



**ABSTRACT**

This report discusses the results of the total ionizing dose (TID) testing for the QMLP (QML Class P) certified Texas Instruments TPS7H4001-SP, a radiation-hardness-assured, 7-V, 18-A, synchronous buck converter with integrated low-resistance, high-side and low-side MOSFETs in a thermally enhanced 44-pin HTSSOP package

The study was done to determine TID effects under high dose rate (HDR) up to 100 krad(Si). The results show that all samples passed within the specified limits up to 100 krad(Si).

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## 1 Device Information

### 1.1 Product Description

The TPS7H4001-SP QMLP is a radiation-hardness-assured, 7-V, 18-A, synchronous buck converter with integrated low-resistance, high-side and low-side MOSFETs in a thermally enhanced 44-pin package.

### 1.2 Device Details

[Table 1-1](#) lists the device information used in the TID HDR characterization.

**Table 1-1. Device and Exposure Details**

TID HDR Details: 3, 10, 30, 50 and 100 krad(Si)	
Package	44-pin HTSSOP (DDW)
Quantity Tested	5 biased and 5 unbiased units @ 3 krad(Si) levels 5 biased and 5 unbiased units @ 10 krad(Si) levels 5 biased and 5 unbiased units @ 30 krad(Si) levels 5 biased and 5 unbiased units @ 50 krad(Si) levels 22 biased and 5 unbiased units @ 100 krad(Si) levels
HDR Radiation Facility	DCLAB, Texas Instruments, Dallas, Texas
HDR Dose Level	3 krad(Si), 10 krad(Si), 30 krad(Si), 50 krad(Si) 100 krad(Si)
HDR Dose Rate	220-221 rad(Si)/s
HDR Radiation Source	Gammacell 220 Excel (GC-220E) Co-60
Irradiation and Test Temperature	Ambient, room temperature controlled to 24°C ±6°C per MIL-STD-883 and MIL-STD-750.



**Figure 1-1. TPS7H4001-SP QMLP Device Picture**

## 2 Total Dose Test Setup

### 2.1 Test Overview

The TPS7H4001-SP was tested according to MIL-STD-883, Test Method 1019.9. For this testing, Conditions A and D were used. For this test, the product was irradiated up to the target radiation level, and then put through full electrical parametric testing on the production Automated Test Equipment (ATE). All devices remained functional passing all parametric test limits.

### 2.2 Test Description and Facilities

The TPS7H4001-SP HDR exposure was performed on biased and unbiased condition in a Co-60 gamma cell at Dallas CLAB (DCLAB) in TI facility, Texas. The dose rate for exposure was between 220 -221 rad(Si)/s. After exposure, devices were electrically tested at Texas Instruments in Dallas, Texas.

### 2.3 Test Setup Details

The devices under HDR exposure was tested in two conditions, biased and unbiased, as described in the following sections.

#### 2.3.1 Unbiased

For the unbiased HDR conditions, the exposure was performed with all pins grounded.

#### 2.3.2 Biased

Figure 2-1 shows the diagram for HDR exposure with biased condition.

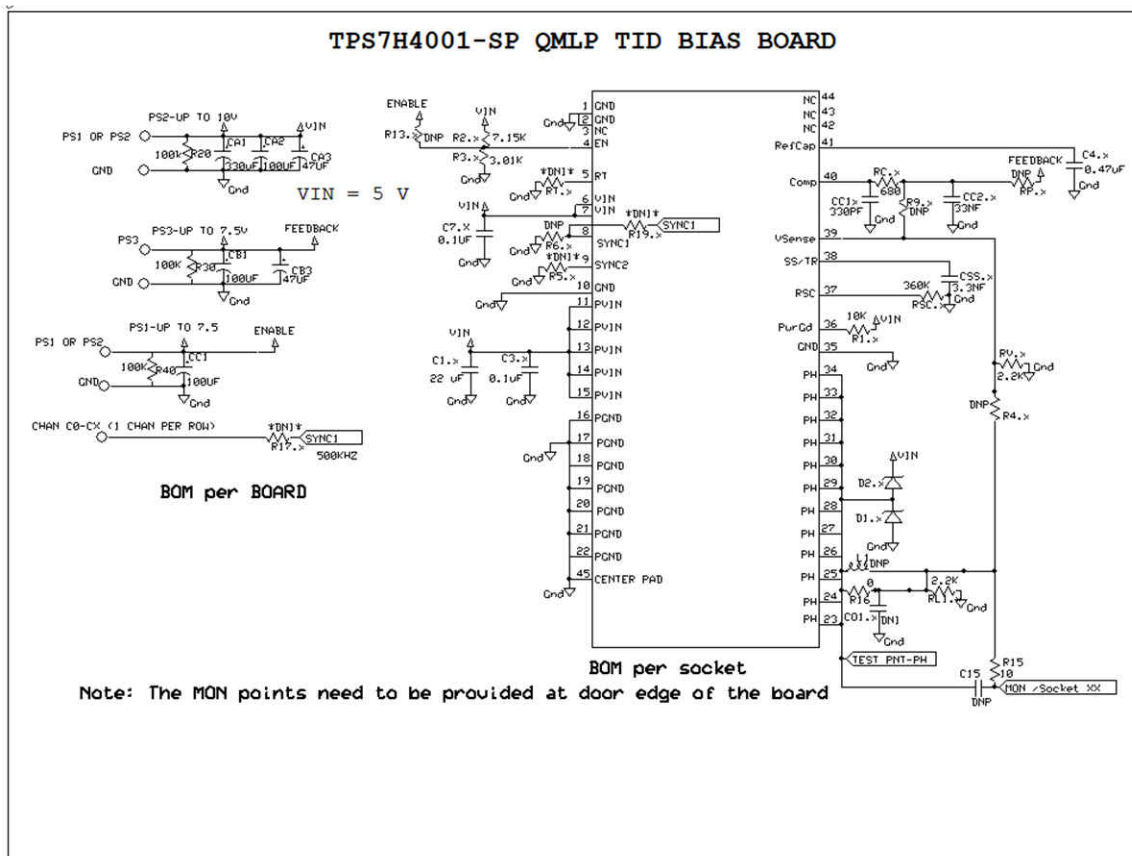


Figure 2-1. Bias Diagram Used in TID Exposure

## 2.4 Test Configuration and Condition

TPS7H4001-SP QMLP HDR Units were stressed at 3 krad(Si) , 10 krad(Si), 30krad(Si), 30 krad(Si), 50 krad(Si) and 100 krad(Si) for biased and unbiased conditions.

**Table 2-1. HDR 3/10/30/50/100 krad(Si) Biased Device Information**

Total samples: 42				
Exposure Levels				
3 krad(Si)	10 krad(Si)	30 krad(Si)	50 krad(Si)	100 krad(Si)
66, 67, 68, 69, 70	56, 57, 58, 59, 60	46, 47, 48, 49, 50	36, 37, 38, 39, 40	1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24

**Table 2-2. HDR 3/10/30/50/100 krad(Si) Unbiased Device Information**

Total Samples: 25				
Exposure Levels				
3 krad(Si)	10 krad(Si)	30 krad(Si)	50 krad(Si)	100 krad(Si)
71, 72, 73, 74, 75	61, 62, 63, 64, 65	51, 52, 53, 54, 55	41, 42, 43, 44, 45	27, 28, 29, 30, 31

### 3 TID Characterization Test Results

#### 3.1 TID Characterization Summary Results

The parametric data for the TPS7H4001-SP passes up to 100-krad(Si) HDR. The drift of electrical parameters through HDR were within the specified limits of SMD, Standard Microcircuit Drawing (Data Sheet Electrical Parameters).

Overall, the TPS7H4001-SP showed a strong degree of hardness to HDR TID irradiation up to 100 krad(Si) for both biased and unbiased exposure conditions. The measurements taken post-irradiation for each sample set showed a marginal shift for most parameters at each dose level for both biased and unbiased. The parameters that did show a greater degree of change between pre- and post-irradiation were still within the Electrical Performance Characteristics. See [Section 3.2](#) for Data Sheet Electrical Parameters and Associated Tests.

Please see [Appendix A](#) for HDR report up to 100 krad(Si).

#### 3.2 Specification Compliance Matrix

The TPS7H4001-SP QMLP Data Sheet Electrical Parameters table is comprised of electrical, timing, and switching characteristics lists as shown in the following tables.

**Table 3-1. Electrical Characteristics - Section 1**

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT	TEST#
<b>SUPPLY VOLTAGE (VIN AND PVIN PINS)</b>						
PVIN internal UVLO threshold	PVIN rising	2.425	2.50	2.575	V	23.0, 23.4
PVIN internal UVLO hysteresis	Load = 0 A	425	450	475	mV	23.2, 23.6
VIN internal UVLO threshold	VIN rising	2.71	2.75	2.80	V	24.0
VIN internal UVLO hysteresis		134	150	178	mV	24.2
VIN shutdown supply current	VEN = 0 V		2.32	2.85	mA	4.3, 4.9
VIN operating – non switching supply current	VSENSE = VBG		4	6	mA	4.2, 4.8
<b>ENABLE AND UVLO (EN PIN)</b>						
Enable threshold	Rising	1.110	1.14	1.172	V	7.0, 7.6
	Falling	1.080	1.11	1.148		7.1, 7.7
Input current	VEN = 1.1 V	4.8	6.1	7.6	μ	7.3, 7.9
Hysteresis current	VEN = 1.3 V	2.4	3.0	3.9	μ	7.5, 7.11
<b>VOLTAGE REFERENCE</b>						
Internal voltage reference initial tolerance	0 A ≤ I <sub>out</sub> ≤ 18 A, 25°C	0.599	0.605	0.612	V	3.8, 3.10
REFCAP voltage	REFCAP = 470 nF	1.189	1.209	1.228	V	3.2, 3.3, 3.4
<b>MOSFET</b>						
High-side switch resistance <sup>(1)</sup>	PVIN = VIN = 3 V, 25°C		19	21	mΩ	8.1
	PVIN = VIN = 5 V, 25°C		17	19		8.3
Low-side switch resistance <sup>(1)</sup>	PVIN = VIN = 3 V, 25°C		9	12	mΩ	15.1
	PVIN = VIN = 5 V, 25°C		9	11		15.3

**Table 3-2. Electrical Characteristics - Section 2**

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT	TEST#	
<b>ERROR AMPLIFIER</b>							
Error amplifier input offset voltage	VSENSE = 0.6 V	-2		2.55	mV	3.9,3.11	
VSENSE pin input current	VSENSE = 0.6 V	-15		15	nA	3.5, 3.6, 3.7	
Error amplifier transconductance (gm)	$-2 \mu\text{A} < \text{ICOMP} < 2 \mu\text{A}$ , V(COMP) = 1 V	1150	1800	2400	$\mu\text{S}$	9.0, 9.3	
Error amplifier source	V(COMP) = 1 V, 100-mV input overdrive	100	140	190	$\mu\text{A}$	9.2, 9.5	
Error amplifier sink		100	140	190	$\mu\text{A}$	9.1, 9.4	
<b>INTERNAL SWITCHING FREQUENCY</b>							
Internally set frequency	RT = Open	VIN = 3 V	444	473	515	kHz	21.1, 21.2
		VIN = 5 V	449	502	560		21.4, 21.5
Externally set frequency	RT = 1.07 M $\Omega$ (1%)	VIN = 3 V	80	98	125	kHz	5.0
		VIN = 5 V	80	100	125		11.0
	RT = 165 k $\Omega$ (1%)	VIN = 3 V	455	495	535		5.4
		VIN = 5 V	475	523	615		11.4
	RT = 73.2 k $\Omega$ (1%)	VIN = 3 V	689	850	1011		5.2
		VIN = 5 V	760	986	1212		11.2

**Table 3-3. Electrical Characteristics - Section 3**

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT	TEST#
<b>EXTERNAL SYNCHRONIZATION</b>						
SYNC1/SYNC2 out low-to-high rise time (10%/90%)	Cload = 25 pF		70	180	ns	13.8, 13.10, 13.12, 13.14
SYNC1/SYNC2 out high-to-low fall time (90%/10%)	Cload = 25 pF		10	21	ns	13.9, 13.11, 13.13, 13.15
SYNC2 to SYNC1 rising edge phase shift		77	85	94	°	21.0, 21.3
SYNC1 falling edge delay		165	180	185	°	13.24, 13.25
SYNC1/SYNC2 out high level threshold	IOH = 50 $\mu$ A	VIN – 0.3			V	13.18, 13.19, 13.22, 13.23
SYNC1/SYNC2 out low level threshold	IOL = 50 $\mu$ A	600			mV	13.16, 13.17, 13.20, 13.21
<b>PH (PH PIN)</b>						
Minimum on time	Measured at 10% to 90% of VIN, IPH = 2 A, VIN = 5 V		190	235	ns	5.6
	Measured at 10% to 90% of VIN, IPH= 2 A, VIN = 5 V		190	225		11.6
<b>SOFT START AND TRACKING (SS/TR PIN)</b>						
SS charge current		1.5	2.5	3	$\mu$ A	9.6, 9.7
<b>POWER GOOD (PWRGD PIN)</b>						
VSENSE threshold	VSENSE falling (fault)	90	91		%VREF	12.0, 12.6
	VSENSE rising (good)		94	97		12.1, 12.7
	VSENSE rising (fault)		109	111		12.2, 12.8
	VSENSE falling (good)	103	106			12.3, 12.9
Output high leakage	VSENSE = VREF, V(PWRGD) = 5 V		30	181	nA	12.4, 12.10
Output low	I(PWRGD) = 2 mA	0.3			V	12.5, 12.11

## 4 Applicable and Reference Documents

### 4.1 Applicable Documents

- [TPS7H4001-SP Radiation-Hardness-Assured 3-V to 7-V Input 18-A Synchronous Buck Converter \(SLVSEN7D\)](#)
- [TPS7H4001-SP Single-Event Effects \(SEE\) Test Report \(Rev. B\) \(SLVAEF4B\)](#)
- [TPS7H4001-SP Total Ionizing Dose \(TID\) Radiation Report \(SLVK053\)](#)
- [TPS7H4003-SEP Evaluation Module User's Guide \(SLVUC73\)](#)

### 4.2 Reference Documents

Texas Instruments total ionizing dose radiation (total dose) test procedure follows the standards put forth in MIL-STD-883 TM 1019. The document can be found at the DLA website.

## A Appendix: HDR TID Report

This appendix contains the HDR TID report data.



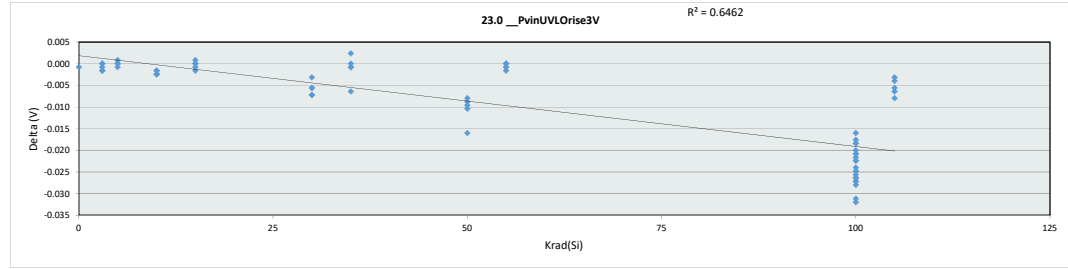
**HDR TID REPORT**  
**TPS7H4001-SP QML CLASS P**

<b>IDENTIFIER</b>	<b>DESCRIPTION</b>
0	Control Unit
3	3 krad(Si) biased
5	3 krad(Si) unbiased
10	10 krad(Si) biased
15	10 krad(Si) unbiased
30	30 krad(Si) biased
35	30 krad(Si) unbiased
50	50 krad(Si) biased
55	50 krad(Si) unbiased
100	100 krad(Si) biased
105	100 krad(Si) unbiased

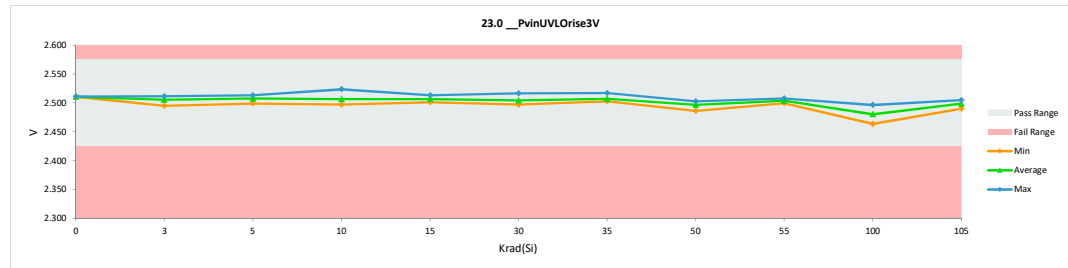
# HDR TID Report

## TPS7H4001-SP QMLP

23.0 __PvinUVLorise3V				
Test Site	Tester	Unit	Max Limit	Min Limit
		V	2.575	2.425
		V	2.575	2.425
Krad(Si)	Serial #	PRE	POST	Delta
0	33	2.512	2.511	-0.001
3	66	2.508	2.506	-0.002
3	67	2.507	2.507	0.000
3	68	2.508	2.508	-0.001
3	69	2.512	2.512	0.000
3	70	2.496	2.495	-0.002
5	71	2.499	2.499	0.000
5	72	2.512	2.512	0.000
5	73	2.506	2.505	-0.001
5	74	2.510	2.510	0.000
5	75	2.512	2.513	0.001
10	56	2.506	2.504	-0.002
10	57	2.507	2.505	-0.002
10	58	2.506	2.504	-0.002
10	59	2.526	2.524	-0.002
10	60	2.500	2.497	-0.002
15	61	2.509	2.508	-0.002
15	62	2.514	2.513	-0.001
15	63	2.504	2.504	0.001
15	64	2.507	2.507	0.000
15	65	2.501	2.501	0.000
30	46	2.508	2.505	-0.003
30	47	2.504	2.497	-0.007
30	48	2.522	2.516	-0.006
30	49	2.508	2.503	-0.006
30	50	2.507	2.500	-0.007
35	51	2.508	2.508	-0.001
35	52	2.501	2.504	0.002
35	53	2.505	2.504	-0.001
35	54	2.503	2.503	0.000
35	55	2.524	2.517	-0.006
50	36	2.508	2.499	-0.009
50	37	2.508	2.500	-0.008
50	38	2.502	2.486	-0.016
50	39	2.505	2.496	-0.010
50	40	2.513	2.503	-0.010
55	41	2.507	2.506	-0.001
55	42	2.500	2.500	0.000
55	43	2.509	2.508	-0.002
55	44	2.508	2.507	-0.001
55	45	2.500	2.500	0.000
100	1	2.509	2.493	-0.016
100	2	2.504	2.480	-0.025
100	3	2.505	2.477	-0.028
100	4	2.505	2.479	-0.026
100	5	2.508	2.488	-0.021
100	6	2.500	2.472	-0.027
100	9	2.505	2.479	-0.026
100	10	2.503	2.477	-0.026
100	11	2.500	2.477	-0.022
100	12	2.503	2.482	-0.021
100	13	2.501	2.470	-0.031
100	14	2.508	2.484	-0.025
100	15	2.507	2.483	-0.024
100	16	2.504	2.483	-0.022
100	17	2.500	2.473	-0.027
100	18	2.502	2.480	-0.022
100	19	2.504	2.472	-0.032
100	20	2.514	2.496	-0.018
100	21	2.484	2.464	-0.020
100	22	2.512	2.493	-0.018
100	23	2.504	2.477	-0.026
100	24	2.508	2.490	-0.018
105	27	2.508	2.505	-0.003
105	28	2.503	2.497	-0.006
105	29	2.498	2.490	-0.008
105	30	2.508	2.504	-0.004
105	31	2.504	2.498	-0.006
	Max	2.526	2.524	0.002
	Average	2.506	2.497	-0.010
	Min	2.484	2.464	-0.032
	Std Dev	0.006	0.013	0.011



23.0 __PvinUVLorise3V											
Test Site	Tester	Unit	Max Limit	Min Limit							
		V	2.575	2.425							
		V	2.575	2.425							
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	2.425	2.425	2.425	2.425	2.425	2.425	2.425	2.425	2.425	2.425	2.425
Min	2.511	2.495	2.499	2.497	2.501	2.497	2.503	2.486	2.500	2.464	2.490
Average	2.511	2.505	2.508	2.507	2.507	2.504	2.507	2.497	2.504	2.480	2.499
Max	2.511	2.512	2.513	2.524	2.513	2.516	2.517	2.503	2.508	2.496	2.505
UL	2.575	2.575	2.575	2.575	2.575	2.575	2.575	2.575	2.575	2.575	2.575

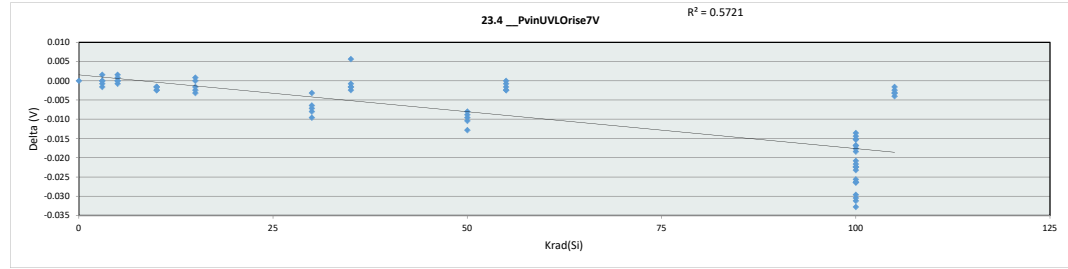


HDR TID Report  
TPS7H4001-SP QMLP

23.4 \_\_PvinUVLorise7V

Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	2.575	2.575
Min Limit	2.425	2.425

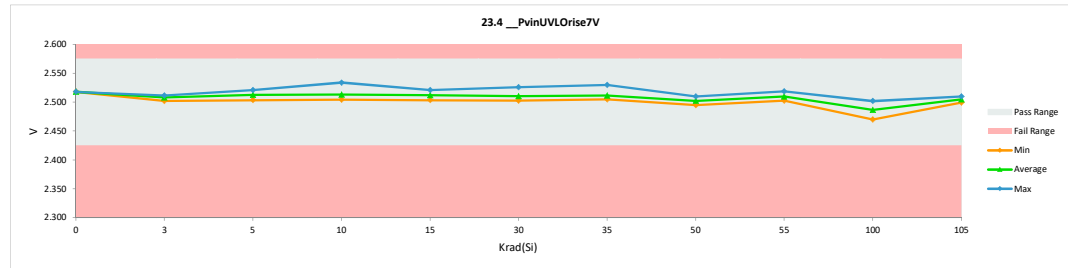
Krad(Si)	Serial #	PRE	POST	Delta
0	33	2.518	2.518	0.000
3	66	2.509	2.509	0.000
3	67	2.509	2.508	-0.001
3	68	2.510	2.512	0.002
3	69	2.512	2.511	-0.002
3	70	2.502	2.502	0.000
5	71	2.504	2.504	0.000
5	72	2.512	2.512	0.000
5	73	2.512	2.511	-0.001
5	74	2.515	2.516	0.002
5	75	2.520	2.521	0.001
10	56	2.513	2.511	-0.002
10	57	2.512	2.510	-0.002
10	58	2.510	2.508	-0.002
10	59	2.536	2.534	-0.002
10	60	2.506	2.504	-0.002
15	61	2.522	2.520	-0.002
15	62	2.521	2.521	0.000
15	63	2.505	2.504	-0.002
15	64	2.512	2.512	0.001
15	65	2.508	2.504	-0.003
30	46	2.516	2.508	-0.008
30	47	2.509	2.503	-0.006
30	48	2.529	2.526	-0.003
30	49	2.520	2.511	-0.010
30	50	2.512	2.504	-0.007
35	51	2.508	2.507	-0.002
35	52	2.508	2.506	-0.002
35	53	2.505	2.511	0.006
35	54	2.508	2.505	-0.002
35	55	2.531	2.530	-0.001
50	36	2.513	2.504	-0.009
50	37	2.513	2.503	-0.010
50	38	2.508	2.495	-0.013
50	39	2.508	2.500	-0.008
50	40	2.520	2.510	-0.010
55	41	2.519	2.519	0.000
55	42	2.505	2.503	-0.002
55	43	2.514	2.512	-0.002
55	44	2.515	2.514	-0.001
55	45	2.505	2.503	-0.002
100	1	2.516	2.502	-0.014
100	2	2.507	2.489	-0.018
100	3	2.512	2.489	-0.022
100	4	2.511	2.478	-0.033
100	5	2.512	2.497	-0.015
100	6	2.505	2.480	-0.026
100	9	2.507	2.485	-0.022
100	10	2.507	2.477	-0.030
100	11	2.504	2.485	-0.018
100	12	2.508	2.491	-0.017
100	13	2.505	2.474	-0.031
100	14	2.516	2.489	-0.026
100	15	2.508	2.486	-0.022
100	16	2.510	2.495	-0.015
100	17	2.505	2.479	-0.026
100	18	2.504	2.481	-0.023
100	19	2.508	2.478	-0.030
100	20	2.523	2.500	-0.022
100	21	2.496	2.470	-0.026
100	22	2.511	2.497	-0.014
100	23	2.510	2.489	-0.021
100	24	2.508	2.492	-0.017
105	27	2.512	2.510	-0.002
105	28	2.505	2.502	-0.003
105	29	2.502	2.500	-0.002
105	30	2.514	2.510	-0.004
105	31	2.507	2.504	-0.003
Max		2.536	2.534	0.006
Average		2.511	2.502	-0.009
Min		2.496	2.470	-0.033
Std Dev		0.007	0.014	0.010



23.4 \_\_PvinUVLorise7V

Test Site		
Tester		
Test Number		
Max Limit	2.575	V
Min Limit	2.425	V

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	2.425	2.425	2.425	2.425	2.425	2.425	2.425	2.425	2.425	2.425	2.425
Min	2.518	2.502	2.504	2.504	2.504	2.503	2.504	2.495	2.503	2.470	2.500
Average	2.518	2.508	2.513	2.513	2.512	2.510	2.512	2.502	2.510	2.487	2.505
Max	2.518	2.512	2.521	2.534	2.521	2.526	2.530	2.510	2.519	2.502	2.510
UL	2.575	2.575	2.575	2.575	2.575	2.575	2.575	2.575	2.575	2.575	2.575



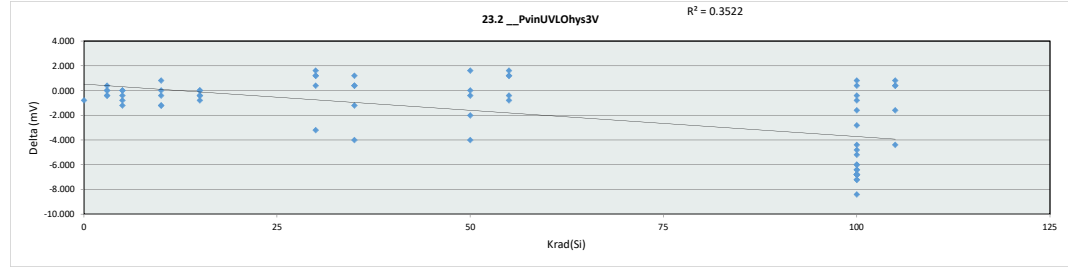
HDR TID Report  
TPS7H4001-SP QMLP

23.2 \_\_PvinUVLOhys3V

Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit	475	475
Min Limit	425	425

Krad(Si)	Serial #	PRE	POST	Delta
0	33	459.660	458.859	-0.801
3	66	458.058	457.658	-0.400
3	67	457.257	457.257	0.000
3	68	457.657	458.058	0.401
3	69	458.459	458.459	0.000
3	70	457.657	457.257	-0.400
5	71	457.658	456.457	-1.201
5	72	458.459	458.459	0.000
5	73	458.859	458.058	-0.801
5	74	458.058	458.058	0.000
5	75	459.259	458.859	-0.400
10	56	457.658	457.658	0.000
10	57	459.660	459.259	-0.401
10	58	456.456	457.257	0.801
10	59	464.464	463.264	-1.200
10	60	458.459	457.257	-1.202
15	61	458.458	458.058	-0.400
15	62	458.458	457.657	-0.801
15	63	457.658	457.257	-0.401
15	64	458.459	458.459	0.000
15	65	458.859	458.859	0.000
30	46	456.456	458.058	1.602
30	47	458.458	459.659	1.201
30	48	461.662	458.458	-3.204
30	49	458.858	459.259	0.401
30	50	457.257	458.459	1.202
35	51	457.657	458.058	0.401
35	52	458.859	457.658	-1.201
35	53	458.058	458.458	0.400
35	54	458.058	459.259	1.201
35	55	463.264	459.259	-4.005
50	36	458.058	457.658	-0.400
50	37	458.058	459.660	1.602
50	38	459.660	455.656	-4.004
50	39	458.058	458.058	0.000
50	40	458.859	456.857	-2.002
55	41	457.257	458.859	1.602
55	42	458.459	459.660	1.201
55	43	458.458	458.058	-0.400
55	44	458.058	457.257	-0.801
55	45	458.459	459.660	1.201
100	1	458.458	456.857	-1.601
100	2	459.659	452.853	-6.806
100	3	456.857	450.450	-6.407
100	4	459.259	452.052	-7.207
100	5	458.858	456.056	-2.802
100	6	458.459	451.651	-6.808
100	9	459.259	452.052	-7.207
100	10	458.058	451.651	-6.407
100	11	459.660	452.853	-6.807
100	12	459.259	454.054	-5.205
100	13	458.859	450.450	-8.409
100	14	457.657	453.254	-4.403
100	15	458.459	453.654	-4.805
100	16	458.458	452.453	-6.005
100	17	459.259	452.452	-6.807
100	18	458.458	451.652	-6.806
100	19	460.060	453.254	-6.806
100	20	458.458	458.858	0.400
100	21	454.455	453.654	-0.801
100	22	458.459	459.259	0.800
100	23	457.658	451.651	-6.007
100	24	456.456	456.056	-0.400
105	27	457.657	458.058	0.401
105	28	458.058	458.458	0.400
105	29	459.259	454.855	-4.404
105	30	457.657	458.458	0.801
105	31	459.659	458.058	-1.601

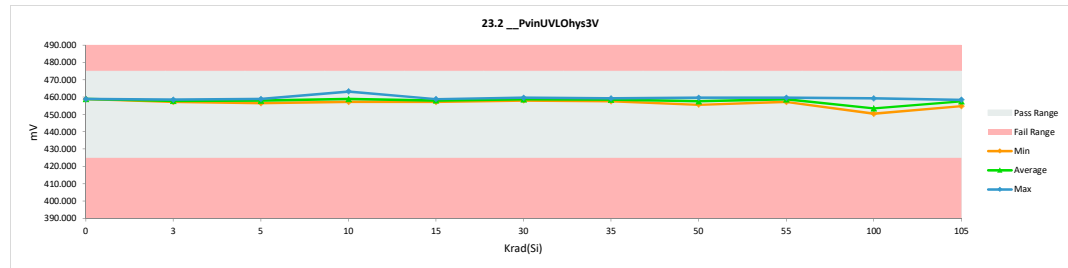
Max	464.464	463.264	1.602
Average	458.505	456.698	-1.808
Min	454.455	450.450	-8.409
Std Dev	1.385	2.806	2.894



23.2 \_\_PvinUVLOhys3V

Test Site		
Tester		
Test Number		
Max Limit	475	mV
Min Limit	425	mV

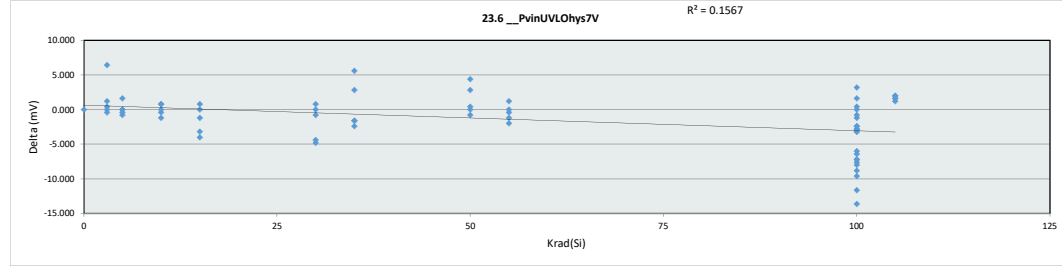
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	425.000	425.000	425.000	425.000	425.000	425.000	425.000	425.000	425.000	425.000	425.000
Min	458.859	457.257	456.457	457.257	457.257	458.058	457.658	455.656	457.257	450.450	454.855
Average	458.859	457.738	457.978	458.939	458.058	458.779	458.538	457.578	458.699	453.508	457.577
Max	458.859	458.459	458.859	463.264	458.859	459.659	459.259	459.660	459.660	459.259	458.458
UL	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000



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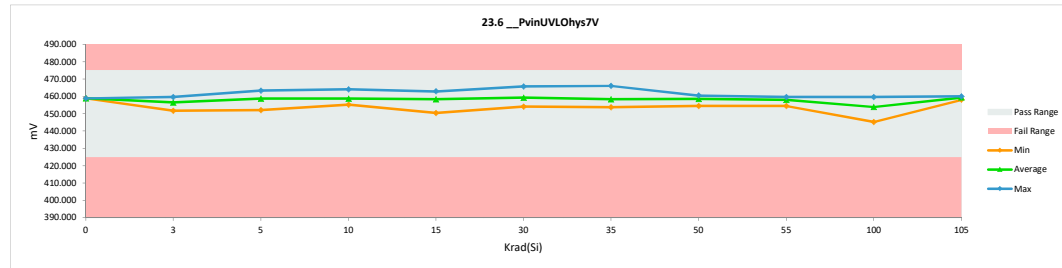
23.6 __PvinUVLOhys7V	
Test Site	
Tester	
Test Number	
Unit	mV
Max Limit	475
Min Limit	425

Krad(Si)	Serial #	PRE	POST	Delta
0	33	458.859	458.859	0.000
3	66	457.257	458.458	1.201
3	67	453.653	454.054	0.401
3	68	453.253	459.660	6.407
3	69	452.052	451.652	-0.400
3	70	458.458	458.458	0.000
5	71	458.859	458.859	0.000
5	72	452.052	452.052	0.000
5	73	460.861	460.060	-0.801
5	74	458.058	459.659	1.601
5	75	463.663	463.263	-0.400
10	56	456.456	455.255	-1.201
10	57	460.861	460.460	-0.401
10	58	455.656	455.656	0.000
10	59	463.264	464.064	0.800
10	60	457.558	458.458	0.800
15	61	464.064	462.863	-1.201
15	62	462.062	462.062	0.000
15	63	454.454	450.451	-4.003
15	64	458.459	459.259	0.800
15	65	460.461	457.257	-3.204
30	46	458.458	454.054	-4.404
30	47	459.659	460.461	0.802
30	48	466.466	465.666	-0.800
30	49	463.663	458.859	-4.804
30	50	457.258	457.257	-0.001
35	51	455.255	453.654	-1.601
35	52	458.058	456.456	-1.602
35	53	453.253	458.859	5.606
35	54	459.260	456.857	-2.403
35	55	463.263	466.066	2.803
50	36	455.255	459.659	4.404
50	37	455.255	454.455	-0.800
50	38	459.260	459.660	0.400
50	39	457.657	460.460	2.803
50	40	458.058	458.058	0.000
55	41	459.660	459.660	0.000
55	42	453.253	454.455	1.202
55	43	459.660	459.259	-0.401
55	44	459.259	457.257	-2.002
55	45	460.460	459.259	-1.201
100	1	460.860	458.458	-2.402
100	2	458.459	458.859	0.400
100	3	458.459	455.255	-3.204
100	4	458.859	445.245	-13.614
100	5	456.856	458.458	1.602
100	6	456.857	449.250	-7.607
100	9	457.257	454.855	-2.402
100	10	458.459	446.847	-11.612
100	11	458.859	456.056	-2.803
100	12	459.260	459.259	-0.001
100	13	459.259	449.650	-9.609
100	14	458.859	452.853	-6.006
100	15	456.456	448.448	-8.008
100	16	460.460	457.257	-3.203
100	17	460.460	453.253	-7.207
100	18	456.056	447.247	-8.809
100	19	460.060	453.654	-6.406
100	20	458.859	458.058	-0.801
100	21	461.261	454.054	-7.207
100	22	456.457	459.659	3.202
100	23	458.058	455.255	-2.803
100	24	454.054	452.853	-1.201
105	27	456.056	458.058	2.002
105	28	458.058	459.660	1.602
105	29	458.458	459.660	1.202
105	30	457.257	459.259	2.002
105	31	458.459	460.060	1.601
	Max	466.466	466.066	6.407
	Average	458.317	456.951	-1.366
	Min	452.052	445.245	-13.614
	Std Dev	2.883	4.268	3.766



23.6 __PvinUVLOhys7V	
Test Site	
Tester	
Test Number	
Max Limit	475 mV
Min Limit	425 mV

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	425.000	425.000	425.000	425.000	425.000	425.000	425.000	425.000	425.000	425.000	425.000
Min	458.859	451.652	452.052	455.255	450.451	454.054	453.654	454.455	454.455	445.245	458.058
Average	458.859	456.456	458.779	458.779	458.378	459.259	458.378	458.458	457.978	453.854	459.339
Max	458.859	459.660	463.263	464.064	462.863	465.666	466.066	460.460	459.660	459.659	460.060
UL	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000

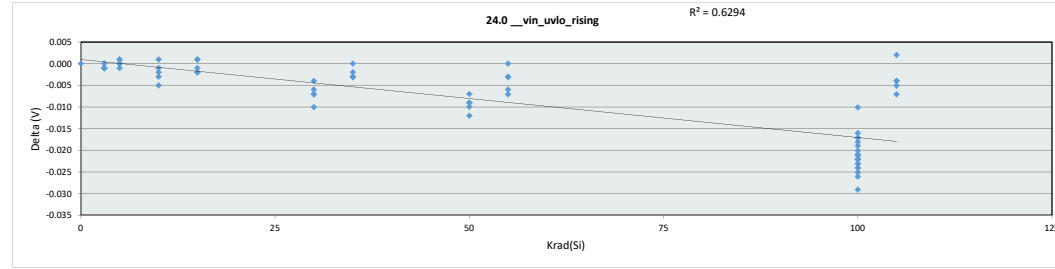


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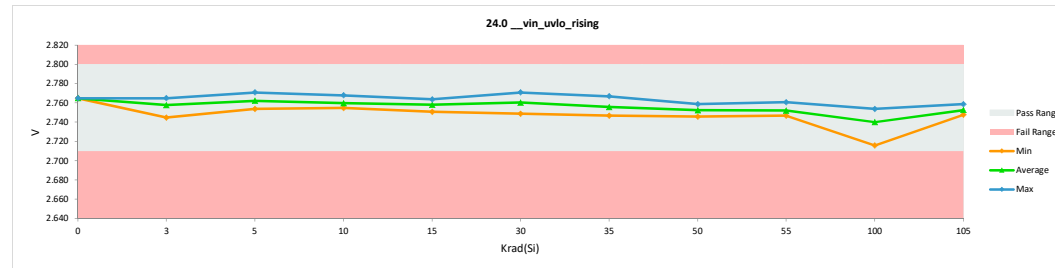
24.0 _vin_uvlo_rising	
Test Site	
Tester	
Test Number	
Unit	V
Max Limit	2.8
Min Limit	2.71

Krad(Si)	Serial #	PRE	POST	Delta
0	33	2.765	2.765	0.000
3	66	2.761	2.760	-0.001
3	67	2.763	2.763	0.000
3	68	2.757	2.756	-0.001
3	69	2.766	2.765	-0.001
3	70	2.746	2.745	-0.001
5	71	2.770	2.771	0.001
5	72	2.763	2.763	0.000
5	73	2.754	2.754	0.000
5	74	2.763	2.764	0.001
5	75	2.761	2.760	-0.001
10	56	2.764	2.762	-0.002
10	57	2.754	2.755	0.001
10	58	2.760	2.755	-0.005
10	59	2.771	2.768	-0.003
10	60	2.760	2.759	-0.001
15	61	2.765	2.763	-0.002
15	62	2.757	2.758	0.001
15	63	2.753	2.751	-0.002
15	64	2.765	2.764	-0.001
15	65	2.754	2.755	0.001
30	46	2.777	2.771	-0.006
30	47	2.760	2.756	-0.004
30	48	2.771	2.761	-0.010
30	49	2.773	2.766	-0.007
30	50	2.756	2.749	-0.007
35	51	2.759	2.756	-0.003
35	52	2.754	2.751	-0.003
35	53	2.750	2.747	-0.003
35	54	2.759	2.759	0.000
35	55	2.769	2.767	-0.002
50	36	2.763	2.751	-0.012
50	37	2.766	2.756	-0.010
50	38	2.755	2.746	-0.009
50	39	2.758	2.751	-0.007
50	40	2.768	2.759	-0.009
55	41	2.750	2.747	-0.003
55	42	2.755	2.748	-0.007
55	43	2.760	2.754	-0.006
55	44	2.761	2.761	0.000
55	45	2.755	2.752	-0.003
100	1	2.771	2.748	-0.023
100	2	2.765	2.744	-0.021
100	3	2.767	2.747	-0.020
100	4	2.760	2.734	-0.026
100	5	2.770	2.754	-0.016
100	6	2.759	2.737	-0.022
100	9	2.756	2.746	-0.010
100	10	2.764	2.743	-0.021
100	11	2.755	2.738	-0.017
100	12	2.769	2.750	-0.019
100	13	2.747	2.726	-0.021
100	14	2.764	2.740	-0.024
100	15	2.758	2.740	-0.018
100	16	2.770	2.749	-0.021
100	17	2.757	2.728	-0.029
100	18	2.757	2.740	-0.017
100	19	2.770	2.745	-0.025
100	20	2.770	2.748	-0.022
100	21	2.738	2.716	-0.022
100	22	2.765	2.742	-0.023
100	23	2.763	2.742	-0.021
100	24	2.755	2.731	-0.024
105	27	2.755	2.757	0.002
105	28	2.755	2.751	-0.004
105	29	2.753	2.748	-0.005
105	30	2.763	2.759	-0.004
105	31	2.756	2.749	-0.007
Max	2.777	2.771	0.002	
Average	2.760	2.751	-0.009	
Min	2.738	2.716	-0.029	
Std Dev	0.007	0.011	0.009	



24.0 _vin_uvlo_rising	
Test Site	
Tester	
Test Number	
Max Limit	2.8
Min Limit	2.71

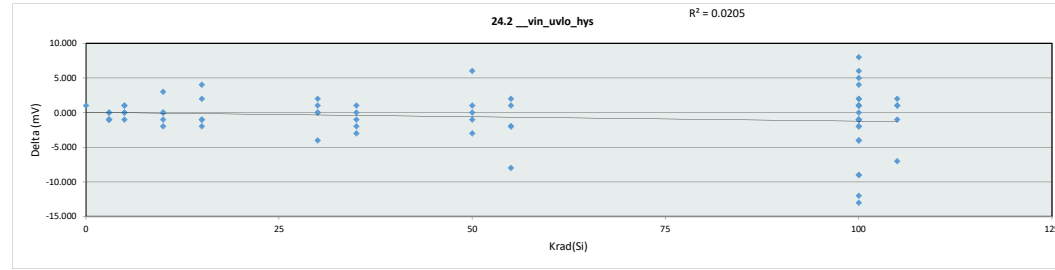
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	2.710	2.710	2.710	2.710	2.710	2.710	2.710	2.710	2.710	2.710	2.710
Min	2.765	2.745	2.754	2.755	2.751	2.749	2.747	2.746	2.747	2.716	2.748
Average	2.765	2.758	2.762	2.760	2.758	2.760	2.756	2.752	2.752	2.740	2.753
Max	2.765	2.765	2.771	2.768	2.764	2.771	2.767	2.759	2.761	2.754	2.759
UL	2.800	2.800	2.800	2.800	2.800	2.800	2.800	2.800	2.800	2.800	2.800



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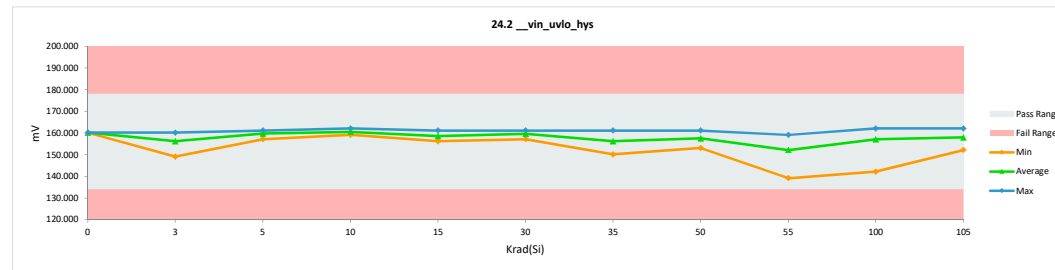
24.2 _vin_uvlo_hys		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit	178	178
Min Limit	134	134

Krad(Si)	Serial #	PRE	POST	Delta
0	33	159.159	160.160	1.001
3	66	150.150	149.149	-1.001
3	67	155.155	155.155	0.000
3	68	158.158	157.157	-1.001
3	69	160.160	159.159	-1.001
3	70	160.160	160.160	0.000
5	71	161.161	161.161	0.000
5	72	161.161	161.161	0.000
5	73	160.160	161.161	1.001
5	74	156.156	157.157	1.001
5	75	159.159	158.158	-1.001
10	56	160.160	160.160	0.000
10	57	158.158	161.161	3.003
10	58	162.162	160.160	-2.002
10	59	160.160	159.159	-1.001
10	60	162.162	162.162	0.000
15	61	162.162	161.161	-1.001
15	62	153.153	157.157	4.004
15	63	160.160	159.159	-1.001
15	64	158.158	156.156	-2.002
15	65	157.157	159.159	2.002
30	46	158.158	158.158	0.000
30	47	159.159	160.160	1.001
30	48	161.161	157.157	-4.004
30	49	159.159	161.161	2.002
30	50	161.161	161.161	0.000
35	51	161.161	161.161	0.000
35	52	153.153	150.150	-3.003
35	53	152.152	150.150	-2.002
35	54	161.161	160.160	-1.001
35	55	158.158	159.159	1.001
50	36	156.156	153.153	-3.003
50	37	157.157	157.157	0.000
50	38	149.149	155.155	6.006
50	39	160.160	161.161	1.001
50	40	162.162	161.161	-1.001
55	41	150.150	151.151	1.001
55	42	161.161	159.159	-2.002
55	43	147.147	139.139	-8.008
55	44	157.157	159.159	2.002
55	45	154.154	152.152	-2.002
100	1	161.161	160.160	-1.001
100	2	158.158	160.160	2.002
100	3	162.162	160.160	-2.002
100	4	160.160	147.147	-13.013
100	5	161.161	162.162	1.001
100	6	162.162	160.160	-2.002
100	9	151.151	159.159	8.008
100	10	159.159	160.160	1.001
100	11	161.161	160.160	-1.001
100	12	162.162	161.161	-1.001
100	13	149.149	153.153	4.004
100	14	160.160	151.151	-9.009
100	15	161.161	152.152	-9.009
100	16	156.156	161.161	5.005
100	17	154.154	142.142	-12.012
100	18	159.159	160.160	1.001
100	19	160.160	160.160	0.000
100	20	162.162	158.158	-4.004
100	21	156.156	152.152	-4.004
100	22	155.155	161.161	6.006
100	23	158.158	160.160	2.002
100	24	155.155	154.154	-1.001
105	27	159.159	152.152	-7.007
105	28	158.158	160.160	2.002
105	29	156.156	157.157	1.001
105	30	161.161	162.162	1.001
105	31	159.159	158.158	-1.001
Max	162.162	162.162	8.008	
Average	158.129	157.481	-0.648	
Min	147.147	139.139	-13.013	
Std Dev	3.693	4.719	3.680	



24.2 _vin_uvlo_hys		
Test Site		
Tester		
Test Number		
Max Limit	178	mV
Min Limit	134	mV

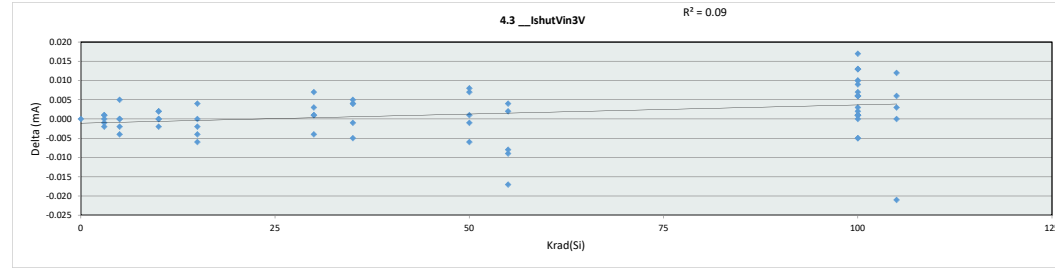
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	134.000	134.000	134.000	134.000	134.000	134.000	134.000	134.000	134.000	134.000	134.000
Min	160.160	149.149	157.157	159.159	156.156	157.157	150.150	153.153	139.139	142.142	152.152
Average	160.160	156.156	159.760	160.560	158.558	159.559	156.156	157.557	152.152	157.112	157.958
Max	160.160	160.160	161.161	162.162	161.161	161.161	161.161	161.161	159.159	162.162	162.162
UL	178.000	178.000	178.000	178.000	178.000	178.000	178.000	178.000	178.000	178.000	178.000



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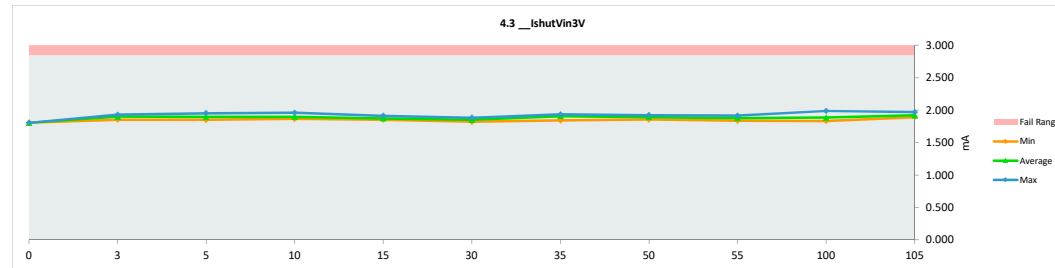
4.3_IshutVin3V		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	2.85	2.85
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	1.806	1.806	0.000
3	66	1.920	1.918	-0.002
3	67	1.932	1.931	-0.001
3	68	1.902	1.903	0.001
3	69	1.852	1.853	0.001
3	70	1.887	1.887	0.000
5	71	1.899	1.899	0.000
5	72	1.901	1.901	0.000
5	73	1.854	1.852	-0.002
5	74	1.869	1.874	0.005
5	75	1.956	1.952	-0.004
10	56	1.890	1.890	0.000
10	57	1.896	1.894	-0.002
10	58	1.958	1.960	0.002
10	59	1.874	1.876	0.002
10	60	1.866	1.866	0.000
15	61	1.854	1.854	0.000
15	62	1.916	1.912	-0.004
15	63	1.876	1.870	-0.006
15	64	1.870	1.868	-0.002
15	65	1.852	1.856	0.004
30	46	1.819	1.822	0.003
30	47	1.864	1.865	0.001
30	48	1.875	1.876	0.001
30	49	1.876	1.883	0.007
30	50	1.827	1.823	-0.004
35	51	1.932	1.936	0.004
35	52	1.845	1.840	-0.005
35	53	1.936	1.935	-0.001
35	54	1.932	1.936	0.004
35	55	1.882	1.887	0.005
50	36	1.922	1.923	0.001
50	37	1.862	1.856	-0.006
50	38	1.870	1.877	0.007
50	39	1.912	1.920	0.008
50	40	1.892	1.891	-0.001
55	41	1.833	1.837	0.004
55	42	1.932	1.915	-0.017
55	43	1.885	1.887	0.002
55	44	1.896	1.887	-0.009
55	45	1.868	1.860	-0.008
100	1	1.866	1.866	0.000
100	2	1.927	1.937	0.010
100	3	1.893	1.888	-0.005
100	4	1.880	1.881	0.001
100	5	1.847	1.848	0.001
100	6	1.850	1.867	0.017
100	9	1.859	1.854	-0.005
100	10	1.974	1.987	0.013
100	11	1.867	1.868	0.001
100	12	1.831	1.833	0.002
100	13	1.932	1.938	0.006
100	14	1.888	1.891	0.003
100	15	1.851	1.852	0.001
100	16	1.871	1.877	0.006
100	17	1.893	1.902	0.009
100	18	1.839	1.845	0.006
100	19	1.845	1.858	0.013
100	20	1.873	1.886	0.013
100	21	1.867	1.868	0.001
100	22	1.867	1.877	0.010
100	23	1.917	1.923	0.006
100	24	1.920	1.927	0.007
105	27	1.937	1.937	0.000
105	28	1.914	1.893	-0.021
105	29	1.967	1.970	0.003
105	30	1.901	1.913	0.012
105	31	1.887	1.893	0.006
	Max	1.974	1.987	0.017
	Average	1.886	1.888	0.002
	Min	1.806	1.806	-0.021
	Std Dev	0.037	0.037	0.006



4.3_IshutVin3V		
Test Site		
Tester		
Test Number		
Max Limit	2.85	mA
Min Limit		

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	1.806	1.853	1.852	1.866	1.854	1.822	1.840	1.856	1.837	1.833	1.893
Average	1.806	1.898	1.896	1.897	1.872	1.854	1.907	1.893	1.877	1.885	1.921
Max	1.806	1.931	1.952	1.960	1.912	1.883	1.936	1.923	1.915	1.987	1.970
UL	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850

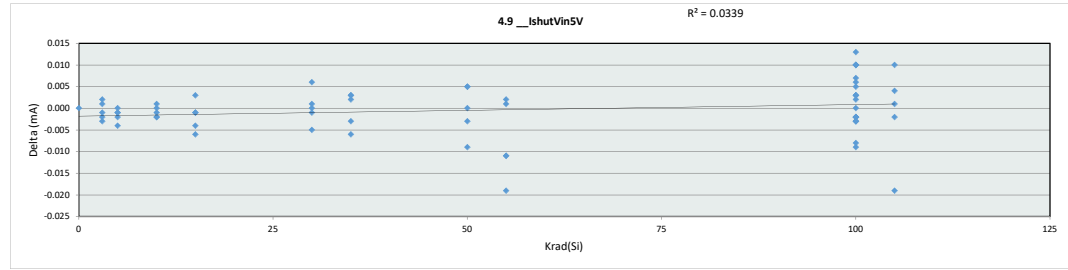




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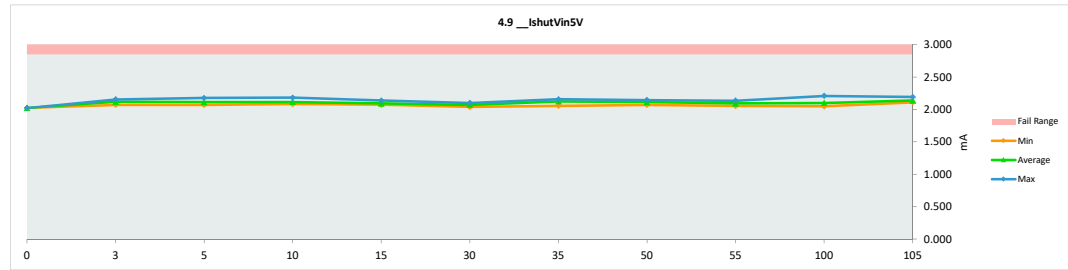
4.9_IshutVin5V		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	2.85	2.85
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	2.022	2.022	0.000
3	66	2.142	2.139	-0.003
3	67	2.155	2.154	-0.001
3	68	2.116	2.118	0.002
3	69	2.070	2.071	0.001
3	70	2.109	2.107	-0.002
5	71	2.113	2.113	0.000
5	72	2.120	2.119	-0.001
5	73	2.071	2.070	-0.001
5	74	2.089	2.087	-0.002
5	75	2.179	2.175	-0.004
10	56	2.109	2.108	-0.001
10	57	2.116	2.114	-0.002
10	58	2.179	2.180	0.001
10	59	2.091	2.091	0.000
10	60	2.084	2.082	-0.002
15	61	2.074	2.073	-0.001
15	62	2.140	2.136	-0.004
15	63	2.096	2.090	-0.006
15	64	2.091	2.090	-0.001
15	65	2.072	2.075	0.003
30	46	2.036	2.037	0.001
30	47	2.082	2.081	-0.001
30	48	2.094	2.094	0.000
30	49	2.093	2.099	0.006
30	50	2.045	2.040	-0.005
35	51	2.155	2.157	0.002
35	52	2.062	2.056	-0.006
35	53	2.159	2.156	-0.003
35	54	2.155	2.158	0.003
35	55	2.096	2.099	0.003
50	36	2.145	2.145	0.000
50	37	2.080	2.071	-0.009
50	38	2.090	2.095	0.005
50	39	2.129	2.134	0.005
50	40	2.114	2.111	-0.003
55	41	2.050	2.052	0.002
55	42	2.154	2.135	-0.019
55	43	2.103	2.104	0.001
55	44	2.115	2.104	-0.011
55	45	2.084	2.073	-0.011
100	1	2.086	2.084	-0.002
100	2	2.146	2.152	0.006
100	3	2.114	2.106	-0.008
100	4	2.096	2.094	-0.002
100	5	2.063	2.060	-0.003
100	6	2.068	2.081	0.013
100	9	2.077	2.068	-0.009
100	10	2.198	2.208	0.010
100	11	2.080	2.077	-0.003
100	12	2.050	2.048	-0.002
100	13	2.156	2.158	0.002
100	14	2.105	2.105	0.000
100	15	2.069	2.066	-0.003
100	16	2.090	2.093	0.003
100	17	2.114	2.119	0.005
100	18	2.056	2.059	0.003
100	19	2.063	2.073	0.010
100	20	2.093	2.103	0.010
100	21	2.085	2.083	-0.002
100	22	2.082	2.089	0.007
100	23	2.137	2.140	0.003
100	24	2.135	2.145	0.010
105	27	2.158	2.156	-0.002
105	28	2.128	2.109	-0.019
105	29	2.191	2.192	0.001
105	30	2.114	2.124	0.010
105	31	2.106	2.110	0.004
	Max	2.198	2.208	0.013
	Average	2.105	2.105	0.000
	Min	2.022	2.022	-0.019
	Std Dev	0.038	0.039	0.006



4.9_IshutVin5V		
Test Site		
Tester		
Test Number		
Max Limit	2.85	mA
Min Limit		

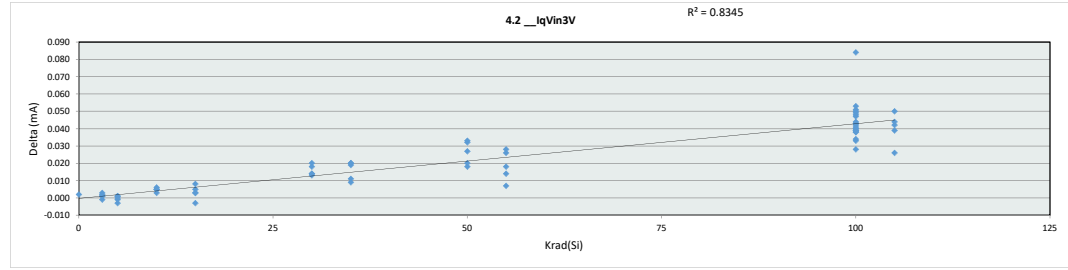
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	2.022	2.071	2.070	2.082	2.073	2.037	2.056	2.071	2.052	2.048	2.109
Average	2.022	2.118	2.113	2.115	2.093	2.070	2.125	2.111	2.094	2.101	2.138
Max	2.022	2.154	2.175	2.180	2.136	2.099	2.158	2.145	2.135	2.208	2.192
UL	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850



