



ABSTRACT

This report covers the radiation characterization results of the SN54SC8T240-SEP, radiation tolerant octal inverting buffers/drivers with 3-state outputs. The study was done to determine Total Ionizing Dose (TID) effects under high dose rate (HDR) to 30krad(Si). Radiation Lot Acceptance Testing (RLAT) will be performed using five units at a dose level of 30krad(Si) per MIL-STD-883 TM 1019. All future wafer lots will be tested under the same conditions. The device is manufactured in pure CMOS process. HDR TID response is the worst case. TID HDR characterization was performed per TM 1019.

The SN54SC8T240-SEP is packaged in a space enhanced plastic package for low outgassing characteristics and is Single Event Latch-Up (SEL) immune up to 50MeV-cm²/mg, which makes the device an option for low Earth orbit space applications. Single Event Transient (SET) data is also provided in the Single Event Effects Radiation Report.

For full total ionizing dose characterization results, see [SN54SC8T541-SEP Total Ionizing Dose \(TID\) Report](#).

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1 Device Information

The SN54SC8T240-SEP device contains eight independent inverting line drivers with 3-state outputs. Each channel performs the Boolean function $Y = \bar{A}$ in positive logic. The channels are grouped in sets of four, with one \overline{OE} pin controlling each set. The outputs can be put into a hi-Z state by applying a high on the associated \overline{OE} pin.

1.1 Device Details

Table 1-1 lists the device information used for TID HDR characterization and qualification.

Table 1-1. Device and Exposure Details

TID HDR Details: Up To 30krad(Si)	
TI Device Number	SN54SC8T240-SEP
VID Number	V62/25630
Package	20-pin PW (TSSOP)
Technology	LBC9
Die Lot Number	3282527RFB
A/T Lot Number and Date Code	4166265ML4 / 42CC6DK
Quantity Tested	6 irradiated devices + 4 control
Lot Accept or Reject	Devices passed 30krad(Si)
HDR Radiation Facility	Texas Instruments CLAB in Dallas, Texas
HDR Dose Level	30krad(Si)
HDR Dose Rate	174.53rad(Si)/s ionizing radiation
Effective Dose Rate 30krad(Si) with 72 hour Anneal	115.74mrad(Si)/s ionizing radiation
HDR Radiation Source	Gammacell 220 Excel (GC-220E) Co-60
Irradiation Temperature	Ambient, room temperature

2 Total Dose Test Setup

2.1 Test Overview

The SN54SC8T240-SEP samples were irradiated at a high dose rate of 174.53rad(Si)/s up to 30krad(Si) (115.74mrad(Si)/s effective does rate for 30krad(Si) with 72 hour anneal) and then put through full electrical parametric testing on the production Automated Test Equipment (ATE). The samples were functional and passed all electrical parametric tests with readings within data sheet electrical specification limits.

2.2 Test Description and Facilities

The SN54SC8T240-SEP HDR exposure was performed on biased devices in a Co-60 gamma cell at TI facility in Dallas, Texas. The un-attenuated dose rate of this cell is 174.53rads(Si)/s (115.74mrad(Si)/s effective does rate of 30krad(Si) with 72 hour anneal). After exposure, the devices were packed in dry ice (per MIL-STD-883 Method 1019.9 section 3.10) and full post radiation electrical evaluation using Texas Instruments ATE was conducted. ATE test limits are set per data sheet electrical limits based on qualification and characterization data. Post radiation measurements were taken within 30 minutes of removing the devices from the dry ice container. The devices were allowed to reach room temperature prior to electrical post radiation measurements.

2.3 Test Setup Details

The devices were tested in biased conditions as described in the following sections.

2.3.1 Bias Diagram

Figure 2-1 shows the bias conditions for each pin during irradiation.

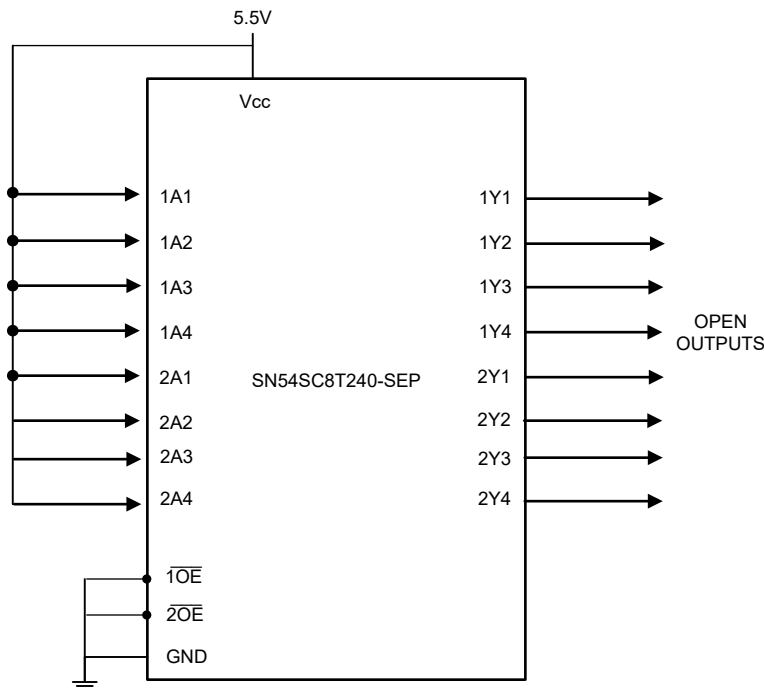


Figure 2-1. SN54SC8T240-SEP Bias Diagram

2.4 Test Configuration and Condition

The HDR RLAT units were irradiated to 30krad(Si), parametrically tested on ATE, and then were annealed at 25°C for 72 hours. The units that were irradiated to 30krad(Si) and were annealed for 72 hours are denoted as 31krad(Si) in [Section 5](#). ATE parametric testing was completed before and after the anneal.

[Table 2-1](#) lists the serialized samples used for TID characterization.

Table 2-1. HDR Device Information

Control Group	HDR Dose Rate = 174.53rad(Si)/s Effective Dose Rate (30krad + Anneal 72 hours) = 115.74mrad(Si)/s	
Total Samples: 4	Total Samples: 6 Biased	
	Exposure Levels	
0krad (Si)	30krad(Si)	
Biased	Biased	Biased + 72 hour anneal
1 - 4	5 - 10	5a - 10a

3 TID Characterization Test Results

3.1 TID Characterization Summary Results

The parametric data for the SN54SC8T240-SEP passes up to 30krad(Si) (with 72 hour room temperature anneal) HDR TID irradiation. The drifts of the electrical parameters through HDR were within the data sheet limits.

Overall, the SN54SC8T240-SEP showed a strong degree of hardness to HDR TID irradiation up to 30krad(Si). The measurements taken post-irradiation for each sample set showed a marginal shift for most parameters at each dose level. The parameters that did show a greater degree of change between pre- and post-irradiation were still within the electrical performance characteristics specified in the data sheet electrical parameters. For the data sheet electrical parameters and associated tests, see [SN54SC8T240-SEP Radiation-Tolerant, Octal Inverting Buffers/Drivers with 3-State Outputs](#).

See [Section 5](#) for HDR report up to 30 krad(Si).

3.2 Specification Compliance Matrix

Table 3-1. Electrical Parameters Table

Parameter	Test Conditions	V _{CC}	T _A = -55°C to +125°C			Unit	Test Name
			MIN	TYP	MAX		
V _{T+} 1	Positive-going input threshold voltage	1.2V to 1.3V	0.31	0.655	1.1	V	VTP_1P2V
		1.65V to 2V	0.39	0.915	1.32		VTP_1P65V
		2.25V to 2.75V	0.51	1.09	1.51		VTP_2P25V
		3V to 3.6V	0.65	1.2	1.7		VTP_3V
		4.5V to 5.5V	0.87	1.51	2.16		VTP_4P5V, VTP_5P5V
V _{T-} 1	Negative-going input threshold voltage	1.2V to 1.3V	0.11	0.349	0.60	V	VTN_1P2V
		1.65V to 2V	0.18	0.455	0.63		VTN_1P65V
		2.25V to 2.75V	0.25	0.545	0.74		VTN_2P25V
		3V to 3.6V	0.33	0.635	0.85		VTN_3V
		4.5V to 5.5V	0.45	0.755	1.14		VTN_4P5V, VTN_5P5V
ΔV _T 1	Hysteresis (V _{T+} - V _{T-})	1.2V to 1.3V	0.2	0.29	0.77	V	DELTAVT_1P2V
		1.65V to 2V	0.21	0.43	0.88		DELTAVT_1P65V
		2.25V to 2.75V	0.25	0.54	0.91		DELTAVT_2P25V
		3V to 3.6V	0.31	0.63	0.91		DELTAVT_3V
		4.5V to 5.5V	0.43	0.75	1.05		DELTAVT_4P5V, DELTAVT_5P5V
V _{IH}	High-level input voltage	1.2V to 1.3V	0.78			V	VIH_1P2V
		1.65V to 2V	1.1				VIH_1P65V
		2.25V to 2.75V	1.28				VIH_2P25V
		3V to 3.6V	1.45				VIH_3V
		4.5V to 5.5V	2				VIH_4P5V, VIH_5P5V
V _{IL}	Low-Level input voltage	1.2V to 1.3V			0.18	V	VIL_1P2V
		1.65V to 2V			0.5		VIL_1P65V
		2.25V to 2.75V			0.65		VIL_2P25V
		3V to 3.6V			0.75		VIL_3V
		4.5V to 5.5V			0.85		VIL_4P5V, VIL_5P5V
V _{OH} 2	I _{OH} = -50μA	1.2V to 5.5V	V _{CC} -0.2			V	VOH_N50UA_1P2V, VOH_N50UA_5P5V
	I _{OH} = -1mA	1.2V	0.8				VOH_N1MA_1P2V
	I _{OH} = -2mA	1.65V to 2V	1.21				VOH_N2MA_1P65V
	I _{OH} = -3mA	2.25V to 2.75V	1.93				VOH_N3MA_2P25V
	I _{OH} = -5.5mA	3V to 3.6V	2.49				VOH_N5P5MA_3V
	I _{OH} = -8mA	4.5V to 5.5V	3.95				VOH_N8MA_4P5V
	I _{OH} = -24mA	4.5V to 5.5V	3.15				VOH_N24MA_5P5V
V _{OL}	I _{OL} = 50μA	1.2V to 5.5V			0.1	V	VOL_50UA_1P2V, VOL_50UA_5P5V
	I _{OL} = 1mA	1.2V			0.2		VOL_1MA_1P2V
	I _{OL} = 2mA	1.65V to 2V			0.25		VOL_2MA_1P65V
	I _{OL} = 3mA	2.25V to 2.75V			0.2		VOL_3MA_2P25V
	I _{OL} = 5.5mA	3V to 3.6V			0.25		VOL_5P5MA_3V
	I _{OL} = 8mA	4.5V to 5.5V			0.35		VOL_8MA_4P5V
	I _{OL} = 24mA	4.5V to 5.5V			0.75		VOL_24MA_5P5V
I _{CC}	V _I = V _{CC} or GND, I _O = 0	1.2V to 5.5V		2	220	μA	ICC_5P5V
ΔI _{CC}	One input at 0.3V or 3.4V, other inputs at V _{CC} or GND	5.5V			1.5	mA	DELTAICC_5P5V
	One input at 0.3V or 1.1V, other inputs at V _{CC} or GND	1.8V			68	μA	DELTAICC_1P8V
I _{OZ} 3	V _O = V _{CC} or GND	5.5V			±26	μA	IOZ_5P5V
I _I	V _I = 0V to V _{CC}	V _I = 0V to V _{CC}			±1	μA	II_5P5V

- Schmitt-trigger input devices only.
- Push-pull output devices only.
- 3-State output devices only.

4 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.

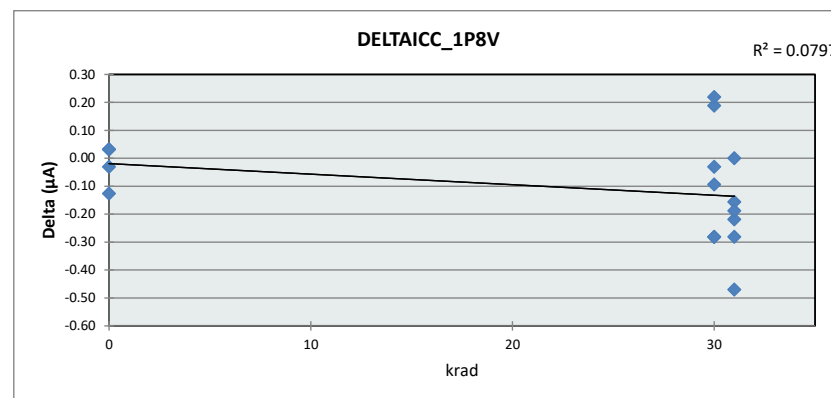
5 Appendix: HDR TID Report Data

This appendix provides the SN54SC8T240-SEP TID HDR report. The report shows the variation for each parameter up to 30krad(Si).

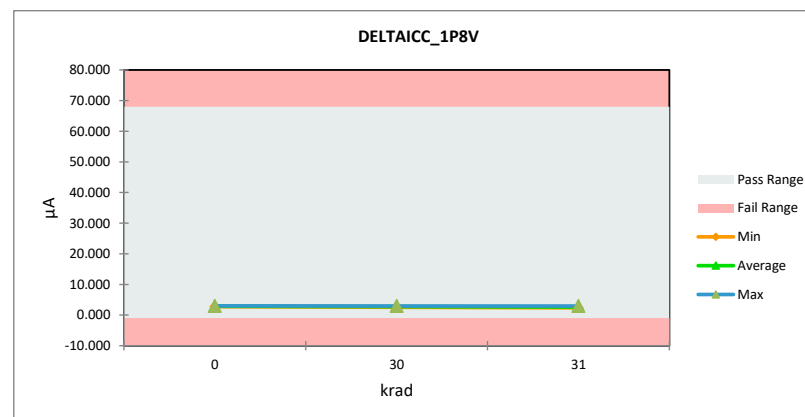
TID Report

SN54SC8T240-SEP

DELTAICC_1P8V						
Units	μA					
Max Limit	68					
Min Limit	-1					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	2.785	2.754	-0.03	-1.11%	0.04%
0	2	2.911	2.785	-0.13	-4.33%	0.18%
0	3	2.973	3.005	0.03	1.08%	0.05%
0	4	2.879	2.911	0.03	1.11%	0.05%
30	5	2.660	2.848	0.19	7.07%	0.27%
30	6	2.629	2.848	0.22	8.33%	0.32%
30	7	3.098	2.817	-0.28	-9.07%	0.41%
30	8	2.817	2.723	-0.09	-3.34%	0.14%
30	9	2.817	2.535	-0.28	-10.01%	0.41%
30	10	2.973	2.942	-0.03	-1.04%	0.04%
31	5a	2.660	2.660	0.00	0.00%	0.00%
31	6a	2.629	2.410	-0.22	-8.33%	0.32%
31	7a	3.098	2.942	-0.16	-5.04%	0.23%
31	8a	2.817	2.347	-0.47	-16.68%	0.68%
31	9a	2.817	2.629	-0.19	-6.67%	0.27%
31	10a	2.973	2.692	-0.28	-9.45%	0.41%
Max	3.098	3.005	-0.09	8.33%	0.68%	
Average	2.846	2.741	-0.11	-3.59%	0.24%	
Min	2.629	2.347	-0.28	-16.68%	0.00%	
Std Dev	0.153	0.190	0.04	6.52%	0.19%	

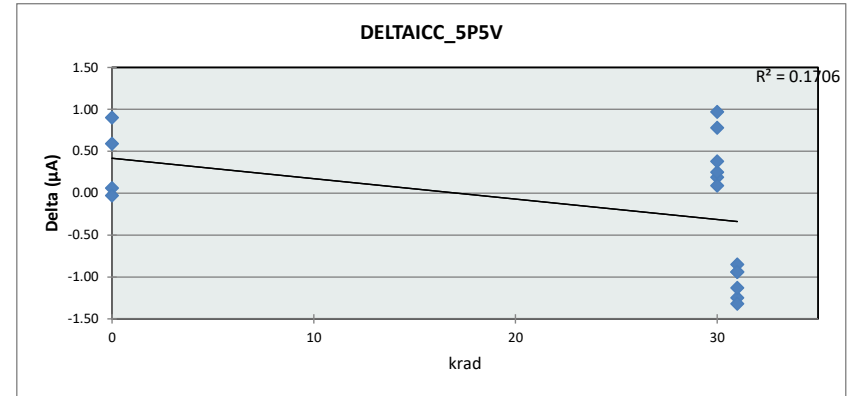


DELTAICC_1P8V			
Units	μA		
Max Limit	68		
Min Limit	-1		
krad	0	30	31
LL	-1.000	-1.000	-1.000
Min	2.754	2.535	2.347
Average	2.864	2.786	2.613
Max	3.005	2.942	2.942
UL	68.000	68.000	68.000

