

RADIATION TEST REPORT

PRODUCT:	AD8229R703F
GAMMA:	0, 100k
GAMMA SOURCE:	Co60/TM1019 Condition A
DOSE RATE:	96 Rad(si)/s
FACILITIES:	University of Massachusetts @ Lowell
TESTED:	4/9/13

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Wafer	SN	DUT Icc 5V mA		DUT Iee 5V mA		DUT Icc 15V mA	
		PRE	100k	PRE	100k	PRE	100k
22	12	6.2817	6.2905	-6.3419	-6.3499	6.70518	6.72035
22	1	6.2981	6.2466	-6.3583	-6.3031	6.71635	6.65169
22	2	6.2829	6.2534	-6.3419	-6.3127	6.70478	6.66806
22	3	6.2758	6.2466	-6.3351	-6.3039	6.694	6.65409
22	4	6.2650	6.2314	-6.3231	-6.2891	6.68961	6.64571
23	58	6.2785	6.2702	-6.3399	-6.3287	6.6948	6.67923
23	59	6.2674	6.2538	-6.3295	-6.3119	6.67564	6.66287
23	60	6.2841	6.2686	-6.3479	-6.3291	6.69879	6.68442
23	61	6.2722	6.2566	-6.3331	-6.3111	6.68762	6.66646
	Min	6.2650	6.2314	-6.3583	-6.3291	6.67564	6.64571
	Max	6.2981	6.2702	-6.3231	-6.2891	6.71635	6.68442
	Mean	6.2780	6.2534	-6.3386	-6.3112	6.69520	6.66407
	Std. Dev	0.0106	0.0125	0.0110	0.0133	0.01210	0.01340
	Mean - 3 Sigma	6.2462	6.2159	-6.3717	-6.3511	6.65890	6.62387
	Mean + 3 Sigma	6.3098	6.2909	-6.3055	-6.2714	6.73150	6.70427

Wafer	SN	DUT Iee 15V mA		DUT Icc 16.5V mA		DUT Iee 16.5V mA	
		PRE	100k	PRE	100k	PRE	100k
22	12	-6.7781	-6.7893	6.7774	6.7882	-6.84719	-6.85719
22	1	-6.7881	-6.7189	6.7834	6.7171	-6.85359	-6.784
22	2	-6.7753	-6.7333	6.7738	6.7319	-6.84519	-6.8012
22	3	-6.7605	-6.7197	6.7602	6.7183	-6.83159	-6.7868
22	4	-6.7605	-6.7121	6.7574	6.7095	-6.82879	-6.778
23	58	-6.7653	-6.7497	6.7598	6.7443	-6.83119	-6.8156
23	59	-6.7509	-6.7337	6.7439	6.7263	-6.8184	-6.7968
23	60	-6.7729	-6.7525	6.7666	6.7471	-6.84119	-6.8176
23	61	-6.7609	-6.7365	6.7550	6.7295	-6.82879	-6.8012
	Min	-6.7881	-6.7525	6.7439	6.7095	-6.85359	-6.81760
	Max	-6.7509	-6.7121	6.7834	6.7471	-6.81840	-6.77800
	Mean	-6.7668	-6.7321	6.7625	6.7280	-6.83484	-6.79765
	Std. Dev	0.0115	0.0145	0.0121	0.0131	0.01113	0.01432
	Mean - 3 Sigma	-6.8014	-6.7757	6.7263	6.6887	-6.86822	-6.84062
	Mean + 3 Sigma	-6.7322	-6.6885	6.7988	6.7673	-6.80147	-6.75468

Wafer	SN	VOH 10K 5V V		VOL 10K 5V V		VOH 10K 15V V	
		PRE	100k	PRE	100k	PRE	100k
22	12	-0.7759	-0.7744	1.4193	1.4171	-0.87719	-0.87628
22	1	-0.7744	-0.7763	1.4159	1.4207	-0.87568	-0.87681
22	2	-0.7776	-0.7763	1.4223	1.4204	-0.87803	-0.87726
22	3	-0.7770	-0.7762	1.4222	1.4207	-0.87893	-0.87795
22	4	-0.7770	-0.7749	1.4202	1.4207	-0.87742	-0.87712
23	58	-0.7754	-0.7748	1.4216	1.4226	-0.87535	-0.87522
23	59	-0.7752	-0.7743	1.4223	1.4218	-0.87633	-0.87636
23	60	-0.7753	-0.7743	1.4200	1.4205	-0.87588	-0.87574
23	61	-0.7753	-0.7743	1.4227	1.4208	-0.87558	-0.87527
	Min	-0.7776	-0.7763	1.4159	1.4204	-0.87893	-0.87795
	Max	-0.7744	-0.7743	1.4227	1.4226	-0.87535	-0.87522
	Mean	-0.7759	-0.7752	1.4209	1.4210	-0.87665	-0.87647
	Std. Dev	0.0011	0.0009	0.0023	0.0008	0.00132	0.00099
	Mean - 3 Sigma	-0.7793	-0.7780	1.4141	1.4187	-0.88061	-0.87944
	Mean + 3 Sigma	-0.7725	-0.7723	1.4277	1.4233	-0.87269	-0.87349