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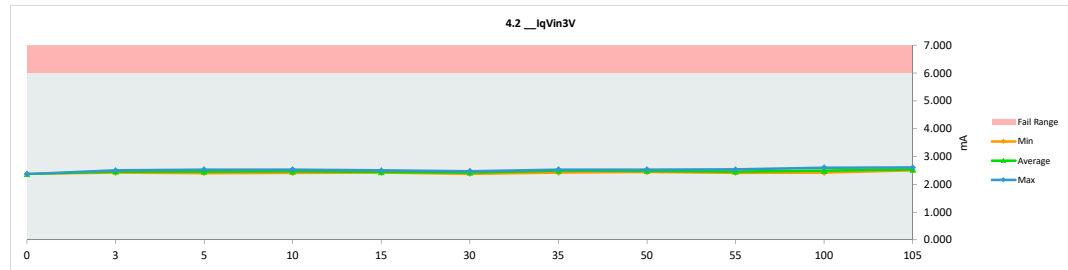
4.2 IqVin3V		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	6	6
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	2.370	2.372	0.002
3	66	2.478	2.477	-0.001
3	67	2.498	2.499	0.001
3	68	2.464	2.467	0.003
3	69	2.420	2.422	0.002
3	70	2.434	2.435	0.001
5	71	2.479	2.480	0.001
5	72	2.470	2.471	0.001
5	73	2.405	2.404	-0.001
5	74	2.417	2.417	0.000
5	75	2.534	2.531	-0.003
10	56	2.456	2.461	0.005
10	57	2.469	2.474	0.005
10	58	2.528	2.531	0.003
10	59	2.435	2.440	0.005
10	60	2.405	2.411	0.006
15	61	2.428	2.433	0.005
15	62	2.497	2.500	0.003
15	63	2.438	2.435	-0.003
15	64	2.418	2.421	0.003
15	65	2.425	2.433	0.008
30	46	2.367	2.385	0.018
30	47	2.426	2.439	0.013
30	48	2.456	2.470	0.014
30	49	2.442	2.462	0.020
30	50	2.367	2.381	0.014
35	51	2.507	2.526	0.019
35	52	2.410	2.419	0.009
35	53	2.518	2.529	0.011
35	54	2.498	2.518	0.020
35	55	2.446	2.466	0.020
50	36	2.500	2.527	0.027
50	37	2.422	2.440	0.018
50	38	2.437	2.470	0.033
50	39	2.483	2.515	0.032
50	40	2.444	2.464	0.020
55	41	2.384	2.412	0.028
55	42	2.526	2.533	0.007
55	43	2.447	2.473	0.026
55	44	2.446	2.460	0.014
55	45	2.407	2.425	0.018
100	1	2.445	2.483	0.038
100	2	2.507	2.549	0.042
100	3	2.465	2.498	0.033
100	4	2.449	2.533	0.084
100	5	2.419	2.453	0.034
100	6	2.413	2.466	0.053
100	9	2.405	2.433	0.028
100	10	2.549	2.596	0.047
100	11	2.417	2.457	0.040
100	12	2.381	2.420	0.039
100	13	2.494	2.535	0.041
100	14	2.460	2.498	0.038
100	15	2.403	2.442	0.039
100	16	2.441	2.485	0.044
100	17	2.466	2.516	0.050
100	18	2.385	2.428	0.043
100	19	2.407	2.456	0.049
100	20	2.444	2.492	0.048
100	21	2.426	2.466	0.040
100	22	2.416	2.459	0.043
100	23	2.488	2.527	0.039
100	24	2.492	2.543	0.051
105	27	2.505	2.544	0.039
105	28	2.487	2.513	0.026
105	29	2.563	2.605	0.042
105	30	2.466	2.510	0.044
105	31	2.451	2.501	0.050
	Max	2.563	2.605	0.084
	Average	2.451	2.474	0.023
	Min	2.367	2.372	-0.003
	Std Dev	0.045	0.049	0.019



4.2 IqVin3V		
Test Site		
Tester		
Test Number		
Max Limit	6	mA
Min Limit		

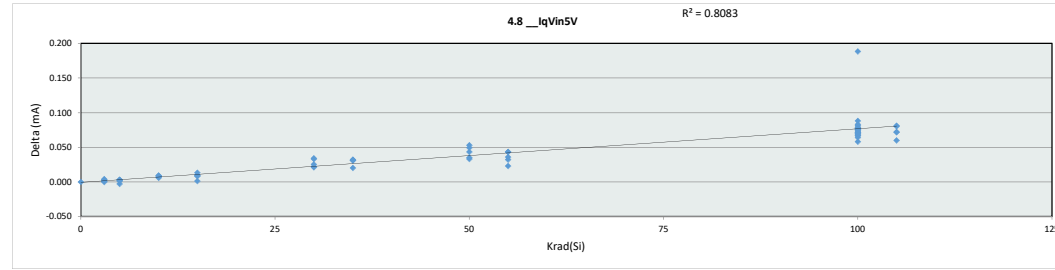
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	2.372	2.422	2.404	2.411	2.421	2.381	2.419	2.440	2.412	2.420	2.501
Average	2.372	2.460	2.461	2.463	2.444	2.427	2.492	2.483	2.461	2.488	2.535
Max	2.372	2.499	2.531	2.531	2.500	2.470	2.529	2.527	2.533	2.596	2.605
UL	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000



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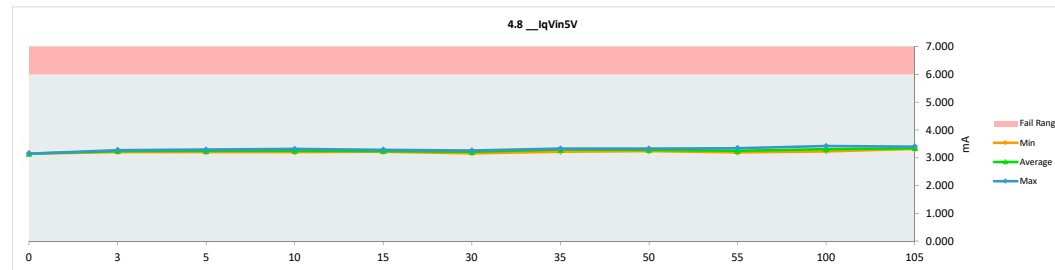
4.8 IqVin5V		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	6	6
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	3.150	3.150	0.000
3	66	3.269	3.269	0.000
3	67	3.275	3.276	0.001
3	68	3.255	3.259	0.004
3	69	3.208	3.211	0.003
3	70	3.207	3.208	0.001
5	71	3.264	3.267	0.003
5	72	3.270	3.273	0.003
5	73	3.202	3.203	0.001
5	74	3.206	3.208	0.002
5	75	3.300	3.297	-0.003
10	56	3.240	3.247	0.007
10	57	3.271	3.278	0.007
10	58	3.311	3.317	0.006
10	59	3.210	3.219	0.009
10	60	3.191	3.200	0.009
15	61	3.210	3.220	0.010
15	62	3.280	3.288	0.008
15	63	3.240	3.241	0.001
15	64	3.219	3.228	0.009
15	65	3.210	3.223	0.013
30	46	3.145	3.178	0.033
30	47	3.215	3.236	0.021
30	48	3.235	3.260	0.025
30	49	3.207	3.241	0.034
30	50	3.143	3.165	0.022
35	51	3.298	3.329	0.031
35	52	3.187	3.218	0.031
35	53	3.301	3.321	0.020
35	54	3.287	3.318	0.031
35	55	3.250	3.282	0.032
50	36	3.275	3.318	0.043
50	37	3.202	3.235	0.033
50	38	3.232	3.285	0.053
50	39	3.280	3.329	0.049
50	40	3.238	3.273	0.035
55	41	3.150	3.193	0.043
55	42	3.323	3.346	0.023
55	43	3.210	3.253	0.043
55	44	3.198	3.230	0.032
55	45	3.180	3.216	0.036
100	1	3.226	3.298	0.072
100	2	3.298	3.374	0.076
100	3	3.245	3.312	0.067
100	4	3.234	3.422	0.188
100	5	3.195	3.259	0.064
100	6	3.199	3.282	0.083
100	9	3.182	3.240	0.058
100	10	3.338	3.419	0.081
100	11	3.194	3.268	0.074
100	12	3.162	3.230	0.068
100	13	3.294	3.369	0.075
100	14	3.249	3.316	0.067
100	15	3.192	3.268	0.076
100	16	3.224	3.303	0.079
100	17	3.269	3.346	0.077
100	18	3.163	3.235	0.072
100	19	3.194	3.272	0.078
100	20	3.246	3.323	0.077
100	21	3.233	3.303	0.070
100	22	3.196	3.268	0.072
100	23	3.271	3.341	0.070
100	24	3.276	3.364	0.088
105	27	3.288	3.360	0.072
105	28	3.255	3.315	0.060
105	29	3.333	3.405	0.072
105	30	3.245	3.326	0.081
105	31	3.240	3.320	0.080
	Max	3.338	3.422	0.188
	Average	3.235	3.277	0.042
	Min	3.143	3.150	-0.003
	Std Dev	0.047	0.059	0.035



4.8 IqVin5V		
Test Site		
Tester		
Test Number		
Max Limit	6	mA
Min Limit		

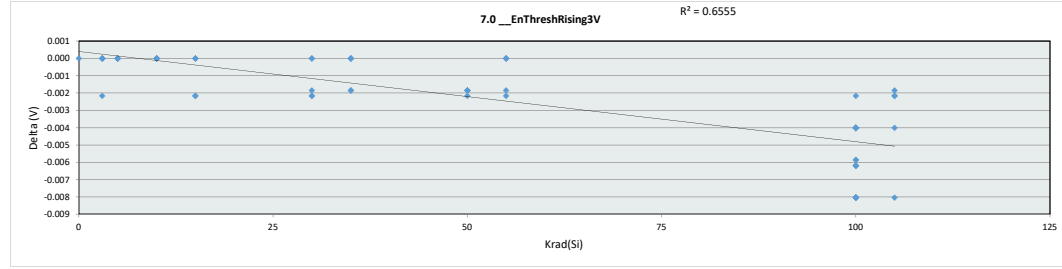
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	3.150	3.208	3.203	3.200	3.220	3.165	3.218	3.235	3.193	3.230	3.315
Average	3.150	3.245	3.250	3.252	3.240	3.216	3.294	3.288	3.248	3.310	3.345
Max	3.150	3.276	3.297	3.317	3.288	3.260	3.329	3.329	3.346	3.422	3.405
UL	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000



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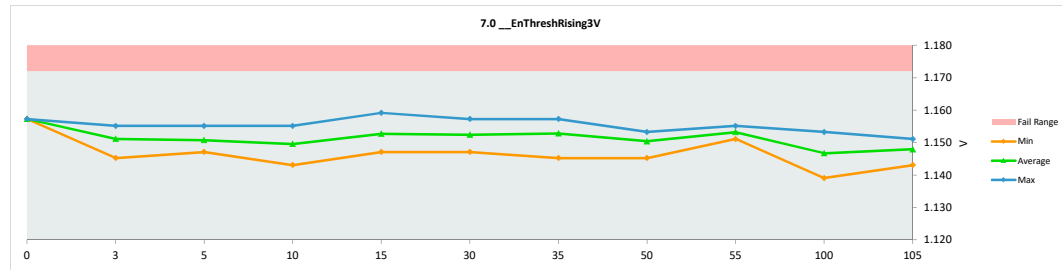
7.0_EnThreshRising3V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	1.172	1.172
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	1.157	1.157	0.000
3	66	1.157	1.155	-0.002
3	67	1.151	1.151	0.000
3	68	1.153	1.153	0.000
3	69	1.151	1.151	0.000
3	70	1.145	1.145	0.000
5	71	1.147	1.147	0.000
5	72	1.153	1.153	0.000
5	73	1.155	1.155	0.000
5	74	1.151	1.151	0.000
5	75	1.147	1.147	0.000
10	56	1.151	1.151	0.000
10	57	1.153	1.153	0.000
10	58	1.143	1.143	0.000
10	59	1.155	1.155	0.000
10	60	1.145	1.145	0.000
15	61	1.155	1.155	0.000
15	62	1.149	1.147	-0.002
15	63	1.153	1.151	-0.002
15	64	1.159	1.159	0.000
15	65	1.151	1.151	0.000
30	46	1.153	1.153	0.000
30	47	1.155	1.153	-0.002
30	48	1.157	1.157	0.000
30	49	1.149	1.147	-0.002
30	50	1.153	1.151	-0.002
35	51	1.151	1.151	0.000
35	52	1.155	1.153	-0.002
35	53	1.159	1.157	-0.002
35	54	1.145	1.145	0.000
35	55	1.157	1.157	0.000
50	36	1.151	1.149	-0.002
50	37	1.155	1.153	-0.002
50	38	1.153	1.151	-0.002
50	39	1.147	1.145	-0.002
50	40	1.155	1.153	-0.002
55	41	1.153	1.153	0.000
55	42	1.153	1.153	0.000
55	43	1.157	1.155	-0.002
55	44	1.155	1.153	-0.002
55	45	1.151	1.151	0.000
100	1	1.153	1.147	-0.006
100	2	1.155	1.151	-0.004
100	3	1.149	1.145	-0.004
100	4	1.147	1.139	-0.008
100	5	1.157	1.153	-0.004
100	6	1.149	1.145	-0.004
100	9	1.155	1.149	-0.006
100	10	1.145	1.141	-0.004
100	11	1.153	1.145	-0.008
100	12	1.151	1.147	-0.004
100	13	1.149	1.145	-0.004
100	14	1.153	1.147	-0.006
100	15	1.149	1.143	-0.006
100	16	1.155	1.149	-0.006
100	17	1.149	1.143	-0.006
100	18	1.155	1.147	-0.008
100	19	1.151	1.147	-0.004
100	20	1.157	1.153	-0.004
100	21	1.149	1.145	-0.004
100	22	1.153	1.151	-0.002
100	23	1.153	1.145	-0.008
100	24	1.155	1.147	-0.008
105	27	1.153	1.149	-0.004
105	28	1.153	1.151	-0.002
105	29	1.151	1.143	-0.008
105	30	1.153	1.151	-0.002
105	31	1.147	1.145	-0.002
Max		1.159	1.159	0.000
Average		1.152	1.150	-0.002
Min		1.143	1.139	-0.008
Std Dev		0.004	0.004	0.003



7.0_EnThreshRising3V		
Test Site		
Tester		
Test Number		
Max Limit	1.172	V
Min Limit		V

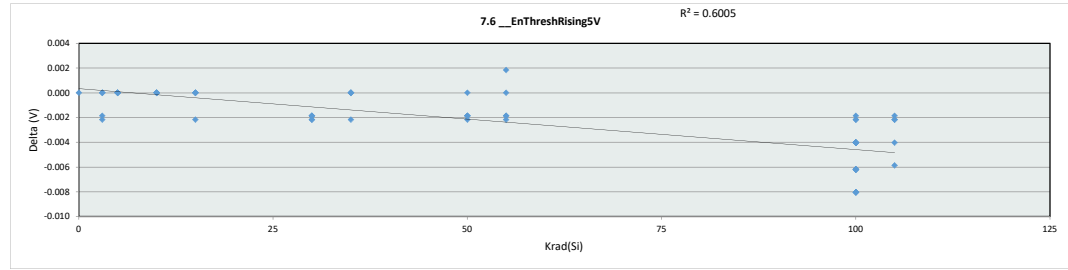
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	1.157	1.145	1.147	1.143	1.147	1.147	1.145	1.145	1.151	1.139	1.143
Average	1.157	1.151	1.151	1.150	1.153	1.152	1.153	1.150	1.153	1.147	1.148
Max	1.157	1.155	1.155	1.155	1.159	1.157	1.157	1.153	1.155	1.153	1.151
UL	1.172	1.172	1.172	1.172	1.172	1.172	1.172	1.172	1.172	1.172	1.172



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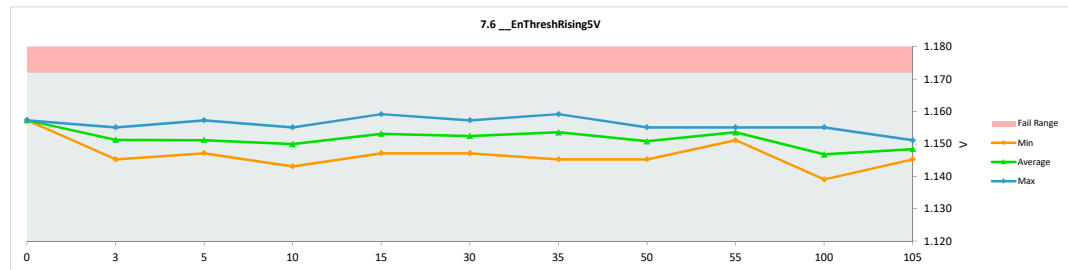
7.6 EnThreshRising5V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	1.172	1.172
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	1.157	1.157	0.000
3	66	1.157	1.155	-0.002
3	67	1.153	1.153	0.000
3	68	1.153	1.153	0.000
3	69	1.151	1.149	-0.002
3	70	1.145	1.145	0.000
5	71	1.147	1.147	0.000
5	72	1.153	1.153	0.000
5	73	1.157	1.157	0.000
5	74	1.151	1.151	0.000
5	75	1.147	1.147	0.000
10	56	1.151	1.151	0.000
10	57	1.155	1.155	0.000
10	58	1.143	1.143	0.000
10	59	1.155	1.155	0.000
10	60	1.145	1.145	0.000
15	61	1.155	1.155	0.000
15	62	1.149	1.147	-0.002
15	63	1.153	1.153	0.000
15	64	1.159	1.159	0.000
15	65	1.151	1.151	0.000
30	46	1.155	1.153	-0.002
30	47	1.155	1.153	-0.002
30	48	1.159	1.157	-0.002
30	49	1.149	1.147	-0.002
30	50	1.153	1.151	-0.002
35	51	1.153	1.151	-0.002
35	52	1.155	1.155	0.000
35	53	1.159	1.159	0.000
35	54	1.145	1.145	0.000
35	55	1.157	1.157	0.000
50	36	1.151	1.149	-0.002
50	37	1.155	1.155	0.000
50	38	1.153	1.151	-0.002
50	39	1.147	1.145	-0.002
50	40	1.155	1.153	-0.002
55	41	1.155	1.153	-0.002
55	42	1.153	1.155	0.002
55	43	1.157	1.155	-0.002
55	44	1.155	1.153	-0.002
55	45	1.151	1.151	0.000
100	1	1.153	1.147	-0.006
100	2	1.155	1.151	-0.004
100	3	1.149	1.145	-0.004
100	4	1.145	1.139	-0.006
100	5	1.157	1.153	-0.004
100	6	1.149	1.145	-0.004
100	9	1.155	1.147	-0.008
100	10	1.145	1.141	-0.004
100	11	1.153	1.145	-0.008
100	12	1.151	1.147	-0.004
100	13	1.149	1.145	-0.004
100	14	1.153	1.147	-0.006
100	15	1.149	1.143	-0.006
100	16	1.157	1.151	-0.006
100	17	1.149	1.143	-0.006
100	18	1.155	1.147	-0.008
100	19	1.149	1.147	-0.002
100	20	1.157	1.155	-0.002
100	21	1.147	1.145	-0.002
100	22	1.155	1.151	-0.004
100	23	1.153	1.145	-0.008
100	24	1.155	1.147	-0.008
105	27	1.153	1.149	-0.004
105	28	1.153	1.151	-0.002
105	29	1.151	1.145	-0.006
105	30	1.153	1.151	-0.002
105	31	1.147	1.145	-0.002
	Max	1.159	1.159	0.002
	Average	1.152	1.150	-0.002
	Min	1.143	1.139	-0.008
	Std Dev	0.004	0.005	0.003



7.6 EnThreshRising5V		
Test Site		
Tester		
Test Number		
Max Limit	1.172	V
Min Limit		V

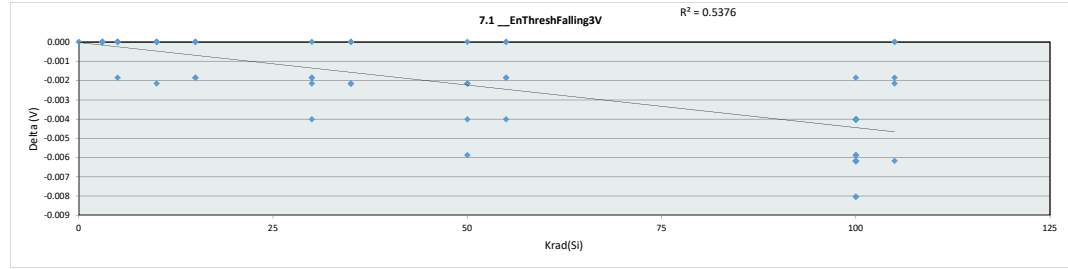
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	1.157	1.145	1.147	1.143	1.147	1.147	1.145	1.145	1.151	1.139	1.145
Average	1.157	1.151	1.151	1.150	1.153	1.152	1.154	1.151	1.154	1.147	1.148
Max	1.157	1.155	1.157	1.155	1.159	1.157	1.159	1.155	1.155	1.155	1.151
UL	1.172	1.172	1.172	1.172	1.172	1.172	1.172	1.172	1.172	1.172	1.172



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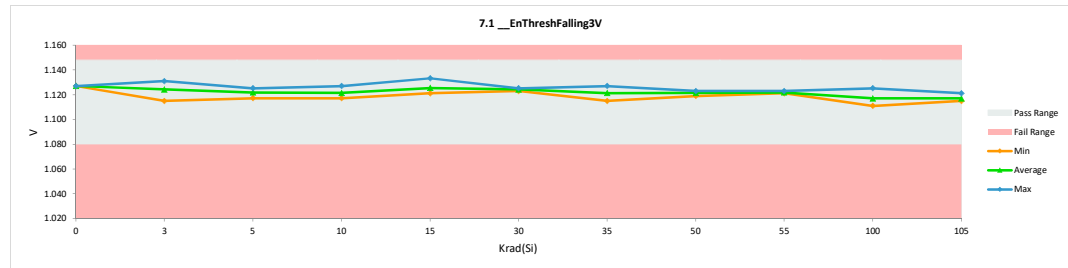
7.1_EnThreshFalling3V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	1.148	1.148
Min Limit	1.08	1.08

Krad(Si)	Serial #	PRE	POST	Delta
0	33	1.127	1.127	0.000
3	66	1.131	1.131	0.000
3	67	1.125	1.125	0.000
3	68	1.129	1.129	0.000
3	69	1.121	1.121	0.000
3	70	1.115	1.115	0.000
5	71	1.119	1.117	-0.002
5	72	1.121	1.121	0.000
5	73	1.123	1.123	0.000
5	74	1.125	1.125	0.000
5	75	1.123	1.123	0.000
10	56	1.123	1.123	0.000
10	57	1.127	1.127	0.000
10	58	1.121	1.119	-0.002
10	59	1.121	1.121	0.000
10	60	1.117	1.117	0.000
15	61	1.133	1.133	0.000
15	62	1.123	1.123	0.000
15	63	1.121	1.121	0.000
15	64	1.131	1.129	-0.002
15	65	1.123	1.121	-0.002
30	46	1.125	1.123	-0.002
30	47	1.125	1.125	0.000
30	48	1.127	1.123	-0.004
30	49	1.127	1.125	-0.002
30	50	1.127	1.125	-0.002
35	51	1.121	1.119	-0.002
35	52	1.123	1.123	0.000
35	53	1.127	1.127	0.000
35	54	1.117	1.115	-0.002
35	55	1.123	1.123	0.000
50	36	1.125	1.123	-0.002
50	37	1.127	1.121	-0.006
50	38	1.125	1.121	-0.004
50	39	1.119	1.119	0.000
50	40	1.125	1.123	-0.002
55	41	1.123	1.123	0.000
55	42	1.123	1.121	-0.002
55	43	1.125	1.121	-0.004
55	44	1.123	1.121	-0.002
55	45	1.123	1.123	0.000
100	1	1.119	1.117	-0.002
100	2	1.129	1.123	-0.006
100	3	1.117	1.111	-0.006
100	4	1.117	1.113	-0.004
100	5	1.129	1.125	-0.004
100	6	1.117	1.113	-0.004
100	9	1.123	1.117	-0.006
100	10	1.121	1.115	-0.006
100	11	1.123	1.115	-0.008
100	12	1.127	1.123	-0.004
100	13	1.121	1.113	-0.008
100	14	1.125	1.121	-0.004
100	15	1.119	1.115	-0.004
100	16	1.127	1.121	-0.006
100	17	1.117	1.111	-0.006
100	18	1.121	1.115	-0.006
100	19	1.125	1.121	-0.004
100	20	1.125	1.121	-0.004
100	21	1.119	1.113	-0.006
100	22	1.123	1.119	-0.004
100	23	1.121	1.115	-0.006
100	24	1.121	1.117	-0.004
105	27	1.121	1.115	-0.006
105	28	1.123	1.121	-0.002
105	29	1.115	1.115	0.000
105	30	1.121	1.119	-0.002
105	31	1.115	1.115	0.000
Max		1.133	1.133	0.000
Average		1.123	1.121	-0.002
Min		1.115	1.111	-0.008
Std Dev		0.004	0.005	0.002



7.1_EnThreshFalling3V		
Test Site		
Tester		
Test Number		
Max Limit	1.148	V
Min Limit	1.08	V

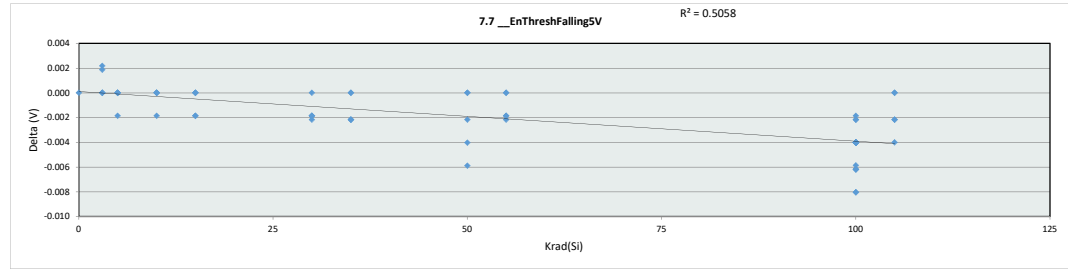
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080
Min	1.127	1.115	1.117	1.117	1.121	1.123	1.115	1.119	1.121	1.111	1.115
Average	1.127	1.124	1.122	1.121	1.126	1.124	1.121	1.121	1.122	1.117	1.117
Max	1.127	1.131	1.125	1.127	1.133	1.125	1.127	1.123	1.123	1.125	1.121
UL	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148



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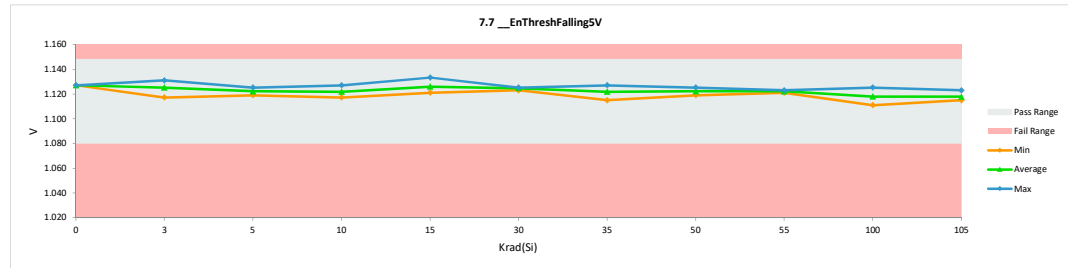
7.7_EnThreshFallingSV		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	1.148	1.148
Min Limit	1.08	1.08

Krad(Si)	Serial #	PRE	POST	Delta
0	33	1.127	1.127	0.000
3	66	1.131	1.131	0.000
3	67	1.125	1.125	0.000
3	68	1.129	1.129	0.000
3	69	1.121	1.123	0.002
3	70	1.115	1.117	0.002
5	71	1.119	1.119	0.000
5	72	1.123	1.121	-0.002
5	73	1.123	1.123	0.000
5	74	1.125	1.125	0.000
5	75	1.123	1.123	0.000
10	56	1.123	1.123	0.000
10	57	1.127	1.127	0.000
10	58	1.121	1.121	0.000
10	59	1.123	1.121	-0.002
10	60	1.117	1.117	0.000
15	61	1.133	1.133	0.000
15	62	1.123	1.123	0.000
15	63	1.123	1.121	-0.002
15	64	1.131	1.131	0.000
15	65	1.123	1.121	-0.002
30	46	1.125	1.123	-0.002
30	47	1.125	1.125	0.000
30	48	1.127	1.125	-0.002
30	49	1.127	1.125	-0.002
30	50	1.127	1.125	-0.002
35	51	1.121	1.121	0.000
35	52	1.123	1.123	0.000
35	53	1.129	1.127	-0.002
35	54	1.117	1.115	-0.002
35	55	1.125	1.123	-0.002
50	36	1.125	1.125	0.000
50	37	1.127	1.123	-0.004
50	38	1.127	1.121	-0.006
50	39	1.119	1.119	0.000
50	40	1.125	1.123	-0.002
55	41	1.123	1.123	0.000
55	42	1.123	1.121	-0.002
55	43	1.125	1.123	-0.002
55	44	1.123	1.121	-0.002
55	45	1.123	1.123	0.000
100	1	1.121	1.119	-0.002
100	2	1.129	1.123	-0.006
100	3	1.117	1.113	-0.004
100	4	1.117	1.113	-0.004
100	5	1.129	1.125	-0.004
100	6	1.119	1.115	-0.004
100	9	1.123	1.119	-0.004
100	10	1.121	1.115	-0.006
100	11	1.123	1.115	-0.008
100	12	1.127	1.123	-0.004
100	13	1.123	1.115	-0.008
100	14	1.125	1.121	-0.004
100	15	1.119	1.117	-0.002
100	16	1.127	1.123	-0.004
100	17	1.117	1.111	-0.006
100	18	1.121	1.117	-0.004
100	19	1.125	1.121	-0.004
100	20	1.127	1.123	-0.004
100	21	1.119	1.113	-0.006
100	22	1.123	1.119	-0.004
100	23	1.121	1.117	-0.004
100	24	1.121	1.119	-0.002
105	27	1.121	1.117	-0.004
105	28	1.123	1.123	0.000
105	29	1.117	1.115	-0.002
105	30	1.121	1.119	-0.002
105	31	1.115	1.115	0.000
Max	1.133	1.133	0.002	
Average	1.123	1.121	-0.002	
Min	1.115	1.111	-0.008	
Std Dev	0.004	0.005	0.002	



7.7_EnThreshFallingSV		
Test Site		
Tester		
Test Number		
Max Limit	1.148	V
Min Limit	1.08	V

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080
Min	1.127	1.117	1.119	1.117	1.121	1.123	1.115	1.119	1.121	1.111	1.115
Average	1.127	1.125	1.122	1.122	1.126	1.125	1.122	1.122	1.122	1.118	1.118
Max	1.127	1.131	1.125	1.127	1.133	1.125	1.127	1.125	1.123	1.125	1.123
UL	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148

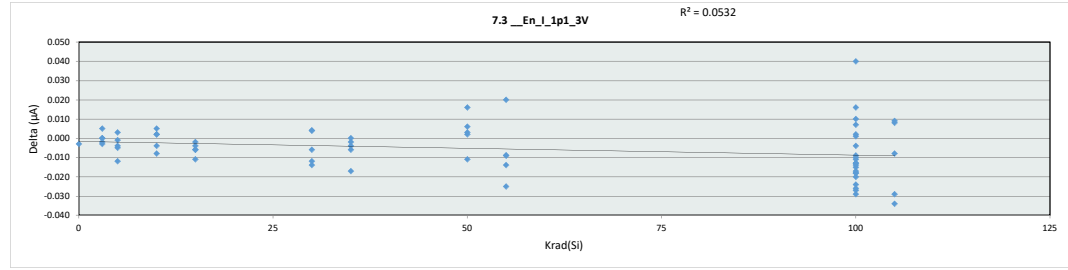


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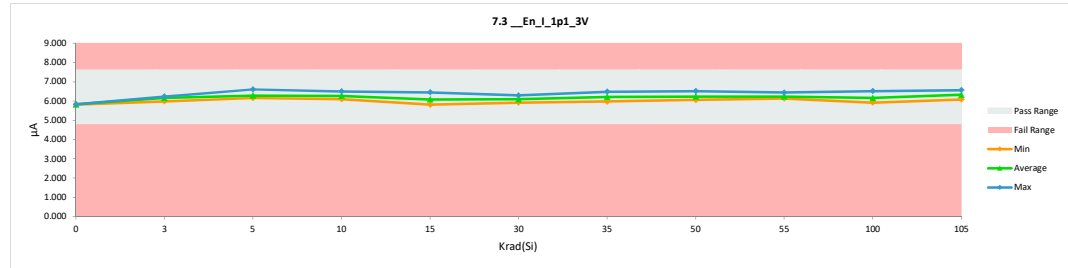
7.3 En I 1p1 3V		
Test Site		
Tester		
Test Number		
Unit	µA	µA
Max Limit	7.6	7.6
Min Limit	4.8	4.8

Krad(Si)	Serial #	PRE	POST	Delta
0	33	5.822	5.819	-0.003
3	66	6.211	6.211	0.000
3	67	6.187	6.187	0.000
3	68	5.978	5.976	-0.002
3	69	6.154	6.159	0.005
3	70	6.236	6.233	-0.003
5	71	6.303	6.302	-0.001
5	72	6.155	6.150	-0.005
5	73	6.158	6.154	-0.004
5	74	6.168	6.171	0.003
5	75	6.607	6.595	-0.012
10	56	6.115	6.117	0.002
10	57	6.086	6.091	0.005
10	58	6.494	6.490	-0.004
10	59	6.280	6.272	-0.008
10	60	6.361	6.363	0.002
15	61	6.110	6.108	-0.002
15	62	6.445	6.441	-0.004
15	63	6.051	6.045	-0.006
15	64	5.811	5.805	-0.006
15	65	6.007	5.996	-0.011
30	46	6.036	6.030	-0.006
30	47	5.984	5.970	-0.014
30	48	6.285	6.289	0.004
30	49	6.231	6.235	0.004
30	50	5.923	5.911	-0.012
35	51	6.478	6.476	-0.002
35	52	6.034	6.028	-0.006
35	53	5.977	5.973	-0.004
35	54	6.417	6.417	0.000
35	55	6.170	6.153	-0.017
50	36	6.511	6.513	0.002
50	37	6.038	6.054	0.016
50	38	6.063	6.069	0.006
50	39	6.242	6.245	0.003
50	40	6.254	6.243	-0.011
55	41	6.191	6.211	0.020
55	42	6.230	6.221	-0.009
55	43	6.151	6.137	-0.014
55	44	6.447	6.438	-0.009
55	45	6.156	6.131	-0.025
100	1	6.342	6.338	-0.004
100	2	6.218	6.207	-0.011
100	3	6.442	6.427	-0.015
100	4	6.253	6.254	0.001
100	5	6.047	6.023	-0.024
100	6	6.203	6.193	-0.010
100	9	6.103	6.077	-0.026
100	10	6.530	6.516	-0.014
100	11	5.939	5.979	0.040
100	12	6.068	6.039	-0.029
100	13	6.225	6.232	0.007
100	14	5.937	5.917	-0.020
100	15	6.100	6.073	-0.027
100	16	5.947	5.957	0.010
100	17	6.250	6.232	-0.018
100	18	5.975	5.958	-0.017
100	19	5.962	5.949	-0.013
100	20	6.147	6.138	-0.009
100	21	6.064	6.046	-0.018
100	22	6.146	6.148	0.002
100	23	6.435	6.422	-0.013
100	24	6.296	6.312	0.016
105	27	6.445	6.454	0.009
105	28	6.113	6.084	-0.029
105	29	6.557	6.565	0.008
105	30	6.275	6.241	-0.034
105	31	6.269	6.261	-0.008
Max		6.607	6.595	0.040
Average		6.189	6.183	-0.006
Min		5.811	5.805	-0.034
Std Dev		0.182	0.183	0.013



7.3 En I 1p1 3V		
Test Site		
Tester		
Test Number		
Max Limit	7.6	µA
Min Limit	4.8	µA

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	4.800	4.800	4.800	4.800	4.800	4.800	4.800	4.800	4.800	4.800	4.800
Min	5.819	5.976	6.150	6.091	5.805	5.911	5.973	6.054	6.131	5.917	6.084
Average	5.819	6.153	6.274	6.267	6.079	6.087	6.209	6.225	6.228	6.156	6.321
Max	5.819	6.233	6.595	6.490	6.441	6.289	6.476	6.513	6.438	6.516	6.565
UL	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600



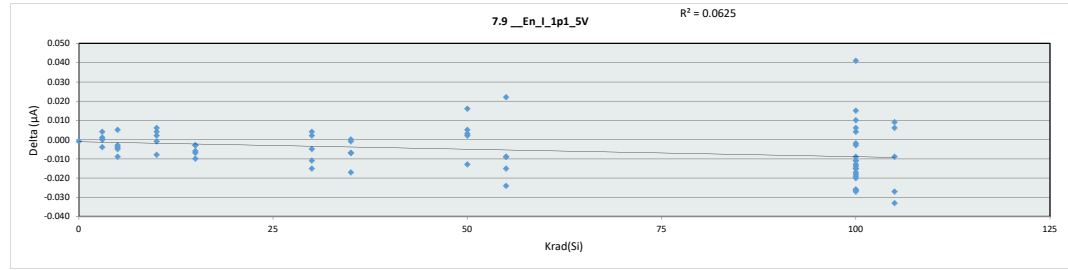


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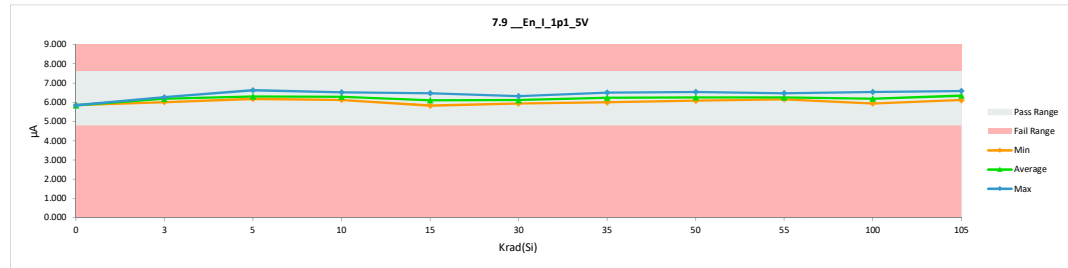
7.9 En I 1p1 5V		
Test Site		
Tester		
Test Number		
Unit	µA	µA
Max Limit	7.6	7.6
Min Limit	4.8	4.8

Krad(Si)	Serial #	PRE	POST	Delta
0	33	5.841	5.840	-0.001
3	66	6.230	6.230	0.000
3	67	6.206	6.207	0.001
3	68	5.995	5.995	0.000
3	69	6.172	6.176	0.004
3	70	6.258	6.254	-0.004
5	71	6.324	6.321	-0.003
5	72	6.174	6.169	-0.005
5	73	6.177	6.173	-0.004
5	74	6.186	6.191	0.005
5	75	6.626	6.617	-0.009
10	56	6.134	6.136	0.002
10	57	6.105	6.111	0.006
10	58	6.511	6.510	-0.001
10	59	6.299	6.291	-0.008
10	60	6.378	6.382	0.004
15	61	6.128	6.125	-0.003
15	62	6.464	6.461	-0.003
15	63	6.071	6.064	-0.007
15	64	5.829	5.823	-0.006
15	65	6.025	6.015	-0.010
30	46	6.053	6.048	-0.005
30	47	6.004	5.989	-0.015
30	48	6.306	6.308	0.002
30	49	6.251	6.255	0.004
30	50	5.941	5.930	-0.011
35	51	6.497	6.496	-0.001
35	52	6.053	6.046	-0.007
35	53	5.997	5.990	-0.007
35	54	6.435	6.435	0.000
35	55	6.189	6.172	-0.017
50	36	6.530	6.533	0.003
50	37	6.057	6.073	0.016
50	38	6.082	6.087	0.005
50	39	6.262	6.264	0.002
50	40	6.274	6.261	-0.013
55	41	6.209	6.231	0.022
55	42	6.249	6.240	-0.009
55	43	6.171	6.156	-0.015
55	44	6.467	6.458	-0.009
55	45	6.176	6.152	-0.024
100	1	6.362	6.359	-0.003
100	2	6.237	6.226	-0.011
100	3	6.460	6.445	-0.015
100	4	6.273	6.271	-0.002
100	5	6.067	6.041	-0.026
100	6	6.224	6.213	-0.011
100	9	6.123	6.096	-0.027
100	10	6.550	6.535	-0.015
100	11	5.957	5.998	0.041
100	12	6.086	6.060	-0.026
100	13	6.244	6.250	0.006
100	14	5.955	5.935	-0.020
100	15	6.119	6.093	-0.026
100	16	5.966	5.976	0.010
100	17	6.269	6.251	-0.018
100	18	5.994	5.977	-0.017
100	19	5.981	5.968	-0.013
100	20	6.166	6.157	-0.009
100	21	6.084	6.065	-0.019
100	22	6.164	6.168	0.004
100	23	6.455	6.441	-0.014
100	24	6.317	6.332	0.015
105	27	6.464	6.473	0.009
105	28	6.132	6.105	-0.027
105	29	6.577	6.583	0.006
105	30	6.293	6.260	-0.033
105	31	6.289	6.280	-0.009
	Max	6.626	6.617	0.041
	Average	6.208	6.203	-0.005
	Min	5.829	5.823	-0.033
	Std Dev	0.182	0.183	0.013



7.9 En I 1p1 5V		
Test Site		
Tester		
Test Number		
Max Limit	7.6	µA
Min Limit	4.8	µA

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	4.800	4.800	4.800	4.800	4.800	4.800	4.800	4.800	4.800	4.800	4.800
Min	5.840	5.995	6.169	6.111	5.823	5.930	5.990	6.073	6.152	5.935	6.105
Average	5.840	6.172	6.294	6.286	6.098	6.106	6.228	6.244	6.247	6.175	6.340
Max	5.840	6.254	6.617	6.510	6.461	6.308	6.496	6.533	6.458	6.535	6.583
UL	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600	7.600

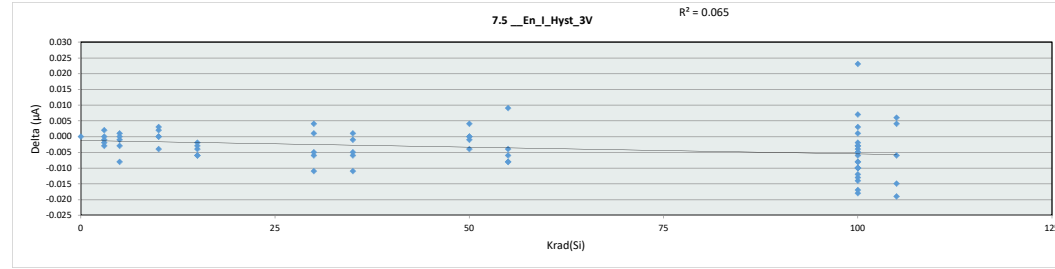


# HDR TID Report

## TPS7H4001-SP QMLP

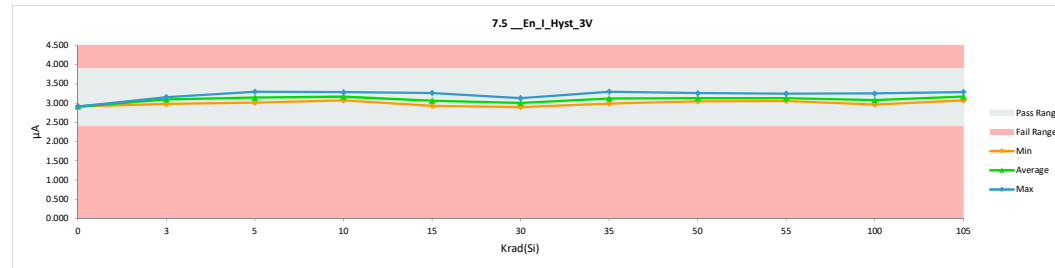
7.5 En_I_Hyst_3V		
Test Site		
Tester		
Test Number		
Unit	µA	µA
Max Limit	3.9	3.9
Min Limit	2.4	2.4

Krad(Si)	Serial #	PRE	POST	Delta
0	33	2.904	2.904	0.000
3	66	3.087	3.087	0.000
3	67	3.150	3.148	-0.002
3	68	2.971	2.970	-0.001
3	69	3.136	3.138	0.002
3	70	3.118	3.115	-0.003
5	71	3.189	3.189	0.000
5	72	3.010	3.009	-0.001
5	73	3.111	3.108	-0.003
5	74	3.082	3.083	0.001
5	75	3.298	3.290	-0.008
10	56	3.112	3.112	0.000
10	57	3.064	3.066	0.002
10	58	3.277	3.277	0.000
10	59	3.150	3.146	-0.004
10	60	3.210	3.213	0.003
15	61	3.038	3.034	-0.004
15	62	3.255	3.253	-0.002
15	63	3.034	3.028	-0.006
15	64	2.930	2.924	-0.006
15	65	3.047	3.044	-0.003
30	46	2.925	2.919	-0.006
30	47	2.951	2.940	-0.011
30	48	3.125	3.126	0.001
30	49	3.114	3.118	0.004
30	50	2.896	2.891	-0.005
35	51	3.290	3.289	-0.001
35	52	3.004	2.999	-0.005
35	53	2.986	2.980	-0.006
35	54	3.251	3.252	0.001
35	55	3.077	3.066	-0.011
50	36	3.252	3.252	0.000
50	37	3.040	3.044	0.004
50	38	3.068	3.068	0.000
50	39	3.094	3.093	-0.001
50	40	3.162	3.158	-0.004
55	41	3.137	3.146	0.009
55	42	3.108	3.104	-0.004
55	43	3.093	3.085	-0.008
55	44	3.246	3.240	-0.006
55	45	3.057	3.049	-0.008
100	1	3.153	3.150	-0.003
100	2	3.117	3.112	-0.005
100	3	3.242	3.232	-0.010
100	4	3.091	3.092	0.001
100	5	3.027	3.017	-0.010
100	6	3.068	3.065	-0.003
100	9	3.015	2.997	-0.018
100	10	3.192	3.179	-0.013
100	11	3.020	3.043	0.023
100	12	3.047	3.037	-0.010
100	13	3.146	3.144	-0.002
100	14	2.962	2.954	-0.008
100	15	3.019	3.002	-0.017
100	16	2.978	2.981	0.003
100	17	3.174	3.160	-0.014
100	18	3.002	2.992	-0.010
100	19	2.982	2.976	-0.006
100	20	3.085	3.081	-0.004
100	21	3.032	3.020	-0.012
100	22	3.062	3.057	-0.005
100	23	3.252	3.244	-0.008
100	24	3.155	3.162	0.007
105	27	3.153	3.157	0.004
105	28	3.084	3.065	-0.019
105	29	3.275	3.281	0.006
105	30	3.150	3.135	-0.015
105	31	3.181	3.175	-0.006
Max		3.298	3.290	0.023
Average		3.099	3.095	-0.004
Min		2.896	2.891	-0.019
Std Dev		0.099	0.100	0.007



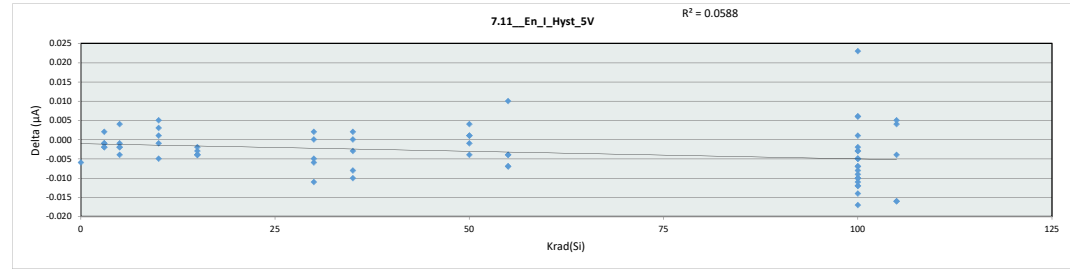
7.5 En_I_Hyst_3V		
Test Site		
Tester		
Test Number		
Max Limit	3.9	µA
Min Limit	2.4	µA

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400
Min	2.904	2.970	3.009	3.066	2.924	2.891	2.980	3.044	3.049	2.954	3.065
Average	2.904	3.092	3.136	3.163	3.057	2.999	3.117	3.123	3.125	3.077	3.163
Max	2.904	3.148	3.290	3.277	3.253	3.126	3.289	3.252	3.240	3.244	3.281
UL	3.900	3.900	3.900	3.900	3.900	3.900	3.900	3.900	3.900	3.900	3.900

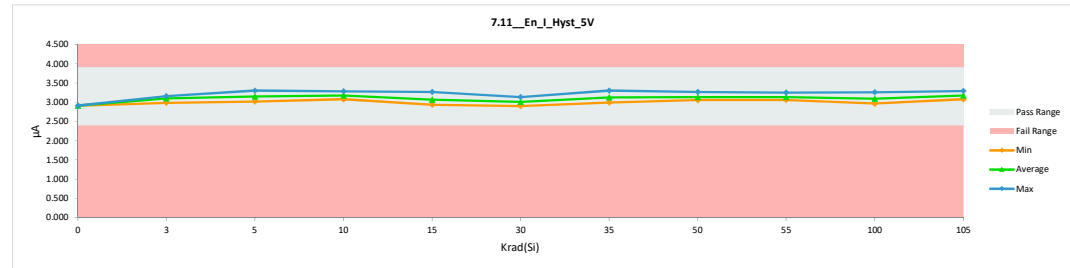


HDR TID Report  
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7.11_En_I_Hyst_5V				
Test Site				
Tester				
Test Number				
Unit	µA	µA		
Max Limit	3.9	3.9		
Min Limit	2.4	2.4		
Krad(Si)	Serial #	PRE	POST	Delta
0	33	2.917	2.911	-0.006
3	66	3.098	3.096	-0.002
3	67	3.159	3.158	-0.001
3	68	2.981	2.980	-0.001
3	69	3.144	3.146	0.002
3	70	3.128	3.126	-0.002
5	71	3.198	3.197	-0.001
5	72	3.020	3.018	-0.002
5	73	3.120	3.118	-0.002
5	74	3.089	3.093	0.004
5	75	3.305	3.301	-0.004
10	56	3.121	3.122	0.001
10	57	3.072	3.077	0.005
10	58	3.286	3.285	-0.001
10	59	3.161	3.156	-0.005
10	60	3.221	3.224	0.003
15	61	3.048	3.045	-0.003
15	62	3.265	3.263	-0.002
15	63	3.044	3.040	-0.004
15	64	2.939	2.935	-0.004
15	65	3.057	3.053	-0.004
30	46	2.931	2.926	-0.005
30	47	2.960	2.949	-0.011
30	48	3.136	3.136	0.000
30	49	3.125	3.127	0.002
30	50	2.905	2.899	-0.006
35	51	3.301	3.301	0.000
35	52	3.011	3.008	-0.003
35	53	2.997	2.989	-0.008
35	54	3.261	3.263	0.002
35	55	3.086	3.076	-0.010
50	36	3.261	3.262	0.001
50	37	3.049	3.053	0.004
50	38	3.077	3.078	0.001
50	39	3.105	3.104	-0.001
50	40	3.172	3.168	-0.004
55	41	3.147	3.157	0.010
55	42	3.118	3.114	-0.004
55	43	3.103	3.096	-0.007
55	44	3.256	3.252	-0.004
55	45	3.067	3.060	-0.007
100	1	3.163	3.160	-0.003
100	2	3.126	3.121	-0.005
100	3	3.252	3.242	-0.010
100	4	3.100	3.101	0.001
100	5	3.034	3.025	-0.009
100	6	3.077	3.075	-0.002
100	9	3.024	3.007	-0.017
100	10	3.202	3.190	-0.012
100	11	3.029	3.052	0.023
100	12	3.057	3.047	-0.010
100	13	3.156	3.153	-0.003
100	14	2.972	2.962	-0.010
100	15	3.026	3.012	-0.014
100	16	2.987	2.993	0.006
100	17	3.183	3.171	-0.012
100	18	3.009	3.002	-0.007
100	19	2.992	2.985	-0.007
100	20	3.095	3.090	-0.005
100	21	3.041	3.030	-0.011
100	22	3.073	3.068	-0.005
100	23	3.263	3.255	-0.008
100	24	3.166	3.172	0.006
105	27	3.162	3.167	0.005
105	28	3.093	3.077	-0.016
105	29	3.285	3.289	0.004
105	30	3.160	3.144	-0.016
105	31	3.190	3.186	-0.004
	Max	3.305	3.301	0.023
	Average	3.108	3.105	-0.003
	Min	2.905	2.899	-0.017
	Std Dev	0.100	0.101	0.007



7.11_En_I_Hyst_5V											
Test Site											
Tester											
Test Number											
Max Limit	3.9	µA									
Min Limit	2.4	µA									
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400
Min	2.911	2.980	3.018	3.077	2.935	2.899	2.989	3.053	3.060	2.962	3.077
Average	2.911	3.101	3.145	3.173	3.067	3.007	3.127	3.133	3.136	3.087	3.173
Max	2.911	3.158	3.301	3.285	3.263	3.136	3.301	3.262	3.252	3.255	3.289
UL	3.900	3.900	3.900	3.900	3.900	3.900	3.900	3.900	3.900	3.900	3.900

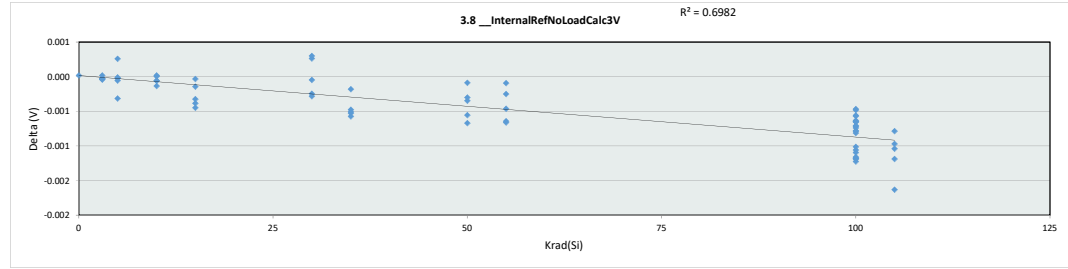


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3.8 InternalRefNoLoadCalc3V

Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	0.612	0.612
Min Limit	0.599	0.599

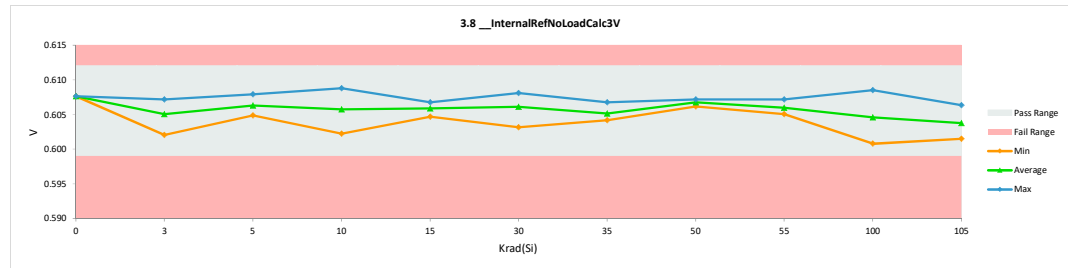
Krad(Si)	Serial #	PRE	POST	Delta
0	33	0.608	0.608	0.000
3	66	0.606	0.606	0.000
3	67	0.605	0.605	0.000
3	68	0.605	0.605	0.000
3	69	0.607	0.607	0.000
3	70	0.602	0.602	0.000
5	71	0.607	0.606	0.000
5	72	0.608	0.608	0.000
5	73	0.606	0.606	0.000
5	74	0.605	0.605	0.000
5	75	0.607	0.607	0.000
10	56	0.602	0.602	0.000
10	57	0.609	0.609	0.000
10	58	0.607	0.607	0.000
10	59	0.608	0.608	0.000
10	60	0.603	0.603	0.000
15	61	0.607	0.607	0.000
15	62	0.605	0.605	0.000
15	63	0.605	0.605	0.000
15	64	0.607	0.607	0.000
15	65	0.607	0.606	0.000
30	46	0.606	0.606	0.000
30	47	0.606	0.606	0.000
30	48	0.608	0.608	0.000
30	49	0.607	0.607	0.000
30	50	0.603	0.603	0.000
35	51	0.604	0.604	0.000
35	52	0.605	0.604	0.000
35	53	0.606	0.605	-0.001
35	54	0.606	0.605	-0.001
35	55	0.607	0.607	-0.001
50	36	0.607	0.607	0.000
50	37	0.607	0.607	-0.001
50	38	0.606	0.606	0.000
50	39	0.607	0.607	0.000
50	40	0.607	0.607	-0.001
55	41	0.607	0.606	-0.001
55	42	0.606	0.606	0.000
55	43	0.608	0.607	-0.001
55	44	0.605	0.605	0.000
55	45	0.606	0.606	0.000
100	1	0.604	0.603	-0.001
100	2	0.607	0.606	-0.001
100	3	0.606	0.605	-0.001
100	4	0.604	0.604	-0.001
100	5	0.606	0.606	0.000
100	6	0.604	0.604	-0.001
100	9	0.607	0.606	-0.001
100	10	0.604	0.603	-0.001
100	11	0.606	0.605	-0.001
100	12	0.606	0.606	-0.001
100	13	0.604	0.603	-0.001
100	14	0.605	0.604	-0.001
100	15	0.605	0.604	-0.001
100	16	0.606	0.605	-0.001
100	17	0.605	0.605	-0.001
100	18	0.602	0.601	-0.001
100	19	0.606	0.605	-0.001
100	20	0.608	0.608	-0.001
100	21	0.603	0.602	-0.001
100	22	0.606	0.605	-0.001
100	23	0.604	0.603	-0.001
100	24	0.609	0.609	0.000
105	27	0.607	0.606	-0.001
105	28	0.605	0.604	-0.001
105	29	0.603	0.601	-0.001
105	30	0.604	0.603	-0.002
105	31	0.605	0.604	-0.001
Max		0.609	0.609	0.000
Average		0.606	0.605	0.000
Min		0.602	0.601	-0.002
Std Dev		0.002	0.002	0.000



3.8 InternalRefNoLoadCalc3V

Test Site		
Tester		
Test Number		
Max Limit	0.612	V
Min Limit	0.599	V

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	0.599	0.599	0.599	0.599	0.599	0.599	0.599	0.599	0.599	0.599	0.599
Min	0.608	0.602	0.605	0.602	0.605	0.603	0.604	0.606	0.605	0.601	0.601
Average	0.608	0.605	0.606	0.606	0.606	0.606	0.605	0.607	0.606	0.605	0.604
Max	0.608	0.607	0.608	0.609	0.607	0.608	0.607	0.607	0.607	0.609	0.606
UL	0.612	0.612	0.612	0.612	0.612	0.612	0.612	0.612	0.612	0.612	0.612

