

TOTAL DOSE RADIATION TEST REPORT

Part Type : UC1525BJQMLV

Package : DIL-16

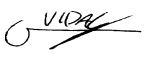
Description : Regulating Pulse Width Modulator

Manufacturer : Texas Instruments

Date Code: 0833A

Alter Technology - TUV Nord S.A.U. Purchase Order N° 5504769 dated 01/03/2012

Alter Technology - TUV Nord S.A.U. Technical Responsible: Jose Maria Montero Castillo

Hirex reference:	HRX/TID/1033	Issue: 02	Date:	August 10 th , 2012
Written by:	G. VIDAL	Test Lab Support Technician		
Verified by:	O.PERROTIN	Test Lab Operations Manager		
Approved by:	J.F. PASCAL	Technical Director		

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

TOTAL DOSE RADIATION TEST REPORT **on Texas Instruments** **UC1525BJQMLV** **Regulating Pulse Width Modulator**

TABLE OF CONTENTS

1	INTRODUCTION	4
2	APPLICABLE AND REFERENCE DOCUMENTS.....	4
2.1	APPLICABLE DOCUMENTS	4
2.2	REFERENCE DOCUMENTS.....	4
3	TEST SAMPLES	4
4	EXPERIMENTAL CONDITIONS	5
4.1	RADIATION SOURCE DOSE RATE AND ANNEALING	5
4.2	BIAS DURING DOSE EXPOSURES AND MEASUREMENTS CONDITIONS	5
4.2.1	Bias conditions	5
4.2.2	Electrical Measurements	6
5	CONCLUSION	8
6	TEST RESULTS.....	9

List of figures:

Figure 1 : Bias Conditions during Irradiation Exposures and Annealing	5
Figure 2 : UC1525A test program principle.....	6

LIST OF TABLES:

Table 1 : Measured electrical parameters.....	7
Table 2 : Summary of parameters failure levels	8

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

1 Introduction

A total ionizing dose test of the Texas Instruments UC1525BJQMLV, Regulating Pulse Width Modulator has been performed with an accumulated dose of about 111.9 Krad(Si) at a dose rate of 210 and 360 rad(Si)/hour, in response to Alter Technology - TUV Nord S.A.U. purchase order reference 5504769.

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 - TUV Nord S.A.U..

Test has been performed in accordance with Hirex Engineering proposal reference HRX/PRO/3688 Issue 02 dated December 19th, 2011.

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

2 Applicable and Reference Documents

2.1 Applicable Documents

- Hirex Engineering proposal: HRX/PRO/3688 Issue 02 dated December 19th, 2011
- Alter Technology - TUV Nord S.A.U. irradiation test plan: ATGSP-RP-83 Iss 02 Dated 2012/01/31.
- Hirex Engineering Detail Design Document: HRX/DDD/1545 Issue 01
- Hirex Engineering Test Conditions: HRX/TC/1209 Issue 01

2.2 Reference Documents

- Manufacturer Datasheet

3 Test Samples

11 samples of the UC1525BJQMLV device were tested (5 ON + 5 OFF + 1 control sample).

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

Serial Number	Allocation
278	Control
279	Biased ON
280	Biased ON
281	Biased ON
282	Biased ON
283	Biased ON
284	Biased OFF
285	Biased OFF
286	Biased OFF
287	Biased OFF
288	Biased OFF

Identification of the UC1525BJQMLV is given below:

Part type:	UC1525BJQMLV	Part Number:	5962-8951105VEA
Top Marking:	1D-T 0833A 5962-8951105VEA UC1525BJQMLV THA Q logo serial		
Date Code:	0833A		

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

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	-	-	Room
5	5	210 [1]	-	Room
10	11	360	-	Room
20	20.9	360	-	Room
35	28.5	360	-	Room
50	52.2	360	-	Room
100	111.9	360	-	Room
-	-	-	24	Room
-	-	-	168	100

[1]: Following Alter request, dose rate has been increased after first exposure step in order to be as close as possible to 360 rad/H.

4.2 Bias during Dose Exposures and Measurements conditions

4.2.1 Bias conditions

During exposures test board allowed to bias 5 samples in accordance with the electrical circuit provided in Figure 1.

5 other samples were biased OFF with all pins connected to ground.

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

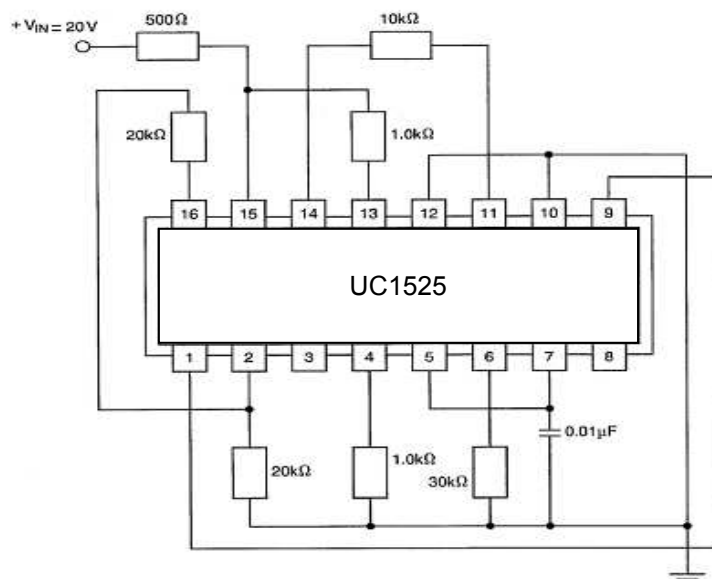


Figure 1 : Bias Conditions during Irradiation Exposures and Annealing

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

4.2.2 Electrical Measurements

Electrical parameters test program principle for UC1525BJQMLV is provided in Figure 2.

One HP4142 DC tester and one 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.

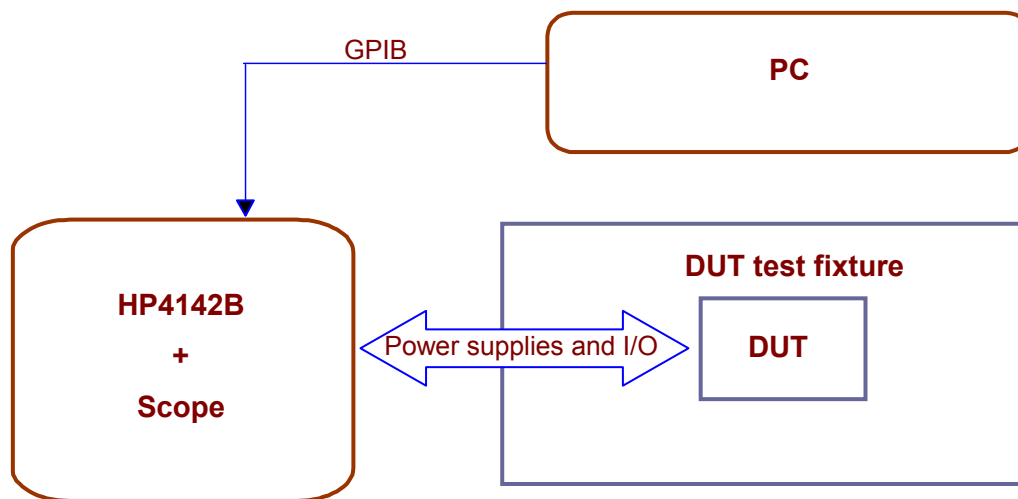


Figure 2 : UC1525BJQMLV test program principle

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

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

PARAMETERS	SYMBOLS	TEST CONDITIONS note1	MIN	MAX	UNITS
Reference Section					
Reference Output Voltage	Vref		5.062	5.138	V
Line Regulation	Vrline	Vin=8V to 35V	-10	10	mV
Load Regulation	Vrload	IL=0mA to 20mA	-15	15	mV
Short-Circuit Current	IOS	Vref=0V		100	mA
Error Amplifier Section					
Input Offset Voltage	VIO	VCM=5.1V. RS≤2kΩ	-5	5	mV
Input Bias Current	IIB+	VCM=5.1V	-10	10	μA
Input Bias Current	IIB-	VCM=5.1V	-10	10	μA
Input Offset Current	IIO	VCM=5.1V	-1	1	μA
DC Open Loop Gain	AVOL	VCM=5.1V. RL≥10 M Ω	60.		dB
Output Low Level	VOL1	VCM=5.1V		500	mV
Output High Level	VOH1	VCM=5.1V	3.8		V
Common Mode Rejection Ratio	CMRR	VCM=1.5V to 5.2V	60		dB
Power Supply Rejection Ration	PSRR	VCM=5.1V. Vin=8V to 35V	50		dB
Soft Start Section					
Soft Start Current	ISS	VSD=0V. VSS=0V	25	80	μA
Soft Start Voltage	VSS	VSD=2.5V		700	mV
Shutdown Input Current	ISD	VSD=2.5V		1	mA
Shutdown Threshold Voltage	VTH	To outputs. VSS=5.1V	600		mV
Output Section					
Output Low Level	VOL2 A	VC=20V. Isink=20mA		400	mV
Output Low Level	VOL3 A	VC=20V. Isink=100mA		2.2	V
Output Low Level	VOL2 B	VC=20V. Isink=20mA		400	mV
Output Low Level	VOL3 B	VC=20V. Isink=100mA		2.2	V
Output High Level	VOH2 A	VC=20V. Isource=-20mA	18		V
Output High Level	VOH3 A	VC=20V. Isource=-100mA	17		V
Output High Level	VOH2 B	VC=20V. Isource=-20mA	18		V
Output High Level	VOH3 B	VC=20V. Isource=-100mA	17		V
Under Voltage Lockout	VUL	VC=20V. Vcomp and VSS = high	6	8	V
Total Standby Current Section					
Supply Current	IS	Vin=35V		20	mA

Note 1: Unless otherwise specified in the column Test Conditions: +Vin=20V, RT=3.6KΩ, CT=0.01μF.

Table 1 : Measured electrical parameters

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

5 Conclusion

A Total Ionizing Dose test was carried out by Hirex Engineering under Alter Technology - TUV Nord S.A.U. contract on the Texas Instruments UC1525BJQMLV Regulating Pulse Width Modulator in DIL-16 package.

10 samples plus one control sample were used during testing. They were exposed to radiation using a dose rate of 210 and 360 rad(Si)/hour at room temperature.

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

Parameters not listed remained within specification limits all along testing.

Detail test results are presented in the following section.

Parameters	Failure Level between :		Annealing Recovery [Note 1]					Comments
			NA	No	Partial	Complete	Rebound	
Vref	ON samples	52.2 & 111.9 kRad(Si)				X		
	OFF samples	52.2 & 111.9 kRad(Si)			X			

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

Table 2 : Summary of parameters failure levels

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

6 Test Results

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

Statistics are provided separately for Bias ON and Bias OFF samples.

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

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Reference Output Voltage : Vref

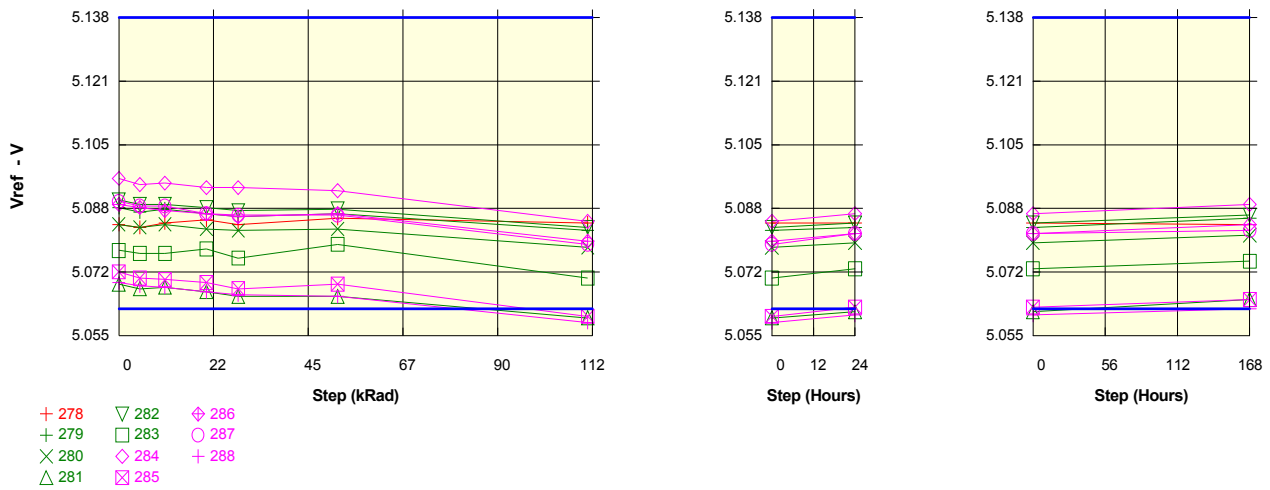
Test conditions :

Unit : V

Spec Limit Min : 5.062

Spec Limit Max : 5.138

Spec limits are represented in bold lines on the graphic.



Measurements

Vref	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	5.084	5.083	5.084	5.085	5.084	5.086	5.084	5.084	5.084
ON samples									
279	5.088	5.087	5.088	5.087	5.086	5.087	5.082	5.083	5.086
280	5.084	5.083	5.084	5.083	5.082	5.083	5.078	5.079	5.081
281	5.068	5.067	5.068	5.066	5.065	5.065	5.060	5.061	5.064
282	5.090	5.089	5.089	5.088	5.088	5.088	5.083	5.084	5.086
283	5.077	5.076	5.076	5.078	5.075	5.079	5.070	5.072	5.074
Statistics									
Min	5.068	5.067	5.068	5.066	5.065	5.065	5.060	5.061	5.064
Max	5.090	5.089	5.089	5.088	5.088	5.088	5.083	5.084	5.086
Average	5.082	5.081	5.081	5.080	5.079	5.080	5.075	5.076	5.078
Sigma	0.008	0.008	0.008	0.008	0.008	0.008	0.009	0.009	0.008

Measurements

Vref	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	5.084	5.083	5.084	5.085	5.084	5.086	5.084	5.084	5.084
OFF samples									
284	5.096	5.094	5.095	5.094	5.094	5.093	5.085	5.087	5.089
285	5.072	5.070	5.070	5.069	5.067	5.068	5.060	5.062	5.064
286	5.089	5.088	5.088	5.087	5.086	5.087	5.080	5.082	5.084
287	5.090	5.089	5.089	5.087	5.086	5.086	5.079	5.082	5.082
288	5.069	5.068	5.068	5.066	5.066	5.065	5.058	5.060	5.062
Statistics									
Min	5.069	5.068	5.068	5.066	5.066	5.065	5.058	5.060	5.062
Max	5.096	5.094	5.095	5.094	5.094	5.093	5.085	5.087	5.089
Average	5.083	5.082	5.082	5.080	5.080	5.080	5.072	5.075	5.076
Sigma	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Line Regulation : Vrline

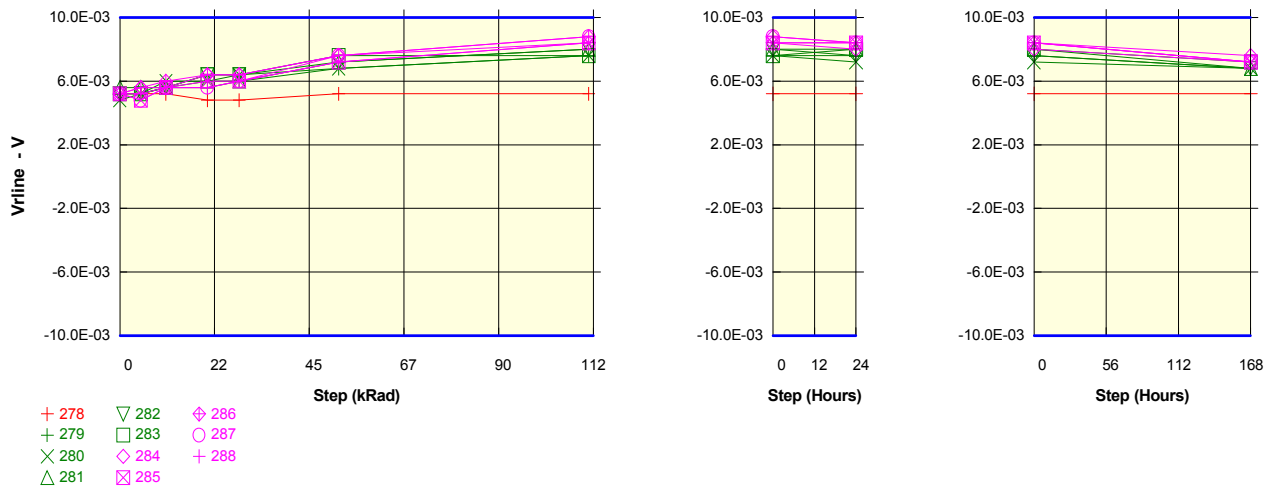
Test conditions : Vin=8V to35V

Unit : V

Spec Limit Min : -10.0E-03

Spec Limit Max : 10.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

Vrline	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	5.2E-03	5.2E-03	5.2E-03	4.8E-03	4.8E-03	5.2E-03	5.2E-03	5.2E-03	5.2E-03
ON samples									
279	5.2E-03	5.2E-03	5.6E-03	5.6E-03	6.0E-03	6.8E-03	7.6E-03	7.6E-03	6.8E-03
280	4.8E-03	5.2E-03	6.0E-03	6.0E-03	6.4E-03	6.8E-03	7.6E-03	7.2E-03	6.8E-03
281	5.6E-03	5.6E-03	5.6E-03	6.0E-03	6.0E-03	7.2E-03	8.0E-03	8.0E-03	6.8E-03
282	5.2E-03	5.2E-03	5.6E-03	6.4E-03	6.4E-03	7.2E-03	8.0E-03	7.6E-03	6.8E-03
283	5.2E-03	5.2E-03	5.6E-03	6.4E-03	6.4E-03	7.6E-03	7.6E-03	8.0E-03	7.2E-03
Statistics									
Min	4.8E-03	5.2E-03	5.6E-03	5.6E-03	6.0E-03	6.8E-03	7.6E-03	7.2E-03	6.8E-03
Max	5.6E-03	5.6E-03	6.0E-03	6.4E-03	6.4E-03	7.6E-03	8.0E-03	8.0E-03	7.2E-03
Average	5.2E-03	5.3E-03	5.7E-03	6.1E-03	6.2E-03	7.1E-03	7.8E-03	7.7E-03	6.9E-03
Sigma	253.0E-06	160.0E-06	160.0E-06	299.4E-06	196.0E-06	299.3E-06	195.8E-06	299.6E-06	159.9E-06

