Radiation Report

SN54SC4T32-SEP Total Ionizing Dose (TID) Report

ABSTRACT

This report covers the Radiation Lot Acceptance Testing (RLAT) results of the SN54SC4T32-SEP radiation tolerant, quadruple 2-input positive-OR gates with integrated translation. The study was done to determine Total Ionizing Dose (TID) effects under high dose rate (HDR) to 30 krad(Si). Radiation Lot Acceptance Testing (RLAT) was performed using five units at a dose level of 30 krad(Si) per MIL-STD-883 TM 1019, and all future wafer lots will be tested to the same conditions.

The SN54SC4T32-SEP is packaged in a space enhanced plastic for low outgassing characteristics and is Single Event Latch-Up (SEL) immune up to 43 MeV-cm^2/mg, which makes the device an option for low Earth orbit space applications.

For full total ionizing dose characterization results, see *SN54SC4T125-SEP Total Ionizing Dose (TID) Report*.

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1 Device Information

The SN54SC4T32-SEP contains four independent 2-input OR Gates with Schmitt-trigger inputs and extended voltage operation to allow for level translation. Each gate performs the Boolean function Y = A + B in positive logic. The output level is referenced to the supply voltage (V_{CC}) and supports 1.8-V, 2.5-V, 3.3-V, and 5-V CMOS levels.

The input is designed with a lower threshold circuit to support up translation for lower voltage CMOS inputs (for example 1.2 V input to 1.8 V output or 1.8 V input to 3.3 V output). Additionally, the 5-V tolerant input pins enable down translation (for example 3.3 V to 2.5 V output).

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: to 30 krad(Si)	
TI Device Number	SN54SC4T32-SEP
Package	14-pin PW (TSSOP)
Technology	LBC9
Die Lot Number	3059495RFB
A/T Lot Number and Date Code	3640318ML3 / 36AGQ5K
Quantity Tested	12 irradiated devices + 4 control
Lot Accept or Reject	Devices passed 30 krad(Si)
HDR Radiation Facility	Texas Instruments CLAB in Dallas, Texas
HDR Dose Level	30 krad(Si)
HDR Dose Rate	197.93 -rad(Si)/s ionizing radiation
HDR Radiation Source	Gammacell 220 Excel (GC-220E) Co-60
Irradiation Temperature	Ambient, room temperature

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2 Total Dose Test Setup

2.1 Test Overview

The SN54SC4T32-SEP samples were irradiated at a high dose rate of 197.93 rad(Si)/s to 30 krad(Si) 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 SN54SC4T32-SEP HDR exposure was performed on biased and unbiased devices in a Co-60 gamma cell at TI facility in Dallas, Texas. The un-attenuated dose rate of this cell is 197.93 rads(Si)/s. 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.

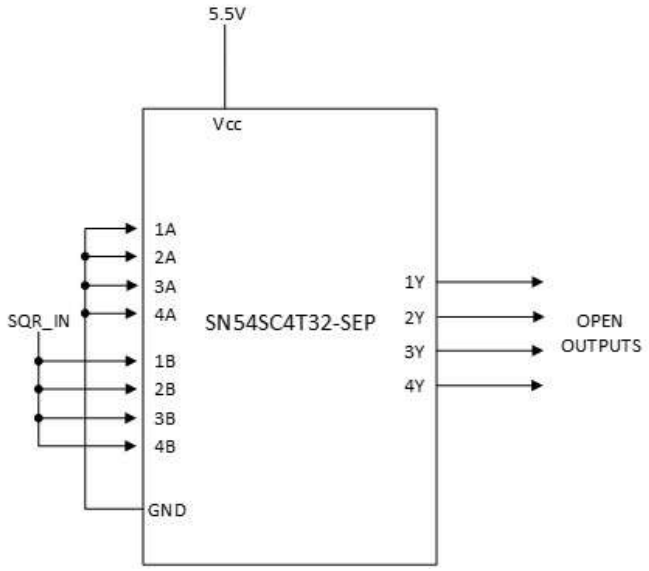

Figure 2-1. SN54SC4T32-SEP Bias Diagram

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2.4 Test Configuration and Condition

The RLAT units were irradiated to 30 krad(Si), parametrically tested on ATE, and then were annealed at 25ºC anneal for 50 hours. The units were then put through parametric testing once more on the ATE. An additional 6 units were irradiated to 30 krad(Si) without anneal, for reference.

Table 2-1 lists the serialized samples used for TID Radiation Lot Acceptance Testing (RLAT).

Table 2-1. HDR Device Information

Control Group	**HDR = 197.93 rad(Si)/s**	
Total Samples: 4	**Total Samples: 12**	
	Exposure Levels	
0 krad (Si)	30 krad(Si)	
Biased	Biased	Biased + 50 hour anneal
1 - 4	5 - 10	11 - 16

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3 TID Characterization Test Results

3.1 TID Characterization Summary Results

The parametric data for the SN54SC4T32-SEP passes to 30 krad(Si) HDR TID irradiation. The drifts of the electrical parameters through HDR were within the data sheet limits.

Overall, the SN54SC4T32-SEP showed a strong degree of hardness to HDR TID irradiation up to 30 krad(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.

See Section 5 for HDR report 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	1.2 V to 1.3 V	0.31	0.655	1.1	V	VTP_1P2V
		1.65 V to 2 V	0.39	0.915	1.32		VTP_1P65V, VTP_2V
		2.25 V to 2.75 V	0.51	1.09	1.51		VTP_2P25V, VTP_2P75V
		3 V to 3.6 V	0.65	1.2	1.7		VTP_3V, VTP_3P6V
		4.5 V to 5.5 V	0.87	1.51	2.16		VTP_4P5V, VTP_5P5V
V_{T-} 1	Negative-going input threshold voltage	1.2 V to 1.3 V	0.11	0.349	0.622	V	VTN_1P2V
		1.65 V to 2 V	0.18	0.455	0.666		VTN_1P65V, VTN_2V
		2.25 V to 2.75 V	0.25	0.545	0.74		VTN_2P25V, VTN_2P75V
		3 V to 3.6 V	0.33	0.635	0.85		VTN_3V, VTN_3P6V
		4.5 V to 5.5 V	0.45	0.755	1.14		VTN_4P5V, VTN_5P5V
ΔV_T 1	Hysteresis (VT+ − VT−)	1.2 V to 1.3 V	0.081	0.29	0.77	V	DELTAVT_1P2V
		1.65 V to 2 V	0.21	0.43	0.88		DELTAVT_1P65V, DELTAVT_2V
		2.25 V to 2.75 V	0.25	0.54	0.91		DELTAVT_2P25V, DELTAVT_2P75V
		3 V to 3.6 V	0.31	0.63	0.91		DELTAVT_3V, DELTAVT_3P6V
		4.5 V to 5.5 V	0.43	0.75	1.1		DELTAVT_4P5V, DELTAVT_5P5V
V_{IH}	High-level input voltage	1.2 V to 1.3 V	0.78			V	VIH_1P2V, VIH_1P3V
		1.65 V to 2 V	1.1				VIH_1P65V, VIH_2V
		2.25 V to 2.75 V	1.28				VIH_2P25V, VIH_2P75V
		3 V to 3.6 V	1.45				VIH_3V, VIH_3P6V
		4.5 V to 5.5 V	2				VIH_4P5V, VIH_5P5V
V_{IL}	Low-Level input voltage	1.2 V to 1.3 V			0.18	V	VIL_1P2V, VIL_1P3V
		1.65 V to 2 V			0.51		VIL_1P65V, VIL_2V
		2.25 V to 2.75 V			0.65		VIL_2P25V, VIL_2P75V
		3 V to 3.6 V			0.75		VIL_3V, VIL_3P6V
		4.5 V to 5.5 V			0.80		VIL_4P5V, VIL_5P5V
V_{OH} 2	I_{OH} = -50 µA	1.2 V to 5.5 V	V_{CC}-0.2			V	VOH_N50UA_1P65V, VOH_N50UA_2V, VOH_N50UA_2P75V,VOH_N50UA_3P6V, VOH_N50UA_4P5V, VOH_N50UA_5P5V
	I_{OH} = -1 mA	1.2 V	0.8				VOH_N1MA_1P2V
	I_{OH} = -2 mA	1.65 V to 2 V	1.21				VOH_N2MA_1P65V, VOH_N2MA_2V
	I_{OH} = -3 mA	2.25 V to 2.75 V	1.93				VOH_N3MA_2P25V, VOH_N3MA_2P75V
	I_{OH} = -5.5 mA	3 V to 3.6 V	2.49				VOH_N5P5MA_3V, VOH_N5P5MA_3P6V
	I_{OH} = -8 mA	4.5 V to 5.5 V	3.95				VOH_N8MA_4P5V, VOH_N8MA_5P5V
	I_{OH}= –24 mA	4.5 V to 5.5 V	3.15				VOH_N24MA_4P5V, VOH_N24MA_5P5V

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Table 3-1. Electrical Parameters Table (continued)

Parameter	Test Conditions	V_{CC}	T_A = -55°C to +125°C			Unit	Test Name
			MIN	TYP	MAX		
V_{OL}	I_{OL}= 50 µA	1.2 V to 5.5 V			0.1	V	VOL_50UA_1P65V, VOL_50UA_2V, VOL_50UA_2P75V,VOL_50UA_3P6V, VOL_50UA_4P5V, VOL_50UA_5P5V
	I_{OL} = 1 mA	1.2 V			0.2		VOL_1MA_1P2V
	I_{OL} = 2 mA	1.65 V to 2 V			0.25		VOL_2MA_1P65V, VOL_2MA_2V
	I_{OL} = 3 mA	2.25 V to 2.75 V			0.2		VOL_3MA_2P25V, VOL_3MA_2P75V
	I_{OL} = 5.5 mA	3 V to 3.6 V			0.25		VOL_5P5MA_3V, VOL_5P5MA_3P6V
	I_{OL}= 8 mA	4.5 V to 5.5 V			0.35		VOL_8MA_4P5V, VOL_8MA_5P5V
	I_{OL}= 24 mA	4.5 V to 5.5 V			0.75		VOL_24MA_4P5V, VOL_24MA_5P5V
I_{CC}	V_I = V_{CC} or GND, I_O = 0	1.2 V to 5.5 V		2	93	µA	ICCH_5P5V, ICCL_5P5V
Δ_{ICC}	One input at 0.3 V or 3.4 V, other inputs at V_{CC} or GND	5.5 V			1.5	mA	DELTAICC_5P5V
	One input at 0.3 V or 1.1 V, other inputs at V_{CC} or GND	1.8 V			68	µA	DELTAICC_1P8V
I_{OZ} [3]	V_O = V_{CC} or GND	5.5 V			±2.5	µA	IOZ
I_I	V_I = 0 V to V_{CC}	V_I = 0 V to V_{CC}			±1	µA	IIH_5P5V, IIL_5P5V

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

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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.

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5 Appendix: HDR TID Report Data

This appendix provides the SN54SC4T32-SEP TID HDR report. The report shows the variation for each parameter to 30 krad(Si).

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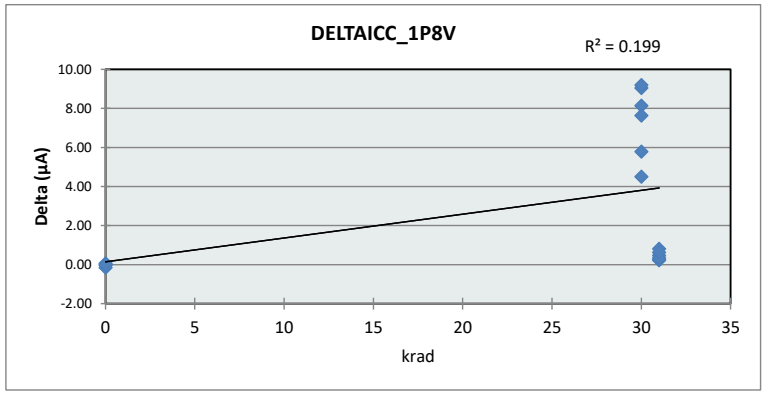
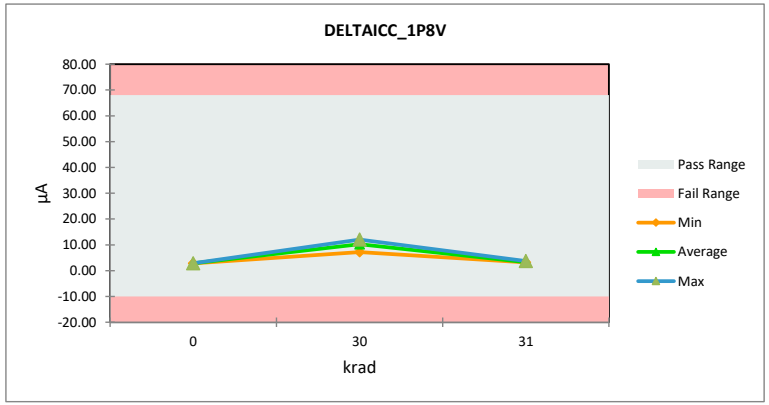
TID Report
SN54SC4T32-SEP

	DELTAICC_1P8V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	µA
Max Limit	68
Min Limit	-10

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	2.955	2.798	-0.16	-5.31%	0.20%
0	2	2.767	2.830	0.06	2.28%	0.08%
0	3	2.892	2.861	-0.03	-1.07%	0.04%
0	4	2.830	2.830	0.00	0.00%	0.00%
30	5	2.986	12.030	9.04	302.88%	11.59%
30	6	2.861	11.000	8.14	284.48%	10.43%
30	7	2.798	12.000	9.20	328.88%	11.80%
30	8	2.955	10.590	7.64	258.38%	9.79%
30	9	2.830	8.621	5.79	204.63%	7.42%
30	10	2.673	7.181	4.51	168.65%	5.78%
31	11	2.986	3.205	0.22	7.33%	0.28%
31	12	2.861	3.675	0.81	28.45%	1.04%
31	13	2.798	3.268	0.47	16.80%	0.60%
31	14	2.955	3.205	0.25	8.46%	0.32%
31	15	2.830	3.174	0.34	12.16%	0.44%
31	16	2.673	3.299	0.63	23.42%	0.80%
	Max	2.986	12.030	9.04	328.88%	11.80%
	Average	2.853	5.785	2.93	102.53%	3.79%
	Min	2.673	2.798	0.13	-5.31%	0.00%
	Std Dev	0.099	3.741	3.64	129.53%	4.76%



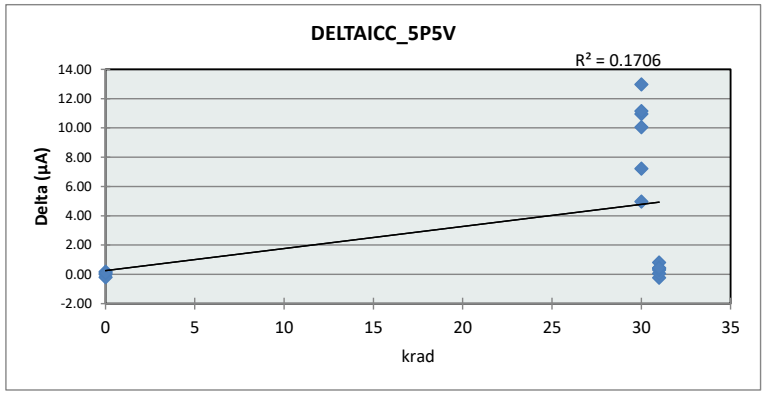
	DELTAICC_1P8V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	µA		
Max Limit	68		
Min Limit	-10		
krad	0	30	31
LL	-10.00	-10.00	-10.00
Min	2.80	7.18	3.17
Average	2.83	10.24	3.30
Max	2.86	12.03	3.68
UL	68.00	68.00	68.00



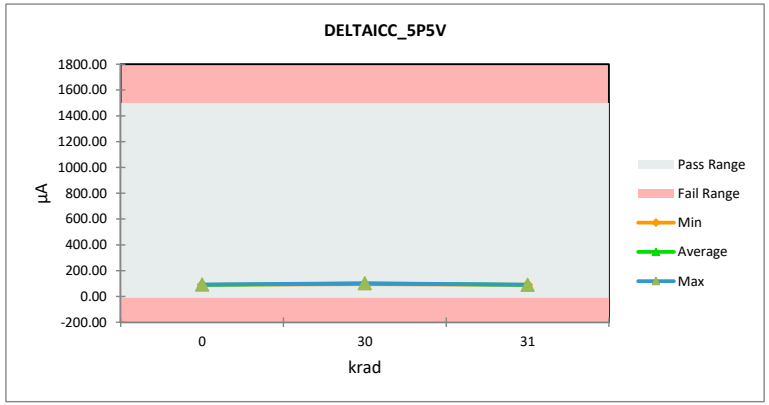
TID Report
SN54SC4T32-SEP

	DELTAICC_5P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	µA
Max Limit	1500
Min Limit	-10

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	91.230	91.230	0.00	0.00%	0.00%
0	2	89.920	90.100	0.18	0.20%	0.01%
0	3	90.170	89.980	-0.19	-0.21%	0.01%
0	4	90.820	90.920	0.10	0.11%	0.01%
30	5	90.450	101.400	10.95	12.11%	0.73%
30	6	90.640	101.800	11.16	12.31%	0.74%
30	7	89.320	102.300	12.98	14.53%	0.86%
30	8	89.850	99.900	10.05	11.19%	0.67%
30	9	90.170	97.400	7.23	8.02%	0.48%
30	10	89.820	94.800	4.98	5.54%	0.33%
31	11	90.450	90.860	0.41	0.45%	0.03%
31	12	90.640	90.420	-0.22	-0.24%	0.01%
31	13	89.320	90.140	0.82	0.92%	0.05%
31	14	89.850	89.920	0.07	0.08%	0.00%
31	15	90.170	90.480	0.31	0.34%	0.02%
31	16	89.820	90.260	0.44	0.49%	0.03%
	Max	91.230	102.300	11.07	14.53%	0.86%
	Average	90.165	93.869	3.70	4.11%	0.25%
	Min	89.320	89.920	0.60	-0.24%	0.00%
	Std Dev	0.523	4.901	4.38	5.54%	0.33%



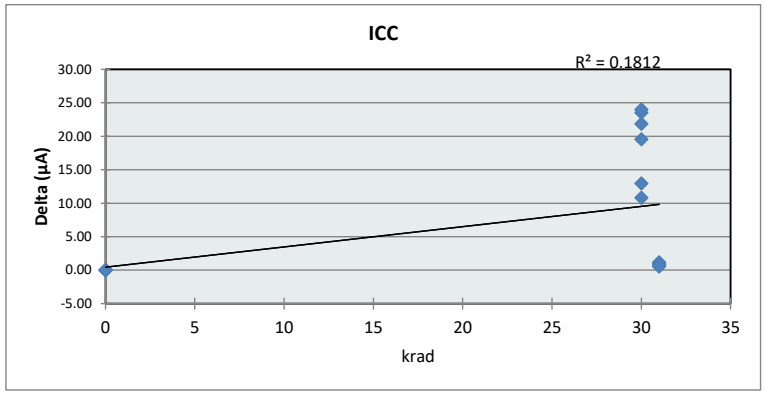
	DELTAICC_5P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	µA		
Max Limit	1500		
Min Limit	-10		
krad	0	30	31
LL	-10.00	-10.00	-10.00
Min	89.98	94.80	89.92
Average	90.56	99.60	90.35
Max	91.23	102.30	90.86
UL	1500.00	1500.00	1500.00



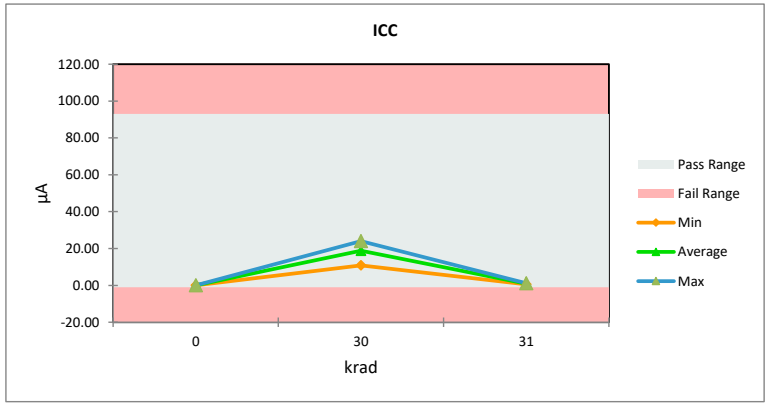
TID Report
SN54SC4T32-SEP

ICC	
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	µA
Max Limit	93
Min Limit	-1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.007	0.012	0.01	75.12%	0.01%
0	2	0.011	0.015	0.00	37.56%	0.00%
0	3	0.012	0.016	0.00	31.87%	0.00%
0	4	0.035	0.019	-0.02	-45.20%	0.02%
30	5	0.009	19.580	19.57	217407.22%	20.82%
30	6	0.013	23.560	23.55	179884.72%	25.05%
30	7	0.012	24.010	24.00	202858.58%	25.53%
30	8	0.011	21.880	21.87	200818.27%	23.27%
30	9	0.012	12.970	12.96	109536.52%	13.79%
30	10	0.013	10.830	10.82	82634.91%	11.51%
31	11	0.009	0.948	0.94	10428.77%	1.00%
31	12	0.013	1.202	1.19	9082.58%	1.26%
31	13	0.012	0.973	0.96	8124.85%	1.02%
31	14	0.011	0.821	0.81	7439.94%	0.86%
31	15	0.012	0.565	0.55	4675.15%	0.59%
31	16	0.013	0.729	0.72	5471.43%	0.76%
	Max	0.035	24.010	23.98	217407.22%	25.53%
	Average	0.013	7.383	7.37	64903.89%	7.84%
	Min	0.007	0.012	0.01	-45.20%	0.00%
	Std Dev	0.006	9.702	9.70	86754.42%	10.32%



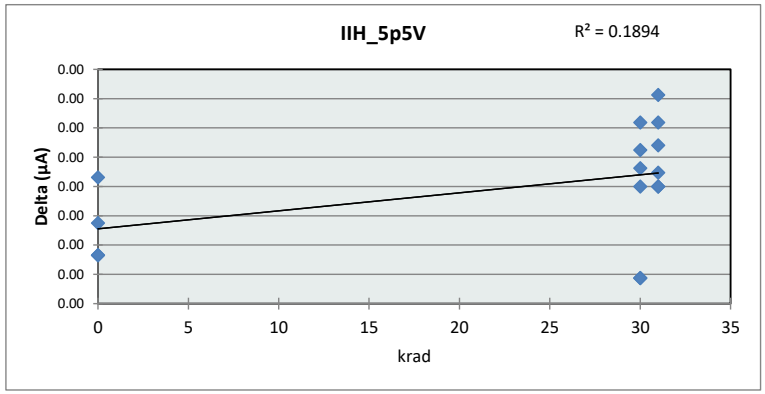
ICC			
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	µA		
Max Limit	93		
Min Limit	-1		
krad	0	30	31
LL	-1.00	-1.00	-1.00
Min	0.01	10.83	0.56
Average	0.02	18.81	0.87
Max	0.02	24.01	1.20
UL	93.00	93.00	93.00



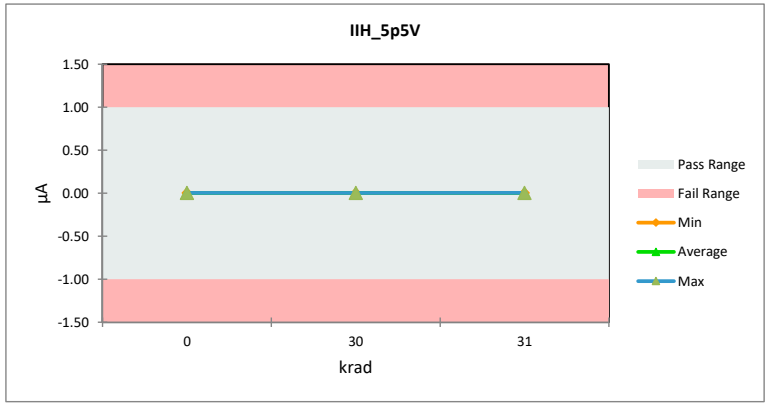
TID Report
SN54SC4T32-SEP

	IIH_5p5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	µA
Max Limit	1
Min Limit	-1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.003	0.003	0.00	1.82%	0.00%
0	2	0.004	0.003	0.00	-12.52%	0.02%
0	3	0.003	0.003	0.00	-7.47%	0.01%
0	4	0.004	0.003	0.00	-12.29%	0.02%
30	5	0.003	0.003	0.00	15.55%	0.02%
30	6	0.004	0.003	0.00	-17.70%	0.03%
30	7	0.003	0.003	0.00	0.00%	0.00%
30	8	0.003	0.003	0.00	3.84%	0.01%
30	9	0.004	0.003	0.00	-16.93%	0.03%
30	10	0.003	0.004	0.00	7.40%	0.01%
31	11	0.003	0.003	0.00	10.01%	0.01%
31	12	0.004	0.004	0.00	0.00%	0.00%
31	13	0.003	0.004	0.00	2.73%	0.00%
31	14	0.003	0.004	0.00	13.46%	0.02%
31	15	0.004	0.004	0.00	0.00%	0.00%
31	16	0.003	0.004	0.00	18.53%	0.03%
	Max	0.004	0.004	0.00	18.53%	0.03%
	Average	0.003	0.003	0.00	0.40%	0.01%
	Min	0.003	0.003	0.00	-17.70%	0.00%
	Std Dev	0.000	0.000	0.00	11.28%	0.01%



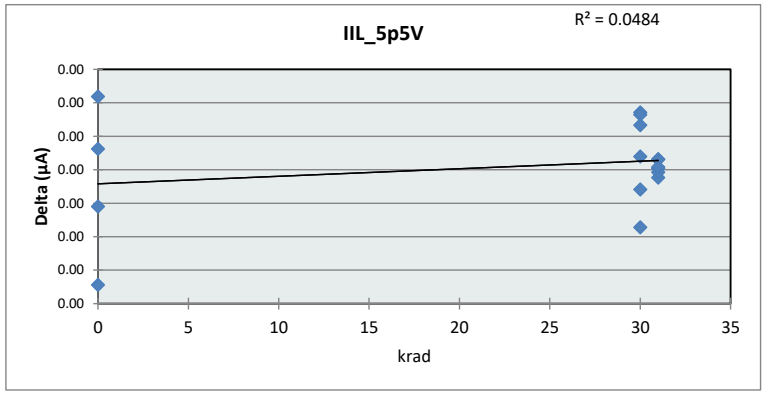
	IIH_5p5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	µA		
Max Limit	1		
Min Limit	-1		
krad	0	30	31
LL	-1.00	-1.00	-1.00
Min	0.00	0.00	0.00
Average	0.00	0.00	0.00
Max	0.00	0.00	0.00
UL	1.00	1.00	1.00



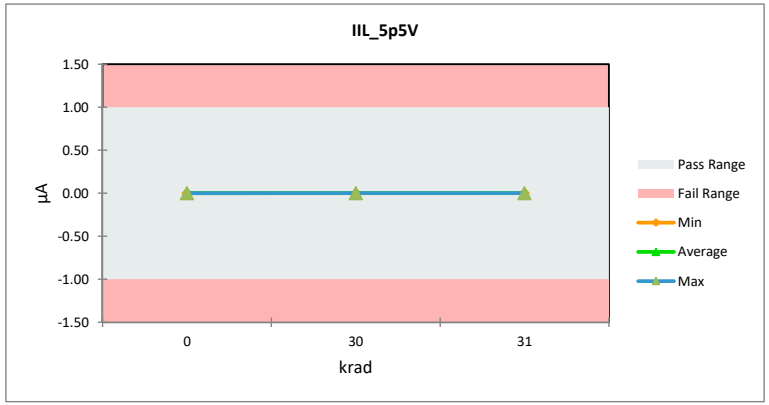
TID Report
SN54SC4T32-SEP

	IIL_5p5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	µA
Max Limit	1
Min Limit	-1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.001	0.001	0.00	-22.15%	0.01%
0	2	0.001	0.001	0.00	64.79%	0.02%
0	3	0.001	0.001	0.00	-49.34%	0.03%
0	4	0.001	0.001	0.00	13.55%	0.01%
30	5	0.001	0.001	0.00	37.10%	0.02%
30	6	0.001	0.001	0.00	34.07%	0.01%
30	7	0.001	0.001	0.00	38.94%	0.02%
30	8	0.001	0.001	0.00	-39.85%	0.02%
30	9	0.001	0.001	0.00	-13.08%	0.01%
30	10	0.001	0.001	0.00	8.38%	0.00%
31	11	0.001	0.001	0.00	0.88%	0.00%
31	12	0.001	0.001	0.00	-5.86%	0.00%
31	13	0.001	0.001	0.00	-1.72%	0.00%
31	14	0.001	0.001	0.00	7.25%	0.00%
31	15	0.001	0.001	0.00	6.99%	0.00%
31	16	0.001	0.001	0.00	1.77%	0.00%
	Max	0.001	0.001	0.00	64.79%	0.03%
	Average	0.001	0.001	0.00	5.11%	0.01%
	Min	0.001	0.001	0.00	-49.34%	0.00%
	Std Dev	0.000	0.000	0.00	29.34%	0.01%



