-10	1.50E-10
SN5	2.00E-10	1.50E-10
SN6	3.00E-10	2.00E-10
Statistics		
Min	2.00E-10	1.50E-10
Max	3.00E-10	3.00E-10
Mean	2.60E-10	2.00E-10
Sigma	4.18E-11	6.12E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

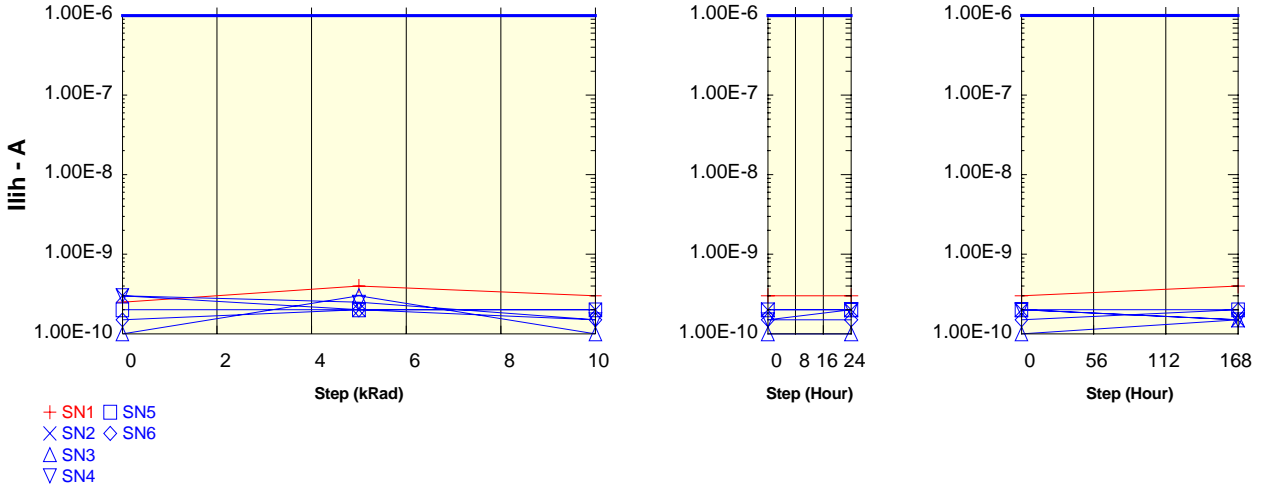
**Parameter : Input Leakage Current High : IlihA3**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.50E-10	4.00E-10	3.00E-10
SN2	3.00E-10	2.00E-10	2.00E-10
SN3	1.00E-10	3.00E-10	1.00E-10
SN4	3.00E-10	2.50E-10	1.50E-10
SN5	2.00E-10	2.00E-10	2.00E-10
SN6	1.50E-10	2.00E-10	1.50E-10
Statistics			
Min	1.00E-10	2.00E-10	1.00E-10
Max	3.00E-10	3.00E-10	2.00E-10
Mean	2.10E-10	2.30E-10	1.60E-10
Sigma	8.94E-11	4.47E-11	4.18E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.00E-10	3.00E-10
SN2	2.00E-10	2.00E-10
SN3	1.00E-10	1.00E-10
SN4	1.50E-10	2.00E-10
SN5	2.00E-10	2.00E-10
SN6	1.50E-10	1.50E-10
Statistics		
Min	1.00E-10	1.00E-10
Max	2.00E-10	2.00E-10
Mean	1.60E-10	1.70E-10
Sigma	4.18E-11	4.47E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.00E-10	4.00E-10
SN2	2.00E-10	1.50E-10
SN3	1.00E-10	1.50E-10
SN4	2.00E-10	1.50E-10
SN5	2.00E-10	2.00E-10
SN6	1.50E-10	2.00E-10
Statistics		
Min	1.00E-10	1.50E-10
Max	2.00E-10	2.00E-10
Mean	1.70E-10	1.70E-10
Sigma	4.47E-11	2.74E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

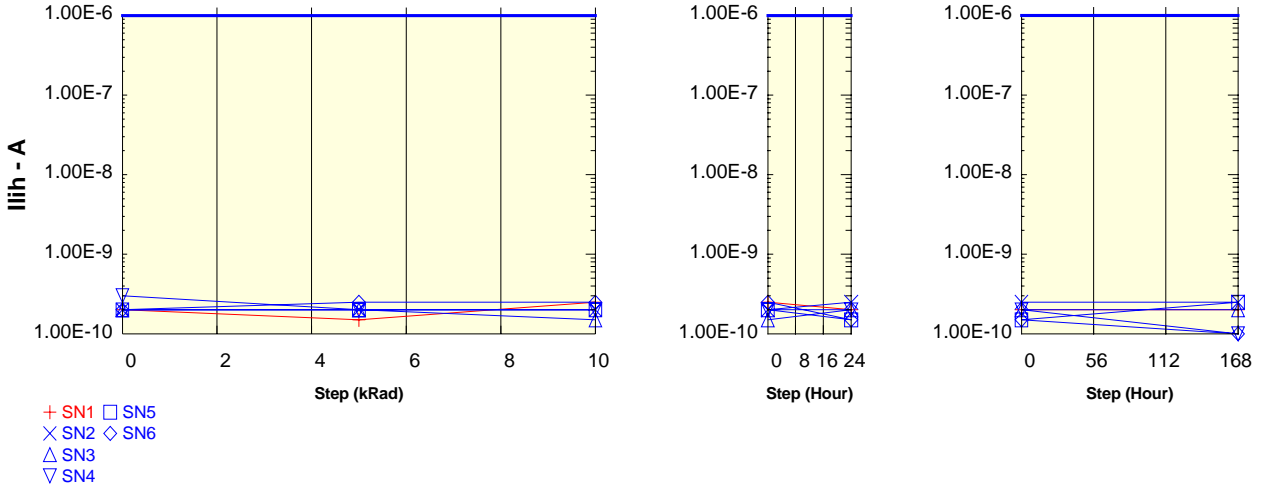
**Parameter : Input Leakage Current High : IlihA2**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.00E-10	1.50E-10	2.50E-10
SN2	2.00E-10	2.00E-10	2.00E-10
SN3	2.00E-10	2.00E-10	1.50E-10
SN4	3.00E-10	2.00E-10	2.00E-10
SN5	2.00E-10	2.00E-10	2.00E-10
SN6	2.00E-10	2.50E-10	2.50E-10
Statistics			
Min	2.00E-10	2.00E-10	1.50E-10
Max	3.00E-10	2.50E-10	2.50E-10
Mean	2.20E-10	2.10E-10	2.00E-10
Sigma	4.47E-11	2.24E-11	3.54E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.50E-10	2.00E-10
SN2	2.00E-10	2.50E-10
SN3	1.50E-10	2.00E-10
SN4	2.00E-10	2.00E-10
SN5	2.00E-10	1.50E-10
SN6	2.50E-10	1.50E-10
Statistics		
Min	1.50E-10	1.50E-10
Max	2.50E-10	2.50E-10
Mean	2.00E-10	1.90E-10
Sigma	3.54E-11	4.18E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	2.00E-10
SN2	2.50E-10	2.50E-10
SN3	2.00E-10	2.00E-10
SN4	2.00E-10	1.00E-10
SN5	1.50E-10	2.50E-10
SN6	1.50E-10	1.00E-10
Statistics		
Min	1.50E-10	1.00E-10
Max	2.50E-10	2.50E-10
Mean	1.90E-10	1.80E-10
Sigma	4.18E-11	7.58E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

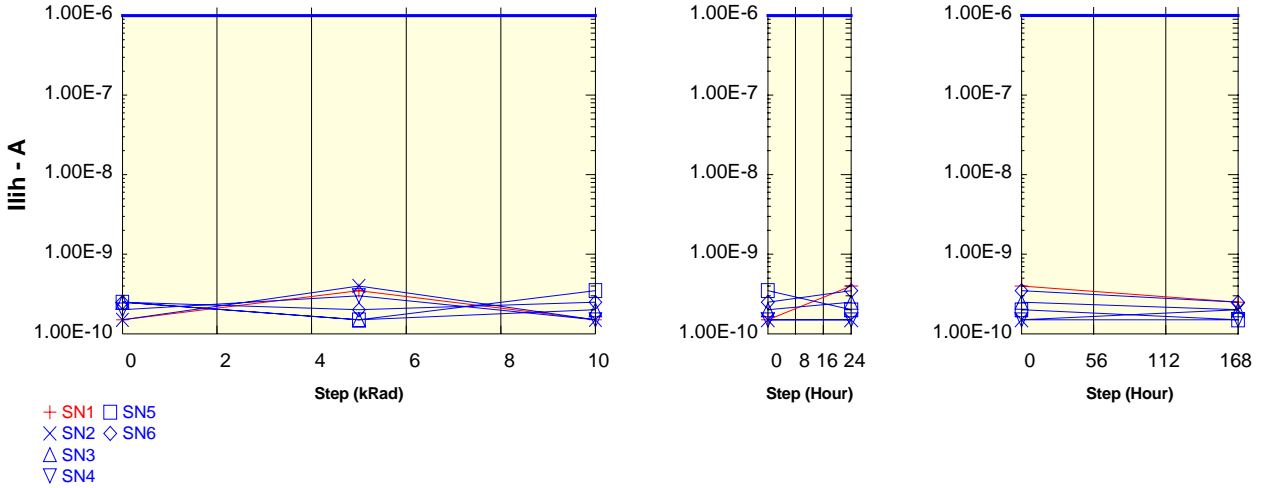
**Parameter : Input Leakage Current High : IlihA1**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.50E-10	3.50E-10	1.50E-10
SN2	1.50E-10	4.00E-10	1.50E-10
SN3	2.50E-10	1.50E-10	2.00E-10
SN4	2.00E-10	3.00E-10	1.50E-10
SN5	2.50E-10	1.50E-10	3.50E-10
SN6	2.50E-10	2.00E-10	2.50E-10
Statistics			
Min	1.50E-10	1.50E-10	1.50E-10
Max	2.50E-10	4.00E-10	3.50E-10
Mean	2.20E-10	2.40E-10	2.20E-10
Sigma	4.47E-11	1.08E-10	8.37E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.50E-10	4.00E-10
SN2	1.50E-10	1.50E-10
SN3	2.00E-10	2.50E-10
SN4	1.50E-10	1.50E-10
SN5	3.50E-10	2.00E-10
SN6	2.50E-10	3.50E-10
Statistics		
Min	1.50E-10	1.50E-10
Max	3.50E-10	3.50E-10
Mean	2.20E-10	2.20E-10
Sigma	8.37E-11	8.37E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.00E-10	2.50E-10
SN2	1.50E-10	2.00E-10
SN3	2.50E-10	2.00E-10
SN4	1.50E-10	1.50E-10
SN5	2.00E-10	1.50E-10
SN6	3.50E-10	2.50E-10
Statistics		
Min	1.50E-10	1.50E-10
Max	3.50E-10	2.50E-10
Mean	2.20E-10	1.90E-10
Sigma	8.37E-11	4.18E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

