

RADIATION TEST REPORT

PRODUCT:	AD8212ALQMLR
GAMMA:	100k
GAMMA SOURCE:	Co60
DOSE RATE:	131 Rad(si)/s
FACILITIES:	University of Massachusetts @ Lowell
TESTED:	10/15/2010

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Wafer #	SN	Ibias 7V (uA)		Vos 7V (mV)		Isense 7V (nA)	
		0K	100K	0K	100K	0K	100K
13	14	144.8290	144.6102	0.6109	0.5929	109.6154	109.6072
14	58	146.7525	146.8070	0.5625	0.5631	120.5455	120.8713
13	2	145.2810	128.4651	0.4969	0.5437	115.5602	127.7352
13	3	147.2781	131.7971	0.5670	0.5974	111.6412	127.2264
13	4	145.7855	135.0030	0.5098	0.5208	114.6012	126.2274
13	5	148.0664	139.8276	0.5033	0.4889	114.1912	124.8213
14	39	146.7000	133.3422	0.4667	0.5656	120.8482	132.7552
14	40	143.4206	127.5716	0.3995	0.5641	113.3586	128.0343
14	41	146.3846	130.9562	0.3817	0.5189	117.0340	127.6735
14	42	147.1414	131.7866	0.7054	1.0229	116.2293	127.6427
	min	143.4206	127.5716	0.3817	0.4889	111.6412	124.8213
	max	148.0664	139.8276	0.7054	1.0229	120.8482	132.7552
	mean	146.2572	132.3437	0.5038	0.6028	115.4330	127.7645
	std. dev	1.4408	3.8624	0.1013	0.1731	2.7634	2.2778
	- 3 sigma	141.9348	120.7563	0.1997	0.0835	107.1429	120.9311
	+3 sigma	150.5796	143.9310	0.8078	1.1220	123.7231	134.5979

Wafer #	SN	Shunt Min 7V (mV)		Vout Min 7V (mV)		Shunt Max 7V (mV)	
		0K	100K	0K	100K	0K	100K
13	14	44.8541	44.8782	45.4757	45.4723	504.6513	504.7440
14	58	44.8328	44.8932	45.4405	45.4188	504.6610	504.7141
13	2	44.8454	44.8608	45.3188	45.4051	504.7061	504.7265
13	3	44.8491	44.8981	45.3375	45.4947	504.6986	504.7241
13	4	44.8267	44.8944	45.3163	45.3603	504.6949	504.7328
13	5	44.8479	44.8483	45.3051	45.3079	504.6911	504.6780
14	39	44.9101	44.8782	45.3413	45.3901	504.7360	504.7390
14	40	44.8827	44.8882	45.2267	45.3864	504.7522	504.7079
14	41	44.9263	44.8658	45.2354	45.3528	504.7547	504.7253
14	42	44.9176	44.9193	45.7373	45.9817	504.7522	504.7166
	min	44.8267	44.8483	45.2267	45.3079	504.6911	504.6780
	max	44.9263	44.9193	45.7373	45.9817	504.7547	504.7390
	mean	44.8757	44.8816	45.3523	45.4599	504.7232	504.7188
	std. dev	0.0385	0.0230	0.1615	0.2175	0.0282	0.0190
	- 3 sigma	44.7603	44.8126	44.8677	44.8073	504.6386	504.6618
	+3 sigma	44.9912	44.9507	45.8369	46.1125	504.8078	504.7758

Wafer #	SN	Vout Max 7V (mV)		Gain 7V (V/V)		Ialpha Max Current (uA)	
		0K	100K	0K	100K	0K	100K
13	14	506.8659	506.9079	1.0035	1.0034	32.4695	32.5514
14	58	506.5253	506.4621	1.0027	1.0027	30.7955	30.8162
13	2	506.7650	506.8083	1.0035	1.0033	31.0976	31.2603
13	3	506.0876	506.5717	1.0020	1.0027	29.8958	34.6228
13	4	506.3877	506.4185	1.0026	1.0027	34.6446	34.9819
13	5	506.4512	505.7323	1.0028	1.0013	34.9062	32.1134
14	39	506.0465	506.1209	1.0019	1.0019	32.5753	32.5161
14	40	506.4836	506.6115	1.0030	1.0031	33.0589	33.1055
14	41	506.1610	506.2703	1.0024	1.0023	32.0772	32.1259
14	42	507.8074	508.1034	1.0049	1.0051	36.4088	36.5033
	min	506.0465	505.7323	1.0019	1.0013	29.8958	31.2603
	max	507.8074	508.1034	1.0049	1.0051	36.4088	36.5033
	mean	506.5237	506.5796	1.0029	1.0028	33.0831	33.4036
	std. dev	0.5708	0.6995	0.0010	0.0011	2.1445	1.7870
	- 3 sigma	504.8113	504.4810	1.0000	0.9994	26.6494	28.0428
	+3 sigma	508.2362	508.6782	1.0057	1.0062	39.5167	38.7645

