

TOTAL DOSE RADIATION TEST REPORT

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

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




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

Final Report

<p>Part Type : IS-1845ASRH</p> <p>Package : FP-18</p> <p>Description : Single Event Radiation Hardened High Speed, Current Mode PWM</p> <p>Manufacturer : Intersil</p>
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Alter Technology Purchase Order N° ATGSP-TL-09-JC-CO-9 dated 11/27/2009

Alter Technology Project Manager: David NUNEZ

Hirex reference :	HRX/TID/1017	Issue : 01	Date :	January 24 th , 2012
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Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1017
	IS-1845ASRH	Intersil	Issue:	01

TOTAL DOSE RADIATION TEST REPORT
on
Intersil
IS-1845ASRH
Single Event Radiation Hardened High Speed, Current Mode PWM

TABLE OF CONTENTS

1 INTRODUCTION.....4

2 APPLICABLE AND REFERENCE DOCUMENTS4

2.1 APPLICABLE DOCUMENTS4

2.2 REFERENCE DOCUMENTS4

3 TEST SAMPLES4

4 EXPERIMENTAL CONDITIONS.....6

4.1 RADIATION SOURCE DOSE RATE AND ANNEALING.....6

4.2 BIAS DURING DOSE EXPOSURES AND MEASUREMENTS CONDITIONS.....7

4.2.1 Bias conditions7

4.2.2 Electrical Measurements7

5 CONCLUSION.....9

6 TEST RESULTS.....10

LIST OF FIGURES:

Figure 1 : Samples bias flow diagram.....4

Figure 2 : Bias Conditions during Irradiation Exposures7

Figure 3 : IS-1845ASRH test program principle7

LIST OF TABLES:

Table 1 : Measured electrical parameters8

Table 2 : Summary of parameters failure levels9

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1017
	IS-1845ASRH	Intersil	Issue:	01

1 Introduction

In the scope of the ESA study: "Survey of Critical Components for 150 kRad Power Systems", a total dose characterization test of the Intersil IS-1845ASRH, Single Event Radiation Hardened High Speed, Current Mode PWM has been performed with an accumulated dose of about 397.9 kRad(Si) at different dose rates of 36, 100 & 300 rad(Si)/hour, in response to Alter Technology purchase order reference ATGSP-TL-09-JC-CO-9.

An Interim report, HRX/TID/0885 Issue 01, corresponding to the irradiation up to 154.8 Krad(Si) steps has been already provided.

The purpose of this test was to evaluate total dose withstanding of this component, to investigate its suitability for being used in space applications. This test was conducted on samples provided by Alter Technology.

Test has been performed in accordance with Hirex Engineering Radiation Test Plan HRX/SPE/0237 issue 2 dated 09/08/2010.

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

2 Applicable and Reference Documents

2.1 Applicable Documents

- Hirex Engineering proposal: HRX/SPE/0237 issue 2 dated 09/08/2010
- Alter Technology Proposal: ATGSP-OF-648/2009 Issue 1
- Minutes of Meeting: MM-SRP-ATG-0001 dated 29/10/2009
- Hirex internal specification: Total Ionizing dose test general procedure.
- SMD detail specification: 5962-01509

2.2 Reference Documents

- Intersil datasheet: FN9001.3 October 2003

3 Test Samples

13 samples of the IS-1845ASRH device were tested (6 ON + 6 OFF + 1 control sample).

12 samples (including the 6 samples already submitted to protons test: see report HRX/TID/0880) have been biased according to the flow diagram given in Figure 1.

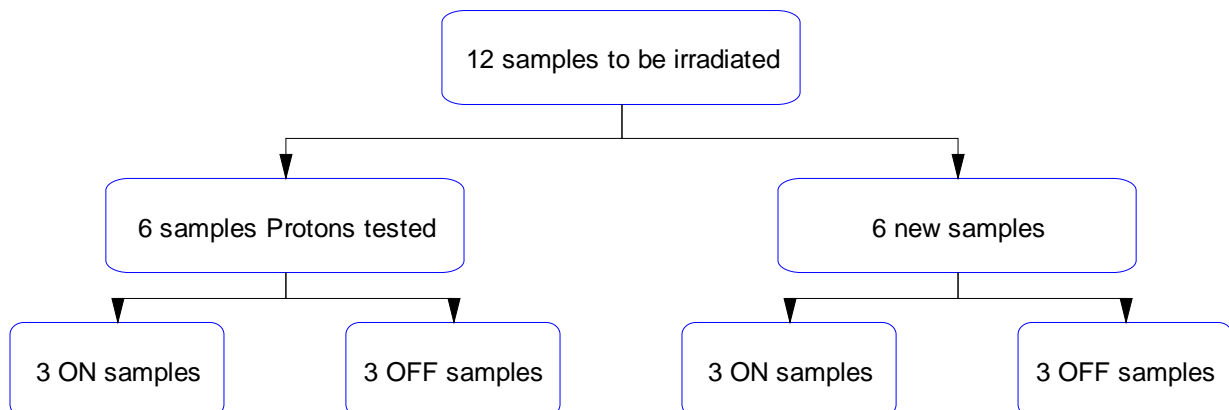


Figure 1 : Samples bias flow diagram

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1017
	IS-1845ASRH	Intersil	Issue:	01

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

SN attributed by Hirex	Samples Allocation	Samples Group Naming
1	Control sample	REF
5	Biased ON	ON_PROTON
6	Biased ON	ON_PROTON
7	Biased ON	ON_PROTON
2	Biased OFF	OFF_PROTON
3	Biased OFF	OFF_PROTON
4	Biased OFF	OFF_PROTON
12	Biased ON	ON_TID
13	Biased ON	ON_TID
14	Biased ON	ON_TID
8	Biased OFF	OFF_TID
10	Biased OFF	OFF_TID
11	Biased OFF	OFF_TID

Identification of the IS-1845ASRH is given below:

Part Number: IS-1845ASRH

Top Marking: logo IS-1845ASRH/PROTO delta

Bottom Marking: -

Date Code: -

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1017
	IS-1845ASRH	Intersil	Issue:	01

4 Experimental Conditions

4.1 Radiation Source Dose Rate and Annealing

The dose exposures were performed at UCL in Louvain (Belgium). In this irradiation facility, a Cobalt 60 source is used with the possibility to vary the dose rate by simply adjusting the distance to the source. During the dose exposures, devices under test have been irradiated in an ambient temperature of 24°C ±6°C.

The dose received by the devices has been controlled by the measurement of one Alanine pellet dosimeter placed onto the bias board.

Resulting test conditions are provided below.

Irradiation Steps requested	Pellet dosimetry data	Dose rate	Annealing steps	Temperature
kRad	kRad	Rad/h	Hours	°C
0	0			
10	11.7	36		Room
20	28.8	36		Room
50	68.4	36		Room
100	99	36		Room
150	154.8	100 [1]		Room
200	212.4	300 [1]		Room
250	269.1	300 [1]		Room
300	307.8	300 [1]		Room
350	347.4	300 [1]		Room
400	397.9	300 [1]		Room
			24	Room
			168	100

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

4.2 Bias during Dose Exposures and Measurements conditions

4.2.1 Bias conditions

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

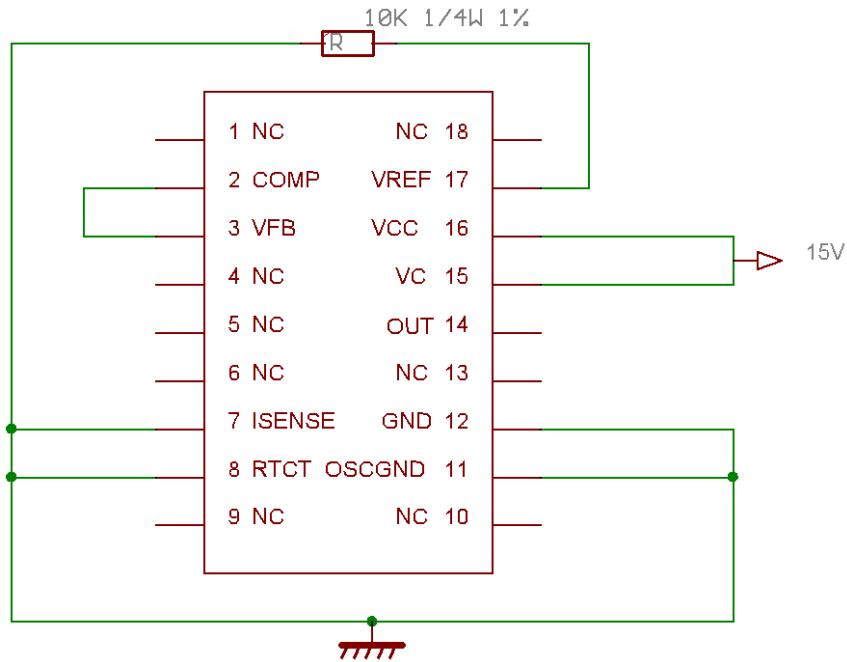


Figure 2 : Bias Conditions during Irradiation Exposures

4.2.2 Electrical Measurements

Electrical parameters test program principle for IS-1845ASRH is provided in Figure 3.

A HP4142 DC tester and a Infinium Scope were used to perform required measurements.

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

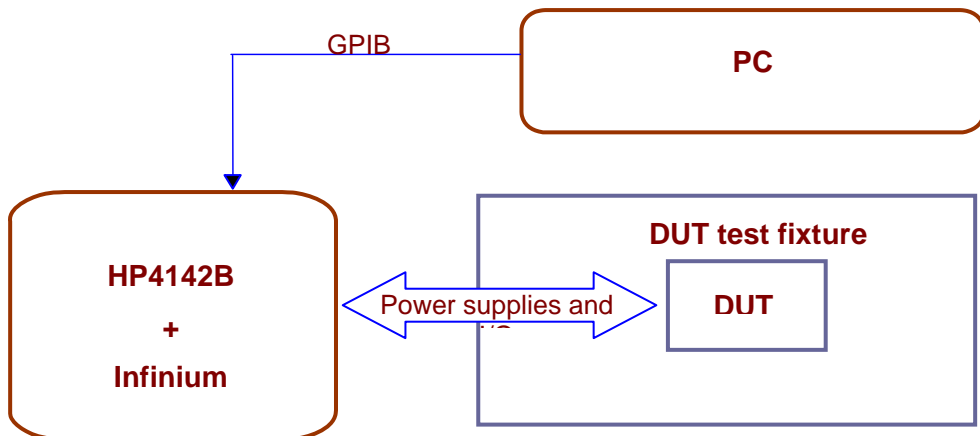


Figure 3 : IS-1845ASRH test program principle

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1017
	IS-1845ASRH	Intersil	Issue:	01

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

PARAMETERS	SYMBOLS	TEST CONDITIONS <small>V_{CC} = 15V unless otherwise specified</small>	MIN	MAX	UNITS
Reference Section					
Output Voltage	VREF	I _{OUT} =1mA	4.900	5.100	V
Line Regulation	VRLINE	V _{CC} =12V to 25V. I _{out} =1mA	-20.00	20.00	mV
Load Regulation	VRLOAD	I _{OUT} =1mA to 20mA	-60.00	60.00	mV
Output Short Circuit	ISC		-100.00	-30.00	mA
Oscillator Section					
Initial Accuracy	IA		47.00	57.00	kHz
Voltage Stability	VS	12V<V _{CC} <25V	-1.000	1.000	%
Discharge Current	Idis	V _{RT} /C _T =2V	7.50	14.00	mA
Error Amp Section					
Input Voltage	VIN	V _{comp} =2.5V	2.420	2.580	V
Input Bias Current	IIB		-2.00	2.00	μA
Open Loop Voltage Gain	AVOL	2V<V _{comp} <4V	60.00		dB
Power Supply Rejection Ratio	PSRR(EA)	V _{CC} =12V to 25V	55.00		dB
Output Sink Current	ISINK	V _{FB} =2.7V. V _{comp} =1.1V	4.00		mA
Output Source Current	ISC	V _{FB} =2.3V. V _{comp} =5V		-500.0	nA
High Output Voltage	VOH(EA)	V _{FB} =2.3V. I _L =500μA	5.000		V
Low Output Voltage	VOL(EA)	V _{FB} =2.7V. I _L =500μA		1.100	V
Output Section					
Low Output Voltage	VOL(OS)1	I _{sink} =20mA		900.0	mV
Low Output Voltage	VOL(OS)2	I _{sink} =200mA		2.50	V
High Output Voltage	VOH(OS)1	I _{source} =-20mA	13.00	16.00	V
High Output Voltage	VOH(OS)2	I _{source} =-200mA	11.00	16.00	V
Current Sense Section					
GAIN	AV		3.000	4.000	V/V
Maximum Input Signal Voltage	VINS		0.800	1.100	V
Input Bias Current	IIB		-10.00		μA
Power Supply Rejection ratio	PSRR(CS)	V _{CC} =12V to 25V	70.000		dB
Undervoltage Lockout (UVLO) Section					
Stop Threshold Voltage	VSTOP		7.000	8.200	V
Start Threshold Voltage	VSTART		7.800	9.000	V
Pulse Width Modulation (PWM) Section					
Maximum Duty Cycle	DCMAX		47.00	50.00	%
Minimum Duty Cycle	DCMIN			0.00	%
Total Standby Current Section					
Startup Current	ISU			1.0	mA
Operating Supply Current	ICC	V _{FB} -V _{ISENSE} =0V		17.00	mA
Zener Voltage	VZ	ICC=25mA	30.00		V

Table 1 : Measured electrical parameters

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1017
	IS-1845ASRH	Intersil	Issue:	01

5 Conclusion

A Total Ionizing Dose verification test was carried out by Hirex Engineering under Alter Technology contract on the Intersil IS-1845ASRH Single Event Radiation Hardened High Speed, Current Mode PWM in FP-18 package.

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

A summary of failed parameters is provided in the following table. The behavior of each parameter is recorded for both biased On and biased Off samples of each group.

Parameters not listed remained within specification limits all along testing or had no limits specified. Detail test results are presented in next section.

Parameters	Failure Level between :		Annealing Recovery [Note 1]					Comments
			NA	No	Partial	Complete	Rebound	
IA	ON_PROTON samples	307.8 & 347.4 kRad(Si)					X	Slight rebound on some samples.
	ON_TID samples	No Failure					X	
	OFF_PROTON samples	No Failure	X					
	OFF_TID samples	No Failure					X	Marginally outside limit one one sample.
VS	ON_PROTON samples	No Failure					X	Rebound on one sample.
	ON_TID samples	No Failure	X					
	OFF_PROTON samples	No Failure	X					
	OFF_TID samples	No Failure	X					
IIB	ON_PROTON samples	No Failure	X					
	ON_TID samples	No Failure	X					
	OFF_PROTON samples	99 & 154.8 kRad(Si)				X		
	OFF_TID samples	154.8 & 212.4 kRad(Si)				X		
ISINK	ON_PROTON samples	99 & 154.8 kRad(Si)				X		
	ON_TID samples	154.8 & 212.4 kRad(Si)				X		
	OFF_PROTON samples	28.8 & 68.4 kRad(Si)			X			
	OFF_TID samples	28.8 & 68.4 kRad(Si)				X		
VINS	ON_PROTON samples	No Failure					X	Marginally outside limit one one sample.
	ON_TID samples	No Failure	X					
	OFF_PROTON samples	No Failure	X					
	OFF_TID samples	No Failure	X					
PSRR(CS)	ON_PROTON samples	-		X				[Note 2]
	ON_TID samples	-		X				[Note 2]
	OFF_PROTON samples	-		X				[Note 2]
	OFF_TID samples	-		X				[Note 2]
VSTOP	ON_PROTON samples	No Failure	X					
	ON_TID samples	No Failure	X					
	OFF_PROTON samples	11.7 & 28.8 kRad(Si)				X		
	OFF_TID samples	28.8 & 68.4 kRad(Si)				X		
DCMAX	ON_PROTON samples	No Failure					X	Rebound on one sample.
	ON_TID samples	No Failure	X					
	OFF_PROTON samples	No Failure	X					
	OFF_TID samples	No Failure	X					

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

[Note 2]: Power Supply Rejection ratio on Current Sense Section (PSRR(CS)) was found below minimum specification limit at initial measurements step. No signification drift was observed all along testing.

Table 2 : Summary of parameters failure levels

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1017
	IS-1845ASRH	Intersil	Issue:	01

6 Test Results

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

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

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

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

Parameter : Output Voltage : VREF

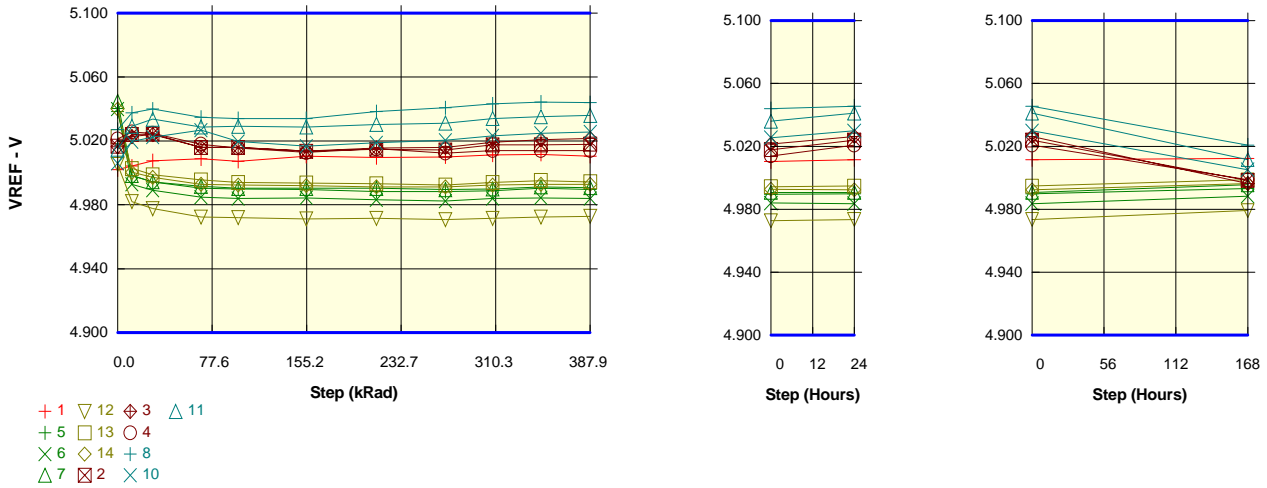
Test conditions : IOUT=1mA

Unit : V

Spec Limit Min : 4.900

Spec Limit Max : 5.100

Spec limits are represented in bold lines on the graphic.



Measurements

VREF	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	5.002	5.004	5.008	5.009	5.007	5.010	5.010	5.010	5.011	5.012	5.010	5.012	5.012
ON PROTON samples													
5	5.038	4.998	4.994	4.990	4.990	4.990	4.988	4.988	4.989	4.990	4.990	4.990	4.993
6	5.040	4.993	4.989	4.985	4.984	4.984	4.983	4.982	4.984	4.984	4.984	4.984	4.988
7	5.045	4.998	4.994	4.992	4.990	4.990	4.990	4.990	4.990	4.991	4.991	4.991	4.996
Statistics													
Min	5.038	4.993	4.989	4.985	4.984	4.984	4.983	4.982	4.984	4.984	4.984	4.984	4.988
Max	5.045	4.998	4.994	4.992	4.990	4.990	4.990	4.990	4.990	4.991	4.991	4.991	4.996
Average	5.041	4.997	4.993	4.989	4.988	4.988	4.987	4.987	4.988	4.989	4.988	4.988	4.992
Sigma	0.003	0.003	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003

Drift Calculation

VREF	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-40.0E-03	-44.0E-03	-48.0E-03	-48.4E-03	-48.8E-03	-50.0E-03	-50.0E-03	-49.6E-03	-48.0E-03	-48.8E-03	-48.4E-03	-45.2E-03
6	-	-47.2E-03	-50.8E-03	-55.2E-03	-56.0E-03	-55.6E-03	-56.8E-03	-57.6E-03	-56.0E-03	-55.6E-03	-56.0E-03	-56.4E-03	-51.6E-03
7	-	-46.4E-03	-50.4E-03	-53.2E-03	-54.4E-03	-54.4E-03	-54.4E-03	-55.2E-03	-54.8E-03	-53.6E-03	-54.0E-03	-54.0E-03	-49.2E-03
Average	-	-44.5E-03	-48.4E-03	-52.1E-03	-52.9E-03	-52.9E-03	-53.7E-03	-54.3E-03	-53.5E-03	-52.4E-03	-52.9E-03	-52.9E-03	-48.7E-03
Sigma	-	3.2E-03	3.1E-03	3.0E-03	3.3E-03	3.0E-03	2.8E-03	3.2E-03	2.8E-03	3.2E-03	3.0E-03	3.4E-03	2.6E-03

Measurements

VREF	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	5.002	5.004	5.008	5.009	5.007	5.010	5.010	5.010	5.011	5.012	5.010	5.012	5.012
ON TID samples													
12	5.005	4.982	4.978	4.972	4.972	4.971	4.972	4.971	4.972	4.972	4.973	4.974	4.979
13	5.023	5.003	4.999	4.996	4.994	4.994	4.993	4.992	4.994	4.995	4.994	4.995	4.999
14	5.040	5.000	4.997	4.993	4.992	4.992	4.991	4.991	4.992	4.993	4.993	4.992	4.996
Statistics													
Min	5.005	4.982	4.978	4.972	4.972	4.971	4.972	4.971	4.972	4.972	4.973	4.974	4.979
Max	5.040	5.003	4.999	4.996	4.994	4.994	4.993	4.992	4.994	4.995	4.994	4.995	4.999
Average	5.023	4.995	4.991	4.987	4.986	4.986	4.985	4.985	4.986	4.987	4.987	4.987	4.991
Sigma	0.014	0.009	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.009	0.009

Drift Calculation

VREF	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-23.2E-03	-27.6E-03	-32.8E-03	-33.2E-03	-34.0E-03	-33.6E-03	-34.4E-03	-33.6E-03	-32.8E-03	-32.4E-03	-31.6E-03	-26.0E-03
13	-	-20.0E-03	-24.0E-03	-27.2E-03	-28.8E-03	-29.2E-03	-29.6E-03	-30.4E-03	-28.8E-03	-27.6E-03	-28.4E-03	-28.0E-03	-24.0E-03
14	-	-39.6E-03	-42.8E-03	-47.2E-03	-47.6E-03	-48.0E-03	-48.8E-03	-48.8E-03	-47.6E-03	-47.2E-03	-47.2E-03	-47.6E-03	-43.6E-03
Average	-	-27.6E-03	-31.5E-03	-35.7E-03	-36.5E-03	-37.1E-03	-37.3E-03	-37.9E-03	-36.7E-03	-35.9E-03	-36.0E-03	-35.7E-03	-31.2E-03
Sigma	-	8.6E-03	8.1E-03	8.4E-03	8.0E-03	8.0E-03	8.3E-03	7.9E-03	8.0E-03	8.3E-03	8.1E-03	8.5E-03	8.8E-03

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	IS-1845ASRH					Intersil					Issue:	01

Measurements

VREF	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	5.002	5.004	5.008	5.009	5.007	5.010	5.010	5.010	5.011	5.012	5.010	5.012	5.012
OFF PROTON samples													
2	5.017	5.024	5.024	5.016	5.016	5.014	5.015	5.014	5.018	5.018	5.018	5.024	4.998
3	5.016	5.023	5.024	5.016	5.016	5.014	5.016	5.016	5.019	5.021	5.022	5.026	4.996
4	5.021	5.026	5.025	5.018	5.016	5.013	5.015	5.012	5.014	5.014	5.014	5.021	4.999
Statistics													
Min	5.016	5.023	5.024	5.016	5.016	5.013	5.015	5.012	5.014	5.014	5.014	5.021	4.996
Max	5.021	5.026	5.025	5.018	5.016	5.014	5.016	5.016	5.019	5.021	5.022	5.026	4.999
Average	5.018	5.024	5.024	5.017	5.016	5.013	5.015	5.014	5.017	5.017	5.018	5.024	4.998
Sigma	0.002	0.001	0.000	0.001	0.000	0.000	0.000	0.001	0.002	0.003	0.003	0.002	0.001

Drift Calculation

VREF	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	7.2E-03	7.6E-03	-800.1E-06	-800.1E-06	-3.2E-03	-2.0E-03	-2.4E-03	800.1E-06	800.1E-06	1.2E-03	7.2E-03	-18.4E-03
3	-	6.4E-03	7.6E-03	-400.1E-06	-400.1E-06	-2.8E-03	-799.7E-06	-400.1E-06	2.8E-03	4.4E-03	5.2E-03	10.0E-03	-20.0E-03
4	-	4.4E-03	3.6E-03	-3.2E-03	-5.6E-03	-8.4E-03	-6.0E-03	-8.8E-03	-7.2E-03	-7.2E-03	-7.2E-03	-400.1E-06	-22.4E-03
Average	-	6.0E-03	6.3E-03	-1.5E-03	-2.3E-03	-4.8E-03	-2.9E-03	-3.9E-03	-1.2E-03	-666.6E-06	-266.7E-06	5.6E-03	-20.3E-03
Sigma	-	1.2E-03	1.9E-03	1.2E-03	2.4E-03	2.6E-03	2.2E-03	3.6E-03	4.3E-03	4.8E-03	5.2E-03	4.4E-03	1.6E-03

Measurements

VREF	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	5.002	5.004	5.008	5.009	5.007	5.010	5.010	5.010	5.011	5.012	5.010	5.012	5.012
OFF TID samples													
8	5.027	5.038	5.040	5.035	5.034	5.034	5.038	5.041	5.043	5.044	5.044	5.046	5.021
10	5.006	5.020	5.022	5.027	5.020	5.017	5.019	5.020	5.023	5.025	5.026	5.030	5.005
11	5.015	5.029	5.034	5.029	5.029	5.029	5.030	5.031	5.034	5.035	5.036	5.041	5.012
Statistics													
Min	5.006	5.020	5.022	5.027	5.020	5.017	5.019	5.020	5.023	5.025	5.026	5.030	5.005
Max	5.027	5.038	5.040	5.035	5.034	5.034	5.038	5.041	5.043	5.044	5.044	5.046	5.021
Average	5.016	5.029	5.032	5.030	5.028	5.027	5.029	5.031	5.033	5.035	5.035	5.039	5.013
Sigma	0.009	0.007	0.007	0.003	0.006	0.007	0.008	0.008	0.008	0.008	0.008	0.007	0.006

Drift Calculation

VREF	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	10.4E-03	12.8E-03	7.6E-03	6.8E-03	6.8E-03	11.2E-03	13.6E-03	16.0E-03	17.2E-03	16.8E-03	18.4E-03	-6.4E-03
10	-	13.6E-03	16.4E-03	20.8E-03	13.6E-03	10.8E-03	12.8E-03	14.4E-03	17.2E-03	18.8E-03	19.6E-03	24.0E-03	-800.1E-06
11	-	14.4E-03	18.8E-03	14.0E-03	14.4E-03	14.0E-03	15.6E-03	16.4E-03	19.2E-03	20.4E-03	21.2E-03	26.4E-03	-3.2E-03
Average	-	12.8E-03	16.0E-03	14.1E-03	11.6E-03	10.5E-03	13.2E-03	14.8E-03	17.5E-03	18.8E-03	19.2E-03	22.9E-03	-3.5E-03
Sigma	-	1.7E-03	2.5E-03	5.4E-03	3.4E-03	2.9E-03	1.8E-03	1.2E-03	1.3E-03	1.3E-03	1.8E-03	3.4E-03	2.3E-03

Parameter : Line Regulation : VRLINE

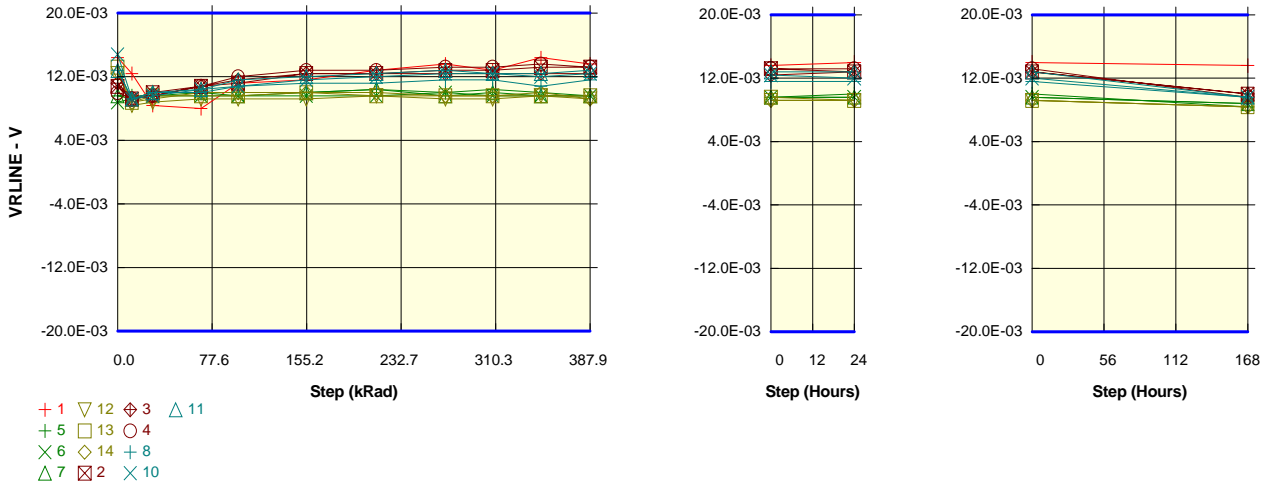
Test conditions : VCC=12V to 25V. Iout=1mA

Unit : V

Spec Limit Min : -20.0E-03

Spec Limit Max : 20.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

VRLINE	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	14.4E-03	12.4E-03	8.4E-03	8.0E-03	11.2E-03	11.6E-03	12.8E-03	13.6E-03	12.8E-03	14.4E-03	13.6E-03	14.0E-03	13.6E-03
ON PROTON samples													
5	9.6E-03	9.6E-03	9.6E-03	10.0E-03	10.0E-03	10.0E-03	10.4E-03	10.0E-03	10.4E-03	10.0E-03	9.6E-03	10.0E-03	8.4E-03
6	8.8E-03	9.2E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	10.0E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	8.8E-03
7	9.6E-03	9.2E-03	10.0E-03	10.0E-03	9.6E-03	10.0E-03	10.4E-03	9.6E-03	10.0E-03	9.6E-03	9.6E-03	9.6E-03	8.8E-03
Statistics													
Min	8.8E-03	9.2E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	8.4E-03
Max	9.6E-03	9.6E-03	10.0E-03	10.0E-03	10.0E-03	10.0E-03	10.4E-03	10.0E-03	10.4E-03	10.0E-03	9.6E-03	10.0E-03	8.8E-03
Average	9.3E-03	9.3E-03	9.7E-03	9.9E-03	9.7E-03	9.9E-03	10.1E-03	9.9E-03	10.0E-03	9.7E-03	9.6E-03	9.7E-03	8.7E-03
Sigma	377.2E-06	188.4E-06	188.6E-06	188.5E-06	188.7E-06	188.6E-06	377.3E-06	188.5E-06	326.5E-06	188.6E-06	224.8E-09	188.7E-06	188.6E-06

Drift Calculation

VRLINE	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-476.8E-09	-476.8E-09	400.1E-06	400.1E-06	400.1E-06	799.7E-06	400.1E-06	799.7E-06	400.1E-06	0.0E+00	400.1E-06	-1.2E-03
6	-	400.1E-06	799.7E-06	800.1E-06	799.7E-06	800.1E-06	799.7E-06	1.2E-03	800.1E-06	800.1E-06	799.7E-06	799.7E-06	0.0E+00
7	-	-400.1E-06	399.6E-06	399.6E-06	0.0E+00	400.1E-06	800.1E-06	0.0E+00	400.1E-06	0.0E+00	0.0E+00	0.0E+00	-800.1E-06
Average	-	-158.9E-09	399.6E-06	533.3E-06	399.9E-06	533.4E-06	799.8E-06	533.3E-06	666.6E-06	400.1E-06	266.6E-06	399.9E-06	-666.8E-06
Sigma	-	326.7E-06	326.7E-06	188.7E-06	326.5E-06	188.6E-06	224.8E-09	498.8E-06	188.5E-06	326.7E-06	377.0E-06	326.5E-06	499.0E-06

Measurements

VRLINE	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	14.4E-03	12.4E-03	8.4E-03	8.0E-03	11.2E-03	11.6E-03	12.8E-03	13.6E-03	12.8E-03	14.4E-03	13.6E-03	14.0E-03	13.6E-03
ON TID samples													
12	12.4E-03	8.4E-03	8.8E-03	9.2E-03	9.2E-03	9.2E-03	9.6E-03	9.2E-03	9.2E-03	9.6E-03	9.2E-03	9.2E-03	8.4E-03
13	13.2E-03	8.8E-03	9.6E-03	9.6E-03	9.6E-03	10.0E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	9.6E-03	9.2E-03	8.4E-03
14	12.4E-03	8.8E-03	9.2E-03	10.0E-03	10.0E-03	10.0E-03	10.0E-03	9.6E-03	9.6E-03	10.0E-03	9.2E-03	9.2E-03	8.4E-03
Statistics													
Min	12.4E-03	8.4E-03	8.8E-03	9.2E-03	9.2E-03	9.2E-03	9.6E-03	9.2E-03	9.2E-03	9.6E-03	9.2E-03	9.2E-03	8.4E-03
Max	13.2E-03	8.8E-03	9.6E-03	10.0E-03	10.0E-03	10.0E-03	10.0E-03	9.6E-03	9.6E-03	10.0E-03	9.6E-03	9.2E-03	8.4E-03
Average	12.7E-03	8.7E-03	9.2E-03	9.6E-03	9.6E-03	9.7E-03	9.7E-03	9.5E-03	9.5E-03	9.7E-03	9.3E-03	9.2E-03	8.4E-03
Sigma	377.3E-06	188.6E-06	326.7E-06	326.7E-06	326.5E-06	377.1E-06	188.4E-06	188.6E-06	188.6E-06	188.7E-06	188.4E-06	224.8E-09	0.0E+00

Drift Calculation

VRLINE	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-4.0E-03	-3.6E-03	-3.2E-03	-3.2E-03	-3.2E-03	-2.8E-03	-3.2E-03	-3.2E-03	-2.8E-03	-3.2E-03	-3.2E-03	-4.0E-03
13	-	-4.4E-03	-3.6E-03	-3.6E-03	-3.6E-03	-3.2E-03	-3.6E-03	-3.6E-03	-3.6E-03	-3.6E-03	-3.6E-03	-4.0E-03	-4.8E-03
14	-	-3.6E-03	-3.2E-03	-2.4E-03	-2.4E-03	-2.4E-03	-2.4E-03	-2.8E-03	-2.8E-03	-2.4E-03	-3.2E-03	-3.2E-03	-4.0E-03
Average	-	-4.0E-03	-3.5E-03	-3.1E-03	-3.1E-03	-2.9E-03	-2.9E-03	-3.2E-03	-3.2E-03	-2.9E-03	-3.3E-03	-3.5E-03	-4.3E-03
Sigma	-	326.7E-06	188.5E-06	499.1E-06	498.7E-06	376.8E-06	498.8E-06	326.7E-06	326.7E-06	499.2E-06	188.9E-06	377.5E-06	377.3E-06

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

VRLINE	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	14.4E-03	12.4E-03	8.4E-03	8.0E-03	11.2E-03	11.6E-03	12.8E-03	13.6E-03	12.8E-03	14.4E-03	13.6E-03	14.0E-03	13.6E-03
OFF PROTON samples													
2	10.8E-03	9.2E-03	10.0E-03	10.8E-03	11.2E-03	12.4E-03	12.4E-03	12.8E-03	12.8E-03	13.2E-03	13.2E-03	12.8E-03	10.0E-03
3	11.2E-03	9.2E-03	9.6E-03	10.8E-03	11.6E-03	12.4E-03	12.4E-03	12.4E-03	12.4E-03	12.4E-03	12.4E-03	12.8E-03	10.0E-03
4	10.0E-03	9.2E-03	9.6E-03	10.8E-03	12.0E-03	12.8E-03	12.8E-03	13.2E-03	13.2E-03	13.6E-03	13.2E-03	13.2E-03	9.6E-03
Statistics													
Min	10.0E-03	9.2E-03	9.6E-03	10.8E-03	11.2E-03	12.4E-03	12.4E-03	12.4E-03	12.4E-03	12.4E-03	12.4E-03	12.8E-03	9.6E-03
Max	11.2E-03	9.2E-03	10.0E-03	10.8E-03	12.0E-03	12.8E-03	12.8E-03	13.2E-03	13.2E-03	13.6E-03	13.2E-03	13.2E-03	10.0E-03
Average	10.7E-03	9.2E-03	9.7E-03	10.8E-03	11.6E-03	12.5E-03	12.5E-03	12.8E-03	12.8E-03	13.1E-03	12.9E-03	12.9E-03	9.9E-03
Sigma	498.8E-06	224.8E-09	188.5E-06	224.8E-09	326.5E-06	188.4E-06	188.7E-06	326.7E-06	326.7E-06	498.9E-06	377.3E-06	188.5E-06	188.6E-06

Drift Calculation

VRLINE	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-1.6E-03	-800.1E-06	476.8E-09	400.5E-06	1.6E-03	1.6E-03	2.0E-03	2.0E-03	2.4E-03	2.4E-03	2.0E-03	-799.7E-06
3	-	-2.0E-03	-1.6E-03	-399.6E-06	400.1E-06	1.2E-03	1.2E-03	1.2E-03	1.2E-03	1.2E-03	1.2E-03	1.6E-03	-1.2E-03
4	-	-800.1E-06	-400.1E-06	799.7E-06	2.0E-03	2.8E-03	2.8E-03	3.2E-03	3.2E-03	3.6E-03	3.2E-03	3.2E-03	-400.1E-06
Average	-	-1.5E-03	-933.5E-06	133.5E-06	933.5E-06	1.9E-03	1.9E-03	2.1E-03	2.1E-03	2.4E-03	2.3E-03	2.3E-03	-799.8E-06
Sigma	-	498.8E-06	499.0E-06	498.5E-06	754.0E-06	679.5E-06	679.9E-06	821.8E-06	821.9E-06	979.8E-06	822.1E-06	679.6E-06	326.5E-06

Measurements

VRLINE	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	14.4E-03	12.4E-03	8.4E-03	8.0E-03	11.2E-03	11.6E-03	12.8E-03	13.6E-03	12.8E-03	14.4E-03	13.6E-03	14.0E-03	13.6E-03
OFF TID samples													
8	12.8E-03	9.2E-03	10.0E-03	10.0E-03	10.8E-03	11.2E-03	11.2E-03	11.6E-03	11.6E-03	10.8E-03	11.6E-03	11.6E-03	9.6E-03
10	14.8E-03	9.2E-03	9.6E-03	10.4E-03	10.8E-03	11.6E-03	12.0E-03	12.4E-03	12.4E-03	12.0E-03	12.4E-03	12.0E-03	9.6E-03
11	12.8E-03	9.2E-03	10.0E-03	10.4E-03	11.6E-03	12.0E-03	12.4E-03	12.8E-03	12.4E-03	12.4E-03	12.8E-03	12.8E-03	9.6E-03
Statistics													
Min	12.8E-03	9.2E-03	9.6E-03	10.0E-03	10.8E-03	11.2E-03	11.2E-03	11.6E-03	11.6E-03	10.8E-03	11.6E-03	11.6E-03	9.6E-03
Max	14.8E-03	9.2E-03	10.0E-03	10.4E-03	11.6E-03	12.0E-03	12.4E-03	12.8E-03	12.4E-03	12.4E-03	12.8E-03	12.8E-03	9.6E-03
Average	13.5E-03	9.2E-03	9.9E-03	10.3E-03	11.1E-03	11.6E-03	11.9E-03	12.3E-03	12.1E-03	11.7E-03	12.3E-03	12.1E-03	9.6E-03
Sigma	942.9E-06	224.8E-09	188.6E-06	188.6E-06	377.2E-06	326.7E-06	498.8E-06	499.0E-06	377.2E-06	679.8E-06	498.8E-06	498.8E-06	224.8E-09

Drift Calculation

VRLINE	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-3.6E-03	-2.8E-03	-2.8E-03	-2.0E-03	-1.6E-03	-1.6E-03	-1.2E-03	-1.2E-03	-2.0E-03	-1.2E-03	-1.2E-03	-3.2E-03
10	-	-5.6E-03	-5.2E-03	-4.4E-03	-4.0E-03	-3.2E-03	-2.8E-03	-2.4E-03	-2.4E-03	-2.8E-03	-2.4E-03	-2.8E-03	-5.2E-03
11	-	-3.6E-03	-2.8E-03	-2.4E-03	-1.2E-03	-800.1E-06	-400.5E-06	0.0E+00	-400.1E-06	-400.5E-06	-476.8E-09	-476.8E-09	-3.2E-03
Average	-	-4.3E-03	-3.6E-03	-3.2E-03	-2.4E-03	-1.9E-03	-1.6E-03	-1.2E-03	-1.3E-03	-1.7E-03	-1.2E-03	-1.3E-03	-3.9E-03
Sigma	-	942.6E-06	1.1E-03	864.1E-06	1.2E-03	997.8E-06	979.8E-06	979.8E-06	821.9E-06	997.5E-06	979.6E-06	1.1E-03	942.6E-06

Parameter : Load Regulation : VRLOAD

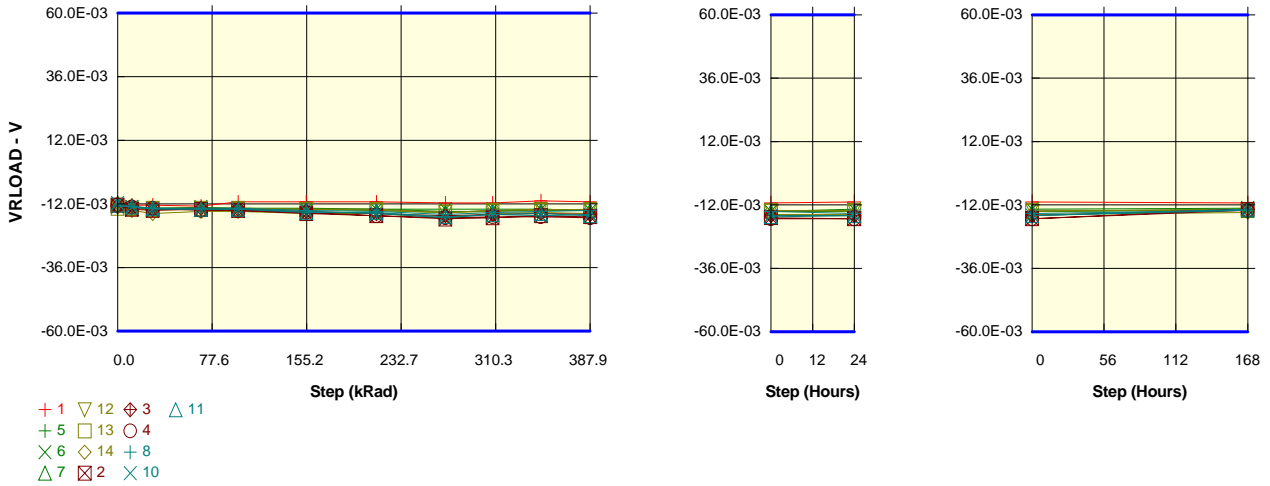
Test conditions : IOU=1mA to 20mA

Unit : V

Spec Limit Min : -60.0E-03

Spec Limit Max : 60.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

VRLOAD	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-12.8E-03	-12.4E-03	-12.4E-03	-12.8E-03	-11.2E-03	-11.2E-03	-11.2E-03	-11.6E-03	-11.6E-03	-10.8E-03	-11.2E-03	-10.8E-03	-11.2E-03
ON_PROTON samples													
5	-12.4E-03	-13.6E-03	-13.6E-03	-14.0E-03	-13.6E-03	-13.6E-03	-14.0E-03	-14.8E-03	-14.8E-03	-14.0E-03	-14.4E-03	-14.4E-03	-13.6E-03
6	-13.2E-03	-13.2E-03	-13.6E-03	-13.2E-03	-13.6E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.4E-03	-13.6E-03	-13.2E-03
7	-11.6E-03	-13.6E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.4E-03	-15.2E-03	-14.4E-03	-14.4E-03	-14.4E-03	-14.4E-03	-14.0E-03
Statistics													
Min	-13.2E-03	-13.6E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.4E-03	-15.2E-03	-14.8E-03	-14.4E-03	-14.4E-03	-14.4E-03	-14.0E-03
Max	-11.6E-03	-13.2E-03	-13.6E-03	-13.2E-03	-13.6E-03	-13.6E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.4E-03	-13.6E-03	-13.2E-03
Average	-12.4E-03	-13.5E-03	-13.7E-03	-13.7E-03	-13.7E-03	-13.9E-03	-14.1E-03	-14.7E-03	-14.4E-03	-14.1E-03	-14.4E-03	-14.1E-03	-13.6E-03
Sigma	653.1E-06	188.6E-06	188.5E-06	377.2E-06	188.5E-06	188.4E-06	188.6E-06	499.0E-06	326.5E-06	188.6E-06	95.1E-12	377.0E-06	326.8E-06

Drift Calculation

VRLOAD	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON_PROTON samples													
5	-	-1.2E-03	-1.2E-03	-1.6E-03	-1.2E-03	-1.2E-03	-1.6E-03	-2.4E-03	-2.4E-03	-1.6E-03	-2.0E-03	-2.0E-03	-1.2E-03
6	-	-476.8E-09	-400.5E-06	0.0E+00	-400.5E-06	-800.1E-06	-800.1E-06	-800.1E-06	-800.6E-06	-800.1E-06	-1.2E-03	-400.5E-06	0.0E+00
7	-	-2.0E-03	-2.4E-03	-2.4E-03	-2.4E-03	-2.4E-03	-2.8E-03	-3.6E-03	-2.8E-03	-2.8E-03	-2.8E-03	-2.8E-03	-2.4E-03
Average	-	-1.1E-03	-1.3E-03	-1.3E-03	-1.3E-03	-1.5E-03	-1.7E-03	-2.3E-03	-2.0E-03	-2.0E-03	-1.7E-03	-2.0E-03	-1.2E-03
Sigma	-	821.9E-06	821.7E-06	997.7E-06	821.7E-06	679.8E-06	821.9E-06	1.1E-03	863.8E-06	821.9E-06	653.1E-06	997.5E-06	980.0E-06

