

MSP430FR5969-SP Radiation-Hardened Mixed-Signal Microcontroller TID Radiation Report

ABSTRACT

This report covers the radiation characterization results of the MSP430FR5969-SP, 16-MHz ultra-low-power microcontroller featuring 64KB FRAM, 2KB SRAM, 40 I/O. The study was done to determine Total Ionizing Dose (TID) effects under high dose rate (HDR) up to 50 krad(Si) without anneal and 75 krad(Si) with anneal. The results show that all samples passed well within the specified limits up to 75 krad(Si).

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Trademarks

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1 Device Information

1.1 Product Description

The MSP430™ microcontroller ultra-low-power (ULP) FRAM platform combines uniquely embedded FRAM and a holistic ultra-low-power system architecture, allowing innovators to increase performance at lowered energy budgets. FRAM technology combines the speed, flexibility, and endurance of SRAM with the stability and reliability of flash at much lower power.

The ULP architecture of the MSP430FR5969-SP showcases seven low-power modes, optimized to achieve power efficient distributed telemetry/housekeeping systems.

The integrated mixed-signal features of the MSP430FR5969-SP make it ideally suited for distributed telemetry applications in next-generation spacecraft. The strong immunity to single-event latch-up and total ionizing dose, enable the device to be used in a variety of space and radiation environments. It has passed up to 75 krad(Si) under HDR (after 480 hours of anneal).

1.2 Device Details

[Table 1](#) lists the device information used in the initial TID characterization and qualification for HDR. Current production lot RLAT data can always be found in the Group E report. The process for pulling the group E report from TI is described in [Section 3.2](#).

Table 1. Device and Exposure Details

TID HDR Details: up to 75 krad(Si)	
TI Device Number	MSP430FR5969-SP
Package	48-pin
Technology	CBICMOS
Die Lot Number	7522087DM5
A/T Lot Number / Date Code	7633714
Quantity Tested	84 irradiated devices + 3 control
Lot Accept/Reject	Devices passed 3 krad(Si), 10 krad(Si), 30 krad(Si), 50 krad(Si), 75 krad(Si) ⁽¹⁾
HDR Radiation Facility	Texas Instruments SVA Group, Santa Clara, CA
HDR Dose Level	3 krad(Si), 10 krad(Si), 30 krad(Si), 50 krad(Si), 75 krad(Si) ⁽¹⁾
HDR Dose Rate	65 rad(Si)/s
HDR Radiation Source	Gammacell 220 Excel (GC-220E) Co-60
Irradiation Temperature	Ambient, room temperature

⁽¹⁾ 75 krad(Si) units pass, per MIL-STD-883 1019.9, Paragraph 3.13.3.b acceleration annealing test.



Figure 1. Device Used in Exposure

2 Total Dose Test Setup

2.1 Test Overview

The MSP430FR5969-SP was tested according to MIL-STD-883, Test Method 1019.9, Condition A. The product was irradiated up to 75 krad(Si) and then put through full electrical parametric testing on the production Automated Test Equipment (ATE). The device was functional up to 75 krad(Si) and passed all electrical parametric tests with readings within guard bands of the data sheet electrical specification limits after 480 hours of anneal. MSP430FR5969-SP is fabricated on CMOS process technology and hence HDR tests were performed.

2.2 Test Description and Facilities

The MSP430FR5969-SP HDR exposure was performed on biased and unbiased devices in a Co60 gamma cell under a 10-mrad(Si)/s exposure rate. The dose rate of the irradiator used in the exposure ranges from < 10 mrad(Si)/s to a maximum of approximately 65 rad(Si)/s, determined by the distance from the source. For the HDR (10 mrad(Si)/s) exposure, the test box was positioned approximately 2 m from the source. The exposure boards are housed in a lead-aluminum box (as specified in MIL-STD-883 TM 1019.9) to harden the gamma spectrum and minimize dose enhancement effects. The irradiator calibration is maintained by Logmire Laboratories using Thermoluminescence Dosimeters (TLDs) traceable to the National Institute of Standards and Technology (NIST) and the dosimetry was verified using TLDs prior to the radiation exposures. After exposure, the devices were packed in dry ice (per MIL-STD-883 Method 1019.9 section 3.10) and returned to TI Dallas for a full post radiation electrical evaluation using Texas Instruments production Automated Test Equipment (ATE). ATE guardband test limits are set within data sheet electrical limits to ensure a minimum Cpk and test error margin based on initial qualification and characterization data. Post radiation measurements were taken within 30 minutes of removal of 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 under HDR exposure were tested in both biased and unbiased conditions as described in the following.

2.3.1 Unbiased

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

2.3.2 Biased

[Figure 2](#) shows the bias conditions for each pin during HDR exposure.

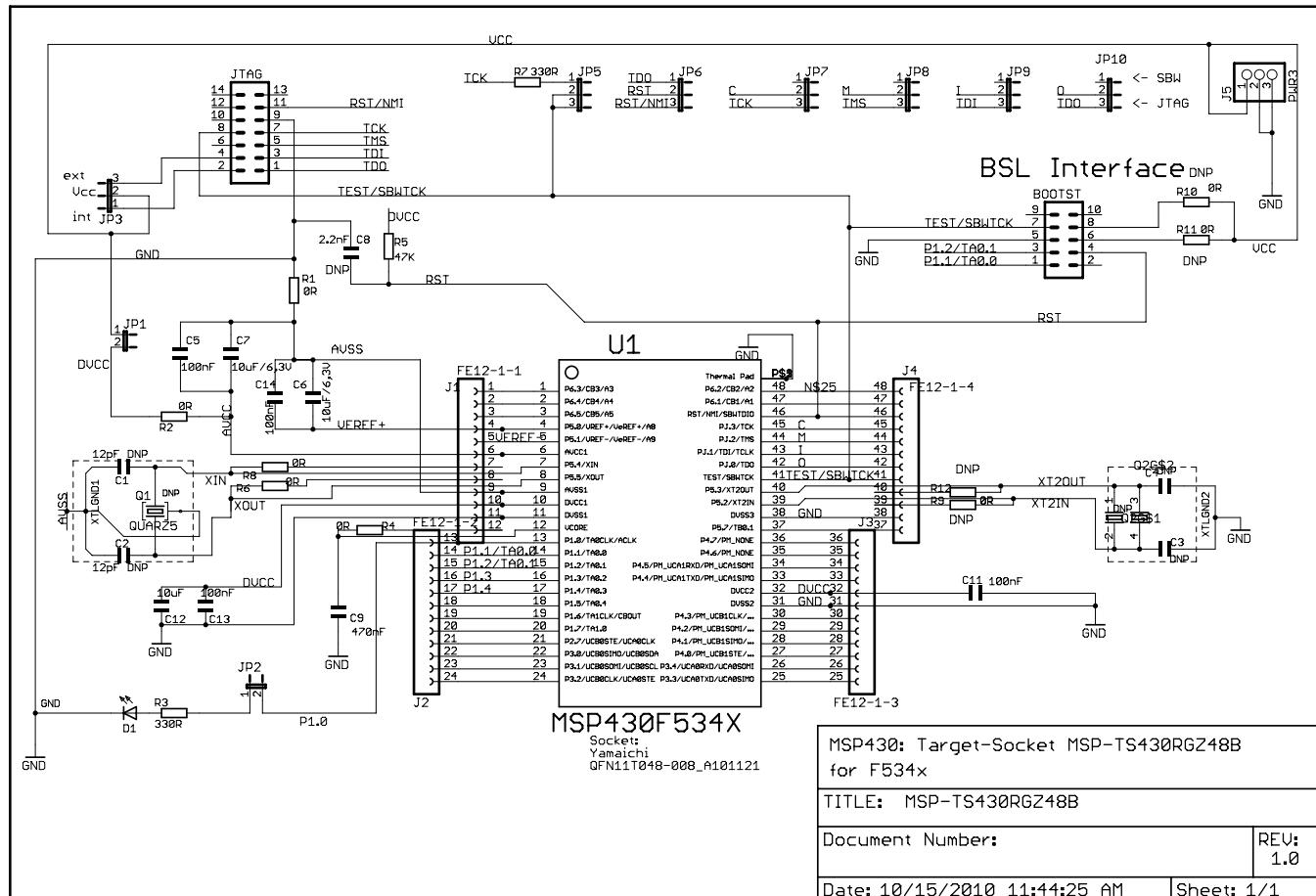


Figure 2. Bias Diagram Used in Exposure

2.4 Test Configuration and Condition

A step-stress (3k, 10k, 30k, 50k, 75k) test method was used to determine the TID hardness level. That is, after a predetermined TID level was reached, an electrical test was performed on a given sample of parts to verify that the units are within specified data sheet electrical test limits. MIL-STD-883, Test Method 1019.9, Condition A was used in this case.

Table 2 list the serialized samples that were used during the characterization.

Table 2. Device and Exposure Information (HDR)

HDR = 10 mrad(Si)/s			
Total Samples: 6/dose level (5 biased + 5 unbiased)			
Exposure Levels:			
3 krad(Si)	10 krad(Si)	30 krad(Si)	50 krad(Si)
Biased	Biased	Biased	Biased
001, 002, 003, 004, 005 (Wafer 1)	011, 012, 013, 014, 015 (Wafer 1)	021, 022, 023, 024, 025 (Wafer 1)	031, 032, 033, 034, 035 (Wafer 1)
Unbiased	Unbiased	Unbiased	Unbiased
006, 007, 008, 009, 010 (Wafer 1)	016, 017, 018, 019, 020 (Wafer 1)	026, 027, 028, 029, 030 (Wafer 1)	036, 037, 038, 039, 040 (Wafer 1)

HDR = 10 mrad(Si)/s			
Total Samples: 6/dose level (22 biased + 22 unbiased)			
Exposure Levels:			
75 krad(Si)			
Biased			
041, 042, 043, 044, 045 (Wafer 1) 046, 047, 048, 049, 050 (Wafer 1) 051, 052, 053, 054, 055 (Wafer 1) 056, 057, 058, 059, 050 (Wafer 1) 061, 062			
Unbiased			
063, 064, 065 (Wafer 1) 066, 067, 068, 069, 070 (Wafer 1) 071, 072, 073, 074, 075 (Wafer 1) 076, 077, 078, 079, 080 (Wafer 1) 081, 082, 083, 084 (Wafer 1)			

Control Unit: 085, 086, 087

3 Total Ionizing Dose Characterization Test Results

3.1 Total Ionizing Dose Characterization Summary Results

The parametric data for the MSP430FR5969-SP passes up to 75-krad(Si) HDR per MIL-STD-883, TM1090 Condition A.

The MSP430FR5969-SP passed post electrical test over all conditions listed below up to 75 krad(Si).

- HDR (100 rad(Si)/s) unbiased: post 3 krad(Si), 10 krad(Si), 30 krad(Si), 50 krad(Si), 75 krad(Si) (post anneal)
- HDR (100 rad(Si)/s) biased: post 3 krad(Si), 10 krad(Si), 30 krad(Si), 50 krad(Si), 75 krad(Si)

Overall radiation performance was very solid. There were no functional at any read point. All data sheet parameters passed at all exposure levels up to 50 krad(Si) and post anneal at 75 krad(Si). Based on the room temp anneal effective dose rate is 43.40 mrad(Si)/s. The following parameters showed a consistent trend during exposure as noted below but within data sheet specification.

1. Low-Power Mode ILPM3.5, include SVS

Low Power Mode 3.5 – exhibits increases from 30 krad(Si) to 50 krad(Si) and the amount of shift from T0 to 50 krad(Si) was ~0.8%. The ILPM3.5 parameter needed a new spec of 2 V for 50-krad(Si) exposure.

2. Low-Power Mode ILPM4.5, include SVS

Low Power Mode 4.5 – exhibits increases from 30 krad(Si) to 50 krad(Si) and the amount of shift from T0 to 50 krad(Si) was ~1%. The ILPM4.5 parameter needed a new spec of 1.5 V for 50-krad(Si) exposure.

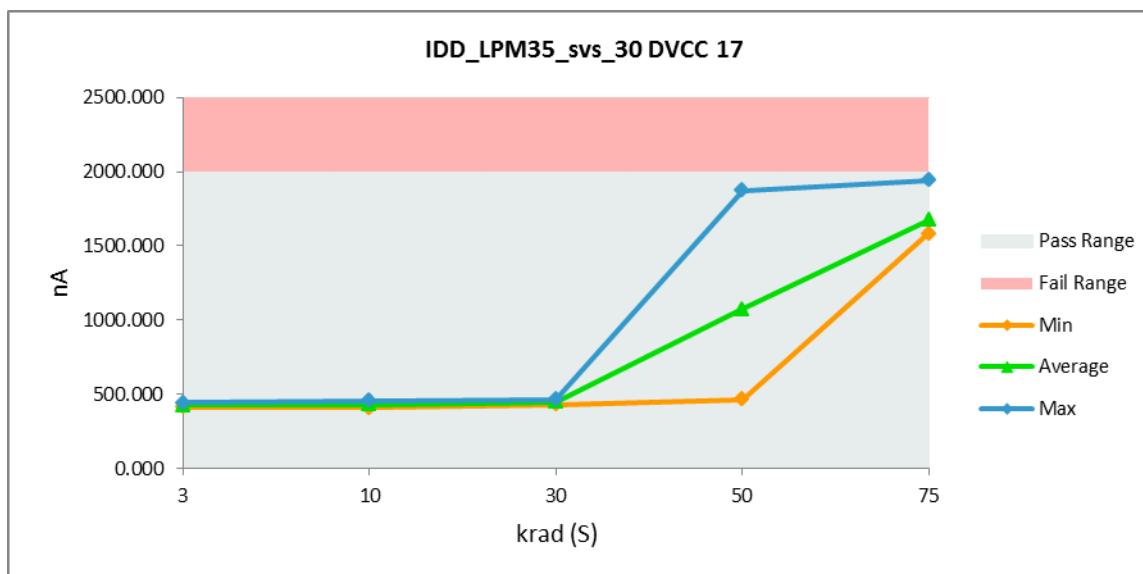


Figure 3. Radiation Exposure Effect on ILPM3.5, Include SVS

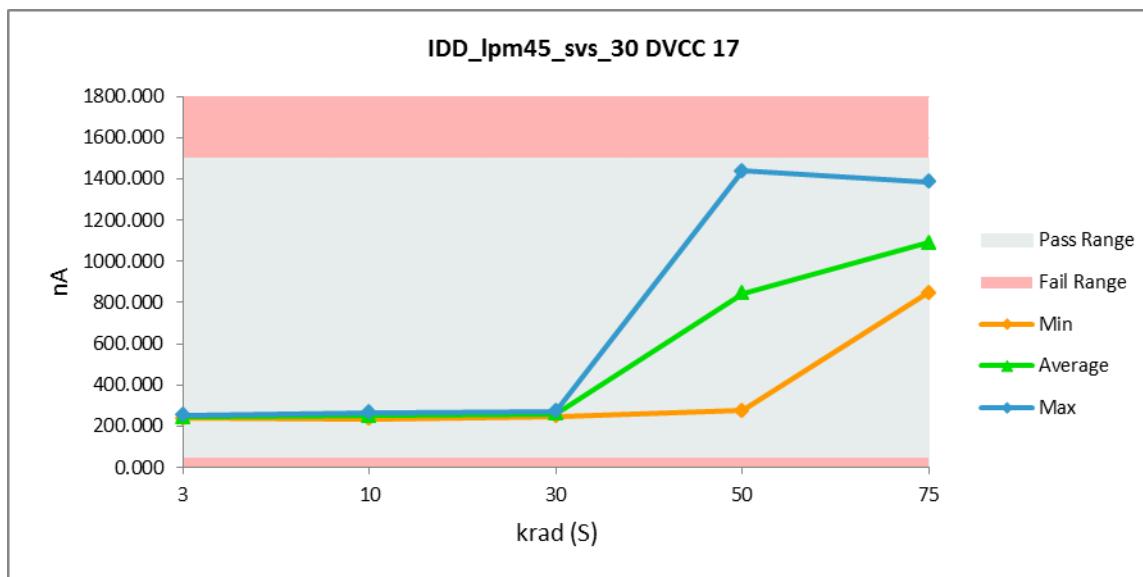


Figure 4. Radiation Exposure Effect on ILPM4.5, Include SVS

3.2 Group E Full Radiation Lot Acceptance (RLAT) Report

The Group E RLAT summary is shipped with MSP430FR5969-MLS.

4 Applicable and Reference Documents

4.1 Applicable Documents

[MSP430FR5969-SP Radiation Hardened Mixed-Signal Microcontroller data sheet \(SLASEK0\)](#)

4.2 Reference Documents

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

4.3 Parameters Tested

[Table 3](#) provides a list of tested parameters.

Table 3. Parameters Tested

PARAMETER	TEST CONDITION	SLASEK0 - December 2017				TEST# or TEST NAME
		MIN	TYP	MAX	UNIT	
ILPM2,XT12 Low-power mode 2, 12-pF crystal			0.9	17	µA	IDD_LPM2_xt_30 DVCC 17
LPM2,VLO Low-power mode 2, VLO, includes SVS			0.7	16.7	µA	IDD_LPM2_vlo_30 DVCC 17
ILPM3,XT12 Low-power mode 3, 12-pF crystal, excludes SVS			0.6	4.9	µA	IDD_LPM3_WDT_30 DVCC 17
LPM3,VLO Low-power mode 3, VLO, excludes SVS			0.4	4.7	µA	IDD_LPM3_vlo_WDT_30 DVCC 17
ILPM4 Low-power mode 4, excludes SVS			0.3	4.6	µA	IDD_LPM4_ref_svs_30 DVCC 17
Low-power mode 3.5, 12-pF ILPM3.5,XT12 crystal including SVS			0.45	2	µA	IDD_LPM35_svs_30 DVCC 17
Low-power mode 4.5, including ILPM4.5,SVS			0.2	1.5	µA	PMM_LPM1toAM_22 P1_1 0
Wake-up time to activate the FRAM tWAKE-UP FRAM in AM if previously disabled by the FRAM controller or from an LPM if immediate activation is selected for wake up			6	10	µs	PMM_LPM1toAM_22 P1_1 0
tWAKE-UP LPM3 Wake-up time from LPM3 to active mode			7	10	µs	PMM_LPM3toAM_22 P1_1 0
tWAKE-UP LPM4 Wake-up time from LPM4 to active mode			7	10	µs	PMM_LPM4toAM_22 P1_1 0
tWAKE-UP LPM3.5 Wake-up time from LPM3.5 to active mode			250	350	µs	PMM_LPM35toAM_22 P1_1 0
tWAKE-UP LPM4.5 Wake-up time from LPM4.5 to active mode	SVSHE = 1		250	350	µs	PMM_LPM45toAM_22 P1_1 0
tWAKE-UP LPM4.5 Wake-up time from LPM4.5 to active mode	SVSHE = 0		1	1.5	ms	PMM_LPM45toAM_SVSH0_22 P1_1 0
tWAKE-UP-RST Wake-up time from a RST pin triggered reset to active mode			250	350	µs	PMM_RSTtoAM_22 P1_4 0
I(ADC12_B) Single-operating supply current into AVCC plus DVCC terminals ended mode	fADC12CLK = MODCLK, ADC12ON = 1, ADC12PWRMD = 0, ADC12DIF = 0, REFON = 0, ADC12SHTx = 0, ADC12DIV = 0		145	190	µA	ADC_DVCC_I_s_calc_30 DVCC_ADC_I_s 0
I(ADC12_B) Differential operating supply current into AVCC plus DVCC terminals (2) (3) mode	fADC12CLK = MODCLK, ADC12ON = 1, ADC12PWRMD = 0, ADC12DIF = 1, REFON = 0, ADC12SHTx = 0, ADC12DIV = 0		175	235	µA	ADC_DVCC_I_d_calc_30 DVCC_ADC_I_d 0
RI Input MUX ON resistance	0 V ≤ V(Ax) ≤ AVCC		1	10	kΩ	ADC_mux_resistor_18.0 RI_A0_A2 44
IREF+ Operating supply current into AVCC terminal (4)	REFON = 1		8	15	µA	REF_I_calc_Refout0_Vref12
IREF+_ADC_BUF Operating supply current	ADC ON, REFOUT = 0, REFVSEL = {0, 1, 2}, ADC12PWRMD = 1		120	240	µA	ADC_DVCC_I_refout0_d_pwr1_calc_30 AVCC_I_refout0_d_pwr1_0
IREF+_ADC_BUF Operating supply current	ADC ON, REFOUT = 1, REFVSEL = {0, 1, 2}, ADC12PWRMD = 1		545	895	µA	ADC_DVCC_I_refout0_d_pwr1_30 DVCC 17
VREF Reference voltage level	CERSx = 11, CEREFLx = 01, CEREFACTC = 0	1.17	1.2	1.23	V	CPB_vref_1v2_18.0 VREF 1V2 0

Table 3. Parameters Tested (continued)

VREF Reference voltage level	CERSx = 11, CEREFx = 10, CEREFACT = 0	1.92	2	2.08	V	CPB_vref_2v0_22.0 VREF 2V0 0
VREF Reference voltage level	CERSx = 11, CEREFx = 11, CEREFACT = 0	2.4	2.5	2.6	V	CPB_vref_2v5_27.0 VREF 1V2 0
VREF Reference voltage level	CERSx = 11, CEREFx = 01, CEREFACT = 1	1.1	1.2	1.245	V	CPB_vref_1v2_18.1 VREF 1V2 0
VREF Reference voltage level	CERSx = 11, CEREFx = 10, CEREFACT = 1	1.9	2	2.08	V	CPB_vref_2v0_22.1 VREF 2V0 0
VREF Reference voltage level	CERSx = 11, CEREFx = 11, CEREFACT = 1	2.35	2.5	2.6	V	CPB_vref_2v5_27.1 VREF 1V2 0
Reference voltage for a VCE_REF given tap	VIN = reference into resistor ladder, n = 0 to 31	VIN × (n+0.5) /32	VIN × (n+1) /32	VIN × (n+1.5) /32	V	CPB_Vref0_all_30.1 CPBladder_0 0 to CPB_Vref0_all_30.1 CPBladder_31 0

Test Results - Biased

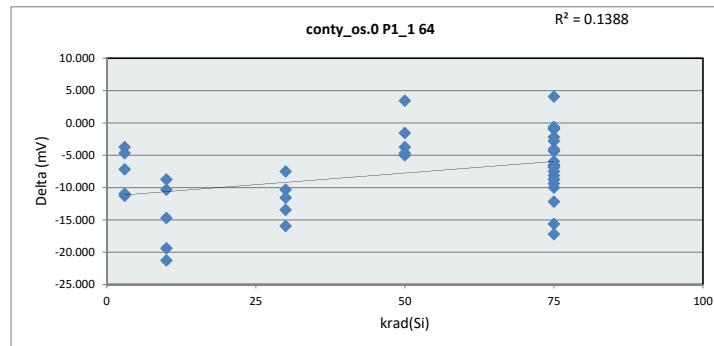
Delta Threshold 10.00%

TID Report
MSP430FR5969-MLS

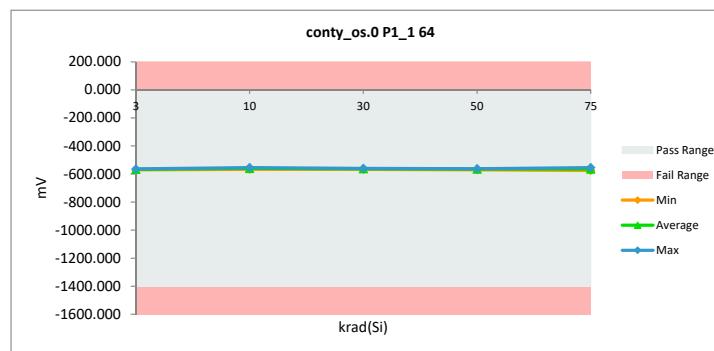
TID Report

MSP430FR5969-MLS

conty_os.0 P1_1 64				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	-0.200000003	-0.200000003		
Min Limit	-1399.999976	-1399.999976		
krad(Si)	Serial #	Pre test Biased	std Post test biased	Delta
3	6	-574.841	-567.648	-7.193
3	7	-575.154	-563.895	-11.259
3	8	-574.216	-570.463	-3.753
3	9	-574.529	-563.582	-10.946
3	0	-574.529	-569.837	-4.691
10	16	-574.841	-566.084	-8.757
10	17	-574.529	-564.208	-10.321
10	18	-574.841	-560.142	-14.699
10	19	-574.529	-555.138	-19.391
10	20	-575.154	-553.887	-21.267
30	26	-574.841	-561.393	-13.448
30	27	-575.154	-559.204	-15.950
30	28	-574.216	-563.895	-10.321
30	29	-574.841	-563.269	-11.572
30	30	-574.529	-567.022	-7.506
50	36	-567.022	-563.269	-3.753
50	37	-566.710	-561.706	-5.004
50	38	-566.710	-562.018	-4.691
50	39	-567.022	-565.459	-1.564
50	40	-566.397	-569.837	3.440
75	63	-570.463	-567.648	-2.815
75	64	-570.463	-563.895	-6.568
75	65	-571.401	-570.463	-0.938
75	66	-570.463	-563.582	-6.881
75	67	-570.463	-569.837	-0.625
75	68	-570.463	-566.084	-4.379
75	69	-570.775	-564.208	-6.568
75	70	-570.150	-560.142	-10.008
75	71	-570.775	-555.138	-15.638
75	72	-571.088	-553.887	-17.201
75	73	-570.775	-561.393	-9.383
75	74	-571.401	-559.204	-12.197
75	75	-570.463	-563.895	-6.568
75	76	-570.775	-563.269	-7.506
75	77	-571.088	-567.022	-4.066
75	78	-571.401	-563.269	-8.132
75	79	-570.463	-561.706	-8.757
75	80	-570.775	-562.018	-8.757
75	81	-571.401	-565.459	-5.942
75	82	-570.775	-569.837	-0.938
75	83	-570.775	-568.586	-2.189
75	84	-570.463	-574.529	4.066
Max	-566.397	-553.887	4.066	
Average	-571.706	-563.977	-7.729	
Min	-575.154	-574.529	-21.267	
Std Dev	2.619	4.637	5.615	



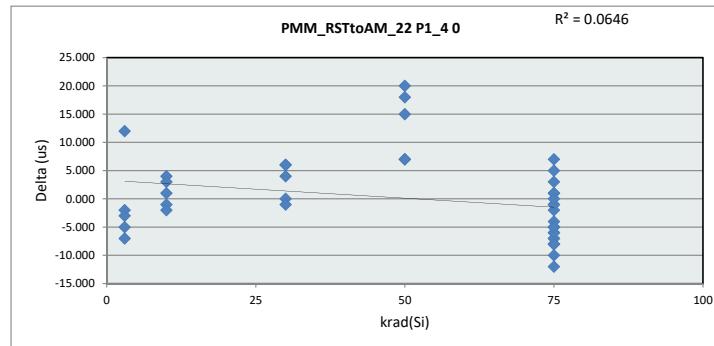
conty_os.0 P1_1 64					
Test Site	CLAB	CLAB	CLAB	CLAB	
Tester	J750EX	J750EX	J750EX	J750EX	
Test Number	JP07800	JP07800	JP07800	JP07800	
Max Limit	-0.200000003	mV	mV	mV	
Min Limit	-1399.999976	mV	mV	mV	
krad(Si)	3	10	30	50	75
LL	-1400.000	-1400.000	-1400.000	-1400.000	-1400.000
Min	-570.463	-566.084	-567.022	-569.837	-574.529
Average	-567.085	-559.892	-562.957	-564.458	-564.321
Max	-563.582	-553.887	-559.204	-561.706	-553.887
UL	-0.200	-0.200	-0.200	-0.200	-0.200



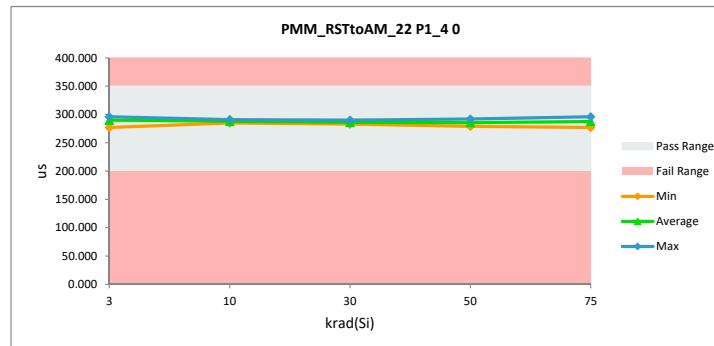
TID Report

MSP430FR5969-MLS

PMM_RSTtoAM_22 P1_4 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	349.9999875	349.9999875		
Min Limit	199.999949	199.999949		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	289.000	291.000	-2.000
3	7	289.000	296.000	-7.000
3	8	289.000	292.000	-3.000
3	9	289.000	277.000	12.000
3	0	289.000	294.000	-5.000
10	16	289.000	285.000	4.000
10	17	289.000	288.000	1.000
10	18	289.000	290.000	-1.000
10	19	289.000	291.000	-2.000
10	20	289.000	286.000	3.000
30	26	289.000	285.000	4.000
30	27	289.000	283.000	6.000
30	28	289.000	283.000	6.000
30	29	289.000	289.000	0.000
30	30	289.000	290.000	-1.000
50	36	299.000	284.000	15.000
50	37	299.000	279.000	20.000
50	38	299.000	281.000	18.000
50	39	299.000	292.000	7.000
50	40	299.000	292.000	7.000
75	63	284.000	291.000	-7.000
75	64	284.000	296.000	-12.000
75	65	284.000	292.000	-8.000
75	66	284.000	277.000	7.000
75	67	284.000	294.000	-10.000
75	68	284.000	285.000	-1.000
75	69	284.000	288.000	-4.000
75	70	284.000	290.000	-6.000
75	71	284.000	291.000	-7.000
75	72	284.000	286.000	-2.000
75	73	284.000	285.000	-1.000
75	74	284.000	283.000	1.000
75	75	284.000	283.000	1.000
75	76	284.000	289.000	-5.000
75	77	284.000	290.000	-6.000
75	78	284.000	284.000	0.000
75	79	284.000	279.000	5.000
75	80	284.000	281.000	3.000
75	81	284.000	292.000	-8.000
75	82	284.000	292.000	-8.000
75	83	284.000	289.000	-5.000
75	84	284.000	289.000	-5.000
Max		299.000	296.000	20.000
Average		287.571	287.476	0.095
Min		284.000	277.000	-12.000
Std Dev		4.850	4.984	7.301



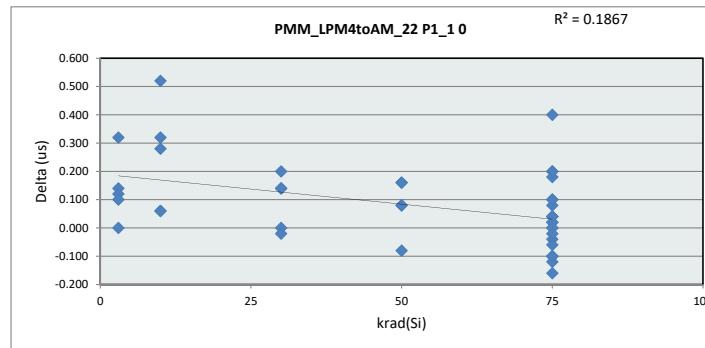
PMM_RSTtoAM_22 P1_4 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	349.9999875	us			
Min Limit	199.999949	us			
krad(Si)	3	10	30	50	75
LL	200.000	200.000	200.000	200.000	200.000
Min	277.000	285.000	283.000	279.000	277.000
Average	290.000	288.000	286.000	285.600	287.545
Max	296.000	291.000	290.000	292.000	296.000
UL	350.000	350.000	350.000	350.000	350.000



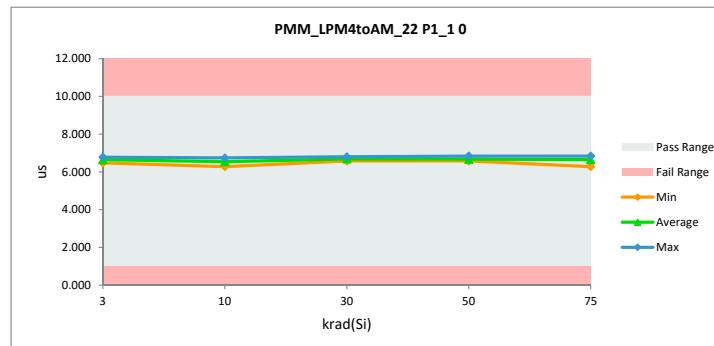
TID Report

MSP430FR5969-MLS

PMM_LPM4toAM_22 P1_1 O				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	6.780	6.780	0.000
3	7	6.800	6.480	0.320
3	8	6.780	6.640	0.140
3	9	6.780	6.660	0.120
3	0	6.780	6.680	0.100
10	16	6.780	6.720	0.060
10	17	6.800	6.740	0.060
10	18	6.780	6.500	0.280
10	19	6.800	6.480	0.320
10	20	6.800	6.280	0.520
30	26	6.780	6.640	0.140
30	27	6.780	6.640	0.140
30	28	6.780	6.580	0.200
30	29	6.780	6.780	0.000
30	30	6.780	6.800	-0.020
50	36	6.760	6.600	0.160
50	37	6.740	6.580	0.160
50	38	6.740	6.660	0.080
50	39	6.760	6.680	0.080
50	40	6.760	6.840	-0.080
75	63	6.680	6.780	-0.100
75	64	6.680	6.480	0.200
75	65	6.680	6.640	0.040
75	66	6.680	6.660	0.020
75	67	6.680	6.680	0.000
75	68	6.680	6.720	-0.040
75	69	6.680	6.740	-0.060
75	70	6.680	6.500	0.180
75	71	6.680	6.480	0.200
75	72	6.680	6.280	0.400
75	73	6.680	6.640	0.040
75	74	6.680	6.640	0.040
75	75	6.680	6.580	0.100
75	76	6.680	6.780	-0.100
75	77	6.680	6.800	-0.120
75	78	6.680	6.600	0.080
75	79	6.680	6.580	0.100
75	80	6.680	6.660	0.020
75	81	6.680	6.680	0.000
75	82	6.680	6.840	-0.160
75	83	6.680	6.700	-0.020
75	84	6.680	6.780	-0.100
Max		6.800	6.840	0.520
Average		6.726	6.643	0.083
Min		6.680	6.280	-0.160
Std Dev		0.050	0.130	0.143



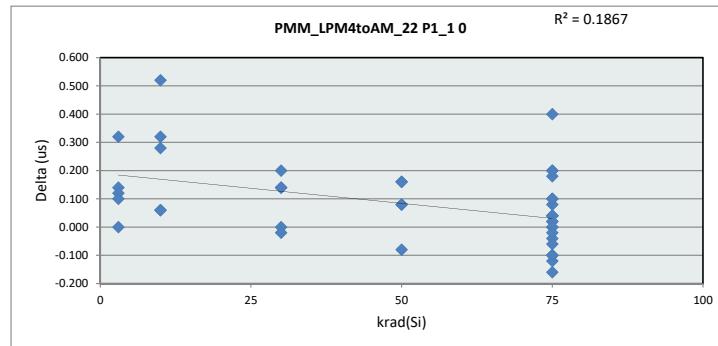
PMM_LPM4toAM_22 P1_1 0					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Max Limit	9.99999747	us			
Min Limit	0.99999997	us			
krad(Si)	3	10	30	50	75
LL	1.000	1.000	1.000	1.000	1.000
Min	6.480	6.280	6.580	6.580	6.280
Average	6.648	6.544	6.688	6.672	6.647
Max	6.780	6.740	6.800	6.840	6.840
UL	10.000	10.000	10.000	10.000	10.000



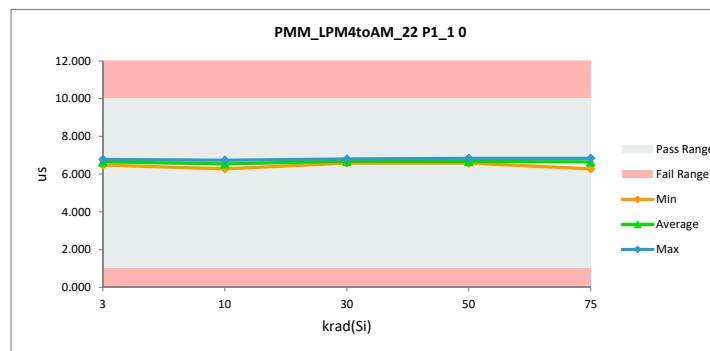
TID Report

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PMM_LPM4toAM_22 P1_1 O				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	6.780	6.780	0.000
3	7	6.800	6.480	0.320
3	8	6.780	6.640	0.140
3	9	6.780	6.660	0.120
3	0	6.780	6.680	0.100
10	16	6.780	6.720	0.060
10	17	6.800	6.740	0.060
10	18	6.780	6.500	0.280
10	19	6.800	6.480	0.320
10	20	6.800	6.280	0.520
30	26	6.780	6.640	0.140
30	27	6.780	6.640	0.140
30	28	6.780	6.580	0.200
30	29	6.780	6.780	0.000
30	30	6.780	6.800	-0.020
50	36	6.760	6.600	0.160
50	37	6.740	6.580	0.160
50	38	6.740	6.660	0.080
50	39	6.760	6.680	0.080
50	40	6.760	6.840	-0.080
75	63	6.680	6.780	-0.100
75	64	6.680	6.480	0.200
75	65	6.680	6.640	0.040
75	66	6.680	6.660	0.020
75	67	6.680	6.680	0.000
75	68	6.680	6.720	-0.040
75	69	6.680	6.740	-0.060
75	70	6.680	6.500	0.180
75	71	6.680	6.480	0.200
75	72	6.680	6.280	0.400
75	73	6.680	6.640	0.040
75	74	6.680	6.640	0.040
75	75	6.680	6.580	0.100
75	76	6.680	6.780	-0.100
75	77	6.680	6.800	-0.120
75	78	6.680	6.600	0.080
75	79	6.680	6.580	0.100
75	80	6.680	6.660	0.020
75	81	6.680	6.680	0.000
75	82	6.680	6.840	-0.160
75	83	6.680	6.700	-0.020
75	84	6.680	6.780	-0.100
Max		6.800	6.840	0.520
Average		6.726	6.643	0.083
Min		6.680	6.280	-0.160
Std Dev		0.050	0.130	0.143



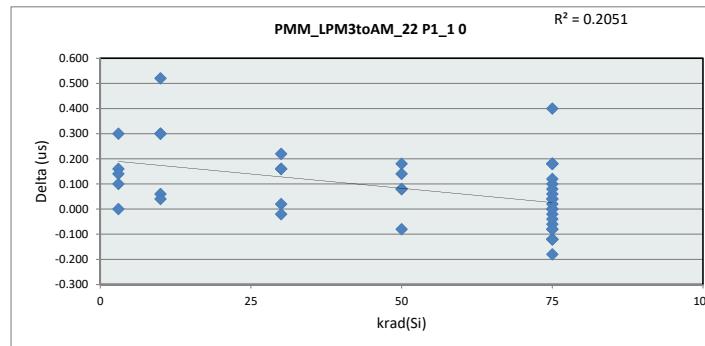
PMM_LPM4toAM_22 P1_1 O					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	9.99999747	us			
Min Limit	0.99999997	us			
krad(Si)	3	10	30	50	75
LL	1.000	1.000	1.000	1.000	1.000
Min	6.480	6.280	6.580	6.580	6.280
Average	6.648	6.544	6.688	6.672	6.647
Max	6.780	6.740	6.800	6.840	6.840
UL	10.000	10.000	10.000	10.000	10.000



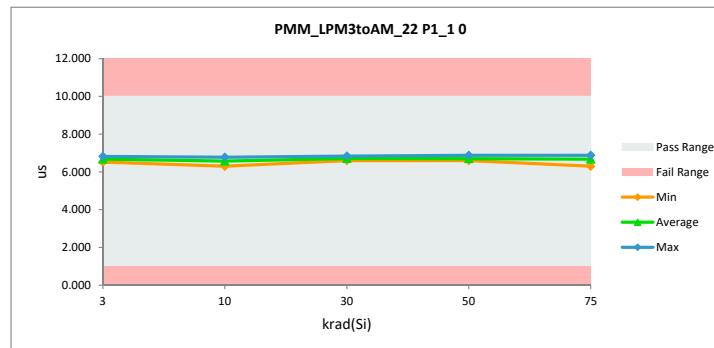
TID Report

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PMM_LPM3toAM_22 P1_1 O				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	6.820	6.820	0.000
3	7	6.820	6.520	0.300
3	8	6.820	6.660	0.160
3	9	6.820	6.680	0.140
3	0	6.820	6.720	0.100
10	16	6.820	6.760	0.060
10	17	6.820	6.780	0.040
10	18	6.820	6.520	0.300
10	19	6.820	6.520	0.300
10	20	6.820	6.300	0.520
30	26	6.820	6.660	0.160
30	27	6.820	6.660	0.160
30	28	6.820	6.600	0.220
30	29	6.820	6.800	0.020
30	30	6.820	6.840	-0.020
50	36	6.780	6.640	0.140
50	37	6.780	6.600	0.180
50	38	6.780	6.700	0.080
50	39	6.780	6.700	0.080
50	40	6.800	6.880	-0.080
75	63	6.700	6.820	-0.120
75	64	6.700	6.520	0.180
75	65	6.700	6.660	0.040
75	66	6.700	6.680	0.020
75	67	6.700	6.720	-0.020
75	68	6.700	6.760	-0.060
75	69	6.700	6.780	-0.080
75	70	6.700	6.520	0.180
75	71	6.700	6.520	0.180
75	72	6.700	6.300	0.400
75	73	6.700	6.660	0.040
75	74	6.720	6.660	0.060
75	75	6.700	6.600	0.100
75	76	6.720	6.800	-0.080
75	77	6.720	6.840	-0.120
75	78	6.720	6.640	0.080
75	79	6.720	6.600	0.120
75	80	6.700	6.700	0.000
75	81	6.700	6.700	0.000
75	82	6.700	6.880	-0.180
75	83	6.700	6.740	-0.040
75	84	6.700	6.820	-0.120
Max	6.820	6.880	0.520	
Average	6.755	6.673	0.082	
Min	6.700	6.300	-0.180	
Std Dev	0.055	0.134	0.146	



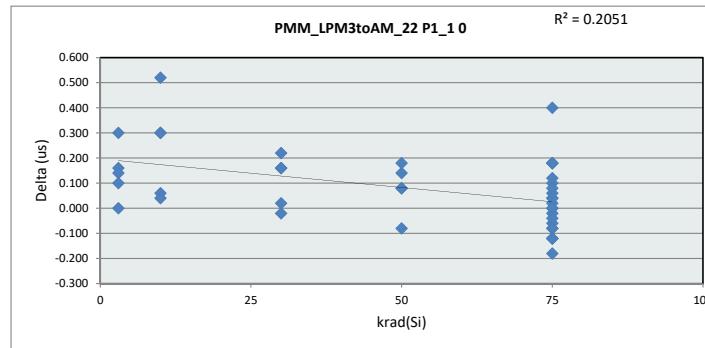
PMM_LPM3toAM_22 P1_1 O					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	9.99999747	us			
Min Limit	0.99999997	us			
krad(Si)	3	10	30	50	75
LL	1.000	1.000	1.000	1.000	1.000
Min	6.520	6.300	6.600	6.600	6.300
Average	6.680	6.576	6.712	6.704	6.678
Max	6.820	6.780	6.840	6.880	6.880
UL	10.000	10.000	10.000	10.000	10.000



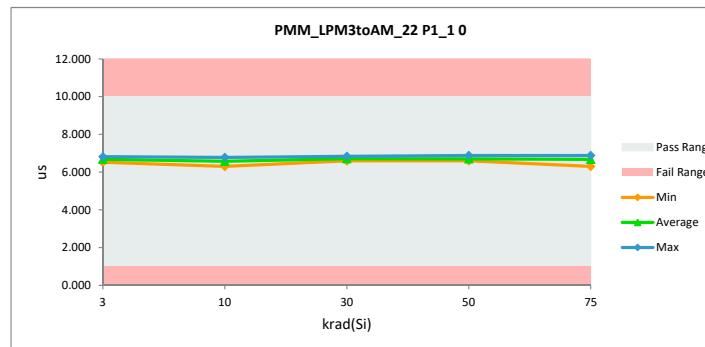
TID Report

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PMM_LPM3toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	6.820	6.820	0.000
3	7	6.820	6.520	0.300
3	8	6.820	6.660	0.160
3	9	6.820	6.680	0.140
3	0	6.820	6.720	0.100
10	16	6.820	6.760	0.060
10	17	6.820	6.780	0.040
10	18	6.820	6.520	0.300
10	19	6.820	6.520	0.300
10	20	6.820	6.300	0.520
30	26	6.820	6.660	0.160
30	27	6.820	6.660	0.160
30	28	6.820	6.600	0.220
30	29	6.820	6.800	0.020
30	30	6.820	6.840	-0.020
50	36	6.780	6.640	0.140
50	37	6.780	6.600	0.180
50	38	6.780	6.700	0.080
50	39	6.780	6.700	0.080
50	40	6.800	6.880	-0.080
75	63	6.700	6.820	-0.120
75	64	6.700	6.520	0.180
75	65	6.700	6.660	0.040
75	66	6.700	6.680	0.020
75	67	6.700	6.720	-0.020
75	68	6.700	6.760	-0.060
75	69	6.700	6.780	-0.080
75	70	6.700	6.520	0.180
75	71	6.700	6.520	0.180
75	72	6.700	6.300	0.400
75	73	6.700	6.660	0.040
75	74	6.720	6.660	0.060
75	75	6.700	6.600	0.100
75	76	6.720	6.800	-0.080
75	77	6.720	6.840	-0.120
75	78	6.720	6.640	0.080
75	79	6.720	6.600	0.120
75	80	6.700	6.700	0.000
75	81	6.700	6.700	0.000
75	82	6.700	6.880	-0.180
75	83	6.700	6.740	-0.040
75	84	6.700	6.820	-0.120
Max		6.820	6.880	0.520
Average		6.755	6.673	0.082
Min		6.700	6.300	-0.180
Std Dev		0.055	0.134	0.146



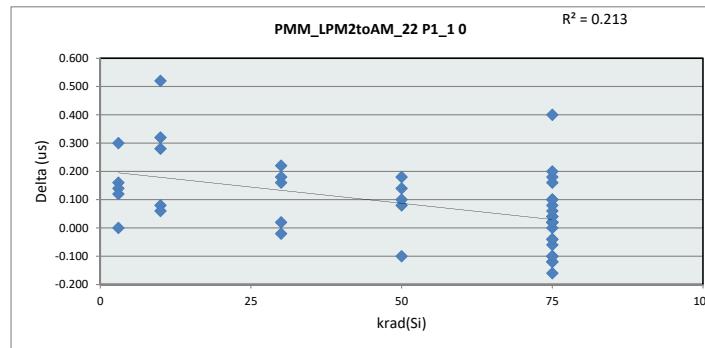
PMM_LPM3toAM_22 P1_1 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	9.99999747	us			
Min Limit	0.99999997	us			
krad(Si)	3	10	30	50	75
LL	1.000	1.000	1.000	1.000	1.000
Min	6.520	6.300	6.600	6.600	6.300
Average	6.680	6.576	6.712	6.704	6.678
Max	6.820	6.780	6.840	6.880	6.880
UL	10.000	10.000	10.000	10.000	10.000



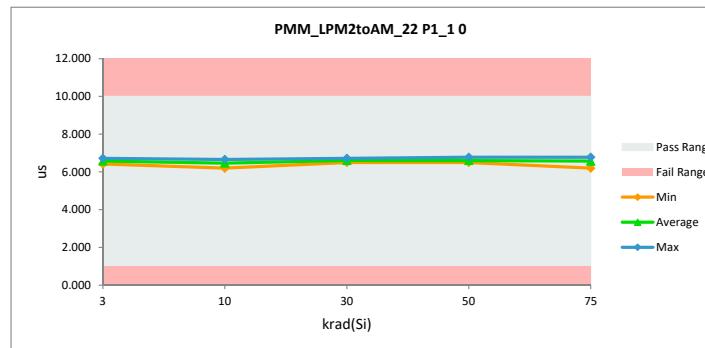
TID Report

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PMM_LPM2toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	6.720	6.720	0.000
3	7	6.720	6.420	0.300
3	8	6.720	6.560	0.160
3	9	6.720	6.580	0.140
3	0	6.720	6.600	0.120
10	16	6.720	6.640	0.080
10	17	6.720	6.660	0.060
10	18	6.720	6.440	0.280
10	19	6.720	6.400	0.320
10	20	6.720	6.200	0.520
30	26	6.720	6.560	0.160
30	27	6.720	6.540	0.180
30	28	6.720	6.500	0.220
30	29	6.720	6.700	0.020
30	30	6.700	6.720	-0.020
50	36	6.680	6.540	0.140
50	37	6.680	6.500	0.180
50	38	6.680	6.580	0.100
50	39	6.680	6.600	0.080
50	40	6.680	6.780	-0.100
75	63	6.600	6.720	-0.120
75	64	6.600	6.420	0.180
75	65	6.600	6.560	0.040
75	66	6.600	6.580	0.020
75	67	6.600	6.600	0.000
75	68	6.600	6.640	-0.040
75	69	6.600	6.660	-0.060
75	70	6.600	6.440	0.160
75	71	6.600	6.400	0.200
75	72	6.600	6.200	0.400
75	73	6.600	6.560	0.040
75	74	6.600	6.540	0.060
75	75	6.600	6.500	0.100
75	76	6.600	6.700	-0.100
75	77	6.600	6.720	-0.120
75	78	6.620	6.540	0.080
75	79	6.600	6.500	0.100
75	80	6.600	6.580	0.020
75	81	6.620	6.600	0.020
75	82	6.620	6.780	-0.160
75	83	6.600	6.640	-0.040
75	84	6.620	6.720	-0.100
Max		6.720	6.780	0.520
Average		6.654	6.568	0.086
Min		6.600	6.200	-0.160
Std Dev		0.055	0.131	0.145



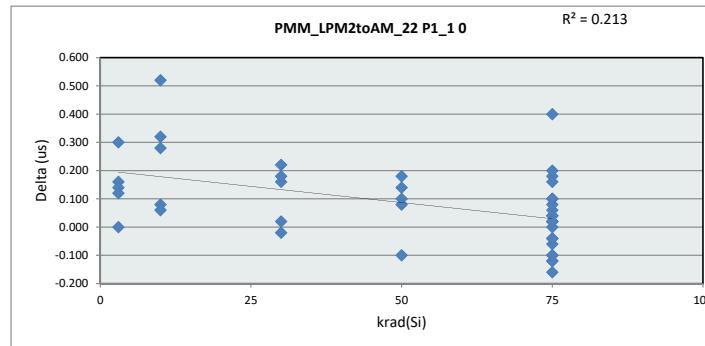
PMM_LPM2toAM_22 P1_1 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	9.99999747	us			
Min Limit	0.99999997	us			
krad(Si)	3	10	30	50	75
LL	1.000	1.000	1.000	1.000	1.000
Min	6.420	6.200	6.500	6.500	6.200
Average	6.576	6.468	6.604	6.600	6.573
Max	6.720	6.660	6.720	6.780	6.780
UL	10.000	10.000	10.000	10.000	10.000



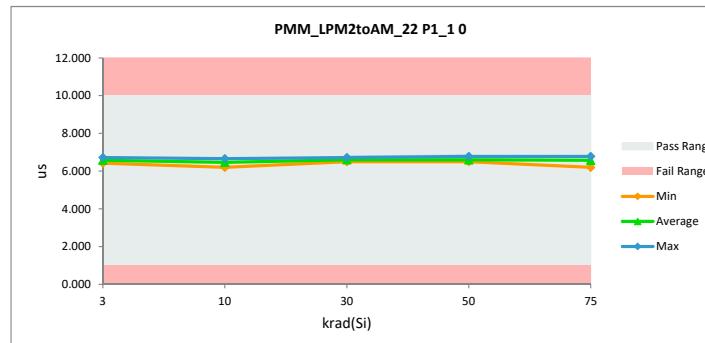
TID Report

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PMM_LPM2toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	6.720	6.720	0.000
3	7	6.720	6.420	0.300
3	8	6.720	6.560	0.160
3	9	6.720	6.580	0.140
3	0	6.720	6.600	0.120
10	16	6.720	6.640	0.080
10	17	6.720	6.660	0.060
10	18	6.720	6.440	0.280
10	19	6.720	6.400	0.320
10	20	6.720	6.200	0.520
30	26	6.720	6.560	0.160
30	27	6.720	6.540	0.180
30	28	6.720	6.500	0.220
30	29	6.720	6.700	0.020
30	30	6.700	6.720	-0.020
50	36	6.680	6.540	0.140
50	37	6.680	6.500	0.180
50	38	6.680	6.580	0.100
50	39	6.680	6.600	0.080
50	40	6.680	6.780	-0.100
75	63	6.600	6.720	-0.120
75	64	6.600	6.420	0.180
75	65	6.600	6.560	0.040
75	66	6.600	6.580	0.020
75	67	6.600	6.600	0.000
75	68	6.600	6.640	-0.040
75	69	6.600	6.660	-0.060
75	70	6.600	6.440	0.160
75	71	6.600	6.400	0.200
75	72	6.600	6.200	0.400
75	73	6.600	6.560	0.040
75	74	6.600	6.540	0.060
75	75	6.600	6.500	0.100
75	76	6.600	6.700	-0.100
75	77	6.600	6.720	-0.120
75	78	6.620	6.540	0.080
75	79	6.600	6.500	0.100
75	80	6.600	6.580	0.020
75	81	6.620	6.600	0.020
75	82	6.620	6.780	-0.160
75	83	6.600	6.640	-0.040
75	84	6.620	6.720	-0.100
Max		6.720	6.780	0.520
Average		6.654	6.568	0.086
Min		6.600	6.200	-0.160
Std Dev		0.055	0.131	0.145



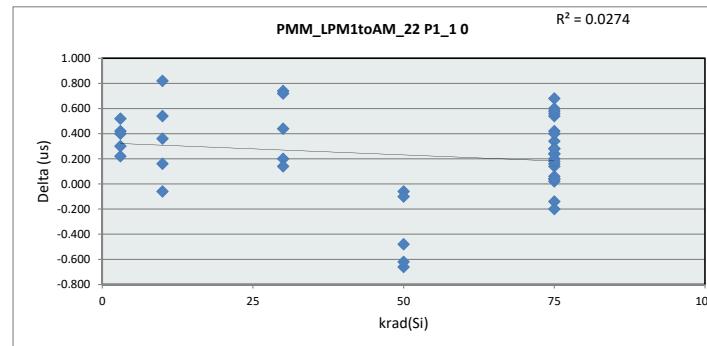
PMM_LPM2toAM_22 P1_1 0					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Max Limit	9.99999747	us			
Min Limit	0.99999997	us			
krad(Si)	3	10	30	50	75
LL	1.000	1.000	1.000	1.000	1.000
Min	6.420	6.200	6.500	6.500	6.200
Average	6.576	6.468	6.604	6.600	6.573
Max	6.720	6.660	6.720	6.780	6.780
UL	10.000	10.000	10.000	10.000	10.000



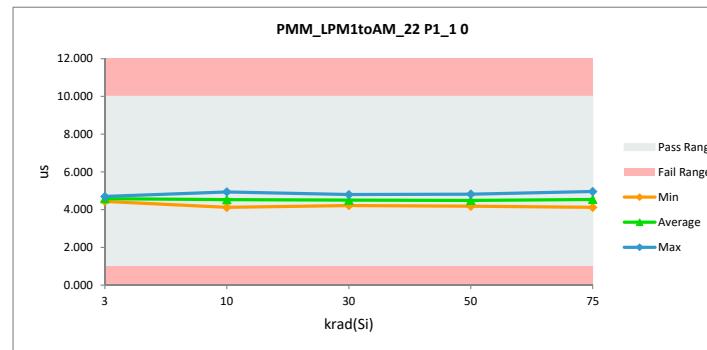
TID Report

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PMM_LPM1toAM_22 P1_1 O				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.999999747	9.999999747		
Min Limit	0.999999997	0.999999997		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	5.000	4.700	0.300
3	7	4.920	4.700	0.220
3	8	4.940	4.520	0.420
3	9	4.960	4.440	0.520
3	0	4.940	4.540	0.400
10	16	4.880	4.940	-0.060
10	17	4.880	4.720	0.160
10	18	4.940	4.120	0.820
10	19	4.880	4.340	0.540
10	20	4.880	4.520	0.360
30	26	5.000	4.260	0.740
30	27	4.940	4.220	0.720
30	28	4.900	4.700	0.200
30	29	4.980	4.540	0.440
30	30	4.940	4.800	0.140
50	36	4.160	4.220	-0.060
50	37	4.160	4.820	-0.660
50	38	4.080	4.180	-0.100
50	39	4.060	4.540	-0.480
50	40	4.060	4.680	-0.620
75	63	4.840	4.700	0.140
75	64	4.860	4.700	0.160
75	65	4.720	4.520	0.200
75	66	4.780	4.440	0.340
75	67	4.820	4.540	0.280
75	68	4.800	4.940	-0.140
75	69	4.740	4.720	0.020
75	70	4.800	4.120	0.680
75	71	4.760	4.340	0.420
75	72	4.760	4.520	0.240
75	73	4.800	4.260	0.540
75	74	4.780	4.220	0.560
75	75	4.740	4.700	0.040
75	76	4.780	4.540	0.240
75	77	4.860	4.800	0.060
75	78	4.820	4.220	0.600
75	79	4.860	4.820	0.040
75	80	4.760	4.180	0.580
75	81	4.820	4.540	0.280
75	82	4.860	4.680	0.180
75	83	4.820	4.420	0.400
75	84	4.760	4.960	-0.200
Max		5.000	4.960	0.820
Average		4.763	4.533	0.230
Min		4.060	4.120	-0.660
Std Dev		0.257	0.239	0.339



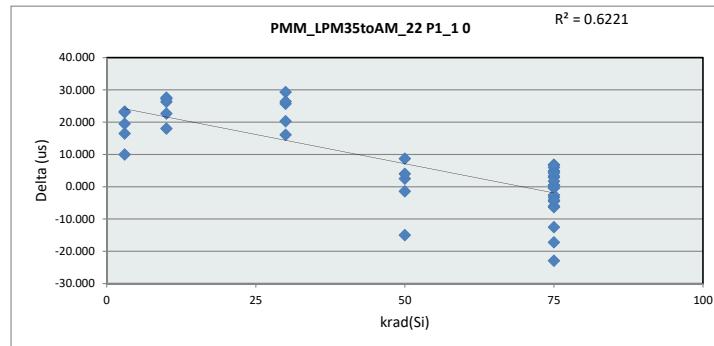
PMM_LPM1toAM_22 P1_1 O					
Test Site	CLAB	CLAB	CLAB	CLAB	
Tester	J750EX	J750EX	J750EX	J750EX	
Test Number	JP07800	JP07800	JP07800	JP07800	
Max Limit	9.999999747	us	us	us	
Min Limit	0.999999997	us	us	us	
krad(Si)	3	10	30	50	75
LL	1.000	1.000	1.000	1.000	1.000
Min	4.440	4.120	4.220	4.180	4.120
Average	4.580	4.528	4.504	4.488	4.540
Max	4.700	4.940	4.800	4.820	4.960
UL	10.000	10.000	10.000	10.000	10.000



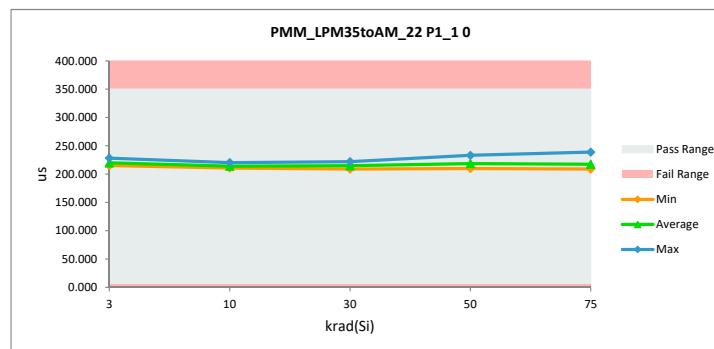
TID Report

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PMM_LPM35toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	349.9999875	349.9999875		
Min Limit	4.99999874	4.99999874		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	238.500	215.400	23.100
3	7	238.400	215.100	23.300
3	8	238.300	221.800	16.500
3	9	238.500	219.000	19.500
3	0	238.300	228.300	10.000
10	16	238.800	216.100	22.700
10	17	238.300	220.300	18.000
10	18	238.500	212.200	26.300
10	19	238.600	211.000	27.600
10	20	238.000	210.800	27.200
30	26	238.100	222.000	16.100
30	27	238.200	208.900	29.300
30	28	238.600	218.300	20.300
30	29	238.700	213.000	25.700
30	30	238.100	211.700	26.400
50	36	218.200	215.700	2.500
50	37	218.600	209.900	8.700
50	38	218.200	233.200	-15.000
50	39	218.300	214.300	4.000
50	40	218.500	219.900	-1.400
75	63	215.800	215.400	0.400
75	64	215.600	215.100	0.500
75	65	215.800	221.800	-6.000
75	66	215.700	219.000	-3.300
75	67	215.800	228.300	-12.500
75	68	215.700	216.100	-0.400
75	69	215.800	220.300	-4.500
75	70	215.500	212.200	3.300
75	71	215.700	211.000	4.700
75	72	215.700	210.800	4.900
75	73	215.700	222.000	-6.300
75	74	215.700	208.900	6.800
75	75	215.700	218.300	-2.600
75	76	215.900	213.000	2.900
75	77	216.000	211.700	4.300
75	78	216.100	215.700	0.400
75	79	215.900	209.900	6.000
75	80	216.000	233.200	-17.200
75	81	216.000	214.300	1.700
75	82	215.700	219.900	-4.200
75	83	215.900	209.200	6.700
75	84	215.900	238.800	-22.900
Max		238.800	238.800	29.300
Average		224.174	217.186	6.988
Min		215.500	208.900	-22.900
Std Dev		10.759	6.998	13.385



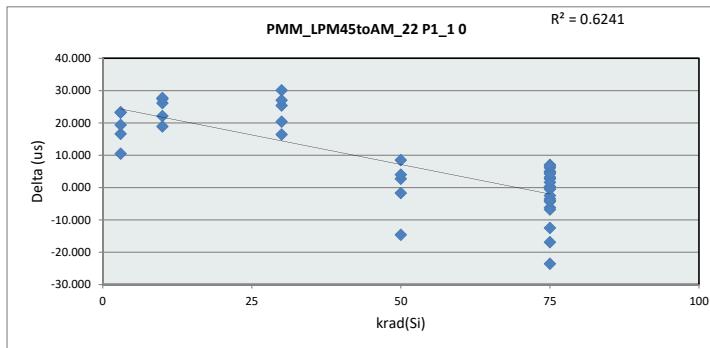
PMM_LPM35toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Max Limit	349.9999875	us		
Min Limit	4.99999874	us		
krad(Si)	3	10	30	50
LL	5.000	5.000	5.000	5.000
Min	215.100	210.800	208.900	208.900
Average	219.920	214.080	214.780	218.600
Max	228.300	220.300	222.000	233.200
UL	350.000	350.000	350.000	350.000
	75			



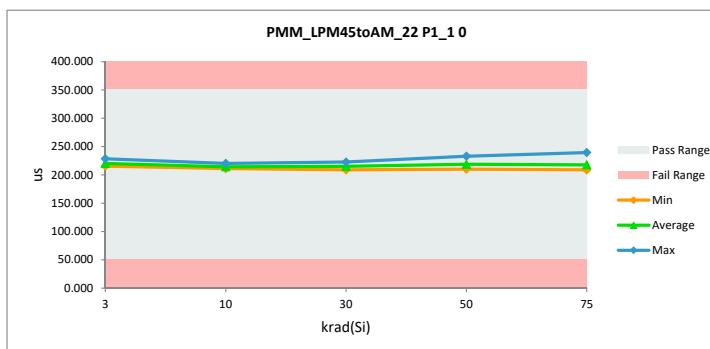
TID Report

MSP430FR5969-MLS

PMM_LPM45toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	349.9999875	349.9999875		
Min Limit	49.9999874	49.9999874		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	238.800	215.600	23.200
3	7	238.900	215.600	23.300
3	8	238.800	222.200	16.600
3	9	238.900	219.500	19.400
3	0	239.000	228.500	10.500
10	16	238.500	216.400	22.100
10	17	239.300	220.400	18.900
10	18	238.800	212.700	26.100
10	19	238.600	211.200	27.400
10	20	238.800	211.100	27.700
30	26	239.100	222.700	16.400
30	27	239.000	208.900	30.100
30	28	238.900	218.500	20.400
30	29	238.700	213.300	25.400
30	30	238.900	211.900	27.000
50	36	218.700	216.000	2.700
50	37	218.600	210.100	8.500
50	38	218.500	233.100	-14.600
50	39	218.600	214.600	4.000
50	40	218.600	220.300	-1.700
75	63	215.900	215.600	0.300
75	64	215.800	215.600	0.200
75	65	216.000	222.200	-6.200
75	66	216.000	219.500	-3.500
75	67	216.000	228.500	-12.500
75	68	215.900	216.400	-0.500
75	69	216.100	220.400	-4.300
75	70	215.900	212.700	3.200
75	71	216.000	211.200	4.800
75	72	216.100	211.100	5.000
75	73	215.900	222.700	-6.800
75	74	215.900	208.900	7.000
75	75	216.000	218.500	-2.500
75	76	216.000	213.300	2.700
75	77	216.200	211.900	4.300
75	78	216.100	216.000	0.100
75	79	216.200	210.100	6.100
75	80	216.200	233.100	-16.900
75	81	216.200	214.600	1.600
75	82	216.200	220.300	-4.100
75	83	216.200	209.500	6.700
75	84	215.900	239.500	-23.600
	Max	239.300	239.500	30.100
	Average	224.493	217.481	7.012
	Min	215.800	208.900	-23.600
	Std Dev	10.875	7.016	13.485



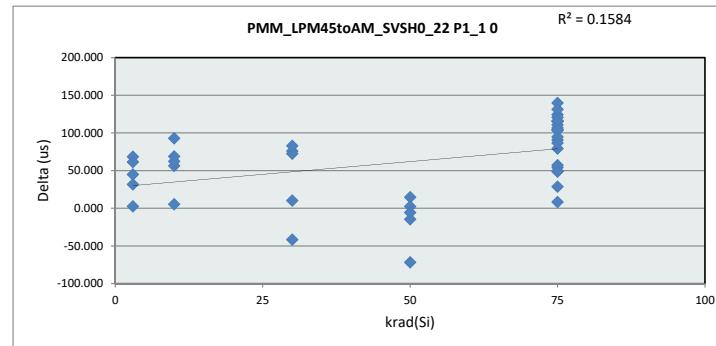
PMM_LPM45toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Max Limit	349.9999875	us		
Min Limit	49.9999874	us		
krad(Si)	3	10	30	50
LL	50.000	50.000	50.000	50.000
Min	215.600	211.100	208.900	210.100
Average	220.280	214.360	215.060	218.820
Max	228.500	220.400	222.700	233.100
UL	350.000	350.000	350.000	350.000
	75			



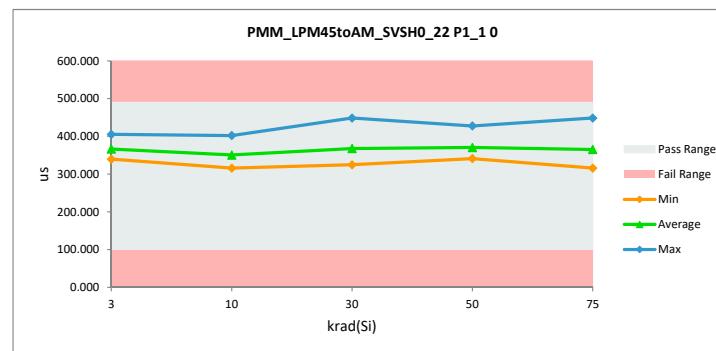
TID Report

MSP430FR5969-MLS

PMM_LPM45toAM_SVSH0_22 P1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	490.0000058	490.0000058		
Min Limit	99.9999747	99.9999747		
krad(Si)	Serial #	Pre test Biased std.	Post test biased	Delta
3	6	408.000	339.600	68.400
3	7	407.600	375.900	31.700
3	8	409.100	347.700	61.400
3	9	409.000	364.100	44.900
3	0	407.800	405.300	2.500
10	16	407.500	351.100	56.400
10	17	407.600	402.200	5.400
10	18	408.100	339.200	68.900
10	19	408.700	315.900	92.800
10	20	407.100	344.800	62.300
30	26	408.600	398.400	10.200
30	27	407.800	331.900	75.900
30	28	407.600	335.100	72.500
30	29	407.600	324.800	82.800
30	30	407.000	448.500	-41.500
50	36	355.800	427.600	-71.800
50	37	355.700	370.300	-14.600
50	38	356.000	341.200	14.800
50	39	355.600	353.200	2.400
50	40	355.400	361.100	-5.700
75	63	455.000	339.600	115.400
75	64	455.100	375.900	79.200
75	65	454.300	347.700	106.600
75	66	454.900	364.100	90.800
75	67	454.900	405.300	49.600
75	68	455.600	351.100	104.500
75	69	456.500	402.200	54.300
75	70	455.100	339.200	115.900
75	71	455.600	315.900	139.700
75	72	455.400	344.800	110.600
75	73	455.600	398.400	57.200
75	74	456.200	331.900	124.300
75	75	455.700	335.100	120.600
75	76	456.000	324.800	131.200
75	77	456.900	448.500	8.400
75	78	456.300	427.600	28.700
75	79	457.100	370.300	86.800
75	80	456.900	341.200	115.700
75	81	456.600	353.200	103.400
75	82	455.900	361.100	94.800
75	83	456.700	352.700	104.000
75	84	456.400	407.700	48.700
Max		457.100	448.500	139.700
Average		426.817	364.671	62.145
Min		355.400	315.900	-71.800
Std Dev		34.640	34.988	49.612



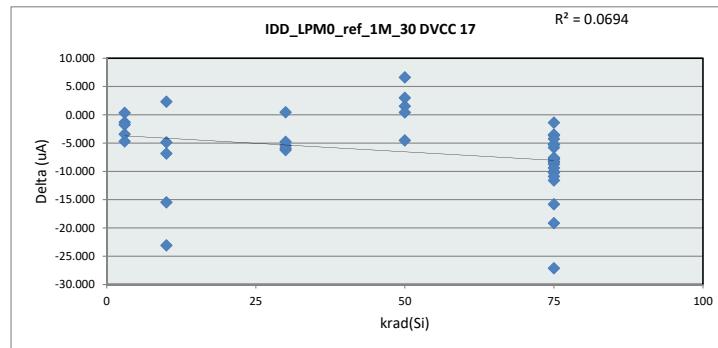
PMM_LPM45toAM_SVSH0_22 P1					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	us	us			
Max Limit	490.0000058	us			
Min Limit	99.9999747	us			
krad(Si)	3	10	30	50	75
LL	100.000	100.000	100.000	100.000	100.000
Min	339.600	315.900	324.800	341.200	315.900
Average	366.520	350.640	367.740	370.680	365.377
Max	405.300	402.200	448.500	427.600	448.500
UL	490.000	490.000	490.000	490.000	490.000



