Radiation Report
LMP2012QML-SP Neutron Displacement Damage Characterization

TEXAS INSTRUMENTS

ABSTRACT

This report presents the effect of neutron displacement damage (NDD) on the LMP2012QML-SP device. The results show that all devices were fully functional and within production test limits after having been irradiated up to 1×10^{12} n/cm^2 (1-MeV equivalent). A sample size of fifteen units was exposed to radiation testing per (MIL-STD-883, Method 1017 for Neutron Irradiation) and an additional two unirradiated sample devices was used for correlation. All devices used in the experiment were from lot date code B9B1044A. Electrical testing was performed at Texas Instruments before and after neutron irradiation using the production test program for LMP2012QML-SP.

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1 Overview

The LMP2012QML-SP device is a dual high precision, rail-to-rail output operational amplifier with excellent CMRR and PSRR ratings, and does not exhibit the familiar 1/f voltage and current noise increases that plague traditional amplifiers. The QMLV version of the LMP2012 has been rated to tolerate a total dose level of 50-krad(Si) radiation by Ionizing radiation (Total Dose) test method 1019.4 of MIL-STD-883.

General device information and testing conditions are listed in Table 1-1.

Table 1-1. Overview Information

| TI Part Number	LMP2012QML-SP
Device Function	Rail-to-Rail Output Operational Amplifier
Technology	CS080ABI
A/T Lot Number / Date Code	B9B1044A
Unbiased Quantity Tested	15
Exposure Facility	Lowell
Neutron Fluence (1-MeV equivalent)	1.0×10^{11}, 3.2×10^{11}, 1.0×10^{12} n/cm^2
Irradiation Temperature	25°C
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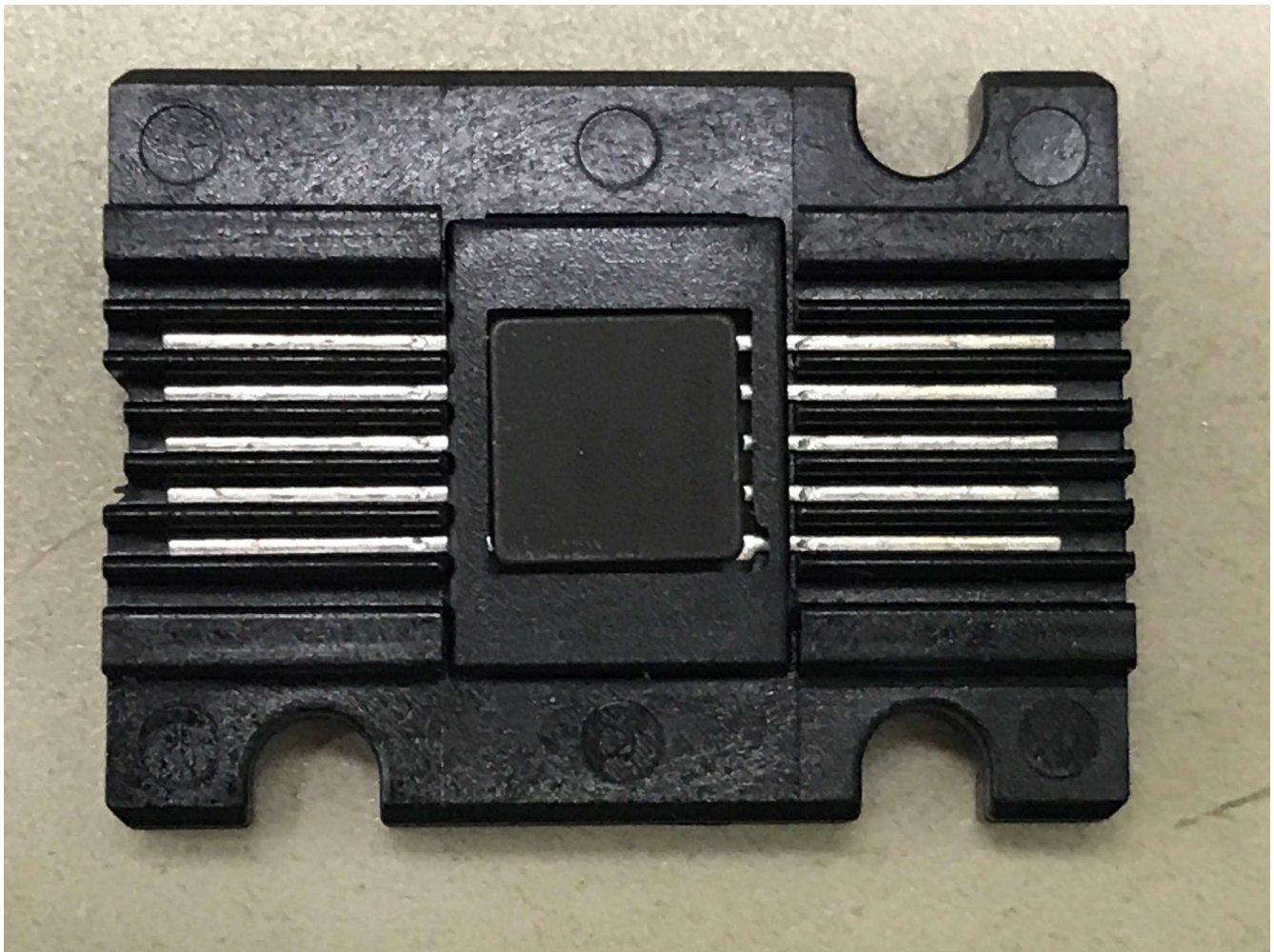
Figure 1-1. LMP2012QML-SP Device

2 Test Procedures

The LMP2012QMLV-SP was electrically pre-tested using the production automated test equipment program.

General test procedures were IAW MIL-STD-883, Method 1017 for Neutron Irradiation of LMP2012QMLV-SP.

Table 2-1. Neutron Irradiation Conditions

Group	Sample Qty	Neutron Fluence (n/cm^2)	Bias
A	5	1.0×10^{11}	Unbiased
B	5	3.2×10^{11}	Unbiased
C	5	1.0×10^{12}	Unbiased

3 Facility

Devices were exposed via fast neutron irradiation (FNI) at the University of Massachusetts Lowell Research Reactor (UMLRR). The facility is designed to give a fast flux level ≥ 1011 n/cm^2–s, with relatively low thermal fluence and gamma dose rates. Samples with a cross-sectional area as large as 30 cm (12 in) × 30 cm (12 in) and up to 15-cm (6-in) thick can be irradiated. The fast neutron flux is designed to be nearly uniform over the 30-cm (12-in) × 30-cm (12-in) area facing the core, and the fast fluence variation through the sample thickness is minimized via a single 180° rotation of the sample canister at the midpoint of the irradiation period. The FNI facility offers a significantly larger sample volume than previously available within the University of Massachusetts Lowell Research Reactor (UMLRR).

The fluences are calculated based on 1-MeV equivalences.

Detailed information of the radiation facility is available at the following link:

www.uml.edu/docs/FNI%20Brochure_tcm18-90375.pdf

4 Results

There were no functional failures at any irradiation level. All parametric measurements remained well within all *LMP2012QML Dual High Precision, Rail-to-Rail Output Operational Amplifier* data sheet limits for all exposure levels. All parametric measurements remained well within the production test limits which are guard-banded from the data sheet limits. The full parameter list and graphs are found in Appendix A.

A Appendix A: Test Results

This appendix contains the detailed test results.

Delta Threshold   10.00%

NDD Report
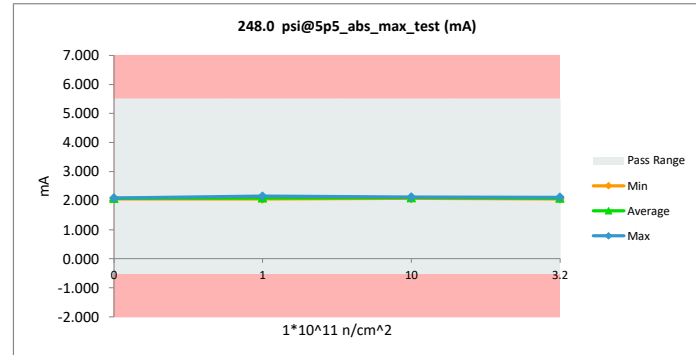# LMP2012

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248.0 psi@5p5_abs_max_test (mA)		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	5.5	5.5
Min Limit	-0.5	-0.5

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	2.059	2.064	-0.005	-0.24%	0.08%
0	27	2.092	2.096	-0.004	-0.19%	0.07%
1	28	2.078	2.080	-0.002	-0.10%	0.03%
1	29	2.046	2.054	-0.008	-0.39%	0.13%
1	30	2.070	2.083	-0.013	-0.63%	0.22%
1	31	2.146	2.153	-0.007	-0.33%	0.12%
1	32	2.099	2.107	-0.008	-0.38%	0.13%
3.2	33	2.106	2.108	-0.002	-0.09%	0.03%
3.2	34	2.060	2.069	-0.009	-0.44%	0.15%
3.2	35	2.110	2.119	-0.009	-0.43%	0.15%
3.2	36	2.050	2.061	-0.011	-0.54%	0.18%
3.2	37	2.063	2.072	-0.009	-0.44%	0.15%
10	38	2.103	2.128	-0.025	-1.19%	0.42%
10	39	2.066	2.076	-0.010	-0.48%	0.17%
10	40	2.088	2.094	-0.006	-0.29%	0.10%
10	41	2.091	2.115	-0.024	-1.15%	0.40%
10	42	2.088	2.095	-0.007	-0.34%	0.12%

248.0 psi@5p5_abs_max_test (mA) $R^2 = 0.2883$
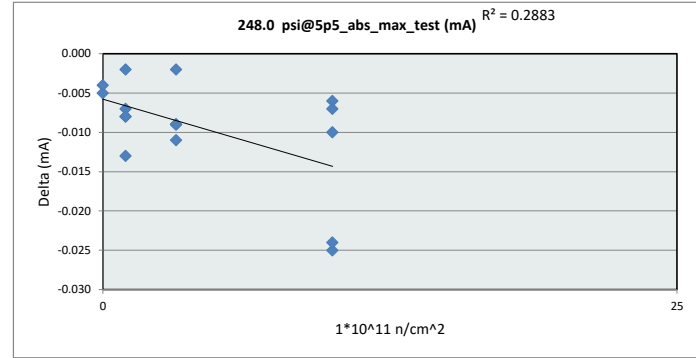
248.0 psi@5p5_abs_max_test		
Test Site		
Tester		
Test Number		
Max Limit	5.5	mA
Min Limit	-0.5	mA

1*10^11 n/cm^	0	1	10	3.2
LL	-0.500	-0.500	-0.500	-0.500
Min	2.064	2.054	2.076	2.061
Average	2.080	2.095	2.102	2.086
Max	2.096	2.153	2.128	2.119
UL	5.500	5.500	5.500	5.500

248.0 psi@5p5_abs_max_test (mA)

Pass Range
Min
Average
Max

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	260.0 psi@2p7 (mA)				
Test Site					
Tester					
Test Number					
Unit	mA	mA			
Max Limit	3.5	3.5			
Min Limit	-0.9	-0.9			

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	1.935	1.939	-0.004	-0.21%	0.09%
0	27	1.964	1.968	-0.004	-0.20%	0.09%
1	28	1.951	1.955	-0.004	-0.21%	0.09%
1	29	1.918	1.926	-0.008	-0.42%	0.18%
1	30	1.947	1.952	-0.005	-0.26%	0.11%
1	31	2.013	2.024	-0.011	-0.55%	0.25%
1	32	1.974	1.985	-0.011	-0.56%	0.25%
3.2	33	1.983	1.986	-0.003	-0.15%	0.07%
3.2	34	1.932	1.941	-0.009	-0.47%	0.20%
3.2	35	1.972	1.980	-0.008	-0.41%	0.18%
3.2	36	1.920	1.936	-0.016	-0.83%	0.36%
3.2	37	1.936	1.947	-0.011	-0.57%	0.25%
10	38	1.983	1.999	-0.016	-0.81%	0.36%
10	39	1.932	1.940	-0.008	-0.41%	0.18%
10	40	1.962	1.963	-0.001	-0.05%	0.02%
10	41	1.971	1.992	-0.021	-1.07%	0.48%
10	42	1.966	1.973	-0.007	-0.36%	0.16%
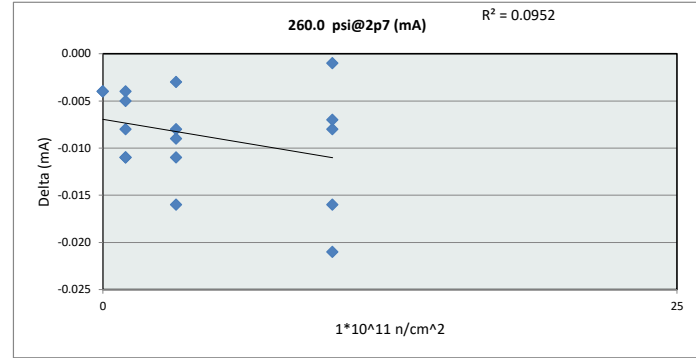
260.0 psi@2p7 (mA) $R^2 = 0.0952$

	260.0 psi@2p7 (mA)				
Test Site					
Tester					
Test Number					
Max Limit	3.5	mA			
Min Limit	-0.9	mA			
1*10^11 n/cm^	0	1	10	3.2	
LL	-0.900	-0.900	-0.900	-0.900	
Min	1.939	1.926	1.940	1.936	
Average	1.954	1.968	1.973	1.958	
Max	1.968	2.024	1.999	1.986	
UL	3.500	3.500	3.500	3.500	

260.0 psi@2p7 (mA)
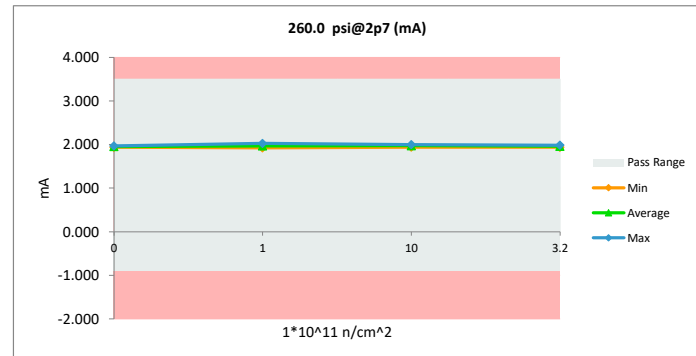
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261.0 psi@5p0 (mA)		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	3.5	3.5
Min Limit	-0.9	-0.9

1×10^{11} n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	2.047	2.048	-0.001	-0.05%	0.02%
0	27	2.077	2.078	-0.001	-0.05%	0.02%
1	28	2.061	2.064	-0.003	-0.15%	0.07%
1	29	2.028	2.036	-0.008	-0.39%	0.18%
1	30	2.056	2.064	-0.008	-0.39%	0.18%
1	31	2.131	2.137	-0.006	-0.28%	0.14%
1	32	2.080	2.093	-0.013	-0.63%	0.30%
3.2	33	2.087	2.094	-0.007	-0.34%	0.16%
3.2	34	2.042	2.055	-0.013	-0.64%	0.30%
3.2	35	2.091	2.102	-0.011	-0.53%	0.25%
3.2	36	2.036	2.046	-0.010	-0.49%	0.23%
3.2	37	2.046	2.058	-0.012	-0.59%	0.27%
10	38	2.091	2.110	-0.019	-0.91%	0.43%
10	39	2.051	2.057	-0.006	-0.29%	0.14%
10	40	2.069	2.076	-0.007	-0.34%	0.16%
10	41	2.077	2.099	-0.022	-1.06%	0.50%
10	42	2.074	2.079	-0.005	-0.24%	0.11%
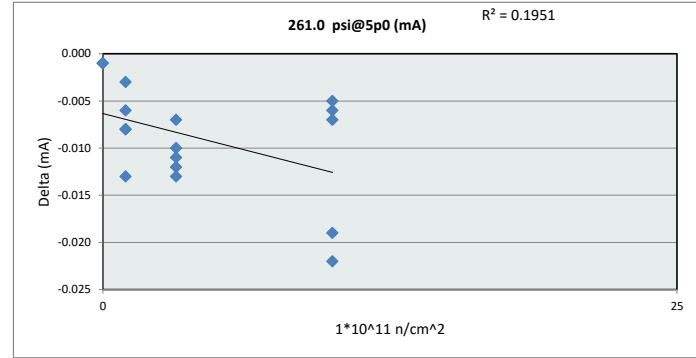
261.0 psi@5p0 (mA) $R^2 = 0.1951$

Delta (mA) vs 1×10^{11} n/cm^2

261.0 psi@5p0 (mA)				
Test Site				
Tester				
Test Number				
Max Limit	3.5	mA		
Min Limit	-0.9	mA		
1×10^{11} n/cm^	0	1	10	3.2
LL	-0.900	-0.900	-0.900	-0.900
Min	2.048	2.036	2.057	2.046
Average	2.063	2.079	2.084	2.071
Max	2.078	2.137	2.110	2.102
UL	3.500	3.500	3.500	3.500
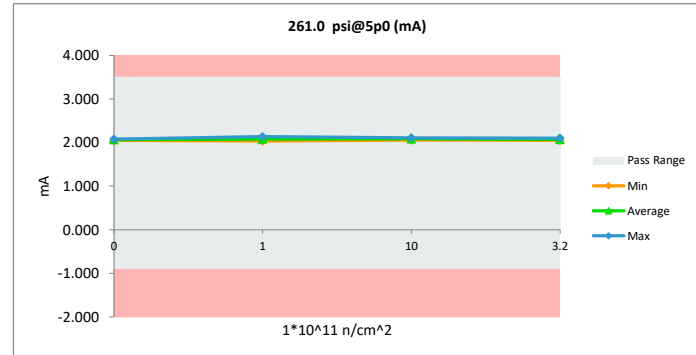
261.0 psi@5p0 (mA)

mA vs 1×10^{11} n/cm^2

Legend: Pass Range, Min, Average, Max

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1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
		275.0 Vos_vs@2p7A (uV)				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
0	26	-4.096	-3.942	-0.154	3.76%	0.21%
0	27	9.327	9.207	0.120	1.29%	0.17%
1	28	3.845	3.634	0.211	5.49%	0.29%
1	29	4.561	4.028	0.533	11.69%	0.74%
1	30	6.605	6.182	0.423	6.40%	0.59%
1	31	3.062	3.171	-0.109	-3.56%	0.15%
1	32	6.945	6.770	0.175	2.52%	0.24%
3.2	33	7.012	7.078	-0.066	-0.94%	0.09%
3.2	34	1.698	1.866	-0.168	-9.89%	0.23%
3.2	35	2.191	2.127	0.064	2.92%	0.09%
3.2	36	1.521	1.163	0.358	23.54%	0.50%
3.2	37	-1.918	-2.088	0.170	-8.86%	0.24%
10	38	-4.838	-0.639	-4.199	86.79%	5.83%
10	39	4.661	4.647	0.014	0.30%	0.02%
10	40	2.390	3.391	-1.001	-41.88%	1.39%
10	41	2.294	2.392	-0.098	-4.27%	0.14%
10	42	2.168	3.849	-1.681	-77.54%	2.33%
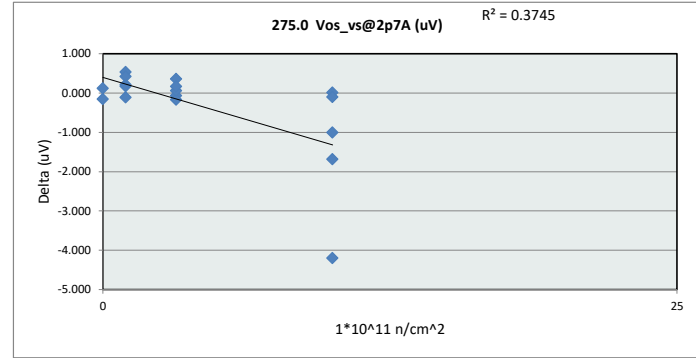
275.0 Vos_vs@2p7A (uV) — $R^2 = 0.3745$

275.0 Vos_vs@2p7A (uV)				
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	-3.942	3.171	-0.639	-2.088
Average	2.632	4.757	2.728	2.029
Max	9.207	6.770	4.647	7.078
UL	36.000	36.000	36.000	36.000

275.0 Vos_vs@2p7A (uV)
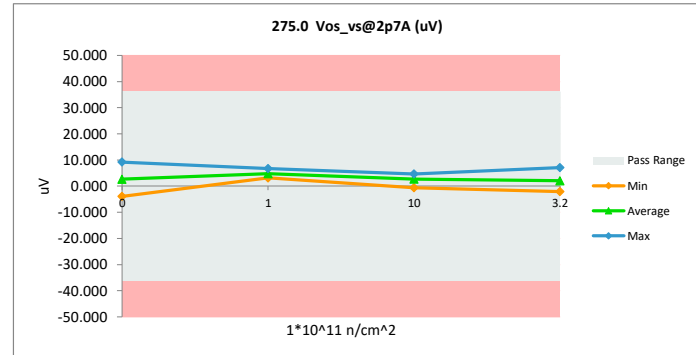
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276.0 Vos_vs@2p7B (uV)						
Test Site						
Tester						
Test Number						
Unit	uV	uV				
Max Limit	36	36				
Min Limit	-36	-36				
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	2.851	2.990	-0.139	-4.88%	0.19%
0	27	5.233	6.671	-1.438	-27.48%	2.00%
1	28	5.592	7.101	-1.509	-26.98%	2.10%
1	29	8.124	8.231	-0.107	-1.32%	0.15%
1	30	11.719	12.673	-0.954	-8.14%	1.33%
1	31	5.346	6.018	-0.672	-12.57%	0.93%
1	32	3.073	3.011	0.062	2.02%	0.09%
3.2	33	5.416	7.093	-1.677	-30.96%	2.33%
3.2	34	5.664	5.800	-0.136	-2.40%	0.19%
3.2	35	5.307	4.955	0.352	6.63%	0.49%
3.2	36	6.647	7.541	-0.894	-13.45%	1.24%
3.2	37	7.652	8.944	-1.292	-16.88%	1.79%
10	38	7.152	7.567	-0.415	-5.80%	0.58%
10	39	4.869	4.998	-0.129	-2.65%	0.18%
10	40	4.667	5.605	-0.938	-20.10%	1.30%
10	41	3.724	5.231	-1.507	-40.47%	2.09%
10	42	3.833	4.548	-0.715	-18.65%	0.99%
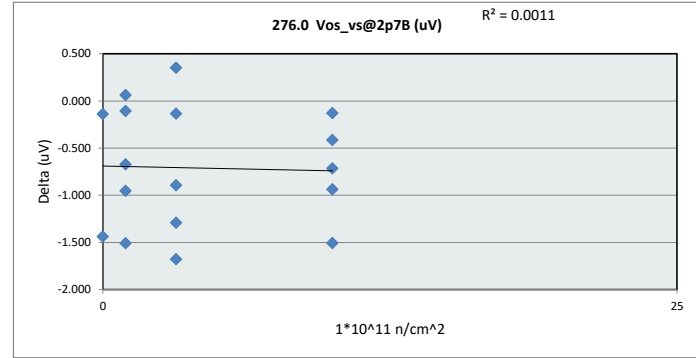
276.0 Vos_vs@2p7B (uV) $R^2 = 0.0011$

276.0 Vos_vs@2p7B (uV)				
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	2.990	3.011	4.548	4.955
Average	4.831	7.407	5.590	6.867
Max	6.671	12.673	7.567	8.944
UL	36.000	36.000	36.000	36.000

276.0 Vos_vs@2p7B (uV)
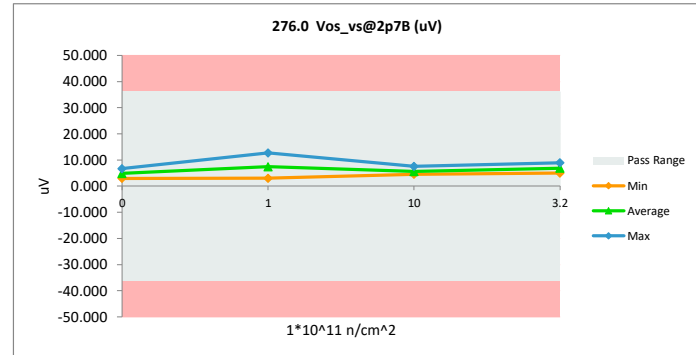
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279.0 Vos_vs@5p0A (uV)		
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	1.328	1.087	0.241	18.15%	0.33%
0	27	14.444	14.298	0.146	1.01%	0.20%
1	28	10.297	9.818	0.479	4.65%	0.67%
1	29	7.596	7.335	0.261	3.44%	0.36%
1	30	11.826	11.581	0.245	2.07%	0.34%
1	31	7.249	7.302	-0.053	-0.73%	0.07%
1	32	8.928	9.261	-0.333	-3.73%	0.46%
3.2	33	10.969	11.433	-0.464	-4.23%	0.64%
3.2	34	4.898	4.575	0.323	6.59%	0.45%
3.2	35	4.676	4.647	0.029	0.62%	0.04%
3.2	36	1.809	1.698	0.111	6.14%	0.15%
3.2	37	3.066	3.202	-0.136	-4.44%	0.19%
10	38	-6.314	-3.052	-3.262	51.66%	4.53%
10	39	6.675	7.259	-0.584	-8.75%	0.81%
10	40	5.555	6.515	-0.960	-17.28%	1.33%
10	41	5.157	5.286	-0.129	-2.50%	0.18%
10	42	4.840	6.521	-1.681	-34.73%	2.33%
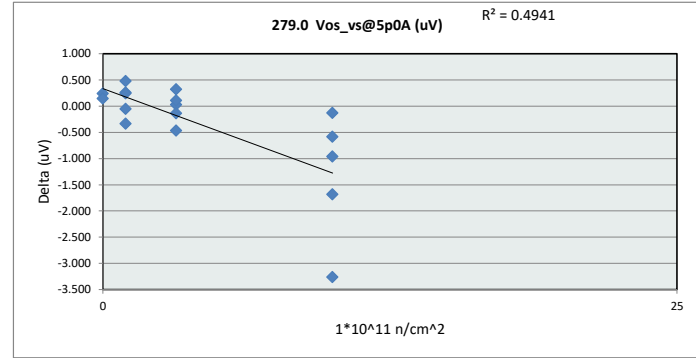
$R^2 = 0.4941$

279.0 Vos_vs@5p0A (uV)

279.0 Vos_vs@5p0A (uV)		
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	1.087	7.302	-3.052	1.698
Average	7.693	9.059	4.506	5.111
Max	14.298	11.581	7.259	11.433
UL	36.000	36.000	36.000	36.000

279.0 Vos_vs@5p0A (uV)
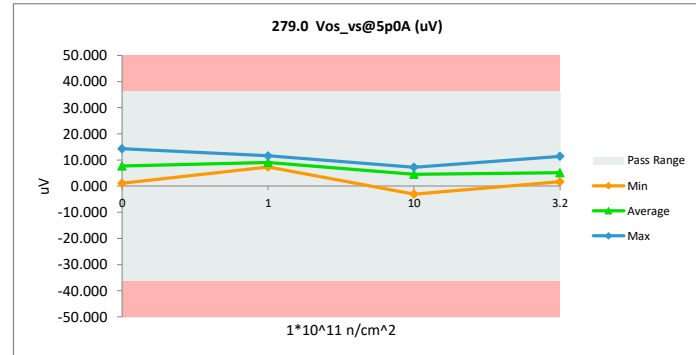
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LMP2012

		280.0 Vos_vs@5p0B (uV)				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	5.181	5.342	-0.161	-3.11%	0.22%
0	27	5.194	6.451	-1.257	-24.20%	1.75%
1	28	5.383	6.745	-1.362	-25.30%	1.89%
1	29	8.552	8.369	0.183	2.14%	0.25%
1	30	10.578	11.398	-0.820	-7.75%	1.14%
1	31	7.456	8.159	-0.703	-9.43%	0.98%
1	32	5.078	5.374	-0.296	-5.83%	0.41%
3.2	33	7.798	10.054	-2.256	-28.93%	3.13%
3.2	34	7.775	8.079	-0.304	-3.91%	0.42%
3.2	35	6.233	5.993	0.240	3.85%	0.33%
3.2	36	7.460	8.207	-0.747	-10.01%	1.04%
3.2	37	7.384	8.597	-1.213	-16.43%	1.68%
10	38	7.931	8.747	-0.816	-10.29%	1.13%
10	39	4.764	5.631	-0.867	-18.20%	1.20%
10	40	5.358	6.077	-0.719	-13.42%	1.00%
10	41	4.758	5.740	-0.982	-20.64%	1.36%
10	42	3.662	4.789	-1.127	-30.78%	1.57%
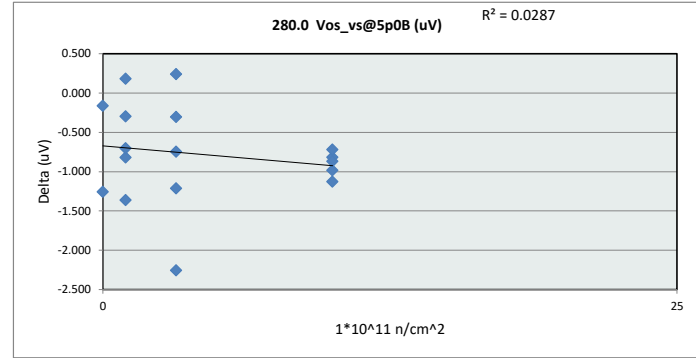
280.0 Vos_vs@5p0B (uV) — $R^2 = 0.0287$

	280.0 Vos_vs@5p0B (uV)			
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	5.342	5.374	4.789	5.993
Average	5.897	8.009	6.197	8.186
Max	6.451	11.398	8.747	10.054
UL	36.000	36.000	36.000	36.000
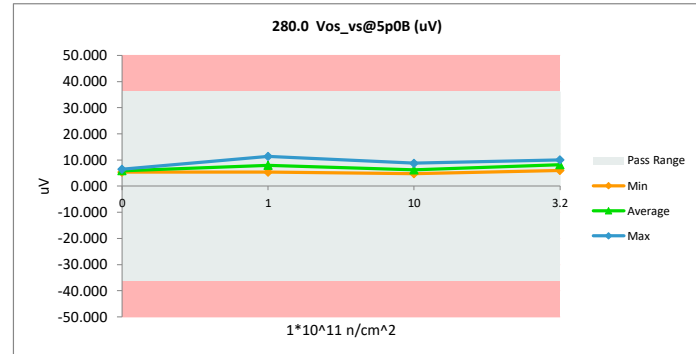
NDD Report
LMP2012

283.0 PSRR A (uVV)					
Test Site					
Tester					
Test Number					
Unit	uVV	uVV			
Max Limit	17.78	17.78			
Min Limit	-17.78	-17.78			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	2.358	2.187	0.171	7.25%	0.48%
0	27	2.225	2.213	0.012	0.54%	0.03%
1	28	2.805	2.689	0.116	4.14%	0.33%
1	29	1.320	1.438	-0.118	-8.94%	0.33%
1	30	2.270	2.347	-0.077	-3.39%	0.22%
1	31	1.820	1.796	0.024	1.32%	0.07%
1	32	0.862	1.083	-0.221	-25.64%	0.62%
3.2	33	1.720	1.893	-0.173	-10.06%	0.49%
3.2	34	1.391	1.178	0.213	15.31%	0.60%
3.2	35	1.080	1.096	-0.016	-1.48%	0.04%
3.2	36	0.125	0.232	-0.107	-85.60%	0.30%
3.2	37	2.167	2.300	-0.133	-6.14%	0.37%
10	38	-0.642	-1.049	0.407	-63.40%	1.14%
10	39	0.876	1.136	-0.260	-29.68%	0.73%
10	40	1.376	1.358	0.018	1.31%	0.05%
10	41	1.245	1.258	-0.013	-1.04%	0.04%
10	42	1.162	1.162	0.000	0.00%	0.00%
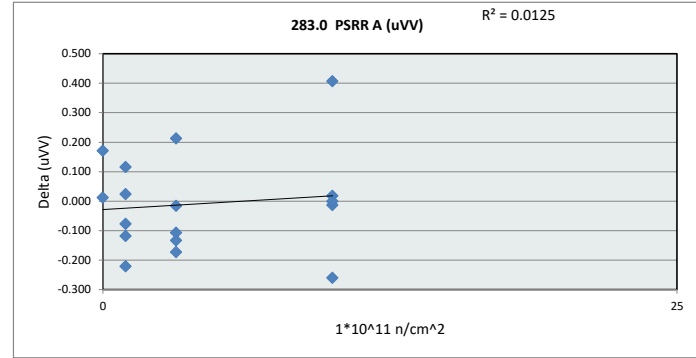
283.0 PSRR A (uVV) — $R^2 = 0.0125$

283.0 PSRR A (uVV)				
Test Site				
Tester				
Test Number				
Max Limit	17.78	uVV		
Min Limit	-17.78	uVV		
1*10^11 n/cm^	0	1	10	3.2
LL	-17.780	-17.780	-17.780	-17.780
Min	2.187	1.083	-1.049	0.232
Average	2.200	1.871	0.773	1.340
Max	2.213	2.689	1.358	2.300
UL	17.780	17.780	17.780	17.780

283.0 PSRR A (uVV)
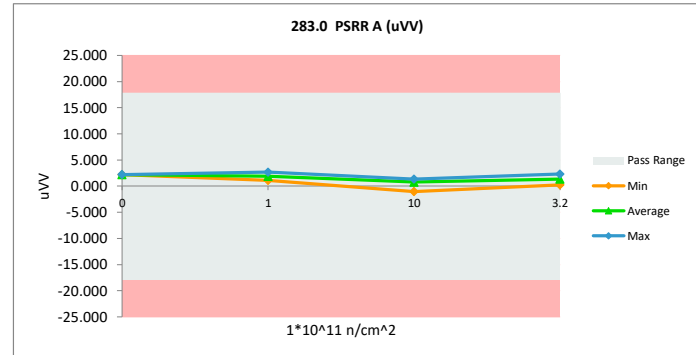
NDD Report
LMP2012

284.0 PSRR dB A (dB)		
Test Site		
Tester		
Test Number		
Unit	dB	dB
Max Limit	-95	-95
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-112.512	-113.165	0.653	-0.58%	0.69%
0	27	-113.014	-113.060	0.046	-0.04%	0.05%
1	28	-111.011	-111.377	0.366	-0.33%	0.39%
1	29	-117.524	-116.786	-0.738	0.63%	0.78%
1	30	-112.843	-112.551	-0.292	0.26%	0.31%
1	31	-114.750	-114.865	0.115	-0.10%	0.12%
1	32	-121.187	-119.227	-1.960	1.62%	2.06%
3.2	33	-115.238	-114.409	-0.829	0.72%	0.87%
3.2	34	-117.069	-118.506	1.437	-1.23%	1.51%
3.2	35	-119.249	-119.129	-0.120	0.10%	0.13%
3.2	36	-137.387	-132.312	-5.075	3.69%	5.34%
3.2	37	-113.243	-112.728	-0.515	0.45%	0.54%
10	38	-123.721	-119.502	-4.219	3.41%	4.44%
10	39	-121.054	-118.818	-2.236	1.85%	2.35%
10	40	-117.164	-117.277	0.113	-0.10%	0.12%
10	41	-118.029	-117.937	-0.092	0.08%	0.10%
10	42	-118.624	-118.624	0.000	0.00%	0.00%
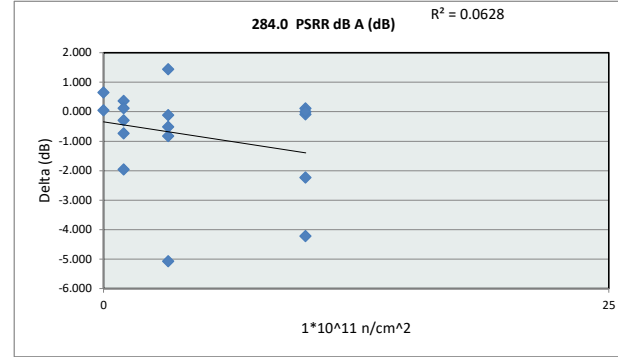
284.0 PSRR dB A (dB) $R^2 = 0.0628$

