

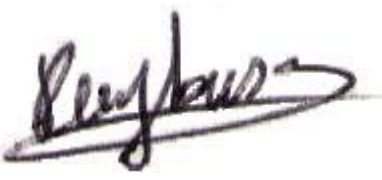





# TOTAL IRRADIATION DOSE TEST REPORT

## RHRLVDS31 (DC0804A) High speed differential line drivers *From* ST Microelectronics

Ref: TRAD/TE/RHRLVDS31/0804/STM/LP/0804		Labège, May 21 <sup>st</sup> , 2008	
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VISAS			
Written by  Name: L. PUYBUSQUE Date: 04/06/2008  	Verified by / Quality control  Name: A. ROUSSET Date: 04/06/2008  	Approved by  Name: W. FALO Date: 04/06/2008  	
Rev. : 0. Creation of the document			
TO: ST Microelectronics Mr. Patrick BRIAND		Ref: Project/program:	

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## 1. Introduction

This report includes test results of **RHRLVDS31**, a **High speed differential line drivers** from **ST Microelectronics** after submission to total irradiation dose testing.

## 2. Documents

### 2.1. Applicable documents

Technical Proposal : TRAD/P/STM/LVDS31-32/WF/030308.  
ST Microelectronics ITP : BE/AU/07206ce02 of 01/06/2008.  
Mail ST Microelectronics from Mr UGUEN of 04/08/2008 about the number of parts.  
Mail ST Microelectronics from Mr UGUEN of 04/11/2008 about the bias condition.

### 2.2. Reference documents

Basic Specification : ESCC N° 22900 Issue 3 of March 2007.  
Detail specification : SMD 5962-98651 Rev G OF 10/25/2004.  
Data Sheet : STLVD31 Rev 5 of March 2006 from ST Microelectronics.

## 3. Part Informations

PART IDENTIFICATION	
Type :	RHRLVDS31
Manufacturer :	ST Microelectronics
Function :	High speed differential line drivers
PARTS PROCUREMENT INFORMATIONS	
Packaging :	FP16
Date Code :	0804A
Sample size :	10 irradiated samples group 1 + 1 reference sample 10 irradiated samples group 2 + 1 reference sample

#### 4. Dosimetry and irradiation facility

IRRADIATION FACILITY					
Irradiation source :		<sup>60</sup> Co			
Irradiation Equipment :		PAGURE			
Source location :		CEA Saclay			
Dosimetry equipment :		Ionizing Chamber PTW			
IRRADIATION TIME LOG					
Total dose limit (krad(Si)) :		100			
Level for measurement (krad(Si)) :	Group 1	0	20	40	60
	Group 2	0		80	100
Dose rate (krad(Si)/h) :	Group 1	17			
	Group 2	22			
ANNEALING TIME LOG*					
Annealing 25°C :		24 hours			
		48 hours			
		168 hours			
Annealing 100°C :		168 hours			

\* Only for Group 2

#### 5. Test equipment identification


COMPUTER	Po-te-wf-091
REF. TEST BOARD	TRAD/CT1/E/RHRLVDS31/ZIP16/LP/0804 ; TRAD/CT1/R/DS031/DIL16/AC/0100 ; TRAD/CT2/R/DS031/DIL16/WF/1201
EQUIPMENT	MI-49 ; MI-07 ; MI-03 ; MI-02 ; MI-09 ; MI-10 ; ME-35
TEST PROGRAM	rhrlvds31_te_0804_b6-v01.llb ; rhrlvds31_te_0804_b6-v02.llb ; rhrlvds31_te_0804_b3-v01.pas

## 6. Test parameters

PARAMETERS	SYMBOLS	TEST CONDITIONS
<b>Ta= 25°C, unless otherwise specified</b>		
Drivers Enabled Supply Current; no load	<b>ICC</b>	Din = VCC or GND
Drivers Enabled Supply Current, loaded	<b>ICCL</b>	RL = 100Ω all channels, Din = VCC or GND all inputs
Drivers Disabled Supply Current, loaded or no loaded	<b>ICCZ</b>	Din = VCC or GND, EN = GND, EN! = VCC
Input Current	<b>IIN</b>	Vin = VCC or GND, VCC = 3.6V
Input Voltage High	<b>VIH</b>	
Input Voltage Low	<b>VIL</b>	
Differential Output Voltage	<b>VOD1</b>	RL = 100Ω
Change In Magnitude Of VOD for Complementary Output States	<b>DVOD1</b>	RL = 100Ω
Offset Voltage	<b>VOS</b>	RL = 100Ω
Change In Magnitude Of VOS for Complementary Output States	<b>DVOS</b>	RL = 100Ω
Input Clamp Voltage	<b>VI</b>	Iin = +18mA
Output Voltage High	<b>VOH</b>	RL = 100Ω
Output Voltage Low	<b>VOL</b>	RL = 100Ω
Output Short Circuit Current	<b>IOS</b>	Enabled, Din = VCC, Dout+ = 0V or Din = GND, Dout- = 0V
Output Tri-State Current	<b>Io</b>	EN = 0V, EN! = 3.6V, Vout = 0V or VCC, VCC = 3.6V
Differential Propagation Delay, Low To High	<b>tPLHD</b>	
Differential Propagation Delay, High To Low	<b>tPHLD</b>	
Differential Skew	<b>tSKD</b>	
Disable Time Low To Z	<b>tPLZ</b>	
Disable Time High To Z	<b>tPHZ</b>	
Enable Time Z To High	<b>tPZH</b>	
Enable Time Z To Low	<b>tPZL</b>	
Channel To Channel Skew	<b>tSK1</b>	

\* Measurements applicable only for the initial step and for the annealing step, compliant with the test plan.

NB : The input "E" is noted "E!".

	<b>TOTAL IRRADIATION DOSE TEST REPORT</b>  <b>RHRLVDS31 (DC0804A)</b>	Ref: TRAD/TE/RHRLVDS31/0804/STM/LP/0804 Date: May 21st, 2008  Rev: 0
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**ITP applicable issue :**

Applying the procedure from TRAD SMQ documents, the ITPs are identified and their version handled according to applicable TRAD requirements.

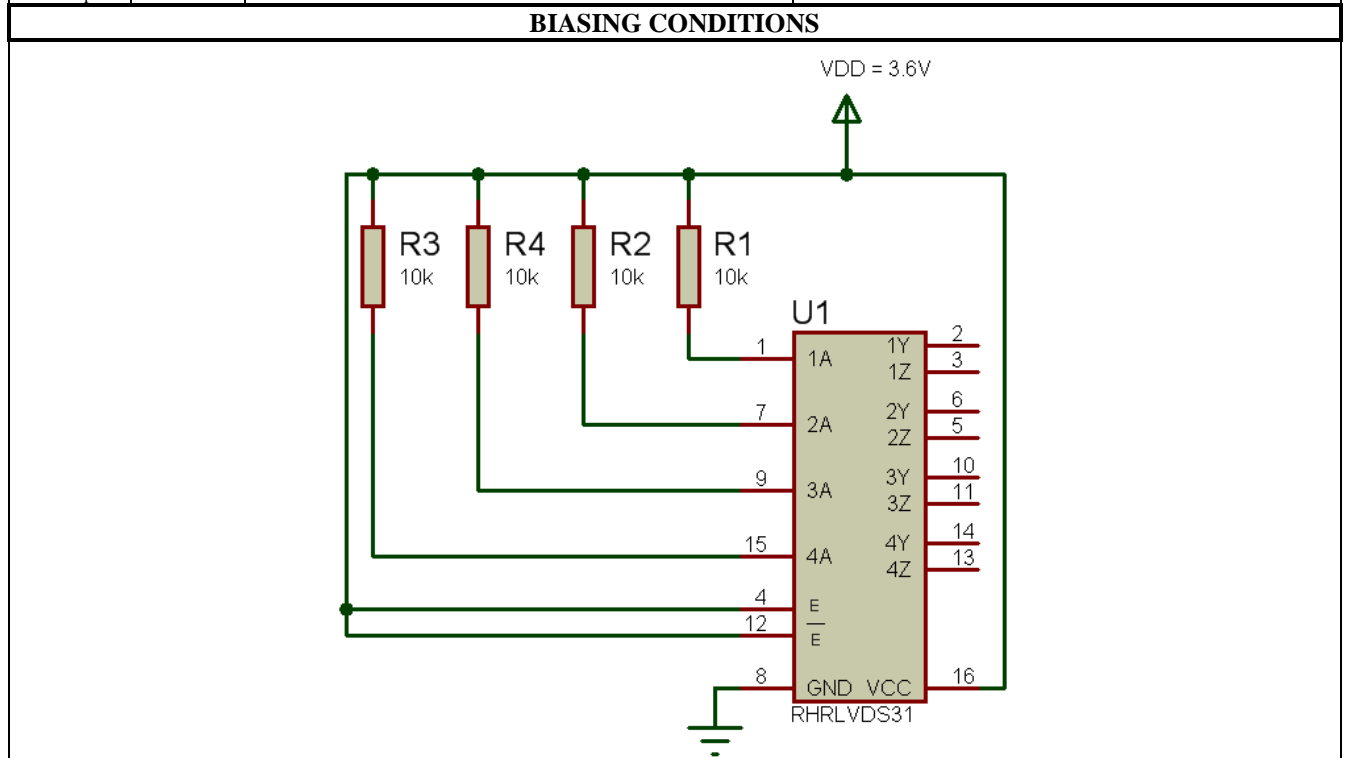
The customer applicable ITP No. **BE/AU/07206ce02 of 01/06/2008** is re-identified by TRAD as following **ITP/RHRLVDS3X/0804/080408 Issue 1.**

## 7. Bias conditions

All components are biased under following conditions.

Parameters specified in the applicable ITP are measured on one component that is kept as REFERENCE and therefore is not irradiated.

PARTS IDENTIFICATION																					
Serial Number	Control	Sample Devices																			
Mark	41	40	39	42	43	44	45	46	47	48	49	50	51	99	100	101	102	103	104	105	106
Irr. Marking	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Biasing Mode	REF	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
Group	1 & 2	1										2									



COMMENTS	
Parts biased in static ON mode	10 (5 for the group 1 and 5 for the group 2)
Parts Grounded	10 (5 for the group 1 and 5 for the group 2)
Bias Board Ref	TRAD/CP1/E/RHRLVDS31/ZIP16/LP/0804 ; TRAD/CP2/E/RHRLVDS31/ZIP16/LP/0804
Bias Equipment	SM-29



## 8. Delidded Sample

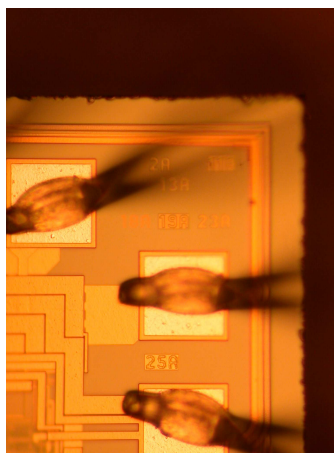
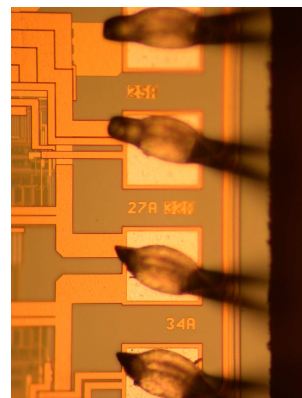
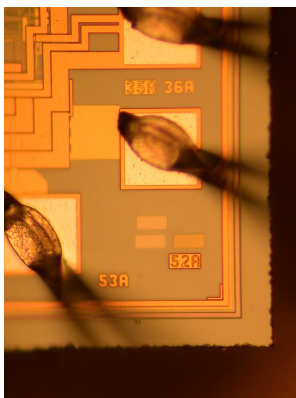
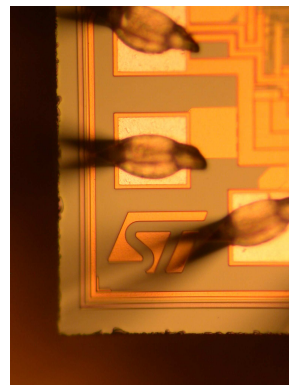
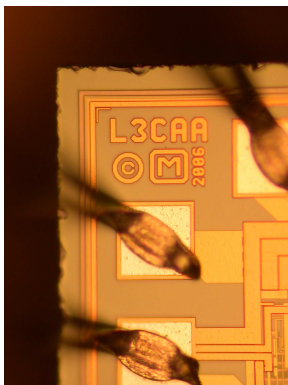
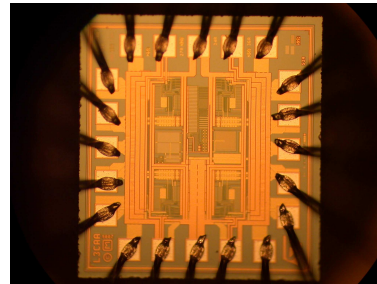



Figure 2 : Delidded sample

	<p align="center"><b>TOTAL IRRADIATION DOSE TEST REPORT</b></p> <p align="center"><b>RHRLVDS31 (DC0804A)</b></p>	<p>Ref: TRAD/TE/RHRLVDS31/0804/STM/LP/0804 Date: May 21st, 2008</p> <p>Rev: 0</p>
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## 9. Test Story

Test sequence, test and measurement conditions were nominal.

## 10. Results

### 10.1. Presentation of the results

For each parameter :

- The measurements performed at each irradiation step are registered in a table.
- Drifts between each measurement step and the "0" krad(Si) step are computed.

NB : \* For the CTR and the Hfe parameters, the formula used is :

$$\text{Drift} = [\text{measurement}(X \text{ krad(Si)})]^{-1} - [\text{measurement}(0 \text{ krad(Si)})]^{-1}$$

\* For the other measurements, the formula used is :

$$\text{Drift} = \text{measurement}(X \text{ krad(Si)}) - \text{measurement}(0 \text{ krad(Si)})$$

Where *X* stands for each measurement step.

### 10.2. Comments

*Group 1 :*

=> Electrical parameters parts biased ON :

General Measurements

- The parameter ICCL is out of specification at 51.1 krad(Si) by interpolation.

=> Electrical parameters parts biased OFF :

General Measurements

- The parameter ICCL is out of specification at 18.1 krad(Si) by interpolation.

*Group 2 :*

=> Electrical parameters parts biased ON :

General Measurements

- The parameter ICCL is out of specification at 8.4 krad(Si) by interpolation.

=> Electrical parameters parts biased OFF :

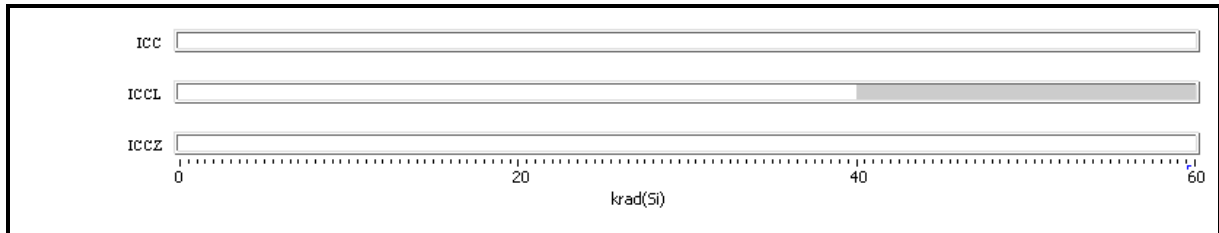
General Measurements

- The parameter ICCL is out of specification at 63.5 krad(Si) by interpolation.

The evolution of each parameter versus accumulated total dose is registered in the following pages.

**10.3. Electrical parameters parts biased ON : Group 1**

**10.3.1. General Measurements**



Within specification

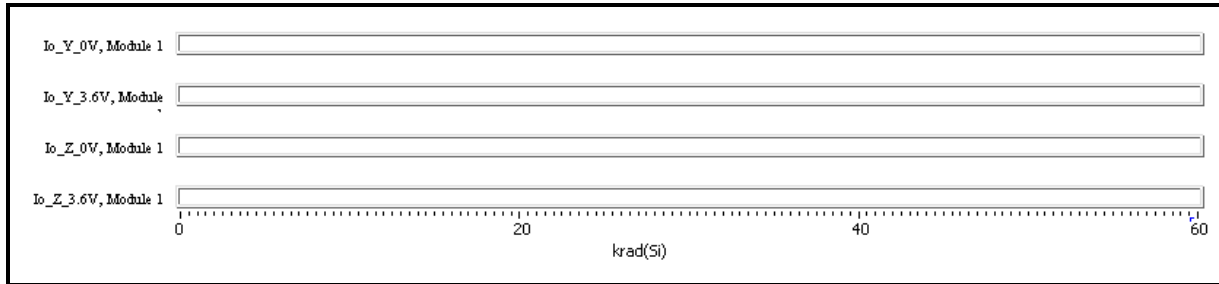


Transition



Out of specification parameter or parameter not measurable

**10.3.2. Module 1**



Within specification

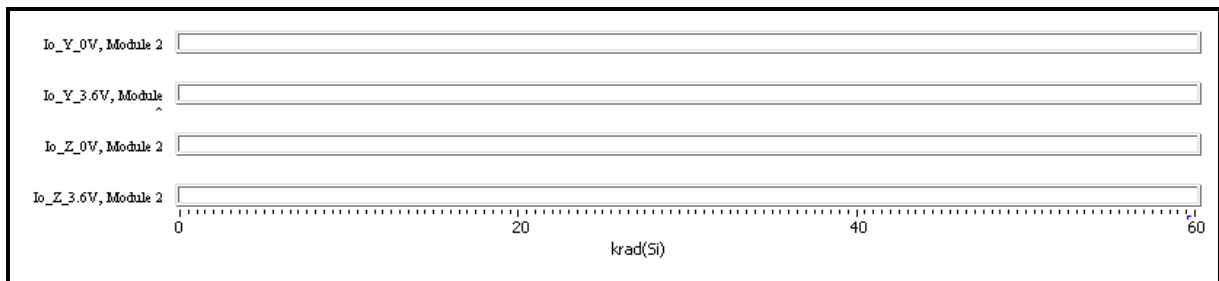


Transition



Out of specification parameter or parameter not measurable

**10.3.3. Module 2**



Within specification

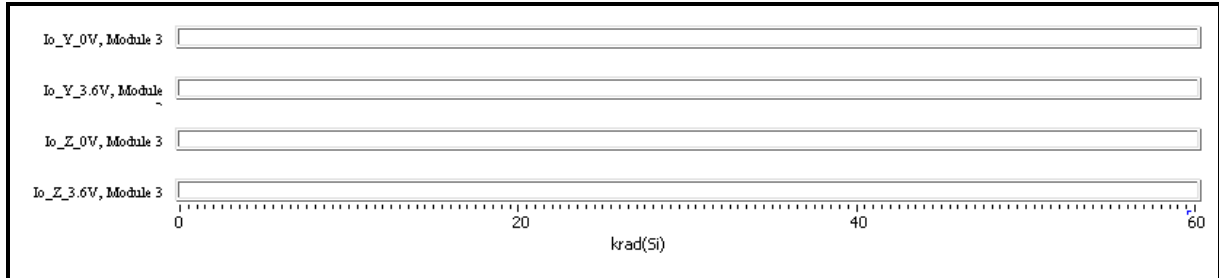


Transition



Out of specification parameter or parameter not measurable

**10.3.4. Module 3**



Within specification

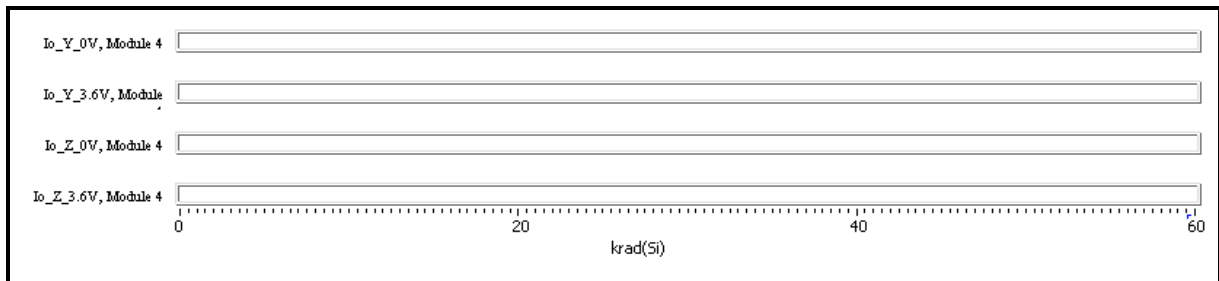


Transition



Out of specification parameter or parameter not measurable

**10.3.5. Module 4**



Within specification



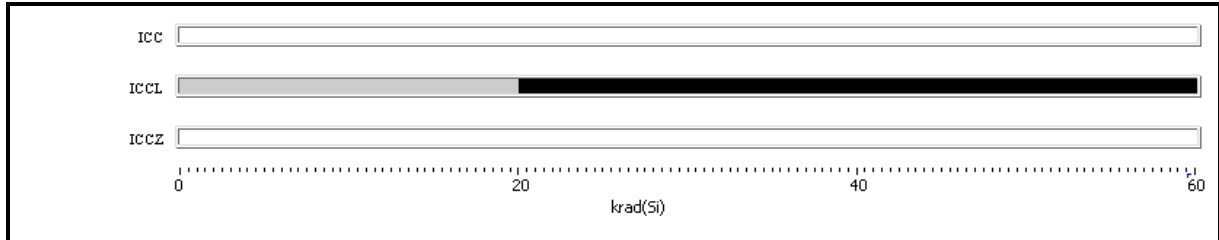
Transition



Out of specification parameter or parameter not measurable

## 10.4. Electrical parameters parts biased OFF : Group 1

### 10.4.1. General Measurements



Within specification

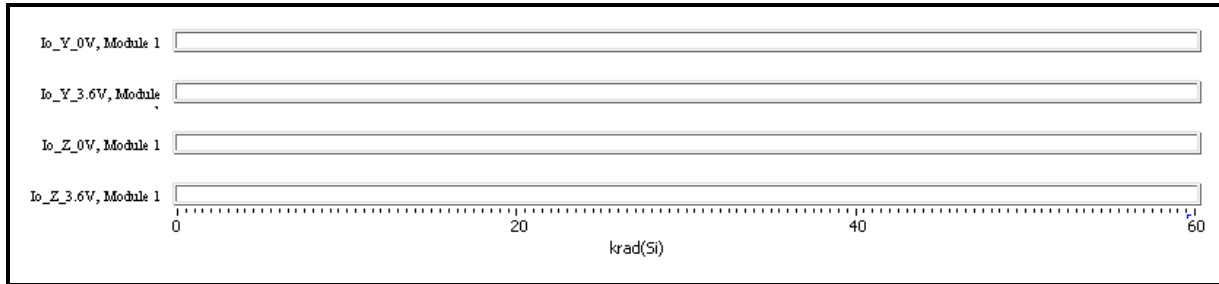


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Out of specification parameter or parameter not measurable

**10.4.2. Module 1**



Within specification

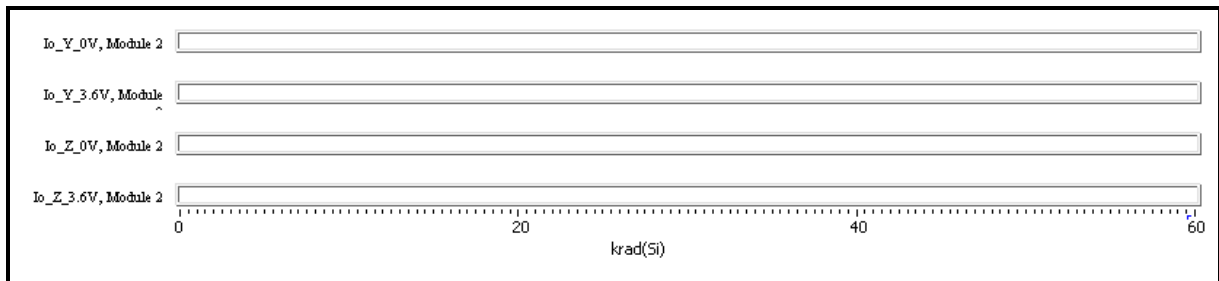


Transition



Out of specification parameter or parameter not measurable

**10.4.3. Module 2**



Within specification

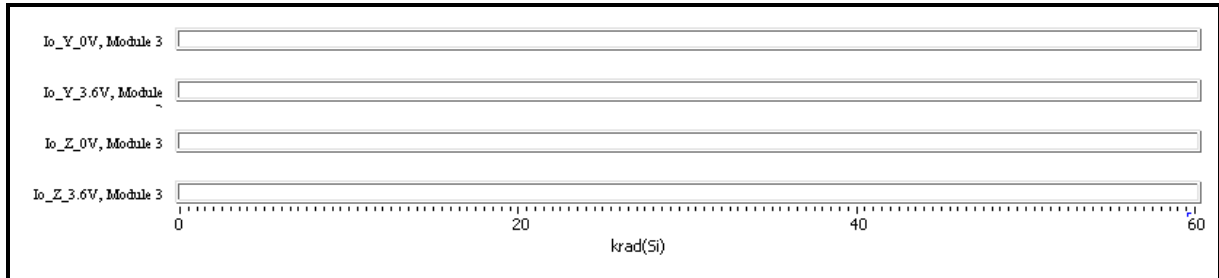


Transition



Out of specification parameter or parameter not measurable

**10.4.4. Module 3**



Within specification

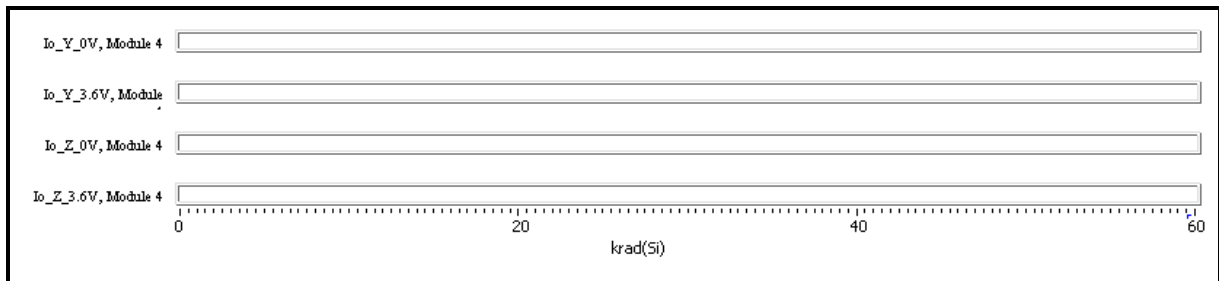


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**10.4.5. Module 4**



Within specification



Transition

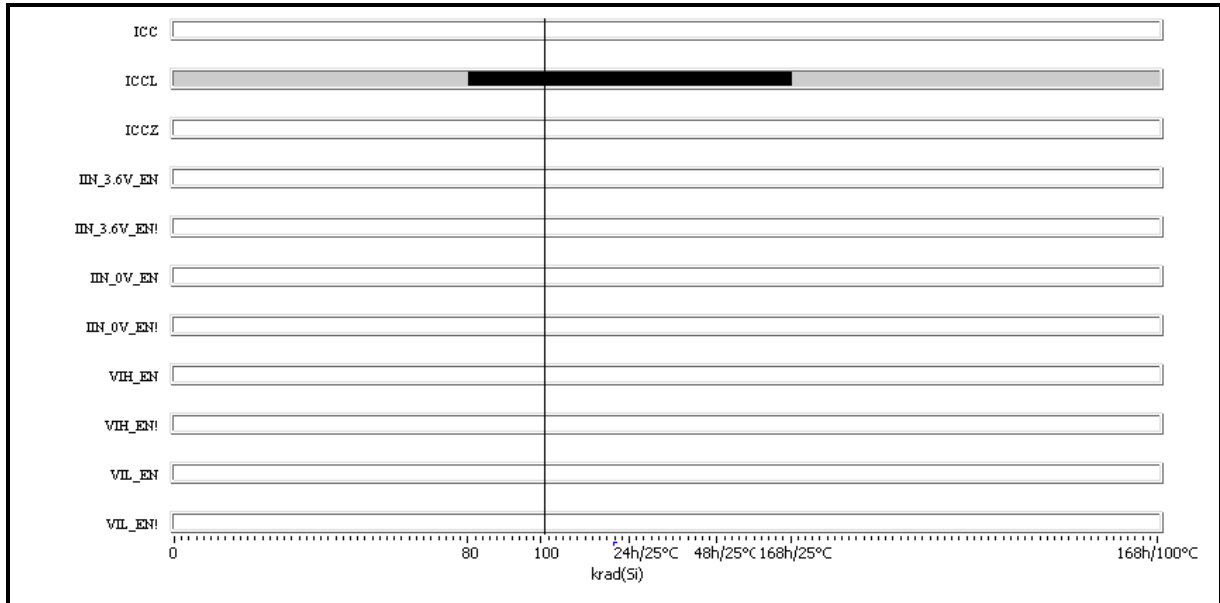


Out of specification parameter or parameter not measurable



**10.5. Electrical parameters parts biased ON : Group 2**

**10.5.1. General Measurements**



Within specification

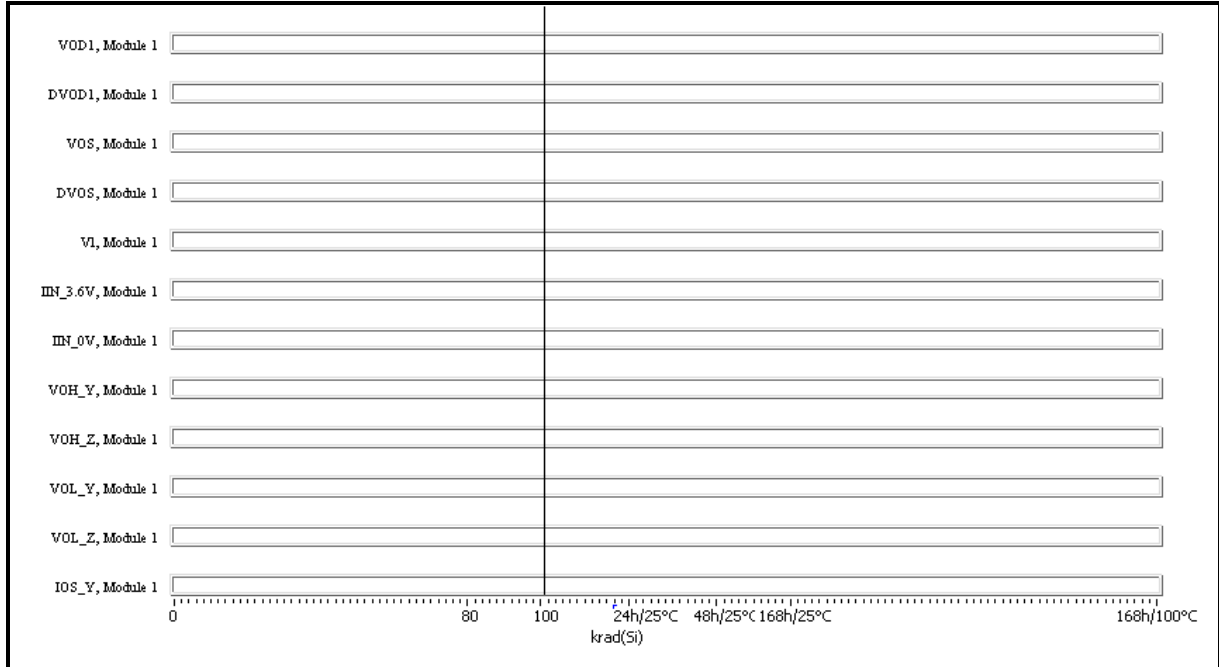


Transition



Out of specification parameter or parameter not measurable

**10.5.2. Module 1**



Within specification



Transition



Out of specification parameter or parameter not measurable



Within specification

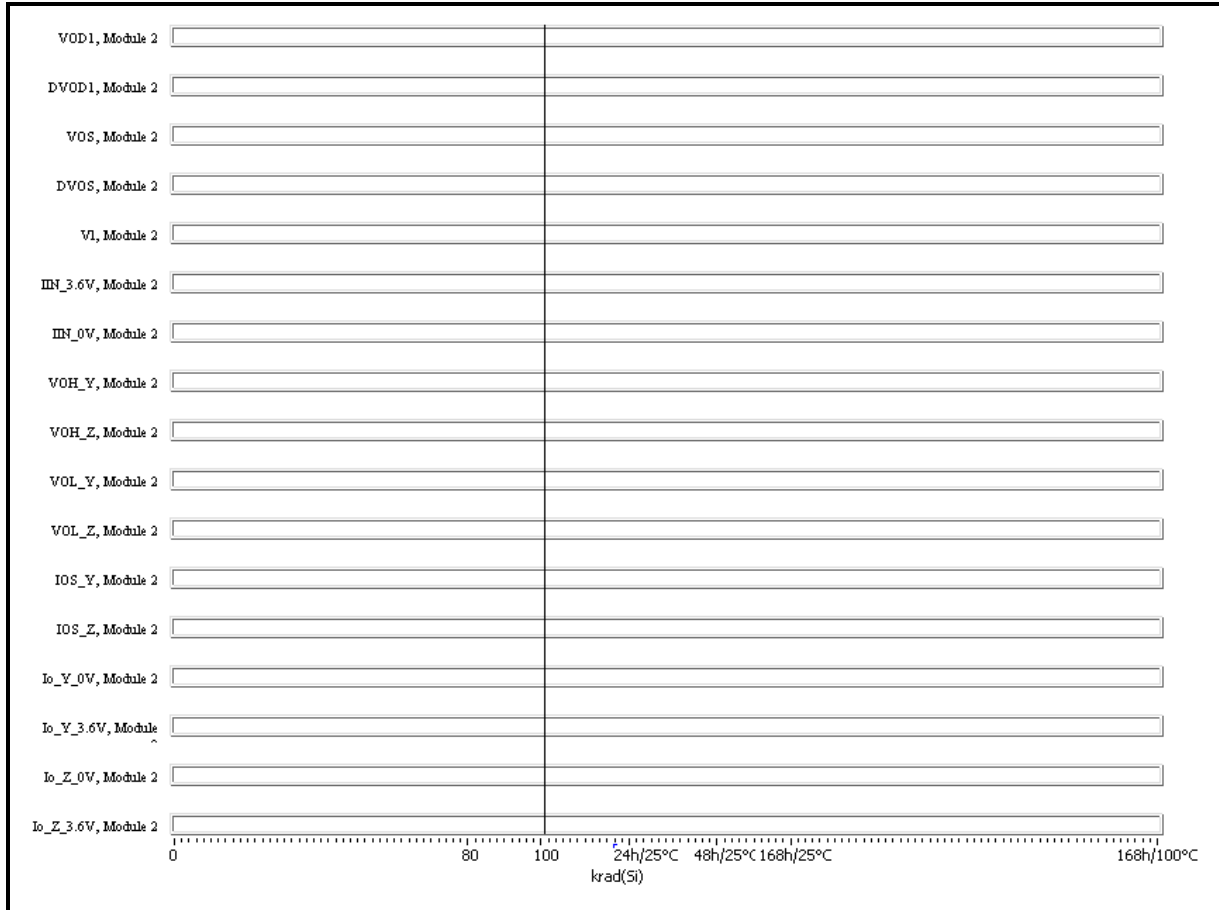


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**10.5.3. Module 2**



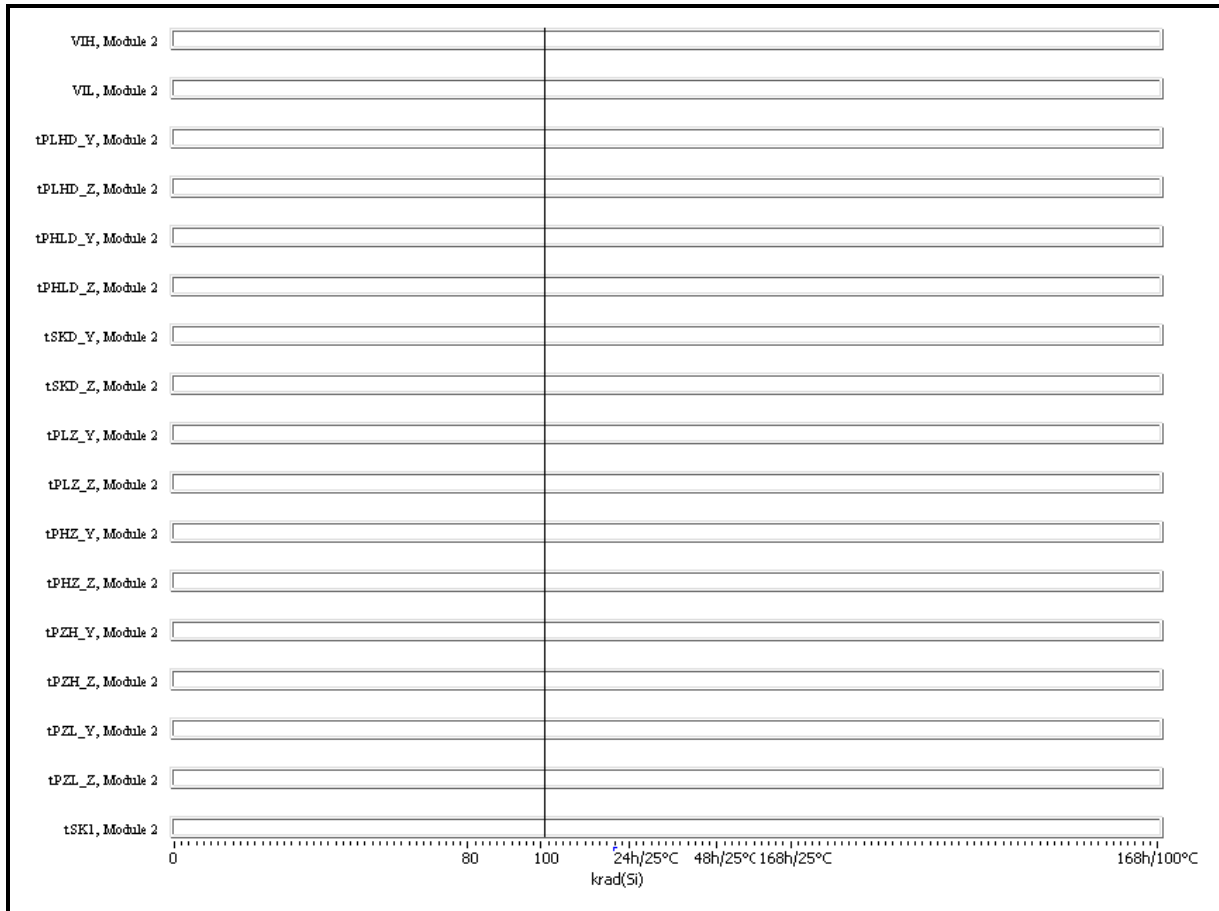
Within specification



Transition



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Within specification

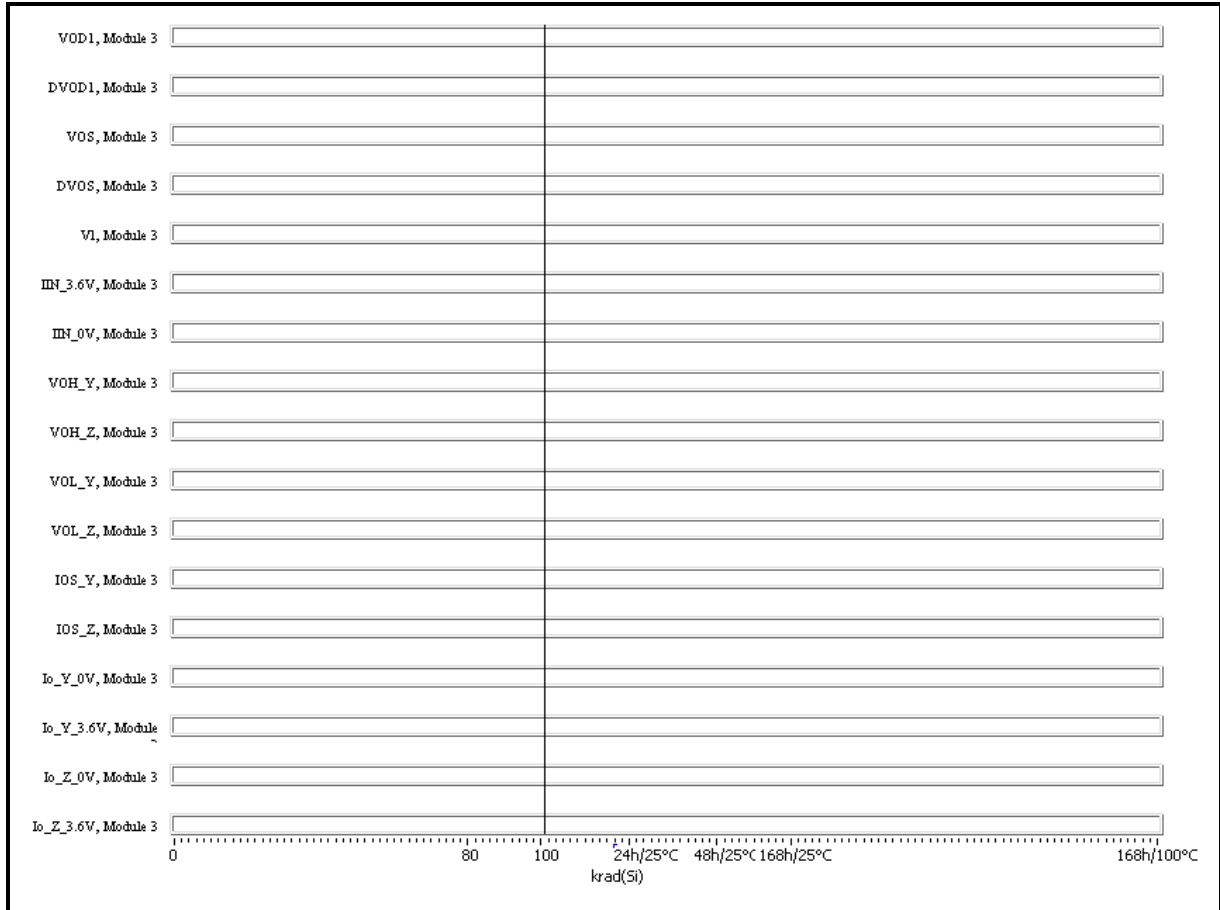


Transition



Out of specification parameter or parameter not measurable

**10.5.4. Module 3**



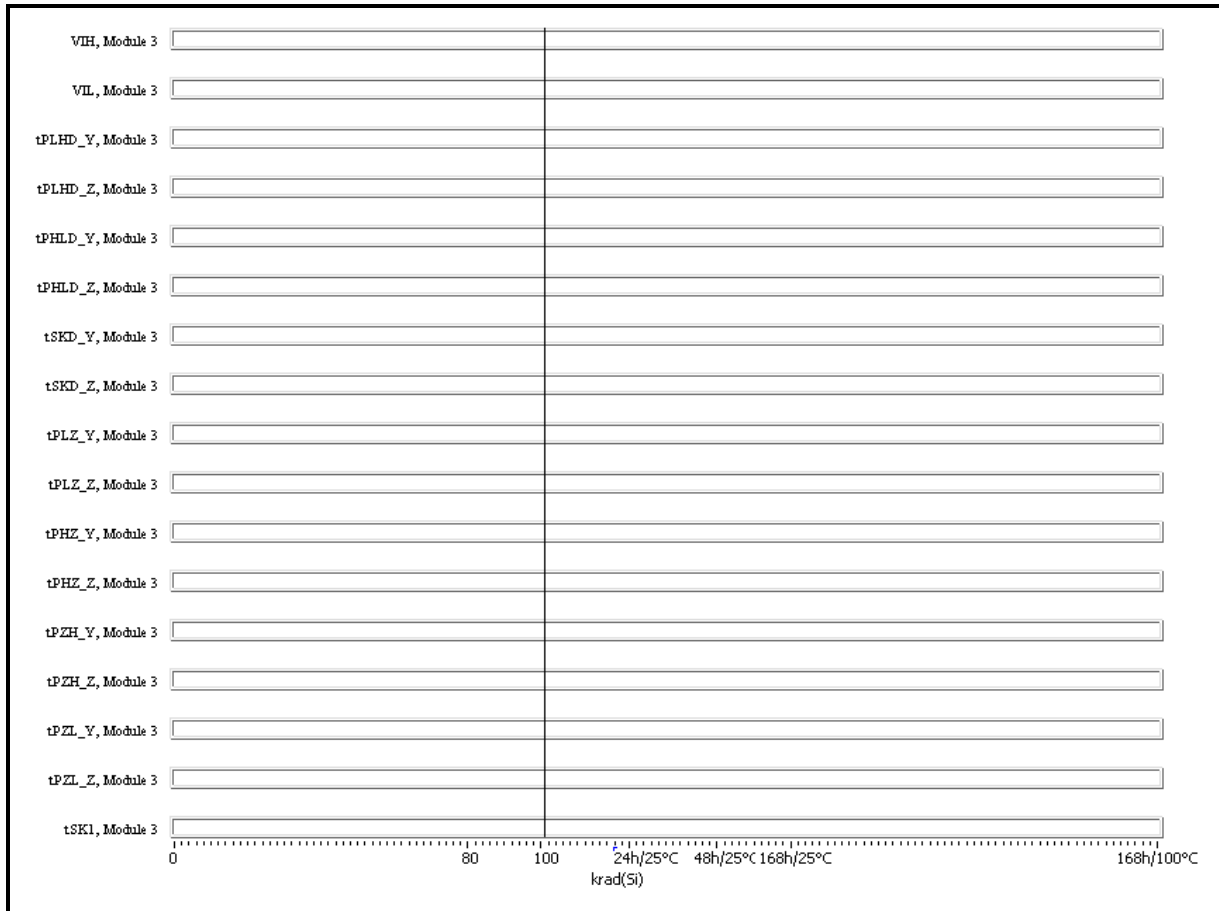
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Transition



Out of specification parameter or parameter not measurable



Within specification

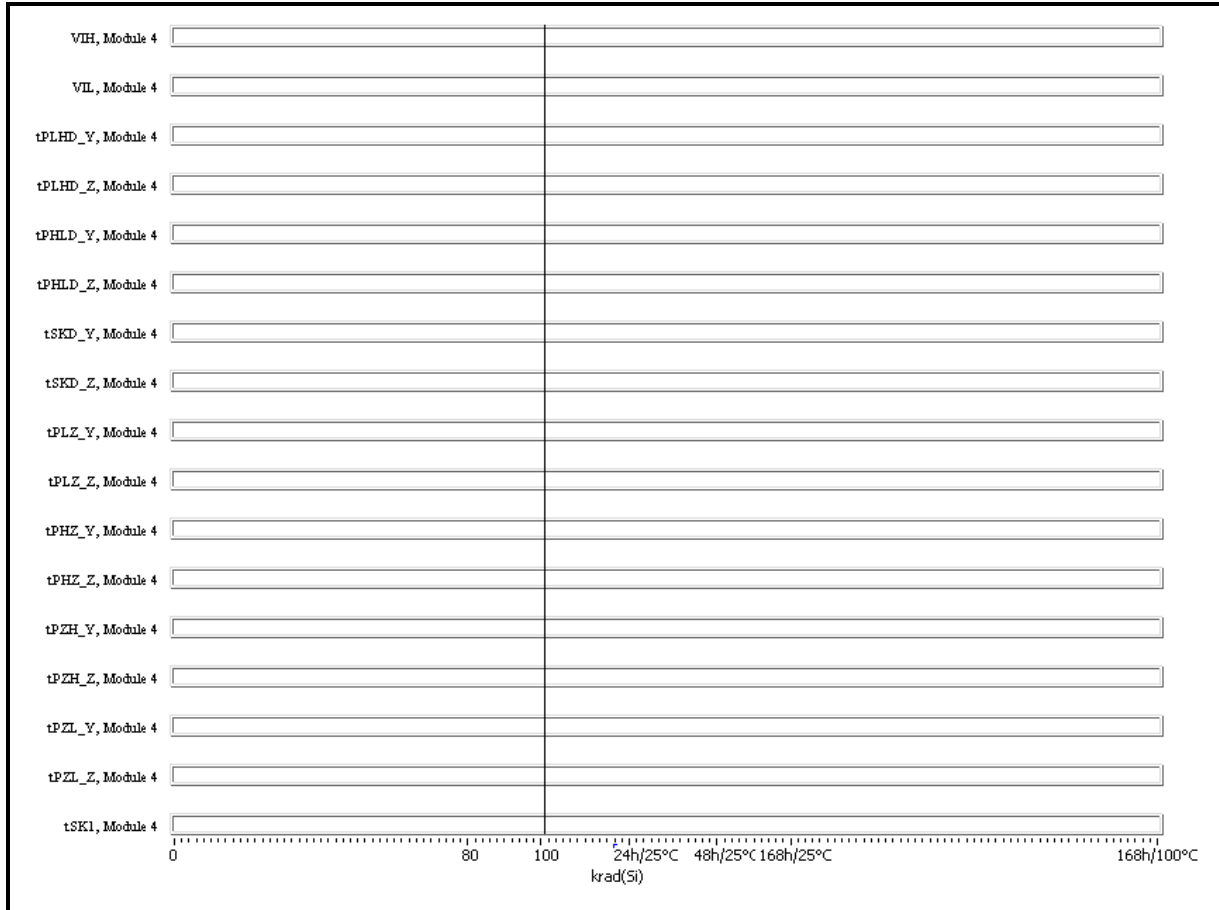


Transition



Out of specification parameter or parameter not measurable

**10.5.5. Module 4**



Within specification

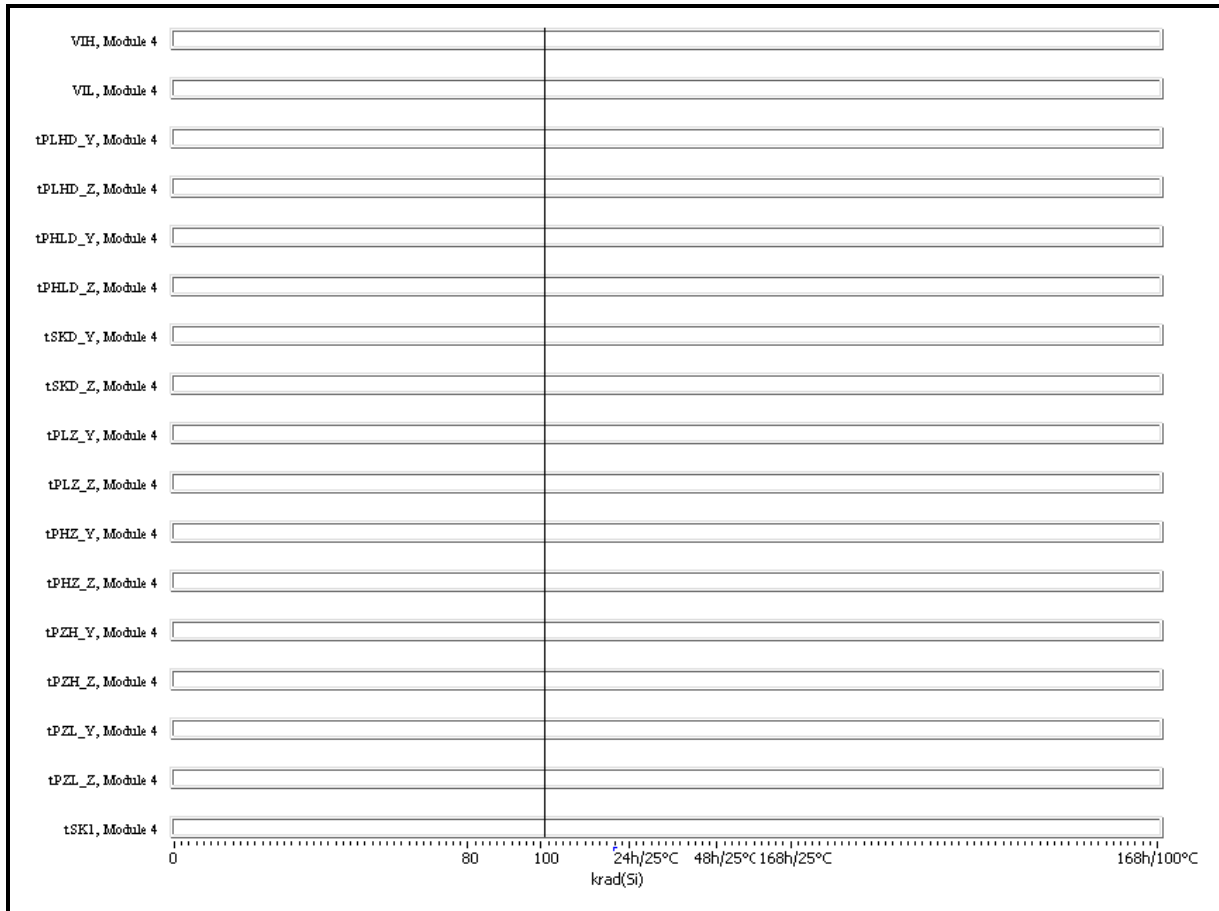


Transition



Out of specification parameter or parameter not measurable





Within specification



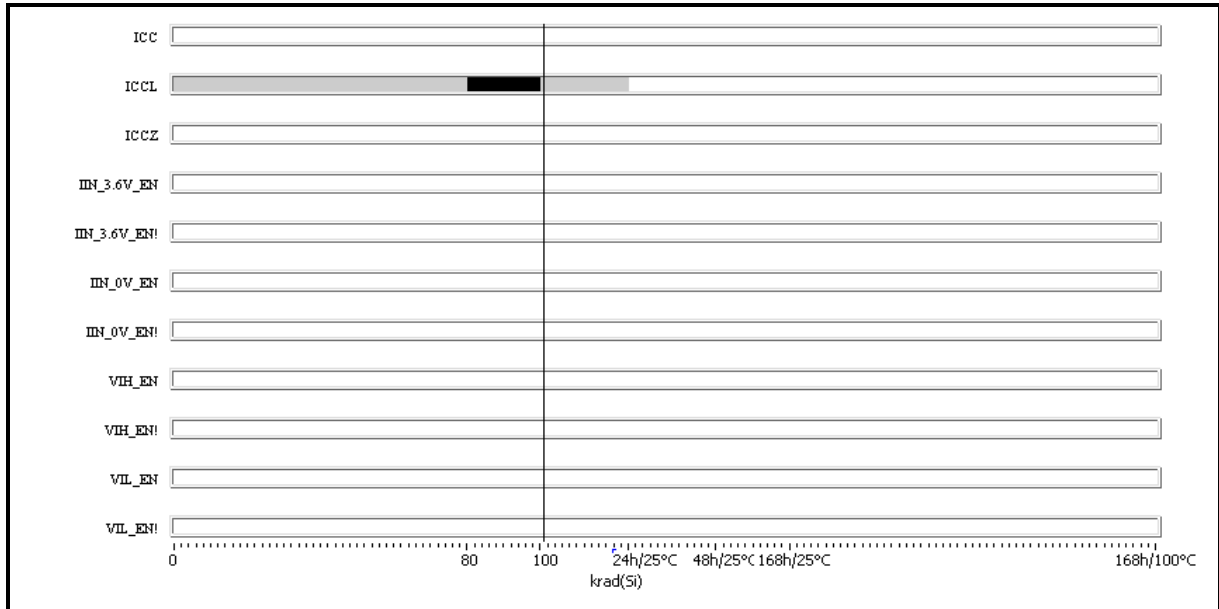
Transition



Out of specification parameter or parameter not measurable

**10.6. Electrical parameters parts biased OFF : Group 2**

**10.6.1. General Measurements**



Within specification

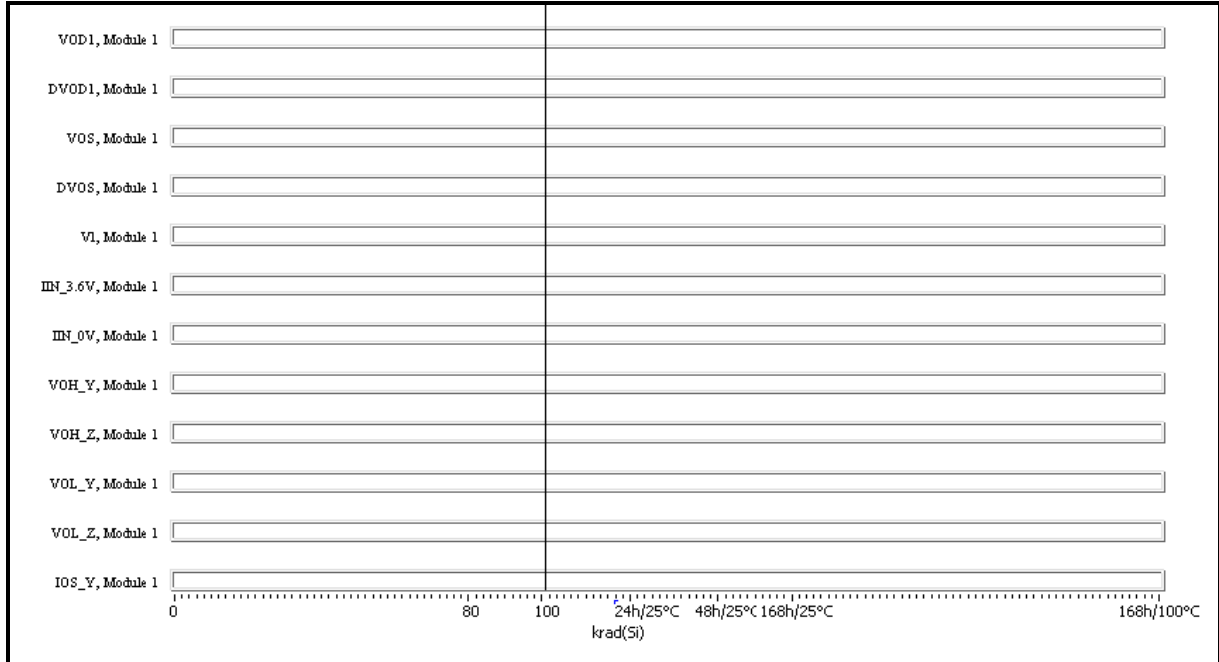


Transition



Out of specification parameter or parameter not measurable

**10.6.2. Module 1**



Within specification



Transition



Out of specification parameter or parameter not measurable



Within specification

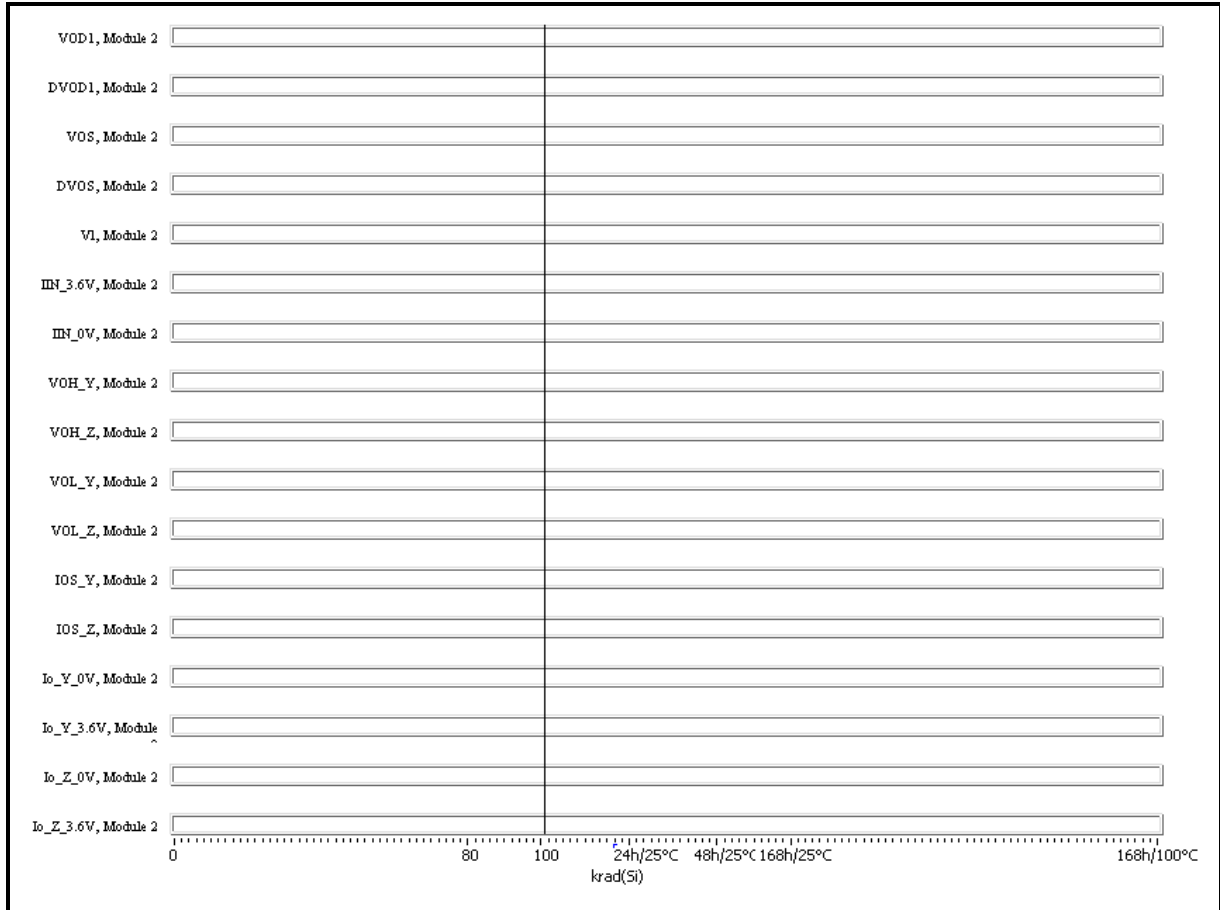


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Out of specification parameter or parameter not measurable

**10.6.3. Module 2**



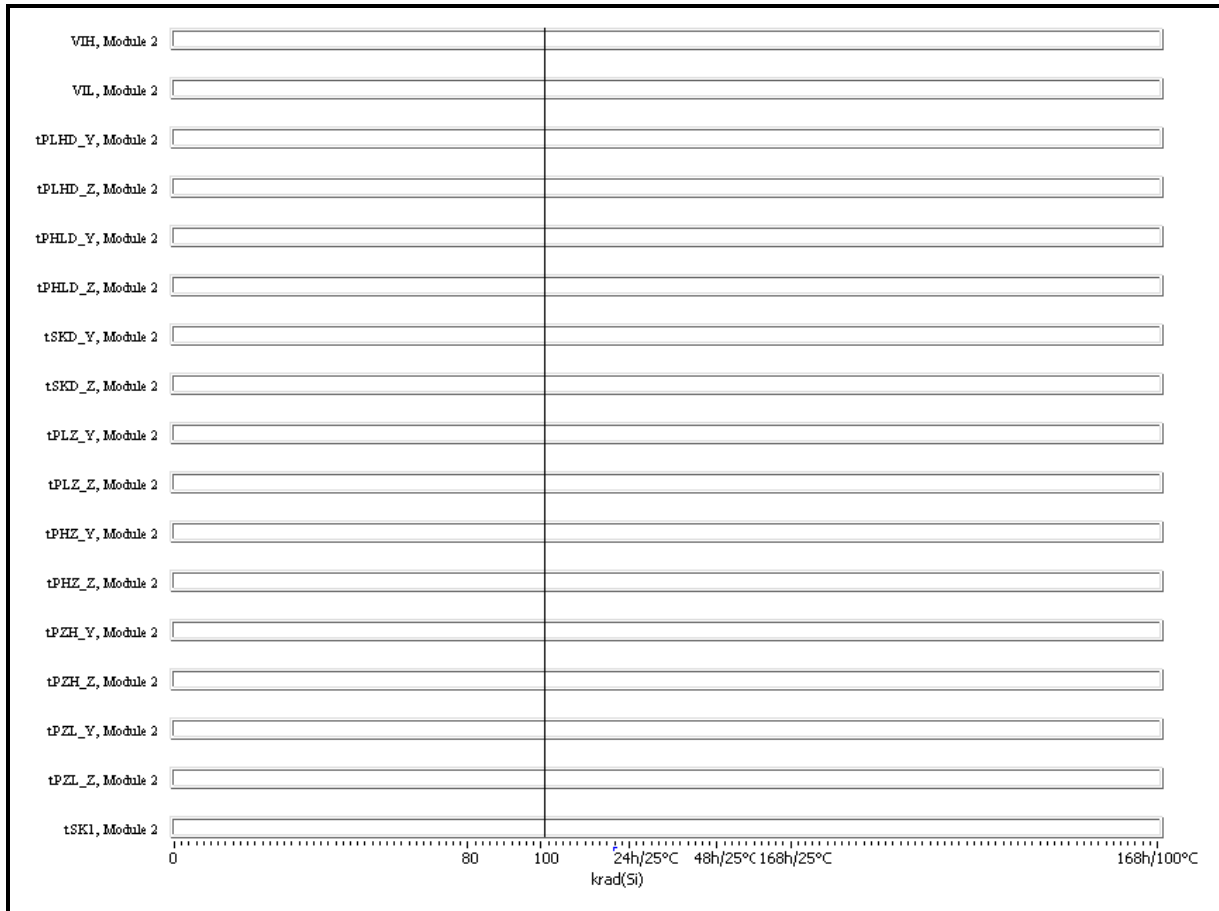
Within specification



Transition



Out of specification parameter or parameter not measurable



Within specification

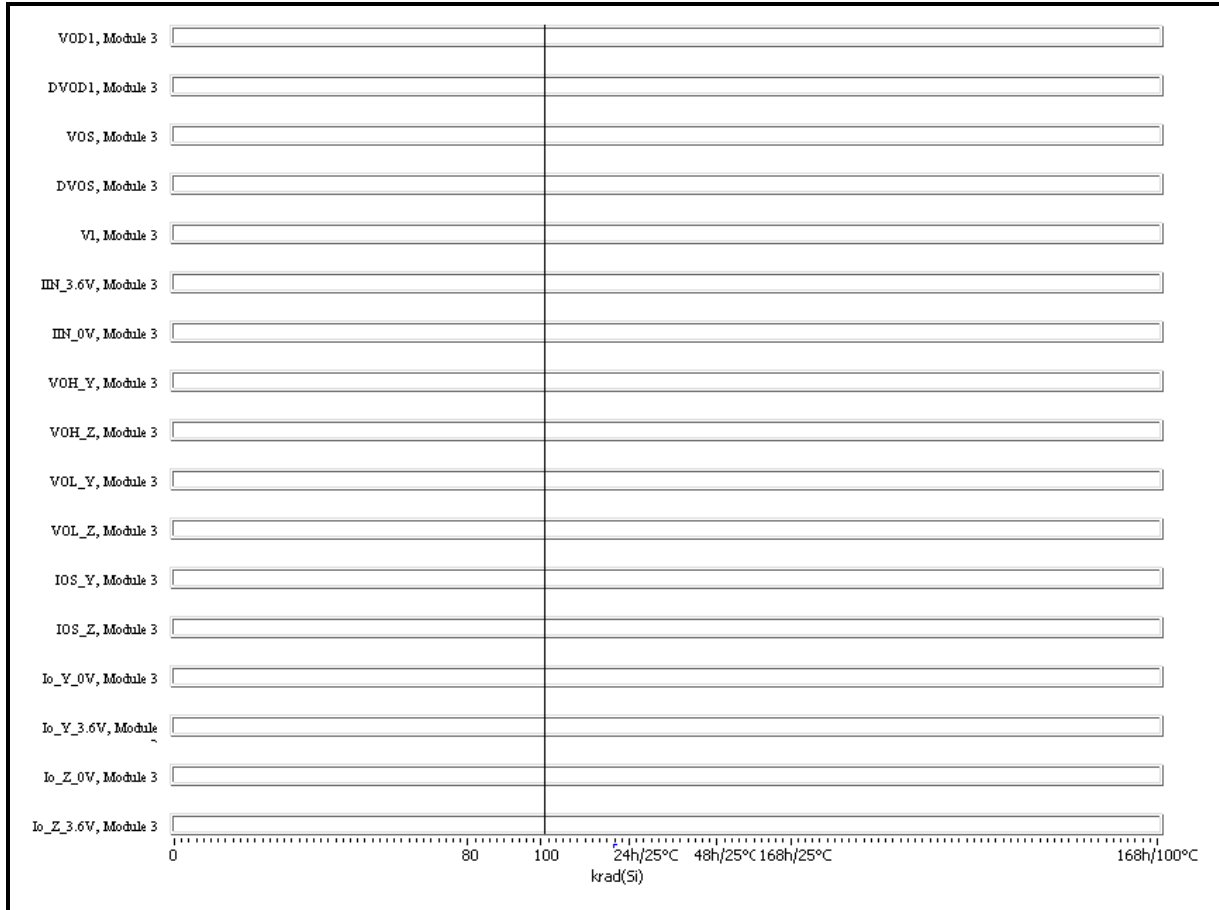


Transition



Out of specification parameter or parameter not measurable

**10.6.4. Module 3**



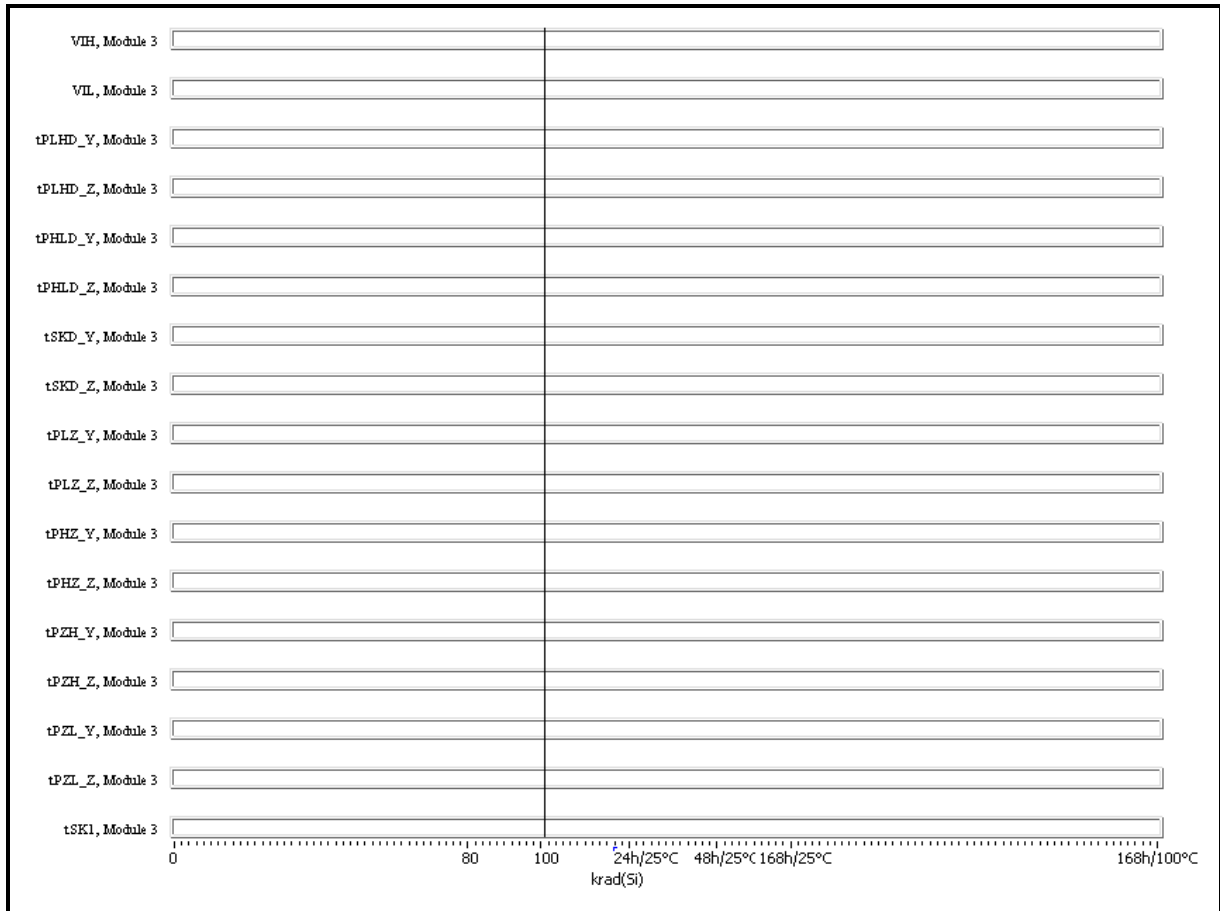
Within specification



Transition



Out of specification parameter or parameter not measurable



Within specification



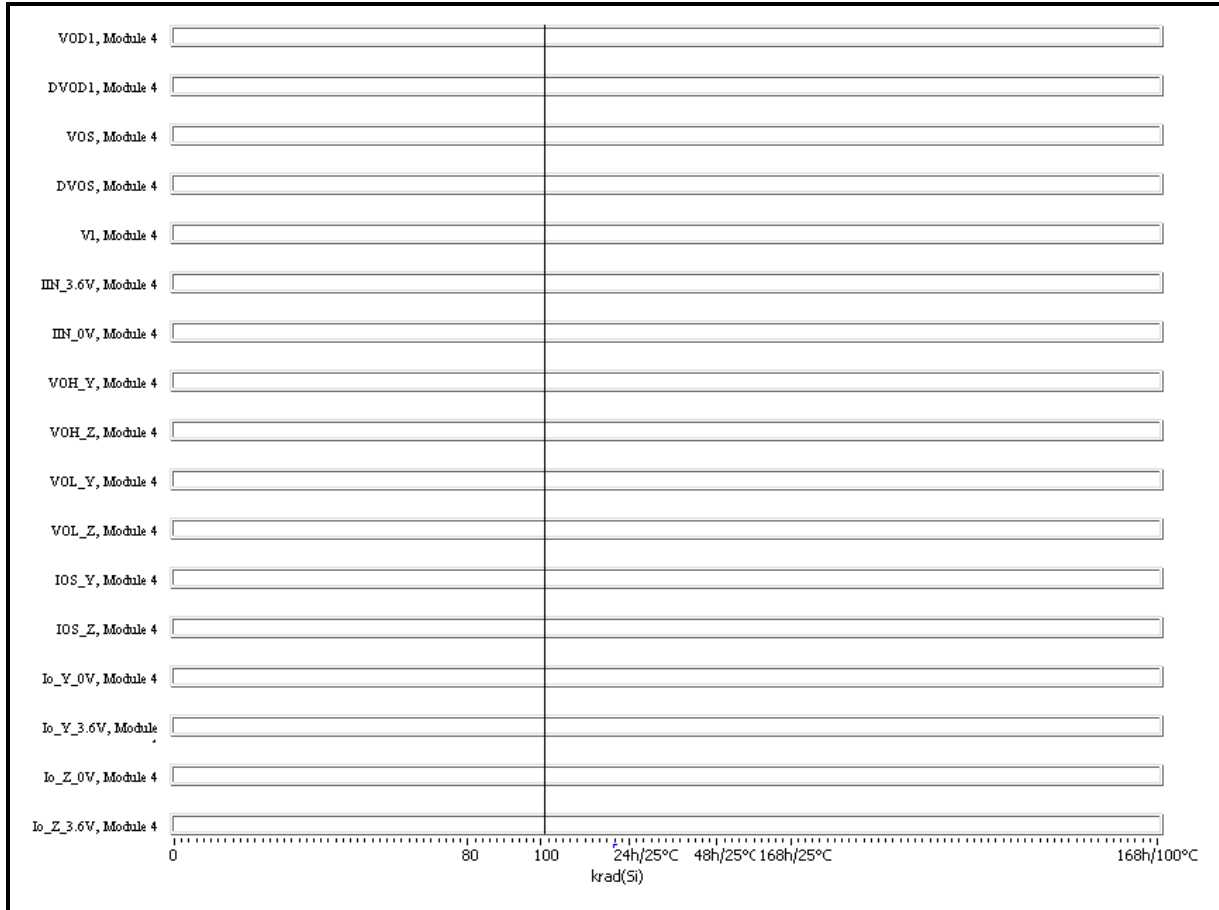
Transition



Out of specification parameter or parameter not measurable



**10.6.5. Module 4**



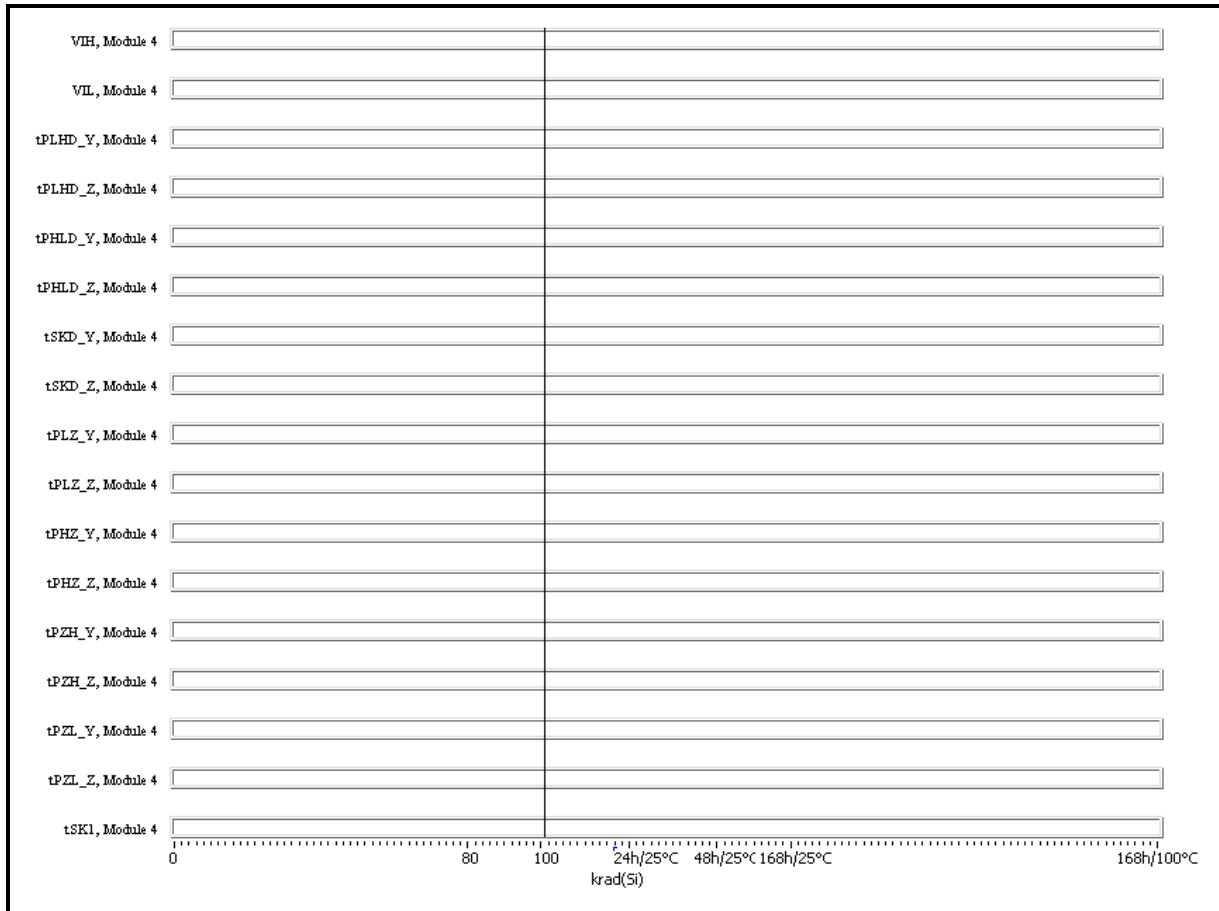
Within specification



Transition



Out of specification parameter or parameter not measurable




Within specification



Transition



Out of specification parameter or parameter not measurable


	<b>TOTAL IRRADIATION DOSE TEST REPORT</b>  <b>RHRLVDS31 (DC0804A)</b>	Ref: TRAD/TE/RHRLVDS31/0804/STM/LP/0804 Date: May 21st, 2008  Rev: 0
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## 11. Conclusion

Total dose steady-state irradiation test using gamma rays from Cobalt 60 source has been carried out on 20 **RHRLVDS31**, a **High speed differential line drivers** from **ST Microelectronics** up to 60 krad(Si) at high dose rate (17 krad(Si)/h) for the group 1 and up to 100krad(Si) at high dose rate (22krad(Si)/h) for the group 2.

Final test results are :

All devices are functional up to total dose level.

	<b>TOTAL IRRADIATION DOSE TEST REPORT</b>  <b>RHRLVDS31 (DC0804A)</b>	Ref: TRAD/TE/RHRLVDS31/0804/STM/LP/0804 Date: May 21st, 2008  Rev: 0
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## 12. Appendix 1 Tests Results : Group 1



**TOTAL IRRADIATION DOSE  
TEST REPORT**

Ref: TRAD/TE/RHRLVDS31/0804/STM/LP/0804

Date: May 21st, 2008

**RHRLVDS31 (DC0804A)**

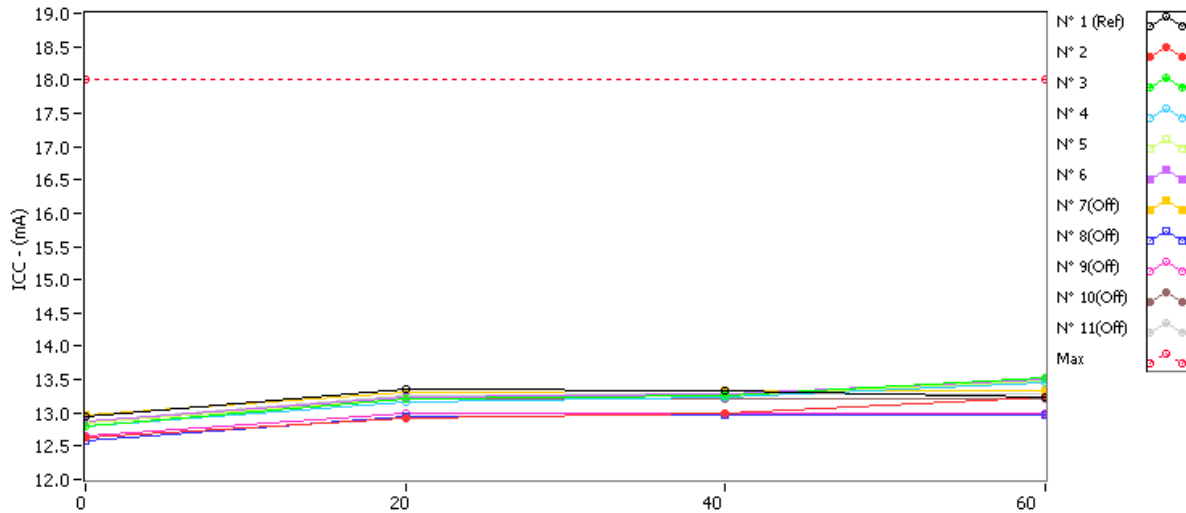
Rev: 0

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19 Io_Z_3.6V, Module 4	.....	A1-20

# 1. ICC

"Din = VCC or GND"



**ICC . (mA)**

**Max = 18.0**

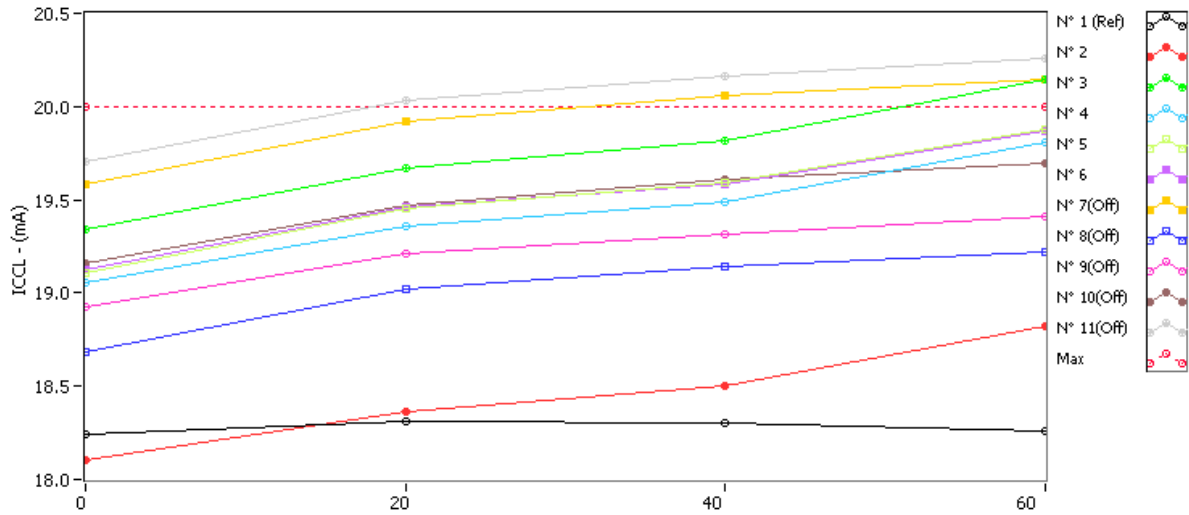
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	12.948	13.354	13.336	13.229
N° 2	12.627	12.927	12.989	13.234
N° 3	12.805	13.208	13.271	13.528
N° 4	12.795	13.165	13.225	13.462
N° 5	12.851	13.206	13.250	13.479
N° 6	12.865	13.244	13.291	13.509
N° 7(Off)	12.968	13.311	13.325	13.326
N° 8(Off)	12.571	12.952	12.965	12.961
N° 9(Off)	12.666	12.996	12.988	12.988
N° 10(Off)	12.854	13.212	13.218	13.220
N° 11(Off)	12.884	13.267	13.272	13.286

**Delta [ICC]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	4.060E-1	3.880E-1	2.810E-1
N° 2	---	3.000E-1	3.620E-1	6.070E-1
N° 3	---	4.030E-1	4.660E-1	7.230E-1
N° 4	---	3.700E-1	4.300E-1	6.670E-1
N° 5	---	3.550E-1	3.990E-1	6.280E-1
N° 6	---	3.790E-1	4.260E-1	6.440E-1
N° 7(Off)	---	3.430E-1	3.570E-1	3.580E-1
N° 8(Off)	---	3.810E-1	3.940E-1	3.900E-1
N° 9(Off)	---	3.300E-1	3.220E-1	3.220E-1
N° 10(Off)	---	3.580E-1	3.640E-1	3.660E-1
N° 11(Off)	---	3.830E-1	3.880E-1	4.020E-1
Average	---	3.614E-1	4.166E-1	6.538E-1
s	---	3.849E-2	3.873E-2	4.448E-2
Average+3s	---	4.769E-1	5.328E-1	7.872E-1
Average-3s	---	2.459E-1	3.004E-1	5.204E-1

## 2. ICCL

"RL = 100Ohms all channels, Din = VCC or GND all inputs"



ICCL . (mA)

Max = 20.0

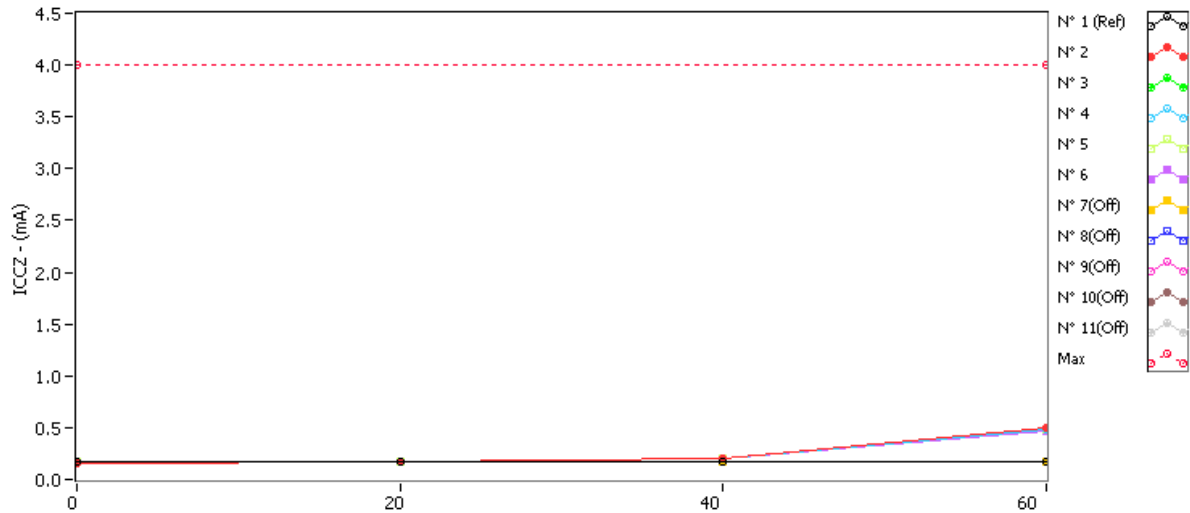
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	18.243	18.309	18.303	18.263
N° 2	18.100	18.366	18.502	18.824
N° 3	19.337	19.670	19.819	20.145
N° 4	19.052	19.362	19.492	19.808
N° 5	19.111	19.454	19.596	19.880
N° 6	19.124	19.464	19.582	19.865
N° 7(Off)	19.581	19.917	20.055	20.145
N° 8(Off)	18.685	19.021	19.146	19.218
N° 9(Off)	18.929	19.214	19.319	19.412
N° 10(Off)	19.155	19.469	19.606	19.698
N° 11(Off)	19.700	20.031	20.161	20.262

Delta [ICCL]

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	6.600E-2	6.000E-2	2.000E-2
N° 2	---	2.660E-1	4.020E-1	7.240E-1
N° 3	---	3.330E-1	4.820E-1	8.080E-1
N° 4	---	3.100E-1	4.400E-1	7.560E-1
N° 5	---	3.430E-1	4.850E-1	7.690E-1
N° 6	---	3.400E-1	4.580E-1	7.410E-1
N° 7(Off)	---	3.360E-1	4.740E-1	5.640E-1
N° 8(Off)	---	3.360E-1	4.610E-1	5.330E-1
N° 9(Off)	---	2.850E-1	3.900E-1	4.830E-1
N° 10(Off)	---	3.140E-1	4.510E-1	5.430E-1
N° 11(Off)	---	3.310E-1	4.610E-1	5.620E-1
Average	---	3.184E-1	4.534E-1	7.596E-1
s	---	3.202E-2	3.413E-2	3.185E-2
Average+3s	---	4.145E-1	5.558E-1	8.551E-1
Average-3s	---	2.223E-1	3.510E-1	6.641E-1

### 3. ICCZ

"Din = VCC or GND, EN = GND, EN! = VCC"



ICCZ . (mA)

Max = 4.0

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	0.176	0.177	0.177	0.177
N° 2	0.162	0.165	0.198	0.504
N° 3	0.168	0.170	0.203	0.493
N° 4	0.169	0.171	0.205	0.490
N° 5	0.167	0.170	0.200	0.486
N° 6	0.167	0.170	0.195	0.463
N° 7(Off)	0.170	0.172	0.173	0.174
N° 8(Off)	0.166	0.168	0.169	0.170
N° 9(Off)	0.166	0.169	0.170	0.170
N° 10(Off)	0.168	0.171	0.172	0.173
N° 11(Off)	0.173	0.176	0.177	0.178

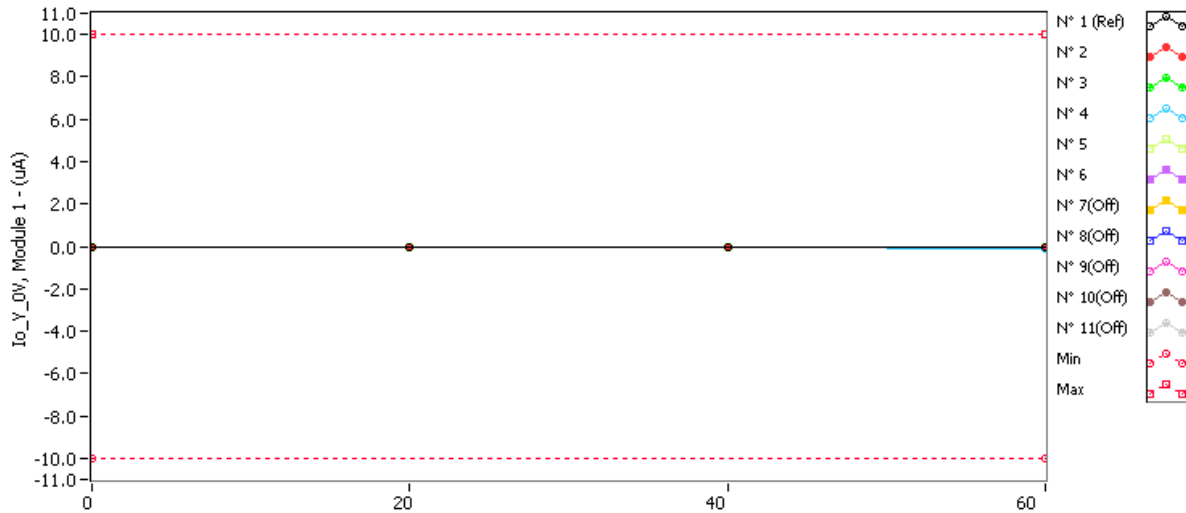
Delta [ICCZ]

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	1.000E-3	1.000E-3	1.000E-3
N° 2	---	3.000E-3	3.600E-2	3.420E-1
N° 3	---	2.000E-3	3.500E-2	3.250E-1
N° 4	---	2.000E-3	3.600E-2	3.210E-1
N° 5	---	3.000E-3	3.300E-2	3.190E-1
N° 6	---	3.000E-3	2.800E-2	2.960E-1
N° 7(Off)	---	2.000E-3	3.000E-3	4.000E-3
N° 8(Off)	---	2.000E-3	3.000E-3	4.000E-3
N° 9(Off)	---	3.000E-3	4.000E-3	4.000E-3
N° 10(Off)	---	3.000E-3	4.000E-3	5.000E-3
N° 11(Off)	---	3.000E-3	4.000E-3	5.000E-3
Average	---	2.600E-3	3.360E-2	3.206E-1
s	---	5.477E-4	3.362E-3	1.647E-2
Average+3s	---	4.243E-3	4.368E-2	3.700E-1
Average-3s	---	9.568E-4	2.352E-2	2.712E-1



## 4. Io\_Y\_0V, Module 1

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Y\_0V, Module 1 . (uA)**

**Min = -10.0 Max = 10.0**

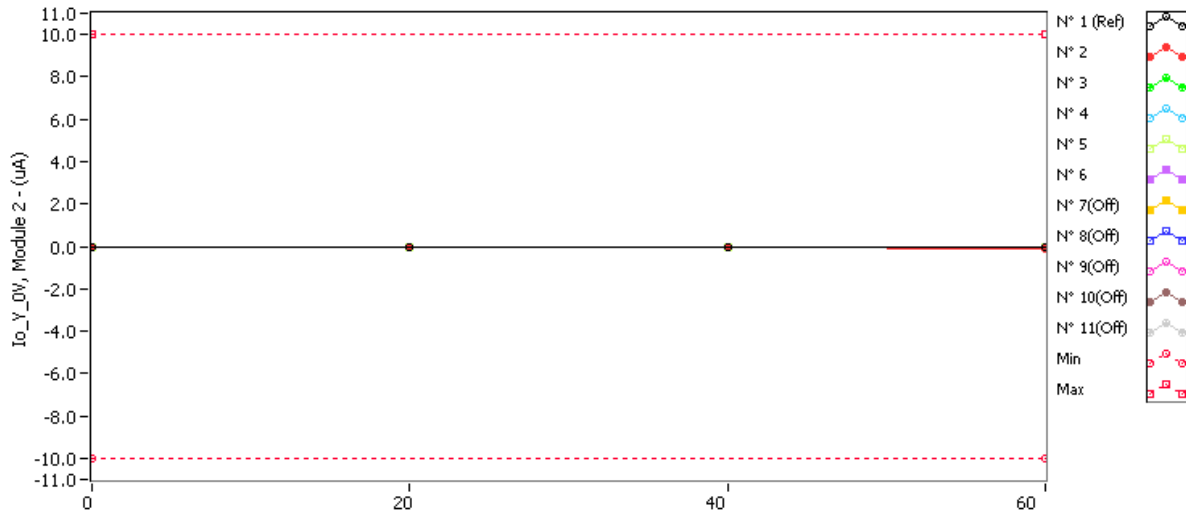
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	-0.000099	-0.000092	-0.000094	-0.000100
N° 2	-0.000096	-0.000094	-0.000152	-0.013639
N° 3	-0.000103	-0.000102	-0.000803	-0.058289
N° 4	-0.000104	-0.000099	-0.001626	-0.117693
N° 5	-0.000098	-0.000094	-0.000217	-0.066117
N° 6	-0.000099	-0.000089	-0.000116	-0.029460
N° 7(Off)	-0.000094	-0.000093	-0.000094	-0.000093
N° 8(Off)	-0.000100	-0.000092	-0.000091	-0.000094
N° 9(Off)	-0.000105	-0.000101	-0.000098	-0.000101
N° 10(Off)	-0.000096	-0.000094	-0.000090	-0.000097
N° 11(Off)	-0.000093	-0.000092	-0.000091	-0.000092

**Delta [Io\_Y\_0V, Module 1]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	7.000E-6	5.000E-6	-1.000E-6
N° 2	---	2.000E-6	-5.600E-5	-1.354E-2
N° 3	---	1.000E-6	-7.000E-4	-5.819E-2
N° 4	---	5.000E-6	-1.522E-3	-1.176E-1
N° 5	---	4.000E-6	-1.190E-4	-6.602E-2
N° 6	---	1.000E-5	-1.700E-5	-2.936E-2
N° 7(Off)	---	1.000E-6	0.000E+0	1.000E-6
N° 8(Off)	---	8.000E-6	9.000E-6	6.000E-6
N° 9(Off)	---	4.000E-6	7.000E-6	4.000E-6
N° 10(Off)	---	2.000E-6	6.000E-6	-1.000E-6
N° 11(Off)	---	1.000E-6	2.000E-6	1.000E-6
Average	---	4.400E-6	-4.828E-4	-5.694E-2
s	---	3.507E-6	6.439E-4	4.002E-2
Average+3s	---	1.492E-5	1.449E-3	6.312E-2
Average-3s	---	-6.121E-6	-2.415E-3	-1.770E-1

## 5. Io\_Y\_0V, Module 2

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Y\_0V, Module 2 . (uA)**

**Min = -10.0 Max = 10.0**

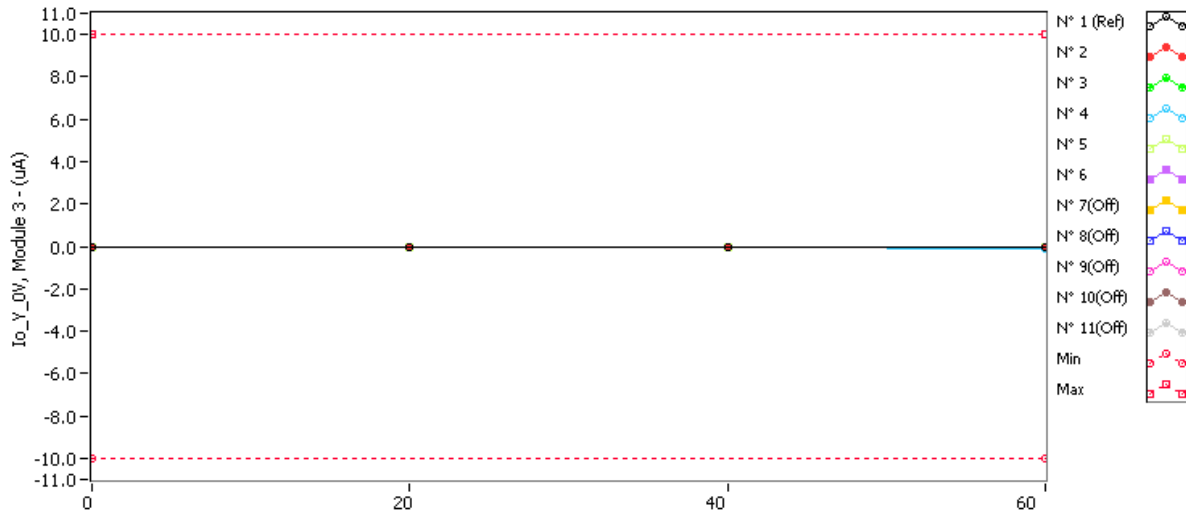
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	-0.000113	-0.000099	-0.000098	-0.000102
N° 2	-0.000091	-0.000098	-0.002344	-0.115719
N° 3	-0.000098	-0.000095	-0.000296	-0.034295
N° 4	-0.000096	-0.000098	-0.000100	-0.011918
N° 5	-0.000104	-0.000095	-0.000591	-0.068596
N° 6	-0.000099	-0.000093	-0.000150	-0.047240
N° 7(Off)	-0.000101	-0.000097	-0.000097	-0.000092
N° 8(Off)	-0.000104	-0.000097	-0.000103	-0.000079
N° 9(Off)	-0.000094	-0.000091	-0.000091	-0.000093
N° 10(Off)	-0.000115	-0.000108	-0.000102	-0.000108
N° 11(Off)	-0.000104	-0.000098	-0.000096	-0.000100

**Delta [Io\_Y\_0V, Module 2]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	1.400E-5	1.500E-5	1.100E-5
N° 2	---	-7.000E-6	-2.253E-3	-1.156E-1
N° 3	---	3.000E-6	-1.980E-4	-3.420E-2
N° 4	---	-2.000E-6	-4.000E-6	-1.182E-2
N° 5	---	9.000E-6	-4.870E-4	-6.849E-2
N° 6	---	6.000E-6	-5.100E-5	-4.714E-2
N° 7(Off)	---	4.000E-6	4.000E-6	9.000E-6
N° 8(Off)	---	7.000E-6	1.000E-6	2.500E-5
N° 9(Off)	---	3.000E-6	3.000E-6	1.000E-6
N° 10(Off)	---	7.000E-6	1.300E-5	7.000E-6
N° 11(Off)	---	6.000E-6	8.000E-6	4.000E-6
Average	---	1.800E-6	-5.986E-4	-5.546E-2
s	---	6.380E-6	9.438E-4	3.942E-2
Average+3s	---	2.094E-5	2.233E-3	6.280E-2
Average-3s	---	-1.734E-5	-3.430E-3	-1.737E-1

## 6. Io\_Y\_0V, Module 3

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Y\_0V, Module 3 . (uA)**

**Min = -10.0 Max = 10.0**

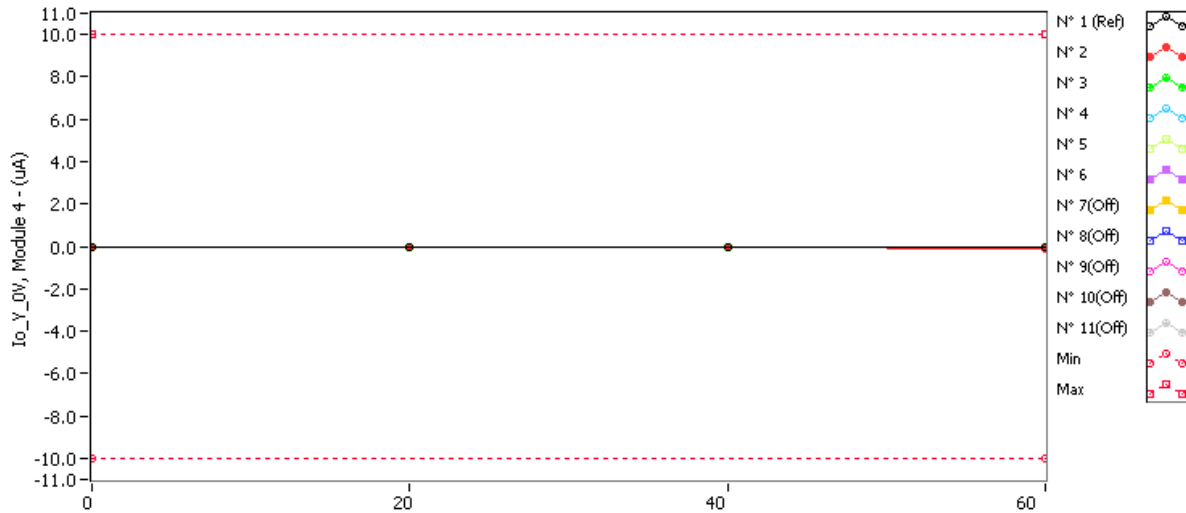
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	-0.000118	-0.000094	-0.000097	-0.000099
N° 2	-0.000101	-0.000092	-0.000252	-0.014511
N° 3	-0.000097	-0.000073	-0.000748	-0.042427
N° 4	-0.000109	-0.000096	-0.005384	-0.091409
N° 5	-0.000111	-0.000101	-0.000110	-0.011771
N° 6	-0.000103	-0.000091	-0.000250	-0.016746
N° 7(Off)	-0.000108	-0.000102	-0.000102	-0.000104
N° 8(Off)	-0.000101	-0.000095	-0.000094	-0.000093
N° 9(Off)	-0.000104	-0.000091	-0.000093	-0.000094
N° 10(Off)	-0.000106	-0.000097	-0.000091	-0.000091
N° 11(Off)	-0.000119	-0.000097	-0.000099	-0.000099

**Delta [Io\_Y\_0V, Module 3]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	2.400E-5	2.100E-5	1.900E-5
N° 2	---	9.000E-6	-1.510E-4	-1.441E-2
N° 3	---	2.400E-5	-6.510E-4	-4.233E-2
N° 4	---	1.300E-5	-5.275E-3	-9.130E-2
N° 5	---	1.000E-5	1.000E-6	-1.166E-2
N° 6	---	1.200E-5	-1.470E-4	-1.664E-2
N° 7(Off)	---	6.000E-6	6.000E-6	4.000E-6
N° 8(Off)	---	6.000E-6	7.000E-6	8.000E-6
N° 9(Off)	---	1.300E-5	1.100E-5	1.000E-5
N° 10(Off)	---	9.000E-6	1.500E-5	1.500E-5
N° 11(Off)	---	2.200E-5	2.000E-5	2.000E-5
Average	---	1.360E-5	-1.245E-3	-3.527E-2
s	---	6.025E-6	2.267E-3	3.365E-2
Average+3s	---	3.167E-5	5.555E-3	6.568E-2
Average-3s	---	-4.475E-6	-8.044E-3	-1.362E-1

## 7. Io\_Y\_0V, Module 4

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Y\_0V, Module 4 . (uA)**

**Min = -10.0 Max = 10.0**

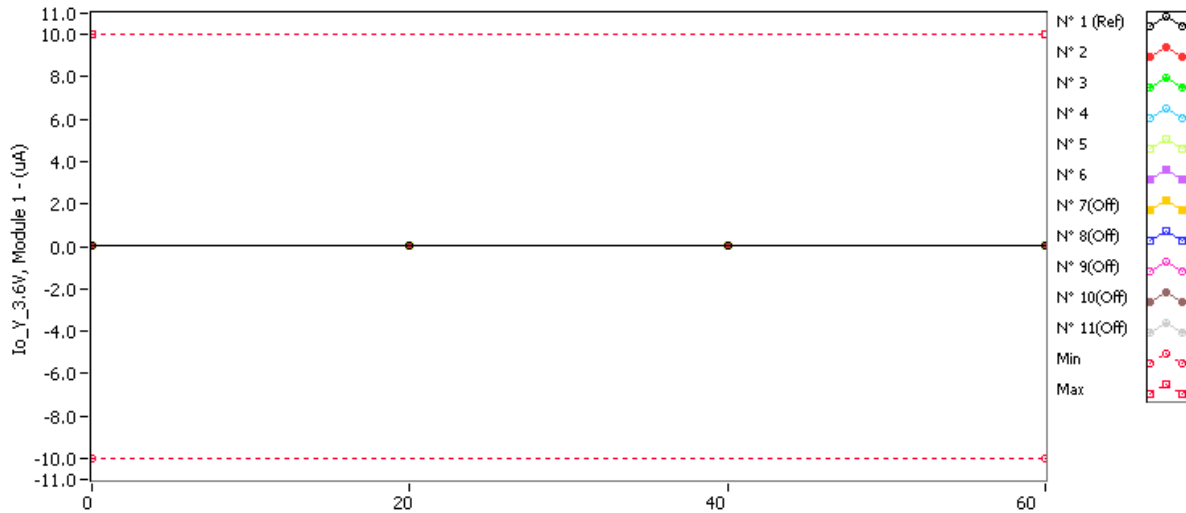
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	-0.000128	-0.000114	-0.000107	-0.000112
N° 2	-0.000098	-0.000090	-0.000411	-0.084586
N° 3	-0.000101	-0.000096	-0.001993	-0.079315
N° 4	-0.000104	-0.000092	-0.000105	-0.015456
N° 5	-0.000102	-0.000096	-0.001640	-0.041709
N° 6	-0.000096	-0.000092	-0.000133	-0.013371
N° 7(Off)	-0.000103	-0.000089	-0.000091	-0.000090
N° 8(Off)	-0.000110	-0.000093	-0.000095	-0.000098
N° 9(Off)	-0.000104	-0.000093	-0.000094	-0.000092
N° 10(Off)	-0.000106	-0.000097	-0.000096	-0.000091
N° 11(Off)	-0.000114	-0.000128	-0.000131	-0.000131