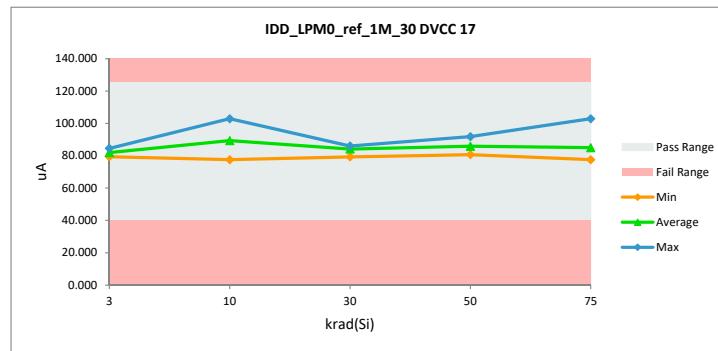
TID Report

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IDD_LPM0_ref_1M_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	125.0000059	125.0000059		
Min Limit	39.99999899	39.99999899		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	79.746	79.414	0.332
3	7	79.824	84.531	-4.707
3	8	79.668	80.996	-1.328
3	9	79.824	81.582	-1.758
3	0	79.844	83.262	-3.418
10	16	79.883	77.559	2.324
10	17	79.648	84.512	-4.863
10	18	79.824	102.910	-23.086
10	19	79.746	86.582	-6.836
10	20	79.668	95.137	-15.469
30	26	79.707	84.492	-4.785
30	27	79.746	85.645	-5.898
30	28	79.766	85.996	-6.230
30	29	79.727	85.156	-5.430
30	30	79.766	79.297	0.469
50	36	87.285	91.797	-4.512
50	37	87.266	85.742	1.523
50	38	87.305	86.875	0.430
50	39	87.285	80.664	6.621
50	40	87.246	84.258	2.988
75	63	75.781	79.414	-3.633
75	64	76.172	84.531	-8.359
75	65	75.781	80.996	-5.215
75	66	75.781	81.582	-5.801
75	67	75.391	83.262	-7.871
75	68	76.172	77.559	-1.387
75	69	75.781	84.512	-8.730
75	70	75.781	102.910	-27.129
75	71	75.000	86.582	-11.582
75	72	75.977	95.137	-19.160
75	73	76.172	84.492	-8.320
75	74	75.586	85.645	-10.059
75	75	75.781	85.996	-10.215
75	76	75.781	85.156	-9.375
75	77	75.781	79.297	-3.516
75	78	75.977	91.797	-15.820
75	79	75.586	85.742	-10.156
75	80	75.977	86.875	-10.898
75	81	75.391	80.664	-5.273
75	82	76.367	84.258	-7.891
75	83	75.977	83.555	-7.578
75	84	75.586	79.844	-4.258
Max	87.305	102.910	6.621	
Average	78.580	85.148	-6.568	
Min	75.000	77.559	-27.129	
Std Dev	3.733	5.681	6.646	



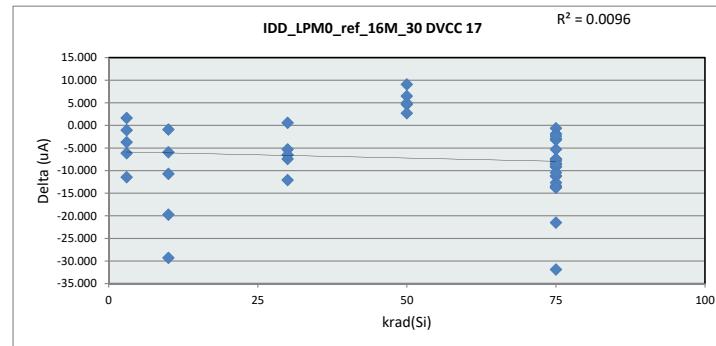
IDD_LPM0_ref_1M_30 DVCC 11					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Unit	uA				
Max Limit	125.0000059				
Min Limit	39.99999899				
krad(Si)	3	10	30	50	75
LL	40.000	40.000	40.000	40.000	40.000
Min	79.414	77.559	80.664	77.559	77.559
Average	81.957	89.340	84.117	85.867	84.991
Max	84.531	102.910	85.996	91.797	102.910
UL	125.000	125.000	125.000	125.000	125.000



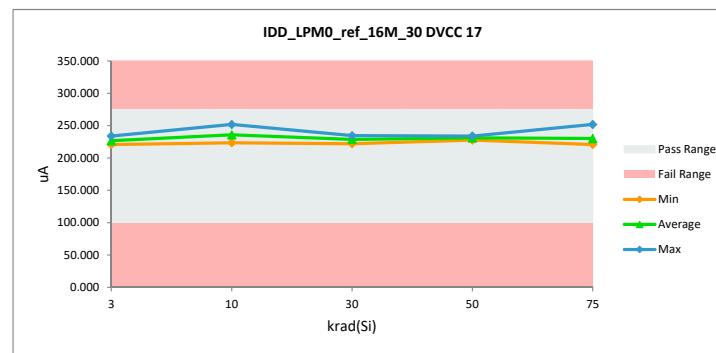
TID Report

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IDD_LPM0_ref_16M_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	274.999985	274.999985		
Min Limit	99.9999747	99.9999747		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	222.383	220.742	1.641
3	7	222.422	233.867	-11.445
3	8	222.324	226.016	-3.691
3	9	222.461	223.516	-1.055
3	0	222.559	228.711	-6.152
10	16	222.520	223.438	-0.918
10	17	222.227	228.164	-5.938
10	18	222.520	251.816	-29.297
10	19	222.461	233.164	-10.703
10	20	222.285	242.012	-19.727
30	26	222.422	227.734	-5.313
30	27	222.461	229.883	-7.422
30	28	222.461	228.965	-6.504
30	29	222.344	234.453	-12.109
30	30	222.559	221.992	0.566
50	36	236.641	231.992	4.648
50	37	236.602	231.660	4.941
50	38	236.641	230.156	6.484
50	39	236.621	227.559	9.063
50	40	236.543	233.828	2.715
75	63	220.117	220.742	-0.625
75	64	220.508	233.867	-13.359
75	65	220.703	226.016	-5.313
75	66	220.313	223.516	-3.203
75	67	220.313	228.711	-8.398
75	68	220.508	223.438	-2.930
75	69	220.313	228.164	-7.852
75	70	219.922	251.816	-31.895
75	71	220.508	233.164	-12.656
75	72	220.508	242.012	-21.504
75	73	220.313	227.734	-7.422
75	74	220.703	229.883	-9.180
75	75	219.922	228.965	-9.043
75	76	220.703	234.453	-13.750
75	77	220.117	221.992	-1.875
75	78	220.703	231.992	-11.289
75	79	220.508	231.660	-11.152
75	80	219.727	230.156	-10.430
75	81	220.117	227.559	-7.441
75	82	220.117	233.828	-13.711
75	83	219.336	227.930	-8.594
75	84	220.117	222.461	-2.344
Max	236.641	251.816	9.063	
Average	222.989	230.232	-7.242	
Min	219.336	220.742	-31.895	
Std Dev	5.172	6.928	8.449	



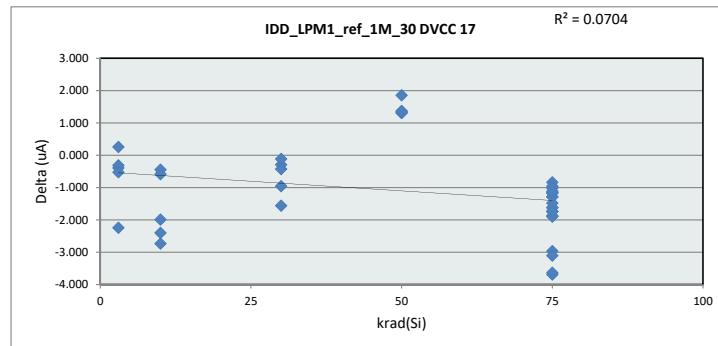
IDD_LPM0_ref_16M_30 DVCC 17					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	uA	uA			
Max Limit	274.999985	uA			
Min Limit	99.9999747	uA			
krad(Si)	3	10	30	50	75
LL	100.000	100.000	100.000	100.000	100.000
Min	220.742	223.437	221.992	227.559	220.742
Average	226.570	235.719	228.605	231.039	230.003
Max	233.867	251.816	234.453	233.828	251.816
UL	275.000	275.000	275.000	275.000	275.000



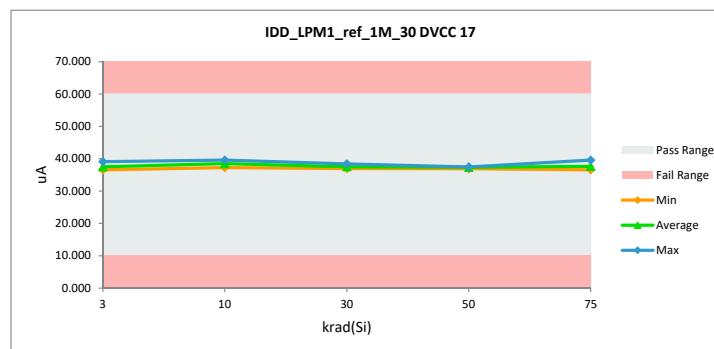
TID Report

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IDD_LPM1_ref_1M_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	59.99999848	59.99999848		
Min Limit	9.99999747	9.99999747		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	36.836	36.582	0.254
3	7	36.855	39.102	-2.246
3	8	36.836	37.227	-0.391
3	9	36.855	37.168	-0.313
3	0	36.836	37.363	-0.527
10	16	36.836	37.285	-0.449
10	17	36.855	37.441	-0.586
10	18	36.855	38.848	-1.992
10	19	36.836	39.238	-2.402
10	20	36.836	39.570	-2.734
30	26	36.816	37.109	-0.293
30	27	36.855	37.813	-0.957
30	28	36.836	36.953	-0.117
30	29	36.855	38.418	-1.563
30	30	36.855	37.285	-0.430
50	36	38.770	36.914	1.855
50	37	38.789	37.422	1.367
50	38	38.789	37.480	1.309
50	39	38.789	37.480	1.309
50	40	38.770	37.422	1.348
75	63	35.742	36.582	-0.840
75	64	36.133	39.102	-2.969
75	65	35.938	37.227	-1.289
75	66	35.547	37.168	-1.621
75	67	35.742	37.363	-1.621
75	68	36.328	37.285	-0.957
75	69	35.547	37.441	-1.895
75	70	35.742	38.848	-3.105
75	71	35.547	39.238	-3.691
75	72	35.938	39.570	-3.633
75	73	35.938	37.109	-1.172
75	74	35.938	37.813	-1.875
75	75	35.938	36.953	-1.016
75	76	36.523	38.418	-1.895
75	77	35.547	37.285	-1.738
75	78	35.742	36.914	-1.172
75	79	35.938	37.422	-1.484
75	80	35.742	37.480	-1.738
75	81	35.742	37.480	-1.738
75	82	36.133	37.422	-1.289
75	83	35.938	37.090	-1.152
75	84	35.742	36.855	-1.113
Max		38.789	39.570	1.855
Average		36.563	37.671	-1.109
Min		35.547	36.582	-3.691
Std Dev		0.960	0.834	1.304



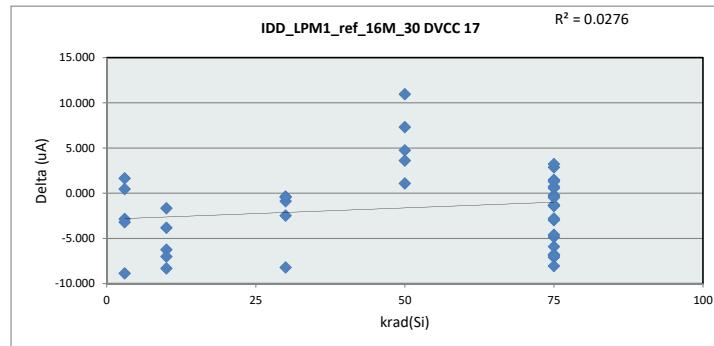
IDD_LPM1_ref_1M_30 DVCC 11					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	59.99999848	uA	uA	uA	uA
Min Limit	9.99999747	uA	uA	uA	uA
krad(Si)	3	10	30	50	75
LL	10.000	10.000	10.000	10.000	10.000
Min	36.582	37.285	36.953	36.914	36.582
Average	37.488	38.477	37.516	37.344	37.639
Max	39.102	39.570	38.418	37.480	39.570
UL	60.000	60.000	60.000	60.000	60.000



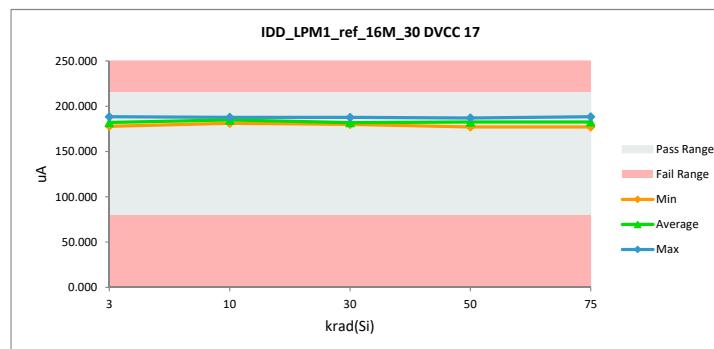
TID Report

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IDD_LPM1_ref_16M_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	214.999927	214.999927		
Min Limit	79.9999798	79.9999798		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	179.434	177.793	1.641
3	7	179.453	188.320	-8.867
3	8	179.395	182.246	-2.852
3	9	179.473	179.004	0.469
3	0	179.453	182.656	-3.203
10	16	179.414	183.242	-3.828
10	17	179.414	181.074	-1.660
10	18	179.414	187.734	-8.320
10	19	179.453	185.703	-6.250
10	20	179.375	186.387	-7.012
30	26	179.414	180.293	-0.879
30	27	179.395	181.875	-2.480
30	28	179.473	179.844	-0.371
30	29	179.434	187.637	-8.203
30	30	179.492	179.941	-0.449
50	36	188.008	177.051	10.957
50	37	188.008	183.262	4.746
50	38	188.047	180.742	7.305
50	39	187.910	184.297	3.613
50	40	188.047	186.973	1.074
75	63	180.664	177.793	2.871
75	64	180.273	188.320	-8.047
75	65	180.859	182.246	-1.387
75	66	180.469	179.004	1.465
75	67	181.250	182.656	-1.406
75	68	180.273	183.242	-2.969
75	69	180.859	181.074	-0.215
75	70	180.664	187.734	-7.070
75	71	180.859	185.703	-4.844
75	72	180.469	186.387	-5.918
75	73	180.859	180.293	0.566
75	74	181.445	181.875	-0.430
75	75	181.250	179.844	1.406
75	76	180.859	187.637	-6.777
75	77	180.664	179.941	0.723
75	78	180.273	177.051	3.223
75	79	180.469	183.262	-2.793
75	80	180.273	180.742	-0.469
75	81	179.688	184.297	-4.609
75	82	180.078	186.973	-6.895
75	83	179.688	180.977	-1.289
75	84	180.664	179.375	1.289
Max		188.047	188.320	10.957
Average		181.056	182.679	-1.622
Min		179.375	177.051	-8.867
Std Dev		2.660	3.356	4.375



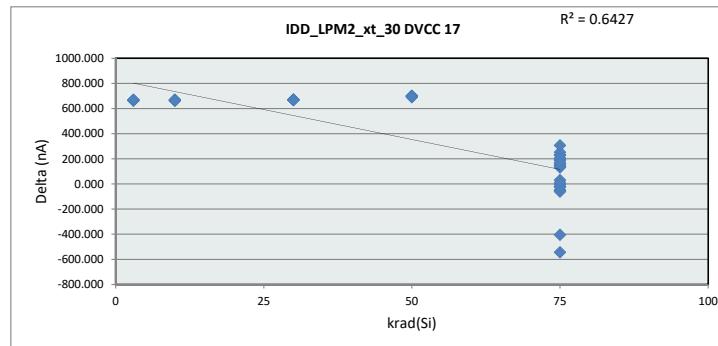
IDD_LPM1_ref_16M_30 DVCC 17					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	uA	uA			
Max Limit	214.999927	uA			
Min Limit	79.9999798	uA			
krad(Si)	3	10	30	50	75
LL	80.000	80.000	80.000	80.000	80.000
Min	177.793	181.074	179.844	177.051	177.051
Average	182.004	184.828	181.918	182.465	182.565
Max	188.320	187.734	187.637	186.973	188.320
UL	215.000	215.000	215.000	215.000	215.000



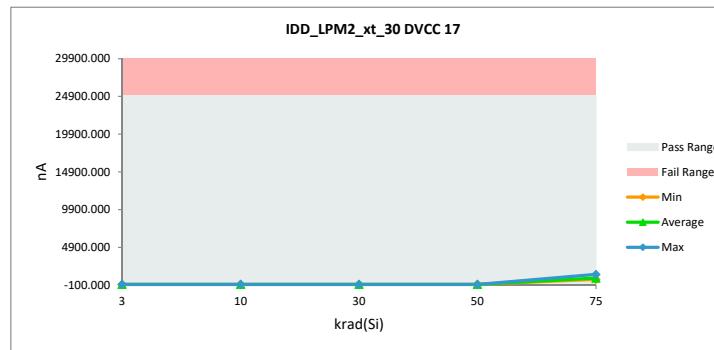
TID Report

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IDD_LPM2_xt_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	24999.99937	24999.99937		
Min Limit	0.050000001	0.050000001		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	666.016	0.750	665.266
3	7	664.063	0.832	663.230
3	8	666.016	0.744	665.271
3	9	667.969	0.748	667.221
3	0	669.922	0.725	669.197
10	16	664.063	0.818	663.244
10	17	667.969	0.789	667.180
10	18	671.875	0.842	671.033
10	19	666.016	0.787	665.229
10	20	664.063	0.846	663.217
30	26	671.875	0.795	671.090
30	27	671.875	1.324	670.551
30	28	667.969	0.828	667.141
30	29	669.922	0.803	669.119
30	30	669.922	0.838	669.084
50	36	701.172	0.830	700.342
50	37	697.266	0.805	696.461
50	38	701.172	1.186	699.986
50	39	701.172	0.771	700.400
50	40	691.406	0.771	690.635
75	63	781.250	750.000	31.250
75	64	781.250	832.031	-50.781
75	65	976.563	744.141	232.422
75	66	976.563	748.047	228.516
75	67	976.563	724.609	251.953
75	68	976.563	818.359	158.203
75	69	976.563	789.063	187.500
75	70	781.250	841.797	-60.547
75	71	781.250	787.109	-5.859
75	72	976.563	845.703	130.859
75	73	976.563	785.156	191.406
75	74	781.250	1324.219	-542.969
75	75	976.563	828.125	148.438
75	76	781.250	802.734	-21.484
75	77	976.563	837.891	138.672
75	78	781.250	830.078	-48.828
75	79	781.250	804.688	-23.438
75	80	781.250	1185.547	-404.297
75	81	781.250	771.484	9.766
75	82	976.563	771.484	205.078
75	83	976.563	808.594	167.969
75	84	976.563	669.922	306.641
Max		976.563	1324.219	700.400
Average		786.737	436.133	350.604
Min		664.063	0.725	-542.969
Std Dev		129.112	432.725	345.872



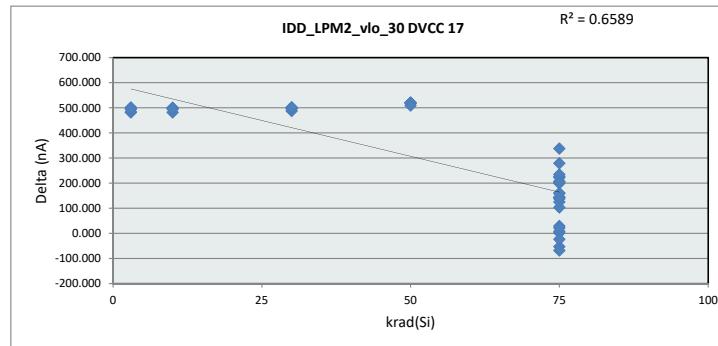
IDD_LPM2_xt_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Max Limit	24999.99937	nA		
Min Limit	0.050000001	nA		
krad(Si)	3	10	30	50
LL	0.050	0.050	0.050	0.050
Min	0.725	0.787	0.785	0.771
Average	0.760	0.816	0.916	0.873
Max	0.832	0.846	1.324	1.186
UL	24999.999	24999.999	24999.999	24999.999



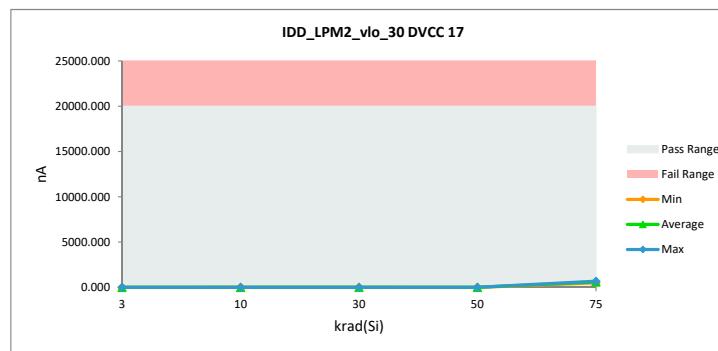
TID Report

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IDD_LPM2_vlo_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	19999.99949	19999.99949		
Min Limit	0.050000001	0.050000001		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	482.422	0.559	481.863
3	7	496.094	0.643	495.451
3	8	484.375	0.574	483.801
3	9	501.953	0.557	501.396
3	0	496.094	0.555	495.539
10	16	482.422	0.637	481.785
10	17	500.000	0.584	499.416
10	18	500.000	0.639	499.361
10	19	498.047	0.578	497.469
10	20	496.094	0.639	495.455
30	26	488.281	0.582	487.699
30	27	498.047	0.678	497.369
30	28	498.047	0.656	497.391
30	29	501.953	0.621	501.332
30	30	501.953	0.639	501.314
50	36	521.484	0.654	520.830
50	37	521.484	0.609	520.875
50	38	519.531	0.547	518.984
50	39	519.531	0.564	518.967
50	40	509.766	0.578	509.188
75	63	781.250	558.594	222.656
75	64	781.250	642.578	138.672
75	65	781.250	574.219	207.031
75	66	585.938	556.641	29.297
75	67	781.250	554.688	226.563
75	68	781.250	636.719	144.531
75	69	585.938	583.984	1.953
75	70	585.938	638.672	-52.734
75	71	585.938	578.125	7.813
75	72	976.563	638.672	337.891
75	73	781.250	582.031	199.219
75	74	781.250	677.734	103.516
75	75	781.250	656.250	125.000
75	76	781.250	621.094	160.156
75	77	781.250	638.672	142.578
75	78	585.938	654.297	-68.359
75	79	585.938	609.375	-23.438
75	80	781.250	546.875	234.375
75	81	585.938	564.453	21.484
75	82	781.250	578.125	203.125
75	83	781.250	621.094	160.156
75	84	781.250	501.953	279.297
Max		976.563	677.734	520.875
Average		619.838	314.927	304.911
Min		482.422	0.547	-68.359
Std Dev		138.451	305.024	204.990



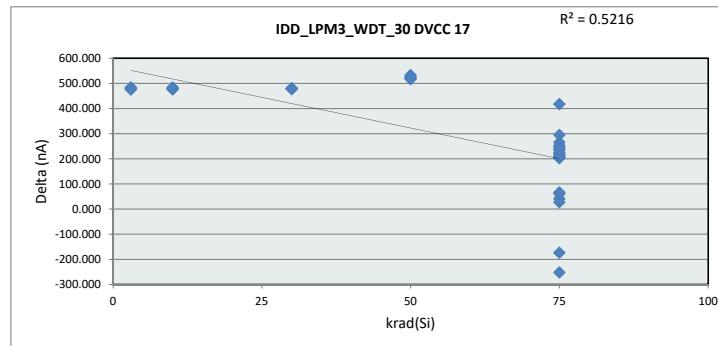
IDD_LPM2_vlo_30 DVCC 17					
Test Site	CLAB	CLAB	CLAB	CLAB	
Tester	J750EX	J750EX	J750EX	J750EX	
Test Number	JP07800	JP07800	JP07800	JP07800	
Max Limit	19999.99949	nA	nA	nA	
Min Limit	0.050000001	nA	nA	nA	
krad(Si)	3	10	30	50	75
LL	0.050	0.050	0.050	0.050	0.050
Min	0.555	0.578	0.582	0.547	501.953
Average	0.577	0.615	0.635	0.591	600.675
Max	0.643	0.639	0.678	0.654	677.734
UL	19999.999	19999.999	19999.999	19999.999	19999.999



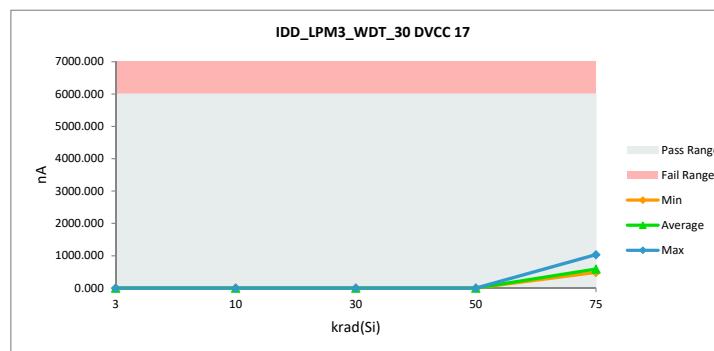
TID Report

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IDD_LPM3_WDT_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	6000.000212	6000.000212		
Min Limit	0.050000001	0.050000001		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	476.563	0.545	476.018
3	7	480.469	0.566	479.902
3	8	482.422	0.516	481.906
3	9	484.375	0.520	483.855
3	0	476.563	0.525	476.037
10	16	476.563	0.559	476.004
10	17	484.375	0.529	483.846
10	18	478.516	0.568	477.947
10	19	480.469	0.578	479.891
10	20	480.469	0.574	479.895
30	26	478.516	0.533	477.982
30	27	478.516	1.033	477.482
30	28	480.469	0.547	479.922
30	29	480.469	0.559	479.910
30	30	480.469	0.578	479.891
50	36	533.203	0.539	532.664
50	37	523.438	0.559	522.879
50	38	527.344	0.955	526.389
50	39	519.531	0.559	518.973
50	40	517.578	0.547	517.031
75	63	585.938	544.922	41.016
75	64	781.250	566.406	214.844
75	65	781.250	515.625	265.625
75	66	585.938	519.531	66.406
75	67	585.938	525.391	60.547
75	68	976.563	558.594	417.969
75	69	781.250	529.297	251.953
75	70	781.250	568.359	212.891
75	71	781.250	578.125	203.125
75	72	781.250	574.219	207.031
75	73	781.250	533.203	248.047
75	74	781.250	1033.203	-251.953
75	75	781.250	546.875	234.375
75	76	585.938	558.594	27.344
75	77	781.250	578.125	203.125
75	78	781.250	539.063	242.188
75	79	781.250	558.594	222.656
75	80	781.250	955.078	-173.828
75	81	781.250	558.594	222.656
75	82	781.250	546.875	234.375
75	83	781.250	574.219	207.031
75	84	781.250	486.328	294.922
Max		976.563	1033.203	532.664
Average		629.092	308.598	320.494
Min		476.563	0.516	-251.953
Std Dev		149.035	312.279	197.087



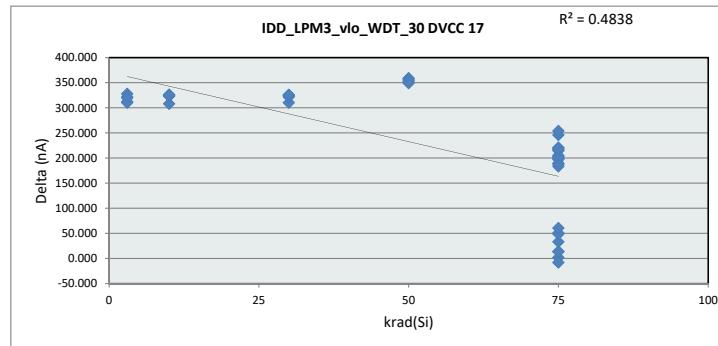
IDD_LPM3_WDT_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Max Limit	6000.000212	nA		
Min Limit	0.050000001	nA		
krad(Si)	3	10	30	50
LL	0.050	0.050	0.050	0.050
Min	0.516	0.529	0.533	0.539
Average	0.534	0.562	0.650	0.632
Max	0.566	0.578	1.033	0.955
UL	6000.000	6000.000	6000.000	6000.000



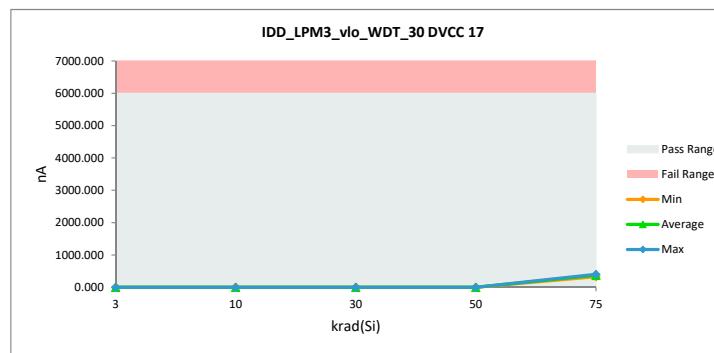
TID Report

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IDD_LPM3_vlo_WDT_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	6000.000212	6000.000212		
Min Limit	0.050000001	0.050000001		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	312.500	0.369	312.131
3	7	322.266	0.396	321.869
3	8	310.547	0.357	310.189
3	9	328.125	0.340	327.785
3	0	320.313	0.365	319.947
10	16	308.594	0.389	308.205
10	17	326.172	0.342	325.830
10	18	324.219	0.383	323.836
10	19	324.219	0.385	323.834
10	20	326.172	0.381	325.791
30	26	310.547	0.340	310.207
30	27	324.219	0.402	323.816
30	28	322.266	0.387	321.879
30	29	326.172	0.389	325.783
30	30	326.172	0.398	325.773
50	36	357.422	0.377	357.045
50	37	359.375	0.377	358.998
50	38	355.469	0.330	355.139
50	39	353.516	0.371	353.145
50	40	349.609	0.367	349.242
75	63	585.938	369.141	216.797
75	64	585.938	396.484	189.453
75	65	390.625	357.422	33.203
75	66	390.625	339.844	50.781
75	67	585.938	365.234	220.703
75	68	585.938	388.672	197.266
75	69	390.625	341.797	48.828
75	70	585.938	382.813	203.125
75	71	585.938	384.766	201.172
75	72	585.938	380.859	205.078
75	73	585.938	339.844	246.094
75	74	585.938	402.344	183.594
75	75	585.938	386.719	199.219
75	76	390.625	388.672	1.953
75	77	390.625	398.438	-7.813
75	78	390.625	376.953	13.672
75	79	390.625	376.953	13.672
75	80	390.625	330.078	60.547
75	81	585.938	371.094	214.844
75	82	585.938	367.188	218.750
75	83	585.938	398.438	187.500
75	84	585.938	332.031	253.906
Max		585.938	402.344	358.998
Average		426.572	194.839	231.733
Min		308.594	0.330	-7.813
Std Dev		116.855	188.359	115.491



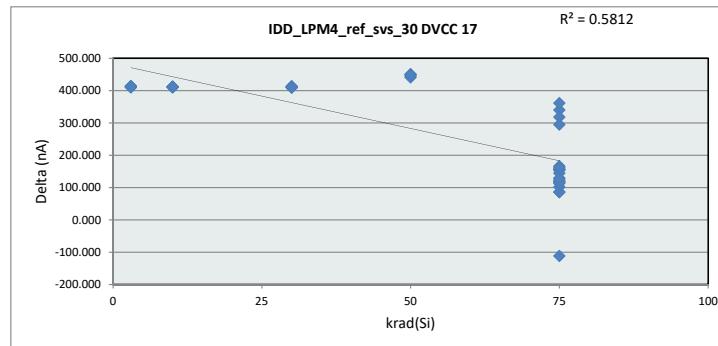
IDD_LPM3_vlo_WDT_30 DVCC					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	6000.000212	nA			
Min Limit	0.050000001	nA			
krad(Si)	3	10	30	50	75
LL	0.050	0.050	0.050	0.050	0.050
Min	0.340	0.342	0.340	0.330	330.078
Average	0.366	0.376	0.383	0.364	371.626
Max	0.396	0.389	0.402	0.377	402.344
UL	6000.000	6000.000	6000.000	6000.000	6000.000



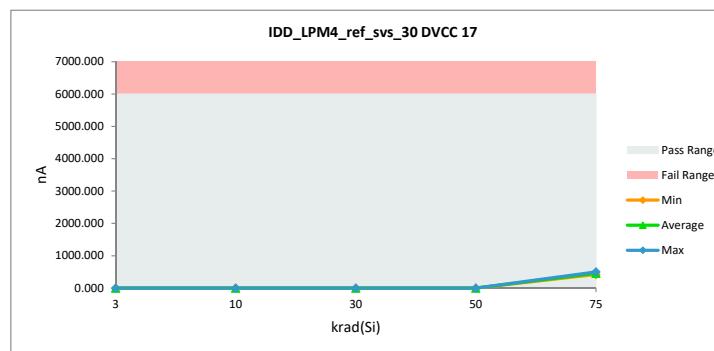
TID Report

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IDD_LPM4_ref_svs_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	6000.000212	6000.000212		
Min Limit	0.050000001	0.050000001		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	414.063	0.467	413.596
3	7	412.109	0.502	411.607
3	8	414.063	0.428	413.635
3	9	410.156	0.430	409.727
3	0	412.109	0.441	411.668
10	16	412.109	0.465	411.645
10	17	412.109	0.420	411.689
10	18	410.156	0.457	409.699
10	19	412.109	0.469	411.641
10	20	412.109	0.500	411.609
30	26	412.109	0.432	411.678
30	27	410.156	0.500	409.656
30	28	410.156	0.463	409.693
30	29	414.063	0.484	413.578
30	30	410.156	0.473	409.684
50	36	449.219	0.432	448.787
50	37	445.313	0.441	444.871
50	38	441.406	0.424	440.982
50	39	451.172	0.471	450.701
50	40	449.219	0.459	448.760
75	63	585.938	466.797	119.141
75	64	390.625	501.953	-111.328
75	65	585.938	427.734	158.203
75	66	585.938	429.688	156.250
75	67	781.250	441.406	339.844
75	68	585.938	464.844	121.094
75	69	585.938	419.922	166.016
75	70	585.938	457.031	128.906
75	71	585.938	468.750	117.188
75	72	585.938	500.000	85.938
75	73	585.938	431.641	154.297
75	74	585.938	500.000	85.938
75	75	781.250	462.891	318.359
75	76	585.938	484.375	101.563
75	77	585.938	472.656	113.281
75	78	585.938	431.641	154.297
75	79	585.938	441.406	144.531
75	80	585.938	423.828	162.109
75	81	585.938	470.703	115.234
75	82	585.938	458.984	126.953
75	83	781.250	486.328	294.922
75	84	781.250	419.922	361.328
Max	781.250	501.953	450.701	
Average	521.205	239.801	281.404	
Min	390.625	0.420	-111.328	
Std Dev	117.451	231.779	152.707	



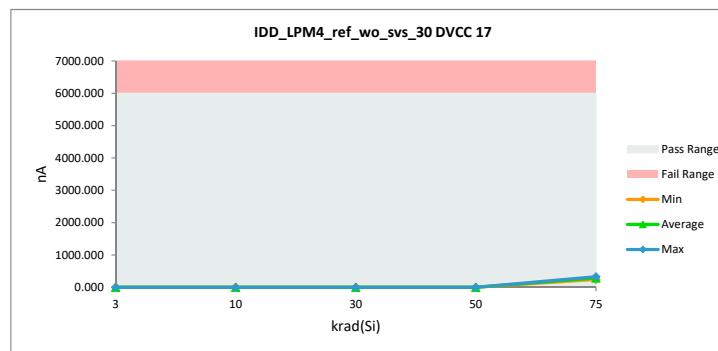
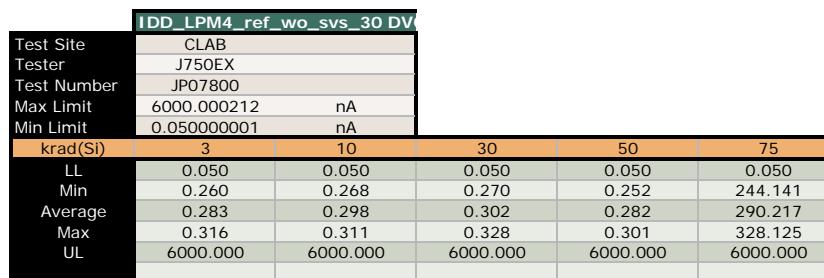
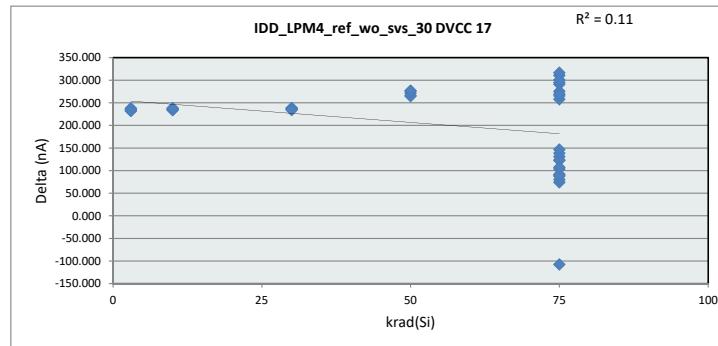
IDD_LPM4_ref_svs_30 DVCC 1				
Test Site	CLAB			
Tester	J750EX			
Test Number	JP07800			
Unit	nA			
Max Limit	6000.000212			
Min Limit	0.050000001			
krad(Si)	3	10	30	50
LL	0.050	0.050	0.050	0.050
Min	0.428	0.420	0.432	0.424
Average	0.454	0.462	0.470	0.445
Max	0.502	0.500	0.500	0.471
UL	6000.000	6000.000	6000.000	501.953



TID Report

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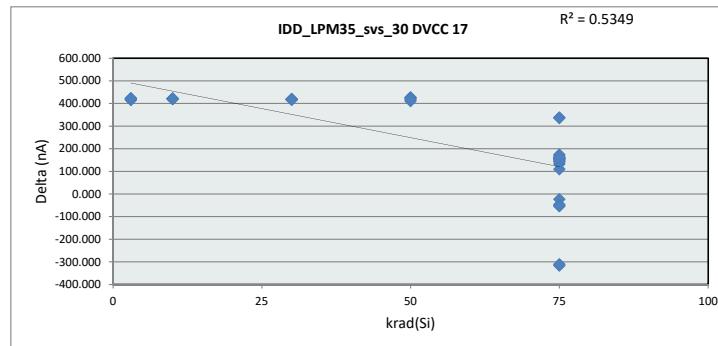
IDD_LPM4_ref_wo_svs_30 DVCC				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	6000.000212	6000.000212		
Min Limit	0.050000001	0.050000001		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	234.375	0.295	234.080
3	7	236.328	0.316	236.012
3	8	232.422	0.268	232.154
3	9	238.281	0.260	238.021
3	0	232.422	0.275	232.146
10	16	238.281	0.299	237.982
10	17	234.375	0.268	234.107
10	18	236.328	0.303	236.025
10	19	234.375	0.311	234.064
10	20	238.281	0.311	237.971
30	26	238.281	0.270	238.012
30	27	238.281	0.328	237.953
30	28	238.281	0.291	237.990
30	29	236.328	0.303	236.025
30	30	234.375	0.320	234.055
50	36	265.625	0.285	265.340
50	37	271.484	0.287	271.197
50	38	265.625	0.252	265.373
50	39	275.391	0.301	275.090
50	40	277.344	0.283	277.061
75	63	585.938	294.922	291.016
75	64	390.625	316.406	74.219
75	65	390.625	267.578	123.047
75	66	390.625	259.766	130.859
75	67	585.938	275.391	310.547
75	68	390.625	298.828	91.797
75	69	390.625	267.578	123.047
75	70	195.313	302.734	-107.422
75	71	585.938	310.547	275.391
75	72	390.625	310.547	80.078
75	73	585.938	269.531	316.406
75	74	585.938	328.125	257.813
75	75	585.938	291.016	294.922
75	76	390.625	302.734	87.891
75	77	585.938	320.313	265.625
75	78	585.938	285.156	300.781
75	79	390.625	287.109	103.516
75	80	390.625	251.953	138.672
75	81	390.625	300.781	89.844
75	82	390.625	283.203	107.422
75	83	585.938	316.406	269.531
75	84	390.625	244.141	146.484
Max		585.938	328.125	316.406
Average		358.398	152.157	206.242
Min		195.313	0.252	-107.422
Std Dev		136.845	147.494	87.855



TID Report

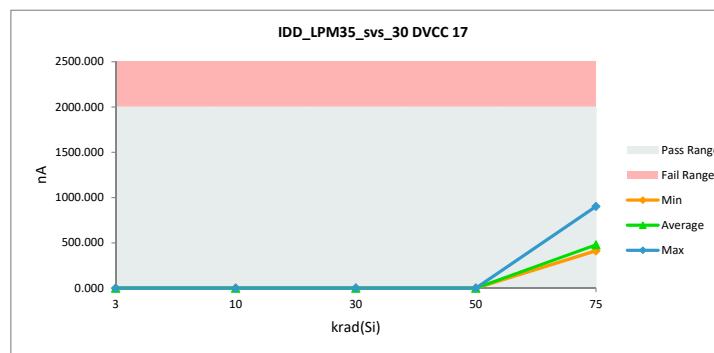
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IDD_LPM35_svs_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	1500.000053	1500.000053		
Min Limit	0.050000001	0.050000001		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	421.875	0.434	421.441
3	7	419.922	0.453	419.469
3	8	416.016	0.414	415.602
3	9	417.969	0.430	417.539
3	0	423.828	0.438	423.391
10	16	419.922	0.443	419.479
10	17	421.875	0.424	421.451
10	18	421.875	0.418	421.457
10	19	421.875	0.432	421.443
10	20	421.875	0.477	421.398
30	26	419.922	0.441	419.480
30	27	417.969	0.902	417.066
30	28	417.969	0.443	417.525
30	29	419.922	0.443	419.479
30	30	417.969	0.430	417.539
50	36	423.828	0.412	423.416
50	37	427.734	0.426	427.309
50	38	412.109	0.896	411.213
50	39	425.781	0.443	425.338
50	40	417.969	0.445	417.523
75	63	585.938	433.594	152.344
75	64	585.938	453.125	132.813
75	65	390.625	414.063	-23.438
75	66	585.938	429.688	156.250
75	67	390.625	437.500	-46.875
75	68	390.625	443.359	-52.734
75	69	585.938	423.828	162.109
75	70	585.938	417.969	167.969
75	71	585.938	431.641	154.297
75	72	585.938	476.563	109.375
75	73	585.938	441.406	144.531
75	74	585.938	902.344	-316.406
75	75	390.625	443.359	-52.734
75	76	781.250	443.359	337.891
75	77	585.938	429.688	156.250
75	78	585.938	412.109	173.828
75	79	585.938	425.781	160.156
75	80	585.938	896.484	-310.547
75	81	585.938	443.359	142.578
75	82	781.250	445.313	335.938
75	83	585.938	439.453	146.484
75	84	585.938	425.781	160.156
Max		781.250	902.344	427.309
Average		497.814	250.462	247.352
Min		390.625	0.412	-316.406
Std Dev		104.874	260.456	204.424



IDD_LPM35_svs_30 DVCC 17

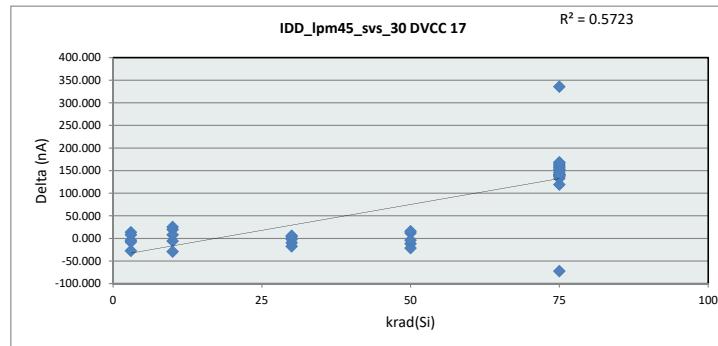
Test Site	CLAB
Tester	J750EX
Test Number	JP07800
Max Limit	1500.000053
Min Limit	0.050000001
krad(Si)	3 10 30 50 75
LL	0.050 0.050 0.050 0.050 0.050
Min	0.414 0.430 0.412 412.109
Average	0.434 0.439 0.532 0.525 477.717
Max	0.453 0.477 0.902 0.896 902.344
UL	2000.000 2000.000 2000.000 2000.000 2000.000



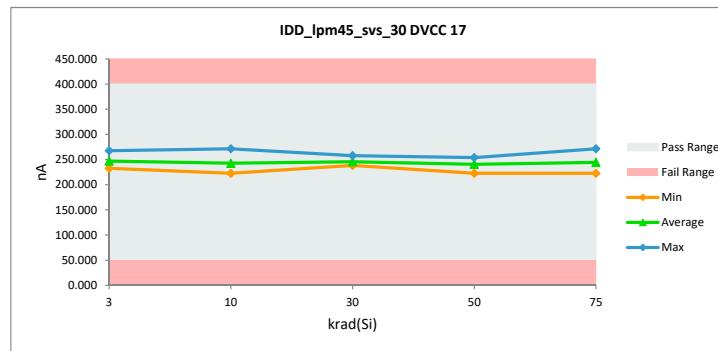
TID Report

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IDD_Ipm45_svs_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	400.0000047	400.0000047		
Min Limit	50.00000058	50.00000058		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	246.094	250.000	-3.906
3	7	240.234	267.578	-27.344
3	8	246.094	232.422	13.672
3	9	242.188	234.375	7.813
3	0	242.188	250.000	-7.813
10	16	246.094	251.953	-5.859
10	17	248.047	222.656	25.391
10	18	248.047	228.516	19.531
10	19	246.094	238.281	7.813
10	20	242.188	271.484	-29.297
30	26	242.188	238.281	3.906
30	27	240.234	257.813	-17.578
30	28	240.234	250.000	-9.766
30	29	242.188	244.141	-1.953
30	30	244.141	238.281	5.859
50	36	238.281	226.563	11.719
50	37	238.281	222.656	15.625
50	38	238.281	250.000	-11.719
50	39	232.422	253.906	-21.484
50	40	246.094	250.000	-3.906
75	63	390.625	250.000	140.625
75	64	195.313	267.578	-72.266
75	65	390.625	232.422	158.203
75	66	390.625	234.375	156.250
75	67	390.625	250.000	140.625
75	68	390.625	251.953	138.672
75	69	390.625	222.656	167.969
75	70	390.625	228.516	162.109
75	71	390.625	238.281	152.344
75	72	390.625	271.484	119.141
75	73	390.625	238.281	152.344
75	74	390.625	257.813	132.813
75	75	390.625	250.000	140.625
75	76	390.625	244.141	146.484
75	77	390.625	238.281	152.344
75	78	390.625	226.563	164.063
75	79	390.625	222.656	167.969
75	80	390.625	250.000	140.625
75	81	390.625	253.906	136.719
75	82	390.625	250.000	140.625
75	83	390.625	248.047	142.578
75	84	585.938	250.000	335.938
	Max	585.938	271.484	335.938
	Average	320.080	244.187	75.893
	Min	195.313	222.656	-72.266
	Std Dev	86.463	13.341	88.315



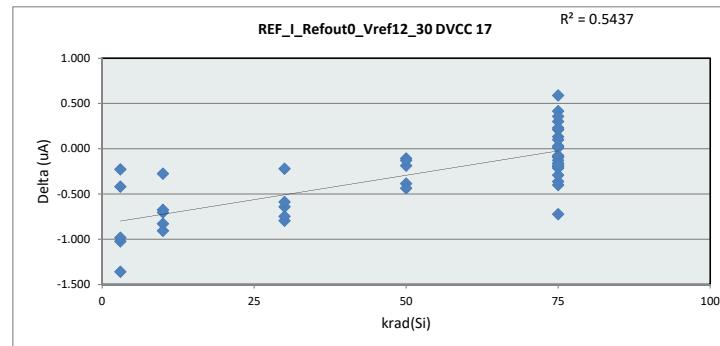
IDD_Ipm45_svs_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	400.0000047	nA		
Min Limit	50.00000058	nA		
krad(Si)	3	10	30	50
LL	50.000	50.000	50.000	50.000
Min	232.422	222.656	238.281	222.656
Average	246.875	242.578	245.703	240.625
Max	267.578	271.484	257.813	253.906
UL	400.000	400.000	400.000	400.000
krad(Si)	75			
LL				
Min				
Average				
Max				
UL				



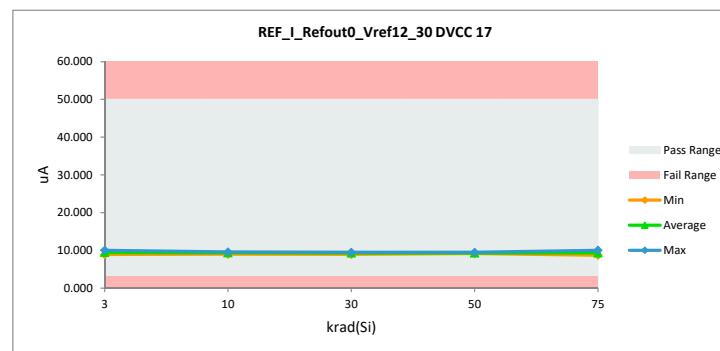
TID Report

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REF_I_Refout0_Vref12_30 DVCC				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	49.99999874	49.99999874		
Min Limit	3.000000106	3.000000106		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	8.674	10.033	-1.359
3	7	8.676	9.699	-1.023
3	8	8.678	9.660	-0.982
3	9	8.678	8.906	-0.229
3	0	8.678	9.096	-0.418
10	16	8.721	8.996	-0.275
10	17	8.723	9.398	-0.676
10	18	8.684	9.512	-0.828
10	19	8.684	9.387	-0.703
10	20	8.682	9.588	-0.906
30	26	8.715	9.510	-0.795
30	27	8.686	9.434	-0.748
30	28	8.732	8.953	-0.221
30	29	8.734	9.375	-0.641
30	30	8.688	9.275	-0.588
50	36	9.063	9.170	-0.107
50	37	9.059	9.246	-0.188
50	38	9.057	9.441	-0.385
50	39	9.059	9.494	-0.436
50	40	9.061	9.189	-0.129
75	63	9.311	10.033	-0.723
75	64	9.299	9.699	-0.400
75	65	9.299	9.660	-0.361
75	66	9.322	8.906	0.416
75	67	9.307	9.096	0.211
75	68	9.297	8.996	0.301
75	69	9.322	9.398	-0.076
75	70	9.314	9.512	-0.197
75	71	9.295	9.387	-0.092
75	72	9.297	9.588	-0.291
75	73	9.297	9.510	-0.213
75	74	9.307	9.434	-0.127
75	75	9.311	8.953	0.357
75	76	9.285	9.375	-0.090
75	77	9.287	9.275	0.012
75	78	9.303	9.170	0.133
75	79	9.277	9.246	0.031
75	80	9.283	9.441	-0.158
75	81	9.314	9.494	-0.180
75	82	9.289	9.189	0.100
75	83	9.316	9.086	0.230
75	84	9.303	8.713	0.590
	Max	9.322	10.033	0.590
	Average	9.056	9.346	-0.290
	Min	8.674	8.713	-1.359
	Std Dev	0.283	0.287	0.426



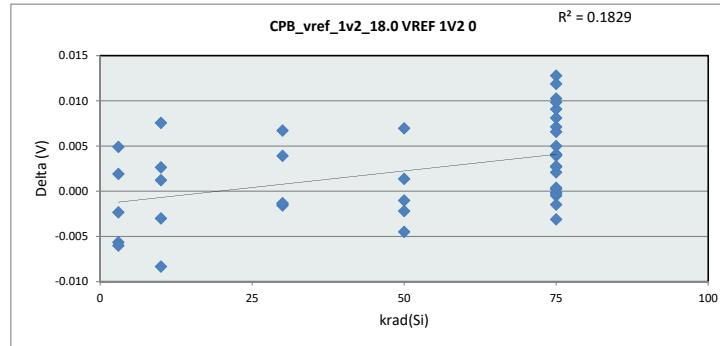
REF_I_Refout0_Vref12_30 DVCC 17					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	49.99999874	uA			
Min Limit	3.000000106	uA			
krad(Si)	3	10	30	50	75
LL	3.000	3.000	3.000	3.000	3.000
Min	8.906	8.996	9.170	8.713	
Average	9.479	9.376	9.309	9.308	9.326
Max	10.033	9.588	9.510	9.494	10.033
UL	50.000	50.000	50.000	50.000	50.000



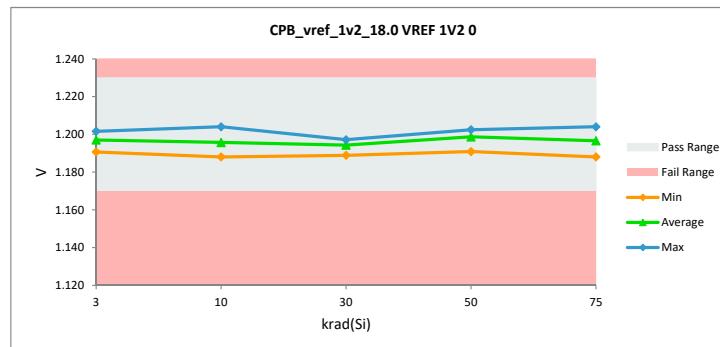
TID Report

MSP430FR5969-MLS

CPB_vref_1v2_18.0 VREF 1V2 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.230000019	1.230000019		
Min Limit	1.16999957	1.16999957		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.196	1.191	0.005
3	7	1.196	1.201	-0.006
3	8	1.196	1.198	-0.002
3	9	1.196	1.202	-0.006
3	0	1.196	1.194	0.002
10	16	1.196	1.204	-0.008
10	17	1.196	1.199	-0.003
10	18	1.196	1.193	0.003
10	19	1.196	1.188	0.008
10	20	1.196	1.195	0.001
30	26	1.196	1.197	-0.002
30	27	1.196	1.197	-0.001
30	28	1.196	1.192	0.004
30	29	1.196	1.197	-0.001
30	30	1.196	1.189	0.007
50	36	1.200	1.198	0.001
50	37	1.200	1.201	-0.001
50	38	1.198	1.202	-0.005
50	39	1.198	1.191	0.007
50	40	1.199	1.201	-0.002
75	63	1.201	1.191	0.010
75	64	1.201	1.201	0.000
75	65	1.201	1.198	0.003
75	66	1.201	1.202	0.000
75	67	1.201	1.194	0.007
75	68	1.201	1.204	-0.003
75	69	1.201	1.199	0.002
75	70	1.201	1.193	0.008
75	71	1.201	1.188	0.013
75	72	1.201	1.195	0.007
75	73	1.201	1.197	0.004
75	74	1.201	1.197	0.004
75	75	1.201	1.192	0.009
75	76	1.201	1.197	0.004
75	77	1.201	1.189	0.012
75	78	1.201	1.198	0.003
75	79	1.201	1.201	0.000
75	80	1.201	1.202	-0.001
75	81	1.201	1.191	0.010
75	82	1.201	1.201	0.000
75	83	1.201	1.201	0.000
75	84	1.201	1.196	0.005
Max		1.201	1.204	0.013
Average		1.199	1.197	0.002
Min		1.196	1.188	-0.008
Std Dev		0.002	0.005	0.005



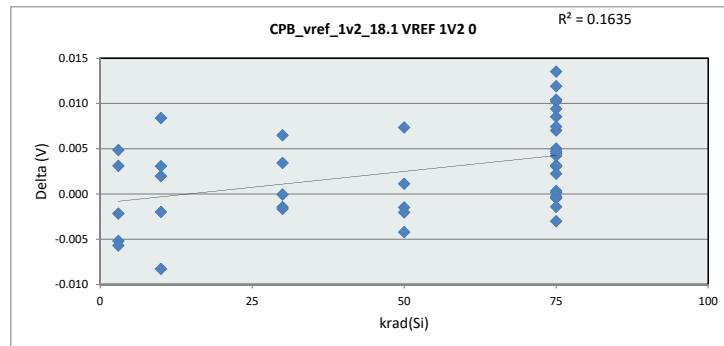
CPB_vref_1v2_18.0 VREF 1V2 0					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Unit	V	V	V	V	V
Max Limit	1.230000019	1.230000019	1.230000019	1.230000019	1.230000019
Min Limit	1.16999957	1.16999957	1.16999957	1.16999957	1.16999957
krad(Si)	3	10	30	50	75
LL	1.170	1.170	1.170	1.170	1.170
Min	1.191	1.188	1.191	1.188	1.188
Average	1.197	1.196	1.194	1.199	1.197
Max	1.202	1.204	1.197	1.202	1.204
UL	1.230	1.230	1.230	1.230	1.230



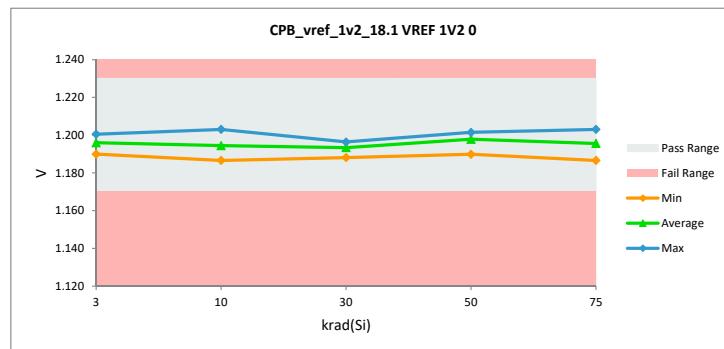
TID Report

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CPB_vref_1v2_18.1 VREF 1V2 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.230000019	1.230000019		
Min Limit	1.169999957	1.169999957		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.195	1.190	0.005
3	7	1.195	1.200	-0.005
3	8	1.195	1.197	-0.002
3	9	1.195	1.201	-0.006
3	0	1.195	1.192	0.003
10	16	1.195	1.203	-0.008
10	17	1.195	1.197	-0.002
10	18	1.195	1.192	0.003
10	19	1.195	1.187	0.008
10	20	1.195	1.193	0.002
30	26	1.195	1.196	-0.001
30	27	1.195	1.195	0.000
30	28	1.195	1.191	0.003
30	29	1.195	1.196	-0.002
30	30	1.195	1.188	0.006
50	36	1.199	1.198	0.001
50	37	1.198	1.200	-0.001
50	38	1.197	1.202	-0.004
50	39	1.197	1.190	0.007
50	40	1.198	1.200	-0.002
75	63	1.200	1.190	0.010
75	64	1.200	1.200	0.000
75	65	1.200	1.197	0.003
75	66	1.200	1.201	0.000
75	67	1.199	1.192	0.007
75	68	1.200	1.203	-0.003
75	69	1.200	1.197	0.003
75	70	1.201	1.192	0.009
75	71	1.200	1.187	0.014
75	72	1.201	1.193	0.007
75	73	1.200	1.196	0.004
75	74	1.200	1.195	0.005
75	75	1.201	1.191	0.009
75	76	1.201	1.196	0.004
75	77	1.200	1.188	0.012
75	78	1.200	1.198	0.002
75	79	1.200	1.200	0.000
75	80	1.200	1.202	-0.001
75	81	1.200	1.190	0.010
75	82	1.200	1.200	0.000
75	83	1.200	1.200	0.000
75	84	1.200	1.195	0.005
Max		1.201	1.203	0.014
Average		1.198	1.196	0.003
Min		1.195	1.187	-0.008
Std Dev		0.002	0.005	0.005



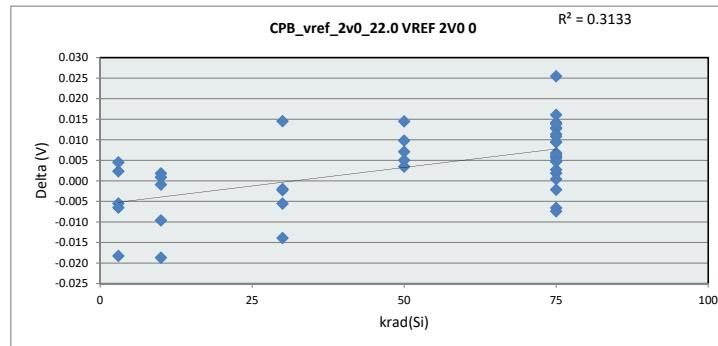
CPB_vref_1v2_18.1 VREF 1V2 0					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Unit	V	V	V	V	V
Max Limit	1.230000019	1.230000019	1.230000019	1.230000019	1.230000019
Min Limit	1.169999957	1.169999957	1.169999957	1.169999957	1.169999957
krad(Si)	3	10	30	50	75
LL	1.170	1.170	1.170	1.170	1.170
Min	1.190	1.187	1.188	1.190	1.187
Average	1.196	1.194	1.193	1.198	1.196
Max	1.201	1.203	1.196	1.202	1.203
UL	1.230	1.230	1.230	1.230	1.230



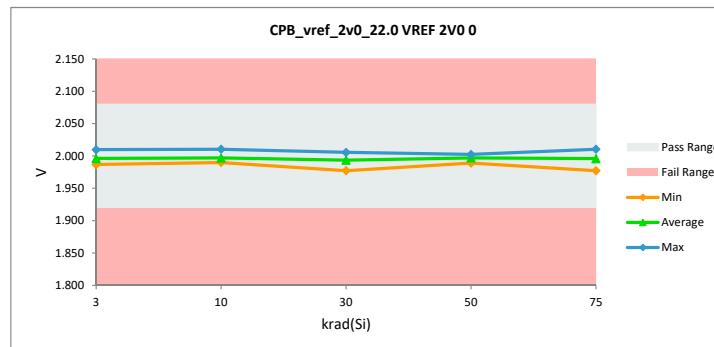
TID Report

MSP430FR5969-MLS

CPB_vref_2v0_22.0 VREF 2V0 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.079999924	2.079999924		
Min Limit	1.919999957	1.919999957		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.991	1.989	0.002
3	7	1.991	2.010	-0.018
3	8	1.992	1.997	-0.005
3	9	1.992	1.998	-0.007
3	0	1.991	1.987	0.005
10	16	1.992	2.010	-0.019
10	17	1.992	2.001	-0.010
10	18	1.992	1.993	-0.001
10	19	1.992	1.990	0.002
10	20	1.992	1.991	0.001
30	26	1.992	1.994	-0.002
30	27	1.992	2.006	-0.014
30	28	1.992	1.994	-0.002
30	29	1.992	1.997	-0.006
30	30	1.992	1.977	0.015
50	36	2.006	1.997	0.010
50	37	2.006	2.002	0.003
50	38	2.004	1.997	0.007
50	39	2.003	1.989	0.014
50	40	2.006	2.001	0.005
75	63	2.003	1.989	0.014
75	64	2.003	2.010	-0.007
75	65	2.003	1.997	0.006
75	66	2.003	1.998	0.005
75	67	2.003	1.987	0.016
75	68	2.003	2.010	-0.007
75	69	2.003	2.001	0.002
75	70	2.003	1.993	0.011
75	71	2.003	1.990	0.013
75	72	2.003	1.991	0.013
75	73	2.003	1.994	0.009
75	74	2.003	2.006	-0.002
75	75	2.003	1.994	0.009
75	76	2.003	1.997	0.006
75	77	2.003	1.977	0.025
75	78	2.003	1.997	0.007
75	79	2.003	2.002	0.000
75	80	2.003	1.997	0.006
75	81	2.003	1.989	0.014
75	82	2.003	2.001	0.003
75	83	2.003	1.998	0.005
75	84	2.003	1.992	0.011
Max		2.006	2.010	0.025
Average		1.999	1.996	0.003
Min		1.991	1.977	-0.019
Std Dev		0.006	0.008	0.009



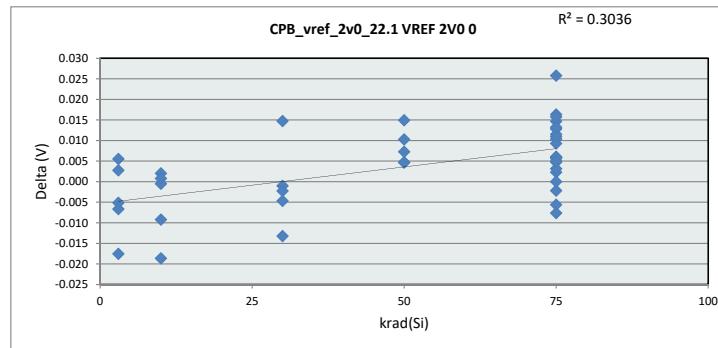
CPB_vref_2v0_22.0 VREF 2V0 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.079999924	V			
Min Limit	1.919999957	V			
krad(Si)	3	10	30	50	75
LL	1.920	1.920	1.920	1.920	1.920
Min	1.987	1.990	1.977	1.989	1.977
Average	1.996	1.997	1.994	1.997	1.996
Max	2.010	2.010	2.006	2.002	2.010
UL	2.080	2.080	2.080	2.080	2.080



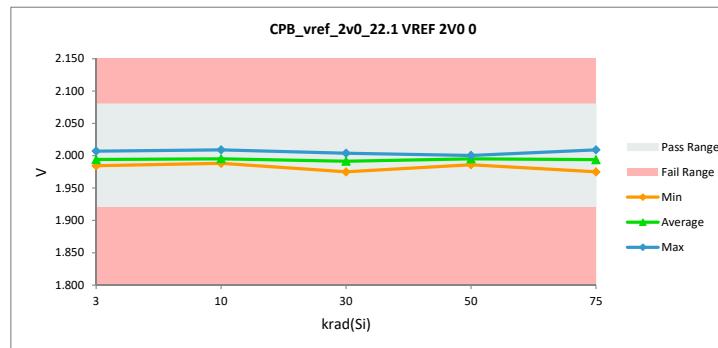
TID Report

MSP430FR5969-MLS

CPB_vref_2v0_22.1 VREF 2V0 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.079999924	2.079999924		
Min Limit	1.919999957	1.919999957		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.989	1.987	0.003
3	7	1.990	2.007	-0.018
3	8	1.990	1.995	-0.005
3	9	1.990	1.997	-0.007
3	0	1.990	1.985	0.006
10	16	1.991	2.009	-0.019
10	17	1.990	1.999	-0.009
10	18	1.990	1.990	-0.001
10	19	1.990	1.988	0.002
10	20	1.990	1.989	0.001
30	26	1.990	1.991	-0.001
30	27	1.991	2.004	-0.013
30	28	1.991	1.993	-0.002
30	29	1.990	1.995	-0.005
30	30	1.990	1.975	0.015
50	36	2.006	1.995	0.010
50	37	2.005	2.001	0.005
50	38	2.002	1.995	0.007
50	39	2.001	1.986	0.015
50	40	2.004	1.999	0.005
75	63	2.001	1.987	0.015
75	64	2.002	2.007	-0.006
75	65	2.001	1.995	0.006
75	66	2.002	1.997	0.005
75	67	2.001	1.985	0.016
75	68	2.002	2.009	-0.008
75	69	2.002	1.999	0.002
75	70	2.002	1.990	0.012
75	71	2.001	1.988	0.013
75	72	2.002	1.989	0.013
75	73	2.002	1.991	0.010
75	74	2.002	2.004	-0.002
75	75	2.002	1.993	0.009
75	76	2.001	1.995	0.006
75	77	2.001	1.975	0.026
75	78	2.001	1.995	0.006
75	79	2.001	2.001	0.000
75	80	2.001	1.995	0.006
75	81	2.002	1.986	0.016
75	82	2.002	1.999	0.003
75	83	2.001	1.996	0.005
75	84	2.001	1.990	0.011
Max		2.006	2.009	0.026
Average		1.998	1.994	0.004
Min		1.989	1.975	-0.019
Std Dev		0.006	0.008	0.009



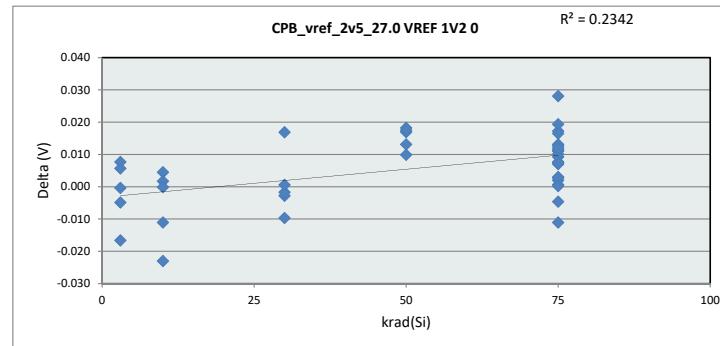
CPB_vref_2v0_22.1 VREF 2V0 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.079999924	V			
Min Limit	1.919999957	V			
krad(Si)	3	10	30	50	75
LL	1.920	1.920	1.920	1.920	1.920
Min	1.985	1.988	1.986	1.986	1.975
Average	1.994	1.995	1.992	1.995	1.994
Max	2.007	2.009	2.004	2.001	2.009
UL	2.080	2.080	2.080	2.080	2.080



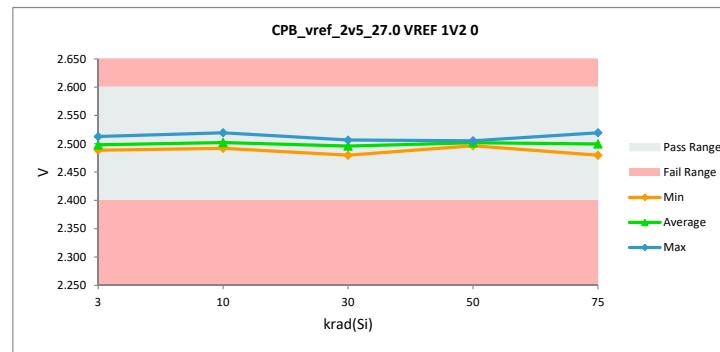
TID Report

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CPB_vref_2v5_27.0 VREF 1V2 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.599999905	2.599999905		
Min Limit	2.400000095	2.400000095		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	2.496	2.491	0.006
3	7	2.496	2.513	-0.017
3	8	2.497	2.497	0.000
3	9	2.497	2.502	-0.005
3	0	2.496	2.489	0.008
10	16	2.496	2.519	-0.023
10	17	2.497	2.508	-0.011
10	18	2.497	2.492	0.004
10	19	2.497	2.495	0.002
10	20	2.497	2.497	0.000
30	26	2.496	2.499	-0.003
30	27	2.497	2.507	-0.010
30	28	2.497	2.499	-0.002
30	29	2.497	2.496	0.001
30	30	2.497	2.480	0.017
50	36	2.518	2.501	0.017
50	37	2.519	2.505	0.013
50	38	2.515	2.505	0.010
50	39	2.515	2.497	0.018
50	40	2.518	2.501	0.017
75	63	2.508	2.491	0.017
75	64	2.508	2.513	-0.005
75	65	2.508	2.497	0.011
75	66	2.509	2.502	0.007
75	67	2.508	2.489	0.019
75	68	2.508	2.519	-0.011
75	69	2.508	2.508	0.001
75	70	2.509	2.492	0.016
75	71	2.508	2.495	0.013
75	72	2.509	2.497	0.012
75	73	2.508	2.499	0.009
75	74	2.509	2.507	0.002
75	75	2.509	2.499	0.010
75	76	2.509	2.496	0.013
75	77	2.508	2.480	0.028
75	78	2.508	2.501	0.008
75	79	2.508	2.505	0.003
75	80	2.508	2.505	0.003
75	81	2.508	2.497	0.011
75	82	2.508	2.501	0.007
75	83	2.508	2.508	0.000
75	84	2.508	2.496	0.012
Max		2.519	2.519	0.028
Average		2.505	2.500	0.005
Min		2.496	2.480	-0.023
Std Dev		0.007	0.009	0.010