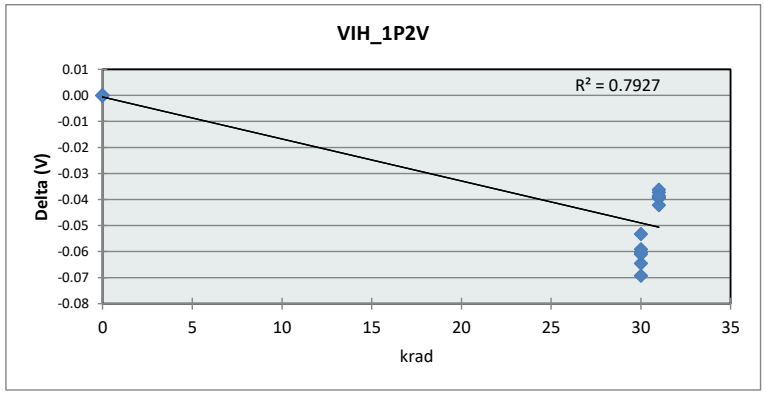
	IIL_5p5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	µA		
Max Limit	1		
Min Limit	-1		
krad	0	30	31
LL	-1.00	-1.00	-1.00
Min	0.00	0.00	0.00
Average	0.00	0.00	0.00
Max	0.00	0.00	0.00
UL	1.00	1.00	1.00



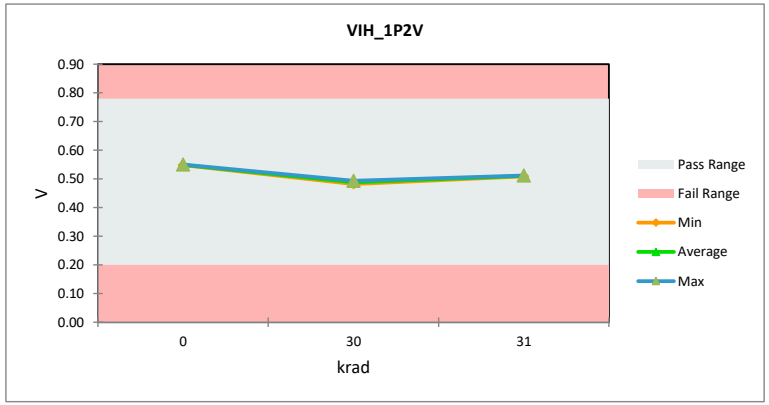
TID Report
SN54SC4T32-SEP

VIH_1P2V	
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.78
Min Limit	0.2

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.550	0.550	0.00	-0.01%	0.01%
0	2	0.548	0.548	0.00	0.00%	0.00%
0	3	0.549	0.549	0.00	0.00%	0.00%
0	4	0.549	0.549	0.00	0.00%	0.00%
30	5	0.549	0.484	-0.06	-11.75%	11.12%
30	6	0.551	0.482	-0.07	-12.57%	11.94%
30	7	0.550	0.489	-0.06	-11.09%	10.51%
30	8	0.549	0.490	-0.06	-10.77%	10.19%
30	9	0.547	0.493	-0.05	-9.74%	9.18%
30	10	0.549	0.488	-0.06	-10.98%	10.39%
31	11	0.549	0.510	-0.04	-7.12%	6.74%
31	12	0.551	0.509	-0.04	-7.65%	7.27%
31	13	0.550	0.510	-0.04	-7.19%	6.81%
31	14	0.549	0.512	-0.04	-6.79%	6.43%
31	15	0.547	0.510	-0.04	-6.63%	6.25%
31	16	0.549	0.510	-0.04	-7.02%	6.64%
	Max	0.551	0.550	0.00	0.00%	11.94%
	Average	0.549	0.511	-0.04	-6.83%	6.47%
	Min	0.547	0.482	-0.06	-12.57%	0.00%
	Std Dev	0.001	0.025	0.02	4.50%	4.26%



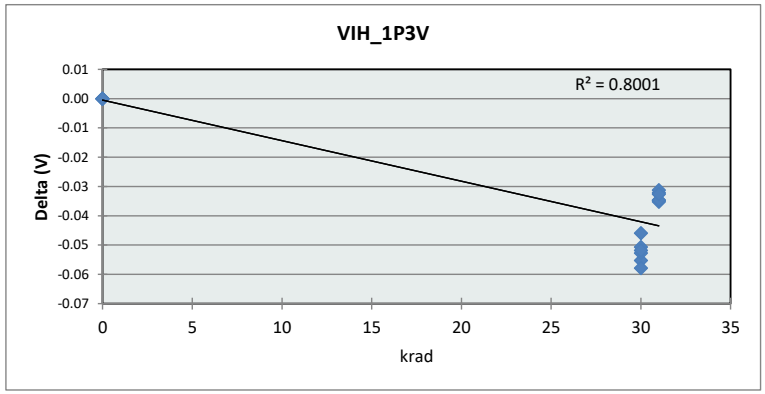
VIH_1P2V			
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.78		
Min Limit	0.2		
krad	0	30	31
LL	0.20	0.20	0.20
Min	0.55	0.48	0.51
Average	0.55	0.49	0.51
Max	0.55	0.49	0.51
UL	0.78	0.78	0.78



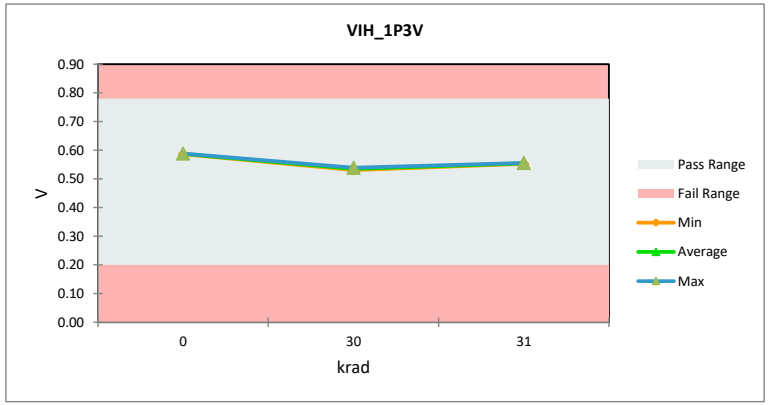
TID Report
SN54SC4T32-SEP

	VIH_1P3V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.78
Min Limit	0.2

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.588	0.588	0.00	0.00%	0.00%
0	2	0.586	0.586	0.00	0.00%	0.00%
0	3	0.586	0.586	0.00	0.00%	0.00%
0	4	0.588	0.588	0.00	0.00%	0.00%
30	5	0.587	0.532	-0.06	-9.41%	9.53%
30	6	0.588	0.531	-0.06	-9.83%	9.97%
30	7	0.588	0.535	-0.05	-8.97%	9.09%
30	8	0.587	0.537	-0.05	-8.62%	8.73%
30	9	0.585	0.539	-0.05	-7.85%	7.92%
30	10	0.586	0.534	-0.05	-8.84%	8.94%
31	11	0.587	0.553	-0.03	-5.91%	5.98%
31	12	0.588	0.553	-0.04	-5.99%	6.07%
31	13	0.588	0.554	-0.03	-5.89%	5.97%
31	14	0.587	0.555	-0.03	-5.48%	5.55%
31	15	0.585	0.554	-0.03	-5.34%	5.38%
31	16	0.586	0.554	-0.03	-5.56%	5.62%
	Max	0.588	0.588	0.00	0.00%	9.97%
	Average	0.587	0.555	-0.03	-5.48%	5.55%
	Min	0.585	0.531	-0.05	-9.83%	0.00%
	Std Dev	0.001	0.021	0.02	3.60%	3.64%



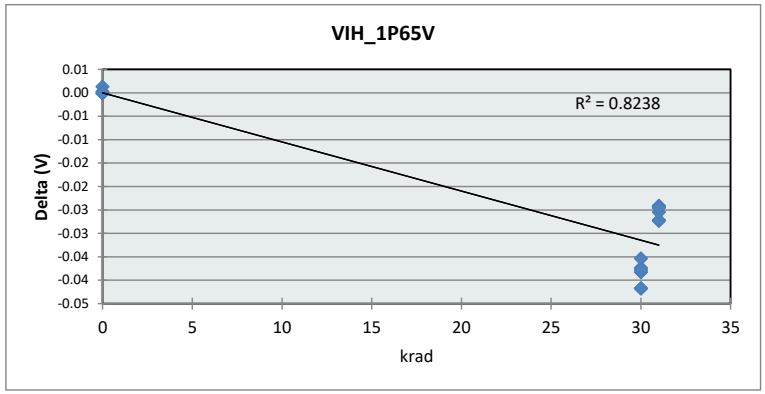
	VIH_1P3V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.78		
Min Limit	0.2		
krad	0	30	31
LL	0.20	0.20	0.20
Min	0.59	0.53	0.55
Average	0.59	0.53	0.55
Max	0.59	0.54	0.56
UL	0.78	0.78	0.78



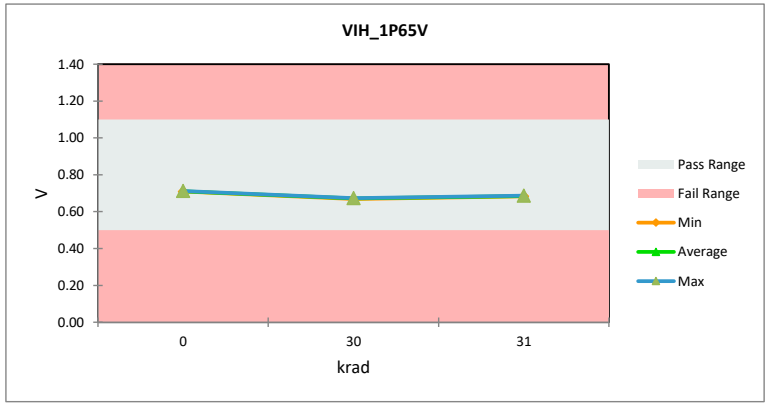
TID Report
SN54SC4T32-SEP

	VIH_1P65V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.1
Min Limit	0.5

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.711	0.712	0.00	0.18%	0.22%
0	2	0.710	0.710	0.00	-0.01%	0.02%
0	3	0.709	0.710	0.00	0.04%	0.04%
0	4	0.709	0.709	0.00	-0.01%	0.01%
30	5	0.710	0.669	-0.04	-5.88%	6.96%
30	6	0.712	0.670	-0.04	-5.86%	6.95%
30	7	0.711	0.673	-0.04	-5.39%	6.38%
30	8	0.711	0.673	-0.04	-5.26%	6.23%
30	9	0.709	0.673	-0.04	-4.99%	5.89%
30	10	0.710	0.672	-0.04	-5.32%	6.30%
31	11	0.710	0.683	-0.03	-3.85%	4.55%
31	12	0.712	0.684	-0.03	-3.82%	4.53%
31	13	0.711	0.685	-0.03	-3.58%	4.24%
31	14	0.711	0.687	-0.02	-3.40%	4.02%
31	15	0.709	0.684	-0.02	-3.42%	4.04%
31	16	0.710	0.685	-0.02	-3.46%	4.09%
	Max	0.712	0.712	0.00	0.18%	6.96%
	Average	0.710	0.686	-0.02	-3.38%	4.03%
	Min	0.709	0.669	-0.04	-5.88%	0.01%
	Std Dev	0.001	0.016	0.01	2.22%	2.57%



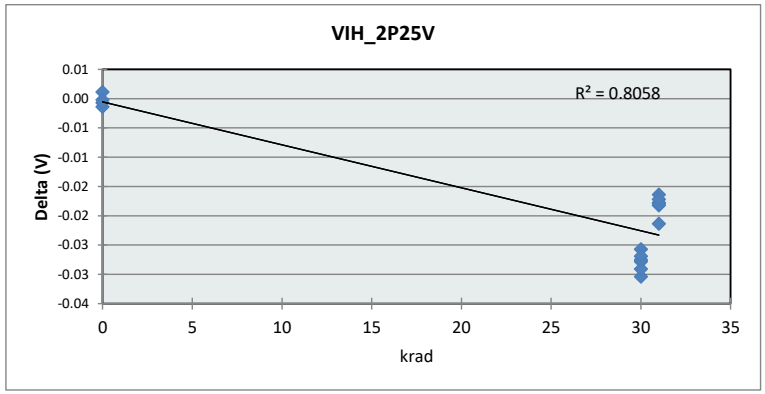
	VIH_1P65V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.1		
Min Limit	0.5		
krad	0	30	31
LL	0.50	0.50	0.50
Min	0.71	0.67	0.68
Average	0.71	0.67	0.68
Max	0.71	0.67	0.69
UL	1.10	1.10	1.10



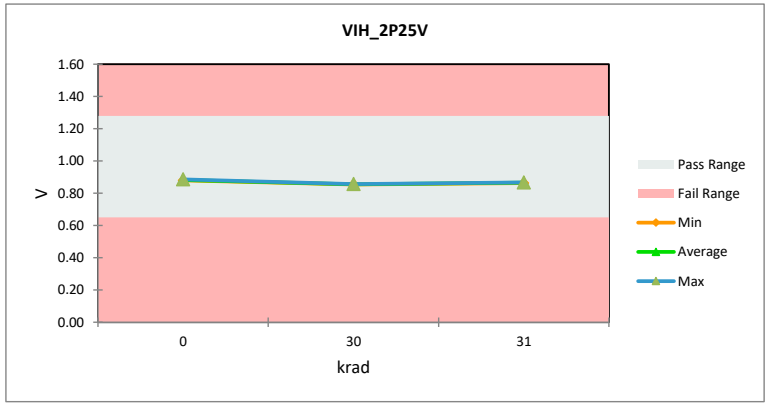
TID Report
SN54SC4T32-SEP

	VIH_2P25V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.28
Min Limit	0.65

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.885	0.886	0.00	0.13%	0.18%
0	2	0.883	0.882	0.00	-0.02%	0.03%
0	3	0.881	0.880	0.00	-0.16%	0.22%
0	4	0.880	0.880	0.00	-0.08%	0.11%
30	5	0.884	0.854	-0.03	-3.44%	4.82%
30	6	0.882	0.854	-0.03	-3.15%	4.41%
30	7	0.883	0.854	-0.03	-3.29%	4.61%
30	8	0.884	0.857	-0.03	-3.11%	4.36%
30	9	0.882	0.856	-0.03	-2.92%	4.08%
30	10	0.882	0.856	-0.03	-3.05%	4.27%
31	11	0.884	0.863	-0.02	-2.41%	3.39%
31	12	0.882	0.864	-0.02	-2.06%	2.89%
31	13	0.883	0.866	-0.02	-2.01%	2.82%
31	14	0.884	0.866	-0.02	-2.03%	2.85%
31	15	0.882	0.865	-0.02	-1.86%	2.60%
31	16	0.882	0.865	-0.02	-1.95%	2.73%
	Max	0.885	0.886	0.00	0.13%	4.82%
	Average	0.883	0.865	-0.02	-1.96%	2.77%
	Min	0.880	0.854	-0.03	-3.44%	0.03%
	Std Dev	0.001	0.011	0.01	1.26%	1.73%



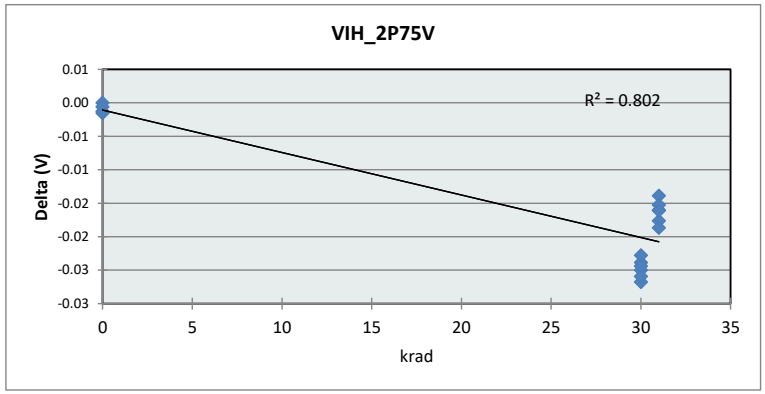
	VIH_2P25V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.28		
Min Limit	0.65		
krad	0	30	31
LL	0.65	0.65	0.65
Min	0.88	0.85	0.86
Average	0.88	0.86	0.86
Max	0.89	0.86	0.87
UL	1.28	1.28	1.28



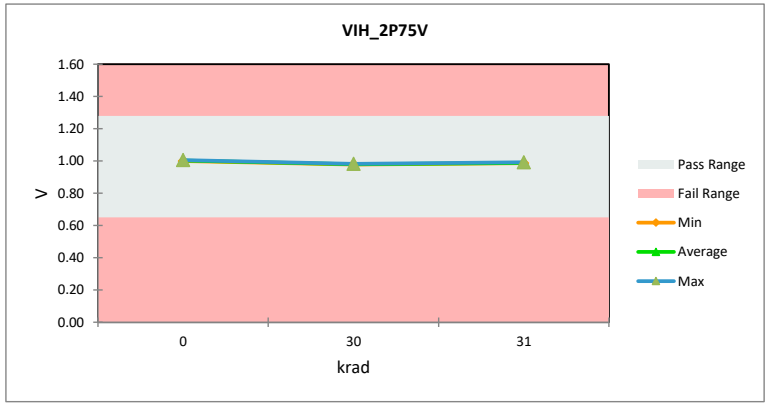
TID Report
SN54SC4T32-SEP

	VIH_2P75V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.28
Min Limit	0.65

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.005	1.005	0.00	0.00%	0.00%
0	2	1.004	1.004	0.00	-0.06%	0.10%
0	3	1.003	1.001	0.00	-0.15%	0.24%
0	4	1.001	0.999	0.00	-0.13%	0.20%
30	5	1.004	0.978	-0.03	-2.66%	4.25%
30	6	1.004	0.979	-0.02	-2.49%	3.96%
30	7	1.005	0.980	-0.03	-2.58%	4.11%
30	8	1.006	0.982	-0.02	-2.37%	3.78%
30	9	1.003	0.980	-0.02	-2.27%	3.62%
30	10	1.003	0.979	-0.02	-2.43%	3.87%
31	11	1.004	0.987	-0.02	-1.75%	2.80%
31	12	1.004	0.988	-0.02	-1.59%	2.54%
31	13	1.005	0.987	-0.02	-1.86%	2.96%
31	14	1.006	0.992	-0.01	-1.38%	2.20%
31	15	1.003	0.987	-0.02	-1.52%	2.42%
31	16	1.003	0.987	-0.02	-1.60%	2.55%
	Max	1.006	1.005	0.00	0.00%	4.25%
	Average	1.004	0.988	-0.02	-1.55%	2.48%
	Min	1.001	0.978	-0.02	-2.66%	0.00%
	Std Dev	0.001	0.009	0.01	0.96%	1.54%



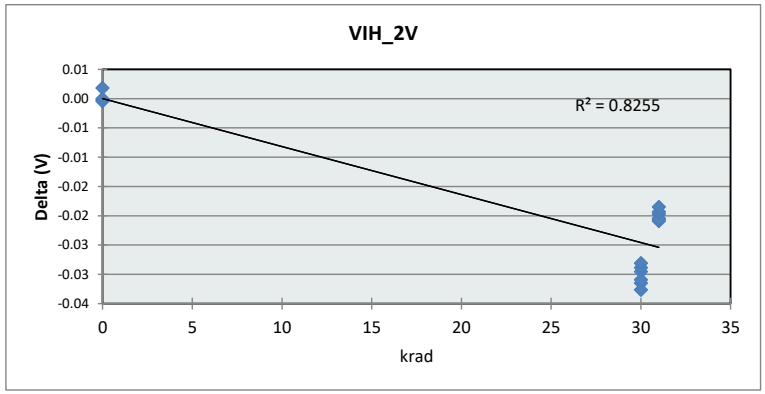
	VIH_2P75V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.28		
Min Limit	0.65		
krad	0	30	31
LL	0.65	0.65	0.65
Min	1.00	0.98	0.99
Average	1.00	0.98	0.99
Max	1.01	0.98	0.99
UL	1.28	1.28	1.28



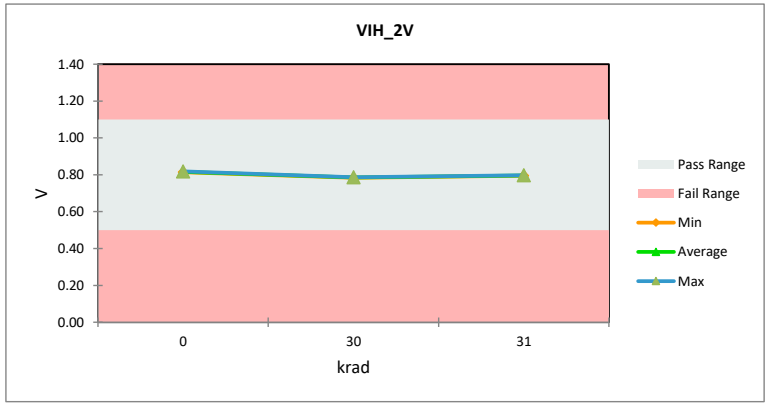
TID Report
SN54SC4T32-SEP

	VIH_2V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.1
Min Limit	0.5

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.817	0.819	0.00	0.23%	0.31%
0	2	0.817	0.816	0.00	-0.05%	0.07%
0	3	0.815	0.815	0.00	-0.03%	0.04%
0	4	0.814	0.814	0.00	0.00%	0.00%
30	5	0.815	0.784	-0.03	-3.86%	5.24%
30	6	0.816	0.784	-0.03	-3.99%	5.44%
30	7	0.816	0.786	-0.03	-3.62%	4.92%
30	8	0.818	0.787	-0.03	-3.78%	5.16%
30	9	0.815	0.786	-0.03	-3.54%	4.81%
30	10	0.814	0.786	-0.03	-3.45%	4.68%
31	11	0.815	0.795	-0.02	-2.51%	3.41%
31	12	0.816	0.796	-0.02	-2.56%	3.48%
31	13	0.816	0.796	-0.02	-2.42%	3.28%
31	14	0.818	0.797	-0.02	-2.52%	3.43%
31	15	0.815	0.796	-0.02	-2.37%	3.22%
31	16	0.814	0.796	-0.02	-2.27%	3.08%
	Max	0.818	0.819	0.00	0.23%	5.44%
	Average	0.816	0.797	-0.02	-2.30%	3.16%
	Min	0.814	0.784	-0.03	-3.99%	0.00%
	Std Dev	0.001	0.012	0.01	1.51%	1.99%



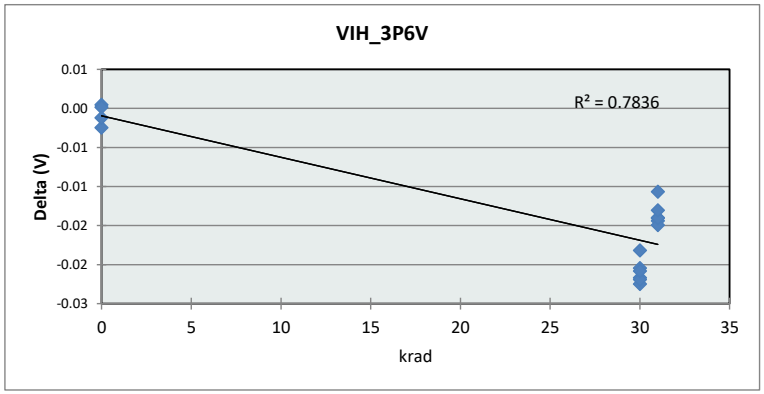
	VIH_2V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.1		
Min Limit	0.5		
krad	0	30	31
LL	0.50	0.50	0.50
Min	0.81	0.78	0.79
Average	0.82	0.79	0.80
Max	0.82	0.79	0.80
UL	1.10	1.10	1.10



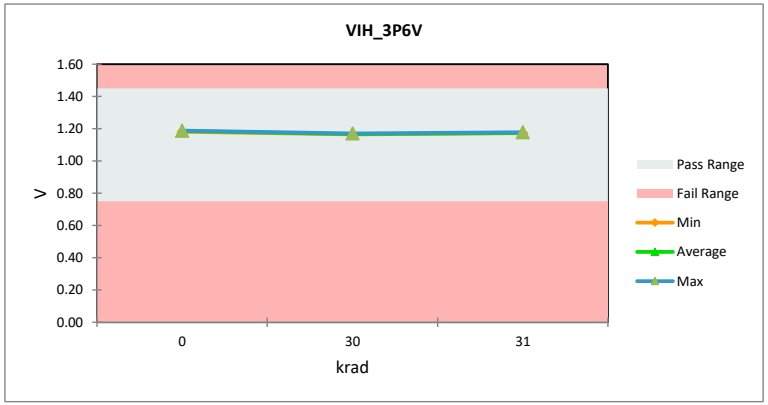
TID Report
SN54SC4T32-SEP

VIH_3P6V	
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.45
Min Limit	0.75

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.188	1.188	0.00	0.04%	0.07%
0	2	1.188	1.188	0.00	0.01%	0.02%
0	3	1.187	1.185	0.00	-0.21%	0.35%
0	4	1.182	1.181	0.00	-0.10%	0.17%
30	5	1.187	1.165	-0.02	-1.89%	3.21%
30	6	1.186	1.165	-0.02	-1.83%	3.10%
30	7	1.187	1.166	-0.02	-1.85%	3.13%
30	8	1.189	1.171	-0.02	-1.53%	2.60%
30	9	1.188	1.167	-0.02	-1.72%	2.92%
30	10	1.186	1.165	-0.02	-1.76%	2.97%
31	11	1.187	1.173	-0.01	-1.21%	2.06%
31	12	1.186	1.172	-0.01	-1.18%	2.00%
31	13	1.187	1.173	-0.01	-1.26%	2.14%
31	14	1.189	1.178	-0.01	-0.90%	1.52%
31	15	1.188	1.174	-0.01	-1.18%	2.01%
31	16	1.186	1.173	-0.01	-1.10%	1.87%
	Max	1.189	1.188	0.00	0.04%	3.21%
	Average	1.187	1.174	-0.01	-1.10%	1.88%
	Min	1.182	1.165	-0.02	-1.89%	0.02%
	Std Dev	0.002	0.008	0.01	0.69%	1.15%



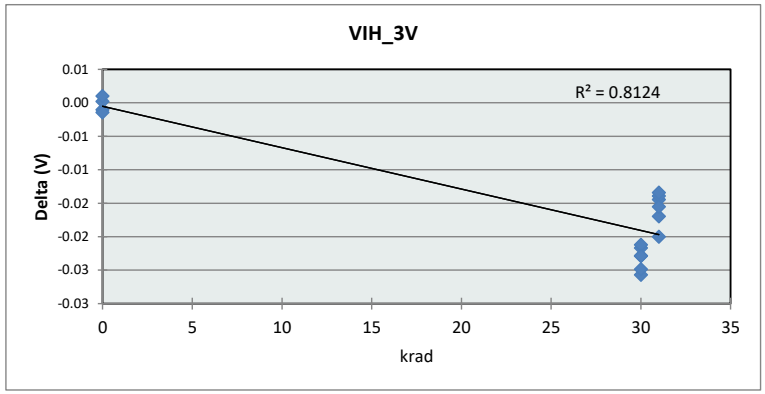
VIH_3P6V			
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.45		
Min Limit	0.75		
krad	0	30	31
LL	0.75	0.75	0.75
Min	1.18	1.16	1.17
Average	1.19	1.17	1.17
Max	1.19	1.17	1.18
UL	1.45	1.45	1.45



