ANALOG DEVICES
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HIGH DOSE RADIATION TEST REPORT HMC8413S-CSL

January 2023

Generic

Radiation Test Report	
Product:	HMC8413S
Gamma:	0, 30k, 50k
Gamma Source:	Co60/TM1019 Condition A
Dose Rate:	89 Rad(Si)/s
Facilities:	VPT RAD
Tested:	1/12/23

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It is the responsibility of the Procuring Activity to screen products from Analog Devices, Inc. for compliance to Nuclear Hardness Critical Items (HCI) specifications.

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		Id Max at Vdd 5.5V (mA)		Pre Pinchoff Current Idd (mA)		Quiescent Idd (mA)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	1.195	1.456	1.025	1.069	86.41246	88.99733
30k	1	1.082	1.362	0.957	1.156	92.608	94.943
	2	1.062	1.344	1.028	1.119	84.023	86.453
	3	1.093	1.422	0.998	1.166	84.351	86.801
	4	1.158	1.296	0.983	1.145	86.048	88.468
	5	1.146	1.314	0.842	1.035	82.029	84.381
	6	1.110	1.236	0.989	1.125	97.238	99.762
	7	1.180	1.312	0.970	1.095	87.087	89.426
	8	1.196	1.271	0.837	1.092	84.516	86.784
	9	1.081	1.277	0.934	1.183	84.803	87.155
	10	1.163	1.313	0.844	1.176	83.753	86.102
	11	1.173	1.259	0.961	1.087	97.309	99.698
	12	1.159	1.293	0.778	1.147	86.078	88.451
	13	1.205	1.297	0.919	1.094	82.258	84.570
	14	1.146	1.210	0.953	1.184	82.680	84.945
	15	1.047	1.311	1.017	1.071	87.901	90.222
	16	1.070	1.223	1.023	1.084	84.189	86.534
	17	1.157	1.330	0.907	1.176	81.766	83.973
	18	1.180	1.285	0.977	1.077	86.399	88.707
	19	1.173	1.259	0.927	1.216	81.084	83.321
	20	1.104	1.288	0.862	1.190	83.757	86.153
	21	1.047	1.238	0.971	1.123	86.790	89.119
	22	1.142	1.301	0.824	1.138	86.473	88.788
	Min	1.047	1.210	0.778	1.035	81.084	83.321
	Max	1.205	1.422	1.028	1.216	97.309	99.762
	Mean	1.131	1.293	0.932	1.131	86.052	88.398
	Std. Dev	0.0498	0.0480	0.0717	0.0473	4.419	4.457
	Mean - 3 Sigma	0.9812	1.1488	0.7168	0.9890	72.794	75.027
	Mean + 3 Sigma	1.2800	1.4368	1.1470	1.2728	99.309	101.769

		Vbias Current (mA)		Gain 1G (dB)		P1dB@ 1G (dBm)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	3.421	3.416	20.682	20.672	23.742	23.861
30k	1	3.333	3.334	20.797	20.768	23.747	23.856
	2	3.384	3.387	20.709	20.669	23.560	23.703
	3	3.399	3.401	20.677	20.676	23.646	23.721
	4	3.378	3.382	20.717	20.659	23.691	23.802
	5	3.362	3.362	20.716	20.717	23.310	23.540
	6	3.355	3.354	20.796	20.802	24.043	24.373
	7	3.345	3.351	20.825	20.799	23.682	23.820
	8	3.404	3.403	20.694	20.630	23.597	23.758
	9	3.413	3.413	20.616	20.630	23.643	23.838
	10	3.407	3.405	20.663	20.594	23.535	23.765
	11	3.349	3.345	20.802	20.766	23.998	24.240
	12	3.366	3.369	20.706	20.734	23.635	23.772
	13	3.361	3.362	20.738	20.677	23.449	23.527
	14	3.381	3.380	20.678	20.636	23.381	23.525
	15	3.394	3.392	20.653	20.643	23.804	23.971
	16	3.387	3.385	20.649	20.621	23.479	23.663
	17	3.375	3.373	20.655	20.633	23.309	23.473
	18	3.347	3.347	20.752	20.731	23.714	23.873
	19	3.383	3.384	20.652	20.606	23.232	23.401
	20	3.366	3.370	20.722	20.703	23.463	23.630
	21	3.402	3.403	20.642	20.615	23.758	23.927
	22	3.385	3.387	20.650	20.629	23.767	23.874
	Min	3.333	3.334	20.616	20.594	23.232	23.401
	Max	3.413	3.413	20.825	20.802	24.043	24.373
	Mean	3.376	3.377	20.705	20.679	23.611	23.775
	Std. Dev	0.0224	0.0220	0.0592	0.0640	0.2089	0.2309
	Mean - 3 Sigma	3.3090	3.3107	20.5272	20.4870	22.9843	23.0822
	Mean + 3 Sigma	3.4432	3.4428	20.8826	20.8710	24.2377	24.4679