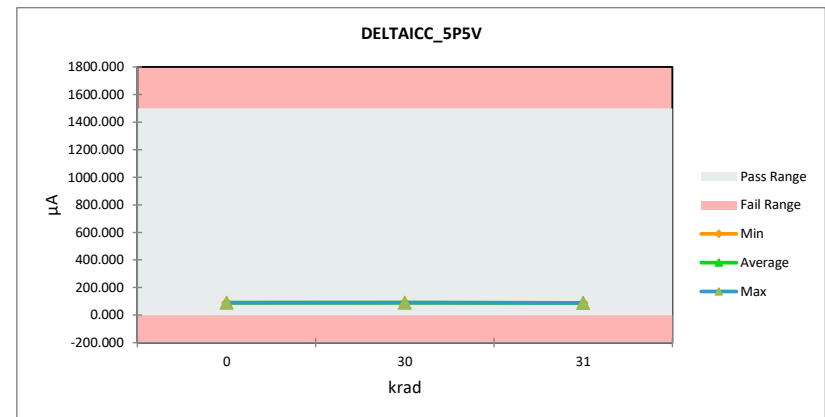


TID Report SN54SC8T240-SEP

DELTAICC_5P5V						
Units		µA				
Max Limit		1500				
Min Limit		-1				
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	89.420	90.320	0.90	1.01%	0.06%
0	2	89.510	90.100	0.59	0.66%	0.04%
0	3	89.760	89.820	0.06	0.07%	0.00%
0	4	89.820	89.790	-0.03	-0.03%	0.00%
30	5	89.790	90.570	0.78	0.87%	0.05%
30	6	90.040	90.230	0.19	0.21%	0.01%
30	7	90.390	90.640	0.25	0.28%	0.02%
30	8	89.420	90.390	0.97	1.08%	0.06%
30	9	90.010	90.100	0.09	0.10%	0.01%
30	10	89.760	90.140	0.38	0.42%	0.03%
31	5a	89.790	88.850	-0.94	-1.05%	0.06%
31	6a	90.040	88.790	-1.25	-1.39%	0.08%
31	7a	90.390	89.070	-1.32	-1.46%	0.09%
31	8a	89.420	88.570	-0.85	-0.95%	0.06%
31	9a	90.010	89.070	-0.94	-1.04%	0.06%
31	10a	89.760	88.630	-1.13	-1.26%	0.08%
Max		90.390	90.640	0.25	1.08%	0.09%
Average		89.833	89.693	-0.14	-0.16%	0.04%
Min		89.420	88.570	-0.85	-1.46%	0.00%
Std Dev		0.306	0.734	0.43	0.90%	0.03%

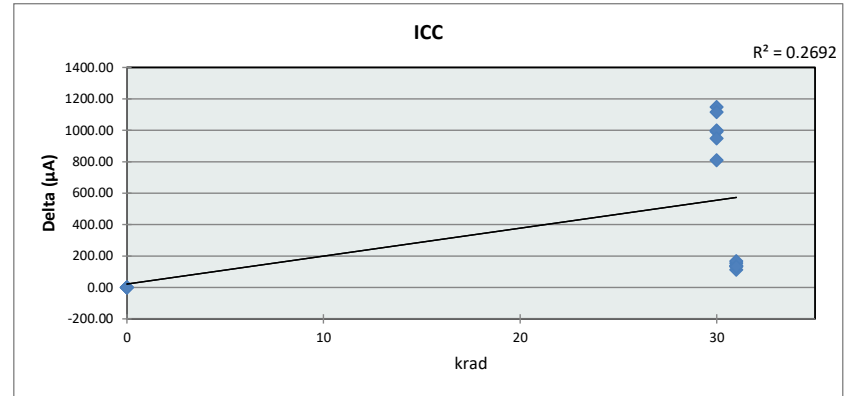


DELTAICC_5P5V			
Units		µA	
Max Limit		1500	
Min Limit		-1	
krad	0	30	31
LL	-1.000	-1.000	-1.000
Min	89.790	90.100	88.570
Average	90.008	90.345	88.830
Max	90.320	90.640	89.070
UL	1500.000	1500.000	1500.000

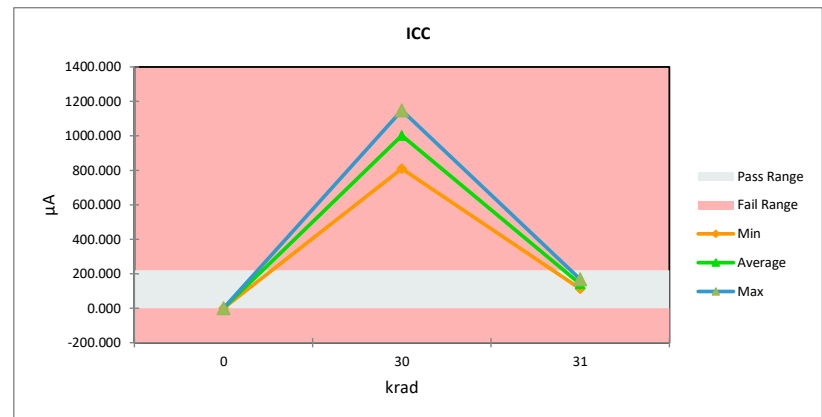


TID Report SN54SC8T240-SEP

ICC						
Units	μA					
Max Limit	220					
Min Limit	-0.1					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.047	0.120	0.07	153.01%	0.03%
0	2	0.026	0.027	0.00	2.40%	0.00%
0	3	0.019	0.029	0.01	53.00%	0.00%
0	4	0.067	0.016	-0.05	-75.81%	0.02%
30	5	0.048	992.200	992.15	2057979.24%	450.77%
30	6	0.029	1148.000	1147.97	3953068.04%	521.57%
30	7	0.010	998.300	998.29	9806383.30%	453.56%
30	8	0.036	1116.000	1115.96	3076823.08%	507.03%
30	9	0.022	809.900	809.88	3713334.20%	367.96%
30	10	0.005	948.200	948.19	18418703.42%	430.80%
31	5a	0.048	135.400	135.35	280754.59%	61.50%
31	6a	0.029	154.800	154.77	532957.85%	70.32%
31	7a	0.010	139.300	139.29	1368269.35%	63.28%
31	8a	0.036	167.700	167.66	462265.59%	76.18%
31	9a	0.022	112.900	112.88	517552.45%	51.28%
31	10a	0.005	132.300	132.29	2569830.07%	60.11%
Max		0.067	1148.000	1147.93	18418703.42%	521.57%
Average		0.029	428.449	428.42	2922378.36%	194.65%
Min		0.005	0.016	0.01	-75.81%	0.00%
Std Dev		0.018	467.790	467.77	4838783.50%	212.53%

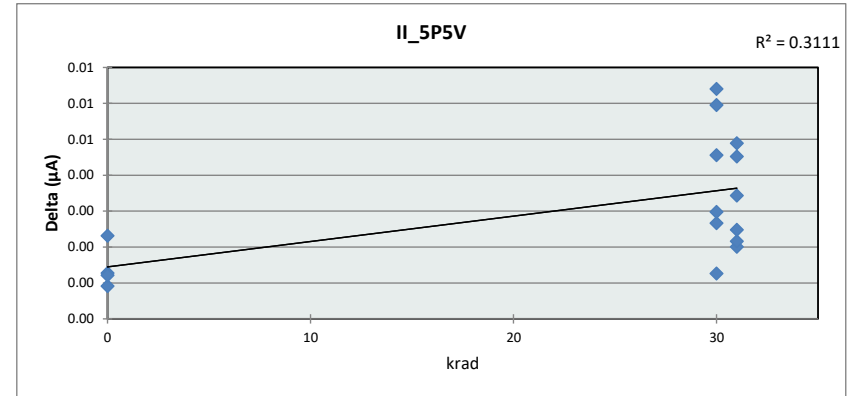


ICC			
Units	μA		
Max Limit	220		
Min Limit	-0.1		
krad	0	30	31
LL	-0.100	-0.100	-0.100
Min	0.016	809.900	112.900
Average	0.048	1002.100	140.400
Max	0.120	1148.000	167.700
UL	220.000	220.000	220.000

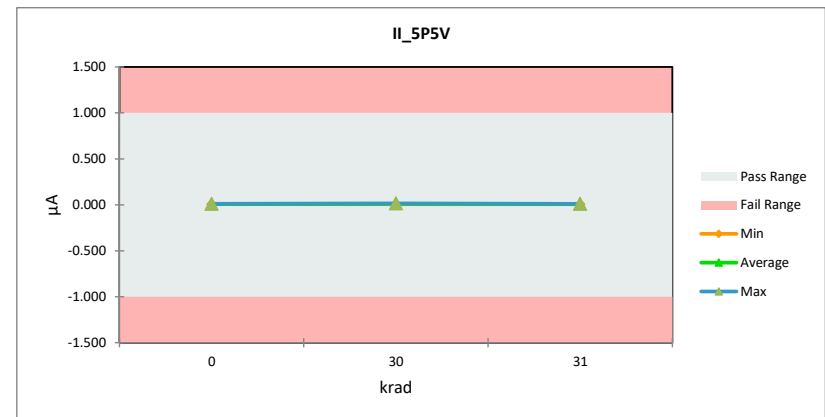


TID Report SN54SC8T240-SEP

II_5P5V						
Units	μA					
Max Limit	1					
Min Limit	-1					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.006	0.007	0.00	9.97%	0.03%
0	2	0.009	0.007	0.00	-16.78%	0.07%
0	3	0.013	0.011	0.00	-16.18%	0.11%
0	4	0.009	0.008	0.00	-16.75%	0.08%
30	5	0.006	0.008	0.00	21.29%	0.07%
30	6	0.007	0.016	0.01	128.09%	0.44%
30	7	0.007	0.009	0.00	29.87%	0.10%
30	8	0.008	0.006	0.00	-18.98%	0.07%
30	9	0.004	0.012	0.01	183.82%	0.40%
30	10	0.006	0.011	0.01	91.42%	0.26%
31	5a	0.006	0.006	0.00	0.27%	0.00%
31	6a	0.007	0.007	0.00	4.57%	0.02%
31	7a	0.007	0.008	0.00	14.66%	0.05%
31	8a	0.008	0.011	0.00	36.82%	0.14%
31	9a	0.004	0.010	0.01	134.31%	0.29%
31	10a	0.006	0.011	0.01	90.17%	0.25%
Max		0.013	0.016	0.00	183.82%	0.44%
Average		0.007	0.009	0.00	42.29%	0.15%
Min		0.004	0.006	0.00	-18.98%	0.00%
Std Dev		0.002	0.003	0.00	63.42%	0.14%

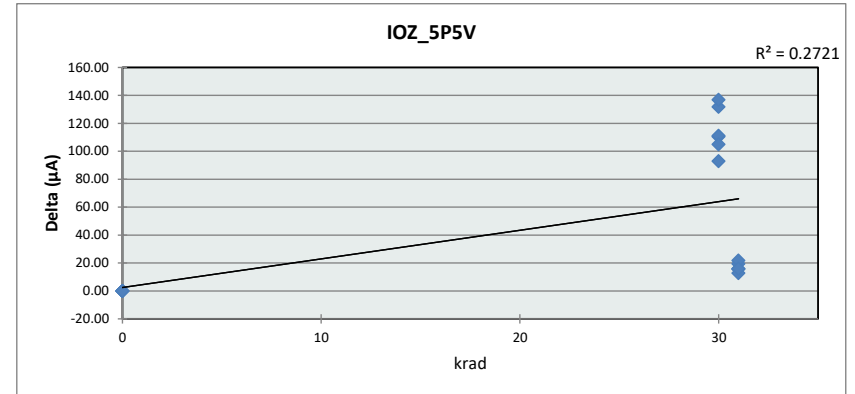


II_5P5V			
Units	μA		
Max Limit	1		
Min Limit	-1		
krad	0	30	31
LL	-1.000	-1.000	-1.000
Min	0.007	0.006	0.006
Average	0.008	0.010	0.009
Max	0.011	0.016	0.011
UL	1.000	1.000	1.000

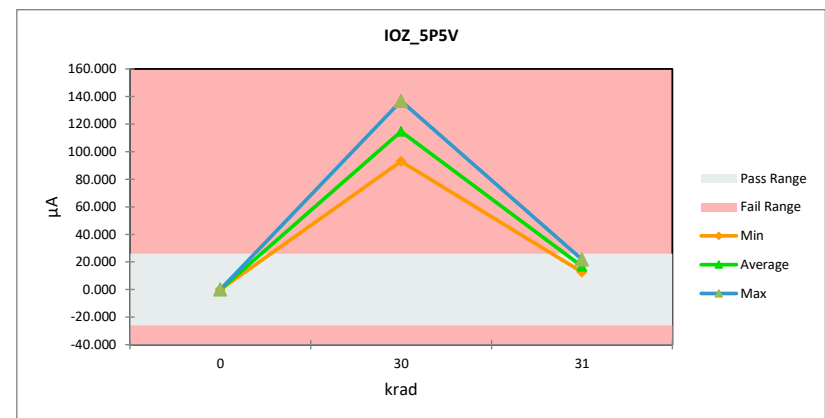


TID Report SN54SC8T240-SEP

IOZ_5P5V						
Units	μA					
Max Limit	26					
Min Limit	-26					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.013	0.003	-0.01	-74.53%	0.02%
0	2	0.005	0.008	0.00	42.25%	0.00%
0	3	0.007	0.006	0.00	-17.21%	0.00%
0	4	0.005	0.019	0.01	268.38%	0.03%
30	5	0.005	110.400	110.39	2080563.40%	212.30%
30	6	0.005	131.800	131.79	2624875.10%	253.45%
30	7	0.009	111.100	111.09	1194266.80%	213.64%
30	8	0.005	136.800	136.79	2533233.33%	263.07%
30	9	0.006	92.960	92.95	1656055.35%	178.76%
30	10	0.013	104.900	104.89	821356.54%	201.71%
31	5a	0.005	15.720	15.71	296168.38%	30.22%
31	6a	0.005	19.370	19.36	385679.73%	37.24%
31	7a	0.009	15.650	15.64	168143.39%	30.08%
31	8a	0.005	21.860	21.85	404714.81%	42.03%
31	9a	0.006	12.700	12.69	226160.47%	24.41%
31	10a	0.013	15.920	15.91	124567.19%	30.59%
	Max	0.013	136.800	136.79	2624875.10%	263.07%
	Average	0.007	49.326	49.32	782250.21%	94.85%
	Min	0.005	0.003	0.00	-74.53%	0.00%
	Std Dev	0.003	53.599	53.60	937512.80%	103.07%



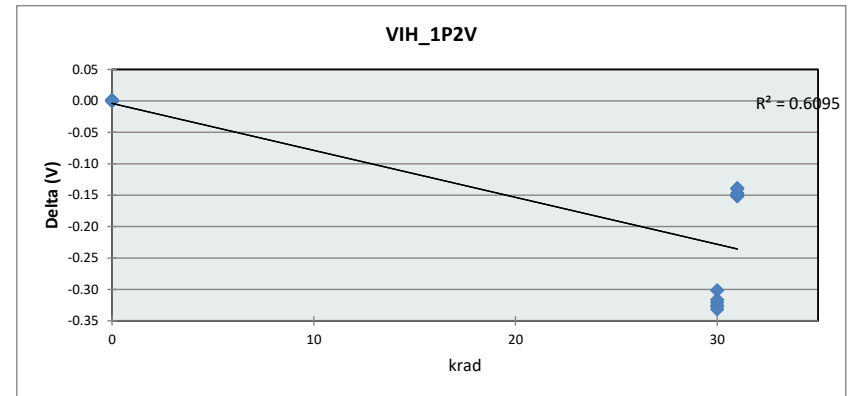
IOZ_5P5V			
Units	μA		
Max Limit	26		
Min Limit	-26		
krad	0	30	31
LL	-26.000	-26.000	-26.000
Min	0.003	92.960	12.700
Average	0.009	114.660	16.870
Max	0.019	136.800	21.860
UL	26.000	26.000	26.000



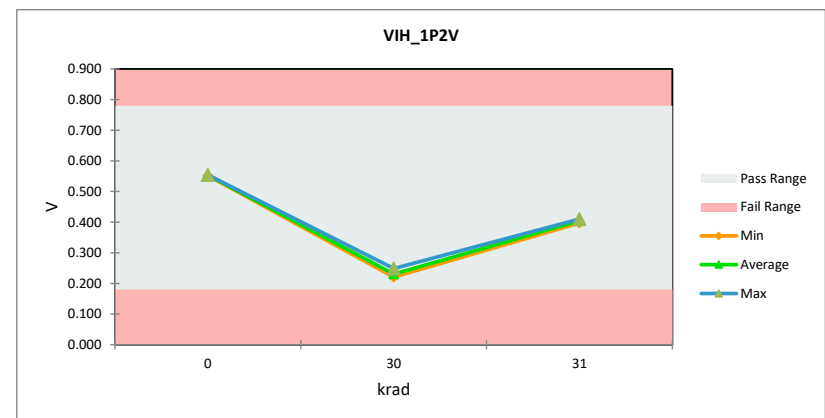
TID Report

SN54SC8T240-SEP

VIH_1P2V						
Units		V				
Max Limit		0.78				
Min Limit		0.18				
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.554	0.554	0.00	-0.11%	0.10%
0	2	0.552	0.554	0.00	0.22%	0.20%
0	3	0.554	0.554	0.00	0.11%	0.10%
0	4	0.551	0.552	0.00	0.11%	0.10%
30	5	0.549	0.222	-0.33	-59.56%	54.48%
30	6	0.548	0.227	-0.32	-58.52%	53.47%
30	7	0.554	0.228	-0.33	-58.82%	54.28%
30	8	0.552	0.221	-0.33	-60.05%	55.29%
30	9	0.552	0.236	-0.32	-57.31%	52.76%
30	10	0.550	0.249	-0.30	-54.80%	50.23%
31	5a	0.549	0.397	-0.15	-27.63%	25.27%
31	6a	0.548	0.409	-0.14	-25.33%	23.15%
31	7a	0.554	0.404	-0.15	-26.95%	24.86%
31	8a	0.552	0.401	-0.15	-27.34%	25.17%
31	9a	0.552	0.406	-0.15	-26.57%	24.46%
31	10a	0.550	0.410	-0.14	-25.47%	23.35%
Max		0.554	0.554	0.00	0.22%	55.29%
Average		0.551	0.376	-0.17	-31.75%	29.20%
Min		0.548	0.221	-0.33	-60.05%	0.10%
Std Dev		0.002	0.131	0.13	23.71%	21.69%