Measurements

VRLOAD	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-12.8E-03	-12.4E-03	-12.4E-03	-12.8E-03	-11.2E-03	-11.2E-03	-11.2E-03	-11.6E-03	-11.6E-03	-10.8E-03	-11.2E-03	-10.8E-03	-11.2E-03
ON_TID samples													
12	-13.2E-03	-14.0E-03	-13.6E-03	-13.6E-03	-13.6E-03	-14.0E-03	-14.4E-03	-15.2E-03	-14.4E-03	-14.0E-03	-14.4E-03	-14.0E-03	-14.0E-03
13	-13.6E-03	-13.6E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.0E-03	-15.2E-03	-14.8E-03	-14.4E-03	-14.0E-03	-14.4E-03	-13.6E-03
14	-13.2E-03	-14.4E-03	-15.6E-03	-14.8E-03	-14.8E-03	-15.6E-03	-15.6E-03	-17.2E-03	-15.6E-03	-15.2E-03	-15.6E-03	-15.6E-03	-14.8E-03
Statistics													
Min	-13.6E-03	-14.4E-03	-15.6E-03	-14.8E-03	-14.8E-03	-15.6E-03	-15.6E-03	-17.2E-03	-15.6E-03	-15.2E-03	-15.6E-03	-15.6E-03	-14.8E-03
Max	-13.2E-03	-13.6E-03	-13.6E-03	-13.6E-03	-13.6E-03	-14.0E-03	-14.0E-03	-15.2E-03	-14.4E-03	-14.0E-03	-14.0E-03	-14.0E-03	-13.6E-03
Average	-13.3E-03	-14.0E-03	-14.4E-03	-14.1E-03	-14.1E-03	-14.5E-03	-14.7E-03	-15.9E-03	-14.9E-03	-14.5E-03	-14.7E-03	-14.7E-03	-14.1E-03
Sigma	188.6E-06	326.7E-06	864.2E-06	498.8E-06	498.8E-06	754.4E-06	680.0E-06	942.7E-06	499.0E-06	498.8E-06	680.0E-06	680.0E-06	499.0E-06

Drift Calculation

VRLOAD	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON_TID samples													
12	-	-800.1E-06	-400.1E-06	-400.5E-06	-400.5E-06	-800.1E-06	-1.2E-03	-2.0E-03	-1.2E-03	-800.6E-06	-1.2E-03	-800.1E-06	-800.1E-06
13	-	0.0E+00	-400.1E-06	-400.5E-06	-400.1E-06	-400.1E-06	-400.1E-06	-1.6E-03	-1.2E-03	-800.1E-06	-400.1E-06	-800.1E-06	0.0E+00
14	-	-1.2E-03	-2.4E-03	-1.6E-03	-1.6E-03	-1.6E-03	-2.4E-03	-4.0E-03	-2.4E-03	-2.0E-03	-2.4E-03	-2.4E-03	-1.6E-03
Average	-	-666.8E-06	-1.1E-03	-800.5E-06	-800.3E-06	-1.2E-03	-1.3E-03	-2.5E-03	-1.6E-03	-1.2E-03	-1.3E-03	-1.3E-03	-800.1E-06
Sigma	-	499.0E-06	943.0E-06	565.6E-06	565.7E-06	864.2E-06	822.1E-06	1.0E-03	565.8E-06	565.7E-06	822.1E-06	754.4E-06	653.3E-06

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

VRLOAD	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-12.8E-03	-12.4E-03	-12.4E-03	-12.8E-03	-11.2E-03	-11.2E-03	-11.2E-03	-11.6E-03	-11.6E-03	-10.8E-03	-11.2E-03	-10.8E-03	-11.2E-03
OFF PROTON samples													
2	-12.4E-03	-14.0E-03	-14.4E-03	-14.0E-03	-14.4E-03	-15.6E-03	-16.4E-03	-17.6E-03	-17.2E-03	-16.4E-03	-16.8E-03	-17.2E-03	-13.6E-03
3	-12.8E-03	-12.8E-03	-14.0E-03	-13.6E-03	-14.0E-03	-14.8E-03	-15.6E-03	-16.4E-03	-16.0E-03	-15.6E-03	-16.0E-03	-16.0E-03	-13.6E-03
4	-12.4E-03	-13.2E-03	-13.6E-03	-14.4E-03	-14.4E-03	-15.2E-03	-16.4E-03	-17.2E-03	-16.8E-03	-16.8E-03	-17.2E-03	-17.2E-03	-14.0E-03
Statistics													
Min	-12.8E-03	-14.0E-03	-14.4E-03	-14.4E-03	-14.4E-03	-15.6E-03	-16.4E-03	-17.6E-03	-17.2E-03	-16.8E-03	-17.2E-03	-17.2E-03	-14.0E-03
Max	-12.4E-03	-12.8E-03	-13.6E-03	-13.6E-03	-14.0E-03	-14.8E-03	-15.6E-03	-16.4E-03	-16.0E-03	-15.6E-03	-16.0E-03	-16.0E-03	-13.6E-03
Average	-12.5E-03	-13.3E-03	-14.0E-03	-14.0E-03	-14.3E-03	-15.2E-03	-16.1E-03	-17.1E-03	-16.7E-03	-16.3E-03	-16.7E-03	-16.8E-03	-13.7E-03
Sigma	188.4E-06	499.0E-06	326.7E-06	326.7E-06	188.6E-06	326.5E-06	377.1E-06	499.0E-06	499.0E-06	498.8E-06	499.0E-06	565.6E-06	188.5E-06

Drift Calculation

VRLOAD	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-1.6E-03	-2.0E-03	-1.6E-03	-2.0E-03	-3.2E-03	-4.0E-03	-5.2E-03	-4.8E-03	-4.0E-03	-4.4E-03	-4.8E-03	-1.2E-03
3	-	0.0E+00	-1.2E-03	-800.1E-06	-1.2E-03	-2.0E-03	-2.8E-03	-3.6E-03	-3.2E-03	-2.8E-03	-3.2E-03	-3.2E-03	-800.1E-06
4	-	-799.7E-06	-2.0E-03	-2.0E-03	-2.0E-03	-2.8E-03	-4.0E-03	-4.8E-03	-4.4E-03	-4.4E-03	-4.8E-03	-4.8E-03	-1.6E-03
Average	-	-799.8E-06	-1.5E-03	-1.5E-03	-1.7E-03	-2.7E-03	-3.6E-03	-4.5E-03	-4.1E-03	-3.7E-03	-4.1E-03	-4.3E-03	-1.2E-03
Sigma	-	653.1E-06	377.1E-06	498.8E-06	377.0E-06	498.6E-06	565.4E-06	679.8E-06	679.8E-06	679.5E-06	679.8E-06	753.9E-06	326.5E-06

Measurements

VRLOAD	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-12.8E-03	-12.4E-03	-12.4E-03	-12.8E-03	-11.2E-03	-11.2E-03	-11.2E-03	-11.6E-03	-11.6E-03	-10.8E-03	-11.2E-03	-10.8E-03	-11.2E-03
OFF TID samples													
8	-12.8E-03	-12.8E-03	-13.6E-03	-13.6E-03	-13.6E-03	-14.4E-03	-14.8E-03	-16.0E-03	-15.2E-03	-14.8E-03	-14.4E-03	-15.2E-03	-14.0E-03
10	-11.6E-03	-13.2E-03	-14.0E-03	-14.0E-03	-14.0E-03	-14.8E-03	-15.6E-03	-17.2E-03	-16.0E-03	-16.4E-03	-16.0E-03	-16.0E-03	-14.0E-03
11	-12.4E-03	-13.2E-03	-13.6E-03	-14.0E-03	-14.0E-03	-15.2E-03	-15.2E-03	-16.8E-03	-16.0E-03	-15.6E-03	-16.4E-03	-16.0E-03	-13.6E-03
Statistics													
Min	-12.8E-03	-13.2E-03	-14.0E-03	-14.0E-03	-14.0E-03	-15.2E-03	-15.6E-03	-17.2E-03	-16.0E-03	-16.4E-03	-16.4E-03	-16.0E-03	-14.0E-03
Max	-11.6E-03	-12.8E-03	-13.6E-03	-13.6E-03	-13.6E-03	-14.4E-03	-14.8E-03	-16.0E-03	-15.2E-03	-14.8E-03	-14.4E-03	-15.2E-03	-13.6E-03
Average	-12.3E-03	-13.1E-03	-13.7E-03	-13.9E-03	-13.9E-03	-14.8E-03	-15.2E-03	-16.7E-03	-15.7E-03	-15.6E-03	-15.6E-03	-15.7E-03	-13.9E-03
Sigma	499.0E-06	188.5E-06	188.6E-06	188.6E-06	188.6E-06	326.7E-06	326.5E-06	498.8E-06	377.1E-06	653.1E-06	864.0E-06	377.2E-06	188.6E-06

Drift Calculation

VRLOAD	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	0.0E+00	-799.7E-06	-799.7E-06	-799.7E-06	-1.6E-03	-2.0E-03	-3.2E-03	-2.4E-03	-2.0E-03	-1.6E-03	-2.4E-03	-1.2E-03
10	-	-1.6E-03	-2.4E-03	-2.4E-03	-2.4E-03	-3.2E-03	-4.0E-03	-5.6E-03	-4.4E-03	-4.8E-03	-4.4E-03	-4.4E-03	-2.4E-03
11	-	-800.1E-06	-1.2E-03	-1.6E-03	-1.6E-03	-2.8E-03	-2.8E-03	-4.4E-03	-3.6E-03	-3.2E-03	-4.0E-03	-3.6E-03	-1.2E-03
Average	-	-800.0E-06	-1.5E-03	-1.6E-03	-1.6E-03	-2.5E-03	-2.9E-03	-4.4E-03	-3.5E-03	-3.3E-03	-3.3E-03	-3.5E-03	-1.6E-03
Sigma	-	653.1E-06	680.0E-06	653.3E-06	653.3E-06	680.0E-06	821.9E-06	979.8E-06	822.0E-06	1.1E-03	1.2E-03	822.1E-06	565.8E-06

Parameter : Output Short Circuit : ISC

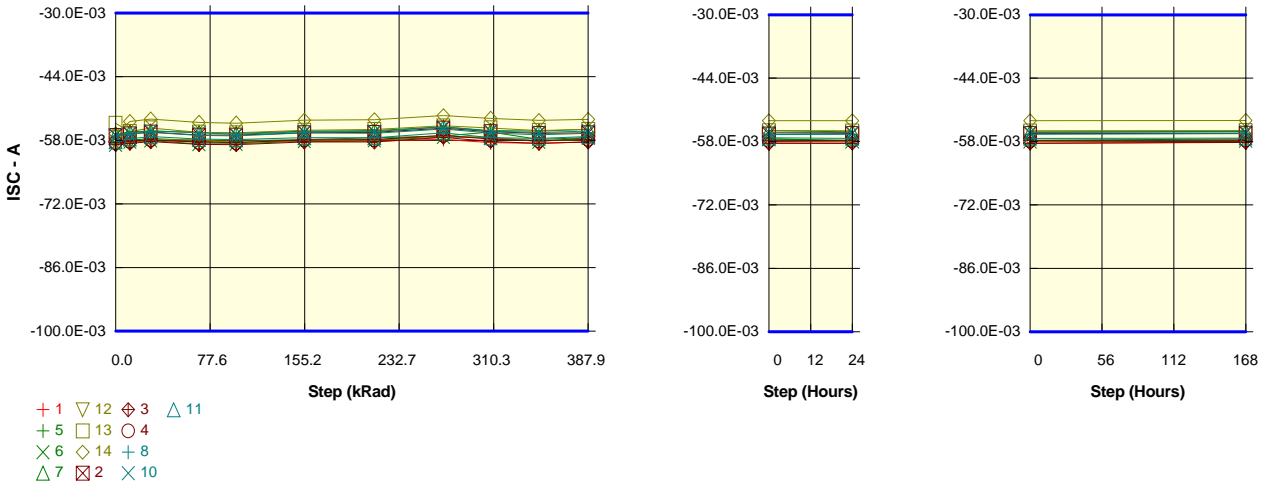
Test conditions :

Unit : A

Spec Limit Min : -100.0E-03

Spec Limit Max : -30.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-58.6E-03	-58.4E-03	-58.0E-03	-58.3E-03	-57.9E-03	-58.3E-03	-58.2E-03	-57.8E-03	-58.5E-03	-58.6E-03	-58.3E-03	-58.4E-03	-58.1E-03
ON_PROTON samples													
5	-58.8E-03	-58.0E-03	-57.5E-03	-58.1E-03	-58.2E-03	-57.9E-03	-57.5E-03	-57.0E-03	-56.2E-03	-57.8E-03	-57.4E-03	-57.7E-03	-57.4E-03
6	-59.0E-03	-58.3E-03	-58.0E-03	-58.8E-03	-58.7E-03	-58.2E-03	-58.0E-03	-57.3E-03	-57.3E-03	-58.3E-03	-57.4E-03	-57.9E-03	-57.8E-03
7	-56.7E-03	-56.1E-03	-55.9E-03	-56.2E-03	-56.5E-03	-56.0E-03	-55.8E-03	-55.0E-03	-55.9E-03	-55.9E-03	-55.5E-03	-55.8E-03	-55.7E-03
Statistics													
Min	-59.0E-03	-58.3E-03	-58.0E-03	-58.8E-03	-58.7E-03	-58.2E-03	-58.0E-03	-57.3E-03	-57.3E-03	-58.3E-03	-57.4E-03	-57.9E-03	-57.8E-03
Max	-56.7E-03	-56.1E-03	-55.9E-03	-56.2E-03	-56.5E-03	-56.0E-03	-55.8E-03	-55.0E-03	-55.9E-03	-55.9E-03	-55.5E-03	-55.8E-03	-55.7E-03
Average	-58.2E-03	-57.5E-03	-57.2E-03	-57.7E-03	-57.8E-03	-57.3E-03	-57.1E-03	-56.4E-03	-56.5E-03	-57.3E-03	-56.8E-03	-57.1E-03	-57.0E-03
Sigma	1.0E-03	977.6E-06	891.3E-06	1.1E-03	974.7E-06	965.9E-06	924.2E-06	1.0E-03	643.4E-06	1.0E-03	865.5E-06	946.5E-06	896.4E-06

Drift Calculation

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON_PROTON samples													
5	-	842.0E-06	1.3E-03	758.0E-06	642.0E-06	968.0E-06	1.4E-03	1.8E-03	2.7E-03	1.0E-03	1.4E-03	1.1E-03	1.4E-03
6	-	630.0E-06	930.0E-06	158.0E-06	224.0E-06	806.0E-06	996.0E-06	1.7E-03	1.6E-03	676.0E-06	1.6E-03	1.1E-03	1.2E-03
7	-	640.0E-06	800.0E-06	522.0E-06	296.0E-06	772.0E-06	942.0E-06	1.7E-03	890.0E-06	808.0E-06	1.2E-03	936.0E-06	1.0E-03
Average	-	704.0E-06	1.0E-03	479.3E-06	387.3E-06	848.7E-06	1.1E-03	1.7E-03	839.3E-06	1.4E-03	1.0E-03	1.2E-03	1.0E-03
Sigma	-	97.7E-06	202.7E-06	246.8E-06	182.5E-06	85.5E-06	185.6E-06	33.2E-06	729.0E-06	147.8E-06	155.4E-06	73.8E-06	159.3E-06

Measurements

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-58.6E-03	-58.4E-03	-58.0E-03	-58.3E-03	-57.9E-03	-58.3E-03	-58.2E-03	-57.8E-03	-58.5E-03	-58.6E-03	-58.3E-03	-58.4E-03	-58.1E-03
ON_TID samples													
12	-58.8E-03	-58.4E-03	-57.9E-03	-57.9E-03	-58.5E-03	-58.1E-03	-57.9E-03	-57.0E-03	-57.4E-03	-58.1E-03	-57.8E-03	-57.9E-03	-57.6E-03
13	-54.3E-03	-56.1E-03	-55.3E-03	-56.2E-03	-56.3E-03	-55.8E-03	-55.6E-03	-54.8E-03	-55.3E-03	-55.8E-03	-55.6E-03	-55.6E-03	-55.5E-03
14	-56.5E-03	-53.9E-03	-53.3E-03	-54.0E-03	-54.2E-03	-53.6E-03	-53.5E-03	-52.6E-03	-53.2E-03	-53.6E-03	-53.4E-03	-53.4E-03	-53.3E-03
Statistics													
Min	-58.8E-03	-58.4E-03	-57.9E-03	-57.9E-03	-58.5E-03	-58.1E-03	-57.9E-03	-57.0E-03	-57.4E-03	-58.1E-03	-57.8E-03	-57.9E-03	-57.6E-03
Max	-54.3E-03	-53.9E-03	-53.3E-03	-54.0E-03	-54.2E-03	-53.6E-03	-53.5E-03	-52.6E-03	-53.2E-03	-53.6E-03	-53.4E-03	-53.4E-03	-53.3E-03
Average	-56.5E-03	-56.1E-03	-55.5E-03	-56.0E-03	-56.3E-03	-55.8E-03	-55.6E-03	-54.8E-03	-55.3E-03	-55.8E-03	-55.6E-03	-55.7E-03	-55.5E-03
Sigma	1.9E-03	1.9E-03	1.9E-03	1.6E-03	1.7E-03	1.9E-03	1.8E-03	1.8E-03	1.7E-03	1.8E-03	1.8E-03	1.9E-03	1.7E-03

Drift Calculation

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON_TID samples													
12	-	368.0E-06	930.0E-06	932.0E-06	334.0E-06	694.0E-06	930.0E-06	1.8E-03	1.4E-03	728.0E-06	988.0E-06	860.0E-06	1.2E-03
13	-	-1.8E-03	-992.0E-06	-1.9E-03	-2.1E-03	-1.5E-03	-1.3E-03	-524.0E-06	-996.0E-06	-1.6E-03	-1.3E-03	-1.4E-03	-1.3E-03
14	-	2.7E-03	3.2E-03	2.5E-03	2.3E-03	2.9E-03	3.1E-03	4.0E-03	3.4E-03	2.9E-03	3.1E-03	3.1E-03	3.2E-03
Average	-	414.7E-06	1.0E-03	490.0E-06	189.3E-06	710.7E-06	890.7E-06	1.7E-03	1.3E-03	694.0E-06	930.7E-06	868.0E-06	1.0E-03
Sigma	-	1.8E-03	1.7E-03	1.8E-03	1.8E-03	1.8E-03	1.8E-03	1.8E-03	1.8E-03	1.8E-03	1.8E-03	1.8E-03	1.8E-03

Hirex Engineering	Total Dose Radiation Test Report									Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil				Issue:	01

Measurements

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-58.6E-03	-58.4E-03	-58.0E-03	-58.3E-03	-57.9E-03	-58.3E-03	-58.2E-03	-57.8E-03	-58.5E-03	-58.6E-03	-58.3E-03	-58.4E-03	-58.1E-03
OFF PROTON samples													
2	-56.9E-03	-56.6E-03	-56.2E-03	-56.8E-03	-56.9E-03	-56.3E-03	-56.2E-03	-55.3E-03	-56.1E-03	-56.5E-03	-56.3E-03	-56.2E-03	-56.1E-03
3	-58.9E-03	-58.6E-03	-58.3E-03	-58.9E-03	-58.9E-03	-58.3E-03	-58.3E-03	-57.3E-03	-58.2E-03	-58.7E-03	-58.4E-03	-58.3E-03	-58.2E-03
4	-58.6E-03	-58.2E-03	-57.9E-03	-58.4E-03	-58.5E-03	-57.9E-03	-57.8E-03	-56.9E-03	-57.7E-03	-58.1E-03	-57.8E-03	-57.7E-03	-57.6E-03
Statistics													
Min	-58.9E-03	-58.6E-03	-58.3E-03	-58.9E-03	-58.9E-03	-58.3E-03	-58.3E-03	-57.3E-03	-58.2E-03	-58.7E-03	-58.4E-03	-58.3E-03	-58.2E-03
Max	-56.9E-03	-56.6E-03	-56.2E-03	-56.8E-03	-56.9E-03	-56.3E-03	-56.2E-03	-55.3E-03	-56.1E-03	-56.5E-03	-56.3E-03	-56.2E-03	-56.1E-03
Average	-58.1E-03	-57.8E-03	-57.4E-03	-58.1E-03	-58.1E-03	-57.5E-03	-57.5E-03	-56.5E-03	-57.3E-03	-57.7E-03	-57.5E-03	-57.4E-03	-57.3E-03
Sigma	879.0E-06	894.5E-06	917.8E-06	879.7E-06	902.4E-06	861.5E-06	898.4E-06	863.9E-06	905.7E-06	933.2E-06	854.0E-06	891.8E-06	864.3E-06

Drift Calculation

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	344.0E-06	738.0E-06	64.0E-06	58.0E-06	588.0E-06	678.0E-06	1.6E-03	822.0E-06	446.0E-06	590.0E-06	700.0E-06	762.0E-06
3	-	284.0E-06	638.0E-06	24.0E-06	-10.0E-06	596.0E-06	596.0E-06	1.6E-03	734.0E-06	268.0E-06	582.0E-06	604.0E-06	742.0E-06
4	-	364.0E-06	686.0E-06	144.0E-06	42.0E-06	688.0E-06	720.0E-06	1.7E-03	826.0E-06	462.0E-06	792.0E-06	832.0E-06	910.0E-06
Average	-	330.7E-06	687.3E-06	77.3E-06	30.0E-06	624.0E-06	664.7E-06	1.6E-03	794.0E-06	392.0E-06	654.7E-06	712.0E-06	804.7E-06
Sigma	-	34.0E-06	40.8E-06	49.9E-06	29.0E-06	45.4E-06	51.5E-06	42.5E-06	42.5E-06	87.9E-06	97.2E-06	93.5E-06	74.9E-06

Measurements

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-58.6E-03	-58.4E-03	-58.0E-03	-58.3E-03	-57.9E-03	-58.3E-03	-58.2E-03	-57.8E-03	-58.5E-03	-58.6E-03	-58.3E-03	-58.4E-03	-58.1E-03
OFF TID samples													
8	-57.0E-03	-56.7E-03	-56.2E-03	-56.9E-03	-57.0E-03	-56.3E-03	-56.5E-03	-55.5E-03	-56.4E-03	-56.8E-03	-56.4E-03	-56.4E-03	-56.2E-03
10	-56.8E-03	-56.4E-03	-55.9E-03	-56.4E-03	-56.7E-03	-56.1E-03	-56.1E-03	-55.0E-03	-56.0E-03	-56.3E-03	-55.9E-03	-56.0E-03	-55.8E-03
11	-58.3E-03	-57.7E-03	-57.2E-03	-57.7E-03	-57.8E-03	-57.4E-03	-57.4E-03	-56.3E-03	-57.4E-03	-57.6E-03	-57.2E-03	-57.3E-03	-57.2E-03
Statistics													
Min	-58.3E-03	-57.7E-03	-57.2E-03	-57.7E-03	-57.8E-03	-57.4E-03	-57.4E-03	-56.3E-03	-57.4E-03	-57.6E-03	-57.2E-03	-57.3E-03	-57.2E-03
Max	-56.8E-03	-56.4E-03	-55.9E-03	-56.4E-03	-56.7E-03	-56.1E-03	-56.1E-03	-55.0E-03	-56.0E-03	-56.3E-03	-55.9E-03	-56.0E-03	-55.8E-03
Average	-57.4E-03	-56.9E-03	-56.4E-03	-57.0E-03	-57.2E-03	-56.6E-03	-56.6E-03	-55.6E-03	-56.6E-03	-56.9E-03	-56.5E-03	-56.6E-03	-56.4E-03
Sigma	658.0E-06	552.7E-06	537.0E-06	573.6E-06	495.3E-06	560.4E-06	575.0E-06	537.1E-06	589.6E-06	519.0E-06	514.4E-06	527.6E-06	571.1E-06

Drift Calculation

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	322.0E-06	748.0E-06	104.0E-06	-10.0E-06	640.0E-06	528.0E-06	1.5E-03	592.0E-06	224.0E-06	556.0E-06	576.0E-06	744.0E-06
10	-	438.0E-06	924.0E-06	474.0E-06	164.0E-06	708.0E-06	766.0E-06	1.8E-03	814.0E-06	534.0E-06	912.0E-06	818.0E-06	984.0E-06
11	-	620.0E-06	1.1E-03	548.0E-06	454.0E-06	890.0E-06	864.0E-06	2.0E-03	884.0E-06	742.0E-06	1.1E-03	1.0E-03	1.1E-03
Average	-	460.0E-06	931.3E-06	375.3E-06	202.7E-06	746.0E-06	719.3E-06	1.7E-03	763.3E-06	500.0E-06	864.0E-06	804.7E-06	939.3E-06
Sigma	-	122.6E-06	152.8E-06	194.2E-06	191.4E-06	105.5E-06	141.1E-06	195.3E-06	124.5E-06	212.8E-06	234.4E-06	181.5E-06	144.7E-06

Parameter : Initial Accuracy : IA

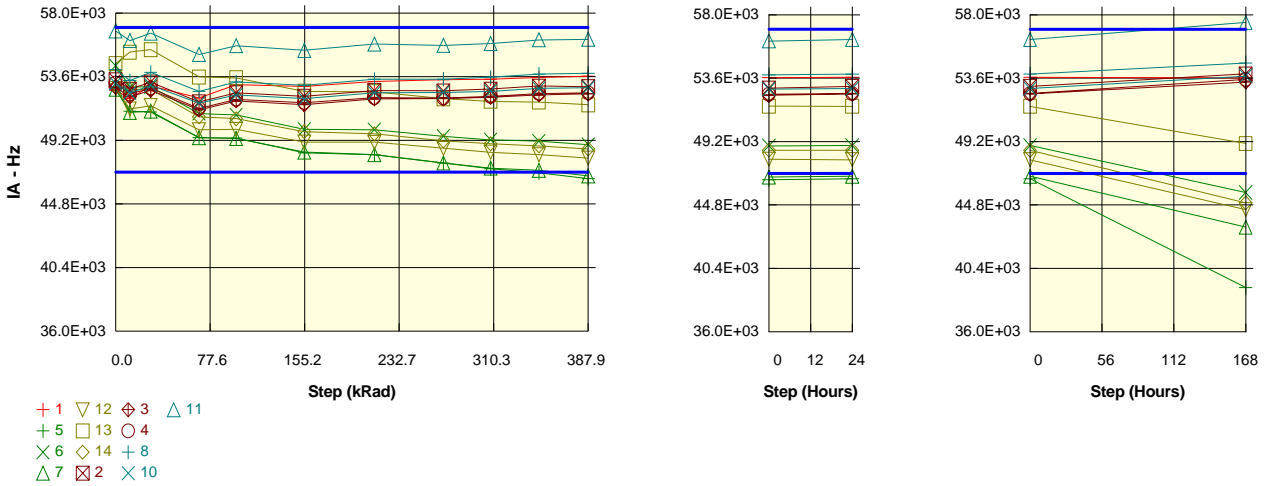
Test conditions :

Unit : Hz

Spec Limit Min : 47.0E+03

Spec Limit Max : 57.0E+03

Spec limits are represented in bold lines on the graphic.



Measurements

IA	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	52.7E+03	52.1E+03	53.0E+03	52.1E+03	53.0E+03	52.9E+03	53.3E+03	53.4E+03	53.4E+03	53.6E+03	53.6E+03	53.7E+03	53.6E+03
ON PROTON samples													
5	52.8E+03	51.2E+03	51.2E+03	49.4E+03	49.4E+03	48.3E+03	48.2E+03	47.6E+03	47.2E+03	47.0E+03	46.6E+03	46.6E+03	39.1E+03
6	54.4E+03	52.9E+03	52.9E+03	51.1E+03	51.0E+03	50.0E+03	49.9E+03	49.5E+03	49.2E+03	49.1E+03	48.9E+03	48.9E+03	45.7E+03
7	52.7E+03	51.1E+03	51.2E+03	49.4E+03	49.3E+03	48.4E+03	48.2E+03	47.6E+03	47.3E+03	47.1E+03	46.7E+03	46.8E+03	43.3E+03
Statistics													
Min	52.7E+03	51.1E+03	51.2E+03	49.4E+03	49.3E+03	48.3E+03	48.2E+03	47.6E+03	47.2E+03	47.0E+03	46.6E+03	46.6E+03	39.1E+03
Max	54.4E+03	52.9E+03	52.9E+03	51.1E+03	51.0E+03	50.0E+03	49.9E+03	49.5E+03	49.2E+03	49.1E+03	48.9E+03	48.9E+03	45.7E+03
Average	53.3E+03	51.7E+03	51.8E+03	49.9E+03	49.9E+03	48.9E+03	48.8E+03	48.2E+03	47.9E+03	47.7E+03	47.4E+03	47.5E+03	42.7E+03
Sigma	752.8E+00	808.5E+00	809.0E+00	783.1E+00	762.8E+00	752.6E+00	817.7E+00	874.2E+00	934.3E+00	992.3E+00	1.1E+03	1.0E+03	2.7E+03

Drift Calculation

IA	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-1.6E+03	-1.6E+03	-3.4E+03	-3.5E+03	-4.5E+03	-4.6E+03	-5.2E+03	-5.6E+03	-5.9E+03	-6.2E+03	-6.2E+03	-13.7E+03
6	-	-1.5E+03	-1.5E+03	-3.3E+03	-3.4E+03	-4.4E+03	-4.4E+03	-4.9E+03	-5.1E+03	-5.2E+03	-5.5E+03	-5.4E+03	-8.7E+03
7	-	-1.6E+03	-1.5E+03	-3.3E+03	-3.4E+03	-4.3E+03	-4.5E+03	-5.1E+03	-5.5E+03	-5.6E+03	-6.0E+03	-5.9E+03	-9.5E+03
Average	-	-1.6E+03	-1.5E+03	-3.4E+03	-3.4E+03	-4.4E+03	-4.5E+03	-5.1E+03	-5.4E+03	-5.6E+03	-5.9E+03	-5.9E+03	-10.6E+03
Sigma	-	55.8E+00	76.6E+00	39.8E+00	23.2E+00	53.3E+00	74.7E+00	126.6E+00	187.8E+00	257.9E+00	325.6E+00	311.2E+00	2.2E+03

Measurements

IA	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	52.7E+03	52.1E+03	53.0E+03	52.1E+03	53.0E+03	52.9E+03	53.3E+03	53.4E+03	53.4E+03	53.6E+03	53.6E+03	53.7E+03	53.6E+03
ON TID samples													
12	52.8E+03	51.4E+03	51.6E+03	49.9E+03	50.0E+03	49.1E+03	49.1E+03	48.6E+03	48.4E+03	48.2E+03	48.0E+03	47.9E+03	44.5E+03
13	54.5E+03	55.3E+03	55.5E+03	53.6E+03	53.5E+03	52.6E+03	52.6E+03	52.1E+03	51.9E+03	51.8E+03	51.7E+03	51.6E+03	49.1E+03
14	52.9E+03	52.7E+03	52.7E+03	50.8E+03	50.7E+03	49.8E+03	49.6E+03	49.2E+03	49.0E+03	48.8E+03	48.6E+03	48.6E+03	44.9E+03
Statistics													
Min	52.8E+03	51.4E+03	51.6E+03	49.9E+03	50.0E+03	49.1E+03	49.1E+03	48.6E+03	48.4E+03	48.2E+03	48.0E+03	47.9E+03	44.5E+03
Max	54.5E+03	55.3E+03	55.5E+03	53.6E+03	53.5E+03	52.6E+03	52.6E+03	52.1E+03	51.9E+03	51.8E+03	51.7E+03	51.6E+03	49.1E+03
Average	53.4E+03	53.1E+03	53.3E+03	51.5E+03	51.4E+03	50.5E+03	50.4E+03	50.0E+03	49.8E+03	49.6E+03	49.4E+03	49.4E+03	46.2E+03
Sigma	779.7E+00	1.6E+03	1.6E+03	1.6E+03	1.5E+03	1.5E+03	1.5E+03	1.5E+03	1.5E+03	1.6E+03	1.6E+03	1.6E+03	2.1E+03

Drift Calculation

IA	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-1.4E+03	-1.2E+03	-2.9E+03	-2.8E+03	-3.7E+03	-3.7E+03	-4.1E+03	-4.4E+03	-4.6E+03	-4.8E+03	-4.8E+03	-8.3E+03
13	-	789.4E+00	961.5E+00	-926.1E+00	-985.7E+00	-1.9E+03	-2.0E+03	-2.4E+03	-2.6E+03	-2.7E+03	-2.8E+03	-2.9E+03	-5.4E+03
14	-	-198.3E+00	-222.9E+00	-2.1E+03	-2.2E+03	-3.1E+03	-3.2E+03	-3.8E+03	-4.0E+03	-4.1E+03	-4.3E+03	-4.3E+03	-8.0E+03
Average	-	-276.0E+00	-149.4E+00	-2.0E+03	-2.0E+03	-2.9E+03	-3.0E+03	-3.4E+03	-3.7E+03	-3.8E+03	-4.0E+03	-4.0E+03	-7.2E+03
Sigma	-	903.3E+00	878.6E+00	792.5E+00	768.4E+00	750.8E+00	752.1E+00	734.1E+00	762.3E+00	815.4E+00	833.7E+00	841.4E+00	1.3E+03

Hirex Engineering	Total Dose Radiation Test Report									Ref.:	HRX/TID/1017
	IS-1845ASRH				Intersil					Issue:	01

Measurements

IA	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	52.7E+03	52.1E+03	53.0E+03	52.1E+03	53.0E+03	52.9E+03	53.3E+03	53.4E+03	53.4E+03	53.6E+03	53.6E+03	53.7E+03	53.6E+03
OFF PROTON samples													
2	53.4E+03	52.7E+03	53.2E+03	51.9E+03	52.5E+03	52.2E+03	52.7E+03	52.6E+03	52.7E+03	53.0E+03	52.9E+03	53.0E+03	53.9E+03
3	52.9E+03	52.2E+03	52.7E+03	51.3E+03	51.9E+03	51.7E+03	52.1E+03	52.1E+03	52.2E+03	52.4E+03	52.4E+03	52.5E+03	53.3E+03
4	53.2E+03	52.4E+03	52.8E+03	51.4E+03	52.0E+03	51.8E+03	52.2E+03	52.1E+03	52.2E+03	52.4E+03	52.5E+03	52.5E+03	53.5E+03
Statistics													
Min	52.9E+03	52.2E+03	52.7E+03	51.3E+03	51.9E+03	51.7E+03	52.1E+03	52.1E+03	52.2E+03	52.4E+03	52.4E+03	52.5E+03	53.3E+03
Max	53.4E+03	52.7E+03	53.2E+03	51.9E+03	52.5E+03	52.2E+03	52.7E+03	52.6E+03	52.7E+03	53.0E+03	52.9E+03	53.0E+03	53.9E+03
Average	53.1E+03	52.5E+03	52.9E+03	51.5E+03	52.2E+03	51.9E+03	52.3E+03	52.3E+03	52.4E+03	52.6E+03	52.6E+03	52.7E+03	53.6E+03
Sigma	217.4E+00	225.9E+00	239.9E+00	241.1E+00	246.0E+00	250.4E+00	256.3E+00	250.5E+00	255.9E+00	266.6E+00	222.6E+00	244.1E+00	235.5E+00

Drift Calculation

IA	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-642.8E+00	-166.8E+00	-1.5E+03	-895.6E+00	-1.1E+03	-739.9E+00	-765.6E+00	-643.3E+00	-434.2E+00	-478.4E+00	-353.4E+00	509.6E+00
3	-	-659.8E+00	-202.2E+00	-1.6E+03	-925.8E+00	-1.2E+03	-786.9E+00	-783.4E+00	-685.3E+00	-507.5E+00	-451.1E+00	-355.2E+00	475.7E+00
4	-	-749.1E+00	-352.9E+00	-1.7E+03	-1.1E+03	-1.4E+03	-1.0E+03	-1.0E+03	-917.4E+00	-717.8E+00	-678.4E+00	-622.4E+00	358.8E+00
Average	-	-683.9E+00	-240.6E+00	-1.6E+03	-985.0E+00	-1.2E+03	-845.0E+00	-864.6E+00	-748.7E+00	-553.2E+00	-535.9E+00	-443.7E+00	448.0E+00
Sigma	-	46.6E+00	80.7E+00	97.0E+00	105.8E+00	88.4E+00	117.0E+00	127.7E+00	120.6E+00	120.2E+00	101.3E+00	126.4E+00	64.6E+00

Measurements

IA	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	52.7E+03	52.1E+03	53.0E+03	52.1E+03	53.0E+03	52.9E+03	53.3E+03	53.4E+03	53.4E+03	53.6E+03	53.6E+03	53.7E+03	53.6E+03
OFF TID samples													
8	54.1E+03	53.3E+03	53.9E+03	52.6E+03	53.2E+03	53.0E+03	53.4E+03	53.4E+03	53.6E+03	53.8E+03	53.8E+03	53.9E+03	54.7E+03
10	53.1E+03	52.5E+03	53.0E+03	51.8E+03	52.3E+03	52.1E+03	52.5E+03	52.5E+03	52.6E+03	52.8E+03	52.8E+03	52.9E+03	53.8E+03
11	56.8E+03	56.1E+03	56.6E+03	55.1E+03	55.7E+03	55.4E+03	55.9E+03	55.8E+03	55.9E+03	56.2E+03	56.2E+03	56.3E+03	57.5E+03
Statistics													
Min	53.1E+03	52.5E+03	53.0E+03	51.8E+03	52.3E+03	52.1E+03	52.5E+03	52.5E+03	52.6E+03	52.8E+03	52.8E+03	52.9E+03	53.8E+03
Max	56.8E+03	56.1E+03	56.6E+03	55.1E+03	55.7E+03	55.4E+03	55.9E+03	55.8E+03	55.9E+03	56.2E+03	56.2E+03	56.3E+03	57.5E+03
Average	54.7E+03	54.0E+03	54.5E+03	53.2E+03	53.8E+03	53.5E+03	53.9E+03	53.9E+03	54.0E+03	54.2E+03	54.3E+03	54.4E+03	55.3E+03
Sigma	1.5E+03	1.5E+03	1.5E+03	1.4E+03	1.4E+03	1.4E+03	1.4E+03	1.4E+03	1.4E+03	1.4E+03	1.4E+03	1.4E+03	1.6E+03

Drift Calculation

IA	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-759.6E+00	-189.8E+00	-1.5E+03	-867.3E+00	-1.1E+03	-674.9E+00	-662.8E+00	-533.0E+00	-311.9E+00	-256.5E+00	-215.7E+00	562.9E+00
10	-	-676.9E+00	-130.2E+00	-1.4E+03	-809.0E+00	-1.1E+03	-654.8E+00	-641.3E+00	-548.1E+00	-350.1E+00	-303.0E+00	-259.3E+00	601.2E+00
11	-	-662.2E+00	-144.3E+00	-1.6E+03	-1.0E+03	-1.3E+03	-903.9E+00	-999.8E+00	-863.7E+00	-607.5E+00	-578.3E+00	-473.5E+00	710.2E+00
Average	-	-699.6E+00	-154.8E+00	-1.5E+03	-896.5E+00	-1.2E+03	-744.5E+00	-768.0E+00	-648.3E+00	-423.2E+00	-379.3E+00	-316.2E+00	624.8E+00
Sigma	-	42.9E+00	25.4E+00	100.6E+00	85.9E+00	120.7E+00	113.0E+00	164.2E+00	152.5E+00	131.3E+00	142.0E+00	112.7E+00	62.4E+00

Parameter : Voltage Stability : VS

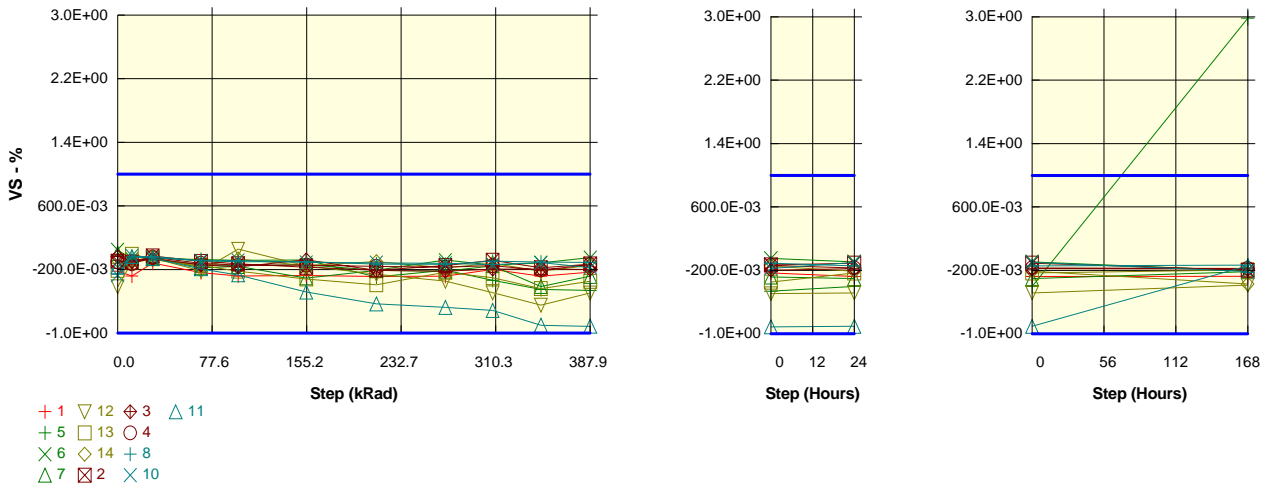
Test conditions : 12V<VCC<25V

Unit : %

Spec Limit Min : -1.0E+00

Spec Limit Max : 1.0E+00

Spec limits are represented in bold lines on the graphic.