Wafer	SN	VOL 10K 15V V		Reference Gain Error Pct 5V %		Reference Gain Error Pct 15V X	
		PRE	100k	PRE	100k	PRE	100k
22	12	1.4838	1.4814	-0.0037	-0.0038	-0.0048	-0.00486
22	1	1.4818	1.4858	-0.0031	-0.0032	-0.00425	-0.00338
22	2	1.4858	1.4849	-0.0040	-0.0042	-0.00503	-0.00418
22	3	1.4865	1.4850	-0.0035	-0.0036	-0.00439	-0.00366
22	4	1.4847	1.4855	-0.0043	-0.0041	-0.00525	-0.00442
23	58	1.4868	1.4876	-0.0032	-0.0035	-0.00447	-0.00397
23	59	1.4880	1.4885	-0.0034	-0.0032	-0.00407	-0.00348
23	60	1.4858	1.4858	-0.0034	-0.0034	-0.0042	-0.00352
23	61	1.4865	1.4850	-0.0040	-0.0039	-0.00469	-0.00393
	Min	1.4818	1.4849	-0.0043	-0.0042	-0.00525	-0.00442
	Max	1.4880	1.4885	-0.0031	-0.0032	-0.00407	-0.00338
	Mean	1.4857	1.4860	-0.0036	-0.0036	-0.00454	-0.00382
	Std. Dev	0.0019	0.0013	0.0004	0.0004	0.00042	0.00037
	Mean - 3 Sigma	1.4802	1.4820	-0.0048	-0.0048	-0.00579	-0.00492
	Mean + 3 Sigma	1.4913	1.4900	-0.0024	-0.0024	-0.00329	-0.00271

Wafer	SN	IBias Offset 5V nA		Noninverting IBias 5V nA		Inverting IBias 5V nA	
		PRE	100k	PRE	100k	PRE	100k
22	12	0.7064	0.7407	94.0416	93.7121	93.33519	92.97131
22	1	-0.4939	-3.7991	113.3049	-43.9705	113.79873	-40.17142
22	2	-0.0444	2.6303	111.3502	-27.4575	111.39466	-30.08774
22	3	0.5659	3.1021	109.2318	-37.3931	108.6659	-40.49517
22	4	-0.6150	2.1275	112.2814	-21.4979	112.89637	-23.62543
23	58	0.5880	0.6853	119.4206	133.9367	118.8325	133.2514
23	59	-1.0464	1.0096	96.1273	91.7504	97.17367	90.74082
23	60	0.0163	-0.1482	108.3929	99.9421	108.37663	100.09028
23	61	0.7819	4.3257	105.6973	66.3778	104.91546	62.05218
	Min	-1.0464	-3.7991	96.1273	-43.9705	97.17367	-40.49517
	Max	0.7819	4.3257	119.4206	133.9367	118.83250	133.25140
	Mean	-0.0309	1.2416	109.4758	32.7110	109.50674	31.46937
	Std. Dev	0.6534	2.4897	6.7468	72.4463	6.49850	72.36104
	Mean - 3 Sigma	-1.9913	-6.2274	89.2354	-184.6279	90.01124	-185.61374
	Mean + 3 Sigma	1.9294	8.7107	129.7162	250.0499	129.00224	248.55247

Wafer	SN	IBias Offset 15V nA		Noninverting IBias 15V nA		Inverting IBias 15V nA	
		PRE	100k	PRE	100k	PRE	100k
22	12	1.4582	1.3816	21.3815	21.1389	19.9233	19.7573
22	1	0.1657	-3.4826	42.3097	-130.7332	42.14402	-127.25062
22	2	0.5548	3.4201	39.0018	-113.9852	38.447	-117.4053
22	3	1.1284	3.6340	36.5837	-125.2874	35.45531	-128.92137
22	4	-0.1508	2.5519	40.9094	-107.2871	41.06021	-109.83902
23	58	1.1634	1.2722	46.0660	60.2773	44.90264	59.00512
23	59	-0.5572	1.3660	20.1787	13.0559	20.73582	11.68987
23	60	0.5959	0.1936	33.0675	21.3364	32.4716	21.14279
23	61	1.2122	4.7795	31.0239	-14.3889	29.81167	-19.16838
	Min	-0.5572	-3.4826	20.1787	-130.7332	20.73582	-128.92137
	Max	1.2122	4.7795	46.0660	60.2773	44.90264	59.00512
	Mean	0.5141	1.7168	36.1426	-49.6265	35.62853	-51.34336
	Std. Dev	0.6553	2.5726	8.0897	77.5104	7.85159	77.46486
	Mean - 3 Sigma	-1.4518	-6.0010	11.8735	-282.1577	12.07376	-283.73793
	Mean + 3 Sigma	2.4799	9.4347	60.4117	182.9046	59.18331	181.05121