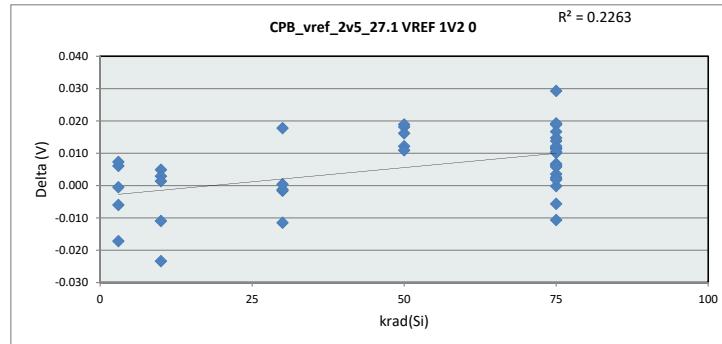
CPB_vref_2v5_27.0 VREF 1V2 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.599999905	V			
Min Limit	2.400000095	V			
krad(Si)	3	10	30	50	75
LL	2.400	2.400	2.400	2.400	2.400
Min	2.489	2.492	2.480	2.497	2.480
Average	2.498	2.502	2.496	2.502	2.500
Max	2.513	2.519	2.507	2.505	2.519
UL	2.600	2.600	2.600	2.600	2.600



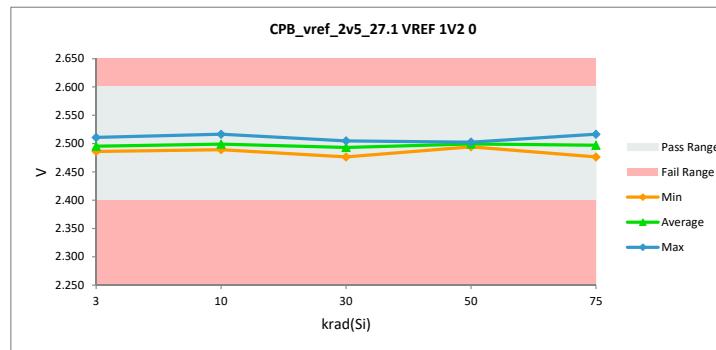
TID Report

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CPB_vref_2v5_27.1 VREF 1V2 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.59999905	2.59999905		
Min Limit	2.40000095	2.40000095		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	2.493	2.487	0.006
3	7	2.494	2.511	-0.017
3	8	2.493	2.493	-0.001
3	9	2.494	2.500	-0.006
3	0	2.493	2.486	0.007
10	16	2.493	2.517	-0.023
10	17	2.495	2.506	-0.011
10	18	2.494	2.489	0.005
10	19	2.494	2.491	0.003
10	20	2.494	2.493	0.001
30	26	2.494	2.496	-0.002
30	27	2.493	2.505	-0.011
30	28	2.494	2.495	-0.001
30	29	2.494	2.494	0.000
30	30	2.494	2.476	0.018
50	36	2.516	2.498	0.018
50	37	2.515	2.503	0.012
50	38	2.513	2.502	0.011
50	39	2.513	2.494	0.019
50	40	2.516	2.500	0.016
75	63	2.506	2.487	0.019
75	64	2.505	2.511	-0.006
75	65	2.505	2.493	0.012
75	66	2.506	2.500	0.006
75	67	2.505	2.486	0.019
75	68	2.506	2.517	-0.011
75	69	2.506	2.506	0.000
75	70	2.506	2.489	0.017
75	71	2.506	2.491	0.015
75	72	2.506	2.493	0.014
75	73	2.506	2.496	0.010
75	74	2.507	2.505	0.002
75	75	2.507	2.495	0.011
75	76	2.506	2.494	0.012
75	77	2.506	2.476	0.029
75	78	2.505	2.498	0.007
75	79	2.505	2.503	0.003
75	80	2.506	2.502	0.004
75	81	2.506	2.494	0.011
75	82	2.506	2.500	0.006
75	83	2.506	2.504	0.002
75	84	2.505	2.495	0.010
	Max	2.516	2.517	0.029
	Average	2.502	2.497	0.006
	Min	2.493	2.476	-0.023
	Std Dev	0.007	0.009	0.011



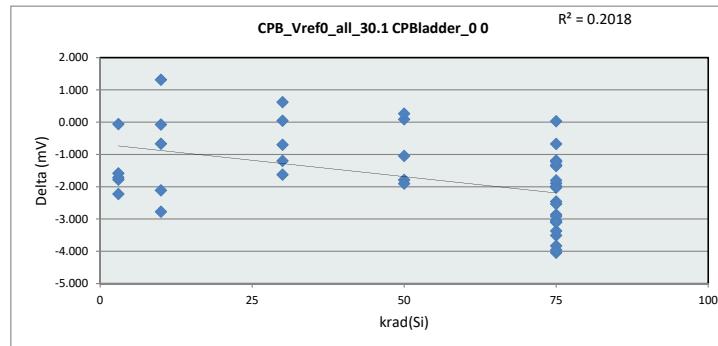
CPB_vref_2v5_27.1 VREF 1V2 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.59999905	V			
Min Limit	2.40000095	V			
krad(Si)	3	10	30	50	75
LL	2.400	2.400	2.400	2.400	2.400
Min	2.486	2.489	2.476	2.494	2.476
Average	2.495	2.499	2.493	2.499	2.497
Max	2.511	2.517	2.505	2.503	2.517
UL	2.600	2.600	2.600	2.600	2.600



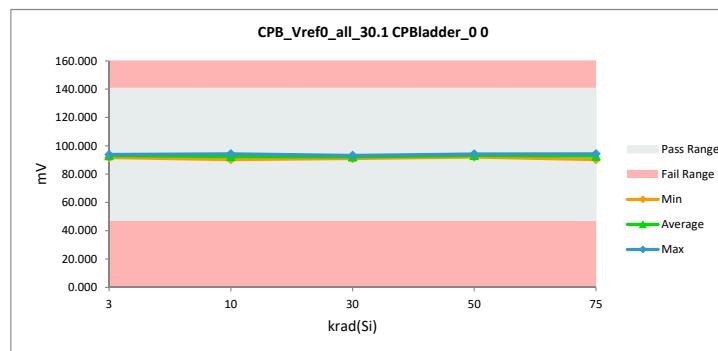
TID Report

MSP430FR5969-MLS

CPB_Vref0_all_30.1 CPBladder_0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	140.625	140.625		
Min Limit	46.875	46.875		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	91.615	93.392	-1.777
3	7	91.657	93.373	-1.715
3	8	91.624	91.682	-0.058
3	9	91.615	93.202	-1.588
3	0	91.620	93.847	-2.227
10	16	91.586	92.255	-0.669
10	17	91.605	93.714	-2.109
10	18	91.601	91.673	-0.072
10	19	91.582	94.358	-2.776
10	20	91.615	90.299	1.316
30	26	91.596	91.550	0.046
30	27	91.643	92.340	-0.697
30	28	91.620	93.245	-1.625
30	29	91.620	91.000	0.619
30	30	91.605	92.805	-1.199
50	36	92.358	94.145	-1.787
50	37	92.401	92.312	0.089
50	38	92.392	92.127	0.264
50	39	92.368	94.273	-1.905
50	40	92.377	93.420	-1.043
75	63	90.289	93.392	-3.103
75	64	90.331	93.373	-3.042
75	65	90.355	91.682	-1.327
75	66	90.341	93.202	-2.862
75	67	90.336	93.847	-3.510
75	68	90.364	92.255	-1.891
75	69	90.346	93.714	-3.368
75	70	90.317	91.673	-1.356
75	71	90.312	94.358	-4.046
75	72	90.331	90.299	0.032
75	73	90.360	91.550	-1.190
75	74	90.312	92.340	-2.028
75	75	90.331	93.245	-2.914
75	76	90.327	91.000	0.674
75	77	90.346	92.805	-2.459
75	78	90.312	94.145	-3.832
75	79	90.331	92.312	-1.981
75	80	90.322	92.127	-1.805
75	81	90.312	94.273	-3.960
75	82	90.327	93.420	-3.094
75	83	90.331	92.861	-2.530
75	84	90.336	91.559	-1.223
Max		92.401	94.358	1.316
Average		91.033	92.725	-1.692
Min		90.289	90.299	-4.046
Std Dev		0.781	1.108	1.310



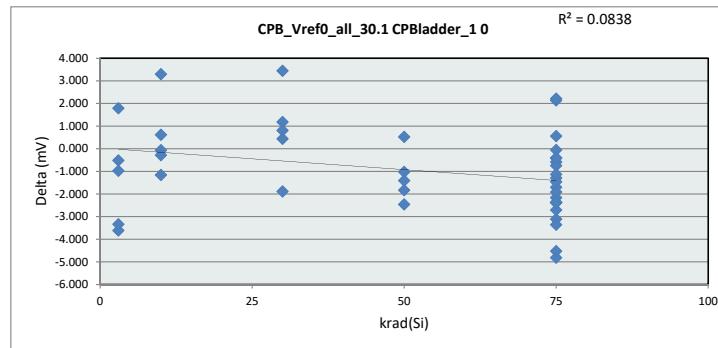
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	mV	mV			
Max Limit	140.625	mV			
Min Limit	46.875	mV			
krad(Si)	3	10	30	50	75
LL	46.875	46.875	46.875	46.875	46.875
Min	91.682	90.299	91.000	92.127	90.299
Average	93.099	92.460	92.188	93.255	92.701
Max	93.847	94.358	93.245	94.273	94.358
UL	140.625	140.625	140.625	140.625	140.625



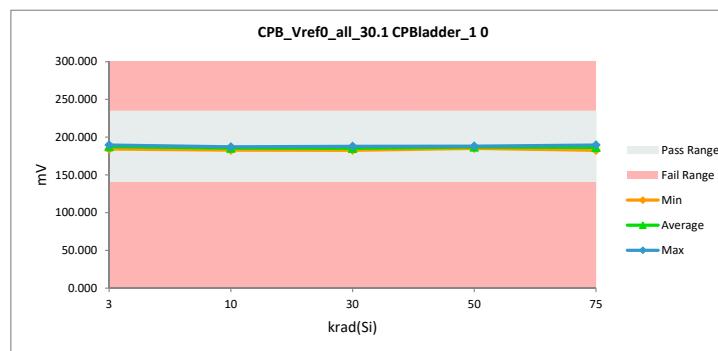
TID Report

MSP430FR5969-MLS

CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	234.375	234.375		
Min Limit	140.625	140.625		
krad(Si)	Serial #	Pre test Biased	Post test Biased	Delta
3	6	185.993	186.965	-0.972
3	7	186.041	189.655	-3.614
3	8	186.026	184.232	1.794
3	9	186.041	186.558	-0.517
3	0	186.008	189.343	-3.335
10	16	186.045	186.108	-0.063
10	17	186.031	186.312	-0.280
10	18	186.017	185.402	0.615
10	19	186.022	187.183	-1.161
10	20	186.022	182.722	3.300
30	26	186.041	184.858	1.183
30	27	186.031	187.917	-1.886
30	28	186.008	185.568	0.440
30	29	186.050	182.603	3.447
30	30	186.031	185.227	0.804
50	36	185.690	187.519	-1.829
50	37	185.690	186.714	-1.024
50	38	185.709	185.184	0.525
50	39	185.690	188.149	-2.459
50	40	185.761	187.169	-1.408
75	63	184.804	186.965	-2.161
75	64	184.842	189.655	-4.813
75	65	184.795	184.232	0.562
75	66	184.852	186.558	-1.706
75	67	184.818	189.343	-4.524
75	68	184.818	186.108	-1.289
75	69	184.847	186.312	-1.465
75	70	184.818	185.402	-0.584
75	71	184.814	187.183	-2.369
75	72	184.861	182.722	2.139
75	73	184.804	184.858	-0.053
75	74	184.809	187.917	-3.108
75	75	184.823	185.568	-0.745
75	76	184.818	182.603	2.215
75	77	184.809	185.227	-0.418
75	78	184.814	187.519	-2.706
75	79	184.799	186.714	-1.915
75	80	184.785	185.184	-0.399
75	81	184.790	188.149	-3.359
75	82	184.781	187.169	-2.388
75	83	184.828	187.197	-2.369
75	84	184.814	185.947	-1.133
Max		186.050	189.655	3.447
Average		185.355	186.284	-0.929
Min		184.781	182.603	-4.813
Std Dev		0.580	1.812	1.923



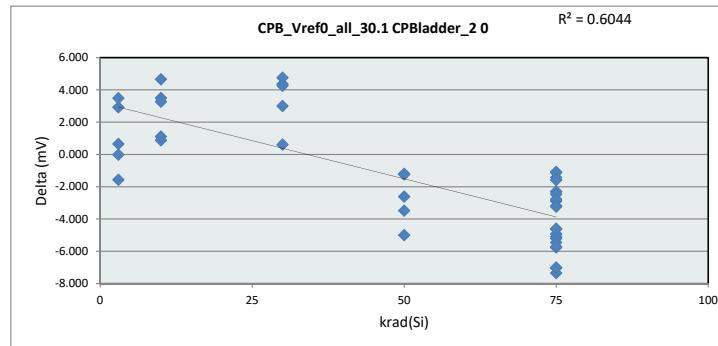
CPB_Vref0_all_30.1 CPBladder_1					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	mV	mV			
Max Limit	234.375	234.375			
Min Limit	140.625	140.625			
krad(Si)	3	10	30	50	75
LL	140.625	140.625	140.625	140.625	140.625
Min	184.232	182.722	182.603	185.184	182.603
Average	187.351	185.545	185.235	186.947	186.297
Max	189.655	187.183	187.917	188.149	189.655
UL	234.375	234.375	234.375	234.375	234.375



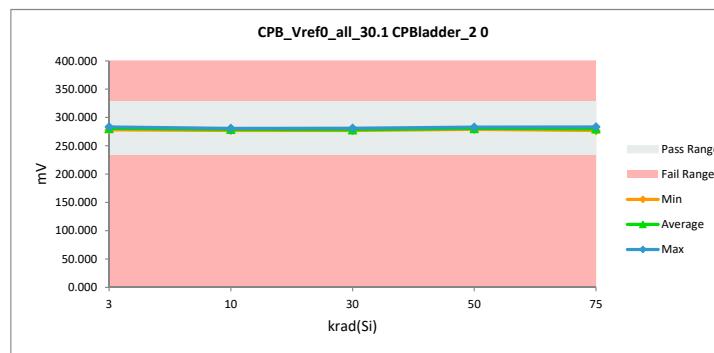
TID Report

MSP430FR5969-MLS

CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	328.125	328.125		
Min Limit	234.375	234.375		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	281.759	278.275	3.485
3	7	281.759	283.328	-1.568
3	8	281.774	278.852	2.921
3	9	281.759	281.107	0.653
3	0	281.759	281.774	-0.015
10	16	281.793	278.298	3.494
10	17	281.778	280.898	0.880
10	18	281.740	278.469	3.272
10	19	281.759	280.647	1.112
10	20	281.778	277.124	4.655
30	26	281.774	278.772	3.002
30	27	281.788	281.173	0.615
30	28	281.812	277.057	4.754
30	29	281.750	277.394	4.356
30	30	281.821	277.564	4.257
50	36	277.942	281.424	-3.482
50	37	277.971	279.170	-1.199
50	38	277.938	279.174	-1.237
50	39	277.928	282.925	-4.997
50	40	277.933	280.543	-2.610
75	63	275.976	278.275	-2.298
75	64	275.981	283.328	-7.347
75	65	275.967	278.852	-2.886
75	66	276.014	281.107	-5.093
75	67	276.019	281.774	-5.756
75	68	275.990	278.298	-2.308
75	69	275.976	280.898	-4.922
75	70	275.995	278.469	-2.474
75	71	276.042	280.647	-4.605
75	72	276.005	277.124	-1.119
75	73	275.995	278.772	-2.777
75	74	275.967	281.173	-5.206
75	75	275.971	277.057	-1.086
75	76	275.967	277.394	-1.427
75	77	275.981	277.564	-1.583
75	78	275.976	281.424	-5.448
75	79	275.981	279.170	-3.189
75	80	275.938	279.174	-3.236
75	81	275.919	282.925	-7.006
75	82	275.915	280.543	-4.629
75	83	275.943	282.968	-7.025
75	84	275.967	281.689	-5.723
Max		281.821	283.328	4.754
Average		278.281	279.824	-1.543
Min		275.915	277.057	-7.347
Std Dev		2.707	1.928	3.542



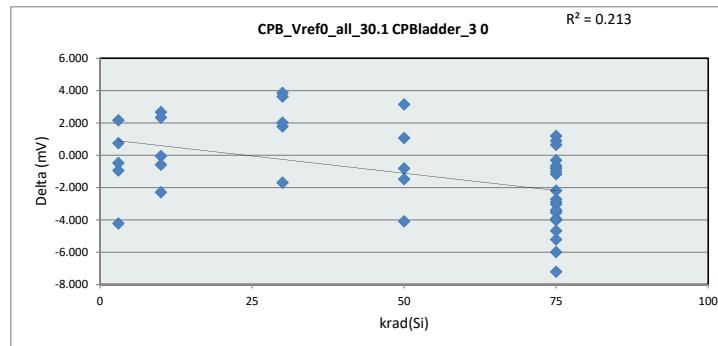
CPB_Vref0_all_30.1 CPBladder						
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB	
Tester	J750EX	J750EX	J750EX	J750EX	J750EX	
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800	
Max Limit	328.125	mV	328.125	mV	328.125	mV
Min Limit	234.375	mV	234.375	mV	234.375	mV
krad(Si)	3	10	30	50	75	
LL	234.375	234.375	234.375	234.375	234.375	
Min	278.275	277.124	279.170	277.057	277.057	
Average	280.667	279.087	278.392	280.647	279.938	
Max	283.328	280.898	281.173	282.925	283.328	
UL	328.125	328.125	328.125	328.125	328.125	



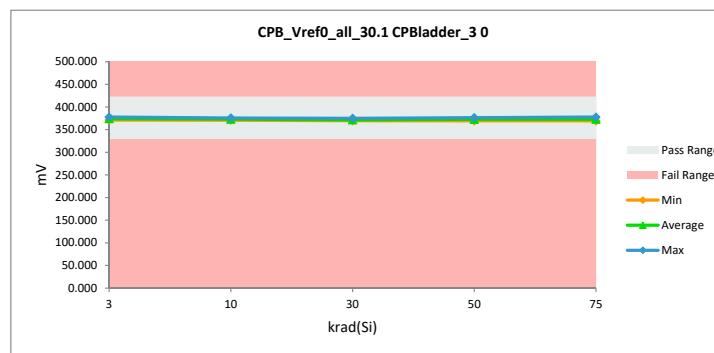
TID Report

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CPB_Vref0_all_30.1 CPBladder_3				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	421.875	421.875		
Min Limit	328.125	328.125		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	373.386	371.223	2.164
3	7	373.415	377.640	-4.225
3	8	373.434	374.382	-0.948
3	9	373.410	372.658	0.752
3	0	373.424	373.898	-0.474
10	16	373.434	370.763	2.670
10	17	373.410	375.703	-2.293
10	18	373.434	373.491	-0.058
10	19	373.434	374.017	-0.583
10	20	373.438	371.109	2.329
30	26	373.410	371.635	1.775
30	27	373.405	375.101	-1.696
30	28	373.401	369.546	3.854
30	29	373.419	371.407	2.012
30	30	373.415	369.788	3.627
50	36	372.321	376.413	-4.093
50	37	372.359	371.294	1.065
50	38	372.354	369.210	3.144
50	39	372.321	373.804	-1.483
50	40	372.311	373.127	-0.815
75	63	370.449	371.223	-0.774
75	64	370.430	377.640	-7.210
75	65	370.449	374.382	-3.933
75	66	370.468	372.658	-2.190
75	67	370.463	373.898	-3.435
75	68	370.449	370.763	-0.314
75	69	370.492	375.703	-5.211
75	70	370.458	373.491	-3.033
75	71	370.468	374.017	-3.549
75	72	370.463	371.109	-0.646
75	73	370.458	371.635	-1.176
75	74	370.421	375.101	-4.681
75	75	370.430	369.546	0.884
75	76	370.397	371.407	-1.010
75	77	370.425	369.788	0.638
75	78	370.416	376.413	-5.997
75	79	370.444	371.294	-0.849
75	80	370.406	369.210	1.196
75	81	370.402	373.804	-3.402
75	82	370.397	373.127	-2.730
75	83	370.402	374.424	-4.023
75	84	370.440	373.330	-2.891
Max		373.438	377.640	3.854
Average		371.728	372.861	-1.134
Min		370.397	369.210	-7.210
Std Dev		1.408	2.274	2.698



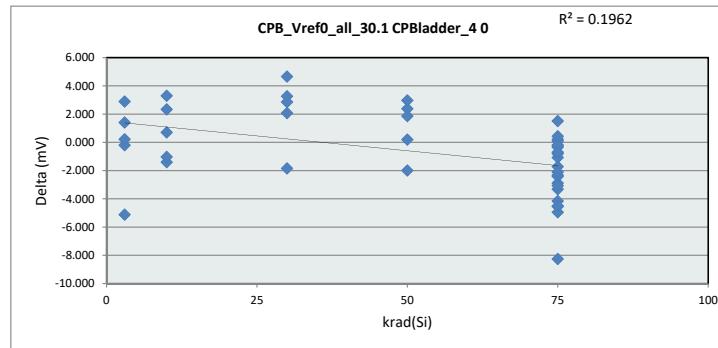
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	mV	mV			
Max Limit	421.875	mV			
Min Limit	328.125	mV			
krad(Si)	3	10	30	50	75
LL	328.125	328.125	328.125	328.125	328.125
Min	371.223	370.763	369.546	369.210	369.210
Average	373.960	373.017	371.495	372.769	372.907
Max	377.640	375.703	375.101	376.413	377.640
UL	421.875	421.875	421.875	421.875	421.875



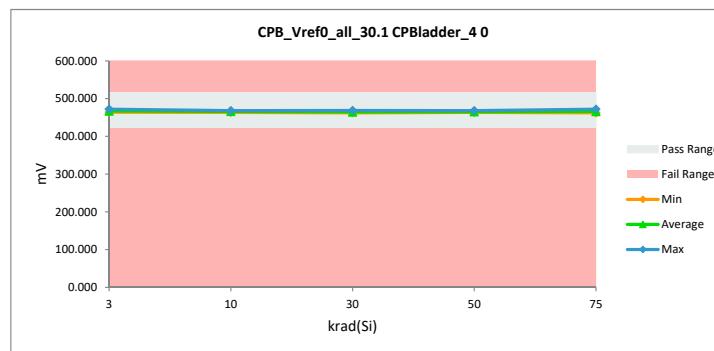
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CPB_Vref0_all_30.1 CPBladder_4				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	515.625	515.625		
Min Limit	421.875	421.875		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	466.950	464.062	2.888
3	7	466.993	472.113	-5.120
3	8	466.988	467.192	-0.204
3	9	466.979	466.757	0.222
3	0	466.974	465.563	1.411
10	16	466.960	463.659	3.300
10	17	466.988	466.283	0.705
10	18	466.983	468.386	-1.402
10	19	467.002	468.026	-1.024
10	20	467.031	464.692	2.339
30	26	466.979	464.905	2.074
30	27	466.983	468.822	-1.838
30	28	467.021	462.362	4.660
30	29	467.007	464.147	2.860
30	30	467.021	463.759	3.263
50	36	466.330	468.319	-1.990
50	37	466.382	464.005	2.377
50	38	466.349	463.380	2.969
50	39	466.339	464.483	1.856
50	40	466.339	466.146	0.194
75	63	463.833	464.062	-0.229
75	64	463.861	472.113	-8.252
75	65	463.870	467.192	-3.322
75	66	463.875	466.757	-2.881
75	67	463.842	465.563	-1.721
75	68	463.870	463.659	0.211
75	69	463.870	466.283	-2.413
75	70	463.852	468.386	-4.534
75	71	463.875	468.026	-4.151
75	72	463.885	464.692	-0.807
75	73	463.833	464.905	-1.072
75	74	463.870	468.822	-4.951
75	75	463.870	462.362	1.509
75	76	463.809	464.147	-0.338
75	77	463.847	463.759	0.088
75	78	463.809	468.319	-4.511
75	79	463.799	464.005	-0.206
75	80	463.809	463.380	0.429
75	81	463.785	464.483	-0.698
75	82	463.818	466.146	-2.327
75	83	463.790	465.890	-2.100
75	84	463.833	466.899	-3.066
Max		467.031	472.113	4.660
Average		465.264	465.879	-0.614
Min		463.785	462.362	8.252
Std Dev		1.523	2.315	2.767



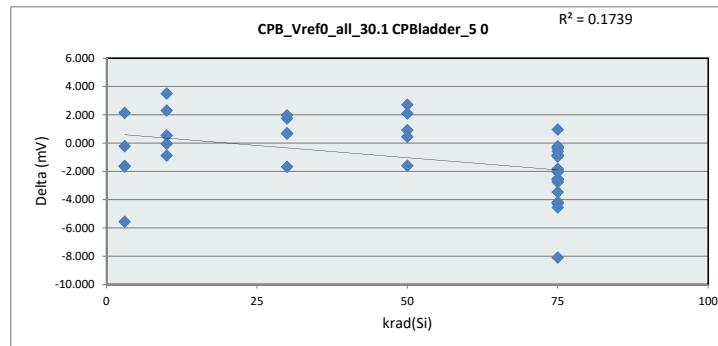
CPB_Vref0_all_30.1 CPBladder						
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB	
Tester	J750EX	J750EX	J750EX	J750EX	J750EX	
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800	
Max Limit	515.625	mV	515.625	mV	515.625	mV
Min Limit	421.875	mV	421.875	mV	421.875	mV
krad(Si)	3	10	30	50	75	
LL	421.875	421.875	421.875	421.875	421.875	
Min	464.062	463.659	462.362	463.380	462.362	
Average	467.137	466.209	464.799	465.267	465.902	
Max	472.113	468.386	468.821	468.319	472.113	
UL	515.625	515.625	515.625	515.625	515.625	



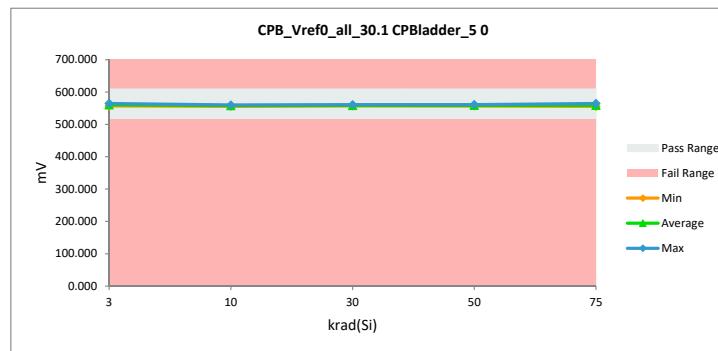
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CPB_Vref0_all_30.1 CPBladder_5				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	609.375	609.375		
Min Limit	515.625	515.625		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	559.108	556.972	2.135
3	7	559.117	564.673	-5.556
3	8	559.127	559.340	-0.214
3	9	559.150	560.775	-1.625
3	0	559.136	560.780	-1.644
10	16	559.131	555.627	3.504
10	17	559.131	559.179	-0.048
10	18	559.150	560.036	-0.886
10	19	559.141	558.596	0.544
10	20	559.188	556.877	2.311
30	26	559.103	558.417	0.686
30	27	559.155	560.832	-1.677
30	28	559.136	558.464	0.672
30	29	559.131	557.389	1.742
30	30	559.108	557.143	1.965
50	36	559.496	561.088	-1.592
50	37	559.501	558.587	0.914
50	38	559.477	556.764	2.713
50	39	559.491	559.037	0.454
50	40	559.491	557.403	2.088
75	63	556.591	556.972	-0.381
75	64	556.577	564.673	-8.096
75	65	556.582	559.340	-2.759
75	66	556.586	560.775	-4.189
75	67	556.577	560.780	-4.203
75	68	556.586	555.627	0.959
75	69	556.553	559.179	-2.626
75	70	556.572	560.036	-3.464
75	71	556.567	558.596	-2.029
75	72	556.586	556.877	-0.291
75	73	556.591	558.417	-1.826
75	74	556.558	560.832	-4.274
75	75	556.558	558.464	-1.906
75	76	556.539	557.389	-0.850
75	77	556.563	557.143	-0.580
75	78	556.539	561.088	-4.549
75	79	556.553	558.587	-2.034
75	80	556.534	556.764	-0.229
75	81	556.458	559.037	-2.578
75	82	556.553	557.403	-0.850
75	83	556.520	557.474	-0.954
75	84	556.544	559.070	-2.526
Max	559.501	564.673	3.504	
Average	557.827	558.869	-1.042	
Min	556.458	555.627	-8.096	
Std Dev	1.352	2.010	2.411	



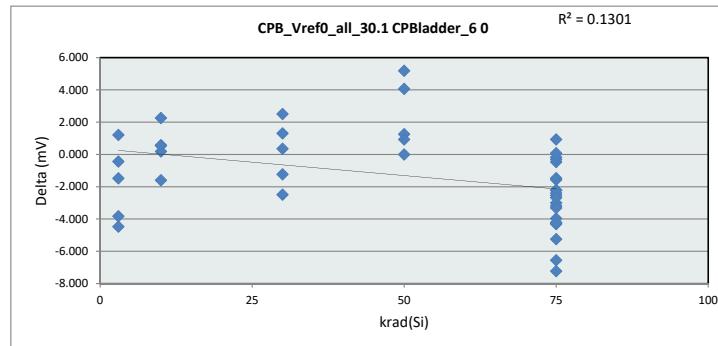
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	mV	mV			
Max Limit	609.375	mV			
Min Limit	515.625	mV			
krad(Si)	3	10	30	50	75
LL	515.625	515.625	515.625	515.625	515.625
Min	556.972	555.627	557.143	556.764	555.627
Average	560.508	558.063	558.449	558.576	558.842
Max	564.673	560.036	560.832	561.088	564.673
UL	609.375	609.375	609.375	609.375	609.375



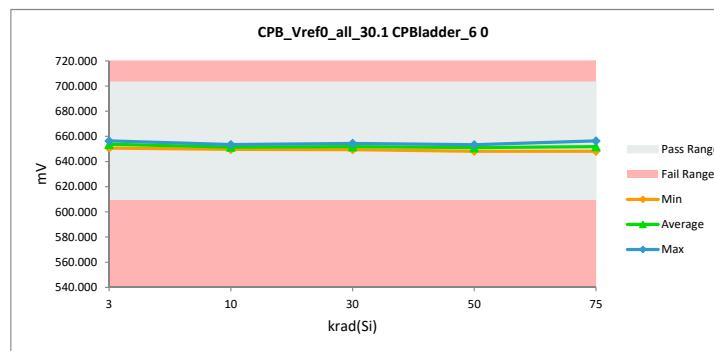
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CPB_Vref0_all_30.1 CPBladder_6				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	703.125	703.125		
Min Limit	609.375	609.375		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	651.937	650.725	1.212
3	7	651.918	656.385	-4.466
3	8	651.928	653.406	-1.478
3	9	651.918	655.745	-3.827
3	0	651.914	652.354	-0.441
10	16	651.909	651.365	0.544
10	17	651.923	649.660	2.263
10	18	651.895	653.491	-1.596
10	19	651.876	651.687	0.189
10	20	651.928	651.350	0.577
30	26	651.890	653.122	-1.232
30	27	651.918	654.410	-2.491
30	28	651.918	651.559	0.360
30	29	651.961	649.451	2.510
30	30	651.904	650.597	1.307
50	36	653.372	652.113	1.260
50	37	653.344	653.344	0.000
50	38	653.363	648.182	5.181
50	39	653.363	652.430	0.933
50	40	653.339	649.281	4.058
75	63	649.155	650.725	-1.570
75	64	649.155	656.385	-7.229
75	65	649.155	653.406	-4.250
75	66	649.193	655.745	-6.552
75	67	649.170	652.354	-3.185
75	68	649.151	651.365	-2.214
75	69	649.193	649.660	-0.466
75	70	649.174	653.491	-4.317
75	71	649.151	651.687	-2.536
75	72	649.141	651.350	-2.209
75	73	649.160	653.122	-3.962
75	74	649.170	654.410	-5.240
75	75	649.160	651.559	-2.399
75	76	649.146	649.451	0.305
75	77	649.132	650.597	-1.466
75	78	649.108	652.113	-3.005
75	79	649.132	653.344	-4.213
75	80	649.113	648.182	0.931
75	81	649.117	652.430	-3.313
75	82	649.113	649.281	-0.168
75	83	649.103	649.020	0.083
75	84	649.160	651.833	-2.673
Max		653.372	656.385	5.181
Average		650.637	651.956	-1.319
Min		649.103	648.182	-7.229
Std Dev		1.640	2.092	2.674



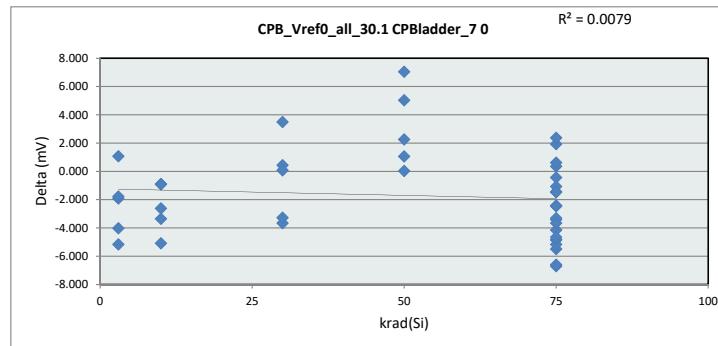
CPB_Vref0_all_30.1 CPBladder_6					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	mV	mV			
Max Limit	703.125	mV			
Min Limit	609.375	mV			
krad(Si)	3	10	30	50	75
LL	609.375	609.375	609.375	609.375	609.375
Min	650.725	649.660	649.451	648.182	648.182
Average	653.723	651.511	651.828	651.070	651.887
Max	656.385	653.491	654.410	653.344	656.385
UL	703.125	703.125	703.125	703.125	703.125



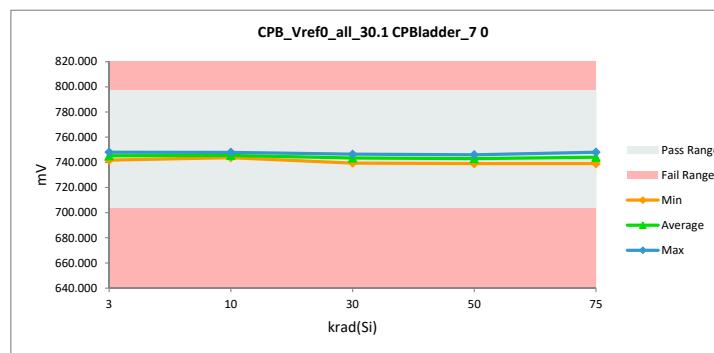
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CPB_Vref0_all_30.1 CPBladder_7				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	796.875	796.875		
Min Limit	703.125	703.125		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	742.849	741.779	1.070
3	7	742.825	746.846	-4.021
3	8	742.825	744.744	-1.918
3	9	742.873	748.040	-5.167
3	0	742.873	744.649	-1.776
10	16	742.854	747.936	-5.082
10	17	742.835	743.735	-0.900
10	18	742.887	745.501	-2.614
10	19	742.825	746.183	-3.358
10	20	742.915	743.825	-0.909
30	26	742.830	742.390	0.440
30	27	742.830	746.491	-3.661
30	28	742.863	746.141	-3.277
30	29	742.892	739.397	3.495
30	30	742.859	742.778	0.080
50	36	746.018	744.962	1.056
50	37	746.032	745.999	0.033
50	38	745.999	738.956	7.042
50	39	746.018	743.754	2.264
50	40	745.984	740.950	5.034
75	63	741.350	741.779	-0.429
75	64	741.355	746.846	-5.492
75	65	741.345	744.744	-3.398
75	66	741.336	748.040	-6.704
75	67	741.341	744.649	-3.308
75	68	741.336	747.936	-6.600
75	69	741.308	743.735	-2.427
75	70	741.355	745.501	-4.147
75	71	741.345	746.183	-4.838
75	72	741.379	743.825	-2.446
75	73	741.322	742.390	-1.068
75	74	741.331	746.491	-5.160
75	75	741.303	746.141	-4.838
75	76	741.331	739.397	1.935
75	77	741.336	742.778	-1.442
75	78	741.298	744.962	-3.663
75	79	741.341	745.999	-4.658
75	80	741.327	738.956	2.370
75	81	741.303	743.754	-2.451
75	82	741.308	740.950	0.357
75	83	741.336	740.713	0.623
75	84	741.308	742.778	-1.471
	Max	746.032	748.040	7.042
	Average	742.433	744.133	-1.701
	Min	741.298	738.956	-6.704
	Std Dev	1.509	2.561	3.096



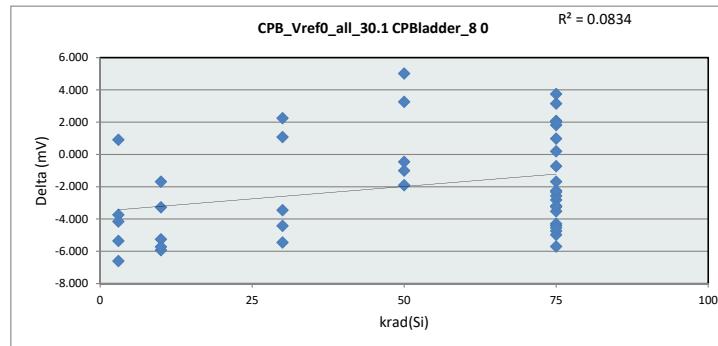
CPB_Vref0_all_30.1 CPBladder_7 0					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Max Limit	796.875	mV			
Min Limit	703.125	mV			
krad(Si)	3	10	30	50	75
LL	703.125	703.125	703.125	703.125	703.125
Min	741.779	743.735	739.397	738.956	738.956
Average	745.212	745.436	743.439	742.924	744.025
Max	748.040	747.936	746.491	745.999	748.040
UL	796.875	796.875	796.875	796.875	796.875



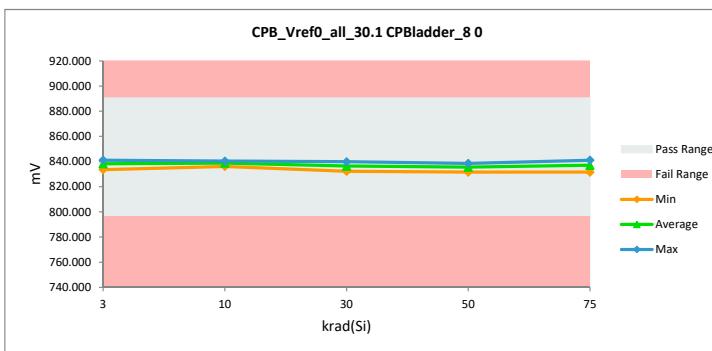
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CPB_Vref0_all_30.1 CPBladder_8				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	890.625	890.625		
Min Limit	796.875	796.875		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	834.457	833.543	0.914
3	7	834.433	838.175	-3.742
3	8	834.443	841.050	-6.607
3	9	834.462	839.818	-5.356
3	0	834.462	838.620	-4.158
10	16	834.414	839.667	-5.252
10	17	834.405	837.678	-3.273
10	18	834.424	840.349	-5.925
10	19	834.400	840.117	-5.716
10	20	834.429	836.115	-1.686
30	26	834.386	833.311	1.075
30	27	834.452	838.876	-4.423
30	28	834.429	839.885	-5.456
30	29	834.457	832.208	2.250
30	30	834.476	837.924	-3.448
50	36	836.598	837.057	-0.459
50	37	836.593	838.502	-1.909
50	38	836.574	833.316	3.258
50	39	836.560	837.564	-1.004
50	40	836.584	831.573	5.011
75	63	835.364	833.543	1.821
75	64	835.359	838.175	-2.816
75	65	835.349	841.050	-5.700
75	66	835.416	839.818	-4.402
75	67	835.373	838.620	-3.247
75	68	835.373	839.667	-4.294
75	69	835.354	837.678	-2.323
75	70	835.373	840.349	-4.975
75	71	835.378	840.117	-4.739
75	72	835.387	836.115	-0.727
75	73	835.392	833.311	2.081
75	74	835.359	838.876	-3.517
75	75	835.345	839.885	-4.540
75	76	835.359	832.208	3.151
75	77	835.354	837.924	-2.570
75	78	835.368	837.057	-1.689
75	79	835.312	838.502	-3.190
75	80	835.316	833.316	2.001
75	81	835.316	837.564	-2.248
75	82	835.321	831.573	3.748
75	83	835.326	835.130	0.196
75	84	835.349	834.367	0.982
	Max	836.598	841.050	5.011
	Average	835.173	837.147	-1.974
	Min	834.386	831.573	-6.607
	Std Dev	0.678	2.873	3.100



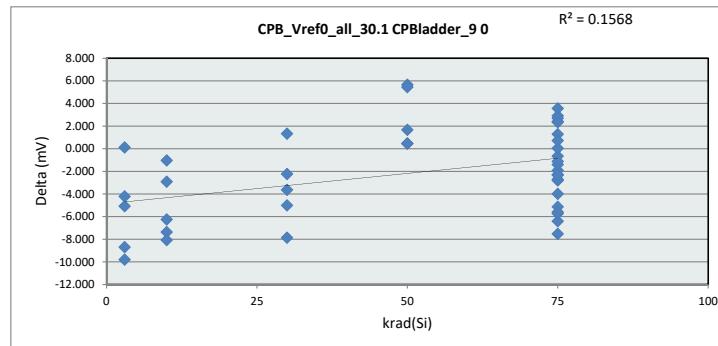
CPB_Vref0_all_30.1 CPBladder_8					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	mV	mV			
Max Limit	890.625	890.625			
Min Limit	796.875	796.875			
krad(Si)	3	10	30	50	75
LL	796.875	796.875	796.875	796.875	796.875
Min	833.543	832.115	832.208	831.573	831.573
Average	838.241	838.785	836.441	835.602	837.038
Max	841.050	840.349	839.885	838.502	841.050
UL	890.625	890.625	890.625	890.625	890.625



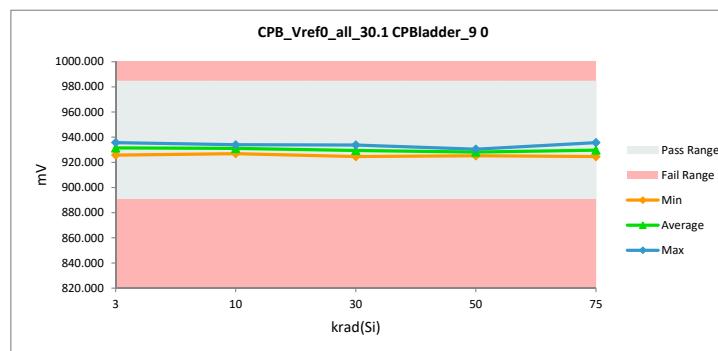
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CPB_Vref0_all_30.1 CPBladder_9				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	984.375	984.375		
Min Limit	890.625	890.625		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	925.918	925.795	0.123
3	7	925.847	930.062	-4.215
3	8	925.899	934.594	-8.695
3	9	925.890	935.684	-9.794
3	0	925.909	930.986	-5.077
10	16	925.899	928.817	-2.917
10	17	925.913	932.160	-6.247
10	18	925.904	933.273	-7.369
10	19	925.890	933.965	-8.075
10	20	925.861	926.894	-1.032
30	26	925.885	928.120	-2.235
30	27	925.890	930.900	-5.011
30	28	925.904	933.761	-7.857
30	29	925.895	924.568	1.326
30	30	925.928	929.560	-3.632
50	36	930.915	930.441	0.474
50	37	930.891	929.224	1.667
50	38	930.858	925.194	5.664
50	39	930.853	930.398	0.455
50	40	930.853	925.407	5.447
75	63	928.193	925.795	2.398
75	64	928.136	930.062	-1.926
75	65	928.188	934.594	-6.406
75	66	928.165	935.684	-7.519
75	67	928.188	930.986	-2.797
75	68	928.169	928.817	-0.647
75	69	928.169	932.160	-3.991
75	70	928.141	933.273	-5.132
75	71	928.236	933.965	-5.729
75	72	928.184	926.894	1.290
75	73	928.160	928.120	0.040
75	74	928.184	930.900	-2.717
75	75	928.169	933.761	-5.591
75	76	928.141	924.568	3.573
75	77	928.160	929.560	-1.400
75	78	928.132	930.441	-2.309
75	79	928.108	929.224	-1.116
75	80	928.113	925.194	2.919
75	81	928.094	930.398	-2.305
75	82	928.117	925.407	2.711
75	83	928.113	927.382	0.731
75	84	928.165	925.809	2.356
Max		930.915	935.684	5.664
Average		927.672	929.828	-2.156
Min		925.847	924.568	-9.794
Std Dev		1.591	3.270	3.947



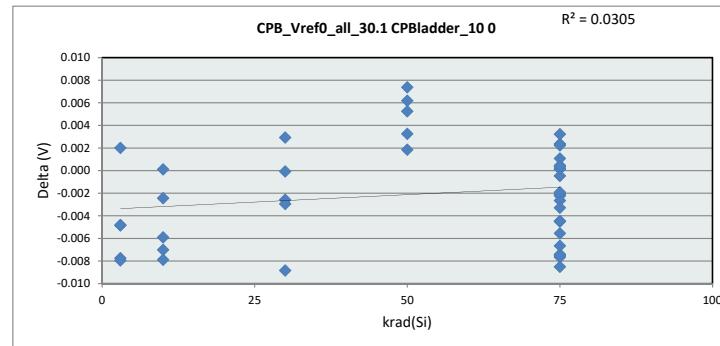
CPB_Vref0_all_30.1 CPBladder_9					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	mV	mV			
Max Limit	984.375	mV			
Min Limit	890.625	mV			
krad(Si)	3	10	30	50	75
LL	890.625	890.625	890.625	890.625	890.625
Min	925.795	926.894	924.568	925.194	924.568
Average	931.424	931.022	929.382	928.133	929.682
Max	935.684	933.965	933.761	930.441	935.684
UL	984.375	984.375	984.375	984.375	984.375



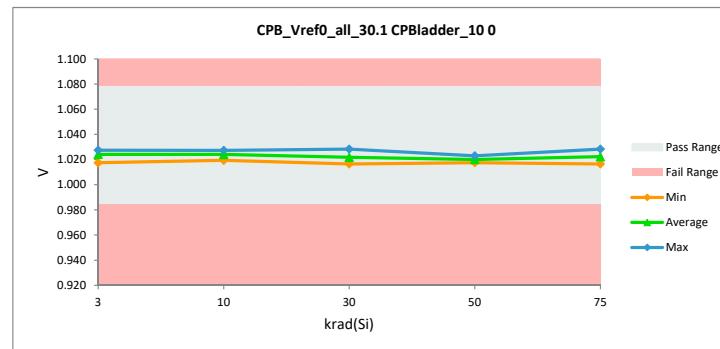
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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1078.125	1078.125		
Min Limit	0.984375	0.984375		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.019	1.017	0.002
3	7	1.019	1.024	-0.005
3	8	1.019	1.027	-0.008
3	9	1.019	1.027	-0.008
3	0	1.019	1.024	-0.005
10	16	1.019	1.022	-0.002
10	17	1.019	1.025	-0.006
10	18	1.019	1.026	-0.007
10	19	1.019	1.027	-0.008
10	20	1.019	1.019	0.000
30	26	1.019	1.022	-0.003
30	27	1.019	1.022	-0.003
30	28	1.019	1.028	-0.009
30	29	1.019	1.017	0.003
30	30	1.019	1.020	0.000
50	36	1.025	1.022	0.003
50	37	1.025	1.020	0.005
50	38	1.025	1.019	0.006
50	39	1.025	1.023	0.002
50	40	1.025	1.018	0.007
75	63	1.020	1.017	0.002
75	64	1.020	1.024	-0.005
75	65	1.020	1.027	-0.007
75	66	1.020	1.027	-0.008
75	67	1.020	1.024	-0.004
75	68	1.020	1.022	-0.002
75	69	1.020	1.025	-0.006
75	70	1.020	1.026	-0.007
75	71	1.020	1.027	-0.008
75	72	1.020	1.019	0.000
75	73	1.020	1.022	-0.002
75	74	1.020	1.022	-0.003
75	75	1.020	1.028	-0.009
75	76	1.020	1.017	0.003
75	77	1.020	1.020	0.000
75	78	1.020	1.022	-0.002
75	79	1.020	1.020	0.000
75	80	1.020	1.019	0.001
75	81	1.020	1.023	-0.003
75	82	1.020	1.018	0.002
75	83	1.020	1.020	0.000
75	84	1.020	1.019	0.000
Max		1.025	1.028	0.007
Average		1.020	1.022	-0.002
Min		1.019	1.017	-0.009
Std Dev		0.002	0.004	0.004



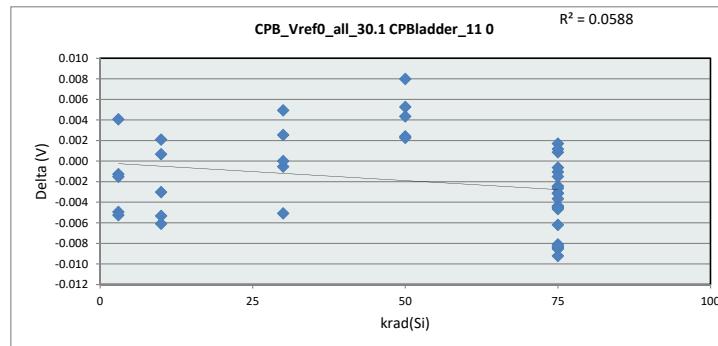
CPB_Vref0_all_30.1 CPBladder_10 0					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	1078.125	V	V	V	V
Min Limit	0.984375	V	V	V	V
krad(Si)	3	10	30	50	75
LL	0.984	0.984	0.984	0.984	0.984
Min	1.017	1.019	1.017	1.018	1.017
Average	1.024	1.024	1.022	1.020	1.022
Max	1.027	1.027	1.028	1.023	1.028
UL	1.078	1.078	1.078	1.078	1.078



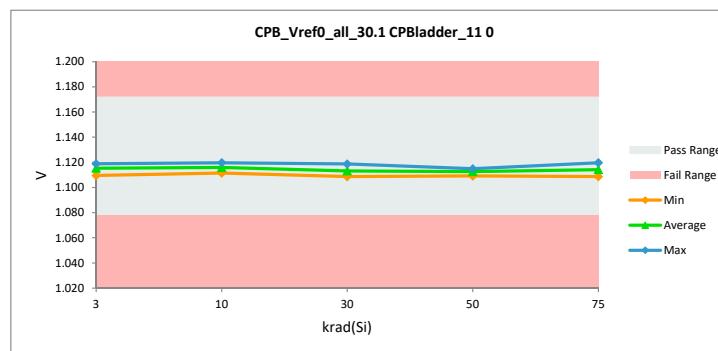
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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.171875	1.171875		
Min Limit	1.078125	1.078125		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.114	1.110	0.004
3	7	1.114	1.115	-0.001
3	8	1.114	1.119	-0.005
3	9	1.114	1.119	-0.005
3	0	1.114	1.115	-0.002
10	16	1.114	1.111	0.002
10	17	1.114	1.117	-0.003
10	18	1.114	1.119	-0.005
10	19	1.114	1.120	-0.006
10	20	1.114	1.113	0.001
30	26	1.114	1.114	-0.001
30	27	1.114	1.114	0.000
30	28	1.114	1.119	-0.005
30	29	1.114	1.109	0.005
30	30	1.114	1.111	0.003
50	36	1.117	1.115	0.002
50	37	1.117	1.113	0.004
50	38	1.117	1.112	0.005
50	39	1.117	1.115	0.002
50	40	1.117	1.109	0.008
75	63	1.110	1.110	0.001
75	64	1.110	1.115	-0.004
75	65	1.110	1.119	-0.008
75	66	1.110	1.119	-0.008
75	67	1.110	1.115	-0.005
75	68	1.110	1.111	-0.001
75	69	1.110	1.117	-0.006
75	70	1.110	1.119	-0.009
75	71	1.110	1.120	-0.009
75	72	1.110	1.113	-0.002
75	73	1.110	1.114	-0.004
75	74	1.110	1.114	-0.003
75	75	1.110	1.119	-0.008
75	76	1.110	1.109	0.002
75	77	1.110	1.111	-0.001
75	78	1.110	1.115	-0.004
75	79	1.110	1.113	-0.002
75	80	1.110	1.112	-0.001
75	81	1.110	1.115	-0.005
75	82	1.110	1.109	0.001
75	83	1.110	1.113	-0.003
75	84	1.110	1.113	-0.003
	Max	1.117	1.120	0.008
	Average	1.112	1.114	-0.002
	Min	1.110	1.109	-0.009
	Std Dev	0.002	0.003	0.004



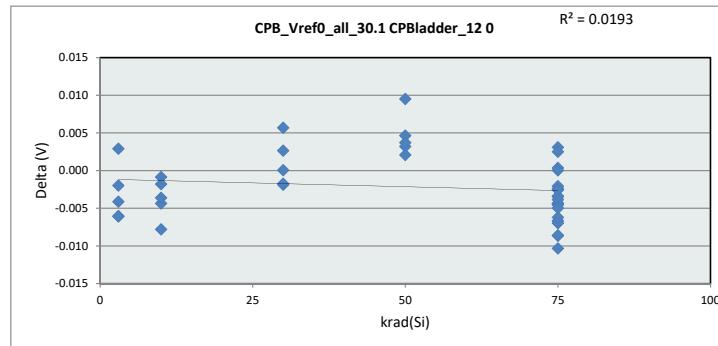
CPB_Vref0_all_30.1 CPBladder_11 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.171875	V			
Min Limit	1.078125	V			
krad(Si)	3	10	30	50	75
LL	1.078	1.078	1.078	1.078	1.078
Min	1.110	1.111	1.109	1.109	1.109
Average	1.115	1.116	1.113	1.113	1.114
Max	1.119	1.120	1.119	1.115	1.120
UL	1.172	1.172	1.172	1.172	1.172



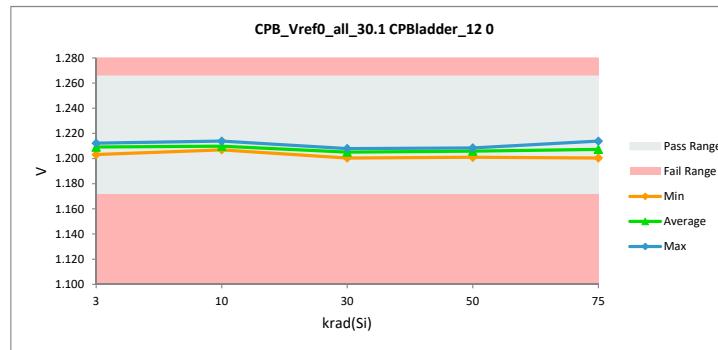
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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.265625	1.265625		
Min Limit	1.171875	1.171875		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.206	1.203	0.003
3	7	1.206	1.208	-0.002
3	8	1.206	1.212	-0.006
3	9	1.206	1.212	-0.006
3	0	1.206	1.210	-0.004
10	16	1.206	1.207	-0.001
10	17	1.206	1.208	-0.002
10	18	1.206	1.210	-0.004
10	19	1.206	1.214	-0.008
10	20	1.206	1.210	-0.004
30	26	1.206	1.208	-0.002
30	27	1.206	1.206	0.000
30	28	1.206	1.208	-0.002
30	29	1.206	1.200	0.006
30	30	1.206	1.203	0.003
50	36	1.211	1.207	0.003
50	37	1.211	1.208	0.002
50	38	1.211	1.206	0.005
50	39	1.211	1.207	0.004
50	40	1.211	1.201	0.010
75	63	1.204	1.203	0.000
75	64	1.204	1.208	-0.005
75	65	1.204	1.212	-0.009
75	66	1.204	1.212	-0.009
75	67	1.203	1.210	-0.007
75	68	1.203	1.207	-0.003
75	69	1.204	1.208	-0.004
75	70	1.203	1.210	-0.007
75	71	1.204	1.214	-0.010
75	72	1.204	1.210	-0.006
75	73	1.204	1.208	-0.004
75	74	1.203	1.206	-0.003
75	75	1.203	1.208	-0.004
75	76	1.204	1.200	0.003
75	77	1.203	1.203	0.000
75	78	1.203	1.207	-0.004
75	79	1.203	1.208	-0.005
75	80	1.203	1.206	-0.002
75	81	1.203	1.207	-0.003
75	82	1.204	1.201	0.003
75	83	1.204	1.206	-0.002
75	84	1.203	1.206	-0.003
Max		1.211	1.214	0.010
Average		1.205	1.207	-0.002
Min		1.203	1.200	-0.010
Std Dev		0.002	0.003	0.004



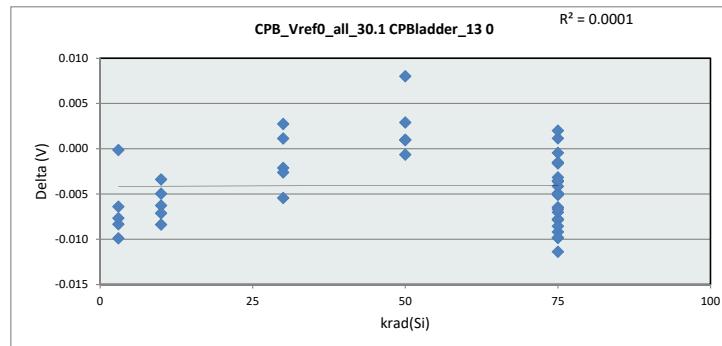
CPB_Vref0_all_30.1 CPBladder_12 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.265625	V			
Min Limit	1.171875	V			
krad(Si)	3	10	30	50	75
LL	1.172	1.172	1.172	1.172	1.172
Min	1.203	1.207	1.200	1.201	1.200
Average	1.209	1.210	1.205	1.206	1.207
Max	1.212	1.214	1.208	1.208	1.214
UL	1.266	1.266	1.266	1.266	1.266



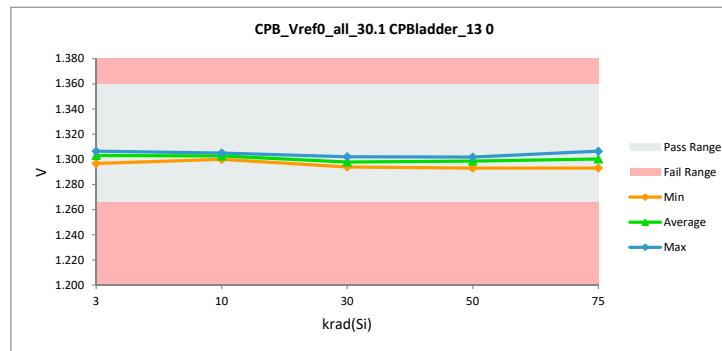
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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.359375	1.359375		
Min Limit	1.265625	1.265625		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.297	1.297	0.000
3	7	1.297	1.303	-0.006
3	8	1.297	1.306	-0.010
3	9	1.297	1.305	-0.008
3	0	1.297	1.304	-0.008
10	16	1.297	1.300	-0.003
10	17	1.297	1.303	-0.006
10	18	1.297	1.304	-0.007
10	19	1.297	1.305	-0.008
10	20	1.297	1.302	-0.005
30	26	1.297	1.299	-0.002
30	27	1.297	1.299	-0.003
30	28	1.297	1.302	-0.005
30	29	1.297	1.294	0.003
30	30	1.297	1.295	0.001
50	36	1.301	1.300	0.001
50	37	1.301	1.302	-0.001
50	38	1.301	1.300	0.001
50	39	1.301	1.298	0.003
50	40	1.301	1.293	0.008
75	63	1.295	1.297	-0.002
75	64	1.295	1.303	-0.008
75	65	1.295	1.306	-0.011
75	66	1.295	1.305	-0.010
75	67	1.295	1.304	-0.009
75	68	1.295	1.300	-0.005
75	69	1.295	1.303	-0.008
75	70	1.295	1.304	-0.009
75	71	1.295	1.305	-0.010
75	72	1.295	1.302	-0.006
75	73	1.295	1.299	-0.004
75	74	1.295	1.299	-0.004
75	75	1.295	1.302	-0.007
75	76	1.295	1.294	0.001
75	77	1.295	1.295	0.000
75	78	1.295	1.300	-0.005
75	79	1.295	1.302	-0.007
75	80	1.295	1.300	-0.005
75	81	1.295	1.298	-0.003
75	82	1.295	1.293	0.002
75	83	1.295	1.299	-0.004
75	84	1.295	1.297	-0.001
	Max	1.301	1.306	0.008
	Average	1.296	1.300	-0.004
	Min	1.295	1.293	-0.011
	Std Dev	0.002	0.004	0.004



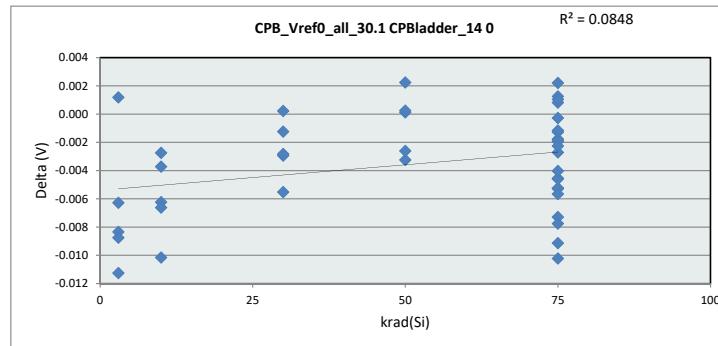
CPB_Vref0_all_30.1 CPBladder_13 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.359375	V			
Min Limit	1.265625	V			
krad(Si)	3	10	30	50	75
LL	1.266	1.266	1.266	1.266	1.266
Min	1.297	1.300	1.294	1.293	1.293
Average	1.303	1.303	1.298	1.299	1.300
Max	1.306	1.305	1.302	1.302	1.306
UL	1.359	1.359	1.359	1.359	1.359



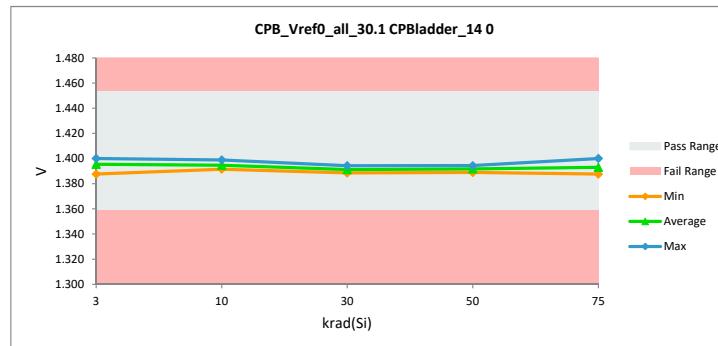
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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.453125	1.453125		
Min Limit	1.359375	1.359375		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.389	1.388	0.001
3	7	1.389	1.395	-0.006
3	8	1.389	1.400	-0.011
3	9	1.389	1.397	-0.008
3	0	1.389	1.398	-0.009
10	16	1.389	1.392	-0.003
10	17	1.389	1.395	-0.006
10	18	1.389	1.395	-0.007
10	19	1.389	1.399	-0.010
10	20	1.389	1.393	-0.004
30	26	1.389	1.392	-0.003
30	27	1.389	1.392	-0.003
30	28	1.389	1.394	-0.006
30	29	1.389	1.390	-0.001
30	30	1.389	1.389	0.000
50	36	1.391	1.391	0.000
50	37	1.391	1.394	-0.003
50	38	1.391	1.391	0.000
50	39	1.391	1.394	-0.003
50	40	1.391	1.389	0.002
75	63	1.390	1.388	0.002
75	64	1.390	1.395	-0.005
75	65	1.390	1.400	-0.010
75	66	1.390	1.397	-0.007
75	67	1.390	1.398	-0.008
75	68	1.390	1.392	-0.002
75	69	1.390	1.395	-0.005
75	70	1.390	1.395	-0.006
75	71	1.390	1.399	-0.009
75	72	1.390	1.393	-0.003
75	73	1.390	1.392	-0.002
75	74	1.390	1.392	-0.002
75	75	1.390	1.394	-0.005
75	76	1.390	1.390	0.000
75	77	1.390	1.389	0.001
75	78	1.390	1.391	-0.001
75	79	1.390	1.394	-0.005
75	80	1.390	1.391	-0.001
75	81	1.390	1.394	-0.004
75	82	1.390	1.389	0.001
75	83	1.390	1.392	-0.002
75	84	1.390	1.389	0.001
Max		1.391	1.400	0.002
Average		1.390	1.393	-0.004
Min		1.389	1.388	-0.011
Std Dev		0.001	0.003	0.004



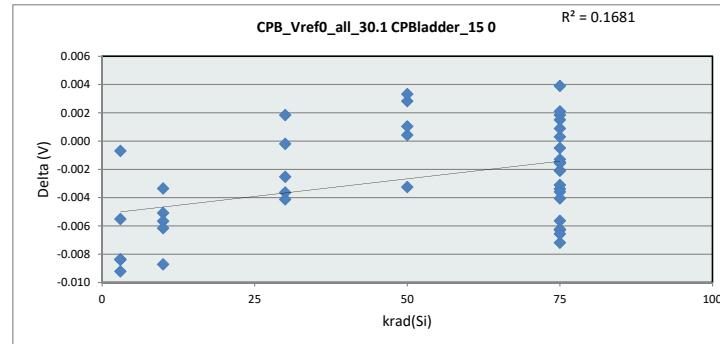
CPB_Vref0_all_30.1 CPBladder_14 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.453125	V			
Min Limit	1.359375	V			
krad(Si)	3	10	30	50	75
LL	1.359	1.359	1.359	1.359	1.359
Min	1.388	1.392	1.389	1.389	1.388
Average	1.395	1.395	1.391	1.392	1.393
Max	1.400	1.399	1.394	1.394	1.400
UL	1.453	1.453	1.453	1.453	1.453



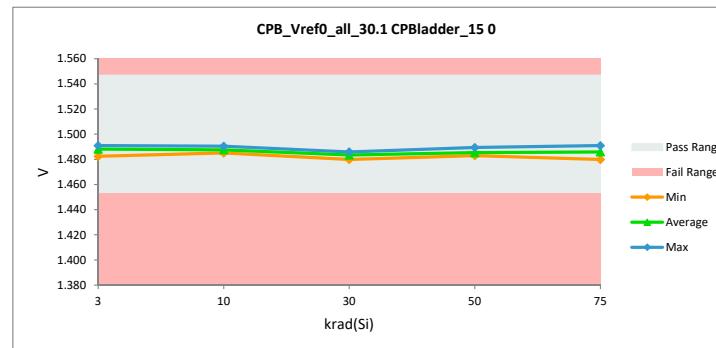
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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.546875	1.546875		
Min Limit	1.453125	1.453125		
krad(Si)	Serial #	Pre test	Biased std.	Post test biased
3	6	1.482	1.482	-0.001
3	7	1.482	1.487	-0.006
3	8	1.482	1.491	-0.009
3	9	1.482	1.490	-0.008
3	0	1.482	1.490	-0.008
10	16	1.482	1.487	-0.005
10	17	1.482	1.487	-0.006
10	18	1.482	1.488	-0.006
10	19	1.482	1.490	-0.009
10	20	1.482	1.485	-0.003
30	26	1.482	1.495	-0.004
30	27	1.482	1.484	-0.003
30	28	1.482	1.486	-0.004
30	29	1.482	1.482	0.000
30	30	1.482	1.480	0.002
50	36	1.486	1.483	0.003
50	37	1.486	1.486	0.000
50	38	1.486	1.485	0.001
50	39	1.486	1.489	-0.003
50	40	1.486	1.483	0.003
75	63	1.484	1.482	0.002
75	64	1.484	1.487	-0.003
75	65	1.484	1.491	-0.007
75	66	1.484	1.490	-0.006
75	67	1.484	1.490	-0.006
75	68	1.484	1.487	-0.003
75	69	1.484	1.487	-0.004
75	70	1.484	1.488	-0.004
75	71	1.484	1.490	-0.007
75	72	1.484	1.485	-0.001
75	73	1.484	1.485	-0.002
75	74	1.484	1.484	0.000
75	75	1.484	1.486	-0.002
75	76	1.484	1.482	0.002
75	77	1.484	1.480	0.004
75	78	1.484	1.483	0.000
75	79	1.484	1.486	-0.002
75	80	1.484	1.485	-0.001
75	81	1.484	1.489	-0.006
75	82	1.484	1.483	0.001
75	83	1.484	1.485	-0.002
75	84	1.484	1.482	0.002
Max		1.486	1.491	0.004
Average		1.483	1.486	-0.003
Min		1.482	1.480	-0.009
Std Dev		0.001	0.003	0.004



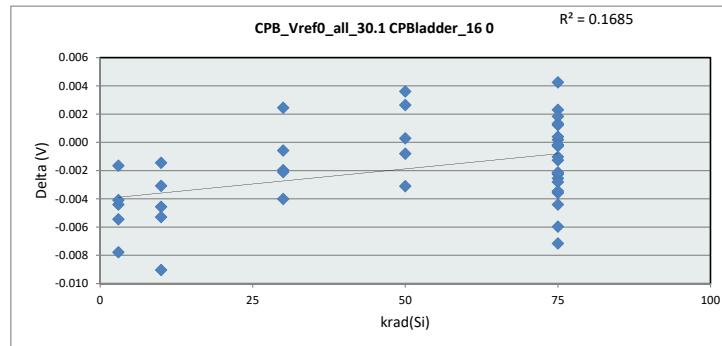
CPB_Vref0_all_30.1 CPBladder_15 0					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	1.546875	V	V	V	V
Min Limit	1.453125	V	V	V	V
krad(Si)	3	10	30	50	75
LL	1.453	1.453	1.453	1.453	1.453
Min	1.482	1.485	1.480	1.483	1.480
Average	1.488	1.488	1.483	1.485	1.486
Max	1.491	1.490	1.486	1.489	1.491
UL	1.547	1.547	1.547	1.547	1.547