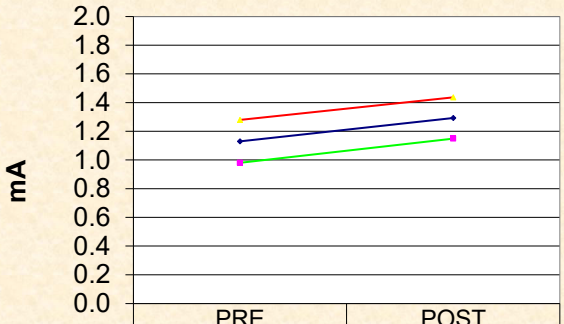
		OIP3 @ 1G High (dBm)		OIP3 @ 1G Low (dBm)		Gain 5G (dB)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	**29.284**	**29.523**	**28.791**	**29.054**	**20.207**	**20.183**
30k	1	29.415	29.713	28.912	29.214	20.265	20.290
	2	29.317	29.594	28.971	29.205	20.151	20.270
	3	29.088	29.647	32.155	29.194	20.151	20.277
	4	29.403	29.717	30.469	29.282	20.147	20.233
	5	29.300	29.642	29.838	29.116	20.229	20.147
	6	29.470	29.740	32.973	29.249	20.298	20.235
	7	29.422	29.717	28.970	29.291	20.266	20.253
	8	29.382	29.701	32.690	29.215	20.201	20.200
	9	29.413	29.726	29.051	29.250	20.091	20.156
	10	29.429	29.710	28.975	29.317	20.159	20.110
	11	29.513	29.779	29.024	29.374	20.264	20.327
	12	29.528	29.749	28.993	29.313	20.157	20.168
	13	29.394	29.716	28.921	29.196	20.227	20.234
	14	29.470	29.708	29.043	29.304	20.147	20.147
	15	29.569	29.756	29.200	29.291	20.134	20.233
	16	29.457	29.715	29.301	29.295	20.088	20.120
	17	29.462	29.733	28.971	29.289	20.141	20.140
	18	29.561	29.809	29.067	29.314	20.216	20.228
	19	29.427	29.704	29.088	29.209	20.117	20.128
	20	29.428	29.663	28.952	29.286	20.181	20.214
	21	29.487	29.782	28.993	29.363	20.143	20.117
	22	29.549	29.816	29.130	29.337	20.204	20.139
	Min	29.088	29.594	28.912	29.116	20.088	20.110
	Max	29.569	29.816	32.973	29.374	20.298	20.327
	Mean	29.431	29.720	29.622	29.268	20.181	20.198
	Std. Dev	0.1039	0.0529	1.2703	0.0629	0.0588	0.0638
	Mean - 3 Sigma	29.1194	29.5614	25.8113	29.0796	20.0042	20.0071
	Mean + 3 Sigma	29.7429	29.8785	33.4329	29.4570	20.3572	20.3898

		NF @ 5G (dB)		P1dB@ 5G (dBm)		OIP3 @ 5G High(dBm)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	**4.134**	**4.151**	**22.930**	**23.523**	**36.710**	**36.327**
30k	1	4.341	4.331	22.944	23.576	37.114	36.759
	2	4.260	4.183	22.751	23.452	36.011	35.973
	3	4.344	4.195	22.867	23.464	36.472	36.360
	4	4.291	4.289	22.901	23.500	36.542	36.555
	5	4.255	4.070	22.777	23.344	36.297	36.146
	6	4.451	4.246	22.987	23.591	36.350	36.235
	7	4.326	4.287	22.839	23.411	36.527	36.469
	8	4.258	4.105	22.881	23.452	36.532	36.602
	9	4.200	3.996	22.859	23.472	36.552	36.381
	10	4.109	4.108	22.836	23.385	36.458	36.498
	11	4.345	4.247	22.995	23.598	36.531	36.337
	12	4.271	4.148	22.800	23.415	36.561	36.542
	13	4.252	4.203	22.766	23.380	35.903	35.908
	14	4.322	4.221	22.742	23.346	36.248	36.193
	15	4.120	4.283	22.866	23.503	36.449	36.214
	16	4.215	4.066	22.731	23.352	36.096	36.049
	17	4.211	4.155	22.734	23.369	36.452	36.454
	18	4.238	4.147	22.841	23.463	36.547	36.491
	19	4.219	4.189	22.722	23.295	36.481	36.370
	20	4.265	4.200	22.739	23.378	36.219	36.036
	21	4.259	4.113	22.811	23.428	36.339	36.384
	22	4.144	4.316	22.854	23.440	36.715	36.403
	Min	4.109	3.996	22.722	23.295	35.903	35.908
	Max	4.451	4.331	22.995	23.598	37.114	36.759
	Mean	4.259	4.186	22.829	23.437	36.427	36.335
	Std. Dev	0.0795	0.0881	0.0811	0.0818	0.2505	0.2183
	Mean - 3 Sigma	4.0203	3.9218	22.5859	23.1917	35.6755	35.6798
	Mean + 3 Sigma	4.4974	4.4506	23.0723	23.6823	37.1786	36.9895

		OIP3 @ 5G Low (dBm)		Gain 8G (dB)		P1dB@ 8G (dBm)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	**35.782**	**35.787**	**19.458**	**19.501**	**19.218**	**19.702**
30k	1	36.029	36.127	19.589	19.585	19.374	19.864
	2	35.617	35.534	19.252	19.303	19.010	19.526
	3	35.583	35.830	19.354	19.508	19.175	19.538
	4	35.601	35.966	19.275	19.360	19.280	19.651
	5	35.626	35.658	19.190	19.201	19.010	19.433
	6	35.777	35.836	19.370	19.369	19.352	19.848
	7	35.782	35.856	19.321	19.349	19.207	19.553
	8	35.704	35.819	19.371	19.330	19.194	19.646
	9	35.661	35.870	19.269	19.339	19.214	19.666
	10	35.634	35.754	19.384	19.357	19.136	19.548
	11	35.806	35.694	19.358	19.501	19.402	19.685
	12	35.771	35.832	19.269	19.400	19.189	19.553
	13	35.386	35.481	19.148	19.189	18.898	19.375
	14	35.543	35.786	19.268	19.366	18.995	19.362
	15	35.606	35.622	19.267	19.378	19.141	19.595
	16	35.639	35.480	19.286	19.302	18.945	19.407
	17	35.769	35.773	19.282	19.293	18.936	19.336
	18	35.767	35.897	19.203	19.267	19.178	19.616
	19	35.523	35.674	19.273	19.286	19.000	19.303
	20	35.454	35.504	19.233	19.300	19.045	19.391
	21	35.681	35.778	19.271	19.203	19.212	19.571
	22	35.719	35.881	19.416	19.331	19.189	19.615
	Min	35.386	35.480	19.148	19.189	18.898	19.303
	Max	36.029	36.127	19.589	19.585	19.402	19.864
	Mean	35.667	35.757	19.302	19.342	19.140	19.549
	Std. Dev	0.1366	0.1643	0.0922	0.0969	0.1440	0.1516
	Mean - 3 Sigma	35.2573	35.2641	19.0256	19.0509	18.7082	19.0941
	Mean + 3 Sigma	36.0771	36.2498	19.5789	19.6324	19.5721	20.0040