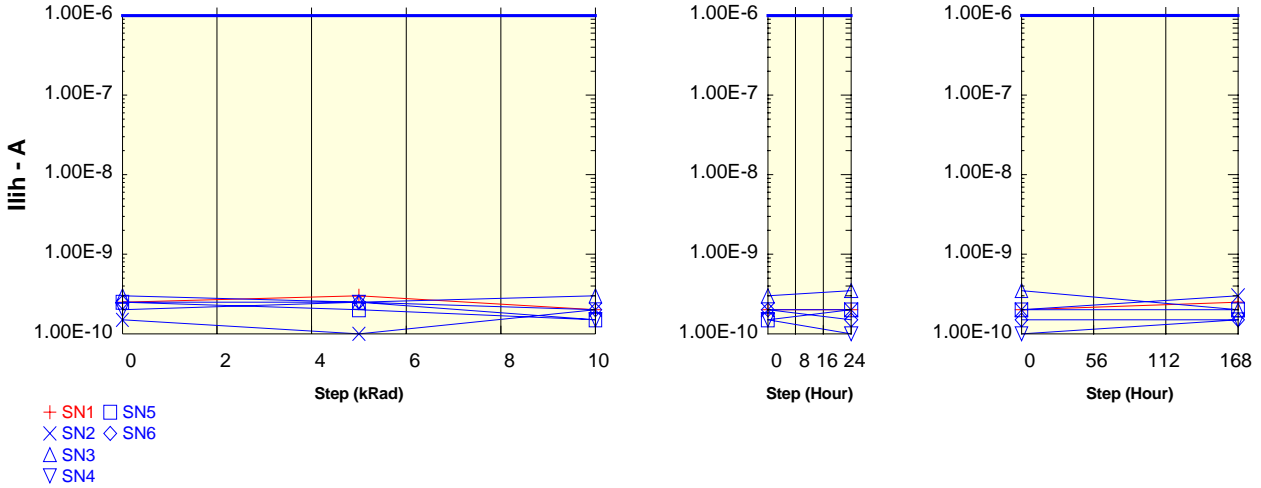
**Parameter : Input Leakage Current High : IlihA0**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.50E-10	3.00E-10	2.00E-10
SN2	1.50E-10	1.00E-10	2.00E-10
SN3	3.00E-10	2.50E-10	3.00E-10
SN4	2.00E-10	2.50E-10	1.50E-10
SN5	2.50E-10	2.00E-10	1.50E-10
SN6	2.50E-10	2.50E-10	2.00E-10
Statistics			
Min	1.50E-10	1.00E-10	1.50E-10
Max	3.00E-10	2.50E-10	3.00E-10
Mean	2.30E-10	2.10E-10	2.00E-10
Sigma	5.70E-11	6.52E-11	6.12E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.00E-10	2.00E-10
SN2	2.00E-10	2.00E-10
SN3	3.00E-10	3.50E-10
SN4	1.50E-10	1.00E-10
SN5	1.50E-10	2.00E-10
SN6	2.00E-10	1.50E-10
Statistics		
Min	1.50E-10	1.00E-10
Max	3.00E-10	3.50E-10
Mean	2.00E-10	2.00E-10
Sigma	6.12E-11	9.35E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.00E-10	2.50E-10
SN2	2.00E-10	3.00E-10
SN3	3.50E-10	2.00E-10
SN4	1.00E-10	1.50E-10
SN5	2.00E-10	2.00E-10
SN6	1.50E-10	1.50E-10
Statistics		
Min	1.00E-10	1.50E-10
Max	3.50E-10	3.00E-10
Mean	2.00E-10	2.00E-10
Sigma	9.35E-11	6.12E-11



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

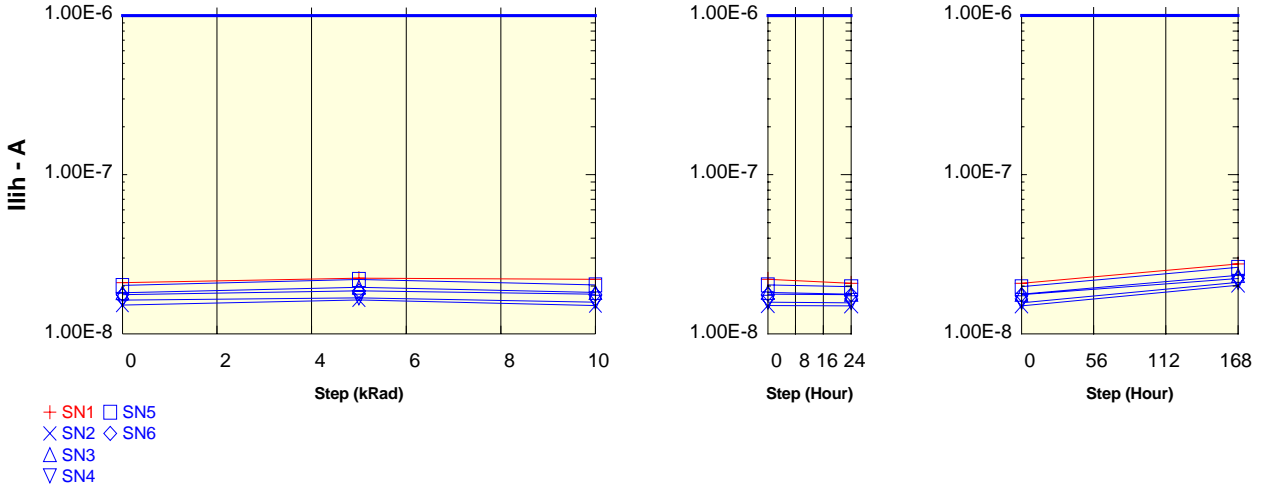
**Parameter : Input Leakage Current High : I<sub>lih</sub>/RST**

**V<sub>in</sub> = V<sub>cc</sub>. V<sub>cc</sub> = V<sub>ccMax</sub>**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	2.10E-8	2.24E-8	2.20E-8
SN2	1.52E-8	1.64E-8	1.51E-8
SN3	1.82E-8	1.96E-8	1.82E-8
SN4	1.63E-8	1.68E-8	1.58E-8
SN5	2.02E-8	2.20E-8	2.03E-8
SN6	1.76E-8	1.87E-8	1.77E-8
Statistics			
Min	1.52E-8	1.64E-8	1.51E-8
Max	2.02E-8	2.20E-8	2.03E-8
Mean	1.75E-8	1.87E-8	1.74E-8
Sigma	1.90E-9	2.26E-9	2.07E-9

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.20E-8	2.08E-8
SN2	1.51E-8	1.50E-8
SN3	1.82E-8	1.78E-8
SN4	1.58E-8	1.57E-8
SN5	2.03E-8	1.98E-8
SN6	1.77E-8	1.76E-8
Statistics		
Min	1.51E-8	1.50E-8
Max	2.03E-8	1.98E-8
Mean	1.74E-8	1.72E-8
Sigma	2.07E-9	1.89E-9

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.08E-8	2.75E-8
SN2	1.50E-8	2.02E-8
SN3	1.78E-8	2.33E-8
SN4	1.57E-8	2.11E-8
SN5	1.98E-8	2.62E-8
SN6	1.76E-8	2.23E-8
Statistics		
Min	1.50E-8	2.02E-8
Max	1.98E-8	2.62E-8
Mean	1.72E-8	2.26E-8
Sigma	1.89E-9	2.31E-9

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

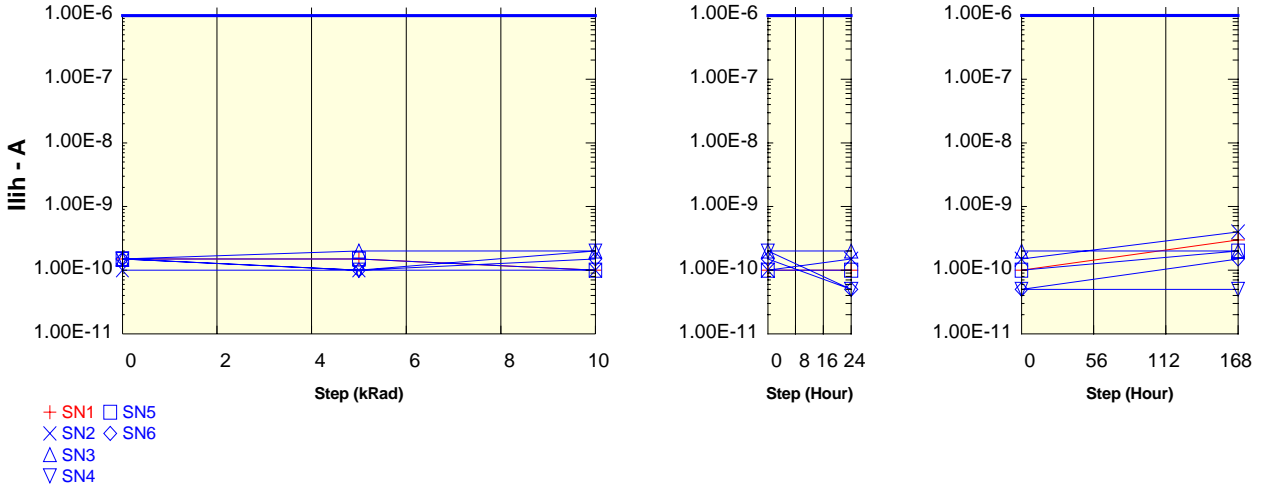
Parameter : Input Leakage Current High : Ilih/CE