284.0 PSRR dB A (dB)				
Test Site				
Tester				
Test Number				
Max Limit	-95	dB		
Min Limit		dB		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-113.165	-119.227	-119.502	-132.312
Average	-113.112	-114.961	-118.432	-119.417
Max	-113.060	-111.377	-117.277	-112.728
UL	-95.000	-95.000	-95.000	-95.000

284.0 PSRR dB A (dB)
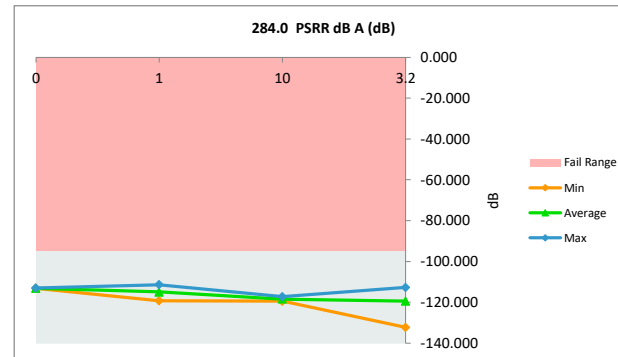
NDD Report
LMP2012

285.0 PSRR_B (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	17.78	17.78
Min Limit	-17.78	-17.78

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	1.013	1.022	-0.009	-0.89%	0.03%
0	27	-0.017	-0.096	0.079	-464.71%	0.22%
1	28	-0.091	-0.155	0.064	-70.33%	0.18%
1	29	0.186	0.060	0.126	67.74%	0.35%
1	30	-0.496	-0.554	0.058	-11.69%	0.16%
1	31	0.918	0.931	-0.013	-1.42%	0.04%
1	32	0.872	1.028	-0.156	-17.89%	0.44%
3.2	33	1.036	1.288	-0.252	-24.32%	0.71%
3.2	34	0.918	0.991	-0.073	-7.95%	0.21%
3.2	35	0.403	0.451	-0.048	-11.91%	0.13%
3.2	36	0.354	0.290	0.064	18.08%	0.18%
3.2	37	-0.116	-0.151	0.035	-30.17%	0.10%
10	38	0.339	0.513	-0.174	-51.33%	0.49%
10	39	-0.046	0.275	-0.321	697.83%	0.90%
10	40	0.300	0.206	0.094	31.33%	0.26%
10	41	0.449	0.222	0.227	50.56%	0.64%
10	42	-0.074	0.105	-0.179	241.89%	0.50%
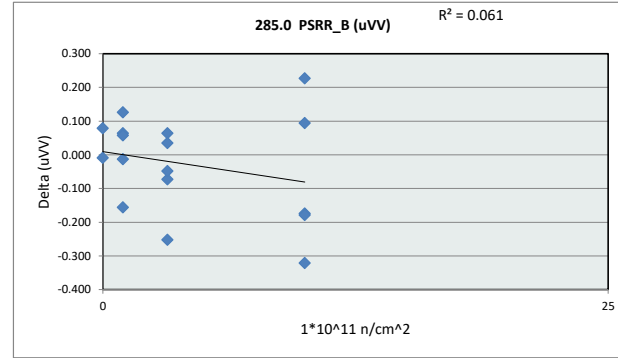
285.0 PSRR_B (uVV) — $R^2 = 0.061$

285.0 PSRR_B (uVV)		
Test Site		
Tester		
Test Number		
Max Limit	17.78	uVV
Min Limit	-17.78	uVV

1*10^11 n/cm^	0	1	10	3.2
LL	-17.780	-17.780	-17.780	-17.780
Min	-0.096	-0.554	0.105	-0.151
Average	0.463	0.262	0.264	0.574
Max	1.022	1.028	0.513	1.288
UL	17.780	17.780	17.780	17.780

285.0 PSRR_B (uVV)
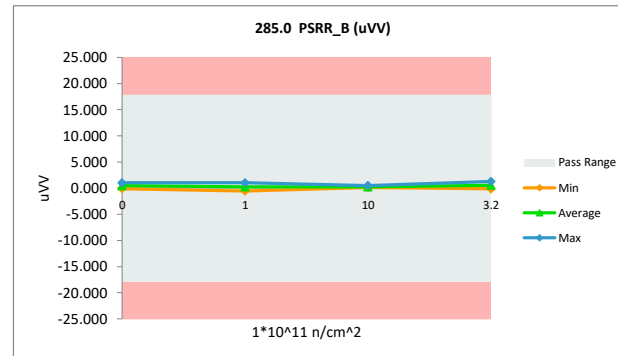
NDD Report
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286.0 PSRR dB B (dB)		
Test Site		
Tester		
Test Number		
Unit	dB	dB
Max Limit	-95	-95
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-119.800	-119.724	-0.076	0.06%	0.08%
0	27	-151.380	-139.526	-11.854	7.83%	12.48%
1	28	-139.901	-135.672	-4.229	3.02%	4.45%
1	29	-134.161	-143.114	8.953	-6.67%	9.42%
1	30	-125.918	-124.974	-0.944	0.75%	0.99%
1	31	-120.652	-120.527	-0.125	0.10%	0.13%
1	32	-121.089	-119.679	-1.410	1.16%	1.48%
3.2	33	-119.612	-117.737	-1.875	1.57%	1.97%
3.2	34	-120.652	-119.992	-0.660	0.55%	0.69%
3.2	35	-127.681	-126.721	-0.960	0.75%	1.01%
3.2	36	-128.781	-130.472	1.691	-1.31%	1.78%
3.2	37	-137.981	-135.863	-2.118	1.53%	2.23%
10	38	-129.152	-125.631	-3.521	2.73%	3.71%
10	39	-145.103	-130.896	-14.207	9.79%	14.95%
10	40	-130.166	-133.330	3.164	-2.43%	3.33%
10	41	-126.755	-132.705	5.950	-4.69%	6.26%
10	42	-141.497	-138.820	-2.677	1.89%	2.82%
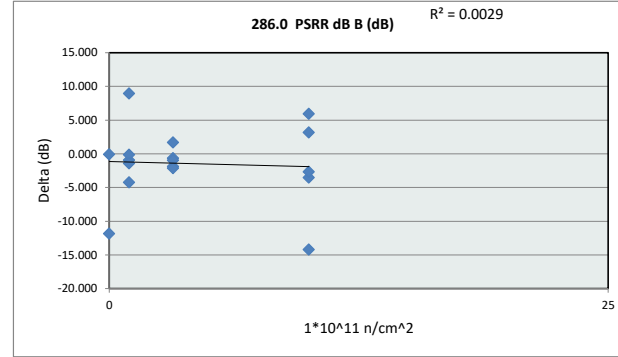
286.0 PSRR dB B (dB) $R^2 = 0.0029$

286.0 PSRR dB B (dB)		
Test Site		
Tester		
Test Number		
Max Limit	-95	dB
Min Limit		dB

1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-139.526	-143.114	-138.820	-135.863
Average	-129.625	-128.793	-132.276	-126.157
Max	-119.724	-119.679	-125.631	-117.737
UL	-95.000	-95.000	-95.000	-95.000

286.0 PSRR dB B (dB)

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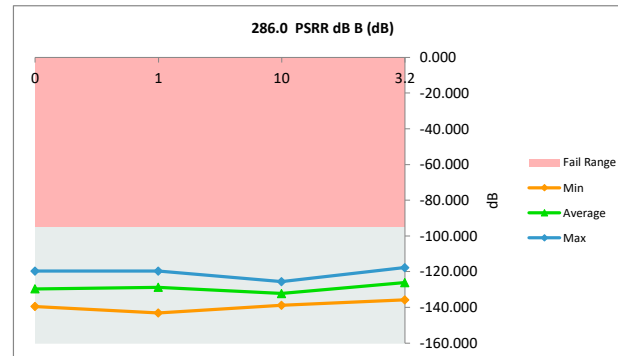
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
		400.0 vos@2p7V@n0p3_WRT_V				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
0	26	-2.714	-2.673	-0.041	1.51%	0.06%
0	27	10.043	10.067	-0.024	-0.24%	0.03%
1	28	4.833	3.848	0.985	20.38%	1.37%
1	29	5.127	4.219	0.908	17.71%	1.26%
1	30	7.314	7.063	0.251	3.43%	0.35%
1	31	1.297	1.339	-0.042	-3.24%	0.06%
1	32	8.102	8.551	-0.449	-5.54%	0.62%
3.2	33	4.710	4.635	0.075	1.59%	0.10%
3.2	34	-1.064	-0.983	-0.081	7.61%	0.11%
3.2	35	2.942	2.794	0.148	5.03%	0.21%
3.2	36	-0.129	-0.694	0.565	-437.98%	0.78%
3.2	37	0.321	-0.285	0.606	188.79%	0.84%
10	38	-7.130	-3.018	-4.112	57.67%	5.71%
10	39	5.717	5.515	0.202	3.53%	0.28%
10	40	2.182	3.472	-1.290	-59.12%	1.79%
10	41	1.529	1.249	0.280	18.31%	0.39%
10	42	1.160	2.861	-1.701	-146.64%	2.36%

400.0 vos@2p7V@n0p3_WRT_VEE(A) (uV) $R^2 = 0.3284$

	400.0 vos@2p7V@n0p3_WRT_	
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	-2.673	1.339	-3.018	-0.983
Average	3.697	5.004	2.016	1.093
Max	10.067	8.551	5.515	4.635
UL	36.000	36.000	36.000	36.000

400.0 vos@2p7V@n0p3_WRT_VEE(A) (uV)
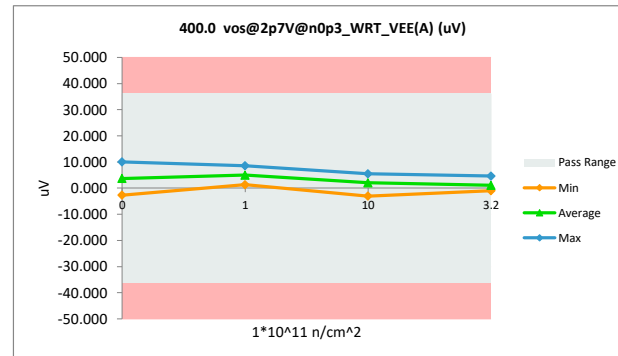
NDD Report
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	401.0 vos@2p7@1p5_below_VCC				
Test Site					
Tester					
Test Number					
Unit	uV	uV			
Max Limit	36	36			
Min Limit	-36	-36			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-2.967	-3.497	0.530	-17.86%	0.74%
0	27	8.984	8.807	0.177	1.97%	0.25%
1	28	4.878	4.511	0.367	7.52%	0.51%
1	29	4.590	3.472	1.118	24.36%	1.55%
1	30	7.656	7.250	0.406	5.30%	0.56%
1	31	2.592	2.146	0.446	17.21%	0.62%
1	32	6.916	6.925	-0.009	-0.13%	0.01%
3.2	33	6.785	6.321	0.464	6.84%	0.64%
3.2	34	0.979	0.901	0.078	7.97%	0.11%
3.2	35	2.799	2.423	0.376	13.43%	0.52%
3.2	36	0.513	-0.084	0.597	116.37%	0.83%
3.2	37	-1.237	-1.710	0.473	-38.24%	0.66%
10	38	-6.977	-2.624	-4.353	62.39%	6.05%
10	39	4.871	4.553	0.318	6.53%	0.44%
10	40	2.088	3.000	-0.912	-43.68%	1.27%
10	41	1.741	1.449	0.292	16.77%	0.41%
10	42	1.896	3.249	-1.353	-71.36%	1.88%
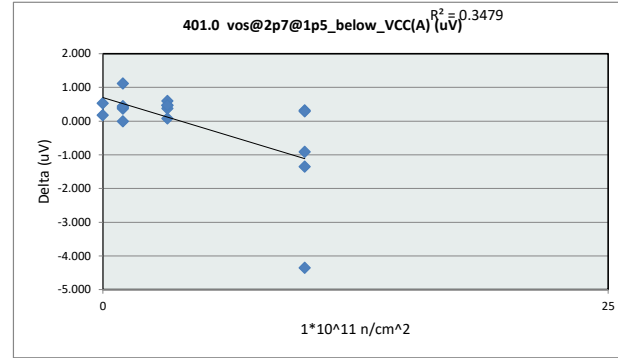
401.0 vos@2p7@1p5_below_VCC(A) (uV) $R^2 = 0.3479$

	401.0 vos@2p7@1p5_below_V			
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	-3.497	2.146	-2.624	-1.710
Average	2.655	4.861	1.925	1.570
Max	8.807	7.250	4.553	6.321
UL	36.000	36.000	36.000	36.000

401.0 vos@2p7@1p5_below_VCC(A) (uV)
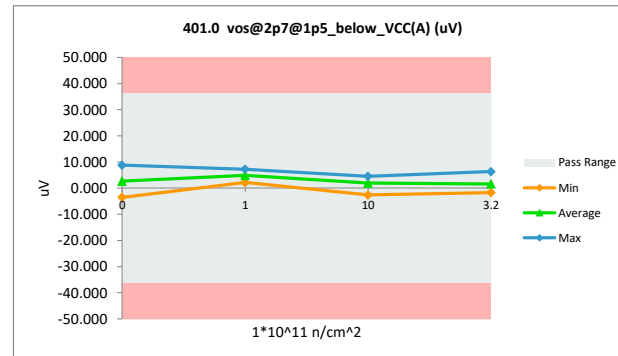
NDD Report
LMP2012

402.0 CMRR@2P7_A (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	17.78	17.78
Min Limit	-17.78	-17.78

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-0.140	-0.457	0.317	-226.43%	0.89%
0	27	-0.588	-0.700	0.112	-19.05%	0.31%
1	28	0.025	0.368	-0.343	-1372.00%	0.96%
1	29	-0.298	-0.415	0.117	-39.26%	0.33%
1	30	0.190	0.104	0.086	45.26%	0.24%
1	31	0.720	0.448	0.272	37.78%	0.76%
1	32	-0.659	-0.903	0.244	-37.03%	0.69%
3.2	33	1.153	0.937	0.216	18.73%	0.61%
3.2	34	1.135	1.047	0.088	7.75%	0.25%
3.2	35	-0.079	-0.206	0.127	-160.76%	0.36%
3.2	36	0.357	0.339	0.018	5.04%	0.05%
3.2	37	-0.865	-0.792	-0.073	8.44%	0.21%
10	38	0.085	0.218	-0.133	-156.47%	0.37%
10	39	-0.470	-0.534	0.064	-13.62%	0.18%
10	40	-0.052	-0.262	0.210	-403.85%	0.59%
10	41	0.118	0.111	0.007	5.93%	0.02%
10	42	0.409	0.215	0.194	47.43%	0.55%
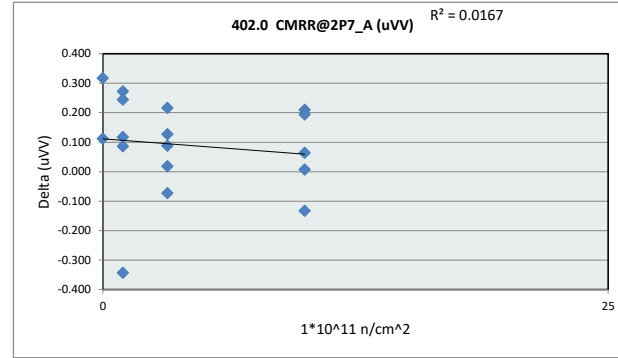
402.0 CMRR@2P7_A (uVV) $R^2 = 0.0167$

402.0 CMRR@2P7_A (uVV)		
Test Site		
Tester		
Test Number		
Max Limit	17.78	uVV
Min Limit	-17.78	uVV

1*10^11 n/cm^	0	1	10	3.2
LL	-17.780	-17.780	-17.780	-17.780
Min	-0.700	-0.903	-0.534	-0.792
Average	-0.578	-0.080	-0.050	0.265
Max	-0.457	0.448	0.218	1.047
UL	17.780	17.780	17.780	17.780

402.0 CMRR@2P7_A (uVV)
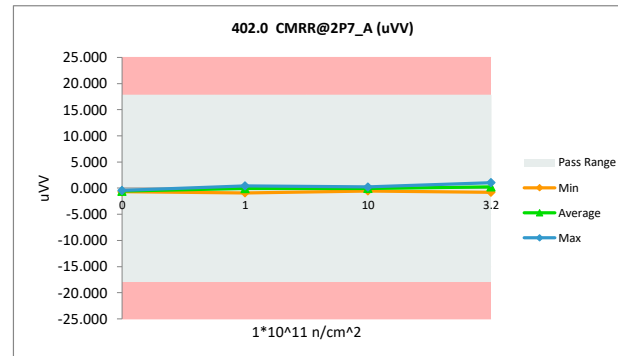
NDD Report
LMP2012

403.0 CMRRdB@2P7_A (dB)		
Test Site		
Tester		
Test Number		
Unit	dB	dB
Max Limit	-95	-95
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-136.451	-126.606	-9.845	7.22%	10.36%
0	27	-124.461	-122.977	-1.484	1.19%	1.56%
1	28	-149.145	-128.441	-20.704	13.88%	21.79%
1	29	-130.227	-127.435	-2.792	2.14%	2.94%
1	30	-133.973	-138.870	4.897	-3.66%	5.15%
1	31	-122.737	-126.779	4.042	-3.29%	4.25%
1	32	-123.488	-120.788	-2.700	2.19%	2.84%
3.2	33	-118.690	-120.472	1.782	-1.50%	1.88%
3.2	34	-118.822	-119.519	0.697	-0.59%	0.73%
3.2	35	-140.970	-133.304	-7.666	5.44%	8.07%
3.2	36	-128.713	-129.139	0.426	-0.33%	0.45%
3.2	37	-121.156	-121.919	0.763	-0.63%	0.80%
10	38	-140.438	-132.828	-7.610	5.42%	8.01%
10	39	-126.384	-125.287	-1.097	0.87%	1.15%
10	40	-144.116	-131.296	-12.820	8.90%	13.49%
10	41	-137.852	-138.315	0.463	-0.34%	0.49%
10	42	-127.552	-132.942	5.390	-4.23%	5.67%
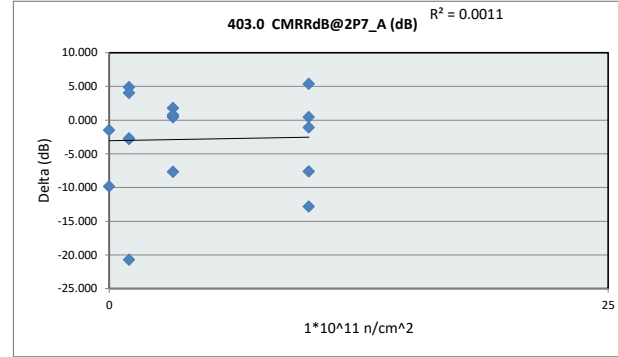
403.0 CMRRdB@2P7_A (dB) $R^2 = 0.0011$

403.0 CMRRdB@2P7_A (dB)		
Test Site		
Tester		
Test Number		
Max Limit	-95	dB
Min Limit		dB

1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-126.606	-138.870	-138.315	-133.304
Average	-124.792	-128.463	-132.134	-124.871
Max	-122.977	-120.788	-125.287	-119.519
UL	-95.000	-95.000	-95.000	-95.000

403.0 CMRRdB@2P7_A (dB)
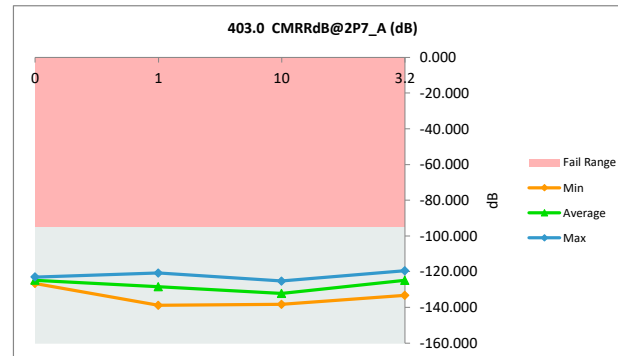
NDD Report
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	404.0 vos@2p7V@n0p3_WRT_VI				
Test Site					
Tester					
Test Number					
Unit	uV	uV			
Max Limit	36	36			
Min Limit	-36	-36			

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	1.436	1.603	-0.167	-11.63%	0.23%
0	27	2.238	3.856	-1.618	-72.30%	2.25%
1	28	3.333	4.414	-1.081	-32.43%	1.50%
1	29	5.662	5.815	-0.153	-2.70%	0.21%
1	30	8.646	9.337	-0.691	-7.99%	0.96%
1	31	2.691	3.294	-0.603	-22.41%	0.84%
1	32	1.138	1.140	-0.002	-0.18%	0.00%
3.2	33	3.613	5.114	-1.501	-41.54%	2.08%
3.2	34	3.675	3.567	0.108	2.94%	0.15%
3.2	35	3.766	3.496	0.270	7.17%	0.37%
3.2	36	5.145	6.136	-0.991	-19.26%	1.38%
3.2	37	5.450	6.689	-1.239	-22.73%	1.72%
10	38	4.297	4.981	-0.684	-15.92%	0.95%
10	39	2.043	2.891	-0.848	-41.51%	1.18%
10	40	2.603	3.409	-0.806	-30.96%	1.12%
10	41	1.256	3.075	-1.819	-144.82%	2.53%
10	42	1.527	2.706	-1.179	-77.21%	1.64%
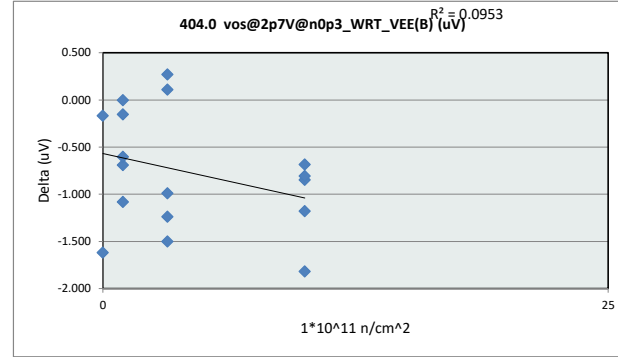
404.0 vos@2p7V@n0p3_WRT_VEE(B) (uV) $R^2 = 0.0953$

Delta (uV) vs 1*10^11 n/cm^2

	404.0 vos@2p7V@n0p3_WRT_			
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	1.603	1.140	2.706	3.496
Average	2.729	4.800	3.412	5.000
Max	3.856	9.337	4.981	6.689
UL	36.000	36.000	36.000	36.000

404.0 vos@2p7V@n0p3_WRT_VEE(B) (uV)

Legend: Pass Range, Min, Average, Max
uV vs 1*10^11 n/cm^2
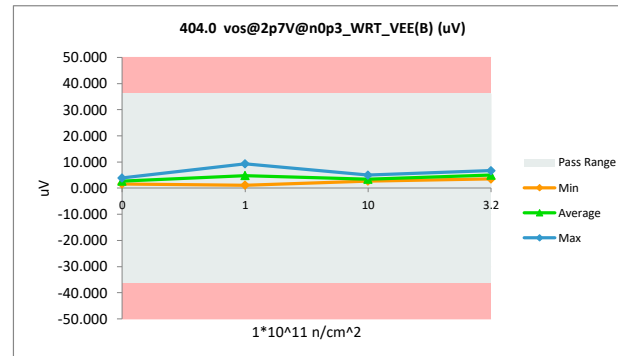
NDD Report
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		405.0 vos@2p7@1p5_below_VCC				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	2.361	2.379	-0.018	-0.76%	0.02%
0	27	3.751	5.262	-1.511	-40.28%	2.10%
1	28	4.068	5.534	-1.466	-36.04%	2.04%
1	29	6.565	6.558	0.007	0.11%	0.01%
1	30	9.977	11.248	-1.271	-12.74%	1.77%
1	31	3.302	4.640	-1.338	-40.52%	1.86%
1	32	1.908	2.053	-0.145	-7.60%	0.20%
3.2	33	3.946	5.776	-1.830	-46.38%	2.54%
3.2	34	4.109	5.105	-0.996	-24.24%	1.38%
3.2	35	3.941	3.662	0.279	7.08%	0.39%
3.2	36	5.749	6.705	-0.956	-16.63%	1.33%
3.2	37	6.034	7.586	-1.552	-25.72%	2.16%
10	38	4.880	6.178	-1.298	-26.60%	1.80%
10	39	2.963	3.720	-0.757	-25.55%	1.05%
10	40	3.301	4.150	-0.849	-25.72%	1.18%
10	41	1.721	3.496	-1.775	-103.14%	2.47%
10	42	2.693	3.314	-0.621	-23.06%	0.86%
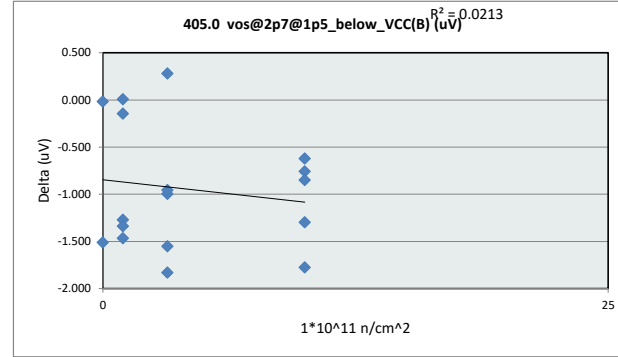
405.0 vos@2p7@1p5_below_VCC(B) (uV) $R^2 = 0.0213$

	405.0 vos@2p7@1p5_below_V			
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	2.379	2.053	3.314	3.662
Average	3.821	6.007	4.172	5.767
Max	5.262	11.248	6.178	7.586
UL	36.000	36.000	36.000	36.000

405.0 vos@2p7@1p5_below_VCC(B) (uV)
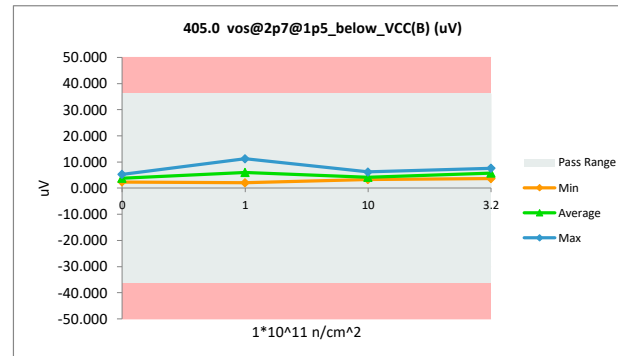
NDD Report
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406.0 CMRR@2P7_B (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	17.78	17.78
Min Limit	-17.78	-17.78

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.514	0.431	0.083	16.15%	0.23%
0	27	0.840	0.781	0.059	7.02%	0.17%
1	28	0.408	0.622	-0.214	-52.45%	0.60%
1	29	0.502	0.413	0.089	17.73%	0.25%
1	30	0.740	1.062	-0.322	-43.51%	0.91%
1	31	0.340	0.748	-0.408	-120.00%	1.15%
1	32	0.428	0.507	-0.079	-18.46%	0.22%
3.2	33	0.185	0.368	-0.183	-98.92%	0.51%
3.2	34	0.241	0.855	-0.614	-254.77%	1.73%
3.2	35	0.098	0.092	0.006	6.12%	0.02%
3.2	36	0.335	0.316	0.019	5.67%	0.05%
3.2	37	0.324	0.498	-0.174	-53.70%	0.49%
10	38	0.324	0.665	-0.341	-105.25%	0.96%
10	39	0.511	0.461	0.050	9.78%	0.14%
10	40	0.388	0.412	-0.024	-6.19%	0.07%
10	41	0.258	0.234	0.024	9.30%	0.07%
10	42	0.648	0.338	0.310	47.84%	0.87%
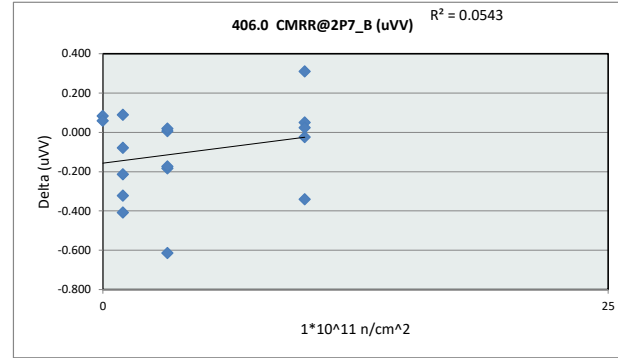
406.0 CMRR@2P7_B (uVV) $R^2 = 0.0543$

406.0 CMRR@2P7_B (uVV)		
Test Site		
Tester		
Test Number		
Max Limit	17.78	uVV
Min Limit	-17.78	uVV

1*10^11 n/cm^	0	1	10	3.2
LL	-17.780	-17.780	-17.780	-17.780
Min	0.431	0.413	0.234	0.092
Average	0.606	0.670	0.422	0.426
Max	0.781	1.062	0.665	0.855
UL	17.780	17.780	17.780	17.780

406.0 CMRR@2P7_B (uVV)
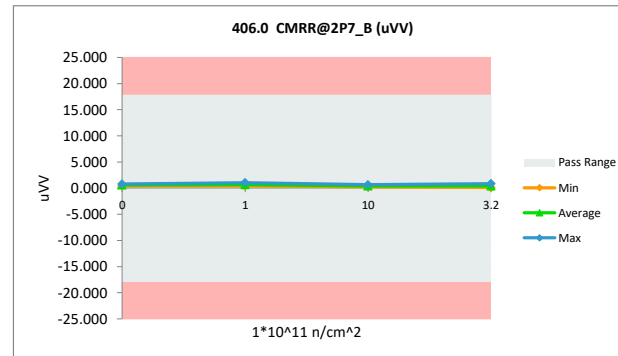
NDD Report
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407.0 CMRRdB@2P7_B (dB)		
Test Site		
Tester		
Test Number		
Unit	dB	dB
Max Limit	-95	-95
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-125.615	-127.112	1.497	-1.19%	1.58%
0	27	-121.408	-122.035	0.627	-0.52%	0.66%
1	28	-127.569	-123.979	-3.590	2.81%	3.78%
1	29	-125.819	-127.478	1.659	-1.32%	1.75%
1	30	-122.500	-119.397	-3.103	2.53%	3.27%
1	31	-129.130	-122.407	-6.723	5.21%	7.08%
1	32	-127.174	-125.724	-1.450	1.14%	1.53%
3.2	33	-134.189	-128.451	-5.738	4.28%	6.04%
3.2	34	-132.004	-121.262	-10.742	8.14%	11.31%
3.2	35	-139.353	-139.816	0.463	-0.33%	0.49%
3.2	36	-129.234	-129.732	0.498	-0.39%	0.52%
3.2	37	-129.523	-125.881	-3.642	2.81%	3.83%
10	38	-129.530	-123.416	-6.114	4.72%	6.44%
10	39	-125.662	-126.544	0.882	-0.70%	0.93%
10	40	-128.011	-127.500	-0.511	0.40%	0.54%
10	41	-131.437	-132.257	0.820	-0.62%	0.86%
10	42	-123.639	-129.171	5.532	-4.47%	5.82%
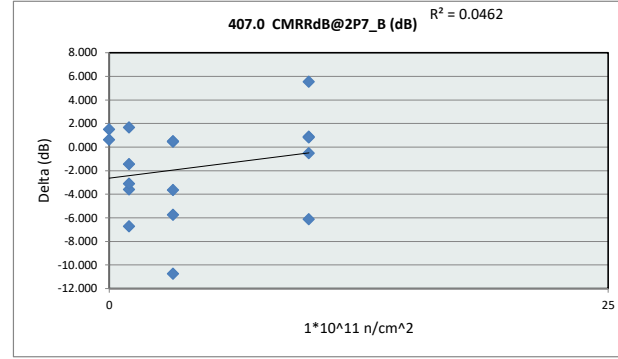
407.0 CMRRdB@2P7_B (dB) $R^2 = 0.0462$

407.0 CMRRdB@2P7_B (dB)		
Test Site		
Tester		
Test Number		
Max Limit	-95	dB
Min Limit		dB

1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-127.112	-127.478	-132.257	-139.816
Average	-124.574	-123.797	-127.778	-129.028
Max	-122.035	-119.397	-123.416	-121.262
UL	-95.000	-95.000	-95.000	-95.000

407.0 CMRRdB@2P7_B (dB)
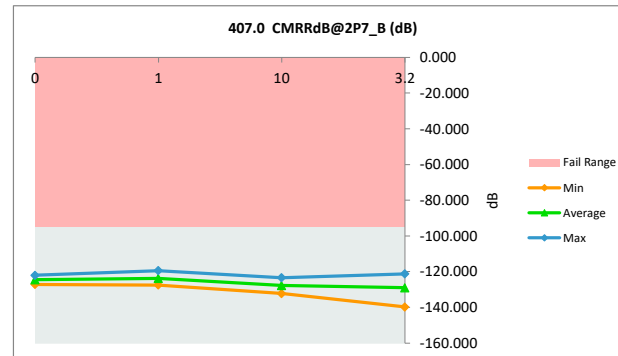
NDD Report
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416.0 vos_5p0V@n0p3_WRT_VE		
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	1.276	0.839	0.437	34.25%	0.61%
0	27	15.396	15.190	0.206	1.34%	0.29%
1	28	6.729	6.111	0.618	9.18%	0.86%
1	29	7.066	6.310	0.756	10.70%	1.05%
1	30	9.480	9.267	0.213	2.25%	0.30%
1	31	5.314	4.838	0.476	8.96%	0.66%
1	32	8.293	8.831	-0.538	-6.49%	0.75%
3.2	33	10.055	10.640	-0.585	-5.82%	0.81%
3.2	34	5.607	5.414	0.193	3.44%	0.27%
3.2	35	4.432	4.182	0.250	5.64%	0.35%
3.2	36	4.293	3.630	0.663	15.44%	0.92%
3.2	37	2.270	2.044	0.226	9.96%	0.31%
10	38	-4.529	-1.082	-3.447	76.11%	4.79%
10	39	9.014	9.968	-0.954	-10.58%	1.33%
10	40	5.474	6.251	-0.777	-14.19%	1.08%
10	41	5.638	5.683	-0.045	-0.80%	0.06%
10	42	5.347	6.595	-1.248	-23.34%	1.73%
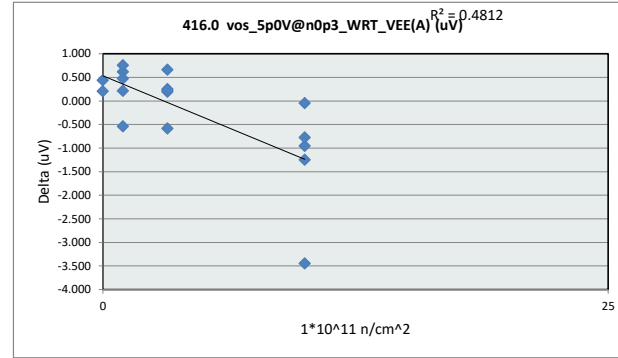
416.0 vos_5p0V@n0p3_WRT_VEE(A) (uV) $R^2 = 0.4812$

416.0 vos_5p0V@n0p3_WRT_		
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	0.839	4.838	-1.082	2.044
Average	8.014	7.071	5.483	5.182
Max	15.190	9.267	9.968	10.640
UL	36.000	36.000	36.000	36.000