Measurements

Vrline	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	5.2E-03	5.2E-03	5.2E-03	4.8E-03	4.8E-03	5.2E-03	5.2E-03	5.2E-03	5.2E-03
OFF samples									
284	5.2E-03	5.6E-03	5.6E-03	6.4E-03	6.4E-03	7.6E-03	8.4E-03	8.0E-03	7.2E-03
285	5.2E-03	4.8E-03	5.6E-03	6.0E-03	6.0E-03	7.2E-03	8.4E-03	8.4E-03	7.2E-03
286	5.2E-03	5.6E-03	6.0E-03	6.4E-03	6.4E-03	7.6E-03	8.8E-03	8.4E-03	7.6E-03
287	5.2E-03	4.8E-03	5.6E-03	5.6E-03	6.0E-03	7.6E-03	8.8E-03	8.4E-03	7.2E-03
288	5.2E-03	5.2E-03	5.6E-03	5.6E-03	6.0E-03	7.2E-03	8.4E-03	8.4E-03	7.2E-03
Statistics									
Min	5.2E-03	4.8E-03	5.6E-03	5.6E-03	6.0E-03	7.2E-03	8.4E-03	8.0E-03	7.2E-03
Max	5.2E-03	5.6E-03	6.0E-03	6.4E-03	6.4E-03	7.6E-03	8.8E-03	8.4E-03	7.6E-03
Average	5.2E-03	5.2E-03	5.7E-03	6.0E-03	6.2E-03	7.4E-03	8.6E-03	8.3E-03	7.3E-03
Sigma	26.0E-12	357.8E-06	160.0E-06	357.7E-06	195.9E-06	196.2E-06	196.0E-06	159.8E-06	160.2E-06

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Load Regulation : V_{load}

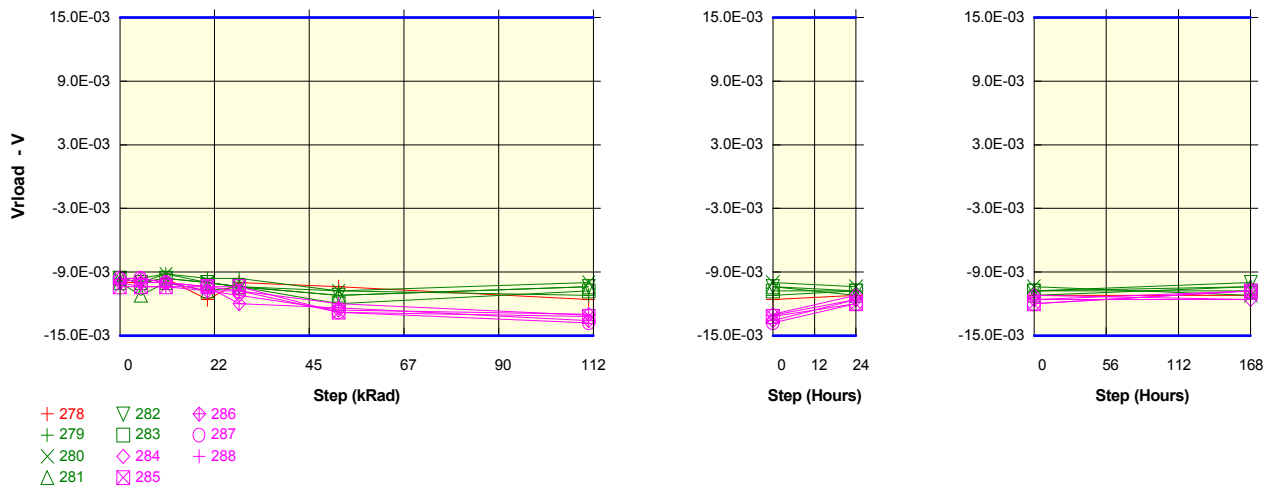
Test conditions : IL=0mA to 20mA

Unit : V

Spec Limit Min : -15.0E-03

Spec Limit Max : 15.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

V _{load}	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	-10.0E-03	-10.0E-03	-9.6E-03	-11.6E-03	-10.0E-03	-10.4E-03	-11.6E-03	-11.2E-03	-11.2E-03
ON samples									
279	-9.6E-03	-9.6E-03	-9.2E-03	-9.6E-03	-9.6E-03	-10.8E-03	-11.2E-03	-10.8E-03	-10.4E-03
280	-9.6E-03	-10.0E-03	-9.2E-03	-10.0E-03	-10.4E-03	-10.8E-03	-10.0E-03	-10.4E-03	-11.2E-03
281	-10.0E-03	-11.2E-03	-10.0E-03	-10.8E-03	-10.4E-03	-11.2E-03	-10.4E-03	-11.2E-03	-10.4E-03
282	-9.6E-03	-10.0E-03	-9.6E-03	-10.0E-03	-10.4E-03	-11.2E-03	-10.4E-03	-10.8E-03	-10.0E-03
283	-9.6E-03	-10.0E-03	-9.6E-03	-10.0E-03	-10.4E-03	-12.0E-03	-10.8E-03	-10.8E-03	-10.8E-03
Statistics									
Min	-10.0E-03	-11.2E-03	-10.0E-03	-10.8E-03	-10.4E-03	-12.0E-03	-11.2E-03	-11.2E-03	-11.2E-03
Max	-9.6E-03	-9.6E-03	-9.2E-03	-9.6E-03	-9.6E-03	-10.8E-03	-10.0E-03	-10.4E-03	-10.0E-03
Average	-9.7E-03	-10.2E-03	-9.5E-03	-10.1E-03	-10.2E-03	-11.2E-03	-10.6E-03	-10.8E-03	-10.6E-03
Sigma	159.9E-06	542.5E-06	299.3E-06	391.8E-06	320.0E-06	438.3E-06	407.9E-06	253.0E-06	407.8E-06

Measurements

V _{load}	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	-10.0E-03	-10.0E-03	-9.6E-03	-11.6E-03	-10.0E-03	-10.4E-03	-11.6E-03	-11.2E-03	-11.2E-03
OFF samples									
284	-9.6E-03	-10.0E-03	-10.0E-03	-10.8E-03	-11.2E-03	-12.6E-03	-13.0E-03	-11.2E-03	-11.6E-03
285	-10.4E-03	-10.4E-03	-10.4E-03	-10.4E-03	-10.4E-03	-12.8E-03	-13.2E-03	-12.0E-03	-10.8E-03
286	-10.0E-03	-9.6E-03	-10.0E-03	-10.4E-03	-12.0E-03	-12.4E-03	-13.6E-03	-11.6E-03	-10.8E-03
287	-9.6E-03	-9.6E-03	-10.0E-03	-10.4E-03	-10.8E-03	-12.8E-03	-13.8E-03	-12.0E-03	-10.8E-03
288	-10.0E-03	-10.4E-03	-10.4E-03	-10.8E-03	-10.8E-03	-12.0E-03	-13.1E-03	-11.6E-03	-11.6E-03
Statistics									
Min	-10.4E-03	-10.4E-03	-10.4E-03	-10.8E-03	-12.0E-03	-12.8E-03	-13.8E-03	-12.0E-03	-11.6E-03
Max	-9.6E-03	-9.6E-03	-10.0E-03	-10.4E-03	-10.4E-03	-12.0E-03	-13.0E-03	-11.2E-03	-10.8E-03
Average	-9.9E-03	-10.0E-03	-10.2E-03	-10.6E-03	-11.0E-03	-12.5E-03	-13.3E-03	-11.7E-03	-11.1E-03
Sigma	299.2E-06	357.8E-06	196.0E-06	195.8E-06	542.6E-06	299.3E-06	310.6E-06	299.4E-06	391.9E-06

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

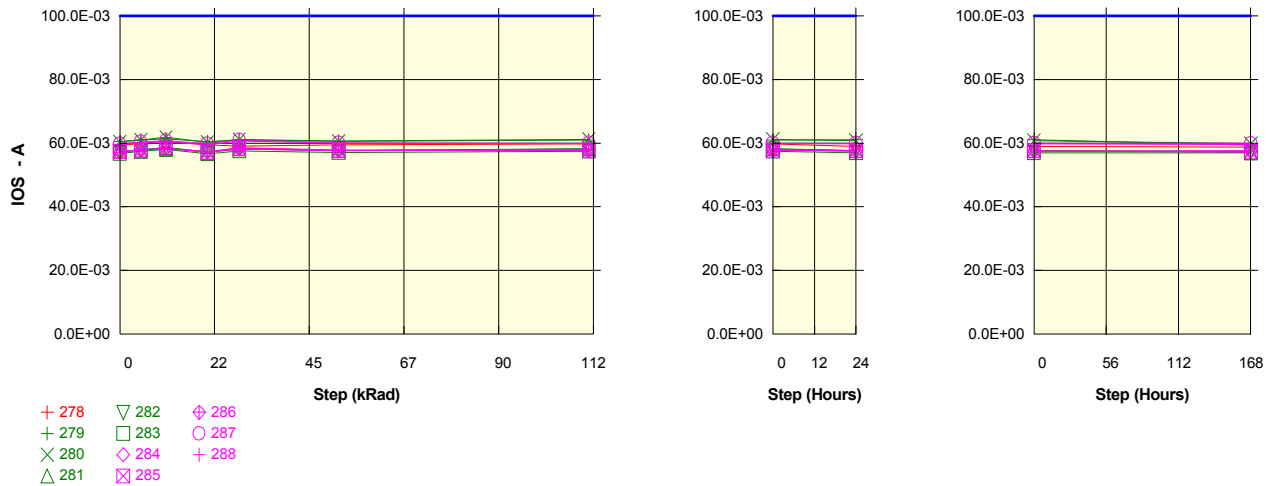
Parameter : Short-Circuit Current : IOS

Test conditions : Vref=0V

Unit : A

Spec Limit Max : 100.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

IOS	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	59.2E-03	60.0E-03	60.6E-03	59.4E-03	59.0E-03	59.4E-03	59.7E-03	58.9E-03	58.6E-03
ON samples									
279	60.4E-03	61.0E-03	61.3E-03	60.4E-03	61.0E-03	60.6E-03	60.9E-03	61.1E-03	59.3E-03
280	60.4E-03	61.0E-03	61.8E-03	60.3E-03	61.1E-03	60.6E-03	61.1E-03	60.7E-03	59.8E-03
281	57.5E-03	57.8E-03	58.6E-03	57.1E-03	58.2E-03	57.7E-03	58.3E-03	57.6E-03	57.1E-03
282	57.2E-03	57.9E-03	58.5E-03	57.2E-03	58.4E-03	57.7E-03	58.2E-03	57.6E-03	57.3E-03
283	56.8E-03	57.4E-03	58.0E-03	56.7E-03	57.5E-03	57.0E-03	57.5E-03	57.0E-03	56.9E-03
Statistics									
Min	56.8E-03	57.4E-03	58.0E-03	56.7E-03	57.5E-03	57.0E-03	57.5E-03	57.0E-03	56.9E-03
Max	60.4E-03	61.0E-03	61.8E-03	60.4E-03	61.1E-03	60.6E-03	61.1E-03	61.1E-03	59.8E-03
Average	58.4E-03	59.0E-03	59.7E-03	58.3E-03	59.3E-03	58.7E-03	59.2E-03	58.8E-03	58.1E-03
Sigma	1.6E-03	1.6E-03	1.6E-03	1.6E-03	1.5E-03	1.5E-03	1.5E-03	1.7E-03	1.2E-03

Measurements

IOS	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	59.2E-03	60.0E-03	60.6E-03	59.4E-03	59.0E-03	59.4E-03	59.7E-03	58.9E-03	58.6E-03
OFF samples									
284	57.2E-03	57.8E-03	58.2E-03	57.2E-03	58.2E-03	57.6E-03	58.1E-03	57.4E-03	57.6E-03
285	57.4E-03	57.8E-03	58.3E-03	57.1E-03	58.3E-03	57.7E-03	57.8E-03	57.5E-03	57.2E-03
286	57.2E-03	57.8E-03	58.3E-03	57.2E-03	58.5E-03	57.8E-03	57.6E-03	57.5E-03	57.4E-03
287	59.8E-03	60.4E-03	60.8E-03	59.8E-03	61.0E-03	60.1E-03	60.0E-03	59.9E-03	59.9E-03
288	59.5E-03	60.0E-03	60.4E-03	59.5E-03	60.6E-03	60.0E-03	59.8E-03	59.7E-03	59.5E-03
Statistics									
Min	57.2E-03	57.8E-03	58.2E-03	57.1E-03	58.2E-03	57.6E-03	57.6E-03	57.4E-03	57.2E-03
Max	59.8E-03	60.4E-03	60.8E-03	59.8E-03	61.0E-03	60.1E-03	60.0E-03	59.9E-03	59.9E-03
Average	58.2E-03	58.8E-03	59.2E-03	58.2E-03	59.3E-03	58.6E-03	58.7E-03	58.4E-03	58.3E-03
Sigma	1.2E-03	1.2E-03	1.2E-03	1.2E-03	1.2E-03	1.1E-03	1.0E-03	1.2E-03	1.1E-03

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Input Offset Voltage : VIO

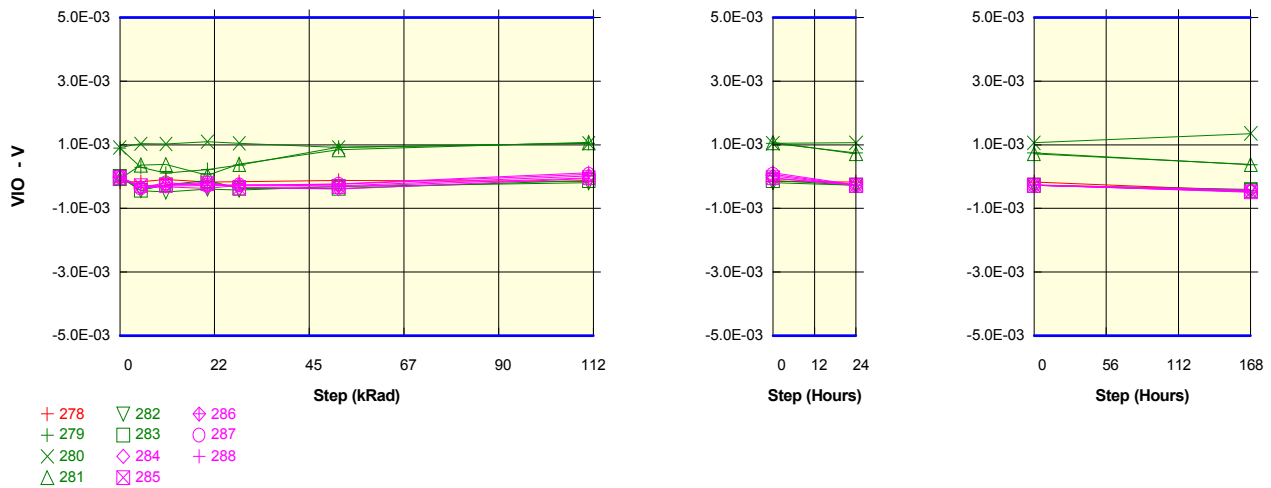
Test conditions : VCM=5.1V. RS≤2kΩ

Unit : V

Spec Limit Min : -5.0E-03

Spec Limit Max : 5.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

VIO	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	-176.0E-06	-160.0E-06	-88.0E-06	-172.8E-06	-158.8E-06	-120.0E-06	-152.4E-06	-172.0E-06	-440.0E-06
ON samples									
279	888.0E-06	292.0E-06	102.0E-06	216.0E-06	364.0E-06	920.0E-06	1.0E-03	748.0E-06	368.0E-06
280	912.0E-06	1.0E-03	1.0E-03	1.1E-03	1.0E-03	912.0E-06	1.0E-03	1.1E-03	1.4E-03
281	-68.0E-06	360.0E-06	376.0E-06	36.0E-06	384.0E-06	844.0E-06	1.1E-03	716.0E-06	376.0E-06
282	0.0E+00	-440.0E-06	-488.0E-06	-400.0E-06	-428.0E-06	-312.0E-06	-192.0E-06	-272.0E-06	-408.0E-06
283	-28.0E-06	-436.0E-06	-260.8E-06	-128.0E-06	-368.0E-06	-372.0E-06	-128.0E-06	-280.0E-06	-440.0E-06
Statistics									
Min	-68.0E-06	-440.0E-06	-488.0E-06	-400.0E-06	-428.0E-06	-372.0E-06	-192.0E-06	-280.0E-06	-440.0E-06
Max	912.0E-06	1.0E-03	1.0E-03	1.1E-03	1.0E-03	920.0E-06	1.1E-03	1.1E-03	1.4E-03
Average	340.8E-06	161.2E-06	149.9E-06	163.4E-06	199.2E-06	398.4E-06	567.0E-06	394.8E-06	249.6E-06
Sigma	457.2E-06	553.1E-06	526.6E-06	507.0E-06	545.9E-06	605.4E-06	594.0E-06	560.9E-06	656.2E-06