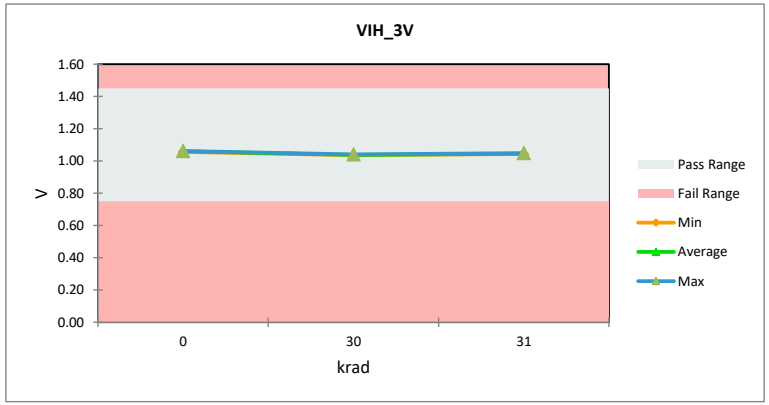
TID Report
SN54SC4T32-SEP

	VIH_3V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.45
Min Limit	0.75

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.063	1.062	0.00	-0.10%	0.15%
0	2	1.061	1.062	0.00	0.02%	0.03%
0	3	1.059	1.060	0.00	0.10%	0.14%
0	4	1.057	1.056	0.00	-0.14%	0.20%
30	5	1.061	1.035	-0.03	-2.42%	3.67%
30	6	1.063	1.038	-0.02	-2.34%	3.55%
30	7	1.061	1.038	-0.02	-2.15%	3.26%
30	8	1.062	1.041	-0.02	-2.04%	3.09%
30	9	1.059	1.038	-0.02	-2.00%	3.03%
30	10	1.059	1.037	-0.02	-2.16%	3.27%
31	11	1.061	1.044	-0.02	-1.60%	2.42%
31	12	1.063	1.043	-0.02	-1.88%	2.86%
31	13	1.061	1.046	-0.01	-1.36%	2.06%
31	14	1.062	1.048	-0.01	-1.31%	1.99%
31	15	1.059	1.046	-0.01	-1.26%	1.91%
31	16	1.059	1.044	-0.02	-1.46%	2.21%
	Max	1.063	1.062	0.00	0.10%	3.67%
	Average	1.061	1.046	-0.01	-1.38%	2.12%
	Min	1.057	1.035	-0.02	-2.42%	0.03%
	Std Dev	0.002	0.009	0.01	0.88%	1.30%



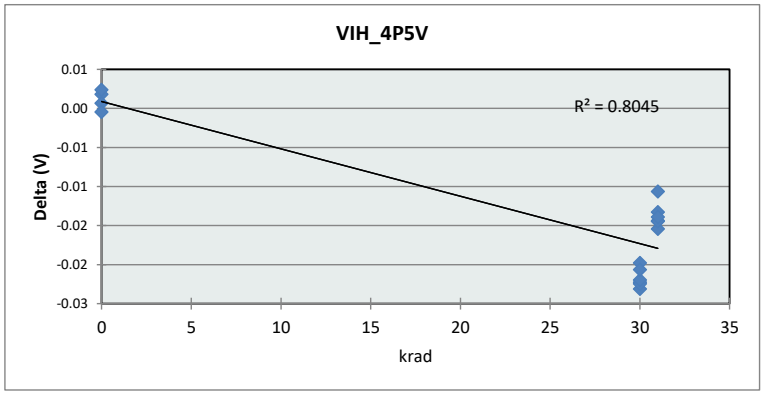
	VIH_3V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.45		
Min Limit	0.75		
krad	0	30	31
LL	0.75	0.75	0.75
Min	1.06	1.04	1.04
Average	1.06	1.04	1.05
Max	1.06	1.04	1.05
UL	1.45	1.45	1.45



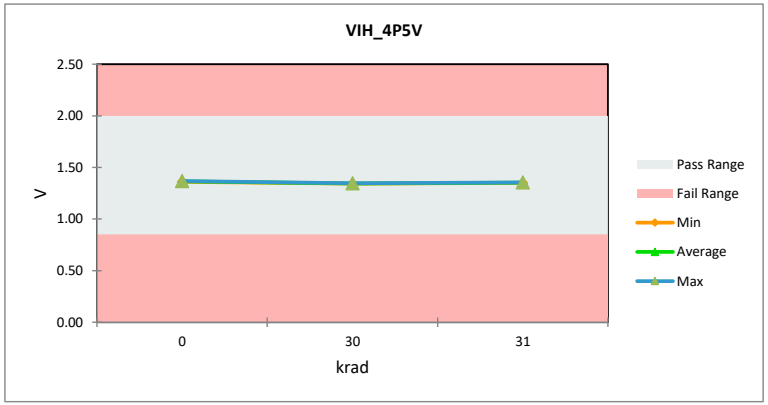
TID Report
SN54SC4T32-SEP

	VIH_4P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	2
Min Limit	0.85

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.366	1.368	0.00	0.13%	0.16%
0	2	1.367	1.367	0.00	0.05%	0.06%
0	3	1.365	1.364	0.00	-0.03%	0.04%
0	4	1.358	1.360	0.00	0.18%	0.21%
30	5	1.367	1.344	-0.02	-1.69%	2.01%
30	6	1.366	1.344	-0.02	-1.63%	1.93%
30	7	1.365	1.343	-0.02	-1.65%	1.95%
30	8	1.368	1.346	-0.02	-1.61%	1.91%
30	9	1.363	1.343	-0.02	-1.45%	1.72%
30	10	1.364	1.343	-0.02	-1.51%	1.79%
31	11	1.367	1.353	-0.01	-1.05%	1.25%
31	12	1.366	1.351	-0.02	-1.13%	1.34%
31	13	1.365	1.351	-0.01	-1.06%	1.26%
31	14	1.368	1.355	-0.01	-0.97%	1.15%
31	15	1.363	1.352	-0.01	-0.78%	0.92%
31	16	1.364	1.350	-0.01	-1.02%	1.21%
	Max	1.368	1.368	0.00	0.18%	2.01%
	Average	1.365	1.352	-0.01	-0.95%	1.18%
	Min	1.358	1.343	-0.01	-1.69%	0.04%
	Std Dev	0.003	0.009	0.01	0.68%	0.72%



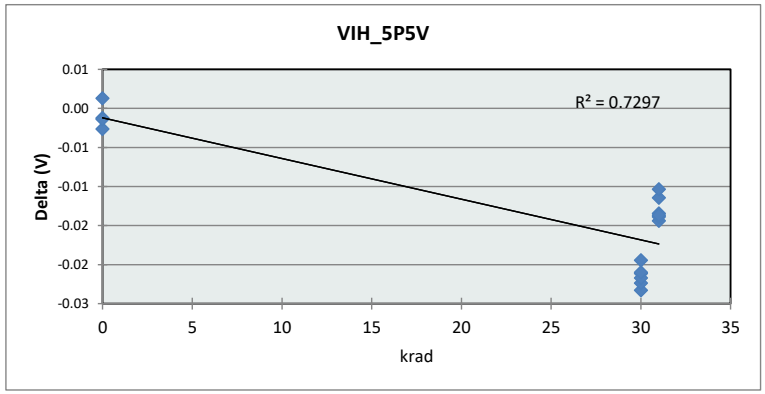
	VIH_4P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	2		
Min Limit	0.85		
krad	0	30	31
LL	0.85	0.85	0.85
Min	1.36	1.34	1.35
Average	1.36	1.34	1.35
Max	1.37	1.35	1.36
UL	2.00	2.00	2.00



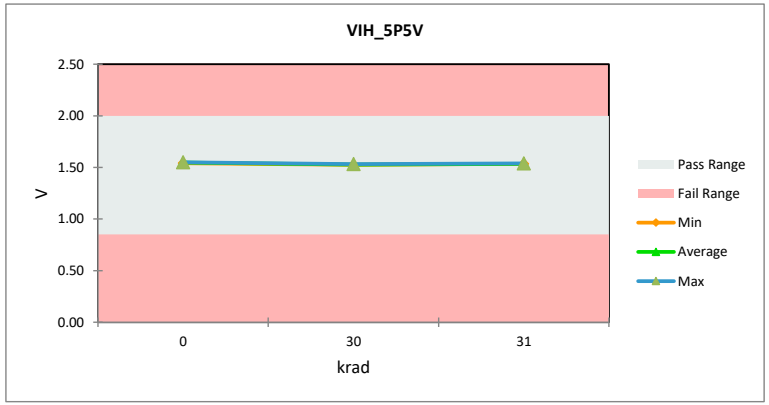
TID Report
SN54SC4T32-SEP

	VIH_5P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	2
Min Limit	0.85

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.548	1.550	0.00	0.08%	0.11%
0	2	1.550	1.549	0.00	-0.08%	0.11%
0	3	1.551	1.548	0.00	-0.17%	0.23%
0	4	1.542	1.540	0.00	-0.09%	0.12%
30	5	1.551	1.528	-0.02	-1.50%	2.02%
30	6	1.548	1.527	-0.02	-1.36%	1.84%
30	7	1.548	1.526	-0.02	-1.45%	1.95%
30	8	1.554	1.532	-0.02	-1.40%	1.89%
30	9	1.547	1.526	-0.02	-1.36%	1.83%
30	10	1.544	1.525	-0.02	-1.26%	1.69%
31	11	1.551	1.536	-0.01	-0.93%	1.25%
31	12	1.548	1.534	-0.01	-0.90%	1.21%
31	13	1.548	1.535	-0.01	-0.87%	1.17%
31	14	1.554	1.540	-0.01	-0.88%	1.19%
31	15	1.547	1.535	-0.01	-0.74%	0.99%
31	16	1.544	1.534	-0.01	-0.67%	0.90%
	Max	1.554	1.550	0.00	0.08%	2.02%
	Average	1.548	1.535	-0.01	-0.85%	1.16%
	Min	1.542	1.525	-0.02	-1.50%	0.11%
	Std Dev	0.003	0.008	0.01	0.54%	0.70%



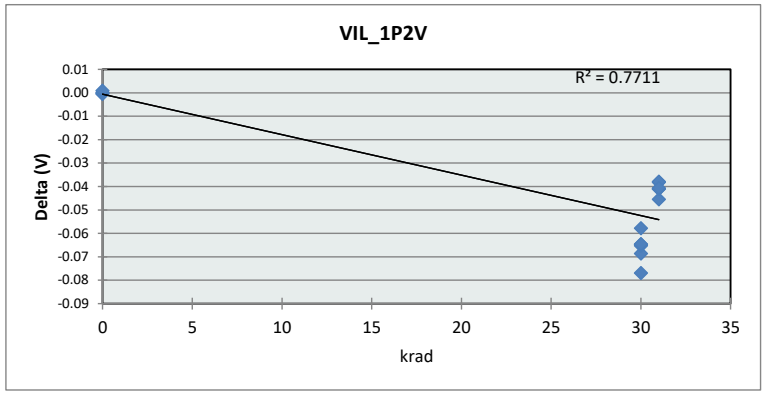
	VIH_5P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	2		
Min Limit	0.85		
krad	0	30	31
LL	0.85	0.85	0.85
Min	1.54	1.52	1.53
Average	1.55	1.53	1.54
Max	1.55	1.53	1.54
UL	2.00	2.00	2.00



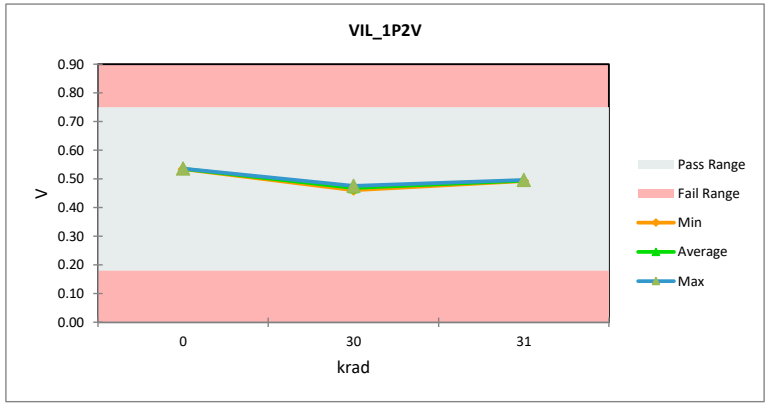
TID Report
SN54SC4T32-SEP

VIL_1P2V	
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.75
Min Limit	0.18

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.536	0.536	0.00	-0.10%	0.10%
0	2	0.535	0.535	0.00	0.00%	0.00%
0	3	0.534	0.534	0.00	-0.01%	0.01%
0	4	0.535	0.536	0.00	0.17%	0.16%
30	5	0.534	0.466	-0.07	-12.84%	12.03%
30	6	0.537	0.460	-0.08	-14.31%	13.49%
30	7	0.534	0.469	-0.07	-12.21%	11.44%
30	8	0.534	0.470	-0.06	-12.11%	11.34%
30	9	0.533	0.476	-0.06	-10.83%	10.14%
30	10	0.535	0.470	-0.06	-12.09%	11.34%
31	11	0.534	0.493	-0.04	-7.68%	7.20%
31	12	0.537	0.492	-0.05	-8.46%	7.98%
31	13	0.534	0.493	-0.04	-7.68%	7.19%
31	14	0.534	0.496	-0.04	-7.16%	6.71%
31	15	0.533	0.496	-0.04	-7.10%	6.64%
31	16	0.535	0.494	-0.04	-7.61%	7.13%
	Max	0.537	0.536	0.00	0.17%	13.49%
	Average	0.535	0.495	-0.04	-7.50%	7.06%
	Min	0.533	0.460	-0.07	-14.31%	0.00%
	Std Dev	0.001	0.027	0.03	5.02%	4.68%



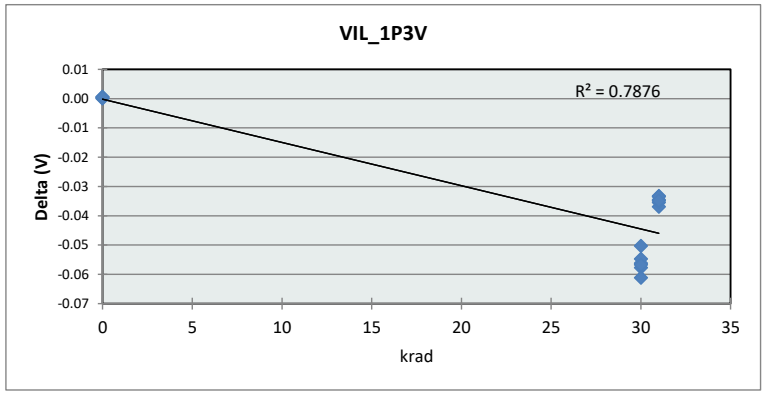
VIL_1P2V			
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.75		
Min Limit	0.18		
krad	0	30	31
LL	0.18	0.18	0.18
Min	0.53	0.46	0.49
Average	0.54	0.47	0.49
Max	0.54	0.48	0.50
UL	0.75	0.75	0.75



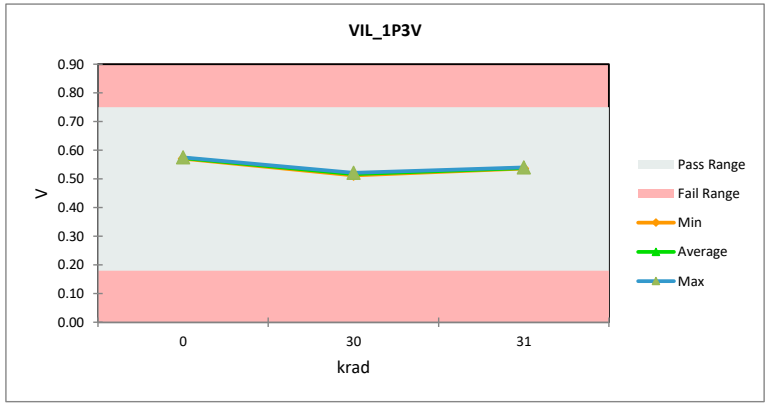
TID Report
SN54SC4T32-SEP

VIL_1P3V	
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.75
Min Limit	0.18

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.575	0.575	0.00	0.06%	0.06%
0	2	0.570	0.570	0.00	0.01%	0.01%
0	3	0.572	0.573	0.00	0.11%	0.11%
0	4	0.572	0.572	0.00	0.09%	0.09%
30	5	0.572	0.515	-0.06	-10.08%	10.12%
30	6	0.573	0.512	-0.06	-10.67%	10.73%
30	7	0.573	0.517	-0.06	-9.80%	9.85%
30	8	0.573	0.519	-0.05	-9.55%	9.60%
30	9	0.571	0.521	-0.05	-8.80%	8.82%
30	10	0.573	0.516	-0.06	-9.91%	9.95%
31	11	0.572	0.538	-0.03	-6.03%	6.06%
31	12	0.573	0.536	-0.04	-6.44%	6.48%
31	13	0.573	0.538	-0.04	-6.18%	6.22%
31	14	0.573	0.540	-0.03	-5.80%	5.83%
31	15	0.571	0.538	-0.03	-5.85%	5.86%
31	16	0.573	0.538	-0.03	-6.09%	6.12%
	Max	0.575	0.575	0.00	0.11%	10.73%
	Average	0.573	0.539	-0.03	-5.93%	5.99%
	Min	0.570	0.512	-0.06	-10.67%	0.01%
	Std Dev	0.001	0.023	0.02	3.97%	3.93%



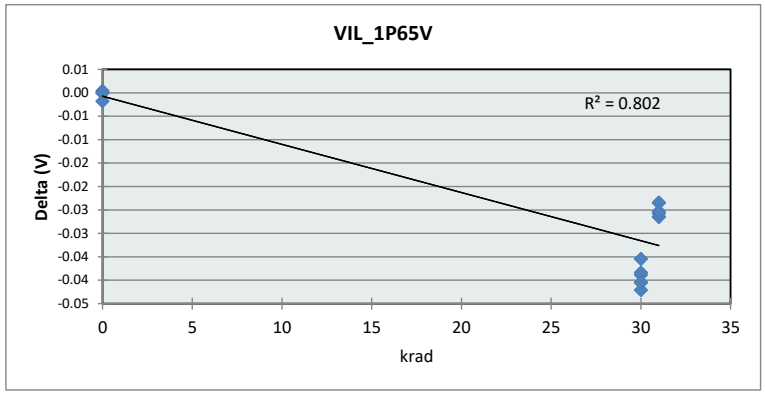
VIL_1P3V			
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.75		
Min Limit	0.18		
krad	0	30	31
LL	0.18	0.18	0.18
Min	0.57	0.51	0.54
Average	0.57	0.52	0.54
Max	0.57	0.52	0.54
UL	0.75	0.75	0.75



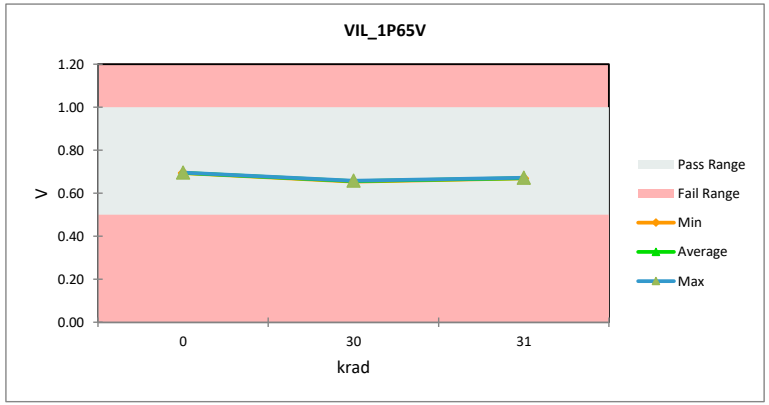
TID Report
SN54SC4T32-SEP

	VIL_1P65V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1
Min Limit	0.5

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.698	0.696	0.00	-0.26%	0.36%
0	2	0.695	0.695	0.00	0.06%	0.08%
0	3	0.695	0.695	0.00	0.00%	0.00%
0	4	0.694	0.694	0.00	0.00%	0.00%
30	5	0.695	0.655	-0.04	-5.83%	8.10%
30	6	0.696	0.654	-0.04	-6.05%	8.42%
30	7	0.696	0.657	-0.04	-5.58%	7.77%
30	8	0.696	0.657	-0.04	-5.51%	7.67%
30	9	0.694	0.658	-0.04	-5.11%	7.09%
30	10	0.696	0.655	-0.04	-5.81%	8.08%
31	11	0.695	0.669	-0.03	-3.80%	5.29%
31	12	0.696	0.669	-0.03	-3.80%	5.29%
31	13	0.696	0.670	-0.03	-3.70%	5.15%
31	14	0.696	0.672	-0.02	-3.37%	4.69%
31	15	0.694	0.670	-0.02	-3.38%	4.69%
31	16	0.696	0.670	-0.03	-3.64%	5.06%
	Max	0.698	0.696	0.00	0.06%	8.42%
	Average	0.695	0.671	-0.02	-3.49%	4.86%
	Min	0.694	0.654	-0.04	-6.05%	0.00%
	Std Dev	0.001	0.016	0.01	2.25%	3.12%



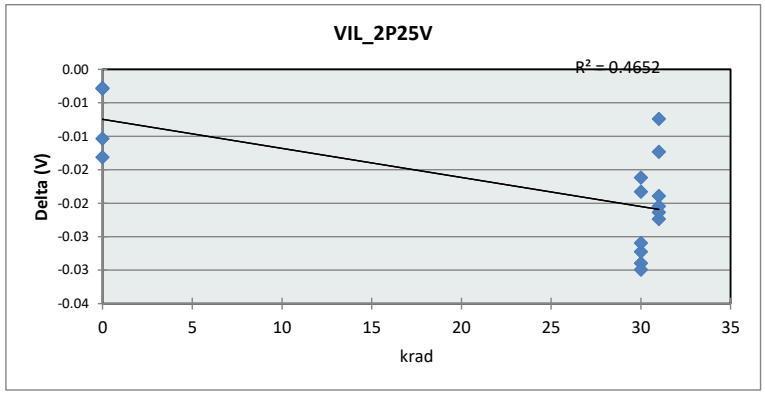
	VIL_1P65V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1		
Min Limit	0.5		
krad	0	30	31
LL	0.50	0.50	0.50
Min	0.69	0.65	0.67
Average	0.69	0.66	0.67
Max	0.70	0.66	0.67
UL	1.00	1.00	1.00



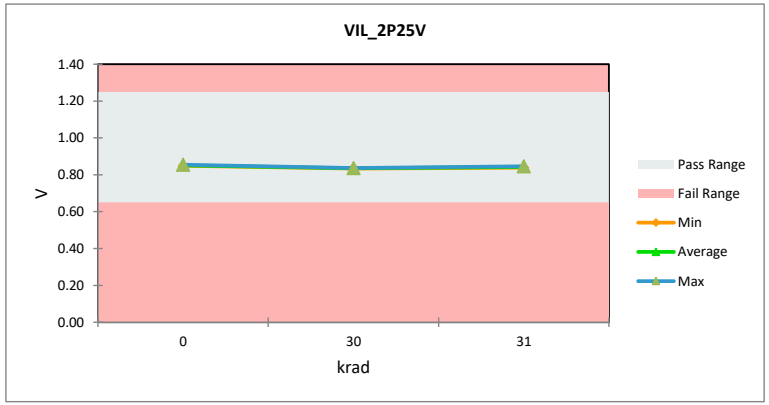
TID Report
SN54SC4T32-SEP

	VIL_2P25V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.25
Min Limit	0.65

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.864	0.851	-0.01	-1.52%	2.18%
0	2	0.857	0.855	0.00	-0.33%	0.46%
0	3	0.852	0.849	0.00	-0.34%	0.48%
0	4	0.860	0.850	-0.01	-1.20%	1.72%
30	5	0.863	0.834	-0.03	-3.35%	4.82%
30	6	0.851	0.835	-0.02	-1.90%	2.69%
30	7	0.865	0.835	-0.03	-3.46%	4.98%
30	8	0.853	0.835	-0.02	-2.14%	3.05%
30	9	0.863	0.836	-0.03	-3.16%	4.54%
30	10	0.863	0.837	-0.03	-3.01%	4.32%
31	11	0.863	0.844	-0.02	-2.19%	3.15%
31	12	0.851	0.839	-0.01	-1.45%	2.05%
31	13	0.865	0.842	-0.02	-2.58%	3.72%
31	14	0.853	0.846	-0.01	-0.87%	1.23%
31	15	0.863	0.843	-0.02	-2.37%	3.41%
31	16	0.863	0.841	-0.02	-2.48%	3.56%
	Max	0.865	0.855	-0.01	-0.33%	4.98%
	Average	0.859	0.842	-0.02	-2.02%	2.90%
	Min	0.851	0.834	-0.02	-3.46%	0.46%
	Std Dev	0.005	0.007	0.00	1.00%	1.45%



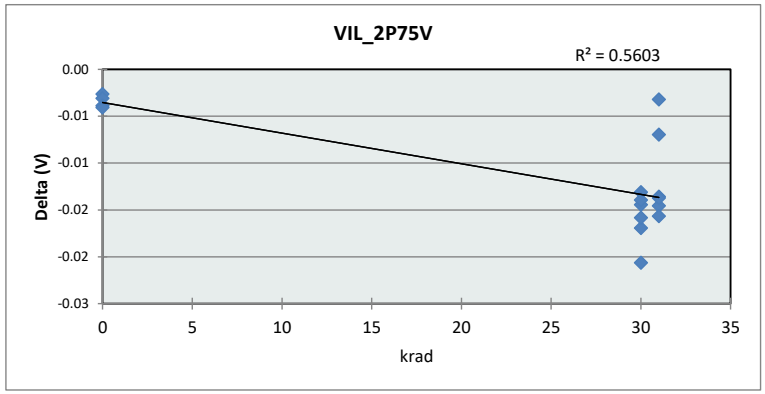
	VIL_2P25V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.25		
Min Limit	0.65		
krad	0	30	31
LL	0.65	0.65	0.65
Min	0.85	0.83	0.84
Average	0.85	0.84	0.84
Max	0.85	0.84	0.85
UL	1.25	1.25	1.25



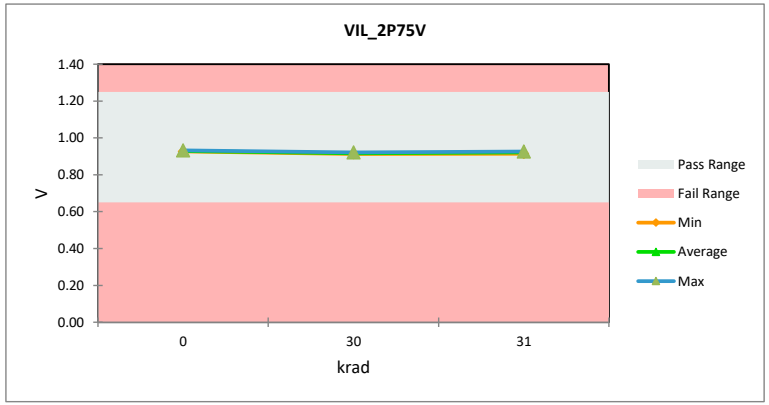
TID Report
SN54SC4T32-SEP

	VIL_2P75V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.25
Min Limit	0.65

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.932	0.929	0.00	-0.28%	0.44%
0	2	0.936	0.932	0.00	-0.33%	0.52%
0	3	0.931	0.927	0.00	-0.42%	0.64%
0	4	0.931	0.927	0.00	-0.44%	0.68%
30	5	0.938	0.921	-0.02	-1.80%	2.82%
30	6	0.927	0.913	-0.01	-1.56%	2.41%
30	7	0.934	0.913	-0.02	-2.21%	3.44%
30	8	0.931	0.918	-0.01	-1.41%	2.18%
30	9	0.934	0.920	-0.01	-1.49%	2.32%
30	10	0.930	0.914	-0.02	-1.70%	2.64%
31	11	0.938	0.924	-0.01	-1.55%	2.43%
31	12	0.927	0.914	-0.01	-1.46%	2.26%
31	13	0.934	0.920	-0.01	-1.47%	2.29%
31	14	0.931	0.924	-0.01	-0.75%	1.16%
31	15	0.934	0.919	-0.02	-1.68%	2.61%
31	16	0.930	0.927	0.00	-0.35%	0.54%
	Max	0.938	0.932	-0.01	-0.28%	3.44%
	Average	0.932	0.921	-0.01	-1.18%	1.84%
	Min	0.927	0.913	-0.01	-2.21%	0.44%
	Std Dev	0.003	0.006	0.00	0.64%	0.99%