416.0 vos_5p0V@n0p3_WRT_VEE(A) (uV)
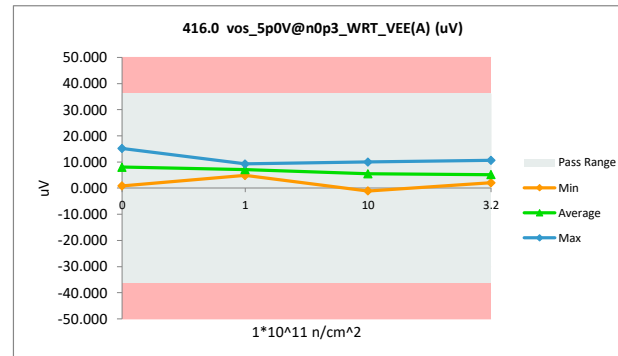
NDD Report
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		417.0 vos_5p0V@1p5_belowt_V				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	1.487	1.732	-0.245	-16.48%	0.34%
0	27	15.084	15.186	-0.102	-0.68%	0.14%
1	28	11.945	11.625	0.320	2.68%	0.44%
1	29	8.582	7.914	0.668	7.78%	0.93%
1	30	13.440	13.104	0.336	2.50%	0.47%
1	31	7.393	7.233	0.160	2.16%	0.22%
1	32	9.481	9.786	-0.305	-3.22%	0.42%
3.2	33	12.478	12.485	-0.007	-0.06%	0.01%
3.2	34	5.406	5.571	-0.165	-3.05%	0.23%
3.2	35	5.327	5.195	0.132	2.48%	0.18%
3.2	36	1.776	1.474	0.302	17.00%	0.42%
3.2	37	3.555	3.058	0.497	13.98%	0.69%
10	38	-7.055	-3.444	-3.611	51.18%	5.02%
10	39	6.888	7.293	-0.405	-5.88%	0.56%
10	40	5.247	6.832	-1.585	-30.21%	2.20%
10	41	5.239	5.340	-0.101	-1.93%	0.14%
10	42	5.072	6.541	-1.469	-28.96%	2.04%
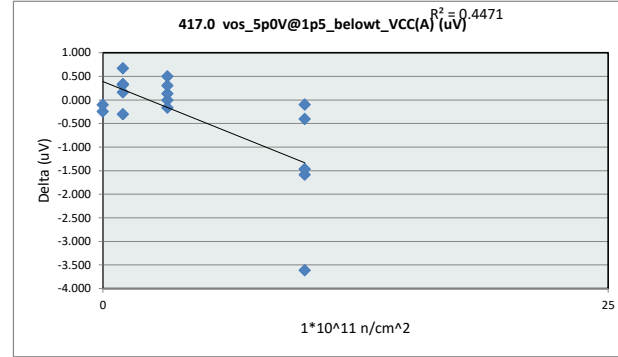
417.0 vos_5p0V@1p5_belowt_VCC(A) (uV) $R^2 = 0.4471$

	417.0 vos_5p0V@1p5_belowt_			
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	1.732	7.233	-3.444	1.474
Average	8.459	9.932	4.512	5.557
Max	15.186	13.104	7.293	12.485
UL	36.000	36.000	36.000	36.000

417.0 vos_5p0V@1p5_belowt_VCC(A) (uV)
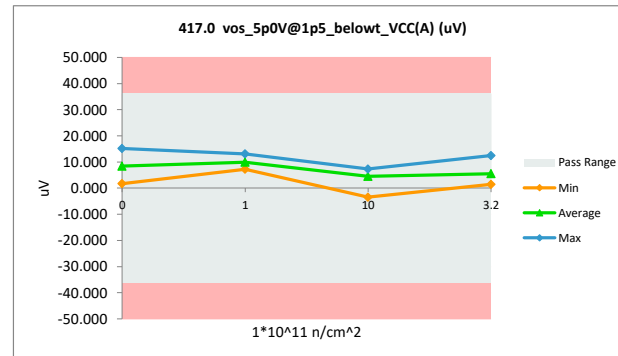
NDD Report
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418.0 CMRR@5P0A (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	10	10
Min Limit	-10	-10

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.056	0.235	-0.179	-319.64%	0.89%
0	27	-0.082	-0.001	-0.081	98.78%	0.41%
1	28	1.373	1.451	-0.078	-5.68%	0.39%
1	29	0.399	0.422	-0.023	-5.76%	0.12%
1	30	1.042	1.010	0.032	3.07%	0.16%
1	31	0.547	0.630	-0.083	-15.17%	0.42%
1	32	0.313	0.251	0.062	19.81%	0.31%
3.2	33	0.638	0.486	0.152	23.82%	0.76%
3.2	34	-0.053	0.041	-0.094	177.36%	0.47%
3.2	35	0.235	0.266	-0.031	-13.19%	0.16%
3.2	36	-0.662	-0.567	-0.095	14.35%	0.48%
3.2	37	0.338	0.267	0.071	21.01%	0.36%
10	38	-0.665	-0.622	-0.043	6.47%	0.22%
10	39	-0.559	-0.704	0.145	-25.94%	0.72%
10	40	-0.060	0.153	-0.213	355.00%	1.06%
10	41	-0.105	-0.090	-0.015	14.29%	0.07%
10	42	-0.072	-0.014	-0.058	80.56%	0.29%
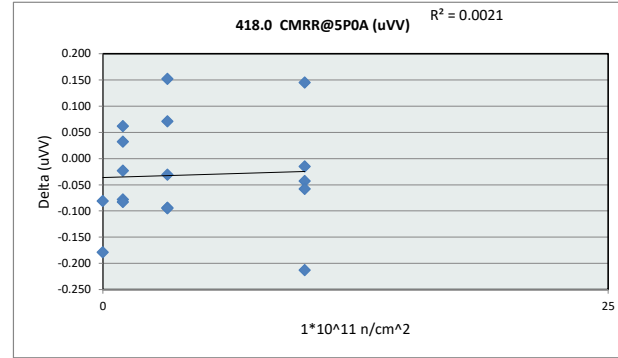
418.0 CMRR@5P0A (uVV) $R^2 = 0.0021$

418.0 CMRR@5P0A (uVV)		
Test Site		
Tester		
Test Number		
Max Limit	10	uVV
Min Limit	-10	uVV

1*10^11 n/cm^	0	1	10	3.2
LL	-10.000	-10.000	-10.000	-10.000
Min	-0.001	0.251	-0.704	-0.567
Average	0.117	0.753	-0.255	0.099
Max	0.235	1.451	0.153	0.486
UL	10.000	10.000	10.000	10.000

418.0 CMRR@5P0A (uVV)
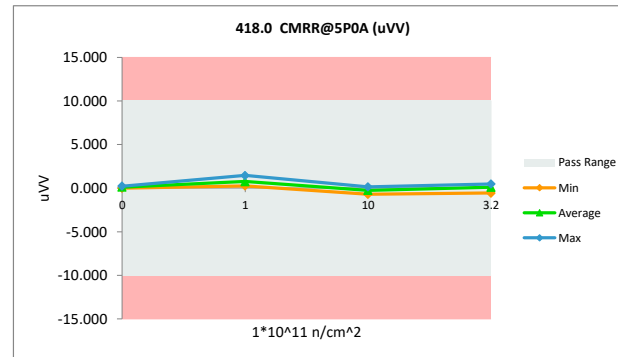
NDD Report
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419.0 CMRRdB@5P0A (dB)		
Test Site		
Tester		
Test Number		
Unit	dB	dB
Max Limit	-100	-100
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-143.668	-132.214	-11.454	7.97%	11.45%
0	27	-140.713	-159.180	18.467	-13.12%	18.47%
1	28	-117.186	-116.707	-0.479	0.41%	0.48%
1	29	-127.764	-127.288	-0.476	0.37%	0.48%
1	30	-119.559	-119.830	0.271	-0.23%	0.27%
1	31	-125.080	-123.872	-1.208	0.97%	1.21%
1	32	-129.827	-131.657	1.830	-1.41%	1.83%
3.2	33	-123.773	-126.097	2.324	-1.88%	2.32%
3.2	34	-144.034	-145.789	1.755	-1.22%	1.76%
3.2	35	-132.201	-131.167	-1.034	0.78%	1.03%
3.2	36	-123.449	-124.771	1.322	-1.07%	1.32%
3.2	37	-129.164	-131.149	1.985	-1.54%	1.99%
10	38	-123.415	-123.990	0.575	-0.47%	0.57%
10	39	-124.891	-122.928	-1.963	1.57%	1.96%
10	40	-143.116	-135.771	-7.345	5.13%	7.35%
10	41	-138.786	-139.982	1.196	-0.86%	1.20%
10	42	-141.706	-152.340	10.634	-7.50%	10.63%
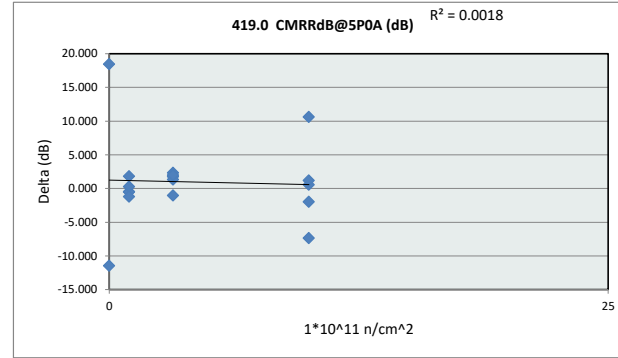
419.0 CMRRdB@5P0A (dB) $R^2 = 0.0018$

Delta (dB)

1*10^11 n/cm^2

419.0 CMRRdB@5P0A (dB)				
Test Site				
Tester				
Test Number				
Max Limit	-100	dB		
Min Limit		dB		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-159.180	-131.657	-152.340	-145.789
Average	-145.697	-123.871	-135.002	-131.795
Max	-132.214	-116.707	-122.928	-124.771
UL	-100.000	-100.000	-100.000	-100.000
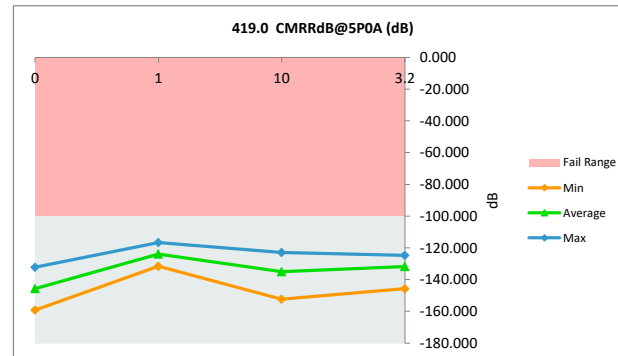
419.0 CMRRdB@5P0A (dB)

Fail Range
Min
Average
Max

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1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
			420.0 vos_5p0V@n0p3_WRT_VE			
Test Site						
Tester						
Test Number						
Unit		UV	UV			
Max Limit		36	36			
Min Limit		-36	-36			
0	26	4.058	4.003	0.055	1.36%	0.08%
0	27	4.562	5.759	-1.197	-26.24%	1.66%
1	28	4.059	5.741	-1.682	-41.44%	2.34%
1	29	7.083	7.040	0.043	0.61%	0.06%
1	30	9.689	10.480	-0.791	-8.16%	1.10%
1	31	6.156	6.800	-0.644	-10.46%	0.89%
1	32	3.715	3.960	-0.245	-6.59%	0.34%
3.2	33	6.597	8.241	-1.644	-24.92%	2.28%
3.2	34	6.660	7.073	-0.413	-6.20%	0.57%
3.2	35	5.370	5.474	-0.104	-1.94%	0.14%
3.2	36	7.538	8.694	-1.156	-15.34%	1.61%
3.2	37	6.610	7.613	-1.003	-15.17%	1.39%
10	38	5.741	6.998	-1.257	-21.90%	1.75%
10	39	3.234	4.437	-1.203	-37.20%	1.67%
10	40	3.820	4.901	-1.081	-28.30%	1.50%
10	41	3.532	5.110	-1.578	-44.68%	2.19%
10	42	2.415	3.860	-1.445	-59.83%	2.01%
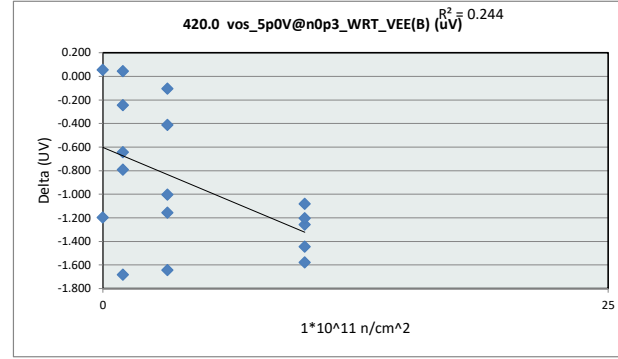
420.0 vos_5p0V@n0p3_WRT_VEE(B) (uV) $R^2 = 0.244$

420.0 vos_5p0V@n0p3_WRT_				
Test Site				
Tester				
Test Number				
Max Limit	36	UV		
Min Limit	-36	UV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	4.003	3.960	3.860	5.474
Average	4.881	6.804	5.061	7.419
Max	5.759	10.480	6.998	8.694
UL	36.000	36.000	36.000	36.000

420.0 vos_5p0V@n0p3_WRT_VEE(B) (uV)
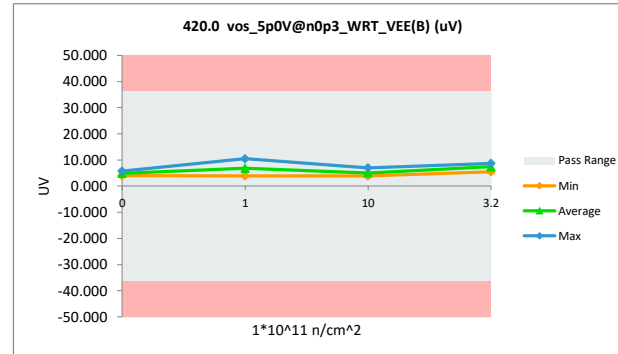
NDD Report
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	421.0 vos_5p0V@1p5_belowt_V	
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	4.872	4.852	0.020	0.41%	0.03%
0	27	5.063	6.647	-1.584	-31.29%	2.20%
1	28	5.152	6.689	-1.537	-29.83%	2.13%
1	29	8.183	8.206	-0.023	-0.28%	0.03%
1	30	10.754	11.928	-1.174	-10.92%	1.63%
1	31	7.336	8.232	-0.896	-12.21%	1.24%
1	32	4.798	4.716	0.082	1.71%	0.11%
3.2	33	7.587	9.708	-2.121	-27.96%	2.95%
3.2	34	6.999	7.865	-0.866	-12.37%	1.20%
3.2	35	5.779	5.452	0.327	5.66%	0.45%
3.2	36	6.886	7.560	-0.674	-9.79%	0.94%
3.2	37	7.004	8.255	-1.251	-17.86%	1.74%
10	38	6.773	8.681	-1.908	-28.17%	2.65%
10	39	4.375	5.245	-0.870	-19.89%	1.21%
10	40	4.800	5.623	-0.823	-17.15%	1.14%
10	41	3.942	4.984	-1.042	-26.43%	1.45%
10	42	2.909	4.320	-1.411	-48.50%	1.96%
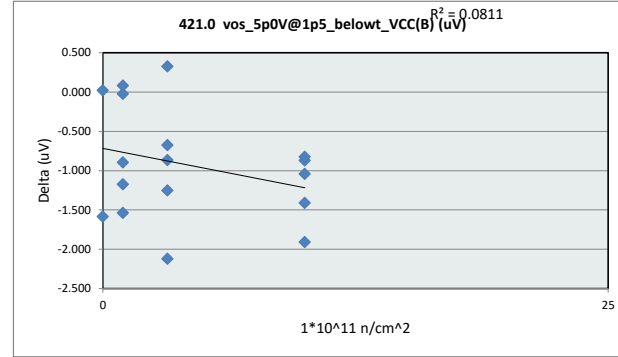
421.0 vos_5p0V@1p5_belowt_VCC(B) (uV) $R^2 = 0.0811$

	421.0 vos_5p0V@1p5_belowt_	
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	4.852	4.716	4.320	5.452
Average	5.750	7.954	5.771	7.768
Max	6.647	11.928	8.681	9.708
UL	36.000	36.000	36.000	36.000

421.0 vos_5p0V@1p5_belowt_VCC(B) (uV)
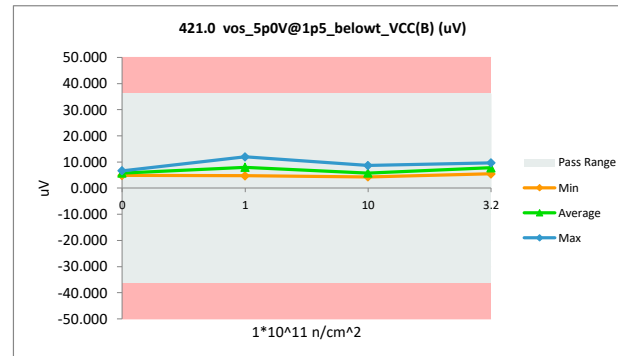
NDD Report
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422.0 CMRR@5PV B (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	10	10
Min Limit	-10	-10

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.214	0.223	-0.009	-4.21%	0.05%
0	27	0.132	0.234	-0.102	-77.27%	0.51%
1	28	0.287	0.250	0.037	12.89%	0.19%
1	29	0.289	0.307	-0.018	-6.23%	0.09%
1	30	0.280	0.381	-0.101	-36.07%	0.51%
1	31	0.311	0.377	-0.066	-21.22%	0.33%
1	32	0.285	0.199	0.086	30.18%	0.43%
3.2	33	0.260	0.386	-0.126	-48.46%	0.63%
3.2	34	0.089	0.208	-0.119	-133.71%	0.60%
3.2	35	0.108	-0.006	0.114	105.56%	0.57%
3.2	36	-0.172	-0.298	0.126	-73.26%	0.63%
3.2	37	0.104	0.169	-0.065	-62.50%	0.32%
10	38	0.271	0.443	-0.172	-63.47%	0.86%
10	39	0.300	0.212	0.088	29.33%	0.44%
10	40	0.258	0.190	0.068	26.36%	0.34%
10	41	0.108	-0.033	0.141	130.56%	0.71%
10	42	0.130	0.121	0.009	6.92%	0.04%
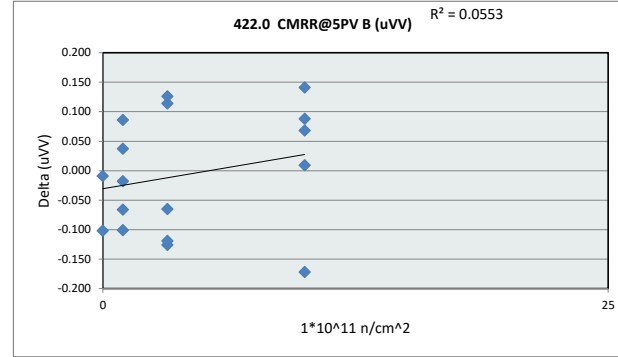
422.0 CMRR@5PV B (uVV)				
Test Site				
Tester				
Test Number				
Max Limit	10	uVV		
Min Limit	-10	uVV		
1*10^11 n/cm^	0	1	10	3.2
LL	-10.000	-10.000	-10.000	-10.000
Min	0.223	0.199	-0.033	-0.298
Average	0.229	0.303	0.187	0.092
Max	0.234	0.381	0.443	0.386
UL	10.000	10.000	10.000	10.000
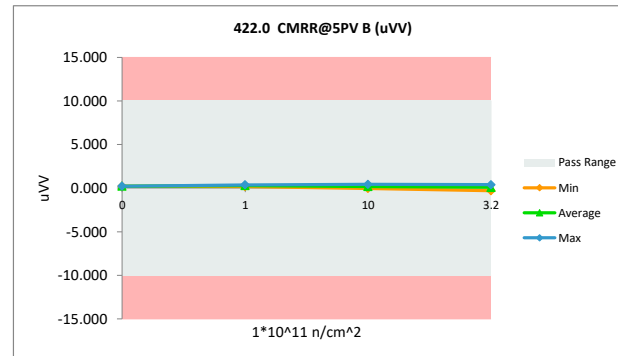
NDD Report
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423.0 CMRRdB@5V B (dB)		
Test Site		
Tester		
Test Number		
Unit	dB	dB
Max Limit	-100	-100
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-132.986	-132.638	-0.348	0.26%	0.35%
0	27	-136.954	-132.261	-4.693	3.43%	4.69%
1	28	-130.532	-131.716	1.184	-0.91%	1.18%
1	29	-130.472	-129.982	-0.490	0.38%	0.49%
1	30	-130.742	-128.158	-2.584	1.98%	2.58%
1	31	-129.882	-128.250	-1.632	1.26%	1.63%
1	32	-130.598	-133.600	3.002	-2.30%	3.00%
3.2	33	-131.358	-128.046	-3.312	2.52%	3.31%
3.2	34	-140.082	-133.218	-6.864	4.90%	6.86%
3.2	35	-138.587	-156.052	17.465	-12.60%	17.46%
3.2	36	-134.811	-130.220	-4.591	3.41%	4.59%
3.2	37	-138.880	-134.943	-3.937	2.83%	3.94%
10	38	-131.011	-126.881	-4.130	3.15%	4.13%
10	39	-130.164	-133.055	2.891	-2.22%	2.89%
10	40	-131.437	-133.974	2.537	-1.93%	2.54%
10	41	-138.589	-147.307	8.718	-6.29%	8.72%
10	42	-137.062	-137.652	0.590	-0.43%	0.59%
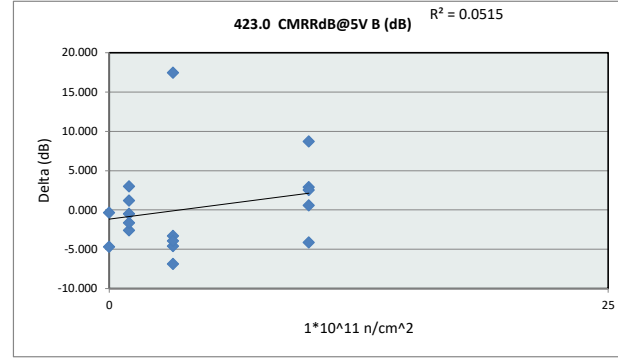
423.0 CMRRdB@5V B (dB), $R^2 = 0.0515$

423.0 CMRRdB@5V B (dB)				
Test Site				
Tester				
Test Number				
Max Limit	-100	dB		
Min Limit		dB		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-132.638	-133.600	-147.307	-156.052
Average	-132.450	-130.341	-135.774	-136.496
Max	-132.261	-128.158	-126.881	-128.046
UL	-100.000	-100.000	-100.000	-100.000

423.0 CMRRdB@5V B (dB)
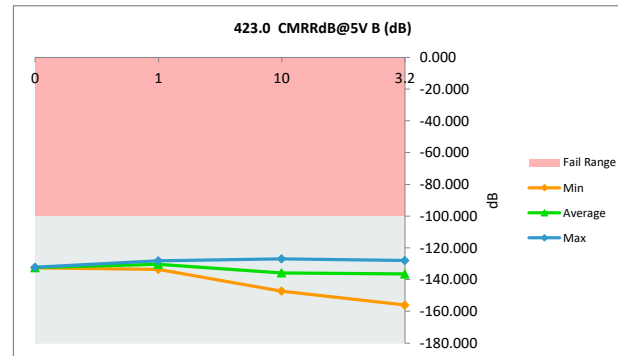
NDD Report
LMP2012

500.0 vos2k_@2p7V_Vout@0p3l		
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-4.797	-4.864	0.067	-1.40%	0.09%
0	27	9.053	8.249	0.804	8.88%	1.12%
1	28	3.528	2.617	0.911	25.82%	1.27%
1	29	4.059	2.974	1.085	26.73%	1.51%
1	30	5.206	4.767	0.439	8.43%	0.61%
1	31	1.941	1.882	0.059	3.04%	0.08%
1	32	6.210	5.851	0.359	5.78%	0.50%
3.2	33	6.330	5.792	0.538	8.50%	0.75%
3.2	34	0.802	0.604	0.198	24.69%	0.28%
3.2	35	1.749	1.269	0.480	27.44%	0.67%
3.2	36	0.808	0.043	0.765	94.68%	1.06%
3.2	37	-2.701	-3.219	0.518	-19.18%	0.72%
10	38	-5.874	-1.508	-4.366	74.33%	6.06%
10	39	3.721	4.016	-0.295	-7.93%	0.41%
10	40	1.421	2.608	-1.187	-83.53%	1.65%
10	41	1.255	0.983	0.272	21.67%	0.38%
10	42	1.146	3.003	-1.857	-162.04%	2.58%
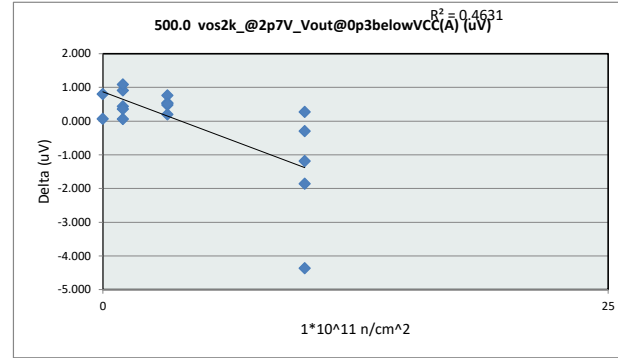
500.0 vos2k_@2p7V_Vout@0p3belowVCC(A) (uV) — $R^2 = 0.4631$

500.0 vos2k_@2p7V_Vout@0p				
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	-4.864	1.882	-1.508	-3.219
Average	1.692	3.618	1.820	0.898
Max	8.249	5.851	4.016	5.792
UL	36.000	36.000	36.000	36.000

500.0 vos2k_@2p7V_Vout@0p3belowVCC(A) (uV)
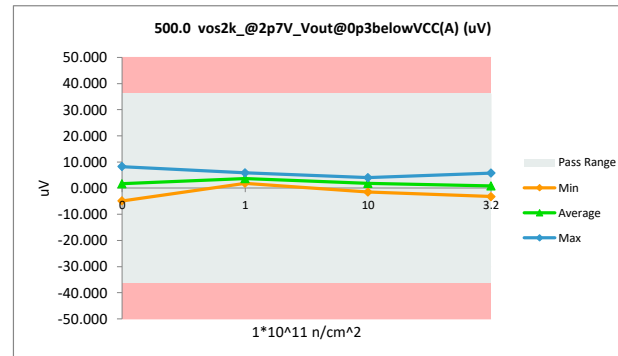
NDD Report
LMP2012

501.0 vos2k_@2p7V_Vout@0p3a

Test Site					
Tester					
Test Number					
Unit	uV	uV			
Max Limit	36	36			
Min Limit	-36	-36			

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-5.023	-5.047	0.024	-0.48%	0.03%
0	27	8.753	8.819	-0.066	-0.75%	0.09%
1	28	3.735	2.849	0.886	23.72%	1.23%
1	29	4.120	3.453	0.667	16.19%	0.93%
1	30	5.808	5.057	0.751	12.93%	1.04%
1	31	1.896	1.676	0.220	11.60%	0.31%
1	32	6.126	6.144	-0.018	-0.29%	0.03%
3.2	33	6.334	6.000	0.334	5.27%	0.46%
3.2	34	0.439	0.945	-0.506	-115.26%	0.70%
3.2	35	1.758	1.418	0.340	19.34%	0.47%
3.2	36	1.219	0.165	1.054	86.46%	1.46%
3.2	37	-2.774	-3.316	0.542	-19.54%	0.75%
10	38	-6.284	-1.381	-4.903	78.02%	6.81%
10	39	4.138	3.917	0.221	5.34%	0.31%
10	40	1.679	2.707	-1.028	-61.23%	1.43%
10	41	1.522	1.081	0.441	28.98%	0.61%
10	42	1.648	3.311	-1.663	-100.91%	2.31%
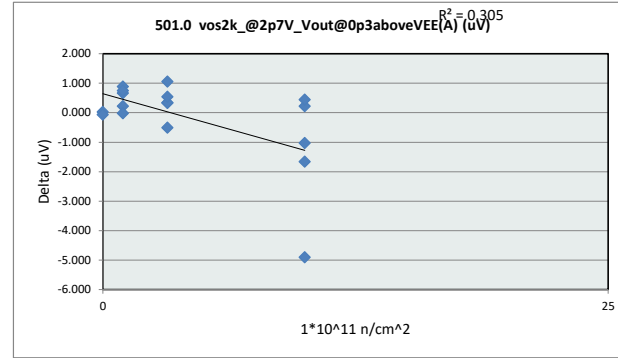
$R^2 = 0.305$

501.0 vos2k_@2p7V_Vout@0p3aboveVEE(A) (uV)

501.0 vos2k_@2p7V_Vout@0p

Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	-5.047	1.676	-1.381	-3.316
Average	1.886	3.836	1.927	1.042
Max	8.819	6.144	3.917	6.000
UL	36.000	36.000	36.000	36.000

501.0 vos2k_@2p7V_Vout@0p3aboveVEE(A) (uV)

Legend: Pass Range, Min, Average, Max
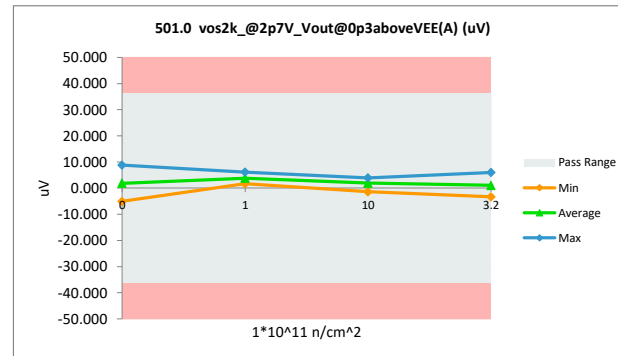
NDD Report
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		502.0 gain2k@2p7(A) (uVV)				
Test Site						
Tester						
Test Number						
Unit		uVV	uVV			
Max Limit		31.62	31.62			
Min Limit		-31.62	-31.62			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-0.108	-0.087	-0.021	19.44%	0.03%
0	27	-0.143	0.271	-0.414	289.51%	0.65%
1	28	0.099	0.111	-0.012	-12.12%	0.02%
1	29	0.029	0.228	-0.199	-686.21%	0.31%
1	30	0.287	0.138	0.149	51.92%	0.24%
1	31	-0.022	-0.098	0.076	-345.45%	0.12%
1	32	-0.040	0.140	-0.180	450.00%	0.28%
3.2	33	0.002	0.099	-0.097	-4850.00%	0.15%
3.2	34	-0.173	0.162	-0.335	193.64%	0.53%
3.2	35	0.005	0.071	-0.066	-1320.00%	0.10%
3.2	36	0.195	0.058	0.137	70.26%	0.22%
3.2	37	-0.035	-0.046	0.011	-31.43%	0.02%
10	38	-0.195	0.060	-0.255	130.77%	0.40%
10	39	0.198	-0.047	0.245	123.74%	0.39%
10	40	0.123	0.047	0.076	61.79%	0.12%
10	41	0.127	0.047	0.080	62.99%	0.13%
10	42	0.239	0.147	0.092	38.49%	0.15%
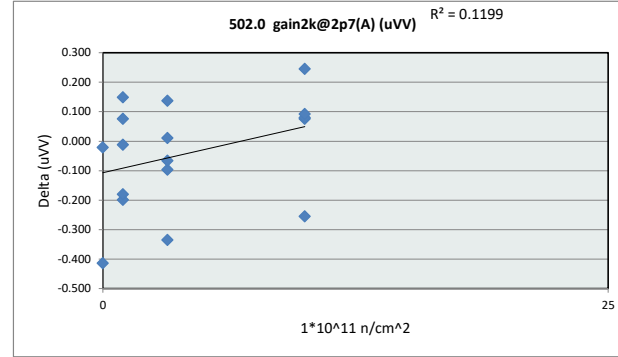
502.0 gain2k@2p7(A) (uVV) — $R^2 = 0.1199$

	502.0 gain2k@2p7(A) (uVV)			
Test Site				
Tester				
Test Number				
Max Limit	31.62	uVV		
Min Limit	-31.62	uVV		
1*10^11 n/cm^	0	1	10	3.2
LL	-31.620	-31.620	-31.620	-31.620
Min	-0.087	-0.098	-0.047	-0.046
Average	0.092	0.104	0.051	0.069
Max	0.271	0.228	0.147	0.162
UL	31.620	31.620	31.620	31.620

502.0 gain2k@2p7(A) (uVV)
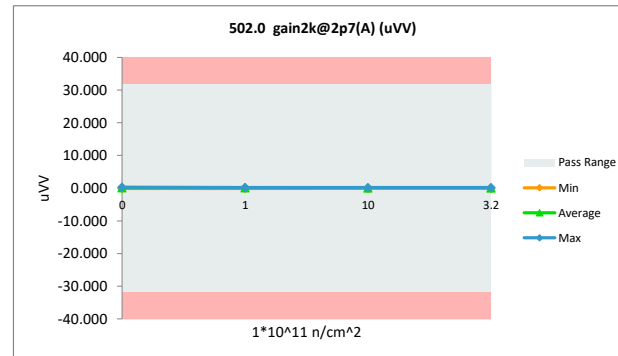
NDD Report
LMP2012

		503.0 gain2kdB@2p7(A) (dB)	
Test Site			
Tester			
Test Number			
Unit	dB	dB	
Max Limit	-90	-90	
Min Limit			

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-138.598	-140.252	1.654	-1.19%	1.84%
0	27	-136.294	-131.016	-5.278	3.87%	5.86%
1	28	-139.256	-138.370	-0.886	0.64%	0.98%
1	29	-148.210	-132.467	-15.743	10.62%	17.49%
1	30	-130.552	-136.594	6.042	-4.63%	6.71%
1	31	-149.996	-139.302	-10.694	7.13%	11.88%
1	32	-146.090	-136.486	-9.604	6.57%	10.67%
3.2	33	-158.398	-139.224	-19.174	12.10%	21.30%
3.2	34	-134.748	-135.276	0.528	-0.39%	0.59%
3.2	35	-156.747	-141.837	-14.910	9.51%	16.57%
3.2	36	-133.749	-143.319	9.570	-7.16%	10.63%
3.2	37	-146.985	-144.988	-1.997	1.36%	2.22%
10	38	-133.774	-143.049	9.275	-6.93%	10.31%
10	39	-133.630	-144.868	11.238	-8.41%	12.49%
10	40	-137.531	-144.918	7.387	-5.37%	8.21%
10	41	-137.273	-144.951	7.678	-5.59%	8.53%
10	42	-132.070	-136.101	4.031	-3.05%	4.48%
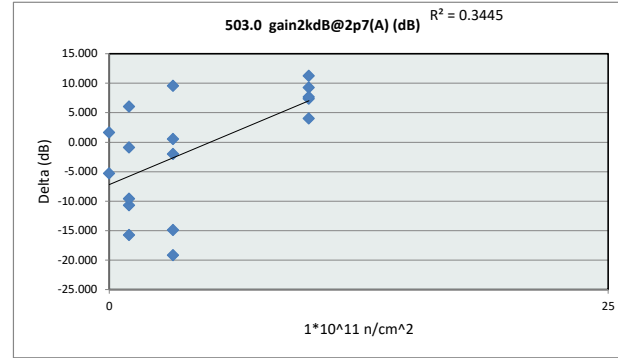
503.0 gain2kdB@2p7(A) (dB) $R^2 = 0.3445$

	503.0 gain2kdB@2p7(A) (dB)		
Test Site			
Tester			
Test Number			
Max Limit	-90	dB	
Min Limit		dB	

1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-140.252	-139.302	-144.951	-144.988
Average	-135.634	-136.644	-142.777	-140.929
Max	-131.016	-132.467	-136.101	-135.276
UL	-90.000	-90.000	-90.000	-90.000