Vin = Vcc. Vcc = VccMax

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.50E-10	1.50E-10	1.00E-10
SN2	1.00E-10	1.00E-10	1.00E-10
SN3	1.50E-10	2.00E-10	2.00E-10
SN4	1.50E-10	1.00E-10	2.00E-10
SN5	1.50E-10	1.50E-10	1.00E-10
SN6	1.50E-10	1.00E-10	1.50E-10
Statistics			
Min	1.00E-10	1.00E-10	1.00E-10
Max	1.50E-10	2.00E-10	2.00E-10
Mean	1.40E-10	1.30E-10	1.50E-10
Sigma	2.24E-11	4.47E-11	5.00E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.00E-10	1.00E-10
SN2	1.00E-10	1.50E-10
SN3	2.00E-10	2.00E-10
SN4	2.00E-10	5.00E-11
SN5	1.00E-10	1.00E-10
SN6	1.50E-10	5.00E-11
Statistics		
Min	1.00E-10	5.00E-11
Max	2.00E-10	2.00E-10
Mean	1.50E-10	1.10E-10
Sigma	5.00E-11	6.52E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.00E-10	3.00E-10
SN2	1.50E-10	4.00E-10
SN3	2.00E-10	2.00E-10
SN4	5.00E-11	5.00E-11
SN5	1.00E-10	2.00E-10
SN6	5.00E-11	1.50E-10
Statistics		
Min	5.00E-11	5.00E-11
Max	2.00E-10	4.00E-10
Mean	1.10E-10	2.00E-10
Sigma	6.52E-11	1.27E-10

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

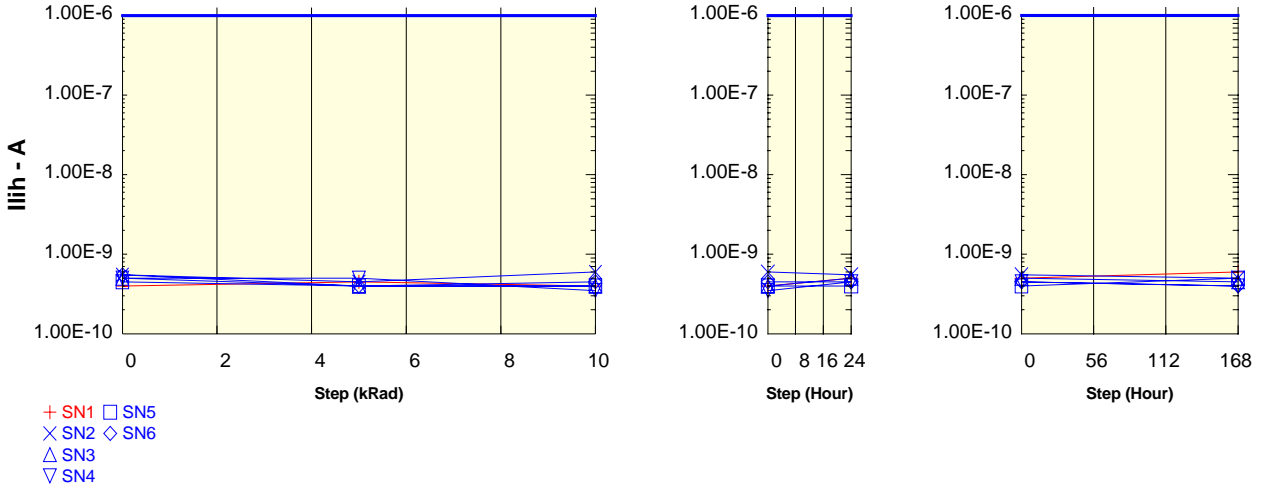
**Parameter : Input Leakage Current High : Ilih/OE**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.00E-10	4.50E-10	4.00E-10
SN2	5.50E-10	4.50E-10	6.00E-10
SN3	5.00E-10	4.00E-10	4.00E-10
SN4	5.00E-10	5.00E-10	3.50E-10
SN5	4.50E-10	4.00E-10	4.00E-10
SN6	5.50E-10	4.00E-10	4.50E-10
Statistics			
Min	4.50E-10	4.00E-10	3.50E-10
Max	5.50E-10	5.00E-10	6.00E-10
Mean	5.10E-10	4.30E-10	4.40E-10
Sigma	4.18E-11	4.47E-11	9.62E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.00E-10	5.00E-10
SN2	6.00E-10	5.50E-10
SN3	4.00E-10	5.00E-10
SN4	3.50E-10	4.50E-10
SN5	4.00E-10	4.00E-10
SN6	4.50E-10	4.50E-10
Statistics		
Min	3.50E-10	4.00E-10
Max	6.00E-10	5.50E-10
Mean	4.40E-10	4.70E-10
Sigma	9.62E-11	5.70E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	5.00E-10	6.00E-10
SN2	5.50E-10	5.00E-10
SN3	5.00E-10	4.50E-10
SN4	4.50E-10	4.00E-10
SN5	4.00E-10	5.00E-10
SN6	4.50E-10	4.00E-10
Statistics		
Min	4.00E-10	4.00E-10
Max	5.50E-10	5.00E-10
Mean	4.70E-10	4.50E-10
Sigma	5.70E-11	5.00E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

**Test conditions : TID**

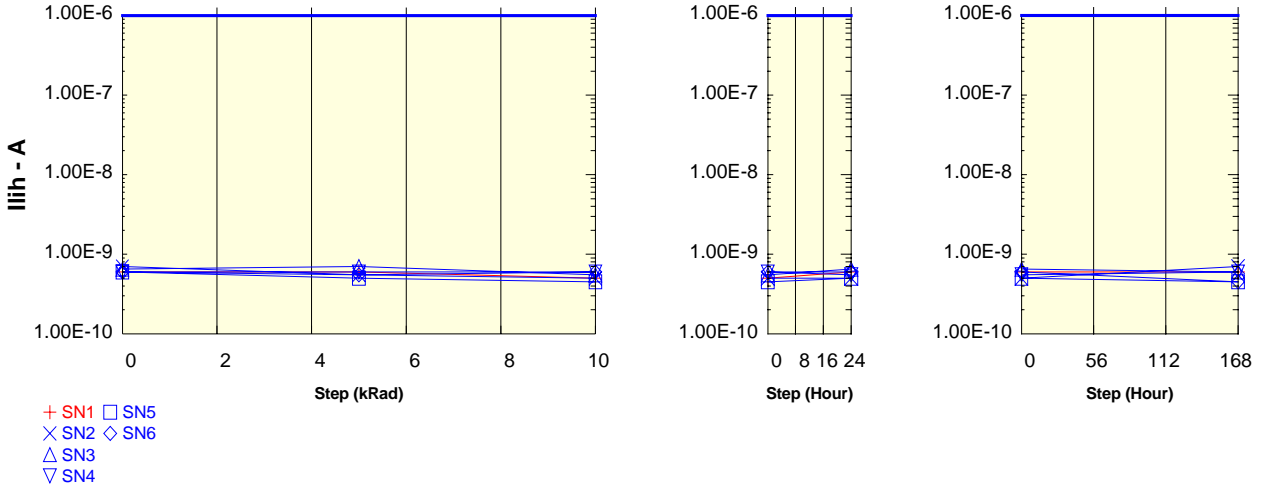
**Parameter : Input Leakage Current High : Ilih/WE**

**Vin = Vcc. Vcc = VccMax**

Unit : A

Spec Limit Max : 1.00E-6

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	6.00E-10	6.00E-10	5.00E-10
SN2	7.00E-10	5.50E-10	5.00E-10
SN3	6.50E-10	7.00E-10	5.50E-10
SN4	6.00E-10	6.00E-10	6.00E-10
SN5	6.00E-10	5.00E-10	4.50E-10
SN6	6.00E-10	5.50E-10	6.00E-10
Statistics			
Min	6.00E-10	5.00E-10	4.50E-10
Max	7.00E-10	7.00E-10	6.00E-10
Mean	6.30E-10	5.80E-10	5.40E-10
Sigma	4.47E-11	7.58E-11	6.52E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	5.00E-10	6.00E-10
SN2	5.00E-10	5.00E-10
SN3	5.50E-10	6.50E-10
SN4	6.00E-10	5.50E-10
SN5	4.50E-10	5.00E-10
SN6	6.00E-10	6.00E-10
Statistics		
Min	4.50E-10	5.00E-10
Max	6.00E-10	6.50E-10
Mean	5.40E-10	5.60E-10
Sigma	6.52E-11	6.52E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	6.00E-10	6.00E-10
SN2	5.00E-10	7.00E-10
SN3	6.50E-10	6.00E-10
SN4	5.50E-10	6.00E-10
SN5	5.00E-10	4.50E-10
SN6	6.00E-10	4.50E-10
Statistics		
Min	5.00E-10	4.50E-10
Max	6.50E-10	7.00E-10
Mean	5.60E-10	5.60E-10
Sigma	6.52E-11	1.08E-10

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

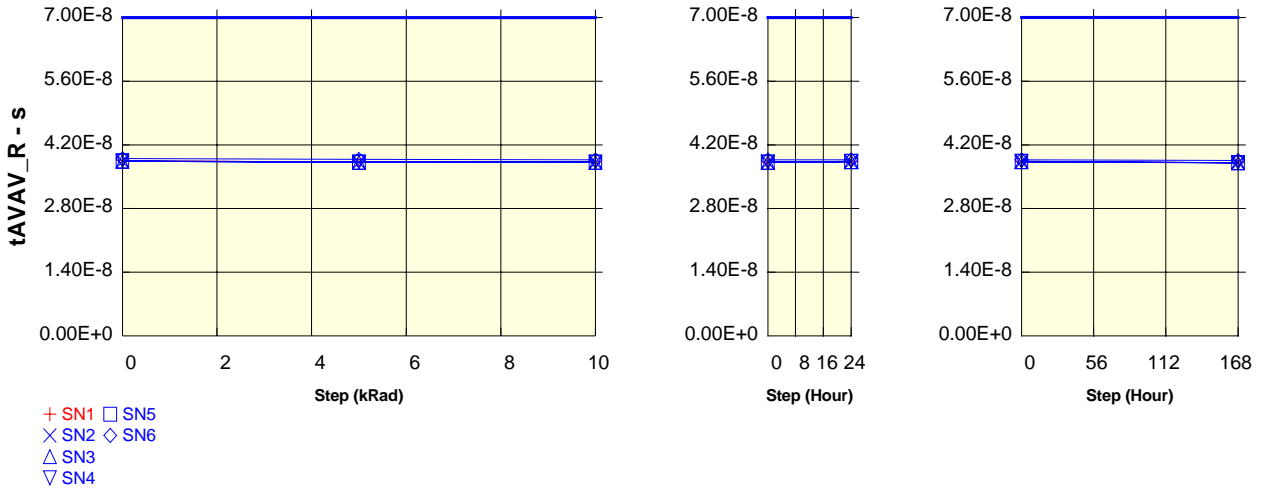
Test conditions : TID

Parameter : Read Cycle Time : tAVAV\_R

Unit : s

Spec Limit Max : 7.00E-8

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	3.85E-8	3.82E-8	3.82E-8
SN2	3.84E-8	3.82E-8	3.82E-8
SN3	3.84E-8	3.82E-8	3.82E-8
SN4	3.85E-8	3.82E-8	3.82E-8
SN5	3.84E-8	3.82E-8	3.82E-8
SN6	3.90E-8	3.88E-8	3.87E-8
Statistics			
Min	3.84E-8	3.82E-8	3.82E-8
Max	3.90E-8	3.88E-8	3.87E-8
Mean	3.85E-8	3.83E-8	3.83E-8
Sigma	2.61E-10	2.68E-10	2.24E-10