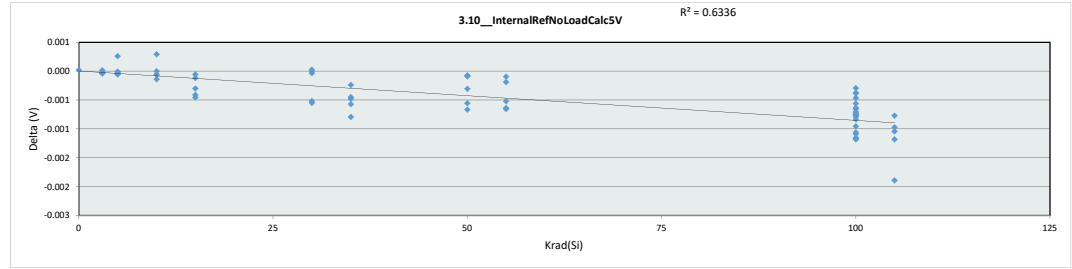


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3.10\_ InternalRefNoLoadCalcSV

Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	0.612	0.612
Min Limit	0.599	0.599

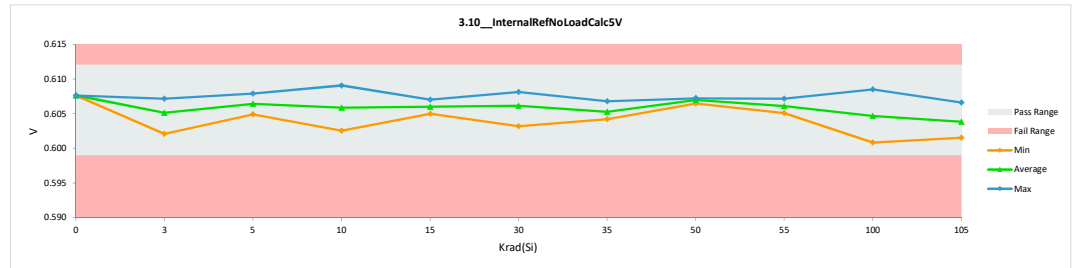
Krad(Si)	Serial #	PRE	POST	Delta
0	33	0.608	0.608	0.000
3	66	0.606	0.606	0.000
3	67	0.606	0.606	0.000
3	68	0.605	0.605	0.000
3	69	0.607	0.607	0.000
3	70	0.602	0.602	0.000
5	71	0.607	0.607	0.000
5	72	0.608	0.608	0.000
5	73	0.606	0.606	0.000
5	74	0.605	0.605	0.000
5	75	0.607	0.607	0.000
10	56	0.603	0.603	0.000
10	57	0.609	0.609	0.000
10	58	0.607	0.607	0.000
10	59	0.608	0.608	0.000
10	60	0.603	0.603	0.000
15	61	0.607	0.607	0.000
15	62	0.605	0.605	0.000
15	63	0.605	0.605	0.000
15	64	0.607	0.607	0.000
15	65	0.607	0.606	0.000
30	46	0.607	0.606	-0.001
30	47	0.606	0.606	0.000
30	48	0.608	0.608	0.000
30	49	0.608	0.607	-0.001
30	50	0.603	0.603	0.000
35	51	0.605	0.604	0.000
35	52	0.605	0.605	0.000
35	53	0.606	0.605	-0.001
35	54	0.606	0.605	0.000
35	55	0.607	0.607	-0.001
50	36	0.607	0.607	0.000
50	37	0.608	0.607	-0.001
50	38	0.607	0.606	0.000
50	39	0.607	0.607	0.000
50	40	0.608	0.607	-0.001
55	41	0.607	0.606	-0.001
55	42	0.606	0.606	0.000
55	43	0.608	0.607	-0.001
55	44	0.606	0.605	-0.001
55	45	0.606	0.606	0.000
100	1	0.604	0.603	-0.001
100	2	0.607	0.606	-0.001
100	3	0.606	0.605	0.000
100	4	0.604	0.604	-0.001
100	5	0.606	0.606	-0.001
100	6	0.604	0.604	-0.001
100	9	0.607	0.606	-0.001
100	10	0.604	0.603	-0.001
100	11	0.606	0.605	-0.001
100	12	0.606	0.606	-0.001
100	13	0.604	0.604	-0.001
100	14	0.605	0.605	0.000
100	15	0.605	0.605	0.000
100	16	0.606	0.605	-0.001
100	17	0.605	0.605	-0.001
100	18	0.602	0.601	-0.001
100	19	0.606	0.605	-0.001
100	20	0.608	0.608	-0.001
100	21	0.603	0.602	-0.001
100	22	0.606	0.605	-0.001
100	23	0.604	0.603	-0.001
100	24	0.609	0.609	0.000
105	27	0.607	0.607	-0.001
105	28	0.605	0.604	-0.001
105	29	0.603	0.602	-0.001
105	30	0.605	0.603	-0.002
105	31	0.605	0.604	-0.001
Max		0.609	0.609	0.000
Average		0.606	0.605	0.000
Min		0.602	0.601	-0.002
Std Dev		0.002	0.002	0.000



3.10\_ InternalRefNoLoadCalcSV

Test Site		
Tester		
Test Number		
Max Limit	0.612	V
Min Limit	0.599	V

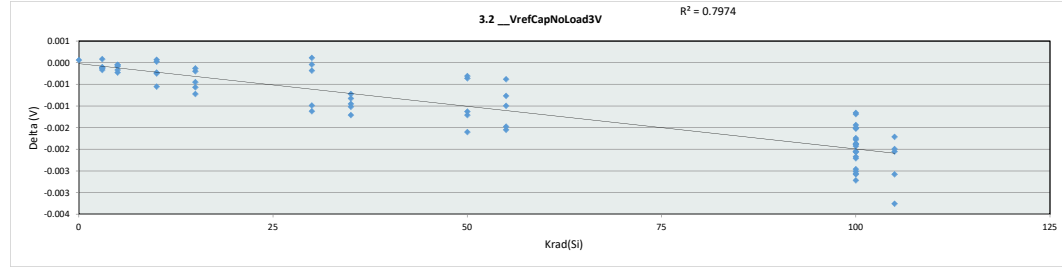
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	0.599	0.599	0.599	0.599	0.599	0.599	0.599	0.599	0.599	0.599	0.599
Min	0.608	0.602	0.605	0.603	0.605	0.603	0.604	0.606	0.605	0.601	0.602
Average	0.608	0.605	0.606	0.606	0.606	0.606	0.605	0.607	0.606	0.605	0.604
Max	0.608	0.607	0.608	0.609	0.607	0.608	0.607	0.607	0.607	0.609	0.607
UL	0.612	0.612	0.612	0.612	0.612	0.612	0.612	0.612	0.612	0.612	0.612



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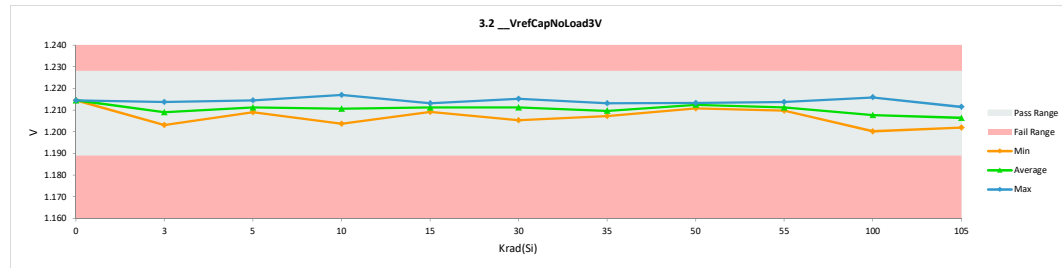
3.2_VrefCapNoLoad3V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	1.228	1.228
Min Limit	1.189	1.189

Krad(Si)	Serial #	PRE	POST	Delta
0	33	1.215	1.215	0.000
3	66	1.211	1.211	0.000
3	67	1.209	1.210	0.000
3	68	1.208	1.208	0.000
3	69	1.214	1.214	0.000
3	70	1.203	1.203	0.000
5	71	1.211	1.211	0.000
5	72	1.215	1.215	0.000
5	73	1.211	1.211	0.000
5	74	1.209	1.209	0.000
5	75	1.212	1.211	0.000
10	56	1.204	1.204	0.000
10	57	1.217	1.217	0.000
10	58	1.212	1.212	-0.001
10	59	1.215	1.215	0.000
10	60	1.206	1.206	0.000
15	61	1.214	1.213	0.000
15	62	1.209	1.209	0.000
15	63	1.210	1.210	0.000
15	64	1.213	1.213	-0.001
15	65	1.212	1.212	-0.001
30	46	1.212	1.211	-0.001
30	47	1.212	1.212	0.000
30	48	1.215	1.215	0.000
30	49	1.214	1.213	-0.001
30	50	1.205	1.205	0.000
35	51	1.208	1.207	-0.001
35	52	1.209	1.209	-0.001
35	53	1.211	1.210	-0.001
35	54	1.211	1.210	-0.001
35	55	1.214	1.213	-0.001
50	36	1.213	1.213	0.000
50	37	1.214	1.213	-0.001
50	38	1.211	1.211	0.000
50	39	1.214	1.213	-0.001
50	40	1.215	1.213	-0.002
55	41	1.212	1.211	-0.002
55	42	1.211	1.211	0.000
55	43	1.215	1.214	-0.001
55	44	1.211	1.210	-0.001
55	45	1.212	1.211	-0.001
100	1	1.207	1.205	-0.002
100	2	1.212	1.210	-0.003
100	3	1.211	1.210	-0.001
100	4	1.207	1.206	-0.001
100	5	1.211	1.209	-0.002
100	6	1.208	1.206	-0.002
100	9	1.213	1.211	-0.002
100	10	1.208	1.206	-0.002
100	11	1.210	1.208	-0.003
100	12	1.212	1.210	-0.001
100	13	1.208	1.206	-0.002
100	14	1.210	1.208	-0.002
100	15	1.209	1.207	-0.002
100	16	1.210	1.207	-0.003
100	17	1.209	1.208	-0.002
100	18	1.202	1.200	-0.002
100	19	1.210	1.207	-0.002
100	20	1.216	1.214	-0.002
100	21	1.206	1.204	-0.002
100	22	1.212	1.209	-0.003
100	23	1.206	1.204	-0.002
100	24	1.218	1.216	-0.002
105	27	1.214	1.212	-0.002
105	28	1.209	1.207	-0.002
105	29	1.205	1.202	-0.003
105	30	1.208	1.205	-0.003
105	31	1.209	1.207	-0.002
	Max	1.218	1.217	0.000
	Average	1.211	1.210	-0.001
	Min	1.202	1.200	-0.003
	Std Dev	0.003	0.004	0.001



3.2_VrefCapNoLoad3V		
Test Site		
Tester		
Test Number		
Max Limit	1.228	V
Min Limit	1.189	V

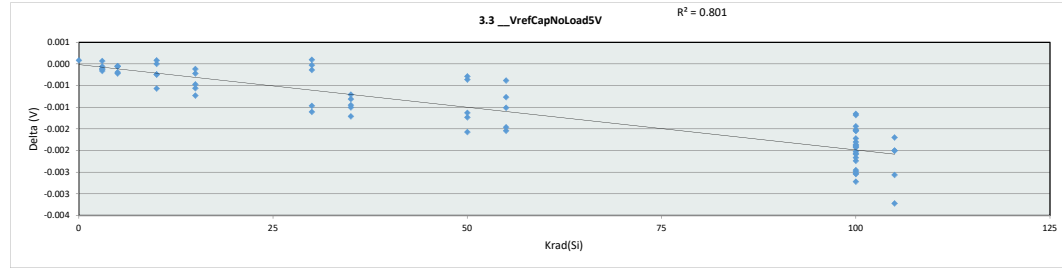
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189
Min	1.215	1.203	1.209	1.204	1.209	1.205	1.207	1.211	1.210	1.200	1.202
Average	1.215	1.209	1.211	1.211	1.211	1.211	1.210	1.213	1.211	1.208	1.206
Max	1.215	1.214	1.215	1.217	1.213	1.215	1.213	1.213	1.214	1.216	1.212
UL	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228



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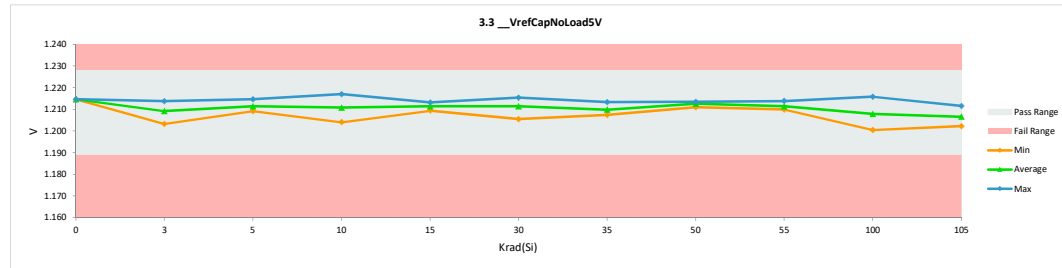
3.3 VrefCapNoLoad5V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	1.228	1.228
Min Limit	1.189	1.189

Krad(Si)	Serial #	PRE	POST	Delta
0	33	1.215	1.215	0.000
3	66	1.211	1.211	0.000
3	67	1.210	1.210	0.000
3	68	1.208	1.208	0.000
3	69	1.214	1.214	0.000
3	70	1.203	1.203	0.000
5	71	1.211	1.211	0.000
5	72	1.215	1.215	0.000
5	73	1.211	1.211	0.000
5	74	1.209	1.209	0.000
5	75	1.212	1.212	0.000
10	56	1.204	1.204	0.000
10	57	1.217	1.217	0.000
10	58	1.213	1.212	-0.001
10	59	1.215	1.215	0.000
10	60	1.207	1.206	0.000
15	61	1.214	1.213	0.000
15	62	1.210	1.209	0.000
15	63	1.210	1.210	0.000
15	64	1.213	1.213	-0.001
15	65	1.212	1.212	-0.001
30	46	1.212	1.211	-0.001
30	47	1.212	1.212	0.000
30	48	1.215	1.215	0.000
30	49	1.214	1.213	-0.001
30	50	1.205	1.206	0.000
35	51	1.208	1.207	-0.001
35	52	1.209	1.209	-0.001
35	53	1.211	1.210	-0.001
35	54	1.211	1.210	-0.001
35	55	1.215	1.213	-0.001
50	36	1.213	1.213	0.000
50	37	1.215	1.213	-0.001
50	38	1.211	1.211	0.000
50	39	1.214	1.213	-0.001
50	40	1.215	1.213	-0.002
55	41	1.212	1.211	-0.002
55	42	1.211	1.211	0.000
55	43	1.215	1.214	-0.001
55	44	1.211	1.210	-0.001
55	45	1.212	1.211	-0.001
100	1	1.207	1.205	-0.002
100	2	1.212	1.210	-0.003
100	3	1.211	1.210	-0.001
100	4	1.207	1.206	-0.001
100	5	1.211	1.209	-0.002
100	6	1.208	1.206	-0.002
100	9	1.213	1.211	-0.002
100	10	1.208	1.206	-0.002
100	11	1.210	1.208	-0.002
100	12	1.212	1.210	-0.001
100	13	1.208	1.206	-0.002
100	14	1.210	1.208	-0.002
100	15	1.209	1.208	-0.002
100	16	1.210	1.208	-0.003
100	17	1.209	1.208	-0.002
100	18	1.203	1.200	-0.002
100	19	1.210	1.208	-0.002
100	20	1.216	1.214	-0.002
100	21	1.206	1.204	-0.002
100	22	1.212	1.209	-0.003
100	23	1.206	1.204	-0.002
100	24	1.218	1.216	-0.002
105	27	1.214	1.212	-0.002
105	28	1.209	1.207	-0.002
105	29	1.205	1.202	-0.003
105	30	1.208	1.205	-0.003
105	31	1.209	1.207	-0.002
	Max	1.218	1.217	0.000
	Average	1.211	1.210	-0.001
	Min	1.203	1.200	-0.003
	Std Dev	0.003	0.004	0.001



3.3_VrefCapNoLoad5V		
Test Site		
Tester		
Test Number		
Max Limit	1.228	V
Min Limit	1.189	V

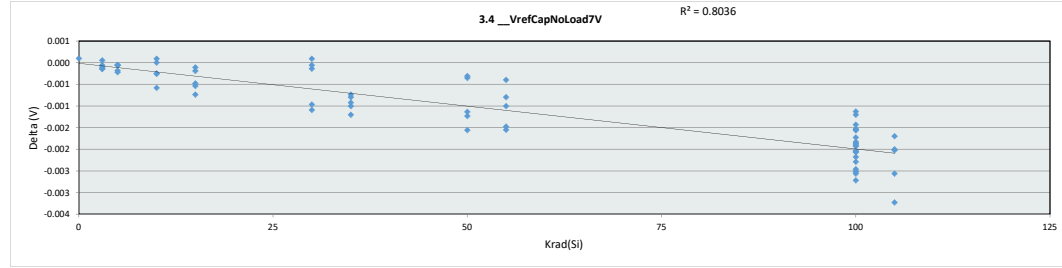
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189
Min	1.215	1.203	1.209	1.204	1.209	1.206	1.207	1.211	1.210	1.200	1.202
Average	1.215	1.209	1.211	1.211	1.211	1.211	1.210	1.213	1.211	1.208	1.207
Max	1.215	1.214	1.215	1.217	1.213	1.215	1.213	1.213	1.214	1.216	1.212
UL	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228



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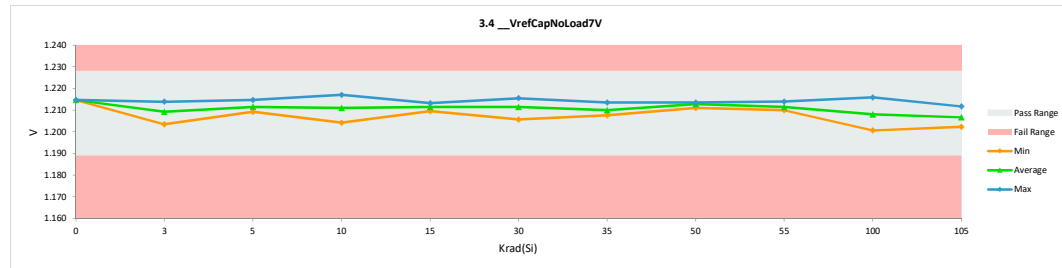
3.4_VrefCapNoLoad7V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	1.228	1.228
Min Limit	1.189	1.189

Krad(Si)	Serial #	PRE	POST	Delta
0	33	1.215	1.215	0.000
3	66	1.211	1.211	0.000
3	67	1.210	1.210	0.000
3	68	1.208	1.208	0.000
3	69	1.214	1.214	0.000
3	70	1.204	1.203	0.000
5	71	1.211	1.211	0.000
5	72	1.215	1.215	0.000
5	73	1.211	1.211	0.000
5	74	1.209	1.209	0.000
5	75	1.212	1.212	0.000
10	56	1.204	1.204	0.000
10	57	1.217	1.217	0.000
10	58	1.213	1.212	-0.001
10	59	1.215	1.215	0.000
10	60	1.207	1.206	0.000
15	61	1.214	1.213	0.000
15	62	1.210	1.210	0.000
15	63	1.210	1.210	0.000
15	64	1.213	1.213	-0.001
15	65	1.212	1.212	-0.001
30	46	1.212	1.211	-0.001
30	47	1.212	1.212	0.000
30	48	1.216	1.215	0.000
30	49	1.214	1.213	-0.001
30	50	1.206	1.206	0.000
35	51	1.208	1.208	-0.001
35	52	1.210	1.209	-0.001
35	53	1.211	1.210	-0.001
35	54	1.211	1.210	-0.001
35	55	1.215	1.213	-0.001
50	36	1.213	1.213	0.000
50	37	1.215	1.214	-0.001
50	38	1.211	1.211	0.000
50	39	1.214	1.213	-0.001
50	40	1.215	1.213	-0.002
55	41	1.213	1.211	-0.002
55	42	1.211	1.211	0.000
55	43	1.215	1.214	-0.001
55	44	1.211	1.210	-0.001
55	45	1.212	1.211	-0.001
100	1	1.208	1.205	-0.002
100	2	1.212	1.210	-0.003
100	3	1.211	1.210	-0.001
100	4	1.207	1.206	-0.001
100	5	1.211	1.209	-0.002
100	6	1.208	1.206	-0.002
100	9	1.213	1.211	-0.002
100	10	1.208	1.206	-0.002
100	11	1.210	1.208	-0.003
100	12	1.212	1.210	-0.001
100	13	1.208	1.206	-0.002
100	14	1.210	1.209	-0.002
100	15	1.209	1.208	-0.002
100	16	1.210	1.208	-0.003
100	17	1.210	1.208	-0.002
100	18	1.203	1.201	-0.002
100	19	1.210	1.208	-0.002
100	20	1.216	1.214	-0.002
100	21	1.206	1.204	-0.002
100	22	1.212	1.209	-0.003
100	23	1.206	1.205	-0.002
100	24	1.218	1.216	-0.002
105	27	1.214	1.212	-0.002
105	28	1.209	1.207	-0.002
105	29	1.205	1.202	-0.003
105	30	1.208	1.205	-0.003
105	31	1.209	1.207	-0.002
	Max	1.218	1.217	0.000
	Average	1.211	1.210	-0.001
	Min	1.203	1.201	-0.003
	Std Dev	0.003	0.003	0.001



3.4_VrefCapNoLoad7V		
Test Site		
Tester		
Test Number		
Max Limit	1.228	V
Min Limit	1.189	V

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189	1.189
Min	1.215	1.203	1.209	1.204	1.210	1.206	1.208	1.211	1.210	1.201	1.202
Average	1.215	1.209	1.212	1.211	1.211	1.211	1.210	1.213	1.211	1.208	1.207
Max	1.215	1.214	1.215	1.217	1.213	1.215	1.213	1.214	1.214	1.216	1.212
UL	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228	1.228

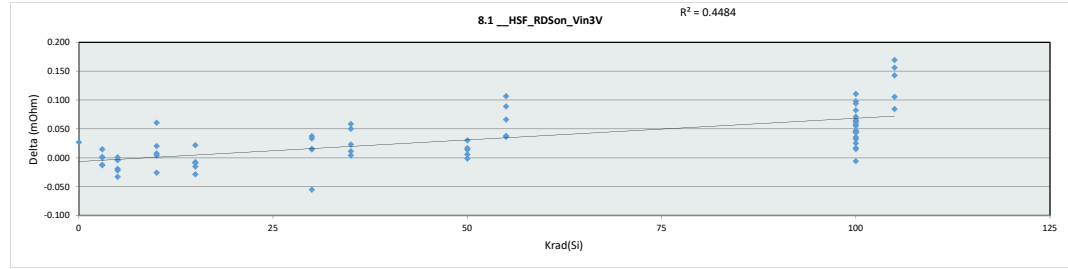




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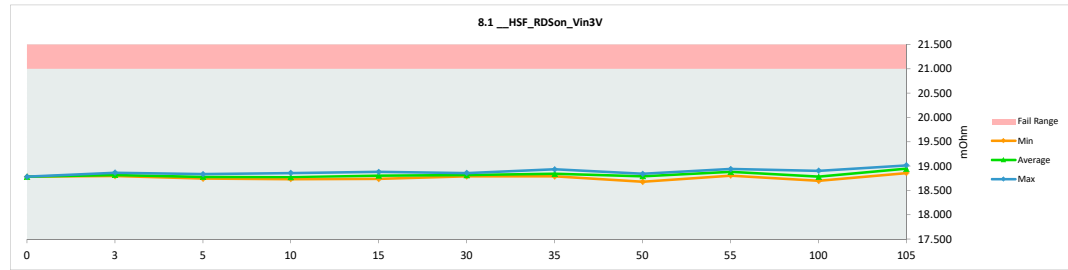
8.1_HSF_RDson_Vin3V		
Test Site		
Tester		
Test Number		
Unit	mOhm	mOhm
Max Limit	21	21
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	18.757	18.784	0.027
3	66	18.806	18.807	0.001
3	67	18.850	18.837	-0.013
3	68	18.808	18.795	-0.013
3	69	18.794	18.795	0.000
3	70	18.850	18.865	0.014
5	71	18.853	18.834	-0.019
5	72	18.795	18.773	-0.022
5	73	18.741	18.742	0.001
5	74	18.794	18.790	-0.004
5	75	18.791	18.758	-0.033
10	56	18.798	18.859	0.061
10	57	18.761	18.781	0.020
10	58	18.726	18.734	0.007
10	59	18.730	18.734	0.004
10	60	18.797	18.772	-0.026
15	61	18.741	18.763	0.022
15	62	18.890	18.882	-0.007
15	63	18.884	18.875	-0.009
15	64	18.751	18.736	-0.015
15	65	18.807	18.778	-0.029
30	46	18.821	18.854	0.033
30	47	18.822	18.859	0.037
30	48	18.844	18.789	-0.055
30	49	18.775	18.790	0.015
30	50	18.785	18.800	0.015
35	51	18.791	18.795	0.004
35	52	18.874	18.933	0.059
35	53	18.832	18.882	0.050
35	54	18.810	18.821	0.011
35	55	18.766	18.789	0.023
50	36	18.814	18.844	0.030
50	37	18.681	18.680	-0.001
50	38	18.815	18.821	0.006
50	39	18.795	18.809	0.014
50	40	18.798	18.815	0.017
55	41	18.718	18.807	0.089
55	42	18.804	18.870	0.066
55	43	18.850	18.886	0.036
55	44	18.857	18.895	0.038
55	45	18.834	18.941	0.107
100	1	18.686	18.748	0.063
100	2	18.650	18.696	0.046
100	3	18.714	18.759	0.045
100	4	18.718	18.789	0.071
100	5	18.667	18.711	0.044
100	6	18.761	18.793	0.032
100	9	18.741	18.787	0.046
100	10	18.706	18.723	0.017
100	11	18.671	18.765	0.094
100	12	18.731	18.778	0.047
100	13	18.725	18.750	0.025
100	14	18.781	18.839	0.058
100	15	18.706	18.817	0.110
100	16	18.740	18.804	0.064
100	17	18.699	18.781	0.082
100	18	18.748	18.803	0.055
100	19	18.808	18.823	0.015
100	20	18.750	18.794	0.044
100	21	18.750	18.744	-0.006
100	22	18.750	18.816	0.065
100	23	18.784	18.819	0.036
100	24	18.807	18.904	0.098
105	27	18.775	18.860	0.084
105	28	18.846	18.952	0.106
105	29	18.848	19.017	0.169
105	30	18.777	18.933	0.156
105	31	18.843	18.985	0.143
	Max	18.890	19.017	0.169
	Average	18.779	18.814	0.035
	Min	18.650	18.680	-0.055
	Std Dev	0.055	0.067	0.045



8.1_HSF_RDson_Vin3V		
Test Site		
Tester		
Test Number		
Max Limit	21	mOhm
Min Limit		

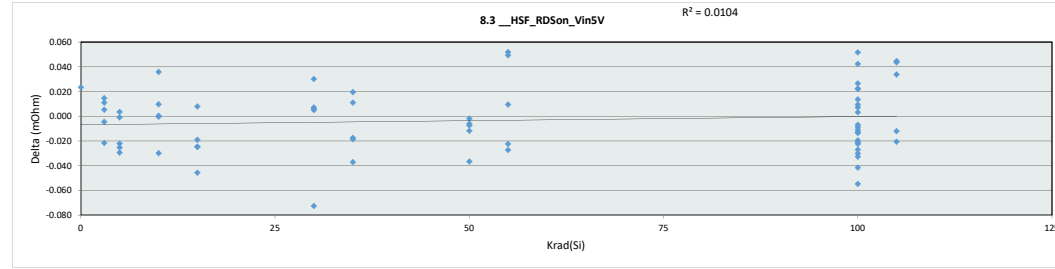
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	18.784	18.795	18.742	18.734	18.736	18.789	18.789	18.680	18.807	18.696	18.860
Average	18.784	18.820	18.779	18.776	18.807	18.819	18.844	18.794	18.880	18.784	18.949
Max	18.784	18.865	18.834	18.859	18.883	18.859	18.933	18.844	18.941	18.904	19.017
UL	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000



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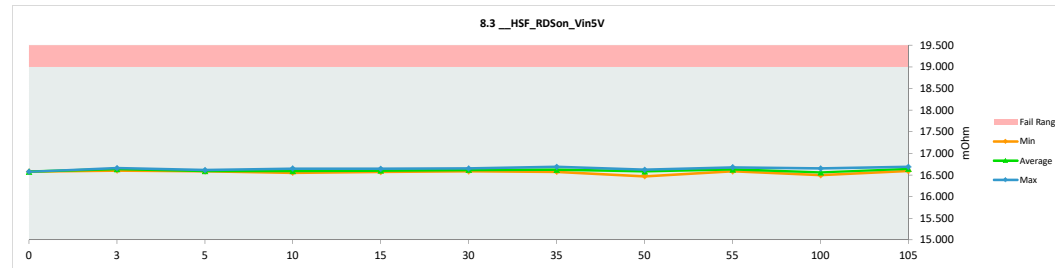
8.3_HSF_RDson_Vin5V		
Test Site		
Tester		
Test Number		
Unit	mOhm	mOhm
Max Limit	19	19
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	16.553	16.576	0.023
3	66	16.625	16.636	0.011
3	67	16.677	16.655	-0.021
3	68	16.634	16.630	-0.005
3	69	16.597	16.603	0.005
3	70	16.645	16.660	0.015
5	71	16.635	16.613	-0.022
5	72	16.610	16.585	-0.025
5	73	16.579	16.583	0.003
5	74	16.597	16.596	-0.001
5	75	16.619	16.590	-0.029
10	56	16.612	16.648	0.036
10	57	16.601	16.610	0.010
10	58	16.565	16.565	0.000
10	59	16.553	16.552	0.000
10	60	16.603	16.573	-0.030
15	61	16.577	16.585	0.008
15	62	16.665	16.640	-0.025
15	63	16.662	16.643	-0.019
15	64	16.601	16.576	-0.025
15	65	16.617	16.571	-0.046
30	46	16.619	16.624	0.005
30	47	16.621	16.651	0.030
30	48	16.659	16.586	-0.073
30	49	16.603	16.609	0.006
30	50	16.612	16.619	0.007
35	51	16.610	16.572	-0.037
35	52	16.669	16.689	0.020
35	53	16.662	16.673	0.011
35	54	16.622	16.604	-0.017
35	55	16.599	16.581	-0.019
50	36	16.615	16.612	-0.002
50	37	16.506	16.469	-0.037
50	38	16.603	16.596	-0.007
50	39	16.625	16.613	-0.012
50	40	16.627	16.621	-0.006
55	41	16.537	16.586	0.049
55	42	16.617	16.626	0.009
55	43	16.658	16.635	-0.022
55	44	16.652	16.624	-0.027
55	45	16.624	16.676	0.052
100	1	16.522	16.526	0.003
100	2	16.516	16.495	-0.021
100	3	16.534	16.525	-0.009
100	4	16.527	16.549	0.022
100	5	16.507	16.494	-0.013
100	6	16.571	16.549	-0.022
100	9	16.585	16.578	-0.007
100	10	16.542	16.512	-0.030
100	11	16.531	16.553	0.022
100	12	16.573	16.562	-0.011
100	13	16.571	16.552	-0.019
100	14	16.600	16.587	-0.014
100	15	16.546	16.588	0.042
100	16	16.573	16.586	0.014
100	17	16.537	16.563	0.026
100	18	16.575	16.582	0.007
100	19	16.608	16.581	-0.027
100	20	16.602	16.560	-0.042
100	21	16.600	16.546	-0.055
100	22	16.583	16.592	0.009
100	23	16.622	16.590	-0.033
100	24	16.601	16.653	0.052
105	27	16.603	16.591	-0.012
105	28	16.651	16.630	-0.021
105	29	16.645	16.688	0.044
105	30	16.584	16.628	0.045
105	31	16.638	16.672	0.034
	Max	16.677	16.689	0.052
	Average	16.599	16.595	-0.003
	Min	16.506	16.469	-0.037
	Std Dev	0.042	0.046	0.026



8.3_HSF_RDson_Vin5V		
Test Site		
Tester		
Test Number		
Max Limit	19	mOhm
Min Limit		

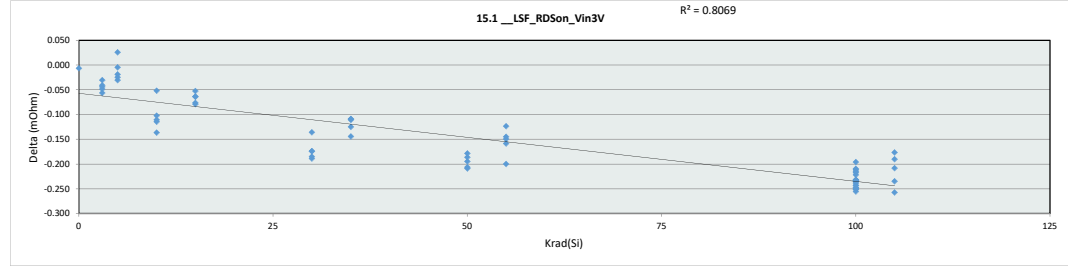
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	16.577	16.603	16.583	16.552	16.571	16.586	16.572	16.469	16.586	16.495	16.591
Average	16.577	16.637	16.593	16.590	16.603	16.618	16.624	16.582	16.630	16.560	16.642
Max	16.577	16.660	16.613	16.648	16.644	16.651	16.689	16.621	16.676	16.653	16.688
UL	19.000	19.000	19.000	19.000	19.000	19.000	19.000	19.000	19.000	19.000	19.000



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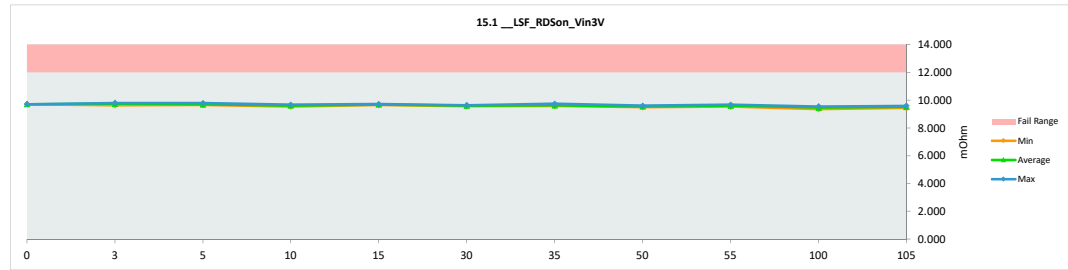
15.1_LSF_RDson_Vin3V		
Test Site		
Tester		
Test Number		
Unit	mOhm	mOhm
Max Limit	12	12
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	9.711	9.705	-0.006
3	66	9.831	9.800	-0.030
3	67	9.801	9.753	-0.049
3	68	9.817	9.761	-0.056
3	69	9.669	9.628	-0.041
3	70	9.821	9.778	-0.044
5	71	9.687	9.662	-0.024
5	72	9.689	9.684	-0.005
5	73	9.736	9.705	-0.031
5	74	9.661	9.642	-0.019
5	75	9.755	9.781	0.026
10	56	9.701	9.649	-0.052
10	57	9.793	9.678	-0.115
10	58	9.722	9.620	-0.102
10	59	9.720	9.610	-0.110
10	60	9.673	9.537	-0.136
15	61	9.723	9.670	-0.052
15	62	9.729	9.665	-0.064
15	63	9.793	9.714	-0.079
15	64	9.780	9.717	-0.064
15	65	9.730	9.653	-0.076
30	46	9.743	9.558	-0.185
30	47	9.730	9.556	-0.174
30	48	9.820	9.631	-0.189
30	49	9.813	9.639	-0.174
30	50	9.748	9.612	-0.136
35	51	9.729	9.585	-0.144
35	52	9.723	9.598	-0.125
35	53	9.854	9.745	-0.109
35	54	9.690	9.581	-0.109
35	55	9.746	9.635	-0.111
50	36	9.723	9.528	-0.194
50	37	9.739	9.533	-0.207
50	38	9.693	9.484	-0.209
50	39	9.759	9.573	-0.186
50	40	9.788	9.610	-0.178
55	41	9.756	9.606	-0.150
55	42	9.661	9.538	-0.123
55	43	9.813	9.668	-0.145
55	44	9.744	9.586	-0.158
55	45	9.787	9.588	-0.200
100	1	9.600	9.349	-0.251
100	2	9.701	9.469	-0.232
100	3	9.622	9.391	-0.231
100	4	9.656	9.409	-0.247
100	5	9.700	9.464	-0.236
100	6	9.649	9.410	-0.239
100	9	9.781	9.525	-0.256
100	10	9.670	9.427	-0.243
100	11	9.776	9.528	-0.248
100	12	9.667	9.452	-0.215
100	13	9.738	9.542	-0.196
100	14	9.684	9.433	-0.251
100	15	9.747	9.512	-0.234
100	16	9.717	9.484	-0.233
100	17	9.690	9.457	-0.233
100	18	9.714	9.502	-0.212
100	19	9.635	9.414	-0.222
100	20	9.802	9.554	-0.248
100	21	9.691	9.481	-0.210
100	22	9.744	9.510	-0.234
100	23	9.749	9.531	-0.217
100	24	9.725	9.482	-0.243
105	27	9.808	9.550	-0.258
105	28	9.681	9.446	-0.235
105	29	9.769	9.592	-0.177
105	30	9.648	9.458	-0.190
105	31	9.720	9.511	-0.208
	Max	9.854	9.800	0.026
	Average	9.731	9.576	-0.155
	Min	9.600	9.349	-0.258
	Std Dev	0.055	0.106	0.080



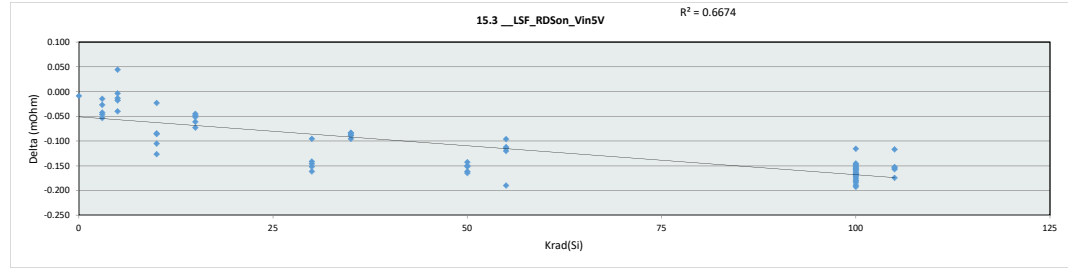
15.1_LSF_RDson_Vin3V		
Test Site		
Tester		
Test Number		
Max Limit	12	mOhm
Min Limit		

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	9.705	9.628	9.642	9.537	9.653	9.556	9.581	9.485	9.538	9.349	9.446
Average	9.705	9.744	9.695	9.619	9.684	9.599	9.629	9.546	9.597	9.469	9.512
Max	9.705	9.800	9.781	9.678	9.717	9.639	9.745	9.610	9.668	9.554	9.593
UL	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000

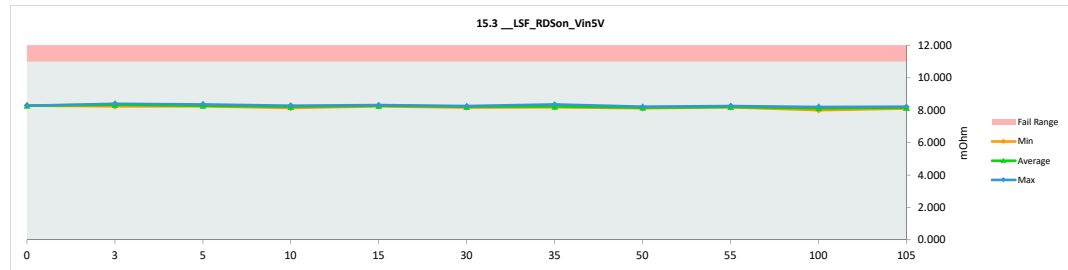


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15.3 _LSF_RDson_Vin5V				
Test Site	Serial #	PRE	POST	Delta
0	33	8.286	8.278	-0.009
3	66	8.434	8.407	-0.027
3	67	8.393	8.379	-0.015
3	68	8.416	8.363	-0.053
3	69	8.280	8.237	-0.043
3	70	8.366	8.319	-0.046
5	71	8.292	8.252	-0.040
5	72	8.252	8.248	-0.004
5	73	8.340	8.326	-0.013
5	74	8.258	8.240	-0.018
5	75	8.314	8.358	0.044
10	56	8.259	8.236	-0.023
10	57	8.368	8.282	-0.086
10	58	8.290	8.206	-0.085
10	59	8.315	8.210	-0.105
10	60	8.265	8.138	-0.127
15	61	8.306	8.258	-0.049
15	62	8.299	8.254	-0.045
15	63	8.339	8.278	-0.061
15	64	8.362	8.310	-0.052
15	65	8.316	8.243	-0.073
30	46	8.329	8.167	-0.161
30	47	8.307	8.165	-0.142
30	48	8.394	8.243	-0.152
30	49	8.399	8.253	-0.146
30	50	8.332	8.236	-0.095
35	51	8.273	8.185	-0.088
35	52	8.281	8.192	-0.089
35	53	8.429	8.345	-0.084
35	54	8.283	8.187	-0.096
35	55	8.307	8.224	-0.083
50	36	8.286	8.136	-0.150
50	37	8.300	8.136	-0.164
50	38	8.270	8.118	-0.152
50	39	8.366	8.205	-0.162
50	40	8.356	8.214	-0.143
55	41	8.316	8.203	-0.112
55	42	8.265	8.169	-0.096
55	43	8.375	8.259	-0.115
55	44	8.334	8.214	-0.120
55	45	8.361	8.171	-0.190
100	1	8.188	7.995	-0.193
100	2	8.259	8.106	-0.152
100	3	8.207	8.039	-0.168
100	4	8.218	8.034	-0.184
100	5	8.274	8.124	-0.150
100	6	8.229	8.061	-0.168
100	9	8.362	8.202	-0.160
100	10	8.255	8.076	-0.179
100	11	8.356	8.175	-0.181
100	12	8.270	8.112	-0.158
100	13	8.303	8.188	-0.116
100	14	8.241	8.052	-0.189
100	15	8.335	8.179	-0.156
100	16	8.316	8.145	-0.172
100	17	8.281	8.113	-0.167
100	18	8.327	8.163	-0.165
100	19	8.221	8.066	-0.155
100	20	8.362	8.187	-0.175
100	21	8.280	8.132	-0.148
100	22	8.333	8.170	-0.163
100	23	8.335	8.190	-0.145
100	24	8.306	8.139	-0.167
105	27	8.374	8.200	-0.174
105	28	8.252	8.095	-0.157
105	29	8.330	8.213	-0.117
105	30	8.253	8.099	-0.154
105	31	8.301	8.148	-0.153
Max		8.434	8.407	0.044
Average		8.310	8.195	-0.115
Min		8.188	7.995	-0.193
Std Dev		0.054	0.086	0.058



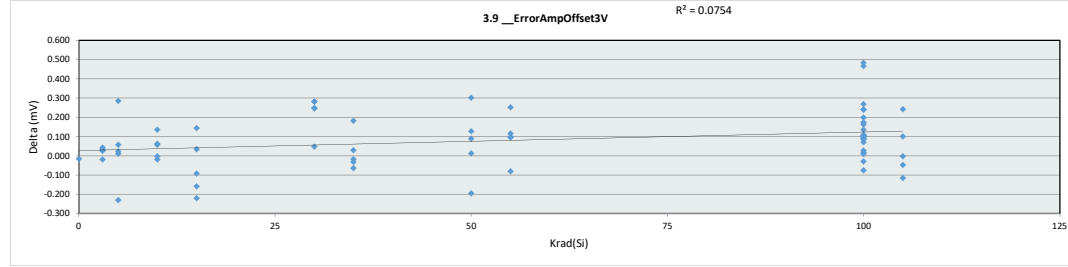
15.3 _LSF_RDson_Vin5V											
Test Site	Serial #	PRE	POST	Delta	LL	Min	Average	Max	UL	Fail Range	
0	3	5	10	15	30	35	50	55	100	105	
LL											
Min	8.278	8.237	8.240	8.138	8.243	8.165	8.185	8.118	8.169	7.995	8.096
Average	8.278	8.341	8.285	8.214	8.268	8.213	8.227	8.162	8.203	8.120	8.151
Max	8.278	8.407	8.358	8.282	8.310	8.253	8.345	8.214	8.259	8.202	8.213
UL	11.000	11.000	11.000	11.000	11.000	11.000	11.000	11.000	11.000	11.000	11.000



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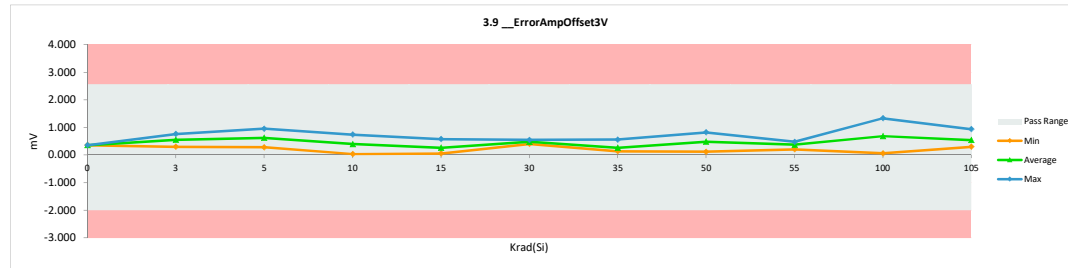
3.9_ErrorAmpOffset3V		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit	2.55	2.55
Min Limit	-2	-2

Krad(S)	Serial #	PRE	POST	Delta
0	33	0.368	0.352	-0.016
3	66	0.736	0.762	0.026
3	67	0.545	0.526	-0.019
3	68	0.613	0.656	0.043
3	69	0.262	0.294	0.032
3	70	0.477	0.507	0.030
5	71	0.931	0.953	0.022
5	72	0.353	0.638	0.285
5	73	0.511	0.281	-0.230
5	74	0.334	0.391	0.057
5	75	0.844	0.855	0.011
10	56	0.270	0.328	0.058
10	57	0.310	0.291	-0.019
10	58	0.602	0.737	0.135
10	59	0.598	0.596	-0.002
10	60	-0.032	0.031	0.063
15	61	0.318	0.159	-0.159
15	62	0.273	0.052	-0.221
15	63	0.160	0.194	0.034
15	64	0.173	0.317	0.144
15	65	0.669	0.576	-0.093
30	46	0.120	0.401	0.281
30	47	0.495	0.543	0.048
30	48	0.160	0.442	0.282
30	49	0.258	0.506	0.248
30	50	0.244	0.490	0.246
35	51	0.373	0.555	0.182
35	52	0.301	0.237	-0.064
35	53	0.256	0.239	-0.017
35	54	0.167	0.134	-0.033
35	55	0.119	0.148	0.029
50	36	0.423	0.512	0.089
50	37	0.103	0.115	0.012
50	38	0.949	0.753	-0.196
50	39	0.517	0.819	0.302
50	40	0.092	0.219	0.127
55	41	0.362	0.478	0.116
55	42	0.380	0.475	0.095
55	43	0.182	0.281	0.099
55	44	-0.047	0.204	0.251
55	45	0.490	0.410	-0.080
100	1	0.567	0.537	-0.030
100	2	0.941	1.043	0.102
100	3	0.171	0.189	0.018
100	4	0.828	0.855	0.027
100	5	0.740	1.222	0.482
100	6	0.372	0.545	0.173
100	9	0.833	1.073	0.240
100	10	-0.107	0.162	0.269
100	11	0.910	1.004	0.094
100	12	0.522	0.610	0.088
100	13	0.437	0.362	-0.075
100	14	0.188	0.290	0.102
100	15	0.685	0.794	0.109
100	16	0.681	0.766	0.085
100	17	0.571	0.733	0.162
100	18	0.439	0.679	0.240
100	19	0.972	1.042	0.070
100	20	0.611	0.809	0.198
100	21	0.358	0.367	0.009
100	22	-0.075	0.061	0.136
100	23	1.222	1.328	0.106
100	24	0.094	0.560	0.466
105	27	0.621	0.573	-0.048
105	28	0.415	0.299	-0.116
105	29	0.416	0.517	0.101
105	30	0.390	0.388	-0.002
105	31	0.691	0.932	0.241
Max		1.222	1.328	0.482
Average		0.438	0.518	0.080
Min		-0.107	0.031	-0.230
Std Dev		0.282	0.297	0.141



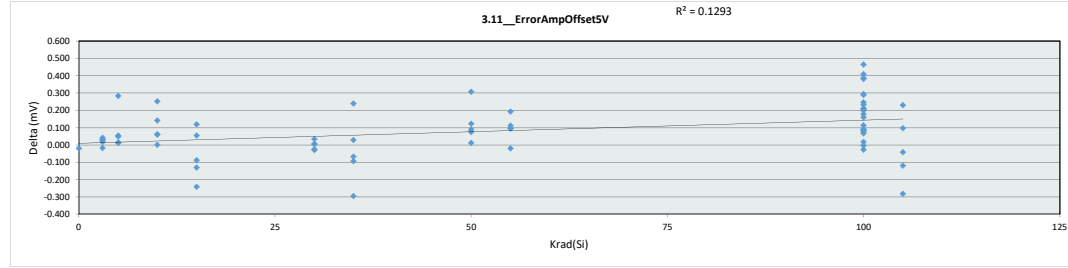
3.9_ErrorAmpOffset3V		
Test Site		
Tester		
Test Number		
Max Limit	2.55	mV
Min Limit	-2	mV

Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000
Min	0.352	0.294	0.281	0.031	0.052	0.401	0.134	0.115	0.204	0.061	0.299
Average	0.352	0.549	0.624	0.397	0.260	0.476	0.263	0.484	0.370	0.683	0.542
Max	0.352	0.762	0.953	0.737	0.576	0.543	0.555	0.819	0.478	1.328	0.932
UL	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550

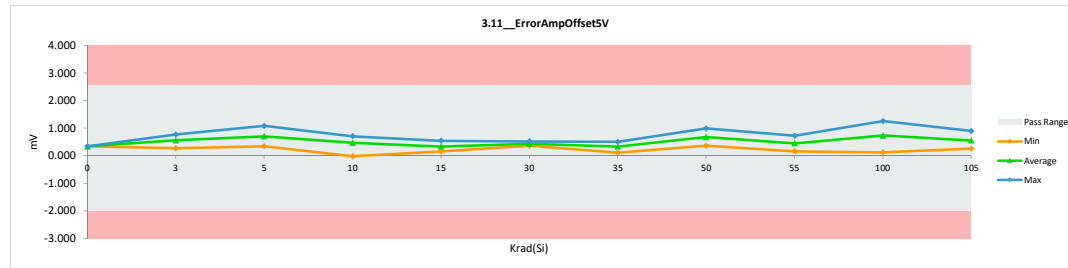


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3.11_ErrorAmpOffset5V				
Test Site	Tester			
Test Number	Unit	mV	mV	
Max Limit	2.55	2.55		
Min Limit	-2	-2		
Krad(Si)	Serial #	PRE	POST	Delta
0	33	0.357	0.337	-0.020
3	66	0.681	0.698	0.017
3	67	0.782	0.765	-0.017
3	68	0.565	0.607	0.042
3	69	0.235	0.267	0.032
3	70	0.422	0.451	0.029
5	71	0.907	0.922	0.015
5	72	0.603	0.614	0.011
5	73	0.490	0.538	0.048
5	74	0.289	0.344	0.055
5	75	0.796	1.080	0.284
10	56	0.466	0.525	0.059
10	57	0.296	0.547	0.251
10	58	0.559	0.700	0.141
10	59	0.566	0.567	0.001
10	60	-0.082	-0.021	0.061
15	61	0.297	0.416	0.119
15	62	0.227	0.281	0.054
15	63	0.391	0.149	-0.242
15	64	0.412	0.281	-0.131
15	65	0.631	0.543	-0.088
30	46	0.354	0.360	0.006
30	47	0.482	0.516	0.034
30	48	0.401	0.406	0.005
30	49	0.490	0.461	-0.029
30	50	0.462	0.437	-0.025
35	51	0.594	0.500	-0.094
35	52	0.532	0.464	-0.068
35	53	0.483	0.189	-0.294
35	54	0.154	0.392	0.238
35	55	0.082	0.110	0.028
50	36	0.661	0.750	0.089
50	37	0.351	0.362	0.011
50	38	0.913	0.987	0.074
50	39	0.508	0.816	0.308
50	40	0.327	0.449	0.122
55	41	0.333	0.444	0.111
55	42	0.625	0.721	0.096
55	43	0.167	0.261	0.094
55	44	0.178	0.159	-0.019
55	45	0.459	0.651	0.192
100	1	0.512	0.744	0.232
100	2	0.910	1.002	0.092
100	3	0.132	0.426	0.294
100	4	0.782	0.800	0.018
100	5	0.972	1.184	0.212
100	6	0.341	0.519	0.178
100	9	0.803	1.050	0.247
100	10	0.119	0.116	-0.003
100	11	0.895	0.974	0.079
100	12	0.488	0.578	0.090
100	13	0.391	0.589	0.198
100	14	0.145	0.526	0.381
100	15	0.644	1.030	0.386
100	16	0.631	0.717	0.086
100	17	0.534	0.694	0.160
100	18	0.642	0.615	-0.027
100	19	0.944	1.012	0.068
100	20	0.599	0.805	0.206
100	21	0.332	0.620	0.288
100	22	-0.103	0.306	0.409
100	23	1.140	1.253	0.113
100	24	0.103	0.567	0.464
105	27	0.593	0.822	0.229
105	28	0.376	0.257	-0.119
105	29	0.358	0.454	0.096
105	30	0.606	0.324	-0.282
105	31	0.934	0.892	-0.042
Max		1.140	1.253	0.464
Average		0.489	0.572	0.083
Min		-0.103	-0.021	-0.294
Std Dev		0.260	0.278	0.150



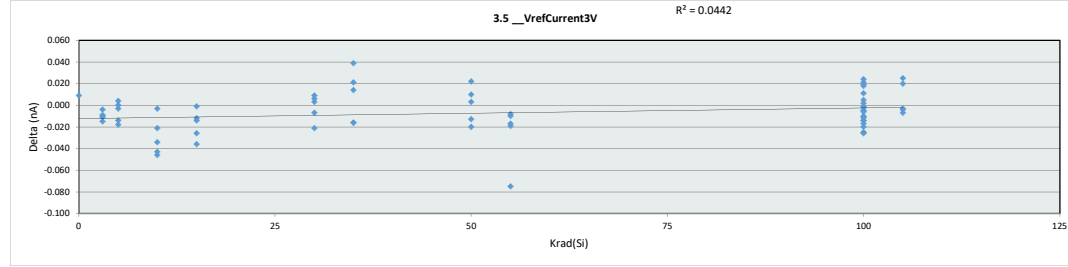
3.11_ErrorAmpOffset5V											
Test Site	Tester										
Test Number	Unit	mV	mV								
Max Limit	2.55	mV									
Min Limit	-2	mV									
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000
Min	0.337	0.267	0.344	-0.021	0.149	0.360	0.110	0.362	0.159	0.116	0.257
Average	0.337	0.558	0.700	0.464	0.334	0.436	0.331	0.673	0.447	0.733	0.550
Max	0.337	0.765	1.080	0.700	0.543	0.516	0.500	0.987	0.721	1.253	0.892
UL	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550	2.550



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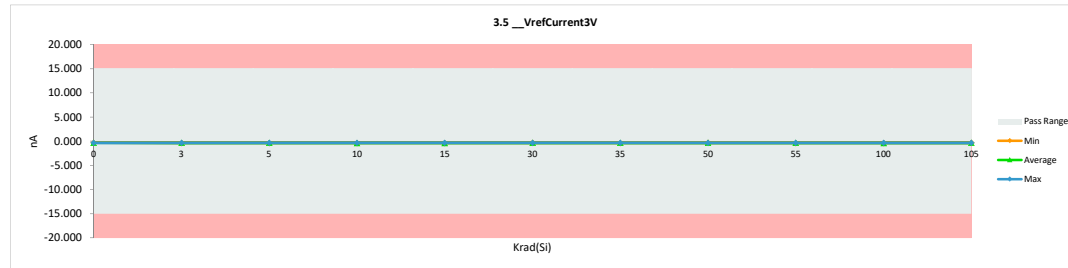
3.5_VrefCurrent3V		
Test Site		
Tester		
Test Number		
Unit	nA	nA
Max Limit	15	15
Min Limit	-15	-15

Krad(S)	Serial #	PRE	POST	Delta
0	33	-0.366	-0.357	0.009
3	66	-0.381	-0.392	-0.011
3	67	-0.369	-0.378	-0.009
3	68	-0.361	-0.371	-0.010
3	69	-0.379	-0.383	-0.004
3	70	-0.373	-0.388	-0.015
5	71	-0.380	-0.380	0.000
5	72	-0.334	-0.352	-0.018
5	73	-0.373	-0.387	-0.014
5	74	-0.372	-0.375	-0.003
5	75	-0.387	-0.383	0.004
10	56	-0.377	-0.380	-0.003
10	57	-0.370	-0.404	-0.034
10	58	-0.367	-0.413	-0.046
10	59	-0.361	-0.382	-0.021
10	60	-0.345	-0.388	-0.043
15	61	-0.361	-0.397	-0.036
15	62	-0.370	-0.396	-0.026
15	63	-0.377	-0.391	-0.014
15	64	-0.367	-0.368	-0.001
15	65	-0.371	-0.383	-0.012
30	46	-0.382	-0.379	0.003
30	47	-0.363	-0.384	-0.021
30	48	-0.371	-0.378	-0.007
30	49	-0.381	-0.372	0.009
30	50	-0.370	-0.364	0.006
35	51	-0.384	-0.363	0.021
35	52	-0.375	-0.336	0.039
35	53	-0.375	-0.391	-0.016
35	54	-0.393	-0.379	0.014
35	55	-0.370	-0.386	-0.016
50	36	-0.391	-0.381	0.010
50	37	-0.395	-0.373	0.022
50	38	-0.361	-0.381	-0.020
50	39	-0.365	-0.362	0.003
50	40	-0.361	-0.374	-0.013
55	41	-0.371	-0.379	-0.008
55	42	-0.307	-0.382	-0.075
55	43	-0.357	-0.376	-0.019
55	44	-0.368	-0.385	-0.017
55	45	-0.358	-0.368	-0.010
100	1	-0.395	-0.406	-0.011
100	2	-0.394	-0.399	-0.005
100	3	-0.389	-0.391	-0.002
100	4	-0.411	-0.400	0.011
100	5	-0.397	-0.376	0.021
100	6	-0.411	-0.393	0.018
100	9	-0.392	-0.387	0.005
100	10	-0.360	-0.385	-0.025
100	11	-0.378	-0.389	-0.011
100	12	-0.402	-0.378	0.024
100	13	-0.387	-0.392	-0.005
100	14	-0.390	-0.371	0.019
100	15	-0.372	-0.398	-0.026
100	16	-0.379	-0.389	-0.010
100	17	-0.377	-0.375	0.002
100	18	-0.382	-0.396	-0.014
100	19	-0.380	-0.405	-0.025
100	20	-0.372	-0.386	-0.014
100	21	-0.368	-0.385	-0.017
100	22	-0.360	-0.380	-0.020
100	23	-0.353	-0.354	-0.001
100	24	-0.379	-0.385	-0.006
105	27	-0.381	-0.361	0.020
105	28	-0.365	-0.369	-0.004
105	29	-0.387	-0.362	0.025
105	30	-0.373	-0.380	-0.007
105	31	-0.370	-0.373	-0.003
Max		-0.307	-0.336	0.039
Average		-0.374	-0.381	-0.007
Min		-0.411	-0.413	-0.075
Std Dev		0.016	0.014	0.019