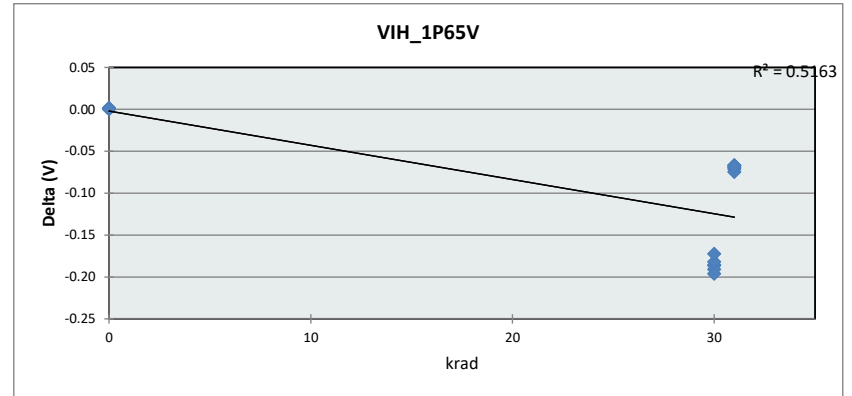


VIH_1P2V			
Units		V	
Max Limit		0.78	
Min Limit		0.18	
krad	0	30	31
LL	0.180	0.180	0.180
Min	0.552	0.221	0.397
Average	0.553	0.230	0.405
Max	0.554	0.249	0.410
UL	0.780	0.780	0.780

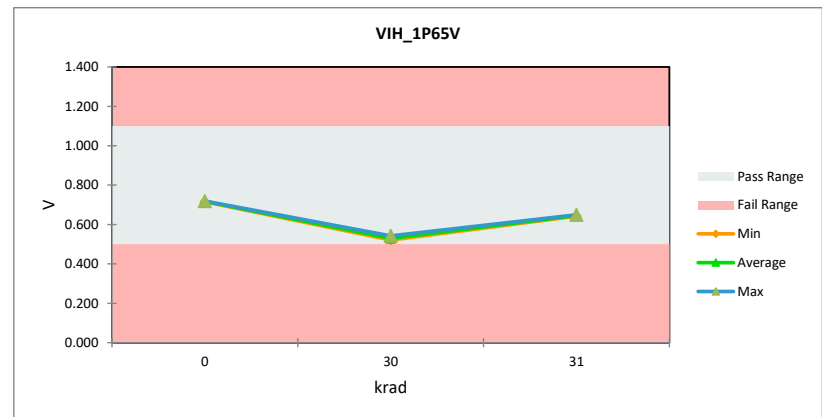


TID Report SN54SC8T240-SEP

VIH_1P65V						
Units		V				
Max Limit		1.1				
Min Limit		0.5				
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.718	0.719	0.00	0.12%	0.15%
0	2	0.716	0.717	0.00	0.25%	0.29%
0	3	0.717	0.718	0.00	0.12%	0.15%
0	4	0.716	0.716	0.00	0.00%	0.00%
30	5	0.713	0.526	-0.19	-26.15%	31.07%
30	6	0.713	0.527	-0.19	-26.03%	30.92%
30	7	0.717	0.526	-0.19	-26.60%	31.80%
30	8	0.717	0.521	-0.20	-27.34%	32.68%
30	9	0.716	0.534	-0.18	-25.41%	30.34%
30	10	0.715	0.542	-0.17	-24.12%	28.72%
31	5a	0.713	0.643	-0.07	-9.74%	11.58%
31	6a	0.713	0.646	-0.07	-9.37%	11.14%
31	7a	0.717	0.646	-0.07	-9.93%	11.87%
31	8a	0.717	0.643	-0.07	-10.42%	12.46%
31	9a	0.716	0.650	-0.07	-9.33%	11.14%
31	10a	0.715	0.646	-0.07	-9.60%	11.43%
Max		0.718	0.719	0.00	0.25%	32.68%
Average		0.716	0.620	-0.10	-13.35%	15.98%
Min		0.713	0.521	-0.19	-27.34%	0.00%
Std Dev		0.002	0.078	0.08	10.84%	12.83%



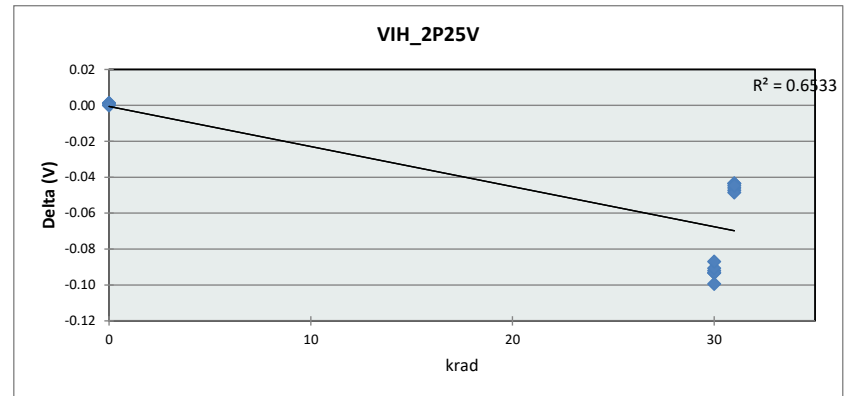
VIH_1P65V			
Units		V	
Max Limit		1.1	
Min Limit		0.5	
krad	0	30	31
LL	0.500	0.500	0.500
Min	0.716	0.521	0.643
Average	0.718	0.530	0.646
Max	0.719	0.542	0.650
UL	1.100	1.100	1.100



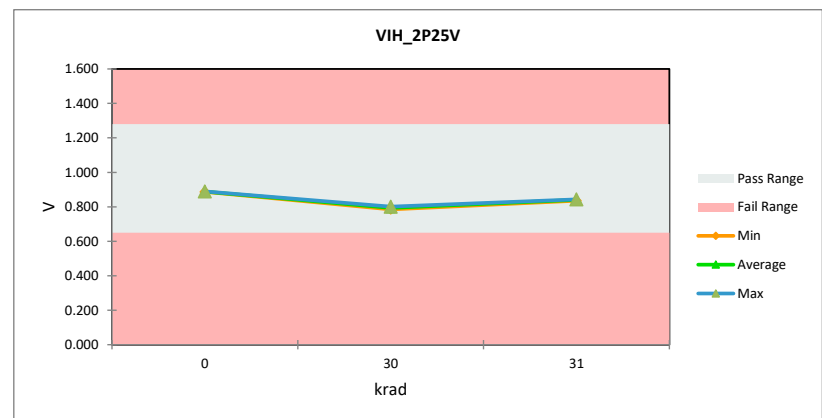
TID Report

SN54SC8T240-SEP

VIH_2P25V						
Units	V					
Max Limit	1.28					
Min Limit	0.65					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.887	0.888	0.00	0.14%	0.20%
0	2	0.888	0.889	0.00	0.14%	0.20%
0	3	0.888	0.888	0.00	0.00%	0.00%
0	4	0.887	0.887	0.00	0.00%	0.00%
30	5	0.887	0.795	-0.09	-10.37%	14.60%
30	6	0.887	0.794	-0.09	-10.51%	14.80%
30	7	0.886	0.792	-0.09	-10.53%	14.80%
30	8	0.884	0.785	-0.10	-11.24%	15.79%
30	9	0.886	0.795	-0.09	-10.25%	14.41%
30	10	0.888	0.801	-0.09	-9.80%	13.81%
31	5a	0.887	0.840	-0.05	-5.33%	7.50%
31	6a	0.887	0.841	-0.05	-5.19%	7.30%
31	7a	0.886	0.842	-0.04	-4.91%	6.91%
31	8a	0.884	0.836	-0.05	-5.48%	7.70%
31	9a	0.886	0.842	-0.04	-4.91%	6.91%
31	10a	0.888	0.843	-0.04	-5.04%	7.10%
Max	0.888	0.889	0.00	0.14%	15.79%	
Average	0.887	0.835	-0.05	-5.83%	8.25%	
Min	0.884	0.785	-0.10	-11.24%	0.00%	
Std Dev	0.001	0.038	0.04	4.25%	5.91%	



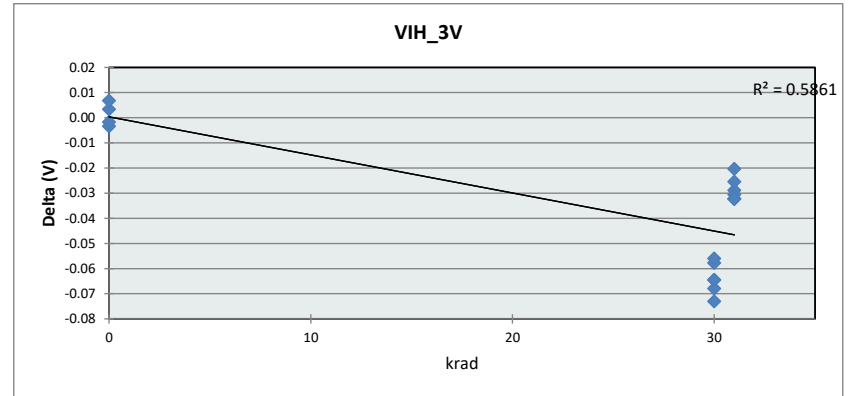
VIH_2P25V			
Units	V		
Max Limit	1.28		
Min Limit	0.65		
krad	0	30	31
LL	0.650	0.650	0.650
Min	0.887	0.785	0.836
Average	0.888	0.794	0.841
Max	0.889	0.801	0.843
UL	1.280	1.280	1.280



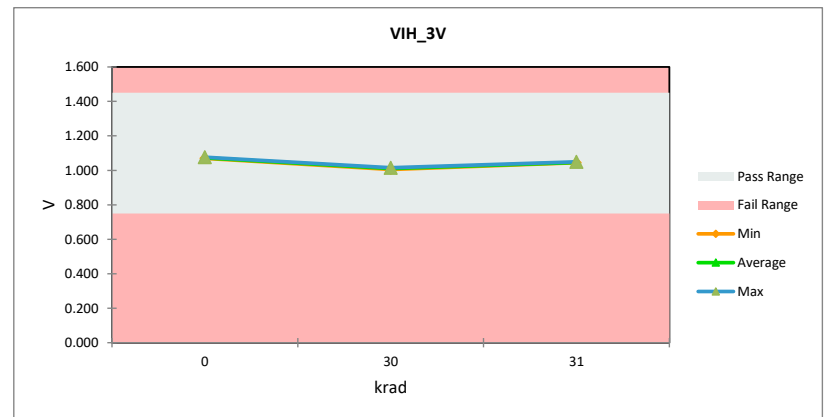
TID Report

SN54SC8T240-SEP

		VIH_3V				
Units		V				
Max Limit		1.45				
Min Limit		0.75				
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.078	1.075	0.00	-0.32%	0.49%
0	2	1.066	1.070	0.00	0.32%	0.49%
0	3	1.070	1.076	0.01	0.64%	0.97%
0	4	1.071	1.070	0.00	-0.16%	0.24%
30	5	1.076	1.008	-0.07	-6.31%	9.70%
30	6	1.070	1.012	-0.06	-5.40%	8.25%
30	7	1.075	1.010	-0.06	-6.00%	9.22%
30	8	1.078	1.005	-0.07	-6.77%	10.43%
30	9	1.076	1.012	-0.06	-5.99%	9.22%
30	10	1.071	1.015	-0.06	-5.23%	8.00%
31	5a	1.076	1.047	-0.03	-2.68%	4.12%
31	6a	1.070	1.049	-0.02	-1.91%	2.91%
31	7a	1.075	1.044	-0.03	-2.84%	4.37%
31	8a	1.078	1.046	-0.03	-2.99%	4.61%
31	9a	1.076	1.044	-0.03	-3.00%	4.61%
31	10a	1.071	1.046	-0.03	-2.38%	3.64%
Max		1.078	1.076	0.00	0.64%	10.43%
Average		1.074	1.039	-0.03	-3.19%	5.08%
Min		1.066	1.005	-0.06	-6.77%	0.24%
Std Dev		0.004	0.026	0.02	2.51%	3.60%

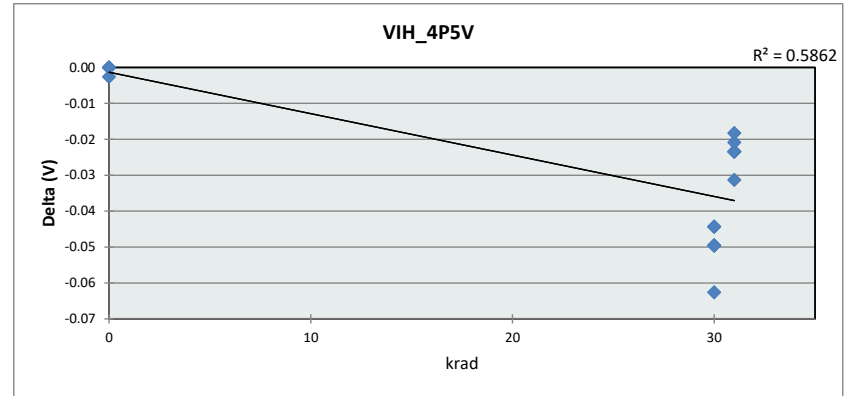


		VIH_3V		
Units		V		
Max Limit		1.45		
Min Limit		0.75		
krad		0	30	31
LL		0.750	0.750	0.750
Min		1.070	1.005	1.044
Average		1.073	1.010	1.046
Max		1.076	1.015	1.049
UL		1.450	1.450	1.450

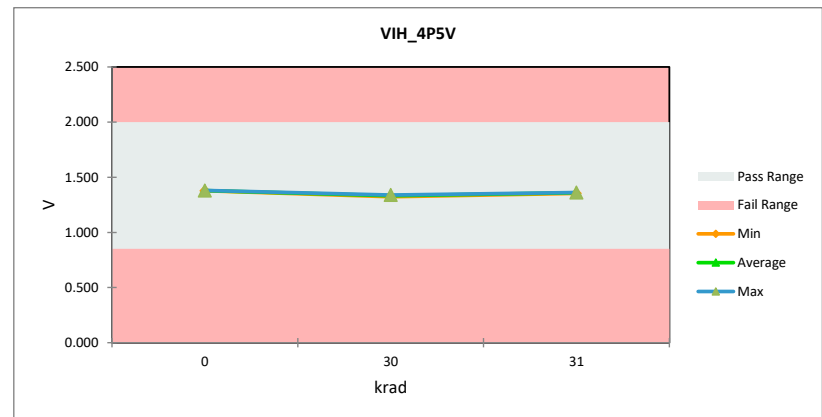


TID Report SN54SC8T240-SEP

VIH_4P5V						
Units	V					
Max Limit	2					
Min Limit	0.85					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.378	1.378	0.00	0.00%	0.00%
0	2	1.380	1.378	0.00	-0.19%	0.23%
0	3	1.380	1.380	0.00	0.00%	0.00%
0	4	1.380	1.380	0.00	0.00%	0.00%
30	5	1.383	1.333	-0.05	-3.58%	4.31%
30	6	1.380	1.331	-0.05	-3.59%	4.31%
30	7	1.380	1.331	-0.05	-3.59%	4.31%
30	8	1.386	1.323	-0.06	-4.52%	5.44%
30	9	1.383	1.339	-0.04	-3.21%	3.85%
30	10	1.380	1.336	-0.04	-3.21%	3.85%
31	5a	1.383	1.359	-0.02	-1.70%	2.04%
31	6a	1.380	1.357	-0.02	-1.70%	2.04%
31	7a	1.380	1.357	-0.02	-1.70%	2.04%
31	8a	1.386	1.354	-0.03	-2.26%	2.72%
31	9a	1.383	1.362	-0.02	-1.51%	1.81%
31	10a	1.380	1.362	-0.02	-1.32%	1.59%
Max		1.386	1.380	-0.01	0.00%	5.44%
Average		1.381	1.354	-0.03	-2.00%	2.41%
Min		1.378	1.323	-0.05	-4.52%	0.00%
Std Dev		0.002	0.020	0.02	1.49%	1.79%



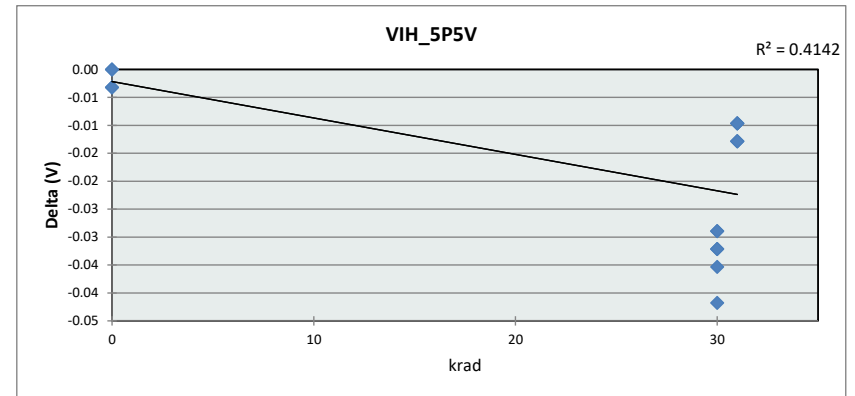
VIH_4P5V			
Units	V		
Max Limit	2		
Min Limit	0.85		
krad	0	30	31
LL	0.850	0.850	0.850
Min	1.378	1.323	1.354
Average	1.379	1.332	1.359
Max	1.380	1.339	1.362
UL	2.000	2.000	2.000