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	3.82E-8	3.83E-8
SN2	3.82E-8	3.83E-8
SN3	3.82E-8	3.83E-8
SN4	3.82E-8	3.84E-8
SN5	3.82E-8	3.83E-8
SN6	3.87E-8	3.87E-8
Statistics		
Min	3.82E-8	3.83E-8
Max	3.87E-8	3.87E-8
Mean	3.83E-8	3.84E-8
Sigma	2.24E-10	1.73E-10

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	3.83E-8	3.81E-8
SN2	3.83E-8	3.81E-8
SN3	3.83E-8	3.80E-8
SN4	3.84E-8	3.81E-8
SN5	3.83E-8	3.81E-8
SN6	3.87E-8	3.86E-8
Statistics		
Min	3.83E-8	3.80E-8
Max	3.87E-8	3.86E-8
Mean	3.84E-8	3.82E-8
Sigma	1.73E-10	2.39E-10

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

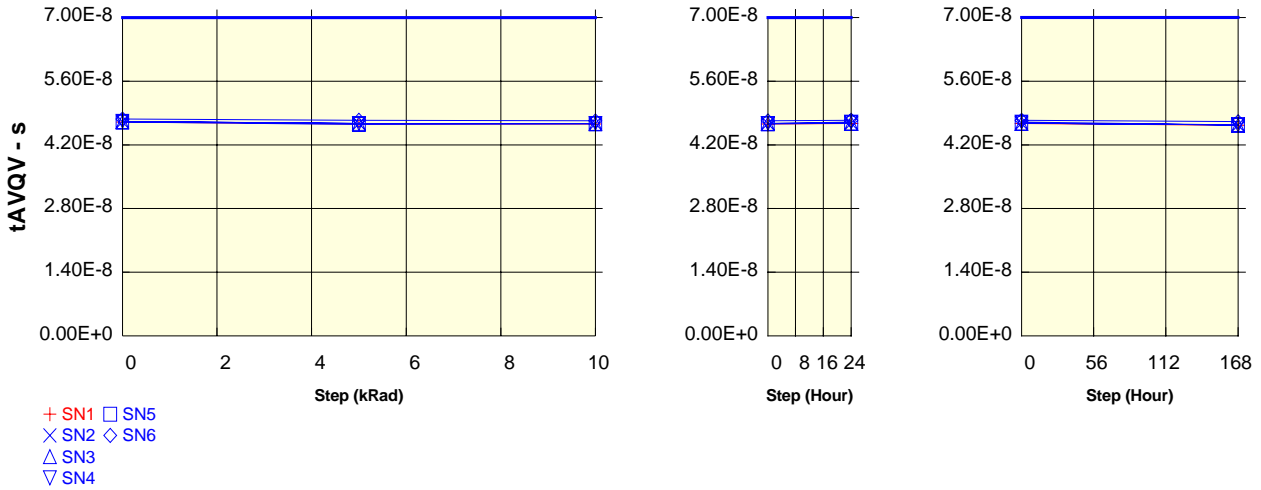
Parameter : Address to Output Delay : tAVQV

CE\* = VIL. OE\* = VIL

Unit : s

Spec Limit Max : 7.00E-8

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.70E-8	4.66E-8	4.66E-8
SN2	4.71E-8	4.67E-8	4.67E-8
SN3	4.71E-8	4.67E-8	4.67E-8
SN4	4.72E-8	4.67E-8	4.67E-8
SN5	4.70E-8	4.65E-8	4.66E-8
SN6	4.77E-8	4.74E-8	4.73E-8
Statistics			
Min	4.70E-8	4.65E-8	4.66E-8
Max	4.77E-8	4.74E-8	4.73E-8
Mean	4.72E-8	4.68E-8	4.68E-8
Sigma	2.77E-10	3.46E-10	2.83E-10

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.66E-8	4.67E-8
SN2	4.67E-8	4.68E-8
SN3	4.67E-8	4.68E-8
SN4	4.67E-8	4.70E-8
SN5	4.66E-8	4.68E-8
SN6	4.73E-8	4.74E-8
Statistics		
Min	4.66E-8	4.68E-8
Max	4.73E-8	4.74E-8
Mean	4.68E-8	4.70E-8
Sigma	2.83E-10	2.61E-10

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.67E-8	4.63E-8
SN2	4.68E-8	4.64E-8
SN3	4.68E-8	4.64E-8
SN4	4.70E-8	4.64E-8
SN5	4.68E-8	4.64E-8
SN6	4.74E-8	4.71E-8
Statistics		
Min	4.68E-8	4.64E-8
Max	4.74E-8	4.71E-8
Mean	4.70E-8	4.65E-8
Sigma	2.61E-10	3.13E-10

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

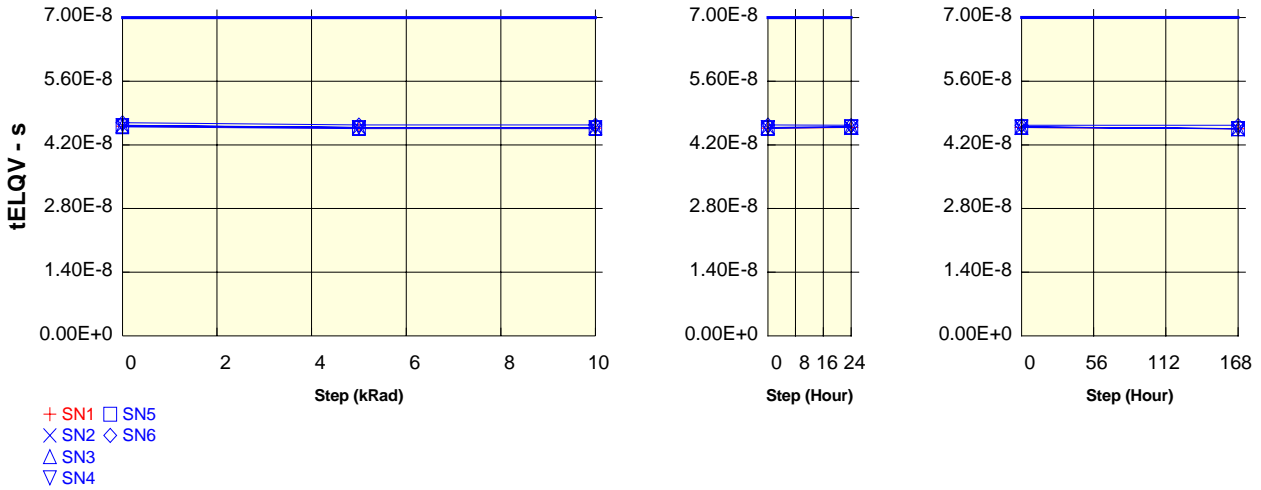
Parameter : Chip Enable to Output Delay : tELQV

OE\* = VIL

Unit : s

Spec Limit Max : 7.00E-8

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	4.61E-8	4.57E-8	4.57E-8
SN2	4.62E-8	4.58E-8	4.58E-8
SN3	4.62E-8	4.58E-8	4.58E-8
SN4	4.63E-8	4.58E-8	4.58E-8
SN5	4.60E-8	4.56E-8	4.56E-8
SN6	4.69E-8	4.64E-8	4.64E-8
Statistics			
Min	4.60E-8	4.56E-8	4.56E-8
Max	4.69E-8	4.64E-8	4.64E-8
Mean	4.63E-8	4.59E-8	4.59E-8
Sigma	3.42E-10	3.03E-10	3.03E-10

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	4.57E-8	4.58E-8
SN2	4.58E-8	4.58E-8
SN3	4.58E-8	4.59E-8
SN4	4.58E-8	4.60E-8
SN5	4.56E-8	4.59E-8
SN6	4.64E-8	4.63E-8
Statistics		
Min	4.56E-8	4.58E-8
Max	4.64E-8	4.63E-8
Mean	4.59E-8	4.60E-8
Sigma	3.03E-10	1.92E-10

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	4.58E-8	4.55E-8
SN2	4.58E-8	4.55E-8
SN3	4.59E-8	4.56E-8
SN4	4.60E-8	4.56E-8
SN5	4.59E-8	4.55E-8
SN6	4.63E-8	4.63E-8
Statistics		
Min	4.58E-8	4.55E-8
Max	4.63E-8	4.63E-8
Mean	4.60E-8	4.57E-8
Sigma	1.92E-10	3.39E-10