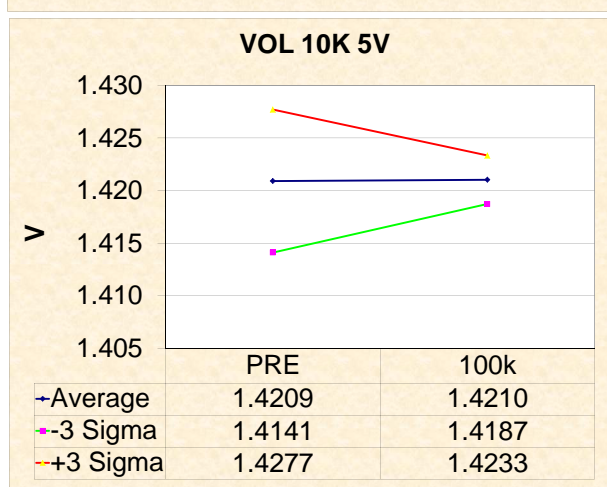
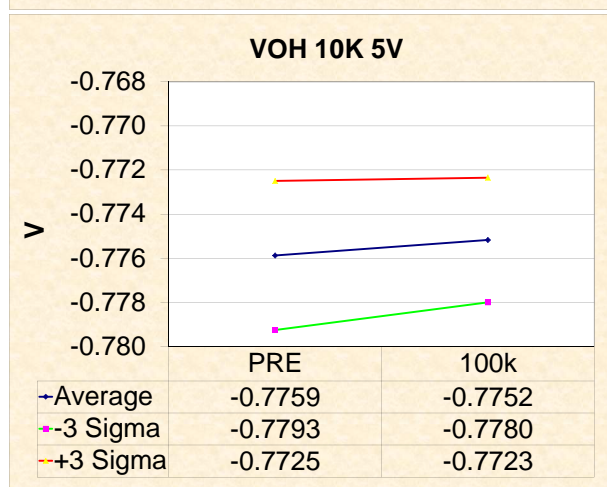
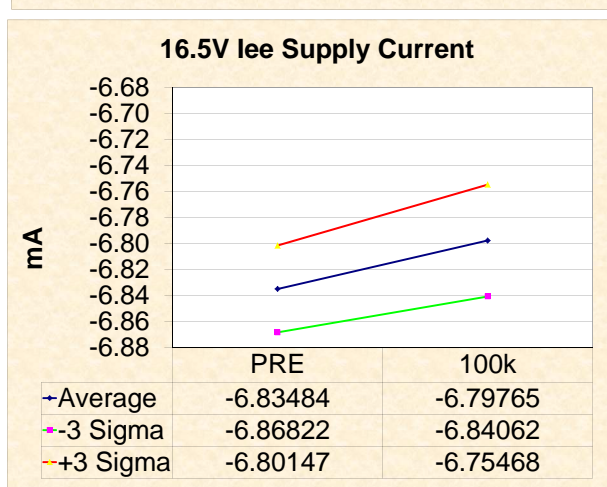
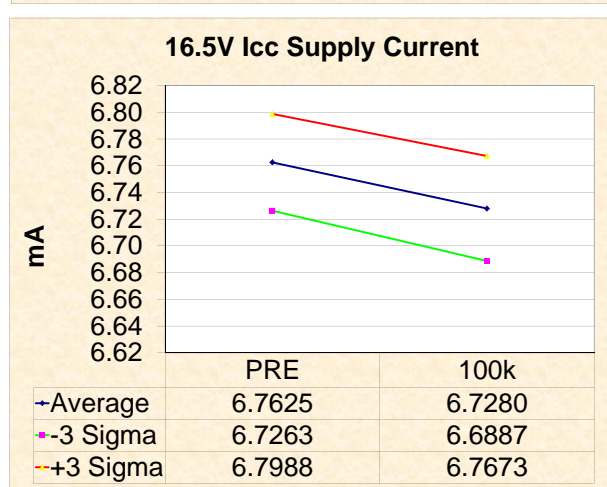
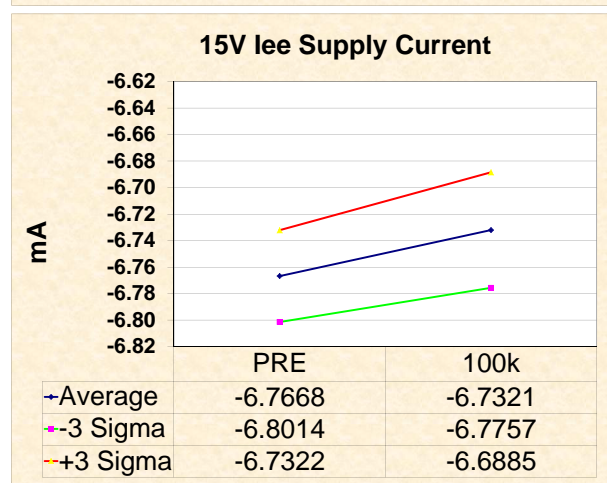
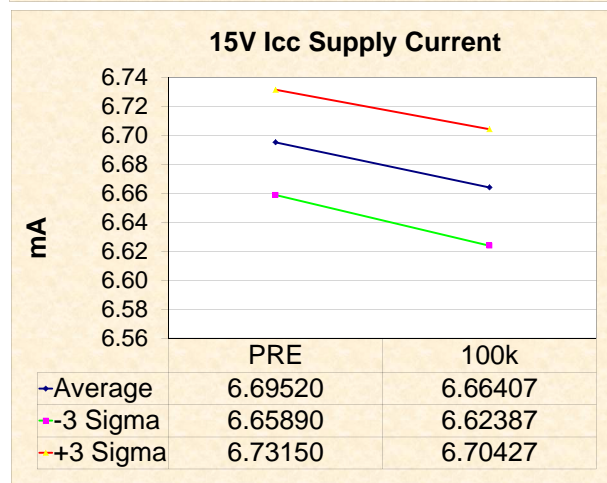
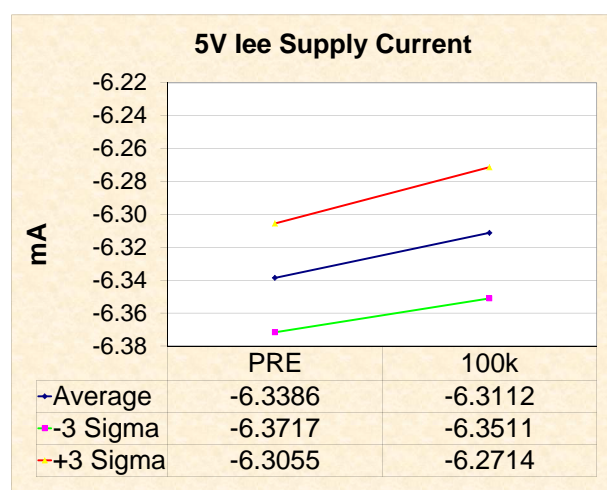
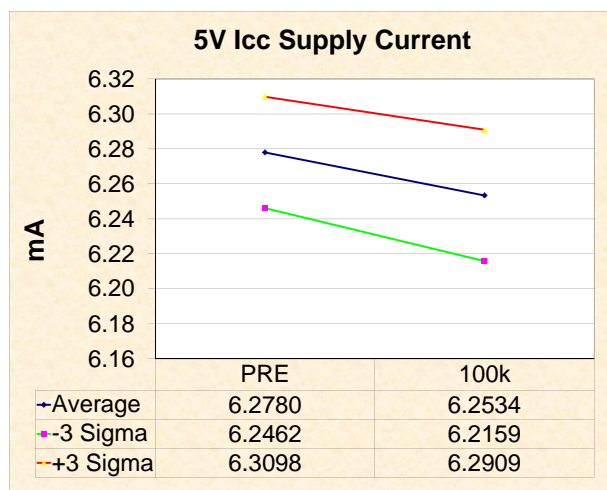
Wafer	SN	Vosi@25C 5V uV		Voso@25C 5V uV		Vosi@25C 15V uV	
		PRE	100k	PRE	100k	PRE	100k
22	12	0.8418	0.2883	213.9946	217.2432	-1.27532	-1.75902
22	1	9.1869	6.9993	86.9716	79.0242	7.02442	4.76717
22	2	10.1120	9.6488	-80.5469	-67.5069	8.21817	7.59329
22	3	-3.3749	-5.0134	-6.5181	24.9281	-5.56381	-7.30812
22	4	3.2762	2.0607	85.6625	130.9263	1.02479	-0.40252
23	58	9.3288	9.7744	-241.5970	-235.5413	7.37825	7.81037
23	59	-21.1685	-21.3491	-59.1841	-34.7236	-23.68533	-23.87132
23	60	3.5550	3.1071	-0.4686	6.2771	1.81706	1.25489
23	61	0.9360	0.7072	6.4180	36.7667	-1.07579	-1.47594
	Min	-21.1685	-21.3491	-241.5970	-235.5413	-23.68533	-23.87132
	Max	10.1120	9.7744	86.9716	130.9263	8.21817	7.81037
	Mean	1.4814	0.7419	-26.1578	-7.4812	-0.60778	-1.45402
	Std. Dev	10.2808	10.2019	105.4730	110.9659	10.45961	10.36227
	Mean - 3 Sigma	-29.3609	-29.8637	-342.5767	-340.3788	-31.98661	-32.54082
	Mean + 3 Sigma	32.3238	31.3474	290.2611	325.4165	30.77105	29.63278