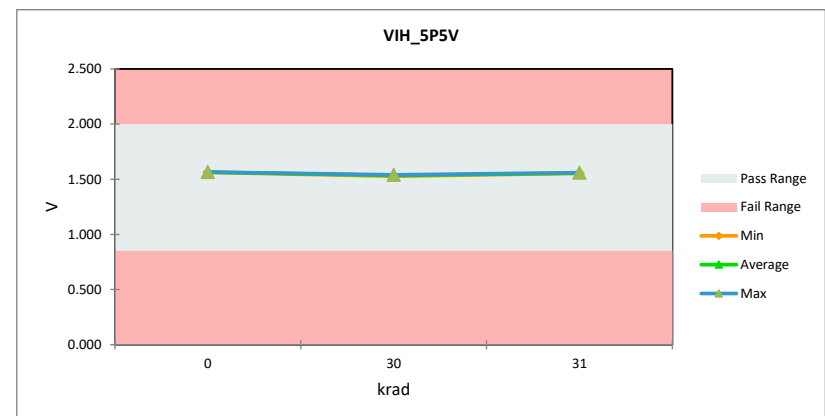
TID Report

SN54SC8T240-SEP

VIH_5P5V						
Units	V					
Max Limit	2					
Min Limit	0.85					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.562	1.562	0.00	0.00%	0.00%
0	2	1.566	1.562	0.00	-0.21%	0.28%
0	3	1.566	1.566	0.00	0.00%	0.00%
0	4	1.569	1.566	0.00	-0.20%	0.28%
30	5	1.569	1.537	-0.03	-2.05%	2.79%
30	6	1.562	1.530	-0.03	-2.06%	2.79%
30	7	1.569	1.533	-0.04	-2.25%	3.07%
30	8	1.569	1.527	-0.04	-2.66%	3.63%
30	9	1.569	1.540	-0.03	-1.84%	2.52%
30	10	1.569	1.540	-0.03	-1.84%	2.52%
31	5a	1.569	1.556	-0.01	-0.82%	1.12%
31	6a	1.562	1.553	-0.01	-0.62%	0.84%
31	7a	1.569	1.556	-0.01	-0.82%	1.12%
31	8a	1.569	1.556	-0.01	-0.82%	1.12%
31	9a	1.569	1.559	-0.01	-0.61%	0.84%
31	10a	1.569	1.559	-0.01	-0.61%	0.84%
Max	1.569	1.566	0.00	0.00%	3.63%	
Average	1.567	1.550	-0.02	-1.09%	1.48%	
Min	1.562	1.527	-0.04	-2.66%	0.00%	
Std Dev	0.003	0.013	0.01	0.88%	1.20%	



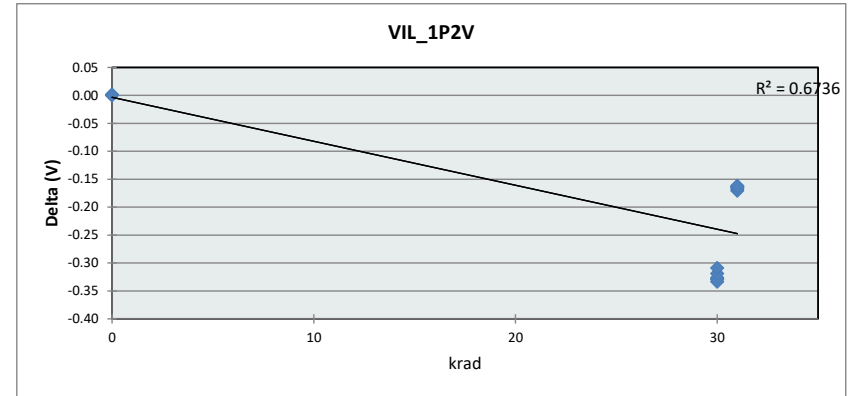
VIH_5P5V			
Units	V		
Max Limit	2		
Min Limit	0.85		
krad	0	30	31
LL	0.850	0.850	0.850
Min	1.562	1.527	1.553
Average	1.564	1.535	1.557
Max	1.566	1.540	1.559
UL	2.000	2.000	2.000



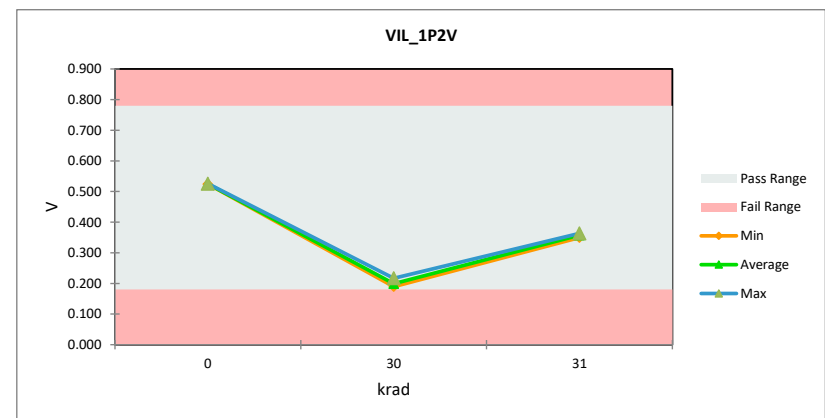
TID Report

SN54SC8T240-SEP

VIL_1P2V						
Units	V					
Max Limit	0.78					
Min Limit	0.18					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.524	0.524	0.00	0.13%	0.11%
0	2	0.524	0.525	0.00	0.25%	0.22%
0	3	0.525	0.526	0.00	0.13%	0.11%
0	4	0.524	0.524	0.00	0.00%	0.00%
30	5	0.520	0.192	-0.33	-63.09%	54.70%
30	6	0.525	0.195	-0.33	-62.78%	54.93%
30	7	0.523	0.197	-0.33	-62.38%	54.37%
30	8	0.523	0.189	-0.33	-63.78%	55.59%
30	9	0.523	0.204	-0.32	-60.98%	53.15%
30	10	0.526	0.217	-0.31	-58.76%	51.48%
31	5a	0.520	0.349	-0.17	-32.82%	28.46%
31	6a	0.525	0.362	-0.16	-31.01%	27.13%
31	7a	0.523	0.358	-0.16	-31.51%	27.46%
31	8a	0.523	0.356	-0.17	-32.02%	27.91%
31	9a	0.523	0.358	-0.16	-31.51%	27.46%
31	10a	0.526	0.364	-0.16	-30.84%	27.02%
Max		0.526	0.526	0.00	0.25%	55.59%
Average		0.523	0.340	-0.18	-35.06%	30.63%
Min		0.520	0.189	-0.33	-63.78%	0.00%
Std Dev		0.002	0.131	0.13	25.01%	21.73%

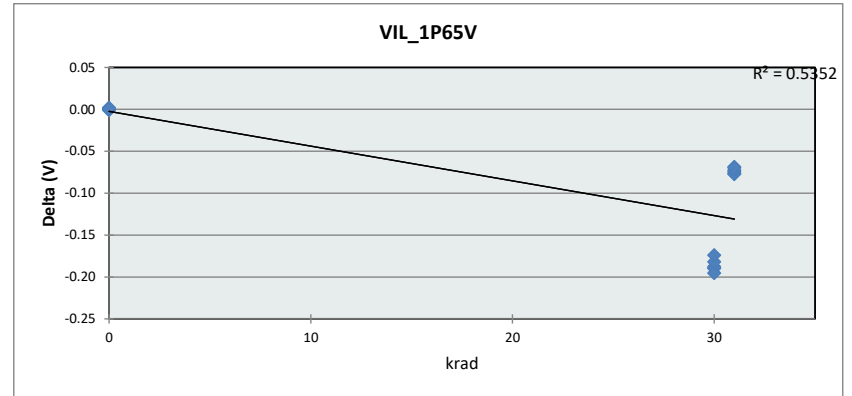


VIL_1P2V			
Units	V		
Max Limit	0.78		
Min Limit	0.18		
krad	0	30	31
LL	0.180	0.180	0.180
Min	0.524	0.189	0.349
Average	0.525	0.199	0.358
Max	0.526	0.217	0.364
UL	0.780	0.780	0.780

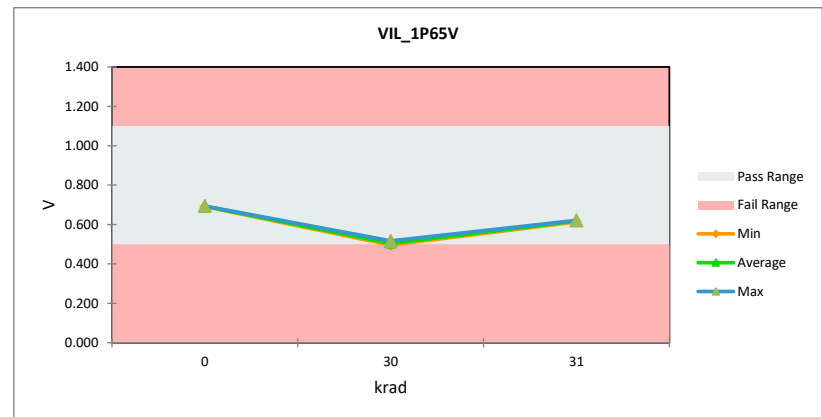


TID Report SN54SC8T240-SEP

VIL_1P65V						
Units	V					
Max Limit	1.1					
Min Limit	0.5					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.692	0.694	0.00	0.28%	0.32%
0	2	0.693	0.693	0.00	0.00%	0.00%
0	3	0.693	0.692	0.00	-0.14%	0.16%
0	4	0.690	0.691	0.00	0.14%	0.16%
30	5	0.691	0.503	-0.19	-27.16%	31.28%
30	6	0.690	0.500	-0.19	-27.47%	31.60%
30	7	0.692	0.502	-0.19	-27.40%	31.60%
30	8	0.691	0.496	-0.20	-28.28%	32.57%
30	9	0.690	0.508	-0.18	-26.35%	30.31%
30	10	0.691	0.517	-0.17	-25.20%	29.02%
31	5a	0.691	0.615	-0.08	-11.06%	12.74%
31	6a	0.690	0.621	-0.07	-9.95%	11.45%
31	7a	0.692	0.618	-0.07	-10.76%	12.41%
31	8a	0.691	0.614	-0.08	-11.20%	12.90%
31	9a	0.690	0.618	-0.07	-10.51%	12.09%
31	10a	0.691	0.621	-0.07	-10.08%	11.61%
Max		0.693	0.694	0.00	0.28%	32.57%
Average		0.691	0.594	-0.10	-14.07%	16.26%
Min		0.690	0.496	-0.19	-28.28%	0.00%
Std Dev		0.001	0.078	0.08	11.19%	12.81%

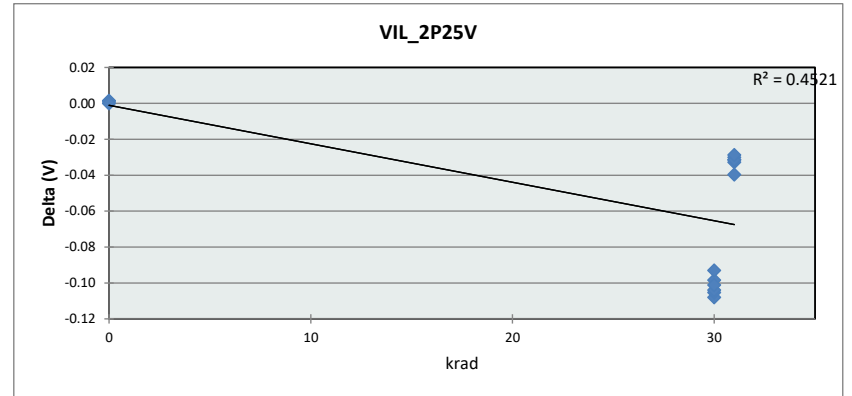


VIL_1P65V			
Units	V		
Max Limit	1.1		
Min Limit	0.5		
krad	0	30	31
LL	0.500	0.500	0.500
Min	0.691	0.496	0.614
Average	0.692	0.504	0.618
Max	0.694	0.517	0.621
UL	1.100	1.100	1.100

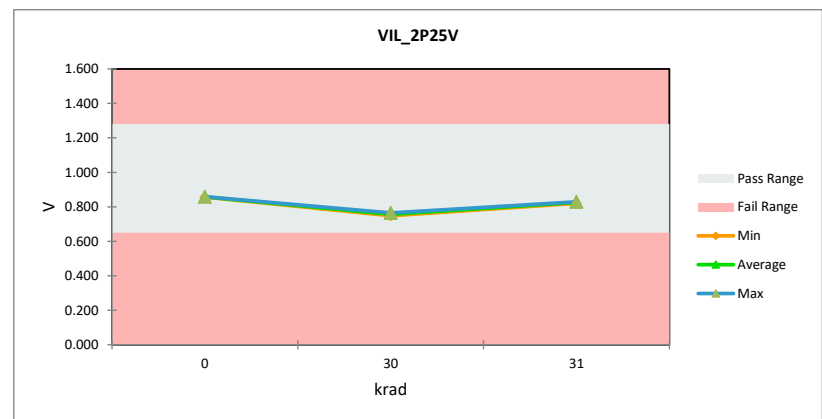


TID Report SN54SC8T240-SEP

VIL_2P25V						
Units	V					
Max Limit	1.28					
Min Limit	0.65					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.856	0.858	0.00	0.16%	0.22%
0	2	0.858	0.859	0.00	0.16%	0.22%
0	3	0.858	0.858	0.00	0.00%	0.00%
0	4	0.856	0.856	0.00	0.00%	0.00%
30	5	0.856	0.758	-0.10	-11.50%	15.63%
30	6	0.856	0.748	-0.11	-12.62%	17.15%
30	7	0.858	0.752	-0.11	-12.28%	16.71%
30	8	0.860	0.756	-0.10	-12.08%	16.50%
30	9	0.858	0.756	-0.10	-11.80%	16.06%
30	10	0.858	0.765	-0.09	-10.84%	14.76%
31	5a	0.856	0.823	-0.03	-3.83%	5.21%
31	6a	0.856	0.826	-0.03	-3.51%	4.78%
31	7a	0.858	0.826	-0.03	-3.67%	4.99%
31	8a	0.860	0.821	-0.04	-4.61%	6.30%
31	9a	0.858	0.826	-0.03	-3.67%	4.99%
31	10a	0.858	0.829	-0.03	-3.35%	4.56%
Max	0.860	0.859	0.00	0.16%	17.15%	
Average	0.857	0.807	-0.05	-5.84%	8.00%	
Min	0.856	0.748	-0.11	-12.62%	0.00%	
Std Dev	0.001	0.043	0.04	5.07%	6.84%	



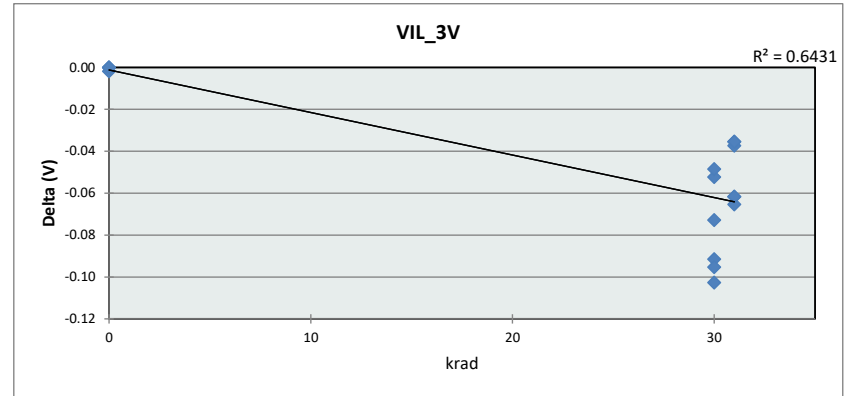
VIL_2P25V			
Units	V		
Max Limit	1.28		
Min Limit	0.65		
krad	0	30	31
LL	0.650	0.650	0.650
Min	0.856	0.748	0.821
Average	0.858	0.756	0.825
Max	0.859	0.765	0.829
UL	1.280	1.280	1.280



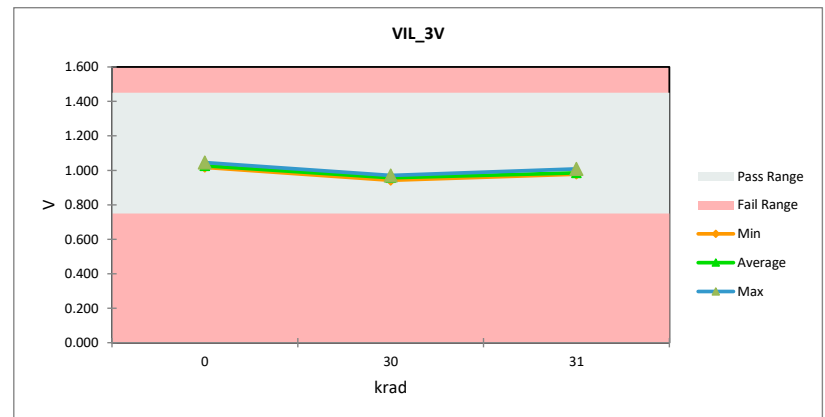
TID Report

SN54SC8T240-SEP

		VIL_3V				
Units		V				
Max Limit		1.45				
Min Limit		0.75				
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.017	1.017	0.00	0.00%	0.00%
0	2	1.045	1.045	0.00	0.00%	0.00%
0	3	1.019	1.017	0.00	-0.18%	0.27%
0	4	1.026	1.026	0.00	0.00%	0.00%
30	5	1.043	0.970	-0.07	-6.98%	10.41%
30	6	1.043	0.952	-0.09	-8.77%	13.08%
30	7	1.045	0.942	-0.10	-9.83%	14.68%
30	8	1.013	0.961	-0.05	-5.16%	7.47%
30	9	1.043	0.948	-0.10	-9.13%	13.61%
30	10	1.017	0.969	-0.05	-4.77%	6.94%
31	5a	1.043	0.982	-0.06	-5.91%	8.81%
31	6a	1.043	0.978	-0.07	-6.27%	9.34%
31	7a	1.045	1.008	-0.04	-3.57%	5.34%
31	8a	1.013	0.978	-0.04	-3.50%	5.07%
31	9a	1.043	0.982	-0.06	-5.91%	8.81%
31	10a	1.017	0.982	-0.04	-3.49%	5.07%
Max		1.045	1.045	0.00	0.00%	14.68%
Average		1.032	0.985	-0.05	-4.59%	6.80%
Min		1.013	0.942	-0.07	-9.83%	0.00%
Std Dev		0.014	0.030	0.02	3.31%	4.93%