Measurements

VS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-218.4E-03	-280.6E-03	-117.9E-03	-237.1E-03	-278.5E-03	-272.7E-03	-285.2E-03	-283.2E-03	-196.7E-03	-282.1E-03	-233.6E-03	-277.3E-03	-272.5E-03
ON PROTON samples													
5	-85.5E-03	-96.3E-03	-56.2E-03	-71.8E-03	-82.8E-03	-80.5E-03	-291.6E-03	-207.5E-03	-334.2E-03	-449.8E-03	-461.5E-03	-399.7E-03	3.0E+00
6	48.5E-03	-68.8E-03	-68.8E-03	-136.5E-03	-148.0E-03	-141.4E-03	-206.8E-03	-80.6E-03	-142.2E-03	-115.8E-03	-48.6E-03	-91.9E-03	-203.4E-03
7	5.0E-03	-110.9E-03	-52.3E-03	-176.8E-03	-159.4E-03	-303.9E-03	-210.7E-03	-218.2E-03	-152.4E-03	-412.7E-03	-283.3E-03	-303.6E-03	-217.6E-03
Statistics													
Min	-85.5E-03	-110.9E-03	-68.8E-03	-176.8E-03	-159.4E-03	-303.9E-03	-291.6E-03	-218.2E-03	-334.2E-03	-449.8E-03	-461.5E-03	-399.7E-03	-217.6E-03
Max	48.5E-03	-68.8E-03	-68.8E-03	-136.5E-03	-148.0E-03	-80.5E-03	-206.8E-03	-80.6E-03	-142.2E-03	-115.8E-03	-48.6E-03	-91.9E-03	3.0E+00
Average	-10.7E-03	-92.0E-03	-59.1E-03	-128.4E-03	-130.1E-03	-175.3E-03	-236.4E-03	-168.8E-03	-209.6E-03	-326.1E-03	-264.5E-03	-265.1E-03	854.3E-03
Sigma	55.8E-03	17.4E-03	7.0E-03	43.2E-03	33.8E-03	94.3E-03	39.1E-03	62.5E-03	88.2E-03	149.4E-03	169.1E-03	128.6E-03	1.5E+00

Drift Calculation

VS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-10.9E-03	29.2E-03	13.7E-03	2.7E-03	4.9E-03	-206.1E-03	-122.0E-03	-248.7E-03	-364.3E-03	-376.1E-03	-314.2E-03	3.1E+00
6	-	-117.3E-03	-117.3E-03	-185.0E-03	-196.5E-03	-189.9E-03	-255.3E-03	-129.1E-03	-190.7E-03	-164.3E-03	-97.1E-03	-140.4E-03	-251.9E-03
7	-	-115.9E-03	-57.3E-03	-181.8E-03	-164.5E-03	-308.9E-03	-215.8E-03	-223.2E-03	-157.4E-03	-417.7E-03	-288.3E-03	-308.6E-03	-222.6E-03
Average	-	-81.4E-03	-48.5E-03	-117.7E-03	-119.4E-03	-164.6E-03	-225.7E-03	-158.1E-03	-198.9E-03	-315.4E-03	-253.8E-03	-254.4E-03	864.9E-03
Sigma	-	49.9E-03	60.1E-03	92.9E-03	87.4E-03	129.4E-03	21.3E-03	46.1E-03	37.7E-03	109.1E-03	116.5E-03	80.6E-03	1.6E+00

Measurements

VS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-218.4E-03	-280.6E-03	-117.9E-03	-237.1E-03	-278.5E-03	-272.7E-03	-285.2E-03	-283.2E-03	-196.7E-03	-282.1E-03	-233.6E-03	-277.3E-03	-272.5E-03
ON TID samples													
12	-415.6E-03	-105.7E-03	-54.2E-03	-217.9E-03	56.4E-03	-153.9E-03	-258.6E-03	-345.1E-03	-490.3E-03	-647.3E-03	-494.4E-03	-482.4E-03	-385.5E-03
13	-207.3E-03	-9.2E-03	-63.1E-03	-145.5E-03	-218.4E-03	-317.6E-03	-390.0E-03	-232.7E-03	-300.9E-03	-438.2E-03	-348.3E-03	-233.8E-03	-193.4E-03
14	-80.6E-03	-105.5E-03	-73.9E-03	-159.5E-03	-65.6E-03	-150.6E-03	-99.5E-03	-177.7E-03	-120.0E-03	-219.3E-03	-147.6E-03	-210.8E-03	-372.5E-03
Statistics													
Min	-415.6E-03	-105.7E-03	-73.9E-03	-217.9E-03	-218.4E-03	-317.6E-03	-390.0E-03	-345.1E-03	-490.3E-03	-647.3E-03	-494.4E-03	-482.4E-03	-385.5E-03
Max	-80.6E-03	-9.2E-03	-54.2E-03	-145.5E-03	56.4E-03	-150.6E-03	-99.5E-03	-177.7E-03	-120.0E-03	-219.3E-03	-147.6E-03	-210.8E-03	-193.4E-03
Average	-234.5E-03	-73.4E-03	-63.7E-03	-174.3E-03	-75.9E-03	-207.4E-03	-249.4E-03	-251.8E-03	-303.7E-03	-434.9E-03	-330.1E-03	-309.0E-03	-317.1E-03
Sigma	138.1E-03	45.5E-03	8.1E-03	31.3E-03	112.4E-03	78.0E-03	118.8E-03	69.6E-03	151.2E-03	174.8E-03	142.2E-03	123.0E-03	87.6E-03

Drift Calculation

VS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	309.9E-03	361.3E-03	197.7E-03	471.9E-03	261.7E-03	157.0E-03	70.5E-03	-74.7E-03	-231.8E-03	-78.8E-03	-66.8E-03	30.1E-03
13	-	198.1E-03	144.2E-03	61.7E-03	-11.1E-03	-110.4E-03	-182.7E-03	-25.4E-03	-93.7E-03	-230.9E-03	-141.0E-03	-26.5E-03	13.9E-03
14	-	-24.9E-03	6.7E-03	-78.9E-03	15.0E-03	-70.0E-03	-18.9E-03	-97.1E-03	-39.4E-03	-138.7E-03	-67.0E-03	-130.2E-03	-291.9E-03
Average	-	161.0E-03	170.7E-03	60.2E-03	158.6E-03	27.1E-03	-14.9E-03	-17.4E-03	-69.2E-03	-200.5E-03	-95.6E-03	-74.5E-03	-82.7E-03
Sigma	-	139.2E-03	146.0E-03	112.9E-03	221.8E-03	166.7E-03	138.7E-03	68.7E-03	22.5E-03	43.7E-03	32.5E-03	42.7E-03	148.1E-03

Hirex Engineering	Total Dose Radiation Test Report									Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil				Issue:	01

Measurements

VS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-218.4E-03	-280.6E-03	-117.9E-03	-237.1E-03	-278.5E-03	-272.7E-03	-285.2E-03	-283.2E-03	-196.7E-03	-282.1E-03	-233.6E-03	-277.3E-03	-272.5E-03
OFF PROTON samples													
2	-92.6E-03	-105.4E-03	-28.0E-03	-95.8E-03	-126.5E-03	-169.5E-03	-205.3E-03	-148.0E-03	-81.8E-03	-177.0E-03	-130.4E-03	-107.0E-03	-198.8E-03
3	-35.8E-03	-95.7E-03	-64.1E-03	-140.2E-03	-164.6E-03	-77.4E-03	-210.2E-03	-218.8E-03	-193.3E-03	-192.8E-03	-195.8E-03	-177.4E-03	-180.2E-03
4	-102.6E-03	-127.4E-03	-43.3E-03	-119.6E-03	-144.5E-03	-143.7E-03	-157.8E-03	-169.5E-03	-149.7E-03	-206.4E-03	-137.8E-03	-168.2E-03	-174.9E-03
Statistics													
Min	-102.6E-03	-127.4E-03	-64.1E-03	-140.2E-03	-164.6E-03	-169.5E-03	-210.2E-03	-218.8E-03	-193.3E-03	-206.4E-03	-195.8E-03	-177.4E-03	-198.8E-03
Max	-35.8E-03	-95.7E-03	-28.0E-03	-95.8E-03	-126.5E-03	-77.4E-03	-157.8E-03	-148.0E-03	-81.8E-03	-177.0E-03	-130.4E-03	-107.0E-03	-174.9E-03
Average	-77.0E-03	-109.5E-03	-45.2E-03	-118.5E-03	-145.2E-03	-130.2E-03	-191.1E-03	-178.7E-03	-141.6E-03	-192.0E-03	-154.6E-03	-150.8E-03	-184.6E-03
Sigma	29.4E-03	13.2E-03	14.8E-03	18.2E-03	15.6E-03	38.8E-03	23.6E-03	29.6E-03	45.9E-03	12.0E-03	29.3E-03	31.2E-03	10.3E-03

Drift Calculation

VS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-12.8E-03	64.6E-03	-3.2E-03	-33.9E-03	-76.9E-03	-112.7E-03	-55.4E-03	10.8E-03	-84.4E-03	-37.8E-03	-14.4E-03	-106.2E-03
3	-	-59.9E-03	-28.4E-03	-104.4E-03	-128.9E-03	-41.6E-03	-174.5E-03	-183.0E-03	-157.5E-03	-157.0E-03	-160.0E-03	-141.6E-03	-144.4E-03
4	-	-24.8E-03	59.3E-03	-17.0E-03	-41.8E-03	-41.1E-03	-55.2E-03	-66.8E-03	-47.0E-03	-103.8E-03	-35.2E-03	-65.5E-03	-72.3E-03
Average	-	-32.5E-03	31.8E-03	-41.5E-03	-68.2E-03	-53.2E-03	-114.1E-03	-101.7E-03	-64.6E-03	-115.0E-03	-77.7E-03	-73.8E-03	-107.6E-03
Sigma	-	20.0E-03	42.6E-03	44.8E-03	43.0E-03	16.8E-03	48.7E-03	57.6E-03	69.8E-03	30.7E-03	58.3E-03	52.3E-03	29.5E-03

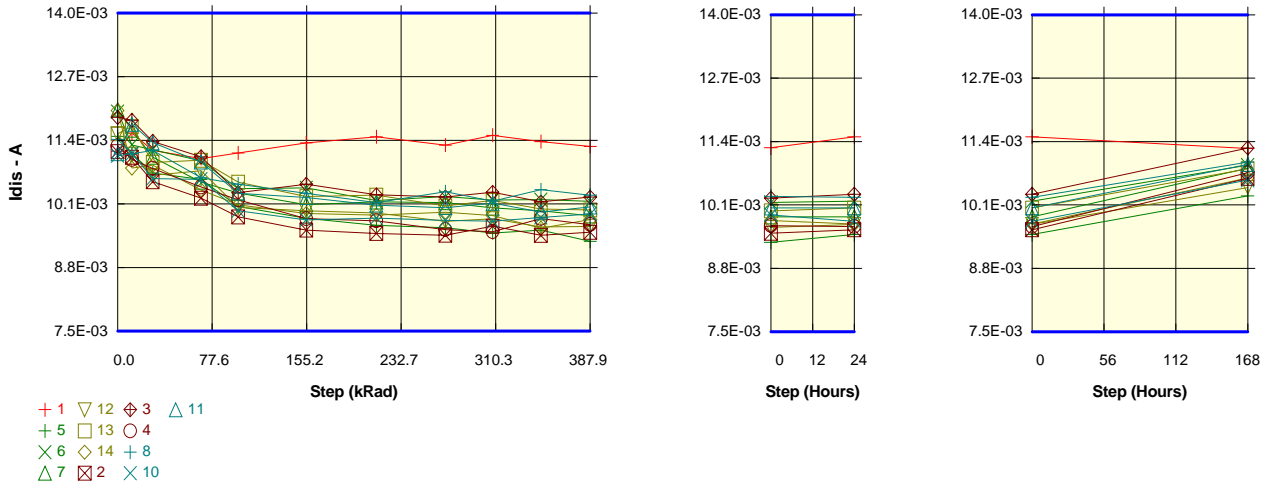
Measurements

VS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-218.4E-03	-280.6E-03	-117.9E-03	-237.1E-03	-278.5E-03	-272.7E-03	-285.2E-03	-283.2E-03	-196.7E-03	-282.1E-03	-233.6E-03	-277.3E-03	-272.5E-03
OFF TID samples													
8	-257.2E-03	-37.8E-03	-34.3E-03	-88.8E-03	-102.6E-03	-99.0E-03	-129.2E-03	-132.4E-03	-92.6E-03	-106.0E-03	-108.4E-03	-144.5E-03	-134.4E-03
10	-267.5E-03	-26.9E-03	-49.2E-03	-88.3E-03	-85.4E-03	-109.7E-03	-114.5E-03	-120.9E-03	-136.5E-03	-112.4E-03	-174.4E-03	-99.2E-03	-212.3E-03
11	-165.1E-03	-37.0E-03	-57.7E-03	-190.8E-03	-267.1E-03	-481.8E-03	-630.7E-03	-675.2E-03	-712.7E-03	-899.3E-03	-912.5E-03	-904.3E-03	-138.9E-03
Statistics													
Min	-267.5E-03	-37.8E-03	-57.7E-03	-190.8E-03	-267.1E-03	-481.8E-03	-630.7E-03	-675.2E-03	-712.7E-03	-899.3E-03	-912.5E-03	-904.3E-03	-212.3E-03
Max	-165.1E-03	-26.9E-03	-34.3E-03	-88.3E-03	-85.4E-03	-99.0E-03	-114.5E-03	-120.9E-03	-92.6E-03	-106.0E-03	-108.4E-03	-99.2E-03	-134.4E-03
Average	-229.9E-03	-33.9E-03	-47.1E-03	-122.6E-03	-151.7E-03	-230.2E-03	-291.5E-03	-309.5E-03	-313.9E-03	-372.6E-03	-398.4E-03	-382.7E-03	-161.9E-03
Sigma	46.0E-03	5.0E-03	9.7E-03	48.2E-03	81.9E-03	178.0E-03	240.0E-03	258.6E-03	282.6E-03	372.5E-03	364.5E-03	369.3E-03	35.7E-03

Drift Calculation

VS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	219.4E-03	222.9E-03	168.4E-03	154.5E-03	158.2E-03	127.9E-03	124.8E-03	164.6E-03	151.2E-03	148.7E-03	112.6E-03	122.8E-03
10	-	240.6E-03	218.3E-03	179.1E-03	182.0E-03	157.8E-03	153.0E-03	146.6E-03	131.0E-03	155.1E-03	93.1E-03	168.3E-03	55.2E-03
11	-	128.2E-03	107.4E-03	-25.7E-03	-101.9E-03	-316.7E-03	-465.6E-03	-510.0E-03	-547.6E-03	-734.2E-03	-747.3E-03	-739.1E-03	26.2E-03
Average	-	196.1E-03	182.8E-03	107.3E-03	78.2E-03	-242.8E-06	-61.5E-03	-79.6E-03	-84.0E-03	-142.6E-03	-168.5E-03	-152.7E-03	68.1E-03
Sigma	-	48.8E-03	53.4E-03	94.1E-03	127.9E-03	223.8E-03	285.9E-03	304.5E-03	328.1E-03	418.3E-03	409.9E-03	415.3E-03	40.5E-03

Parameter : Discharge Current : Idis
 Test conditions : VRT/CT=2V
 Unit : A
 Spec Limit Min : 7.5E-03
 Spec Limit Max : 14.0E-03
 Spec limits are represented in bold lines on the graphic.



Measurements

Idis	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	11.2E-03	11.5E-03	11.2E-03	11.0E-03	11.1E-03	11.3E-03	11.5E-03	11.3E-03	11.5E-03	11.4E-03	11.3E-03	11.5E-03	11.3E-03
ON_PROTON samples													
5	11.5E-03	11.1E-03	10.7E-03	10.6E-03	10.1E-03	9.8E-03	9.7E-03	9.6E-03	9.5E-03	9.6E-03	9.3E-03	9.5E-03	10.3E-03
6	12.0E-03	11.3E-03	11.2E-03	11.0E-03	10.4E-03	10.4E-03	10.2E-03	10.3E-03	10.2E-03	10.2E-03	10.2E-03	10.2E-03	10.9E-03
7	12.0E-03	11.6E-03	11.1E-03	10.5E-03	10.3E-03	10.1E-03	10.1E-03	10.1E-03	10.0E-03	10.0E-03	9.9E-03	9.9E-03	10.9E-03
Statistics													
Min	11.5E-03	11.1E-03	10.7E-03	10.5E-03	10.1E-03	9.8E-03	9.7E-03	9.6E-03	9.5E-03	9.6E-03	9.3E-03	9.5E-03	10.3E-03
Max	12.0E-03	11.6E-03	11.2E-03	11.0E-03	10.4E-03	10.4E-03	10.2E-03	10.3E-03	10.2E-03	10.2E-03	10.2E-03	10.2E-03	10.9E-03
Average	11.8E-03	11.3E-03	11.0E-03	10.7E-03	10.3E-03	10.1E-03	10.0E-03	10.0E-03	9.9E-03	9.9E-03	9.8E-03	9.8E-03	10.7E-03
Sigma	246.3E-06	199.1E-06	198.4E-06	193.7E-06	154.3E-06	255.0E-06	234.4E-06	275.4E-06	286.2E-06	258.7E-06	336.8E-06	279.1E-06	284.6E-06

Drift Calculation

Idis	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON_PROTON samples													
5	-	-353.5E-06	-747.6E-06	-877.8E-06	-1.4E-03	-1.7E-03	-1.8E-03	-1.9E-03	-2.0E-03	-1.9E-03	-2.1E-03	-2.0E-03	-1.2E-03
6	-	-678.5E-06	-776.3E-06	-1.0E-03	-1.6E-03	-1.6E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.1E-03
7	-	-410.1E-06	-963.1E-06	-1.5E-03	-1.7E-03	-1.9E-03	-1.9E-03	-1.9E-03	-2.0E-03	-2.1E-03	-2.2E-03	-2.2E-03	-1.2E-03
Average	-	-480.7E-06	-829.0E-06	-1.1E-03	-1.1E-03	-1.6E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.9E-03	-2.0E-03	-2.0E-03	-1.1E-03
Sigma	-	141.8E-06	95.5E-06	257.7E-06	109.0E-06	152.2E-06	28.2E-06	69.3E-06	86.8E-06	105.4E-06	150.6E-06	143.6E-06	53.8E-06

Measurements

Idis	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	11.2E-03	11.5E-03	11.2E-03	11.0E-03	11.1E-03	11.3E-03	11.5E-03	11.3E-03	11.5E-03	11.4E-03	11.3E-03	11.5E-03	11.3E-03
ON_TID samples													
12	11.5E-03	11.1E-03	10.7E-03	10.8E-03	10.0E-03	10.0E-03	9.9E-03	9.7E-03	9.8E-03	9.6E-03	9.6E-03	9.7E-03	10.5E-03
13	11.5E-03	11.7E-03	11.0E-03	11.0E-03	10.5E-03	10.3E-03	10.3E-03	10.1E-03	10.2E-03	10.0E-03	10.0E-03	10.0E-03	10.8E-03
14	12.0E-03	10.8E-03	10.9E-03	10.4E-03	10.1E-03	9.9E-03	9.9E-03	9.9E-03	9.9E-03	9.6E-03	9.8E-03	9.7E-03	10.7E-03
Statistics													
Min	11.5E-03	10.8E-03	10.7E-03	10.4E-03	10.0E-03	9.9E-03	9.9E-03	9.7E-03	9.8E-03	9.6E-03	9.6E-03	9.7E-03	10.5E-03
Max	12.0E-03	11.7E-03	11.0E-03	11.0E-03	10.5E-03	10.3E-03	10.3E-03	10.1E-03	10.2E-03	10.0E-03	10.0E-03	10.0E-03	10.8E-03
Average	11.7E-03	11.2E-03	10.8E-03	10.7E-03	10.2E-03	10.0E-03	10.0E-03	9.9E-03	9.9E-03	9.7E-03	9.8E-03	9.8E-03	10.7E-03
Sigma	227.3E-06	352.4E-06	113.9E-06	250.8E-06	231.9E-06	152.1E-06	182.1E-06	129.9E-06	162.8E-06	178.7E-06	137.6E-06	155.8E-06	156.2E-06

Drift Calculation

Idis	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON_TID samples													
12	-	-407.9E-06	-839.0E-06	-745.7E-06	-1.5E-03	-1.6E-03	-1.6E-03	-1.8E-03	-1.7E-03	-1.9E-03	-1.9E-03	-1.8E-03	-1.1E-03
13	-	147.0E-06	-583.3E-06	-541.4E-06	-990.7E-06	-1.3E-03	-1.3E-03	-1.5E-03	-1.4E-03	-1.5E-03	-1.6E-03	-1.5E-03	-693.8E-06
14	-	-1.2E-03	-1.1E-03	-1.6E-03	-1.9E-03	-2.1E-03	-2.1E-03	-2.1E-03	-2.1E-03	-2.4E-03	-2.2E-03	-2.3E-03	-1.4E-03
Average	-	-479.3E-06	-847.9E-06	-970.3E-06	-1.5E-03	-1.7E-03	-1.7E-03	-1.8E-03	-1.7E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.0E-03
Sigma	-	542.9E-06	219.8E-06	469.6E-06	383.7E-06	342.0E-06	362.6E-06	247.6E-06	320.5E-06	355.4E-06	275.9E-06	330.2E-06	270.5E-06

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

Idis	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	11.2E-03	11.5E-03	11.2E-03	11.0E-03	11.1E-03	11.3E-03	11.5E-03	11.3E-03	11.5E-03	11.4E-03	11.3E-03	11.5E-03	11.3E-03
OFF PROTON samples													
2	11.2E-03	11.1E-03	10.6E-03	10.2E-03	9.8E-03	9.6E-03	9.5E-03	9.5E-03	9.6E-03	9.5E-03	9.5E-03	9.6E-03	10.6E-03
3	11.9E-03	11.8E-03	11.4E-03	11.1E-03	10.3E-03	10.5E-03	10.3E-03	10.2E-03	10.3E-03	10.1E-03	10.2E-03	10.3E-03	11.3E-03
4	11.3E-03	11.0E-03	10.8E-03	10.4E-03	10.2E-03	9.8E-03	9.8E-03	9.6E-03	9.5E-03	9.8E-03	9.7E-03	9.7E-03	10.8E-03
Statistics													
Min	11.2E-03	11.0E-03	10.6E-03	10.2E-03	9.8E-03	9.6E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.5E-03	9.6E-03	10.6E-03
Max	11.9E-03	11.8E-03	11.4E-03	11.1E-03	10.3E-03	10.5E-03	10.3E-03	10.2E-03	10.3E-03	10.1E-03	10.2E-03	10.3E-03	11.3E-03
Average	11.4E-03	11.3E-03	10.9E-03	10.6E-03	10.1E-03	10.0E-03	9.8E-03	9.8E-03	9.8E-03	9.8E-03	9.8E-03	9.9E-03	10.9E-03
Sigma	305.6E-06	366.0E-06	342.7E-06	356.3E-06	207.3E-06	398.3E-06	328.1E-06	344.8E-06	355.2E-06	277.8E-06	309.3E-06	328.9E-06	270.3E-06

Drift Calculation

Idis	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-114.0E-06	-613.4E-06	-949.8E-06	-1.3E-03	-1.6E-03	-1.7E-03	-1.7E-03	-1.5E-03	-1.7E-03	-1.6E-03	-1.6E-03	-522.0E-06
3	-	-60.6E-06	-488.9E-06	-805.2E-06	-1.5E-03	-1.4E-03	-1.6E-03	-1.6E-03	-1.5E-03	-1.7E-03	-1.6E-03	-1.5E-03	-598.2E-06
4	-	-276.9E-06	-460.1E-06	-839.3E-06	-1.1E-03	-1.5E-03	-1.5E-03	-1.7E-03	-1.8E-03	-1.5E-03	-1.6E-03	-1.6E-03	-522.9E-06
Average	-	-150.5E-06	-520.8E-06	-864.8E-06	-1.3E-03	-1.5E-03	-1.6E-03	-1.7E-03	-1.6E-03	-1.6E-03	-1.6E-03	-1.6E-03	-547.7E-06
Sigma	-	92.0E-06	66.6E-06	61.7E-06	178.2E-06	97.5E-06	58.3E-06	39.8E-06	105.9E-06	111.3E-06	17.1E-06	33.0E-06	35.7E-06

Measurements

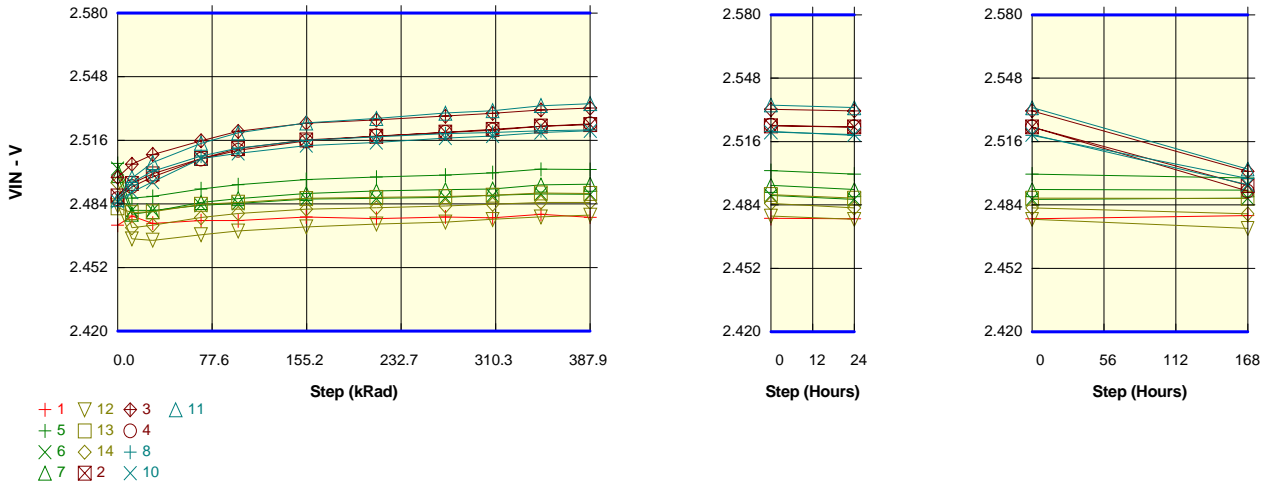
Idis	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	11.2E-03	11.5E-03	11.2E-03	11.0E-03	11.1E-03	11.3E-03	11.5E-03	11.3E-03	11.5E-03	11.4E-03	11.3E-03	11.5E-03	11.3E-03
OFF TID samples													
8	11.4E-03	11.1E-03	11.2E-03	10.6E-03	10.5E-03	10.3E-03	10.1E-03	10.3E-03	10.2E-03	10.4E-03	10.3E-03	10.3E-03	11.0E-03
10	11.1E-03	11.1E-03	10.6E-03	10.6E-03	10.0E-03	9.8E-03	9.8E-03	9.8E-03	9.8E-03	9.8E-03	9.9E-03	9.8E-03	10.6E-03
11	11.1E-03	11.7E-03	11.4E-03	11.0E-03	10.3E-03	10.2E-03	10.1E-03	10.0E-03	10.1E-03	9.9E-03	10.0E-03	10.0E-03	10.9E-03
Statistics													
Min	11.1E-03	11.1E-03	10.6E-03	10.6E-03	10.0E-03	9.8E-03	9.8E-03	9.8E-03	9.8E-03	9.8E-03	9.9E-03	9.8E-03	10.6E-03
Max	11.4E-03	11.7E-03	11.4E-03	11.0E-03	10.5E-03	10.3E-03	10.1E-03	10.3E-03	10.2E-03	10.4E-03	10.3E-03	10.3E-03	11.0E-03
Average	11.2E-03	11.3E-03	11.1E-03	10.7E-03	10.3E-03	10.1E-03	10.0E-03	10.0E-03	10.0E-03	10.0E-03	10.1E-03	10.0E-03	10.8E-03
Sigma	149.4E-06	282.6E-06	314.0E-06	158.2E-06	224.9E-06	237.6E-06	137.8E-06	238.4E-06	181.9E-06	244.5E-06	157.9E-06	200.7E-06	163.6E-06

Drift Calculation

Idis	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-294.0E-06	-227.6E-06	-780.9E-06	-915.0E-06	-1.1E-03	-1.3E-03	-1.1E-03	-1.3E-03	-1.0E-03	-1.1E-03	-1.2E-03	-441.1E-06
10	-	44.2E-06	-465.1E-06	-480.8E-06	-1.1E-03	-1.3E-03	-1.3E-03	-1.3E-03	-1.3E-03	-1.2E-03	-1.3E-03	-1.3E-03	-474.5E-06
11	-	601.9E-06	225.8E-06	-169.4E-06	-804.9E-06	-892.7E-06	-1.0E-03	-1.1E-03	-1.0E-03	-1.2E-03	-1.1E-03	-1.1E-03	-193.7E-06
Average	-	117.4E-06	-155.6E-06	-477.0E-06	-947.2E-06	-1.1E-03	-1.2E-03	-1.2E-03	-1.2E-03	-1.2E-03	-1.1E-03	-1.2E-03	-369.8E-06
Sigma	-	369.4E-06	286.6E-06	249.7E-06	131.4E-06	170.0E-06	111.0E-06	111.0E-06	138.5E-06	96.2E-06	42.0E-06	97.2E-06	125.2E-06

Parameter : Input Voltage : VIN
 Test conditions : Vcomp=2.5V

Unit : V
 Spec Limit Min : 2.420
 Spec Limit Max : 2.580
 Spec limits are represented in bold lines on the graphic.



Measurements

VIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	2.473	2.478	2.474	2.476	2.476	2.477	2.477	2.477	2.477	2.479	2.477	2.477	2.479
ON PROTON samples													
5	2.504	2.487	2.488	2.492	2.494	2.496	2.497	2.499	2.500	2.501	2.501	2.500	2.498
6	2.502	2.481	2.481	2.483	2.484	2.486	2.487	2.487	2.488	2.489	2.489	2.487	2.487
7	2.498	2.479	2.480	2.485	2.487	2.489	2.490	2.491	2.492	2.494	2.494	2.492	2.492
Statistics													
Min	2.498	2.479	2.480	2.483	2.484	2.486	2.487	2.487	2.488	2.489	2.489	2.487	2.487
Max	2.504	2.487	2.488	2.492	2.494	2.496	2.497	2.499	2.500	2.501	2.501	2.500	2.498
Average	2.501	2.482	2.483	2.487	2.488	2.491	2.492	2.492	2.493	2.495	2.495	2.493	2.492
Sigma	0.003	0.003	0.003	0.004	0.004	0.004	0.004	0.005	0.005	0.005	0.005	0.005	0.004

Drift Calculation

VIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-17.4E-03	-16.6E-03	-12.8E-03	-10.7E-03	-8.1E-03	-6.9E-03	-5.9E-03	-4.7E-03	-2.9E-03	-3.1E-03	-4.9E-03	-6.7E-03
6	-	-21.0E-03	-21.0E-03	-18.5E-03	-17.5E-03	-15.3E-03	-15.0E-03	-14.5E-03	-13.5E-03	-12.8E-03	-13.0E-03	-15.0E-03	-14.4E-03
7	-	-19.4E-03	-18.0E-03	-13.4E-03	-11.5E-03	-9.0E-03	-7.7E-03	-7.0E-03	-6.7E-03	-4.6E-03	-4.3E-03	-6.4E-03	-6.6E-03
Average	-	-19.2E-03	-18.5E-03	-14.9E-03	-13.2E-03	-10.8E-03	-9.9E-03	-9.1E-03	-8.3E-03	-6.8E-03	-6.8E-03	-8.8E-03	-9.2E-03
Sigma	-	1.5E-03	1.9E-03	2.6E-03	3.0E-03	3.2E-03	3.6E-03	3.8E-03	3.8E-03	4.3E-03	4.4E-03	4.4E-03	3.7E-03

Measurements

VIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	2.473	2.478	2.474	2.476	2.476	2.477	2.477	2.477	2.477	2.479	2.477	2.477	2.479
ON TID samples													
12	2.483	2.466	2.466	2.469	2.470	2.473	2.474	2.475	2.476	2.478	2.478	2.477	2.472
13	2.482	2.480	2.480	2.484	2.485	2.487	2.487	2.488	2.488	2.490	2.489	2.487	2.487
14	2.495	2.472	2.473	2.477	2.479	2.481	2.482	2.483	2.484	2.485	2.485	2.482	2.480
Statistics													
Min	2.482	2.466	2.466	2.469	2.470	2.473	2.474	2.475	2.476	2.478	2.478	2.477	2.472
Max	2.495	2.480	2.480	2.484	2.485	2.487	2.487	2.488	2.488	2.490	2.489	2.487	2.487
Average	2.487	2.473	2.473	2.477	2.478	2.480	2.481	2.482	2.483	2.484	2.484	2.482	2.480
Sigma	0.006	0.005	0.006	0.006	0.006	0.006	0.006	0.005	0.005	0.005	0.004	0.004	0.006

Drift Calculation

VIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-16.7E-03	-17.4E-03	-14.6E-03	-12.7E-03	-10.6E-03	-9.2E-03	-8.2E-03	-6.9E-03	-5.6E-03	-4.7E-03	-6.4E-03	-11.0E-03
13	-	-2.4E-03	-2.0E-03	1.7E-03	2.7E-03	4.7E-03	5.2E-03	5.6E-03	6.3E-03	7.4E-03	7.2E-03	5.3E-03	5.3E-03
14	-	-22.5E-03	-21.3E-03	-17.4E-03	-15.3E-03	-13.2E-03	-12.4E-03	-11.5E-03	-10.6E-03	-9.7E-03	-9.7E-03	-12.1E-03	-15.0E-03
Average	-	-13.9E-03	-13.6E-03	-10.1E-03	-8.4E-03	-6.4E-03	-5.5E-03	-4.7E-03	-3.8E-03	-2.6E-03	-2.4E-03	-4.4E-03	-6.9E-03
Sigma	-	8.4E-03	8.3E-03	8.4E-03	8.0E-03	7.9E-03	7.7E-03	7.4E-03	7.3E-03	7.3E-03	7.1E-03	7.3E-03	8.8E-03

Hirex Engineering	Total Dose Radiation Test Report								Ref.:	HRX/TID/1017
	IS-1845ASRH				Intersil				Issue:	01

Measurements

VIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	2.473	2.478	2.474	2.476	2.476	2.477	2.477	2.477	2.477	2.479	2.477	2.477	2.479
OFF PROTON samples													
2	2.488	2.494	2.499	2.507	2.512	2.516	2.518	2.520	2.522	2.523	2.524	2.523	2.494
3	2.497	2.504	2.509	2.516	2.521	2.525	2.526	2.528	2.530	2.531	2.532	2.532	2.501
4	2.487	2.493	2.498	2.507	2.511	2.516	2.518	2.520	2.521	2.523	2.524	2.523	2.491
Statistics													
Min	2.487	2.493	2.498	2.507	2.511	2.516	2.518	2.520	2.521	2.523	2.524	2.523	2.491
Max	2.497	2.504	2.509	2.516	2.521	2.525	2.526	2.528	2.530	2.531	2.532	2.532	2.501
Average	2.491	2.497	2.502	2.510	2.514	2.519	2.521	2.523	2.524	2.526	2.527	2.526	2.495
Sigma	0.005	0.005	0.005	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004

Drift Calculation

VIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	6.3E-03	11.1E-03	18.8E-03	23.8E-03	28.1E-03	30.0E-03	32.1E-03	33.5E-03	35.1E-03	35.8E-03	35.4E-03	5.8E-03
3	-	6.5E-03	11.4E-03	18.3E-03	23.1E-03	27.2E-03	28.8E-03	30.7E-03	32.1E-03	33.8E-03	34.8E-03	34.1E-03	3.5E-03
4	-	6.0E-03	10.9E-03	19.8E-03	24.3E-03	29.0E-03	31.5E-03	33.2E-03	34.4E-03	36.4E-03	37.6E-03	36.7E-03	4.3E-03
Average	-	6.3E-03	11.1E-03	19.0E-03	23.7E-03	28.1E-03	30.1E-03	32.0E-03	33.3E-03	35.1E-03	36.1E-03	35.4E-03	4.5E-03
Sigma	-	219.2E-06	205.7E-06	643.1E-06	485.4E-06	747.6E-06	1.1E-03	1.0E-03	943.6E-06	1.0E-03	1.1E-03	1.1E-03	948.5E-06

Measurements

VIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	2.473	2.478	2.474	2.476	2.476	2.477	2.477	2.477	2.477	2.479	2.477	2.477	2.479
OFF TID samples													
8	2.484	2.495	2.500	2.508	2.512	2.516	2.518	2.519	2.520	2.521	2.521	2.519	2.497
10	2.485	2.490	2.495	2.507	2.509	2.513	2.515	2.517	2.518	2.520	2.521	2.520	2.494
11	2.486	2.497	2.505	2.515	2.520	2.525	2.527	2.530	2.531	2.533	2.534	2.533	2.502
Statistics													
Min	2.484	2.490	2.495	2.507	2.509	2.513	2.515	2.517	2.518	2.520	2.521	2.519	2.494
Max	2.486	2.497	2.505	2.515	2.520	2.525	2.527	2.530	2.531	2.533	2.534	2.533	2.502
Average	2.485	2.494	2.500	2.510	2.514	2.518	2.520	2.522	2.523	2.525	2.525	2.524	2.498
Sigma	0.001	0.003	0.004	0.003	0.004	0.005	0.005	0.005	0.006	0.006	0.006	0.006	0.003

Drift Calculation

VIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	10.4E-03	16.0E-03	23.6E-03	27.8E-03	31.6E-03	33.3E-03	35.0E-03	35.6E-03	36.4E-03	36.7E-03	34.7E-03	13.0E-03
10	-	4.7E-03	9.8E-03	21.5E-03	24.2E-03	28.1E-03	29.6E-03	31.9E-03	32.9E-03	34.6E-03	35.5E-03	34.3E-03	9.0E-03
11	-	10.9E-03	18.7E-03	28.3E-03	33.6E-03	38.5E-03	40.8E-03	43.5E-03	44.7E-03	47.2E-03	48.3E-03	47.0E-03	16.0E-03
Average	-	8.7E-03	14.8E-03	24.5E-03	28.5E-03	32.7E-03	34.6E-03	36.8E-03	37.7E-03	39.4E-03	40.2E-03	38.7E-03	12.6E-03
Sigma	-	2.8E-03	3.7E-03	2.9E-03	3.9E-03	4.3E-03	4.7E-03	4.9E-03	5.1E-03	5.6E-03	5.8E-03	5.9E-03	2.9E-03

Parameter : Input Bias Current : IIB

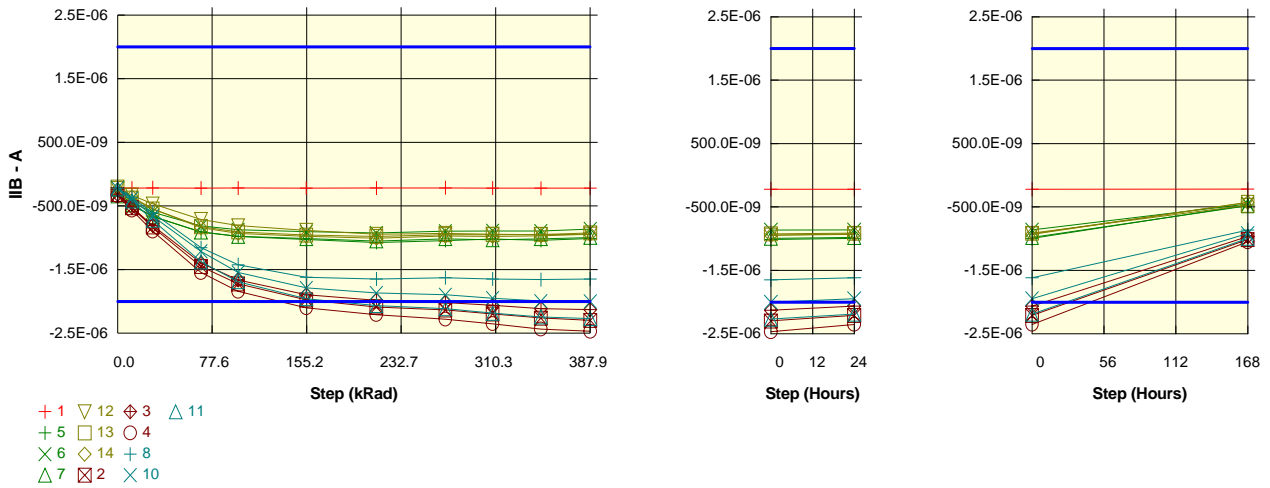
Test conditions :

Unit : A

Spec Limit Min : -2.0E-06

Spec Limit Max : 2.0E-06

Spec limits are represented in bold lines on the graphic.



Measurements

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-219.4E-09	-218.1E-09	-215.8E-09	-218.4E-09	-217.2E-09	-218.6E-09	-217.7E-09	-215.1E-09	-219.8E-09	-220.6E-09	-218.5E-09	-219.2E-09	-217.7E-09
ON_PROTON samples													
5	-339.1E-09	-482.3E-09	-664.3E-09	-909.3E-09	-979.0E-09	-1.0E-06	-1.1E-06	-1.0E-06	-1.0E-06	-1.0E-06	-1.0E-06	-994.9E-09	-470.1E-09
6	-322.7E-09	-444.2E-09	-597.4E-09	-813.9E-09	-872.6E-09	-904.1E-09	-925.4E-09	-897.9E-09	-891.4E-09	-893.3E-09	-863.6E-09	-861.6E-09	-452.0E-09
7	-341.2E-09	-481.0E-09	-666.1E-09	-908.6E-09	-977.1E-09	-1.0E-06	-1.1E-06	-1.0E-06	-1.0E-06	-1.0E-06	-993.8E-09	-979.8E-09	-479.1E-09
Statistics													
Min	-341.2E-09	-482.3E-09	-666.1E-09	-909.3E-09	-979.0E-09	-1.0E-06	-1.1E-06	-1.0E-06	-1.0E-06	-1.0E-06	-1.0E-06	-994.9E-09	-479.1E-09
Max	-322.7E-09	-444.2E-09	-597.4E-09	-813.9E-09	-872.6E-09	-904.1E-09	-925.4E-09	-897.9E-09	-891.4E-09	-893.3E-09	-863.6E-09	-861.6E-09	-452.0E-09
Average	-334.3E-09	-469.2E-09	-642.6E-09	-877.3E-09	-942.9E-09	-981.0E-09	-1.0E-06	-985.2E-09	-981.1E-09	-982.6E-09	-956.9E-09	-945.4E-09	-467.1E-09
Sigma	8.3E-09	17.7E-09	32.0E-09	44.8E-09	49.7E-09	54.7E-09	65.5E-09	62.7E-09	63.6E-09	64.0E-09	66.4E-09	59.6E-09	11.3E-09

Drift Calculation

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON_PROTON samples													
5	-	-143.2E-09	-325.2E-09	-570.2E-09	-639.9E-09	-687.7E-09	-735.9E-09	-703.3E-09	-681.7E-09	-700.3E-09	-674.1E-09	-655.8E-09	-131.0E-09
6	-	-121.6E-09	-274.7E-09	-491.2E-09	-550.0E-09	-581.4E-09	-602.8E-09	-575.3E-09	-568.7E-09	-570.6E-09	-541.0E-09	-538.9E-09	-129.3E-09
7	-	-139.8E-09	-324.9E-09	-567.4E-09	-635.9E-09	-670.8E-09	-709.2E-09	-674.0E-09	-690.0E-09	-674.0E-09	-652.6E-09	-638.6E-09	-137.9E-09
Average	-	-134.9E-09	-308.3E-09	-543.0E-09	-608.6E-09	-646.7E-09	-682.6E-09	-650.9E-09	-646.8E-09	-648.3E-09	-622.6E-09	-611.1E-09	-132.7E-09
Sigma	-	9.5E-09	23.7E-09	36.6E-09	41.5E-09	46.6E-09	57.5E-09	54.8E-09	55.3E-09	56.0E-09	58.4E-09	51.5E-09	3.7E-09

Measurements

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-219.4E-09	-218.1E-09	-215.8E-09	-218.4E-09	-217.2E-09	-218.6E-09	-217.7E-09	-215.1E-09	-219.8E-09	-220.6E-09	-218.5E-09	-219.2E-09	-217.7E-09
ON_TID samples													
12	-227.2E-09	-329.7E-09	-467.0E-09	-711.7E-09	-810.4E-09	-883.6E-09	-944.1E-09	-930.5E-09	-942.5E-09	-950.7E-09	-942.3E-09	-923.2E-09	-425.9E-09
13	-204.1E-09	-377.6E-09	-547.4E-09	-824.5E-09	-907.7E-09	-955.9E-09	-979.1E-09	-951.3E-09	-951.4E-09	-945.8E-09	-923.8E-09	-912.9E-09	-472.2E-09
14	-243.7E-09	-353.6E-09	-547.6E-09	-838.8E-09	-930.3E-09	-975.4E-09	-1.0E-06	-972.8E-09	-977.6E-09	-966.3E-09	-945.6E-09	-930.5E-09	-427.3E-09
Statistics													
Min	-243.7E-09	-377.6E-09	-547.6E-09	-838.8E-09	-930.3E-09	-975.4E-09	-1.0E-06	-972.8E-09	-977.6E-09	-966.3E-09	-945.6E-09	-930.5E-09	-472.2E-09
Max	-204.1E-09	-329.7E-09	-467.0E-09	-711.7E-09	-810.4E-09	-883.6E-09	-944.1E-09	-930.5E-09	-942.5E-09	-945.8E-09	-923.8E-09	-912.9E-09	-425.9E-09
Average	-225.0E-09	-353.6E-09	-520.7E-09	-791.7E-09	-882.8E-09	-938.3E-09	-976.6E-09	-951.5E-09	-957.2E-09	-954.3E-09	-937.3E-09	-922.2E-09	-441.8E-09
Sigma	16.2E-09	19.6E-09	38.0E-09	56.8E-09	52.0E-09	39.5E-09	25.7E-09	17.3E-09	14.9E-09	8.7E-09	9.6E-09	7.2E-09	21.5E-09

Drift Calculation

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON_TID samples													
12	-	-102.5E-09	-239.8E-09	-484.6E-09	-583.2E-09	-656.4E-09	-716.9E-09	-703.3E-09	-715.3E-09	-723.5E-09	-715.2E-09	-696.0E-09	-198.8E-09
13	-	-173.5E-09	-343.3E-09	-620.4E-09	-703.6E-09	-751.8E-09	-775.0E-09	-747.2E-09	-747.3E-09	-741.7E-09	-719.7E-09	-708.8E-09	-268.1E-09
14	-	-109.9E-09	-304.0E-09	-595.1E-09	-686.6E-09	-731.8E-09	-763.1E-09	-729.1E-09	-734.0E-09	-722.6E-09	-702.0E-09	-686.8E-09	-183.6E-09
Average	-	-128.6E-09	-295.7E-09	-566.7E-09	-657.8E-09	-713.3E-09	-751.7E-09	-726.6E-09	-732.2E-09	-729.3E-09	-712.3E-09	-697.2E-09	-216.8E-09
Sigma	-	31.9E-09	42.7E-09	59.0E-09	53.2E-09	41.1E-09	25.1E-09	18.0E-09	13.1E-09	8.8E-09	7.5E-09	9.0E-09	36.8E-09

Hirex Engineering	Total Dose Radiation Test Report									Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil				Issue:	01

Measurements

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-219.4E-09	-218.1E-09	-215.8E-09	-218.4E-09	-217.2E-09	-218.6E-09	-217.7E-09	-215.1E-09	-219.8E-09	-220.6E-09	-218.5E-09	-219.2E-09	-217.7E-09
OFF PROTON samples													
2	-320.0E-09	-528.9E-09	-831.9E-09	-1.5E-06	-1.7E-06	-2.0E-06	-2.1E-06	-2.1E-06	-2.2E-06	-2.3E-06	-2.3E-06	-2.2E-06	-1.0E-06
3	-317.2E-09	-519.8E-09	-807.7E-09	-1.4E-06	-1.7E-06	-1.9E-06	-2.0E-06	-2.0E-06	-2.1E-06	-2.1E-06	-2.1E-06	-2.1E-06	-965.6E-09
4	-338.0E-09	-565.1E-09	-895.8E-09	-1.5E-06	-1.8E-06	-2.1E-06	-2.2E-06	-2.3E-06	-2.4E-06	-2.4E-06	-2.5E-06	-2.4E-06	-1.0E-06
Statistics													
Min	-338.0E-09	-565.1E-09	-895.8E-09	-1.5E-06	-1.8E-06	-2.1E-06	-2.2E-06	-2.3E-06	-2.4E-06	-2.4E-06	-2.5E-06	-2.4E-06	-1.0E-06
Max	-317.2E-09	-519.8E-09	-807.7E-09	-1.4E-06	-1.7E-06	-1.9E-06	-2.0E-06	-2.0E-06	-2.1E-06	-2.1E-06	-2.1E-06	-2.1E-06	-965.6E-09
Average	-325.1E-09	-537.9E-09	-845.1E-09	-1.5E-06	-1.7E-06	-2.0E-06	-2.1E-06	-2.1E-06	-2.2E-06	-2.3E-06	-2.3E-06	-2.2E-06	-1.0E-06
Sigma	9.2E-09	19.6E-09	37.2E-09	61.1E-09	74.0E-09	85.3E-09	92.8E-09	107.8E-09	117.8E-09	130.6E-09	137.4E-09	117.7E-09	34.0E-09

Drift Calculation

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-208.8E-09	-511.8E-09	-1.1E-06	-1.4E-06	-1.7E-06	-1.8E-06	-1.8E-06	-1.9E-06	-1.9E-06	-2.0E-06	-1.9E-06	-692.6E-09
3	-	-202.6E-09	-490.5E-09	-1.1E-06	-1.3E-06	-1.6E-06	-1.7E-06	-1.7E-06	-1.7E-06	-1.8E-06	-1.8E-06	-1.7E-06	-648.4E-09
4	-	-227.0E-09	-557.7E-09	-1.2E-06	-1.5E-06	-1.8E-06	-1.9E-06	-1.9E-06	-2.0E-06	-2.1E-06	-2.1E-06	-2.0E-06	-710.6E-09
Average	-	-212.8E-09	-520.0E-09	-1.1E-06	-1.4E-06	-1.7E-06	-1.8E-06	-1.8E-06	-1.9E-06	-1.9E-06	-2.0E-06	-1.9E-06	-683.9E-09
Sigma	-	10.4E-09	28.1E-09	52.2E-09	65.0E-09	76.4E-09	84.3E-09	99.2E-09	109.2E-09	122.0E-09	129.0E-09	109.3E-09	26.1E-09

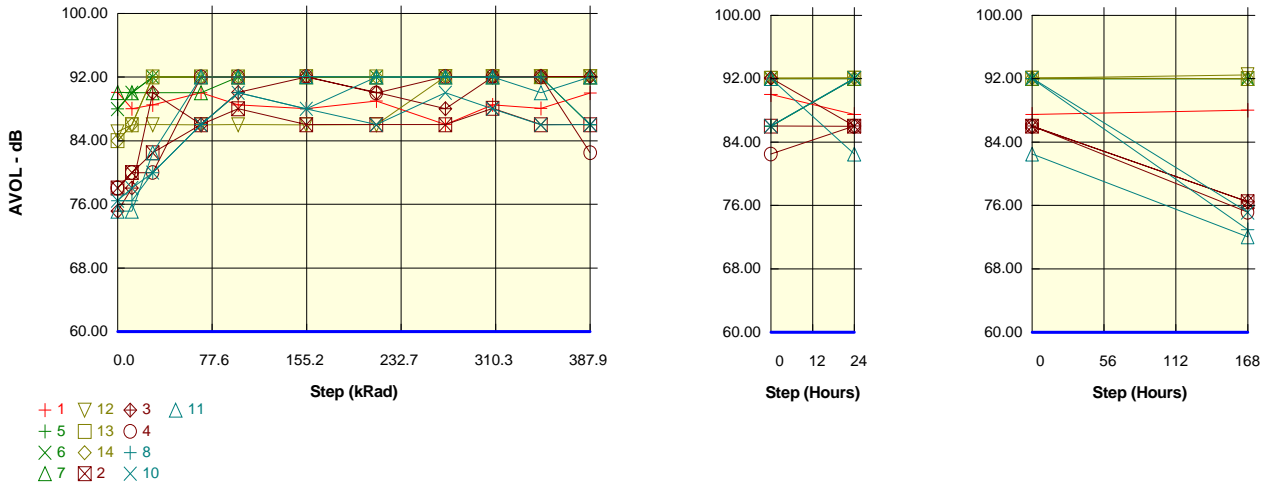
Measurements

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-219.4E-09	-218.1E-09	-215.8E-09	-218.4E-09	-217.2E-09	-218.6E-09	-217.7E-09	-215.1E-09	-219.8E-09	-220.6E-09	-218.5E-09	-219.2E-09	-217.7E-09
OFF TID samples													
8	-220.9E-09	-369.4E-09	-604.3E-09	-1.2E-06	-1.4E-06	-1.6E-06	-1.6E-06	-1.6E-06	-1.6E-06	-1.7E-06	-1.6E-06	-1.6E-06	-863.0E-09
10	-216.2E-09	-385.1E-09	-660.3E-09	-1.2E-06	-1.5E-06	-1.8E-06	-1.9E-06	-1.9E-06	-1.9E-06	-2.0E-06	-2.0E-06	-1.9E-06	-916.4E-09
11	-233.0E-09	-419.0E-09	-723.8E-09	-1.4E-06	-1.7E-06	-2.0E-06	-2.1E-06	-2.1E-06	-2.2E-06	-2.2E-06	-2.3E-06	-2.2E-06	-993.8E-09
Statistics													
Min	-233.0E-09	-419.0E-09	-723.8E-09	-1.4E-06	-1.7E-06	-2.0E-06	-2.1E-06	-2.1E-06	-2.2E-06	-2.2E-06	-2.3E-06	-2.2E-06	-993.8E-09
Max	-216.2E-09	-369.4E-09	-604.3E-09	-1.2E-06	-1.4E-06	-1.6E-06	-1.6E-06	-1.6E-06	-1.6E-06	-1.7E-06	-1.6E-06	-1.6E-06	-863.0E-09
Average	-223.4E-09	-391.2E-09	-662.8E-09	-1.2E-06	-1.6E-06	-1.8E-06	-1.9E-06	-1.9E-06	-1.9E-06	-2.0E-06	-2.0E-06	-1.9E-06	-924.4E-09
Sigma	7.1E-09	20.7E-09	48.8E-09	94.3E-09	109.2E-09	136.9E-09	170.6E-09	199.3E-09	220.4E-09	240.1E-09	255.1E-09	234.1E-09	53.7E-09

Drift Calculation

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-148.6E-09	-383.4E-09	-935.1E-09	-1.2E-06	-1.4E-06	-1.4E-06	-1.4E-06	-1.4E-06	-1.4E-06	-1.4E-06	-1.4E-06	-642.2E-09
10	-	-168.9E-09	-444.1E-09	-996.8E-09	-1.3E-06	-1.6E-06	-1.7E-06	-1.7E-06	-1.7E-06	-1.8E-06	-1.8E-06	-1.7E-06	-700.2E-09
11	-	-186.0E-09	-490.8E-09	-1.1E-06	-1.5E-06	-1.7E-06	-1.8E-06	-1.9E-06	-2.0E-06	-2.0E-06	-2.0E-06	-2.0E-06	-760.8E-09
Average	-	-167.8E-09	-439.4E-09	-1.0E-06	-1.3E-06	-1.6E-06	-1.6E-06	-1.7E-06	-1.7E-06	-1.7E-06	-1.7E-06	-1.7E-06	-701.0E-09
Sigma	-	15.3E-09	44.0E-09	88.2E-09	104.1E-09	132.1E-09	165.8E-09	194.7E-09	215.8E-09	235.6E-09	250.6E-09	229.6E-09	48.4E-09

Parameter : Open Loop Voltage Gain : AVOL
 Test conditions : 2V<Vcomp<4V
 Unit : dB
 Spec Limit Min : 60.00
 Spec limits are represented in bold lines on the graphic.