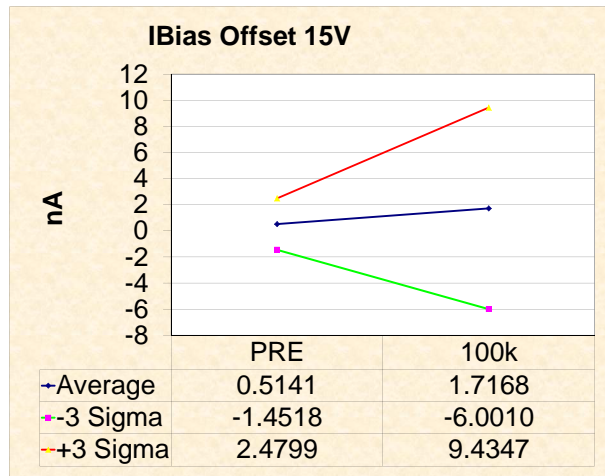
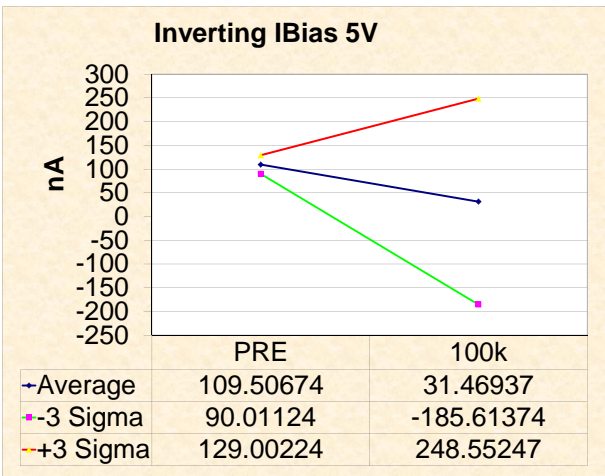
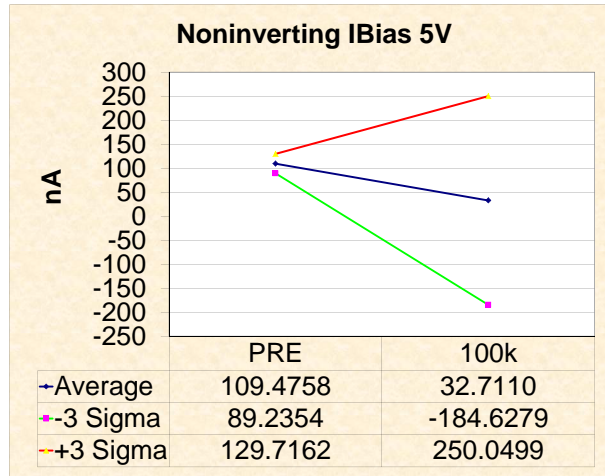
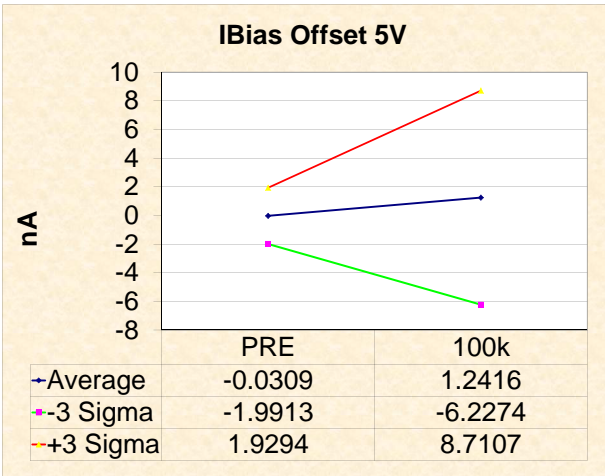
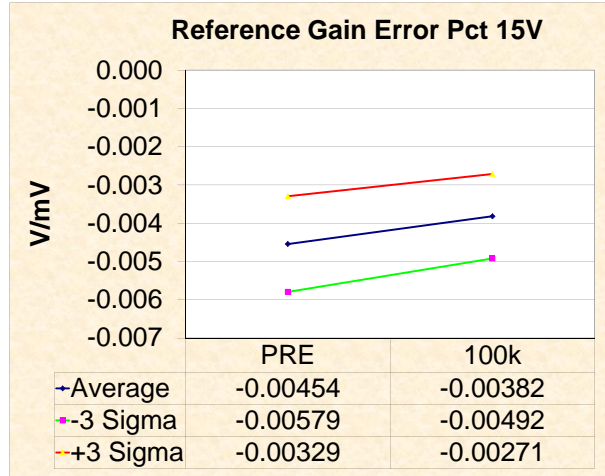
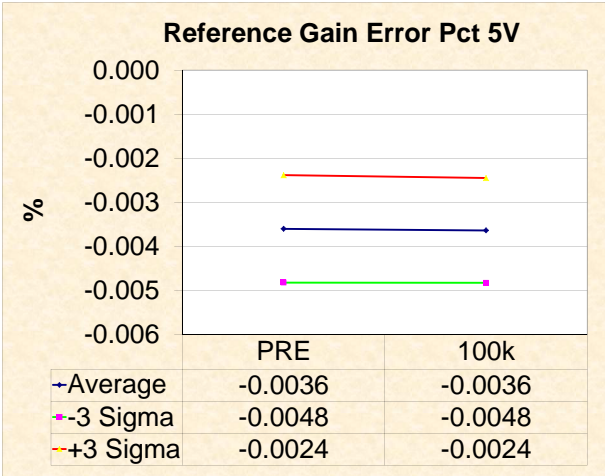
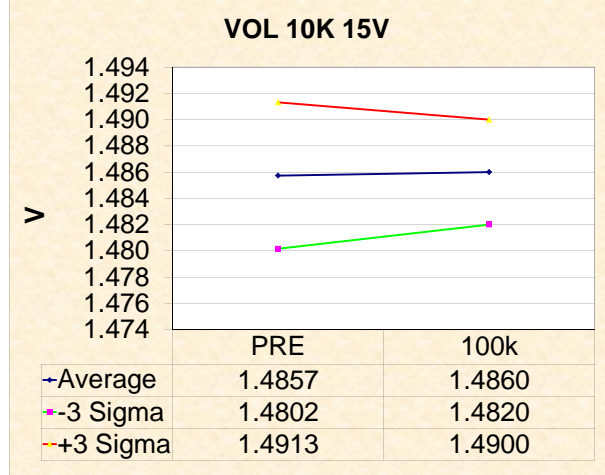
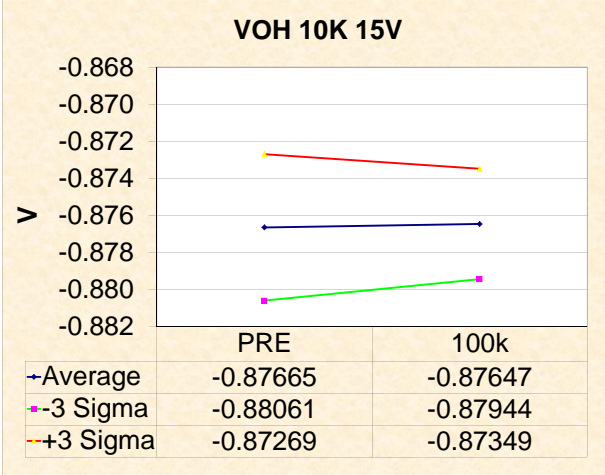
Wafer	SN	Voso@25C 15V uV		Ninv G Error Pct G1 10K @25C 5V %		Ninv G Error Pct G1 10K @25C 15V %	
		PRE	100k	PRE	100k	PRE	100k
22	12	197.0666	189.9097	0.0035	0.0046	0.00419	0.00374
22	1	57.3288	178.6072	0.0045	0.0060	0.00421	0.00515
22	2	-177.6967	-0.5516	0.0035	0.0046	0.00304	0.00348
22	3	-78.9351	81.0478	0.0052	0.0062	0.00509	0.00534
22	4	55.7335	238.9883	0.0053	0.0062	0.0042	0.00472
23	58	-193.8617	-148.0846	0.0048	0.0059	0.00493	0.00502
23	59	-81.4396	39.8510	0.0081	0.0086	0.00798	0.00799
23	60	-19.7989	87.7068	0.0063	0.0067	0.00547	0.00545
23	61	-39.6089	143.8134	0.0026	0.0018	0.00106	0.00109
	Min	-193.8617	-148.0846	0.0026	0.0018	0.00106	0.00109
	Max	57.3288	238.9883	0.0081	0.0086	0.00798	0.00799
	Mean	-59.7848	77.6723	0.0050	0.0057	0.00450	0.00478
	Std. Dev	93.9464	119.0516	0.0017	0.0019	0.00199	0.00195
	Mean - 3 Sigma	-341.6241	-279.4826	0.0000	-0.0001	-0.00147	-0.00106
	Mean + 3 Sigma	222.0544	434.8272	0.0101	0.0116	0.01047	0.01062