Measurements

VIO	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	-176.0E-06	-160.0E-06	-88.0E-06	-172.8E-06	-158.8E-06	-120.0E-06	-152.4E-06	-172.0E-06	-440.0E-06
OFF samples									
284	-20.0E-06	-340.0E-06	-268.0E-06	-180.0E-06	-352.0E-06	-392.0E-06	-64.0E-06	-260.0E-06	-428.0E-06
285	-44.0E-06	-284.0E-06	-280.8E-06	-216.0E-06	-352.0E-06	-320.0E-06	-40.0E-06	-275.6E-06	-480.0E-06
286	0.0E+00	-344.0E-06	-289.2E-06	-288.0E-06	-264.0E-06	-300.0E-06	20.0E-06	-272.0E-06	-440.0E-06
287	-16.0E-06	-360.0E-06	-199.6E-06	-280.0E-06	-268.0E-06	-244.0E-06	68.0E-06	-271.6E-06	-472.0E-06
288	-32.0E-06	-356.0E-06	-320.0E-06	-380.0E-06	-280.0E-06	-236.0E-06	116.0E-06	-260.0E-06	-492.0E-06
Statistics									
Min	-44.0E-06	-360.0E-06	-320.0E-06	-380.0E-06	-352.0E-06	-392.0E-06	-64.0E-06	-275.6E-06	-492.0E-06
Max	0.0E+00	-284.0E-06	-199.6E-06	-180.0E-06	-264.0E-06	-236.0E-06	116.0E-06	-260.0E-06	-428.0E-06
Average	-22.4E-06	-336.8E-06	-271.5E-06	-268.8E-06	-303.2E-06	-298.4E-06	20.0E-06	-267.8E-06	-462.4E-06
Sigma	14.9E-06	27.4E-06	39.8E-06	68.6E-06	40.2E-06	56.7E-06	66.6E-06	6.6E-06	24.3E-06

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Input Bias Current : IIB+

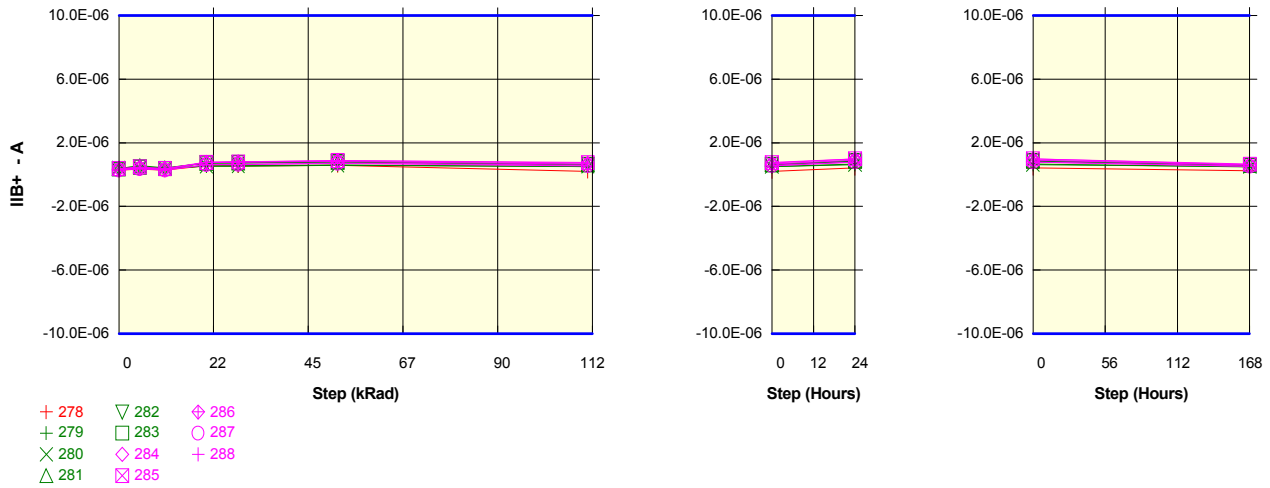
Test conditions : VCM=5.1V

Unit : A

Spec Limit Min : -10.0E-06

Spec Limit Max : 10.0E-06

Spec limits are represented in bold lines on the graphic.



Measurements

IIB+	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	278.4E-09	338.6E-09	275.5E-09	559.6E-09	532.7E-09	564.8E-09	194.1E-09	404.0E-09	231.8E-09
ON samples									
279	340.0E-09	485.8E-09	378.1E-09	534.3E-09	554.4E-09	599.4E-09	502.2E-09	660.5E-09	483.9E-09
280	415.1E-09	467.2E-09	402.8E-09	510.0E-09	531.1E-09	572.7E-09	501.5E-09	624.5E-09	503.5E-09
281	373.8E-09	551.0E-09	403.6E-09	708.3E-09	733.5E-09	779.3E-09	618.9E-09	829.7E-09	588.7E-09
282	353.3E-09	469.7E-09	379.2E-09	741.3E-09	764.8E-09	822.6E-09	635.2E-09	873.2E-09	584.5E-09
283	347.3E-09	458.5E-09	365.2E-09	718.1E-09	735.1E-09	793.6E-09	616.5E-09	841.4E-09	573.9E-09
Statistics									
Min	340.0E-09	458.5E-09	365.2E-09	510.0E-09	531.1E-09	572.7E-09	501.5E-09	624.5E-09	483.9E-09
Max	415.1E-09	551.0E-09	403.6E-09	741.3E-09	764.8E-09	822.6E-09	635.2E-09	873.2E-09	588.7E-09
Average	365.9E-09	486.4E-09	385.8E-09	642.4E-09	663.8E-09	713.5E-09	574.9E-09	765.9E-09	546.9E-09
Sigma	27.1E-09	33.5E-09	15.1E-09	99.1E-09	99.7E-09	105.4E-09	60.0E-09	102.4E-09	44.1E-09

Measurements

IIB+	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	278.4E-09	338.6E-09	275.5E-09	559.6E-09	532.7E-09	564.8E-09	194.1E-09	404.0E-09	231.8E-09
OFF samples									
284	333.2E-09	411.3E-09	344.2E-09	749.1E-09	764.1E-09	829.8E-09	657.7E-09	893.5E-09	595.8E-09
285	369.6E-09	469.6E-09	370.7E-09	765.9E-09	793.9E-09	882.9E-09	750.5E-09	993.0E-09	648.3E-09
286	339.4E-09	429.5E-09	338.1E-09	760.3E-09	772.6E-09	876.4E-09	711.6E-09	966.4E-09	617.4E-09
287	276.0E-09	363.6E-09	268.3E-09	615.5E-09	633.6E-09	705.9E-09	563.1E-09	784.2E-09	519.3E-09
288	277.5E-09	355.4E-09	265.7E-09	619.5E-09	632.7E-09	699.4E-09	543.6E-09	765.7E-09	511.8E-09
Statistics									
Min	276.0E-09	355.4E-09	265.7E-09	615.5E-09	632.7E-09	699.4E-09	543.6E-09	765.7E-09	511.8E-09
Max	369.6E-09	469.6E-09	370.7E-09	765.9E-09	793.9E-09	882.9E-09	750.5E-09	993.0E-09	648.3E-09
Average	319.1E-09	405.9E-09	317.4E-09	702.1E-09	719.4E-09	798.9E-09	645.3E-09	880.5E-09	578.5E-09
Sigma	36.8E-09	42.4E-09	42.6E-09	69.3E-09	71.1E-09	80.7E-09	80.9E-09	92.4E-09	54.1E-09

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Input Bias Current : IIB-

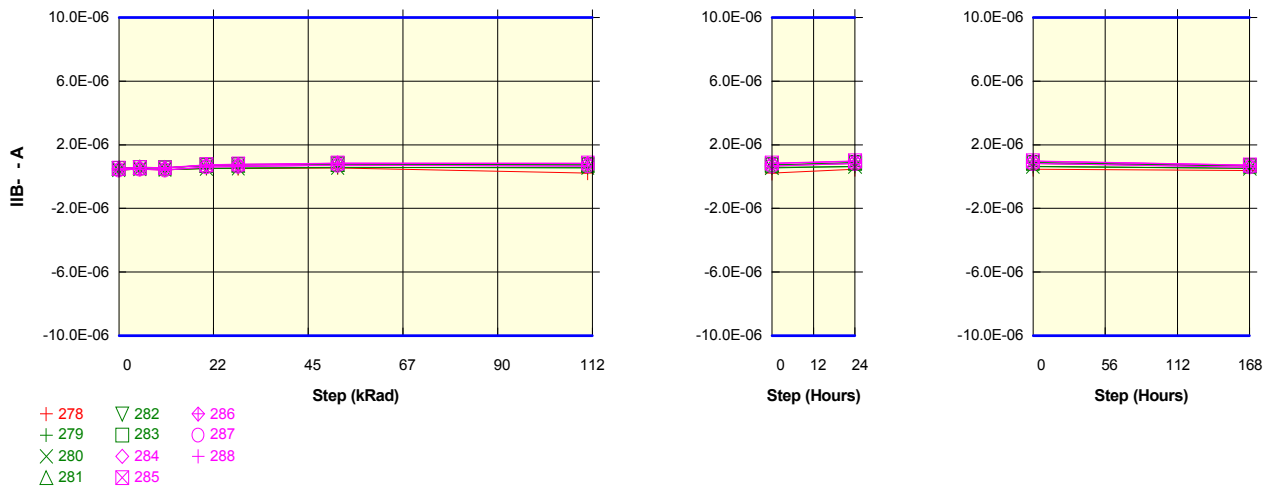
Test conditions : VCM=5.1V

Unit : A

Spec Limit Min : -10.0E-06

Spec Limit Max : 10.0E-06

Spec limits are represented in bold lines on the graphic.



Measurements

IIB-	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	419.1E-09	448.8E-09	425.7E-09	515.8E-09	493.5E-09	545.2E-09	210.0E-09	459.1E-09	375.1E-09
ON samples									
279	400.8E-09	489.2E-09	411.4E-09	514.1E-09	539.0E-09	571.1E-09	545.7E-09	640.2E-09	513.7E-09
280	408.5E-09	467.9E-09	436.4E-09	492.2E-09	520.9E-09	555.7E-09	563.0E-09	625.7E-09	519.6E-09
281	514.8E-09	570.8E-09	549.4E-09	684.5E-09	724.1E-09	758.4E-09	719.8E-09	833.6E-09	658.5E-09
282	509.5E-09	559.5E-09	546.5E-09	714.4E-09	754.4E-09	798.9E-09	733.3E-09	874.6E-09	676.2E-09
283	503.5E-09	556.4E-09	533.6E-09	695.5E-09	734.1E-09	773.2E-09	707.8E-09	849.4E-09	668.0E-09
Statistics									
Min	400.8E-09	467.9E-09	411.4E-09	492.2E-09	520.9E-09	555.7E-09	545.7E-09	625.7E-09	513.7E-09
Max	514.8E-09	570.8E-09	549.4E-09	714.4E-09	754.4E-09	798.9E-09	733.3E-09	874.6E-09	676.2E-09
Average	467.4E-09	528.8E-09	495.5E-09	620.2E-09	654.5E-09	691.5E-09	653.9E-09	764.7E-09	607.2E-09
Sigma	51.4E-09	41.8E-09	59.2E-09	96.3E-09	102.3E-09	105.5E-09	81.9E-09	108.4E-09	74.2E-09

Measurements

IIB-	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	419.1E-09	448.8E-09	425.7E-09	515.8E-09	493.5E-09	545.2E-09	210.0E-09	459.1E-09	375.1E-09
OFF samples									
284	501.7E-09	547.6E-09	533.0E-09	730.2E-09	730.3E-09	834.7E-09	814.5E-09	952.3E-09	707.3E-09
285	518.7E-09	564.7E-09	550.7E-09	734.7E-09	784.7E-09	847.5E-09	848.4E-09	981.7E-09	716.8E-09
286	500.7E-09	553.8E-09	525.6E-09	729.0E-09	731.9E-09	844.6E-09	817.4E-09	964.2E-09	696.1E-09
287	406.2E-09	455.4E-09	405.7E-09	591.1E-09	636.5E-09	693.9E-09	657.4E-09	809.0E-09	585.1E-09
288	410.7E-09	455.9E-09	400.9E-09	603.2E-09	617.4E-09	707.9E-09	658.3E-09	826.8E-09	589.5E-09
Statistics									
Min	406.2E-09	455.4E-09	400.9E-09	591.1E-09	617.4E-09	693.9E-09	657.4E-09	809.0E-09	585.1E-09
Max	518.7E-09	564.7E-09	550.7E-09	734.7E-09	784.7E-09	847.5E-09	848.4E-09	981.7E-09	716.8E-09
Average	467.6E-09	515.5E-09	483.2E-09	677.6E-09	700.2E-09	785.7E-09	759.2E-09	906.8E-09	659.0E-09
Sigma	48.7E-09	49.2E-09	65.8E-09	65.9E-09	63.2E-09	69.5E-09	83.6E-09	73.4E-09	58.9E-09

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Input Offset Current : IIO

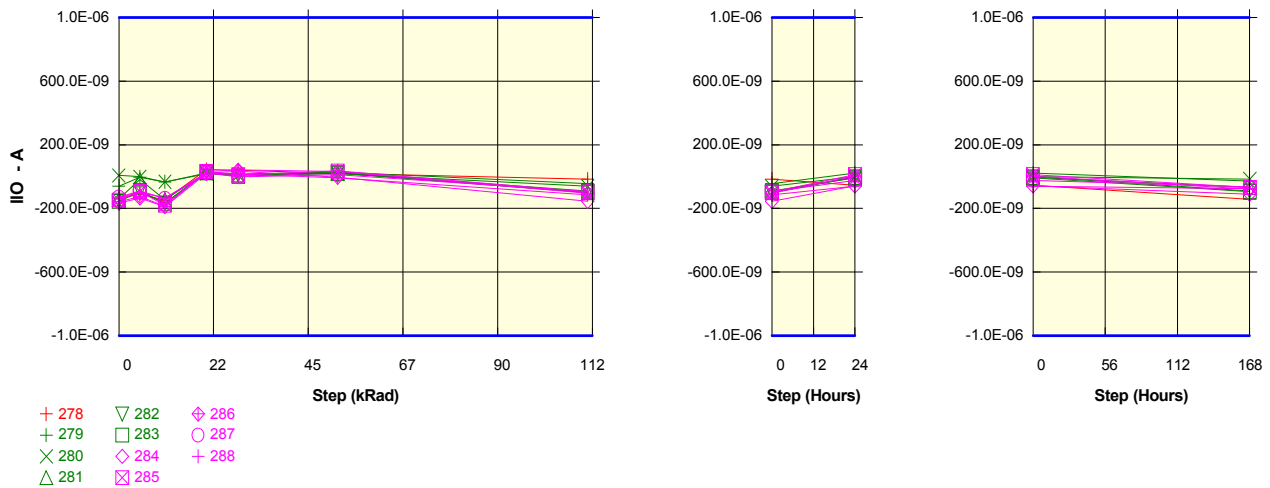
Test conditions : VCM=5.1V

Unit : A

Spec Limit Min : -1.0E-06

Spec Limit Max : 1.0E-06

Spec limits are represented in bold lines on the graphic.



Measurements

IIO	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	-140.7E-09	-110.2E-09	-150.2E-09	43.8E-09	39.2E-09	19.6E-09	-15.9E-09	-55.2E-09	-143.2E-09
ON samples									
279	-60.8E-09	-3.4E-09	-33.3E-09	20.2E-09	15.3E-09	28.3E-09	-43.5E-09	20.3E-09	-29.8E-09
280	6.6E-09	-780.0E-12	-33.6E-09	17.8E-09	10.2E-09	17.0E-09	-61.6E-09	-1.3E-09	-16.2E-09
281	-141.0E-09	-19.8E-09	-145.7E-09	23.8E-09	9.4E-09	20.9E-09	-100.9E-09	-3.8E-09	-69.8E-09
282	-156.2E-09	-89.8E-09	-167.3E-09	26.9E-09	10.4E-09	23.7E-09	-98.1E-09	-1.3E-09	-91.8E-09
283	-156.2E-09	-97.9E-09	-168.5E-09	22.5E-09	980.0E-12	20.4E-09	-91.4E-09	-8.0E-09	-94.1E-09
Statistics									
Min	-156.2E-09	-97.9E-09	-168.5E-09	17.8E-09	980.0E-12	17.0E-09	-100.9E-09	-8.0E-09	-94.1E-09
Max	6.6E-09	-780.0E-12	-33.3E-09	26.9E-09	15.3E-09	28.3E-09	-43.5E-09	20.3E-09	-16.2E-09
Average	-101.5E-09	-42.3E-09	-109.7E-09	22.2E-09	9.3E-09	22.0E-09	-79.1E-09	1.2E-09	-60.3E-09
Sigma	64.6E-09	42.6E-09	62.8E-09	3.1E-09	4.6E-09	3.8E-09	22.6E-09	9.9E-09	31.9E-09

Measurements

IIO	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	-140.7E-09	-110.2E-09	-150.2E-09	43.8E-09	39.2E-09	19.6E-09	-15.9E-09	-55.2E-09	-143.2E-09
OFF samples									
284	-168.5E-09	-136.3E-09	-188.8E-09	19.0E-09	33.7E-09	-5.0E-09	-156.8E-09	-58.8E-09	-111.5E-09
285	-149.1E-09	-95.1E-09	-180.0E-09	31.3E-09	9.2E-09	35.4E-09	-97.9E-09	11.3E-09	-68.6E-09
286	-161.2E-09	-124.3E-09	-187.5E-09	31.2E-09	40.7E-09	31.8E-09	-105.9E-09	2.2E-09	-78.7E-09
287	-130.2E-09	-91.8E-09	-137.4E-09	24.4E-09	-2.9E-09	11.9E-09	-94.2E-09	-24.8E-09	-65.8E-09
288	-133.2E-09	-100.5E-09	-135.2E-09	16.2E-09	15.3E-09	-8.5E-09	-114.7E-09	-61.1E-09	-77.7E-09
Statistics									
Min	-168.5E-09	-136.3E-09	-188.8E-09	16.2E-09	-2.9E-09	-8.5E-09	-156.8E-09	-61.1E-09	-111.5E-09
Max	-130.2E-09	-91.8E-09	-135.2E-09	31.3E-09	40.7E-09	35.4E-09	-94.2E-09	11.3E-09	-65.8E-09
Average	-148.4E-09	-109.6E-09	-165.8E-09	24.4E-09	19.2E-09	13.1E-09	-113.9E-09	-26.3E-09	-80.5E-09
Sigma	15.0E-09	17.6E-09	24.3E-09	6.2E-09	16.0E-09	18.1E-09	22.6E-09	30.0E-09	16.3E-09

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

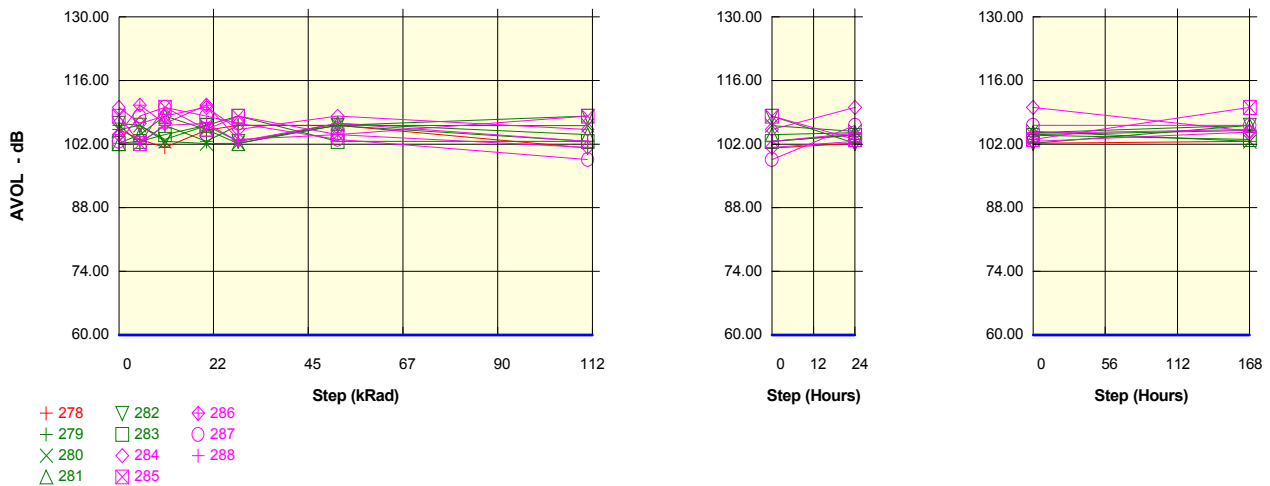
Parameter : DC Open Loop Gain : AVOL

Test conditions : VCM=5.1V. RL≥10 MΩ

Unit : dB

Spec Limit Min : 60.00

Spec limits are represented in bold lines on the graphic.