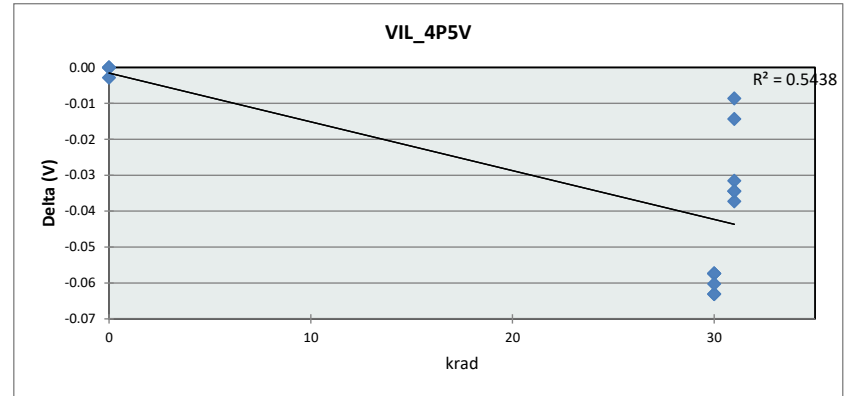


		VIL_3V		
Units		V		
Max Limit		1.45		
Min Limit		0.75		
krad		0	30	31
LL		0.750	0.750	0.750
Min		1.017	0.942	0.978
Average		1.026	0.957	0.985
Max		1.045	0.970	1.008
UL		1.450	1.450	1.450

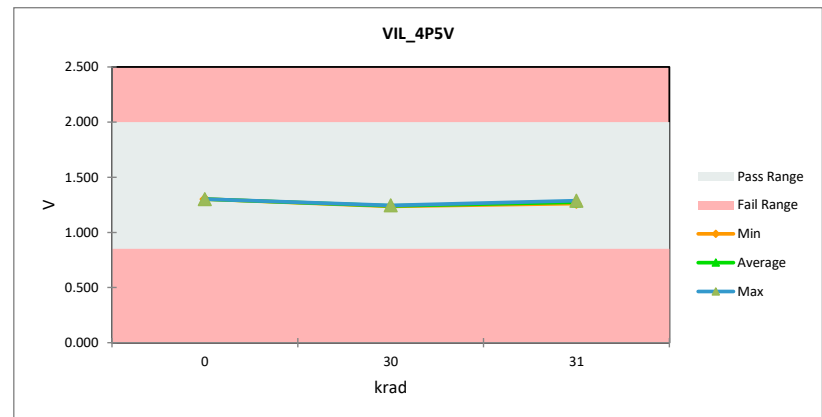


TID Report SN54SC8T240-SEP

VIL_4P5V						
Units	V					
Max Limit	2					
Min Limit	0.85					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.302	1.302	0.00	0.00%	0.00%
0	2	1.305	1.302	0.00	-0.22%	0.25%
0	3	1.302	1.302	0.00	0.00%	0.00%
0	4	1.302	1.302	0.00	0.00%	0.00%
30	5	1.302	1.245	-0.06	-4.41%	4.99%
30	6	1.296	1.239	-0.06	-4.43%	4.99%
30	7	1.299	1.236	-0.06	-4.86%	5.49%
30	8	1.299	1.236	-0.06	-4.86%	5.49%
30	9	1.302	1.245	-0.06	-4.41%	4.99%
30	10	1.302	1.242	-0.06	-4.63%	5.24%
31	5a	1.302	1.270	-0.03	-2.42%	2.74%
31	6a	1.296	1.288	-0.01	-0.66%	0.75%
31	7a	1.299	1.265	-0.03	-2.65%	2.99%
31	8a	1.299	1.262	-0.04	-2.87%	3.24%
31	9a	1.302	1.268	-0.03	-2.64%	2.99%
31	10a	1.302	1.288	-0.01	-1.10%	1.25%
Max	1.305	1.302	0.00	0.00%	5.49%	
Average	1.301	1.268	-0.03	-2.51%	2.84%	
Min	1.296	1.236	-0.06	-4.86%	0.00%	
Std Dev	0.002	0.026	0.02	1.93%	2.19%	



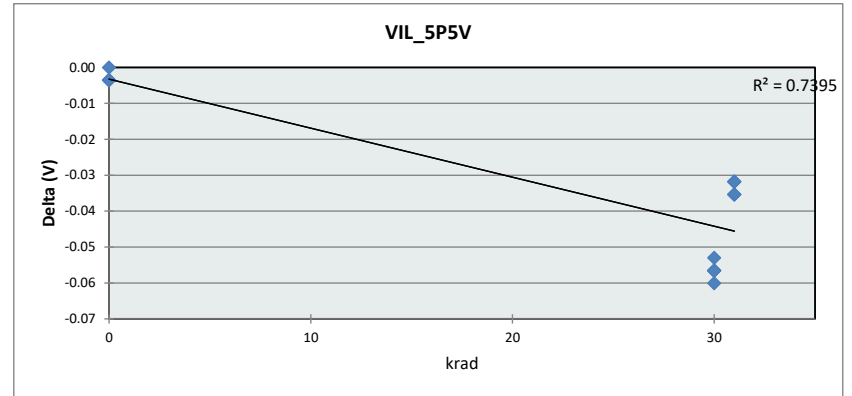
VIL_4P5V			
Units	V		
Max Limit	2		
Min Limit	0.85		
krad	0	30	31
LL	0.850	0.850	0.850
Min	1.302	1.236	1.262
Average	1.302	1.240	1.273
Max	1.302	1.245	1.288
UL	2.000	2.000	2.000



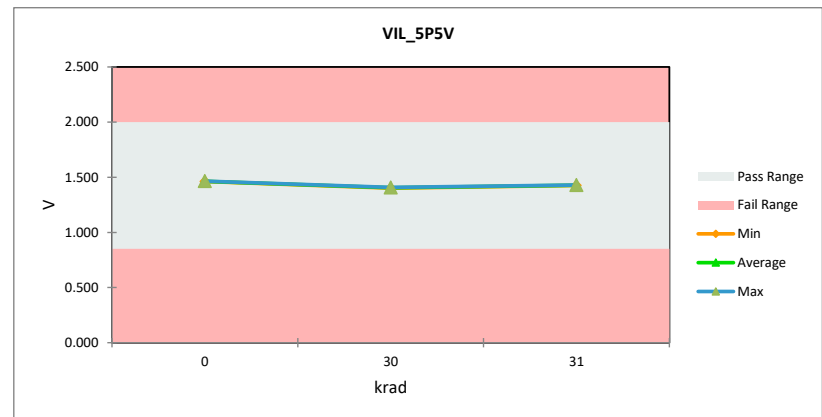
TID Report

SN54SC8T240-SEP

VIL_5P5V						
Units	V					
Max Limit	2					
Min Limit	0.85					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.465	1.461	0.00	-0.24%	0.31%
0	2	1.468	1.465	0.00	-0.24%	0.31%
0	3	1.465	1.461	0.00	-0.24%	0.31%
0	4	1.465	1.465	0.00	0.00%	0.00%
30	5	1.465	1.408	-0.06	-3.86%	4.92%
30	6	1.458	1.401	-0.06	-3.88%	4.92%
30	7	1.461	1.401	-0.06	-4.11%	5.23%
30	8	1.458	1.401	-0.06	-3.88%	4.92%
30	9	1.465	1.408	-0.06	-3.86%	4.92%
30	10	1.461	1.408	-0.05	-3.63%	4.61%
31	5a	1.465	1.429	-0.04	-2.41%	3.07%
31	6a	1.458	1.426	-0.03	-2.18%	2.77%
31	7a	1.461	1.426	-0.04	-2.42%	3.07%
31	8a	1.458	1.426	-0.03	-2.18%	2.77%
31	9a	1.465	1.429	-0.04	-2.41%	3.07%
31	10a	1.461	1.429	-0.03	-2.18%	2.77%
Max	1.468	1.465	0.00	0.00%	5.23%	
Average	1.462	1.428	-0.03	-2.36%	3.00%	
Min	1.458	1.401	-0.06	-4.11%	0.00%	
Std Dev	0.003	0.023	0.02	1.48%	1.88%	



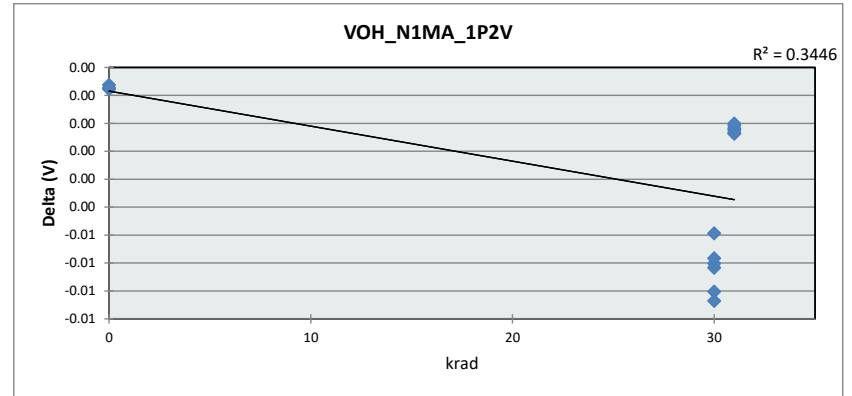
VIL_5P5V			
Units	V		
Max Limit	2		
Min Limit	0.85		
krad	0	30	31
LL	0.850	0.850	0.850
Min	1.461	1.401	1.426
Average	1.463	1.405	1.428
Max	1.465	1.408	1.429
UL	2.000	2.000	2.000



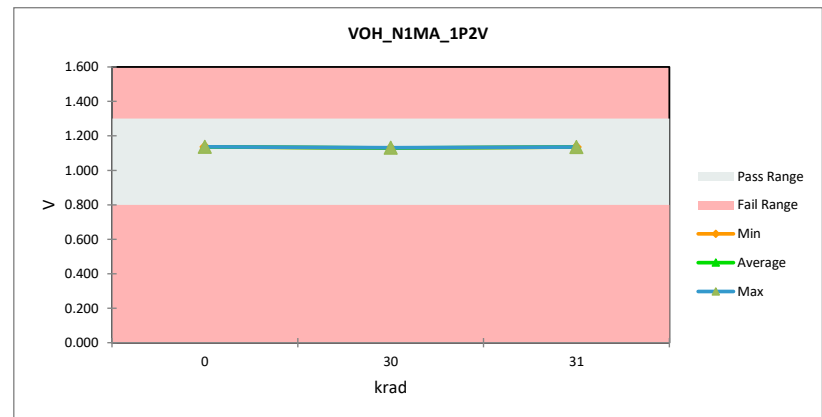
TID Report

SN54SC8T240-SEP

VOH_N1MA_1P2V						
Units	V					
Max Limit	1.3					
Min Limit	0.8					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.136	1.137	0.00	0.02%	0.05%
0	2	1.136	1.136	0.00	0.03%	0.08%
0	3	1.136	1.136	0.00	0.02%	0.05%
0	4	1.136	1.136	0.00	0.02%	0.05%
30	5	1.136	1.130	-0.01	-0.54%	1.23%
30	6	1.136	1.129	-0.01	-0.62%	1.40%
30	7	1.136	1.130	-0.01	-0.53%	1.20%
30	8	1.136	1.129	-0.01	-0.65%	1.47%
30	9	1.136	1.131	0.00	-0.43%	0.99%
30	10	1.136	1.130	-0.01	-0.51%	1.17%
31	5a	1.136	1.135	0.00	-0.09%	0.21%
31	6a	1.136	1.135	0.00	-0.11%	0.25%
31	7a	1.136	1.135	0.00	-0.12%	0.28%
31	8a	1.136	1.135	0.00	-0.12%	0.27%
31	9a	1.136	1.135	0.00	-0.10%	0.24%
31	10a	1.136	1.135	0.00	-0.09%	0.20%
Max	1.136	1.137	0.00	0.03%	1.47%	
Average	1.136	1.133	0.00	-0.24%	0.57%	
Min	1.136	1.129	-0.01	-0.65%	0.05%	
Std Dev	0.000	0.003	0.00	0.26%	0.55%	



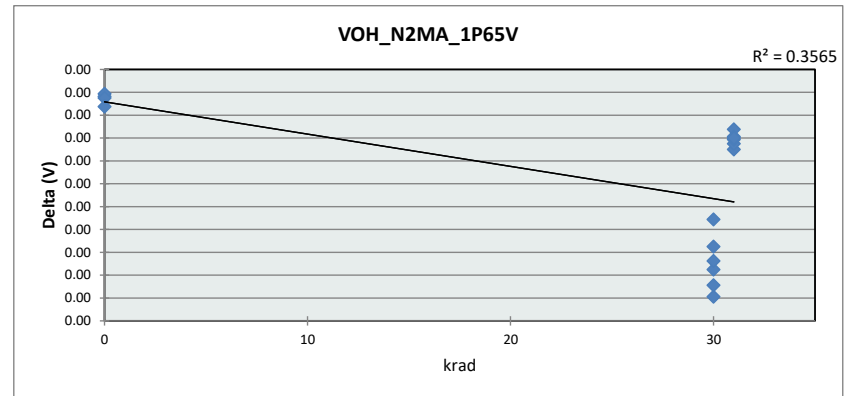
VOH_N1MA_1P2V			
Units	V		
Max Limit	1.3		
Min Limit	0.8		
krad	0	30	31
LL	0.800	0.800	0.800
Min	1.136	1.129	1.135
Average	1.136	1.130	1.135
Max	1.137	1.131	1.135
UL	1.300	1.300	1.300



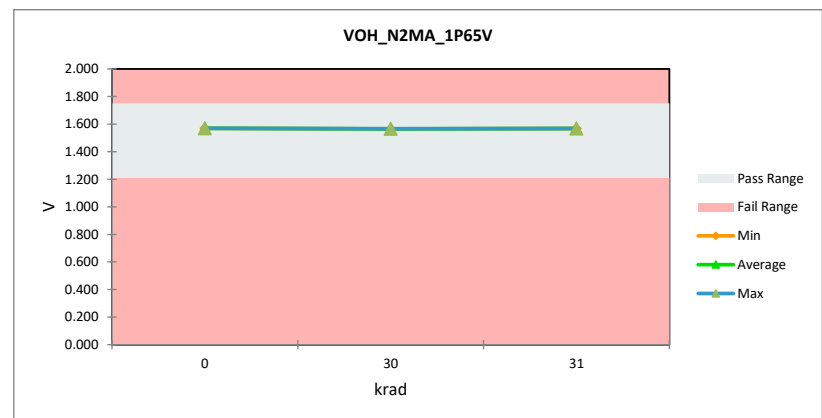
TID Report

SN54SC8T240-SEP

VOH_N2MA_1P65V						
Units		V				
Max Limit		1.75				
Min Limit		1.21				
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.569	1.570	0.00	0.03%	0.08%
0	2	1.569	1.569	0.00	0.03%	0.09%
0	3	1.569	1.569	0.00	0.02%	0.07%
0	4	1.569	1.569	0.00	0.01%	0.03%
30	5	1.569	1.565	0.00	-0.22%	0.63%
30	6	1.569	1.565	0.00	-0.25%	0.74%
30	7	1.569	1.566	0.00	-0.20%	0.59%
30	8	1.569	1.565	0.00	-0.24%	0.69%
30	9	1.569	1.567	0.00	-0.15%	0.42%
30	10	1.569	1.566	0.00	-0.18%	0.53%
31	5a	1.569	1.568	0.00	-0.02%	0.06%
31	6a	1.569	1.568	0.00	-0.05%	0.14%
31	7a	1.569	1.568	0.00	-0.03%	0.09%
31	8a	1.569	1.568	0.00	-0.04%	0.12%
31	9a	1.569	1.568	0.00	-0.03%	0.10%
31	10a	1.569	1.568	0.00	-0.03%	0.09%
Max		1.569	1.570	0.00	0.03%	0.74%
Average		1.569	1.568	0.00	-0.08%	0.28%
Min		1.569	1.565	0.00	-0.25%	0.03%
Std Dev		0.000	0.002	0.00	0.10%	0.27%

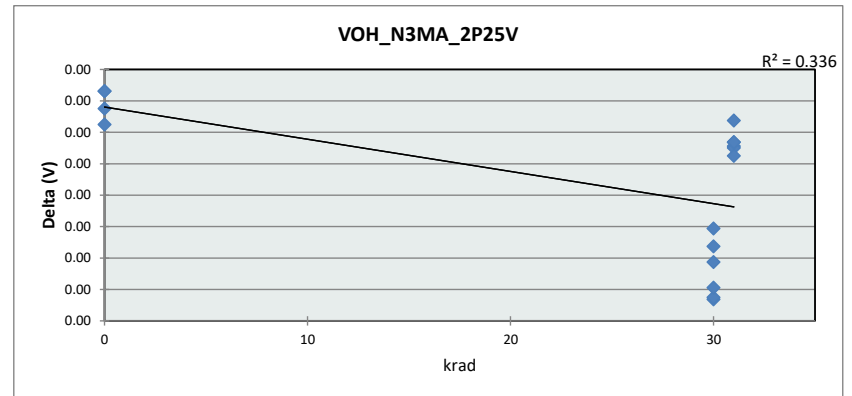


VOH_N2MA_1P65V			
Units		V	
Max Limit		1.75	
Min Limit		1.21	
krad	0	30	31
LL	1.210	1.210	1.210
Min	1.569	1.565	1.568
Average	1.569	1.566	1.568
Max	1.570	1.567	1.568
UL	1.750	1.750	1.750