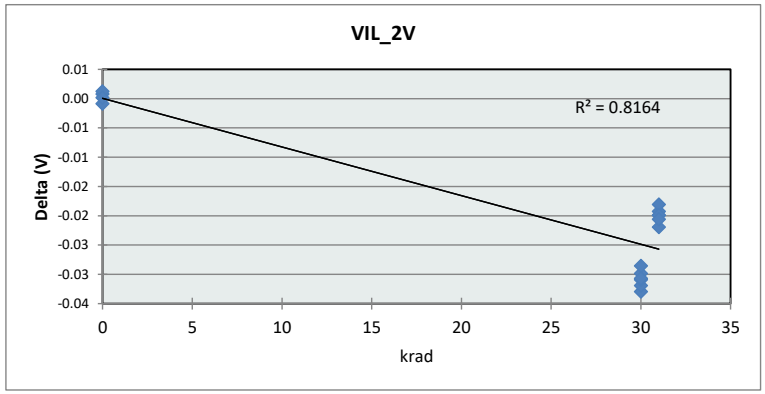
	VIL_2P75V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.25		
Min Limit	0.65		
krad	0	30	31
LL	0.65	0.65	0.65
Min	0.93	0.91	0.91
Average	0.93	0.92	0.92
Max	0.93	0.92	0.93
UL	1.25	1.25	1.25



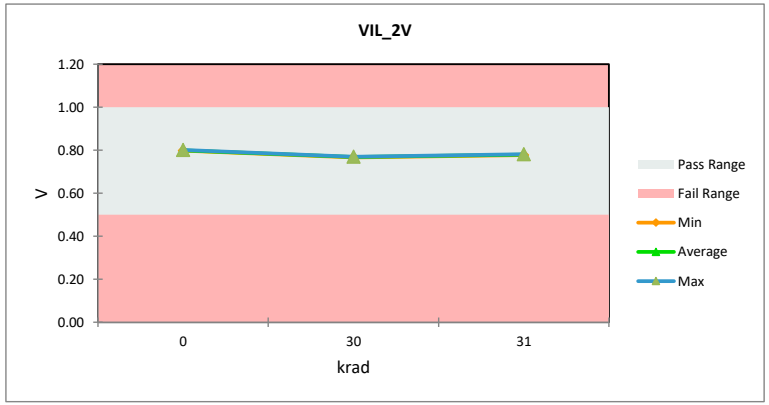
TID Report
SN54SC4T32-SEP

	VIL_2V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1
Min Limit	0.5

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.800	0.801	0.00	0.10%	0.16%
0	2	0.798	0.799	0.00	0.16%	0.25%
0	3	0.799	0.798	0.00	-0.11%	0.17%
0	4	0.798	0.798	0.00	0.02%	0.04%
30	5	0.800	0.767	-0.03	-4.11%	6.59%
30	6	0.798	0.766	-0.03	-4.00%	6.38%
30	7	0.800	0.769	-0.03	-3.86%	6.19%
30	8	0.799	0.770	-0.03	-3.73%	5.97%
30	9	0.797	0.769	-0.03	-3.58%	5.71%
30	10	0.800	0.769	-0.03	-3.84%	6.14%
31	11	0.800	0.778	-0.02	-2.74%	4.39%
31	12	0.798	0.779	-0.02	-2.41%	3.85%
31	13	0.800	0.780	-0.02	-2.49%	3.98%
31	14	0.799	0.781	-0.02	-2.26%	3.61%
31	15	0.797	0.777	-0.02	-2.49%	3.98%
31	16	0.800	0.779	-0.02	-2.58%	4.12%
	Max	0.800	0.801	0.00	0.16%	6.59%
	Average	0.799	0.780	-0.02	-2.37%	3.84%
	Min	0.797	0.766	-0.03	-4.11%	0.04%
	Std Dev	0.001	0.012	0.01	1.57%	2.42%



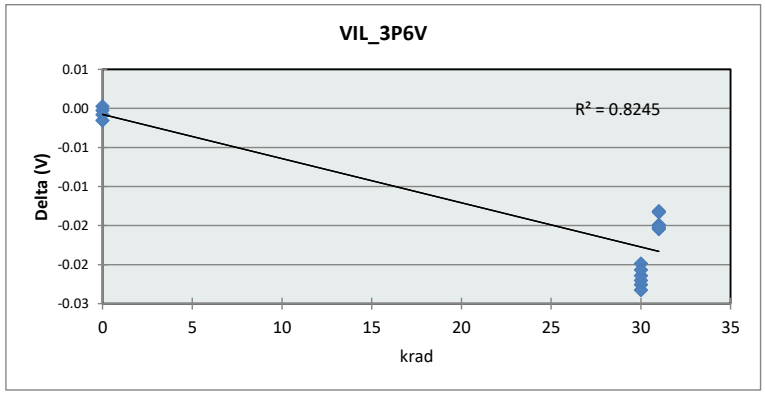
	VIL_2V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1		
Min Limit	0.5		
krad	0	30	31
LL	0.50	0.50	0.50
Min	0.80	0.77	0.78
Average	0.80	0.77	0.78
Max	0.80	0.77	0.78
UL	1.00	1.00	1.00



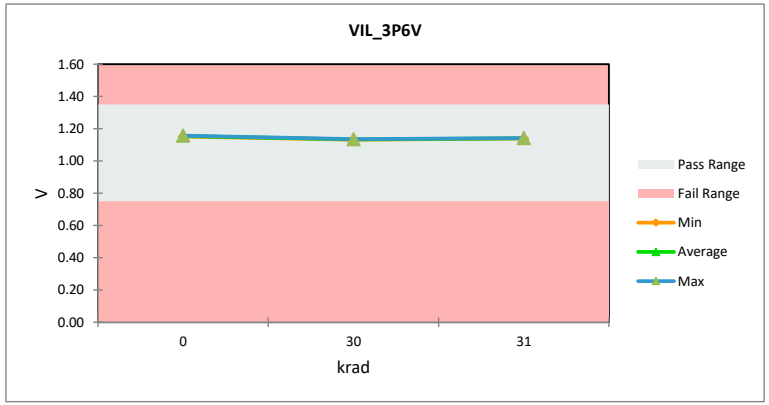
TID Report
SN54SC4T32-SEP

VIL_3P6V	
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.35
Min Limit	0.75

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.157	1.157	0.00	0.02%	0.05%
0	2	1.156	1.156	0.00	-0.02%	0.04%
0	3	1.155	1.154	0.00	-0.07%	0.13%
0	4	1.153	1.151	0.00	-0.13%	0.26%
30	5	1.156	1.133	-0.02	-1.95%	3.76%
30	6	1.155	1.132	-0.02	-2.01%	3.87%
30	7	1.156	1.134	-0.02	-1.90%	3.67%
30	8	1.157	1.135	-0.02	-1.85%	3.57%
30	9	1.155	1.135	-0.02	-1.72%	3.31%
30	10	1.152	1.132	-0.02	-1.79%	3.44%
31	11	1.156	1.141	-0.01	-1.29%	2.49%
31	12	1.155	1.139	-0.02	-1.34%	2.57%
31	13	1.156	1.140	-0.02	-1.32%	2.55%
31	14	1.157	1.141	-0.02	-1.32%	2.54%
31	15	1.155	1.141	-0.01	-1.14%	2.19%
31	16	1.152	1.139	-0.01	-1.15%	2.22%
	Max	1.157	1.157	0.00	0.02%	3.87%
	Average	1.155	1.141	-0.01	-1.19%	2.29%
	Min	1.152	1.132	-0.02	-2.01%	0.04%
	Std Dev	0.001	0.009	0.01	0.74%	1.41%



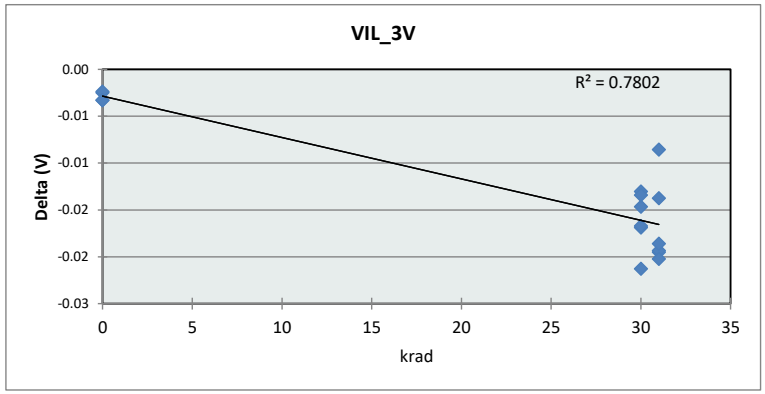
VIL_3P6V			
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.35		
Min Limit	0.75		
krad	0	30	31
LL	0.75	0.75	0.75
Min	1.15	1.13	1.14
Average	1.15	1.13	1.14
Max	1.16	1.14	1.14
UL	1.35	1.35	1.35



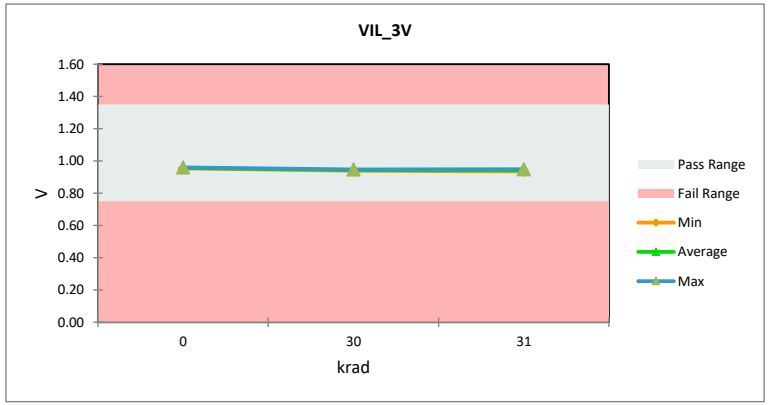
TID Report
SN54SC4T32-SEP

	VIL_3V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.35
Min Limit	0.75

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.960	0.958	0.00	-0.26%	0.41%
0	2	0.962	0.960	0.00	-0.25%	0.39%
0	3	0.957	0.954	0.00	-0.34%	0.55%
0	4	0.957	0.954	0.00	-0.34%	0.55%
30	5	0.964	0.948	-0.02	-1.75%	2.81%
30	6	0.954	0.939	-0.01	-1.54%	2.44%
30	7	0.960	0.939	-0.02	-2.22%	3.55%
30	8	0.957	0.944	-0.01	-1.36%	2.17%
30	9	0.961	0.947	-0.01	-1.39%	2.23%
30	10	0.957	0.940	-0.02	-1.75%	2.79%
31	11	0.964	0.945	-0.02	-2.02%	3.25%
31	12	0.954	0.935	-0.02	-2.03%	3.22%
31	13	0.960	0.941	-0.02	-1.94%	3.10%
31	14	0.957	0.944	-0.01	-1.43%	2.29%
31	15	0.961	0.941	-0.02	-2.11%	3.37%
31	16	0.957	0.948	-0.01	-0.89%	1.42%
	Max	0.964	0.960	0.00	-0.25%	3.55%
	Average	0.959	0.946	-0.01	-1.35%	2.16%
	Min	0.954	0.935	-0.02	-2.22%	0.39%
	Std Dev	0.003	0.007	0.00	0.71%	1.14%



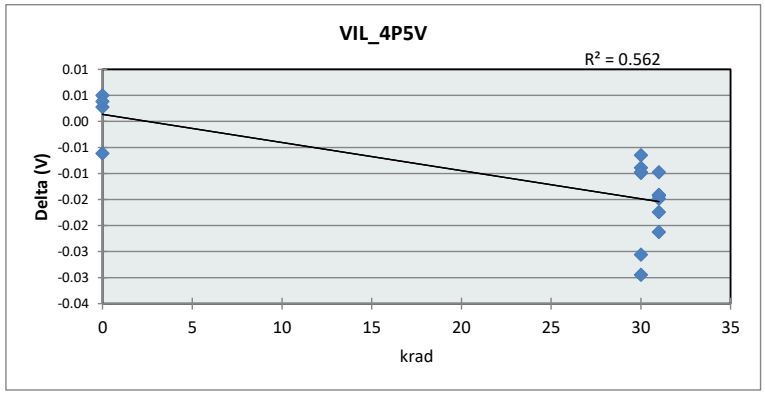
	VIL_3V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.35		
Min Limit	0.75		
krad	0	30	31
LL	0.75	0.75	0.75
Min	0.95	0.94	0.93
Average	0.96	0.94	0.94
Max	0.96	0.95	0.95
UL	1.35	1.35	1.35



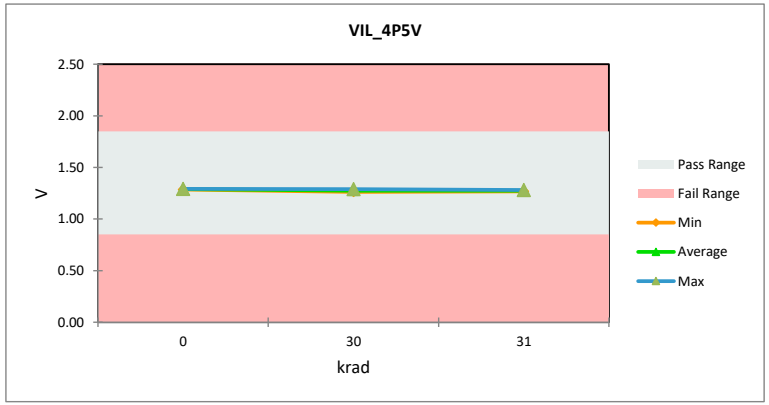
TID Report
SN54SC4T32-SEP

	VIL_4P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.85
Min Limit	0.85

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.288	1.291	0.00	0.21%	0.28%
0	2	1.292	1.286	-0.01	-0.48%	0.62%
0	3	1.286	1.291	0.01	0.39%	0.50%
0	4	1.288	1.292	0.00	0.30%	0.38%
30	5	1.295	1.289	-0.01	-0.50%	0.65%
30	6	1.286	1.276	-0.01	-0.77%	0.99%
30	7	1.292	1.263	-0.03	-2.28%	2.95%
30	8	1.286	1.277	-0.01	-0.69%	0.89%
30	9	1.291	1.281	-0.01	-0.76%	0.98%
30	10	1.288	1.263	-0.03	-1.99%	2.56%
31	11	1.295	1.281	-0.01	-1.10%	1.43%
31	12	1.286	1.271	-0.01	-1.15%	1.48%
31	13	1.292	1.278	-0.01	-1.09%	1.41%
31	14	1.286	1.269	-0.02	-1.35%	1.74%
31	15	1.291	1.281	-0.01	-0.75%	0.97%
31	16	1.288	1.267	-0.02	-1.65%	2.12%
	Max	1.295	1.292	0.00	0.39%	2.95%
	Average	1.289	1.278	-0.01	-0.85%	1.25%
	Min	1.286	1.263	-0.02	-2.28%	0.28%
	Std Dev	0.003	0.010	0.01	0.76%	0.78%



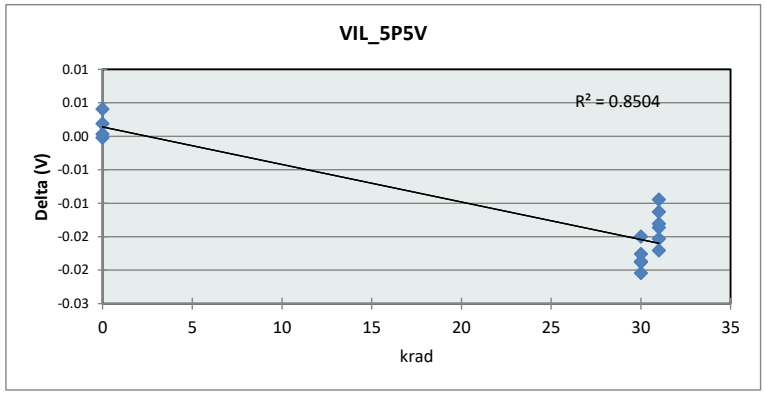
	VIL_4P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.85		
Min Limit	0.85		
krad	0	30	31
LL	0.85	0.85	0.85
Min	1.29	1.26	1.27
Average	1.29	1.27	1.27
Max	1.29	1.29	1.28
UL	1.85	1.85	1.85



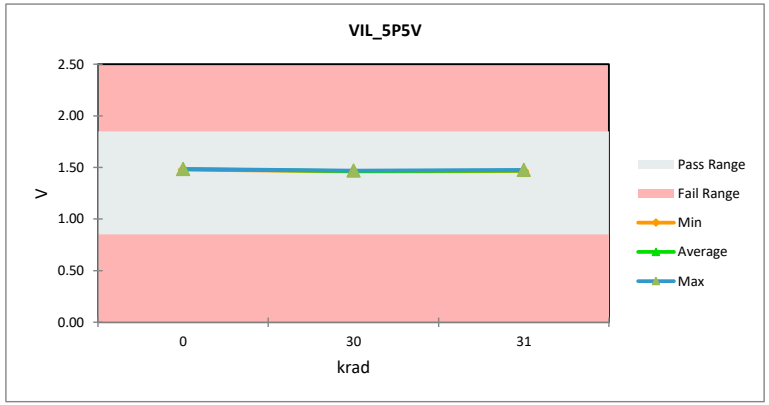
TID Report
SN54SC4T32-SEP

	VIL_5P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.85
Min Limit	0.85

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.481	1.485	0.00	0.28%	0.41%
0	2	1.485	1.485	0.00	-0.01%	0.02%
0	3	1.481	1.483	0.00	0.13%	0.19%
0	4	1.478	1.479	0.00	0.02%	0.03%
30	5	1.483	1.464	-0.02	-1.26%	1.87%
30	6	1.481	1.461	-0.02	-1.38%	2.04%
30	7	1.483	1.464	-0.02	-1.27%	1.88%
30	8	1.487	1.469	-0.02	-1.18%	1.76%
30	9	1.480	1.465	-0.01	-1.01%	1.50%
30	10	1.480	1.461	-0.02	-1.27%	1.87%
31	11	1.483	1.469	-0.01	-0.92%	1.36%
31	12	1.481	1.466	-0.02	-1.03%	1.53%
31	13	1.483	1.466	-0.02	-1.15%	1.70%
31	14	1.487	1.475	-0.01	-0.76%	1.13%
31	15	1.480	1.470	-0.01	-0.64%	0.95%
31	16	1.480	1.467	-0.01	-0.88%	1.31%
	Max	1.487	1.485	0.00	0.28%	2.04%
	Average	1.482	1.471	-0.01	-0.77%	1.22%
	Min	1.478	1.461	-0.02	-1.38%	0.02%
	Std Dev	0.002	0.008	0.01	0.56%	0.70%



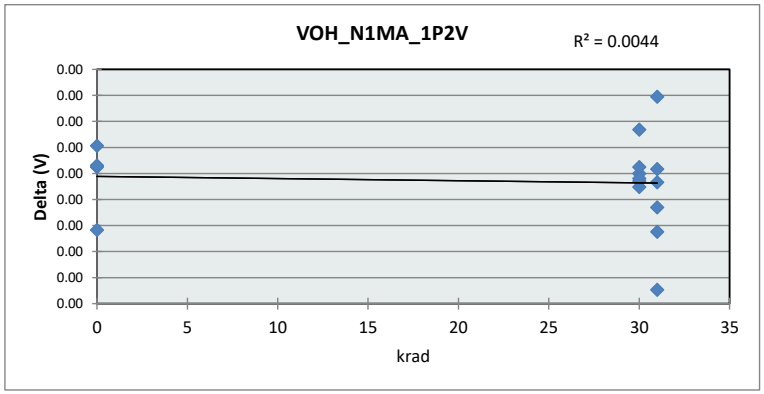
	VIL_5P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.85		
Min Limit	0.85		
krad	0	30	31
LL	0.85	0.85	0.85
Min	1.48	1.46	1.47
Average	1.48	1.46	1.47
Max	1.49	1.47	1.48
UL	1.85	1.85	1.85



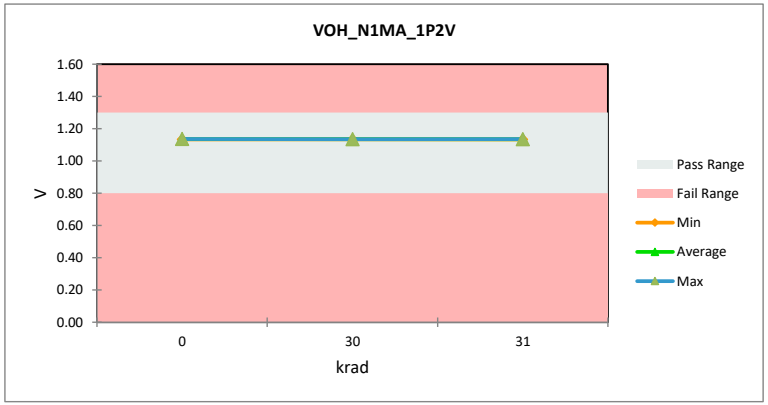
TID Report
SN54SC4T32-SEP

	VOH_N1MA_1P2V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.3
Min Limit	0.8

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.136	1.136	0.00	0.00%	0.01%
0	2	1.135	1.134	0.00	-0.14%	0.32%
0	3	1.136	1.136	0.00	-0.03%	0.08%
0	4	1.136	1.136	0.00	-0.03%	0.07%
30	5	1.136	1.136	0.00	-0.04%	0.10%
30	6	1.136	1.135	0.00	-0.06%	0.13%
30	7	1.136	1.135	0.00	-0.03%	0.08%
30	8	1.134	1.134	0.00	0.03%	0.07%
30	9	1.135	1.135	0.00	-0.07%	0.15%
30	10	1.136	1.135	0.00	-0.05%	0.12%
31	11	1.136	1.134	0.00	-0.14%	0.32%
31	12	1.136	1.135	0.00	-0.06%	0.13%
31	13	1.136	1.134	0.00	-0.10%	0.23%
31	14	1.134	1.135	0.00	0.09%	0.20%
31	15	1.135	1.135	0.00	-0.04%	0.08%
31	16	1.136	1.133	0.00	-0.24%	0.55%
	Max	1.136	1.136	0.00	0.09%	0.55%
	Average	1.136	1.135	0.00	-0.06%	0.16%
	Min	1.134	1.133	0.00	-0.24%	0.01%
	Std Dev	0.001	0.001	0.00	0.07%	0.14%



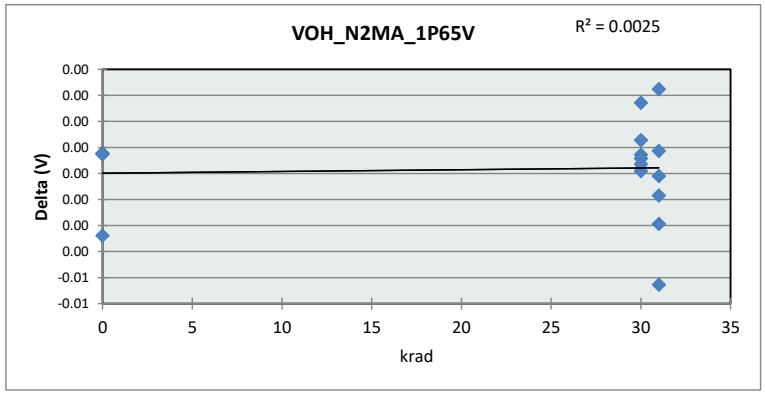
	VOH_N1MA_1P2V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.3		
Min Limit	0.8		
krad	0	30	31
LL	0.80	0.80	0.80
Min	1.13	1.13	1.13
Average	1.14	1.14	1.13
Max	1.14	1.14	1.14
UL	1.30	1.30	1.30



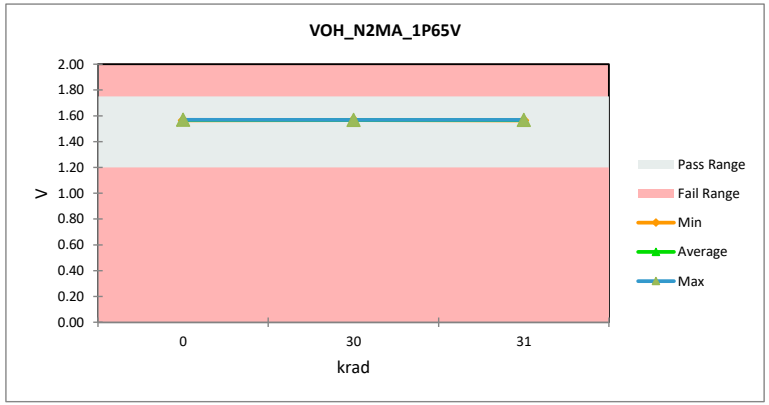
TID Report
SN54SC4T32-SEP

	VOH_N2MA_1P65V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.75
Min Limit	1.2

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.569	1.569	0.00	-0.02%	0.05%
0	2	1.568	1.565	0.00	-0.22%	0.62%
0	3	1.569	1.569	0.00	-0.01%	0.04%
0	4	1.568	1.568	0.00	-0.02%	0.05%
30	5	1.569	1.569	0.00	-0.02%	0.05%
30	6	1.569	1.568	0.00	-0.06%	0.16%
30	7	1.568	1.568	0.00	0.02%	0.05%
30	8	1.565	1.567	0.00	0.11%	0.31%
30	9	1.568	1.567	0.00	-0.03%	0.08%
30	10	1.569	1.568	0.00	-0.04%	0.12%
31	11	1.569	1.566	0.00	-0.19%	0.53%
31	12	1.569	1.568	0.00	-0.07%	0.20%
31	13	1.568	1.566	0.00	-0.12%	0.34%
31	14	1.565	1.567	0.00	0.14%	0.41%
31	15	1.568	1.568	0.00	-0.01%	0.02%
31	16	1.569	1.564	-0.01	-0.34%	0.96%
	Max	1.569	1.569	0.00	0.14%	0.96%
	Average	1.568	1.567	0.00	-0.05%	0.25%
	Min	1.565	1.564	0.00	-0.34%	0.02%
	Std Dev	0.001	0.002	0.00	0.12%	0.27%



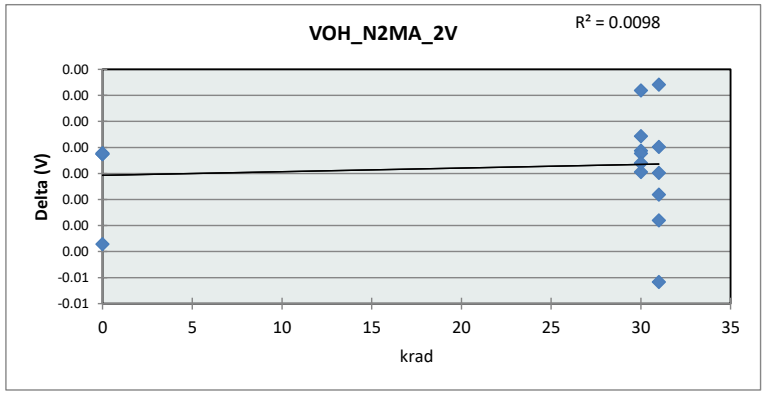
	VOH_N2MA_1P65V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.75		
Min Limit	1.2		
krad	0	30	31
LL	1.20	1.20	1.20
Min	1.56	1.57	1.56
Average	1.57	1.57	1.57
Max	1.57	1.57	1.57
UL	1.75	1.75	1.75



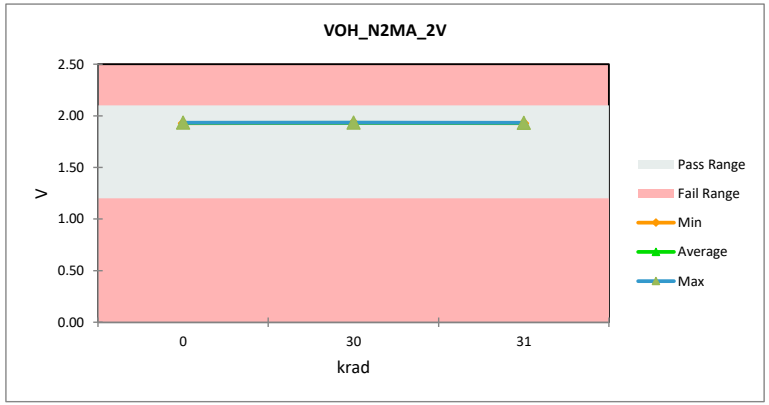
TID Report
SN54SC4T32-SEP

	VOH_N2MA_2V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	2.1
Min Limit	1.2

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.933	1.933	0.00	-0.01%	0.03%
0	2	1.932	1.928	0.00	-0.19%	0.41%
0	3	1.933	1.933	0.00	-0.01%	0.03%
0	4	1.932	1.932	0.00	-0.01%	0.02%
30	5	1.933	1.933	0.00	-0.01%	0.01%
30	6	1.933	1.932	0.00	-0.05%	0.10%
30	7	1.932	1.933	0.00	0.02%	0.05%
30	8	1.929	1.931	0.00	0.11%	0.24%
30	9	1.932	1.932	0.00	-0.01%	0.02%
30	10	1.933	1.932	0.00	-0.03%	0.07%
31	11	1.933	1.930	0.00	-0.15%	0.31%
31	12	1.933	1.932	0.00	-0.05%	0.11%
31	13	1.932	1.930	0.00	-0.09%	0.20%
31	14	1.929	1.931	0.00	0.13%	0.27%
31	15	1.932	1.932	0.00	0.00%	0.00%
31	16	1.933	1.928	-0.01	-0.27%	0.57%
	Max	1.933	1.933	0.00	0.13%	0.57%
	Average	1.932	1.931	0.00	-0.04%	0.15%
	Min	1.929	1.928	0.00	-0.27%	0.00%
	Std Dev	0.001	0.002	0.00	0.10%	0.17%