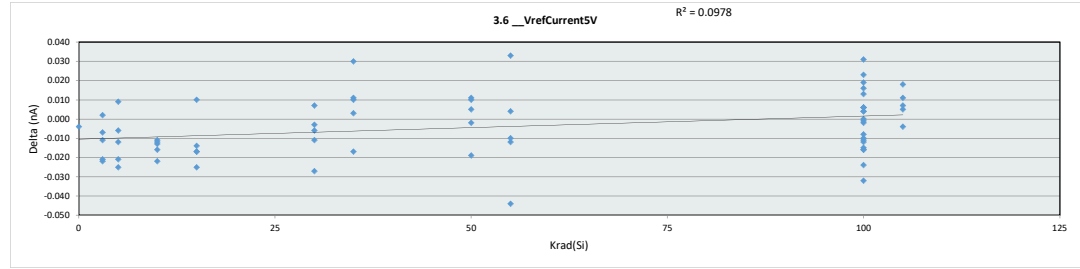
3.5_VrefCurrent3V		
Test Site		
Tester		
Test Number		
Max Limit	15	nA
Min Limit	-15	nA

Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000
Min	-0.357	-0.392	-0.387	-0.413	-0.397	-0.384	-0.391	-0.381	-0.385	-0.406	-0.380
Average	-0.357	-0.382	-0.375	-0.393	-0.387	-0.375	-0.371	-0.374	-0.378	-0.387	-0.369
Max	-0.357	-0.371	-0.352	-0.380	-0.368	-0.364	-0.336	-0.362	-0.368	-0.354	-0.361
UL	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000

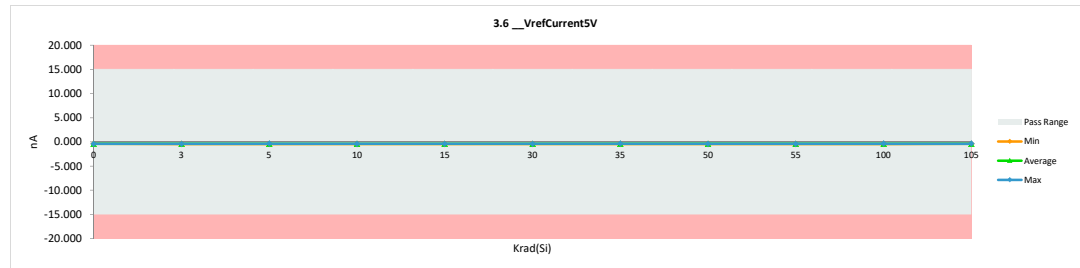


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3.6_VrefCurrent5V				
Test Site	Tester	Test Number	Unit	
			nA	nA
			Max Limit	15
			Min Limit	-15
Krad(S)	Serial #	PRE	POST	Delta
0	33	-0.394	-0.398	-0.004
3	66	-0.399	-0.406	-0.007
3	67	-0.384	-0.406	-0.022
3	68	-0.390	-0.411	-0.021
3	69	-0.400	-0.398	0.002
3	70	-0.402	-0.413	-0.011
5	71	-0.399	-0.405	-0.006
5	72	-0.349	-0.374	-0.025
5	73	-0.379	-0.400	-0.021
5	74	-0.405	-0.396	0.009
5	75	-0.391	-0.403	-0.012
10	56	-0.396	-0.407	-0.011
10	57	-0.403	-0.425	-0.022
10	58	-0.396	-0.408	-0.012
10	59	-0.390	-0.403	-0.013
10	60	-0.389	-0.405	-0.016
15	61	-0.384	-0.401	-0.017
15	62	-0.397	-0.411	-0.014
15	63	-0.401	-0.418	-0.017
15	64	-0.402	-0.392	0.010
15	65	-0.380	-0.405	-0.025
30	46	-0.387	-0.414	-0.027
30	47	-0.393	-0.396	-0.003
30	48	-0.394	-0.405	-0.011
30	49	-0.400	-0.393	0.007
30	50	-0.383	-0.389	-0.006
35	51	-0.408	-0.398	0.010
35	52	-0.381	-0.351	0.030
35	53	-0.395	-0.412	-0.017
35	54	-0.418	-0.407	0.011
35	55	-0.387	-0.384	0.003
50	36	-0.396	-0.391	0.005
50	37	-0.407	-0.409	-0.002
50	38	-0.410	-0.399	0.011
50	39	-0.402	-0.392	0.010
50	40	-0.379	-0.398	-0.019
55	41	-0.392	-0.404	-0.012
55	42	-0.431	-0.398	0.033
55	43	-0.386	-0.396	-0.010
55	44	-0.402	-0.398	0.004
55	45	-0.385	-0.429	-0.044
100	1	-0.415	-0.409	0.006
100	2	-0.434	-0.418	0.016
100	3	-0.412	-0.408	0.004
100	4	-0.432	-0.432	0.000
100	5	-0.420	-0.401	0.019
100	6	-0.429	-0.398	0.031
100	9	-0.408	-0.404	0.004
100	10	-0.412	-0.406	0.006
100	11	-0.391	-0.407	-0.016
100	12	-0.409	-0.396	0.013
100	13	-0.401	-0.402	-0.001
100	14	-0.431	-0.408	0.023
100	15	-0.405	-0.407	-0.002
100	16	-0.387	-0.419	-0.032
100	17	-0.395	-0.403	-0.008
100	18	-0.390	-0.402	-0.012
100	19	-0.411	-0.421	-0.010
100	20	-0.398	-0.414	-0.016
100	21	-0.377	-0.401	-0.024
100	22	-0.385	-0.396	-0.011
100	23	-0.389	-0.383	0.006
100	24	-0.385	-0.400	-0.015
105	27	-0.400	-0.382	0.018
105	28	-0.390	-0.394	-0.004
105	29	-0.397	-0.392	0.005
105	30	-0.384	-0.377	0.007
105	31	-0.397	-0.386	0.011
	Max	-0.349	-0.351	0.033
	Average	-0.398	-0.402	-0.004
	Min	-0.434	-0.432	-0.044
	Std Dev	0.015	0.013	0.015



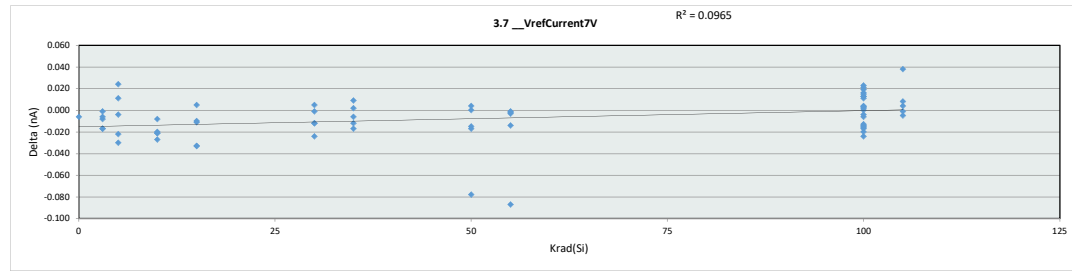
3.6_VrefCurrent5V											
Test Site	Tester	Test Number	Unit								
			nA								
			Max Limit	15	nA						
			Min Limit	-15	nA						
Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000
Min	-0.398	-0.413	-0.405	-0.425	-0.418	-0.414	-0.412	-0.409	-0.429	-0.432	-0.394
Average	-0.398	-0.407	-0.396	-0.410	-0.405	-0.399	-0.390	-0.398	-0.405	-0.406	-0.386
Max	-0.398	-0.398	-0.374	-0.403	-0.392	-0.389	-0.351	-0.391	-0.396	-0.383	-0.377
UL	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000



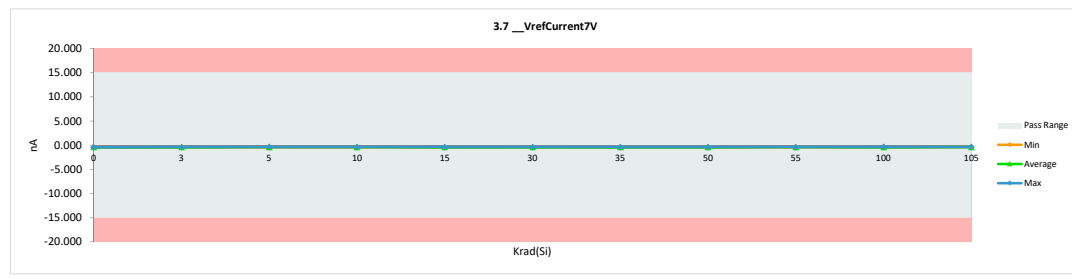


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3.7_VrefCurrent7V				
Test Site	Tester			
Test Number	Unit	nA	nA	
Max Limit	Min Limit	15	15	
Max Limit	Min Limit	-15	-15	
Krad(Si)	Serial #	PRE	POST	Delta
0	33	-0.400	-0.406	-0.006
3	66	-0.394	-0.411	-0.017
3	67	-0.388	-0.396	-0.008
3	68	-0.396	-0.402	-0.006
3	69	-0.404	-0.421	-0.017
3	70	-0.406	-0.407	-0.001
5	71	-0.406	-0.436	-0.030
5	72	-0.361	-0.383	-0.022
5	73	-0.411	-0.387	0.024
5	74	-0.412	-0.416	-0.004
5	75	-0.407	-0.396	0.011
10	56	-0.399	-0.407	-0.008
10	57	-0.400	-0.420	-0.020
10	58	-0.397	-0.418	-0.021
10	59	-0.394	-0.415	-0.021
10	60	-0.389	-0.416	-0.027
15	61	-0.378	-0.411	-0.033
15	62	-0.395	-0.406	-0.011
15	63	-0.400	-0.410	-0.010
15	64	-0.406	-0.401	0.005
15	65	-0.375	-0.408	-0.033
30	46	-0.395	-0.419	-0.024
30	47	-0.392	-0.404	-0.012
30	48	-0.399	-0.411	-0.012
30	49	-0.400	-0.401	-0.001
30	50	-0.406	-0.401	0.005
35	51	-0.403	-0.401	0.002
35	52	-0.400	-0.412	-0.012
35	53	-0.394	-0.411	-0.017
35	54	-0.421	-0.412	0.009
35	55	-0.393	-0.399	-0.006
50	36	-0.413	-0.409	0.004
50	37	-0.406	-0.406	0.000
50	38	-0.388	-0.405	-0.017
50	39	-0.391	-0.406	-0.015
50	40	-0.347	-0.425	-0.078
55	41	-0.391	-0.394	-0.003
55	42	-0.327	-0.414	-0.087
55	43	-0.391	-0.392	-0.001
55	44	-0.392	-0.406	-0.014
55	45	-0.397	-0.399	-0.002
100	1	-0.427	-0.416	0.011
100	2	-0.409	-0.422	-0.013
100	3	-0.415	-0.415	0.000
100	4	-0.437	-0.424	0.013
100	5	-0.421	-0.400	0.021
100	6	-0.430	-0.407	0.023
100	9	-0.405	-0.420	-0.015
100	10	-0.430	-0.414	0.016
100	11	-0.409	-0.423	-0.014
100	12	-0.424	-0.405	0.019
100	13	-0.429	-0.416	0.013
100	14	-0.409	-0.405	0.004
100	15	-0.401	-0.407	-0.006
100	16	-0.393	-0.413	-0.020
100	17	-0.404	-0.401	0.003
100	18	-0.389	-0.406	-0.017
100	19	-0.400	-0.424	-0.024
100	20	-0.418	-0.416	0.002
100	21	-0.413	-0.410	0.003
100	22	-0.391	-0.407	-0.016
100	23	-0.388	-0.373	0.015
100	24	-0.403	-0.407	-0.004
105	27	-0.413	-0.375	0.038
105	28	-0.395	-0.396	-0.001
105	29	-0.409	-0.401	0.008
105	30	-0.392	-0.397	-0.005
105	31	-0.394	-0.390	0.004
Max		-0.327	-0.373	0.038
Average		-0.400	-0.407	-0.007
Min		-0.437	-0.436	-0.087
Std Dev		0.017	0.011	0.020



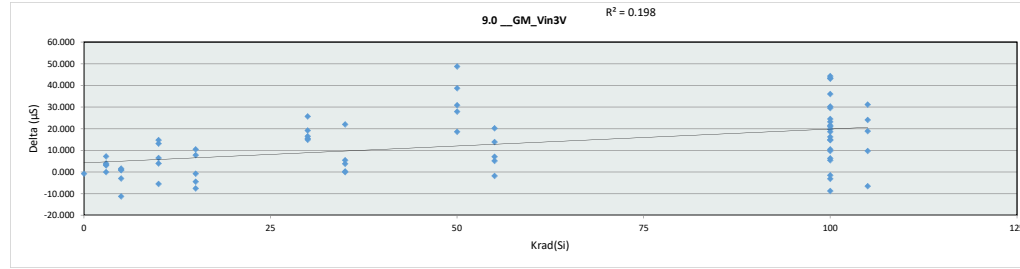
3.7_VrefCurrent7V											
Test Site	Tester										
Test Number	Unit	15	nA								
Max Limit	Min Limit	15	nA								
Max Limit	Min Limit	-15	nA								
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000	-15.000
Min	-0.406	-0.421	-0.436	-0.420	-0.411	-0.419	-0.412	-0.425	-0.414	-0.424	-0.401
Average	-0.406	-0.407	-0.404	-0.415	-0.407	-0.407	-0.407	-0.410	-0.401	-0.411	-0.392
Max	-0.406	-0.396	-0.383	-0.407	-0.401	-0.401	-0.399	-0.405	-0.392	-0.373	-0.375
UL	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000	15.000



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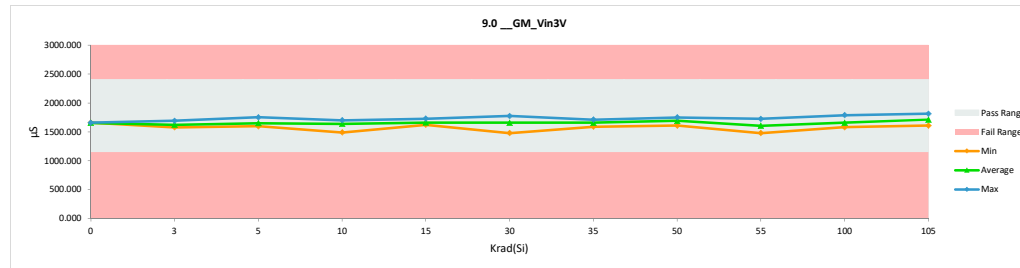
9.0_GM_Vin3V	
Test Site	
Tester	
Test Number	
Unit	µS
Max Limit	2400
Min Limit	1150

Krad(Si)	Serial #	PRE	POST	Delta
0	33	1657.889	1657.021	-0.868
3	66	1573.779	1576.871	3.092
3	67	1623.968	1627.270	3.302
3	68	1626.480	1633.677	7.197
3	69	1687.912	1691.808	3.896
3	70	1583.172	1583.118	-0.054
5	71	1627.219	1628.192	0.973
5	72	1644.638	1646.136	1.498
5	73	1629.248	1630.060	0.812
5	74	1600.374	1597.350	-3.024
5	75	1764.057	1752.792	-11.265
10	56	1694.804	1701.304	6.500
10	57	1643.900	1658.643	14.743
10	58	1652.965	1656.957	3.992
10	59	1694.976	1689.483	-5.493
10	60	1475.600	1488.700	13.100
15	61	1663.198	1670.978	7.780
15	62	1718.764	1729.145	10.381
15	63	1635.788	1634.923	-0.865
15	64	1627.708	1620.118	-7.590
15	65	1645.216	1640.760	-4.456
30	46	1683.614	1698.482	14.868
30	47	1583.452	1598.896	15.444
30	48	1712.272	1737.914	25.642
30	49	1758.594	1775.090	16.496
30	50	1457.912	1477.107	19.195
35	51	1688.209	1688.185	-0.024
35	52	1585.071	1588.781	3.710
35	53	1709.031	1709.225	0.194
35	54	1628.298	1633.657	5.359
35	55	1651.320	1673.310	21.990
50	36	1719.789	1747.671	27.882
50	37	1685.448	1734.074	48.626
50	38	1570.389	1608.996	38.607
50	39	1638.782	1669.576	30.794
50	40	1677.249	1695.801	18.552
55	41	1560.241	1567.217	6.976
55	42	1711.333	1725.194	13.861
55	43	1602.070	1622.185	20.115
55	44	1636.142	1634.305	-1.837
55	45	1471.639	1476.688	5.049
100	1	1754.032	1775.514	21.482
100	2	1596.384	1619.476	23.092
100	3	1729.020	1745.133	16.113
100	4	1578.261	1602.724	24.463
100	5	1671.644	1682.016	10.372
100	6	1626.737	1641.645	14.908
100	9	1578.416	1599.359	20.943
100	10	1697.394	1688.649	-8.745
100	11	1587.133	1601.878	14.745
100	12	1620.795	1617.694	-3.101
100	13	1550.309	1580.585	30.276
100	14	1751.657	1787.642	35.985
100	15	1629.246	1672.386	43.140
100	16	1631.787	1638.068	6.281
100	17	1632.466	1676.764	44.298
100	18	1555.984	1585.521	29.537
100	19	1613.838	1633.630	19.792
100	20	1701.682	1720.165	18.483
100	21	1687.422	1692.802	5.380
100	22	1622.944	1632.686	9.742
100	23	1649.432	1647.943	-1.489
100	24	1602.935	1646.310	43.375
105	27	1676.919	1708.082	31.163
105	28	1708.705	1718.404	9.699
105	29	1819.854	1813.354	-6.500
105	30	1683.067	1707.154	24.087
105	31	1589.665	1608.574	18.909
	Max	1819.854	1813.354	48.626
	Average	1643.386	1656.203	12.817
	Min	1457.912	1476.688	-11.265
	Std Dev	67.839	67.709	14.100



9.0_GM_Vin3V	
Test Site	
Tester	
Test Number	
Max Limit	2400 µS
Min Limit	1150 µS

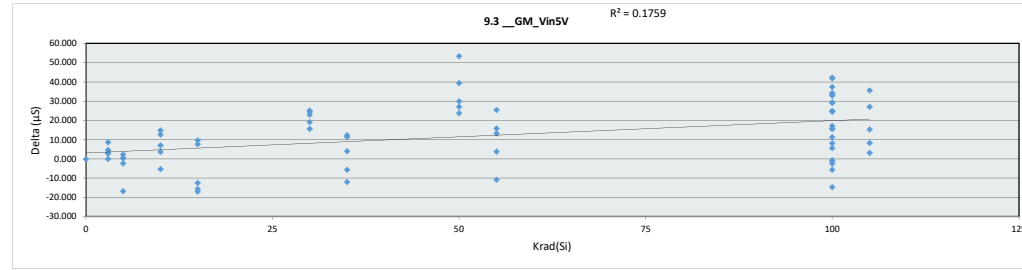
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000
Min	1657.021	1576.871	1597.350	1488.700	1620.118	1477.107	1588.781	1608.996	1476.688	1580.585	1608.574
Average	1657.021	1622.549	1650.906	1639.017	1659.185	1657.498	1658.632	1691.224	1605.118	1658.572	1711.114
Max	1657.021	1691.808	1752.792	1701.304	1729.145	1775.090	1709.225	1747.671	1725.194	1787.642	1813.354
UL	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000



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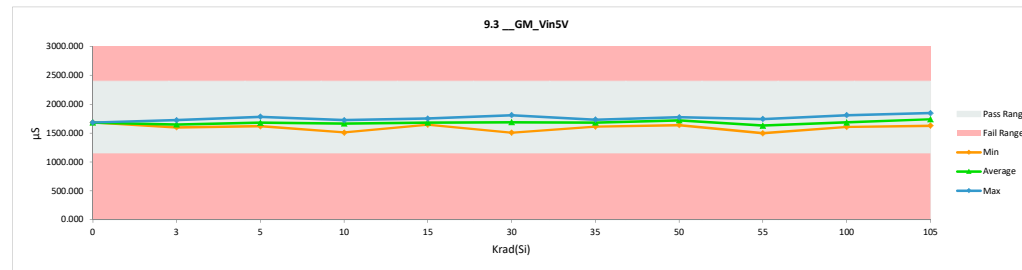
9.3 GM_Vin5V	
Test Site	
Tester	
Test Number	
Unit	µS
Max Limit	2400
Min Limit	1150

Krad(Si)	Serial #	PRE	POST	Delta
0	33	1684.192	1683.909	-0.283
3	66	1595.563	1598.669	3.106
3	67	1657.108	1659.853	2.745
3	68	1647.573	1656.044	8.471
3	69	1720.585	1725.194	4.609
3	70	1604.721	1604.604	-0.117
5	71	1660.997	1661.282	0.285
5	72	1677.064	1679.373	2.309
5	73	1661.546	1661.941	0.395
5	74	1622.258	1619.778	-2.480
5	75	1799.643	1782.785	-16.858
10	56	1717.383	1724.292	6.909
10	57	1665.524	1680.176	14.652
10	58	1686.474	1690.111	3.637
10	59	1727.942	1722.451	-5.491
10	60	1495.705	1508.255	12.550
15	61	1697.495	1705.083	7.588
15	62	1742.896	1752.448	9.552
15	63	1668.581	1656.059	-12.522
15	64	1659.493	1642.505	-16.988
15	65	1678.615	1662.877	-15.738
30	46	1705.544	1730.592	25.048
30	47	1606.239	1621.805	15.566
30	48	1746.517	1770.900	24.383
30	49	1788.068	1810.948	22.880
30	50	1487.957	1507.039	19.082
35	51	1711.206	1722.617	11.411
35	52	1617.039	1611.328	-5.711
35	53	1744.461	1732.431	-12.030
35	54	1660.764	1664.576	3.812
35	55	1683.896	1696.129	12.233
50	36	1748.148	1775.213	27.065
50	37	1714.974	1768.215	53.241
50	38	1600.837	1640.153	39.316
50	39	1667.534	1697.298	29.764
50	40	1706.339	1730.032	23.693
55	41	1582.903	1598.621	15.718
55	42	1733.137	1746.321	13.184
55	43	1629.778	1655.083	25.305
55	44	1668.147	1657.244	-10.903
55	45	1493.497	1497.183	3.686
100	1	1788.394	1803.924	15.530
100	2	1623.842	1640.895	17.053
100	3	1763.927	1779.481	15.554
100	4	1600.779	1633.559	32.780
100	5	1706.680	1705.896	-0.784
100	6	1658.707	1669.916	11.209
100	9	1605.668	1630.546	24.878
100	10	1726.271	1711.612	-14.659
100	11	1610.022	1634.453	24.431
100	12	1641.710	1647.337	5.627
100	13	1581.153	1605.781	24.628
100	14	1774.912	1812.175	37.263
100	15	1663.231	1705.005	41.774
100	16	1663.304	1660.679	-2.625
100	17	1664.464	1698.609	34.145
100	18	1578.227	1611.650	33.423
100	19	1636.375	1665.351	28.976
100	20	1724.989	1754.353	29.364
100	21	1720.293	1714.525	-5.768
100	22	1655.766	1654.513	-1.253
100	23	1672.609	1680.619	8.010
100	24	1625.173	1667.330	42.157
105	27	1705.728	1741.156	35.428
105	28	1731.290	1746.436	15.146
105	29	1844.129	1847.141	3.012
105	30	1705.116	1732.127	27.011
105	31	1621.091	1629.230	8.139
	Max	1844.129	1847.141	53.241
	Average	1671.503	1683.761	12.258
	Min	1487.957	1497.183	-16.988
	Std Dev	69.146	69.438	16.118



9.3 GM_Vin5V	
Test Site	
Tester	
Test Number	
Max Limit	2400 µS
Min Limit	1150 µS

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000	1150.000
Min	1683.909	1598.669	1619.778	1508.255	1642.505	1507.039	1611.328	1640.153	1497.183	1605.781	1629.230
Average	1683.909	1648.873	1681.032	1665.057	1683.794	1688.257	1685.416	1722.182	1630.890	1685.828	1739.218
Max	1683.909	1725.194	1782.785	1724.292	1752.448	1810.948	1732.431	1775.213	1746.321	1812.175	1847.141
UL	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000	2400.000

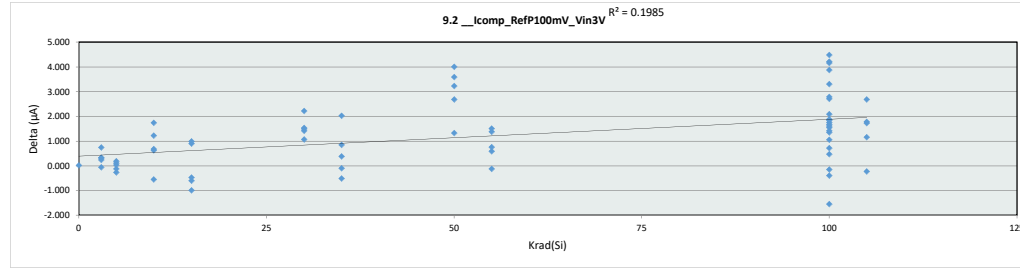


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9.2 Icomp\_RefP100mV\_Vin3V

Test Site		
Tester		
Test Number		
Unit	µA	µA
Max Limit	190	190
Min Limit	100	100

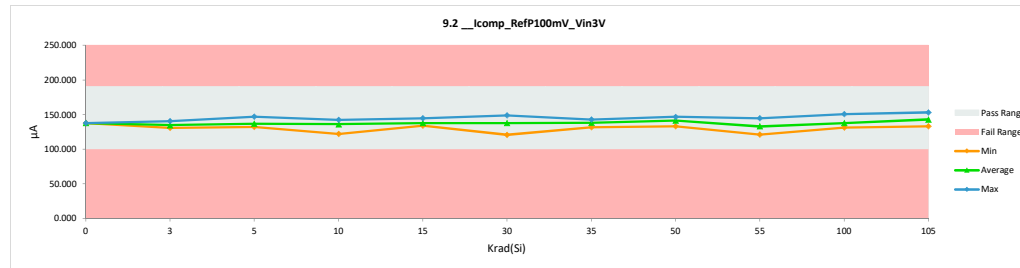
Krad(Si)	Serial #	PRE	POST	Delta
0	33	137.591	137.603	0.012
3	66	130.126	130.438	0.312
3	67	134.927	135.160	0.233
3	68	135.126	135.861	0.735
3	69	140.060	140.390	0.330
3	70	130.688	130.630	-0.058
5	71	133.966	133.991	0.025
5	72	136.143	136.327	0.184
5	73	134.832	134.944	0.112
5	74	132.322	132.055	-0.267
5	75	146.697	146.574	-0.123
10	56	141.347	142.022	0.675
10	57	136.366	138.097	1.731
10	58	136.997	137.615	0.618
10	59	140.533	139.985	-0.548
10	60	120.725	121.939	1.214
15	61	138.251	139.145	0.894
15	62	143.288	144.278	0.990
15	63	135.740	135.260	-0.480
15	64	134.743	133.756	-0.987
15	65	136.385	135.785	-0.600
30	46	140.230	141.641	1.411
30	47	130.385	131.876	1.491
30	48	142.918	145.125	2.207
30	49	147.581	148.639	1.058
30	50	119.135	120.657	1.522
35	51	140.820	140.724	-0.096
35	52	131.223	131.604	0.381
35	53	143.268	142.749	-0.519
35	54	134.862	135.709	0.847
35	55	137.152	139.176	2.024
50	36	143.821	146.500	2.679
50	37	141.225	145.224	3.999
50	38	129.376	132.964	3.588
50	39	136.204	139.424	3.220
50	40	139.943	141.264	1.321
55	41	127.878	128.630	0.752
55	42	142.926	144.301	1.375
55	43	132.852	134.353	1.501
55	44	135.816	135.692	-0.124
55	45	120.129	120.719	0.590
100	1	145.814	148.519	2.705
100	2	132.175	133.775	1.600
100	3	144.041	145.787	1.746
100	4	129.537	131.617	2.080
100	5	137.720	138.769	1.049
100	6	134.436	136.277	1.841
100	9	130.471	132.011	1.540
100	10	142.602	141.049	-1.553
100	11	130.368	131.718	1.350
100	12	133.817	133.424	-0.393
100	13	127.896	131.197	3.301
100	14	146.633	150.507	3.874
100	15	134.525	138.724	4.199
100	16	135.083	135.556	0.473
100	17	134.687	138.836	4.149
100	18	128.310	131.095	2.785
100	19	133.159	134.834	1.675
100	20	140.931	142.804	1.873
100	21	140.323	141.034	0.711
100	22	134.431	135.841	1.410
100	23	136.275	136.118	-0.157
100	24	132.303	136.778	4.475
105	27	139.305	141.989	2.684
105	28	142.673	143.824	1.151
105	29	153.103	152.869	-0.234
105	30	140.207	141.985	1.778
105	31	131.227	132.950	1.723
	Max	153.103	152.869	4.475
	Average	136.274	137.481	1.207
	Min	119.135	120.657	-1.553
	Std Dev	6.381	6.417	1.353



9.2 Icomp\_RefP100mV\_Vin

Test Site		
Tester		
Test Number		
Max Limit	190	µA
Min Limit	100	µA

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Min	137.603	130.438	132.055	121.939	133.756	120.657	131.604	132.964	120.719	131.095	132.950
Average	137.603	134.496	136.778	135.932	137.645	137.588	137.992	141.075	132.739	137.558	142.723
Max	137.603	140.390	146.574	142.022	144.278	148.639	142.749	146.500	144.301	150.507	152.869
UL	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000

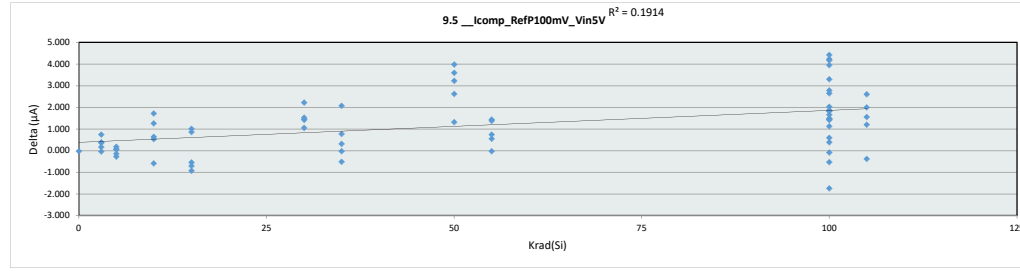


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9.5 Icomp\_RefP100mV\_Vin5V

Test Site		
Tester		
Test Number		
Unit	µA	µA
Max Limit	190	190
Min Limit	100	100

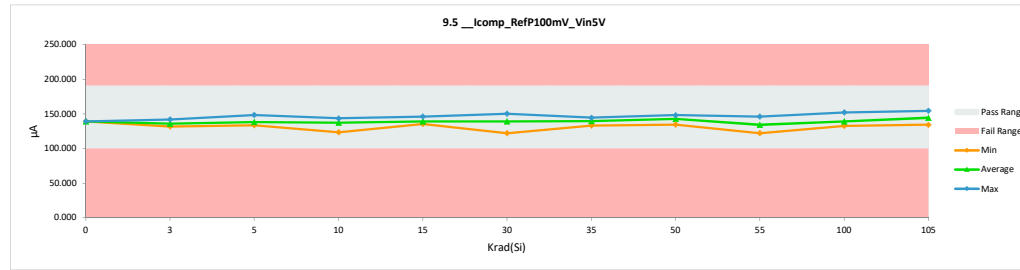
Krad(Si)	Serial #	PRE	POST	Delta
0	33	138.964	138.938	-0.026
3	66	131.343	131.722	0.379
3	67	136.339	136.506	0.167
3	68	136.432	137.170	0.738
3	69	141.501	141.856	0.355
3	70	131.900	131.858	-0.042
5	71	135.338	135.382	0.044
5	72	137.529	137.699	0.170
5	73	136.235	136.307	0.072
5	74	133.647	133.370	-0.277
5	75	148.294	148.148	-0.146
10	56	142.682	143.316	0.634
10	57	137.738	139.454	1.716
10	58	138.337	138.870	0.533
10	59	141.975	141.383	-0.592
10	60	121.786	123.035	1.249
15	61	139.700	140.562	0.862
15	62	144.724	145.733	1.009
15	63	137.068	136.517	-0.551
15	64	136.029	135.102	-0.927
15	65	137.796	137.084	-0.712
30	46	141.515	142.941	1.426
30	47	131.785	133.210	1.425
30	48	144.358	146.568	2.210
30	49	149.100	150.154	1.054
30	50	120.349	121.876	1.527
35	51	142.154	142.125	-0.029
35	52	132.517	132.820	0.303
35	53	144.753	144.231	-0.522
35	54	136.237	137.006	0.769
35	55	138.487	140.553	2.066
50	36	145.286	147.894	2.608
50	37	142.660	146.631	3.971
50	38	130.583	134.166	3.583
50	39	137.689	140.903	3.214
50	40	141.418	142.734	1.316
55	41	129.199	129.938	0.739
55	42	144.268	145.642	1.374
55	43	134.319	135.749	1.430
55	44	137.093	137.056	-0.037
55	45	121.378	121.918	0.540
100	1	147.250	149.895	2.645
100	2	133.527	135.007	1.480
100	3	145.439	147.261	1.822
100	4	130.856	132.878	2.022
100	5	139.311	140.425	1.114
100	6	135.790	137.635	1.845
100	9	131.845	133.325	1.480
100	10	144.066	142.318	-1.748
100	11	131.739	133.153	1.414
100	12	135.132	134.604	-0.528
100	13	129.133	132.420	3.287
100	14	148.018	151.965	3.947
100	15	135.902	140.125	4.223
100	16	136.396	136.772	0.376
100	17	135.995	140.158	4.163
100	18	129.578	132.357	2.779
100	19	134.551	136.202	1.651
100	20	142.463	144.322	1.859
100	21	141.755	142.338	0.583
100	22	135.806	137.244	1.438
100	23	137.641	137.551	-0.090
100	24	133.652	138.073	4.421
105	27	140.797	143.397	2.600
105	28	144.099	145.294	1.195
105	29	154.612	154.220	-0.392
105	30	141.516	143.505	1.989
105	31	132.498	134.048	1.550
	Max	154.612	154.220	4.421
	Average	137.645	138.833	1.187
	Min	120.349	121.876	-1.748
	Std Dev	6.449	6.486	1.366



9.5 Icomp\_RefP100mV\_Vin5V

Test Site		
Tester		
Test Number		
Max Limit	190	µA
Min Limit	100	µA

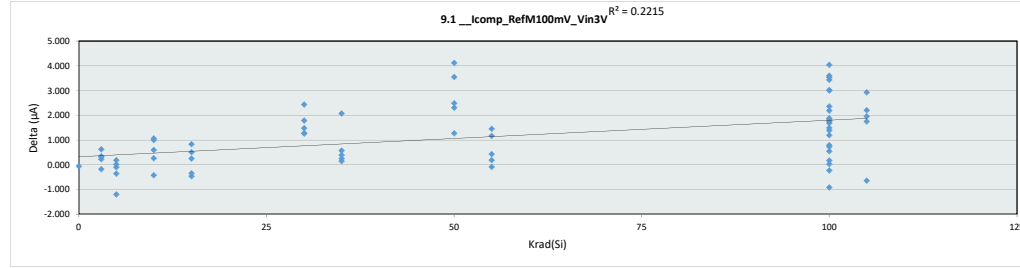
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Min	138.938	131.722	133.370	123.035	135.102	121.876	132.820	134.166	121.918	132.357	134.048
Average	138.938	135.822	138.181	137.212	139.000	138.950	139.347	142.466	134.061	138.910	144.093
Max	138.938	141.856	148.148	143.316	145.733	150.154	144.231	147.894	145.642	151.965	154.220
UL	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000



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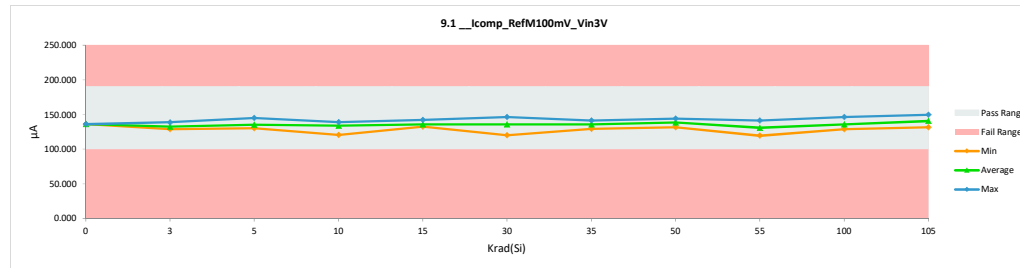
9.1 Icomp_RefM100mV_Vin3V	
Test Site	
Tester	
Test Number	
Unit	µA
Max Limit	190
Min Limit	100

Krad(Si)	Serial #	PRE	POST	Delta
0	33	136.128	136.071	-0.057
3	66	128.418	128.734	0.316
3	67	132.753	133.086	0.333
3	68	133.033	133.662	0.629
3	69	138.468	138.696	0.228
3	70	129.017	128.840	-0.177
5	71	133.831	133.847	0.016
5	72	134.439	134.624	0.185
5	73	133.179	133.077	-0.102
5	74	130.337	129.984	-0.353
5	75	146.044	144.847	-1.197
10	56	138.459	139.062	0.603
10	57	134.714	135.718	1.004
10	58	135.605	135.869	0.264
10	59	139.329	138.906	-0.423
10	60	119.214	120.282	1.068
15	61	136.050	136.559	0.509
15	62	141.162	141.989	0.827
15	63	133.292	133.545	0.253
15	64	133.072	132.607	-0.465
15	65	134.845	134.502	-0.343
30	46	137.726	138.994	1.268
30	47	129.185	130.655	1.470
30	48	140.348	142.785	2.437
30	49	144.853	146.121	1.268
30	50	118.122	119.911	1.789
35	51	137.981	138.234	0.253
35	52	128.653	129.038	0.385
35	53	140.505	141.072	0.567
35	54	132.979	133.123	0.144
35	55	134.720	136.795	2.075
50	36	141.397	143.887	2.490
50	37	137.722	141.838	4.116
50	38	127.878	131.429	3.551
50	39	134.741	137.045	2.304
50	40	137.595	138.869	1.274
55	41	127.329	127.759	0.430
55	42	140.286	141.451	1.165
55	43	130.850	132.306	1.456
55	44	133.186	133.092	-0.094
55	45	119.149	119.336	0.187
100	1	144.200	146.383	2.183
100	2	130.655	132.401	1.746
100	3	141.377	142.573	1.196
100	4	128.392	130.743	2.351
100	5	137.322	138.053	0.731
100	6	132.259	134.075	1.816
100	9	129.286	130.778	1.492
100	10	138.659	137.741	-0.918
100	11	129.963	131.350	1.387
100	12	132.448	132.222	-0.226
100	13	125.815	128.813	2.998
100	14	143.464	146.473	3.009
100	15	133.328	136.928	3.600
100	16	133.245	134.036	0.791
100	17	133.494	137.528	4.034
100	18	126.308	129.735	3.427
100	19	131.785	133.666	1.881
100	20	140.000	141.688	1.688
100	21	138.314	138.484	0.170
100	22	132.367	132.912	0.545
100	23	135.495	135.526	0.031
100	24	130.752	134.285	3.533
105	27	138.002	140.206	2.204
105	28	139.954	141.701	1.747
105	29	150.199	149.555	-0.644
105	30	137.170	140.099	2.929
105	31	129.366	131.316	1.950
	Max	150.199	149.555	4.116
	Average	134.415	135.552	1.137
	Min	118.122	119.336	-1.197
	Std Dev	6.039	6.012	1.267



9.1 Icomp_RefM100mV_Vin3V	
Test Site	
Tester	
Test Number	
Max Limit	190
Min Limit	100

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Min	136.071	128.734	129.984	120.282	132.607	119.911	129.038	131.429	119.336	128.813	131.316
Average	136.071	132.604	135.276	133.967	135.840	135.693	135.652	138.614	130.789	135.745	140.575
Max	136.071	138.696	144.847	139.062	141.989	146.121	141.072	143.887	141.451	146.473	149.555
UL	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000

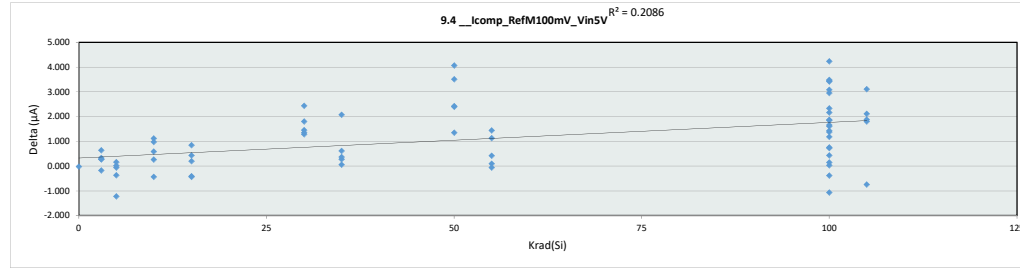


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9.4 Icomp\_RefM100mV\_Vin5V

Test Site		
Tester		
Test Number		
Unit	µA	µA
Max Limit	190	190
Min Limit	100	100

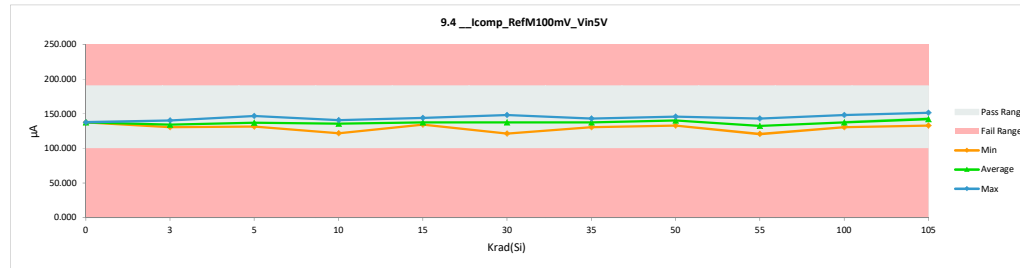
Krad(Si)	Serial #	PRE	POST	Delta
0	33	137.720	137.692	-0.028
3	66	130.132	130.453	0.321
3	67	134.516	134.794	0.278
3	68	134.732	135.374	0.642
3	69	140.194	140.469	0.275
3	70	130.657	130.484	-0.173
5	71	135.553	135.568	0.015
5	72	136.112	136.268	0.156
5	73	134.814	134.749	-0.065
5	74	132.018	131.647	-0.371
5	75	148.055	146.828	-1.227
10	56	140.281	140.864	0.583
10	57	136.407	137.382	0.975
10	58	137.320	137.578	0.258
10	59	141.085	140.647	-0.438
10	60	120.672	121.790	1.118
15	61	137.792	138.220	0.428
15	62	143.029	143.868	0.839
15	63	134.975	135.168	0.193
15	64	134.691	134.248	-0.443
15	65	136.545	136.139	-0.406
30	46	139.365	140.711	1.346
30	47	130.869	132.314	1.445
30	48	142.159	144.598	2.439
30	49	146.734	148.020	1.286
30	50	119.736	121.538	1.802
35	51	139.796	140.072	0.276
35	52	130.288	130.658	0.370
35	53	142.379	142.988	0.609
35	54	134.638	134.697	0.059
35	55	136.465	138.539	2.074
50	36	143.229	145.655	2.426
50	37	139.482	143.540	4.058
50	38	129.450	132.954	3.504
50	39	136.454	138.853	2.399
50	40	139.395	140.745	1.350
55	41	128.974	129.393	0.419
55	42	141.961	143.083	1.122
55	43	132.585	134.020	1.435
55	44	134.874	134.812	-0.062
55	45	120.706	120.803	0.097
100	1	146.060	148.217	2.157
100	2	132.311	133.963	1.652
100	3	143.237	144.417	1.180
100	4	130.088	132.419	2.331
100	5	139.295	140.049	0.754
100	6	133.962	135.825	1.863
100	9	131.012	132.433	1.421
100	10	140.538	139.472	-1.066
100	11	131.690	133.060	1.370
100	12	134.077	133.688	-0.389
100	13	127.461	130.414	2.953
100	14	145.259	148.339	3.080
100	15	135.132	138.609	3.477
100	16	134.934	135.659	0.725
100	17	135.157	139.382	4.225
100	18	127.992	131.436	3.444
100	19	133.474	135.328	1.854
100	20	141.812	143.422	1.610
100	21	140.039	140.188	0.149
100	22	134.103	134.534	0.431
100	23	137.370	137.397	0.027
100	24	132.384	135.798	3.414
105	27	139.851	141.965	2.114
105	28	141.741	143.539	1.798
105	29	152.140	151.399	-0.741
105	30	138.950	142.051	3.101
105	31	130.966	132.846	1.880
	Max	152.140	151.399	4.225
	Average	136.145	137.266	1.121
	Min	119.736	120.803	-1.227
	Std Dev	6.119	6.097	1.279



9.4 Icomp\_RefM100mV\_Vin

Test Site		
Tester		
Test Number		
Max Limit	190	µA
Min Limit	100	µA

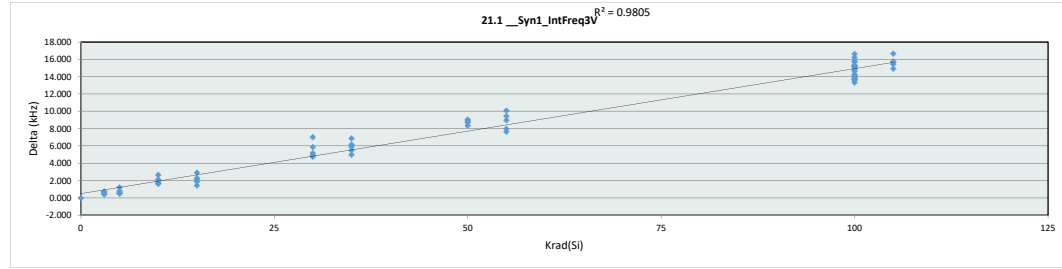
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000
Min	137.692	130.453	131.647	121.790	134.248	121.538	130.658	132.954	120.803	130.414	132.846
Average	137.692	134.315	137.012	135.652	137.529	137.436	137.391	140.349	132.422	137.457	142.360
Max	137.692	140.469	146.828	140.864	143.868	148.020	142.988	145.655	143.083	148.339	151.399
UL	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000	190.000



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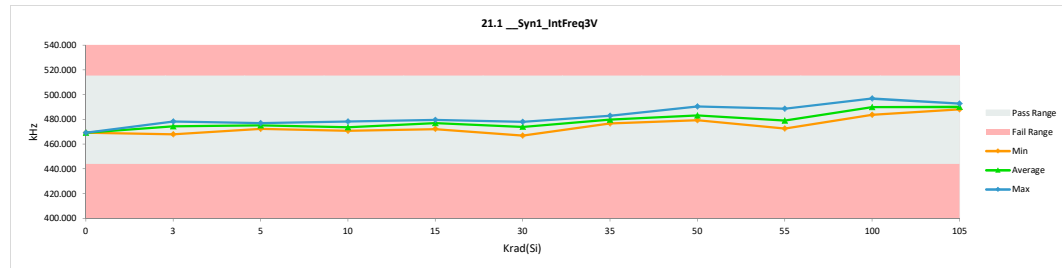
21.1_Syn1_IntFreq3V	
Test Site	
Tester	
Test Number	
Unit	kHz
Max Limit	515
Min Limit	444

Krad(Si)	Serial #	PRE	POST	Delta
0	33	469.243	469.242	-0.001
3	66	475.341	476.054	0.713
3	67	473.615	473.994	0.379
3	68	477.733	478.429	0.696
3	69	475.533	475.993	0.460
3	70	467.292	467.948	0.656
5	71	476.232	476.896	0.664
5	72	471.982	472.492	0.510
5	73	476.266	477.076	0.810
5	74	475.754	476.974	1.220
5	75	472.623	473.118	0.495
10	56	470.643	472.267	1.624
10	57	476.518	478.359	1.841
10	58	473.097	474.788	1.691
10	59	469.227	471.891	2.664
10	60	468.582	470.721	2.139
15	61	475.745	478.021	2.276
15	62	476.789	479.703	2.914
15	63	470.830	472.248	1.418
15	64	476.160	478.268	2.108
15	65	475.412	477.295	1.883
30	46	465.193	471.042	5.849
30	47	472.992	478.143	5.151
30	48	472.365	477.317	4.952
30	49	459.978	466.974	6.996
30	50	472.114	476.858	4.744
35	51	472.875	479.736	6.861
35	52	470.901	476.789	5.888
35	53	473.605	478.601	4.996
35	54	476.814	482.979	6.165
35	55	476.090	481.598	5.508
50	36	471.648	479.997	8.349
50	37	470.466	479.412	8.946
50	38	477.493	486.550	9.057
50	39	481.612	490.368	8.756
50	40	471.707	480.417	8.710
55	41	464.751	472.703	7.952
55	42	481.004	488.646	7.642
55	43	469.397	478.840	9.443
55	44	463.750	472.720	8.970
55	45	472.057	482.119	10.062
100	1	472.602	488.296	15.694
100	2	477.945	493.153	15.208
100	3	470.027	485.183	15.156
100	4	471.119	487.726	16.607
100	5	468.502	483.828	15.326
100	6	476.370	490.082	13.712
100	9	472.126	487.335	15.209
100	10	479.311	494.572	15.261
100	11	477.370	493.580	16.210
100	12	474.419	488.528	14.109
100	13	481.493	495.179	13.686
100	14	472.523	486.273	13.750
100	15	478.552	494.340	15.788
100	16	476.180	489.801	13.621
100	17	479.077	492.739	13.662
100	18	472.849	487.678	14.829
100	19	476.365	490.603	14.238
100	20	477.978	492.578	14.600
100	21	481.837	496.881	15.044
100	22	473.661	486.995	13.334
100	23	471.581	485.490	13.909
100	24	474.323	489.499	15.176
105	27	473.843	488.773	14.930
105	28	473.693	489.467	15.774
105	29	472.471	488.107	15.636
105	30	475.066	491.731	16.665
105	31	477.298	492.725	15.427
	Max	481.837	496.881	16.665
	Average	473.677	482.128	8.452
	Min	459.978	466.974	-0.001
	Std Dev	4.221	7.841	5.892



21.1_Syn1_IntFreq3V	
Test Site	
Tester	
Test Number	
Max Limit	515 kHz
Min Limit	444 kHz

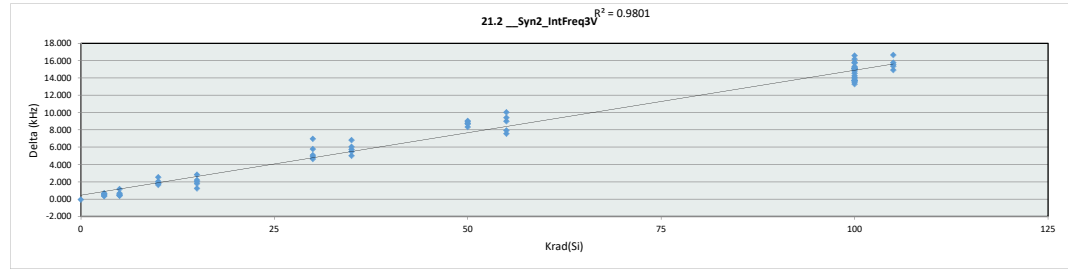
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	444.000	444.000	444.000	444.000	444.000	444.000	444.000	444.000	444.000	444.000	444.000
Min	469.242	467.948	472.492	470.721	472.248	466.974	476.789	479.412	472.703	483.828	488.107
Average	469.242	474.484	475.311	473.605	477.107	474.067	479.941	483.349	479.006	490.015	490.161
Max	469.242	478.429	477.076	478.359	479.703	478.143	482.979	490.368	488.646	496.881	492.725
UL	515.000	515.000	515.000	515.000	515.000	515.000	515.000	515.000	515.000	515.000	515.000



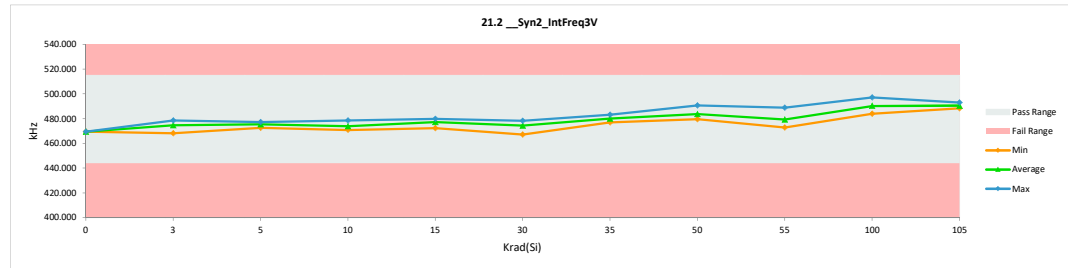


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21.2 __Syn2_IntFreq3V				
Test Site	Tester	Test Number	Unit	Max Limit
			kHz	515
			kHz	444
Krad(S)	Serial #	PRE	POST	Delta
0	33	469.596	469.554	-0.042
3	66	475.671	476.295	0.624
3	67	473.931	474.295	0.364
3	68	478.109	478.645	0.536
3	69	475.902	476.286	0.384
3	70	467.511	468.198	0.687
5	71	476.608	477.166	0.558
5	72	472.330	472.753	0.423
5	73	476.625	477.336	0.711
5	74	476.084	477.252	1.168
5	75	472.990	473.385	0.395
10	56	470.773	472.597	1.824
10	57	476.813	478.669	1.856
10	58	473.465	475.104	1.639
10	59	469.589	472.130	2.541
10	60	468.900	470.971	2.071
15	61	476.075	478.286	2.211
15	62	477.148	479.972	2.824
15	63	471.167	472.408	1.241
15	64	476.521	478.560	2.039
15	65	475.752	477.547	1.795
30	46	465.559	471.356	5.797
30	47	473.356	478.443	5.087
30	48	472.708	477.627	4.919
30	49	460.242	467.229	6.987
30	50	472.494	477.139	4.645
35	51	473.245	480.060	6.815
35	52	471.312	477.064	5.752
35	53	473.883	478.906	5.023
35	54	477.193	483.243	6.050
35	55	476.367	481.874	5.507
50	36	471.993	480.315	8.322
50	37	470.793	479.718	8.925
50	38	477.861	486.887	9.026
50	39	482.001	490.718	8.717
50	40	472.003	480.713	8.710
55	41	465.071	473.005	7.934
55	42	481.412	488.975	7.563
55	43	469.718	479.144	9.426
55	44	464.079	473.085	9.006
55	45	472.407	482.452	10.045
100	1	472.890	488.694	15.804
100	2	478.335	493.516	15.181
100	3	470.407	485.522	15.115
100	4	471.525	488.091	16.566
100	5	468.825	484.129	15.304
100	6	476.768	490.427	13.659
100	9	472.559	487.656	15.097
100	10	479.729	494.832	15.103
100	11	477.752	493.939	16.187
100	12	474.790	488.858	14.068
100	13	481.901	495.636	13.735
100	14	472.922	486.578	13.656
100	15	478.937	494.652	15.715
100	16	476.538	490.065	13.527
100	17	479.423	493.131	13.708
100	18	473.237	488.036	14.799
100	19	476.728	490.965	14.237
100	20	478.338	492.866	14.528
100	21	482.266	497.209	14.943
100	22	474.049	487.341	13.292
100	23	471.958	485.851	13.893
100	24	474.703	489.810	15.107
105	27	474.228	489.154	14.926
105	28	474.130	489.895	15.765
105	29	472.889	488.438	15.549
105	30	475.416	492.083	16.667
105	31	477.684	493.023	15.339
	Max	482.266	497.209	16.667
	Average	474.032	482.438	8.406
	Min	460.242	467.229	-0.042
	Std Dev	4.242	7.870	5.902

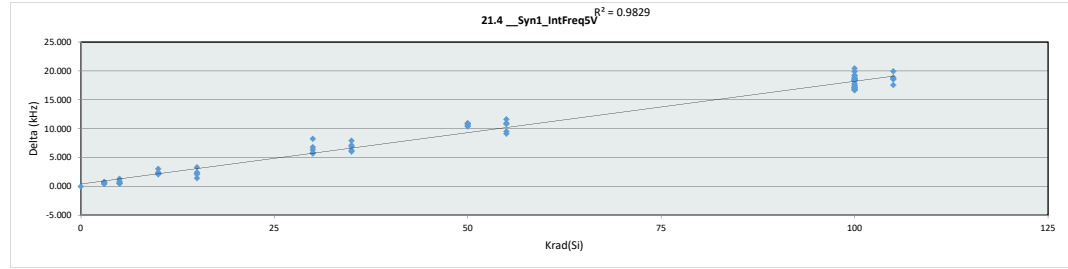


21.2 __Syn2_IntFreq3V											
Test Site	Tester	Test Number	Unit	Max Limit	Min Limit						
			kHz	515	444						
Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL	444.000	444.000	444.000	444.000	444.000	444.000	444.000	444.000	444.000	444.000	444.000
Min	469.554	468.198	472.753	470.971	472.408	467.229	477.064	479.718	473.005	484.129	488.438
Average	469.554	474.744	475.578	473.894	477.355	474.359	480.229	483.670	479.332	490.355	490.519
Max	469.554	478.645	477.336	478.669	479.972	478.443	483.243	490.718	488.975	497.209	493.023
UL	515.000	515.000	515.000	515.000	515.000	515.000	515.000	515.000	515.000	515.000	515.000