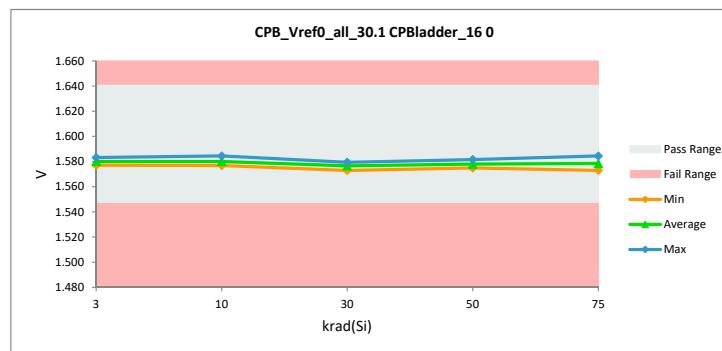
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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.640625	1.640625		
Min Limit	1.546875	1.546875		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.575	1.577	-0.002
3	7	1.575	1.580	-0.004
3	8	1.575	1.583	-0.008
3	9	1.575	1.579	-0.004
3	0	1.575	1.581	-0.005
10	16	1.575	1.580	-0.005
10	17	1.575	1.578	-0.003
10	18	1.575	1.581	-0.005
10	19	1.575	1.584	-0.009
10	20	1.575	1.577	-0.001
30	26	1.575	1.579	-0.004
30	27	1.575	1.576	-0.001
30	28	1.575	1.577	-0.002
30	29	1.575	1.577	-0.002
30	30	1.575	1.573	0.002
50	36	1.579	1.576	0.003
50	37	1.578	1.579	-0.001
50	38	1.579	1.578	0.000
50	39	1.579	1.582	-0.003
50	40	1.578	1.575	0.004
75	63	1.577	1.577	0.000
75	64	1.577	1.580	-0.003
75	65	1.577	1.583	-0.006
75	66	1.577	1.579	-0.002
75	67	1.577	1.581	-0.004
75	68	1.577	1.580	-0.003
75	69	1.577	1.578	-0.001
75	70	1.577	1.581	-0.003
75	71	1.577	1.584	-0.007
75	72	1.577	1.577	0.000
75	73	1.577	1.579	-0.002
75	74	1.577	1.576	0.001
75	75	1.577	1.577	0.000
75	76	1.577	1.577	0.000
75	77	1.577	1.573	0.004
75	78	1.577	1.576	0.001
75	79	1.577	1.579	-0.002
75	80	1.577	1.578	-0.001
75	81	1.577	1.582	-0.004
75	82	1.577	1.575	0.002
75	83	1.577	1.577	0.000
75	84	1.577	1.575	0.002
Max		1.579	1.584	0.004
Average		1.577	1.579	-0.002
Min		1.575	1.573	-0.009
Std Dev		0.001	0.003	0.003



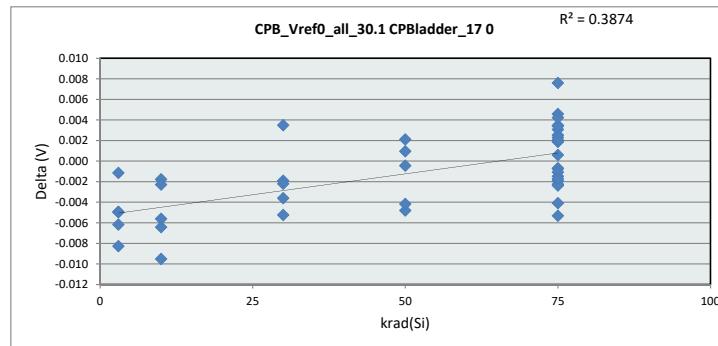
CPB_Vref0_all_30.1 CPBladder_16 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.640625	V			
Min Limit	1.546875	V			
krad(Si)	3	10	30	50	75
LL	1.547	1.547	1.547	1.547	1.547
Min	1.577	1.577	1.575	1.575	1.573
Average	1.580	1.580	1.577	1.578	1.578
Max	1.583	1.584	1.579	1.582	1.584
UL	1.641	1.641	1.641	1.641	1.641



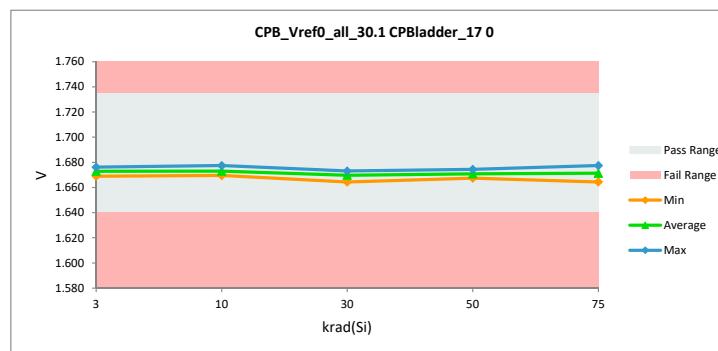
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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.734375	1.734375		
Min Limit	1.640625	1.640625		
krad(Si)	Serial #	Pre test	Biased std	Post test biased
3	6	1.668	1.669	-0.001
3	7	1.668	1.673	-0.005
3	8	1.668	1.676	-0.008
3	9	1.668	1.673	-0.005
3	0	1.668	1.674	-0.006
10	16	1.668	1.674	-0.006
10	17	1.668	1.670	-0.002
10	18	1.668	1.673	-0.006
10	19	1.668	1.677	-0.010
10	20	1.668	1.670	-0.002
30	26	1.668	1.673	-0.005
30	27	1.668	1.670	-0.002
30	28	1.668	1.671	-0.004
30	29	1.668	1.670	-0.002
30	30	1.668	1.664	0.003
50	36	1.670	1.669	0.001
50	37	1.670	1.674	-0.005
50	38	1.670	1.670	0.000
50	39	1.670	1.674	-0.004
50	40	1.670	1.667	0.002
75	63	1.672	1.669	0.003
75	64	1.672	1.673	-0.001
75	65	1.672	1.676	-0.004
75	66	1.672	1.673	-0.001
75	67	1.672	1.674	-0.002
75	68	1.672	1.674	-0.002
75	69	1.672	1.670	0.003
75	70	1.672	1.673	-0.001
75	71	1.672	1.677	-0.005
75	72	1.672	1.670	0.002
75	73	1.672	1.673	-0.001
75	74	1.672	1.670	0.002
75	75	1.672	1.671	0.001
75	76	1.672	1.670	0.002
75	77	1.672	1.664	0.008
75	78	1.672	1.669	0.003
75	79	1.672	1.674	-0.002
75	80	1.672	1.670	0.002
75	81	1.672	1.674	-0.002
75	82	1.672	1.667	0.005
75	83	1.672	1.669	0.003
75	84	1.672	1.668	0.004
Max		1.672	1.677	0.008
Average		1.670	1.671	-0.001
Min		1.668	1.664	-0.010
Std Dev		0.002	0.003	0.004



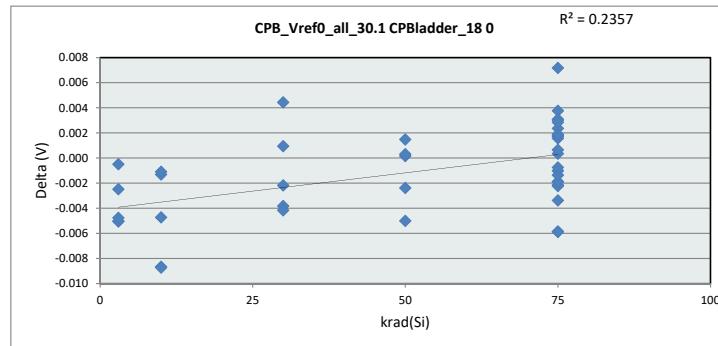
CPB_Vref0_all_30.1 CPBladder_17 0					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	1.734375	V	V	V	V
Min Limit	1.640625	V	V	V	V
krad(Si)	3	10	30	50	75
LL	1.641	1.641	1.641	1.641	1.641
Min	1.669	1.670	1.664	1.667	1.664
Average	1.673	1.673	1.670	1.671	1.671
Max	1.676	1.677	1.673	1.674	1.677
UL	1.734	1.734	1.734	1.734	1.734



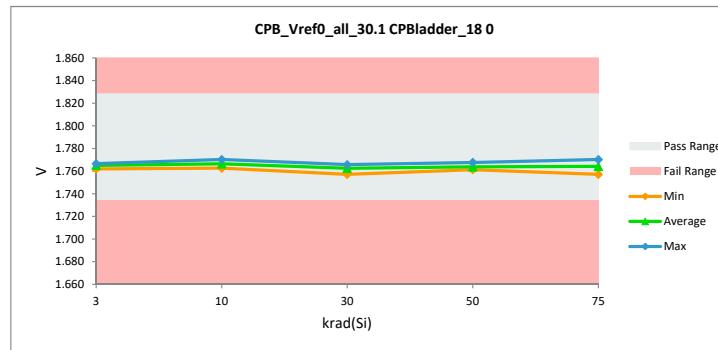
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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.828125	1.828125		
Min Limit	1.734375	1.734375		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.761	1.762	0.000
3	7	1.761	1.767	-0.005
3	8	1.762	1.767	-0.005
3	9	1.762	1.764	-0.002
3	0	1.761	1.766	-0.005
10	16	1.762	1.770	-0.009
10	17	1.761	1.763	-0.001
10	18	1.762	1.766	-0.005
10	19	1.762	1.770	-0.009
10	20	1.762	1.763	-0.001
30	26	1.762	1.765	-0.004
30	27	1.762	1.761	0.001
30	28	1.762	1.766	-0.004
30	29	1.762	1.764	-0.002
30	30	1.762	1.757	0.004
50	36	1.763	1.763	0.000
50	37	1.763	1.768	-0.005
50	38	1.763	1.762	0.000
50	39	1.763	1.765	-0.002
50	40	1.763	1.761	0.001
75	63	1.764	1.762	0.002
75	64	1.764	1.767	-0.002
75	65	1.764	1.767	-0.002
75	66	1.764	1.764	0.000
75	67	1.764	1.766	-0.002
75	68	1.764	1.770	-0.006
75	69	1.764	1.763	0.002
75	70	1.764	1.766	-0.002
75	71	1.764	1.770	-0.006
75	72	1.764	1.763	0.002
75	73	1.764	1.765	-0.001
75	74	1.764	1.761	0.004
75	75	1.764	1.766	-0.001
75	76	1.764	1.764	0.001
75	77	1.764	1.757	0.007
75	78	1.764	1.763	0.002
75	79	1.764	1.768	-0.003
75	80	1.764	1.762	0.002
75	81	1.764	1.765	-0.001
75	82	1.764	1.761	0.003
75	83	1.764	1.761	0.003
75	84	1.764	1.762	0.003
Max		1.764	1.770	0.007
Average		1.763	1.764	-0.001
Min		1.761	1.757	-0.009
Std Dev		0.001	0.003	0.003



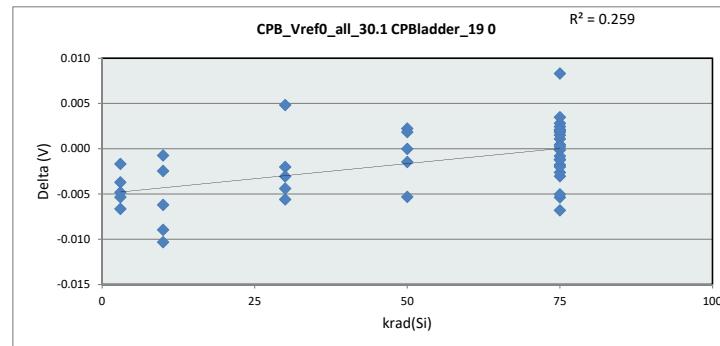
CPB_Vref0_all_30.1 CPBladder_18 0					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	1.828125	V	V	V	V
Min Limit	1.734375	V	V	V	V
krad(Si)	3	10	30	50	75
LL	1.734	1.734	1.734	1.734	1.734
Min	1.762	1.763	1.757	1.761	1.757
Average	1.765	1.766	1.763	1.764	1.764
Max	1.767	1.770	1.766	1.768	1.770
UL	1.828	1.828	1.828	1.828	1.828



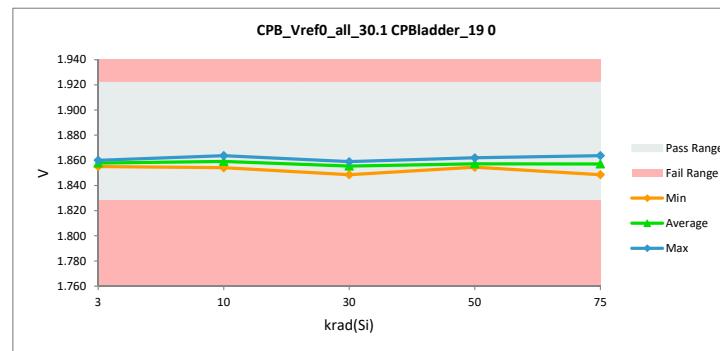
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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.921875	1.921875		
Min Limit	1.828125	1.828125		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.853	1.855	-0.002
3	7	1.853	1.860	-0.007
3	8	1.853	1.859	-0.005
3	9	1.853	1.857	-0.004
3	0	1.853	1.858	-0.005
10	16	1.853	1.864	-0.010
10	17	1.853	1.856	-0.002
10	18	1.853	1.860	-0.006
10	19	1.853	1.862	-0.009
10	20	1.853	1.854	-0.001
30	26	1.853	1.859	-0.006
30	27	1.853	1.855	-0.002
30	28	1.853	1.858	-0.004
30	29	1.853	1.857	-0.003
30	30	1.853	1.849	0.005
50	36	1.857	1.857	0.000
50	37	1.857	1.862	-0.005
50	38	1.857	1.854	0.002
50	39	1.857	1.858	-0.001
50	40	1.857	1.855	0.002
75	63	1.857	1.855	0.002
75	64	1.857	1.860	-0.003
75	65	1.857	1.859	-0.002
75	66	1.857	1.857	0.000
75	67	1.857	1.858	-0.001
75	68	1.857	1.864	-0.007
75	69	1.857	1.856	0.001
75	70	1.857	1.860	-0.003
75	71	1.857	1.862	-0.005
75	72	1.857	1.854	0.003
75	73	1.857	1.859	-0.002
75	74	1.857	1.855	0.002
75	75	1.857	1.858	-0.001
75	76	1.857	1.857	0.000
75	77	1.857	1.849	0.008
75	78	1.857	1.857	0.000
75	79	1.857	1.862	-0.005
75	80	1.857	1.854	0.002
75	81	1.857	1.858	-0.001
75	82	1.857	1.855	0.002
75	83	1.857	1.855	0.002
75	84	1.857	1.853	0.003
	Max	1.857	1.864	0.008
	Average	1.856	1.857	-0.002
	Min	1.853	1.849	-0.010
	Std Dev	0.002	0.003	0.004



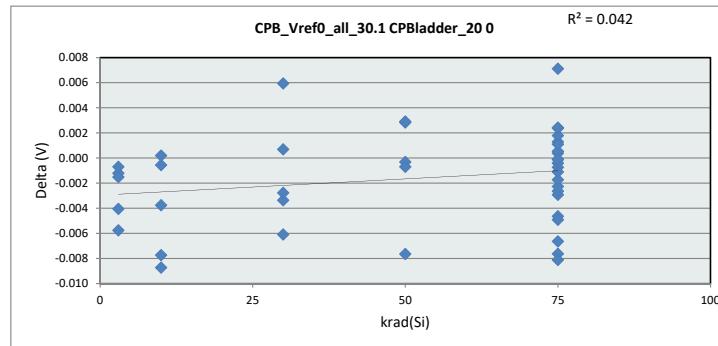
CPB_Vref0_all_30.1 CPBladder_19 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.921875	V			
Min Limit	1.828125	V			
krad(Si)	3	10	30	50	75
LL	1.828	1.828	1.828	1.828	1.828
Min	1.855	1.854	1.849	1.854	1.849
Average	1.858	1.859	1.855	1.857	1.857
Max	1.860	1.864	1.859	1.862	1.864
UL	1.922	1.922	1.922	1.922	1.922



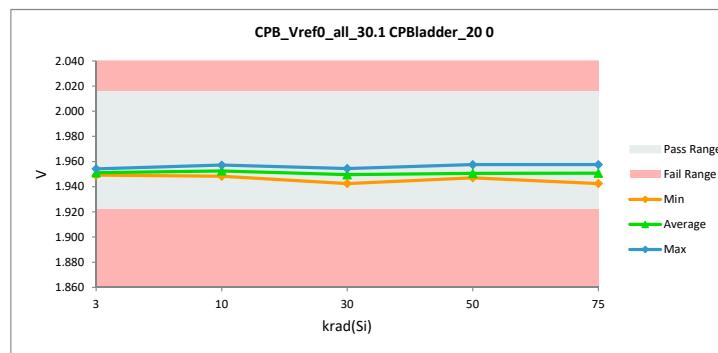
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.015625	2.015625		
Min Limit	1.921875	1.921875		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	1.948	1.950	-0.001
3	7	1.948	1.954	-0.006
3	8	1.948	1.950	-0.002
3	9	1.948	1.949	-0.001
3	0	1.948	1.952	-0.004
10	16	1.948	1.957	-0.009
10	17	1.948	1.949	-0.001
10	18	1.948	1.952	-0.004
10	19	1.948	1.956	-0.008
10	20	1.948	1.948	0.000
30	26	1.948	1.954	-0.006
30	27	1.948	1.948	0.001
30	28	1.948	1.952	-0.003
30	29	1.948	1.951	-0.003
30	30	1.948	1.942	0.006
50	36	1.950	1.950	0.000
50	37	1.950	1.958	-0.008
50	38	1.950	1.947	0.003
50	39	1.950	1.951	-0.001
50	40	1.950	1.947	0.003
75	63	1.950	1.950	0.000
75	64	1.950	1.954	-0.005
75	65	1.950	1.950	0.000
75	66	1.950	1.949	0.000
75	67	1.950	1.952	-0.003
75	68	1.950	1.957	-0.008
75	69	1.950	1.949	0.001
75	70	1.950	1.952	-0.003
75	71	1.950	1.956	-0.007
75	72	1.950	1.948	0.001
75	73	1.950	1.954	-0.005
75	74	1.950	1.948	0.002
75	75	1.950	1.952	-0.002
75	76	1.950	1.951	-0.002
75	77	1.950	1.942	0.007
75	78	1.950	1.950	-0.001
75	79	1.949	1.958	-0.008
75	80	1.950	1.947	0.002
75	81	1.950	1.951	-0.001
75	82	1.949	1.947	0.002
75	83	1.950	1.950	0.000
75	84	1.950	1.948	0.001
Max		1.950	1.958	0.007
Average		1.949	1.951	-0.002
Min		1.948	1.942	-0.009
Std Dev		0.001	0.004	0.004



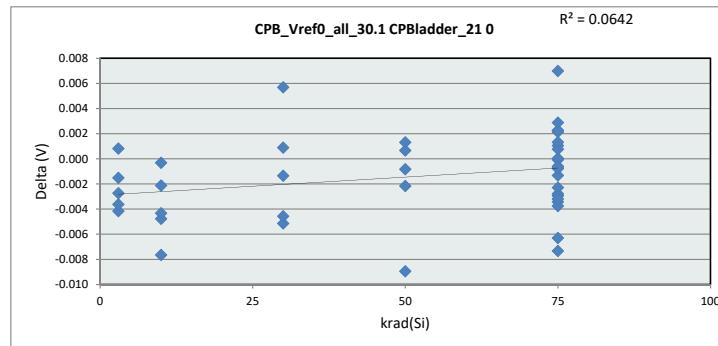
CPB_Vref0_all_30.1 CPBladder_20 0					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	2.015625	V	V	V	V
Min Limit	1.921875	V	V	V	V
krad(Si)	3	10	30	50	75
LL	1.922	1.922	1.922	1.922	1.922
Min	1.949	1.948	1.942	1.947	1.942
Average	1.951	1.953	1.950	1.951	1.951
Max	1.954	1.957	1.954	1.958	1.958
UL	2.016	2.016	2.016	2.016	2.016



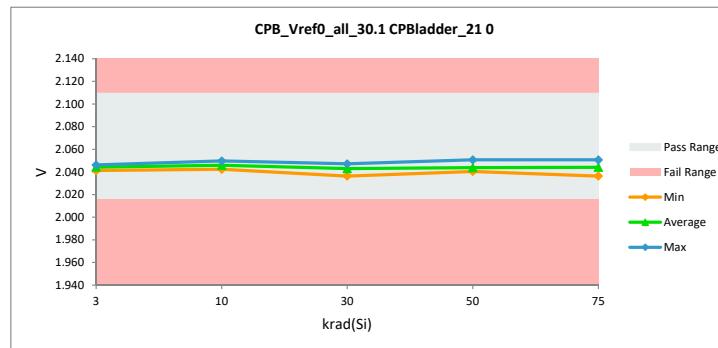
TID Report

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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.109375	2.109375		
Min Limit	2.015625	2.015625		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	2.042	2.043	-0.002
3	7	2.042	2.046	-0.004
3	8	2.042	2.046	-0.004
3	9	2.042	2.041	0.001
3	0	2.042	2.045	-0.003
10	16	2.042	2.047	-0.005
10	17	2.042	2.044	-0.002
10	18	2.042	2.046	-0.004
10	19	2.042	2.050	-0.008
10	20	2.042	2.042	0.000
30	26	2.042	2.047	-0.005
30	27	2.042	2.041	0.001
30	28	2.042	2.047	-0.005
30	29	2.042	2.043	-0.001
30	30	2.042	2.036	0.006
50	36	2.042	2.043	-0.001
50	37	2.042	2.051	-0.009
50	38	2.042	2.040	0.001
50	39	2.042	2.044	-0.002
50	40	2.042	2.041	0.001
75	63	2.043	2.043	0.000
75	64	2.043	2.046	-0.003
75	65	2.043	2.046	-0.002
75	66	2.043	2.041	0.002
75	67	2.043	2.045	-0.001
75	68	2.043	2.047	-0.003
75	69	2.043	2.044	-0.001
75	70	2.043	2.046	-0.003
75	71	2.043	2.050	-0.006
75	72	2.043	2.042	0.001
75	73	2.043	2.047	-0.004
75	74	2.043	2.041	0.002
75	75	2.043	2.047	-0.003
75	76	2.043	2.043	0.000
75	77	2.043	2.036	0.007
75	78	2.043	2.043	0.001
75	79	2.043	2.051	-0.007
75	80	2.043	2.040	0.003
75	81	2.043	2.044	-0.001
75	82	2.043	2.041	0.002
75	83	2.043	2.044	-0.001
75	84	2.043	2.042	0.001
	Max	2.043	2.051	0.007
	Average	2.043	2.044	-0.001
	Min	2.042	2.036	-0.009
	Std Dev	0.001	0.003	0.003



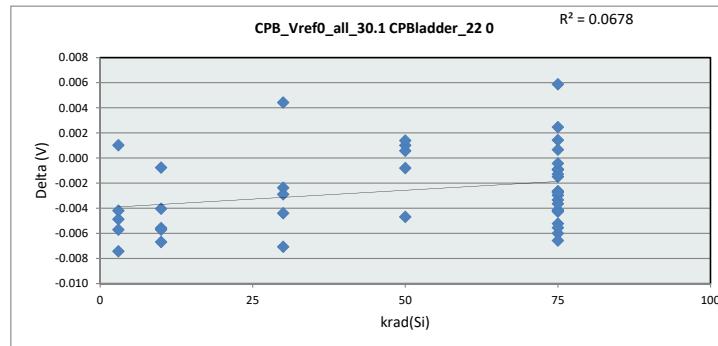
CPB_Vref0_all_30.1 CPBladder_21 0					
Test Site	CLAB	J750EX			
Tester	JP07800				
Test Number	JP07800				
Max Limit	2.109375	V			
Min Limit	2.015625	V			
krad(Si)	3	10	30	50	75
LL	2.016	2.016	2.016	2.016	2.016
Min	2.041	2.042	2.036	2.040	2.036
Average	2.044	2.046	2.043	2.044	2.044
Max	2.046	2.050	2.047	2.051	2.051
UL	2.109	2.109	2.109	2.109	2.109



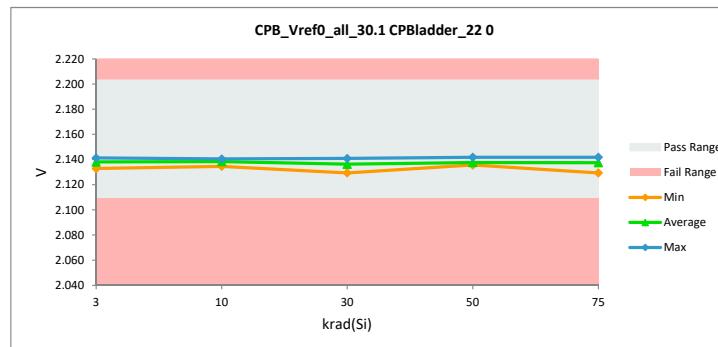
TID Report

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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.203125	2.203125		
Min Limit	2.109375	2.109375		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	2.134	2.139	-0.005
3	7	2.134	2.141	-0.007
3	8	2.134	2.140	-0.006
3	9	2.134	2.133	0.001
3	0	2.134	2.138	-0.004
10	16	2.134	2.139	-0.006
10	17	2.134	2.138	-0.004
10	18	2.134	2.140	-0.006
10	19	2.134	2.141	-0.007
10	20	2.134	2.135	-0.001
30	26	2.134	2.141	-0.007
30	27	2.134	2.136	-0.002
30	28	2.134	2.138	-0.004
30	29	2.134	2.137	-0.003
30	30	2.134	2.129	0.004
50	36	2.137	2.137	0.001
50	37	2.137	2.142	-0.005
50	38	2.137	2.136	0.001
50	39	2.137	2.138	-0.001
50	40	2.137	2.136	0.001
75	63	2.135	2.139	-0.003
75	64	2.135	2.141	-0.006
75	65	2.135	2.140	-0.004
75	66	2.135	2.133	0.002
75	67	2.135	2.138	-0.003
75	68	2.135	2.139	-0.004
75	69	2.135	2.138	-0.003
75	70	2.135	2.140	-0.004
75	71	2.135	2.141	-0.005
75	72	2.135	2.135	0.001
75	73	2.135	2.141	-0.006
75	74	2.135	2.136	-0.001
75	75	2.135	2.138	-0.003
75	76	2.135	2.137	-0.001
75	77	2.135	2.129	0.006
75	78	2.135	2.137	-0.001
75	79	2.135	2.142	-0.007
75	80	2.135	2.136	-0.001
75	81	2.135	2.138	-0.003
75	82	2.135	2.136	0.000
75	83	2.135	2.139	-0.004
75	84	2.135	2.134	0.001
Max		2.137	2.142	0.006
Average		2.135	2.138	-0.003
Min		2.134	2.129	-0.007
Std Dev		0.001	0.003	0.003



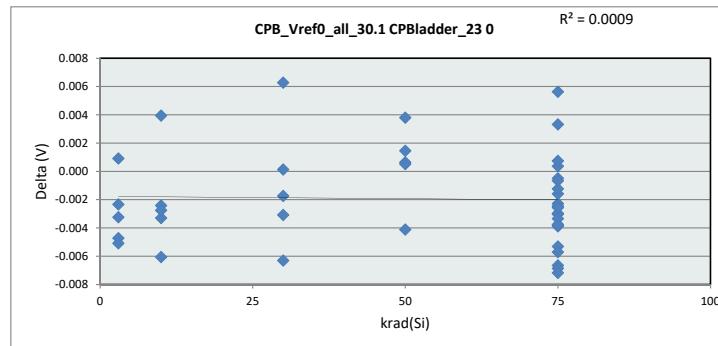
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	2.203125	V	V	V	V
Min Limit	2.109375	V	V	V	V
krad(Si)	3	10	30	50	75
LL	2.109	2.109	2.109	2.109	2.109
Min	2.133	2.135	2.129	2.136	2.129
Average	2.138	2.138	2.136	2.138	2.137
Max	2.141	2.141	2.141	2.142	2.142
UL	2.203	2.203	2.203	2.203	2.203



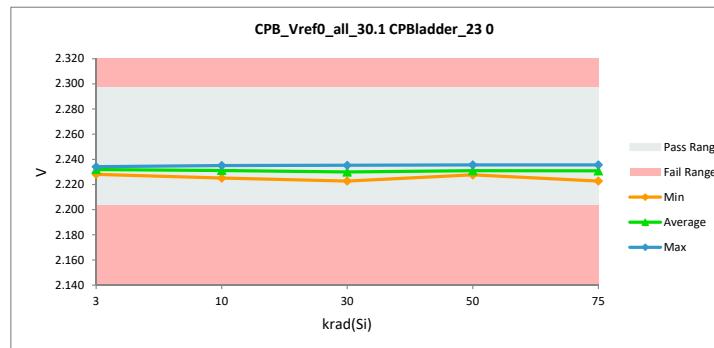
TID Report(Biased)

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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.296875	2.296875		
Min Limit	2.203125	2.203125		
krad(Si)	Serial #	Pre test Biased	std	Post test biased
3	6	2.229		2.234
3	7	2.229		2.234
3	8	2.229		2.231
3	9	2.229		2.228
3	0	2.229		2.232
10	16	2.229		2.235
10	17	2.229		2.232
10	18	2.229		2.231
10	19	2.229		2.232
10	20	2.229		2.225
30	26	2.229		2.235
30	27	2.229		2.229
30	28	2.229		2.232
30	29	2.229		2.231
30	30	2.229		2.223
50	36	2.231		2.228
50	37	2.231		2.236
50	38	2.231		2.231
50	39	2.231		2.231
50	40	2.231		2.230
75	63	2.228		2.234
75	64	2.228		2.234
75	65	2.228		2.231
75	66	2.228		2.228
75	67	2.228		2.232
75	68	2.228		2.235
75	69	2.228		2.232
75	70	2.228		2.231
75	71	2.228		2.232
75	72	2.228		2.225
75	73	2.228		2.235
75	74	2.228		2.229
75	75	2.228		2.232
75	76	2.228		2.231
75	77	2.228		2.223
75	78	2.228		2.228
75	79	2.228		2.236
75	80	2.228		2.231
75	81	2.228		2.231
75	82	2.228		2.230
75	83	2.228		2.230
75	84	2.228		2.229
		Max	2.231	2.236
		Average	2.229	2.231
		Min	2.228	2.223
		Std Dev	0.001	0.003



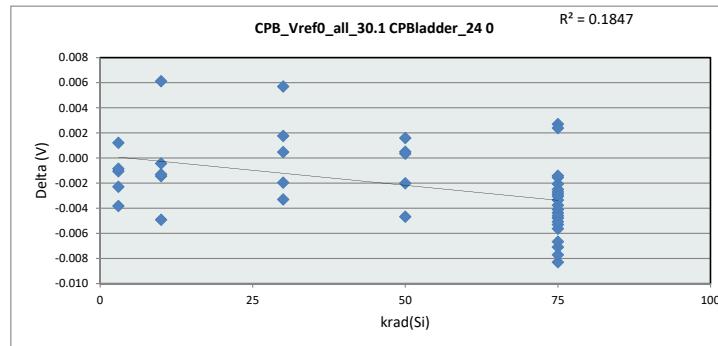
CPB_Vref0_all_30.1 CPBladder_23 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.296875	V			
Min Limit	2.203125	V			
krad(Si)	3	10	30	50	75
LL	2.203	2.203	2.203	2.203	2.203
Min	2.228	2.223	2.228	2.223	2.223
Average	2.232	2.231	2.230	2.231	2.231
Max	2.234	2.235	2.235	2.236	2.236
UL	2.297	2.297	2.297	2.297	2.297



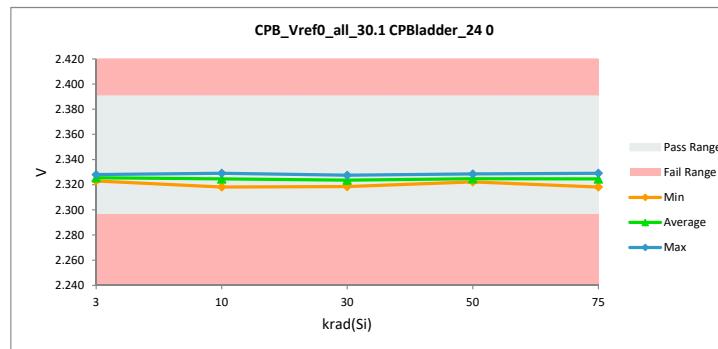
TID Report

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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.390625	2.390625		
Min Limit	2.296875	2.296875		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	2.324	2.328	-0.004
3	7	2.324	2.326	-0.002
3	8	2.324	2.325	-0.001
3	9	2.324	2.323	0.001
3	0	2.324	2.325	-0.001
10	16	2.324	2.329	-0.005
10	17	2.324	2.325	0.000
10	18	2.324	2.326	-0.001
10	19	2.324	2.326	-0.001
10	20	2.324	2.318	0.006
30	26	2.324	2.328	-0.003
30	27	2.324	2.322	0.002
30	28	2.324	2.326	-0.002
30	29	2.324	2.324	0.000
30	30	2.324	2.318	0.006
50	36	2.324	2.322	0.002
50	37	2.324	2.329	-0.005
50	38	2.324	2.323	0.001
50	39	2.324	2.326	-0.002
50	40	2.324	2.324	0.000
75	63	2.321	2.328	-0.007
75	64	2.321	2.326	-0.006
75	65	2.321	2.325	-0.004
75	66	2.321	2.323	-0.002
75	67	2.321	2.325	-0.004
75	68	2.321	2.329	-0.008
75	69	2.321	2.325	-0.004
75	70	2.321	2.326	-0.005
75	71	2.321	2.326	-0.005
75	72	2.321	2.318	0.003
75	73	2.321	2.328	-0.007
75	74	2.321	2.322	-0.002
75	75	2.321	2.326	-0.005
75	76	2.321	2.324	-0.003
75	77	2.321	2.318	0.002
75	78	2.321	2.322	-0.001
75	79	2.321	2.329	-0.008
75	80	2.321	2.323	-0.002
75	81	2.321	2.326	-0.005
75	82	2.321	2.324	-0.003
75	83	2.321	2.324	-0.003
75	84	2.321	2.324	-0.003
Max		2.324	2.329	0.006
Average		2.322	2.325	-0.002
Min		2.321	2.318	-0.008
Std Dev		0.002	0.003	0.003



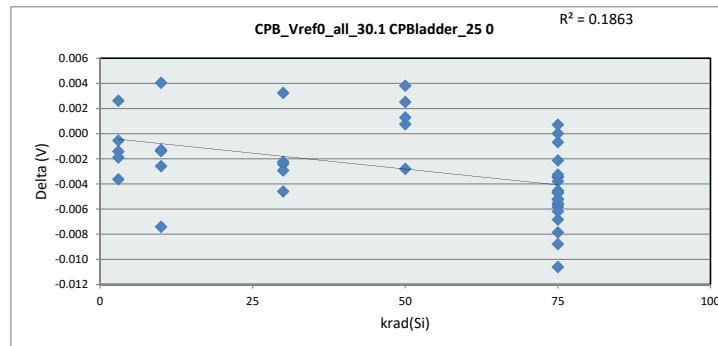
CPB_Vref0_all_30.1 CPBladder_2					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Max Limit	2.390625	V			
Min Limit	2.296875	V			
krad(Si)	3	10	30	50	75
LL	2.297	2.297	2.297	2.297	2.297
Min	2.323	2.318	2.322	2.318	2.318
Average	2.326	2.325	2.324	2.325	2.325
Max	2.328	2.329	2.328	2.329	2.329
UL	2.391	2.391	2.391	2.391	2.391



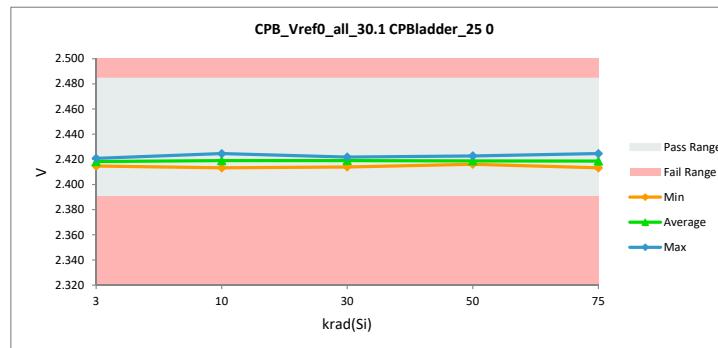
TID Report

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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.484375	2.484375		
Min Limit	2.390625	2.390625		
krad(Si)	Serial #	Pre test	Biased std	Post test biased
3	6	2.417		2.419
3	7	2.417		2.421
3	8	2.417		2.419
3	9	2.417		2.415
3	0	2.417		2.418
10	16	2.417		2.425
10	17	2.417		2.419
10	18	2.417		2.419
10	19	2.417		2.420
10	20	2.417		2.413
30	26	2.417		2.422
30	27	2.417		2.420
30	28	2.417		2.420
30	29	2.417		2.419
30	30	2.417		2.414
50	36	2.420		2.416
50	37	2.420		2.423
50	38	2.420		2.417
50	39	2.420		2.419
50	40	2.420		2.419
75	63	2.414		2.419
75	64	2.414		2.421
75	65	2.414		2.419
75	66	2.414		2.415
75	67	2.414		2.418
75	68	2.414		2.425
75	69	2.414		2.419
75	70	2.414		2.419
75	71	2.414		2.420
75	72	2.414		2.413
75	73	2.414		2.422
75	74	2.414		2.420
75	75	2.414		2.420
75	76	2.414		2.419
75	77	2.414		2.414
75	78	2.414		2.416
75	79	2.414		2.423
75	80	2.414		2.417
75	81	2.414		2.419
75	82	2.414		2.419
75	83	2.414		2.417
75	84	2.414		2.417
		Max	2.420	2.425
		Average	2.416	2.419
		Min	2.414	2.413
		Std Dev	0.002	0.003



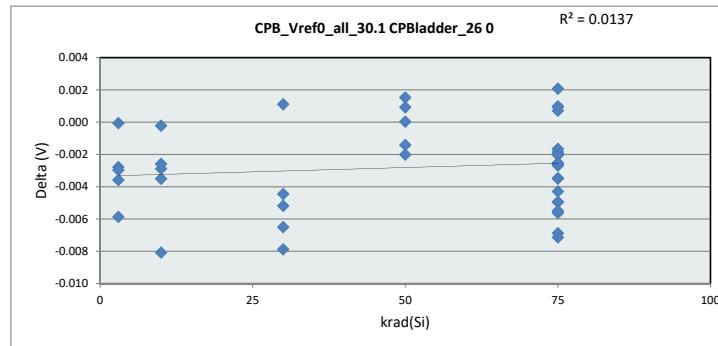
CPB_Vref0_all_30.1 CPBladder_25 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.484375	V			
Min Limit	2.390625	V			
krad(Si)	3	10	30	50	75
LL	2.391	2.391	2.391	2.391	2.391
Min	2.415	2.413	2.414	2.416	2.413
Average	2.418	2.419	2.419	2.419	2.419
Max	2.421	2.425	2.422	2.423	2.425
UL	2.484	2.484	2.484	2.484	2.484



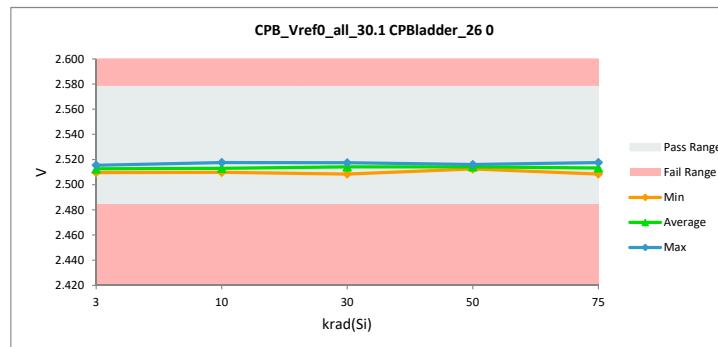
TID Report

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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.578125	2.578125		
Min Limit	2.484375	2.484375		
krad(Si)	Serial #	Pre test Biased std	Post test biased	Delta
3	6	2.510	2.513	-0.004
3	7	2.510	2.515	-0.006
3	8	2.510	2.512	-0.003
3	9	2.510	2.510	0.000
3	0	2.510	2.513	-0.003
10	16	2.510	2.518	-0.008
10	17	2.510	2.512	-0.003
10	18	2.510	2.513	-0.004
10	19	2.510	2.512	-0.003
10	20	2.510	2.510	0.000
30	26	2.510	2.517	-0.008
30	27	2.510	2.515	-0.005
30	28	2.510	2.516	-0.007
30	29	2.510	2.514	-0.004
30	30	2.510	2.508	0.001
50	36	2.514	2.512	0.002
50	37	2.514	2.516	-0.002
50	38	2.514	2.514	0.000
50	39	2.514	2.515	-0.001
50	40	2.514	2.513	0.001
75	63	2.511	2.513	-0.003
75	64	2.511	2.515	-0.005
75	65	2.511	2.512	-0.002
75	66	2.511	2.510	0.001
75	67	2.510	2.513	-0.002
75	68	2.511	2.518	-0.007
75	69	2.511	2.512	-0.002
75	70	2.511	2.513	-0.003
75	71	2.511	2.512	-0.002
75	72	2.511	2.510	0.001
75	73	2.511	2.517	-0.007
75	74	2.511	2.515	-0.004
75	75	2.511	2.516	-0.006
75	76	2.511	2.514	-0.003
75	77	2.511	2.508	0.002
75	78	2.510	2.512	-0.002
75	79	2.511	2.516	-0.005
75	80	2.510	2.514	-0.003
75	81	2.510	2.515	-0.005
75	82	2.511	2.513	-0.003
75	83	2.510	2.513	-0.003
75	84	2.510	2.510	0.001
Max		2.514	2.518	0.002
Average		2.511	2.513	-0.003
Min		2.510	2.508	-0.008
Std Dev		0.001	0.002	0.003



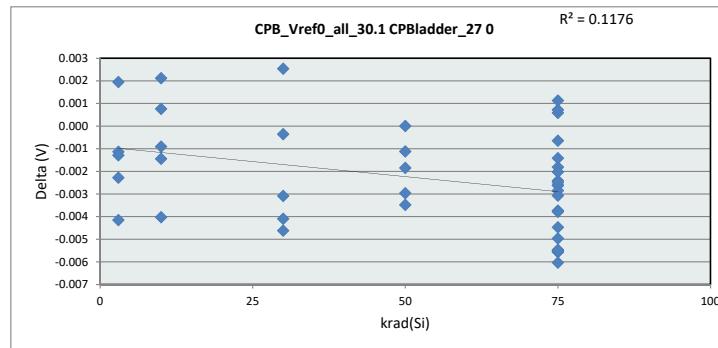
CPB_Vref0_all_30.1 CPBladder_26 0					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	V	V			
Max Limit	2.578125	V			
Min Limit	2.484375	V			
krad(Si)	3	10	30	50	75
LL	2.484	2.484	2.484	2.484	2.484
Min	2.510	2.510	2.508	2.512	2.508
Average	2.513	2.513	2.514	2.514	2.513
Max	2.515	2.518	2.517	2.516	2.518
UL	2.578	2.578	2.578	2.578	2.578



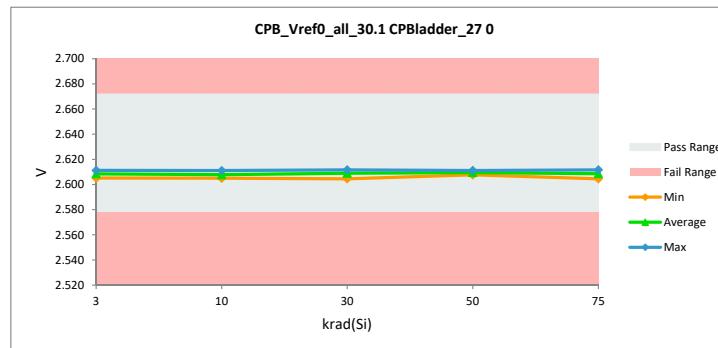
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.671875	2.671875		
Min Limit	2.578125	2.578125		
krad(Si)	Serial #	Pre test Biased	Post test Biased	Delta
3	6	2.607	2.609	-0.002
3	7	2.607	2.611	-0.004
3	8	2.607	2.608	-0.001
3	9	2.607	2.605	0.002
3	0	2.607	2.608	-0.001
10	16	2.607	2.611	-0.004
10	17	2.607	2.609	-0.001
10	18	2.607	2.608	-0.001
10	19	2.607	2.606	0.001
10	20	2.607	2.605	0.002
30	26	2.607	2.612	-0.005
30	27	2.607	2.607	0.000
30	28	2.607	2.610	-0.003
30	29	2.607	2.611	-0.004
30	30	2.607	2.605	0.003
50	36	2.608	2.608	0.000
50	37	2.608	2.611	-0.003
50	38	2.608	2.609	-0.001
50	39	2.608	2.611	-0.003
50	40	2.608	2.609	-0.002
75	63	2.606	2.609	-0.004
75	64	2.606	2.611	-0.006
75	65	2.606	2.608	-0.003
75	66	2.606	2.605	0.001
75	67	2.606	2.608	-0.003
75	68	2.606	2.611	-0.005
75	69	2.606	2.609	-0.003
75	70	2.606	2.608	-0.002
75	71	2.606	2.606	-0.001
75	72	2.606	2.605	0.001
75	73	2.606	2.612	-0.006
75	74	2.606	2.607	-0.002
75	75	2.606	2.610	-0.004
75	76	2.606	2.611	-0.006
75	77	2.606	2.605	0.001
75	78	2.606	2.608	-0.002
75	79	2.606	2.611	-0.005
75	80	2.606	2.609	-0.003
75	81	2.606	2.611	-0.005
75	82	2.606	2.609	-0.004
75	83	2.606	2.608	-0.002
75	84	2.606	2.607	-0.001
Max		2.608	2.612	0.003
Average		2.606	2.609	-0.002
Min		2.606	2.605	-0.006
Std Dev		0.001	0.002	0.002



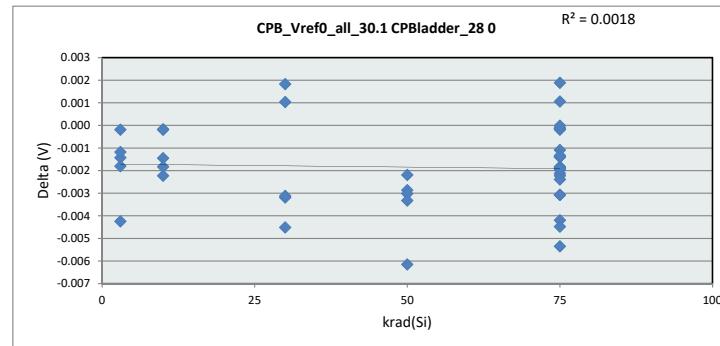
CPB_Vref0_all_30.1 CPBladder_2					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	V	V			
Max Limit	2.671875	V			
Min Limit	2.578125	V			
krad(Si)	3	10	30	50	75
LL	2.578	2.578	2.578	2.578	2.578
Min	2.605	2.605	2.605	2.605	2.605
Average	2.608	2.608	2.609	2.609	2.609
Max	2.611	2.611	2.612	2.611	2.612
UL	2.672	2.672	2.672	2.672	2.672



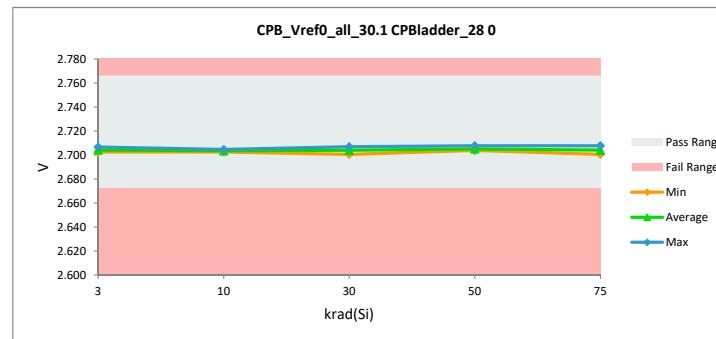
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.765625	2.765625		
Min Limit	2.671875	2.671875		
krad(Si)	Serial #	Pre test Biased	Post test biased	Delta
3	6	2.702	2.704	-0.001
3	7	2.702	2.707	-0.004
3	8	2.702	2.704	-0.002
3	9	2.702	2.702	0.000
3	0	2.702	2.703	-0.001
10	16	2.702	2.705	-0.002
10	17	2.702	2.704	-0.001
10	18	2.702	2.704	-0.002
10	19	2.702	2.703	0.000
10	20	2.702	2.702	0.000
30	26	2.702	2.705	-0.003
30	27	2.702	2.700	0.002
30	28	2.702	2.705	-0.003
30	29	2.702	2.707	-0.005
30	30	2.702	2.701	0.001
50	36	2.701	2.704	-0.003
50	37	2.702	2.704	-0.002
50	38	2.701	2.705	-0.003
50	39	2.701	2.708	-0.006
50	40	2.701	2.705	-0.003
75	63	2.702	2.704	-0.001
75	64	2.702	2.707	-0.004
75	65	2.702	2.704	-0.002
75	66	2.702	2.702	0.000
75	67	2.702	2.703	-0.001
75	68	2.702	2.705	-0.002
75	69	2.702	2.704	-0.001
75	70	2.702	2.704	-0.002
75	71	2.702	2.703	0.000
75	72	2.702	2.702	0.000
75	73	2.702	2.705	-0.003
75	74	2.702	2.700	0.002
75	75	2.702	2.705	-0.003
75	76	2.702	2.707	-0.004
75	77	2.702	2.701	0.001
75	78	2.702	2.704	-0.002
75	79	2.702	2.704	-0.001
75	80	2.702	2.705	-0.002
75	81	2.702	2.708	-0.005
75	82	2.702	2.705	-0.002
75	83	2.702	2.704	-0.002
75	84	2.702	2.702	0.000
		Max	2.702	2.708
		Average	2.702	2.704
		Min	2.701	2.700
		Std Dev	0.000	0.002



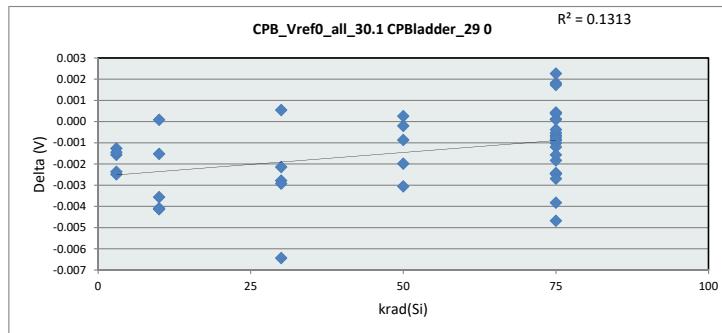
CPB_Vref0_all_30.1 CPBladder_28 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.765625	V			
Min Limit	2.671875	V			
krad(Si)	3	10	30	50	75
LL	2.672	2.672	2.672	2.672	2.672
Min	2.702	2.702	2.700	2.704	2.700
Average	2.704	2.703	2.704	2.705	2.704
Max	2.707	2.705	2.707	2.708	2.708
UL	2.766	2.766	2.766	2.766	2.766



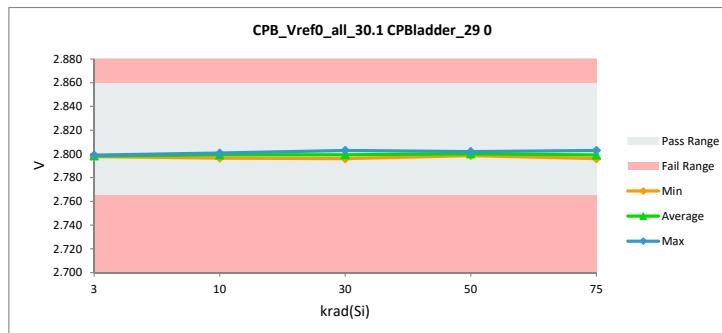
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.859375	2.859375		
Min Limit	2.765625	2.765625		
krad(Si)	Serial #	Pre test Biased.std	Post test biased	Delta
3	6	2.797	2.798	-0.002
3	7	2.797	2.799	-0.002
3	8	2.797	2.798	-0.001
3	9	2.797	2.798	-0.001
3	0	2.797	2.799	-0.002
10	16	2.797	2.800	-0.004
10	17	2.797	2.801	-0.004
10	18	2.797	2.801	-0.004
10	19	2.797	2.798	-0.002
10	20	2.797	2.796	0.000
30	26	2.797	2.799	-0.003
30	27	2.797	2.799	-0.002
30	28	2.797	2.799	-0.003
30	29	2.797	2.803	-0.006
30	30	2.797	2.796	0.001
50	36	2.799	2.800	-0.001
50	37	2.799	2.799	0.000
50	38	2.799	2.799	0.000
50	39	2.799	2.802	-0.003
50	40	2.799	2.801	-0.002
75	63	2.798	2.798	0.000
75	64	2.798	2.799	-0.001
75	65	2.798	2.798	0.000
75	66	2.798	2.798	0.000
75	67	2.798	2.799	-0.001
75	68	2.798	2.798	-0.002
75	69	2.798	2.801	-0.002
75	70	2.798	2.801	-0.002
75	71	2.798	2.798	0.000
75	72	2.798	2.796	0.002
75	73	2.798	2.799	-0.001
75	74	2.798	2.799	-0.001
75	75	2.798	2.799	-0.001
75	76	2.798	2.803	-0.005
75	77	2.798	2.796	0.002
75	78	2.798	2.800	-0.002
75	79	2.798	2.799	0.000
75	80	2.798	2.799	-0.001
75	81	2.798	2.802	-0.004
75	82	2.798	2.801	-0.003
75	83	2.798	2.799	-0.001
75	84	2.798	2.797	0.002
	Max	2.799	2.803	0.002
	Average	2.798	2.799	-0.001
	Min	2.797	2.796	-0.006
	Std Dev	0.001	0.002	0.002



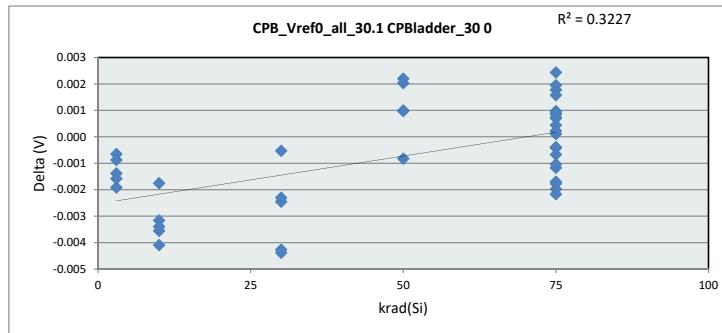
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.859375	V			
Min Limit	2.765625	V			
krad(Si)	3	10	30	50	75
LL	2.766	2.766	2.766	2.766	2.766
Min	2.798	2.796	2.796	2.799	2.796
Average	2.798	2.799	2.799	2.800	2.799
Max	2.799	2.801	2.803	2.802	2.803
UL	2.859	2.859	2.859	2.859	2.859



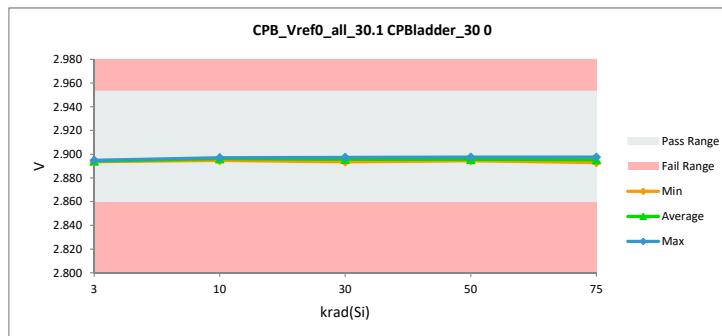
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CPB_Vref0_all_30.1 CPBladder_3				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.953125	2.953125		
Min Limit	2.859375	2.859375		
krad(Si)	Serial #	Pre test Biased.std	Post test biased	Delta
3	6	2.893	2.895	-0.002
3	7	2.893	2.894	-0.001
3	8	2.893	2.894	-0.001
3	9	2.893	2.894	-0.001
3	0	2.893	2.894	-0.002
10	16	2.893	2.897	-0.004
10	17	2.893	2.896	-0.003
10	18	2.893	2.896	-0.003
10	19	2.893	2.897	-0.004
10	20	2.893	2.895	-0.002
30	26	2.893	2.897	-0.004
30	27	2.893	2.895	-0.002
30	28	2.893	2.895	-0.002
30	29	2.893	2.897	-0.004
30	30	2.893	2.893	-0.001
50	36	2.897	2.896	0.001
50	37	2.897	2.895	0.002
50	38	2.897	2.895	0.002
50	39	2.897	2.898	-0.001
50	40	2.897	2.896	0.001
75	63	2.895	2.895	0.000
75	64	2.895	2.894	0.001
75	65	2.895	2.894	0.002
75	66	2.895	2.894	0.002
75	67	2.895	2.894	0.001
75	68	2.895	2.897	-0.001
75	69	2.895	2.896	-0.001
75	70	2.895	2.896	-0.001
75	71	2.895	2.897	-0.002
75	72	2.895	2.895	0.001
75	73	2.895	2.897	-0.002
75	74	2.895	2.895	0.000
75	75	2.895	2.895	0.000
75	76	2.895	2.897	-0.002
75	77	2.895	2.893	0.002
75	78	2.895	2.896	0.000
75	79	2.895	2.895	0.001
75	80	2.895	2.895	0.001
75	81	2.895	2.898	-0.002
75	82	2.895	2.896	0.000
75	83	2.895	2.896	0.000
75	84	2.895	2.893	0.002
	Max	2.897	2.898	0.002
	Average	2.895	2.895	-0.001
	Min	2.893	2.893	-0.004
	Std Dev	0.001	0.001	0.002



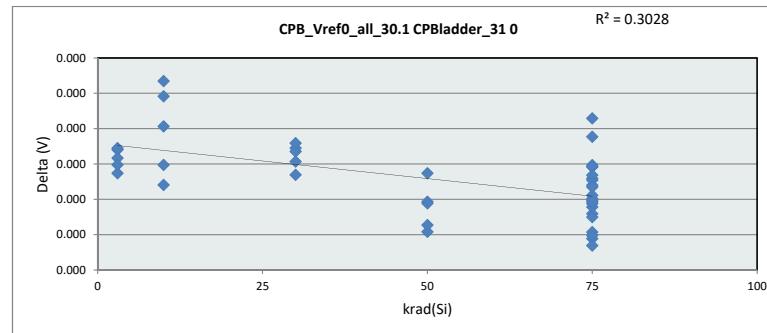
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.953125	V			
Min Limit	2.859375	V			
krad(Si)	3	10	30	50	75
LL	2.859	2.859	2.859	2.859	2.859
Min	2.894	2.895	2.893	2.895	2.893
Average	2.894	2.896	2.896	2.896	2.895
Max	2.895	2.897	2.897	2.898	2.898
UL	2.953	2.953	2.953	2.953	2.953



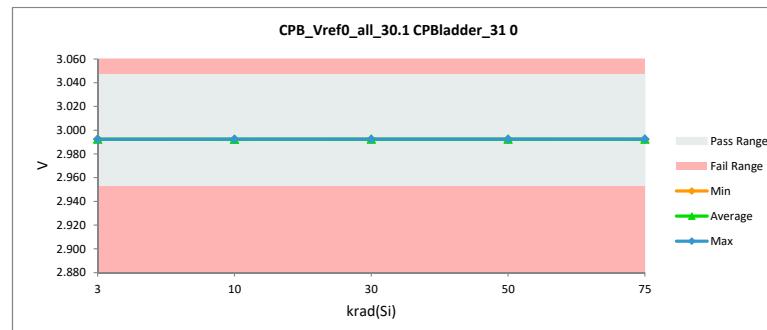
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CPB_Vref0_all_30.1 CPBladder_3				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	3.046875	3.046875		
Min Limit	2.953125	2.953125		
krad(Si)	Serial #	Pre test Biased.std	Post test biased	Delta
3	6	2.992	2.992	0.000
3	7	2.992	2.992	0.000
3	8	2.993	2.992	0.000
3	9	2.992	2.992	0.000
3	0	2.993	2.992	0.000
10	16	2.992	2.992	0.000
10	17	2.992	2.992	0.000
10	18	2.993	2.992	0.000
10	19	2.993	2.992	0.000
10	20	2.992	2.992	0.000
30	26	2.992	2.992	0.000
30	27	2.993	2.992	0.000
30	28	2.992	2.992	0.000
30	29	2.992	2.992	0.000
30	30	2.993	2.992	0.000
50	36	2.992	2.992	0.000
50	37	2.992	2.992	0.000
50	38	2.992	2.992	0.000
50	39	2.992	2.992	0.000
50	40	2.992	2.992	0.000
75	63	2.992	2.992	0.000
75	64	2.992	2.992	0.000
75	65	2.992	2.992	0.000
75	66	2.992	2.992	0.000
75	67	2.992	2.992	0.000
75	68	2.992	2.992	0.000
75	69	2.992	2.992	0.000
75	70	2.992	2.992	0.000
75	71	2.992	2.992	0.000
75	72	2.992	2.992	0.000
75	73	2.992	2.992	0.000
75	74	2.992	2.992	0.000
75	75	2.992	2.992	0.000
75	76	2.992	2.992	0.000
75	77	2.992	2.992	0.000
75	78	2.992	2.992	0.000
75	79	2.992	2.992	0.000
75	80	2.992	2.992	0.000
75	81	2.992	2.992	0.000
75	82	2.992	2.992	0.000
75	83	2.992	2.992	0.000
75	84	2.992	2.992	0.000
	Max	2.993	2.992	0.000
	Average	2.992	2.992	0.000
	Min	2.992	2.992	0.000
	Std Dev	0.000	0.000	0.000



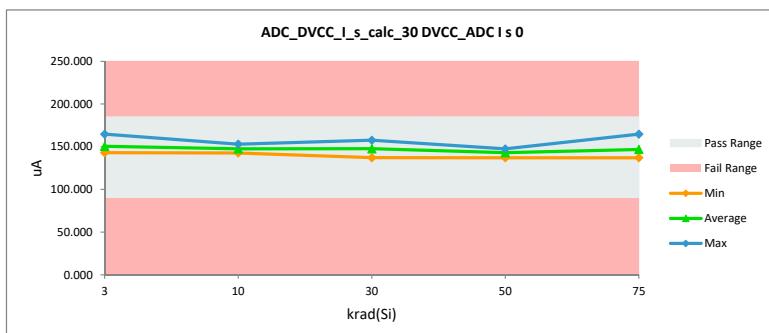
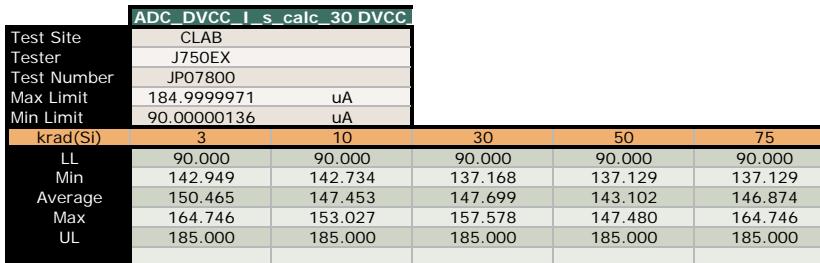
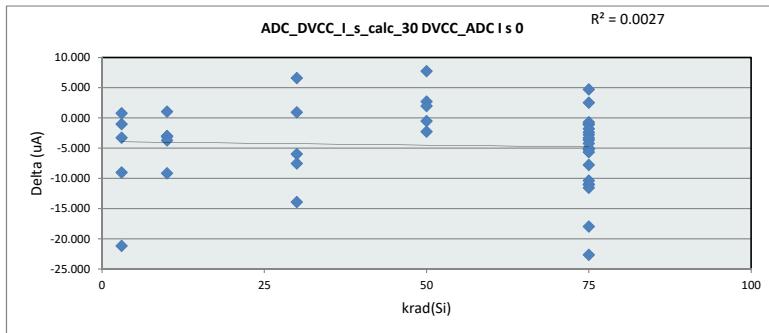
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	3.046875	V			
Min Limit	2.953125	V			
krad(Si)	3	10	30	50	75
LL	2.953	2.953	2.953	2.953	2.953
Min	2.992	2.992	2.992	2.992	2.992
Average	2.992	2.992	2.992	2.992	2.992
Max	2.992	2.992	2.992	2.992	2.992
UL	3.047	3.047	3.047	3.047	3.047



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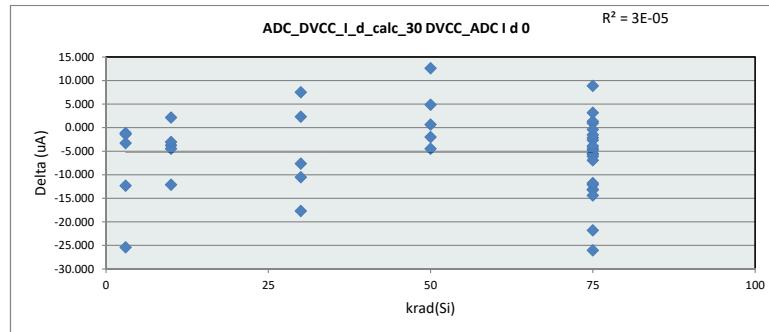
ADC_DVCC_I_s_calc_30 DVCC_A				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	184.999971	184.999971		
Min Limit	90.00000136	90.00000136		
krad(Si)	Serial #	Pre test Biased.std	Post test biased	Delta
3	6	143.594	164.746	-21.152
3	7	143.789	152.813	-9.023
3	8	143.711	144.727	-1.016
3	9	143.730	142.949	0.781
3	0	143.809	147.090	-3.281
10	16	143.887	153.027	-9.141
10	17	143.789	142.734	1.055
10	18	143.887	146.855	-2.969
10	19	143.867	146.973	-3.105
10	20	143.945	147.676	-3.730
30	26	143.672	151.191	-7.520
30	27	143.711	142.773	0.938
30	28	143.809	149.785	-5.977
30	29	143.770	137.168	6.602
30	30	143.672	157.578	-13.906
50	36	144.863	137.129	7.734
50	37	145.215	147.480	-2.266
50	38	145.059	145.586	-0.527
50	39	144.961	142.246	2.715
50	40	145.039	143.066	1.973
75	63	142.090	164.746	-22.656
75	64	141.836	152.813	-10.977
75	65	141.953	144.727	-2.773
75	66	141.875	142.949	-1.074
75	67	141.855	147.090	-5.234
75	68	141.992	153.027	-11.035
75	69	142.031	142.734	-0.703
75	70	141.855	146.855	-5.000
75	71	141.836	146.973	-5.137
75	72	142.012	147.676	-5.664
75	73	139.648	151.191	-11.543
75	74	141.699	142.773	-1.074
75	75	139.434	149.785	-10.352
75	76	139.688	137.168	2.520
75	77	139.629	157.578	-17.949
75	78	141.855	137.129	4.727
75	79	139.707	147.480	-7.773
75	80	141.953	145.586	-3.633
75	81	139.883	142.246	-2.363
75	82	139.766	143.066	-3.301
75	83	139.668	143.887	-4.219
75	84	141.953	143.750	-1.797
Max		145.215	164.746	7.734
Average		142.524	147.020	-4.496
Min		139.434	137.129	-22.656
Std Dev		1.748	6.343	6.617



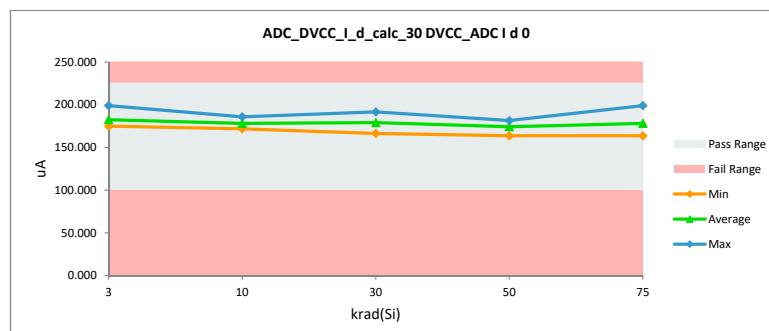
TID Report

MSP430FR5969-MLS

ADC_DVCC_I_d_calc_30 DVCC_A				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	224.999961	224.999961		
Min Limit	99.9999747	99.9999747		
krad(Si)	Serial #	Pre test Biased.std	Post test biased	Delta
3	6	173.535	198.926	-25.391
3	7	173.730	186.055	-12.324
3	8	173.750	174.883	-1.133
3	9	173.906	175.332	-1.426
3	0	173.789	177.070	-3.281
10	16	173.730	185.840	-12.109
10	17	173.945	171.797	2.148
10	18	173.848	177.617	-3.770
10	19	173.789	178.262	-4.473
10	20	173.691	176.738	-3.047
30	26	173.574	184.102	-10.527
30	27	173.750	171.445	2.305
30	28	173.867	181.484	-7.617
30	29	173.926	166.406	7.520
30	30	173.828	191.523	-17.695
50	36	176.309	163.691	12.617
50	37	177.012	181.484	-4.473
50	38	176.523	178.516	-1.992
50	39	176.309	171.445	4.863
50	40	176.543	175.898	0.645
75	63	172.891	198.926	-26.035
75	64	172.852	186.055	-13.203
75	65	172.754	174.883	-2.129
75	66	172.695	175.332	-2.637
75	67	172.656	177.070	-4.414
75	68	172.754	185.840	-13.086
75	69	172.754	171.797	0.957
75	70	172.832	177.617	-4.785
75	71	172.754	178.262	-5.508
75	72	172.852	176.738	-3.887
75	73	169.707	184.102	-14.395
75	74	172.793	171.445	1.348
75	75	169.355	181.484	-12.129
75	76	169.590	166.406	3.184
75	77	169.746	191.523	-21.777
75	78	172.559	163.691	8.867
75	79	169.707	181.484	-11.777
75	80	172.813	178.516	-5.703
75	81	169.941	171.445	-1.504
75	82	169.785	175.898	-6.113
75	83	169.766	176.699	-6.934
75	84	173.027	173.438	-0.410
Max		177.012	198.926	12.617
Average		172.999	178.266	-5.267
Min		169.355	163.691	-26.035
Std Dev		1.978	7.982	8.400



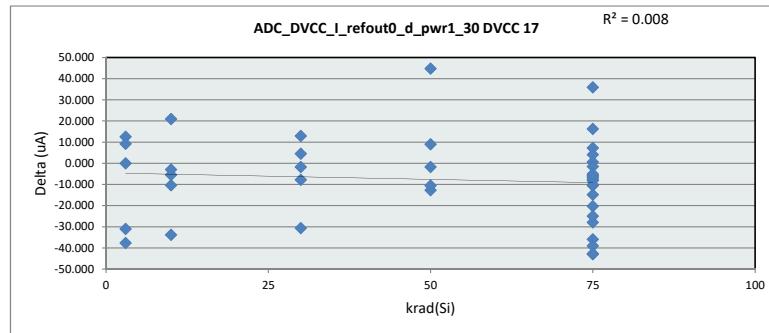
ADC_DVCC_I_d_calc_30 DVCC					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Max Limit	224.999961	uA			
Min Limit	99.9999747	uA			
krad(Si)	3	10	30	50	75
LL	100.000	100.000	100.000	100.000	100.000
Min	174.883	171.797	166.406	163.691	163.691
Average	182.453	178.051	178.992	174.207	178.121
Max	198.926	185.840	191.523	181.484	198.926
UL	225.000	225.000	225.000	225.000	225.000