503.0 gain2kdB@2p7(A) (dB)
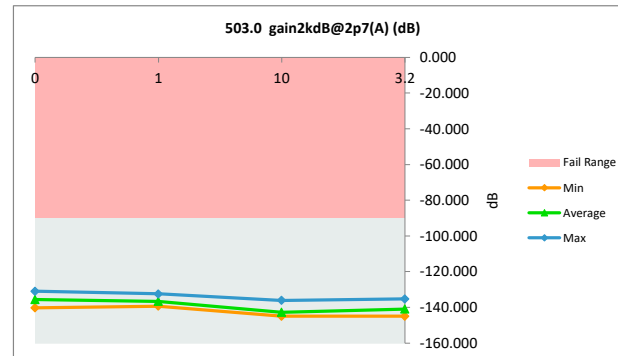
NDD Report
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		504.0 vos2k_@2p7V_Vout@0p3l				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	2.032	2.314	-0.282	-13.88%	0.39%
0	27	4.183	5.792	-1.609	-38.47%	2.23%
1	28	4.633	6.019	-1.386	-29.92%	1.93%
1	29	7.184	6.811	0.373	5.19%	0.52%
1	30	10.542	11.390	-0.848	-8.04%	1.18%
1	31	3.749	5.068	-1.319	-35.18%	1.83%
1	32	1.464	1.612	-0.148	-10.11%	0.21%
3.2	33	4.176	5.765	-1.589	-38.05%	2.21%
3.2	34	4.283	4.998	-0.715	-16.69%	0.99%
3.2	35	3.966	3.695	0.271	6.83%	0.38%
3.2	36	4.927	6.597	-1.670	-33.89%	2.32%
3.2	37	6.334	8.094	-1.760	-27.79%	2.44%
10	38	5.261	6.418	-1.157	-21.99%	1.61%
10	39	3.030	4.005	-0.975	-32.18%	1.35%
10	40	2.846	4.408	-1.562	-54.88%	2.17%
10	41	1.823	3.483	-1.660	-91.06%	2.31%
10	42	2.265	3.493	-1.228	-54.22%	1.71%
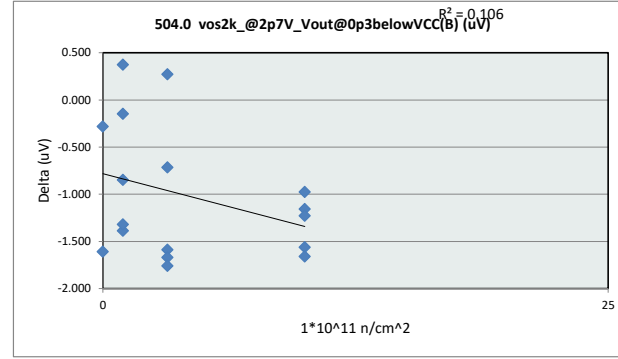
504.0 vos2k_@2p7V_Vout@0p3belowVCC(B) (uV) $R^2 = 0.106$

		504.0 vos2k_@2p7V_Vout@0p		
Test Site				
Tester				
Test Number				
Max Limit		36	uV	
Min Limit		-36	uV	
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	2.314	1.612	3.483	3.695
Average	4.053	6.180	4.361	5.830
Max	5.792	11.390	6.418	8.094
UL	36.000	36.000	36.000	36.000

504.0 vos2k_@2p7V_Vout@0p3belowVCC(B) (uV)
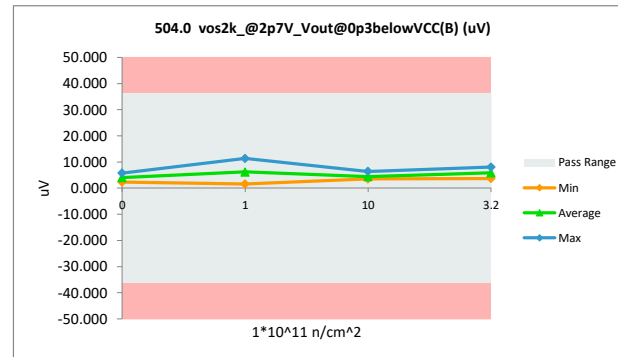
NDD Report
LMP2012

505.0 vos2k_@2p7V_Vout@0p3a		
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	2.639	2.740	-0.101	-3.83%	0.14%
0	27	4.183	5.662	-1.479	-35.36%	2.05%
1	28	4.951	6.286	-1.335	-26.96%	1.85%
1	29	7.292	7.109	0.183	2.51%	0.25%
1	30	11.320	12.151	-0.831	-7.34%	1.15%
1	31	3.888	4.971	-1.083	-27.85%	1.50%
1	32	1.735	2.032	-0.297	-17.12%	0.41%
3.2	33	4.450	5.868	-1.418	-31.87%	1.97%
3.2	34	4.580	4.973	-0.393	-8.58%	0.55%
3.2	35	4.294	4.077	0.217	5.05%	0.30%
3.2	36	5.704	6.943	-1.239	-21.72%	1.72%
3.2	37	6.699	8.068	-1.369	-20.44%	1.90%
10	38	5.373	7.026	-1.653	-30.76%	2.30%
10	39	3.173	4.027	-0.854	-26.91%	1.19%
10	40	3.282	4.422	-1.140	-34.73%	1.58%
10	41	2.106	3.778	-1.672	-79.39%	2.32%
10	42	2.630	3.548	-0.918	-34.90%	1.27%
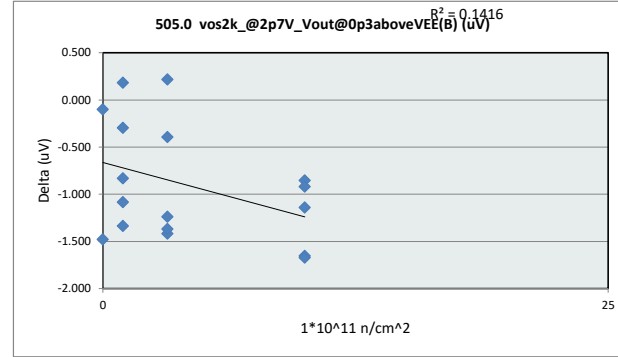
$R^2 = 0.1416$

505.0 vos2k_@2p7V_Vout@0p3aboveVEE(B) (uV)

505.0 vos2k_@2p7V_Vout@0p				
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	2.740	2.032	3.548	4.077
Average	4.201	6.510	4.560	5.986
Max	5.662	12.151	7.026	8.068
UL	36.000	36.000	36.000	36.000

505.0 vos2k_@2p7V_Vout@0p3aboveVEE(B) (uV)
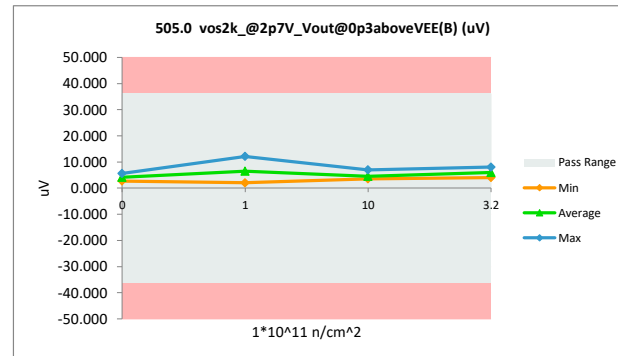
NDD Report
LMP2012

506.0 gain2k@2p7(B) (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	31.62	31.62
Min Limit	-31.62	-31.62

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.289	0.203	0.086	29.76%	0.14%
0	27	0.000	-0.062	0.062	#DIV/0!	0.10%
1	28	0.151	0.127	0.024	15.89%	0.04%
1	29	0.051	0.142	-0.091	-178.43%	0.14%
1	30	0.371	0.362	0.009	2.43%	0.01%
1	31	0.066	-0.046	0.112	169.70%	0.18%
1	32	0.129	0.200	-0.071	-55.04%	0.11%
3.2	33	0.130	0.049	0.081	62.31%	0.13%
3.2	34	0.141	-0.012	0.153	108.51%	0.24%
3.2	35	0.156	0.182	-0.026	-16.67%	0.04%
3.2	36	0.370	0.165	0.205	55.41%	0.32%
3.2	37	0.174	-0.012	0.186	106.90%	0.29%
10	38	0.053	0.290	-0.237	-447.17%	0.37%
10	39	0.068	0.011	0.057	83.82%	0.09%
10	40	0.208	0.007	0.201	96.63%	0.32%
10	41	0.135	0.140	-0.005	-3.70%	0.01%
10	42	0.173	0.026	0.147	84.97%	0.23%
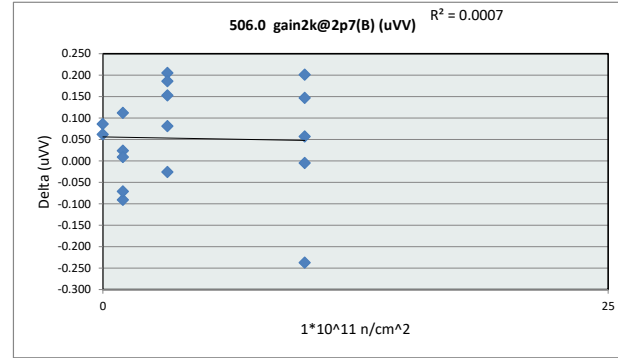
506.0 gain2k@2p7(B) (uVV) $R^2 = 0.0007$

506.0 gain2k@2p7(B) (uVV)		
Test Site		
Tester		
Test Number		
Max Limit	31.62	uVV
Min Limit	-31.62	uVV

1*10^11 n/cm^	0	1	10	3.2
LL	-31.620	-31.620	-31.620	-31.620
Min	-0.062	-0.046	0.007	-0.012
Average	0.070	0.157	0.095	0.074
Max	0.203	0.362	0.290	0.182
UL	31.620	31.620	31.620	31.620

506.0 gain2k@2p7(B) (uVV)
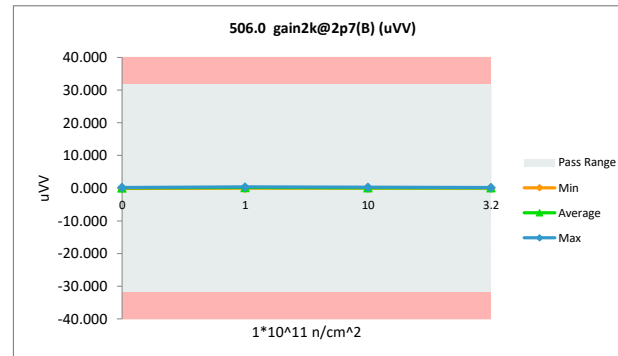
NDD Report
LMP2012

507.0 gain2kdB@2p7(B) (dB)		
Test Site		
Tester		
Test Number		
Unit	dB	dB
Max Limit	-90	-90
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-130.492	-133.450	2.958	-2.27%	3.29%
0	27	-159.792	-142.873	-16.919	10.59%	18.80%
1	28	-135.850	-137.245	1.395	-1.03%	1.55%
1	29	-144.234	-136.390	-7.844	5.44%	8.72%
1	30	-128.385	-128.586	0.201	-0.16%	0.22%
1	31	-142.378	-145.061	2.683	-1.88%	2.98%
1	32	-137.137	-133.572	-3.565	2.60%	3.96%
3.2	33	-137.062	-144.619	7.557	-5.51%	8.40%
3.2	34	-136.418	-153.211	16.793	-12.31%	18.66%
3.2	35	-135.592	-134.347	-1.245	0.92%	1.38%
3.2	36	-128.396	-135.154	6.758	-5.26%	7.51%
3.2	37	-134.699	-153.024	18.325	-13.60%	20.36%
10	38	-143.956	-130.470	-13.486	9.37%	14.98%
10	39	-142.158	-153.591	11.433	-8.04%	12.70%
10	40	-133.236	-155.346	22.110	-16.59%	24.57%
10	41	-136.784	-136.454	-0.330	0.24%	0.37%
10	42	-134.728	-148.862	14.134	-10.49%	15.70%
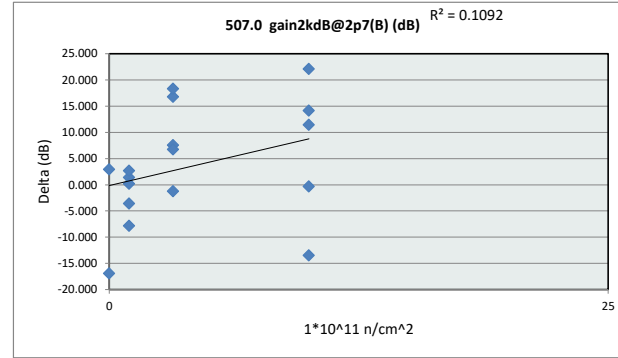
507.0 gain2kdB@2p7(B) (dB) $R^2 = 0.1092$

507.0 gain2kdB@2p7(B) (dB)		
Test Site		
Tester		
Test Number		
Max Limit	-90	dB
Min Limit		dB

1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-142.873	-145.061	-155.346	-153.211
Average	-138.161	-136.171	-144.945	-144.071
Max	-133.450	-128.586	-130.470	-134.347
UL	-90.000	-90.000	-90.000	-90.000

507.0 gain2kdB@2p7(B) (dB)
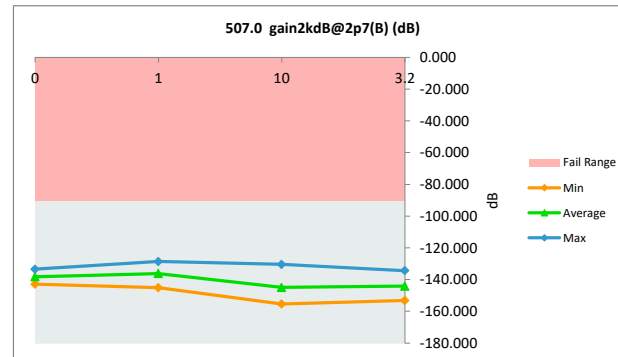
NDD Report
LMP2012

516.0 vos2k_@5p0_Vout@0p3be		
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.866	1.232	-0.366	-42.26%	0.51%
0	27	14.227	14.070	0.157	1.10%	0.22%
1	28	10.341	9.729	0.612	5.92%	0.85%
1	29	7.470	6.819	0.651	8.71%	0.90%
1	30	11.748	11.268	0.480	4.09%	0.67%
1	31	6.784	7.006	-0.222	-3.27%	0.31%
1	32	8.346	9.020	-0.674	-8.08%	0.94%
3.2	33	10.579	10.645	-0.066	-0.62%	0.09%
3.2	34	4.328	4.360	-0.032	-0.74%	0.04%
3.2	35	4.741	4.841	-0.100	-2.11%	0.14%
3.2	36	2.316	1.821	0.495	21.37%	0.69%
3.2	37	3.353	2.921	0.432	12.88%	0.60%
10	38	-6.666	-2.951	-3.715	55.73%	5.16%
10	39	6.291	6.627	-0.336	-5.34%	0.47%
10	40	5.435	6.723	-1.288	-23.70%	1.79%
10	41	5.169	4.955	0.214	4.14%	0.30%
10	42	4.709	5.806	-1.097	-23.30%	1.52%
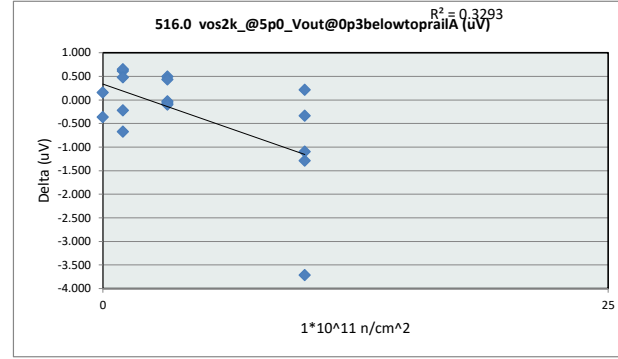
$R^2 = 0.3293$

516.0 vos2k_@5p0_Vout@0p3belowtoprailA (uV)

516.0 vos2k_@5p0_Vout@0p3		
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	1.232	6.819	-2.951	1.821
Average	7.651	8.768	4.232	4.918
Max	14.070	11.268	6.723	10.645
UL	36.000	36.000	36.000	36.000

516.0 vos2k_@5p0_Vout@0p3belowtoprailA (uV)
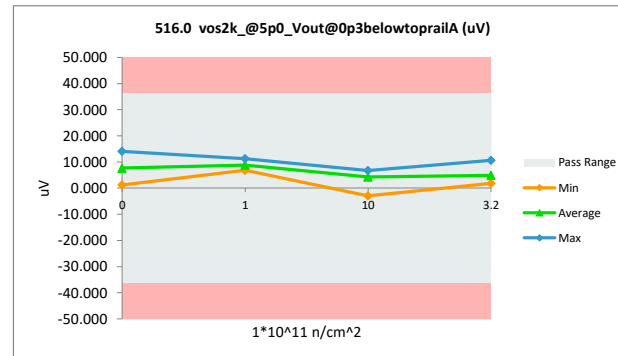
NDD Report
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517.0 vos2k_@5p0_Vout@0p3ab		
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.963	1.495	-0.532	-55.24%	0.74%
0	27	14.648	14.234	0.414	2.83%	0.57%
1	28	11.835	11.172	0.663	5.60%	0.92%
1	29	8.466	7.563	0.903	10.67%	1.25%
1	30	13.440	13.474	-0.034	-0.25%	0.05%
1	31	7.210	7.128	0.082	1.14%	0.11%
1	32	9.981	10.226	-0.245	-2.45%	0.34%
3.2	33	12.029	12.235	-0.206	-1.71%	0.29%
3.2	34	5.597	6.045	-0.448	-8.00%	0.62%
3.2	35	5.894	5.883	0.011	0.19%	0.02%
3.2	36	2.410	1.579	0.831	34.48%	1.15%
3.2	37	3.462	3.304	0.158	4.56%	0.22%
10	38	-9.589	-4.514	-5.075	52.93%	7.05%
10	39	7.770	8.449	-0.679	-8.74%	0.94%
10	40	6.214	7.956	-1.742	-28.03%	2.42%
10	41	5.321	5.643	-0.322	-6.05%	0.45%
10	42	5.412	6.875	-1.463	-27.03%	2.03%
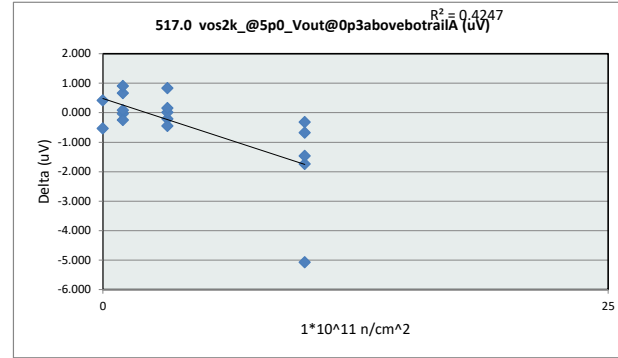
517.0 vos2k_@5p0_Vout@0p3abovebotrailA (uV) $R^2 = 0.4247$

517.0 vos2k_@5p0_Vout@0p3		
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	1.495	7.128	-4.514	1.579
Average	7.865	9.913	4.882	5.809
Max	14.234	13.474	8.449	12.235
UL	36.000	36.000	36.000	36.000

517.0 vos2k_@5p0_Vout@0p3abovebotrailA (uV)
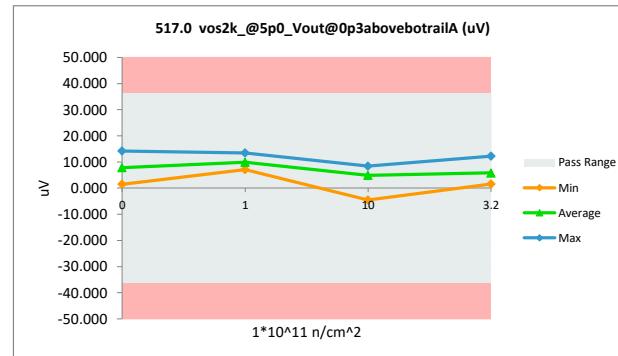
NDD Report
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518.0 gain2k@5p0A (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	31.62	31.62
Min Limit	-31.62	-31.62

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.022	0.060	-0.038	-172.73%	0.06%
0	27	0.096	0.037	0.059	61.46%	0.09%
1	28	0.339	0.328	0.011	3.24%	0.02%
1	29	0.226	0.169	0.057	25.22%	0.09%
1	30	0.385	0.501	-0.116	-30.13%	0.18%
1	31	0.097	0.028	0.069	71.13%	0.11%
1	32	0.372	0.274	0.098	26.34%	0.15%
3.2	33	0.329	0.361	-0.032	-9.73%	0.05%
3.2	34	0.288	0.383	-0.095	-32.99%	0.15%
3.2	35	0.262	0.237	0.025	9.54%	0.04%
3.2	36	0.021	-0.055	0.076	361.90%	0.12%
3.2	37	0.025	0.087	-0.062	-248.00%	0.10%
10	38	-0.664	-0.355	-0.309	46.54%	0.49%
10	39	0.336	0.414	-0.078	-23.21%	0.12%
10	40	0.177	0.280	-0.103	-58.19%	0.16%
10	41	0.035	0.156	-0.121	-345.71%	0.19%
10	42	0.160	0.243	-0.083	-51.88%	0.13%
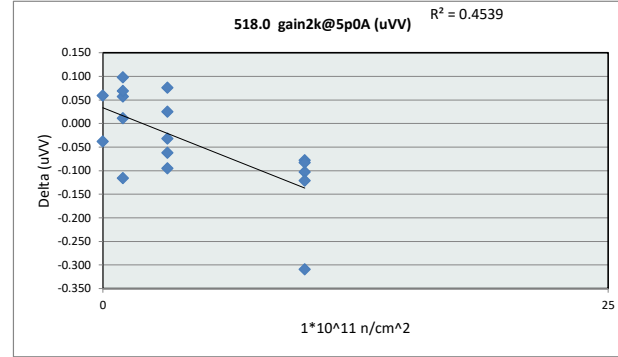
518.0 gain2k@5p0A (uVV) — $R^2 = 0.4539$

518.0 gain2k@5p0A (uVV)		
Test Site		
Tester		
Test Number		
Max Limit	31.62	uVV
Min Limit	-31.62	uVV

1*10^11 n/cm^	0	1	10	3.2
LL	-31.620	-31.620	-31.620	-31.620
Min	0.037	0.028	-0.355	-0.055
Average	0.048	0.260	0.148	0.203
Max	0.060	0.501	0.414	0.383
UL	31.620	31.620	31.620	31.620

518.0 gain2k@5p0A (uVV)
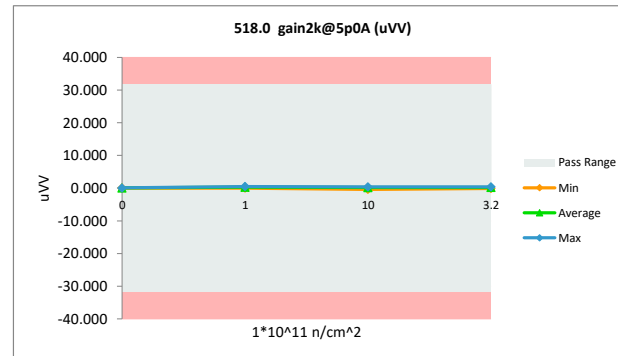
NDD Report
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519.0 gain2kdB@5p0A (dB)		
Test Site		
Tester		
Test Number		
Unit	dB	dB
Max Limit	-95	-95
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-149.922	-143.136	-6.786	4.53%	7.14%
0	27	-139.518	-146.519	7.001	-5.02%	7.37%
1	28	-129.132	-129.420	0.288	-0.22%	0.30%
1	29	-132.530	-134.934	2.404	-1.81%	2.53%
1	30	-128.075	-125.828	-2.247	1.75%	2.37%
1	31	-139.434	-148.476	9.042	-6.48%	9.52%
1	32	-128.367	-130.929	2.562	-2.00%	2.70%
3.2	33	-129.385	-128.606	-0.779	0.60%	0.82%
3.2	34	-130.502	-128.116	-2.386	1.83%	2.51%
3.2	35	-131.301	-132.155	0.854	-0.65%	0.90%
3.2	36	-150.074	-143.753	-6.321	4.21%	6.65%
3.2	37	-149.181	-140.251	-8.930	5.99%	9.40%
10	38	-123.423	-128.752	5.329	-4.32%	5.61%
10	39	-129.215	-127.450	-1.765	1.37%	1.86%
10	40	-134.561	-130.747	-3.814	2.83%	4.01%
10	41	-147.031	-135.579	-11.452	7.79%	12.05%
10	42	-135.405	-131.937	-3.468	2.56%	3.65%
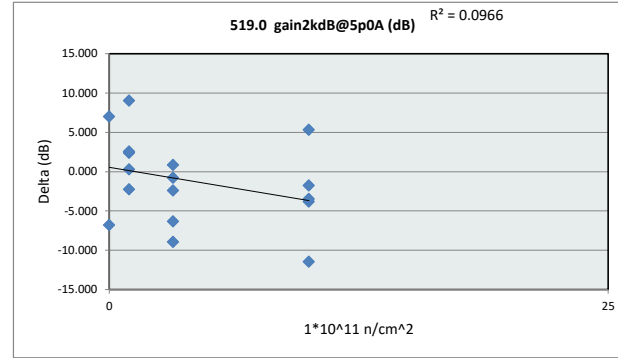
519.0 gain2kdB@5p0A (dB)				
Test Site				
Tester				
Test Number				
Max Limit	-95	dB		
Min Limit		dB		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-146.519	-148.476	-135.579	-143.753
Average	-144.827	-133.917	-130.893	-134.576
Max	-143.136	-125.828	-127.450	-128.116
UL	-95.000	-95.000	-95.000	-95.000
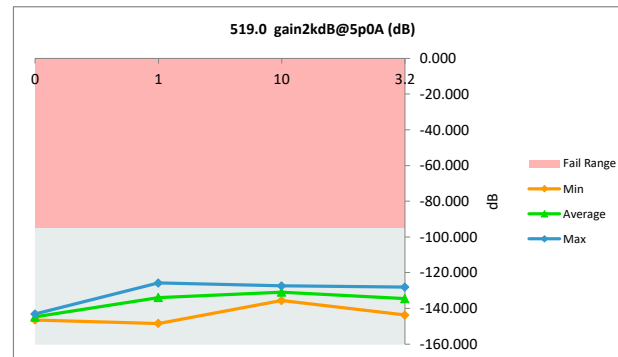
NDD Report
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		520.0 vos2k_@5p0_Vout@0p3be				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	4.310	4.233	0.077	1.79%	0.11%
0	27	4.396	6.065	-1.669	-37.97%	2.32%
1	28	4.432	5.978	-1.546	-34.88%	2.15%
1	29	7.349	7.166	0.183	2.49%	0.25%
1	30	9.990	11.016	-1.026	-10.27%	1.43%
1	31	6.220	7.211	-0.991	-15.93%	1.38%
1	32	4.333	4.432	-0.099	-2.28%	0.14%
3.2	33	6.844	8.888	-2.044	-29.87%	2.84%
3.2	34	6.827	7.218	-0.391	-5.73%	0.54%
3.2	35	5.443	5.292	0.151	2.77%	0.21%
3.2	36	6.505	7.278	-0.773	-11.88%	1.07%
3.2	37	6.446	7.797	-1.351	-20.96%	1.88%
10	38	6.271	7.963	-1.692	-26.98%	2.35%
10	39	3.690	4.996	-1.306	-35.39%	1.81%
10	40	4.672	5.366	-0.694	-14.85%	0.96%
10	41	3.626	4.625	-0.999	-27.55%	1.39%
10	42	2.617	3.847	-1.230	-47.00%	1.71%
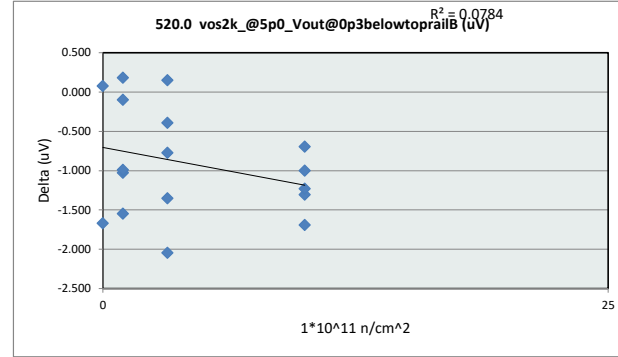
520.0 vos2k_@5p0_Vout@0p3belowtoprailB (uV) $R^2 = 0.0784$

	520.0 vos2k_@5p0_Vout@0p3	
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	4.233	4.432	3.847	5.292
Average	5.149	7.161	5.359	7.295
Max	6.065	11.016	7.963	8.888
UL	36.000	36.000	36.000	36.000

520.0 vos2k_@5p0_Vout@0p3belowtoprailB (uV)
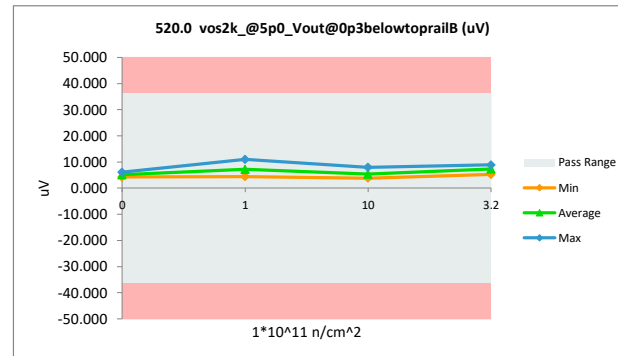
NDD Report
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521.0 vos2k_@5p0_Vout@0p3ab		
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	5.521	5.483	0.038	0.69%	0.05%
0	27	5.170	6.529	-1.359	-26.29%	1.89%
1	28	5.214	6.728	-1.514	-29.04%	2.10%
1	29	8.781	8.101	0.680	7.74%	0.94%
1	30	11.158	12.162	-1.004	-9.00%	1.39%
1	31	7.250	8.069	-0.819	-11.30%	1.14%
1	32	4.801	4.893	-0.092	-1.92%	0.13%
3.2	33	7.375	9.365	-1.990	-26.98%	2.76%
3.2	34	7.752	8.042	-0.290	-3.74%	0.40%
3.2	35	6.373	5.964	0.409	6.42%	0.57%
3.2	36	7.476	8.739	-1.263	-16.89%	1.75%
3.2	37	7.750	8.731	-0.981	-12.66%	1.36%
10	38	7.079	8.964	-1.885	-26.63%	2.62%
10	39	3.986	5.208	-1.222	-30.66%	1.70%
10	40	5.104	5.966	-0.862	-16.89%	1.20%
10	41	4.073	5.430	-1.357	-33.32%	1.88%
10	42	3.344	4.232	-0.888	-26.56%	1.23%
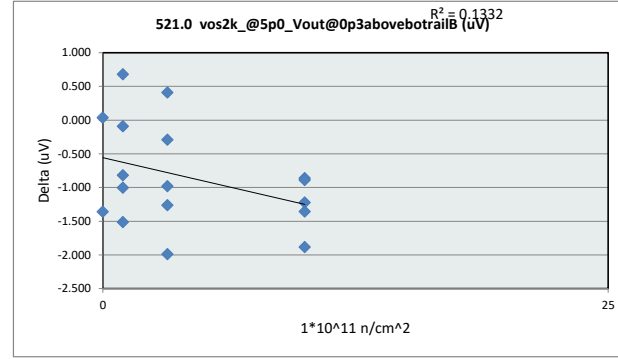
521.0 vos2k_@5p0_Vout@0p3abovebotrailB (uV) $R^2 = 0.1332$

521.0 vos2k_@5p0_Vout@0p3		
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	5.483	4.893	4.232	5.964
Average	6.006	7.991	5.960	8.168
Max	6.529	12.162	8.964	9.365
UL	36.000	36.000	36.000	36.000

521.0 vos2k_@5p0_Vout@0p3abovebotrailB (uV)
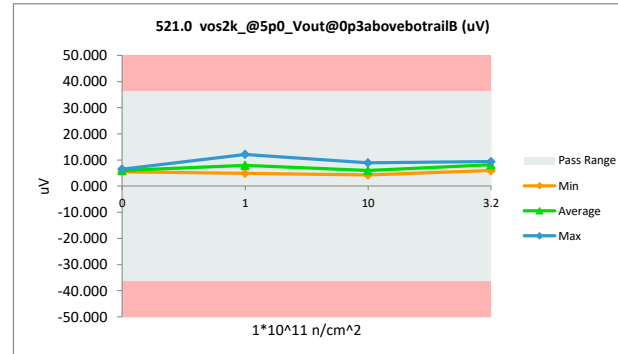
NDD Report
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522.0 gain2k@5p0B (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	31.62	31.62
Min Limit	-31.62	-31.62

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.275	0.284	-0.009	-3.27%	0.01%
0	27	0.176	0.105	0.071	40.34%	0.11%
1	28	0.178	0.171	0.007	3.93%	0.01%
1	29	0.325	0.212	0.113	34.77%	0.18%
1	30	0.266	0.260	0.006	2.26%	0.01%
1	31	0.234	0.195	0.039	16.67%	0.06%
1	32	0.106	0.105	0.001	0.94%	0.00%
3.2	33	0.121	0.108	0.013	10.74%	0.02%
3.2	34	0.210	0.187	0.023	10.95%	0.04%
3.2	35	0.211	0.153	0.058	27.49%	0.09%
3.2	36	0.221	0.332	-0.111	-50.23%	0.18%
3.2	37	0.296	0.212	0.084	28.38%	0.13%
10	38	0.184	0.227	-0.043	-23.37%	0.07%
10	39	0.067	0.048	0.019	28.36%	0.03%
10	40	0.098	0.136	-0.038	-38.78%	0.06%
10	41	0.102	0.183	-0.081	-79.41%	0.13%
10	42	0.165	0.087	0.078	47.27%	0.12%
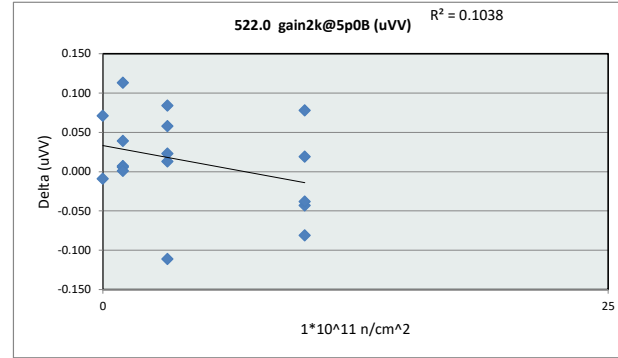
522.0 gain2k@5p0B (uVV) — $R^2 = 0.1038$

522.0 gain2k@5p0B (uVV)				
Test Site				
Tester				
Test Number				
Max Limit	31.62	uVV		
Min Limit	-31.62	uVV		

1*10^11 n/cm^	0	1	10	3.2
LL	-31.620	-31.620	-31.620	-31.620
Min	0.105	0.105	0.048	0.108
Average	0.195	0.189	0.136	0.198
Max	0.284	0.260	0.227	0.332
UL	31.620	31.620	31.620	31.620

522.0 gain2k@5p0B (uVV)
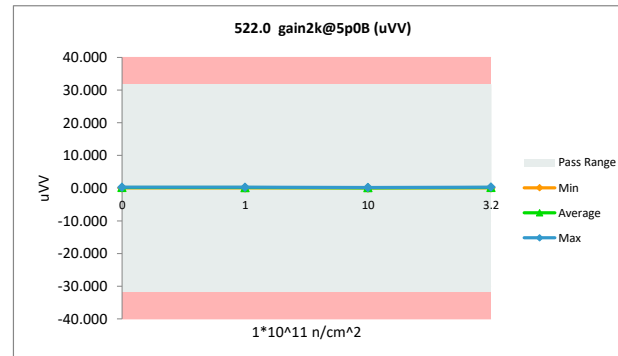
NDD Report
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523.0 gain2kdB@5p0B (dB)		
Test Site		
Tester		
Test Number		
Unit	dB	dB
Max Limit	-95	-95
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-130.895	-130.631	-0.264	0.20%	0.28%
0	27	-134.612	-138.749	4.137	-3.07%	4.35%
1	28	-134.528	-134.863	0.335	-0.25%	0.35%
1	29	-129.487	-133.056	3.569	-2.76%	3.76%
1	30	-131.197	-131.360	0.163	-0.12%	0.17%
1	31	-132.253	-133.767	1.514	-1.14%	1.59%
1	32	-138.680	-138.813	0.133	-0.10%	0.14%
3.2	33	-137.680	-138.533	0.853	-0.62%	0.90%
3.2	34	-133.139	-134.096	0.957	-0.72%	1.01%
3.2	35	-133.104	-135.767	2.663	-2.00%	2.80%
3.2	36	-132.742	-129.323	-3.419	2.58%	3.60%
3.2	37	-130.272	-133.058	2.786	-2.14%	2.93%
10	38	-134.262	-132.490	-1.772	1.32%	1.87%
10	39	-142.230	-144.718	2.488	-1.75%	2.62%
10	40	-139.309	-136.698	-2.611	1.87%	2.75%
10	41	-139.037	-134.290	-4.747	3.41%	5.00%
10	42	-135.127	-140.223	5.096	-3.77%	5.36%
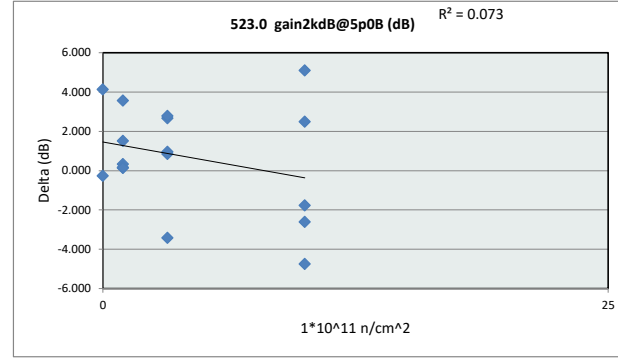
$R^2 = 0.073$