Measurements

AVOL	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	90.07	88.03	88.50	90.03	88.50	88.03	89.00	86.03	88.50	88.07	90.00	87.50	88.03
ON PROTON samples													
5	88.00	90.03	92.03	92.03	92.03	92.07	92.03	92.03	92.03	92.03	86.01	92.03	92.03
6	88.00	90.03	92.03	92.03	92.03	92.07	92.03	92.03	92.03	92.03	92.03	92.03	92.03
7	90.07	90.03	90.03	90.03	92.03	92.03	92.03	92.03	92.03	92.07	92.03	92.03	92.03
Statistics													
Min	88.00	90.03	90.03	90.03	92.03	92.03	92.03	92.03	92.03	92.03	86.01	92.03	92.03
Max	90.07	90.03	92.03	92.03	92.03	92.07	92.03	92.03	92.03	92.07	92.03	92.03	92.03
Average	88.69	90.03	91.36	91.36	92.03	92.06	92.03	92.03	92.03	92.04	90.02	92.03	92.03
Sigma	0.98	0.00	0.94	0.94	0.00	0.02	0.00	0.00	0.00	0.02	2.84	0.00	0.00

Drift Calculation

AVOL	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	2.0E+00	4.0E+00	4.0E+00	4.0E+00	4.1E+00	4.0E+00	4.0E+00	4.0E+00	4.0E+00	-2.0E+00	4.0E+00	4.0E+00
6	-	2.0E+00	4.0E+00	4.0E+00	4.0E+00	4.1E+00	4.0E+00	4.0E+00	4.0E+00	4.0E+00	4.0E+00	4.0E+00	4.0E+00
7	-	-41.5E-03	-41.4E-03	-41.4E-03	2.0E+00	2.0E+00	2.0E+00	2.0E+00	2.0E+00	2.0E+00	2.0E+00	2.0E+00	2.0E+00
Average	-	1.3E+00	2.7E+00	2.7E+00	3.3E+00	3.4E+00	3.3E+00	3.3E+00	3.3E+00	3.4E+00	1.3E+00	3.3E+00	3.3E+00
Sigma	-	976.9E-03	1.9E+00	1.9E+00	976.9E-03	996.4E-03	976.9E-03	976.9E-03	976.9E-03	957.4E-03	2.5E+00	976.9E-03	976.9E-03

Measurements

AVOL	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	90.07	88.03	88.50	90.03	88.50	88.03	89.00	86.03	88.50	88.07	90.00	87.50	88.03
ON TID samples													
12	85.14	86.01	86.03	86.01	86.03	86.01	86.03	92.07	92.03	92.03	92.07	92.07	92.50
13	84.00	86.03	92.03	92.03	92.03	92.07	92.03	92.07	92.07	92.07	92.03	92.07	92.03
14	84.00	86.03	92.03	92.03	92.07	92.07	92.03	92.07	92.07	92.03	92.07	92.07	92.03
Statistics													
Min	84.00	86.01	86.03	86.01	86.03	86.01	86.03	92.07	92.03	92.03	92.03	92.07	92.03
Max	85.14	86.03	92.03	92.03	92.07	92.07	92.03	92.07	92.07	92.07	92.07	92.07	92.50
Average	84.38	86.02	90.03	90.02	90.04	90.05	90.03	92.07	92.06	92.04	92.06	92.07	92.19
Sigma	0.54	0.01	2.83	2.84	2.84	2.86	2.83	0.00	0.02	0.02	0.02	0.00	0.22

Drift Calculation

AVOL	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	869.5E-03	890.2E-03	869.5E-03	890.2E-03	869.5E-03	890.2E-03	6.9E+00	6.9E+00	6.9E+00	6.9E+00	6.9E+00	7.4E+00
13	-	2.0E+00	8.0E+00	8.0E+00	8.0E+00	8.1E+00	8.0E+00	8.1E+00	8.1E+00	8.1E+00	8.0E+00	8.1E+00	8.0E+00
14	-	2.0E+00	8.0E+00	8.0E+00	8.1E+00	8.1E+00	8.0E+00	8.1E+00	8.1E+00	8.0E+00	8.1E+00	8.1E+00	8.0E+00
Average	-	1.6E+00	5.7E+00	5.6E+00	5.7E+00	5.7E+00	5.7E+00	7.7E+00	7.7E+00	7.7E+00	7.7E+00	7.7E+00	7.8E+00
Sigma	-	547.5E-03	3.4E+00	3.4E+00	3.4E+00	3.4E+00	3.4E+00	537.7E-03	557.3E-03	547.8E-03	528.2E-03	537.7E-03	315.5E-03

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

AVOL	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	90.07	88.03	88.50	90.03	88.50	88.03	89.00	86.03	88.50	88.07	90.00	87.50	88.03
OFF PROTON samples													
2	78.06	80.00	82.49	86.03	88.03	86.03	86.03	86.03	88.07	86.03	86.03	86.01	76.48
3	75.14	78.06	90.03	86.03	90.07	92.03	90.07	88.03	92.03	92.07	92.07	86.03	76.47
4	78.06	80.00	80.00	92.03	92.03	92.07	90.01	92.07	92.07	92.03	82.50	86.03	75.14
Statistics													
Min	75.14	78.06	80.00	86.03	88.03	86.03	86.03	86.03	88.07	86.03	82.50	86.01	75.14
Max	78.06	80.00	90.03	92.03	92.03	92.07	90.07	92.07	92.07	92.07	92.07	86.03	76.48
Average	77.09	79.35	84.17	88.03	90.04	90.04	88.70	88.71	90.72	90.04	86.87	86.02	76.03
Sigma	1.38	0.91	4.26	2.83	1.63	2.84	1.89	2.51	1.88	2.84	3.95	0.01	0.63

Drift Calculation

AVOL	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	1.9E+00	4.4E+00	8.0E+00	10.0E+00	8.0E+00	8.0E+00	8.0E+00	10.0E+00	8.0E+00	8.0E+00	8.0E+00	-1.6E+00
3	-	2.9E+00	14.9E+00	10.9E+00	14.9E+00	16.9E+00	14.9E+00	12.9E+00	16.9E+00	16.9E+00	16.9E+00	10.9E+00	1.3E+00
4	-	1.9E+00	1.9E+00	14.0E+00	14.0E+00	14.0E+00	12.0E+00	14.0E+00	14.0E+00	14.0E+00	4.4E+00	8.0E+00	-2.9E+00
Average	-	2.3E+00	7.1E+00	10.9E+00	13.0E+00	13.0E+00	11.6E+00	11.6E+00	13.6E+00	13.0E+00	9.8E+00	8.9E+00	-1.1E+00
Sigma	-	461.4E-03	5.6E+00	2.4E+00	2.1E+00	3.7E+00	2.9E+00	2.6E+00	2.8E+00	3.7E+00	5.3E+00	1.4E+00	1.8E+00

Measurements

AVOL	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	90.07	88.03	88.50	90.03	88.50	88.03	89.00	86.03	88.50	88.07	90.00	87.50	88.03
OFF TID samples													
8	76.47	76.47	80.00	86.03	90.03	88.01	92.03	92.03	92.03	92.03	86.03	92.03	72.95
10	76.48	78.06	80.00	86.03	90.03	88.01	86.03	90.03	88.01	86.01	86.03	92.07	75.14
11	75.14	75.14	82.50	92.03	92.03	92.07	92.03	92.03	92.03	90.03	92.03	82.50	72.04
Statistics													
Min	75.14	75.14	80.00	86.03	90.03	88.01	86.03	90.03	88.01	86.01	86.03	82.50	72.04
Max	76.48	78.06	82.50	92.03	92.03	92.07	92.03	92.03	92.03	92.03	92.03	92.07	75.14
Average	76.03	76.56	80.83	88.03	90.70	89.36	90.03	91.36	90.69	89.36	88.03	88.87	73.38
Sigma	0.63	1.19	1.18	2.83	0.94	1.91	2.83	0.94	1.90	2.50	2.83	4.50	1.30

Drift Calculation

AVOL	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	0.0E+00	3.5E+00	9.6E+00	13.6E+00	11.5E+00	15.6E+00	15.6E+00	15.6E+00	15.6E+00	9.6E+00	15.6E+00	-3.5E+00
10	-	1.6E+00	3.5E+00	9.5E+00	13.5E+00	11.5E+00	9.5E+00	13.5E+00	11.5E+00	9.5E+00	9.5E+00	15.6E+00	-1.3E+00
11	-	0.0E+00	7.4E+00	16.9E+00	16.9E+00	16.9E+00	16.9E+00	16.9E+00	16.9E+00	14.9E+00	16.9E+00	7.4E+00	-3.1E+00
Average	-	526.0E-03	4.8E+00	12.0E+00	14.7E+00	13.3E+00	14.0E+00	15.3E+00	14.7E+00	13.3E+00	12.0E+00	12.8E+00	-2.7E+00
Sigma	-	743.9E-03	1.8E+00	3.5E+00	1.6E+00	2.5E+00	3.2E+00	1.4E+00	2.3E+00	2.7E+00	3.5E+00	3.9E+00	943.4E-03

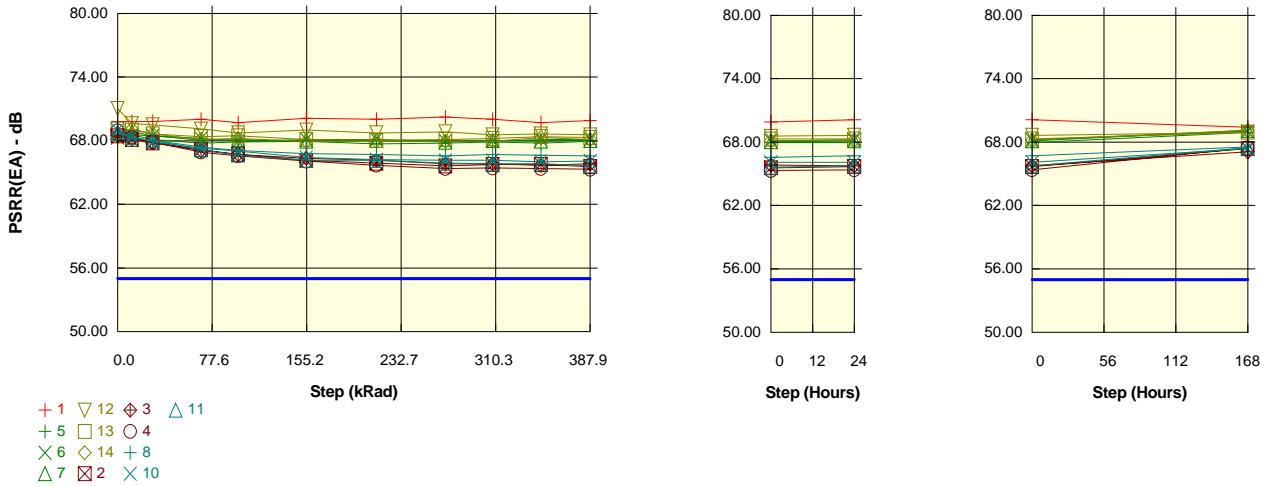
Parameter : Power Supply Rejection Ratio : PSRR(EA)

Test conditions : VCC=12V to 25V

Unit : dB

Spec Limit Min : 55.00

Spec limits are represented in bold lines on the graphic.



Measurements

PSRR(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	69.81	69.81	69.81	70.02	69.71	70.13	70.02	70.24	70.02	69.71	69.92	70.13	69.41
ON PROTON samples													
5	68.39	68.56	68.13	67.79	67.88	67.96	67.71	67.79	67.88	67.79	67.96	67.96	68.93
6	68.30	68.56	68.47	68.21	67.96	68.13	68.13	67.96	67.96	68.13	68.13	68.21	69.02
7	68.75	68.84	68.47	68.04	68.13	67.96	68.04	67.88	68.04	67.96	68.04	68.13	69.12
Statistics													
Min	68.30	68.56	68.13	67.79	67.88	67.96	67.71	67.79	67.88	67.79	67.96	67.96	68.93
Max	68.75	68.84	68.47	68.21	68.13	68.13	68.13	67.96	68.04	68.13	68.13	68.21	69.12
Average	68.48	68.65	68.36	68.02	67.99	68.01	67.96	67.88	67.96	67.96	68.04	68.10	69.02
Sigma	0.19	0.13	0.16	0.17	0.10	0.08	0.18	0.07	0.07	0.14	0.07	0.11	0.08

Drift Calculation

PSRR(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	177.1E-03	-259.2E-03	-593.4E-03	-511.0E-03	-428.1E-03	-674.7E-03	-593.4E-03	-511.0E-03	-593.4E-03	-427.7E-03	-427.7E-03	542.9E-03
6	-	264.1E-03	175.3E-03	-86.5E-03	-341.1E-03	-172.2E-03	-172.2E-03	-340.7E-03	-340.7E-03	-172.2E-03	-172.2E-03	-86.5E-03	723.9E-03
7	-	91.6E-03	-270.4E-03	-702.8E-03	-618.0E-03	-786.5E-03	-702.4E-03	-869.7E-03	-702.4E-03	-786.8E-03	-702.8E-03	-618.0E-03	373.3E-03
Average	-	177.6E-03	-118.1E-03	-460.9E-03	-490.0E-03	-462.3E-03	-516.4E-03	-601.3E-03	-518.0E-03	-517.5E-03	-434.3E-03	-377.4E-03	546.7E-03
Sigma	-	70.4E-03	207.5E-03	268.5E-03	114.0E-03	251.9E-03	243.7E-03	216.0E-03	147.7E-03	256.6E-03	216.7E-03	219.8E-03	143.2E-03

Measurements

PSRR(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	69.81	69.81	69.81	70.02	69.71	70.13	70.02	70.24	70.02	69.71	69.92	70.13	69.41
ON TID samples													
12	71.03	69.61	69.51	69.12	68.74	69.02	68.74	68.84	68.56	68.65	68.56	68.65	68.93
13	69.12	69.02	68.65	68.39	68.47	68.13	68.04	68.13	68.21	68.39	68.30	68.30	68.93
14	68.56	69.12	68.65	68.13	68.21	67.96	67.96	67.96	67.96	68.30	68.13	68.21	69.12
Statistics													
Min	68.56	69.02	68.65	68.13	68.21	67.96	67.96	67.96	67.96	68.30	68.13	68.21	68.93
Max	71.03	69.61	69.51	69.12	68.74	69.02	68.74	68.84	68.56	68.65	68.56	68.65	69.12
Average	69.57	69.25	68.94	68.54	68.48	68.37	68.25	68.31	68.25	68.45	68.33	68.39	68.99
Sigma	1.06	0.26	0.40	0.42	0.22	0.47	0.35	0.38	0.25	0.15	0.18	0.19	0.09

Drift Calculation

PSRR(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-1.4E+00	-1.5E+00	-1.9E+00	-2.3E+00	-2.0E+00	-2.3E+00	-2.2E+00	-2.5E+00	-2.4E+00	-2.5E+00	-2.4E+00	-2.1E+00
13	-	-95.1E-03	-464.8E-03	-732.0E-03	-643.7E-03	-991.2E-03	-1.1E+00	-991.2E-03	-905.5E-03	-732.0E-03	-819.4E-03	-819.4E-03	-188.6E-03
14	-	554.5E-03	90.1E-03	-436.8E-03	-351.1E-03	-605.2E-03	-605.2E-03	-605.6E-03	-605.6E-03	-264.5E-03	-436.8E-03	-351.1E-03	554.5E-03
Average	-	-321.3E-03	-632.9E-03	-1.0E+00	-1.1E+00	-1.2E+00	-1.3E+00	-1.3E+00	-1.3E+00	-1.1E+00	-1.2E+00	-1.2E+00	-579.1E-03
Sigma	-	823.2E-03	669.6E-03	638.5E-03	852.6E-03	592.3E-03	708.9E-03	677.6E-03	816.9E-03	907.0E-03	881.9E-03	867.0E-03	1.1E+00

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

PSRR(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	69.81	69.81	69.81	70.02	69.71	70.13	70.02	70.24	70.02	69.71	69.92	70.13	69.41
OFF PROTON samples													
2	68.47	68.13	67.79	67.16	66.72	66.16	65.89	65.63	65.76	65.76	65.57	65.69	67.39
3	68.47	68.21	67.88	67.09	66.72	66.36	66.16	65.82	65.82	65.69	65.82	65.76	67.09
4	68.93	68.30	67.88	66.94	66.57	66.09	65.69	65.38	65.44	65.38	65.32	65.38	67.47
Statistics													
Min	68.47	68.13	67.79	66.94	66.57	66.09	65.69	65.38	65.44	65.38	65.32	65.38	67.09
Max	68.93	68.30	67.88	67.16	66.72	66.36	66.16	65.82	65.82	65.76	65.82	65.76	67.47
Average	68.63	68.21	67.85	67.06	66.67	66.20	65.91	65.61	65.67	65.61	65.57	65.61	67.32
Sigma	0.21	0.07	0.04	0.09	0.07	0.12	0.19	0.18	0.17	0.17	0.21	0.17	0.17

Drift Calculation

PSRR(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-347.5E-03	-681.3E-03	-1.3E+00	-1.8E+00	-2.3E+00	-2.6E+00	-2.8E+00	-2.7E+00	-2.7E+00	-2.9E+00	-2.8E+00	-1.1E+00
3	-	-261.8E-03	-599.7E-03	-1.4E+00	-1.8E+00	-2.1E+00	-2.3E+00	-2.7E+00	-2.7E+00	-2.8E+00	-2.7E+00	-2.7E+00	-1.4E+00
4	-	-630.8E-03	-1.1E+00	-2.0E+00	-2.4E+00	-2.8E+00	-3.2E+00	-3.6E+00	-3.5E+00	-3.6E+00	-3.6E+00	-3.6E+00	-1.5E+00
Average	-	-413.4E-03	-778.4E-03	-1.6E+00	-2.0E+00	-2.4E+00	-2.7E+00	-3.0E+00	-3.0E+00	-3.0E+00	-3.1E+00	-3.0E+00	-1.3E+00
Sigma	-	157.6E-03	197.9E-03	304.6E-03	282.1E-03	306.7E-03	385.3E-03	387.0E-03	380.7E-03	379.6E-03	406.9E-03	379.5E-03	163.7E-03

Measurements

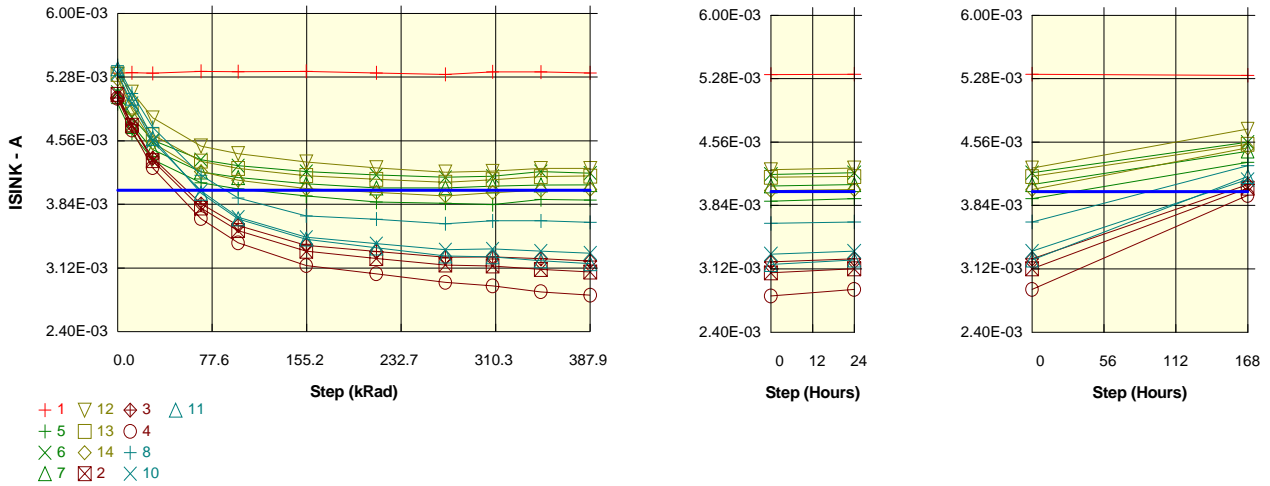
PSRR(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	69.81	69.81	69.81	70.02	69.71	70.13	70.02	70.24	70.02	69.71	69.92	70.13	69.41
OFF TID samples													
8	68.74	68.21	68.04	67.39	67.09	66.79	66.72	66.57	66.72	66.64	66.57	66.72	67.55
10	69.02	68.39	67.88	67.32	67.01	66.43	66.22	66.16	66.16	66.02	66.09	66.09	67.39
11	68.84	68.30	68.04	67.16	66.64	66.16	66.16	65.89	65.82	65.82	65.63	65.76	67.47
Statistics													
Min	68.74	68.21	67.88	67.16	66.64	66.16	66.16	65.89	65.82	65.82	65.63	65.76	67.39
Max	69.02	68.39	68.04	67.39	67.09	66.79	66.72	66.57	66.72	66.64	66.57	66.72	67.55
Average	68.87	68.30	67.99	67.29	66.91	66.46	66.36	66.21	66.23	66.16	66.10	66.19	67.47
Sigma	0.12	0.07	0.08	0.10	0.19	0.26	0.25	0.28	0.37	0.35	0.39	0.40	0.06

Drift Calculation

PSRR(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-531.8E-03	-702.4E-03	-1.4E+00	-1.7E+00	-2.0E+00	-2.0E+00	-2.2E+00	-2.0E+00	-2.1E+00	-2.2E+00	-2.0E+00	-1.2E+00
10	-	-636.5E-03	-1.1E+00	-1.7E+00	-2.0E+00	-2.6E+00	-2.8E+00	-2.9E+00	-2.9E+00	-3.0E+00	-2.9E+00	-2.9E+00	-1.6E+00
11	-	-537.7E-03	-794.0E-03	-1.7E+00	-2.2E+00	-2.7E+00	-2.7E+00	-2.9E+00	-3.0E+00	-3.0E+00	-3.2E+00	-3.1E+00	-1.4E+00
Average	-	-568.7E-03	-881.4E-03	-1.6E+00	-2.0E+00	-2.4E+00	-2.5E+00	-2.7E+00	-2.6E+00	-2.7E+00	-2.8E+00	-2.7E+00	-1.4E+00
Sigma	-	48.0E-03	192.1E-03	160.9E-03	221.8E-03	322.9E-03	339.2E-03	348.5E-03	434.4E-03	427.8E-03	438.3E-03	465.0E-03	179.7E-03

Parameter : Output Sink Current : ISINK
 Test conditions : VFB=2.7V. Vcomp=1.1V

Unit : A
 Spec Limit Min : 4.00E-03
 Spec limits are represented in bold lines on the graphic.



Measurements

ISINK	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	5.32E-03	5.33E-03	5.32E-03	5.35E-03	5.34E-03	5.34E-03	5.33E-03	5.31E-03	5.34E-03	5.34E-03	5.33E-03	5.33E-03	5.32E-03
ON PROTON samples													
5	4.98E-03	4.64E-03	4.35E-03	4.09E-03	4.02E-03	3.93E-03	3.87E-03	3.85E-03	3.84E-03	3.89E-03	3.89E-03	3.92E-03	4.33E-03
6	5.11E-03	4.83E-03	4.56E-03	4.35E-03	4.28E-03	4.21E-03	4.17E-03	4.15E-03	4.16E-03	4.21E-03	4.19E-03	4.21E-03	4.56E-03
7	5.08E-03	4.74E-03	4.46E-03	4.21E-03	4.14E-03	4.07E-03	4.03E-03	4.03E-03	4.05E-03	4.06E-03	4.06E-03	4.08E-03	4.46E-03
Statistics													
Min	4.98E-03	4.64E-03	4.35E-03	4.09E-03	4.02E-03	3.93E-03	3.87E-03	3.85E-03	3.84E-03	3.89E-03	3.89E-03	3.92E-03	4.33E-03
Max	5.11E-03	4.83E-03	4.56E-03	4.35E-03	4.28E-03	4.21E-03	4.17E-03	4.15E-03	4.16E-03	4.21E-03	4.19E-03	4.21E-03	4.56E-03
Average	5.06E-03	4.74E-03	4.46E-03	4.21E-03	4.15E-03	4.07E-03	4.02E-03	4.01E-03	4.01E-03	4.05E-03	4.05E-03	4.07E-03	4.45E-03
Sigma	55.35E-06	74.32E-06	88.20E-06	106.80E-06	106.97E-06	112.92E-06	125.30E-06	120.59E-06	133.23E-06	129.45E-06	124.22E-06	120.43E-06	93.02E-06

Drift Calculation

ISINK	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-336.0E-06	-631.4E-06	-895.0E-06	-963.0E-06	-1.0E-03	-1.1E-03	-1.1E-03	-1.1E-03	-1.1E-03	-1.1E-03	-1.1E-03	-648.8E-06
6	-	-283.4E-06	-544.6E-06	-762.8E-06	-830.2E-06	-898.4E-06	-936.8E-06	-962.2E-06	-950.4E-06	-898.0E-06	-915.4E-06	-896.4E-06	-550.6E-06
7	-	-337.2E-06	-619.4E-06	-873.4E-06	-935.6E-06	-1.0E-03	-1.1E-03	-1.1E-03	-1.0E-03	-1.0E-03	-1.0E-03	-1.0E-03	-622.8E-06
Average	-	-318.9E-06	-598.5E-06	-843.7E-06	-909.6E-06	-983.9E-06	-1.0E-03	-1.0E-03	-1.0E-03	-1.0E-03	-1.0E-03	-986.5E-06	-607.4E-06
Sigma	-	25.1E-06	38.4E-06	57.9E-06	57.2E-06	62.4E-06	73.7E-06	67.2E-06	78.7E-06	77.9E-06	71.5E-06	68.3E-06	41.5E-06

Measurements

ISINK	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	5.32E-03	5.33E-03	5.32E-03	5.35E-03	5.34E-03	5.34E-03	5.33E-03	5.31E-03	5.34E-03	5.34E-03	5.33E-03	5.33E-03	5.32E-03
ON TID samples													
12	5.31E-03	5.11E-03	4.82E-03	4.50E-03	4.41E-03	4.32E-03	4.25E-03	4.20E-03	4.22E-03	4.25E-03	4.25E-03	4.27E-03	4.71E-03
13	5.31E-03	4.94E-03	4.63E-03	4.33E-03	4.25E-03	4.17E-03	4.12E-03	4.09E-03	4.12E-03	4.16E-03	4.16E-03	4.17E-03	4.54E-03
14	5.26E-03	4.91E-03	4.54E-03	4.21E-03	4.11E-03	4.02E-03	3.97E-03	3.94E-03	3.97E-03	4.00E-03	4.01E-03	4.02E-03	4.50E-03
Statistics													
Min	5.26E-03	4.91E-03	4.54E-03	4.21E-03	4.11E-03	4.02E-03	3.97E-03	3.94E-03	3.97E-03	4.00E-03	4.01E-03	4.02E-03	4.50E-03
Max	5.31E-03	5.11E-03	4.82E-03	4.50E-03	4.41E-03	4.32E-03	4.25E-03	4.20E-03	4.22E-03	4.25E-03	4.25E-03	4.27E-03	4.71E-03
Average	5.29E-03	4.99E-03	4.66E-03	4.35E-03	4.26E-03	4.17E-03	4.12E-03	4.08E-03	4.10E-03	4.13E-03	4.14E-03	4.15E-03	4.58E-03
Sigma	25.69E-06	86.81E-06	117.85E-06	119.41E-06	122.99E-06	123.79E-06	114.06E-06	109.97E-06	99.32E-06	101.20E-06	97.39E-06	100.92E-06	92.00E-06

Drift Calculation

ISINK	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-201.6E-06	-493.6E-06	-812.4E-06	-898.8E-06	-992.4E-06	-1.1E-03	-1.1E-03	-1.1E-03	-1.1E-03	-1.1E-03	-1.0E-03	-604.4E-06
13	-	-370.2E-06	-685.0E-06	-984.8E-06	-1.1E-03	-1.1E-03	-1.2E-03	-1.2E-03	-1.2E-03	-1.2E-03	-1.2E-03	-1.1E-03	-776.4E-06
14	-	-343.4E-06	-721.8E-06	-1.0E-03	-1.1E-03	-1.2E-03	-1.3E-03	-1.3E-03	-1.3E-03	-1.3E-03	-1.2E-03	-1.2E-03	-761.8E-06
Average	-	-305.1E-06	-633.5E-06	-948.6E-06	-1.0E-03	-1.1E-03	-1.2E-03	-1.2E-03	-1.2E-03	-1.2E-03	-1.2E-03	-1.1E-03	-714.2E-06
Sigma	-	74.0E-06	100.0E-06	99.8E-06	102.6E-06	102.5E-06	92.1E-06	87.4E-06	76.4E-06	77.8E-06	73.9E-06	77.8E-06	77.9E-06

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

ISINK	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	5.32E-03	5.33E-03	5.32E-03	5.35E-03	5.34E-03	5.34E-03	5.33E-03	5.31E-03	5.34E-03	5.34E-03	5.33E-03	5.33E-03	5.32E-03
OFF PROTON samples													
2	5.09E-03	4.74E-03	4.33E-03	3.80E-03	3.54E-03	3.31E-03	3.23E-03	3.15E-03	3.14E-03	3.10E-03	3.08E-03	3.12E-03	4.04E-03
3	5.04E-03	4.74E-03	4.36E-03	3.85E-03	3.60E-03	3.38E-03	3.31E-03	3.24E-03	3.24E-03	3.22E-03	3.20E-03	3.23E-03	4.08E-03
4	5.04E-03	4.68E-03	4.25E-03	3.68E-03	3.40E-03	3.15E-03	3.05E-03	2.96E-03	2.92E-03	2.85E-03	2.81E-03	2.89E-03	3.96E-03
Statistics													
Min	5.04E-03	4.68E-03	4.25E-03	3.68E-03	3.40E-03	3.15E-03	3.05E-03	2.96E-03	2.92E-03	2.85E-03	2.81E-03	2.89E-03	3.96E-03
Max	5.09E-03	4.74E-03	4.36E-03	3.85E-03	3.60E-03	3.38E-03	3.31E-03	3.24E-03	3.24E-03	3.22E-03	3.20E-03	3.23E-03	4.08E-03
Average	5.06E-03	4.72E-03	4.32E-03	3.77E-03	3.52E-03	3.28E-03	3.20E-03	3.12E-03	3.10E-03	3.06E-03	3.03E-03	3.08E-03	4.02E-03
Sigma	21.11E-06	26.75E-06	46.27E-06	70.79E-06	82.75E-06	96.59E-06	106.16E-06	118.78E-06	135.99E-06	155.40E-06	161.30E-06	144.29E-06	51.12E-06

Drift Calculation

ISINK	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-351.0E-06	-751.8E-06	-1.3E-03	-1.5E-03	-1.8E-03	-1.9E-03	-1.9E-03	-1.9E-03	-2.0E-03	-2.0E-03	-2.0E-03	-1.0E-03
3	-	-304.6E-06	-680.4E-06	-1.2E-03	-1.4E-03	-1.7E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-966.8E-06
4	-	-357.8E-06	-784.2E-06	-1.4E-03	-1.6E-03	-1.9E-03	-2.0E-03	-2.1E-03	-2.1E-03	-2.2E-03	-2.2E-03	-2.2E-03	-1.1E-03
Average	-	-337.8E-06	-738.8E-06	-1.3E-03	-1.5E-03	-1.8E-03	-1.9E-03	-1.9E-03	-2.0E-03	-2.0E-03	-2.0E-03	-2.0E-03	-1.0E-03
Sigma	-	23.6E-06	43.4E-06	66.5E-06	78.1E-06	91.5E-06	101.7E-06	113.8E-06	130.7E-06	150.2E-06	156.0E-06	139.3E-06	48.8E-06

Measurements

ISINK	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	5.32E-03	5.33E-03	5.32E-03	5.35E-03	5.34E-03	5.34E-03	5.33E-03	5.31E-03	5.34E-03	5.34E-03	5.33E-03	5.33E-03	5.32E-03
OFF TID samples													
8	5.41E-03	5.10E-03	4.71E-03	4.17E-03	3.91E-03	3.71E-03	3.67E-03	3.62E-03	3.65E-03	3.65E-03	3.64E-03	3.65E-03	4.29E-03
10	5.32E-03	4.98E-03	4.55E-03	3.99E-03	3.70E-03	3.47E-03	3.40E-03	3.33E-03	3.34E-03	3.31E-03	3.29E-03	3.32E-03	4.14E-03
11	5.37E-03	5.04E-03	4.59E-03	3.97E-03	3.68E-03	3.45E-03	3.35E-03	3.26E-03	3.25E-03	3.20E-03	3.17E-03	3.22E-03	4.17E-03
Statistics													
Min	5.32E-03	4.98E-03	4.55E-03	3.97E-03	3.68E-03	3.45E-03	3.35E-03	3.26E-03	3.25E-03	3.20E-03	3.17E-03	3.22E-03	4.14E-03
Max	5.41E-03	5.10E-03	4.71E-03	4.17E-03	3.91E-03	3.71E-03	3.67E-03	3.62E-03	3.65E-03	3.65E-03	3.64E-03	3.65E-03	4.29E-03
Average	5.37E-03	5.04E-03	4.62E-03	4.04E-03	3.76E-03	3.54E-03	3.47E-03	3.40E-03	3.41E-03	3.39E-03	3.37E-03	3.40E-03	4.20E-03
Sigma	37.51E-06	46.47E-06	67.44E-06	89.76E-06	107.10E-06	119.29E-06	143.09E-06	158.10E-06	174.99E-06	192.42E-06	197.95E-06	184.09E-06	67.87E-06

Drift Calculation

ISINK	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-314.8E-06	-699.8E-06	-1.2E-03	-1.5E-03	-1.7E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.1E-03
10	-	-337.4E-06	-765.4E-06	-1.3E-03	-1.6E-03	-1.9E-03	-1.9E-03	-2.0E-03	-2.0E-03	-2.0E-03	-2.0E-03	-2.0E-03	-1.2E-03
11	-	-333.2E-06	-787.2E-06	-1.4E-03	-1.7E-03	-1.9E-03	-2.0E-03	-2.1E-03	-2.1E-03	-2.2E-03	-2.2E-03	-2.2E-03	-1.2E-03
Average	-	-328.5E-06	-750.8E-06	-1.3E-03	-1.6E-03	-1.8E-03	-1.9E-03	-2.0E-03	-2.0E-03	-2.0E-03	-2.0E-03	-2.0E-03	-1.2E-03
Sigma	-	9.8E-06	37.1E-06	67.8E-06	82.8E-06	94.3E-06	119.6E-06	135.7E-06	153.0E-06	171.0E-06	176.8E-06	162.3E-06	37.4E-06

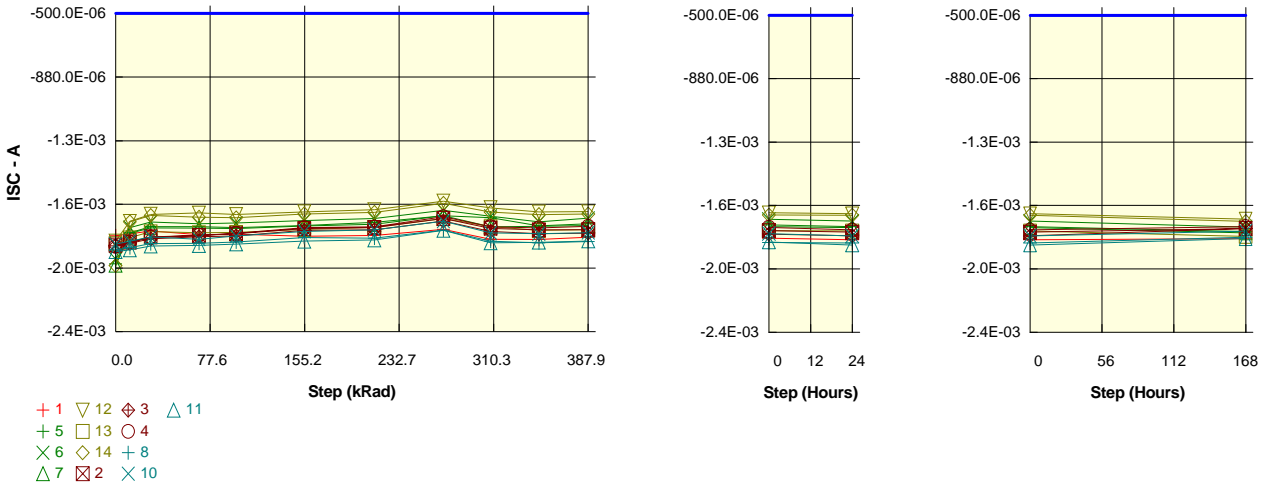
Parameter : Output Source Current : ISC

Test conditions : VFB=2.3V. Vcomp=5V

Unit : A

Spec Limit Max : -500.0E-06

Spec limits are represented in bold lines on the graphic.



Measurements

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
ON PROTON samples													
5	-2.0E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
6	-2.0E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.8E-03
7	-2.0E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
Statistics													
Min	-2.0E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
Max	-2.0E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.8E-03
Average	-2.0E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
Sigma	16.4E-06	15.1E-06	14.8E-06	10.5E-06	14.5E-06	14.9E-06	14.7E-06	15.1E-06	27.8E-06	12.3E-06	18.3E-06	17.2E-06	15.0E-06

Drift Calculation

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	185.6E-06	222.0E-06	221.0E-06	214.8E-06	228.2E-06	246.6E-06	286.2E-06	273.8E-06	226.2E-06	238.8E-06	226.8E-06	196.8E-06
6	-	186.8E-06	219.6E-06	208.6E-06	213.2E-06	228.8E-06	241.2E-06	288.8E-06	254.0E-06	220.8E-06	241.8E-06	231.4E-06	195.8E-06
7	-	191.8E-06	223.6E-06	221.8E-06	218.6E-06	234.0E-06	244.2E-06	295.0E-06	229.2E-06	231.4E-06	237.2E-06	231.2E-06	199.6E-06
Average	-	188.1E-06	221.7E-06	217.1E-06	215.5E-06	230.3E-06	244.0E-06	290.0E-06	252.3E-06	226.1E-06	239.3E-06	229.8E-06	197.4E-06
Sigma	-	2.7E-06	1.6E-06	6.0E-06	2.3E-06	2.6E-06	2.2E-06	3.7E-06	18.2E-06	4.3E-06	1.9E-06	2.1E-06	1.6E-06

Measurements

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
ON TID samples													
12	-1.9E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.6E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03
13	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
14	-2.0E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.6E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03
Statistics													
Min	-2.0E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
Max	-1.9E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.6E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03
Average	-1.9E-03	-1.8E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.7E-03	-1.8E-03
Sigma	65.9E-06	45.7E-06	47.4E-06	50.7E-06	46.8E-06	46.8E-06	46.7E-06	45.7E-06	48.0E-06	48.8E-06	47.5E-06	46.7E-06	46.0E-06

Drift Calculation

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	117.6E-06	159.0E-06	167.4E-06	158.6E-06	174.6E-06	187.0E-06	237.6E-06	198.4E-06	173.8E-06	174.8E-06	169.0E-06	137.2E-06
13	-	34.4E-06	70.6E-06	64.6E-06	66.2E-06	84.8E-06	96.2E-06	150.0E-06	101.2E-06	78.4E-06	83.2E-06	81.4E-06	48.6E-06
14	-	261.2E-06	299.4E-06	288.4E-06	285.8E-06	309.0E-06	318.2E-06	371.6E-06	318.6E-06	304.4E-06	308.4E-06	307.8E-06	270.2E-06
Average	-	137.7E-06	176.3E-06	173.5E-06	170.2E-06	189.5E-06	200.5E-06	253.1E-06	206.1E-06	185.5E-06	188.8E-06	186.1E-06	152.0E-06
Sigma	-	93.7E-06	94.2E-06	91.5E-06	90.0E-06	92.1E-06	91.1E-06	91.1E-06	88.9E-06	92.6E-06	92.5E-06	93.2E-06	91.1E-06

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
OFF PROTON samples													
2	-1.9E-03	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
3	-1.9E-03	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
4	-1.9E-03	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
Statistics													
Min	-1.9E-03	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
Max	-1.9E-03	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
Average	-1.9E-03	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
Sigma	2.9E-06	2.9E-06	4.9E-06	4.0E-06	6.7E-06	6.6E-06	7.5E-06	10.5E-06	11.4E-06	14.3E-06	16.6E-06	14.2E-06	5.6E-06

Drift Calculation

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	18.6E-06	49.4E-06	58.6E-06	68.6E-06	99.6E-06	105.6E-06	159.2E-06	101.2E-06	91.2E-06	92.4E-06	83.6E-06	105.2E-06
3	-	16.0E-06	42.6E-06	54.4E-06	59.4E-06	93.2E-06	96.0E-06	148.6E-06	86.6E-06	73.0E-06	76.4E-06	66.6E-06	111.2E-06
4	-	23.8E-06	55.0E-06	65.8E-06	77.0E-06	112.0E-06	116.2E-06	177.0E-06	116.6E-06	110.2E-06	119.8E-06	103.8E-06	124.8E-06
Average	-	19.5E-06	49.0E-06	59.6E-06	68.3E-06	101.6E-06	105.9E-06	161.6E-06	101.5E-06	91.5E-06	96.2E-06	84.7E-06	113.7E-06
Sigma	-	3.2E-06	5.1E-06	4.7E-06	7.2E-06	7.8E-06	8.2E-06	11.7E-06	12.2E-06	15.2E-06	17.9E-06	15.2E-06	8.2E-06

Measurements

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
OFF TID samples													
8	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.8E-03
10	-1.9E-03	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
11	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.8E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.8E-03
Statistics													
Min	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.8E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.8E-03
Max	-1.9E-03	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.7E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03
Average	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.9E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.8E-03	-1.9E-03	-1.8E-03
Sigma	19.0E-06	21.4E-06	23.0E-06	15.2E-06	20.1E-06	24.0E-06	26.2E-06	25.3E-06	25.7E-06	24.7E-06	24.3E-06	23.2E-06	19.5E-06

Drift Calculation

ISC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	12.8E-06	36.6E-06	39.2E-06	47.0E-06	74.0E-06	69.4E-06	117.8E-06	51.2E-06	42.0E-06	49.6E-06	46.6E-06	81.4E-06
10	-	16.2E-06	42.8E-06	29.0E-06	48.2E-06	75.8E-06	85.0E-06	136.6E-06	66.6E-06	61.8E-06	68.8E-06	54.8E-06	84.0E-06
11	-	10.2E-06	33.2E-06	36.8E-06	45.4E-06	62.2E-06	69.4E-06	126.8E-06	52.6E-06	55.4E-06	63.6E-06	45.2E-06	83.6E-06
Average	-	13.1E-06	37.5E-06	35.0E-06	46.9E-06	70.7E-06	74.6E-06	127.1E-06	56.8E-06	53.1E-06	60.7E-06	48.9E-06	83.0E-06
Sigma	-	2.5E-06	4.0E-06	4.4E-06	1.1E-06	6.0E-06	7.4E-06	7.7E-06	7.0E-06	8.2E-06	8.1E-06	4.2E-06	1.1E-06

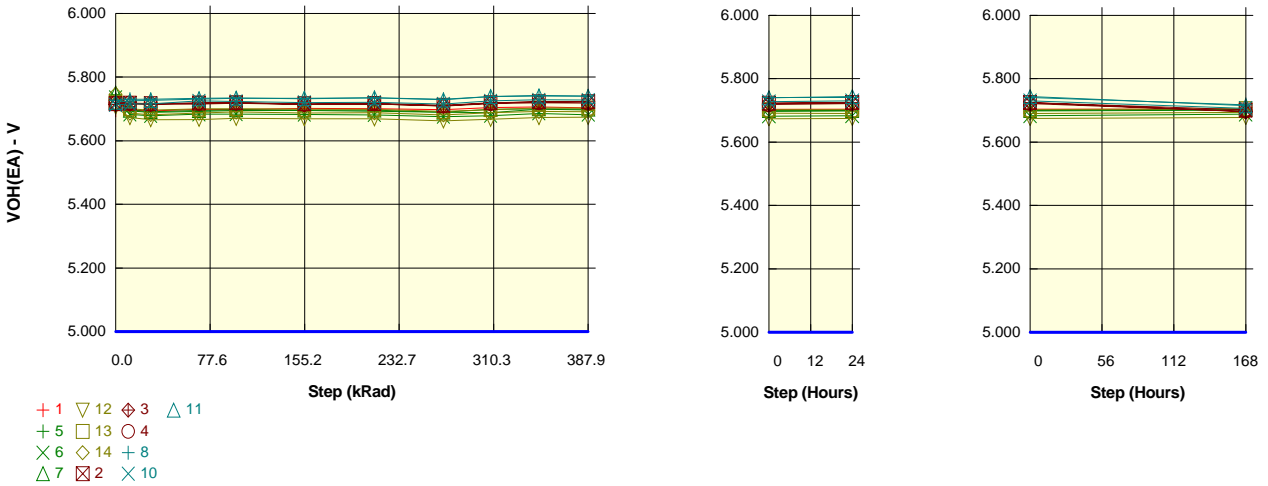
Parameter : High Output Voltage : VOH(EA)

Test conditions : VFB=2.3V. IL=500µA

Unit : V

Spec Limit Min : 5.000

Spec limits are represented in bold lines on the graphic.