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

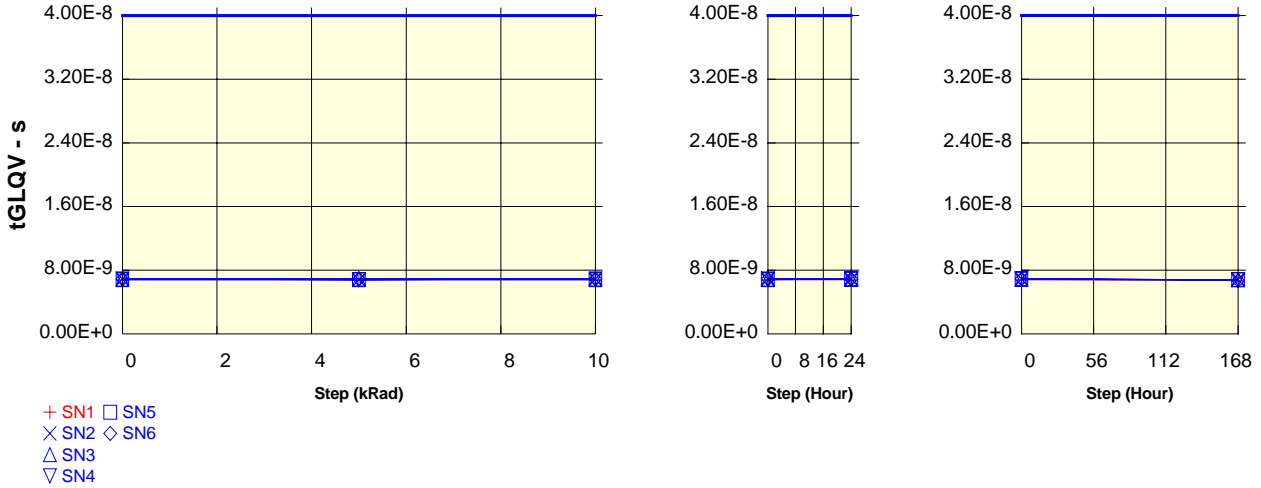
Test conditions : TID

Parameter : Output Enable to Output Delay : tGLQV

Unit : s

Spec Limit Max : 4.00E-8

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	6.80E-9	6.80E-9	6.80E-9
SN2	6.90E-9	6.80E-9	6.90E-9
SN3	6.90E-9	6.90E-9	6.90E-9
SN4	6.90E-9	6.80E-9	6.90E-9
SN5	6.80E-9	6.80E-9	6.80E-9
SN6	6.90E-9	6.90E-9	6.90E-9
Statistics			
Min	6.80E-9	6.80E-9	6.80E-9
Max	6.90E-9	6.90E-9	6.90E-9
Mean	6.88E-9	6.84E-9	6.88E-9
Sigma	4.47E-11	5.48E-11	4.47E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	6.80E-9	6.80E-9
SN2	6.90E-9	6.90E-9
SN3	6.90E-9	6.90E-9
SN4	6.90E-9	6.90E-9
SN5	6.80E-9	6.90E-9
SN6	6.90E-9	6.90E-9
Statistics		
Min	6.80E-9	6.90E-9
Max	6.90E-9	6.90E-9
Mean	6.88E-9	6.90E-9
Sigma	4.47E-11	0.00E+0

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	6.80E-9	6.70E-9
SN2	6.90E-9	6.80E-9
SN3	6.90E-9	6.80E-9
SN4	6.90E-9	6.80E-9
SN5	6.90E-9	6.80E-9
SN6	6.90E-9	6.70E-9
Statistics		
Min	6.90E-9	6.70E-9
Max	6.90E-9	6.80E-9
Mean	6.90E-9	6.78E-9
Sigma	0.00E+0	4.47E-11



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

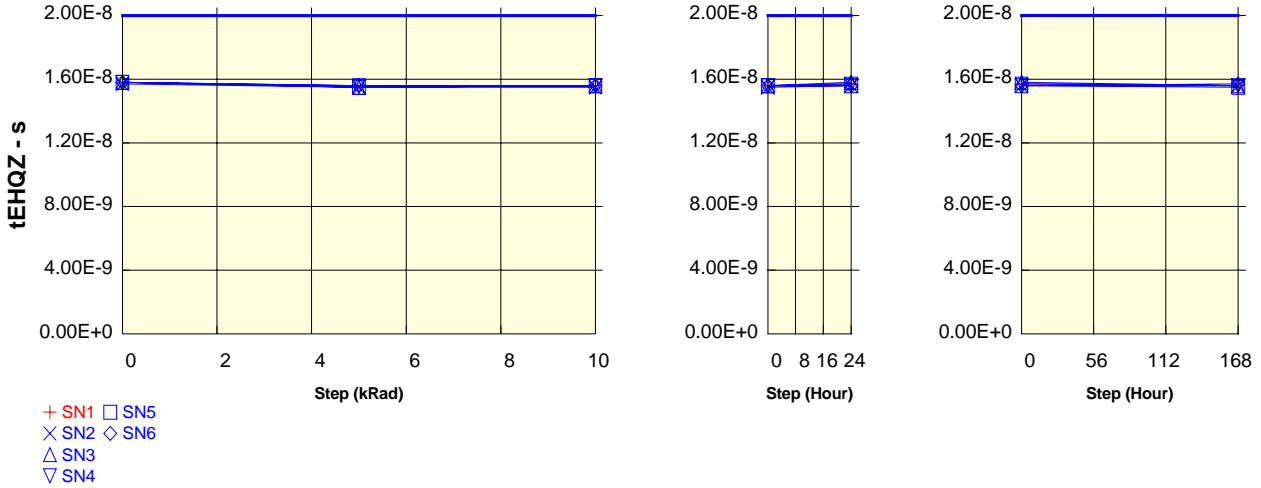
Test conditions : TID

Parameter : Chip Enable to Output HiZ : tEHQZ

Unit : s

Spec Limit Max : 2.00E-8

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.58E-8	1.55E-8	1.56E-8
SN2	1.57E-8	1.55E-8	1.55E-8
SN3	1.58E-8	1.55E-8	1.56E-8
SN4	1.58E-8	1.56E-8	1.56E-8
SN5	1.58E-8	1.55E-8	1.56E-8
SN6	1.58E-8	1.56E-8	1.56E-8
Statistics			
Min	1.57E-8	1.55E-8	1.55E-8
Max	1.58E-8	1.56E-8	1.56E-8
Mean	1.58E-8	1.55E-8	1.56E-8
Sigma	4.47E-11	5.48E-11	4.47E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.56E-8	1.57E-8
SN2	1.55E-8	1.56E-8
SN3	1.56E-8	1.58E-8
SN4	1.56E-8	1.57E-8
SN5	1.56E-8	1.56E-8
SN6	1.56E-8	1.56E-8
Statistics		
Min	1.55E-8	1.56E-8
Max	1.56E-8	1.58E-8
Mean	1.56E-8	1.57E-8
Sigma	4.47E-11	8.94E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.57E-8	1.56E-8
SN2	1.56E-8	1.56E-8
SN3	1.58E-8	1.56E-8
SN4	1.57E-8	1.56E-8
SN5	1.56E-8	1.55E-8
SN6	1.56E-8	1.57E-8
Statistics		
Min	1.56E-8	1.55E-8
Max	1.58E-8	1.57E-8
Mean	1.57E-8	1.56E-8
Sigma	8.94E-11	7.07E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

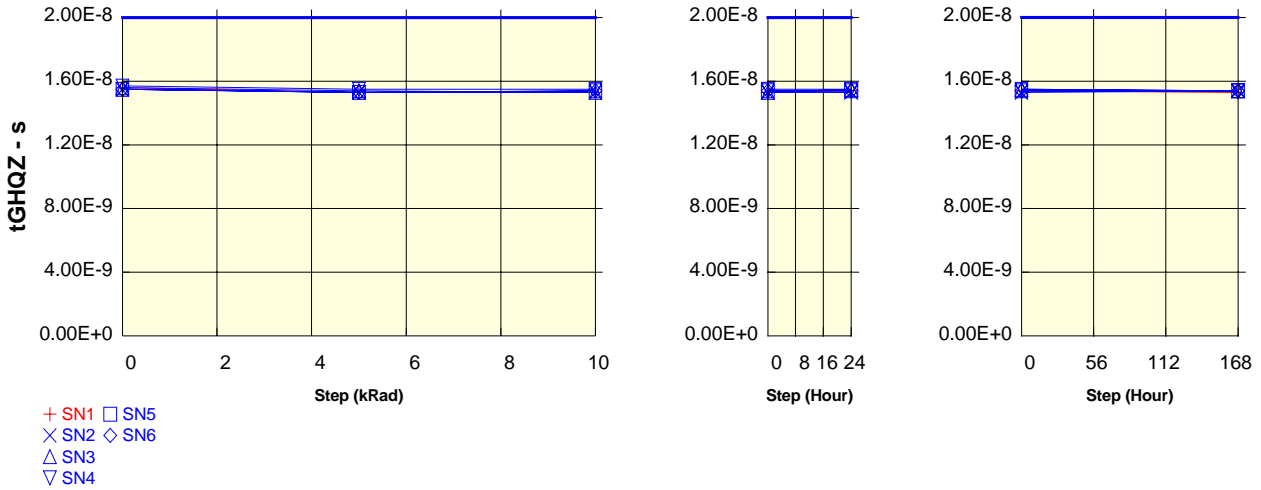
Test conditions : TID

Parameter : Output Enable to Output HiZ : tGHQZ

Unit : s

Spec Limit Max : 2.00E-8

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.56E-8	1.53E-8	1.53E-8
SN2	1.55E-8	1.53E-8	1.53E-8
SN3	1.56E-8	1.54E-8	1.53E-8
SN4	1.57E-8	1.55E-8	1.55E-8
SN5	1.55E-8	1.53E-8	1.54E-8
SN6	1.55E-8	1.53E-8	1.54E-8
Statistics			
Min	1.55E-8	1.53E-8	1.53E-8
Max	1.57E-8	1.55E-8	1.55E-8
Mean	1.56E-8	1.54E-8	1.54E-8
Sigma	8.94E-11	8.94E-11	8.37E-11

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.53E-8	1.54E-8
SN2	1.53E-8	1.53E-8
SN3	1.53E-8	1.55E-8
SN4	1.55E-8	1.55E-8
SN5	1.54E-8	1.54E-8
SN6	1.54E-8	1.54E-8
Statistics		
Min	1.53E-8	1.53E-8
Max	1.55E-8	1.55E-8
Mean	1.54E-8	1.54E-8
Sigma	8.37E-11	8.37E-11

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.54E-8	1.53E-8
SN2	1.53E-8	1.54E-8
SN3	1.55E-8	1.54E-8
SN4	1.55E-8	1.54E-8
SN5	1.54E-8	1.54E-8
SN6	1.54E-8	1.54E-8
Statistics		
Min	1.53E-8	1.54E-8
Max	1.55E-8	1.54E-8
Mean	1.54E-8	1.54E-8
Sigma	8.37E-11	0.00E+0