Measurements

AVOL	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	105.21	103.03	101.28	105.07	106.09	106.09	101.07	102.11	102.57
ON samples									
279	106.09	102.11	106.09	102.57	106.09	106.07	102.57	104.05	105.03
280	105.21	106.09	102.57	102.07	102.19	106.09	106.07	104.76	102.57
281	102.11	104.05	108.13	105.21	102.07	106.55	104.05	104.50	106.09
282	106.55	106.09	103.03	106.07	102.57	106.09	108.13	102.11	106.09
283	102.11	102.57	104.05	106.09	108.13	102.57	102.57	103.88	103.03
Statistics									
Min	102.11	102.11	102.57	102.07	102.07	102.57	102.57	102.11	102.57
Max	106.55	106.09	108.13	106.09	108.13	106.55	108.13	104.76	106.09
Average	104.41	104.18	104.77	104.40	104.21	105.47	104.68	103.86	104.56
Sigma	1.93	1.68	2.07	1.74	2.46	1.46	2.15	0.93	1.50

Measurements

AVOL	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	105.21	103.03	101.28	105.07	106.09	106.09	101.07	102.11	102.57
OFF samples									
284	110.07	106.55	108.13	110.09	105.21	108.13	105.21	110.07	104.88
285	108.13	102.11	110.09	105.21	108.13	104.05	108.13	103.03	110.07
286	104.05	110.57	106.55	110.57	103.03	104.05	101.28	102.57	104.62
287	102.57	108.13	110.07	108.13	106.55	103.03	98.59	106.09	106.09
288	102.11	102.11	106.09	106.55	102.57	106.55	102.57	104.36	105.21
Statistics									
Min	102.11	102.11	106.09	105.21	102.57	103.03	98.59	102.57	104.62
Max	110.07	110.57	110.09	110.57	108.13	108.13	108.13	110.07	110.07
Average	105.39	105.89	108.19	108.11	105.10	105.16	103.16	105.22	106.17
Sigma	3.16	3.34	1.69	2.04	2.10	1.89	3.28	2.71	2.01

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

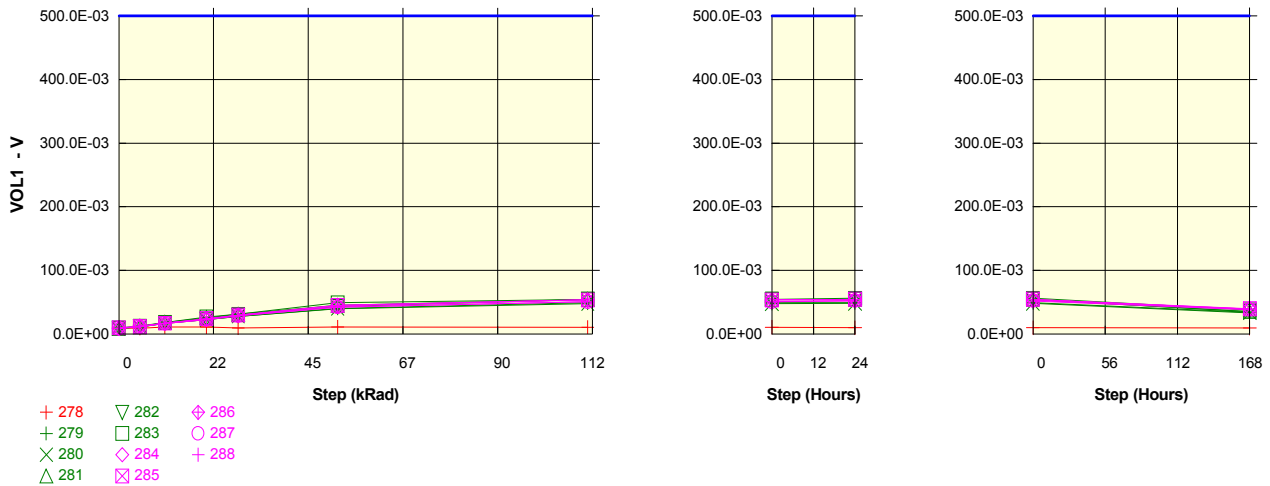
Parameter : Output Low Level : VOL1

Test conditions : VCM=5.1V

Unit : V

Spec Limit Max : 500.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

VOL1	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	9.2E-03	8.8E-03	10.8E-03	10.8E-03	9.2E-03	10.8E-03	10.4E-03	9.6E-03	9.2E-03
ON samples									
279	8.8E-03	10.8E-03	16.4E-03	22.4E-03	27.6E-03	40.4E-03	48.8E-03	49.2E-03	34.0E-03
280	8.8E-03	10.8E-03	16.8E-03	22.4E-03	27.6E-03	39.6E-03	47.6E-03	48.0E-03	33.2E-03
281	8.8E-03	11.2E-03	18.0E-03	25.2E-03	30.8E-03	44.8E-03	54.0E-03	54.4E-03	35.2E-03
282	9.2E-03	11.2E-03	17.2E-03	23.2E-03	29.2E-03	43.2E-03	54.0E-03	54.0E-03	35.2E-03
283	9.2E-03	12.0E-03	18.0E-03	26.4E-03	30.8E-03	48.8E-03	54.4E-03	56.0E-03	37.6E-03
Statistics									
Min	8.8E-03	10.8E-03	16.4E-03	22.4E-03	27.6E-03	39.6E-03	47.6E-03	48.0E-03	33.2E-03
Max	9.2E-03	12.0E-03	18.0E-03	26.4E-03	30.8E-03	48.8E-03	54.4E-03	56.0E-03	37.6E-03
Average	9.0E-03	11.2E-03	17.3E-03	23.9E-03	29.2E-03	43.4E-03	51.8E-03	52.3E-03	35.0E-03
Sigma	196.0E-06	438.2E-06	640.0E-06	1.6E-03	1.4E-03	3.3E-03	2.9E-03	3.1E-03	1.5E-03

Measurements

VOL1	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	9.2E-03	8.8E-03	10.8E-03	10.8E-03	9.2E-03	10.8E-03	10.4E-03	9.6E-03	9.2E-03
OFF samples									
284	8.8E-03	11.2E-03	16.8E-03	22.8E-03	29.6E-03	44.0E-03	53.6E-03	53.6E-03	39.2E-03
285	9.6E-03	11.2E-03	16.8E-03	24.0E-03	29.6E-03	44.8E-03	53.6E-03	54.4E-03	39.2E-03
286	8.8E-03	12.4E-03	16.8E-03	23.2E-03	29.2E-03	44.4E-03	53.6E-03	54.0E-03	39.6E-03
287	8.8E-03	11.2E-03	16.4E-03	22.4E-03	28.4E-03	42.0E-03	50.4E-03	52.4E-03	38.4E-03
288	8.4E-03	11.2E-03	16.0E-03	22.4E-03	28.4E-03	42.0E-03	50.4E-03	51.6E-03	38.0E-03
Statistics									
Min	8.4E-03	11.2E-03	16.0E-03	22.4E-03	28.4E-03	42.0E-03	50.4E-03	51.6E-03	38.0E-03
Max	9.6E-03	12.4E-03	16.8E-03	24.0E-03	29.6E-03	44.8E-03	53.6E-03	54.4E-03	39.6E-03
Average	8.9E-03	11.4E-03	16.6E-03	23.0E-03	29.0E-03	43.4E-03	52.3E-03	53.2E-03	38.9E-03
Sigma	391.9E-06	480.0E-06	320.0E-06	598.7E-06	542.6E-06	1.2E-03	1.6E-03	1.0E-03	587.9E-06

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

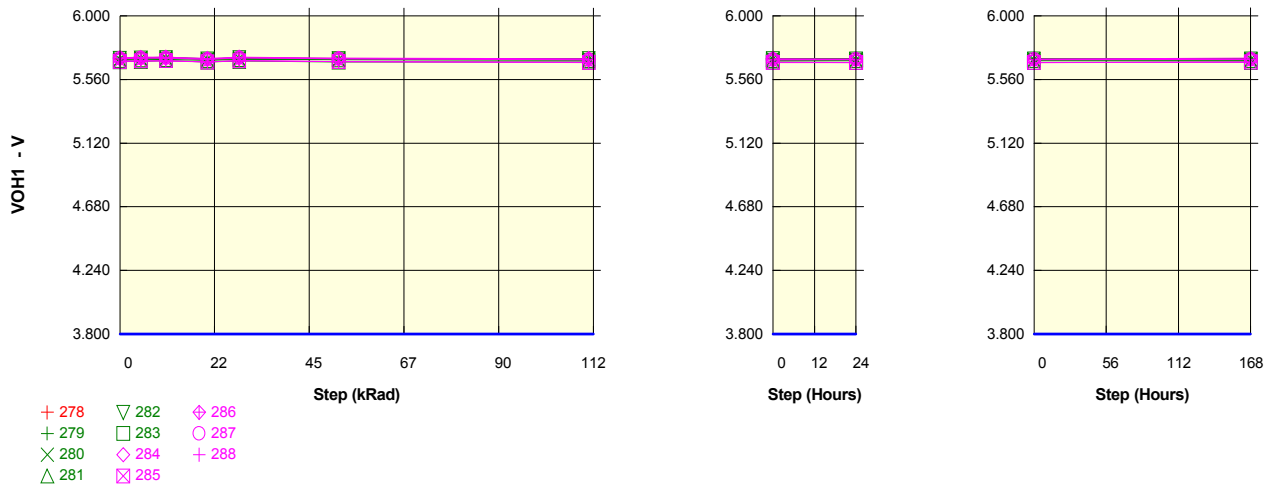
Parameter : Output High Level : VOH1

Test conditions : VCM=5.1V

Unit : V

Spec Limit Min : 3.800

Spec limits are represented in bold lines on the graphic.



Measurements

VOH1	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	5.700	5.705	5.710	5.701	5.705	5.702	5.704	5.700	5.697
ON samples									
279	5.706	5.710	5.714	5.704	5.710	5.705	5.704	5.704	5.704
280	5.700	5.704	5.709	5.698	5.705	5.700	5.699	5.698	5.698
281	5.683	5.686	5.690	5.680	5.686	5.681	5.681	5.678	5.680
282	5.704	5.708	5.710	5.701	5.709	5.703	5.703	5.701	5.702
283	5.692	5.697	5.699	5.692	5.698	5.696	5.691	5.691	5.692
Statistics									
Min	5.683	5.686	5.690	5.680	5.686	5.681	5.681	5.678	5.680
Max	5.706	5.710	5.714	5.704	5.710	5.705	5.704	5.704	5.704
Average	5.697	5.701	5.704	5.695	5.702	5.697	5.696	5.694	5.695
Sigma	0.008	0.009	0.009	0.008	0.009	0.009	0.009	0.009	0.009

Measurements

VOH1	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	5.700	5.705	5.710	5.701	5.705	5.702	5.704	5.700	5.697
OFF samples									
284	5.710	5.714	5.715	5.706	5.715	5.707	5.705	5.702	5.707
285	5.686	5.688	5.690	5.681	5.689	5.684	5.678	5.678	5.681
286	5.703	5.707	5.707	5.700	5.709	5.703	5.696	5.696	5.700
287	5.706	5.708	5.709	5.700	5.710	5.704	5.696	5.698	5.700
288	5.684	5.687	5.688	5.680	5.690	5.683	5.676	5.677	5.679
Statistics									
Min	5.684	5.687	5.688	5.680	5.689	5.683	5.676	5.677	5.679
Max	5.710	5.714	5.715	5.706	5.715	5.707	5.705	5.702	5.707
Average	5.698	5.701	5.702	5.693	5.703	5.696	5.690	5.690	5.693
Sigma	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

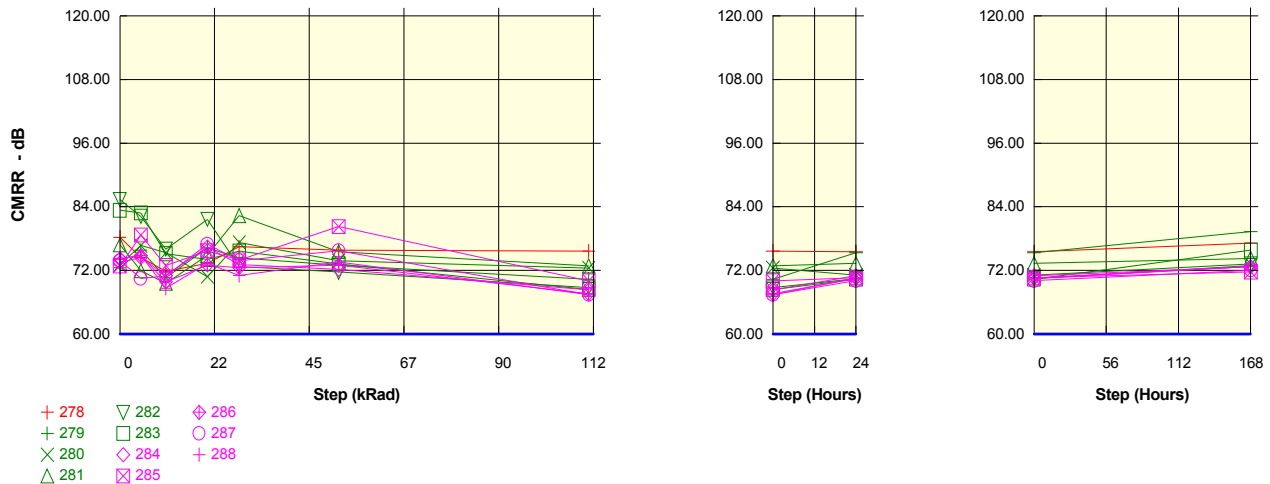
Parameter : Common Mode Rejection Ratio : CMRR

Test conditions : VCM=1.5V to 5.2V

Unit : dB

Spec Limit Min : 60.00

Spec limits are represented in bold lines on the graphic.



Measurements

CMRR	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	78.20	74.36	71.82	73.30	76.45	75.74	75.63	75.50	77.11
ON samples									
279	72.47	75.74	70.57	76.22	74.31	72.93	70.34	75.29	79.32
280	73.00	76.65	75.29	70.79	77.25	73.79	72.43	71.05	73.17
281	76.78	71.90	69.55	74.82	82.30	75.52	72.84	73.30	74.27
282	85.34	82.18	75.98	81.59	72.71	71.65	68.72	70.41	72.88
283	83.30	82.80	75.13	74.03	75.63	73.22	68.37	70.34	75.80
Statistics									
Min	72.47	71.90	69.55	70.79	72.71	71.65	68.37	70.34	72.88
Max	85.34	82.80	75.98	81.59	82.30	75.52	72.84	75.29	79.32
Average	78.18	77.86	73.30	75.49	76.44	73.42	70.54	72.08	75.09
Sigma	5.27	4.11	2.68	3.53	3.29	1.26	1.84	1.94	2.35

Measurements

CMRR	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	78.20	74.36	71.82	73.30	76.45	75.74	75.63	75.50	77.11
OFF samples									
284	73.47	74.41	71.02	76.40	73.07	72.16	68.27	70.98	72.63
285	72.80	78.65	72.88	75.69	73.93	80.24	69.99	70.59	71.68
286	74.21	74.77	69.81	72.96	72.47	72.96	67.57	70.50	72.73
287	73.76	70.43	70.86	76.91	73.79	75.69	67.43	70.05	72.01
288	74.05	74.82	68.59	73.35	71.02	73.57	67.37	70.53	72.73
Statistics									
Min	72.80	70.43	68.59	72.96	71.02	72.16	67.37	70.05	71.68
Max	74.21	78.65	72.88	76.91	73.93	80.24	69.99	70.98	72.73
Average	73.66	74.62	70.63	75.06	72.86	74.92	68.13	70.53	72.36
Sigma	0.50	2.60	1.42	1.61	1.06	2.90	0.98	0.30	0.43

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

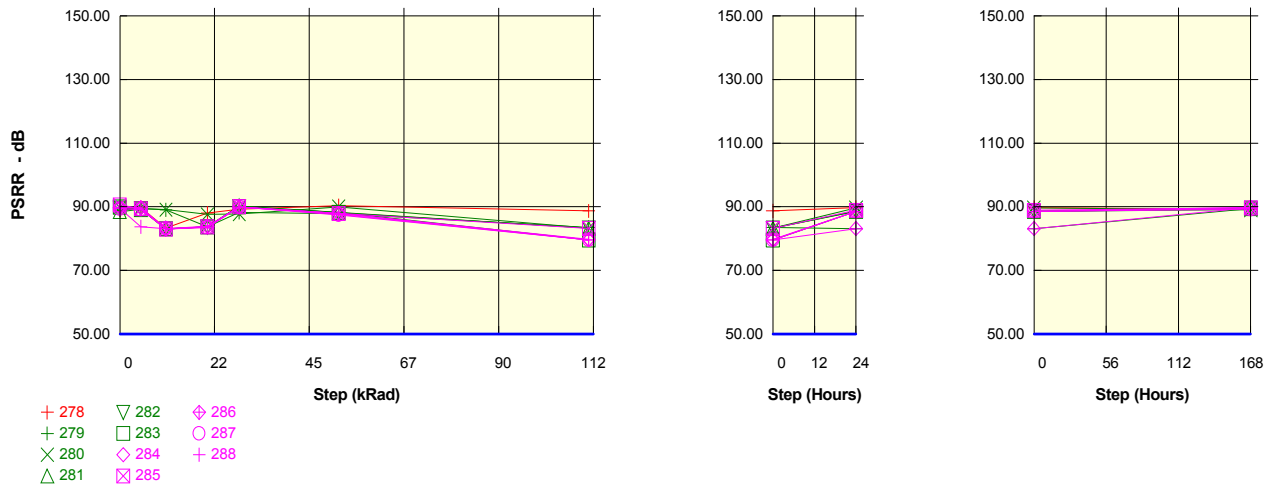
Parameter : Power Supply Rejection Ration : PSRR

Test conditions : VCM=5.1V. Vin=8V to 35V

Unit : dB

Spec Limit Min : 50.00

Spec limits are represented in bold lines on the graphic.