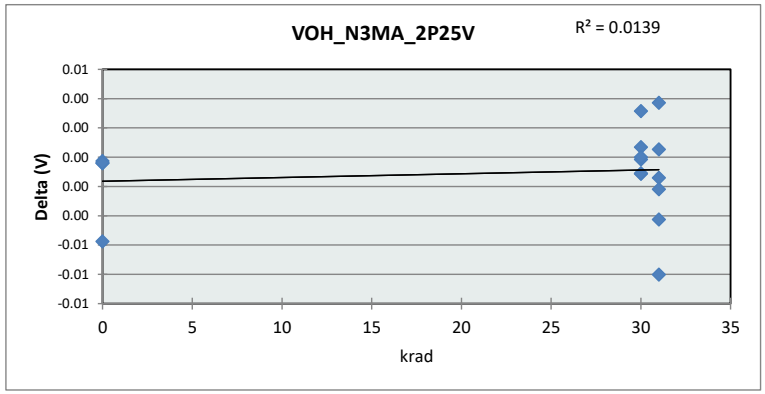
	VOH_N2MA_2V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	2.1		
Min Limit	1.2		
krad	0	30	31
LL	1.20	1.20	1.20
Min	1.93	1.93	1.93
Average	1.93	1.93	1.93
Max	1.93	1.93	1.93
UL	2.10	2.10	2.10



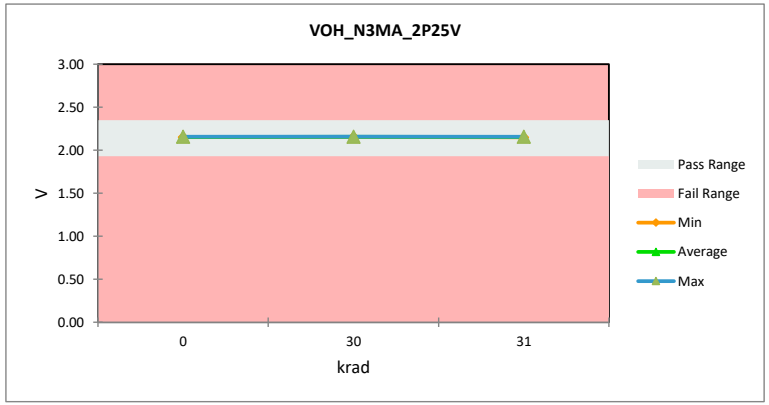
TID Report
SN54SC4T32-SEP

	VOH_N3MA_2P25V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	2.35
Min Limit	1.93

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	2.157	2.157	0.00	-0.01%	0.06%
0	2	2.157	2.151	-0.01	-0.27%	1.37%
0	3	2.158	2.157	0.00	-0.02%	0.10%
0	4	2.157	2.156	0.00	-0.02%	0.09%
30	5	2.158	2.158	0.00	-0.01%	0.04%
30	6	2.158	2.157	0.00	-0.05%	0.27%
30	7	2.156	2.157	0.00	0.03%	0.16%
30	8	2.152	2.155	0.00	0.15%	0.75%
30	9	2.155	2.155	0.00	0.00%	0.00%
30	10	2.158	2.156	0.00	-0.05%	0.26%
31	11	2.158	2.153	0.00	-0.20%	1.01%
31	12	2.158	2.156	0.00	-0.07%	0.34%
31	13	2.156	2.154	0.00	-0.10%	0.52%
31	14	2.152	2.155	0.00	0.17%	0.89%
31	15	2.155	2.156	0.00	0.02%	0.13%
31	16	2.158	2.150	-0.01	-0.37%	1.91%
	Max	2.158	2.158	0.00	0.17%	1.91%
	Average	2.156	2.155	0.00	-0.05%	0.49%
	Min	2.152	2.150	0.00	-0.37%	0.00%
	Std Dev	0.002	0.002	0.00	0.14%	0.55%



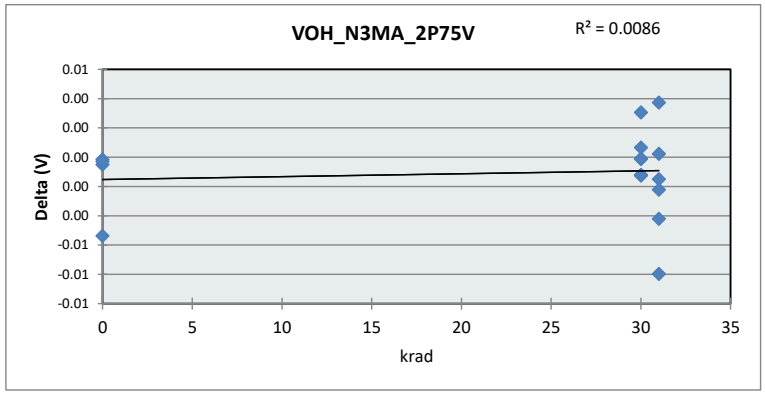
	VOH_N3MA_2P25V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	2.35		
Min Limit	1.93		
krad	0	30	31
LL	1.93	1.93	1.93
Min	2.15	2.15	2.15
Average	2.16	2.16	2.15
Max	2.16	2.16	2.16
UL	2.35	2.35	2.35



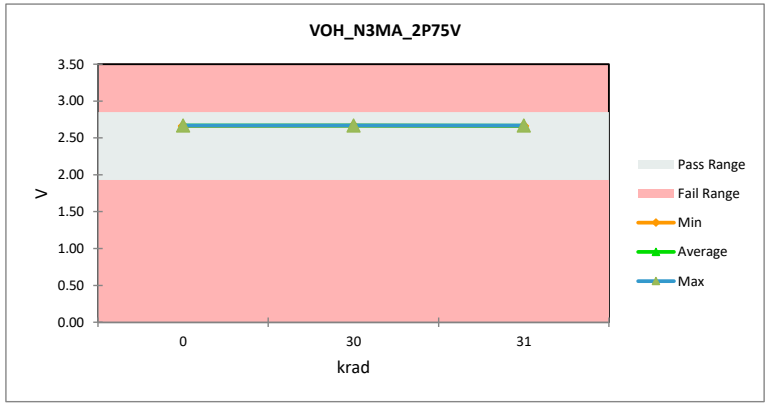
TID Report
SN54SC4T32-SEP

	VOH_N3MA_2P75V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	2.85
Min Limit	1.93

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	2.669	2.668	0.00	-0.01%	0.02%
0	2	2.668	2.663	-0.01	-0.20%	0.58%
0	3	2.670	2.669	0.00	-0.02%	0.05%
0	4	2.668	2.668	0.00	-0.01%	0.03%
30	5	2.669	2.669	0.00	0.00%	0.01%
30	6	2.670	2.668	0.00	-0.05%	0.14%
30	7	2.668	2.669	0.00	0.02%	0.07%
30	8	2.663	2.666	0.00	0.12%	0.33%
30	9	2.667	2.667	0.00	0.00%	0.01%
30	10	2.669	2.668	0.00	-0.05%	0.13%
31	11	2.669	2.665	0.00	-0.16%	0.46%
31	12	2.670	2.668	0.00	-0.06%	0.16%
31	13	2.668	2.666	0.00	-0.08%	0.24%
31	14	2.663	2.667	0.00	0.14%	0.41%
31	15	2.667	2.668	0.00	0.01%	0.03%
31	16	2.669	2.661	-0.01	-0.30%	0.87%
	Max	2.670	2.669	0.00	0.14%	0.87%
	Average	2.668	2.667	0.00	-0.04%	0.22%
	Min	2.663	2.661	0.00	-0.30%	0.01%
	Std Dev	0.002	0.002	0.00	0.11%	0.25%



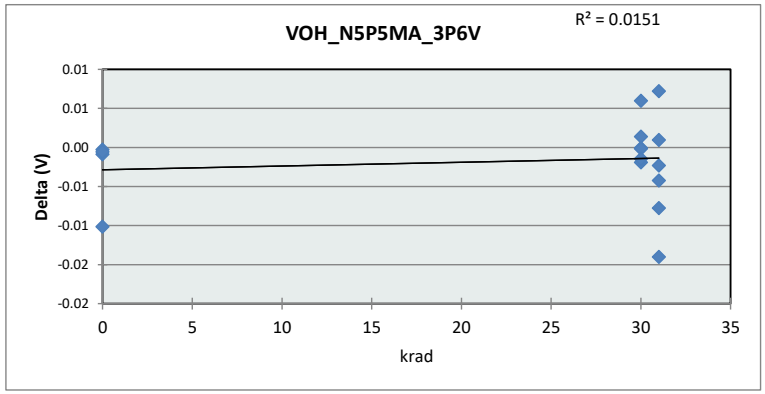
	VOH_N3MA_2P75V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	2.85		
Min Limit	1.93		
krad	0	30	31
LL	1.93	1.93	1.93
Min	2.66	2.67	2.66
Average	2.67	2.67	2.67
Max	2.67	2.67	2.67
UL	2.85	2.85	2.85



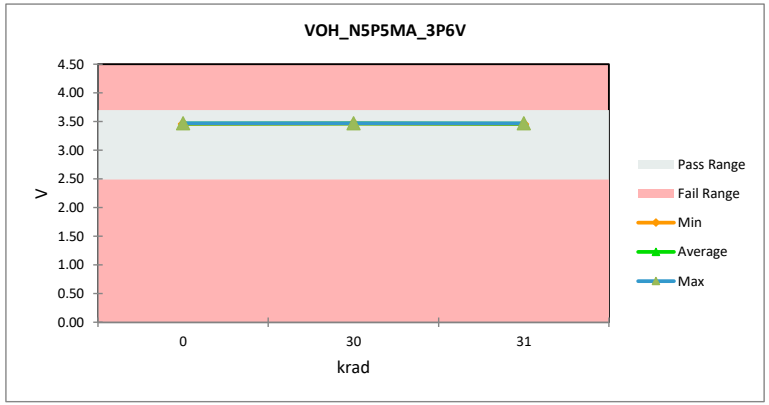
TID Report
SN54SC4T32-SEP

	VOH_N5P5MA_3P6V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	3.7
Min Limit	2.49

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	3.468	3.468	0.00	-0.01%	0.02%
0	2	3.467	3.457	-0.01	-0.29%	0.84%
0	3	3.470	3.469	0.00	-0.03%	0.07%
0	4	3.468	3.467	0.00	-0.02%	0.05%
30	5	3.470	3.470	0.00	0.00%	0.01%
30	6	3.470	3.468	0.00	-0.06%	0.16%
30	7	3.467	3.468	0.00	0.04%	0.12%
30	8	3.458	3.464	0.01	0.17%	0.49%
30	9	3.466	3.466	0.00	0.00%	0.01%
30	10	3.470	3.468	0.00	-0.04%	0.12%
31	11	3.470	3.462	-0.01	-0.22%	0.64%
31	12	3.470	3.468	0.00	-0.07%	0.19%
31	13	3.467	3.463	0.00	-0.12%	0.35%
31	14	3.458	3.466	0.01	0.21%	0.60%
31	15	3.466	3.467	0.00	0.03%	0.08%
31	16	3.470	3.456	-0.01	-0.40%	1.16%
	Max	3.470	3.470	0.00	0.21%	1.16%
	Average	3.467	3.465	0.00	-0.05%	0.31%
	Min	3.458	3.456	0.00	-0.40%	0.01%
	Std Dev	0.004	0.004	0.00	0.15%	0.34%



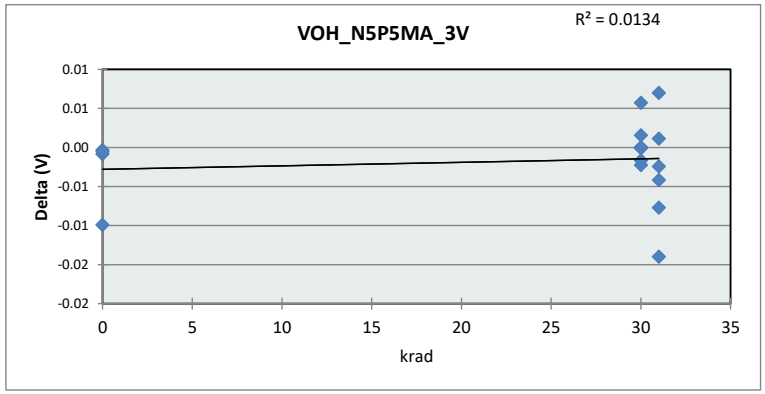
	VOH_N5P5MA_3P6V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	3.7		
Min Limit	2.49		
krad	0	30	31
LL	2.49	2.49	2.49
Min	3.46	3.46	3.46
Average	3.47	3.47	3.46
Max	3.47	3.47	3.47
UL	3.70	3.70	3.70



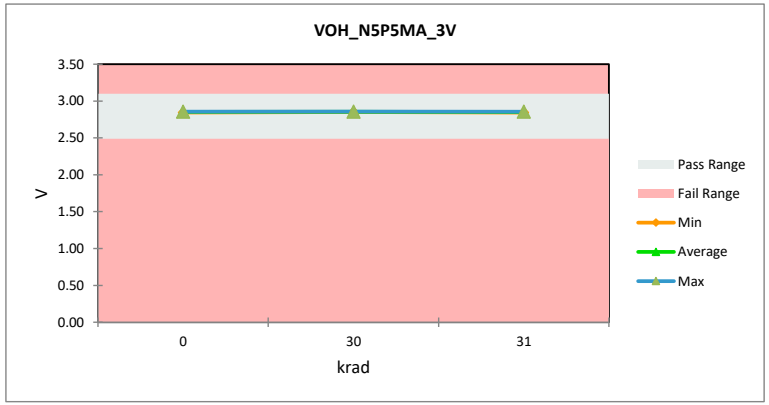
TID Report
SN54SC4T32-SEP

	VOH_N5P5MA_3V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	3.1
Min Limit	2.49

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	2.856	2.856	0.00	-0.01%	0.05%
0	2	2.855	2.845	-0.01	-0.35%	1.62%
0	3	2.858	2.857	0.00	-0.03%	0.14%
0	4	2.855	2.855	0.00	-0.02%	0.09%
30	5	2.857	2.857	0.00	0.00%	0.01%
30	6	2.858	2.856	0.00	-0.08%	0.37%
30	7	2.855	2.856	0.00	0.05%	0.26%
30	8	2.846	2.852	0.01	0.20%	0.94%
30	9	2.853	2.853	0.00	0.00%	0.02%
30	10	2.857	2.855	0.00	-0.06%	0.27%
31	11	2.857	2.850	-0.01	-0.27%	1.26%
31	12	2.858	2.855	0.00	-0.09%	0.40%
31	13	2.855	2.850	0.00	-0.15%	0.68%
31	14	2.846	2.853	0.01	0.25%	1.14%
31	15	2.853	2.855	0.00	0.04%	0.18%
31	16	2.857	2.843	-0.01	-0.49%	2.29%
	Max	2.858	2.857	0.00	0.25%	2.29%
	Average	2.855	2.853	0.00	-0.06%	0.61%
	Min	2.846	2.843	0.00	-0.49%	0.01%
	Std Dev	0.004	0.004	0.00	0.19%	0.67%



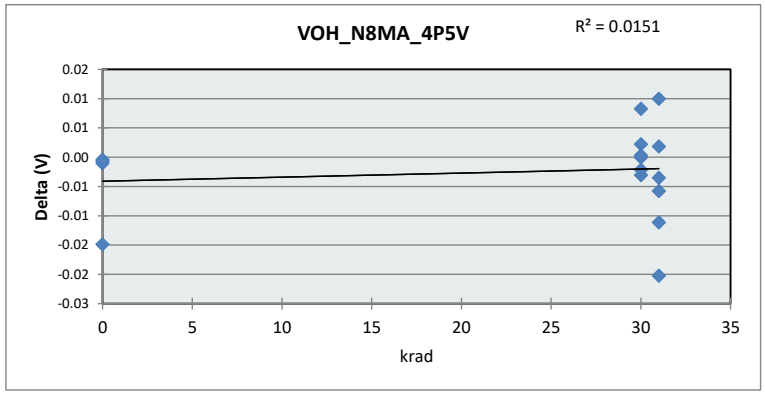
	VOH_N5P5MA_3V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	3.1		
Min Limit	2.49		
krad	0	30	31
LL	2.49	2.49	2.49
Min	2.84	2.85	2.84
Average	2.85	2.85	2.85
Max	2.86	2.86	2.86
UL	3.10	3.10	3.10



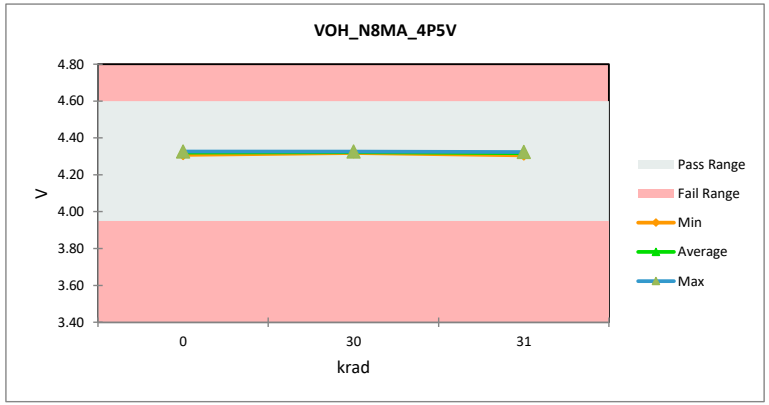
TID Report
SN54SC4T32-SEP

	VOH_N8MA_4P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	4.6
Min Limit	3.95

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	4.324	4.323	0.00	-0.01%	0.06%
0	2	4.323	4.308	-0.01	-0.34%	2.29%
0	3	4.327	4.326	0.00	-0.02%	0.16%
0	4	4.323	4.322	0.00	-0.02%	0.10%
30	5	4.326	4.326	0.00	0.00%	0.00%
30	6	4.327	4.324	0.00	-0.07%	0.47%
30	7	4.322	4.324	0.00	0.05%	0.34%
30	8	4.310	4.318	0.01	0.19%	1.27%
30	9	4.320	4.320	0.00	0.01%	0.05%
30	10	4.326	4.323	0.00	-0.05%	0.33%
31	11	4.326	4.315	-0.01	-0.26%	1.71%
31	12	4.327	4.323	0.00	-0.08%	0.54%
31	13	4.322	4.316	-0.01	-0.13%	0.89%
31	14	4.310	4.320	0.01	0.23%	1.54%
31	15	4.320	4.322	0.00	0.04%	0.28%
31	16	4.326	4.305	-0.02	-0.47%	3.11%
	Max	4.327	4.326	0.00	0.23%	3.11%
	Average	4.322	4.320	0.00	-0.06%	0.82%
	Min	4.310	4.305	0.00	-0.47%	0.00%
	Std Dev	0.005	0.006	0.00	0.18%	0.92%



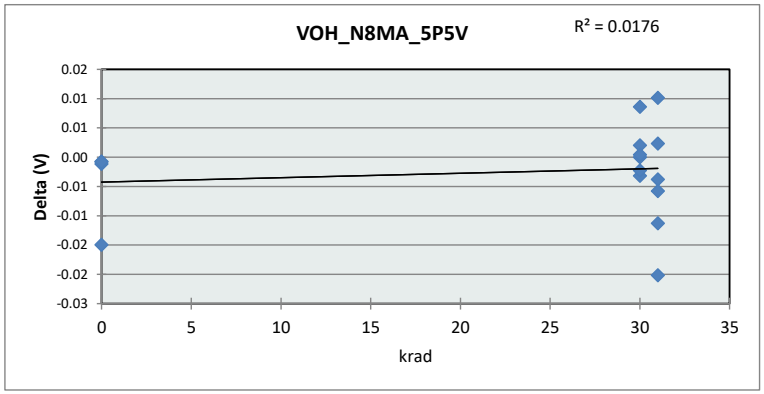
	VOH_N8MA_4P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	4.6		
Min Limit	3.95		
krad	0	30	31
LL	3.95	3.95	3.95
Min	4.31	4.32	4.31
Average	4.32	4.32	4.32
Max	4.33	4.33	4.32
UL	4.60	4.60	4.60



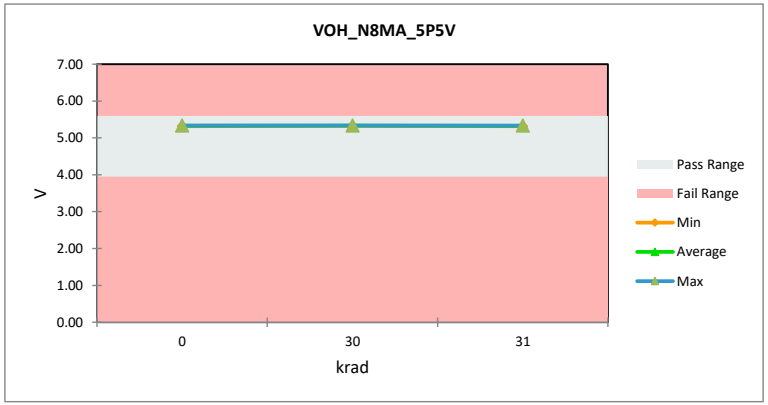
TID Report
SN54SC4T32-SEP

	VOH_N8MA_5P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	5.6
Min Limit	3.95

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	5.335	5.334	0.00	-0.01%	0.04%
0	2	5.334	5.319	-0.01	-0.28%	0.91%
0	3	5.338	5.337	0.00	-0.02%	0.07%
0	4	5.334	5.333	0.00	-0.01%	0.05%
30	5	5.337	5.337	0.00	0.00%	0.00%
30	6	5.338	5.335	0.00	-0.06%	0.19%
30	7	5.333	5.335	0.00	0.04%	0.12%
30	8	5.321	5.329	0.01	0.16%	0.52%
30	9	5.331	5.331	0.00	0.01%	0.03%
30	10	5.337	5.334	0.00	-0.04%	0.14%
31	11	5.337	5.326	-0.01	-0.21%	0.68%
31	12	5.338	5.334	0.00	-0.07%	0.23%
31	13	5.333	5.327	-0.01	-0.11%	0.35%
31	14	5.321	5.331	0.01	0.19%	0.62%
31	15	5.331	5.333	0.00	0.04%	0.14%
31	16	5.337	5.316	-0.02	-0.38%	1.22%
	Max	5.338	5.337	0.00	0.19%	1.22%
	Average	5.333	5.331	0.00	-0.05%	0.33%
	Min	5.321	5.316	0.00	-0.38%	0.00%
	Std Dev	0.005	0.006	0.00	0.15%	0.36%



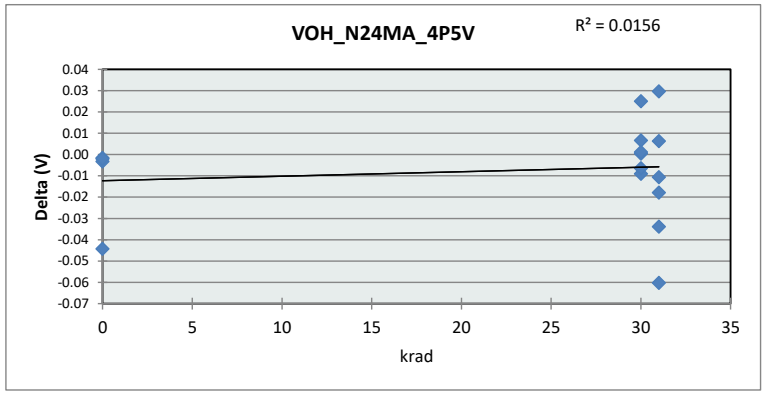
	VOH_N8MA_5P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	5.6		
Min Limit	3.95		
krad	0	30	31
LL	3.95	3.95	3.95
Min	5.32	5.33	5.32
Average	5.33	5.33	5.33
Max	5.34	5.34	5.33
UL	5.60	5.60	5.60



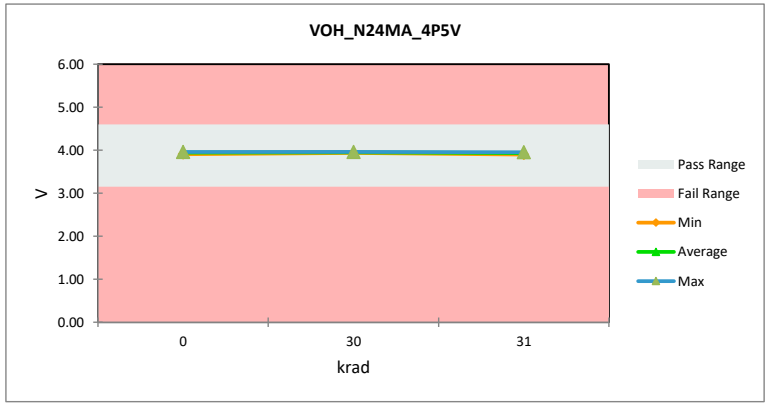
TID Report
SN54SC4T32-SEP

	VOH_N24MA_4P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	4.6
Min Limit	3.15

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	3.954	3.952	0.00	-0.04%	0.11%
0	2	3.950	3.906	-0.04	-1.12%	3.05%
0	3	3.962	3.959	0.00	-0.08%	0.22%
0	4	3.951	3.949	0.00	-0.05%	0.13%
30	5	3.960	3.960	0.00	0.01%	0.03%
30	6	3.963	3.954	-0.01	-0.23%	0.62%
30	7	3.948	3.955	0.01	0.17%	0.46%
30	8	3.911	3.937	0.03	0.64%	1.73%
30	9	3.942	3.944	0.00	0.03%	0.08%
30	10	3.959	3.953	-0.01	-0.16%	0.44%
31	11	3.960	3.926	-0.03	-0.86%	2.34%
31	12	3.963	3.952	-0.01	-0.27%	0.73%
31	13	3.948	3.930	-0.02	-0.45%	1.23%
31	14	3.911	3.941	0.03	0.76%	2.05%
31	15	3.942	3.949	0.01	0.16%	0.44%
31	16	3.959	3.899	-0.06	-1.52%	4.15%
	Max	3.963	3.960	0.00	0.76%	4.15%
	Average	3.949	3.942	-0.01	-0.19%	1.11%
	Min	3.911	3.899	-0.01	-1.52%	0.03%
	Std Dev	0.016	0.018	0.00	0.59%	1.22%



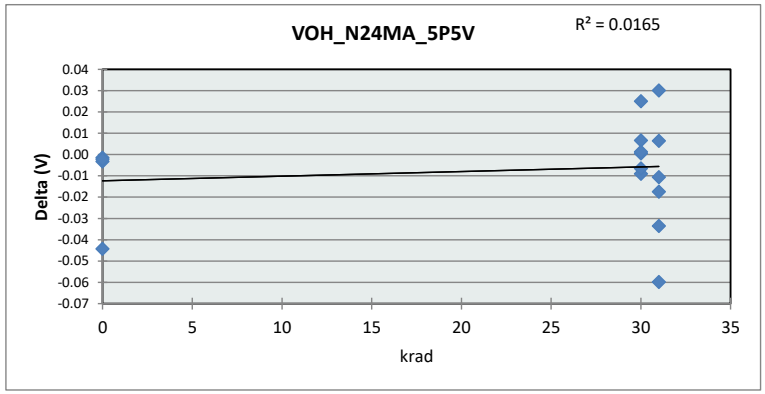
	VOH_N24MA_4P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	4.6		
Min Limit	3.15		
krad	0	30	31
LL	3.15	3.15	3.15
Min	3.91	3.94	3.90
Average	3.94	3.95	3.93
Max	3.96	3.96	3.95
UL	4.60	4.60	4.60