523.0 gain2kdB@5p0B (dB)

523.0 gain2kdB@5p0B (dB)		
Test Site		
Tester		
Test Number		
Max Limit	-95	dB
Min Limit		dB

1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-138.749	-138.813	-144.718	-138.533
Average	-134.690	-134.372	-137.684	-134.155
Max	-130.631	-131.360	-132.490	-129.323
UL	-95.000	-95.000	-95.000	-95.000

523.0 gain2kdB@5p0B (dB)
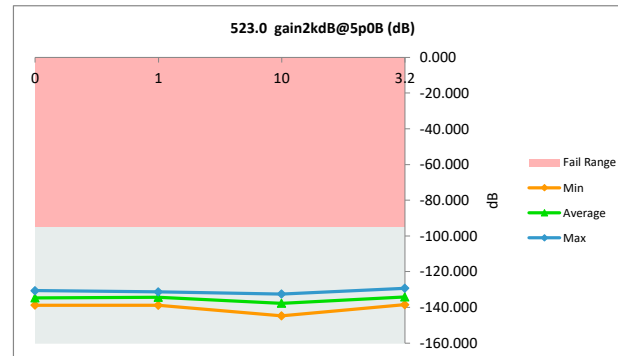
NDD Report
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	532.0 vos10k_@2p7_Vout@0p3b	
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-4.563	-5.024	0.461	-10.10%	0.64%
0	27	9.074	8.397	0.677	7.46%	0.94%
1	28	3.752	2.628	1.124	29.96%	1.56%
1	29	4.068	2.889	1.179	28.98%	1.64%
1	30	5.820	5.001	0.819	14.07%	1.14%
1	31	1.785	1.945	-0.160	-8.96%	0.22%
1	32	6.519	5.869	0.650	9.97%	0.90%
3.2	33	6.243	5.808	0.435	6.97%	0.60%
3.2	34	0.826	0.548	0.278	33.66%	0.39%
3.2	35	1.978	1.478	0.500	25.28%	0.69%
3.2	36	0.688	-0.120	0.808	117.44%	1.12%
3.2	37	-2.739	-2.872	0.133	-4.86%	0.18%
10	38	-5.724	-1.272	-4.452	77.78%	6.18%
10	39	4.052	4.035	0.017	0.42%	0.02%
10	40	1.203	2.603	-1.400	-116.38%	1.94%
10	41	1.516	0.766	0.750	49.47%	1.04%
10	42	1.468	3.184	-1.716	-116.89%	2.38%
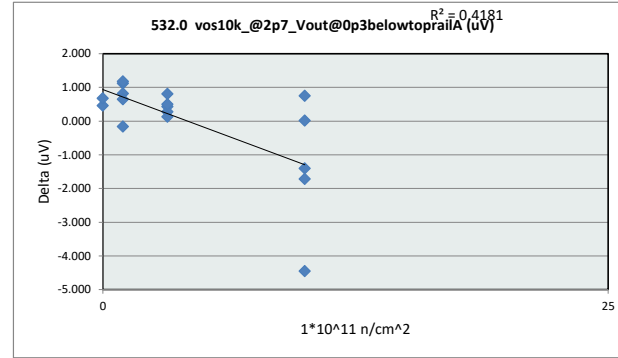
532.0 vos10k_@2p7_Vout@0p3belowtoprailA (uV), $R^2 = 0.4181$

	532.0 vos10k_@2p7_Vout@0p	
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	-5.024	1.945	-1.272	-2.872
Average	1.687	3.666	1.863	0.968
Max	8.397	5.869	4.035	5.808
UL	36.000	36.000	36.000	36.000

532.0 vos10k_@2p7_Vout@0p3belowtoprailA (uV)
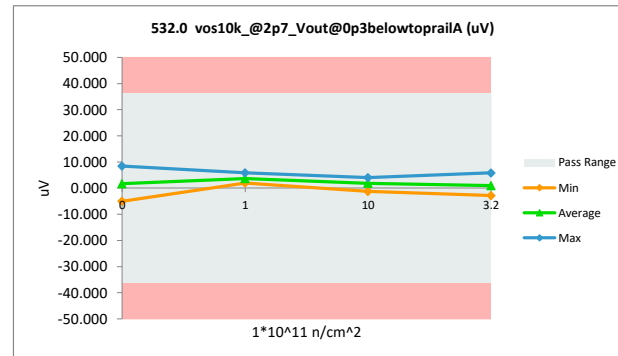
NDD Report
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		533.0 vos10k_@2p7_Vout@0p3a				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-4.730	-5.318	0.588	-12.43%	0.82%
0	27	8.955	8.373	0.582	6.50%	0.81%
1	28	3.517	2.518	0.999	28.40%	1.39%
1	29	3.958	2.868	1.090	27.54%	1.51%
1	30	5.466	5.157	0.309	5.65%	0.43%
1	31	2.142	1.766	0.376	17.55%	0.52%
1	32	6.114	6.202	-0.088	-1.44%	0.12%
3.2	33	6.318	5.875	0.443	7.01%	0.62%
3.2	34	0.622	0.458	0.164	26.37%	0.23%
3.2	35	1.983	1.677	0.306	15.43%	0.42%
3.2	36	0.762	0.076	0.686	90.03%	0.95%
3.2	37	-2.625	-2.870	0.245	-9.33%	0.34%
10	38	-5.903	-1.441	-4.462	75.59%	6.20%
10	39	4.011	4.071	-0.060	-1.50%	0.08%
10	40	1.264	2.612	-1.348	-106.65%	1.87%
10	41	1.204	1.034	0.170	14.12%	0.24%
10	42	1.664	3.323	-1.659	-99.70%	2.30%
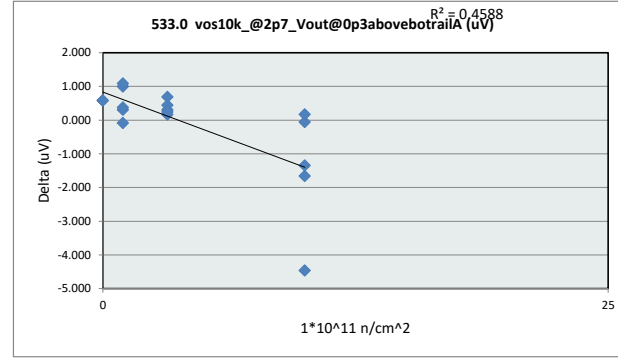
533.0 vos10k_@2p7_Vout@0p3abovebotrailA (uV) $R^2 = 0.4588$

	533.0 vos10k_@2p7_Vout@0p			
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	-5.318	1.766	-1.441	-2.870
Average	1.528	3.702	1.920	1.043
Max	8.373	6.202	4.071	5.875
UL	36.000	36.000	36.000	36.000

533.0 vos10k_@2p7_Vout@0p3abovebotrailA (uV)
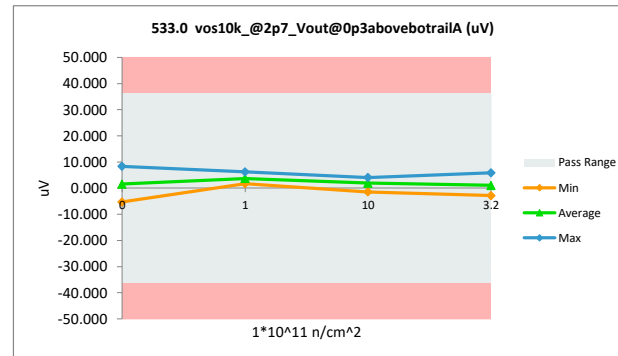
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534.0 gain10k@2p7A (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	17.78	17.78
Min Limit	-17.78	-17.78

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-0.079	-0.140	0.061	-77.22%	0.17%
0	27	-0.057	-0.011	-0.046	80.70%	0.13%
1	28	-0.112	-0.052	-0.060	53.57%	0.17%
1	29	-0.052	-0.010	-0.042	80.77%	0.12%
1	30	-0.169	0.074	-0.243	143.79%	0.68%
1	31	0.170	-0.085	0.255	150.00%	0.72%
1	32	-0.193	0.158	-0.351	181.87%	0.99%
3.2	33	0.036	0.032	0.004	11.11%	0.01%
3.2	34	-0.097	-0.042	-0.055	56.70%	0.15%
3.2	35	0.002	0.095	-0.093	-4650.00%	0.26%
3.2	36	0.036	0.093	-0.057	-158.33%	0.16%
3.2	37	0.054	0.001	0.053	98.15%	0.15%
10	38	-0.085	-0.081	-0.004	4.71%	0.01%
10	39	-0.020	0.017	-0.037	185.00%	0.10%
10	40	0.029	0.005	0.024	82.76%	0.07%
10	41	-0.149	0.128	-0.277	185.91%	0.78%
10	42	0.093	0.067	0.026	27.96%	0.07%
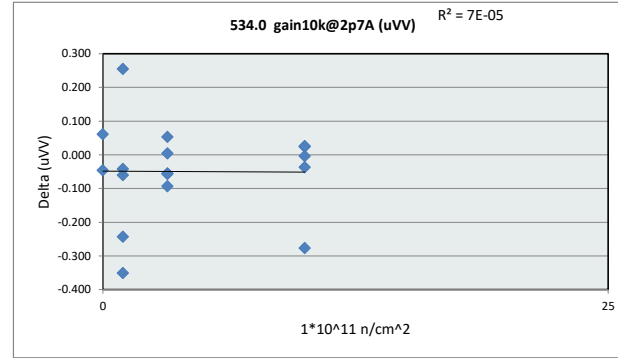
534.0 gain10k@2p7A (uVV) R^2 = 7E-05

534.0 gain10k@2p7A (uVV)				
Test Site				
Tester				
Test Number				
Max Limit	17.78	uVV		
Min Limit	-17.78	uVV		
1*10^11 n/cm^	0	1	10	3.2
LL	-17.780	-17.780	-17.780	-17.780
Min	-0.140	-0.085	-0.081	-0.042
Average	-0.076	0.017	0.027	0.036
Max	-0.011	0.158	0.128	0.095
UL	17.780	17.780	17.780	17.780

534.0 gain10k@2p7A (uVV)
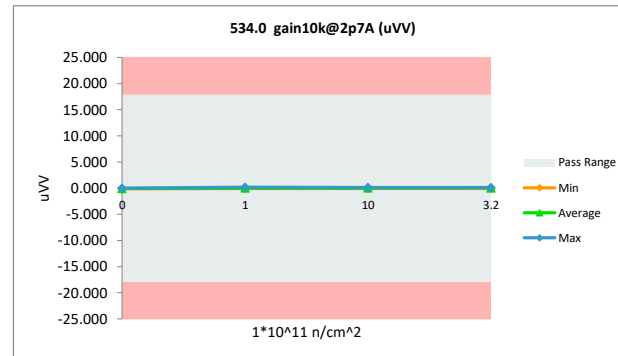
NDD Report
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		535.0 gain10kdB@2p7A (dB)				
Test Site						
Tester						
Test Number						
Unit		dB	dB			
Max Limit		-95	-95			
Min Limit						
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-140.976	-136.479	-4.497	3.19%	4.73%
0	27	-143.540	-153.470	9.930	-6.92%	10.45%
1	28	-138.273	-144.106	5.833	-4.22%	6.14%
1	29	-144.123	-153.963	9.840	-6.83%	10.36%
1	30	-134.948	-141.501	6.553	-4.86%	6.90%
1	31	-134.903	-140.451	5.548	-4.11%	5.84%
1	32	-133.842	-135.470	1.628	-1.22%	1.71%
3.2	33	-146.824	-147.517	0.693	-0.47%	0.73%
3.2	34	-139.387	-145.605	6.218	-4.46%	6.55%
3.2	35	-158.299	-139.612	-18.687	11.80%	19.67%
3.2	36	-146.819	-139.710	-7.109	4.84%	7.48%
3.2	37	-143.892	-159.300	15.408	-10.71%	16.22%
10	38	-140.429	-140.859	0.430	-0.31%	0.45%
10	39	-150.547	-151.314	0.767	-0.51%	0.81%
10	40	-148.253	-156.755	8.502	-5.73%	8.95%
10	41	-135.986	-137.222	1.236	-0.91%	1.30%
10	42	-139.729	-142.326	2.597	-1.86%	2.73%
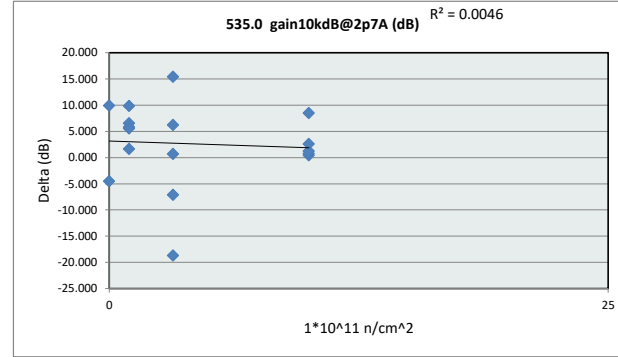
535.0 gain10kdB@2p7A (dB) $R^2 = 0.0046$

	535.0 gain10kdB@2p7A (dB)			
Test Site				
Tester				
Test Number				
Max Limit	-95	dB		
Min Limit		dB		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-153.470	-153.963	-156.755	-159.300
Average	-144.975	-143.098	-145.695	-146.349
Max	-136.479	-135.470	-137.222	-139.612
UL	-95.000	-95.000	-95.000	-95.000

535.0 gain10kdB@2p7A (dB)

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1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	1.902	2.316	-0.414	-21.77%	0.58%
0	27	3.935	5.503	-1.568	-39.85%	2.18%
1	28	4.418	5.758	-1.340	-30.33%	1.86%
1	29	6.899	6.875	0.024	0.35%	0.03%
1	30	10.685	11.837	-1.152	-10.78%	1.60%
1	31	4.038	4.734	-0.696	-17.24%	0.97%
1	32	1.747	2.067	-0.320	-18.32%	0.44%
3.2	33	4.158	5.956	-1.798	-43.24%	2.50%
3.2	34	4.396	4.637	-0.241	-5.48%	0.33%
3.2	35	3.967	4.199	-0.232	-5.85%	0.32%
3.2	36	5.429	6.497	-1.068	-19.67%	1.48%
3.2	37	6.359	8.167	-1.808	-28.43%	2.51%
10	38	4.880	6.711	-1.831	-37.52%	2.54%
10	39	3.289	3.796	-0.507	-15.42%	0.70%
10	40	3.565	4.650	-1.085	-30.43%	1.51%
10	41	2.097	3.451	-1.354	-64.57%	1.88%
10	42	2.149	3.568	-1.419	-66.03%	1.97%
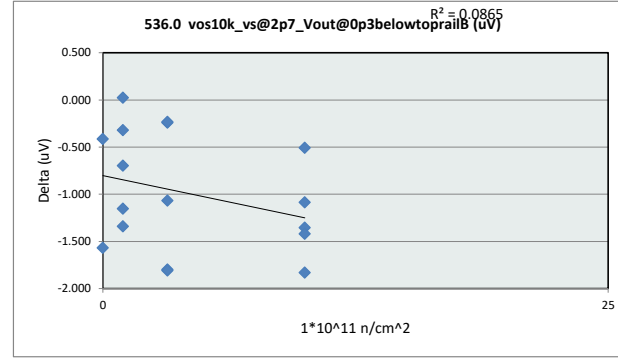
536.0 vos10k_vs@2p7_Vout@0p

Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

536.0 vos10k_vs@2p7_Vout@0p3belowtoprailB (uV) $R^2 = 0.0865$

536.0 vos10k_vs@2p7_Vout@

Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	2.316	2.067	3.451	4.199
Average	3.909	6.254	4.435	5.891
Max	5.503	11.837	6.711	8.167
UL	36.000	36.000	36.000	36.000

536.0 vos10k_vs@2p7_Vout@0p3belowtoprailB (uV)
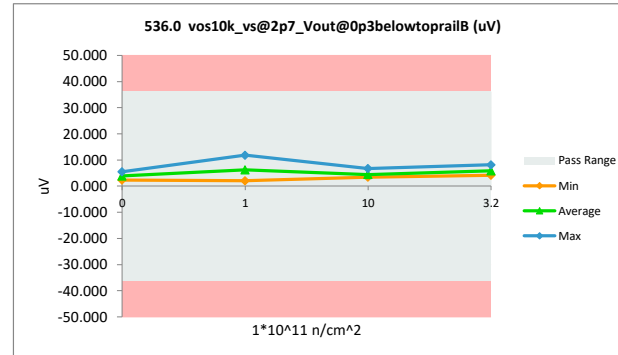
NDD Report
LMP2012

537.0 vos10k_vs@2p7_Vout@0p		
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	2.103	2.528	-0.425	-20.21%	0.59%
0	27	4.005	5.614	-1.609	-40.17%	2.23%
1	28	4.889	6.092	-1.203	-24.61%	1.67%
1	29	7.270	6.730	0.540	7.43%	0.75%
1	30	10.814	11.558	-0.744	-6.88%	1.03%
1	31	4.119	4.823	-0.704	-17.09%	0.98%
1	32	1.783	1.882	-0.099	-5.55%	0.14%
3.2	33	4.375	5.960	-1.585	-36.23%	2.20%
3.2	34	4.507	4.881	-0.374	-8.30%	0.52%
3.2	35	4.267	3.893	0.374	8.76%	0.52%
3.2	36	5.671	6.923	-1.252	-22.08%	1.74%
3.2	37	6.637	8.021	-1.384	-20.85%	1.92%
10	38	5.270	6.539	-1.269	-24.08%	1.76%
10	39	3.226	3.960	-0.734	-22.75%	1.02%
10	40	3.185	4.462	-1.277	-40.09%	1.77%
10	41	2.171	3.466	-1.295	-59.65%	1.80%
10	42	2.487	3.365	-0.878	-35.30%	1.22%
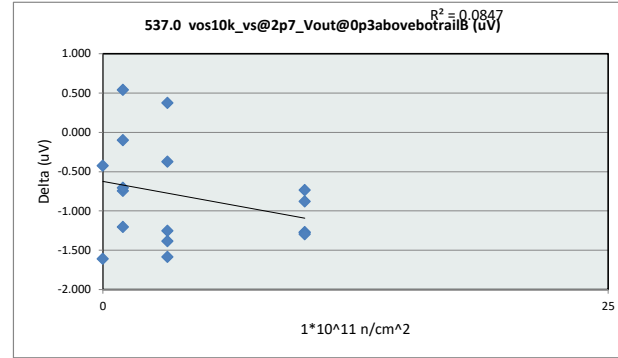
537.0 vos10k_vs@2p7_Vout@0p3abovebotrailB (uV)
$R^2 = 0.0847$

537.0 vos10k_vs@2p7_Vout@		
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	2.528	1.882	3.365	3.893
Average	4.071	6.217	4.358	5.936
Max	5.614	11.558	6.539	8.021
UL	36.000	36.000	36.000	36.000

537.0 vos10k_vs@2p7_Vout@0p3abovebotrailB (uV)
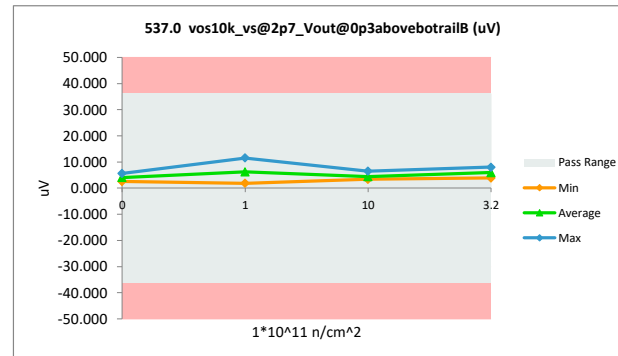
NDD Report
LMP2012

538.0 gain10k@2p7B (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	17.78	17.78
Min Limit	-17.78	-17.78

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.095	0.101	-0.006	-6.32%	0.02%
0	27	0.033	0.053	-0.020	-60.61%	0.06%
1	28	0.224	0.159	0.065	29.02%	0.18%
1	29	0.176	-0.069	0.245	139.20%	0.69%
1	30	0.061	-0.133	0.194	318.03%	0.55%
1	31	0.038	0.043	-0.005	-13.16%	0.01%
1	32	0.017	-0.088	0.105	617.65%	0.30%
3.2	33	0.103	0.002	0.101	98.06%	0.28%
3.2	34	0.053	0.116	-0.063	-118.87%	0.18%
3.2	35	0.143	-0.146	0.289	202.10%	0.81%
3.2	36	0.115	0.203	-0.088	-76.52%	0.25%
3.2	37	0.132	-0.070	0.202	153.03%	0.57%
10	38	0.186	-0.082	0.268	144.09%	0.75%
10	39	-0.030	0.078	-0.108	360.00%	0.30%
10	40	-0.181	-0.090	-0.091	50.28%	0.26%
10	41	0.035	0.007	0.028	80.00%	0.08%
10	42	0.161	-0.097	0.258	160.25%	0.73%
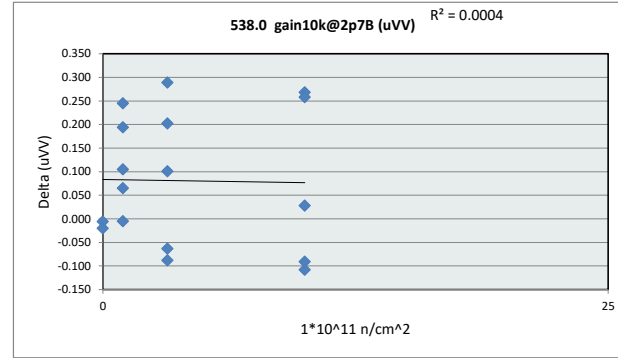
538.0 gain10k@2p7B (uVV) $R^2 = 0.0004$

538.0 gain10k@2p7B (uVV)		
Test Site		
Tester		
Test Number		
Max Limit	17.78	uVV
Min Limit	-17.78	uVV

1*10^11 n/cm^	0	1	10	3.2
LL	-17.780	-17.780	-17.780	-17.780
Min	0.053	-0.133	-0.097	-0.146
Average	0.077	-0.018	-0.037	0.021
Max	0.101	0.159	0.078	0.203
UL	17.780	17.780	17.780	17.780

538.0 gain10k@2p7B (uVV)
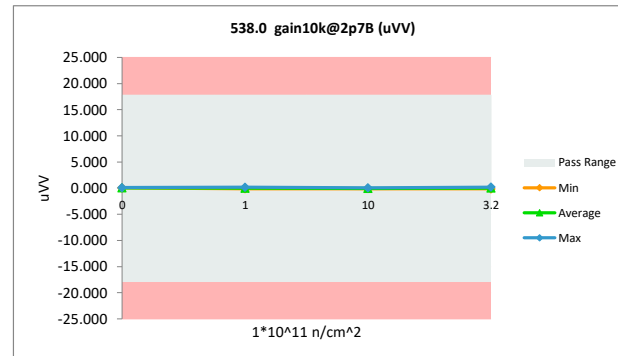
NDD Report
LMP2012

		539.0 gain10kdB@2p7B (dB)				
Test Site						
Tester						
Test Number						
Unit		dB	dB			
Max Limit		-95	-95			
Min Limit						
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-139.548	-139.080	-0.468	0.34%	0.49%
0	27	-147.317	-143.988	-3.329	2.26%	3.50%
1	28	-132.607	-135.451	2.844	-2.14%	2.99%
1	29	-134.589	-142.050	7.461	-5.54%	7.85%
1	30	-142.918	-136.890	-6.028	4.22%	6.35%
1	31	-146.313	-145.578	-0.735	0.50%	0.77%
1	32	-151.320	-140.187	-11.133	7.36%	11.72%
3.2	33	-138.905	-158.515	19.610	-14.12%	20.64%
3.2	34	-143.973	-137.986	-5.987	4.16%	6.30%
3.2	35	-136.296	-136.145	-0.151	0.11%	0.16%
3.2	36	-138.046	-133.440	-4.606	3.34%	4.85%
3.2	37	-136.924	-141.960	5.036	-3.68%	5.30%
10	38	-134.164	-140.726	6.562	-4.89%	6.91%
10	39	-147.952	-141.139	-6.813	4.60%	7.17%
10	40	-134.378	-140.038	5.660	-4.21%	5.96%
10	41	-146.931	-155.310	8.379	-5.70%	8.82%
10	42	-135.345	-139.438	4.093	-3.02%	4.31%
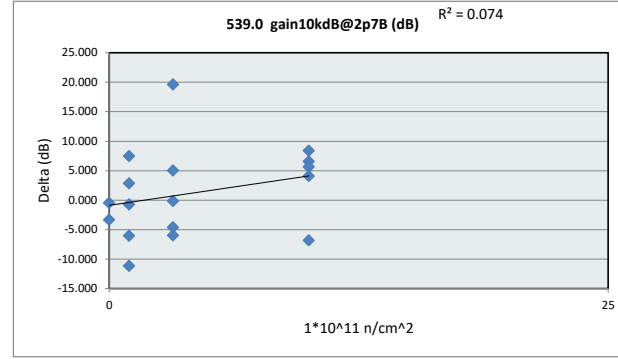
539.0 gain10kdB@2p7B (dB) — $R^2 = 0.074$

	539.0 gain10kdB@2p7B (dB)			
Test Site				
Tester				
Test Number				
Max Limit	-95	dB		
Min Limit		dB		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-143.988	-145.578	-155.310	-158.515
Average	-141.534	-140.031	-143.330	-141.609
Max	-139.080	-135.451	-139.438	-133.440
UL	-95.000	-95.000	-95.000	-95.000

539.0 gain10kdB@2p7B (dB)
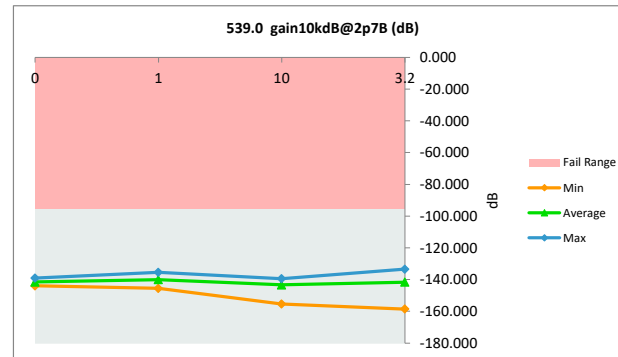
NDD Report
LMP2012

		548.0 vos10k_vs@5p0_Vout@0p				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.920	1.194	-0.274	-29.78%	0.38%
0	27	14.339	13.674	0.665	4.64%	0.92%
1	28	10.088	9.669	0.419	4.15%	0.58%
1	29	7.396	7.053	0.343	4.64%	0.48%
1	30	11.443	11.123	0.320	2.80%	0.44%
1	31	6.941	6.826	0.115	1.66%	0.16%
1	32	8.947	8.788	0.159	1.78%	0.22%
3.2	33	10.678	10.707	-0.029	-0.27%	0.04%
3.2	34	4.212	4.314	-0.102	-2.42%	0.14%
3.2	35	4.381	4.511	-0.130	-2.97%	0.18%
3.2	36	2.081	1.588	0.493	23.69%	0.68%
3.2	37	2.905	2.953	-0.048	-1.65%	0.07%
10	38	-6.564	-2.934	-3.630	55.30%	5.04%
10	39	6.358	6.502	-0.144	-2.26%	0.20%
10	40	5.051	6.517	-1.466	-29.02%	2.04%
10	41	4.836	4.982	-0.146	-3.02%	0.20%
10	42	4.673	6.007	-1.334	-28.55%	1.85%
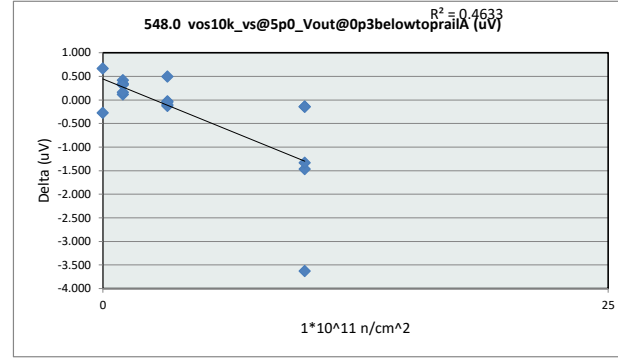
548.0 vos10k_vs@5p0_Vout@0p3belowtoprailA (uV)
$R^2 = 0.4633$

	548.0 vos10k_vs@5p0_Vout@			
Test Site				
Tester				
Test Number				
Max Limit	36	uV		
Min Limit	-36	uV		
1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	1.194	6.826	-2.934	1.588
Average	7.434	8.692	4.215	4.815
Max	13.674	11.123	6.517	10.707
UL	36.000	36.000	36.000	36.000

548.0 vos10k_vs@5p0_Vout@0p3belowtoprailA (uV)
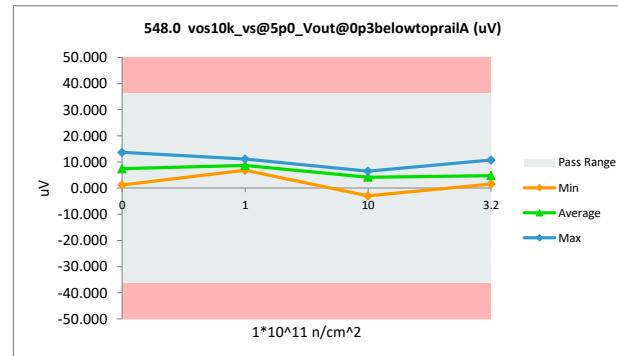
NDD Report
LMP2012

		549.0 vos10k_vs@5p0_Vout@0p				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	1.178	1.289	-0.111	-9.42%	0.15%
0	27	13.973	14.143	-0.170	-1.22%	0.24%
1	28	10.627	9.743	0.884	8.32%	1.23%
1	29	7.866	7.181	0.685	8.71%	0.95%
1	30	11.985	11.443	0.542	4.52%	0.75%
1	31	6.967	6.965	0.002	0.03%	0.00%
1	32	8.992	9.448	-0.456	-5.07%	0.63%
3.2	33	11.213	11.416	-0.203	-1.81%	0.28%
3.2	34	4.918	4.743	0.175	3.56%	0.24%
3.2	35	4.651	4.781	-0.130	-2.80%	0.18%
3.2	36	2.374	1.629	0.745	31.38%	1.03%
3.2	37	3.184	3.138	0.046	1.44%	0.06%
10	38	-7.454	-3.109	-4.345	58.29%	6.03%
10	39	6.617	7.392	-0.775	-11.71%	1.08%
10	40	5.414	7.080	-1.666	-30.77%	2.31%
10	41	5.074	5.391	-0.317	-6.25%	0.44%
10	42	4.811	6.290	-1.479	-30.74%	2.05%
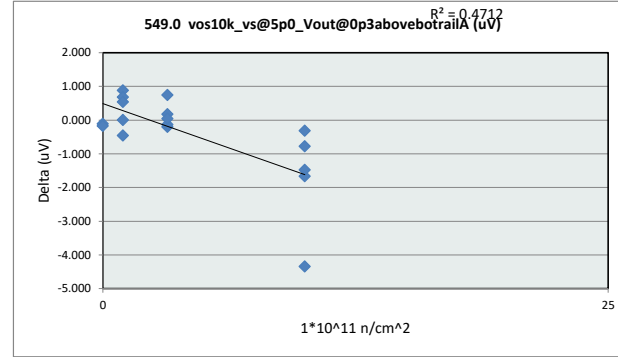
549.0 vos10k_vs@5p0_Vout@0p3abovebotrailA (uV)
$R^2 = 0.4712$

		549.0 vos10k_vs@5p0_Vout@			
Test Site					
Tester					
Test Number					
Max Limit		36	uV		
Min Limit		-36	uV		
1*10^11 n/cm^	0	1	10	3.2	
LL	-36.000	-36.000	-36.000	-36.000	
Min	1.289	6.965	-3.109	1.629	
Average	7.716	8.956	4.609	5.141	
Max	14.143	11.443	7.392	11.416	
UL	36.000	36.000	36.000	36.000	

549.0 vos10k_vs@5p0_Vout@0p3abovebotrailA (uV)
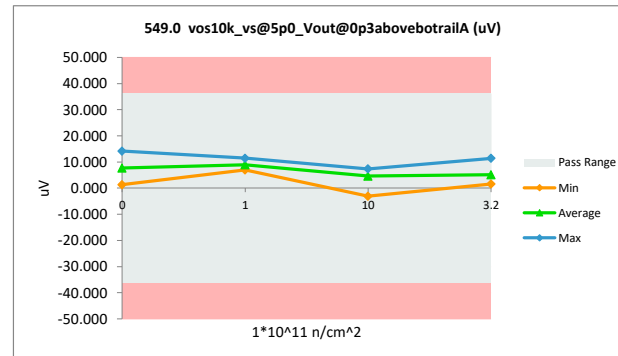
NDD Report
LMP2012

550.0 gain10k@5p0A (uVV)		
Test Site		
Tester		
Test Number		
Unit	uVV	uVV
Max Limit	5.62	5.62
Min Limit	-5.62	-5.62

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.059	0.022	0.037	62.71%	0.33%
0	27	-0.083	0.107	-0.190	228.92%	1.69%
1	28	0.123	0.017	0.106	86.18%	0.94%
1	29	0.107	0.029	0.078	72.90%	0.69%
1	30	0.123	0.073	0.050	40.65%	0.44%
1	31	0.006	0.032	-0.026	-433.33%	0.23%
1	32	0.010	0.150	-0.140	-1400.00%	1.25%
3.2	33	0.122	0.161	-0.039	-31.97%	0.35%
3.2	34	0.160	0.097	0.063	39.37%	0.56%
3.2	35	0.061	0.061	0.000	0.00%	0.00%
3.2	36	0.067	0.009	0.058	86.57%	0.52%
3.2	37	0.063	0.042	0.021	33.33%	0.19%
10	38	-0.202	-0.040	-0.162	80.20%	1.44%
10	39	0.059	0.202	-0.143	-242.37%	1.27%
10	40	0.082	0.128	-0.046	-56.10%	0.41%
10	41	0.054	0.093	-0.039	-72.22%	0.35%
10	42	0.031	0.064	-0.033	-106.45%	0.29%
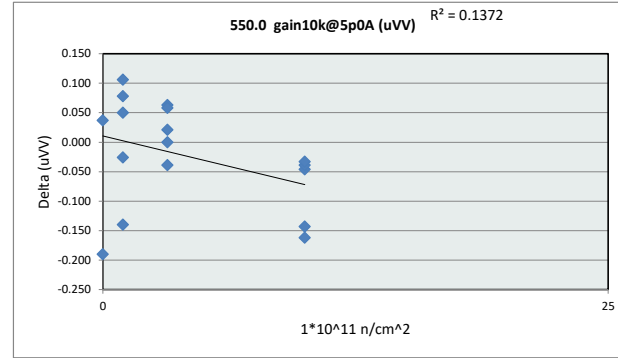
550.0 gain10k@5p0A (uVV) $R^2 = 0.1372$

550.0 gain10k@5p0A (uVV)		
Test Site		
Tester		
Test Number		
Max Limit	5.62	uVV
Min Limit	-5.62	uVV

1*10^11 n/cm^	0	1	10	3.2
LL	-5.620	-5.620	-5.620	-5.620
Min	0.022	0.017	-0.040	0.009
Average	0.065	0.060	0.089	0.074
Max	0.107	0.150	0.202	0.161
UL	5.620	5.620	5.620	5.620