**Delta [Io\_Y\_0V, Module 4]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	1.400E-5	2.100E-5	1.600E-5
N° 2	---	8.000E-6	-3.130E-4	-8.449E-2
N° 3	---	5.000E-6	-1.892E-3	-7.921E-2
N° 4	---	1.200E-5	-1.000E-6	-1.535E-2
N° 5	---	6.000E-6	-1.538E-3	-4.161E-2
N° 6	---	4.000E-6	-3.700E-5	-1.327E-2
N° 7(Off)	---	1.400E-5	1.200E-5	1.300E-5
N° 8(Off)	---	1.700E-5	1.500E-5	1.200E-5
N° 9(Off)	---	1.100E-5	1.000E-5	1.200E-5
N° 10(Off)	---	9.000E-6	1.000E-5	1.500E-5
N° 11(Off)	---	-1.400E-5	-1.700E-5	-1.700E-5
Average	---	7.000E-6	-7.562E-4	-4.679E-2
s	---	3.162E-6	8.924E-4	3.395E-2
Average+3s	---	1.649E-5	1.921E-3	5.507E-2
Average-3s	---	-2.487E-6	-3.433E-3	-1.486E-1

## 8. Io\_Y\_3.6V, Module 1

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Y\_3.6V, Module 1 . (uA) Min = -10.0 Max = 10.0**

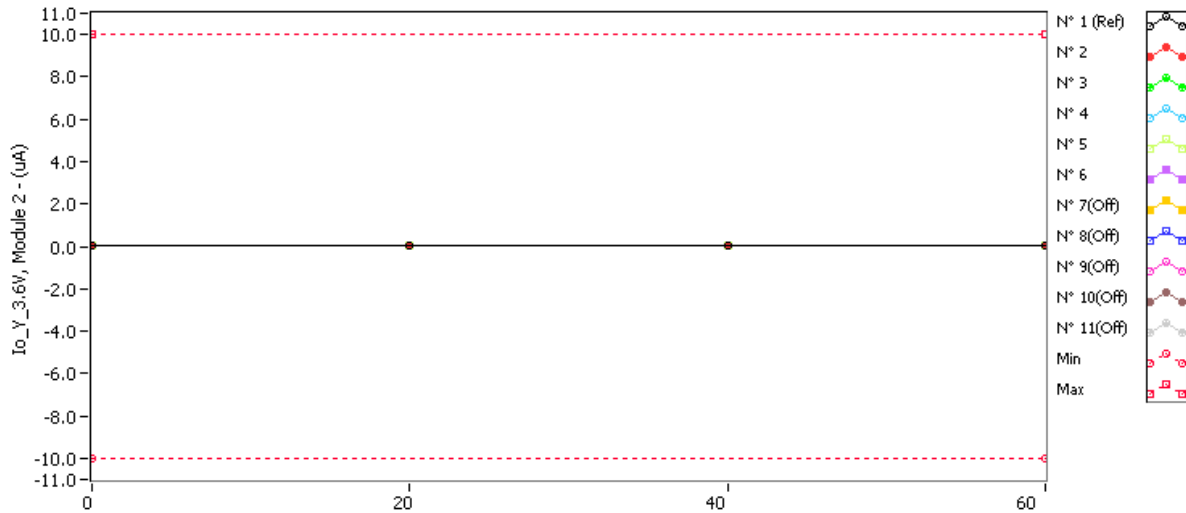
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	0.000137	0.000072	0.000073	0.000087
N° 2	0.000095	0.000066	0.000068	0.000127
N° 3	0.000140	0.000104	0.000091	0.000155
N° 4	0.000106	0.000065	0.000066	0.000355
N° 5	0.000093	0.000063	0.000067	0.000165
N° 6	0.000093	0.000051	0.000053	0.000104
N° 7(Off)	0.000093	0.000054	0.000058	0.000060
N° 8(Off)	0.000124	0.000078	0.000080	0.000086
N° 9(Off)	0.000108	0.000076	0.000078	0.000082
N° 10(Off)	0.000126	0.000080	0.000084	0.000088
N° 11(Off)	0.000194	0.000124	0.000131	0.000135

**Delta [Io\_Y\_3.6V, Module 1]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	-6.500E-5	-6.400E-5	-5.000E-5
N° 2	---	-2.900E-5	-2.700E-5	3.200E-5
N° 3	---	-3.600E-5	-4.900E-5	1.500E-5
N° 4	---	-4.100E-5	-4.000E-5	2.490E-4
N° 5	---	-3.000E-5	-2.600E-5	7.200E-5
N° 6	---	-4.200E-5	-4.000E-5	1.100E-5
N° 7(Off)	---	-3.900E-5	-3.500E-5	-3.300E-5
N° 8(Off)	---	-4.600E-5	-4.400E-5	-3.800E-5
N° 9(Off)	---	-3.200E-5	-3.000E-5	-2.600E-5
N° 10(Off)	---	-4.600E-5	-4.200E-5	-3.800E-5
N° 11(Off)	---	-7.000E-5	-6.300E-5	-5.900E-5
Average	---	-3.560E-5	-3.640E-5	7.580E-5
s	---	6.025E-6	9.762E-6	9.978E-5
Average+3s	---	-1.753E-5	-7.113E-6	3.751E-4
Average-3s	---	-5.367E-5	-6.569E-5	-2.235E-4

## 9. Io\_Y\_3.6V, Module 2

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Y\_3.6V, Module 2 . (uA) Min = -10.0 Max = 10.0**

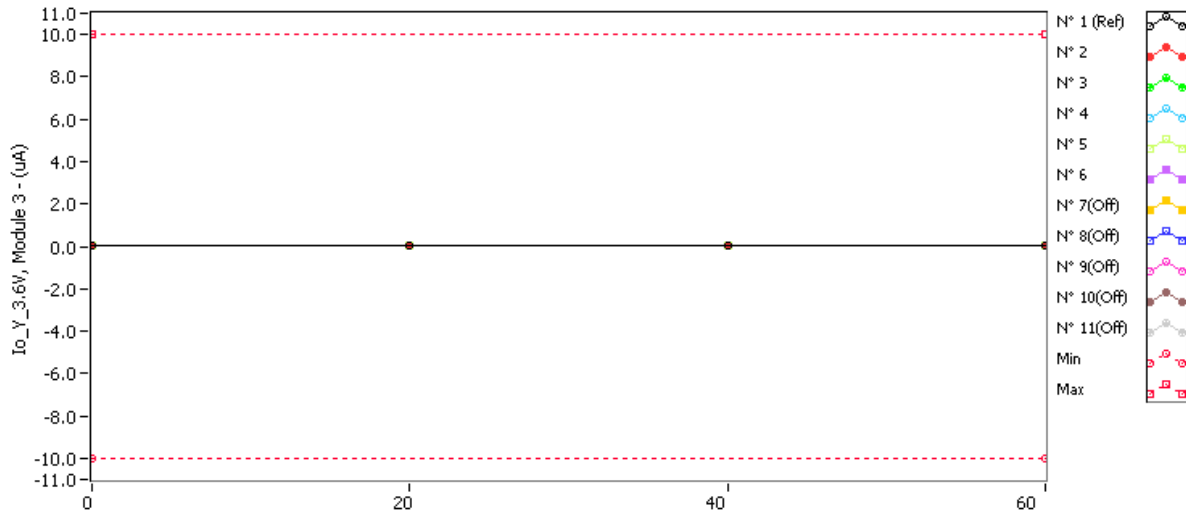
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	0.000157	0.000080	0.000081	0.000095
N° 2	0.000094	0.000064	0.000065	0.000347
N° 3	0.000153	0.000101	0.000097	0.000169
N° 4	0.000109	0.000066	0.000067	0.000126
N° 5	0.000102	0.000065	0.000071	0.000173
N° 6	0.000093	0.000051	0.000053	0.000103
N° 7(Off)	0.000099	0.000055	0.000065	0.000061
N° 8(Off)	0.000126	0.000072	0.000078	0.000085
N° 9(Off)	0.000109	0.000071	0.000076	0.000082
N° 10(Off)	0.000128	0.000081	0.000083	0.000088
N° 11(Off)	0.000164	0.000103	0.000110	0.000113

**Delta [Io\_Y\_3.6V, Module 2]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	-7.700E-5	-7.600E-5	-6.200E-5
N° 2	---	-3.000E-5	-2.900E-5	2.530E-4
N° 3	---	-5.200E-5	-5.600E-5	1.600E-5
N° 4	---	-4.300E-5	-4.200E-5	1.700E-5
N° 5	---	-3.700E-5	-3.100E-5	7.100E-5
N° 6	---	-4.200E-5	-4.000E-5	1.000E-5
N° 7(Off)	---	-4.400E-5	-3.400E-5	-3.800E-5
N° 8(Off)	---	-5.400E-5	-4.800E-5	-4.100E-5
N° 9(Off)	---	-3.800E-5	-3.300E-5	-2.700E-5
N° 10(Off)	---	-4.700E-5	-4.500E-5	-4.000E-5
N° 11(Off)	---	-6.100E-5	-5.400E-5	-5.100E-5
Average	---	-4.080E-5	-3.960E-5	7.340E-5
s	---	8.106E-6	1.074E-5	1.034E-4
Average+3s	---	-1.648E-5	-7.387E-6	3.836E-4
Average-3s	---	-6.512E-5	-7.181E-5	-2.368E-4

## 10. Io\_Y\_3.6V, Module 3

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Y\_3.6V, Module 3 . (uA) Min = -10.0 Max = 10.0**

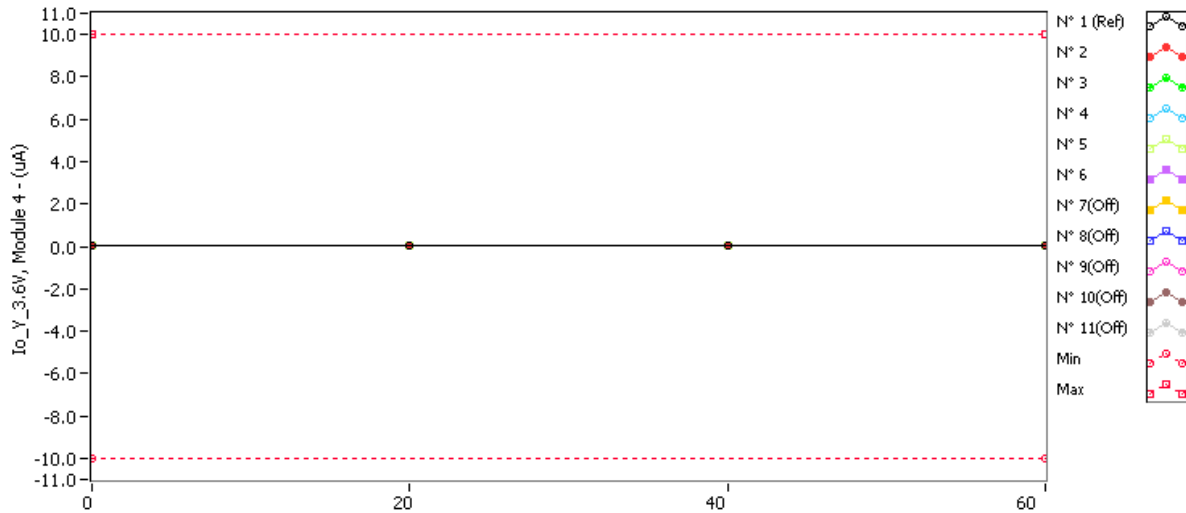
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	0.000133	0.000067	0.000068	0.000080
N° 2	0.000089	0.000056	0.000063	0.000112
N° 3	0.000113	0.000075	0.000073	0.000129
N° 4	0.000107	0.000064	0.000065	0.000115
N° 5	0.000095	0.000063	0.000067	0.000147
N° 6	0.000097	0.000051	0.000054	0.000087
N° 7(Off)	0.000092	0.000054	0.000056	0.000060
N° 8(Off)	0.000120	0.000077	0.000080	0.000085
N° 9(Off)	0.000106	0.000071	0.000075	0.000079
N° 10(Off)	0.000118	0.000073	0.000077	0.000085
N° 11(Off)	0.000147	0.000086	0.000092	0.000093

**Delta [Io\_Y\_3.6V, Module 3]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	-6.600E-5	-6.500E-5	-5.300E-5
N° 2	---	-3.300E-5	-2.600E-5	2.300E-5
N° 3	---	-3.800E-5	-4.000E-5	1.600E-5
N° 4	---	-4.300E-5	-4.200E-5	8.000E-6
N° 5	---	-3.200E-5	-2.800E-5	5.200E-5
N° 6	---	-4.600E-5	-4.300E-5	-1.000E-5
N° 7(Off)	---	-3.800E-5	-3.600E-5	-3.200E-5
N° 8(Off)	---	-4.300E-5	-4.000E-5	-3.500E-5
N° 9(Off)	---	-3.500E-5	-3.100E-5	-2.700E-5
N° 10(Off)	---	-4.500E-5	-4.100E-5	-3.300E-5
N° 11(Off)	---	-6.100E-5	-5.500E-5	-5.400E-5
Average	---	-3.840E-5	-3.580E-5	1.780E-5
s	---	6.107E-6	8.136E-6	2.274E-5
Average+3s	---	-2.008E-5	-1.139E-5	8.603E-5
Average-3s	---	-5.672E-5	-6.021E-5	-5.043E-5

## 11. Io\_Y\_3.6V, Module 4

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Y\_3.6V, Module 4 . (uA) Min = -10.0 Max = 10.0**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	0.000132	0.000071	0.000069	0.000078
N° 2	0.000104	0.000071	0.000072	0.000128
N° 3	0.000116	0.000075	0.000075	0.000129
N° 4	0.000101	0.000061	0.000062	0.000119
N° 5	0.000098	0.000064	0.000068	0.000140
N° 6	0.000086	0.000051	0.000053	0.000083
N° 7(Off)	0.000098	0.000057	0.000059	0.000063
N° 8(Off)	0.000126	0.000080	0.000082	0.000084
N° 9(Off)	0.000109	0.000075	0.000079	0.000083
N° 10(Off)	0.000116	0.000075	0.000077	0.000081
N° 11(Off)	0.000130	0.000083	0.000087	0.000089

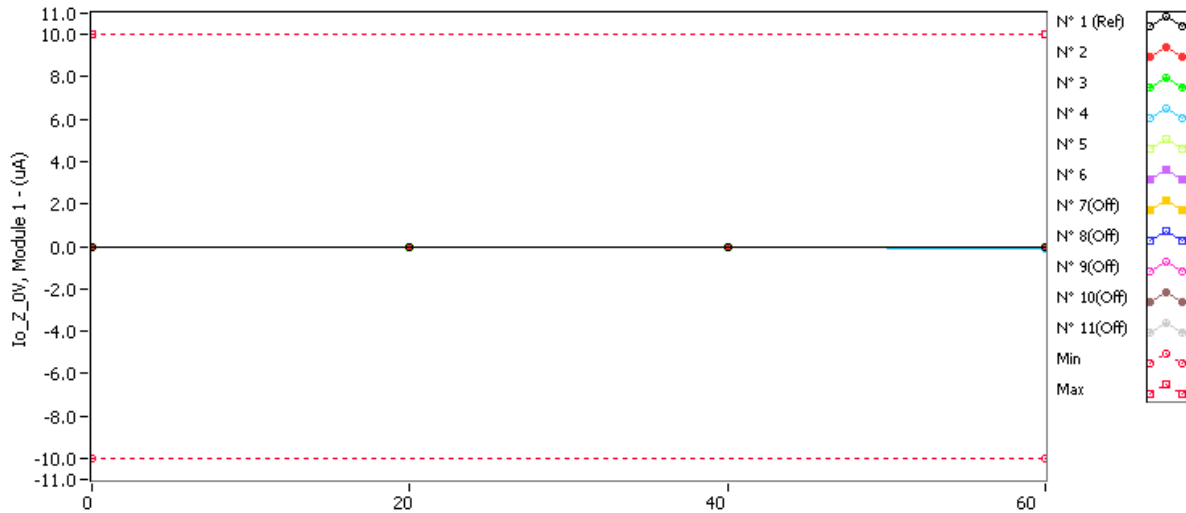
**Delta [Io\_Y\_3.6V, Module 4]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	-6.100E-5	-6.300E-5	-5.400E-5
N° 2	---	-3.300E-5	-3.200E-5	2.400E-5
N° 3	---	-4.100E-5	-4.100E-5	1.300E-5
N° 4	---	-4.000E-5	-3.900E-5	1.800E-5
N° 5	---	-3.400E-5	-3.000E-5	4.200E-5
N° 6	---	-3.500E-5	-3.300E-5	-3.000E-6
N° 7(Off)	---	-4.100E-5	-3.900E-5	-3.500E-5
N° 8(Off)	---	-4.600E-5	-4.400E-5	-4.200E-5
N° 9(Off)	---	-3.400E-5	-3.000E-5	-2.600E-5
N° 10(Off)	---	-4.100E-5	-3.900E-5	-3.500E-5
N° 11(Off)	---	-4.700E-5	-4.300E-5	-4.100E-5
Average	---	-3.660E-5	-3.500E-5	1.880E-5
s	---	3.647E-6	4.743E-6	1.639E-5
Average+3s	---	-2.566E-5	-2.077E-5	6.798E-5
Average-3s	---	-4.754E-5	-4.923E-5	-3.038E-5



## 12. Io\_Z\_0V, Module 1

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Z\_0V, Module 1 . (uA)**

**Min = -10.0 Max = 10.0**

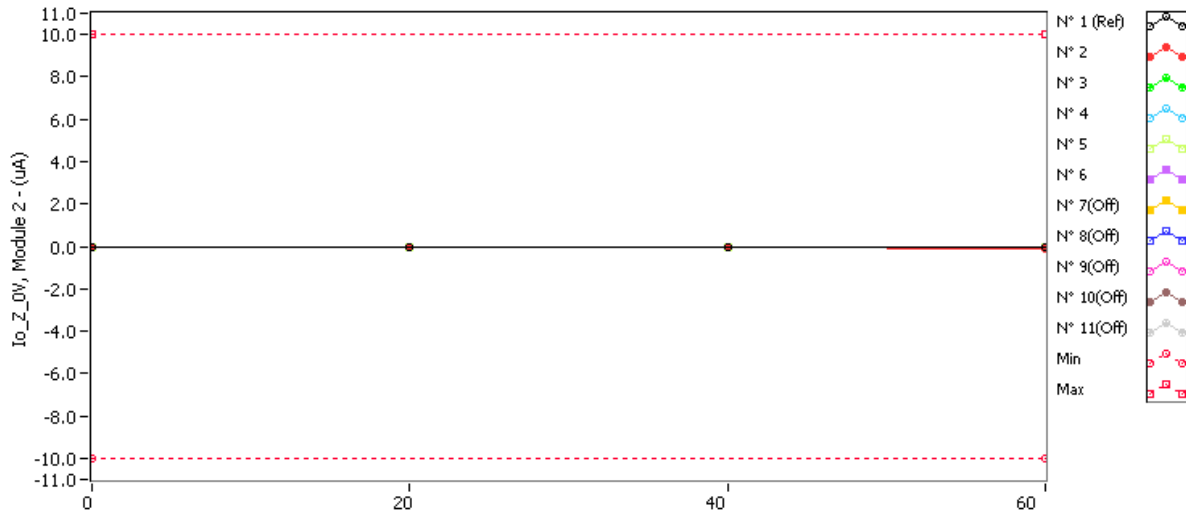
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	-0.000048	-0.000040	-0.000041	-0.000044
N° 2	-0.000039	-0.000039	-0.000118	-0.013652
N° 3	-0.000048	-0.000027	-0.000817	-0.059166
N° 4	-0.000046	-0.000039	-0.001640	-0.118325
N° 5	-0.000047	-0.000044	-0.000207	-0.067091
N° 6	-0.000043	-0.000033	-0.000078	-0.029874
N° 7(Off)	-0.000045	-0.000035	-0.000039	-0.000039
N° 8(Off)	-0.000049	-0.000042	-0.000042	-0.000042
N° 9(Off)	-0.000048	-0.000042	-0.000042	-0.000043
N° 10(Off)	-0.000046	-0.000040	-0.000041	-0.000038
N° 11(Off)	-0.000053	-0.000043	-0.000043	-0.000044

**Delta [Io\_Z\_0V, Module 1]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	8.000E-6	7.000E-6	4.000E-6
N° 2	---	0.000E+0	-7.900E-5	-1.361E-2
N° 3	---	2.100E-5	-7.690E-4	-5.912E-2
N° 4	---	7.000E-6	-1.594E-3	-1.183E-1
N° 5	---	3.000E-6	-1.600E-4	-6.704E-2
N° 6	---	1.000E-5	-3.500E-5	-2.983E-2
N° 7(Off)	---	1.000E-5	6.000E-6	6.000E-6
N° 8(Off)	---	7.000E-6	7.000E-6	7.000E-6
N° 9(Off)	---	6.000E-6	6.000E-6	5.000E-6
N° 10(Off)	---	6.000E-6	5.000E-6	8.000E-6
N° 11(Off)	---	1.000E-5	1.000E-5	9.000E-6
Average	---	8.200E-6	-5.274E-4	-5.758E-2
s	---	8.106E-6	6.661E-4	4.025E-2
Average+3s	---	3.252E-5	1.471E-3	6.317E-2
Average-3s	---	-1.612E-5	-2.526E-3	-1.783E-1

## 13. Io\_Z\_0V, Module 2

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Z\_0V, Module 2 . (uA)**

**Min = -10.0 Max = 10.0**

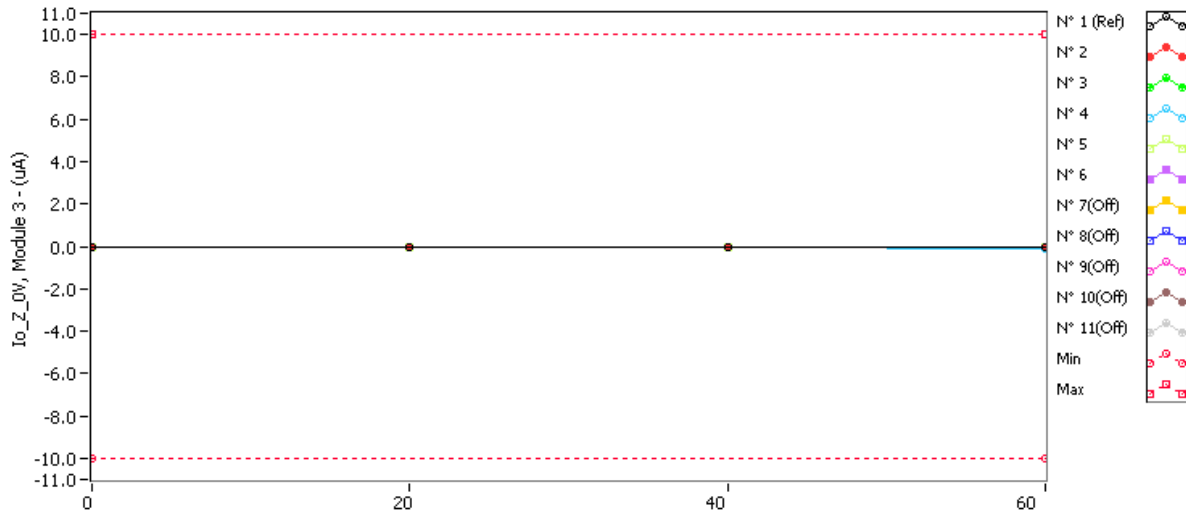
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	-0.000049	-0.000042	-0.000041	-0.000043
N° 2	-0.000045	-0.000042	-0.002182	-0.115192
N° 3	-0.000050	-0.000036	-0.000291	-0.034079
N° 4	-0.000049	-0.000040	-0.000059	-0.011883
N° 5	-0.000050	-0.000043	-0.000586	-0.068785
N° 6	-0.000041	-0.000033	-0.000118	-0.048261
N° 7(Off)	-0.000050	-0.000043	-0.000044	-0.000043
N° 8(Off)	-0.000050	-0.000029	-0.000042	-0.000044
N° 9(Off)	-0.000050	-0.000045	-0.000045	-0.000045
N° 10(Off)	-0.000049	-0.000042	-0.000043	-0.000045
N° 11(Off)	-0.000047	-0.000041	-0.000041	-0.000041

**Delta [Io\_Z\_0V, Module 2]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	7.000E-6	8.000E-6	6.000E-6
N° 2	---	3.000E-6	-2.137E-3	-1.151E-1
N° 3	---	1.400E-5	-2.410E-4	-3.403E-2
N° 4	---	9.000E-6	-1.000E-5	-1.183E-2
N° 5	---	7.000E-6	-5.360E-4	-6.874E-2
N° 6	---	8.000E-6	-7.700E-5	-4.822E-2
N° 7(Off)	---	7.000E-6	6.000E-6	7.000E-6
N° 8(Off)	---	2.100E-5	8.000E-6	6.000E-6
N° 9(Off)	---	5.000E-6	5.000E-6	5.000E-6
N° 10(Off)	---	7.000E-6	6.000E-6	4.000E-6
N° 11(Off)	---	6.000E-6	6.000E-6	6.000E-6
Average	---	8.200E-6	-6.002E-4	-5.559E-2
s	---	3.962E-6	8.827E-4	3.922E-2
Average+3s	---	2.009E-5	2.048E-3	6.207E-2
Average-3s	---	-3.687E-6	-3.248E-3	-1.733E-1

## 14. Io\_Z\_0V, Module 3

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Z\_0V, Module 3 . (uA)**

**Min = -10.0 Max = 10.0**

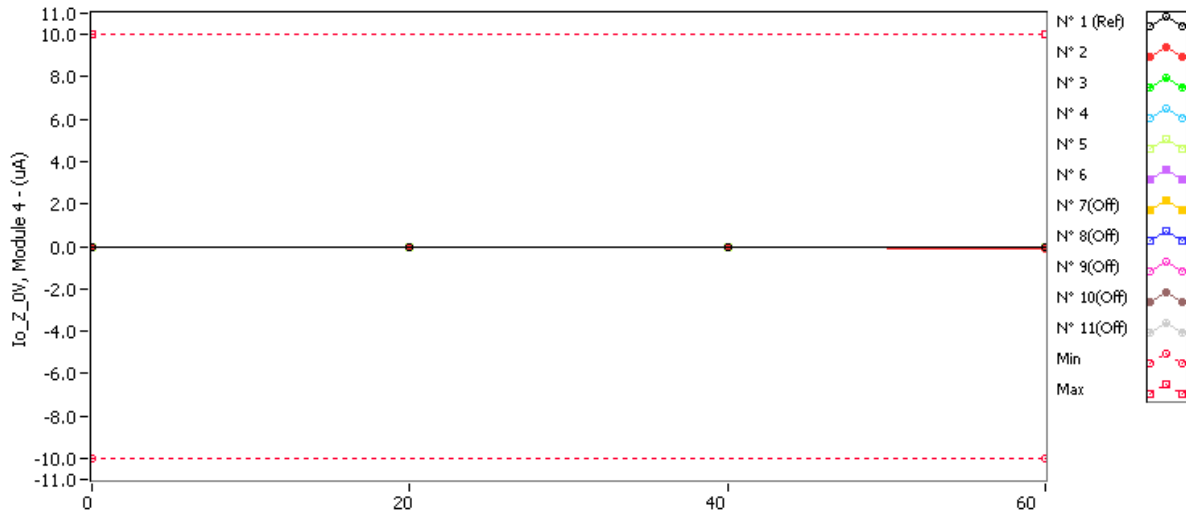
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	-0.000056	-0.000041	-0.000042	-0.000044
N° 2	-0.000049	-0.000043	-0.000261	-0.014671
N° 3	-0.000057	-0.000039	-0.000772	-0.042732
N° 4	-0.000050	-0.000041	-0.005620	-0.094012
N° 5	-0.000052	-0.000027	-0.000066	-0.011876
N° 6	-0.000050	-0.000036	-0.000246	-0.016677
N° 7(Off)	-0.000051	-0.000039	-0.000039	-0.000041
N° 8(Off)	-0.000063	-0.000049	-0.000049	-0.000050
N° 9(Off)	-0.000057	-0.000047	-0.000048	-0.000049
N° 10(Off)	-0.000059	-0.000047	-0.000047	-0.000046
N° 11(Off)	-0.000070	-0.000048	-0.000050	-0.000049

**Delta [Io\_Z\_0V, Module 3]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	1.500E-5	1.400E-5	1.200E-5
N° 2	---	6.000E-6	-2.120E-4	-1.462E-2
N° 3	---	1.800E-5	-7.150E-4	-4.267E-2
N° 4	---	9.000E-6	-5.570E-3	-9.396E-2
N° 5	---	2.500E-5	-1.400E-5	-1.182E-2
N° 6	---	1.400E-5	-1.960E-4	-1.663E-2
N° 7(Off)	---	1.200E-5	1.200E-5	1.000E-5
N° 8(Off)	---	1.400E-5	1.400E-5	1.300E-5
N° 9(Off)	---	1.000E-5	9.000E-6	8.000E-6
N° 10(Off)	---	1.200E-5	1.200E-5	1.300E-5
N° 11(Off)	---	2.200E-5	2.000E-5	2.100E-5
Average	---	1.440E-5	-1.341E-3	-3.594E-2
s	---	7.503E-6	2.378E-3	3.472E-2
Average+3s	---	3.691E-5	5.793E-3	6.821E-2
Average-3s	---	-8.110E-6	-8.476E-3	-1.401E-1

## 15. Io\_Z\_0V, Module 4

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Z\_0V, Module 4 . (uA)**

**Min = -10.0 Max = 10.0**

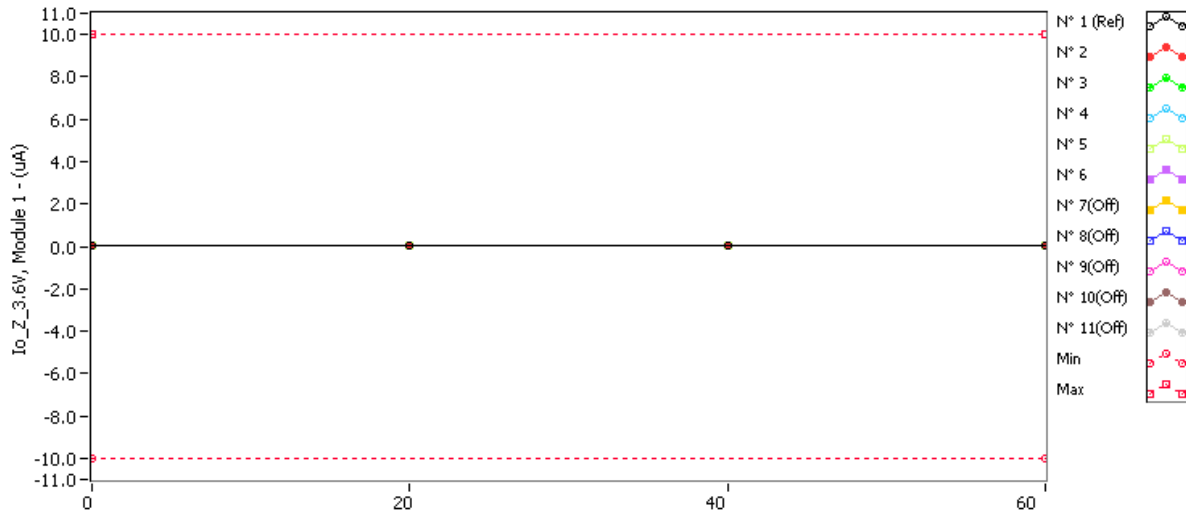
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	-0.000058	-0.000043	-0.000043	-0.000045
N° 2	-0.000048	-0.000041	-0.000415	-0.086699
N° 3	-0.000059	-0.000045	-0.002219	-0.078871
N° 4	-0.000053	-0.000042	-0.000066	-0.015599
N° 5	-0.000050	-0.000045	-0.001681	-0.042008
N° 6	-0.000050	-0.000037	-0.000100	-0.013496
N° 7(Off)	-0.000052	-0.000040	-0.000041	-0.000041
N° 8(Off)	-0.000061	-0.000049	-0.000050	-0.000049
N° 9(Off)	-0.000058	-0.000047	-0.000048	-0.000050
N° 10(Off)	-0.000062	-0.000048	-0.000049	-0.000049
N° 11(Off)	-0.000067	-0.000048	-0.000049	-0.000049

**Delta [Io\_Z\_0V, Module 4]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	1.500E-5	1.500E-5	1.300E-5
N° 2	---	7.000E-6	-3.670E-4	-8.665E-2
N° 3	---	1.400E-5	-2.160E-3	-7.881E-2
N° 4	---	1.100E-5	-1.300E-5	-1.555E-2
N° 5	---	5.000E-6	-1.631E-3	-4.196E-2
N° 6	---	1.300E-5	-5.000E-5	-1.345E-2
N° 7(Off)	---	1.200E-5	1.100E-5	1.100E-5
N° 8(Off)	---	1.200E-5	1.100E-5	1.200E-5
N° 9(Off)	---	1.100E-5	1.000E-5	8.000E-6
N° 10(Off)	---	1.400E-5	1.300E-5	1.300E-5
N° 11(Off)	---	1.900E-5	1.800E-5	1.800E-5
Average	---	1.000E-5	-8.442E-4	-4.728E-2
s	---	3.873E-6	9.874E-4	3.437E-2
Average+3s	---	2.162E-5	2.118E-3	5.582E-2
Average-3s	---	-1.619E-6	-3.806E-3	-1.504E-1

## 16. Io\_Z\_3.6V, Module 1

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Z\_3.6V, Module 1 . (uA) Min = -10.0 Max = 10.0**

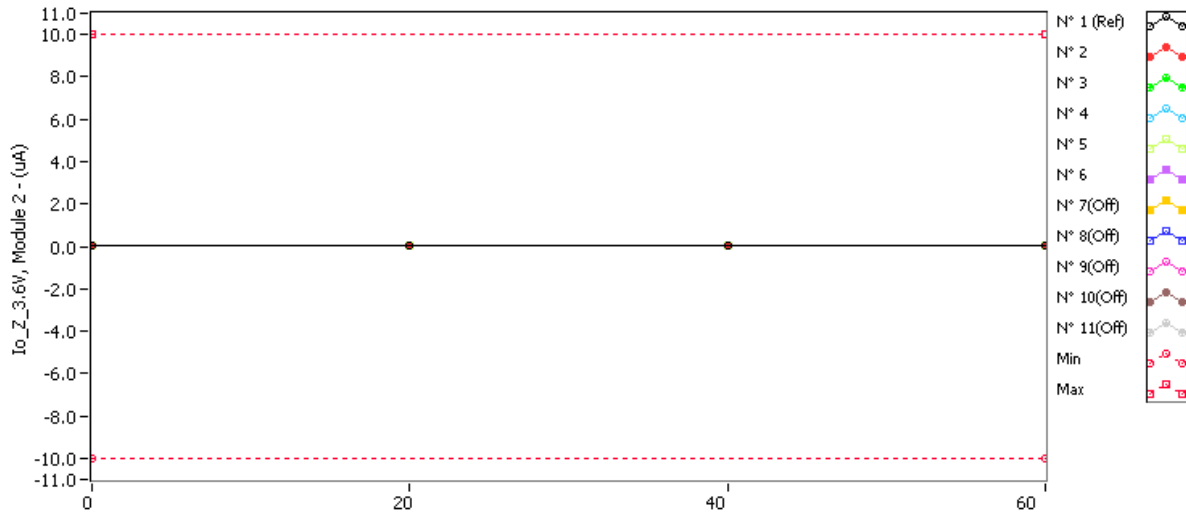
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	0.000111	0.000056	0.000057	0.000066
N° 2	0.000075	0.000053	0.000060	0.000117
N° 3	0.000106	0.000058	0.000077	0.000127
N° 4	0.000091	0.000054	0.000062	0.000361
N° 5	0.000077	0.000054	0.000066	0.000135
N° 6	0.000091	0.000052	0.000058	0.000103
N° 7(Off)	0.000079	0.000051	0.000051	0.000054
N° 8(Off)	0.000108	0.000063	0.000068	0.000072
N° 9(Off)	0.000093	0.000065	0.000066	0.000069
N° 10(Off)	0.000103	0.000065	0.000066	0.000072
N° 11(Off)	0.000195	0.000127	0.000134	0.000137

**Delta [Io\_Z\_3.6V, Module 1]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	-5.500E-5	-5.400E-5	-4.500E-5
N° 2	---	-2.200E-5	-1.500E-5	4.200E-5
N° 3	---	-4.800E-5	-2.900E-5	2.100E-5
N° 4	---	-3.700E-5	-2.900E-5	2.700E-4
N° 5	---	-2.300E-5	-1.100E-5	5.800E-5
N° 6	---	-3.900E-5	-3.300E-5	1.200E-5
N° 7(Off)	---	-2.800E-5	-2.800E-5	-2.500E-5
N° 8(Off)	---	-4.500E-5	-4.000E-5	-3.600E-5
N° 9(Off)	---	-2.800E-5	-2.700E-5	-2.400E-5
N° 10(Off)	---	-3.800E-5	-3.700E-5	-3.100E-5
N° 11(Off)	---	-6.800E-5	-6.100E-5	-5.800E-5
Average	---	-3.380E-5	-2.340E-5	8.060E-5
s	---	1.112E-5	9.737E-6	1.074E-4
Average+3s	---	-4.338E-7	5.810E-6	4.028E-4
Average-3s	---	-6.717E-5	-5.261E-5	-2.416E-4

## 17. Io\_Z\_3.6V, Module 2

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Z\_3.6V, Module 2 . (uA) Min = -10.0 Max = 10.0**

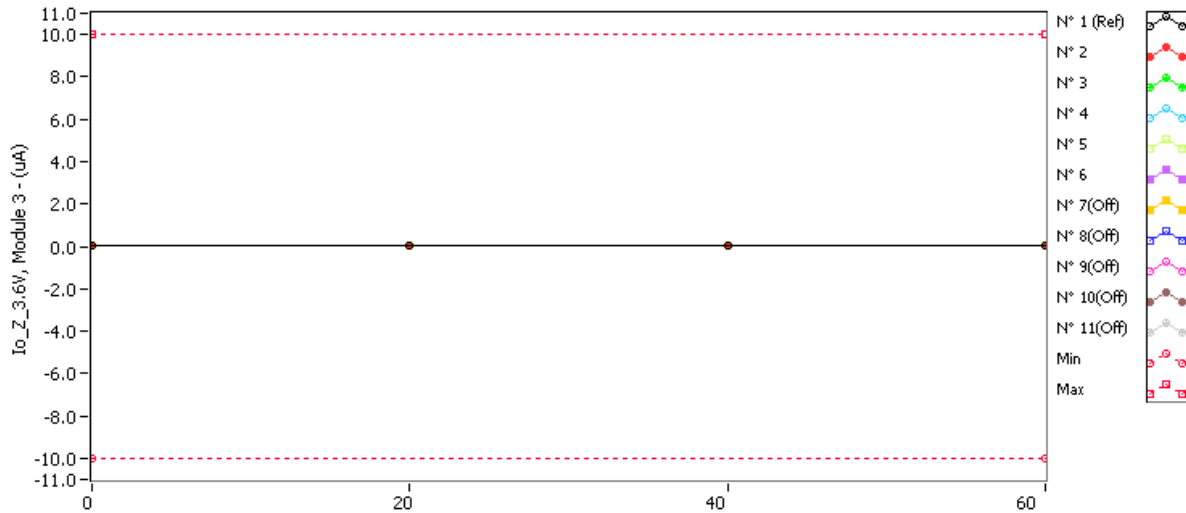
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	0.000142	0.000072	0.000073	0.000081
N° 2	0.000091	0.000067	0.000069	0.000369
N° 3	0.000127	0.000069	0.000082	0.000150
N° 4	0.000090	0.000055	0.000066	0.000116
N° 5	0.000087	0.000058	0.000067	0.000146
N° 6	0.000073	0.000043	0.000047	0.000092
N° 7(Off)	0.000078	0.000047	0.000048	0.000050
N° 8(Off)	0.000108	0.000067	0.000067	0.000070
N° 9(Off)	0.000096	0.000062	0.000065	0.000068
N° 10(Off)	0.000113	0.000068	0.000072	0.000076
N° 11(Off)	0.000209	0.000138	0.000148	0.000157

**Delta [Io\_Z\_3.6V, Module 2]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	-7.000E-5	-6.900E-5	-6.100E-5
N° 2	---	-2.400E-5	-2.200E-5	2.780E-4
N° 3	---	-5.800E-5	-4.500E-5	2.300E-5
N° 4	---	-3.500E-5	-2.400E-5	2.600E-5
N° 5	---	-2.900E-5	-2.000E-5	5.900E-5
N° 6	---	-3.000E-5	-2.600E-5	1.900E-5
N° 7(Off)	---	-3.100E-5	-3.000E-5	-2.800E-5
N° 8(Off)	---	-4.100E-5	-4.100E-5	-3.800E-5
N° 9(Off)	---	-3.400E-5	-3.100E-5	-2.800E-5
N° 10(Off)	---	-4.500E-5	-4.100E-5	-3.700E-5
N° 11(Off)	---	-7.100E-5	-6.100E-5	-5.200E-5
Average	---	-3.520E-5	-2.740E-5	8.100E-5
s	---	1.333E-5	1.009E-5	1.113E-4
Average+3s	---	4.791E-6	2.869E-6	4.148E-4
Average-3s	---	-7.519E-5	-5.767E-5	-2.528E-4

## 18. Io\_Z\_3.6V, Module 3

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Z\_3.6V, Module 3. (uA) Min = -10.0 Max = 10.0**

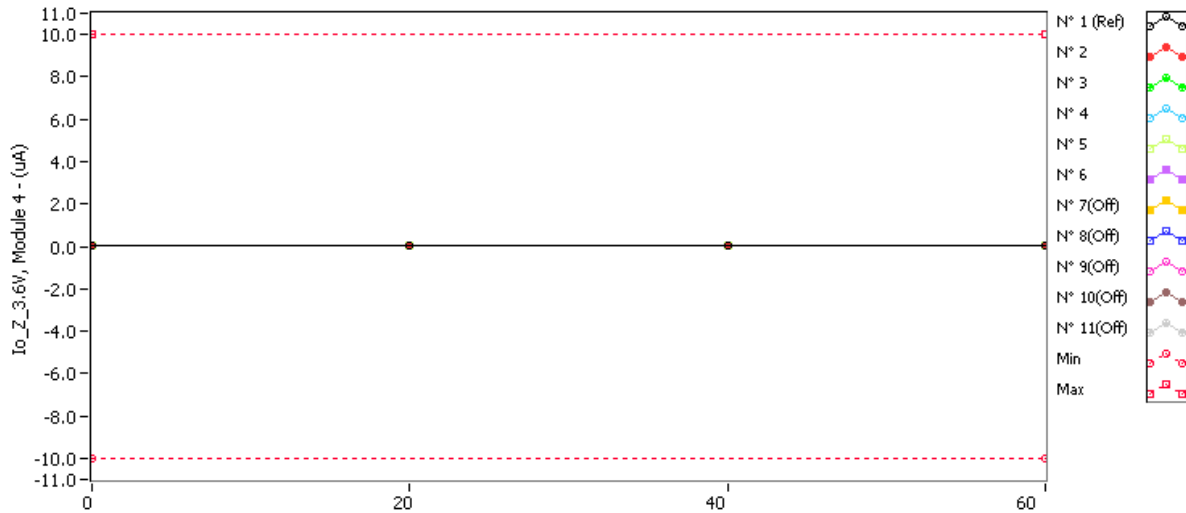
	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	0.000106	0.000055	0.000054	0.000063
N° 2	0.000070	0.000052	0.000060	0.000099
N° 3	0.000088	0.000051	0.000061	0.000112
N° 4	0.000079	0.000050	0.000053	0.000104
N° 5	0.000072	0.000046	0.000065	0.000130
N° 6	0.000067	0.000039	0.000047	0.000077
N° 7(Off)	0.000064	0.000039	0.000042	0.000042
N° 8(Off)	0.000110	0.000069	0.000071	0.000076
N° 9(Off)	0.000089	0.000060	0.000063	0.000065
N° 10(Off)	0.000095	0.000060	0.000063	0.000069
N° 11(Off)	0.000125	0.000074	0.000078	0.000080

**Delta [Io\_Z\_3.6V, Module 3]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	-5.100E-5	-5.200E-5	-4.300E-5
N° 2	---	-1.800E-5	-1.000E-5	2.900E-5
N° 3	---	-3.700E-5	-2.700E-5	2.400E-5
N° 4	---	-2.900E-5	-2.600E-5	2.500E-5
N° 5	---	-2.600E-5	-7.000E-6	5.800E-5
N° 6	---	-2.800E-5	-2.000E-5	1.000E-5
N° 7(Off)	---	-2.500E-5	-2.200E-5	-2.200E-5
N° 8(Off)	---	-4.100E-5	-3.900E-5	-3.400E-5
N° 9(Off)	---	-2.900E-5	-2.600E-5	-2.400E-5
N° 10(Off)	---	-3.500E-5	-3.200E-5	-2.600E-5
N° 11(Off)	---	-5.100E-5	-4.700E-5	-4.500E-5
Average	---	-2.760E-5	-1.800E-5	2.920E-5
s	---	6.804E-6	9.138E-6	1.763E-5
Average+3s	---	-7.187E-6	9.414E-6	8.208E-5
Average-3s	---	-4.801E-5	-4.541E-5	-2.368E-5

## 19. Io\_Z\_3.6V, Module 4

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"




**Io\_Z\_3.6V, Module 4 . (uA) Min = -10.0 Max = 10.0**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	0.000099	0.000052	0.000052	0.000059
N° 2	0.000068	0.000047	0.000062	0.000114
N° 3	0.000089	0.000050	0.000066	0.000115
N° 4	0.000085	0.000052	0.000059	0.000103
N° 5	0.000074	0.000050	0.000062	0.000125
N° 6	0.000060	0.000037	0.000044	0.000066
N° 7(Off)	0.000065	0.000040	0.000042	0.000044
N° 8(Off)	0.000104	0.000065	0.000066	0.000066
N° 9(Off)	0.000092	0.000063	0.000066	0.000069
N° 10(Off)	0.000091	0.000059	0.000060	0.000065
N° 11(Off)	0.000118	0.000071	0.000074	0.000076

**Delta [Io\_Z\_3.6V, Module 4]**

	0krad(Si)	20krad(Si)	40krad(Si)	60krad(Si)
N° 1 (Ref)	---	-4.700E-5	-4.700E-5	-4.000E-5
N° 2	---	-2.100E-5	-6.000E-6	4.600E-5
N° 3	---	-3.900E-5	-2.300E-5	2.600E-5
N° 4	---	-3.300E-5	-2.600E-5	1.800E-5
N° 5	---	-2.400E-5	-1.200E-5	5.100E-5
N° 6	---	-2.300E-5	-1.600E-5	6.000E-6
N° 7(Off)	---	-2.500E-5	-2.300E-5	-2.100E-5
N° 8(Off)	---	-3.900E-5	-3.800E-5	-3.800E-5
N° 9(Off)	---	-2.900E-5	-2.600E-5	-2.300E-5
N° 10(Off)	---	-3.200E-5	-3.100E-5	-2.600E-5
N° 11(Off)	---	-4.700E-5	-4.400E-5	-4.200E-5
Average	---	-2.800E-5	-1.660E-5	2.940E-5
s	---	7.681E-6	8.112E-6	1.892E-5
Average+3s	---	-4.957E-6	7.735E-6	8.615E-5
Average-3s	---	-5.104E-5	-4.094E-5	-2.735E-5



	<b>TOTAL IRRADIATION DOSE TEST REPORT</b>  <b>RHRLVDS31 (DC0804A)</b>	Ref: TRAD/TE/RHRLVDS31/0804/STM/LP/0804 Date: May 21st, 2008  Rev: 0
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### 13. Appendix 2 Tests Results : Group 2



**TOTAL IRRADIATION DOSE  
TEST REPORT**

Ref: TRAD/TE/RHRLVDS31/0804/STM/LP/0804

Date: May 21st, 2008

**RHRLVDS31 (DC0804A)**

Rev: 0

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**TOTAL IRRADIATION DOSE  
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**RHRLVDS31 (DC0804A)**

Rev: 0

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**TOTAL IRRADIATION DOSE  
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**RHRLVDS31 (DC0804A)**

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129 tPZH_Y, Module 2	.....	A2-134
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TEST REPORT**

**RHRLVDS31 (DC0804A)**

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Date: May 21st, 2008

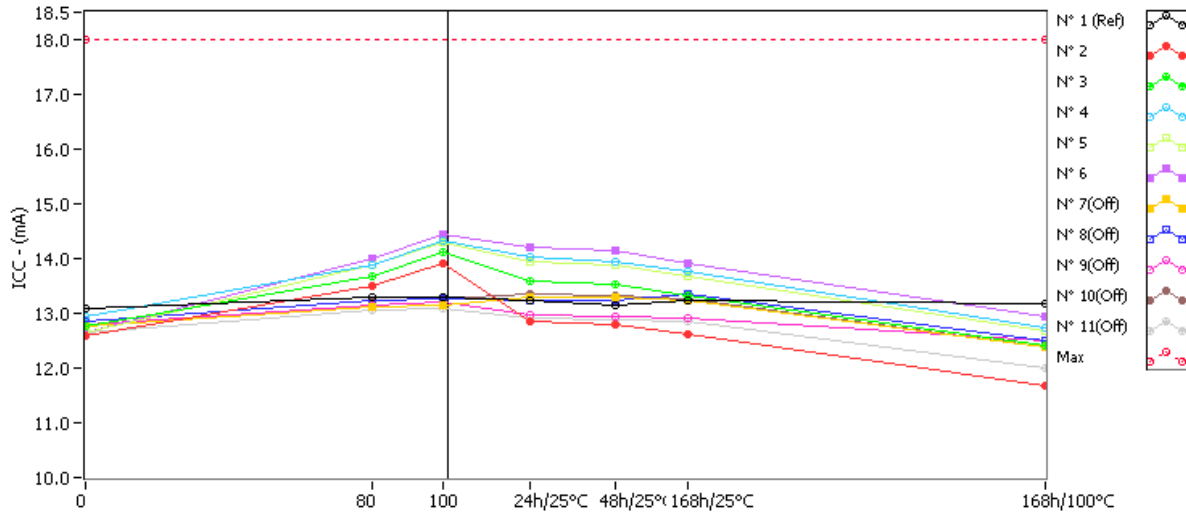
Rev: 0

**Contents :**

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# 1. ICC

"Din = Vcc or GND"



ICC . (mA)

Max = 18.0

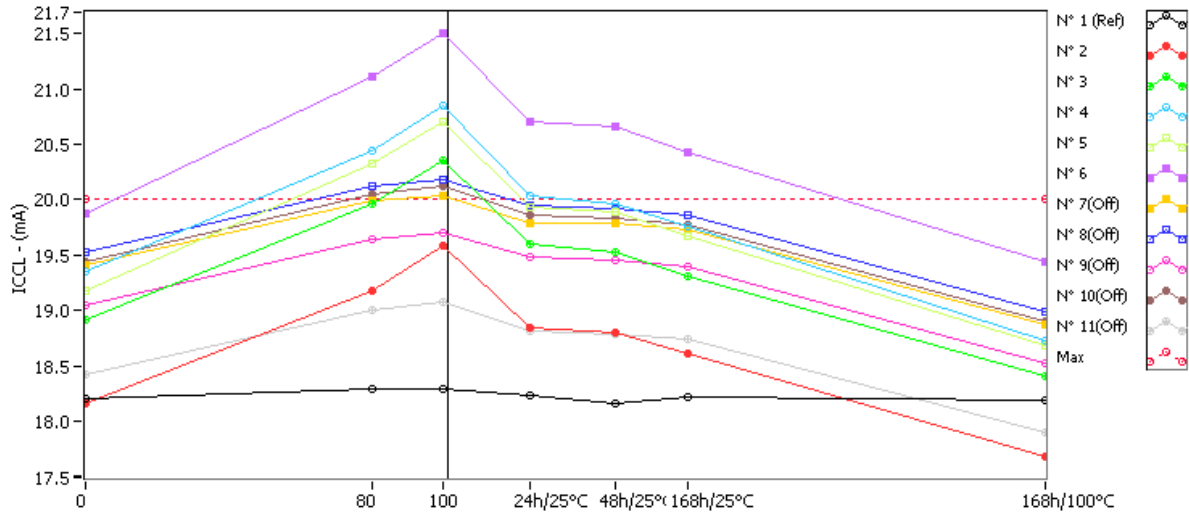
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	13.082	13.282	13.283	13.230	13.159	13.223	13.185
N° 2	12.585	13.494	13.917	12.845	12.796	12.610	11.681
N° 3	12.757	13.683	14.117	13.594	13.529	13.310	12.406
N° 4	12.950	13.895	14.338	14.027	13.954	13.751	12.732
N° 5	12.658	13.872	14.282	13.938	13.884	13.669	12.689
N° 6	12.637	14.012	14.437	14.204	14.152	13.921	12.936
N° 7(Off)	12.776	13.130	13.155	13.288	13.283	13.226	12.368
N° 8(Off)	12.865	13.235	13.277	13.241	13.224	13.363	12.488
N° 9(Off)	12.780	13.148	13.192	12.975	12.955	12.898	12.503
N° 10(Off)	12.843	13.224	13.264	13.365	13.329	13.275	12.396
N° 11(Off)	12.655	13.061	13.102	12.914	12.878	12.847	11.994

Delta [ICC]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	2.000E-1	2.010E-1	1.480E-1	7.700E-2	1.410E-1	1.030E-1
N° 2	---	9.090E-1	1.332E+0	2.600E-1	2.110E-1	2.500E-2	-9.040E-1
N° 3	---	9.260E-1	1.360E+0	8.370E-1	7.720E-1	5.530E-1	-3.510E-1
N° 4	---	9.450E-1	1.388E+0	1.077E+0	1.004E+0	8.010E-1	-2.180E-1
N° 5	---	1.214E+0	1.624E+0	1.280E+0	1.226E+0	1.011E+0	3.100E-2
N° 6	---	1.375E+0	1.800E+0	1.567E+0	1.515E+0	1.284E+0	2.990E-1
N° 7(Off)	---	3.540E-1	3.790E-1	5.120E-1	5.070E-1	4.500E-1	-4.080E-1
N° 8(Off)	---	3.700E-1	4.120E-1	3.760E-1	3.590E-1	4.980E-1	-3.770E-1
N° 9(Off)	---	3.680E-1	4.120E-1	1.950E-1	1.750E-1	1.180E-1	-2.770E-1
N° 10(Off)	---	3.810E-1	4.210E-1	5.220E-1	4.860E-1	4.320E-1	-4.470E-1
N° 11(Off)	---	4.060E-1	4.470E-1	2.590E-1	2.230E-1	1.920E-1	-6.610E-1
Average	---	1.074E+0	1.501E+0	1.004E+0	9.456E-1	7.348E-1	-2.286E-1
s	---	2.097E-1	2.036E-1	4.949E-1	4.940E-1	4.794E-1	4.519E-1
Average+3s	---	1.703E+0	2.111E+0	2.489E+0	2.428E+0	2.173E+0	1.127E+0
Average-3s	---	4.446E-1	8.901E-1	-4.806E-1	-5.363E-1	-7.033E-1	-1.584E+0

## 2. ICCL

"RL = 100W all channels, Din = Vcc or GND all inputs"



ICCL . (mA)

Max = 20.0

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	18.201	18.284	18.283	18.230	18.159	18.223	18.185
N° 2	18.162	19.180	19.577	18.845	18.796	18.610	17.681
N° 3	18.915	19.959	20.358	19.594	19.529	19.310	18.406
N° 4	19.348	20.447	20.842	20.027	19.954	19.751	18.732
N° 5	19.182	20.327	20.698	19.938	19.884	19.669	18.689
N° 6	19.870	21.110	21.500	20.704	20.652	20.421	19.436
N° 7(Off)	19.409	19.986	20.031	19.788	19.783	19.726	18.868
N° 8(Off)	19.525	20.124	20.180	19.941	19.924	19.863	18.988
N° 9(Off)	19.038	19.643	19.705	19.475	19.455	19.398	18.528
N° 10(Off)	19.442	20.050	20.117	19.865	19.829	19.775	18.896
N° 11(Off)	18.420	18.996	19.079	18.814	18.778	18.747	17.894

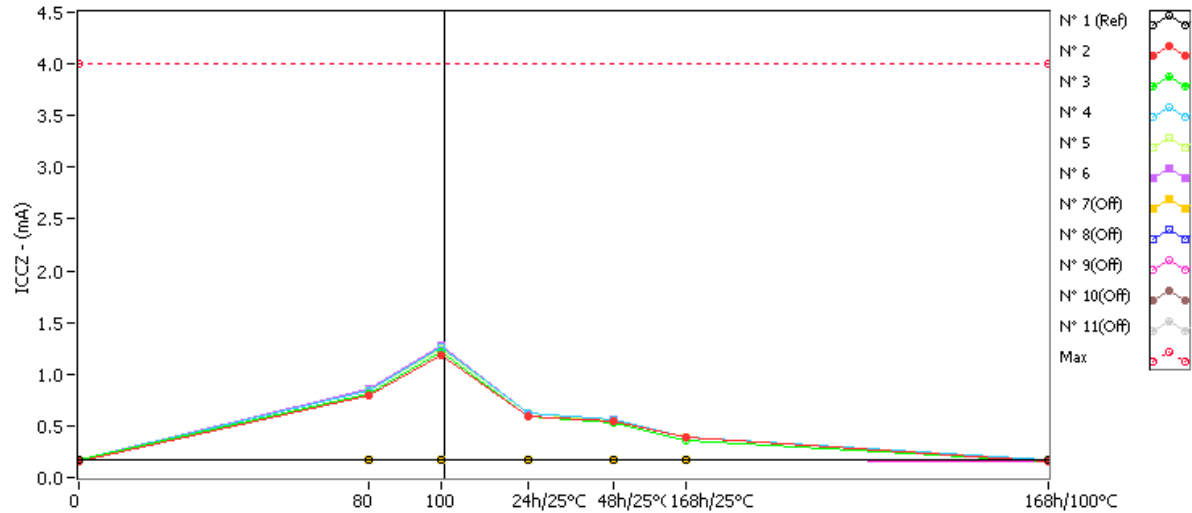
Delta [ICCL]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	8.300E-2	8.200E-2	2.900E-2	-4.200E-2	2.200E-2	-1.600E-2
N° 2	---	1.018E+0	1.415E+0	6.830E-1	6.340E-1	4.480E-1	-4.810E-1
N° 3	---	1.044E+0	1.443E+0	6.790E-1	6.140E-1	3.950E-1	-5.090E-1
N° 4	---	1.099E+0	1.494E+0	6.790E-1	6.060E-1	4.030E-1	-6.160E-1
N° 5	---	1.145E+0	1.516E+0	7.560E-1	7.020E-1	4.870E-1	-4.930E-1
N° 6	---	1.240E+0	1.630E+0	8.340E-1	7.820E-1	5.510E-1	-4.340E-1
N° 7(Off)	---	5.770E-1	6.220E-1	3.790E-1	3.740E-1	3.170E-1	-5.410E-1
N° 8(Off)	---	5.990E-1	6.550E-1	4.160E-1	3.990E-1	3.380E-1	-5.370E-1
N° 9(Off)	---	6.050E-1	6.670E-1	4.370E-1	4.170E-1	3.600E-1	-5.100E-1
N° 10(Off)	---	6.080E-1	6.750E-1	4.230E-1	3.870E-1	3.330E-1	-5.460E-1
N° 11(Off)	---	5.760E-1	6.590E-1	3.940E-1	3.580E-1	3.270E-1	-5.260E-1
Average	---	1.109E+0	1.500E+0	7.262E-1	6.676E-1	4.568E-1	-5.066E-1
s	---	8.812E-2	8.316E-2	6.861E-2	7.428E-2	6.438E-2	6.724E-2
Average+3s	---	1.374E+0	1.749E+0	9.320E-1	8.904E-1	6.499E-1	-3.049E-1
Average-3s	---	8.448E-1	1.250E+0	5.204E-1	4.448E-1	2.637E-1	-7.083E-1



### 3. ICCZ

"Din = Vcc or GND, EN = GND, EN! = Vcc"



**ICCZ . (mA)**

**Max = 4.0**

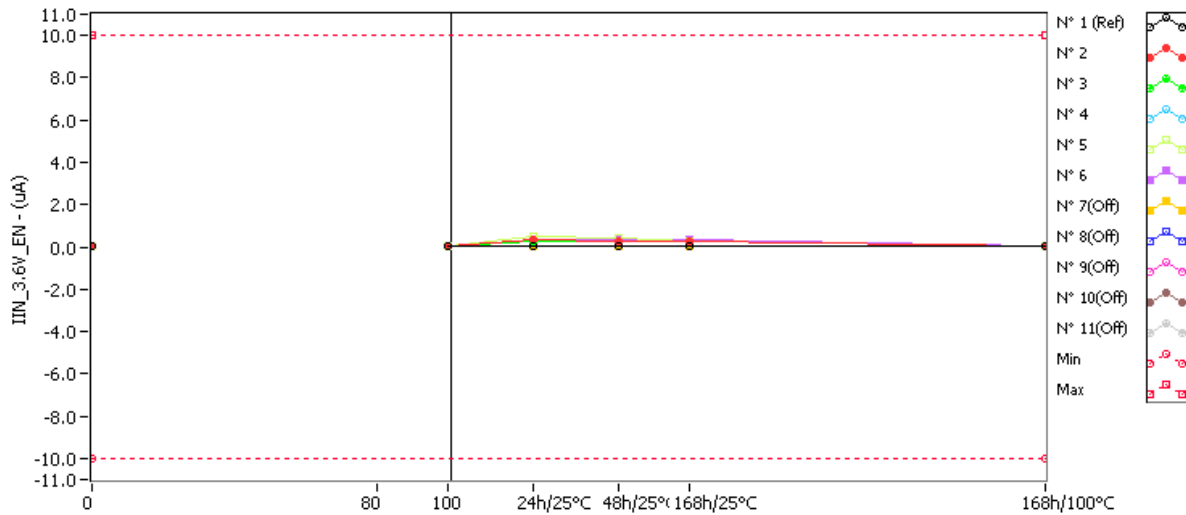
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.176	0.177	0.177	0.177	0.177	0.177	0.176
N° 2	0.161	0.795	1.190	0.598	0.544	0.392	0.157
N° 3	0.166	0.806	1.221	0.593	0.529	0.355	0.162
N° 4	0.171	0.840	1.264	0.620	0.553	0.384	0.166
N° 5	0.168	0.838	1.238	0.617	0.552	0.382	0.164
N° 6	0.172	0.855	1.272	0.627	0.560	0.394	0.168
N° 7(Off)	0.171	0.176	0.176	0.175	0.175	0.174	0.167
N° 8(Off)	0.171	0.176	0.176	0.174	0.175	0.174	0.166
N° 9(Off)	0.167	0.172	0.172	0.171	0.171	0.170	0.163
N° 10(Off)	0.168	0.173	0.173	0.172	0.171	0.171	0.163
N° 11(Off)	0.164	0.169	0.169	0.168	0.167	0.167	0.160

**Delta [ICCZ]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	1.000E-3	1.000E-3	1.000E-3	1.000E-3	1.000E-3	0.000E+0
N° 2	---	6.340E-1	1.029E+0	4.370E-1	3.830E-1	2.310E-1	-4.000E-3
N° 3	---	6.400E-1	1.055E+0	4.270E-1	3.630E-1	1.890E-1	-4.000E-3
N° 4	---	6.690E-1	1.093E+0	4.490E-1	3.820E-1	2.130E-1	-5.000E-3
N° 5	---	6.700E-1	1.070E+0	4.490E-1	3.840E-1	2.140E-1	-4.000E-3
N° 6	---	6.830E-1	1.100E+0	4.550E-1	3.880E-1	2.220E-1	-4.000E-3
N° 7(Off)	---	5.000E-3	5.000E-3	4.000E-3	4.000E-3	3.000E-3	-4.000E-3
N° 8(Off)	---	5.000E-3	5.000E-3	3.000E-3	4.000E-3	3.000E-3	-5.000E-3
N° 9(Off)	---	5.000E-3	5.000E-3	4.000E-3	4.000E-3	3.000E-3	-4.000E-3
N° 10(Off)	---	5.000E-3	5.000E-3	4.000E-3	3.000E-3	3.000E-3	-5.000E-3
N° 11(Off)	---	5.000E-3	5.000E-3	4.000E-3	3.000E-3	3.000E-3	-4.000E-3
Average	---	6.592E-1	1.069E+0	4.434E-1	3.800E-1	2.138E-1	-4.200E-3
s	---	2.111E-2	2.887E-2	1.126E-2	9.772E-3	1.564E-2	4.472E-4
Average+3s	---	7.225E-1	1.156E+0	4.772E-1	4.093E-1	2.607E-1	-2.858E-3
Average-3s	---	5.959E-1	9.828E-1	4.096E-1	3.507E-1	1.669E-1	-5.542E-3

## 4. IIN\_3.6V\_EN

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_3.6V\_EN . (uA)**

**Min = -10.0 Max = 10.0**

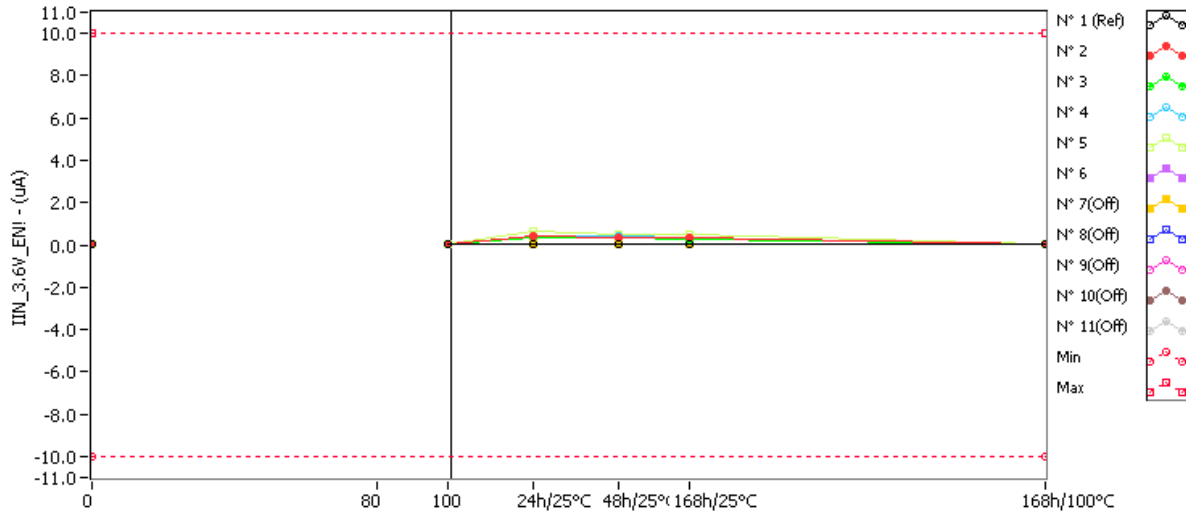
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.01700	NaN	0.01800	0.01900	0.02900	0.03400	0.02200
N° 2	0.01300	NaN	0.01900	0.34800	0.24400	0.26300	0.02200
N° 3	0.01200	NaN	0.01900	0.28000	0.24700	0.26200	0.01700
N° 4	0.01200	NaN	0.02000	0.28100	0.25100	0.28400	0.01700
N° 5	0.01200	NaN	0.01900	0.46800	0.39400	0.26400	0.01900
N° 6	0.01200	NaN	0.01900	0.36400	0.34600	0.36500	0.01800
N° 7(Off)	0.01200	NaN	0.01900	0.01300	0.01600	0.01500	0.01700
N° 8(Off)	0.01300	NaN	0.01900	0.01400	0.01600	0.01400	0.01700
N° 9(Off)	0.01200	NaN	0.01900	0.01300	0.01600	0.01500	0.01800
N° 10(Off)	0.01200	NaN	0.01800	0.01300	0.01600	0.01500	0.01800
N° 11(Off)	0.01300	NaN	0.01800	0.01300	0.01600	0.01400	0.01700

**Delta [IIN\_3.6V\_EN]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.000E-3	2.000E-3	1.200E-2	1.700E-2	5.000E-3
N° 2	---	NaN	6.000E-3	3.350E-1	2.310E-1	2.500E-1	9.000E-3
N° 3	---	NaN	7.000E-3	2.680E-1	2.350E-1	2.500E-1	5.000E-3
N° 4	---	NaN	8.000E-3	2.690E-1	2.390E-1	2.720E-1	5.000E-3
N° 5	---	NaN	7.000E-3	4.560E-1	3.820E-1	2.520E-1	7.000E-3
N° 6	---	NaN	7.000E-3	3.520E-1	3.340E-1	3.530E-1	6.000E-3
N° 7(Off)	---	NaN	7.000E-3	1.000E-3	4.000E-3	3.000E-3	5.000E-3
N° 8(Off)	---	NaN	6.000E-3	1.000E-3	3.000E-3	1.000E-3	4.000E-3
N° 9(Off)	---	NaN	7.000E-3	1.000E-3	4.000E-3	3.000E-3	6.000E-3
N° 10(Off)	---	NaN	6.000E-3	1.000E-3	4.000E-3	3.000E-3	6.000E-3
N° 11(Off)	---	NaN	5.000E-3	0.000E+0	3.000E-3	1.000E-3	4.000E-3
Average	---	NaN	7.000E-3	3.360E-1	2.842E-1	2.754E-1	6.400E-3
s	---	0.000E+0	7.071E-4	7.709E-2	6.953E-2	4.436E-2	1.673E-3
Average+3s	---	NaN	9.121E-3	5.673E-1	4.928E-1	4.085E-1	1.142E-2
Average-3s	---	NaN	4.879E-3	1.047E-1	7.560E-2	1.423E-1	1.380E-3

## 5. IIN\_3.6V\_EN!

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_3.6V\_EN! . (uA)**

**Min = -10.0 Max = 10.0**

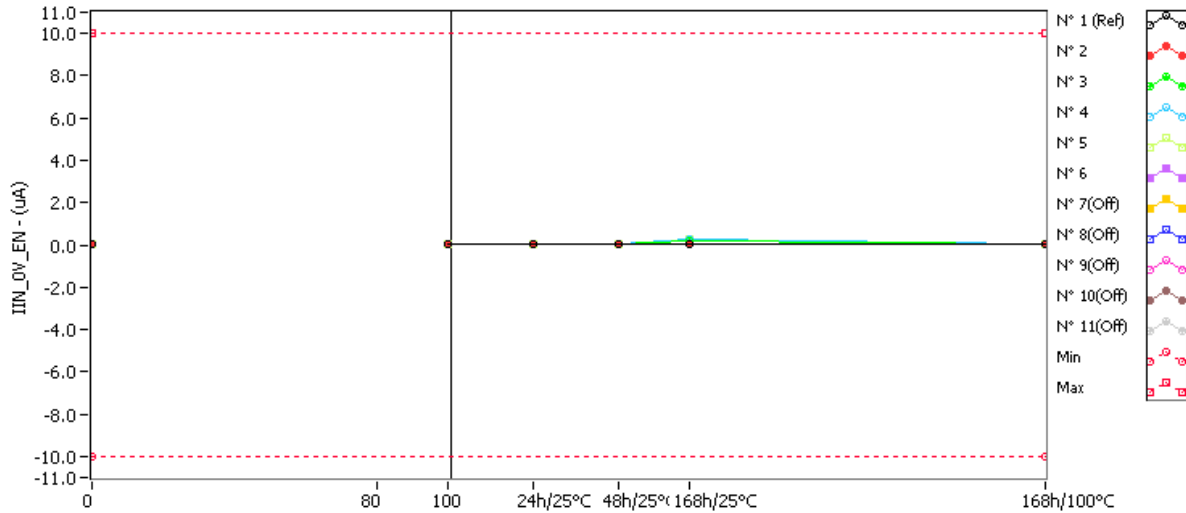
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.02000	NaN	0.01700	0.02400	0.03400	0.03900	0.02700
N° 2	0.01400	NaN	0.01900	0.44900	0.31300	0.33500	0.01800
N° 3	0.01300	NaN	0.01900	0.34600	0.30700	0.25300	0.01800
N° 4	0.01300	NaN	0.00700	0.45600	0.40200	0.31400	0.01700
N° 5	0.01300	NaN	0.01900	0.61700	0.52700	0.46900	0.01900
N° 6	0.01300	NaN	0.01800	0.45500	0.42600	0.36200	0.01900
N° 7(Off)	0.01300	NaN	0.01800	0.01400	0.01700	0.01600	0.01700
N° 8(Off)	0.01400	NaN	0.01900	0.01600	0.01800	0.01500	0.01700
N° 9(Off)	0.01400	NaN	0.01800	0.01500	0.01800	0.02000	0.02500
N° 10(Off)	0.01300	NaN	0.01800	0.01500	0.01600	0.01500	0.01700
N° 11(Off)	0.01300	NaN	0.01800	0.01500	0.01800	0.01300	0.01700

**Delta [IIN\_3.6V\_EN!]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.000E-3	4.000E-3	1.400E-2	1.900E-2	7.000E-3
N° 2	---	NaN	5.000E-3	4.350E-1	2.990E-1	3.210E-1	4.000E-3
N° 3	---	NaN	6.000E-3	3.330E-1	2.940E-1	2.400E-1	5.000E-3
N° 4	---	NaN	-6.000E-3	4.430E-1	3.890E-1	3.010E-1	4.000E-3
N° 5	---	NaN	6.000E-3	6.040E-1	5.140E-1	4.560E-1	6.000E-3
N° 6	---	NaN	5.000E-3	4.420E-1	4.130E-1	3.490E-1	6.000E-3
N° 7(Off)	---	NaN	5.000E-3	1.000E-3	4.000E-3	3.000E-3	4.000E-3
N° 8(Off)	---	NaN	5.000E-3	2.000E-3	4.000E-3	1.000E-3	3.000E-3
N° 9(Off)	---	NaN	4.000E-3	1.000E-3	4.000E-3	6.000E-3	1.100E-2
N° 10(Off)	---	NaN	5.000E-3	2.000E-3	3.000E-3	2.000E-3	4.000E-3
N° 11(Off)	---	NaN	5.000E-3	2.000E-3	5.000E-3	0.000E+0	4.000E-3
Average	---	NaN	3.200E-3	4.514E-1	3.818E-1	3.334E-1	5.000E-3
s	---	0.000E+0	5.167E-3	9.713E-2	9.092E-2	7.937E-2	1.000E-3
Average+3s	---	NaN	1.870E-2	7.428E-1	6.546E-1	5.715E-1	8.000E-3
Average-3s	---	NaN	-1.230E-2	1.600E-1	1.090E-1	9.528E-2	2.000E-3

## 6. IIN\_0V\_EN

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_0V\_EN . (uA) Min = -10.0 Max = 10.0**

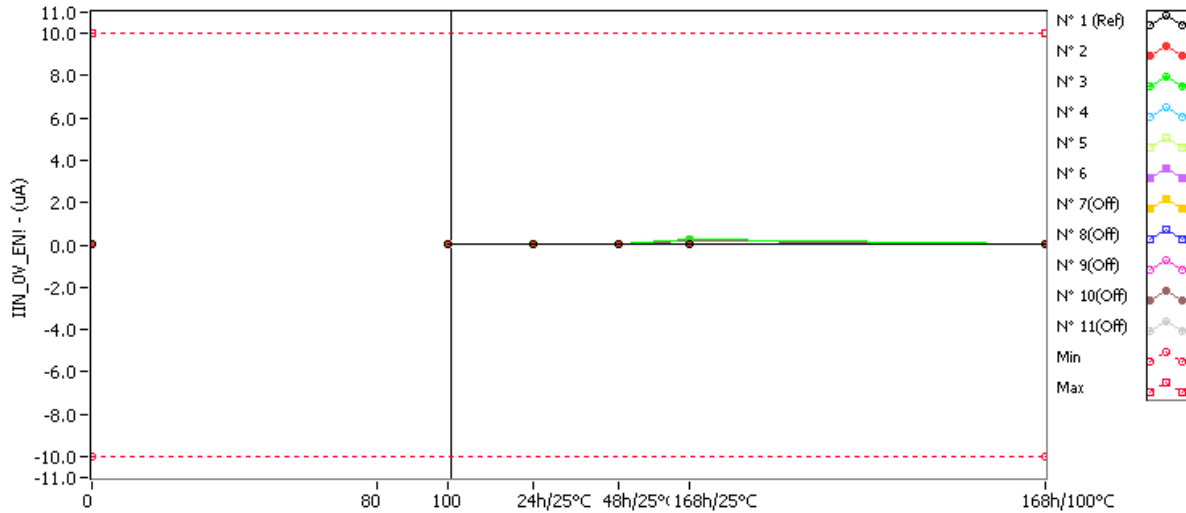
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.0075	NaN	0.0038	0.0098	0.0176	0.0130	0.0095
N° 2	0.0055	NaN	0.0037	0.0068	0.0068	0.0080	0.0025
N° 3	0.0047	NaN	0.0037	0.0076	0.0061	0.2246	0.0041
N° 4	0.0044	NaN	0.0037	0.0064	0.0061	0.2860	0.0048
N° 5	0.0044	NaN	0.0075	0.0061	0.0066	0.2540	0.0048
N° 6	0.0044	NaN	0.0038	0.0062	0.0068	0.3000	0.0048
N° 7(Off)	0.0042	NaN	0.0040	0.0058	0.0068	0.2940	0.0041
N° 8(Off)	0.0045	NaN	0.0034	0.0068	0.0068	0.2950	0.0041
N° 9(Off)	0.0049	NaN	0.0034	0.0058	0.0068	0.2400	0.0044
N° 10(Off)	0.0046	NaN	0.0024	0.0058	0.0058	0.2130	0.0047
N° 11(Off)	0.0049	NaN	0.0034	0.0058	0.0076	0.2000	0.0048

**Delta [IIN\_0V\_EN]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.700E-3	2.300E-3	1.010E-2	5.500E-3	2.000E-3
N° 2	---	NaN	-1.800E-3	1.300E-3	1.300E-3	2.500E-3	-3.000E-3
N° 3	---	NaN	-1.000E-3	2.900E-3	1.400E-3	2.199E-1	-6.000E-4
N° 4	---	NaN	-7.000E-4	2.000E-3	1.700E-3	2.816E-1	4.000E-4
N° 5	---	NaN	3.100E-3	1.700E-3	2.200E-3	2.496E-1	4.000E-4
N° 6	---	NaN	-6.000E-4	1.800E-3	2.400E-3	2.956E-1	4.000E-4
N° 7(Off)	---	NaN	-2.000E-4	1.600E-3	2.600E-3	2.898E-1	-1.000E-4
N° 8(Off)	---	NaN	-1.100E-3	2.300E-3	2.300E-3	2.905E-1	-4.000E-4
N° 9(Off)	---	NaN	-1.500E-3	9.000E-4	1.900E-3	2.351E-1	-5.000E-4
N° 10(Off)	---	NaN	-2.200E-3	1.200E-3	1.200E-3	2.084E-1	1.000E-4
N° 11(Off)	---	NaN	-1.500E-3	9.000E-4	2.700E-3	1.951E-1	-1.000E-4
Average	---	NaN	-2.000E-4	1.940E-3	1.800E-3	2.098E-1	-4.800E-4
s	---	0.000E+0	1.904E-3	5.941E-4	4.848E-4	1.196E-1	1.474E-3
Average+3s	---	NaN	5.512E-3	3.722E-3	3.254E-3	5.685E-1	3.941E-3
Average-3s	---	NaN	-5.912E-3	1.576E-4	3.457E-4	-1.488E-1	-4.901E-3

## 7. IIN\_0V\_EN!

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_0V\_EN! . (uA)**

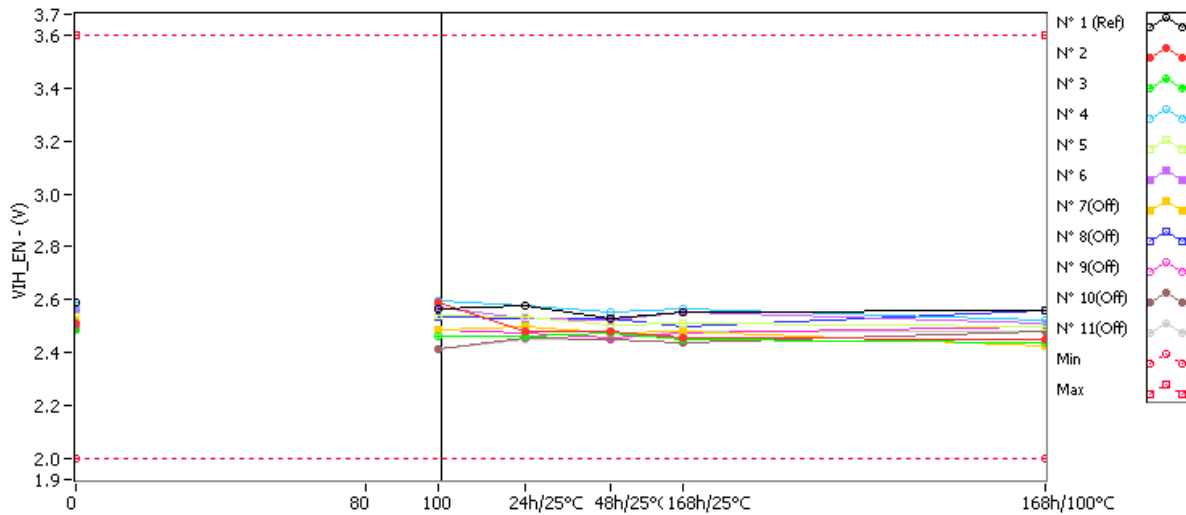
**Min = -10.0 Max = 10.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.0054	NaN	0.0038	0.0078	0.0093	0.0125	0.0085
N° 2	0.0043	NaN	0.0038	0.0058	0.0059	0.0075	0.0045
N° 3	0.0044	NaN	0.0032	0.0055	0.0058	0.2530	0.0049
N° 4	0.0038	NaN	0.0039	0.0053	0.0058	0.2950	0.0048
N° 5	0.0038	NaN	0.0038	0.0058	0.0066	0.2540	0.0045
N° 6	0.0039	NaN	0.0038	0.0057	0.0058	0.3010	0.0047
N° 7(Off)	0.0037	NaN	0.0038	0.0046	0.0056	0.2900	0.0050
N° 8(Off)	0.0038	NaN	0.0038	0.0048	0.0058	0.2910	0.0044
N° 9(Off)	0.0038	NaN	0.0031	0.0044	0.0059	0.2440	0.0030
N° 10(Off)	0.0036	NaN	0.0036	0.0040	0.0058	0.2190	0.0056
N° 11(Off)	0.0037	NaN	0.0036	0.0043	0.0059	0.2760	0.0047

**Delta [IIN\_0V\_EN!]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.600E-3	2.400E-3	3.900E-3	7.100E-3	3.100E-3
N° 2	---	NaN	-5.000E-4	1.500E-3	1.600E-3	3.200E-3	2.000E-4
N° 3	---	NaN	-1.200E-3	1.100E-3	1.400E-3	2.486E-1	5.000E-4
N° 4	---	NaN	1.000E-4	1.500E-3	2.000E-3	2.912E-1	1.000E-3
N° 5	---	NaN	0.000E+0	2.000E-3	2.800E-3	2.502E-1	7.000E-4
N° 6	---	NaN	-1.000E-4	1.800E-3	1.900E-3	2.971E-1	8.000E-4
N° 7(Off)	---	NaN	1.000E-4	9.000E-4	1.900E-3	2.863E-1	1.300E-3
N° 8(Off)	---	NaN	0.000E+0	1.000E-3	2.000E-3	2.872E-1	6.000E-4
N° 9(Off)	---	NaN	-7.000E-4	6.000E-4	2.100E-3	2.402E-1	-8.000E-4
N° 10(Off)	---	NaN	0.000E+0	4.000E-4	2.200E-3	2.154E-1	2.000E-3
N° 11(Off)	---	NaN	-1.000E-4	6.000E-4	2.200E-3	2.723E-1	1.000E-3
Average	---	NaN	-3.400E-4	1.580E-3	1.940E-3	2.181E-1	6.400E-4
s	---	0.000E+0	5.320E-4	3.421E-4	5.367E-4	1.222E-1	3.050E-4
Average+3s	---	NaN	1.256E-3	2.606E-3	3.550E-3	5.846E-1	1.555E-3
Average-3s	---	NaN	-1.936E-3	5.538E-4	3.300E-4	-1.485E-1	-2.749E-4

## 8. VIH\_EN



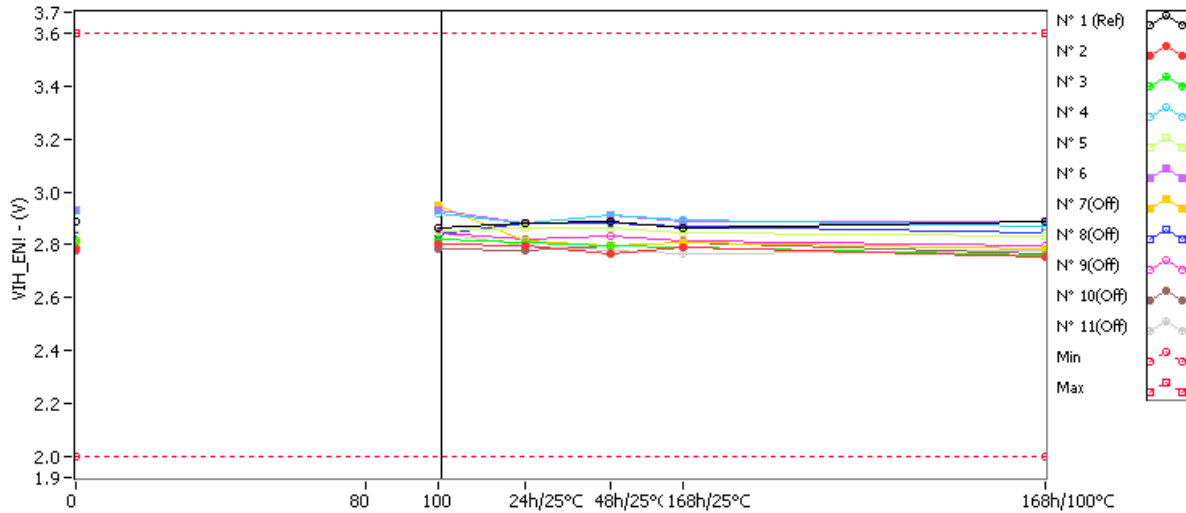
**VIH\_EN . (V) Min = 2.0 Max = 3.6**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.592	NaN	2.565	2.576	2.528	2.552	2.560
N° 2	2.512	NaN	2.591	2.480	2.480	2.456	2.448
N° 3	2.488	NaN	2.465	2.464	2.472	2.448	2.440
N° 4	2.576	NaN	2.597	2.576	2.552	2.568	2.520
N° 5	2.536	NaN	2.539	2.536	2.504	2.512	2.496
N° 6	2.560	NaN	2.574	2.528	2.520	2.552	2.512
N° 7(Off)	2.520	NaN	2.484	2.496	2.472	2.480	2.424
N° 8(Off)	2.560	NaN	2.534	2.528	2.528	2.496	2.560
N° 9(Off)	2.496	NaN	2.486	2.472	2.456	2.472	2.496
N° 10(Off)	2.488	NaN	2.412	2.456	2.448	2.440	2.480
N° 11(Off)	2.488	NaN	2.415	2.448	2.448	2.480	2.480

**Delta [VIH\_EN]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.700E-2	-1.600E-2	-6.400E-2	-4.000E-2	-3.200E-2
N° 2	---	NaN	7.900E-2	-3.200E-2	-3.200E-2	-5.600E-2	-6.400E-2
N° 3	---	NaN	-2.300E-2	-2.400E-2	-1.600E-2	-4.000E-2	-4.800E-2
N° 4	---	NaN	2.100E-2	0.000E+0	-2.400E-2	-8.000E-3	-5.600E-2
N° 5	---	NaN	3.000E-3	0.000E+0	-3.200E-2	-2.400E-2	-4.000E-2
N° 6	---	NaN	1.400E-2	-3.200E-2	-4.000E-2	-8.000E-3	-4.800E-2
N° 7(Off)	---	NaN	-3.600E-2	-2.400E-2	-4.800E-2	-4.000E-2	-9.600E-2
N° 8(Off)	---	NaN	-2.600E-2	-3.200E-2	-3.200E-2	-6.400E-2	0.000E+0
N° 9(Off)	---	NaN	-1.000E-2	-2.400E-2	-4.000E-2	-2.400E-2	0.000E+0
N° 10(Off)	---	NaN	-7.600E-2	-3.200E-2	-4.000E-2	-4.800E-2	-8.000E-3
N° 11(Off)	---	NaN	-7.300E-2	-4.000E-2	-4.000E-2	-8.000E-3	-8.000E-3
Average	---	NaN	1.880E-2	-1.760E-2	-2.880E-2	-2.720E-2	-5.120E-2
s	---	0.000E+0	3.758E-2	1.640E-2	9.121E-3	2.086E-2	9.121E-3
Average+3s	---	NaN	1.315E-1	3.159E-2	-1.436E-3	3.538E-2	-2.384E-2
Average-3s	---	NaN	-9.394E-2	-6.679E-2	-5.616E-2	-8.978E-2	-7.856E-2

## 9. VIH\_EN!



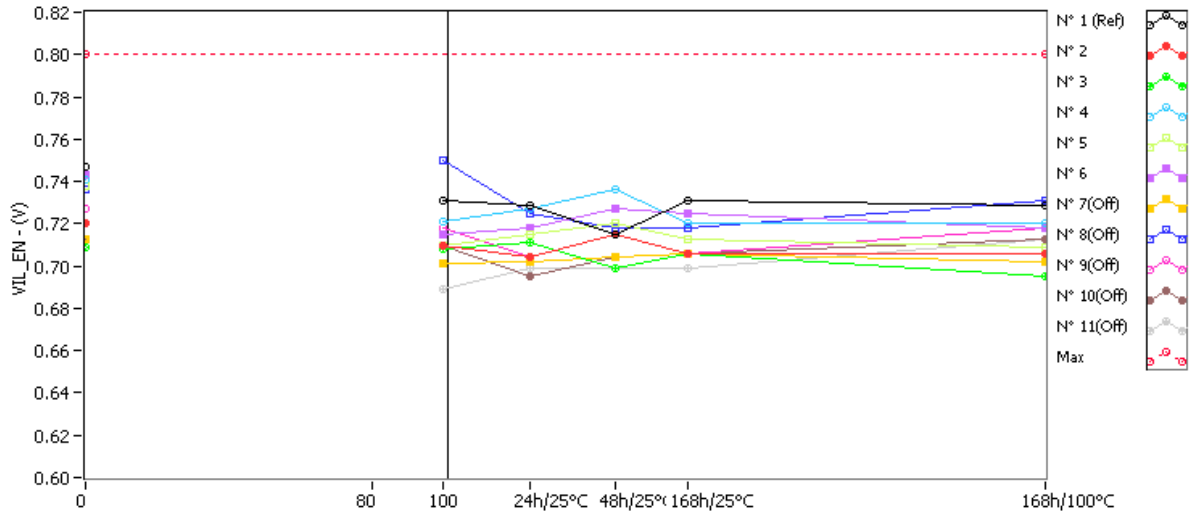
**VIH\_EN! . (V) Min = 2.0 Max = 3.6**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.888	NaN	2.861	2.880	2.888	2.864	2.888
N° 2	2.784	NaN	2.801	2.800	2.768	2.792	2.752
N° 3	2.816	NaN	2.823	2.808	2.800	2.792	2.760
N° 4	2.928	NaN	2.921	2.880	2.912	2.896	2.872
N° 5	2.840	NaN	2.852	2.864	2.864	2.848	2.832
N° 6	2.928	NaN	2.932	2.880	2.912	2.888	2.888
N° 7(Off)	2.808	NaN	2.951	2.816	2.800	2.808	2.784
N° 8(Off)	2.832	NaN	2.842	2.880	2.880	2.872	2.848
N° 9(Off)	2.832	NaN	2.845	2.824	2.832	2.816	2.800
N° 10(Off)	2.776	NaN	2.786	2.776	2.800	2.808	2.768
N° 11(Off)	2.776	NaN	2.845	2.800	2.776	2.768	2.776

**Delta [VIH\_EN!]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.700E-2	-8.000E-3	0.000E+0	-2.400E-2	0.000E+0
N° 2	---	NaN	1.700E-2	1.600E-2	-1.600E-2	8.000E-3	-3.200E-2
N° 3	---	NaN	7.000E-3	-8.000E-3	-1.600E-2	-2.400E-2	-5.600E-2
N° 4	---	NaN	-7.000E-3	-4.800E-2	-1.600E-2	-3.200E-2	-5.600E-2
N° 5	---	NaN	1.200E-2	2.400E-2	2.400E-2	8.000E-3	-8.000E-3
N° 6	---	NaN	4.000E-3	-4.800E-2	-1.600E-2	-4.000E-2	-4.000E-2
N° 7(Off)	---	NaN	1.430E-1	8.000E-3	-8.000E-3	0.000E+0	-2.400E-2
N° 8(Off)	---	NaN	1.000E-2	4.800E-2	4.800E-2	4.000E-2	1.600E-2
N° 9(Off)	---	NaN	1.300E-2	-8.000E-3	0.000E+0	-1.600E-2	-3.200E-2
N° 10(Off)	---	NaN	1.000E-2	0.000E+0	2.400E-2	3.200E-2	-8.000E-3
N° 11(Off)	---	NaN	6.900E-2	2.400E-2	0.000E+0	-8.000E-3	0.000E+0
Average	---	NaN	6.600E-3	-1.280E-2	-8.000E-3	-1.600E-2	-3.840E-2
s	---	0.000E+0	9.072E-3	3.422E-2	1.789E-2	2.263E-2	1.992E-2
Average+3s	---	NaN	3.382E-2	8.987E-2	4.567E-2	5.188E-2	2.136E-2
Average-3s	---	NaN	-2.062E-2	-1.155E-1	-6.167E-2	-8.388E-2	-9.816E-2

## 10. VIL\_EN



**VIL\_EN . (V)**

**Max = 0.8**

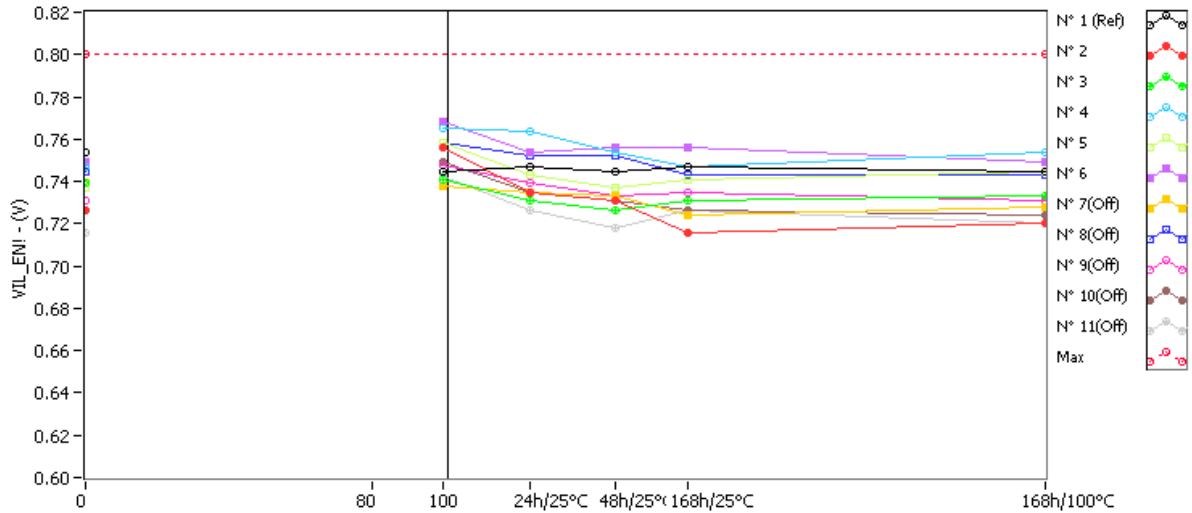
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.747	NaN	0.731	0.729	0.715	0.731	0.729
N° 2	0.720	NaN	0.710	0.704	0.715	0.706	0.706
N° 3	0.709	NaN	0.708	0.711	0.699	0.706	0.695
N° 4	0.741	NaN	0.721	0.727	0.736	0.720	0.720
N° 5	0.738	NaN	0.710	0.715	0.720	0.713	0.709
N° 6	0.743	NaN	0.715	0.718	0.727	0.725	0.718
N° 7(Off)	0.713	NaN	0.701	0.702	0.704	0.706	0.702
N° 8(Off)	0.736	NaN	0.750	0.725	0.718	0.718	0.731
N° 9(Off)	0.727	NaN	0.718	0.704	0.715	0.706	0.718
N° 10(Off)	0.713	NaN	0.710	0.695	0.704	0.706	0.713
N° 11(Off)	0.720	NaN	0.689	0.699	0.699	0.699	0.713

**Delta [VIL\_EN]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.600E-2	-1.800E-2	-3.200E-2	-1.600E-2	-1.800E-2
N° 2	---	NaN	-1.000E-2	-1.600E-2	-5.000E-3	-1.400E-2	-1.400E-2
N° 3	---	NaN	-1.000E-3	2.000E-3	-1.000E-2	-3.000E-3	-1.400E-2
N° 4	---	NaN	-2.000E-2	-1.400E-2	-5.000E-3	-2.100E-2	-2.100E-2
N° 5	---	NaN	-2.800E-2	-2.300E-2	-1.800E-2	-2.500E-2	-2.900E-2
N° 6	---	NaN	-2.800E-2	-2.500E-2	-1.600E-2	-1.800E-2	-2.500E-2
N° 7(Off)	---	NaN	-1.200E-2	-1.100E-2	-9.000E-3	-7.000E-3	-1.100E-2
N° 8(Off)	---	NaN	1.400E-2	-1.100E-2	-1.800E-2	-1.800E-2	-5.000E-3
N° 9(Off)	---	NaN	-9.000E-3	-2.300E-2	-1.200E-2	-2.100E-2	-9.000E-3
N° 10(Off)	---	NaN	-3.000E-3	-1.800E-2	-9.000E-3	-7.000E-3	0.000E+0
N° 11(Off)	---	NaN	-3.100E-2	-2.100E-2	-2.100E-2	-2.100E-2	-7.000E-3
Average	---	NaN	-1.740E-2	-1.520E-2	-1.080E-2	-1.620E-2	-2.060E-2
s	---	0.000E+0	1.178E-2	1.066E-2	6.058E-3	8.408E-3	6.656E-3
Average+3s	---	NaN	1.794E-2	1.679E-2	7.374E-3	9.025E-3	-6.325E-4
Average-3s	---	NaN	-5.274E-2	-4.719E-2	-2.897E-2	-4.142E-2	-4.057E-2



## 11. VIL\_EN!



VIL\_EN! . (V)

Max = 0.8

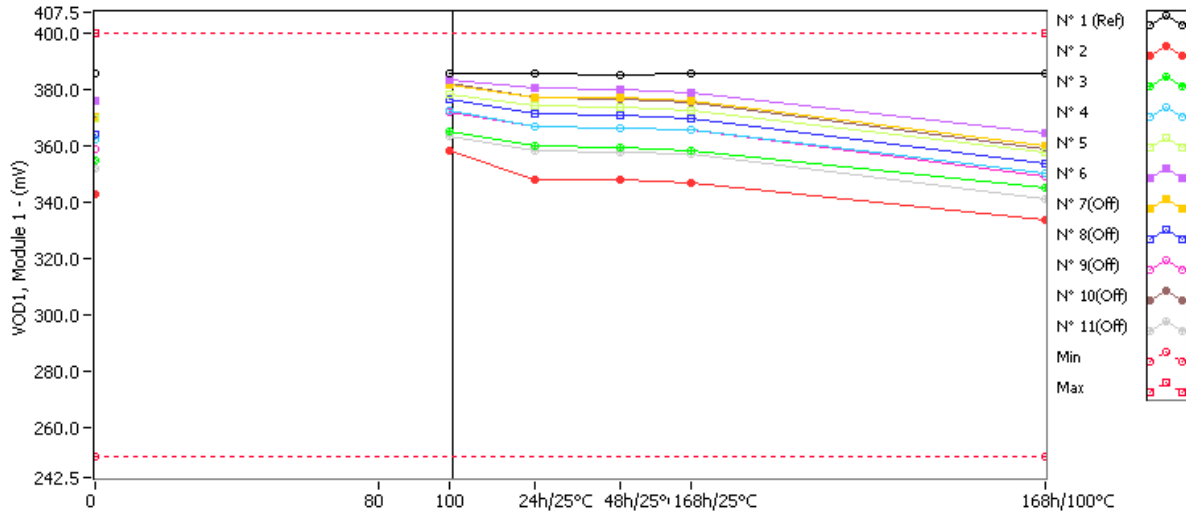
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.754	NaN	0.745	0.747	0.745	0.747	0.745
N° 2	0.726	NaN	0.756	0.735	0.731	0.716	0.720
N° 3	0.739	NaN	0.741	0.731	0.726	0.731	0.733
N° 4	0.747	NaN	0.765	0.764	0.754	0.747	0.754
N° 5	0.737	NaN	0.758	0.743	0.737	0.741	0.745
N° 6	0.749	NaN	0.768	0.754	0.756	0.756	0.749
N° 7(Off)	0.739	NaN	0.738	0.735	0.733	0.724	0.728
N° 8(Off)	0.745	NaN	0.758	0.752	0.752	0.743	0.743
N° 9(Off)	0.731	NaN	0.748	0.739	0.733	0.735	0.731
N° 10(Off)	0.726	NaN	0.749	0.735	0.731	0.726	0.724
N° 11(Off)	0.716	NaN	0.742	0.726	0.718	0.726	0.720

Delta [VIL\_EN!]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-9.000E-3	-7.000E-3	-9.000E-3	-7.000E-3	-9.000E-3
N° 2	---	NaN	3.000E-2	9.000E-3	5.000E-3	-1.000E-2	-6.000E-3
N° 3	---	NaN	2.000E-3	-8.000E-3	-1.300E-2	-8.000E-3	-6.000E-3
N° 4	---	NaN	1.800E-2	1.700E-2	7.000E-3	0.000E+0	7.000E-3
N° 5	---	NaN	2.100E-2	6.000E-3	0.000E+0	4.000E-3	8.000E-3
N° 6	---	NaN	1.900E-2	5.000E-3	7.000E-3	7.000E-3	0.000E+0
N° 7(Off)	---	NaN	-1.000E-3	-4.000E-3	-6.000E-3	-1.500E-2	-1.100E-2
N° 8(Off)	---	NaN	1.300E-2	7.000E-3	7.000E-3	-2.000E-3	-2.000E-3
N° 9(Off)	---	NaN	1.700E-2	8.000E-3	2.000E-3	4.000E-3	0.000E+0
N° 10(Off)	---	NaN	2.300E-2	9.000E-3	5.000E-3	0.000E+0	-2.000E-3
N° 11(Off)	---	NaN	2.600E-2	1.000E-2	2.000E-3	1.000E-2	4.000E-3
Average	---	NaN	1.800E-2	5.800E-3	1.200E-3	-1.400E-3	6.000E-4
s	---	0.000E+0	1.012E-2	9.039E-3	8.438E-3	7.403E-3	6.768E-3
Average+3s	---	NaN	4.837E-2	3.292E-2	2.651E-2	2.081E-2	2.090E-2
Average-3s	---	NaN	-1.237E-2	-2.132E-2	-2.411E-2	-2.361E-2	-1.970E-2

## 12. VOD1, Module 1

"RL = 100"



**VOD1, Module 1 . (mV)**

**Min = 250.0 Max = 400.0**

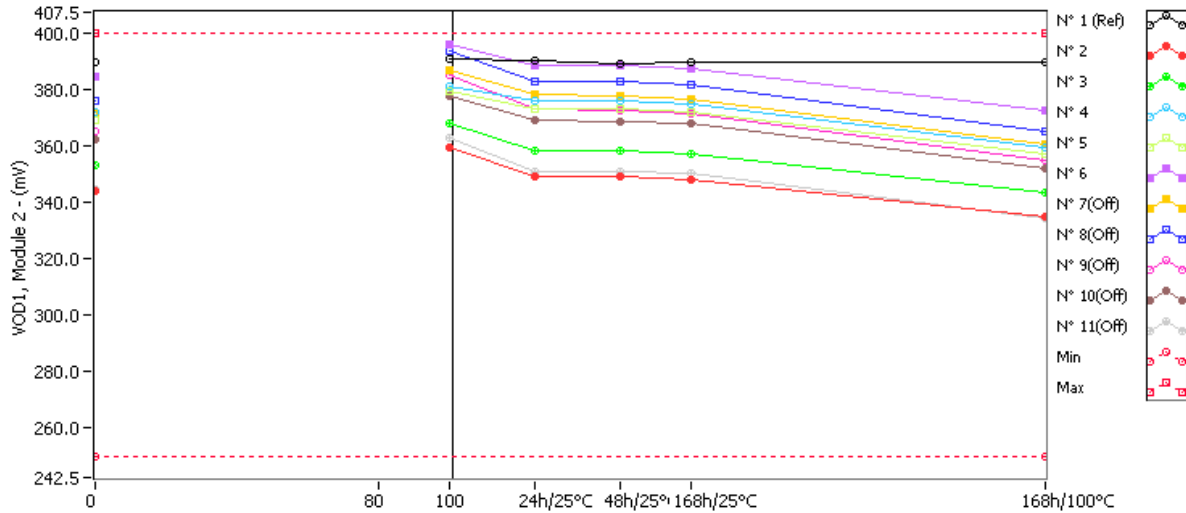
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	385.700	NaN	385.600	385.850	385.200	385.800	385.700
N° 2	342.900	NaN	358.200	348.150	347.950	347.150	333.850
N° 3	355.100	NaN	365.040	359.850	359.650	358.600	345.300
N° 4	362.650	NaN	372.445	366.800	366.550	366.650	350.350
N° 5	370.100	NaN	378.155	374.150	373.950	372.850	358.000
N° 6	376.050	NaN	383.255	380.500	380.150	379.200	364.450
N° 7(Off)	370.650	NaN	381.585	377.500	377.300	376.350	360.300
N° 8(Off)	364.150	NaN	376.660	371.400	370.950	370.000	353.900
N° 9(Off)	359.200	NaN	372.160	367.000	366.600	366.600	349.450
N° 10(Off)	369.950	NaN	382.305	377.300	376.750	375.800	359.100
N° 11(Off)	351.850	NaN	363.400	358.600	358.050	357.450	341.500

**Delta [VOD1, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.000E-1	1.500E-1	-5.000E-1	1.000E-1	0.000E+0
N° 2	---	NaN	1.530E+1	5.250E+0	5.050E+0	4.250E+0	-9.050E+0
N° 3	---	NaN	9.940E+0	4.750E+0	4.550E+0	3.500E+0	-9.800E+0
N° 4	---	NaN	9.795E+0	4.150E+0	3.900E+0	3.000E+0	-1.230E+1
N° 5	---	NaN	8.055E+0	4.050E+0	3.850E+0	2.750E+0	-1.210E+1
N° 6	---	NaN	7.205E+0	4.450E+0	4.100E+0	3.150E+0	-1.160E+1
N° 7(Off)	---	NaN	1.094E+1	6.850E+0	6.650E+0	5.700E+0	-1.035E+1
N° 8(Off)	---	NaN	1.251E+1	7.250E+0	6.800E+0	5.850E+0	-1.025E+1
N° 9(Off)	---	NaN	1.296E+1	7.800E+0	7.400E+0	6.400E+0	-9.750E+0
N° 10(Off)	---	NaN	1.236E+1	7.350E+0	6.800E+0	5.850E+0	-1.085E+1
N° 11(Off)	---	NaN	1.155E+1	6.750E+0	6.200E+0	5.600E+0	-1.035E+1
Average	---	NaN	1.006E+1	4.530E+0	4.290E+0	3.330E+0	-1.097E+1
s	---	0.000E+0	3.151E+0	4.868E-1	5.067E-1	5.816E-1	1.458E+0
Average+3s	---	NaN	1.951E+1	5.990E+0	5.810E+0	5.075E+0	-6.597E+0
Average-3s	---	NaN	6.062E-1	3.070E+0	2.770E+0	1.585E+0	-1.534E+1

## 13. VOD1, Module 2

"RL = 100"