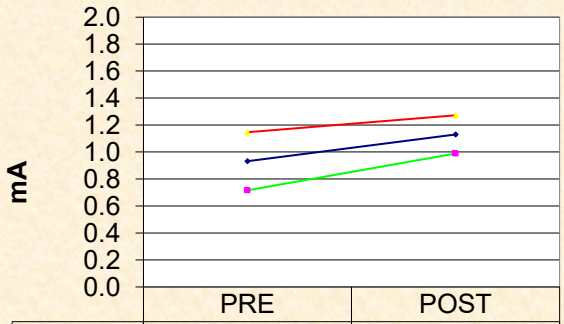
		OIP3 @ 8G High (dBm)		OIP3 @ 8G Low (dBm)		Post Pinchoff Current Idd (mA)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	**34.150**	**33.514**	**33.505**	**33.108**	**0.986**	**1.063**
30k	1	36.399	37.063	34.428	34.850	0.970	1.049
	2	32.531	32.979	32.114	32.441	0.947	1.128
	3	34.218	34.418	33.381	33.604	1.009	1.091
	4	34.690	34.714	33.658	33.805	0.974	1.082
	5	33.339	33.642	32.957	33.073	0.963	1.049
	6	33.781	34.325	32.931	33.585	0.925	1.007
	7	33.925	34.362	33.264	33.588	0.913	1.148
	8	34.353	34.463	33.553	33.769	0.905	1.161
	9	34.257	34.590	33.380	33.733	0.961	1.135
	10	33.655	33.945	32.954	33.141	0.904	1.078
	11	34.790	35.002	33.340	33.784	0.901	1.016
	12	33.696	34.098	32.921	33.408	0.839	1.138
	13	32.182	32.713	31.844	32.272	0.963	1.106
	14	33.192	33.437	32.524	32.766	0.876	1.083
	15	33.906	34.136	33.121	33.318	0.863	1.096
	16	32.618	32.964	32.057	32.459	1.000	1.069
	17	33.434	33.971	32.872	33.366	0.898	1.076
	18	33.993	34.399	33.207	33.671	0.807	1.132
	19	33.179	33.256	32.609	32.771	0.877	1.112
	20	32.613	32.941	32.193	32.480	1.010	1.147
	21	33.439	33.889	32.859	33.308	0.919	1.052
	22	34.807	35.089	34.019	33.937	0.938	1.171
	Min	32.182	32.713	31.844	32.272	0.807	1.007
	Max	36.399	37.063	34.428	34.850	1.010	1.171
	Mean	33.773	34.109	33.008	33.324	0.926	1.097
	Std. Dev	0.9405	0.9484	0.6339	0.6141	0.0541	0.0456
	Mean - 3 Sigma	30.9510	31.2638	31.1067	31.4817	0.7633	0.9598
	Mean + 3 Sigma	36.5941	36.9543	34.9102	35.1663	1.0878	1.2335

Id Max at Vdd 5.5V



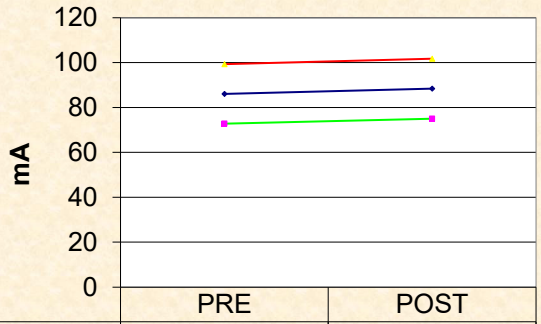
	PRE	POST
Average	1.131	1.293
-3 Sigma	0.9812	1.1488
+3 Sigma	1.2800	1.4368

Pre Pinchoff Current Idd



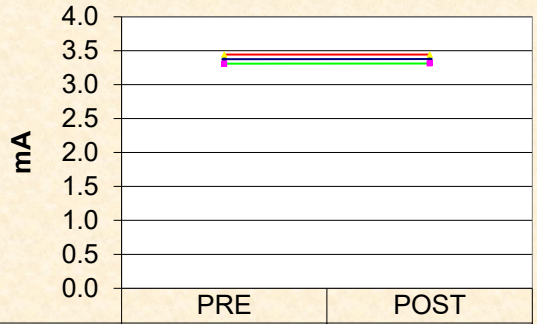
	PRE	POST
Average	0.932	1.131
-3 Sigma	0.7168	0.9890
+3 Sigma	1.1470	1.2728

Quiescent Idd



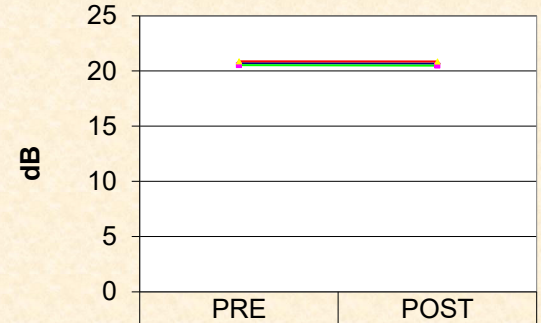
	PRE	POST
Average	86.052	88.398
-3 Sigma	72.794	75.027
+3 Sigma	99.309	101.769

Vbias Current



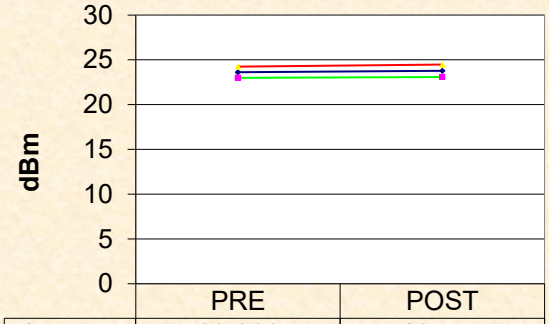
	PRE	POST
Average	3.376	3.377
-3 Sigma	3.3090	3.3107
+3 Sigma	3.4432	3.4428