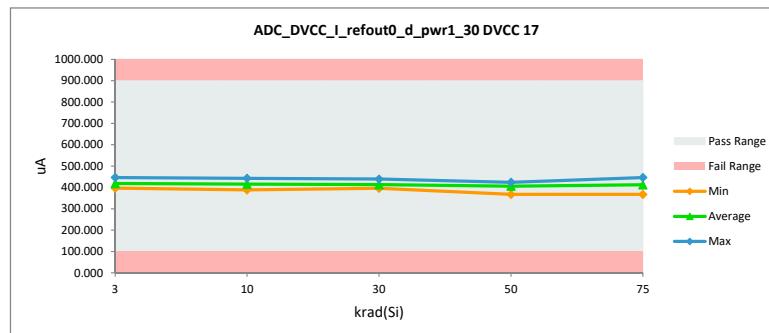
TID Report

MSP430FR5969-MLS

ADC_DVCC_I_refout0_d_pwr1_3				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	898.9999769	898.9999769		
Min Limit	99.9999747	99.9999747		
krad(Si)	Serial #	Pre test Biased.std	Post test biased	Delta
3	6	408.594	446.289	-37.695
3	7	408.789	439.844	-31.055
3	8	409.180	396.680	12.500
3	9	408.594	399.414	9.180
3	0	409.375	409.375	0.000
10	16	408.984	442.773	-33.789
10	17	409.180	388.281	20.898
10	18	408.398	418.750	-10.352
10	19	408.984	414.453	-5.469
10	20	408.984	411.914	-2.930
30	26	409.180	416.992	-7.813
30	27	408.594	410.352	-1.758
30	28	408.398	403.906	4.492
30	29	408.594	395.703	12.891
30	30	408.594	439.258	-30.664
50	36	412.109	367.383	44.727
50	37	411.328	424.023	-12.695
50	38	411.914	413.672	-1.758
50	39	412.305	403.320	8.984
50	40	411.133	421.680	-10.547
75	63	403.320	446.289	-42.969
75	64	403.906	439.844	-35.938
75	65	403.906	396.680	7.227
75	66	403.516	399.414	4.102
75	67	403.516	409.375	-5.859
75	68	403.711	442.773	-39.063
75	69	404.492	388.281	16.211
75	70	403.906	418.750	-14.844
75	71	403.906	414.453	-10.547
75	72	403.711	411.914	-8.203
75	73	396.680	416.992	-20.313
75	74	403.516	410.352	-6.836
75	75	396.289	403.906	-7.617
75	76	396.289	395.703	0.586
75	77	396.484	439.258	-42.773
75	78	403.320	367.383	35.938
75	79	396.094	424.023	-27.930
75	80	403.516	413.672	-10.156
75	81	397.266	403.320	-6.055
75	82	396.680	421.680	-25.000
75	83	396.094	397.656	-1.563
75	84	403.516	408.594	-5.078
Max	412.305	446.289	44.727	
Average	405.115	412.723	-7.608	
Min	396.094	367.383	-42.969	
Std Dev	5.076	19.023	19.821	



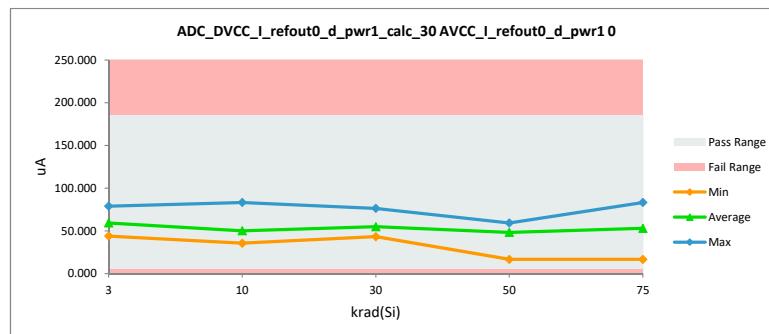
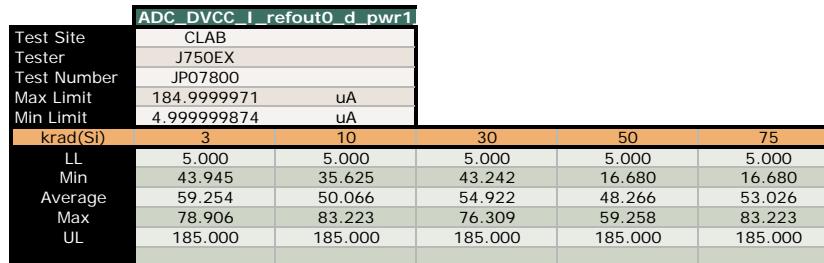
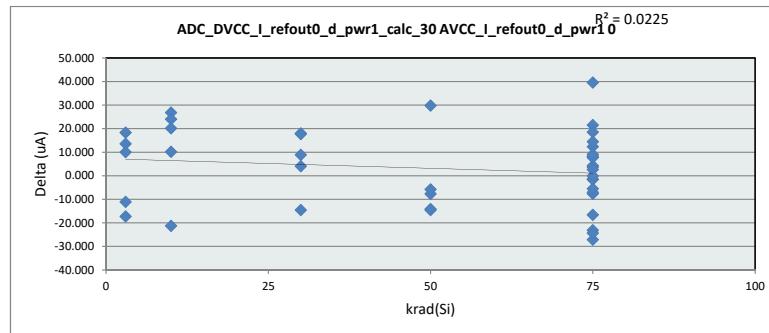
ADC_DVCC_I_refout0_d_pwr1					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	898.9999769	uA			
Min Limit	99.9999747	uA			
krad(Si)	3	10	30	50	75
LL	100.000	100.000	100.000	100.000	100.000
Min	396.680	388.281	395.703	367.383	367.383
Average	418.320	415.234	413.242	406.016	412.287
Max	446.289	442.773	439.258	424.023	446.289
UL	899.000	899.000	899.000	899.000	899.000



TID Report

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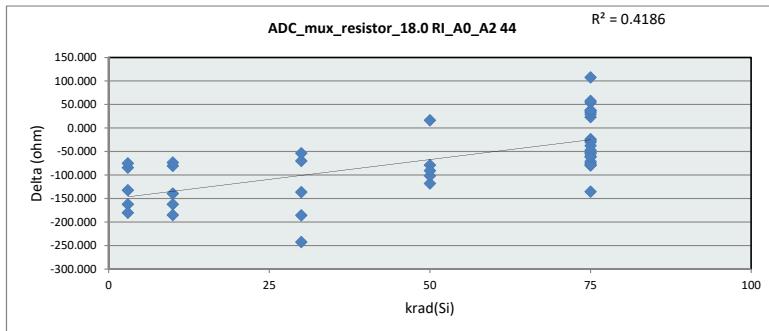
ADC_DVCC_I_refout0_d_pwr1_C				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	184.999971	184.999971		
Min Limit	4.99999874	4.99999874		
krad(Si)	Serial #	Pre test Biased.std	Post test biased	Delta
3	6	61.660	78.906	-17.246
3	7	61.934	73.008	-11.074
3	8	62.285	43.945	18.340
3	9	61.641	48.047	13.594
3	0	62.402	52.363	10.039
10	16	61.973	83.223	-21.250
10	17	62.461	35.625	26.836
10	18	61.699	37.676	24.023
10	19	62.148	52.012	10.137
10	20	61.934	41.797	20.137
30	26	62.168	53.320	8.848
30	27	61.836	57.754	4.082
30	28	61.250	43.242	18.008
30	29	61.660	43.984	17.676
30	30	61.777	76.309	-14.531
50	36	46.484	16.680	29.805
50	37	44.980	59.121	-14.141
50	38	46.035	53.730	-7.695
50	39	46.777	52.539	-5.762
50	40	44.727	59.258	-14.531
75	63	55.781	78.906	-23.125
75	64	56.445	73.008	-16.563
75	65	56.309	43.945	12.363
75	66	56.055	48.047	8.008
75	67	56.113	52.363	3.750
75	68	56.113	83.223	-27.109
75	69	57.129	35.625	21.504
75	70	56.211	37.676	18.535
75	71	56.270	52.012	4.258
75	72	56.230	41.797	14.434
75	73	51.777	53.320	-1.543
75	74	56.270	57.754	-1.484
75	75	51.523	43.242	8.281
75	76	51.719	43.984	7.734
75	77	51.973	76.309	-24.336
75	78	56.270	16.680	39.590
75	79	51.504	59.121	-7.617
75	80	56.387	53.730	2.656
75	81	52.480	52.539	-0.059
75	82	52.188	59.258	-7.070
75	83	51.328	42.266	9.063
75	84	56.230	61.777	-5.547
	Max	62.461	83.223	39.590
	Average	56.194	53.074	3.119
	Min	44.727	16.680	-27.109
	Std Dev	5.394	15.602	16.043



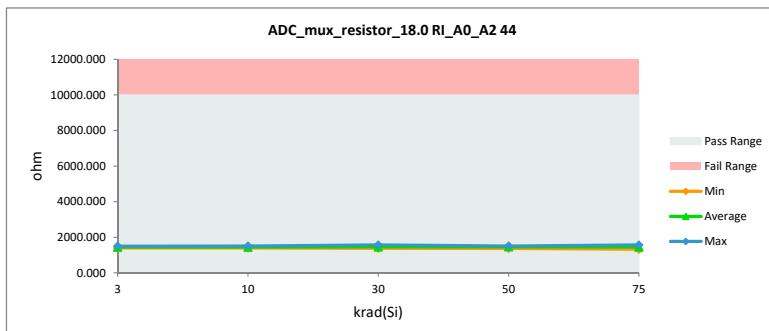
TID Report

MSP430FR5969-MLS

ADC_mux_resistor_18.0 RI_A0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	ohm	ohm		
Max Limit	10000	10000		
Min Limit	0	0		
krad(Si)	Serial #	Pre test Biased.std	Post test biased	Delta
3	6	1322.981	1407.396	-84.415
3	7	1321.756	1396.773	-75.016
3	8	1321.756	1483.895	-162.139
3	9	1322.981	1455.365	-132.384
3	0	1321.581	1501.737	-180.156
10	16	1321.581	1402.064	-80.483
10	17	1322.281	1395.797	-73.516
10	18	1322.456	1484.557	-162.100
10	19	1322.806	1507.856	-185.050
10	20	1321.407	1460.898	-139.491
30	26	1321.057	1457.488	-136.431
30	27	1322.456	1508.083	-185.627
30	28	1322.281	1392.296	-70.015
30	29	1322.981	1565.500	-242.519
30	30	1322.806	1376.378	-53.572
50	36	1388.813	1467.765	-78.952
50	37	1390.552	1374.106	16.446
50	38	1389.779	1507.856	-118.077
50	39	1388.813	1490.536	-101.723
50	40	1388.234	1478.844	-90.610
75	63	1430.569	1407.396	23.173
75	64	1433.237	1396.773	36.464
75	65	1430.979	1483.895	-52.916
75	66	1431.594	1455.365	-23.771
75	67	1430.364	1501.737	-71.373
75	68	1431.389	1402.064	29.324
75	69	1429.750	1395.797	33.953
75	70	1430.774	1484.557	-53.782
75	71	1432.620	1507.856	-75.235
75	72	1431.184	1460.898	-29.714
75	73	1430.364	1457.488	-27.124
75	74	1428.524	1508.083	-79.559
75	75	1430.160	1392.296	37.864
75	76	1430.364	1565.500	-135.135
75	77	1430.160	1376.378	53.782
75	78	1430.160	1467.765	-37.605
75	79	1431.799	1374.106	57.693
75	80	1429.546	1507.856	-78.310
75	81	1430.774	1490.536	-59.762
75	82	1431.799	1478.844	-47.045
75	83	1429.955	1491.871	-61.916
75	84	1430.569	1322.806	107.763
Max		1433.237	1565.500	107.763
Average		1387.047	1453.454	-66.406
Min		1321.057	1322.806	-242.519
Std Dev		50.640	56.106	76.169



ADC_mux_resistor_18.0 RI_A0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	ohm	ohm		
Max Limit	10000	10000		
Min Limit	0	0		
krad(Si)	3	10	30	50
LL	0.000	0.000	0.000	0.000
Min	1396.773	1395.797	1376.378	1374.106
Average	1449.033	1450.234	1459.949	1463.821
Max	1501.737	1507.856	1565.500	1565.500
UL	10000.000	10000.000	10000.000	10000.000



Test Results - Unbiased

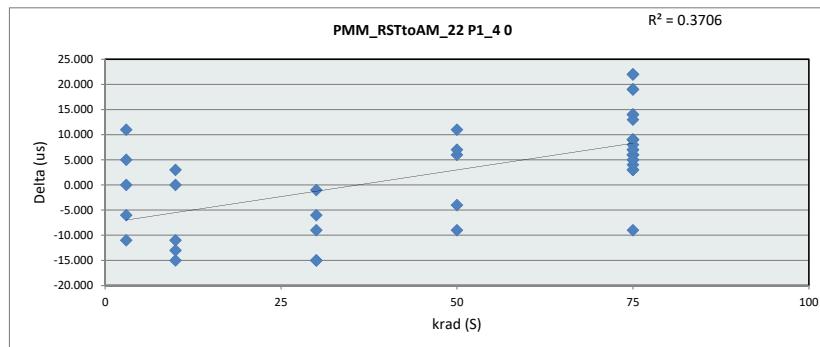
Delta Threshold 10.00%

TID Report
MSP430FR5969-SP

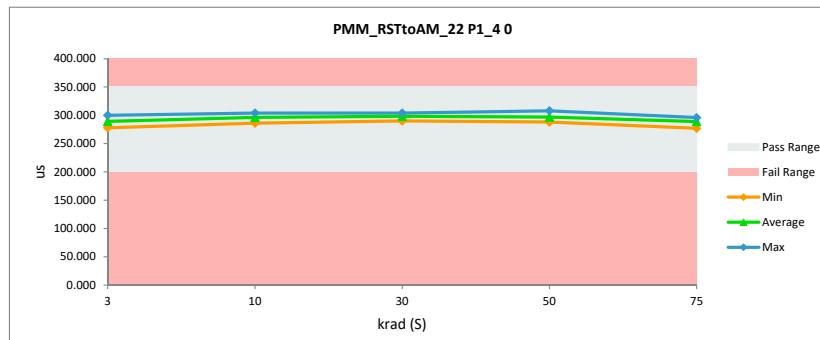
TID Report(Unbiased)

**TID Report
MSP430FR5969-SP**

PMM_RSTtoAM_22 P1_4 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	349.9999875	349.9999875		
Min Limit	199.999949	199.999949		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	289.000	300.000	-11.000
3	2	289.000	295.000	-6.000
3	3	289.000	289.000	0.000
3	4	289.000	284.000	5.000
3	5	289.000	278.000	11.000
10	11	289.000	286.000	3.000
10	12	289.000	289.000	0.000
10	13	289.000	304.000	-15.000
10	14	289.000	300.000	-11.000
10	15	289.000	302.000	-13.000
30	21	289.000	290.000	-1.000
30	22	289.000	304.000	-15.000
30	23	289.000	304.000	-15.000
30	24	289.000	298.000	-9.000
30	25	289.000	295.000	-6.000
50	31	299.000	308.000	-9.000
50	32	299.000	303.000	-4.000
50	33	299.000	293.000	6.000
50	34	299.000	292.000	7.000
50	35	299.000	288.000	11.000
75	41	299.000	293.000	6.000
75	42	299.000	291.000	8.000
75	43	299.000	290.000	9.000
75	44	299.000	290.000	9.000
75	45	299.000	280.000	19.000
75	46	299.000	280.000	19.000
75	47	299.000	277.000	22.000
75	48	299.000	277.000	22.000
75	49	299.000	285.000	14.000
75	50	299.000	285.000	14.000
75	51	299.000	293.000	6.000
75	52	299.000	293.000	6.000
75	53	299.000	292.000	7.000
75	54	299.000	292.000	7.000
75	55	299.000	294.000	5.000
75	56	299.000	286.000	13.000
75	57	299.000	296.000	3.000
75	58	299.000	296.000	3.000
75	59	299.000	290.000	9.000
75	60	284.000	293.000	-9.000
75	61	295.000	291.000	4.000
75	62	295.000	290.000	5.000
Max		299.000	308.000	22.000
Average		294.881	291.810	3.071
Min		284.000	277.000	-15.000
Std Dev		5.047	7.578	10.158



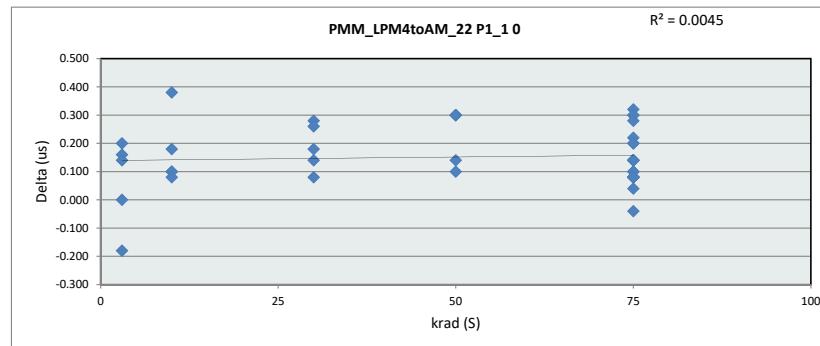
PMM_RSTtoAM_22 P1_4 0				
Test Site	CLAB			
Tester	J750EX			
Test Number	JP07800			
Max Limit	349.9999875	us		
Min Limit	199.999949	us		
krad (S)	3	10	30	50
LL	200.000	200.000	200.000	200.000
Min	278.000	286.000	290.000	288.000
Average	289.200	296.200	298.200	296.800
Max	300.000	304.000	304.000	296.000
UL	350.000	350.000	350.000	350.000



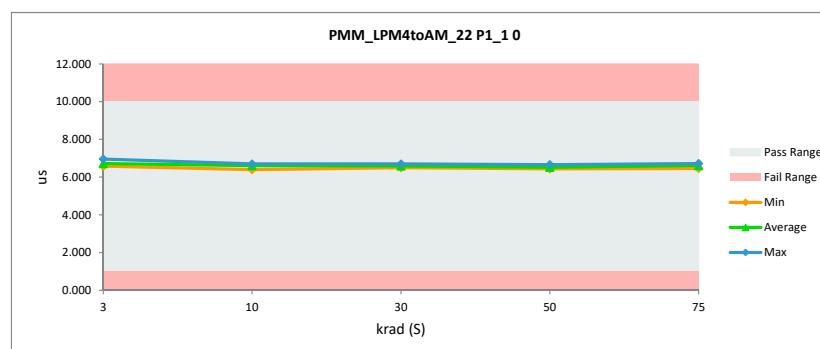
TID Report(Unbiased)

TID Report
MSP430FR5969-SP

PMM_LPM4toAM_22 P1_1 O				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.999999747	9.999999747		
Min Limit	0.999999997	0.999999997		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	6.780	6.580	0.200
3	2	6.800	6.640	0.160
3	3	6.780	6.960	-0.180
3	4	6.780	6.640	0.140
3	5	6.780	6.780	0.000
10	11	6.780	6.400	0.380
10	12	6.780	6.680	0.100
10	13	6.780	6.680	0.100
10	14	6.780	6.600	0.180
10	15	6.780	6.700	0.080
30	21	6.780	6.500	0.280
30	22	6.780	6.700	0.080
30	23	6.780	6.600	0.180
30	24	6.780	6.520	0.260
30	25	6.780	6.640	0.140
50	31	6.760	6.660	0.100
50	32	6.760	6.460	0.300
50	33	6.740	6.440	0.300
50	34	6.760	6.460	0.300
50	35	6.760	6.620	0.140
75	41	6.760	6.720	0.040
75	42	6.760	6.620	0.140
75	43	6.760	6.680	0.080
75	44	6.760	6.680	0.080
75	45	6.760	6.460	0.300
75	46	6.780	6.460	0.320
75	47	6.760	6.460	0.300
75	48	6.760	6.480	0.280
75	49	6.760	6.680	0.080
75	50	6.760	6.680	0.080
75	51	6.760	6.660	0.100
75	52	6.760	6.680	0.080
75	53	6.760	6.620	0.140
75	54	6.760	6.620	0.140
75	55	6.760	6.660	0.100
75	56	6.760	6.540	0.220
75	57	6.760	6.560	0.200
75	58	6.760	6.560	0.200
75	59	6.760	6.680	0.080
75	60	6.680	6.720	-0.040
75	61	6.760	6.620	0.140
75	62	6.760	6.680	0.080
Average	Max	6.800	6.960	0.380
	Average	6.766	6.614	0.152
	Min	6.680	6.400	-0.180
	Std Dev	0.018	0.108	0.109



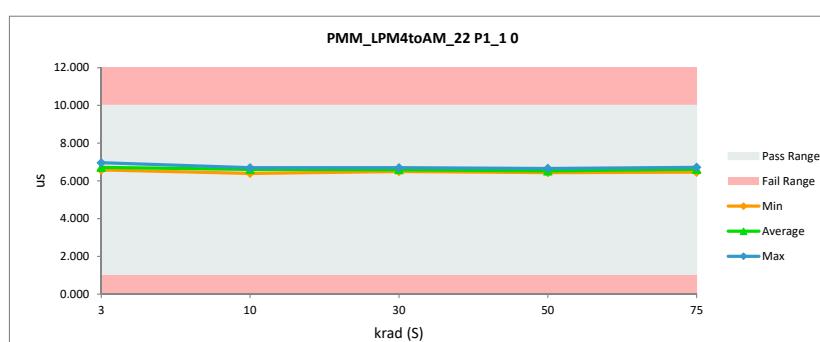
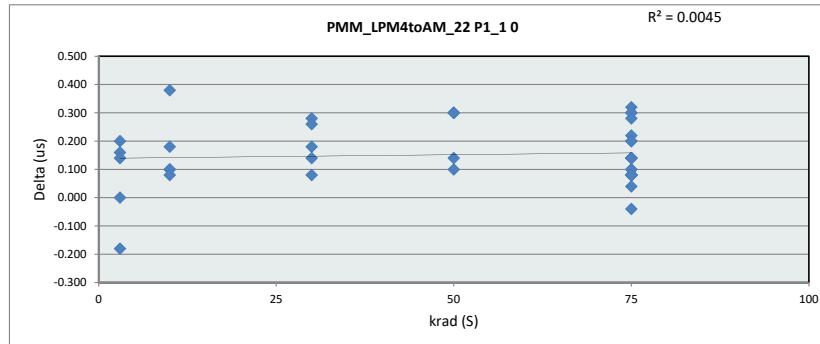
PMM_LPM4toAM_22 P1_10					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	9.99999747	us			
Min Limit	0.99999997	us			
krad (S)	3	10	30	50	75
LL	1.000	1.000	1.000	1.000	1.000
Min	6.580	6.400	6.500	6.440	6.460
Average	6.720	6.612	6.592	6.528	6.615
Max	6.960	6.700	6.700	6.660	6.720
UL	10.000	10.000	10.000	10.000	10.000



TID Report

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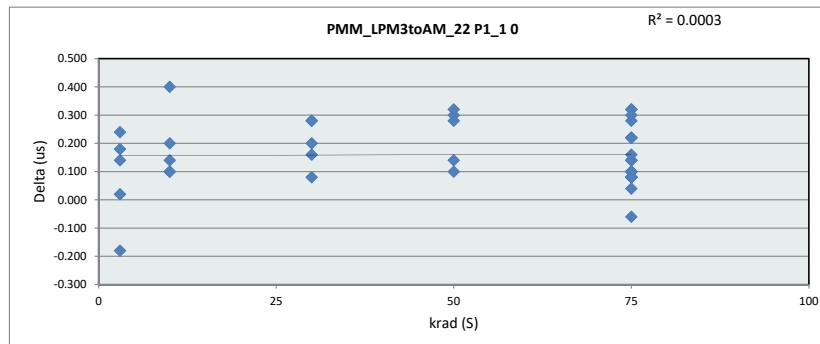
PMM_LPM4toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	6.780	6.580	0.200
3	2	6.800	6.640	0.160
3	3	6.780	6.960	-0.180
3	4	6.780	6.640	0.140
3	5	6.780	6.780	0.000
10	11	6.780	6.400	0.380
10	12	6.780	6.680	0.100
10	13	6.780	6.680	0.100
10	14	6.780	6.600	0.180
10	15	6.780	6.700	0.080
30	21	6.780	6.500	0.280
30	22	6.780	6.700	0.080
30	23	6.780	6.600	0.180
30	24	6.780	6.520	0.260
30	25	6.780	6.640	0.140
50	31	6.760	6.660	0.100
50	32	6.760	6.460	0.300
50	33	6.740	6.440	0.300
50	34	6.760	6.460	0.300
50	35	6.760	6.620	0.140
75	41	6.760	6.720	0.040
75	42	6.760	6.620	0.140
75	43	6.760	6.680	0.080
75	44	6.760	6.680	0.080
75	45	6.760	6.460	0.300
75	46	6.780	6.460	0.320
75	47	6.760	6.460	0.300
75	48	6.760	6.480	0.280
75	49	6.760	6.680	0.080
75	50	6.760	6.680	0.080
75	51	6.760	6.660	0.100
75	52	6.760	6.680	0.080
75	53	6.760	6.620	0.140
75	54	6.760	6.620	0.140
75	55	6.760	6.660	0.100
75	56	6.760	6.540	0.220
75	57	6.760	6.560	0.200
75	58	6.760	6.560	0.200
75	59	6.760	6.680	0.080
75	60	6.680	6.720	-0.040
75	61	6.760	6.620	0.140
75	62	6.760	6.680	0.080
Max	6.800	6.960	0.380	
Average	6.766	6.614	0.152	
Min	6.680	6.400	-0.180	
Std Dev	0.018	0.108	0.109	



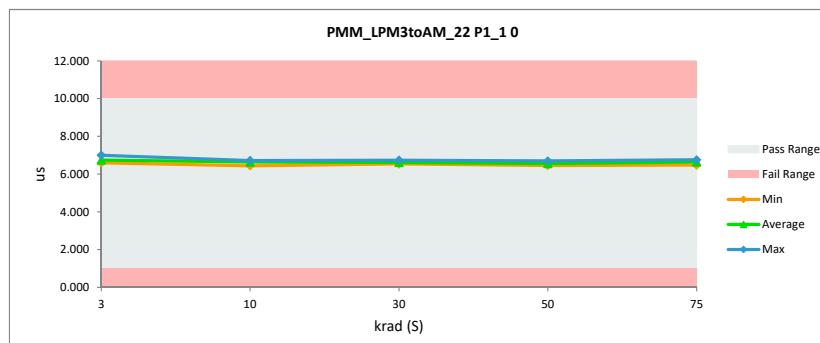
TID Report

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PMM_LPM3toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	6.840	6.600	0.240
3	2	6.820	6.680	0.140
3	3	6.820	7.000	-0.180
3	4	6.840	6.660	0.180
3	5	6.820	6.800	0.020
10	11	6.840	6.440	0.400
10	12	6.840	6.700	0.140
10	13	6.820	6.720	0.100
10	14	6.820	6.620	0.200
10	15	6.820	6.720	0.100
30	21	6.820	6.540	0.280
30	22	6.820	6.740	0.080
30	23	6.820	6.620	0.200
30	24	6.820	6.540	0.280
30	25	6.820	6.660	0.160
50	31	6.800	6.700	0.100
50	32	6.800	6.500	0.300
50	33	6.780	6.460	0.320
50	34	6.780	6.500	0.280
50	35	6.780	6.640	0.140
75	41	6.800	6.760	0.040
75	42	6.780	6.640	0.140
75	43	6.800	6.720	0.080
75	44	6.800	6.720	0.080
75	45	6.800	6.480	0.320
75	46	6.800	6.480	0.320
75	47	6.780	6.500	0.280
75	48	6.800	6.500	0.300
75	49	6.780	6.700	0.080
75	50	6.800	6.700	0.100
75	51	6.800	6.700	0.100
75	52	6.800	6.700	0.100
75	53	6.780	6.640	0.140
75	54	6.800	6.660	0.140
75	55	6.800	6.700	0.100
75	56	6.800	6.580	0.220
75	57	6.800	6.580	0.220
75	58	6.800	6.580	0.220
75	59	6.800	6.720	0.080
75	60	6.700	6.760	-0.060
75	61	6.800	6.640	0.160
75	62	6.800	6.720	0.080
Max		6.840	7.000	0.400
Average		6.803	6.643	0.160
Min		6.700	6.440	-0.180
Std Dev		0.024	0.110	0.112



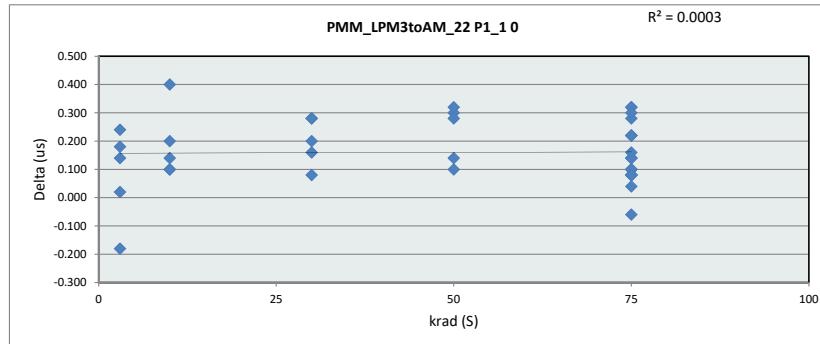
PMM_LPM3toAM_22 P1_1 0				
Test Site	CLAB			
Tester	J750EX			
Test Number	JP07800			
Max Limit	9.99999747	us		
Min Limit	0.99999997	us		
krad (S)	3	10	30	50
LL	1.000	1.000	1.000	1.000
Min	6.600	6.440	6.540	6.460
Average	6.748	6.640	6.620	6.560
Max	7.000	6.720	6.740	6.700
UL	10.000	10.000	10.000	10.000



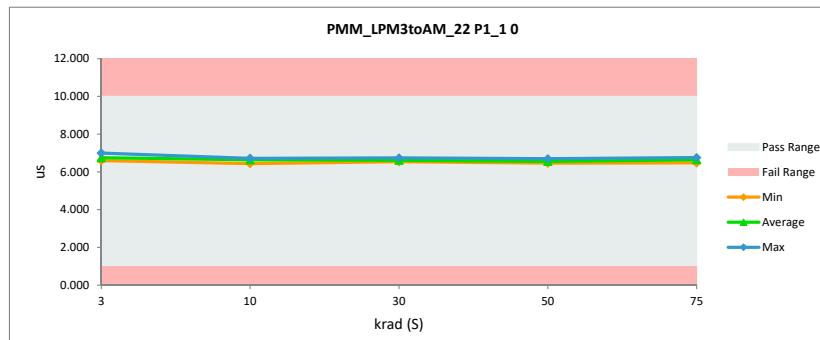
TID Report

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PMM_LPM3toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	6.840	6.600	0.240
3	2	6.820	6.680	0.140
3	3	6.820	7.000	-0.180
3	4	6.840	6.660	0.180
3	5	6.820	6.800	0.020
10	11	6.840	6.440	0.400
10	12	6.840	6.700	0.140
10	13	6.820	6.720	0.100
10	14	6.820	6.620	0.200
10	15	6.820	6.720	0.100
30	21	6.820	6.540	0.280
30	22	6.820	6.740	0.080
30	23	6.820	6.620	0.200
30	24	6.820	6.540	0.280
30	25	6.820	6.660	0.160
50	31	6.800	6.700	0.100
50	32	6.800	6.500	0.300
50	33	6.780	6.460	0.320
50	34	6.780	6.500	0.280
50	35	6.780	6.640	0.140
75	41	6.800	6.760	0.040
75	42	6.780	6.640	0.140
75	43	6.800	6.720	0.080
75	44	6.800	6.720	0.080
75	45	6.800	6.480	0.320
75	46	6.800	6.480	0.320
75	47	6.780	6.500	0.280
75	48	6.800	6.500	0.300
75	49	6.780	6.700	0.080
75	50	6.800	6.700	0.100
75	51	6.800	6.700	0.100
75	52	6.800	6.700	0.100
75	53	6.780	6.640	0.140
75	54	6.800	6.660	0.140
75	55	6.800	6.700	0.100
75	56	6.800	6.580	0.220
75	57	6.800	6.580	0.220
75	58	6.800	6.580	0.220
75	59	6.800	6.720	0.080
75	60	6.700	6.760	-0.060
75	61	6.800	6.640	0.160
75	62	6.800	6.720	0.080
Max	6.840	7.000	0.400	
Average	6.803	6.643	0.160	
Min	6.700	6.440	-0.180	
Std Dev	0.024	0.110	0.112	



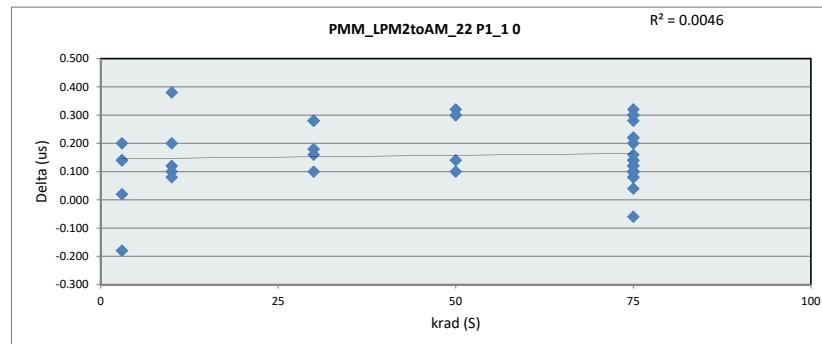
PMM_LPM3toAM_22 P1_1 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	9.99999747	us			
Min Limit	0.99999997	us			
krad (S)	3	10	30	50	75
LL	1.000	1.000	1.000	1.000	1.000
Min	6.600	6.440	6.540	6.460	6.480
Average	6.748	6.640	6.620	6.560	6.645
Max	7.000	6.720	6.740	6.700	6.760
UL	10.000	10.000	10.000	10.000	10.000



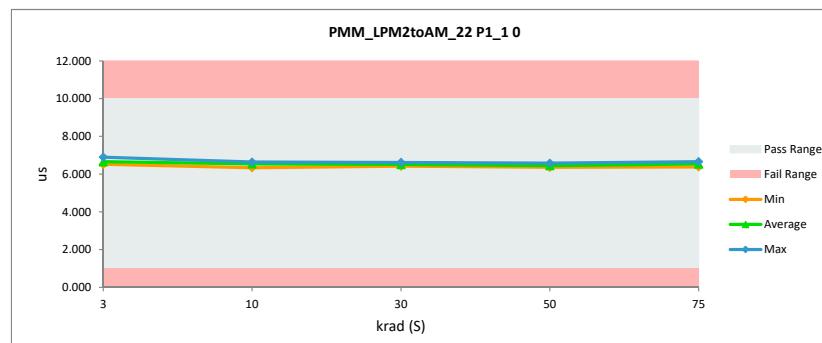
TID Report

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PMM_LPM2toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	6.720	6.520	0.200
3	2	6.720	6.580	0.140
3	3	6.720	6.900	-0.180
3	4	6.720	6.580	0.140
3	5	6.720	6.700	0.020
10	11	6.720	6.340	0.380
10	12	6.720	6.600	0.120
10	13	6.720	6.620	0.100
10	14	6.720	6.520	0.200
10	15	6.720	6.640	0.080
30	21	6.700	6.420	0.280
30	22	6.720	6.620	0.100
30	23	6.700	6.520	0.180
30	24	6.720	6.440	0.280
30	25	6.720	6.560	0.160
50	31	6.680	6.580	0.100
50	32	6.680	6.380	0.300
50	33	6.680	6.360	0.320
50	34	6.680	6.380	0.300
50	35	6.680	6.540	0.140
75	41	6.700	6.660	0.040
75	42	6.680	6.540	0.140
75	43	6.700	6.600	0.100
75	44	6.700	6.600	0.100
75	45	6.700	6.380	0.320
75	46	6.680	6.380	0.300
75	47	6.680	6.400	0.280
75	48	6.700	6.400	0.300
75	49	6.680	6.600	0.080
75	50	6.680	6.600	0.080
75	51	6.700	6.600	0.100
75	52	6.700	6.600	0.100
75	53	6.680	6.560	0.120
75	54	6.680	6.540	0.140
75	55	6.700	6.580	0.120
75	56	6.680	6.460	0.220
75	57	6.700	6.480	0.220
75	58	6.700	6.500	0.200
75	59	6.700	6.600	0.100
75	60	6.600	6.660	-0.060
75	61	6.700	6.540	0.160
75	62	6.700	6.600	0.100
Max		6.720	6.900	0.380
Average		6.698	6.540	0.158
Min		6.600	6.340	-0.180
Std Dev		0.022	0.110	0.109



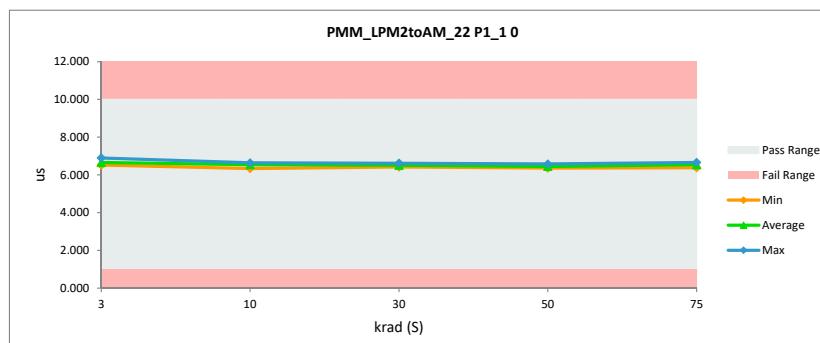
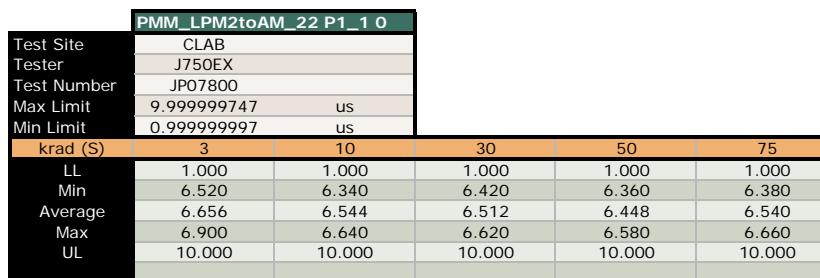
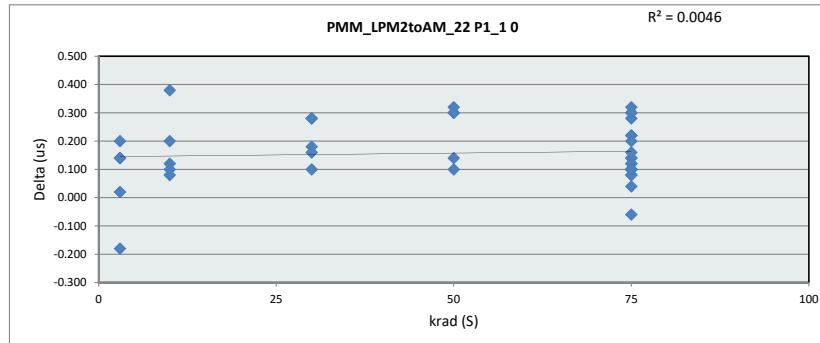
PMM_LPM2toAM_22 P1_1 0				
Test Site	CLAB			
Tester	J750EX			
Test Number	JP07800			
Max Limit	9.99999747	us		
Min Limit	0.99999997	us		
krad (S)	3	10	30	50
LL	1.000	1.000	1.000	1.000
Min	6.520	6.340	6.420	6.360
Average	6.656	6.544	6.512	6.448
Max	6.900	6.640	6.620	6.580
UL	10.000	10.000	10.000	10.000



TID Report

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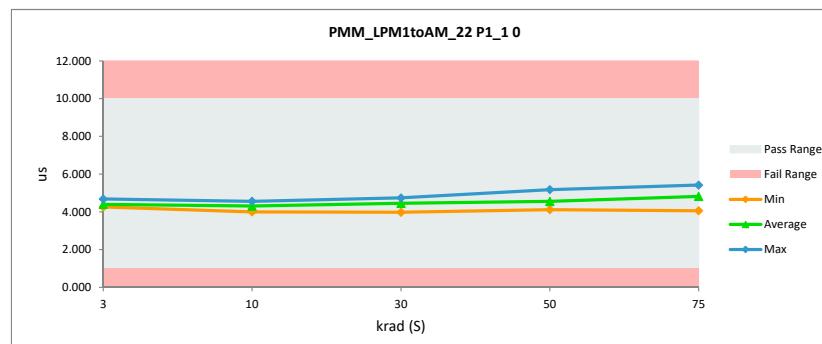
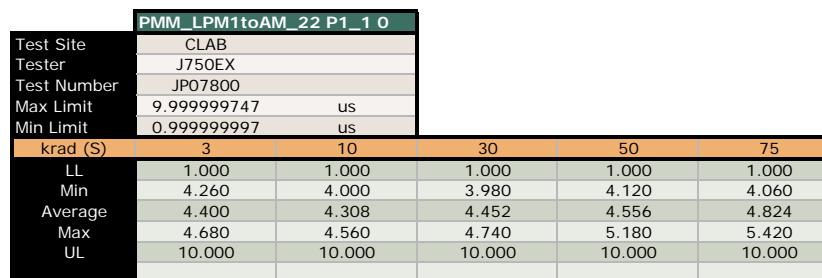
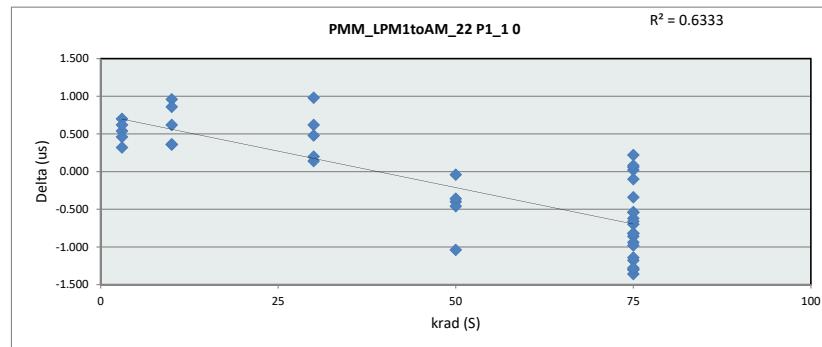
PMM_LPM2toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	6.720	6.520	0.200
3	2	6.720	6.580	0.140
3	3	6.720	6.900	-0.180
3	4	6.720	6.580	0.140
3	5	6.720	6.700	0.020
10	11	6.720	6.340	0.380
10	12	6.720	6.600	0.120
10	13	6.720	6.620	0.100
10	14	6.720	6.520	0.200
10	15	6.720	6.640	0.080
30	21	6.700	6.420	0.280
30	22	6.720	6.620	0.100
30	23	6.700	6.520	0.180
30	24	6.720	6.440	0.280
30	25	6.720	6.560	0.160
50	31	6.680	6.580	0.100
50	32	6.680	6.380	0.300
50	33	6.680	6.360	0.320
50	34	6.680	6.380	0.300
50	35	6.680	6.540	0.140
75	41	6.700	6.660	0.040
75	42	6.680	6.540	0.140
75	43	6.700	6.600	0.100
75	44	6.700	6.600	0.100
75	45	6.700	6.380	0.320
75	46	6.680	6.380	0.300
75	47	6.680	6.400	0.280
75	48	6.700	6.400	0.300
75	49	6.680	6.600	0.080
75	50	6.680	6.600	0.080
75	51	6.700	6.600	0.100
75	52	6.700	6.600	0.100
75	53	6.680	6.560	0.120
75	54	6.680	6.540	0.140
75	55	6.700	6.580	0.120
75	56	6.680	6.460	0.220
75	57	6.700	6.480	0.220
75	58	6.700	6.500	0.200
75	59	6.700	6.600	0.100
75	60	6.600	6.660	-0.060
75	61	6.700	6.540	0.160
75	62	6.700	6.600	0.100
Max	6.720	6.900	0.380	
Average	6.698	6.540	0.158	
Min	6.600	6.340	-0.180	
Std Dev	0.022	0.110	0.109	



TID Report(Unbiased)

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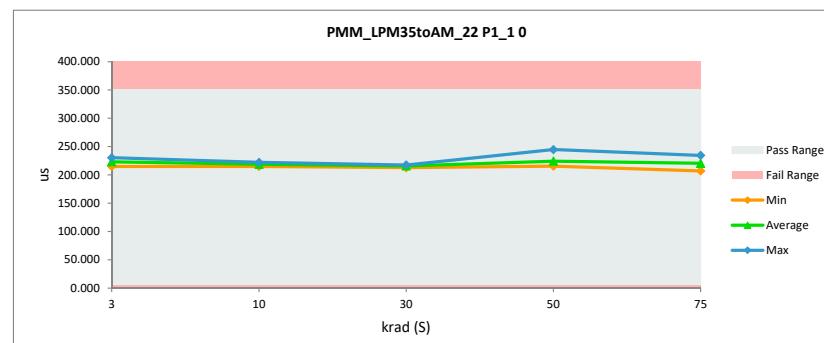
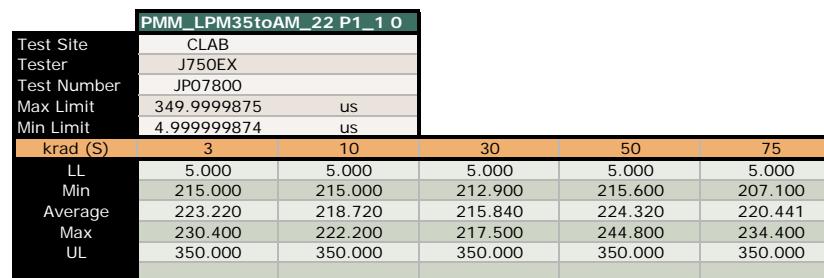
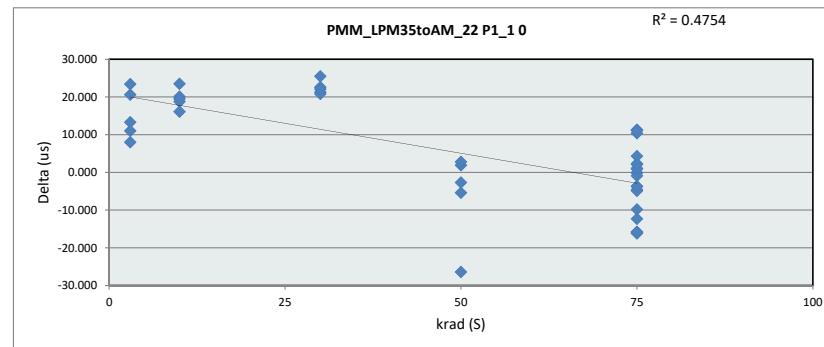
PMM_LPM1toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	9.99999747	9.99999747		
Min Limit	0.99999997	0.99999997		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	4.980	4.280	0.700
3	2	4.900	4.360	0.540
3	3	5.000	4.680	0.320
3	4	4.880	4.420	0.460
3	5	4.880	4.260	0.620
10	11	4.900	4.540	0.360
10	12	4.980	4.360	0.620
10	13	4.960	4.000	0.960
10	14	4.940	4.080	0.860
10	15	4.920	4.560	0.360
30	21	5.000	4.520	0.480
30	22	4.880	4.740	0.140
30	23	4.960	4.340	0.620
30	24	4.880	4.680	0.200
30	25	4.960	3.980	0.980
50	31	4.080	4.120	-0.040
50	32	4.140	5.180	-1.040
50	33	4.040	4.440	-0.400
50	34	4.100	4.560	-0.460
50	35	4.120	4.480	-0.360
75	41	4.060	4.600	-0.540
75	42	4.060	4.920	-0.860
75	43	4.060	5.420	-1.360
75	44	4.120	5.420	-1.300
75	45	4.060	5.240	-1.180
75	46	4.060	5.200	-1.140
75	47	4.080	4.900	-0.820
75	48	4.140	4.840	-0.700
75	49	4.140	4.760	-0.620
75	50	4.140	4.800	-0.660
75	51	4.120	5.060	-0.940
75	52	4.060	5.040	-0.980
75	53	4.160	4.140	0.020
75	54	4.100	4.200	-0.100
75	55	4.160	4.500	-0.340
75	56	4.060	4.600	-0.540
75	57	4.120	4.060	0.060
75	58	4.140	4.060	0.080
75	59	4.120	5.420	-1.300
75	60	4.820	4.600	0.220
75	61	4.100	4.920	-0.820
75	62	4.140	5.420	-1.280
Max		5.000	5.420	0.980
Average		4.417	4.636	-0.219
Min		4.040	3.980	-1.360
Std Dev		0.407	0.422	0.708



TID Report

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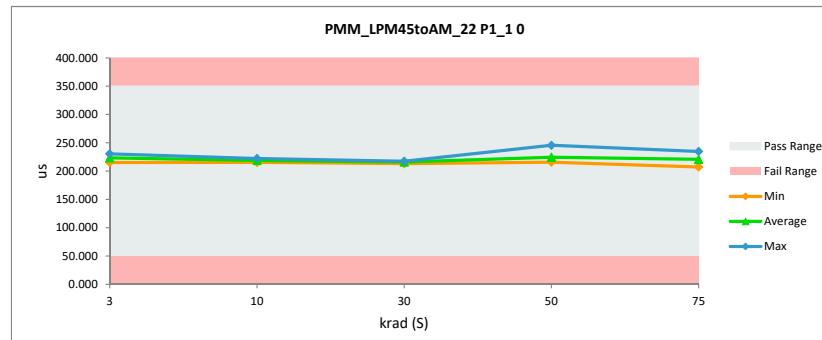
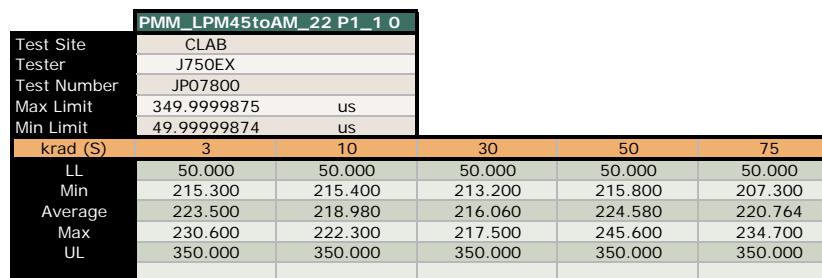
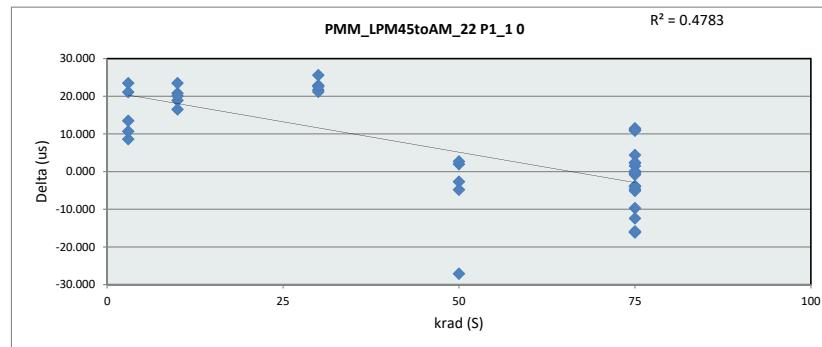
PMM_LPM35toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	349.9999875	349.9999875		
Min Limit	4.99999874	4.99999874		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	238.600	218.000	20.600
3	2	238.400	225.100	13.300
3	3	238.400	230.400	8.000
3	4	238.400	215.000	23.400
3	5	238.600	227.600	11.000
10	11	238.300	219.500	18.800
10	12	238.100	218.000	20.100
10	13	238.400	218.900	19.500
10	14	238.500	215.000	23.500
10	15	238.300	222.200	16.100
30	21	238.100	216.800	21.300
30	22	238.300	217.500	20.800
30	23	238.400	215.800	22.600
30	24	238.400	212.900	25.500
30	25	238.300	216.200	22.100
50	31	218.400	244.800	-26.400
50	32	218.300	221.000	-2.700
50	33	218.400	216.500	1.900
50	34	218.300	223.700	-5.400
50	35	218.400	215.600	2.800
75	41	218.400	228.200	-9.800
75	42	218.400	216.100	2.300
75	43	218.500	234.300	-15.800
75	44	218.600	234.400	-15.800
75	45	218.400	223.000	-4.600
75	46	218.100	223.000	-4.900
75	47	218.400	207.100	11.300
75	48	218.400	207.200	11.200
75	49	218.100	207.700	10.400
75	50	218.400	207.300	11.100
75	51	218.200	221.900	-3.700
75	52	218.300	222.000	-3.700
75	53	218.500	218.600	-0.100
75	54	218.400	218.500	-0.100
75	55	218.100	213.800	4.300
75	56	218.300	219.200	-0.900
75	57	218.200	217.300	0.900
75	58	218.200	217.100	1.100
75	59	218.200	234.400	-16.200
75	60	215.900	228.200	-12.300
75	61	218.200	216.100	2.100
75	62	218.300	234.300	-16.000
Max	238.600	244.800	25.500	
Average	225.424	220.481	4.943	
Min	215.900	207.100	-26.400	
Std Dev	9.772	8.149	13.426	



TID Report

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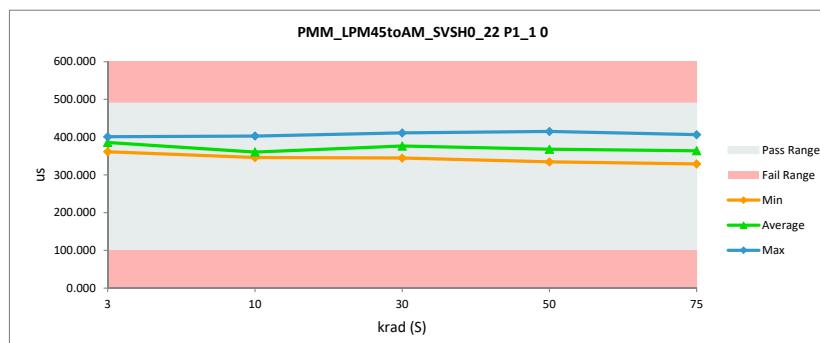
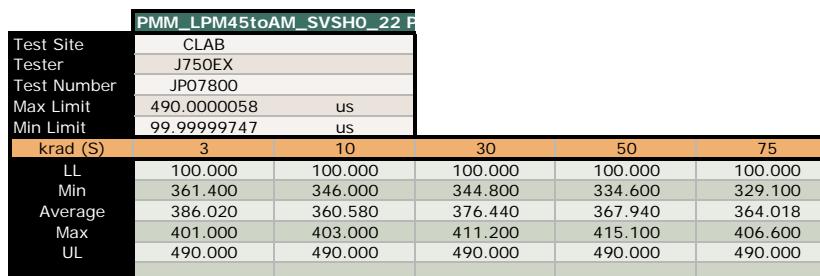
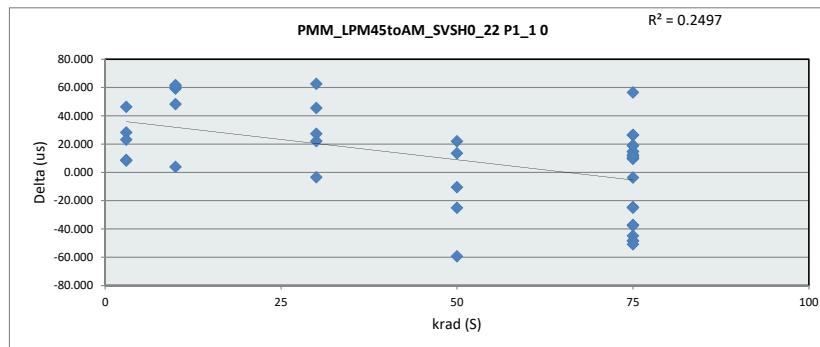
PMM_LPM45toAM_22 P1_1 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	349.9999875	349.9999875		
Min Limit	49.99999874	49.99999874		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	239.200	218.100	21.100
3	2	239.000	225.500	13.500
3	3	239.200	230.600	8.600
3	4	238.800	215.300	23.500
3	5	238.700	228.000	10.700
10	11	238.800	219.900	18.900
10	12	239.100	218.300	20.800
10	13	239.100	219.000	20.100
10	14	238.900	215.400	23.500
10	15	238.800	222.300	16.500
30	21	238.600	216.900	21.700
30	22	238.700	217.500	21.200
30	23	239.100	216.200	22.900
30	24	238.800	213.200	25.600
30	25	239.100	216.500	22.600
50	31	218.500	245.600	-27.100
50	32	218.700	221.400	-2.700
50	33	218.500	216.500	2.000
50	34	218.800	223.600	-4.800
50	35	218.500	215.800	2.700
75	41	218.900	228.600	-9.700
75	42	218.500	216.200	2.300
75	43	218.600	234.700	-16.100
75	44	218.500	234.600	-16.100
75	45	218.700	223.400	-4.700
75	46	218.400	223.500	-5.100
75	47	218.400	207.500	10.900
75	48	218.800	207.300	11.500
75	49	218.500	207.500	11.000
75	50	218.500	207.500	11.000
75	51	218.500	222.300	-3.800
75	52	218.400	222.400	-4.000
75	53	218.500	218.900	-0.400
75	54	218.600	218.900	-0.300
75	55	218.700	214.300	4.400
75	56	218.700	219.500	-0.800
75	57	218.700	217.200	1.500
75	58	218.500	218.400	0.100
75	59	218.600	234.600	-16.000
75	60	216.200	228.600	-12.400
75	61	218.600	216.200	2.400
75	62	218.800	234.700	-15.900
Max		239.200	245.600	25.600
Average		225.798	220.771	5.026
Min		216.200	207.300	-27.100
Std Dev		9.912	8.223	13.608



TID Report

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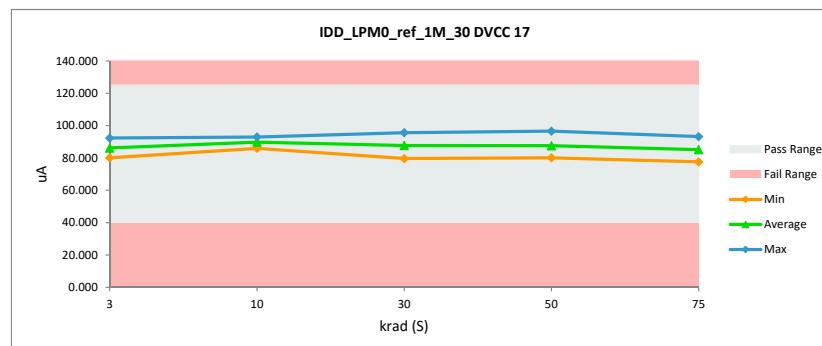
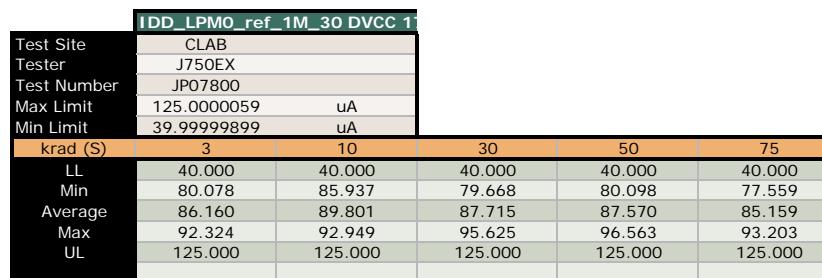
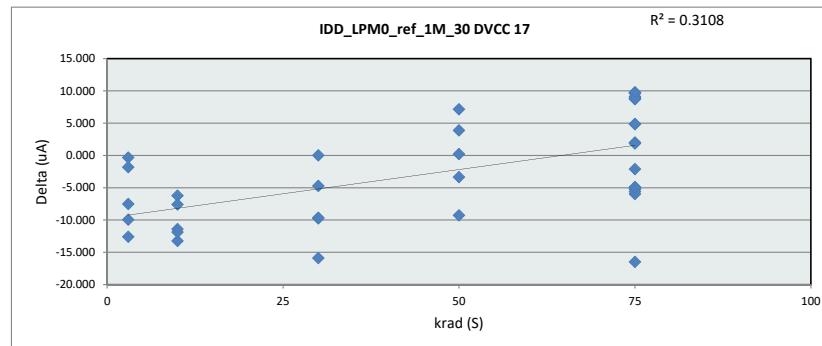
PMM_LPM45toAM_SVSH0_22 P1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	us	us		
Max Limit	490.0000058	490.0000058		
Min Limit	99.9999747	99.9999747		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	410.000	381.800	28.200
3	2	407.800	361.400	46.400
3	3	408.300	385.200	23.100
3	4	409.300	401.000	8.300
3	5	409.500	400.700	8.800
10	11	408.200	348.900	59.300
10	12	406.600	358.300	48.300
10	13	407.800	346.700	61.100
10	14	406.900	403.000	3.900
10	15	407.700	346.000	61.700
30	21	406.700	361.100	45.600
30	22	407.500	385.400	22.100
30	23	407.800	411.200	-3.400
30	24	407.000	379.700	27.300
30	25	407.400	344.800	62.600
50	31	355.800	380.900	-25.100
50	32	355.900	366.400	-10.500
50	33	355.800	415.100	-59.300
50	34	356.200	342.700	13.500
50	35	356.600	334.600	22.000
75	41	355.400	400.200	-44.800
75	42	356.300	380.900	-24.600
75	43	355.600	345.500	10.100
75	44	356.100	345.800	10.300
75	45	356.400	404.600	-48.200
75	46	355.900	404.400	-48.500
75	47	355.500	343.000	12.500
75	48	355.600	343.800	11.800
75	49	355.400	329.100	26.300
75	50	355.800	329.200	26.600
75	51	356.700	342.000	14.700
75	52	356.300	341.500	14.800
75	53	355.300	336.500	18.800
75	54	355.800	336.600	19.200
75	55	355.300	359.000	-3.700
75	56	355.800	406.600	-50.800
75	57	356.200	393.400	-37.200
75	58	356.300	393.900	-37.600
75	59	355.400	345.800	9.600
75	60	456.700	400.200	56.500
75	61	356.000	380.900	-24.900
75	62	356.300	345.500	10.800
Max	456.700	415.100	62.600	
Average	376.879	368.174	8.705	
Min	355.300	329.100	-59.300	
Std Dev	28.048	26.998	33.414	



TID Report(Unbiased)

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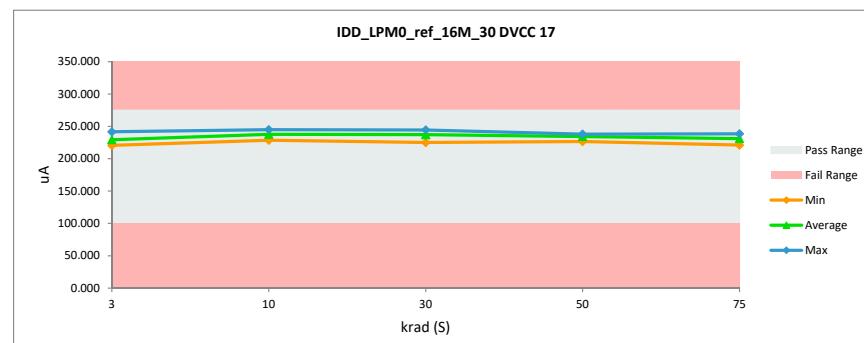
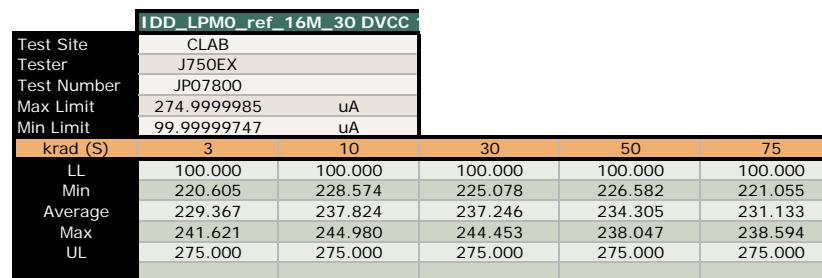
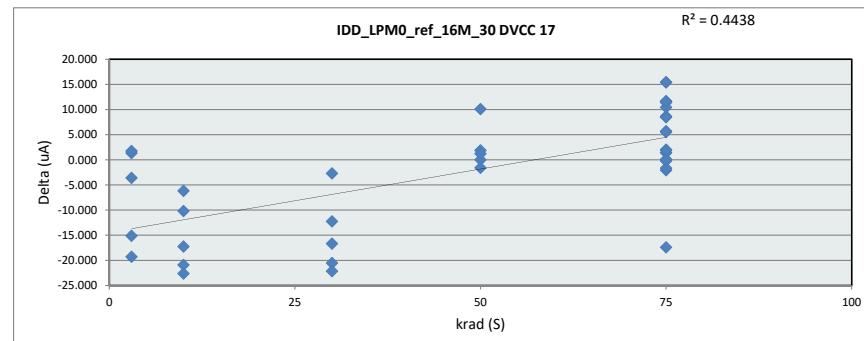
IDD_LPM0_ref_1M_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	125.0000059	125.0000059		
Min Limit	39.9999899	39.9999899		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	79.746	89.688	-9.941
3	2	79.727	92.324	-12.598
3	3	79.746	80.078	-0.332
3	4	79.707	87.207	-7.500
3	5	79.688	81.504	-1.816
10	11	79.707	85.938	-6.230
10	12	79.863	87.441	-7.578
10	13	79.727	92.949	-13.223
10	14	79.688	91.094	-11.406
10	15	79.707	91.582	-11.875
30	21	79.727	89.473	-9.746
30	22	79.727	84.434	-4.707
30	23	79.727	89.375	-9.648
30	24	79.688	79.668	0.020
30	25	79.746	95.625	-15.879
50	31	87.285	96.563	-9.277
50	32	87.266	80.098	7.168
50	33	87.344	87.129	0.215
50	34	87.266	90.625	-3.359
50	35	87.324	83.438	3.887
75	41	87.266	92.461	-5.195
75	42	87.207	78.477	8.730
75	43	87.207	77.559	9.648
75	44	87.266	77.559	9.707
75	45	87.246	82.383	4.863
75	46	87.246	82.363	4.883
75	47	87.246	92.285	-5.039
75	48	87.188	92.422	-5.234
75	49	87.246	85.254	1.992
75	50	87.246	85.273	1.973
75	51	87.266	78.145	9.121
75	52	87.188	78.242	8.945
75	53	87.227	93.203	-5.977
75	54	87.285	92.891	-5.605
75	55	87.266	89.375	-2.109
75	56	87.246	85.391	1.855
75	57	87.168	92.070	-4.902
75	58	87.188	92.090	-4.902
75	59	87.207	77.559	9.648
75	60	75.977	92.461	-16.484
75	61	87.266	78.477	8.789
75	62	87.344	77.559	9.785
Max		87.344	96.563	9.785
Average		84.295	86.422	-2.127
Min		75.977	77.559	-16.484
Std Dev		3.855	5.929	7.837



TID Report(Unbiased)

TID Report MSP430FR5969-SP

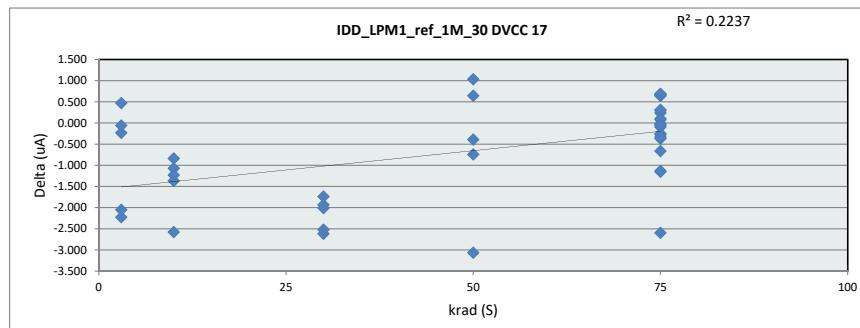
IDD_LPM0_ref_16M_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	274.999985	274.999985		
Min Limit	99.9999747	99.9999747		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	222.500	237.598	-15.098
3	2	222.324	241.621	-19.297
3	3	222.383	221.035	1.348
3	4	222.383	225.977	-3.594
3	5	222.344	220.605	1.738
10	11	222.402	228.574	-6.172
10	12	222.520	232.715	-10.195
10	13	222.363	243.262	-20.898
10	14	222.344	244.980	-22.637
10	15	222.344	239.590	-17.246
30	21	222.402	239.063	-16.660
30	22	222.441	234.688	-12.246
30	23	222.441	242.949	-20.508
30	24	222.363	225.078	-2.715
30	25	222.305	244.453	-22.148
50	31	236.660	236.660	0.000
50	32	236.563	234.688	1.875
50	33	236.758	235.547	1.211
50	34	236.445	238.047	-1.602
50	35	236.680	226.582	10.098
75	41	236.523	236.738	-0.215
75	42	236.465	221.055	15.410
75	43	236.641	225.078	11.563
75	44	236.504	225.059	11.445
75	45	236.484	230.938	5.547
75	46	236.543	230.859	5.684
75	47	236.445	235.000	1.445
75	48	236.445	235.039	1.406
75	49	236.504	234.551	1.953
75	50	236.504	234.512	1.992
75	51	236.523	227.871	8.652
75	52	236.445	227.988	8.457
75	53	236.523	238.594	-2.070
75	54	236.621	238.262	-1.641
75	55	236.484	236.426	0.059
75	56	236.582	226.152	10.430
75	57	236.406	236.387	0.020
75	58	236.445	236.484	-0.039
75	59	236.484	225.059	11.426
75	60	219.336	236.738	-17.402
75	61	236.504	221.055	15.449
75	62	236.758	225.078	11.680
Max	236.758	244.980	15.449	
Average	231.075	232.825	-1.750	
Min	219.336	220.605	-22.637	
Std Dev	7.062	6.902	11.023	



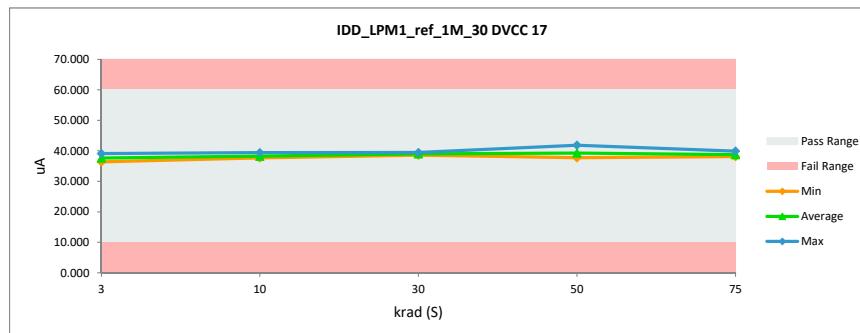
TID Report

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IDD_LPM1_ref_1M_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	59.9999848	59.9999848		
Min Limit	9.99999747	9.99999747		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	36.875	39.102	-2.227
3	2	36.816	38.867	-2.051
3	3	36.836	37.070	-0.234
3	4	36.836	36.895	-0.059
3	5	36.836	36.367	0.469
10	11	36.836	37.910	-1.074
10	12	36.836	38.203	-1.367
10	13	36.836	38.066	-1.230
10	14	36.836	39.414	-2.578
10	15	36.836	37.676	-0.840
30	21	36.836	38.770	-1.934
30	22	36.836	38.848	-2.012
30	23	36.855	39.473	-2.617
30	24	36.836	39.355	-2.520
30	25	36.836	38.574	-1.738
50	31	38.770	38.125	0.645
50	32	38.789	41.855	-3.066
50	33	38.809	39.199	-0.391
50	34	38.770	39.512	-0.742
50	35	38.770	37.734	1.035
75	41	38.770	38.535	0.234
75	42	38.770	38.789	-0.020
75	43	38.789	38.105	0.684
75	44	38.770	38.125	0.645
75	45	38.750	39.902	-1.152
75	46	38.770	39.902	-1.133
75	47	38.750	39.023	-0.273
75	48	38.770	39.023	-0.254
75	49	38.770	38.477	0.293
75	50	38.770	38.457	0.313
75	51	38.750	38.848	-0.098
75	52	38.770	38.828	-0.059
75	53	38.770	39.141	-0.371
75	54	38.770	39.102	-0.332
75	55	38.750	39.414	-0.664
75	56	38.770	38.105	0.664
75	57	38.770	38.691	0.078
75	58	38.770	38.672	0.098
75	59	38.770	38.125	0.645
75	60	35.938	38.535	-2.598
75	61	38.750	38.789	-0.039
75	62	38.789	38.105	0.684
Max	38.809	41.855	1.035	
Average	38.012	38.660	-0.647	
Min	35.938	36.367	-3.066	
Std Dev	0.986	0.903	1.126	