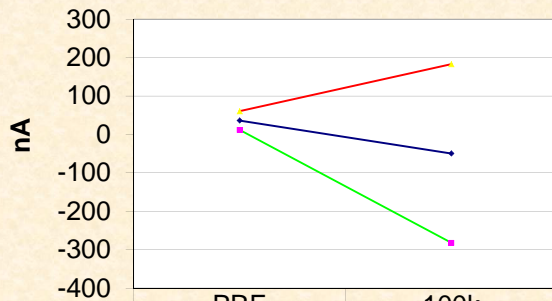
Wafer	SN	CMRR G1 @25C 5V VCM=-2.2V 2.5V dB		CMRR G=1000 @25C 5V VCM=-2.2V 2.5V dB		CMRR G1 @25C 15V VCM=10V dB	
		PRE	100k	PRE	100k	PRE	100k
22	12	93.8355	93.8645	145.5084	148.0207	93.50363	93.4532
22	1	95.0694	95.1029	145.8625	141.8024	95.63237	95.91778
22	2	94.9177	92.5235	145.4750	142.2386	93.59416	93.47312
22	3	96.2123	93.2229	153.6285	145.0494	94.99964	94.91236
22	4	91.1652	90.8035	142.0226	139.9176	92.06238	91.91335
23	58	94.5739	93.6887	147.8876	144.5444	94.35822	94.72222
23	59	96.5887	94.9339	179.1323	159.2687	95.14751	95.15503
23	60	94.9512	94.7682	148.1420	145.3546	95.37207	95.79531
23	61	92.9662	92.6641	146.0587	146.5342	93.23756	93.6647
	Min	91.1652	90.8035	142.0226	139.9176	92.06238	91.91335
	Max	96.5887	95.1029	179.1323	159.2687	95.63237	95.91778
	Mean	94.5556	93.4635	151.0261	145.5887	94.30049	94.44423
	Std. Dev	1.7506	1.4764	11.8208	5.9425	1.24037	1.34984
	Mean - 3 Sigma	89.3039	89.0342	115.5638	127.7612	90.57938	90.39471
	Mean + 3 Sigma	99.8072	97.8927	186.4885	163.4162	98.02160	98.49376