Measurements

VOH(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	5.696	5.696	5.694	5.699	5.698	5.702	5.701	5.698	5.704	5.706	5.703	5.704	5.704
ON PROTON samples													
5	5.744	5.694	5.689	5.692	5.696	5.695	5.693	5.690	5.688	5.700	5.697	5.699	5.701
6	5.736	5.683	5.678	5.683	5.684	5.682	5.681	5.676	5.679	5.686	5.682	5.683	5.688
7	5.750	5.696	5.692	5.695	5.698	5.696	5.696	5.690	5.699	5.700	5.700	5.700	5.703
Statistics													
Min	5.736	5.683	5.678	5.683	5.684	5.682	5.681	5.676	5.679	5.686	5.682	5.683	5.688
Max	5.750	5.696	5.692	5.695	5.698	5.696	5.696	5.690	5.699	5.700	5.700	5.700	5.703
Average	5.743	5.691	5.686	5.690	5.692	5.691	5.690	5.685	5.689	5.695	5.693	5.694	5.697
Sigma	0.005	0.006	0.006	0.005	0.006	0.006	0.006	0.007	0.008	0.007	0.008	0.008	0.007

Drift Calculation

VOH(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-50.4E-03	-55.2E-03	-52.0E-03	-48.8E-03	-49.2E-03	-51.6E-03	-54.8E-03	-56.0E-03	-44.8E-03	-47.2E-03	-45.6E-03	-43.6E-03
6	-	-53.6E-03	-58.0E-03	-53.2E-03	-52.8E-03	-54.0E-03	-55.2E-03	-60.8E-03	-57.6E-03	-50.4E-03	-54.4E-03	-53.2E-03	-48.4E-03
7	-	-53.6E-03	-58.0E-03	-54.4E-03	-52.0E-03	-53.2E-03	-53.2E-03	-59.6E-03	-50.8E-03	-49.2E-03	-50.0E-03	-49.6E-03	-46.4E-03
Average	-	-52.5E-03	-57.1E-03	-53.2E-03	-51.2E-03	-52.1E-03	-53.3E-03	-58.4E-03	-54.8E-03	-48.1E-03	-50.5E-03	-49.5E-03	-46.1E-03
Sigma	-	1.5E-03	1.3E-03	979.8E-06	1.7E-03	2.1E-03	1.5E-03	2.6E-03	2.9E-03	2.4E-03	3.0E-03	3.1E-03	2.0E-03

Measurements

VOH(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	5.696	5.696	5.694	5.699	5.698	5.702	5.701	5.698	5.704	5.706	5.703	5.704	5.704
ON TID samples													
12	5.706	5.673	5.666	5.667	5.670	5.669	5.669	5.662	5.667	5.673	5.674	5.674	5.678
13	5.721	5.700	5.696	5.700	5.701	5.699	5.699	5.692	5.698	5.703	5.703	5.702	5.706
14	5.746	5.687	5.682	5.687	5.690	5.688	5.688	5.681	5.688	5.692	5.692	5.691	5.694
Statistics													
Min	5.706	5.673	5.666	5.667	5.670	5.669	5.669	5.662	5.667	5.673	5.674	5.674	5.678
Max	5.746	5.700	5.696	5.700	5.701	5.699	5.699	5.692	5.698	5.703	5.703	5.702	5.706
Average	5.724	5.687	5.681	5.685	5.687	5.685	5.685	5.679	5.685	5.689	5.689	5.689	5.693
Sigma	0.017	0.011	0.012	0.014	0.013	0.012	0.012	0.012	0.013	0.013	0.012	0.011	0.012

Drift Calculation

VOH(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-32.8E-03	-39.6E-03	-38.8E-03	-35.2E-03	-36.4E-03	-36.8E-03	-43.2E-03	-38.4E-03	-32.8E-03	-32.0E-03	-31.2E-03	-28.0E-03
13	-	-20.8E-03	-25.2E-03	-21.2E-03	-20.0E-03	-22.0E-03	-22.4E-03	-29.2E-03	-23.2E-03	-18.0E-03	-18.4E-03	-18.8E-03	-15.2E-03
14	-	-59.6E-03	-64.4E-03	-59.2E-03	-56.0E-03	-58.8E-03	-58.4E-03	-65.2E-03	-58.0E-03	-54.4E-03	-54.8E-03	-55.6E-03	-52.4E-03
Average	-	-37.7E-03	-43.1E-03	-39.7E-03	-37.1E-03	-39.1E-03	-39.2E-03	-45.9E-03	-39.9E-03	-35.1E-03	-35.1E-03	-35.2E-03	-31.9E-03
Sigma	-	16.2E-03	16.2E-03	15.5E-03	14.8E-03	15.1E-03	14.8E-03	14.8E-03	14.2E-03	14.9E-03	15.0E-03	15.3E-03	15.4E-03

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

VOH(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	5.696	5.696	5.694	5.699	5.698	5.702	5.701	5.698	5.704	5.706	5.703	5.704	5.704
OFF PROTON samples													
2	5.717	5.718	5.717	5.719	5.720	5.716	5.718	5.712	5.720	5.723	5.723	5.725	5.702
3	5.714	5.716	5.715	5.716	5.718	5.714	5.716	5.710	5.718	5.722	5.722	5.725	5.696
4	5.718	5.718	5.716	5.719	5.719	5.714	5.716	5.709	5.717	5.720	5.718	5.722	5.697
Statistics													
Min	5.714	5.716	5.715	5.716	5.718	5.714	5.716	5.709	5.717	5.720	5.718	5.722	5.696
Max	5.718	5.718	5.717	5.719	5.720	5.716	5.718	5.712	5.720	5.723	5.723	5.725	5.702
Average	5.716	5.717	5.716	5.718	5.719	5.715	5.717	5.710	5.718	5.722	5.721	5.724	5.698
Sigma	0.002	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002

Drift Calculation

VOH(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	1.6E-03	0.0E+00	2.0E-03	3.2E-03	-400.1E-06	799.7E-06	-5.2E-03	2.8E-03	6.0E-03	6.4E-03	8.4E-03	-15.2E-03
3	-	2.0E-03	1.2E-03	2.0E-03	4.4E-03	0.0E+00	2.0E-03	-3.6E-03	4.8E-03	8.8E-03	8.8E-03	11.2E-03	-17.6E-03
4	-	400.1E-06	-1.6E-03	1.2E-03	1.6E-03	-3.2E-03	-1.2E-03	-8.8E-03	-799.7E-06	2.0E-03	800.1E-06	4.0E-03	-20.4E-03
Average	-	1.3E-03	-133.4E-06	1.7E-03	3.1E-03	-1.2E-03	533.3E-06	-5.9E-03	2.3E-03	5.6E-03	5.3E-03	7.9E-03	-17.7E-03
Sigma	-	679.8E-06	1.1E-03	377.0E-06	1.1E-03	1.4E-03	1.3E-03	2.2E-03	2.3E-03	2.8E-03	3.4E-03	3.0E-03	2.1E-03

Measurements

VOH(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	5.696	5.696	5.694	5.699	5.698	5.702	5.701	5.698	5.704	5.706	5.703	5.704	5.704
OFF TID samples													
8	5.727	5.730	5.730	5.733	5.734	5.732	5.735	5.730	5.739	5.742	5.740	5.740	5.718
10	5.713	5.716	5.716	5.726	5.724	5.720	5.721	5.716	5.726	5.728	5.728	5.730	5.707
11	5.721	5.726	5.727	5.731	5.734	5.733	5.735	5.728	5.739	5.740	5.740	5.744	5.715
Statistics													
Min	5.713	5.716	5.716	5.726	5.724	5.720	5.721	5.716	5.726	5.728	5.728	5.730	5.707
Max	5.727	5.730	5.730	5.733	5.734	5.733	5.735	5.730	5.739	5.742	5.740	5.744	5.718
Average	5.720	5.724	5.724	5.730	5.731	5.728	5.730	5.725	5.734	5.737	5.736	5.738	5.713
Sigma	0.006	0.006	0.006	0.003	0.005	0.006	0.007	0.006	0.006	0.006	0.006	0.006	0.005

Drift Calculation

VOH(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	3.2E-03	2.8E-03	6.0E-03	7.2E-03	4.4E-03	8.0E-03	2.8E-03	11.6E-03	14.8E-03	13.2E-03	13.2E-03	-9.2E-03
10	-	2.8E-03	2.8E-03	12.4E-03	10.4E-03	7.2E-03	8.0E-03	2.4E-03	12.4E-03	15.2E-03	14.4E-03	17.2E-03	-6.4E-03
11	-	4.8E-03	6.4E-03	10.4E-03	12.8E-03	12.4E-03	14.0E-03	7.6E-03	18.0E-03	19.6E-03	18.8E-03	22.8E-03	-5.6E-03
Average	-	3.6E-03	4.0E-03	9.6E-03	10.1E-03	8.0E-03	10.0E-03	4.3E-03	14.0E-03	16.5E-03	15.5E-03	17.7E-03	-7.1E-03
Sigma	-	864.0E-06	1.7E-03	2.7E-03	2.3E-03	3.3E-03	2.8E-03	2.4E-03	2.8E-03	2.2E-03	2.4E-03	3.9E-03	1.5E-03

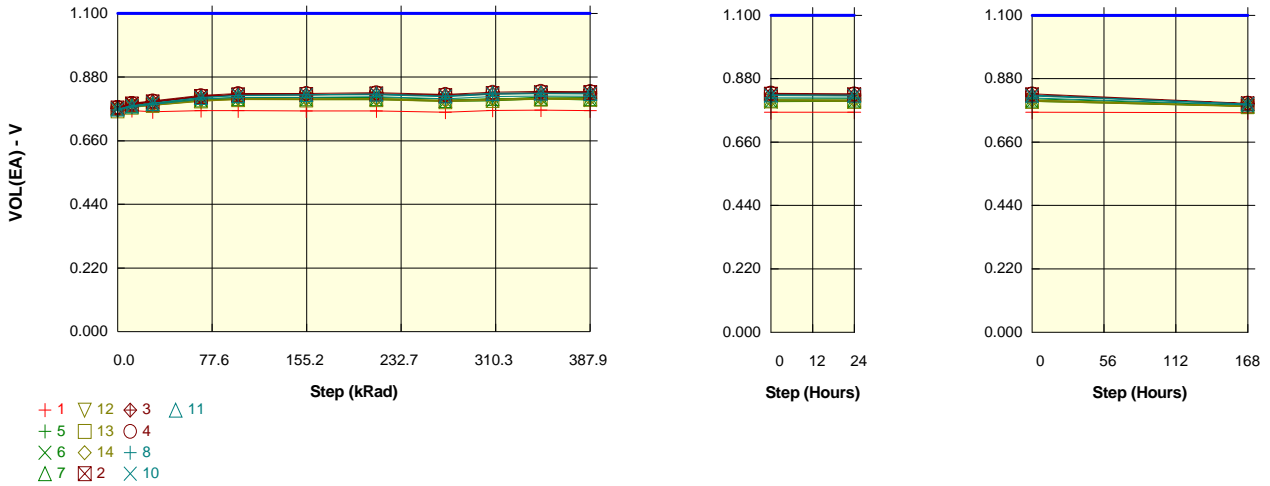
Parameter : Low Output Voltage : VOL(EA)

Test conditions : VFB=2.7V. IL=500µA

Unit : V

Spec Limit Max : 1.100

Spec limits are represented in bold lines on the graphic.



Measurements

VOL(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	0.765	0.764	0.760	0.764	0.764	0.763	0.763	0.759	0.765	0.766	0.764	0.764	0.762
ON PROTON samples													
5	0.776	0.784	0.790	0.804	0.809	0.809	0.809	0.804	0.803	0.812	0.810	0.810	0.788
6	0.773	0.781	0.786	0.801	0.804	0.802	0.803	0.797	0.798	0.805	0.801	0.802	0.784
7	0.773	0.781	0.788	0.801	0.805	0.804	0.805	0.798	0.806	0.806	0.806	0.805	0.784
Statistics													
Min	0.773	0.781	0.786	0.801	0.804	0.802	0.803	0.797	0.798	0.805	0.801	0.802	0.784
Max	0.776	0.784	0.790	0.804	0.809	0.809	0.809	0.804	0.806	0.812	0.810	0.810	0.788
Average	0.774	0.782	0.788	0.802	0.806	0.805	0.806	0.800	0.803	0.808	0.805	0.806	0.786
Sigma	0.001	0.001	0.001	0.001	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.002

Drift Calculation

VOL(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	8.0E-03	14.0E-03	28.0E-03	33.2E-03	33.2E-03	33.2E-03	28.4E-03	26.8E-03	35.6E-03	33.6E-03	34.0E-03	12.0E-03
6	-	8.0E-03	13.2E-03	28.0E-03	30.8E-03	29.2E-03	29.6E-03	23.6E-03	25.2E-03	32.0E-03	28.0E-03	28.4E-03	11.2E-03
7	-	8.0E-03	14.4E-03	27.6E-03	32.0E-03	31.2E-03	32.0E-03	25.2E-03	33.2E-03	33.2E-03	32.4E-03	32.0E-03	11.2E-03
Average	-	8.0E-03	13.9E-03	27.9E-03	32.0E-03	31.2E-03	31.6E-03	25.7E-03	28.4E-03	33.6E-03	31.3E-03	31.5E-03	11.5E-03
Sigma	-	28.1E-09	498.9E-06	188.5E-06	979.8E-06	1.6E-03	1.5E-03	2.0E-03	3.5E-03	1.5E-03	2.4E-03	2.3E-03	377.1E-06

Measurements

VOL(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	0.765	0.764	0.760	0.764	0.764	0.763	0.763	0.759	0.765	0.766	0.764	0.764	0.762
ON TID samples													
12	0.766	0.778	0.783	0.796	0.803	0.804	0.805	0.799	0.802	0.807	0.807	0.806	0.785
13	0.764	0.776	0.782	0.798	0.802	0.802	0.802	0.795	0.800	0.804	0.803	0.802	0.783
14	0.766	0.778	0.785	0.802	0.807	0.805	0.806	0.799	0.804	0.807	0.806	0.805	0.785
Statistics													
Min	0.764	0.776	0.782	0.796	0.802	0.802	0.802	0.795	0.800	0.804	0.803	0.802	0.783
Max	0.766	0.778	0.785	0.802	0.807	0.805	0.806	0.799	0.804	0.807	0.807	0.806	0.785
Average	0.765	0.777	0.783	0.799	0.804	0.803	0.804	0.798	0.802	0.806	0.805	0.804	0.785
Sigma	0.001	0.001	0.001	0.003	0.002	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.001

Drift Calculation

VOL(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	11.2E-03	16.4E-03	30.0E-03	36.8E-03	37.2E-03	38.4E-03	32.4E-03	35.6E-03	40.8E-03	40.4E-03	39.6E-03	18.8E-03
13	-	11.6E-03	18.0E-03	34.0E-03	38.4E-03	37.6E-03	38.0E-03	31.2E-03	35.6E-03	39.6E-03	38.8E-03	37.6E-03	19.2E-03
14	-	12.4E-03	19.2E-03	36.8E-03	41.6E-03	39.6E-03	40.4E-03	33.2E-03	38.8E-03	41.6E-03	40.8E-03	39.6E-03	19.6E-03
Average	-	11.7E-03	17.9E-03	33.6E-03	38.9E-03	38.1E-03	38.9E-03	32.3E-03	36.7E-03	40.7E-03	40.0E-03	38.9E-03	19.2E-03
Sigma	-	498.9E-06	1.1E-03	2.8E-03	2.0E-03	1.0E-03	1.0E-03	821.9E-06	1.5E-03	821.9E-06	864.1E-06	942.8E-06	326.6E-06

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

VOL(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	0.765	0.764	0.760	0.764	0.764	0.763	0.763	0.759	0.765	0.766	0.764	0.764	0.762
OFF PROTON samples													
2	0.773	0.787	0.794	0.813	0.819	0.820	0.822	0.816	0.823	0.826	0.827	0.824	0.793
3	0.773	0.787	0.794	0.812	0.819	0.819	0.821	0.815	0.822	0.825	0.825	0.822	0.793
4	0.775	0.789	0.798	0.816	0.823	0.824	0.826	0.820	0.828	0.831	0.830	0.828	0.795
Statistics													
Min	0.773	0.787	0.794	0.812	0.819	0.819	0.821	0.815	0.822	0.825	0.825	0.822	0.793
Max	0.775	0.789	0.798	0.816	0.823	0.824	0.826	0.820	0.828	0.831	0.830	0.828	0.795
Average	0.774	0.788	0.795	0.814	0.820	0.821	0.823	0.817	0.824	0.827	0.827	0.825	0.794
Sigma	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.001

Drift Calculation

VOL(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	13.6E-03	20.8E-03	39.6E-03	45.6E-03	46.4E-03	48.8E-03	43.2E-03	49.6E-03	52.8E-03	53.6E-03	50.4E-03	20.0E-03
3	-	13.6E-03	21.2E-03	39.2E-03	45.6E-03	45.6E-03	48.0E-03	42.0E-03	48.8E-03	51.6E-03	51.6E-03	49.2E-03	19.6E-03
4	-	14.0E-03	22.8E-03	41.2E-03	48.0E-03	48.4E-03	50.8E-03	45.2E-03	52.4E-03	55.6E-03	54.8E-03	52.4E-03	19.6E-03
Average	-	13.7E-03	21.6E-03	40.0E-03	46.4E-03	46.8E-03	49.2E-03	43.5E-03	50.3E-03	53.3E-03	53.3E-03	50.7E-03	19.7E-03
Sigma	-	188.5E-06	864.1E-06	864.1E-06	1.1E-03	1.2E-03	1.2E-03	1.3E-03	1.5E-03	1.7E-03	1.3E-03	1.3E-03	188.6E-06

Measurements

VOL(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	0.765	0.764	0.760	0.764	0.764	0.763	0.763	0.759	0.765	0.766	0.764	0.764	0.762
OFF TID samples													
8	0.766	0.777	0.785	0.804	0.811	0.811	0.812	0.806	0.813	0.815	0.814	0.813	0.789
10	0.769	0.780	0.789	0.808	0.816	0.818	0.819	0.812	0.821	0.823	0.822	0.820	0.792
11	0.770	0.780	0.789	0.809	0.816	0.820	0.822	0.815	0.824	0.825	0.824	0.823	0.792
Statistics													
Min	0.766	0.777	0.785	0.804	0.811	0.811	0.812	0.806	0.813	0.815	0.814	0.813	0.789
Max	0.770	0.780	0.789	0.809	0.816	0.820	0.822	0.815	0.824	0.825	0.824	0.823	0.792
Average	0.768	0.779	0.788	0.807	0.815	0.816	0.818	0.811	0.819	0.821	0.820	0.819	0.791
Sigma	0.001	0.002	0.002	0.002	0.003	0.004	0.004	0.004	0.005	0.004	0.004	0.004	0.001

Drift Calculation

VOL(EA)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	10.8E-03	18.4E-03	37.6E-03	44.4E-03	44.4E-03	46.0E-03	39.2E-03	46.8E-03	48.8E-03	47.6E-03	46.4E-03	22.8E-03
10	-	11.2E-03	20.0E-03	39.2E-03	47.2E-03	48.8E-03	50.0E-03	43.2E-03	51.6E-03	53.6E-03	52.4E-03	51.2E-03	22.8E-03
11	-	10.8E-03	19.6E-03	39.6E-03	46.8E-03	50.0E-03	52.0E-03	45.6E-03	54.4E-03	55.2E-03	54.8E-03	53.6E-03	22.4E-03
Average	-	10.9E-03	19.3E-03	38.8E-03	46.1E-03	47.7E-03	49.3E-03	42.7E-03	50.9E-03	52.5E-03	51.6E-03	50.4E-03	22.7E-03
Sigma	-	188.5E-06	679.9E-06	864.1E-06	1.2E-03	2.4E-03	2.5E-03	2.6E-03	3.1E-03	2.7E-03	3.0E-03	3.0E-03	188.6E-06

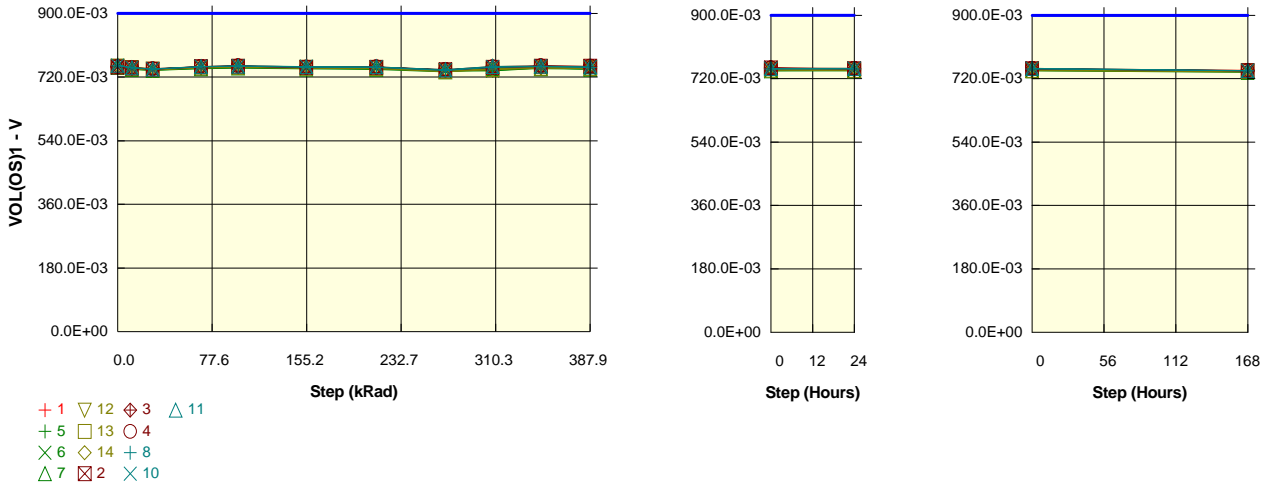
Parameter : Low Output Voltage : VOL(OS)1

Test conditions : Isink=20mA

Unit : V

Spec Limit Max : 900.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

VOL(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	750.4E-03	748.0E-03	742.8E-03	746.8E-03	747.2E-03	746.0E-03	745.2E-03	740.0E-03	747.2E-03	747.6E-03	745.2E-03	746.4E-03	744.0E-03
ON PROTON samples													
5	750.4E-03	742.8E-03	739.6E-03	744.4E-03	747.2E-03	745.2E-03	743.6E-03	738.0E-03	737.6E-03	745.6E-03	743.2E-03	744.8E-03	740.4E-03
6	748.8E-03	743.6E-03	740.8E-03	747.6E-03	748.0E-03	744.8E-03	743.6E-03	736.8E-03	738.8E-03	746.4E-03	742.4E-03	743.2E-03	740.8E-03
7	748.0E-03	741.6E-03	738.8E-03	743.6E-03	745.6E-03	743.2E-03	742.0E-03	734.8E-03	744.0E-03	743.6E-03	742.4E-03	742.4E-03	738.0E-03
Statistics													
Min	748.0E-03	741.6E-03	738.8E-03	743.6E-03	745.6E-03	743.2E-03	742.0E-03	734.8E-03	737.6E-03	743.6E-03	742.4E-03	742.4E-03	738.0E-03
Max	750.4E-03	743.6E-03	740.8E-03	747.6E-03	748.0E-03	745.2E-03	743.6E-03	738.0E-03	744.0E-03	746.4E-03	743.2E-03	744.8E-03	740.8E-03
Average	749.1E-03	742.7E-03	739.7E-03	745.2E-03	746.9E-03	744.4E-03	743.1E-03	736.5E-03	740.1E-03	745.2E-03	742.7E-03	743.5E-03	739.7E-03
Sigma	997.8E-06	821.9E-06	821.9E-06	1.7E-03	997.8E-06	864.1E-06	754.3E-06	1.3E-03	2.8E-03	1.2E-03	377.1E-06	997.8E-06	1.2E-03

Drift Calculation

VOL(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-7.6E-03	-10.8E-03	-6.0E-03	-3.2E-03	-5.2E-03	-6.8E-03	-12.4E-03	-12.8E-03	-4.8E-03	-7.2E-03	-5.6E-03	-10.0E-03
6	-	-5.2E-03	-8.0E-03	-1.2E-03	-800.0E-06	-4.0E-03	-5.2E-03	-12.0E-03	-10.0E-03	-2.4E-03	-6.4E-03	-5.6E-03	-8.0E-03
7	-	-6.4E-03	-9.2E-03	-4.4E-03	-2.4E-03	-4.8E-03	-6.0E-03	-13.2E-03	-4.0E-03	-4.4E-03	-5.6E-03	-5.6E-03	-10.0E-03
Average	-	-6.4E-03	-9.3E-03	-3.9E-03	-2.1E-03	-4.7E-03	-6.0E-03	-12.5E-03	-8.9E-03	-3.9E-03	-6.4E-03	-5.6E-03	-9.3E-03
Sigma	-	979.8E-06	1.1E-03	2.0E-03	997.8E-06	498.9E-06	653.2E-06	498.9E-06	3.7E-03	1.0E-03	653.2E-06	28.1E-09	942.8E-06

Measurements

VOL(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	750.4E-03	748.0E-03	742.8E-03	746.8E-03	747.2E-03	746.0E-03	745.2E-03	740.0E-03	747.2E-03	747.6E-03	745.2E-03	746.4E-03	744.0E-03
ON TID samples													
12	750.8E-03	747.2E-03	743.2E-03	747.2E-03	749.6E-03	747.6E-03	746.8E-03	738.8E-03	742.4E-03	748.0E-03	747.2E-03	746.8E-03	742.8E-03
13	750.4E-03	743.6E-03	740.4E-03	746.0E-03	747.6E-03	744.8E-03	744.0E-03	735.6E-03	740.8E-03	745.2E-03	744.0E-03	743.2E-03	740.0E-03
14	750.0E-03	744.4E-03	740.0E-03	747.6E-03	749.2E-03	746.0E-03	745.2E-03	736.8E-03	742.8E-03	746.4E-03	745.2E-03	744.4E-03	740.4E-03
Statistics													
Min	750.0E-03	743.6E-03	740.0E-03	746.0E-03	747.6E-03	744.8E-03	744.0E-03	735.6E-03	740.8E-03	745.2E-03	744.0E-03	743.2E-03	740.0E-03
Max	750.8E-03	747.2E-03	743.2E-03	747.6E-03	749.6E-03	747.6E-03	746.8E-03	738.8E-03	742.8E-03	748.0E-03	747.2E-03	746.8E-03	742.8E-03
Average	750.4E-03	745.1E-03	741.2E-03	746.9E-03	748.8E-03	746.1E-03	745.3E-03	737.1E-03	742.0E-03	746.5E-03	745.5E-03	744.8E-03	741.1E-03
Sigma	326.6E-06	1.5E-03	1.4E-03	679.9E-06	864.1E-06	1.1E-03	1.1E-03	1.3E-03	864.1E-06	1.1E-03	1.3E-03	1.5E-03	1.2E-03

Drift Calculation

VOL(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-3.6E-03	-7.6E-03	-3.6E-03	-1.2E-03	-3.2E-03	-4.0E-03	-12.0E-03	-8.4E-03	-2.8E-03	-3.6E-03	-4.0E-03	-8.0E-03
13	-	-6.8E-03	-10.0E-03	-4.4E-03	-2.8E-03	-5.6E-03	-6.4E-03	-14.8E-03	-9.6E-03	-5.2E-03	-6.4E-03	-7.2E-03	-10.4E-03
14	-	-5.6E-03	-10.0E-03	-2.4E-03	-800.0E-06	-4.0E-03	-4.8E-03	-13.2E-03	-7.2E-03	-3.6E-03	-4.8E-03	-5.6E-03	-9.6E-03
Average	-	-5.3E-03	-9.2E-03	-3.5E-03	-1.6E-03	-4.3E-03	-5.1E-03	-13.3E-03	-8.4E-03	-3.9E-03	-4.9E-03	-5.6E-03	-9.3E-03
Sigma	-	1.3E-03	1.1E-03	821.9E-06	864.1E-06	997.8E-06	997.8E-06	1.1E-03	979.8E-06	997.8E-06	1.1E-03	1.3E-03	997.8E-06

Hirex Engineering	Total Dose Radiation Test Report									Ref.:	HRX/TID/1017	
	IS-1845ASRH					Intersil				Issue:	01	

Measurements

VOL(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	750.4E-03	748.0E-03	742.8E-03	746.8E-03	747.2E-03	746.0E-03	745.2E-03	740.0E-03	747.2E-03	747.6E-03	745.2E-03	746.4E-03	744.0E-03
OFF PROTON samples													
2	748.8E-03	746.0E-03	742.4E-03	749.6E-03	750.8E-03	747.6E-03	748.0E-03	740.4E-03	747.6E-03	750.8E-03	750.4E-03	748.4E-03	742.8E-03
3	748.8E-03	746.0E-03	742.8E-03	749.2E-03	751.2E-03	747.2E-03	748.0E-03	740.0E-03	747.6E-03	750.4E-03	749.6E-03	748.0E-03	742.4E-03
4	749.6E-03	746.4E-03	743.6E-03	750.0E-03	752.4E-03	748.8E-03	749.2E-03	741.2E-03	749.6E-03	752.0E-03	750.4E-03	749.6E-03	743.2E-03
Statistics													
Min	748.8E-03	746.0E-03	742.4E-03	749.2E-03	750.8E-03	747.2E-03	748.0E-03	740.0E-03	747.6E-03	750.4E-03	749.6E-03	748.0E-03	742.4E-03
Max	749.6E-03	746.4E-03	743.6E-03	750.0E-03	752.4E-03	748.8E-03	749.2E-03	741.2E-03	749.6E-03	752.0E-03	750.4E-03	749.6E-03	743.2E-03
Average	749.1E-03	746.1E-03	742.9E-03	749.6E-03	751.5E-03	747.9E-03	748.4E-03	740.5E-03	748.3E-03	751.1E-03	750.1E-03	748.7E-03	742.8E-03
Sigma	377.1E-06	188.6E-06	498.9E-06	326.6E-06	679.9E-06	679.9E-06	565.7E-06	498.9E-06	942.8E-06	679.9E-06	377.1E-06	679.9E-06	326.6E-06

Drift Calculation

VOL(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-2.8E-03	-6.4E-03	800.0E-06	2.0E-03	-1.2E-03	-800.0E-06	-8.4E-03	-1.2E-03	2.0E-03	1.6E-03	-400.0E-06	-6.0E-03
3	-	-2.8E-03	-6.0E-03	400.0E-06	2.4E-03	-1.6E-03	-800.0E-06	-8.8E-03	-1.2E-03	1.6E-03	800.0E-06	-800.0E-06	-6.4E-03
4	-	-3.2E-03	-6.0E-03	400.0E-06	2.8E-03	-800.0E-06	-400.0E-06	-8.4E-03	0.0E+00	2.4E-03	800.0E-06	0.0E+00	-6.4E-03
Average	-	-2.9E-03	-6.1E-03	533.3E-06	2.4E-03	-1.2E-03	-666.6E-06	-8.5E-03	-800.0E-06	2.0E-03	1.1E-03	-400.0E-06	-6.3E-03
Sigma	-	188.6E-06	188.6E-06	188.6E-06	326.6E-06	326.6E-06	188.5E-06	188.6E-06	565.7E-06	326.6E-06	377.1E-06	326.6E-06	188.6E-06

Measurements

VOL(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	750.4E-03	748.0E-03	742.8E-03	746.8E-03	747.2E-03	746.0E-03	745.2E-03	740.0E-03	747.2E-03	747.6E-03	745.2E-03	746.4E-03	744.0E-03
OFF TID samples													
8	752.0E-03	746.4E-03	742.8E-03	749.6E-03	751.2E-03	747.6E-03	747.6E-03	738.8E-03	747.2E-03	749.6E-03	747.6E-03	747.6E-03	742.4E-03
10	753.2E-03	746.8E-03	743.2E-03	750.0E-03	751.6E-03	750.0E-03	748.4E-03	740.0E-03	748.8E-03	750.4E-03	748.4E-03	748.8E-03	742.8E-03
11	753.6E-03	746.8E-03	742.8E-03	749.2E-03	750.8E-03	749.6E-03	749.2E-03	740.8E-03	750.4E-03	750.8E-03	748.8E-03	749.6E-03	743.2E-03
Statistics													
Min	752.0E-03	746.4E-03	742.8E-03	749.2E-03	750.8E-03	747.6E-03	747.6E-03	738.8E-03	747.2E-03	749.6E-03	747.6E-03	747.6E-03	742.4E-03
Max	753.6E-03	746.8E-03	743.2E-03	750.0E-03	751.6E-03	750.0E-03	749.2E-03	740.8E-03	750.4E-03	750.8E-03	748.8E-03	749.6E-03	743.2E-03
Average	752.9E-03	746.7E-03	742.9E-03	749.6E-03	751.2E-03	749.1E-03	748.4E-03	739.9E-03	748.8E-03	750.3E-03	748.3E-03	748.7E-03	742.8E-03
Sigma	679.9E-06	188.6E-06	188.6E-06	326.6E-06	326.6E-06	1.0E-03	653.2E-06	821.9E-06	1.3E-03	498.9E-06	498.9E-06	821.9E-06	326.6E-06

Drift Calculation

VOL(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-5.6E-03	-9.2E-03	-2.4E-03	-800.0E-06	-4.4E-03	-4.4E-03	-13.2E-03	-4.8E-03	-2.4E-03	-4.4E-03	-4.4E-03	-9.6E-03
10	-	-6.4E-03	-10.0E-03	-3.2E-03	-1.6E-03	-3.2E-03	-4.8E-03	-13.2E-03	-4.4E-03	-2.8E-03	-4.8E-03	-4.4E-03	-10.4E-03
11	-	-6.8E-03	-10.8E-03	-4.4E-03	-2.8E-03	-4.0E-03	-4.4E-03	-12.8E-03	-3.2E-03	-2.8E-03	-4.8E-03	-4.0E-03	-10.4E-03
Average	-	-6.3E-03	-10.0E-03	-3.3E-03	-1.7E-03	-3.9E-03	-4.5E-03	-13.1E-03	-4.1E-03	-2.7E-03	-4.7E-03	-4.3E-03	-10.1E-03
Sigma	-	498.9E-06	653.2E-06	821.9E-06	821.9E-06	498.9E-06	188.6E-06	188.6E-06	679.9E-06	188.6E-06	188.6E-06	188.6E-06	377.1E-06

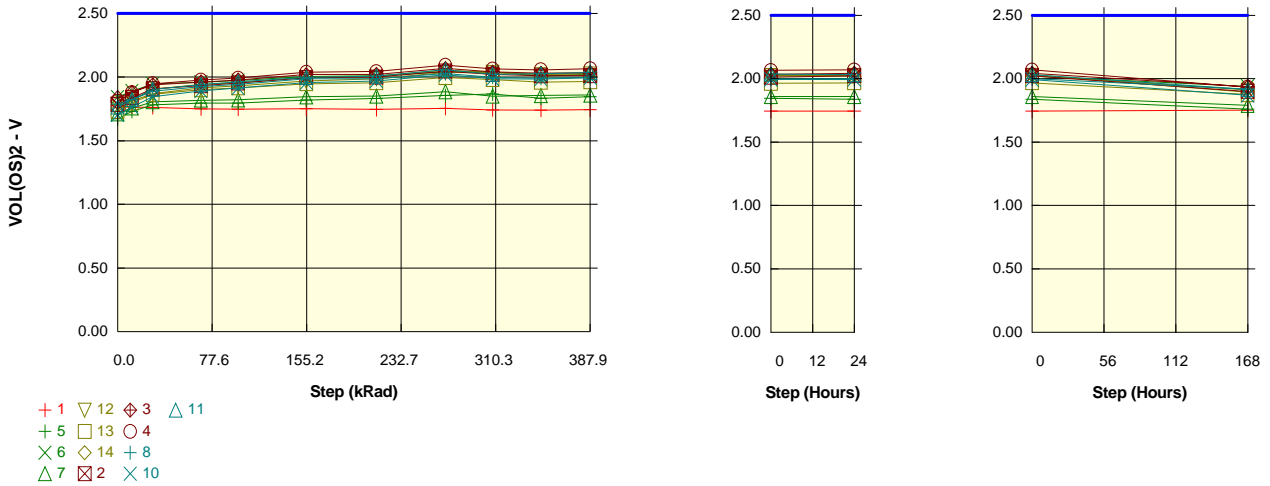
Parameter : Low Output Voltage : VOL(OS)2

Test conditions : Isink=200mA

Unit : V

Spec Limit Max : 2.50

Spec limits are represented in bold lines on the graphic.



Measurements

VOL(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	1.78	1.76	1.76	1.75	1.75	1.75	1.75	1.75	1.74	1.74	1.74	1.74	1.75
ON PROTON samples													
5	1.67	1.73	1.78	1.80	1.80	1.82	1.83	1.86	1.87	1.83	1.85	1.84	1.76
6	1.84	1.89	1.95	1.96	1.97	2.00	2.01	2.04	2.04	2.01	2.02	2.02	1.94
7	1.71	1.76	1.81	1.82	1.82	1.85	1.85	1.89	1.85	1.85	1.86	1.86	1.79
Statistics													
Min	1.67	1.73	1.78	1.80	1.80	1.82	1.83	1.86	1.85	1.83	1.85	1.84	1.76
Max	1.84	1.89	1.95	1.96	1.97	2.00	2.01	2.04	2.04	2.01	2.02	2.02	1.94
Average	1.74	1.79	1.85	1.86	1.86	1.89	1.90	1.93	1.92	1.90	1.91	1.91	1.83
Sigma	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.08	0.08	0.08	0.08

Drift Calculation

VOL(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	57.6E-03	109.2E-03	122.8E-03	123.6E-03	146.4E-03	158.4E-03	182.0E-03	194.4E-03	160.4E-03	172.0E-03	164.0E-03	87.2E-03
6	-	46.4E-03	102.8E-03	116.0E-03	129.2E-03	160.8E-03	167.2E-03	197.6E-03	198.8E-03	164.0E-03	180.0E-03	178.0E-03	96.0E-03
7	-	46.4E-03	95.6E-03	107.6E-03	110.8E-03	134.4E-03	140.4E-03	174.8E-03	139.2E-03	144.0E-03	148.0E-03	148.4E-03	78.8E-03
Average	-	50.1E-03	102.5E-03	115.5E-03	121.2E-03	147.2E-03	155.3E-03	184.8E-03	177.5E-03	156.1E-03	166.7E-03	163.5E-03	87.3E-03
Sigma	-	5.3E-03	5.6E-03	6.2E-03	7.7E-03	10.8E-03	11.2E-03	9.5E-03	27.1E-03	8.7E-03	13.6E-03	12.1E-03	7.0E-03

Measurements

VOL(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	1.78	1.76	1.76	1.75	1.75	1.75	1.75	1.75	1.74	1.74	1.74	1.74	1.75
ON TID samples													
12	1.79	1.81	1.87	1.91	1.93	1.97	1.99	2.04	2.04	2.02	2.03	2.03	1.91
13	1.73	1.80	1.87	1.90	1.92	1.95	1.96	2.00	1.98	1.96	1.96	1.97	1.88
14	1.75	1.82	1.91	1.94	1.96	2.00	2.01	2.05	2.04	2.02	2.03	2.03	1.89
Statistics													
Min	1.73	1.80	1.87	1.90	1.92	1.95	1.96	2.00	1.98	1.96	1.96	1.97	1.88
Max	1.79	1.82	1.91	1.94	1.96	2.00	2.01	2.05	2.04	2.02	2.03	2.03	1.91
Average	1.76	1.81	1.88	1.92	1.93	1.97	1.98	2.03	2.02	2.00	2.01	2.01	1.89
Sigma	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.01

Drift Calculation

VOL(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	23.2E-03	80.0E-03	125.2E-03	140.8E-03	179.2E-03	197.6E-03	246.4E-03	246.4E-03	230.4E-03	236.8E-03	237.6E-03	121.2E-03
13	-	64.8E-03	133.2E-03	168.8E-03	183.6E-03	215.2E-03	223.2E-03	264.0E-03	248.8E-03	228.0E-03	232.0E-03	234.8E-03	142.8E-03
14	-	70.0E-03	159.2E-03	193.2E-03	209.6E-03	249.2E-03	259.2E-03	307.6E-03	288.8E-03	274.0E-03	278.8E-03	282.0E-03	147.2E-03
Average	-	52.7E-03	124.1E-03	162.4E-03	178.0E-03	214.5E-03	226.7E-03	272.7E-03	261.3E-03	244.1E-03	249.2E-03	251.5E-03	137.1E-03
Sigma	-	20.9E-03	33.0E-03	28.1E-03	28.4E-03	28.6E-03	25.3E-03	25.7E-03	19.4E-03	21.1E-03	21.0E-03	21.6E-03	11.4E-03

Hirex Engineering	Total Dose Radiation Test Report									Ref.:	HRX/TID/1017
	IS-1845ASRH				Intersil				Issue:	01	

Measurements

VOL(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	1.78	1.76	1.76	1.75	1.75	1.75	1.75	1.75	1.74	1.74	1.74	1.74	1.75
OFF PROTON samples													
2	1.78	1.84	1.91	1.93	1.95	2.00	2.00	2.05	2.02	2.01	2.01	2.02	1.90
3	1.84	1.88	1.94	1.96	1.98	2.02	2.02	2.07	2.04	2.03	2.03	2.04	1.94
4	1.81	1.88	1.95	1.98	1.99	2.04	2.04	2.09	2.06	2.06	2.07	2.07	1.93
Statistics													
Min	1.78	1.84	1.91	1.93	1.95	2.00	2.00	2.05	2.02	2.01	2.01	2.02	1.90
Max	1.84	1.88	1.95	1.98	1.99	2.04	2.04	2.09	2.06	2.06	2.07	2.07	1.94
Average	1.81	1.87	1.93	1.96	1.97	2.02	2.02	2.07	2.04	2.03	2.04	2.05	1.92
Sigma	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Drift Calculation

VOL(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	54.0E-03	123.6E-03	148.4E-03	168.8E-03	210.8E-03	215.6E-03	262.0E-03	236.8E-03	226.0E-03	228.0E-03	238.8E-03	115.6E-03
3	-	40.4E-03	100.4E-03	123.2E-03	138.4E-03	182.0E-03	182.8E-03	229.2E-03	201.2E-03	191.6E-03	196.0E-03	204.8E-03	98.4E-03
4	-	68.0E-03	137.2E-03	165.6E-03	181.2E-03	227.6E-03	233.2E-03	283.2E-03	252.8E-03	246.0E-03	254.8E-03	259.2E-03	122.8E-03
Average	-	54.1E-03	120.4E-03	145.7E-03	162.8E-03	206.8E-03	210.5E-03	258.1E-03	230.3E-03	221.2E-03	226.3E-03	234.3E-03	112.3E-03
Sigma	-	11.3E-03	15.2E-03	17.4E-03	18.0E-03	18.8E-03	20.9E-03	22.2E-03	21.6E-03	22.5E-03	24.0E-03	22.4E-03	10.2E-03

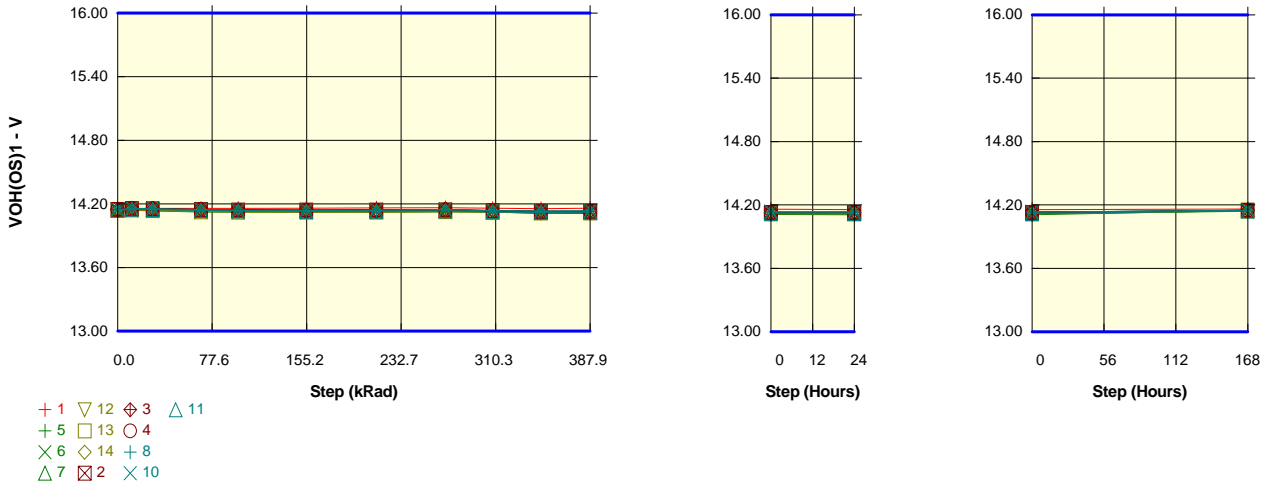
Measurements

VOL(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	1.78	1.76	1.76	1.75	1.75	1.75	1.75	1.75	1.74	1.74	1.74	1.74	1.75
OFF TID samples													
8	1.79	1.82	1.89	1.92	1.94	1.99	1.99	2.03	2.00	1.99	2.00	2.00	1.92
10	1.70	1.76	1.85	1.89	1.92	1.96	1.97	2.02	1.99	1.98	1.99	1.99	1.87
11	1.77	1.82	1.90	1.94	1.96	2.00	2.01	2.06	2.02	2.03	2.04	2.03	1.92
Statistics													
Min	1.70	1.76	1.85	1.89	1.92	1.96	1.97	2.02	1.99	1.98	1.99	1.99	1.87
Max	1.79	1.82	1.90	1.94	1.96	2.00	2.01	2.06	2.02	2.03	2.04	2.03	1.92
Average	1.75	1.80	1.88	1.92	1.94	1.98	1.99	2.04	2.00	2.00	2.01	2.01	1.90
Sigma	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02

Drift Calculation

VOL(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	35.2E-03	101.6E-03	136.0E-03	154.0E-03	198.0E-03	199.6E-03	241.2E-03	210.8E-03	202.8E-03	209.6E-03	212.0E-03	129.2E-03
10	-	61.6E-03	143.6E-03	187.6E-03	212.0E-03	253.6E-03	266.8E-03	316.0E-03	283.6E-03	281.6E-03	291.6E-03	290.4E-03	166.0E-03
11	-	57.6E-03	138.4E-03	175.6E-03	197.2E-03	232.8E-03	242.0E-03	292.4E-03	256.4E-03	260.8E-03	270.8E-03	267.2E-03	150.0E-03
Average	-	51.5E-03	127.9E-03	166.4E-03	187.7E-03	228.1E-03	236.1E-03	283.2E-03	250.3E-03	248.4E-03	257.3E-03	256.5E-03	148.4E-03
Sigma	-	11.6E-03	18.7E-03	22.0E-03	24.6E-03	22.9E-03	27.7E-03	31.2E-03	30.0E-03	33.3E-03	34.8E-03	32.9E-03	15.1E-03

Parameter : High Output Voltage : VOH(OS)1
 Test conditions : Isource=-20mA
 Unit : V
 Spec Limit Min : 13.00
 Spec Limit Max : 16.00
 Spec limits are represented in bold lines on the graphic.