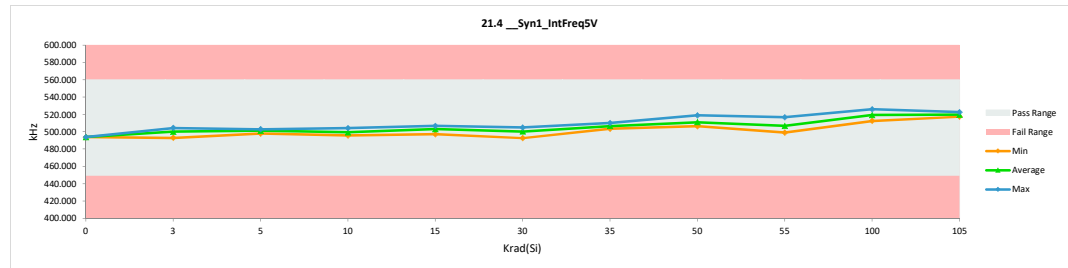


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21.4 __Syn1_IntFreq5V				
Test Site				
Tester				
Test Number				
Unit	kHz	kHz		
Max Limit	560	560		
Min Limit	449	449		
Krad(Si)	Serial #	PRE	POST	Delta
0	33	493.897	493.890	-0.007
3	66	500.889	501.666	0.777
3	67	499.826	500.234	0.408
3	68	503.660	504.320	0.660
3	69	501.428	501.898	0.470
3	70	492.130	492.893	0.763
5	71	502.297	502.876	0.579
5	72	497.206	497.731	0.525
5	73	501.953	502.799	0.846
5	74	501.502	502.804	1.302
5	75	499.587	500.083	0.496
10	56	495.887	498.184	2.297
10	57	501.812	504.076	2.264
10	58	499.073	501.176	2.103
10	59	494.516	497.556	3.040
10	60	493.246	495.671	2.425
15	61	501.685	504.123	2.438
15	62	503.418	506.696	3.278
15	63	495.814	497.222	1.408
15	64	501.225	503.529	2.304
15	65	501.690	503.781	2.091
30	46	490.028	496.805	6.777
30	47	498.470	504.815	6.345
30	48	498.270	504.152	5.882
30	49	484.402	492.614	8.212
30	50	497.273	502.964	5.691
35	51	498.663	506.595	7.932
35	52	496.670	503.536	6.866
35	53	499.100	505.130	6.030
35	54	502.880	510.028	7.148
35	55	501.273	507.512	6.239
50	36	497.928	508.314	10.386
50	37	495.433	506.300	10.867
50	38	503.360	514.304	10.944
50	39	508.171	518.946	10.775
50	40	496.783	507.228	10.445
55	41	489.649	499.138	9.489
55	42	507.541	516.665	9.124
55	43	495.589	506.557	10.968
55	44	489.962	500.739	10.777
55	45	498.427	510.070	11.643
100	1	497.974	517.239	19.265
100	2	504.470	522.927	18.457
100	3	495.954	514.623	18.669
100	4	496.872	517.317	20.445
100	5	493.619	512.492	18.873
100	6	502.872	520.016	17.144
100	9	497.530	515.955	18.425
100	10	506.108	524.697	18.589
100	11	504.048	523.907	19.859
100	12	500.154	517.507	17.353
100	13	508.092	524.995	16.903
100	14	498.126	514.928	16.802
100	15	504.657	523.795	19.138
100	16	502.007	518.654	16.647
100	17	504.666	521.699	17.033
100	18	498.297	516.677	18.380
100	19	501.922	519.493	17.571
100	20	503.855	521.687	17.832
100	21	507.635	526.039	18.404
100	22	498.992	515.711	16.719
100	23	497.053	514.225	17.172
100	24	500.322	518.632	18.310
105	27	499.926	517.456	17.530
105	28	500.285	519.159	18.874
105	29	499.761	518.306	18.545
105	30	501.642	521.545	19.903
105	31	503.832	522.510	18.678
	Max	508.171	526.039	20.445
	Average	499.460	509.674	10.214
	Min	484.402	492.614	-0.007
	Std Dev	4.588	9.361	7.247

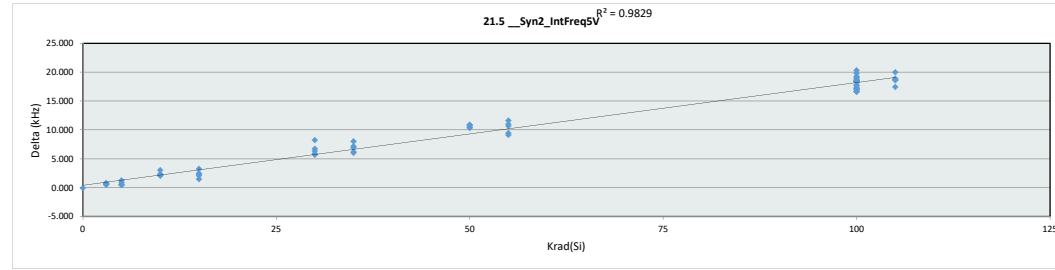


21.4 __Syn1_IntFreq5V											
Test Site											
Tester											
Test Number											
Max Limit	560	kHz									
Min Limit	449	kHz									
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	449.000	449.000	449.000	449.000	449.000	449.000	449.000	449.000	449.000	449.000	449.000
Min	493.890	492.893	497.731	495.671	497.222	492.614	503.536	506.300	499.138	512.492	517.456
Average	493.890	500.202	501.259	499.333	503.070	500.270	506.560	511.018	506.634	519.237	519.795
Max	493.890	504.320	502.876	504.076	506.696	504.815	510.028	518.946	516.665	526.039	522.510
UL	560.000	560.000	560.000	560.000	560.000	560.000	560.000	560.000	560.000	560.000	560.000

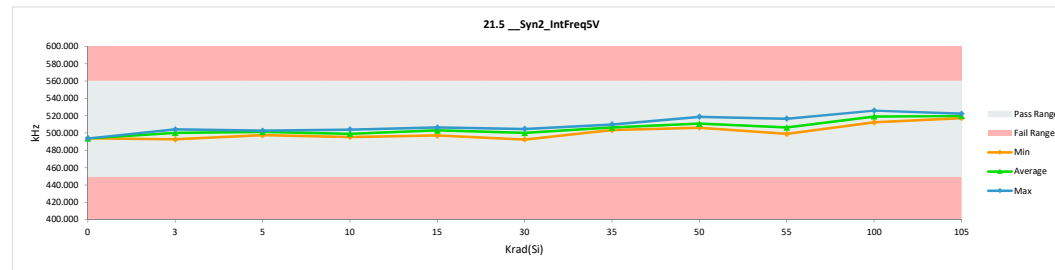


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21.5 __Syn2_IntFreq5V				
Test Site	Tester			
Test Number	Unit	kHz	kHz	
Max Limit	560	560		
Min Limit	449	449		
Krad(Si)	Serial #	PRE	POST	Delta
0	33	493.807	493.751	-0.056
3	66	500.832	501.532	0.700
3	67	499.722	500.269	0.547
3	68	503.501	504.229	0.728
3	69	501.251	501.773	0.522
3	70	491.999	492.799	0.800
5	71	502.172	502.734	0.562
5	72	497.105	497.599	0.494
5	73	501.760	502.645	0.885
5	74	501.378	502.658	1.280
5	75	499.464	499.964	0.500
10	56	495.873	498.037	2.164
10	57	501.745	503.963	2.218
10	58	498.946	501.054	2.108
10	59	494.408	497.422	3.014
10	60	493.124	495.489	2.365
15	61	501.564	504.030	2.466
15	62	503.270	506.513	3.243
15	63	495.665	497.136	1.471
15	64	501.114	503.395	2.281
15	65	501.572	503.668	2.096
30	46	489.917	496.680	6.763
30	47	498.312	504.685	6.373
30	48	498.129	504.040	5.911
30	49	484.271	492.496	8.225
30	50	497.111	502.815	5.704
35	51	498.495	506.484	7.989
35	52	496.521	503.446	6.925
35	53	498.949	504.953	6.004
35	54	502.713	509.890	7.177
35	55	501.190	507.354	6.164
50	36	497.832	508.196	10.364
50	37	495.312	506.180	10.868
50	38	503.217	514.106	10.889
50	39	508.056	518.797	10.741
50	40	496.658	507.103	10.445
55	41	489.537	499.004	9.467
55	42	507.444	516.546	9.102
55	43	495.411	506.414	11.003
55	44	489.878	500.576	10.698
55	45	498.264	509.907	11.643
100	1	497.836	517.091	19.255
100	2	504.318	522.802	18.484
100	3	495.842	514.474	18.632
100	4	496.820	517.151	20.331
100	5	493.540	512.374	18.834
100	6	502.758	519.869	17.111
100	9	497.382	515.869	18.487
100	10	505.969	524.529	18.560
100	11	503.916	523.757	19.841
100	12	499.989	517.327	17.338
100	13	507.953	524.935	16.982
100	14	498.072	514.796	16.724
100	15	504.511	523.597	19.086
100	16	501.899	518.502	16.603
100	17	504.518	521.584	17.066
100	18	498.167	516.528	18.361
100	19	501.772	519.430	17.658
100	20	503.701	521.492	17.791
100	21	507.521	525.855	18.334
100	22	498.847	515.500	16.653
100	23	496.926	514.102	17.176
100	24	500.198	518.519	18.321
105	27	499.831	517.248	17.417
105	28	500.147	519.023	18.876
105	29	499.584	518.160	18.576
105	30	501.435	521.394	19.959
105	31	503.656	522.368	18.712
	Max	508.056	525.855	20.331
	Average	499.332	509.538	10.206
	Min	484.271	492.496	-0.056
	Std Dev	4.580	9.351	7.241

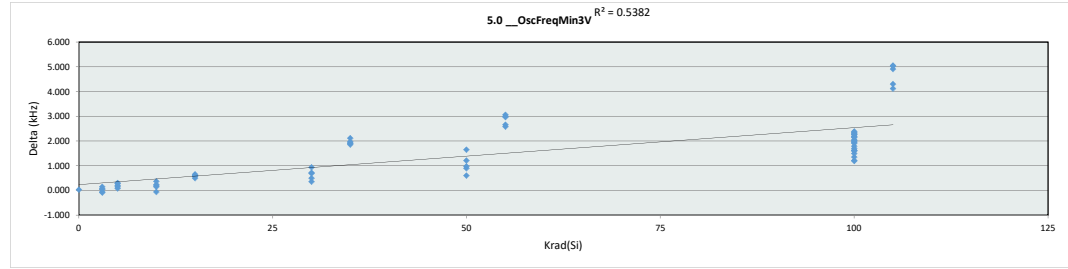


21.5 __Syn2_IntFreq5V											
Test Site	Tester										
Test Number	Unit	kHz	kHz								
Max Limit	560	560									
Min Limit	449	449									
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	449.000	449.000	449.000	449.000	449.000	449.000	449.000	449.000	449.000	449.000	449.000
Min	493.751	492.799	497.599	495.489	497.136	492.496	503.446	506.180	499.004	512.374	517.248
Average	493.751	500.120	501.120	499.193	502.948	500.143	506.425	510.876	506.489	519.095	519.639
Max	493.751	504.229	502.734	503.963	506.513	504.685	509.890	518.797	516.546	525.855	522.368
UL	560.000	560.000	560.000	560.000	560.000	560.000	560.000	560.000	560.000	560.000	560.000

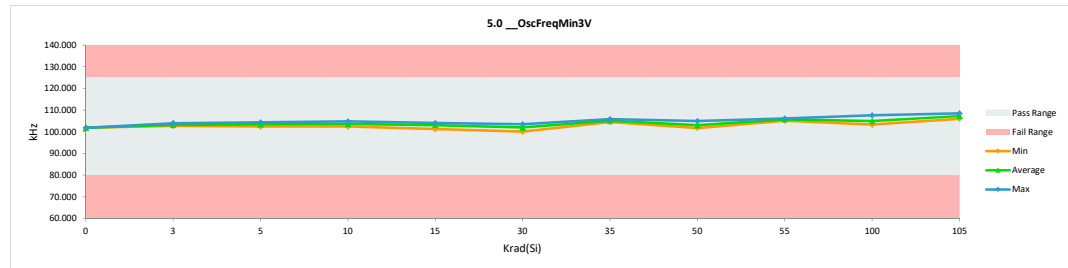


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5.0_OscFreqMin3V				
Test Site				
Tester				
Test Number				
Unit	kHz	kHz		
Max Limit	125	125		
Min Limit	80	80		
Krad(Si)	Serial #	PRE	POST	Delta
0	33	101.829	101.857	0.028
3	66	103.103	103.016	-0.087
3	67	104.006	103.950	-0.056
3	68	102.619	102.697	0.078
3	69	102.787	102.836	0.049
3	70	102.858	103.003	0.145
5	71	102.477	102.621	0.144
5	72	103.217	103.516	0.299
5	73	104.171	104.375	0.204
5	74	103.789	104.066	0.277
5	75	102.336	102.418	0.082
10	56	102.295	102.445	0.150
10	57	103.546	103.788	0.242
10	58	103.642	103.589	-0.053
10	59	103.020	103.212	0.192
10	60	104.414	104.784	0.370
15	61	102.333	102.832	0.499
15	62	102.791	103.368	0.577
15	63	100.545	101.197	0.652
15	64	103.416	104.010	0.594
15	65	103.408	104.016	0.608
30	46	101.797	102.156	0.359
30	47	102.791	103.487	0.696
30	48	102.121	102.623	0.502
30	49	99.161	100.100	0.939
30	50	100.841	101.563	0.722
35	51	102.875	104.992	2.117
35	52	103.496	105.400	1.904
35	53	103.780	105.758	1.978
35	54	102.638	104.488	1.850
35	55	103.073	104.989	1.916
50	36	101.716	102.321	0.605
50	37	102.213	103.193	0.980
50	38	101.801	103.005	1.204
50	39	103.214	104.869	1.655
50	40	100.861	101.759	0.898
55	41	103.420	106.000	2.580
55	42	103.388	106.051	2.663
55	43	102.635	105.598	2.963
55	44	102.997	105.996	2.999
55	45	101.972	105.035	3.063
100	1	103.175	105.214	2.039
100	2	103.255	104.460	1.205
100	3	103.123	105.468	2.345
100	4	102.822	104.312	1.490
100	5	101.945	104.142	2.197
100	6	105.246	107.626	2.380
100	9	102.065	104.105	2.040
100	10	103.902	105.872	1.970
100	11	103.461	105.163	1.702
100	12	104.414	106.326	1.912
100	13	102.098	103.289	1.191
100	14	103.007	104.630	1.623
100	15	101.867	104.118	2.251
100	16	102.151	104.292	2.141
100	17	102.990	104.588	1.598
100	18	103.287	104.640	1.353
100	19	104.398	106.562	2.164
100	20	103.418	105.364	1.946
100	21	103.002	104.794	1.792
100	22	103.365	104.987	1.622
100	23	101.897	104.206	2.309
100	24	102.694	104.959	2.265
105	27	103.439	108.483	5.044
105	28	102.452	107.353	4.901
105	29	102.931	107.955	5.024
105	30	102.280	106.398	4.118
105	31	101.710	106.012	4.302
	Max	105.246	108.483	5.044
	Average	102.791	104.298	1.508
	Min	99.161	100.100	-0.087
	Std Dev	0.980	1.633	1.268



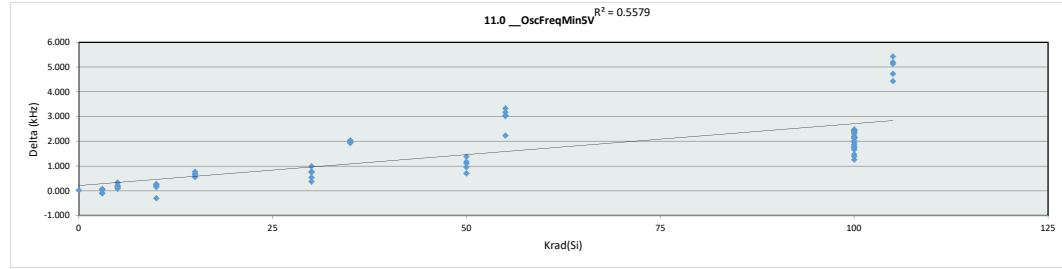
5.0_OscFreqMin3V											
Test Site											
Tester											
Test Number											
Max Limit	125	kHz									
Min Limit	80	kHz									
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000
Min	101.857	102.697	102.418	102.445	101.197	100.100	104.488	101.759	105.035	103.289	106.012
Average	101.857	103.100	103.399	103.564	103.085	101.986	105.125	103.029	105.736	104.960	107.240
Max	101.857	103.950	104.375	104.784	104.016	103.487	105.758	104.869	106.051	107.626	108.483
UL	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000



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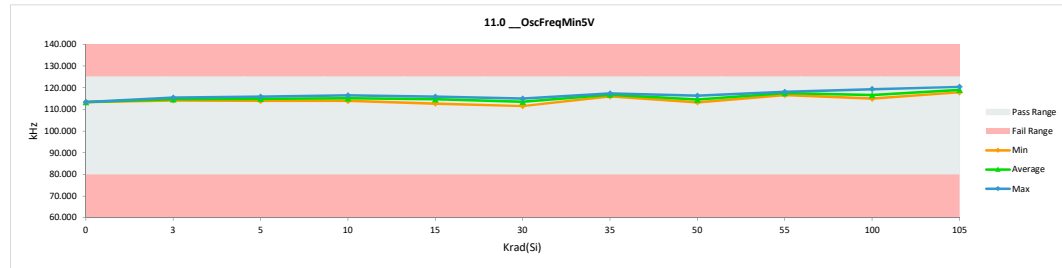
11.0 __OscFreqMin5V		
Test Site		
Tester		
Test Number		
Unit	kHz	kHz
Max Limit	125	125
Min Limit	80	80

Krad(Si)	Serial #	PRE	POST	Delta
0	33	113.330	113.351	0.021
3	66	114.730	114.634	-0.096
3	67	115.522	115.431	-0.091
3	68	114.075	114.152	0.077
3	69	114.247	114.288	0.041
3	70	114.770	114.804	0.034
5	71	113.872	114.012	0.140
5	72	114.816	114.992	0.176
5	73	115.661	115.871	0.210
5	74	115.165	115.499	0.334
5	75	113.871	113.958	0.087
10	56	113.829	113.978	0.149
10	57	115.053	115.320	0.267
10	58	115.546	115.242	-0.304
10	59	114.583	114.798	0.215
10	60	116.137	116.405	0.268
15	61	113.821	114.376	0.555
15	62	114.307	114.988	0.681
15	63	112.023	112.686	0.663
15	64	115.072	115.848	0.776
15	65	115.011	115.648	0.637
30	46	113.252	113.619	0.367
30	47	114.246	114.990	0.744
30	48	113.669	114.212	0.543
30	49	110.561	111.548	0.987
30	50	112.216	112.997	0.781
35	51	114.914	116.869	1.955
35	52	114.989	116.943	1.954
35	53	115.346	117.347	2.001
35	54	114.117	116.056	1.939
35	55	114.796	116.831	2.035
50	36	113.186	113.885	0.699
50	37	113.645	114.757	1.112
50	38	113.278	114.658	1.380
50	39	115.087	116.258	1.171
50	40	112.317	113.273	0.956
55	41	115.592	117.824	2.232
55	42	115.100	118.113	3.013
55	43	114.109	117.152	3.043
55	44	114.591	117.915	3.324
55	45	113.479	116.654	3.175
100	1	114.703	116.847	2.144
100	2	114.879	116.134	1.255
100	3	114.675	117.098	2.423
100	4	114.321	115.978	1.657
100	5	113.357	115.707	2.350
100	6	116.923	119.313	2.390
100	9	113.471	115.679	2.208
100	10	115.359	117.502	2.143
100	11	114.998	116.866	1.868
100	12	115.895	117.925	2.030
100	13	113.596	114.992	1.396
100	14	114.742	116.878	2.136
100	15	113.254	115.669	2.415
100	16	113.543	115.841	2.298
100	17	114.507	116.250	1.743
100	18	114.794	116.267	1.473
100	19	116.193	118.355	2.162
100	20	115.078	117.020	1.942
100	21	114.647	116.457	1.810
100	22	114.831	116.566	1.735
100	23	113.323	115.790	2.467
100	24	114.171	116.653	2.482
105	27	114.988	120.418	5.430
105	28	113.872	119.004	5.132
105	29	114.450	119.640	5.190
105	30	113.799	118.231	4.432
105	31	113.179	117.906	4.727
	Max	116.923	120.418	5.430
	Average	114.345	115.929	1.584
	Min	110.561	111.548	-0.304
	Std Dev	1.053	1.723	1.351



11.0 __OscFreqMin5V		
Test Site		
Tester		
Test Number		
Max Limit	125	kHz
Min Limit	80	kHz

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000
Min	113.351	114.152	113.958	113.978	112.686	111.548	116.056	113.273	116.654	114.992	117.906
Average	113.351	114.662	114.866	115.149	114.709	113.473	116.809	114.566	117.532	116.627	119.040
Max	113.351	115.431	115.871	116.405	115.848	114.990	117.347	116.258	118.113	119.313	120.418
UL	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000

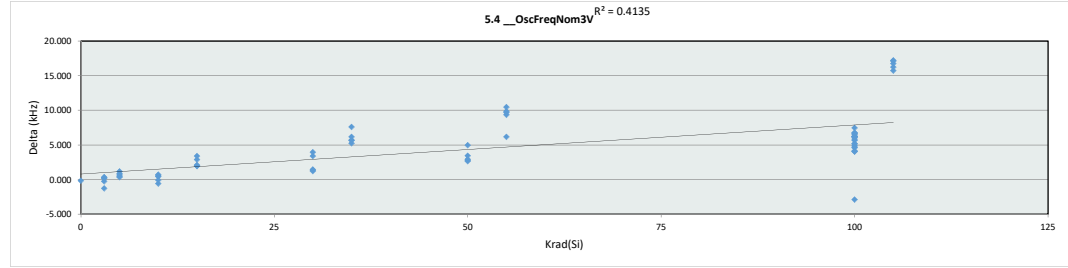


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5.4\_OscFreqNom3V

Test Site		
Tester		
Test Number		
Unit	kHz	kHz
Max Limit	535	535
Min Limit	455	455

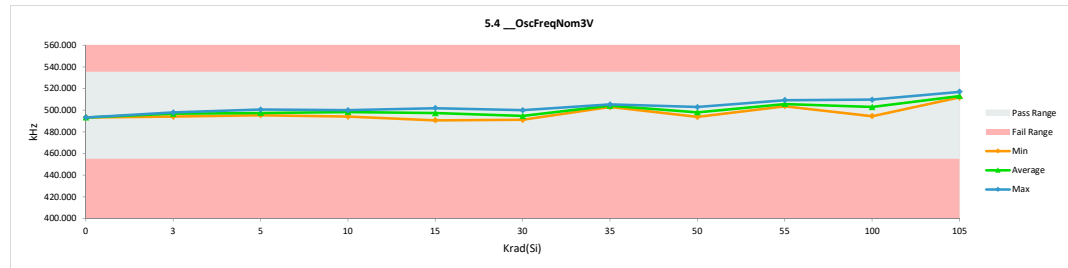
Krad(Si)	Serial #	PRE	POST	Delta
0	33	493.403	493.264	-0.139
3	66	497.424	497.156	-0.268
3	67	499.173	497.925	-1.248
3	68	496.739	496.899	0.160
3	69	497.139	497.478	0.339
3	70	493.609	493.936	0.327
5	71	495.008	495.344	0.336
5	72	494.949	495.800	0.851
5	73	499.882	500.564	0.682
5	74	498.055	499.233	1.178
5	75	495.816	496.306	0.490
10	56	493.371	493.926	0.555
10	57	497.615	498.323	0.708
10	58	500.502	499.909	-0.593
10	59	498.998	499.434	0.436
10	60	499.863	499.788	-0.075
15	61	495.486	497.473	1.987
15	62	493.780	497.168	3.388
15	63	487.706	490.589	2.883
15	64	499.766	501.877	2.111
15	65	497.327	499.282	1.955
30	46	490.826	492.285	1.459
30	47	495.988	499.932	3.944
30	48	496.440	497.804	1.364
30	49	487.628	491.020	3.392
30	50	491.086	492.328	1.242
35	51	496.217	503.798	7.581
35	52	497.544	503.250	5.706
35	53	499.505	505.167	5.662
35	54	498.507	504.692	6.185
35	55	497.700	502.947	5.247
50	36	493.133	495.943	2.810
50	37	494.734	498.197	3.463
50	38	494.265	499.244	4.979
50	39	499.915	502.852	2.937
50	40	491.023	493.664	2.641
55	41	499.948	506.118	6.170
55	42	499.860	509.211	9.351
55	43	495.086	504.936	9.850
55	44	494.842	504.543	9.701
55	45	493.098	503.547	10.449
100	1	496.768	502.407	5.639
100	2	500.682	505.286	4.604
100	3	497.703	503.890	6.187
100	4	497.278	494.403	-2.875
100	5	491.817	497.973	6.156
100	6	502.925	509.646	6.721
100	9	492.753	500.200	7.447
100	10	502.102	508.779	6.677
100	11	499.254	504.415	5.161
100	12	500.586	506.854	6.268
100	13	497.917	501.971	4.054
100	14	495.001	501.510	6.509
100	15	494.304	500.431	6.127
100	16	495.840	500.738	4.898
100	17	498.574	502.689	4.115
100	18	498.474	502.546	4.072
100	19	497.972	504.214	6.242
100	20	498.025	504.241	6.216
100	21	498.428	503.142	4.714
100	22	499.603	504.784	5.181
100	23	492.723	499.496	6.773
100	24	496.420	502.274	5.854
105	27	499.759	516.852	17.093
105	28	495.024	511.777	16.753
105	29	494.799	512.003	17.204
105	30	496.611	512.354	15.743
105	31	495.989	512.211	16.222
	Max	502.925	516.852	17.204
	Average	496.475	501.180	4.705
	Min	487.628	490.589	-2.875
	Std Dev	3.144	5.512	4.453



5.4\_OscFreqNom3V

Test Site		
Tester		
Test Number		
Max Limit	535	kHz
Min Limit	455	kHz

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	455.000	455.000	455.000	455.000	455.000	455.000	455.000	455.000	455.000	455.000	455.000
Min	493.264	493.936	495.344	493.926	490.589	491.020	502.947	493.664	503.547	494.403	511.777
Average	493.264	496.679	497.449	498.276	497.278	494.674	503.971	497.980	505.671	502.813	513.039
Max	493.264	497.925	500.564	499.909	501.877	499.932	505.167	502.852	509.211	509.646	516.852
UL	535.000	535.000	535.000	535.000	535.000	535.000	535.000	535.000	535.000	535.000	535.000

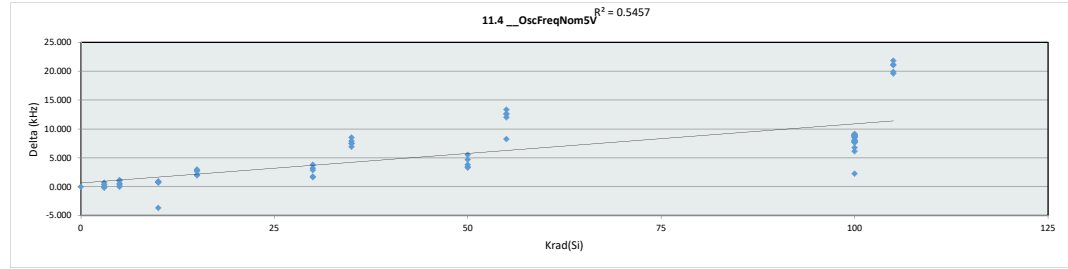


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11.4 \_\_OscFreqNom5V

Test Site		
Tester		
Test Number		
Unit	kHz	kHz
Max Limit	615	615
Min Limit	475	475

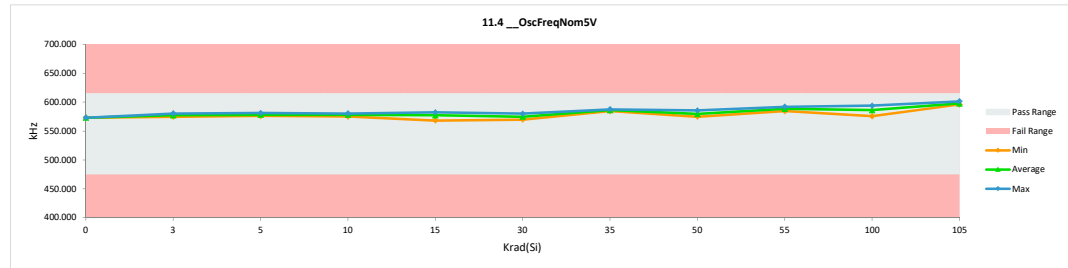
Krad(Si)	Serial #	PRE	POST	Delta
0	33	573.273	573.254	-0.019
3	66	577.974	577.771	-0.203
3	67	580.323	580.357	0.034
3	68	576.612	576.967	0.355
3	69	577.682	577.691	0.009
3	70	574.122	574.826	0.704
5	71	576.022	576.357	0.335
5	72	575.958	577.012	1.054
5	73	580.640	581.200	0.560
5	74	578.039	579.180	1.141
5	75	577.683	577.689	0.006
10	56	574.502	575.294	0.792
10	57	577.612	578.402	0.790
10	58	581.071	577.423	-3.648
10	59	579.183	580.120	0.937
10	60	579.594	580.319	0.725
15	61	575.719	577.693	1.974
15	62	575.471	578.299	2.828
15	63	565.546	568.208	2.662
15	64	579.419	582.400	2.981
15	65	577.770	579.782	2.012
30	46	571.016	572.685	1.669
30	47	576.961	580.165	3.204
30	48	576.990	578.749	1.759
30	49	566.172	570.000	3.828
30	50	569.985	572.856	2.871
35	51	577.654	584.569	6.915
35	52	578.206	585.660	7.454
35	53	580.050	587.571	7.521
35	54	578.616	587.120	8.504
35	55	577.756	585.669	7.913
50	36	574.482	577.787	3.305
50	37	575.224	579.053	3.829
50	38	576.057	580.767	4.710
50	39	580.055	585.555	5.500
50	40	571.423	574.854	3.431
55	41	577.668	590.978	13.310
55	42	580.139	592.163	12.024
55	43	575.438	588.026	12.588
55	44	576.326	584.565	8.239
55	45	574.351	586.899	12.548
100	1	577.002	585.017	8.015
100	2	582.579	589.320	6.741
100	3	578.133	587.216	9.083
100	4	578.000	586.740	8.740
100	5	572.105	580.951	8.846
100	6	585.021	594.127	9.106
100	9	573.370	575.633	2.263
100	10	584.021	592.954	8.933
100	11	579.933	588.846	8.913
100	12	581.689	590.258	8.569
100	13	579.618	585.737	6.119
100	14	575.394	584.176	8.782
100	15	574.168	583.051	8.883
100	16	575.433	583.495	8.062
100	17	577.899	585.604	7.705
100	18	578.304	586.221	7.917
100	19	578.642	587.482	8.840
100	20	578.908	587.477	8.569
100	21	577.880	585.660	7.780
100	22	580.206	588.069	7.863
100	23	573.317	581.897	8.580
100	24	577.278	584.923	7.645
105	27	580.231	601.368	21.137
105	28	575.944	596.981	21.037
105	29	576.221	598.020	21.799
105	30	577.716	597.575	19.859
105	31	576.530	596.102	19.572
	Max	585.021	601.368	21.799
	Average	576.975	583.248	6.272
	Min	565.546	568.208	-3.648
	Std Dev	3.448	6.965	5.600



11.4 \_\_OscFreqNom5V

Test Site		
Tester		
Test Number		
Unit	kHz	kHz
Max Limit	615	615
Min Limit	475	475

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000	475.000
Min	573.254	574.826	576.357	575.294	568.208	570.000	584.569	574.854	584.565	575.633	596.102
Average	573.254	577.522	578.288	578.312	577.276	574.891	586.118	579.603	588.526	586.130	598.009
Max	573.254	580.357	581.200	580.319	582.400	580.165	587.571	585.555	592.163	594.127	601.368
UL	615.000	615.000	615.000	615.000	615.000	615.000	615.000	615.000	615.000	615.000	615.000

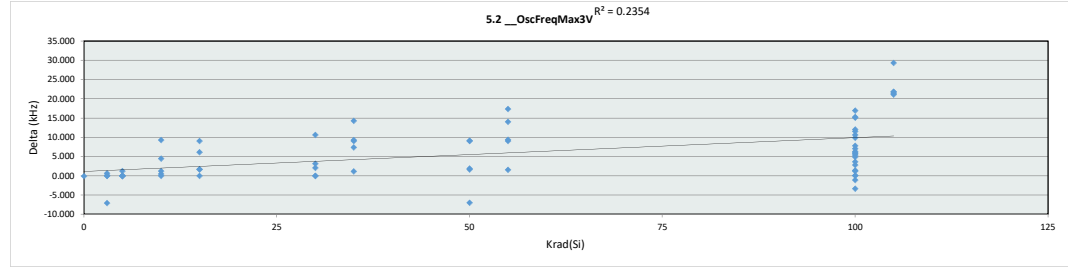


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5.2\_OscFreqMax3V

Test Site		
Tester		
Test Number		
Unit	kHz	kHz
Max Limit	1011	1011
Min Limit	689	689

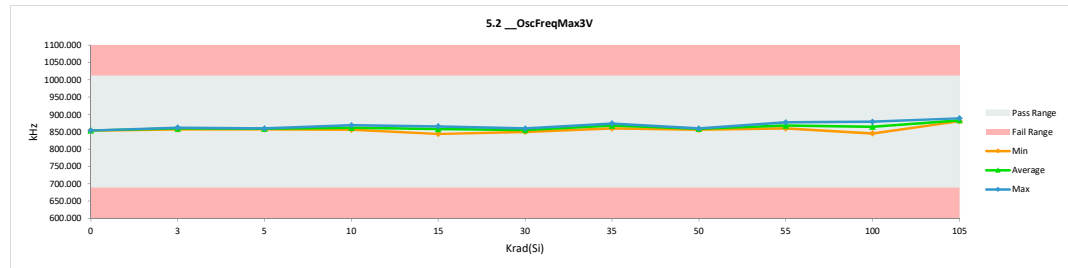
Krad(Si)	Serial #	PRE	POST	Delta
0	33	853.916	853.832	-0.084
3	66	861.917	861.858	-0.059
3	67	867.055	859.928	-7.127
3	68	859.579	859.602	0.023
3	69	859.579	859.588	0.009
3	70	856.062	856.683	0.621
5	71	857.642	857.520	-0.122
5	72	856.560	857.745	1.185
5	73	859.643	859.626	-0.017
5	74	859.601	859.574	-0.027
5	75	859.602	859.644	0.042
10	56	855.250	855.701	0.451
10	57	858.648	859.891	1.243
10	58	859.611	868.920	9.309
10	59	859.606	859.612	0.006
10	60	859.579	864.033	4.454
15	61	859.634	859.575	-0.059
15	62	858.006	859.597	1.591
15	63	841.836	843.569	1.733
15	64	859.607	865.707	6.100
15	65	850.567	859.624	9.057
30	46	850.090	850.029	-0.061
30	47	848.996	859.598	10.602
30	48	859.626	859.598	-0.028
30	49	847.817	850.941	3.124
30	50	851.990	854.021	2.031
35	51	858.492	859.607	1.115
35	52	859.602	868.627	9.025
35	53	859.601	873.872	14.271
35	54	859.670	868.961	9.291
35	55	861.537	868.925	7.388
50	36	850.492	859.579	9.087
50	37	850.571	859.620	9.049
50	38	858.031	859.620	1.589
50	39	866.659	859.643	-7.016
50	40	853.857	855.773	1.916
55	41	859.612	876.971	17.359
55	42	859.592	868.980	9.388
55	43	850.567	859.621	9.054
55	44	859.584	873.592	14.008
55	45	858.057	859.593	1.536
100	1	859.598	859.647	0.049
100	2	869.898	872.676	2.778
100	3	859.607	859.629	0.022
100	4	841.671	845.257	3.586
100	5	853.893	850.499	-3.394
100	6	859.596	874.825	15.229
100	9	855.739	862.032	6.293
100	10	862.038	878.954	16.916
100	11	859.643	871.685	12.042
100	12	867.214	872.595	5.381
100	13	859.589	867.370	7.781
100	14	858.242	859.635	1.393
100	15	858.478	859.662	1.184
100	16	850.458	861.980	11.522
100	17	861.859	866.734	4.875
100	18	859.639	866.632	6.993
100	19	850.504	865.575	15.071
100	20	859.601	869.492	9.891
100	21	861.544	867.519	5.975
100	22	859.610	870.238	10.628
100	23	854.374	860.069	5.695
100	24	860.694	859.565	-1.129
105	27	859.684	888.979	29.295
105	28	859.473	880.580	21.107
105	29	859.329	881.151	21.822
105	30	859.610	881.370	21.760
105	31	862.156	883.448	21.292
	Max	869.898	888.979	29.295
	Average	857.672	863.629	5.958
	Min	841.671	843.569	-7.127
	Std Dev	5.149	8.892	7.292



5.2\_OscFreqMax3V

Test Site		
Tester		
Test Number		
Max Limit	1011	kHz
Min Limit	689	kHz

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	689.000	689.000	689.000	689.000	689.000	689.000	689.000	689.000	689.000	689.000	689.000
Min	853.832	856.683	857.520	855.701	843.569	850.029	859.607	855.773	859.593	845.257	880.580
Average	853.832	859.532	858.822	861.631	857.614	854.837	867.998	858.847	867.751	864.649	883.106
Max	853.832	861.858	859.644	868.920	865.707	859.598	873.872	859.643	876.971	878.954	888.979
UL	1011.000	1011.000	1011.000	1011.000	1011.000	1011.000	1011.000	1011.000	1011.000	1011.000	1011.000



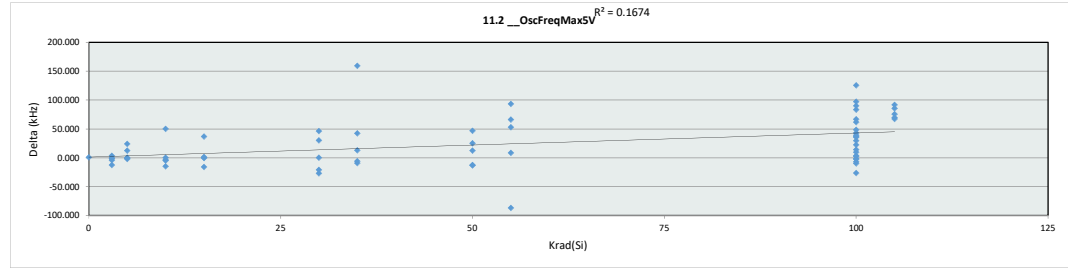


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11.2 \_\_OscFreqMax5V

Test Site		
Tester		
Test Number		
Unit	kHz	kHz
Max Limit	1425	1425
Min Limit	760	760

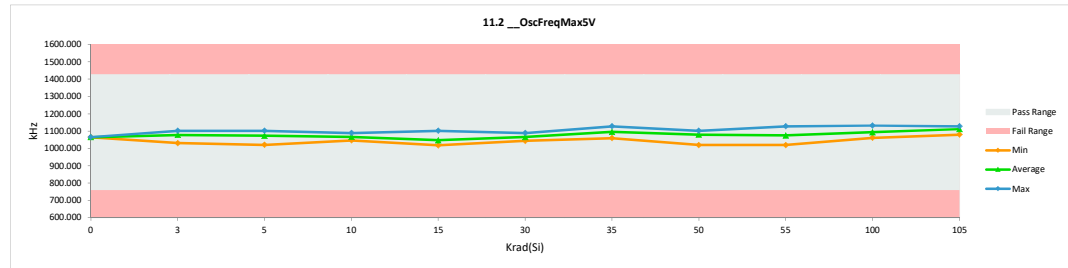
Krad(S)	Serial #	PRE	POST	Delta
0	33	1064.142	1064.940	0.798
3	66	1101.785	1089.242	-12.543
3	67	1071.117	1069.459	-1.658
3	68	1101.535	1097.608	-3.927
3	69	1101.873	1101.817	-0.056
3	70	1026.919	1030.520	3.601
5	71	1101.843	1101.905	0.062
5	72	1040.332	1039.319	-1.013
5	73	1077.763	1101.778	24.015
5	74	1089.271	1101.815	12.544
5	75	1022.763	1020.887	-1.876
10	56	1089.131	1089.327	0.196
10	57	1061.501	1057.828	-3.673
10	58	1051.298	1046.703	-4.595
10	59	1015.044	1064.928	49.884
10	60	1089.152	1074.380	-14.772
15	61	1036.000	1036.144	0.144
15	62	1033.288	1034.458	1.170
15	63	1018.101	1017.808	-0.293
15	64	1061.679	1046.000	-15.679
15	65	1064.817	1101.810	36.993
30	46	1070.555	1043.753	-26.802
30	47	1076.216	1055.584	-20.632
30	48	1034.475	1064.823	30.348
30	49	1030.433	1076.565	46.132
30	50	1089.218	1089.240	0.022
35	51	1101.625	1095.853	-5.772
35	52	1101.785	1114.782	12.997
35	53	1034.939	1077.023	42.084
35	54	968.533	1128.042	159.509
35	55	1068.776	1059.739	-9.037
50	36	1032.068	1019.517	-12.551
50	37	1089.196	1101.828	12.632
50	38	1089.180	1076.016	-13.164
50	39	1053.178	1100.011	46.833
50	40	1076.866	1101.803	24.937
55	41	1106.151	1019.506	-86.645
55	42	1034.829	1101.268	66.439
55	43	1056.110	1064.871	8.761
55	44	1008.972	1061.738	52.766
55	45	1034.319	1127.437	93.118
100	1	978.334	1104.015	125.681
100	2	1046.650	1085.886	39.236
100	3	1089.209	1082.441	-6.768
100	4	1062.563	1060.719	-1.844
100	5	1053.209	1101.900	48.691
100	6	1076.897	1091.067	14.170
100	9	1076.676	1080.334	3.658
100	10	1046.253	1129.498	83.245
100	11	1047.891	1114.877	66.986
100	12	1101.841	1099.791	-2.050
100	13	1023.172	1113.057	89.885
100	14	1084.898	1075.233	-9.665
100	15	978.285	1075.610	97.325
100	16	1033.517	1069.198	35.681
100	17	1101.798	1131.213	29.415
100	18	1101.860	1075.612	-26.248
100	19	1089.255	1131.950	42.695
100	20	1053.162	1090.103	36.941
100	21	1067.069	1076.833	9.764
100	22	1041.737	1103.267	61.530
100	23	1073.824	1076.199	2.375
100	24	1064.958	1087.599	22.641
105	27	1036.216	1128.069	91.853
105	28	1041.431	1111.088	69.657
105	29	1012.255	1079.634	67.379
105	30	1038.884	1114.662	75.778
105	31	1038.841	1124.456	85.615
	Max	1106.151	1131.950	159.509
	Average	1057.904	1082.094	24.190
	Min	968.533	1017.808	-86.645
	Std Dev	32.491	29.720	41.303



11.2 \_\_OscFreqMax5V

Test Site		
Tester		
Test Number		
Max Limit	1425	kHz
Min Limit	760	kHz

Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL	760.000	760.000	760.000	760.000	760.000	760.000	760.000	760.000	760.000	760.000	760.000
Min	1064.940	1030.520	1020.887	1046.703	1017.808	1043.753	1059.739	1019.517	1019.506	1060.719	1079.634
Average	1064.940	1077.729	1073.141	1066.633	1047.244	1065.993	1095.088	1079.835	1074.964	1093.473	1111.582
Max	1064.940	1101.817	1101.905	1089.327	1101.810	1089.240	1128.042	1101.828	1127.437	1131.950	1128.069
UL	1425.000	1425.000	1425.000	1425.000	1425.000	1425.000	1425.000	1425.000	1425.000	1425.000	1425.000

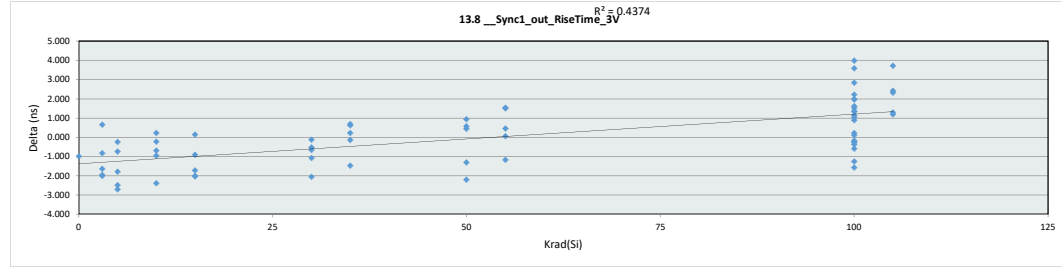


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13.8\_Sync1\_out\_RiseTime\_3V

Test Site		
Tester		
Test Number		
Unit	ns	ns
Max Limit	180	180
Min Limit		

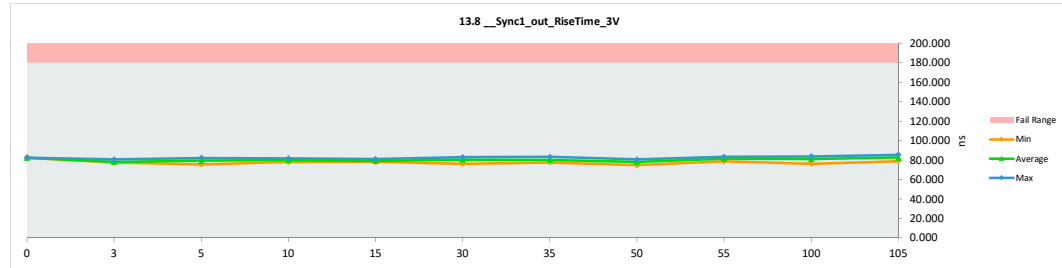
Krad(Si)	Serial #	PRE	POST	Delta
0	33	83.385	82.391	-0.994
3	66	77.515	78.173	0.658
3	67	79.574	77.574	-2.000
3	68	79.002	77.362	-1.640
3	69	82.638	80.681	-1.957
3	70	78.405	77.585	-0.820
5	71	80.895	80.146	-0.749
5	72	81.973	79.271	-2.702
5	73	81.850	79.353	-2.497
5	74	83.971	82.173	-1.798
5	75	75.745	75.504	-0.241
10	56	81.144	80.445	-0.699
10	57	79.581	79.803	0.222
10	58	80.970	80.007	-0.963
10	59	80.585	78.196	-2.389
10	60	81.818	81.590	-0.228
15	61	78.913	79.048	0.135
15	62	81.312	79.286	-2.026
15	63	80.095	78.073	-2.022
15	64	79.583	78.669	-0.914
15	65	82.691	80.968	-1.723
30	46	82.120	81.591	-0.529
30	47	82.775	80.720	-2.055
30	48	76.926	76.268	-0.658
30	49	82.223	81.154	-1.069
30	50	83.080	82.944	-0.136
35	51	83.436	83.293	-0.143
35	52	80.853	79.385	-1.468
35	53	77.234	77.451	0.217
35	54	81.894	82.507	0.613
35	55	77.210	77.893	0.683
50	36	78.015	78.579	0.564
50	37	79.628	78.321	-1.307
50	38	79.781	80.718	0.937
50	39	77.766	78.210	0.444
50	40	76.933	74.719	-2.214
55	41	81.402	82.895	1.493
55	42	81.605	81.662	0.057
55	43	79.116	80.650	1.534
55	44	84.493	83.323	-1.170
55	45	78.401	78.853	0.452
100	1	79.428	80.759	1.331
100	2	77.172	77.387	0.215
100	3	81.876	83.845	1.969
100	4	79.647	83.232	3.585
100	5	82.605	81.025	-1.580
100	6	80.482	82.007	1.525
100	9	78.759	78.584	-0.175
100	10	80.102	81.143	1.041
100	11	79.713	80.593	0.880
100	12	82.469	82.188	-0.281
100	13	81.643	81.053	-0.590
100	14	81.463	81.092	-0.371
100	15	80.343	81.479	1.136
100	16	79.837	83.808	3.971
100	17	79.520	81.140	1.620
100	18	80.073	82.281	2.208
100	19	80.501	83.325	2.824
100	20	77.408	76.151	-1.257
100	21	79.871	81.861	1.990
100	22	78.778	80.124	1.346
100	23	80.808	80.906	0.098
100	24	80.890	80.657	-0.233
105	27	76.479	78.790	2.311
105	28	81.686	85.401	3.715
105	29	80.608	83.024	2.416
105	30	81.974	83.263	1.289
105	31	81.781	82.967	1.186
	Max	84.493	85.401	3.971
	Average	80.330	80.375	0.045
	Min	75.745	74.719	-2.702
	Std Dev	1.963	2.238	1.575



13.8\_Sync1\_out\_RiseTime\_3V

Test Site		
Tester		
Test Number		
Max Limit	180	ns
Min Limit		ns

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	82.391	77.362	75.504	78.196	78.073	76.268	77.451	74.719	78.853	76.151	78.790
Average	82.391	78.275	79.289	80.008	79.209	80.535	80.106	78.109	81.477	81.120	82.689
Max	82.391	80.681	82.173	81.590	80.968	82.944	83.293	80.718	83.323	83.845	85.401
UL	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000

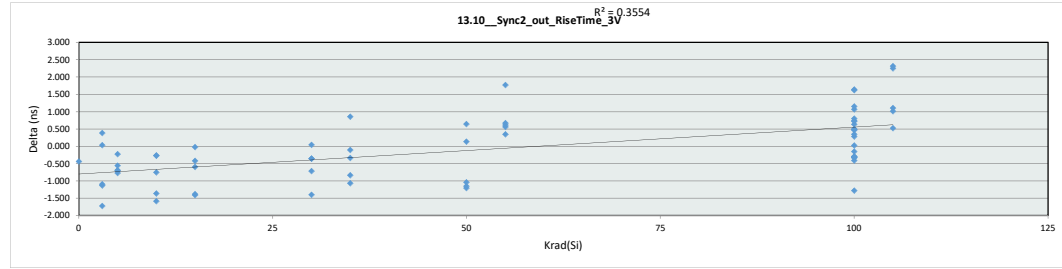


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13.10\_Sync2\_out\_RiseTime\_3V

Test Site		
Tester		
Test Number		
Unit	ns	ns
Max Limit	180	180
Min Limit		

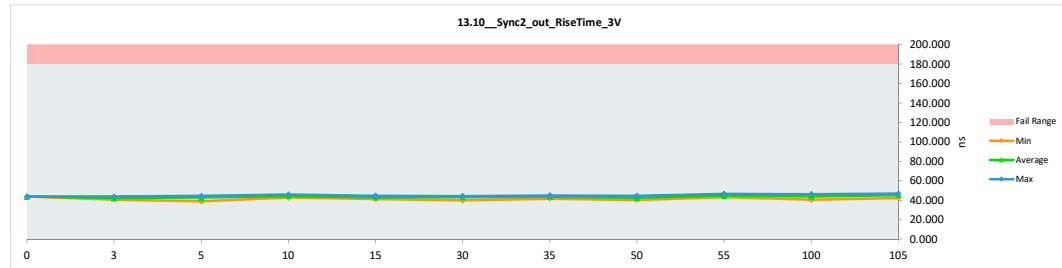
Krad(Si)	Serial #	PRE	POST	Delta
0	33	44.330	43.886	-0.444
3	66	41.952	42.333	0.381
3	67	41.889	40.790	-1.099
3	68	43.752	42.026	-1.726
3	69	43.854	43.885	0.031
3	70	42.709	41.577	-1.132
5	71	45.178	44.408	-0.770
5	72	44.053	43.492	-0.561
5	73	43.097	42.867	-0.230
5	74	45.213	44.526	-0.687
5	75	39.552	38.843	-0.709
10	56	47.220	45.856	-1.364
10	57	45.619	45.358	-0.261
10	58	44.406	43.650	-0.756
10	59	43.180	42.907	-0.273
10	60	45.976	44.390	-1.586
15	61	41.777	41.181	-0.596
15	62	45.397	44.011	-1.386
15	63	41.747	41.726	-0.021
15	64	43.983	43.563	-0.420
15	65	45.968	44.555	-1.413
30	46	44.507	44.146	-0.361
30	47	45.096	44.383	-0.713
30	48	41.265	39.862	-1.403
30	49	44.230	43.873	-0.357
30	50	43.755	43.793	0.038
35	51	45.137	44.069	-1.068
35	52	45.086	44.251	-0.835
35	53	43.040	42.702	-0.338
35	54	44.179	45.031	0.852
35	55	41.846	41.735	-0.111
50	36	43.106	41.896	-1.210
50	37	44.613	44.747	0.134
50	38	44.572	43.529	-1.043
50	39	43.294	42.144	-1.150
50	40	39.746	40.385	0.639
55	41	44.557	45.225	0.668
55	42	42.923	43.479	0.556
55	43	43.759	45.522	1.763
55	44	46.289	46.635	0.346
55	45	42.747	43.359	0.612
100	1	43.936	45.086	1.150
100	2	43.761	43.467	-0.294
100	3	45.290	44.963	-0.327
100	4	44.274	43.966	-0.308
100	5	43.646	43.993	0.347
100	6	46.563	46.237	-0.326
100	9	41.861	42.590	0.729
100	10	42.953	43.748	0.795
100	11	42.777	44.412	1.635
100	12	44.456	44.735	0.279
100	13	44.442	44.908	0.466
100	14	44.374	45.101	0.727
100	15	42.047	42.072	0.025
100	16	44.669	43.392	-1.277
100	17	44.168	43.752	-0.416
100	18	43.488	43.979	0.491
100	19	44.034	45.657	1.623
100	20	39.918	40.553	0.635
100	21	44.059	45.123	1.064
100	22	44.277	44.122	-0.155
100	23	42.066	41.767	-0.299
100	24	43.860	44.353	0.493
105	27	41.774	42.293	0.519
105	28	44.945	45.950	1.005
105	29	43.949	46.258	2.309
105	30	45.669	46.772	1.103
105	31	42.958	45.201	2.243
	Max	47.220	46.772	2.309
	Average	43.747	43.692	-0.055
	Min	39.552	38.843	-1.726
	Std Dev	1.544	1.649	0.923



13.10\_Sync2\_out\_RiseTime

Test Site		
Tester		
Test Number		
Max Limit	180	ns
Min Limit		ns

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	43.886	40.790	38.843	42.907	41.181	39.862	41.735	40.385	43.359	40.553	42.293
Average	43.886	42.122	42.827	44.432	43.007	43.211	43.558	42.540	44.844	43.999	45.295
Max	43.886	43.885	44.526	45.856	44.555	44.383	45.031	44.747	46.635	46.237	46.772
UL	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000

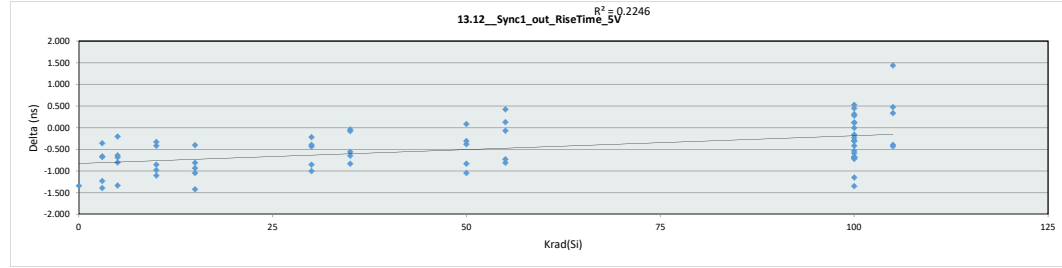


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13.12\_Sync1\_out\_RiseTime\_5V

Test Site	
Tester	
Test Number	
Unit	ns
Max Limit	180
Min Limit	180

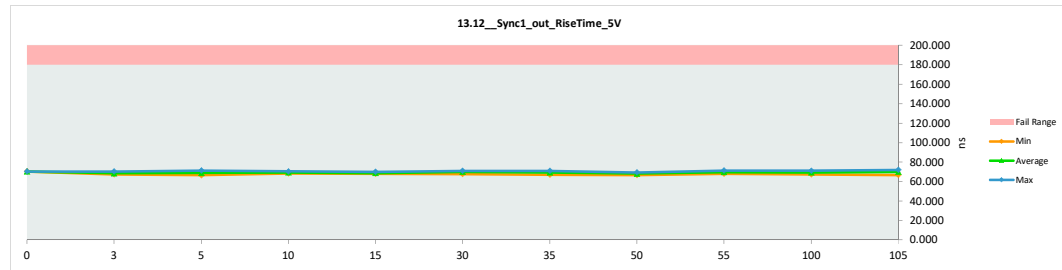
Krad(Si)	Serial #	PRE	POST	Delta
0	33	71.632	70.289	-1.343
3	66	68.511	67.276	-1.235
3	67	69.765	68.371	-1.394
3	68	68.491	67.813	-0.678
3	69	70.778	70.415	-0.363
3	70	69.155	68.490	-0.665
5	71	69.193	68.548	-0.645
5	72	70.461	69.655	-0.806
5	73	68.873	68.184	-0.689
5	74	71.415	71.211	-0.204
5	75	67.861	66.522	-1.339
10	56	70.527	70.195	-0.332
10	57	69.789	68.680	-1.109
10	58	69.876	68.893	-0.983
10	59	68.826	68.409	-0.417
10	60	71.310	70.455	-0.855
15	61	68.959	68.557	-0.402
15	62	69.669	68.242	-1.427
15	63	69.008	68.072	-0.936
15	64	69.820	69.010	-0.810
15	65	71.000	69.954	-1.046
30	46	71.324	70.892	-0.432
30	47	70.078	69.681	-0.397
30	48	67.817	67.597	-0.220
30	49	71.787	70.935	-0.852
30	50	71.785	70.780	-1.005
35	51	71.732	70.898	-0.834
35	52	70.592	70.033	-0.559
35	53	67.187	67.141	-0.046
35	54	70.182	70.102	-0.080
35	55	68.627	67.979	-0.648
50	36	68.109	67.272	-0.837
50	37	69.612	69.300	-0.312
50	38	69.800	68.755	-1.045
50	39	68.014	68.099	0.085
50	40	67.101	66.721	-0.380
55	41	71.192	71.320	0.128
55	42	69.096	69.521	0.425
55	43	69.621	68.813	-0.808
55	44	71.634	70.906	-0.728
55	45	68.106	68.033	-0.073
100	1	69.414	68.821	-0.593
100	2	67.661	67.431	-0.230
100	3	71.867	71.192	-0.675
100	4	69.267	69.376	0.109
100	5	71.215	70.066	-1.149
100	6	70.637	70.342	-0.295
100	9	68.787	68.063	-0.724
100	10	70.413	69.065	-1.348
100	11	68.680	67.978	-0.702
100	12	69.972	70.497	0.525
100	13	69.648	69.333	-0.315
100	14	70.186	70.495	0.309
100	15	69.414	68.993	-0.421
100	16	70.185	69.647	-0.538
100	17	69.193	69.465	0.272
100	18	70.335	69.655	-0.680
100	19	70.094	70.086	-0.008
100	20	67.109	67.551	0.442
100	21	69.927	69.232	-0.695
100	22	68.998	69.118	0.120
100	23	70.179	70.016	-0.163
100	24	69.476	68.790	-0.686
105	27	67.165	66.768	-0.397
105	28	70.500	71.931	1.431
105	29	70.049	70.383	0.334
105	30	70.386	70.860	0.474
105	31	70.374	69.941	-0.433
	Max	71.867	71.931	1.431
	Average	69.698	69.222	-0.475
	Min	67.101	66.522	-1.427
	Std Dev	1.241	1.276	0.544



13.12\_Sync1\_out\_RiseTime

Test Site	
Tester	
Test Number	
Max Limit	180
Min Limit	ns

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	70.289	67.276	66.522	68.409	68.072	67.597	67.141	66.721	68.033	67.431	66.768
Average	70.289	68.473	68.824	69.326	68.767	69.977	69.231	68.029	69.719	69.328	69.977
Max	70.289	70.415	71.211	70.455	69.954	70.935	70.898	69.300	71.320	71.192	71.931
UL	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000

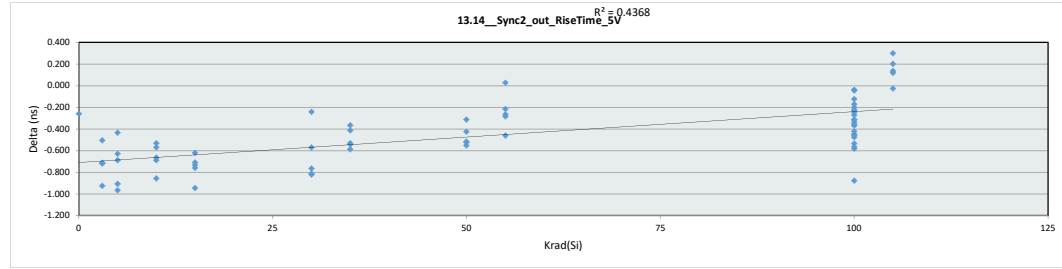


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13.14\_Sync2\_out\_RiseTime\_5V