550.0 gain10k@5p0A (uVV)
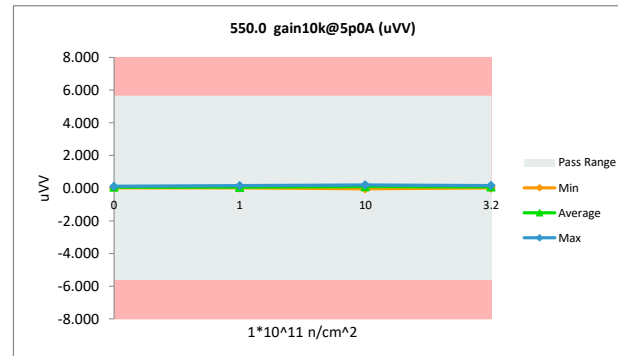
NDD Report
LMP2012

		551.0 gain10kdB@5p0A (dB)				
Test Site						
Tester						
Test Number						
Unit		dB	dB			
Max Limit		-105	-105			
Min Limit						
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-143.281	-149.976	6.695	-4.67%	6.38%
0	27	-140.628	-138.659	-1.969	1.40%	1.88%
1	28	-137.544	-151.494	13.950	-10.14%	13.29%
1	29	-138.655	-148.144	9.489	-6.84%	9.04%
1	30	-137.504	-141.647	4.143	-3.01%	3.95%
1	31	-156.041	-147.604	-8.437	5.41%	8.04%
1	32	-153.870	-135.920	-17.950	11.67%	17.10%
3.2	33	-137.620	-135.333	-2.287	1.66%	2.18%
3.2	34	-135.373	-139.372	3.999	-2.95%	3.81%
3.2	35	-142.928	-142.927	-0.001	0.00%	0.00%
3.2	36	-142.306	-154.241	11.935	-8.39%	11.37%
3.2	37	-142.709	-145.683	2.974	-2.08%	2.83%
10	38	-133.468	-146.052	12.584	-9.43%	11.98%
10	39	-143.263	-133.463	-9.800	6.84%	9.33%
10	40	-140.680	-137.211	-3.469	2.47%	3.30%
10	41	-143.855	-139.749	-4.106	2.85%	3.91%
10	42	-147.643	-142.582	-5.061	3.43%	4.82%
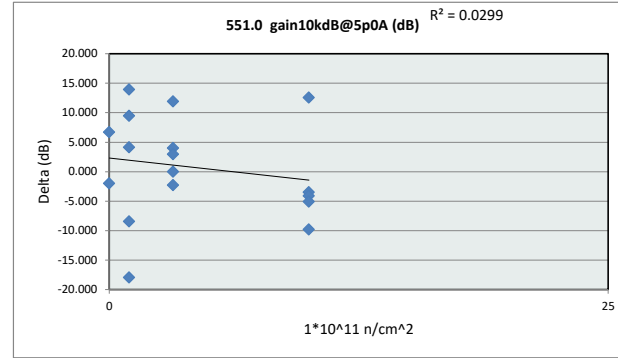
	551.0 gain10kdB@5p0A (dB)			
Test Site				
Tester				
Test Number				
Max Limit	-105	dB		
Min Limit		dB		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-149.976	-151.494	-146.052	-154.241
Average	-144.317	-144.962	-139.811	-143.511
Max	-138.659	-135.920	-133.463	-135.333
UL	-105.000	-105.000	-105.000	-105.000
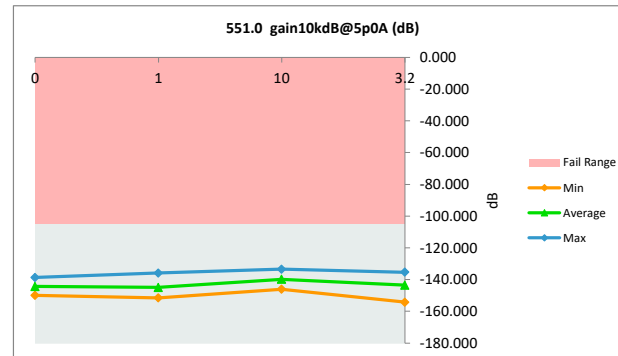
NDD Report
LMP2012

552.0 vos10k_vs@5p0_Vout@0p		
Test Site		
Tester		
Test Number		
Unit	uV	uV
Max Limit	36	36
Min Limit	-36	-36

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	4.431	4.413	0.018	0.41%	0.03%
0	27	4.321	6.241	-1.920	-44.43%	2.67%
1	28	4.349	5.765	-1.416	-32.56%	1.97%
1	29	7.422	7.298	0.124	1.67%	0.17%
1	30	10.006	11.006	-1.000	-9.99%	1.39%
1	31	6.418	7.478	-1.060	-16.52%	1.47%
1	32	4.484	4.563	-0.079	-1.76%	0.11%
3.2	33	7.210	8.765	-1.555	-21.57%	2.16%
3.2	34	6.705	7.223	-0.518	-7.73%	0.72%
3.2	35	5.656	5.381	0.275	4.86%	0.38%
3.2	36	6.673	7.537	-0.864	-12.95%	1.20%
3.2	37	6.598	7.711	-1.113	-16.87%	1.55%
10	38	6.196	7.686	-1.490	-24.05%	2.07%
10	39	3.583	4.790	-1.207	-33.69%	1.68%
10	40	4.408	5.418	-1.010	-22.91%	1.40%
10	41	3.424	4.648	-1.224	-35.75%	1.70%
10	42	2.610	3.792	-1.182	-45.29%	1.64%
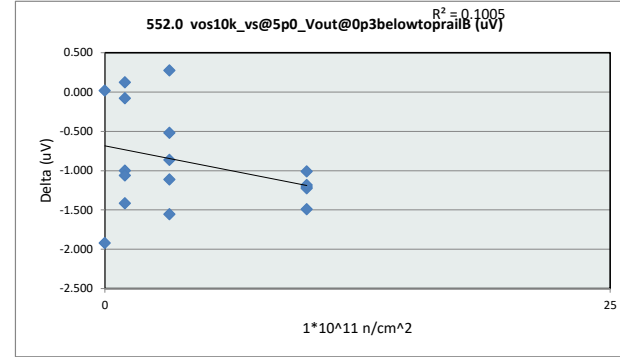
552.0 vos10k_vs@5p0_Vout@0p3belowtoprailB (uV)
$R^2 = 0.1005$

552.0 vos10k_vs@5p0_Vout@		
Test Site		
Tester		
Test Number		
Max Limit	36	uV
Min Limit	-36	uV

1*10^11 n/cm^	0	1	10	3.2
LL	-36.000	-36.000	-36.000	-36.000
Min	4.413	4.563	3.792	5.381
Average	5.327	7.222	5.267	7.323
Max	6.241	11.006	7.686	8.765
UL	36.000	36.000	36.000	36.000

552.0 vos10k_vs@5p0_Vout@0p3belowtoprailB (uV)
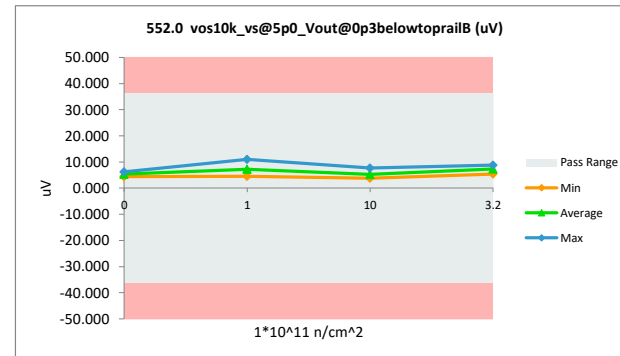
NDD Report
LMP2012

		553.0 vos10k_vs@5p0_Vout@0p				
Test Site						
Tester						
Test Number						
Unit		uV	uV			
Max Limit		36	36			
Min Limit		-36	-36			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	4.983	4.971	0.012	0.24%	0.02%
0	27	4.815	6.183	-1.368	-28.41%	1.90%
1	28	4.928	6.092	-1.164	-23.62%	1.62%
1	29	8.014	7.710	0.304	3.79%	0.42%
1	30	10.469	11.313	-0.844	-8.06%	1.17%
1	31	6.883	7.791	-0.908	-13.19%	1.26%
1	32	4.534	4.810	-0.276	-6.09%	0.38%
3.2	33	7.124	9.260	-2.136	-29.98%	2.97%
3.2	34	7.156	7.648	-0.492	-6.88%	0.68%
3.2	35	5.786	5.560	0.226	3.91%	0.31%
3.2	36	7.151	7.959	-0.808	-11.30%	1.12%
3.2	37	7.207	8.193	-0.986	-13.68%	1.37%
10	38	6.779	8.113	-1.334	-19.68%	1.85%
10	39	3.937	4.875	-0.938	-23.83%	1.30%
10	40	4.467	5.588	-1.121	-25.10%	1.56%
10	41	3.881	4.940	-1.059	-27.29%	1.47%
10	42	2.883	4.113	-1.230	-42.66%	1.71%
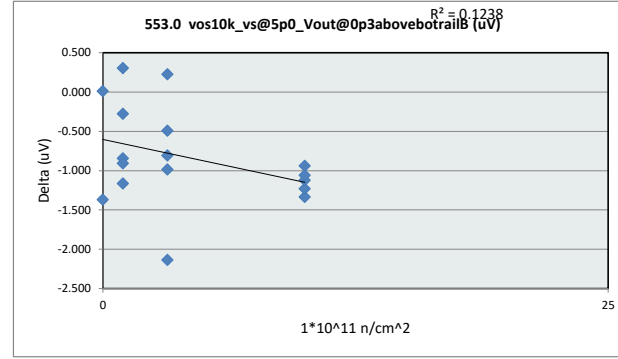
553.0 vos10k_vs@5p0_Vout@0p3abovebotrailB (uV), $R^2 = 0.1238$

	553.0 vos10k_vs@5p0_Vout@				
Test Site					
Tester					
Test Number					
Max Limit	36	uV			
Min Limit	-36	uV			
1*10^11 n/cm^	0	1	10	3.2	
LL	-36.000	-36.000	-36.000	-36.000	
Min	4.971	4.810	4.113	5.560	
Average	5.577	7.543	5.526	7.724	
Max	6.183	11.313	8.113	9.260	
UL	36.000	36.000	36.000	36.000	

553.0 vos10k_vs@5p0_Vout@0p3abovebotrailB (uV)
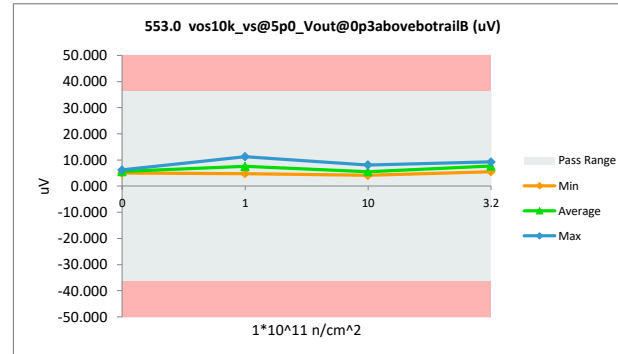
NDD Report
LMP2012

	554.0 gain10k@5p0B (uVV)				
Test Site					
Tester					
Test Number					
Unit	uVV	uVV			
Max Limit	5.62	5.62			
Min Limit	-5.62	-5.62			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.126	0.127	-0.001	-0.79%	0.01%
0	27	0.112	-0.013	0.125	111.61%	1.11%
1	28	0.132	0.074	0.058	43.94%	0.52%
1	29	0.135	0.094	0.041	30.37%	0.36%
1	30	0.105	0.070	0.035	33.33%	0.31%
1	31	0.106	0.071	0.035	33.02%	0.31%
1	32	0.011	0.056	-0.045	-409.09%	0.40%
3.2	33	-0.020	0.113	-0.133	665.00%	1.18%
3.2	34	0.102	0.097	0.005	4.90%	0.04%
3.2	35	0.029	0.041	-0.012	-41.38%	0.11%
3.2	36	0.109	0.096	0.013	11.93%	0.12%
3.2	37	0.139	0.110	0.029	20.86%	0.26%
10	38	0.132	0.097	0.035	26.52%	0.31%
10	39	0.081	0.019	0.062	76.54%	0.55%
10	40	0.013	0.039	-0.026	-200.00%	0.23%
10	41	0.104	0.066	0.038	36.54%	0.34%
10	42	0.062	0.073	-0.011	-17.74%	0.10%
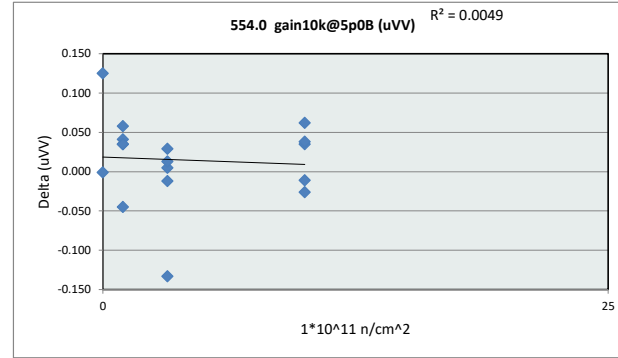
554.0 gain10k@5p0B (uVV) $R^2 = 0.0049$

	554.0 gain10k@5p0B (uVV)			
Test Site				
Tester				
Test Number				
Max Limit	5.62	uVV		
Min Limit	-5.62	uVV		
1*10^11 n/cm^	0	1	10	3.2
LL	-5.620	-5.620	-5.620	-5.620
Min	-0.013	0.056	0.019	0.041
Average	0.057	0.073	0.059	0.091
Max	0.127	0.094	0.097	0.113
UL	5.620	5.620	5.620	5.620

554.0 gain10k@5p0B (uVV)
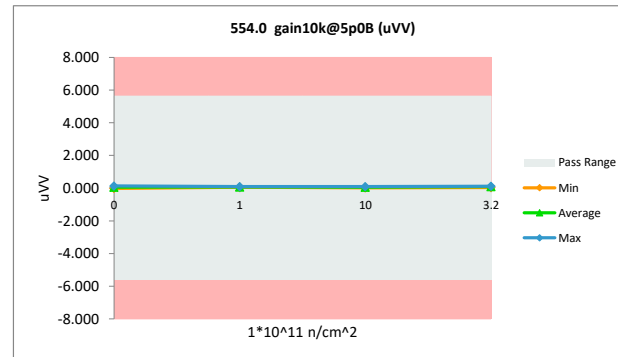
NDD Report
LMP2012

555.0 gain10kdB@5p0B (dB)		
Test Site		
Tester		
Test Number		
Unit	dB	dB
Max Limit	-105	-105
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-137.358	-137.280	-0.078	0.06%	0.07%
0	27	-138.257	-152.731	14.474	-10.47%	13.78%
1	28	-136.980	-141.475	4.495	-3.28%	4.28%
1	29	-136.791	-139.699	2.908	-2.13%	2.77%
1	30	-138.772	-141.954	3.182	-2.29%	3.03%
1	31	-138.726	-141.808	3.082	-2.22%	2.94%
1	32	-153.354	-143.581	-9.773	6.37%	9.31%
3.2	33	-150.575	-138.231	-12.344	8.20%	11.76%
3.2	34	-138.981	-139.453	0.472	-0.34%	0.45%
3.2	35	-148.078	-145.870	-2.208	1.49%	2.10%
3.2	36	-138.509	-139.496	0.987	-0.71%	0.94%
3.2	37	-136.564	-138.445	1.881	-1.38%	1.79%
10	38	-136.927	-139.418	2.491	-1.82%	2.37%
10	39	-140.851	-150.666	9.815	-6.97%	9.35%
10	40	-152.609	-146.265	-6.344	4.16%	6.04%
10	41	-138.861	-142.337	3.476	-2.50%	3.31%
10	42	-142.853	-141.631	-1.222	0.86%	1.16%
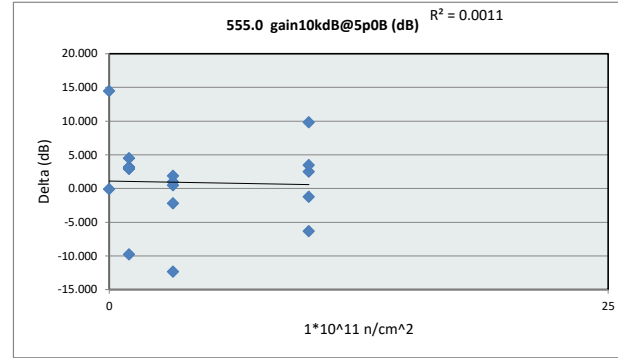
555.0 gain10kdB@5p0B (dB)				
Test Site				
Tester				
Test Number				
Max Limit	-105	dB		
Min Limit		dB		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	-152.731	-143.581	-150.666	-145.870
Average	-145.006	-141.703	-144.063	-140.299
Max	-137.280	-139.699	-139.418	-138.231
UL	-105.000	-105.000	-105.000	-105.000
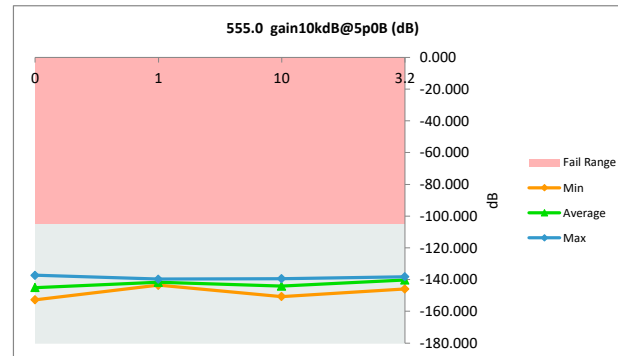
NDD Report
LMP2012

600.0 pswing2k@2p7A (mV)		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit		
Min Limit	-85	-85

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-53.737	-53.721	-0.016	0.03%	0.02%
0	27	-54.221	-54.023	-0.198	0.37%	0.23%
1	28	-51.934	-51.703	-0.231	0.44%	0.27%
1	29	-53.716	-53.470	-0.246	0.46%	0.29%
1	30	-51.874	-51.513	-0.361	0.70%	0.42%
1	31	-52.531	-51.483	-1.048	2.00%	1.23%
1	32	-53.588	-52.989	-0.599	1.12%	0.70%
3.2	33	-53.522	-52.963	-0.559	1.04%	0.66%
3.2	34	-51.257	-50.515	-0.742	1.45%	0.87%
3.2	35	-53.643	-52.651	-0.992	1.85%	1.17%
3.2	36	-53.466	-52.434	-1.032	1.93%	1.21%
3.2	37	-52.104	-50.965	-1.139	2.19%	1.34%
10	38	-53.015	-52.771	-0.244	0.46%	0.29%
10	39	-51.936	-50.879	-1.057	2.04%	1.24%
10	40	-53.416	-52.969	-0.447	0.84%	0.53%
10	41	-53.035	-51.832	-1.203	2.27%	1.42%
10	42	-53.547	-53.126	-0.421	0.79%	0.50%
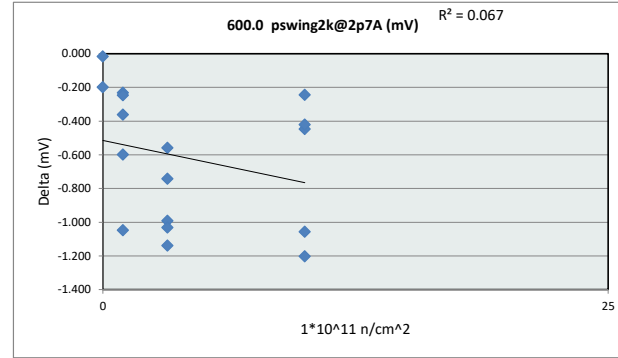
600.0 pswing2k@2p7A (mV) $R^2 = 0.067$

600.0 pswing2k@2p7A (mV)			
Test Site			
Tester			
Test Number			
Max Limit		mV	
Min Limit	-85	mV	

1*10^11 n/cm^	0	1	10	3.2
LL	-85.000	-85.000	-85.000	-85.000
Min	-54.023	-53.470	-53.126	-52.963
Average	-53.872	-52.232	-52.315	-51.906
Max	-53.721	-51.483	-50.879	-50.515
UL				

600.0 pswing2k@2p7A (mV)
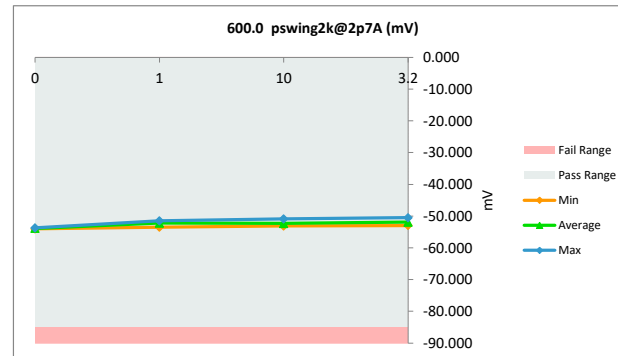
NDD Report
LMP2012

601.0 pswing2k@2p7B (mV)		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit		
Min Limit	-85	-85

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-50.874	-50.933	0.059	-0.12%	0.07%
0	27	-53.047	-52.867	-0.180	0.34%	0.21%
1	28	-53.851	-53.681	-0.170	0.32%	0.20%
1	29	-53.553	-53.358	-0.195	0.36%	0.23%
1	30	-53.489	-53.128	-0.361	0.67%	0.42%
1	31	-52.392	-51.415	-0.977	1.86%	1.15%
1	32	-54.266	-53.768	-0.498	0.92%	0.59%
3.2	33	-52.681	-52.090	-0.591	1.12%	0.70%
3.2	34	-53.525	-52.811	-0.714	1.33%	0.84%
3.2	35	-53.875	-52.942	-0.933	1.73%	1.10%
3.2	36	-53.707	-52.754	-0.953	1.77%	1.12%
3.2	37	-53.352	-52.249	-1.103	2.07%	1.30%
10	38	-52.393	-52.198	-0.195	0.37%	0.23%
10	39	-54.217	-53.276	-0.941	1.74%	1.11%
10	40	-53.383	-52.990	-0.393	0.74%	0.46%
10	41	-53.916	-52.552	-1.364	2.53%	1.60%
10	42	-53.615	-53.273	-0.342	0.64%	0.40%
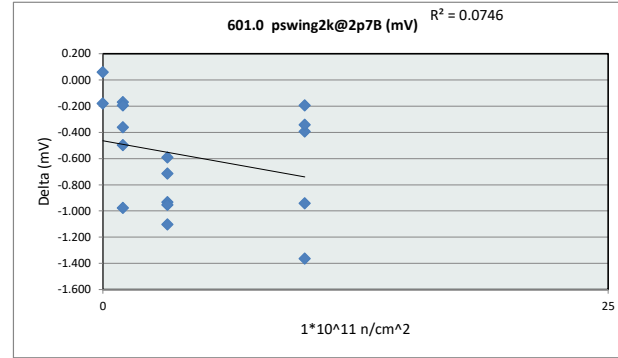
601.0 pswing2k@2p7B (mV), $R^2 = 0.0746$

601.0 pswing2k@2p7B (mV)				
Test Site				
Tester				
Test Number				
Max Limit		mV		
Min Limit	-85	mV		
1*10^11 n/cm^	0	1	10	3.2
LL	-85.000	-85.000	-85.000	-85.000
Min	-52.867	-53.768	-53.276	-52.942
Average	-51.900	-53.070	-52.858	-52.569
Max	-50.933	-51.415	-52.198	-52.090
UL				

601.0 pswing2k@2p7B (mV)
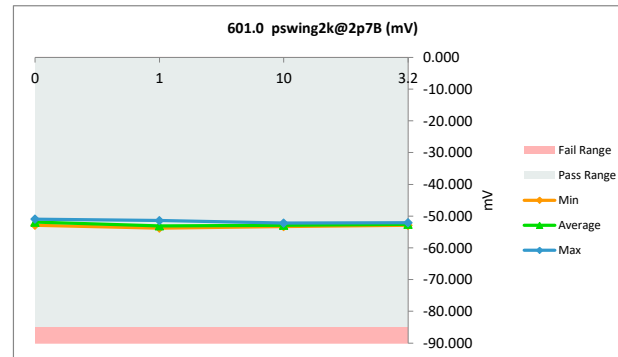
NDD Report
LMP2012

	604.0 pswing2k@5p0A (mV)	
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit		
Min Limit	-125	-125

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-88.545	-88.405	-0.140	0.16%	0.11%
0	27	-89.602	-89.416	-0.186	0.21%	0.15%
1	28	-85.383	-85.308	-0.075	0.09%	0.06%
1	29	-88.680	-88.400	-0.280	0.32%	0.22%
1	30	-85.622	-85.246	-0.376	0.44%	0.30%
1	31	-85.754	-84.559	-1.195	1.39%	0.96%
1	32	-88.507	-87.925	-0.582	0.66%	0.47%
3.2	33	-87.775	-87.230	-0.545	0.62%	0.44%
3.2	34	-84.644	-83.760	-0.884	1.04%	0.71%
3.2	35	-88.676	-87.521	-1.155	1.30%	0.92%
3.2	36	-88.343	-87.241	-1.102	1.25%	0.88%
3.2	37	-85.686	-84.364	-1.322	1.54%	1.06%
10	38	-87.144	-86.932	-0.212	0.24%	0.17%
10	39	-86.402	-85.078	-1.324	1.53%	1.06%
10	40	-88.644	-88.152	-0.492	0.56%	0.39%
10	41	-87.263	-85.776	-1.487	1.70%	1.19%
10	42	-88.665	-88.065	-0.600	0.68%	0.48%
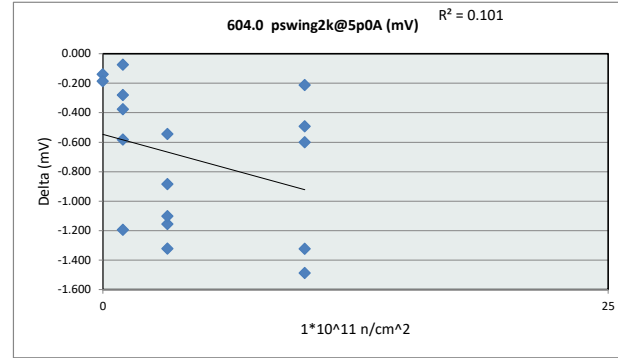
604.0 pswing2k@5p0A (mV) R² = 0.101

	604.0 pswing2k@5p0A (mV)			
Test Site				
Tester				
Test Number				
Max Limit		mV		
Min Limit	-125	mV		
1*10^11 n/cm^	0	1	10	3.2
LL	-125.000	-125.000	-125.000	-125.000
Min	-89.416	-88.400	-88.152	-87.521
Average	-88.910	-86.288	-86.801	-86.023
Max	-88.405	-84.559	-85.078	-83.760
UL				

604.0 pswing2k@5p0A (mV)
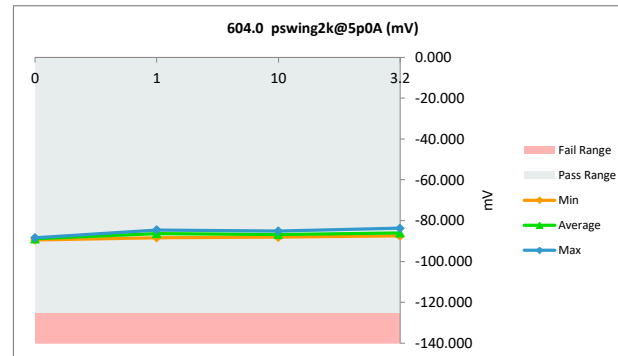
NDD Report
LMP2012

		605.0 pswing2k@5p0B (mV)				
Test Site						
Tester						
Test Number						
Unit		mV	mV			
Max Limit						
Min Limit		-125	-125			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-84.279	-84.349	0.070	-0.08%	0.06%
0	27	-87.370	-87.318	-0.052	0.06%	0.04%
1	28	-88.763	-88.785	0.022	-0.02%	0.02%
1	29	-88.808	-88.580	-0.228	0.26%	0.18%
1	30	-87.900	-87.540	-0.360	0.41%	0.29%
1	31	-86.108	-84.978	-1.130	1.31%	0.90%
1	32	-88.259	-87.791	-0.468	0.53%	0.37%
3.2	33	-86.543	-86.026	-0.517	0.60%	0.41%
3.2	34	-88.011	-87.157	-0.854	0.97%	0.68%
3.2	35	-88.793	-87.681	-1.112	1.25%	0.89%
3.2	36	-88.392	-87.383	-1.009	1.14%	0.81%
3.2	37	-87.844	-86.556	-1.288	1.47%	1.03%
10	38	-85.961	-85.894	-0.067	0.08%	0.05%
10	39	-89.249	-87.977	-1.272	1.43%	1.02%
10	40	-87.938	-87.651	-0.287	0.33%	0.23%
10	41	-88.031	-86.241	-1.790	2.03%	1.43%
10	42	-87.725	-87.259	-0.466	0.53%	0.37%
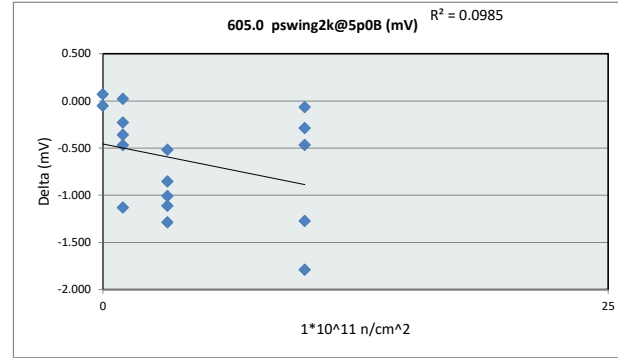
605.0 pswing2k@5p0B (mV) $R^2 = 0.0985$

	605.0 pswing2k@5p0B (mV)			
Test Site				
Tester				
Test Number				
Max Limit		mV		
Min Limit	-125	mV		
1*10^11 n/cm^	0	1	10	3.2
LL	-125.000	-125.000	-125.000	-125.000
Min	-87.318	-88.785	-87.977	-87.681
Average	-85.833	-87.535	-87.004	-86.961
Max	-84.349	-84.978	-85.894	-86.026
UL				

605.0 pswing2k@5p0B (mV)

Fail Range
Pass Range
Min
Average
Max
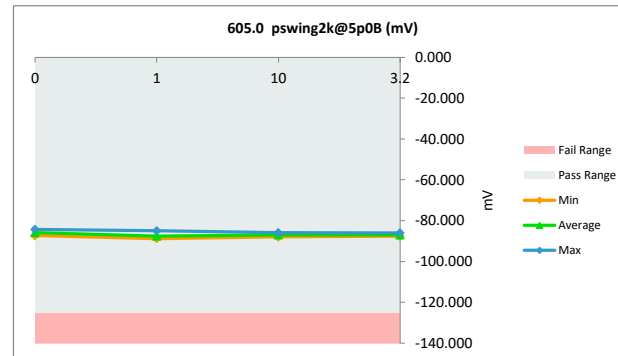
NDD Report
LMP2012

		608.0 pswing10k@2p7A (mV)				
Test Site						
Tester						
Test Number						
Unit		mV	mV			
Max Limit						
Min Limit		-60	-60			
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-19.380	-19.156	-0.224	1.16%	0.37%
0	27	-19.332	-19.078	-0.254	1.31%	0.42%
1	28	-18.578	-18.299	-0.279	1.50%	0.46%
1	29	-19.082	-18.760	-0.322	1.69%	0.54%
1	30	-18.379	-17.973	-0.406	2.21%	0.68%
1	31	-19.420	-18.641	-0.779	4.01%	1.30%
1	32	-19.032	-18.471	-0.561	2.95%	0.93%
3.2	33	-19.589	-19.050	-0.539	2.75%	0.90%
3.2	34	-18.327	-17.592	-0.735	4.01%	1.23%
3.2	35	-19.000	-18.213	-0.787	4.14%	1.31%
3.2	36	-18.834	-17.957	-0.877	4.66%	1.46%
3.2	37	-18.912	-17.987	-0.925	4.89%	1.54%
10	38	-19.127	-18.820	-0.307	1.61%	0.51%
10	39	-18.034	-17.195	-0.839	4.65%	1.40%
10	40	-18.619	-18.216	-0.403	2.16%	0.67%
10	41	-19.161	-18.262	-0.899	4.69%	1.50%
10	42	-18.805	-18.324	-0.481	2.56%	0.80%
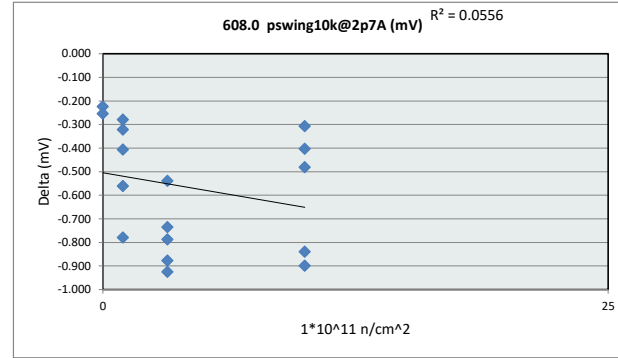
608.0 pswing10k@2p7A (mV) $R^2 = 0.0556$

	608.0 pswing10k@2p7A (mV)			
Test Site				
Tester				
Test Number				
Max Limit		mV		
Min Limit	-60	mV		
1*10^11 n/cm^	0	1	10	3.2
LL	-60.000	-60.000	-60.000	-60.000
Min	-19.156	-18.760	-18.820	-19.050
Average	-19.117	-18.429	-18.163	-18.160
Max	-19.078	-17.973	-17.195	-17.592
UL				

608.0 pswing10k@2p7A (mV)
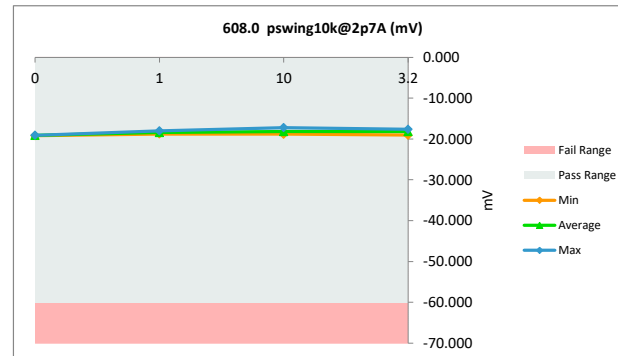
NDD Report
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609.0 pswing10k@2p7B (mV)		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit		
Min Limit	-60	-60

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-18.118	-17.934	-0.184	1.02%	0.31%
0	27	-19.183	-18.943	-0.240	1.25%	0.40%
1	28	-19.425	-19.171	-0.254	1.31%	0.42%
1	29	-19.091	-18.801	-0.290	1.52%	0.48%
1	30	-19.593	-19.204	-0.389	1.99%	0.65%
1	31	-19.080	-18.314	-0.766	4.01%	1.28%
1	32	-20.311	-19.788	-0.523	2.57%	0.87%
3.2	33	-19.162	-18.636	-0.526	2.75%	0.88%
3.2	34	-19.446	-18.737	-0.709	3.65%	1.18%
3.2	35	-19.622	-18.877	-0.745	3.80%	1.24%
3.2	36	-19.373	-18.530	-0.843	4.35%	1.40%
3.2	37	-19.265	-18.369	-0.896	4.65%	1.49%
10	38	-19.094	-18.799	-0.295	1.54%	0.49%
10	39	-19.770	-18.990	-0.780	3.95%	1.30%
10	40	-19.282	-18.924	-0.358	1.86%	0.60%
10	41	-20.148	-19.229	-0.919	4.56%	1.53%
10	42	-19.969	-19.522	-0.447	2.24%	0.75%
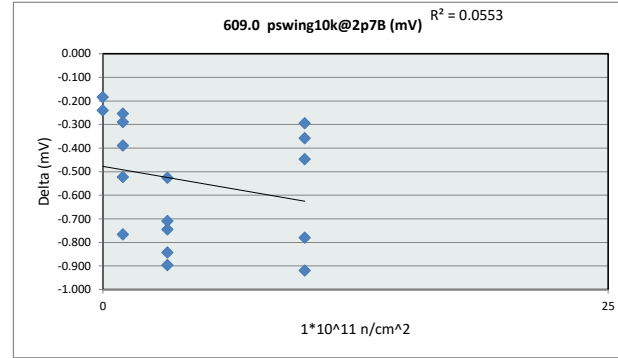
609.0 pswing10k@2p7B (mV) $R^2 = 0.0553$