Gain 1G



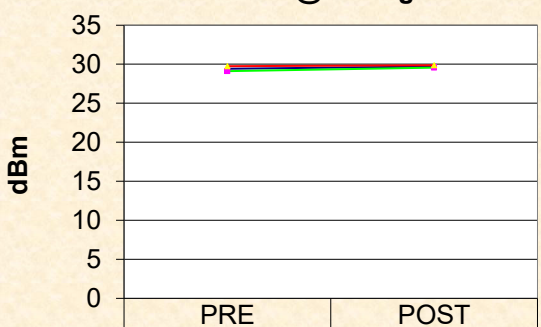
	PRE	POST
Average	20.705	20.679
-3 Sigma	20.5272	20.4870
+3 Sigma	20.8826	20.8710

P1dB@ 1G



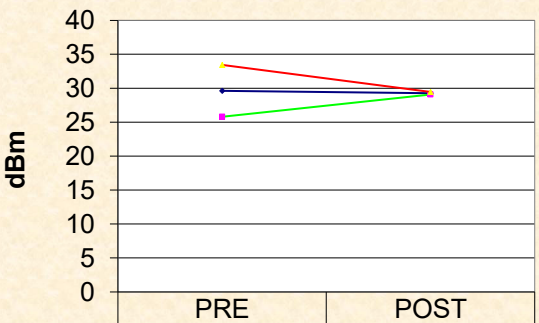
	PRE	POST
Average	23.611	23.775
-3 Sigma	22.9843	23.0822
+3 Sigma	24.2377	24.4679

OIP3 @ 1G High



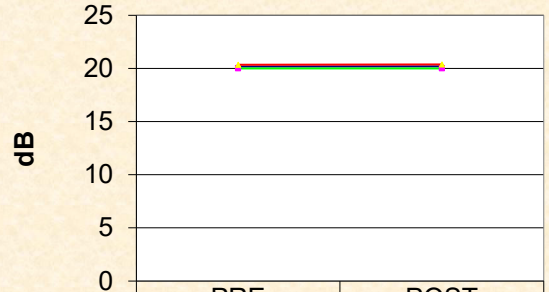
	PRE	POST
Average	29.431	29.720
-3 Sigma	29.1194	29.5614
+3 Sigma	29.7429	29.8785

OIP3 @ 1G Low



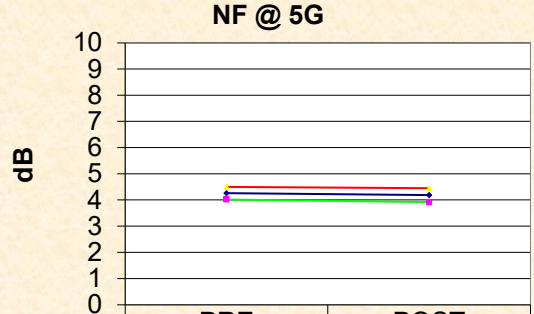
	PRE	POST
Average	29.622	29.268
-3 Sigma	25.8113	29.0796
+3 Sigma	33.4329	29.4570

Gain 5G



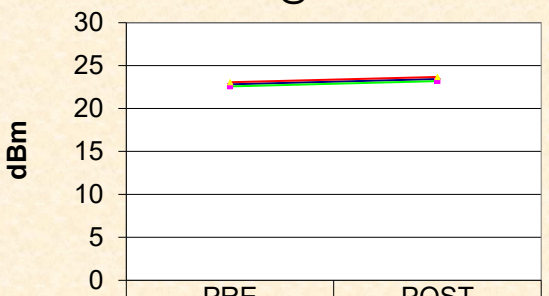
	PRE	POST
Average	20.181	20.198
-3 Sigma	20.0042	20.0071
+3 Sigma	20.3572	20.3898

NF @ 5G



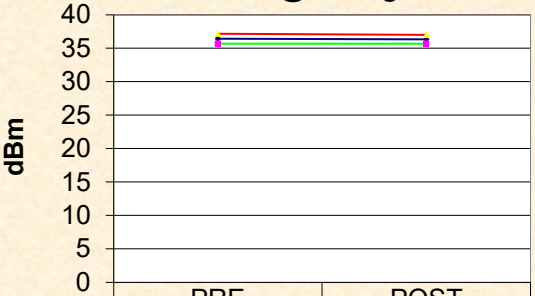
	PRE	POST
Average	4.259	4.186
-3 Sigma	4.0203	3.9218
+3 Sigma	4.4974	4.4506

P1dB@ 5G



	PRE	POST
Average	22.829	23.437
-3 Sigma	22.5859	23.1917
+3 Sigma	23.0723	23.6823

OIP3 @ 5G High

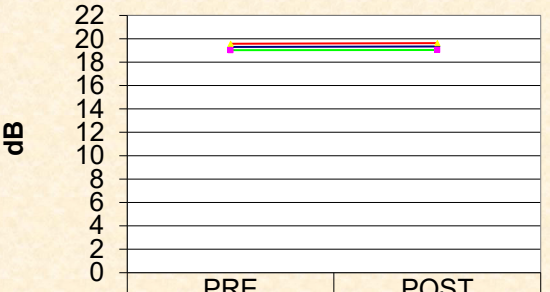


	PRE	POST
Average	36.427	36.335
-3 Sigma	35.6755	35.6798
+3 Sigma	37.1786	36.9895

OIP3 @ 5G Low

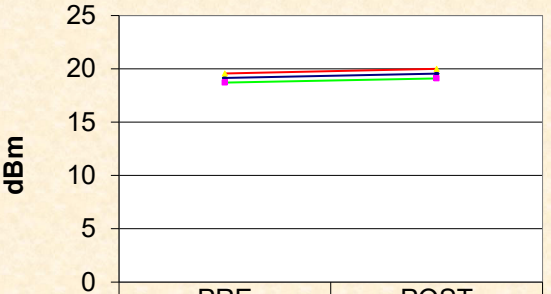
	PRE	POST
Average	35.667	35.757
-3 Sigma	35.2573	35.2641
+3 Sigma	36.0771	36.2498