Measurements

PSRR	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	88.77	89.74	83.22	88.02	89.24	90.31	88.66	89.70	89.05
ON samples									
279	88.84	89.39	88.98	83.66	88.15	87.77	83.44	83.03	89.35
280	89.74	89.39	89.09	87.54	87.71	89.98	83.26	89.62	88.98
281	88.46	89.13	83.14	83.66	90.22	88.12	83.24	88.56	89.39
282	89.54	89.24	82.96	83.58	90.06	88.06	83.27	88.52	89.09
283	89.94	89.39	83.00	83.68	89.98	88.22	79.54	88.52	89.47
Statistics									
Min	88.46	89.13	82.96	83.58	87.71	87.77	79.54	83.03	88.98
Max	89.94	89.39	89.09	87.54	90.22	89.98	83.44	89.62	89.47
Average	89.30	89.31	85.44	84.42	89.22	88.43	82.55	87.65	89.26
Sigma	0.56	0.11	2.94	1.56	1.07	0.79	1.51	2.35	0.19

Measurements

PSRR	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	88.77	89.74	83.22	88.02	89.24	90.31	88.66	89.70	89.05
OFF samples									
284	89.66	89.68	83.03	83.80	89.90	87.83	79.71	88.52	89.82
285	90.57	89.31	82.91	83.66	89.98	87.86	83.16	88.84	89.62
286	89.66	89.54	83.14	83.72	89.82	87.93	79.59	83.13	89.70
287	89.31	89.09	83.13	83.46	89.94	87.46	79.56	88.52	89.20
288	89.47	83.66	83.09	83.50	89.86	87.58	79.51	88.52	89.35
Statistics									
Min	89.31	83.66	82.91	83.46	89.82	87.46	79.51	83.13	89.20
Max	90.57	89.68	83.14	83.80	89.98	87.93	83.16	88.84	89.82
Average	89.73	88.26	83.06	83.63	89.90	87.73	80.31	87.51	89.54
Sigma	0.44	2.31	0.09	0.13	0.06	0.18	1.43	2.19	0.23

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Soft Start Current : ISS

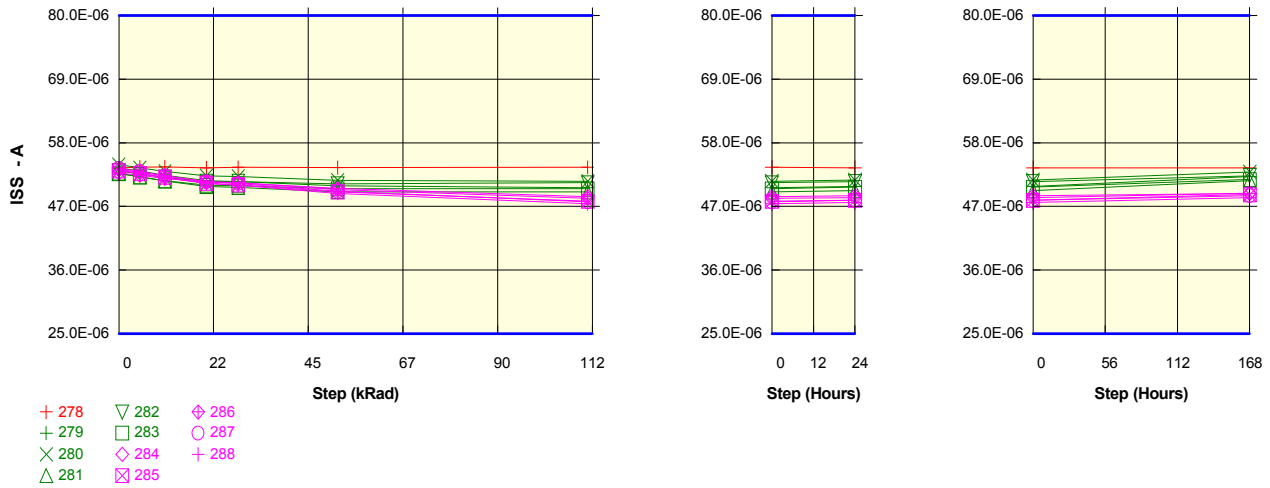
Test conditions : VSD=0V. VSS=0V

Unit : A

Spec Limit Min : 25.0E-06

Spec Limit Max : 80.0E-06

Spec limits are represented in bold lines on the graphic.



Measurements

ISS	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	53.7E-06	53.8E-06	53.8E-06	53.7E-06	53.7E-06	53.7E-06	53.7E-06	53.7E-06	53.6E-06
ON samples									
279	53.6E-06	53.1E-06	52.4E-06	51.5E-06	51.3E-06	50.5E-06	50.2E-06	50.4E-06	52.2E-06
280	54.2E-06	53.6E-06	53.0E-06	52.3E-06	52.1E-06	51.5E-06	51.3E-06	51.5E-06	52.9E-06
281	52.7E-06	52.1E-06	51.4E-06	50.4E-06	50.3E-06	49.5E-06	49.5E-06	49.7E-06	51.4E-06
282	53.1E-06	52.6E-06	52.0E-06	51.3E-06	51.3E-06	50.9E-06	51.1E-06	51.3E-06	52.3E-06
283	52.6E-06	52.1E-06	51.4E-06	50.6E-06	50.5E-06	50.0E-06	50.0E-06	50.3E-06	51.7E-06
Statistics									
Min	52.6E-06	52.1E-06	51.4E-06	50.4E-06	50.3E-06	49.5E-06	49.5E-06	49.7E-06	51.4E-06
Max	54.2E-06	53.6E-06	53.0E-06	52.3E-06	52.1E-06	51.5E-06	51.3E-06	51.5E-06	52.9E-06
Average	53.3E-06	52.7E-06	52.1E-06	51.2E-06	51.1E-06	50.5E-06	50.4E-06	50.7E-06	52.1E-06
Sigma	587.0E-09	595.3E-09	627.1E-09	646.0E-09	662.0E-09	680.4E-09	689.5E-09	674.3E-09	525.7E-09

Measurements

ISS	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	53.7E-06	53.8E-06	53.8E-06	53.7E-06	53.7E-06	53.7E-06	53.7E-06	53.7E-06	53.6E-06
OFF samples									
284	53.4E-06	52.9E-06	52.3E-06	51.3E-06	51.1E-06	49.9E-06	48.4E-06	48.5E-06	49.3E-06
285	53.1E-06	52.7E-06	52.0E-06	51.0E-06	50.7E-06	49.5E-06	47.9E-06	48.0E-06	49.0E-06
286	52.7E-06	52.3E-06	51.8E-06	51.1E-06	51.0E-06	50.1E-06	48.7E-06	48.8E-06	49.2E-06
287	53.6E-06	53.0E-06	52.3E-06	51.2E-06	50.9E-06	49.6E-06	47.8E-06	48.0E-06	48.8E-06
288	53.2E-06	52.7E-06	52.0E-06	50.9E-06	50.6E-06	49.2E-06	47.4E-06	47.6E-06	48.5E-06
Statistics									
Min	52.7E-06	52.3E-06	51.8E-06	50.9E-06	50.6E-06	49.2E-06	47.4E-06	47.6E-06	48.5E-06
Max	53.6E-06	53.0E-06	52.3E-06	51.3E-06	51.1E-06	50.1E-06	48.7E-06	48.8E-06	49.3E-06
Average	53.2E-06	52.7E-06	52.1E-06	51.1E-06	50.9E-06	49.7E-06	48.0E-06	48.2E-06	49.0E-06
Sigma	279.6E-09	238.1E-09	181.3E-09	139.1E-09	176.9E-09	299.4E-09	436.5E-09	410.8E-09	273.7E-09

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

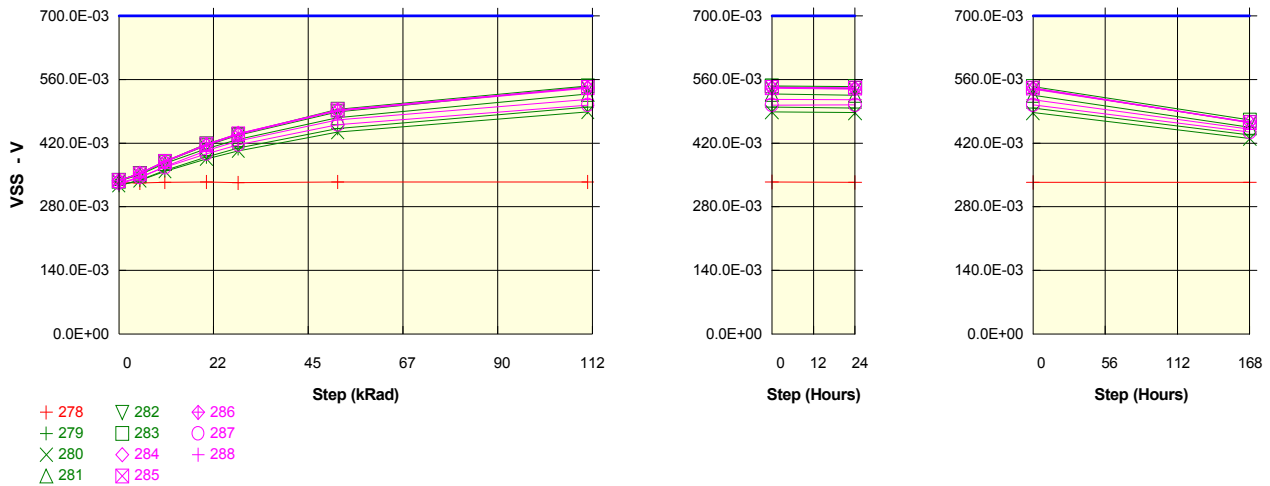
Parameter : Soft Start Voltage : VSS

Test conditions : VSD=2.5V

Unit : V

Spec Limit Max : 700.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

VSS	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	333.2E-03	332.1E-03	333.6E-03	334.5E-03	332.4E-03	334.4E-03	334.3E-03	333.5E-03	333.6E-03
ON samples									
279	326.7E-03	338.4E-03	359.7E-03	389.8E-03	408.5E-03	452.2E-03	499.0E-03	497.0E-03	437.8E-03
280	326.5E-03	337.5E-03	357.8E-03	385.2E-03	402.7E-03	443.9E-03	488.6E-03	486.7E-03	429.8E-03
281	336.2E-03	350.1E-03	374.8E-03	407.7E-03	427.8E-03	475.8E-03	527.6E-03	525.0E-03	454.4E-03
282	337.7E-03	352.5E-03	378.4E-03	414.3E-03	437.2E-03	488.6E-03	543.8E-03	540.3E-03	465.6E-03
283	337.4E-03	353.2E-03	379.6E-03	417.9E-03	438.8E-03	494.1E-03	545.9E-03	544.3E-03	470.6E-03
Statistics									
Min	326.5E-03	337.5E-03	357.8E-03	385.2E-03	402.7E-03	443.9E-03	488.6E-03	486.7E-03	429.8E-03
Max	337.7E-03	353.2E-03	379.6E-03	417.9E-03	438.8E-03	494.1E-03	545.9E-03	544.3E-03	470.6E-03
Average	332.9E-03	346.4E-03	370.1E-03	403.0E-03	423.0E-03	470.9E-03	521.0E-03	518.7E-03	451.6E-03
Sigma	5.2E-03	6.9E-03	9.4E-03	13.1E-03	14.8E-03	19.8E-03	23.3E-03	23.0E-03	15.7E-03

Measurements

VSS	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	333.2E-03	332.1E-03	333.6E-03	334.5E-03	332.4E-03	334.4E-03	334.3E-03	333.5E-03	333.6E-03
OFF samples									
284	337.9E-03	353.1E-03	380.0E-03	416.8E-03	441.2E-03	492.7E-03	542.6E-03	541.2E-03	466.1E-03
285	337.1E-03	352.3E-03	379.3E-03	417.4E-03	440.4E-03	492.6E-03	541.9E-03	540.8E-03	464.9E-03
286	337.3E-03	353.4E-03	378.2E-03	415.4E-03	438.6E-03	490.6E-03	540.6E-03	538.9E-03	466.0E-03
287	332.2E-03	344.7E-03	366.2E-03	396.7E-03	416.4E-03	460.2E-03	503.6E-03	503.8E-03	443.8E-03
288	329.8E-03	344.1E-03	368.5E-03	403.1E-03	424.4E-03	471.0E-03	516.3E-03	515.4E-03	450.4E-03
Statistics									
Min	329.8E-03	344.1E-03	366.2E-03	396.7E-03	416.4E-03	460.2E-03	503.6E-03	503.8E-03	443.8E-03
Max	337.9E-03	353.4E-03	380.0E-03	417.4E-03	441.2E-03	492.7E-03	542.6E-03	541.2E-03	466.1E-03
Average	334.8E-03	349.5E-03	374.4E-03	409.9E-03	432.2E-03	481.4E-03	529.0E-03	528.0E-03	458.2E-03
Sigma	3.3E-03	4.2E-03	5.9E-03	8.4E-03	10.0E-03	13.4E-03	16.1E-03	15.5E-03	9.3E-03

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

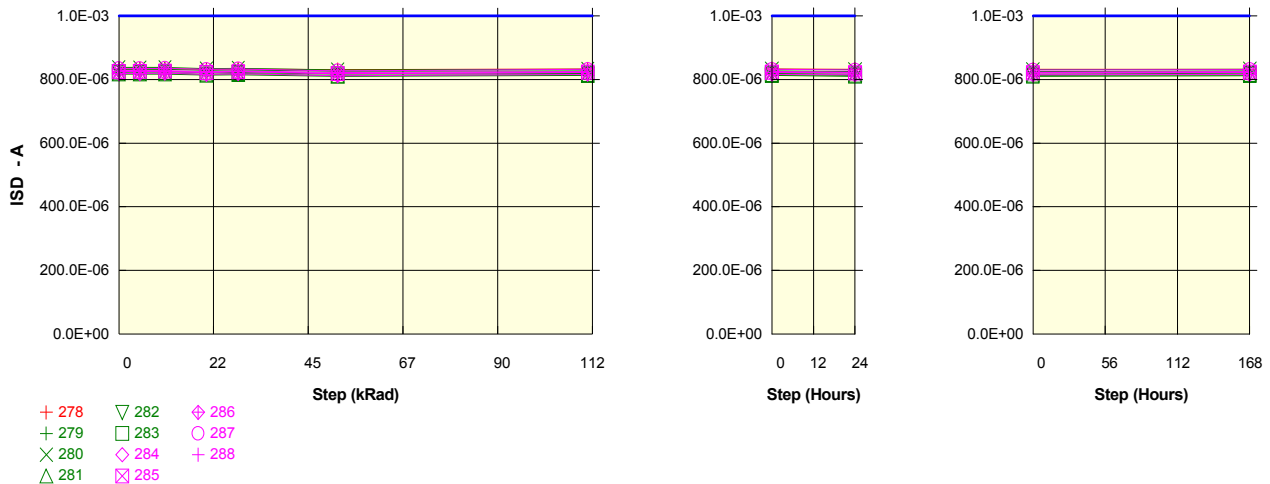
Parameter : Shutdown Input Current : ISD

Test conditions : VSD=2.5V

Unit : A

Spec Limit Max : 1.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

ISD	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	832.1E-06	833.2E-06	833.7E-06	831.3E-06	833.1E-06	831.3E-06	833.2E-06	831.7E-06	831.6E-06
ON samples									
279	831.8E-06	831.8E-06	832.1E-06	828.6E-06	829.7E-06	825.8E-06	826.9E-06	825.3E-06	826.9E-06
280	837.6E-06	837.3E-06	837.8E-06	834.1E-06	835.5E-06	830.5E-06	832.7E-06	830.8E-06	832.6E-06
281	817.4E-06	817.2E-06	817.5E-06	813.7E-06	815.2E-06	809.9E-06	812.6E-06	810.3E-06	812.5E-06
282	823.9E-06	823.7E-06	824.2E-06	820.7E-06	821.8E-06	816.6E-06	818.7E-06	816.8E-06	819.1E-06
283	820.7E-06	820.4E-06	820.7E-06	816.1E-06	818.4E-06	812.0E-06	815.5E-06	813.1E-06	815.4E-06
Statistics									
Min	817.4E-06	817.2E-06	817.5E-06	813.7E-06	815.2E-06	809.9E-06	812.6E-06	810.3E-06	812.5E-06
Max	837.6E-06	837.3E-06	837.8E-06	834.1E-06	835.5E-06	830.5E-06	832.7E-06	830.8E-06	832.6E-06
Average	826.3E-06	826.1E-06	826.4E-06	822.6E-06	824.1E-06	819.0E-06	821.3E-06	819.3E-06	821.3E-06
Sigma	7.4E-06	7.4E-06	7.5E-06	7.6E-06	7.4E-06	7.9E-06	7.5E-06	7.7E-06	7.4E-06