Wafer #	SN	Vreg Shunt Min 7V (mV)		Vreg Shunt Max 7V (mV)		Ibias Rb=50k PNP (uA)	
		0K	100K	0K	100K	0K	100K
13	14	-12.4790	-11.9652	-12.5288	-11.9631	100.7789	100.7797
14	58	-14.2770	-14.1930	-14.3144	-14.2532	100.5687	100.7166
13	2	-10.9364	68.8565	-10.9924	68.7942	100.6002	99.1084
13	3	-16.7745	64.6002	-16.8389	64.5670	101.1573	99.3291
13	4	-11.8250	52.2321	-11.8042	52.2383	100.8209	99.4237
13	5	-21.1324	29.4225	-21.1885	29.3706	100.8525	99.7181
14	39	-12.7613	61.5295	-12.8921	61.5461	100.5897	99.0874
14	40	-9.7737	72.4712	-9.7550	72.4442	100.4636	99.0453
14	41	-14.7607	63.0451	-14.7482	62.9517	100.4951	99.1820
14	42	-18.1552	61.0395	-18.1697	60.9834	101.0837	99.7601
	min	-21.1324	29.4225	-21.1885	29.3706	100.4636	99.0453
	max	-9.7737	72.4712	-9.7550	72.4442	101.1573	99.7601
	mean	-14.5149	59.1496	-14.5486	59.1119	100.7579	99.3318
	std. dev	3.9244	13.4023	3.9349	13.4016	0.2639	0.2816
	- 3 sigma	-26.2880	18.9425	-26.3534	18.9072	99.9662	98.4868
	+3 sigma	-2.7418	99.3566	-2.7439	99.3167	101.5495	100.1767

Wafer #	SN	Vos PNP (mV)		Isense PNP (nA)		Shunt Min PNP (mV)	
		0K	100K	0K	100K	0K	100K
13	14	0.5917	0.5776	547.3476	554.8305	45.2901	45.3329
14	58	0.5511	0.5470	609.2039	609.1900	45.2900	45.3591
13	2	0.4799	0.5185	580.1489	617.1300	45.2926	45.3367
13	3	0.5508	0.5858	572.0087	631.4560	45.2876	45.3279
13	4	0.4863	0.4964	607.2335	629.4795	45.2963	45.3342
13	5	0.4934	0.4664	590.3118	611.6907	45.3025	45.3279
14	39	0.4529	0.5400	583.5314	630.2627	45.3673	45.3180
14	40	0.3837	0.5426	567.5994	635.2426	45.3686	45.3317
14	41	0.3613	0.5007	509.4341	572.8229	45.3511	45.3242
14	42	0.6950	1.0065	579.4243	636.9231	45.3985	45.3342
	min	0.3613	0.4664	509.4341	572.8229	45.2876	45.3180
	max	0.6950	1.0065	607.2335	636.9231	45.3985	45.3367
	mean	0.4879	0.5821	573.7115	620.6259	45.3331	45.3293
	std. dev	0.1035	0.1752	28.6397	21.1963	0.0431	0.0062
	- 3 sigma	0.1773	0.0565	487.7923	557.0371	45.2036	45.3109
	+3 sigma	0.7985	1.1077	659.6307	684.2148	45.4625	45.3478