Gain 8G



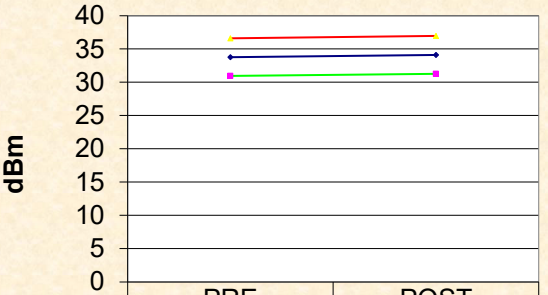
	PRE	POST
Average	19.302	19.342
-3 Sigma	19.0256	19.0509
+3 Sigma	19.5789	19.6324

P1dB@ 8G

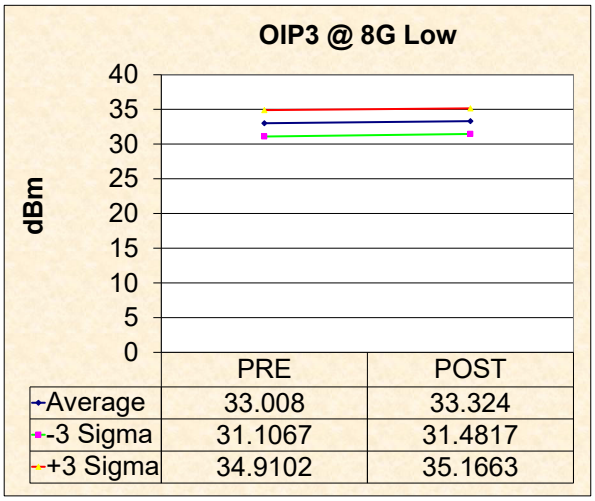


	PRE	POST
Average	19.140	19.549
-3 Sigma	18.7082	19.0941
+3 Sigma	19.5721	20.0040

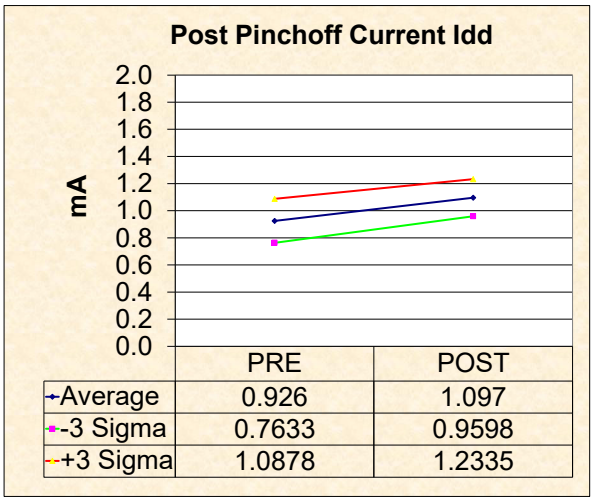
OIP3 @ 8G High



	PRE	POST
Average	33.773	34.109
-3 Sigma	30.9510	31.2638
+3 Sigma	36.5941	36.9543



	PRE	POST
Average	33.008	33.324
-3 Sigma	31.1067	31.4817
+3 Sigma	34.9102	35.1663



	PRE	POST
Average	0.926	1.097
-3 Sigma	0.7633	0.9598
+3 Sigma	1.0878	1.2335

		Id Max at Vdd 5.5V (mA)		Pre Pinchoff Current Idd (mA)		Quiescent Idd (mA)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	**1.195**	**1.456**	**1.025**	**1.069**	**86.41246**	**88.99733**
50k	1	1.216	1.303	1.015	1.186	81.955	84.256
	2	1.074	1.211	1.021	1.116	84.941	87.256
	3	1.110	1.287	0.914	1.155	87.742	90.060
	4	1.146	1.279	0.960	1.123	84.941	87.394
	5	1.146	1.332	1.046	1.149	85.788	88.184
	6	1.169	1.277	0.971	1.049	84.519	86.946
	7	1.141	1.333	1.008	1.037	81.722	83.922
	8	1.132	1.257	1.071	1.087	82.579	84.934
	9	1.067	1.254	1.003	1.189	82.019	84.421
	10	1.111	1.303	1.002	1.174	86.375	88.613
	Min	1.067	1.211	0.914	1.037	81.722	83.922
	Max	1.216	1.333	1.071	1.189	87.742	90.060
	Mean	1.131	1.283	1.001	1.126	84.258	86.599
	Std. Dev	0.0440	0.0371	0.0444	0.0546	2.096	2.106
	Mean - 3 Sigma	0.9993	1.1720	0.8679	0.9626	77.971	80.282
	Mean + 3 Sigma	1.2630	1.3948	1.1344	1.2901	90.546	92.915

		Vbias Current (mA)		Gain 1G (dB)		P1dB@ 1G (dBm)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	**3.421**	**3.416**	**20.682**	**20.672**	**23.742**	**23.861**
50k	1	3.337	3.337	20.798	20.746	23.283	23.414
	2	3.401	3.396	20.649	20.602	23.654	23.748
	3	3.401	3.398	20.633	20.644	23.804	24.028
	4	3.389	3.399	20.630	20.574	23.554	23.667
	5	3.418	3.421	20.578	20.572	23.682	23.824
	6	3.396	3.391	20.639	20.603	23.658	23.727
	7	3.413	3.410	20.519	20.487	23.383	23.473
	8	3.358	3.360	20.731	20.646	23.504	23.715
	9	3.381	3.384	20.621	20.601	23.366	23.515
	10	3.413	3.413	20.674	20.560	23.697	23.890
	Min	3.337	3.337	20.519	20.487	23.283	23.414
	Max	3.418	3.421	20.798	20.746	23.804	24.028
	Mean	3.391	3.391	20.647	20.603	23.558	23.700
	Std. Dev	0.0260	0.0254	0.0767	0.0675	0.1702	0.1918
	Mean - 3 Sigma	3.3128	3.3147	20.4171	20.4009	23.0479	23.1244
	Mean + 3 Sigma	3.4686	3.4671	20.8775	20.8058	24.0688	24.2754