**VOD1, Module 2 . (mV)**

**Min = 250.0 Max = 400.0**

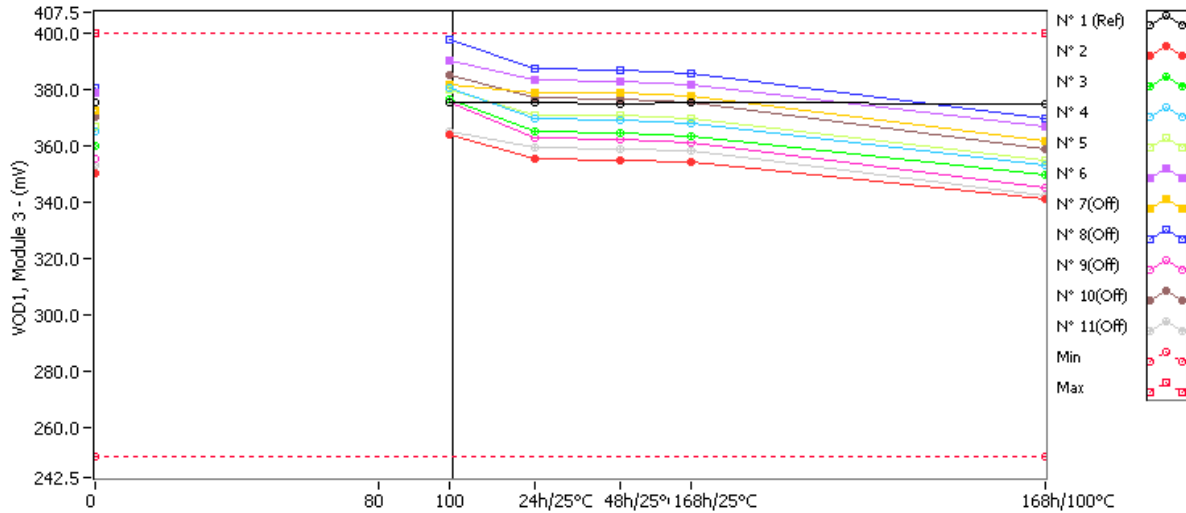
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	389.850	NaN	391.060	390.250	389.450	390.000	389.750
N° 2	344.400	NaN	359.270	349.350	349.050	348.150	334.950
N° 3	353.350	NaN	367.830	358.550	358.450	357.000	343.350
N° 4	371.850	NaN	381.240	376.350	376.100	374.950	359.500
N° 5	369.150	NaN	379.445	373.450	373.300	372.150	357.300
N° 6	384.550	NaN	396.020	388.850	388.550	387.450	372.550
N° 7(Off)	371.400	NaN	387.075	378.250	377.900	376.900	360.600
N° 8(Off)	376.050	NaN	393.910	383.200	382.800	381.600	365.450
N° 9(Off)	365.300	NaN	385.500	373.050	372.650	371.650	355.200
N° 10(Off)	362.450	NaN	377.665	369.450	368.850	367.950	351.850
N° 11(Off)	344.950	NaN	363.150	351.200	350.700	350.150	334.400

**Delta [VOD1, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.210E+0	4.000E-1	-4.000E-1	1.500E-1	-1.000E-1
N° 2	---	NaN	1.487E+1	4.950E+0	4.650E+0	3.750E+0	-9.450E+0
N° 3	---	NaN	1.448E+1	5.200E+0	5.100E+0	3.650E+0	-1.000E+1
N° 4	---	NaN	9.390E+0	4.500E+0	4.250E+0	3.100E+0	-1.235E+1
N° 5	---	NaN	1.030E+1	4.300E+0	4.150E+0	3.000E+0	-1.185E+1
N° 6	---	NaN	1.147E+1	4.300E+0	4.000E+0	2.900E+0	-1.200E+1
N° 7(Off)	---	NaN	1.568E+1	6.850E+0	6.500E+0	5.500E+0	-1.080E+1
N° 8(Off)	---	NaN	1.786E+1	7.150E+0	6.750E+0	5.550E+0	-1.060E+1
N° 9(Off)	---	NaN	2.020E+1	7.750E+0	7.350E+0	6.350E+0	-1.010E+1
N° 10(Off)	---	NaN	1.522E+1	7.000E+0	6.400E+0	5.500E+0	-1.060E+1
N° 11(Off)	---	NaN	1.820E+1	6.250E+0	5.750E+0	5.200E+0	-1.055E+1
Average	---	NaN	1.210E+1	4.650E+0	4.430E+0	3.280E+0	-1.113E+1
s	---	0.000E+0	2.467E+0	4.062E-1	4.453E-1	3.915E-1	1.310E+0
Average+3s	---	NaN	1.950E+1	5.869E+0	5.766E+0	4.454E+0	-7.200E+0
Average-3s	---	NaN	4.701E+0	3.431E+0	3.094E+0	2.106E+0	-1.506E+1

## 14. VOD1, Module 3

"RL = 100"



**VOD1, Module 3 . (mV)**

**Min = 250.0 Max = 400.0**

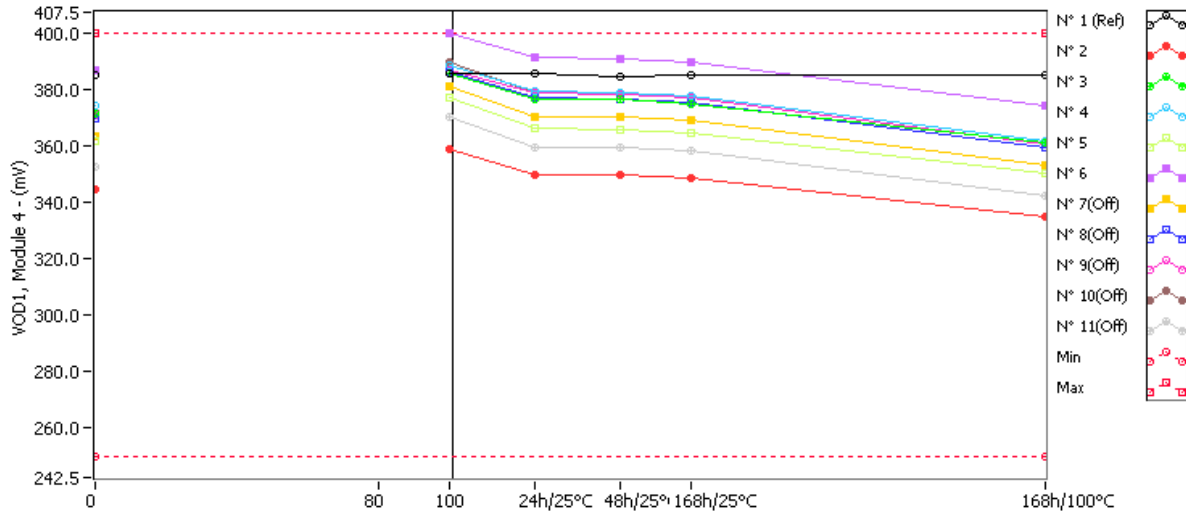
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	375.550	NaN	375.445	375.700	375.100	375.450	375.200
N° 2	350.550	NaN	364.125	355.300	355.150	354.150	341.000
N° 3	360.250	NaN	376.880	365.200	364.900	363.700	350.000
N° 4	365.050	NaN	380.460	369.550	369.250	368.100	353.000
N° 5	367.200	NaN	380.075	371.200	370.800	369.750	354.750
N° 6	378.950	NaN	390.475	383.500	383.100	381.900	367.100
N° 7(Off)	372.750	NaN	381.920	379.050	378.700	377.750	361.850
N° 8(Off)	380.650	NaN	398.045	387.650	387.100	386.000	369.850
N° 9(Off)	355.400	NaN	375.680	362.750	362.350	361.350	345.100
N° 10(Off)	370.150	NaN	385.175	377.150	376.550	375.350	358.950
N° 11(Off)	353.150	NaN	365.045	359.650	359.050	358.350	342.150

**Delta [VOD1, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.050E-1	1.500E-1	-4.500E-1	-1.000E-1	-3.500E-1
N° 2	---	NaN	1.357E+1	4.750E+0	4.600E+0	3.600E+0	-9.550E+0
N° 3	---	NaN	1.663E+1	4.950E+0	4.650E+0	3.450E+0	-1.025E+1
N° 4	---	NaN	1.541E+1	4.500E+0	4.200E+0	3.050E+0	-1.205E+1
N° 5	---	NaN	1.287E+1	4.000E+0	3.600E+0	2.550E+0	-1.245E+1
N° 6	---	NaN	1.153E+1	4.550E+0	4.150E+0	2.950E+0	-1.185E+1
N° 7(Off)	---	NaN	9.170E+0	6.300E+0	5.950E+0	5.000E+0	-1.090E+1
N° 8(Off)	---	NaN	1.740E+1	7.000E+0	6.450E+0	5.350E+0	-1.080E+1
N° 9(Off)	---	NaN	2.028E+1	7.350E+0	6.950E+0	5.950E+0	-1.030E+1
N° 10(Off)	---	NaN	1.503E+1	7.000E+0	6.400E+0	5.200E+0	-1.120E+1
N° 11(Off)	---	NaN	1.190E+1	6.500E+0	5.900E+0	5.200E+0	-1.100E+1
Average	---	NaN	1.400E+1	4.550E+0	4.240E+0	3.120E+0	-1.123E+1
s	---	0.000E+0	2.030E+0	3.553E-1	4.234E-1	4.177E-1	1.258E+0
Average+3s	---	NaN	2.009E+1	5.616E+0	5.510E+0	4.373E+0	-7.457E+0
Average-3s	---	NaN	7.914E+0	3.484E+0	2.970E+0	1.867E+0	-1.500E+1

## 15. VOD1, Module 4

"RL = 100"



**VOD1, Module 4 . (mV)**

**Min = 250.0 Max = 400.0**

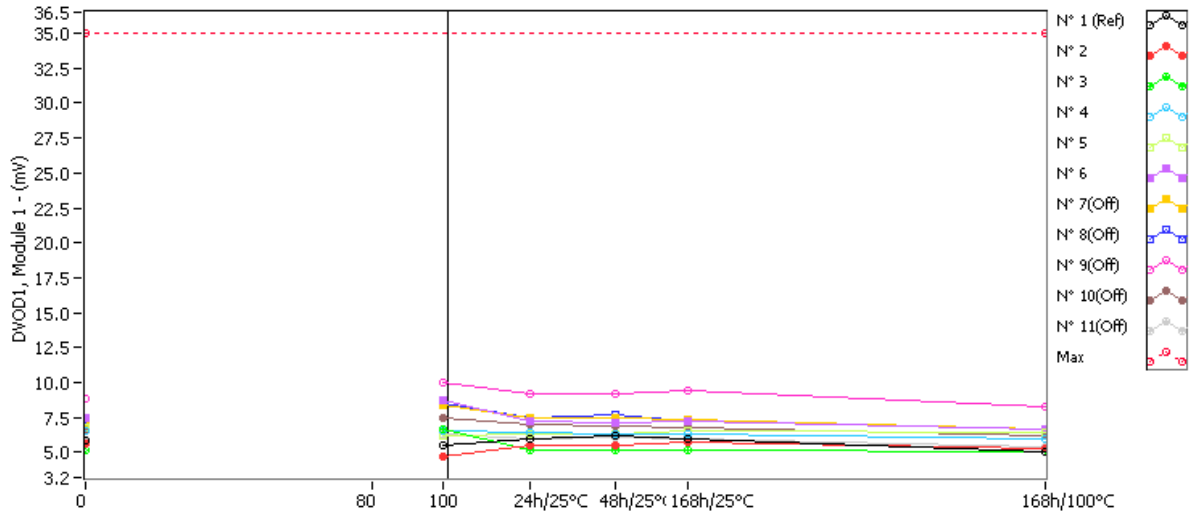
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	385.450	NaN	385.785	385.550	384.850	385.400	385.150
N° 2	344.800	NaN	359.090	349.700	349.650	348.550	334.900
N° 3	371.450	NaN	385.810	376.850	376.450	375.000	361.100
N° 4	374.550	NaN	388.780	379.300	378.900	377.700	361.900
N° 5	361.900	NaN	377.280	366.300	365.950	364.950	350.400
N° 6	387.000	NaN	399.845	391.400	390.850	389.750	374.600
N° 7(Off)	363.650	NaN	381.365	370.500	370.300	369.450	353.400
N° 8(Off)	369.800	NaN	386.240	377.100	376.600	375.550	359.550
N° 9(Off)	370.900	NaN	387.130	378.800	378.400	377.300	360.750
N° 10(Off)	371.850	NaN	390.055	379.050	378.250	377.350	360.950
N° 11(Off)	352.850	NaN	370.150	359.650	359.350	358.550	342.550

**Delta [VOD1, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	3.350E-1	1.000E-1	-6.000E-1	-5.000E-2	-3.000E-1
N° 2	---	NaN	1.429E+1	4.900E+0	4.850E+0	3.750E+0	-9.900E+0
N° 3	---	NaN	1.436E+1	5.400E+0	5.000E+0	3.550E+0	-1.035E+1
N° 4	---	NaN	1.423E+1	4.750E+0	4.350E+0	3.150E+0	-1.265E+1
N° 5	---	NaN	1.538E+1	4.400E+0	4.050E+0	3.050E+0	-1.150E+1
N° 6	---	NaN	1.285E+1	4.400E+0	3.850E+0	2.750E+0	-1.240E+1
N° 7(Off)	---	NaN	1.772E+1	6.850E+0	6.650E+0	5.800E+0	-1.025E+1
N° 8(Off)	---	NaN	1.644E+1	7.300E+0	6.800E+0	5.750E+0	-1.025E+1
N° 9(Off)	---	NaN	1.623E+1	7.900E+0	7.500E+0	6.400E+0	-1.015E+1
N° 10(Off)	---	NaN	1.820E+1	7.200E+0	6.400E+0	5.500E+0	-1.090E+1
N° 11(Off)	---	NaN	1.730E+1	6.800E+0	6.500E+0	5.700E+0	-1.030E+1
Average	---	NaN	1.422E+1	4.770E+0	4.420E+0	3.250E+0	-1.136E+1
s	---	0.000E+0	9.029E-1	4.147E-1	4.970E-1	4.000E-1	1.216E+0
Average+3s	---	NaN	1.693E+1	6.014E+0	5.911E+0	4.450E+0	-7.711E+0
Average-3s	---	NaN	1.151E+1	3.526E+0	2.929E+0	2.050E+0	-1.501E+1

# 16. DVOD1, Module 1

"RL = 100"



**DVOD1, Module 1 . (mV)**

**Max = 35.0**

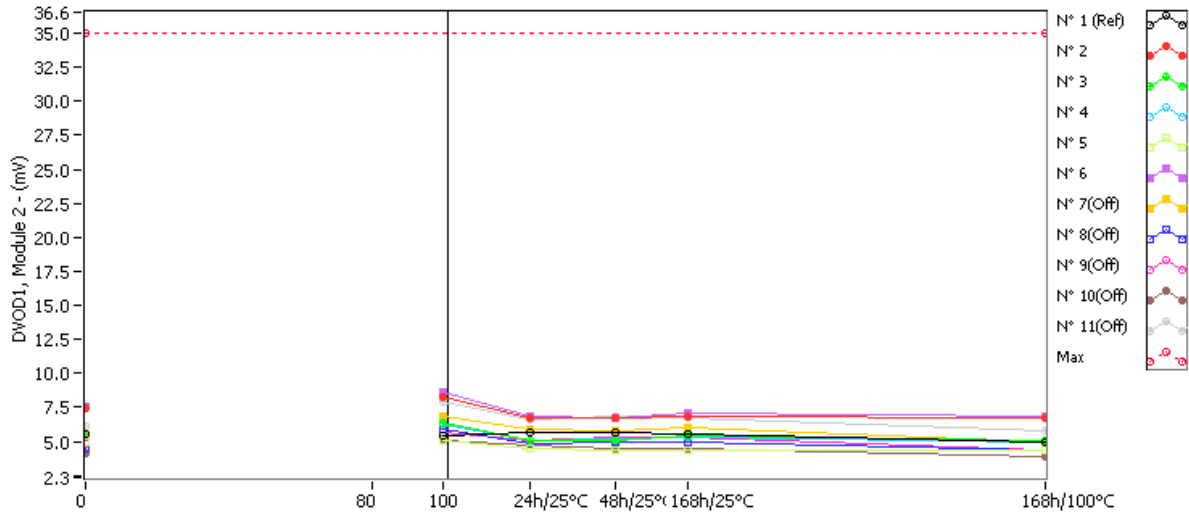
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.800	NaN	5.535	5.900	6.200	6.000	5.000
N° 2	5.600	NaN	4.702	5.500	5.500	5.700	5.300
N° 3	5.200	NaN	6.648	5.100	5.100	5.200	5.000
N° 4	6.500	NaN	6.487	6.400	6.300	6.300	5.900
N° 5	6.800	NaN	6.146	6.300	6.300	6.500	6.400
N° 6	7.500	NaN	8.747	7.200	7.100	7.200	6.700
N° 7(Off)	7.100	NaN	8.321	7.400	7.400	7.300	6.600
N° 8(Off)	7.100	NaN	8.520	7.400	7.700	7.200	6.600
N° 9(Off)	8.800	NaN	9.996	9.200	9.200	9.400	8.300
N° 10(Off)	6.700	NaN	7.418	7.000	6.900	6.800	6.200
N° 11(Off)	5.700	NaN	6.254	6.000	6.100	5.900	5.400

**Delta [DVOD1, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.650E-1	1.000E-1	4.000E-1	2.000E-1	-8.000E-1
N° 2	---	NaN	-8.980E-1	-1.000E-1	-1.000E-1	1.000E-1	-3.000E-1
N° 3	---	NaN	1.448E+0	-1.000E-1	-1.000E-1	0.000E+0	-2.000E-1
N° 4	---	NaN	-1.300E-2	-1.000E-1	-2.000E-1	-2.000E-1	-6.000E-1
N° 5	---	NaN	-6.540E-1	-5.000E-1	-5.000E-1	-3.000E-1	-4.000E-1
N° 6	---	NaN	1.247E+0	-3.000E-1	-4.000E-1	-3.000E-1	-8.000E-1
N° 7(Off)	---	NaN	1.221E+0	3.000E-1	3.000E-1	2.000E-1	-5.000E-1
N° 8(Off)	---	NaN	1.420E+0	3.000E-1	6.000E-1	1.000E-1	-5.000E-1
N° 9(Off)	---	NaN	1.196E+0	4.000E-1	4.000E-1	6.000E-1	-5.000E-1
N° 10(Off)	---	NaN	7.180E-1	3.000E-1	2.000E-1	1.000E-1	-5.000E-1
N° 11(Off)	---	NaN	5.540E-1	3.000E-1	4.000E-1	2.000E-1	-3.000E-1
Average	---	NaN	2.260E-1	-2.200E-1	-2.600E-1	-1.400E-1	-4.600E-1
s	---	0.000E+0	1.076E+0	1.789E-1	1.817E-1	1.817E-1	2.408E-1
Average+3s	---	NaN	3.454E+0	3.167E-1	2.850E-1	4.050E-1	2.625E-1
Average-3s	---	NaN	-3.002E+0	-7.567E-1	-8.050E-1	-6.850E-1	-1.182E+0

## 17. DVOD1, Module 2

"RL = 100"



**DVOD1, Module 2 . (mV)**

**Max = 35.0**

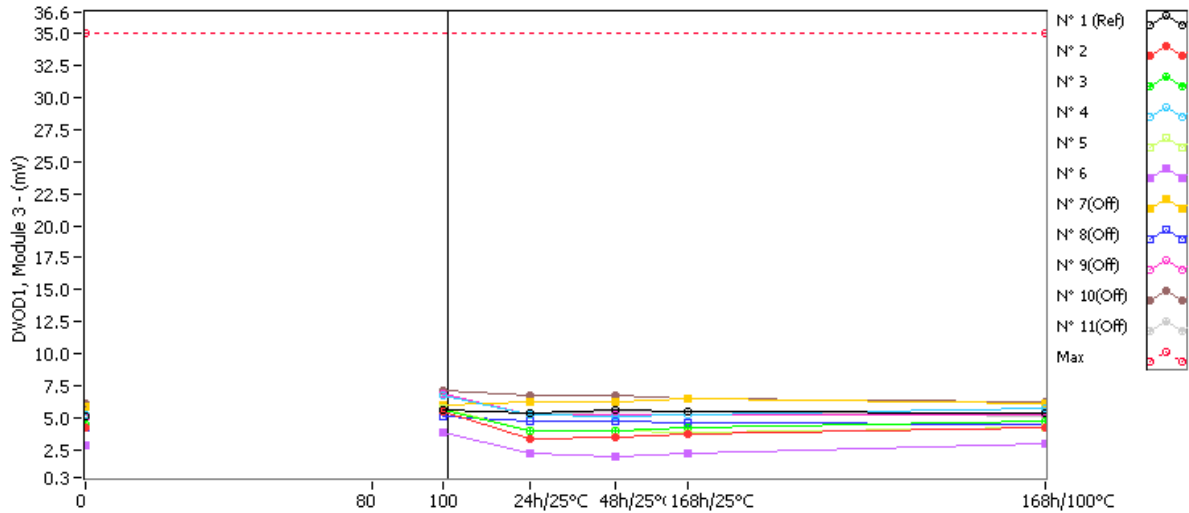
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.500	NaN	5.420	5.700	5.700	5.600	4.900
N° 2	7.400	NaN	8.300	6.700	6.700	6.900	6.700
N° 3	5.500	NaN	6.340	5.100	5.100	5.400	5.100
N° 4	5.500	NaN	6.220	5.100	5.200	5.300	5.000
N° 5	4.900	NaN	5.090	4.500	4.400	4.300	4.400
N° 6	7.500	NaN	8.620	6.900	6.700	7.100	6.900
N° 7(Off)	5.600	NaN	6.890	5.900	5.800	6.000	5.000
N° 8(Off)	4.500	NaN	5.920	4.800	5.000	5.000	4.300
N° 9(Off)	4.800	NaN	5.660	5.100	5.300	5.300	4.400
N° 10(Off)	4.100	NaN	5.050	4.700	4.500	4.500	3.900
N° 11(Off)	6.100	NaN	7.900	6.600	6.800	6.700	5.800

**Delta [DVOD1, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-8.000E-2	2.000E-1	2.000E-1	1.000E-1	-6.000E-1
N° 2	---	NaN	9.000E-1	-7.000E-1	-7.000E-1	-5.000E-1	-7.000E-1
N° 3	---	NaN	8.400E-1	-4.000E-1	-4.000E-1	-1.000E-1	-4.000E-1
N° 4	---	NaN	7.200E-1	-4.000E-1	-3.000E-1	-2.000E-1	-5.000E-1
N° 5	---	NaN	1.900E-1	-4.000E-1	-5.000E-1	-6.000E-1	-5.000E-1
N° 6	---	NaN	1.120E+0	-6.000E-1	-8.000E-1	-4.000E-1	-6.000E-1
N° 7(Off)	---	NaN	1.290E+0	3.000E-1	2.000E-1	4.000E-1	-6.000E-1
N° 8(Off)	---	NaN	1.420E+0	3.000E-1	5.000E-1	5.000E-1	-2.000E-1
N° 9(Off)	---	NaN	8.600E-1	3.000E-1	5.000E-1	5.000E-1	-4.000E-1
N° 10(Off)	---	NaN	9.500E-1	6.000E-1	4.000E-1	4.000E-1	-2.000E-1
N° 11(Off)	---	NaN	1.800E+0	5.000E-1	7.000E-1	6.000E-1	-3.000E-1
Average	---	NaN	7.540E-1	-5.000E-1	-5.400E-1	-3.600E-1	-5.400E-1
s	---	0.000E+0	3.471E-1	1.414E-1	2.074E-1	2.074E-1	1.140E-1
Average+3s	---	NaN	1.795E+0	-7.574E-2	8.209E-2	2.621E-1	-1.979E-1
Average-3s	---	NaN	-2.873E-1	-9.243E-1	-1.162E+0	-9.821E-1	-8.821E-1

## 18. DVOD1, Module 3

"RL = 100"



**DVOD1, Module 3 . (mV)**

**Max = 35.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.100	NaN	5.610	5.400	5.600	5.500	5.400
N° 2	4.300	NaN	5.530	3.400	3.500	3.700	4.200
N° 3	4.500	NaN	5.600	4.000	4.000	4.200	4.800
N° 4	5.300	NaN	6.720	5.300	5.100	5.200	5.800
N° 5	4.400	NaN	5.710	4.000	4.000	3.900	4.300
N° 6	2.900	NaN	3.810	2.200	2.000	2.200	3.000
N° 7(Off)	5.900	NaN	6.020	6.300	6.200	6.500	6.100
N° 8(Off)	4.300	NaN	5.070	4.700	4.800	4.600	4.500
N° 9(Off)	5.000	NaN	6.880	5.300	5.300	5.300	5.200
N° 10(Off)	6.100	NaN	7.150	6.700	6.700	6.500	6.300
N° 11(Off)	5.100	NaN	6.810	5.300	5.500	5.500	5.100

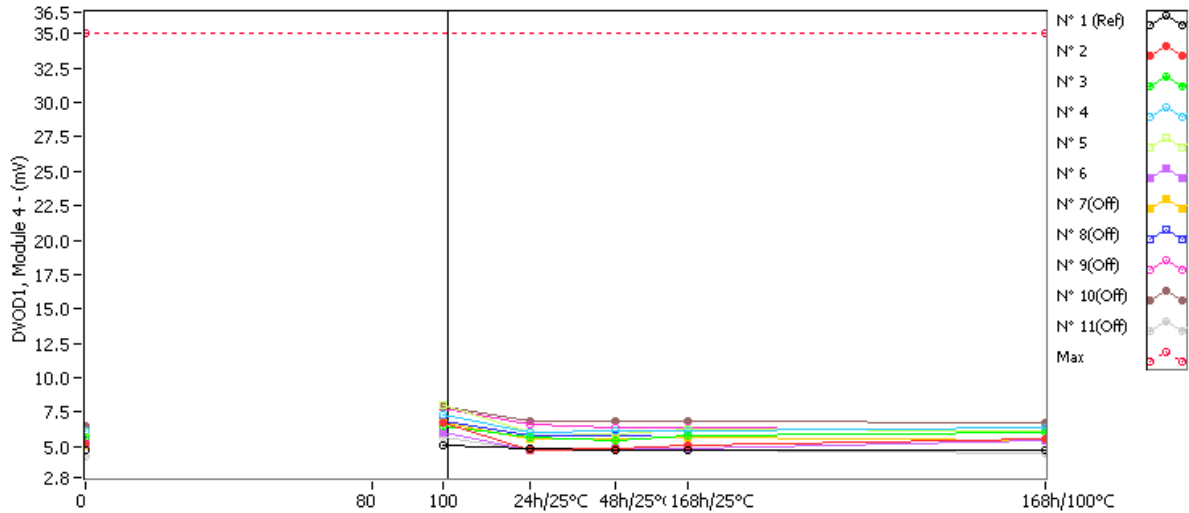
**Delta [DVOD1, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	5.100E-1	3.000E-1	5.000E-1	4.000E-1	3.000E-1
N° 2	---	NaN	1.230E+0	-9.000E-1	-8.000E-1	-6.000E-1	-1.000E-1
N° 3	---	NaN	1.100E+0	-5.000E-1	-5.000E-1	-3.000E-1	3.000E-1
N° 4	---	NaN	1.420E+0	0.000E+0	-2.000E-1	-1.000E-1	5.000E-1
N° 5	---	NaN	1.310E+0	-4.000E-1	-4.000E-1	-5.000E-1	-1.000E-1
N° 6	---	NaN	9.100E-1	-7.000E-1	-9.000E-1	-7.000E-1	1.000E-1
N° 7(Off)	---	NaN	1.200E-1	4.000E-1	3.000E-1	6.000E-1	2.000E-1
N° 8(Off)	---	NaN	7.700E-1	4.000E-1	5.000E-1	3.000E-1	2.000E-1
N° 9(Off)	---	NaN	1.880E+0	3.000E-1	3.000E-1	3.000E-1	2.000E-1
N° 10(Off)	---	NaN	1.050E+0	6.000E-1	6.000E-1	4.000E-1	2.000E-1
N° 11(Off)	---	NaN	1.710E+0	2.000E-1	4.000E-1	4.000E-1	0.000E+0
Average	---	NaN	1.194E+0	-5.000E-1	-5.600E-1	-4.400E-1	1.400E-1
s	---	0.000E+0	1.971E-1	3.391E-1	2.881E-1	2.408E-1	2.608E-1
Average+3s	---	NaN	1.785E+0	5.173E-1	3.043E-1	2.825E-1	9.223E-1
Average-3s	---	NaN	6.028E-1	-1.517E+0	-1.424E+0	-1.162E+0	-6.423E-1



## 19. DVOD1, Module 4

"RL = 100"



**DVOD1, Module 4 . (mV)**

**Max = 35.0**

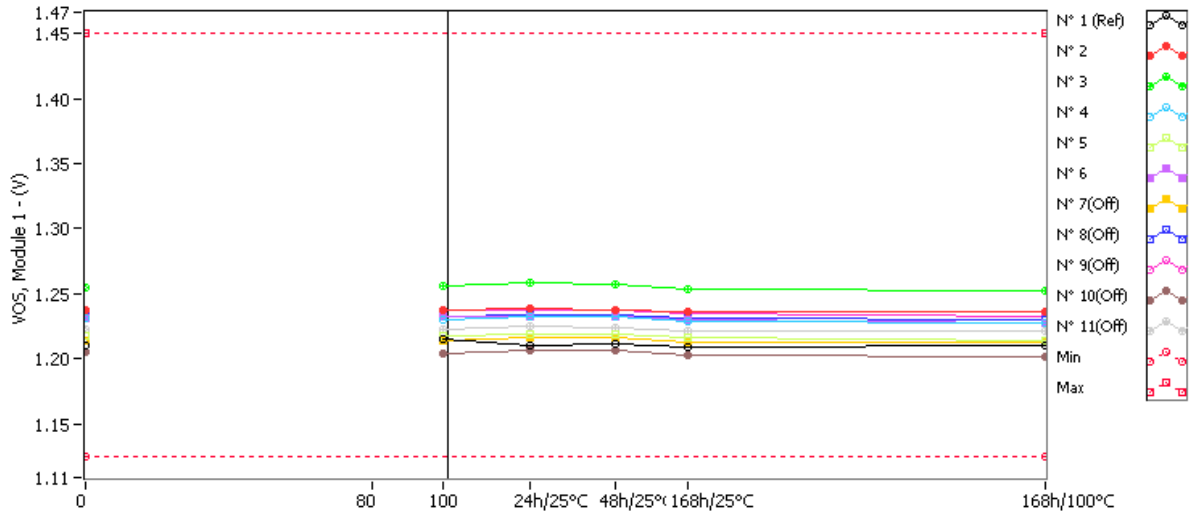
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	4.700	NaN	5.090	4.900	4.700	4.800	4.700
N° 2	5.200	NaN	6.760	4.800	4.900	5.100	5.600
N° 3	5.700	NaN	6.560	5.700	5.500	5.800	6.000
N° 4	6.100	NaN	7.340	6.000	6.200	6.200	6.400
N° 5	6.000	NaN	7.980	6.000	5.900	6.300	6.200
N° 6	5.200	NaN	6.030	4.800	4.900	4.900	5.400
N° 7(Off)	5.100	NaN	6.770	5.600	5.600	5.700	5.400
N° 8(Off)	5.400	NaN	6.840	5.800	5.800	5.700	5.500
N° 9(Off)	6.000	NaN	7.760	6.600	6.400	6.400	6.100
N° 10(Off)	6.500	NaN	7.930	6.900	6.900	6.900	6.700
N° 11(Off)	4.300	NaN	5.660	4.700	4.700	4.700	4.500

**Delta [DVOD1, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	3.900E-1	2.000E-1	0.000E+0	1.000E-1	0.000E+0
N° 2	---	NaN	1.560E+0	-4.000E-1	-3.000E-1	-1.000E-1	4.000E-1
N° 3	---	NaN	8.600E-1	0.000E+0	-2.000E-1	1.000E-1	3.000E-1
N° 4	---	NaN	1.240E+0	-1.000E-1	1.000E-1	1.000E-1	3.000E-1
N° 5	---	NaN	1.980E+0	0.000E+0	-1.000E-1	3.000E-1	2.000E-1
N° 6	---	NaN	8.300E-1	-4.000E-1	-3.000E-1	-3.000E-1	2.000E-1
N° 7(Off)	---	NaN	1.670E+0	5.000E-1	5.000E-1	6.000E-1	3.000E-1
N° 8(Off)	---	NaN	1.440E+0	4.000E-1	4.000E-1	3.000E-1	1.000E-1
N° 9(Off)	---	NaN	1.760E+0	6.000E-1	4.000E-1	4.000E-1	1.000E-1
N° 10(Off)	---	NaN	1.430E+0	4.000E-1	4.000E-1	4.000E-1	2.000E-1
N° 11(Off)	---	NaN	1.360E+0	4.000E-1	4.000E-1	4.000E-1	2.000E-1
Average	---	NaN	1.294E+0	-1.800E-1	-1.600E-1	2.000E-2	2.800E-1
s	---	0.000E+0	4.868E-1	2.049E-1	1.673E-1	2.280E-1	8.367E-2
Average+3s	---	NaN	2.754E+0	4.348E-1	3.420E-1	7.041E-1	5.310E-1
Average-3s	---	NaN	-1.664E-1	-7.948E-1	-6.620E-1	-6.641E-1	2.900E-2

## 20. VOS, Module 1

"RL = 100"



**VOS, Module 1 . (V)**

**Min = 1.125 Max = 1.45**

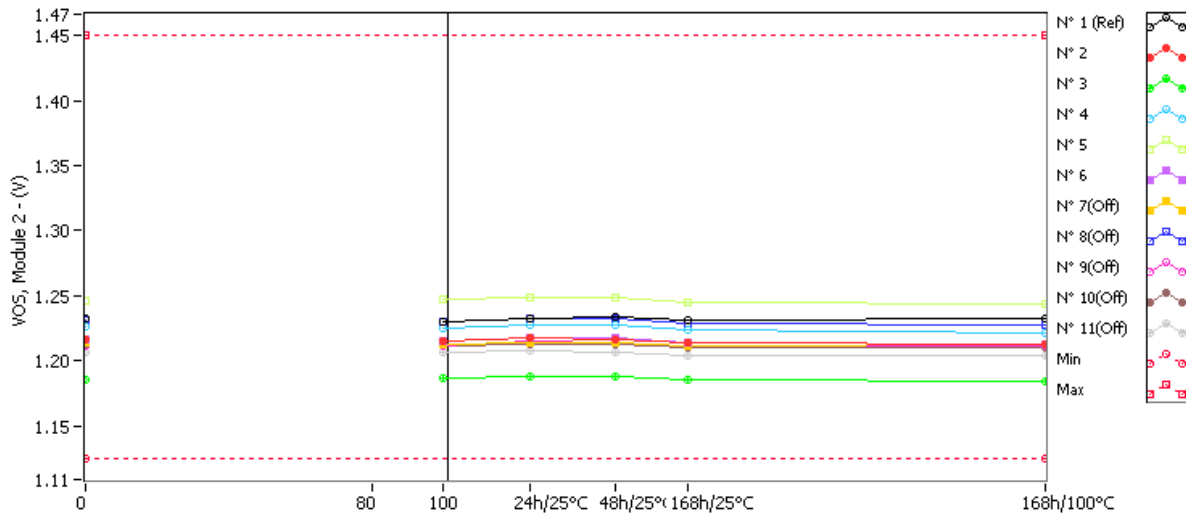
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.210	NaN	1.215	1.210	1.212	1.209	1.210
N° 2	1.238	NaN	1.237	1.239	1.238	1.236	1.236
N° 3	1.255	NaN	1.256	1.258	1.257	1.254	1.252
N° 4	1.231	NaN	1.230	1.232	1.232	1.229	1.227
N° 5	1.217	NaN	1.218	1.219	1.219	1.216	1.214
N° 6	1.231	NaN	1.232	1.233	1.233	1.230	1.227
N° 7(Off)	1.214	NaN	1.214	1.216	1.216	1.213	1.213
N° 8(Off)	1.233	NaN	1.232	1.234	1.234	1.231	1.230
N° 9(Off)	1.235	NaN	1.237	1.238	1.238	1.235	1.233
N° 10(Off)	1.205	NaN	1.204	1.206	1.206	1.203	1.202
N° 11(Off)	1.222	NaN	1.223	1.225	1.224	1.221	1.221

**Delta [VOS, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	5.000E-3	0.000E+0	2.000E-3	-1.000E-3	0.000E+0
N° 2	---	NaN	-1.000E-3	1.000E-3	0.000E+0	-2.000E-3	-2.000E-3
N° 3	---	NaN	1.000E-3	3.000E-3	2.000E-3	-1.000E-3	-3.000E-3
N° 4	---	NaN	-1.000E-3	1.000E-3	1.000E-3	-2.000E-3	-4.000E-3
N° 5	---	NaN	1.000E-3	2.000E-3	2.000E-3	-1.000E-3	-3.000E-3
N° 6	---	NaN	1.000E-3	2.000E-3	2.000E-3	-1.000E-3	-4.000E-3
N° 7(Off)	---	NaN	0.000E+0	2.000E-3	2.000E-3	-1.000E-3	-1.000E-3
N° 8(Off)	---	NaN	-1.000E-3	1.000E-3	1.000E-3	-2.000E-3	-3.000E-3
N° 9(Off)	---	NaN	2.000E-3	3.000E-3	3.000E-3	0.000E+0	-2.000E-3
N° 10(Off)	---	NaN	-1.000E-3	1.000E-3	1.000E-3	-2.000E-3	-3.000E-3
N° 11(Off)	---	NaN	1.000E-3	3.000E-3	2.000E-3	-1.000E-3	-1.000E-3
Average	---	NaN	2.000E-4	1.800E-3	1.400E-3	-1.400E-3	-3.200E-3
s	---	0.000E+0	1.095E-3	8.367E-4	8.944E-4	5.477E-4	8.367E-4
Average+3s	---	NaN	3.486E-3	4.310E-3	4.083E-3	2.432E-4	-6.900E-4
Average-3s	---	NaN	-3.086E-3	-7.100E-4	-1.283E-3	-3.043E-3	-5.710E-3

## 21. VOS, Module 2

"RL = 100"



VOS, Module 2 . (V)

Min = 1.125 Max = 1.45

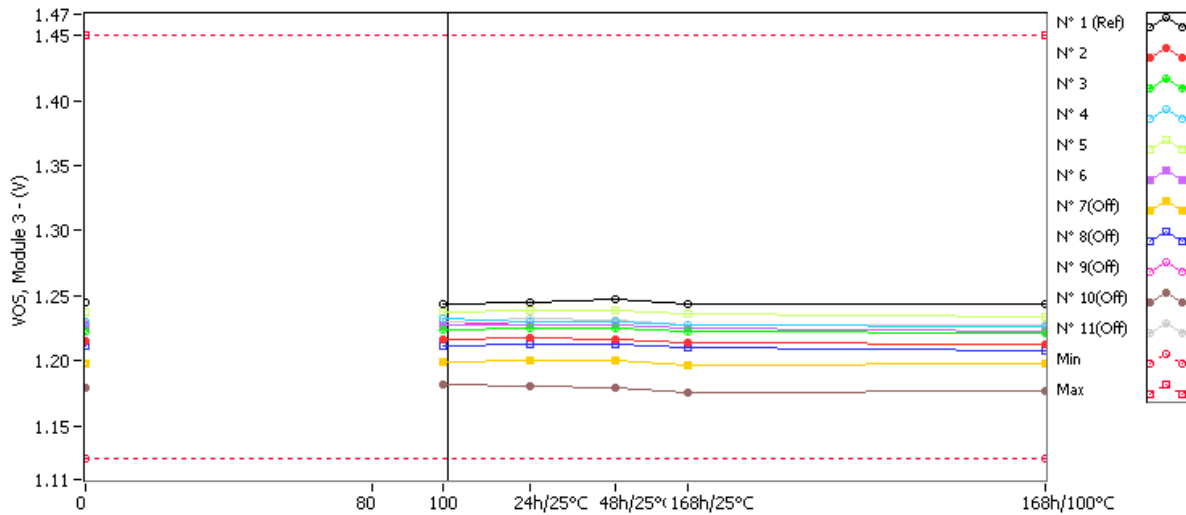
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.232	NaN	1.230	1.233	1.234	1.231	1.232
N° 2	1.216	NaN	1.215	1.217	1.216	1.214	1.213
N° 3	1.186	NaN	1.187	1.188	1.188	1.185	1.184
N° 4	1.226	NaN	1.225	1.227	1.227	1.224	1.221
N° 5	1.246	NaN	1.247	1.249	1.249	1.245	1.243
N° 6	1.216	NaN	1.215	1.218	1.218	1.214	1.213
N° 7(Off)	1.214	NaN	1.213	1.214	1.214	1.211	1.213
N° 8(Off)	1.231	NaN	1.230	1.232	1.232	1.229	1.227
N° 9(Off)	1.211	NaN	1.212	1.215	1.214	1.211	1.211
N° 10(Off)	1.212	NaN	1.211	1.213	1.213	1.210	1.210
N° 11(Off)	1.207	NaN	1.206	1.208	1.207	1.204	1.204

Delta [VOS, Module 2]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.000E-3	1.000E-3	2.000E-3	-1.000E-3	0.000E+0
N° 2	---	NaN	-1.000E-3	1.000E-3	0.000E+0	-2.000E-3	-3.000E-3
N° 3	---	NaN	1.000E-3	2.000E-3	2.000E-3	-1.000E-3	-2.000E-3
N° 4	---	NaN	-1.000E-3	1.000E-3	1.000E-3	-2.000E-3	-5.000E-3
N° 5	---	NaN	1.000E-3	3.000E-3	3.000E-3	-1.000E-3	-3.000E-3
N° 6	---	NaN	-1.000E-3	2.000E-3	2.000E-3	-2.000E-3	-3.000E-3
N° 7(Off)	---	NaN	-1.000E-3	0.000E+0	0.000E+0	-3.000E-3	-1.000E-3
N° 8(Off)	---	NaN	-1.000E-3	1.000E-3	1.000E-3	-2.000E-3	-4.000E-3
N° 9(Off)	---	NaN	1.000E-3	4.000E-3	3.000E-3	0.000E+0	0.000E+0
N° 10(Off)	---	NaN	-1.000E-3	1.000E-3	1.000E-3	-2.000E-3	-2.000E-3
N° 11(Off)	---	NaN	-1.000E-3	1.000E-3	0.000E+0	-3.000E-3	-3.000E-3
Average	---	NaN	-2.000E-4	1.800E-3	1.600E-3	-1.600E-3	-3.200E-3
s	---	0.000E+0	1.095E-3	8.367E-4	1.140E-3	5.477E-4	1.095E-3
Average+3s	---	NaN	3.086E-3	4.310E-3	5.021E-3	4.317E-5	8.634E-5
Average-3s	---	NaN	-3.486E-3	-7.100E-4	-1.821E-3	-3.243E-3	-6.486E-3

## 22. VOS, Module 3

"RL = 100"



**VOS, Module 3 . (V)**

**Min = 1.125 Max = 1.45**

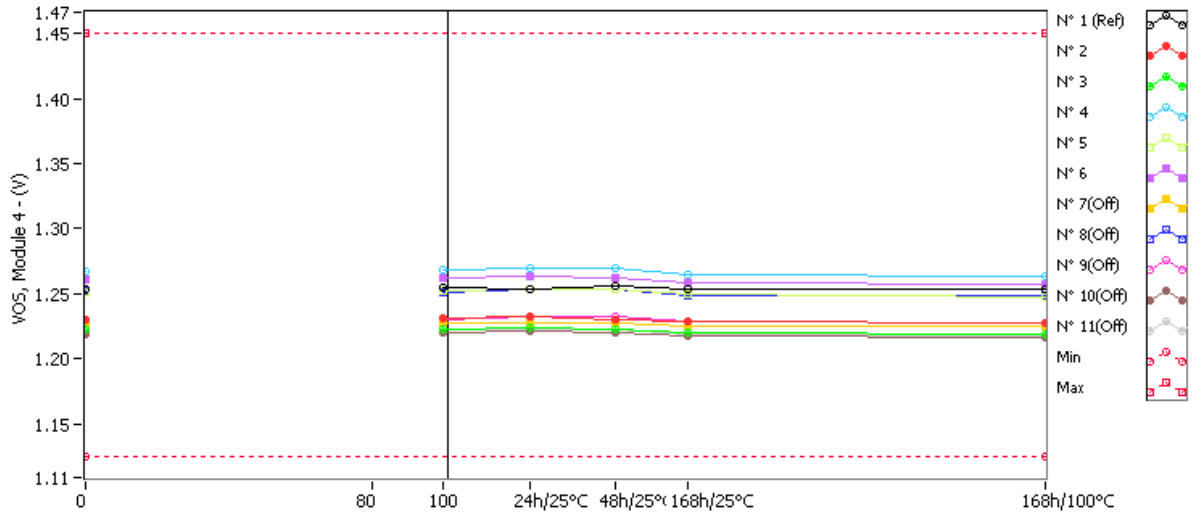
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.245	NaN	1.243	1.245	1.247	1.244	1.244
N° 2	1.215	NaN	1.216	1.217	1.216	1.214	1.213
N° 3	1.223	NaN	1.224	1.225	1.225	1.222	1.221
N° 4	1.230	NaN	1.232	1.230	1.230	1.227	1.226
N° 5	1.237	NaN	1.238	1.239	1.239	1.236	1.234
N° 6	1.226	NaN	1.227	1.228	1.228	1.225	1.222
N° 7(Off)	1.198	NaN	1.199	1.200	1.200	1.197	1.198
N° 8(Off)	1.211	NaN	1.212	1.213	1.213	1.210	1.208
N° 9(Off)	1.227	NaN	1.228	1.230	1.230	1.227	1.226
N° 10(Off)	1.179	NaN	1.182	1.180	1.179	1.176	1.177
N° 11(Off)	1.229	NaN	1.230	1.232	1.231	1.228	1.228

**Delta [VOS, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.000E-3	0.000E+0	2.000E-3	-1.000E-3	-1.000E-3
N° 2	---	NaN	1.000E-3	2.000E-3	1.000E-3	-1.000E-3	-2.000E-3
N° 3	---	NaN	1.000E-3	2.000E-3	2.000E-3	-1.000E-3	-2.000E-3
N° 4	---	NaN	2.000E-3	0.000E+0	0.000E+0	-3.000E-3	-4.000E-3
N° 5	---	NaN	1.000E-3	2.000E-3	2.000E-3	-1.000E-3	-3.000E-3
N° 6	---	NaN	1.000E-3	2.000E-3	2.000E-3	-1.000E-3	-4.000E-3
N° 7(Off)	---	NaN	1.000E-3	2.000E-3	2.000E-3	-1.000E-3	0.000E+0
N° 8(Off)	---	NaN	1.000E-3	2.000E-3	2.000E-3	-1.000E-3	-3.000E-3
N° 9(Off)	---	NaN	1.000E-3	3.000E-3	3.000E-3	0.000E+0	-1.000E-3
N° 10(Off)	---	NaN	3.000E-3	1.000E-3	0.000E+0	-3.000E-3	-2.000E-3
N° 11(Off)	---	NaN	1.000E-3	3.000E-3	2.000E-3	-1.000E-3	-1.000E-3
Average	---	NaN	1.200E-3	1.600E-3	1.400E-3	-1.400E-3	-3.000E-3
s	---	0.000E+0	4.472E-4	8.944E-4	8.944E-4	8.944E-4	1.000E-3
Average+3s	---	NaN	2.542E-3	4.283E-3	4.083E-3	1.283E-3	-2.212E-17
Average-3s	---	NaN	-1.416E-4	-1.083E-3	-1.283E-3	-4.083E-3	-6.000E-3

## 23. VOS, Module 4

"RL = 100"



**VOS, Module 4 . (V)**

**Min = 1.125 Max = 1.45**

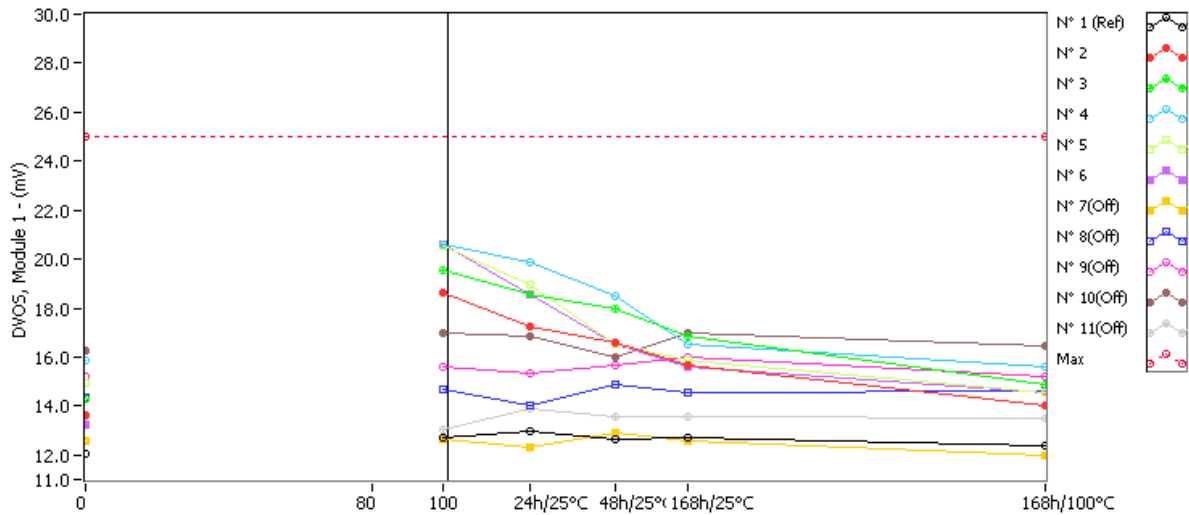
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.254	NaN	1.255	1.254	1.256	1.253	1.253
N° 2	1.230	NaN	1.231	1.232	1.230	1.229	1.228
N° 3	1.222	NaN	1.223	1.224	1.223	1.220	1.219
N° 4	1.267	NaN	1.268	1.269	1.269	1.265	1.263
N° 5	1.251	NaN	1.252	1.253	1.253	1.250	1.247
N° 6	1.261	NaN	1.262	1.263	1.262	1.259	1.257
N° 7(Off)	1.228	NaN	1.227	1.228	1.228	1.225	1.225
N° 8(Off)	1.252	NaN	1.251	1.253	1.253	1.249	1.248
N° 9(Off)	1.229	NaN	1.230	1.232	1.232	1.229	1.228
N° 10(Off)	1.219	NaN	1.220	1.221	1.220	1.218	1.216
N° 11(Off)	1.221	NaN	1.222	1.223	1.223	1.219	1.218

**Delta [VOS, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.000E-3	0.000E+0	2.000E-3	-1.000E-3	-1.000E-3
N° 2	---	NaN	1.000E-3	2.000E-3	0.000E+0	-1.000E-3	-2.000E-3
N° 3	---	NaN	1.000E-3	2.000E-3	1.000E-3	-2.000E-3	-3.000E-3
N° 4	---	NaN	1.000E-3	2.000E-3	2.000E-3	-2.000E-3	-4.000E-3
N° 5	---	NaN	1.000E-3	2.000E-3	2.000E-3	-1.000E-3	-4.000E-3
N° 6	---	NaN	1.000E-3	2.000E-3	1.000E-3	-2.000E-3	-4.000E-3
N° 7(Off)	---	NaN	-1.000E-3	0.000E+0	0.000E+0	-3.000E-3	-3.000E-3
N° 8(Off)	---	NaN	-1.000E-3	1.000E-3	1.000E-3	-3.000E-3	-4.000E-3
N° 9(Off)	---	NaN	1.000E-3	3.000E-3	3.000E-3	0.000E+0	-1.000E-3
N° 10(Off)	---	NaN	1.000E-3	2.000E-3	1.000E-3	-1.000E-3	-3.000E-3
N° 11(Off)	---	NaN	1.000E-3	2.000E-3	2.000E-3	-2.000E-3	-3.000E-3
Average	---	NaN	1.000E-3	2.000E-3	1.200E-3	-1.600E-3	-3.400E-3
s	---	0.000E+0	0.000E+0	0.000E+0	8.367E-4	5.477E-4	8.944E-4
Average+3s	---	NaN	1.000E-3	2.000E-3	3.710E-3	4.317E-5	-7.167E-4
Average-3s	---	NaN	1.000E-3	2.000E-3	-1.310E-3	-3.243E-3	-6.083E-3

## 24. DVOS, Module 1

"RL = 100"



**DVOS, Module 1 . (mV)**

**Max = 25.0**

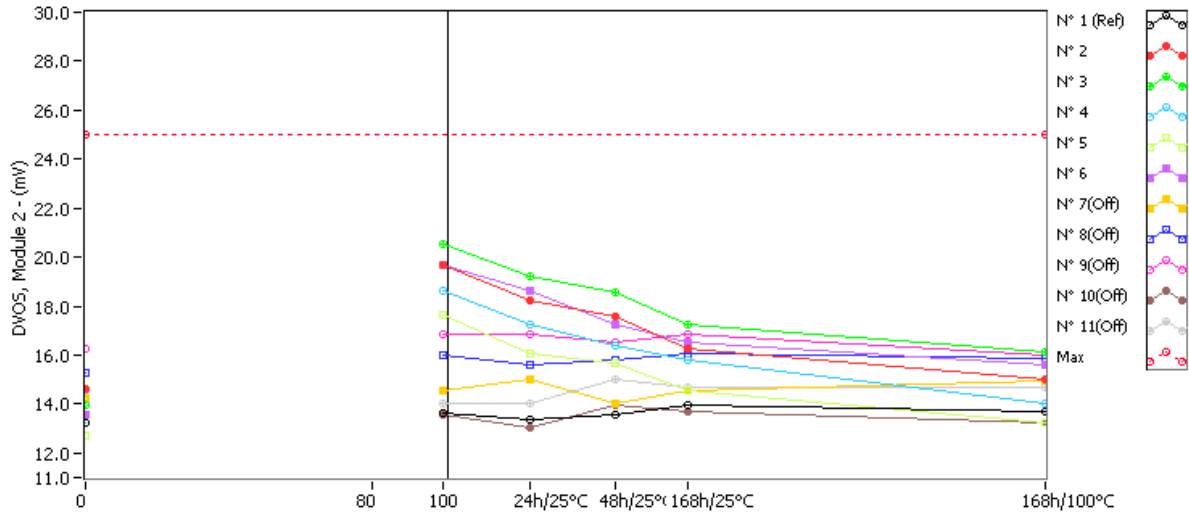
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	12.057	NaN	12.698	12.987	12.657	12.698	12.350
N° 2	13.654	NaN	18.654	17.251	16.587	15.654	14.003
N° 3	14.256	NaN	19.548	18.548	17.965	16.874	14.877
N° 4	15.874	NaN	20.568	19.874	18.521	16.547	15.624
N° 5	14.954	NaN	20.547	18.962	16.547	15.847	14.568
N° 6	13.256	NaN	20.568	18.569	16.548	15.624	14.562
N° 7(Off)	12.562	NaN	12.654	12.301	12.874	12.562	12.014
N° 8(Off)	14.354	NaN	14.698	14.012	14.865	14.560	14.632
N° 9(Off)	15.201	NaN	15.624	15.354	15.687	15.965	15.233
N° 10(Off)	16.232	NaN	16.988	16.874	16.023	16.951	16.456
N° 11(Off)	13.566	NaN	13.025	13.899	13.587	13.562	13.487

**Delta [DVOS, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	6.410E-1	9.300E-1	6.000E-1	6.410E-1	2.930E-1
N° 2	---	NaN	5.000E+0	3.597E+0	2.933E+0	2.000E+0	3.490E-1
N° 3	---	NaN	5.292E+0	4.292E+0	3.709E+0	2.618E+0	6.210E-1
N° 4	---	NaN	4.694E+0	4.000E+0	2.647E+0	6.730E-1	-2.500E-1
N° 5	---	NaN	5.593E+0	4.008E+0	1.593E+0	8.930E-1	-3.860E-1
N° 6	---	NaN	7.312E+0	5.313E+0	3.292E+0	2.368E+0	1.306E+0
N° 7(Off)	---	NaN	9.200E-2	-2.610E-1	3.120E-1	0.000E+0	-5.480E-1
N° 8(Off)	---	NaN	3.440E-1	-3.420E-1	5.110E-1	2.060E-1	2.780E-1
N° 9(Off)	---	NaN	4.230E-1	1.530E-1	4.860E-1	7.640E-1	3.200E-2
N° 10(Off)	---	NaN	7.560E-1	6.420E-1	-2.090E-1	7.190E-1	2.240E-1
N° 11(Off)	---	NaN	-5.410E-1	3.330E-1	2.100E-2	-4.000E-3	-7.900E-2
Average	---	NaN	5.578E+0	4.242E+0	2.835E+0	1.710E+0	3.280E-1
s	---	0.000E+0	1.025E+0	6.479E-1	8.000E-1	8.781E-1	6.868E-1
Average+3s	---	NaN	8.654E+0	6.186E+0	5.235E+0	4.345E+0	2.388E+0
Average-3s	---	NaN	2.503E+0	2.298E+0	4.347E-1	-9.240E-1	-1.732E+0

## 25. DVOS, Module 2

"RL = 100"



**DVOS, Module 2 . (mV)**

**Max = 25.0**

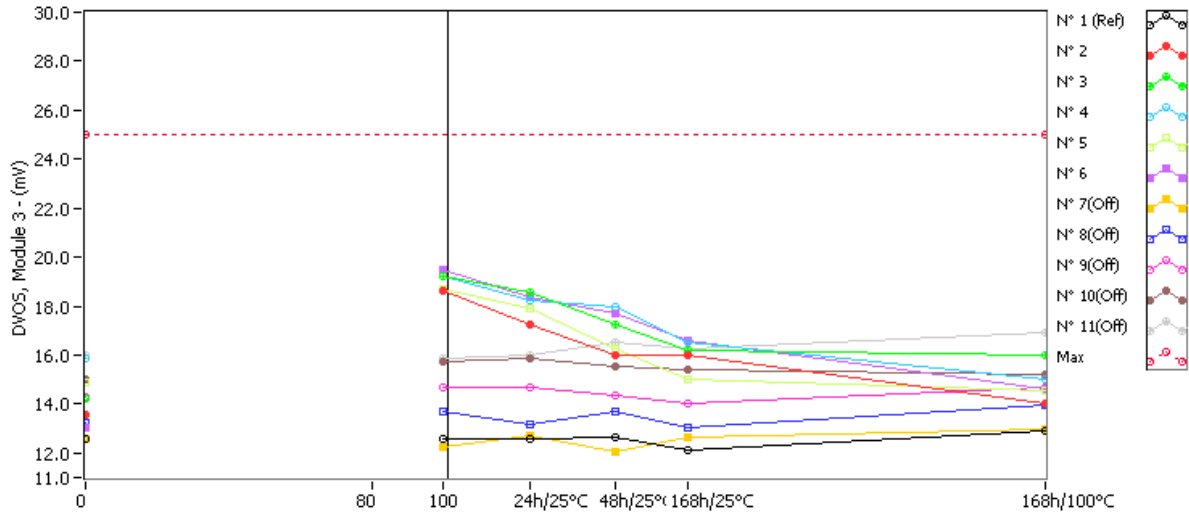
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	13.258	NaN	13.657	13.368	13.587	13.987	13.698
N° 2	14.587	NaN	19.657	18.204	17.560	16.258	15.003
N° 3	13.981	NaN	20.560	19.234	18.569	17.254	16.099
N° 4	13.258	NaN	18.657	17.254	16.369	15.810	14.036
N° 5	12.698	NaN	17.658	16.037	15.687	14.521	13.256
N° 6	13.588	NaN	19.654	18.657	17.241	16.548	15.621
N° 7(Off)	14.231	NaN	14.547	14.984	14.024	14.569	14.962
N° 8(Off)	15.247	NaN	15.965	15.632	15.784	16.056	15.877
N° 9(Off)	16.254	NaN	16.854	16.874	16.534	16.877	16.024
N° 10(Off)	13.524	NaN	13.569	13.025	13.984	13.687	13.254
N° 11(Off)	14.568	NaN	14.025	14.037	14.987	14.658	14.657

**Delta [DVOS, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	3.990E-1	1.100E-1	3.290E-1	7.290E-1	4.400E-1
N° 2	---	NaN	5.070E+0	3.617E+0	2.973E+0	1.671E+0	4.160E-1
N° 3	---	NaN	6.579E+0	5.253E+0	4.588E+0	3.273E+0	2.118E+0
N° 4	---	NaN	5.399E+0	3.996E+0	3.111E+0	2.552E+0	7.780E-1
N° 5	---	NaN	4.960E+0	3.339E+0	2.989E+0	1.823E+0	5.580E-1
N° 6	---	NaN	6.066E+0	5.069E+0	3.653E+0	2.960E+0	2.033E+0
N° 7(Off)	---	NaN	3.160E-1	7.530E-1	-2.070E-1	3.380E-1	7.310E-1
N° 8(Off)	---	NaN	7.180E-1	3.850E-1	5.370E-1	8.090E-1	6.300E-1
N° 9(Off)	---	NaN	6.000E-1	6.200E-1	2.800E-1	6.230E-1	-2.300E-1
N° 10(Off)	---	NaN	4.500E-2	-4.990E-1	4.600E-1	1.630E-1	-2.700E-1
N° 11(Off)	---	NaN	-5.430E-1	-5.310E-1	4.190E-1	9.000E-2	8.900E-2
Average	---	NaN	5.615E+0	4.255E+0	3.463E+0	2.456E+0	1.181E+0
s	---	0.000E+0	6.902E-1	8.619E-1	6.875E-1	6.978E-1	8.276E-1
Average+3s	---	NaN	7.685E+0	6.841E+0	5.525E+0	4.549E+0	3.663E+0
Average-3s	---	NaN	3.544E+0	1.669E+0	1.400E+0	3.624E-1	-1.302E+0

## 26. DVOS, Module 3

"RL = 100"



**DVOS, Module 3 . (mV)**

**Max = 25.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	12.565	NaN	12.564	12.589	12.647	12.120	12.877
N° 2	13.566	NaN	18.654	17.214	16.025	15.988	14.010
N° 3	14.210	NaN	19.250	18.566	17.254	16.201	15.987
N° 4	15.877	NaN	19.211	18.201	17.954	16.547	15.040
N° 5	14.877	NaN	18.677	17.874	16.241	15.014	14.563
N° 6	13.025	NaN	19.487	18.352	17.687	16.587	14.587
N° 7(Off)	12.547	NaN	12.245	12.687	12.036	12.657	12.987
N° 8(Off)	13.257	NaN	13.687	13.147	13.687	13.014	13.985
N° 9(Off)	14.257	NaN	14.658	14.699	14.324	14.024	14.657
N° 10(Off)	15.024	NaN	15.741	15.896	15.547	15.423	15.236
N° 11(Off)	16.024	NaN	15.874	15.987	16.547	16.257	16.902

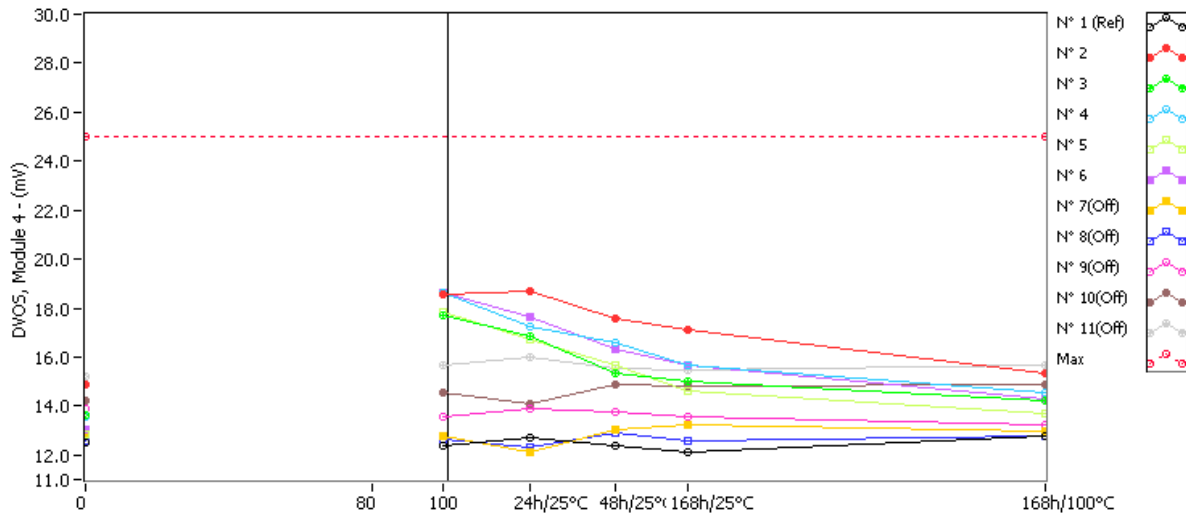
**Delta [DVOS, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.000E-3	2.400E-2	8.200E-2	-4.450E-1	3.120E-1
N° 2	---	NaN	5.088E+0	3.648E+0	2.459E+0	2.422E+0	4.440E-1
N° 3	---	NaN	5.040E+0	4.356E+0	3.044E+0	1.991E+0	1.777E+0
N° 4	---	NaN	3.334E+0	2.324E+0	2.077E+0	6.700E-1	-8.370E-1
N° 5	---	NaN	3.800E+0	2.997E+0	1.364E+0	1.370E-1	-3.140E-1
N° 6	---	NaN	6.462E+0	5.327E+0	4.662E+0	3.562E+0	1.562E+0
N° 7(Off)	---	NaN	-3.020E-1	1.400E-1	-5.110E-1	1.100E-1	4.400E-1
N° 8(Off)	---	NaN	4.300E-1	-1.100E-1	4.300E-1	-2.430E-1	7.280E-1
N° 9(Off)	---	NaN	4.010E-1	4.420E-1	6.700E-2	-2.330E-1	4.000E-1
N° 10(Off)	---	NaN	7.170E-1	8.720E-1	5.230E-1	3.990E-1	2.120E-1
N° 11(Off)	---	NaN	-1.500E-1	-3.700E-2	5.230E-1	2.330E-1	8.780E-1
Average	---	NaN	4.745E+0	3.730E+0	2.721E+0	1.756E+0	5.264E-1
s	---	0.000E+0	1.228E+0	1.169E+0	1.245E+0	1.375E+0	1.141E+0
Average+3s	---	NaN	8.430E+0	7.236E+0	6.455E+0	5.881E+0	3.950E+0
Average-3s	---	NaN	1.059E+0	2.244E-1	-1.013E+0	-2.368E+0	-2.897E+0



## 27. DVOS, Module 4

"RL = 100"



**DVOS, Module 4 . (mV)**

**Max = 25.0**

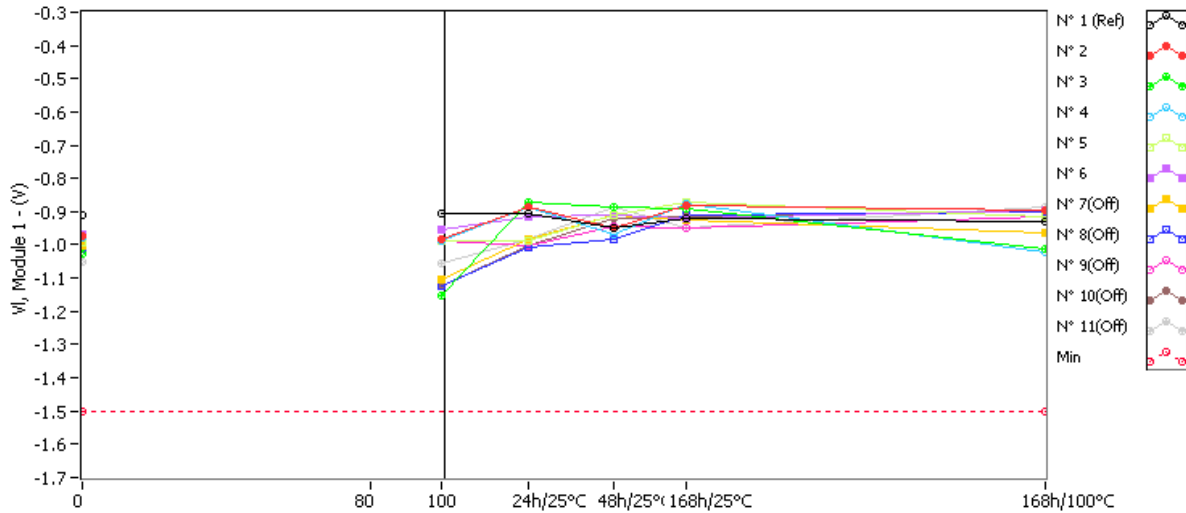
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	12.520	NaN	12.354	12.698	12.369	12.100	12.777
N° 2	14.854	NaN	18.563	18.699	17.588	17.100	15.369
N° 3	13.654	NaN	17.699	16.855	15.366	15.000	14.235
N° 4	13.569	NaN	18.657	17.235	16.588	15.687	14.532
N° 5	12.857	NaN	17.866	16.699	15.674	14.589	13.699
N° 6	13.025	NaN	18.659	17.658	16.324	15.698	14.268
N° 7(Off)	12.899	NaN	12.758	12.126	13.056	13.256	12.975
N° 8(Off)	12.562	NaN	12.653	12.325	12.896	12.564	12.785
N° 9(Off)	13.866	NaN	13.566	13.899	13.784	13.566	13.225
N° 10(Off)	14.225	NaN	14.568	14.102	14.877	14.788	14.905
N° 11(Off)	15.240	NaN	15.687	15.988	15.562	15.475	15.698

**Delta [DVOS, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.660E-1	1.780E-1	-1.510E-1	-4.200E-1	2.570E-1
N° 2	---	NaN	3.709E+0	3.845E+0	2.734E+0	2.246E+0	5.150E-1
N° 3	---	NaN	4.045E+0	3.201E+0	1.712E+0	1.346E+0	5.810E-1
N° 4	---	NaN	5.088E+0	3.666E+0	3.019E+0	2.118E+0	9.630E-1
N° 5	---	NaN	5.009E+0	3.842E+0	2.817E+0	1.732E+0	8.420E-1
N° 6	---	NaN	5.634E+0	4.633E+0	3.299E+0	2.673E+0	1.243E+0
N° 7(Off)	---	NaN	-1.410E-1	-7.730E-1	1.570E-1	3.570E-1	7.600E-2
N° 8(Off)	---	NaN	9.100E-2	-2.370E-1	3.340E-1	2.000E-3	2.230E-1
N° 9(Off)	---	NaN	-3.000E-1	3.300E-2	-8.200E-2	-3.000E-1	-6.410E-1
N° 10(Off)	---	NaN	3.430E-1	-1.230E-1	6.520E-1	5.630E-1	6.800E-1
N° 11(Off)	---	NaN	4.470E-1	7.480E-1	3.220E-1	2.350E-1	4.580E-1
Average	---	NaN	4.697E+0	3.837E+0	2.716E+0	2.023E+0	8.288E-1
s	---	0.000E+0	7.952E-1	5.166E-1	6.021E-1	5.060E-1	2.956E-1
Average+3s	---	NaN	7.083E+0	5.387E+0	4.523E+0	3.541E+0	1.716E+0
Average-3s	---	NaN	2.311E+0	2.288E+0	9.098E-1	5.049E-1	-5.813E-2

## 28. VI, Module 1

"I<sub>in</sub> = +18mA"



**VI, Module 1 . (V)**

**Min = -1.5**

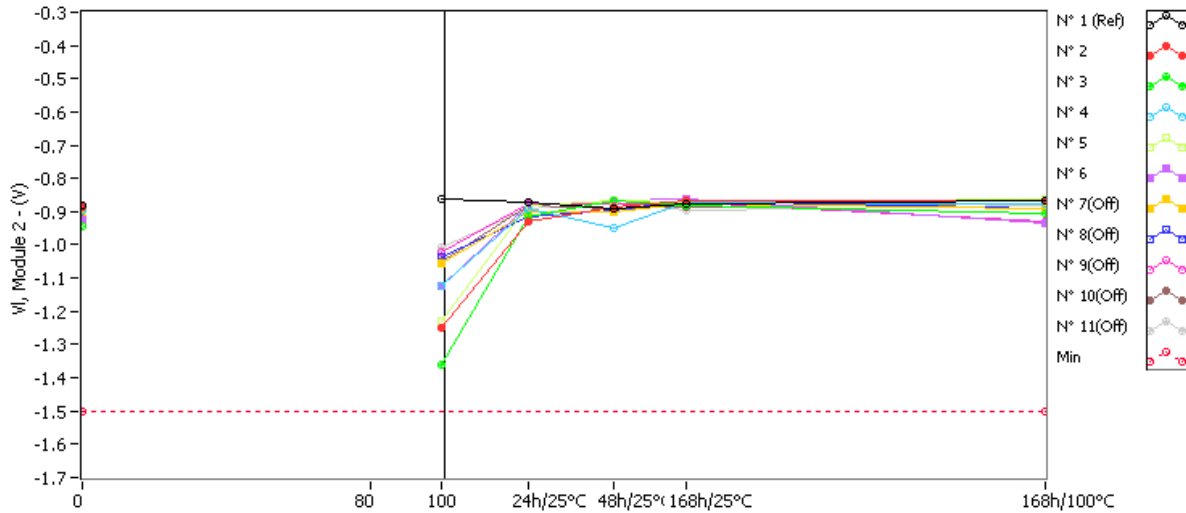
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.909	NaN	-0.905	-0.905	-0.949	-0.922	-0.930
N° 2	-0.975	NaN	-0.985	-0.886	-0.949	-0.882	-0.894
N° 3	-1.027	NaN	-1.154	-0.873	-0.886	-0.891	-1.011
N° 4	-0.980	NaN	-0.987	-0.888	-0.970	-0.878	-1.022
N° 5	-0.994	NaN	-0.987	-0.990	-0.911	-0.871	-0.915
N° 6	-0.969	NaN	-0.956	-0.915	-0.910	-0.921	-0.895
N° 7(Off)	-1.002	NaN	-1.103	-0.984	-0.911	-0.924	-0.962
N° 8(Off)	-1.011	NaN	-1.124	-1.008	-0.984	-0.909	-0.903
N° 9(Off)	-0.983	NaN	-0.989	-1.001	-0.943	-0.950	-0.916
N° 10(Off)	-0.987	NaN	-1.124	-1.001	-0.921	-0.914	-0.903
N° 11(Off)	-1.051	NaN	-1.058	-0.983	-0.884	-0.949	-0.886

**Delta [VI, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	4.000E-3	4.000E-3	-4.000E-2	-1.300E-2	-2.100E-2
N° 2	---	NaN	-1.000E-2	8.900E-2	2.600E-2	9.300E-2	8.100E-2
N° 3	---	NaN	-1.270E-1	1.540E-1	1.410E-1	1.360E-1	1.600E-2
N° 4	---	NaN	-7.000E-3	9.200E-2	1.000E-2	1.020E-1	-4.200E-2
N° 5	---	NaN	7.000E-3	4.000E-3	8.300E-2	1.230E-1	7.900E-2
N° 6	---	NaN	1.300E-2	5.400E-2	5.900E-2	4.800E-2	7.400E-2
N° 7(Off)	---	NaN	-1.010E-1	1.800E-2	9.100E-2	7.800E-2	4.000E-2
N° 8(Off)	---	NaN	-1.130E-1	3.000E-3	2.700E-2	1.020E-1	1.080E-1
N° 9(Off)	---	NaN	-6.000E-3	-1.800E-2	4.000E-2	3.300E-2	6.700E-2
N° 10(Off)	---	NaN	-1.370E-1	-1.400E-2	6.600E-2	7.300E-2	8.400E-2
N° 11(Off)	---	NaN	-7.000E-3	6.800E-2	1.670E-1	1.020E-1	1.650E-1
Average	---	NaN	-2.480E-2	7.860E-2	6.380E-2	1.004E-1	4.160E-2
s	---	0.000E+0	5.792E-2	5.510E-2	5.166E-2	3.384E-2	5.396E-2
Average+3s	---	NaN	1.490E-1	2.439E-1	2.188E-1	2.019E-1	2.035E-1
Average-3s	---	NaN	-1.986E-1	-8.669E-2	-9.118E-2	-1.127E-3	-1.203E-1

## 29. VI, Module 2

"I<sub>in</sub> = +18mA"



**VI, Module 2 . (V)**

**Min = -1.5**

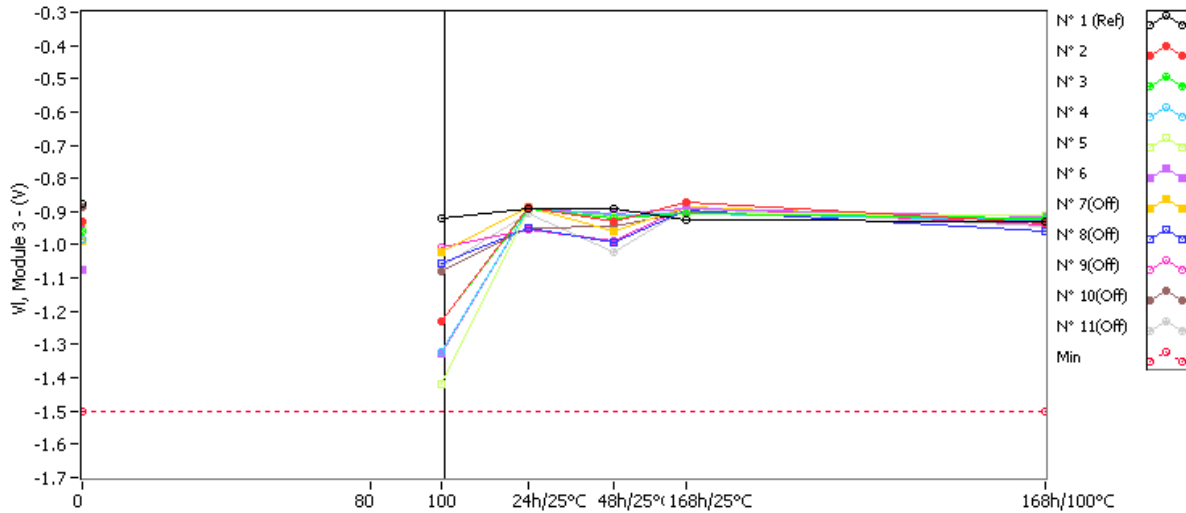
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.882	NaN	-0.860	-0.870	-0.891	-0.875	-0.868
N° 2	-0.887	NaN	-1.250	-0.931	-0.886	-0.866	-0.865
N° 3	-0.942	NaN	-1.360	-0.915	-0.866	-0.882	-0.905
N° 4	-0.894	NaN	-1.125	-0.893	-0.947	-0.874	-0.875
N° 5	-0.895	NaN	-1.230	-0.882	-0.869	-0.874	-0.864
N° 6	-0.925	NaN	-1.125	-0.883	-0.869	-0.860	-0.936
N° 7(Off)	-0.911	NaN	-1.054	-0.902	-0.901	-0.878	-0.889
N° 8(Off)	-0.915	NaN	-1.036	-0.913	-0.896	-0.866	-0.889
N° 9(Off)	-0.896	NaN	-1.023	-0.876	-0.875	-0.870	-0.931
N° 10(Off)	-0.901	NaN	-1.050	-0.879	-0.893	-0.885	-0.878
N° 11(Off)	-0.881	NaN	-1.006	-0.893	-0.872	-0.895	-0.883

**Delta [VI, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	2.200E-2	1.200E-2	-9.000E-3	7.000E-3	1.400E-2
N° 2	---	NaN	-3.630E-1	-4.400E-2	1.000E-3	2.100E-2	2.200E-2
N° 3	---	NaN	-4.180E-1	2.700E-2	7.600E-2	6.000E-2	3.700E-2
N° 4	---	NaN	-2.310E-1	1.000E-3	-5.300E-2	2.000E-2	1.900E-2
N° 5	---	NaN	-3.350E-1	1.300E-2	2.600E-2	2.100E-2	3.100E-2
N° 6	---	NaN	-2.000E-1	4.200E-2	5.600E-2	6.500E-2	-1.100E-2
N° 7(Off)	---	NaN	-1.430E-1	9.000E-3	1.000E-2	3.300E-2	2.200E-2
N° 8(Off)	---	NaN	-1.210E-1	2.000E-3	1.900E-2	4.900E-2	2.600E-2
N° 9(Off)	---	NaN	-1.270E-1	2.000E-2	2.100E-2	2.600E-2	-3.500E-2
N° 10(Off)	---	NaN	-1.490E-1	2.200E-2	8.000E-3	1.600E-2	2.300E-2
N° 11(Off)	---	NaN	-1.250E-1	-1.200E-2	9.000E-3	-1.400E-2	-2.000E-3
Average	---	NaN	-3.094E-1	7.800E-3	2.120E-2	3.740E-2	1.960E-2
s	---	0.000E+0	9.143E-2	3.277E-2	5.038E-2	2.298E-2	1.854E-2
Average+3s	---	NaN	-3.511E-2	1.061E-1	1.723E-1	1.064E-1	7.523E-2
Average-3s	---	NaN	-5.837E-1	-9.050E-2	-1.299E-1	-3.155E-2	-3.603E-2

### 30. VI, Module 3

"I<sub>in</sub> = +18mA"



**VI, Module 3 . (V)**

**Min = -1.5**

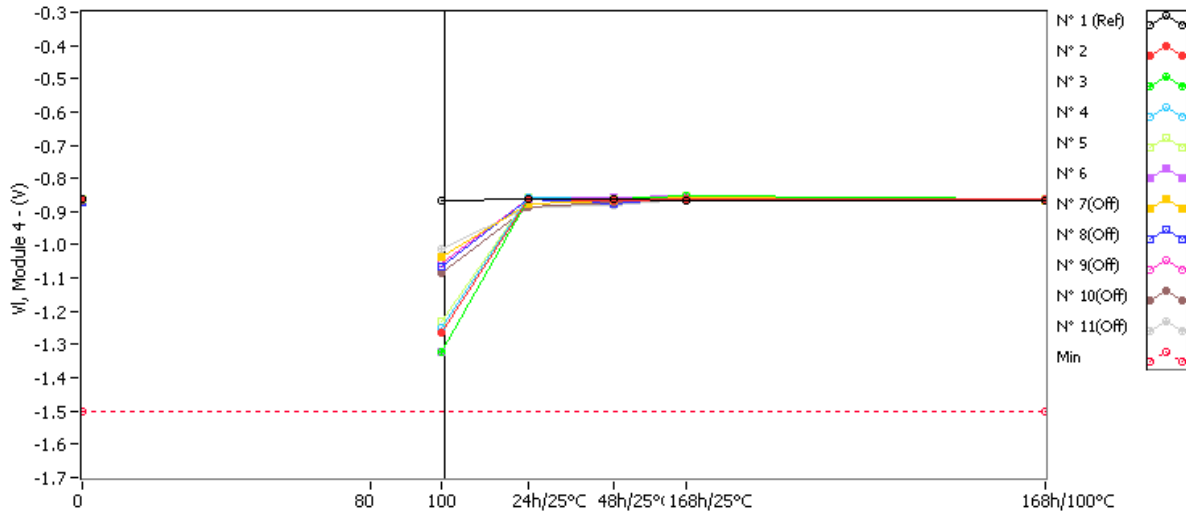
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.875	NaN	-0.920	-0.893	-0.891	-0.924	-0.931
N° 2	-0.931	NaN	-1.230	-0.888	-0.929	-0.874	-0.936
N° 3	-0.959	NaN	-1.232	-0.889	-0.918	-0.904	-0.921
N° 4	-0.983	NaN	-1.324	-0.893	-0.911	-0.907	-0.924
N° 5	-0.949	NaN	-1.420	-0.893	-0.913	-0.906	-0.911
N° 6	-1.073	NaN	-1.325	-0.890	-0.905	-0.890	-0.915
N° 7(Off)	-0.987	NaN	-1.020	-0.888	-0.961	-0.887	-0.923
N° 8(Off)	-0.950	NaN	-1.055	-0.948	-0.991	-0.896	-0.958
N° 9(Off)	-0.935	NaN	-1.005	-0.956	-0.988	-0.887	-0.941
N° 10(Off)	-0.888	NaN	-1.080	-0.950	-0.944	-0.899	-0.924
N° 11(Off)	-0.930	NaN	-1.066	-0.907	-1.021	-0.892	-0.946

**Delta [VI, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-4.500E-2	-1.800E-2	-1.600E-2	-4.900E-2	-5.600E-2
N° 2	---	NaN	-2.990E-1	4.300E-2	2.000E-3	5.700E-2	-5.000E-3
N° 3	---	NaN	-2.730E-1	7.000E-2	4.100E-2	5.500E-2	3.800E-2
N° 4	---	NaN	-3.410E-1	9.000E-2	7.200E-2	7.600E-2	5.900E-2
N° 5	---	NaN	-4.710E-1	5.600E-2	3.600E-2	4.300E-2	3.800E-2
N° 6	---	NaN	-2.520E-1	1.830E-1	1.680E-1	1.830E-1	1.580E-1
N° 7(Off)	---	NaN	-3.300E-2	9.900E-2	2.600E-2	1.000E-1	6.400E-2
N° 8(Off)	---	NaN	-1.050E-1	2.000E-3	-4.100E-2	5.400E-2	-8.000E-3
N° 9(Off)	---	NaN	-7.000E-2	-2.100E-2	-5.300E-2	4.800E-2	-6.000E-3
N° 10(Off)	---	NaN	-1.920E-1	-6.200E-2	-5.600E-2	-1.100E-2	-3.600E-2
N° 11(Off)	---	NaN	-1.360E-1	2.300E-2	-9.100E-2	3.800E-2	-1.600E-2
Average	---	NaN	-3.272E-1	8.840E-2	6.380E-2	8.280E-2	5.760E-2
s	---	0.000E+0	8.697E-2	5.568E-2	6.332E-2	5.725E-2	6.076E-2
Average+3s	---	NaN	-6.628E-2	2.554E-1	2.538E-1	2.545E-1	2.399E-1
Average-3s	---	NaN	-5.881E-1	-7.864E-2	-1.262E-1	-8.894E-2	-1.247E-1

## 31. VI, Module 4

"I<sub>in</sub> = +18mA"



**VI, Module 4 . (V)**

**Min = -1.5**

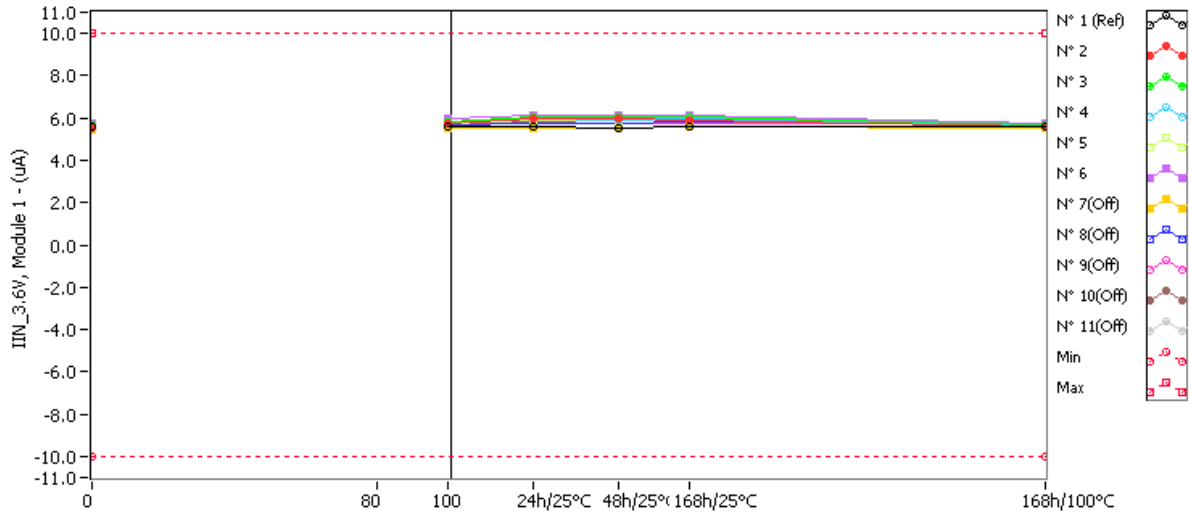
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.863	NaN	-0.865	-0.862	-0.862	-0.868	-0.866
N° 2	-0.861	NaN	-1.265	-0.861	-0.868	-0.860	-0.863
N° 3	-0.860	NaN	-1.320	-0.861	-0.862	-0.854	-0.860
N° 4	-0.861	NaN	-1.250	-0.857	-0.860	-0.852	-0.861
N° 5	-0.860	NaN	-1.230	-0.857	-0.862	-0.854	-0.862
N° 6	-0.861	NaN	-1.320	-0.860	-0.857	-0.854	-0.860
N° 7(Off)	-0.863	NaN	-1.036	-0.875	-0.866	-0.858	-0.865
N° 8(Off)	-0.871	NaN	-1.065	-0.862	-0.876	-0.859	-0.868
N° 9(Off)	-0.872	NaN	-1.055	-0.862	-0.867	-0.857	-0.868
N° 10(Off)	-0.866	NaN	-1.087	-0.884	-0.872	-0.862	-0.866
N° 11(Off)	-0.871	NaN	-1.010	-0.884	-0.880	-0.860	-0.869

**Delta [VI, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.000E-3	1.000E-3	1.000E-3	-5.000E-3	-3.000E-3
N° 2	---	NaN	-4.040E-1	0.000E+0	-7.000E-3	1.000E-3	-2.000E-3
N° 3	---	NaN	-4.600E-1	-1.000E-3	-2.000E-3	6.000E-3	0.000E+0
N° 4	---	NaN	-3.890E-1	4.000E-3	1.000E-3	9.000E-3	0.000E+0
N° 5	---	NaN	-3.700E-1	3.000E-3	-2.000E-3	6.000E-3	-2.000E-3
N° 6	---	NaN	-4.590E-1	1.000E-3	4.000E-3	7.000E-3	1.000E-3
N° 7(Off)	---	NaN	-1.730E-1	-1.200E-2	-3.000E-3	5.000E-3	-2.000E-3
N° 8(Off)	---	NaN	-1.940E-1	9.000E-3	-5.000E-3	1.200E-2	3.000E-3
N° 9(Off)	---	NaN	-1.830E-1	1.000E-2	5.000E-3	1.500E-2	4.000E-3
N° 10(Off)	---	NaN	-2.210E-1	-1.800E-2	-6.000E-3	4.000E-3	0.000E+0
N° 11(Off)	---	NaN	-1.390E-1	-1.300E-2	-9.000E-3	1.100E-2	2.000E-3
Average	---	NaN	-4.164E-1	1.400E-3	-1.200E-3	5.800E-3	-6.000E-4
s	---	0.000E+0	4.115E-2	2.074E-3	4.087E-3	2.950E-3	1.342E-3
Average+3s	---	NaN	-2.930E-1	7.621E-3	1.106E-2	1.465E-2	3.425E-3
Average-3s	---	NaN	-5.398E-1	-4.821E-3	-1.346E-2	-3.049E-3	-4.625E-3

## 32. IIN\_3.6V, Module 1

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_3.6V, Module 1 . (uA)**

**Min = -10.0 Max = 10.0**

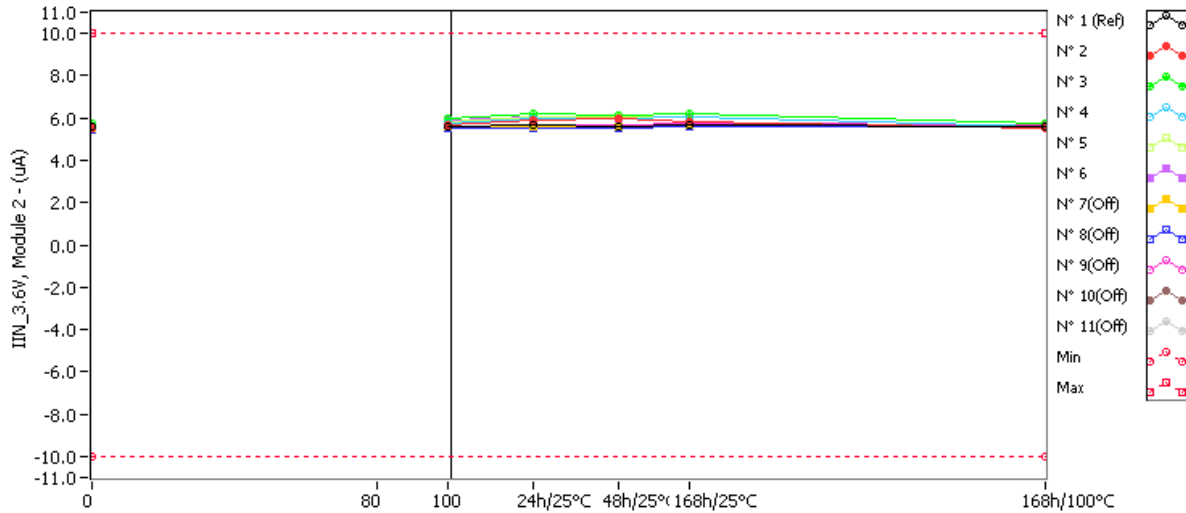
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.589	NaN	5.586	5.606	5.529	5.599	5.573
N° 2	5.531	NaN	5.781	5.957	6.009	5.867	5.563
N° 3	5.669	NaN	5.851	6.050	6.045	6.085	5.686
N° 4	5.547	NaN	5.784	5.951	5.935	5.976	5.571
N° 5	5.534	NaN	5.762	5.934	5.924	5.952	5.566
N° 6	5.736	NaN	5.952	6.133	6.121	6.158	5.754
N° 7(Off)	5.429	NaN	5.521	5.553	5.543	5.614	5.519
N° 8(Off)	5.641	NaN	5.698	5.749	5.738	5.810	5.772
N° 9(Off)	5.608	NaN	5.681	5.714	5.715	5.776	5.712
N° 10(Off)	5.692	NaN	5.723	5.787	5.776	5.846	5.784
N° 11(Off)	5.442	NaN	5.488	5.538	5.536	5.605	5.541

**Delta [IIN\_3.6V, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.000E-3	1.700E-2	-6.000E-2	1.000E-2	-1.600E-2
N° 2	---	NaN	2.500E-1	4.260E-1	4.780E-1	3.360E-1	3.200E-2
N° 3	---	NaN	1.820E-1	3.810E-1	3.760E-1	4.160E-1	1.700E-2
N° 4	---	NaN	2.370E-1	4.040E-1	3.880E-1	4.290E-1	2.400E-2
N° 5	---	NaN	2.280E-1	4.000E-1	3.900E-1	4.180E-1	3.200E-2
N° 6	---	NaN	2.160E-1	3.970E-1	3.850E-1	4.220E-1	1.800E-2
N° 7(Off)	---	NaN	9.200E-2	1.240E-1	1.140E-1	1.850E-1	9.000E-2
N° 8(Off)	---	NaN	5.700E-2	1.080E-1	9.700E-2	1.690E-1	1.310E-1
N° 9(Off)	---	NaN	7.300E-2	1.060E-1	1.070E-1	1.680E-1	1.040E-1
N° 10(Off)	---	NaN	3.100E-2	9.500E-2	8.400E-2	1.540E-1	9.200E-2
N° 11(Off)	---	NaN	4.600E-2	9.600E-2	9.400E-2	1.630E-1	9.900E-2
Average	---	NaN	2.226E-1	4.016E-1	4.034E-1	4.042E-1	2.460E-2
s	---	0.000E+0	2.588E-2	1.620E-2	4.205E-2	3.845E-2	7.266E-3
Average+3s	---	NaN	3.002E-1	4.502E-1	5.295E-1	5.195E-1	4.640E-2
Average-3s	---	NaN	1.450E-1	3.530E-1	2.773E-1	2.889E-1	2.801E-3

### 33. IIN\_3.6V, Module 2

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_3.6V, Module 2 . (uA)**

**Min = -10.0 Max = 10.0**

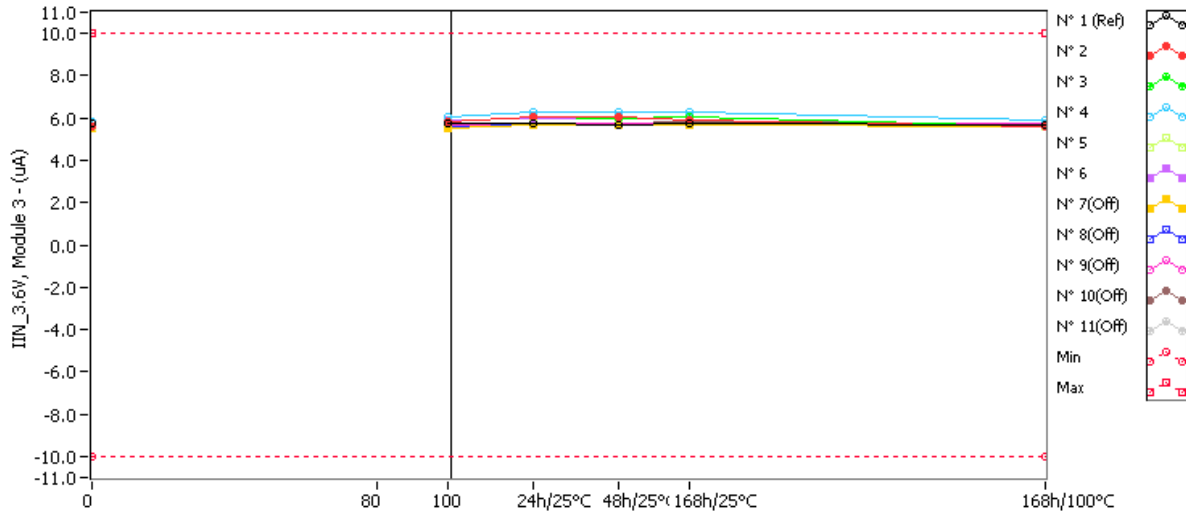
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.630	NaN	5.610	5.644	5.565	5.636	5.610
N° 2	5.485	NaN	5.654	5.927	5.979	5.835	5.513
N° 3	5.726	NaN	5.984	6.172	6.160	6.189	5.738
N° 4	5.575	NaN	5.741	6.009	5.992	6.021	5.606
N° 5	5.597	NaN	5.845	6.034	6.023	6.042	5.630
N° 6	5.607	NaN	5.862	6.026	6.010	6.045	5.628
N° 7(Off)	5.509	NaN	5.584	5.625	5.618	5.688	5.590
N° 8(Off)	5.427	NaN	5.489	5.542	5.534	5.611	5.565
N° 9(Off)	5.587	NaN	5.621	5.683	5.685	5.747	5.684
N° 10(Off)	5.545	NaN	5.610	5.660	5.647	5.718	5.653
N° 11(Off)	5.553	NaN	5.580	5.648	5.644	5.711	5.642

**Delta [IIN\_3.6V, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.000E-2	1.400E-2	-6.500E-2	6.000E-3	-2.000E-2
N° 2	---	NaN	1.690E-1	4.420E-1	4.940E-1	3.500E-1	2.800E-2
N° 3	---	NaN	2.580E-1	4.460E-1	4.340E-1	4.630E-1	1.200E-2
N° 4	---	NaN	1.660E-1	4.340E-1	4.170E-1	4.460E-1	3.100E-2
N° 5	---	NaN	2.480E-1	4.370E-1	4.260E-1	4.450E-1	3.300E-2
N° 6	---	NaN	2.550E-1	4.190E-1	4.030E-1	4.380E-1	2.100E-2
N° 7(Off)	---	NaN	7.500E-2	1.160E-1	1.090E-1	1.790E-1	8.100E-2
N° 8(Off)	---	NaN	6.200E-2	1.150E-1	1.070E-1	1.840E-1	1.380E-1
N° 9(Off)	---	NaN	3.400E-2	9.600E-2	9.800E-2	1.600E-1	9.700E-2
N° 10(Off)	---	NaN	6.500E-2	1.150E-1	1.020E-1	1.730E-1	1.080E-1
N° 11(Off)	---	NaN	2.700E-2	9.500E-2	9.100E-2	1.580E-1	8.900E-2
Average	---	NaN	2.192E-1	4.356E-1	4.348E-1	4.284E-1	2.500E-2
s	---	0.000E+0	4.735E-2	1.036E-2	3.504E-2	4.478E-2	8.573E-3
Average+3s	---	NaN	3.612E-1	4.667E-1	5.399E-1	5.627E-1	5.072E-2
Average-3s	---	NaN	7.716E-2	4.045E-1	3.297E-1	2.941E-1	-7.196E-4

### 34. IIN\_3.6V, Module 3

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_3.6V, Module 3 . (uA)**

**Min = -10.0 Max = 10.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.719	NaN	5.784	5.732	5.650	5.724	5.699
N° 2	5.568	NaN	5.796	6.021	6.074	5.923	5.592
N° 3	5.601	NaN	5.823	6.020	6.008	6.043	5.626
N° 4	5.855	NaN	6.059	6.277	6.263	6.291	5.880
N° 5	5.596	NaN	5.854	6.026	6.013	6.034	5.624
N° 6	5.594	NaN	5.879	6.011	5.993	6.029	5.612
N° 7(Off)	5.526	NaN	5.521	5.647	5.639	5.706	5.611
N° 8(Off)	5.565	NaN	5.568	5.667	5.660	5.733	5.702
N° 9(Off)	5.622	NaN	5.687	5.726	5.727	5.785	5.726
N° 10(Off)	5.633	NaN	5.698	5.736	5.723	5.798	5.732
N° 11(Off)	5.628	NaN	5.687	5.734	5.729	5.794	5.729

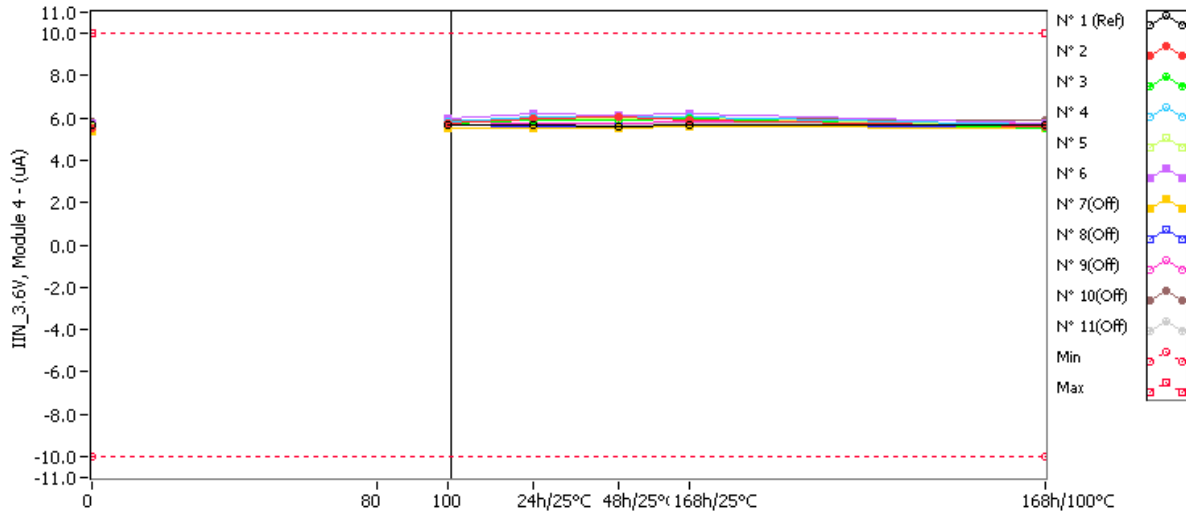
**Delta [IIN\_3.6V, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	6.500E-2	1.300E-2	-6.900E-2	5.000E-3	-2.000E-2
N° 2	---	NaN	2.280E-1	4.530E-1	5.060E-1	3.550E-1	2.400E-2
N° 3	---	NaN	2.220E-1	4.190E-1	4.070E-1	4.420E-1	2.500E-2
N° 4	---	NaN	2.040E-1	4.220E-1	4.080E-1	4.360E-1	2.500E-2
N° 5	---	NaN	2.580E-1	4.300E-1	4.170E-1	4.380E-1	2.800E-2
N° 6	---	NaN	2.850E-1	4.170E-1	3.990E-1	4.350E-1	1.800E-2
N° 7(Off)	---	NaN	-5.000E-3	1.210E-1	1.130E-1	1.800E-1	8.500E-2
N° 8(Off)	---	NaN	3.000E-3	1.020E-1	9.500E-2	1.680E-1	1.370E-1
N° 9(Off)	---	NaN	6.500E-2	1.040E-1	1.050E-1	1.630E-1	1.040E-1
N° 10(Off)	---	NaN	6.500E-2	1.030E-1	9.000E-2	1.650E-1	9.900E-2
N° 11(Off)	---	NaN	5.900E-2	1.060E-1	1.010E-1	1.660E-1	1.010E-1
Average	---	NaN	2.394E-1	4.282E-1	4.274E-1	4.212E-1	2.400E-2
s	---	0.000E+0	3.206E-2	1.472E-2	4.440E-2	3.710E-2	3.674E-3
Average+3s	---	NaN	3.356E-1	4.724E-1	5.606E-1	5.325E-1	3.502E-2
Average-3s	---	NaN	1.432E-1	3.840E-1	2.942E-1	3.099E-1	1.298E-2



## 35. IIN\_3.6V, Module 4

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_3.6V, Module 4 . (uA)**

**Min = -10.0 Max = 10.0**

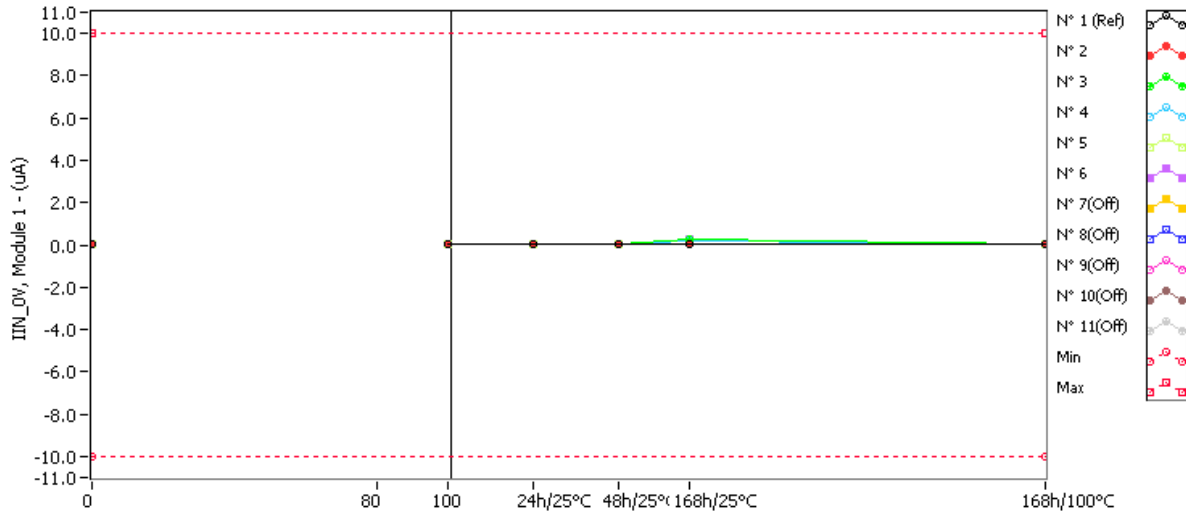
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.670	NaN	5.665	5.681	5.599	5.671	5.647
N° 2	5.553	NaN	5.741	5.973	6.031	5.882	5.581
N° 3	5.525	NaN	5.762	5.910	5.897	5.938	5.540
N° 4	5.657	NaN	5.832	6.063	6.050	6.083	5.686
N° 5	5.559	NaN	5.744	5.966	5.957	5.982	5.585
N° 6	5.749	NaN	5.987	6.170	6.150	6.186	5.771
N° 7(Off)	5.404	NaN	5.489	5.522	5.513	5.582	5.492
N° 8(Off)	5.452	NaN	5.510	5.573	5.566	5.641	5.607
N° 9(Off)	5.673	NaN	5.654	5.776	5.775	5.833	5.776
N° 10(Off)	5.826	NaN	5.896	5.929	5.913	5.985	5.920
N° 11(Off)	5.570	NaN	5.650	5.683	5.676	5.743	5.678

**Delta [IIN\_3.6V, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-5.000E-3	1.100E-2	-7.100E-2	1.000E-3	-2.300E-2
N° 2	---	NaN	1.880E-1	4.200E-1	4.780E-1	3.290E-1	2.800E-2
N° 3	---	NaN	2.370E-1	3.850E-1	3.720E-1	4.130E-1	1.500E-2
N° 4	---	NaN	1.750E-1	4.060E-1	3.930E-1	4.260E-1	2.900E-2
N° 5	---	NaN	1.850E-1	4.070E-1	3.980E-1	4.230E-1	2.600E-2
N° 6	---	NaN	2.380E-1	4.210E-1	4.010E-1	4.370E-1	2.200E-2
N° 7(Off)	---	NaN	8.500E-2	1.180E-1	1.090E-1	1.780E-1	8.800E-2
N° 8(Off)	---	NaN	5.800E-2	1.210E-1	1.140E-1	1.890E-1	1.550E-1
N° 9(Off)	---	NaN	-1.900E-2	1.030E-1	1.020E-1	1.600E-1	1.030E-1
N° 10(Off)	---	NaN	7.000E-2	1.030E-1	8.700E-2	1.590E-1	9.400E-2
N° 11(Off)	---	NaN	8.000E-2	1.130E-1	1.060E-1	1.730E-1	1.080E-1
Average	---	NaN	2.046E-1	4.078E-1	4.084E-1	4.056E-1	2.400E-2
s	---	0.000E+0	3.042E-2	1.455E-2	4.053E-2	4.367E-2	5.701E-3
Average+3s	---	NaN	2.959E-1	4.514E-1	5.300E-1	5.366E-1	4.110E-2
Average-3s	---	NaN	1.133E-1	3.642E-1	2.868E-1	2.746E-1	6.897E-3