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

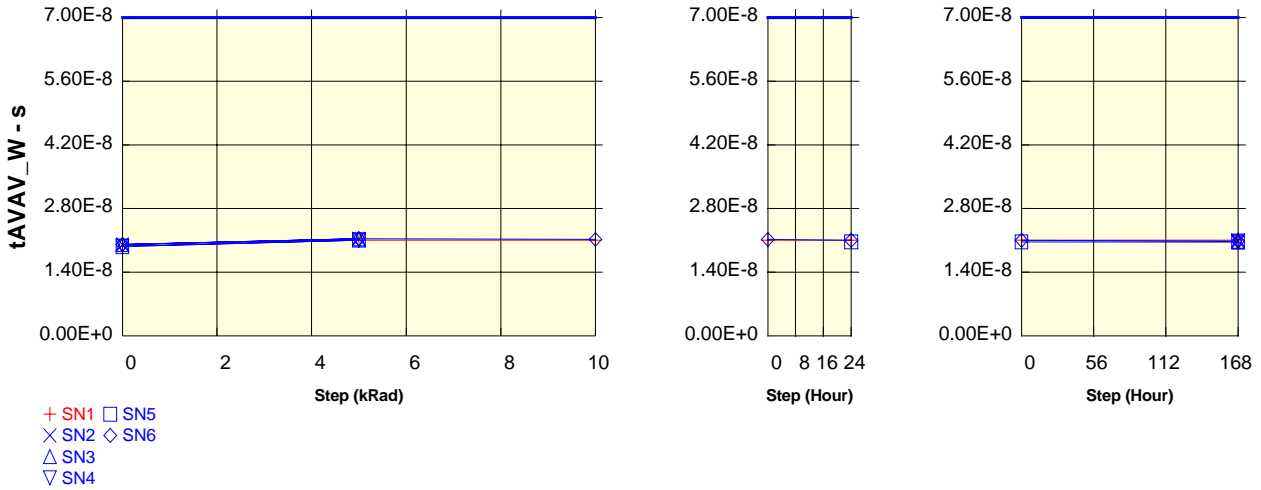
Test conditions : TID

Parameter : Write Cycle Time : tAVAV\_W

Unit : s

Spec Limit Max : 7.00E-8

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.97E-8	2.10E-8	2.10E-8
SN2	2.01E-8	2.13E-8	
SN3	2.01E-8	2.13E-8	
SN4	1.97E-8	2.10E-8	
SN5	1.97E-8	2.10E-8	
SN6	2.01E-8	2.13E-8	2.12E-8
Statistics			
Min	1.97E-8	2.10E-8	0.00E+0
Max	2.01E-8	2.13E-8	2.12E-8
Mean	1.99E-8	2.12E-8	4.24E-9
Sigma	2.30E-10	1.53E-10	9.48E-9

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	2.10E-8	2.10E-8
SN2		
SN3		
SN4		
SN5		2.07E-8
SN6	2.12E-8	2.10E-8
Statistics		
Min		0.00E+0
Max		2.10E-8
Mean		8.33E-9
Sigma		1.14E-8

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	2.10E-8	2.10E-8
SN2		2.09E-8
SN3		2.09E-8
SN4		2.09E-8
SN5	2.07E-8	2.06E-8
SN6	2.10E-8	2.09E-8
Statistics		
Min	2.07E-8	2.06E-8
Max	2.10E-8	2.09E-8
Mean	2.08E-8	2.08E-8
Sigma	2.33E-10	1.28E-10

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

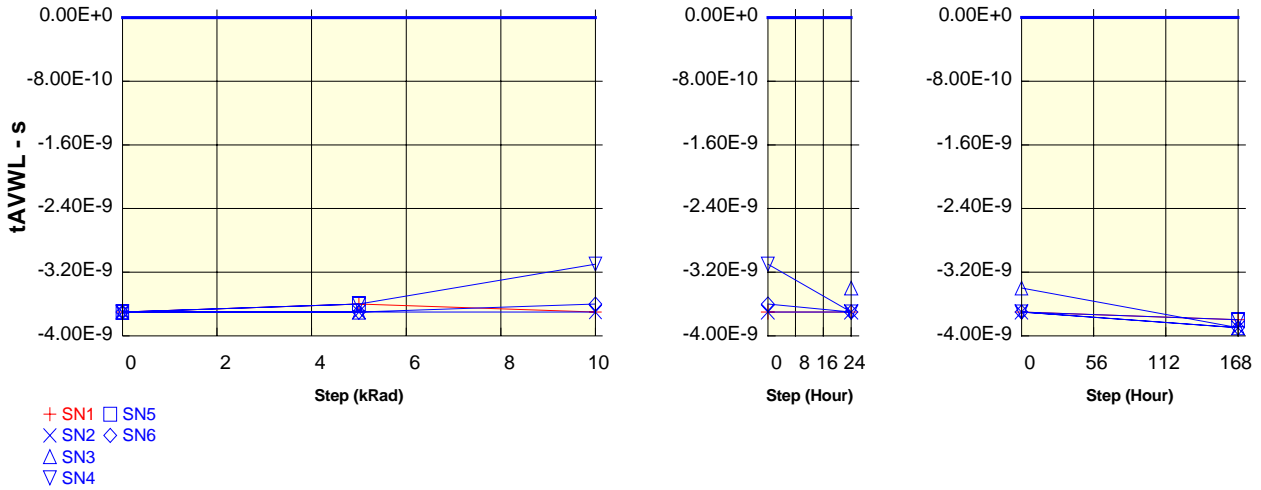
**Test conditions : TID**

Parameter : Address Setup Time : tAVWL

Unit : s

Spec Limit Max : 0.00E+0

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	-3.70E-9	-3.60E-9	-3.70E-9
SN2	-3.70E-9	-3.70E-9	-3.70E-9
SN3	-3.70E-9	-3.70E-9	
SN4	-3.70E-9	-3.60E-9	-3.10E-9
SN5	-3.70E-9	-3.60E-9	
SN6	-3.70E-9	-3.70E-9	-3.60E-9
<b>Statistics</b>			
Min	-3.70E-9	-3.70E-9	-3.70E-9
Max	-3.70E-9	-3.60E-9	0.00E+0
Mean	-3.70E-9	-3.66E-9	-2.08E-9
Sigma	0.00E+0	5.48E-11	1.91E-9

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	-3.70E-9	-3.70E-9
SN2	-3.70E-9	-3.70E-9
SN3		-3.40E-9
SN4	-3.10E-9	-3.70E-9
SN5		
SN6	-3.60E-9	-3.70E-9
<b>Statistics</b>		
Min	-3.70E-9	-3.70E-9
Max	-3.10E-9	0.00E+0
Mean	-3.47E-9	-2.90E-9
Sigma	3.21E-10	1.63E-9

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	-3.70E-9	-3.80E-9
SN2	-3.70E-9	-3.90E-9
SN3	-3.40E-9	-3.90E-9
SN4	-3.70E-9	-3.80E-9
SN5		-3.80E-9
SN6	-3.70E-9	-3.90E-9
<b>Statistics</b>		
Min	-3.70E-9	-3.90E-9
Max	-3.40E-9	-3.80E-9
Mean	-3.63E-9	-3.86E-9
Sigma	1.50E-10	5.48E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

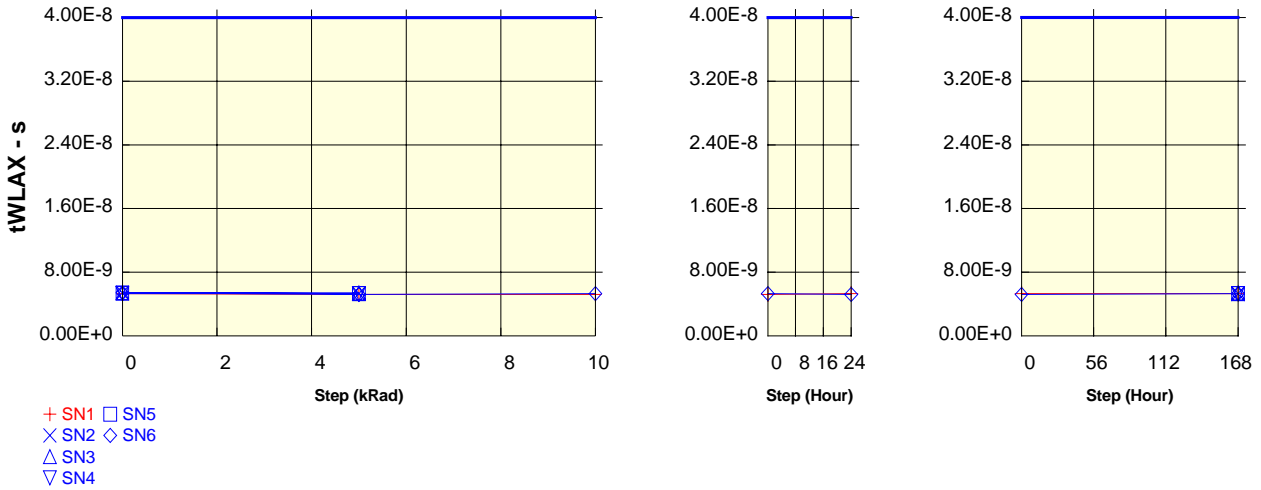
**Test conditions : TID**

Parameter : Address Hold Time : tWLAX

Unit : s

Spec Limit Max : 4.00E-8

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	5.30E-9	5.20E-9	5.20E-9
SN2	5.40E-9	5.30E-9	
SN3	5.40E-9	5.40E-9	
SN4	5.30E-9	5.30E-9	
SN5	5.40E-9	5.30E-9	
SN6	5.40E-9	5.20E-9	5.30E-9
Statistics			
Min	5.30E-9	5.20E-9	0.00E+0
Max	5.40E-9	5.40E-9	5.30E-9
Mean	5.38E-9	5.30E-9	1.06E-9
Sigma	4.47E-11	7.07E-11	2.37E-9

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	5.20E-9	5.30E-9
SN2		
SN3		
SN4		
SN5		
SN6	5.30E-9	5.20E-9
Statistics		
Min		0.00E+0
Max		5.20E-9
Mean		1.04E-9
Sigma		2.33E-9