Measurements

VOH(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	14.15	14.16	14.16	14.16	14.16	14.16	14.16	14.17	14.16	14.16	14.16	14.16	14.16
ON PROTON samples													
5	14.14	14.15	14.14	14.14	14.13	14.13	14.13	14.13	14.12	14.11	14.11	14.11	14.15
6	14.14	14.14	14.13	14.12	14.12	14.12	14.12	14.13	14.12	14.11	14.12	14.12	14.14
7	14.15	14.16	14.15	14.14	14.14	14.13	14.13	14.14	14.13	14.12	14.12	14.12	14.15
Statistics													
Min	14.14	14.14	14.13	14.12	14.12	14.12	14.12	14.13	14.12	14.11	14.11	14.11	14.14
Max	14.15	14.16	14.15	14.14	14.14	14.13	14.13	14.14	14.13	14.12	14.12	14.12	14.15
Average	14.14	14.15	14.14	14.13	14.13	14.13	14.13	14.13	14.12	14.12	14.12	14.11	14.15
Sigma	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01

Drift Calculation

VOH(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	8.8E-03	1.6E-03	-7.6E-03	-13.2E-03	-16.0E-03	-16.8E-03	-17.2E-03	-19.2E-03	-32.4E-03	-32.0E-03	-35.2E-03	4.8E-03
6	-	5.6E-03	-2.0E-03	-11.6E-03	-13.6E-03	-13.6E-03	-12.8E-03	-9.2E-03	-11.6E-03	-21.2E-03	-16.8E-03	-19.2E-03	5.2E-03
7	-	8.0E-03	399.6E-06	-7.6E-03	-12.4E-03	-14.4E-03	-14.4E-03	-12.0E-03	-22.0E-03	-26.4E-03	-26.0E-03	-28.0E-03	5.6E-03
Average	-	7.5E-03	-33.2E-15	-8.9E-03	-13.1E-03	-14.7E-03	-14.7E-03	-12.8E-03	-17.6E-03	-26.7E-03	-24.9E-03	-27.5E-03	5.2E-03
Sigma	-	1.4E-03	1.5E-03	1.9E-03	498.4E-06	997.9E-06	1.6E-03	3.3E-03	4.4E-03	4.6E-03	6.3E-03	6.5E-03	326.7E-06

Measurements

VOH(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	14.15	14.16	14.16	14.16	14.16	14.16	14.16	14.17	14.16	14.16	14.16	14.16	14.16
ON TID samples													
12	14.15	14.15	14.15	14.14	14.14	14.13	14.13	14.14	14.13	14.12	14.12	14.12	14.15
13	14.15	14.14	14.14	14.13	14.12	14.12	14.12	14.13	14.12	14.12	14.12	14.12	14.14
14	14.14	14.16	14.15	14.14	14.13	14.13	14.13	14.14	14.13	14.12	14.12	14.12	14.15
Statistics													
Min	14.14	14.14	14.14	14.13	14.12	14.12	14.12	14.13	14.12	14.12	14.12	14.12	14.14
Max	14.15	14.16	14.15	14.14	14.14	14.13	14.13	14.14	14.13	14.12	14.12	14.12	14.15
Average	14.14	14.15	14.14	14.14	14.13	14.13	14.13	14.13	14.13	14.12	14.12	14.12	14.15
Sigma	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00

Drift Calculation

VOH(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	6.8E-03	1.2E-03	-5.6E-03	-10.8E-03	-12.8E-03	-12.8E-03	-10.4E-03	-15.6E-03	-25.6E-03	-26.4E-03	-27.6E-03	4.4E-03
13	-	-2.8E-03	-10.4E-03	-20.8E-03	-24.0E-03	-25.2E-03	-24.4E-03	-19.6E-03	-25.6E-03	-32.4E-03	-30.4E-03	-31.2E-03	-4.8E-03
14	-	18.4E-03	12.0E-03	1.2E-03	-2.4E-03	-3.6E-03	-3.2E-03	399.6E-06	-6.8E-03	-14.0E-03	-13.2E-03	-14.0E-03	14.4E-03
Average	-	7.5E-03	933.3E-06	-8.4E-03	-12.4E-03	-13.9E-03	-13.5E-03	-9.9E-03	-16.0E-03	-24.0E-03	-23.3E-03	-24.3E-03	4.7E-03
Sigma	-	8.7E-03	9.1E-03	9.2E-03	8.9E-03	8.9E-03	8.7E-03	8.2E-03	7.7E-03	7.6E-03	7.3E-03	7.4E-03	7.8E-03

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

VOH(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	14.15	14.16	14.16	14.16	14.16	14.16	14.16	14.17	14.16	14.16	14.16	14.16	14.16
OFF PROTON samples													
2	14.15	14.16	14.15	14.15	14.14	14.14	14.14	14.15	14.14	14.13	14.13	14.13	14.15
3	14.15	14.16	14.15	14.15	14.14	14.14	14.14	14.15	14.14	14.13	14.13	14.13	14.15
4	14.15	14.16	14.15	14.15	14.14	14.14	14.14	14.14	14.13	14.13	14.12	14.12	14.15
Statistics													
Min	14.15	14.16	14.15	14.15	14.14	14.14	14.14	14.14	14.13	14.13	14.12	14.12	14.15
Max	14.15	14.16	14.15	14.15	14.14	14.14	14.14	14.15	14.14	14.13	14.13	14.13	14.15
Average	14.15	14.16	14.15	14.15	14.14	14.14	14.14	14.14	14.14	14.13	14.13	14.13	14.15
Sigma	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Drift Calculation

VOH(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	7.6E-03	4.8E-03	-2.4E-03	-6.8E-03	-7.6E-03	-7.2E-03	-4.0E-03	-12.4E-03	-19.2E-03	-20.0E-03	-19.2E-03	800.1E-06
3	-	8.0E-03	4.8E-03	-2.0E-03	-6.8E-03	-6.8E-03	-6.4E-03	-2.4E-03	-11.2E-03	-17.2E-03	-16.8E-03	-16.8E-03	2.0E-03
4	-	8.4E-03	4.8E-03	-2.8E-03	-8.4E-03	-9.2E-03	-9.2E-03	-6.4E-03	-16.0E-03	-22.8E-03	-23.2E-03	-23.2E-03	800.1E-06
Average	-	8.0E-03	4.8E-03	-2.4E-03	-7.3E-03	-7.9E-03	-7.6E-03	-4.3E-03	-13.2E-03	-19.7E-03	-20.0E-03	-19.7E-03	1.2E-03
Sigma	-	326.3E-06	449.6E-09	326.7E-06	754.4E-06	997.9E-06	1.2E-03	1.6E-03	2.0E-03	2.3E-03	2.6E-03	2.6E-03	565.6E-06

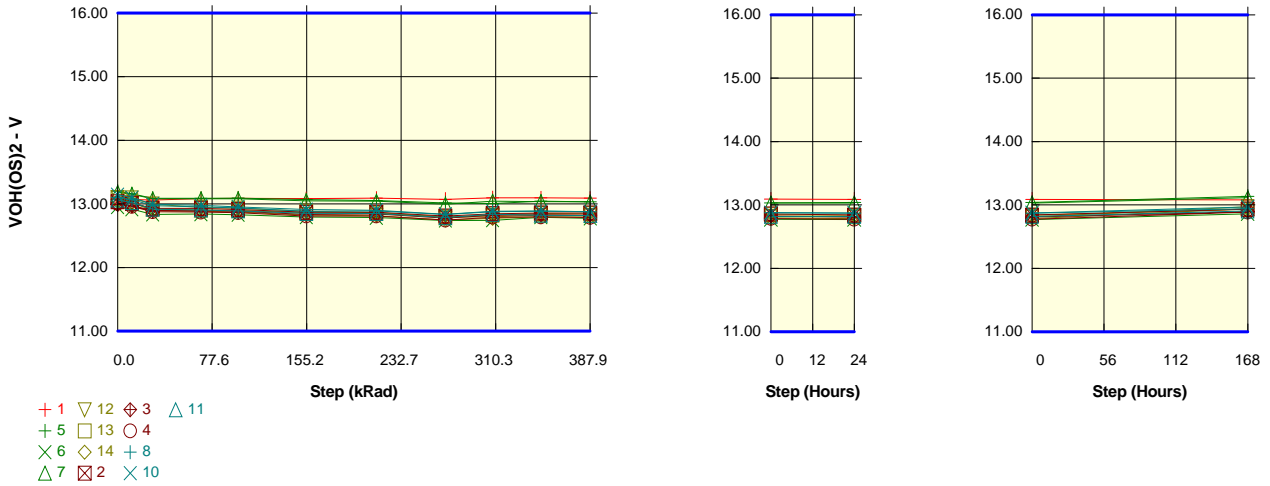
Measurements

VOH(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	14.15	14.16	14.16	14.16	14.16	14.16	14.16	14.17	14.16	14.16	14.16	14.16	14.16
OFF TID samples													
8	14.14	14.15	14.15	14.14	14.14	14.14	14.14	14.15	14.14	14.13	14.13	14.13	14.15
10	14.15	14.16	14.16	14.15	14.14	14.14	14.14	14.15	14.14	14.14	14.14	14.13	14.15
11	14.14	14.15	14.15	14.14	14.13	14.13	14.13	14.14	14.13	14.12	14.12	14.12	14.14
Statistics													
Min	14.14	14.15	14.15	14.14	14.13	14.13	14.13	14.14	14.13	14.12	14.12	14.12	14.14
Max	14.15	14.16	14.16	14.15	14.14	14.14	14.14	14.15	14.14	14.14	14.14	14.13	14.15
Average	14.14	14.15	14.15	14.14	14.14	14.14	14.14	14.14	14.13	14.13	14.13	14.13	14.15
Sigma	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00

Drift Calculation

VOH(OS)1	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	10.0E-03	7.2E-03	0.0E+00	-4.8E-03	-4.8E-03	-2.4E-03	3.2E-03	-5.6E-03	-10.0E-03	-8.0E-03	-9.2E-03	4.8E-03
10	-	10.8E-03	8.0E-03	1.2E-03	-3.6E-03	-5.6E-03	-2.8E-03	1.6E-03	-8.0E-03	-12.4E-03	-11.2E-03	-12.8E-03	4.4E-03
11	-	10.8E-03	8.4E-03	800.1E-06	-4.4E-03	-7.6E-03	-6.4E-03	-3.2E-03	-14.0E-03	-19.2E-03	-18.0E-03	-20.4E-03	3.6E-03
Average	-	10.5E-03	7.9E-03	666.6E-06	-4.3E-03	-6.0E-03	-3.9E-03	533.1E-06	-9.2E-03	-13.9E-03	-12.4E-03	-14.1E-03	4.3E-03
Sigma	-	377.2E-06	499.1E-06	498.8E-06	499.1E-06	1.2E-03	1.8E-03	2.7E-03	3.5E-03	3.9E-03	4.2E-03	4.7E-03	498.8E-06

Parameter : High Output Voltage : VOH(OS)2
 Test conditions : Isource=-200mA
 Unit : V
 Spec Limit Min : 11.00
 Spec Limit Max : 16.00
 Spec limits are represented in bold lines on the graphic.



Measurements

VOH(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	13.03	13.07	13.06	13.09	13.09	13.08	13.09	13.07	13.10	13.10	13.09	13.09	13.08
ON PROTON samples													
5	13.20	13.16	13.09	13.09	13.09	13.07	13.05	13.02	13.00	13.05	13.03	13.04	13.14
6	12.95	12.92	12.84	12.84	12.83	12.79	12.79	12.74	12.74	12.79	12.77	12.77	12.86
7	13.18	13.15	13.08	13.08	13.08	13.05	13.04	13.00	13.04	13.04	13.03	13.03	13.12
Statistics													
Min	12.95	12.92	12.84	12.84	12.83	12.79	12.79	12.74	12.74	12.79	12.77	12.77	12.86
Max	13.20	13.16	13.09	13.09	13.09	13.07	13.05	13.02	13.04	13.05	13.03	13.04	13.14
Average	13.11	13.08	13.00	13.00	13.00	12.97	12.96	12.92	12.93	12.96	12.95	12.95	13.04
Sigma	0.11	0.11	0.12	0.12	0.12	0.13	0.12	0.13	0.13	0.12	0.12	0.12	0.12

Drift Calculation

VOH(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-40.0E-03	-108.4E-03	-109.6E-03	-106.0E-03	-131.6E-03	-146.4E-03	-180.4E-03	-194.4E-03	-152.8E-03	-165.6E-03	-159.6E-03	-64.0E-03
6	-	-35.6E-03	-116.4E-03	-111.6E-03	-120.4E-03	-158.0E-03	-165.6E-03	-212.4E-03	-208.8E-03	-160.0E-03	-178.8E-03	-179.6E-03	-88.4E-03
7	-	-32.4E-03	-102.4E-03	-103.6E-03	-103.6E-03	-132.0E-03	-139.6E-03	-186.4E-03	-138.4E-03	-146.0E-03	-150.0E-03	-153.2E-03	-67.6E-03
Average	-	-36.0E-03	-109.1E-03	-108.3E-03	-110.0E-03	-140.5E-03	-150.5E-03	-193.1E-03	-180.5E-03	-152.9E-03	-164.8E-03	-164.1E-03	-73.3E-03
Sigma	-	3.1E-03	5.7E-03	3.4E-03	7.4E-03	12.4E-03	11.0E-03	13.9E-03	30.4E-03	5.7E-03	11.8E-03	11.2E-03	10.8E-03

Measurements

VOH(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	13.03	13.07	13.06	13.09	13.09	13.08	13.09	13.07	13.10	13.10	13.09	13.09	13.08
ON TID samples													
12	13.10	13.09	13.00	12.95	12.93	12.89	12.86	12.79	12.80	12.83	12.82	12.81	12.97
13	13.09	13.02	12.92	12.91	12.90	12.86	12.86	12.80	12.82	12.85	12.85	12.84	12.93
14	13.04	13.02	12.90	12.89	12.87	12.83	12.82	12.75	12.77	12.80	12.79	12.79	12.94
Statistics													
Min	13.04	13.02	12.90	12.89	12.87	12.83	12.82	12.75	12.77	12.80	12.79	12.79	12.93
Max	13.10	13.09	13.00	12.95	12.93	12.89	12.86	12.80	12.82	12.85	12.85	12.84	12.97
Average	13.08	13.04	12.94	12.91	12.90	12.86	12.84	12.78	12.80	12.83	12.82	12.81	12.95
Sigma	0.03	0.04	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Drift Calculation

VOH(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-7.2E-03	-102.4E-03	-154.8E-03	-167.6E-03	-215.2E-03	-238.4E-03	-306.8E-03	-302.0E-03	-276.0E-03	-282.8E-03	-288.4E-03	-129.6E-03
13	-	-76.4E-03	-172.0E-03	-188.0E-03	-195.6E-03	-231.2E-03	-238.8E-03	-296.4E-03	-270.8E-03	-242.8E-03	-246.4E-03	-253.6E-03	-160.0E-03
14	-	-24.4E-03	-145.2E-03	-159.2E-03	-169.6E-03	-217.6E-03	-228.4E-03	-296.0E-03	-269.6E-03	-244.8E-03	-249.6E-03	-257.2E-03	-103.2E-03
Average	-	-36.0E-03	-139.9E-03	-167.3E-03	-177.6E-03	-221.3E-03	-235.2E-03	-299.7E-03	-280.8E-03	-254.5E-03	-259.6E-03	-266.4E-03	-130.9E-03
Sigma	-	29.4E-03	28.7E-03	14.7E-03	12.8E-03	7.0E-03	4.8E-03	5.0E-03	15.0E-03	15.2E-03	16.5E-03	15.6E-03	23.2E-03

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

VOH(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	13.03	13.07	13.06	13.09	13.09	13.08	13.09	13.07	13.10	13.10	13.09	13.09	13.08
OFF PROTON samples													
2	13.04	13.01	12.93	12.93	12.91	12.87	12.87	12.81	12.85	12.86	12.86	12.84	12.93
3	12.99	12.97	12.90	12.90	12.88	12.84	12.84	12.78	12.82	12.83	12.83	12.81	12.90
4	13.01	12.96	12.88	12.87	12.86	12.81	12.81	12.75	12.79	12.80	12.79	12.78	12.89
Statistics													
Min	12.99	12.96	12.88	12.87	12.86	12.81	12.81	12.75	12.79	12.80	12.79	12.78	12.89
Max	13.04	13.01	12.93	12.93	12.91	12.87	12.87	12.81	12.85	12.86	12.86	12.84	12.93
Average	13.01	12.98	12.90	12.90	12.89	12.84	12.84	12.78	12.82	12.83	12.82	12.81	12.91
Sigma	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.03	0.03	0.02

Drift Calculation

VOH(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-25.2E-03	-106.8E-03	-106.0E-03	-122.4E-03	-167.6E-03	-166.0E-03	-224.8E-03	-188.8E-03	-176.4E-03	-178.0E-03	-195.6E-03	-102.0E-03
3	-	-18.8E-03	-95.6E-03	-97.6E-03	-108.8E-03	-157.6E-03	-152.4E-03	-213.2E-03	-172.4E-03	-161.2E-03	-166.4E-03	-181.2E-03	-98.0E-03
4	-	-49.6E-03	-134.0E-03	-138.8E-03	-148.4E-03	-200.0E-03	-200.4E-03	-266.0E-03	-220.8E-03	-214.0E-03	-225.2E-03	-235.6E-03	-124.0E-03
Average	-	-31.2E-03	-112.1E-03	-114.1E-03	-126.5E-03	-175.1E-03	-172.9E-03	-234.7E-03	-194.0E-03	-183.9E-03	-189.9E-03	-204.1E-03	-108.0E-03
Sigma	-	13.3E-03	16.1E-03	17.8E-03	16.4E-03	18.1E-03	20.2E-03	22.7E-03	20.1E-03	22.2E-03	25.4E-03	23.0E-03	11.4E-03

Measurements

VOH(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	13.03	13.07	13.06	13.09	13.09	13.08	13.09	13.07	13.10	13.10	13.09	13.09	13.08
OFF TID samples													
8	13.10	13.07	12.98	12.95	12.94	12.89	12.89	12.83	12.88	12.89	12.88	12.87	12.94
10	13.15	13.10	13.00	12.98	12.96	12.91	12.90	12.84	12.89	12.89	12.88	12.88	12.97
11	13.06	13.02	12.92	12.91	12.89	12.85	12.85	12.79	12.84	12.82	12.82	12.82	12.91
Statistics													
Min	13.06	13.02	12.92	12.91	12.89	12.85	12.85	12.79	12.84	12.82	12.82	12.82	12.91
Max	13.15	13.10	13.00	12.98	12.96	12.91	12.90	12.84	12.89	12.89	12.88	12.88	12.97
Average	13.10	13.06	12.96	12.95	12.93	12.89	12.88	12.82	12.87	12.87	12.86	12.86	12.94
Sigma	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03

Drift Calculation

VOH(OS)2	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-32.0E-03	-126.4E-03	-146.8E-03	-162.4E-03	-213.6E-03	-211.2E-03	-268.8E-03	-222.8E-03	-215.2E-03	-224.0E-03	-229.6E-03	-160.0E-03
10	-	-45.2E-03	-146.0E-03	-169.2E-03	-189.6E-03	-231.6E-03	-241.6E-03	-305.6E-03	-257.2E-03	-255.6E-03	-267.2E-03	-269.2E-03	-176.4E-03
11	-	-42.4E-03	-144.4E-03	-157.2E-03	-173.2E-03	-209.2E-03	-212.4E-03	-278.0E-03	-225.2E-03	-240.4E-03	-244.4E-03	-243.2E-03	-157.6E-03
Average	-	-39.9E-03	-138.9E-03	-157.7E-03	-175.1E-03	-218.1E-03	-221.7E-03	-284.1E-03	-235.1E-03	-237.1E-03	-245.2E-03	-247.3E-03	-164.7E-03
Sigma	-	5.7E-03	8.9E-03	9.2E-03	11.2E-03	9.7E-03	14.1E-03	15.6E-03	15.7E-03	16.7E-03	17.6E-03	16.4E-03	8.4E-03

Parameter : GAIN : AV

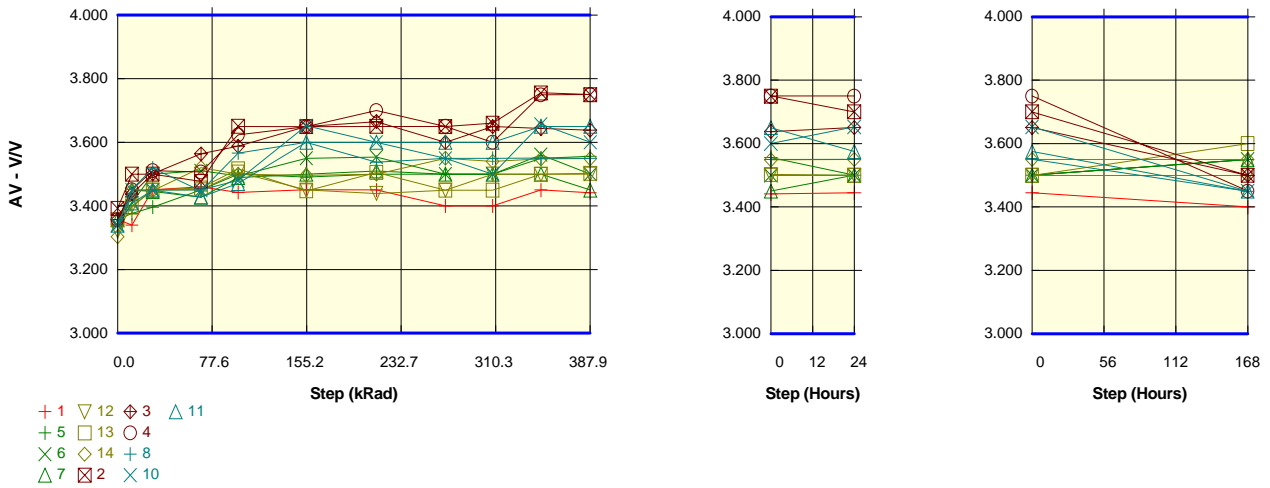
Test conditions :

Unit : V/V

Spec Limit Min : 3.000

Spec Limit Max : 4.000

Spec limits are represented in bold lines on the graphic.



Measurements

AV	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	3.357	3.340	3.451	3.460	3.443	3.451	3.450	3.400	3.400	3.450	3.442	3.445	3.400
ON_PROTON samples													
5	3.357	3.376	3.397	3.450	3.500	3.491	3.500	3.500	3.500	3.550	3.556	3.500	3.550
6	3.339	3.410	3.500	3.511	3.494	3.550	3.554	3.500	3.500	3.561	3.501	3.501	3.550
7	3.357	3.450	3.445	3.428	3.490	3.500	3.510	3.500	3.500	3.500	3.450	3.500	3.550
Statistics													
Min	3.339	3.376	3.397	3.428	3.490	3.491	3.500	3.500	3.500	3.500	3.450	3.500	3.550
Max	3.357	3.450	3.500	3.511	3.500	3.550	3.554	3.500	3.500	3.561	3.556	3.501	3.550
Average	3.351	3.412	3.447	3.463	3.495	3.514	3.522	3.500	3.500	3.537	3.502	3.500	3.550
Sigma	0.008	0.030	0.042	0.035	0.004	0.026	0.024	0.000	0.000	0.027	0.043	0.000	0.000

Drift Calculation

AV	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON_PROTON samples													
5	-	19.0E-03	39.5E-03	93.0E-03	142.9E-03	134.1E-03	142.9E-03	142.9E-03	142.9E-03	192.5E-03	198.8E-03	143.0E-03	192.7E-03
6	-	70.9E-03	160.7E-03	171.4E-03	154.6E-03	210.5E-03	214.9E-03	160.7E-03	160.7E-03	221.9E-03	161.2E-03	161.2E-03	210.5E-03
7	-	93.3E-03	88.3E-03	70.6E-03	132.6E-03	142.9E-03	153.1E-03	142.9E-03	142.9E-03	142.9E-03	92.9E-03	143.2E-03	193.0E-03
Average	-	61.1E-03	96.1E-03	111.6E-03	143.4E-03	162.5E-03	170.3E-03	148.8E-03	148.8E-03	185.8E-03	151.0E-03	149.1E-03	198.8E-03
Sigma	-	31.1E-03	49.8E-03	43.2E-03	9.0E-03	34.2E-03	31.8E-03	8.4E-03	8.4E-03	32.6E-03	43.8E-03	8.5E-03	8.3E-03

Measurements

AV	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	3.357	3.340	3.451	3.460	3.443	3.451	3.450	3.400	3.400	3.450	3.442	3.445	3.400
ON_TID samples													
12	3.321	3.400	3.450	3.451	3.506	3.450	3.440	3.450	3.500	3.499	3.500	3.500	3.500
13	3.357	3.397	3.450	3.457	3.516	3.447	3.505	3.450	3.450	3.500	3.503	3.500	3.600
14	3.304	3.449	3.448	3.521	3.500	3.497	3.500	3.550	3.540	3.548	3.549	3.550	3.550
Statistics													
Min	3.304	3.397	3.448	3.451	3.500	3.447	3.440	3.450	3.450	3.499	3.500	3.500	3.500
Max	3.357	3.449	3.450	3.521	3.516	3.497	3.505	3.550	3.540	3.548	3.549	3.550	3.600
Average	3.327	3.415	3.449	3.476	3.508	3.465	3.482	3.483	3.497	3.516	3.517	3.517	3.550
Sigma	0.022	0.024	0.001	0.032	0.007	0.023	0.030	0.047	0.037	0.023	0.022	0.024	0.041

Drift Calculation

AV	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON_TID samples													
12	-	78.6E-03	128.4E-03	129.4E-03	184.9E-03	128.9E-03	118.2E-03	128.4E-03	178.6E-03	178.0E-03	178.6E-03	178.6E-03	178.6E-03
13	-	39.8E-03	93.0E-03	99.6E-03	159.3E-03	90.2E-03	148.3E-03	92.7E-03	92.7E-03	142.9E-03	145.6E-03	142.9E-03	242.9E-03
14	-	145.3E-03	144.5E-03	217.1E-03	196.5E-03	193.4E-03	196.5E-03	246.3E-03	236.5E-03	244.4E-03	245.4E-03	246.4E-03	246.6E-03
Average	-	87.9E-03	122.0E-03	148.7E-03	180.2E-03	137.5E-03	154.3E-03	155.8E-03	169.3E-03	188.4E-03	189.9E-03	189.3E-03	222.7E-03
Sigma	-	43.6E-03	21.5E-03	49.8E-03	15.5E-03	42.6E-03	32.2E-03	65.6E-03	59.1E-03	42.1E-03	41.5E-03	42.9E-03	31.2E-03

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

AV	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	3.357	3.340	3.451	3.460	3.443	3.451	3.450	3.400	3.400	3.450	3.442	3.445	3.400
OFF PROTON samples													
2	3.393	3.500	3.500	3.477	3.650	3.650	3.650	3.650	3.660	3.755	3.750	3.700	3.500
3	3.357	3.438	3.501	3.564	3.588	3.650	3.665	3.600	3.650	3.643	3.638	3.651	3.500
4	3.357	3.451	3.511	3.507	3.623	3.649	3.700	3.650	3.600	3.749	3.750	3.750	3.450
Statistics													
Min	3.357	3.438	3.500	3.477	3.588	3.649	3.650	3.600	3.600	3.643	3.638	3.651	3.450
Max	3.393	3.500	3.511	3.564	3.650	3.650	3.700	3.650	3.660	3.755	3.750	3.750	3.500
Average	3.369	3.463	3.504	3.516	3.620	3.650	3.672	3.633	3.637	3.716	3.713	3.700	3.483
Sigma	0.017	0.027	0.005	0.036	0.026	0.000	0.021	0.024	0.026	0.051	0.053	0.041	0.024

Drift Calculation

AV	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	107.2E-03	107.1E-03	84.6E-03	257.2E-03	256.7E-03	257.3E-03	257.0E-03	267.2E-03	362.6E-03	357.3E-03	307.6E-03	107.1E-03
3	-	80.9E-03	143.8E-03	207.0E-03	230.7E-03	292.7E-03	308.2E-03	242.8E-03	292.7E-03	286.2E-03	281.3E-03	293.5E-03	142.9E-03
4	-	93.9E-03	154.1E-03	149.7E-03	266.3E-03	292.3E-03	342.9E-03	293.0E-03	242.9E-03	392.3E-03	392.7E-03	392.7E-03	93.0E-03
Average	-	94.0E-03	135.0E-03	147.1E-03	251.4E-03	280.6E-03	302.8E-03	264.3E-03	267.6E-03	347.0E-03	343.8E-03	331.3E-03	114.3E-03
Sigma	-	10.7E-03	20.2E-03	50.0E-03	15.1E-03	16.9E-03	35.2E-03	21.1E-03	20.4E-03	44.7E-03	46.5E-03	43.8E-03	21.0E-03

Measurements

AV	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	3.357	3.340	3.451	3.460	3.443	3.451	3.450	3.400	3.400	3.450	3.442	3.445	3.400
OFF TID samples													
8	3.339	3.452	3.519	3.447	3.567	3.600	3.538	3.550	3.550	3.550	3.550	3.550	3.450
10	3.339	3.450	3.450	3.450	3.480	3.652	3.600	3.550	3.500	3.657	3.600	3.653	3.450
11	3.339	3.409	3.450	3.428	3.471	3.600	3.600	3.600	3.600	3.650	3.650	3.575	3.450
Statistics													
Min	3.339	3.409	3.450	3.428	3.471	3.600	3.538	3.550	3.500	3.550	3.550	3.550	3.450
Max	3.339	3.452	3.519	3.450	3.567	3.652	3.600	3.600	3.600	3.657	3.650	3.653	3.450
Average	3.339	3.437	3.473	3.442	3.506	3.618	3.579	3.567	3.550	3.619	3.600	3.593	3.450
Sigma	0.000	0.020	0.032	0.010	0.043	0.025	0.029	0.024	0.041	0.049	0.041	0.044	0.000

Drift Calculation

AV	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	113.1E-03	179.5E-03	107.8E-03	227.6E-03	260.9E-03	198.3E-03	210.8E-03	210.5E-03	210.9E-03	210.7E-03	211.1E-03	110.5E-03
10	-	111.2E-03	110.9E-03	110.9E-03	141.1E-03	313.1E-03	260.8E-03	210.6E-03	160.8E-03	317.6E-03	261.2E-03	314.0E-03	110.6E-03
11	-	69.9E-03	110.6E-03	89.2E-03	131.6E-03	260.8E-03	260.8E-03	260.8E-03	260.8E-03	311.0E-03	310.9E-03	236.0E-03	110.6E-03
Average	-	98.0E-03	133.7E-03	102.6E-03	166.7E-03	278.3E-03	239.9E-03	227.4E-03	210.7E-03	279.8E-03	260.9E-03	253.7E-03	110.6E-03
Sigma	-	19.9E-03	32.4E-03	9.6E-03	43.2E-03	24.6E-03	29.4E-03	23.6E-03	40.8E-03	48.8E-03	40.9E-03	43.8E-03	41.3E-06

Parameter : Maximum Input Signal Voltage : VINS

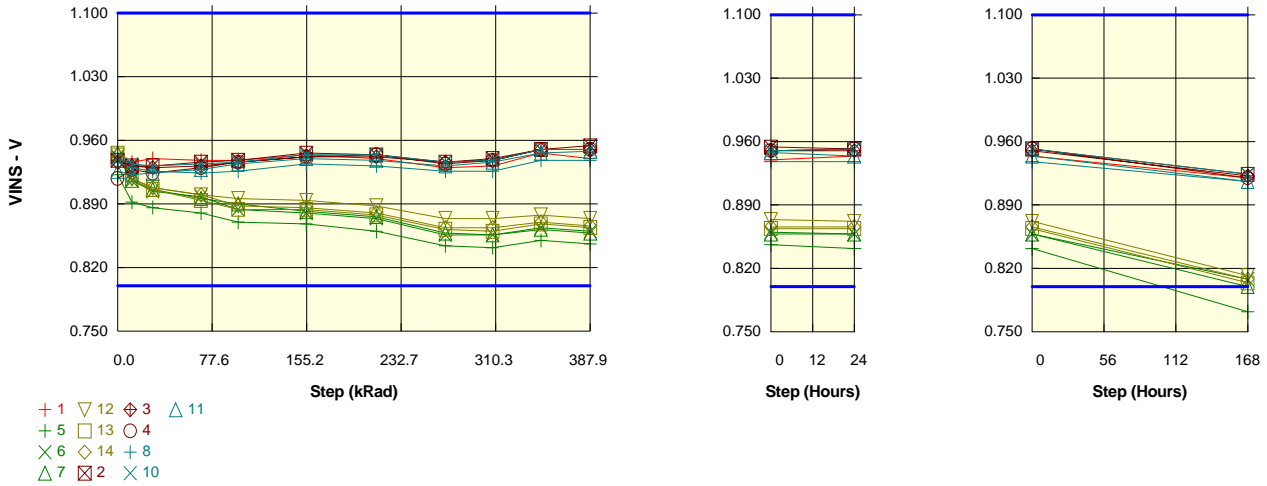
Test conditions :

Unit : V

Spec Limit Min : 0.800

Spec Limit Max : 1.100

Spec limits are represented in bold lines on the graphic.



Measurements

VINS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	0.938	0.936	0.940	0.938	0.938	0.944	0.940	0.930	0.932	0.946	0.940	0.944	0.920
ON PROTON samples													
5	0.922	0.892	0.886	0.880	0.870	0.868	0.860	0.844	0.842	0.850	0.846	0.842	0.772
6	0.942	0.916	0.904	0.898	0.884	0.880	0.874	0.856	0.856	0.864	0.860	0.858	0.808
7	0.946	0.916	0.906	0.896	0.890	0.882	0.876	0.858	0.856	0.862	0.858	0.858	0.800
Statistics													
Min	0.922	0.892	0.886	0.880	0.870	0.868	0.860	0.844	0.842	0.850	0.846	0.842	0.772
Max	0.946	0.916	0.906	0.898	0.890	0.882	0.876	0.858	0.856	0.864	0.860	0.858	0.808
Average	0.937	0.908	0.899	0.891	0.881	0.877	0.870	0.853	0.851	0.859	0.855	0.853	0.793
Sigma	0.010	0.011	0.009	0.008	0.008	0.006	0.007	0.006	0.007	0.006	0.006	0.008	0.015

Drift Calculation

VINS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-30.0E-03	-36.0E-03	-42.0E-03	-52.0E-03	-54.0E-03	-62.0E-03	-78.0E-03	-80.0E-03	-72.0E-03	-76.0E-03	-80.0E-03	-150.0E-03
6	-	-26.0E-03	-38.0E-03	-44.0E-03	-58.0E-03	-62.0E-03	-68.0E-03	-86.0E-03	-86.0E-03	-78.0E-03	-82.0E-03	-84.0E-03	-134.0E-03
7	-	-30.0E-03	-40.0E-03	-50.0E-03	-56.0E-03	-64.0E-03	-70.0E-03	-88.0E-03	-90.0E-03	-84.0E-03	-88.0E-03	-88.0E-03	-146.0E-03
Average	-	-28.7E-03	-38.0E-03	-45.3E-03	-55.3E-03	-60.0E-03	-66.7E-03	-84.0E-03	-85.3E-03	-78.0E-03	-82.0E-03	-84.0E-03	-143.3E-03
Sigma	-	1.9E-03	1.6E-03	3.4E-03	2.5E-03	4.3E-03	3.4E-03	4.3E-03	4.1E-03	4.9E-03	4.9E-03	3.3E-03	6.8E-03

Measurements

VINS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	0.938	0.936	0.940	0.938	0.938	0.944	0.940	0.930	0.932	0.946	0.940	0.944	0.920
ON TID samples													
12	0.944	0.918	0.908	0.900	0.896	0.894	0.888	0.874	0.874	0.878	0.874	0.872	0.812
13	0.946	0.916	0.906	0.894	0.884	0.884	0.878	0.862	0.860	0.868	0.864	0.864	0.804
14	0.944	0.918	0.908	0.900	0.888	0.886	0.880	0.864	0.864	0.870	0.866	0.866	0.808
Statistics													
Min	0.944	0.916	0.906	0.894	0.884	0.884	0.878	0.862	0.860	0.868	0.864	0.864	0.804
Max	0.946	0.918	0.908	0.900	0.896	0.894	0.888	0.874	0.874	0.878	0.874	0.872	0.812
Average	0.945	0.917	0.907	0.898	0.889	0.888	0.882	0.867	0.866	0.872	0.868	0.867	0.808
Sigma	0.001	0.001	0.001	0.003	0.005	0.004	0.004	0.005	0.006	0.004	0.004	0.003	0.003

Drift Calculation

VINS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-26.0E-03	-36.0E-03	-44.0E-03	-48.0E-03	-50.0E-03	-56.0E-03	-70.0E-03	-70.0E-03	-66.0E-03	-70.0E-03	-72.0E-03	-132.0E-03
13	-	-30.0E-03	-40.0E-03	-52.0E-03	-62.0E-03	-62.0E-03	-68.0E-03	-84.0E-03	-86.0E-03	-78.0E-03	-82.0E-03	-82.0E-03	-142.0E-03
14	-	-26.0E-03	-36.0E-03	-44.0E-03	-56.0E-03	-58.0E-03	-64.0E-03	-80.0E-03	-80.0E-03	-74.0E-03	-78.0E-03	-78.0E-03	-136.0E-03
Average	-	-27.3E-03	-37.3E-03	-46.7E-03	-55.3E-03	-56.7E-03	-62.7E-03	-78.0E-03	-78.7E-03	-72.7E-03	-76.7E-03	-77.3E-03	-136.7E-03
Sigma	-	1.9E-03	1.9E-03	3.8E-03	5.7E-03	5.0E-03	5.0E-03	5.9E-03	6.6E-03	5.0E-03	5.0E-03	4.1E-03	4.1E-03

Hirex Engineering	Total Dose Radiation Test Report								Ref.:	HRX/TID/1017
	IS-1845ASRH				Intersil				Issue:	01

Measurements

VINS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	0.938	0.936	0.940	0.938	0.938	0.944	0.940	0.930	0.932	0.946	0.940	0.944	0.920
OFF PROTON samples													
2	0.938	0.932	0.932	0.936	0.938	0.946	0.944	0.936	0.940	0.950	0.954	0.952	0.924
3	0.936	0.932	0.930	0.932	0.936	0.942	0.942	0.936	0.938	0.950	0.950	0.950	0.922
4	0.918	0.928	0.924	0.930	0.936	0.942	0.944	0.934	0.938	0.950	0.950	0.952	0.920
Statistics													
Min	0.918	0.928	0.924	0.930	0.936	0.942	0.942	0.934	0.938	0.950	0.950	0.950	0.920
Max	0.938	0.932	0.932	0.936	0.938	0.946	0.944	0.936	0.940	0.950	0.954	0.952	0.924
Average	0.931	0.931	0.929	0.933	0.937	0.943	0.943	0.935	0.939	0.950	0.951	0.951	0.922
Sigma	0.009	0.002	0.003	0.002	0.001	0.002	0.001	0.001	0.001	0.000	0.002	0.001	0.002

Drift Calculation

VINS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-6.0E-03	-6.0E-03	-2.0E-03	21.5E-09	8.0E-03	6.0E-03	-2.0E-03	2.0E-03	12.0E-03	16.0E-03	14.0E-03	-14.0E-03
3	-	-4.0E-03	-6.0E-03	-4.0E-03	-38.1E-09	6.0E-03	6.0E-03	-38.1E-09	2.0E-03	14.0E-03	14.0E-03	14.0E-03	-14.0E-03
4	-	10.0E-03	6.0E-03	12.0E-03	18.0E-03	24.0E-03	26.0E-03	16.0E-03	20.0E-03	32.0E-03	32.0E-03	34.0E-03	2.0E-03
Average	-	-38.1E-09	-2.0E-03	2.0E-03	6.0E-03	12.7E-03	12.7E-03	4.7E-03	8.0E-03	19.3E-03	20.7E-03	20.7E-03	-8.7E-03
Sigma	-	7.1E-03	5.7E-03	7.1E-03	8.5E-03	8.1E-03	9.4E-03	8.1E-03	8.5E-03	9.0E-03	8.1E-03	9.4E-03	7.5E-03

Measurements

VINS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	0.938	0.936	0.940	0.938	0.938	0.944	0.940	0.930	0.932	0.946	0.940	0.944	0.920
OFF TID samples													
8	0.936	0.930	0.926	0.924	0.926	0.934	0.932	0.926	0.926	0.938	0.938	0.938	0.916
10	0.940	0.934	0.932	0.934	0.936	0.944	0.944	0.936	0.938	0.950	0.950	0.952	0.924
11	0.926	0.922	0.924	0.928	0.934	0.940	0.938	0.932	0.936	0.946	0.948	0.944	0.916
Statistics													
Min	0.926	0.922	0.924	0.924	0.926	0.934	0.932	0.926	0.926	0.938	0.938	0.938	0.916
Max	0.940	0.934	0.932	0.934	0.936	0.944	0.944	0.936	0.938	0.950	0.950	0.952	0.924
Average	0.934	0.929	0.927	0.929	0.932	0.939	0.938	0.931	0.933	0.945	0.945	0.945	0.919
Sigma	0.006	0.005	0.003	0.004	0.004	0.004	0.005	0.004	0.005	0.005	0.005	0.006	0.004

Drift Calculation

VINS	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-6.0E-03	-10.0E-03	-12.0E-03	-10.0E-03	-2.0E-03	-4.0E-03	-10.0E-03	-10.0E-03	2.0E-03	2.0E-03	2.0E-03	-20.0E-03
10	-	-6.0E-03	-8.0E-03	-6.0E-03	-4.0E-03	4.0E-03	4.0E-03	-4.0E-03	-2.0E-03	10.0E-03	10.0E-03	12.0E-03	-16.0E-03
11	-	-4.0E-03	-2.0E-03	2.0E-03	8.0E-03	14.0E-03	12.0E-03	6.0E-03	10.0E-03	20.0E-03	22.0E-03	18.0E-03	-10.0E-03
Average	-	-5.3E-03	-6.7E-03	-5.3E-03	-2.0E-03	5.3E-03	4.0E-03	-2.7E-03	-666.7E-06	10.7E-03	11.3E-03	10.7E-03	-15.3E-03
Sigma	-	942.8E-06	3.4E-03	5.7E-03	7.5E-03	6.6E-03	6.5E-03	6.6E-03	8.2E-03	7.4E-03	8.2E-03	6.6E-03	4.1E-03

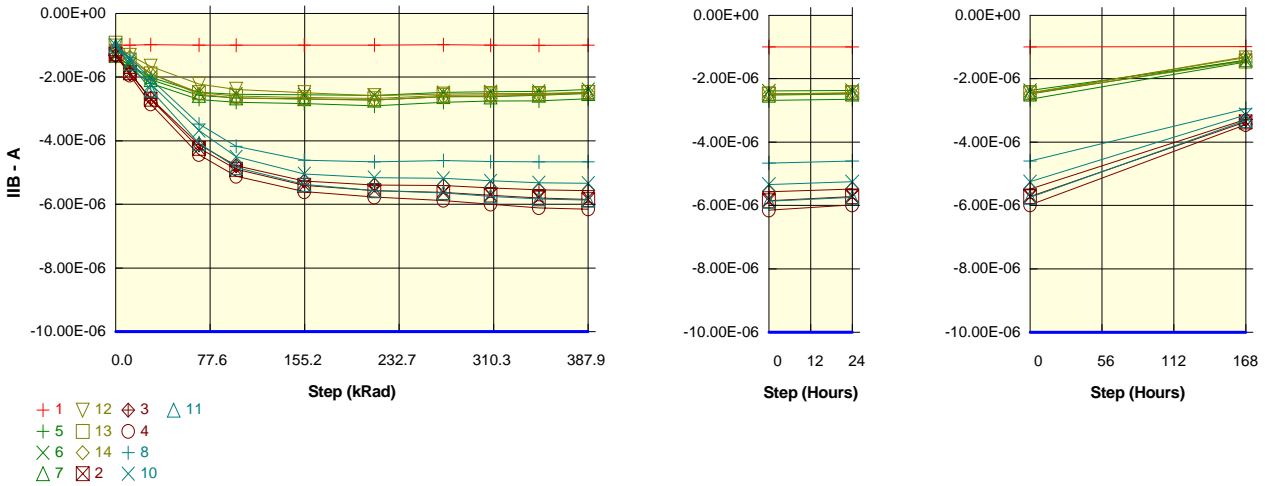
Parameter : Input Bias Current : IIB

Test conditions :

Unit : A

Spec Limit Min : -10.00E-06

Spec limits are represented in bold lines on the graphic.