Wafer	SN	CMRR G=1000 @25C 15V VCM=10V dB		PSRR G1 Vs=5V-15V @25C dB		High Gain Error Pct 10K Load 5V %	
		PRE	100k	PRE	100k	PRE	100k
22	12	146.2215	146.0618	121.0281	115.4120	-0.05246	-0.05591
22	1	144.8901	142.6601	111.7530	107.2085	-0.04614	-0.04547
22	2	145.6975	143.2989	106.5874	110.7303	-0.0813	-0.08599
22	3	146.8036	143.6501	111.2264	112.3140	0.02224	0.01811
22	4	144.1104	142.4475	118.9334	105.5981	-0.03272	-0.03559
23	58	146.1246	145.3993	115.4116	108.7921	-0.11617	-0.11655
23	59	146.5821	145.0422	118.3342	108.9873	-0.04305	-0.04533
23	60	147.1847	145.9423	114.2518	108.2316	-0.03482	-0.03698
23	61	145.6025	143.7824	112.9128	105.3349	-0.04908	-0.05268
	Min	144.1104	142.4475	106.5874	105.3349	-0.11617	-0.11655
	Max	147.1847	145.9423	118.9334	112.3140	0.02224	0.01811
	Mean	145.8744	144.0279	113.6763	108.3996	-0.04763	-0.05006
	Std. Dev	1.0233	1.2916	4.0216	2.3887	0.03987	0.03926
	Mean - 3 Sigma	142.8047	140.1532	101.6116	101.2335	-0.16723	-0.16784
	Mean + 3 Sigma	148.9442	147.9025	125.7411	115.5658	0.07197	0.06772