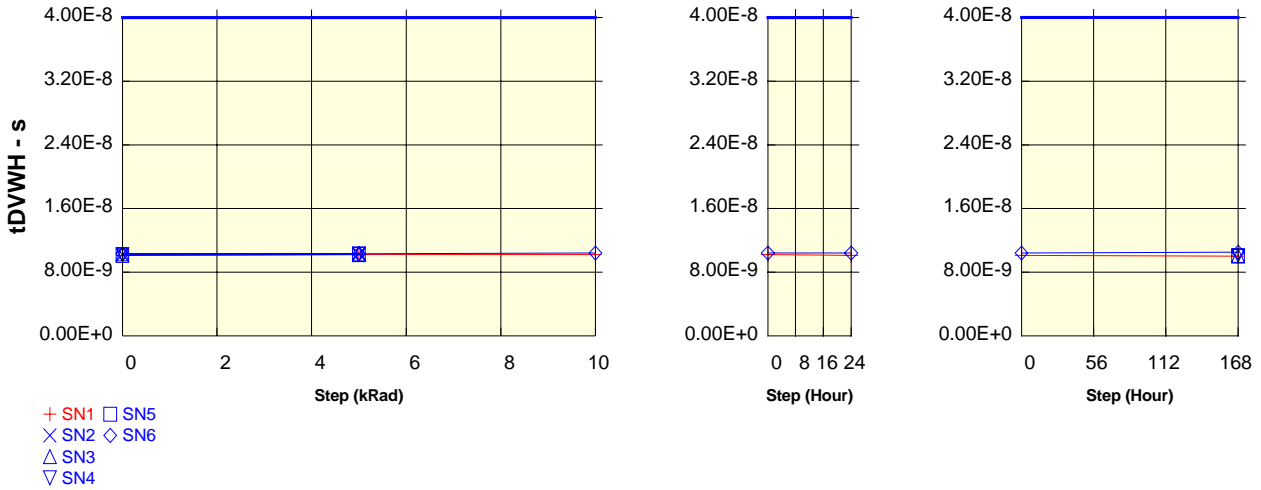
Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	5.30E-9	5.30E-9
SN2		5.30E-9
SN3		5.40E-9
SN4		5.30E-9
SN5		5.30E-9
SN6	5.20E-9	5.30E-9
Statistics		
Min		5.30E-9
Max		5.40E-9
Mean		5.32E-9
Sigma		4.47E-11

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID  
Parameter : Data Setup Time : tDVWH

Unit : s  
Spec Limit Max : 4.00E-8  
Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.01E-8	1.02E-8	1.02E-8
SN2	1.02E-8	1.03E-8	
SN3	1.03E-8	1.03E-8	
SN4	1.02E-8	1.03E-8	
SN5	1.01E-8	1.02E-8	
SN6	1.03E-8	1.03E-8	1.04E-8
Statistics			
Min	1.01E-8	1.02E-8	0.00E+0
Max	1.03E-8	1.03E-8	1.04E-8
Mean	1.02E-8	1.03E-8	2.08E-9
Sigma	8.37E-11	4.47E-11	4.65E-9

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.02E-8	1.01E-8
SN2		
SN3		
SN4		
SN5		
SN6	1.04E-8	1.04E-8
Statistics		
Min		0.00E+0
Max		1.04E-8
Mean		2.08E-9
Sigma		4.65E-9

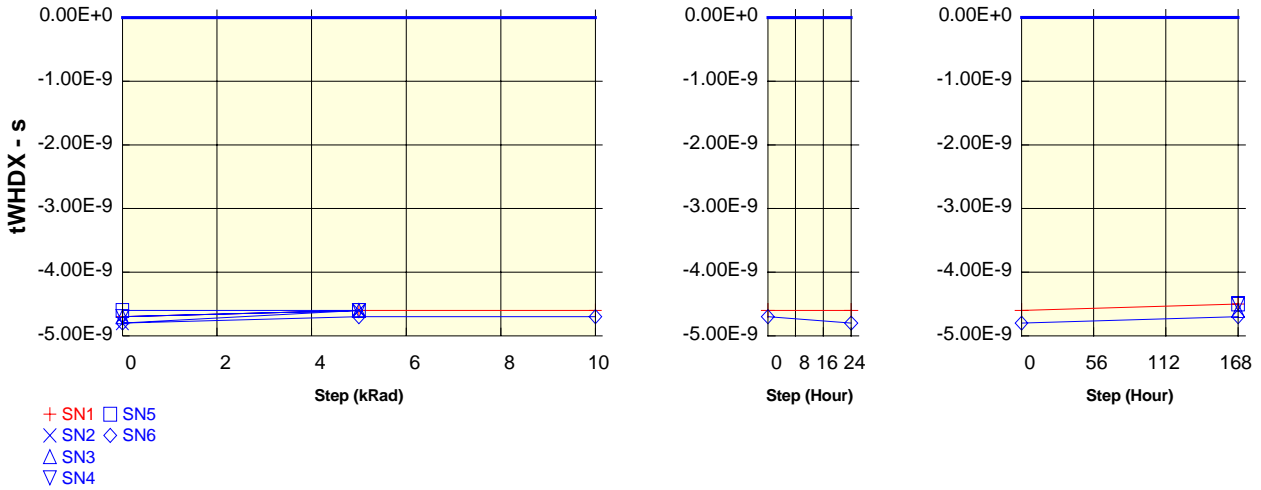
Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.01E-8	1.00E-8
SN2		
SN3		1.01E-8
SN4		1.01E-8
SN5		1.00E-8
SN6	1.04E-8	1.05E-8
Statistics		
Min		0.00E+0
Max		1.05E-8
Mean		8.14E-9
Sigma		4.55E-9

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID  
Parameter : Data Hold Time : tWHDX

Unit : s  
Spec Limit Max : 0.00E+0  
Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	-4.70E-9	-4.60E-9	-4.60E-9
SN2	-4.80E-9	-4.60E-9	
SN3	-4.70E-9	-4.60E-9	
SN4	-4.70E-9	-4.60E-9	
SN5	-4.60E-9	-4.60E-9	
SN6	-4.80E-9	-4.70E-9	-4.70E-9
Statistics			
Min	-4.80E-9	-4.70E-9	-4.70E-9
Max	-4.60E-9	-4.60E-9	0.00E+0
Mean	-4.72E-9	-4.62E-9	-9.40E-10
Sigma	8.37E-11	4.47E-11	2.10E-9

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	-4.60E-9	-4.60E-9
SN2		
SN3		
SN4		
SN5		
SN6	-4.70E-9	-4.80E-9
Statistics		
Min		-4.80E-9
Max		0.00E+0
Mean		-9.60E-10
Sigma		2.15E-9

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	-4.60E-9	-4.50E-9
SN2		
SN3		-4.60E-9
SN4		-4.50E-9
SN5		-4.50E-9
SN6	-4.80E-9	-4.70E-9
Statistics		
Min		-4.70E-9
Max		0.00E+0
Mean		-3.66E-9
Sigma		2.05E-9

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

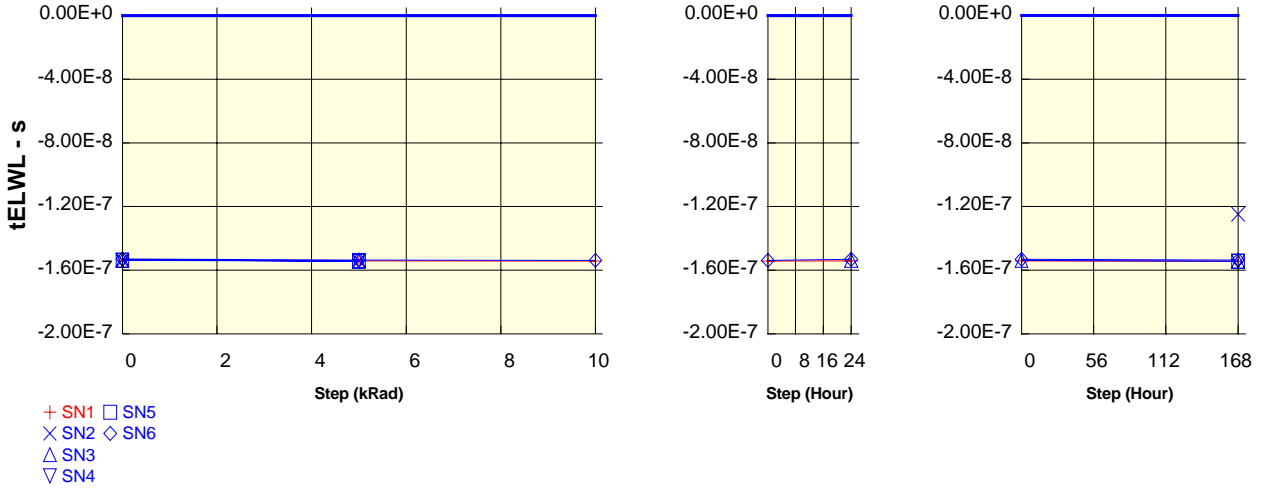
Parameter : CE\* Setup Time : tELWL

-

Unit : s

Spec Limit Max : 0.00E+0

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	-1.54E-7	-1.54E-7	-1.54E-7
SN2	-1.54E-7	-1.54E-7	
SN3	-1.54E-7	-1.54E-7	
SN4	-1.54E-7	-1.54E-7	
SN5	-1.54E-7	-1.54E-7	
SN6	-1.53E-7	-1.54E-7	-1.54E-7
Statistics			
Min	-1.54E-7	-1.54E-7	-1.54E-7
Max	-1.53E-7	-1.54E-7	0.00E+0
Mean	-1.54E-7	-1.54E-7	-3.08E-8
Sigma	3.46E-10	2.83E-10	6.88E-8

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	-1.54E-7	-1.54E-7
SN2		
SN3		-1.54E-7
SN4		
SN5		
SN6	-1.54E-7	-1.53E-7
Statistics		
Min		-1.54E-7
Max		0.00E+0
Mean		-6.14E-8
Sigma		8.41E-8

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	-1.54E-7	-1.54E-7
SN2		-1.25E-7
SN3	-1.54E-7	-1.54E-7
SN4		-1.54E-7
SN5		-1.55E-7
SN6	-1.53E-7	-1.54E-7
Statistics		
Min	-1.54E-7	-1.55E-7
Max	-1.53E-7	-1.25E-7
Mean	-1.54E-7	-1.48E-7
Sigma	4.95E-10	1.31E-8