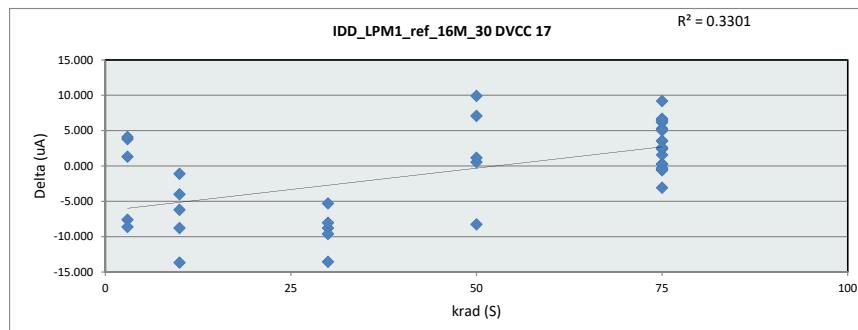
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Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Max Limit	59.9999848	uA			
Min Limit	9.99999747	uA			
krad (S)	3	10	30	50	75
LL	10.000	10.000	10.000	10.000	10.000
Min	36.367	37.676	38.574	37.734	38.105
Average	37.660	38.254	39.004	39.285	38.759
Max	39.102	39.414	39.473	41.855	39.902
UL	60.000	60.000	60.000	60.000	60.000



TID Report

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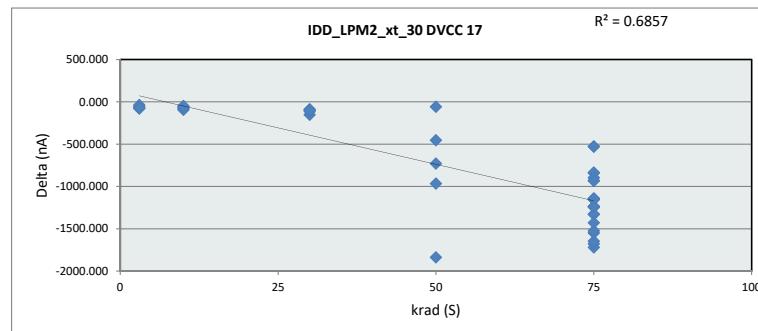
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Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	214.9999927	214.9999927		
Min Limit	79.99999798	79.99999798		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	179.473	187.070	-7.598
3	2	179.375	188.008	-8.633
3	3	179.336	178.027	1.309
3	4	179.395	175.586	3.809
3	5	179.395	175.293	4.102
10	11	179.375	180.488	-1.113
10	12	179.414	183.418	-4.004
10	13	179.414	188.203	-8.789
10	14	179.434	193.105	-13.672
10	15	179.434	185.625	-6.191
30	21	179.453	188.242	-8.789
30	22	179.434	189.063	-9.629
30	23	179.434	192.988	-13.555
30	24	179.453	184.746	-5.293
30	25	179.316	187.344	-8.027
50	31	188.047	178.125	9.922
50	32	188.027	196.289	-8.262
50	33	188.066	187.520	0.547
50	34	187.930	186.777	1.152
50	35	187.891	180.801	7.090
75	41	188.066	182.773	5.293
75	42	187.988	181.309	6.680
75	43	188.047	185.508	2.539
75	44	188.008	185.566	2.441
75	45	187.949	188.379	-0.430
75	46	187.988	188.281	-0.293
75	47	187.930	181.523	6.406
75	48	187.773	181.621	6.152
75	49	187.949	187.695	0.254
75	50	187.930	187.637	0.293
75	51	187.949	188.535	-0.586
75	52	187.969	188.535	-0.566
75	53	187.988	184.434	3.555
75	54	187.969	184.434	3.535
75	55	187.930	186.367	1.563
75	56	187.949	178.750	9.199
75	57	187.910	182.891	5.020
75	58	188.066	182.988	5.078
75	59	187.988	185.566	2.422
75	60	179.688	182.773	-3.086
75	61	187.832	181.309	6.523
75	62	188.125	185.508	2.617
Max	188.125	196.289	9.922	
Average	184.716	184.979	-0.262	
Min	179.316	175.293	-13.672	
Std Dev	4.201	4.460	6.129	



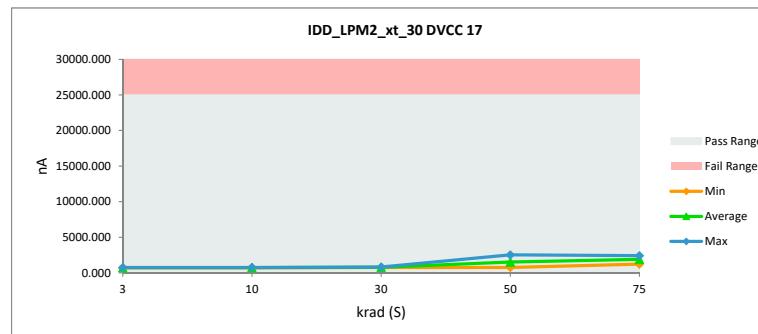
TID Report

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IDD_LPM2_xt_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	24999.99937	24999.99937		
Min Limit	0.050000001	0.050000001		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	660.156	734.375	-74.219
3	2	666.016	722.656	-56.641
3	3	666.016	703.125	-37.109
3	4	666.016	746.094	-80.078
3	5	666.016	738.281	-72.266
10	11	664.063	720.703	-56.641
10	12	666.016	759.766	-93.750
10	13	669.922	734.375	-64.453
10	14	666.016	746.094	-80.078
10	15	669.922	718.750	-48.828
30	21	666.016	753.906	-87.891
30	22	667.969	763.672	-95.703
30	23	667.969	820.313	-152.344
30	24	667.969	781.250	-113.281
30	25	669.922	763.672	-93.750
50	31	695.313	1425.781	-730.469
50	32	691.406	2529.297	-1837.891
50	33	697.266	1664.063	-966.797
50	34	701.172	1154.297	-453.125
50	35	703.125	761.719	-58.594
75	41	685.547	2406.250	-1720.703
75	42	697.266	1626.953	-929.688
75	43	697.266	1841.797	-1144.531
75	44	691.406	1847.656	-1156.250
75	45	697.266	2025.391	-1328.125
75	46	699.219	2027.344	-1328.125
75	47	695.313	1941.406	-1246.094
75	48	707.031	1943.359	-1236.328
75	49	697.266	1224.609	-527.344
75	50	691.406	1220.703	-529.297
75	51	689.453	1531.250	-841.797
75	52	697.266	1533.203	-835.938
75	53	685.547	2363.281	-1677.734
75	54	701.172	2347.656	-1646.484
75	55	701.172	1937.500	-1236.328
75	56	705.078	1601.563	-896.484
75	57	695.313	2246.094	-1550.781
75	58	703.125	2226.563	-1523.438
75	59	699.219	1847.656	-1148.438
75	60	976.563	2406.250	-1429.687
75	61	693.359	1626.953	-933.594
75	62	699.219	1841.797	-1142.578
Max		976.563	2529.297	-37.109
Average		692.708	1437.081	-744.373
Min		660.156	703.125	-1837.891
Std Dev		47.374	626.755	606.104



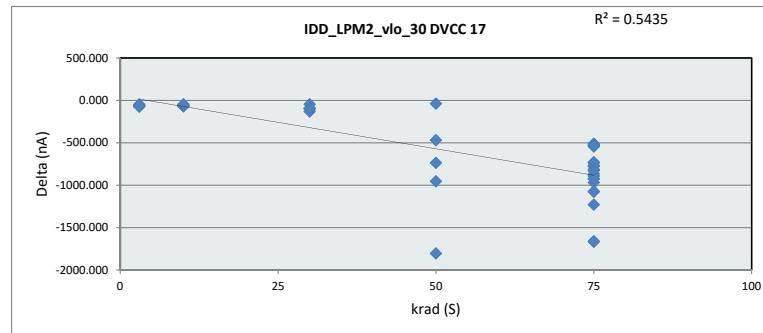
IDD_LPM2_xt_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	nA		
Max Limit	24999.99937			
Min Limit	0.050000001			
krad (S)	3	10	30	50
LL	0.050	0.050	0.050	0.050
Min	703.125	718.750	753.906	761.719
Average	728.906	735.937	776.563	1507.031
Max	746.094	759.766	820.312	2529.297
UL	24999.999	24999.999	24999.999	24999.999



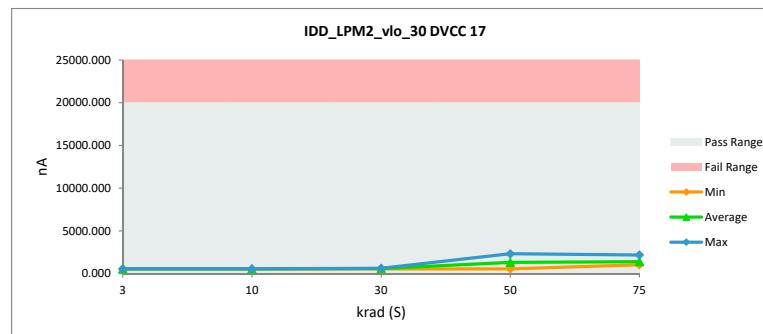
TID Report

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IDD_LPM2_vlo_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	19999.99949	19999.99949		
Min Limit	0.050000001	0.050000001		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	480.469	544.922	-64.453
3	2	496.094	544.922	-48.828
3	3	482.422	537.109	-54.688
3	4	494.141	568.359	-74.219
3	5	494.141	556.641	-62.500
10	11	482.422	529.297	-46.875
10	12	500.000	558.594	-58.594
10	13	496.094	558.594	-62.500
10	14	496.094	566.406	-70.312
10	15	482.422	535.156	-52.734
30	21	498.047	544.922	-46.875
30	22	484.375	576.172	-91.797
30	23	496.094	626.953	-130.859
30	24	500.000	603.516	-103.516
30	25	500.000	595.703	-95.703
50	31	515.625	1251.953	-736.328
50	32	521.484	2326.172	-1804.688
50	33	519.531	1472.656	-953.125
50	34	509.766	978.516	-468.750
50	35	515.625	554.688	-39.063
75	41	521.484	1750.000	-1228.516
75	42	519.531	1443.359	-923.828
75	43	521.484	1046.875	-525.391
75	44	519.531	1062.500	-542.969
75	45	523.438	1292.969	-769.531
75	46	515.625	1292.969	-777.344
75	47	521.484	1250.000	-728.516
75	48	515.625	1251.953	-736.328
75	49	513.672	1027.344	-513.672
75	50	519.531	1031.250	-511.719
75	51	523.438	1337.891	-814.453
75	52	515.625	1341.797	-826.172
75	53	517.578	2183.594	-1666.016
75	54	517.578	2177.734	-1660.156
75	55	513.672	1378.906	-865.234
75	56	521.484	1412.109	-890.625
75	57	513.672	1589.844	-1076.172
75	58	511.719	1585.938	-1074.219
75	59	521.484	1062.500	-541.016
75	60	781.250	1750.000	-968.750
75	61	517.578	1443.359	-925.781
75	62	513.672	1046.875	-533.203
Max	781.250	2326.172	-39.063	
Average	514.881	1090.262	-575.381	
Min	480.469	529.297	-1804.688	
Std Dev	44.175	509.153	492.397	



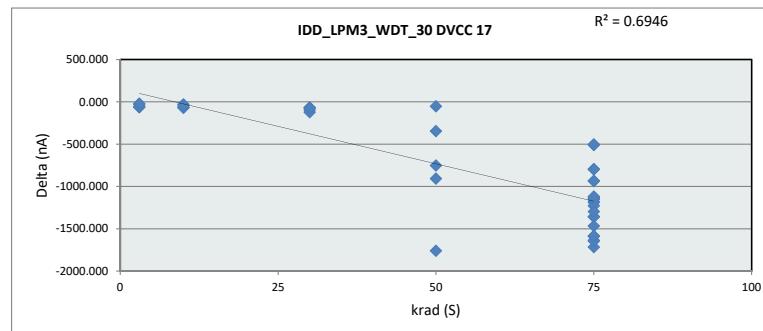
IDD_LPM2_vlo_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	nA		
Max Limit	19999.99949	nA		
Min Limit	0.050000001	nA		
krad (S)	3	10	30	50
LL	0.050	0.050	0.050	0.050
Min	537.109	529.297	544.922	554.688
Average	550.391	549.609	589.453	1316.797
Max	568.359	566.406	626.953	2326.172
UL	19999.999	19999.999	19999.999	19999.999



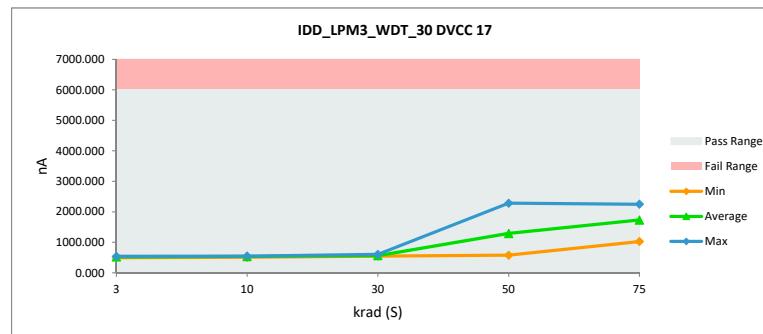
TID Report

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IDD_LPM3_WDT_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	6000.000212	6000.000212		
Min Limit	0.050000001	0.050000001		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	476.563	541.016	-64.453
3	2	476.563	537.109	-60.547
3	3	476.563	498.047	-21.484
3	4	474.609	529.297	-54.688
3	5	478.516	507.813	-29.297
10	11	480.469	509.766	-29.297
10	12	480.469	546.875	-66.406
10	13	478.516	544.922	-66.406
10	14	480.469	550.781	-70.312
10	15	482.422	525.391	-42.969
30	21	478.516	574.219	-95.703
30	22	480.469	554.688	-74.219
30	23	480.469	603.516	-123.047
30	24	480.469	548.828	-68.359
30	25	480.469	550.781	-70.312
50	31	531.250	1283.203	-751.953
50	32	523.438	2283.203	-1759.766
50	33	523.438	1431.641	-908.203
50	34	533.203	878.906	-345.703
50	35	525.391	578.125	-52.734
75	41	531.250	2248.047	-1716.797
75	42	527.344	1462.891	-935.547
75	43	521.484	1652.344	-1130.859
75	44	517.578	1669.922	-1152.344
75	45	519.531	1878.906	-1359.375
75	46	523.438	1880.859	-1357.422
75	47	531.250	1718.750	-1187.500
75	48	527.344	1708.984	-1181.641
75	49	519.531	1029.297	-509.766
75	50	525.391	1027.344	-501.953
75	51	527.344	1322.266	-794.922
75	52	527.344	1324.219	-796.875
75	53	529.297	2173.828	-1644.531
75	54	529.297	2166.016	-1636.719
75	55	523.438	1751.953	-1228.516
75	56	515.625	1812.500	-1296.875
75	57	525.391	2115.234	-1589.844
75	58	529.297	2113.281	-1583.984
75	59	525.391	1669.922	-1144.531
75	60	781.250	2248.047	-1466.797
75	61	529.297	1462.891	-933.594
75	62	533.203	1652.344	-1119.141
Max		781.250	2283.203	-21.484
Average		515.299	1253.999	-738.700
Min		474.609	498.047	-1759.766
Std Dev		47.892	645.352	618.033



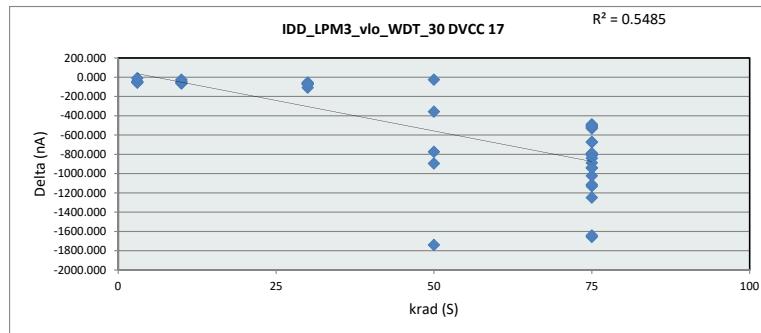
IDD_LPM3_WDT_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	nA		
Max Limit	6000.000212	nA		
Min Limit	0.050000001	nA		
krad (S)	3	10	30	50
LL	0.050	0.050	0.050	0.050
Min	498.047	509.766	548.828	578.125
Average	522.656	535.547	566.406	1291.016
Max	541.016	550.781	603.516	2283.203
UL	6000.000	6000.000	6000.000	6000.000



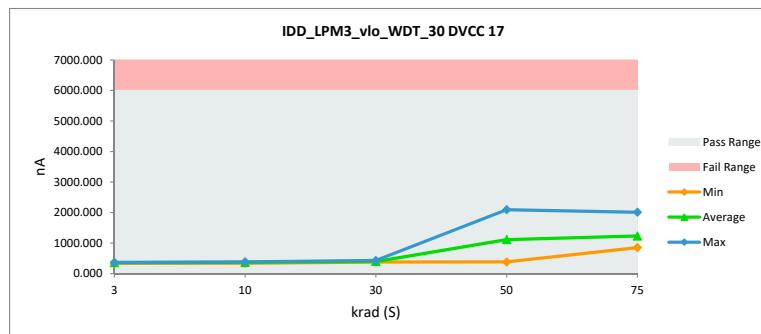
TID Report

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IDD_LPM3_vlo_WDT_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	6000.000212	6000.000212		
Min Limit	0.050000001	0.050000001		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	308.594	365.234	-56.641
3	2	318.359	369.141	-50.781
3	3	308.594	353.516	-44.922
3	4	324.219	369.141	-44.922
3	5	326.172	335.938	-9.766
10	11	314.453	339.844	-25.391
10	12	326.172	375.000	-48.828
10	13	320.313	380.859	-60.547
10	14	322.266	386.719	-64.453
10	15	312.500	353.516	-41.016
30	21	326.172	380.859	-54.688
30	22	312.500	380.859	-68.359
30	23	322.266	429.688	-107.422
30	24	326.172	390.625	-64.453
30	25	322.266	396.484	-74.219
50	31	359.375	1132.813	-773.438
50	32	355.469	2095.703	-1740.234
50	33	355.469	1250.000	-894.531
50	34	353.516	710.938	-357.422
50	35	357.422	382.813	-25.391
75	41	361.328	1609.375	-1248.047
75	42	361.328	1300.781	-939.453
75	43	365.234	869.141	-503.906
75	44	355.469	886.719	-531.250
75	45	359.375	1156.250	-796.875
75	46	353.516	1164.063	-810.547
75	47	357.422	1031.250	-673.828
75	48	361.328	1031.250	-669.922
75	49	357.422	857.422	-500.000
75	50	363.281	851.563	-488.281
75	51	353.516	1144.531	-791.016
75	52	353.516	1144.531	-791.016
75	53	355.469	2011.719	-1656.250
75	54	359.375	2001.953	-1642.578
75	55	355.469	1195.313	-839.844
75	56	357.422	1246.094	-888.672
75	57	355.469	1486.328	-1130.859
75	58	361.328	1474.609	-1113.281
75	59	363.281	886.719	-523.438
75	60	585.938	1609.375	-1023.438
75	61	359.375	1300.781	-941.406
75	62	359.375	869.141	-509.766
Max	585.938	2095.703	-9.766	
Average	349.702	912.109	-562.407	
Min	308.594	335.938	-1740.234	
Std Dev	41.987	518.412	497.675	



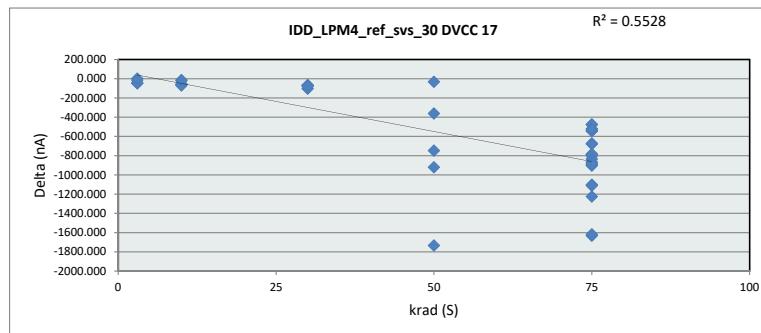
IDD_LPM3_vlo_WDT_30 DVCC				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	nA		
Max Limit	6000.000212	nA		
Min Limit	0.050000001	nA		
krad (S)	3	10	30	50
LL	0.050	0.050	0.050	0.050
Min	335.938	339.844	380.859	382.812
Average	358.594	367.187	395.703	1114.453
Max	369.141	386.719	429.688	2095.703
UL	6000.000	6000.000	6000.000	6000.000



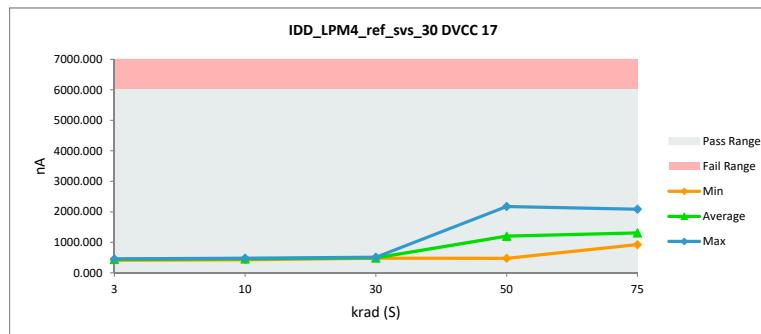
TID Report

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IDD_LPM4_ref_svs_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	6000.000212	6000.000212		
Min Limit	0.050000001	0.050000001		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	406.250	453.125	-46.875
3	2	414.063	458.984	-44.922
3	3	412.109	427.734	-15.625
3	4	410.156	453.125	-42.969
3	5	414.063	412.109	1.953
10	11	416.016	429.688	-13.672
10	12	416.016	470.703	-54.688
10	13	412.109	470.703	-58.594
10	14	410.156	480.469	-70.313
10	15	412.109	431.641	-19.531
30	21	410.156	480.469	-70.313
30	22	417.969	484.375	-66.406
30	23	408.203	511.719	-103.516
30	24	412.109	482.422	-70.312
30	25	412.109	492.188	-80.078
50	31	447.266	1195.313	-748.047
50	32	441.406	2175.781	-1734.375
50	33	433.594	1353.516	-919.922
50	34	453.125	814.453	-361.328
50	35	445.313	476.563	-31.250
75	41	437.500	1662.109	-1224.609
75	42	437.500	1341.797	-904.297
75	43	449.219	972.656	-523.438
75	44	439.453	982.422	-542.969
75	45	453.125	1244.141	-791.016
75	46	447.266	1248.047	-800.781
75	47	451.172	1123.047	-671.875
75	48	439.453	1119.141	-679.688
75	49	447.266	925.781	-478.516
75	50	451.172	925.781	-474.609
75	51	453.125	1236.328	-783.203
75	52	445.313	1230.469	-785.156
75	53	453.125	2085.938	-1632.813
75	54	453.125	2070.313	-1617.188
75	55	455.078	1289.063	-833.984
75	56	443.359	1308.594	-865.234
75	57	451.172	1552.734	-1101.563
75	58	443.359	1554.688	-1111.328
75	59	437.500	982.422	-544.922
75	60	781.250	1662.109	-880.859
75	61	449.219	1341.797	-892.578
75	62	449.219	972.656	-523.438
Max		781.250	2175.781	1.953
Average		442.197	994.931	-552.734
Min		406.250	412.109	-1734.375
Std Dev		56.300	510.742	489.691



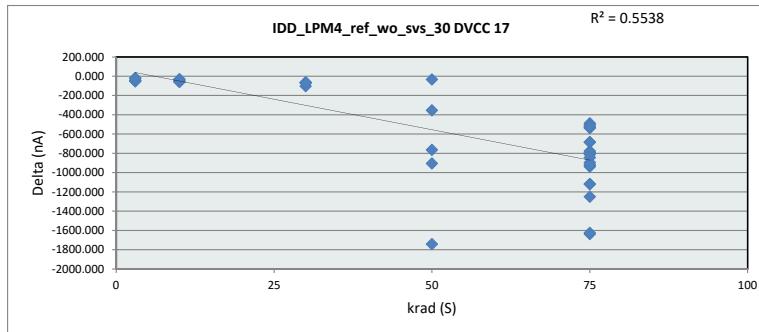
IDD_LPM4_ref_svs_30 DVCC 1				
Test Site	CLAB			
Tester	J750EX			
Test Number	JP07800			
Max Limit	6000.000212	nA		
Min Limit	0.050000001	nA		
krad (S)	3	10	30	50
LL	0.050	0.050	0.050	0.050
Min	412.109	429.688	480.469	476.562
Average	441.016	456.641	490.234	1203.125
Max	458.984	480.469	511.719	2175.781
UL	6000.000	6000.000	6000.000	6000.000



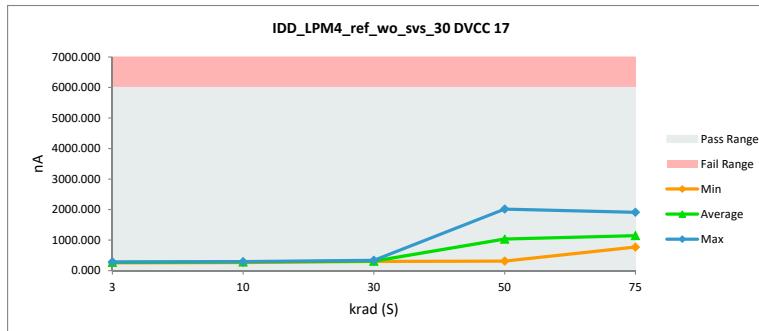
TID Report

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IDD_LPM4_ref_wo_svs_30 DVCC				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	6000.000212	6000.000212		
Min Limit	0.050000001	0.050000001		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	232.422	285.156	-52.734
3	2	234.375	279.297	-44.922
3	3	236.328	259.766	-23.438
3	4	236.328	279.297	-42.969
3	5	236.328	253.906	-17.578
10	11	236.328	265.625	-29.297
10	12	238.281	283.203	-44.922
10	13	236.328	294.922	-58.594
10	14	236.328	294.922	-58.594
10	15	236.328	275.391	-39.063
30	21	238.281	302.734	-64.453
30	22	234.375	298.828	-64.453
30	23	234.375	337.891	-103.516
30	24	234.375	300.781	-66.406
30	25	234.375	304.688	-70.313
50	31	275.391	1039.063	-763.672
50	32	273.438	2015.625	-1742.187
50	33	265.625	1169.922	-904.297
50	34	271.484	625.000	-353.516
50	35	279.297	312.500	-33.203
75	41	273.438	1523.438	-1250.000
75	42	267.578	1189.453	-921.875
75	43	271.484	796.875	-525.391
75	44	273.438	810.547	-537.109
75	45	279.297	1076.172	-796.875
75	46	269.531	1080.078	-810.547
75	47	265.625	949.219	-683.594
75	48	269.531	953.125	-683.594
75	49	283.203	771.484	-488.281
75	50	275.391	775.391	-500.000
75	51	283.203	1060.547	-777.344
75	52	269.531	1060.547	-791.016
75	53	273.438	1910.156	-1636.719
75	54	269.531	1894.531	-1625.000
75	55	271.484	1115.234	-843.750
75	56	265.625	1160.156	-894.531
75	57	271.484	1390.625	-1119.141
75	58	265.625	1384.766	-1119.141
75	59	283.203	810.547	-527.344
75	60	585.938	1523.438	-937.500
75	61	273.438	1189.453	-916.016
75	62	279.297	796.875	-517.578
Max	585.938	2015.625	-17.578	
Average	267.160	826.218	-559.059	
Min	232.422	253.906	-1742.187	
Std Dev	53.687	515.407	493.983	



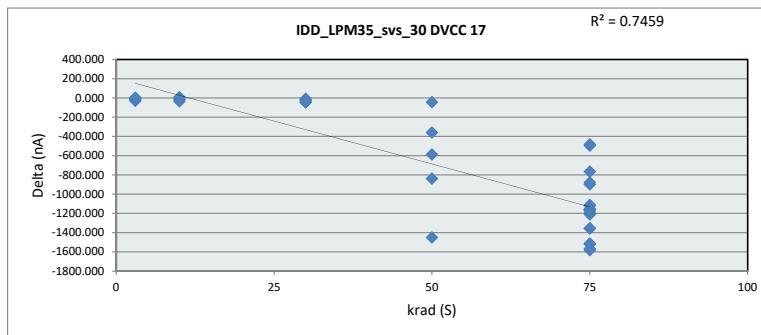
IDD_LPM4_ref_wo_svs_30 DVCC 17					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	6000.000212	nA			
Min Limit	0.050000001	nA			
krad (S)	3	10	30	50	75
LL	0.050	0.050	0.050	0.050	0.050
Min	253.906	265.625	298.828	312.500	771.484
Average	271.484	282.812	308.984	1032.422	1146.484
Max	285.156	294.922	337.891	2015.625	1910.156
UL	6000.000	6000.000	6000.000	6000.000	6000.000



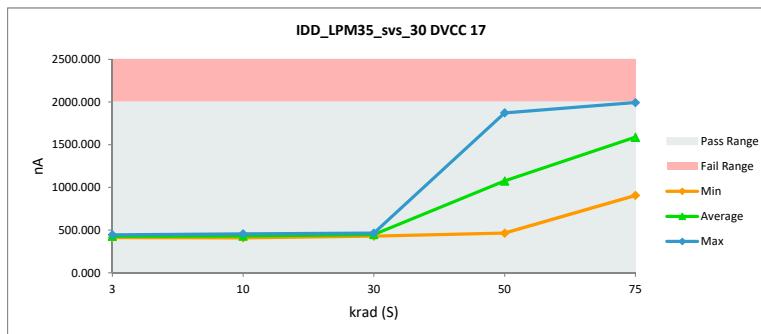
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IDD_LPM35_svs_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	2000.000053	2000.000053		
Min Limit	0.050000001	0.050000001		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	414.063	425.781	-11.719
3	2	416.016	445.313	-29.297
3	3	419.922	421.875	-1.953
3	4	419.922	435.547	-15.625
3	5	417.969	414.063	3.906
10	11	417.969	417.969	0.000
10	12	421.875	457.031	-35.156
10	13	417.969	433.594	-15.625
10	14	419.922	437.500	-17.578
10	15	417.969	410.156	7.813
30	21	419.922	464.844	-44.922
30	22	421.875	445.313	-23.438
30	23	417.969	462.891	-44.922
30	24	421.875	429.688	-7.813
30	25	421.875	445.313	-23.438
50	31	416.016	1003.906	-587.891
50	32	421.875	1873.047	-1451.172
50	33	419.922	1257.813	-837.891
50	34	417.969	777.344	-359.375
50	35	421.875	464.844	-42.969
75	41	423.828	1941.406	-1517.578
75	42	423.828	1583.984	-1160.156
75	43	427.734	1582.031	-1154.297
75	44	425.781	1583.984	-1158.203
75	45	412.109	1931.641	-1519.531
75	46	416.016	1929.687	-1513.672
75	47	410.156	1529.297	-1119.141
75	48	425.781	1539.063	-1113.281
75	49	427.734	910.156	-482.422
75	50	410.156	906.250	-496.094
75	51	412.109	1310.547	-898.438
75	52	419.922	1298.828	-878.906
75	53	421.875	1611.328	-1189.453
75	54	421.875	1632.813	-1210.938
75	55	416.016	1181.641	-765.625
75	56	417.969	1773.438	-1355.469
75	57	412.109	1994.141	-1582.031
75	58	412.109	1978.516	-1566.406
75	59	419.922	1583.984	-1164.063
75	60	585.938	1941.406	-1355.469
75	61	419.922	1583.984	-1164.063
75	62	416.016	1582.031	-1166.016
Max		585.938	1994.141	7.813
Average		422.945	1115.095	-692.150
Min		410.156	410.156	-1582.031
Std Dev		26.134	605.806	601.083



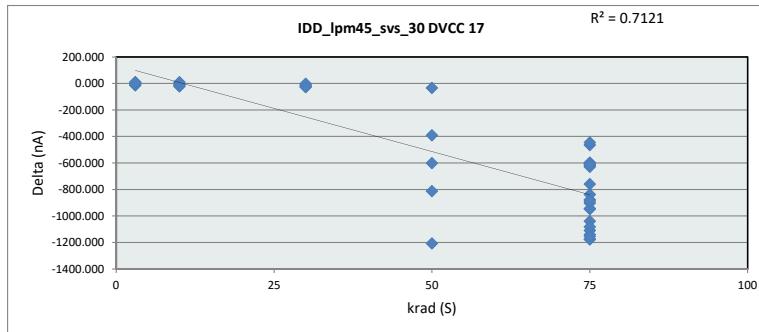
IDD_LPM35_svs_30 DVCC 17				
Test Site	CLAB			
Tester	J750EX			
Test Number	JP07800			
Unit	nA			
Max Limit	2000.000053			
Min Limit	0.050000001			
krad (S)	3	10	30	50
LL	0.050	0.050	0.050	0.050
Min	414.062	410.156	429.688	464.844
Average	428.516	431.250	449.609	1075.391
Max	445.313	457.031	464.844	1873.047
UL	2000.000	2000.000	2000.000	2000.000



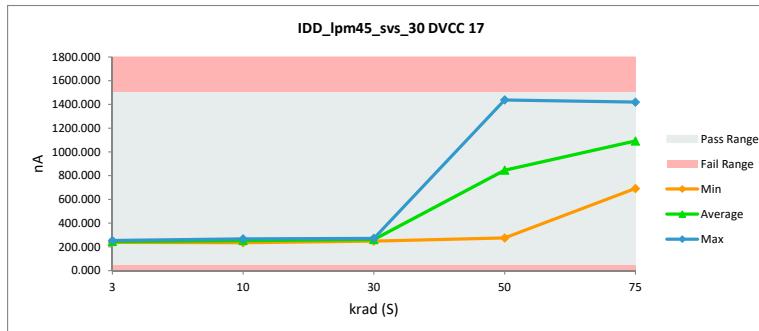
TID Report

MSP430FR5969-SP

IDD_Ipm45_svs_30 DVCC 17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	nA	nA		
Max Limit	1500.000053	1500.000053		
Min Limit	50.00000058	50.00000058		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	240.234	244.141	-3.906
3	2	240.234	253.906	-13.672
3	3	248.047	238.281	9.766
3	4	242.188	250.000	-7.813
3	5	246.094	238.281	7.813
10	11	240.234	242.188	-1.953
10	12	246.094	267.578	-21.484
10	13	246.094	255.859	-9.766
10	14	244.141	263.672	-19.531
10	15	244.141	234.375	9.766
30	21	248.047	259.766	-11.719
30	22	246.094	261.719	-15.625
30	23	242.188	267.578	-25.391
30	24	246.094	248.047	-1.953
30	25	244.141	271.484	-27.344
50	31	228.516	830.078	-601.563
50	32	230.469	1437.500	-1207.031
50	33	246.094	1058.594	-812.500
50	34	236.328	626.953	-390.625
50	35	242.188	275.391	-33.203
75	41	238.281	1277.344	-1039.063
75	42	244.141	1384.766	-1140.625
75	43	242.188	847.656	-605.469
75	44	242.188	857.422	-615.234
75	45	238.281	1185.547	-947.266
75	46	230.469	1173.828	-943.359
75	47	240.234	837.891	-597.656
75	48	244.141	845.703	-601.562
75	49	242.188	707.031	-464.844
75	50	246.094	691.406	-445.313
75	51	242.188	1144.531	-902.344
75	52	240.234	1078.125	-837.891
75	53	244.141	1419.922	-1175.781
75	54	244.141	1419.922	-1175.781
75	55	244.141	1003.906	-759.766
75	56	238.281	1115.234	-876.953
75	57	238.281	1347.656	-1109.375
75	58	240.234	1322.266	-1082.031
75	59	228.516	857.422	-628.906
75	60	390.625	1277.344	-886.719
75	61	230.469	1384.766	-1154.297
75	62	232.422	847.656	-615.234
Max	390.625	1437.500	9.766	
Average	244.513	763.160	-518.648	
Min	228.516	234.375	-1207.031	
Std Dev	23.691	451.335	450.102	



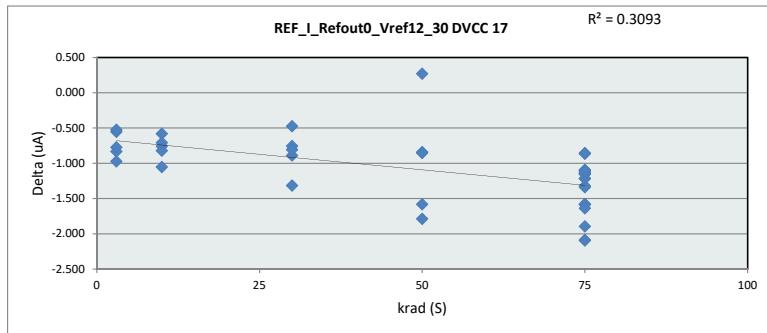
IDD_Ipm45_svs_30 DVCC 17					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Unit	nA	nA			
Max Limit	1500.000053	1500.000053			
Min Limit	50.00000058	50.00000058			
krad (S)	3	10	30	50	75
LL	50.000	50.000	50.000	50.000	50.000
Min	238.281	234.375	248.047	275.391	691.406
Average	244.922	252.734	261.719	845.703	1092.152
Max	253.906	267.578	271.484	1437.500	1419.922
UL	1500.000	1500.000	1500.000	1500.000	1500.000



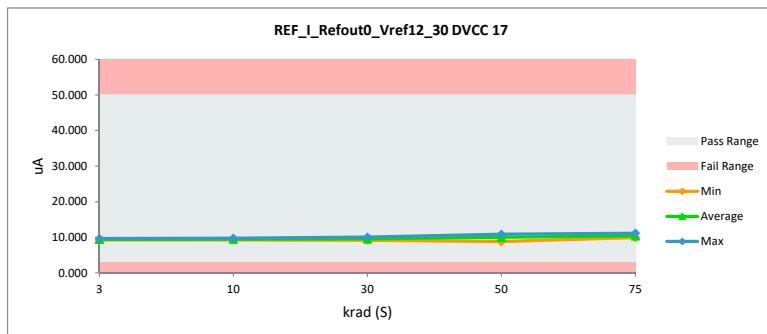
TID Report(Unbiased)

TID Report MSP430FR5969-SP

REF_I_Refout0_Vref12_30 DVCC				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	49.9999874	49.9999874		
Min Limit	3.000000106	3.000000106		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	8.670	9.643	-0.973
3	2	8.709	9.541	-0.832
3	3	8.715	9.270	-0.555
3	4	8.676	9.449	-0.773
3	5	8.717	9.240	-0.523
10	11	8.680	9.732	-1.053
10	12	8.703	9.461	-0.758
10	13	8.680	9.502	-0.822
10	14	8.678	9.258	-0.580
10	15	8.674	9.381	-0.707
30	21	8.727	9.482	-0.756
30	22	8.682	9.570	-0.889
30	23	8.699	9.506	-0.807
30	24	8.682	9.156	-0.475
30	25	8.729	10.045	-1.316
50	31	9.061	9.902	-0.842
50	32	9.057	10.844	-1.787
50	33	9.061	10.643	-1.582
50	34	9.055	9.908	-0.854
50	35	9.059	8.789	0.270
75	41	9.061	10.955	-1.895
75	42	9.055	10.375	-1.320
75	43	9.049	10.162	-1.113
75	44	9.049	10.188	-1.139
75	45	9.043	10.258	-1.215
75	46	9.045	10.262	-1.217
75	47	9.049	10.197	-1.148
75	48	9.047	10.199	-1.152
75	49	9.049	9.914	-0.865
75	50	9.051	9.906	-0.855
75	51	9.049	10.143	-1.094
75	52	9.053	10.150	-1.098
75	53	9.051	11.137	-2.086
75	54	9.051	11.145	-2.094
75	55	9.049	10.201	-1.152
75	56	9.051	10.629	-1.578
75	57	9.051	10.633	-1.582
75	58	9.049	10.633	-1.584
75	59	9.047	10.188	-1.141
75	60	9.316	10.955	-1.639
75	61	9.037	10.375	-1.338
75	62	9.049	10.162	-1.113
Max		9.316	11.145	0.270
Average		8.930	10.026	-1.096
Min		8.670	8.789	-2.094
Std Dev		0.183	0.577	0.460



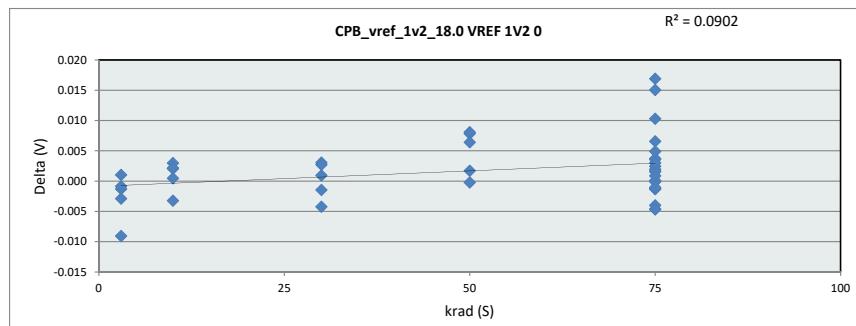
REF_I_Refout0_Vref12_30 DVCC				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	49.9999874	49.9999874		
Min Limit	3.000000106	3.000000106		
krad (S)	3	10	30	50
LL	3.000	3.000	3.000	3.000
Min	9.240	9.258	9.156	8.789
Average	9.429	9.467	9.552	10.017
Max	9.643	9.732	10.045	10.844
UL	50.000	50.000	50.000	50.000



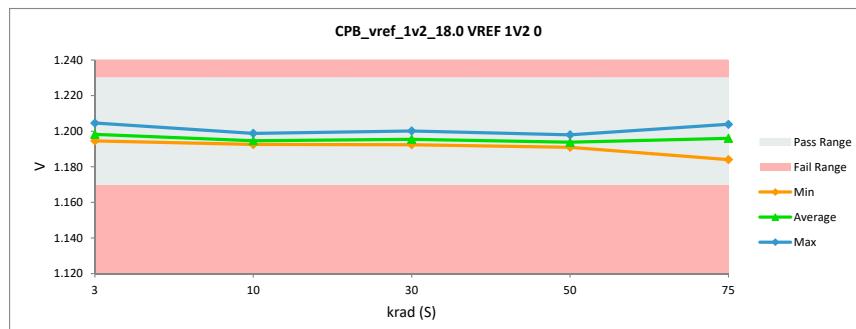
TID Report

MSP430FR5969-SP

CPB_vref_1v2_18.0 VREF 1V2 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.230000019	1.230000019		
Min Limit	1.16999957	1.16999957		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.196	1.197	-0.001
3	2	1.195	1.205	-0.009
3	3	1.196	1.195	0.001
3	4	1.196	1.199	-0.003
3	5	1.196	1.197	-0.001
10	11	1.195	1.193	0.002
10	12	1.195	1.195	0.000
10	13	1.196	1.199	-0.003
10	14	1.196	1.193	0.003
10	15	1.196	1.193	0.002
30	21	1.196	1.195	0.001
30	22	1.195	1.192	0.003
30	23	1.196	1.197	-0.001
30	24	1.196	1.193	0.003
30	25	1.196	1.200	-0.004
50	31	1.199	1.191	0.008
50	32	1.199	1.191	0.008
50	33	1.199	1.198	0.002
50	34	1.198	1.191	0.006
50	35	1.198	1.198	0.000
75	41	1.199	1.184	0.015
75	42	1.198	1.194	0.004
75	43	1.198	1.196	0.002
75	44	1.199	1.197	0.002
75	45	1.199	1.197	0.002
75	46	1.198	1.198	0.000
75	47	1.198	1.196	0.002
75	48	1.198	1.198	0.000
75	49	1.198	1.199	-0.001
75	50	1.198	1.199	-0.001
75	51	1.199	1.199	0.000
75	52	1.198	1.199	-0.001
75	53	1.199	1.193	0.007
75	54	1.198	1.194	0.004
75	55	1.198	1.188	0.010
75	56	1.199	1.204	-0.005
75	57	1.198	1.202	-0.004
75	58	1.198	1.202	-0.005
75	59	1.198	1.197	0.001
75	60	1.201	1.184	0.017
75	61	1.199	1.194	0.005
75	62	1.199	1.196	0.003
Max		1.201	1.205	0.017
Average		1.197	1.196	0.002
Min		1.195	1.184	-0.009
Std Dev		0.002	0.004	0.005



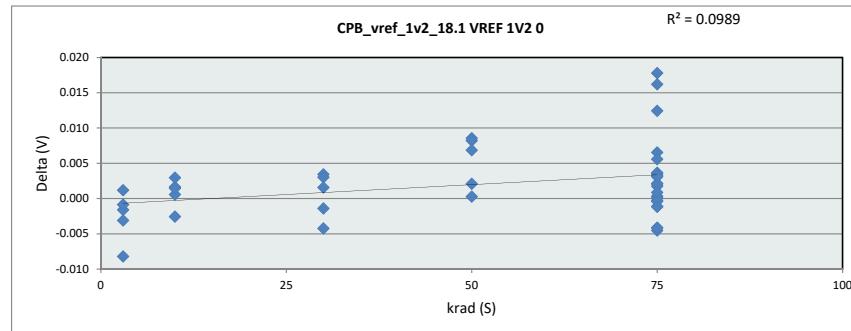
CPB_vref_1v2_18.0 VREF 1V2 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.230000019	V			
Min Limit	1.16999957	V			
krad (S)	3	10	30	50	75
LL	1.170	1.170	1.170	1.170	1.170
Min	1.195	1.193	1.192	1.191	1.184
Average	1.198	1.195	1.195	1.194	1.196
Max	1.205	1.199	1.200	1.198	1.204
UL	1.230	1.230	1.230	1.230	1.230



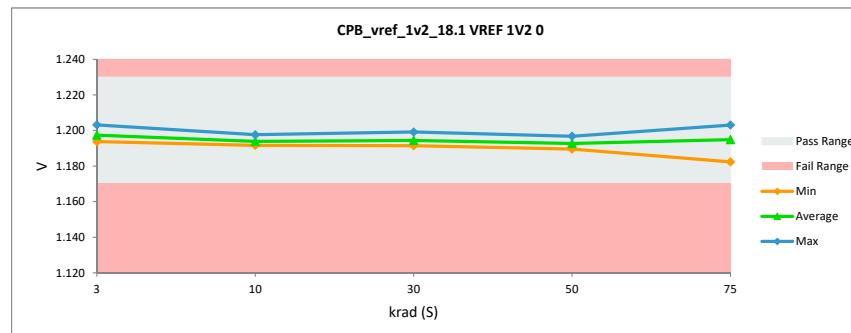
TID Report

MSP430FR5969-SP

CPB_vref_1v2_18.1 VREF 1V2 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.230000019	1.230000019		
Min Limit	1.16999957	1.16999957		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.194	1.196	-0.002
3	2	1.195	1.203	-0.008
3	3	1.195	1.194	0.001
3	4	1.195	1.198	-0.003
3	5	1.195	1.196	-0.001
10	11	1.194	1.193	0.002
10	12	1.195	1.194	0.001
10	13	1.195	1.198	-0.003
10	14	1.195	1.192	0.003
10	15	1.195	1.194	0.001
30	21	1.195	1.194	0.002
30	22	1.195	1.191	0.003
30	23	1.195	1.196	-0.001
30	24	1.195	1.192	0.003
30	25	1.195	1.199	-0.004
50	31	1.198	1.190	0.009
50	32	1.199	1.190	0.008
50	33	1.199	1.197	0.002
50	34	1.197	1.190	0.007
50	35	1.197	1.197	0.000
75	41	1.199	1.182	0.016
75	42	1.197	1.193	0.004
75	43	1.198	1.195	0.002
75	44	1.199	1.196	0.004
75	45	1.198	1.197	0.002
75	46	1.196	1.196	0.000
75	47	1.197	1.195	0.002
75	48	1.197	1.197	0.000
75	49	1.197	1.198	-0.001
75	50	1.198	1.198	0.000
75	51	1.198	1.198	0.000
75	52	1.198	1.199	-0.001
75	53	1.199	1.192	0.007
75	54	1.197	1.193	0.003
75	55	1.198	1.185	0.012
75	56	1.199	1.203	-0.005
75	57	1.197	1.201	-0.004
75	58	1.197	1.201	-0.004
75	59	1.196	1.196	0.001
75	60	1.200	1.182	0.018
75	61	1.199	1.193	0.006
75	62	1.199	1.195	0.003
Max		1.200	1.203	0.018
Average		1.197	1.195	0.002
Min		1.194	1.182	-0.008
Std Dev		0.002	0.005	0.005



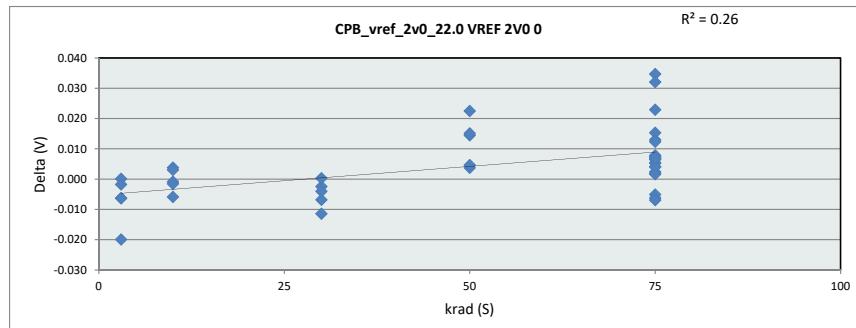
CPB_vref_1v2_18.1 VREF 1V2 0					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	V			
Max Limit	1.230000019	V			
Min Limit	1.16999957	V			
krad (S)	3	10	30	50	75
LL	1.170	1.170	1.170	1.170	1.170
Min	1.194	1.192	1.191	1.190	1.182
Average	1.197	1.194	1.194	1.193	1.195
Max	1.203	1.198	1.199	1.197	1.203
UL	1.230	1.230	1.230	1.230	1.230



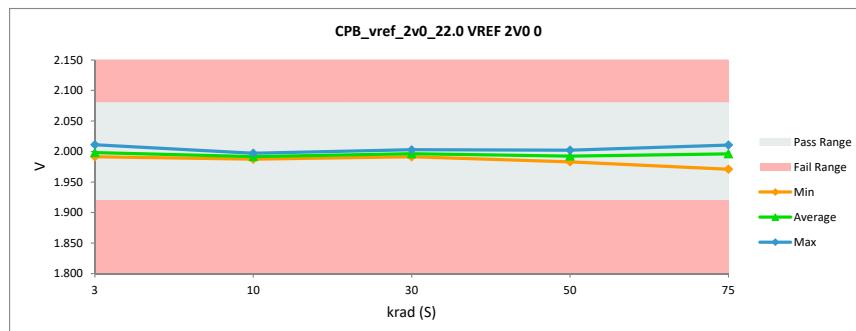
TID Report

MSP430FR5969-SP

CPB_vref_2v0_22.0 VREF 2V0 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.079999924	2.079999924		
Min Limit	1.919999957	1.919999957		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.991	1.991	0.000
3	2	1.991	2.011	-0.020
3	3	1.991	1.998	-0.006
3	4	1.992	1.998	-0.006
3	5	1.992	1.993	-0.002
10	11	1.991	1.992	-0.001
10	12	1.991	1.993	-0.002
10	13	1.991	1.997	-0.006
10	14	1.991	1.987	0.004
10	15	1.992	1.989	0.003
30	21	1.992	1.998	-0.007
30	22	1.992	1.994	-0.002
30	23	1.992	1.991	0.000
30	24	1.991	1.995	-0.004
30	25	1.992	2.003	-0.011
50	31	2.006	1.983	0.022
50	32	2.006	1.991	0.014
50	33	2.006	2.002	0.004
50	34	2.003	1.988	0.015
50	35	2.004	1.999	0.005
75	41	2.006	1.971	0.035
75	42	2.004	1.998	0.006
75	43	2.004	1.999	0.005
75	44	2.006	1.999	0.007
75	45	2.006	1.998	0.007
75	46	2.003	1.998	0.005
75	47	2.003	1.988	0.015
75	48	2.003	1.990	0.013
75	49	2.004	2.001	0.002
75	50	2.003	2.002	0.002
75	51	2.006	2.002	0.004
75	52	2.004	2.002	0.002
75	53	2.006	1.994	0.012
75	54	2.003	1.996	0.007
75	55	2.004	1.981	0.023
75	56	2.006	2.011	-0.005
75	57	2.004	2.010	-0.006
75	58	2.003	2.010	-0.007
75	59	2.003	1.999	0.004
75	60	2.003	1.971	0.032
75	61	2.006	1.998	0.008
75	62	2.006	1.999	0.007
Max	2.006	2.011	0.035	
Average	2.000	1.995	0.004	
Min	1.991	1.971	-0.020	
Std Dev	0.006	0.009	0.011	



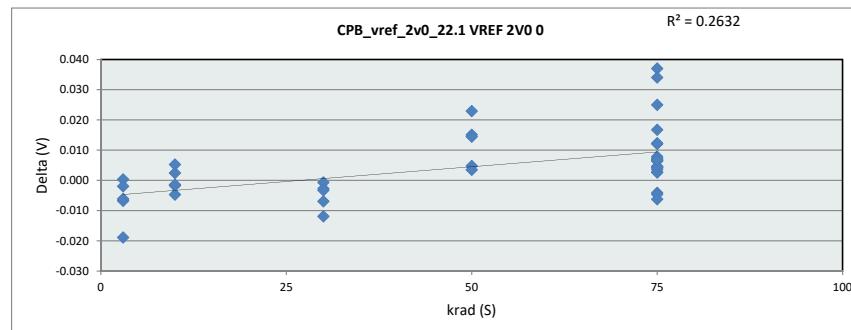
CPB_vref_2v0_22.0 VREF 2V0 0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.079999924	V			
Min Limit	1.919999957	V			
krad (S)	3	10	30	50	75
LL	1.920	1.920	1.920	1.920	1.920
Min	1.991	1.987	1.991	1.983	1.971
Average	1.998	1.992	1.996	1.993	1.996
Max	2.011	1.997	2.003	2.002	2.011
UL	2.080	2.080	2.080	2.080	2.080



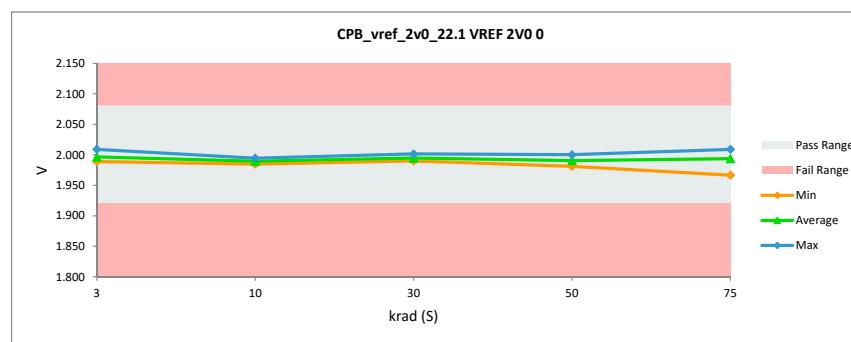
TID Report(Unbiased)

TID Report
MSP430FR5969-SP

CPB_vref_2v0_22.1 VREF 2V0 O				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.079999924	2.079999924		
Min Limit	1.919999957	1.919999957		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.989	1.989	0.000
3	2	1.990	2.009	-0.019
3	3	1.989	1.996	-0.007
3	4	1.990	1.996	-0.006
3	5	1.990	1.992	-0.002
10	11	1.989	1.991	-0.002
10	12	1.989	1.991	-0.001
10	13	1.990	1.995	-0.005
10	14	1.990	1.985	0.005
10	15	1.989	1.987	0.002
30	21	1.990	1.997	-0.007
30	22	1.990	1.993	-0.003
30	23	1.989	1.990	-0.001
30	24	1.990	1.993	-0.003
30	25	1.990	2.002	-0.012
50	31	2.004	1.981	0.023
50	32	2.004	1.989	0.015
50	33	2.005	2.000	0.005
50	34	2.000	1.986	0.014
50	35	2.001	1.997	0.004
75	41	2.004	1.967	0.037
75	42	2.001	1.996	0.004
75	43	2.003	1.996	0.006
75	44	2.004	1.997	0.007
75	45	2.003	1.995	0.008
75	46	2.001	1.997	0.004
75	47	2.002	1.985	0.017
75	48	2.001	1.989	0.012
75	49	2.001	1.999	0.003
75	50	2.001	1.998	0.003
75	51	2.004	2.000	0.005
75	52	2.002	1.999	0.004
75	53	2.004	1.992	0.012
75	54	2.001	1.994	0.007
75	55	2.002	1.977	0.025
75	56	2.004	2.008	-0.004
75	57	2.003	2.008	-0.005
75	58	2.003	2.009	-0.006
75	59	2.002	1.997	0.005
75	60	2.001	1.967	0.034
75	61	2.003	1.996	0.007
75	62	2.003	1.996	0.007
Max		2.005	2.009	0.037
Average		1.998	1.993	0.005
Min		1.989	1.967	-0.019
Std Dev		0.006	0.009	0.011



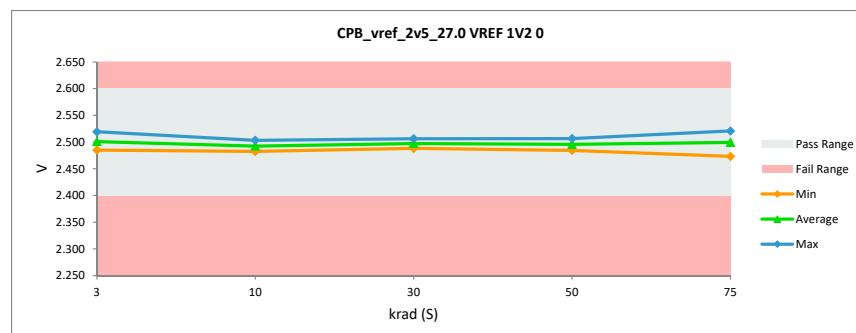
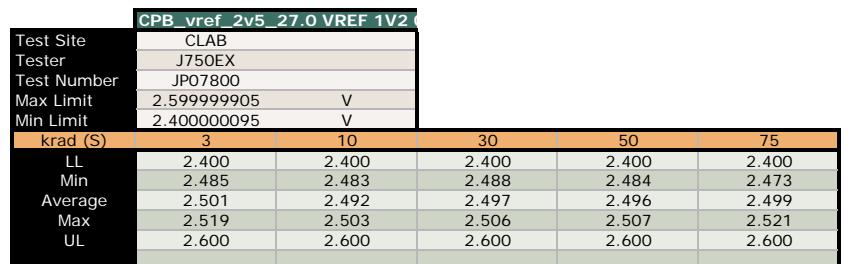
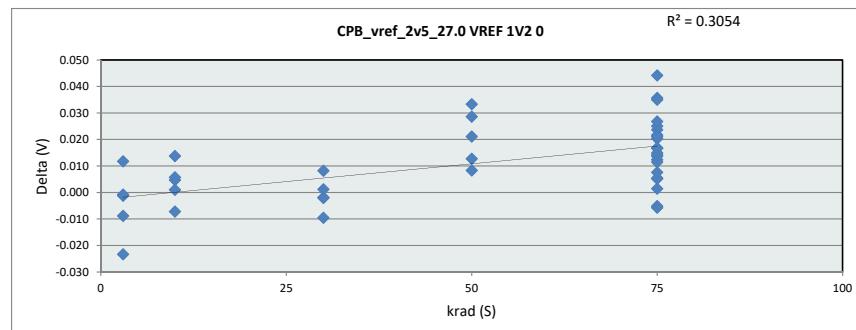
CPB_vref_2v0_22.1 VREF 2V0					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.079999924	V			
Min Limit	1.919999957	V			
krad (S)	3	10	30	50	75
LL	1.920	1.920	1.920	1.920	1.920
Min	1.989	1.985	1.990	1.981	1.967
Average	1.996	1.989	1.995	1.991	1.994
Max	2.009	1.995	2.002	2.000	2.009
UL	2.080	2.080	2.080	2.080	2.080



TID Report

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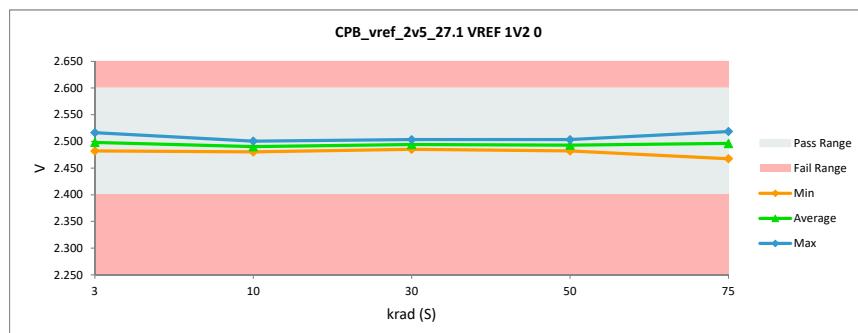
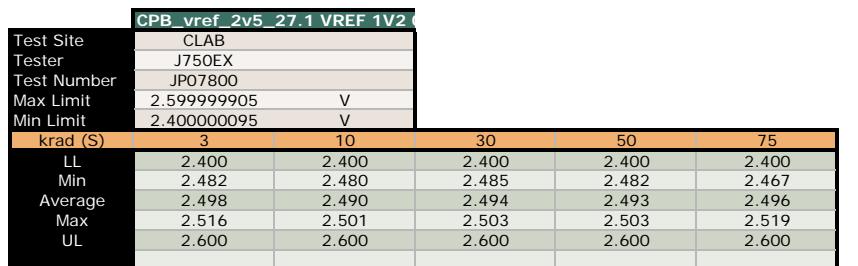
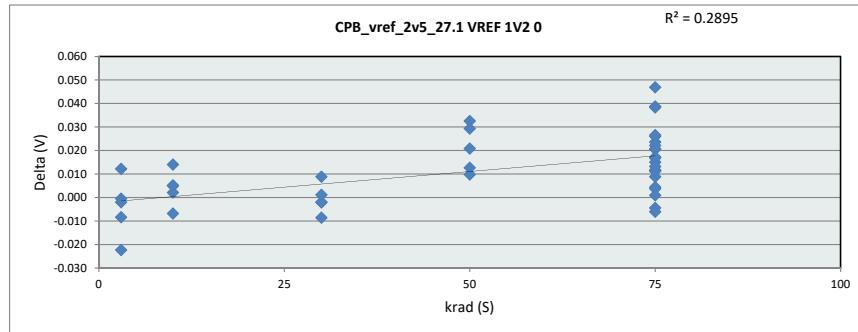
CPB_vref_2v5_27.0 VREF 1V2 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.59999905	2.59999905		
Min Limit	2.40000095	2.40000095		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.496	2.497	-0.001
3	2	2.496	2.519	-0.023
3	3	2.497	2.497	-0.001
3	4	2.497	2.505	-0.009
3	5	2.497	2.485	0.012
10	11	2.496	2.491	0.005
10	12	2.496	2.495	0.001
10	13	2.496	2.503	-0.007
10	14	2.496	2.483	0.014
10	15	2.496	2.490	0.006
30	21	2.496	2.499	-0.002
30	22	2.496	2.498	-0.002
30	23	2.496	2.488	0.008
30	24	2.497	2.495	0.001
30	25	2.497	2.506	-0.010
50	31	2.518	2.484	0.033
50	32	2.518	2.497	0.021
50	33	2.518	2.505	0.013
50	34	2.514	2.485	0.029
50	35	2.515	2.507	0.008
75	41	2.517	2.473	0.044
75	42	2.515	2.503	0.012
75	43	2.515	2.501	0.014
75	44	2.518	2.501	0.017
75	45	2.517	2.494	0.024
75	46	2.515	2.494	0.020
75	47	2.516	2.491	0.025
75	48	2.515	2.493	0.022
75	49	2.515	2.510	0.005
75	50	2.515	2.510	0.005
75	51	2.518	2.507	0.011
75	52	2.515	2.508	0.008
75	53	2.518	2.491	0.027
75	54	2.515	2.494	0.021
75	55	2.516	2.480	0.036
75	56	2.518	2.517	0.001
75	57	2.515	2.521	-0.005
75	58	2.515	2.521	-0.006
75	59	2.515	2.501	0.014
75	60	2.508	2.473	0.035
75	61	2.518	2.503	0.015
75	62	2.518	2.501	0.017
Max	2.518	2.521	0.044	
Average	2.509	2.498	0.011	
Min	2.496	2.473	-0.023	
Std Dev	0.010	0.011	0.014	



TID Report(Unbiased)

TID Report MSP430FR5969-SP

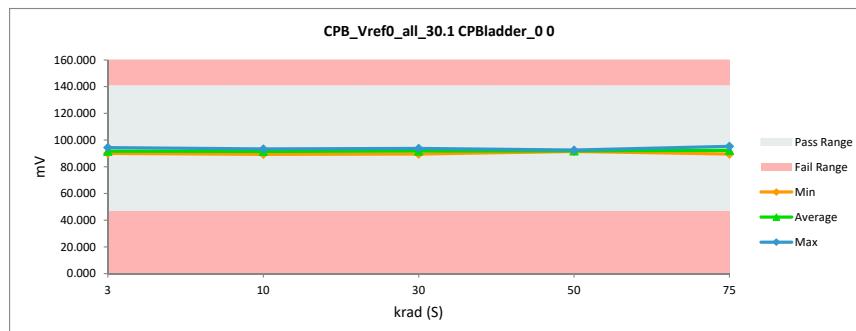
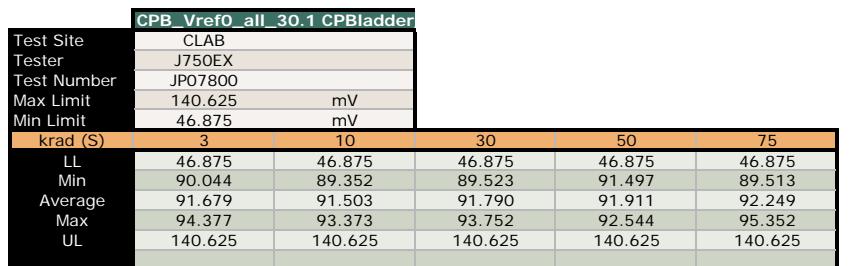
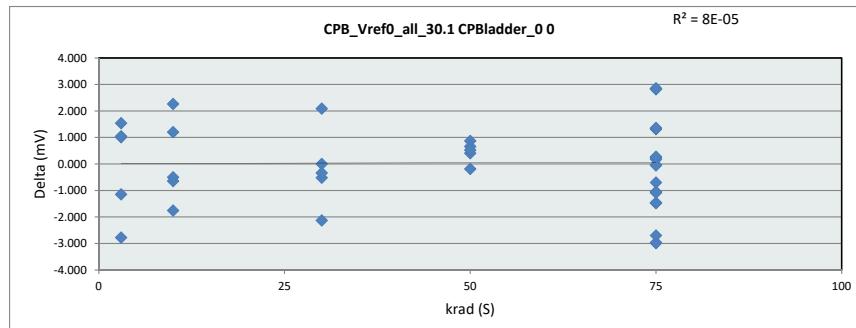
CPB_vref_2v5_27.1 VREF 1V2 0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.59999905	2.59999905		
Min Limit	2.40000095	2.40000095		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.494	2.495	0.000
3	2	2.494	2.516	-0.022
3	3	2.493	2.495	-0.002
3	4	2.494	2.502	-0.008
3	5	2.494	2.482	0.012
10	11	2.494	2.489	0.005
10	12	2.494	2.492	0.002
10	13	2.494	2.501	-0.007
10	14	2.494	2.480	0.014
10	15	2.493	2.488	0.005
30	21	2.494	2.496	-0.002
30	22	2.493	2.495	-0.002
30	23	2.494	2.485	0.009
30	24	2.493	2.492	0.001
30	25	2.495	2.503	-0.009
50	31	2.515	2.482	0.033
50	32	2.515	2.494	0.021
50	33	2.516	2.503	0.013
50	34	2.512	2.483	0.029
50	35	2.513	2.503	0.010
75	41	2.514	2.467	0.047
75	42	2.512	2.500	0.012
75	43	2.513	2.498	0.015
75	44	2.516	2.499	0.017
75	45	2.514	2.491	0.024
75	46	2.512	2.491	0.021
75	47	2.513	2.487	0.026
75	48	2.513	2.491	0.022
75	49	2.511	2.507	0.004
75	50	2.512	2.508	0.004
75	51	2.515	2.503	0.011
75	52	2.513	2.504	0.009
75	53	2.515	2.489	0.027
75	54	2.512	2.491	0.021
75	55	2.514	2.475	0.039
75	56	2.516	2.515	0.001
75	57	2.513	2.517	-0.004
75	58	2.512	2.519	-0.006
75	59	2.511	2.499	0.011
75	60	2.506	2.467	0.038
75	61	2.514	2.500	0.013
75	62	2.515	2.498	0.017
Max		2.516	2.519	0.047
Average		2.506	2.495	0.011
Min		2.493	2.467	-0.022
Std Dev		0.009	0.012	0.014



TID Report

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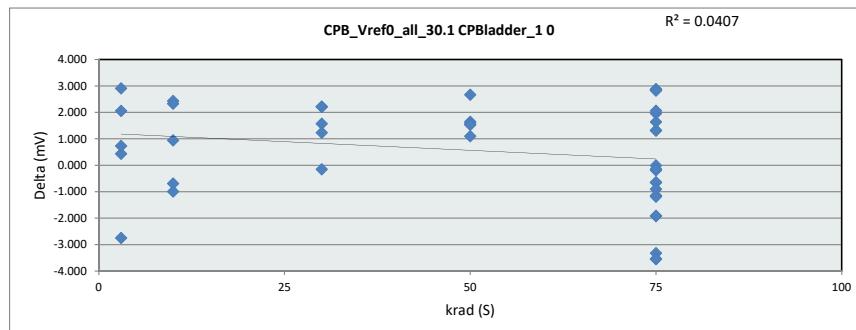
CPB_Vref0_all_30.1 CPBladder_0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	140.625	140.625		
Min Limit	46.875	46.875		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	91.629	92.776	-1.147
3	2	91.586	90.044	1.543
3	3	91.601	94.377	-2.776
3	4	91.634	90.588	1.046
3	5	91.620	90.612	1.008
10	11	91.620	89.352	2.267
10	12	91.596	92.241	-0.645
10	13	91.634	92.132	-0.498
10	14	91.620	90.418	1.202
10	15	91.615	93.373	-1.758
30	21	91.620	92.137	-0.517
30	22	91.610	89.523	2.088
30	23	91.591	91.592	-0.001
30	24	91.610	91.947	-0.337
30	25	91.624	93.752	-2.128
50	31	92.382	91.976	0.406
50	32	92.358	92.544	-0.186
50	33	92.368	91.497	0.870
50	34	92.377	91.720	0.657
50	35	92.344	91.820	0.525
75	41	92.330	93.032	-0.702
75	42	92.354	93.818	-1.465
75	43	92.335	89.513	2.821
75	44	92.368	89.522	2.846
75	45	92.335	91.009	1.326
75	46	92.363	91.047	1.316
75	47	92.377	93.424	-1.047
75	48	92.344	93.429	-1.085
75	49	92.354	92.179	0.175
75	50	92.368	92.146	0.222
75	51	92.344	92.382	-0.038
75	52	92.339	92.392	-0.053
75	53	92.354	92.098	0.255
75	54	92.373	92.103	0.269
75	55	92.349	90.990	1.359
75	56	92.382	93.855	-1.473
75	57	92.349	95.309	-2.960
75	58	92.363	95.352	-2.989
75	59	92.354	89.522	2.832
75	60	90.331	93.032	-2.701
75	61	92.344	93.818	-1.474
75	62	92.363	89.513	2.850
Max		92.382	95.352	2.850
Average		92.043	91.998	0.045
Min		90.331	89.352	-2.989
Std Dev		0.449	1.577	1.613