## 36. IIN\_0V, Module 1

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_0V, Module 1 . (uA)**

**Min = -10.0 Max = 10.0**

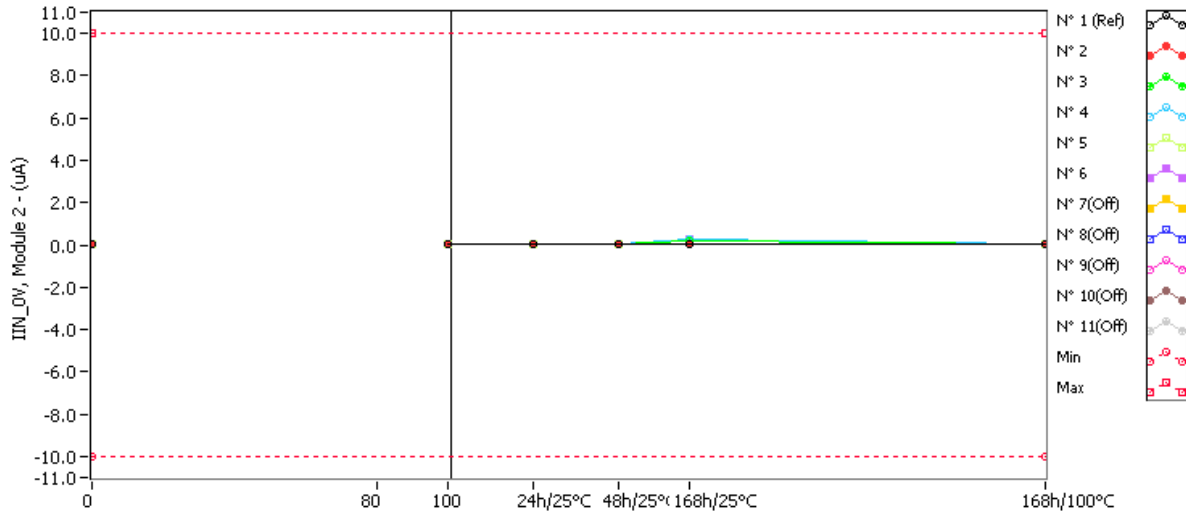
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.00500	NaN	0.00300	0.00600	0.00900	0.01300	0.01000
N° 2	0.00400	NaN	0.00300	0.00600	0.01100	0.01400	0.00800
N° 3	0.00400	NaN	0.00300	0.00500	0.01500	0.24900	0.00800
N° 4	0.00400	NaN	0.00200	0.00600	0.01200	0.22770	0.00700
N° 5	0.00400	NaN	0.00200	0.00600	0.01200	0.22410	0.01000
N° 6	0.00400	NaN	0.00200	0.00600	0.01100	0.22890	0.01200
N° 7(Off)	0.00400	NaN	0.00300	0.00500	0.01100	0.23030	0.01200
N° 8(Off)	0.00400	NaN	0.00300	0.00500	0.01000	0.22800	0.01200
N° 9(Off)	0.00400	NaN	0.00300	0.00500	0.01100	0.22170	0.00800
N° 10(Off)	0.00400	NaN	0.00300	0.00500	0.01100	0.21930	0.00800
N° 11(Off)	0.00400	NaN	0.00300	0.00500	0.01100	0.22750	0.00800

**Delta [IIN\_0V, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.000E-3	1.000E-3	4.000E-3	8.000E-3	5.000E-3
N° 2	---	NaN	-1.000E-3	2.000E-3	7.000E-3	1.000E-2	4.000E-3
N° 3	---	NaN	-1.000E-3	1.000E-3	1.100E-2	2.450E-1	4.000E-3
N° 4	---	NaN	-2.000E-3	2.000E-3	8.000E-3	2.237E-1	3.000E-3
N° 5	---	NaN	-2.000E-3	2.000E-3	8.000E-3	2.201E-1	6.000E-3
N° 6	---	NaN	-2.000E-3	2.000E-3	7.000E-3	2.249E-1	8.000E-3
N° 7(Off)	---	NaN	-1.000E-3	1.000E-3	7.000E-3	2.263E-1	8.000E-3
N° 8(Off)	---	NaN	-1.000E-3	1.000E-3	6.000E-3	2.240E-1	8.000E-3
N° 9(Off)	---	NaN	-1.000E-3	1.000E-3	7.000E-3	2.177E-1	4.000E-3
N° 10(Off)	---	NaN	-1.000E-3	1.000E-3	7.000E-3	2.153E-1	4.000E-3
N° 11(Off)	---	NaN	-1.000E-3	1.000E-3	7.000E-3	2.235E-1	4.000E-3
Average	---	NaN	-1.600E-3	1.800E-3	8.200E-3	1.847E-1	5.000E-3
s	---	0.000E+0	5.477E-4	4.472E-4	1.643E-3	9.817E-2	2.000E-3
Average+3s	---	NaN	4.317E-5	3.142E-3	1.313E-2	4.792E-1	1.100E-2
Average-3s	---	NaN	-3.243E-3	4.584E-4	3.270E-3	-1.098E-1	-1.000E-3

## 37. IIN\_0V, Module 2

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_0V, Module 2 . (uA)**

**Min = -10.0 Max = 10.0**

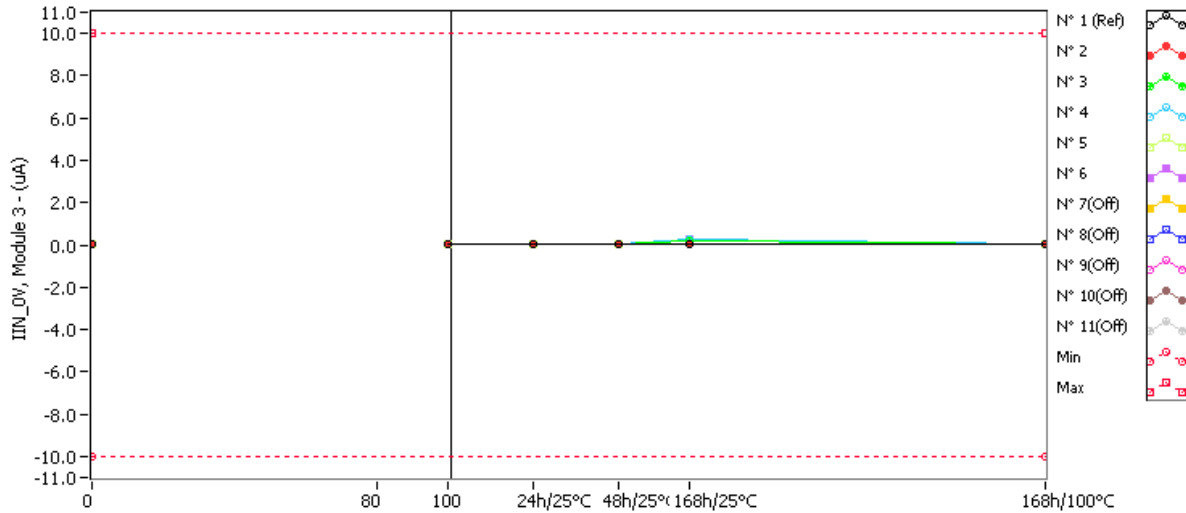
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.00300	NaN	0.00300	0.00300	0.00400	0.00500	0.00400
N° 2	0.00300	NaN	0.00300	0.00500	0.02500	0.00100	0.00200
N° 3	0.00300	NaN	0.00300	0.00400	0.02540	0.22720	0.00200
N° 4	0.00300	NaN	0.00300	0.00400	0.03650	0.22940	0.00200
N° 5	0.00300	NaN	0.00300	0.00400	0.02580	0.22620	0.00200
N° 6	0.00300	NaN	0.00300	0.00400	0.03690	0.23110	0.00200
N° 7(Off)	0.00300	NaN	0.00300	0.00300	0.02470	0.23090	0.00200
N° 8(Off)	0.00200	NaN	0.00300	0.00300	0.03650	0.22950	0.01500
N° 9(Off)	0.00200	NaN	0.00300	0.00300	0.01200	0.22410	0.00200
N° 10(Off)	0.00200	NaN	0.00300	0.00300	0.01450	0.22070	0.00200
N° 11(Off)	0.00200	NaN	0.00300	0.00300	0.01320	0.22910	0.00200

**Delta [IIN\_0V, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	0.000E+0	1.000E-3	3.000E-3	2.000E-3	1.000E-3
N° 2	---	NaN	0.000E+0	2.000E-3	2.200E-2	-2.000E-3	-1.000E-3
N° 3	---	NaN	0.000E+0	1.000E-3	2.240E-2	2.242E-1	-1.000E-3
N° 4	---	NaN	0.000E+0	1.000E-3	3.350E-2	2.264E-1	-1.000E-3
N° 5	---	NaN	0.000E+0	1.000E-3	2.280E-2	2.232E-1	-1.000E-3
N° 6	---	NaN	0.000E+0	1.000E-3	3.390E-2	2.281E-1	-1.000E-3
N° 7(Off)	---	NaN	0.000E+0	0.000E+0	2.170E-2	2.279E-1	-1.000E-3
N° 8(Off)	---	NaN	1.000E-3	1.000E-3	3.450E-2	2.275E-1	1.300E-2
N° 9(Off)	---	NaN	1.000E-3	1.000E-3	1.000E-2	2.221E-1	0.000E+0
N° 10(Off)	---	NaN	1.000E-3	1.000E-3	1.250E-2	2.187E-1	0.000E+0
N° 11(Off)	---	NaN	1.000E-3	1.000E-3	1.120E-2	2.271E-1	0.000E+0
Average	---	NaN	0.000E+0	1.200E-3	2.692E-2	1.800E-1	-1.000E-3
s	---	0.000E+0	0.000E+0	4.472E-4	6.197E-3	1.017E-1	0.000E+0
Average+3s	---	NaN	0.000E+0	2.542E-3	4.551E-2	4.852E-1	-1.000E-3
Average-3s	---	NaN	0.000E+0	-1.416E-4	8.328E-3	-1.253E-1	-1.000E-3

### 38. IIN\_0V, Module 3

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_0V, Module 3 . (uA)**

**Min = -10.0 Max = 10.0**

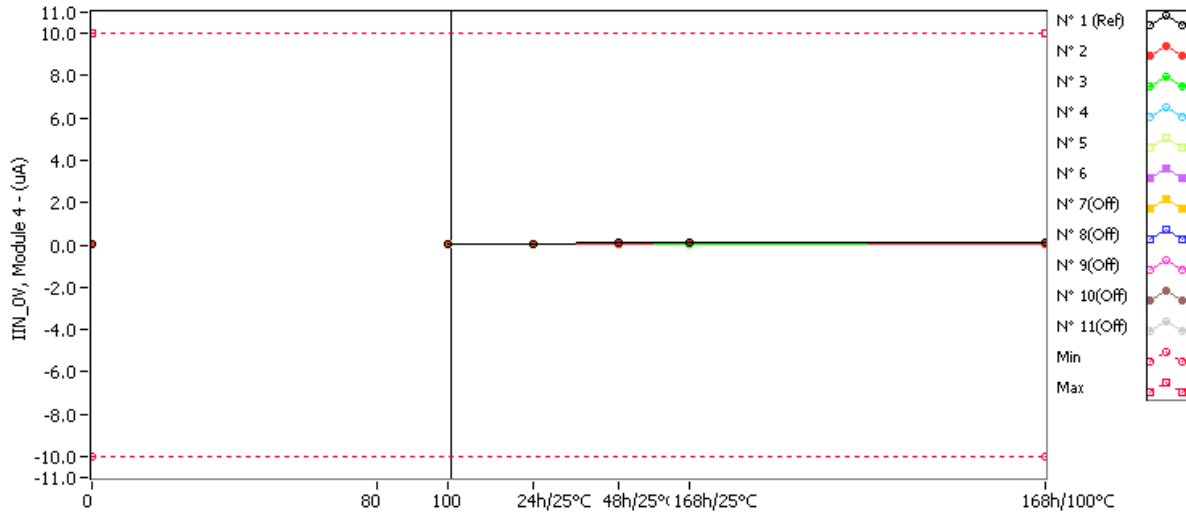
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.00420	NaN	0.00450	0.00500	0.00840	0.00830	0.00540
N° 2	0.00320	NaN	0.00420	0.00460	0.00340	0.00520	0.00330
N° 3	0.00330	NaN	0.00470	0.00450	0.00410	0.22570	0.00370
N° 4	0.00380	NaN	0.00570	0.00470	0.00340	0.22840	0.00390
N° 5	0.00370	NaN	0.00450	0.00440	0.00570	0.22550	0.00410
N° 6	0.00390	NaN	0.00440	0.00470	0.00340	0.22980	0.00400
N° 7(Off)	0.00370	NaN	0.00570	0.00360	0.00310	0.22930	0.00470
N° 8(Off)	0.00360	NaN	0.00487	0.00370	0.00380	0.22960	0.00430
N° 9(Off)	0.00340	NaN	0.00570	0.00350	0.00390	0.22450	0.00470
N° 10(Off)	0.00320	NaN	0.00470	0.00340	0.00340	0.22060	0.00430
N° 11(Off)	0.00340	NaN	0.00540	0.00310	0.00340	0.22870	0.00430

**Delta [IIN\_0V, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	3.000E-4	8.000E-4	4.200E-3	4.100E-3	1.200E-3
N° 2	---	NaN	1.000E-3	1.400E-3	2.000E-4	2.000E-3	1.000E-4
N° 3	---	NaN	1.400E-3	1.200E-3	8.000E-4	2.224E-1	4.000E-4
N° 4	---	NaN	1.900E-3	9.000E-4	-4.000E-4	2.246E-1	1.000E-4
N° 5	---	NaN	8.000E-4	7.000E-4	2.000E-3	2.218E-1	4.000E-4
N° 6	---	NaN	5.000E-4	8.000E-4	-5.000E-4	2.259E-1	1.000E-4
N° 7(Off)	---	NaN	2.000E-3	-1.000E-4	-6.000E-4	2.256E-1	1.000E-3
N° 8(Off)	---	NaN	1.270E-3	1.000E-4	2.000E-4	2.260E-1	7.000E-4
N° 9(Off)	---	NaN	2.300E-3	1.000E-4	5.000E-4	2.211E-1	1.300E-3
N° 10(Off)	---	NaN	1.500E-3	2.000E-4	2.000E-4	2.174E-1	1.100E-3
N° 11(Off)	---	NaN	2.000E-3	-3.000E-4	0.000E+0	2.253E-1	9.000E-4
Average	---	NaN	1.120E-3	1.000E-3	4.200E-4	1.793E-1	2.200E-4
s	---	0.000E+0	5.450E-4	2.915E-4	1.026E-3	9.915E-2	1.643E-4
Average+3s	---	NaN	2.755E-3	1.875E-3	3.497E-3	4.768E-1	7.130E-4
Average-3s	---	NaN	-5.149E-4	1.254E-4	-2.657E-3	-1.181E-1	-2.730E-4

## 39. IIN\_0V, Module 4

"Vin = VCC or GND, VCC = 3.6V"



**IIN\_0V, Module 4 . (uA)**

**Min = -10.0 Max = 10.0**

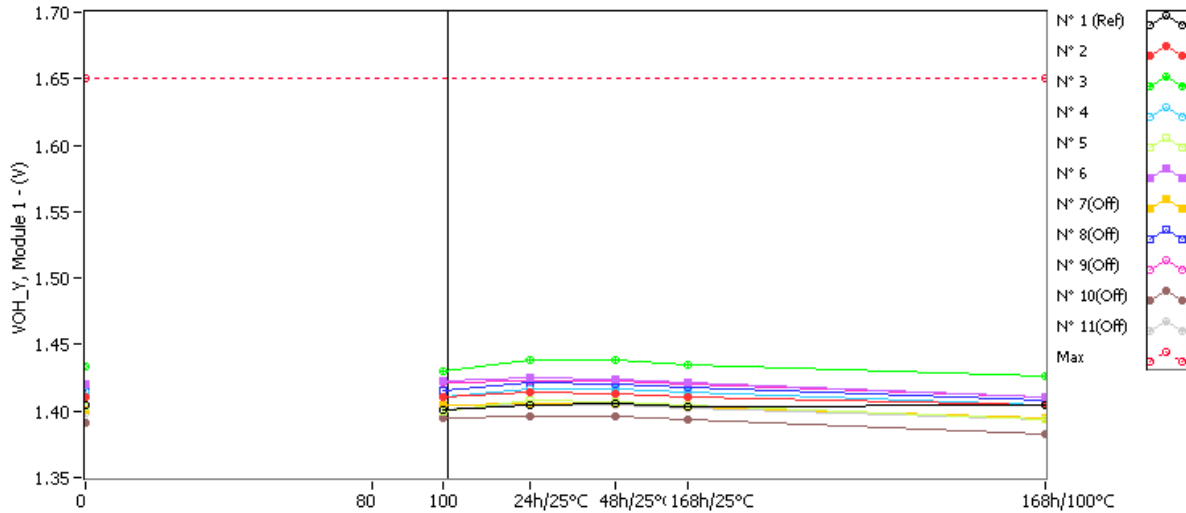
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.0425	NaN	0.0441	0.0676	0.0974	0.1070	0.0775
N° 2	0.0434	NaN	0.0486	0.0568	0.0410	0.0774	0.0750
N° 3	0.0345	NaN	0.0587	0.0574	0.0574	0.0225	0.0420
N° 4	0.0344	NaN	0.0477	0.0543	0.0515	0.0229	0.0410
N° 5	0.0375	NaN	0.0411	0.0574	0.0586	0.0225	0.0487
N° 6	0.0374	NaN	0.0404	0.0546	0.0541	0.0231	0.0472
N° 7(Off)	0.0345	NaN	0.0573	0.0488	0.0471	0.0230	0.0432
N° 8(Off)	0.0312	NaN	0.0431	0.0477	0.0493	0.0231	0.0408
N° 9(Off)	0.0387	NaN	0.0437	0.0441	0.0472	0.0224	0.0870
N° 10(Off)	0.0374	NaN	0.0478	0.0458	0.0479	0.0220	0.0541
N° 11(Off)	0.0374	NaN	0.0578	0.0486	0.0472	0.0228	0.0447

**Delta [IIN\_0V, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.600E-3	2.510E-2	5.490E-2	6.450E-2	3.500E-2
N° 2	---	NaN	5.200E-3	1.340E-2	-2.400E-3	3.400E-2	3.160E-2
N° 3	---	NaN	2.420E-2	2.290E-2	2.290E-2	-1.200E-2	7.500E-3
N° 4	---	NaN	1.330E-2	1.990E-2	1.710E-2	-1.150E-2	6.600E-3
N° 5	---	NaN	3.600E-3	1.990E-2	2.110E-2	-1.500E-2	1.120E-2
N° 6	---	NaN	3.000E-3	1.720E-2	1.670E-2	-1.430E-2	9.800E-3
N° 7(Off)	---	NaN	2.280E-2	1.430E-2	1.260E-2	-1.150E-2	8.700E-3
N° 8(Off)	---	NaN	1.190E-2	1.650E-2	1.810E-2	-8.100E-3	9.600E-3
N° 9(Off)	---	NaN	5.000E-3	5.400E-3	8.500E-3	-1.630E-2	4.830E-2
N° 10(Off)	---	NaN	1.040E-2	8.400E-3	1.050E-2	-1.540E-2	1.670E-2
N° 11(Off)	---	NaN	2.040E-2	1.120E-2	9.800E-3	-1.460E-2	7.300E-3
Average	---	NaN	9.860E-3	1.866E-2	1.508E-2	-3.760E-3	1.334E-2
s	---	0.000E+0	9.020E-3	3.566E-3	1.012E-2	2.116E-2	1.037E-2
Average+3s	---	NaN	3.692E-2	2.936E-2	4.544E-2	5.972E-2	4.445E-2
Average-3s	---	NaN	-1.720E-2	7.963E-3	-1.528E-2	-6.724E-2	-1.777E-2

# 40. VOH\_Y, Module 1

"RL = 100"



**VOH\_Y, Module 1 . (V)**

**Max = 1.65**

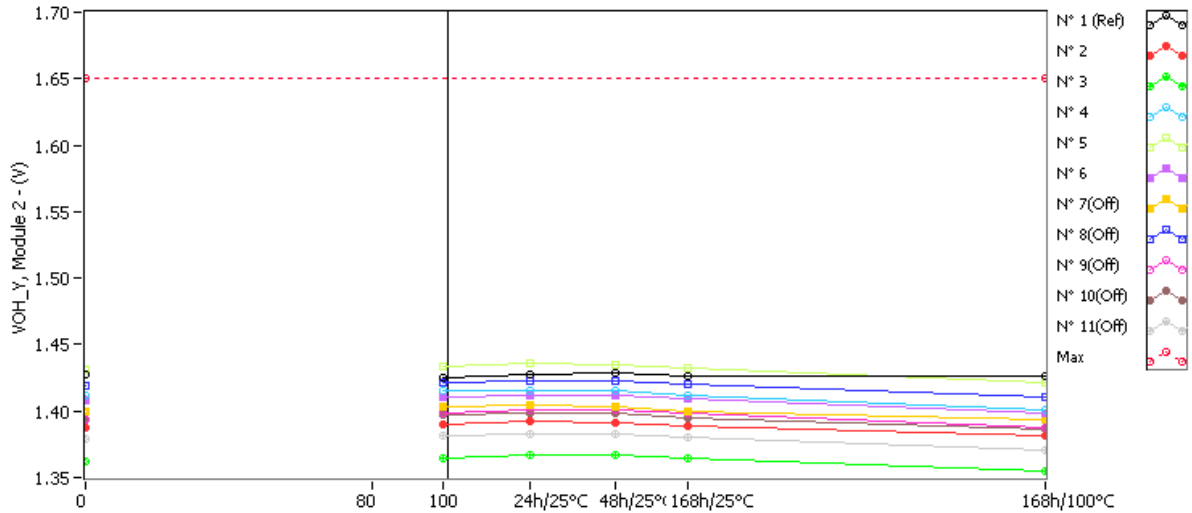
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.404	NaN	1.401	1.405	1.406	1.403	1.404
N° 2	1.410	NaN	1.410	1.414	1.413	1.411	1.404
N° 3	1.433	NaN	1.430	1.439	1.438	1.435	1.426
N° 4	1.414	NaN	1.411	1.417	1.417	1.414	1.404
N° 5	1.403	NaN	1.400	1.408	1.407	1.405	1.394
N° 6	1.420	NaN	1.423	1.425	1.424	1.421	1.411
N° 7(Off)	1.401	NaN	1.405	1.406	1.406	1.403	1.395
N° 8(Off)	1.416	NaN	1.415	1.421	1.420	1.418	1.408
N° 9(Off)	1.416	NaN	1.421	1.423	1.423	1.420	1.410
N° 10(Off)	1.391	NaN	1.395	1.396	1.396	1.393	1.383
N° 11(Off)	1.399	NaN	1.401	1.406	1.405	1.402	1.393

**Delta [VOH\_Y, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.000E-3	1.000E-3	2.000E-3	-1.000E-3	0.000E+0
N° 2	---	NaN	0.000E+0	4.000E-3	3.000E-3	1.000E-3	-6.000E-3
N° 3	---	NaN	-3.000E-3	6.000E-3	5.000E-3	2.000E-3	-7.000E-3
N° 4	---	NaN	-3.000E-3	3.000E-3	3.000E-3	0.000E+0	-1.000E-2
N° 5	---	NaN	-3.000E-3	5.000E-3	4.000E-3	2.000E-3	-9.000E-3
N° 6	---	NaN	3.000E-3	5.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 7(Off)	---	NaN	4.000E-3	5.000E-3	5.000E-3	2.000E-3	-6.000E-3
N° 8(Off)	---	NaN	-1.000E-3	5.000E-3	4.000E-3	2.000E-3	-8.000E-3
N° 9(Off)	---	NaN	5.000E-3	7.000E-3	7.000E-3	4.000E-3	-6.000E-3
N° 10(Off)	---	NaN	4.000E-3	5.000E-3	5.000E-3	2.000E-3	-8.000E-3
N° 11(Off)	---	NaN	2.000E-3	7.000E-3	6.000E-3	3.000E-3	-6.000E-3
Average	---	NaN	-1.200E-3	4.600E-3	3.800E-3	1.200E-3	-8.200E-3
s	---	0.000E+0	2.683E-3	1.140E-3	8.367E-4	8.367E-4	1.643E-3
Average+3s	---	NaN	6.850E-3	8.021E-3	6.310E-3	3.710E-3	-3.270E-3
Average-3s	---	NaN	-9.250E-3	1.179E-3	1.290E-3	-1.310E-3	-1.313E-2

## 41. VOH\_Y, Module 2

"RL = 100"



**VOH\_Y, Module 2 . (V)**

**Max = 1.65**

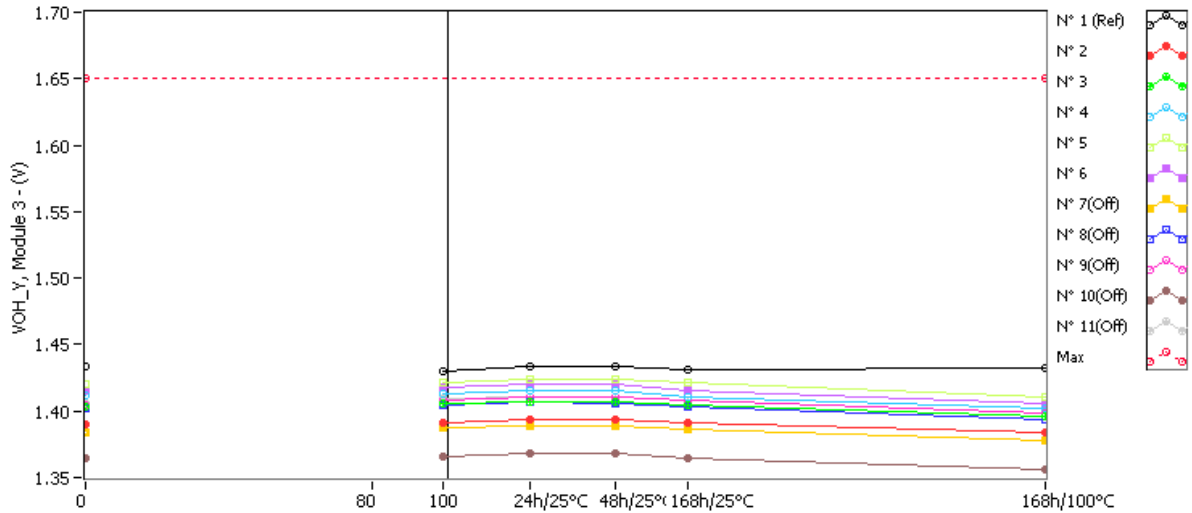
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.427	NaN	1.425	1.428	1.429	1.426	1.426
N° 2	1.388	NaN	1.390	1.392	1.391	1.389	1.381
N° 3	1.362	NaN	1.365	1.367	1.367	1.364	1.355
N° 4	1.412	NaN	1.415	1.416	1.415	1.412	1.401
N° 5	1.431	NaN	1.433	1.436	1.435	1.432	1.422
N° 6	1.408	NaN	1.411	1.412	1.412	1.409	1.399
N° 7(Off)	1.400	NaN	1.403	1.404	1.403	1.400	1.393
N° 8(Off)	1.419	NaN	1.421	1.423	1.423	1.420	1.410
N° 9(Off)	1.394	NaN	1.399	1.401	1.401	1.398	1.388
N° 10(Off)	1.393	NaN	1.397	1.398	1.398	1.395	1.386
N° 11(Off)	1.379	NaN	1.381	1.383	1.383	1.380	1.371

**Delta [VOH\_Y, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.000E-3	1.000E-3	2.000E-3	-1.000E-3	-1.000E-3
N° 2	---	NaN	2.000E-3	4.000E-3	3.000E-3	1.000E-3	-7.000E-3
N° 3	---	NaN	3.000E-3	5.000E-3	5.000E-3	2.000E-3	-7.000E-3
N° 4	---	NaN	3.000E-3	4.000E-3	3.000E-3	0.000E+0	-1.100E-2
N° 5	---	NaN	2.000E-3	5.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 6	---	NaN	3.000E-3	4.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 7(Off)	---	NaN	3.000E-3	4.000E-3	3.000E-3	0.000E+0	-7.000E-3
N° 8(Off)	---	NaN	2.000E-3	4.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 9(Off)	---	NaN	5.000E-3	7.000E-3	7.000E-3	4.000E-3	-6.000E-3
N° 10(Off)	---	NaN	4.000E-3	5.000E-3	5.000E-3	2.000E-3	-7.000E-3
N° 11(Off)	---	NaN	2.000E-3	4.000E-3	4.000E-3	1.000E-3	-8.000E-3
Average	---	NaN	2.600E-3	4.400E-3	3.800E-3	1.000E-3	-8.600E-3
s	---	0.000E+0	5.477E-4	5.477E-4	8.367E-4	7.071E-4	1.673E-3
Average+3s	---	NaN	4.243E-3	6.043E-3	6.310E-3	3.121E-3	-3.580E-3
Average-3s	---	NaN	9.568E-4	2.757E-3	1.290E-3	-1.121E-3	-1.362E-2

## 42. VOH\_Y, Module 3

"RL = 100"



**VOH\_Y, Module 3 . (V)**

**Max = 1.65**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.433	NaN	1.430	1.433	1.434	1.431	1.432
N° 2	1.390	NaN	1.391	1.394	1.393	1.391	1.384
N° 3	1.403	NaN	1.406	1.407	1.407	1.404	1.396
N° 4	1.412	NaN	1.413	1.415	1.415	1.411	1.402
N° 5	1.420	NaN	1.421	1.424	1.424	1.421	1.411
N° 6	1.415	NaN	1.418	1.420	1.420	1.416	1.406
N° 7(Off)	1.384	NaN	1.388	1.389	1.389	1.386	1.378
N° 8(Off)	1.402	NaN	1.405	1.407	1.406	1.403	1.393
N° 9(Off)	1.405	NaN	1.408	1.411	1.411	1.408	1.398
N° 10(Off)	1.364	NaN	1.366	1.368	1.368	1.365	1.356
N° 11(Off)	1.406	NaN	1.409	1.411	1.411	1.408	1.399

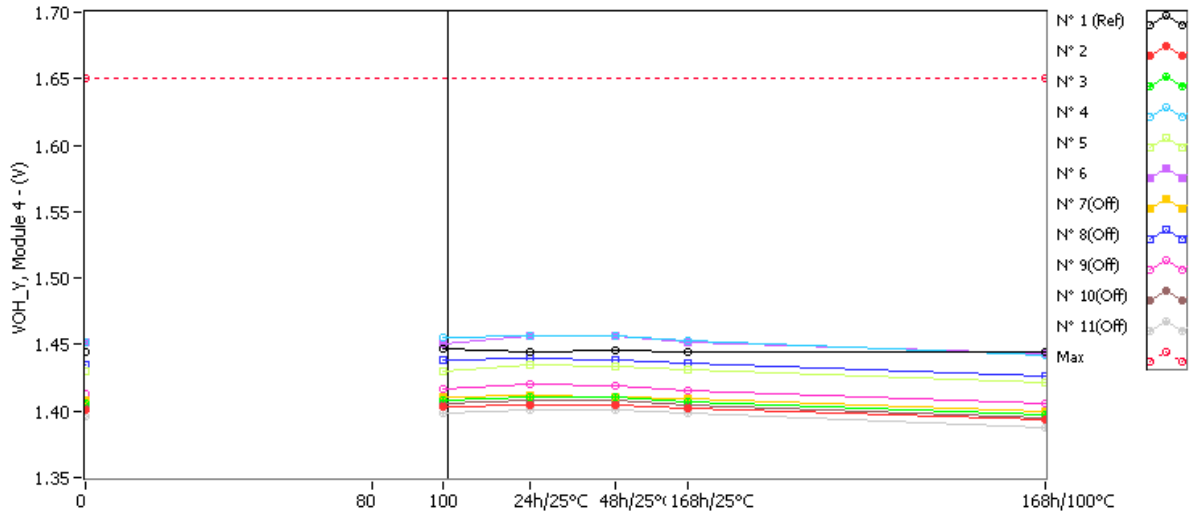
**Delta [VOH\_Y, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.000E-3	0.000E+0	1.000E-3	-2.000E-3	-1.000E-3
N° 2	---	NaN	1.000E-3	4.000E-3	3.000E-3	1.000E-3	-6.000E-3
N° 3	---	NaN	3.000E-3	4.000E-3	4.000E-3	1.000E-3	-7.000E-3
N° 4	---	NaN	1.000E-3	3.000E-3	3.000E-3	-1.000E-3	-1.000E-2
N° 5	---	NaN	1.000E-3	4.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 6	---	NaN	3.000E-3	5.000E-3	5.000E-3	1.000E-3	-9.000E-3
N° 7(Off)	---	NaN	4.000E-3	5.000E-3	5.000E-3	2.000E-3	-6.000E-3
N° 8(Off)	---	NaN	3.000E-3	5.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 9(Off)	---	NaN	3.000E-3	6.000E-3	6.000E-3	3.000E-3	-7.000E-3
N° 10(Off)	---	NaN	2.000E-3	4.000E-3	4.000E-3	1.000E-3	-8.000E-3
N° 11(Off)	---	NaN	3.000E-3	5.000E-3	5.000E-3	2.000E-3	-7.000E-3
Average	---	NaN	1.800E-3	4.000E-3	3.800E-3	6.000E-4	-8.200E-3
s	---	0.000E+0	1.095E-3	7.071E-4	8.367E-4	8.944E-4	1.643E-3
Average+3s	---	NaN	5.086E-3	6.121E-3	6.310E-3	3.283E-3	-3.270E-3
Average-3s	---	NaN	-1.486E-3	1.879E-3	1.290E-3	-2.083E-3	-1.313E-2



## 43. VOH\_Y, Module 4

"RL = 100"



**VOH\_Y, Module 4 . (V)**

**Max = 1.65**

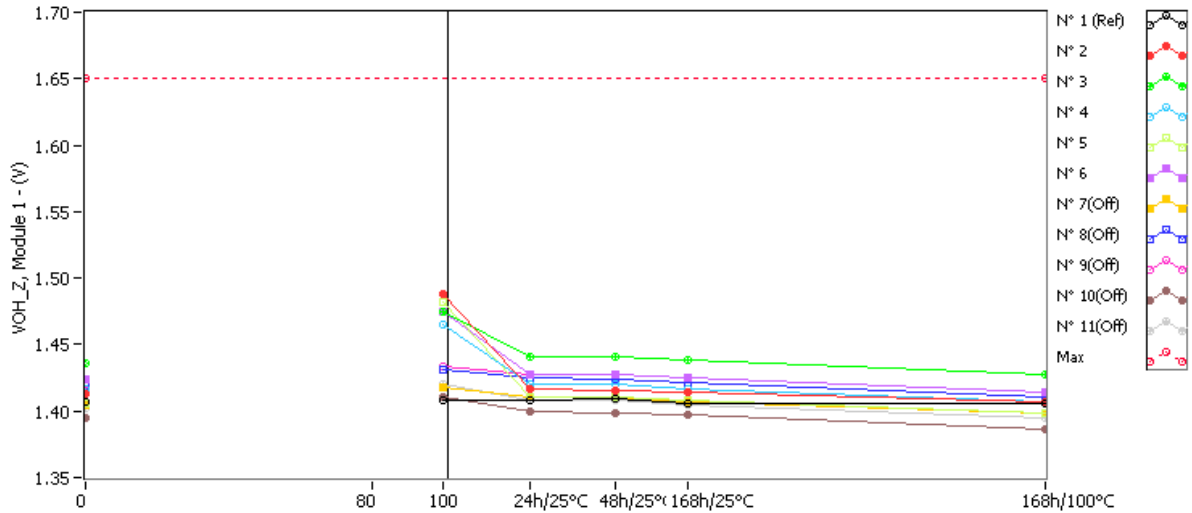
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.445	NaN	1.447	1.445	1.446	1.444	1.444
N° 2	1.401	NaN	1.403	1.405	1.404	1.402	1.394
N° 3	1.406	NaN	1.408	1.410	1.410	1.407	1.397
N° 4	1.452	NaN	1.455	1.457	1.457	1.453	1.442
N° 5	1.430	NaN	1.430	1.435	1.434	1.431	1.421
N° 6	1.452	NaN	1.451	1.457	1.456	1.452	1.443
N° 7(Off)	1.408	NaN	1.410	1.412	1.411	1.409	1.400
N° 8(Off)	1.435	NaN	1.438	1.440	1.439	1.436	1.426
N° 9(Off)	1.413	NaN	1.417	1.420	1.419	1.416	1.406
N° 10(Off)	1.404	NaN	1.406	1.408	1.408	1.405	1.395
N° 11(Off)	1.396	NaN	1.399	1.401	1.401	1.398	1.388

**Delta [VOH\_Y, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	2.000E-3	0.000E+0	1.000E-3	-1.000E-3	-1.000E-3
N° 2	---	NaN	2.000E-3	4.000E-3	3.000E-3	1.000E-3	-7.000E-3
N° 3	---	NaN	2.000E-3	4.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 4	---	NaN	3.000E-3	5.000E-3	5.000E-3	1.000E-3	-1.000E-2
N° 5	---	NaN	0.000E+0	5.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 6	---	NaN	-1.000E-3	5.000E-3	4.000E-3	0.000E+0	-9.000E-3
N° 7(Off)	---	NaN	2.000E-3	4.000E-3	3.000E-3	1.000E-3	-8.000E-3
N° 8(Off)	---	NaN	3.000E-3	5.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 9(Off)	---	NaN	4.000E-3	7.000E-3	6.000E-3	3.000E-3	-7.000E-3
N° 10(Off)	---	NaN	2.000E-3	4.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 11(Off)	---	NaN	3.000E-3	5.000E-3	5.000E-3	2.000E-3	-8.000E-3
Average	---	NaN	1.200E-3	4.600E-3	4.000E-3	8.000E-4	-8.800E-3
s	---	0.000E+0	1.643E-3	5.477E-4	7.071E-4	4.472E-4	1.095E-3
Average+3s	---	NaN	6.130E-3	6.243E-3	6.121E-3	2.142E-3	-5.514E-3
Average-3s	---	NaN	-3.730E-3	2.957E-3	1.879E-3	-5.416E-4	-1.209E-2

## 44. VOH\_Z, Module 1

"RL = 100"



**VOH\_Z, Module 1 . (V)**

**Max = 1.65**

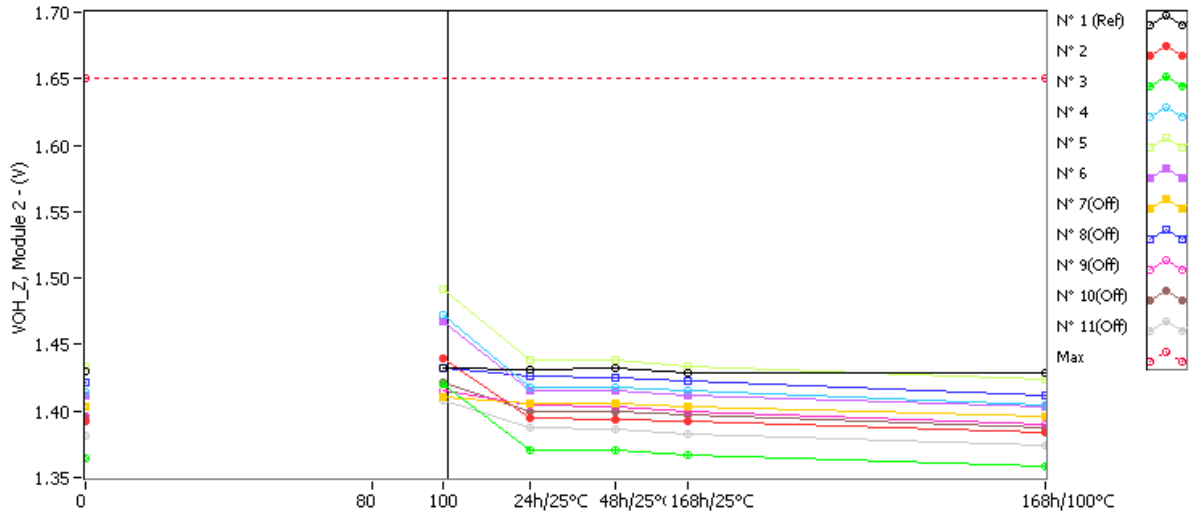
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.407	NaN	1.408	1.408	1.409	1.406	1.406
N° 2	1.413	NaN	1.488	1.417	1.416	1.414	1.407
N° 3	1.436	NaN	1.475	1.441	1.441	1.438	1.428
N° 4	1.417	NaN	1.465	1.420	1.420	1.417	1.407
N° 5	1.406	NaN	1.482	1.411	1.411	1.408	1.398
N° 6	1.424	NaN	1.475	1.428	1.428	1.425	1.414
N° 7(Off)	1.404	NaN	1.418	1.410	1.410	1.407	1.398
N° 8(Off)	1.419	NaN	1.431	1.425	1.424	1.422	1.411
N° 9(Off)	1.420	NaN	1.434	1.428	1.427	1.425	1.414
N° 10(Off)	1.395	NaN	1.410	1.400	1.399	1.397	1.386
N° 11(Off)	1.402	NaN	1.420	1.408	1.408	1.405	1.395

**Delta [VOH\_Z, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.000E-3	1.000E-3	2.000E-3	-1.000E-3	-1.000E-3
N° 2	---	NaN	7.500E-2	4.000E-3	3.000E-3	1.000E-3	-6.000E-3
N° 3	---	NaN	3.900E-2	5.000E-3	5.000E-3	2.000E-3	-8.000E-3
N° 4	---	NaN	4.800E-2	3.000E-3	3.000E-3	0.000E+0	-1.000E-2
N° 5	---	NaN	7.600E-2	5.000E-3	5.000E-3	2.000E-3	-8.000E-3
N° 6	---	NaN	5.100E-2	4.000E-3	4.000E-3	1.000E-3	-1.000E-2
N° 7(Off)	---	NaN	1.400E-2	6.000E-3	6.000E-3	3.000E-3	-6.000E-3
N° 8(Off)	---	NaN	1.200E-2	6.000E-3	5.000E-3	3.000E-3	-8.000E-3
N° 9(Off)	---	NaN	1.400E-2	8.000E-3	7.000E-3	5.000E-3	-6.000E-3
N° 10(Off)	---	NaN	1.500E-2	5.000E-3	4.000E-3	2.000E-3	-9.000E-3
N° 11(Off)	---	NaN	1.800E-2	6.000E-3	6.000E-3	3.000E-3	-7.000E-3
Average	---	NaN	5.780E-2	4.200E-3	4.000E-3	1.200E-3	-8.400E-3
s	---	0.000E+0	1.675E-2	8.367E-4	1.000E-3	8.367E-4	1.673E-3
Average+3s	---	NaN	1.081E-1	6.710E-3	7.000E-3	3.710E-3	-3.380E-3
Average-3s	---	NaN	7.538E-3	1.690E-3	1.000E-3	-1.310E-3	-1.342E-2

## 45. VOH\_Z, Module 2

"RL = 100"



**VOH\_Z, Module 2 . (V)**

**Max = 1.65**

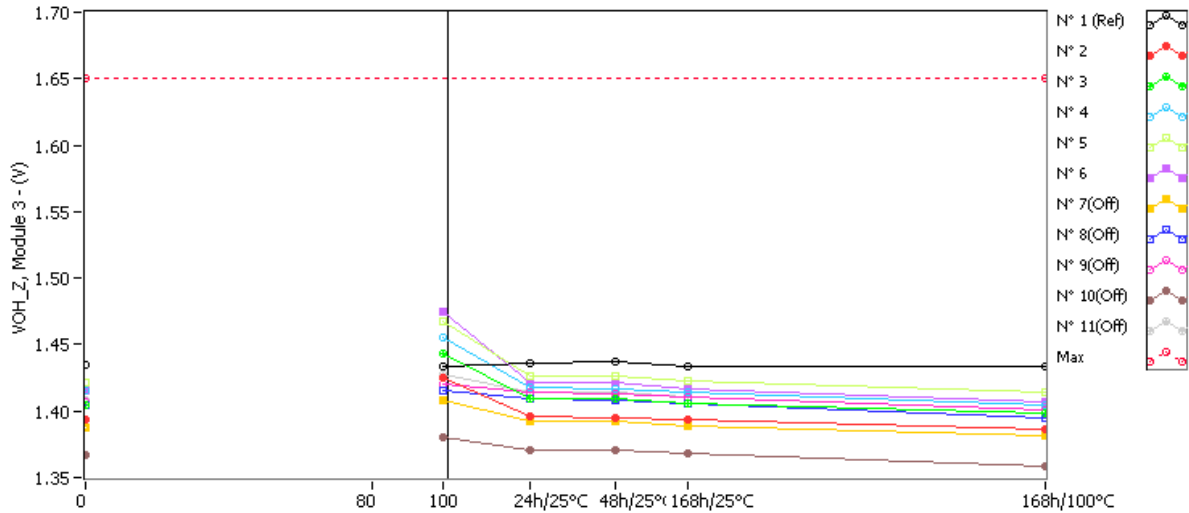
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.430	NaN	1.432	1.431	1.432	1.429	1.429
N° 2	1.392	NaN	1.440	1.395	1.394	1.392	1.384
N° 3	1.365	NaN	1.420	1.370	1.370	1.367	1.358
N° 4	1.414	NaN	1.472	1.418	1.418	1.415	1.404
N° 5	1.433	NaN	1.492	1.438	1.438	1.434	1.424
N° 6	1.412	NaN	1.468	1.416	1.415	1.412	1.403
N° 7(Off)	1.403	NaN	1.410	1.406	1.406	1.403	1.396
N° 8(Off)	1.421	NaN	1.432	1.426	1.425	1.423	1.412
N° 9(Off)	1.396	NaN	1.415	1.404	1.403	1.400	1.390
N° 10(Off)	1.395	NaN	1.422	1.400	1.400	1.397	1.388
N° 11(Off)	1.382	NaN	1.408	1.387	1.386	1.383	1.374

**Delta [VOH\_Z, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	2.000E-3	1.000E-3	2.000E-3	-1.000E-3	-1.000E-3
N° 2	---	NaN	4.800E-2	3.000E-3	2.000E-3	0.000E+0	-8.000E-3
N° 3	---	NaN	5.500E-2	5.000E-3	5.000E-3	2.000E-3	-7.000E-3
N° 4	---	NaN	5.800E-2	4.000E-3	4.000E-3	1.000E-3	-1.000E-2
N° 5	---	NaN	5.900E-2	5.000E-3	5.000E-3	1.000E-3	-9.000E-3
N° 6	---	NaN	5.600E-2	4.000E-3	3.000E-3	0.000E+0	-9.000E-3
N° 7(Off)	---	NaN	7.000E-3	3.000E-3	3.000E-3	0.000E+0	-7.000E-3
N° 8(Off)	---	NaN	1.100E-2	5.000E-3	4.000E-3	2.000E-3	-9.000E-3
N° 9(Off)	---	NaN	1.900E-2	8.000E-3	7.000E-3	4.000E-3	-6.000E-3
N° 10(Off)	---	NaN	2.700E-2	5.000E-3	5.000E-3	2.000E-3	-7.000E-3
N° 11(Off)	---	NaN	2.600E-2	5.000E-3	4.000E-3	1.000E-3	-8.000E-3
Average	---	NaN	5.520E-2	4.200E-3	3.800E-3	8.000E-4	-8.600E-3
s	---	0.000E+0	4.324E-3	8.367E-4	1.304E-3	8.367E-4	1.140E-3
Average+3s	---	NaN	6.817E-2	6.710E-3	7.712E-3	3.310E-3	-5.179E-3
Average-3s	---	NaN	4.223E-2	1.690E-3	-1.115E-4	-1.710E-3	-1.202E-2

## 46. VOH\_Z, Module 3

"RL = 100"



**VOH\_Z, Module 3 . (V)**

**Max = 1.65**

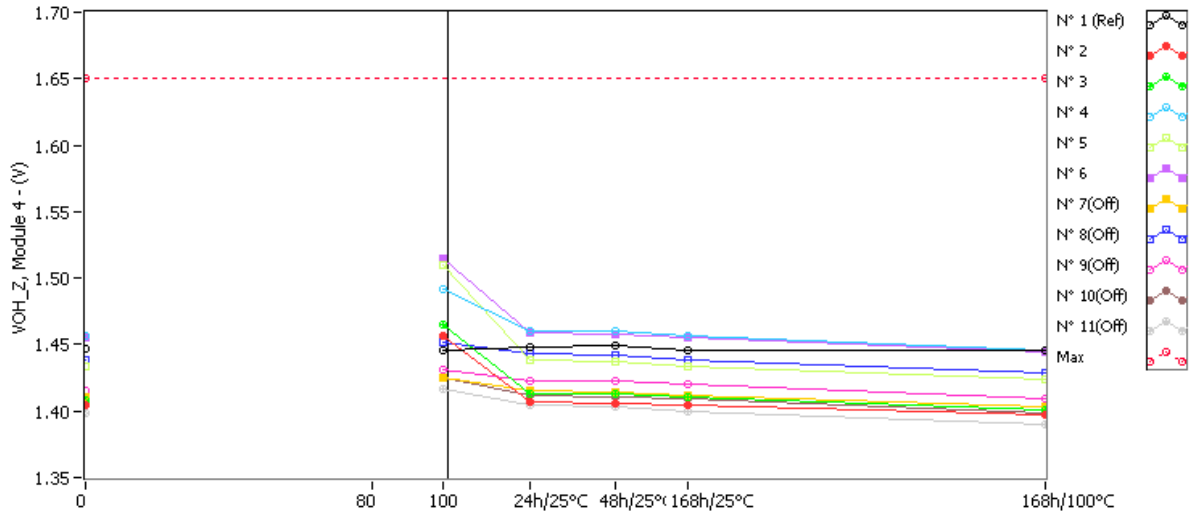
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.435	NaN	1.434	1.436	1.437	1.434	1.434
N° 2	1.393	NaN	1.425	1.396	1.395	1.393	1.386
N° 3	1.405	NaN	1.443	1.409	1.409	1.406	1.398
N° 4	1.415	NaN	1.455	1.418	1.417	1.414	1.405
N° 5	1.422	NaN	1.468	1.426	1.426	1.423	1.414
N° 6	1.416	NaN	1.475	1.421	1.421	1.417	1.407
N° 7(Off)	1.387	NaN	1.408	1.392	1.392	1.389	1.381
N° 8(Off)	1.404	NaN	1.415	1.409	1.408	1.406	1.395
N° 9(Off)	1.407	NaN	1.420	1.414	1.413	1.411	1.401
N° 10(Off)	1.367	NaN	1.380	1.371	1.371	1.368	1.359
N° 11(Off)	1.408	NaN	1.428	1.414	1.414	1.410	1.401

**Delta [VOH\_Z, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.000E-3	1.000E-3	2.000E-3	-1.000E-3	-1.000E-3
N° 2	---	NaN	3.200E-2	3.000E-3	2.000E-3	0.000E+0	-7.000E-3
N° 3	---	NaN	3.800E-2	4.000E-3	4.000E-3	1.000E-3	-7.000E-3
N° 4	---	NaN	4.000E-2	3.000E-3	2.000E-3	-1.000E-3	-1.000E-2
N° 5	---	NaN	4.600E-2	4.000E-3	4.000E-3	1.000E-3	-8.000E-3
N° 6	---	NaN	5.900E-2	5.000E-3	5.000E-3	1.000E-3	-9.000E-3
N° 7(Off)	---	NaN	2.100E-2	5.000E-3	5.000E-3	2.000E-3	-6.000E-3
N° 8(Off)	---	NaN	1.100E-2	5.000E-3	4.000E-3	2.000E-3	-9.000E-3
N° 9(Off)	---	NaN	1.300E-2	7.000E-3	6.000E-3	4.000E-3	-6.000E-3
N° 10(Off)	---	NaN	1.300E-2	4.000E-3	4.000E-3	1.000E-3	-8.000E-3
N° 11(Off)	---	NaN	2.000E-2	6.000E-3	6.000E-3	2.000E-3	-7.000E-3
Average	---	NaN	4.300E-2	3.800E-3	3.400E-3	4.000E-4	-8.200E-3
s	---	0.000E+0	1.025E-2	8.367E-4	1.342E-3	8.944E-4	1.304E-3
Average+3s	---	NaN	7.374E-2	6.310E-3	7.425E-3	3.083E-3	-4.288E-3
Average-3s	---	NaN	1.226E-2	1.290E-3	-6.249E-4	-2.283E-3	-1.211E-2

## 47. VOH\_Z, Module 4

"RL = 100"



**VOH\_Z, Module 4 . (V)**

**Max = 1.65**

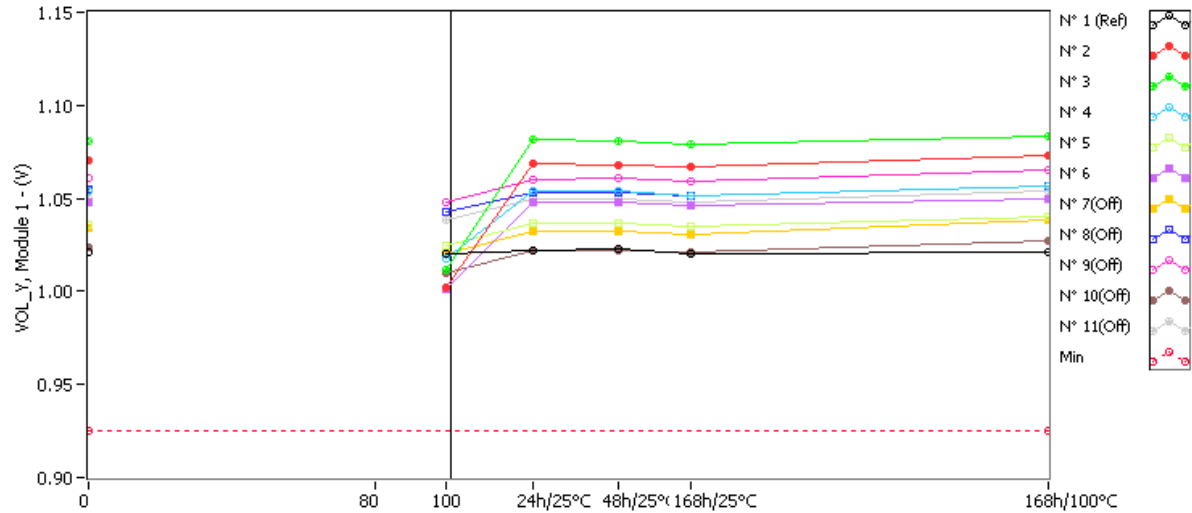
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.447	NaN	1.446	1.448	1.449	1.446	1.446
N° 2	1.404	NaN	1.457	1.407	1.406	1.404	1.397
N° 3	1.408	NaN	1.465	1.413	1.413	1.410	1.401
N° 4	1.456	NaN	1.492	1.460	1.460	1.456	1.446
N° 5	1.433	NaN	1.510	1.438	1.437	1.434	1.424
N° 6	1.455	NaN	1.515	1.459	1.458	1.455	1.445
N° 7(Off)	1.410	NaN	1.425	1.415	1.414	1.412	1.403
N° 8(Off)	1.438	NaN	1.452	1.443	1.442	1.439	1.429
N° 9(Off)	1.416	NaN	1.431	1.423	1.423	1.420	1.409
N° 10(Off)	1.407	NaN	1.425	1.412	1.411	1.409	1.398
N° 11(Off)	1.398	NaN	1.417	1.404	1.403	1.400	1.390

**Delta [VOH\_Z, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.000E-3	1.000E-3	2.000E-3	-1.000E-3	-1.000E-3
N° 2	---	NaN	5.300E-2	3.000E-3	2.000E-3	0.000E+0	-7.000E-3
N° 3	---	NaN	5.700E-2	5.000E-3	5.000E-3	2.000E-3	-7.000E-3
N° 4	---	NaN	3.600E-2	4.000E-3	4.000E-3	0.000E+0	-1.000E-2
N° 5	---	NaN	7.700E-2	5.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 6	---	NaN	6.000E-2	4.000E-3	3.000E-3	0.000E+0	-1.000E-2
N° 7(Off)	---	NaN	1.500E-2	5.000E-3	4.000E-3	2.000E-3	-7.000E-3
N° 8(Off)	---	NaN	1.400E-2	5.000E-3	4.000E-3	1.000E-3	-9.000E-3
N° 9(Off)	---	NaN	1.500E-2	7.000E-3	7.000E-3	4.000E-3	-7.000E-3
N° 10(Off)	---	NaN	1.800E-2	5.000E-3	4.000E-3	2.000E-3	-9.000E-3
N° 11(Off)	---	NaN	1.900E-2	6.000E-3	5.000E-3	2.000E-3	-8.000E-3
Average	---	NaN	5.660E-2	4.200E-3	3.600E-3	6.000E-4	-8.600E-3
s	---	0.000E+0	1.471E-2	8.367E-4	1.140E-3	8.944E-4	1.517E-3
Average+3s	---	NaN	1.007E-1	6.710E-3	7.021E-3	3.283E-3	-4.050E-3
Average-3s	---	NaN	1.248E-2	1.690E-3	1.795E-4	-2.083E-3	-1.315E-2

# 48. VOL\_Y, Module 1

"RL = 100"



**VOL\_Y, Module 1 . (V)**

**Min = 0.925**

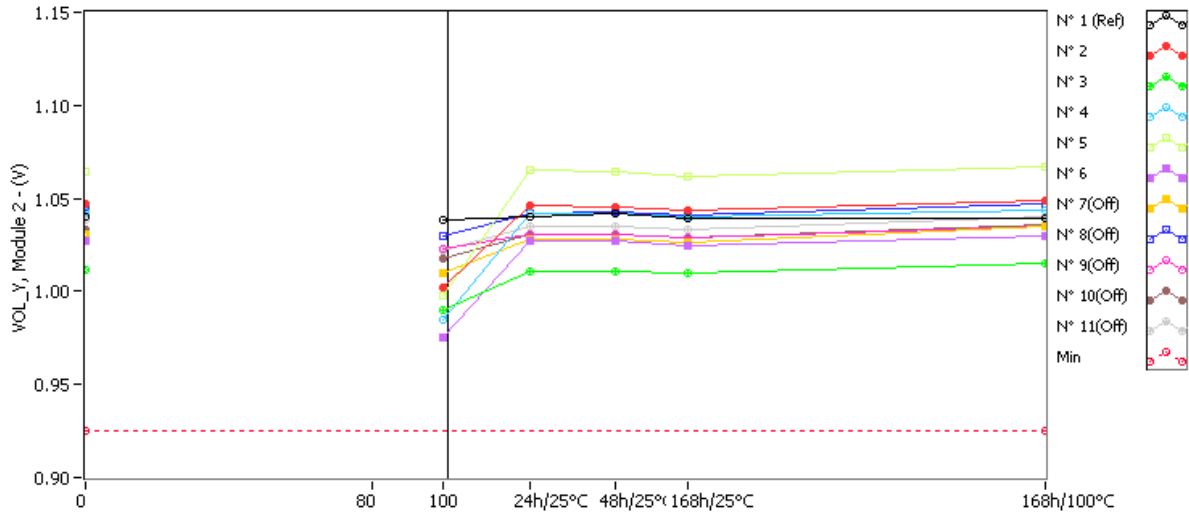
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.021	NaN	1.020	1.022	1.023	1.020	1.021
N° 2	1.070	NaN	1.002	1.069	1.068	1.067	1.073
N° 3	1.081	NaN	1.012	1.082	1.081	1.079	1.083
N° 4	1.054	NaN	1.018	1.054	1.054	1.051	1.057
N° 5	1.036	NaN	1.025	1.037	1.037	1.035	1.040
N° 6	1.048	NaN	1.001	1.048	1.048	1.046	1.050
N° 7(Off)	1.034	NaN	1.020	1.032	1.032	1.031	1.038
N° 8(Off)	1.055	NaN	1.043	1.053	1.053	1.051	1.057
N° 9(Off)	1.061	NaN	1.048	1.060	1.061	1.059	1.065
N° 10(Off)	1.024	NaN	1.010	1.022	1.022	1.021	1.027
N° 11(Off)	1.050	NaN	1.038	1.050	1.050	1.048	1.054

**Delta [VOL\_Y, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.000E-3	1.000E-3	2.000E-3	-1.000E-3	0.000E+0
N° 2	---	NaN	-6.800E-2	-1.000E-3	-2.000E-3	-3.000E-3	3.000E-3
N° 3	---	NaN	-6.900E-2	1.000E-3	0.000E+0	-2.000E-3	2.000E-3
N° 4	---	NaN	-3.600E-2	0.000E+0	0.000E+0	-3.000E-3	3.000E-3
N° 5	---	NaN	-1.100E-2	1.000E-3	1.000E-3	-1.000E-3	4.000E-3
N° 6	---	NaN	-4.700E-2	0.000E+0	0.000E+0	-2.000E-3	2.000E-3
N° 7(Off)	---	NaN	-1.400E-2	-2.000E-3	-2.000E-3	-3.000E-3	4.000E-3
N° 8(Off)	---	NaN	-1.200E-2	-2.000E-3	-2.000E-3	-4.000E-3	2.000E-3
N° 9(Off)	---	NaN	-1.300E-2	-1.000E-3	0.000E+0	-2.000E-3	4.000E-3
N° 10(Off)	---	NaN	-1.400E-2	-2.000E-3	-2.000E-3	-3.000E-3	3.000E-3
N° 11(Off)	---	NaN	-1.200E-2	0.000E+0	0.000E+0	-2.000E-3	4.000E-3
Average	---	NaN	-4.620E-2	2.000E-4	-2.000E-4	-2.200E-3	2.800E-3
s	---	0.000E+0	2.418E-2	8.367E-4	1.095E-3	8.367E-4	8.367E-4
Average+3s	---	NaN	2.634E-2	2.710E-3	3.086E-3	3.100E-4	5.310E-3
Average-3s	---	NaN	-1.187E-1	-2.310E-3	-3.486E-3	-4.710E-3	2.900E-4

## 49. VOL\_Y, Module 2

"RL = 100"



**VOL\_Y, Module 2 . (V)**

**Min = 0.925**

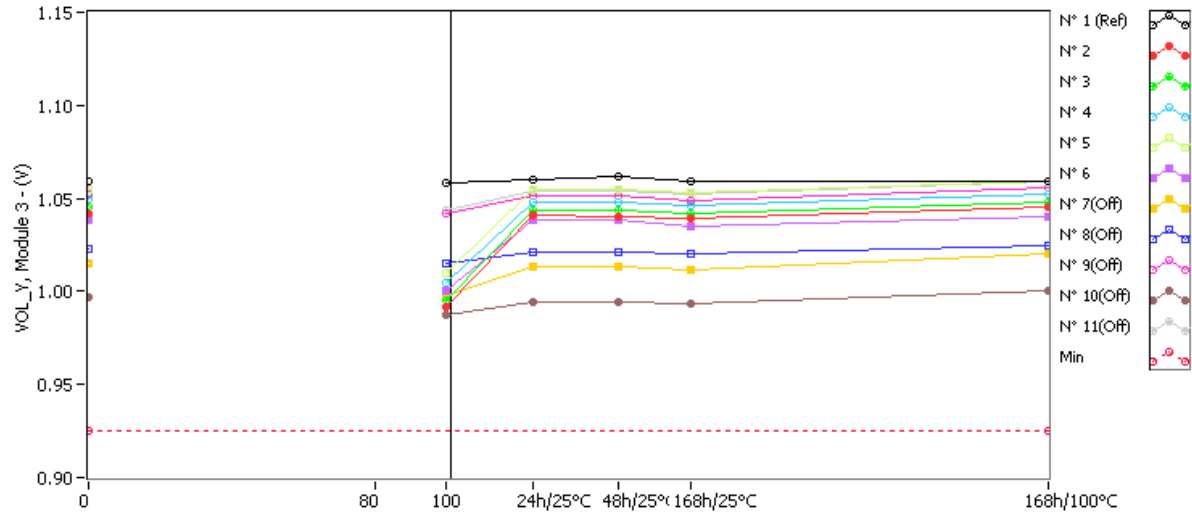
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.040	NaN	1.038	1.040	1.042	1.039	1.039
N° 2	1.047	NaN	1.002	1.046	1.045	1.044	1.049
N° 3	1.012	NaN	0.990	1.011	1.011	1.010	1.015
N° 4	1.043	NaN	0.985	1.042	1.042	1.040	1.044
N° 5	1.064	NaN	0.998	1.065	1.064	1.062	1.067
N° 6	1.027	NaN	0.975	1.027	1.027	1.025	1.030
N° 7(Off)	1.031	NaN	1.010	1.028	1.028	1.026	1.035
N° 8(Off)	1.045	NaN	1.030	1.042	1.043	1.041	1.047
N° 9(Off)	1.031	NaN	1.023	1.031	1.031	1.029	1.035
N° 10(Off)	1.033	NaN	1.018	1.031	1.031	1.029	1.036
N° 11(Off)	1.038	NaN	1.022	1.035	1.035	1.033	1.040

**Delta [VOL\_Y, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.000E-3	0.000E+0	2.000E-3	-1.000E-3	-1.000E-3
N° 2	---	NaN	-4.500E-2	-1.000E-3	-2.000E-3	-3.000E-3	2.000E-3
N° 3	---	NaN	-2.200E-2	-1.000E-3	-1.000E-3	-2.000E-3	3.000E-3
N° 4	---	NaN	-5.800E-2	-1.000E-3	-1.000E-3	-3.000E-3	1.000E-3
N° 5	---	NaN	-6.600E-2	1.000E-3	0.000E+0	-2.000E-3	3.000E-3
N° 6	---	NaN	-5.200E-2	0.000E+0	0.000E+0	-2.000E-3	3.000E-3
N° 7(Off)	---	NaN	-2.100E-2	-3.000E-3	-3.000E-3	-5.000E-3	4.000E-3
N° 8(Off)	---	NaN	-1.500E-2	-3.000E-3	-2.000E-3	-4.000E-3	2.000E-3
N° 9(Off)	---	NaN	-8.000E-3	0.000E+0	0.000E+0	-2.000E-3	4.000E-3
N° 10(Off)	---	NaN	-1.500E-2	-2.000E-3	-2.000E-3	-4.000E-3	3.000E-3
N° 11(Off)	---	NaN	-1.600E-2	-3.000E-3	-3.000E-3	-5.000E-3	2.000E-3
Average	---	NaN	-4.860E-2	-4.000E-4	-8.000E-4	-2.400E-3	2.400E-3
s	---	0.000E+0	1.676E-2	8.944E-4	8.367E-4	5.477E-4	8.944E-4
Average+3s	---	NaN	1.671E-3	2.283E-3	1.710E-3	-7.568E-4	5.083E-3
Average-3s	---	NaN	-9.887E-2	-3.083E-3	-3.310E-3	-4.043E-3	-2.833E-4

## 50. VOL\_Y, Module 3

"RL = 100"



**VOL\_Y, Module 3 . (V)**

**Min = 0.925**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.059	NaN	1.058	1.060	1.062	1.059	1.059
N° 2	1.042	NaN	0.992	1.041	1.040	1.039	1.045
N° 3	1.045	NaN	0.995	1.044	1.044	1.042	1.048
N° 4	1.050	NaN	1.005	1.048	1.048	1.046	1.052
N° 5	1.055	NaN	1.010	1.055	1.055	1.053	1.059
N° 6	1.038	NaN	1.000	1.038	1.038	1.035	1.040
N° 7(Off)	1.015	NaN	0.998	1.013	1.013	1.012	1.020
N° 8(Off)	1.023	NaN	1.015	1.021	1.021	1.020	1.025
N° 9(Off)	1.052	NaN	1.042	1.051	1.051	1.049	1.056
N° 10(Off)	0.997	NaN	0.987	0.994	0.994	0.993	1.000
N° 11(Off)	1.055	NaN	1.044	1.054	1.054	1.052	1.059

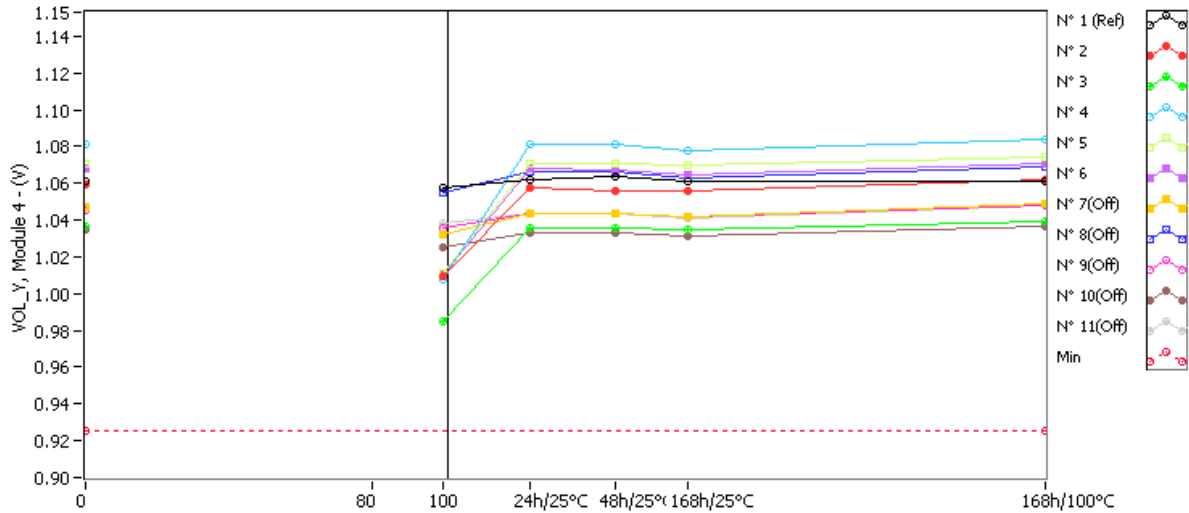
**Delta [VOL\_Y, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.000E-3	1.000E-3	3.000E-3	0.000E+0	0.000E+0
N° 2	---	NaN	-5.000E-2	-1.000E-3	-2.000E-3	-3.000E-3	3.000E-3
N° 3	---	NaN	-5.000E-2	-1.000E-3	-1.000E-3	-3.000E-3	3.000E-3
N° 4	---	NaN	-4.500E-2	-2.000E-3	-2.000E-3	-4.000E-3	2.000E-3
N° 5	---	NaN	-4.500E-2	0.000E+0	0.000E+0	-2.000E-3	4.000E-3
N° 6	---	NaN	-3.800E-2	0.000E+0	0.000E+0	-3.000E-3	2.000E-3
N° 7(Off)	---	NaN	-1.700E-2	-2.000E-3	-2.000E-3	-3.000E-3	5.000E-3
N° 8(Off)	---	NaN	-8.000E-3	-2.000E-3	-2.000E-3	-3.000E-3	2.000E-3
N° 9(Off)	---	NaN	-1.000E-2	-1.000E-3	-1.000E-3	-3.000E-3	4.000E-3
N° 10(Off)	---	NaN	-1.000E-2	-3.000E-3	-3.000E-3	-4.000E-3	3.000E-3
N° 11(Off)	---	NaN	-1.100E-2	-1.000E-3	-1.000E-3	-3.000E-3	4.000E-3
Average	---	NaN	-4.560E-2	-8.000E-4	-1.000E-3	-3.000E-3	2.800E-3
s	---	0.000E+0	4.930E-3	8.367E-4	1.000E-3	7.071E-4	8.367E-4
Average+3s	---	NaN	-3.081E-2	1.710E-3	2.000E-3	-8.787E-4	5.310E-3
Average-3s	---	NaN	-6.039E-2	-3.310E-3	-4.000E-3	-5.121E-3	2.900E-4



## 51. VOL\_Y, Module 4

"RL = 100"



**VOL\_Y, Module 4 . (V)**

**Min = 0.925**

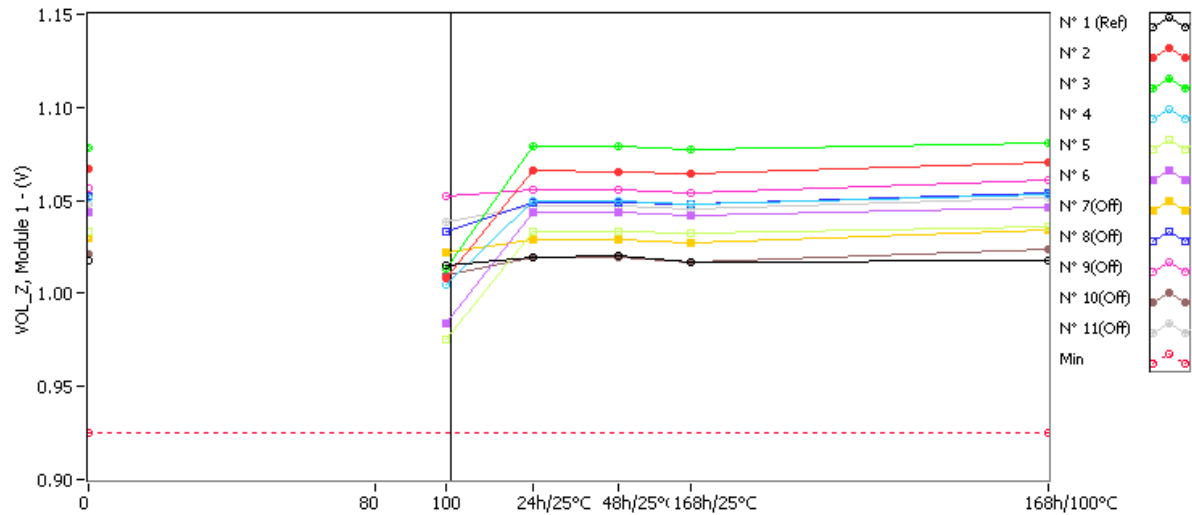
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.061	NaN	1.058	1.062	1.064	1.061	1.061
N° 2	1.059	NaN	1.009	1.058	1.056	1.056	1.062
N° 3	1.037	NaN	0.985	1.036	1.036	1.035	1.039
N° 4	1.081	NaN	1.008	1.081	1.081	1.078	1.084
N° 5	1.071	NaN	1.011	1.071	1.071	1.070	1.074
N° 6	1.068	NaN	1.010	1.068	1.067	1.065	1.071
N° 7(Off)	1.047	NaN	1.032	1.044	1.044	1.042	1.049
N° 8(Off)	1.068	NaN	1.055	1.066	1.066	1.063	1.069
N° 9(Off)	1.045	NaN	1.036	1.044	1.044	1.042	1.048
N° 10(Off)	1.035	NaN	1.025	1.033	1.033	1.031	1.037
N° 11(Off)	1.045	NaN	1.038	1.044	1.044	1.041	1.048

**Delta [VOL\_Y, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.000E-3	1.000E-3	3.000E-3	0.000E+0	0.000E+0
N° 2	---	NaN	-5.000E-2	-1.000E-3	-3.000E-3	-3.000E-3	3.000E-3
N° 3	---	NaN	-5.200E-2	-1.000E-3	-1.000E-3	-2.000E-3	2.000E-3
N° 4	---	NaN	-7.300E-2	0.000E+0	0.000E+0	-3.000E-3	3.000E-3
N° 5	---	NaN	-6.000E-2	0.000E+0	0.000E+0	-1.000E-3	3.000E-3
N° 6	---	NaN	-5.800E-2	0.000E+0	-1.000E-3	-3.000E-3	3.000E-3
N° 7(Off)	---	NaN	-1.500E-2	-3.000E-3	-3.000E-3	-5.000E-3	2.000E-3
N° 8(Off)	---	NaN	-1.300E-2	-2.000E-3	-2.000E-3	-5.000E-3	1.000E-3
N° 9(Off)	---	NaN	-9.000E-3	-1.000E-3	-1.000E-3	-3.000E-3	3.000E-3
N° 10(Off)	---	NaN	-1.000E-2	-2.000E-3	-2.000E-3	-4.000E-3	2.000E-3
N° 11(Off)	---	NaN	-7.000E-3	-1.000E-3	-1.000E-3	-4.000E-3	3.000E-3
Average	---	NaN	-5.860E-2	-4.000E-4	-1.000E-3	-2.400E-3	2.800E-3
s	---	0.000E+0	9.044E-3	5.477E-4	1.225E-3	8.944E-4	4.472E-4
Average+3s	---	NaN	-3.147E-2	1.243E-3	2.674E-3	2.833E-4	4.142E-3
Average-3s	---	NaN	-8.573E-2	-2.043E-3	-4.674E-3	-5.083E-3	1.458E-3

## 52. VOL\_Z, Module 1

"RL = 100"



**VOL\_Z, Module 1 . (V)**

**Min = 0.925**

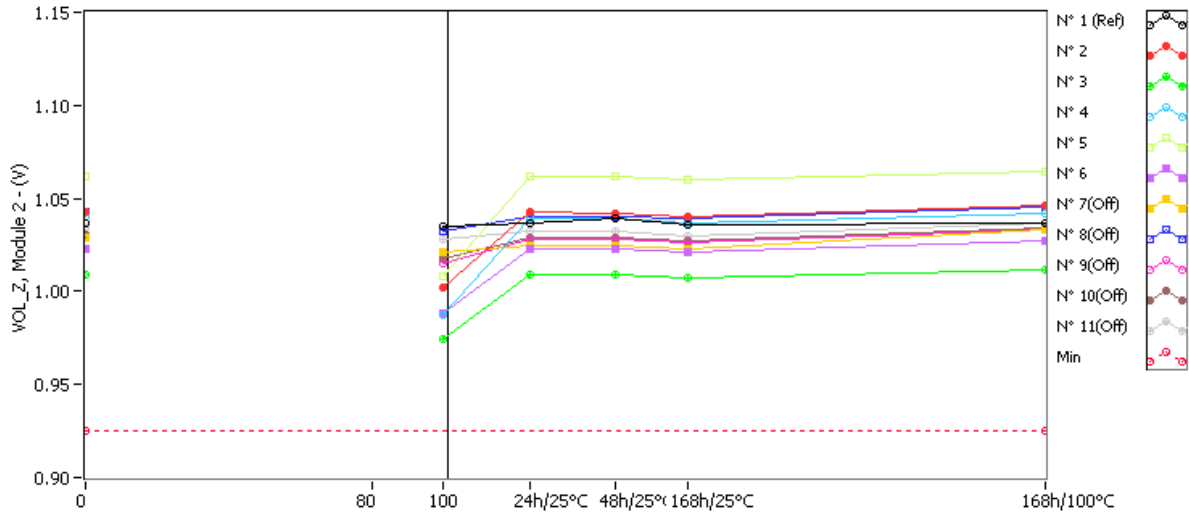
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.018	NaN	1.015	1.019	1.020	1.017	1.018
N° 2	1.067	NaN	1.008	1.066	1.065	1.064	1.070
N° 3	1.078	NaN	1.013	1.079	1.079	1.077	1.081
N° 4	1.051	NaN	1.005	1.050	1.050	1.048	1.053
N° 5	1.033	NaN	0.975	1.033	1.033	1.032	1.036
N° 6	1.044	NaN	0.984	1.044	1.044	1.042	1.046
N° 7(Off)	1.030	NaN	1.022	1.029	1.029	1.027	1.034
N° 8(Off)	1.052	NaN	1.033	1.049	1.049	1.048	1.054
N° 9(Off)	1.057	NaN	1.052	1.056	1.056	1.054	1.061
N° 10(Off)	1.021	NaN	1.010	1.019	1.019	1.017	1.024
N° 11(Off)	1.048	NaN	1.038	1.047	1.047	1.045	1.051

**Delta [VOL\_Z, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.000E-3	1.000E-3	2.000E-3	-1.000E-3	0.000E+0
N° 2	---	NaN	-5.900E-2	-1.000E-3	-2.000E-3	-3.000E-3	3.000E-3
N° 3	---	NaN	-6.500E-2	1.000E-3	1.000E-3	-1.000E-3	3.000E-3
N° 4	---	NaN	-4.600E-2	-1.000E-3	-1.000E-3	-3.000E-3	2.000E-3
N° 5	---	NaN	-5.800E-2	0.000E+0	0.000E+0	-1.000E-3	3.000E-3
N° 6	---	NaN	-6.000E-2	0.000E+0	0.000E+0	-2.000E-3	2.000E-3
N° 7(Off)	---	NaN	-8.000E-3	-1.000E-3	-1.000E-3	-3.000E-3	4.000E-3
N° 8(Off)	---	NaN	-1.900E-2	-3.000E-3	-3.000E-3	-4.000E-3	2.000E-3
N° 9(Off)	---	NaN	-5.000E-3	-1.000E-3	-1.000E-3	-3.000E-3	4.000E-3
N° 10(Off)	---	NaN	-1.100E-2	-2.000E-3	-2.000E-3	-4.000E-3	3.000E-3
N° 11(Off)	---	NaN	-1.000E-2	-1.000E-3	-1.000E-3	-3.000E-3	3.000E-3
Average	---	NaN	-5.760E-2	-2.000E-4	-4.000E-4	-2.000E-3	2.600E-3
s	---	0.000E+0	7.021E-3	8.367E-4	1.140E-3	1.000E-3	5.477E-4
Average+3s	---	NaN	-3.654E-2	2.310E-3	3.021E-3	1.000E-3	4.243E-3
Average-3s	---	NaN	-7.866E-2	-2.710E-3	-3.821E-3	-5.000E-3	9.568E-4

## 53. VOL\_Z, Module 2

"RL = 100"



**VOL\_Z, Module 2 . (V)**

**Min = 0.925**

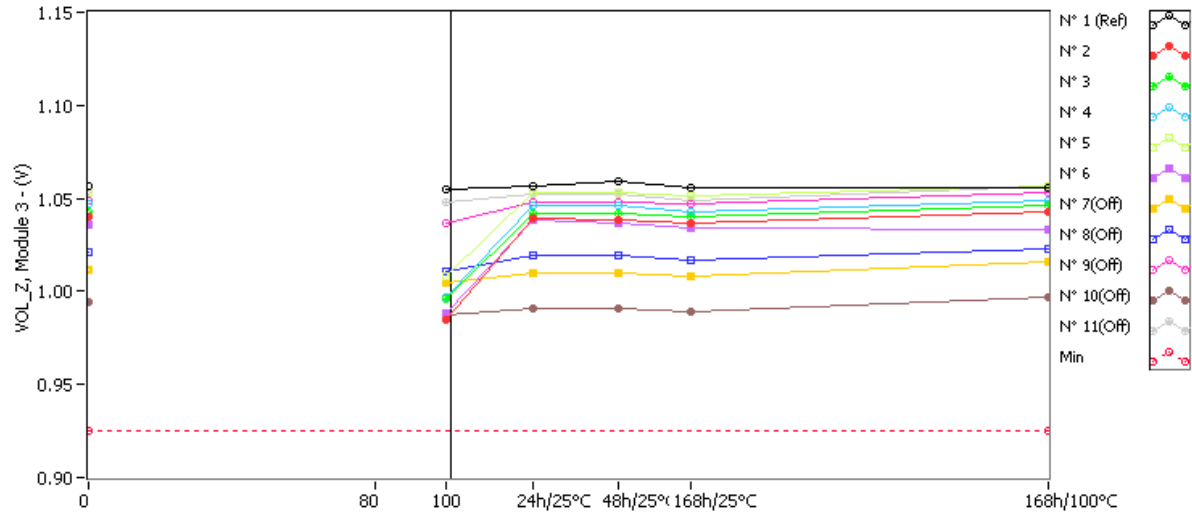
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.037	NaN	1.035	1.037	1.039	1.036	1.037
N° 2	1.043	NaN	1.002	1.043	1.042	1.040	1.046
N° 3	1.009	NaN	0.974	1.009	1.009	1.007	1.012
N° 4	1.040	NaN	0.987	1.039	1.039	1.037	1.042
N° 5	1.062	NaN	1.008	1.062	1.062	1.060	1.064
N° 6	1.023	NaN	0.988	1.023	1.023	1.021	1.027
N° 7(Off)	1.029	NaN	1.021	1.025	1.025	1.023	1.033
N° 8(Off)	1.043	NaN	1.032	1.040	1.040	1.039	1.045
N° 9(Off)	1.029	NaN	1.015	1.028	1.028	1.026	1.033
N° 10(Off)	1.031	NaN	1.018	1.029	1.029	1.027	1.034
N° 11(Off)	1.034	NaN	1.028	1.032	1.032	1.030	1.037

**Delta [VOL\_Z, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.000E-3	0.000E+0	2.000E-3	-1.000E-3	0.000E+0
N° 2	---	NaN	-4.100E-2	0.000E+0	-1.000E-3	-3.000E-3	3.000E-3
N° 3	---	NaN	-3.500E-2	0.000E+0	0.000E+0	-2.000E-3	3.000E-3
N° 4	---	NaN	-5.300E-2	-1.000E-3	-1.000E-3	-3.000E-3	2.000E-3
N° 5	---	NaN	-5.400E-2	0.000E+0	0.000E+0	-2.000E-3	2.000E-3
N° 6	---	NaN	-3.500E-2	0.000E+0	0.000E+0	-2.000E-3	4.000E-3
N° 7(Off)	---	NaN	-8.000E-3	-4.000E-3	-4.000E-3	-6.000E-3	4.000E-3
N° 8(Off)	---	NaN	-1.100E-2	-3.000E-3	-3.000E-3	-4.000E-3	2.000E-3
N° 9(Off)	---	NaN	-1.400E-2	-1.000E-3	-1.000E-3	-3.000E-3	4.000E-3
N° 10(Off)	---	NaN	-1.300E-2	-2.000E-3	-2.000E-3	-4.000E-3	3.000E-3
N° 11(Off)	---	NaN	-6.000E-3	-2.000E-3	-2.000E-3	-4.000E-3	3.000E-3
Average	---	NaN	-4.360E-2	-2.000E-4	-4.000E-4	-2.400E-3	2.800E-3
s	---	0.000E+0	9.370E-3	4.472E-4	5.477E-4	5.477E-4	8.367E-4
Average+3s	---	NaN	-1.549E-2	1.142E-3	1.243E-3	-7.568E-4	5.310E-3
Average-3s	---	NaN	-7.171E-2	-1.542E-3	-2.043E-3	-4.043E-3	2.900E-4

## 54. VOL\_Z, Module 3

"RL = 100"



**VOL\_Z, Module 3 . (V)**

**Min = 0.925**

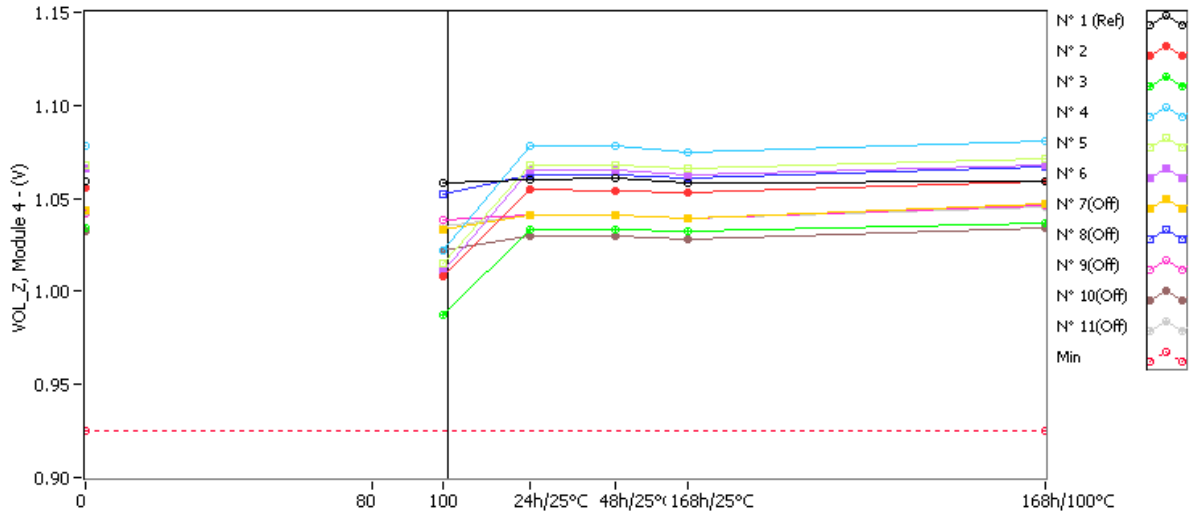
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.057	NaN	1.055	1.057	1.059	1.056	1.056
N° 2	1.040	NaN	0.985	1.039	1.038	1.037	1.043
N° 3	1.043	NaN	0.996	1.042	1.042	1.040	1.046
N° 4	1.047	NaN	0.997	1.046	1.046	1.043	1.049
N° 5	1.053	NaN	1.008	1.053	1.053	1.051	1.057
N° 6	1.036	NaN	0.988	1.038	1.037	1.034	1.033
N° 7(Off)	1.012	NaN	1.005	1.010	1.010	1.008	1.016
N° 8(Off)	1.021	NaN	1.011	1.019	1.019	1.017	1.023
N° 9(Off)	1.049	NaN	1.037	1.048	1.048	1.047	1.053
N° 10(Off)	0.994	NaN	0.987	0.991	0.991	0.989	0.997
N° 11(Off)	1.053	NaN	1.048	1.052	1.052	1.049	1.057

**Delta [VOL\_Z, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.000E-3	0.000E+0	2.000E-3	-1.000E-3	-1.000E-3
N° 2	---	NaN	-5.500E-2	-1.000E-3	-2.000E-3	-3.000E-3	3.000E-3
N° 3	---	NaN	-4.700E-2	-1.000E-3	-1.000E-3	-3.000E-3	3.000E-3
N° 4	---	NaN	-5.000E-2	-1.000E-3	-1.000E-3	-4.000E-3	2.000E-3
N° 5	---	NaN	-4.500E-2	0.000E+0	0.000E+0	-2.000E-3	4.000E-3
N° 6	---	NaN	-4.800E-2	2.000E-3	1.000E-3	-2.000E-3	-3.000E-3
N° 7(Off)	---	NaN	-7.000E-3	-2.000E-3	-2.000E-3	-4.000E-3	4.000E-3
N° 8(Off)	---	NaN	-1.000E-2	-2.000E-3	-2.000E-3	-4.000E-3	2.000E-3
N° 9(Off)	---	NaN	-1.200E-2	-1.000E-3	-1.000E-3	-2.000E-3	4.000E-3
N° 10(Off)	---	NaN	-7.000E-3	-3.000E-3	-3.000E-3	-5.000E-3	3.000E-3
N° 11(Off)	---	NaN	-5.000E-3	-1.000E-3	-1.000E-3	-4.000E-3	4.000E-3
Average	---	NaN	-4.900E-2	-2.000E-4	-6.000E-4	-2.800E-3	1.800E-3
s	---	0.000E+0	3.808E-3	1.304E-3	1.140E-3	8.367E-4	2.775E-3
Average+3s	---	NaN	-3.758E-2	3.712E-3	2.821E-3	-2.900E-4	1.012E-2
Average-3s	---	NaN	-6.042E-2	-4.112E-3	-4.021E-3	-5.310E-3	-6.525E-3

## 55. VOL\_Z, Module 4

"RL = 100"



**VOL\_Z, Module 4 . (V)**

**Min = 0.925**

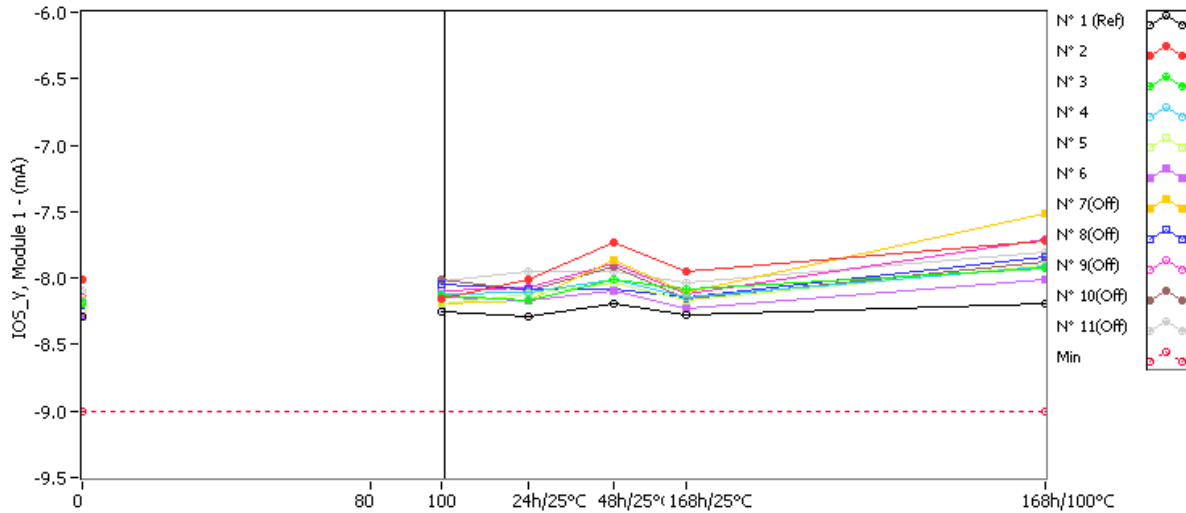
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.059	NaN	1.058	1.060	1.061	1.058	1.059
N° 2	1.056	NaN	1.008	1.055	1.054	1.053	1.059
N° 3	1.034	NaN	0.987	1.033	1.033	1.032	1.037
N° 4	1.078	NaN	1.022	1.078	1.078	1.075	1.081
N° 5	1.068	NaN	1.015	1.068	1.068	1.066	1.071
N° 6	1.066	NaN	1.011	1.065	1.065	1.063	1.068
N° 7(Off)	1.044	NaN	1.033	1.041	1.041	1.039	1.047
N° 8(Off)	1.066	NaN	1.052	1.063	1.063	1.061	1.067
N° 9(Off)	1.042	NaN	1.038	1.041	1.041	1.039	1.046
N° 10(Off)	1.032	NaN	1.022	1.030	1.030	1.028	1.034
N° 11(Off)	1.043	NaN	1.035	1.041	1.041	1.039	1.045

**Delta [VOL\_Z, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.000E-3	1.000E-3	2.000E-3	-1.000E-3	0.000E+0
N° 2	---	NaN	-4.800E-2	-1.000E-3	-2.000E-3	-3.000E-3	3.000E-3
N° 3	---	NaN	-4.700E-2	-1.000E-3	-1.000E-3	-2.000E-3	3.000E-3
N° 4	---	NaN	-5.600E-2	0.000E+0	0.000E+0	-3.000E-3	3.000E-3
N° 5	---	NaN	-5.300E-2	0.000E+0	0.000E+0	-2.000E-3	3.000E-3
N° 6	---	NaN	-5.500E-2	-1.000E-3	-1.000E-3	-3.000E-3	2.000E-3
N° 7(Off)	---	NaN	-1.100E-2	-3.000E-3	-3.000E-3	-5.000E-3	3.000E-3
N° 8(Off)	---	NaN	-1.400E-2	-3.000E-3	-3.000E-3	-5.000E-3	1.000E-3
N° 9(Off)	---	NaN	-4.000E-3	-1.000E-3	-1.000E-3	-3.000E-3	4.000E-3
N° 10(Off)	---	NaN	-1.000E-2	-2.000E-3	-2.000E-3	-4.000E-3	2.000E-3
N° 11(Off)	---	NaN	-8.000E-3	-2.000E-3	-2.000E-3	-4.000E-3	2.000E-3
Average	---	NaN	-5.180E-2	-6.000E-4	-8.000E-4	-2.600E-3	2.800E-3
s	---	0.000E+0	4.087E-3	5.477E-4	8.367E-4	5.477E-4	4.472E-4
Average+3s	---	NaN	-3.954E-2	1.043E-3	1.710E-3	-9.568E-4	4.142E-3
Average-3s	---	NaN	-6.406E-2	-2.243E-3	-3.310E-3	-4.243E-3	1.458E-3

## 56. IOS\_Y, Module 1

"Enabled, Din = VCC, Dout+ = 0V or Din = GND, Dout- = 0V"



**IOS\_Y, Module 1 . (mA)**

**Min = -9.0**

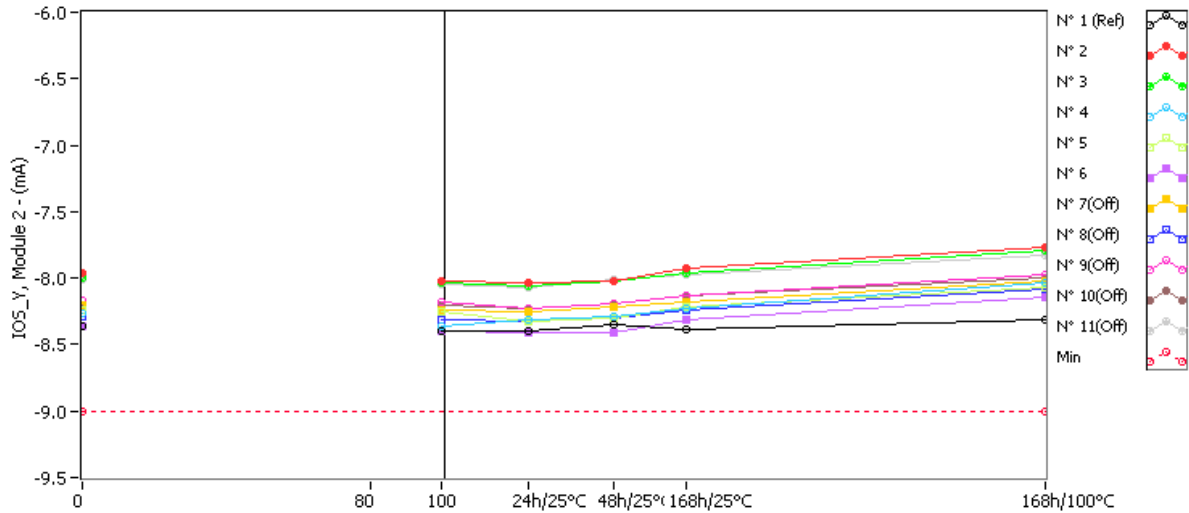
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-8.291	NaN	-8.254	-8.283	-8.194	-8.274	-8.186
N° 2	-8.012	NaN	-8.156	-8.012	-7.736	-7.948	-7.725
N° 3	-8.193	NaN	-8.135	-8.166	-8.007	-8.079	-7.922
N° 4	-8.185	NaN	-8.124	-8.113	-8.014	-8.139	-7.912
N° 5	-8.237	NaN	-8.198	-8.124	-8.035	-8.168	-7.899
N° 6	-8.291	NaN	-8.145	-8.168	-8.093	-8.226	-8.013
N° 7(Off)	-8.162	NaN	-8.197	-8.172	-7.867	-8.104	-7.513
N° 8(Off)	-8.203	NaN	-8.050	-8.088	-8.089	-8.145	-7.839
N° 9(Off)	-8.148	NaN	-8.096	-8.076	-7.888	-8.115	-7.711
N° 10(Off)	-8.203	NaN	-8.007	-8.090	-7.910	-8.158	-7.878
N° 11(Off)	-8.097	NaN	-8.025	-7.955	-7.949	-8.029	-7.806

**Delta [IOS\_Y, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	3.700E-2	8.000E-3	9.700E-2	1.700E-2	1.050E-1
N° 2	---	NaN	-1.440E-1	0.000E+0	2.760E-1	6.400E-2	2.870E-1
N° 3	---	NaN	5.800E-2	2.700E-2	1.860E-1	1.140E-1	2.710E-1
N° 4	---	NaN	6.100E-2	7.200E-2	1.710E-1	4.600E-2	2.730E-1
N° 5	---	NaN	3.900E-2	1.130E-1	2.020E-1	6.900E-2	3.380E-1
N° 6	---	NaN	1.460E-1	1.230E-1	1.980E-1	6.500E-2	2.780E-1
N° 7(Off)	---	NaN	-3.500E-2	-1.000E-2	2.950E-1	5.800E-2	6.490E-1
N° 8(Off)	---	NaN	1.530E-1	1.150E-1	1.140E-1	5.800E-2	3.640E-1
N° 9(Off)	---	NaN	5.200E-2	7.200E-2	2.600E-1	3.300E-2	4.370E-1
N° 10(Off)	---	NaN	1.960E-1	1.130E-1	2.930E-1	4.500E-2	3.250E-1
N° 11(Off)	---	NaN	7.200E-2	1.420E-1	1.480E-1	6.800E-2	2.910E-1
Average	---	NaN	3.200E-2	6.700E-2	2.066E-1	7.160E-2	2.894E-1
s	---	0.000E+0	1.067E-1	5.331E-2	4.063E-2	2.530E-2	2.786E-2
Average+3s	---	NaN	3.521E-1	2.269E-1	3.285E-1	1.475E-1	3.730E-1
Average-3s	---	NaN	-2.881E-1	-9.292E-2	8.471E-2	-4.312E-3	2.058E-1

## 57. IOS\_Y, Module 2

"Enabled, Din = VCC, Dout+ = 0V or Din = GND, Dout- = 0V"



**IOS\_Y, Module 2 . (mA)**

**Min = -9.0**

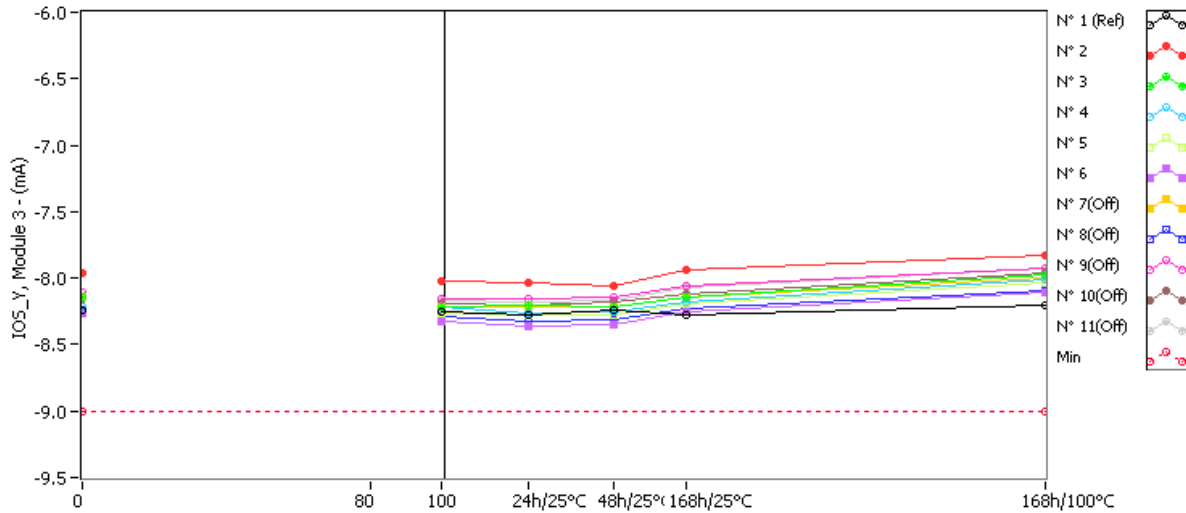
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-8.363	NaN	-8.396	-8.403	-8.344	-8.389	-8.314
N° 2	-7.965	NaN	-8.020	-8.036	-8.025	-7.922	-7.770
N° 3	-7.993	NaN	-8.036	-8.057	-8.024	-7.966	-7.787
N° 4	-8.260	NaN	-8.357	-8.312	-8.291	-8.223	-8.034
N° 5	-8.246	NaN	-8.256	-8.322	-8.307	-8.222	-8.065
N° 6	-8.362	NaN	-8.402	-8.407	-8.408	-8.319	-8.147
N° 7(Off)	-8.207	NaN	-8.235	-8.258	-8.220	-8.174	-8.027
N° 8(Off)	-8.286	NaN	-8.312	-8.331	-8.303	-8.242	-8.085
N° 9(Off)	-8.166	NaN	-8.185	-8.223	-8.192	-8.127	-7.975
N° 10(Off)	-8.201	NaN	-8.210	-8.233	-8.197	-8.136	-7.995
N° 11(Off)	-8.016	NaN	-8.050	-8.066	-8.007	-7.973	-7.823

**Delta [IOS\_Y, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.300E-2	-4.000E-2	1.900E-2	-2.600E-2	4.900E-2
N° 2	---	NaN	-5.500E-2	-7.100E-2	-6.000E-2	4.300E-2	1.950E-1
N° 3	---	NaN	-4.300E-2	-6.400E-2	-3.100E-2	2.700E-2	2.060E-1
N° 4	---	NaN	-9.700E-2	-5.200E-2	-3.100E-2	3.700E-2	2.260E-1
N° 5	---	NaN	-1.000E-2	-7.600E-2	-6.100E-2	2.400E-2	1.810E-1
N° 6	---	NaN	-4.000E-2	-4.500E-2	-4.600E-2	4.300E-2	2.150E-1
N° 7(Off)	---	NaN	-2.800E-2	-5.100E-2	-1.300E-2	3.300E-2	1.800E-1
N° 8(Off)	---	NaN	-2.600E-2	-4.500E-2	-1.700E-2	4.400E-2	2.010E-1
N° 9(Off)	---	NaN	-1.900E-2	-5.700E-2	-2.600E-2	3.900E-2	1.910E-1
N° 10(Off)	---	NaN	-9.000E-3	-3.200E-2	4.000E-3	6.500E-2	2.060E-1
N° 11(Off)	---	NaN	-3.400E-2	-5.000E-2	9.000E-3	4.300E-2	1.930E-1
Average	---	NaN	-4.900E-2	-6.160E-2	-4.580E-2	3.480E-2	2.046E-1
s	---	0.000E+0	3.154E-2	1.293E-2	1.475E-2	8.899E-3	1.744E-2
Average+3s	---	NaN	4.561E-2	-2.280E-2	-1.536E-3	6.150E-2	2.569E-1
Average-3s	---	NaN	-1.436E-1	-1.004E-1	-9.006E-2	8.102E-3	1.523E-1

## 58. IOS\_Y, Module 3

"Enabled, Din = VCC, Dout+ = 0V or Din = GND, Dout- = 0V"



**IOS\_Y, Module 3 . (mA)**

**Min = -9.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-8.236	NaN	-8.256	-8.274	-8.241	-8.272	-8.205
N° 2	-7.959	NaN	-8.021	-8.029	-8.063	-7.941	-7.832
N° 3	-8.146	NaN	-8.221	-8.208	-8.215	-8.142	-7.978
N° 4	-8.217	NaN	-8.217	-8.269	-8.258	-8.183	-8.015
N° 5	-8.216	NaN	-8.269	-8.273	-8.273	-8.195	-8.034
N° 6	-8.260	NaN	-8.321	-8.359	-8.345	-8.256	-8.107
N° 7(Off)	-8.149	NaN	-8.215	-8.217	-8.211	-8.142	-7.995
N° 8(Off)	-8.257	NaN	-8.285	-8.331	-8.308	-8.233	-8.092
N° 9(Off)	-8.104	NaN	-8.154	-8.161	-8.145	-8.064	-7.921
N° 10(Off)	-8.157	NaN	-8.187	-8.204	-8.180	-8.115	-7.963
N° 11(Off)	-8.131	NaN	-8.169	-8.175	-8.167	-8.068	-7.930