Measurements

ISD	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	832.1E-06	833.2E-06	833.7E-06	831.3E-06	833.1E-06	831.3E-06	833.2E-06	831.7E-06	831.6E-06
OFF samples									
284	827.8E-06	827.8E-06	828.3E-06	824.6E-06	826.5E-06	821.3E-06	825.4E-06	823.2E-06	825.0E-06
285	825.0E-06	825.1E-06	825.8E-06	821.8E-06	824.4E-06	818.2E-06	822.7E-06	820.6E-06	822.5E-06
286	818.8E-06	818.5E-06	819.5E-06	815.7E-06	818.1E-06	811.9E-06	816.0E-06	814.3E-06	815.6E-06
287	833.9E-06	833.9E-06	834.7E-06	831.7E-06	833.3E-06	827.4E-06	831.5E-06	829.4E-06	831.2E-06
288	824.6E-06	824.5E-06	825.3E-06	822.2E-06	824.2E-06	818.7E-06	822.4E-06	820.6E-06	821.9E-06
Statistics									
Min	818.8E-06	818.5E-06	819.5E-06	815.7E-06	818.1E-06	811.9E-06	816.0E-06	814.3E-06	815.6E-06
Max	833.9E-06	833.9E-06	834.7E-06	831.7E-06	833.3E-06	827.4E-06	831.5E-06	829.4E-06	831.2E-06
Average	826.0E-06	826.0E-06	826.7E-06	823.2E-06	825.3E-06	819.5E-06	823.6E-06	821.6E-06	823.2E-06
Sigma	4.9E-06	5.0E-06	4.9E-06	5.2E-06	4.9E-06	5.0E-06	5.0E-06	4.9E-06	5.0E-06

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

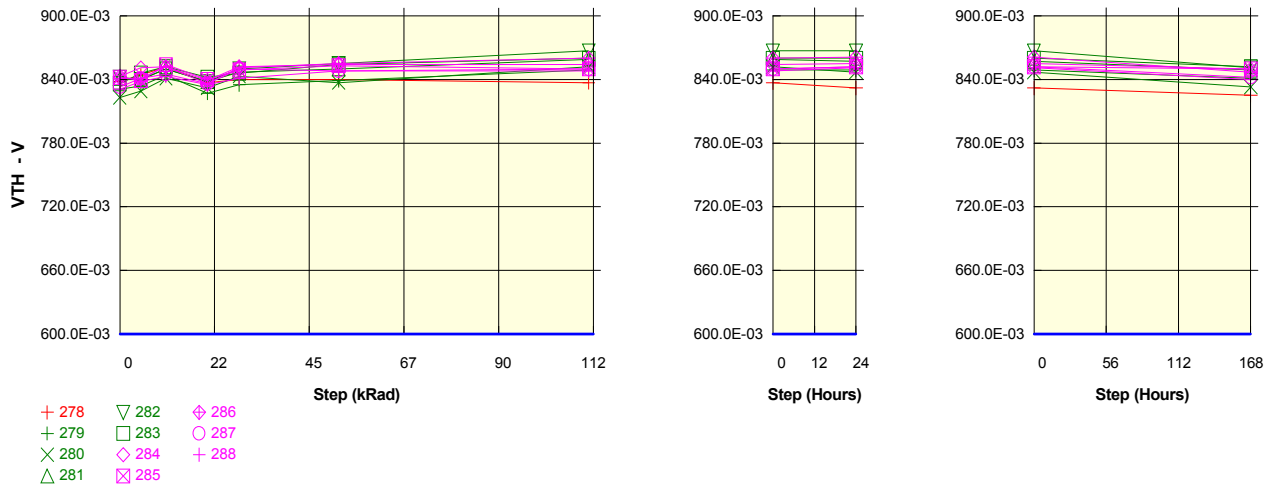
Parameter : Shutdown Threshold Voltage : VTH

Test conditions : To outputs. VSS=5.1V

Unit : V

Spec Limit Min : 600.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

VTH	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	838.0E-03	844.0E-03	852.0E-03	837.0E-03	840.0E-03	840.0E-03	837.0E-03	832.0E-03	825.0E-03
ON samples									
279	831.0E-03	834.0E-03	844.0E-03	827.0E-03	835.0E-03	839.0E-03	849.0E-03	849.0E-03	841.0E-03
280	823.0E-03	829.0E-03	841.0E-03	832.0E-03	843.0E-03	837.0E-03	852.0E-03	847.0E-03	833.0E-03
281	841.0E-03	840.0E-03	850.0E-03	838.0E-03	847.0E-03	850.0E-03	859.0E-03	857.0E-03	849.0E-03
282	842.0E-03	840.0E-03	850.0E-03	838.0E-03	850.0E-03	855.0E-03	867.0E-03	867.0E-03	851.0E-03
283	836.0E-03	846.0E-03	852.0E-03	842.0E-03	846.0E-03	854.0E-03	860.0E-03	860.0E-03	852.0E-03
Statistics									
Min	823.0E-03	829.0E-03	841.0E-03	827.0E-03	835.0E-03	837.0E-03	849.0E-03	847.0E-03	833.0E-03
Max	842.0E-03	846.0E-03	852.0E-03	842.0E-03	850.0E-03	855.0E-03	867.0E-03	867.0E-03	852.0E-03
Average	834.6E-03	837.8E-03	847.4E-03	835.4E-03	844.2E-03	847.0E-03	857.4E-03	856.0E-03	845.2E-03
Sigma	7.0E-03	5.8E-03	4.2E-03	5.3E-03	5.1E-03	7.6E-03	6.3E-03	7.3E-03	7.2E-03

Measurements

VTH	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	838.0E-03	844.0E-03	852.0E-03	837.0E-03	840.0E-03	840.0E-03	837.0E-03	832.0E-03	825.0E-03
OFF samples									
284	843.0E-03	851.0E-03	852.0E-03	839.0E-03	852.0E-03	854.0E-03	854.0E-03	855.0E-03	850.0E-03
285	842.0E-03	839.0E-03	854.0E-03	840.0E-03	849.0E-03	853.0E-03	850.0E-03	852.0E-03	850.0E-03
286	841.0E-03	841.0E-03	852.0E-03	836.0E-03	851.0E-03	855.0E-03	860.0E-03	861.0E-03	847.0E-03
287	833.0E-03	841.0E-03	845.0E-03	836.0E-03	850.0E-03	848.0E-03	850.0E-03	852.0E-03	842.0E-03
288	831.0E-03	838.0E-03	843.0E-03	835.0E-03	841.0E-03	848.0E-03	848.0E-03	851.0E-03	840.0E-03
Statistics									
Min	831.0E-03	838.0E-03	843.0E-03	835.0E-03	841.0E-03	848.0E-03	848.0E-03	851.0E-03	840.0E-03
Max	843.0E-03	851.0E-03	854.0E-03	840.0E-03	852.0E-03	855.0E-03	860.0E-03	861.0E-03	850.0E-03
Average	838.0E-03	842.0E-03	849.2E-03	837.2E-03	848.6E-03	851.6E-03	852.4E-03	854.2E-03	845.8E-03
Sigma	5.0E-03	4.6E-03	4.4E-03	1.9E-03	3.9E-03	3.0E-03	4.3E-03	3.7E-03	4.1E-03

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

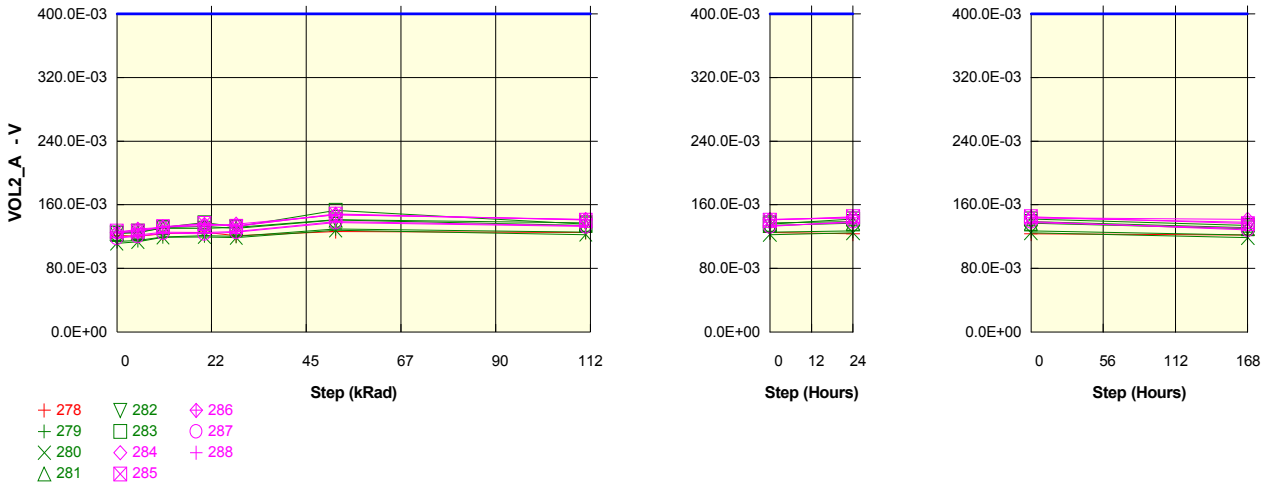
Parameter : Output Low Level : VOL2_A

Test conditions : VC=20V. Isink=20mA

Unit : V

Spec Limit Max : 400.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

VOL2_A	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	121.4E-03	120.5E-03	123.2E-03	125.2E-03	120.9E-03	126.1E-03	125.1E-03	123.4E-03	121.8E-03
ON samples									
279	113.6E-03	115.0E-03	119.6E-03	120.9E-03	120.2E-03	129.7E-03	125.5E-03	127.0E-03	121.7E-03
280	111.2E-03	113.2E-03	119.0E-03	119.5E-03	118.5E-03	127.8E-03	122.4E-03	124.6E-03	118.5E-03
281	123.7E-03	124.8E-03	131.0E-03	132.8E-03	130.4E-03	140.6E-03	133.9E-03	136.6E-03	129.7E-03
282	124.3E-03	125.7E-03	130.5E-03	130.4E-03	131.6E-03	141.0E-03	137.2E-03	138.7E-03	130.9E-03
283	124.0E-03	126.6E-03	131.3E-03	137.3E-03	132.4E-03	152.8E-03	135.4E-03	142.0E-03	134.0E-03
Statistics									
Min	111.2E-03	113.2E-03	119.0E-03	119.5E-03	118.5E-03	127.8E-03	122.4E-03	124.6E-03	118.5E-03
Max	124.3E-03	126.6E-03	131.3E-03	137.3E-03	132.4E-03	152.8E-03	137.2E-03	142.0E-03	134.0E-03
Average	119.4E-03	121.1E-03	126.3E-03	128.2E-03	126.6E-03	138.4E-03	130.9E-03	133.8E-03	127.0E-03
Sigma	5.7E-03	5.7E-03	5.7E-03	6.9E-03	6.0E-03	9.0E-03	5.8E-03	6.8E-03	5.9E-03

Measurements

VOL2_A	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	121.4E-03	120.5E-03	123.2E-03	125.2E-03	120.9E-03	126.1E-03	125.1E-03	123.4E-03	121.8E-03
OFF samples									
284	124.7E-03	126.3E-03	131.9E-03	133.2E-03	135.5E-03	147.2E-03	141.2E-03	143.6E-03	137.8E-03
285	126.6E-03	127.0E-03	132.3E-03	136.2E-03	132.6E-03	148.2E-03	140.4E-03	144.6E-03	136.2E-03
286	124.8E-03	129.2E-03	131.6E-03	135.2E-03	133.2E-03	147.8E-03	141.2E-03	143.7E-03	141.5E-03
287	117.9E-03	120.3E-03	124.3E-03	123.4E-03	125.4E-03	137.8E-03	132.7E-03	138.8E-03	128.5E-03
288	118.5E-03	121.8E-03	125.5E-03	125.1E-03	126.2E-03	138.4E-03	133.4E-03	137.7E-03	130.2E-03
Statistics									
Min	117.9E-03	120.3E-03	124.3E-03	123.4E-03	125.4E-03	137.8E-03	132.7E-03	137.7E-03	128.5E-03
Max	126.6E-03	129.2E-03	132.3E-03	136.2E-03	135.5E-03	148.2E-03	141.2E-03	144.6E-03	141.5E-03
Average	122.5E-03	124.9E-03	129.1E-03	130.6E-03	130.6E-03	143.9E-03	137.8E-03	141.7E-03	134.8E-03
Sigma	3.6E-03	3.3E-03	3.5E-03	5.4E-03	4.0E-03	4.7E-03	3.9E-03	2.8E-03	4.8E-03

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

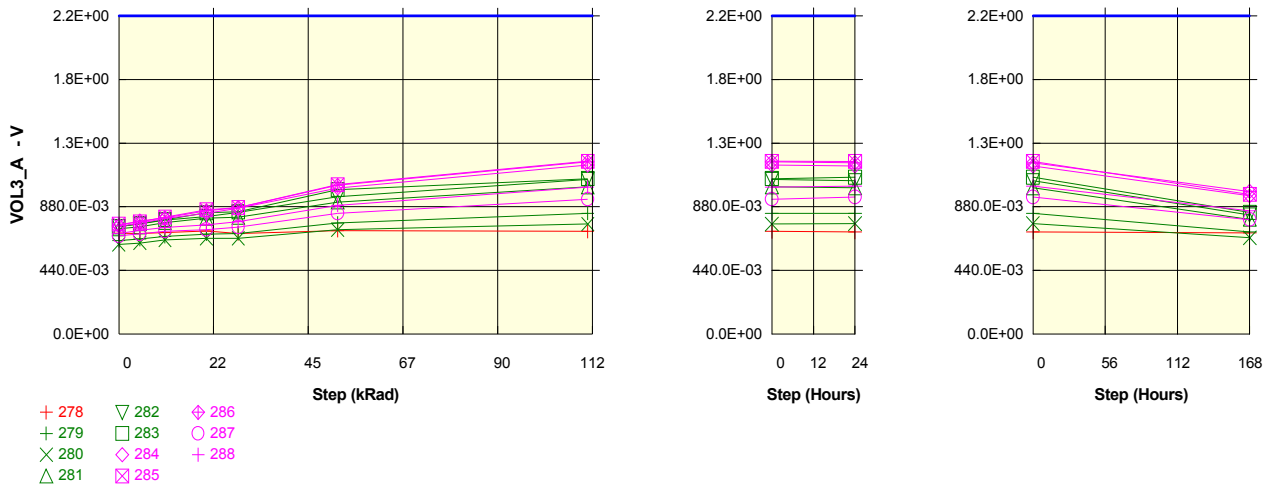
Parameter : Output Low Level : VOL3_A

Test conditions : VC=20V. Isink=100mA

Unit : V

Spec Limit Max : 2.2E+00

Spec limits are represented in bold lines on the graphic.