Measurements

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	-991.30E-09	-990.90E-09	-981.52E-09	-992.98E-09	-994.94E-09	-993.46E-09	-992.22E-09	-981.42E-09	-997.90E-09	-1.00E-06	-994.98E-09	-996.56E-09	-989.56E-09
ON PROTON samples													
5	-1.39E-06	-1.74E-06	-2.19E-06	-2.70E-06	-2.79E-06	-2.83E-06	-2.91E-06	-2.79E-06	-2.75E-06	-2.75E-06	-2.68E-06	-2.65E-06	-1.47E-06
6	-1.33E-06	-1.62E-06	-2.01E-06	-2.48E-06	-2.54E-06	-2.56E-06	-2.58E-06	-2.48E-06	-2.46E-06	-2.45E-06	-2.39E-06	-2.37E-06	-1.42E-06
7	-1.32E-06	-1.66E-06	-2.08E-06	-2.57E-06	-2.65E-06	-2.68E-06	-2.72E-06	-2.61E-06	-2.62E-06	-2.57E-06	-2.52E-06	-2.48E-06	-1.41E-06
Statistics													
Min	-1.39E-06	-1.74E-06	-2.19E-06	-2.70E-06	-2.79E-06	-2.83E-06	-2.91E-06	-2.79E-06	-2.75E-06	-2.75E-06	-2.68E-06	-2.65E-06	-1.47E-06
Max	-1.32E-06	-1.62E-06	-2.01E-06	-2.48E-06	-2.54E-06	-2.56E-06	-2.58E-06	-2.48E-06	-2.46E-06	-2.45E-06	-2.39E-06	-2.37E-06	-1.41E-06
Average	-1.34E-06	-1.67E-06	-2.09E-06	-2.58E-06	-2.66E-06	-2.69E-06	-2.73E-06	-2.63E-06	-2.61E-06	-2.59E-06	-2.53E-06	-2.50E-06	-1.43E-06
Sigma	29.20E-09	51.59E-09	77.03E-09	90.34E-09	105.38E-09	113.60E-09	135.21E-09	127.50E-09	119.49E-09	122.83E-09	121.36E-09	112.96E-09	27.88E-09

Drift Calculation

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-357.6E-09	-807.6E-09	-1.3E-06	-1.4E-06	-1.4E-06	-1.5E-06	-1.4E-06	-1.4E-06	-1.4E-06	-1.3E-06	-1.3E-06	-86.0E-09
6	-	-290.6E-09	-676.2E-09	-1.2E-06	-1.2E-06	-1.2E-06	-1.2E-06	-1.2E-06	-1.1E-06	-1.1E-06	-1.1E-06	-1.0E-06	-92.0E-09
7	-	-338.0E-09	-762.8E-09	-1.3E-06	-1.3E-06	-1.4E-06	-1.4E-06	-1.3E-06	-1.3E-06	-1.2E-06	-1.2E-06	-1.2E-06	-87.2E-09
Average	-	-328.7E-09	-748.9E-09	-1.2E-06	-1.3E-06	-1.3E-06	-1.4E-06	-1.3E-06	-1.3E-06	-1.2E-06	-1.2E-06	-1.2E-06	-88.4E-09
Sigma	-	28.1E-09	54.5E-09	68.0E-09	83.3E-09	91.0E-09	112.3E-09	104.2E-09	99.5E-09	99.0E-09	98.4E-09	89.6E-09	2.6E-09

Measurements

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	-991.30E-09	-990.90E-09	-981.52E-09	-992.98E-09	-994.94E-09	-993.46E-09	-992.22E-09	-981.42E-09	-997.90E-09	-1.00E-06	-994.98E-09	-996.56E-09	-989.56E-09
ON TID samples													
12	-1.02E-06	-1.31E-06	-1.66E-06	-2.22E-06	-2.38E-06	-2.49E-06	-2.58E-06	-2.53E-06	-2.52E-06	-2.52E-06	-2.48E-06	-2.44E-06	-1.34E-06
13	-934.78E-09	-1.46E-06	-1.89E-06	-2.49E-06	-2.60E-06	-2.64E-06	-2.67E-06	-2.57E-06	-2.56E-06	-2.54E-06	-2.48E-06	-2.46E-06	-1.45E-06
14	-1.09E-06	-1.38E-06	-1.89E-06	-2.54E-06	-2.66E-06	-2.70E-06	-2.72E-06	-2.62E-06	-2.60E-06	-2.56E-06	-2.50E-06	-2.47E-06	-1.31E-06
Statistics													
Min	-1.09E-06	-1.46E-06	-1.89E-06	-2.54E-06	-2.66E-06	-2.70E-06	-2.72E-06	-2.62E-06	-2.60E-06	-2.56E-06	-2.50E-06	-2.47E-06	-1.45E-06
Max	-934.78E-09	-1.31E-06	-1.66E-06	-2.22E-06	-2.38E-06	-2.49E-06	-2.58E-06	-2.53E-06	-2.52E-06	-2.52E-06	-2.48E-06	-2.44E-06	-1.31E-06
Average	-1.02E-06	-1.38E-06	-1.82E-06	-2.41E-06	-2.55E-06	-2.61E-06	-2.66E-06	-2.57E-06	-2.56E-06	-2.54E-06	-2.49E-06	-2.46E-06	-1.36E-06
Sigma	63.81E-09	59.54E-09	109.32E-09	140.00E-09	117.20E-09	87.99E-09	58.31E-09	36.01E-09	34.57E-09	18.51E-09	8.83E-09	10.96E-09	59.35E-09

Drift Calculation

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-291.4E-09	-638.8E-09	-1.2E-06	-1.4E-06	-1.5E-06	-1.6E-06	-1.5E-06	-1.5E-06	-1.5E-06	-1.5E-06	-1.4E-06	-315.8E-09
13	-	-525.0E-09	-960.2E-09	-1.6E-06	-1.7E-06	-1.7E-06	-1.7E-06	-1.6E-06	-1.6E-06	-1.6E-06	-1.5E-06	-1.5E-06	-510.6E-09
14	-	-284.8E-09	-802.2E-09	-1.4E-06	-1.6E-06	-1.6E-06	-1.6E-06	-1.5E-06	-1.5E-06	-1.5E-06	-1.4E-06	-1.4E-06	-215.8E-09
Average	-	-367.1E-09	-800.4E-09	-1.4E-06	-1.5E-06	-1.6E-06	-1.6E-06	-1.6E-06	-1.5E-06	-1.5E-06	-1.5E-06	-1.4E-06	-347.4E-09
Sigma	-	111.7E-09	131.2E-09	149.2E-09	125.2E-09	98.6E-09	73.7E-09	58.6E-09	56.5E-09	56.9E-09	55.7E-09	60.5E-09	122.4E-09

Hirex Engineering	Total Dose Radiation Test Report									Ref.:	HRX/TID/1017	
	IS-1845ASRH					Intersil				Issue:	01	

Measurements

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-991.30E-09	-990.90E-09	-981.52E-09	-992.98E-09	-994.94E-09	-993.46E-09	-992.22E-09	-981.42E-09	-997.90E-09	-1.00E-06	-994.98E-09	-996.56E-09	-989.56E-09
OFF PROTON samples													
2	-1.28E-06	-1.86E-06	-2.69E-06	-4.23E-06	-4.89E-06	-5.40E-06	-5.57E-06	-5.63E-06	-5.71E-06	-5.80E-06	-5.85E-06	-5.72E-06	-3.36E-06
3	-1.33E-06	-1.89E-06	-2.66E-06	-4.12E-06	-4.78E-06	-5.26E-06	-5.39E-06	-5.41E-06	-5.48E-06	-5.55E-06	-5.57E-06	-5.48E-06	-3.29E-06
4	-1.30E-06	-1.94E-06	-2.84E-06	-4.44E-06	-5.12E-06	-5.60E-06	-5.77E-06	-5.87E-06	-5.99E-06	-6.10E-06	-6.14E-06	-5.98E-06	-3.45E-06
Statistics													
Min	-1.33E-06	-1.94E-06	-2.84E-06	-4.44E-06	-5.12E-06	-5.60E-06	-5.77E-06	-5.87E-06	-5.99E-06	-6.10E-06	-6.14E-06	-5.98E-06	-3.45E-06
Max	-1.28E-06	-1.86E-06	-2.66E-06	-4.12E-06	-4.78E-06	-5.26E-06	-5.39E-06	-5.41E-06	-5.48E-06	-5.55E-06	-5.57E-06	-5.48E-06	-3.29E-06
Average	-1.30E-06	-1.90E-06	-2.73E-06	-4.26E-06	-4.93E-06	-5.42E-06	-5.57E-06	-5.64E-06	-5.73E-06	-5.82E-06	-5.85E-06	-5.73E-06	-3.36E-06
Sigma	22.09E-09	30.92E-09	80.52E-09	129.55E-09	139.33E-09	139.87E-09	154.92E-09	190.00E-09	211.11E-09	227.91E-09	234.31E-09	207.28E-09	66.00E-09

Drift Calculation

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-589.0E-09	-1.4E-06	-3.0E-06	-3.6E-06	-4.1E-06	-4.3E-06	-4.3E-06	-4.4E-06	-4.5E-06	-4.6E-06	-4.4E-06	-2.1E-06
3	-	-559.4E-09	-1.3E-06	-2.8E-06	-3.5E-06	-3.9E-06	-4.1E-06	-4.1E-06	-4.1E-06	-4.2E-06	-4.2E-06	-4.1E-06	-2.0E-06
4	-	-642.8E-09	-1.5E-06	-3.1E-06	-3.8E-06	-4.3E-06	-4.5E-06	-4.6E-06	-4.7E-06	-4.8E-06	-4.8E-06	-4.7E-06	-2.2E-06
Average	-	-597.1E-09	-1.4E-06	-3.0E-06	-3.6E-06	-4.1E-06	-4.3E-06	-4.3E-06	-4.4E-06	-4.5E-06	-4.6E-06	-4.4E-06	-2.1E-06
Sigma	-	34.5E-09	89.0E-09	141.3E-09	150.7E-09	152.5E-09	168.8E-09	203.6E-09	224.2E-09	241.2E-09	248.1E-09	221.2E-09	80.6E-09

Measurements

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	-991.30E-09	-990.90E-09	-981.52E-09	-992.98E-09	-994.94E-09	-993.46E-09	-992.22E-09	-981.42E-09	-997.90E-09	-1.00E-06	-994.98E-09	-996.56E-09	-989.56E-09
OFF TID samples													
8	-985.04E-09	-1.40E-06	-2.06E-06	-3.48E-06	-4.18E-06	-4.61E-06	-4.66E-06	-4.62E-06	-4.65E-06	-4.66E-06	-4.66E-06	-4.60E-06	-2.95E-06
10	-990.80E-09	-1.47E-06	-2.22E-06	-3.68E-06	-4.50E-06	-5.04E-06	-5.16E-06	-5.18E-06	-5.26E-06	-5.32E-06	-5.33E-06	-5.25E-06	-3.14E-06
11	-1.03E-06	-1.57E-06	-2.40E-06	-4.08E-06	-4.84E-06	-5.37E-06	-5.57E-06	-5.64E-06	-5.75E-06	-5.83E-06	-5.86E-06	-5.74E-06	-3.32E-06
Statistics													
Min	-1.03E-06	-1.57E-06	-2.40E-06	-4.08E-06	-4.84E-06	-5.37E-06	-5.57E-06	-5.64E-06	-5.75E-06	-5.83E-06	-5.86E-06	-5.74E-06	-3.32E-06
Max	-985.04E-09	-1.40E-06	-2.06E-06	-3.48E-06	-4.18E-06	-4.61E-06	-4.66E-06	-4.62E-06	-4.65E-06	-4.66E-06	-4.66E-06	-4.60E-06	-2.95E-06
Average	-1.00E-06	-1.48E-06	-2.23E-06	-3.75E-06	-4.50E-06	-5.01E-06	-5.13E-06	-5.15E-06	-5.22E-06	-5.27E-06	-5.29E-06	-5.20E-06	-3.13E-06
Sigma	21.57E-09	69.12E-09	141.19E-09	251.23E-09	269.86E-09	309.81E-09	369.93E-09	414.23E-09	448.40E-09	476.23E-09	493.41E-09	467.32E-09	151.25E-09

Drift Calculation

IIB	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-414.2E-09	-1.1E-06	-2.5E-06	-3.2E-06	-3.6E-06	-3.7E-06	-3.6E-06	-3.7E-06	-3.7E-06	-3.7E-06	-3.6E-06	-2.0E-06
10	-	-479.2E-09	-1.2E-06	-2.7E-06	-3.5E-06	-4.0E-06	-4.2E-06	-4.2E-06	-4.3E-06	-4.3E-06	-4.3E-06	-4.3E-06	-2.1E-06
11	-	-534.4E-09	-1.4E-06	-3.0E-06	-3.8E-06	-4.3E-06	-4.5E-06	-4.6E-06	-4.7E-06	-4.8E-06	-4.8E-06	-4.7E-06	-2.3E-06
Average	-	-475.9E-09	-1.2E-06	-2.7E-06	-3.5E-06	-4.0E-06	-4.1E-06	-4.1E-06	-4.2E-06	-4.3E-06	-4.3E-06	-4.2E-06	-2.1E-06
Sigma	-	49.1E-09	121.4E-09	230.2E-09	250.2E-09	290.9E-09	350.8E-09	395.1E-09	429.4E-09	457.3E-09	474.4E-09	448.5E-09	132.0E-09

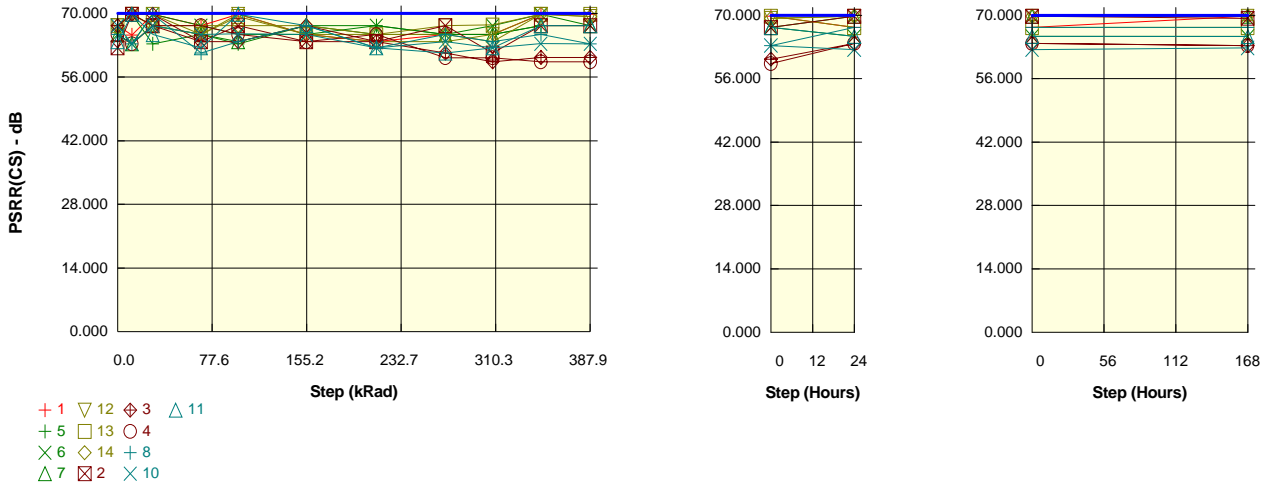
Parameter : Power Supply Rejection ratio : PSRR(CS)

Test conditions : VCC=12V to 25V

Unit : dB

Spec Limit Min : 70.000

Spec limits are represented in bold lines on the graphic.



Measurements

PSRR(CS)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	67.315	65.274	69.814	67.315	69.814	65.377	63.793	65.377	65.377	69.814	69.814	67.315	69.814
ON PROTON samples													
5	67.315	69.814	63.336	65.377	63.336	67.315	67.315	65.377	65.377	67.315			
6	65.377	63.336	69.814	67.315	65.377	65.377	67.315	65.377	67.315	69.814	67.315	65.377	65.377
7	65.377	63.336	67.315	65.377	63.793	67.315	65.377	65.377	65.377	67.315	67.315	69.814	69.814
Statistics													
Min	65.377	63.336	63.336	65.377	63.336	65.377	65.377	65.377	65.377	67.315	67.315	65.377	65.377
Max	67.315	69.814	69.814	67.315	65.377	67.315	67.315	65.377	67.315	69.814	67.315	69.814	69.814
Average	66.023	65.495	66.822	66.023	64.169	66.669	66.669	65.377	66.023	68.148	67.315	67.595	67.595
Sigma	0.914	3.054	2.668	0.914	0.875	0.914	0.914	0.000	0.914	1.178	0.000	2.218	2.218

Drift Calculation

PSRR(CS)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	2.5E+00	-4.0E+00	-1.9E+00	-4.0E+00	0.0E+00	-9.92E-06	-1.9E+00	-1.9E+00	-9.92E-06			
6	-	-2.0E+00	4.4E+00	1.9E+00	0.0E+00	0.0E+00	1.9E+00	76.3E-06	1.9E+00	4.4E+00	1.9E+00	76.3E-06	76.3E-06
7	-	-2.0E+00	1.9E+00	76.3E-06	-1.6E+00	1.9E+00	0.0E+00	76.3E-06	76.3E-06	1.9E+00	1.9E+00	4.4E+00	4.4E+00
Average	-	-527.8E-03	798.6E-03	25.4E-06	-1.9E+00	646.1E-03	646.0E-03	-646.0E-03	50.9E-06	2.1E+00	1.9E+00	2.2E+00	2.2E+00
Sigma	-	2.1E+00	3.5E+00	1.6E+00	1.6E+00	913.7E-03	913.7E-03	913.7E-03	1.6E+00	1.8E+00	0.0E+00	2.2E+00	2.2E+00

Measurements

PSRR(CS)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	67.315	65.274	69.814	67.315	69.814	65.377	63.793	65.377	65.377	69.814	69.814	67.315	69.814
ON TID samples													
12	67.315	69.814	67.315	65.377	69.814	65.377	63.793	63.793	65.377	69.814	69.336	69.814	69.814
13	67.315	69.814	69.814	65.377	69.356	65.377	65.377	67.315	67.485	69.814	69.814	67.315	67.315
14	67.336	69.814	67.315	67.315	67.315	67.315	65.377	65.377	63.793	69.814	69.336	69.814	69.814
Statistics													
Min	67.315	69.814	67.315	65.377	67.315	65.377	63.793	63.793	63.793	69.814	69.336	67.315	67.315
Max	67.336	69.814	69.814	67.315	69.814	67.315	65.377	67.315	67.485	69.814	69.814	69.814	69.814
Average	67.322	69.814	68.148	66.023	68.828	66.023	64.849	65.495	65.552	69.814	69.495	68.981	68.981
Sigma	0.010	0.000	1.178	0.914	1.086	0.914	0.747	1.440	1.512	0.000	0.225	1.178	1.178

Drift Calculation

PSRR(CS)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	2.5E+00	99.2E-06	-1.9E+00	2.5E+00	-1.9E+00	-3.5E+00	-3.5E+00	-1.9E+00	2.5E+00	2.0E+00	2.5E+00	2.5E+00
13	-	2.5E+00	2.5E+00	-1.9E+00	2.0E+00	-1.9E+00	-1.9E+00	0.0E+00	169.5E-03	2.5E+00	2.5E+00	0.0E+00	0.0E+00
14	-	2.5E+00	-20.4E-03	-20.4E-03	-20.5E-03	-20.4E-03	-2.0E+00	-2.0E+00	-3.5E+00	2.5E+00	2.0E+00	2.5E+00	2.5E+00
Average	-	2.5E+00	826.1E-03	-1.3E+00	1.5E+00	-1.3E+00	-2.5E+00	-1.8E+00	-1.8E+00	2.5E+00	2.2E+00	1.7E+00	1.7E+00
Sigma	-	9.7E-03	1.2E+00	904.0E-03	1.1E+00	904.0E-03	741.7E-03	1.4E+00	1.5E+00	9.6E-03	230.3E-03	1.2E+00	1.2E+00

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

PSRR(CS)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	67.315	65.274	69.814	67.315	69.814	65.377	63.793	65.377	65.377	69.814	69.814	67.315	69.814
OFF PROTON samples													
2	62.454	69.814	67.315	63.793	67.315	63.793	63.793	67.315	61.294	67.315	67.315	69.814	69.356
3	67.315	69.814	69.814	63.793	63.793	67.315	63.793	61.294	59.356	60.336	60.336	63.793	63.336
4	65.377	63.336	67.315	67.315	65.377	63.793	65.377	60.271	60.271	59.356	59.356	63.793	63.315
Statistics													
Min	62.454	63.336	67.315	63.793	63.793	63.793	63.793	60.271	59.356	59.356	59.356	63.793	63.315
Max	67.315	69.814	69.814	67.315	67.315	67.315	65.377	67.315	61.294	67.315	67.315	69.814	69.356
Average	65.049	67.654	68.148	64.967	65.495	64.967	64.321	62.960	60.307	62.336	62.336	65.800	65.336
Sigma	1.998	3.054	1.178	1.660	1.440	1.660	0.747	3.107	0.792	3.544	3.544	2.838	2.843

Drift Calculation

PSRR(CS)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	7.4E+00	4.9E+00	1.3E+00	4.9E+00	1.3E+00	1.3E+00	4.9E+00	-1.2E+00	4.9E+00	4.9E+00	7.4E+00	6.9E+00
3	-	2.5E+00	2.5E+00	-3.5E+00	-3.5E+00	0.0E+00	-3.5E+00	-6.0E+00	-8.0E+00	-7.0E+00	-7.0E+00	-3.5E+00	-4.0E+00
4	-	-2.0E+00	1.9E+00	1.9E+00	76.3E-06	-1.6E+00	0.0E+00	-5.1E+00	-5.1E+00	-6.0E+00	-6.0E+00	-1.6E+00	-2.1E+00
Average	-	2.6E+00	3.1E+00	-81.6E-03	446.3E-03	-81.6E-03	-727.7E-03	-2.1E+00	-4.7E+00	-2.7E+00	-2.7E+00	751.3E-03	286.9E-03
Sigma	-	3.8E+00	1.3E+00	2.4E+00	3.4E+00	1.2E+00	2.1E+00	4.9E+00	2.8E+00	5.4E+00	5.4E+00	4.7E+00	4.7E+00

Measurements

PSRR(CS)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	67.315	65.274	69.814	67.315	69.814	65.377	63.793	65.377	65.377	69.814	69.814	67.315	69.814
OFF TID samples													
8	65.377	63.336	69.814	61.295	63.793	67.315	62.454	65.377	63.793	65.377	63.336	67.315	67.315
10	67.315	63.336	67.315	65.377	65.528	65.377	62.454	63.793	62.454	63.356	63.336	62.454	62.814
11	63.793	69.814	65.377	62.454	69.814	67.315	62.454	61.294	62.454	67.315	67.315	65.377	65.315
Statistics													
Min	63.793	63.336	65.377	61.295	63.793	65.377	62.454	61.294	62.454	63.356	63.336	62.454	62.814
Max	67.315	69.814	69.814	65.377	69.814	67.315	62.454	65.377	63.793	67.315	67.315	67.315	67.315
Average	65.495	65.495	67.502	63.042	66.378	66.669	62.454	63.488	62.901	65.349	64.662	65.049	65.148
Sigma	1.440	3.054	1.816	1.718	2.530	0.914	0.000	1.681	0.631	1.616	1.876	1.998	1.841

Drift Calculation

PSRR(CS)	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-2.0E+00	4.4E+00	-4.1E+00	-1.6E+00	1.9E+00	-2.9E+00	0.0E+00	-1.6E+00	0.0E+00	-2.0E+00	1.9E+00	1.9E+00
10	-	-4.0E+00	-99.2E-06	-1.9E+00	-1.8E+00	-1.9E+00	-4.9E+00	-3.5E+00	-4.9E+00	-4.0E+00	-4.0E+00	-4.9E+00	-4.5E+00
11	-	6.0E+00	1.6E+00	-1.3E+00	6.0E+00	3.5E+00	-1.3E+00	-2.5E+00	-1.3E+00	3.5E+00	3.5E+00	1.6E+00	1.5E+00
Average	-	20.3E-06	2.0E+00	-2.5E+00	883.4E-03	1.2E+00	-3.0E+00	-2.0E+00	-2.6E+00	-145.7E-03	-832.9E-03	-446.3E-03	-347.1E-03
Sigma	-	4.3E+00	1.8E+00	1.2E+00	3.6E+00	2.3E+00	1.4E+00	1.5E+00	1.6E+00	3.1E+00	3.2E+00	3.1E+00	2.9E+00

Parameter : Stop Threshold Voltage : VSTOP

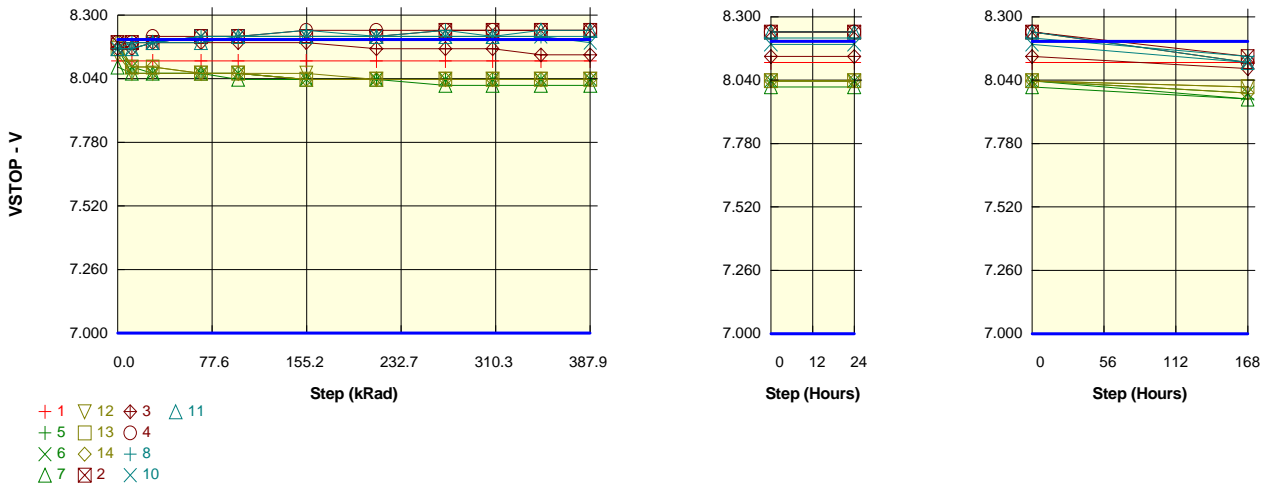
Test conditions :

Unit : V

Spec Limit Min : 7.000

Spec Limit Max : 8.200

Spec limits are represented in bold lines on the graphic.



Measurements

VSTOP	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113
ON PROTON samples													
5	8.163	8.063	8.063	8.063	8.063	8.038	8.038	8.038	8.038	8.038	8.038	8.038	7.963
6	8.188	8.088	8.063	8.063	8.063	8.038	8.038	8.038	8.038	8.038	8.038	8.038	7.988
7	8.088	8.063	8.063	8.063	8.038	8.038	8.038	8.013	8.013	8.013	8.013	8.013	7.963
Statistics													
Min	8.088	8.063	8.063	8.063	8.038	8.038	8.038	8.013	8.013	8.013	8.013	8.013	7.963
Max	8.188	8.088	8.063	8.063	8.063	8.038	8.038	8.038	8.038	8.038	8.038	8.038	7.988
Average	8.146	8.071	8.063	8.063	8.054	8.038	8.038	8.029	8.029	8.029	8.029	8.029	7.971
Sigma	0.042	0.012	0.000	0.000	0.012	0.000	0.000	0.012	0.012	0.012	0.012	0.012	0.012

Drift Calculation

VSTOP	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-100.1E-03	-100.1E-03	-100.2E-03	-100.1E-03	-125.1E-03	-125.2E-03	-125.1E-03	-125.1E-03	-125.1E-03	-125.1E-03	-125.1E-03	-200.1E-03
6	-	-100.1E-03	-125.2E-03	-125.2E-03	-125.2E-03	-150.2E-03	-150.2E-03	-150.2E-03	-150.2E-03	-150.2E-03	-150.2E-03	-150.2E-03	-200.1E-03
7	-	-25.1E-03	-25.1E-03	-25.1E-03	-50.1E-03	-50.1E-03	-50.1E-03	-75.1E-03	-75.2E-03	-75.1E-03	-75.1E-03	-75.1E-03	-125.1E-03
Average	-	-75.1E-03	-83.5E-03	-83.5E-03	-91.8E-03	-108.5E-03	-108.5E-03	-116.8E-03	-116.8E-03	-116.8E-03	-116.8E-03	-116.8E-03	-175.1E-03
Sigma	-	35.4E-03	42.5E-03	42.5E-03	31.2E-03	42.5E-03	42.5E-03	31.2E-03	31.2E-03	31.2E-03	31.2E-03	31.2E-03	35.4E-03

Measurements

VSTOP	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113
ON TID samples													
12	8.138	8.063	8.063	8.063	8.063	8.063	8.038	8.038	8.038	8.038	8.038	8.038	8.013
13	8.163	8.088	8.088	8.063	8.063	8.038	8.038	8.038	8.038	8.038	8.038	8.038	8.013
14	8.188	8.088	8.088	8.063	8.063	8.038	8.038	8.038	8.038	8.038	8.038	8.038	7.988
Statistics													
Min	8.138	8.063	8.063	8.063	8.063	8.038	8.038	8.038	8.038	8.038	8.038	8.038	7.988
Max	8.188	8.088	8.088	8.063	8.063	8.063	8.038	8.038	8.038	8.038	8.038	8.038	8.013
Average	8.163	8.079	8.079	8.063	8.063	8.046	8.038	8.038	8.038	8.038	8.038	8.038	8.004
Sigma	0.020	0.012	0.012	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.012

Drift Calculation

VSTOP	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-75.1E-03	-75.1E-03	-75.1E-03	-75.2E-03	-75.1E-03	-100.2E-03	-100.2E-03	-100.2E-03	-100.2E-03	-100.2E-03	-100.2E-03	-125.1E-03
13	-	-75.1E-03	-75.1E-03	-100.1E-03	-100.1E-03	-125.1E-03	-125.1E-03	-125.1E-03	-125.1E-03	-125.1E-03	-125.1E-03	-125.1E-03	-150.1E-03
14	-	-100.1E-03	-100.1E-03	-125.2E-03	-125.2E-03	-150.2E-03	-150.2E-03	-150.2E-03	-150.2E-03	-150.2E-03	-150.2E-03	-150.2E-03	-200.1E-03
Average	-	-83.4E-03	-83.5E-03	-100.2E-03	-100.2E-03	-116.8E-03	-125.2E-03	-125.1E-03	-125.2E-03	-125.2E-03	-125.2E-03	-125.2E-03	-158.4E-03
Sigma	-	11.8E-03	11.8E-03	20.4E-03	20.4E-03	31.2E-03	20.4E-03	20.4E-03	20.4E-03	20.4E-03	20.4E-03	20.4E-03	31.2E-03

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

VSTOP	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113
OFF PROTON samples													
2	8.188	8.188	8.188	8.213	8.213	8.213	8.213	8.238	8.238	8.238	8.238	8.238	8.138
3	8.163	8.163	8.188	8.188	8.188	8.188	8.163	8.163	8.163	8.138	8.138	8.138	8.088
4	8.188	8.188	8.213	8.213	8.213	8.238	8.238	8.238	8.238	8.238	8.238	8.238	8.113
Statistics													
Min	8.163	8.163	8.188	8.188	8.188	8.188	8.163	8.163	8.163	8.138	8.138	8.138	8.088
Max	8.188	8.188	8.213	8.213	8.213	8.238	8.238	8.238	8.238	8.238	8.238	8.238	8.138
Average	8.179	8.179	8.196	8.204	8.204	8.213	8.204	8.213	8.213	8.204	8.204	8.204	8.113
Sigma	0.012	0.012	0.012	0.012	0.012	0.020	0.031	0.035	0.035	0.047	0.047	0.047	0.020

Drift Calculation

VSTOP	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-2.9E-06	-5.7E-06	25.0E-03	25.0E-03	25.0E-03	25.0E-03	50.0E-03	50.0E-03	50.0E-03	50.0E-03	50.0E-03	-50.1E-03
3	-	-2.9E-06	25.0E-03	25.0E-03	25.0E-03	25.0E-03	-52.5E-06	-39.1E-06	-46.7E-06	-25.1E-03	-25.1E-03	-25.0E-03	-75.1E-03
4	-	-7.6E-06	25.0E-03	25.0E-03	25.0E-03	50.0E-03	50.0E-03	50.0E-03	50.0E-03	49.9E-03	49.9E-03	50.0E-03	-75.1E-03
Average	-	-4.5E-06	16.7E-03	25.0E-03	25.0E-03	33.3E-03	25.0E-03	33.3E-03	33.3E-03	24.9E-03	24.9E-03	25.0E-03	-66.7E-03
Sigma	-	2.2E-06	11.8E-03	1.6E-06	4.7E-06	11.8E-03	20.4E-03	23.6E-03	23.6E-03	35.4E-03	35.4E-03	35.4E-03	11.8E-03

Measurements

VSTOP	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113	8.113
OFF TID samples													
8	8.163	8.188	8.188	8.213	8.213	8.238	8.213	8.238	8.213	8.213	8.213	8.213	8.138
10	8.163	8.163	8.188	8.213	8.213	8.213	8.213	8.213	8.213	8.213	8.188	8.188	8.113
11	8.163	8.163	8.188	8.188	8.213	8.213	8.213	8.213	8.213	8.238	8.238	8.238	8.113
Statistics													
Min	8.163	8.163	8.188	8.188	8.213	8.213	8.213	8.213	8.213	8.213	8.188	8.188	8.113
Max	8.163	8.188	8.188	8.213	8.213	8.238	8.213	8.238	8.213	8.238	8.238	8.238	8.138
Average	8.163	8.171	8.188	8.204	8.213	8.221	8.213	8.221	8.213	8.221	8.213	8.213	8.121
Sigma	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.000	0.012	0.020	0.020	0.012

Drift Calculation

VSTOP	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	25.0E-03	25.0E-03	50.0E-03	50.0E-03	75.0E-03	50.0E-03	75.0E-03	50.0E-03	50.0E-03	50.0E-03	50.0E-03	-25.0E-03
10	-	2.9E-06	25.0E-03	50.0E-03	50.0E-03	50.0E-03	50.0E-03	50.0E-03	50.0E-03	50.0E-03	25.0E-03	25.0E-03	-50.0E-03
11	-	9.5E-06	25.0E-03	25.0E-03	50.0E-03	50.0E-03	50.0E-03	50.0E-03	50.0E-03	75.0E-03	75.0E-03	75.0E-03	-50.0E-03
Average	-	8.3E-03	25.0E-03	41.7E-03	50.0E-03	58.3E-03	50.0E-03	58.3E-03	50.0E-03	58.3E-03	50.0E-03	50.0E-03	-41.7E-03
Sigma	-	11.8E-03	5.4E-06	11.8E-03	7.1E-06	11.8E-03	5.3E-06	11.8E-03	5.2E-06	11.8E-03	20.4E-03	20.4E-03	11.8E-03

Parameter : Start Threshold Voltage : VSTART

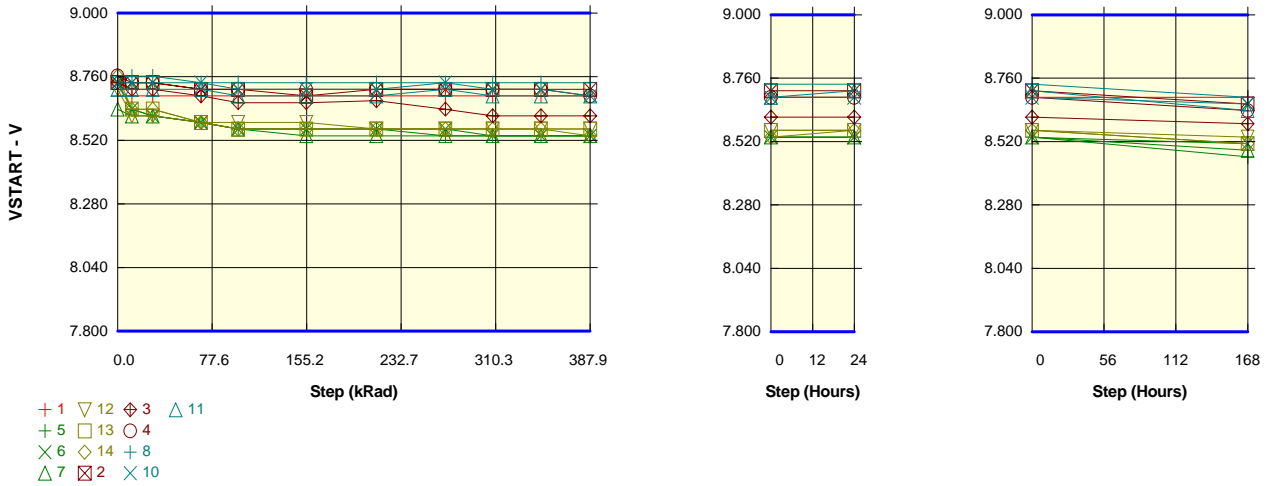
Test conditions :

Unit : V

Spec Limit Min : 7.800

Spec Limit Max : 9.000

Spec limits are represented in bold lines on the graphic.



Measurements

VSTART	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688
ON PROTON samples													
5	8.738	8.637	8.612	8.587	8.562	8.562	8.562	8.537	8.537	8.537	8.537	8.537	8.462
6	8.738	8.637	8.612	8.587	8.562	8.562	8.562	8.562	8.537	8.537	8.537	8.537	8.512
7	8.638	8.612	8.612	8.587	8.562	8.537	8.537	8.537	8.537	8.537	8.537	8.537	8.487
Statistics													
Min	8.638	8.612	8.612	8.587	8.562	8.537	8.537	8.537	8.537	8.537	8.537	8.537	8.462
Max	8.738	8.637	8.612	8.587	8.562	8.562	8.562	8.562	8.537	8.537	8.537	8.537	8.512
Average	8.704	8.629	8.612	8.587	8.562	8.554	8.554	8.546	8.537	8.537	8.537	8.537	8.487
Sigma	0.047	0.012	0.000	0.000	0.000	0.012	0.012	0.012	0.000	0.000	0.000	0.000	0.020

Drift Calculation

VSTART	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-100.1E-03	-125.1E-03	-150.1E-03	-175.1E-03	-175.1E-03	-175.2E-03	-200.2E-03	-200.2E-03	-200.1E-03	-200.1E-03	-200.1E-03	-275.1E-03
6	-	-100.1E-03	-125.1E-03	-150.2E-03	-175.2E-03	-175.2E-03	-175.2E-03	-175.2E-03	-200.2E-03	-200.2E-03	-200.2E-03	-201.1E-03	-225.1E-03
7	-	-25.1E-03	-25.1E-03	-50.2E-03	-75.2E-03	-100.2E-03	-100.2E-03	-100.2E-03	-100.2E-03	-100.2E-03	-100.2E-03	-100.2E-03	-150.1E-03
Average	-	-75.1E-03	-91.8E-03	-116.8E-03	-141.8E-03	-150.2E-03	-150.2E-03	-158.5E-03	-166.8E-03	-166.8E-03	-167.1E-03	-167.1E-03	-216.8E-03
Sigma	-	35.4E-03	47.1E-03	47.1E-03	47.1E-03	35.4E-03	35.4E-03	42.5E-03	47.1E-03	47.1E-03	47.1E-03	47.4E-03	51.4E-03

Measurements

VSTART	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688
ON TID samples													
12	8.713	8.612	8.612	8.587	8.587	8.587	8.562	8.562	8.562	8.562	8.562	8.562	8.537
13	8.738	8.637	8.637	8.587	8.562	8.562	8.562	8.562	8.562	8.562	8.562	8.562	8.512
14	8.763	8.637	8.637	8.587	8.562	8.562	8.562	8.562	8.562	8.562	8.537	8.562	8.512
Statistics													
Min	8.713	8.612	8.612	8.587	8.562	8.562	8.562	8.562	8.562	8.562	8.537	8.562	8.512
Max	8.763	8.637	8.637	8.587	8.587	8.587	8.562	8.562	8.562	8.562	8.562	8.562	8.537
Average	8.738	8.629	8.629	8.587	8.571	8.571	8.562	8.562	8.562	8.562	8.554	8.562	8.521
Sigma	0.020	0.012	0.012	0.000	0.012	0.012	0.000	0.000	0.000	0.000	0.012	0.000	0.012

Drift Calculation

VSTART	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-100.1E-03	-100.1E-03	-125.1E-03	-125.1E-03	-125.1E-03	-150.1E-03	-150.1E-03	-150.1E-03	-150.1E-03	-150.1E-03	-150.1E-03	-175.1E-03
13	-	-100.1E-03	-100.1E-03	-150.1E-03	-175.1E-03	-175.1E-03	-175.1E-03	-175.1E-03	-175.1E-03	-175.1E-03	-175.1E-03	-175.1E-03	-225.1E-03
14	-	-125.1E-03	-125.1E-03	-175.1E-03	-200.1E-03	-200.1E-03	-200.2E-03	-200.2E-03	-200.1E-03	-200.1E-03	-225.1E-03	-200.1E-03	-250.1E-03
Average	-	-108.4E-03	-108.4E-03	-150.1E-03	-166.8E-03	-166.8E-03	-175.1E-03	-175.1E-03	-175.1E-03	-175.1E-03	-183.5E-03	-175.1E-03	-216.8E-03
Sigma	-	11.8E-03	11.8E-03	20.4E-03	31.2E-03	31.2E-03	20.4E-03	20.4E-03	20.4E-03	20.4E-03	31.2E-03	20.4E-03	31.2E-03

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

VSTART	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688
OFF PROTON samples													
2	8.738	8.738	8.738	8.713	8.713	8.688	8.713	8.713	8.713	8.713	8.713	8.713	8.663
3	8.738	8.713	8.713	8.688	8.663	8.663	8.669	8.638	8.613	8.613	8.613	8.613	8.588
4	8.763	8.738	8.738	8.713	8.713	8.713	8.713	8.713	8.713	8.713	8.688	8.688	8.638
Statistics													
Min	8.738	8.713	8.713	8.688	8.663	8.663	8.669	8.638	8.613	8.613	8.613	8.613	8.588
Max	8.763	8.738	8.738	8.713	8.713	8.713	8.713	8.713	8.713	8.713	8.713	8.713	8.663
Average	8.746	8.729	8.729	8.704	8.696	8.688	8.698	8.688	8.679	8.679	8.671	8.671	8.629
Sigma	0.012	0.012	0.012	0.012	0.024	0.020	0.020	0.035	0.047	0.047	0.042	0.042	0.031

Drift Calculation

VSTART	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	953.7E-09	-953.7E-09	-25.0E-03	-25.0E-03	-50.0E-03	-25.0E-03	-25.0E-03	-25.0E-03	-25.0E-03	-25.0E-03	-25.0E-03	-75.1E-03
3	-	-25.0E-03	-25.0E-03	-50.0E-03	-75.0E-03	-75.0E-03	-68.1E-03	-100.0E-03	-125.0E-03	-125.0E-03	-125.0E-03	-125.0E-03	-150.1E-03
4	-	-25.0E-03	-25.0E-03	-50.0E-03	-50.0E-03	-50.0E-03	-50.0E-03	-50.0E-03	-50.0E-03	-50.0E-03	-75.0E-03	-75.0E-03	-125.1E-03
Average	-	-16.7E-03	-16.7E-03	-41.7E-03	-50.0E-03	-58.4E-03	-47.7E-03	-58.4E-03	-66.7E-03	-66.7E-03	-75.0E-03	-75.0E-03	-116.7E-03
Sigma	-	11.8E-03	11.8E-03	11.8E-03	20.4E-03	11.8E-03	17.6E-03	31.2E-03	42.5E-03	42.5E-03	40.8E-03	40.8E-03	31.2E-03

Measurements

VSTART	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688	8.688
OFF TID samples													
8	8.763	8.763	8.763	8.738	8.738	8.738	8.738	8.738	8.738	8.738	8.738	8.738	8.688
10	8.738	8.738	8.738	8.738	8.713	8.713	8.713	8.738	8.713	8.713	8.688	8.688	8.663
11	8.713	8.713	8.713	8.713	8.688	8.688	8.688	8.713	8.688	8.688	8.688	8.713	8.638
Statistics													
Min	8.713	8.713	8.713	8.713	8.688	8.688	8.688	8.713	8.688	8.688	8.688	8.688	8.638
Max	8.763	8.763	8.763	8.738	8.738	8.738	8.738	8.738	8.738	8.738	8.738	8.738	8.688
Average	8.738	8.738	8.738	8.729	8.713	8.713	8.713	8.729	8.713	8.713	8.704	8.713	8.663
Sigma	0.020	0.020	0.020	0.012	0.020	0.020	0.020	0.012	0.020	0.020	0.024	0.020	0.020

Drift Calculation

VSTART	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	8.6E-06	9.5E-06	-25.0E-03	-25.0E-03	-25.0E-03	-25.0E-03	-25.0E-03	-25.0E-03	-25.0E-03	-25.0E-03	-25.0E-03	-75.0E-03
10	-	10.5E-06	11.4E-06	13.4E-06	-25.0E-03	-25.0E-03	-25.0E-03	-3.8E-06	-25.0E-03	-25.0E-03	-50.0E-03	-50.0E-03	-75.0E-03
11	-	16.2E-06	21.9E-06	9.5E-06	-25.0E-03	-25.0E-03	-25.0E-03	5.7E-06	-25.0E-03	-25.0E-03	-25.0E-03	23.8E-06	-75.0E-03
Average	-	11.8E-06	14.3E-06	-8.3E-03	-25.0E-03	-25.0E-03	-25.0E-03	-8.3E-03	-25.0E-03	-25.0E-03	-33.3E-03	-25.0E-03	-75.0E-03
Sigma	-	3.2E-06	5.5E-06	11.8E-03	6.2E-06	6.5E-06	5.4E-06	11.8E-03	4.5E-06	4.0E-06	11.8E-03	20.4E-03	4.7E-06

Parameter : Maximum Duty Cycle : DCMAX

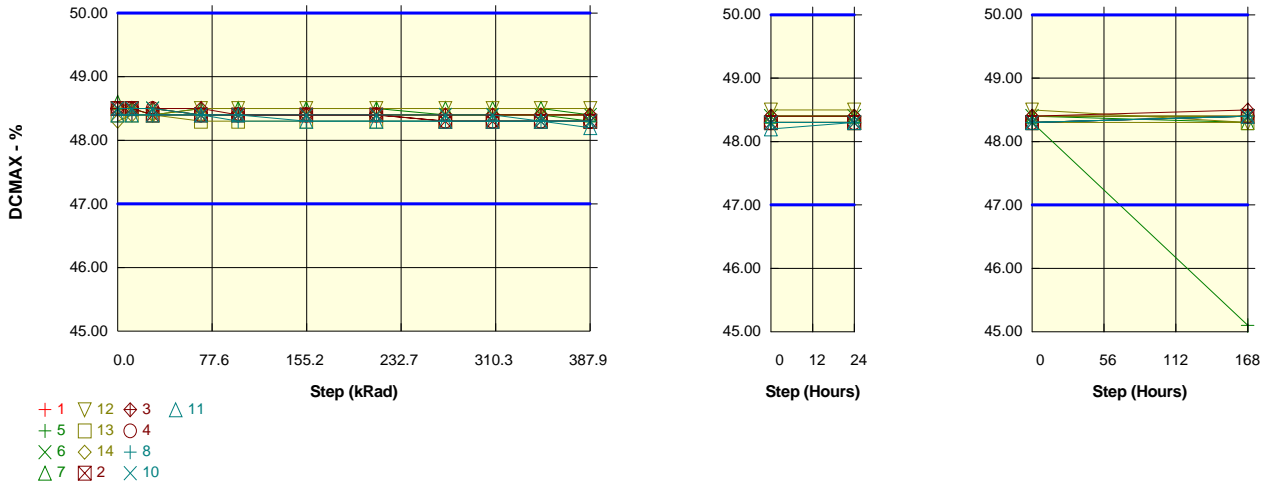
Test conditions :

Unit : %

Spec Limit Min : 47.00

Spec Limit Max : 50.00

Spec limits are represented in bold lines on the graphic.