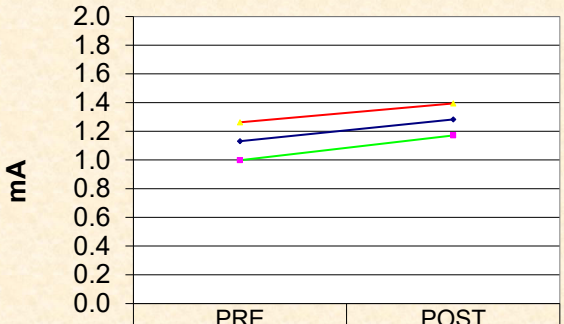
		OIP3 @ 1G High (dBm)		OIP3 @ 1G Low (dBm)		Gain 5G (dB)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	**29.284**	**29.523**	**28.791**	**29.054**	**20.207**	**20.183**
50k	1	29.435	29.688	29.186	29.249	20.252	20.267
	2	29.521	29.793	29.020	29.309	20.174	20.095
	3	29.535	29.839	29.131	29.358	20.221	20.140
	4	29.429	29.780	28.968	29.263	20.108	20.118
	5	29.529	29.801	29.120	29.339	20.107	20.020
	6	29.494	29.724	29.072	29.272	20.129	20.066
	7	29.532	29.802	29.042	29.301	19.952	20.015
	8	29.518	29.762	29.124	29.273	20.243	20.169
	9	29.533	29.741	29.169	29.245	20.107	20.054
	10	29.550	29.776	29.050	29.313	20.181	20.050
	Min	29.429	29.688	28.968	29.245	19.952	20.015
	Max	29.550	29.839	29.186	29.358	20.252	20.267
	Mean	29.508	29.771	29.088	29.292	20.147	20.099
	Std. Dev	0.0422	0.0438	0.0692	0.0382	0.0885	0.0774
	Mean - 3 Sigma	29.3809	29.6393	28.8807	29.1775	19.8820	19.8672
	Mean + 3 Sigma	29.6343	29.9019	29.2957	29.4067	20.4129	20.3314

		NF @ 5G (dB)		P1dB@ 5G (dBm)		OIP3 @ 5G High(dBm)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	**4.134**	**4.151**	**22.930**	**23.523**	**36.710**	**36.327**
50k	1	4.295	4.142	22.728	23.350	36.461	36.274
	2	4.232	4.206	22.845	23.434	36.576	36.566
	3	4.157	4.195	22.901	23.442	36.845	36.522
	4	4.078	4.069	22.756	23.365	36.131	36.212
	5	4.253	4.062	22.906	23.445	36.621	36.381
	6	4.087	4.007	22.719	23.344	35.610	35.481
	7	4.048	4.182	22.711	23.246	36.440	36.243
	8	4.138	4.084	22.810	23.392	36.246	36.168
	9	4.141	4.059	22.741	23.339	36.404	36.230
	10	4.253	4.082	22.856	23.409	36.658	36.583
	Min	4.048	4.007	22.711	23.246	35.610	35.481
	Max	4.295	4.206	22.906	23.445	36.845	36.583
	Mean	4.168	4.109	22.797	23.377	36.399	36.266
	Std. Dev	0.0854	0.0678	0.0757	0.0615	0.3447	0.3162
	Mean - 3 Sigma	3.9121	3.9052	22.5700	23.1921	35.3653	35.3174
	Mean + 3 Sigma	4.4242	4.3123	23.0243	23.5612	37.4332	37.2146

		OIP3 @ 5G Low (dBm)		Gain 8G (dB)		P1dB@ 8G (dBm)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	**35.782**	**35.787**	**19.458**	**19.501**	**19.218**	**19.702**
50k	1	35.692	35.701	19.340	19.330	18.936	19.361
	2	35.666	35.711	19.380	19.298	19.213	19.647
	3	35.864	35.954	19.426	19.402	19.281	19.734
	4	35.502	35.689	19.274	19.260	19.022	19.430
	5	35.526	35.812	19.376	19.383	19.274	19.560
	6	35.326	35.143	19.004	19.100	18.969	19.239
	7	35.556	35.769	19.039	19.072	18.917	19.384
	8	35.766	35.705	19.172	19.153	19.135	19.436
	9	35.617	35.758	19.254	19.221	19.053	19.365
	10	35.782	35.905	19.374	19.236	19.209	19.708
	Min	35.326	35.143	19.004	19.072	18.917	19.239
	Max	35.864	35.954	19.426	19.402	19.281	19.734
	Mean	35.630	35.715	19.264	19.245	19.101	19.486
	Std. Dev	0.1586	0.2201	0.1479	0.1126	0.1393	0.1666
	Mean - 3 Sigma	35.1538	35.0544	18.8201	18.9074	18.6829	18.9868
	Mean + 3 Sigma	36.1057	36.3749	19.7078	19.5832	19.5190	19.9862

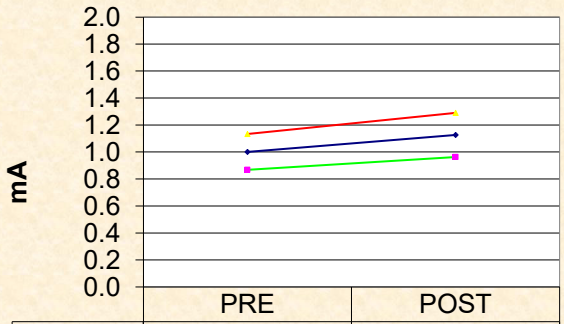
		OIP3 @ 8G High (dBm)		OIP3 @ 8G Low (dBm)		Post Pinchoff Current Idd (mA)	
	SN	PRE	POST	PRE	POST	PRE	POST
CTRL	A	**34.150**	**33.514**	**33.505**	**33.108**	**0.986**	**1.063**
50k	1	33.115	33.673	32.408	32.898	0.931	1.003
	2	34.670	35.429	33.840	33.959	1.019	1.021
	3	34.182	35.004	33.416	33.788	0.860	1.123
	4	32.821	33.264	32.369	32.585	0.962	1.016
	5	35.073	35.220	33.967	34.117	1.030	1.130
	6	31.692	32.116	31.241	31.767	0.811	1.073
	7	32.856	33.270	32.381	32.683	0.976	1.053
	8	33.307	33.501	32.790	33.031	0.905	1.126
	9	33.007	33.412	32.429	32.745	0.942	1.069
	10	34.280	34.620	33.479	33.658	1.029	1.166
	Min	31.692	32.116	31.241	31.767	0.811	1.003
	Max	35.073	35.429	33.967	34.117	1.030	1.166
	Mean	33.500	33.951	32.832	33.123	0.947	1.078
	Std. Dev	1.0268	1.0660	0.8404	0.7408	0.0731	0.0561
	Mean - 3 Sigma	30.4199	30.7529	30.3105	30.9006	0.7274	0.9099
	Mean + 3 Sigma	36.5807	37.1488	35.3531	35.3455	1.1657	1.2463