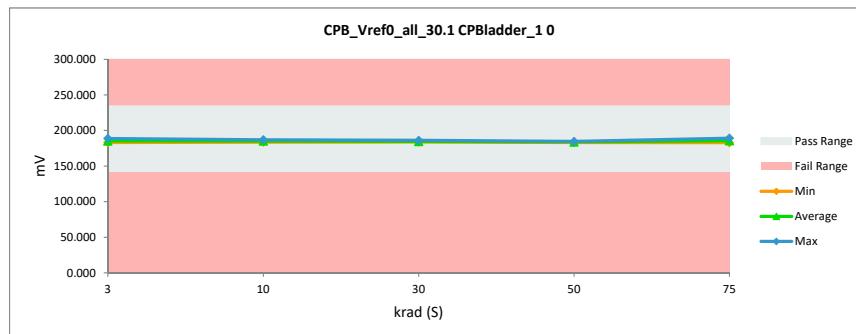
TID Report

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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	234.375	234.375		
Min Limit	140.625	140.625		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	186.012	183.958	2.054
3	2	186.022	183.115	2.907
3	3	186.022	188.770	-2.748
3	4	186.012	185.577	0.435
3	5	185.979	185.246	0.733
10	11	186.017	183.588	2.429
10	12	186.036	186.728	-0.692
10	13	186.045	185.104	0.942
10	14	186.050	183.721	2.329
10	15	185.993	186.989	-0.995
30	21	186.050	184.479	1.571
30	22	186.003	184.768	1.235
30	23	186.022	183.816	2.206
30	24	186.012	183.792	2.220
30	25	186.031	186.184	-0.152
50	31	185.704	184.062	1.642
50	32	185.695	184.114	1.581
50	33	185.676	184.147	1.529
50	34	185.676	183.011	2.665
50	35	185.695	184.597	1.098
75	41	185.719	185.729	-0.010
75	42	185.690	187.609	-1.919
75	43	185.709	182.835	2.874
75	44	185.723	182.849	2.874
75	45	185.714	184.402	1.311
75	46	185.709	184.384	1.326
75	47	185.685	186.340	-0.654
75	48	185.704	186.349	-0.645
75	49	185.681	183.721	1.960
75	50	185.747	183.687	2.060
75	51	185.685	185.875	-0.190
75	52	185.719	185.856	-0.138
75	53	185.714	186.860	-1.147
75	54	185.700	186.884	-1.184
75	55	185.685	184.047	1.638
75	56	185.704	189.030	-3.325
75	57	185.681	189.228	-3.548
75	58	185.700	189.243	-3.543
75	59	185.700	182.849	2.851
75	60	184.828	185.729	-0.901
75	61	185.695	187.609	-1.914
75	62	185.662	182.835	2.827
Max		186.050	189.243	2.907
Average		185.793	185.231	0.562
Min		184.828	182.835	-3.548
Std Dev		0.218	1.856	1.886



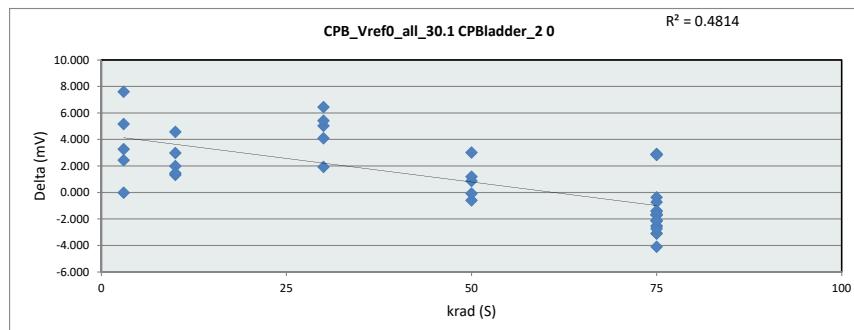
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	234.375	mV			
Min Limit	140.625	mV			
krad (S)	3	10	30	50	75
LL	140.625	140.625	140.625	140.625	140.625
Min	183.115	183.588	183.792	183.011	182.835
Average	185.333	185.226	184.608	183.986	185.634
Max	188.770	186.989	186.184	184.597	189.243
UL	234.375	234.375	234.375	234.375	234.375



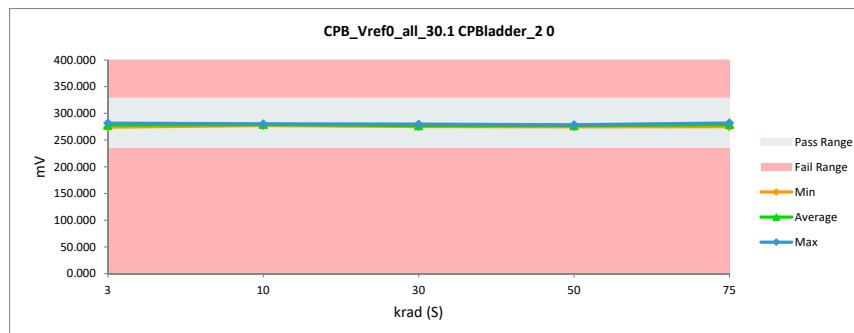
TID Report

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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	328.125	328.125		
Min Limit	234.375	234.375		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	281.769	276.608	5.161
3	2	281.764	274.154	7.610
3	3	281.793	281.812	-0.020
3	4	281.774	278.507	3.267
3	5	281.788	279.350	2.438
10	11	281.774	278.796	2.978
10	12	281.774	280.453	1.320
10	13	281.807	279.818	1.988
10	14	281.802	277.228	4.574
10	15	281.745	280.292	1.453
30	21	281.788	277.692	4.096
30	22	281.783	276.750	5.034
30	23	281.774	276.352	5.422
30	24	281.769	275.324	6.445
30	25	281.783	279.856	1.927
50	31	277.952	277.081	0.871
50	32	277.966	276.773	1.193
50	33	277.933	274.912	3.021
50	34	277.956	278.554	-0.598
50	35	277.947	278.019	-0.072
75	41	277.956	278.681	-0.725
75	42	277.961	280.064	-2.103
75	43	277.966	275.063	2.903
75	44	277.952	275.077	2.874
75	45	277.933	279.359	-1.426
75	46	277.952	279.335	-1.383
75	47	277.938	281.026	-3.088
75	48	277.933	281.021	-3.088
75	49	277.947	279.624	-1.677
75	50	277.942	279.629	-1.687
75	51	277.919	279.629	-1.710
75	52	277.971	279.643	-1.672
75	53	277.919	280.041	-2.122
75	54	277.956	280.112	-2.155
75	55	277.952	278.317	-0.365
75	56	277.952	282.044	-4.092
75	57	277.961	280.481	-2.520
75	58	277.914	280.495	-2.582
75	59	277.928	275.077	2.851
75	60	275.943	278.681	-2.738
75	61	277.952	280.064	-2.112
75	62	277.909	275.063	2.846
Max	281.807	282.044	7.610	
Average	279.266	278.497	0.770	
Min	275.943	274.154	-4.092	
Std Dev	1.920	2.094	2.986	



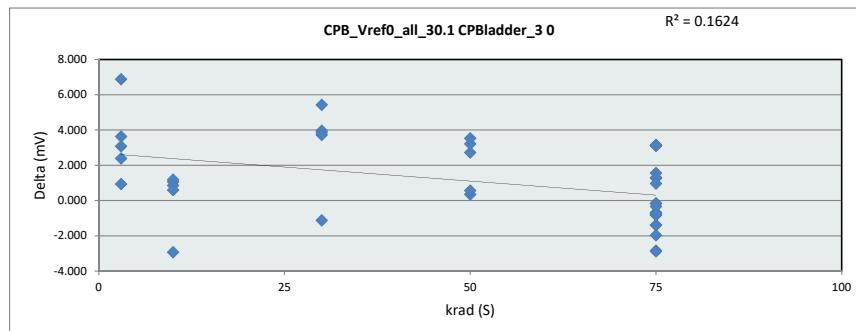
CPB_Vref0_all_30.1 CPBladder				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	328.125	mV		
Min Limit	234.375	mV		
krad (S)	3	10	30	50
LL	234.375	234.375	234.375	234.375
Min	274.154	277.228	275.324	274.912
Average	278.086	279.317	277.195	277.068
Max	281.812	280.453	279.856	278.554
UL	328.125	328.125	328.125	328.125



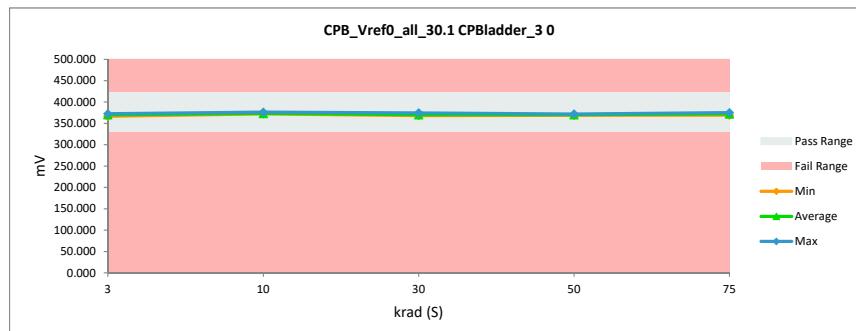
TID Report

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CPB_Vref0_all_30.1 CPBladder_3				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	421.875	421.875		
Min Limit	328.125	328.125		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	373.429	370.347	3.082
3	2	373.405	366.529	6.876
3	3	373.424	372.487	0.937
3	4	373.401	369.773	3.627
3	5	373.434	371.043	2.391
10	11	373.386	372.326	1.060
10	12	373.396	372.212	1.183
10	13	373.405	376.337	-2.932
10	14	373.419	372.563	0.857
10	15	373.396	372.804	0.591
30	21	373.415	369.461	3.954
30	22	373.405	369.551	3.854
30	23	373.405	369.683	3.722
30	24	373.405	367.974	5.431
30	25	373.415	374.543	-1.128
50	31	372.316	369.594	2.723
50	32	372.335	369.120	3.215
50	33	372.340	368.812	3.528
50	34	372.321	371.976	0.345
50	35	372.283	371.715	0.568
75	41	372.302	370.739	1.563
75	42	372.344	373.078	-0.734
75	43	372.311	369.157	3.154
75	44	372.307	369.196	3.111
75	45	372.321	373.704	-1.383
75	46	372.302	373.699	-1.398
75	47	372.311	372.989	-0.678
75	48	372.254	372.961	-0.706
75	49	372.292	371.019	1.273
75	50	372.325	371.024	1.302
75	51	372.321	375.163	-2.842
75	52	372.316	375.196	-2.880
75	53	372.321	373.126	-0.806
75	54	372.359	373.193	-0.834
75	55	372.330	371.369	0.961
75	56	372.330	374.296	-1.966
75	57	372.344	372.506	-0.162
75	58	372.325	372.497	-0.171
75	59	372.311	369.196	3.116
75	60	370.402	370.739	-0.337
75	61	372.283	373.078	-0.795
75	62	372.292	369.157	3.135
Max	373.434	376.337	6.876	
Average	372.660	371.570	1.091	
Min	370.402	366.529	-2.932	
Std Dev	0.637	2.163	2.307	



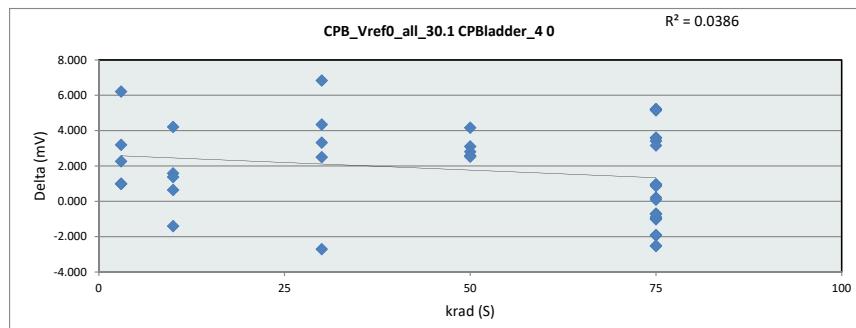
CPB_Vref0_all_30.1 CPBladder				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	421.875	421.875		
Min Limit	328.125	328.125		
krad (S)	3	10	30	50
LL	328.125	328.125	328.125	328.125
Min	366.529	372.212	367.974	368.812
Average	370.036	373.249	370.242	370.243
Max	372.487	376.337	374.543	371.976
UL	421.875	421.875	421.875	421.875



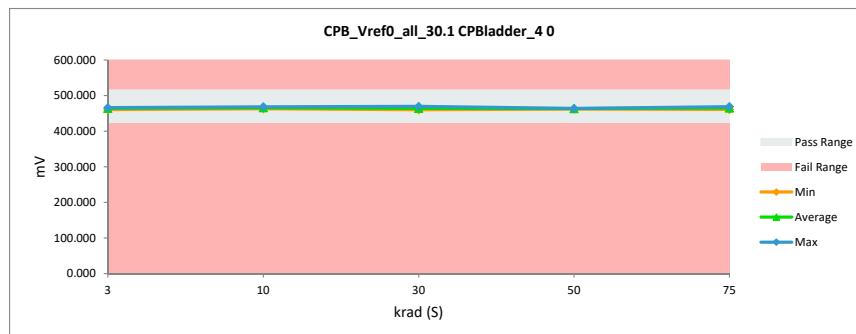
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CPB_Vref0_all_30.1 CPBladder_4				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	515.625	515.625		
Min Limit	421.875	421.875		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	466.988	465.989	0.999
3	2	466.964	460.751	6.213
3	3	466.993	466.004	0.989
3	4	466.964	463.768	3.196
3	5	466.988	464.725	2.263
10	11	466.964	465.383	1.581
10	12	466.969	466.330	0.639
10	13	467.007	468.409	-1.402
10	14	467.021	462.812	4.210
10	15	466.979	465.601	1.378
30	21	467.002	463.678	3.324
30	22	466.998	464.502	2.495
30	23	466.988	462.646	4.342
30	24	466.974	460.140	6.833
30	25	466.993	469.698	-2.705
50	31	466.339	462.172	4.167
50	32	466.344	463.238	3.106
50	33	466.344	463.536	2.808
50	34	466.330	463.749	2.581
50	35	466.306	463.782	2.524
75	41	466.335	462.924	3.411
75	42	466.344	467.040	-0.696
75	43	466.372	461.143	5.229
75	44	466.368	461.168	5.200
75	45	466.330	468.258	-1.928
75	46	466.344	468.253	-1.909
75	47	466.344	466.131	0.213
75	48	466.316	466.226	0.089
75	49	466.306	462.703	3.604
75	50	466.325	462.745	3.580
75	51	466.316	468.840	-2.525
75	52	466.330	468.850	-2.520
75	53	466.354	467.349	-0.995
75	54	466.349	467.368	-1.019
75	55	466.344	463.186	3.158
75	56	466.316	467.216	-0.900
75	57	466.358	465.388	0.970
75	58	466.320	465.397	0.923
75	59	466.339	461.168	5.171
75	60	463.790	462.924	0.866
75	61	466.311	467.040	-0.729
75	62	466.292	461.143	5.149
Max		467.021	469.698	6.833
Average		466.506	464.747	1.759
Min		463.790	460.140	-2.705
Std Dev		0.532	2.551	2.567



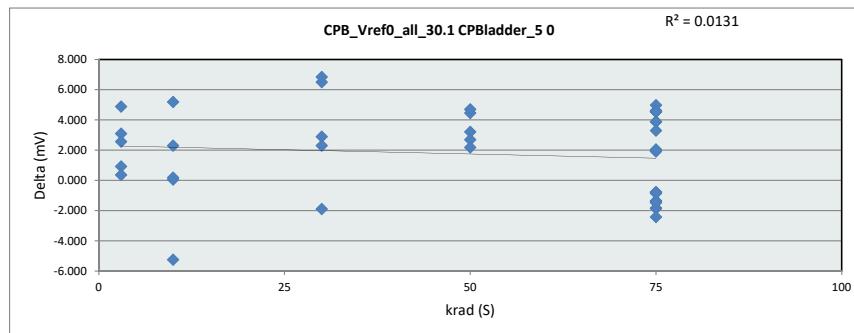
CPB_Vref0_all_30.1 CPBladder				
Test Site	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800
Max Limit	515.625	515.625	515.625	515.625
Min Limit	421.875	421.875	421.875	421.875
krad (S)	3	10	30	50
LL	421.875	421.875	421.875	421.875
Min	460.751	462.812	460.140	462.172
Average	464.247	465.707	464.133	463.296
Max	466.004	468.409	469.698	463.782
UL	515.625	515.625	515.625	515.625
				75



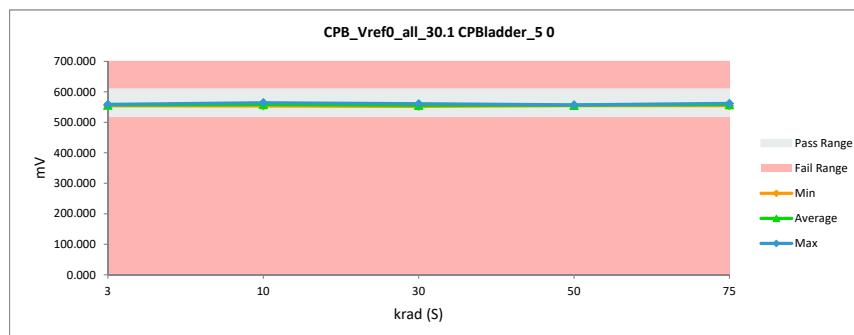
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CPB_Vref0_all_30.1 CPBladder_5				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	609.375	609.375		
Min Limit	515.625	515.625		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	559.122	558.199	0.923
3	2	559.112	554.235	4.878
3	3	559.103	558.739	0.364
3	4	559.117	556.025	3.092
3	5	559.112	556.551	2.562
10	11	559.093	559.037	0.056
10	12	559.112	558.933	0.180
10	13	559.131	564.374	-5.243
10	14	559.122	553.936	5.185
10	15	559.117	556.816	2.301
30	21	559.183	556.295	2.888
30	22	559.127	556.830	2.297
30	23	559.127	552.620	6.507
30	24	559.112	552.269	6.843
30	25	559.117	561.007	-1.890
50	31	559.482	555.026	4.456
50	32	559.515	556.309	3.206
50	33	559.501	556.806	2.694
50	34	559.491	554.789	4.702
50	35	559.472	557.285	2.188
75	41	559.444	554.470	4.974
75	42	559.496	560.949	-1.453
75	43	559.501	554.948	4.552
75	44	559.524	554.903	4.622
75	45	559.458	560.264	-0.806
75	46	559.467	560.235	-0.768
75	47	559.467	560.823	-1.355
75	48	559.486	560.889	-1.402
75	49	559.430	555.542	3.888
75	50	559.486	555.613	3.873
75	51	559.467	561.329	-1.862
75	52	559.501	561.325	-1.824
75	53	559.453	560.306	-0.853
75	54	559.505	560.344	-0.839
75	55	559.496	556.200	3.296
75	56	559.458	561.883	-2.425
75	57	559.486	557.569	1.917
75	58	559.496	557.555	1.941
75	59	559.444	554.903	4.541
75	60	556.520	554.470	2.050
75	61	559.477	560.949	-1.472
75	62	559.477	554.948	4.529
Max		559.524	564.374	6.843
Average		559.281	557.536	1.746
Min		556.520	552.269	-5.243
Std Dev		0.470	2.885	2.825

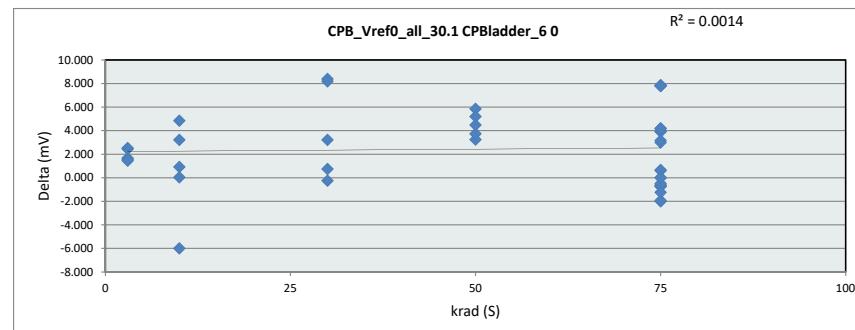


CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	609.375	mV			
Min Limit	515.625	mV			
krad (S)	3	10	30	50	75
LL	515.625	515.625	515.625	515.625	515.625
Min	554.235	553.936	552.269	554.789	554.470
Average	556.749	558.619	555.804	556.043	558.201
Max	558.739	564.374	561.007	557.285	561.883
UL	609.375	609.375	609.375	609.375	609.375

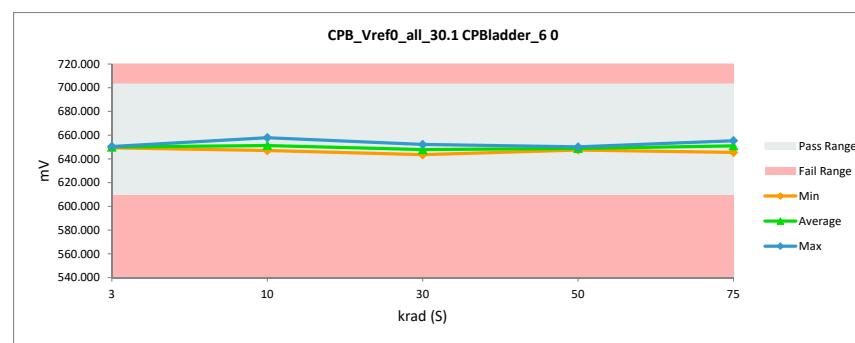


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CPB_Vref0_all_30.1 CPBladder_e				
Test Site		CLAB	CLAB	
Tester		J750EX	J750EX	
Test Number		JP07800	JP07800	
Unit		mV	mV	
Max Limit		703.125	703.125	
Min Limit		609.375	609.375	
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	651.933	650.266	1.667
3	2	651.885	649.437	2.448
3	3	651.904	650.346	1.558
3	4	651.909	649.390	2.519
3	5	651.933	650.479	1.454
10	11	651.904	650.986	0.918
10	12	651.900	651.867	0.033
10	13	651.923	657.919	-5.996
10	14	651.904	647.055	4.849
10	15	651.918	648.708	3.211
30	21	651.937	648.717	3.220
30	22	651.885	651.147	0.738
30	23	651.933	643.541	8.392
30	24	651.923	643.735	8.188
30	25	651.937	652.179	-0.242
50	31	653.391	647.538	5.853
50	32	653.377	648.182	5.195
50	33	653.377	650.138	3.239
50	34	653.372	649.636	3.736
50	35	653.349	648.869	4.480
75	41	653.353	650.349	3.004
75	42	653.339	653.333	0.006
75	43	653.344	645.547	7.797
75	44	653.363	645.502	7.861
75	45	653.353	655.353	-1.999
75	46	653.377	655.305	-1.928
75	47	653.391	654.012	-0.621
75	48	653.330	654.074	-0.744
75	49	653.334	649.400	3.935
75	50	653.372	649.461	3.911
75	51	653.316	652.710	0.606
75	52	653.363	652.701	0.662
75	53	653.306	654.012	-0.706
75	54	653.415	654.083	-0.668
75	55	653.363	650.200	3.163
75	56	653.387	653.875	-0.488
75	57	653.368	649.167	4.200
75	58	653.349	649.163	4.186
75	59	653.339	645.502	7.837
75	60	649.103	650.349	-1.246
75	61	653.330	653.333	-0.003
75	62	653.339	645.547	7.792
Max		653.415	657.919	8.392
Average		652.741	650.312	2.429
Min		649.103	643.541	5.996
Std Dev		0.902	3.241	3.271



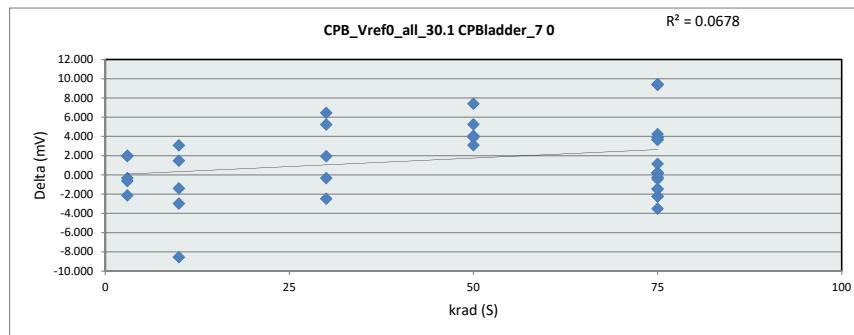
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	703.125	mV			
Min Limit	609.375	mV			
krad (S)	3	10	30	50	75
LL	609.375	609.375	609.375	609.375	609.375
Min	649.390	647.055	643.541	647.538	645.502
Average	649.984	651.307	647.864	648.873	651.044
Max	650.479	657.919	652.179	650.138	655.353
UL	703.125	703.125	703.125	703.125	703.125



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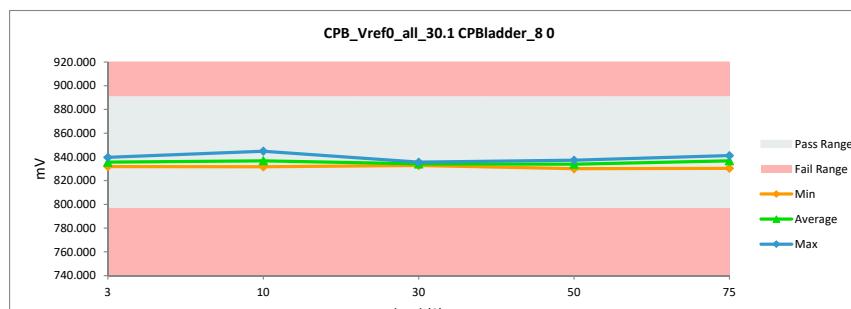
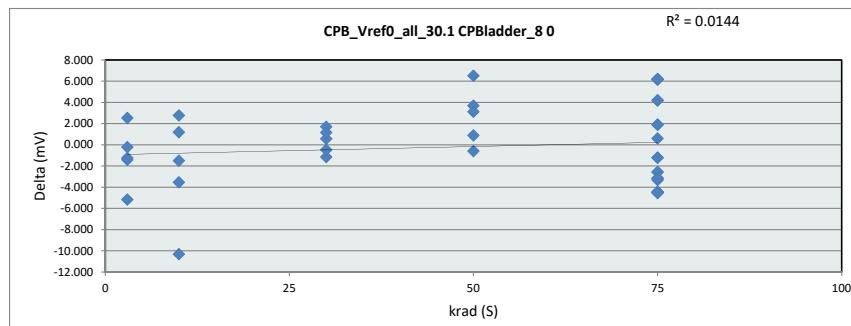
CPB_Vref0_all_30.1 CPBladder_7				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	796.875	796.875		
Min Limit	703.125	703.125		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	742.873	743.200	-0.327
3	2	742.821	740.822	1.998
3	3	742.830	740.870	1.961
3	4	742.849	744.985	-2.136
3	5	742.863	743.498	-0.635
10	11	742.830	744.232	-1.402
10	12	742.863	745.847	-2.984
10	13	742.849	751.407	-8.558
10	14	742.873	739.795	3.078
10	15	742.854	741.376	1.477
30	21	742.873	740.936	1.937
30	22	742.868	743.200	-0.332
30	23	742.844	736.399	6.445
30	24	742.863	737.626	5.238
30	25	742.844	745.331	-2.487
50	31	746.032	738.630	7.402
50	32	745.994	741.935	4.059
50	33	746.003	742.911	3.092
50	34	746.018	740.756	5.261
50	35	745.999	742.087	3.912
75	41	745.994	744.846	1.148
75	42	746.003	745.769	0.234
75	43	746.008	736.600	9.408
75	44	746.003	736.598	9.405
75	45	745.989	746.264	-0.275
75	46	745.989	746.269	-0.280
75	47	746.003	748.216	-2.212
75	48	745.984	748.239	-2.255
75	49	746.003	742.111	3.892
75	50	746.003	742.120	3.883
75	51	745.980	745.852	0.127
75	52	746.022	745.843	0.179
75	53	745.970	747.439	-1.469
75	54	746.041	747.501	-1.459
75	55	746.046	741.813	4.233
75	56	746.065	746.501	-0.436
75	57	746.022	742.329	3.693
75	58	745.989	742.353	3.637
75	59	745.975	736.598	9.377
75	60	741.336	744.846	-3.510
75	61	746.003	745.769	0.234
75	62	745.999	736.600	9.398
Max	746.065	751.407	9.408	
Average	744.768	743.008	1.761	
Min	741.336	736.399	-8.558	
Std Dev	1.612	3.660	3.944	



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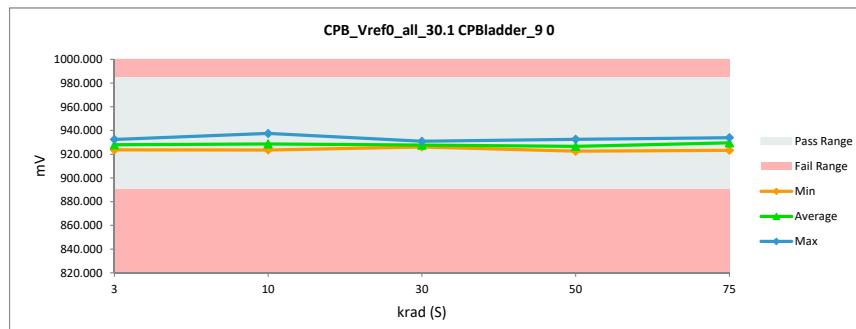
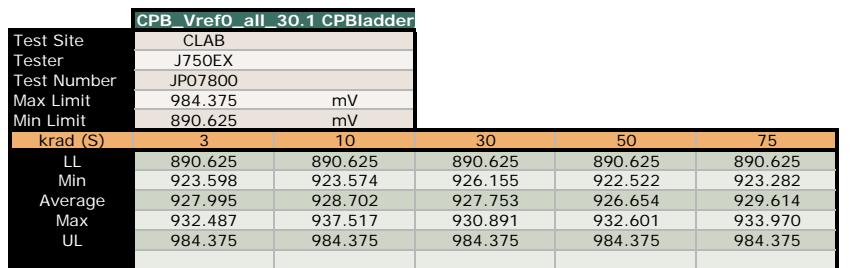
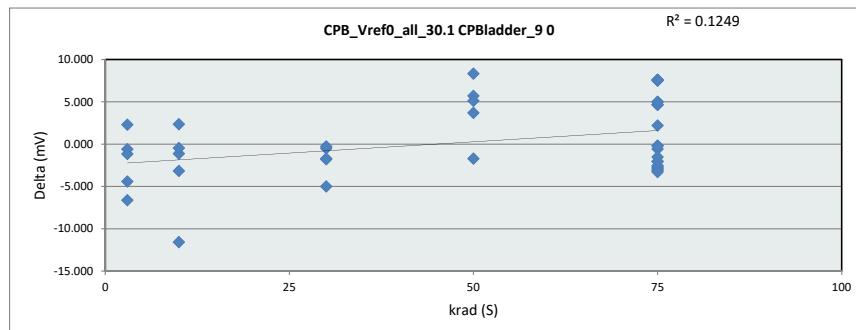
CPB_Vref0_all_30.1 CPBladder_8				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	890.625	890.625		
Min Limit	796.875	796.875		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	834.485	835.726	-1.241
3	2	834.438	831.904	2.534
3	3	834.476	834.694	-0.218
3	4	834.457	839.629	-5.172
3	5	834.452	835.864	-1.411
10	11	834.400	837.938	-3.538
10	12	834.433	835.939	-1.506
10	13	834.476	844.791	-10.315
10	14	834.448	833.254	1.193
10	15	834.471	831.701	2.771
30	21	834.485	832.781	1.705
30	22	834.429	835.589	-1.160
30	23	834.452	833.884	0.568
30	24	834.419	833.259	1.160
30	25	834.438	834.907	-0.469
50	31	836.598	830.076	6.521
50	32	836.593	835.712	0.881
50	33	836.588	837.190	-0.602
50	34	836.593	832.899	3.694
50	35	836.569	833.444	3.126
75	41	836.546	839.868	-3.322
75	42	836.579	837.793	-1.215
75	43	836.550	830.410	6.140
75	44	836.569	830.394	6.175
75	45	836.569	839.805	-3.235
75	46	836.550	839.724	-3.174
75	47	836.579	841.083	-4.505
75	48	836.588	841.093	-4.505
75	49	836.569	834.661	1.908
75	50	836.560	834.680	1.879
75	51	836.560	839.132	-2.572
75	52	836.565	839.142	-2.577
75	53	836.546	840.998	-4.453
75	54	836.617	841.050	-4.434
75	55	836.584	835.983	0.601
75	56	836.598	839.748	-3.150
75	57	836.598	832.388	4.210
75	58	836.588	832.407	4.181
75	59	836.598	830.394	6.203
75	60	835.326	839.868	-4.542
75	61	836.569	837.793	-1.224
75	62	836.603	830.410	6.192
Max	836.617	844.791	6.521	
Average	835.788	835.953	-0.164	
Min	834.400	830.076	-10.315	
Std Dev	1.027	3.731	3.803	



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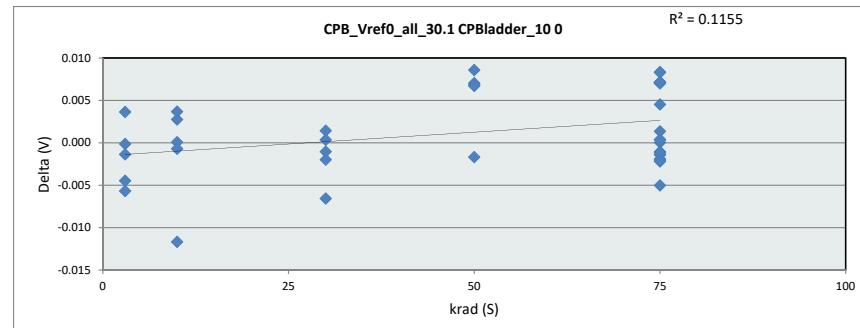
CPB_Vref0_all_30.1 CPBladder_9				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	mV	mV		
Max Limit	984.375	984.375		
Min Limit	890.625	890.625		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	925.895	926.496	-0.601
3	2	925.895	923.598	2.297
3	3	925.909	927.074	-1.165
3	4	925.866	932.487	-6.621
3	5	925.909	930.323	-4.414
10	11	925.880	929.053	-3.173
10	12	925.880	926.998	-1.118
10	13	925.937	937.517	-11.579
10	14	925.913	926.368	-0.455
10	15	925.923	923.574	2.349
30	21	925.904	927.699	-1.795
30	22	925.885	930.891	-5.006
30	23	925.904	926.406	-0.502
30	24	925.885	926.155	-0.270
30	25	925.899	927.614	-1.714
50	31	930.858	922.522	8.335
50	32	930.877	927.178	3.699
50	33	930.882	932.601	-1.719
50	34	930.896	925.198	5.698
50	35	930.886	925.771	5.115
75	41	930.829	931.409	-0.580
75	42	930.905	931.078	-0.172
75	43	930.886	923.282	7.604
75	44	930.867	923.324	7.544
75	45	930.867	933.970	-3.103
75	46	930.882	933.965	-3.084
75	47	930.863	933.653	-2.790
75	48	930.825	933.729	-2.904
75	49	930.834	926.179	4.655
75	50	930.877	926.236	4.641
75	51	930.858	933.435	-2.577
75	52	930.858	933.430	-2.572
75	53	930.858	932.909	-2.051
75	54	930.867	932.914	-2.047
75	55	930.886	928.689	2.197
75	56	930.910	932.421	-1.512
75	57	930.882	925.881	5.000
75	58	930.905	925.914	4.991
75	59	930.810	923.324	7.487
75	60	928.113	931.409	-3.296
75	61	930.858	931.078	-0.220
75	62	930.867	923.282	7.585
Max	930.910	937.517	8.335	
Average	929.028	928.739	0.289	
Min	925.866	922.522	-11.579	
Std Dev	2.398	3.914	4.392	



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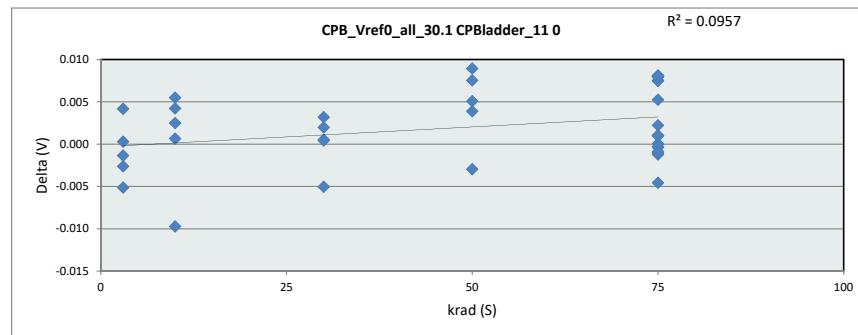
CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1078.125	1078.125		
Min Limit	0.984375	0.984375		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.019	1.020	0.000
3	2	1.019	1.016	0.004
3	3	1.019	1.021	-0.001
3	4	1.019	1.025	-0.006
3	5	1.019	1.024	-0.004
10	11	1.019	1.019	0.000
10	12	1.019	1.020	-0.001
10	13	1.019	1.031	-0.012
10	14	1.019	1.017	0.003
10	15	1.019	1.016	0.004
30	21	1.019	1.021	-0.001
30	22	1.019	1.026	-0.007
30	23	1.019	1.018	0.001
30	24	1.019	1.019	0.000
30	25	1.019	1.021	-0.002
50	31	1.025	1.016	0.009
50	32	1.025	1.018	0.007
50	33	1.025	1.027	-0.002
50	34	1.025	1.018	0.007
50	35	1.025	1.018	0.007
75	41	1.025	1.025	0.000
75	42	1.025	1.024	0.000
75	43	1.025	1.018	0.007
75	44	1.025	1.018	0.007
75	45	1.025	1.026	-0.001
75	46	1.025	1.026	-0.001
75	47	1.025	1.027	-0.002
75	48	1.025	1.027	-0.002
75	49	1.025	1.018	0.007
75	50	1.025	1.018	0.007
75	51	1.025	1.026	-0.001
75	52	1.025	1.026	-0.001
75	53	1.025	1.027	-0.002
75	54	1.025	1.027	-0.002
75	55	1.025	1.020	0.005
75	56	1.025	1.023	0.001
75	57	1.025	1.017	0.008
75	58	1.025	1.017	0.008
75	59	1.025	1.018	0.007
75	60	1.020	1.025	-0.005
75	61	1.025	1.024	0.000
75	62	1.025	1.018	0.007
Max		1.025	1.031	0.009
Average		1.023	1.022	0.001
Min		1.019	1.016	-0.012
Std Dev		0.003	0.004	0.005



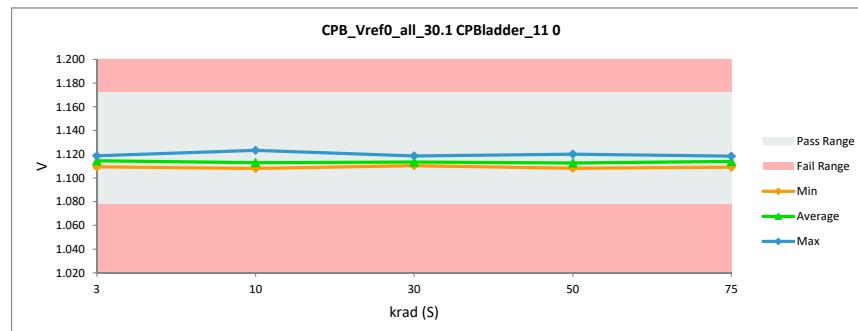
TID Report

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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.171875	1.171875		
Min Limit	1.078125	1.078125		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.114	1.113	0.000
3	2	1.114	1.109	0.004
3	3	1.114	1.116	-0.003
3	4	1.114	1.119	-0.005
3	5	1.114	1.115	-0.001
10	11	1.114	1.111	0.002
10	12	1.114	1.113	0.001
10	13	1.114	1.123	-0.010
10	14	1.114	1.109	0.004
10	15	1.114	1.108	0.005
30	21	1.114	1.113	0.001
30	22	1.114	1.119	-0.005
30	23	1.114	1.110	0.003
30	24	1.114	1.112	0.002
30	25	1.114	1.113	0.000
50	31	1.117	1.108	0.009
50	32	1.117	1.113	0.004
50	33	1.117	1.120	-0.003
50	34	1.117	1.110	0.008
50	35	1.117	1.112	0.005
75	41	1.117	1.115	0.002
75	42	1.117	1.118	-0.001
75	43	1.117	1.109	0.008
75	44	1.117	1.109	0.008
75	45	1.117	1.118	-0.001
75	46	1.117	1.118	-0.001
75	47	1.117	1.117	0.000
75	48	1.117	1.118	0.000
75	49	1.117	1.109	0.008
75	50	1.117	1.109	0.008
75	51	1.117	1.117	0.000
75	52	1.117	1.117	0.000
75	53	1.117	1.116	0.001
75	54	1.117	1.116	0.001
75	55	1.117	1.112	0.005
75	56	1.117	1.116	0.001
75	57	1.117	1.110	0.008
75	58	1.117	1.110	0.007
75	59	1.117	1.109	0.008
75	60	1.110	1.115	-0.005
75	61	1.117	1.118	-0.001
75	62	1.117	1.109	0.008
Max		1.117	1.123	0.009
Average		1.116	1.114	0.002
Min		1.110	1.108	-0.010
Std Dev		0.002	0.004	0.004



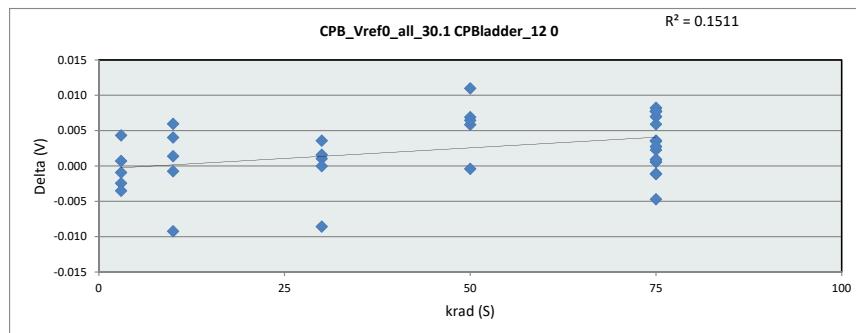
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	V			
Max Limit	1.171875	V			
Min Limit	1.078125	V			
krad (S)	3	10	30	50	75
LL	1.078	1.078	1.078	1.078	1.078
Min	1.109	1.108	1.110	1.108	1.109
Average	1.114	1.113	1.113	1.113	1.114
Max	1.119	1.123	1.119	1.120	1.118
UL	1.172	1.172	1.172	1.172	1.172



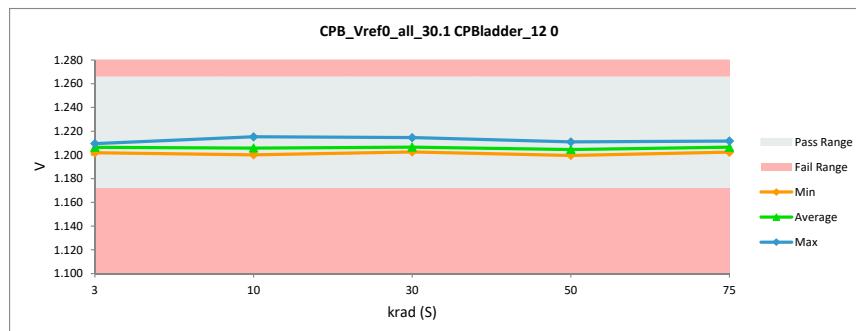
TID Report

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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.265625	1.265625		
Min Limit	1.171875	1.171875		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.206	1.207	-0.001
3	2	1.206	1.202	0.004
3	3	1.206	1.208	-0.002
3	4	1.206	1.210	-0.004
3	5	1.206	1.205	0.001
10	11	1.206	1.207	-0.001
10	12	1.206	1.205	0.001
10	13	1.206	1.215	-0.009
10	14	1.206	1.202	0.004
10	15	1.206	1.200	0.006
30	21	1.206	1.205	0.001
30	22	1.206	1.215	-0.009
30	23	1.206	1.203	0.004
30	24	1.206	1.204	0.002
30	25	1.206	1.206	0.000
50	31	1.211	1.200	0.011
50	32	1.211	1.205	0.006
50	33	1.211	1.211	0.000
50	34	1.211	1.204	0.007
50	35	1.211	1.204	0.006
75	41	1.210	1.208	0.002
75	42	1.211	1.208	0.003
75	43	1.210	1.203	0.008
75	44	1.211	1.203	0.008
75	45	1.211	1.212	-0.001
75	46	1.211	1.212	-0.001
75	47	1.211	1.210	0.001
75	48	1.210	1.210	0.001
75	49	1.211	1.202	0.008
75	50	1.211	1.202	0.008
75	51	1.211	1.207	0.004
75	52	1.210	1.207	0.004
75	53	1.211	1.210	0.001
75	54	1.211	1.210	0.001
75	55	1.211	1.205	0.006
75	56	1.211	1.207	0.003
75	57	1.211	1.204	0.007
75	58	1.211	1.204	0.007
75	59	1.210	1.203	0.008
75	60	1.204	1.208	-0.005
75	61	1.211	1.208	0.003
75	62	1.210	1.203	0.008
Max		1.211	1.215	0.011
Average		1.209	1.206	0.003
Min		1.204	1.200	-0.009
Std Dev		0.002	0.004	0.004



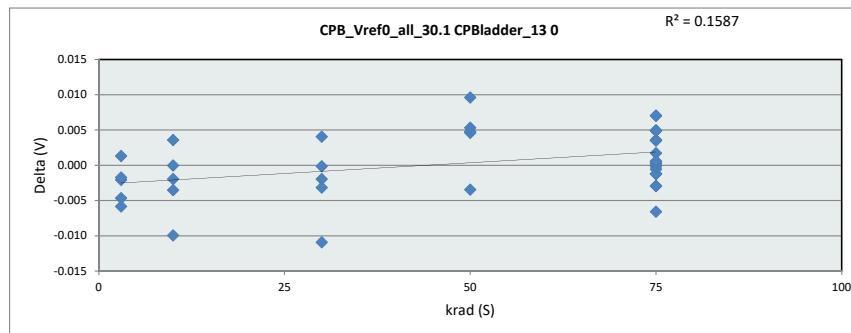
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.265625	V			
Min Limit	1.171875	V			
krad (S)	3	10	30	50	75
LL	1.172	1.172	1.172	1.172	1.172
Min	1.202	1.200	1.203	1.200	1.202
Average	1.206	1.206	1.207	1.205	1.206
Max	1.210	1.215	1.215	1.211	1.212
UL	1.266	1.266	1.266	1.266	1.266



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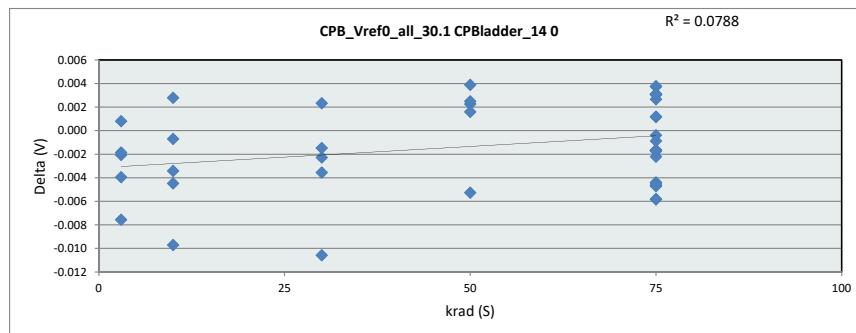
CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.359375	1.359375		
Min Limit	1.265625	1.265625		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.297	1.299	-0.002
3	2	1.297	1.295	0.001
3	3	1.297	1.301	-0.005
3	4	1.297	1.302	-0.006
3	5	1.297	1.298	-0.002
10	11	1.297	1.300	-0.004
10	12	1.297	1.299	-0.002
10	13	1.297	1.307	-0.010
10	14	1.297	1.297	0.000
10	15	1.297	1.293	0.004
30	21	1.297	1.299	-0.002
30	22	1.297	1.308	-0.011
30	23	1.297	1.293	0.004
30	24	1.297	1.297	0.000
30	25	1.297	1.300	-0.003
50	31	1.301	1.292	0.010
50	32	1.301	1.297	0.005
50	33	1.301	1.305	-0.003
50	34	1.301	1.296	0.005
50	35	1.301	1.296	0.005
75	41	1.301	1.302	-0.001
75	42	1.301	1.301	0.001
75	43	1.301	1.296	0.005
75	44	1.301	1.296	0.005
75	45	1.301	1.302	-0.001
75	46	1.301	1.302	-0.001
75	47	1.301	1.304	-0.003
75	48	1.301	1.304	-0.003
75	49	1.301	1.294	0.007
75	50	1.301	1.294	0.007
75	51	1.301	1.301	0.000
75	52	1.301	1.301	0.000
75	53	1.301	1.301	0.000
75	54	1.301	1.301	0.000
75	55	1.301	1.298	0.004
75	56	1.301	1.299	0.002
75	57	1.301	1.298	0.004
75	58	1.301	1.298	0.004
75	59	1.301	1.296	0.005
75	60	1.295	1.302	-0.007
75	61	1.301	1.301	0.001
75	62	1.301	1.296	0.005
Max		1.301	1.308	0.010
Average		1.299	1.299	0.000
Min		1.295	1.292	-0.011
Std Dev		0.002	0.004	0.004



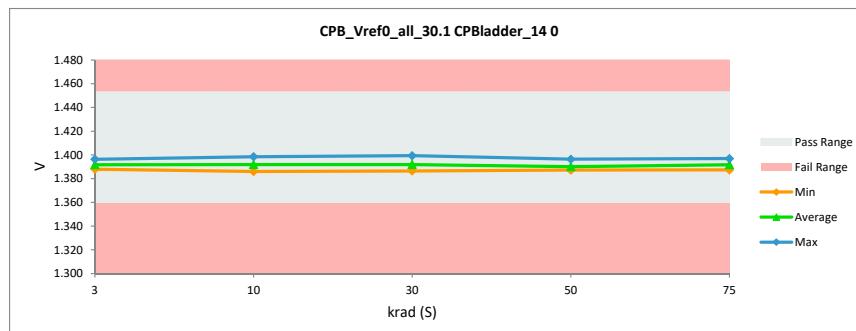
TID Report

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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.453125	1.453125		
Min Limit	1.359375	1.359375		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.389	1.391	-0.002
3	2	1.389	1.388	0.001
3	3	1.389	1.393	-0.004
3	4	1.389	1.396	-0.008
3	5	1.389	1.391	-0.002
10	11	1.389	1.392	-0.003
10	12	1.389	1.393	-0.004
10	13	1.389	1.398	-0.010
10	14	1.389	1.390	-0.001
10	15	1.389	1.386	0.003
30	21	1.389	1.391	-0.002
30	22	1.389	1.399	-0.011
30	23	1.389	1.386	0.002
30	24	1.389	1.390	-0.001
30	25	1.389	1.392	-0.004
50	31	1.391	1.387	0.004
50	32	1.391	1.389	0.002
50	33	1.391	1.396	-0.005
50	34	1.391	1.390	0.002
50	35	1.391	1.389	0.002
75	41	1.391	1.392	-0.001
75	42	1.391	1.393	-0.002
75	43	1.391	1.388	0.003
75	44	1.391	1.388	0.003
75	45	1.391	1.396	-0.004
75	46	1.391	1.396	-0.004
75	47	1.391	1.397	-0.006
75	48	1.391	1.397	-0.006
75	49	1.391	1.387	0.004
75	50	1.391	1.387	0.004
75	51	1.391	1.396	-0.005
75	52	1.391	1.396	-0.005
75	53	1.391	1.393	-0.002
75	54	1.391	1.393	-0.002
75	55	1.391	1.388	0.003
75	56	1.391	1.392	0.000
75	57	1.391	1.390	0.001
75	58	1.391	1.390	0.001
75	59	1.391	1.388	0.003
75	60	1.390	1.392	-0.002
75	61	1.391	1.393	-0.002
75	62	1.391	1.388	0.003
Max		1.391	1.399	0.004
Average		1.390	1.392	-0.001
Min		1.389	1.386	-0.011
Std Dev		0.001	0.004	0.004



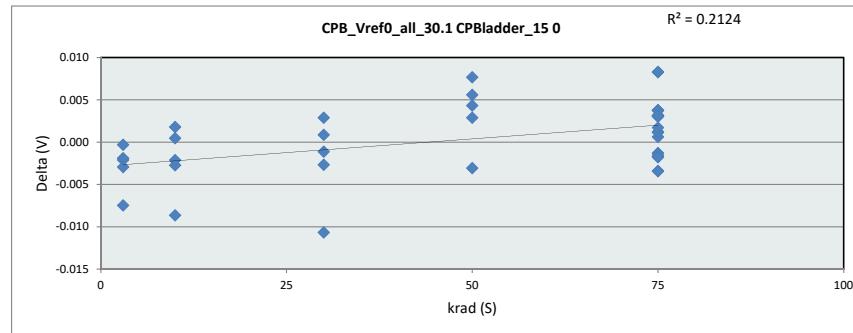
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.453125	V			
Min Limit	1.359375	V			
krad (S)	3	10	30	50	75
LL	1.359	1.359	1.359	1.359	1.359
Min	1.388	1.386	1.386	1.387	1.387
Average	1.392	1.392	1.392	1.390	1.392
Max	1.396	1.398	1.399	1.396	1.397
UL	1.453	1.453	1.453	1.453	1.453



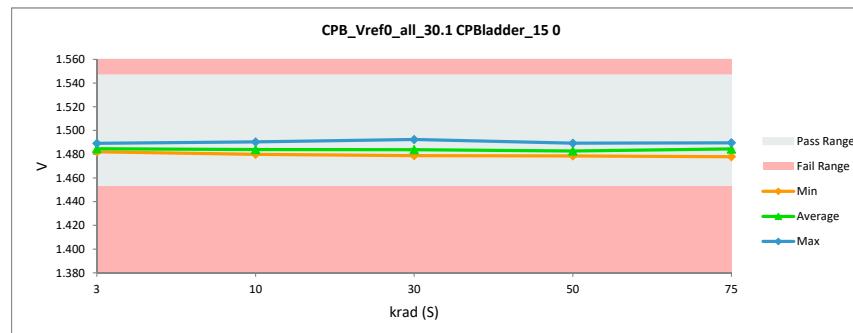
TID Report

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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.546875	1.546875		
Min Limit	1.453125	1.453125		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.482	1.484	-0.002
3	2	1.482	1.482	0.000
3	3	1.482	1.484	-0.002
3	4	1.482	1.489	-0.007
3	5	1.482	1.485	-0.003
10	11	1.482	1.484	-0.003
10	12	1.482	1.484	-0.002
10	13	1.482	1.490	-0.009
10	14	1.482	1.481	0.000
10	15	1.482	1.480	0.002
30	21	1.482	1.483	-0.001
30	22	1.482	1.492	-0.011
30	23	1.482	1.479	0.003
30	24	1.482	1.481	0.001
30	25	1.482	1.484	-0.003
50	31	1.486	1.481	0.006
50	32	1.486	1.479	0.008
50	33	1.486	1.489	-0.003
50	34	1.486	1.483	0.003
50	35	1.486	1.482	0.004
75	41	1.486	1.486	0.001
75	42	1.486	1.483	0.003
75	43	1.486	1.483	0.003
75	44	1.486	1.483	0.003
75	45	1.486	1.488	-0.001
75	46	1.486	1.488	-0.001
75	47	1.486	1.490	-0.003
75	48	1.486	1.490	-0.003
75	49	1.486	1.478	0.008
75	50	1.486	1.478	0.008
75	51	1.486	1.488	-0.002
75	52	1.486	1.488	-0.002
75	53	1.486	1.485	0.001
75	54	1.486	1.485	0.001
75	55	1.486	1.482	0.004
75	56	1.486	1.485	0.002
75	57	1.486	1.482	0.004
75	58	1.486	1.482	0.004
75	59	1.486	1.483	0.003
75	60	1.484	1.486	-0.002
75	61	1.486	1.483	0.003
75	62	1.486	1.483	0.003
Max		1.486	1.492	0.008
Average		1.485	1.484	0.000
Min		1.482	1.478	-0.011
Std Dev		0.002	0.003	0.004



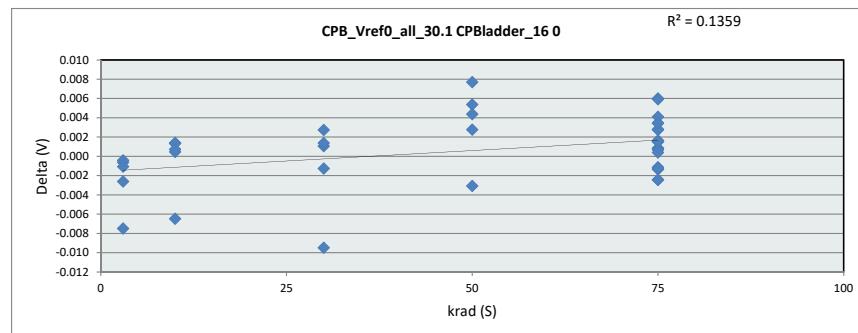
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800				
Max Limit	1.546875	V			
Min Limit	1.453125	V			
krad (S)	3	10	30	50	75
LL	1.453	1.453	1.453	1.453	1.453
Min	1.482	1.480	1.479	1.479	1.478
Average	1.485	1.484	1.484	1.483	1.484
Max	1.489	1.490	1.492	1.489	1.490
UL	1.547	1.547	1.547	1.547	1.547



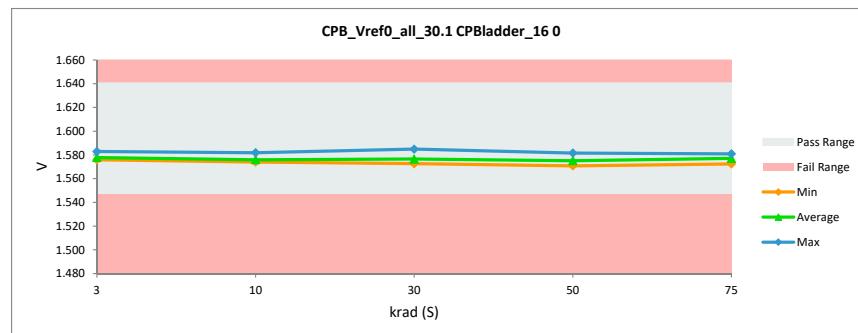
TID Report

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CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.640625	1.640625		
Min Limit	1.546875	1.546875		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.575	1.578	-0.003
3	2	1.575	1.576	-0.001
3	3	1.575	1.576	0.000
3	4	1.575	1.583	-0.007
3	5	1.575	1.576	-0.001
10	11	1.575	1.575	0.000
10	12	1.575	1.574	0.001
10	13	1.575	1.582	-0.006
10	14	1.575	1.574	0.001
10	15	1.575	1.575	0.001
30	21	1.575	1.574	0.001
30	22	1.575	1.585	-0.009
30	23	1.575	1.573	0.003
30	24	1.575	1.574	0.001
30	25	1.575	1.577	-0.001
50	31	1.579	1.573	0.005
50	32	1.579	1.571	0.008
50	33	1.579	1.582	-0.003
50	34	1.579	1.576	0.003
50	35	1.579	1.574	0.004
75	41	1.578	1.577	0.002
75	42	1.579	1.575	0.003
75	43	1.579	1.577	0.002
75	44	1.579	1.577	0.002
75	45	1.578	1.580	-0.001
75	46	1.578	1.580	-0.001
75	47	1.579	1.580	-0.001
75	48	1.578	1.580	-0.001
75	49	1.578	1.572	0.006
75	50	1.578	1.573	0.006
75	51	1.578	1.581	-0.002
75	52	1.578	1.581	-0.002
75	53	1.578	1.578	0.001
75	54	1.579	1.578	0.001
75	55	1.579	1.574	0.004
75	56	1.579	1.578	0.001
75	57	1.578	1.576	0.003
75	58	1.578	1.576	0.003
75	59	1.578	1.577	0.002
75	60	1.577	1.577	0.000
75	61	1.579	1.575	0.003
75	62	1.579	1.577	0.002
Max		1.579	1.585	0.008
Average		1.577	1.577	0.001
Min		1.575	1.571	-0.009
Std Dev		0.001	0.003	0.003



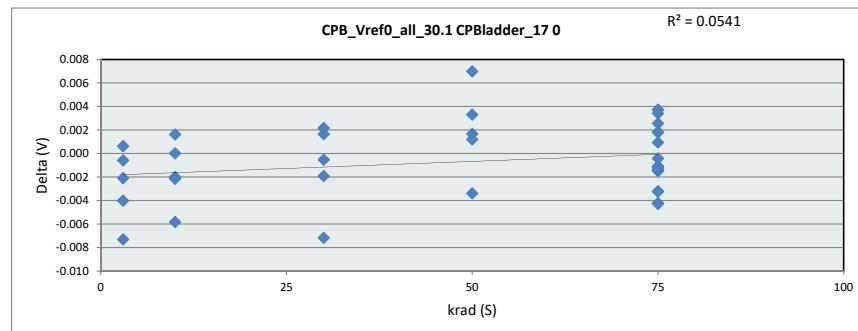
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.640625	V			
Min Limit	1.546875	V			
krad (S)	3	10	30	50	75
LL	1.547	1.547	1.547	1.547	1.547
Min	1.576	1.574	1.573	1.571	1.572
Average	1.578	1.576	1.577	1.575	1.577
Max	1.583	1.582	1.585	1.582	1.581
UL	1.641	1.641	1.641	1.641	1.641



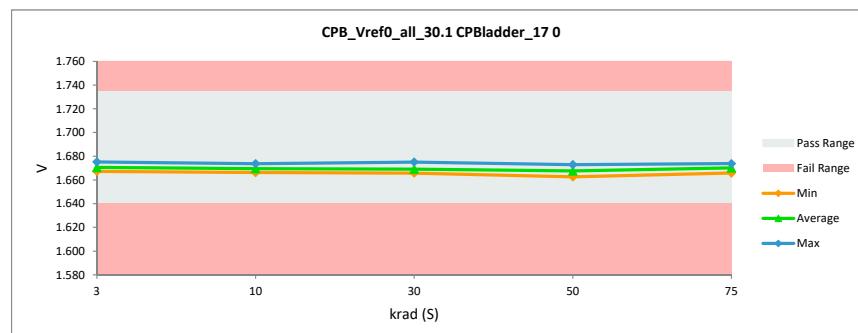
TID Report

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CPB_Vref0_all_30.1 CPBladder_17				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.734375	1.734375		
Min Limit	1.640625	1.640625		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.668	1.672	-0.004
3	2	1.668	1.668	-0.001
3	3	1.668	1.667	0.001
3	4	1.668	1.675	-0.007
3	5	1.668	1.670	-0.002
10	11	1.668	1.670	-0.002
10	12	1.668	1.668	0.000
10	13	1.668	1.674	-0.006
10	14	1.668	1.666	0.002
10	15	1.668	1.670	-0.002
30	21	1.668	1.668	-0.001
30	22	1.668	1.675	-0.007
30	23	1.668	1.666	0.002
30	24	1.668	1.666	0.002
30	25	1.668	1.670	-0.002
50	31	1.669	1.668	0.002
50	32	1.670	1.663	0.007
50	33	1.670	1.673	-0.003
50	34	1.670	1.668	0.001
50	35	1.670	1.666	0.003
75	41	1.670	1.669	0.001
75	42	1.670	1.668	0.002
75	43	1.670	1.671	-0.001
75	44	1.670	1.671	-0.001
75	45	1.670	1.673	-0.003
75	46	1.670	1.673	-0.003
75	47	1.670	1.674	-0.004
75	48	1.670	1.674	-0.004
75	49	1.670	1.666	0.004
75	50	1.670	1.666	0.004
75	51	1.670	1.671	-0.001
75	52	1.669	1.671	-0.001
75	53	1.669	1.671	-0.001
75	54	1.670	1.671	-0.001
75	55	1.670	1.667	0.003
75	56	1.670	1.670	0.000
75	57	1.670	1.671	-0.001
75	58	1.670	1.671	-0.001
75	59	1.670	1.671	-0.001
75	60	1.672	1.669	0.003
75	61	1.670	1.668	0.002
75	62	1.670	1.671	-0.001
Max		1.672	1.675	0.007
Average		1.669	1.670	-0.001
Min		1.668	1.663	-0.007
Std Dev		0.001	0.003	0.003



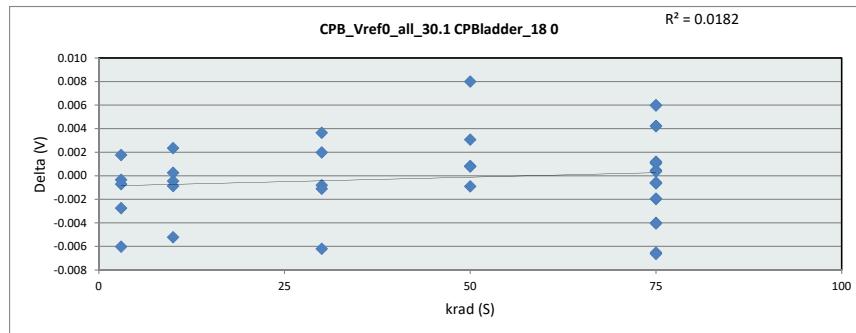
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	1.734375	V			
Min Limit	1.640625	V			
krad (S)	3	10	30	50	75
LL	1.641	1.641	1.641	1.641	1.641
Min	1.667	1.666	1.666	1.663	1.666
Average	1.671	1.670	1.669	1.668	1.670
Max	1.675	1.674	1.675	1.673	1.674
UL	1.734	1.734	1.734	1.734	1.734



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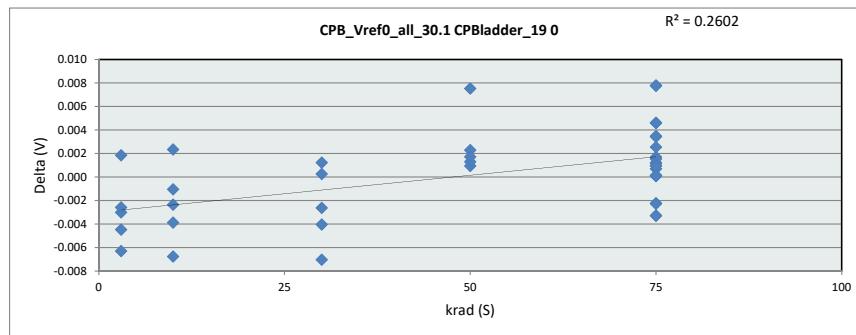
CPB_Vref0_all_30.1 CPBladder_1				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.828125	1.828125		
Min Limit	1.734375	1.734375		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.762	1.764	-0.003
3	2	1.762	1.762	0.000
3	3	1.762	1.760	0.002
3	4	1.762	1.768	-0.006
3	5	1.762	1.762	-0.001
10	11	1.761	1.762	0.000
10	12	1.762	1.761	0.000
10	13	1.762	1.767	-0.005
10	14	1.762	1.759	0.002
10	15	1.762	1.762	-0.001
30	21	1.762	1.762	-0.001
30	22	1.762	1.768	-0.006
30	23	1.762	1.760	0.002
30	24	1.762	1.758	0.004
30	25	1.762	1.763	-0.001
50	31	1.763	1.762	0.001
50	32	1.763	1.755	0.008
50	33	1.763	1.764	-0.001
50	34	1.763	1.762	0.001
50	35	1.763	1.760	0.003
75	41	1.763	1.763	-0.001
75	42	1.763	1.759	0.004
75	43	1.763	1.763	-0.001
75	44	1.763	1.763	-0.001
75	45	1.763	1.767	-0.004
75	46	1.763	1.767	-0.004
75	47	1.763	1.769	-0.007
75	48	1.763	1.769	-0.007
75	49	1.763	1.757	0.006
75	50	1.763	1.757	0.006
75	51	1.763	1.765	-0.002
75	52	1.763	1.765	-0.002
75	53	1.763	1.762	0.001
75	54	1.763	1.762	0.001
75	55	1.763	1.762	0.001
75	56	1.763	1.762	0.000
75	57	1.763	1.762	0.000
75	58	1.763	1.762	0.000
75	59	1.763	1.763	-0.001
75	60	1.764	1.763	0.001
75	61	1.763	1.759	0.004
75	62	1.763	1.763	-0.001
Max		1.764	1.769	0.008
Average		1.762	1.762	0.000
Min		1.761	1.755	-0.007
Std Dev		0.001	0.003	0.003



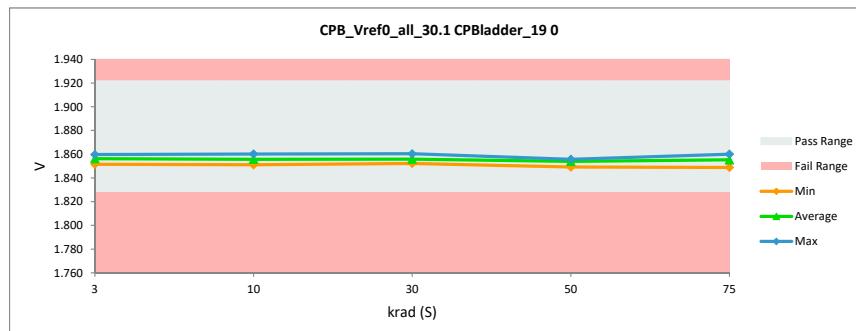
TID Report

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CPB_Vref0_all_30.1 CPBladder_19				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	1.921875	1.921875		
Min Limit	1.828125	1.828125		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.853	1.858	-0.004
3	2	1.853	1.856	-0.003
3	3	1.853	1.852	0.002
3	4	1.853	1.860	-0.006
3	5	1.853	1.856	-0.003
10	11	1.853	1.854	-0.001
10	12	1.853	1.857	-0.004
10	13	1.853	1.860	-0.007
10	14	1.853	1.851	0.002
10	15	1.853	1.856	-0.002
30	21	1.853	1.857	-0.004
30	22	1.853	1.860	-0.007
30	23	1.853	1.853	0.000
30	24	1.853	1.852	0.001
30	25	1.853	1.856	-0.003
50	31	1.857	1.854	0.002
50	32	1.857	1.849	0.008
50	33	1.857	1.856	0.001
50	34	1.857	1.855	0.001
50	35	1.857	1.855	0.002
75	41	1.857	1.856	0.001
75	42	1.857	1.853	0.003
75	43	1.857	1.857	0.000
75	44	1.857	1.857	0.000
75	45	1.857	1.859	-0.002
75	46	1.857	1.859	-0.002
75	47	1.857	1.860	-0.003
75	48	1.857	1.860	-0.003
75	49	1.857	1.849	0.008
75	50	1.857	1.849	0.008
75	51	1.857	1.855	0.002
75	52	1.857	1.855	0.002
75	53	1.857	1.852	0.005
75	54	1.857	1.852	0.005
75	55	1.857	1.854	0.003
75	56	1.857	1.856	0.001
75	57	1.857	1.855	0.001
75	58	1.857	1.856	0.001
75	59	1.857	1.857	0.000
75	60	1.857	1.856	0.001
75	61	1.857	1.853	0.003
75	62	1.857	1.857	0.000
Max		1.857	1.860	0.008
Average		1.856	1.855	0.000
Min		1.853	1.849	-0.007
Std Dev		0.002	0.003	0.004