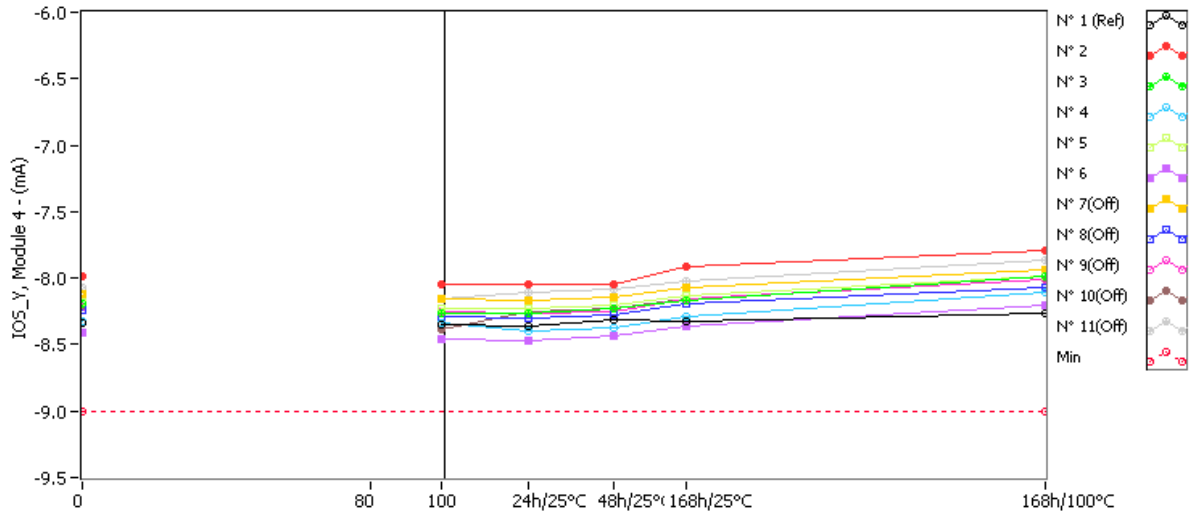
**Delta [IOS\_Y, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.000E-2	-3.800E-2	-5.000E-3	-3.600E-2	3.100E-2
N° 2	---	NaN	-6.200E-2	-7.000E-2	-1.040E-1	1.800E-2	1.270E-1
N° 3	---	NaN	-7.500E-2	-6.200E-2	-6.900E-2	4.000E-3	1.680E-1
N° 4	---	NaN	0.000E+0	-5.200E-2	-4.100E-2	3.400E-2	2.020E-1
N° 5	---	NaN	-5.300E-2	-5.700E-2	-5.700E-2	2.100E-2	1.820E-1
N° 6	---	NaN	-6.100E-2	-9.900E-2	-8.500E-2	4.000E-3	1.530E-1
N° 7(Off)	---	NaN	-6.600E-2	-6.800E-2	-6.200E-2	7.000E-3	1.540E-1
N° 8(Off)	---	NaN	-2.800E-2	-7.400E-2	-5.100E-2	2.400E-2	1.650E-1
N° 9(Off)	---	NaN	-5.000E-2	-5.700E-2	-4.100E-2	4.000E-2	1.830E-1
N° 10(Off)	---	NaN	-3.000E-2	-4.700E-2	-2.300E-2	4.200E-2	1.940E-1
N° 11(Off)	---	NaN	-3.800E-2	-4.400E-2	-3.600E-2	6.300E-2	2.010E-1
Average	---	NaN	-5.020E-2	-6.800E-2	-7.120E-2	1.620E-2	1.664E-1
s	---	0.000E+0	2.915E-2	1.856E-2	2.442E-2	1.266E-2	2.848E-2
Average+3s	---	NaN	3.725E-2	-1.232E-2	2.052E-3	5.417E-2	2.518E-1
Average-3s	---	NaN	-1.376E-1	-1.237E-1	-1.445E-1	-2.177E-2	8.095E-2



## 59. IOS\_Y, Module 4

"Enabled, Din = VCC, Dout+ = 0V or Din = GND, Dout- = 0V"



**IOS\_Y, Module 4 . (mA)**

**Min = -9.0**

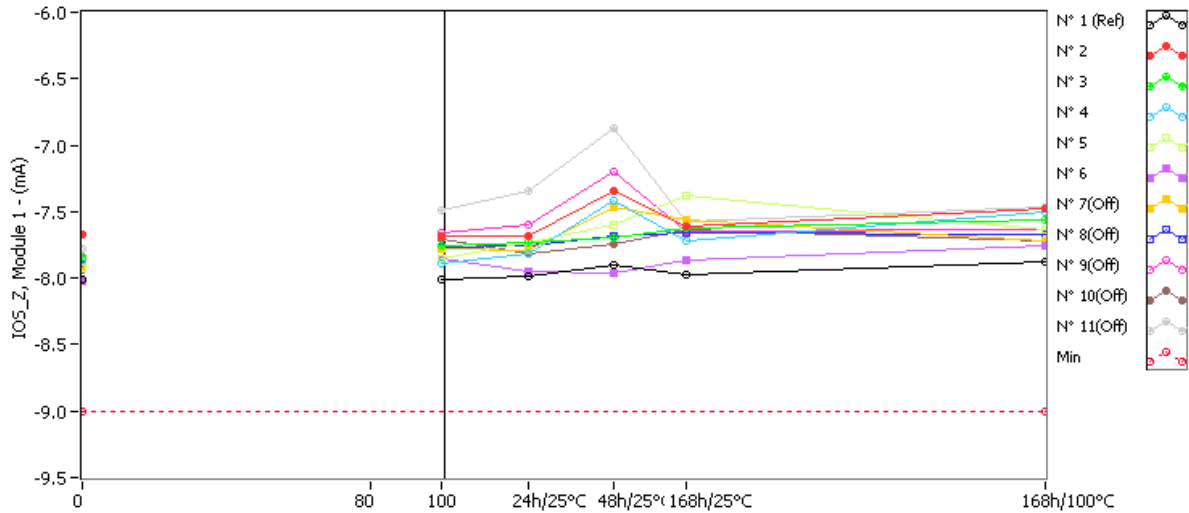
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-8.336	NaN	-8.354	-8.361	-8.317	-8.328	-8.261
N° 2	-7.984	NaN	-8.049	-8.041	-8.046	-7.910	-7.787
N° 3	-8.191	NaN	-8.268	-8.259	-8.223	-8.169	-7.987
N° 4	-8.324	NaN	-8.342	-8.399	-8.376	-8.287	-8.113
N° 5	-8.180	NaN	-8.225	-8.232	-8.210	-8.128	-7.989
N° 6	-8.405	NaN	-8.458	-8.476	-8.429	-8.367	-8.208
N° 7(Off)	-8.118	NaN	-8.159	-8.171	-8.143	-8.075	-7.932
N° 8(Off)	-8.238	NaN	-8.287	-8.299	-8.274	-8.196	-8.066
N° 9(Off)	-8.211	NaN	-8.248	-8.259	-8.249	-8.156	-8.008
N° 10(Off)	-8.212	NaN	-8.390	-8.257	-8.230	-8.159	-8.008
N° 11(Off)	-8.065	NaN	-8.157	-8.107	-8.088	-8.017	-7.863

**Delta [IOS\_Y, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.800E-2	-2.500E-2	1.900E-2	8.000E-3	7.500E-2
N° 2	---	NaN	-6.500E-2	-5.700E-2	-6.200E-2	7.400E-2	1.970E-1
N° 3	---	NaN	-7.700E-2	-6.800E-2	-3.200E-2	2.200E-2	2.040E-1
N° 4	---	NaN	-1.800E-2	-7.500E-2	-5.200E-2	3.700E-2	2.110E-1
N° 5	---	NaN	-4.500E-2	-5.200E-2	-3.000E-2	5.200E-2	1.910E-1
N° 6	---	NaN	-5.300E-2	-7.100E-2	-2.400E-2	3.800E-2	1.970E-1
N° 7(Off)	---	NaN	-4.100E-2	-5.300E-2	-2.500E-2	4.300E-2	1.860E-1
N° 8(Off)	---	NaN	-4.900E-2	-6.100E-2	-3.600E-2	4.200E-2	1.720E-1
N° 9(Off)	---	NaN	-3.700E-2	-4.800E-2	-3.800E-2	5.500E-2	2.030E-1
N° 10(Off)	---	NaN	-1.780E-1	-4.500E-2	-1.800E-2	5.300E-2	2.040E-1
N° 11(Off)	---	NaN	-9.200E-2	-4.200E-2	-2.300E-2	4.800E-2	2.020E-1
Average	---	NaN	-5.160E-2	-6.460E-2	-4.000E-2	4.460E-2	2.000E-1
s	---	0.000E+0	2.236E-2	9.711E-3	1.619E-2	1.957E-2	7.681E-3
Average+3s	---	NaN	1.547E-2	-3.547E-2	8.559E-3	1.033E-1	2.230E-1
Average-3s	---	NaN	-1.187E-1	-9.373E-2	-8.856E-2	-1.410E-2	1.770E-1

## 60. IOS\_Z, Module 1

"Enabled, Din = VCC, Dout+ = 0V or Din = GND, Dout- = 0V"



**IOS\_Z, Module 1 . (mA)**

**Min = -9.0**

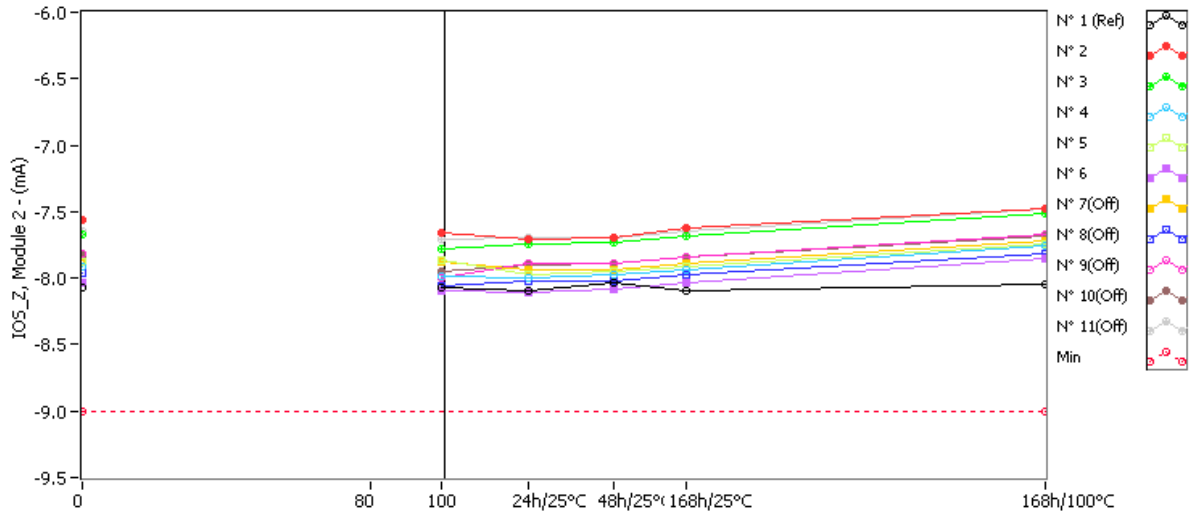
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-8.007	NaN	-8.005	-7.985	-7.906	-7.971	-7.878
N° 2	-7.674	NaN	-7.684	-7.679	-7.344	-7.616	-7.477
N° 3	-7.841	NaN	-7.759	-7.735	-7.690	-7.621	-7.566
N° 4	-7.871	NaN	-7.895	-7.816	-7.412	-7.724	-7.507
N° 5	-7.925	NaN	-7.854	-7.729	-7.602	-7.384	-7.634
N° 6	-8.021	NaN	-7.856	-7.948	-7.967	-7.869	-7.754
N° 7(Off)	-7.909	NaN	-7.785	-7.796	-7.466	-7.561	-7.717
N° 8(Off)	-7.903	NaN	-7.763	-7.761	-7.680	-7.656	-7.668
N° 9(Off)	-7.852	NaN	-7.658	-7.595	-7.201	-7.642	-7.630
N° 10(Off)	-7.935	NaN	-7.712	-7.815	-7.739	-7.629	-7.717
N° 11(Off)	-7.777	NaN	-7.488	-7.345	-6.866	-7.578	-7.469

**Delta [IOS\_Z, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	2.000E-3	2.200E-2	1.010E-1	3.600E-2	1.290E-1
N° 2	---	NaN	-1.000E-2	-5.000E-3	3.300E-1	5.800E-2	1.970E-1
N° 3	---	NaN	8.200E-2	1.060E-1	1.510E-1	2.200E-1	2.750E-1
N° 4	---	NaN	-2.400E-2	5.500E-2	4.590E-1	1.470E-1	3.640E-1
N° 5	---	NaN	7.100E-2	1.960E-1	3.230E-1	5.410E-1	2.910E-1
N° 6	---	NaN	1.650E-1	7.300E-2	5.400E-2	1.520E-1	2.670E-1
N° 7(Off)	---	NaN	1.240E-1	1.130E-1	4.430E-1	3.480E-1	1.920E-1
N° 8(Off)	---	NaN	1.400E-1	1.420E-1	2.230E-1	2.470E-1	2.350E-1
N° 9(Off)	---	NaN	1.940E-1	2.570E-1	6.510E-1	2.100E-1	2.220E-1
N° 10(Off)	---	NaN	2.230E-1	1.200E-1	1.960E-1	3.060E-1	2.180E-1
N° 11(Off)	---	NaN	2.890E-1	4.320E-1	9.110E-1	1.990E-1	3.080E-1
Average	---	NaN	5.680E-2	8.500E-2	2.634E-1	2.236E-1	2.788E-1
s	---	0.000E+0	7.671E-2	7.400E-2	1.603E-1	1.865E-1	5.969E-2
Average+3s	---	NaN	2.869E-1	3.070E-1	7.442E-1	7.832E-1	4.579E-1
Average-3s	---	NaN	-1.733E-1	-1.370E-1	-2.174E-1	-3.360E-1	9.972E-2

## 61. IOS\_Z, Module 2

"Enabled, Din = VCC, Dout+ = 0V or Din = GND, Dout- = 0V"



**IOS\_Z, Module 2 . (mA)**

**Min = -9.0**

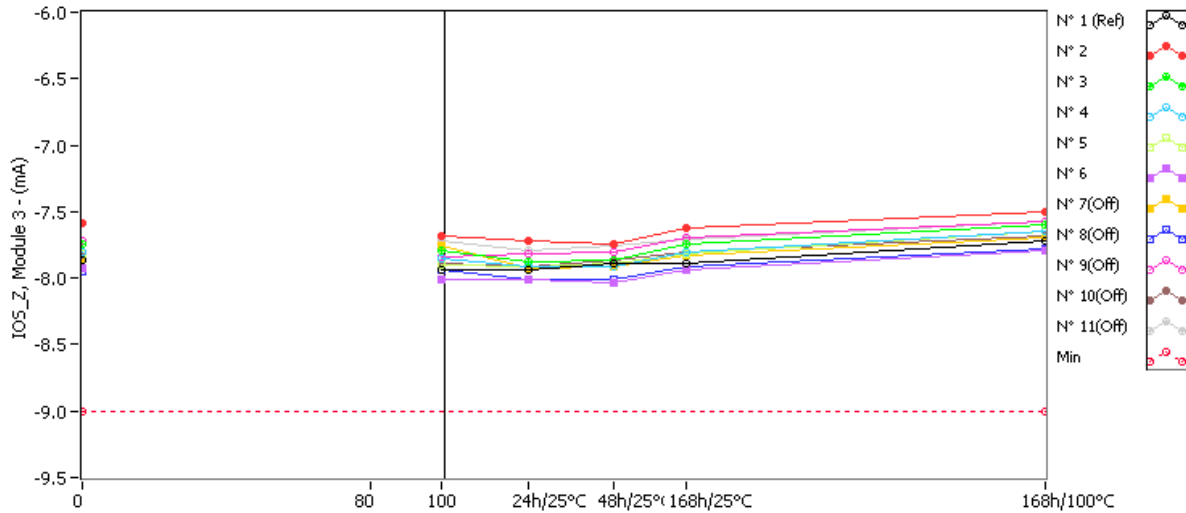
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-8.070	NaN	-8.074	-8.094	-8.034	-8.101	-8.041
N° 2	-7.568	NaN	-7.658	-7.710	-7.690	-7.626	-7.482
N° 3	-7.672	NaN	-7.782	-7.749	-7.730	-7.678	-7.513
N° 4	-7.914	NaN	-7.984	-7.997	-7.971	-7.937	-7.751
N° 5	-7.878	NaN	-7.861	-7.979	-7.949	-7.919	-7.742
N° 6	-8.038	NaN	-8.097	-8.105	-8.089	-8.030	-7.854
N° 7(Off)	-7.881	NaN	-7.879	-7.941	-7.933	-7.893	-7.724
N° 8(Off)	-7.967	NaN	-8.057	-8.028	-8.025	-7.974	-7.814
N° 9(Off)	-7.813	NaN	-8.001	-7.892	-7.888	-7.841	-7.670
N° 10(Off)	-7.823	NaN	-7.951	-7.902	-7.888	-7.844	-7.687
N° 11(Off)	-7.652	NaN	-7.713	-7.696	-7.691	-7.648	-7.476

**Delta [IOS\_Z, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-4.000E-3	-2.400E-2	3.600E-2	-3.100E-2	2.900E-2
N° 2	---	NaN	-9.000E-2	-1.420E-1	-1.220E-1	-5.800E-2	8.600E-2
N° 3	---	NaN	-1.100E-1	-7.700E-2	-5.800E-2	-6.000E-3	1.590E-1
N° 4	---	NaN	-7.000E-2	-8.300E-2	-5.700E-2	-2.300E-2	1.630E-1
N° 5	---	NaN	1.700E-2	-1.010E-1	-7.100E-2	-4.100E-2	1.360E-1
N° 6	---	NaN	-5.900E-2	-6.700E-2	-5.100E-2	8.000E-3	1.840E-1
N° 7(Off)	---	NaN	2.000E-3	-6.000E-2	-5.200E-2	-1.200E-2	1.570E-1
N° 8(Off)	---	NaN	-9.000E-2	-6.100E-2	-5.800E-2	-7.000E-3	1.530E-1
N° 9(Off)	---	NaN	-1.880E-1	-7.900E-2	-7.500E-2	-2.800E-2	1.430E-1
N° 10(Off)	---	NaN	-1.280E-1	-7.900E-2	-6.500E-2	-2.100E-2	1.360E-1
N° 11(Off)	---	NaN	-6.100E-2	-4.400E-2	-3.900E-2	4.000E-3	1.760E-1
Average	---	NaN	-6.240E-2	-9.400E-2	-7.180E-2	-2.400E-2	1.456E-1
s	---	0.000E+0	4.848E-2	2.955E-2	2.899E-2	2.643E-2	3.742E-2
Average+3s	---	NaN	8.304E-2	-5.360E-3	1.518E-2	5.529E-2	2.579E-1
Average-3s	---	NaN	-2.078E-1	-1.826E-1	-1.588E-1	-1.033E-1	3.334E-2

## 62. IOS\_Z, Module 3

"Enabled, Din = VCC, Dout+ = 0V or Din = GND, Dout- = 0V"



**IOS\_Z, Module 3 . (mA)**

**Min = -9.0**

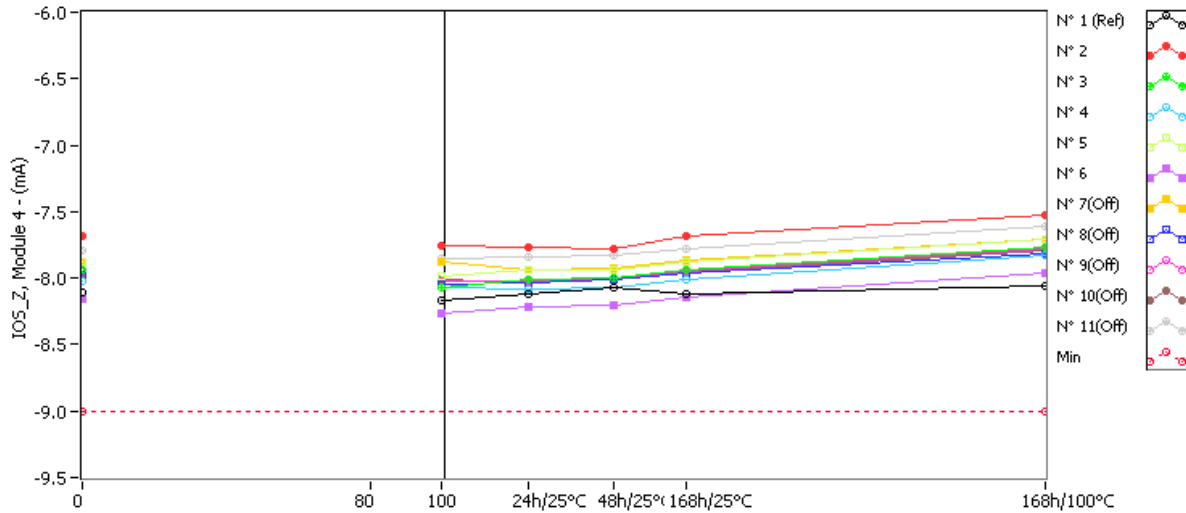
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-7.867	NaN	-7.941	-7.943	-7.884	-7.892	-7.725
N° 2	-7.585	NaN	-7.687	-7.717	-7.744	-7.624	-7.496
N° 3	-7.743	NaN	-7.789	-7.872	-7.865	-7.747	-7.596
N° 4	-7.808	NaN	-7.849	-7.917	-7.912	-7.807	-7.644
N° 5	-7.818	NaN	-7.897	-7.910	-7.892	-7.815	-7.644
N° 6	-7.923	NaN	-8.014	-8.006	-8.034	-7.942	-7.788
N° 7(Off)	-7.857	NaN	-7.754	-7.928	-7.916	-7.825	-7.697
N° 8(Off)	-7.948	NaN	-7.941	-8.009	-8.016	-7.914	-7.781
N° 9(Off)	-7.721	NaN	-7.845	-7.811	-7.799	-7.696	-7.573
N° 10(Off)	-7.843	NaN	-7.891	-7.913	-7.870	-7.802	-7.681
N° 11(Off)	-7.742	NaN	-7.716	-7.797	-7.755	-7.706	-7.570

**Delta [IOS\_Z, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-7.400E-2	-7.600E-2	-1.700E-2	-2.500E-2	1.420E-1
N° 2	---	NaN	-1.020E-1	-1.320E-1	-1.590E-1	-3.900E-2	8.900E-2
N° 3	---	NaN	-4.600E-2	-1.290E-1	-1.220E-1	-4.000E-3	1.470E-1
N° 4	---	NaN	-4.100E-2	-1.090E-1	-1.040E-1	1.000E-3	1.640E-1
N° 5	---	NaN	-7.900E-2	-9.200E-2	-7.400E-2	3.000E-3	1.740E-1
N° 6	---	NaN	-9.100E-2	-8.300E-2	-1.110E-1	-1.900E-2	1.350E-1
N° 7(Off)	---	NaN	1.030E-1	-7.100E-2	-5.900E-2	3.200E-2	1.600E-1
N° 8(Off)	---	NaN	7.000E-3	-6.100E-2	-6.800E-2	3.400E-2	1.670E-1
N° 9(Off)	---	NaN	-1.240E-1	-9.000E-2	-7.800E-2	2.500E-2	1.480E-1
N° 10(Off)	---	NaN	-4.800E-2	-7.000E-2	-2.700E-2	4.100E-2	1.620E-1
N° 11(Off)	---	NaN	2.600E-2	-5.500E-2	-1.300E-2	3.600E-2	1.720E-1
Average	---	NaN	-7.180E-2	-1.090E-1	-1.140E-1	-1.160E-2	1.418E-1
s	---	0.000E+0	2.714E-2	2.176E-2	3.081E-2	1.757E-2	3.313E-2
Average+3s	---	NaN	9.627E-3	-4.372E-2	-2.156E-2	4.112E-2	2.412E-1
Average-3s	---	NaN	-1.532E-1	-1.743E-1	-2.064E-1	-6.432E-2	4.241E-2

## 63. IOS\_Z, Module 4

"Enabled, Din = VCC, Dout+ = 0V or Din = GND, Dout- = 0V"



**IOS\_Z, Module 4 . (mA)**

**Min = -9.0**

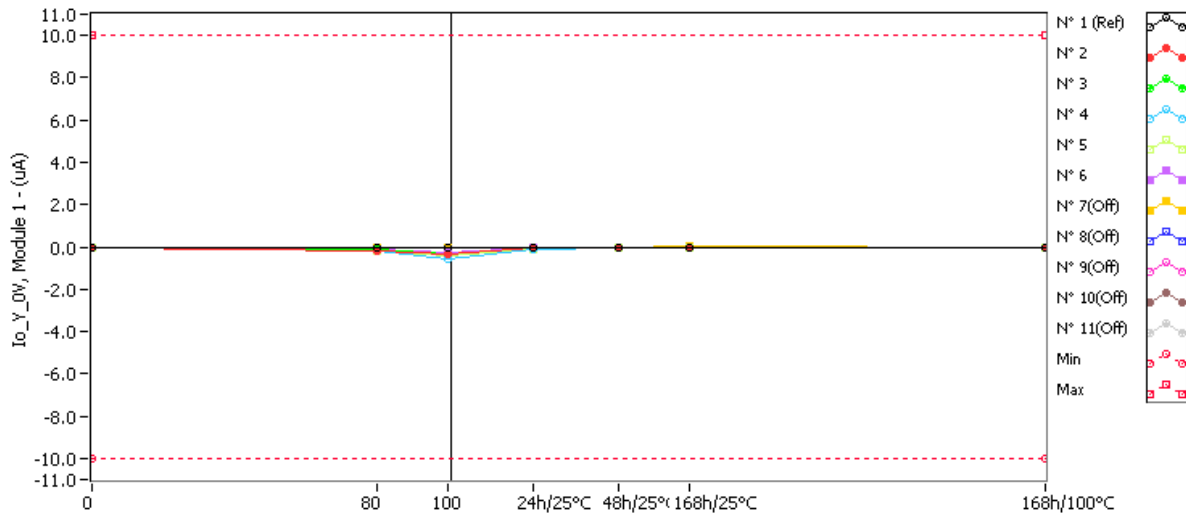
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-8.113	NaN	-8.167	-8.123	-8.076	-8.117	-8.063
N° 2	-7.685	NaN	-7.761	-7.763	-7.782	-7.683	-7.526
N° 3	-7.941	NaN	-8.067	-8.012	-8.004	-7.941	-7.766
N° 4	-8.027	NaN	-8.067	-8.089	-8.076	-8.014	-7.830
N° 5	-7.880	NaN	-7.981	-7.941	-7.934	-7.872	-7.706
N° 6	-8.159	NaN	-8.267	-8.218	-8.203	-8.145	-7.962
N° 7(Off)	-7.872	NaN	-7.876	-7.937	-7.920	-7.866	-7.713
N° 8(Off)	-7.968	NaN	-8.045	-8.033	-8.014	-7.961	-7.818
N° 9(Off)	-7.949	NaN	-8.021	-8.018	-8.007	-7.945	-7.782
N° 10(Off)	-7.973	NaN	-8.010	-8.029	-8.009	-7.956	-7.792
N° 11(Off)	-7.794	NaN	-7.854	-7.843	-7.832	-7.778	-7.612

**Delta [IOS\_Z, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-5.400E-2	-1.000E-2	3.700E-2	-4.000E-3	5.000E-2
N° 2	---	NaN	-7.600E-2	-7.800E-2	-9.700E-2	2.000E-3	1.590E-1
N° 3	---	NaN	-1.260E-1	-7.100E-2	-6.300E-2	0.000E+0	1.750E-1
N° 4	---	NaN	-4.000E-2	-6.200E-2	-4.900E-2	1.300E-2	1.970E-1
N° 5	---	NaN	-1.010E-1	-6.100E-2	-5.400E-2	8.000E-3	1.740E-1
N° 6	---	NaN	-1.080E-1	-5.900E-2	-4.400E-2	1.400E-2	1.970E-1
N° 7(Off)	---	NaN	-4.000E-3	-6.500E-2	-4.800E-2	6.000E-3	1.590E-1
N° 8(Off)	---	NaN	-7.700E-2	-6.500E-2	-4.600E-2	7.000E-3	1.500E-1
N° 9(Off)	---	NaN	-7.200E-2	-6.900E-2	-5.800E-2	4.000E-3	1.670E-1
N° 10(Off)	---	NaN	-3.700E-2	-5.600E-2	-3.600E-2	1.700E-2	1.810E-1
N° 11(Off)	---	NaN	-6.000E-2	-4.900E-2	-3.800E-2	1.600E-2	1.820E-1
Average	---	NaN	-9.020E-2	-6.620E-2	-6.140E-2	7.400E-3	1.804E-1
s	---	0.000E+0	3.330E-2	8.044E-3	2.110E-2	6.309E-3	1.643E-2
Average+3s	---	NaN	9.714E-3	-4.207E-2	1.906E-3	2.633E-2	2.297E-1
Average-3s	---	NaN	-1.901E-1	-9.033E-2	-1.247E-1	-1.153E-2	1.311E-1

## 64. Io\_Y\_0V, Module 1

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Y\_0V, Module 1. (uA)**

**Min = -10.0 Max = 10.0**

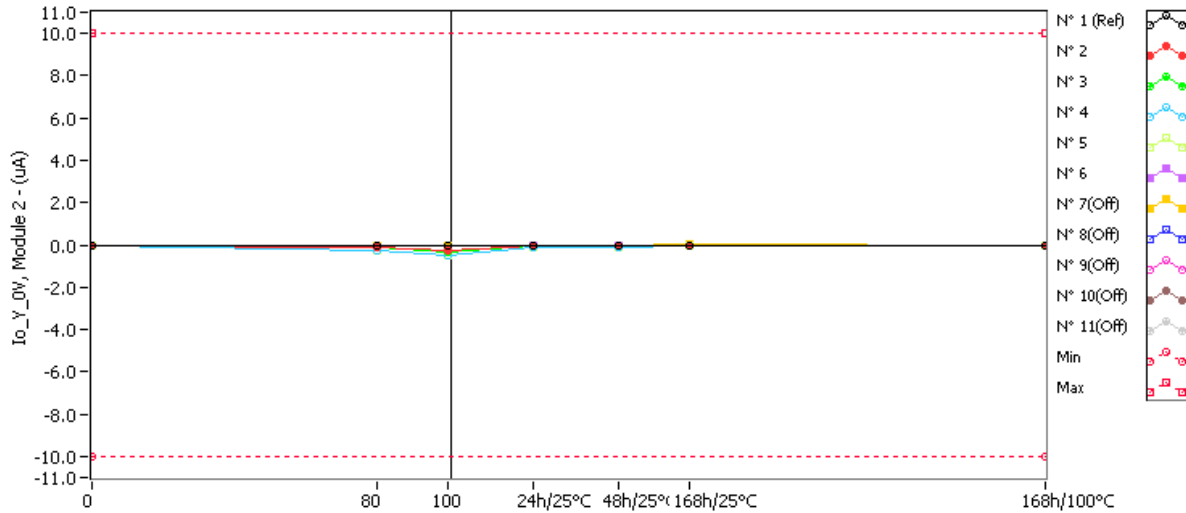
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.000095	-0.000097	-0.000096	-0.000089	-0.000105	-0.000116	-0.000109
N° 2	-0.000090	-0.162175	-0.371386	-0.075139	-0.066595	-0.041099	-0.000098
N° 3	-0.000091	-0.081227	-0.346893	-0.030974	-0.025306	-0.007435	-0.000099
N° 4	-0.000099	-0.200227	-0.535112	-0.109350	-0.074507	-0.037452	-0.000098
N° 5	-0.000091	-0.198609	-0.445725	-0.079626	-0.074876	-0.030847	-0.000100
N° 6	-0.000101	-0.086195	-0.282240	-0.042195	-0.021229	-0.007793	-0.000100
N° 7(Off)	-0.000096	-0.000091	-0.000091	-0.000070	-0.000074	0.002219	-0.000106
N° 8(Off)	-0.000103	-0.000096	-0.000097	-0.000069	-0.000077	0.002187	-0.000114
N° 9(Off)	-0.000101	-0.000092	-0.000091	-0.000071	-0.000070	0.002145	-0.000107
N° 10(Off)	-0.000104	-0.000095	-0.000095	-0.000072	-0.000074	0.002115	-0.000217
N° 11(Off)	-0.000097	-0.000095	-0.000095	-0.000075	-0.000075	0.002193	-0.000245

**Delta [Io\_Y\_0V, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	-2.000E-6	-1.000E-6	6.000E-6	-1.000E-5	-2.100E-5	-1.400E-5
N° 2	---	-1.621E-1	-3.713E-1	-7.505E-2	-6.650E-2	-4.101E-2	-8.000E-6
N° 3	---	-8.114E-2	-3.468E-1	-3.088E-2	-2.521E-2	-7.344E-3	-8.000E-6
N° 4	---	-2.001E-1	-5.350E-1	-1.093E-1	-7.441E-2	-3.735E-2	1.000E-6
N° 5	---	-1.985E-1	-4.456E-1	-7.954E-2	-7.479E-2	-3.076E-2	-9.000E-6
N° 6	---	-8.609E-2	-2.821E-1	-4.209E-2	-2.113E-2	-7.692E-3	1.000E-6
N° 7(Off)	---	5.000E-6	5.000E-6	2.600E-5	2.200E-5	2.315E-3	-1.000E-5
N° 8(Off)	---	7.000E-6	6.000E-6	3.400E-5	2.600E-5	2.290E-3	-1.100E-5
N° 9(Off)	---	9.000E-6	1.000E-5	3.000E-5	3.100E-5	2.246E-3	-6.000E-6
N° 10(Off)	---	9.000E-6	9.000E-6	3.200E-5	3.000E-5	2.219E-3	-1.130E-4
N° 11(Off)	---	2.000E-6	2.000E-6	2.200E-5	2.200E-5	2.290E-3	-1.480E-4
Average	---	-1.456E-1	-3.962E-1	-6.736E-2	-5.241E-2	-2.483E-2	-4.600E-6
s	---	5.861E-2	9.719E-2	3.135E-2	2.693E-2	1.623E-2	5.128E-6
Average+3s	---	3.025E-2	-1.046E-1	2.669E-2	2.839E-2	2.385E-2	1.079E-5
Average-3s	---	-3.214E-1	-6.877E-1	-1.614E-1	-1.332E-1	-7.351E-2	-1.999E-5

## 65. Io\_Y\_0V, Module 2

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Y\_0V, Module 2 . (uA)**

**Min = -10.0 Max = 10.0**

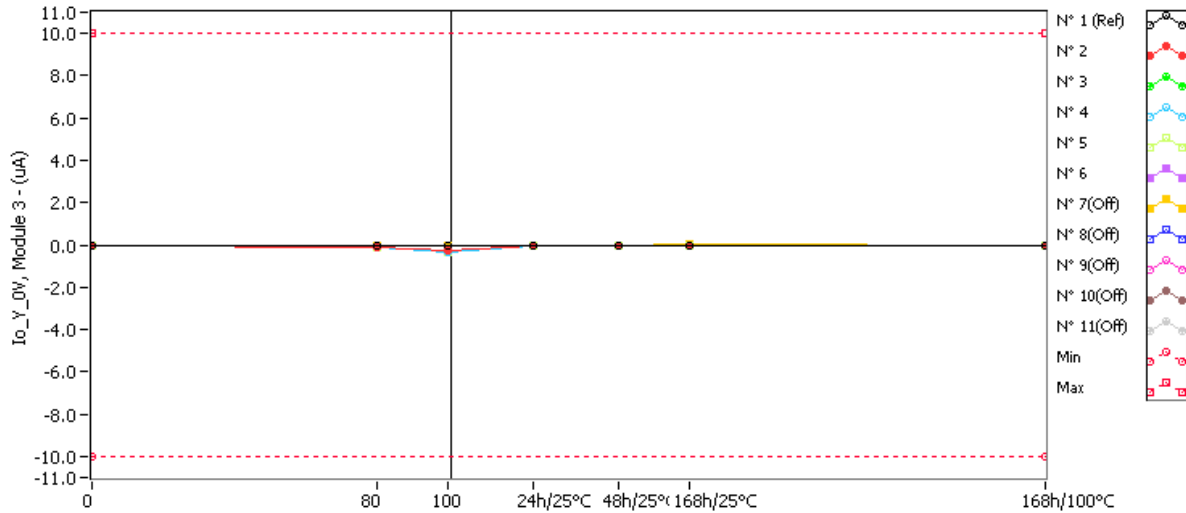
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.000107	-0.000101	-0.000102	-0.000037	-0.000036	-0.000051	-0.000044
N° 2	-0.000097	-0.084675	-0.250040	-0.041981	-0.030085	-0.014234	-0.000022
N° 3	-0.000099	-0.145516	-0.378793	-0.051133	-0.035700	-0.006430	-0.000029
N° 4	-0.000101	-0.236430	-0.498992	-0.089860	-0.080382	-0.023265	-0.000030
N° 5	-0.000089	-0.263125	-0.507684	-0.106730	-0.083783	-0.032295	-0.000021
N° 6	-0.000106	-0.086052	-0.281836	-0.035083	-0.022740	-0.006627	-0.000031
N° 7(Off)	-0.000110	-0.000097	-0.000100	-0.000022	-0.000020	0.002308	-0.000029
N° 8(Off)	-0.000101	-0.000102	-0.000102	-0.000025	-0.000024	0.002269	-0.000051
N° 9(Off)	-0.000104	-0.000094	-0.000100	-0.000014	-0.000012	0.002252	-0.000107
N° 10(Off)	-0.000100	-0.000096	-0.000095	-0.000024	-0.000024	0.002202	-0.000206
N° 11(Off)	-0.000103	-0.000097	-0.000101	-0.000025	-0.000023	0.002267	-0.000242

**Delta [Io\_Y\_0V, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	6.000E-6	5.000E-6	7.000E-5	7.100E-5	5.600E-5	6.300E-5
N° 2	---	-8.458E-2	-2.499E-1	-4.188E-2	-2.999E-2	-1.414E-2	7.500E-5
N° 3	---	-1.454E-1	-3.787E-1	-5.103E-2	-3.560E-2	-6.331E-3	7.000E-5
N° 4	---	-2.363E-1	-4.989E-1	-8.976E-2	-8.028E-2	-2.316E-2	7.100E-5
N° 5	---	-2.630E-1	-5.076E-1	-1.066E-1	-8.369E-2	-3.221E-2	6.800E-5
N° 6	---	-8.595E-2	-2.817E-1	-3.498E-2	-2.263E-2	-6.521E-3	7.500E-5
N° 7(Off)	---	1.300E-5	1.000E-5	8.800E-5	9.000E-5	2.418E-3	8.100E-5
N° 8(Off)	---	-1.000E-6	-1.000E-6	7.600E-5	7.700E-5	2.370E-3	5.000E-5
N° 9(Off)	---	1.000E-5	4.000E-6	9.000E-5	9.200E-5	2.356E-3	-3.000E-6
N° 10(Off)	---	4.000E-6	5.000E-6	7.600E-5	7.600E-5	2.302E-3	-1.060E-4
N° 11(Off)	---	6.000E-6	2.000E-6	7.800E-5	8.000E-5	2.370E-3	-1.390E-4
Average	---	-1.631E-1	-3.834E-1	-6.486E-2	-5.044E-2	-1.647E-2	7.180E-5
s	---	8.334E-2	1.193E-1	3.153E-2	2.919E-2	1.118E-2	3.114E-6
Average+3s	---	8.695E-2	-2.546E-2	2.974E-2	3.713E-2	1.706E-2	8.114E-5
Average-3s	---	-4.131E-1	-7.413E-1	-1.595E-1	-1.380E-1	-5.000E-2	6.246E-5

## 66. Io\_Y\_0V, Module 3

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Y\_0V, Module 3. (uA)**

**Min = -10.0 Max = 10.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.000109	-0.000097	-0.000101	-0.000059	-0.000043	-0.000071	-0.000086
N° 2	-0.000094	-0.094210	-0.240028	-0.058921	-0.045668	-0.018281	-0.000033
N° 3	-0.000094	-0.093755	-0.274419	-0.039167	-0.025260	-0.010022	-0.000039
N° 4	-0.000100	-0.076258	-0.311329	-0.030116	-0.018527	-0.004895	-0.000040
N° 5	-0.000103	-0.143973	-0.332072	-0.061020	-0.048246	-0.014334	-0.000039
N° 6	-0.000101	-0.123342	-0.354224	-0.055103	-0.044378	-0.015328	-0.000041
N° 7(Off)	-0.000092	-0.000092	-0.000090	-0.000030	-0.000034	0.002271	-0.000042
N° 8(Off)	-0.000113	-0.000105	-0.000105	-0.000031	-0.000035	0.002253	-0.000064
N° 9(Off)	-0.000107	-0.000092	-0.000094	-0.000030	-0.000033	0.002212	-0.000169
N° 10(Off)	-0.000106	-0.000098	-0.000097	-0.000032	-0.000036	0.002179	-0.000295
N° 11(Off)	-0.000102	-0.000091	-0.000089	-0.000038	-0.000035	0.002244	-0.000316

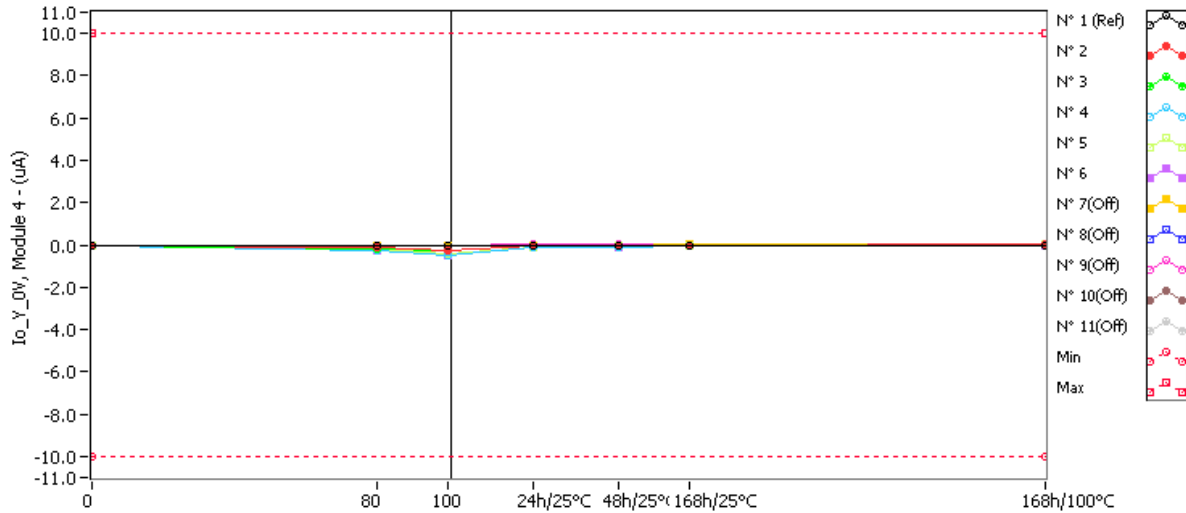
**Delta [Io\_Y\_0V, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	1.200E-5	8.000E-6	5.000E-5	6.600E-5	3.800E-5	2.300E-5
N° 2	---	-9.412E-2	-2.399E-1	-5.883E-2	-4.557E-2	-1.819E-2	6.100E-5
N° 3	---	-9.366E-2	-2.743E-1	-3.907E-2	-2.517E-2	-9.928E-3	5.500E-5
N° 4	---	-7.616E-2	-3.112E-1	-3.002E-2	-1.843E-2	-4.795E-3	6.000E-5
N° 5	---	-1.439E-1	-3.320E-1	-6.092E-2	-4.814E-2	-1.423E-2	6.400E-5
N° 6	---	-1.232E-1	-3.541E-1	-5.500E-2	-4.428E-2	-1.523E-2	6.000E-5
N° 7(Off)	---	0.000E+0	2.000E-6	6.200E-5	5.800E-5	2.363E-3	5.000E-5
N° 8(Off)	---	8.000E-6	8.000E-6	8.200E-5	7.800E-5	2.366E-3	4.900E-5
N° 9(Off)	---	1.500E-5	1.300E-5	7.700E-5	7.400E-5	2.319E-3	-6.200E-5
N° 10(Off)	---	8.000E-6	9.000E-6	7.400E-5	7.000E-5	2.285E-3	-1.890E-4
N° 11(Off)	---	1.100E-5	1.300E-5	6.400E-5	6.700E-5	2.346E-3	-2.140E-4
Average	---	-1.062E-1	-3.023E-1	-4.877E-2	-3.632E-2	-1.247E-2	6.000E-5
s	---	2.700E-2	4.560E-2	1.354E-2	1.354E-2	5.214E-3	3.240E-6
Average+3s	---	-2.522E-2	-1.655E-1	-8.148E-2	4.302E-3	3.169E-3	6.972E-5
Average-3s	---	-1.872E-1	-4.391E-1	-8.939E-2	-7.694E-2	-2.812E-2	5.028E-5



## 67. Io\_Y\_0V, Module 4

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Y\_0V, Module 4 . (uA)**

**Min = -10.0 Max = 10.0**

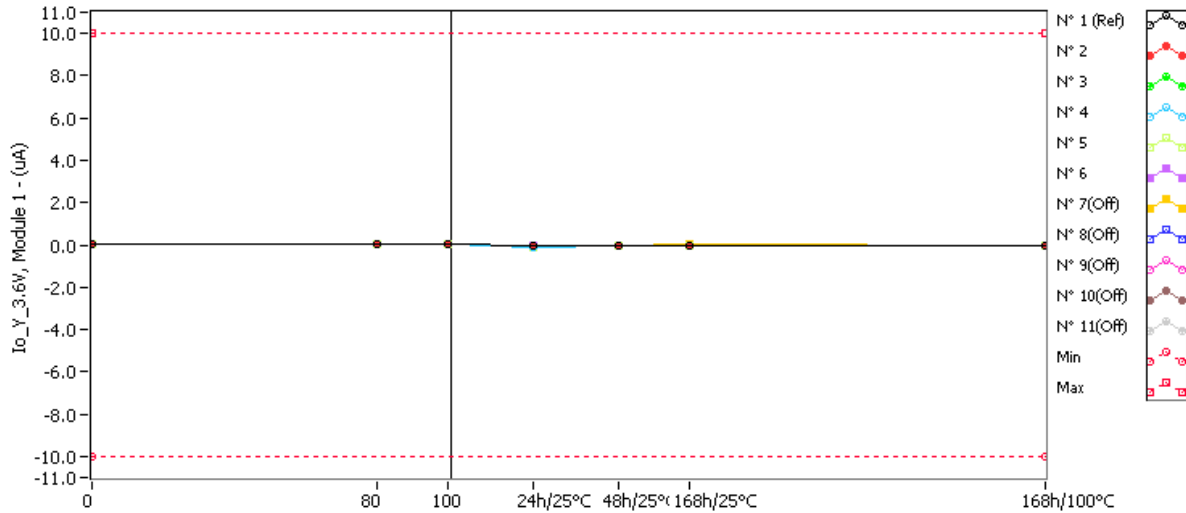
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.000125	-0.000108	-0.000111	-0.000059	-0.000014	-0.000067	-0.000088
N° 2	-0.000103	-0.126171	-0.248813	-0.071106	-0.064852	-0.038484	0.000026
N° 3	-0.000096	-0.164193	-0.298345	-0.045362	-0.042158	-0.020009	-0.000002
N° 4	-0.000103	-0.252354	-0.493099	-0.103390	-0.080298	-0.031500	-0.000005
N° 5	-0.000111	-0.218582	-0.395305	-0.076366	-0.054513	-0.031439	0.000019
N° 6	-0.000116	-0.246805	-0.469392	-0.112740	-0.086369	-0.031225	-0.000005
N° 7(Off)	-0.000099	-0.000093	-0.000090	-0.000006	-0.000006	0.002315	-0.000009
N° 8(Off)	-0.000100	-0.000091	-0.000088	-0.000009	-0.000011	0.002294	-0.000096
N° 9(Off)	-0.000094	-0.000092	-0.000094	0.000032	0.000033	0.002298	-0.000180
N° 10(Off)	-0.000111	-0.000105	-0.000100	-0.000007	-0.000009	0.002208	-0.000344
N° 11(Off)	-0.000097	-0.000092	-0.000093	-0.000011	-0.000007	0.002302	-0.000393

**Delta [Io\_Y\_0V, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	1.700E-5	1.400E-5	6.600E-5	1.110E-4	5.800E-5	3.700E-5
N° 2	---	-1.261E-1	-2.487E-1	-7.100E-2	-6.475E-2	-3.838E-2	1.290E-4
N° 3	---	-1.641E-1	-2.982E-1	-4.527E-2	-4.206E-2	-1.991E-2	9.400E-5
N° 4	---	-2.523E-1	-4.930E-1	-1.033E-1	-8.019E-2	-3.140E-2	9.800E-5
N° 5	---	-2.185E-1	-3.952E-1	-7.626E-2	-5.440E-2	-3.133E-2	1.300E-4
N° 6	---	-2.467E-1	-4.693E-1	-1.126E-1	-8.625E-2	-3.111E-2	1.110E-4
N° 7(Off)	---	6.000E-6	9.000E-6	9.300E-5	9.300E-5	2.414E-3	9.000E-5
N° 8(Off)	---	9.000E-6	1.200E-5	9.100E-5	8.900E-5	2.394E-3	4.000E-6
N° 9(Off)	---	2.000E-6	0.000E+0	1.260E-4	1.270E-4	2.392E-3	-8.600E-5
N° 10(Off)	---	6.000E-6	1.100E-5	1.040E-4	1.020E-4	2.319E-3	-2.330E-4
N° 11(Off)	---	5.000E-6	4.000E-6	8.600E-5	9.000E-5	2.399E-3	-2.960E-4
Average	---	-2.015E-1	-3.809E-1	-8.169E-2	-6.553E-2	-3.043E-2	1.124E-4
s	---	5.476E-2	1.059E-1	2.690E-2	1.816E-2	6.634E-3	1.683E-5
Average+3s	---	-3.723E-2	-6.309E-2	-9.959E-4	-1.104E-2	-1.052E-2	1.629E-4
Average-3s	---	-3.658E-1	-6.987E-1	-1.624E-1	-1.200E-1	-5.033E-2	6.191E-5

## 68. Io\_Y\_3.6V, Module 1

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Y\_3.6V, Module 1 . (uA)**

**Min = -10.0 Max = 10.0**

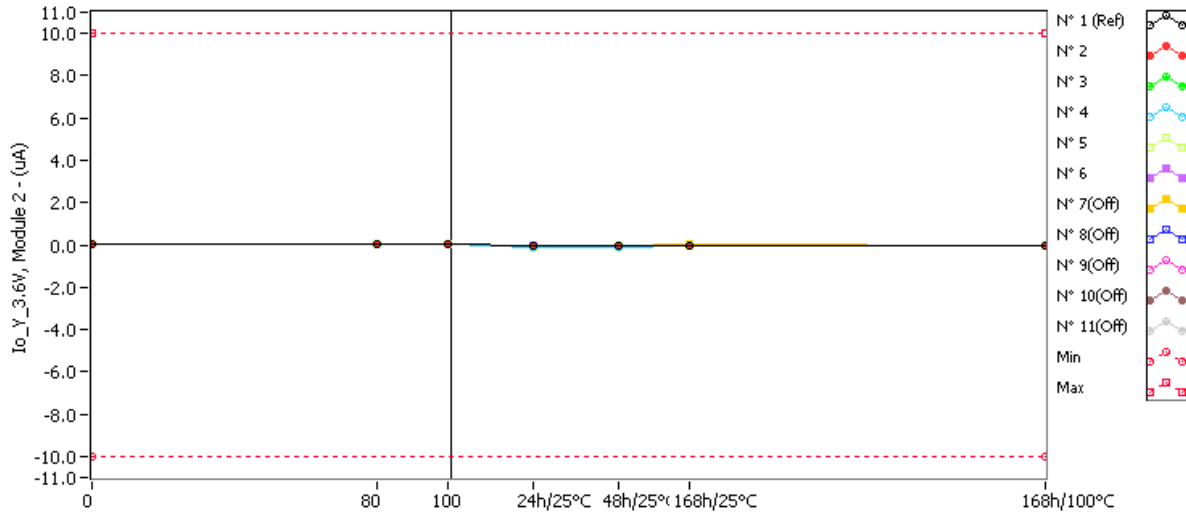
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.000112	0.000081	0.000079	-0.000091	-0.000125	-0.000244	-0.000133
N° 2	0.000128	0.000634	0.002011	-0.074969	-0.069420	-0.041673	-0.000120
N° 3	0.000075	0.000397	0.001844	-0.031183	-0.025922	-0.007781	-0.000123
N° 4	0.000091	0.000681	0.001888	-0.110070	-0.075604	-0.038199	-0.000121
N° 5	0.000138	0.000787	0.002714	-0.080566	-0.074172	-0.031059	-0.000129
N° 6	0.000161	0.000624	0.002692	-0.042914	-0.021984	-0.008063	-0.000129
N° 7(Off)	0.000076	0.000057	0.000056	-0.000082	-0.000122	0.002147	-0.000133
N° 8(Off)	0.000077	0.000056	0.000054	-0.000084	-0.000133	0.002114	-0.000141
N° 9(Off)	0.000073	0.000054	0.000051	-0.000082	-0.000120	0.002082	-0.000178
N° 10(Off)	0.000079	0.000055	0.000054	-0.000084	-0.000122	0.002040	-0.000227
N° 11(Off)	0.000085	0.000059	0.000056	-0.000086	-0.000119	0.002110	-0.000251

**Delta [Io\_Y\_3.6V, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	-3.100E-5	-3.300E-5	-2.030E-4	-2.370E-4	-3.560E-4	-2.450E-4
N° 2	---	5.060E-4	1.883E-3	-7.510E-2	-6.955E-2	-4.180E-2	-2.480E-4
N° 3	---	3.220E-4	1.769E-3	-3.126E-2	-2.600E-2	-7.856E-3	-1.980E-4
N° 4	---	5.900E-4	1.797E-3	-1.102E-1	-7.569E-2	-3.829E-2	-2.120E-4
N° 5	---	6.490E-4	2.576E-3	-8.070E-2	-7.431E-2	-3.120E-2	-2.670E-4
N° 6	---	4.630E-4	2.531E-3	-4.308E-2	-2.215E-2	-8.224E-3	-2.900E-4
N° 7(Off)	---	-1.900E-5	-2.000E-5	-1.580E-4	-1.980E-4	2.071E-3	-2.090E-4
N° 8(Off)	---	-2.100E-5	-2.300E-5	-1.610E-4	-2.100E-4	2.037E-3	-2.180E-4
N° 9(Off)	---	-1.900E-5	-2.200E-5	-1.550E-4	-1.930E-4	2.009E-3	-2.510E-4
N° 10(Off)	---	-2.400E-5	-2.500E-5	-1.630E-4	-2.010E-4	1.961E-3	-3.060E-4
N° 11(Off)	---	-2.600E-5	-2.900E-5	-1.710E-4	-2.040E-4	2.025E-3	-3.360E-4
Average	---	5.060E-4	2.111E-3	-6.806E-2	-5.354E-2	-2.547E-2	-2.430E-4
s	---	1.257E-4	4.063E-4	3.147E-2	2.703E-2	1.637E-2	3.807E-5
Average+3s	---	8.831E-4	3.330E-3	2.634E-2	2.755E-2	2.363E-2	-1.288E-4
Average-3s	---	1.289E-4	8.924E-4	-1.625E-1	-1.346E-1	-7.457E-2	-3.572E-4

## 69. Io\_Y\_3.6V, Module 2

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Y\_3.6V, Module 2 . (uA)**

**Min = -10.0 Max = 10.0**

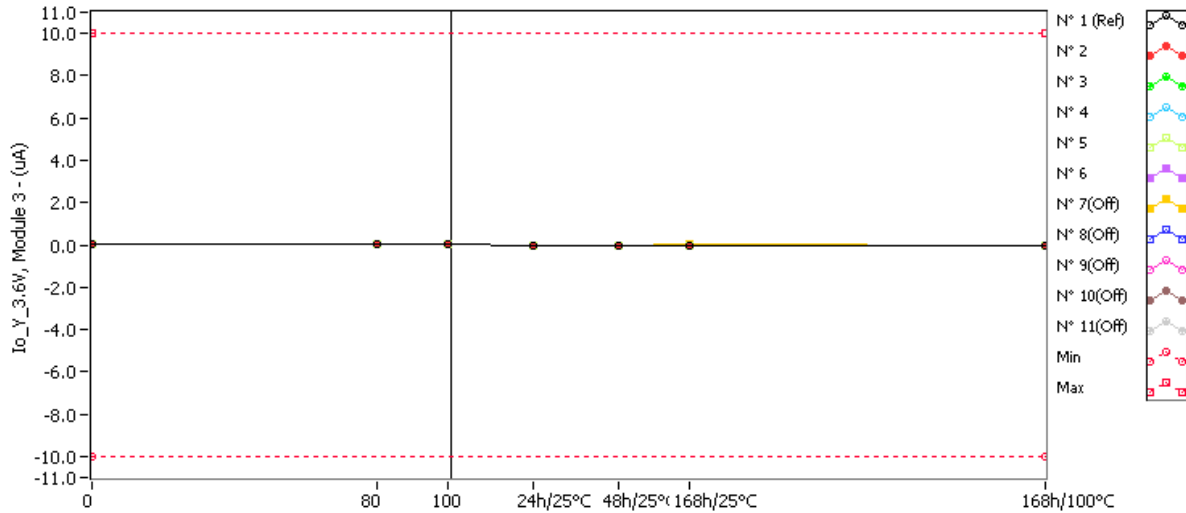
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.000123	0.000090	0.000084	-0.000038	-0.000050	-0.000060	-0.000053
N° 2	0.000144	0.000497	0.001712	-0.041475	-0.029316	-0.014482	-0.000031
N° 3	0.000082	0.000625	0.001837	-0.050705	-0.035060	-0.006390	-0.000046
N° 4	0.000078	0.000771	0.002639	-0.090400	-0.080244	-0.023520	-0.000044
N° 5	0.000113	0.000698	0.002383	-0.099290	-0.075651	-0.031801	-0.000033
N° 6	0.000144	0.000673	0.002915	-0.033303	-0.022858	-0.006521	-0.000047
N° 7(Off)	0.000084	0.000060	0.000057	-0.000029	-0.000035	0.002279	-0.000045
N° 8(Off)	0.000076	0.000056	0.000052	-0.000036	-0.000036	0.002255	-0.000053
N° 9(Off)	0.000077	0.000054	0.000051	-0.000019	-0.000021	0.002225	-0.000105
N° 10(Off)	0.000080	0.000056	0.000054	-0.000036	-0.000036	0.002177	-0.000194
N° 11(Off)	0.000086	0.000058	0.000055	-0.000036	-0.000036	0.002242	-0.000224

**Delta [Io\_Y\_3.6V, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	-3.300E-5	-3.900E-5	-1.610E-4	-1.730E-4	-1.830E-4	-1.760E-4
N° 2	---	3.530E-4	1.568E-3	-4.162E-2	-2.946E-2	-1.463E-2	-1.750E-4
N° 3	---	5.430E-4	1.755E-3	-5.079E-2	-3.514E-2	-6.472E-3	-1.280E-4
N° 4	---	6.930E-4	2.561E-3	-9.048E-2	-8.032E-2	-2.360E-2	-1.220E-4
N° 5	---	5.850E-4	2.270E-3	-9.940E-2	-7.576E-2	-3.191E-2	-1.460E-4
N° 6	---	5.290E-4	2.771E-3	-3.345E-2	-2.300E-2	-6.665E-3	-1.910E-4
N° 7(Off)	---	-2.400E-5	-2.700E-5	-1.130E-4	-1.190E-4	2.195E-3	-1.290E-4
N° 8(Off)	---	-2.000E-5	-2.400E-5	-1.120E-4	-1.120E-4	2.179E-3	-1.290E-4
N° 9(Off)	---	-2.300E-5	-2.600E-5	-9.600E-5	-9.800E-5	2.148E-3	-1.820E-4
N° 10(Off)	---	-2.400E-5	-2.600E-5	-1.160E-4	-1.160E-4	2.097E-3	-2.740E-4
N° 11(Off)	---	-2.800E-5	-3.100E-5	-1.220E-4	-1.220E-4	2.156E-3	-3.100E-4
Average	---	5.406E-4	2.185E-3	-6.315E-2	-4.874E-2	-1.665E-2	-1.524E-4
s	---	1.230E-4	5.142E-4	2.983E-2	2.714E-2	1.105E-2	2.984E-5
Average+3s	---	9.096E-4	3.728E-3	2.635E-2	3.269E-2	1.650E-2	-6.289E-5
Average-3s	---	1.716E-4	6.424E-4	-1.526E-1	-1.302E-1	-4.981E-2	-2.419E-4

## 70. Io\_Y\_3.6V, Module 3

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Y\_3.6V, Module 3 . (uA)**

**Min = -10.0 Max = 10.0**

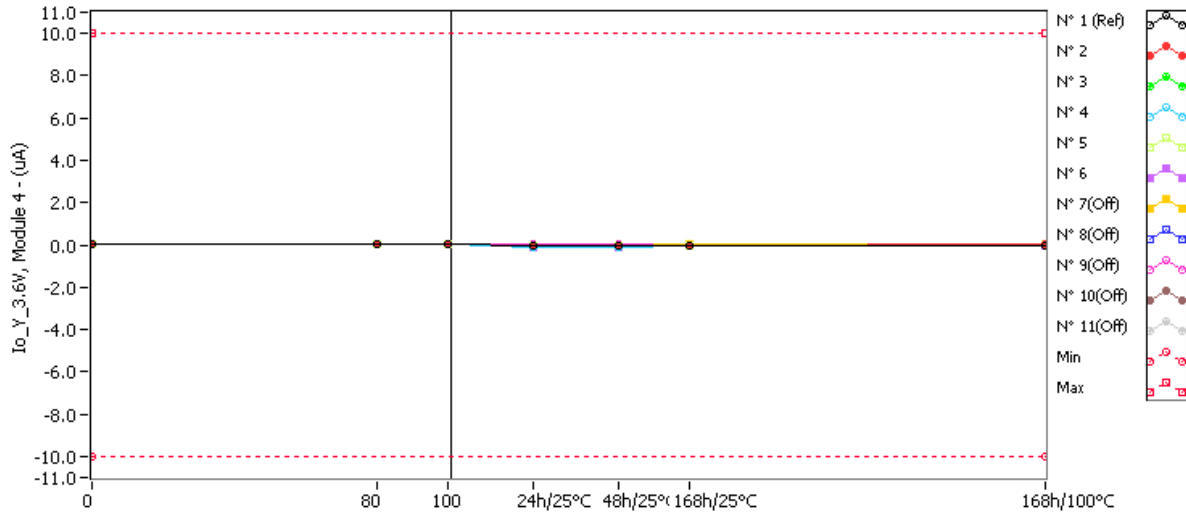
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.000105	0.000076	0.000074	-0.000052	-0.000054	-0.000068	-0.000074
N° 2	0.000160	0.000407	0.001488	-0.058651	-0.045842	-0.018289	-0.000037
N° 3	0.000073	0.000383	0.001732	-0.039375	-0.024759	-0.009369	-0.000037
N° 4	0.000073	0.000477	0.002176	-0.029668	-0.018403	-0.004906	-0.000040
N° 5	0.000343	0.000849	0.002357	-0.059450	-0.048745	-0.014039	-0.000037
N° 6	0.000143	0.000651	0.002171	-0.054211	-0.044357	-0.015303	-0.000039
N° 7(Off)	0.000073	0.000053	0.000051	-0.000030	-0.000037	0.002280	-0.000039
N° 8(Off)	0.000070	0.000051	0.000050	-0.000035	-0.000040	0.002261	-0.000074
N° 9(Off)	0.000225	0.000152	0.000149	-0.000035	-0.000039	0.002209	-0.000144
N° 10(Off)	0.000075	0.000054	0.000052	-0.000036	-0.000039	0.002179	-0.000256
N° 11(Off)	0.000077	0.000054	0.000052	-0.000037	-0.000029	0.002242	-0.000273

**Delta [Io\_Y\_3.6V, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	-2.900E-5	-3.100E-5	-1.570E-4	-1.590E-4	-1.730E-4	-1.790E-4
N° 2	---	2.470E-4	1.328E-3	-5.881E-2	-4.600E-2	-1.845E-2	-1.970E-4
N° 3	---	3.100E-4	1.659E-3	-3.945E-2	-2.483E-2	-9.442E-3	-1.120E-4
N° 4	---	4.040E-4	2.103E-3	-2.974E-2	-1.848E-2	-4.979E-3	-1.130E-4
N° 5	---	5.060E-4	2.014E-3	-5.979E-2	-4.909E-2	-1.438E-2	-3.800E-4
N° 6	---	5.080E-4	2.028E-3	-5.435E-2	-4.450E-2	-1.545E-2	-1.820E-4
N° 7(Off)	---	-2.000E-5	-2.200E-5	-1.030E-4	-1.100E-4	2.207E-3	-1.120E-4
N° 8(Off)	---	-1.900E-5	-2.000E-5	-1.050E-4	-1.100E-4	2.191E-3	-1.440E-4
N° 9(Off)	---	-7.300E-5	-7.600E-5	-2.600E-4	-2.640E-4	1.984E-3	-3.690E-4
N° 10(Off)	---	-2.100E-5	-2.300E-5	-1.110E-4	-1.140E-4	2.104E-3	-3.310E-4
N° 11(Off)	---	-2.300E-5	-2.500E-5	-1.140E-4	-1.060E-4	2.165E-3	-3.500E-4
Average	---	3.950E-4	1.826E-3	-4.843E-2	-3.658E-2	-1.254E-2	-1.968E-4
s	---	1.165E-4	3.274E-4	1.325E-2	1.391E-2	5.327E-3	1.095E-4
Average+3s	---	7.445E-4	2.809E-3	-8.688E-3	5.144E-3	3.442E-3	1.318E-4
Average-3s	---	4.546E-5	8.442E-4	-8.817E-2	-7.830E-2	-2.852E-2	-5.254E-4

## 71. Io\_Y\_3.6V, Module 4

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Y\_3.6V, Module 4 . (uA)**

**Min = -10.0 Max = 10.0**

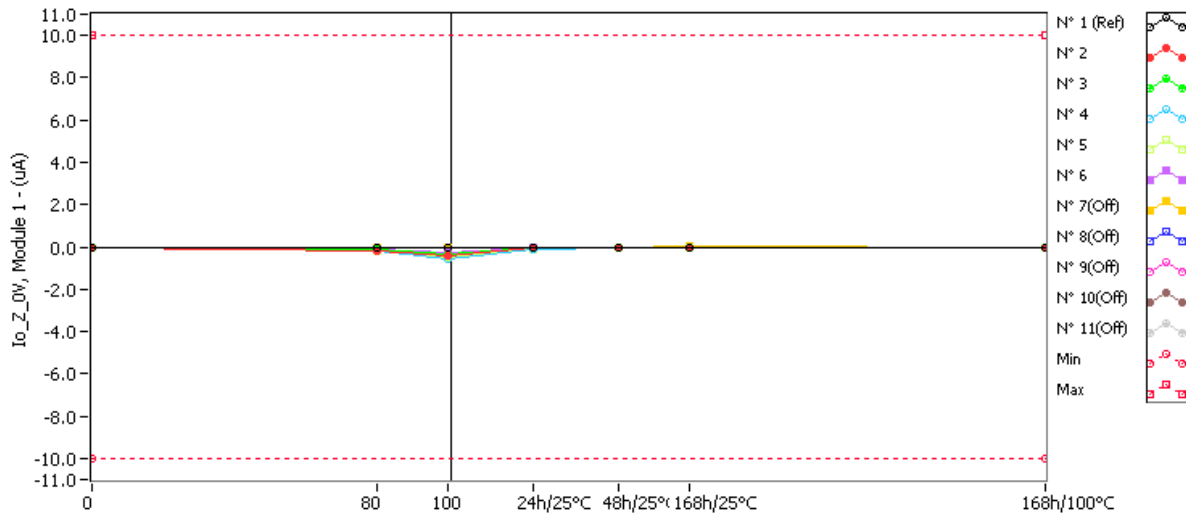
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.000106	0.000079	0.000077	-0.000047	-0.000019	-0.000052	-0.000061
N° 2	0.000167	0.000602	0.001577	-0.069978	-0.064842	-0.038309	0.000028
N° 3	0.000079	0.000593	0.001739	-0.043780	-0.043003	-0.018931	0.000000
N° 4	0.000080	0.000612	0.001826	-0.102750	-0.079858	-0.031492	-0.000004
N° 5	0.000120	0.000698	0.002497	-0.075978	-0.053626	-0.030371	0.000016
N° 6	0.000157	0.000644	0.002166	-0.110920	-0.085140	-0.032138	-0.000004
N° 7(Off)	0.000070	0.000053	0.000050	-0.000005	-0.000006	0.002319	-0.000008
N° 8(Off)	0.000074	0.000054	0.000051	-0.000005	-0.000008	0.002308	-0.000075
N° 9(Off)	0.000075	0.000057	0.000054	0.000031	0.000030	0.002291	-0.000143
N° 10(Off)	0.000086	0.000063	0.000060	-0.000006	-0.000008	0.002210	-0.000279
N° 11(Off)	0.000082	0.000058	0.000054	-0.000009	-0.000005	0.002300	-0.000324

**Delta [Io\_Y\_3.6V, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	-2.700E-5	-2.900E-5	-1.530E-4	-1.250E-4	-1.580E-4	-1.670E-4
N° 2	---	4.350E-4	1.410E-3	-7.014E-2	-6.501E-2	-3.848E-2	-1.390E-4
N° 3	---	5.140E-4	1.660E-3	-4.386E-2	-4.308E-2	-1.901E-2	-7.900E-5
N° 4	---	5.320E-4	1.746E-3	-1.028E-1	-7.994E-2	-3.157E-2	-8.400E-5
N° 5	---	5.780E-4	2.377E-3	-7.610E-2	-5.375E-2	-3.049E-2	-1.040E-4
N° 6	---	4.870E-4	2.009E-3	-1.111E-1	-8.530E-2	-3.229E-2	-1.610E-4
N° 7(Off)	---	-1.700E-5	-2.000E-5	-7.500E-5	-7.600E-5	2.249E-3	-7.800E-5
N° 8(Off)	---	-2.000E-5	-2.300E-5	-7.900E-5	-8.200E-5	2.234E-3	-1.490E-4
N° 9(Off)	---	-1.800E-5	-2.100E-5	-4.400E-5	-4.500E-5	2.216E-3	-2.180E-4
N° 10(Off)	---	-2.300E-5	-2.600E-5	-9.200E-5	-9.400E-5	2.124E-3	-3.650E-4
N° 11(Off)	---	-2.400E-5	-2.800E-5	-9.100E-5	-8.700E-5	2.218E-3	-4.060E-4
Average	---	5.092E-4	1.840E-3	-8.080E-2	-6.541E-2	-3.037E-2	-1.134E-4
s	---	5.309E-5	3.685E-4	2.694E-2	1.762E-2	7.070E-3	3.556E-5
Average+3s	---	6.685E-4	2.946E-3	7.600E-6	-1.257E-2	-9.160E-3	-6.729E-6
Average-3s	---	3.499E-4	7.350E-4	-1.616E-1	-1.183E-1	-5.158E-2	-2.201E-4

## 72. Io\_Z\_0V, Module 1

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Z\_0V, Module 1. (uA)**

**Min = -10.0 Max = 10.0**

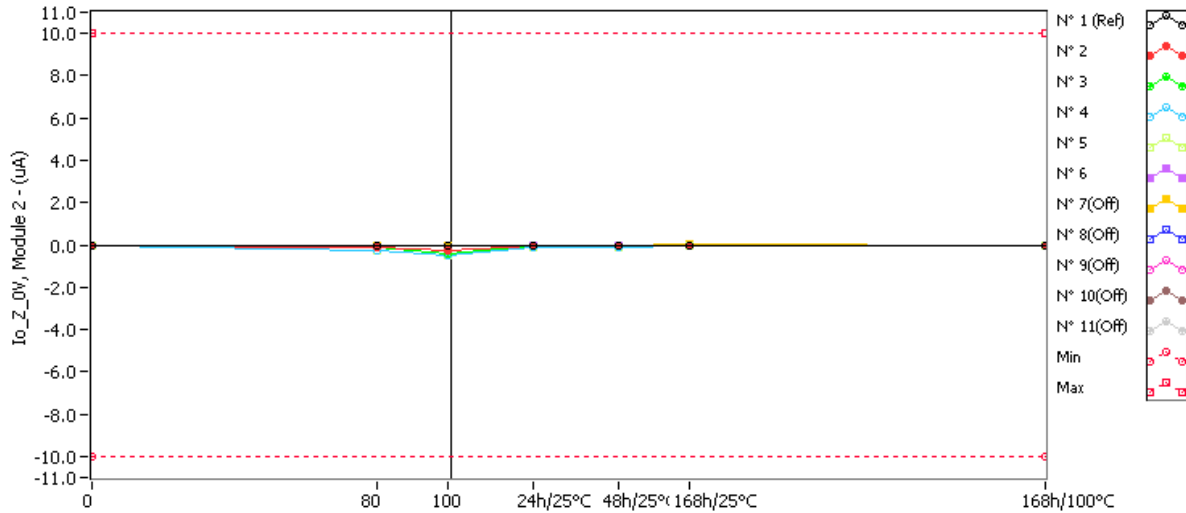
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.000044	-0.000040	-0.000047	-0.000089	-0.000105	-0.000116	-0.000109
N° 2	-0.000039	-0.170087	-0.381001	-0.075139	-0.066595	-0.041099	-0.000098
N° 3	-0.000038	-0.082934	-0.352953	-0.030974	-0.025306	-0.007435	-0.000099
N° 4	-0.000038	-0.202986	-0.545425	-0.109350	-0.074507	-0.037452	-0.000098
N° 5	-0.000047	-0.208063	-0.461340	-0.079626	-0.074876	-0.030847	-0.000100
N° 6	-0.000060	-0.086835	-0.290386	-0.042195	-0.021229	-0.007793	-0.000100
N° 7(Off)	-0.000042	-0.000035	-0.000036	-0.000070	-0.000074	0.002219	-0.000106
N° 8(Off)	-0.000040	-0.000035	-0.000033	-0.000069	-0.000077	0.002187	-0.000114
N° 9(Off)	-0.000041	-0.000035	-0.000035	-0.000071	-0.000070	0.002145	-0.000107
N° 10(Off)	-0.000041	-0.000035	-0.000035	-0.000072	-0.000074	0.002115	-0.000217
N° 11(Off)	-0.000040	-0.000035	-0.000036	-0.000075	-0.000075	0.002193	-0.000245

**Delta [Io\_Z\_0V, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	4.000E-6	-3.000E-6	-4.500E-5	-6.100E-5	-7.200E-5	-6.500E-5
N° 2	---	-1.700E-1	-3.810E-1	-7.510E-2	-6.656E-2	-4.106E-2	-5.900E-5
N° 3	---	-8.290E-2	-3.529E-1	-3.094E-2	-2.527E-2	-7.397E-3	-6.100E-5
N° 4	---	-2.029E-1	-5.454E-1	-1.093E-1	-7.447E-2	-3.741E-2	-6.000E-5
N° 5	---	-2.080E-1	-4.613E-1	-7.958E-2	-7.483E-2	-3.080E-2	-5.300E-5
N° 6	---	-8.677E-2	-2.903E-1	-4.214E-2	-2.117E-2	-7.733E-3	-4.000E-5
N° 7(Off)	---	7.000E-6	6.000E-6	-2.800E-5	-3.200E-5	2.261E-3	-6.400E-5
N° 8(Off)	---	5.000E-6	7.000E-6	-2.900E-5	-3.700E-5	2.227E-3	-7.400E-5
N° 9(Off)	---	6.000E-6	6.000E-6	-3.000E-5	-2.900E-5	2.186E-3	-6.600E-5
N° 10(Off)	---	6.000E-6	6.000E-6	-3.100E-5	-3.300E-5	2.156E-3	-1.760E-4
N° 11(Off)	---	5.000E-6	4.000E-6	-3.500E-5	-3.500E-5	2.233E-3	-2.050E-4
Average	---	-1.501E-1	-4.062E-1	-6.741E-2	-5.246E-2	-2.488E-2	-5.460E-5
s	---	6.138E-2	9.914E-2	3.135E-2	2.694E-2	1.623E-2	8.735E-6
Average+3s	---	3.401E-2	-1.088E-1	2.665E-2	2.835E-2	2.381E-2	-2.840E-5
Average-3s	---	-3.343E-1	-7.036E-1	-1.615E-1	-1.333E-1	-7.357E-2	-8.080E-5

## 73. Io\_Z\_0V, Module 2

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Z\_0V, Module 2 . (uA)**

**Min = -10.0 Max = 10.0**

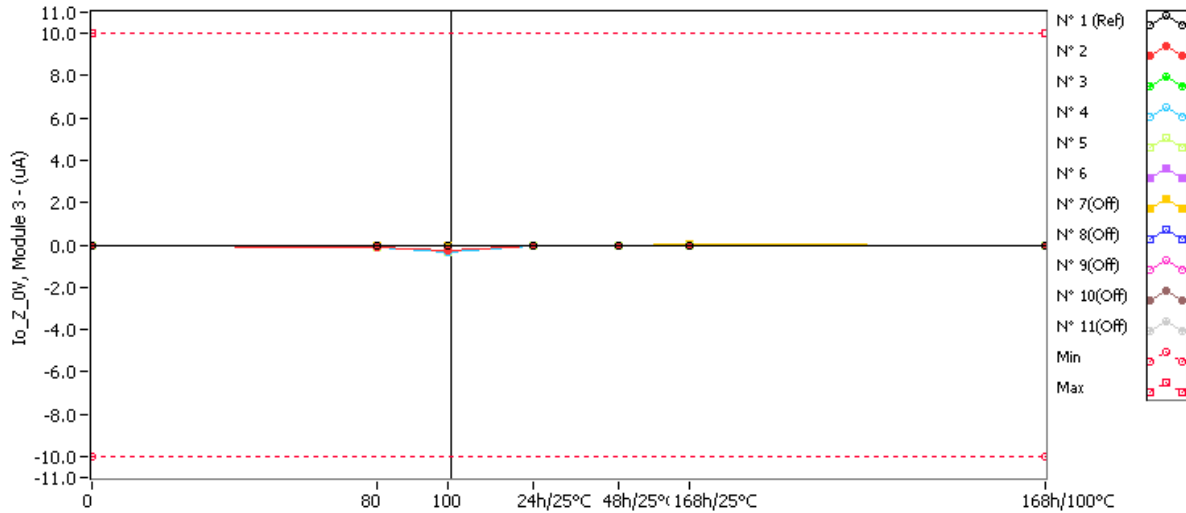
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.000046	-0.000042	-0.000040	-0.000037	-0.000036	-0.000051	-0.000044
N° 2	-0.000037	-0.085830	-0.252598	-0.041981	-0.030085	-0.014234	-0.000022
N° 3	-0.000039	-0.146551	-0.385759	-0.051133	-0.035700	-0.006430	-0.000029
N° 4	-0.000040	-0.240688	-0.497341	-0.089860	-0.080382	-0.023265	-0.000030
N° 5	-0.000047	-0.263768	-0.519722	-0.106730	-0.083783	-0.032295	-0.000021
N° 6	-0.000059	-0.088380	-0.284738	-0.035083	-0.022740	-0.006627	-0.000031
N° 7(Off)	-0.000039	-0.000034	-0.000035	-0.000022	-0.000020	0.002308	-0.000029
N° 8(Off)	-0.000038	-0.000034	-0.000032	-0.000025	-0.000024	0.002269	-0.000051
N° 9(Off)	-0.000041	-0.000037	-0.000038	-0.000014	-0.000012	0.002252	-0.000107
N° 10(Off)	-0.000040	-0.000036	-0.000035	-0.000024	-0.000024	0.002202	-0.000206
N° 11(Off)	-0.000041	-0.000037	-0.000035	-0.000025	-0.000023	0.002267	-0.000242

**Delta [Io\_Z\_0V, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	4.000E-6	6.000E-6	9.000E-6	1.000E-5	-5.000E-6	2.000E-6
N° 2	---	-8.579E-2	-2.526E-1	-4.194E-2	-3.005E-2	-1.420E-2	1.500E-5
N° 3	---	-1.465E-1	-3.857E-1	-5.109E-2	-3.566E-2	-6.391E-3	1.000E-5
N° 4	---	-2.406E-1	-4.973E-1	-8.982E-2	-8.034E-2	-2.323E-2	1.000E-5
N° 5	---	-2.637E-1	-5.197E-1	-1.067E-1	-8.374E-2	-3.225E-2	2.600E-5
N° 6	---	-8.832E-2	-2.847E-1	-3.502E-2	-2.268E-2	-6.568E-3	2.800E-5
N° 7(Off)	---	5.000E-6	4.000E-6	1.700E-5	1.900E-5	2.347E-3	1.000E-5
N° 8(Off)	---	4.000E-6	6.000E-6	1.300E-5	1.400E-5	2.307E-3	-1.300E-5
N° 9(Off)	---	4.000E-6	3.000E-6	2.700E-5	2.900E-5	2.293E-3	-6.600E-5
N° 10(Off)	---	4.000E-6	5.000E-6	1.600E-5	1.600E-5	2.242E-3	-1.660E-4
N° 11(Off)	---	4.000E-6	6.000E-6	1.600E-5	1.800E-5	2.308E-3	-2.010E-4
Average	---	-1.650E-1	-3.880E-1	-6.491E-2	-5.049E-2	-1.653E-2	1.780E-5
s	---	8.361E-2	1.207E-1	3.153E-2	2.919E-2	1.117E-2	8.672E-6
Average+3s	---	8.584E-2	-2.578E-2	2.968E-2	3.707E-2	1.699E-2	4.382E-5
Average-3s	---	-4.158E-1	-7.502E-1	-1.595E-1	-1.381E-1	-5.005E-2	-8.215E-6

## 74. Io\_Z\_0V, Module 3

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Z\_0V, Module 3 . (uA)**

**Min = -10.0 Max = 10.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.000049	-0.000044	-0.000041	-0.000059	-0.000043	-0.000071	-0.000086
N° 2	-0.000039	-0.095366	-0.247361	-0.058921	-0.045668	-0.018281	-0.000033
N° 3	-0.000042	-0.093332	-0.279795	-0.039167	-0.025260	-0.010022	-0.000039
N° 4	-0.000043	-0.082788	-0.319667	-0.030116	-0.018527	-0.004895	-0.000040
N° 5	-0.000049	-0.144770	-0.338151	-0.061020	-0.048246	-0.014334	-0.000039
N° 6	-0.000058	-0.125310	-0.363826	-0.055103	-0.044378	-0.015328	-0.000041
N° 7(Off)	-0.000041	-0.000035	-0.000034	-0.000030	-0.000034	0.002271	-0.000042
N° 8(Off)	-0.000041	-0.000035	-0.000036	-0.000031	-0.000035	0.002253	-0.000064
N° 9(Off)	-0.000045	-0.000037	-0.000036	-0.000030	-0.000033	0.002212	-0.000169
N° 10(Off)	-0.000042	-0.000037	-0.000035	-0.000032	-0.000036	0.002179	-0.000295
N° 11(Off)	-0.000043	-0.000037	-0.000036	-0.000038	-0.000035	0.002244	-0.000316

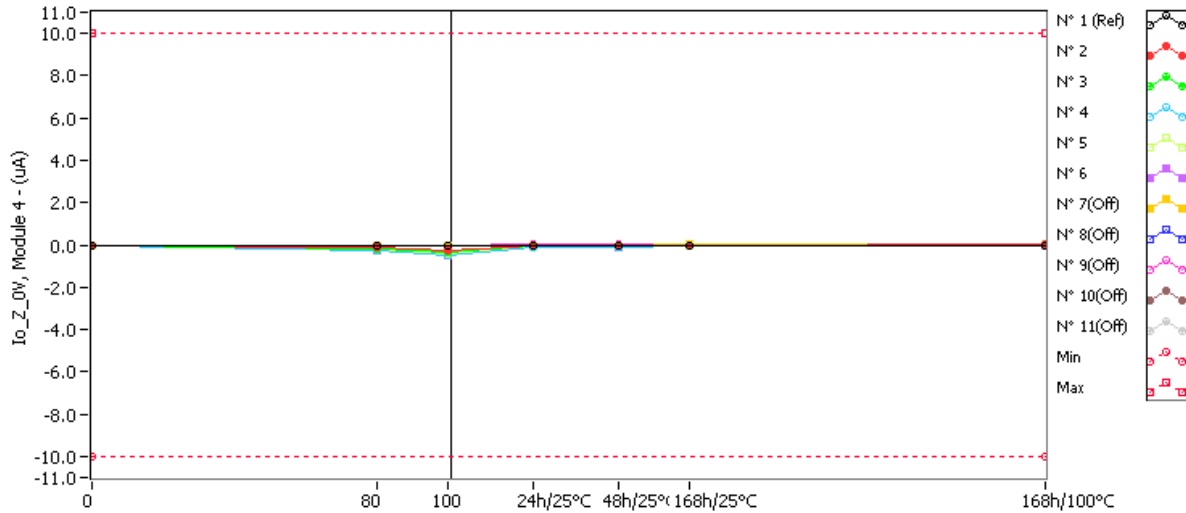
**Delta [Io\_Z\_0V, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	5.000E-6	8.000E-6	-1.000E-5	6.000E-6	-2.200E-5	-3.700E-5
N° 2	---	-9.533E-2	-2.473E-1	-5.888E-2	-4.563E-2	-1.824E-2	6.000E-6
N° 3	---	-9.329E-2	-2.798E-1	-3.913E-2	-2.522E-2	-9.980E-3	3.000E-6
N° 4	---	-8.274E-2	-3.196E-1	-3.007E-2	-1.848E-2	-4.852E-3	3.000E-6
N° 5	---	-1.447E-1	-3.381E-1	-6.097E-2	-4.820E-2	-1.428E-2	1.000E-5
N° 6	---	-1.253E-1	-3.638E-1	-5.504E-2	-4.432E-2	-1.527E-2	1.700E-5
N° 7(Off)	---	6.000E-6	7.000E-6	1.100E-5	7.000E-6	2.312E-3	-1.000E-6
N° 8(Off)	---	6.000E-6	5.000E-6	1.000E-5	6.000E-6	2.294E-3	-2.300E-5
N° 9(Off)	---	8.000E-6	9.000E-6	1.500E-5	1.200E-5	2.257E-3	-1.240E-4
N° 10(Off)	---	5.000E-6	7.000E-6	1.000E-5	6.000E-6	2.221E-3	-2.530E-4
N° 11(Off)	---	6.000E-6	7.000E-6	5.000E-6	8.000E-6	2.287E-3	-2.730E-4
Average	---	-1.083E-1	-3.097E-1	-4.882E-2	-3.637E-2	-1.253E-2	7.800E-6
s	---	2.579E-2	4.641E-2	1.354E-2	1.354E-2	5.212E-3	5.891E-6
Average+3s	---	-3.090E-2	-1.705E-1	-8.206E-2	4.244E-3	3.111E-3	2.547E-5
Average-3s	---	-1.856E-1	-4.490E-1	-8.943E-2	-7.698E-2	-2.816E-2	-9.872E-6



## 75. Io\_Z\_0V, Module 4

"EN = 0V, EN! = 3.6V, Vout = 0V, VCC = 3.6V"



**Io\_Z\_0V, Module 4 . (uA)**

**Min = -10.0 Max = 10.0**

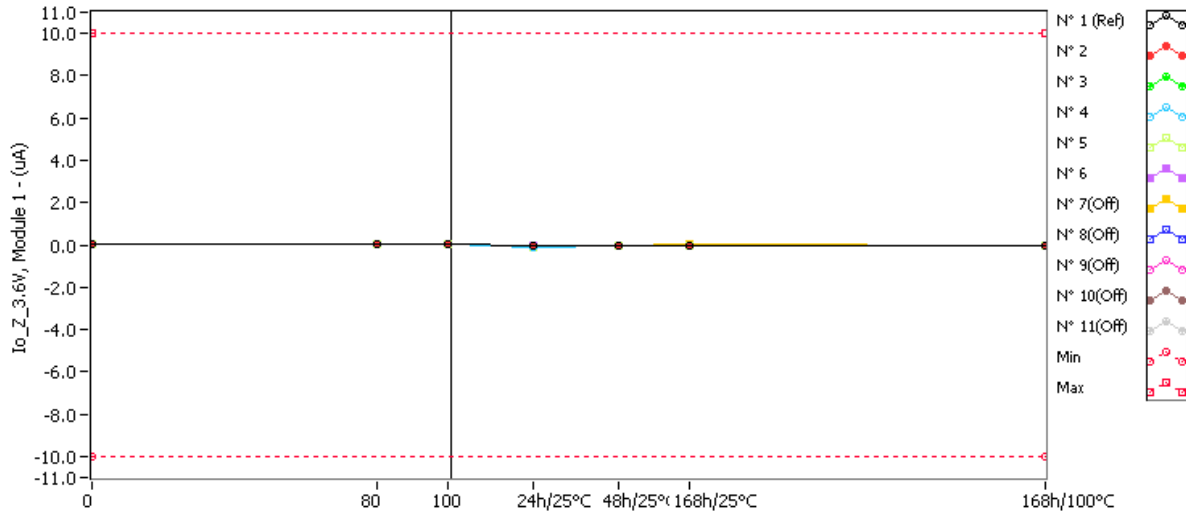
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	-0.000050	-0.000046	-0.000041	-0.000059	-0.000014	-0.000067	-0.000088
N° 2	-0.000041	-0.126928	-0.252222	-0.071106	-0.064852	-0.038484	0.000026
N° 3	-0.000040	-0.167067	-0.305311	-0.045362	-0.042158	-0.020009	-0.000002
N° 4	-0.000043	-0.259364	-0.506306	-0.103390	-0.080298	-0.031500	-0.000005
N° 5	-0.000051	-0.221778	-0.404666	-0.076366	-0.054513	-0.031439	0.000019
N° 6	-0.000056	-0.252271	-0.486765	-0.112740	-0.086369	-0.031225	-0.000005
N° 7(Off)	-0.000042	-0.000036	-0.000037	-0.000006	-0.000006	0.002315	-0.000009
N° 8(Off)	-0.000043	-0.000037	-0.000036	-0.000009	-0.000011	0.002294	-0.000096
N° 9(Off)	-0.000041	-0.000035	-0.000034	0.000032	0.000033	0.002298	-0.000180
N° 10(Off)	-0.000044	-0.000038	-0.000036	-0.000007	-0.000009	0.002208	-0.000344
N° 11(Off)	-0.000041	-0.000035	-0.000034	-0.000011	-0.000007	0.002302	-0.000393

**Delta [Io\_Z\_0V, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	4.000E-6	9.000E-6	-9.000E-6	3.600E-5	-1.700E-5	-3.800E-5
N° 2	---	-1.269E-1	-2.522E-1	-7.107E-2	-6.481E-2	-3.844E-2	6.700E-5
N° 3	---	-1.670E-1	-3.053E-1	-4.532E-2	-4.212E-2	-1.997E-2	3.800E-5
N° 4	---	-2.593E-1	-5.063E-1	-1.033E-1	-8.025E-2	-3.146E-2	3.800E-5
N° 5	---	-2.217E-1	-4.046E-1	-7.632E-2	-5.446E-2	-3.139E-2	7.000E-5
N° 6	---	-2.522E-1	-4.867E-1	-1.127E-1	-8.631E-2	-3.117E-2	5.100E-5
N° 7(Off)	---	6.000E-6	5.000E-6	3.600E-5	3.600E-5	2.357E-3	3.300E-5
N° 8(Off)	---	6.000E-6	7.000E-6	3.400E-5	3.200E-5	2.337E-3	-5.300E-5
N° 9(Off)	---	6.000E-6	7.000E-6	7.300E-5	7.400E-5	2.339E-3	-1.390E-4
N° 10(Off)	---	6.000E-6	8.000E-6	3.700E-5	3.500E-5	2.252E-3	-3.000E-4
N° 11(Off)	---	6.000E-6	7.000E-6	3.000E-5	3.400E-5	2.343E-3	-3.520E-4
Average	---	-2.054E-1	-3.910E-1	-8.175E-2	-6.559E-2	-3.049E-2	5.280E-5
s	---	5.701E-2	1.110E-1	2.690E-2	1.817E-2	6.636E-3	1.532E-5
Average+3s	---	-3.439E-2	-5.812E-2	-1.052E-3	-1.110E-2	-1.058E-2	9.876E-5
Average-3s	---	-3.765E-1	-7.239E-1	-1.624E-1	-1.201E-1	-5.039E-2	6.840E-6

## 76. Io\_Z\_3.6V, Module 1

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Z\_3.6V, Module 1 . (uA)**

**Min = -10.0 Max = 10.0**

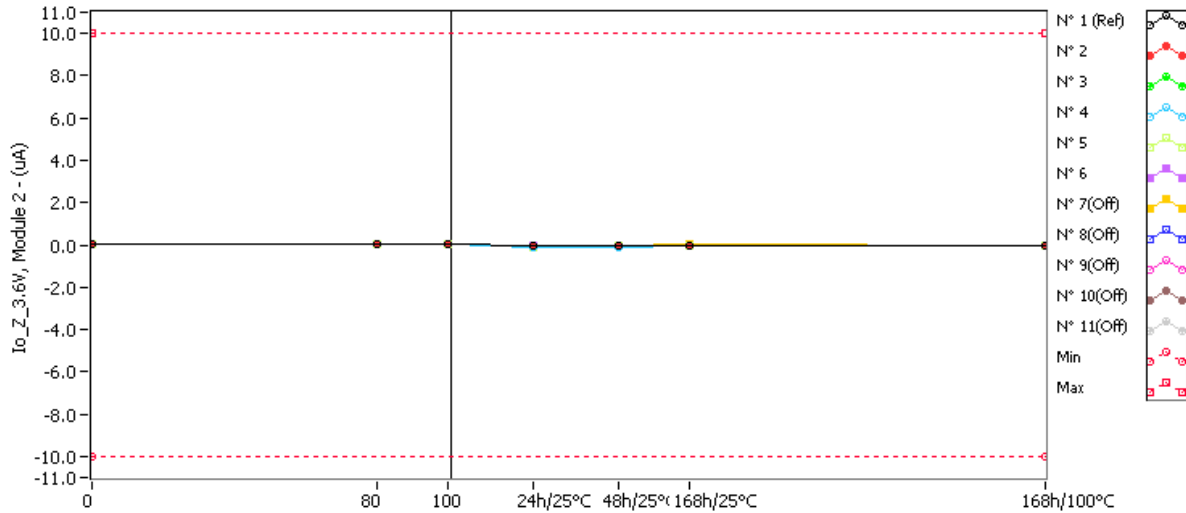
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.000083	0.000062	0.000060	-0.000091	-0.000125	-0.000244	-0.000133
N° 2	0.000075	0.000576	0.001766	-0.074969	-0.069420	-0.041673	-0.000120
N° 3	0.000053	0.000322	0.001599	-0.031183	-0.025922	-0.007781	-0.000123
N° 4	0.000120	0.000656	0.001678	-0.110070	-0.075604	-0.038199	-0.000121
N° 5	0.000094	0.000713	0.002355	-0.080566	-0.074172	-0.031059	-0.000129
N° 6	0.000143	0.000522	0.002383	-0.042914	-0.021984	-0.008063	-0.000129
N° 7(Off)	0.000056	0.000042	0.000042	-0.000082	-0.000122	0.002147	-0.000133
N° 8(Off)	0.000056	0.000042	0.000041	-0.000084	-0.000133	0.002114	-0.000141
N° 9(Off)	0.000058	0.000042	0.000040	-0.000082	-0.000120	0.002082	-0.000178
N° 10(Off)	0.000069	0.000051	0.000048	-0.000084	-0.000122	0.002040	-0.000227
N° 11(Off)	0.000064	0.000045	0.000042	-0.000086	-0.000119	0.002110	-0.000251

**Delta [Io\_Z\_3.6V, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	-2.100E-5	-2.300E-5	-1.740E-4	-2.080E-4	-3.270E-4	-2.160E-4
N° 2	---	5.010E-4	1.691E-3	-7.504E-2	-6.950E-2	-4.175E-2	-1.950E-4
N° 3	---	2.690E-4	1.546E-3	-3.124E-2	-2.598E-2	-7.834E-3	-1.760E-4
N° 4	---	5.360E-4	1.558E-3	-1.102E-1	-7.572E-2	-3.832E-2	-2.410E-4
N° 5	---	6.190E-4	2.261E-3	-8.066E-2	-7.427E-2	-3.115E-2	-2.230E-4
N° 6	---	3.790E-4	2.240E-3	-4.306E-2	-2.213E-2	-8.206E-3	-2.720E-4
N° 7(Off)	---	-1.400E-5	-1.400E-5	-1.380E-4	-1.780E-4	2.091E-3	-1.890E-4
N° 8(Off)	---	-1.400E-5	-1.500E-5	-1.400E-4	-1.890E-4	2.058E-3	-1.970E-4
N° 9(Off)	---	-1.600E-5	-1.800E-5	-1.400E-4	-1.780E-4	2.024E-3	-2.360E-4
N° 10(Off)	---	-1.800E-5	-2.100E-5	-1.530E-4	-1.910E-4	1.971E-3	-2.960E-4
N° 11(Off)	---	-1.900E-5	-2.200E-5	-1.500E-4	-1.830E-4	2.046E-3	-3.150E-4
Average	---	4.608E-4	1.859E-3	-6.804E-2	-5.352E-2	-2.545E-2	-2.214E-4
s	---	1.376E-4	3.618E-4	3.148E-2	2.703E-2	1.637E-2	3.777E-5
Average+3s	---	8.737E-4	2.945E-3	2.640E-2	2.758E-2	2.365E-2	-1.081E-4
Average-3s	---	4.789E-5	7.738E-4	-1.625E-1	-1.346E-1	-7.455E-2	-3.347E-4

## 77. Io\_Z\_3.6V, Module 2

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Z\_3.6V, Module 2. (uA)**

**Min = -10.0 Max = 10.0**

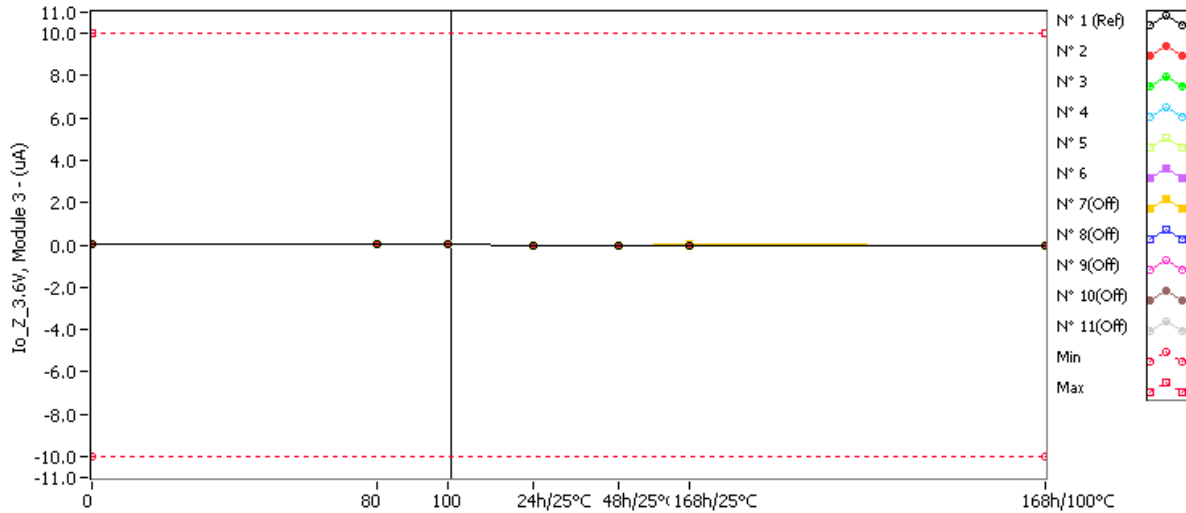
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.000112	0.000080	0.000075	-0.000038	-0.000050	-0.000060	-0.000053
N° 2	0.000088	0.000410	0.001543	-0.041475	-0.029316	-0.014482	-0.000031
N° 3	0.000062	0.000572	0.001659	-0.050705	-0.035060	-0.006390	-0.000046
N° 4	0.000059	0.000657	0.002038	-0.090400	-0.080244	-0.023520	-0.000044
N° 5	0.000088	0.000619	0.002010	-0.099290	-0.075651	-0.031801	-0.000033
N° 6	0.000115	0.000575	0.002576	-0.033303	-0.022858	-0.006521	-0.000047
N° 7(Off)	0.000056	0.000042	0.000040	-0.000029	-0.000035	0.002279	-0.000045
N° 8(Off)	0.000056	0.000044	0.000036	-0.000036	-0.000036	0.002255	-0.000053
N° 9(Off)	0.000087	0.000062	0.000058	-0.000019	-0.000021	0.002225	-0.000105
N° 10(Off)	0.000057	0.000043	0.000041	-0.000036	-0.000036	0.002177	-0.000194
N° 11(Off)	0.000062	0.000044	0.000043	-0.000036	-0.000036	0.002242	-0.000224

**Delta [Io\_Z\_3.6V, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	-3.200E-5	-3.700E-5	-1.500E-4	-1.620E-4	-1.720E-4	-1.650E-4
N° 2	---	3.220E-4	1.455E-3	-4.156E-2	-2.940E-2	-1.457E-2	-1.190E-4
N° 3	---	5.100E-4	1.597E-3	-5.077E-2	-3.512E-2	-6.452E-3	-1.080E-4
N° 4	---	5.980E-4	1.979E-3	-9.046E-2	-8.030E-2	-2.358E-2	-1.030E-4
N° 5	---	5.310E-4	1.922E-3	-9.938E-2	-7.574E-2	-3.189E-2	-1.210E-4
N° 6	---	4.600E-4	2.461E-3	-3.342E-2	-2.297E-2	-6.636E-3	-1.620E-4
N° 7(Off)	---	-1.400E-5	-1.600E-5	-8.500E-5	-9.100E-5	2.223E-3	-1.010E-4
N° 8(Off)	---	-1.200E-5	-2.000E-5	-9.200E-5	-9.200E-5	2.199E-3	-1.090E-4
N° 9(Off)	---	-2.500E-5	-2.900E-5	-1.060E-4	-1.080E-4	2.138E-3	-1.920E-4
N° 10(Off)	---	-1.400E-5	-1.600E-5	-9.300E-5	-9.300E-5	2.120E-3	-2.510E-4
N° 11(Off)	---	-1.800E-5	-1.900E-5	-9.800E-5	-9.800E-5	2.180E-3	-2.860E-4
Average	---	4.842E-4	1.883E-3	-6.312E-2	-4.871E-2	-1.663E-2	-1.226E-4
s	---	1.033E-4	3.904E-4	2.984E-2	2.715E-2	1.105E-2	2.327E-5
Average+3s	---	7.942E-4	3.054E-3	2.640E-2	3.274E-2	1.654E-2	-5.280E-5
Average-3s	---	1.742E-4	7.115E-4	-1.526E-1	-1.302E-1	-4.979E-2	-1.924E-4

## 78. Io\_Z\_3.6V, Module 3

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Z\_3.6V, Module 3. (uA)**

**Min = -10.0 Max = 10.0**

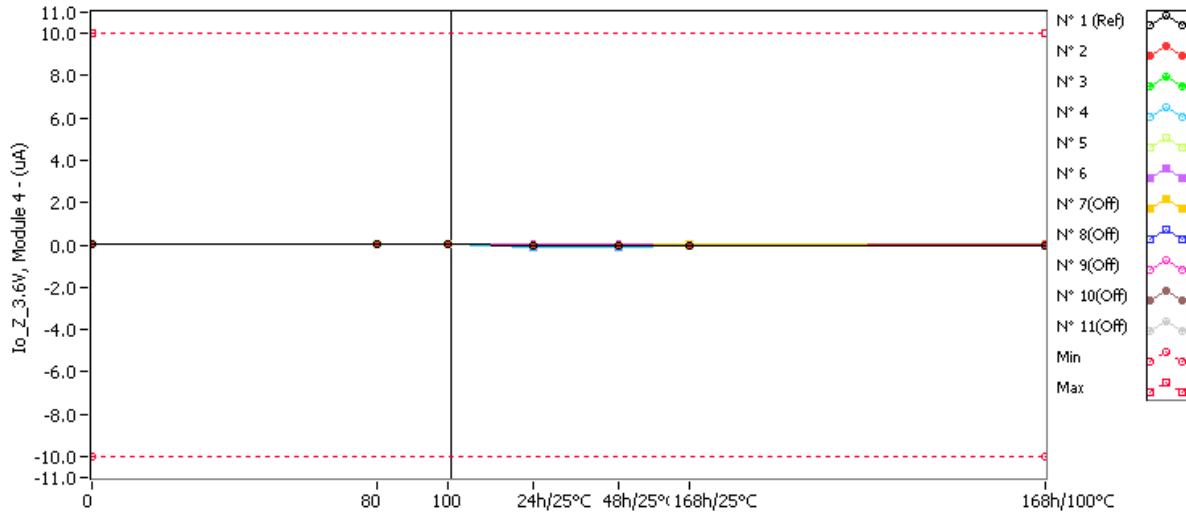
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.000081	0.000059	0.000055	-0.000052	-0.000054	-0.000068	-0.000074
N° 2	0.000074	0.000318	0.001246	-0.058651	-0.045842	-0.018289	-0.000037
N° 3	0.000052	0.000323	0.001484	-0.039375	-0.024759	-0.009369	-0.000039
N° 4	0.000057	0.000400	0.001840	-0.029668	-0.018403	-0.004906	-0.000040
N° 5	0.000094	0.000660	0.001900	-0.059450	-0.048745	-0.014039	-0.000037
N° 6	0.000104	0.000603	0.001850	-0.054211	-0.044357	-0.015303	-0.000039
N° 7(Off)	0.000052	0.000040	0.000040	-0.000030	-0.000037	0.002280	-0.000039
N° 8(Off)	0.000054	0.000041	0.000038	-0.000035	-0.000040	0.002261	-0.000074
N° 9(Off)	0.000168	0.000058	0.000056	-0.000035	-0.000039	0.002209	-0.000144
N° 10(Off)	0.000057	0.000043	0.000041	-0.000036	-0.000039	0.002179	-0.000256
N° 11(Off)	0.000056	0.000042	0.000040	-0.000037	-0.000029	0.002242	-0.000273

**Delta [Io\_Z\_3.6V, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	-2.200E-5	-2.600E-5	-1.330E-4	-1.350E-4	-1.490E-4	-1.550E-4
N° 2	---	2.440E-4	1.172E-3	-5.872E-2	-4.592E-2	-1.836E-2	-1.110E-4
N° 3	---	2.710E-4	1.432E-3	-3.943E-2	-2.481E-2	-9.421E-3	-9.100E-5
N° 4	---	3.430E-4	1.783E-3	-2.973E-2	-1.846E-2	-4.963E-3	-9.700E-5
N° 5	---	5.660E-4	1.806E-3	-5.954E-2	-4.884E-2	-1.413E-2	-1.310E-4
N° 6	---	4.990E-4	1.746E-3	-5.432E-2	-4.446E-2	-1.541E-2	-1.430E-4
N° 7(Off)	---	-1.200E-5	-1.200E-5	-8.200E-5	-8.900E-5	2.228E-3	-9.100E-5
N° 8(Off)	---	-1.300E-5	-1.600E-5	-8.900E-5	-9.400E-5	2.207E-3	-1.280E-4
N° 9(Off)	---	-1.100E-4	-1.120E-4	-2.030E-4	-2.070E-4	2.041E-3	-3.120E-4
N° 10(Off)	---	-1.400E-5	-1.600E-5	-9.300E-5	-9.600E-5	2.122E-3	-3.130E-4
N° 11(Off)	---	-1.400E-5	-1.600E-5	-9.300E-5	-8.500E-5	2.186E-3	-3.290E-4
Average	---	3.846E-4	1.588E-3	-4.835E-2	-3.650E-2	-1.246E-2	-1.146E-4
s	---	1.418E-4	2.774E-4	1.318E-2	1.384E-2	5.286E-3	2.211E-5
Average+3s	---	8.099E-4	2.420E-3	-8.802E-3	5.028E-3	3.401E-3	-4.827E-5
Average-3s	---	-4.072E-5	7.555E-4	-8.789E-2	-7.802E-2	-2.832E-2	-1.809E-4

## 79. Io\_Z\_3.6V, Module 4

"EN = 0V, EN! = 3.6V, Vout = VCC, VCC = 3.6V"



**Io\_Z\_3.6V, Module 4 . (uA)**

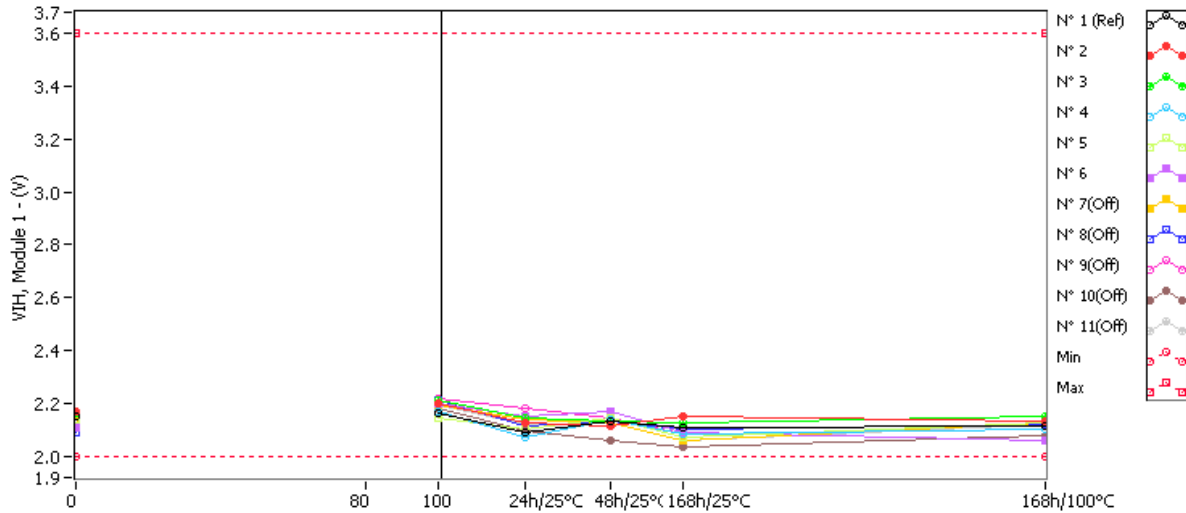
**Min = -10.0 Max = 10.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.000075	0.000057	0.000054	-0.000047	-0.000019	-0.000052	-0.000061
N° 2	0.000083	0.000549	0.001368	-0.069978	-0.064842	-0.038309	0.000028
N° 3	0.000085	0.000559	0.001508	-0.043780	-0.043003	-0.018931	0.000000
N° 4	0.000056	0.000544	0.001530	-0.102750	-0.079858	-0.031492	-0.000004
N° 5	0.000091	0.000613	0.002043	-0.075978	-0.053626	-0.030371	0.000016
N° 6	0.000121	0.000601	0.001934	-0.110920	-0.085140	-0.032138	-0.000004
N° 7(Off)	0.000063	0.000048	0.000047	-0.000005	-0.000006	0.002319	-0.000008
N° 8(Off)	0.000052	0.000040	0.000038	-0.000005	-0.000008	0.002308	-0.000075
N° 9(Off)	0.000050	0.000040	0.000038	0.000031	0.000030	0.002291	-0.000143
N° 10(Off)	0.000058	0.000044	0.000043	-0.000006	-0.000008	0.002210	-0.000279
N° 11(Off)	0.000063	0.000046	0.000044	-0.000009	-0.000005	0.002300	-0.000324