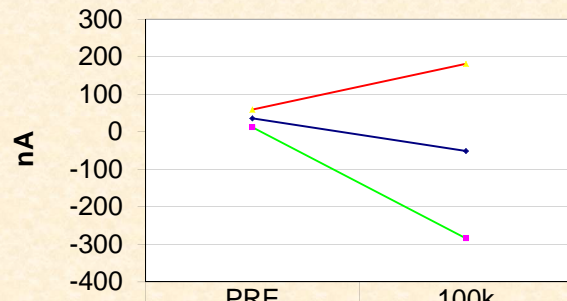
Wafer	SN	High Gain Error Pct 10K Load 15V %	
		PRE	100k
22	12	-0.0648	-0.0682
22	1	-0.0566	-0.0565
22	2	-0.0930	-0.0983
22	3	0.0117	0.0069
22	4	-0.0439	-0.0462
23	58	-0.1268	-0.1274
23	59	-0.0529	-0.0544
23	60	-0.0452	-0.0466
23	61	-0.0612	-0.0651
	Min	-0.1268	-0.1274
	Max	0.0117	0.0069
	Mean	-0.0585	-0.0610
	Std. Dev	0.0400	0.0395
	Mean - 3 Sigma	-0.1786	-0.1794
	Mean + 3 Sigma	0.0616	0.0575