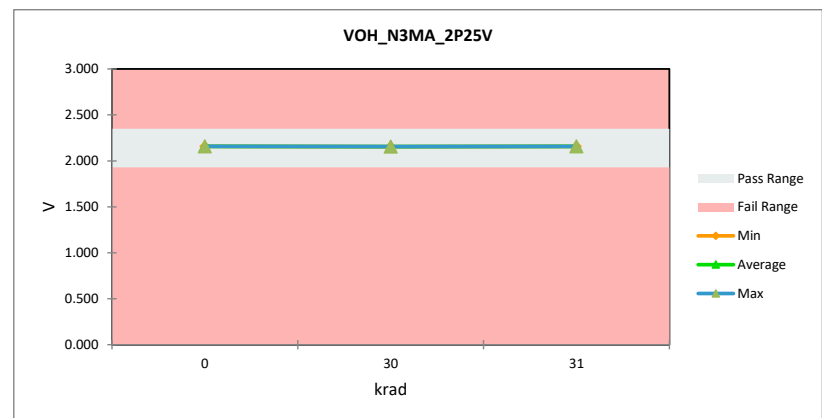


TID Report SN54SC8T240-SEP

VOH_N3MA_2P25V						
Units	V					
Max Limit	2.35					
Min Limit	1.93					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	2.157	2.158	0.00	0.03%	0.16%
0	2	2.157	2.158	0.00	0.03%	0.16%
0	3	2.157	2.158	0.00	0.02%	0.09%
0	4	2.158	2.158	0.00	0.01%	0.03%
30	5	2.157	2.155	0.00	-0.12%	0.63%
30	6	2.157	2.155	0.00	-0.12%	0.63%
30	7	2.157	2.155	0.00	-0.10%	0.49%
30	8	2.157	2.155	0.00	-0.11%	0.59%
30	9	2.157	2.156	0.00	-0.07%	0.36%
30	10	2.157	2.156	0.00	-0.08%	0.43%
31	5a	2.157	2.157	0.00	-0.01%	0.05%
31	6a	2.157	2.157	0.00	-0.01%	0.06%
31	7a	2.157	2.157	0.00	0.01%	0.04%
31	8a	2.157	2.157	0.00	-0.01%	0.04%
31	9a	2.157	2.157	0.00	-0.01%	0.04%
31	10a	2.157	2.157	0.00	-0.02%	0.09%
Max	2.158	2.158	0.00	0.03%	0.63%	
Average	2.157	2.156	0.00	-0.04%	0.24%	
Min	2.157	2.155	0.00	-0.12%	0.03%	
Std Dev	0.000	0.001	0.00	0.06%	0.24%	



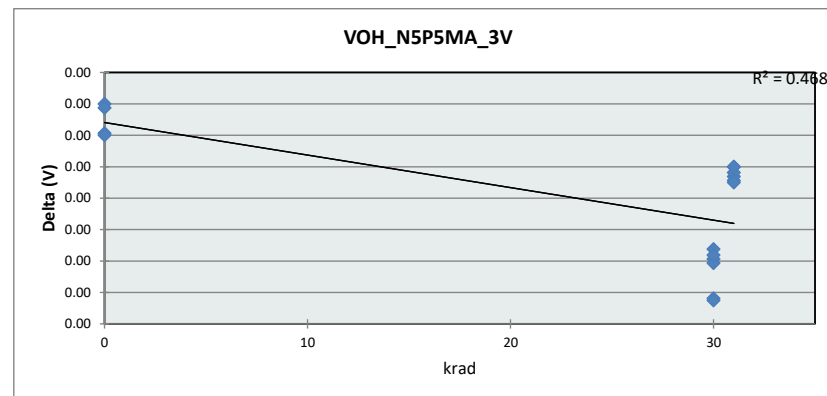
VOH_N3MA_2P25V			
Units	V		
Max Limit	2.35		
Min Limit	1.93		
krad	0	30	31
LL	1.930	1.930	1.930
Min	2.158	2.155	2.157
Average	2.158	2.155	2.157
Max	2.158	2.156	2.157
UL	2.350	2.350	2.350



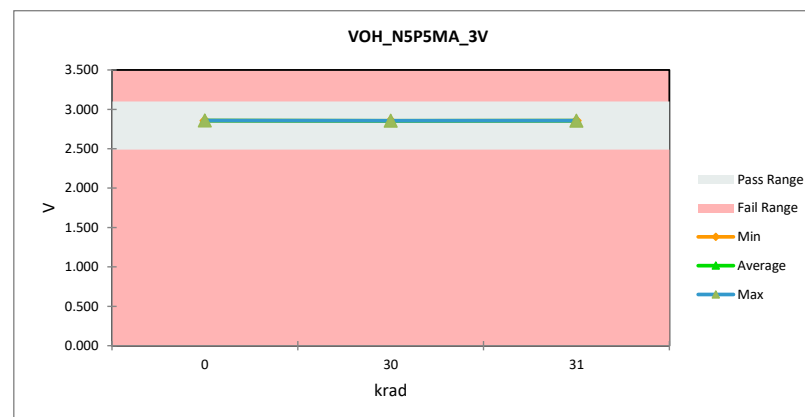
TID Report

SN54SC8T240-SEP

VOH_N5P5MA_3V						
Units		V				
Max Limit		3.1				
Min Limit		2.49				
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	2.857	2.858	0.00	0.04%	0.16%
0	2	2.856	2.857	0.00	0.03%	0.15%
0	3	2.857	2.857	0.00	0.02%	0.09%
0	4	2.856	2.857	0.00	0.02%	0.08%
30	5	2.857	2.854	0.00	-0.07%	0.34%
30	6	2.856	2.854	0.00	-0.07%	0.35%
30	7	2.856	2.855	0.00	-0.05%	0.24%
30	8	2.856	2.855	0.00	-0.05%	0.25%
30	9	2.857	2.855	0.00	-0.05%	0.22%
30	10	2.857	2.855	0.00	-0.05%	0.23%
31	5a	2.857	2.856	0.00	-0.01%	0.03%
31	6a	2.856	2.856	0.00	0.00%	0.02%
31	7a	2.856	2.856	0.00	0.00%	0.00%
31	8a	2.856	2.856	0.00	0.00%	0.00%
31	9a	2.857	2.856	0.00	-0.01%	0.04%
31	10a	2.857	2.856	0.00	-0.01%	0.04%
Max		2.857	2.858	0.00	0.04%	0.35%
Average		2.856	2.856	0.00	-0.02%	0.14%
Min		2.856	2.854	0.00	-0.07%	0.00%
Std Dev		0.000	0.001	0.00	0.04%	0.12%

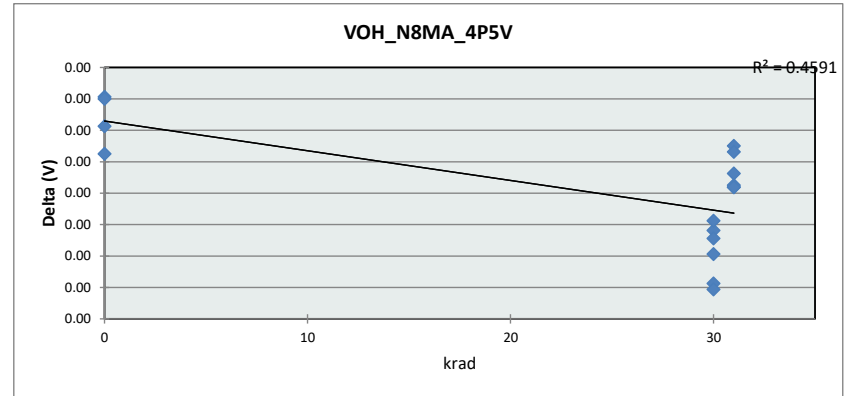


VOH_N5P5MA_3V			
Units		V	
Max Limit		3.1	
Min Limit		2.49	
krad	0	30	31
LL	2.490	2.490	2.490
Min	2.857	2.854	2.856
Average	2.857	2.855	2.856
Max	2.858	2.855	2.856
UL	3.100	3.100	3.100

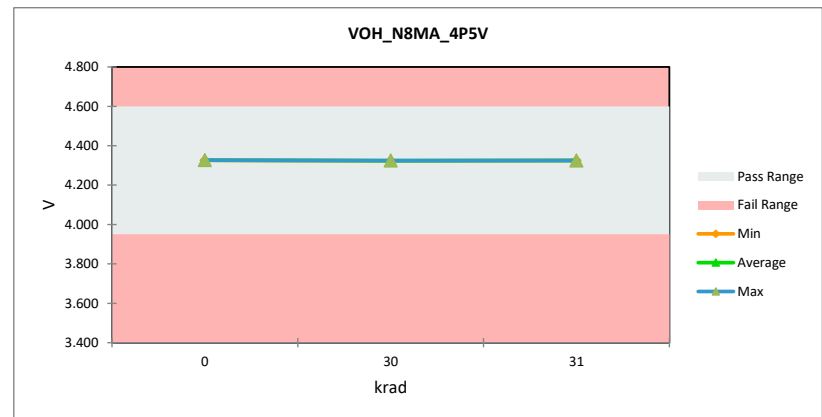


TID Report SN54SC8T240-SEP

VOH_N8MA_4P5V						
Units	V					
Max Limit	4.6					
Min Limit	3.95					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	4.326	4.327	0.00	0.02%	0.16%
0	2	4.325	4.326	0.00	0.02%	0.15%
0	3	4.326	4.326	0.00	0.01%	0.09%
0	4	4.326	4.326	0.00	0.00%	0.02%
30	5	4.326	4.324	0.00	-0.04%	0.30%
30	6	4.325	4.323	0.00	-0.05%	0.31%
30	7	4.325	4.324	0.00	-0.03%	0.17%
30	8	4.325	4.324	0.00	-0.03%	0.23%
30	9	4.326	4.325	0.00	-0.02%	0.14%
30	10	4.326	4.325	0.00	-0.03%	0.19%
31	5a	4.326	4.325	0.00	-0.01%	0.06%
31	6a	4.325	4.325	0.00	-0.01%	0.06%
31	7a	4.325	4.325	0.00	0.01%	0.04%
31	8a	4.325	4.325	0.00	0.00%	0.02%
31	9a	4.326	4.325	0.00	0.00%	0.03%
31	10a	4.326	4.325	0.00	-0.01%	0.06%
Max	4.326	4.327	0.00	0.02%	0.31%	
Average	4.326	4.325	0.00	-0.01%	0.13%	
Min	4.325	4.323	0.00	-0.05%	0.02%	
Std Dev	0.000	0.001	0.00	0.02%	0.10%	



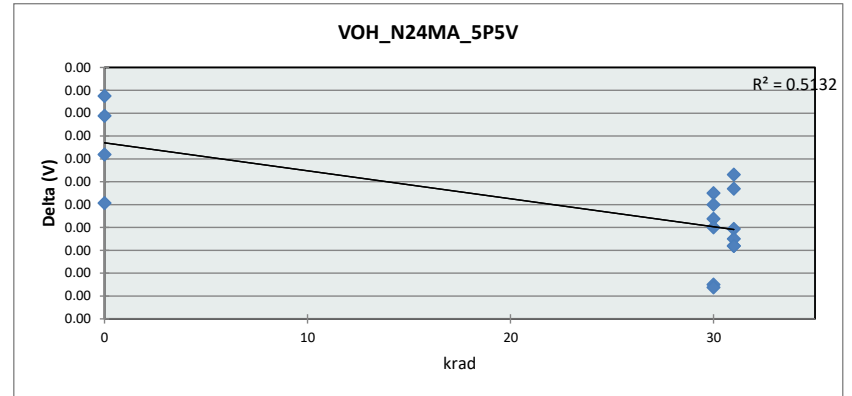
VOH_N8MA_4P5V			
Units	V		
Max Limit	4.6		
Min Limit	3.95		
krad	0	30	31
LL	3.950	3.950	3.950
Min	4.326	4.323	4.325
Average	4.326	4.324	4.325
Max	4.327	4.325	4.325
UL	4.600	4.600	4.600



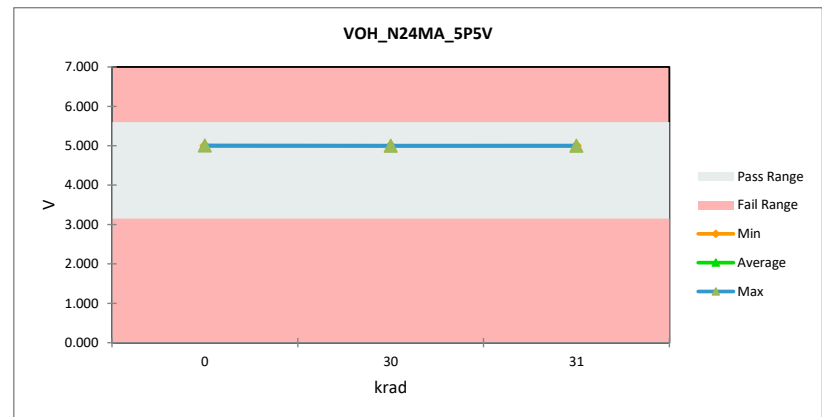
TID Report

SN54SC8T240-SEP

VOH_N24MA_5P5V						
Units	V					
Max Limit	5.6					
Min Limit	3.15					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	5.001	5.003	0.00	0.06%	0.12%
0	2	4.999	5.002	0.00	0.05%	0.10%
0	3	5.000	5.002	0.00	0.03%	0.07%
0	4	5.000	5.001	0.00	0.01%	0.02%
30	5	5.000	4.999	0.00	-0.03%	0.05%
30	6	4.999	4.998	0.00	-0.03%	0.05%
30	7	4.999	4.999	0.00	0.02%	0.03%
30	8	4.999	4.999	0.00	0.00%	0.01%
30	9	5.000	5.000	0.00	0.01%	0.02%
30	10	5.000	5.000	0.00	0.00%	0.00%
31	5a	5.000	5.000	0.00	0.00%	0.00%
31	6a	4.999	4.999	0.00	-0.01%	0.02%
31	7a	4.999	5.000	0.00	0.02%	0.05%
31	8a	4.999	4.999	0.00	0.02%	0.03%
31	9a	5.000	4.999	0.00	-0.01%	0.01%
31	10a	5.000	5.000	0.00	-0.01%	0.02%
Max	5.001	5.003	0.00	0.06%	0.12%	
Average	5.000	5.000	0.00	0.01%	0.04%	
Min	4.999	4.998	0.00	-0.03%	0.00%	
Std Dev	0.001	0.001	0.00	0.02%	0.03%	



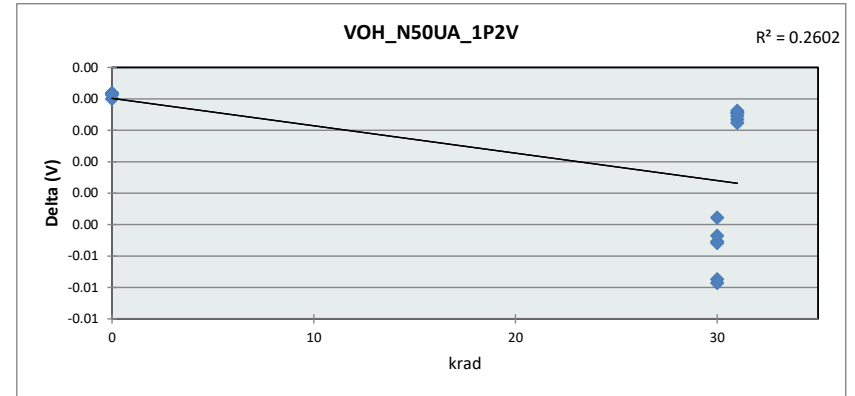
VOH_N24MA_5P5V			
Units	V		
Max Limit	5.6		
Min Limit	3.15		
krad	0	30	31
LL	3.150	3.150	3.150
Min	5.001	4.998	4.999
Average	5.002	4.999	5.000
Max	5.003	5.000	5.000
UL	5.600	5.600	5.600



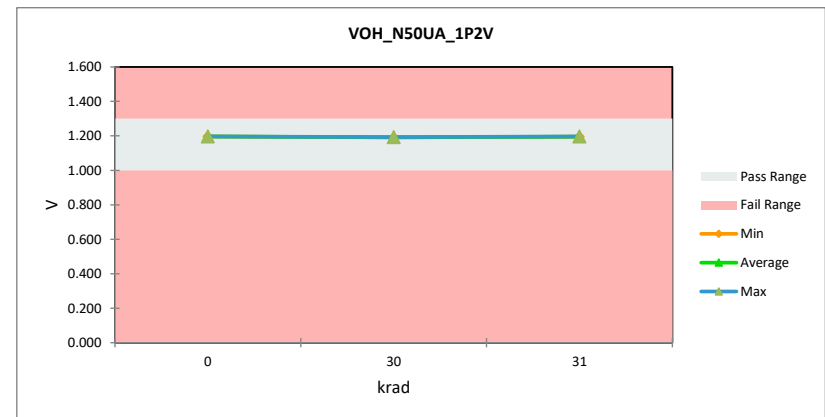
TID Report

SN54SC8T240-SEP

VOH_N50UA_1P2V						
Units	V					
Max Limit	1.3					
Min Limit	1					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.196	1.197	0.00	0.02%	0.06%
0	2	1.197	1.197	0.00	0.00%	0.00%
0	3	1.197	1.197	0.00	0.02%	0.06%
0	4	1.197	1.197	0.00	0.01%	0.04%
30	5	1.197	1.192	0.00	-0.38%	1.51%
30	6	1.197	1.191	-0.01	-0.48%	1.91%
30	7	1.196	1.192	0.00	-0.38%	1.53%
30	8	1.197	1.191	-0.01	-0.49%	1.95%
30	9	1.197	1.193	0.00	-0.32%	1.26%
30	10	1.197	1.192	0.00	-0.36%	1.45%
31	5a	1.197	1.196	0.00	-0.04%	0.15%
31	6a	1.197	1.196	0.00	-0.06%	0.22%
31	7a	1.196	1.196	0.00	-0.03%	0.13%
31	8a	1.197	1.196	0.00	-0.06%	0.26%
31	9a	1.197	1.196	0.00	-0.05%	0.19%
31	10a	1.197	1.196	0.00	-0.04%	0.16%
Max	1.197	1.197	0.00	0.02%	1.95%	
Average	1.197	1.195	0.00	-0.17%	0.68%	
Min	1.196	1.191	-0.01	-0.49%	0.00%	
Std Dev	0.000	0.002	0.00	0.19%	0.76%	