**Delta [Io\_Z\_3.6V, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	-1.800E-5	-2.100E-5	-1.220E-4	-9.400E-5	-1.270E-4	-1.360E-4
N° 2	---	4.660E-4	1.285E-3	-7.006E-2	-6.492E-2	-3.839E-2	-5.500E-5
N° 3	---	4.740E-4	1.423E-3	-4.387E-2	-4.309E-2	-1.902E-2	-8.500E-5
N° 4	---	4.880E-4	1.474E-3	-1.028E-1	-7.991E-2	-3.155E-2	-6.000E-5
N° 5	---	5.220E-4	1.952E-3	-7.607E-2	-5.372E-2	-3.046E-2	-7.500E-5
N° 6	---	4.800E-4	1.813E-3	-1.110E-1	-8.526E-2	-3.226E-2	-1.250E-4
N° 7(Off)	---	-1.500E-5	-1.600E-5	-6.800E-5	-6.900E-5	2.256E-3	-7.100E-5
N° 8(Off)	---	-1.200E-5	-1.400E-5	-5.700E-5	-6.000E-5	2.256E-3	-1.270E-4
N° 9(Off)	---	-1.000E-5	-1.200E-5	-1.900E-5	-2.000E-5	2.241E-3	-1.930E-4
N° 10(Off)	---	-1.400E-5	-1.500E-5	-6.400E-5	-6.600E-5	2.152E-3	-3.370E-4
N° 11(Off)	---	-1.700E-5	-1.900E-5	-7.200E-5	-6.800E-5	2.237E-3	-3.870E-4
Average	---	4.860E-4	1.589E-3	-8.077E-2	-6.538E-2	-3.034E-2	-8.000E-5
s	---	2.168E-5	2.807E-4	2.693E-2	1.760E-2	7.040E-3	2.784E-5
Average+3s	---	5.510E-4	2.431E-3	1.854E-5	-1.257E-2	-9.217E-3	3.516E-6
Average-3s	---	4.210E-4	7.473E-4	-1.616E-1	-1.182E-1	-5.145E-2	-1.635E-4

## 80. VIH, Module 1



**VIH, Module 1 . (V)**

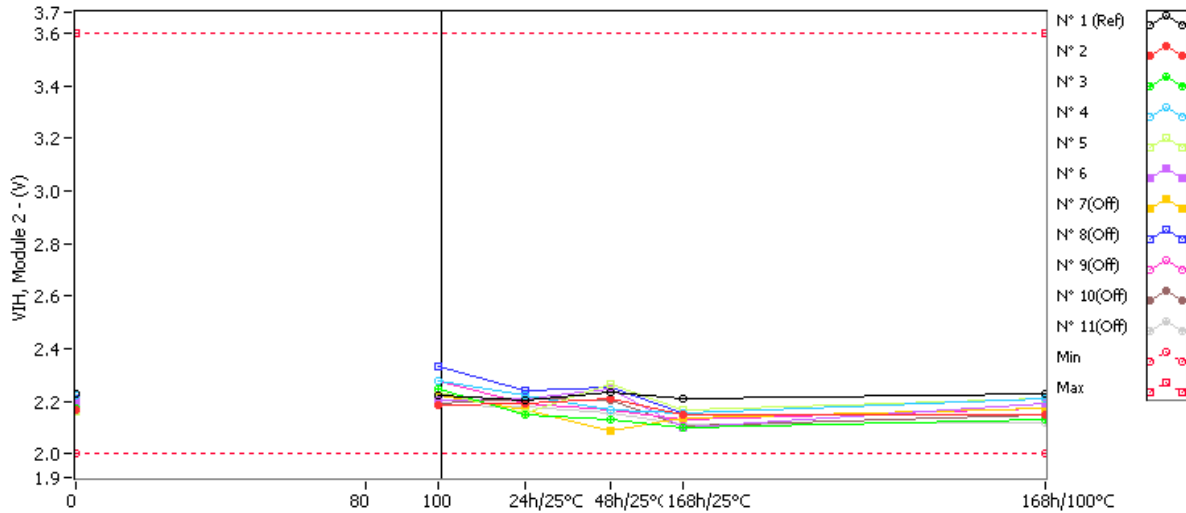
**Min = 2.0 Max = 3.6**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.154	NaN	2.162	2.091	2.135	2.110	2.116
N° 2	2.167	NaN	2.200	2.129	2.116	2.154	2.135
N° 3	2.161	NaN	2.210	2.148	2.135	2.129	2.154
N° 4	2.154	NaN	2.168	2.072	2.142	2.085	2.104
N° 5	2.142	NaN	2.148	2.104	2.148	2.072	2.129
N° 6	2.110	NaN	2.200	2.154	2.167	2.091	2.059
N° 7(Off)	2.135	NaN	2.194	2.142	2.129	2.059	2.129
N° 8(Off)	2.091	NaN	2.214	2.116	2.135	2.104	2.123
N° 9(Off)	2.142	NaN	2.219	2.180	2.148	2.085	2.104
N° 10(Off)	2.116	NaN	2.183	2.097	2.059	2.034	2.078
N° 11(Off)	2.161	NaN	2.197	2.123	2.129	2.059	2.123

**Delta [VIH, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	8.000E-3	-6.300E-2	-1.900E-2	-4.400E-2	-3.800E-2
N° 2	---	NaN	3.300E-2	-3.800E-2	-5.100E-2	-1.300E-2	-3.200E-2
N° 3	---	NaN	4.900E-2	-1.300E-2	-2.600E-2	-3.200E-2	-7.000E-3
N° 4	---	NaN	1.400E-2	-8.200E-2	-1.200E-2	-6.900E-2	-5.000E-2
N° 5	---	NaN	6.000E-3	-3.800E-2	6.000E-3	-7.000E-2	-1.300E-2
N° 6	---	NaN	9.000E-2	4.400E-2	5.700E-2	-1.900E-2	-5.100E-2
N° 7(Off)	---	NaN	5.900E-2	7.000E-3	-6.000E-3	-7.600E-2	-6.000E-3
N° 8(Off)	---	NaN	1.230E-1	2.500E-2	4.400E-2	1.300E-2	3.200E-2
N° 9(Off)	---	NaN	7.700E-2	3.800E-2	6.000E-3	-5.700E-2	-3.800E-2
N° 10(Off)	---	NaN	6.700E-2	-1.900E-2	-5.700E-2	-8.200E-2	-3.800E-2
N° 11(Off)	---	NaN	3.600E-2	-3.800E-2	-3.200E-2	-1.020E-1	-3.800E-2
Average	---	NaN	3.840E-2	-2.540E-2	-5.200E-3	-4.060E-2	-3.060E-2
s	---	0.000E+0	3.335E-2	4.607E-2	4.053E-2	2.726E-2	2.038E-2
Average+3s	---	NaN	1.385E-1	1.128E-1	1.164E-1	4.119E-2	3.054E-2
Average-3s	---	NaN	-6.165E-2	-1.636E-1	-1.268E-1	-1.224E-1	-9.174E-2

## 81. VIH, Module 2



**VIH, Module 2 . (V)**

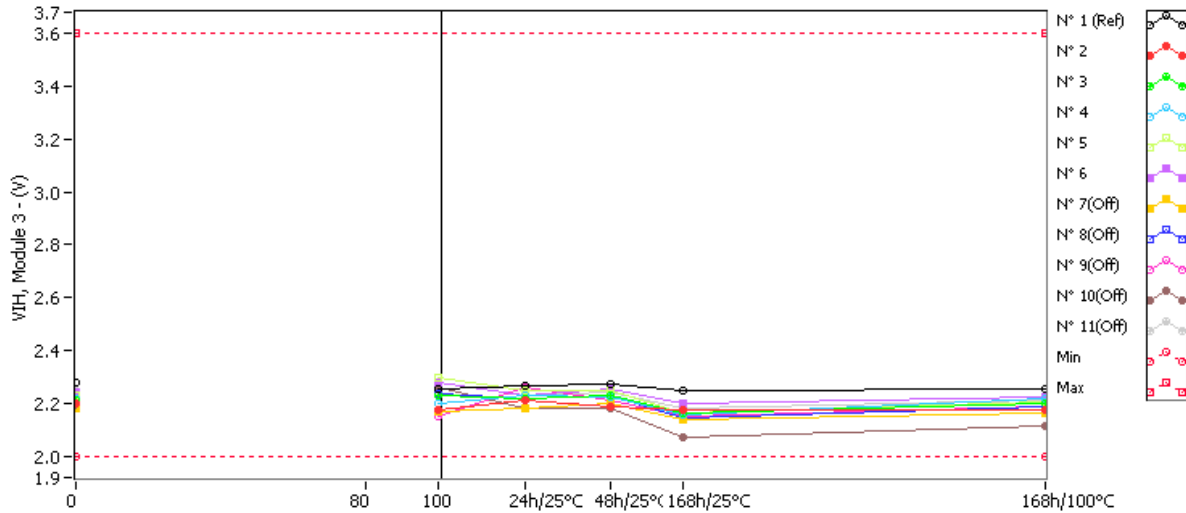
**Min = 2.0 Max = 3.6**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.227	NaN	2.222	2.202	2.234	2.208	2.227
N° 2	2.170	NaN	2.187	2.189	2.208	2.150	2.150
N° 3	2.176	NaN	2.245	2.150	2.131	2.099	2.131
N° 4	2.221	NaN	2.277	2.221	2.170	2.157	2.208
N° 5	2.163	NaN	2.234	2.157	2.266	2.170	2.208
N° 6	2.195	NaN	2.205	2.208	2.246	2.099	2.189
N° 7(Off)	2.189	NaN	2.222	2.170	2.090	2.138	2.176
N° 8(Off)	2.208	NaN	2.330	2.240	2.253	2.157	2.208
N° 9(Off)	2.208	NaN	2.280	2.189	2.170	2.131	2.176
N° 10(Off)	2.202	NaN	2.189	2.208	2.202	2.106	2.150
N° 11(Off)	2.176	NaN	2.188	2.182	2.157	2.112	2.118

**Delta [VIH, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-5.000E-3	-2.500E-2	7.000E-3	-1.900E-2	0.000E+0
N° 2	---	NaN	1.700E-2	1.900E-2	3.800E-2	-2.000E-2	-2.000E-2
N° 3	---	NaN	6.900E-2	-2.600E-2	-4.500E-2	-7.700E-2	-4.500E-2
N° 4	---	NaN	5.600E-2	0.000E+0	-5.100E-2	-6.400E-2	-1.300E-2
N° 5	---	NaN	7.100E-2	-6.000E-3	1.030E-1	7.000E-3	4.500E-2
N° 6	---	NaN	1.000E-2	1.300E-2	5.100E-2	-9.600E-2	-6.000E-3
N° 7(Off)	---	NaN	3.300E-2	-1.900E-2	-9.900E-2	-5.100E-2	-1.300E-2
N° 8(Off)	---	NaN	1.220E-1	3.200E-2	4.500E-2	-5.100E-2	0.000E+0
N° 9(Off)	---	NaN	7.200E-2	-1.900E-2	-3.800E-2	-7.700E-2	-3.200E-2
N° 10(Off)	---	NaN	-1.300E-2	6.000E-3	0.000E+0	-9.600E-2	-5.200E-2
N° 11(Off)	---	NaN	1.200E-2	6.000E-3	-1.900E-2	-6.400E-2	-5.800E-2
Average	---	NaN	4.460E-2	8.882E-17	1.920E-2	-5.000E-2	-7.800E-3
s	---	0.000E+0	2.907E-2	1.762E-2	6.602E-2	4.240E-2	3.298E-2
Average+3s	---	NaN	1.318E-1	5.286E-2	2.173E-1	7.719E-2	9.114E-2
Average-3s	---	NaN	-4.262E-2	-5.286E-2	-1.789E-1	-1.772E-1	-1.067E-1

## 82. VIH, Module 3



**VIH, Module 3 . (V)**

**Min = 2.0 Max = 3.6**

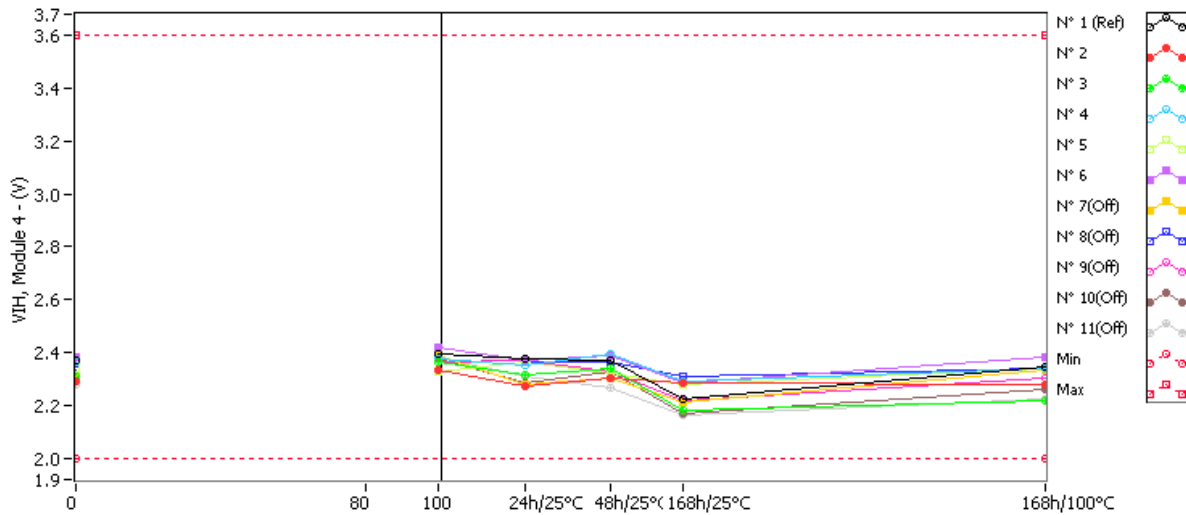
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.278	NaN	2.256	2.266	2.272	2.246	2.253
N° 2	2.202	NaN	2.176	2.214	2.189	2.176	2.176
N° 3	2.214	NaN	2.232	2.221	2.234	2.163	2.202
N° 4	2.221	NaN	2.200	2.234	2.227	2.157	2.221
N° 5	2.234	NaN	2.296	2.246	2.246	2.163	2.208
N° 6	2.240	NaN	2.280	2.234	2.253	2.202	2.227
N° 7(Off)	2.182	NaN	2.170	2.182	2.202	2.138	2.163
N° 8(Off)	2.227	NaN	2.237	2.221	2.234	2.144	2.189
N° 9(Off)	2.240	NaN	2.154	2.259	2.214	2.150	2.189
N° 10(Off)	2.182	NaN	2.259	2.182	2.182	2.074	2.112
N° 11(Off)	2.246	NaN	2.277	2.234	2.240	2.182	2.214

**Delta [VIH, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.200E-2	-1.200E-2	-6.000E-3	-3.200E-2	-2.500E-2
N° 2	---	NaN	-2.600E-2	1.200E-2	-1.300E-2	-2.600E-2	-2.600E-2
N° 3	---	NaN	1.800E-2	7.000E-3	2.000E-2	-5.100E-2	-1.200E-2
N° 4	---	NaN	-2.100E-2	1.300E-2	6.000E-3	-6.400E-2	0.000E+0
N° 5	---	NaN	6.200E-2	1.200E-2	1.200E-2	-7.100E-2	-2.600E-2
N° 6	---	NaN	4.000E-2	-6.000E-3	1.300E-2	-3.800E-2	-1.300E-2
N° 7(Off)	---	NaN	-1.200E-2	0.000E+0	2.000E-2	-4.400E-2	-1.900E-2
N° 8(Off)	---	NaN	1.000E-2	-6.000E-3	7.000E-3	-8.300E-2	-3.800E-2
N° 9(Off)	---	NaN	-8.600E-2	1.900E-2	-2.600E-2	-9.000E-2	-5.100E-2
N° 10(Off)	---	NaN	7.700E-2	0.000E+0	0.000E+0	-1.080E-1	-7.000E-2
N° 11(Off)	---	NaN	3.100E-2	-1.200E-2	-6.000E-3	-6.400E-2	-3.200E-2
Average	---	NaN	1.460E-2	7.600E-3	7.600E-3	-5.000E-2	-1.540E-2
s	---	0.000E+0	3.814E-2	7.956E-3	1.254E-2	1.843E-2	1.095E-2
Average+3s	---	NaN	1.290E-1	3.147E-2	4.523E-2	5.277E-3	1.744E-2
Average-3s	---	NaN	-9.983E-2	-1.627E-2	-3.003E-2	-1.053E-1	-4.824E-2



## 83. VIH, Module 4



**VIH, Module 4 . (V)**

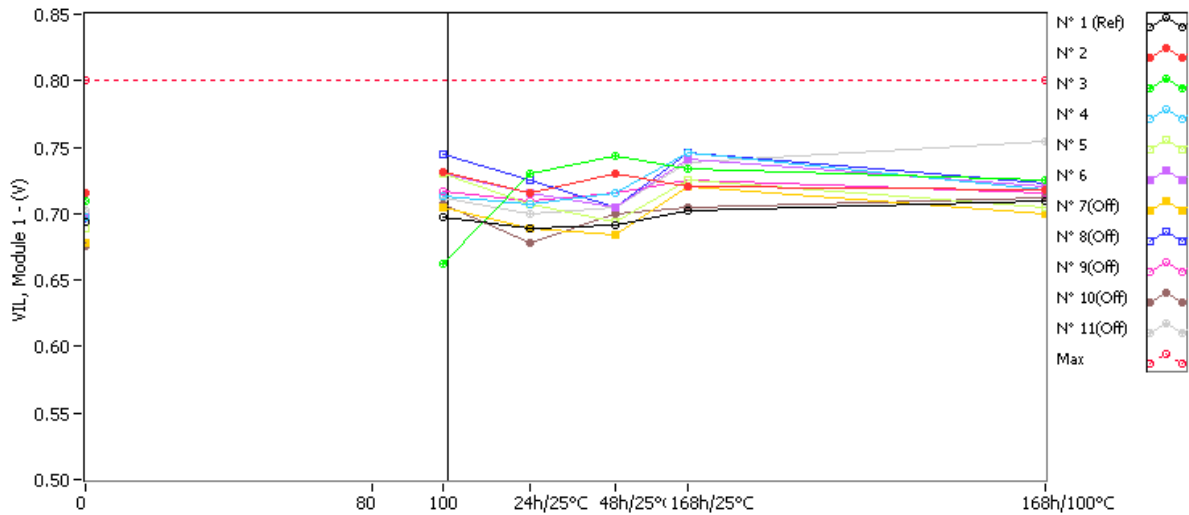
**Min = 2.0 Max = 3.6**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.368	NaN	2.392	2.374	2.368	2.227	2.349
N° 2	2.291	NaN	2.333	2.272	2.304	2.285	2.278
N° 3	2.310	NaN	2.365	2.317	2.342	2.182	2.221
N° 4	2.362	NaN	2.378	2.355	2.394	2.291	2.342
N° 5	2.342	NaN	2.330	2.362	2.323	2.278	2.342
N° 6	2.381	NaN	2.419	2.368	2.387	2.285	2.381
N° 7(Off)	2.317	NaN	2.387	2.278	2.304	2.214	2.336
N° 8(Off)	2.336	NaN	2.330	2.362	2.362	2.310	2.342
N° 9(Off)	2.304	NaN	2.365	2.368	2.330	2.221	2.304
N° 10(Off)	2.291	NaN	2.379	2.285	2.330	2.170	2.259
N° 11(Off)	2.278	NaN	2.382	2.310	2.266	2.163	2.227

**Delta [VIH, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	2.400E-2	6.000E-3	0.000E+0	-1.410E-1	-1.900E-2
N° 2	---	NaN	4.200E-2	-1.900E-2	1.300E-2	-6.000E-3	-1.300E-2
N° 3	---	NaN	5.500E-2	7.000E-3	3.200E-2	-1.280E-1	-8.900E-2
N° 4	---	NaN	1.600E-2	-7.000E-3	3.200E-2	-7.100E-2	-2.000E-2
N° 5	---	NaN	-1.200E-2	2.000E-2	-1.900E-2	-6.400E-2	0.000E+0
N° 6	---	NaN	3.800E-2	-1.300E-2	6.000E-3	-9.600E-2	0.000E+0
N° 7(Off)	---	NaN	7.000E-2	-3.900E-2	-1.300E-2	-1.030E-1	1.900E-2
N° 8(Off)	---	NaN	-6.000E-3	2.600E-2	2.600E-2	-2.600E-2	6.000E-3
N° 9(Off)	---	NaN	6.100E-2	6.400E-2	2.600E-2	-8.300E-2	0.000E+0
N° 10(Off)	---	NaN	8.800E-2	-6.000E-3	3.900E-2	-1.210E-1	-3.200E-2
N° 11(Off)	---	NaN	1.040E-1	3.200E-2	-1.200E-2	-1.150E-1	-5.100E-2
Average	---	NaN	2.780E-2	-2.400E-3	1.280E-2	-7.300E-2	-2.440E-2
s	---	0.000E+0	2.631E-2	1.581E-2	2.118E-2	4.508E-2	3.713E-2
Average+3s	---	NaN	1.067E-1	4.502E-2	7.635E-2	6.223E-2	8.698E-2
Average-3s	---	NaN	-5.113E-2	-4.982E-2	-5.075E-2	-2.082E-1	-1.358E-1

## 84. VIL, Module 1



**VIL, Module 1 . (V)**

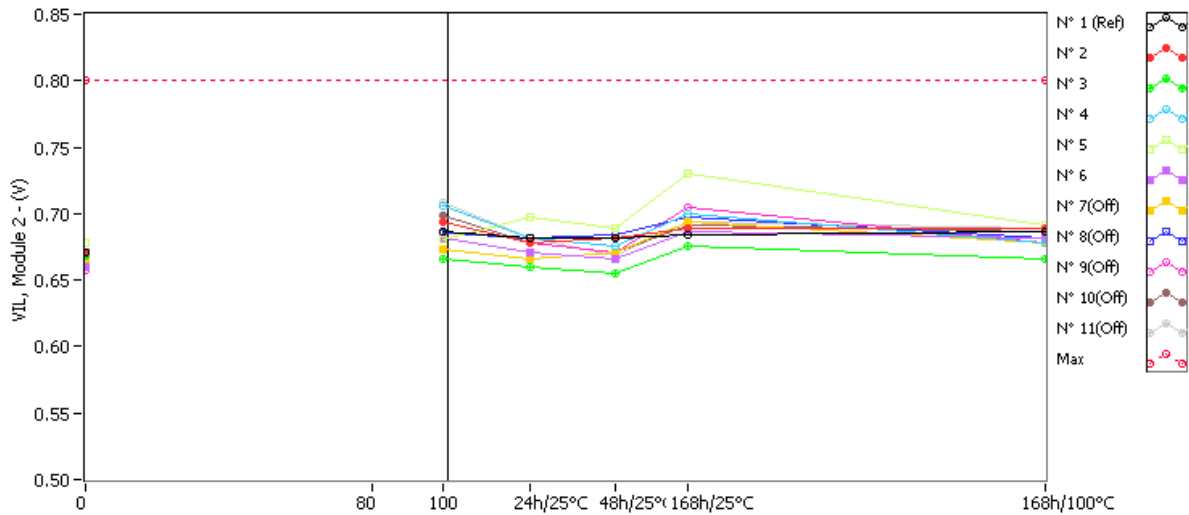
**Max = 0.8**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.694	NaN	0.697	0.689	0.692	0.702	0.710
N° 2	0.715	NaN	0.732	0.715	0.731	0.720	0.718
N° 3	0.710	NaN	0.662	0.731	0.744	0.733	0.725
N° 4	0.697	NaN	0.713	0.707	0.715	0.746	0.718
N° 5	0.689	NaN	0.730	0.707	0.694	0.725	0.705
N° 6	0.697	NaN	0.731	0.715	0.705	0.741	0.720
N° 7(Off)	0.679	NaN	0.705	0.689	0.684	0.720	0.699
N° 8(Off)	0.694	NaN	0.745	0.725	0.705	0.746	0.723
N° 9(Off)	0.694	NaN	0.717	0.710	0.715	0.725	0.715
N° 10(Off)	0.676	NaN	0.707	0.679	0.699	0.705	0.712
N° 11(Off)	0.702	NaN	0.712	0.699	0.705	0.738	0.754

**Delta [VIL, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	3.000E-3	-5.000E-3	-2.000E-3	8.000E-3	1.600E-2
N° 2	---	NaN	1.700E-2	0.000E+0	1.600E-2	5.000E-3	3.000E-3
N° 3	---	NaN	-4.800E-2	2.100E-2	3.400E-2	2.300E-2	1.500E-2
N° 4	---	NaN	1.600E-2	1.000E-2	1.800E-2	4.900E-2	2.100E-2
N° 5	---	NaN	4.100E-2	1.800E-2	5.000E-3	3.600E-2	1.600E-2
N° 6	---	NaN	3.400E-2	1.800E-2	8.000E-3	4.400E-2	2.300E-2
N° 7(Off)	---	NaN	2.600E-2	1.000E-2	5.000E-3	4.100E-2	2.000E-2
N° 8(Off)	---	NaN	5.100E-2	3.100E-2	1.100E-2	5.200E-2	2.900E-2
N° 9(Off)	---	NaN	2.300E-2	1.600E-2	2.100E-2	3.100E-2	2.100E-2
N° 10(Off)	---	NaN	3.100E-2	3.000E-3	2.300E-2	2.900E-2	3.600E-2
N° 11(Off)	---	NaN	1.000E-2	-3.000E-3	3.000E-3	3.600E-2	5.200E-2
Average	---	NaN	1.200E-2	1.340E-2	1.620E-2	3.140E-2	1.560E-2
s	---	0.000E+0	3.523E-2	8.532E-3	1.132E-2	1.773E-2	7.797E-3
Average+3s	---	NaN	1.177E-1	3.900E-2	5.017E-2	8.459E-2	3.899E-2
Average-3s	---	NaN	-9.370E-2	-1.220E-2	-1.777E-2	-2.179E-2	-7.792E-3

## 85. VIL, Module 2



**VIL, Module 2 . (V)**

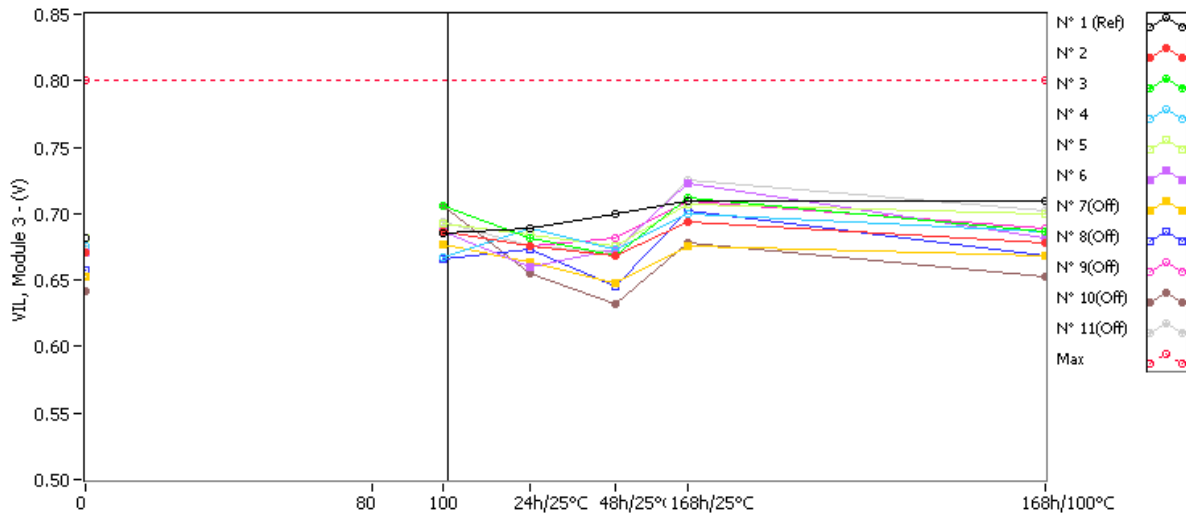
**Max = 0.8**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.671	NaN	0.686	0.681	0.681	0.684	0.686
N° 2	0.671	NaN	0.694	0.679	0.681	0.689	0.689
N° 3	0.668	NaN	0.666	0.660	0.655	0.676	0.666
N° 4	0.668	NaN	0.706	0.681	0.676	0.699	0.679
N° 5	0.679	NaN	0.681	0.697	0.689	0.731	0.692
N° 6	0.660	NaN	0.681	0.671	0.666	0.686	0.681
N° 7(Off)	0.663	NaN	0.673	0.666	0.671	0.694	0.679
N° 8(Off)	0.671	NaN	0.685	0.681	0.684	0.697	0.681
N° 9(Off)	0.658	NaN	0.694	0.679	0.671	0.705	0.679
N° 10(Off)	0.668	NaN	0.698	0.679	0.671	0.692	0.686
N° 11(Off)	0.666	NaN	0.708	0.681	0.668	0.694	0.689

**Delta [VIL, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.500E-2	1.000E-2	1.000E-2	1.300E-2	1.500E-2
N° 2	---	NaN	2.300E-2	8.000E-3	1.000E-2	1.800E-2	1.800E-2
N° 3	---	NaN	-2.000E-3	-8.000E-3	-1.300E-2	8.000E-3	-2.000E-3
N° 4	---	NaN	3.800E-2	1.300E-2	8.000E-3	3.100E-2	1.100E-2
N° 5	---	NaN	2.000E-3	1.800E-2	1.000E-2	5.200E-2	1.300E-2
N° 6	---	NaN	2.100E-2	1.100E-2	6.000E-3	2.600E-2	2.100E-2
N° 7(Off)	---	NaN	1.000E-2	3.000E-3	8.000E-3	3.100E-2	1.600E-2
N° 8(Off)	---	NaN	1.400E-2	1.000E-2	1.300E-2	2.600E-2	1.000E-2
N° 9(Off)	---	NaN	3.600E-2	2.100E-2	1.300E-2	4.700E-2	2.100E-2
N° 10(Off)	---	NaN	3.000E-2	1.100E-2	3.000E-3	2.400E-2	1.800E-2
N° 11(Off)	---	NaN	4.200E-2	1.500E-2	2.000E-3	2.800E-2	2.300E-2
Average	---	NaN	1.640E-2	8.400E-3	4.200E-3	2.700E-2	1.220E-2
s	---	0.000E+0	1.641E-2	9.864E-3	9.757E-3	1.646E-2	8.871E-3
Average+3s	---	NaN	6.563E-2	3.799E-2	3.347E-2	7.639E-2	3.881E-2
Average-3s	---	NaN	-3.283E-2	-2.119E-2	-2.507E-2	-2.239E-2	-1.441E-2

## 86. VIL, Module 3



**VIL, Module 3 . (V)**

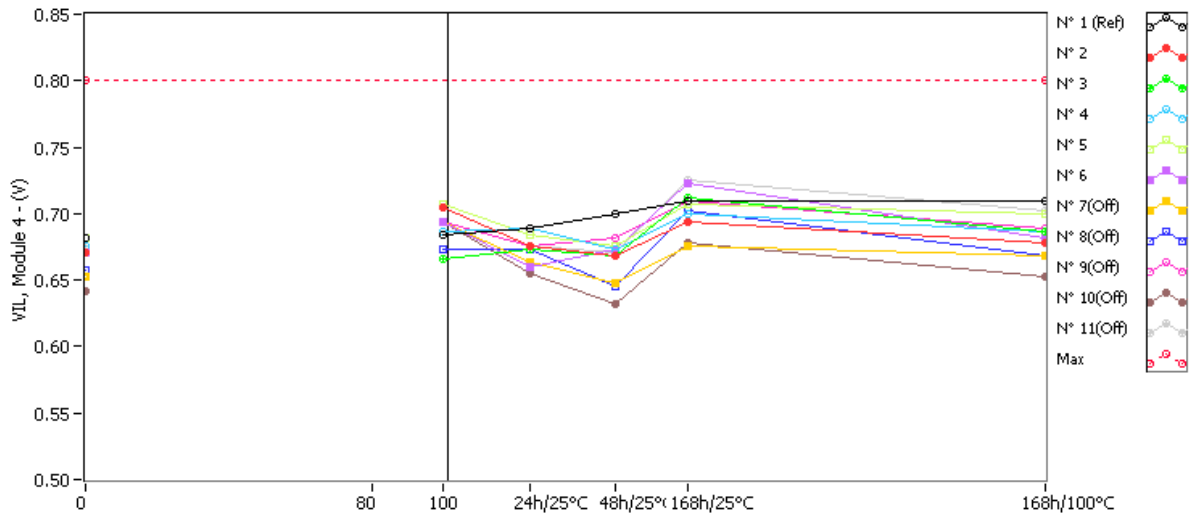
**Max = 0.8**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.681	NaN	0.685	0.689	0.699	0.710	0.710
N° 2	0.671	NaN	0.686	0.676	0.668	0.694	0.679
N° 3	0.671	NaN	0.706	0.681	0.668	0.712	0.686
N° 4	0.676	NaN	0.667	0.689	0.673	0.699	0.686
N° 5	0.681	NaN	0.692	0.684	0.676	0.707	0.699
N° 6	0.671	NaN	0.686	0.660	0.673	0.723	0.681
N° 7(Off)	0.653	NaN	0.677	0.663	0.647	0.676	0.668
N° 8(Off)	0.658	NaN	0.666	0.673	0.645	0.702	0.668
N° 9(Off)	0.681	NaN	0.686	0.676	0.681	0.710	0.689
N° 10(Off)	0.642	NaN	0.706	0.655	0.632	0.679	0.653
N° 11(Off)	0.676	NaN	0.694	0.676	0.671	0.725	0.702

**Delta [VIL, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	4.000E-3	8.000E-3	1.800E-2	2.900E-2	2.900E-2
N° 2	---	NaN	1.500E-2	5.000E-3	-3.000E-3	2.300E-2	8.000E-3
N° 3	---	NaN	3.500E-2	1.000E-2	-3.000E-3	4.100E-2	1.500E-2
N° 4	---	NaN	-9.000E-3	1.300E-2	-3.000E-3	2.300E-2	1.000E-2
N° 5	---	NaN	1.100E-2	3.000E-3	-5.000E-3	2.600E-2	1.800E-2
N° 6	---	NaN	1.500E-2	-1.100E-2	2.000E-3	5.200E-2	1.000E-2
N° 7(Off)	---	NaN	2.400E-2	1.000E-2	-6.000E-3	2.300E-2	1.500E-2
N° 8(Off)	---	NaN	8.000E-3	1.500E-2	-1.300E-2	4.400E-2	1.000E-2
N° 9(Off)	---	NaN	5.000E-3	-5.000E-3	0.000E+0	2.900E-2	8.000E-3
N° 10(Off)	---	NaN	6.400E-2	1.300E-2	-1.000E-2	3.700E-2	1.100E-2
N° 11(Off)	---	NaN	1.800E-2	0.000E+0	-5.000E-3	4.900E-2	2.600E-2
Average	---	NaN	1.340E-2	4.000E-3	-2.400E-3	3.300E-2	1.220E-2
s	---	0.000E+0	1.565E-2	9.274E-3	2.608E-3	1.298E-2	4.147E-3
Average+3s	---	NaN	6.034E-2	3.182E-2	5.423E-3	7.194E-2	2.464E-2
Average-3s	---	NaN	-3.354E-2	-2.382E-2	-1.022E-2	-5.942E-3	-2.419E-4

## 87. VIL, Module 4



**VIL, Module 4 . (V)**

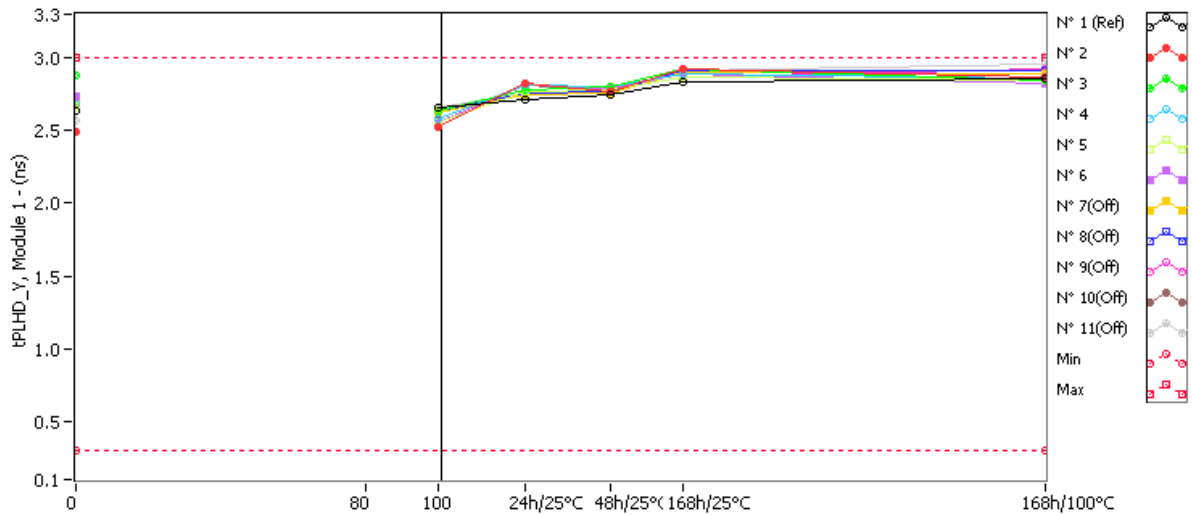
**Max = 0.8**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.681	NaN	0.684	0.689	0.699	0.710	0.710
N° 2	0.671	NaN	0.705	0.676	0.668	0.694	0.679
N° 3	0.671	NaN	0.666	0.673	0.668	0.712	0.686
N° 4	0.676	NaN	0.686	0.689	0.673	0.699	0.686
N° 5	0.681	NaN	0.707	0.684	0.676	0.707	0.699
N° 6	0.671	NaN	0.694	0.660	0.673	0.723	0.681
N° 7(Off)	0.653	NaN	0.694	0.663	0.647	0.676	0.668
N° 8(Off)	0.658	NaN	0.673	0.673	0.645	0.702	0.668
N° 9(Off)	0.681	NaN	0.694	0.676	0.681	0.710	0.689
N° 10(Off)	0.642	NaN	0.694	0.655	0.632	0.679	0.653
N° 11(Off)	0.676	NaN	0.694	0.676	0.671	0.725	0.702

**Delta [VIL, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	3.000E-3	8.000E-3	1.800E-2	2.900E-2	2.900E-2
N° 2	---	NaN	3.400E-2	5.000E-3	-3.000E-3	2.300E-2	8.000E-3
N° 3	---	NaN	-5.000E-3	2.000E-3	-3.000E-3	4.100E-2	1.500E-2
N° 4	---	NaN	1.000E-2	1.300E-2	-3.000E-3	2.300E-2	1.000E-2
N° 5	---	NaN	2.600E-2	3.000E-3	-5.000E-3	2.600E-2	1.800E-2
N° 6	---	NaN	2.300E-2	-1.100E-2	2.000E-3	5.200E-2	1.000E-2
N° 7(Off)	---	NaN	4.100E-2	1.000E-2	-6.000E-3	2.300E-2	1.500E-2
N° 8(Off)	---	NaN	1.500E-2	1.500E-2	-1.300E-2	4.400E-2	1.000E-2
N° 9(Off)	---	NaN	1.300E-2	-5.000E-3	0.000E+0	2.900E-2	8.000E-3
N° 10(Off)	---	NaN	5.200E-2	1.300E-2	-1.000E-2	3.700E-2	1.100E-2
N° 11(Off)	---	NaN	1.800E-2	0.000E+0	-5.000E-3	4.900E-2	2.600E-2
Average	---	NaN	1.760E-2	2.400E-3	-2.400E-3	3.300E-2	1.220E-2
s	---	0.000E+0	1.531E-2	8.649E-3	2.608E-3	1.298E-2	4.147E-3
Average+3s	---	NaN	6.352E-2	2.835E-2	5.423E-3	7.194E-2	2.464E-2
Average-3s	---	NaN	-2.832E-2	-2.355E-2	-1.022E-2	-5.942E-3	-2.419E-4

## 88. tPLHD\_Y, Module 1



**tPLHD\_Y, Module 1 . (ns)**

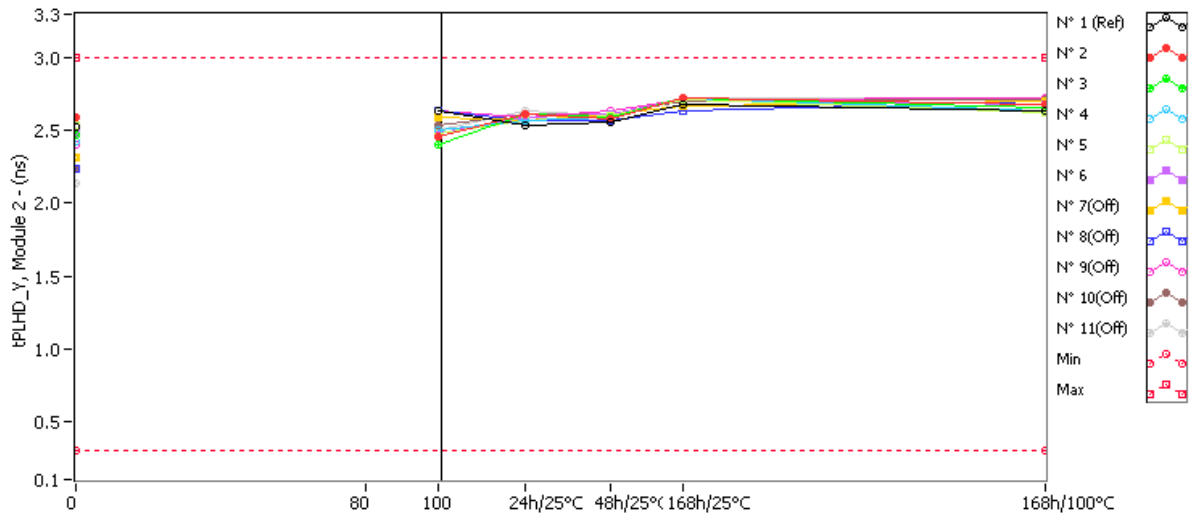
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.640	NaN	2.660	2.712	2.744	2.832	2.856
N° 2	2.493	NaN	2.520	2.824	2.768	2.928	2.864
N° 3	2.880	NaN	2.640	2.776	2.800	2.920	2.848
N° 4	2.680	NaN	2.580	2.808	2.800	2.888	2.856
N° 5	2.667	NaN	2.560	2.768	2.784	2.872	2.848
N° 6	2.733	NaN	2.560	2.816	2.792	2.888	2.824
N° 7(Off)	2.680	NaN	2.620	2.744	2.752	2.896	2.888
N° 8(Off)	2.667	NaN	2.640	2.752	2.768	2.916	2.912
N° 9(Off)	2.707	NaN	2.640	2.760	2.776	2.864	2.920
N° 10(Off)	2.707	NaN	2.580	2.808	2.776	2.896	2.912
N° 11(Off)	2.573	NaN	2.660	2.760	2.776	2.912	2.960

**Delta [tPLHD\_Y, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	2.000E-2	7.200E-2	1.040E-1	1.920E-1	2.160E-1
N° 2	---	NaN	2.700E-2	3.310E-1	2.750E-1	4.350E-1	3.710E-1
N° 3	---	NaN	-2.400E-1	-1.040E-1	-8.000E-2	4.000E-2	-3.200E-2
N° 4	---	NaN	-1.000E-1	1.280E-1	1.200E-1	2.080E-1	1.760E-1
N° 5	---	NaN	-1.070E-1	1.010E-1	1.170E-1	2.050E-1	1.810E-1
N° 6	---	NaN	-1.730E-1	8.300E-2	5.900E-2	1.550E-1	9.100E-2
N° 7(Off)	---	NaN	-6.000E-2	6.400E-2	7.200E-2	2.160E-1	2.080E-1
N° 8(Off)	---	NaN	-2.700E-2	8.500E-2	1.010E-1	2.490E-1	2.450E-1
N° 9(Off)	---	NaN	-6.700E-2	5.300E-2	6.900E-2	1.570E-1	2.130E-1
N° 10(Off)	---	NaN	-1.270E-1	1.010E-1	6.900E-2	1.890E-1	2.050E-1
N° 11(Off)	---	NaN	8.700E-2	1.870E-1	2.030E-1	3.390E-1	3.870E-1
Average	---	NaN	-1.186E-1	1.078E-1	9.820E-2	2.086E-1	1.574E-1
s	---	0.000E+0	9.922E-2	1.547E-1	1.278E-1	1.437E-1	1.473E-1
Average+3s	---	NaN	1.791E-1	5.719E-1	4.817E-1	6.396E-1	5.994E-1
Average-3s	---	NaN	-4.163E-1	-3.563E-1	-2.853E-1	-2.224E-1	-2.846E-1

## 89. tPLHD\_Y, Module 2



**tPLHD\_Y, Module 2 . (ns)**

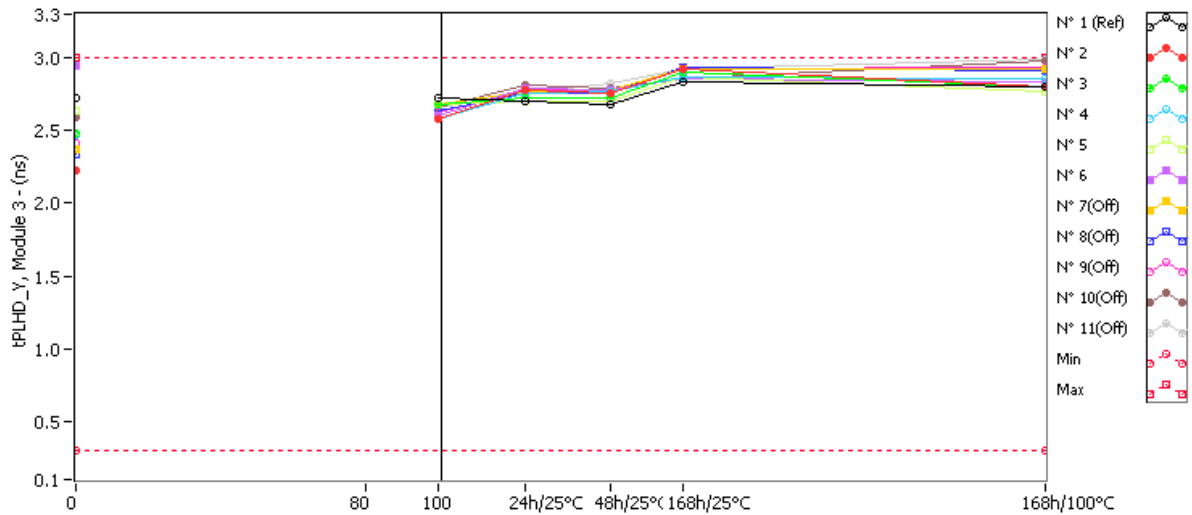
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.520	NaN	2.640	2.538	2.560	2.676	2.633
N° 2	2.587	NaN	2.453	2.618	2.582	2.727	2.684
N° 3	2.467	NaN	2.400	2.611	2.596	2.727	2.662
N° 4	2.427	NaN	2.507	2.575	2.589	2.720	2.640
N° 5	2.533	NaN	2.480	2.567	2.604	2.713	2.625
N° 6	2.480	NaN	2.480	2.589	2.611	2.713	2.676
N° 7(Off)	2.320	NaN	2.587	2.575	2.611	2.669	2.705
N° 8(Off)	2.240	NaN	2.640	2.567	2.575	2.641	2.705
N° 9(Off)	2.400	NaN	2.640	2.596	2.640	2.713	2.727
N° 10(Off)	2.240	NaN	2.533	2.618	2.611	2.705	2.713
N° 11(Off)	2.133	NaN	2.507	2.633	2.604	2.727	2.727

**Delta [tPLHD\_Y, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.200E-1	1.800E-2	4.000E-2	1.560E-1	1.130E-1
N° 2	---	NaN	-1.340E-1	3.100E-2	-5.000E-3	1.400E-1	9.700E-2
N° 3	---	NaN	-6.700E-2	1.440E-1	1.290E-1	2.600E-1	1.950E-1
N° 4	---	NaN	8.000E-2	1.480E-1	1.620E-1	2.930E-1	2.130E-1
N° 5	---	NaN	-5.300E-2	3.400E-2	7.100E-2	1.800E-1	9.200E-2
N° 6	---	NaN	0.000E+0	1.090E-1	1.310E-1	2.330E-1	1.960E-1
N° 7(Off)	---	NaN	2.670E-1	2.550E-1	2.910E-1	3.490E-1	3.850E-1
N° 8(Off)	---	NaN	4.000E-1	3.270E-1	3.350E-1	4.010E-1	4.650E-1
N° 9(Off)	---	NaN	2.400E-1	1.960E-1	2.400E-1	3.130E-1	3.270E-1
N° 10(Off)	---	NaN	2.930E-1	3.780E-1	3.710E-1	4.650E-1	4.730E-1
N° 11(Off)	---	NaN	3.740E-1	5.000E-1	4.710E-1	5.940E-1	5.940E-1
Average	---	NaN	-3.480E-2	9.320E-2	9.760E-2	2.212E-1	1.586E-1
s	---	0.000E+0	8.000E-2	5.746E-2	6.611E-2	6.142E-2	5.898E-2
Average+3s	---	NaN	2.052E-1	2.656E-1	2.959E-1	4.055E-1	3.355E-1
Average-3s	---	NaN	-2.748E-1	-7.918E-2	-1.007E-1	3.693E-2	-1.833E-2

## 90. tPLHD\_Y, Module 3



**tPLHD\_Y, Module 3 . (ns)**

**Min = 0.3 Max = 3.0**

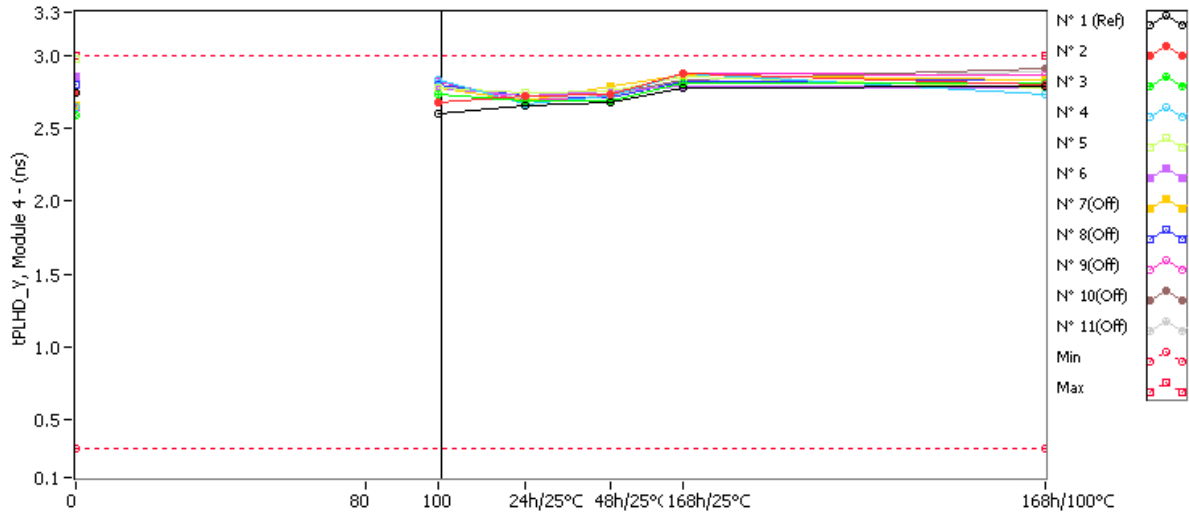
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.720	NaN	2.720	2.704	2.680	2.832	2.800
N° 2	2.227	NaN	2.580	2.776	2.760	2.928	2.800
N° 3	2.480	NaN	2.680	2.728	2.728	2.904	2.800
N° 4	2.467	NaN	2.580	2.752	2.768	2.872	2.856
N° 5	2.640	NaN	2.680	2.704	2.704	2.864	2.768
N° 6	2.947	NaN	2.600	2.792	2.776	2.856	2.832
N° 7(Off)	2.373	NaN	2.680	2.768	2.784	2.928	2.928
N° 8(Off)	2.333	NaN	2.640	2.760	2.752	2.931	2.912
N° 9(Off)	2.413	NaN	2.620	2.784	2.768	2.920	2.936
N° 10(Off)	2.587	NaN	2.660	2.808	2.792	2.856	2.976
N° 11(Off)	2.480	NaN	2.660	2.752	2.824	2.928	2.992

**Delta [tPLHD\_Y, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	0.000E+0	-1.600E-2	-4.000E-2	1.120E-1	8.000E-2
N° 2	---	NaN	3.530E-1	5.490E-1	5.330E-1	7.010E-1	5.730E-1
N° 3	---	NaN	2.000E-1	2.480E-1	2.480E-1	4.240E-1	3.200E-1
N° 4	---	NaN	1.130E-1	2.850E-1	3.010E-1	4.050E-1	3.890E-1
N° 5	---	NaN	4.000E-2	6.400E-2	6.400E-2	2.240E-1	1.280E-1
N° 6	---	NaN	-3.470E-1	-1.550E-1	-1.710E-1	-9.100E-2	-1.150E-1
N° 7(Off)	---	NaN	3.070E-1	3.950E-1	4.110E-1	5.550E-1	5.550E-1
N° 8(Off)	---	NaN	3.070E-1	4.270E-1	4.190E-1	5.980E-1	5.790E-1
N° 9(Off)	---	NaN	2.070E-1	3.710E-1	3.550E-1	5.070E-1	5.230E-1
N° 10(Off)	---	NaN	7.300E-2	2.210E-1	2.050E-1	2.690E-1	3.890E-1
N° 11(Off)	---	NaN	1.800E-1	2.720E-1	3.440E-1	4.480E-1	5.120E-1
Average	---	NaN	7.180E-2	1.982E-1	1.950E-1	3.326E-1	2.590E-1
s	---	0.000E+0	2.615E-1	2.626E-1	2.643E-1	2.918E-1	2.628E-1
Average+3s	---	NaN	8.564E-1	9.860E-1	9.879E-1	1.208E+0	1.047E+0
Average-3s	---	NaN	-7.128E-1	-5.896E-1	-5.979E-1	-5.427E-1	-5.294E-1



## 91. tPLHD\_Y, Module 4



**tPLHD\_Y, Module 4 . (ns)**

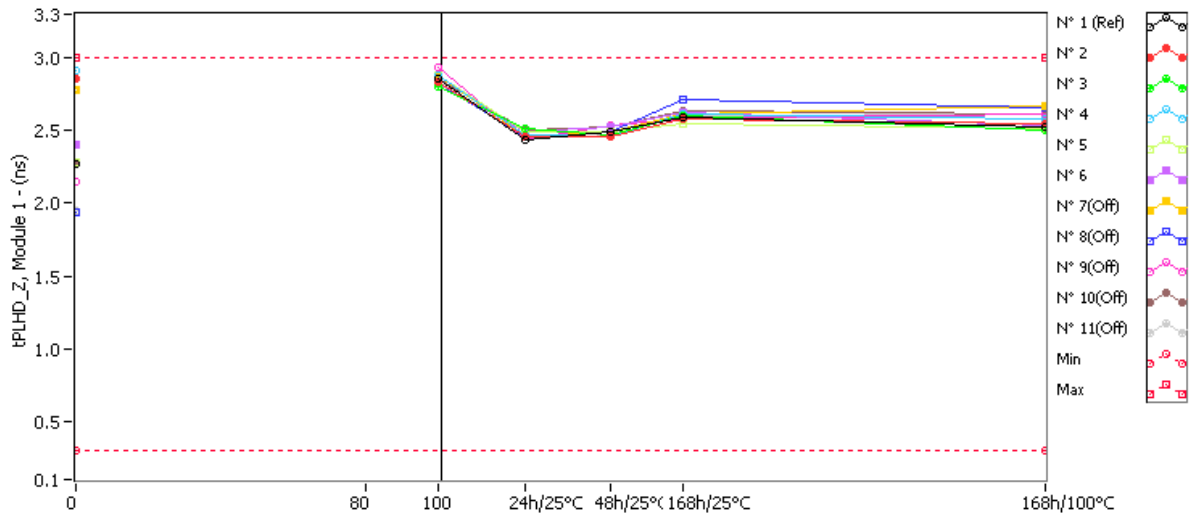
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.748	NaN	2.600	2.656	2.680	2.784	2.792
N° 2	2.748	NaN	2.680	2.728	2.736	2.880	2.800
N° 3	2.594	NaN	2.740	2.696	2.696	2.816	2.808
N° 4	2.645	NaN	2.840	2.672	2.728	2.880	2.736
N° 5	2.981	NaN	2.780	2.744	2.752	2.856	2.776
N° 6	2.852	NaN	2.780	2.728	2.752	2.792	2.776
N° 7(Off)	2.658	NaN	2.780	2.688	2.792	2.864	2.832
N° 8(Off)	2.800	NaN	2.800	2.720	2.712	2.824	2.840
N° 9(Off)	2.632	NaN	2.820	2.696	2.720	2.880	2.864
N° 10(Off)	2.632	NaN	2.800	2.720	2.736	2.832	2.912
N° 11(Off)	2.852	NaN	2.800	2.704	2.720	2.832	2.888

**Delta [tPLHD\_Y, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.480E-1	-9.200E-2	-6.800E-2	3.600E-2	4.400E-2
N° 2	---	NaN	-6.800E-2	-2.000E-2	-1.200E-2	1.320E-1	5.200E-2
N° 3	---	NaN	1.460E-1	1.020E-1	1.020E-1	2.220E-1	2.140E-1
N° 4	---	NaN	1.950E-1	2.700E-2	8.300E-2	2.350E-1	9.100E-2
N° 5	---	NaN	-2.010E-1	-2.370E-1	-2.290E-1	-1.250E-1	-2.050E-1
N° 6	---	NaN	-7.200E-2	-1.240E-1	-1.000E-1	-6.000E-2	-7.600E-2
N° 7(Off)	---	NaN	1.220E-1	3.000E-2	1.340E-1	2.060E-1	1.740E-1
N° 8(Off)	---	NaN	0.000E+0	-8.000E-2	-8.800E-2	2.400E-2	4.000E-2
N° 9(Off)	---	NaN	1.880E-1	6.400E-2	8.800E-2	2.480E-1	2.320E-1
N° 10(Off)	---	NaN	1.680E-1	8.800E-2	1.040E-1	2.000E-1	2.800E-1
N° 11(Off)	---	NaN	-5.200E-2	-1.480E-1	-1.320E-1	-2.000E-2	3.600E-2
Average	---	NaN	0.000E+0	-5.040E-2	-3.120E-2	8.080E-2	1.520E-2
s	---	0.000E+0	1.655E-1	1.326E-1	1.369E-1	1.647E-1	1.608E-1
Average+3s	---	NaN	4.965E-1	3.475E-1	3.796E-1	5.749E-1	4.976E-1
Average-3s	---	NaN	-4.965E-1	-4.483E-1	-4.420E-1	-4.133E-1	-4.672E-1

## 92. tPLHD\_Z, Module 1



**tPLHD\_Z, Module 1 . (ns)**

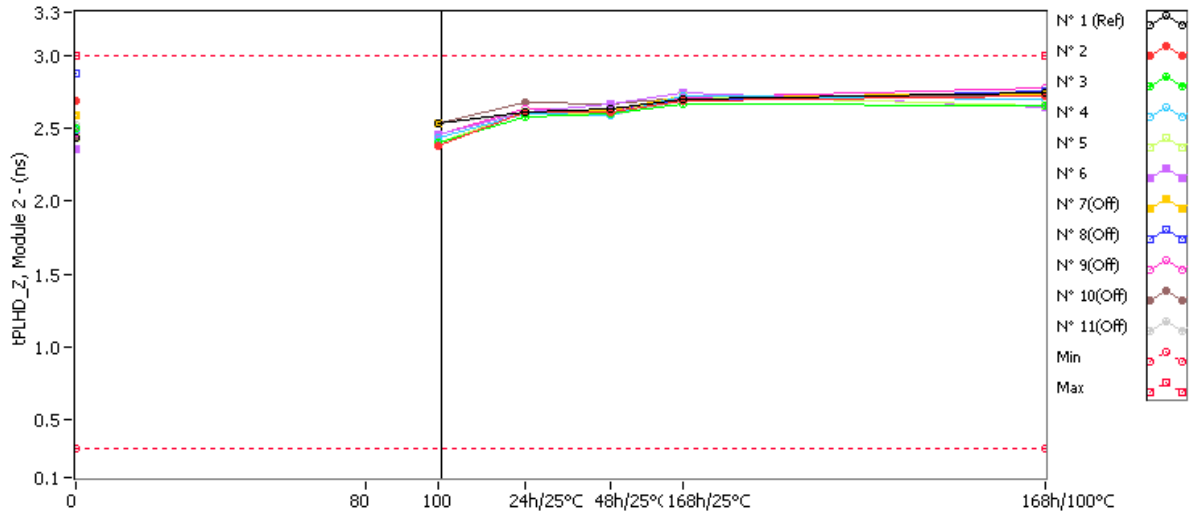
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.270	NaN	2.860	2.432	2.496	2.592	2.528
N° 2	2.860	NaN	2.840	2.464	2.464	2.584	2.552
N° 3	2.860	NaN	2.800	2.512	2.472	2.600	2.504
N° 4	2.910	NaN	2.880	2.472	2.464	2.616	2.576
N° 5	2.280	NaN	2.880	2.496	2.496	2.544	2.512
N° 6	2.400	NaN	2.820	2.488	2.520	2.624	2.536
N° 7(Off)	2.780	NaN	2.880	2.464	2.496	2.616	2.672
N° 8(Off)	1.940	NaN	2.820	2.456	2.496	2.710	2.656
N° 9(Off)	2.150	NaN	2.940	2.432	2.536	2.584	2.608
N° 10(Off)	2.270	NaN	2.860	2.504	2.528	2.640	2.608
N° 11(Off)	1.950	NaN	2.860	2.504	2.472	2.600	2.608

**Delta [tPLHD\_Z, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	5.900E-1	1.620E-1	2.260E-1	3.220E-1	2.580E-1
N° 2	---	NaN	-2.000E-2	-3.960E-1	-3.960E-1	-2.760E-1	-3.080E-1
N° 3	---	NaN	-6.000E-2	-3.480E-1	-3.880E-1	-2.600E-1	-3.560E-1
N° 4	---	NaN	-3.000E-2	-4.380E-1	-4.460E-1	-2.940E-1	-3.340E-1
N° 5	---	NaN	6.000E-1	2.160E-1	2.160E-1	2.640E-1	2.320E-1
N° 6	---	NaN	4.200E-1	8.800E-2	1.200E-1	2.240E-1	1.360E-1
N° 7(Off)	---	NaN	1.000E-1	-3.160E-1	-2.840E-1	-1.640E-1	-1.080E-1
N° 8(Off)	---	NaN	8.800E-1	5.160E-1	5.560E-1	7.700E-1	7.160E-1
N° 9(Off)	---	NaN	7.900E-1	2.820E-1	3.860E-1	4.340E-1	4.580E-1
N° 10(Off)	---	NaN	5.900E-1	2.340E-1	2.580E-1	3.700E-1	3.380E-1
N° 11(Off)	---	NaN	9.100E-1	5.540E-1	5.220E-1	6.500E-1	6.580E-1
Average	---	NaN	1.820E-1	-1.756E-1	-1.788E-1	-6.840E-2	-1.260E-1
s	---	0.000E+0	3.065E-1	3.041E-1	3.192E-1	2.858E-1	2.855E-1
Average+3s	---	NaN	1.101E+0	7.368E-1	7.787E-1	7.890E-1	7.306E-1
Average-3s	---	NaN	-7.374E-1	-1.088E+0	-1.136E+0	-9.258E-1	-9.826E-1

## 93. tPLHD\_Z, Module 2



**tPLHD\_Z, Module 2 . (ns)**

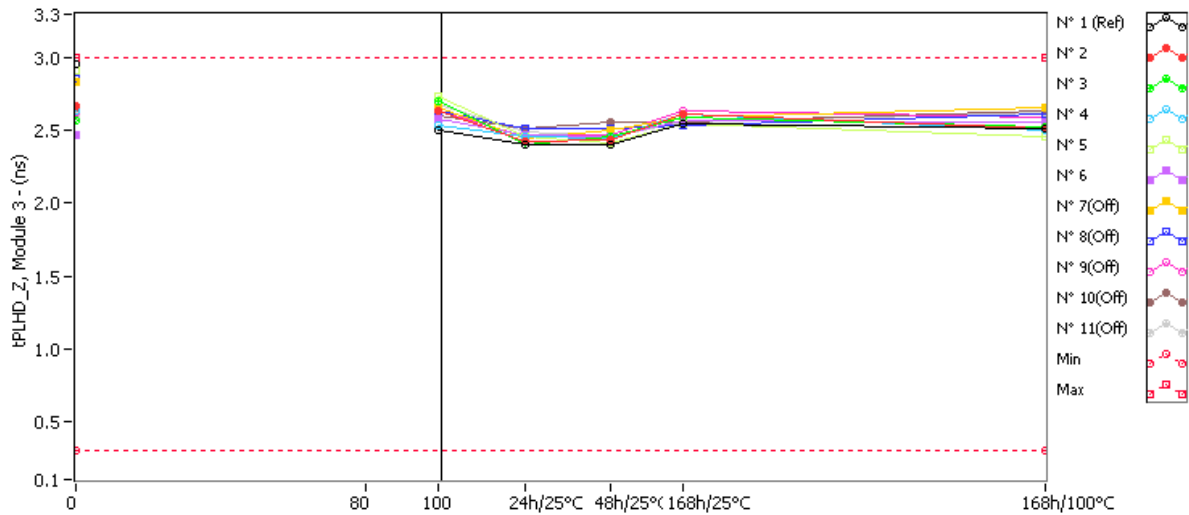
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.440	NaN	2.540	2.608	2.632	2.704	2.744
N° 2	2.693	NaN	2.380	2.608	2.608	2.696	2.720
N° 3	2.507	NaN	2.400	2.584	2.600	2.672	2.656
N° 4	2.493	NaN	2.440	2.600	2.592	2.720	2.704
N° 5	2.440	NaN	2.400	2.616	2.600	2.728	2.656
N° 6	2.360	NaN	2.460	2.608	2.664	2.744	2.648
N° 7(Off)	2.587	NaN	2.540	2.616	2.624	2.728	2.736
N° 8(Off)	2.880	NaN	2.540	2.616	2.640	2.691	2.760
N° 9(Off)	2.467	NaN	2.460	2.632	2.624	2.712	2.776
N° 10(Off)	2.440	NaN	2.540	2.680	2.672	2.712	2.728
N° 11(Off)	2.520	NaN	2.540	2.600	2.592	2.696	2.760

**Delta [tPLHD\_Z, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.000E-1	1.680E-1	1.920E-1	2.640E-1	3.040E-1
N° 2	---	NaN	-3.130E-1	-8.500E-2	-8.500E-2	3.000E-3	2.700E-2
N° 3	---	NaN	-1.070E-1	7.700E-2	9.300E-2	1.650E-1	1.490E-1
N° 4	---	NaN	-5.300E-2	1.070E-1	9.900E-2	2.270E-1	2.110E-1
N° 5	---	NaN	-4.000E-2	1.760E-1	1.600E-1	2.880E-1	2.160E-1
N° 6	---	NaN	1.000E-1	2.480E-1	3.040E-1	3.840E-1	2.880E-1
N° 7(Off)	---	NaN	-4.700E-2	2.900E-2	3.700E-2	1.410E-1	1.490E-1
N° 8(Off)	---	NaN	-3.400E-1	-2.640E-1	-2.400E-1	-1.890E-1	-1.200E-1
N° 9(Off)	---	NaN	-7.000E-3	1.650E-1	1.570E-1	2.450E-1	3.090E-1
N° 10(Off)	---	NaN	1.000E-1	2.400E-1	2.320E-1	2.720E-1	2.880E-1
N° 11(Off)	---	NaN	2.000E-2	8.000E-2	7.200E-2	1.760E-1	2.400E-1
Average	---	NaN	-8.260E-2	1.046E-1	1.142E-1	2.134E-1	1.782E-1
s	---	0.000E+0	1.498E-1	1.249E-1	1.401E-1	1.427E-1	9.782E-2
Average+3s	---	NaN	3.667E-1	4.792E-1	5.344E-1	6.415E-1	4.717E-1
Average-3s	---	NaN	-5.319E-1	-2.700E-1	-3.060E-1	-2.147E-1	-1.153E-1

## 94. tPLHD\_Z, Module 3



**tPLHD\_Z, Module 3 . (ns)**

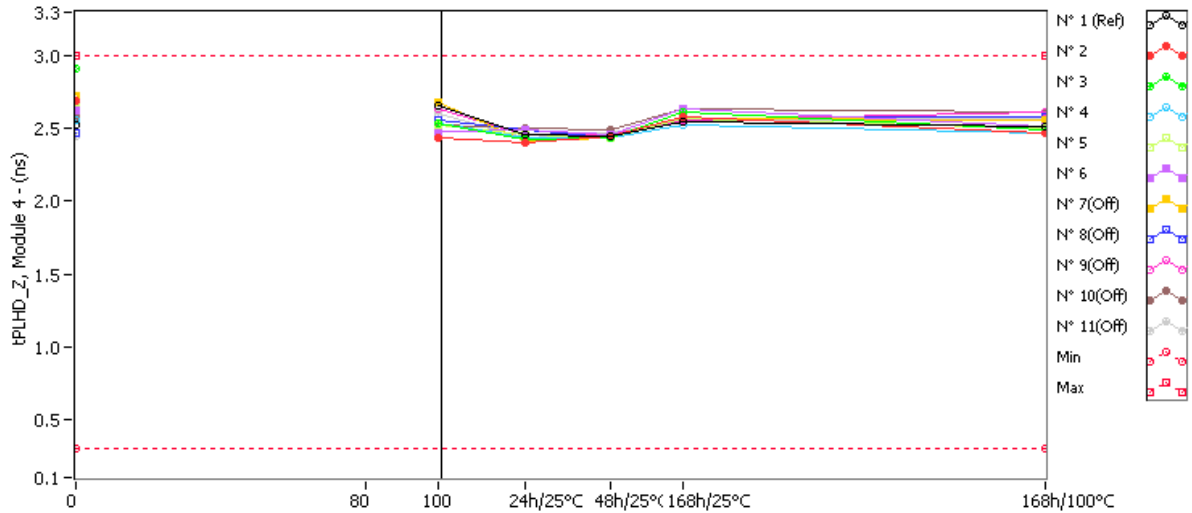
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.960	NaN	2.500	2.400	2.400	2.544	2.512
N° 2	2.667	NaN	2.640	2.424	2.440	2.608	2.512
N° 3	2.573	NaN	2.700	2.400	2.464	2.592	2.520
N° 4	2.640	NaN	2.540	2.464	2.448	2.616	2.504
N° 5	2.907	NaN	2.740	2.456	2.416	2.552	2.464
N° 6	2.467	NaN	2.580	2.472	2.464	2.568	2.560
N° 7(Off)	2.840	NaN	2.660	2.448	2.504	2.592	2.656
N° 8(Off)	2.853	NaN	2.640	2.512	2.512	2.531	2.608
N° 9(Off)	2.627	NaN	2.640	2.456	2.472	2.632	2.592
N° 10(Off)	2.653	NaN	2.600	2.512	2.560	2.560	2.632
N° 11(Off)	2.600	NaN	2.680	2.496	2.464	2.560	2.624

**Delta [tPLHD\_Z, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-4.600E-1	-5.600E-1	-5.600E-1	-4.160E-1	-4.480E-1
N° 2	---	NaN	-2.700E-2	-2.430E-1	-2.270E-1	-5.900E-2	-1.550E-1
N° 3	---	NaN	1.270E-1	-1.730E-1	-1.090E-1	1.900E-2	-5.300E-2
N° 4	---	NaN	-1.000E-1	-1.760E-1	-1.920E-1	-2.400E-2	-1.360E-1
N° 5	---	NaN	-1.670E-1	-4.510E-1	-4.910E-1	-3.550E-1	-4.430E-1
N° 6	---	NaN	1.130E-1	5.000E-3	-3.000E-3	1.010E-1	9.300E-2
N° 7(Off)	---	NaN	-1.800E-1	-3.920E-1	-3.360E-1	-2.480E-1	-1.840E-1
N° 8(Off)	---	NaN	-2.130E-1	-3.410E-1	-3.410E-1	-3.220E-1	-2.450E-1
N° 9(Off)	---	NaN	1.300E-2	-1.710E-1	-1.550E-1	5.000E-3	-3.500E-2
N° 10(Off)	---	NaN	-5.300E-2	-1.410E-1	-9.300E-2	-9.300E-2	-2.100E-2
N° 11(Off)	---	NaN	8.000E-2	-1.040E-1	-1.360E-1	-4.000E-2	2.400E-2
Average	---	NaN	-1.080E-2	-2.076E-1	-2.044E-1	-6.360E-2	-1.388E-1
s	---	0.000E+0	1.294E-1	1.642E-1	1.820E-1	1.735E-1	1.962E-1
Average+3s	---	NaN	3.773E-1	2.851E-1	3.415E-1	4.569E-1	4.497E-1
Average-3s	---	NaN	-3.989E-1	-7.003E-1	-7.503E-1	-5.841E-1	-7.273E-1

## 95. tPLHD\_Z, Module 4



**tPLHD\_Z, Module 4 . (ns)**

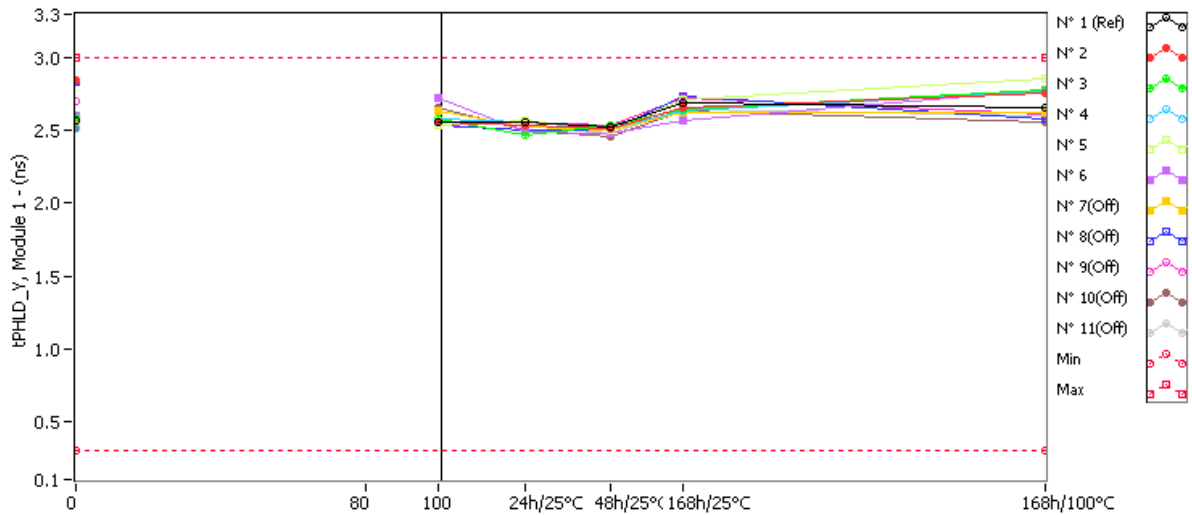
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.520	NaN	2.660	2.456	2.448	2.544	2.512
N° 2	2.690	NaN	2.440	2.400	2.448	2.584	2.472
N° 3	2.910	NaN	2.540	2.424	2.432	2.608	2.496
N° 4	2.560	NaN	2.540	2.440	2.440	2.528	2.472
N° 5	2.680	NaN	2.520	2.464	2.440	2.568	2.504
N° 6	2.620	NaN	2.480	2.496	2.464	2.632	2.512
N° 7(Off)	2.720	NaN	2.680	2.416	2.440	2.568	2.560
N° 8(Off)	2.470	NaN	2.560	2.496	2.440	2.568	2.584
N° 9(Off)	2.690	NaN	2.640	2.464	2.456	2.560	2.608
N° 10(Off)	2.580	NaN	2.520	2.504	2.496	2.632	2.608
N° 11(Off)	2.450	NaN	2.600	2.440	2.472	2.560	2.568

**Delta [tPLHD\_Z, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.400E-1	-6.400E-2	-7.200E-2	2.400E-2	-8.000E-3
N° 2	---	NaN	-2.500E-1	-2.900E-1	-2.420E-1	-1.060E-1	-2.180E-1
N° 3	---	NaN	-3.700E-1	-4.860E-1	-4.780E-1	-3.020E-1	-4.140E-1
N° 4	---	NaN	-2.000E-2	-1.200E-1	-1.200E-1	-3.200E-2	-8.800E-2
N° 5	---	NaN	-1.600E-1	-2.160E-1	-2.400E-1	-1.120E-1	-1.760E-1
N° 6	---	NaN	-1.400E-1	-1.240E-1	-1.560E-1	1.200E-2	-1.080E-1
N° 7(Off)	---	NaN	-4.000E-2	-3.040E-1	-2.800E-1	-1.520E-1	-1.600E-1
N° 8(Off)	---	NaN	9.000E-2	2.600E-2	-3.000E-2	9.800E-2	1.140E-1
N° 9(Off)	---	NaN	-5.000E-2	-2.260E-1	-2.340E-1	-1.300E-1	-8.200E-2
N° 10(Off)	---	NaN	-6.000E-2	-7.600E-2	-8.400E-2	5.200E-2	2.800E-2
N° 11(Off)	---	NaN	1.500E-1	-1.000E-2	2.200E-2	1.100E-1	1.180E-1
Average	---	NaN	-1.880E-1	-2.472E-1	-2.472E-1	-1.080E-1	-2.008E-1
s	---	0.000E+0	1.307E-1	1.510E-1	1.395E-1	1.202E-1	1.301E-1
Average+3s	---	NaN	2.040E-1	2.058E-1	1.713E-1	2.527E-1	1.895E-1
Average-3s	---	NaN	-5.800E-1	-7.002E-1	-6.657E-1	-4.687E-1	-5.911E-1

## 96. tPHLD\_Y, Module 1



tPHLD\_Y, Module 1 . (ns)

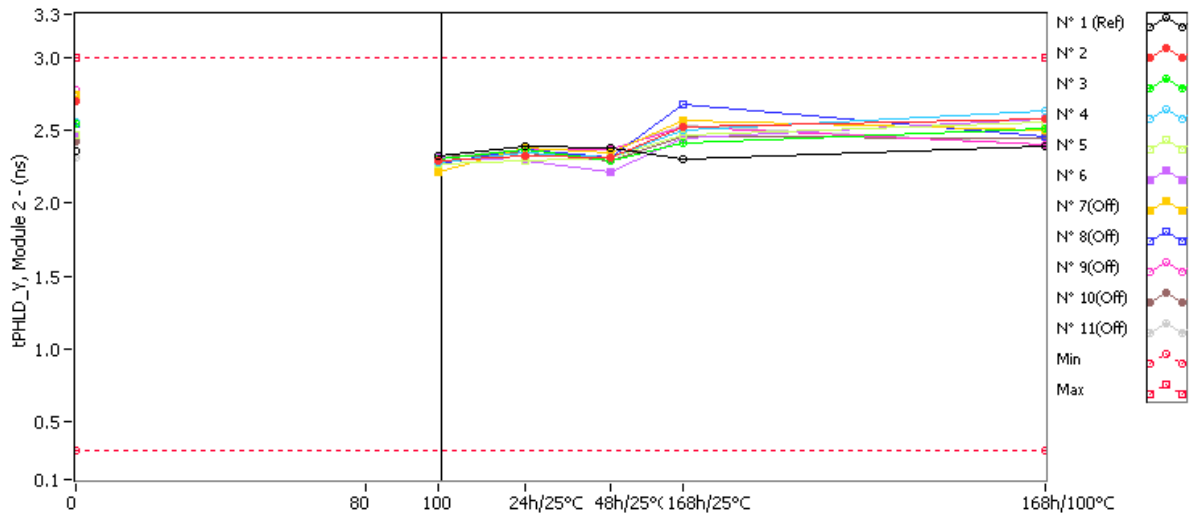
Min = 0.3 Max = 3.0

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.570	NaN	2.560	2.560	2.526	2.686	2.663
N° 2	2.850	NaN	2.560	2.537	2.514	2.663	2.754
N° 3	2.590	NaN	2.580	2.469	2.537	2.651	2.777
N° 4	2.510	NaN	2.580	2.560	2.514	2.640	2.766
N° 5	2.570	NaN	2.540	2.571	2.503	2.709	2.857
N° 6	2.600	NaN	2.720	2.491	2.480	2.571	2.777
N° 7(Off)	2.580	NaN	2.640	2.526	2.503	2.629	2.629
N° 8(Off)	2.830	NaN	2.540	2.503	2.503	2.731	2.583
N° 9(Off)	2.700	NaN	2.540	2.560	2.537	2.720	2.617
N° 10(Off)	2.510	NaN	2.660	2.503	2.457	2.640	2.560
N° 11(Off)	2.540	NaN	2.560	2.537	2.480	2.651	2.606

Delta [tPHLD\_Y, Module 1]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.000E-2	-1.000E-2	-4.400E-2	1.160E-1	9.300E-2
N° 2	---	NaN	-2.900E-1	-3.130E-1	-3.360E-1	-1.870E-1	-9.600E-2
N° 3	---	NaN	-1.000E-2	-1.210E-1	-5.300E-2	6.100E-2	1.870E-1
N° 4	---	NaN	7.000E-2	5.000E-2	4.000E-3	1.300E-1	2.560E-1
N° 5	---	NaN	-3.000E-2	1.000E-3	-6.700E-2	1.390E-1	2.870E-1
N° 6	---	NaN	1.200E-1	-1.090E-1	-1.200E-1	-2.900E-2	1.770E-1
N° 7(Off)	---	NaN	6.000E-2	-5.400E-2	-7.700E-2	4.900E-2	4.900E-2
N° 8(Off)	---	NaN	-2.900E-1	-3.270E-1	-3.270E-1	-9.900E-2	-2.470E-1
N° 9(Off)	---	NaN	-1.600E-1	-1.400E-1	-1.630E-1	2.000E-2	-8.300E-2
N° 10(Off)	---	NaN	1.500E-1	-7.000E-3	-5.300E-2	1.300E-1	5.000E-2
N° 11(Off)	---	NaN	2.000E-2	-3.000E-3	-6.000E-2	1.110E-1	6.600E-2
Average	---	NaN	-2.800E-2	-9.840E-2	-1.144E-1	2.280E-2	1.622E-1
s	---	0.000E+0	1.585E-1	1.402E-1	1.315E-1	1.352E-1	1.516E-1
Average+3s	---	NaN	4.475E-1	3.221E-1	2.801E-1	4.285E-1	6.169E-1
Average-3s	---	NaN	-5.035E-1	-5.189E-1	-5.089E-1	-3.829E-1	-2.925E-1

## 97. tPHLD\_Y, Module 2



tPHLD\_Y, Module 2 . (ns)

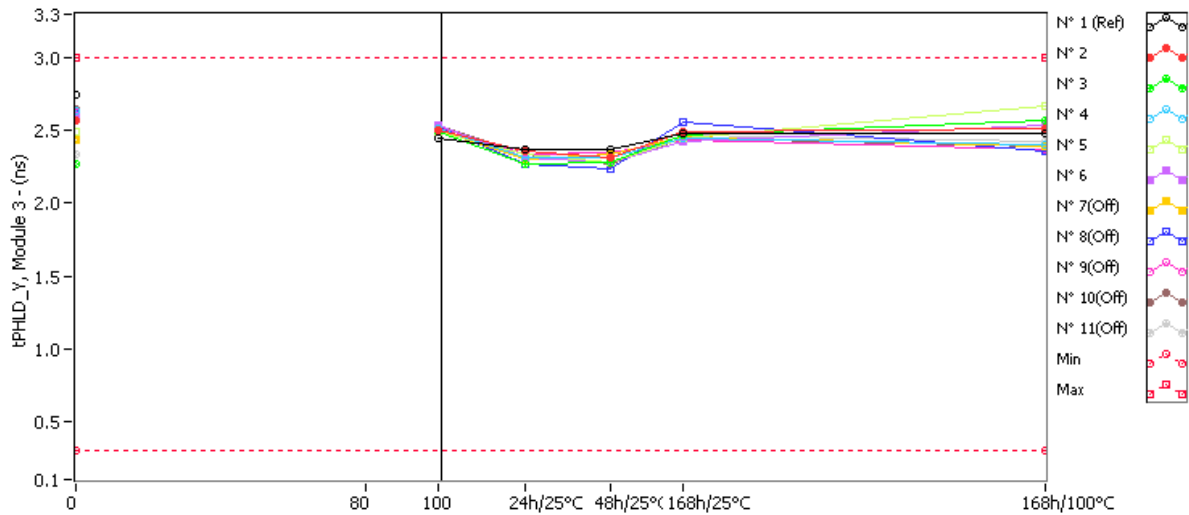
Min = 0.3 Max = 3.0

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.360	NaN	2.327	2.389	2.377	2.303	2.391
N° 2	2.700	NaN	2.293	2.331	2.309	2.526	2.583
N° 3	2.550	NaN	2.307	2.366	2.297	2.411	2.514
N° 4	2.560	NaN	2.280	2.343	2.320	2.503	2.640
N° 5	2.470	NaN	2.267	2.297	2.320	2.469	2.560
N° 6	2.470	NaN	2.320	2.297	2.217	2.446	2.583
N° 7(Off)	2.750	NaN	2.213	2.377	2.343	2.571	2.503
N° 8(Off)	2.550	NaN	2.267	2.366	2.320	2.676	2.457
N° 9(Off)	2.780	NaN	2.267	2.366	2.366	2.526	2.400
N° 10(Off)	2.420	NaN	2.320	2.343	2.297	2.457	2.446
N° 11(Off)	2.320	NaN	2.320	2.366	2.366	2.537	2.400

Delta [tPHLD\_Y, Module 2]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.300E-2	2.900E-2	1.700E-2	-5.700E-2	3.100E-2
N° 2	---	NaN	-4.070E-1	-3.690E-1	-3.910E-1	-1.740E-1	-1.170E-1
N° 3	---	NaN	-2.430E-1	-1.840E-1	-2.530E-1	-1.390E-1	-3.600E-2
N° 4	---	NaN	-2.800E-1	-2.170E-1	-2.400E-1	-5.700E-2	8.000E-2
N° 5	---	NaN	-2.030E-1	-1.730E-1	-1.500E-1	-1.000E-3	9.000E-2
N° 6	---	NaN	-1.500E-1	-1.730E-1	-2.530E-1	-2.400E-2	1.130E-1
N° 7(Off)	---	NaN	-5.370E-1	-3.730E-1	-4.070E-1	-1.790E-1	-2.470E-1
N° 8(Off)	---	NaN	-2.830E-1	-1.840E-1	-2.300E-1	1.260E-1	-9.300E-2
N° 9(Off)	---	NaN	-5.130E-1	-4.140E-1	-4.140E-1	-2.540E-1	-3.800E-1
N° 10(Off)	---	NaN	-1.000E-1	-7.700E-2	-1.230E-1	3.700E-2	2.600E-2
N° 11(Off)	---	NaN	0.000E+0	4.600E-2	4.600E-2	2.170E-1	8.000E-2
Average	---	NaN	-2.566E-1	-2.232E-1	-2.574E-1	-7.900E-2	2.600E-2
s	---	0.000E+0	9.694E-2	8.348E-2	8.620E-2	7.453E-2	9.858E-2
Average+3s	---	NaN	3.422E-2	2.723E-2	1.215E-3	1.446E-1	3.217E-1
Average-3s	---	NaN	-5.474E-1	-4.736E-1	-5.160E-1	-3.026E-1	-2.697E-1

## 98. tPHLD\_Y, Module 3



tPHLD\_Y, Module 3 . (ns)

Min = 0.3 Max = 3.0

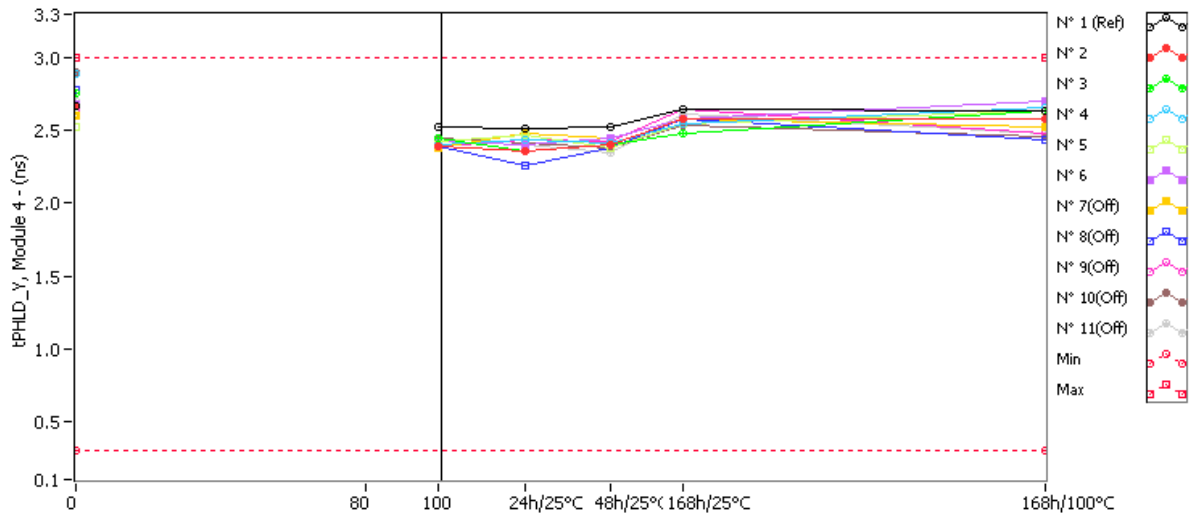
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.750	NaN	2.450	2.366	2.366	2.480	2.480
N° 2	2.570	NaN	2.500	2.354	2.320	2.491	2.514
N° 3	2.270	NaN	2.490	2.274	2.286	2.469	2.571
N° 4	2.640	NaN	2.510	2.320	2.320	2.446	2.400
N° 5	2.490	NaN	2.490	2.331	2.286	2.446	2.674
N° 6	2.600	NaN	2.540	2.320	2.286	2.423	2.537
N° 7(Off)	2.440	NaN	2.500	2.309	2.331	2.457	2.389
N° 8(Off)	2.610	NaN	2.530	2.274	2.240	2.563	2.354
N° 9(Off)	2.630	NaN	2.520	2.331	2.343	2.434	2.366
N° 10(Off)	2.650	NaN	2.540	2.331	2.274	2.446	2.389
N° 11(Off)	2.340	NaN	2.540	2.331	2.274	2.469	2.423

Delta [tPHLD\_Y, Module 3]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.000E-1	-3.840E-1	-3.840E-1	-2.700E-1	-2.700E-1
N° 2	---	NaN	-7.000E-2	-2.160E-1	-2.500E-1	-7.900E-2	-5.600E-2
N° 3	---	NaN	2.200E-1	4.000E-3	1.600E-2	1.990E-1	3.010E-1
N° 4	---	NaN	-1.300E-1	-3.200E-1	-3.200E-1	-1.940E-1	-2.400E-1
N° 5	---	NaN	0.000E+0	-1.590E-1	-2.040E-1	-4.400E-2	1.840E-1
N° 6	---	NaN	-6.000E-2	-2.800E-1	-3.140E-1	-1.770E-1	-6.300E-2
N° 7(Off)	---	NaN	6.000E-2	-1.310E-1	-1.090E-1	1.700E-2	-5.100E-2
N° 8(Off)	---	NaN	-8.000E-2	-3.360E-1	-3.700E-1	-4.700E-2	-2.560E-1
N° 9(Off)	---	NaN	-1.100E-1	-2.990E-1	-2.870E-1	-1.960E-1	-2.640E-1
N° 10(Off)	---	NaN	-1.100E-1	-3.190E-1	-3.760E-1	-2.040E-1	-2.610E-1
N° 11(Off)	---	NaN	2.000E-1	-9.000E-3	-6.600E-2	1.290E-1	8.300E-2
Average	---	NaN	-8.000E-3	-1.942E-1	-2.144E-1	-5.900E-2	2.520E-2
s	---	0.000E+0	1.355E-1	1.267E-1	1.374E-1	1.576E-1	2.156E-1
Average+3s	---	NaN	3.986E-1	1.858E-1	1.978E-1	4.138E-1	6.721E-1
Average-3s	---	NaN	-4.146E-1	-5.742E-1	-6.266E-1	-5.318E-1	-6.217E-1



## 99. tPHLD\_Y, Module 4



tPHLD\_Y, Module 4 . (ns)

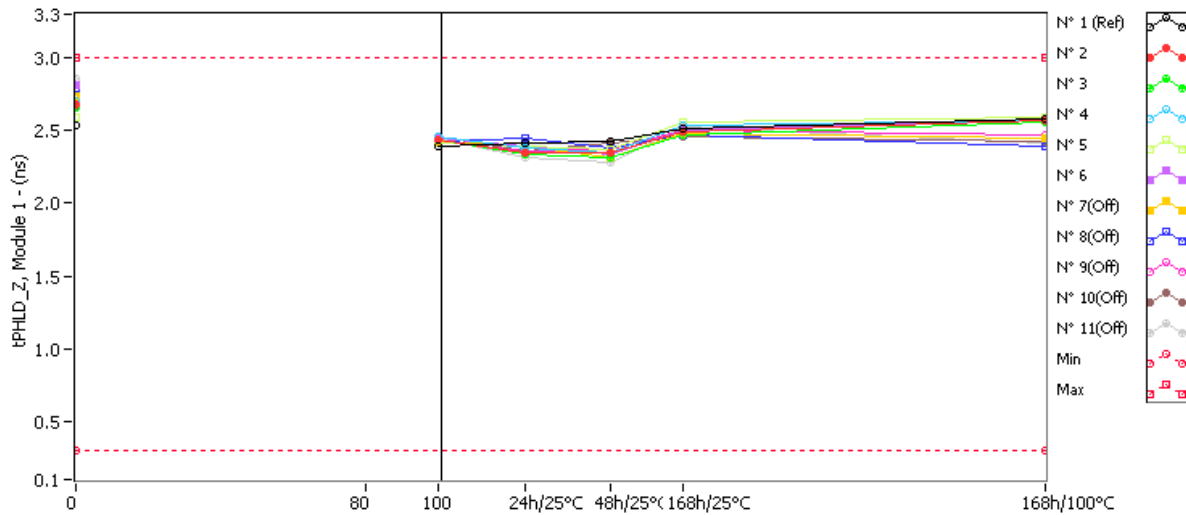
Min = 0.3 Max = 3.0

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.670	NaN	2.520	2.514	2.526	2.651	2.640
N° 2	2.670	NaN	2.390	2.354	2.400	2.583	2.583
N° 3	2.760	NaN	2.450	2.354	2.400	2.480	2.640
N° 4	2.890	NaN	2.400	2.434	2.411	2.549	2.663
N° 5	2.530	NaN	2.430	2.469	2.377	2.549	2.640
N° 6	2.680	NaN	2.430	2.400	2.446	2.583	2.697
N° 7(Off)	2.600	NaN	2.380	2.480	2.446	2.583	2.526
N° 8(Off)	2.780	NaN	2.390	2.263	2.377	2.583	2.434
N° 9(Off)	2.640	NaN	2.390	2.434	2.423	2.651	2.480
N° 10(Off)	2.900	NaN	2.450	2.411	2.377	2.537	2.457
N° 11(Off)	2.700	NaN	2.420	2.400	2.343	2.617	2.480

Delta [tPHLD\_Y, Module 4]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.500E-1	-1.560E-1	-1.440E-1	-1.900E-2	-3.000E-2
N° 2	---	NaN	-2.800E-1	-3.160E-1	-2.700E-1	-8.700E-2	-8.700E-2
N° 3	---	NaN	-3.100E-1	-4.060E-1	-3.600E-1	-2.800E-1	-1.200E-1
N° 4	---	NaN	-4.900E-1	-4.560E-1	-4.790E-1	-3.410E-1	-2.270E-1
N° 5	---	NaN	-1.000E-1	-6.100E-2	-1.530E-1	1.900E-2	1.100E-1
N° 6	---	NaN	-2.500E-1	-2.800E-1	-2.340E-1	-9.700E-2	1.700E-2
N° 7(Off)	---	NaN	-2.200E-1	-1.200E-1	-1.540E-1	-1.700E-2	-7.400E-2
N° 8(Off)	---	NaN	-3.900E-1	-5.170E-1	-4.030E-1	-1.970E-1	-3.460E-1
N° 9(Off)	---	NaN	-2.500E-1	-2.060E-1	-2.170E-1	1.100E-2	-1.600E-1
N° 10(Off)	---	NaN	-4.500E-1	-4.890E-1	-5.230E-1	-3.630E-1	-4.430E-1
N° 11(Off)	---	NaN	-2.800E-1	-3.000E-1	-3.570E-1	-8.300E-2	-2.200E-1
Average	---	NaN	-2.860E-1	-3.038E-1	-2.992E-1	-1.572E-1	-6.140E-2
s	---	0.000E+0	1.397E-1	1.527E-1	1.250E-1	1.487E-1	1.295E-1
Average+3s	---	NaN	1.332E-1	1.543E-1	7.581E-2	2.889E-1	3.270E-1
Average-3s	---	NaN	-7.052E-1	-7.619E-1	-6.742E-1	-6.033E-1	-4.498E-1

# 100. tPHLD\_Z, Module 1



**tPHLD\_Z, Module 1 . (ns)**

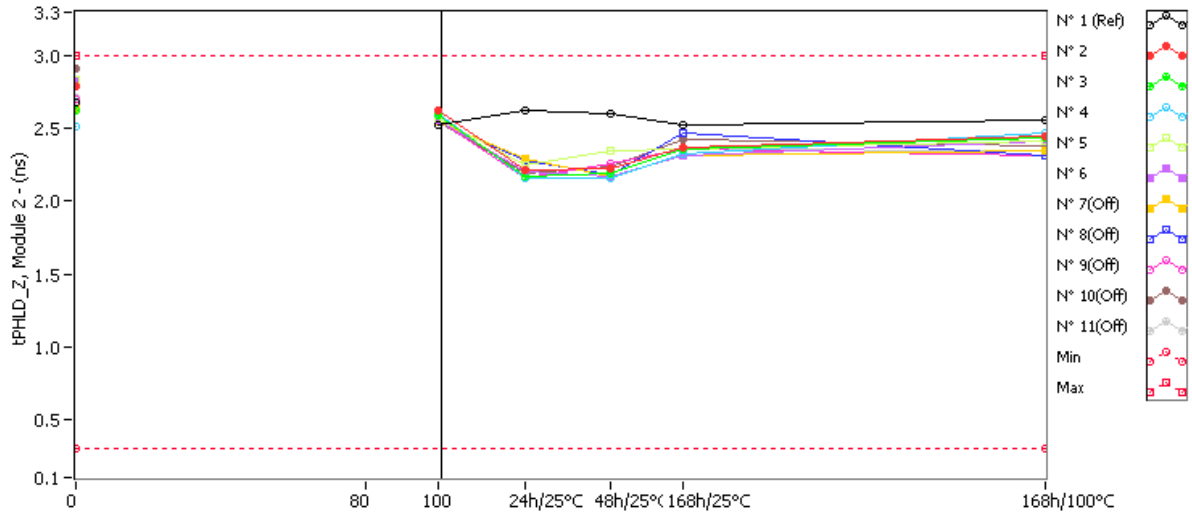
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.540	NaN	2.390	2.411	2.423	2.514	2.583
N° 2	2.680	NaN	2.440	2.343	2.343	2.491	2.571
N° 3	2.660	NaN	2.440	2.331	2.320	2.469	2.560
N° 4	2.700	NaN	2.460	2.377	2.343	2.537	2.571
N° 5	2.590	NaN	2.410	2.389	2.366	2.560	2.594
N° 6	2.810	NaN	2.450	2.389	2.331	2.503	2.583
N° 7(Off)	2.740	NaN	2.420	2.389	2.320	2.480	2.446
N° 8(Off)	2.790	NaN	2.420	2.446	2.377	2.473	2.389
N° 9(Off)	2.750	NaN	2.420	2.354	2.366	2.503	2.469
N° 10(Off)	2.660	NaN	2.460	2.354	2.411	2.457	2.423
N° 11(Off)	2.860	NaN	2.450	2.320	2.286	2.526	2.411

**Delta [tPHLD\_Z, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.500E-1	-1.290E-1	-1.170E-1	-2.600E-2	4.300E-2
N° 2	---	NaN	-2.400E-1	-3.370E-1	-3.370E-1	-1.890E-1	-1.090E-1
N° 3	---	NaN	-2.200E-1	-3.290E-1	-3.400E-1	-1.910E-1	-1.000E-1
N° 4	---	NaN	-2.400E-1	-3.230E-1	-3.570E-1	-1.630E-1	-1.290E-1
N° 5	---	NaN	-1.800E-1	-2.010E-1	-2.240E-1	-3.000E-2	4.000E-3
N° 6	---	NaN	-3.600E-1	-4.210E-1	-4.790E-1	-3.070E-1	-2.270E-1
N° 7(Off)	---	NaN	-3.200E-1	-3.510E-1	-4.200E-1	-2.600E-1	-2.940E-1
N° 8(Off)	---	NaN	-3.700E-1	-3.440E-1	-4.130E-1	-3.170E-1	-4.010E-1
N° 9(Off)	---	NaN	-3.300E-1	-3.960E-1	-3.840E-1	-2.470E-1	-2.810E-1
N° 10(Off)	---	NaN	-2.000E-1	-3.060E-1	-2.490E-1	-2.030E-1	-2.370E-1
N° 11(Off)	---	NaN	-4.100E-1	-5.400E-1	-5.740E-1	-3.340E-1	-4.490E-1
Average	---	NaN	-2.480E-1	-3.222E-1	-3.474E-1	-1.760E-1	-1.122E-1
s	---	0.000E+0	6.723E-2	7.861E-2	9.056E-2	9.879E-2	8.235E-2
Average+3s	---	NaN	-4.631E-2	-8.638E-2	-7.573E-2	1.204E-1	1.348E-1
Average-3s	---	NaN	-4.497E-1	-5.580E-1	-6.191E-1	-4.724E-1	-3.592E-1

## 101. tPHLD\_Z, Module 2



**tPHLD\_Z, Module 2 . (ns)**

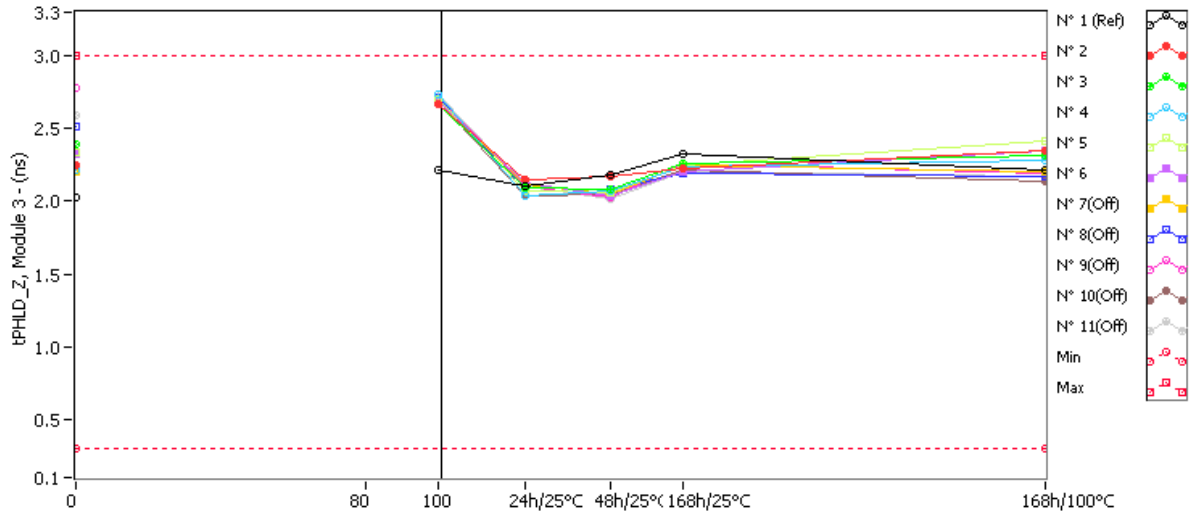
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.680	NaN	2.530	2.629	2.597	2.523	2.557
N° 2	2.790	NaN	2.620	2.217	2.229	2.366	2.446
N° 3	2.630	NaN	2.590	2.171	2.194	2.354	2.434
N° 4	2.510	NaN	2.600	2.160	2.160	2.331	2.469
N° 5	2.840	NaN	2.570	2.251	2.343	2.354	2.411
N° 6	2.820	NaN	2.560	2.206	2.171	2.320	2.411
N° 7(Off)	2.640	NaN	2.550	2.297	2.171	2.309	2.343
N° 8(Off)	2.810	NaN	2.550	2.286	2.183	2.473	2.309
N° 9(Off)	2.700	NaN	2.560	2.160	2.263	2.354	2.320
N° 10(Off)	2.910	NaN	2.550	2.194	2.240	2.423	2.377
N° 11(Off)	2.710	NaN	2.590	2.171	2.194	2.354	2.343

**Delta [tPHLD\_Z, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.500E-1	-5.100E-2	-8.300E-2	-1.570E-1	-1.230E-1
N° 2	---	NaN	-1.700E-1	-5.730E-1	-5.610E-1	-4.240E-1	-3.440E-1
N° 3	---	NaN	-4.000E-2	-4.590E-1	-4.360E-1	-2.760E-1	-1.960E-1
N° 4	---	NaN	9.000E-2	-3.500E-1	-3.500E-1	-1.790E-1	-4.100E-2
N° 5	---	NaN	-2.700E-1	-5.890E-1	-4.970E-1	-4.860E-1	-4.290E-1
N° 6	---	NaN	-2.600E-1	-6.140E-1	-6.490E-1	-5.000E-1	-4.090E-1
N° 7(Off)	---	NaN	-9.000E-2	-3.430E-1	-4.690E-1	-3.310E-1	-2.970E-1
N° 8(Off)	---	NaN	-2.600E-1	-5.240E-1	-6.270E-1	-3.370E-1	-5.010E-1
N° 9(Off)	---	NaN	-1.400E-1	-5.400E-1	-4.370E-1	-3.460E-1	-3.800E-1
N° 10(Off)	---	NaN	-3.600E-1	-7.160E-1	-6.700E-1	-4.870E-1	-5.330E-1
N° 11(Off)	---	NaN	-1.200E-1	-5.390E-1	-5.160E-1	-3.560E-1	-3.670E-1
Average	---	NaN	-1.300E-1	-5.170E-1	-4.986E-1	-3.730E-1	-2.838E-1
s	---	0.000E+0	1.538E-1	1.107E-1	1.146E-1	1.401E-1	1.636E-1
Average+3s	---	NaN	3.314E-1	-1.850E-1	-1.549E-1	4.739E-2	2.070E-1
Average-3s	---	NaN	-5.914E-1	-8.490E-1	-8.423E-1	-7.934E-1	-7.746E-1