Measurements

DCMAX	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40
ON PROTON samples													
5	48.50	48.50	48.40	48.50	48.50	48.50	48.50	48.40	48.40	48.40	48.30	48.30	45.10
6	48.50	48.50	48.50	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40
7	48.60	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.40	48.40	48.30
Statistics													
Min	48.50	48.50	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.30	48.30	45.10
Max	48.60	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.40	48.40	48.40
Average	48.53	48.50	48.47	48.47	48.47	48.47	48.47	48.43	48.43	48.43	48.37	48.37	47.27
Sigma	0.05	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	1.53

Drift Calculation

DCMAX	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	0.0E+00	-100.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-100.0E-03	-100.0E-03	-100.0E-03	-200.0E-03	-200.0E-03	-3.4E+00
6	-	0.0E+00	0.0E+00	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03
7	-	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-200.0E-03	-200.0E-03	-300.0E-03
Average	-	-33.3E-03	-66.7E-03	-66.7E-03	-66.7E-03	-66.7E-03	-66.7E-03	-100.0E-03	-100.0E-03	-100.0E-03	-166.7E-03	-166.7E-03	-1.3E+00
Sigma	-	47.1E-03	47.1E-03	47.1E-03	47.1E-03	47.1E-03	47.1E-03	760.4E-12	760.4E-12	760.4E-12	47.1E-03	47.1E-03	1.5E+00

Measurements

DCMAX	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40
ON TID samples													
12	48.50	48.50	48.40	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.30
13	48.40	48.40	48.40	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.30
14	48.30	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40
Statistics													
Min	48.30	48.40	48.40	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.30
Max	48.50	48.50	48.40	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.50	48.40
Average	48.40	48.43	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.33
Sigma	0.08	0.05	0.00	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.05

Drift Calculation

DCMAX	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	0.0E+00	-100.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-200.0E-03
13	-	0.0E+00	0.0E+00	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03
14	-	100.0E-03	100.0E-03	100.0E-03	100.0E-03	100.0E-03	100.0E-03	100.0E-03	100.0E-03	100.0E-03	100.0E-03	100.0E-03	100.0E-03
Average	-	33.3E-03	1.3E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-66.7E-03
Sigma	-	47.1E-03	81.6E-03	81.7E-03	81.7E-03	81.7E-03	81.7E-03	81.7E-03	81.7E-03	81.7E-03	81.7E-03	81.7E-03	124.7E-03

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

DCMAX	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40
OFF PROTON samples													
2	48.50	48.50	48.40	48.40	48.40	48.40	48.40	48.30	48.30	48.30	48.30	48.30	48.40
3	48.50	48.50	48.50	48.50	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.50
4	48.50	48.50	48.50	48.40	48.40	48.40	48.40	48.30	48.30	48.30	48.30	48.30	48.40
Statistics													
Min	48.50	48.50	48.40	48.40	48.40	48.40	48.40	48.30	48.30	48.30	48.30	48.30	48.40
Max	48.50	48.50	48.50	48.50	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.50
Average	48.50	48.50	48.47	48.43	48.40	48.40	48.40	48.33	48.33	48.33	48.33	48.33	48.43
Sigma	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05

Drift Calculation

DCMAX	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	0.0E+00	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-200.0E-03	-200.0E-03	-200.0E-03	-200.0E-03	-200.0E-03	-100.0E-03
3	-	0.0E+00	0.0E+00	0.0E+00	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	0.0E+00
4	-	0.0E+00	0.0E+00	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-200.0E-03	-200.0E-03	-200.0E-03	-200.0E-03	-200.0E-03	-100.0E-03
Average	-	0.0E+00	-33.3E-03	-66.7E-03	-100.0E-03	-100.0E-03	-100.0E-03	-166.7E-03	-166.7E-03	-166.7E-03	-166.7E-03	-166.7E-03	-66.7E-03
Sigma	-	0.0E+00	47.1E-03	47.1E-03	760.4E-12	760.4E-12	760.4E-12	47.1E-03	47.1E-03	47.1E-03	47.1E-03	47.1E-03	47.1E-03

Measurements

DCMAX	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40	48.40
OFF TID samples													
8	48.40	48.40	48.40	48.40	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.30	48.40
10	48.50	48.50	48.50	48.40	48.40	48.40	48.40	48.40	48.40	48.30	48.30	48.30	48.40
11	48.40	48.40	48.40	48.40	48.40	48.30	48.30	48.30	48.30	48.30	48.20	48.30	48.40
Statistics													
Min	48.40	48.40	48.40	48.40	48.30	48.30	48.30	48.30	48.30	48.30	48.20	48.30	48.40
Max	48.50	48.50	48.50	48.40	48.40	48.40	48.40	48.40	48.40	48.30	48.30	48.30	48.40
Average	48.43	48.43	48.43	48.40	48.37	48.33	48.33	48.33	48.33	48.30	48.27	48.30	48.40
Sigma	0.05	0.05	0.05	0.00	0.05	0.05	0.05	0.05	0.05	0.00	0.05	0.00	0.00

Drift Calculation

DCMAX	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	0.0E+00	0.0E+00	0.0E+00	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	0.0E+00
10	-	0.0E+00	0.0E+00	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-200.0E-03	-200.0E-03	-200.0E-03	-100.0E-03
11	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-200.0E-03	-100.0E-03	0.0E+00
Average	-	0.0E+00	0.0E+00	-33.3E-03	-66.7E-03	-100.0E-03	-100.0E-03	-100.0E-03	-100.0E-03	-133.3E-03	-166.7E-03	-133.3E-03	-33.3E-03
Sigma	-	0.0E+00	0.0E+00	47.1E-03	47.1E-03	1.8E-06	1.8E-06	1.8E-06	1.8E-06	47.1E-03	47.1E-03	47.1E-03	47.1E-03

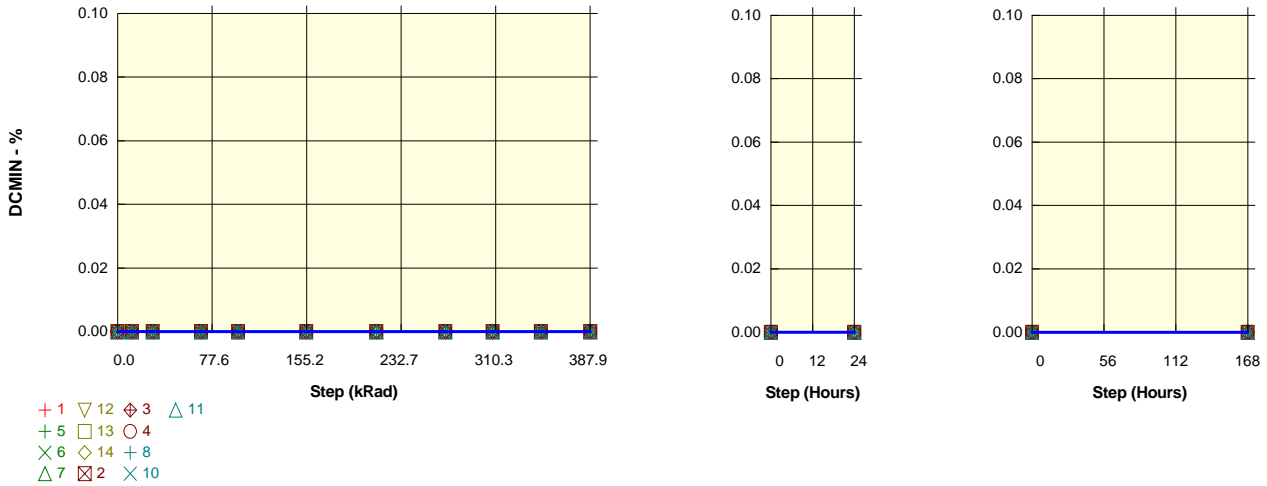
Parameter : Minimum Duty Cycle : DCMIN

Test conditions :

Unit : %

Spec Limit Max : 0.00

Spec limits are represented in bold lines on the graphic.



Measurements

DCMIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ON PROTON samples													
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Statistics													
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sigma	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Drift Calculation

DCMIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Sigma	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Measurements

DCMIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ON TID samples													
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Statistics													
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sigma	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Drift Calculation

DCMIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
13	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
14	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Sigma	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

DCMIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OFF PROTON samples													
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Statistics													
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sigma	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Drift Calculation

DCMIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Sigma	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Measurements

DCMIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OFF TID samples													
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Statistics													
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sigma	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Drift Calculation

DCMIN	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
10	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
11	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Average	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Sigma	-	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

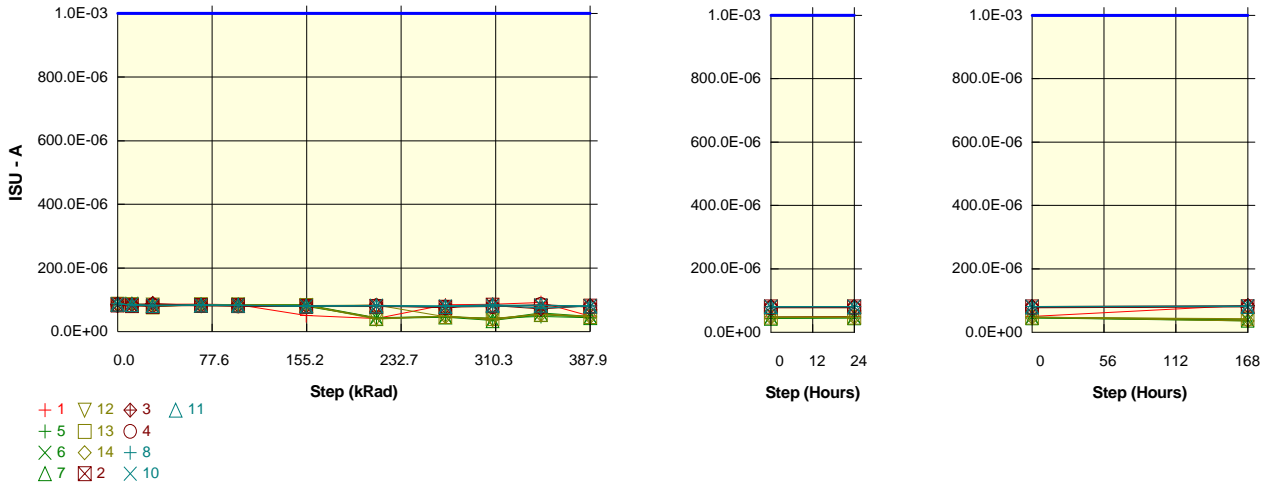
Parameter : Startup Current : ISU

Test conditions :

Unit : A

Spec Limit Max : 1.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

ISU	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	85.6E-06	85.4E-06	86.2E-06	86.6E-06	84.8E-06	50.8E-06	41.6E-06	84.4E-06	86.2E-06	91.4E-06	48.6E-06	50.2E-06	85.2E-06
ON PROTON samples													
5	84.6E-06	83.0E-06	86.2E-06	82.2E-06	81.6E-06	79.6E-06	43.6E-06	47.4E-06	42.8E-06	47.6E-06	43.8E-06	45.6E-06	36.4E-06
6	86.0E-06	88.4E-06	83.2E-06	84.8E-06	85.6E-06	84.4E-06	44.0E-06	48.2E-06	38.2E-06	59.0E-06	48.0E-06	48.2E-06	39.6E-06
7	86.4E-06	85.4E-06	82.0E-06	83.2E-06	83.4E-06	82.6E-06	41.4E-06	45.8E-06	35.0E-06	53.8E-06	44.6E-06	45.8E-06	38.4E-06
Statistics													
Min	84.6E-06	83.0E-06	82.0E-06	82.2E-06	81.6E-06	79.6E-06	41.4E-06	45.8E-06	35.0E-06	47.6E-06	43.8E-06	45.6E-06	36.4E-06
Max	86.4E-06	88.4E-06	86.2E-06	84.8E-06	85.6E-06	84.4E-06	44.0E-06	48.2E-06	42.8E-06	59.0E-06	48.0E-06	48.2E-06	39.6E-06
Average	85.7E-06	85.6E-06	83.8E-06	83.4E-06	83.5E-06	82.2E-06	43.0E-06	47.1E-06	38.7E-06	53.5E-06	45.5E-06	46.5E-06	38.1E-06
Sigma	771.7E-09	2.2E-06	1.8E-06	1.1E-06	1.6E-06	2.0E-06	1.1E-06	997.8E-09	3.2E-06	4.7E-06	1.8E-06	1.2E-06	1.3E-06

Drift Calculation

ISU	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-1.6E-06	1.6E-06	-2.4E-06	-3.0E-06	-5.0E-06	-41.0E-06	-37.2E-06	-41.8E-06	-37.0E-06	-40.8E-06	-39.0E-06	-48.2E-06
6	-	2.4E-06	-2.8E-06	-1.2E-06	-400.0E-09	-1.6E-06	-42.0E-06	-37.8E-06	-47.8E-06	-27.0E-06	-38.0E-06	-37.8E-06	-46.4E-06
7	-	-1.0E-06	-4.4E-06	-3.2E-06	-3.0E-06	-3.8E-06	-45.0E-06	-40.6E-06	-51.4E-06	-32.6E-06	-41.8E-06	-40.6E-06	-48.0E-06
Average	-	-66.7E-09	-1.9E-06	-2.3E-06	-2.1E-06	-3.5E-06	-42.7E-06	-38.5E-06	-47.0E-06	-32.2E-06	-40.2E-06	-39.1E-06	-47.5E-06
Sigma	-	1.8E-06	2.5E-06	821.9E-09	1.2E-06	1.4E-06	1.7E-06	1.5E-06	4.0E-06	4.1E-06	1.6E-06	1.1E-06	805.5E-09

Measurements

ISU	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	85.6E-06	85.4E-06	86.2E-06	86.6E-06	84.8E-06	50.8E-06	41.6E-06	84.4E-06	86.2E-06	91.4E-06	48.6E-06	50.2E-06	85.2E-06
ON TID samples													
12	84.8E-06	84.6E-06	83.8E-06	82.8E-06	83.6E-06	82.2E-06	39.4E-06	49.0E-06	36.8E-06	55.6E-06	46.6E-06	47.8E-06	41.2E-06
13	86.4E-06	84.4E-06	78.2E-06	85.2E-06	84.4E-06	82.8E-06	43.0E-06	47.8E-06	41.6E-06	55.0E-06	47.6E-06	47.4E-06	43.2E-06
14	85.8E-06	86.0E-06	81.6E-06	84.2E-06	83.6E-06	82.0E-06	83.4E-06	47.4E-06	40.8E-06	54.0E-06	46.6E-06	46.8E-06	36.2E-06
Statistics													
Min	84.8E-06	84.4E-06	78.2E-06	82.8E-06	83.6E-06	82.0E-06	39.4E-06	47.4E-06	36.8E-06	54.0E-06	46.6E-06	46.8E-06	36.2E-06
Max	86.4E-06	86.0E-06	83.8E-06	85.2E-06	84.4E-06	82.8E-06	83.4E-06	49.0E-06	41.6E-06	55.6E-06	47.6E-06	47.8E-06	43.2E-06
Average	85.7E-06	85.0E-06	81.2E-06	84.1E-06	83.9E-06	82.3E-06	55.3E-06	48.1E-06	39.7E-06	54.9E-06	46.9E-06	47.3E-06	40.2E-06
Sigma	660.0E-09	711.8E-09	2.3E-06	984.3E-09	377.1E-09	339.9E-09	19.9E-06	679.9E-09	2.1E-06	660.0E-09	471.4E-09	411.0E-09	2.9E-06

Drift Calculation

ISU	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-200.0E-09	-1.0E-06	-2.0E-06	-1.2E-06	-2.6E-06	-45.4E-06	-35.8E-06	-48.0E-06	-29.2E-06	-38.2E-06	-37.0E-06	-43.6E-06
13	-	-2.0E-06	-8.2E-06	-1.2E-06	-2.0E-06	-3.6E-06	-43.4E-06	-38.6E-06	-44.8E-06	-31.4E-06	-38.8E-06	-39.0E-06	-43.2E-06
14	-	200.0E-09	-4.2E-06	-1.6E-06	-2.2E-06	-3.8E-06	-2.4E-06	-38.4E-06	-45.0E-06	-31.8E-06	-39.2E-06	-39.0E-06	-49.6E-06
Average	-	-666.7E-09	-4.5E-06	-1.6E-06	-1.8E-06	-3.3E-06	-30.4E-06	-37.6E-06	-45.9E-06	-30.8E-06	-38.7E-06	-38.3E-06	-45.5E-06
Sigma	-	956.8E-09	2.9E-06	326.6E-09	432.1E-09	524.9E-09	19.8E-06	1.3E-06	1.5E-06	1.1E-06	411.0E-09	942.8E-09	2.9E-06

Hirex Engineering	Total Dose Radiation Test Report									Ref.:	HRX/TID/1017
	IS-1845ASRH				Intersil					Issue:	01

Measurements

ISU	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	85.6E-06	85.4E-06	86.2E-06	86.6E-06	84.8E-06	50.8E-06	41.6E-06	84.4E-06	86.2E-06	91.4E-06	48.6E-06	50.2E-06	85.2E-06
OFF PROTON samples													
2	84.2E-06	81.4E-06	79.8E-06	82.8E-06	81.4E-06	79.4E-06	79.4E-06	77.2E-06	83.0E-06	80.8E-06	80.0E-06	80.2E-06	81.2E-06
3	85.0E-06	84.6E-06	88.8E-06	82.0E-06	81.8E-06	80.8E-06	82.6E-06	78.6E-06	82.0E-06	71.8E-06	81.0E-06	81.2E-06	83.8E-06
4	84.4E-06	81.6E-06	83.8E-06	81.6E-06	81.2E-06	79.2E-06	80.8E-06	77.4E-06	79.0E-06	85.6E-06	77.6E-06	77.2E-06	80.2E-06
Statistics													
Min	84.2E-06	81.4E-06	79.8E-06	81.6E-06	81.2E-06	79.2E-06	79.4E-06	77.2E-06	79.0E-06	71.8E-06	77.6E-06	77.2E-06	80.2E-06
Max	85.0E-06	84.6E-06	88.8E-06	82.8E-06	81.8E-06	80.8E-06	82.6E-06	78.6E-06	83.0E-06	85.6E-06	81.0E-06	81.2E-06	83.8E-06
Average	84.5E-06	82.5E-06	84.1E-06	82.1E-06	81.5E-06	79.8E-06	80.9E-06	77.7E-06	81.3E-06	79.4E-06	79.5E-06	79.5E-06	81.7E-06
Sigma	339.9E-09	1.5E-06	3.7E-06	498.9E-09	249.4E-09	711.8E-09	1.3E-06	618.2E-09	1.7E-06	5.7E-06	1.4E-06	1.7E-06	1.5E-06

Drift Calculation

ISU	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-2.8E-06	-4.4E-06	-1.4E-06	-2.8E-06	-4.8E-06	-4.8E-06	-7.0E-06	-1.2E-06	-3.4E-06	-4.2E-06	-4.0E-06	-3.0E-06
3	-	-400.0E-09	3.8E-06	-3.0E-06	-3.2E-06	-4.2E-06	-2.4E-06	-6.4E-06	-3.0E-06	-13.2E-06	-4.0E-06	-3.8E-06	-1.2E-06
4	-	-2.8E-06	-600.0E-09	-2.8E-06	-3.2E-06	-5.2E-06	-3.6E-06	-7.0E-06	-5.4E-06	1.2E-06	-6.8E-06	-7.2E-06	-4.2E-06
Average	-	-2.0E-06	-400.0E-09	-2.4E-06	-3.1E-06	-4.7E-06	-3.6E-06	-6.8E-06	-3.2E-06	-5.1E-06	-5.0E-06	-5.0E-06	-2.8E-06
Sigma	-	1.1E-06	3.4E-06	711.8E-09	188.6E-09	411.0E-09	979.8E-09	282.8E-09	1.7E-06	6.0E-06	1.3E-06	1.6E-06	1.2E-06

Measurements

ISU	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	85.6E-06	85.4E-06	86.2E-06	86.6E-06	84.8E-06	50.8E-06	41.6E-06	84.4E-06	86.2E-06	91.4E-06	48.6E-06	50.2E-06	85.2E-06
OFF TID samples													
8	87.4E-06	83.4E-06	81.0E-06	84.0E-06	82.8E-06	81.2E-06	82.4E-06	81.2E-06	84.6E-06	74.0E-06	80.2E-06	81.2E-06	82.6E-06
10	86.2E-06	85.4E-06	82.6E-06	82.6E-06	82.4E-06	80.0E-06	82.0E-06	79.2E-06	80.0E-06	82.2E-06	80.4E-06	81.0E-06	81.8E-06
11	86.6E-06	85.0E-06	82.0E-06	84.2E-06	83.0E-06	80.8E-06	80.8E-06	79.6E-06	83.8E-06	83.2E-06	81.0E-06	80.4E-06	82.0E-06
Statistics													
Min	86.2E-06	83.4E-06	81.0E-06	82.6E-06	82.4E-06	80.0E-06	80.8E-06	79.2E-06	80.0E-06	74.0E-06	80.2E-06	80.4E-06	81.8E-06
Max	87.4E-06	85.4E-06	82.6E-06	84.2E-06	83.0E-06	81.2E-06	82.4E-06	81.2E-06	84.6E-06	83.2E-06	81.0E-06	81.2E-06	82.6E-06
Average	86.7E-06	84.6E-06	81.9E-06	83.6E-06	82.7E-06	80.7E-06	81.7E-06	80.0E-06	82.8E-06	79.8E-06	80.5E-06	80.9E-06	82.1E-06
Sigma	498.9E-09	864.1E-09	660.0E-09	711.8E-09	249.4E-09	498.9E-09	679.9E-09	864.1E-09	2.0E-06	4.1E-06	339.9E-09	339.9E-09	339.9E-09

Drift Calculation

ISU	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-4.0E-06	-6.4E-06	-3.4E-06	-4.6E-06	-6.2E-06	-5.0E-06	-6.2E-06	-2.8E-06	-13.4E-06	-7.2E-06	-6.2E-06	-4.8E-06
10	-	-800.0E-09	-3.6E-06	-3.6E-06	-3.8E-06	-6.2E-06	-4.2E-06	-7.0E-06	-6.2E-06	-4.0E-06	-5.8E-06	-5.2E-06	-4.4E-06
11	-	-1.6E-06	-4.6E-06	-2.4E-06	-3.6E-06	-5.8E-06	-5.8E-06	-7.0E-06	-2.8E-06	-3.4E-06	-5.6E-06	-6.2E-06	-4.6E-06
Average	-	-2.1E-06	-4.9E-06	-3.1E-06	-4.0E-06	-6.1E-06	-5.0E-06	-6.7E-06	-3.9E-06	-6.9E-06	-6.2E-06	-5.9E-06	-4.6E-06
Sigma	-	1.4E-06	1.2E-06	524.9E-09	432.1E-09	188.6E-09	653.2E-09	377.1E-09	1.6E-06	4.6E-06	711.8E-09	471.4E-09	163.3E-09

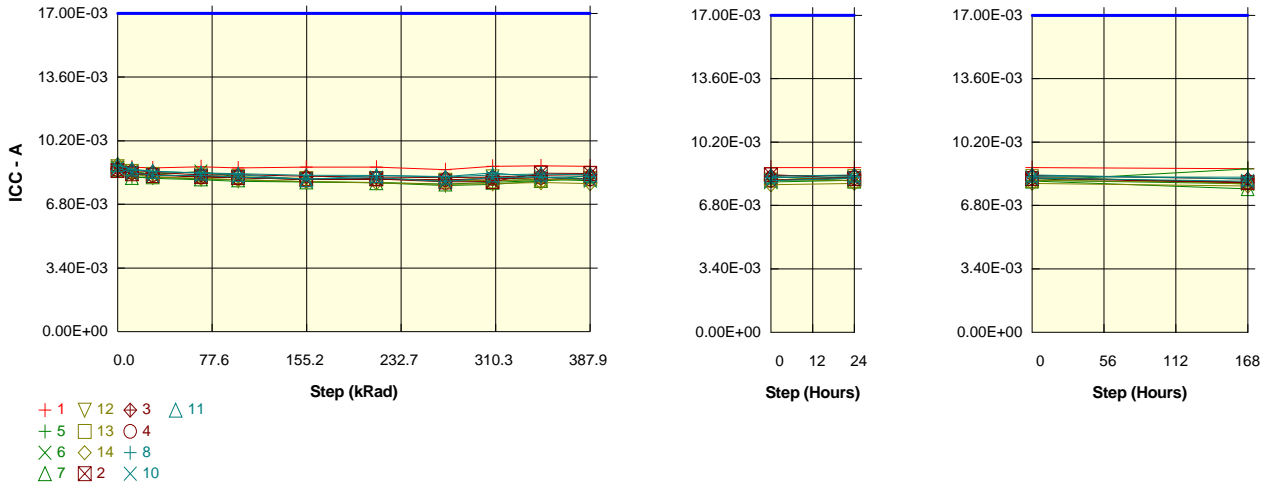
Parameter : Operating Supply Current : ICC

Test conditions : VFB-VISENSE=0V

Unit : A

Spec Limit Max : 17.00E-03

Spec limits are represented in bold lines on the graphic.



Measurements

ICC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	8.84E-03	8.79E-03	8.75E-03	8.81E-03	8.75E-03	8.79E-03	8.79E-03	8.65E-03	8.84E-03	8.86E-03	8.83E-03	8.83E-03	8.78E-03
ON PROTON samples													
5	8.61E-03	8.28E-03	8.20E-03	8.12E-03	8.03E-03	7.99E-03	7.95E-03	7.80E-03	7.88E-03	8.05E-03	8.21E-03	8.13E-03	8.77E-03
6	8.81E-03	8.56E-03	8.42E-03	8.55E-03	8.27E-03	8.17E-03	8.17E-03	8.06E-03	8.06E-03	8.14E-03	8.06E-03	8.16E-03	7.97E-03
7	8.67E-03	8.25E-03	8.27E-03	8.16E-03	8.12E-03	8.01E-03	7.97E-03	7.89E-03	7.98E-03	8.08E-03	8.34E-03	8.11E-03	7.70E-03
Statistics													
Min	8.61E-03	8.25E-03	8.20E-03	8.12E-03	8.03E-03	7.99E-03	7.95E-03	7.80E-03	7.88E-03	8.05E-03	8.06E-03	8.11E-03	7.70E-03
Max	8.81E-03	8.56E-03	8.42E-03	8.55E-03	8.27E-03	8.17E-03	8.17E-03	8.06E-03	8.06E-03	8.14E-03	8.34E-03	8.16E-03	8.77E-03
Average	8.70E-03	8.36E-03	8.30E-03	8.28E-03	8.14E-03	8.06E-03	8.03E-03	7.92E-03	7.97E-03	8.09E-03	8.20E-03	8.13E-03	8.15E-03
Sigma	83.39E-06	139.06E-06	88.58E-06	194.90E-06	96.94E-06	81.88E-06	101.00E-06	105.66E-06	73.70E-06	37.61E-06	113.50E-06	18.06E-06	452.91E-06

Drift Calculation

ICC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	-332.0E-06	-406.0E-06	-492.0E-06	-576.0E-06	-620.0E-06	-656.0E-06	-806.0E-06	-730.0E-06	-556.0E-06	-404.0E-06	-478.0E-06	156.0E-06
6	-	-252.0E-06	-394.0E-06	-260.0E-06	-542.0E-06	-638.0E-06	-636.0E-06	-752.0E-06	-750.0E-06	-666.0E-06	-746.0E-06	-652.0E-06	-838.0E-06
7	-	-424.0E-06	-404.0E-06	-516.0E-06	-558.0E-06	-666.0E-06	-708.0E-06	-786.0E-06	-692.0E-06	-592.0E-06	-332.0E-06	-560.0E-06	-976.0E-06
Average	-	-336.0E-06	-401.3E-06	-422.7E-06	-558.7E-06	-641.3E-06	-666.7E-06	-781.3E-06	-724.0E-06	-604.7E-06	-494.0E-06	-563.3E-06	-552.7E-06
Sigma	-	70.3E-06	5.2E-06	115.4E-06	13.9E-06	18.9E-06	30.3E-06	22.3E-06	24.1E-06	45.8E-06	180.6E-06	71.1E-06	504.3E-06

Measurements

ICC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	8.84E-03	8.79E-03	8.75E-03	8.81E-03	8.75E-03	8.79E-03	8.79E-03	8.65E-03	8.84E-03	8.86E-03	8.83E-03	8.83E-03	8.78E-03
ON TID samples													
12	8.82E-03	8.47E-03	8.41E-03	8.25E-03	8.22E-03	8.13E-03	8.16E-03	8.06E-03	8.27E-03	8.13E-03	8.16E-03	8.36E-03	7.95E-03
13	8.73E-03	8.58E-03	8.33E-03	8.37E-03	8.28E-03	8.18E-03	8.17E-03	8.10E-03	8.06E-03	8.11E-03	8.17E-03	8.15E-03	8.03E-03
14	8.93E-03	8.43E-03	8.27E-03	8.20E-03	8.11E-03	8.02E-03	7.95E-03	7.88E-03	7.91E-03	7.97E-03	7.91E-03	7.98E-03	7.84E-03
Statistics													
Min	8.73E-03	8.43E-03	8.27E-03	8.20E-03	8.11E-03	8.02E-03	7.95E-03	7.88E-03	7.91E-03	7.97E-03	7.91E-03	7.98E-03	7.84E-03
Max	8.93E-03	8.58E-03	8.41E-03	8.37E-03	8.28E-03	8.18E-03	8.17E-03	8.10E-03	8.27E-03	8.13E-03	8.17E-03	8.36E-03	8.03E-03
Average	8.83E-03	8.49E-03	8.34E-03	8.27E-03	8.21E-03	8.11E-03	8.09E-03	8.01E-03	8.08E-03	8.07E-03	8.08E-03	8.16E-03	7.94E-03
Sigma	81.06E-06	62.28E-06	58.29E-06	70.74E-06	68.95E-06	68.40E-06	99.63E-06	98.47E-06	145.93E-06	73.44E-06	122.12E-06	152.85E-06	76.26E-06

Drift Calculation

ICC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	-348.0E-06	-406.0E-06	-566.0E-06	-594.0E-06	-684.0E-06	-660.0E-06	-756.0E-06	-552.0E-06	-688.0E-06	-654.0E-06	-462.0E-06	-866.0E-06
13	-	-156.0E-06	-404.0E-06	-366.0E-06	-452.0E-06	-554.0E-06	-560.0E-06	-630.0E-06	-672.0E-06	-620.0E-06	-562.0E-06	-578.0E-06	-702.0E-06
14	-	-502.0E-06	-660.0E-06	-734.0E-06	-816.0E-06	-914.0E-06	-976.0E-06	-1.1E-03	-1.0E-03	-964.0E-06	-1.0E-03	-948.0E-06	-1.1E-03
Average	-	-335.3E-06	-490.0E-06	-555.3E-06	-620.7E-06	-717.3E-06	-732.0E-06	-813.3E-06	-748.0E-06	-757.3E-06	-746.0E-06	-662.7E-06	-884.7E-06
Sigma	-	141.5E-06	120.2E-06	150.4E-06	149.8E-06	148.8E-06	177.3E-06	177.8E-06	198.5E-06	148.7E-06	198.7E-06	207.2E-06	157.3E-06

Hirex Engineering	Total Dose Radiation Test Report									Ref.:	HRX/TID/1017
	IS-1845ASRH				Intersil				Issue:	01	

Measurements

ICC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	8.84E-03	8.79E-03	8.75E-03	8.81E-03	8.75E-03	8.79E-03	8.79E-03	8.65E-03	8.84E-03	8.86E-03	8.83E-03	8.83E-03	8.78E-03
OFF PROTON samples													
2	8.61E-03	8.44E-03	8.35E-03	8.29E-03	8.23E-03	8.12E-03	8.16E-03	8.00E-03	8.02E-03	8.47E-03	8.45E-03	8.25E-03	8.05E-03
3	8.74E-03	8.63E-03	8.52E-03	8.37E-03	8.38E-03	8.30E-03	8.26E-03	8.22E-03	8.27E-03	8.36E-03	8.38E-03	8.41E-03	8.22E-03
4	8.66E-03	8.50E-03	8.40E-03	8.29E-03	8.24E-03	8.14E-03	8.16E-03	8.12E-03	8.17E-03	8.24E-03	8.16E-03	8.29E-03	8.04E-03
Statistics													
Min	8.61E-03	8.44E-03	8.35E-03	8.29E-03	8.23E-03	8.12E-03	8.16E-03	8.00E-03	8.02E-03	8.24E-03	8.16E-03	8.25E-03	8.04E-03
Max	8.74E-03	8.63E-03	8.52E-03	8.37E-03	8.38E-03	8.30E-03	8.26E-03	8.22E-03	8.27E-03	8.47E-03	8.45E-03	8.41E-03	8.22E-03
Average	8.67E-03	8.52E-03	8.42E-03	8.31E-03	8.29E-03	8.19E-03	8.19E-03	8.11E-03	8.15E-03	8.36E-03	8.33E-03	8.31E-03	8.10E-03
Sigma	54.29E-06	78.41E-06	74.52E-06	40.54E-06	69.00E-06	80.01E-06	49.03E-06	89.03E-06	102.97E-06	93.90E-06	125.03E-06	68.40E-06	84.05E-06

Drift Calculation

ICC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	-168.0E-06	-260.0E-06	-320.0E-06	-374.0E-06	-482.0E-06	-448.0E-06	-602.0E-06	-588.0E-06	-132.0E-06	-156.0E-06	-360.0E-06	-558.0E-06
3	-	-112.0E-06	-214.0E-06	-366.0E-06	-354.0E-06	-436.0E-06	-476.0E-06	-516.0E-06	-470.0E-06	-378.0E-06	-354.0E-06	-330.0E-06	-518.0E-06
4	-	-160.0E-06	-258.0E-06	-372.0E-06	-414.0E-06	-516.0E-06	-500.0E-06	-540.0E-06	-486.0E-06	-414.0E-06	-500.0E-06	-368.0E-06	-622.0E-06
Average	-	-146.7E-06	-244.0E-06	-352.7E-06	-380.7E-06	-478.0E-06	-474.7E-06	-552.7E-06	-514.7E-06	-308.0E-06	-336.7E-06	-352.7E-06	-566.0E-06
Sigma	-	24.7E-06	21.2E-06	23.2E-06	24.9E-06	32.8E-06	21.2E-06	36.2E-06	52.3E-06	125.3E-06	141.0E-06	16.4E-06	42.8E-06

Measurements

ICC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	8.84E-03	8.79E-03	8.75E-03	8.81E-03	8.75E-03	8.79E-03	8.79E-03	8.65E-03	8.84E-03	8.86E-03	8.83E-03	8.83E-03	8.78E-03
OFF TID samples													
8	8.89E-03	8.66E-03	8.55E-03	8.49E-03	8.44E-03	8.36E-03	8.35E-03	8.29E-03	8.48E-03	8.25E-03	8.30E-03	8.35E-03	8.32E-03
10	8.73E-03	8.50E-03	8.35E-03	8.34E-03	8.26E-03	8.16E-03	8.23E-03	8.02E-03	8.24E-03	8.27E-03	8.13E-03	8.27E-03	8.10E-03
11	8.92E-03	8.69E-03	8.57E-03	8.47E-03	8.39E-03	8.13E-03	8.35E-03	8.26E-03	8.38E-03	8.42E-03	8.37E-03	8.44E-03	8.23E-03
Statistics													
Min	8.73E-03	8.50E-03	8.35E-03	8.34E-03	8.26E-03	8.13E-03	8.23E-03	8.02E-03	8.24E-03	8.25E-03	8.13E-03	8.27E-03	8.10E-03
Max	8.92E-03	8.69E-03	8.57E-03	8.49E-03	8.44E-03	8.36E-03	8.35E-03	8.29E-03	8.48E-03	8.42E-03	8.37E-03	8.44E-03	8.32E-03
Average	8.85E-03	8.61E-03	8.49E-03	8.43E-03	8.36E-03	8.22E-03	8.31E-03	8.19E-03	8.36E-03	8.31E-03	8.27E-03	8.35E-03	8.22E-03
Sigma	80.37E-06	82.82E-06	101.21E-06	64.44E-06	77.45E-06	102.84E-06	57.51E-06	121.22E-06	97.77E-06	77.36E-06	102.64E-06	69.40E-06	88.43E-06

Drift Calculation

ICC	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	-232.0E-06	-338.0E-06	-404.0E-06	-448.0E-06	-530.0E-06	-542.0E-06	-602.0E-06	-414.0E-06	-642.0E-06	-594.0E-06	-538.0E-06	-570.0E-06
10	-	-236.0E-06	-386.0E-06	-392.0E-06	-476.0E-06	-578.0E-06	-508.0E-06	-716.0E-06	-496.0E-06	-464.0E-06	-606.0E-06	-468.0E-06	-630.0E-06
11	-	-230.0E-06	-344.0E-06	-446.0E-06	-526.0E-06	-786.0E-06	-568.0E-06	-656.0E-06	-536.0E-06	-494.0E-06	-542.0E-06	-480.0E-06	-690.0E-06
Average	-	-232.7E-06	-356.0E-06	-414.0E-06	-483.3E-06	-631.3E-06	-539.3E-06	-658.0E-06	-482.0E-06	-533.3E-06	-580.7E-06	-495.3E-06	-630.0E-06
Sigma	-	2.5E-06	21.4E-06	23.2E-06	32.3E-06	111.1E-06	24.6E-06	46.6E-06	50.8E-06	77.8E-06	27.8E-06	30.6E-06	49.0E-06

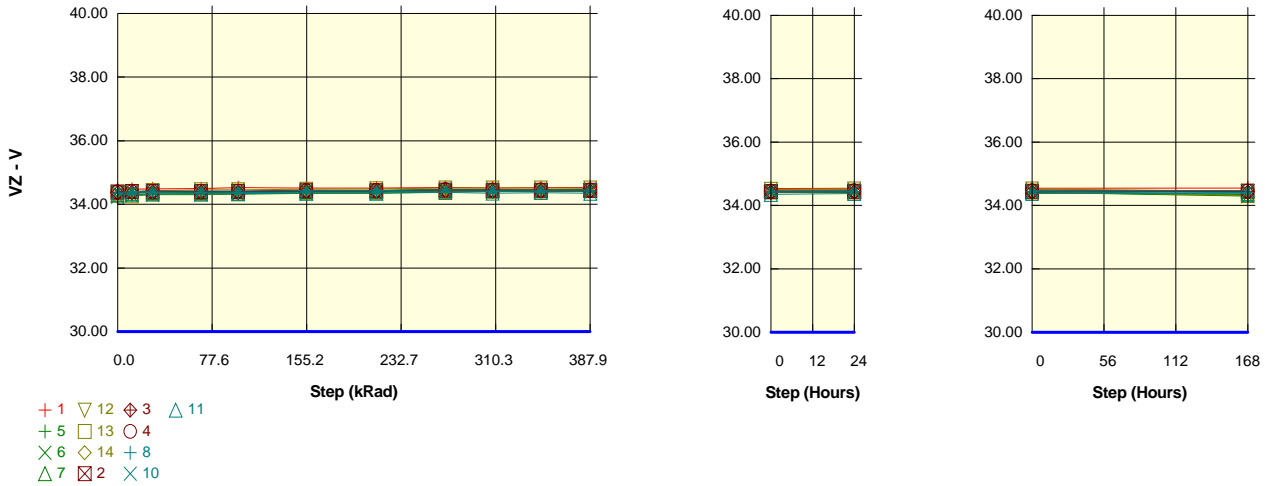
Parameter : Zener Voltage : VZ

Test conditions : ICC=25mA

Unit : V

Spec Limit Min : 30.00

Spec limits are represented in bold lines on the graphic.



Measurements

VZ	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	34.46	34.48	34.49	34.49	34.52	34.51	34.52	34.53	34.52	34.53	34.54	34.54	34.55
ON PROTON samples													
5	34.26	34.30	34.33	34.34	34.35	34.37	34.38	34.41	34.46	34.42	34.42	34.41	34.33
6	34.23	34.28	34.30	34.31	34.32	34.35	34.36	34.39	34.41	34.40	34.43	34.42	34.30
7	34.30	34.35	34.37	34.37	34.39	34.41	34.41	34.45	34.44	34.45	34.45	34.45	34.34
Statistics													
Min	34.23	34.28	34.30	34.31	34.32	34.35	34.36	34.39	34.41	34.40	34.42	34.41	34.30
Max	34.30	34.35	34.37	34.37	34.39	34.41	34.41	34.45	34.46	34.45	34.45	34.45	34.34
Average	34.26	34.31	34.34	34.34	34.36	34.38	34.38	34.42	34.44	34.42	34.44	34.43	34.32
Sigma	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.02

Drift Calculation

VZ	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON PROTON samples													
5	-	45.6E-03	77.6E-03	87.2E-03	98.4E-03	116.0E-03	128.8E-03	155.2E-03	200.8E-03	165.6E-03	166.4E-03	159.2E-03	72.8E-03
6	-	42.4E-03	68.8E-03	72.0E-03	90.4E-03	112.0E-03	121.6E-03	159.2E-03	175.2E-03	165.6E-03	196.0E-03	184.8E-03	66.4E-03
7	-	50.4E-03	69.6E-03	72.0E-03	88.0E-03	105.6E-03	112.0E-03	143.2E-03	139.2E-03	150.4E-03	152.0E-03	144.8E-03	41.6E-03
Average	-	46.1E-03	72.0E-03	77.1E-03	92.3E-03	111.2E-03	120.8E-03	152.5E-03	171.7E-03	160.5E-03	171.5E-03	162.9E-03	60.3E-03
Sigma	-	3.3E-03	4.0E-03	7.2E-03	4.4E-03	4.3E-03	6.9E-03	6.8E-03	25.3E-03	7.2E-03	18.3E-03	16.5E-03	13.5E-03

Measurements

VZ	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1 REF	34.46	34.48	34.49	34.49	34.52	34.51	34.52	34.53	34.52	34.53	34.54	34.54	34.55
ON TID samples													
12	34.38	34.40	34.43	34.46	34.46	34.48	34.49	34.51	34.52	34.51	34.52	34.52	34.45
13	34.36	34.27	34.33	34.33	34.34	34.37	34.38	34.41	34.41	34.42	34.43	34.43	34.32
14	34.25	34.38	34.40	34.40	34.41	34.44	34.45	34.48	34.48	34.47	34.48	34.50	34.42
Statistics													
Min	34.25	34.27	34.33	34.33	34.34	34.37	34.38	34.41	34.41	34.42	34.43	34.43	34.32
Max	34.38	34.40	34.43	34.46	34.46	34.48	34.49	34.51	34.52	34.51	34.52	34.52	34.45
Average	34.33	34.35	34.39	34.40	34.40	34.43	34.44	34.47	34.47	34.47	34.48	34.48	34.40
Sigma	0.06	0.06	0.04	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.06

Drift Calculation

VZ	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
ON TID samples													
12	-	20.0E-03	55.2E-03	80.8E-03	77.6E-03	97.6E-03	110.4E-03	135.2E-03	140.0E-03	134.4E-03	136.8E-03	142.4E-03	74.4E-03
13	-	-84.8E-03	-28.0E-03	-24.0E-03	-15.2E-03	12.0E-03	22.4E-03	53.6E-03	55.2E-03	61.6E-03	72.0E-03	74.4E-03	-36.0E-03
14	-	129.6E-03	155.2E-03	154.4E-03	161.6E-03	191.2E-03	200.0E-03	235.2E-03	230.4E-03	220.0E-03	238.4E-03	254.4E-03	172.8E-03
Average	-	21.6E-03	60.8E-03	70.4E-03	74.7E-03	100.3E-03	110.9E-03	141.3E-03	141.9E-03	138.7E-03	149.1E-03	157.1E-03	70.4E-03
Sigma	-	87.5E-03	74.9E-03	73.2E-03	72.2E-03	73.2E-03	72.5E-03	74.3E-03	71.5E-03	64.7E-03	68.5E-03	74.2E-03	85.3E-03

Hirex Engineering	Total Dose Radiation Test Report										Ref.:	HRX/TID/1017
	IS-1845ASRH					Intersil					Issue:	01

Measurements

VZ	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	34.46	34.48	34.49	34.49	34.52	34.51	34.52	34.53	34.52	34.53	34.54	34.54	34.55
OFF PROTON samples													
2	34.39	34.40	34.41	34.40	34.41	34.43	34.43	34.45	34.44	34.44	34.45	34.45	34.46
3	34.36	34.37	34.38	34.38	34.38	34.41	34.40	34.43	34.42	34.42	34.42	34.43	34.43
4	34.39	34.40	34.41	34.41	34.41	34.43	34.43	34.46	34.44	34.45	34.45	34.46	34.45
Statistics													
Min	34.36	34.37	34.38	34.38	34.38	34.41	34.40	34.43	34.42	34.42	34.42	34.43	34.43
Max	34.39	34.40	34.41	34.41	34.41	34.43	34.43	34.46	34.44	34.45	34.45	34.46	34.46
Average	34.38	34.39	34.40	34.40	34.40	34.42	34.42	34.45	34.43	34.44	34.44	34.45	34.45
Sigma	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Drift Calculation

VZ	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF PROTON samples													
2	-	12.0E-03	24.0E-03	14.4E-03	20.8E-03	38.4E-03	40.8E-03	60.8E-03	52.0E-03	52.8E-03	55.2E-03	64.0E-03	64.8E-03
3	-	10.4E-03	20.0E-03	15.2E-03	22.4E-03	44.0E-03	40.0E-03	68.0E-03	55.2E-03	56.0E-03	62.4E-03	72.0E-03	68.0E-03
4	-	11.2E-03	20.8E-03	20.8E-03	23.2E-03	44.8E-03	47.2E-03	72.0E-03	58.4E-03	62.4E-03	61.6E-03	73.6E-03	68.0E-03
Average	-	11.2E-03	21.6E-03	16.8E-03	22.1E-03	42.4E-03	42.7E-03	66.9E-03	55.2E-03	57.1E-03	59.7E-03	69.9E-03	66.9E-03
Sigma	-	654.1E-06	1.7E-03	2.8E-03	997.4E-06	2.8E-03	3.2E-03	4.6E-03	2.6E-03	4.0E-03	3.2E-03	4.2E-03	1.5E-03

Measurements

VZ	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
1_REF	34.46	34.48	34.49	34.49	34.52	34.51	34.52	34.53	34.52	34.53	34.54	34.54	34.55
OFF TID samples													
8	34.35	34.36	34.38	34.37	34.37	34.40	34.39	34.42	34.41	34.41	34.42	34.43	34.42
10	34.39	34.40	34.42	34.42	34.42	34.43	34.43	34.46	34.44	34.45	34.46	34.46	34.46
11	34.30	34.32	34.33	34.33	34.33	34.35	34.35	34.38	34.35	34.37	34.35	34.38	34.38
Statistics													
Min	34.30	34.32	34.33	34.33	34.33	34.35	34.35	34.38	34.35	34.37	34.35	34.38	34.38
Max	34.39	34.40	34.42	34.42	34.42	34.43	34.43	34.46	34.44	34.45	34.46	34.46	34.46
Average	34.34	34.36	34.37	34.37	34.37	34.39	34.39	34.42	34.40	34.41	34.41	34.43	34.42
Sigma	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.04	0.04	0.03	0.04	0.03	0.03

Drift Calculation

VZ	0 kRad	11.7 kRad	28.8 kRad	68.4 kRad	99 kRad	154.8 kRad	212.4 kRad	269.1 kRad	307.8 kRad	347.4 kRad	387.9 kRad	24 Hours	168 Hours
OFF TID samples													
8	-	12.8E-03	27.2E-03	19.2E-03	22.4E-03	46.4E-03	44.0E-03	72.8E-03	60.0E-03	64.8E-03	75.2E-03	81.6E-03	69.6E-03
10	-	15.2E-03	29.6E-03	38.4E-03	29.6E-03	47.2E-03	48.8E-03	79.2E-03	59.2E-03	61.6E-03	72.8E-03	78.4E-03	76.0E-03
11	-	20.8E-03	36.0E-03	32.0E-03	37.6E-03	53.6E-03	53.6E-03	80.8E-03	57.6E-03	73.6E-03	56.8E-03	84.8E-03	87.2E-03
Average	-	16.3E-03	30.9E-03	29.9E-03	29.9E-03	49.1E-03	48.8E-03	77.6E-03	58.9E-03	66.7E-03	68.3E-03	81.6E-03	77.6E-03
Sigma	-	3.4E-03	3.7E-03	8.0E-03	6.2E-03	3.2E-03	3.9E-03	3.5E-03	997.8E-06	5.1E-03	8.2E-03	2.6E-03	7.3E-03