Test Site		
Tester		
Test Number		
Unit	ns	ns
Max Limit	180	180
Min Limit		

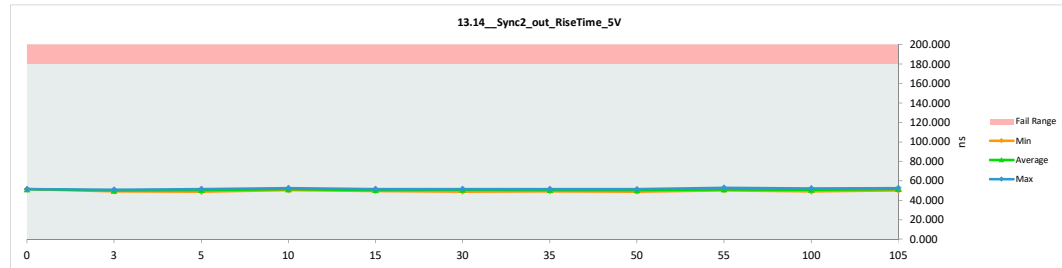
Krad(Si)	Serial #	PRE	POST	Delta
0	33	51.680	51.418	-0.262
3	66	49.875	49.369	-0.506
3	67	50.196	49.481	-0.715
3	68	50.737	49.811	-0.926
3	69	51.714	51.001	-0.713
3	70	50.816	50.098	-0.718
5	71	52.277	51.646	-0.631
5	72	52.075	51.168	-0.907
5	73	51.163	50.474	-0.689
5	74	52.520	51.554	-0.966
5	75	49.198	48.764	-0.434
10	56	53.335	52.477	-0.858
10	57	51.905	51.373	-0.532
10	58	51.728	51.062	-0.666
10	59	51.119	50.430	-0.689
10	60	52.134	51.562	-0.572
15	61	50.293	49.584	-0.709
15	62	52.143	51.382	-0.761
15	63	50.520	49.899	-0.621
15	64	51.520	50.786	-0.734
15	65	52.619	51.673	-0.946
30	46	52.157	51.586	-0.571
30	47	52.123	51.300	-0.823
30	48	49.787	49.020	-0.767
30	49	51.502	51.258	-0.244
30	50	51.688	50.876	-0.812
35	51	51.478	50.945	-0.533
35	52	52.090	51.500	-0.590
35	53	50.243	49.877	-0.366
35	54	51.593	51.178	-0.415
35	55	49.938	49.395	-0.543
50	36	50.921	50.403	-0.518
50	37	51.824	51.399	-0.425
50	38	51.640	51.088	-0.552
50	39	50.854	50.329	-0.525
50	40	49.188	48.875	-0.313
55	41	51.951	51.666	-0.285
55	42	50.540	50.324	-0.216
55	43	51.632	51.365	-0.267
55	44	53.246	52.784	-0.462
55	45	50.308	50.334	0.026
100	1	51.603	51.020	-0.583
100	2	50.526	50.075	-0.451
100	3	51.965	51.608	-0.357
100	4	51.429	51.158	-0.271
100	5	51.384	50.909	-0.475
100	6	52.882	52.316	-0.566
100	9	50.635	50.264	-0.371
100	10	50.841	50.639	-0.202
100	11	50.738	50.507	-0.231
100	12	51.642	51.324	-0.318
100	13	51.265	51.039	-0.226
100	14	52.216	51.792	-0.424
100	15	50.582	50.269	-0.313
100	16	51.399	50.864	-0.535
100	17	51.049	50.709	-0.340
100	18	50.852	50.394	-0.458
100	19	51.486	51.442	-0.044
100	20	49.297	49.125	-0.172
100	21	52.030	51.153	-0.877
100	22	51.128	51.090	-0.038
100	23	50.428	50.178	-0.250
100	24	51.401	51.277	-0.124
105	27	49.901	50.101	0.200
105	28	51.813	52.112	0.299
105	29	51.649	51.785	0.136
105	30	52.450	52.568	0.118
105	31	51.127	51.101	-0.026
	Max	53.335	52.784	0.299
	Average	51.294	50.843	-0.451
	Min	49.188	48.764	-0.966
	Std Dev	0.908	0.885	0.288



13.14\_Sync2\_out\_RiseTime

Test Site		
Tester		
Test Number		
Max Limit	180	ns
Min Limit		ns

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	51.418	49.369	48.764	50.430	49.584	49.020	49.395	48.875	50.324	49.125	50.101
Average	51.418	49.952	50.721	51.381	50.665	50.808	50.579	50.419	51.295	50.871	51.533
Max	51.418	51.001	51.646	52.477	51.673	51.586	51.500	51.399	52.784	52.316	52.568
UL	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000	180.000



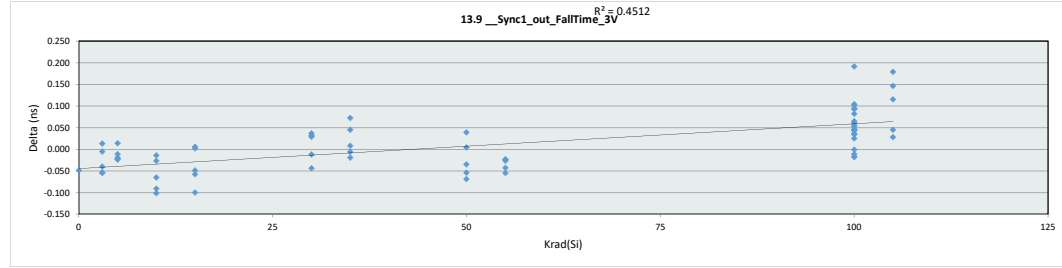
# HDR TID Report

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13.9\_Sync1\_out\_FallTime\_3V

Test Site		
Tester		
Test Number		
Unit	ns	ns
Max Limit	21	21
Min Limit		

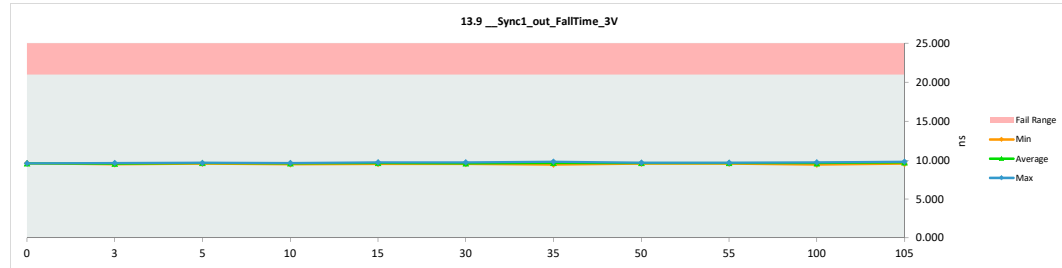
Krad(Si)	Serial #	PRE	POST	Delta
0	33	9.631	9.582	-0.049
3	66	9.500	9.445	-0.055
3	67	9.619	9.566	-0.053
3	68	9.455	9.468	0.013
3	69	9.638	9.598	-0.040
3	70	9.592	9.587	-0.005
5	71	9.594	9.583	-0.011
5	72	9.652	9.633	-0.019
5	73	9.602	9.616	0.014
5	74	9.658	9.636	-0.022
5	75	9.559	9.535	-0.024
10	56	9.707	9.616	-0.091
10	57	9.516	9.451	-0.065
10	58	9.599	9.572	-0.027
10	59	9.561	9.547	-0.014
10	60	9.717	9.616	-0.101
15	61	9.575	9.475	-0.100
15	62	9.749	9.700	-0.049
15	63	9.593	9.599	0.006
15	64	9.634	9.636	0.002
15	65	9.665	9.607	-0.058
30	46	9.666	9.654	-0.012
30	47	9.618	9.574	-0.044
30	48	9.444	9.481	0.037
30	49	9.500	9.529	0.029
30	50	9.652	9.684	0.032
35	51	9.771	9.779	0.008
35	52	9.502	9.547	0.045
35	53	9.334	9.406	0.072
35	54	9.695	9.689	-0.006
35	55	9.639	9.620	-0.019
50	36	9.631	9.596	-0.035
50	37	9.632	9.636	0.004
50	38	9.736	9.667	-0.069
50	39	9.571	9.517	-0.054
50	40	9.539	9.578	0.039
55	41	9.622	9.598	-0.024
55	42	9.685	9.662	-0.023
55	43	9.698	9.655	-0.043
55	44	9.683	9.628	-0.055
55	45	9.574	9.547	-0.027
100	1	9.617	9.600	-0.017
100	2	9.365	9.410	0.045
100	3	9.422	9.526	0.104
100	4	9.447	9.638	0.191
100	5	9.443	9.537	0.094
100	6	9.610	9.666	0.056
100	9	9.463	9.445	-0.018
100	10	9.636	9.670	0.034
100	11	9.477	9.476	-0.001
100	12	9.553	9.635	0.082
100	13	9.597	9.586	-0.011
100	14	9.589	9.635	0.046
100	15	9.502	9.563	0.061
100	16	9.503	9.568	0.065
100	17	9.599	9.701	0.102
100	18	9.602	9.627	0.025
100	19	9.646	9.689	0.043
100	20	9.526	9.562	0.036
100	21	9.581	9.627	0.046
100	22	9.621	9.673	0.052
100	23	9.498	9.591	0.093
100	24	9.606	9.700	0.094
105	27	9.487	9.515	0.028
105	28	9.710	9.755	0.045
105	29	9.563	9.742	0.179
105	30	9.631	9.777	0.146
105	31	9.610	9.725	0.115
	Max	9.771	9.779	0.191
	Average	9.587	9.599	0.012
	Min	9.334	9.406	-0.101
	Std Dev	0.090	0.084	0.062



13.9\_Sync1\_out\_FallTime\_3

Test Site		
Tester		
Test Number		
Max Limit	21	ns
Min Limit		ns

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	9.582	9.445	9.535	9.451	9.475	9.481	9.406	9.517	9.547	9.410	9.515
Average	9.582	9.533	9.601	9.560	9.603	9.584	9.608	9.599	9.618	9.597	9.703
Max	9.582	9.598	9.636	9.616	9.700	9.684	9.779	9.667	9.662	9.701	9.777
UL	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000

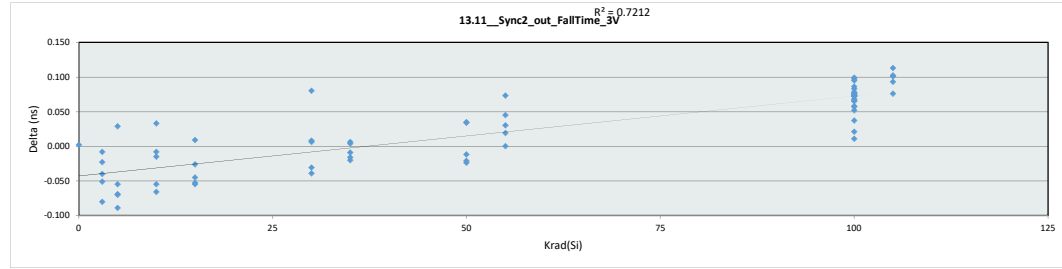


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13.11\_Sync2\_out\_FallTime\_3V

Test Site		
Tester		
Test Number		
Unit	ns	ns
Max Limit	21	21
Min Limit		

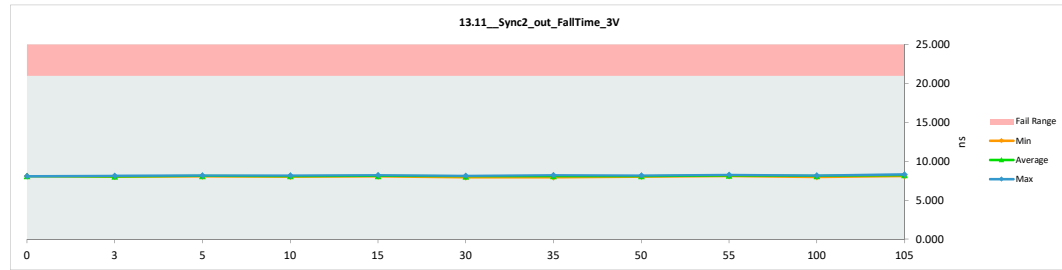
Krad(Si)	Serial #	PRE	POST	Delta
0	33	8.087	8.089	0.002
3	66	8.076	8.025	-0.051
3	67	8.086	8.006	-0.080
3	68	8.086	8.046	-0.040
3	69	8.137	8.129	-0.008
3	70	8.102	8.079	-0.023
5	71	8.132	8.062	-0.070
5	72	8.218	8.129	-0.089
5	73	8.161	8.092	-0.069
5	74	8.216	8.161	-0.055
5	75	8.097	8.126	0.029
10	56	8.203	8.188	-0.015
10	57	8.054	7.999	-0.055
10	58	8.178	8.112	-0.066
10	59	8.011	8.044	0.033
10	60	8.180	8.172	-0.008
15	61	8.114	8.059	-0.055
15	62	8.234	8.208	-0.026
15	63	8.125	8.080	-0.045
15	64	8.103	8.112	0.009
15	65	8.182	8.129	-0.053
30	46	8.152	8.121	-0.031
30	47	8.110	8.071	-0.039
30	48	7.921	7.927	0.006
30	49	8.071	8.151	0.080
30	50	8.101	8.109	0.008
35	51	8.130	8.121	-0.009
35	52	8.080	8.060	-0.020
35	53	7.924	7.930	0.006
35	54	8.201	8.205	0.004
35	55	8.182	8.166	-0.016
50	36	8.101	8.089	-0.012
50	37	8.086	8.120	0.034
50	38	8.184	8.163	-0.021
50	39	8.030	8.065	0.035
50	40	8.026	8.002	-0.024
55	41	8.134	8.134	0.000
55	42	8.161	8.191	0.030
55	43	8.193	8.212	0.019
55	44	8.213	8.258	0.045
55	45	8.040	8.113	0.073
100	1	8.067	8.143	0.076
100	2	7.974	8.040	0.066
100	3	8.027	8.095	0.068
100	4	8.042	8.141	0.099
100	5	8.045	8.082	0.037
100	6	8.170	8.181	0.011
100	9	7.993	8.014	0.021
100	10	8.054	8.112	0.058
100	11	8.039	8.114	0.075
100	12	8.060	8.155	0.095
100	13	8.095	8.168	0.073
100	14	8.071	8.143	0.072
100	15	8.010	8.093	0.083
100	16	8.001	8.098	0.097
100	17	8.115	8.167	0.052
100	18	8.004	8.081	0.077
100	19	8.105	8.178	0.073
100	20	7.978	8.056	0.078
100	21	8.083	8.169	0.086
100	22	8.046	8.111	0.065
100	23	7.906	7.978	0.072
100	24	8.109	8.166	0.057
105	27	7.983	8.084	0.101
105	28	8.226	8.302	0.076
105	29	8.076	8.169	0.093
105	30	8.129	8.242	0.113
105	31	8.213	8.315	0.102
	Max	8.234	8.315	0.113
	Average	8.095	8.115	0.021
	Min	7.906	7.927	-0.089
	Std Dev	0.078	0.075	0.055



13.11\_Sync2\_out\_FallTime\_3V

Test Site		
Tester		
Test Number		
Max Limit	21	ns
Min Limit		ns

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	8.089	8.006	8.062	7.999	8.059	7.927	7.930	8.002	8.113	7.978	8.084
Average	8.089	8.057	8.114	8.103	8.118	8.076	8.096	8.088	8.182	8.113	8.222
Max	8.089	8.129	8.161	8.188	8.208	8.151	8.205	8.163	8.258	8.181	8.315
UL	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000

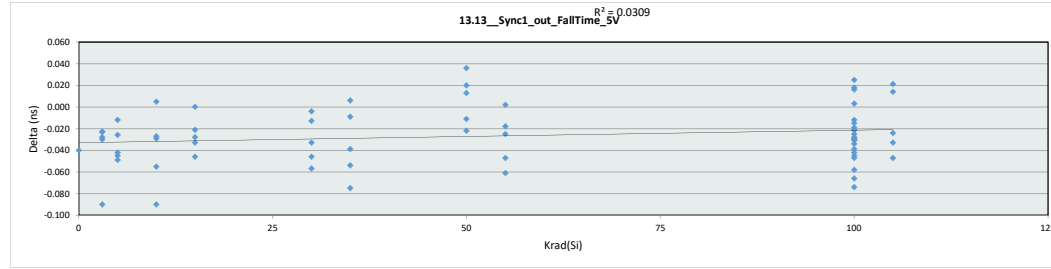


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13.13\_Sync1\_out\_FallTime\_5V

Test Site		
Tester		
Test Number		
Unit	ns	ns
Max Limit	21	21
Min Limit		

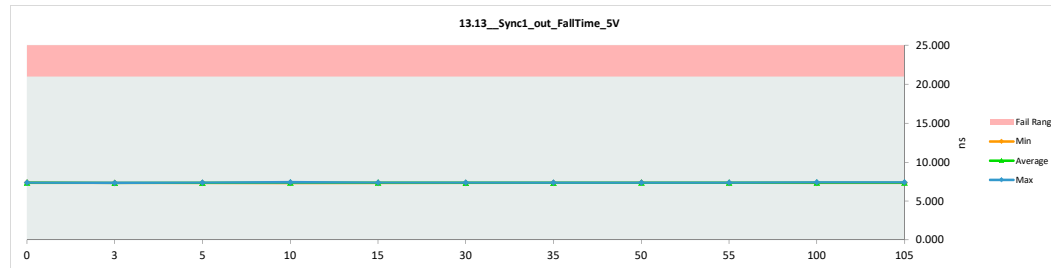
Krad(Si)	Serial #	PRE	POST	Delta
0	33	7.388	7.348	-0.040
3	66	7.347	7.319	-0.028
3	67	7.392	7.302	-0.090
3	68	7.338	7.315	-0.023
3	69	7.361	7.331	-0.030
3	70	7.341	7.318	-0.023
5	71	7.380	7.338	-0.042
5	72	7.343	7.331	-0.012
5	73	7.366	7.340	-0.026
5	74	7.374	7.329	-0.045
5	75	7.380	7.331	-0.049
10	56	7.403	7.408	0.005
10	57	7.364	7.309	-0.055
10	58	7.367	7.338	-0.029
10	59	7.373	7.346	-0.027
10	60	7.388	7.298	-0.090
15	61	7.368	7.322	-0.046
15	62	7.379	7.358	-0.021
15	63	7.347	7.347	0.000
15	64	7.380	7.347	-0.033
15	65	7.373	7.345	-0.028
30	46	7.374	7.370	-0.004
30	47	7.373	7.316	-0.057
30	48	7.323	7.310	-0.013
30	49	7.354	7.321	-0.033
30	50	7.390	7.344	-0.046
35	51	7.368	7.374	0.006
35	52	7.336	7.327	-0.009
35	53	7.343	7.304	-0.039
35	54	7.395	7.341	-0.054
35	55	7.400	7.325	-0.075
50	36	7.373	7.362	-0.011
50	37	7.336	7.356	0.020
50	38	7.386	7.364	-0.022
50	39	7.328	7.341	0.013
50	40	7.314	7.350	0.036
55	41	7.407	7.360	-0.047
55	42	7.364	7.366	0.002
55	43	7.421	7.360	-0.061
55	44	7.375	7.350	-0.025
55	45	7.346	7.328	-0.018
100	1	7.380	7.351	-0.029
100	2	7.395	7.329	-0.066
100	3	7.356	7.337	-0.019
100	4	7.365	7.340	-0.025
100	5	7.367	7.320	-0.047
100	6	7.377	7.346	-0.031
100	9	7.348	7.309	-0.039
100	10	7.337	7.353	0.016
100	11	7.359	7.344	-0.015
100	12	7.357	7.323	-0.034
100	13	7.375	7.330	-0.045
100	14	7.373	7.352	-0.021
100	15	7.354	7.372	0.018
100	16	7.343	7.346	0.003
100	17	7.395	7.383	-0.012
100	18	7.358	7.337	-0.021
100	19	7.413	7.339	-0.074
100	20	7.369	7.339	-0.030
100	21	7.380	7.322	-0.058
100	22	7.387	7.359	-0.028
100	23	7.408	7.366	-0.042
100	24	7.358	7.383	0.025
105	27	7.342	7.318	-0.024
105	28	7.371	7.385	0.014
105	29	7.375	7.328	-0.047
105	30	7.386	7.353	-0.033
105	31	7.365	7.386	0.021
Max	7.421	7.408	0.036	
Average	7.368	7.342	-0.027	
Min	7.314	7.298	-0.090	
Std Dev	0.022	0.022	0.027	



13.13\_Sync1\_out\_FallTime\_5V

Test Site		
Tester		
Test Number		
Max Limit	21	ns
Min Limit		ns

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	7.348	7.302	7.329	7.298	7.322	7.310	7.304	7.341	7.328	7.309	7.318
Average	7.348	7.317	7.334	7.340	7.344	7.332	7.334	7.355	7.353	7.345	7.354
Max	7.348	7.331	7.340	7.408	7.358	7.370	7.374	7.364	7.366	7.383	7.386
UL	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000



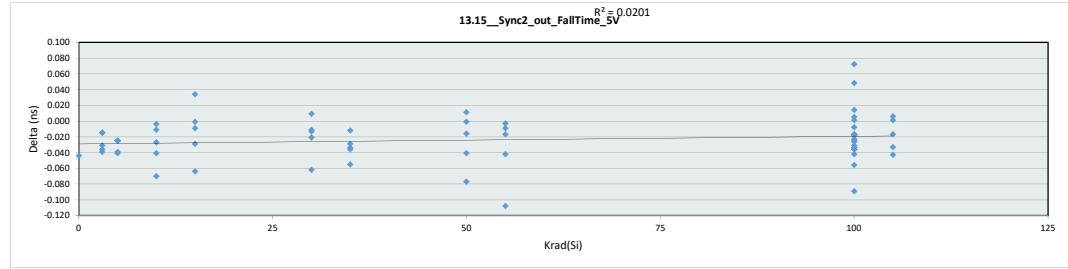


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13.15\_Sync2\_out\_FallTime\_5V

Test Site		
Tester		
Test Number		
Unit	ns	ns
Max Limit	21	21
Min Limit		

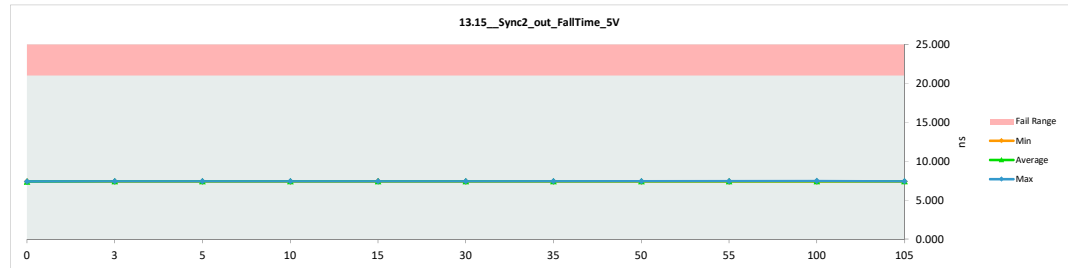
Krad(Si)	Serial #	PRE	POST	Delta
0	33	7.449	7.405	-0.044
3	66	7.451	7.415	-0.036
3	67	7.472	7.441	-0.031
3	68	7.426	7.411	-0.015
3	69	7.463	7.424	-0.039
3	70	7.440	7.425	-0.015
5	71	7.455	7.414	-0.041
5	72	7.463	7.438	-0.025
5	73	7.437	7.412	-0.025
5	74	7.453	7.428	-0.025
5	75	7.443	7.404	-0.039
10	56	7.483	7.456	-0.027
10	57	7.449	7.408	-0.041
10	58	7.438	7.434	-0.004
10	59	7.430	7.419	-0.011
10	60	7.475	7.405	-0.070
15	61	7.434	7.433	-0.001
15	62	7.464	7.435	-0.029
15	63	7.393	7.427	0.034
15	64	7.451	7.442	-0.009
15	65	7.489	7.425	-0.064
30	46	7.427	7.436	0.009
30	47	7.451	7.430	-0.021
30	48	7.424	7.413	-0.011
30	49	7.438	7.425	-0.013
30	50	7.479	7.417	-0.062
35	51	7.462	7.426	-0.036
35	52	7.451	7.417	-0.034
35	53	7.426	7.397	-0.029
35	54	7.472	7.460	-0.012
35	55	7.467	7.412	-0.055
50	36	7.457	7.456	-0.001
50	37	7.434	7.445	0.011
50	38	7.480	7.403	-0.077
50	39	7.420	7.404	-0.016
50	40	7.437	7.396	-0.041
55	41	7.464	7.447	-0.017
55	42	7.436	7.433	-0.003
55	43	7.525	7.417	-0.108
55	44	7.473	7.431	-0.042
55	45	7.440	7.431	-0.009
100	1	7.443	7.409	-0.034
100	2	7.431	7.408	-0.023
100	3	7.436	7.437	0.001
100	4	7.442	7.424	-0.018
100	5	7.473	7.417	-0.056
100	6	7.451	7.434	-0.017
100	9	7.420	7.434	0.014
100	10	7.524	7.435	-0.089
100	11	7.453	7.417	-0.036
100	12	7.448	7.430	-0.018
100	13	7.449	7.415	-0.034
100	14	7.421	7.426	0.005
100	15	7.437	7.406	-0.031
100	16	7.440	7.423	-0.017
100	17	7.433	7.481	0.048
100	18	7.443	7.419	-0.024
100	19	7.452	7.444	-0.008
100	20	7.439	7.413	-0.026
100	21	7.449	7.415	-0.034
100	22	7.448	7.406	-0.042
100	23	7.380	7.452	0.072
100	24	7.457	7.421	-0.036
105	27	7.430	7.431	0.001
105	28	7.462	7.419	-0.043
105	29	7.445	7.451	0.006
105	30	7.436	7.403	-0.033
105	31	7.457	7.440	-0.017
	Max	7.525	7.481	0.072
	Average	7.449	7.425	-0.024
	Min	7.380	7.396	-0.108
	Std Dev	0.023	0.017	0.028



13.15\_Sync2\_out\_FallTime\_5V

Test Site		
Tester		
Test Number		
Max Limit	21	ns
Min Limit		ns

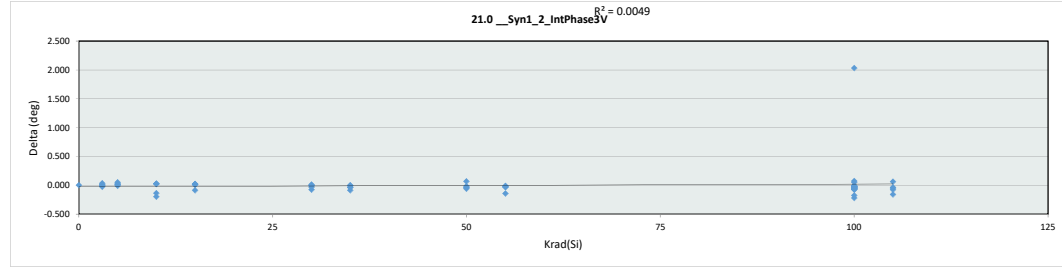
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	7.405	7.411	7.404	7.405	7.425	7.413	7.397	7.396	7.417	7.406	7.403
Average	7.405	7.423	7.419	7.424	7.432	7.424	7.422	7.421	7.432	7.426	7.429
Max	7.405	7.441	7.438	7.456	7.442	7.436	7.460	7.456	7.447	7.481	7.451
UL	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000	21.000



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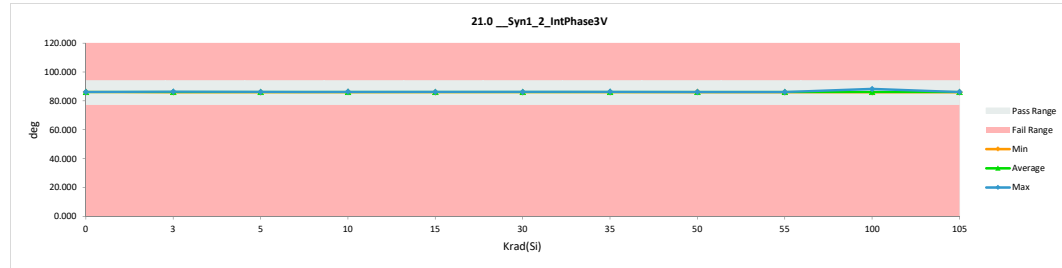
21.0 __Syn1_2_IntPhase3V		
Test Site		
Tester		
Test Number		
Unit	deg	deg
Max Limit	94	94
Min Limit	77	77

Krad(S)	Serial #	PRE	POST	Delta
0	33	86.165	86.169	0.004
3	66	86.314	86.349	0.035
3	67	86.078	86.068	-0.010
3	68	86.186	86.199	0.013
3	69	86.162	86.164	0.002
3	70	86.273	86.251	-0.022
5	71	86.177	86.228	0.051
5	72	86.118	86.131	0.013
5	73	86.047	86.079	0.032
5	74	86.206	86.198	-0.008
5	75	86.199	86.208	0.009
10	56	86.317	86.121	-0.196
10	57	86.279	86.146	-0.133
10	58	86.170	86.199	0.029
10	59	86.312	86.339	0.027
10	60	86.194	86.220	0.026
15	61	86.153	86.069	-0.084
15	62	86.203	86.221	0.018
15	63	86.114	86.139	0.025
15	64	86.157	86.165	0.008
15	65	86.191	86.209	0.018
30	46	86.264	86.235	-0.029
30	47	86.110	86.100	-0.010
30	48	86.265	86.271	0.006
30	49	86.256	86.180	-0.076
30	50	86.019	86.033	0.014
35	51	86.041	86.035	-0.006
35	52	86.222	86.223	0.001
35	53	86.381	86.344	-0.037
35	54	86.141	86.058	-0.083
35	55	86.205	86.169	-0.036
50	36	86.274	86.232	-0.042
50	37	86.201	86.187	-0.014
50	38	86.033	86.102	0.069
50	39	86.228	86.168	-0.060
50	40	86.327	86.297	-0.030
55	41	86.254	86.223	-0.031
55	42	86.129	85.988	-0.141
55	43	86.163	86.137	-0.026
55	44	86.296	86.288	-0.008
55	45	86.242	86.216	-0.026
100	1	86.231	86.168	-0.063
100	2	86.166	86.097	-0.069
100	3	86.187	86.150	-0.037
100	4	86.243	86.199	-0.044
100	5	86.116	86.066	-0.050
100	6	86.175	86.156	-0.019
100	9	86.297	86.271	-0.026
100	10	85.981	86.056	0.075
100	11	86.269	86.228	-0.041
100	12	86.109	86.094	-0.015
100	13	86.196	88.225	2.029
100	14	86.206	86.035	-0.171
100	15	86.071	85.996	-0.075
100	16	86.186	86.172	-0.014
100	17	86.039	86.011	-0.028
100	18	85.987	86.038	0.051
100	19	86.125	86.125	0.000
100	20	86.187	86.129	-0.058
100	21	86.021	85.965	-0.056
100	22	86.202	85.983	-0.219
100	23	86.029	85.986	-0.043
100	24	86.148	86.125	-0.023
105	27	86.400	86.242	-0.158
105	28	86.146	86.071	-0.075
105	29	86.236	86.199	-0.037
105	30	86.061	86.126	0.065
105	31	86.159	86.111	-0.048
	Max	88.225	86.400	2.029
	Average	86.180	86.182	0.002
	Min	85.981	85.965	-0.219
	Std Dev	0.093	0.267	0.256



21.0 __Syn1_2_IntPhase3V		
Test Site		
Tester		
Test Number		
Max Limit	94	deg
Min Limit	77	deg

Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL	77.000	77.000	77.000	77.000	77.000	77.000	77.000	77.000	77.000	77.000	77.000
Min	86.169	86.068	86.079	86.121	86.069	86.033	86.035	86.102	85.988	85.965	86.071
Average	86.169	86.206	86.169	86.205	86.161	86.164	86.166	86.197	86.170	86.194	86.150
Max	86.169	86.349	86.228	86.339	86.221	86.271	86.344	86.297	86.288	88.225	86.242
UL	94.000	94.000	94.000	94.000	94.000	94.000	94.000	94.000	94.000	94.000	94.000

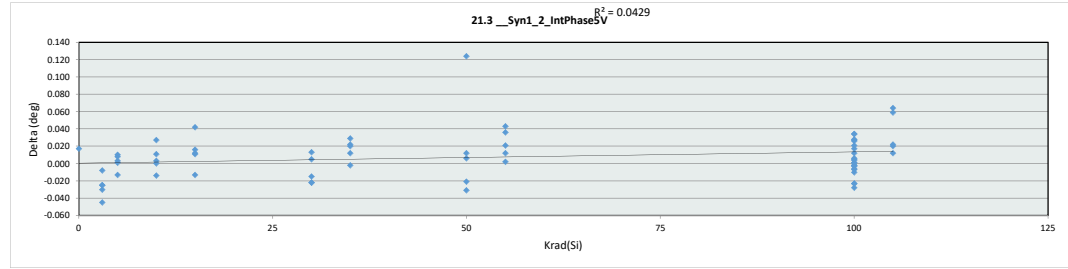


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21.3 \_\_Syn1\_2\_IntPhase5V

Test Site		
Tester		
Test Number		
Unit	deg	deg
Max Limit	94	94
Min Limit	77	77

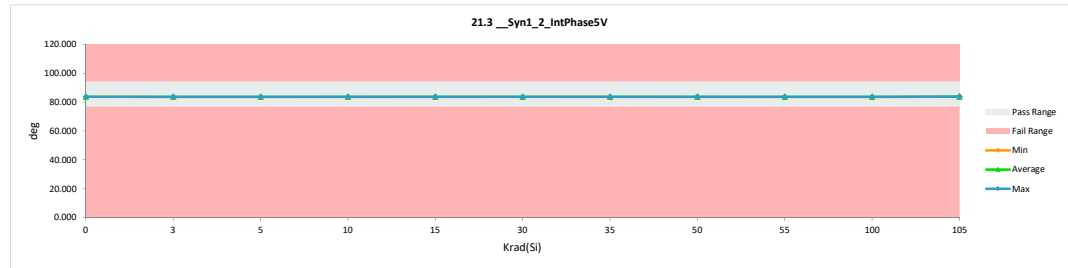
Krad(S)	Serial #	PRE	POST	Delta
0	33	83.726	83.743	0.017
3	66	83.814	83.806	-0.008
3	67	83.633	83.608	-0.025
3	68	83.725	83.700	-0.025
3	69	83.713	83.668	-0.045
3	70	83.727	83.697	-0.030
5	71	83.686	83.696	0.010
5	72	83.685	83.686	0.001
5	73	83.549	83.557	0.008
5	74	83.714	83.701	-0.013
5	75	83.642	83.645	0.003
10	56	83.731	83.742	0.011
10	57	83.817	83.817	0.000
10	58	83.639	83.642	0.003
10	59	83.794	83.780	-0.014
10	60	83.686	83.713	0.027
15	61	83.657	83.668	0.011
15	62	83.711	83.723	0.012
15	63	83.732	83.748	0.016
15	64	83.693	83.735	0.042
15	65	83.718	83.705	-0.013
30	46	83.795	83.808	0.013
30	47	83.660	83.638	-0.022
30	48	83.810	83.788	-0.022
30	49	83.647	83.632	-0.015
30	50	83.573	83.578	0.005
35	51	83.622	83.642	0.020
35	52	83.727	83.725	-0.002
35	53	83.807	83.829	0.022
35	54	83.687	83.699	0.012
35	55	83.725	83.754	0.029
50	36	83.745	83.724	-0.021
50	37	83.671	83.795	0.124
50	38	83.657	83.663	0.006
50	39	83.706	83.675	-0.031
50	40	83.802	83.814	0.012
55	41	83.732	83.734	0.002
55	42	83.661	83.673	0.012
55	43	83.589	83.625	0.036
55	44	83.742	83.785	0.043
55	45	83.722	83.743	0.021
100	1	83.690	83.717	0.027
100	2	83.656	83.654	-0.002
100	3	83.675	83.709	0.034
100	4	83.712	83.718	0.006
100	5	83.613	83.590	-0.023
100	6	83.645	83.643	-0.002
100	9	83.757	83.747	-0.010
100	10	83.608	83.605	-0.003
100	11	83.731	83.703	-0.028
100	12	83.603	83.604	0.001
100	13	83.683	83.717	0.034
100	14	83.763	83.784	0.021
100	15	83.616	83.610	-0.006
100	16	83.651	83.668	0.017
100	17	83.589	83.582	-0.007
100	18	83.580	83.585	0.005
100	19	83.648	83.676	0.028
100	20	83.741	83.718	-0.023
100	21	83.622	83.626	0.004
100	22	83.675	83.676	0.001
100	23	83.577	83.589	0.012
100	24	83.673	83.699	0.026
105	27	83.867	83.926	0.059
105	28	83.649	83.669	0.020
105	29	83.737	83.749	0.012
105	30	83.649	83.671	0.022
105	31	83.607	83.671	0.064
	Max	83.867	83.926	0.124
	Average	83.690	83.697	0.008
	Min	83.549	83.557	-0.045
	Std Dev	0.068	0.071	0.026



21.3 \_\_Syn1\_2\_IntPhase5V

Test Site		
Tester		
Test Number		
Max Limit	94	deg
Min Limit	77	deg

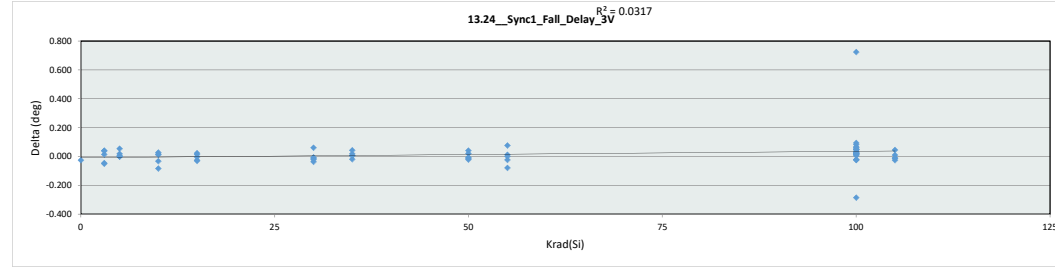
Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL	77.000	77.000	77.000	77.000	77.000	77.000	77.000	77.000	77.000	77.000	77.000
Min	83.743	83.608	83.557	83.642	83.668	83.578	83.642	83.663	83.625	83.582	83.669
Average	83.743	83.696	83.657	83.739	83.716	83.689	83.730	83.734	83.712	83.665	83.737
Max	83.743	83.806	83.701	83.817	83.748	83.808	83.829	83.814	83.785	83.784	83.926
UL	94.000	94.000	94.000	94.000	94.000	94.000	94.000	94.000	94.000	94.000	94.000



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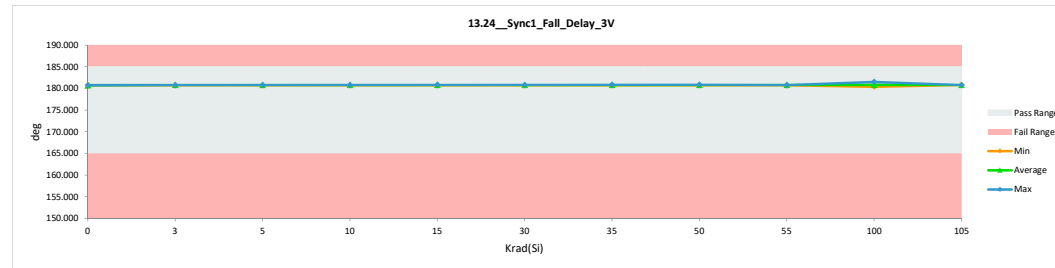
13.24_Sync1_Fall_Delay_3V		
Test Site		
Tester		
Test Number		
Unit	deg	deg
Max Limit	185	185
Min Limit	165	165

Krad(S)	Serial #	PRE	POST	Delta
0	33	180.785	180.759	-0.026
3	66	180.791	180.830	0.039
3	67	180.725	180.766	0.041
3	68	180.765	180.714	-0.051
3	69	180.828	180.783	-0.045
3	70	180.786	180.801	0.015
5	71	180.764	180.764	0.000
5	72	180.756	180.755	-0.001
5	73	180.763	180.818	0.055
5	74	180.803	180.809	0.006
5	75	180.796	180.815	0.019
10	56	180.809	180.725	-0.084
10	57	180.767	180.784	0.017
10	58	180.805	180.818	0.013
10	59	180.783	180.810	0.027
10	60	180.773	180.740	-0.033
15	61	180.758	180.733	-0.025
15	62	180.847	180.870	0.023
15	63	180.780	180.750	-0.030
15	64	180.827	180.824	-0.003
15	65	180.770	180.784	0.014
30	46	180.759	180.820	0.061
30	47	180.774	180.762	-0.012
30	48	180.775	180.769	-0.006
30	49	180.758	180.736	-0.022
30	50	180.769	180.733	-0.036
35	51	180.843	180.848	0.005
35	52	180.749	180.767	0.018
35	53	180.744	180.750	0.006
35	54	180.756	180.738	-0.018
35	55	180.809	180.851	0.042
50	36	180.817	180.795	-0.022
50	37	180.766	180.761	-0.005
50	38	180.765	180.805	0.040
50	39	180.798	180.785	-0.013
50	40	180.837	180.858	0.021
55	41	180.792	180.805	0.013
55	42	180.848	180.770	-0.078
55	43	180.793	180.793	0.000
55	44	180.715	180.792	0.077
55	45	180.773	180.749	-0.024
100	1	180.819	180.903	0.084
100	2	180.689	180.716	0.027
100	3	180.752	180.801	0.049
100	4	180.784	180.803	0.019
100	5	180.697	180.413	-0.284
100	6	180.842	180.819	-0.023
100	9	180.785	180.850	0.065
100	10	180.815	180.835	0.020
100	11	180.792	180.807	0.015
100	12	180.735	180.829	0.094
100	13	180.794	181.518	0.724
100	14	180.798	180.775	-0.023
100	15	180.757	180.804	0.047
100	16	180.788	180.837	0.049
100	17	180.809	180.815	0.006
100	18	180.744	180.769	0.025
100	19	180.810	180.826	0.016
100	20	180.789	180.826	0.037
100	21	180.747	180.812	0.065
100	22	180.817	180.795	-0.022
100	23	180.738	180.762	0.024
100	24	180.794	180.847	0.053
105	27	180.842	180.829	-0.013
105	28	180.795	180.805	0.010
105	29	180.823	180.797	-0.026
105	30	180.752	180.797	0.045
105	31	180.817	180.806	-0.011
Max		180.848	181.518	0.724
Average		180.783	180.799	0.016
Min		180.689	180.413	-0.284
Std Dev		0.035	0.107	0.101



13.24_Sync1_Fall_Delay_3V		
Test Site		
Tester		
Test Number		
Max Limit	185	deg
Min Limit	165	deg

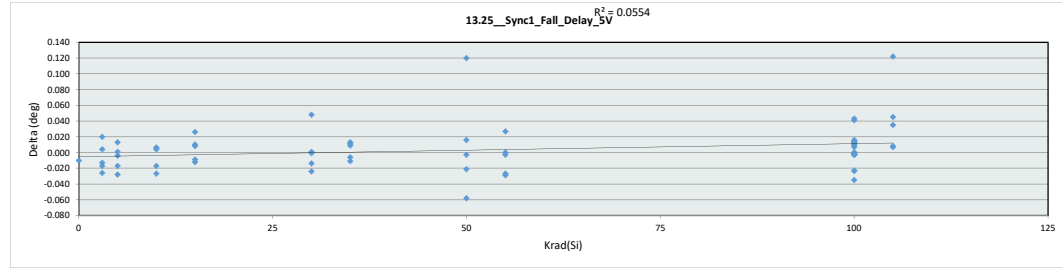
Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL	165.000	165.000	165.000	165.000	165.000	165.000	165.000	165.000	165.000	165.000	165.000
Min	180.759	180.714	180.755	180.725	180.733	180.733	180.738	180.761	180.749	180.413	180.797
Average	180.759	180.779	180.792	180.775	180.792	180.764	180.791	180.801	180.782	180.826	180.807
Max	180.759	180.830	180.818	180.818	180.870	180.820	180.851	180.858	180.805	181.518	180.829
UL	185.000	185.000	185.000	185.000	185.000	185.000	185.000	185.000	185.000	185.000	185.000



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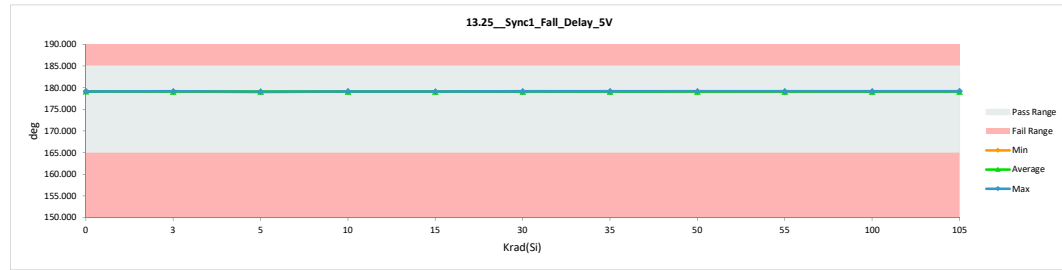
13.25_Sync1_Fall_Delay_5V		
Test Site		
Tester		
Test Number		
Unit	deg	deg
Max Limit	185	185
Min Limit	165	165

Krad(S)	Serial #	PRE	POST	Delta
0	33	179.158	179.148	-0.010
3	66	179.190	179.194	0.004
3	67	179.102	179.122	0.020
3	68	179.091	179.078	-0.013
3	69	179.127	179.101	-0.026
3	70	179.116	179.099	-0.017
5	71	179.068	179.081	0.013
5	72	179.110	179.093	-0.017
5	73	179.008	179.004	-0.004
5	74	179.129	179.101	-0.028
5	75	179.078	179.079	0.001
10	56	179.144	179.148	0.004
10	57	179.140	179.146	0.006
10	58	179.117	179.090	-0.027
10	59	179.165	179.148	-0.017
10	60	179.108	179.114	0.006
15	61	179.092	179.080	-0.012
15	62	179.112	179.122	0.010
15	63	179.102	179.128	0.026
15	64	179.104	179.112	0.008
15	65	179.113	179.104	-0.009
30	46	179.166	179.165	-0.001
30	47	179.089	179.065	-0.024
30	48	179.125	179.173	0.048
30	49	179.095	179.096	0.001
30	50	179.052	179.038	-0.014
35	51	179.096	179.105	0.009
35	52	179.087	179.100	0.013
35	53	179.151	179.162	0.011
35	54	179.131	179.125	-0.006
35	55	179.170	179.159	-0.011
50	36	179.113	179.129	0.016
50	37	179.036	179.156	0.120
50	38	179.098	179.077	-0.021
50	39	179.131	179.073	-0.058
50	40	179.183	179.180	-0.003
55	41	179.128	179.128	0.000
55	42	179.132	179.159	0.027
55	43	179.034	179.031	-0.003
55	44	179.157	179.128	-0.029
55	45	179.126	179.099	-0.027
100	1	179.093	179.136	0.043
100	2	179.080	179.045	-0.035
100	3	179.102	179.117	0.015
100	4	179.125	179.123	-0.002
100	5	179.028	179.005	-0.023
100	6	179.066	179.075	0.009
100	9	179.155	179.155	0.000
100	10	179.083	179.081	-0.002
100	11	179.118	179.116	-0.002
100	12	179.074	179.071	-0.003
100	13	179.135	179.133	-0.002
100	14	179.118	179.159	0.041
100	15	179.036	179.013	-0.023
100	16	179.112	179.125	0.013
100	17	179.035	179.042	0.007
100	18	179.067	179.065	-0.002
100	19	179.096	179.107	0.011
100	20	179.090	179.090	0.000
100	21	179.029	179.043	0.014
100	22	179.130	179.127	-0.003
100	23	179.029	179.045	0.016
100	24	179.100	179.111	0.011
105	27	179.188	179.223	0.035
105	28	179.094	179.101	0.007
105	29	179.083	179.128	0.045
105	30	178.955	179.077	0.122
105	31	179.067	179.075	0.008
Max		179.190	179.223	0.122
Average		179.102	179.106	0.004
Min		178.955	179.004	-0.058
Std Dev		0.045	0.045	0.028



13.25_Sync1_Fall_Delay_5V		
Test Site		
Tester		
Test Number		
Max Limit	185	deg
Min Limit	165	deg

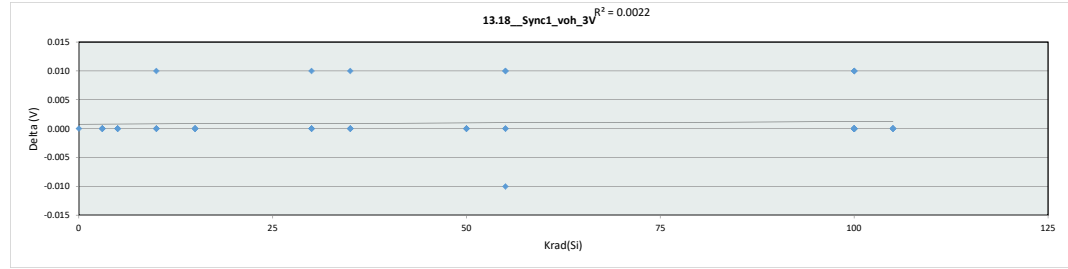
Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL	165.000	165.000	165.000	165.000	165.000	165.000	165.000	165.000	165.000	165.000	165.000
Min	179.148	179.078	179.004	179.090	179.080	179.038	179.100	179.073	179.031	179.005	179.075
Average	179.148	179.119	179.072	179.129	179.109	179.107	179.130	179.123	179.109	179.090	179.121
Max	179.148	179.194	179.101	179.148	179.128	179.173	179.162	179.180	179.159	179.159	179.223
UL	185.000	185.000	185.000	185.000	185.000	185.000	185.000	185.000	185.000	185.000	185.000



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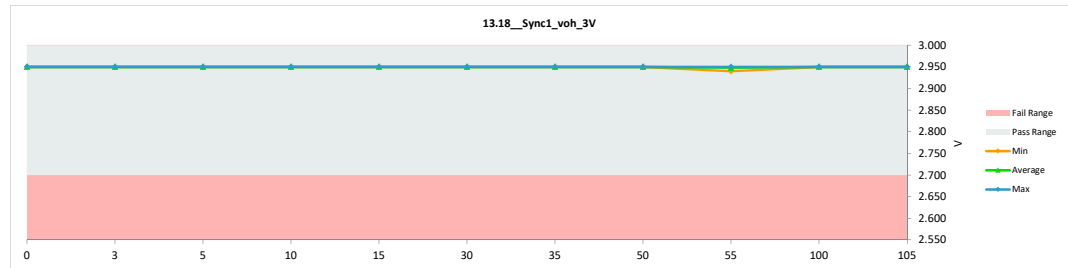
13.18_Sync1_voh_3V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit		
Min Limit	2.7	2.7

Krad(Si)	Serial #	PRE	POST	Delta
0	33	2.950	2.950	0.000
3	66	2.950	2.950	0.000
3	67	2.950	2.950	0.000
3	68	2.950	2.950	0.000
3	69	2.950	2.950	0.000
3	70	2.950	2.950	0.000
5	71	2.950	2.950	0.000
5	72	2.950	2.950	0.000
5	73	2.950	2.950	0.000
5	74	2.950	2.950	0.000
5	75	2.950	2.950	0.000
10	56	2.950	2.950	0.000
10	57	2.950	2.950	0.000
10	58	2.940	2.950	0.010
10	59	2.950	2.950	0.000
10	60	2.950	2.950	0.000
15	61	2.950	2.950	0.000
15	62	2.950	2.950	0.000
15	63	2.950	2.950	0.000
15	64	2.950	2.950	0.000
15	65	2.950	2.950	0.000
30	46	2.950	2.950	0.000
30	47	2.950	2.950	0.000
30	48	2.950	2.950	0.000
30	49	2.940	2.950	0.010
30	50	2.950	2.950	0.000
35	51	2.950	2.950	0.000
35	52	2.950	2.950	0.000
35	53	2.950	2.950	0.000
35	54	2.950	2.950	0.000
35	55	2.940	2.950	0.010
50	36	2.950	2.950	0.000
50	37	2.950	2.950	0.000
50	38	2.950	2.950	0.000
50	39	2.950	2.950	0.000
50	40	2.950	2.950	0.000
55	41	2.950	2.950	0.000
55	42	2.940	2.950	0.010
55	43	2.940	2.950	0.010
55	44	2.950	2.950	0.000
55	45	2.950	2.940	-0.010
100	1	2.950	2.950	0.000
100	2	2.950	2.950	0.000
100	3	2.950	2.950	0.000
100	4	2.940	2.950	0.010
100	5	2.950	2.950	0.000
100	6	2.950	2.950	0.000
100	9	2.950	2.950	0.000
100	10	2.940	2.950	0.010
100	11	2.950	2.950	0.000
100	12	2.950	2.950	0.000
100	13	2.950	2.950	0.000
100	14	2.940	2.950	0.010
100	15	2.950	2.950	0.000
100	16	2.950	2.950	0.000
100	17	2.950	2.950	0.000
100	18	2.950	2.950	0.000
100	19	2.950	2.950	0.000
100	20	2.950	2.950	0.000
100	21	2.950	2.950	0.000
100	22	2.950	2.950	0.000
100	23	2.950	2.950	0.000
100	24	2.950	2.950	0.000
105	27	2.950	2.950	0.000
105	28	2.950	2.950	0.000
105	29	2.950	2.950	0.000
105	30	2.950	2.950	0.000
105	31	2.950	2.950	0.000
	Max	2.950	2.950	0.010
	Average	2.949	2.950	0.001
	Min	2.940	2.940	-0.010
	Std Dev	0.003	0.001	0.004



13.18_Sync1_voh_3V		
Test Site		
Tester		
Test Number		
Max Limit	V	
Min Limit	2.7	V

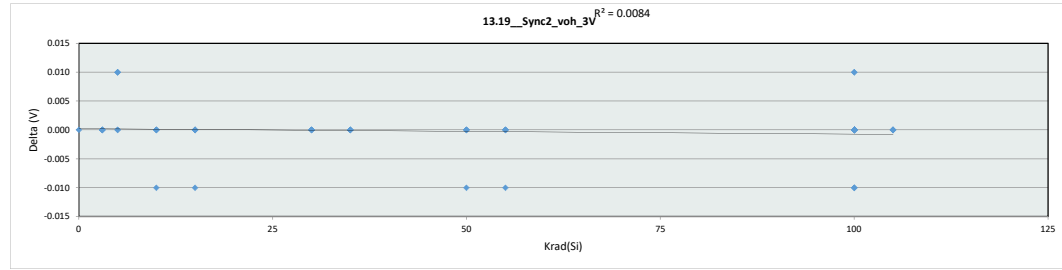
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	2.700	2.700	2.700	2.700	2.700	2.700	2.700	2.700	2.700	2.700	2.700
Min	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.940	2.950	2.950
Average	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.948	2.950	2.950
Max	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.950
UL											



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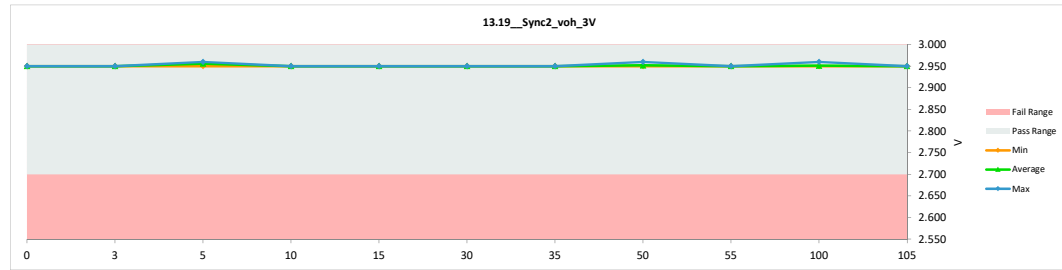
13.19_Sync2_voh_3V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit		
Min Limit	2.7	2.7

Krad(S)	Serial #	PRE	POST	Delta
0	33	2.950	2.950	0.000
3	66	2.950	2.950	0.000
3	67	2.950	2.950	0.000
3	68	2.950	2.950	0.000
3	69	2.950	2.950	0.000
3	70	2.950	2.950	0.000
5	71	2.950	2.950	0.000
5	72	2.950	2.960	0.010
5	73	2.950	2.960	0.010
5	74	2.950	2.960	0.010
5	75	2.950	2.950	0.000
10	56	2.950	2.950	0.000
10	57	2.950	2.950	0.000
10	58	2.950	2.950	0.000
10	59	2.950	2.950	0.000
10	60	2.960	2.950	-0.010
15	61	2.950	2.950	0.000
15	62	2.950	2.950	0.000
15	63	2.960	2.950	-0.010
15	64	2.950	2.950	0.000
15	65	2.950	2.950	0.000
30	46	2.950	2.950	0.000
30	47	2.950	2.950	0.000
30	48	2.950	2.950	0.000
30	49	2.950	2.950	0.000
30	50	2.950	2.950	0.000
35	51	2.950	2.950	0.000
35	52	2.950	2.950	0.000
35	53	2.950	2.950	0.000
35	54	2.950	2.950	0.000
35	55	2.950	2.950	0.000
50	36	2.960	2.960	0.000
50	37	2.950	2.950	0.000
50	38	2.950	2.950	0.000
50	39	2.960	2.950	-0.010
50	40	2.950	2.950	0.000
55	41	2.950	2.950	0.000
55	42	2.950	2.950	0.000
55	43	2.950	2.950	0.000
55	44	2.950	2.950	0.000
55	45	2.960	2.950	-0.010
100	1	2.960	2.950	-0.010
100	2	2.950	2.950	0.000
100	3	2.950	2.950	0.000
100	4	2.950	2.950	0.000
100	5	2.950	2.950	0.000
100	6	2.950	2.950	0.000
100	9	2.950	2.960	0.010
100	10	2.950	2.950	0.000
100	11	2.950	2.950	0.000
100	12	2.950	2.950	0.000
100	13	2.950	2.950	0.000
100	14	2.950	2.950	0.000
100	15	2.950	2.950	0.000
100	16	2.960	2.950	-0.010
100	17	2.950	2.960	0.010
100	18	2.950	2.950	0.000
100	19	2.950	2.950	0.000
100	20	2.950	2.950	0.000
100	21	2.950	2.950	0.000
100	22	2.950	2.950	0.000
100	23	2.950	2.950	0.000
100	24	2.960	2.950	-0.010
105	27	2.950	2.950	0.000
105	28	2.950	2.950	0.000
105	29	2.950	2.950	0.000
105	30	2.950	2.950	0.000
105	31	2.950	2.950	0.000
Max		2.960	2.960	0.010
Average		2.951	2.951	0.000
Min		2.950	2.950	-0.010
Std Dev		0.003	0.003	0.004



13.19_Sync2_voh_3V		
Test Site		
Tester		
Test Number		
Max Limit	V	
Min Limit	2.7	V

Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL	2.700	2.700	2.700	2.700	2.700	2.700	2.700	2.700	2.700	2.700	2.700
Min	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.950	2.950
Average	2.950	2.950	2.956	2.950	2.950	2.950	2.950	2.952	2.950	2.951	2.950
Max	2.950	2.950	2.960	2.950	2.950	2.950	2.950	2.960	2.950	2.960	2.950
UL											