## 102. tPHLD\_Z, Module 3



**tPHLD\_Z, Module 3 . (ns)**

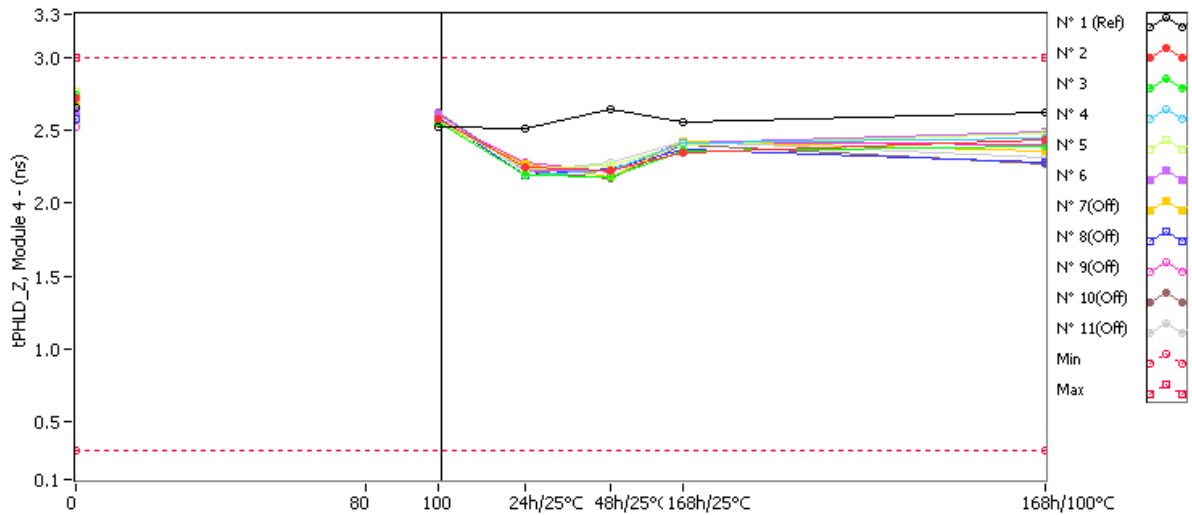
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.030	NaN	2.220	2.103	2.183	2.331	2.217
N° 2	2.250	NaN	2.670	2.149	2.171	2.229	2.343
N° 3	2.390	NaN	2.670	2.091	2.080	2.263	2.320
N° 4	2.210	NaN	2.730	2.034	2.069	2.240	2.286
N° 5	2.340	NaN	2.700	2.069	2.057	2.251	2.411
N° 6	2.330	NaN	2.690	2.126	2.034	2.206	2.343
N° 7(Off)	2.200	NaN	2.690	2.114	2.046	2.251	2.206
N° 8(Off)	2.510	NaN	2.710	2.069	2.080	2.188	2.171
N° 9(Off)	2.780	NaN	2.710	2.103	2.023	2.263	2.194
N° 10(Off)	2.330	NaN	2.690	2.034	2.046	2.217	2.137
N° 11(Off)	2.590	NaN	2.730	2.103	2.011	2.206	2.171

**Delta [tPHLD\_Z, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.900E-1	7.300E-2	1.530E-1	3.010E-1	1.870E-1
N° 2	---	NaN	4.200E-1	-1.010E-1	-7.900E-2	-2.100E-2	9.300E-2
N° 3	---	NaN	2.800E-1	-2.990E-1	-3.100E-1	-1.270E-1	-7.000E-2
N° 4	---	NaN	5.200E-1	-1.760E-1	-1.410E-1	3.000E-2	7.600E-2
N° 5	---	NaN	3.600E-1	-2.710E-1	-2.830E-1	-8.900E-2	7.100E-2
N° 6	---	NaN	3.600E-1	-2.040E-1	-2.960E-1	-1.240E-1	1.300E-2
N° 7(Off)	---	NaN	4.900E-1	-8.600E-2	-1.540E-1	5.100E-2	6.000E-3
N° 8(Off)	---	NaN	2.000E-1	-4.410E-1	-4.300E-1	-3.220E-1	-3.390E-1
N° 9(Off)	---	NaN	-7.000E-2	-6.770E-1	-7.570E-1	-5.170E-1	-5.860E-1
N° 10(Off)	---	NaN	3.600E-1	-2.960E-1	-2.840E-1	-1.130E-1	-1.930E-1
N° 11(Off)	---	NaN	1.400E-1	-4.870E-1	-5.790E-1	-3.840E-1	-4.190E-1
Average	---	NaN	3.880E-1	-2.102E-1	-2.218E-1	-6.620E-2	3.660E-2
s	---	0.000E+0	8.899E-2	7.860E-2	1.048E-1	6.866E-2	6.678E-2
Average+3s	---	NaN	6.550E-1	2.561E-2	9.267E-2	1.398E-1	2.369E-1
Average-3s	---	NaN	1.210E-1	-4.460E-1	-5.363E-1	-2.722E-1	-1.637E-1

## 103. tPHLD\_Z, Module 4



**tPHLD\_Z, Module 4 . (ns)**

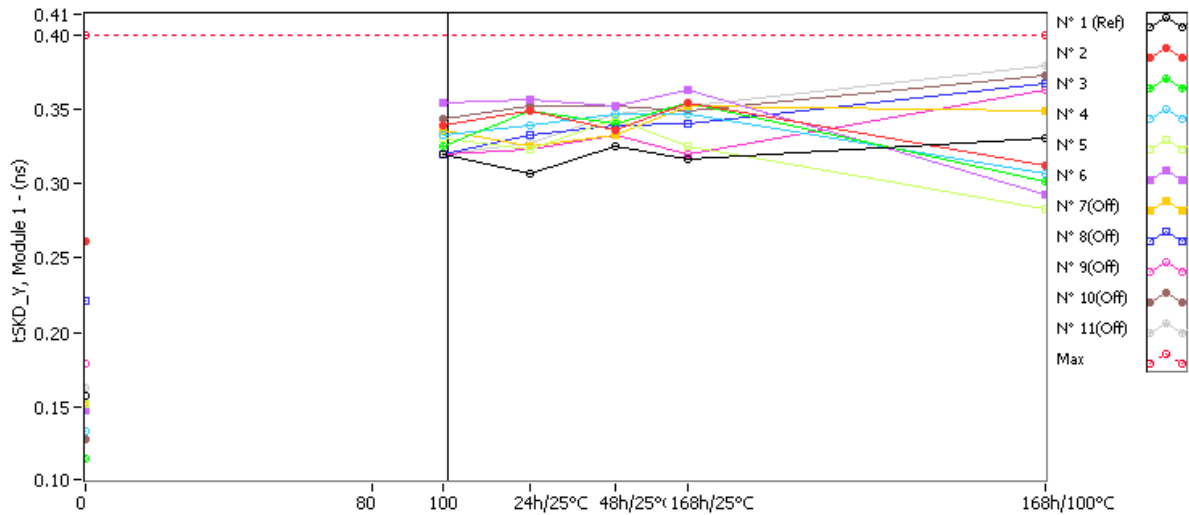
**Min = 0.3 Max = 3.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.658	NaN	2.520	2.517	2.651	2.554	2.623
N° 2	2.729	NaN	2.580	2.251	2.229	2.343	2.434
N° 3	2.747	NaN	2.560	2.194	2.183	2.354	2.389
N° 4	2.658	NaN	2.560	2.194	2.229	2.411	2.446
N° 5	2.764	NaN	2.570	2.240	2.263	2.400	2.480
N° 6	2.631	NaN	2.610	2.229	2.229	2.411	2.491
N° 7(Off)	2.693	NaN	2.550	2.274	2.183	2.423	2.354
N° 8(Off)	2.578	NaN	2.590	2.194	2.240	2.366	2.286
N° 9(Off)	2.524	NaN	2.570	2.286	2.217	2.423	2.400
N° 10(Off)	2.676	NaN	2.620	2.229	2.171	2.400	2.274
N° 11(Off)	2.596	NaN	2.610	2.217	2.286	2.423	2.320

**Delta [tPHLD\_Z, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.380E-1	-1.410E-1	-7.000E-3	-1.040E-1	-3.500E-2
N° 2	---	NaN	-1.490E-1	-4.780E-1	-5.000E-1	-3.860E-1	-2.950E-1
N° 3	---	NaN	-1.870E-1	-5.530E-1	-5.640E-1	-3.930E-1	-3.580E-1
N° 4	---	NaN	-9.800E-2	-4.640E-1	-4.290E-1	-2.470E-1	-2.120E-1
N° 5	---	NaN	-1.940E-1	-5.240E-1	-5.010E-1	-3.640E-1	-2.840E-1
N° 6	---	NaN	-2.100E-2	-4.020E-1	-4.020E-1	-2.200E-1	-1.400E-1
N° 7(Off)	---	NaN	-1.430E-1	-4.190E-1	-5.100E-1	-2.700E-1	-3.390E-1
N° 8(Off)	---	NaN	1.200E-2	-3.840E-1	-3.380E-1	-2.120E-1	-2.920E-1
N° 9(Off)	---	NaN	4.600E-2	-2.380E-1	-3.070E-1	-1.010E-1	-1.240E-1
N° 10(Off)	---	NaN	-5.600E-2	-4.470E-1	-5.050E-1	-2.760E-1	-4.020E-1
N° 11(Off)	---	NaN	1.400E-2	-3.790E-1	-3.100E-1	-1.730E-1	-2.760E-1
Average	---	NaN	-1.298E-1	-4.842E-1	-4.792E-1	-3.220E-1	-2.578E-1
s	---	0.000E+0	7.178E-2	5.814E-2	6.438E-2	8.205E-2	8.379E-2
Average+3s	---	NaN	8.555E-2	-3.098E-1	-2.861E-1	-7.584E-2	-6.422E-3
Average-3s	---	NaN	-3.451E-1	-6.586E-1	-6.723E-1	-5.682E-1	-5.092E-1

## 104. tSKD\_Y, Module 1



**tSKD\_Y, Module 1 . (ns)**

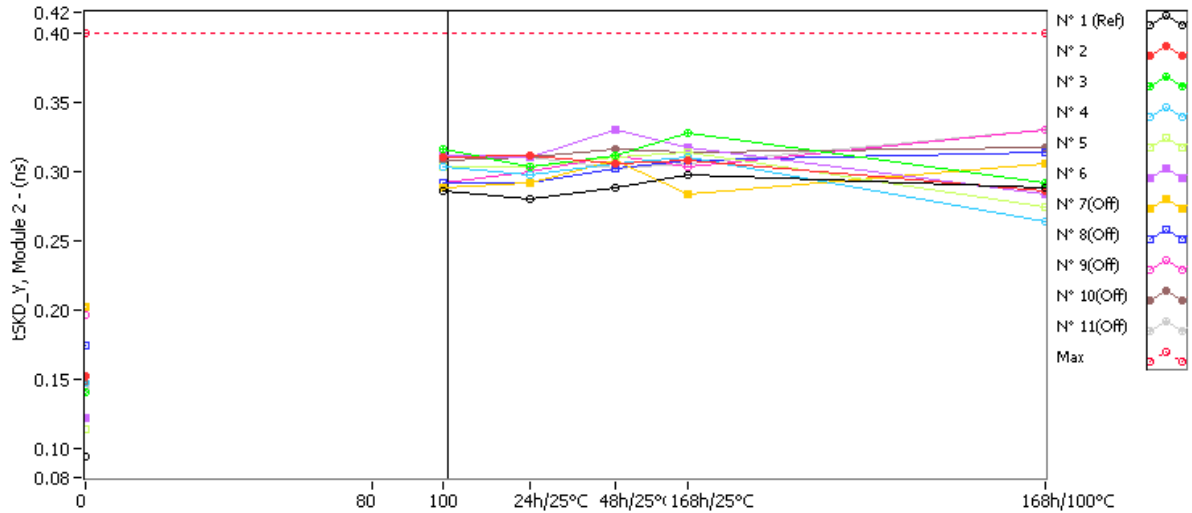
**Max = 0.4**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.157	NaN	0.320	0.307	0.325	0.317	0.331
N° 2	0.261	NaN	0.339	0.349	0.336	0.355	0.312
N° 3	0.115	NaN	0.325	0.349	0.341	0.355	0.301
N° 4	0.133	NaN	0.333	0.339	0.347	0.347	0.307
N° 5	0.152	NaN	0.331	0.323	0.344	0.325	0.283
N° 6	0.147	NaN	0.355	0.357	0.352	0.363	0.293
N° 7(Off)	0.152	NaN	0.336	0.325	0.333	0.352	0.349
N° 8(Off)	0.221	NaN	0.320	0.333	0.339	0.340	0.368
N° 9(Off)	0.179	NaN	0.320	0.323	0.333	0.320	0.363
N° 10(Off)	0.128	NaN	0.344	0.352	0.352	0.349	0.373
N° 11(Off)	0.163	NaN	0.320	0.328	0.347	0.352	0.379

**Delta [tSKD\_Y, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.630E-1	1.500E-1	1.680E-1	1.600E-1	1.740E-1
N° 2	---	NaN	7.800E-2	8.800E-2	7.500E-2	9.400E-2	5.100E-2
N° 3	---	NaN	2.100E-1	2.340E-1	2.260E-1	2.400E-1	1.860E-1
N° 4	---	NaN	2.000E-1	2.060E-1	2.140E-1	2.140E-1	1.740E-1
N° 5	---	NaN	1.790E-1	1.710E-1	1.920E-1	1.730E-1	1.310E-1
N° 6	---	NaN	2.080E-1	2.100E-1	2.050E-1	2.160E-1	1.460E-1
N° 7(Off)	---	NaN	1.840E-1	1.730E-1	1.810E-1	2.000E-1	1.970E-1
N° 8(Off)	---	NaN	9.900E-2	1.120E-1	1.180E-1	1.190E-1	1.470E-1
N° 9(Off)	---	NaN	1.410E-1	1.440E-1	1.540E-1	1.410E-1	1.840E-1
N° 10(Off)	---	NaN	2.160E-1	2.240E-1	2.240E-1	2.210E-1	2.450E-1
N° 11(Off)	---	NaN	1.570E-1	1.650E-1	1.840E-1	1.890E-1	2.160E-1
Average	---	NaN	1.750E-1	1.818E-1	1.824E-1	1.874E-1	1.376E-1
s	---	0.000E+0	5.560E-2	5.705E-2	6.131E-2	5.750E-2	5.311E-2
Average+3s	---	NaN	3.418E-1	3.530E-1	3.663E-1	3.599E-1	2.969E-1
Average-3s	---	NaN	8.210E-3	1.064E-2	-1.539E-3	1.491E-2	-2.172E-2

## 105. tSKD\_Y, Module 2



**tSKD\_Y, Module 2 . (ns)**

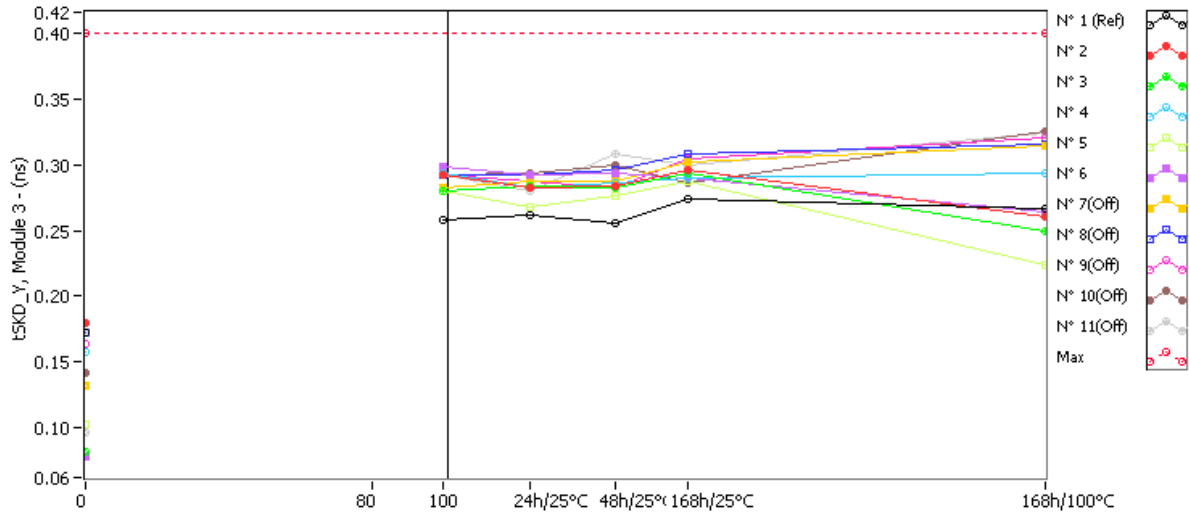
**Max = 0.4**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.094	NaN	0.286	0.280	0.288	0.298	0.288
N° 2	0.152	NaN	0.310	0.312	0.306	0.308	0.286
N° 3	0.140	NaN	0.316	0.304	0.312	0.328	0.292
N° 4	0.148	NaN	0.304	0.298	0.306	0.310	0.264
N° 5	0.114	NaN	0.304	0.304	0.310	0.314	0.274
N° 6	0.122	NaN	0.312	0.310	0.330	0.318	0.284
N° 7(Off)	0.202	NaN	0.288	0.292	0.308	0.284	0.306
N° 8(Off)	0.174	NaN	0.292	0.292	0.302	0.308	0.314
N° 9(Off)	0.196	NaN	0.292	0.300	0.312	0.304	0.330
N° 10(Off)	0.148	NaN	0.308	0.310	0.316	0.314	0.318
N° 11(Off)	0.144	NaN	0.310	0.310	0.302	0.306	0.330

**Delta [tSKD\_Y, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.920E-1	1.860E-1	1.940E-1	2.040E-1	1.940E-1
N° 2	---	NaN	1.580E-1	1.600E-1	1.540E-1	1.560E-1	1.340E-1
N° 3	---	NaN	1.760E-1	1.640E-1	1.720E-1	1.880E-1	1.520E-1
N° 4	---	NaN	1.560E-1	1.500E-1	1.580E-1	1.620E-1	1.160E-1
N° 5	---	NaN	1.900E-1	1.900E-1	1.960E-1	2.000E-1	1.600E-1
N° 6	---	NaN	1.900E-1	1.880E-1	2.080E-1	1.960E-1	1.620E-1
N° 7(Off)	---	NaN	8.600E-2	9.000E-2	1.060E-1	8.200E-2	1.040E-1
N° 8(Off)	---	NaN	1.180E-1	1.180E-1	1.280E-1	1.340E-1	1.400E-1
N° 9(Off)	---	NaN	9.600E-2	1.040E-1	1.160E-1	1.080E-1	1.340E-1
N° 10(Off)	---	NaN	1.600E-1	1.620E-1	1.680E-1	1.660E-1	1.700E-1
N° 11(Off)	---	NaN	1.660E-1	1.660E-1	1.580E-1	1.620E-1	1.860E-1
Average	---	NaN	1.740E-1	1.704E-1	1.776E-1	1.804E-1	1.448E-1
s	---	0.000E+0	1.655E-2	1.774E-2	2.364E-2	2.012E-2	1.952E-2
Average+3s	---	NaN	2.237E-1	2.236E-1	2.485E-1	2.408E-1	2.034E-1
Average-3s	---	NaN	1.243E-1	1.172E-1	1.067E-1	1.200E-1	8.623E-2

## 106. tSKD\_Y, Module 3



**tSKD\_Y, Module 3 . (ns)**

**Max = 0.4**

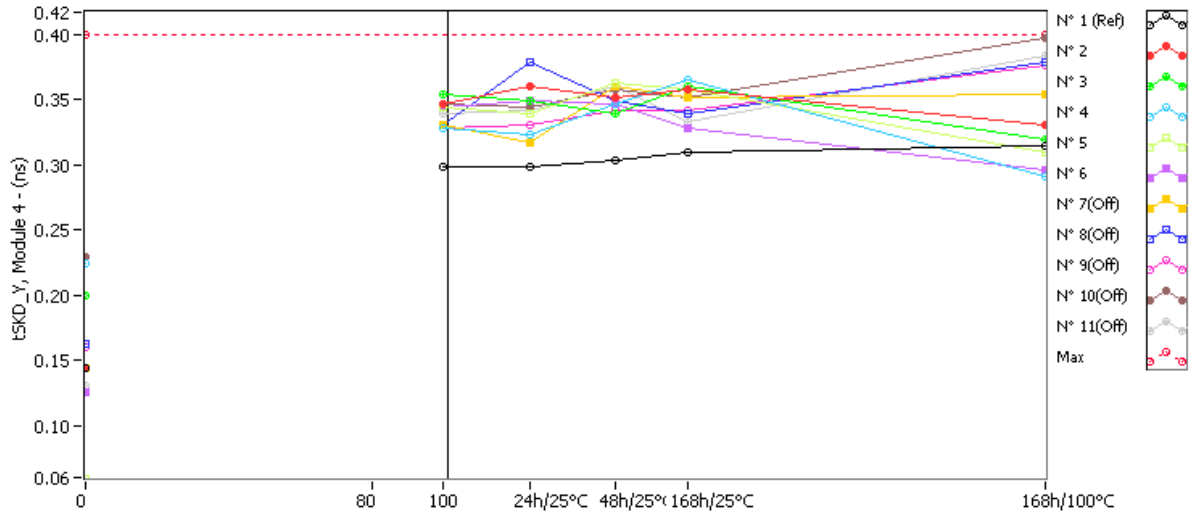
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.172	NaN	0.258	0.262	0.256	0.274	0.266
N° 2	0.180	NaN	0.292	0.282	0.284	0.296	0.260
N° 3	0.082	NaN	0.280	0.284	0.282	0.294	0.250
N° 4	0.158	NaN	0.294	0.292	0.286	0.290	0.294
N° 5	0.102	NaN	0.280	0.268	0.276	0.288	0.224
N° 6	0.078	NaN	0.298	0.292	0.294	0.290	0.264
N° 7(Off)	0.132	NaN	0.282	0.288	0.288	0.302	0.314
N° 8(Off)	0.172	NaN	0.292	0.292	0.296	0.308	0.316
N° 9(Off)	0.164	NaN	0.292	0.288	0.282	0.304	0.320
N° 10(Off)	0.142	NaN	0.292	0.294	0.300	0.286	0.326
N° 11(Off)	0.096	NaN	0.292	0.280	0.308	0.300	0.324

**Delta [tSKD\_Y, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	8.600E-2	9.000E-2	8.400E-2	1.020E-1	9.400E-2
N° 2	---	NaN	1.120E-1	1.020E-1	1.040E-1	1.160E-1	8.000E-2
N° 3	---	NaN	1.980E-1	2.020E-1	2.000E-1	2.120E-1	1.680E-1
N° 4	---	NaN	1.360E-1	1.240E-1	1.280E-1	1.320E-1	1.360E-1
N° 5	---	NaN	1.780E-1	1.660E-1	1.740E-1	1.860E-1	1.220E-1
N° 6	---	NaN	2.200E-1	2.140E-1	2.160E-1	2.120E-1	1.860E-1
N° 7(Off)	---	NaN	1.500E-1	1.560E-1	1.560E-1	1.700E-1	1.820E-1
N° 8(Off)	---	NaN	1.200E-1	1.200E-1	1.240E-1	1.360E-1	1.440E-1
N° 9(Off)	---	NaN	1.280E-1	1.240E-1	1.180E-1	1.400E-1	1.560E-1
N° 10(Off)	---	NaN	1.500E-1	1.520E-1	1.580E-1	1.440E-1	1.840E-1
N° 11(Off)	---	NaN	1.960E-1	1.840E-1	2.120E-1	2.040E-1	2.280E-1
Average	---	NaN	1.688E-1	1.616E-1	1.644E-1	1.716E-1	1.384E-1
s	---	0.000E+0	4.433E-2	4.838E-2	4.742E-2	4.509E-2	4.131E-2
Average+3s	---	NaN	3.018E-1	3.067E-1	3.067E-1	3.069E-1	2.623E-1
Average-3s	---	NaN	3.581E-2	1.645E-2	2.214E-2	3.634E-2	1.446E-2



## 107. tSKD\_Y, Module 4



**tSKD\_Y, Module 4 . (ns)**

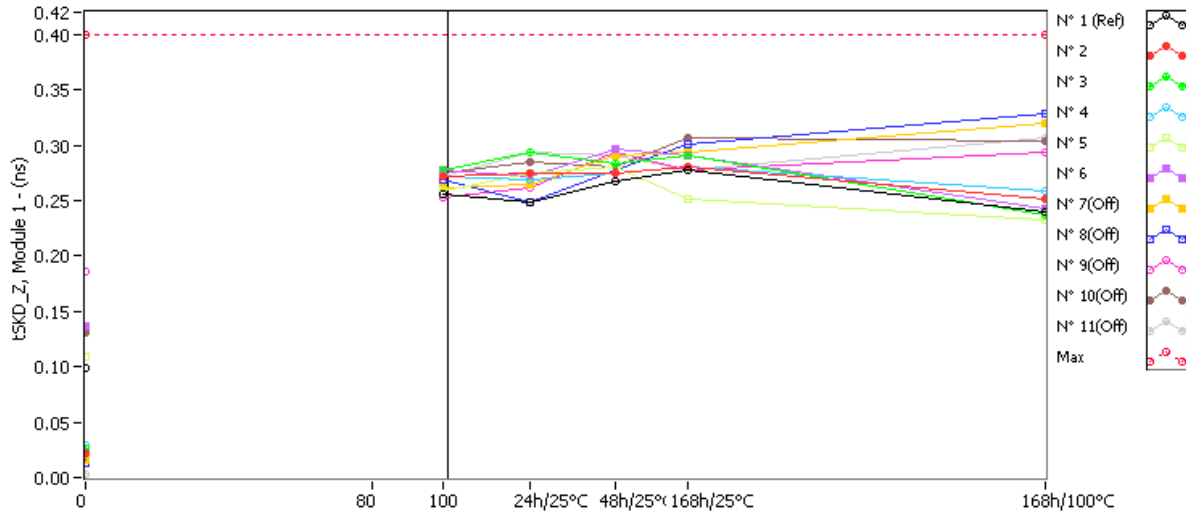
**Max = 0.4**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.144	NaN	0.299	0.299	0.304	0.309	0.315
N° 2	0.144	NaN	0.347	0.360	0.352	0.357	0.331
N° 3	0.200	NaN	0.355	0.349	0.339	0.360	0.320
N° 4	0.224	NaN	0.328	0.323	0.347	0.365	0.291
N° 5	0.059	NaN	0.344	0.339	0.363	0.357	0.309
N° 6	0.125	NaN	0.344	0.349	0.347	0.328	0.296
N° 7(Off)	0.144	NaN	0.331	0.317	0.360	0.352	0.355
N° 8(Off)	0.163	NaN	0.331	0.379	0.349	0.339	0.379
N° 9(Off)	0.160	NaN	0.328	0.331	0.341	0.341	0.376
N° 10(Off)	0.229	NaN	0.347	0.344	0.357	0.352	0.397
N° 11(Off)	0.131	NaN	0.339	0.341	0.360	0.333	0.384

**Delta [tSKD\_Y, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.550E-1	1.550E-1	1.600E-1	1.650E-1	1.710E-1
N° 2	---	NaN	2.030E-1	2.160E-1	2.080E-1	2.130E-1	1.870E-1
N° 3	---	NaN	1.550E-1	1.490E-1	1.390E-1	1.600E-1	1.200E-1
N° 4	---	NaN	1.040E-1	9.900E-2	1.230E-1	1.410E-1	6.700E-2
N° 5	---	NaN	2.850E-1	2.800E-1	3.040E-1	2.980E-1	2.500E-1
N° 6	---	NaN	2.190E-1	2.240E-1	2.220E-1	2.030E-1	1.710E-1
N° 7(Off)	---	NaN	1.870E-1	1.730E-1	2.160E-1	2.080E-1	2.110E-1
N° 8(Off)	---	NaN	1.680E-1	2.160E-1	1.860E-1	1.760E-1	2.160E-1
N° 9(Off)	---	NaN	1.680E-1	1.710E-1	1.810E-1	1.810E-1	2.160E-1
N° 10(Off)	---	NaN	1.180E-1	1.150E-1	1.280E-1	1.230E-1	1.680E-1
N° 11(Off)	---	NaN	2.080E-1	2.100E-1	2.290E-1	2.020E-1	2.530E-1
Average	---	NaN	1.932E-1	1.936E-1	1.992E-1	2.030E-1	1.590E-1
s	---	0.000E+0	6.820E-2	7.041E-2	7.248E-2	6.086E-2	6.927E-2
Average+3s	---	NaN	3.978E-1	4.048E-1	4.166E-1	3.856E-1	3.668E-1
Average-3s	---	NaN	-1.140E-2	-1.762E-2	-1.823E-2	2.041E-2	-4.881E-2

## 108. tSKD\_Z, Module 1



**tSKD\_Z, Module 1 . (ns)**

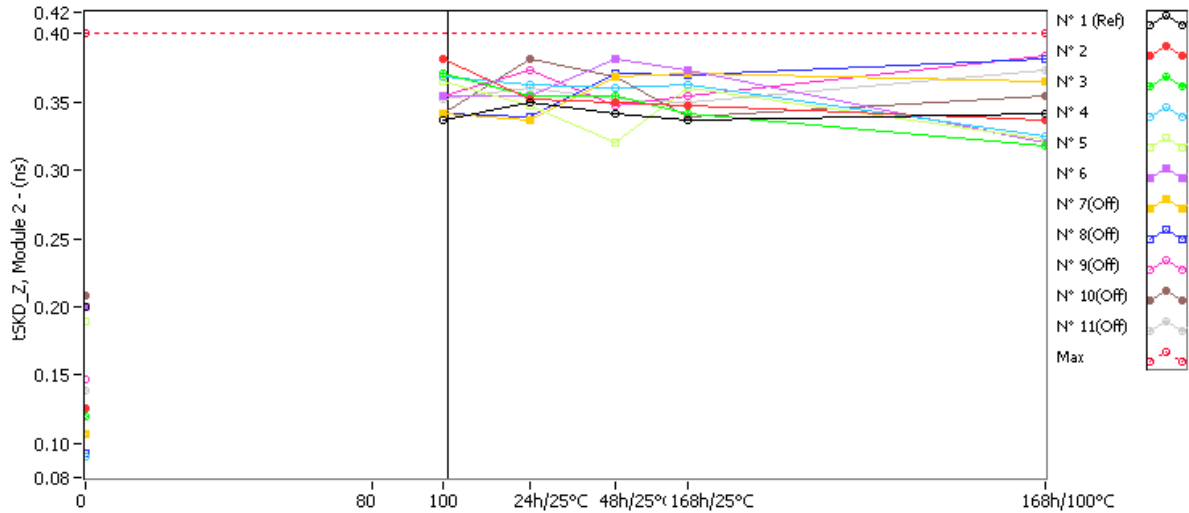
**Max = 0.4**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.099	NaN	0.256	0.248	0.267	0.277	0.240
N° 2	0.021	NaN	0.272	0.275	0.275	0.280	0.251
N° 3	0.027	NaN	0.277	0.293	0.283	0.291	0.237
N° 4	0.029	NaN	0.272	0.269	0.275	0.280	0.259
N° 5	0.109	NaN	0.259	0.275	0.280	0.251	0.232
N° 6	0.136	NaN	0.277	0.272	0.296	0.291	0.243
N° 7(Off)	0.016	NaN	0.261	0.264	0.291	0.293	0.320
N° 8(Off)	0.013	NaN	0.269	0.248	0.277	0.301	0.328
N° 9(Off)	0.187	NaN	0.253	0.261	0.293	0.277	0.293
N° 10(Off)	0.131	NaN	0.275	0.285	0.280	0.307	0.304
N° 11(Off)	0.003	NaN	0.272	0.293	0.291	0.277	0.307

**Delta [tSKD\_Z, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.570E-1	1.490E-1	1.680E-1	1.780E-1	1.410E-1
N° 2	---	NaN	2.510E-1	2.540E-1	2.540E-1	2.590E-1	2.300E-1
N° 3	---	NaN	2.500E-1	2.660E-1	2.560E-1	2.640E-1	2.100E-1
N° 4	---	NaN	2.430E-1	2.400E-1	2.460E-1	2.510E-1	2.300E-1
N° 5	---	NaN	1.500E-1	1.660E-1	1.710E-1	1.420E-1	1.230E-1
N° 6	---	NaN	1.410E-1	1.360E-1	1.600E-1	1.550E-1	1.070E-1
N° 7(Off)	---	NaN	2.450E-1	2.480E-1	2.750E-1	2.770E-1	3.040E-1
N° 8(Off)	---	NaN	2.560E-1	2.350E-1	2.640E-1	2.880E-1	3.150E-1
N° 9(Off)	---	NaN	6.600E-2	7.400E-2	1.060E-1	9.000E-2	1.060E-1
N° 10(Off)	---	NaN	1.440E-1	1.540E-1	1.490E-1	1.760E-1	1.730E-1
N° 11(Off)	---	NaN	2.690E-1	2.900E-1	2.880E-1	2.740E-1	3.040E-1
Average	---	NaN	2.070E-1	2.124E-1	2.174E-1	2.142E-1	1.800E-1
s	---	0.000E+0	5.632E-2	5.778E-2	4.768E-2	6.033E-2	6.016E-2
Average+3s	---	NaN	3.759E-1	3.857E-1	3.605E-1	3.952E-1	3.605E-1
Average-3s	---	NaN	3.805E-2	3.905E-2	7.435E-2	3.321E-2	-4.868E-4

## 109. tSKD\_Z, Module 2



**tSKD\_Z, Module 2 . (ns)**

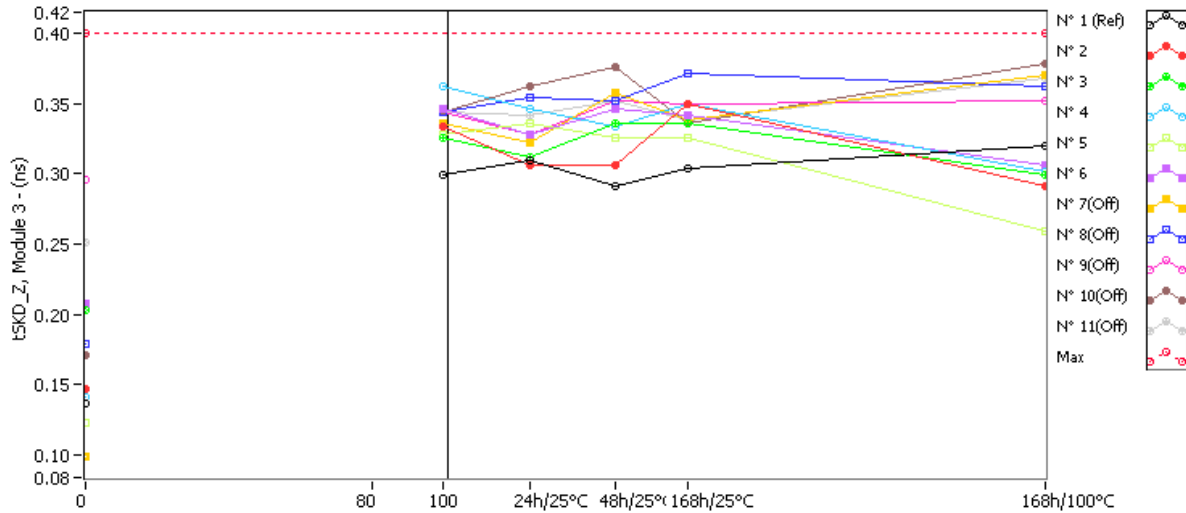
**Max = 0.4**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.200	NaN	0.336	0.349	0.341	0.336	0.341
N° 2	0.125	NaN	0.381	0.352	0.349	0.347	0.336
N° 3	0.120	NaN	0.371	0.355	0.355	0.341	0.317
N° 4	0.091	NaN	0.368	0.363	0.360	0.363	0.325
N° 5	0.189	NaN	0.365	0.347	0.320	0.360	0.323
N° 6	0.200	NaN	0.355	0.355	0.381	0.373	0.320
N° 7(Off)	0.107	NaN	0.341	0.336	0.368	0.371	0.365
N° 8(Off)	0.093	NaN	0.341	0.339	0.371	0.370	0.381
N° 9(Off)	0.147	NaN	0.355	0.373	0.347	0.355	0.384
N° 10(Off)	0.208	NaN	0.341	0.381	0.368	0.339	0.355
N° 11(Off)	0.139	NaN	0.352	0.360	0.352	0.349	0.373

**Delta [tSKD\_Z, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.360E-1	1.490E-1	1.410E-1	1.360E-1	1.410E-1
N° 2	---	NaN	2.560E-1	2.270E-1	2.240E-1	2.220E-1	2.110E-1
N° 3	---	NaN	2.510E-1	2.350E-1	2.350E-1	2.210E-1	1.970E-1
N° 4	---	NaN	2.770E-1	2.720E-1	2.690E-1	2.720E-1	2.340E-1
N° 5	---	NaN	1.760E-1	1.580E-1	1.310E-1	1.710E-1	1.340E-1
N° 6	---	NaN	1.550E-1	1.550E-1	1.810E-1	1.730E-1	1.200E-1
N° 7(Off)	---	NaN	2.340E-1	2.290E-1	2.610E-1	2.640E-1	2.580E-1
N° 8(Off)	---	NaN	2.480E-1	2.460E-1	2.780E-1	2.770E-1	2.880E-1
N° 9(Off)	---	NaN	2.080E-1	2.260E-1	2.000E-1	2.080E-1	2.370E-1
N° 10(Off)	---	NaN	1.330E-1	1.730E-1	1.600E-1	1.310E-1	1.470E-1
N° 11(Off)	---	NaN	2.130E-1	2.210E-1	2.130E-1	2.100E-1	2.340E-1
Average	---	NaN	2.230E-1	2.094E-1	2.080E-1	2.118E-1	1.792E-1
s	---	0.000E+0	5.390E-2	5.120E-2	5.330E-2	4.178E-2	4.970E-2
Average+3s	---	NaN	3.847E-1	3.630E-1	3.679E-1	3.371E-1	3.283E-1
Average-3s	---	NaN	6.129E-2	5.580E-2	4.810E-2	8.646E-2	3.011E-2

## 110. tSKD\_Z, Module 3



**tSKD\_Z, Module 3 . (ns)**

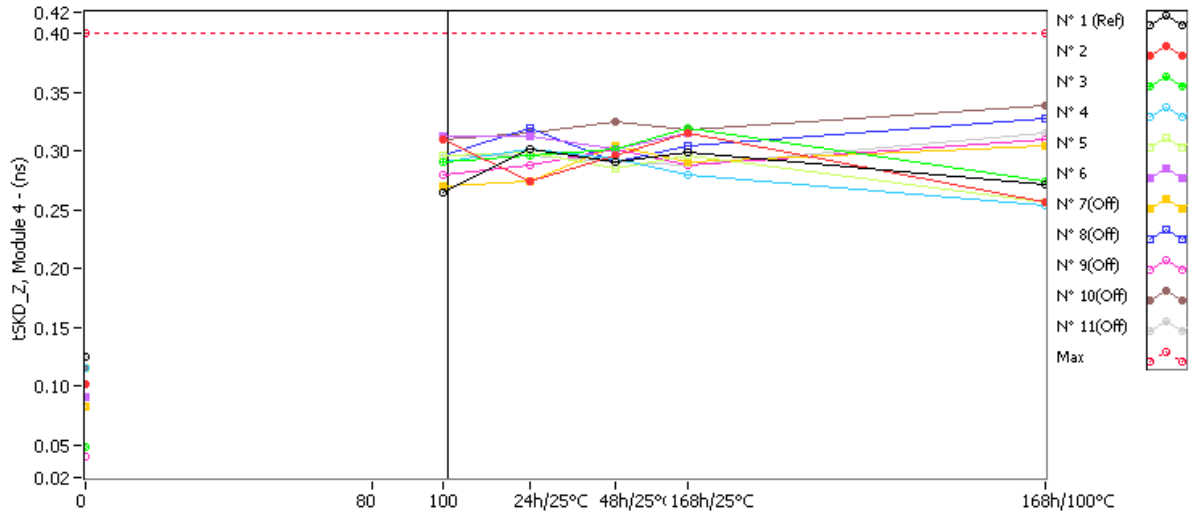
**Max = 0.4**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.136	NaN	0.299	0.309	0.291	0.304	0.320
N° 2	0.147	NaN	0.333	0.307	0.307	0.349	0.291
N° 3	0.203	NaN	0.325	0.312	0.336	0.336	0.299
N° 4	0.141	NaN	0.363	0.347	0.333	0.349	0.301
N° 5	0.123	NaN	0.328	0.336	0.325	0.325	0.259
N° 6	0.208	NaN	0.347	0.328	0.347	0.341	0.307
N° 7(Off)	0.099	NaN	0.336	0.323	0.357	0.339	0.371
N° 8(Off)	0.179	NaN	0.344	0.355	0.352	0.371	0.363
N° 9(Off)	0.296	NaN	0.344	0.328	0.352	0.349	0.352
N° 10(Off)	0.171	NaN	0.344	0.363	0.376	0.336	0.379
N° 11(Off)	0.251	NaN	0.344	0.341	0.352	0.339	0.368

**Delta [tSKD\_Z, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.630E-1	1.730E-1	1.550E-1	1.680E-1	1.840E-1
N° 2	---	NaN	1.860E-1	1.600E-1	1.600E-1	2.020E-1	1.440E-1
N° 3	---	NaN	1.220E-1	1.090E-1	1.330E-1	1.330E-1	9.600E-2
N° 4	---	NaN	2.220E-1	2.060E-1	1.920E-1	2.080E-1	1.600E-1
N° 5	---	NaN	2.050E-1	2.130E-1	2.020E-1	2.020E-1	1.360E-1
N° 6	---	NaN	1.390E-1	1.200E-1	1.390E-1	1.330E-1	9.900E-2
N° 7(Off)	---	NaN	2.370E-1	2.240E-1	2.580E-1	2.400E-1	2.720E-1
N° 8(Off)	---	NaN	1.650E-1	1.760E-1	1.730E-1	1.920E-1	1.840E-1
N° 9(Off)	---	NaN	4.800E-2	3.200E-2	5.600E-2	5.300E-2	5.600E-2
N° 10(Off)	---	NaN	1.730E-1	1.920E-1	2.050E-1	1.650E-1	2.080E-1
N° 11(Off)	---	NaN	9.300E-2	9.000E-2	1.010E-1	8.800E-2	1.170E-1
Average	---	NaN	1.748E-1	1.616E-1	1.652E-1	1.756E-1	1.270E-1
s	---	0.000E+0	4.282E-2	4.773E-2	3.091E-2	3.897E-2	2.830E-2
Average+3s	---	NaN	3.033E-1	3.048E-1	2.579E-1	2.925E-1	2.119E-1
Average-3s	---	NaN	4.633E-2	1.841E-2	7.246E-2	5.870E-2	4.209E-2

## 111. tSKD\_Z, Module 4



**tSKD\_Z, Module 4 . (ns)**

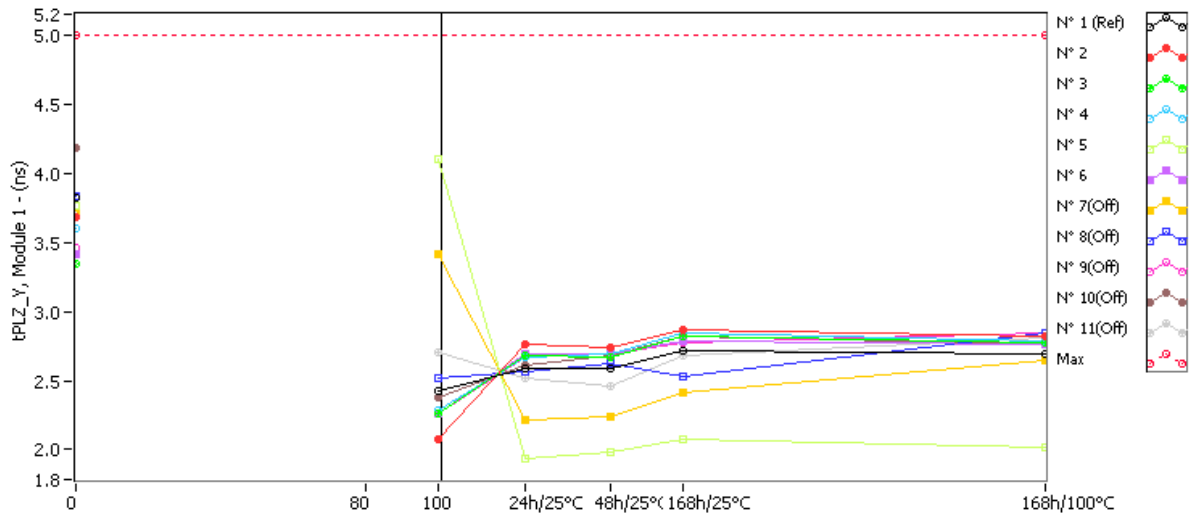
**Max = 0.4**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.125	NaN	0.264	0.301	0.291	0.299	0.272
N° 2	0.101	NaN	0.309	0.275	0.296	0.315	0.256
N° 3	0.048	NaN	0.291	0.296	0.301	0.320	0.275
N° 4	0.115	NaN	0.291	0.301	0.293	0.280	0.253
N° 5	0.115	NaN	0.296	0.299	0.285	0.296	0.256
N° 6	0.091	NaN	0.312	0.312	0.301	0.315	0.256
N° 7(Off)	0.083	NaN	0.269	0.275	0.304	0.291	0.304
N° 8(Off)	0.115	NaN	0.296	0.320	0.291	0.304	0.328
N° 9(Off)	0.040	NaN	0.280	0.288	0.301	0.288	0.309
N° 10(Off)	0.115	NaN	0.309	0.315	0.325	0.317	0.339
N° 11(Off)	0.125	NaN	0.296	0.296	0.291	0.288	0.315

**Delta [tSKD\_Z, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.390E-1	1.760E-1	1.660E-1	1.740E-1	1.470E-1
N° 2	---	NaN	2.080E-1	1.740E-1	1.950E-1	2.140E-1	1.550E-1
N° 3	---	NaN	2.430E-1	2.480E-1	2.530E-1	2.720E-1	2.270E-1
N° 4	---	NaN	1.760E-1	1.860E-1	1.780E-1	1.650E-1	1.380E-1
N° 5	---	NaN	1.810E-1	1.840E-1	1.700E-1	1.810E-1	1.410E-1
N° 6	---	NaN	2.210E-1	2.210E-1	2.100E-1	2.240E-1	1.650E-1
N° 7(Off)	---	NaN	1.860E-1	1.920E-1	2.210E-1	2.080E-1	2.210E-1
N° 8(Off)	---	NaN	1.810E-1	2.050E-1	1.760E-1	1.890E-1	2.130E-1
N° 9(Off)	---	NaN	2.400E-1	2.480E-1	2.610E-1	2.480E-1	2.690E-1
N° 10(Off)	---	NaN	1.940E-1	2.000E-1	2.100E-1	2.020E-1	2.240E-1
N° 11(Off)	---	NaN	1.710E-1	1.710E-1	1.660E-1	1.630E-1	1.900E-1
Average	---	NaN	2.058E-1	2.026E-1	2.012E-1	2.112E-1	1.652E-1
s	---	0.000E+0	2.794E-2	3.098E-2	3.283E-2	4.158E-2	3.622E-2
Average+3s	---	NaN	2.896E-1	2.955E-1	2.997E-1	3.359E-1	2.739E-1
Average-3s	---	NaN	1.220E-1	1.097E-1	1.027E-1	8.647E-2	5.653E-2

## 112. tPLZ\_Y, Module 1



**tPLZ\_Y, Module 1 . (ns)**

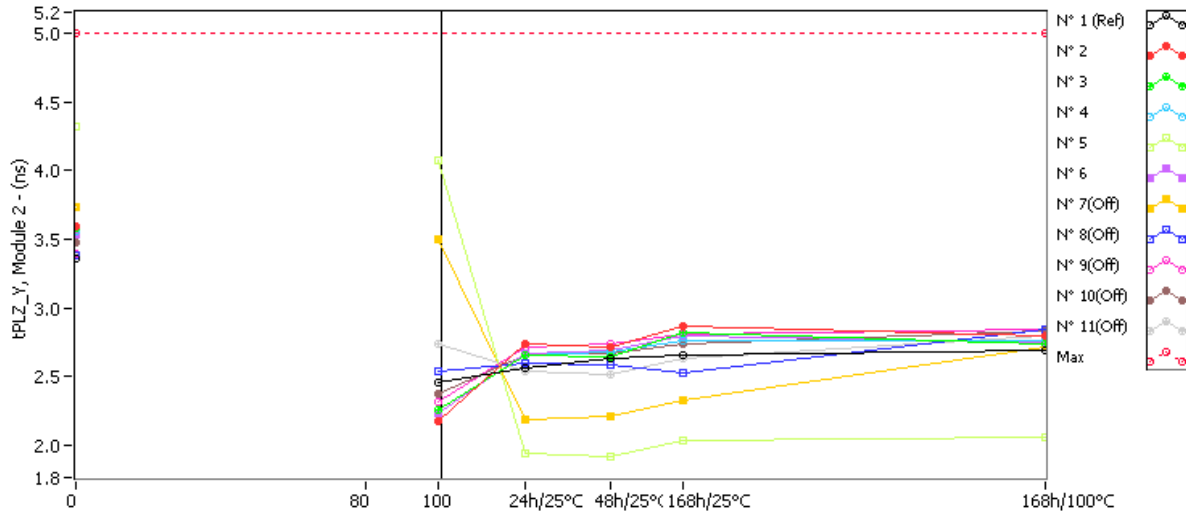
**Max = 5.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.820	NaN	2.420	2.584	2.592	2.712	2.688
N° 2	3.680	NaN	2.080	2.768	2.736	2.864	2.824
N° 3	3.340	NaN	2.260	2.680	2.672	2.824	2.776
N° 4	3.600	NaN	2.280	2.664	2.696	2.840	2.784
N° 5	3.760	NaN	4.100	1.936	1.976	2.072	2.016
N° 6	3.420	NaN	2.260	2.696	2.688	2.784	2.768
N° 7(Off)	3.720	NaN	3.420	2.216	2.232	2.416	2.640
N° 8(Off)	3.840	NaN	2.520	2.568	2.624	2.531	2.848
N° 9(Off)	3.460	NaN	2.260	2.672	2.688	2.776	2.840
N° 10(Off)	4.180	NaN	2.380	2.608	2.680	2.824	2.760
N° 11(Off)	3.720	NaN	2.700	2.512	2.464	2.680	2.808

**Delta [tPLZ\_Y, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.400E+0	-1.236E+0	-1.228E+0	-1.108E+0	-1.132E+0
N° 2	---	NaN	-1.600E+0	-9.120E-1	-9.440E-1	-8.160E-1	-8.560E-1
N° 3	---	NaN	-1.080E+0	-6.600E-1	-6.680E-1	-5.160E-1	-5.640E-1
N° 4	---	NaN	-1.320E+0	-9.360E-1	-9.040E-1	-7.600E-1	-8.160E-1
N° 5	---	NaN	3.400E-1	-1.824E+0	-1.784E+0	-1.688E+0	-1.744E+0
N° 6	---	NaN	-1.160E+0	-7.240E-1	-7.320E-1	-6.360E-1	-6.520E-1
N° 7(Off)	---	NaN	-3.000E-1	-1.504E+0	-1.488E+0	-1.304E+0	-1.080E+0
N° 8(Off)	---	NaN	-1.320E+0	-1.272E+0	-1.216E+0	-1.309E+0	-9.920E-1
N° 9(Off)	---	NaN	-1.200E+0	-7.880E-1	-7.720E-1	-6.840E-1	-6.200E-1
N° 10(Off)	---	NaN	-1.800E+0	-1.572E+0	-1.500E+0	-1.356E+0	-1.420E+0
N° 11(Off)	---	NaN	-1.020E+0	-1.208E+0	-1.256E+0	-1.040E+0	-9.120E-1
Average	---	NaN	-9.640E-1	-1.011E+0	-1.006E+0	-8.832E-1	-9.264E-1
s	---	0.000E+0	7.556E-1	4.696E-1	4.497E-1	4.646E-1	4.723E-1
Average+3s	---	NaN	1.303E+0	3.975E-1	3.426E-1	5.105E-1	4.905E-1
Average-3s	---	NaN	-3.231E+0	-2.420E+0	-2.355E+0	-2.277E+0	-2.343E+0

## 113. tPLZ\_Y, Module 2



**tPLZ\_Y, Module 2 . (ns)**

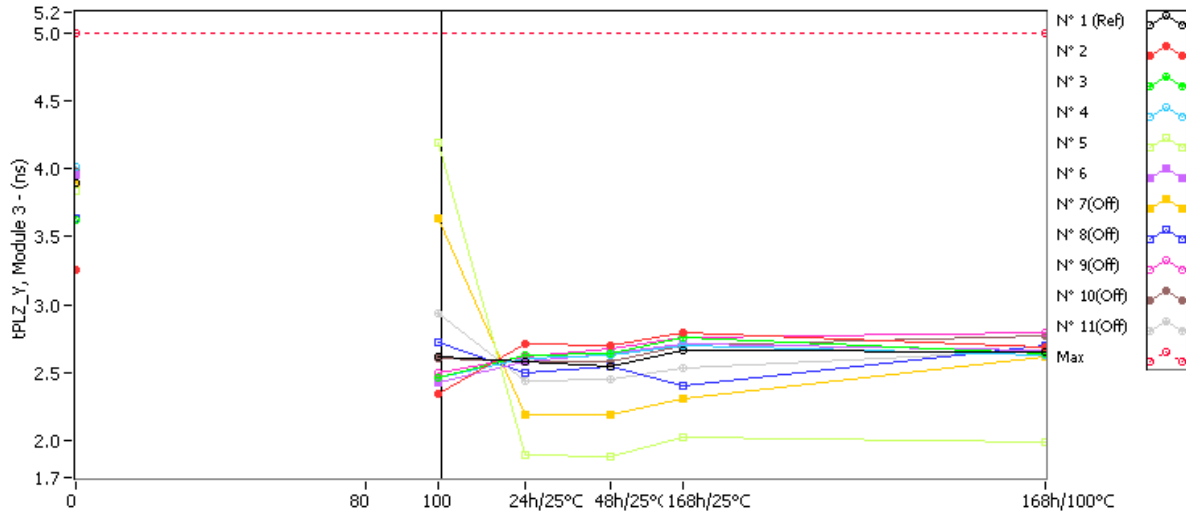
**Max = 5.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.360	NaN	2.460	2.568	2.632	2.656	2.696
N° 2	3.600	NaN	2.180	2.736	2.712	2.864	2.792
N° 3	3.580	NaN	2.260	2.656	2.640	2.816	2.744
N° 4	3.560	NaN	2.260	2.656	2.680	2.768	2.768
N° 5	4.320	NaN	4.080	1.944	1.920	2.040	2.056
N° 6	3.540	NaN	2.240	2.664	2.696	2.800	2.752
N° 7(Off)	3.740	NaN	3.500	2.192	2.216	2.328	2.720
N° 8(Off)	3.380	NaN	2.540	2.600	2.584	2.531	2.848
N° 9(Off)	3.400	NaN	2.320	2.712	2.736	2.808	2.840
N° 10(Off)	3.480	NaN	2.380	2.656	2.672	2.744	2.832
N° 11(Off)	3.400	NaN	2.740	2.544	2.512	2.632	2.800

**Delta [tPLZ\_Y, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-9.000E-1	-7.920E-1	-7.280E-1	-7.040E-1	-6.640E-1
N° 2	---	NaN	-1.420E+0	-8.640E-1	-8.880E-1	-7.360E-1	-8.080E-1
N° 3	---	NaN	-1.320E+0	-9.240E-1	-9.400E-1	-7.640E-1	-8.360E-1
N° 4	---	NaN	-1.300E+0	-9.040E-1	-8.800E-1	-7.920E-1	-7.920E-1
N° 5	---	NaN	-2.400E-1	-2.376E+0	-2.400E+0	-2.280E+0	-2.264E+0
N° 6	---	NaN	-1.300E+0	-8.760E-1	-8.440E-1	-7.400E-1	-7.880E-1
N° 7(Off)	---	NaN	-2.400E-1	-1.548E+0	-1.524E+0	-1.412E+0	-1.020E+0
N° 8(Off)	---	NaN	-8.400E-1	-7.800E-1	-7.960E-1	-8.490E-1	-5.320E-1
N° 9(Off)	---	NaN	-1.080E+0	-6.880E-1	-6.640E-1	-5.920E-1	-5.600E-1
N° 10(Off)	---	NaN	-1.100E+0	-8.240E-1	-8.080E-1	-7.360E-1	-6.480E-1
N° 11(Off)	---	NaN	-6.600E-1	-8.560E-1	-8.880E-1	-7.680E-1	-6.000E-1
Average	---	NaN	-1.116E+0	-1.189E+0	-1.190E+0	-1.062E+0	-1.098E+0
s	---	0.000E+0	4.922E-1	6.641E-1	6.771E-1	6.810E-1	6.523E-1
Average+3s	---	NaN	3.607E-1	8.034E-1	8.408E-1	9.807E-1	8.593E-1
Average-3s	---	NaN	-2.593E+0	-3.181E+0	-3.222E+0	-3.105E+0	-3.055E+0

## 114. tPLZ\_Y, Module 3



**tPLZ\_Y, Module 3 . (ns)**

**Max = 5.0**

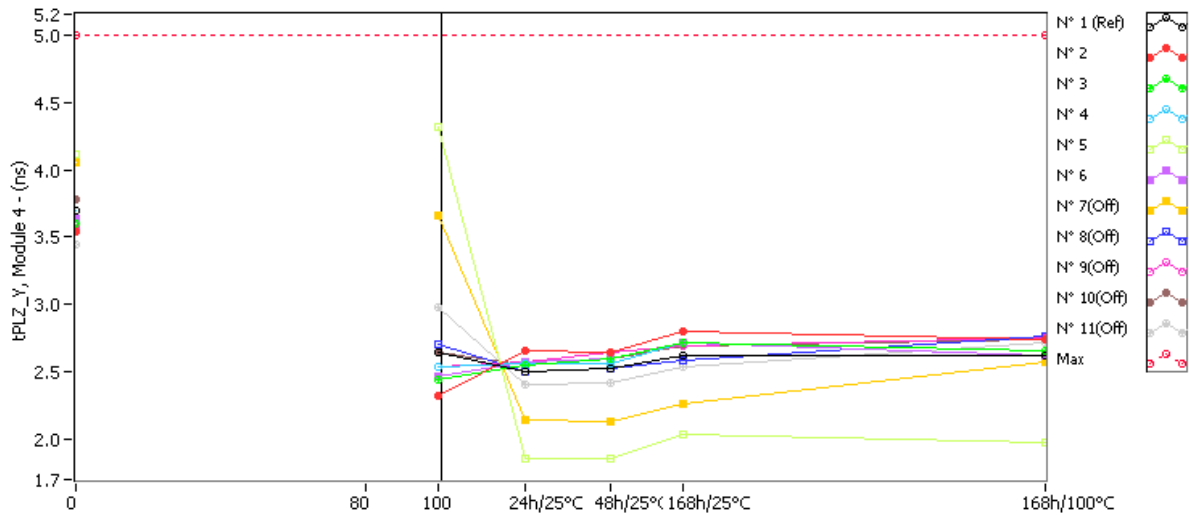
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.900	NaN	2.620	2.584	2.544	2.664	2.656
N° 2	3.260	NaN	2.340	2.704	2.696	2.792	2.680
N° 3	3.620	NaN	2.460	2.632	2.640	2.752	2.640
N° 4	4.020	NaN	2.460	2.608	2.624	2.696	2.624
N° 5	3.840	NaN	4.200	1.896	1.880	2.016	1.984
N° 6	3.960	NaN	2.420	2.584	2.640	2.704	2.664
N° 7(Off)	3.880	NaN	3.640	2.184	2.184	2.304	2.616
N° 8(Off)	3.640	NaN	2.720	2.496	2.544	2.397	2.696
N° 9(Off)	3.620	NaN	2.500	2.616	2.672	2.752	2.792
N° 10(Off)	3.980	NaN	2.600	2.576	2.584	2.696	2.768
N° 11(Off)	3.980	NaN	2.940	2.440	2.448	2.536	2.664

**Delta [tPLZ\_Y, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.280E+0	-1.316E+0	-1.356E+0	-1.236E+0	-1.244E+0
N° 2	---	NaN	-9.200E-1	-5.560E-1	-5.640E-1	-4.680E-1	-5.800E-1
N° 3	---	NaN	-1.160E+0	-9.880E-1	-9.800E-1	-8.680E-1	-9.800E-1
N° 4	---	NaN	-1.560E+0	-1.412E+0	-1.396E+0	-1.324E+0	-1.396E+0
N° 5	---	NaN	3.600E-1	-1.944E+0	-1.960E+0	-1.824E+0	-1.856E+0
N° 6	---	NaN	-1.540E+0	-1.376E+0	-1.320E+0	-1.256E+0	-1.296E+0
N° 7(Off)	---	NaN	-2.400E-1	-1.696E+0	-1.696E+0	-1.576E+0	-1.264E+0
N° 8(Off)	---	NaN	-9.200E-1	-1.144E+0	-1.096E+0	-1.243E+0	-9.440E-1
N° 9(Off)	---	NaN	-1.120E+0	-1.004E+0	-9.480E-1	-8.680E-1	-8.280E-1
N° 10(Off)	---	NaN	-1.380E+0	-1.404E+0	-1.396E+0	-1.284E+0	-1.212E+0
N° 11(Off)	---	NaN	-1.040E+0	-1.540E+0	-1.532E+0	-1.444E+0	-1.316E+0
Average	---	NaN	-9.640E-1	-1.255E+0	-1.244E+0	-1.148E+0	-1.222E+0
s	---	0.000E+0	7.875E-1	5.181E-1	5.181E-1	5.100E-1	4.766E-1
Average+3s	---	NaN	1.398E+0	2.992E-1	3.102E-1	3.820E-1	2.081E-1
Average-3s	---	NaN	-3.326E+0	-2.810E+0	-2.798E+0	-2.678E+0	-2.651E+0



## 115. tPLZ\_Y, Module 4



**tPLZ\_Y, Module 4 . (ns)**

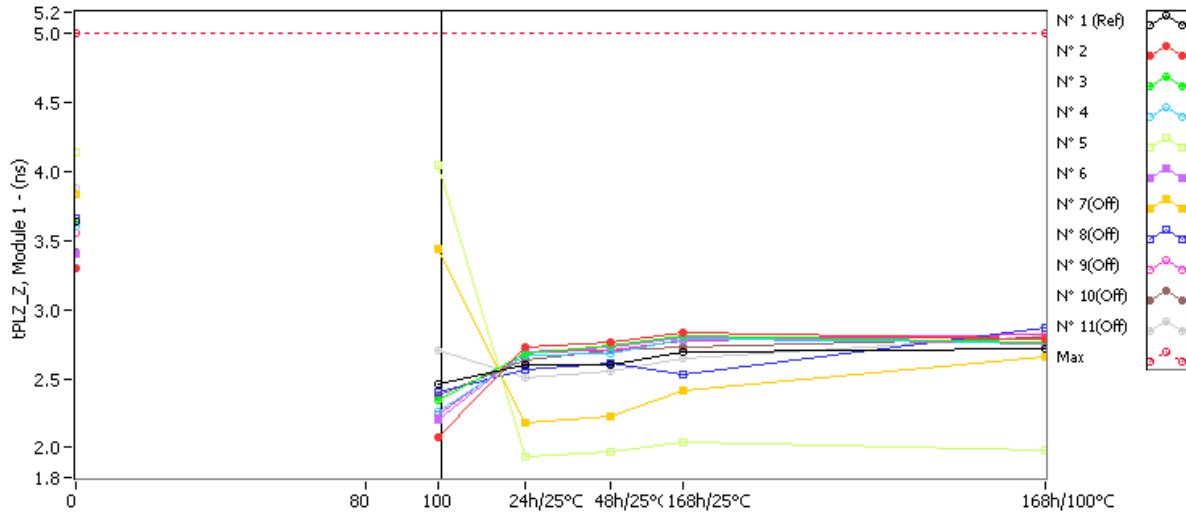
**Max = 5.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.700	NaN	2.640	2.496	2.528	2.616	2.624
N° 2	3.540	NaN	2.320	2.656	2.640	2.800	2.736
N° 3	3.600	NaN	2.440	2.544	2.600	2.720	2.656
N° 4	3.700	NaN	2.540	2.560	2.560	2.712	2.656
N° 5	4.120	NaN	4.320	1.856	1.856	2.032	1.976
N° 6	3.640	NaN	2.460	2.576	2.600	2.720	2.616
N° 7(Off)	4.060	NaN	3.660	2.144	2.128	2.256	2.568
N° 8(Off)	3.640	NaN	2.700	2.496	2.520	2.584	2.760
N° 9(Off)	3.560	NaN	2.540	2.576	2.648	2.696	2.752
N° 10(Off)	3.780	NaN	2.640	2.552	2.592	2.696	2.744
N° 11(Off)	3.440	NaN	2.980	2.400	2.416	2.536	2.720

**Delta [tPLZ\_Y, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.060E+0	-1.204E+0	-1.172E+0	-1.084E+0	-1.076E+0
N° 2	---	NaN	-1.220E+0	-8.840E-1	-9.000E-1	-7.400E-1	-8.040E-1
N° 3	---	NaN	-1.160E+0	-1.056E+0	-1.000E+0	-8.800E-1	-9.440E-1
N° 4	---	NaN	-1.160E+0	-1.140E+0	-1.140E+0	-9.880E-1	-1.044E+0
N° 5	---	NaN	2.000E-1	-2.264E+0	-2.264E+0	-2.088E+0	-2.144E+0
N° 6	---	NaN	-1.180E+0	-1.064E+0	-1.040E+0	-9.200E-1	-1.024E+0
N° 7(Off)	---	NaN	-4.000E-1	-1.916E+0	-1.932E+0	-1.804E+0	-1.492E+0
N° 8(Off)	---	NaN	-9.400E-1	-1.144E+0	-1.120E+0	-1.056E+0	-8.800E-1
N° 9(Off)	---	NaN	-1.020E+0	-9.840E-1	-9.120E-1	-8.640E-1	-8.080E-1
N° 10(Off)	---	NaN	-1.140E+0	-1.228E+0	-1.188E+0	-1.084E+0	-1.036E+0
N° 11(Off)	---	NaN	-4.600E-1	-1.040E+0	-1.024E+0	-9.040E-1	-7.200E-1
Average	---	NaN	-9.040E-1	-1.282E+0	-1.269E+0	-1.123E+0	-1.192E+0
s	---	0.000E+0	6.176E-1	5.571E-1	5.629E-1	5.469E-1	5.405E-1
Average+3s	---	NaN	9.489E-1	3.897E-1	4.200E-1	5.175E-1	4.294E-1
Average-3s	---	NaN	-2.757E+0	-2.953E+0	-2.958E+0	-2.764E+0	-2.813E+0

# 116. tPLZ\_Z, Module 1



**tPLZ\_Z, Module 1 . (ns)**

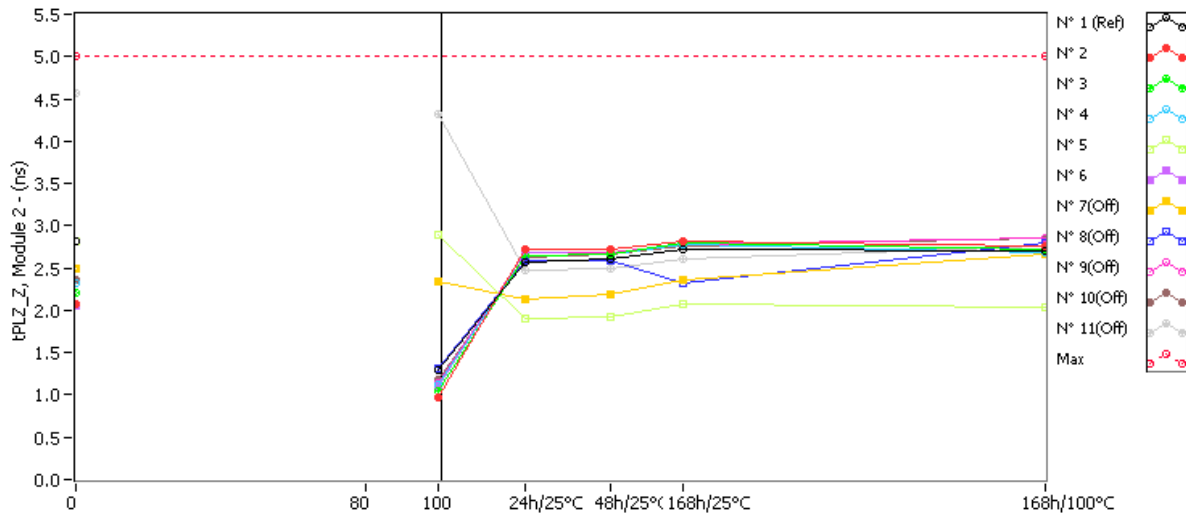
**Max = 5.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.640	NaN	2.460	2.600	2.600	2.688	2.720
N° 2	3.300	NaN	2.080	2.728	2.768	2.832	2.784
N° 3	3.640	NaN	2.340	2.680	2.744	2.808	2.768
N° 4	3.600	NaN	2.260	2.664	2.680	2.784	2.768
N° 5	4.140	NaN	4.040	1.936	1.968	2.040	1.976
N° 6	3.400	NaN	2.200	2.688	2.728	2.792	2.752
N° 7(Off)	3.840	NaN	3.440	2.184	2.224	2.408	2.656
N° 8(Off)	3.660	NaN	2.400	2.568	2.608	2.531	2.864
N° 9(Off)	3.560	NaN	2.240	2.696	2.704	2.776	2.824
N° 10(Off)	3.420	NaN	2.380	2.632	2.704	2.728	2.800
N° 11(Off)	3.880	NaN	2.700	2.504	2.552	2.640	2.808

**Delta [tPLZ\_Z, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.180E+0	-1.040E+0	-1.040E+0	-9.520E-1	-9.200E-1
N° 2	---	NaN	-1.220E+0	-5.720E-1	-5.320E-1	-4.680E-1	-5.160E-1
N° 3	---	NaN	-1.300E+0	-9.600E-1	-8.960E-1	-8.320E-1	-8.720E-1
N° 4	---	NaN	-1.340E+0	-9.360E-1	-9.200E-1	-8.160E-1	-8.320E-1
N° 5	---	NaN	-1.000E-1	-2.204E+0	-2.172E+0	-2.100E+0	-2.164E+0
N° 6	---	NaN	-1.200E+0	-7.120E-1	-6.720E-1	-6.080E-1	-6.480E-1
N° 7(Off)	---	NaN	-4.000E-1	-1.656E+0	-1.616E+0	-1.432E+0	-1.184E+0
N° 8(Off)	---	NaN	-1.260E+0	-1.092E+0	-1.052E+0	-1.129E+0	-7.960E-1
N° 9(Off)	---	NaN	-1.320E+0	-8.640E-1	-8.560E-1	-7.840E-1	-7.360E-1
N° 10(Off)	---	NaN	-1.040E+0	-7.880E-1	-7.160E-1	-6.920E-1	-6.200E-1
N° 11(Off)	---	NaN	-1.180E+0	-1.376E+0	-1.328E+0	-1.240E+0	-1.072E+0
Average	---	NaN	-1.032E+0	-1.077E+0	-1.038E+0	-9.648E-1	-1.006E+0
s	---	0.000E+0	5.241E-1	6.504E-1	6.538E-1	6.524E-1	6.628E-1
Average+3s	---	NaN	5.404E-1	8.743E-1	9.231E-1	9.924E-1	9.821E-1
Average-3s	---	NaN	-2.604E+0	-3.028E+0	-3.000E+0	-2.922E+0	-2.995E+0

## 117. tPLZ\_Z, Module 2



**tPLZ\_Z, Module 2 . (ns)**

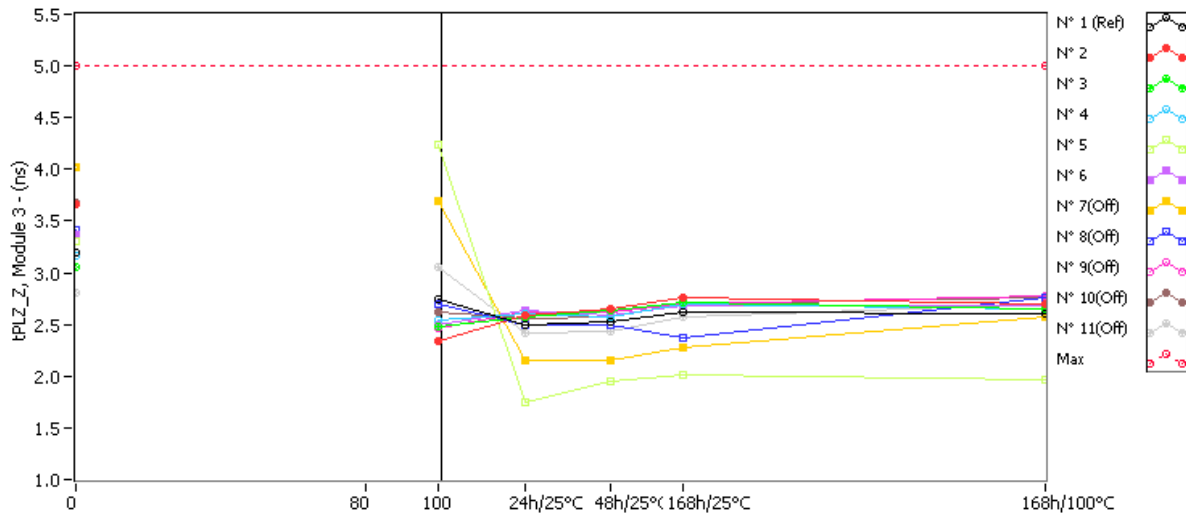
**Max = 5.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.820	NaN	1.300	2.576	2.608	2.720	2.704
N° 2	2.080	NaN	0.980	2.712	2.720	2.824	2.760
N° 3	2.200	NaN	1.040	2.648	2.672	2.800	2.728
N° 4	2.320	NaN	1.120	2.648	2.672	2.776	2.680
N° 5	2.820	NaN	2.900	1.912	1.928	2.080	2.032
N° 6	2.060	NaN	1.100	2.680	2.664	2.792	2.728
N° 7(Off)	2.500	NaN	2.340	2.136	2.192	2.360	2.656
N° 8(Off)	2.060	NaN	1.320	2.584	2.584	2.331	2.792
N° 9(Off)	2.200	NaN	1.140	2.688	2.688	2.784	2.864
N° 10(Off)	2.360	NaN	1.180	2.632	2.672	2.752	2.848
N° 11(Off)	4.560	NaN	4.320	2.480	2.496	2.608	2.760

**Delta [tPLZ\_Z, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.520E+0	-2.440E-1	-2.120E-1	-1.000E-1	-1.160E-1
N° 2	---	NaN	-1.100E+0	6.320E-1	6.400E-1	7.440E-1	6.800E-1
N° 3	---	NaN	-1.160E+0	4.480E-1	4.720E-1	6.000E-1	5.280E-1
N° 4	---	NaN	-1.200E+0	3.280E-1	3.520E-1	4.560E-1	3.600E-1
N° 5	---	NaN	8.000E-2	-9.080E-1	-8.920E-1	-7.400E-1	-7.880E-1
N° 6	---	NaN	-9.600E-1	6.200E-1	6.040E-1	7.320E-1	6.680E-1
N° 7(Off)	---	NaN	-1.600E-1	-3.640E-1	-3.080E-1	-1.400E-1	1.560E-1
N° 8(Off)	---	NaN	-7.400E-1	5.240E-1	5.240E-1	2.710E-1	7.320E-1
N° 9(Off)	---	NaN	-1.060E+0	4.880E-1	4.880E-1	5.840E-1	6.640E-1
N° 10(Off)	---	NaN	-1.180E+0	2.720E-1	3.120E-1	3.920E-1	4.880E-1
N° 11(Off)	---	NaN	-2.400E-1	-2.080E+0	-2.064E+0	-1.952E+0	-1.800E+0
Average	---	NaN	-8.680E-1	2.240E-1	2.352E-1	3.584E-1	2.896E-1
s	---	0.000E+0	5.377E-1	6.453E-1	6.403E-1	6.250E-1	6.162E-1
Average+3s	---	NaN	7.451E-1	2.160E+0	2.156E+0	2.233E+0	2.138E+0
Average-3s	---	NaN	-2.481E+0	-1.712E+0	-1.686E+0	-1.517E+0	-1.559E+0

## 118. tPLZ\_Z, Module 3



**tPLZ\_Z, Module 3 . (ns)**

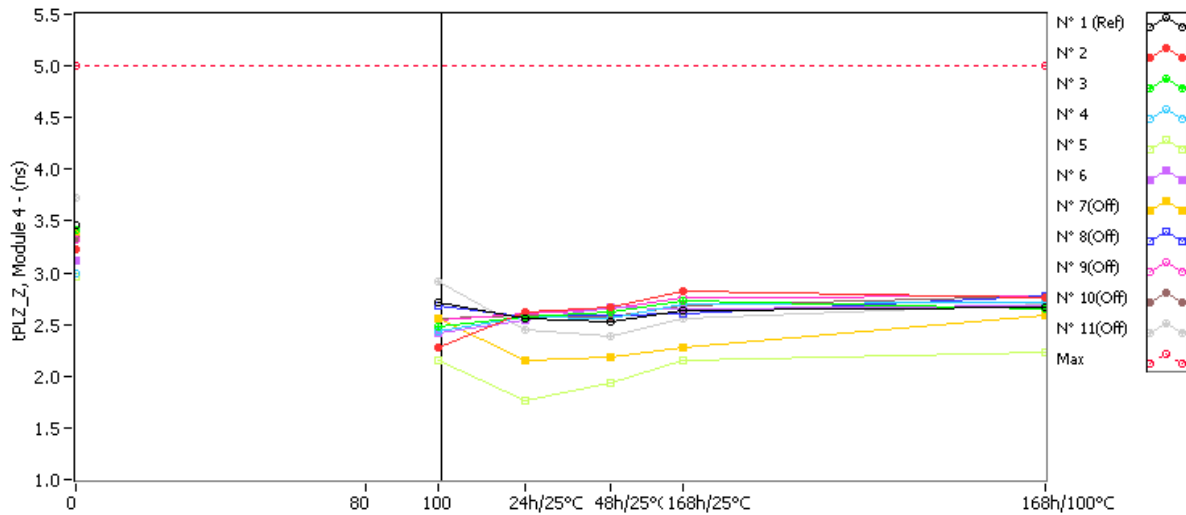
**Max = 5.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.200	NaN	2.740	2.496	2.520	2.616	2.600
N° 2	3.660	NaN	2.340	2.592	2.648	2.752	2.696
N° 3	3.060	NaN	2.480	2.568	2.632	2.712	2.648
N° 4	3.160	NaN	2.540	2.600	2.568	2.704	2.656
N° 5	3.300	NaN	4.240	1.752	1.952	2.016	1.960
N° 6	3.360	NaN	2.500	2.640	2.592	2.688	2.688
N° 7(Off)	4.020	NaN	3.700	2.160	2.160	2.272	2.576
N° 8(Off)	3.420	NaN	2.700	2.488	2.496	2.369	2.760
N° 9(Off)	3.200	NaN	2.460	2.616	2.624	2.704	2.776
N° 10(Off)	3.680	NaN	2.620	2.552	2.568	2.704	2.752
N° 11(Off)	2.800	NaN	3.060	2.416	2.440	2.568	2.704

**Delta [tPLZ\_Z, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-4.600E-1	-7.040E-1	-6.800E-1	-5.840E-1	-6.000E-1
N° 2	---	NaN	-1.320E+0	-1.068E+0	-1.012E+0	-9.080E-1	-9.640E-1
N° 3	---	NaN	-5.800E-1	-4.920E-1	-4.280E-1	-3.480E-1	-4.120E-1
N° 4	---	NaN	-6.200E-1	-5.600E-1	-5.920E-1	-4.560E-1	-5.040E-1
N° 5	---	NaN	9.400E-1	-1.548E+0	-1.348E+0	-1.284E+0	-1.340E+0
N° 6	---	NaN	-8.600E-1	-7.200E-1	-7.680E-1	-6.720E-1	-6.720E-1
N° 7(Off)	---	NaN	-3.200E-1	-1.860E+0	-1.860E+0	-1.748E+0	-1.444E+0
N° 8(Off)	---	NaN	-7.200E-1	-9.320E-1	-9.240E-1	-1.051E+0	-6.600E-1
N° 9(Off)	---	NaN	-7.400E-1	-5.840E-1	-5.760E-1	-4.960E-1	-4.240E-1
N° 10(Off)	---	NaN	-1.060E+0	-1.128E+0	-1.112E+0	-9.760E-1	-9.280E-1
N° 11(Off)	---	NaN	2.600E-1	-3.840E-1	-3.600E-1	-2.320E-1	-9.600E-2
Average	---	NaN	-4.880E-1	-8.776E-1	-8.296E-1	-7.336E-1	-7.784E-1
s	---	0.000E+0	8.508E-1	4.359E-1	3.618E-1	3.751E-1	3.777E-1
Average+3s	---	NaN	2.065E+0	4.301E-1	2.557E-1	3.918E-1	3.548E-1
Average-3s	---	NaN	-3.041E+0	-2.185E+0	-1.915E+0	-1.859E+0	-1.912E+0

## 119. tPLZ\_Z, Module 4



**tPLZ\_Z, Module 4 . (ns)**

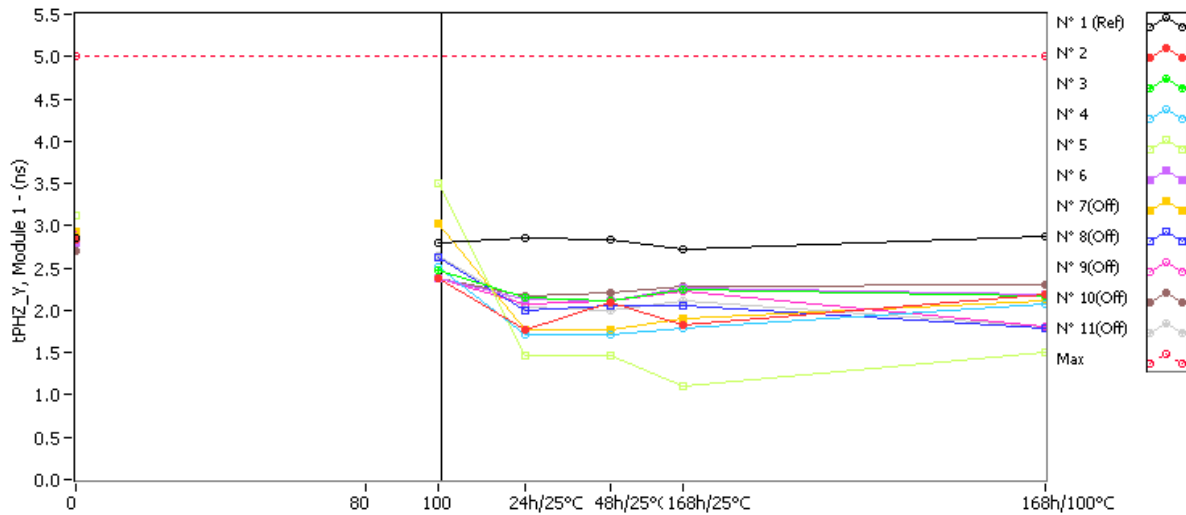
**Max = 5.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.460	NaN	2.720	2.552	2.528	2.640	2.664
N° 2	3.220	NaN	2.280	2.624	2.664	2.816	2.752
N° 3	3.420	NaN	2.480	2.576	2.624	2.736	2.656
N° 4	3.000	NaN	2.440	2.568	2.552	2.696	2.712
N° 5	2.960	NaN	2.160	1.760	1.928	2.152	2.224
N° 6	3.120	NaN	2.420	2.544	2.664	2.656	2.688
N° 7(Off)	3.400	NaN	2.560	2.152	2.184	2.280	2.592
N° 8(Off)	3.420	NaN	2.680	2.568	2.584	2.600	2.768
N° 9(Off)	3.320	NaN	2.540	2.600	2.648	2.752	2.776
N° 10(Off)	3.340	NaN	2.560	2.584	2.576	2.688	2.768
N° 11(Off)	3.720	NaN	2.920	2.448	2.384	2.560	2.696

**Delta [tPLZ\_Z, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-7.400E-1	-9.080E-1	-9.320E-1	-8.200E-1	-7.960E-1
N° 2	---	NaN	-9.400E-1	-5.960E-1	-5.560E-1	-4.040E-1	-4.680E-1
N° 3	---	NaN	-9.400E-1	-8.440E-1	-7.960E-1	-6.840E-1	-7.640E-1
N° 4	---	NaN	-5.600E-1	-4.320E-1	-4.480E-1	-3.040E-1	-2.880E-1
N° 5	---	NaN	-8.000E-1	-1.200E+0	-1.032E+0	-8.080E-1	-7.360E-1
N° 6	---	NaN	-7.000E-1	-5.760E-1	-4.560E-1	-4.640E-1	-4.320E-1
N° 7(Off)	---	NaN	-8.400E-1	-1.248E+0	-1.216E+0	-1.120E+0	-8.080E-1
N° 8(Off)	---	NaN	-7.400E-1	-8.520E-1	-8.360E-1	-8.200E-1	-6.520E-1
N° 9(Off)	---	NaN	-7.800E-1	-7.200E-1	-6.720E-1	-5.680E-1	-5.440E-1
N° 10(Off)	---	NaN	-7.800E-1	-7.560E-1	-7.640E-1	-6.520E-1	-5.720E-1
N° 11(Off)	---	NaN	-8.000E-1	-1.272E+0	-1.336E+0	-1.160E+0	-1.024E+0
Average	---	NaN	-7.880E-1	-7.296E-1	-6.576E-1	-5.328E-1	-5.376E-1
s	---	0.000E+0	1.628E-1	3.018E-1	2.521E-1	2.075E-1	2.055E-1
Average+3s	---	NaN	-2.995E-1	1.758E-1	9.871E-2	8.978E-2	7.889E-2
Average-3s	---	NaN	-1.277E+0	-1.635E+0	-1.414E+0	-1.155E+0	-1.154E+0

## 120. tPHZ\_Y, Module 1



tPHZ\_Y, Module 1 . (ns)

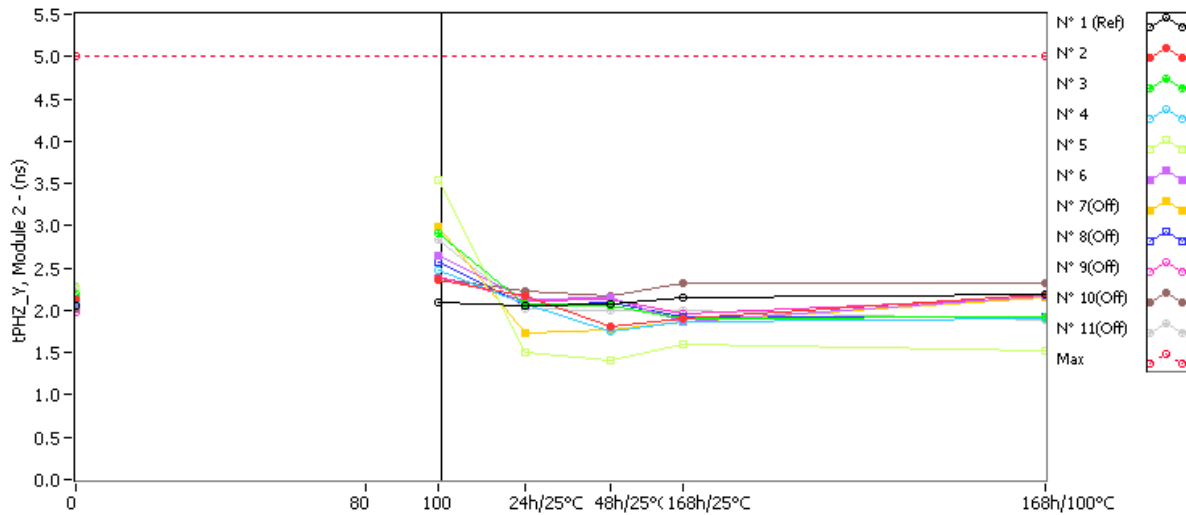
Max = 5.0

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.862	NaN	2.807	2.856	2.840	2.720	2.876
N° 2	2.827	NaN	2.387	1.768	2.088	1.824	2.184
N° 3	2.844	NaN	2.467	2.144	2.120	2.240	2.168
N° 4	2.862	NaN	2.507	1.720	1.704	1.784	2.072
N° 5	3.120	NaN	3.507	1.464	1.464	1.096	1.512
N° 6	2.800	NaN	2.373	2.136	2.104	2.256	2.192
N° 7(Off)	2.933	NaN	3.027	1.768	1.768	1.904	2.120
N° 8(Off)	2.827	NaN	2.627	2.000	2.064	2.051	1.784
N° 9(Off)	2.889	NaN	2.373	2.080	2.112	2.232	1.800
N° 10(Off)	2.702	NaN	2.387	2.168	2.208	2.280	2.304
N° 11(Off)	2.818	NaN	2.640	2.040	2.000	2.112	1.800

Delta [tPHZ\_Y, Module 1]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-5.500E-2	-6.000E-3	-2.200E-2	-1.420E-1	1.400E-2
N° 2	---	NaN	-4.400E-1	-1.059E+0	-7.390E-1	-1.003E+0	-6.430E-1
N° 3	---	NaN	-3.770E-1	-7.000E-1	-7.240E-1	-6.040E-1	-6.760E-1
N° 4	---	NaN	-3.550E-1	-1.142E+0	-1.158E+0	-1.078E+0	-7.900E-1
N° 5	---	NaN	3.870E-1	-1.656E+0	-1.656E+0	-2.024E+0	-1.608E+0
N° 6	---	NaN	-4.270E-1	-6.640E-1	-6.960E-1	-5.440E-1	-6.080E-1
N° 7(Off)	---	NaN	9.400E-2	-1.165E+0	-1.165E+0	-1.029E+0	-8.130E-1
N° 8(Off)	---	NaN	-2.000E-1	-8.270E-1	-7.630E-1	-7.760E-1	-1.043E+0
N° 9(Off)	---	NaN	-5.160E-1	-8.090E-1	-7.770E-1	-6.570E-1	-1.089E+0
N° 10(Off)	---	NaN	-3.150E-1	-5.340E-1	-4.940E-1	-4.220E-1	-3.980E-1
N° 11(Off)	---	NaN	-1.780E-1	-7.780E-1	-8.180E-1	-7.060E-1	-1.018E+0
Average	---	NaN	-2.424E-1	-1.044E+0	-9.946E-1	-1.051E+0	-8.650E-1
s	---	0.000E+0	3.536E-1	4.022E-1	4.159E-1	5.930E-1	4.209E-1
Average+3s	---	NaN	8.183E-1	1.624E-1	2.531E-1	7.284E-1	3.978E-1
Average-3s	---	NaN	-1.303E+0	-2.251E+0	-2.242E+0	-2.830E+0	-2.128E+0

## 121. tPHZ\_Y, Module 2



tPHZ\_Y, Module 2 . (ns)

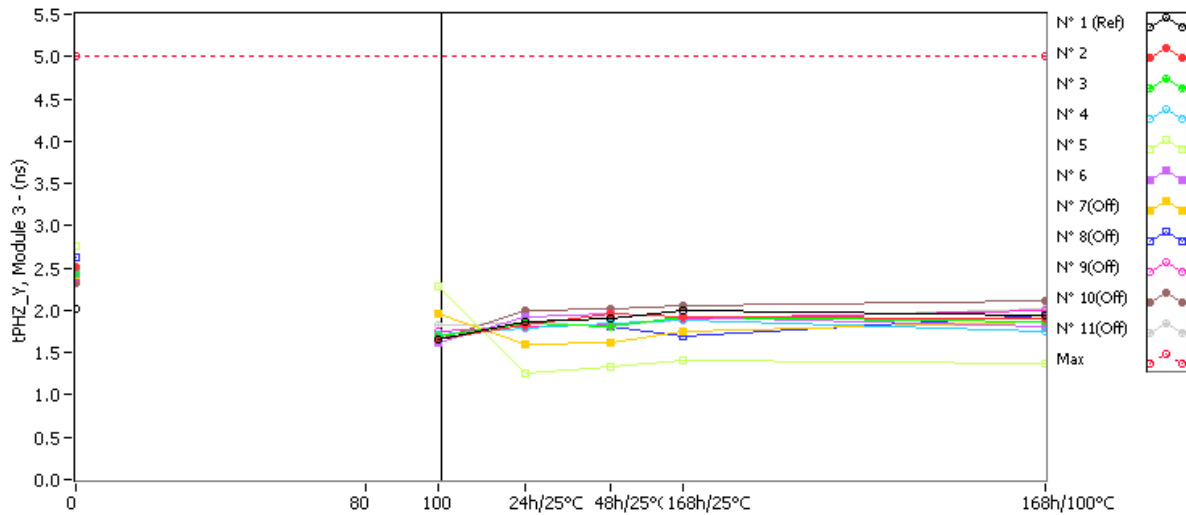
Max = 5.0

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.047	NaN	2.093	2.064	2.080	2.152	2.184
N° 2	2.140	NaN	2.360	2.176	1.816	1.912	2.192
N° 3	2.180	NaN	2.920	2.072	2.064	1.896	1.928
N° 4	2.067	NaN	2.467	2.072	1.752	1.872	1.896
N° 5	2.260	NaN	3.547	1.496	1.416	1.600	1.528
N° 6	2.067	NaN	2.653	2.128	2.144	1.856	2.176
N° 7(Off)	2.080	NaN	2.987	1.728	1.768	1.872	2.144
N° 8(Off)	2.067	NaN	2.573	2.064	2.088	1.931	1.928
N° 9(Off)	1.980	NaN	2.400	2.112	2.128	1.952	2.144
N° 10(Off)	2.020	NaN	2.373	2.224	2.168	2.328	2.328
N° 11(Off)	2.280	NaN	2.827	2.024	1.992	2.000	1.880

Delta [tPHZ\_Y, Module 2]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	4.600E-2	1.700E-2	3.300E-2	1.050E-1	1.370E-1
N° 2	---	NaN	2.200E-1	3.600E-2	-3.240E-1	-2.280E-1	5.200E-2
N° 3	---	NaN	7.400E-1	-1.080E-1	-1.160E-1	-2.840E-1	-2.520E-1
N° 4	---	NaN	4.000E-1	5.000E-3	-3.150E-1	-1.950E-1	-1.710E-1
N° 5	---	NaN	1.287E+0	-7.640E-1	-8.440E-1	-6.600E-1	-7.320E-1
N° 6	---	NaN	5.860E-1	6.100E-2	7.700E-2	-2.110E-1	1.090E-1
N° 7(Off)	---	NaN	9.070E-1	-3.520E-1	-3.120E-1	-2.080E-1	6.400E-2
N° 8(Off)	---	NaN	5.060E-1	-3.000E-3	2.100E-2	-1.360E-1	-1.390E-1
N° 9(Off)	---	NaN	4.200E-1	1.320E-1	1.480E-1	-2.800E-2	1.640E-1
N° 10(Off)	---	NaN	3.530E-1	2.040E-1	1.480E-1	3.080E-1	3.080E-1
N° 11(Off)	---	NaN	5.470E-1	-2.560E-1	-2.880E-1	-2.800E-1	-4.000E-1
Average	---	NaN	6.466E-1	-1.540E-1	-3.044E-1	-3.156E-1	-1.988E-1
s	---	0.000E+0	4.078E-1	3.471E-1	3.437E-1	1.954E-1	3.337E-1
Average+3s	---	NaN	1.870E+0	8.872E-1	7.268E-1	2.707E-1	8.024E-1
Average-3s	---	NaN	-5.769E-1	-1.195E+0	-1.336E+0	-9.019E-1	-1.200E+0

## 122. tPHZ\_Y, Module 3



**tPHZ\_Y, Module 3 . (ns)**

**Max = 5.0**

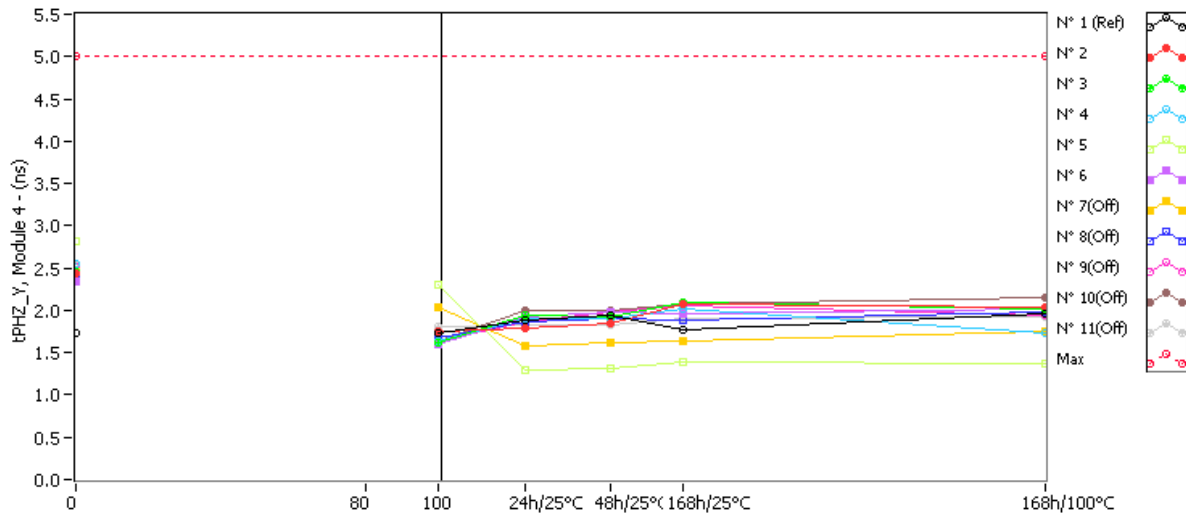
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.016	NaN	1.648	1.864	1.896	2.000	1.936
N° 2	2.520	NaN	1.648	1.824	1.960	1.920	1.896
N° 3	2.440	NaN	1.688	1.840	1.816	1.920	1.864
N° 4	2.488	NaN	1.704	1.784	1.848	1.888	1.760
N° 5	2.760	NaN	2.280	1.264	1.336	1.416	1.376
N° 6	2.440	NaN	1.624	1.920	1.960	1.920	1.808
N° 7(Off)	2.424	NaN	1.960	1.592	1.616	1.744	1.864
N° 8(Off)	2.624	NaN	1.688	1.840	1.816	1.693	1.936
N° 9(Off)	2.384	NaN	1.752	1.808	1.824	1.904	2.000
N° 10(Off)	2.320	NaN	1.648	1.992	2.016	2.048	2.112
N° 11(Off)	2.480	NaN	1.824	1.848	1.824	1.888	2.016

**Delta [tPHZ\_Y, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-3.680E-1	-1.520E-1	-1.200E-1	-1.600E-2	-8.000E-2
N° 2	---	NaN	-8.720E-1	-6.960E-1	-5.600E-1	-6.000E-1	-6.240E-1
N° 3	---	NaN	-7.520E-1	-6.000E-1	-6.240E-1	-5.200E-1	-5.760E-1
N° 4	---	NaN	-7.840E-1	-7.040E-1	-6.400E-1	-6.000E-1	-7.280E-1
N° 5	---	NaN	-4.800E-1	-1.496E+0	-1.424E+0	-1.344E+0	-1.384E+0
N° 6	---	NaN	-8.160E-1	-5.200E-1	-4.800E-1	-5.200E-1	-6.320E-1
N° 7(Off)	---	NaN	-4.640E-1	-8.320E-1	-8.080E-1	-6.800E-1	-5.600E-1
N° 8(Off)	---	NaN	-9.360E-1	-7.840E-1	-8.080E-1	-9.310E-1	-6.880E-1
N° 9(Off)	---	NaN	-6.320E-1	-5.760E-1	-5.600E-1	-4.800E-1	-3.840E-1
N° 10(Off)	---	NaN	-6.720E-1	-3.280E-1	-3.040E-1	-2.720E-1	-2.080E-1
N° 11(Off)	---	NaN	-6.560E-1	-6.320E-1	-6.560E-1	-5.920E-1	-4.640E-1
Average	---	NaN	-7.408E-1	-8.032E-1	-7.456E-1	-7.168E-1	-7.888E-1
s	---	0.000E+0	1.524E-1	3.946E-1	3.844E-1	3.529E-1	3.373E-1
Average+3s	---	NaN	-2.837E-1	3.806E-1	4.077E-1	3.419E-1	2.230E-1
Average-3s	---	NaN	-1.198E+0	-1.987E+0	-1.899E+0	-1.775E+0	-1.801E+0



## 123. tPHZ\_Y, Module 4



**tPHZ\_Y, Module 4 . (ns)**

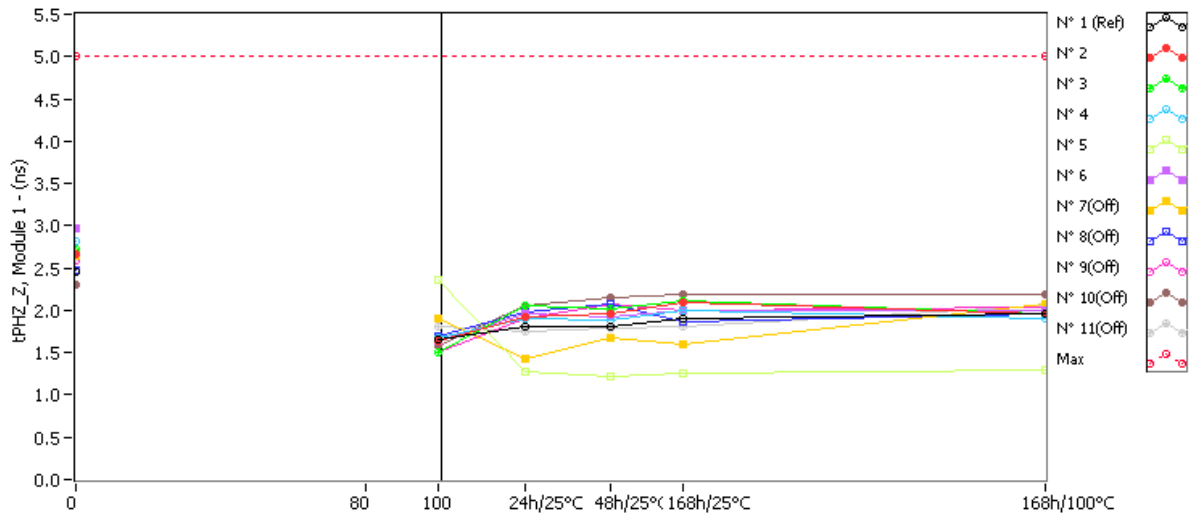
**Max = 5.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	1.740	NaN	1.728	1.888	1.936	1.776	1.960
N° 2	2.432	NaN	1.744	1.784	1.840	2.080	2.032
N° 3	2.464	NaN	1.624	1.944	1.920	2.088	2.008
N° 4	2.544	NaN	1.632	1.904	1.896	2.016	1.736
N° 5	2.808	NaN	2.296	1.288	1.312	1.392	1.376
N° 6	2.344	NaN	1.608	1.928	1.976	1.968	2.016
N° 7(Off)	2.464	NaN	2.040	1.584	1.624	1.640	1.744
N° 8(Off)	2.440	NaN	1.680	1.872	1.904	1.880	1.976
N° 9(Off)	2.504	NaN	1.640	1.856	1.984	2.056	1.936
N° 10(Off)	2.416	NaN	1.640	2.000	2.000	2.072	2.144
N° 11(Off)	2.536	NaN	1.808	1.832	1.832	1.904	1.928

**Delta [tPHZ\_Y, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.200E-2	1.480E-1	1.960E-1	3.600E-2	2.200E-1
N° 2	---	NaN	-6.880E-1	-6.480E-1	-5.920E-1	-3.520E-1	-4.000E-1
N° 3	---	NaN	-8.400E-1	-5.200E-1	-5.440E-1	-3.760E-1	-4.560E-1
N° 4	---	NaN	-9.120E-1	-6.400E-1	-6.480E-1	-5.280E-1	-8.080E-1
N° 5	---	NaN	-5.120E-1	-1.520E+0	-1.496E+0	-1.416E+0	-1.432E+0
N° 6	---	NaN	-7.360E-1	-4.160E-1	-3.680E-1	-3.760E-1	-3.280E-1
N° 7(Off)	---	NaN	-4.240E-1	-8.800E-1	-8.400E-1	-8.240E-1	-7.200E-1
N° 8(Off)	---	NaN	-7.600E-1	-5.680E-1	-5.360E-1	-5.600E-1	-4.640E-1
N° 9(Off)	---	NaN	-8.640E-1	-6.480E-1	-5.200E-1	-4.480E-1	-5.680E-1
N° 10(Off)	---	NaN	-7.760E-1	-4.160E-1	-4.160E-1	-3.440E-1	-2.720E-1
N° 11(Off)	---	NaN	-7.280E-1	-7.040E-1	-7.040E-1	-6.320E-1	-6.080E-1
Average	---	NaN	-7.376E-1	-7.488E-1	-7.296E-1	-6.096E-1	-6.848E-1
s	---	0.000E+0	1.535E-1	4.415E-1	4.411E-1	4.562E-1	4.567E-1
Average+3s	---	NaN	-2.771E-1	5.758E-1	5.936E-1	7.590E-1	6.853E-1
Average-3s	---	NaN	-1.198E+0	-2.073E+0	-2.053E+0	-1.978E+0	-2.055E+0

## 124. tPHZ\_Z, Module 1



**tPHZ\_Z, Module 1 . (ns)**

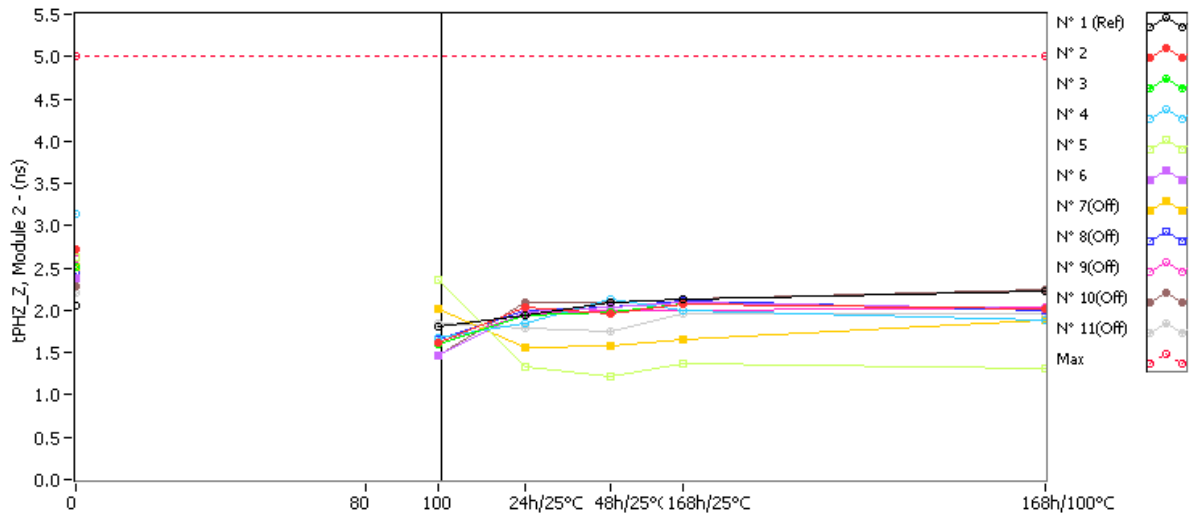
**Max = 5.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.456	NaN	1.664	1.800	1.808	1.912	1.968
N° 2	2.672	NaN	1.640	1.928	1.952	2.096	1.968
N° 3	2.712	NaN	1.512	2.056	2.008	2.112	1.952
N° 4	2.816	NaN	1.672	1.904	1.888	2.000	1.896
N° 5	2.680	NaN	2.352	1.272	1.224	1.256	1.288
N° 6	2.968	NaN	1.640	1.968	1.920	2.000	1.992
N° 7(Off)	2.640	NaN	1.896	1.432	1.680	1.592	2.072
N° 8(Off)	2.480	NaN	1.688	1.976	2.080	1.865	1.968
N° 9(Off)	2.584	NaN	1.496	1.912	2.072	1.992	2.040
N° 10(Off)	2.312	NaN	1.584	2.048	2.144	2.192	2.192
N° 11(Off)	2.584	NaN	1.816	1.752	1.792	1.808	2.056

**Delta [tPHZ\_Z, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-7.920E-1	-6.560E-1	-6.480E-1	-5.440E-1	-4.880E-1
N° 2	---	NaN	-1.032E+0	-7.440E-1	-7.200E-1	-5.760E-1	-7.040E-1
N° 3	---	NaN	-1.200E+0	-6.560E-1	-7.040E-1	-6.000E-1	-7.600E-1
N° 4	---	NaN	-1.144E+0	-9.120E-1	-9.280E-1	-8.160E-1	-9.200E-1
N° 5	---	NaN	-3.280E-1	-1.408E+0	-1.456E+0	-1.424E+0	-1.392E+0
N° 6	---	NaN	-1.328E+0	-1.000E+0	-1.048E+0	-9.680E-1	-9.760E-1
N° 7(Off)	---	NaN	-7.440E-1	-1.208E+0	-9.600E-1	-1.048E+0	-5.680E-1
N° 8(Off)	---	NaN	-7.920E-1	-5.040E-1	-4.000E-1	-6.150E-1	-5.120E-1
N° 9(Off)	---	NaN	-1.088E+0	-6.720E-1	-5.120E-1	-5.920E-1	-5.440E-1
N° 10(Off)	---	NaN	-7.280E-1	-2.640E-1	-1.680E-1	-1.200E-1	-1.200E-1
N° 11(Off)	---	NaN	-7.680E-1	-8.320E-1	-7.920E-1	-7.760E-1	-5.280E-1
Average	---	NaN	-1.006E+0	-9.440E-1	-9.712E-1	-8.768E-1	-9.504E-1
s	---	0.000E+0	3.939E-1	2.926E-1	3.071E-1	3.459E-1	2.709E-1
Average+3s	---	NaN	1.754E-1	-6.628E-2	-4.984E-2	1.608E-1	-1.377E-1
Average-3s	---	NaN	-2.188E+0	-1.822E+0	-1.893E+0	-1.914E+0	-1.763E+0