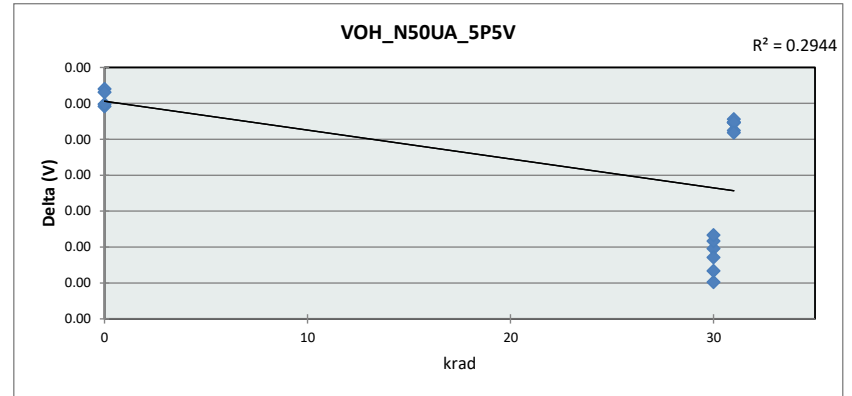
VOH_N50UA_1P2V			
Units	V		
Max Limit	1.3		
Min Limit	1		
krad	0	30	31
LL	1.000	1.000	1.000
Min	1.197	1.191	1.196
Average	1.197	1.192	1.196
Max	1.197	1.193	1.196
UL	1.300	1.300	1.300



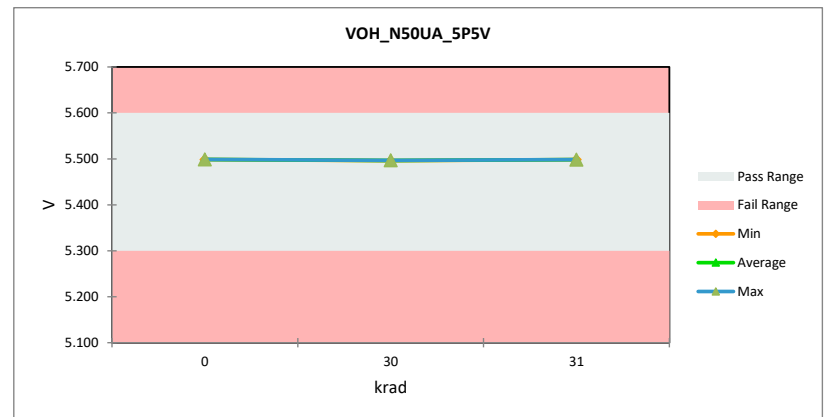
TID Report

SN54SC8T240-SEP

VOH_N50UA_5P5V						
Units	V					
Max Limit	5.6					
Min Limit	5.3					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	5.499	5.499	0.00	0.00%	0.01%
0	2	5.498	5.499	0.00	0.00%	0.07%
0	3	5.498	5.499	0.00	0.00%	0.05%
0	4	5.499	5.499	0.00	0.00%	0.00%
30	5	5.499	5.497	0.00	-0.04%	0.67%
30	6	5.499	5.496	0.00	-0.05%	0.83%
30	7	5.498	5.497	0.00	-0.03%	0.64%
30	8	5.498	5.496	0.00	-0.04%	0.78%
30	9	5.499	5.497	0.00	-0.03%	0.61%
30	10	5.499	5.496	0.00	-0.04%	0.71%
31	5a	5.499	5.498	0.00	-0.01%	0.13%
31	6a	5.499	5.498	0.00	0.00%	0.09%
31	7a	5.498	5.498	0.00	0.00%	0.09%
31	8a	5.498	5.498	0.00	0.00%	0.07%
31	9a	5.499	5.498	0.00	0.00%	0.09%
31	10a	5.499	5.498	0.00	-0.01%	0.14%
Max	5.499	5.499	0.00	0.00%	0.83%	
Average	5.499	5.498	0.00	-0.02%	0.31%	
Min	5.498	5.496	0.00	-0.05%	0.00%	
Std Dev	0.000	0.001	0.00	0.02%	0.32%	

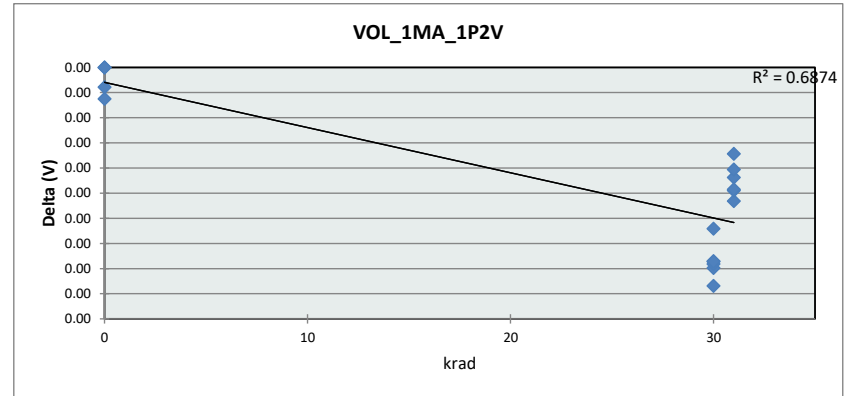


VOH_N50UA_5P5V			
Units	V		
Max Limit	5.6		
Min Limit	5.3		
krad	0	30	31
LL	5.300	5.300	5.300
Min	5.499	5.496	5.498
Average	5.499	5.496	5.498
Max	5.499	5.497	5.498
UL	5.600	5.600	5.600

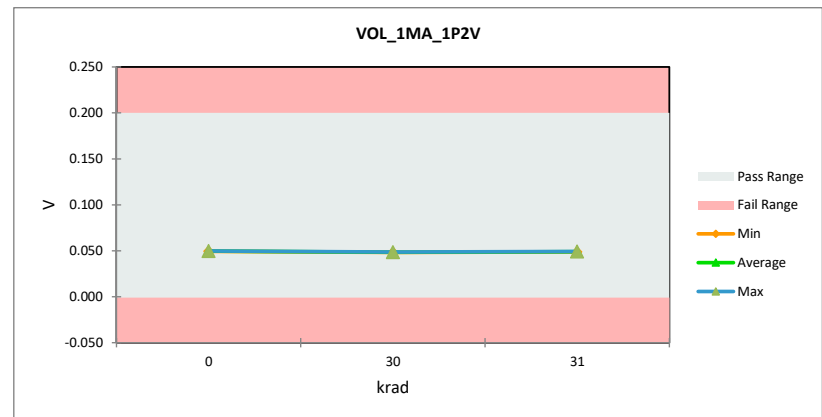


TID Report SN54SC8T240-SEP

VOL_1MA_1P2V						
Units	V					
Max Limit	0.2					
Min Limit	-0.001					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.050	0.050	0.00	-0.31%	0.08%
0	2	0.050	0.050	0.00	0.00%	0.00%
0	3	0.050	0.049	0.00	-0.50%	0.12%
0	4	0.050	0.050	0.00	0.00%	0.00%
30	5	0.050	0.048	0.00	-2.59%	0.64%
30	6	0.050	0.048	0.00	-3.48%	0.86%
30	7	0.050	0.048	0.00	-3.09%	0.77%
30	8	0.050	0.048	0.00	-3.19%	0.79%
30	9	0.050	0.049	0.00	-3.12%	0.78%
30	10	0.050	0.049	0.00	-3.08%	0.77%
31	5a	0.050	0.049	0.00	-1.39%	0.34%
31	6a	0.050	0.049	0.00	-1.75%	0.44%
31	7a	0.050	0.049	0.00	-2.13%	0.53%
31	8a	0.050	0.049	0.00	-1.96%	0.49%
31	9a	0.050	0.049	0.00	-1.93%	0.48%
31	10a	0.050	0.049	0.00	-1.62%	0.40%
Max	0.050	0.050	0.00	0.00%	0.86%	
Average	0.050	0.049	0.00	-1.88%	0.47%	
Min	0.050	0.048	0.00	-3.48%	0.00%	
Std Dev	0.000	0.001	0.00	1.18%	0.29%	



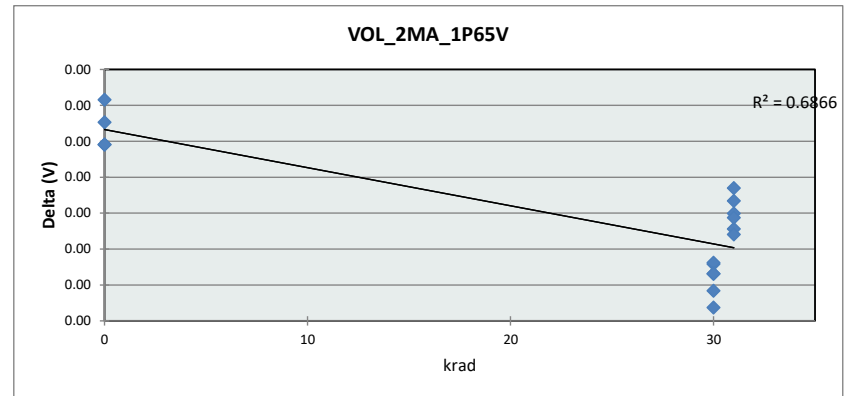
VOL_1MA_1P2V			
Units	V		
Max Limit	0.2		
Min Limit	-0.001		
krad	0	30	31
LL	-0.001	-0.001	-0.001
Min	0.049	0.048	0.049
Average	0.050	0.048	0.049
Max	0.050	0.049	0.049
UL	0.200	0.200	0.200



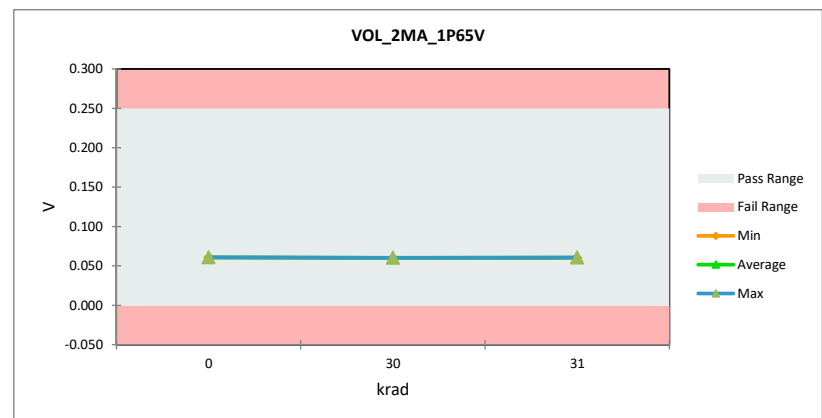
TID Report

SN54SC8T240-SEP

VOL_2MA_1P65V						
Units	V					
Max Limit	0.25					
Min Limit	-0.001					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.061	0.061	0.00	-0.36%	0.09%
0	2	0.061	0.061	0.00	-0.15%	0.04%
0	3	0.061	0.061	0.00	-0.36%	0.09%
0	4	0.061	0.061	0.00	0.05%	0.01%
30	5	0.061	0.060	0.00	-1.45%	0.35%
30	6	0.061	0.060	0.00	-1.44%	0.35%
30	7	0.061	0.060	0.00	-1.84%	0.45%
30	8	0.061	0.060	0.00	-1.69%	0.41%
30	9	0.061	0.060	0.00	-1.53%	0.37%
30	10	0.061	0.060	0.00	-1.53%	0.37%
31	5a	0.061	0.061	0.00	-0.87%	0.21%
31	6a	0.061	0.060	0.00	-1.13%	0.27%
31	7a	0.061	0.061	0.00	-0.98%	0.24%
31	8a	0.061	0.061	0.00	-1.17%	0.29%
31	9a	0.061	0.061	0.00	-1.02%	0.25%
31	10a	0.061	0.061	0.00	-0.75%	0.18%
Max	0.061	0.061	0.00	0.05%	0.45%	
Average	0.061	0.060	0.00	-1.01%	0.25%	
Min	0.061	0.060	0.00	-1.84%	0.01%	
Std Dev	0.000	0.000	0.00	0.57%	0.14%	

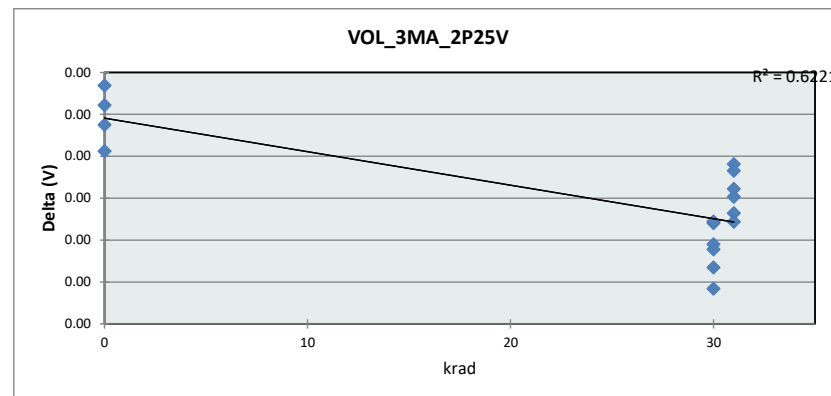


VOL_2MA_1P65V			
Units	V		
Max Limit	0.25		
Min Limit	-0.001		
krad	0	30	31
LL	-0.001	-0.001	-0.001
Min	0.061	0.060	0.060
Average	0.061	0.060	0.061
Max	0.061	0.060	0.061
UL	0.250	0.250	0.250

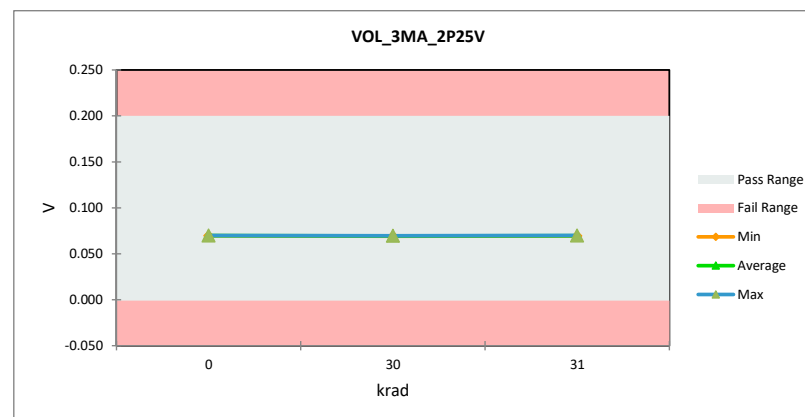


TID Report SN54SC8T240-SEP

VOL_3MA_2P25V						
Units	V					
Max Limit	0.2					
Min Limit	-0.001					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.070	0.070	0.00	-0.54%	0.19%
0	2	0.070	0.070	0.00	-0.36%	0.12%
0	3	0.070	0.070	0.00	-0.22%	0.08%
0	4	0.070	0.070	0.00	-0.09%	0.03%
30	5	0.070	0.069	0.00	-1.03%	0.36%
30	6	0.070	0.069	0.00	-1.47%	0.51%
30	7	0.070	0.069	0.00	-1.17%	0.41%
30	8	0.070	0.069	0.00	-1.32%	0.46%
30	9	0.070	0.070	0.00	-1.01%	0.35%
30	10	0.070	0.070	0.00	-1.20%	0.42%
31	5a	0.070	0.070	0.00	-0.79%	0.28%
31	6a	0.070	0.070	0.00	-0.85%	0.30%
31	7a	0.070	0.070	0.00	-0.96%	0.33%
31	8a	0.070	0.070	0.00	-1.01%	0.35%
31	9a	0.070	0.070	0.00	-0.62%	0.22%
31	10a	0.070	0.070	0.00	-0.67%	0.23%
Max	0.070	0.070	0.00	-0.09%	0.51%	
Average	0.070	0.070	0.00	-0.83%	0.29%	
Min	0.070	0.069	0.00	-1.47%	0.03%	
Std Dev	0.000	0.000	0.00	0.39%	0.14%	



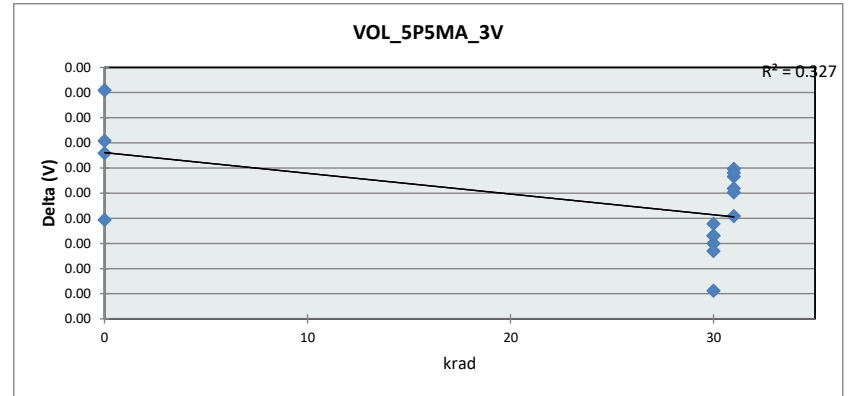
VOL_3MA_2P25V			
Units	V		
Max Limit	0.2		
Min Limit	-0.001		
krad	0	30	31
LL	-0.001	-0.001	-0.001
Min	0.070	0.069	0.070
Average	0.070	0.069	0.070
Max	0.070	0.070	0.070
UL	0.200	0.200	0.200