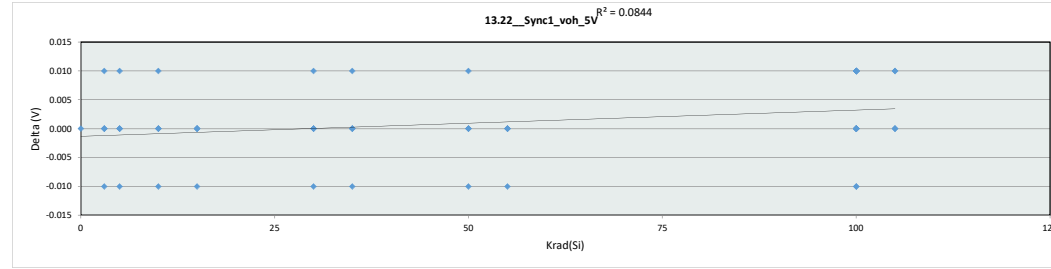


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## TPS7H4001-SP QMLP

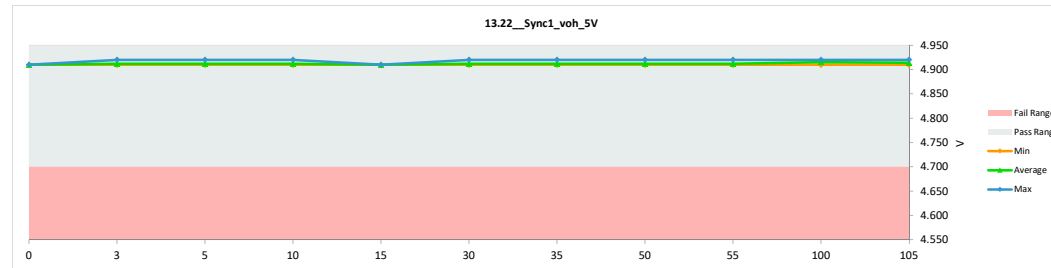
13.22_Sync1_voh_5V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit		
Min Limit	4.7	4.7

Krad(Si)	Serial #	PRE	POST	Delta
0	33	4.910	4.910	0.000
3	66	4.910	4.910	0.000
3	67	4.910	4.910	0.000
3	68	4.910	4.910	0.000
3	69	4.910	4.920	0.010
3	70	4.920	4.910	-0.010
5	71	4.920	4.910	-0.010
5	72	4.910	4.910	0.000
5	73	4.910	4.910	0.000
5	74	4.910	4.910	0.000
5	75	4.910	4.920	0.010
10	56	4.910	4.910	0.000
10	57	4.910	4.910	0.000
10	58	4.910	4.910	0.000
10	59	4.920	4.910	-0.010
10	60	4.910	4.920	0.010
15	61	4.910	4.910	0.000
15	62	4.910	4.910	0.000
15	63	4.910	4.910	0.000
15	64	4.920	4.910	-0.010
15	65	4.910	4.910	0.000
30	46	4.910	4.910	0.000
30	47	4.910	4.910	0.000
30	48	4.910	4.920	0.010
30	49	4.920	4.910	-0.010
30	50	4.910	4.910	0.000
35	51	4.910	4.910	0.000
35	52	4.920	4.910	-0.010
35	53	4.910	4.920	0.010
35	54	4.910	4.910	0.000
35	55	4.910	4.910	0.000
50	36	4.910	4.920	0.010
50	37	4.920	4.910	-0.010
50	38	4.910	4.910	0.000
50	39	4.910	4.910	0.000
50	40	4.910	4.910	0.000
55	41	4.920	4.910	-0.010
55	42	4.910	4.910	0.000
55	43	4.910	4.910	0.000
55	44	4.920	4.920	0.000
55	45	4.910	4.910	0.000
100	1	4.910	4.920	0.010
100	2	4.910	4.910	0.000
100	3	4.910	4.920	0.010
100	4	4.910	4.910	0.000
100	5	4.910	4.910	0.000
100	6	4.910	4.920	0.010
100	9	4.910	4.920	0.010
100	10	4.910	4.920	0.010
100	11	4.910	4.920	0.010
100	12	4.910	4.910	0.000
100	13	4.910	4.910	0.000
100	14	4.910	4.920	0.010
100	15	4.910	4.920	0.010
100	16	4.910	4.910	0.000
100	17	4.910	4.920	0.010
100	18	4.920	4.920	0.000
100	19	4.910	4.910	0.000
100	20	4.910	4.920	0.010
100	21	4.920	4.910	-0.010
100	22	4.910	4.910	0.000
100	23	4.920	4.910	-0.010
100	24	4.920	4.920	0.000
105	27	4.910	4.910	0.000
105	28	4.910	4.920	0.010
105	29	4.910	4.920	0.010
105	30	4.910	4.910	0.000
105	31	4.910	4.910	0.000
Max		4.920	4.920	0.010
Average		4.912	4.913	0.001
Min		4.910	4.910	-0.010
Std Dev		0.004	0.005	0.006



13.22_Sync1_voh_5V		
Test Site		
Tester		
Test Number		
Max Limit	V	
Min Limit	4.7	V

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	4.700	4.700	4.700	4.700	4.700	4.700	4.700	4.700	4.700	4.700	4.700
Min	4.910	4.910	4.910	4.910	4.910	4.910	4.910	4.910	4.910	4.910	4.910
Average	4.910	4.912	4.912	4.912	4.910	4.912	4.912	4.912	4.912	4.915	4.914
Max	4.910	4.920	4.920	4.920	4.910	4.920	4.920	4.920	4.920	4.920	4.920
UL											

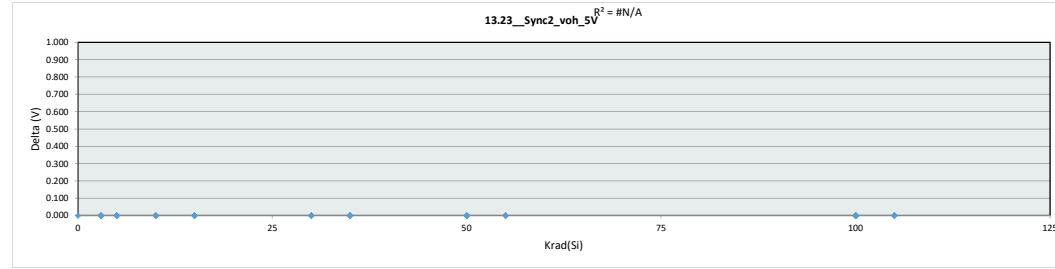




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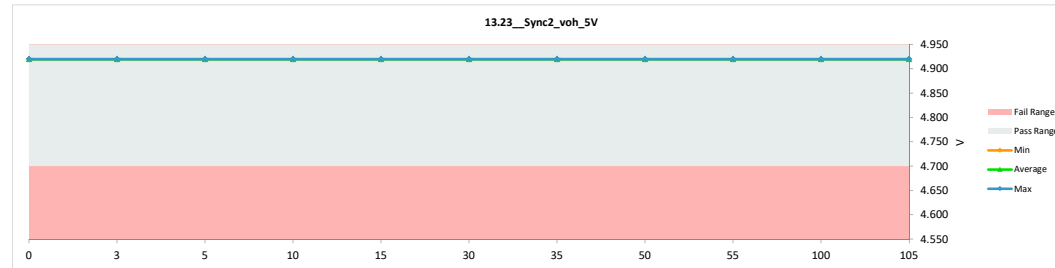
13.23_Sync2_voh_5V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit		
Min Limit	4.7	4.7

Krad(Si)	Serial #	PRE	POST	Delta
0	33	4.920	4.920	0.000
3	66	4.920	4.920	0.000
3	67	4.920	4.920	0.000
3	68	4.920	4.920	0.000
3	69	4.920	4.920	0.000
3	70	4.920	4.920	0.000
5	71	4.920	4.920	0.000
5	72	4.920	4.920	0.000
5	73	4.920	4.920	0.000
5	74	4.920	4.920	0.000
5	75	4.920	4.920	0.000
10	56	4.920	4.920	0.000
10	57	4.920	4.920	0.000
10	58	4.920	4.920	0.000
10	59	4.920	4.920	0.000
10	60	4.920	4.920	0.000
15	61	4.920	4.920	0.000
15	62	4.920	4.920	0.000
15	63	4.920	4.920	0.000
15	64	4.920	4.920	0.000
15	65	4.920	4.920	0.000
30	46	4.920	4.920	0.000
30	47	4.920	4.920	0.000
30	48	4.920	4.920	0.000
30	49	4.920	4.920	0.000
30	50	4.920	4.920	0.000
35	51	4.920	4.920	0.000
35	52	4.920	4.920	0.000
35	53	4.920	4.920	0.000
35	54	4.920	4.920	0.000
35	55	4.920	4.920	0.000
50	36	4.920	4.920	0.000
50	37	4.920	4.920	0.000
50	38	4.920	4.920	0.000
50	39	4.920	4.920	0.000
50	40	4.920	4.920	0.000
55	41	4.920	4.920	0.000
55	42	4.920	4.920	0.000
55	43	4.920	4.920	0.000
55	44	4.920	4.920	0.000
55	45	4.920	4.920	0.000
100	1	4.920	4.920	0.000
100	2	4.920	4.920	0.000
100	3	4.920	4.920	0.000
100	4	4.920	4.920	0.000
100	5	4.920	4.920	0.000
100	6	4.920	4.920	0.000
100	9	4.920	4.920	0.000
100	10	4.920	4.920	0.000
100	11	4.920	4.920	0.000
100	12	4.920	4.920	0.000
100	13	4.920	4.920	0.000
100	14	4.920	4.920	0.000
100	15	4.920	4.920	0.000
100	16	4.920	4.920	0.000
100	17	4.920	4.920	0.000
100	18	4.920	4.920	0.000
100	19	4.920	4.920	0.000
100	20	4.920	4.920	0.000
100	21	4.920	4.920	0.000
100	22	4.920	4.920	0.000
100	23	4.920	4.920	0.000
100	24	4.920	4.920	0.000
105	27	4.920	4.920	0.000
105	28	4.920	4.920	0.000
105	29	4.920	4.920	0.000
105	30	4.920	4.920	0.000
105	31	4.920	4.920	0.000
	Max	4.920	4.920	0.000
	Average	4.920	4.920	0.000
	Min	4.920	4.920	0.000
	Std Dev	0.000	0.000	0.000



13.23_Sync2_voh_5V		
Test Site		
Tester		
Test Number		
Max Limit	V	
Min Limit	4.7	V

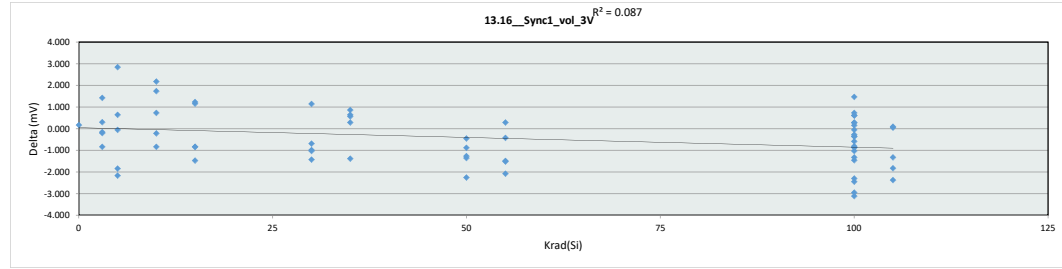
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	4.700	4.700	4.700	4.700	4.700	4.700	4.700	4.700	4.700	4.700	4.700
Min	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920
Average	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920
Max	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920
UL											



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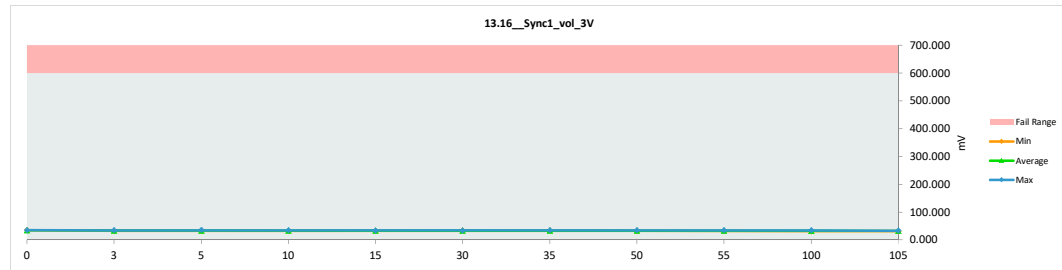
13.16_Sync1_vol_3V		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit	600	600
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	34.484	34.651	0.167
3	66	33.397	33.701	0.304
3	67	32.583	34.005	1.422
3	68	32.566	32.362	-0.204
3	69	33.105	32.943	-0.162
3	70	34.931	34.085	-0.846
5	71	34.217	32.366	-1.851
5	72	32.524	33.160	0.636
5	73	34.601	32.428	-2.173
5	74	29.695	32.533	2.838
5	75	35.316	35.262	-0.054
10	56	32.290	34.019	1.729
10	57	33.627	33.406	-0.221
10	58	33.403	34.123	0.720
10	59	33.304	32.464	-0.840
10	60	32.130	34.307	2.177
15	61	31.092	32.322	1.230
15	62	34.337	33.502	-0.835
15	63	34.877	33.397	-1.480
15	64	34.092	33.250	-0.842
15	65	32.530	33.682	1.152
30	46	34.397	32.968	-1.429
30	47	33.610	32.914	-0.696
30	48	33.956	32.962	-0.994
30	49	34.403	33.376	-1.027
30	50	32.210	33.352	1.142
35	51	33.676	34.313	0.637
35	52	32.752	33.316	0.564
35	53	33.382	33.664	0.282
35	54	34.353	32.962	-1.391
35	55	33.586	34.446	0.860
50	36	33.773	32.500	-1.273
50	37	35.484	33.232	-2.252
50	38	33.583	32.223	-1.360
50	39	33.148	32.266	-0.882
50	40	34.484	34.030	-0.454
55	41	36.090	34.012	-2.078
55	42	33.100	32.674	-0.426
55	43	34.109	32.620	-1.489
55	44	32.838	33.118	0.280
55	45	34.529	33.010	-1.519
100	1	34.433	34.067	-0.366
100	2	32.801	33.527	0.726
100	3	36.354	33.238	-3.116
100	4	33.598	33.322	-0.276
100	5	34.733	31.776	-2.957
100	6	33.202	30.906	-2.296
100	9	34.080	33.210	-0.870
100	10	32.746	33.353	0.607
100	11	32.998	32.127	-0.871
100	12	32.836	31.807	-1.029
100	13	33.652	32.187	-1.465
100	14	32.906	33.058	0.152
100	15	33.022	32.670	-0.352
100	16	33.767	32.956	-0.811
100	17	32.818	33.430	0.612
100	18	34.301	31.857	-2.444
100	19	33.094	31.767	-1.327
100	20	33.434	32.850	-0.584
100	21	31.611	33.070	1.459
100	22	32.577	32.518	-0.059
100	23	32.620	32.902	0.282
100	24	32.521	32.794	0.273
105	27	32.850	32.896	0.046
105	28	33.382	31.012	-2.370
105	29	33.409	31.583	-1.826
105	30	32.212	32.297	0.085
105	31	34.127	32.794	-1.333
Max		36.354	35.262	2.838
Average		33.480	33.028	-0.452
Min		29.695	30.906	-3.116
Std Dev		1.096	0.834	1.227



13.16_Sync1_vol_3V		
Test Site		
Tester		
Test Number		
Max Limit	600	mV
Min Limit		mV

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	34.651	32.362	32.366	32.464	32.322	32.914	32.962	32.223	32.620	30.906	31.012
Average	34.651	33.419	33.150	33.664	33.231	33.114	33.740	32.850	33.087	32.700	32.116
Max	34.651	34.085	35.262	34.307	33.682	33.376	34.446	34.030	34.012	34.067	32.896
UL	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000

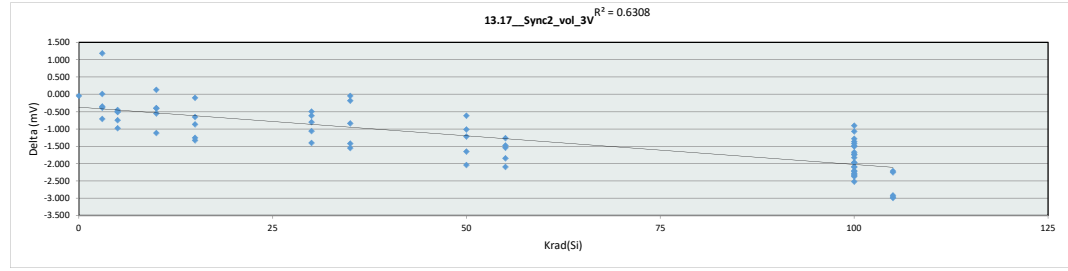


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13.17\_Sync2\_vol\_3V

Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit	600	600
Min Limit		

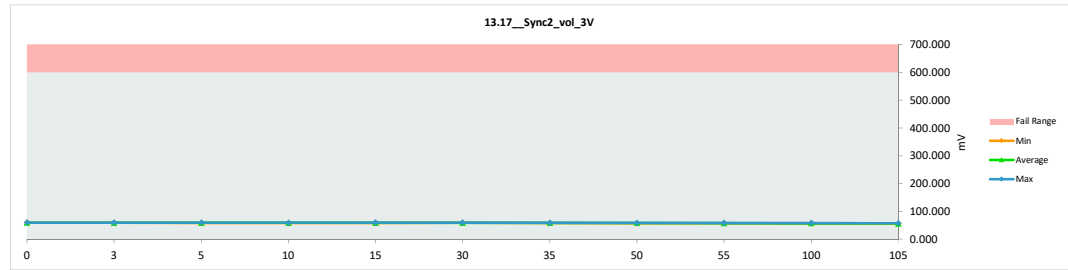
Krad(Si)	Serial #	PRE	POST	Delta
0	33	59.600	59.554	-0.046
3	66	59.181	59.187	0.006
3	67	59.403	59.052	-0.351
3	68	59.109	58.717	-0.392
3	69	58.294	59.475	1.181
3	70	60.490	59.774	-0.716
5	71	58.480	57.970	-0.510
5	72	59.355	58.897	-0.458
5	73	59.493	58.516	-0.977
5	74	58.737	58.228	-0.509
5	75	60.614	59.864	-0.750
10	56	59.403	58.288	-1.115
10	57	58.606	58.047	-0.559
10	58	58.941	59.073	0.132
10	59	59.622	59.217	-0.405
10	60	59.307	58.911	-0.396
15	61	60.278	59.019	-1.259
15	62	59.265	57.934	-1.331
15	63	60.272	59.403	-0.869
15	64	59.031	58.929	-0.102
15	65	59.101	58.444	-0.657
30	46	60.037	58.971	-1.066
30	47	59.612	58.804	-0.808
30	48	60.099	59.475	-0.624
30	49	61.067	59.665	-1.402
30	50	59.397	58.893	-0.504
35	51	59.349	57.796	-1.553
35	52	59.361	58.522	-0.839
35	53	59.157	59.109	-0.048
35	54	59.306	57.886	-1.420
35	55	59.200	59.013	-0.187
50	36	59.642	59.021	-0.621
50	37	59.654	58.636	-1.018
50	38	58.941	57.718	-1.223
50	39	58.468	56.813	-1.655
50	40	60.703	58.665	-2.038
55	41	60.056	58.510	-1.546
55	42	58.649	57.167	-1.482
55	43	59.828	57.982	-1.846
55	44	60.484	58.388	-2.096
55	45	59.618	58.351	-1.267
100	1	60.242	57.898	-2.344
100	2	58.677	57.605	-1.072
100	3	59.954	57.743	-2.211
100	4	59.690	57.712	-1.978
100	5	60.428	57.910	-2.518
100	6	58.833	56.736	-2.097
100	9	59.399	57.892	-1.507
100	10	58.893	56.927	-1.966
100	11	59.031	56.658	-2.373
100	12	59.361	57.131	-2.230
100	13	58.252	55.944	-2.308
100	14	58.748	57.844	-0.904
100	15	59.073	57.347	-1.726
100	16	59.019	57.269	-1.750
100	17	58.833	57.407	-1.426
100	18	59.576	57.748	-1.828
100	19	58.653	56.556	-2.097
100	20	59.559	57.275	-2.284
100	21	58.342	56.850	-1.492
100	22	58.923	57.551	-1.372
100	23	59.780	58.492	-1.288
100	24	59.269	57.601	-1.668
105	27	59.834	57.619	-2.215
105	28	59.253	56.999	-2.254
105	29	59.678	56.683	-2.995
105	30	59.079	56.112	-2.967
105	31	59.405	56.490	-2.915
Max		61.067	59.864	1.181
Average		59.397	58.116	-1.281
Min		58.252	55.944	-2.995
Std Dev		0.616	0.955	0.843



13.17\_Sync2\_vol\_3V

Test Site		
Tester		
Test Number		
Max Limit	600	mV
Min Limit		

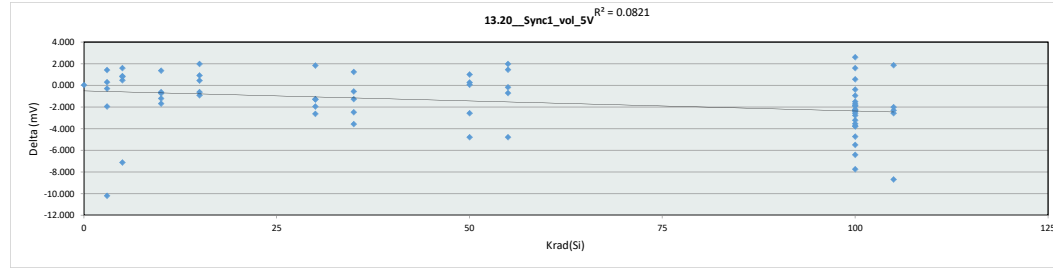
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	59.554	58.717	57.970	58.047	57.934	58.804	57.796	56.813	57.167	55.944	56.112
Average	59.554	59.241	58.695	58.707	58.746	59.162	58.465	58.171	58.080	57.368	56.781
Max	59.554	59.774	59.864	59.217	59.403	59.665	59.109	59.021	58.510	58.492	57.619
UL	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000



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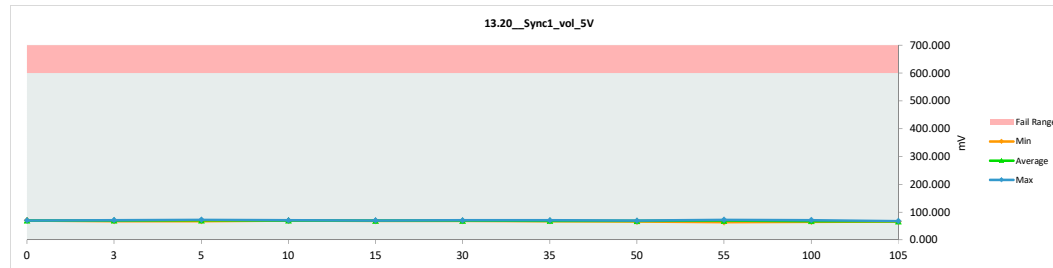
13.20_Sync1_vol_5V		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit	600	600
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	69.905	69.923	0.018
3	66	69.762	67.794	-1.968
3	67	79.691	69.496	-10.195
3	68	69.582	69.868	0.286
3	69	69.412	70.837	1.425
3	70	71.640	71.340	-0.300
5	71	69.321	69.803	0.482
5	72	69.592	70.451	0.859
5	73	69.220	70.001	0.781
5	74	66.210	67.806	1.596
5	75	79.638	72.516	-7.122
10	56	70.511	69.761	-0.750
10	57	69.070	70.415	1.345
10	58	71.868	70.179	-1.689
10	59	69.893	69.278	-0.615
10	60	70.685	69.454	-1.231
15	61	69.797	69.179	-0.618
15	62	68.241	68.680	0.439
15	63	70.998	70.067	-0.931
15	64	67.917	69.887	1.970
15	65	67.545	68.452	0.907
30	46	70.457	69.166	-1.291
30	47	69.370	68.104	-1.266
30	48	68.632	70.451	1.819
30	49	71.886	69.918	-1.968
30	50	70.831	68.200	-2.631
35	51	71.622	69.123	-2.499
35	52	72.252	68.668	-3.584
35	53	69.256	70.505	1.249
35	54	68.962	68.398	-0.564
35	55	68.738	67.461	-1.277
50	36	68.377	69.370	0.993
50	37	71.298	68.710	-2.588
50	38	70.847	66.067	-4.780
50	39	66.645	66.707	0.062
50	40	68.967	69.238	0.271
55	41	71.676	70.949	-0.727
55	42	68.408	63.614	-4.794
55	43	70.685	70.514	-0.171
55	44	70.913	72.360	1.447
55	45	67.083	69.046	1.963
100	1	71.595	69.359	-2.236
100	2	69.334	67.613	-1.721
100	3	69.085	67.191	-1.894
100	4	72.859	66.434	-6.425
100	5	71.472	69.148	-2.324
100	6	68.936	66.536	-2.400
100	9	71.670	67.868	-3.802
100	10	69.064	66.502	-2.562
100	11	70.725	66.967	-3.758
100	12	71.069	66.350	-4.719
100	13	73.918	66.170	-7.748
100	14	68.464	66.957	-1.507
100	15	70.679	65.179	-5.500
100	16	70.085	66.861	-3.224
100	17	67.601	67.209	-0.392
100	18	68.210	70.793	2.583
100	19	69.118	67.221	-1.897
100	20	70.133	66.572	-3.561
100	21	67.791	66.831	-0.960
100	22	70.446	67.669	-2.777
100	23	68.458	70.048	1.590
100	24	65.918	66.464	0.546
105	27	75.191	66.502	-8.689
105	28	69.166	66.584	-2.582
105	29	65.894	67.743	1.849
105	30	67.869	65.852	-2.017
105	31	68.396	66.092	-2.304
	Max	79.691	72.516	2.583
	Average	70.008	68.478	-1.531
	Min	65.894	63.614	-10.195
	Std Dev	2.443	1.801	2.656



13.20_Sync1_vol_5V		
Test Site		
Tester		
Test Number		
Max Limit	600	mV
Min Limit		mV

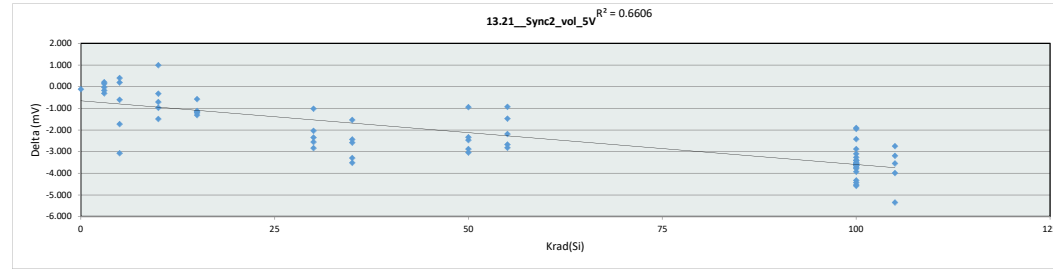
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	69.923	67.794	67.806	69.278	68.452	68.104	67.461	66.067	63.614	65.179	65.852
Average	69.923	69.867	70.115	69.817	69.253	69.168	68.831	68.018	69.297	67.361	66.555
Max	69.923	71.340	72.516	70.415	70.067	70.451	70.505	69.370	72.360	70.793	67.743
UL	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000



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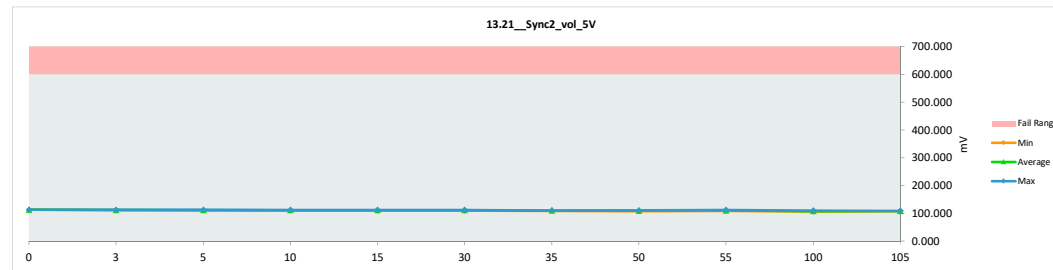
13.21_Sync2_vol_5V		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit	600	600
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	113.075	112.950	-0.125
3	66	112.098	111.789	-0.309
3	67	111.884	112.089	0.205
3	68	111.550	111.516	-0.034
3	69	111.237	111.363	0.126
3	70	113.372	113.195	-0.177
5	71	110.646	111.038	0.392
5	72	112.231	112.424	0.193
5	73	112.502	110.776	-1.726
5	74	111.366	110.762	-0.604
5	75	116.119	113.044	-3.075
10	56	112.764	112.436	-0.328
10	57	111.539	110.562	-0.977
10	58	110.438	111.430	0.992
10	59	113.682	112.182	-1.500
10	60	112.806	112.087	-0.719
15	61	112.900	111.781	-1.119
15	62	110.871	109.704	-1.167
15	63	113.801	112.479	-1.322
15	64	111.954	110.741	-1.213
15	65	111.661	111.080	-0.581
30	46	113.893	111.543	-2.350
30	47	112.584	109.750	-2.834
30	48	113.807	111.248	-2.559
30	49	114.766	112.728	-2.038
30	50	112.033	111.018	-1.015
35	51	113.354	110.050	-3.304
35	52	112.690	110.105	-2.585
35	53	113.861	110.335	-3.526
35	54	111.335	108.893	-2.442
35	55	111.892	110.350	-1.542
50	36	112.344	109.879	-2.465
50	37	112.622	110.278	-2.344
50	38	110.976	108.099	-2.877
50	39	109.968	109.019	-0.949
50	40	113.744	110.695	-3.049
55	41	113.825	112.895	-0.930
55	42	110.683	109.198	-1.485
55	43	112.932	110.257	-2.675
55	44	113.546	111.351	-2.195
55	45	112.986	110.163	-2.823
100	1	112.176	108.532	-3.644
100	2	111.510	108.102	-3.408
100	3	112.326	108.547	-3.779
100	4	113.069	108.733	-4.336
100	5	113.360	109.937	-3.423
100	6	111.042	107.541	-3.501
100	9	113.515	108.973	-4.542
100	10	110.223	107.346	-2.877
100	11	111.530	107.907	-3.623
100	12	110.274	108.322	-1.952
100	13	108.982	107.076	-1.906
100	14	112.854	108.270	-4.584
100	15	111.826	108.094	-3.732
100	16	111.682	108.570	-3.112
100	17	111.114	107.549	-3.565
100	18	111.775	108.501	-3.274
100	19	110.755	108.326	-2.429
100	20	111.953	108.024	-3.929
100	21	110.410	106.761	-3.649
100	22	112.386	107.945	-4.441
100	23	112.926	109.298	-3.628
100	24	112.182	108.621	-3.561
105	27	112.870	108.874	-3.996
105	28	113.161	107.807	-5.354
105	29	111.717	108.163	-3.554
105	30	111.035	107.846	-3.189
105	31	110.654	107.907	-2.747
Max		116.119	113.195	0.992
Average		112.201	109.924	-2.276
Min		108.982	106.761	-5.354
Std Dev		1.256	1.748	1.462



13.21_Sync2_vol_5V		
Test Site		
Tester		
Test Number		
Max Limit	600	mV
Min Limit		

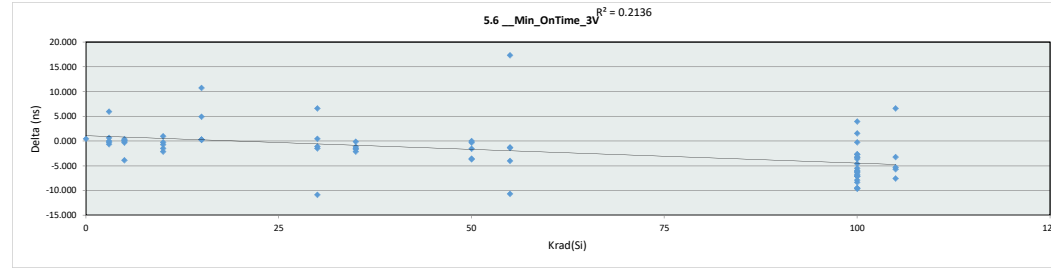
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	112.950	111.363	110.762	110.562	109.704	109.750	108.893	108.099	109.198	106.761	107.807
Average	112.950	111.990	111.609	111.739	111.157	111.257	109.947	109.594	110.773	108.226	108.119
Max	112.950	113.195	113.044	112.436	112.479	112.728	110.350	110.695	112.895	109.937	108.874
UL	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000	600.000



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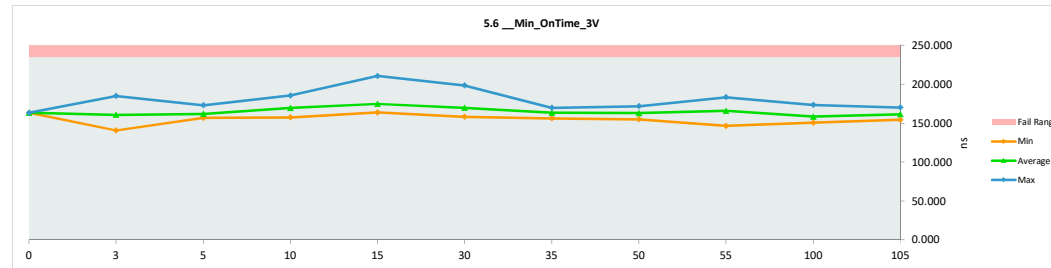
5.6_Min_OnTime_3V		
Test Site		
Tester		
Test Number		
Unit	ns	ns
Max Limit	235	235
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	162.956	163.377	0.421
3	66	153.720	153.444	-0.276
3	67	141.252	140.583	-0.669
3	68	158.075	158.725	0.650
3	69	179.080	185.011	5.931
3	70	165.727	165.742	0.015
5	71	160.278	159.967	-0.311
5	72	173.030	173.009	-0.021
5	73	160.622	156.705	-3.917
5	74	157.631	157.728	0.097
5	75	161.086	161.463	0.377
10	56	167.374	166.632	-0.742
10	57	160.976	160.724	-0.252
10	58	187.715	185.559	-2.156
10	59	158.922	157.403	-1.519
10	60	176.003	176.985	0.982
15	61	205.720	210.602	4.882
15	62	163.560	163.891	0.331
15	63	164.898	165.145	0.247
15	64	159.282	169.984	10.702
15	65	163.562	163.803	0.241
30	46	159.309	159.781	0.472
30	47	159.226	158.119	-1.107
30	48	170.462	168.969	-1.493
30	49	209.347	198.465	-10.882
30	50	157.102	163.701	6.599
35	51	167.436	167.295	-0.141
35	52	161.424	159.925	-1.499
35	53	164.523	163.350	-1.173
35	54	157.714	156.081	-1.633
35	55	171.832	169.675	-2.157
50	36	163.537	163.500	-0.037
50	37	163.290	162.960	-0.330
50	38	165.477	161.773	-3.704
50	39	175.367	171.819	-3.548
50	40	156.386	154.844	-1.542
55	41	166.607	165.265	-1.342
55	42	157.196	146.506	-10.690
55	43	168.389	167.118	-1.271
55	44	165.915	183.230	17.315
55	45	170.803	166.772	-4.031
100	1	161.016	164.956	3.940
100	2	163.388	156.250	-7.138
100	3	165.500	167.045	1.545
100	4	166.802	160.450	-6.352
100	5	173.515	173.267	-0.248
100	6	174.487	166.595	-7.892
100	9	163.370	153.742	-9.628
100	10	155.843	151.222	-4.621
100	11	168.516	161.399	-7.117
100	12	162.858	153.351	-9.507
100	13	156.395	153.065	-3.330
100	14	169.344	163.191	-6.153
100	15	163.515	160.840	-2.675
100	16	157.305	150.596	-6.709
100	17	156.282	153.044	-3.238
100	18	158.685	155.037	-3.648
100	19	160.276	154.323	-5.953
100	20	159.931	154.421	-5.510
100	21	172.461	162.943	-9.518
100	22	159.951	151.595	-8.356
100	23	158.838	151.788	-7.050
100	24	166.673	163.951	-2.722
105	27	166.722	163.502	-3.220
105	28	167.065	161.364	-5.701
105	29	162.966	157.636	-5.330
105	30	161.893	154.328	-7.565
105	31	163.536	170.113	6.577
	Max	209.347	210.602	17.315
	Average	165.146	163.171	-1.975
	Min	141.252	140.583	-10.882
	Std Dev	10.073	11.037	4.855



5.6_Min_OnTime_3V		
Test Site		
Tester		
Test Number		
Max Limit	235	ns
Min Limit		ns

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	163.377	140.583	156.705	157.403	163.803	158.119	156.081	154.844	146.506	150.596	154.328
Average	163.377	160.701	161.774	169.461	174.685	169.807	163.265	162.979	165.778	158.321	161.389
Max	163.377	185.011	173.009	185.559	210.602	198.465	169.675	171.819	183.230	173.267	170.113
UL	235.000	235.000	235.000	235.000	235.000	235.000	235.000	235.000	235.000	235.000	235.000

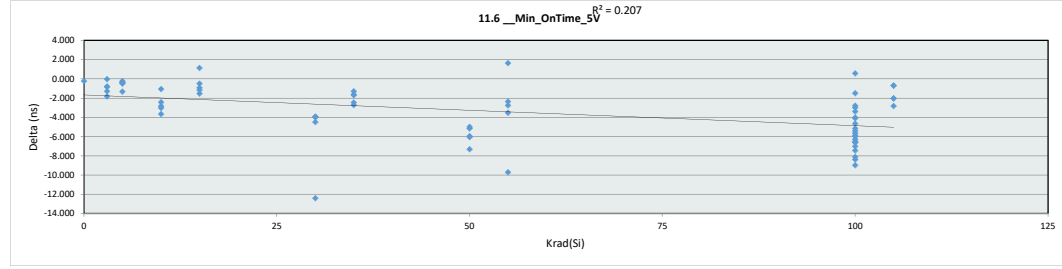


# HDR TID Report

## TPS7H4001-SP QMLP

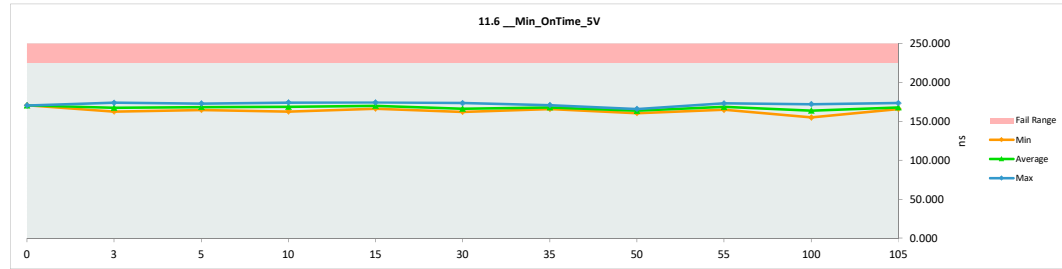
11.6_Min_OnTime_5V	
Test Site	
Tester	
Test Number	
Unit	ns
Max Limit	225
Min Limit	225

Krad(Si)	Serial #	PRE	POST	Delta
0	33	170.870	170.629	-0.241
3	66	164.657	162.819	-1.838
3	67	165.048	163.747	-1.301
3	68	166.484	165.651	-0.833
3	69	174.868	174.057	-0.811
3	70	171.762	171.714	-0.048
5	71	166.525	166.109	-0.416
5	72	173.178	172.933	-0.245
5	73	169.904	168.572	-1.332
5	74	165.262	164.755	-0.507
5	75	170.182	169.796	-0.386
10	56	173.735	170.911	-2.824
10	57	166.327	162.662	-3.665
10	58	177.263	174.216	-3.047
10	59	167.766	165.344	-2.422
10	60	171.799	170.723	-1.076
15	61	173.155	174.276	1.121
15	62	169.219	168.291	-0.928
15	63	173.528	173.021	-0.507
15	64	167.827	166.289	-1.538
15	65	169.834	168.650	-1.184
30	46	166.918	162.426	-4.492
30	47	168.123	164.167	-3.956
30	48	172.092	168.173	-3.919
30	49	186.081	173.674	-12.407
30	50	166.993	163.008	-3.985
35	51	172.358	171.069	-1.289
35	52	169.038	167.417	-1.621
35	53	168.355	165.879	-2.476
35	54	167.769	166.050	-1.719
35	55	172.063	169.342	-2.721
50	36	168.454	163.285	-5.169
50	37	173.212	165.879	-7.333
50	38	170.666	165.675	-4.991
50	39	169.086	163.136	-5.950
50	40	166.768	160.699	-6.069
55	41	174.112	171.750	-2.362
55	42	174.749	165.025	-9.724
55	43	169.861	166.317	-3.544
55	44	171.555	173.173	1.618
55	45	169.662	166.886	-2.776
100	1	170.713	169.221	-1.492
100	2	170.760	164.244	-6.516
100	3	171.672	172.237	0.565
100	4	169.772	164.120	-5.652
100	5	173.629	169.585	-4.044
100	6	173.536	168.373	-5.163
100	9	168.150	160.020	-8.130
100	10	165.705	158.692	-7.013
100	11	170.713	164.732	-5.981
100	12	164.834	159.392	-5.442
100	13	167.536	158.565	-8.971
100	14	174.425	168.136	-6.289
100	15	172.006	169.019	-2.987
100	16	165.495	159.610	-5.885
100	17	165.632	159.011	-6.621
100	18	168.445	164.363	-4.082
100	19	168.721	164.055	-4.666
100	20	168.473	160.084	-8.389
100	21	169.487	166.695	-2.792
100	22	162.556	155.090	-7.466
100	23	168.088	161.489	-6.599
100	24	172.416	169.029	-3.387
105	27	169.243	167.207	-2.036
105	28	167.199	166.478	-0.721
105	29	168.753	165.927	-2.826
105	30	168.460	166.441	-2.019
105	31	174.352	173.632	-0.720
Max		186.081	174.276	1.618
Average		169.969	166.524	-3.445
Min		162.556	155.090	-12.407
Std Dev		3.612	4.435	2.842



11.6_Min_OnTime_5V	
Test Site	
Tester	
Test Number	
Max Limit	225
Min Limit	ns

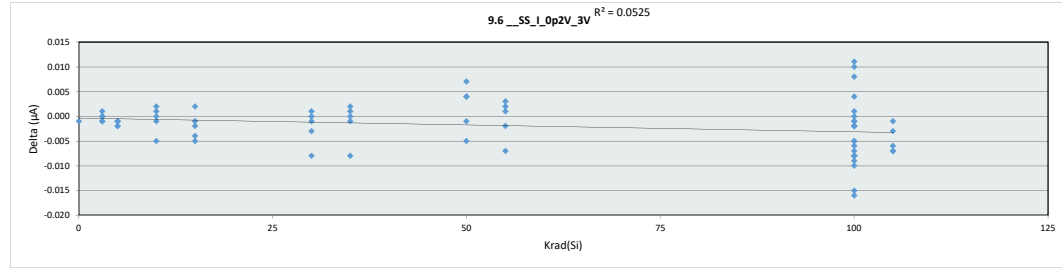
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	170.629	162.819	164.755	162.662	166.289	162.426	165.879	160.699	165.025	155.090	165.927
Average	170.629	167.598	168.433	168.771	170.105	166.290	167.951	163.735	168.630	163.898	167.937
Max	170.629	174.057	172.933	174.216	174.276	173.674	171.069	165.879	173.173	172.237	173.632
UL	225.000	225.000	225.000	225.000	225.000	225.000	225.000	225.000	225.000	225.000	225.000



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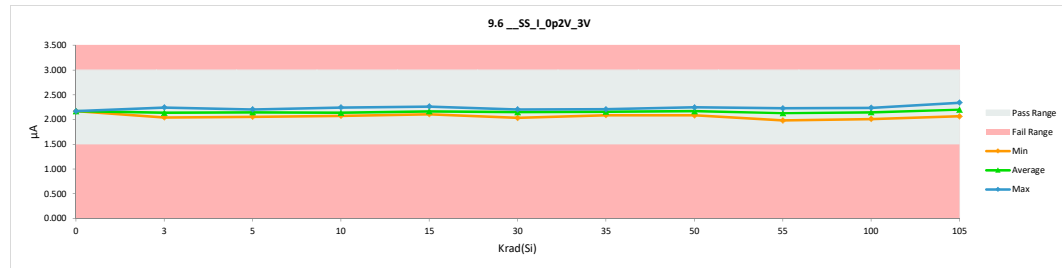
9.6_SS_I_0p2V_3V		
Test Site		
Tester		
Test Number		
Unit	µA	µA
Max Limit	3	3
Min Limit	1.5	1.5

Krad(Si)	Serial #	PRE	POST	Delta
0	33	2.169	2.168	-0.001
3	66	2.041	2.041	0.000
3	67	2.224	2.223	-0.001
3	68	2.240	2.240	0.000
3	69	2.060	2.061	0.001
3	70	2.112	2.111	-0.001
5	71	2.203	2.201	-0.002
5	72	2.173	2.172	-0.001
5	73	2.054	2.052	-0.002
5	74	2.108	2.107	-0.001
5	75	2.185	2.184	-0.001
10	56	2.242	2.241	-0.001
10	57	2.159	2.159	0.000
10	58	2.109	2.111	0.002
10	59	2.094	2.089	-0.005
10	60	2.075	2.076	0.001
15	61	2.148	2.150	0.002
15	62	2.267	2.263	-0.004
15	63	2.107	2.105	-0.002
15	64	2.155	2.154	-0.001
15	65	2.157	2.152	-0.005
30	46	2.035	2.032	-0.003
30	47	2.209	2.201	-0.008
30	48	2.187	2.186	-0.001
30	49	2.152	2.153	0.001
30	50	2.170	2.170	0.000
35	51	2.184	2.184	0.000
35	52	2.144	2.145	0.001
35	53	2.207	2.206	-0.001
35	54	2.085	2.087	0.002
35	55	2.176	2.168	-0.008
50	36	2.238	2.245	0.007
50	37	2.080	2.084	0.004
50	38	2.189	2.188	-0.001
50	39	2.176	2.180	0.004
50	40	2.147	2.142	-0.005
55	41	2.143	2.144	0.001
55	42	2.228	2.226	-0.002
55	43	2.164	2.167	0.003
55	44	2.115	2.117	0.002
55	45	1.987	1.980	-0.007
100	1	2.231	2.229	-0.002
100	2	2.139	2.138	-0.001
100	3	2.187	2.198	0.011
100	4	2.160	2.152	-0.008
100	5	2.094	2.078	-0.016
100	6	2.193	2.191	-0.002
100	9	2.092	2.084	-0.008
100	10	2.199	2.191	-0.008
100	11	2.180	2.190	0.010
100	12	2.125	2.115	-0.010
100	13	2.143	2.144	0.001
100	14	2.158	2.153	-0.005
100	15	2.073	2.067	-0.006
100	16	2.185	2.170	-0.015
100	17	2.198	2.198	0.000
100	18	2.097	2.096	-0.001
100	19	2.084	2.092	0.008
100	20	2.012	2.007	-0.005
100	21	2.119	2.112	-0.007
100	22	2.165	2.163	-0.002
100	23	2.229	2.220	-0.009
100	24	2.231	2.235	0.004
105	27	2.216	2.210	-0.006
105	28	2.261	2.258	-0.003
105	29	2.339	2.338	-0.001
105	30	2.071	2.064	-0.007
105	31	2.120	2.113	-0.007
	Max	2.339	2.338	0.011
	Average	2.153	2.151	-0.002
	Min	1.987	1.980	-0.016
	Std Dev	0.066	0.067	0.005



9.6_SS_I_0p2V_3V		
Test Site		
Tester		
Test Number		
Max Limit	3	µA
Min Limit	1.5	µA

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
Min	2.168	2.041	2.052	2.076	2.105	2.032	2.087	2.084	1.980	2.007	2.064
Average	2.168	2.135	2.143	2.135	2.165	2.148	2.158	2.168	2.127	2.147	2.197
Max	2.168	2.240	2.201	2.241	2.263	2.201	2.206	2.245	2.226	2.235	2.338
UL	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000



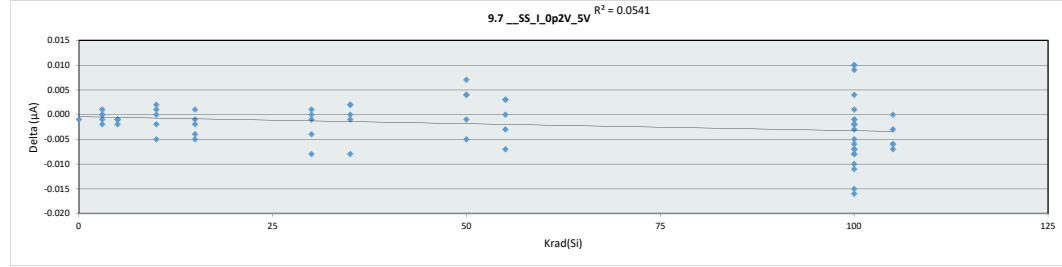


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## TPS7H4001-SP QMLP

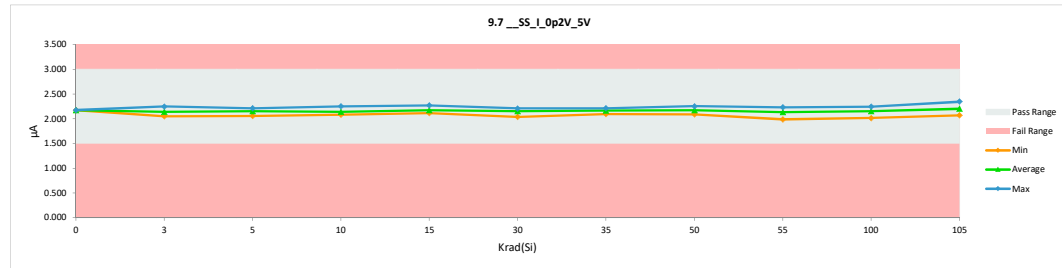
9.7_SS_I_0p2V_5V		
Test Site		
Tester		
Test Number		
Unit	µA	µA
Max Limit	3	3
Min Limit	1.5	1.5

Krad(Si)	Serial #	PRE	POST	Delta
0	33	2.174	2.173	-0.001
3	66	2.046	2.046	0.000
3	67	2.229	2.229	0.000
3	68	2.246	2.245	-0.001
3	69	2.065	2.066	0.001
3	70	2.118	2.116	-0.002
5	71	2.208	2.207	-0.001
5	72	2.178	2.177	-0.001
5	73	2.059	2.057	-0.002
5	74	2.114	2.113	-0.001
5	75	2.191	2.190	-0.001
10	56	2.248	2.246	-0.002
10	57	2.164	2.164	0.000
10	58	2.114	2.116	0.002
10	59	2.099	2.094	-0.005
10	60	2.081	2.082	0.001
15	61	2.154	2.155	0.001
15	62	2.273	2.269	-0.004
15	63	2.112	2.110	-0.002
15	64	2.161	2.160	-0.001
15	65	2.162	2.157	-0.005
30	46	2.041	2.037	-0.004
30	47	2.214	2.206	-0.008
30	48	2.192	2.191	-0.001
30	49	2.158	2.159	0.001
30	50	2.176	2.176	0.000
35	51	2.189	2.189	0.000
35	52	2.149	2.151	0.002
35	53	2.213	2.212	-0.001
35	54	2.090	2.092	0.002
35	55	2.181	2.173	-0.008
50	36	2.244	2.251	0.007
50	37	2.085	2.089	0.004
50	38	2.195	2.194	-0.001
50	39	2.181	2.185	0.004
50	40	2.152	2.147	-0.005
55	41	2.149	2.149	0.000
55	42	2.234	2.231	-0.003
55	43	2.169	2.172	0.003
55	44	2.120	2.123	0.003
55	45	1.992	1.985	-0.007
100	1	2.236	2.234	-0.002
100	2	2.145	2.143	-0.002
100	3	2.193	2.203	0.010
100	4	2.165	2.158	-0.007
100	5	2.099	2.083	-0.016
100	6	2.199	2.196	-0.003
100	9	2.097	2.089	-0.008
100	10	2.205	2.197	-0.008
100	11	2.186	2.196	0.010
100	12	2.131	2.120	-0.011
100	13	2.148	2.149	0.001
100	14	2.163	2.158	-0.005
100	15	2.080	2.073	-0.007
100	16	2.190	2.175	-0.015
100	17	2.204	2.203	-0.001
100	18	2.102	2.101	-0.001
100	19	2.089	2.098	0.009
100	20	2.018	2.012	-0.006
100	21	2.125	2.118	-0.007
100	22	2.170	2.168	-0.002
100	23	2.235	2.225	-0.010
100	24	2.237	2.241	0.004
105	27	2.221	2.215	-0.006
105	28	2.267	2.264	-0.003
105	29	2.344	2.344	0.000
105	30	2.076	2.069	-0.007
105	31	2.125	2.119	-0.006
	Max	2.344	2.344	0.010
	Average	2.158	2.156	-0.002
	Min	1.992	1.985	-0.016
	Std Dev	0.066	0.067	0.005



9.7_SS_I_0p2V_5V		
Test Site		
Tester		
Test Number		
Max Limit	3	µA
Min Limit	1.5	µA

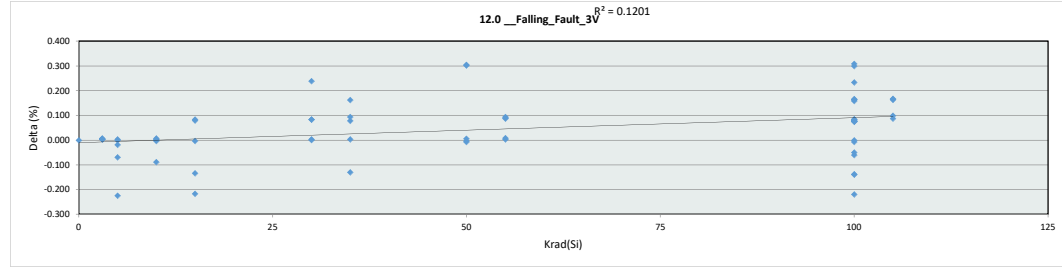
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
Min	2.173	2.046	2.057	2.082	2.110	2.037	2.092	2.089	1.985	2.012	2.069
Average	2.173	2.140	2.149	2.140	2.170	2.154	2.163	2.173	2.132	2.152	2.202
Max	2.173	2.245	2.207	2.246	2.269	2.206	2.212	2.251	2.231	2.241	2.344
UL	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000



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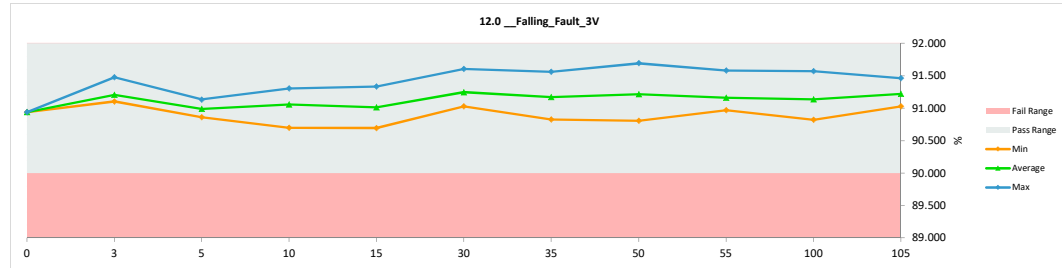
12.0 __Falling_Fault_3V		
Test Site		
Tester		
Test Number		
Unit	%	%
Max Limit		
Min Limit	90	90

Krad(Si)	Serial #	PRE	POST	Delta
0	33	90.940	90.938	-0.002
3	66	91.108	91.112	0.004
3	67	91.188	91.192	0.004
3	68	91.128	91.131	0.003
3	69	91.472	91.478	0.006
3	70	91.099	91.103	0.004
5	71	91.027	91.029	0.002
5	72	91.086	90.861	-0.225
5	73	90.981	90.962	-0.019
5	74	91.135	91.133	-0.002
5	75	91.023	90.953	-0.070
10	56	91.241	91.237	-0.004
10	57	90.785	90.695	-0.090
10	58	91.021	91.027	0.006
10	59	91.305	91.305	0.000
10	60	91.010	91.013	0.003
15	61	91.247	91.029	-0.218
15	62	90.907	90.903	-0.004
15	63	90.829	90.694	-0.135
15	64	91.249	91.332	0.083
15	65	91.033	91.112	0.079
30	46	91.108	91.190	0.082
30	47	91.105	91.105	0.000
30	48	91.303	91.305	0.002
30	49	90.947	91.029	0.082
30	50	91.367	91.605	0.238
35	51	91.130	91.208	0.078
35	52	91.044	90.913	-0.131
35	53	91.186	91.348	0.162
35	54	90.824	90.827	0.003
35	55	91.469	91.562	0.093
50	36	91.394	91.390	-0.004
50	37	91.389	91.692	0.303
50	38	90.798	90.803	0.005
50	39	91.169	91.161	-0.008
50	40	90.730	91.031	0.301
55	41	90.875	90.968	0.093
55	42	91.103	91.105	0.002
55	43	90.942	91.031	0.089
55	44	91.494	91.580	0.086
55	45	91.103	91.110	0.007
100	1	90.993	91.069	0.076
100	2	90.949	90.888	-0.061
100	3	91.052	91.044	-0.008
100	4	91.130	91.213	0.083
100	5	91.027	90.887	-0.140
100	6	91.210	91.286	0.076
100	9	90.947	91.021	0.074
100	10	90.855	91.012	0.157
100	11	91.101	91.050	-0.051
100	12	91.334	91.410	0.076
100	13	91.432	91.294	-0.138
100	14	91.124	91.356	0.232
100	15	91.042	90.822	-0.220
100	16	90.746	90.909	0.163
100	17	90.825	91.133	0.308
100	18	91.099	91.264	0.165
100	19	90.885	91.048	0.163
100	20	91.002	91.300	0.298
100	21	90.937	91.013	0.076
100	22	91.493	91.571	0.078
100	23	90.903	90.987	0.084
100	24	91.443	91.441	-0.002
105	27	90.940	91.027	0.087
105	28	90.905	91.069	0.164
105	29	91.017	91.180	0.163
105	30	91.362	91.460	0.098
105	31	91.190	91.356	0.166
Max	91.494	91.692	0.308	
Average	91.092	91.137	0.045	
Min	90.730	90.694	-0.225	
Std Dev	0.196	0.222	0.117	



12.0 __Falling_Fault_3V		
Test Site		
Tester		
Test Number		
Max Limit	%	%
Min Limit	90	%

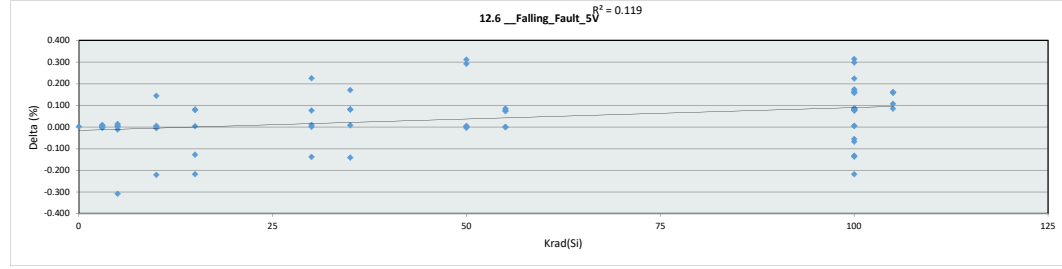
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000
Min	90.938	91.103	90.861	90.695	90.694	91.029	90.827	90.803	90.968	90.822	91.027
Average	90.938	91.203	90.988	91.055	91.014	91.247	91.172	91.215	91.159	91.137	91.218
Max	90.938	91.478	91.133	91.305	91.332	91.605	91.562	91.692	91.580	91.571	91.460
UL											