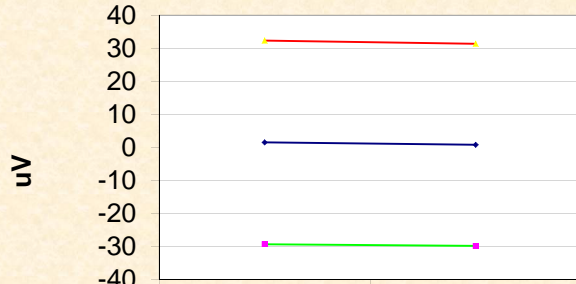


Noninverting IBias 15V

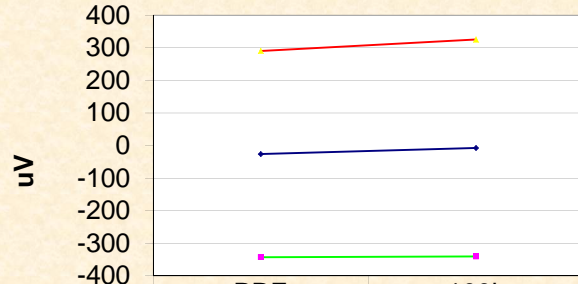
	PRE	100k
+Average	36.1426	-49.6265
-3 Sigma	11.8735	-282.1577
+3 Sigma	60.4117	182.9046

Inverting IBias 15V

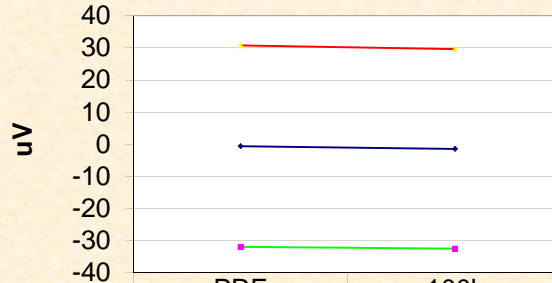
	PRE	100k
+Average	35.62853	-51.34336
-3 Sigma	12.07376	-283.73793
+3 Sigma	59.18331	181.05121

Vosi@25C 5V

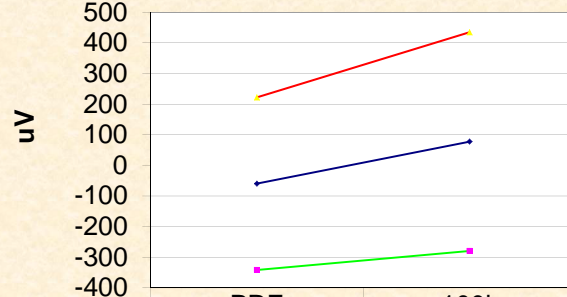
	PRE	100k
+Average	1.4814	0.7419
-3 Sigma	-29.3609	-29.8637
+3 Sigma	32.3238	31.3474

Voso@25C 5V

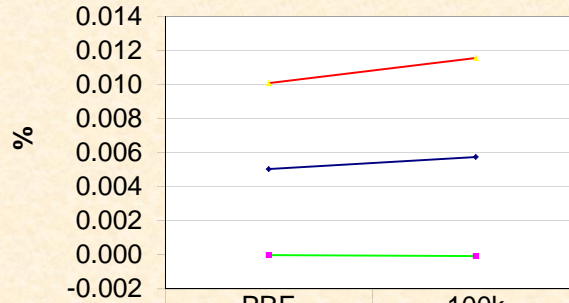
	PRE	100k
+Average	-26.1578	-7.4812
-3 Sigma	-342.5767	-340.3788
+3 Sigma	290.2611	325.4165

Vosi@25C 15V

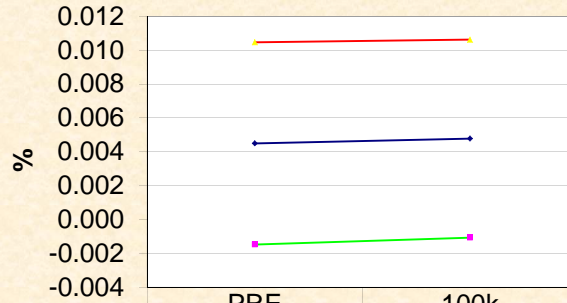
	PRE	100k
+Average	-0.60778	-1.45402
-3 Sigma	-31.98661	-32.54082
+3 Sigma	30.77105	29.63278

Voso@25C 15V

	PRE	100k
+Average	-59.7848	77.6723
-3 Sigma	-341.6241	-279.4826
+3 Sigma	222.0544	434.8272

Ninv G Error G1 10K @25C 5V

	PRE	100k
+Average	0.0050	0.0057
-3 Sigma	0.0000	-0.0001
+3 Sigma	0.0101	0.0116

Ninv G Error Pct G1 10K @25C 15V

	PRE	100k
+Average	0.00450	0.00478
-3 Sigma	-0.00147	-0.00106
+3 Sigma	0.01047	0.01062