Measurements

VOL3_A	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	696.0E-03	693.2E-03	700.4E-03	710.4E-03	694.8E-03	714.4E-03	708.8E-03	704.4E-03	697.6E-03
ON samples									
279	645.2E-03	654.8E-03	674.0E-03	690.4E-03	695.6E-03	766.0E-03	834.4E-03	832.4E-03	704.8E-03
280	618.4E-03	628.8E-03	650.0E-03	661.2E-03	661.2E-03	720.0E-03	760.0E-03	762.4E-03	664.8E-03
281	726.4E-03	740.0E-03	770.0E-03	799.2E-03	807.2E-03	912.4E-03	1.0E+00	1.0E+00	792.0E-03
282	743.2E-03	759.6E-03	787.6E-03	812.4E-03	839.6E-03	949.2E-03	1.1E+00	1.1E+00	822.4E-03
283	740.0E-03	762.0E-03	790.4E-03	838.0E-03	844.8E-03	997.6E-03	1.1E+00	1.1E+00	840.4E-03
Statistics									
Min	618.4E-03	628.8E-03	650.0E-03	661.2E-03	661.2E-03	720.0E-03	760.0E-03	762.4E-03	664.8E-03
Max	743.2E-03	762.0E-03	790.4E-03	838.0E-03	844.8E-03	997.6E-03	1.1E+00	1.1E+00	840.4E-03
Average	694.6E-03	709.0E-03	734.4E-03	760.2E-03	769.7E-03	869.0E-03	951.0E-03	949.9E-03	764.9E-03
Sigma	52.3E-03	56.0E-03	60.0E-03	70.7E-03	76.4E-03	107.4E-03	129.3E-03	128.6E-03	68.4E-03

Measurements

VOL3_A	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	696.0E-03	693.2E-03	700.4E-03	710.4E-03	694.8E-03	714.4E-03	708.8E-03	704.4E-03	697.6E-03
OFF samples									
284	746.4E-03	764.8E-03	798.8E-03	835.2E-03	869.6E-03	1.0E+00	1.2E+00	1.2E+00	954.4E-03
285	758.8E-03	773.2E-03	808.0E-03	858.4E-03	872.8E-03	1.0E+00	1.2E+00	1.2E+00	965.2E-03
286	750.0E-03	780.0E-03	803.6E-03	852.4E-03	873.6E-03	1.0E+00	1.2E+00	1.2E+00	985.6E-03
287	677.2E-03	691.6E-03	710.0E-03	720.8E-03	738.4E-03	834.4E-03	931.2E-03	946.0E-03	790.8E-03
288	695.2E-03	716.0E-03	736.0E-03	753.2E-03	775.2E-03	890.8E-03	1.0E+00	1.0E+00	852.0E-03
Statistics									
Min	677.2E-03	691.6E-03	710.0E-03	720.8E-03	738.4E-03	834.4E-03	931.2E-03	946.0E-03	790.8E-03
Max	758.8E-03	780.0E-03	808.0E-03	858.4E-03	873.6E-03	1.0E+00	1.2E+00	1.2E+00	985.6E-03
Average	725.5E-03	745.1E-03	771.3E-03	804.0E-03	825.9E-03	959.0E-03	1.1E+00	1.1E+00	909.6E-03
Sigma	32.9E-03	34.9E-03	40.4E-03	56.2E-03	57.6E-03	81.1E-03	107.0E-03	99.1E-03	75.2E-03

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

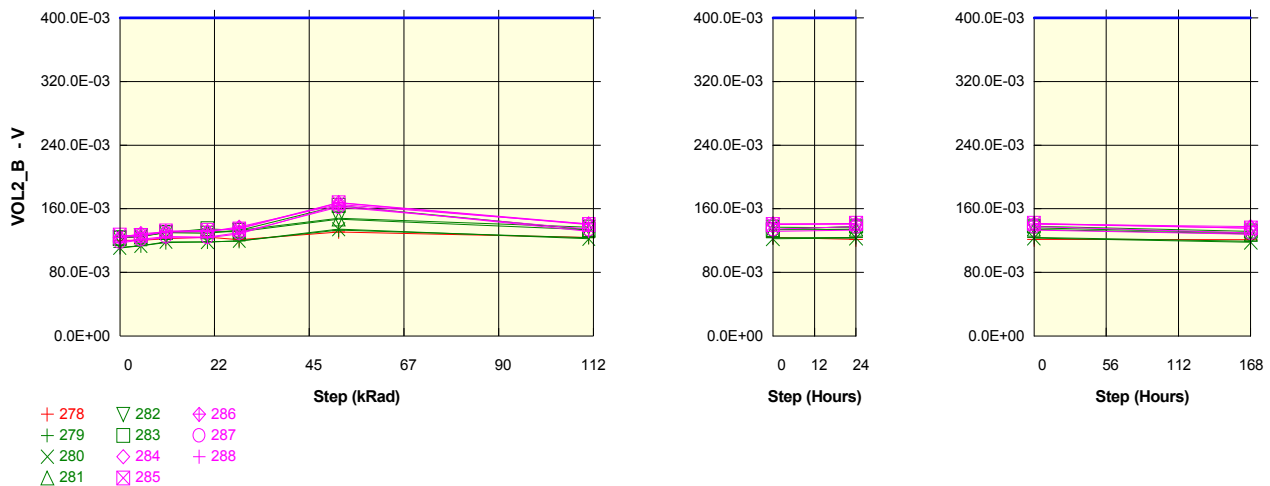
Parameter : Output Low Level : VOL2_B

Test conditions : VC=20V. Isink=20mA

Unit : V

Spec Limit Max : 400.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

VOL2_B	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	120.2E-03	119.9E-03	122.2E-03	124.1E-03	120.9E-03	130.8E-03	123.8E-03	121.3E-03	120.8E-03
ON samples									
279	111.3E-03	113.2E-03	117.3E-03	117.9E-03	119.1E-03	133.0E-03	123.5E-03	123.9E-03	119.0E-03
280	110.6E-03	113.2E-03	118.4E-03	118.1E-03	119.6E-03	134.1E-03	122.0E-03	123.0E-03	117.6E-03
281	123.4E-03	124.6E-03	130.4E-03	131.0E-03	130.9E-03	146.9E-03	133.2E-03	134.0E-03	128.2E-03
282	123.3E-03	125.6E-03	129.8E-03	129.0E-03	132.7E-03	148.1E-03	136.6E-03	136.0E-03	129.4E-03
283	122.6E-03	126.4E-03	129.9E-03	134.7E-03	132.7E-03	164.0E-03	133.7E-03	138.0E-03	131.7E-03
Statistics									
Min	110.6E-03	113.2E-03	117.3E-03	117.9E-03	119.1E-03	133.0E-03	122.0E-03	123.0E-03	117.6E-03
Max	123.4E-03	126.4E-03	130.4E-03	134.7E-03	132.7E-03	164.0E-03	136.6E-03	138.0E-03	131.7E-03
Average	118.2E-03	120.6E-03	125.2E-03	126.1E-03	127.0E-03	145.2E-03	129.8E-03	131.0E-03	125.2E-03
Sigma	6.0E-03	6.1E-03	6.0E-03	6.9E-03	6.3E-03	11.3E-03	5.9E-03	6.3E-03	5.7E-03

Measurements

VOL2_B	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	120.2E-03	119.9E-03	122.2E-03	124.1E-03	120.9E-03	130.8E-03	123.8E-03	121.3E-03	120.8E-03
OFF samples									
284	123.8E-03	125.4E-03	131.1E-03	131.1E-03	137.0E-03	165.2E-03	140.6E-03	140.7E-03	135.7E-03
285	126.5E-03	126.4E-03	132.0E-03	132.7E-03	134.4E-03	167.4E-03	140.0E-03	141.7E-03	135.6E-03
286	123.8E-03	128.7E-03	130.8E-03	131.3E-03	135.7E-03	167.6E-03	140.8E-03	140.6E-03	137.6E-03
287	118.5E-03	121.4E-03	125.0E-03	124.4E-03	129.7E-03	162.2E-03	134.1E-03	137.6E-03	129.6E-03
288	116.9E-03	120.7E-03	123.6E-03	123.5E-03	128.4E-03	164.2E-03	131.6E-03	133.1E-03	127.9E-03
Statistics									
Min	116.9E-03	120.7E-03	123.6E-03	123.5E-03	128.4E-03	162.2E-03	131.6E-03	133.1E-03	127.9E-03
Max	126.5E-03	128.7E-03	132.0E-03	132.7E-03	137.0E-03	167.6E-03	140.8E-03	141.7E-03	137.6E-03
Average	121.9E-03	124.5E-03	128.5E-03	128.6E-03	133.1E-03	165.3E-03	137.4E-03	138.7E-03	133.3E-03
Sigma	3.6E-03	3.0E-03	3.5E-03	3.9E-03	3.4E-03	2.0E-03	3.8E-03	3.1E-03	3.8E-03

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

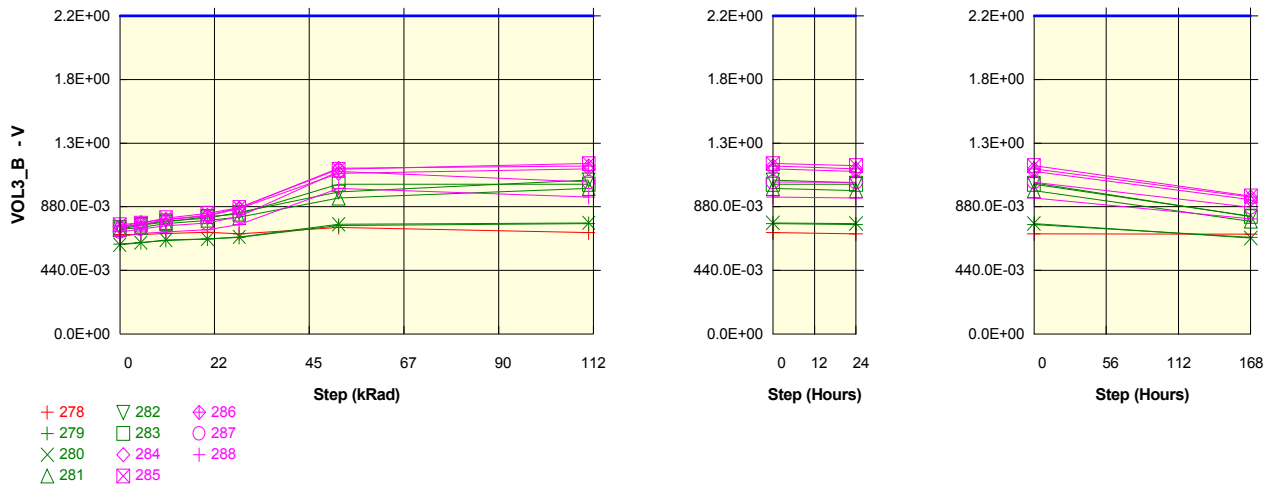
Parameter : Output Low Level : VOL3_B

Test conditions : VC=20V. Isink=100mA

Unit : V

Spec Limit Max : 2.2E+00

Spec limits are represented in bold lines on the graphic.



Measurements

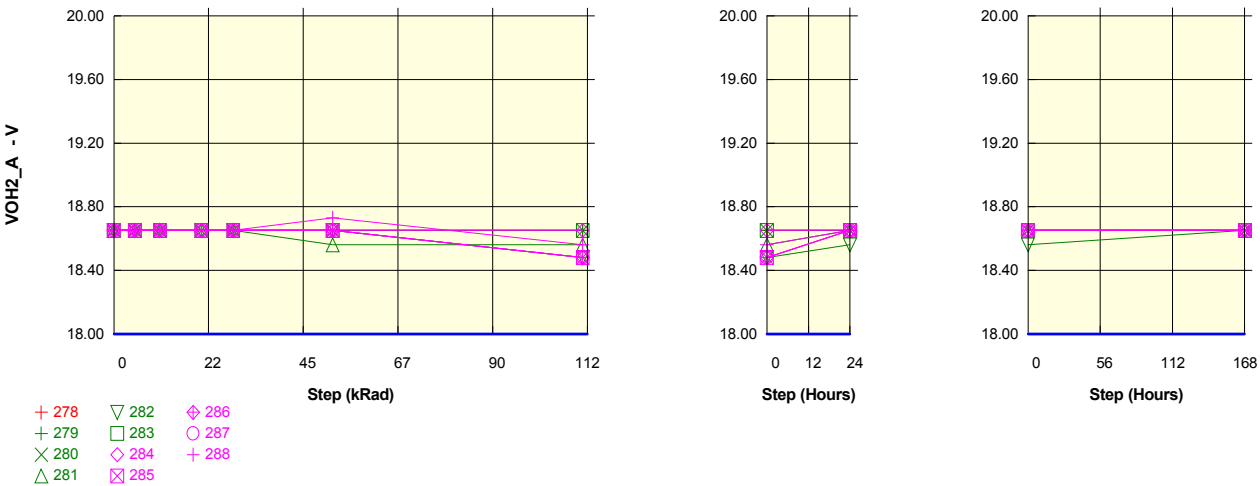
VOL3_B	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	687.2E-03	688.0E-03	692.8E-03	702.4E-03	692.0E-03	736.0E-03	699.6E-03	692.0E-03	690.4E-03
ON samples									
279	620.8E-03	631.6E-03	646.4E-03	656.8E-03	667.6E-03	749.6E-03	762.4E-03	757.6E-03	668.0E-03
280	617.2E-03	630.8E-03	649.6E-03	656.8E-03	670.0E-03	758.0E-03	768.0E-03	763.2E-03	663.2E-03
281	722.0E-03	735.6E-03	763.6E-03	786.0E-03	805.6E-03	939.2E-03	1.0E+00	990.8E-03	779.6E-03
282	735.6E-03	756.8E-03	781.2E-03	801.6E-03	841.6E-03	982.0E-03	1.1E+00	1.0E+00	810.4E-03
283	725.6E-03	752.4E-03	772.4E-03	811.6E-03	828.8E-03	1.0E+00	1.0E+00	1.0E+00	813.2E-03
Statistics									
Min	617.2E-03	630.8E-03	646.4E-03	656.8E-03	667.6E-03	749.6E-03	762.4E-03	757.6E-03	663.2E-03
Max	735.6E-03	756.8E-03	781.2E-03	811.6E-03	841.6E-03	1.0E+00	1.1E+00	1.0E+00	813.2E-03
Average	684.2E-03	701.4E-03	722.6E-03	742.6E-03	762.7E-03	892.8E-03	927.0E-03	917.8E-03	746.9E-03
Sigma	53.5E-03	57.8E-03	61.2E-03	70.5E-03	77.6E-03	117.5E-03	133.3E-03	129.7E-03	67.4E-03

Measurements

VOL3_B	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	687.2E-03	688.0E-03	692.8E-03	702.4E-03	692.0E-03	736.0E-03	699.6E-03	692.0E-03	690.4E-03
OFF samples									
284	739.2E-03	756.0E-03	788.8E-03	815.6E-03	865.6E-03	1.1E+00	1.1E+00	1.1E+00	929.2E-03
285	755.2E-03	766.4E-03	801.6E-03	833.6E-03	872.8E-03	1.1E+00	1.2E+00	1.2E+00	952.8E-03
286	740.4E-03	771.2E-03	791.2E-03	820.8E-03	870.4E-03	1.1E+00	1.2E+00	1.1E+00	947.6E-03
287	705.2E-03	726.0E-03	747.2E-03	766.0E-03	812.8E-03	1.1E+00	1.0E+00	1.0E+00	875.2E-03
288	672.0E-03	693.2E-03	706.4E-03	721.2E-03	756.4E-03	1.0E+00	944.8E-03	939.2E-03	794.8E-03
Statistics									
Min	672.0E-03	693.2E-03	706.4E-03	721.2E-03	756.4E-03	1.0E+00	944.8E-03	939.2E-03	794.8E-03
Max	755.2E-03	771.2E-03	801.6E-03	833.6E-03	872.8E-03	1.1E+00	1.2E+00	1.2E+00	952.8E-03
Average	722.4E-03	742.6E-03	767.0E-03	791.4E-03	835.6E-03	1.1E+00	1.1E+00	1.1E+00	899.9E-03
Sigma	30.1E-03	29.3E-03	35.6E-03	42.0E-03	45.4E-03	50.6E-03	87.2E-03	82.0E-03	59.3E-03

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Output High Level : VOH2_A
 Test conditions : VC=20V. Isource=-20mA
 Unit : V
 Spec Limit Min : 18.00
 Spec limits are represented in bold lines on the graphic.

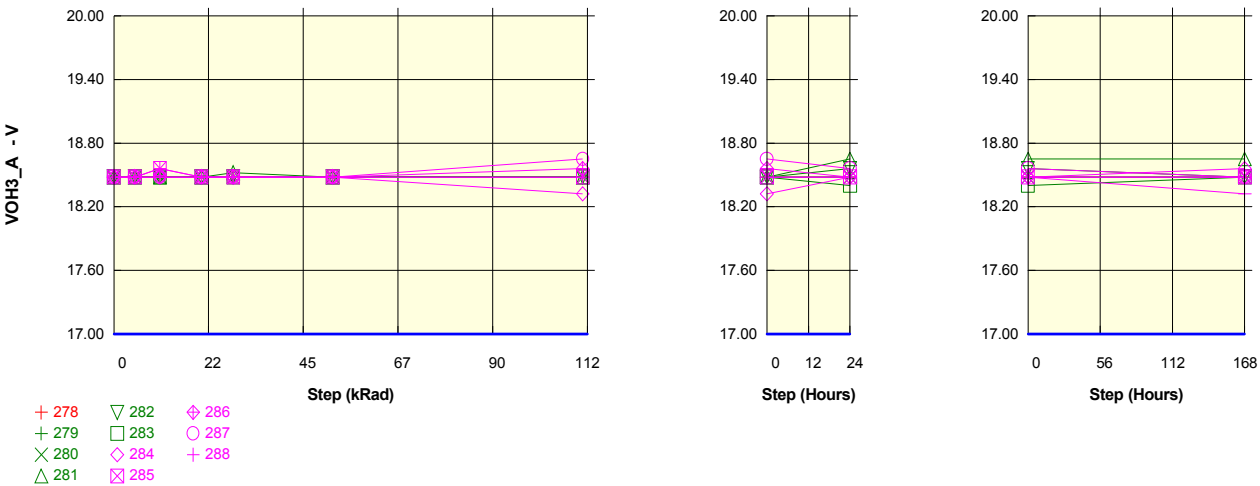


Measurements									
VOH2_A	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
ON samples									
279	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
280	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
281	18.65	18.65	18.65	18.65	18.65	18.56	18.56	18.65	18.65
282	18.65	18.65	18.65	18.65	18.65	18.65	18.48	18.56	18.65
283	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
Statistics									
Min	18.65	18.65	18.65	18.65	18.65	18.56	18.48	18.56	18.65
Max	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
Average	18.65	18.65	18.65	18.65	18.65	18.63	18.60	18.63	18.65
Sigma	0.00	0.00	0.00	0.00	0.00	0.04	0.07	0.04	0.00

Measurements									
VOH2_A	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
OFF samples									
284	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
285	18.65	18.65	18.65	18.65	18.65	18.65	18.48	18.65	18.65
286	18.65	18.65	18.65	18.65	18.65	18.65	18.48	18.65	18.65
287	18.65	18.65	18.65	18.65	18.65	18.65	18.48	18.65	18.65
288	18.65	18.65	18.65	18.65	18.65	18.73	18.56	18.65	18.65
Statistics									
Min	18.65	18.65	18.65	18.65	18.65	18.65	18.48	18.65	18.65
Max	18.65	18.65	18.65	18.65	18.65	18.73	18.65	18.65	18.65
Average	18.65	18.65	18.65	18.65	18.65	18.67	18.53	18.65	18.65
Sigma	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.00	0.00

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Output High Level : VOH3_A
 Test conditions : VC=20V. Isource=-100mA
 Unit : V
 Spec Limit Min : 17.00
 Spec limits are represented in bold lines on the graphic.