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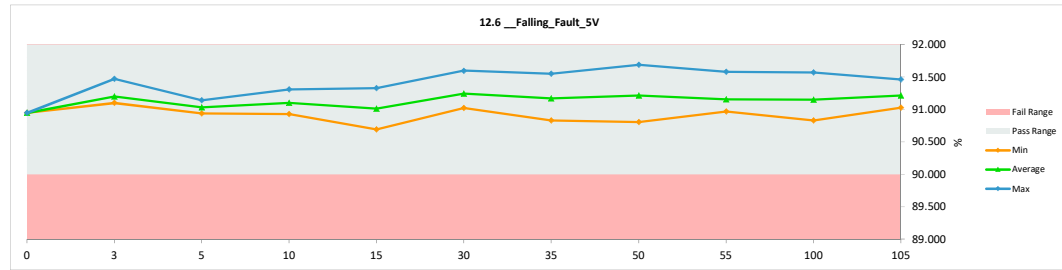
12.6 _Falling_Fault_5V		
Test Site		
Tester		
Test Number		
Unit	%	%
Max Limit		
Min Limit	90	90

Krad(Si)	Serial #	PRE	POST	Delta
0	33	90.944	90.946	0.002
3	66	91.103	91.107	0.004
3	67	91.186	91.190	0.004
3	68	91.131	91.128	-0.003
3	69	91.476	91.472	-0.004
3	70	91.090	91.099	0.009
5	71	91.029	91.031	0.002
5	72	91.082	91.086	0.004
5	73	90.972	90.961	-0.011
5	74	91.126	91.139	0.013
5	75	91.247	90.938	-0.309
10	56	91.237	91.237	0.000
10	57	90.783	90.927	0.144
10	58	91.251	91.029	-0.222
10	59	91.305	91.309	0.004
10	60	91.021	91.015	-0.006
15	61	91.252	91.034	-0.218
15	62	90.898	90.901	0.003
15	63	90.820	90.692	-0.128
15	64	91.247	91.327	0.080
15	65	91.029	91.108	0.079
30	46	91.327	91.188	-0.139
30	47	91.107	91.107	0.000
30	48	91.300	91.309	0.009
30	49	90.946	91.021	0.075
30	50	91.372	91.597	0.225
35	51	91.133	91.215	0.082
35	52	91.048	90.907	-0.141
35	53	91.188	91.358	0.170
35	54	90.822	90.829	0.007
35	55	91.472	91.552	0.080
50	36	91.385	91.389	0.004
50	37	91.396	91.688	0.292
50	38	90.809	90.805	-0.004
50	39	91.163	91.165	0.002
50	40	90.720	91.031	0.311
55	41	90.894	90.966	0.072
55	42	91.107	91.107	0.000
55	43	90.946	91.023	0.077
55	44	91.494	91.578	0.084
55	45	91.108	91.107	-0.001
100	1	90.989	91.073	0.084
100	2	90.949	90.881	-0.068
100	3	91.046	91.050	0.004
100	4	91.131	91.208	0.077
100	5	91.025	90.892	-0.133
100	6	91.212	91.296	0.084
100	9	90.944	91.027	0.083
100	10	90.850	91.015	0.165
100	11	91.103	91.276	0.173
100	12	91.329	91.407	0.078
100	13	91.431	91.294	-0.137
100	14	91.126	91.350	0.224
100	15	91.048	90.829	-0.219
100	16	90.744	90.901	0.157
100	17	90.818	91.131	0.313
100	18	91.098	91.260	0.162
100	19	91.108	91.052	-0.056
100	20	91.008	91.305	0.297
100	21	90.937	91.013	0.076
100	22	91.493	91.571	0.078
100	23	90.901	90.987	0.086
100	24	91.445	91.450	0.005
105	27	90.944	91.029	0.085
105	28	90.903	91.063	0.160
105	29	91.017	91.176	0.159
105	30	91.354	91.460	0.106
105	31	91.190	91.350	0.160
	Max	91.494	91.688	0.313
	Average	91.105	91.147	0.042
	Min	90.720	90.692	-0.309
	Std Dev	0.198	0.214	0.125



12.6 _Falling_Fault_5V		
Test Site		
Tester		
Test Number		
Max Limit	%	%
Min Limit	90	%

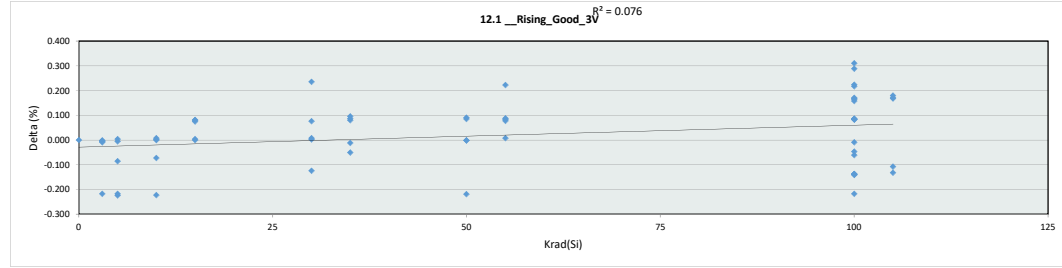
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000	90.000
Min	90.946	91.099	90.938	90.927	90.692	91.021	90.829	90.805	90.966	90.829	91.029
Average	90.946	91.199	91.031	91.103	91.012	91.244	91.172	91.216	91.156	91.149	91.216
Max	90.946	91.472	91.139	91.309	91.327	91.597	91.552	91.688	91.578	91.571	91.460
UL											



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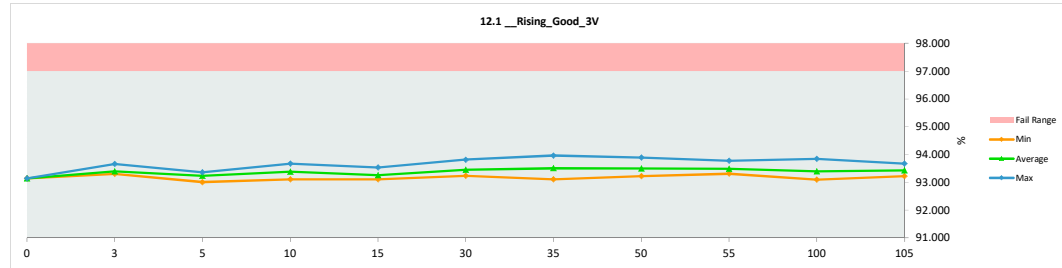
12.1_Rising_Good_3V			
Test Site			
Tester			
Test Number			
Unit	%	%	
Max Limit	97	97	
Min Limit			

Krad(Si)	Serial #	PRE	POST	Delta
0	33	93.142	93.142	0.000
3	66	93.308	93.302	-0.006
3	67	93.395	93.391	-0.004
3	68	93.344	93.335	-0.009
3	69	93.876	93.658	-0.218
3	70	93.307	93.305	-0.002
5	71	93.230	93.006	-0.224
5	72	93.281	93.275	-0.006
5	73	93.389	93.171	-0.218
5	74	93.336	93.340	0.004
5	75	93.448	93.362	-0.086
10	56	93.673	93.673	0.000
10	57	93.182	93.110	-0.072
10	58	93.440	93.442	0.002
10	59	93.712	93.489	-0.223
10	60	93.217	93.225	0.008
15	61	93.222	93.222	0.000
15	62	93.108	93.112	0.004
15	63	93.030	93.105	0.075
15	64	93.448	93.529	0.081
15	65	93.224	93.304	0.080
30	46	93.311	93.387	0.076
30	47	93.304	93.311	0.007
30	48	93.485	93.487	0.002
30	49	93.355	93.231	-0.124
30	50	93.579	93.814	0.235
35	51	93.555	93.651	0.096
35	52	93.028	93.108	0.080
35	53	93.611	93.561	-0.050
35	54	93.255	93.243	-0.012
35	55	93.874	93.960	0.086
50	36	93.790	93.789	-0.001
50	37	93.796	93.886	0.090
50	38	93.226	93.224	-0.002
50	39	93.574	93.355	-0.219
50	40	93.146	93.231	0.085
55	41	93.309	93.393	0.084
55	42	93.302	93.524	0.222
55	43	93.358	93.446	0.088
55	44	93.696	93.774	0.078
55	45	93.304	93.311	0.007
100	1	93.420	93.282	-0.138
100	2	93.150	93.308	0.158
100	3	93.260	93.251	-0.009
100	4	93.331	93.415	0.084
100	5	93.228	93.089	-0.139
100	6	93.424	93.506	0.082
100	9	93.357	93.442	0.085
100	10	93.282	93.221	-0.061
100	11	93.522	93.475	-0.047
100	12	93.528	93.391	-0.137
100	13	93.645	93.504	-0.141
100	14	93.336	93.553	0.217
100	15	93.471	93.253	-0.218
100	16	92.938	93.108	0.170
100	17	93.021	93.331	0.310
100	18	93.309	93.474	0.165
100	19	93.084	93.251	0.167
100	20	93.194	93.482	0.288
100	21	93.137	93.221	0.084
100	22	93.909	93.772	-0.137
100	23	93.338	93.424	0.086
100	24	93.623	93.846	0.223
105	27	93.358	93.226	-0.132
105	28	93.108	93.278	0.170
105	29	93.223	93.391	0.168
105	30	93.780	93.673	-0.107
105	31	93.387	93.567	0.180
	Max	93.909	93.960	0.310
	Average	93.375	93.396	0.020
	Min	92.938	93.006	-0.224
	Std Dev	0.222	0.213	0.129



12.1_Rising_Good_3V			
Test Site			
Tester			
Test Number			
Max Limit	97	%	
Min Limit		%	

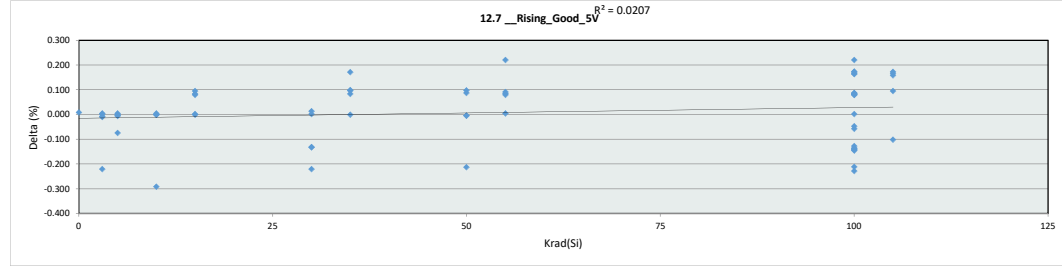
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	93.142	93.302	93.006	93.110	93.105	93.231	93.108	93.224	93.311	93.089	93.226
Average	93.142	93.398	93.231	93.388	93.254	93.446	93.505	93.497	93.490	93.391	93.427
Max	93.142	93.658	93.362	93.673	93.529	93.814	93.960	93.886	93.774	93.846	93.673
UL	97.000	97.000	97.000	97.000	97.000	97.000	97.000	97.000	97.000	97.000	97.000



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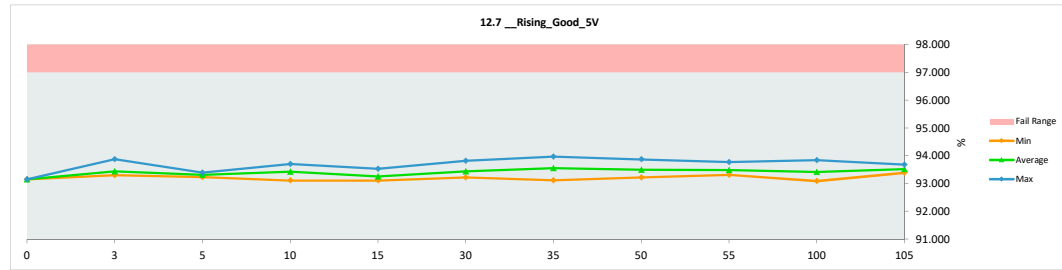
12.7 __ Rising_Good_5V		
Test Site		
Tester		
Test Number		
Unit	%	%
Max Limit	97	97
Min Limit		

Krad(S)	Serial #	PRE	POST	Delta
0	33	93.142	93.150	0.008
3	66	93.529	93.309	-0.220
3	67	93.386	93.391	0.005
3	68	93.338	93.331	-0.007
3	69	93.878	93.880	0.002
3	70	93.311	93.301	-0.010
5	71	93.231	93.230	-0.001
5	72	93.269	93.273	0.004
5	73	93.397	93.391	-0.006
5	74	93.336	93.333	-0.003
5	75	93.442	93.368	-0.074
10	56	93.669	93.669	0.000
10	57	93.404	93.112	-0.292
10	58	93.449	93.448	-0.001
10	59	93.710	93.710	0.000
10	60	93.221	93.226	0.005
15	61	93.224	93.226	0.002
15	62	93.112	93.112	0.000
15	63	93.034	93.118	0.084
15	64	93.436	93.531	0.095
15	65	93.230	93.309	0.079
30	46	93.522	93.391	-0.131
30	47	93.524	93.304	-0.220
30	48	93.480	93.493	0.013
30	49	93.357	93.224	-0.133
30	50	93.814	93.816	0.002
35	51	93.557	93.656	0.099
35	52	93.032	93.116	0.084
35	53	93.611	93.782	0.171
35	54	93.255	93.255	0.000
35	55	93.874	93.970	0.096
50	36	93.794	93.790	-0.004
50	37	93.785	93.872	0.087
50	38	93.231	93.226	-0.005
50	39	93.573	93.360	-0.213
50	40	93.133	93.230	0.097
55	41	93.308	93.393	0.085
55	42	93.313	93.533	0.220
55	43	93.353	93.444	0.091
55	44	93.696	93.776	0.080
55	45	93.304	93.309	0.005
100	1	93.422	93.276	-0.146
100	2	93.144	93.308	0.164
100	3	93.473	93.262	-0.211
100	4	93.338	93.417	0.079
100	5	93.224	93.089	-0.135
100	6	93.649	93.510	-0.139
100	9	93.358	93.444	0.086
100	10	93.280	93.454	0.174
100	11	93.526	93.479	-0.047
100	12	93.526	93.608	0.082
100	13	93.649	93.510	-0.139
100	14	93.557	93.559	0.002
100	15	93.477	93.249	-0.228
100	16	92.943	93.114	0.171
100	17	93.255	93.342	0.087
100	18	93.314	93.479	0.165
100	19	93.309	93.251	-0.058
100	20	93.413	93.496	0.083
100	21	93.362	93.219	-0.143
100	22	93.907	93.780	-0.127
100	23	93.336	93.415	0.079
100	24	93.621	93.842	0.221
105	27	93.349	93.444	0.095
105	28	93.336	93.508	0.172
105	29	93.232	93.391	0.159
105	30	93.783	93.681	-0.102
105	31	93.397	93.563	0.166
	Max	93.907	93.970	0.221
	Average	93.418	93.427	0.009
	Min	92.943	93.089	-0.292
	Std Dev	0.215	0.217	0.119



12.7 __ Rising_Good_5V		
Test Site		
Tester		
Test Number		
Max Limit	97	%
Min Limit		%

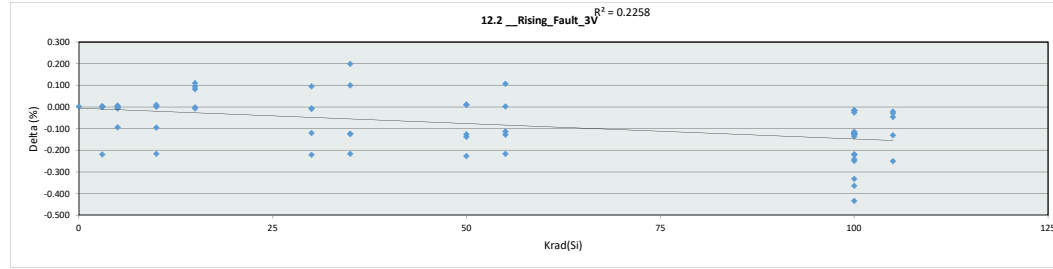
Krad(S)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	93.150	93.301	93.230	93.112	93.112	93.224	93.116	93.226	93.309	93.089	93.391
Average	93.150	93.442	93.319	93.433	93.259	93.446	93.556	93.496	93.491	93.414	93.517
Max	93.150	93.880	93.391	93.710	93.531	93.816	93.970	93.872	93.776	93.842	93.681
UL	97.000	97.000	97.000	97.000	97.000	97.000	97.000	97.000	97.000	97.000	97.000



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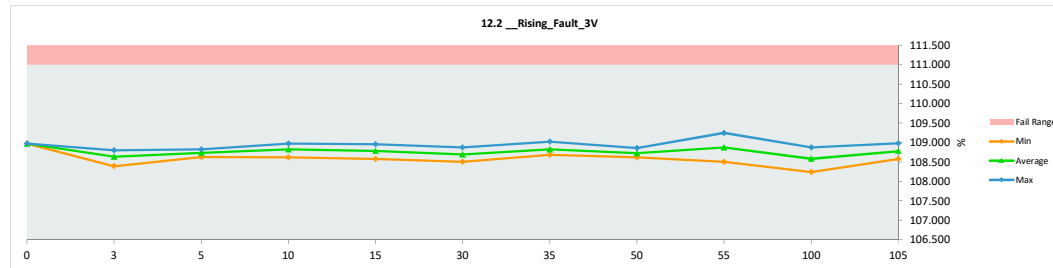
12.2_Rising_Fault_3V	
Test Site	
Tester	
Test Number	
Unit	% %
Max Limit	111 111
Min Limit	

Krad(Si)	Serial #	PRE	POST	Delta
0	33	108.972	108.974	0.002
3	66	108.725	108.727	0.002
3	67	108.395	108.395	0.000
3	68	108.801	108.801	0.000
3	69	108.851	108.631	-0.220
3	70	108.633	108.637	0.004
5	71	108.626	108.633	0.007
5	72	108.668	108.661	-0.007
5	73	108.832	108.830	-0.002
5	74	108.805	108.805	0.000
5	75	108.850	108.756	-0.094
10	56	108.976	108.978	0.002
10	57	108.779	108.684	-0.095
10	58	108.622	108.624	0.002
10	59	108.876	108.886	0.010
10	60	109.194	108.978	-0.216
15	61	108.633	108.631	-0.002
15	62	108.588	108.581	-0.007
15	63	108.707	108.801	0.094
15	64	108.846	108.956	0.110
15	65	108.863	108.945	0.082
30	46	108.507	108.602	0.095
30	47	108.511	108.503	-0.008
30	48	108.884	108.878	-0.006
30	49	108.976	108.855	-0.121
30	50	108.876	108.655	-0.221
35	51	108.584	108.684	0.100
35	52	109.145	109.020	-0.125
35	53	108.824	109.022	0.198
35	54	108.918	108.702	-0.216
35	55	108.846	108.723	-0.123
50	36	108.985	108.758	-0.227
50	37	108.760	108.622	-0.138
50	38	108.848	108.859	0.011
50	39	108.748	108.758	0.010
50	40	108.760	108.633	-0.127
55	41	109.165	109.052	-0.113
55	42	108.725	108.509	-0.216
55	43	108.758	108.630	-0.128
55	44	109.141	109.248	0.107
55	45	108.951	108.953	0.002
100	1	108.682	108.559	-0.123
100	2	108.754	108.505	-0.249
100	3	108.924	108.704	-0.220
100	4	108.803	108.678	-0.125
100	5	108.848	108.729	-0.119
100	6	108.688	108.561	-0.127
100	9	108.756	108.630	-0.126
100	10	108.559	108.542	-0.017
100	11	108.507	108.491	-0.016
100	12	108.949	108.821	-0.128
100	13	108.903	108.776	-0.127
100	14	108.796	108.362	-0.434
100	15	108.491	108.272	-0.219
100	16	108.810	108.794	-0.016
100	17	108.702	108.588	-0.114
100	18	108.633	108.607	-0.026
100	19	108.729	108.487	-0.242
100	20	109.013	108.878	-0.135
100	21	108.662	108.298	-0.364
100	22	108.920	108.588	-0.332
100	23	108.367	108.242	-0.125
100	24	109.002	108.783	-0.219
105	27	108.979	108.848	-0.131
105	28	108.807	108.778	-0.029
105	29	108.974	108.723	-0.251
105	30	109.026	108.980	-0.046
105	31	108.602	108.581	-0.021
Max		109.194	109.248	0.198
Average		108.795	108.712	-0.083
Min		108.367	108.242	-0.434
Std Dev		0.178	0.195	0.121



12.2_Rising_Fault_3V	
Test Site	
Tester	
Test Number	
Max Limit	111 %
Min Limit	%

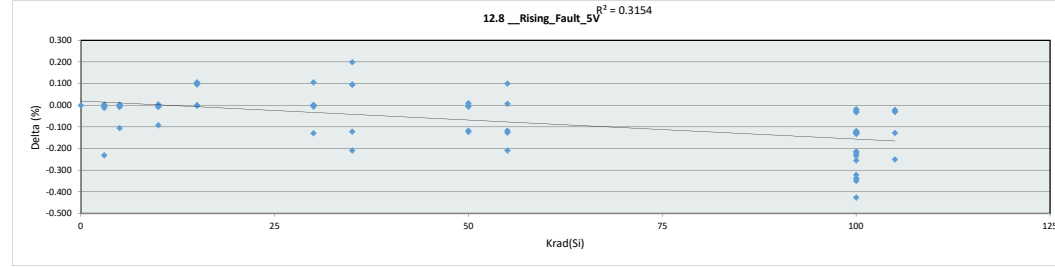
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	108.974	108.395	108.633	108.624	108.581	108.503	108.684	108.622	108.509	108.242	108.581
Average	108.974	108.638	108.737	108.830	108.783	108.699	108.830	108.726	108.878	108.586	108.782
Max	108.974	108.801	108.830	108.978	108.956	108.878	109.022	108.859	109.248	108.878	108.980
UL	111.000	111.000	111.000	111.000	111.000	111.000	111.000	111.000	111.000	111.000	111.000



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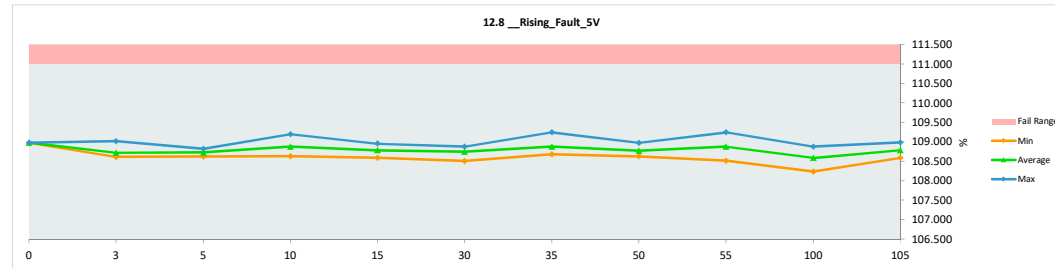
12.8 __ Rising Fault_5V	
Test Site	
Tester	
Test Number	
Unit	%
Max Limit	111
Min Limit	111

Krad(Si)	Serial #	PRE	POST	Delta
0	33	108.977	108.976	-0.001
3	66	108.723	108.727	0.004
3	67	108.612	108.612	0.000
3	68	109.029	109.016	-0.013
3	69	108.851	108.620	-0.231
3	70	108.640	108.633	-0.007
5	71	108.628	108.620	-0.008
5	72	108.653	108.655	0.002
5	73	108.819	108.821	0.002
5	74	108.807	108.803	-0.004
5	75	108.857	108.752	-0.105
10	56	108.978	108.982	0.004
10	57	108.779	108.686	-0.093
10	58	108.630	108.628	-0.002
10	59	108.886	108.878	-0.008
10	60	109.199	109.196	-0.003
15	61	108.626	108.624	-0.002
15	62	108.590	108.590	0.000
15	63	108.694	108.797	0.103
15	64	108.850	108.945	0.095
15	65	108.850	108.955	0.105
30	46	108.505	108.610	0.105
30	47	108.507	108.507	0.000
30	48	108.886	108.880	-0.006
30	49	108.977	108.848	-0.129
30	50	108.880	108.880	0.000
35	51	108.586	108.682	0.096
35	52	109.148	109.244	0.096
35	53	108.824	109.022	0.198
35	54	108.920	108.711	-0.209
35	55	108.853	108.731	-0.122
50	36	108.964	108.974	0.010
50	37	108.750	108.626	-0.124
50	38	108.851	108.850	-0.001
50	39	108.756	108.750	-0.006
50	40	108.752	108.635	-0.117
55	41	109.167	109.050	-0.117
55	42	108.723	108.514	-0.209
55	43	108.758	108.631	-0.127
55	44	109.145	109.244	0.099
55	45	108.947	108.953	0.006
100	1	108.689	108.566	-0.123
100	2	108.758	108.503	-0.255
100	3	108.920	108.707	-0.213
100	4	108.799	108.678	-0.121
100	5	108.851	108.721	-0.130
100	6	108.886	108.564	-0.322
100	9	108.752	108.624	-0.128
100	10	108.561	108.529	-0.032
100	11	108.509	108.491	-0.018
100	12	108.953	108.821	-0.132
100	13	108.901	108.776	-0.125
100	14	108.799	108.373	-0.426
100	15	108.489	108.272	-0.217
100	16	108.826	108.805	-0.021
100	17	108.707	108.586	-0.121
100	18	108.633	108.603	-0.030
100	19	108.721	108.487	-0.234
100	20	109.006	108.878	-0.128
100	21	108.662	108.313	-0.349
100	22	108.920	108.582	-0.338
100	23	108.575	108.238	-0.337
100	24	109.008	108.783	-0.225
105	27	108.972	108.844	-0.128
105	28	108.803	108.772	-0.031
105	29	108.982	108.731	-0.251
105	30	109.009	108.980	-0.029
105	31	108.612	108.590	-0.022
Max		109.199	109.244	0.198
Average		108.807	108.731	-0.077
Min		108.489	108.238	-0.426
Std Dev		0.169	0.209	0.126



12.8 __ Rising Fault_5V	
Test Site	
Tester	
Test Number	
Max Limit	111
Min Limit	%

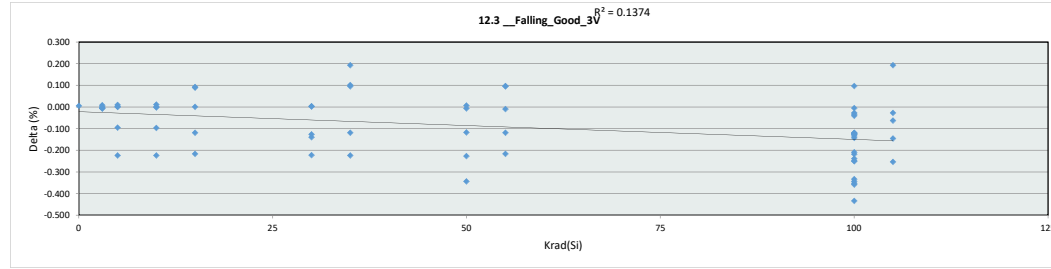
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	108.976	108.612	108.620	108.628	108.590	108.507	108.682	108.626	108.514	108.238	108.590
Average	108.976	108.722	108.730	108.874	108.782	108.745	108.878	108.767	108.878	108.586	108.783
Max	108.976	109.016	108.821	109.196	108.955	108.880	109.244	108.974	109.244	108.878	108.980
UL	111.000	111.000	111.000	111.000	111.000	111.000	111.000	111.000	111.000	111.000	111.000



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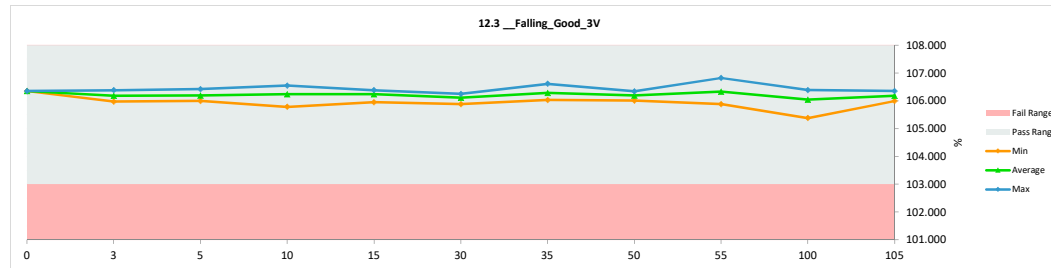
12.3 _Falling_Good_3V		
Test Site		
Tester		
Test Number		
Unit	%	%
Max Limit		
Min Limit	103	103

Krad(Si)	Serial #	PRE	POST	Delta
0	33	106.345	106.350	0.005
3	66	106.097	106.105	0.008
3	67	105.974	105.970	-0.004
3	68	106.389	106.383	-0.006
3	69	106.235	106.229	-0.006
3	70	106.196	106.196	0.000
5	71	106.224	106.000	-0.224
5	72	106.028	106.038	0.010
5	73	106.420	106.420	0.000
5	74	106.162	106.162	0.000
5	75	106.446	106.350	-0.096
10	56	106.324	106.322	-0.002
10	57	106.378	106.281	-0.097
10	58	106.008	105.784	-0.224
10	59	106.252	106.252	0.000
10	60	106.542	106.553	0.011
15	61	106.235	106.235	0.000
15	62	106.164	105.947	-0.217
15	63	106.288	106.381	0.093
15	64	106.231	106.321	0.090
15	65	106.440	106.321	-0.119
30	46	106.106	105.966	-0.140
30	47	106.105	105.883	-0.222
30	48	106.252	106.254	0.002
30	49	106.350	106.224	-0.126
30	50	106.224	106.228	0.004
35	51	105.938	106.033	0.095
35	52	106.732	106.613	-0.119
35	53	106.198	106.391	0.193
35	54	106.291	106.067	-0.224
35	55	106.222	106.323	0.101
50	36	106.350	106.343	-0.007
50	37	106.349	106.006	-0.343
50	38	106.229	106.235	0.006
50	39	106.356	106.129	-0.227
50	40	106.350	106.233	-0.117
55	41	106.537	106.418	-0.119
55	42	106.097	105.881	-0.216
55	43	106.129	106.226	0.097
55	44	106.730	106.826	0.096
55	45	106.326	106.317	-0.009
100	1	106.260	105.902	-0.358
100	2	106.354	106.105	-0.249
100	3	106.289	106.071	-0.218
100	4	106.387	106.260	-0.127
100	5	106.226	106.323	0.097
100	6	106.262	105.909	-0.353
100	9	106.133	106.013	-0.120
100	10	106.127	106.100	-0.027
100	11	106.106	106.065	-0.041
100	12	106.326	106.183	-0.143
100	13	106.479	106.355	-0.124
100	14	106.153	105.944	-0.209
100	15	106.065	106.060	-0.005
100	16	106.418	106.385	-0.033
100	17	106.061	105.936	-0.125
100	18	106.185	105.946	-0.239
100	19	106.095	105.845	-0.250
100	20	106.374	106.255	-0.119
100	21	106.003	105.659	-0.344
100	22	106.293	106.160	-0.133
100	23	105.715	105.382	-0.333
100	24	106.588	106.155	-0.433
105	27	106.140	105.995	-0.145
105	28	106.164	106.357	0.193
105	29	106.318	106.065	-0.253
105	30	106.383	106.320	-0.063
105	31	106.196	106.168	-0.028
Max		106.732	106.826	0.193
Average		106.255	106.163	-0.092
Min		105.715	105.382	-0.433
Std Dev		0.175	0.226	0.139



12.3 _Falling_Good_3V		
Test Site		
Tester		
Test Number		
Max Limit	%	%
Min Limit	103	

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	103.000	103.000	103.000	103.000	103.000	103.000	103.000	103.000	103.000	103.000	103.000
Min	106.350	105.970	106.000	105.784	105.947	105.883	106.033	106.006	105.881	105.382	105.995
Average	106.350	106.177	106.194	106.238	106.241	106.111	106.285	106.189	106.334	106.046	106.181
Max	106.350	106.383	106.420	106.553	106.381	106.254	106.613	106.343	106.826	106.385	106.357
UL											

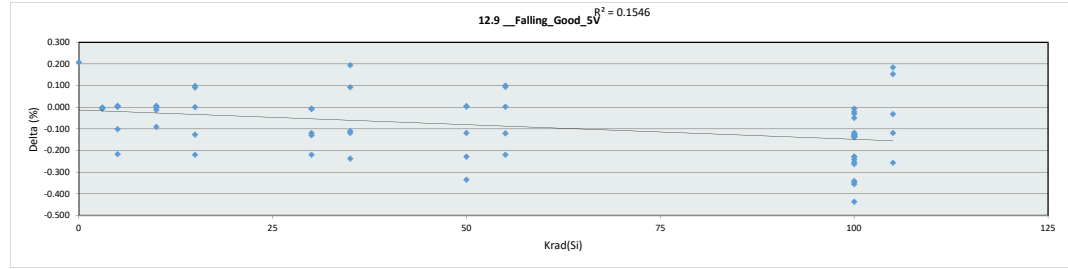




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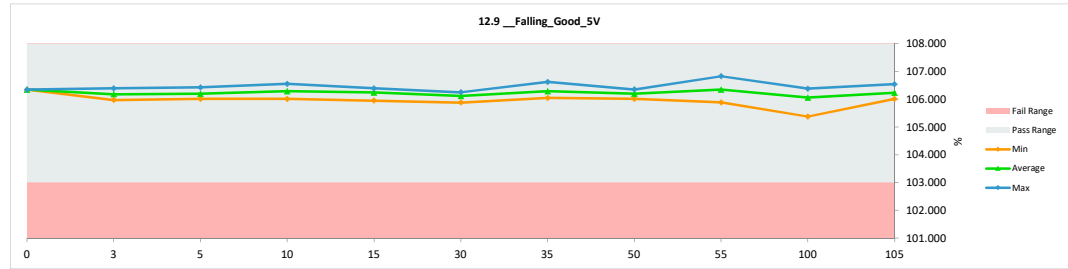
12.9 _Falling_Good_5V		
Test Site		
Tester		
Test Number		
Unit	%	%
Max Limit		
Min Limit	103	103

Krad(Si)	Serial #	PRE	POST	Delta
0	33	106.138	106.345	0.207
3	66	106.103	106.101	-0.002
3	67	105.974	105.968	-0.006
3	68	106.391	106.389	-0.002
3	69	106.231	106.228	-0.003
3	70	106.187	106.185	-0.002
5	71	106.220	106.004	-0.216
5	72	106.043	106.045	0.002
5	73	106.413	106.420	0.007
5	74	106.162	106.166	0.004
5	75	106.446	106.345	-0.101
10	56	106.326	106.314	-0.012
10	57	106.374	106.283	-0.091
10	58	105.998	106.004	0.006
10	59	106.255	106.253	-0.002
10	60	106.545	106.549	0.004
15	61	106.228	106.228	0.000
15	62	106.164	105.944	-0.220
15	63	106.291	106.389	0.098
15	64	106.237	106.328	0.091
15	65	106.444	106.317	-0.127
30	46	106.101	105.972	-0.129
30	47	106.097	105.877	-0.220
30	48	106.254	106.246	-0.008
30	49	106.350	106.231	-0.119
30	50	106.230	106.224	-0.006
35	51	106.160	106.041	-0.119
35	52	106.727	106.617	-0.110
35	53	106.192	106.387	0.195
35	54	106.295	106.058	-0.237
35	55	106.228	106.321	0.093
50	36	106.343	106.347	0.004
50	37	106.345	106.010	-0.335
50	38	106.224	106.229	0.005
50	39	106.354	106.125	-0.229
50	40	106.354	106.235	-0.119
55	41	106.541	106.420	-0.121
55	42	106.103	105.883	-0.220
55	43	106.136	106.235	0.099
55	44	106.732	106.826	0.094
55	45	106.326	106.328	0.002
100	1	106.263	106.129	-0.134
100	2	106.358	106.095	-0.263
100	3	106.295	106.067	-0.228
100	4	106.391	106.256	-0.135
100	5	106.446	106.319	-0.127
100	6	106.260	105.904	-0.356
100	9	106.136	105.998	-0.138
100	10	106.121	106.100	-0.021
100	11	106.106	106.075	-0.031
100	12	106.323	106.196	-0.127
100	13	106.479	106.352	-0.127
100	14	106.162	105.934	-0.228
100	15	106.067	106.061	-0.006
100	16	106.427	106.377	-0.050
100	17	106.069	105.936	-0.133
100	18	106.194	105.952	-0.242
100	19	106.097	105.843	-0.254
100	20	106.372	106.255	-0.117
100	21	106.001	105.661	-0.340
100	22	106.291	106.162	-0.129
100	23	105.717	105.371	-0.346
100	24	106.597	106.160	-0.437
105	27	106.127	106.008	-0.119
105	28	106.166	106.350	0.184
105	29	106.326	106.070	-0.256
105	30	106.389	106.542	0.153
105	31	106.198	106.166	-0.032
Max		106.732	106.826	0.207
Average		106.259	106.173	-0.087
Min		105.717	105.371	-0.437
Std Dev		0.173	0.224	0.139



12.9 _Falling_Good_5V		
Test Site		
Tester		
Test Number		
Max Limit	%	%
Min Limit	103	

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL	103.000	103.000	103.000	103.000	103.000	103.000	103.000	103.000	103.000	103.000	103.000
Min	106.345	105.968	106.004	106.004	105.944	105.877	106.041	106.010	105.883	105.371	106.008
Average	106.345	106.174	106.196	106.281	106.241	106.110	106.285	106.189	106.338	106.055	106.227
Max	106.345	106.389	106.420	106.549	106.389	106.246	106.617	106.347	106.826	106.377	106.542
UL											

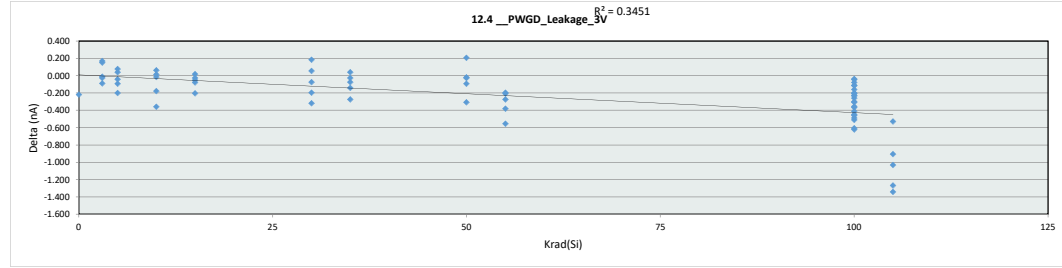


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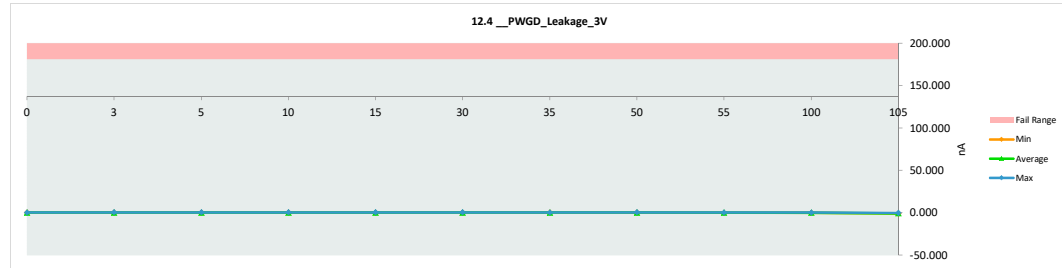
12.4 _PWGD_Leakage_3V		
Test Site		
Tester		
Test Number		
Unit	nA	nA
Max Limit	181	181
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	0.324	0.103	-0.221
3	66	0.230	0.136	-0.094
3	67	0.150	0.315	0.165
3	68	0.124	0.107	-0.017
3	69	0.342	0.312	-0.030
3	70	0.009	0.157	0.148
5	71	0.054	0.127	0.073
5	72	0.198	0.151	-0.047
5	73	0.236	0.272	0.036
5	74	0.316	0.220	-0.096
5	75	0.325	0.120	-0.205
10	56	0.394	0.031	-0.363
10	57	0.308	0.317	0.009
10	58	0.208	0.267	0.059
10	59	0.268	0.249	-0.019
10	60	0.256	0.075	-0.181
15	61	0.335	0.254	-0.081
15	62	0.173	0.141	-0.032
15	63	0.247	0.039	-0.208
15	64	0.142	0.084	-0.058
15	65	0.071	0.083	0.012
30	46	0.044	0.223	0.179
30	47	0.403	0.201	-0.202
30	48	0.168	0.218	0.050
30	49	0.422	0.098	-0.324
30	50	0.374	0.296	-0.078
35	51	0.101	0.136	0.035
35	52	0.230	0.200	-0.030
35	53	0.299	0.220	-0.079
35	54	0.236	0.092	-0.144
35	55	0.278	-0.001	-0.279
50	36	0.056	0.034	-0.022
50	37	0.075	0.278	0.203
50	38	0.332	0.022	-0.310
50	39	0.274	0.176	-0.098
50	40	0.273	0.244	-0.029
55	41	0.351	0.072	-0.279
55	42	0.321	-0.238	-0.559
55	43	0.240	0.040	-0.200
55	44	0.308	0.097	-0.211
55	45	0.288	-0.096	-0.384
100	1	0.133	-0.071	-0.204
100	2	0.172	-0.200	-0.372
100	3	0.179	-0.050	-0.229
100	4	0.303	-0.007	-0.310
100	5	0.313	0.048	-0.265
100	6	0.137	0.053	-0.084
100	9	0.346	-0.067	-0.413
100	10	0.139	-0.025	-0.164
100	11	0.340	-0.154	-0.494
100	12	0.093	-0.115	-0.208
100	13	0.230	-0.074	-0.304
100	14	0.285	-0.075	-0.360
100	15	0.086	0.044	-0.042
100	16	0.310	-0.151	-0.461
100	17	0.372	-0.240	-0.612
100	18	0.240	0.002	-0.238
100	19	0.024	-0.025	-0.049
100	20	0.110	-0.005	-0.115
100	21	0.274	-0.241	-0.515
100	22	0.069	-0.051	-0.120
100	23	0.351	-0.274	-0.625
100	24	0.126	-0.326	-0.452
105	27	0.173	-0.360	-0.533
105	28	0.278	-0.632	-0.910
105	29	0.273	-0.999	-1.272
105	30	0.064	-0.971	-1.035
105	31	0.305	-1.041	-1.346
	Max	0.422	0.317	0.203
	Average	0.228	-0.002	-0.230
	Min	0.009	-1.041	-1.346
	Std Dev	0.106	0.283	0.302



12.4 _PWGD_Leakage_3V		
Test Site		
Tester		
Test Number		
Max Limit	181	nA
Min Limit		

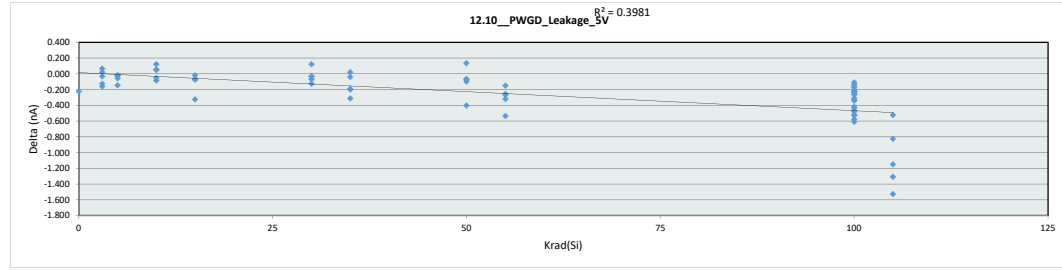
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	0.103	0.107	0.120	0.031	0.039	0.098	-0.001	0.022	-0.238	-0.326	-1.041
Average	0.103	0.205	0.178	0.188	0.120	0.207	0.129	0.151	-0.025	-0.091	-0.801
Max	0.103	0.315	0.272	0.317	0.254	0.296	0.220	0.278	0.097	0.053	-0.360
UL	181.000	181.000	181.000	181.000	181.000	181.000	181.000	181.000	181.000	181.000	181.000



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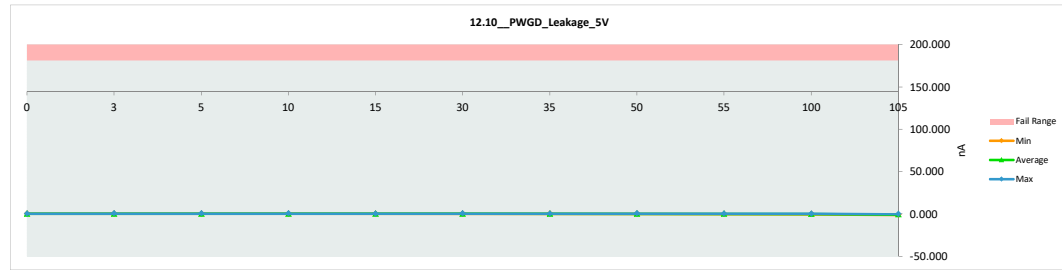
12.10_PWGD_Leakage_5V		
Test Site		
Tester		
Test Number		
Unit	nA	nA
Max Limit	181	181
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	0.338	0.113	-0.225
3	66	0.282	0.121	-0.161
3	67	0.213	0.231	0.018
3	68	0.050	0.115	0.065
3	69	0.347	0.314	-0.033
3	70	0.248	0.123	-0.125
5	71	0.083	0.067	-0.016
5	72	0.149	0.126	-0.023
5	73	0.300	0.280	-0.020
5	74	0.297	0.238	-0.059
5	75	0.260	0.112	-0.148
10	56	0.201	0.114	-0.087
10	57	0.268	0.318	0.050
10	58	0.118	0.240	0.122
10	59	0.184	0.238	0.054
10	60	0.179	0.127	-0.052
15	61	0.302	0.229	-0.073
15	62	0.199	0.177	-0.022
15	63	0.326	0.001	-0.325
15	64	0.094	0.027	-0.067
15	65	0.109	0.040	-0.069
30	46	0.135	0.256	0.121
30	47	0.291	0.222	-0.069
30	48	0.172	0.140	-0.032
30	49	0.269	0.236	-0.033
30	50	0.395	0.267	-0.128
35	51	0.049	0.067	0.018
35	52	0.243	0.201	-0.042
35	53	0.350	0.152	-0.198
35	54	0.217	0.025	-0.192
35	55	0.263	-0.052	-0.315
50	36	0.131	0.065	-0.066
50	37	0.179	0.311	0.132
50	38	0.367	-0.035	-0.402
50	39	0.297	0.199	-0.098
50	40	0.324	0.252	-0.072
55	41	0.297	0.146	-0.151
55	42	0.306	-0.232	-0.538
55	43	0.255	0.000	-0.255
55	44	0.310	0.041	-0.269
55	45	0.255	-0.068	-0.323
100	1	0.155	-0.079	-0.234
100	2	0.360	-0.217	-0.577
100	3	0.198	-0.058	-0.256
100	4	0.126	-0.007	-0.133
100	5	0.276	0.068	-0.208
100	6	0.125	-0.029	-0.154
100	9	0.172	-0.168	-0.340
100	10	0.164	-0.144	-0.308
100	11	0.193	-0.225	-0.418
100	12	0.094	-0.132	-0.226
100	13	0.358	-0.250	-0.608
100	14	0.415	-0.062	-0.477
100	15	0.069	-0.042	-0.111
100	16	0.369	-0.154	-0.523
100	17	0.301	-0.180	-0.481
100	18	0.275	-0.060	-0.335
100	19	-0.025	-0.247	-0.222
100	20	0.018	-0.156	-0.174
100	21	0.304	-0.222	-0.526
100	22	0.080	-0.183	-0.263
100	23	0.294	-0.232	-0.526
100	24	0.052	-0.386	-0.438
105	27	0.143	-0.381	-0.524
105	28	0.105	-0.719	-0.824
105	29	0.287	-1.020	-1.307
105	30	0.108	-1.042	-1.150
105	31	0.312	-1.218	-1.530
	Max	0.415	0.318	0.132
	Average	0.220	-0.029	-0.250
	Min	-0.025	-1.218	-1.530
	Std Dev	0.103	0.305	0.310



12.10_PWGD_Leakage_5V		
Test Site		
Tester		
Test Number		
Max Limit	181	nA
Min Limit		

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	0.113	0.115	0.067	0.114	0.001	0.140	-0.052	-0.035	-0.232	-0.386	-1.218
Average	0.113	0.181	0.165	0.207	0.095	0.224	0.079	0.158	-0.023	-0.144	-0.876
Max	0.113	0.314	0.280	0.318	0.229	0.267	0.201	0.311	0.146	0.068	-0.381
UL	181.000	181.000	181.000	181.000	181.000	181.000	181.000	181.000	181.000	181.000	181.000

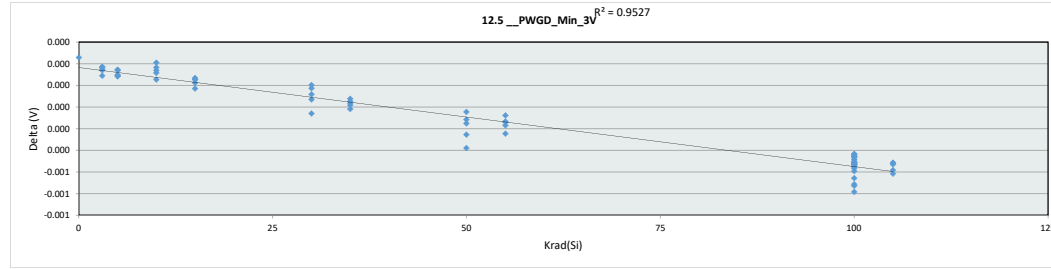


# HDR TID Report

## TPS7H4001-SP QMLP

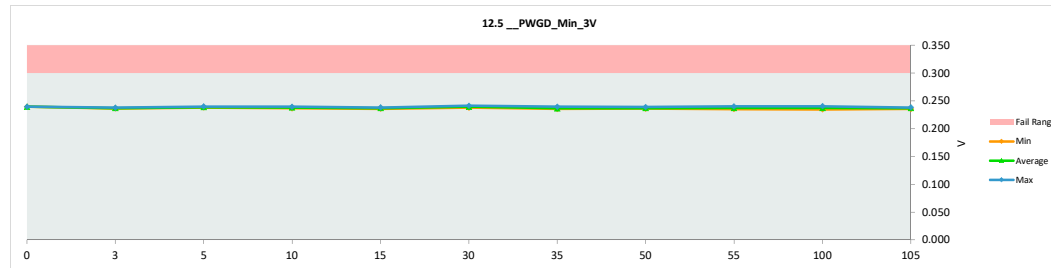
12.5 __PWGD_Min_3V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	0.3	0.3
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	0.240	0.240	0.000
3	66	0.236	0.236	0.000
3	67	0.237	0.237	0.000
3	68	0.237	0.237	0.000
3	69	0.238	0.238	0.000
3	70	0.237	0.237	0.000
5	71	0.238	0.238	0.000
5	72	0.239	0.239	0.000
5	73	0.238	0.238	0.000
5	74	0.240	0.240	0.000
5	75	0.238	0.238	0.000
10	56	0.238	0.238	0.000
10	57	0.237	0.237	0.000
10	58	0.237	0.237	0.000
10	59	0.240	0.239	0.000
10	60	0.239	0.239	0.000
15	61	0.237	0.237	0.000
15	62	0.237	0.237	0.000
15	63	0.236	0.236	0.000
15	64	0.238	0.237	0.000
15	65	0.238	0.238	0.000
30	46	0.240	0.240	0.000
30	47	0.240	0.239	0.000
30	48	0.238	0.238	0.000
30	49	0.242	0.241	0.000
30	50	0.239	0.239	0.000
35	51	0.236	0.236	0.000
35	52	0.240	0.240	0.000
35	53	0.236	0.236	0.000
35	54	0.236	0.235	0.000
35	55	0.237	0.237	0.000
50	36	0.237	0.236	0.000
50	37	0.239	0.239	0.000
50	38	0.237	0.237	0.000
50	39	0.236	0.236	0.000
50	40	0.237	0.237	0.000
55	41	0.240	0.240	0.000
55	42	0.235	0.235	0.000
55	43	0.236	0.236	0.000
55	44	0.240	0.240	0.000
55	45	0.236	0.235	0.000
100	1	0.237	0.237	0.000
100	2	0.236	0.235	-0.001
100	3	0.240	0.239	-0.001
100	4	0.239	0.239	-0.001
100	5	0.241	0.240	0.000
100	6	0.238	0.237	0.000
100	9	0.239	0.238	0.000
100	10	0.235	0.235	0.000
100	11	0.238	0.238	0.000
100	12	0.238	0.237	0.000
100	13	0.236	0.235	0.000
100	14	0.239	0.239	-0.001
100	15	0.239	0.238	0.000
100	16	0.238	0.238	0.000
100	17	0.237	0.237	0.000
100	18	0.238	0.238	0.000
100	19	0.238	0.237	0.000
100	20	0.238	0.238	0.000
100	21	0.237	0.236	0.000
100	22	0.237	0.237	0.000
100	23	0.239	0.238	0.000
100	24	0.235	0.235	0.000
105	27	0.238	0.238	0.000
105	28	0.237	0.237	0.000
105	29	0.236	0.235	-0.001
105	30	0.238	0.238	0.000
105	31	0.237	0.236	0.000
Max	0.242	0.241	0.000	
Average	0.238	0.238	0.000	
Min	0.235	0.235	-0.001	
Std Dev	0.001	0.002	0.000	



12.5 __PWGD_Min_3V		
Test Site		
Tester		
Test Number		
Max Limit	0.3	V
Min Limit		V

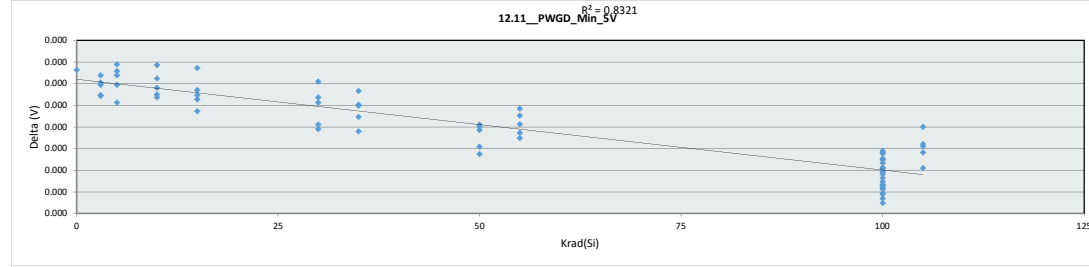
Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	0.240	0.236	0.238	0.237	0.236	0.238	0.235	0.236	0.235	0.235	0.235
Average	0.240	0.237	0.239	0.238	0.237	0.240	0.237	0.237	0.237	0.237	0.237
Max	0.240	0.238	0.240	0.239	0.238	0.241	0.240	0.239	0.240	0.240	0.238
UL	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300



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TPS7H4001-SP QMLP

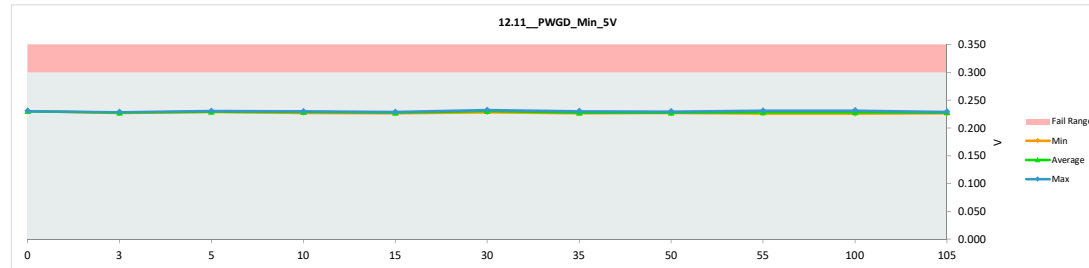
12.11_PWGD_Min_5V		
Test Site		
Tester		
Test Number		
Unit	V	V
Max Limit	0.3	0.3
Min Limit		

Krad(Si)	Serial #	PRE	POST	Delta
0	33	0.230	0.230	0.000
3	66	0.227	0.227	0.000
3	67	0.228	0.228	0.000
3	68	0.227	0.227	0.000
3	69	0.228	0.228	0.000
3	70	0.227	0.227	0.000
5	71	0.229	0.229	0.000
5	72	0.229	0.229	0.000
5	73	0.229	0.229	0.000
5	74	0.230	0.230	0.000
5	75	0.229	0.229	0.000
10	56	0.229	0.229	0.000
10	57	0.227	0.227	0.000
10	58	0.227	0.227	0.000
10	59	0.230	0.230	0.000
10	60	0.229	0.229	0.000
15	61	0.227	0.227	0.000
15	62	0.227	0.227	0.000
15	63	0.227	0.226	0.000
15	64	0.228	0.228	0.000
15	65	0.229	0.229	0.000
30	46	0.231	0.231	0.000
30	47	0.230	0.230	0.000
30	48	0.228	0.228	0.000
30	49	0.232	0.232	0.000
30	50	0.230	0.230	0.000
35	51	0.227	0.227	0.000
35	52	0.230	0.230	0.000
35	53	0.226	0.226	0.000
35	54	0.226	0.226	0.000
35	55	0.227	0.227	0.000
50	36	0.227	0.227	0.000
50	37	0.230	0.229	0.000
50	38	0.228	0.228	0.000
50	39	0.227	0.227	0.000
50	40	0.227	0.227	0.000
55	41	0.231	0.231	0.000
55	42	0.226	0.226	0.000
55	43	0.226	0.226	0.000
55	44	0.230	0.230	0.000
55	45	0.226	0.226	0.000
100	1	0.228	0.227	0.000
100	2	0.226	0.226	0.000
100	3	0.230	0.230	0.000
100	4	0.230	0.229	0.000
100	5	0.231	0.231	0.000
100	6	0.229	0.228	0.000
100	9	0.229	0.229	0.000
100	10	0.226	0.226	0.000
100	11	0.229	0.229	0.000
100	12	0.228	0.228	0.000
100	13	0.227	0.226	0.000
100	14	0.230	0.229	0.000
100	15	0.229	0.229	0.000
100	16	0.229	0.229	0.000
100	17	0.228	0.228	0.000
100	18	0.229	0.229	0.000
100	19	0.228	0.228	0.000
100	20	0.229	0.228	0.000
100	21	0.227	0.227	0.000
100	22	0.228	0.228	0.000
100	23	0.230	0.229	0.000
100	24	0.226	0.226	0.000
105	27	0.229	0.228	0.000
105	28	0.228	0.228	0.000
105	29	0.226	0.226	0.000
105	30	0.229	0.229	0.000
105	31	0.228	0.227	0.000
	Max	0.232	0.232	0.000
	Average	0.228	0.228	0.000
	Min	0.226	0.226	0.000
	Std Dev	0.001	0.001	0.000



12.11_PWGD_Min_5V		
Test Site		
Tester		
Test Number		
Max Limit	0.3	V
Min Limit		V

Krad(Si)	0	3	5	10	15	30	35	50	55	100	105
LL											
Min	0.230	0.227	0.229	0.227	0.226	0.228	0.226	0.227	0.226	0.226	0.226
Average	0.230	0.227	0.229	0.229	0.228	0.230	0.227	0.228	0.228	0.228	0.228
Max	0.230	0.228	0.230	0.230	0.229	0.232	0.230	0.229	0.231	0.231	0.229
UL	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300



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