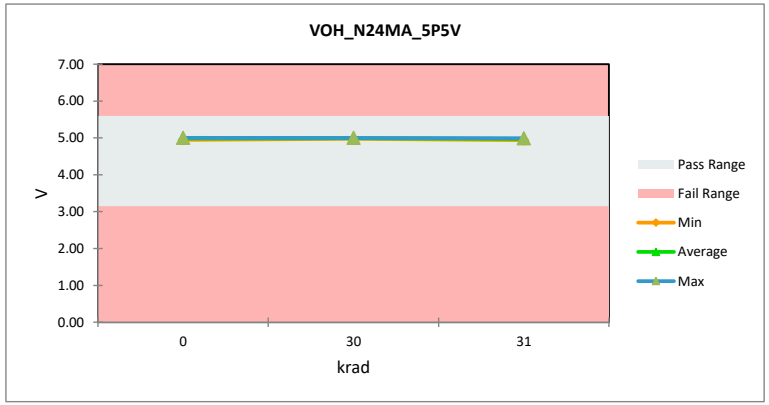
TID Report
SN54SC4T32-SEP

	VOH_N24MA_5P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	5.6
Min Limit	3.15

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	4.993	4.992	0.00	-0.03%	0.06%
0	2	4.990	4.946	-0.04	-0.89%	1.81%
0	3	5.002	4.999	0.00	-0.07%	0.13%
0	4	4.991	4.989	0.00	-0.04%	0.09%
30	5	5.000	5.000	0.00	0.01%	0.02%
30	6	5.003	4.994	-0.01	-0.18%	0.37%
30	7	4.988	4.995	0.01	0.13%	0.27%
30	8	4.951	4.976	0.03	0.51%	1.02%
30	9	4.983	4.984	0.00	0.03%	0.05%
30	10	4.999	4.993	-0.01	-0.13%	0.26%
31	11	5.000	4.966	-0.03	-0.67%	1.37%
31	12	5.003	4.992	-0.01	-0.21%	0.43%
31	13	4.988	4.971	-0.02	-0.35%	0.71%
31	14	4.951	4.982	0.03	0.61%	1.23%
31	15	4.983	4.989	0.01	0.13%	0.26%
31	16	4.999	4.939	-0.06	-1.20%	2.44%
	Max	5.003	5.000	0.00	0.61%	2.44%
	Average	4.989	4.982	-0.01	-0.15%	0.66%
	Min	4.951	4.939	-0.01	-1.20%	0.02%
	Std Dev	0.016	0.018	0.00	0.46%	0.72%



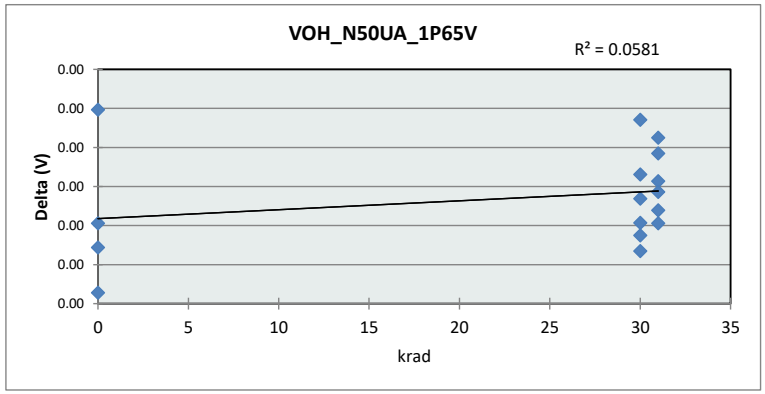
	VOH_N24MA_5P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	5.6		
Min Limit	3.15		
krad	0	30	31
LL	3.15	3.15	3.15
Min	4.95	4.98	4.94
Average	4.98	4.99	4.97
Max	5.00	5.00	4.99
UL	5.60	5.60	5.60



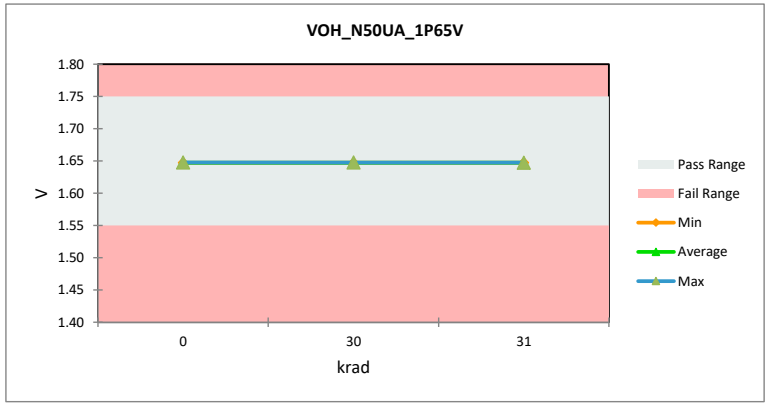
TID Report
SN54SC4T32-SEP

	VOH_N50UA_1P65V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	1.75
Min Limit	1.55

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.647	1.647	0.00	-0.01%	0.08%
0	2	1.647	1.647	0.00	-0.02%	0.14%
0	3	1.647	1.647	0.00	0.01%	0.10%
0	4	1.647	1.647	0.00	-0.01%	0.05%
30	5	1.647	1.647	0.00	-0.01%	0.08%
30	6	1.647	1.647	0.00	0.00%	0.02%
30	7	1.647	1.647	0.00	0.01%	0.09%
30	8	1.647	1.647	0.00	0.00%	0.02%
30	9	1.647	1.647	0.00	-0.01%	0.06%
30	10	1.647	1.647	0.00	-0.01%	0.05%
31	11	1.647	1.647	0.00	-0.01%	0.05%
31	12	1.647	1.647	0.00	0.00%	0.01%
31	13	1.647	1.647	0.00	0.00%	0.03%
31	14	1.647	1.647	0.00	0.00%	0.01%
31	15	1.647	1.647	0.00	0.01%	0.06%
31	16	1.647	1.647	0.00	0.01%	0.04%
	Max	1.647	1.647	0.00	0.01%	0.14%
	Average	1.647	1.647	0.00	0.00%	0.05%
	Min	1.647	1.647	0.00	-0.02%	0.01%
	Std Dev	0.000	0.000	0.00	0.01%	0.04%



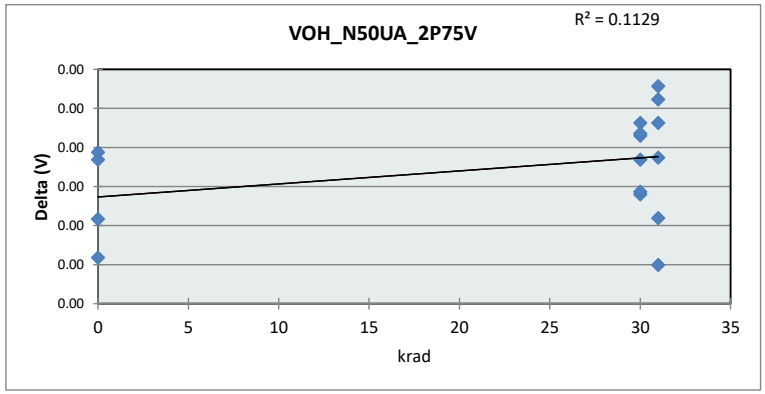
	VOH_N50UA_1P65V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	1.75		
Min Limit	1.55		
krad	0	30	31
LL	1.55	1.55	1.55
Min	1.65	1.65	1.65
Average	1.65	1.65	1.65
Max	1.65	1.65	1.65
UL	1.75	1.75	1.75



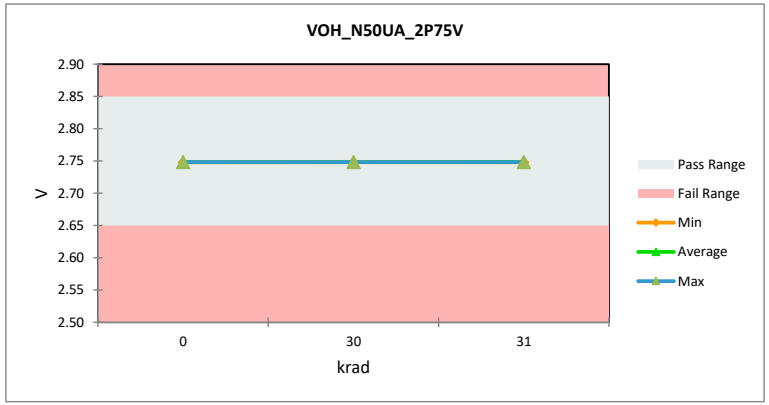
TID Report
SN54SC4T32-SEP

	VOH_N50UA_2P75V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	2.85
Min Limit	2.65

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	2.748	2.748	0.00	-0.01%	0.14%
0	2	2.748	2.748	0.00	0.00%	0.02%
0	3	2.748	2.748	0.00	0.00%	0.01%
0	4	2.748	2.748	0.00	-0.01%	0.09%
30	5	2.748	2.748	0.00	0.00%	0.01%
30	6	2.748	2.748	0.00	0.00%	0.06%
30	7	2.748	2.748	0.00	0.00%	0.03%
30	8	2.748	2.748	0.00	0.00%	0.02%
30	9	2.748	2.748	0.00	0.00%	0.02%
30	10	2.748	2.748	0.00	0.00%	0.06%
31	11	2.748	2.748	0.00	0.00%	0.06%
31	12	2.748	2.748	0.00	0.00%	0.01%
31	13	2.748	2.748	0.00	0.00%	0.03%
31	14	2.748	2.748	0.00	0.01%	0.08%
31	15	2.748	2.748	0.00	-0.01%	0.09%
31	16	2.748	2.748	0.00	-0.01%	0.15%
	Max	2.748	2.748	0.00	0.01%	0.15%
	Average	2.748	2.748	0.00	0.00%	0.05%
	Min	2.748	2.748	0.00	-0.01%	0.01%
	Std Dev	0.000	0.000	0.00	0.00%	0.05%



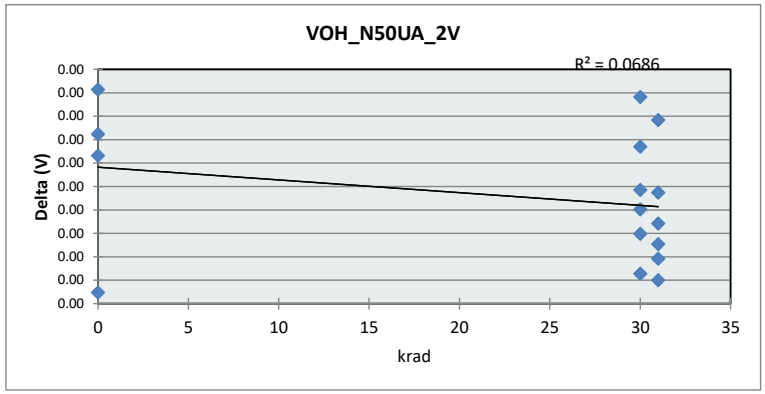
	VOH_N50UA_2P75V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	2.85		
Min Limit	2.65		
krad	0	30	31
LL	2.65	2.65	2.65
Min	2.75	2.75	2.75
Average	2.75	2.75	2.75
Max	2.75	2.75	2.75
UL	2.85	2.85	2.85



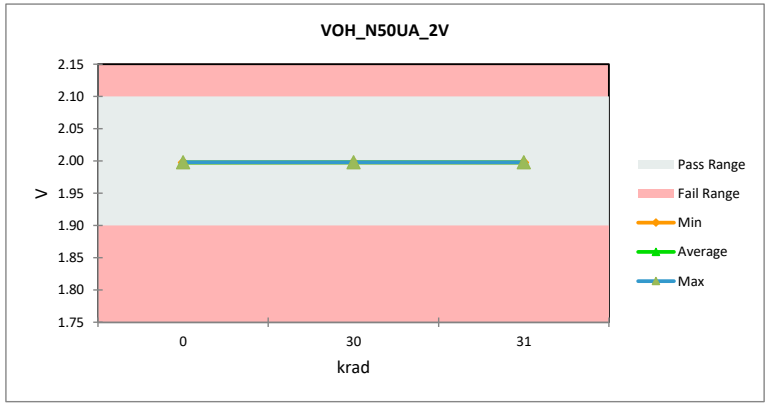
TID Report
SN54SC4T32-SEP

	VOH_N50UA_2V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	2.1
Min Limit	1.9

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	1.998	1.998	0.00	0.00%	0.03%
0	2	1.998	1.998	0.00	-0.01%	0.14%
0	3	1.998	1.998	0.00	0.01%	0.08%
0	4	1.998	1.998	0.00	0.00%	0.01%
30	5	1.998	1.998	0.00	-0.01%	0.12%
30	6	1.998	1.998	0.00	-0.01%	0.08%
30	7	1.998	1.998	0.00	0.00%	0.02%
30	8	1.998	1.998	0.00	0.00%	0.03%
30	9	1.998	1.998	0.00	0.00%	0.05%
30	10	1.998	1.998	0.00	0.01%	0.07%
31	11	1.998	1.998	0.00	-0.01%	0.09%
31	12	1.998	1.998	0.00	-0.01%	0.12%
31	13	1.998	1.998	0.00	0.00%	0.05%
31	14	1.998	1.998	0.00	-0.01%	0.10%
31	15	1.998	1.998	0.00	-0.01%	0.06%
31	16	1.998	1.998	0.00	0.00%	0.03%
	Max	1.998	1.998	0.00	0.01%	0.14%
	Average	1.998	1.998	0.00	0.00%	0.07%
	Min	1.998	1.998	0.00	-0.01%	0.01%
	Std Dev	0.000	0.000	0.00	0.01%	0.04%



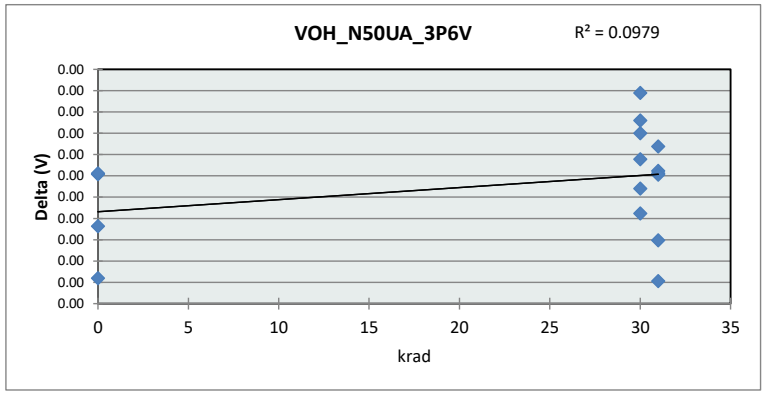
	VOH_N50UA_2V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	2.1		
Min Limit	1.9		
krad	0	30	31
LL	1.90	1.90	1.90
Min	2.00	2.00	2.00
Average	2.00	2.00	2.00
Max	2.00	2.00	2.00
UL	2.10	2.10	2.10



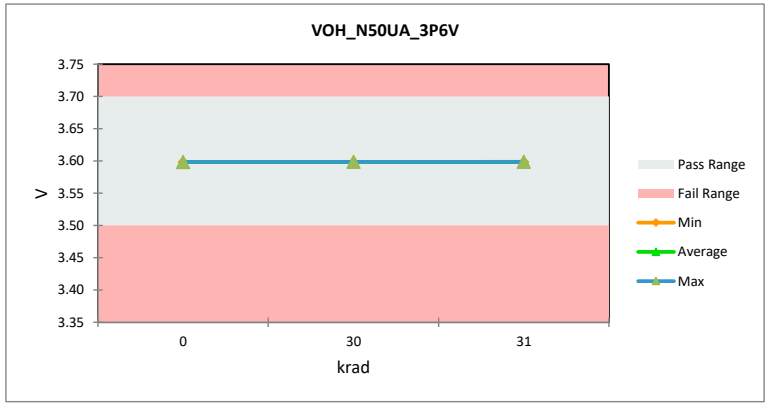
TID Report
SN54SC4T32-SEP

	VOH_N50UA_3P6V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	3.7
Min Limit	3.5

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	3.599	3.598	0.00	0.00%	0.05%
0	2	3.599	3.598	0.00	-0.01%	0.17%
0	3	3.599	3.598	0.00	-0.01%	0.11%
0	4	3.599	3.598	0.00	0.00%	0.05%
30	5	3.599	3.598	0.00	0.00%	0.06%
30	6	3.598	3.598	0.00	0.00%	0.01%
30	7	3.598	3.598	0.00	0.00%	0.05%
30	8	3.599	3.599	0.00	0.00%	0.00%
30	9	3.599	3.599	0.00	0.00%	0.03%
30	10	3.599	3.598	0.00	-0.01%	0.09%
31	11	3.599	3.598	0.00	0.00%	0.05%
31	12	3.598	3.598	0.00	0.00%	0.02%
31	13	3.598	3.598	0.00	0.00%	0.04%
31	14	3.599	3.598	0.00	0.00%	0.05%
31	15	3.599	3.598	0.00	-0.01%	0.17%
31	16	3.599	3.598	0.00	-0.01%	0.13%
	Max	3.599	3.599	0.00	0.00%	0.17%
	Average	3.599	3.598	0.00	0.00%	0.07%
	Min	3.598	3.598	0.00	-0.01%	0.00%
	Std Dev	0.000	0.000	0.00	0.00%	0.05%



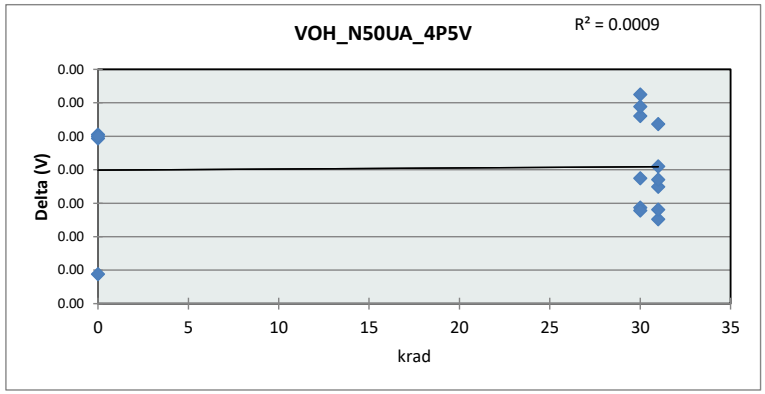
	VOH_N50UA_3P6V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	3.7		
Min Limit	3.5		
krad	0	30	31
LL	3.50	3.50	3.50
Min	3.60	3.60	3.60
Average	3.60	3.60	3.60
Max	3.60	3.60	3.60
UL	3.70	3.70	3.70



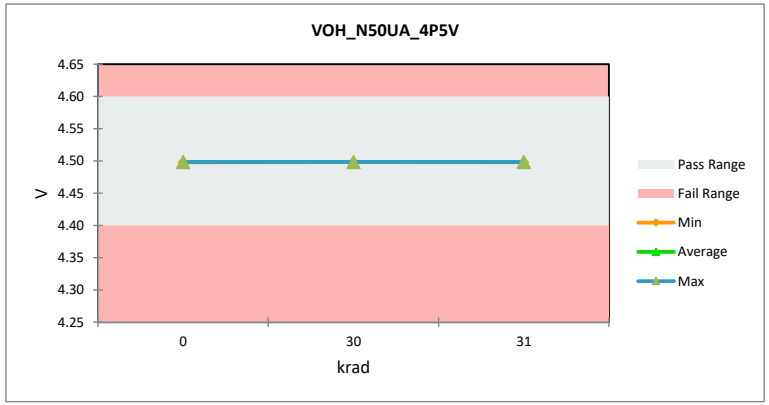
TID Report
SN54SC4T32-SEP

	VOH_N50UA_4P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	4.6
Min Limit	4.4

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	4.498	4.498	0.00	0.00%	0.00%
0	2	4.498	4.498	0.00	-0.01%	0.21%
0	3	4.498	4.498	0.00	0.00%	0.00%
0	4	4.498	4.498	0.00	0.00%	0.00%
30	5	4.498	4.498	0.00	0.00%	0.03%
30	6	4.498	4.498	0.00	0.00%	0.11%
30	7	4.498	4.498	0.00	0.00%	0.06%
30	8	4.498	4.498	0.00	0.00%	0.11%
30	9	4.498	4.498	0.00	0.00%	0.06%
30	10	4.498	4.498	0.00	0.00%	0.04%
31	11	4.498	4.498	0.00	0.00%	0.05%
31	12	4.498	4.498	0.00	0.00%	0.08%
31	13	4.498	4.498	0.00	0.00%	0.02%
31	14	4.498	4.498	0.00	-0.01%	0.12%
31	15	4.498	4.498	0.00	0.00%	0.11%
31	16	4.498	4.498	0.00	0.00%	0.06%
	Max	4.498	4.498	0.00	0.00%	0.21%
	Average	4.498	4.498	0.00	0.00%	0.07%
	Min	4.498	4.498	0.00	-0.01%	0.00%
	Std Dev	0.000	0.000	0.00	0.00%	0.06%



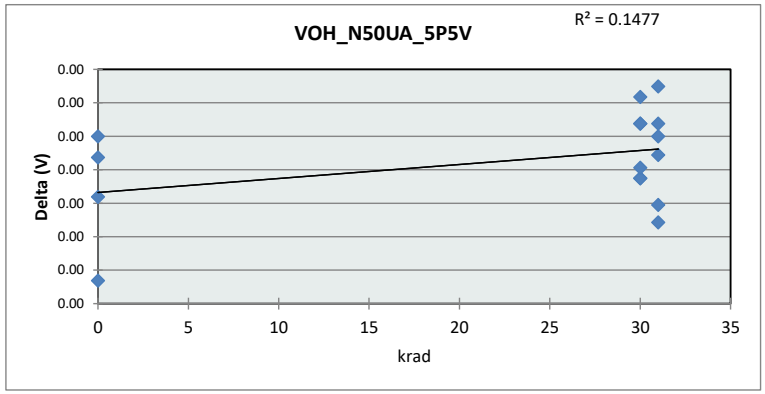
	VOH_N50UA_4P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	4.6		
Min Limit	4.4		
krad	0	30	31
LL	4.40	4.40	4.40
Min	4.50	4.50	4.50
Average	4.50	4.50	4.50
Max	4.50	4.50	4.50
UL	4.60	4.60	4.60



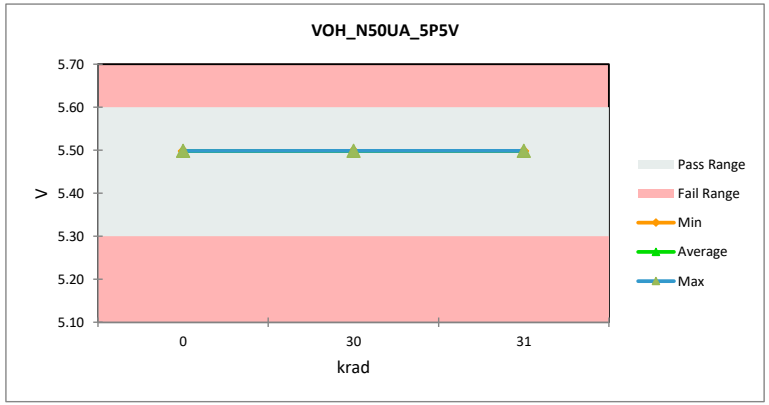
TID Report
SN54SC4T32-SEP

	VOH_N50UA_5P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	5.6
Min Limit	5.3

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	5.498	5.498	0.00	0.00%	0.00%
0	2	5.498	5.498	0.00	-0.01%	0.14%
0	3	5.498	5.498	0.00	0.00%	0.06%
0	4	5.498	5.498	0.00	0.00%	0.02%
30	5	5.498	5.498	0.00	0.00%	0.04%
30	6	5.498	5.498	0.00	0.00%	0.04%
30	7	5.498	5.498	0.00	0.00%	0.04%
30	8	5.498	5.498	0.00	0.00%	0.01%
30	9	5.498	5.498	0.00	0.00%	0.03%
30	10	5.498	5.498	0.00	0.00%	0.01%
31	11	5.498	5.498	0.00	0.00%	0.09%
31	12	5.498	5.498	0.00	0.00%	0.01%
31	13	5.498	5.498	0.00	0.00%	0.05%
31	14	5.498	5.498	0.00	0.00%	0.02%
31	15	5.498	5.498	0.00	0.00%	0.00%
31	16	5.498	5.498	0.00	0.00%	0.07%
	Max	5.498	5.498	0.00	0.00%	0.14%
	Average	5.498	5.498	0.00	0.00%	0.04%
	Min	5.498	5.498	0.00	-0.01%	0.00%
	Std Dev	0.000	0.000	0.00	0.00%	0.04%



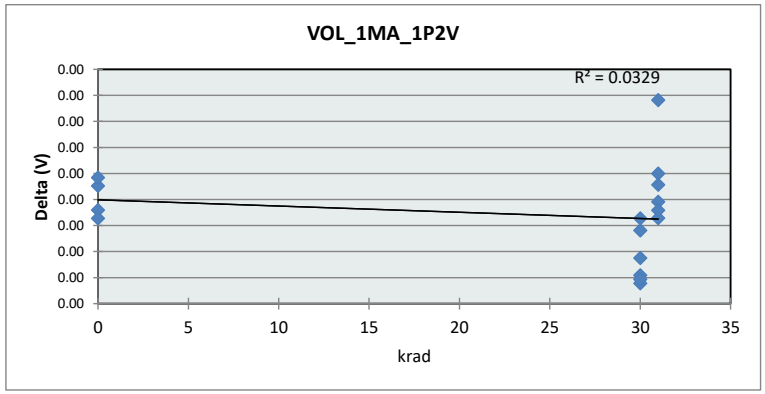
	VOH_N50UA_5P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	5.6		
Min Limit	5.3		
krad	0	30	31
LL	5.30	5.30	5.30
Min	5.50	5.50	5.50
Average	5.50	5.50	5.50
Max	5.50	5.50	5.50
UL	5.60	5.60	5.60



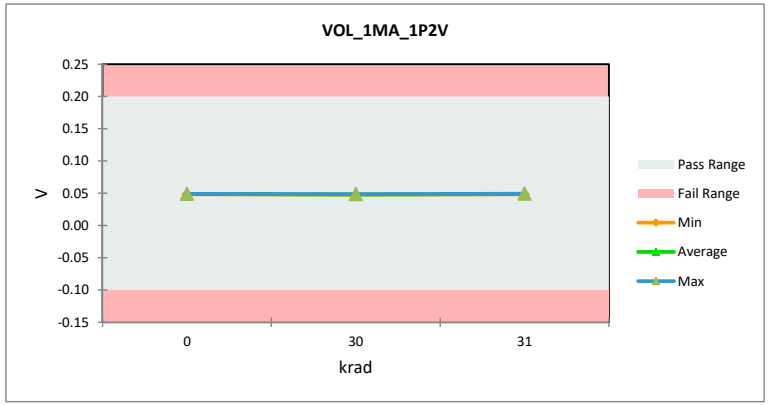
TID Report
SN54SC4T32-SEP

	VOL_1MA_1P2V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.2
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.049	0.048	0.00	-0.20%	0.03%
0	2	0.049	0.049	0.00	-0.06%	0.01%
0	3	0.049	0.049	0.00	-0.58%	0.09%
0	4	0.049	0.048	0.00	-0.71%	0.11%
30	5	0.048	0.048	0.00	-1.61%	0.26%
30	6	0.048	0.048	0.00	-1.74%	0.28%
30	7	0.049	0.048	0.00	-1.66%	0.27%
30	8	0.049	0.048	0.00	-0.90%	0.15%
30	9	0.049	0.049	0.00	-0.71%	0.12%
30	10	0.049	0.048	0.00	-1.34%	0.22%
31	11	0.048	0.048	0.00	0.00%	0.00%
31	12	0.048	0.048	0.00	-0.71%	0.11%
31	13	0.049	0.049	0.00	-0.44%	0.07%
31	14	0.049	0.049	0.00	1.16%	0.19%
31	15	0.049	0.049	0.00	-0.58%	0.09%
31	16	0.049	0.048	0.00	-0.18%	0.03%
	Max	0.049	0.049	0.00	1.16%	0.28%
	Average	0.049	0.048	0.00	-0.64%	0.13%
	Min	0.048	0.048	0.00	-1.74%	0.00%
	Std Dev	0.000	0.000	0.00	0.74%	0.09%



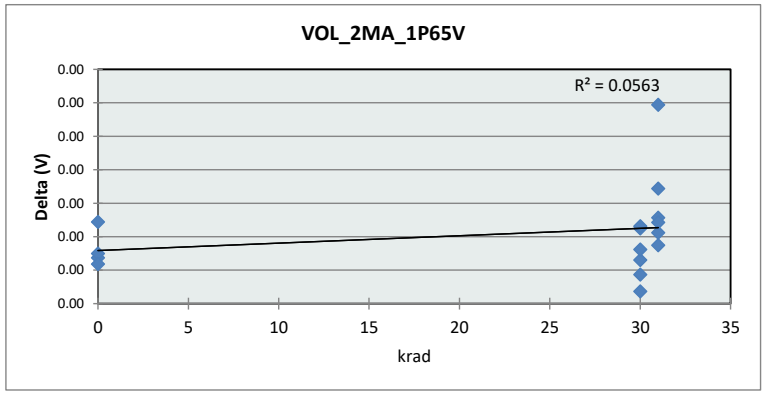
	VOL_1MA_1P2V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.2		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.05	0.05	0.05
Average	0.05	0.05	0.05
Max	0.05	0.05	0.05
UL	0.20	0.20	0.20