609.0 pswing10k@2p7B (mV)				
Test Site				
Tester				
Test Number				
Max Limit		mV		
Min Limit	-60	mV		
1*10^11 n/cm^	0	1	10	3.2
LL	-60.000	-60.000	-60.000	-60.000
Min	-18.943	-19.788	-19.522	-18.877
Average	-18.439	-19.056	-19.093	-18.630
Max	-17.934	-18.314	-18.799	-18.369
UL				

609.0 pswing10k@2p7B (mV)

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1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
		612.0 pswing10k@5p0A (mV)				
Test Site						
Tester						
Test Number						
Unit		mV	mV			
Max Limit						
Min Limit		-80	-80			
0	26	-25.847	-25.647	-0.200	0.77%	0.25%
0	27	-26.082	-25.829	-0.253	0.97%	0.32%
1	28	-24.875	-24.648	-0.227	0.91%	0.28%
1	29	-25.746	-25.334	-0.412	1.60%	0.52%
1	30	-24.874	-24.480	-0.394	1.58%	0.49%
1	31	-25.797	-24.967	-0.830	3.22%	1.04%
1	32	-25.727	-25.111	-0.616	2.39%	0.77%
3.2	33	-26.114	-25.533	-0.581	2.22%	0.73%
3.2	34	-24.772	-24.006	-0.766	3.09%	0.96%
3.2	35	-25.745	-24.955	-0.790	3.07%	0.99%
3.2	36	-25.598	-24.674	-0.924	3.61%	1.15%
3.2	37	-25.356	-24.366	-0.990	3.90%	1.24%
10	38	-25.587	-25.285	-0.302	1.18%	0.38%
10	39	-24.824	-23.810	-1.014	4.08%	1.27%
10	40	-25.364	-24.976	-0.388	1.53%	0.49%
10	41	-25.643	-24.695	-0.948	3.70%	1.18%
10	42	-25.465	-24.989	-0.476	1.87%	0.59%
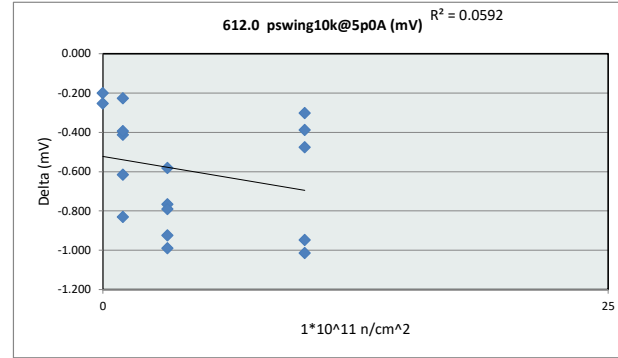
612.0 pswing10k@5p0A (mV) $R^2 = 0.0592$

	612.0 pswing10k@5p0A (mV)			
Test Site				
Tester				
Test Number				
Max Limit		mV		
Min Limit	-80	mV		
1*10^11 n/cm^	0	1	10	3.2
LL	-80.000	-80.000	-80.000	-80.000
Min	-25.829	-25.334	-25.285	-25.533
Average	-25.738	-24.908	-24.751	-24.707
Max	-25.647	-24.480	-23.810	-24.006
UL				

612.0 pswing10k@5p0A (mV)
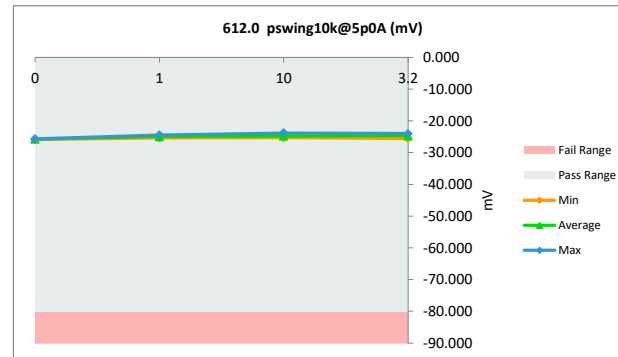
NDD Report
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613.0 pswing10k@5p0B (mV)		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit		
Min Limit	-80	-80

$1*10^{11}$ n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-24.600	-24.426	-0.174	0.71%	0.22%
0	27	-25.832	-25.642	-0.190	0.74%	0.24%
1	28	-26.134	-25.923	-0.211	0.81%	0.26%
1	29	-26.004	-25.670	-0.334	1.28%	0.42%
1	30	-26.193	-25.831	-0.362	1.38%	0.45%
1	31	-25.616	-24.827	-0.789	3.08%	0.99%
1	32	-26.845	-26.241	-0.604	2.25%	0.76%
3.2	33	-25.644	-25.131	-0.513	2.00%	0.64%
3.2	34	-26.055	-25.305	-0.750	2.88%	0.94%
3.2	35	-26.468	-25.705	-0.763	2.88%	0.95%
3.2	36	-26.041	-25.198	-0.843	3.24%	1.05%
3.2	37	-25.904	-24.922	-0.982	3.79%	1.23%
10	38	-25.537	-25.226	-0.311	1.22%	0.39%
10	39	-26.587	-25.649	-0.938	3.53%	1.17%
10	40	-25.937	-25.573	-0.364	1.40%	0.46%
10	41	-26.575	-25.581	-0.994	3.74%	1.24%
10	42	-26.472	-26.043	-0.429	1.62%	0.54%
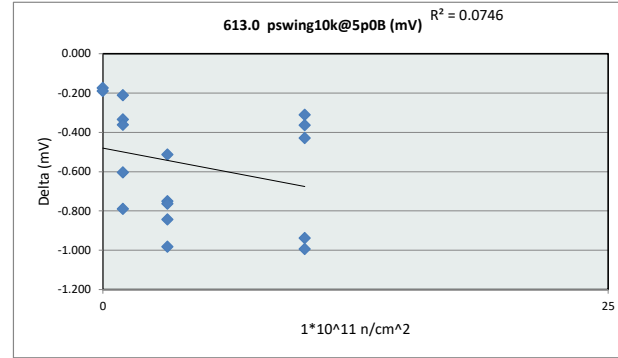
613.0 pswing10k@5p0B (mV) $R^2 = 0.0746$

613.0 pswing10k@5p0B (mV)				
Test Site				
Tester				
Test Number				
Max Limit		mV		
Min Limit	-80	mV		
$1*10^{11}$ n/cm^	0	1	10	3.2
LL	-80.000	-80.000	-80.000	-80.000
Min	-25.642	-26.241	-26.043	-25.705
Average	-25.034	-25.698	-25.614	-25.252
Max	-24.426	-24.827	-25.226	-24.922
UL				

613.0 pswing10k@5p0B (mV)
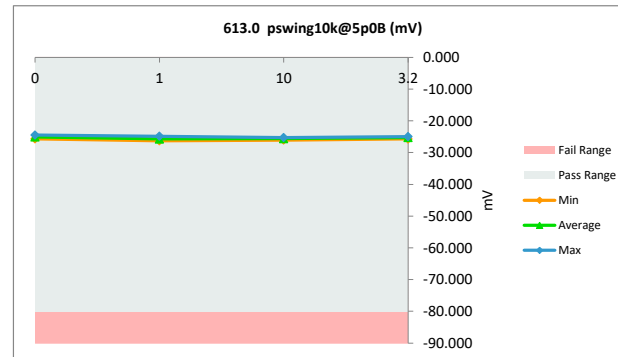
NDD Report
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	616.0 nswing2k@2p7A (mV)				
Test Site					
Tester					
Test Number					
Unit	mV	mV			
Max Limit	85	85			
Min Limit					

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	39.550	39.336	0.214	0.54%	0.25%
0	27	39.764	39.399	0.365	0.92%	0.43%
1	28	38.429	38.255	0.174	0.45%	0.20%
1	29	38.747	38.624	0.123	0.32%	0.14%
1	30	38.821	38.698	0.123	0.32%	0.14%
1	31	39.242	39.103	0.139	0.35%	0.16%
1	32	39.089	39.090	-0.001	0.00%	0.00%
3.2	33	39.237	39.017	0.220	0.56%	0.26%
3.2	34	39.073	38.969	0.104	0.27%	0.12%
3.2	35	39.104	38.963	0.141	0.36%	0.17%
3.2	36	39.296	39.187	0.109	0.28%	0.13%
3.2	37	39.108	38.872	0.236	0.60%	0.28%
10	38	39.692	39.522	0.170	0.43%	0.20%
10	39	39.071	38.816	0.255	0.65%	0.30%
10	40	39.858	39.240	0.618	1.55%	0.73%
10	41	40.037	39.444	0.593	1.48%	0.70%
10	42	39.285	38.948	0.337	0.86%	0.40%
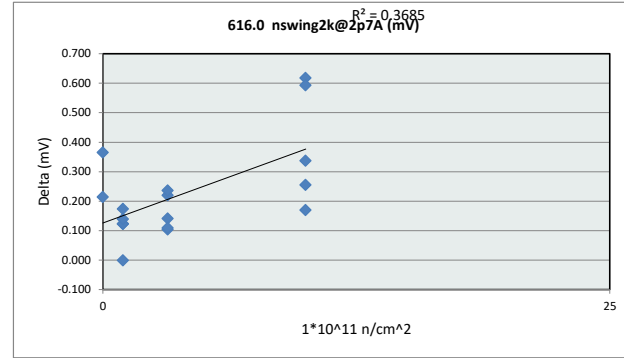
$R^2 = 0.3685$

616.0 nswing2k@2p7A (mV)

	616.0 nswing2k@2p7A (mV)			
Test Site				
Tester				
Test Number				
Max Limit	85	mV		
Min Limit		mV		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	39.336	38.255	38.816	38.872
Average	39.367	38.754	39.194	39.002
Max	39.399	39.103	39.522	39.187
UL	85.000	85.000	85.000	85.000

616.0 nswing2k@2p7A (mV)
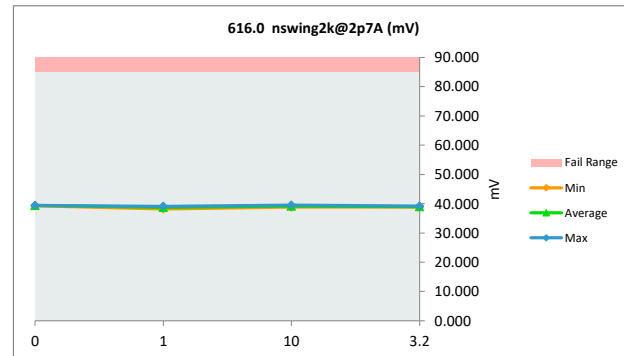
NDD Report
LMP2012

		617.0 nswing2k@2p7B (mV)				
Test Site						
Tester						
Test Number						
Unit		mV	mV			
Max Limit		85	85			
Min Limit						
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	46.396	46.269	0.127	0.27%	0.15%
0	27	46.275	45.938	0.337	0.73%	0.40%
1	28	45.334	45.204	0.130	0.29%	0.15%
1	29	45.500	45.416	0.084	0.18%	0.10%
1	30	45.769	45.690	0.079	0.17%	0.09%
1	31	46.556	46.437	0.119	0.26%	0.14%
1	32	45.753	45.799	-0.046	-0.10%	0.05%
3.2	33	46.379	46.181	0.198	0.43%	0.23%
3.2	34	46.463	46.379	0.084	0.18%	0.10%
3.2	35	45.939	45.824	0.115	0.25%	0.14%
3.2	36	46.004	45.971	0.033	0.07%	0.04%
3.2	37	46.457	46.237	0.220	0.47%	0.26%
10	38	46.675	46.626	0.049	0.10%	0.06%
10	39	45.826	45.538	0.288	0.63%	0.34%
10	40	46.741	46.179	0.562	1.20%	0.66%
10	41	46.996	46.314	0.682	1.45%	0.80%
10	42	45.808	45.491	0.317	0.69%	0.37%
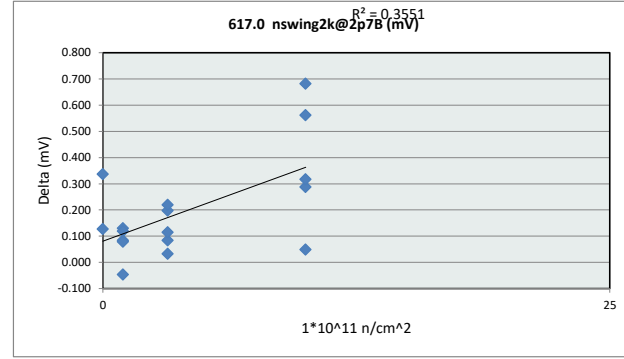
617.0 nswing2k@2p7B (mV) $R^2 = 0.3551$

	617.0 nswing2k@2p7B (mV)			
Test Site				
Tester				
Test Number				
Max Limit	85	mV		
Min Limit		mV		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	45.938	45.204	45.491	45.824
Average	46.104	45.709	46.030	46.118
Max	46.269	46.437	46.626	46.379
UL	85.000	85.000	85.000	85.000

617.0 nswing2k@2p7B (mV)
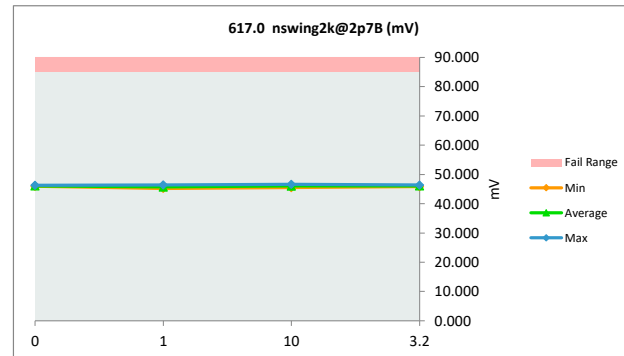
NDD Report
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		620.0 nswing2k@5p0A (mV)	
Test Site			
Tester			
Test Number			
Unit	mV	mV	
Max Limit	125	125	
Min Limit			

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	61.508	61.309	0.199	0.32%	0.16%
0	27	61.895	61.418	0.477	0.77%	0.38%
1	28	60.028	59.851	0.177	0.29%	0.14%
1	29	60.566	60.417	0.149	0.25%	0.12%
1	30	60.650	60.470	0.180	0.30%	0.14%
1	31	61.115	60.964	0.151	0.25%	0.12%
1	32	61.147	61.118	0.029	0.05%	0.02%
3.2	33	61.168	60.912	0.256	0.42%	0.20%
3.2	34	61.015	60.919	0.096	0.16%	0.08%
3.2	35	60.924	60.752	0.172	0.28%	0.14%
3.2	36	61.355	61.159	0.196	0.32%	0.16%
3.2	37	61.045	60.793	0.252	0.41%	0.20%
10	38	61.889	61.710	0.179	0.29%	0.14%
10	39	61.094	60.644	0.450	0.74%	0.36%
10	40	61.944	61.130	0.814	1.31%	0.65%
10	41	62.128	61.320	0.808	1.30%	0.65%
10	42	61.347	60.852	0.495	0.81%	0.40%
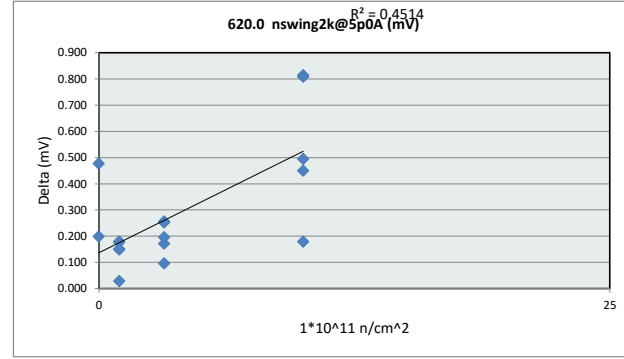
$R^2 = 0.4514$

620.0 nswing2k@5p0A (mV)

Chart: Delta (mV) vs 1*10^11 n/cm^2

		620.0 nswing2k@5p0A (mV)		
Test Site				
Tester				
Test Number				
Max Limit	125		mV	
Min Limit			mV	

1*10^11 n/cm^	0	1	10	3.2
LL				
Min	61.309	59.851	60.644	60.752
Average	61.363	60.564	61.131	60.907
Max	61.418	61.118	61.710	61.159
UL	125.000	125.000	125.000	125.000

620.0 nswing2k@5p0A (mV)

Chart legend: Fail Range, Min, Average, Max
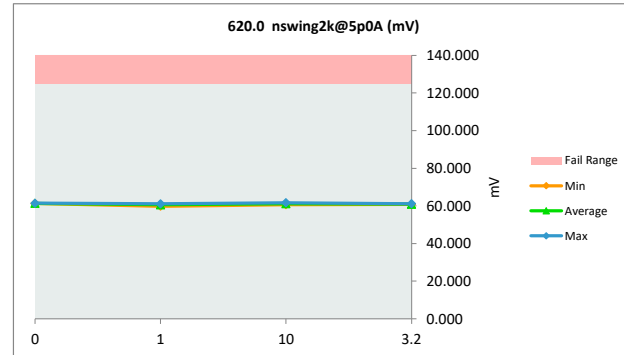
NDD Report
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	621.0 nswing2k@5p0B (mV)				
Test Site					
Tester					
Test Number					
Unit	mV	mV			
Max Limit	125	125			
Min Limit					
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	70.455	70.406	0.049	0.07%	0.04%
0	27	70.329	69.908	0.421	0.60%	0.34%
1	28	69.167	69.045	0.122	0.18%	0.10%
1	29	69.432	69.337	0.095	0.14%	0.08%
1	30	69.809	69.677	0.132	0.19%	0.11%
1	31	70.712	70.588	0.124	0.18%	0.10%
1	32	69.816	69.910	-0.094	-0.13%	0.08%
3.2	33	70.654	70.411	0.243	0.34%	0.19%
3.2	34	70.755	70.720	0.035	0.05%	0.03%
3.2	35	69.686	69.571	0.115	0.17%	0.09%
3.2	36	70.227	70.104	0.123	0.18%	0.10%
3.2	37	70.804	70.568	0.236	0.33%	0.19%
10	38	71.046	71.065	-0.019	-0.03%	0.02%
10	39	69.797	69.375	0.422	0.60%	0.34%
10	40	70.907	70.246	0.661	0.93%	0.53%
10	41	71.208	70.217	0.991	1.39%	0.79%
10	42	69.757	69.405	0.352	0.50%	0.28%
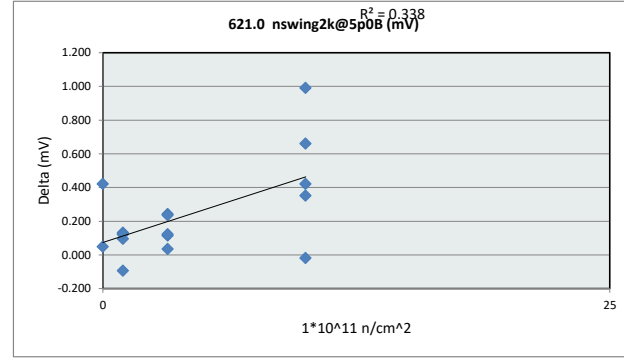
$R^2 = 0.338$

621.0 nswing2k@5p0B (mV)

	621.0 nswing2k@5p0B (mV)			
Test Site				
Tester				
Test Number				
Max Limit	125	mV		
Min Limit		mV		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	69.908	69.045	69.375	69.571
Average	70.157	69.711	70.062	70.275
Max	70.406	70.588	71.065	70.720
UL	125.000	125.000	125.000	125.000

621.0 nswing2k@5p0B (mV)
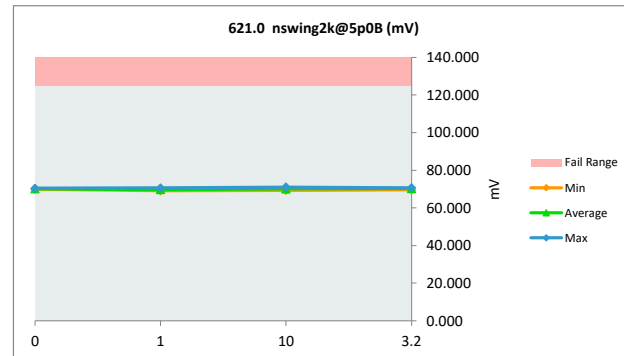
NDD Report
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624.0 nswing10k@2p7A (mV)		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit	60	60
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	17.066	16.937	0.129	0.76%	0.21%
0	27	17.096	16.801	0.295	1.73%	0.49%
1	28	16.476	16.334	0.142	0.86%	0.24%
1	29	16.503	16.368	0.135	0.82%	0.23%
1	30	16.549	16.388	0.161	0.97%	0.27%
1	31	17.161	17.015	0.146	0.85%	0.24%
1	32	16.534	16.462	0.072	0.44%	0.12%
3.2	33	17.067	16.889	0.178	1.04%	0.30%
3.2	34	16.868	16.712	0.156	0.92%	0.26%
3.2	35	16.894	16.741	0.153	0.91%	0.25%
3.2	36	16.821	16.685	0.136	0.81%	0.23%
3.2	37	16.835	16.654	0.181	1.08%	0.30%
10	38	17.064	16.931	0.133	0.78%	0.22%
10	39	16.708	16.424	0.284	1.70%	0.47%
10	40	17.237	16.747	0.490	2.84%	0.82%
10	41	17.603	17.105	0.498	2.83%	0.83%
10	42	16.664	16.410	0.254	1.52%	0.42%
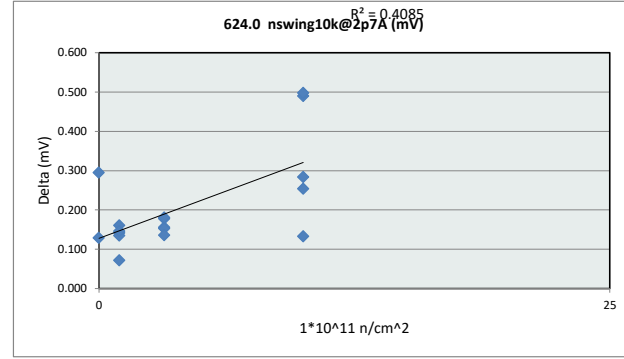
$R^2 = 0.4085$

624.0 nswing10k@2p7A (mV)

624.0 nswing10k@2p7A (mV)		
Test Site		
Tester		
Test Number		
Max Limit	60	mV
Min Limit		mV

1*10^11 n/cm^	0	1	10	3.2
LL				
Min	16.801	16.334	16.410	16.654
Average	16.869	16.513	16.723	16.736
Max	16.937	17.015	17.105	16.889
UL	60.000	60.000	60.000	60.000

624.0 nswing10k@2p7A (mV)
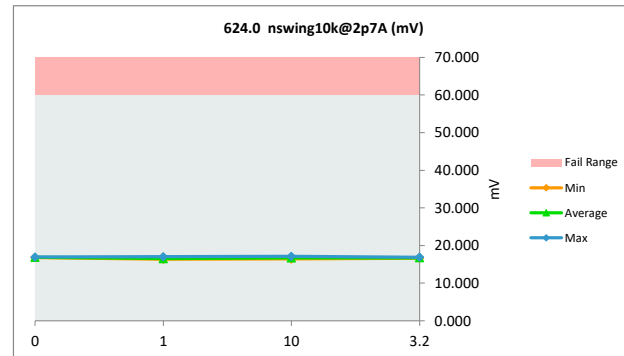
NDD Report
LMP2012

625.0 nswing10k@2p7B (mV)		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit	60	60
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	22.423	22.302	0.121	0.54%	0.20%
0	27	22.396	22.107	0.289	1.29%	0.48%
1	28	21.726	21.592	0.134	0.62%	0.22%
1	29	21.733	21.614	0.119	0.55%	0.20%
1	30	21.770	21.625	0.145	0.67%	0.24%
1	31	22.735	22.609	0.126	0.55%	0.21%
1	32	21.754	21.718	0.036	0.17%	0.06%
3.2	33	22.342	22.160	0.182	0.81%	0.30%
3.2	34	22.244	22.124	0.120	0.54%	0.20%
3.2	35	22.527	22.402	0.125	0.55%	0.21%
3.2	36	22.059	21.970	0.089	0.40%	0.15%
3.2	37	22.095	21.935	0.160	0.72%	0.27%
10	38	22.397	22.328	0.069	0.31%	0.12%
10	39	22.111	21.858	0.253	1.14%	0.42%
10	40	22.593	22.117	0.476	2.11%	0.79%
10	41	23.171	22.686	0.485	2.09%	0.81%
10	42	22.015	21.775	0.240	1.09%	0.40%
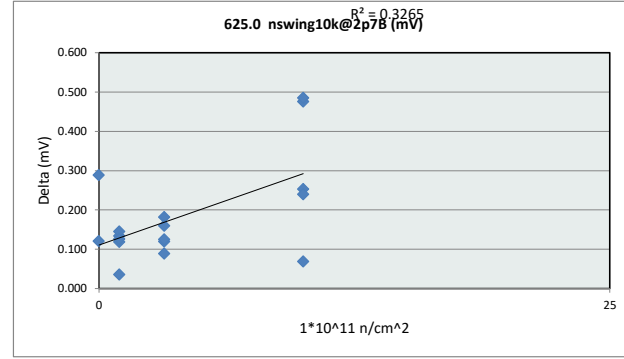
625.0 nswing10k@2p7B (mV) $R^2 = 0.3265$

625.0 nswing10k@2p7B (mV)				
Test Site				
Tester				
Test Number				
Max Limit	60	mV		
Min Limit		mV		

1*10^11 n/cm^	0	1	10	3.2
LL				
Min	22.107	21.592	21.775	21.935
Average	22.205	21.832	22.153	22.118
Max	22.302	22.609	22.686	22.402
UL	60.000	60.000	60.000	60.000

625.0 nswing10k@2p7B (mV)
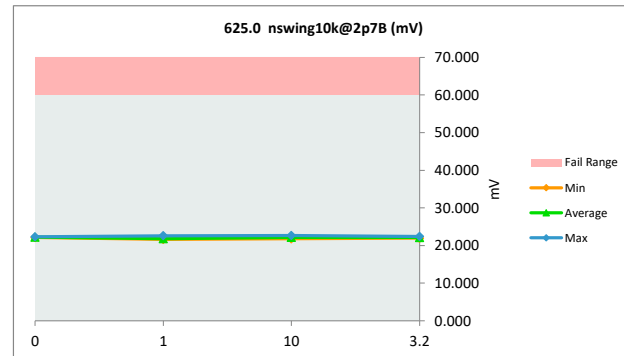
NDD Report
LMP2012

		628.0 nswing10k@5p0A (mV)				
Test Site						
Tester						
Test Number						
Unit		mV	mV			
Max Limit		80	80			
Min Limit						
1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	22.578	22.449	0.129	0.57%	0.16%
0	27	22.669	22.362	0.307	1.35%	0.38%
1	28	21.878	21.744	0.134	0.61%	0.17%
1	29	21.963	21.813	0.150	0.68%	0.19%
1	30	22.022	21.871	0.151	0.69%	0.19%
1	31	22.585	22.446	0.139	0.62%	0.17%
1	32	22.105	21.988	0.117	0.53%	0.15%
3.2	33	22.521	22.312	0.209	0.93%	0.26%
3.2	34	22.302	22.191	0.111	0.50%	0.14%
3.2	35	22.358	22.203	0.155	0.69%	0.19%
3.2	36	22.340	22.217	0.123	0.55%	0.15%
3.2	37	22.317	22.101	0.216	0.97%	0.27%
10	38	22.666	22.500	0.166	0.73%	0.21%
10	39	22.215	21.898	0.317	1.43%	0.40%
10	40	22.817	22.284	0.533	2.34%	0.67%
10	41	23.178	22.623	0.555	2.39%	0.69%
10	42	22.187	21.905	0.282	1.27%	0.35%
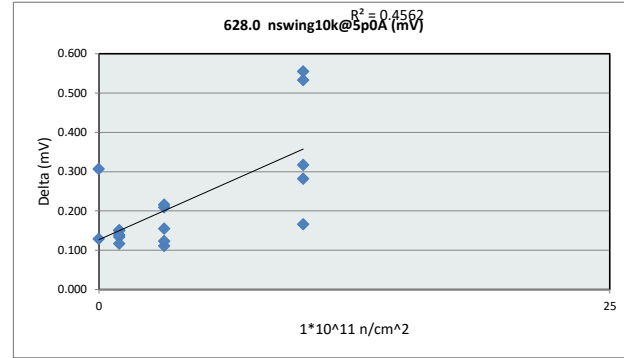
628.0 nswing10k@5p0A (mV), $R^2 = 0.4562$

	628.0 nswing10k@5p0A (mV)			
Test Site				
Tester				
Test Number				
Max Limit	80	mV		
Min Limit		mV		
1*10^11 n/cm^	0	1	10	3.2
LL				
Min	22.362	21.744	21.898	22.101
Average	22.405	21.972	22.242	22.205
Max	22.449	22.446	22.623	22.312
UL	80.000	80.000	80.000	80.000

628.0 nswing10k@5p0A (mV)
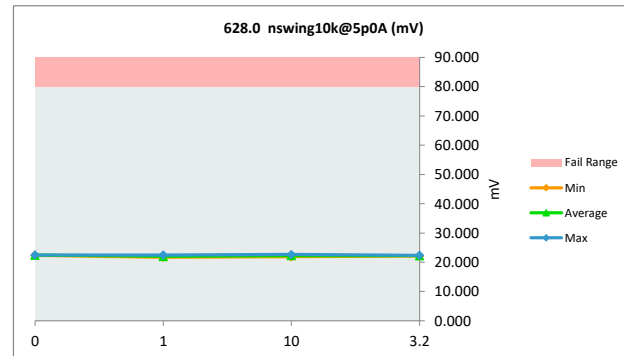
NDD Report
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629.0 nswing10k@5p0B (mV)		
Test Site		
Tester		
Test Number		
Unit	mV	mV
Max Limit	80	80
Min Limit		

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	28.638	28.518	0.120	0.42%	0.15%
0	27	28.593	28.275	0.318	1.11%	0.40%
1	28	27.838	27.723	0.115	0.41%	0.14%
1	29	27.878	27.753	0.125	0.45%	0.16%
1	30	28.001	27.868	0.133	0.47%	0.17%
1	31	28.918	28.798	0.120	0.41%	0.15%
1	32	27.954	27.959	-0.005	-0.02%	0.01%
3.2	33	28.589	28.369	0.220	0.77%	0.28%
3.2	34	28.533	28.411	0.122	0.43%	0.15%
3.2	35	28.612	28.488	0.124	0.43%	0.15%
3.2	36	28.257	28.168	0.089	0.31%	0.11%
3.2	37	28.395	28.201	0.194	0.68%	0.24%
10	38	28.710	28.644	0.066	0.23%	0.08%
10	39	28.249	27.996	0.253	0.90%	0.32%
10	40	28.869	28.360	0.509	1.76%	0.64%
10	41	29.455	28.837	0.618	2.10%	0.77%
10	42	28.126	27.892	0.234	0.83%	0.29%
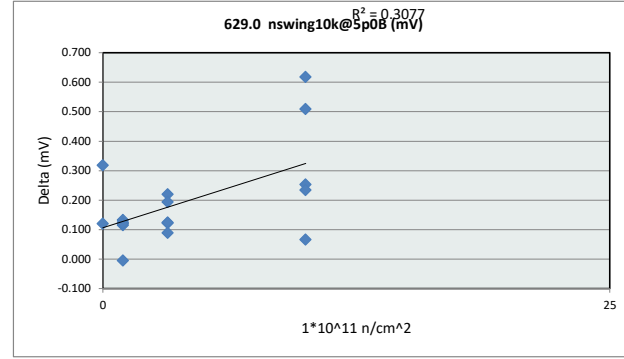
629.0 nswing10k@5p0B (mV) — $R^2 = 0.3077$

629.0 nswing10k@5p0B (mV)		
Test Site		
Tester		
Test Number		
Max Limit	80	mV
Min Limit		mV

1*10^11 n/cm^	0	1	10	3.2
LL				
Min	28.275	27.723	27.892	28.168
Average	28.396	28.020	28.346	28.327
Max	28.518	28.798	28.837	28.488
UL	80.000	80.000	80.000	80.000

629.0 nswing10k@5p0B (mV)
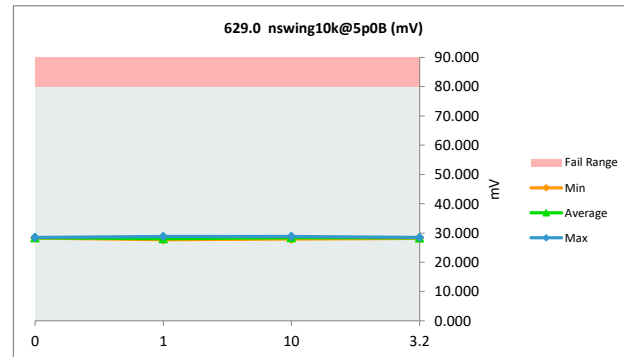
NDD Report
LMP2012

700.0 isrc@2p7A (mA)		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	60	60
Min Limit	5	5

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	10.956	10.963	-0.007	-0.06%	0.01%
0	27	10.530	10.532	-0.002	-0.02%	0.00%
1	28	12.208	12.207	0.001	0.01%	0.00%
1	29	10.862	10.879	-0.017	-0.16%	0.03%
1	30	12.085	12.106	-0.021	-0.17%	0.04%
1	31	13.082	13.125	-0.043	-0.33%	0.08%
1	32	11.090	11.113	-0.023	-0.21%	0.04%
3.2	33	11.793	11.788	0.005	0.04%	0.01%
3.2	34	12.958	12.996	-0.038	-0.29%	0.07%
3.2	35	11.042	11.085	-0.043	-0.39%	0.08%
3.2	36	11.132	11.160	-0.028	-0.25%	0.05%
3.2	37	12.833	12.865	-0.032	-0.25%	0.06%
10	38	11.847	11.889	-0.042	-0.35%	0.08%
10	39	11.939	11.951	-0.012	-0.10%	0.02%
10	40	10.669	10.674	-0.005	-0.05%	0.01%
10	41	11.991	12.009	-0.018	-0.15%	0.03%
10	42	10.794	10.805	-0.011	-0.10%	0.02%
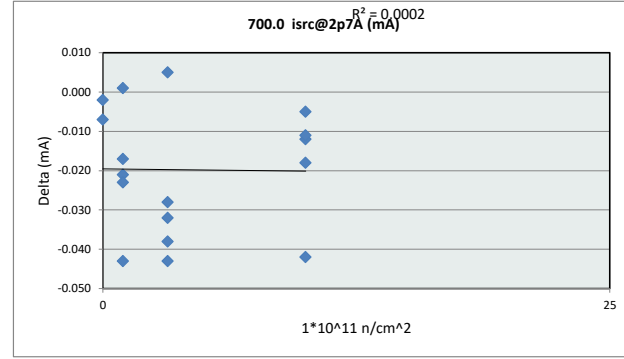
700.0 isrc@2p7A (mA), $R^2 = 0.0002$

700.0 isrc@2p7A (mA)				
Test Site				
Tester				
Test Number				
Max Limit	60	mA		
Min Limit	5	mA		
1*10^11 n/cm^	0	1	10	3.2
LL	5.000	5.000	5.000	5.000
Min	10.532	10.879	10.674	11.085
Average	10.747	11.886	11.466	11.979
Max	10.963	13.125	12.009	12.996
UL	60.000	60.000	60.000	60.000

700.0 isrc@2p7A (mA)
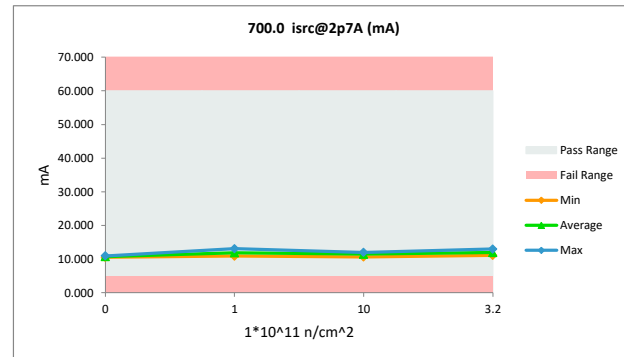
NDD Report
LMP2012

701.0 isrc@2p7B (mA)		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	60	60
Min Limit	5	5