## 125. tPHZ\_Z, Module 2



**tPHZ\_Z, Module 2 . (ns)**

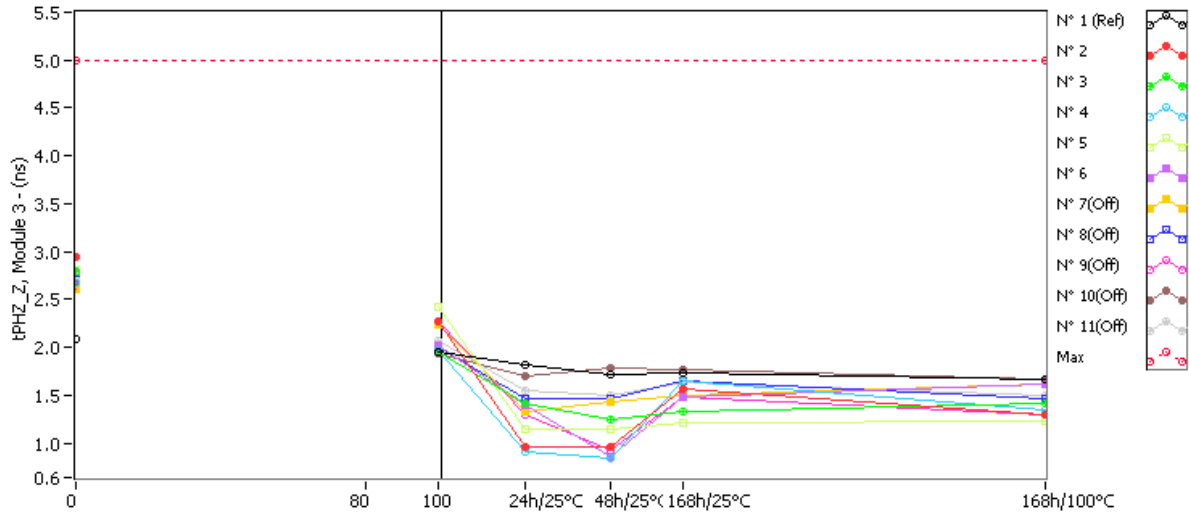
**Max = 5.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.052	NaN	1.800	1.944	2.088	2.128	2.232
N° 2	2.720	NaN	1.616	2.032	1.968	2.080	2.016
N° 3	2.512	NaN	1.608	1.936	1.976	2.072	2.016
N° 4	3.136	NaN	1.680	1.840	2.128	1.992	1.880
N° 5	2.624	NaN	2.360	1.328	1.224	1.376	1.320
N° 6	2.384	NaN	1.456	1.984	2.040	2.088	2.008
N° 7(Off)	2.512	NaN	2.008	1.560	1.576	1.648	1.880
N° 8(Off)	2.432	NaN	1.648	2.000	2.032	2.105	2.000
N° 9(Off)	2.608	NaN	1.608	1.952	1.992	2.000	2.040
N° 10(Off)	2.280	NaN	1.472	2.088	2.096	2.136	2.240
N° 11(Off)	2.200	NaN	1.840	1.792	1.744	1.952	1.952

**Delta [tPHZ\_Z, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.520E-1	-1.080E-1	3.600E-2	7.600E-2	1.800E-1
N° 2	---	NaN	-1.104E+0	-6.880E-1	-7.520E-1	-6.400E-1	-7.040E-1
N° 3	---	NaN	-9.040E-1	-5.760E-1	-5.360E-1	-4.400E-1	-4.960E-1
N° 4	---	NaN	-1.456E+0	-1.296E+0	-1.008E+0	-1.144E+0	-1.256E+0
N° 5	---	NaN	-2.640E-1	-1.296E+0	-1.400E+0	-1.248E+0	-1.304E+0
N° 6	---	NaN	-9.280E-1	-4.000E-1	-3.440E-1	-2.960E-1	-3.760E-1
N° 7(Off)	---	NaN	-5.040E-1	-9.520E-1	-9.360E-1	-8.640E-1	-6.320E-1
N° 8(Off)	---	NaN	-7.840E-1	-4.320E-1	-4.000E-1	-3.270E-1	-4.320E-1
N° 9(Off)	---	NaN	-1.000E+0	-6.560E-1	-6.160E-1	-6.080E-1	-5.680E-1
N° 10(Off)	---	NaN	-8.080E-1	-1.920E-1	-1.840E-1	-1.440E-1	-4.000E-2
N° 11(Off)	---	NaN	-3.600E-1	-4.080E-1	-4.560E-1	-2.480E-1	-2.480E-1
Average	---	NaN	-9.312E-1	-8.512E-1	-8.080E-1	-7.536E-1	-8.272E-1
s	---	0.000E+0	4.334E-1	4.188E-1	4.132E-1	4.235E-1	4.300E-1
Average+3s	---	NaN	3.689E-1	4.053E-1	4.315E-1	5.170E-1	4.629E-1
Average-3s	---	NaN	-2.231E+0	-2.108E+0	-2.048E+0	-2.024E+0	-2.117E+0

## 126. tPHZ\_Z, Module 3



tPHZ\_Z, Module 3 . (ns)

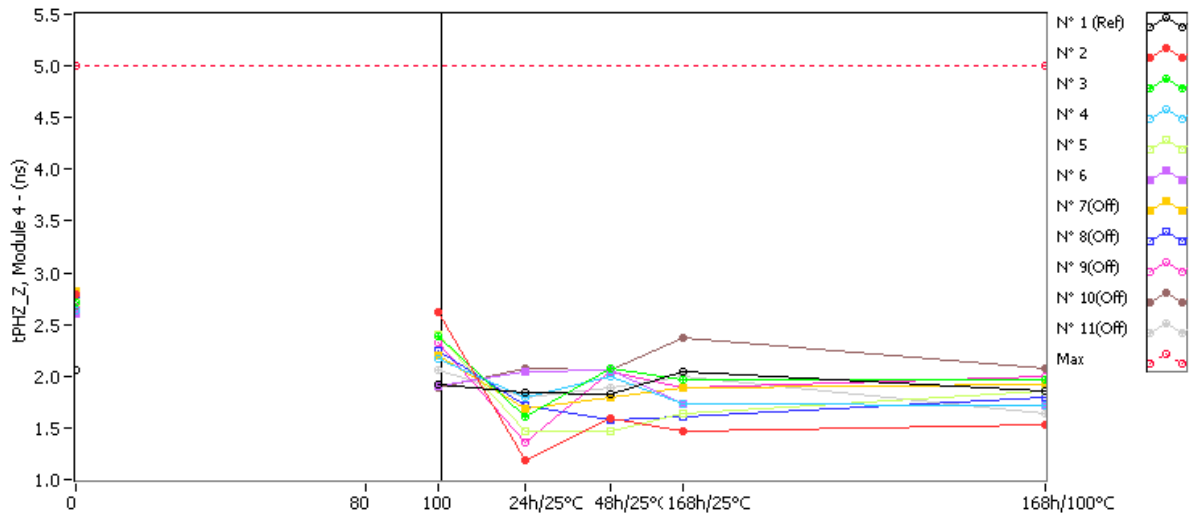
Max = 5.0

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.080	NaN	1.952	1.812	1.712	1.728	1.672
N° 2	2.944	NaN	2.272	0.960	0.968	1.560	1.304
N° 3	2.792	NaN	1.944	1.416	1.248	1.328	1.416
N° 4	2.680	NaN	1.976	0.904	0.848	1.656	1.352
N° 5	2.816	NaN	2.416	1.152	1.144	1.208	1.232
N° 6	2.800	NaN	2.016	1.392	0.864	1.488	1.608
N° 7(Off)	2.616	NaN	2.232	1.336	1.432	1.504	1.616
N° 8(Off)	2.784	NaN	2.000	1.472	1.472	1.651	1.456
N° 9(Off)	2.648	NaN	2.272	1.304	0.928	1.488	1.296
N° 10(Off)	2.672	NaN	1.936	1.696	1.792	1.768	1.672
N° 11(Off)	2.712	NaN	2.064	1.552	1.504	1.632	1.504

Delta [tPHZ\_Z, Module 3]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.280E-1	-2.680E-1	-3.680E-1	-3.520E-1	-4.080E-1
N° 2	---	NaN	-6.720E-1	-1.984E+0	-1.976E+0	-1.384E+0	-1.640E+0
N° 3	---	NaN	-8.480E-1	-1.376E+0	-1.544E+0	-1.464E+0	-1.376E+0
N° 4	---	NaN	-7.040E-1	-1.776E+0	-1.832E+0	-1.024E+0	-1.328E+0
N° 5	---	NaN	-4.000E-1	-1.664E+0	-1.672E+0	-1.608E+0	-1.584E+0
N° 6	---	NaN	-7.840E-1	-1.408E+0	-1.936E+0	-1.312E+0	-1.192E+0
N° 7(Off)	---	NaN	-3.840E-1	-1.280E+0	-1.184E+0	-1.112E+0	-1.000E+0
N° 8(Off)	---	NaN	-7.840E-1	-1.312E+0	-1.312E+0	-1.133E+0	-1.328E+0
N° 9(Off)	---	NaN	-3.760E-1	-1.344E+0	-1.720E+0	-1.160E+0	-1.352E+0
N° 10(Off)	---	NaN	-7.360E-1	-9.760E-1	-8.800E-1	-9.040E-1	-1.000E+0
N° 11(Off)	---	NaN	-6.480E-1	-1.160E+0	-1.208E+0	-1.080E+0	-1.208E+0
Average	---	NaN	-6.816E-1	-1.642E+0	-1.792E+0	-1.358E+0	-1.424E+0
s	---	0.000E+0	1.718E-1	2.554E-1	1.817E-1	2.168E-1	1.855E-1
Average+3s	---	NaN	-1.662E-1	-8.754E-1	-1.247E+0	-7.079E-1	-8.676E-1
Average-3s	---	NaN	-1.197E+0	-2.408E+0	-2.337E+0	-2.009E+0	-1.980E+0

## 127. tPHZ\_Z, Module 4



tPHZ\_Z, Module 4 . (ns)

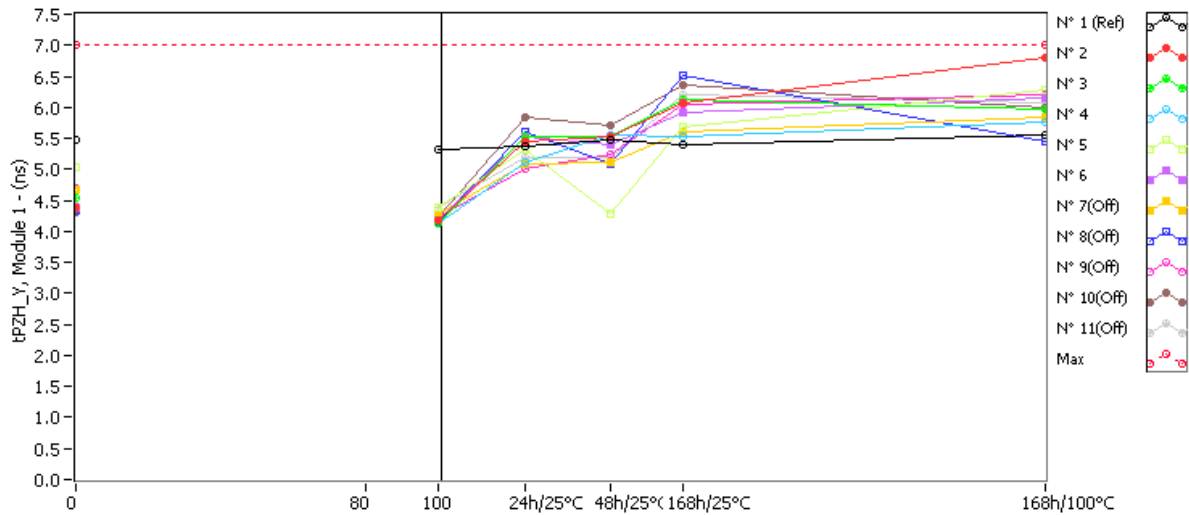
Max = 5.0

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.052	NaN	1.920	1.840	1.820	2.050	1.860
N° 2	2.792	NaN	2.624	1.180	1.590	1.460	1.530
N° 3	2.712	NaN	2.384	1.610	2.070	1.960	1.960
N° 4	2.640	NaN	2.168	1.800	1.990	1.730	1.710
N° 5	2.712	NaN	2.408	1.470	1.470	1.640	1.850
N° 6	2.600	NaN	1.896	2.050	2.060	1.730	1.710
N° 7(Off)	2.816	NaN	2.200	1.680	1.790	1.880	1.920
N° 8(Off)	2.768	NaN	2.248	1.710	1.580	1.600	1.800
N° 9(Off)	2.664	NaN	2.320	1.360	2.050	1.890	2.000
N° 10(Off)	2.640	NaN	1.880	2.070	2.060	2.370	2.070
N° 11(Off)	2.768	NaN	2.064	1.790	1.890	1.990	1.640

Delta [tPHZ\_Z, Module 4]

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.320E-1	-2.120E-1	-2.320E-1	-2.000E-3	-1.920E-1
N° 2	---	NaN	-1.680E-1	-1.612E+0	-1.202E+0	-1.332E+0	-1.262E+0
N° 3	---	NaN	-3.280E-1	-1.102E+0	-6.420E-1	-7.520E-1	-7.520E-1
N° 4	---	NaN	-4.720E-1	-8.400E-1	-6.500E-1	-9.100E-1	-9.300E-1
N° 5	---	NaN	-3.040E-1	-1.242E+0	-1.242E+0	-1.072E+0	-8.620E-1
N° 6	---	NaN	-7.040E-1	-5.500E-1	-5.400E-1	-8.700E-1	-8.900E-1
N° 7(Off)	---	NaN	-6.160E-1	-1.136E+0	-1.026E+0	-9.360E-1	-8.960E-1
N° 8(Off)	---	NaN	-5.200E-1	-1.058E+0	-1.188E+0	-1.168E+0	-9.680E-1
N° 9(Off)	---	NaN	-3.440E-1	-1.304E+0	-6.140E-1	-7.740E-1	-6.640E-1
N° 10(Off)	---	NaN	-7.600E-1	-5.700E-1	-5.800E-1	-2.700E-1	-5.700E-1
N° 11(Off)	---	NaN	-7.040E-1	-9.780E-1	-8.780E-1	-7.780E-1	-1.128E+0
Average	---	NaN	-3.952E-1	-1.069E+0	-8.552E-1	-9.872E-1	-9.392E-1
s	---	0.000E+0	2.035E-1	4.024E-1	3.379E-1	2.242E-1	1.922E-1
Average+3s	---	NaN	2.154E-1	1.380E-1	1.586E-1	-3.145E-1	-3.627E-1
Average-3s	---	NaN	-1.006E+0	-2.276E+0	-1.869E+0	-1.660E+0	-1.516E+0

## 128. tPZH\_Y, Module 1



**tPZH\_Y, Module 1 . (ns)**

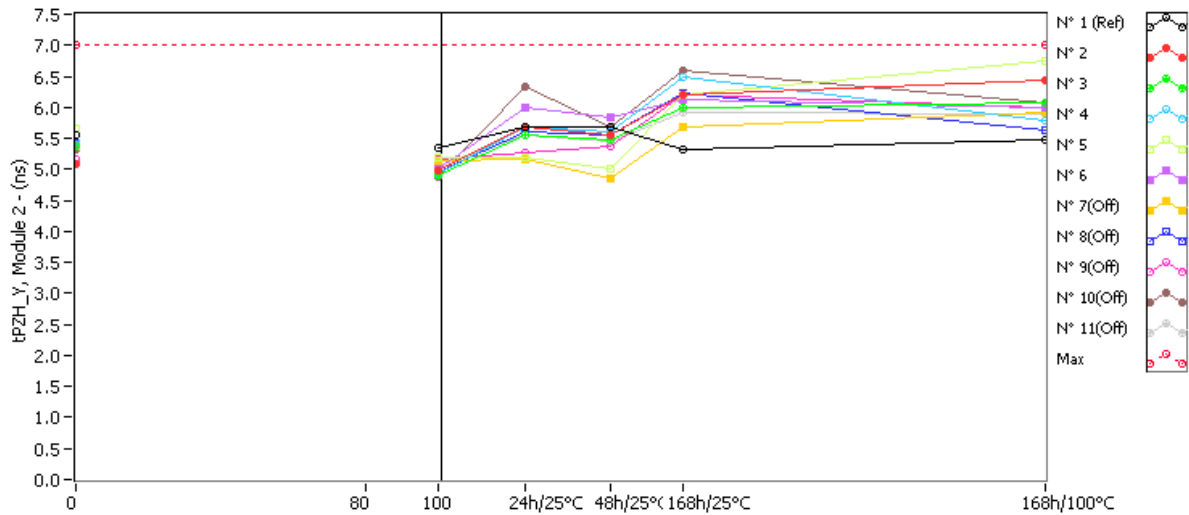
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.467	NaN	5.320	5.360	5.480	5.400	5.560
N° 2	4.387	NaN	4.187	5.440	5.520	6.080	6.800
N° 3	4.547	NaN	4.120	5.520	5.520	6.120	5.960
N° 4	4.547	NaN	4.133	5.120	5.560	5.520	5.760
N° 5	5.040	NaN	4.373	5.320	4.280	5.680	6.280
N° 6	4.387	NaN	4.187	5.520	5.400	5.920	6.160
N° 7(Off)	4.667	NaN	4.293	5.080	5.120	5.600	5.840
N° 8(Off)	4.333	NaN	4.147	5.600	5.080	6.524	5.440
N° 9(Off)	4.693	NaN	4.240	5.000	5.240	6.040	6.200
N° 10(Off)	4.320	NaN	4.240	5.840	5.720	6.360	6.000
N° 11(Off)	4.413	NaN	4.373	5.200	5.200	6.200	6.080

**Delta [tPZH\_Y, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.470E-1	-1.070E-1	1.300E-2	-6.700E-2	9.300E-2
N° 2	---	NaN	-2.000E-1	1.053E+0	1.133E+0	1.693E+0	2.413E+0
N° 3	---	NaN	-4.270E-1	9.730E-1	9.730E-1	1.573E+0	1.413E+0
N° 4	---	NaN	-4.140E-1	5.730E-1	1.013E+0	9.730E-1	1.213E+0
N° 5	---	NaN	-6.670E-1	2.800E-1	-7.600E-1	6.400E-1	1.240E+0
N° 6	---	NaN	-2.000E-1	1.133E+0	1.013E+0	1.533E+0	1.773E+0
N° 7(Off)	---	NaN	-3.740E-1	4.130E-1	4.530E-1	9.330E-1	1.173E+0
N° 8(Off)	---	NaN	-1.860E-1	1.267E+0	7.470E-1	2.191E+0	1.107E+0
N° 9(Off)	---	NaN	-4.530E-1	3.070E-1	5.470E-1	1.347E+0	1.507E+0
N° 10(Off)	---	NaN	-8.000E-2	1.520E+0	1.400E+0	2.040E+0	1.680E+0
N° 11(Off)	---	NaN	-4.000E-2	7.870E-1	7.870E-1	1.787E+0	1.667E+0
Average	---	NaN	-3.816E-1	8.024E-1	6.744E-1	1.282E+0	1.610E+0
s	---	0.000E+0	1.940E-1	3.629E-1	8.041E-1	4.539E-1	5.012E-1
Average+3s	---	NaN	2.004E-1	1.891E+0	3.087E+0	2.644E+0	3.114E+0
Average-3s	---	NaN	-9.636E-1	-2.862E-1	-1.738E+0	-7.942E-2	1.069E-1

## 129. tPZH\_Y, Module 2



**tPZH\_Y, Module 2 . (ns)**

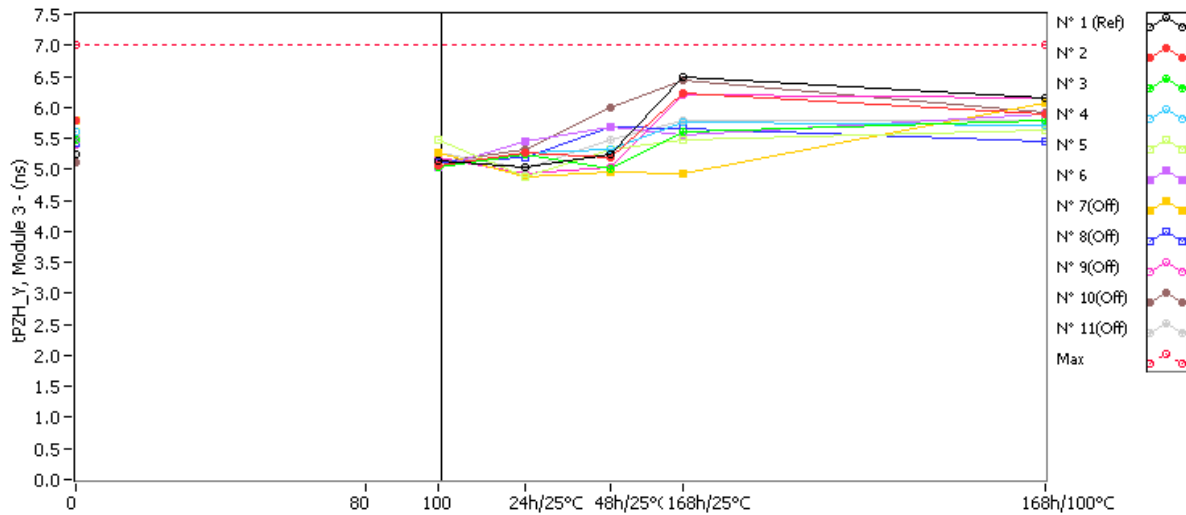
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.552	NaN	5.344	5.680	5.320	5.480	5.480
N° 2	5.088	NaN	4.976	5.680	5.560	6.200	6.440
N° 3	5.376	NaN	4.912	5.560	5.480	6.000	6.080
N° 4	5.440	NaN	4.928	5.680	5.600	6.480	5.800
N° 5	5.648	NaN	5.184	5.200	5.000	6.200	6.760
N° 6	5.392	NaN	5.008	6.000	5.840	6.120	6.000
N° 7(Off)	5.360	NaN	5.136	5.160	4.840	5.680	5.920
N° 8(Off)	5.424	NaN	4.960	5.600	5.560	6.235	5.640
N° 9(Off)	5.152	NaN	5.152	5.280	5.360	6.200	6.000
N° 10(Off)	5.312	NaN	4.880	6.320	5.680	6.600	6.080
N° 11(Off)	5.376	NaN	5.072	5.560	5.440	5.920	5.880

**Delta [tPZH\_Y, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.080E-1	1.280E-1	1.280E-1	-2.320E-1	-7.200E-2
N° 2	---	NaN	-1.120E-1	5.920E-1	4.720E-1	1.112E+0	1.352E+0
N° 3	---	NaN	-4.640E-1	1.840E-1	1.040E-1	6.240E-1	7.040E-1
N° 4	---	NaN	-5.120E-1	2.400E-1	1.600E-1	1.040E+0	3.600E-1
N° 5	---	NaN	-4.640E-1	-4.480E-1	-6.480E-1	5.520E-1	1.112E+0
N° 6	---	NaN	-3.840E-1	6.080E-1	4.480E-1	7.280E-1	6.080E-1
N° 7(Off)	---	NaN	-2.240E-1	-2.000E-1	-5.200E-1	3.200E-1	5.600E-1
N° 8(Off)	---	NaN	-4.640E-1	1.760E-1	1.360E-1	8.110E-1	2.160E-1
N° 9(Off)	---	NaN	0.000E+0	1.280E-1	2.080E-1	1.048E+0	8.480E-1
N° 10(Off)	---	NaN	-4.320E-1	1.008E+0	3.680E-1	1.288E+0	7.680E-1
N° 11(Off)	---	NaN	-3.040E-1	1.840E-1	6.400E-2	5.440E-1	5.040E-1
Average	---	NaN	-3.872E-1	2.352E-1	1.072E-1	8.112E-1	8.272E-1
s	---	0.000E+0	1.606E-1	4.289E-1	4.534E-1	2.510E-1	3.994E-1
Average+3s	---	NaN	9.448E-2	1.522E+0	1.467E+0	1.564E+0	2.025E+0
Average-3s	---	NaN	-8.689E-1	-1.051E+0	-1.253E+0	5.823E-2	-3.710E-1

## 130. tPZH\_Y, Module 3



**tPZH\_Y, Module 3 . (ns)**

**Max = 7.0**

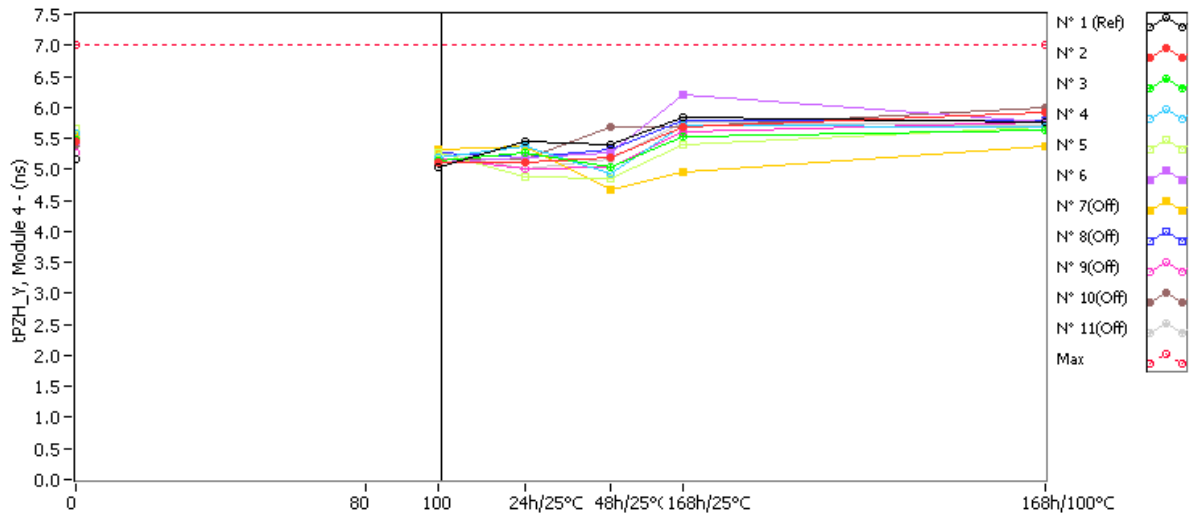
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.232	NaN	5.136	5.040	5.240	6.480	6.160
N° 2	5.792	NaN	5.072	5.280	5.200	6.240	5.880
N° 3	5.488	NaN	5.040	5.240	5.000	5.600	5.800
N° 4	5.616	NaN	5.072	5.280	5.320	5.760	5.720
N° 5	5.616	NaN	5.472	4.880	5.320	5.480	5.640
N° 6	5.488	NaN	5.040	5.440	5.680	5.560	5.880
N° 7(Off)	5.792	NaN	5.264	4.880	4.960	4.920	6.080
N° 8(Off)	5.424	NaN	5.120	5.200	5.680	5.657	5.440
N° 9(Off)	5.392	NaN	5.200	4.920	5.040	6.200	6.160
N° 10(Off)	5.120	NaN	5.104	5.320	6.000	6.440	5.920
N° 11(Off)	5.248	NaN	5.264	5.000	5.480	5.800	5.800

**Delta [tPZH\_Y, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-9.600E-2	-1.920E-1	8.000E-3	1.248E+0	9.280E-1
N° 2	---	NaN	-7.200E-1	-5.120E-1	-5.920E-1	4.480E-1	8.800E-2
N° 3	---	NaN	-4.480E-1	-2.480E-1	-4.880E-1	1.120E-1	3.120E-1
N° 4	---	NaN	-5.440E-1	-3.360E-1	-2.960E-1	1.440E-1	1.040E-1
N° 5	---	NaN	-1.440E-1	-7.360E-1	-2.960E-1	-1.360E-1	2.400E-2
N° 6	---	NaN	-4.480E-1	-4.800E-2	1.920E-1	7.200E-2	3.920E-1
N° 7(Off)	---	NaN	-5.280E-1	-9.120E-1	-8.320E-1	-8.720E-1	2.880E-1
N° 8(Off)	---	NaN	-3.040E-1	-2.240E-1	2.560E-1	2.330E-1	1.600E-2
N° 9(Off)	---	NaN	-1.920E-1	-4.720E-1	-3.520E-1	8.080E-1	7.680E-1
N° 10(Off)	---	NaN	-1.600E-2	2.000E-1	8.800E-1	1.320E+0	8.000E-1
N° 11(Off)	---	NaN	1.600E-2	-2.480E-1	2.320E-1	5.520E-1	5.520E-1
Average	---	NaN	-4.608E-1	-3.760E-1	-2.960E-1	1.280E-1	1.840E-1
s	---	0.000E+0	2.090E-1	2.616E-1	3.011E-1	2.096E-1	1.588E-1
Average+3s	---	NaN	1.663E-1	4.087E-1	6.073E-1	7.568E-1	6.604E-1
Average-3s	---	NaN	-1.088E+0	-1.161E+0	-1.199E+0	-5.008E-1	-2.924E-1



## 131. tPZH\_Y, Module 4



**tPZH\_Y, Module 4 . (ns)**

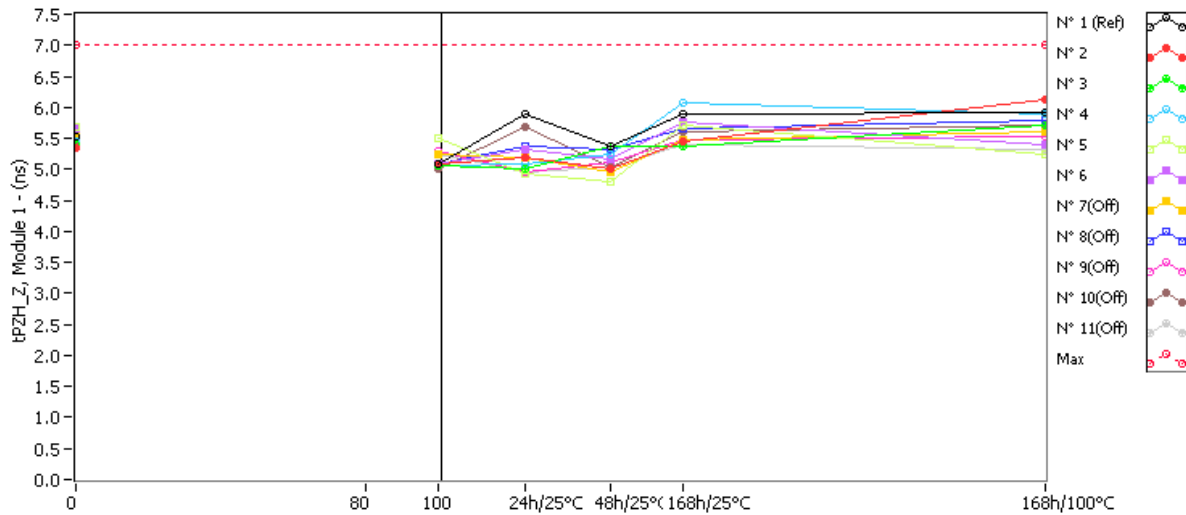
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.168	NaN	5.040	5.440	5.400	5.840	5.760
N° 2	5.456	NaN	5.104	5.120	5.200	5.680	5.920
N° 3	5.472	NaN	5.136	5.280	5.040	5.520	5.640
N° 4	5.568	NaN	5.200	5.360	4.920	5.720	5.680
N° 5	5.664	NaN	5.280	4.880	4.840	5.400	5.680
N° 6	5.440	NaN	5.120	5.200	5.280	6.200	5.760
N° 7(Off)	5.584	NaN	5.328	5.360	4.680	4.960	5.360
N° 8(Off)	5.488	NaN	5.264	5.200	5.320	5.800	5.800
N° 9(Off)	5.280	NaN	5.200	5.000	5.040	5.600	5.760
N° 10(Off)	5.408	NaN	5.168	5.160	5.680	5.680	6.000
N° 11(Off)	5.488	NaN	5.280	5.000	5.160	5.760	5.720

**Delta [tPZH\_Y, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.280E-1	2.720E-1	2.320E-1	6.720E-1	5.920E-1
N° 2	---	NaN	-3.520E-1	-3.360E-1	-2.560E-1	2.240E-1	4.640E-1
N° 3	---	NaN	-3.360E-1	-1.920E-1	-4.320E-1	4.800E-2	1.680E-1
N° 4	---	NaN	-3.680E-1	-2.080E-1	-6.480E-1	1.520E-1	1.120E-1
N° 5	---	NaN	-3.840E-1	-7.840E-1	-8.240E-1	-2.640E-1	1.600E-2
N° 6	---	NaN	-3.200E-1	-2.400E-1	-1.600E-1	7.600E-1	3.200E-1
N° 7(Off)	---	NaN	-2.560E-1	-2.240E-1	-9.040E-1	-6.240E-1	-2.240E-1
N° 8(Off)	---	NaN	-2.240E-1	-2.880E-1	-1.680E-1	3.120E-1	3.120E-1
N° 9(Off)	---	NaN	-8.000E-2	-2.800E-1	-2.400E-1	3.200E-1	4.800E-1
N° 10(Off)	---	NaN	-2.400E-1	-2.480E-1	2.720E-1	2.720E-1	5.920E-1
N° 11(Off)	---	NaN	-2.080E-1	-4.880E-1	-3.280E-1	2.720E-1	2.320E-1
Average	---	NaN	-3.520E-1	-3.520E-1	-4.640E-1	1.840E-1	2.160E-1
s	---	0.000E+0	2.530E-2	2.479E-1	2.739E-1	3.720E-1	1.771E-1
Average+3s	---	NaN	-2.761E-1	3.916E-1	3.578E-1	1.300E+0	7.473E-1
Average-3s	---	NaN	-4.279E-1	-1.096E+0	-1.286E+0	-9.321E-1	-3.153E-1

## 132. tPZH\_Z, Module 1



**tPZH\_Z, Module 1 . (ns)**

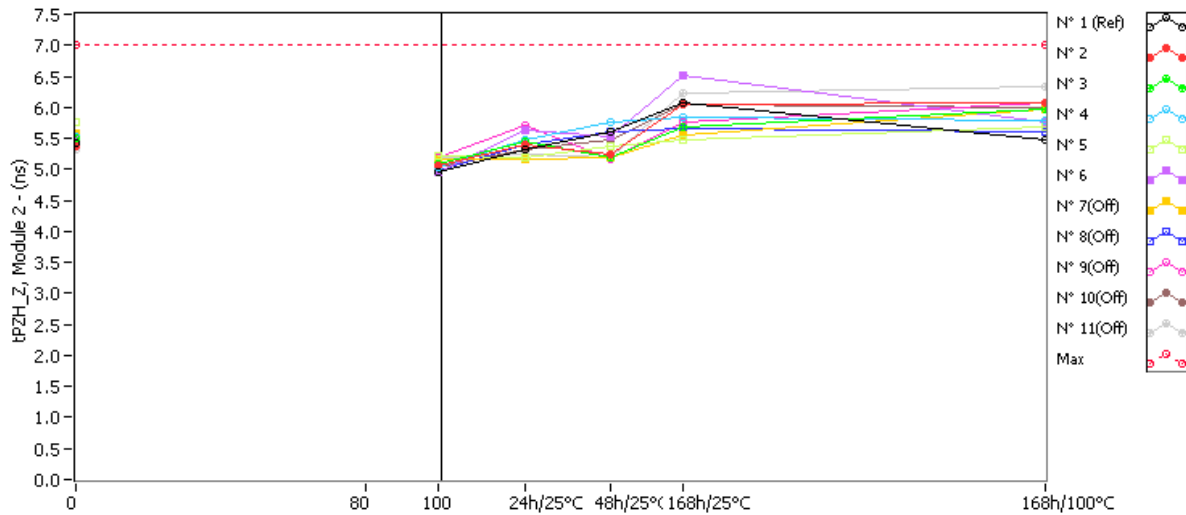
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.536	NaN	5.088	5.880	5.360	5.880	5.920
N° 2	5.344	NaN	5.088	5.200	5.000	5.440	6.120
N° 3	5.408	NaN	5.072	5.000	5.360	5.360	5.720
N° 4	5.456	NaN	5.056	5.080	5.240	6.080	5.880
N° 5	5.680	NaN	5.504	4.920	4.800	5.720	5.240
N° 6	5.648	NaN	5.088	5.320	5.160	5.760	5.400
N° 7(Off)	5.584	NaN	5.232	5.200	4.960	5.480	5.600
N° 8(Off)	5.424	NaN	5.088	5.360	5.320	5.652	5.800
N° 9(Off)	5.632	NaN	5.296	4.960	5.120	5.480	5.520
N° 10(Off)	5.488	NaN	5.008	5.680	5.040	5.600	5.720
N° 11(Off)	5.520	NaN	5.248	4.960	5.040	5.400	5.320

**Delta [tPZH\_Z, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-4.480E-1	3.440E-1	-1.760E-1	3.440E-1	3.840E-1
N° 2	---	NaN	-2.560E-1	-1.440E-1	-3.440E-1	9.600E-2	7.760E-1
N° 3	---	NaN	-3.360E-1	-4.080E-1	-4.800E-2	-4.800E-2	3.120E-1
N° 4	---	NaN	-4.000E-1	-3.760E-1	-2.160E-1	6.240E-1	4.240E-1
N° 5	---	NaN	-1.760E-1	-7.600E-1	-8.800E-1	4.000E-2	-4.400E-1
N° 6	---	NaN	-5.600E-1	-3.280E-1	-4.880E-1	1.120E-1	-2.480E-1
N° 7(Off)	---	NaN	-3.520E-1	-3.840E-1	-6.240E-1	-1.040E-1	1.600E-2
N° 8(Off)	---	NaN	-3.360E-1	-6.400E-2	-1.040E-1	2.280E-1	3.760E-1
N° 9(Off)	---	NaN	-3.360E-1	-6.720E-1	-5.120E-1	-1.520E-1	-1.120E-1
N° 10(Off)	---	NaN	-4.800E-1	1.920E-1	-4.480E-1	1.120E-1	2.320E-1
N° 11(Off)	---	NaN	-2.720E-1	-5.600E-1	-4.800E-1	-1.200E-1	-2.000E-1
Average	---	NaN	-3.456E-1	-4.032E-1	-3.952E-1	1.648E-1	1.648E-1
s	---	0.000E+0	1.465E-1	2.241E-1	3.158E-1	2.642E-1	4.997E-1
Average+3s	---	NaN	9.380E-2	2.691E-1	5.522E-1	9.575E-1	1.664E+0
Average-3s	---	NaN	-7.850E-1	-1.076E+0	-1.343E+0	-6.279E-1	-1.334E+0

### 133. tPZH\_Z, Module 2



**tPZH\_Z, Module 2 . (ns)**

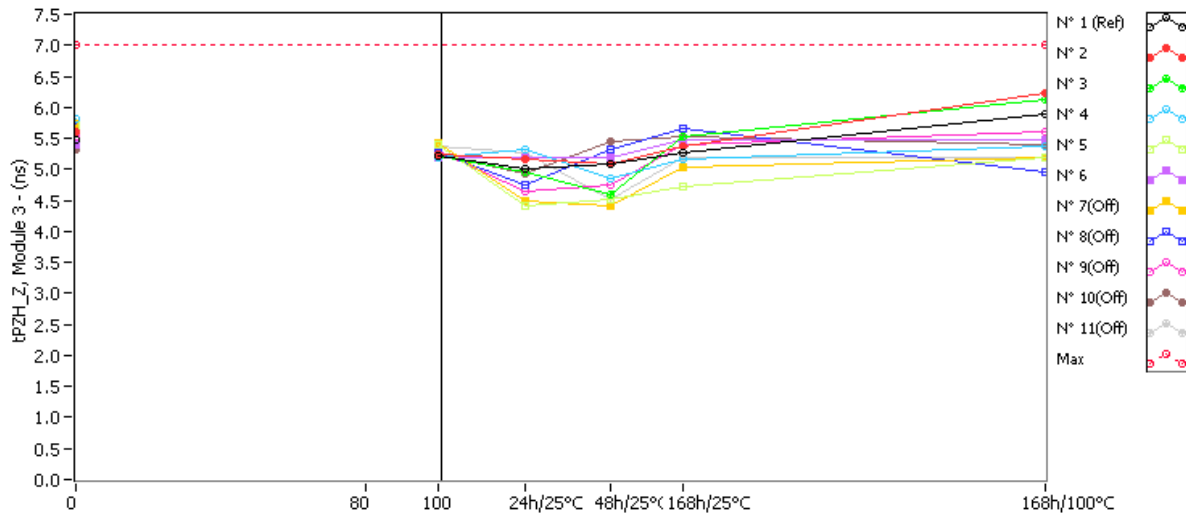
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.424	NaN	4.960	5.320	5.600	6.080	5.480
N° 2	5.360	NaN	5.072	5.400	5.240	6.040	6.080
N° 3	5.504	NaN	5.088	5.440	5.200	5.680	5.960
N° 4	5.536	NaN	5.024	5.480	5.760	5.840	5.800
N° 5	5.760	NaN	5.216	5.200	5.360	5.480	5.680
N° 6	5.472	NaN	4.960	5.640	5.520	6.520	5.760
N° 7(Off)	5.584	NaN	5.168	5.160	5.200	5.560	5.960
N° 8(Off)	5.520	NaN	4.992	5.400	5.600	5.647	5.600
N° 9(Off)	5.472	NaN	5.184	5.720	5.160	5.760	6.080
N° 10(Off)	5.536	NaN	5.040	5.320	5.480	6.040	6.000
N° 11(Off)	5.328	NaN	5.200	5.240	5.200	6.240	6.320

**Delta [tPZH\_Z, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-4.640E-1	-1.040E-1	1.760E-1	6.560E-1	5.600E-2
N° 2	---	NaN	-2.880E-1	4.000E-2	-1.200E-1	6.800E-1	7.200E-1
N° 3	---	NaN	-4.160E-1	-6.400E-2	-3.040E-1	1.760E-1	4.560E-1
N° 4	---	NaN	-5.120E-1	-5.600E-2	2.240E-1	3.040E-1	2.640E-1
N° 5	---	NaN	-5.440E-1	-5.600E-1	-4.000E-1	-2.800E-1	-8.000E-2
N° 6	---	NaN	-5.120E-1	1.680E-1	4.800E-2	1.048E+0	2.880E-1
N° 7(Off)	---	NaN	-4.160E-1	-4.240E-1	-3.840E-1	-2.400E-2	3.760E-1
N° 8(Off)	---	NaN	-5.280E-1	-1.200E-1	8.000E-2	1.270E-1	8.000E-2
N° 9(Off)	---	NaN	-2.880E-1	2.480E-1	-3.120E-1	2.880E-1	6.080E-1
N° 10(Off)	---	NaN	-4.960E-1	-2.160E-1	-5.600E-2	5.040E-1	4.640E-1
N° 11(Off)	---	NaN	-1.280E-1	-8.800E-2	-1.280E-1	9.120E-1	9.920E-1
Average	---	NaN	-4.544E-1	-9.440E-2	-1.104E-1	3.856E-1	3.296E-1
s	---	0.000E+0	1.047E-1	2.766E-1	2.541E-1	5.047E-1	2.925E-1
Average+3s	---	NaN	-1.404E-1	7.355E-1	6.520E-1	1.900E+0	1.207E+0
Average-3s	---	NaN	-7.684E-1	-9.243E-1	-8.728E-1	-1.129E+0	-5.479E-1

### 134. tPZH\_Z, Module 3



**tPZH\_Z, Module 3 . (ns)**

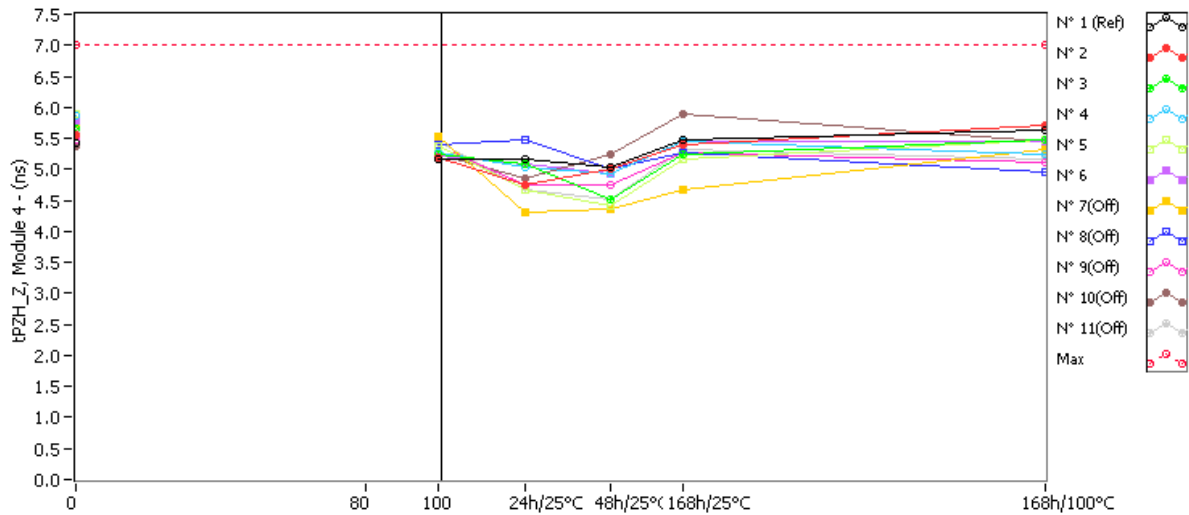
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.488	NaN	5.216	5.000	5.080	5.280	5.880
N° 2	5.616	NaN	5.232	5.160	5.080	5.360	6.240
N° 3	5.616	NaN	5.216	4.960	4.600	5.520	6.120
N° 4	5.808	NaN	5.200	5.320	4.840	5.160	5.360
N° 5	5.712	NaN	5.408	4.400	4.520	4.720	5.200
N° 6	5.392	NaN	5.184	5.200	5.200	5.480	5.480
N° 7(Off)	5.744	NaN	5.424	4.480	4.400	5.040	5.200
N° 8(Off)	5.744	NaN	5.280	4.760	5.320	5.648	4.960
N° 9(Off)	5.520	NaN	5.296	4.640	4.760	5.400	5.600
N° 10(Off)	5.328	NaN	5.248	4.920	5.440	5.520	5.400
N° 11(Off)	5.728	NaN	5.360	5.280	4.520	5.200	5.200

**Delta [tPZH\_Z, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.720E-1	-4.880E-1	-4.080E-1	-2.080E-1	3.920E-1
N° 2	---	NaN	-3.840E-1	-4.560E-1	-5.360E-1	-2.560E-1	6.240E-1
N° 3	---	NaN	-4.000E-1	-6.560E-1	-1.016E+0	-9.600E-2	5.040E-1
N° 4	---	NaN	-6.080E-1	-4.880E-1	-9.680E-1	-6.480E-1	-4.480E-1
N° 5	---	NaN	-3.040E-1	-1.312E+0	-1.192E+0	-9.920E-1	-5.120E-1
N° 6	---	NaN	-2.080E-1	-1.920E-1	-1.920E-1	8.800E-2	8.800E-2
N° 7(Off)	---	NaN	-3.200E-1	-1.264E+0	-1.344E+0	-7.040E-1	-5.440E-1
N° 8(Off)	---	NaN	-4.640E-1	-9.840E-1	-4.240E-1	-9.600E-2	-7.840E-1
N° 9(Off)	---	NaN	-2.240E-1	-8.800E-1	-7.600E-1	-1.200E-1	8.000E-2
N° 10(Off)	---	NaN	-8.000E-2	-4.080E-1	1.120E-1	1.920E-1	7.200E-2
N° 11(Off)	---	NaN	-3.680E-1	-4.480E-1	-1.208E+0	-5.280E-1	-5.280E-1
Average	---	NaN	-3.808E-1	-6.208E-1	-7.808E-1	-3.808E-1	5.120E-2
s	---	0.000E+0	1.481E-1	4.206E-1	4.081E-1	4.363E-1	5.246E-1
Average+3s	---	NaN	6.356E-2	6.410E-1	4.434E-1	9.281E-1	1.625E+0
Average-3s	---	NaN	-8.252E-1	-1.883E+0	-2.005E+0	-1.690E+0	-1.523E+0

## 135. tPZH\_Z, Module 4



**tPZH\_Z, Module 4 . (ns)**

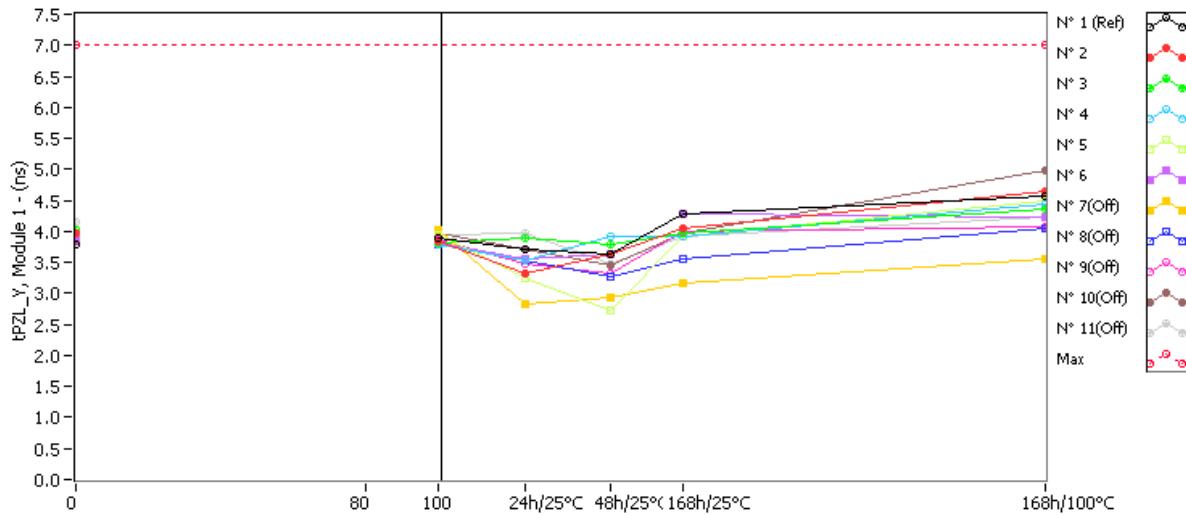
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	5.424	NaN	5.152	5.160	5.040	5.480	5.640
N° 2	5.552	NaN	5.200	4.760	5.000	5.400	5.720
N° 3	5.664	NaN	5.248	5.080	4.520	5.240	5.480
N° 4	5.856	NaN	5.280	5.040	4.920	5.440	5.240
N° 5	5.888	NaN	5.360	4.680	4.400	5.160	5.480
N° 6	5.776	NaN	5.216	5.080	4.920	5.440	5.440
N° 7(Off)	5.728	NaN	5.520	4.320	4.360	4.680	5.320
N° 8(Off)	5.872	NaN	5.392	5.480	5.000	5.280	4.960
N° 9(Off)	5.472	NaN	5.360	4.760	4.760	5.280	5.120
N° 10(Off)	5.360	NaN	5.248	4.840	5.240	5.880	5.440
N° 11(Off)	5.568	NaN	5.440	4.680	4.520	5.320	5.160

**Delta [tPZH\_Z, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-2.720E-1	-2.640E-1	-3.840E-1	5.600E-2	2.160E-1
N° 2	---	NaN	-3.520E-1	-7.920E-1	-5.520E-1	-1.520E-1	1.680E-1
N° 3	---	NaN	-4.160E-1	-5.840E-1	-1.144E+0	-4.240E-1	-1.840E-1
N° 4	---	NaN	-5.760E-1	-8.160E-1	-9.360E-1	-4.160E-1	-6.160E-1
N° 5	---	NaN	-5.280E-1	-1.208E+0	-1.488E+0	-7.280E-1	-4.080E-1
N° 6	---	NaN	-5.600E-1	-6.960E-1	-8.560E-1	-3.360E-1	-3.360E-1
N° 7(Off)	---	NaN	-2.080E-1	-1.408E+0	-1.368E+0	-1.048E+0	-4.080E-1
N° 8(Off)	---	NaN	-4.800E-1	-3.920E-1	-8.720E-1	-5.920E-1	-9.120E-1
N° 9(Off)	---	NaN	-1.120E-1	-7.120E-1	-7.120E-1	-1.920E-1	-3.520E-1
N° 10(Off)	---	NaN	-1.120E-1	-5.200E-1	-1.200E-1	5.200E-1	8.000E-2
N° 11(Off)	---	NaN	-1.280E-1	-8.880E-1	-1.048E+0	-2.480E-1	-4.080E-1
Average	---	NaN	-4.864E-1	-8.192E-1	-9.952E-1	-4.112E-1	-2.752E-1
s	---	0.000E+0	9.772E-2	2.358E-1	3.480E-1	2.082E-1	2.925E-1
Average+3s	---	NaN	-1.932E-1	-1.118E-1	4.868E-2	2.134E-1	6.023E-1
Average-3s	---	NaN	-7.796E-1	-1.527E+0	-2.039E+0	-1.036E+0	-1.153E+0

## 136. tPZL\_Y, Module 1



**tPZL\_Y, Module 1 . (ns)**

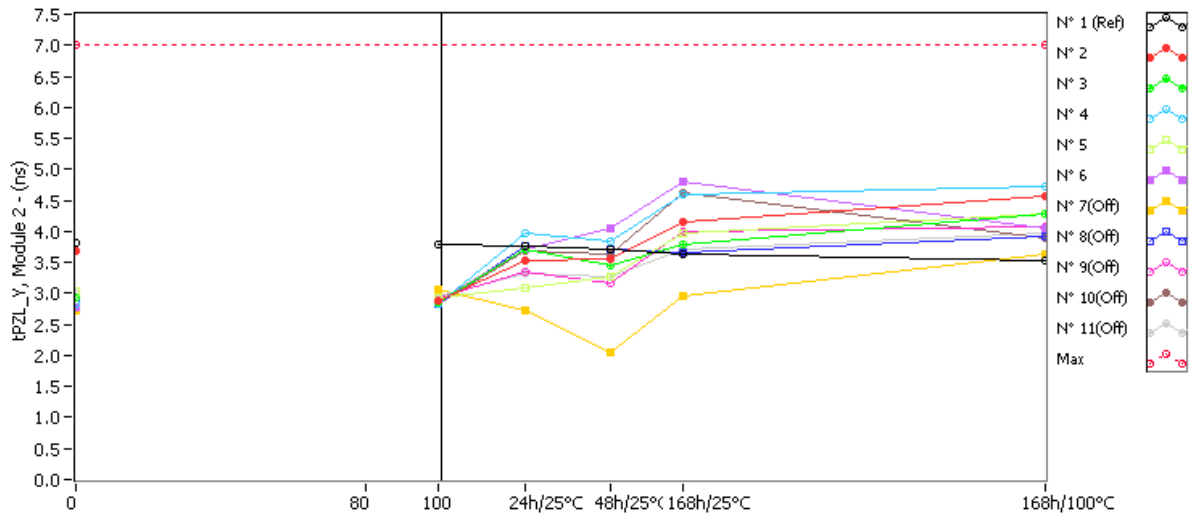
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.776	NaN	3.893	3.720	3.640	4.280	4.560
N° 2	3.968	NaN	3.829	3.320	3.640	4.040	4.640
N° 3	4.021	NaN	3.808	3.880	3.800	3.960	4.360
N° 4	4.011	NaN	3.797	3.520	3.920	3.920	4.440
N° 5	4.021	NaN	3.957	3.240	2.720	3.920	4.480
N° 6	3.904	NaN	3.819	3.560	3.640	4.280	4.240
N° 7(Off)	3.965	NaN	4.032	2.840	2.920	3.160	3.560
N° 8(Off)	3.904	NaN	3.797	3.520	3.280	3.568	4.040
N° 9(Off)	3.872	NaN	3.872	3.480	3.320	4.000	4.080
N° 10(Off)	3.851	NaN	3.972	3.720	3.459	3.960	4.987
N° 11(Off)	4.160	NaN	3.936	3.960	3.480	3.920	4.240

**Delta [tPZL\_Y, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.170E-1	-5.600E-2	-1.360E-1	5.040E-1	7.840E-1
N° 2	---	NaN	-1.390E-1	-6.480E-1	-3.280E-1	7.200E-2	6.720E-1
N° 3	---	NaN	-2.130E-1	-1.410E-1	-2.210E-1	-6.100E-2	3.390E-1
N° 4	---	NaN	-2.140E-1	-4.910E-1	-9.100E-2	-9.100E-2	4.290E-1
N° 5	---	NaN	-6.400E-2	-7.810E-1	-1.301E+0	-1.010E-1	4.590E-1
N° 6	---	NaN	-8.500E-2	-3.440E-1	-2.640E-1	3.760E-1	3.360E-1
N° 7(Off)	---	NaN	6.700E-2	-1.125E+0	-1.045E+0	-8.050E-1	-4.050E-1
N° 8(Off)	---	NaN	-1.070E-1	-3.840E-1	-6.240E-1	-3.360E-1	1.360E-1
N° 9(Off)	---	NaN	0.000E+0	-3.920E-1	-5.520E-1	1.280E-1	2.080E-1
N° 10(Off)	---	NaN	1.210E-1	-1.310E-1	-3.920E-1	1.090E-1	1.136E+0
N° 11(Off)	---	NaN	-2.240E-1	-2.000E-1	-6.800E-1	-2.400E-1	8.000E-2
Average	---	NaN	-1.430E-1	-4.810E-1	-4.410E-1	3.900E-2	4.470E-1
s	---	0.000E+0	6.993E-2	2.512E-1	4.885E-1	2.007E-1	1.370E-1
Average+3s	---	NaN	6.680E-2	2.725E-1	1.025E+0	6.412E-1	8.580E-1
Average-3s	---	NaN	-3.528E-1	-1.235E+0	-1.907E+0	-5.632E-1	3.599E-2

## 137. tPZL\_Y, Module 2



**tPZL\_Y, Module 2 . (ns)**

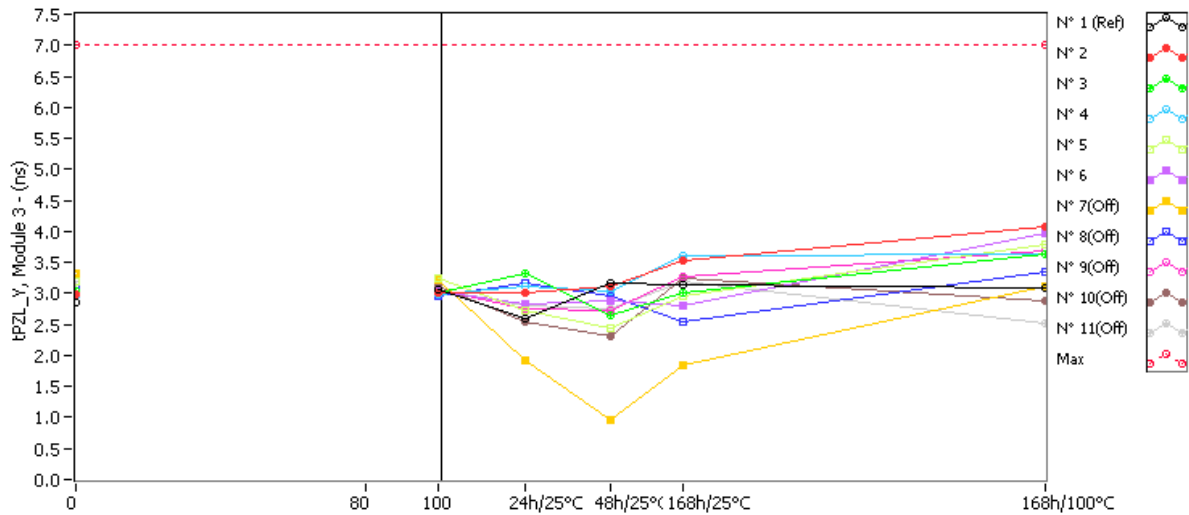
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.808	NaN	3.800	3.760	3.720	3.640	3.520
N° 2	3.696	NaN	2.872	3.520	3.560	4.160	4.560
N° 3	2.936	NaN	2.864	3.720	3.440	3.800	4.280
N° 4	2.840	NaN	2.832	3.960	3.840	4.600	4.720
N° 5	3.024	NaN	2.928	3.080	3.280	3.960	4.280
N° 6	2.784	NaN	2.888	3.720	4.040	4.800	4.040
N° 7(Off)	2.727	NaN	3.056	2.720	2.040	2.960	3.640
N° 8(Off)	2.832	NaN	2.840	3.760	3.720	3.654	3.920
N° 9(Off)	2.832	NaN	2.944	3.360	3.160	4.000	4.080
N° 10(Off)	2.720	NaN	2.816	3.680	3.640	4.621	3.880
N° 11(Off)	3.032	NaN	2.952	3.320	3.280	3.720	3.960

**Delta [tPZL\_Y, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-8.000E-3	-4.800E-2	-8.800E-2	-1.680E-1	-2.880E-1
N° 2	---	NaN	-8.240E-1	-1.760E-1	-1.360E-1	4.640E-1	8.640E-1
N° 3	---	NaN	-7.200E-2	7.840E-1	5.040E-1	8.640E-1	1.344E+0
N° 4	---	NaN	-8.000E-3	1.120E+0	1.000E+0	1.760E+0	1.880E+0
N° 5	---	NaN	-9.600E-2	5.600E-2	2.560E-1	9.360E-1	1.256E+0
N° 6	---	NaN	1.040E-1	9.360E-1	1.256E+0	2.016E+0	1.256E+0
N° 7(Off)	---	NaN	3.290E-1	-7.000E-3	-6.870E-1	2.330E-1	9.130E-1
N° 8(Off)	---	NaN	8.000E-3	9.280E-1	8.880E-1	8.220E-1	1.088E+0
N° 9(Off)	---	NaN	1.120E-1	5.280E-1	3.280E-1	1.168E+0	1.248E+0
N° 10(Off)	---	NaN	9.600E-2	9.600E-1	9.200E-1	1.901E+0	1.160E+0
N° 11(Off)	---	NaN	-8.000E-2	2.880E-1	2.480E-1	6.880E-1	9.280E-1
Average	---	NaN	-1.792E-1	5.440E-1	5.760E-1	1.208E+0	1.320E+0
s	---	0.000E+0	3.687E-1	5.700E-1	5.605E-1	6.526E-1	3.641E-1
Average+3s	---	NaN	9.268E-1	2.254E+0	2.258E+0	3.166E+0	2.412E+0
Average-3s	---	NaN	-1.285E+0	-1.166E+0	-1.106E+0	-7.497E-1	2.277E-1

### 138. tPZL\_Y, Module 3



**tPZL\_Y, Module 3 . (ns)**

**Max = 7.0**

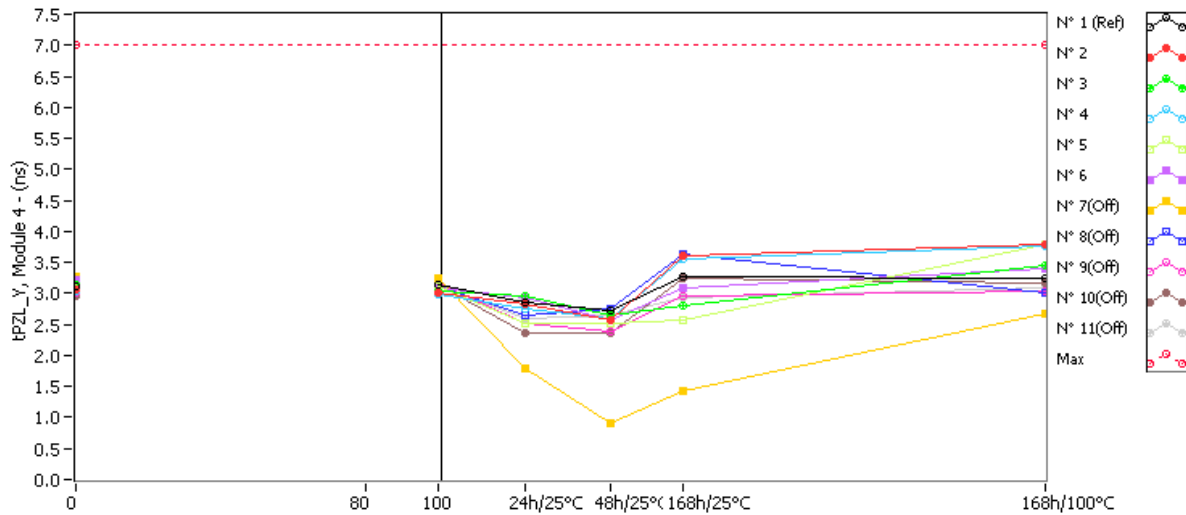
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.864	NaN	3.064	2.600	3.160	3.140	3.100
N° 2	2.976	NaN	3.000	3.000	3.120	3.520	4.080
N° 3	3.040	NaN	3.008	3.320	2.640	3.000	3.640
N° 4	2.952	NaN	2.992	3.120	3.040	3.600	3.640
N° 5	3.200	NaN	3.232	2.720	2.440	2.960	3.800
N° 6	2.976	NaN	3.032	2.840	2.880	2.800	3.960
N° 7(Off)	3.320	NaN	3.216	1.920	0.960	1.840	3.120
N° 8(Off)	3.080	NaN	2.968	3.160	2.960	2.540	3.360
N° 9(Off)	2.992	NaN	3.056	2.760	2.720	3.280	3.680
N° 10(Off)	2.952	NaN	3.104	2.546	2.320	3.240	2.880
N° 11(Off)	3.128	NaN	3.072	2.800	2.760	3.200	2.520

**Delta [tPZL\_Y, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	2.000E-1	-2.640E-1	2.960E-1	2.760E-1	2.360E-1
N° 2	---	NaN	2.400E-2	2.400E-2	1.440E-1	5.440E-1	1.104E+0
N° 3	---	NaN	-3.200E-2	2.800E-1	-4.000E-1	-4.000E-2	6.000E-1
N° 4	---	NaN	4.000E-2	1.680E-1	8.800E-2	6.480E-1	6.880E-1
N° 5	---	NaN	3.200E-2	-4.800E-1	-7.600E-1	-2.400E-1	6.000E-1
N° 6	---	NaN	5.600E-2	-1.360E-1	-9.600E-2	-1.760E-1	9.840E-1
N° 7(Off)	---	NaN	-1.040E-1	-1.400E+0	-2.360E+0	-1.480E+0	-2.000E-1
N° 8(Off)	---	NaN	-1.120E-1	8.000E-2	-1.200E-1	-5.400E-1	2.800E-1
N° 9(Off)	---	NaN	6.400E-2	-2.320E-1	-2.720E-1	2.880E-1	6.880E-1
N° 10(Off)	---	NaN	1.520E-1	-4.060E-1	-6.320E-1	2.880E-1	-7.200E-2
N° 11(Off)	---	NaN	-5.600E-2	-3.280E-1	-3.680E-1	7.200E-2	-6.080E-1
Average	---	NaN	2.400E-2	-2.880E-2	-2.048E-1	1.472E-1	7.952E-1
s	---	0.000E+0	3.347E-2	2.966E-1	3.760E-1	4.176E-1	2.338E-1
Average+3s	---	NaN	1.244E-1	8.611E-1	9.233E-1	1.400E+0	1.497E+0
Average-3s	---	NaN	-7.640E-2	-9.187E-1	-1.333E+0	-1.106E+0	9.372E-2



## 139. tPZL\_Y, Module 4



**tPZL\_Y, Module 4 . (ns)**

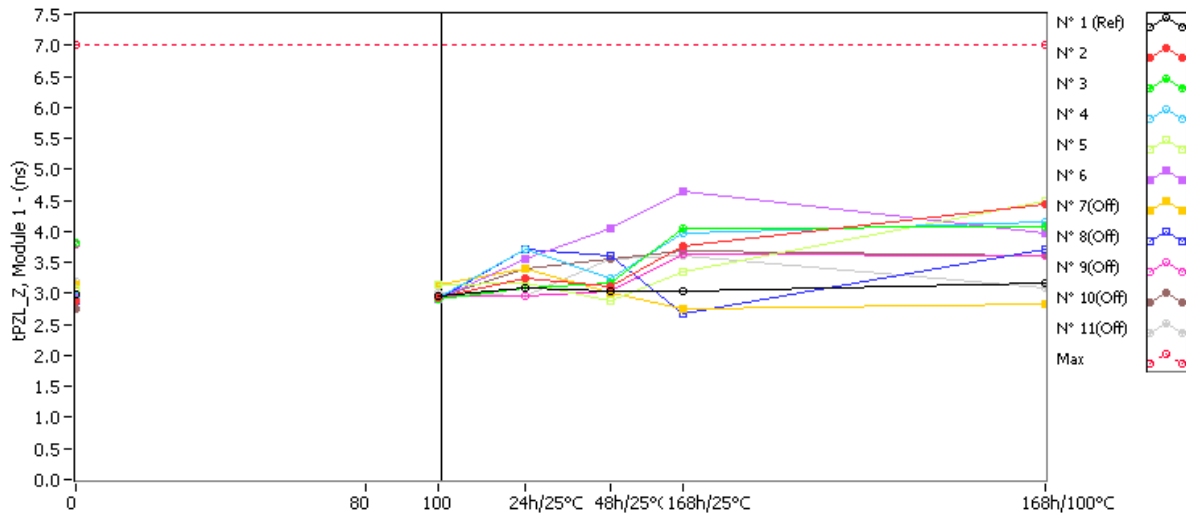
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.112	NaN	3.128	2.860	2.720	3.280	3.240
N° 2	3.056	NaN	3.008	2.840	2.560	3.600	3.800
N° 3	3.128	NaN	3.032	2.960	2.640	2.800	3.440
N° 4	3.048	NaN	2.984	2.760	2.600	3.560	3.760
N° 5	3.088	NaN	3.112	2.520	2.520	2.560	3.800
N° 6	3.216	NaN	3.096	2.920	2.560	3.080	3.400
N° 7(Off)	3.264	NaN	3.248	1.800	0.920	1.440	2.680
N° 8(Off)	3.072	NaN	3.120	2.640	2.760	3.640	3.000
N° 9(Off)	3.008	NaN	3.160	2.520	2.400	2.960	3.040
N° 10(Off)	2.968	NaN	3.139	2.360	2.360	3.240	3.160
N° 11(Off)	3.080	NaN	3.128	2.600	2.640	2.920	3.080

**Delta [tPZL\_Y, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.600E-2	-2.520E-1	-3.920E-1	1.680E-1	1.280E-1
N° 2	---	NaN	-4.800E-2	-2.160E-1	-4.960E-1	5.440E-1	7.440E-1
N° 3	---	NaN	-9.600E-2	-1.680E-1	-4.880E-1	-3.280E-1	3.120E-1
N° 4	---	NaN	-6.400E-2	-2.880E-1	-4.480E-1	5.120E-1	7.120E-1
N° 5	---	NaN	2.400E-2	-5.680E-1	-5.680E-1	-5.280E-1	7.120E-1
N° 6	---	NaN	-1.200E-1	-2.960E-1	-6.560E-1	-1.360E-1	1.840E-1
N° 7(Off)	---	NaN	-1.600E-2	-1.464E+0	-2.344E+0	-1.824E+0	-5.840E-1
N° 8(Off)	---	NaN	4.800E-2	-4.320E-1	-3.120E-1	5.680E-1	-7.200E-2
N° 9(Off)	---	NaN	1.520E-1	-4.880E-1	-6.080E-1	-4.800E-2	3.200E-2
N° 10(Off)	---	NaN	1.710E-1	-6.080E-1	-6.080E-1	2.720E-1	1.920E-1
N° 11(Off)	---	NaN	4.800E-2	-4.800E-1	-4.400E-1	-1.600E-1	0.000E+0
Average	---	NaN	-6.080E-2	-3.072E-1	-5.312E-1	1.280E-2	5.328E-1
s	---	0.000E+0	5.502E-2	1.551E-1	8.209E-2	4.904E-1	2.642E-1
Average+3s	---	NaN	1.043E-1	1.581E-1	-2.849E-1	1.484E+0	1.325E+0
Average-3s	---	NaN	-2.259E-1	-7.725E-1	-7.775E-1	-1.459E+0	-2.599E-1

## 140. tPZL\_Z, Module 1



**tPZL\_Z, Module 1 . (ns)**

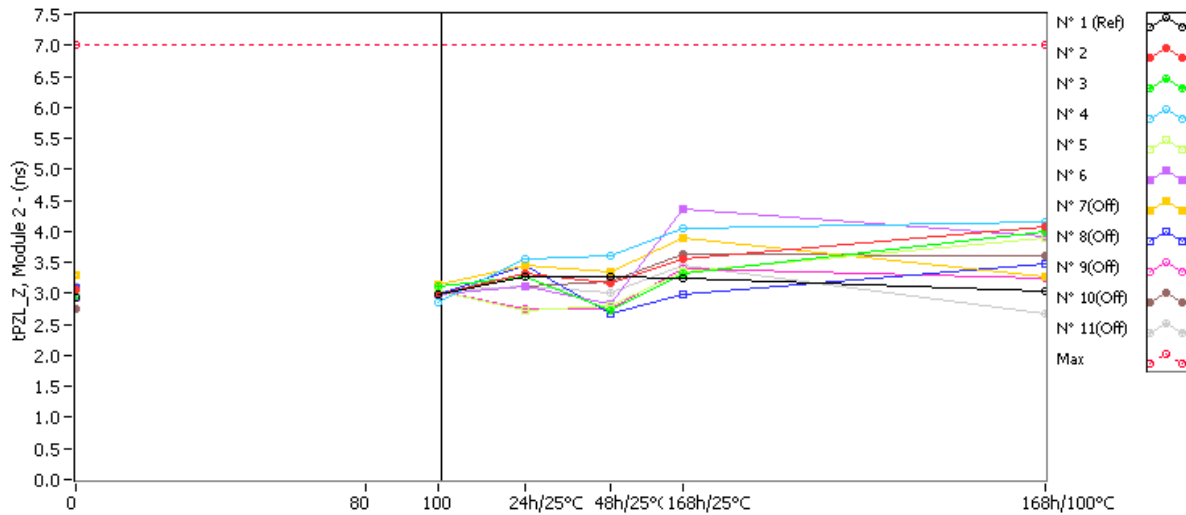
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.984	NaN	2.968	3.080	3.040	3.040	3.160
N° 2	2.888	NaN	2.928	3.240	3.120	3.760	4.440
N° 3	3.824	NaN	2.896	3.080	3.160	4.040	4.080
N° 4	2.960	NaN	2.920	3.720	3.240	3.960	4.160
N° 5	3.064	NaN	3.136	3.160	2.880	3.360	4.480
N° 6	2.984	NaN	2.912	3.560	4.040	4.640	3.960
N° 7(Off)	3.136	NaN	3.136	3.400	3.000	2.760	2.840
N° 8(Off)	2.880	NaN	2.904	3.720	3.600	2.684	3.720
N° 9(Off)	3.776	NaN	2.968	2.960	3.040	3.640	3.600
N° 10(Off)	2.744	NaN	2.944	3.400	3.567	3.680	3.600
N° 11(Off)	3.184	NaN	3.016	2.960	3.560	3.600	3.080

**Delta [tPZL\_Z, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.600E-2	9.600E-2	5.600E-2	5.600E-2	1.760E-1
N° 2	---	NaN	4.000E-2	3.520E-1	2.320E-1	8.720E-1	1.552E+0
N° 3	---	NaN	-9.280E-1	-7.440E-1	-6.640E-1	2.160E-1	2.560E-1
N° 4	---	NaN	-4.000E-2	7.600E-1	2.800E-1	1.000E+0	1.200E+0
N° 5	---	NaN	7.200E-2	9.600E-2	-1.840E-1	2.960E-1	1.416E+0
N° 6	---	NaN	-7.200E-2	5.760E-1	1.056E+0	1.656E+0	9.760E-1
N° 7(Off)	---	NaN	0.000E+0	2.640E-1	-1.360E-1	-3.760E-1	-2.960E-1
N° 8(Off)	---	NaN	2.400E-2	8.400E-1	7.200E-1	-1.960E-1	8.400E-1
N° 9(Off)	---	NaN	-8.080E-1	-8.160E-1	-7.360E-1	-1.360E-1	-1.760E-1
N° 10(Off)	---	NaN	2.000E-1	6.560E-1	8.230E-1	9.360E-1	8.560E-1
N° 11(Off)	---	NaN	-1.680E-1	-2.240E-1	3.760E-1	4.160E-1	-1.040E-1
Average	---	NaN	-1.856E-1	2.080E-1	1.440E-1	8.080E-1	1.080E+0
s	---	0.000E+0	4.191E-1	5.873E-1	6.361E-1	5.858E-1	5.099E-1
Average+3s	---	NaN	1.072E+0	1.970E+0	2.052E+0	2.565E+0	2.610E+0
Average-3s	---	NaN	-1.443E+0	-1.554E+0	-1.764E+0	-9.494E-1	-4.496E-1

## 141. tPZL\_Z, Module 2



**tPZL\_Z, Module 2 . (ns)**

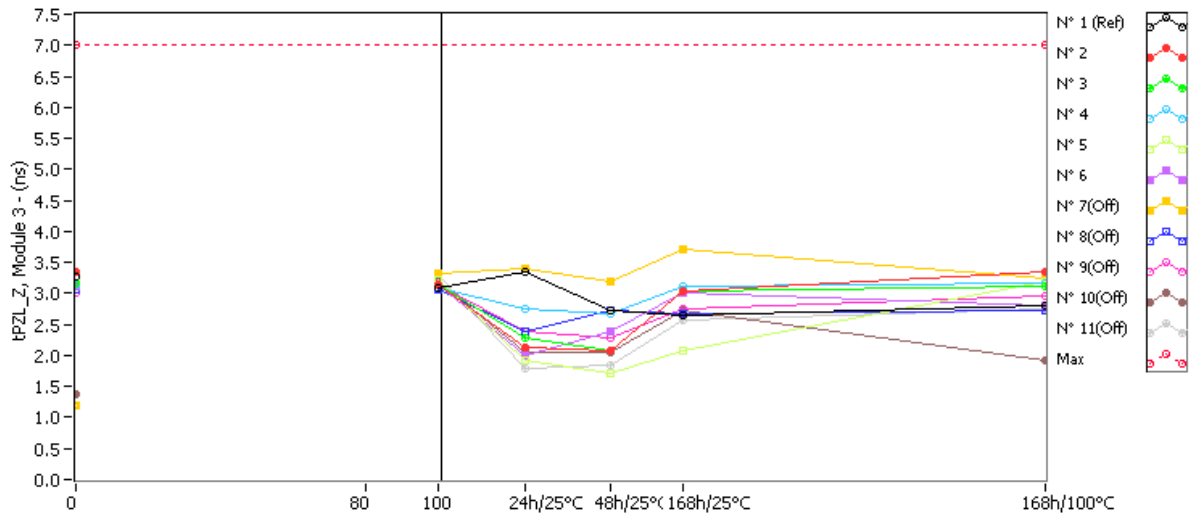
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.936	NaN	2.976	3.280	3.280	3.240	3.040
N° 2	3.064	NaN	2.976	3.320	3.160	3.560	4.080
N° 3	2.928	NaN	3.104	3.280	2.720	3.320	4.000
N° 4	2.960	NaN	2.856	3.560	3.600	4.040	4.160
N° 5	3.016	NaN	3.032	2.720	2.800	3.360	3.880
N° 6	2.936	NaN	2.984	3.120	2.840	4.360	3.920
N° 7(Off)	3.304	NaN	3.128	3.440	3.360	3.880	3.280
N° 8(Off)	3.080	NaN	2.976	3.440	2.680	2.987	3.480
N° 9(Off)	3.056	NaN	3.032	2.760	2.760	3.400	3.240
N° 10(Off)	2.752	NaN	2.976	3.120	3.200	3.640	3.600
N° 11(Off)	3.104	NaN	3.040	3.120	3.000	3.440	2.680

**Delta [tPZL\_Z, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	4.000E-2	3.440E-1	3.440E-1	3.040E-1	1.040E-1
N° 2	---	NaN	-8.800E-2	2.560E-1	9.600E-2	4.960E-1	1.016E+0
N° 3	---	NaN	1.760E-1	3.520E-1	-2.080E-1	3.920E-1	1.072E+0
N° 4	---	NaN	-1.040E-1	6.000E-1	6.400E-1	1.080E+0	1.200E+0
N° 5	---	NaN	1.600E-2	-2.960E-1	-2.160E-1	3.440E-1	8.640E-1
N° 6	---	NaN	4.800E-2	1.840E-1	-9.600E-2	1.424E+0	9.840E-1
N° 7(Off)	---	NaN	-1.760E-1	1.360E-1	5.600E-2	5.760E-1	-2.400E-2
N° 8(Off)	---	NaN	-1.040E-1	3.600E-1	-4.000E-1	-9.300E-2	4.000E-1
N° 9(Off)	---	NaN	-2.400E-2	-2.960E-1	-2.960E-1	3.440E-1	1.840E-1
N° 10(Off)	---	NaN	2.240E-1	3.680E-1	4.480E-1	8.880E-1	8.480E-1
N° 11(Off)	---	NaN	-6.400E-2	1.600E-2	-1.040E-1	3.360E-1	-4.240E-1
Average	---	NaN	9.600E-3	2.192E-1	4.320E-2	7.472E-1	1.027E+0
s	---	0.000E+0	1.136E-1	3.281E-1	3.566E-1	4.798E-1	1.230E-1
Average+3s	---	NaN	3.505E-1	1.204E+0	1.113E+0	2.186E+0	1.396E+0
Average-3s	---	NaN	-3.313E-1	-7.652E-1	-1.027E+0	-6.921E-1	6.583E-1

## 142. tPZL\_Z, Module 3



**tPZL\_Z, Module 3 . (ns)**

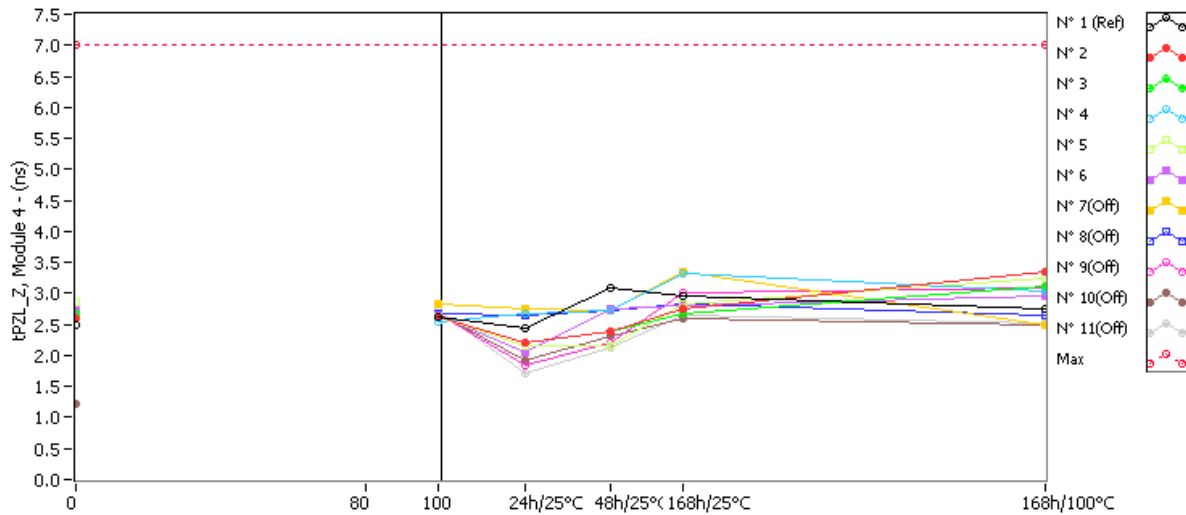
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	3.280	NaN	3.096	3.360	2.720	2.640	2.800
N° 2	3.352	NaN	3.152	2.120	2.080	3.040	3.360
N° 3	3.168	NaN	3.152	2.280	2.080	3.040	3.120
N° 4	3.144	NaN	3.096	2.760	2.680	3.120	3.160
N° 5	3.176	NaN	3.224	1.920	1.720	2.080	3.200
N° 6	3.104	NaN	3.128	2.000	2.400	3.000	2.800
N° 7(Off)	1.192	NaN	3.320	3.400	3.200	3.720	3.240
N° 8(Off)	3.056	NaN	3.064	2.400	2.720	2.684	2.720
N° 9(Off)	3.016	NaN	3.128	2.400	2.280	2.760	2.960
N° 10(Off)	1.368	NaN	3.192	2.040	2.040	2.720	1.920
N° 11(Off)	3.176	NaN	3.296	1.800	1.840	2.560	2.760

**Delta [tPZL\_Z, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-1.840E-1	8.000E-2	-5.600E-1	-6.400E-1	-4.800E-1
N° 2	---	NaN	-2.000E-1	-1.232E+0	-1.272E+0	-3.120E-1	8.000E-3
N° 3	---	NaN	-1.600E-2	-8.880E-1	-1.088E+0	-1.280E-1	-4.800E-2
N° 4	---	NaN	-4.800E-2	-3.840E-1	-4.640E-1	-2.400E-2	1.600E-2
N° 5	---	NaN	4.800E-2	-1.256E+0	-1.456E+0	-1.096E+0	2.400E-2
N° 6	---	NaN	2.400E-2	-1.104E+0	-7.040E-1	-1.040E-1	-3.040E-1
N° 7(Off)	---	NaN	2.128E+0	2.208E+0	2.008E+0	2.528E+0	2.048E+0
N° 8(Off)	---	NaN	8.000E-3	-6.560E-1	-3.360E-1	-3.720E-1	-3.360E-1
N° 9(Off)	---	NaN	1.120E-1	-6.160E-1	-7.360E-1	-2.560E-1	-5.600E-2
N° 10(Off)	---	NaN	1.824E+0	6.720E-1	6.720E-1	1.352E+0	5.520E-1
N° 11(Off)	---	NaN	1.200E-1	-1.376E+0	-1.336E+0	-6.160E-1	-4.160E-1
Average	---	NaN	-3.840E-2	-9.728E-1	-9.968E-1	-3.328E-1	-6.080E-2
s	---	0.000E+0	9.755E-2	3.600E-1	4.076E-1	4.395E-1	1.389E-1
Average+3s	---	NaN	2.543E-1	1.073E-1	2.260E-1	9.856E-1	3.558E-1
Average-3s	---	NaN	-3.311E-1	-2.053E+0	-2.220E+0	-1.651E+0	-4.774E-1

## 143. tPZL\_Z, Module 4



**tPZL\_Z, Module 4 . (ns)**

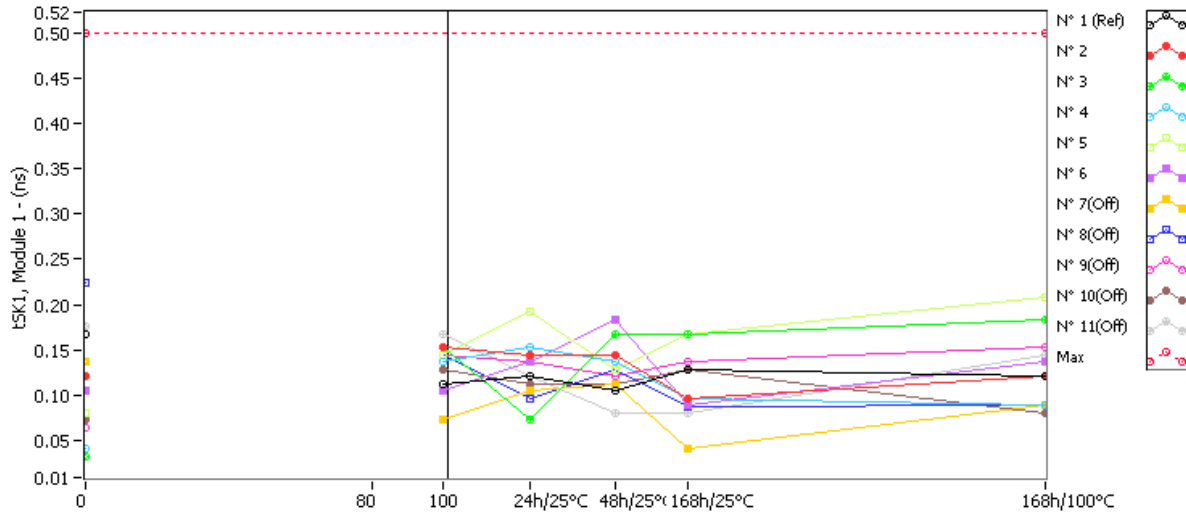
**Max = 7.0**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	2.487	NaN	2.627	2.440	3.080	2.960	2.760
N° 2	2.607	NaN	2.620	2.200	2.400	2.760	3.360
N° 3	2.680	NaN	2.633	2.200	2.400	2.680	3.120
N° 4	2.607	NaN	2.553	2.680	2.720	3.320	3.040
N° 5	2.847	NaN	2.633	2.160	2.160	2.840	3.240
N° 6	2.733	NaN	2.647	2.040	2.760	2.800	2.960
N° 7(Off)	2.614	NaN	2.840	2.760	2.720	3.360	2.480
N° 8(Off)	2.620	NaN	2.673	2.640	2.720	2.840	2.640
N° 9(Off)	2.687	NaN	2.673	1.840	2.200	3.000	3.080
N° 10(Off)	1.227	NaN	2.673	1.920	2.320	2.600	2.480
N° 11(Off)	2.660	NaN	2.713	1.720	2.120	2.640	2.520

**Delta [tPZL\_Z, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	1.400E-1	-4.700E-2	5.930E-1	4.730E-1	2.730E-1
N° 2	---	NaN	1.300E-2	-4.070E-1	-2.070E-1	1.530E-1	7.530E-1
N° 3	---	NaN	-4.700E-2	-4.800E-1	-2.800E-1	0.000E+0	4.400E-1
N° 4	---	NaN	-5.400E-2	7.300E-2	1.130E-1	7.130E-1	4.330E-1
N° 5	---	NaN	-2.140E-1	-6.870E-1	-6.870E-1	-7.000E-3	3.930E-1
N° 6	---	NaN	-8.600E-2	-6.930E-1	2.700E-2	6.700E-2	2.270E-1
N° 7(Off)	---	NaN	2.260E-1	1.460E-1	1.060E-1	7.460E-1	-1.340E-1
N° 8(Off)	---	NaN	5.300E-2	2.000E-2	1.000E-1	2.200E-1	2.000E-2
N° 9(Off)	---	NaN	-1.400E-2	-8.470E-1	-4.870E-1	3.130E-1	3.930E-1
N° 10(Off)	---	NaN	1.446E+0	6.930E-1	1.093E+0	1.373E+0	1.253E+0
N° 11(Off)	---	NaN	5.300E-2	-9.400E-1	-5.400E-1	-2.000E-2	-1.400E-1
Average	---	NaN	-7.760E-2	-4.388E-1	-2.068E-1	1.852E-1	4.492E-1
s	---	0.000E+0	8.423E-2	3.126E-1	3.134E-1	3.020E-1	1.905E-1
Average+3s	---	NaN	1.751E-1	4.990E-1	7.334E-1	1.091E+0	1.021E+0
Average-3s	---	NaN	-3.303E-1	-1.377E+0	-1.147E+0	-7.208E-1	-1.223E-1

# 144. tSK1, Module 1



**tSK1, Module 1 . (ns)**

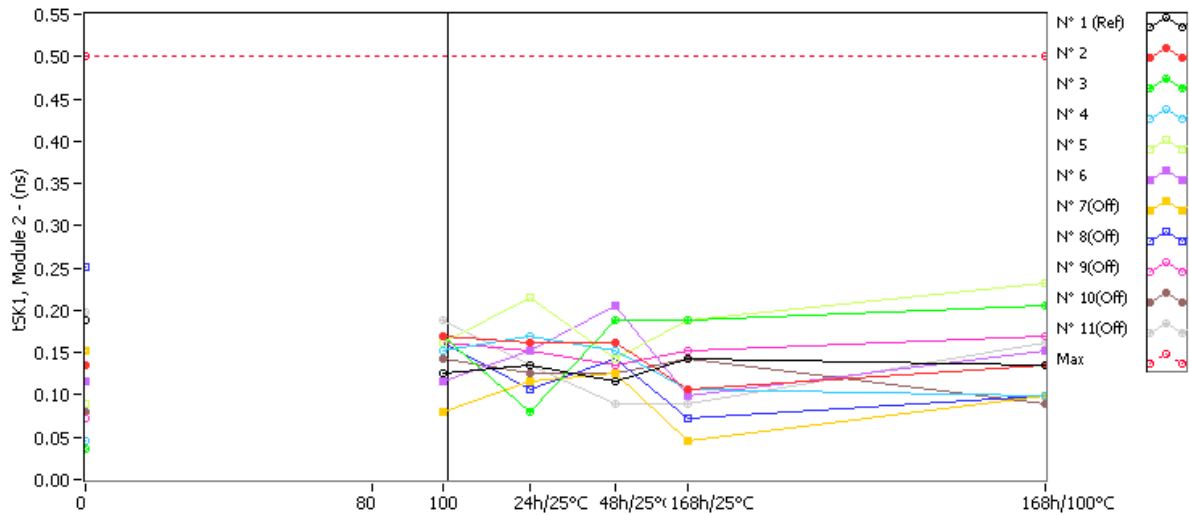
**Max = 0.5**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.168	NaN	0.112	0.120	0.104	0.128	0.120
N° 2	0.120	NaN	0.152	0.144	0.144	0.096	0.120
N° 3	0.032	NaN	0.152	0.072	0.168	0.168	0.184
N° 4	0.040	NaN	0.136	0.152	0.136	0.096	0.088
N° 5	0.080	NaN	0.144	0.192	0.128	0.168	0.208
N° 6	0.104	NaN	0.104	0.136	0.184	0.088	0.136
N° 7(Off)	0.136	NaN	0.072	0.104	0.112	0.040	0.088
N° 8(Off)	0.224	NaN	0.144	0.096	0.128	0.087	0.088
N° 9(Off)	0.064	NaN	0.144	0.136	0.120	0.136	0.152
N° 10(Off)	0.072	NaN	0.128	0.112	0.112	0.128	0.080
N° 11(Off)	0.176	NaN	0.168	0.120	0.080	0.080	0.144

**Delta [tSK1, Module 1]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-5.600E-2	-4.800E-2	-6.400E-2	-4.000E-2	-4.800E-2
N° 2	---	NaN	3.200E-2	2.400E-2	2.400E-2	-2.400E-2	0.000E+0
N° 3	---	NaN	1.200E-1	4.000E-2	1.360E-1	1.360E-1	1.520E-1
N° 4	---	NaN	9.600E-2	1.120E-1	9.600E-2	5.600E-2	4.800E-2
N° 5	---	NaN	6.400E-2	1.120E-1	4.800E-2	8.800E-2	1.280E-1
N° 6	---	NaN	0.000E+0	3.200E-2	8.000E-2	-1.600E-2	3.200E-2
N° 7(Off)	---	NaN	-6.400E-2	-3.200E-2	-2.400E-2	-9.600E-2	-4.800E-2
N° 8(Off)	---	NaN	-8.000E-2	-1.280E-1	-9.600E-2	-1.370E-1	-1.360E-1
N° 9(Off)	---	NaN	8.000E-2	7.200E-2	5.600E-2	7.200E-2	8.800E-2
N° 10(Off)	---	NaN	5.600E-2	4.000E-2	4.000E-2	5.600E-2	8.000E-3
N° 11(Off)	---	NaN	-8.000E-3	-5.600E-2	-9.600E-2	-9.600E-2	-3.200E-2
Average	---	NaN	6.240E-2	6.400E-2	7.680E-2	4.800E-2	7.200E-2
s	---	0.000E+0	4.813E-2	4.418E-2	4.330E-2	6.835E-2	6.499E-2
Average+3s	---	NaN	2.068E-1	1.965E-1	2.067E-1	2.531E-1	2.670E-1
Average-3s	---	NaN	-8.200E-2	-6.854E-2	-5.311E-2	-1.571E-1	-1.230E-1

## 145. tSK1, Module 2



**tSK1, Module 2 . (ns)**

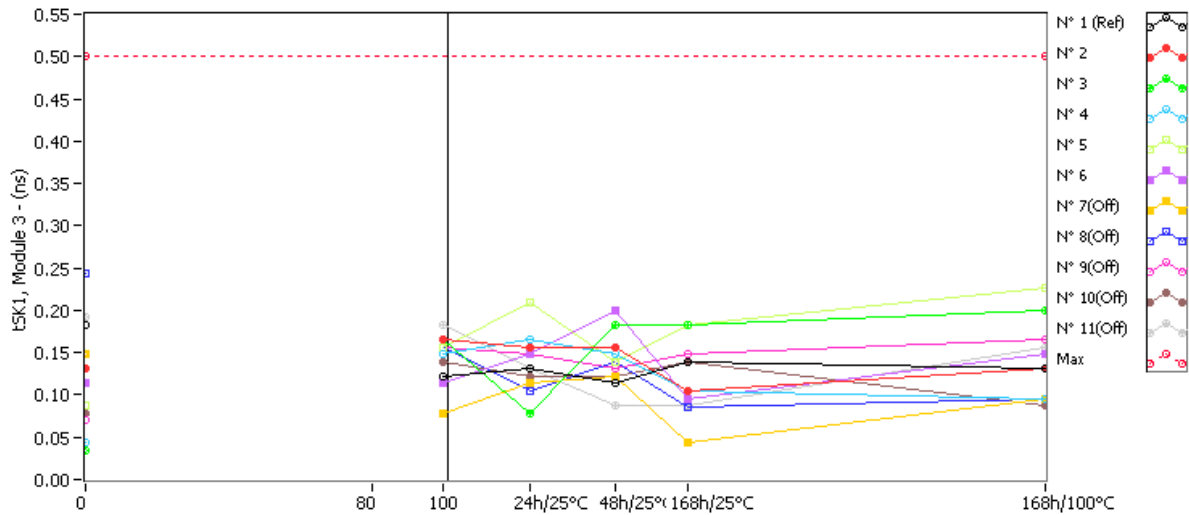
**Max = 0.5**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.188	NaN	0.125	0.134	0.116	0.143	0.134
N° 2	0.134	NaN	0.170	0.161	0.161	0.108	0.134
N° 3	0.036	NaN	0.170	0.081	0.188	0.188	0.206
N° 4	0.045	NaN	0.152	0.170	0.152	0.108	0.099
N° 5	0.090	NaN	0.161	0.215	0.143	0.188	0.233
N° 6	0.116	NaN	0.116	0.152	0.206	0.099	0.152
N° 7(Off)	0.152	NaN	0.081	0.116	0.125	0.045	0.099
N° 8(Off)	0.251	NaN	0.161	0.108	0.143	0.072	0.099
N° 9(Off)	0.072	NaN	0.161	0.152	0.134	0.152	0.170
N° 10(Off)	0.081	NaN	0.143	0.125	0.125	0.143	0.090
N° 11(Off)	0.197	NaN	0.188	0.134	0.090	0.090	0.161

**Delta [tSK1, Module 2]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-6.300E-2	-5.400E-2	-7.200E-2	-4.500E-2	-5.400E-2
N° 2	---	NaN	3.600E-2	2.700E-2	2.700E-2	-2.600E-2	0.000E+0
N° 3	---	NaN	1.340E-1	4.500E-2	1.520E-1	1.520E-1	1.700E-1
N° 4	---	NaN	1.070E-1	1.250E-1	1.070E-1	6.300E-2	5.400E-2
N° 5	---	NaN	7.100E-2	1.250E-1	5.300E-2	9.800E-2	1.430E-1
N° 6	---	NaN	0.000E+0	3.600E-2	9.000E-2	-1.700E-2	3.600E-2
N° 7(Off)	---	NaN	-7.100E-2	-3.600E-2	-2.700E-2	-1.070E-1	-5.300E-2
N° 8(Off)	---	NaN	-9.000E-2	-1.430E-1	-1.080E-1	-1.790E-1	-1.520E-1
N° 9(Off)	---	NaN	8.900E-2	8.000E-2	6.200E-2	8.000E-2	9.800E-2
N° 10(Off)	---	NaN	6.200E-2	4.400E-2	4.400E-2	6.200E-2	9.000E-3
N° 11(Off)	---	NaN	-9.000E-3	-6.300E-2	-1.070E-1	-1.070E-1	-3.600E-2
Average	---	NaN	6.960E-2	7.160E-2	8.580E-2	5.400E-2	8.060E-2
s	---	0.000E+0	5.367E-2	4.916E-2	4.843E-2	7.593E-2	7.259E-2
Average+3s	---	NaN	2.306E-1	2.191E-1	2.311E-1	2.818E-1	2.984E-1
Average-3s	---	NaN	-9.141E-2	-7.588E-2	-5.950E-2	-1.738E-1	-1.372E-1

## 146. tSK1, Module 3



**tSK1, Module 3 . (ns)**

**Max = 0.5**

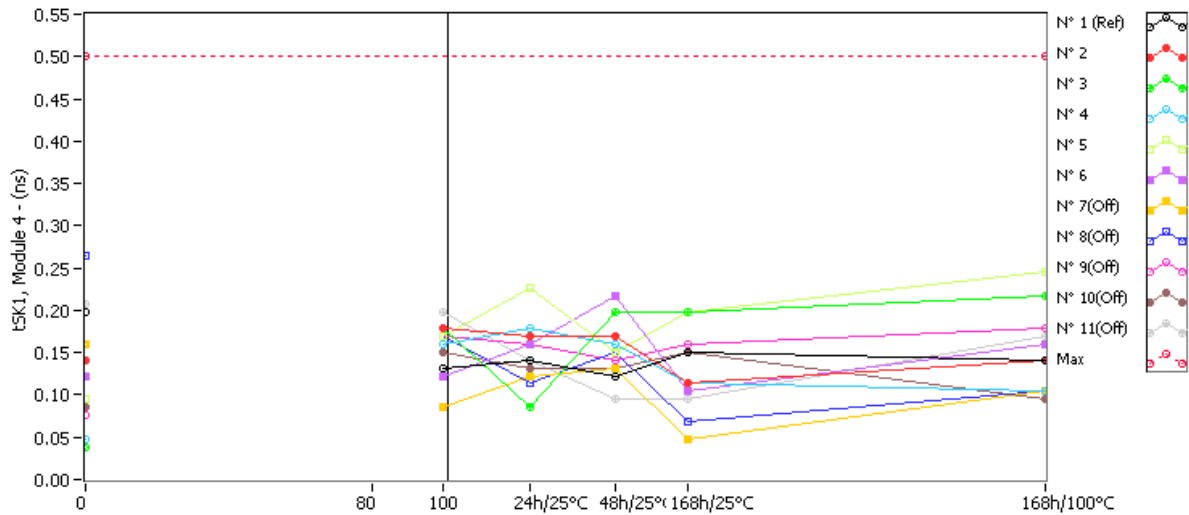
	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.183	NaN	0.122	0.131	0.113	0.140	0.131
N° 2	0.131	NaN	0.166	0.157	0.157	0.105	0.131
N° 3	0.035	NaN	0.166	0.078	0.183	0.183	0.201
N° 4	0.044	NaN	0.148	0.166	0.148	0.105	0.096
N° 5	0.087	NaN	0.157	0.209	0.140	0.183	0.227
N° 6	0.113	NaN	0.113	0.148	0.201	0.096	0.148
N° 7(Off)	0.148	NaN	0.078	0.113	0.122	0.044	0.096
N° 8(Off)	0.244	NaN	0.157	0.105	0.140	0.085	0.096
N° 9(Off)	0.070	NaN	0.157	0.148	0.131	0.148	0.166
N° 10(Off)	0.078	NaN	0.140	0.122	0.122	0.140	0.087
N° 11(Off)	0.192	NaN	0.183	0.131	0.087	0.087	0.157

**Delta [tSK1, Module 3]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-6.100E-2	-5.200E-2	-7.000E-2	-4.300E-2	-5.200E-2
N° 2	---	NaN	3.500E-2	2.600E-2	2.600E-2	-2.600E-2	0.000E+0
N° 3	---	NaN	1.310E-1	4.300E-2	1.480E-1	1.480E-1	1.660E-1
N° 4	---	NaN	1.040E-1	1.220E-1	1.040E-1	6.100E-2	5.200E-2
N° 5	---	NaN	7.000E-2	1.220E-1	5.300E-2	9.600E-2	1.400E-1
N° 6	---	NaN	0.000E+0	3.500E-2	8.800E-2	-1.700E-2	3.500E-2
N° 7(Off)	---	NaN	-7.000E-2	-3.500E-2	-2.600E-2	-1.040E-1	-5.200E-2
N° 8(Off)	---	NaN	-8.700E-2	-1.390E-1	-1.040E-1	-1.590E-1	-1.480E-1
N° 9(Off)	---	NaN	8.700E-2	7.800E-2	6.100E-2	7.800E-2	9.600E-2
N° 10(Off)	---	NaN	6.200E-2	4.400E-2	4.400E-2	6.200E-2	9.000E-3
N° 11(Off)	---	NaN	-9.000E-3	-6.100E-2	-1.050E-1	-1.050E-1	-3.500E-2
Average	---	NaN	6.800E-2	6.960E-2	8.380E-2	5.240E-2	7.860E-2
s	---	0.000E+0	5.240E-2	4.821E-2	4.700E-2	7.429E-2	7.105E-2
Average+3s	---	NaN	2.252E-1	2.142E-1	2.248E-1	2.753E-1	2.918E-1
Average-3s	---	NaN	-8.919E-2	-7.503E-2	-5.721E-2	-1.705E-1	-1.346E-1



## 147. tSK1, Module 4



**tSK1, Module 4 . (ns)**

**Max = 0.5**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	0.198	NaN	0.132	0.142	0.123	0.151	0.142
N° 2	0.142	NaN	0.179	0.170	0.170	0.113	0.142
N° 3	0.038	NaN	0.179	0.085	0.198	0.198	0.217
N° 4	0.047	NaN	0.160	0.179	0.160	0.113	0.104
N° 5	0.094	NaN	0.170	0.227	0.151	0.198	0.245
N° 6	0.123	NaN	0.123	0.160	0.217	0.104	0.160
N° 7(Off)	0.160	NaN	0.085	0.123	0.132	0.047	0.104
N° 8(Off)	0.264	NaN	0.170	0.113	0.151	0.068	0.104
N° 9(Off)	0.076	NaN	0.170	0.160	0.142	0.160	0.179
N° 10(Off)	0.085	NaN	0.151	0.132	0.132	0.151	0.094
N° 11(Off)	0.208	NaN	0.198	0.142	0.094	0.094	0.170

**Delta [tSK1, Module 4]**

	0krad(Si)	80krad(Si)	100krad(Si)	24h/25°C	48h/25°C	168h/25°C	168h/100°C
N° 1 (Ref)	---	NaN	-6.600E-2	-5.600E-2	-7.500E-2	-4.700E-2	-5.600E-2
N° 2	---	NaN	3.700E-2	2.800E-2	2.800E-2	-2.900E-2	0.000E+0
N° 3	---	NaN	1.410E-1	4.700E-2	1.600E-1	1.600E-1	1.790E-1
N° 4	---	NaN	1.130E-1	1.320E-1	1.130E-1	6.600E-2	5.700E-2
N° 5	---	NaN	7.600E-2	1.330E-1	5.700E-2	1.040E-1	1.510E-1
N° 6	---	NaN	0.000E+0	3.700E-2	9.400E-2	-1.900E-2	3.700E-2
N° 7(Off)	---	NaN	-7.500E-2	-3.700E-2	-2.800E-2	-1.130E-1	-5.600E-2
N° 8(Off)	---	NaN	-9.400E-2	-1.510E-1	-1.130E-1	-1.960E-1	-1.600E-1
N° 9(Off)	---	NaN	9.400E-2	8.400E-2	6.600E-2	8.400E-2	1.030E-1
N° 10(Off)	---	NaN	6.600E-2	4.700E-2	4.700E-2	6.600E-2	9.000E-3
N° 11(Off)	---	NaN	-1.000E-2	-6.600E-2	-1.140E-1	-1.140E-1	-3.800E-2
Average	---	NaN	7.340E-2	7.540E-2	9.040E-2	5.640E-2	8.480E-2
s	---	0.000E+0	5.669E-2	5.256E-2	5.093E-2	8.073E-2	7.666E-2
Average+3s	---	NaN	2.435E-1	2.331E-1	2.432E-1	2.986E-1	3.148E-1
Average-3s	---	NaN	-9.668E-2	-8.227E-2	-6.240E-2	-1.858E-1	-1.452E-1