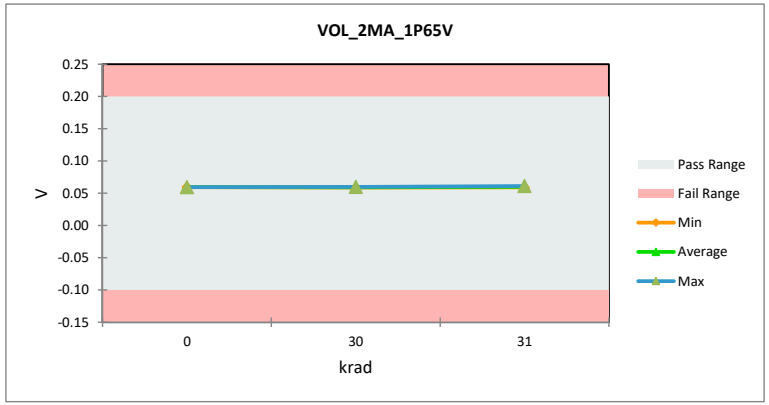
TID Report
SN54SC4T32-SEP

	VOL_2MA_1P65V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.2
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.059	0.059	0.00	0.37%	0.07%
0	2	0.060	0.059	0.00	-0.52%	0.10%
0	3	0.060	0.059	0.00	-0.42%	0.08%
0	4	0.060	0.059	0.00	-0.68%	0.14%
30	5	0.059	0.059	0.00	-0.59%	0.12%
30	6	0.059	0.059	0.00	-0.95%	0.19%
30	7	0.060	0.059	0.00	-1.36%	0.27%
30	8	0.059	0.059	0.00	0.21%	0.04%
30	9	0.060	0.060	0.00	0.26%	0.05%
30	10	0.059	0.059	0.00	-0.32%	0.06%
31	11	0.059	0.060	0.00	1.21%	0.24%
31	12	0.059	0.059	0.00	-0.21%	0.04%
31	13	0.060	0.060	0.00	0.10%	0.02%
31	14	0.059	0.061	0.00	3.33%	0.66%
31	15	0.060	0.060	0.00	0.47%	0.09%
31	16	0.059	0.059	0.00	0.36%	0.07%
	Max	0.060	0.061	0.00	3.33%	0.66%
	Average	0.059	0.060	0.00	0.08%	0.14%
	Min	0.059	0.059	0.00	-1.36%	0.02%
	Std Dev	0.000	0.001	0.00	1.07%	0.15%



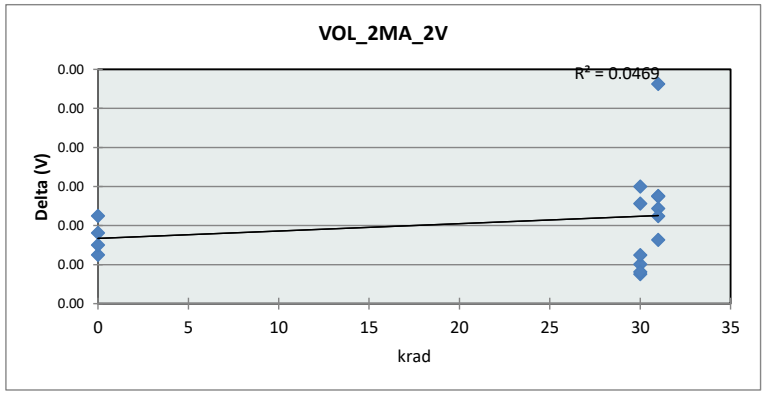
	VOL_2MA_1P65V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.2		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.06	0.06	0.06
Average	0.06	0.06	0.06
Max	0.06	0.06	0.06
UL	0.20	0.20	0.20



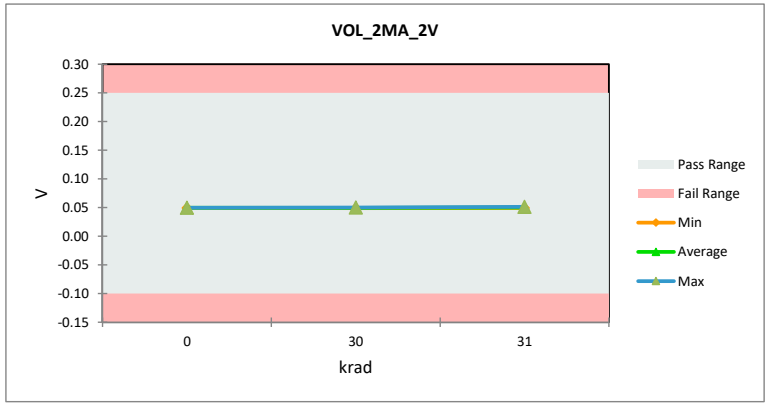
TID Report
SN54SC4T32-SEP

	VOL_2MA_2V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.25
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.049	0.049	0.00	0.25%	0.04%
0	2	0.050	0.049	0.00	-0.75%	0.11%
0	3	0.050	0.050	0.00	-0.19%	0.03%
0	4	0.050	0.049	0.00	-0.50%	0.07%
30	5	0.050	0.049	0.00	-1.00%	0.14%
30	6	0.050	0.049	0.00	-1.26%	0.18%
30	7	0.050	0.049	0.00	-1.19%	0.17%
30	8	0.049	0.050	0.00	0.57%	0.08%
30	9	0.050	0.050	0.00	1.01%	0.14%
30	10	0.049	0.049	0.00	-0.76%	0.11%
31	11	0.050	0.050	0.00	0.76%	0.11%
31	12	0.050	0.049	0.00	-0.37%	0.05%
31	13	0.050	0.050	0.00	0.44%	0.06%
31	14	0.049	0.051	0.00	3.67%	0.52%
31	15	0.050	0.050	0.00	0.75%	0.11%
31	16	0.049	0.050	0.00	0.25%	0.03%
	Max	0.050	0.051	0.00	3.67%	0.52%
	Average	0.050	0.050	0.00	0.10%	0.12%
	Min	0.049	0.049	0.00	-1.26%	0.03%
	Std Dev	0.000	0.001	0.00	1.20%	0.12%



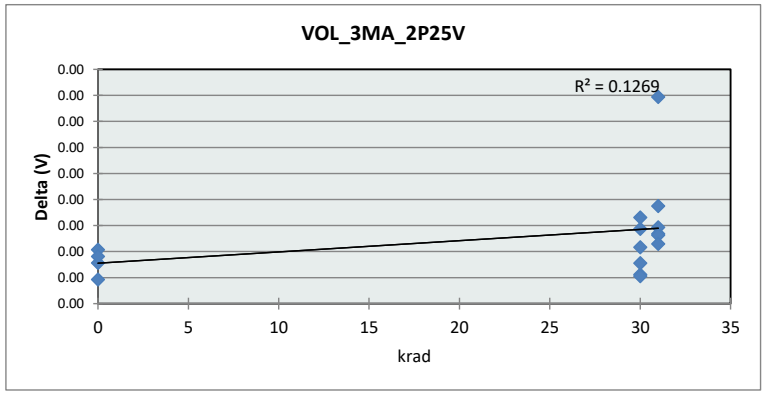
	VOL_2MA_2V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.25		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.05	0.05	0.05
Average	0.05	0.05	0.05
Max	0.05	0.05	0.05
UL	0.25	0.25	0.25



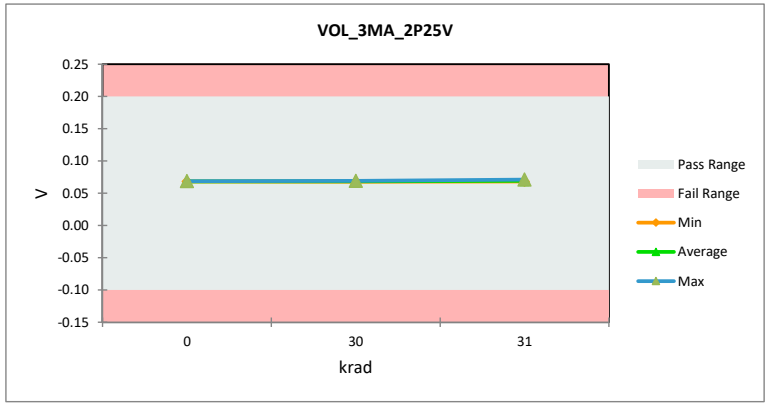
TID Report
SN54SC4T32-SEP

	VOL_3MA_2P25V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.2
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.068	0.068	0.00	0.05%	0.01%
0	2	0.068	0.068	0.00	-0.32%	0.07%
0	3	0.069	0.069	0.00	-0.14%	0.03%
0	4	0.069	0.068	0.00	-0.78%	0.18%
30	5	0.069	0.068	0.00	-0.64%	0.15%
30	6	0.068	0.068	0.00	-0.33%	0.07%
30	7	0.069	0.068	0.00	-0.69%	0.16%
30	8	0.068	0.069	0.00	0.64%	0.15%
30	9	0.069	0.069	0.00	0.96%	0.22%
30	10	0.068	0.068	0.00	0.13%	0.03%
31	11	0.069	0.070	0.00	1.28%	0.29%
31	12	0.068	0.068	0.00	0.50%	0.11%
31	13	0.069	0.069	0.00	0.68%	0.16%
31	14	0.068	0.071	0.00	4.36%	0.99%
31	15	0.069	0.069	0.00	0.46%	0.11%
31	16	0.068	0.068	0.00	0.22%	0.05%
	Max	0.069	0.071	0.00	4.36%	0.99%
	Average	0.068	0.069	0.00	0.40%	0.17%
	Min	0.068	0.068	0.00	-0.78%	0.01%
	Std Dev	0.000	0.001	0.00	1.22%	0.23%



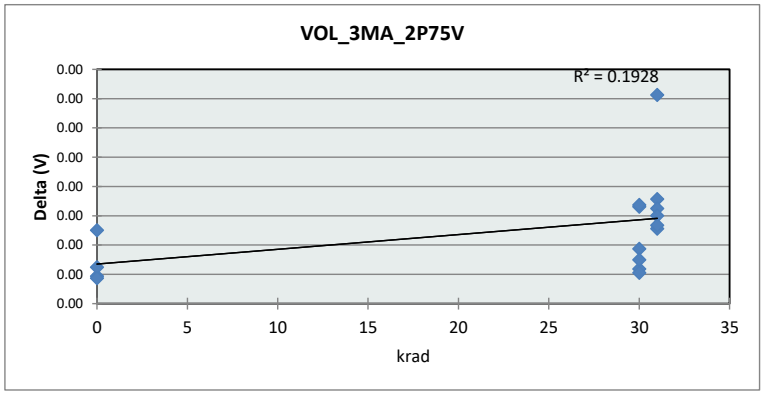
	VOL_3MA_2P25V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.2		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.07	0.07	0.07
Average	0.07	0.07	0.07
Max	0.07	0.07	0.07
UL	0.20	0.20	0.20



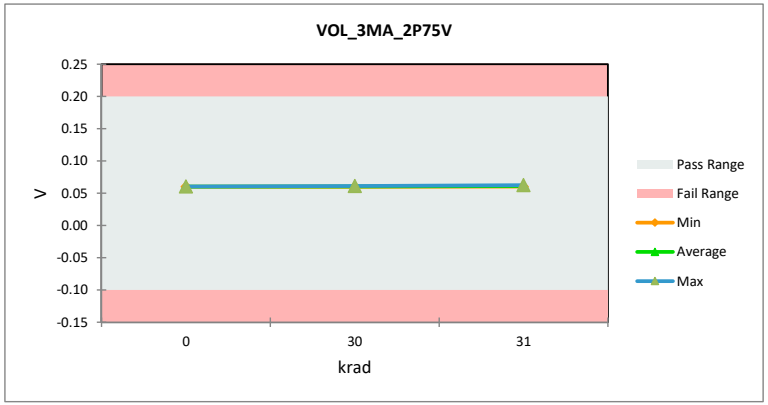
TID Report
SN54SC4T32-SEP

	VOL_3MA_2P75V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.2
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.060	0.060	0.00	0.42%	0.08%
0	2	0.061	0.060	0.00	-0.88%	0.18%
0	3	0.061	0.060	0.00	-0.62%	0.13%
0	4	0.061	0.060	0.00	-0.93%	0.19%
30	5	0.061	0.060	0.00	-0.67%	0.14%
30	6	0.060	0.060	0.00	-0.11%	0.02%
30	7	0.061	0.060	0.00	-0.78%	0.16%
30	8	0.060	0.061	0.00	1.10%	0.22%
30	9	0.060	0.061	0.00	1.14%	0.23%
30	10	0.060	0.060	0.00	-0.42%	0.08%
31	11	0.061	0.061	0.00	1.29%	0.26%
31	12	0.060	0.060	0.00	0.47%	0.09%
31	13	0.061	0.061	0.00	1.03%	0.21%
31	14	0.060	0.062	0.00	4.28%	0.85%
31	15	0.060	0.061	0.00	0.83%	0.17%
31	16	0.060	0.061	0.00	0.56%	0.11%
	Max	0.061	0.062	0.00	4.28%	0.85%
	Average	0.060	0.061	0.00	0.42%	0.19%
	Min	0.060	0.060	0.00	-0.93%	0.02%
	Std Dev	0.000	0.001	0.00	1.30%	0.19%



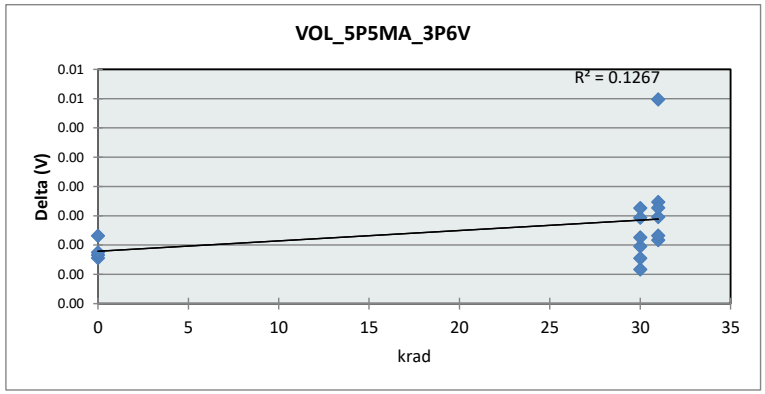
	VOL_3MA_2P75V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.2		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.06	0.06	0.06
Average	0.06	0.06	0.06
Max	0.06	0.06	0.06
UL	0.20	0.20	0.20



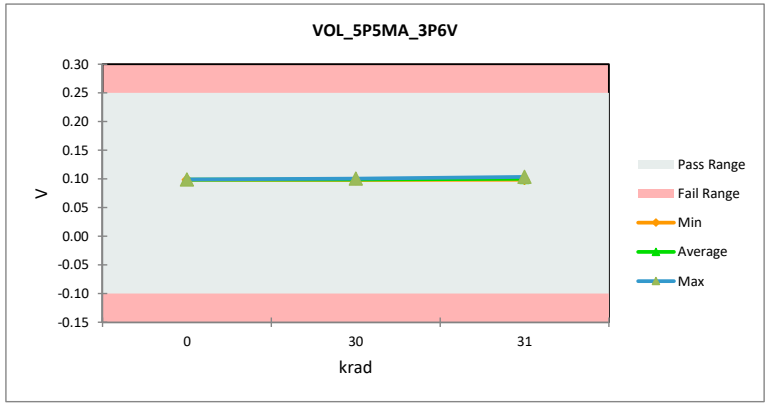
TID Report
SN54SC4T32-SEP

	VOL_5P5MA_3P6V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.25
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.098	0.098	0.00	0.32%	0.09%
0	2	0.099	0.099	0.00	-0.44%	0.13%
0	3	0.099	0.099	0.00	-0.35%	0.10%
0	4	0.099	0.099	0.00	-0.25%	0.07%
30	5	0.099	0.098	0.00	-0.84%	0.24%
30	6	0.098	0.098	0.00	-0.04%	0.01%
30	7	0.099	0.099	0.00	-0.45%	0.13%
30	8	0.098	0.099	0.00	0.95%	0.27%
30	9	0.099	0.100	0.00	1.27%	0.36%
30	10	0.098	0.098	0.00	0.27%	0.08%
31	11	0.099	0.101	0.00	1.48%	0.42%
31	12	0.098	0.099	0.00	0.98%	0.27%
31	13	0.099	0.100	0.00	1.28%	0.36%
31	14	0.098	0.103	0.00	5.05%	1.42%
31	15	0.099	0.099	0.00	0.17%	0.05%
31	16	0.098	0.098	0.00	0.33%	0.09%
	Max	0.099	0.103	0.00	5.05%	1.42%
	Average	0.099	0.099	0.00	0.61%	0.26%
	Min	0.098	0.098	0.00	-0.84%	0.01%
	Std Dev	0.000	0.001	0.00	1.38%	0.34%



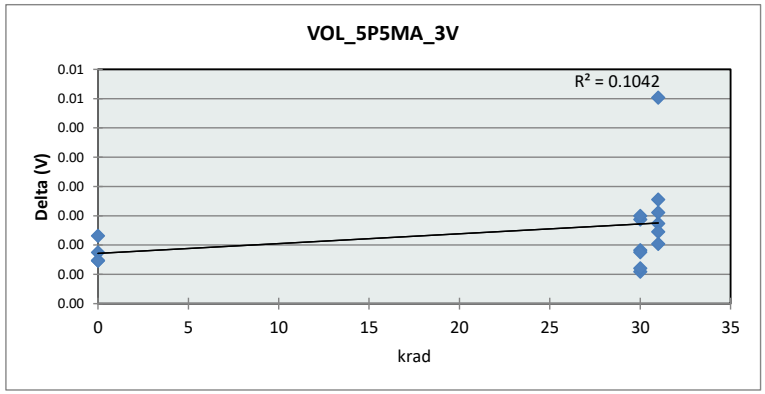
	VOL_5P5MA_3P6V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.25		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.10	0.10	0.10
Average	0.10	0.10	0.10
Max	0.10	0.10	0.10
UL	0.25	0.25	0.25



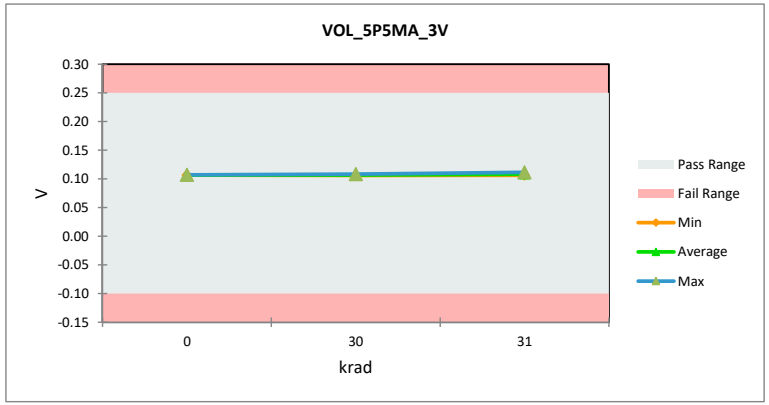
TID Report
SN54SC4T32-SEP

	VOL_5P5MA_3V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.25
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.106	0.107	0.00	0.29%	0.09%
0	2	0.107	0.107	0.00	-0.50%	0.15%
0	3	0.107	0.107	0.00	-0.23%	0.07%
0	4	0.107	0.107	0.00	-0.49%	0.15%
30	5	0.107	0.106	0.00	-0.85%	0.26%
30	6	0.106	0.106	0.00	-0.16%	0.05%
30	7	0.107	0.106	0.00	-0.74%	0.23%
30	8	0.106	0.107	0.00	0.82%	0.25%
30	9	0.107	0.108	0.00	0.93%	0.29%
30	10	0.106	0.106	0.00	-0.23%	0.07%
31	11	0.107	0.108	0.00	1.45%	0.44%
31	12	0.106	0.107	0.00	0.69%	0.21%
31	13	0.107	0.108	0.00	1.04%	0.32%
31	14	0.106	0.111	0.01	4.73%	1.44%
31	15	0.107	0.108	0.00	0.42%	0.13%
31	16	0.106	0.106	0.00	0.04%	0.01%
	Max	0.107	0.111	0.00	4.73%	1.44%
	Average	0.107	0.107	0.00	0.45%	0.26%
	Min	0.106	0.106	0.00	-0.85%	0.01%
	Std Dev	0.000	0.001	0.00	1.33%	0.33%



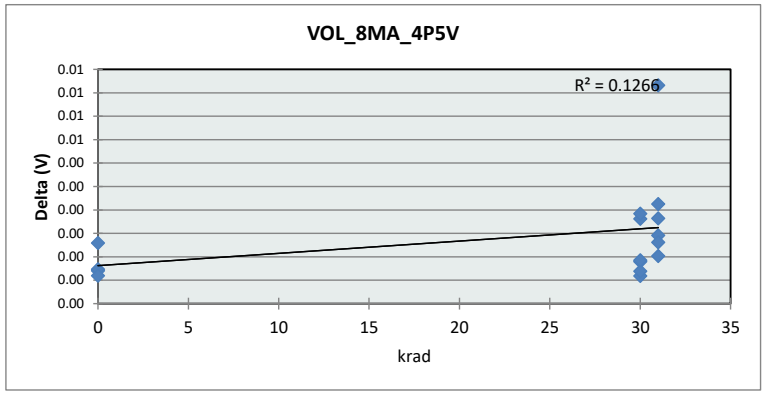
	VOL_5P5MA_3V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.25		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.11	0.11	0.11
Average	0.11	0.11	0.11
Max	0.11	0.11	0.11
UL	0.25	0.25	0.25



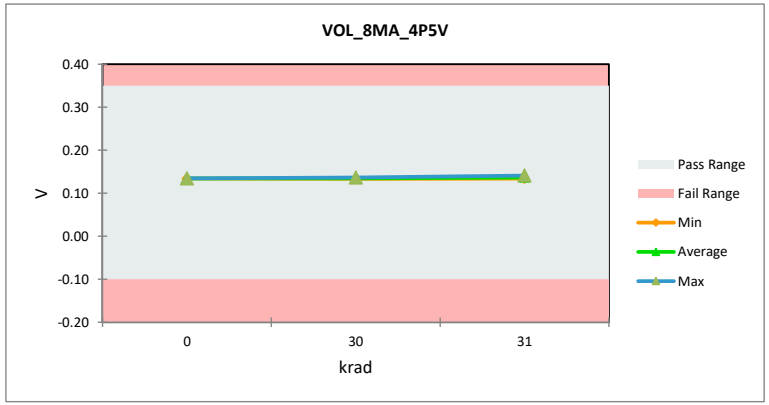
TID Report
SN54SC4T32-SEP

	VOL_8MA_4P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.35
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.134	0.134	0.00	0.44%	0.13%
0	2	0.135	0.134	0.00	-0.44%	0.13%
0	3	0.135	0.135	0.00	-0.39%	0.12%
0	4	0.135	0.134	0.00	-0.59%	0.18%
30	5	0.135	0.134	0.00	-0.60%	0.18%
30	6	0.134	0.133	0.00	-0.16%	0.05%
30	7	0.135	0.134	0.00	-0.46%	0.14%
30	8	0.134	0.135	0.00	1.22%	0.36%
30	9	0.135	0.136	0.00	1.37%	0.41%
30	10	0.134	0.134	0.00	-0.11%	0.03%
31	11	0.135	0.137	0.00	1.67%	0.50%
31	12	0.134	0.134	0.00	0.69%	0.20%
31	13	0.135	0.136	0.00	1.21%	0.36%
31	14	0.134	0.141	0.01	5.47%	1.63%
31	15	0.135	0.135	0.00	0.46%	0.14%
31	16	0.134	0.134	0.00	0.02%	0.01%
	Max	0.135	0.141	0.01	5.47%	1.63%
	Average	0.134	0.135	0.00	0.61%	0.29%
	Min	0.134	0.133	0.00	-0.60%	0.01%
	Std Dev	0.001	0.002	0.00	1.50%	0.38%



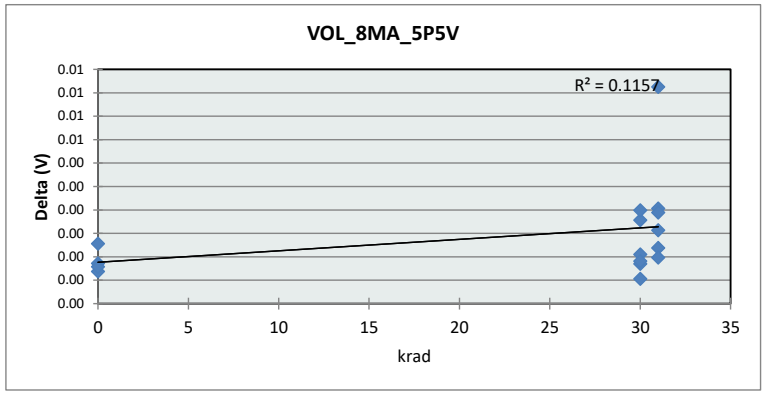
	VOL_8MA_4P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.35		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.13	0.13	0.13
Average	0.13	0.13	0.14
Max	0.13	0.14	0.14
UL	0.35	0.35	0.35



TID Report
SN54SC4T32-SEP

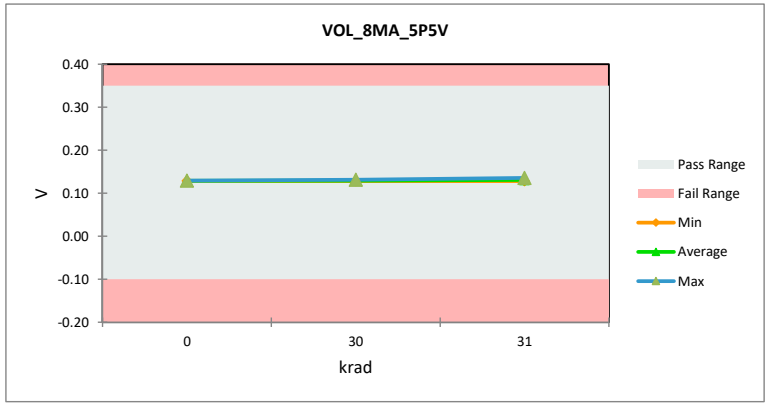
	VOL_8MA_5P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.35
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.128	0.129	0.00	0.44%	0.13%
0	2	0.129	0.129	0.00	-0.48%	0.14%
0	3	0.130	0.129	0.00	-0.22%	0.06%
0	4	0.129	0.129	0.00	-0.33%	0.09%
30	5	0.129	0.128	0.00	-0.73%	0.21%
30	6	0.128	0.128	0.00	0.08%	0.02%
30	7	0.129	0.129	0.00	-0.23%	0.07%
30	8	0.128	0.130	0.00	1.22%	0.35%
30	9	0.129	0.131	0.00	1.53%	0.44%
30	10	0.128	0.128	0.00	-0.14%	0.04%
31	11	0.129	0.131	0.00	1.59%	0.46%
31	12	0.128	0.129	0.00	0.89%	0.25%
31	13	0.129	0.131	0.00	1.46%	0.42%
31	14	0.128	0.136	0.01	5.66%	1.61%
31	15	0.129	0.130	0.00	0.29%	0.08%
31	16	0.128	0.128	0.00	-0.02%	0.01%
	Max	0.130	0.136	0.01	5.66%	1.61%
	Average	0.129	0.130	0.00	0.69%	0.27%
	Min	0.128	0.128	0.00	-0.73%	0.01%
	Std Dev	0.001	0.002	0.00	1.53%	0.39%



	VOL_8MA_5P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.35
Min Limit	-0.1

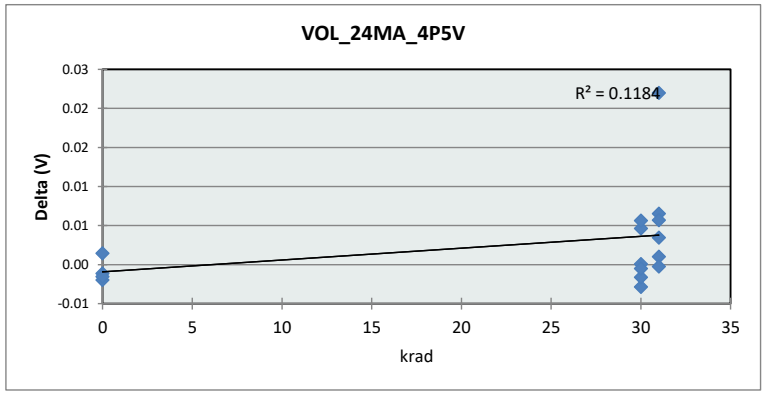
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.13	0.13	0.13
Average	0.13	0.13	0.13
Max	0.13	0.13	0.14
UL	0.35	0.35	0.35