Id Max at Vdd 5.5V



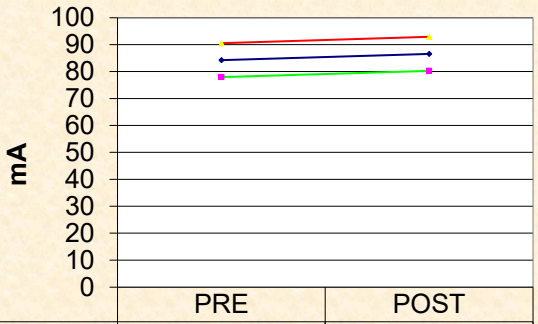
	PRE	POST
Average	1.131	1.283
-3 Sigma	0.9993	1.1720
+3 Sigma	1.2630	1.3948

Pre Pinchoff Current Idd



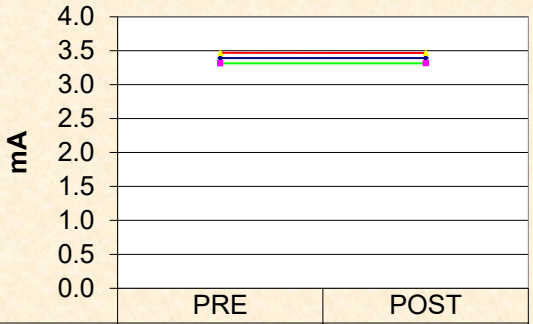
	PRE	POST
Average	1.001	1.126
-3 Sigma	0.8679	0.9626
+3 Sigma	1.1344	1.2901

Quiescent Idd



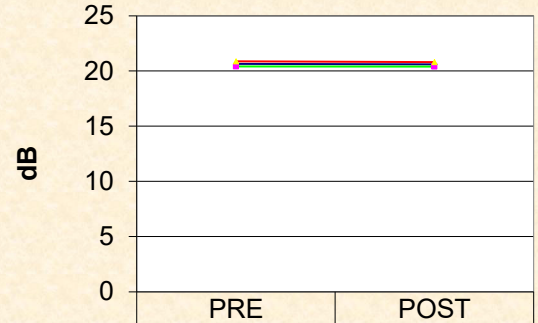
	PRE	POST
Average	84.258	86.599
-3 Sigma	77.971	80.282
+3 Sigma	90.546	92.915

Vbias Current



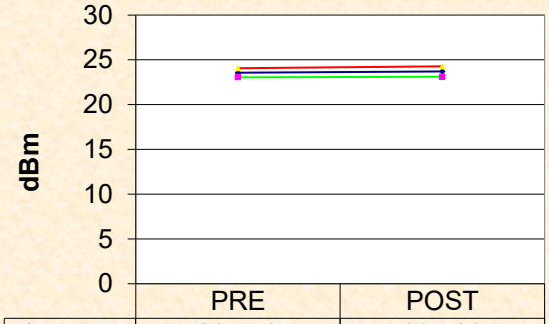
	PRE	POST
Average	3.391	3.391
-3 Sigma	3.3128	3.3147
+3 Sigma	3.4686	3.4671

Gain 1G



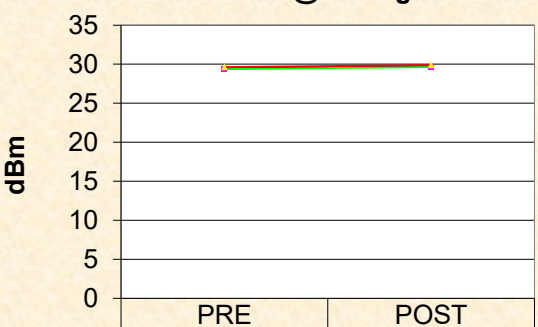
	PRE	POST
Average	20.647	20.603
-3 Sigma	20.4171	20.4009
+3 Sigma	20.8775	20.8058

P1dB@ 1G



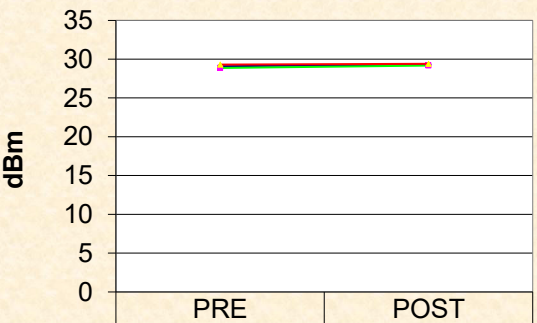
	PRE	POST
Average	23.558	23.700
-3 Sigma	23.0479	23.1244
+3 Sigma	24.0688	24.2754

OIP3 @ 1G High



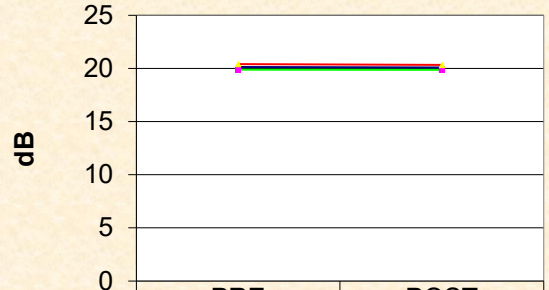
	PRE	POST
Average	29.508	29.771
-3 Sigma	29.3809	29.6393
+3 Sigma	29.6343	29.9019