Wafer #	SN	Vout Min PNP (mV)		Shunt Max PNP (mV)		Vout Max PNP (mV)	
		0K	100K	0K	100K	0K	100K
13	14	45.9116	45.9082	508.7197	508.7603	510.8932	510.9540
14	58	45.8652	45.8434	508.6846	508.7079	510.3526	510.2579
13	2	45.7734	45.8397	508.7160	508.6855	510.6791	510.6626
13	3	45.7597	45.9269	508.7284	508.7715	509.8148	510.9092
13	4	45.7771	45.8223	508.7945	508.7603	510.8634	510.8806
13	5	45.7684	45.6828	508.7696	508.7217	510.8522	509.6937
14	39	45.7485	45.8061	508.7608	508.6656	510.0452	510.0910
14	40	45.7186	45.8908	508.8032	508.7466	510.6056	510.7859
14	41	45.6787	45.7650	508.6051	508.6182	509.9530	510.1546
14	42	46.2341	46.5159	508.7546	508.7154	512.3577	512.6540
	min	45.6787	45.6828	508.6051	508.6182	509.8148	509.6937
	max	46.2341	46.5159	508.8032	508.7715	512.3577	512.6540
	mean	45.8073	45.9062	508.7415	508.7106	510.6464	510.7290
	std. dev	0.1756	0.2574	0.0625	0.0518	0.8066	0.8926
	- 3 sigma	45.2804	45.1340	508.5539	508.5551	508.2265	508.0511
	+3 sigma	46.3342	46.6784	508.9291	508.8661	513.0662	513.4068

Wafer #	SN	Gain PNP (V/V)		I _{alpha} PNP (uA)		Vreg Load Min Shunt Min (mV)	
		0K	100K	0K	100K	0K	100K
13	14	1.0034	1.0035	7.4557	7.4418	-14.4679	-13.8899
14	58	1.0024	1.0023	7.2476	7.1919	-16.2971	-16.1966
13	2	1.0032	1.0032	7.3162	7.2770	-12.9067	67.3346
13	3	1.0013	1.0033	7.2054	7.7166	-18.8673	63.0659
13	4	1.0034	1.0035	7.8326	7.7710	-13.7371	50.6437
13	5	1.0035	1.0013	7.8359	7.3293	-23.2605	27.5705
14	39	1.0020	1.0020	7.4420	7.3301	-14.7648	59.9972
14	40	1.0031	1.0032	7.5375	7.5601	-11.6381	70.9556
14	41	1.0022	1.0024	7.1797	7.2442	-16.7538	61.4568
14	42	1.0060	1.0060	7.9094	7.9565	-20.2189	59.2850
	min	1.0013	1.0013	7.1797	7.2442	-23.2605	27.5705
	max	1.0060	1.0060	7.9094	7.9565	-11.6381	70.9556
	mean	1.0031	1.0031	7.5323	7.5231	-16.5184	57.5387
	std. dev	0.0014	0.0014	0.2954	0.2676	4.0070	13.5045
	- 3 sigma	0.9989	0.9990	6.6462	6.7203	-28.5395	17.0252
	+3 sigma	1.0073	1.0072	8.4184	8.3259	-4.4973	98.0521

Wafer #	SN	Vreg Load Min Shunt Max (mV)		Vreg Load Max Shunt Min (mV)		Vreg Load Max Shunt Max (mV)	
		0K	100K	0K	100K	0K	100K
13	14	-14.6984	-14.1369	31.4671	31.8539	31.1100	31.5113
14	58	-16.4653	-16.4457	28.7720	28.7125	28.3859	28.3575
13	2	-13.0624	67.1374	33.4416	114.0251	33.0388	113.6452
13	3	-19.0521	62.8998	27.0387	107.8026	26.7044	107.3438
13	4	-13.9738	50.4901	30.7612	95.9286	30.4124	95.5404
13	5	-23.4473	27.3297	22.0538	72.4236	21.6282	72.0353
14	39	-14.9662	59.8103	30.7218	105.6018	30.3543	105.2696
14	40	-11.8499	70.6836	34.3239	117.4551	33.9627	117.1146
14	41	-16.9676	61.2429	27.8982	106.0420	27.5889	105.6683
14	42	-20.4182	59.0525	26.5674	106.3015	26.1916	105.9133
	min	-23.4473	27.3297	22.0538	72.4236	21.6282	72.0353
	max	-11.8499	70.6836	34.3239	117.4551	33.9627	117.1146
	mean	-16.7172	57.3308	29.1008	103.1975	28.7352	102.8163
	std. dev	4.0026	13.5053	4.0229	13.9648	4.0302	13.9712
	- 3 sigma	-28.7250	16.8148	17.0322	61.3033	16.6445	60.9028
	+3 sigma	-4.7093	97.8468	41.1694	145.0918	40.8258	144.7298