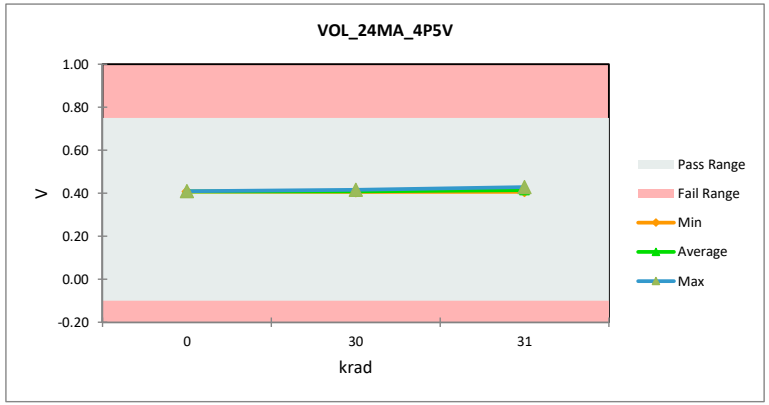
TID Report
SN54SC4T32-SEP

	VOL_24MA_4P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.75
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.406	0.408	0.00	0.35%	0.17%
0	2	0.410	0.408	0.00	-0.48%	0.23%
0	3	0.410	0.409	0.00	-0.27%	0.13%
0	4	0.409	0.408	0.00	-0.37%	0.18%
30	5	0.409	0.406	0.00	-0.70%	0.33%
30	6	0.406	0.406	0.00	0.02%	0.01%
30	7	0.409	0.408	0.00	-0.40%	0.19%
30	8	0.406	0.411	0.00	1.14%	0.54%
30	9	0.410	0.415	0.01	1.37%	0.66%
30	10	0.406	0.406	0.00	-0.12%	0.06%
31	11	0.409	0.416	0.01	1.60%	0.77%
31	12	0.406	0.409	0.00	0.85%	0.41%
31	13	0.409	0.415	0.01	1.39%	0.67%
31	14	0.406	0.428	0.02	5.41%	2.59%
31	15	0.410	0.411	0.00	0.25%	0.12%
31	16	0.406	0.406	0.00	-0.06%	0.03%
	Max	0.410	0.428	0.02	5.41%	2.59%
	Average	0.408	0.411	0.00	0.62%	0.44%
	Min	0.406	0.406	0.00	-0.70%	0.01%
	Std Dev	0.002	0.006	0.00	1.48%	0.62%



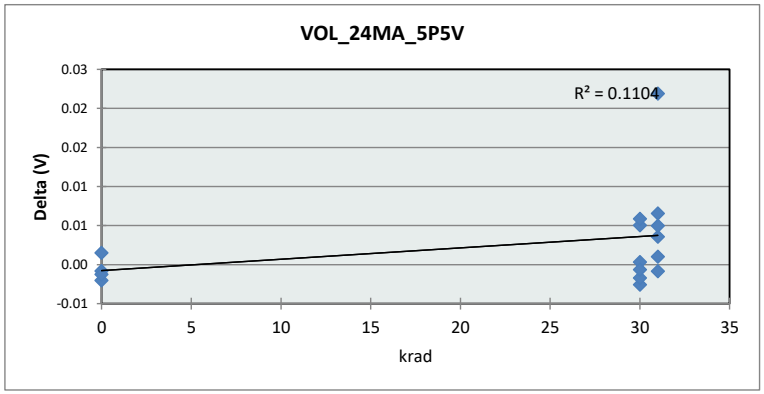
	VOL_24MA_4P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.75		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.41	0.41	0.41
Average	0.41	0.41	0.41
Max	0.41	0.42	0.43
UL	0.75	0.75	0.75



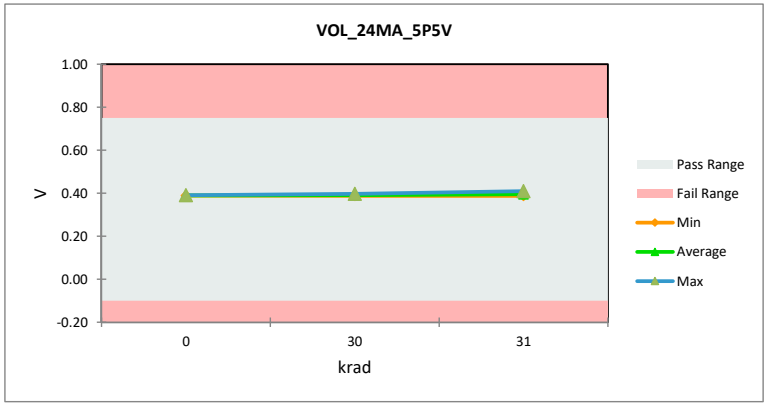
TID Report
SN54SC4T32-SEP

	VOL_24MA_5P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.75
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.388	0.389	0.00	0.39%	0.18%
0	2	0.391	0.389	0.00	-0.52%	0.24%
0	3	0.392	0.391	0.00	-0.21%	0.10%
0	4	0.391	0.389	0.00	-0.32%	0.15%
30	5	0.391	0.388	0.00	-0.66%	0.30%
30	6	0.387	0.387	0.00	0.08%	0.04%
30	7	0.391	0.389	0.00	-0.44%	0.20%
30	8	0.388	0.393	0.01	1.30%	0.59%
30	9	0.391	0.397	0.01	1.50%	0.69%
30	10	0.388	0.388	0.00	-0.17%	0.08%
31	11	0.391	0.397	0.01	1.68%	0.77%
31	12	0.387	0.391	0.00	0.92%	0.42%
31	13	0.391	0.396	0.00	1.27%	0.59%
31	14	0.388	0.410	0.02	5.65%	2.58%
31	15	0.391	0.392	0.00	0.26%	0.12%
31	16	0.388	0.387	0.00	-0.21%	0.10%
	Max	0.392	0.410	0.02	5.65%	2.58%
	Average	0.389	0.392	0.00	0.66%	0.45%
	Min	0.387	0.387	0.00	-0.66%	0.04%
	Std Dev	0.002	0.006	0.00	1.54%	0.62%



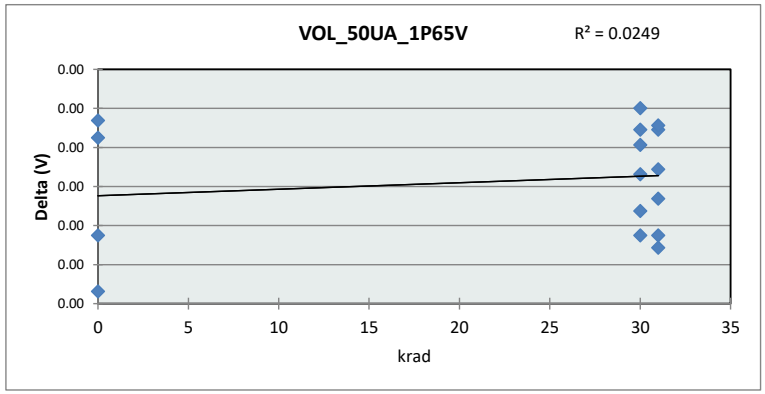
	VOL_24MA_5P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.75		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.39	0.39	0.39
Average	0.39	0.39	0.40
Max	0.39	0.40	0.41
UL	0.75	0.75	0.75



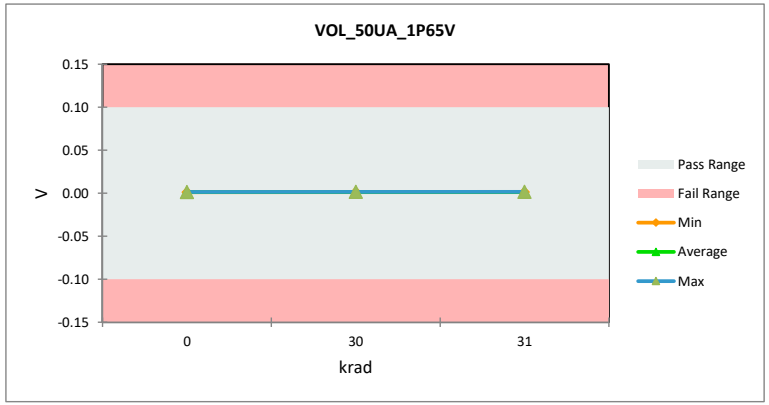
TID Report
SN54SC4T32-SEP

	VOL_50UA_1P65V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.1
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.001	0.001	0.00	10.53%	0.06%
0	2	0.001	0.001	0.00	-19.09%	0.13%
0	3	0.001	0.001	0.00	13.55%	0.08%
0	4	0.001	0.001	0.00	-9.76%	0.06%
30	5	0.001	0.001	0.00	-4.45%	0.03%
30	6	0.001	0.001	0.00	-9.31%	0.06%
30	7	0.001	0.001	0.00	2.33%	0.02%
30	8	0.001	0.001	0.00	8.34%	0.05%
30	9	0.001	0.002	0.00	15.28%	0.10%
30	10	0.001	0.001	0.00	11.63%	0.07%
31	11	0.001	0.001	0.00	-11.12%	0.08%
31	12	0.001	0.001	0.00	-9.31%	0.06%
31	13	0.001	0.001	0.00	10.82%	0.07%
31	14	0.001	0.001	0.00	-2.44%	0.02%
31	15	0.001	0.001	0.00	3.37%	0.02%
31	16	0.001	0.001	0.00	12.51%	0.08%
	Max	0.001	0.002	0.00	15.28%	0.13%
	Average	0.001	0.001	0.00	1.43%	0.06%
	Min	0.001	0.001	0.00	-19.09%	0.02%
	Std Dev	0.000	0.000	0.00	10.87%	0.03%



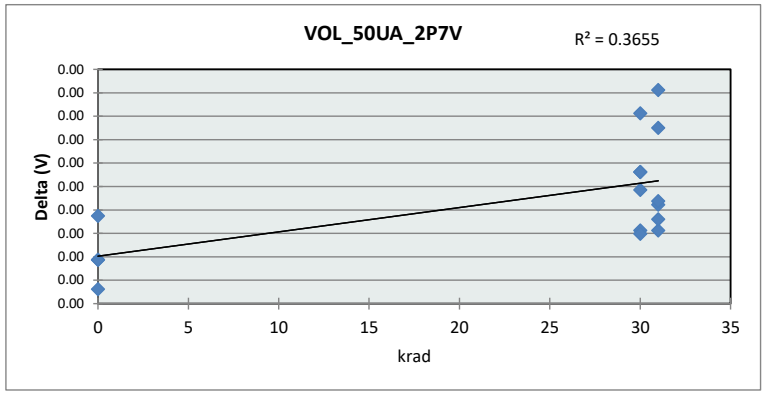
	VOL_50UA_1P65V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.1		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.00	0.00	0.00
Average	0.00	0.00	0.00
Max	0.00	0.00	0.00
UL	0.10	0.10	0.10



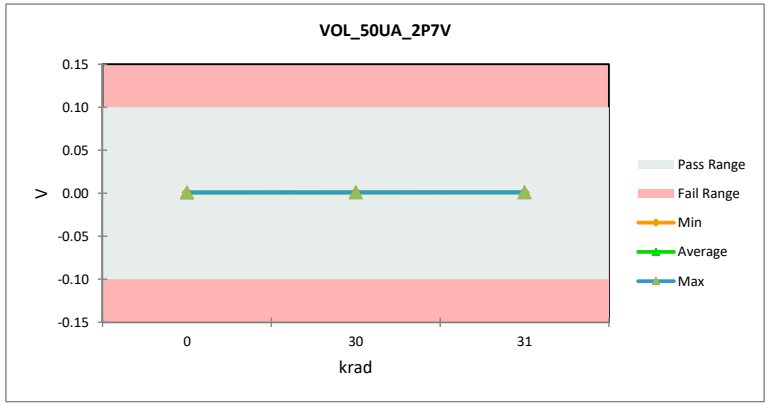
TID Report
SN54SC4T32-SEP

	VOL_50UA_2P7V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.1
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.001	0.001	0.00	-14.97%	0.08%
0	2	0.001	0.001	0.00	-15.93%	0.08%
0	3	0.001	0.001	0.00	-21.61%	0.11%
0	4	0.001	0.001	0.00	-6.80%	0.03%
30	5	0.001	0.001	0.00	-8.98%	0.05%
30	6	0.001	0.001	0.00	-10.22%	0.05%
30	7	0.001	0.001	0.00	-0.82%	0.00%
30	8	0.001	0.001	0.00	3.79%	0.02%
30	9	0.001	0.001	0.00	3.29%	0.02%
30	10	0.001	0.001	0.00	19.69%	0.08%
31	11	0.001	0.001	0.00	-8.98%	0.05%
31	12	0.001	0.001	0.00	-7.06%	0.03%
31	13	0.001	0.001	0.00	-4.31%	0.02%
31	14	0.001	0.001	0.00	24.94%	0.10%
31	15	0.001	0.001	0.00	-3.29%	0.02%
31	16	0.001	0.001	0.00	15.75%	0.06%
	Max	0.001	0.001	0.00	24.94%	0.11%
	Average	0.001	0.001	0.00	-2.22%	0.05%
	Min	0.001	0.001	0.00	-21.61%	0.00%
	Std Dev	0.000	0.000	0.00	13.01%	0.03%



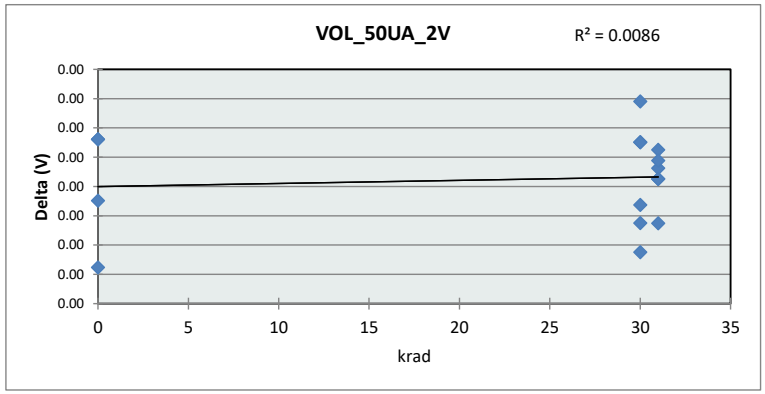
	VOL_50UA_2P7V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.1		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.00	0.00	0.00
Average	0.00	0.00	0.00
Max	0.00	0.00	0.00
UL	0.10	0.10	0.10



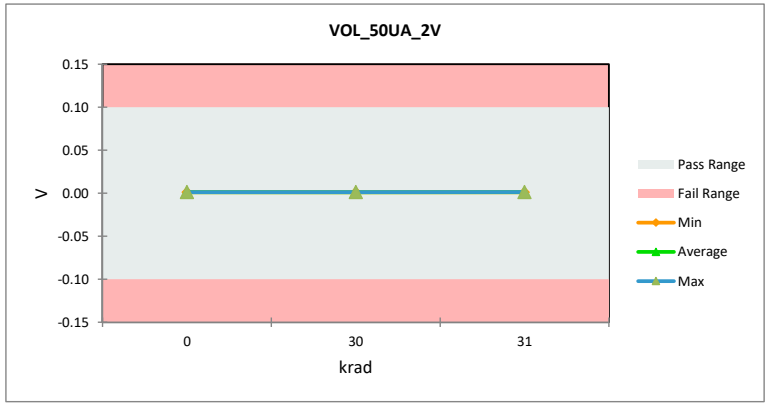
TID Report
SN54SC4T32-SEP

	VOL_50UA_2V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.1
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.001	0.001	0.00	-11.21%	0.07%
0	2	0.001	0.001	0.00	7.10%	0.04%
0	3	0.001	0.001	0.00	-2.10%	0.01%
0	4	0.001	0.001	0.00	7.97%	0.04%
30	5	0.001	0.001	0.00	-2.78%	0.02%
30	6	0.001	0.001	0.00	-9.43%	0.06%
30	7	0.001	0.001	0.00	-5.21%	0.03%
30	8	0.001	0.001	0.00	6.72%	0.04%
30	9	0.001	0.001	0.00	13.30%	0.07%
30	10	0.001	0.001	0.00	6.91%	0.04%
31	11	0.001	0.001	0.00	-5.56%	0.03%
31	12	0.001	0.001	0.00	1.10%	0.01%
31	13	0.001	0.001	0.00	2.60%	0.02%
31	14	0.001	0.001	0.00	5.56%	0.03%
31	15	0.001	0.001	0.00	4.05%	0.02%
31	16	0.001	0.001	0.00	1.19%	0.01%
	Max	0.001	0.001	0.00	13.30%	0.07%
	Average	0.001	0.001	0.00	1.26%	0.03%
	Min	0.001	0.001	0.00	-11.21%	0.01%
	Std Dev	0.000	0.000	0.00	6.83%	0.02%



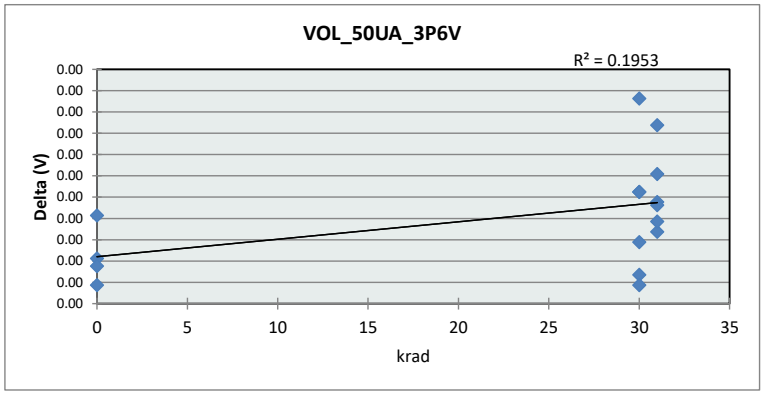
	VOL_50UA_2V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.1		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.00	0.00	0.00
Average	0.00	0.00	0.00
Max	0.00	0.00	0.00
UL	0.10	0.10	0.10



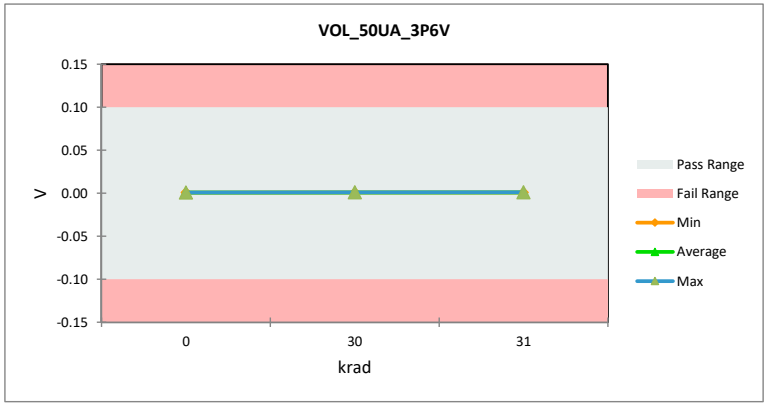
TID Report
SN54SC4T32-SEP

	VOL_50UA_3P6V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.1
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.001	0.001	0.00	-11.37%	0.05%
0	2	0.001	0.001	0.00	-18.25%	0.08%
0	3	0.001	0.001	0.00	0.92%	0.00%
0	4	0.001	0.001	0.00	-13.27%	0.06%
30	5	0.001	0.001	0.00	-6.44%	0.03%
30	6	0.001	0.001	0.00	-15.33%	0.07%
30	7	0.001	0.001	0.00	8.12%	0.03%
30	8	0.001	0.001	0.00	38.47%	0.14%
30	9	0.001	0.001	0.00	-17.61%	0.08%
30	10	0.001	0.001	0.00	8.55%	0.03%
31	11	0.001	0.001	0.00	-3.65%	0.02%
31	12	0.001	0.001	0.00	-0.85%	0.00%
31	13	0.001	0.001	0.00	13.59%	0.05%
31	14	0.001	0.001	0.00	29.92%	0.11%
31	15	0.001	0.001	0.00	4.35%	0.02%
31	16	0.001	0.001	0.00	4.27%	0.02%
	Max	0.001	0.001	0.00	38.47%	0.14%
	Average	0.001	0.001	0.00	1.34%	0.05%
	Min	0.001	0.001	0.00	-18.25%	0.00%
	Std Dev	0.000	0.000	0.00	16.22%	0.04%



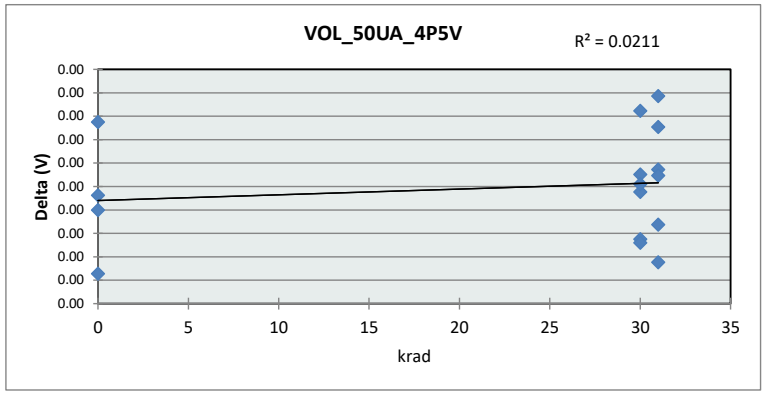
	VOL_50UA_3P6V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.1		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.00	0.00	0.00
Average	0.00	0.00	0.00
Max	0.00	0.00	0.00
UL	0.10	0.10	0.10



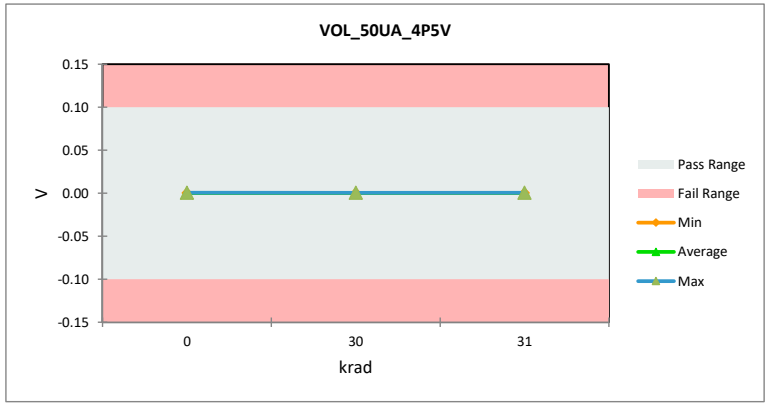
TID Report
SN54SC4T32-SEP

	VOL_50UA_4P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.1
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.000	0.000	0.00	71.47%	0.09%
0	2	0.000	0.000	0.00	0.00%	0.00%
0	3	0.000	0.000	0.00	9.41%	0.02%
0	4	0.000	0.000	0.00	-36.26%	0.07%
30	5	0.000	0.000	0.00	-16.71%	0.03%
30	6	0.000	0.000	0.00	146.08%	0.11%
30	7	0.000	0.000	0.00	9.96%	0.02%
30	8	0.000	0.000	0.00	-21.00%	0.03%
30	9	0.000	0.000	0.00	27.02%	0.04%
30	10	0.000	0.000	0.00	20.45%	0.03%
31	11	0.000	0.000	0.00	-29.88%	0.06%
31	12	0.000	0.000	0.00	59.70%	0.04%
31	13	0.000	0.000	0.00	-8.07%	0.02%
31	14	0.000	0.000	0.00	22.03%	0.04%
31	15	0.000	0.000	0.00	63.08%	0.09%
31	16	0.000	0.001	0.00	89.99%	0.12%
	Max	0.000	0.001	0.00	146.08%	0.12%
	Average	0.000	0.000	0.00	25.45%	0.05%
	Min	0.000	0.000	0.00	-36.26%	0.00%
	Std Dev	0.000	0.000	0.00	49.35%	0.04%



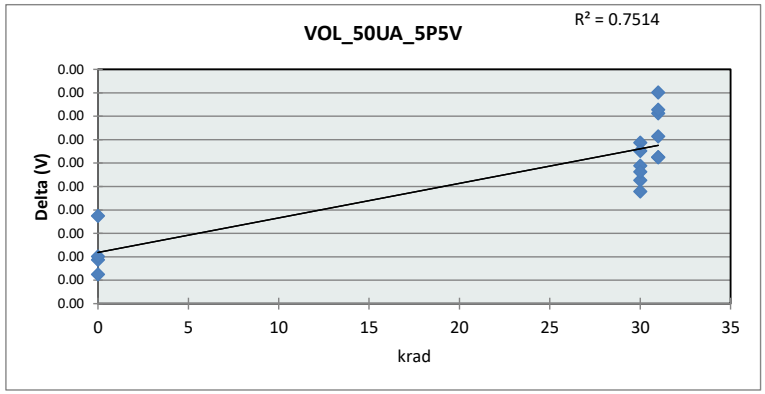
	VOL_50UA_4P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.1		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.00	0.00	0.00
Average	0.00	0.00	0.00
Max	0.00	0.00	0.00
UL	0.10	0.10	0.10



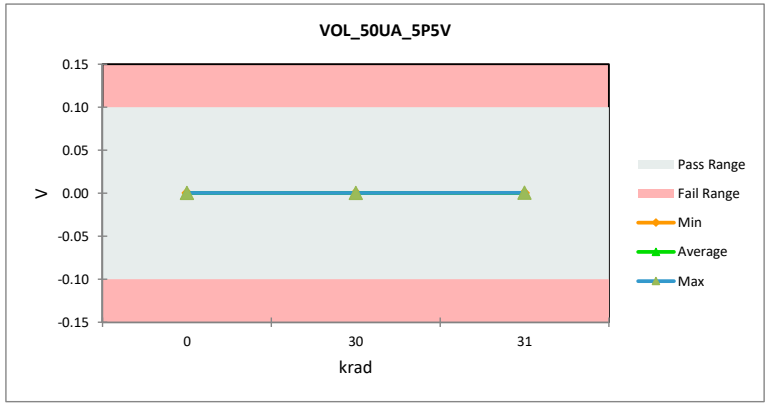
TID Report
SN54SC4T32-SEP

	VOL_50UA_5P5V
Test Site	CLAB
Tester	ETS88-01
Test Number	EQ774601
Units	V
Max Limit	0.1
Min Limit	-0.1

krad	Serial #	PreTestHDR	PostTestHDR	Delta	Delta %	% of Limit Range
0	1	0.000	0.000	0.00	-43.89%	0.08%
0	2	0.000	0.000	0.00	-48.40%	0.09%
0	3	0.000	0.000	0.00	-38.45%	0.07%
0	4	0.000	0.000	0.00	-16.13%	0.03%
30	5	0.000	0.000	0.00	23.86%	0.02%
30	6	0.000	0.000	0.00	40.60%	0.05%
30	7	0.000	0.000	0.00	-3.42%	0.01%
30	8	0.000	0.000	0.00	4.27%	0.01%
30	9	0.000	0.000	0.00	24.33%	0.04%
30	10	0.000	0.000	0.00	12.55%	0.02%
31	11	0.000	0.000	0.00	83.76%	0.08%
31	12	0.000	0.000	0.00	70.79%	0.08%
31	13	0.000	0.000	0.00	34.34%	0.05%
31	14	0.000	0.000	0.00	20.06%	0.03%
31	15	0.000	0.000	0.00	20.06%	0.03%
31	16	0.000	0.000	0.00	80.59%	0.10%
	Max	0.000	0.000	0.00	83.76%	0.10%
	Average	0.000	0.000	0.00	16.56%	0.05%
	Min	0.000	0.000	0.00	-48.40%	0.01%
	Std Dev	0.000	0.000	0.00	40.93%	0.03%



	VOL_50UA_5P5V		
Test Site	CLAB		
Tester	ETS88-01		
Test Number	EQ774601		
Units	V		
Max Limit	0.1		
Min Limit	-0.1		
krad	0	30	31
LL	-0.10	-0.10	-0.10
Min	0.00	0.00	0.00
Average	0.00	0.00	0.00
Max	0.00	0.00	0.00
UL	0.10	0.10	0.10



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