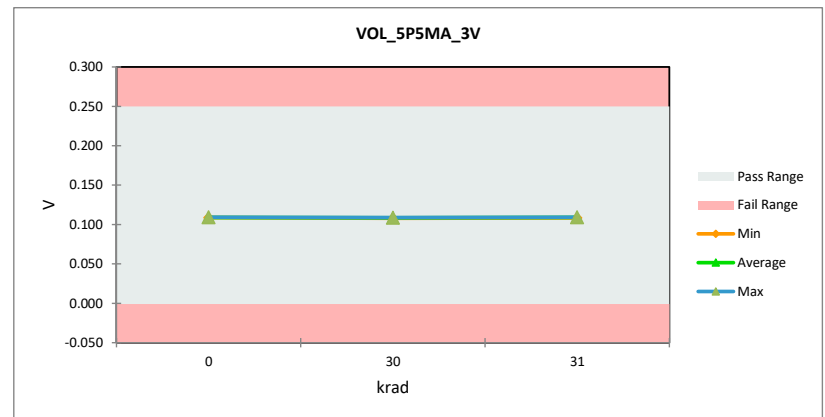
TID Report

SN54SC8T240-SEP

VOL_5P5MA_3V						
Units		V				
Max Limit		0.25				
Min Limit		-0.001				
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.110	0.109	0.00	-0.74%	0.32%
0	2	0.109	0.109	0.00	-0.26%	0.11%
0	3	0.109	0.109	0.00	-0.17%	0.07%
0	4	0.109	0.109	0.00	0.20%	0.09%
30	5	0.110	0.109	0.00	-0.91%	0.40%
30	6	0.109	0.108	0.00	-1.26%	0.55%
30	7	0.109	0.108	0.00	-0.86%	0.37%
30	8	0.110	0.109	0.00	-0.97%	0.42%
30	9	0.110	0.109	0.00	-0.86%	0.37%
30	10	0.110	0.109	0.00	-0.77%	0.34%
31	5a	0.110	0.109	0.00	-0.43%	0.19%
31	6a	0.109	0.109	0.00	-0.72%	0.31%
31	7a	0.109	0.109	0.00	-0.37%	0.16%
31	8a	0.110	0.109	0.00	-0.54%	0.24%
31	9a	0.110	0.109	0.00	-0.51%	0.22%
31	10a	0.110	0.109	0.00	-0.40%	0.17%
Max		0.110	0.109	0.00	0.20%	0.55%
Average		0.109	0.109	0.00	-0.60%	0.27%
Min		0.109	0.108	0.00	-1.26%	0.07%
Std Dev		0.000	0.000	0.00	0.36%	0.14%



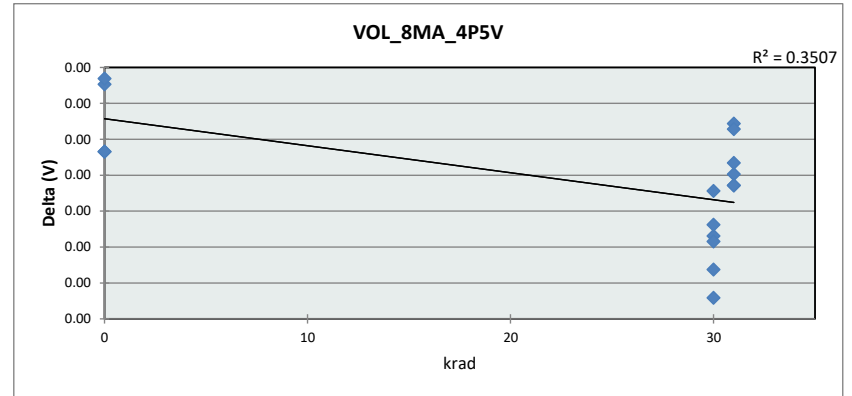
VOL_5P5MA_3V			
Units		V	
Max Limit		0.25	
Min Limit		-0.001	
krad	0	30	31
LL	-0.001	-0.001	-0.001
Min	0.109	0.108	0.109
Average	0.109	0.109	0.109
Max	0.109	0.109	0.109
UL	0.250	0.250	0.250



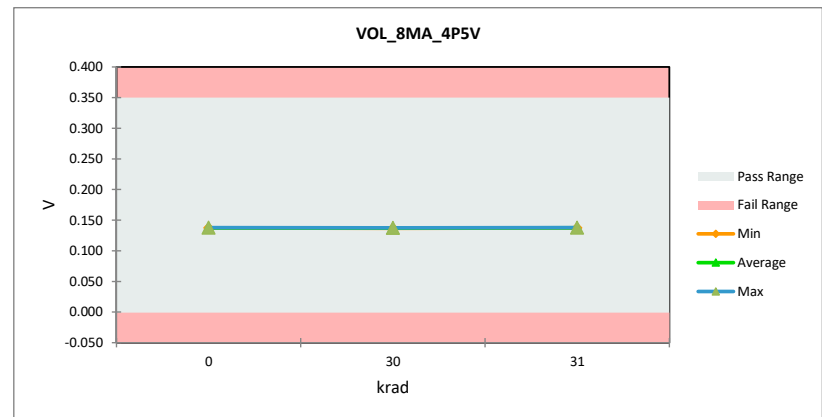
TID Report

SN54SC8T240-SEP

VOL_8MA_4P5V						
Units	V					
Max Limit	0.35					
Min Limit	-0.001					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.138	0.137	0.00	-0.34%	0.13%
0	2	0.138	0.137	0.00	-0.34%	0.13%
0	3	0.138	0.138	0.00	-0.07%	0.03%
0	4	0.138	0.138	0.00	-0.05%	0.02%
30	5	0.138	0.137	0.00	-0.68%	0.27%
30	6	0.138	0.137	0.00	-0.93%	0.37%
30	7	0.138	0.137	0.00	-0.50%	0.20%
30	8	0.138	0.137	0.00	-0.63%	0.25%
30	9	0.138	0.137	0.00	-0.82%	0.32%
30	10	0.138	0.137	0.00	-0.70%	0.28%
31	5a	0.138	0.138	0.00	-0.23%	0.09%
31	6a	0.138	0.137	0.00	-0.48%	0.19%
31	7a	0.138	0.137	0.00	-0.43%	0.17%
31	8a	0.138	0.138	0.00	-0.47%	0.19%
31	9a	0.138	0.138	0.00	-0.38%	0.15%
31	10a	0.138	0.138	0.00	-0.25%	0.10%
Max	0.138	0.138	0.00	-0.05%	0.37%	
Average	0.138	0.137	0.00	-0.46%	0.18%	
Min	0.138	0.137	0.00	-0.93%	0.02%	
Std Dev	0.000	0.000	0.00	0.25%	0.10%	



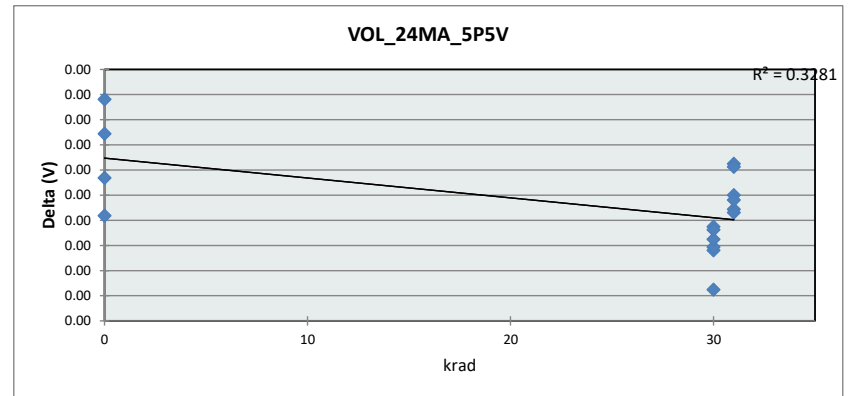
VOL_8MA_4P5V			
Units	V		
Max Limit	0.35		
Min Limit	-0.001		
krad	0	30	31
LL	-0.001	-0.001	-0.001
Min	0.137	0.137	0.137
Average	0.137	0.137	0.138
Max	0.138	0.137	0.138
UL	0.350	0.350	0.350



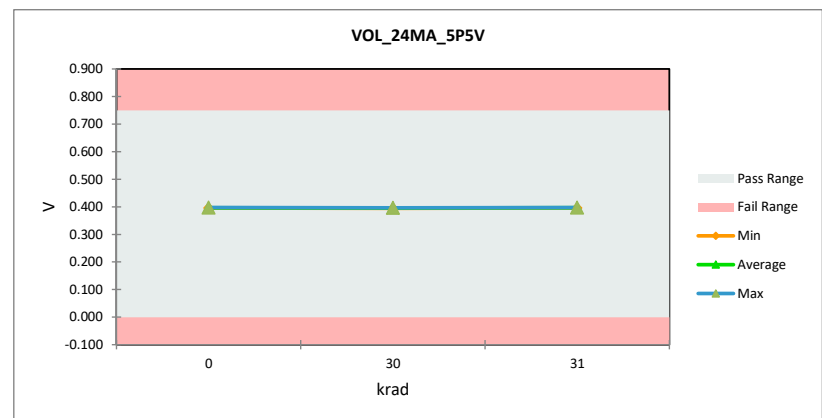
TID Report

SN54SC8T240-SEP

VOL_24MA_5P5V						
Units		V				
Max Limit		0.75				
Min Limit		-0.001				
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.398	0.396	0.00	-0.48%	0.25%
0	2	0.398	0.396	0.00	-0.29%	0.15%
0	3	0.397	0.397	0.00	-0.07%	0.04%
0	4	0.397	0.397	0.00	0.10%	0.05%
30	5	0.398	0.396	0.00	-0.53%	0.28%
30	6	0.398	0.394	0.00	-0.85%	0.45%
30	7	0.398	0.395	0.00	-0.65%	0.35%
30	8	0.399	0.396	0.00	-0.64%	0.34%
30	9	0.398	0.396	0.00	-0.60%	0.32%
30	10	0.398	0.396	0.00	-0.55%	0.29%
31	5a	0.398	0.397	0.00	-0.22%	0.12%
31	6a	0.398	0.396	0.00	-0.45%	0.24%
31	7a	0.398	0.396	0.00	-0.38%	0.20%
31	8a	0.399	0.397	0.00	-0.46%	0.25%
31	9a	0.398	0.397	0.00	-0.40%	0.21%
31	10a	0.398	0.397	0.00	-0.24%	0.12%
Max		0.399	0.397	0.00	0.10%	0.45%
Average		0.398	0.396	0.00	-0.42%	0.23%
Min		0.397	0.394	0.00	-0.85%	0.04%
Std Dev		0.000	0.001	0.00	0.24%	0.11%



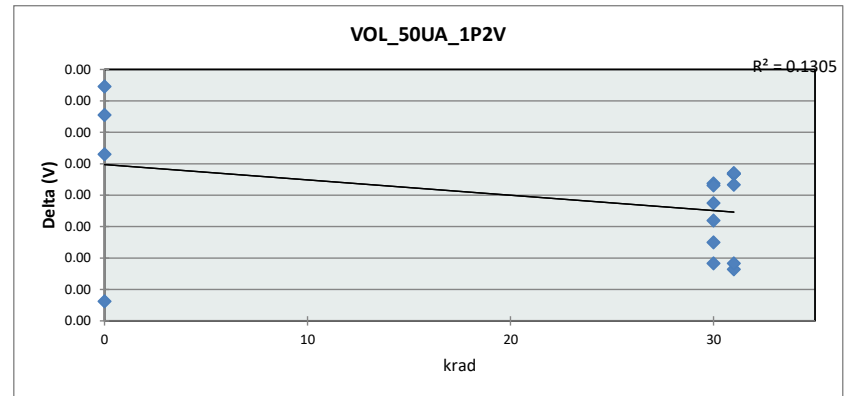
VOL_24MA_5P5V			
Units		V	
Max Limit		0.75	
Min Limit		-0.001	
krad	0	30	31
LL	-0.001	-0.001	-0.001
Min	0.396	0.394	0.396
Average	0.397	0.396	0.397
Max	0.397	0.396	0.397
UL	0.750	0.750	0.750



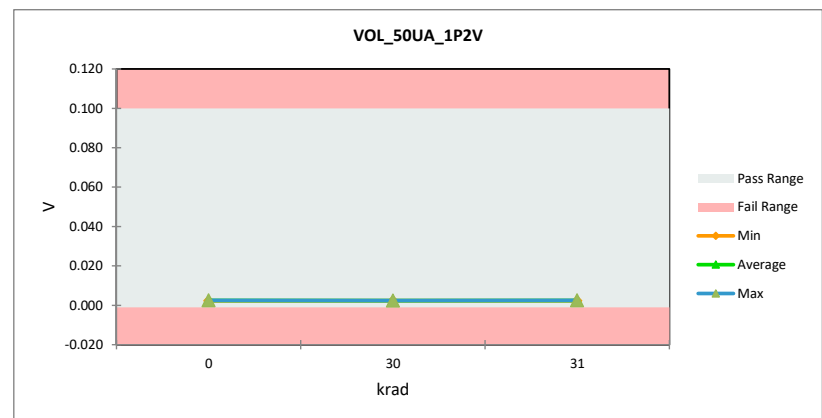
TID Report

SN54SC8T240-SEP

VOL_50UA_1P2V						
Units	V					
Max Limit	0.1					
Min Limit	-0.001					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.002	0.002	0.00	0.61%	0.01%
0	2	0.003	0.002	0.00	-8.72%	0.22%
0	3	0.002	0.002	0.00	5.18%	0.12%
0	4	0.002	0.003	0.00	3.19%	0.08%
30	5	0.002	0.002	0.00	-1.29%	0.03%
30	6	0.002	0.002	0.00	-3.66%	0.09%
30	7	0.003	0.002	0.00	-4.95%	0.12%
30	8	0.002	0.002	0.00	-6.35%	0.16%
30	9	0.002	0.002	0.00	-1.43%	0.03%
30	10	0.002	0.002	0.00	-2.54%	0.06%
31	5a	0.002	0.002	0.00	-0.68%	0.02%
31	6a	0.002	0.002	0.00	-6.79%	0.17%
31	7a	0.003	0.003	0.00	-0.64%	0.02%
31	8a	0.002	0.002	0.00	-6.35%	0.16%
31	9a	0.002	0.002	0.00	-0.62%	0.01%
31	10a	0.002	0.002	0.00	-1.36%	0.03%
Max	0.003	0.003	0.00	5.18%	0.22%	
Average	0.002	0.002	0.00	-2.28%	0.08%	
Min	0.002	0.002	0.00	-8.72%	0.01%	
Std Dev	0.000	0.000	0.00	3.73%	0.07%	

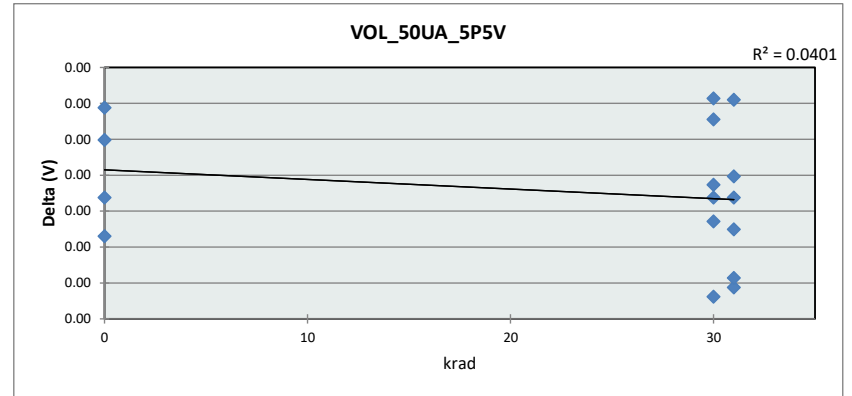


VOL_50UA_1P2V			
Units	V		
Max Limit	0.1		
Min Limit	-0.001		
krad	0	30	31
LL	-0.001	-0.001	-0.001
Min	0.002	0.002	0.002
Average	0.002	0.002	0.002
Max	0.003	0.002	0.003
UL	0.100	0.100	0.100

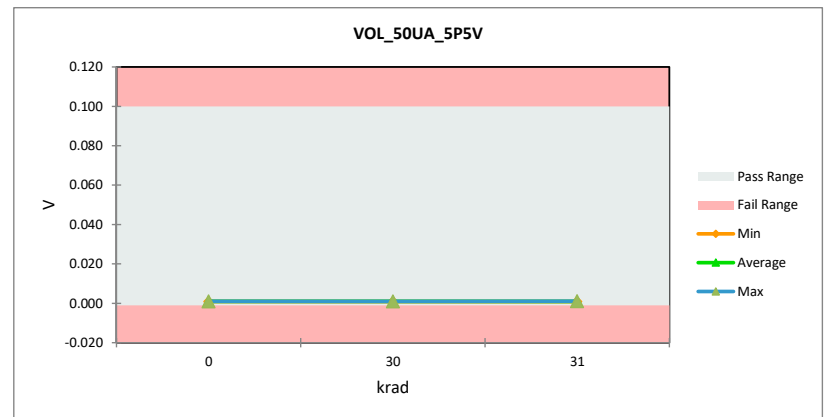


TID Report SN54SC8T240-SEP

VOL_50UA_5P5V						
Units	V					
Max Limit	0.1					
Min Limit	-0.001					
krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.001	0.001	0.00	-3.35%	0.03%
0	2	0.001	0.001	0.00	-7.97%	0.08%
0	3	0.001	0.001	0.00	10.78%	0.09%
0	4	0.001	0.001	0.00	5.10%	0.05%
30	5	0.001	0.001	0.00	-6.07%	0.06%
30	6	0.001	0.001	0.00	11.84%	0.11%
30	7	0.001	0.001	0.00	8.18%	0.08%
30	8	0.001	0.001	0.00	-16.29%	0.17%
30	9	0.001	0.001	0.00	-1.30%	0.01%
30	10	0.001	0.001	0.00	-3.09%	0.03%
31	5a	0.001	0.001	0.00	-0.17%	0.00%
31	6a	0.001	0.001	0.00	-3.47%	0.03%
31	7a	0.001	0.001	0.00	11.06%	0.10%
31	8a	0.001	0.001	0.00	-7.26%	0.07%
31	9a	0.001	0.001	0.00	-15.23%	0.15%
31	10a	0.001	0.001	0.00	-14.11%	0.14%
Max	0.001	0.001	0.00	0.00	11.84%	0.17%
Average	0.001	0.001	0.00	0.00	-1.96%	0.08%
Min	0.001	0.001	0.00	0.00	-16.29%	0.00%
Std Dev	0.000	0.000	0.00	0.00	9.29%	0.05%



VOL_50UA_5P5V			
Units	V		
Max Limit	0.1		
Min Limit	-0.001		
krad	0	30	31
LL	-0.001	-0.001	-0.001
Min	0.001	0.001	0.001
Average	0.001	0.001	0.001
Max	0.001	0.001	0.001
UL	0.100	0.100	0.100



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