<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

Test conditions : TID

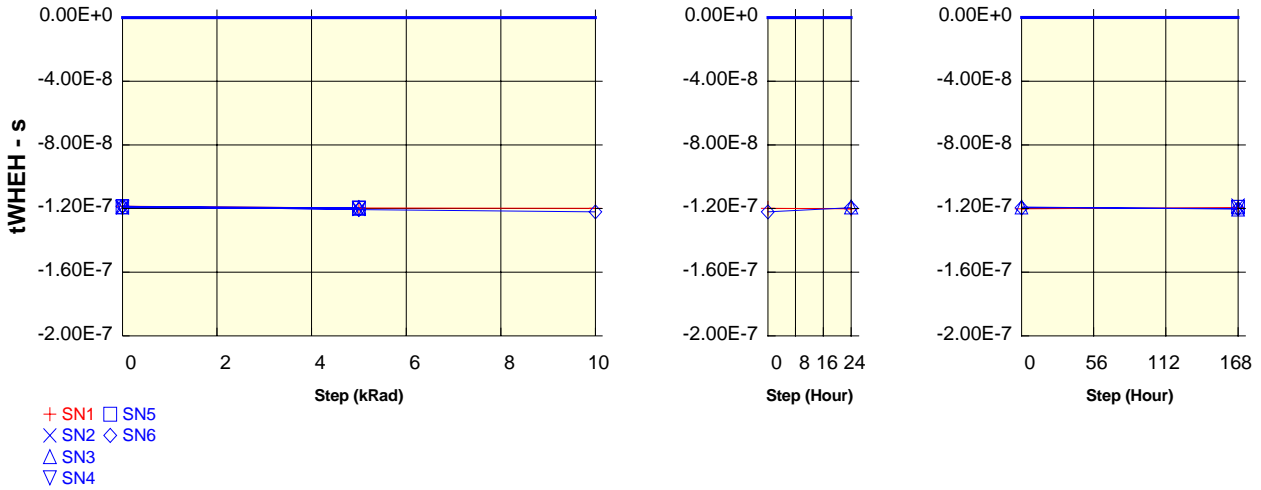
Parameter : CE\* Hold Time : tWHEH

-

Unit : s

Spec Limit Max : 0.00E+0

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	-1.19E-7	-1.20E-7	-1.20E-7
SN2	-1.19E-7	-1.20E-7	
SN3	-1.19E-7	-1.20E-7	
SN4	-1.20E-7	-1.20E-7	
SN5	-1.19E-7	-1.20E-7	
SN6	-1.19E-7	-1.21E-7	-1.22E-7
Statistics			
Min	-1.20E-7	-1.21E-7	-1.22E-7
Max	-1.19E-7	-1.20E-7	0.00E+0
Mean	-1.19E-7	-1.20E-7	-2.44E-8
Sigma	3.67E-10	4.44E-10	5.46E-8

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	-1.20E-7	-1.20E-7
SN2		
SN3		-1.19E-7
SN4		
SN5		
SN6	-1.22E-7	-1.20E-7
Statistics		
Min		-1.20E-7
Max		0.00E+0
Mean		-4.77E-8
Sigma		6.53E-8

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	-1.20E-7	-1.19E-7
SN2		-1.18E-7
SN3	-1.19E-7	-1.20E-7
SN4		-1.19E-7
SN5		-1.19E-7
SN6	-1.20E-7	-1.20E-7
Statistics		
Min	-1.20E-7	-1.20E-7
Max	-1.19E-7	-1.18E-7
Mean	-1.19E-7	-1.19E-7
Sigma	3.54E-10	7.83E-10

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

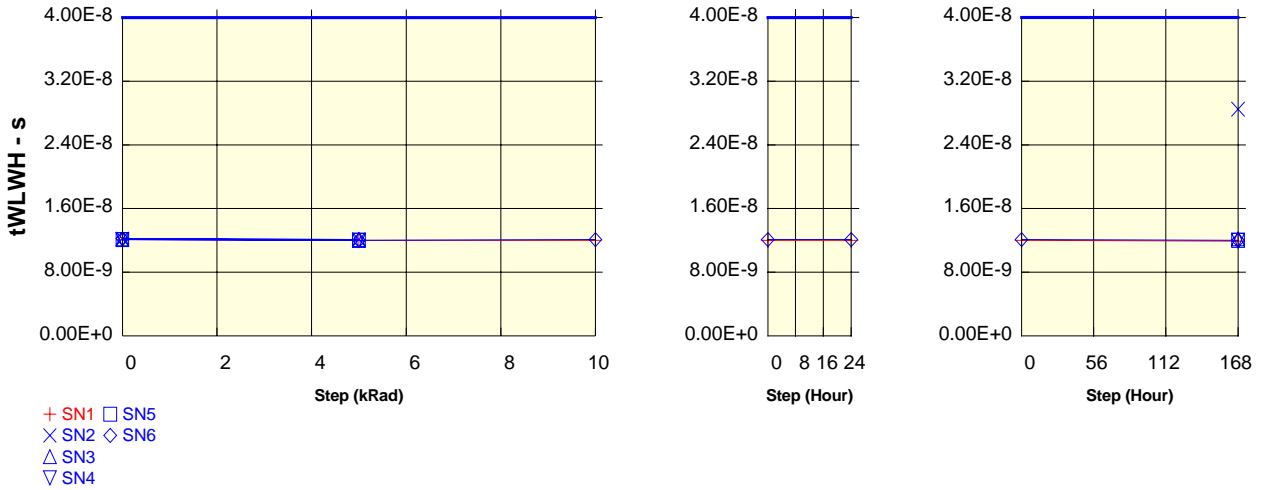
Test conditions : TID

Parameter : Write Pulse Width : tWLWH

Unit : s

Spec Limit Max : 4.00E-8

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	1.21E-8	1.20E-8	1.20E-8
SN2	1.22E-8	1.21E-8	
SN3	1.22E-8	1.21E-8	
SN4	1.21E-8	1.20E-8	
SN5	1.21E-8	1.20E-8	
SN6	1.22E-8	1.20E-8	1.21E-8
Statistics			
Min	1.21E-8	1.20E-8	0.00E+0
Max	1.22E-8	1.21E-8	1.21E-8
Mean	1.22E-8	1.20E-8	2.42E-9
Sigma	5.48E-11	5.48E-11	5.41E-9

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	1.20E-8	1.20E-8
SN2		
SN3		
SN4		
SN5		
SN6	1.21E-8	1.21E-8
Statistics		
Min		0.00E+0
Max		1.21E-8
Mean		2.42E-9
Sigma		5.41E-9

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	1.20E-8	1.19E-8
SN2		2.85E-8
SN3		1.22E-8
SN4		1.20E-8
SN5		1.20E-8
SN6	1.21E-8	1.20E-8
Statistics		
Min		1.20E-8
Max		2.85E-8
Mean		1.53E-8
Sigma		7.36E-9

<b>HIREX Engineering</b>	<b>Total Dose Test Report</b>		Ref. : HRX/TID/0202 Issue : 01
Part Type :	Am29F016D	Manufacturer :	AMD

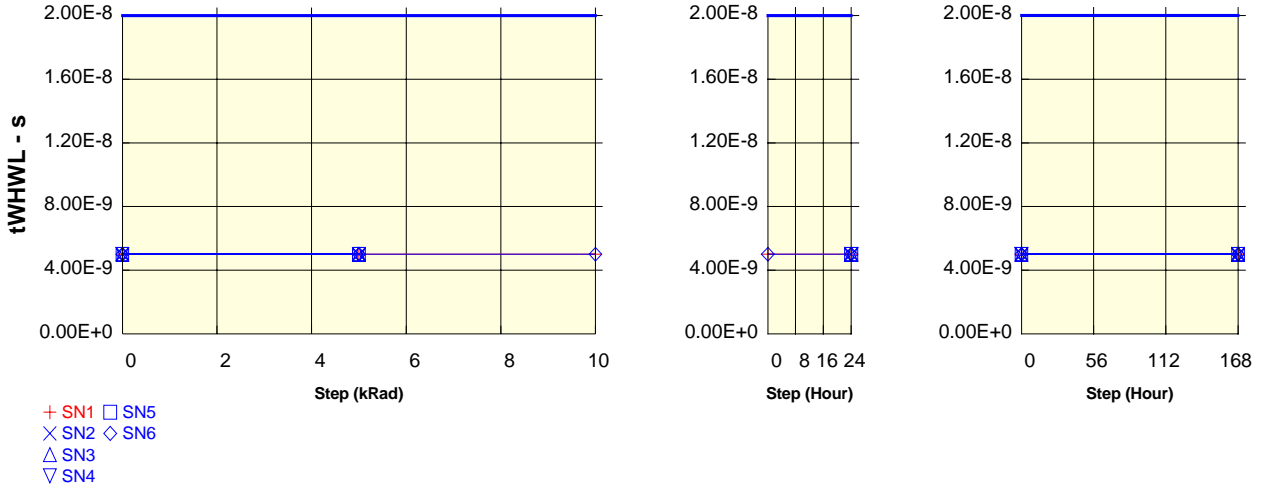
Test conditions : TID

Parameter : Write Pulse Width High : tWHWL

Unit : s

Spec Limit Max : 2.00E-8

Spec limits are represented in bold lines on the graphic.



Test TST001 : Exposure

	0 kRad	5 kRad	10 kRad
SN1	5.00E-9	5.00E-9	5.00E-9
SN2	5.00E-9	5.00E-9	
SN3	5.00E-9	5.00E-9	
SN4	5.00E-9	5.00E-9	
SN5	5.00E-9	5.00E-9	
SN6	5.00E-9	5.00E-9	5.00E-9
Statistics			
Min	5.00E-9	5.00E-9	0.00E+0
Max	5.00E-9	5.00E-9	5.00E-9
Mean	5.00E-9	5.00E-9	1.00E-9
Sigma	0.00E+0	0.00E+0	2.24E-9

Test TST002 : Annealing 24h

	0 Hour	24 Hour
SN1	5.00E-9	5.00E-9
SN2		5.00E-9
SN3		5.00E-9
SN4		5.00E-9
SN5		5.00E-9
SN6	5.00E-9	5.00E-9
Statistics		
Min		5.00E-9
Max		5.00E-9
Mean		5.00E-9
Sigma		0.00E+0

Test TST003 : Annealing 168h

	0 Hour	168 Hour
SN1	5.00E-9	5.00E-9
SN2	5.00E-9	5.00E-9
SN3	5.00E-9	5.00E-9
SN4	5.00E-9	5.00E-9
SN5	5.00E-9	5.00E-9
SN6	5.00E-9	5.00E-9
Statistics		
Min	5.00E-9	5.00E-9
Max	5.00E-9	5.00E-9
Mean	5.00E-9	5.00E-9
Sigma	0.00E+0	0.00E+0