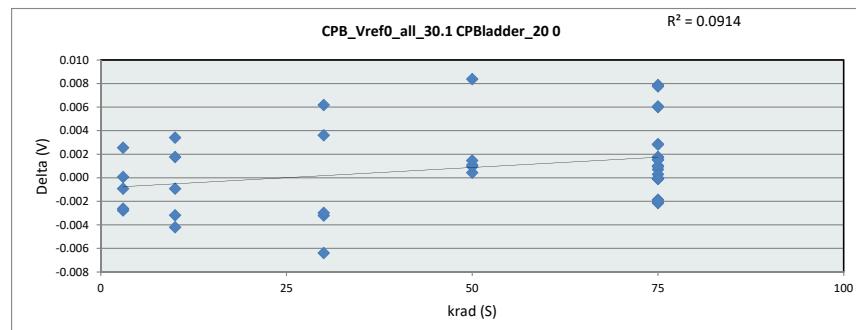
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	1.921875	V	V	V	V
Min Limit	1.828125	V	V	V	V
krad (S)	3	10	30	50	75
LL	1.828	1.828	1.828	1.828	1.828
Min	1.852	1.851	1.852	1.849	1.849
Average	1.856	1.856	1.856	1.854	1.855
Max	1.860	1.860	1.860	1.856	1.860
UL	1.922	1.922	1.922	1.922	1.922



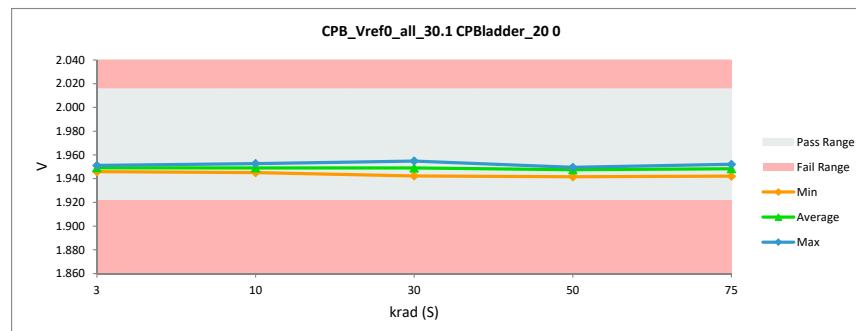
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.015625	2.015625		
Min Limit	1.921875	1.921875		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1.948	1.949	-0.001
3	2	1.948	1.951	-0.003
3	3	1.948	1.946	0.003
3	4	1.948	1.951	-0.003
3	5	1.948	1.948	0.000
10	11	1.948	1.947	0.002
10	12	1.948	1.949	-0.001
10	13	1.948	1.953	-0.004
10	14	1.948	1.945	0.003
10	15	1.948	1.952	-0.003
30	21	1.948	1.952	-0.003
30	22	1.948	1.955	-0.006
30	23	1.948	1.945	0.004
30	24	1.948	1.942	0.006
30	25	1.948	1.951	-0.003
50	31	1.950	1.950	0.000
50	32	1.950	1.942	0.008
50	33	1.950	1.949	0.001
50	34	1.950	1.949	0.001
50	35	1.950	1.949	0.001
75	41	1.950	1.949	0.001
75	42	1.950	1.948	0.002
75	43	1.950	1.950	0.000
75	44	1.950	1.950	0.000
75	45	1.950	1.952	-0.002
75	46	1.950	1.952	-0.002
75	47	1.950	1.952	-0.002
75	48	1.950	1.952	-0.002
75	49	1.950	1.942	0.008
75	50	1.950	1.942	0.008
75	51	1.950	1.947	0.003
75	52	1.950	1.947	0.003
75	53	1.950	1.944	0.006
75	54	1.950	1.944	0.006
75	55	1.950	1.949	0.001
75	56	1.950	1.949	0.001
75	57	1.950	1.948	0.002
75	58	1.950	1.948	0.002
75	59	1.950	1.950	0.000
75	60	1.950	1.949	0.000
75	61	1.950	1.948	0.002
75	62	1.950	1.950	0.000
Max		1.950	1.955	0.008
Average		1.949	1.949	0.001
Min		1.948	1.942	-0.006
Std Dev		0.001	0.003	0.003



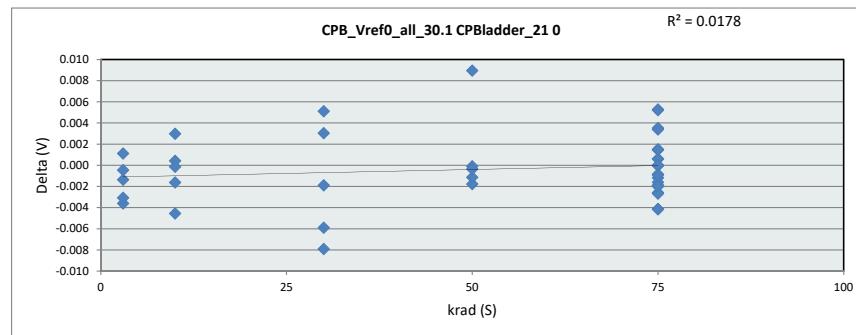
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.015625	V			
Min Limit	1.921875	V			
krad (S)	3	10	30	50	75
LL	1.922	1.922	1.922	1.922	1.922
Min	1.946	1.945	1.942	1.942	1.942
Average	1.949	1.949	1.949	1.947	1.948
Max	1.951	1.953	1.955	1.950	1.952
UL	2.016	2.016	2.016	2.016	2.016



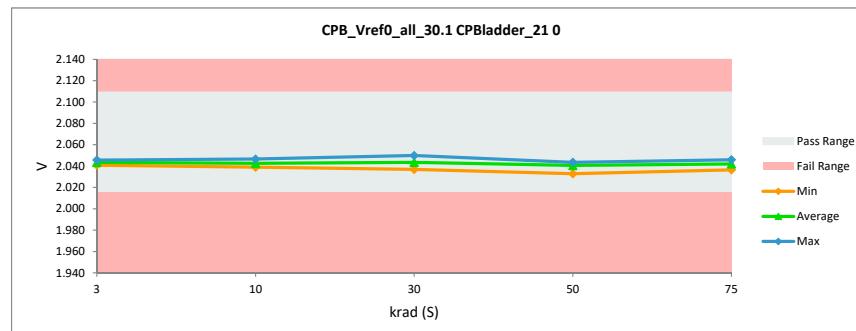
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.109375	2.109375		
Min Limit	2.015625	2.015625		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.042	2.042	0.000
3	2	2.042	2.046	-0.004
3	3	2.042	2.041	0.001
3	4	2.042	2.045	-0.003
3	5	2.042	2.043	-0.001
10	11	2.042	2.042	0.000
10	12	2.042	2.042	0.000
10	13	2.042	2.047	-0.005
10	14	2.042	2.039	0.003
10	15	2.042	2.044	-0.002
30	21	2.042	2.048	-0.006
30	22	2.042	2.050	-0.008
30	23	2.042	2.039	0.003
30	24	2.042	2.037	0.005
30	25	2.042	2.044	-0.002
50	31	2.042	2.044	-0.002
50	32	2.042	2.033	0.009
50	33	2.042	2.043	-0.001
50	34	2.042	2.042	0.000
50	35	2.042	2.042	0.000
75	41	2.042	2.043	-0.002
75	42	2.042	2.043	-0.001
75	43	2.042	2.044	-0.002
75	44	2.042	2.044	-0.002
75	45	2.042	2.044	-0.003
75	46	2.042	2.044	-0.003
75	47	2.042	2.046	-0.004
75	48	2.042	2.046	-0.004
75	49	2.042	2.036	0.005
75	50	2.042	2.037	0.005
75	51	2.042	2.041	0.001
75	52	2.042	2.041	0.001
75	53	2.042	2.038	0.004
75	54	2.042	2.038	0.003
75	55	2.042	2.043	-0.001
75	56	2.042	2.042	0.000
75	57	2.042	2.040	0.002
75	58	2.042	2.040	0.001
75	59	2.042	2.044	-0.002
75	60	2.043	2.043	0.000
75	61	2.042	2.043	-0.001
75	62	2.042	2.044	-0.002
Max		2.043	2.050	0.009
Average		2.042	2.042	0.000
Min		2.042	2.033	-0.008
Std Dev		0.000	0.003	0.003



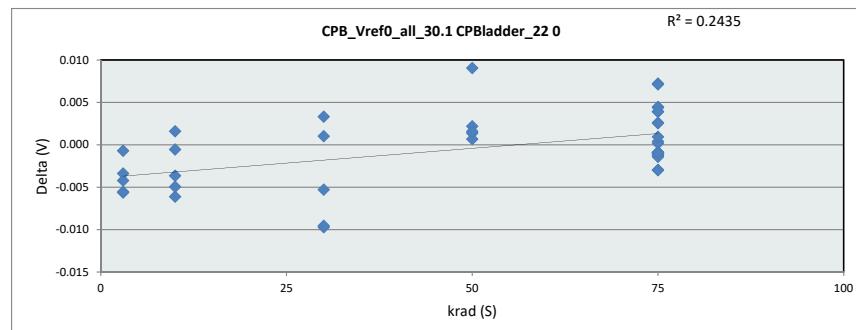
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	2.109375	V	V	V	V
Min Limit	2.015625	V	V	V	V
krad (S)	3	10	30	50	75
LL	2.016	2.016	2.016	2.016	2.016
Min	2.041	2.039	2.037	2.033	2.036
Average	2.043	2.043	2.043	2.041	2.042
Max	2.046	2.047	2.050	2.044	2.046
UL	2.109	2.109	2.109	2.109	2.109



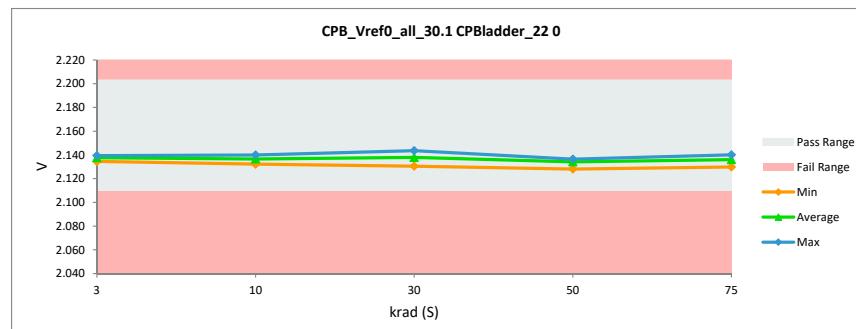
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.203125	2.203125		
Min Limit	2.109375	2.109375		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.134	2.138	-0.004
3	2	2.134	2.139	-0.006
3	3	2.134	2.134	-0.001
3	4	2.134	2.139	-0.006
3	5	2.134	2.137	-0.003
10	11	2.134	2.134	-0.001
10	12	2.134	2.137	-0.004
10	13	2.134	2.140	-0.006
10	14	2.134	2.132	0.002
10	15	2.134	2.139	-0.005
30	21	2.134	2.144	-0.010
30	22	2.134	2.143	-0.010
30	23	2.134	2.133	0.001
30	24	2.134	2.131	0.003
30	25	2.134	2.139	-0.005
50	31	2.137	2.136	0.001
50	32	2.137	2.128	0.009
50	33	2.137	2.135	0.002
50	34	2.137	2.136	0.001
50	35	2.137	2.136	0.002
75	41	2.137	2.137	0.000
75	42	2.137	2.138	-0.001
75	43	2.137	2.138	-0.001
75	44	2.137	2.138	-0.001
75	45	2.137	2.140	-0.003
75	46	2.137	2.140	-0.003
75	47	2.137	2.138	-0.001
75	48	2.137	2.138	-0.001
75	49	2.137	2.130	0.007
75	50	2.137	2.130	0.007
75	51	2.137	2.135	0.003
75	52	2.137	2.135	0.003
75	53	2.137	2.133	0.004
75	54	2.137	2.133	0.004
75	55	2.137	2.137	0.000
75	56	2.137	2.136	0.001
75	57	2.137	2.133	0.004
75	58	2.137	2.133	0.004
75	59	2.137	2.138	-0.001
75	60	2.135	2.137	-0.001
75	61	2.137	2.138	-0.001
75	62	2.137	2.138	-0.001
Max		2.137	2.144	0.009
Average		2.136	2.136	0.000
Min		2.134	2.128	-0.010
Std Dev		0.002	0.003	0.004



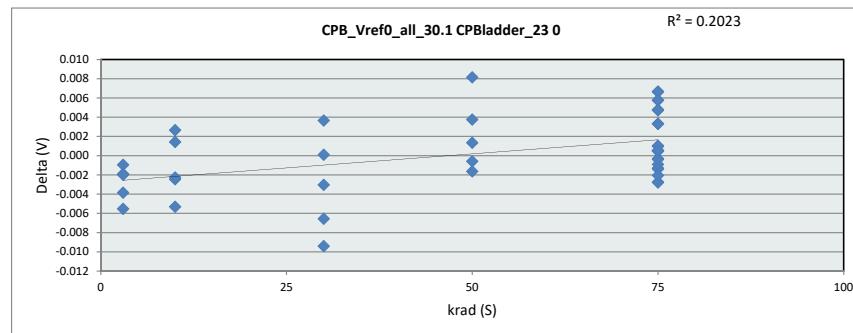
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB			
Tester	J750EX	J750EX			
Test Number	JP07800	JP07800			
Max Limit	2.203125	V			
Min Limit	2.109375	V			
krad (S)	3	10	30	50	75
LL	2.109	2.109	2.109	2.109	2.109
Min	2.134	2.132	2.131	2.128	2.130
Average	2.138	2.137	2.138	2.134	2.136
Max	2.139	2.140	2.144	2.136	2.140
UL	2.203	2.203	2.203	2.203	2.203



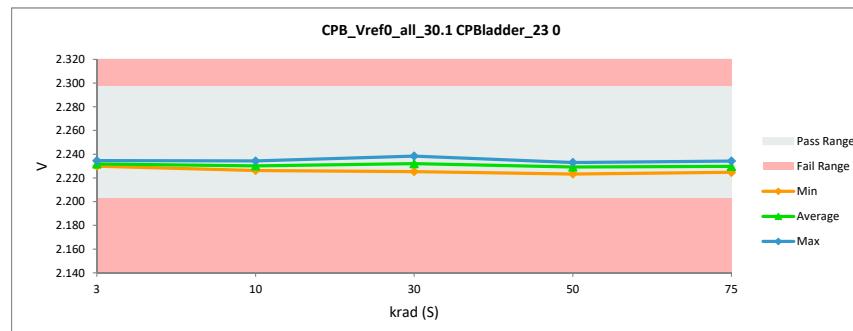
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.296875	2.296875		
Min Limit	2.203125	2.203125		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.229	2.231	-0.002
3	2	2.229	2.233	-0.004
3	3	2.229	2.230	-0.001
3	4	2.229	2.235	-0.006
3	5	2.229	2.231	-0.002
10	11	2.229	2.228	0.001
10	12	2.229	2.231	-0.002
10	13	2.229	2.234	-0.005
10	14	2.229	2.226	0.003
10	15	2.229	2.231	-0.002
30	21	2.229	2.238	-0.009
30	22	2.229	2.236	-0.007
30	23	2.229	2.229	0.000
30	24	2.229	2.225	0.004
30	25	2.229	2.232	-0.003
50	31	2.231	2.233	-0.002
50	32	2.231	2.223	0.008
50	33	2.231	2.228	0.004
50	34	2.231	2.232	-0.001
50	35	2.231	2.230	0.001
75	41	2.231	2.230	0.001
75	42	2.231	2.232	0.000
75	43	2.231	2.231	0.001
75	44	2.231	2.231	0.000
75	45	2.231	2.234	-0.003
75	46	2.231	2.234	-0.003
75	47	2.231	2.233	-0.001
75	48	2.231	2.233	-0.001
75	49	2.231	2.225	0.007
75	50	2.231	2.225	0.007
75	51	2.231	2.228	0.003
75	52	2.231	2.228	0.003
75	53	2.231	2.226	0.006
75	54	2.231	2.226	0.006
75	55	2.232	2.232	-0.001
75	56	2.231	2.230	0.001
75	57	2.231	2.227	0.005
75	58	2.231	2.227	0.005
75	59	2.231	2.231	0.001
75	60	2.228	2.230	-0.002
75	61	2.231	2.232	0.000
75	62	2.231	2.231	0.001
Max		2.232	2.238	0.006
Average		2.230	2.230	0.000
Min		2.228	2.223	-0.009
Std Dev		0.001	0.003	0.004



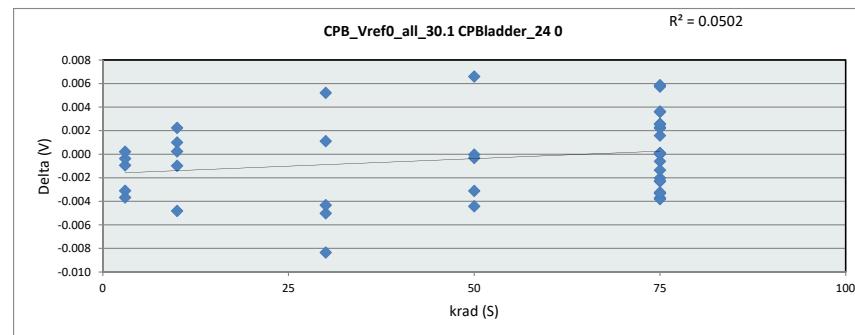
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	2.296875	V	V	V	V
Min Limit	2.203125	V	V	V	V
krad (S)	3	10	30	50	75
LL	2.203	2.203	2.203	2.203	2.203
Min	2.230	2.226	2.225	2.223	2.225
Average	2.232	2.230	2.232	2.229	2.230
Max	2.235	2.234	2.238	2.233	2.234
UL	2.297	2.297	2.297	2.297	2.297



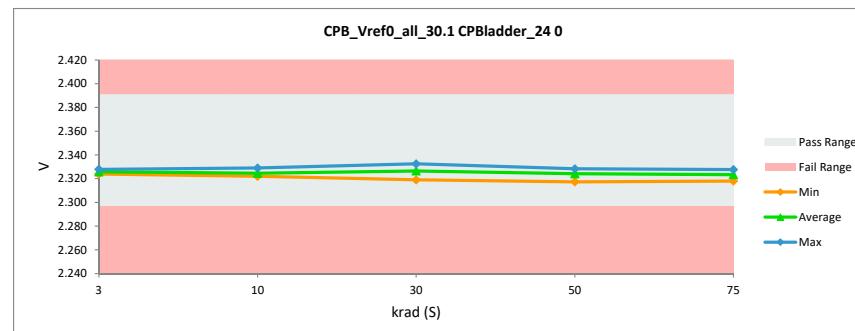
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.390625	2.390625		
Min Limit	2.296875	2.296875		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.324	2.325	-0.001
3	2	2.324	2.325	0.000
3	3	2.324	2.324	0.000
3	4	2.324	2.328	-0.004
3	5	2.324	2.327	-0.003
10	11	2.324	2.323	0.001
10	12	2.324	2.325	-0.001
10	13	2.324	2.329	-0.005
10	14	2.324	2.322	0.002
10	15	2.324	2.324	0.000
30	21	2.324	2.333	-0.008
30	22	2.324	2.329	-0.005
30	23	2.324	2.323	0.001
30	24	2.324	2.319	0.005
30	25	2.324	2.329	-0.004
50	31	2.324	2.328	-0.004
50	32	2.324	2.317	0.007
50	33	2.324	2.324	0.000
50	34	2.324	2.327	-0.003
50	35	2.324	2.324	0.000
75	41	2.324	2.322	0.002
75	42	2.324	2.326	-0.002
75	43	2.324	2.324	0.000
75	44	2.324	2.324	0.000
75	45	2.324	2.328	-0.004
75	46	2.324	2.328	-0.004
75	47	2.324	2.327	-0.003
75	48	2.324	2.327	-0.003
75	49	2.324	2.318	0.006
75	50	2.324	2.318	0.006
75	51	2.324	2.322	0.002
75	52	2.324	2.322	0.002
75	53	2.324	2.320	0.004
75	54	2.324	2.320	0.004
75	55	2.324	2.324	-0.001
75	56	2.324	2.326	-0.002
75	57	2.324	2.321	0.003
75	58	2.324	2.321	0.003
75	59	2.324	2.324	0.000
75	60	2.321	2.322	-0.001
75	61	2.324	2.326	-0.002
75	62	2.324	2.324	0.000
Max	2.324	2.333	0.007	
Average	2.324	2.324	0.000	
Min	2.321	2.317	-0.008	
Std Dev	0.001	0.003	0.003	



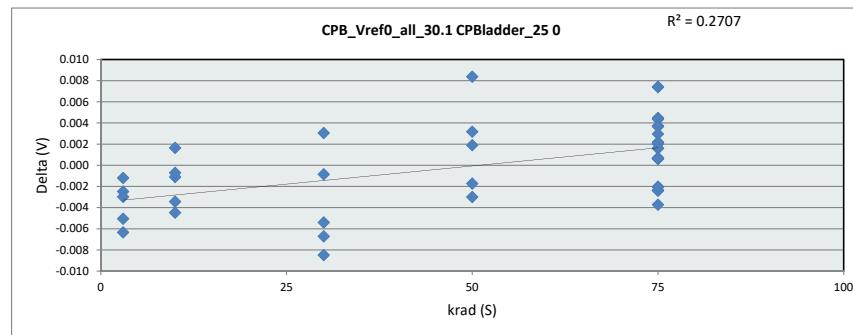
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.390625	V			
Min Limit	2.296875	V			
krad (S)	3	10	30	50	75
LL	2.297	2.297	2.297	2.297	2.297
Min	2.324	2.322	2.319	2.317	2.318
Average	2.326	2.325	2.326	2.324	2.323
Max	2.328	2.329	2.333	2.328	2.328
UL	2.391	2.391	2.391	2.391	2.391



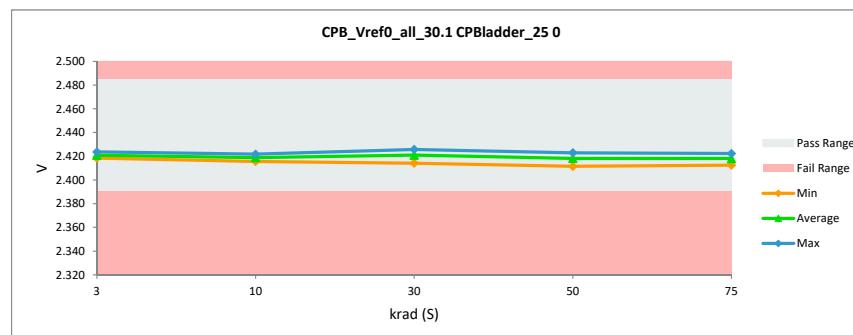
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.484375	2.484375		
Min Limit	2.390625	2.390625		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.417	2.420	-0.002
3	2	2.417	2.420	-0.003
3	3	2.417	2.418	-0.001
3	4	2.417	2.424	-0.006
3	5	2.417	2.422	-0.005
10	11	2.417	2.418	-0.001
10	12	2.417	2.421	-0.003
10	13	2.417	2.422	-0.004
10	14	2.417	2.416	0.002
10	15	2.417	2.418	-0.001
30	21	2.417	2.426	-0.008
30	22	2.417	2.424	-0.007
30	23	2.417	2.418	-0.001
30	24	2.417	2.414	0.003
30	25	2.417	2.423	-0.005
50	31	2.420	2.423	-0.003
50	32	2.420	2.411	0.008
50	33	2.420	2.417	0.003
50	34	2.420	2.422	-0.002
50	35	2.420	2.418	0.002
75	41	2.420	2.418	0.002
75	42	2.420	2.418	0.002
75	43	2.420	2.419	0.001
75	44	2.420	2.419	0.001
75	45	2.420	2.422	-0.002
75	46	2.420	2.422	-0.002
75	47	2.420	2.422	-0.002
75	48	2.420	2.422	-0.002
75	49	2.420	2.412	0.007
75	50	2.420	2.412	0.007
75	51	2.420	2.415	0.004
75	52	2.420	2.416	0.004
75	53	2.420	2.416	0.004
75	54	2.420	2.416	0.004
75	55	2.420	2.417	0.003
75	56	2.420	2.419	0.001
75	57	2.420	2.418	0.002
75	58	2.420	2.418	0.002
75	59	2.420	2.419	0.001
75	60	2.414	2.418	-0.004
75	61	2.420	2.418	0.002
75	62	2.420	2.419	0.001
Max		2.420	2.426	0.008
Average		2.419	2.419	0.000
Min		2.414	2.411	-0.008
Std Dev		0.001	0.003	0.004



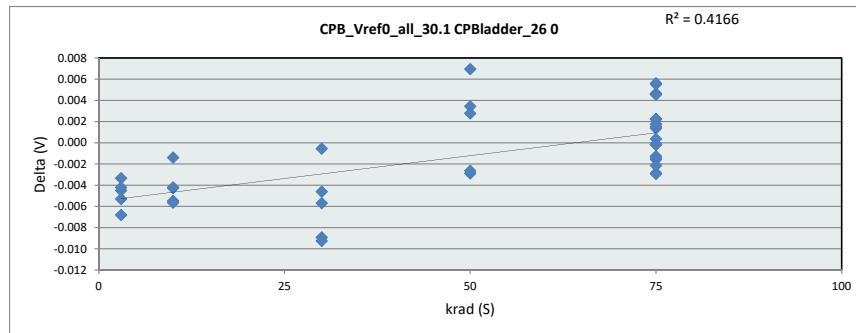
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	2.484375	V	V	V	V
Min Limit	2.390625	V	V	V	V
krad (S)	3	10	30	50	75
LL	2.391	2.391	2.391	2.391	2.391
Min	2.418	2.416	2.414	2.411	2.412
Average	2.421	2.419	2.421	2.418	2.418
Max	2.424	2.422	2.426	2.423	2.422
UL	2.484	2.484	2.484	2.484	2.484



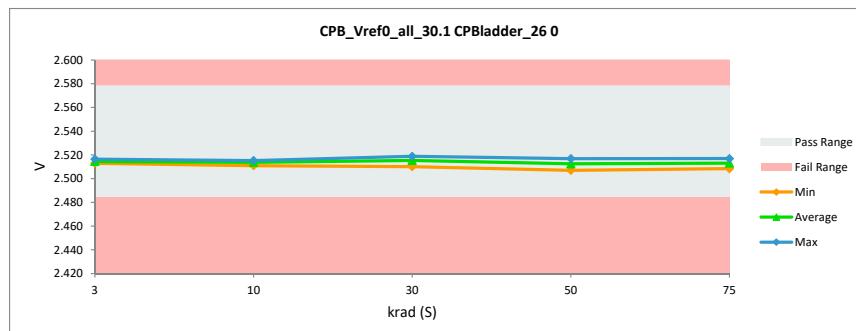
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.578125	2.578125		
Min Limit	2.484375	2.484375		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.510	2.514	-0.004
3	2	2.510	2.514	-0.004
3	3	2.510	2.513	-0.003
3	4	2.510	2.516	-0.007
3	5	2.510	2.515	-0.005
10	11	2.510	2.514	-0.004
10	12	2.510	2.515	-0.005
10	13	2.510	2.515	-0.006
10	14	2.510	2.511	-0.001
10	15	2.510	2.514	-0.004
30	21	2.510	2.519	-0.009
30	22	2.510	2.519	-0.009
30	23	2.510	2.514	-0.005
30	24	2.510	2.510	-0.001
30	25	2.510	2.515	-0.006
50	31	2.514	2.517	-0.003
50	32	2.514	2.507	0.007
50	33	2.514	2.511	0.003
50	34	2.514	2.517	-0.003
50	35	2.514	2.511	0.003
75	41	2.514	2.513	0.001
75	42	2.514	2.512	0.002
75	43	2.514	2.514	0.000
75	44	2.514	2.514	0.000
75	45	2.514	2.515	-0.002
75	46	2.514	2.516	-0.002
75	47	2.514	2.517	-0.003
75	48	2.514	2.517	-0.003
75	49	2.514	2.508	0.006
75	50	2.514	2.508	0.006
75	51	2.514	2.509	0.005
75	52	2.514	2.509	0.005
75	53	2.514	2.512	0.001
75	54	2.514	2.512	0.002
75	55	2.514	2.512	0.002
75	56	2.514	2.514	0.000
75	57	2.514	2.515	-0.001
75	58	2.514	2.515	-0.001
75	59	2.514	2.514	0.000
75	60	2.510	2.513	-0.002
75	61	2.514	2.512	0.002
75	62	2.514	2.514	0.000
Max		2.514	2.519	0.007
Average		2.512	2.514	-0.001
Min		2.510	2.507	-0.009
Std Dev		0.002	0.003	0.004



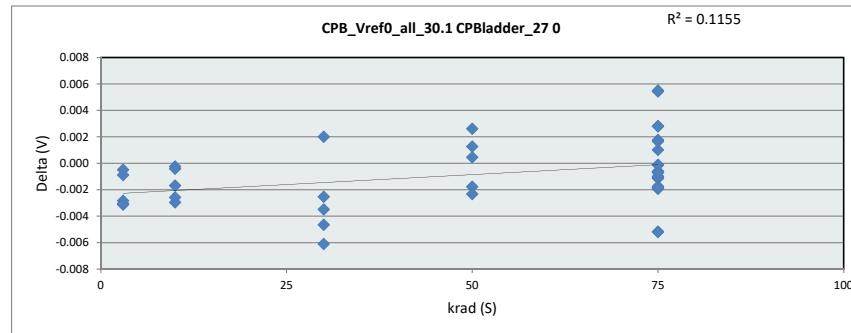
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.578125	V			
Min Limit	2.484375	V			
krad (S)	3	10	30	50	75
LL	2.484	2.484	2.484	2.484	2.484
Min	2.513	2.511	2.510	2.507	2.508
Average	2.514	2.514	2.515	2.512	2.513
Max	2.516	2.515	2.519	2.517	2.517
UL	2.578	2.578	2.578	2.578	2.578



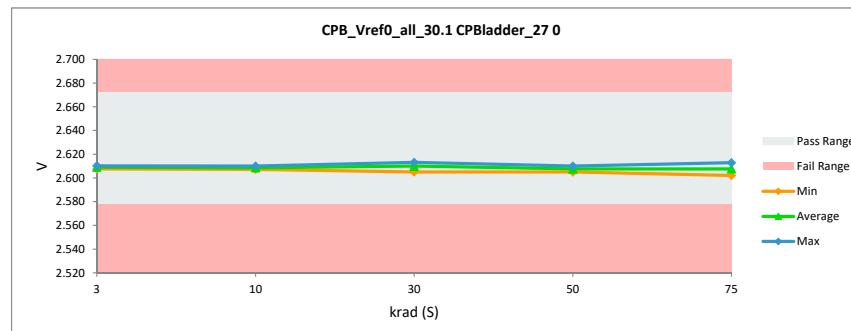
TID Report

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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.671875	2.671875		
Min Limit	2.578125	2.578125		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.607	2.610	-0.003
3	2	2.607	2.608	-0.001
3	3	2.607	2.608	0.000
3	4	2.607	2.610	-0.003
3	5	2.607	2.610	-0.003
10	11	2.607	2.610	-0.003
10	12	2.607	2.609	-0.002
10	13	2.607	2.610	-0.003
10	14	2.607	2.607	0.000
10	15	2.607	2.607	0.000
30	21	2.607	2.613	-0.006
30	22	2.607	2.612	-0.005
30	23	2.607	2.610	-0.003
30	24	2.607	2.605	0.002
30	25	2.607	2.611	-0.003
50	31	2.608	2.609	-0.002
50	32	2.608	2.605	0.003
50	33	2.608	2.606	0.001
50	34	2.608	2.610	-0.002
50	35	2.608	2.607	0.000
75	41	2.608	2.607	0.001
75	42	2.608	2.608	0.000
75	43	2.608	2.608	-0.001
75	44	2.608	2.608	-0.001
75	45	2.608	2.609	-0.002
75	46	2.608	2.609	-0.002
75	47	2.608	2.613	-0.005
75	48	2.608	2.613	-0.005
75	49	2.608	2.602	0.005
75	50	2.608	2.602	0.006
75	51	2.608	2.605	0.003
75	52	2.608	2.605	0.003
75	53	2.608	2.606	0.002
75	54	2.608	2.606	0.002
75	55	2.608	2.609	-0.002
75	56	2.608	2.609	-0.002
75	57	2.608	2.609	-0.001
75	58	2.608	2.609	-0.001
75	59	2.608	2.608	-0.001
75	60	2.606	2.607	-0.001
75	61	2.608	2.608	0.000
75	62	2.608	2.608	-0.001
Max		2.608	2.613	0.006
Average		2.607	2.608	-0.001
Min		2.606	2.602	-0.006
Std Dev		0.000	0.002	0.003



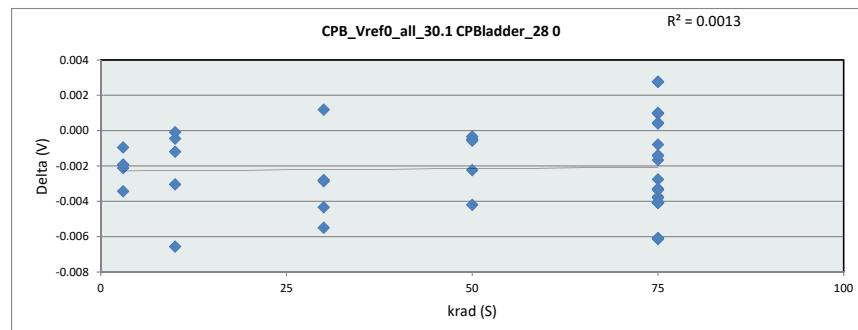
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.671875	V			
Min Limit	2.578125	V			
krad (S)	3	10	30	50	75
LL	2.578	2.578	2.578	2.578	2.578
Min	2.608	2.607	2.605	2.605	2.602
Average	2.609	2.609	2.610	2.608	2.608
Max	2.610	2.610	2.613	2.610	2.613
UL	2.672	2.672	2.672	2.672	2.672



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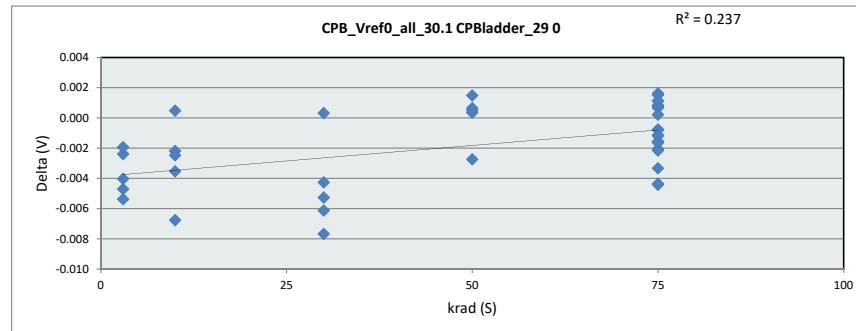
CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.765625	2.765625		
Min Limit	2.671875	2.671875		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.702	2.706	-0.003
3	2	2.702	2.704	-0.002
3	3	2.702	2.703	-0.001
3	4	2.702	2.704	-0.002
3	5	2.702	2.704	-0.002
10	11	2.702	2.709	-0.007
10	12	2.702	2.705	-0.003
10	13	2.702	2.703	0.000
10	14	2.702	2.704	-0.001
10	15	2.702	2.702	0.000
30	21	2.702	2.707	-0.004
30	22	2.702	2.708	-0.005
30	23	2.702	2.705	-0.003
30	24	2.702	2.701	0.001
30	25	2.702	2.705	-0.003
50	31	2.701	2.704	-0.002
50	32	2.701	2.702	0.000
50	33	2.701	2.702	0.000
50	34	2.701	2.706	-0.004
50	35	2.701	2.702	-0.001
75	41	2.701	2.703	-0.002
75	42	2.701	2.703	-0.001
75	43	2.701	2.705	-0.004
75	44	2.701	2.706	-0.004
75	45	2.701	2.705	-0.004
75	46	2.701	2.705	-0.004
75	47	2.701	2.708	-0.006
75	48	2.701	2.708	-0.006
75	49	2.701	2.699	0.003
75	50	2.701	2.699	0.003
75	51	2.701	2.701	0.000
75	52	2.701	2.701	0.000
75	53	2.701	2.700	0.001
75	54	2.701	2.700	0.001
75	55	2.702	2.706	-0.004
75	56	2.701	2.704	-0.003
75	57	2.701	2.705	-0.003
75	58	2.701	2.705	-0.003
75	59	2.701	2.706	-0.004
75	60	2.702	2.703	-0.001
75	61	2.701	2.703	-0.001
75	62	2.701	2.705	-0.004
Max		2.702	2.709	0.003
Average		2.702	2.704	-0.002
Min		2.701	2.699	-0.007
Std Dev		0.000	0.002	0.002



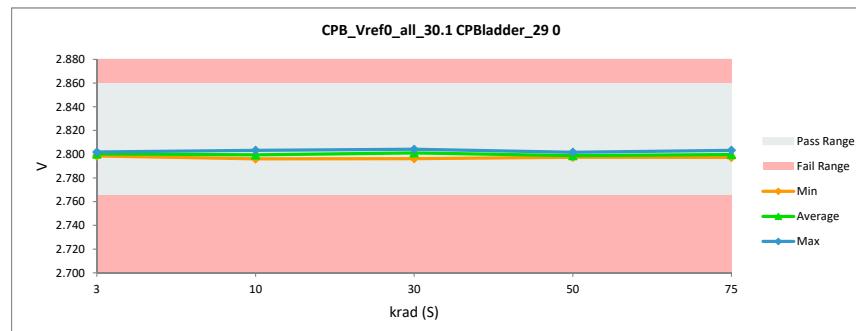
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CPB_Vref0_all_30.1 CPBladder_2				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.859375	2.859375		
Min Limit	2.765625	2.765625		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.797	2.801	-0.005
3	2	2.797	2.799	-0.002
3	3	2.797	2.801	-0.004
3	4	2.796	2.802	-0.005
3	5	2.797	2.799	-0.002
10	11	2.797	2.803	-0.007
10	12	2.797	2.800	-0.004
10	13	2.797	2.799	-0.002
10	14	2.797	2.799	-0.002
10	15	2.797	2.796	0.000
30	21	2.796	2.803	-0.006
30	22	2.796	2.804	-0.008
30	23	2.797	2.801	-0.004
30	24	2.797	2.796	0.000
30	25	2.797	2.802	-0.005
50	31	2.799	2.799	0.000
50	32	2.799	2.798	0.001
50	33	2.799	2.797	0.001
50	34	2.799	2.802	-0.003
50	35	2.799	2.798	0.001
75	41	2.799	2.798	0.001
75	42	2.799	2.800	-0.001
75	43	2.799	2.801	-0.002
75	44	2.799	2.801	-0.002
75	45	2.799	2.801	-0.002
75	46	2.799	2.801	-0.002
75	47	2.799	2.803	-0.004
75	48	2.799	2.803	-0.004
75	49	2.799	2.797	0.002
75	50	2.799	2.797	0.002
75	51	2.799	2.798	0.001
75	52	2.799	2.798	0.001
75	53	2.799	2.798	0.001
75	54	2.799	2.798	0.001
75	55	2.799	2.802	-0.003
75	56	2.799	2.800	-0.002
75	57	2.799	2.800	-0.001
75	58	2.799	2.800	-0.001
75	59	2.799	2.801	-0.002
75	60	2.798	2.798	0.000
75	61	2.799	2.800	-0.001
75	62	2.799	2.801	-0.002
Max	2.799	2.804	0.002	
Average	2.798	2.800	-0.002	
Min	2.796	2.796	-0.008	
Std Dev	0.001	0.002	0.002	



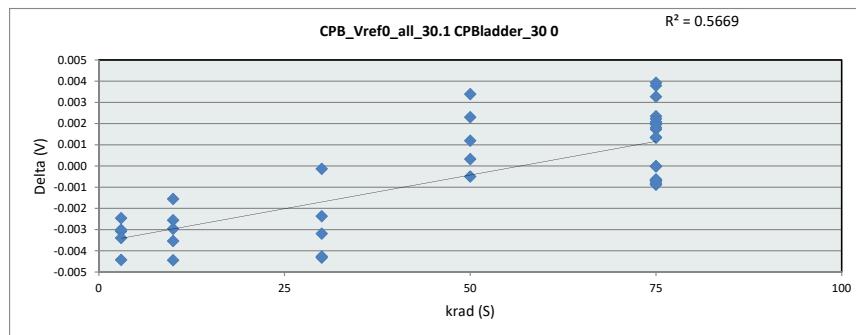
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB	CLAB	CLAB	CLAB	CLAB
Tester	J750EX	J750EX	J750EX	J750EX	J750EX
Test Number	JP07800	JP07800	JP07800	JP07800	JP07800
Max Limit	2.859375	V	V	V	V
Min Limit	2.765625	V	V	V	V
krad (S)	3	10	30	50	75
LL	2.766	2.766	2.766	2.766	2.766
Min	2.799	2.796	2.796	2.797	2.797
Average	2.800	2.799	2.801	2.799	2.800
Max	2.802	2.803	2.804	2.802	2.803
UL	2.859	2.859	2.859	2.859	2.859



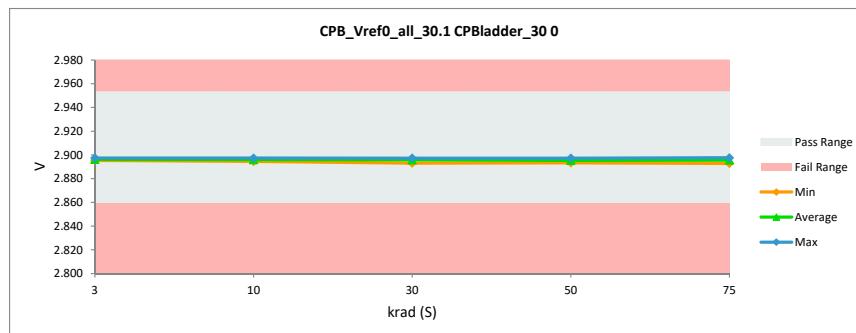
TID Report

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CPB_Vref0_all_30.1 CPBladder_3				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	2.953125	2.953125		
Min Limit	2.859375	2.859375		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.893	2.896	-0.003
3	2	2.893	2.895	-0.002
3	3	2.893	2.896	-0.003
3	4	2.893	2.897	-0.004
3	5	2.893	2.896	-0.003
10	11	2.893	2.896	-0.003
10	12	2.893	2.896	-0.003
10	13	2.893	2.897	-0.004
10	14	2.893	2.896	-0.004
10	15	2.893	2.894	-0.002
30	21	2.893	2.897	-0.004
30	22	2.893	2.897	-0.004
30	23	2.893	2.896	-0.003
30	24	2.893	2.893	0.000
30	25	2.893	2.895	-0.002
50	31	2.897	2.896	0.001
50	32	2.897	2.896	0.000
50	33	2.897	2.893	0.003
50	34	2.897	2.897	0.000
50	35	2.897	2.894	0.002
75	41	2.897	2.893	0.003
75	42	2.897	2.895	0.002
75	43	2.897	2.897	-0.001
75	44	2.897	2.897	-0.001
75	45	2.897	2.897	0.000
75	46	2.897	2.897	0.000
75	47	2.897	2.898	-0.001
75	48	2.897	2.898	-0.001
75	49	2.897	2.894	0.002
75	50	2.897	2.894	0.002
75	51	2.897	2.893	0.004
75	52	2.897	2.893	0.004
75	53	2.897	2.895	0.002
75	54	2.897	2.895	0.002
75	55	2.897	2.897	-0.001
75	56	2.897	2.897	-0.001
75	57	2.897	2.895	0.001
75	58	2.897	2.895	0.001
75	59	2.897	2.897	-0.001
75	60	2.895	2.893	0.002
75	61	2.897	2.895	0.002
75	62	2.897	2.897	-0.001
Max		2.897	2.898	0.004
Average		2.895	2.896	0.000
Min		2.893	2.893	-0.004
Std Dev		0.002	0.001	0.002



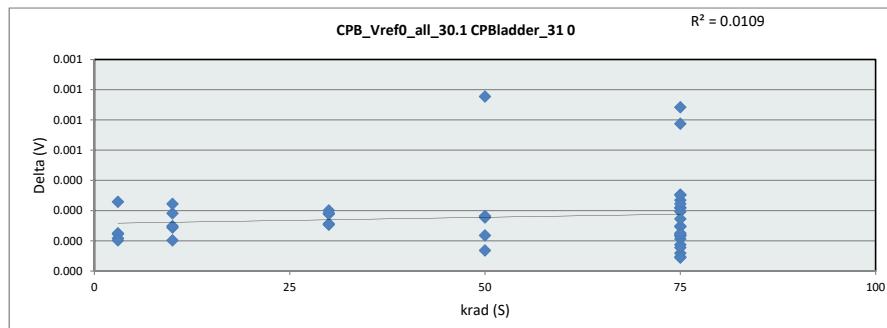
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	2.953125	V			
Min Limit	2.859375	V			
krad (S)	3	10	30	50	75
LL	2.859	2.859	2.859	2.859	2.859
Min	2.895	2.894	2.893	2.893	2.893
Average	2.896	2.896	2.896	2.895	2.896
Max	2.897	2.897	2.897	2.897	2.898
UL	2.953	2.953	2.953	2.953	2.953



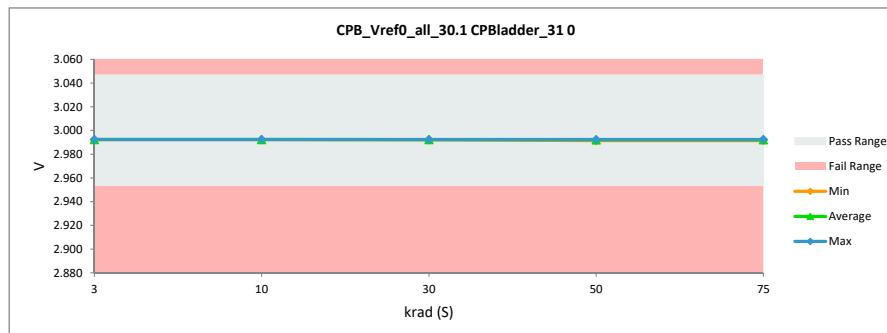
TID Report

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CPB_Vref0_all_30.1 CPBladder_3				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	V	V		
Max Limit	3.046875	3.046875		
Min Limit	2.953125	2.953125		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	2.992	2.992	0.000
3	2	2.993	2.992	0.000
3	3	2.992	2.992	0.000
3	4	2.992	2.992	0.000
3	5	2.992	2.992	0.000
10	11	2.992	2.992	0.000
10	12	2.993	2.992	0.000
10	13	2.993	2.992	0.000
10	14	2.992	2.992	0.000
10	15	2.992	2.992	0.000
30	21	2.992	2.992	0.000
30	22	2.992	2.992	0.000
30	23	2.993	2.992	0.000
30	24	2.993	2.992	0.000
30	25	2.993	2.992	0.000
50	31	2.992	2.992	0.000
50	32	2.992	2.992	0.000
50	33	2.992	2.991	0.001
50	34	2.992	2.992	0.000
50	35	2.992	2.992	0.000
75	41	2.992	2.992	0.000
75	42	2.992	2.992	0.000
75	43	2.992	2.992	0.000
75	44	2.992	2.992	0.000
75	45	2.992	2.992	0.000
75	46	2.992	2.992	0.000
75	47	2.992	2.992	0.000
75	48	2.992	2.992	0.000
75	49	2.992	2.992	0.001
75	50	2.992	2.992	0.001
75	51	2.992	2.992	0.000
75	52	2.992	2.992	0.000
75	53	2.992	2.992	0.000
75	54	2.992	2.992	0.000
75	55	2.992	2.992	0.000
75	56	2.992	2.992	0.000
75	57	2.992	2.992	0.000
75	58	2.992	2.992	0.000
75	59	2.992	2.992	0.000
75	60	2.992	2.992	0.000
75	61	2.992	2.992	0.000
75	62	2.992	2.992	0.000
Max	2.993	2.992	0.001	
Average	2.992	2.992	0.000	
Min	2.992	2.991	0.000	
Std Dev	0.000	0.000	0.000	



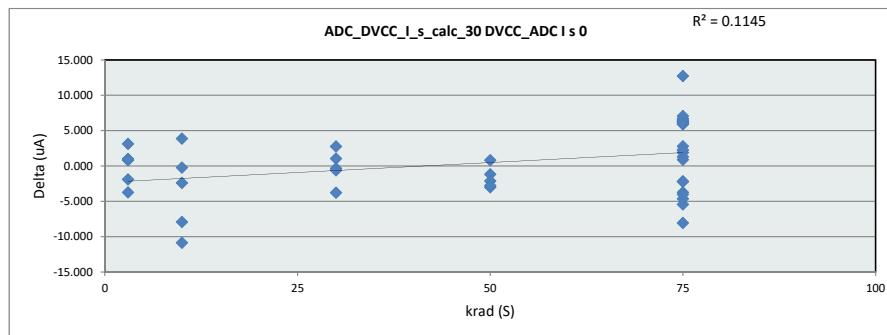
CPB_Vref0_all_30.1 CPBladder					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	3.046875	V			
Min Limit	2.953125	V			
krad (S)	3	10	30	50	75
LL	2.953	2.953	2.953	2.953	2.953
Min	2.992	2.992	2.992	2.991	2.992
Average	2.992	2.992	2.992	2.992	2.992
Max	2.992	2.992	2.992	2.992	2.992
UL	3.047	3.047	3.047	3.047	3.047



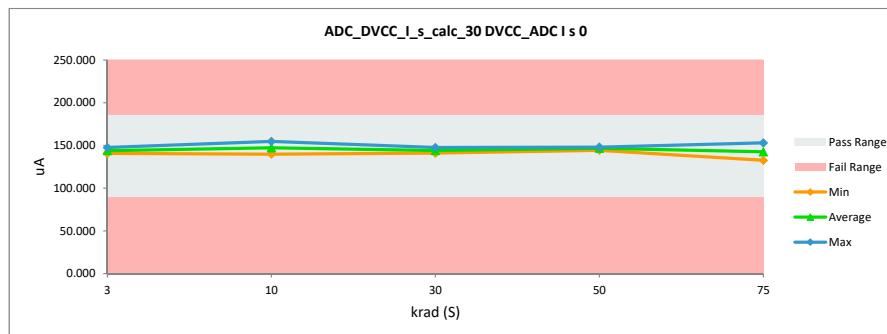
TID Report

MSP430FR5969-SP

ADC_DVCC_I_s_calc_30 DVCC_A				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	184.999971	184.999971		
Min Limit	90.00000136	90.00000136		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	143.809	147.539	-3.730
3	2	143.555	145.449	-1.895
3	3	143.887	143.066	0.820
3	4	143.691	142.695	0.996
3	5	143.789	140.664	3.125
10	11	143.789	144.023	-0.234
10	12	143.574	145.977	-2.402
10	13	143.652	139.785	3.867
10	14	143.750	151.660	-7.910
10	15	143.770	154.629	-10.859
30	21	143.965	142.910	1.055
30	22	143.770	140.996	2.773
30	23	143.809	144.141	-0.332
30	24	143.633	144.238	-0.605
30	25	143.750	147.520	-3.770
50	31	145.215	146.387	-1.172
50	32	145.039	147.168	-2.129
50	33	145.039	148.047	-3.008
50	34	145.117	144.297	0.820
50	35	144.902	147.695	-2.793
75	41	145.332	132.598	12.734
75	42	145.117	148.848	-3.730
75	43	145.020	138.789	6.230
75	44	144.922	138.613	6.309
75	45	144.941	150.371	-5.430
75	46	144.980	153.027	-8.047
75	47	144.668	138.164	6.504
75	48	144.922	138.223	6.699
75	49	144.863	143.984	0.879
75	50	145.156	143.867	1.289
75	51	145.059	147.227	-2.168
75	52	144.902	147.129	-2.227
75	53	144.805	138.906	5.898
75	54	145.059	139.004	6.055
75	55	145.039	142.246	2.793
75	56	145.059	149.707	-4.648
75	57	144.922	143.008	1.914
75	58	145.020	142.754	2.266
75	59	144.961	138.613	6.348
75	60	139.668	132.598	7.070
75	61	144.824	148.848	-4.023
75	62	144.844	138.789	6.055
Max		145.332	154.629	12.734
Average		144.419	143.910	0.509
Min		139.668	132.598	-10.859
Std Dev		0.969	4.958	4.857



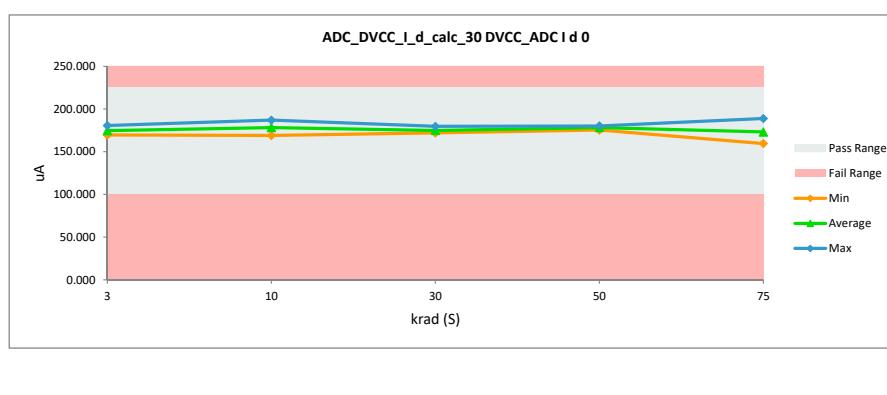
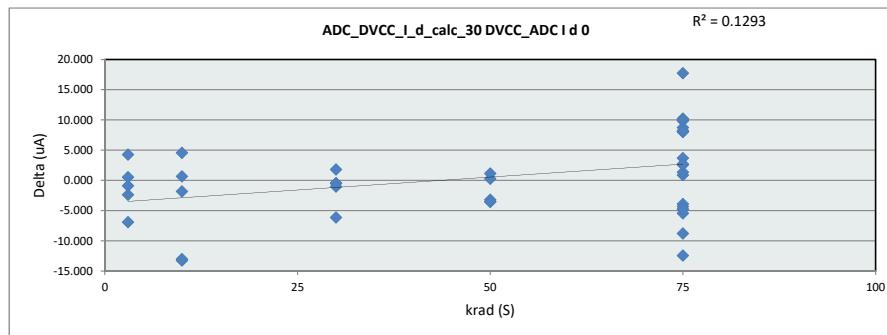
ADC_DVCC_I_s_calc_30 DVCC					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	184.999971	uA			
Min Limit	90.00000136	uA			
krad (S)	3	10	30	50	75
LL	90.000	90.000	90.000	90.000	90.000
Min	140.664	139.785	140.996	144.297	132.598
Average	143.883	147.215	143.961	146.719	142.514
Max	147.539	154.629	147.520	148.047	153.027
UL	185.000	185.000	185.000	185.000	185.000



TID Report

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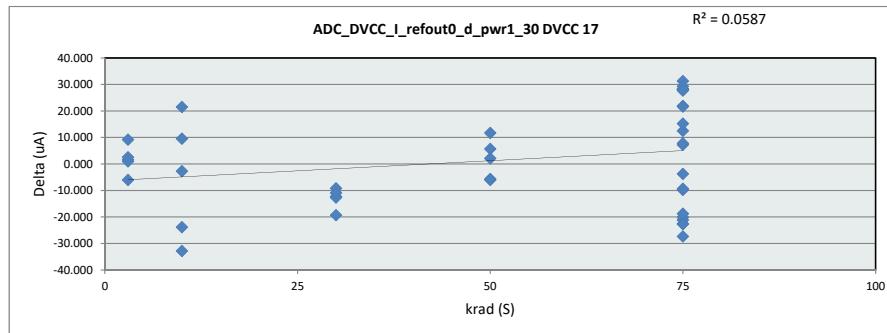
ADC_DVCC_I_d_calc_30 DVCC_A				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	224.9999961	224.9999961		
Min Limit	99.99999747	99.99999747		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	173.730	180.625	-6.895
3	2	173.379	172.852	0.527
3	3	173.730	174.629	-0.898
3	4	173.691	176.055	-2.363
3	5	173.828	169.570	4.258
10	11	173.594	172.930	0.664
10	12	173.633	175.449	-1.816
10	13	173.613	169.063	4.551
10	14	173.730	186.992	-13.262
10	15	173.848	186.875	-13.027
30	21	173.867	174.336	-0.469
30	22	173.809	172.012	1.797
30	23	173.672	174.141	-0.469
30	24	173.633	174.648	-1.016
30	25	173.613	179.746	-6.133
50	31	176.523	175.371	1.152
50	32	176.426	179.609	-3.184
50	33	176.699	180.176	-3.477
50	34	176.660	176.387	0.273
50	35	176.406	179.980	-3.574
75	41	177.285	159.551	17.734
75	42	176.465	181.230	-4.766
75	43	176.445	166.582	9.863
75	44	176.660	166.660	10.000
75	45	176.484	185.254	-8.770
75	46	176.426	188.867	-12.441
75	47	176.074	168.027	8.047
75	48	176.055	168.027	8.027
75	49	176.465	175.586	0.879
75	50	177.207	175.859	1.348
75	51	176.680	180.586	-3.906
75	52	176.328	180.664	-4.336
75	53	176.641	167.891	8.750
75	54	176.387	168.145	8.242
75	55	176.621	172.930	3.691
75	56	176.660	182.109	-5.449
75	57	176.641	174.063	2.578
75	58	176.582	173.867	2.715
75	59	176.641	166.660	9.980
75	60	169.766	159.551	10.215
75	61	176.387	181.230	-4.844
75	62	176.699	166.582	10.117
Max		177.285	188.867	17.734
Average		175.373	174.794	0.579
Min		169.766	159.551	-13.262
Std Dev		1.656	6.891	6.933



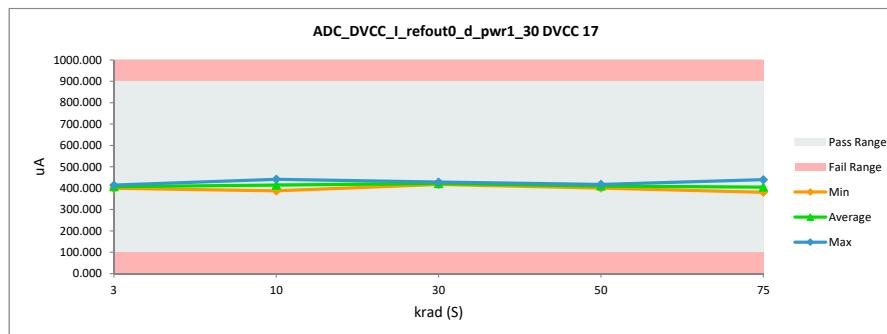
TID Report(Unbiased)

TID Report MSP430FR5969-SP

ADC_DVCC_I_refout0_d_pwr1_3				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	uA	uA		
Max Limit	898.9999769	898.9999769		
Min Limit	99.9999747	99.9999747		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	408.203	414.258	-6.055
3	2	408.398	399.219	9.180
3	3	408.398	406.836	1.563
3	4	407.813	406.836	0.977
3	5	408.789	406.250	2.539
10	11	408.789	411.523	-2.734
10	12	408.398	398.828	9.570
10	13	408.789	387.305	21.484
10	14	408.594	441.406	-32.813
10	15	408.984	432.813	-23.828
30	21	408.203	417.383	-9.180
30	22	408.984	421.289	-12.305
30	23	409.180	421.875	-12.695
30	24	408.594	419.531	-10.938
30	25	408.984	428.320	-19.336
50	31	412.500	406.836	5.664
50	32	411.914	400.195	11.719
50	33	412.109	417.773	-5.664
50	34	411.133	417.188	-6.055
50	35	411.523	409.375	2.148
75	41	412.109	380.859	31.250
75	42	411.523	421.289	-9.766
75	43	411.133	383.008	28.125
75	44	411.133	382.813	28.320
75	45	411.914	433.008	-21.094
75	46	412.305	439.648	-27.344
75	47	411.133	383.008	28.125
75	48	412.109	382.813	29.297
75	49	410.938	431.055	-20.117
75	50	411.914	430.664	-18.750
75	51	410.938	433.594	-22.656
75	52	410.547	433.203	-22.656
75	53	412.305	390.430	21.875
75	54	411.328	389.648	21.680
75	55	412.109	399.609	12.500
75	56	410.742	414.453	-3.711
75	57	410.938	403.711	7.227
75	58	411.914	404.102	7.813
75	59	410.742	382.813	27.930
75	60	396.094	380.859	15.234
75	61	411.914	421.289	-9.375
75	62	410.742	383.008	27.734
Max	412.500	441.406	31.250	
Average	410.114	408.808	1.307	
Min	396.094	380.859	-32.813	
Std Dev	2.673	18.449	18.338	



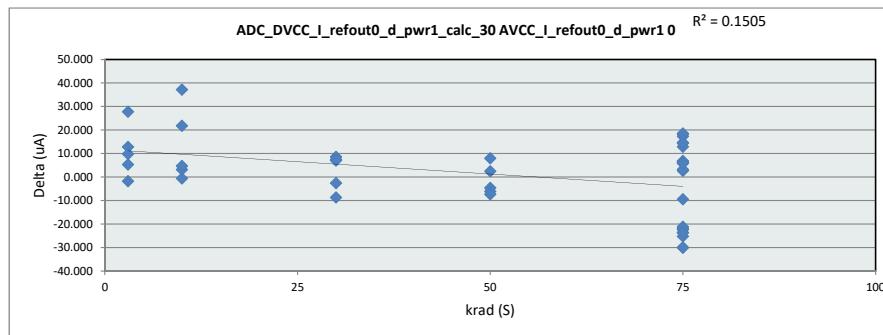
ADC_DVCC_I_refout0_d_pwr1					
Test Site	CLAB				
Tester	J750EX				
Test Number	JP07800				
Max Limit	898.9999769	uA			
Min Limit	99.9999747	uA			
krad (S)	3	10	30	50	75
LL	100.000	100.000	100.000	100.000	100.000
Min	399.219	387.305	417.383	400.195	380.859
Average	406.680	414.375	421.680	410.273	404.767
Max	414.258	441.406	428.320	417.773	439.648
UL	899.000	899.000	899.000	899.000	899.000



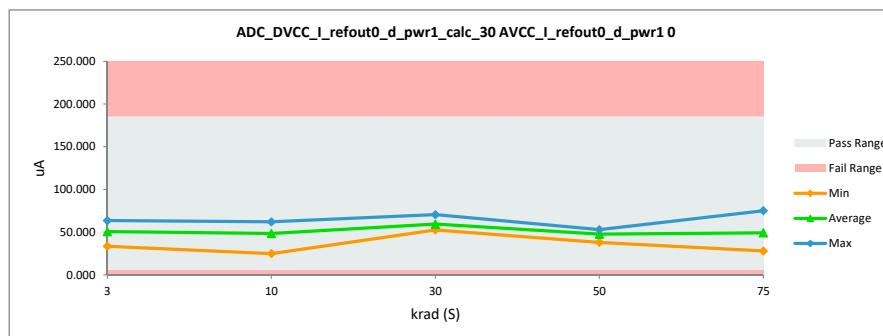
TID Report(Unbiased)

TID Report MSP430FR5969-SP

ADC_DVCC_I_refout0_d_pwr1_C				
Test Site	CLAB	CLAB	Tester	J750EX
Test Number	JP07800	JP07800	Unit	uA
Max Limit	184.9999971	184.9999971	Min Limit	4.999999874
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	61.445	48.633	12.812
3	2	61.348	33.535	27.813
3	3	61.855	56.523	5.332
3	4	60.762	50.977	9.785
3	5	61.836	63.574	-1.738
10	11	61.836	58.711	3.125
10	12	61.328	39.512	21.816
10	13	62.070	24.902	37.168
10	14	61.445	62.051	-0.605
10	15	62.109	57.402	4.707
30	21	61.172	52.578	8.594
30	22	61.992	64.551	-2.559
30	23	62.227	54.707	7.520
30	24	61.816	70.508	-8.691
30	25	61.992	54.980	7.012
50	31	46.699	44.258	2.441
50	32	45.918	37.949	7.969
50	33	46.621	51.230	-4.609
50	34	45.488	51.621	-6.133
50	35	45.547	52.910	-7.363
75	41	45.684	32.832	12.852
75	42	45.820	69.551	-23.730
75	43	44.883	38.770	6.113
75	44	45.449	38.594	6.855
75	45	46.133	67.930	-21.797
75	46	46.719	71.934	-25.215
75	47	45.449	28.145	17.305
75	48	46.172	27.988	18.184
75	49	45.234	67.578	-22.344
75	50	46.133	67.305	-21.172
75	51	45.078	75.078	-30.000
75	52	44.863	74.863	-30.000
75	53	46.602	31.934	14.668
75	54	45.430	31.035	14.395
75	55	45.898	39.473	6.426
75	56	45.195	54.629	-9.434
75	57	44.766	42.070	2.695
75	58	45.820	42.598	3.223
75	59	44.531	38.594	5.938
75	60	51.328	32.832	18.496
75	61	45.957	69.551	-23.594
75	62	44.609	38.770	5.840
Max		62.227	75.078	37.168
Average		51.506	50.313	1.193
Min		44.531	24.902	-30.000
Std Dev		7.746	14.660	15.756



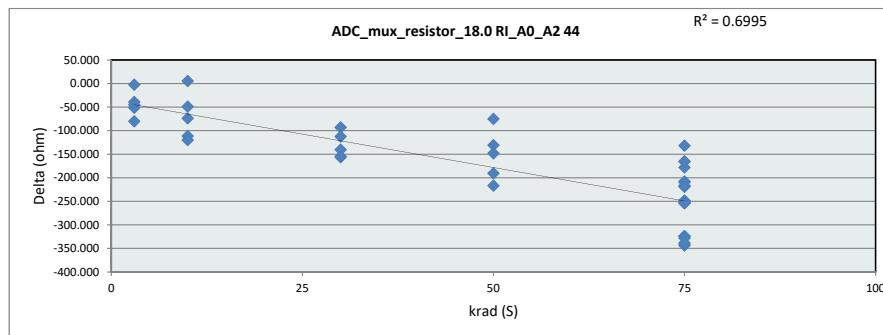
ADC_DVCC_I_refout0_d_pwr1					
Test Site	CLAB	Tester	J750EX <th>Test Number</th> <td>JP07800</td>	Test Number	JP07800
Max Limit	184.9999971	Min Limit	4.999999874	uA	uA
krad (S)	3	10	30	50	75
LL	5.000	5.000	5.000	5.000	5.000
Min	33.535	24.902	52.578	37.949	27.988
Average	50.648	48.516	59.465	47.594	49.184
Max	63.574	62.051	70.508	52.910	75.078
UL	185.000	185.000	185.000	185.000	185.000



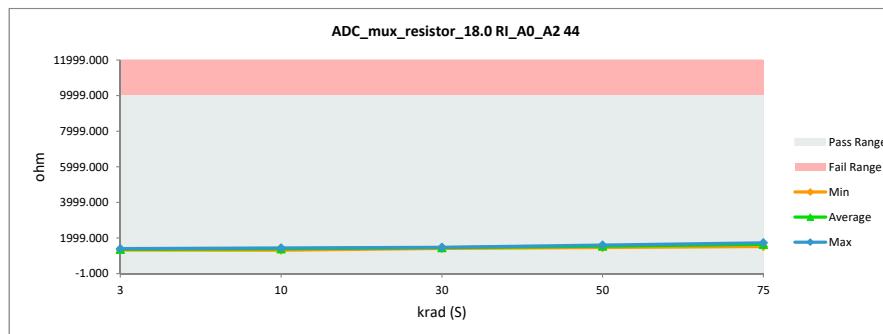
TID Report(Unbiased)

TID Report MSP430FR5969-SP

ADC_mux_resistor_18.0 RI_A0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	ohm	ohm		
Max Limit	10000	10000		
Min Limit	0	0		
krad (S)	Serial #	Pre test unbiased	Post test unbiased	Delta
3	1	1322.631	1361.746	-39.115
3	2	1322.806	1325.262	-2.456
3	3	1323.507	1368.460	-44.953
3	4	1323.156	1374.484	-51.328
3	5	1321.407	1401.474	-80.068
10	11	1322.456	1371.466	-49.010
10	12	1323.156	1396.968	-73.811
10	13	1321.581	1433.031	-111.450
10	14	1322.456	1442.548	-120.092
10	15	1323.156	1317.747	5.410
30	21	1321.581	1461.752	-140.171
30	22	1321.756	1478.187	-156.431
30	23	1321.931	1476.658	-154.727
30	24	1323.332	1416.575	-93.243
30	25	1322.806	1435.296	-112.489
50	31	1389.972	1580.606	-190.634
50	32	1389.779	1520.476	-130.697
50	33	1386.693	1534.722	-148.029
50	34	1389.585	1464.752	-75.167
50	35	1389.392	1606.012	-216.620
75	41	1390.552	1608.079	-217.527
75	42	1389.392	1554.540	-165.148
75	43	1388.813	1641.633	-252.820
75	44	1387.655	1641.094	-253.438
75	45	1389.392	1598.816	-209.424
75	46	1389.006	1597.027	-208.022
75	47	1388.427	1732.130	-343.704
75	48	1389.972	1730.630	-340.658
75	49	1389.006	1713.418	-324.412
75	50	1388.620	1712.537	-323.917
75	51	1387.848	1636.524	-248.676
75	52	1389.392	1638.403	-249.011
75	53	1389.585	1714.005	-324.420
75	54	1387.655	1715.771	-328.116
75	55	1389.392	1521.170	-131.778
75	56	1390.359	1728.535	-338.176
75	57	1388.234	1605.495	-217.262
75	58	1388.427	1607.562	-219.135
75	59	1389.585	1641.094	-251.509
75	60	1429.955	1608.079	-178.124
75	61	1388.620	1554.540	-165.920
75	62	1387.655	1641.633	-253.978
Max		1429.955	1732.130	5.410
Average		1366.207	1545.499	-179.292
Min		1321.407	1317.747	-343.704
Std Dev		33.565	124.898	98.708



ADC_mux_resistor_18.0 RI_A0				
Test Site	CLAB	CLAB		
Tester	J750EX	J750EX		
Test Number	JP07800	JP07800		
Unit	ohm	ohm		
Max Limit	10000	ohm		
Min Limit	0	ohm		
krad (S)	3	10	30	50
LL	0.000	0.000	0.000	0.000
Min	1325.262	1317.747	1416.575	1464.752
Average	1366.286	1392.352	1453.694	1541.313
Max	1401.474	1442.548	1478.187	1606.012
UL	10000.000	10000.000	10000.000	10000.000



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