Measurements									
VOH3_A	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48
ON samples									
279	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48
280	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48
281	18.48	18.48	18.48	18.48	18.52	18.48	18.48	18.65	18.65
282	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.56	18.48
283	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.40	18.48
Statistics									
Min	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.40	18.48
Max	18.48	18.48	18.48	18.48	18.52	18.48	18.48	18.65	18.65
Average	18.48	18.48	18.48	18.48	18.49	18.48	18.48	18.51	18.51
Sigma	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.08	0.07

Measurements									
VOH3_A	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48
OFF samples									
284	18.48	18.48	18.48	18.48	18.48	18.48	18.32	18.48	18.56
285	18.48	18.48	18.56	18.48	18.48	18.48	18.48	18.48	18.48
286	18.48	18.48	18.48	18.48	18.48	18.48	18.56	18.48	18.48
287	18.48	18.48	18.48	18.48	18.48	18.48	18.65	18.56	18.48
288	18.48	18.48	18.56	18.48	18.48	18.48	18.48	18.48	18.32
Statistics									
Min	18.48	18.48	18.48	18.48	18.48	18.48	18.32	18.48	18.32
Max	18.48	18.48	18.56	18.48	18.48	18.48	18.65	18.56	18.56
Average	18.48	18.48	18.51	18.48	18.48	18.48	18.50	18.50	18.46
Sigma	0.00	0.00	0.04	0.00	0.00	0.00	0.11	0.03	0.08

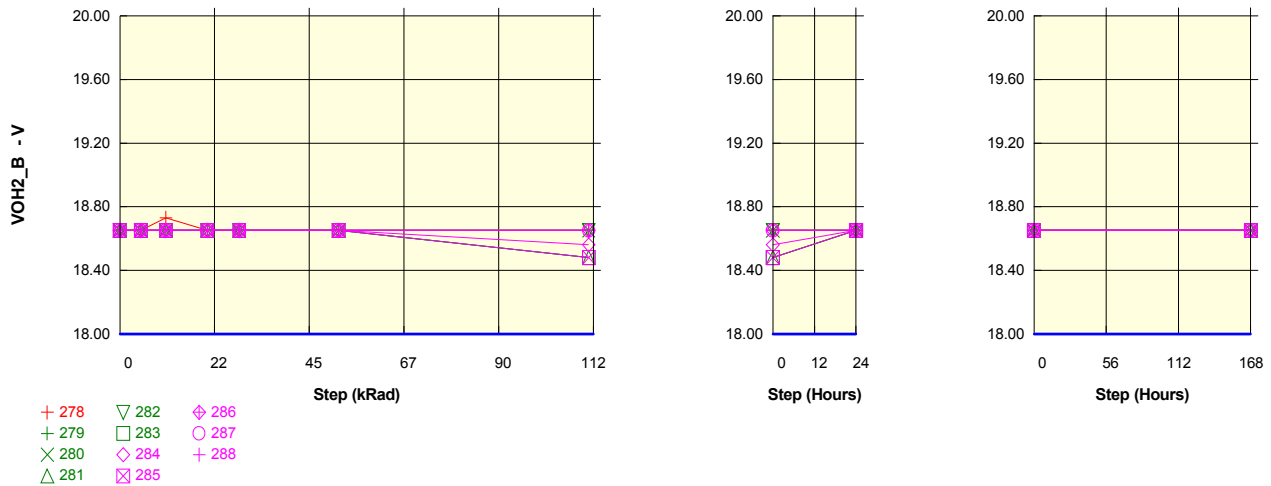
Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Output High Level : VOH2_B
Test conditions : VC=20V. Isource=-20mA

Unit : V

Spec Limit Min : 18.00

Spec limits are represented in bold lines on the graphic.



Measurements

VOH2_B	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	18.65	18.65	18.73	18.65	18.65	18.65	18.65	18.65	18.65
ON samples									
279	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
280	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
281	18.65	18.65	18.65	18.65	18.65	18.65	18.48	18.65	18.65
282	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
283	18.65	18.65	18.65	18.65	18.65	18.65	18.48	18.65	18.65
Statistics									
Min	18.65	18.65	18.65	18.65	18.65	18.65	18.48	18.65	18.65
Max	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
Average	18.65	18.65	18.65	18.65	18.65	18.65	18.58	18.65	18.65
Sigma	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00

Measurements

VOH2_B	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	18.65	18.65	18.73	18.65	18.65	18.65	18.65	18.65	18.65
OFF samples									
284	18.65	18.65	18.65	18.65	18.65	18.65	18.56	18.65	18.65
285	18.65	18.65	18.65	18.65	18.65	18.65	18.48	18.65	18.65
286	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
287	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
288	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
Statistics									
Min	18.65	18.65	18.65	18.65	18.65	18.65	18.48	18.65	18.65
Max	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65	18.65
Average	18.65	18.65	18.65	18.65	18.65	18.65	18.60	18.65	18.65
Sigma	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

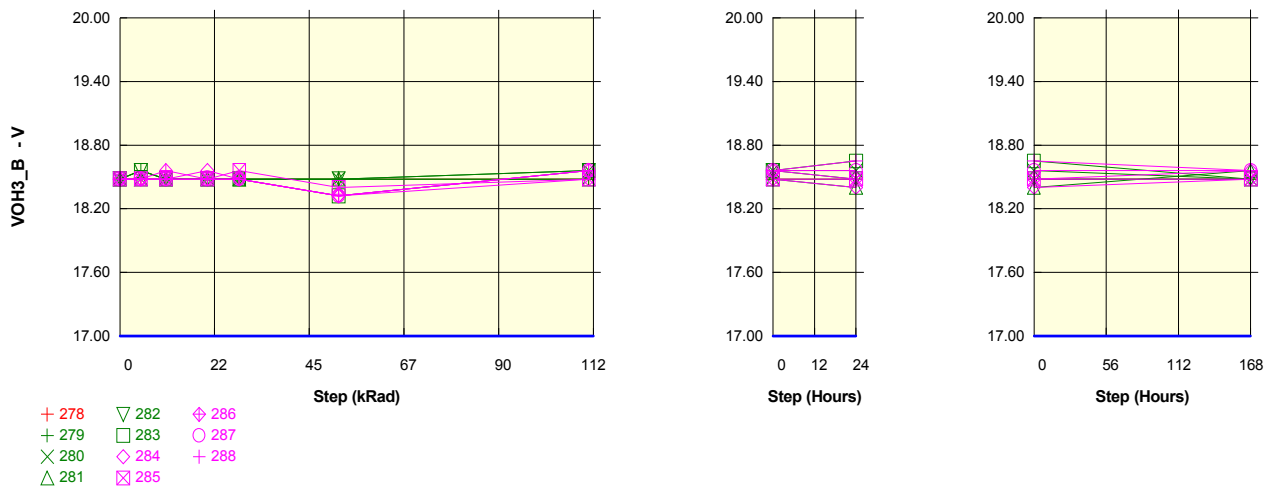
Parameter : Output High Level : VOH3_B

Test conditions : VC=20V. Isource=-100mA

Unit : V

Spec Limit Min : 17.00

Spec limits are represented in bold lines on the graphic.



Measurements

VOH3_B	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48
ON samples									
279	18.48	18.56	18.48	18.48	18.48	18.48	18.48	18.48	18.48
280	18.48	18.48	18.48	18.48	18.48	18.48	18.56	18.56	18.48
281	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.40	18.56
282	18.48	18.56	18.48	18.48	18.48	18.48	18.56	18.48	18.48
283	18.48	18.56	18.48	18.48	18.48	18.32	18.56	18.65	18.48
Statistics									
Min	18.48	18.48	18.48	18.48	18.48	18.32	18.48	18.40	18.48
Max	18.48	18.56	18.48	18.48	18.48	18.48	18.56	18.65	18.56
Average	18.48	18.53	18.48	18.48	18.48	18.45	18.53	18.51	18.50
Sigma	0.00	0.04	0.00	0.00	0.00	0.06	0.04	0.08	0.03

Measurements

VOH3_B	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48	18.48
OFF samples									
284	18.48	18.48	18.48	18.56	18.48	18.32	18.48	18.40	18.48
285	18.48	18.48	18.48	18.48	18.56	18.40	18.48	18.48	18.48
286	18.48	18.48	18.56	18.48	18.48	18.32	18.56	18.48	18.56
287	18.48	18.48	18.48	18.48	18.48	18.32	18.56	18.56	18.56
288	18.48	18.48	18.48	18.48	18.48	18.32	18.56	18.65	18.56
Statistics									
Min	18.48	18.48	18.48	18.48	18.48	18.32	18.48	18.40	18.48
Max	18.48	18.48	18.56	18.56	18.56	18.40	18.56	18.65	18.56
Average	18.48	18.48	18.50	18.50	18.50	18.34	18.53	18.51	18.53
Sigma	0.00	0.00	0.03	0.03	0.03	0.03	0.04	0.08	0.04

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

Parameter : Under Voltage Lockout : VUL

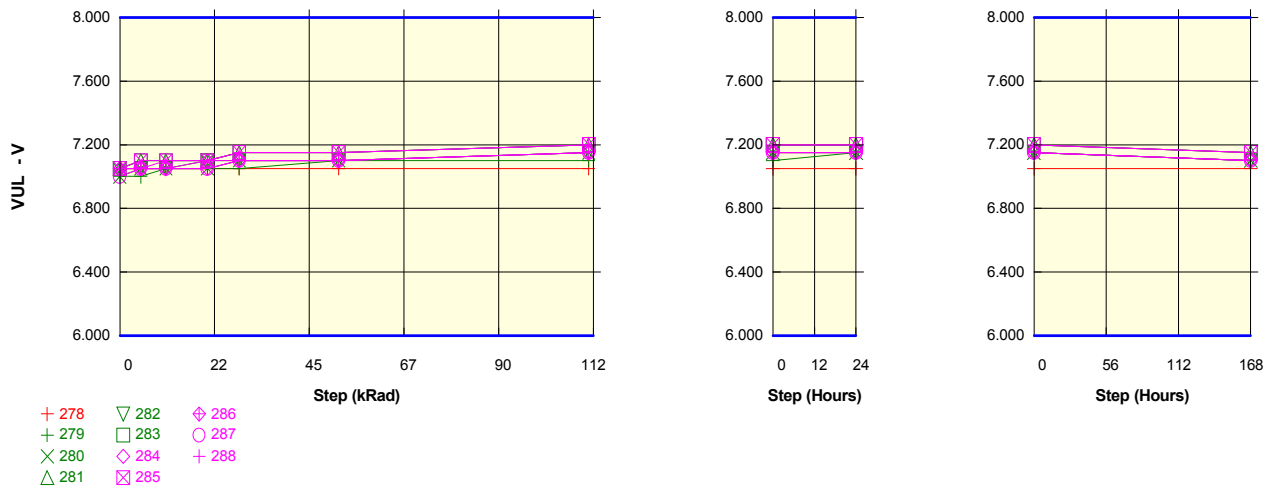
Test conditions : VC=20V. Vcomp and VSS = high

Unit : V

Spec Limit Min : 6.000

Spec Limit Max : 8.000

Spec limits are represented in bold lines on the graphic.



Measurements

VUL	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	7.050	7.050	7.050	7.050	7.050	7.050	7.050	7.050	7.050
ON samples									
279	7.000	7.000	7.050	7.050	7.050	7.100	7.100	7.150	7.100
280	7.000	7.050	7.050	7.050	7.100	7.100	7.150	7.150	7.100
281	7.050	7.100	7.100	7.100	7.150	7.150	7.200	7.200	7.150
282	7.050	7.050	7.050	7.100	7.100	7.100	7.150	7.150	7.100
283	7.050	7.100	7.100	7.100	7.150	7.150	7.200	7.200	7.150
Statistics									
Min	7.000	7.000	7.050	7.050	7.050	7.100	7.100	7.150	7.100
Max	7.050	7.100	7.100	7.100	7.150	7.150	7.200	7.200	7.150
Average	7.030	7.060	7.070	7.080	7.110	7.120	7.160	7.170	7.120
Sigma	0.024	0.037	0.024	0.024	0.037	0.024	0.037	0.024	0.024

Measurements

VUL	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	7.050	7.050	7.050	7.050	7.050	7.050	7.050	7.050	7.050
OFF samples									
284	7.050	7.050	7.050	7.050	7.100	7.100	7.150	7.150	7.100
285	7.050	7.100	7.100	7.100	7.150	7.150	7.200	7.200	7.150
286	7.050	7.050	7.050	7.100	7.100	7.100	7.150	7.150	7.100
287	7.000	7.050	7.050	7.050	7.100	7.100	7.150	7.150	7.100
288	7.050	7.050	7.100	7.100	7.150	7.150	7.200	7.200	7.150
Statistics									
Min	7.000	7.050	7.050	7.050	7.100	7.100	7.150	7.150	7.100
Max	7.050	7.100	7.100	7.100	7.150	7.150	7.200	7.200	7.150
Average	7.040	7.060	7.070	7.080	7.120	7.120	7.170	7.170	7.120
Sigma	0.020	0.020	0.024	0.024	0.024	0.024	0.024	0.024	0.024

Hirex Engineering	Total Dose Radiation Test Report		Ref.:	HRX/TID/1033
	UC1525BJQMLV	Texas Instruments	Issue:	02

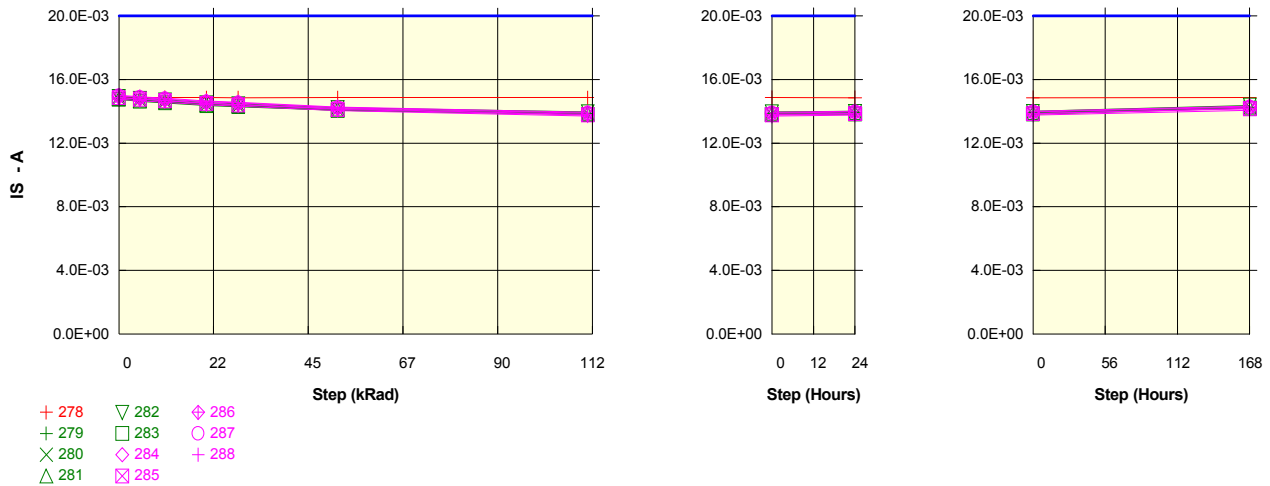
Parameter : Supply Current : IS

Test conditions : Vin=35V

Unit : A

Spec Limit Max : 20.0E-03

Spec limits are represented in bold lines on the graphic.



Measurements

IS	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	14.9E-03	14.9E-03	14.9E-03	14.9E-03	14.8E-03	14.9E-03	14.9E-03	14.9E-03	14.9E-03
ON samples									
279	14.8E-03	14.7E-03	14.6E-03	14.4E-03	14.4E-03	14.1E-03	13.9E-03	13.9E-03	14.2E-03
280	14.8E-03	14.7E-03	14.6E-03	14.4E-03	14.3E-03	14.1E-03	13.8E-03	13.8E-03	14.2E-03
281	14.8E-03	14.7E-03	14.6E-03	14.4E-03	14.4E-03	14.1E-03	13.9E-03	13.9E-03	14.3E-03
282	14.9E-03	14.8E-03	14.7E-03	14.5E-03	14.5E-03	14.2E-03	14.0E-03	14.0E-03	14.4E-03
283	14.8E-03	14.6E-03	14.5E-03	14.4E-03	14.3E-03	14.1E-03	13.8E-03	13.8E-03	14.2E-03
Statistics									
Min	14.8E-03	14.6E-03	14.5E-03	14.4E-03	14.3E-03	14.1E-03	13.8E-03	13.8E-03	14.2E-03
Max	14.9E-03	14.8E-03	14.7E-03	14.5E-03	14.5E-03	14.2E-03	14.0E-03	14.0E-03	14.4E-03
Average	14.8E-03	14.7E-03	14.6E-03	14.4E-03	14.4E-03	14.1E-03	13.9E-03	13.9E-03	14.3E-03
Sigma	57.5E-06	58.2E-06	58.8E-06	59.9E-06	61.0E-06	60.2E-06	60.4E-06	60.6E-06	66.7E-06

Measurements

IS	0 kRad	5 kRad	11 kRad	20.9 kRad	28.5 kRad	52.2 kRad	111.9 kRad	24 Hours	168 Hours
278_REF	14.9E-03	14.9E-03	14.9E-03	14.9E-03	14.8E-03	14.9E-03	14.9E-03	14.9E-03	14.9E-03
OFF samples									
284	15.0E-03	14.9E-03	14.8E-03	14.6E-03	14.6E-03	14.3E-03	13.9E-03	14.0E-03	14.3E-03
285	14.9E-03	14.8E-03	14.7E-03	14.5E-03	14.4E-03	14.1E-03	13.8E-03	13.8E-03	14.2E-03
286	14.9E-03	14.8E-03	14.7E-03	14.5E-03	14.4E-03	14.1E-03	13.8E-03	13.9E-03	14.2E-03
287	15.0E-03	14.9E-03	14.8E-03	14.6E-03	14.5E-03	14.2E-03	13.9E-03	14.0E-03	14.3E-03
288	14.8E-03	14.7E-03	14.6E-03	14.4E-03	14.3E-03	14.0E-03	13.7E-03	13.8E-03	14.1E-03
Statistics									
Min	14.8E-03	14.7E-03	14.6E-03	14.4E-03	14.3E-03	14.0E-03	13.7E-03	13.8E-03	14.1E-03
Max	15.0E-03	14.9E-03	14.8E-03	14.6E-03	14.6E-03	14.3E-03	13.9E-03	14.0E-03	14.3E-03
Average	14.9E-03	14.8E-03	14.7E-03	14.5E-03	14.4E-03	14.2E-03	13.8E-03	13.9E-03	14.2E-03
Sigma	83.5E-06	86.3E-06	84.1E-06	86.9E-06	86.6E-06	84.1E-06	87.3E-06	86.9E-06	93.4E-06