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	12.778	12.779	-0.001	-0.01%	0.00%
0	27	11.517	11.516	0.001	0.01%	0.00%
1	28	10.762	10.770	-0.008	-0.07%	0.01%
1	29	10.938	10.960	-0.022	-0.20%	0.04%
1	30	11.456	11.461	-0.005	-0.04%	0.01%
1	31	12.530	12.557	-0.027	-0.22%	0.05%
1	32	11.600	11.611	-0.011	-0.09%	0.02%
3.2	33	12.169	12.167	0.002	0.02%	0.00%
3.2	34	11.305	11.343	-0.038	-0.34%	0.07%
3.2	35	11.322	11.341	-0.019	-0.17%	0.03%
3.2	36	11.288	11.329	-0.041	-0.36%	0.07%
3.2	37	11.559	11.585	-0.026	-0.22%	0.05%
10	38	12.357	12.373	-0.016	-0.13%	0.03%
10	39	11.041	11.070	-0.029	-0.26%	0.05%
10	40	11.243	11.228	0.015	0.13%	0.03%
10	41	12.057	12.102	-0.045	-0.37%	0.08%
10	42	11.857	11.857	0.000	0.00%	0.00%
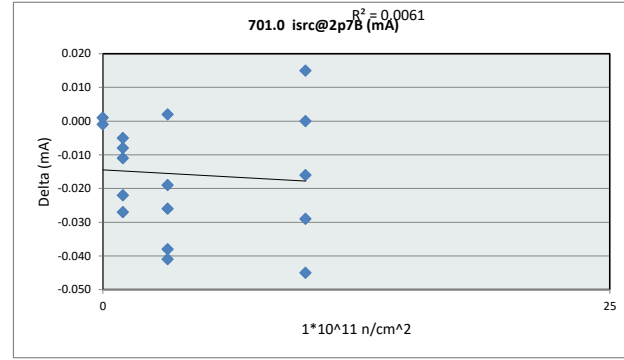
701.0 isrc@2p7B (mA) — $R^2 = 0.0061$

701.0 isrc@2p7B (mA)		
Test Site		
Tester		
Test Number		
Max Limit	60	mA
Min Limit	5	mA

1*10^11 n/cm^	0	1	10	3.2
LL	5.000	5.000	5.000	5.000
Min	11.516	10.770	11.070	11.329
Average	12.148	11.472	11.726	11.553
Max	12.779	12.557	12.373	12.167
UL	60.000	60.000	60.000	60.000

701.0 isrc@2p7B (mA)
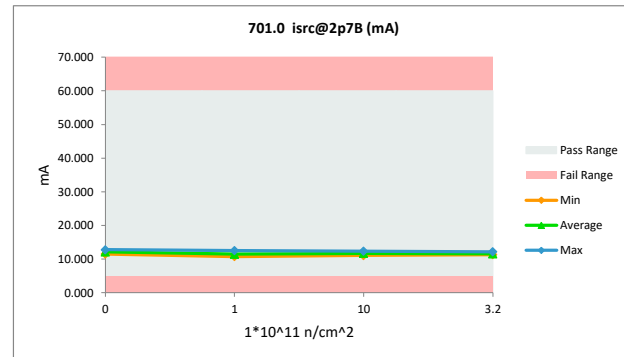
NDD Report
LMP2012

704.0 isrc@5p0A (mA)		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	60	60
Min Limit	8	8

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	13.656	13.661	-0.005	-0.04%	0.01%
0	27	13.029	13.038	-0.009	-0.07%	0.02%
1	28	15.245	15.234	0.011	0.07%	0.02%
1	29	13.494	13.504	-0.010	-0.07%	0.02%
1	30	15.119	15.139	-0.020	-0.13%	0.04%
1	31	16.456	16.496	-0.040	-0.24%	0.08%
1	32	13.736	13.768	-0.032	-0.23%	0.06%
3.2	33	14.648	14.644	0.004	0.03%	0.01%
3.2	34	16.278	16.326	-0.048	-0.29%	0.09%
3.2	35	13.773	13.809	-0.036	-0.26%	0.07%
3.2	36	13.864	13.889	-0.025	-0.18%	0.05%
3.2	37	15.959	15.985	-0.026	-0.16%	0.05%
10	38	14.776	14.829	-0.053	-0.36%	0.10%
10	39	14.816	14.833	-0.017	-0.11%	0.03%
10	40	13.246	13.257	-0.011	-0.08%	0.02%
10	41	14.896	14.898	-0.002	-0.01%	0.00%
10	42	13.374	13.389	-0.015	-0.11%	0.03%
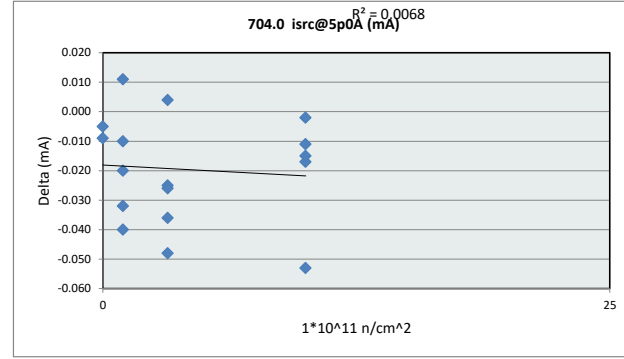
704.0 isrc@5p0A (mA) — $R^2 = 0.0068$

704.0 isrc@5p0A (mA)				
Test Site				
Tester				
Test Number				
Max Limit	60	mA		
Min Limit	8	mA		
1*10^11 n/cm^	0	1	10	3.2
LL	8.000	8.000	8.000	8.000
Min	13.038	13.504	13.257	13.809
Average	13.350	14.828	14.241	14.931
Max	13.661	16.496	14.898	16.326
UL	60.000	60.000	60.000	60.000

704.0 isrc@5p0A (mA)
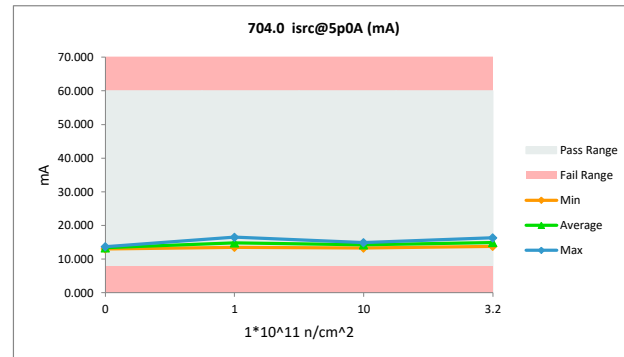
NDD Report
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705.0 isrc@5p0B (mA)		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	60	60
Min Limit	8	8

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	15.870	15.874	-0.004	-0.03%	0.01%
0	27	14.281	14.276	0.005	0.04%	0.01%
1	28	13.357	13.362	-0.005	-0.04%	0.01%
1	29	13.474	13.495	-0.021	-0.16%	0.04%
1	30	14.166	14.174	-0.008	-0.06%	0.02%
1	31	15.653	15.678	-0.025	-0.16%	0.05%
1	32	14.565	14.575	-0.010	-0.07%	0.02%
3.2	33	15.086	15.092	-0.006	-0.04%	0.01%
3.2	34	14.191	14.230	-0.039	-0.27%	0.07%
3.2	35	14.032	14.044	-0.012	-0.09%	0.02%
3.2	36	13.964	14.013	-0.049	-0.35%	0.09%
3.2	37	14.363	14.394	-0.031	-0.22%	0.06%
10	38	15.385	15.395	-0.010	-0.06%	0.02%
10	39	13.693	13.716	-0.023	-0.17%	0.04%
10	40	13.909	13.898	0.011	0.08%	0.02%
10	41	14.990	15.038	-0.048	-0.32%	0.09%
10	42	14.643	14.643	0.000	0.00%	0.00%
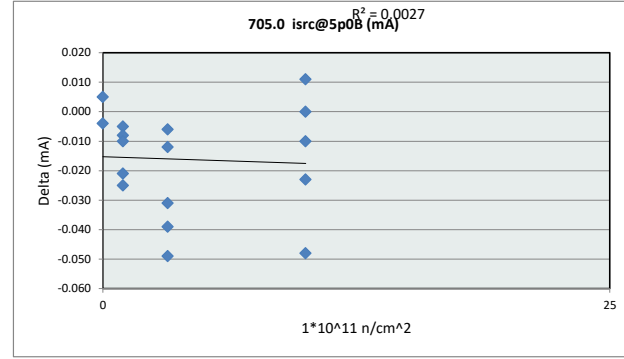
$R^2 = 0.0027$

705.0 isrc@5p0B (mA)

705.0 isrc@5p0B (mA)		
Test Site		
Tester		
Test Number		
Max Limit	60	mA
Min Limit	8	mA

1*10^11 n/cm^	0	1	10	3.2
LL	8.000	8.000	8.000	8.000
Min	14.276	13.362	13.716	14.013
Average	15.075	14.257	14.538	14.355
Max	15.874	15.678	15.395	15.092
UL	60.000	60.000	60.000	60.000

705.0 isrc@5p0B (mA)
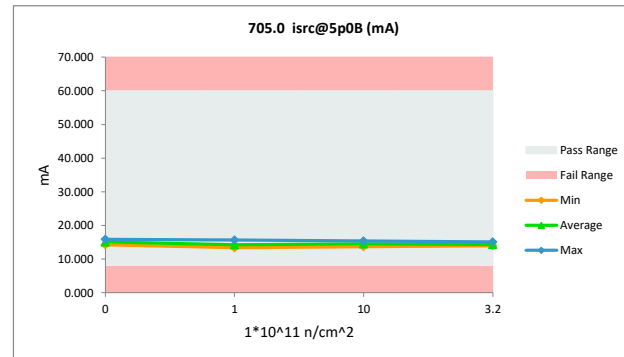
NDD Report
LMP2012

708.0 isnk@2p7A (mA)		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	-5	-5
Min Limit	-60	-60

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-17.545	-17.551	0.006	-0.03%	0.01%
0	27	-17.593	-17.607	0.014	-0.08%	0.03%
1	28	-19.806	-19.820	0.014	-0.07%	0.03%
1	29	-18.171	-18.174	0.003	-0.02%	0.01%
1	30	-18.635	-18.639	0.004	-0.02%	0.01%
1	31	-19.870	-19.894	0.024	-0.12%	0.04%
1	32	-17.856	-17.873	0.017	-0.10%	0.03%
3.2	33	-18.100	-18.056	-0.044	0.24%	0.08%
3.2	34	-19.640	-19.661	0.021	-0.11%	0.04%
3.2	35	-19.179	-19.174	-0.005	0.03%	0.01%
3.2	36	-17.667	-17.679	0.012	-0.07%	0.02%
3.2	37	-18.417	-18.387	-0.030	0.16%	0.05%
10	38	-19.972	-19.974	0.002	-0.01%	0.00%
10	39	-18.630	-18.629	-0.001	0.01%	0.00%
10	40	-18.325	-18.343	0.018	-0.10%	0.03%
10	41	-19.164	-19.206	0.042	-0.22%	0.08%
10	42	-17.674	-17.628	-0.046	0.26%	0.08%
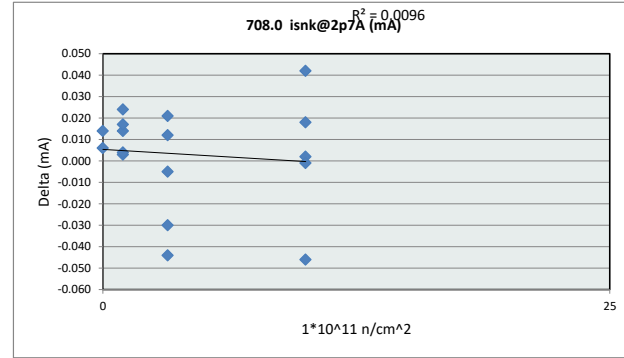
708.0 isnk@2p7A (mA) — $R^2 = 0.0096$

708.0 isnk@2p7A (mA)		
Test Site		
Tester		
Test Number		
Max Limit	-5	mA
Min Limit	-60	mA

1*10^11 n/cm^	0	1	10	3.2
LL	-60.000	-60.000	-60.000	-60.000
Min	-17.607	-19.894	-19.974	-19.661
Average	-17.579	-18.880	-18.756	-18.591
Max	-17.551	-17.873	-17.628	-17.679
UL	-5.000	-5.000	-5.000	-5.000

708.0 isnk@2p7A (mA)
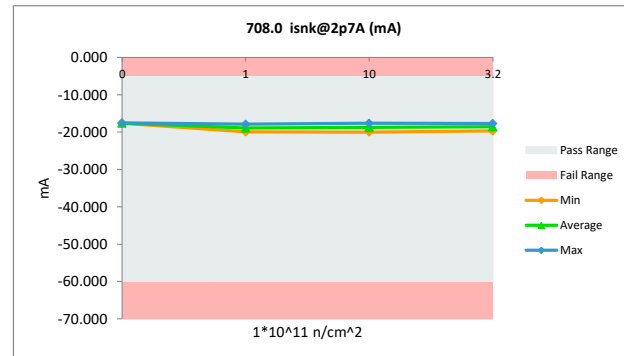
NDD Report
LMP2012

709.0 isnk@2p7B (mA)		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	-5	-5
Min Limit	-60	-60

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-19.897	-19.886	-0.011	0.06%	0.02%
0	27	-18.070	-18.052	-0.018	0.10%	0.03%
1	28	-16.999	-16.966	-0.033	0.19%	0.06%
1	29	-16.532	-16.522	-0.010	0.06%	0.02%
1	30	-17.656	-17.633	-0.023	0.13%	0.04%
1	31	-19.398	-19.388	-0.010	0.05%	0.02%
1	32	-18.663	-18.660	-0.003	0.02%	0.01%
3.2	33	-19.407	-19.408	0.001	-0.01%	0.00%
3.2	34	-19.822	-19.822	0.000	0.00%	0.00%
3.2	35	-18.246	-18.224	-0.022	0.12%	0.04%
3.2	36	-18.166	-18.166	0.000	0.00%	0.00%
3.2	37	-18.244	-18.230	-0.014	0.08%	0.03%
10	38	-19.114	-19.109	-0.005	0.03%	0.01%
10	39	-18.069	-18.121	0.052	-0.29%	0.09%
10	40	-17.867	-17.898	0.031	-0.17%	0.06%
10	41	-18.522	-18.559	0.037	-0.20%	0.07%
10	42	-17.672	-17.662	-0.010	0.06%	0.02%
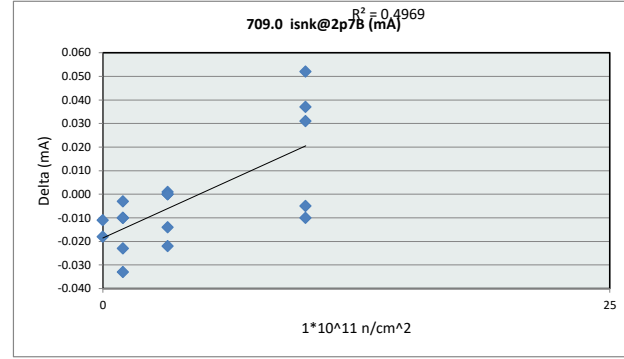
$R^2 = 0.4969$

709.0 isnk@2p7B (mA)

709.0 isnk@2p7B (mA)		
Test Site		
Tester		
Test Number		
Max Limit	-5	mA
Min Limit	-60	mA

1*10^11 n/cm^	0	1	10	3.2
LL	-60.000	-60.000	-60.000	-60.000
Min	-19.886	-19.388	-19.109	-19.822
Average	-18.969	-17.834	-18.270	-18.770
Max	-18.052	-16.522	-17.662	-18.166
UL	-5.000	-5.000	-5.000	-5.000

709.0 isnk@2p7B (mA)

Pass Range
Fail Range
Min
Average
Max
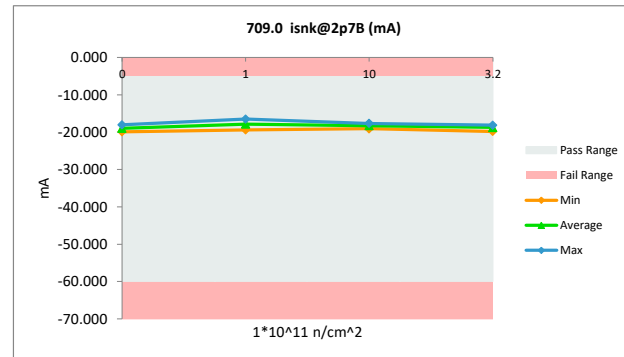
NDD Report
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	712.0 isnk@5p0A (mA)	
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	-8	-8
Min Limit	-60	-60

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-17.071	-17.071	0.000	0.00%	0.00%
0	27	-17.145	-17.149	0.004	-0.02%	0.01%
1	28	-19.233	-19.240	0.007	-0.04%	0.01%
1	29	-17.627	-17.620	-0.007	0.04%	0.01%
1	30	-18.100	-18.089	-0.011	0.06%	0.02%
1	31	-19.362	-19.367	0.005	-0.03%	0.01%
1	32	-17.401	-17.403	0.002	-0.01%	0.00%
3.2	33	-17.563	-17.506	-0.057	0.32%	0.11%
3.2	34	-19.077	-19.095	0.018	-0.09%	0.03%
3.2	35	-18.580	-18.568	-0.012	0.06%	0.02%
3.2	36	-17.169	-17.162	-0.007	0.04%	0.01%
3.2	37	-17.858	-17.822	-0.036	0.20%	0.07%
10	38	-19.430	-19.406	-0.024	0.12%	0.05%
10	39	-18.107	-18.099	-0.008	0.04%	0.02%
10	40	-17.864	-17.880	0.016	-0.09%	0.03%
10	41	-18.508	-18.541	0.033	-0.18%	0.06%
10	42	-17.169	-17.130	-0.039	0.23%	0.08%
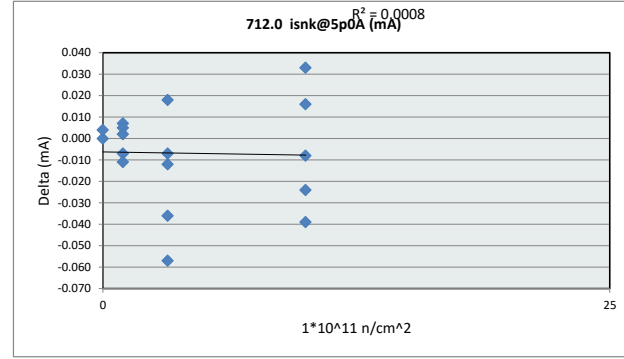
712.0 isnk@5p0A (mA) — $R^2 = 0.0008$ (Delta (mA) vs 1*10^11 n/cm^2)

	712.0 isnk@5p0A (mA)	
Test Site		
Tester		
Test Number		
Max Limit	-8	mA
Min Limit	-60	mA

1*10^11 n/cm^	0	1	10	3.2
LL	-60.000	-60.000	-60.000	-60.000
Min	-17.149	-19.367	-19.406	-19.095
Average	-17.110	-18.344	-18.211	-18.031
Max	-17.071	-17.403	-17.130	-17.162
UL	-8.000	-8.000	-8.000	-8.000

712.0 isnk@5p0A (mA) (mA vs 1*10^11 n/cm^2) — Pass Range, Fail Range, Min, Average, Max
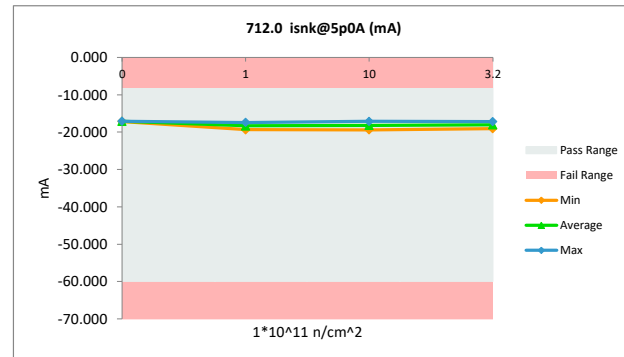
NDD Report
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713.0 isnk@5p0B (mA)		
Test Site		
Tester		
Test Number		
Unit	mA	mA
Max Limit	-8	-8
Min Limit	-60	-60

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	-19.187	-19.173	-0.014	0.07%	0.03%
0	27	-17.535	-17.529	-0.006	0.03%	0.01%
1	28	-16.506	-16.471	-0.035	0.21%	0.07%
1	29	-16.021	-16.001	-0.020	0.12%	0.04%
1	30	-17.191	-17.163	-0.028	0.16%	0.05%
1	31	-18.856	-18.840	-0.016	0.08%	0.03%
1	32	-18.113	-18.093	-0.020	0.11%	0.04%
3.2	33	-18.763	-18.758	-0.005	0.03%	0.01%
3.2	34	-19.297	-19.284	-0.013	0.07%	0.03%
3.2	35	-17.691	-17.668	-0.023	0.13%	0.04%
3.2	36	-17.760	-17.759	-0.001	0.01%	0.00%
3.2	37	-17.764	-17.739	-0.025	0.14%	0.05%
10	38	-18.597	-18.585	-0.012	0.06%	0.02%
10	39	-17.580	-17.631	0.051	-0.29%	0.10%
10	40	-17.380	-17.411	0.031	-0.18%	0.06%
10	41	-17.970	-18.011	0.041	-0.23%	0.08%
10	42	-17.098	-17.085	-0.013	0.08%	0.03%
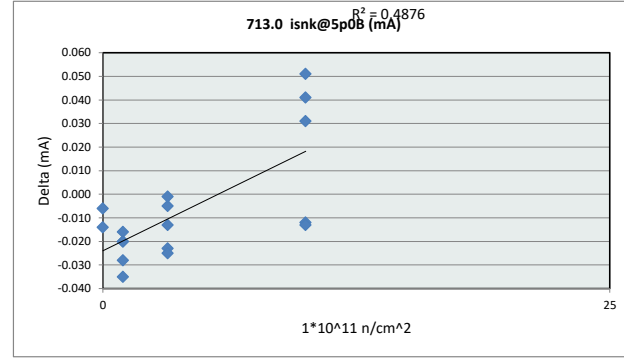
713.0 isnk@5p0B (mA), $R^2 = 0.4876$

713.0 isnk@5p0B (mA)		
Test Site		
Tester		
Test Number		
Max Limit	-8	mA
Min Limit	-60	mA

1*10^11 n/cm^	0	1	10	3.2
LL	-60.000	-60.000	-60.000	-60.000
Min	-19.173	-18.840	-18.585	-19.284
Average	-18.351	-17.314	-17.745	-18.242
Max	-17.529	-16.001	-17.085	-17.668
UL	-8.000	-8.000	-8.000	-8.000

713.0 isnk@5p0B (mA)
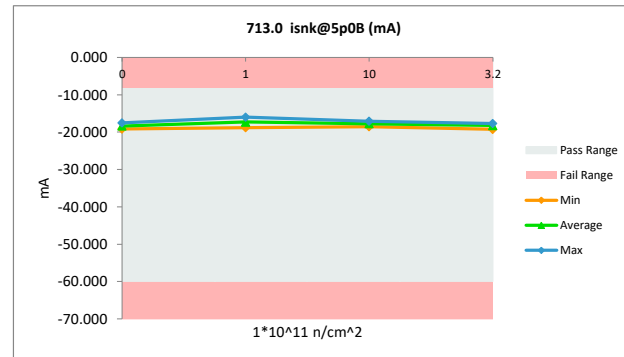
NDD Report
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800.0 Vos_caltime@5p0VA (ms)		
Test Site		
Tester		
Test Number		
Unit	ms	ms
Max Limit	5	5
Min Limit		0

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.537	0.529	0.008	1.49%	0.16%
0	27	0.538	0.527	0.011	2.04%	0.22%
1	28	1.460	1.441	0.019	1.30%	0.38%
1	29	0.725	0.720	0.005	0.69%	0.10%
1	30	0.813	0.804	0.009	1.11%	0.18%
1	31	1.124	1.140	-0.016	-1.42%	0.32%
1	32	0.300	0.312	-0.012	-4.00%	0.24%
3.2	33	0.826	0.875	-0.049	-5.93%	0.98%
3.2	34	0.215	0.213	0.002	0.93%	0.04%
3.2	35	0.412	0.416	-0.004	-0.97%	0.08%
3.2	36	1.287	1.282	0.005	0.39%	0.10%
3.2	37	1.050	1.025	0.025	2.38%	0.50%
10	38	1.387	1.469	-0.082	-5.91%	1.64%
10	39	1.143	1.149	-0.006	-0.52%	0.12%
10	40	1.182	1.178	0.004	0.34%	0.08%
10	41	0.785	0.827	-0.042	-5.35%	0.84%
10	42	0.458	0.443	0.015	3.28%	0.30%

800.0 Vos_caltime@5p0VA (ms)
$R^2 = 0.1641$

800.0 Vos_caltime@5p0VA (m				
Test Site				
Tester				
Test Number				
Max Limit	5	ms		
Min Limit	0	ms		

1*10^11 n/cm^	0	1	10	3.2
LL	0.000	0.000	0.000	0.000
Min	0.527	0.312	0.443	0.213
Average	0.528	0.883	1.013	0.762
Max	0.529	1.441	1.469	1.282
UL	5.000	5.000	5.000	5.000

800.0 Vos_caltime@5p0VA (ms)
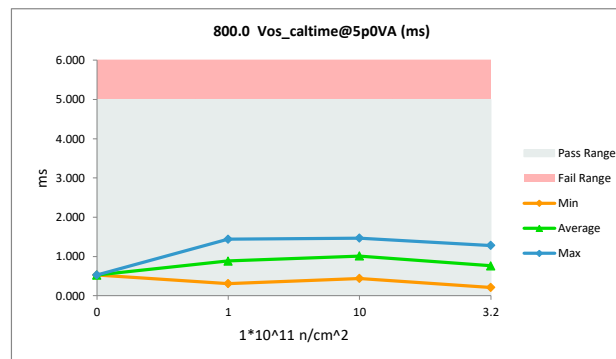
NDD Report
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801.0 Vos_caltime@5p0VB (ms)		
Test Site		
Tester		
Test Number		
Unit	ms	ms
Max Limit	5	5
Min Limit		0

1*10^11 n/cm^2	Serial #	POST	PRE	Delta	Delta %	% of Limit Range
0	26	0.825	0.822	0.003	0.36%	0.06%
0	27	0.354	0.344	0.010	2.82%	0.20%
1	28	0.733	0.740	-0.007	-0.95%	0.14%
1	29	1.605	1.596	0.009	0.56%	0.18%
1	30	0.592	0.587	0.005	0.84%	0.10%
1	31	0.263	0.271	-0.008	-3.04%	0.16%
1	32	1.047	1.044	0.003	0.29%	0.06%
3.2	33	1.734	1.732	0.002	0.12%	0.04%
3.2	34	1.071	1.075	-0.004	-0.37%	0.08%
3.2	35	1.198	1.204	-0.006	-0.50%	0.12%
3.2	36	0.438	0.427	0.011	2.51%	0.22%
3.2	37	0.859	0.868	-0.009	-1.05%	0.18%
10	38	0.287	0.311	-0.024	-8.36%	0.48%
10	39	0.350	0.367	-0.017	-4.86%	0.34%
10	40	0.238	0.250	-0.012	-5.04%	0.24%
10	41	0.945	1.013	-0.068	-7.20%	1.36%
10	42	0.275	0.300	-0.025	-9.09%	0.50%
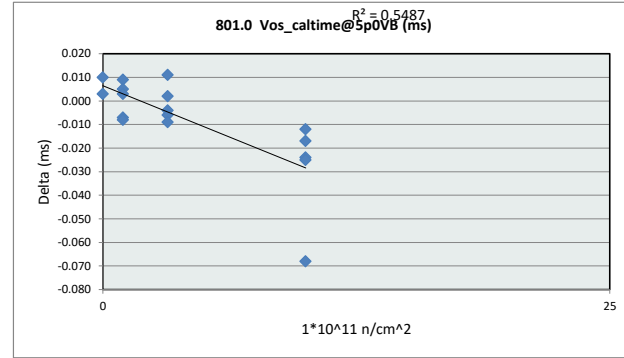
801.0 Vos_caltime@5p0VB (ms) $R^2 = 0.5487$

801.0 Vos_caltime@5p0VB (ms)				
Test Site				
Tester				
Test Number				
Max Limit	5	ms		
Min Limit	0	ms		
1*10^11 n/cm^	0	1	10	3.2
LL	0.000	0.000	0.000	0.000
Min	0.344	0.271	0.250	0.427
Average	0.583	0.848	0.448	1.061
Max	0.822	1.596	1.013	1.732
UL	5.000	5.000	5.000	5.000

801.0 Vos_caltime@5p0VB (ms)
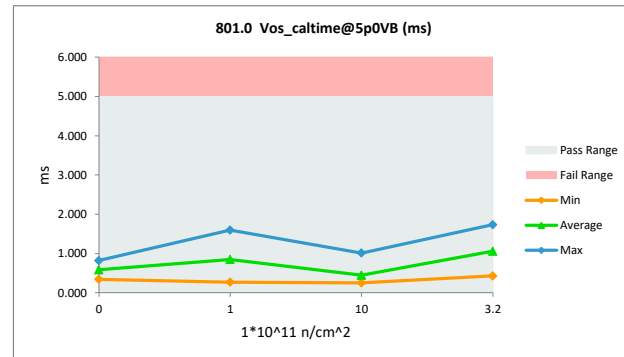
#	Name & Conditions	Pre Rad Limits		Post Rad Limits		
		Low	High	Low	High	Units
248	psi@5p5_abs_max_test	0.5	5.5	0.5	5.5	mA
260	psi@2p7	0.9	2.4	0.9	**3.5**	mA
261	psi@5p0	0.9	2.4	0.9	**3.5**	mA
275	Vos_vs@2p7A	-36	36	-36	36	uV
276	Vos_vs@2p7B	-36	36	-36	36	uV
279	Vos_vs@5p0A	-36	36	-36	36	uV
280	Vos_vs@5p0B	-36	36	-36	36	uV
283	PSRR_A	-17.78	17.78	-17.78	17.78	uVV
284	PSRR_dB_A		-95		-95	dB
285	PSRR_B	-17.78	17.78	-17.78	17.78	uVV
286	PSRR_dB_B		-95		-95	dB
400	vos@2p7V@n0p3_WRT_VEE(A)	-36	36	-36	36	uV
401	vos@2p7@1p5_below_VCC(A)	-36	36	-36	36	uV
402	CMRR@2P7_A	-17.78	17.78	-17.78	17.78	uVV
403	CMRRdB@2P7_A		-95		-95	dB
404	vos@2p7V@n0p3_WRT_VEE(B)	-36	36	-36	36	uV
405	vos@2p7@1p5_below_VCC(B)	-36	36	-36	36	uV
406	CMRR@2P7_B	-17.78	17.78	-17.78	17.78	uVV
407	CMRRdB@2P7_B		-95		-95	dB
416	vos_5p0V@n0p3_WRT_VEE(A)	-36	36	-36	36	uV
417	vos_5p0V@1p5_belowt_VCC(A)	-36	36	-36	36	uV
418	CMRR@5P0A	-10	10	-10	10	uVV
419	CMRRdB@5P0A		-100		-100	dB
420	vos_5p0V@n0p3_WRT_VEE(B)	-36	36	-36	36	uV
421	vos_5p0V@1p5_belowt_VCC(B)	-36	36	-36	36	uV
422	CMRR@5PV_B	-10	10	-10	10	uVV
423	CMRRdB@5V_B		-100		-100	dB
500	vos2k_@2p7V_Vout@0p3belowVCC(A)	-36	36	-36	36	uV
501	vos2k_@2p7V_Vout@0p3aboveVEE(A)	-36	36	-36	36	uV
502	gain2k@2p7(A)	-31.62	31.62	-31.62	31.62	uVV
503	gain2kdB@2p7(A)		-90		-90	dB
504	vos2k_@2p7V_Vout@0p3belowVCC(B)	-36	36	-36	36	uV
505	vos2k_@2p7V_Vout@0p3aboveVEE(B)	-36	36	-36	36	uV
506	gain2k@2p7(B)	-31.62	31.62	-31.62	31.62	uVV
507	gain2kdB@2p7(B)		-90		-90	dB
516	vos2k_@5p0_Vout@0p3belowtoprailA	-36	36	-36	36	uV
517	vos2k_@5p0_Vout@0p3abovebotrailA	-36	36	-36	36	uV
518	gain2k@5p0A	-31.62	31.62	-31.62	31.62	uVV
519	gain2kdB@5p0A		-95		-95	dB
520	vos2k_@5p0_Vout@0p3belowtoprailB	-36	36	-36	36	uV
521	vos2k_@5p0_Vout@0p3abovebotrailB	-36	36	-36	36	uV
522	gain2k@5p0B	-31.62	31.62	-31.62	31.62	uVV
523	gain2kdB@5p0B		-95		-95	dB

#	Name & Conditions	Pre Rad Limits		Post Rad Limits		
		Low	High	Low	High	Units
532	vos10k_@2p7_Vout@0p3belowtoprailA	-36	36	-36	36	uV
533	vos10k_@2p7_Vout@0p3abovebotrailA	-36	36	-36	36	uV
534	gain10k@2p7A	-17.78	17.78	-17.78	17.78	uVV
535	gain10kdB@2p7A		-95		-95	dB
536	vos10k_vs@2p7_Vout@0p3belowtoprailB	-36	36	-36	36	uV
537	vos10k_vs@2p7_Vout@0p3abovebotrailB	-36	36	-36	36	uV
538	gain10k@2p7B	-17.78	17.78	-17.78	17.78	uVV
539	gain10kdB@2p7B		-95		-95	dB
548	vos10k_vs@5p0_Vout@0p3belowtoprailA	-36	36	-36	36	uV
549	vos10k_vs@5p0_Vout@0p3abovebotrailA	-36	36	-36	36	uV
550	gain10k@5p0A	-5.62	5.62	-5.62	5.62	uVV
551	gain10kdB@5p0A		-105		-105	dB
552	vos10k_vs@5p0_Vout@0p3belowtoprailB	-36	36	-36	36	uV
553	vos10k_vs@5p0_Vout@0p3abovebotrailB	-36	36	-36	36	uV
554	gain10k@5p0B	-5.62	5.62	-5.62	5.62	uVV
555	gain10kdB@5p0B		-105		-105	dB
600	pswing2k@2p7A	-85	0	-85	0	mV
601	pswing2k@2p7B	-85	0	-85	0	mV
604	pswing2k@5p0A	-125	0	-125	0	mV
605	pswing2k@5p0B	-125	0	-125	0	mV
608	pswing10k@2p7A	-60	0	-60	0	mV
609	pswing10k@2p7B	-60	0	-60	0	mV
612	pswing10k@5p0A	-80	0	-80	0	mV
613	pswing10k@5p0B	-80	0	-80	0	mV
616	nswing2k@2p7A	0	85	0	85	mV
617	nswing2k@2p7B	0	85	0	85	mV
620	nswing2k@5p0A	0	125	0	125	mV
621	nswing2k@5p0B	0	125	0	125	mV
624	nswing10k@2p7A	0	60	0	60	mV
625	nswing10k@2p7B	0	60	0	60	mV
628	nswing10k@5p0A	0	80	0	80	mV
629	nswing10k@5p0B	0	80	0	80	mV
700	isrc@2p7A	5	60	5	60	mA
701	isrc@2p7B	5	60	5	60	mA
704	isrc@5p0A	8	60	8	60	mA
705	isrc@5p0B	8	60	8	60	mA
708	isnk@2p7A	-60	-5	-60	-5	mA
709	isnk@2p7B	-60	-5	-60	-5	mA
712	isnk@5p0A	-60	-8	-60	-8	mA
713	isnk@5p0B	-60	-8	-60	-8	mA
800	Vos_caltime@5p0VA	0	5	0	5	ms
801	Vos_caltime@5p0VB	0	5	0	5	ms

IMPORTANT NOTICE AND DISCLAIMER