OIP3 @ 1G Low



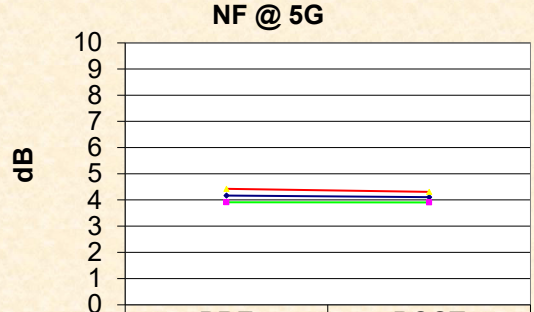
	PRE	POST
Average	29.088	29.292
-3 Sigma	28.8807	29.1775
+3 Sigma	29.2957	29.4067

Gain 5G



	PRE	POST
Average	20.147	20.099
-3 Sigma	19.8820	19.8672
+3 Sigma	20.4129	20.3314

NF @ 5G

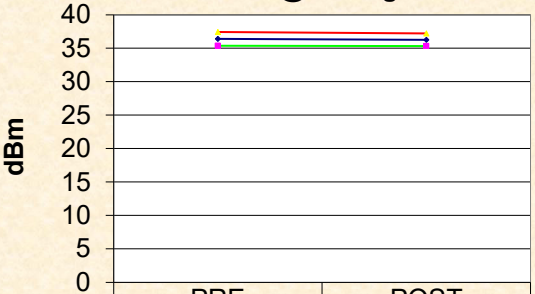


	PRE	POST
Average	4.168	4.109
-3 Sigma	3.9121	3.9052
+3 Sigma	4.4242	4.3123

P1dB@ 5G

	PRE	POST
Average	22.797	23.377
-3 Sigma	22.5700	23.1921
+3 Sigma	23.0243	23.5612

OIP3 @ 5G High

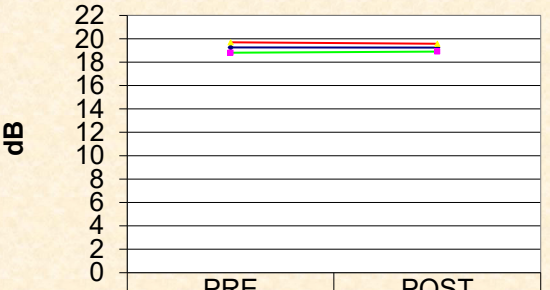


	PRE	POST
Average	36.399	36.266
-3 Sigma	35.3653	35.3174
+3 Sigma	37.4332	37.2146

OIP3 @ 5G Low

	PRE	POST
Average	35.630	35.715
-3 Sigma	35.1538	35.0544
+3 Sigma	36.1057	36.3749

Gain 8G

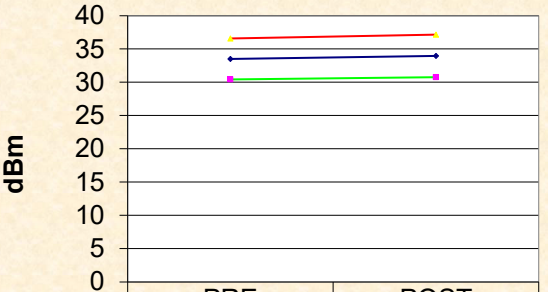


	PRE	POST
Average	19.264	19.245
-3 Sigma	18.8201	18.9074
+3 Sigma	19.7078	19.5832

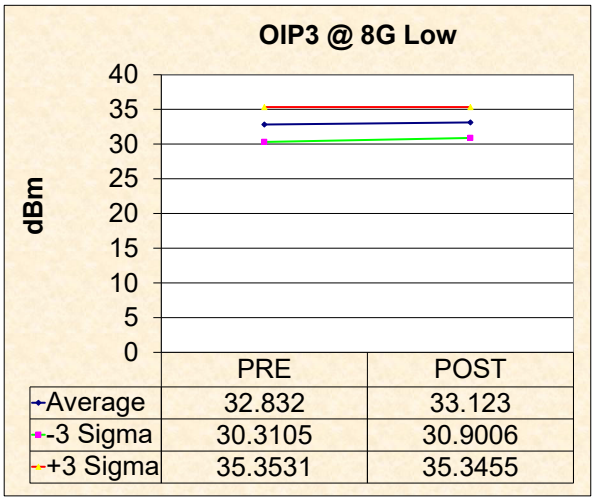
P1dB@ 8G

	PRE	POST
Average	19.101	19.486
-3 Sigma	18.6829	18.9868
+3 Sigma	19.5190	19.9862

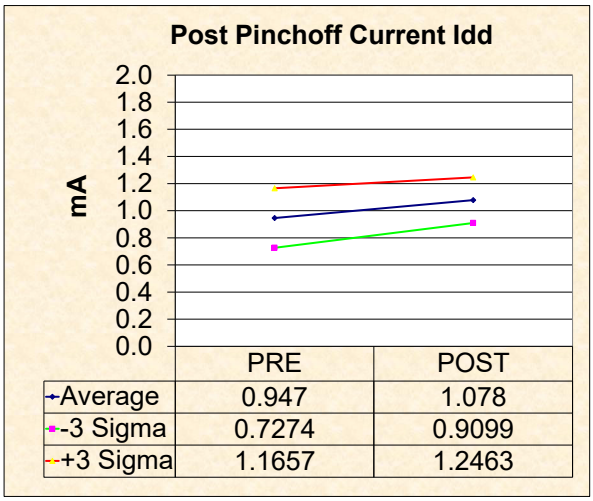
OIP3 @ 8G High



	PRE	POST
Average	33.500	33.951
-3 Sigma	30.4199	30.7529
+3 Sigma	36.5807	37.1488



	PRE	POST
Average	32.832	33.123
-3 Sigma	30.3105	30.9006
+3 Sigma	35.3531	35.3455



	PRE	POST
Average	0.947	1.078
-3 Sigma	0.7274	0.9099
+3 Sigma	1.1657	1.2463