Wafer #	SN	Ibias 65V (uA)		Vos 65V (mV)		Isense 65V (nA)	
		0K	100K	0K	100K	0K	100K
13	14	176.4171	176.4634	0.6011	0.5789	121.4772	121.6021
14	58	184.3528	184.2942	0.5486	0.5566	132.1608	132.5208
13	2	178.8346	180.6574	0.4776	0.5184	127.4652	139.5975
13	3	177.7309	184.8934	0.5528	0.5964	123.5554	139.0949
13	4	182.3767	181.7190	0.4841	0.4978	126.3737	138.0095
13	5	179.7805	182.4022	0.4841	0.4700	126.1794	136.3875
14	39	184.6576	187.0166	0.4573	0.5440	132.7563	144.5250
14	40	175.8495	177.9770	0.3968	0.5543	124.9892	139.9028
14	41	180.6109	182.6965	0.3660	0.5133	128.7448	139.4217
14	42	178.8241	181.2775	0.6964	1.0127	127.8321	139.2953
	min	175.8495	177.9770	0.3660	0.4700	123.5554	136.3875
	max	184.6576	187.0166	0.6964	1.0127	132.7563	144.5250
	mean	179.8331	182.3300	0.4894	0.5884	127.2370	139.5293
	std. dev	2.7427	2.7230	0.1013	0.1756	2.7675	2.3157
	- 3 sigma	171.6050	174.1610	0.1854	0.0614	118.9346	132.5823
	+3 sigma	188.0612	190.4989	0.7934	1.1153	135.5395	146.4763

Wafer #	SN	Shunt Min 65V (mV)		Vout Min 65V (mV)		Shunt Max 65V (mV)	
		0K	100K	0K	100K	0K	100K
13	14	44.9346	44.9740	45.6142	45.6293	504.9199	504.9470
14	58	44.9742	44.9666	45.6026	45.5746	504.9394	504.9270
13	2	44.9769	45.0276	45.4536	45.5285	504.9523	504.9669
13	3	44.9583	44.9703	45.4984	45.6119	504.9136	504.9657
13	4	44.9558	45.0226	45.4324	45.4924	504.9236	504.9495
13	5	44.9458	44.9878	45.4349	45.4015	504.9012	504.9719
14	39	45.0579	44.9865	45.4088	45.4998	504.9349	504.9806
14	40	44.9869	44.9952	45.4337	45.5434	504.9623	504.9943
14	41	45.0342	44.9728	45.3602	45.4936	504.9710	504.9495
14	42	44.9994	45.0064	45.8795	46.1125	504.9585	504.9408
	min	44.9458	44.9703	45.3602	45.4015	504.9012	504.9408
	max	45.0579	45.0276	45.8795	46.1125	504.9710	504.9943
	mean	44.9894	44.9962	45.4877	45.5854	504.9397	504.9649
	std. dev	0.0396	0.0213	0.1630	0.2210	0.0252	0.0178
	- 3 sigma	44.8706	44.9323	44.9986	44.9225	504.8641	504.9114
	+3 sigma	45.1081	45.0600	45.9767	46.2484	505.0153	505.0183

Wafer #	SN	Vout Max 65V (mV)		Gain 65V (V/V)		Vreg Shunt Min 65V (mV)	
		0K	100K	0K	100K	0K	100K
13	14	507.8375	507.8644	1.0049	1.0049	-11.4154	-11.0693
14	58	507.4471	507.4373	1.0041	1.0041	-13.1523	-13.3033
13	2	507.6881	507.7312	1.0049	1.0049	-9.8604	70.2736
13	3	507.0567	507.5033	1.0035	1.0041	-15.7546	66.0214
13	4	507.3830	507.3912	1.0043	1.0043	-10.6514	53.4913
13	5	507.4067	506.6515	1.0044	1.0028	-20.2058	30.3558
14	39	507.0044	507.0413	1.0037	1.0034	-11.5732	63.0856
14	40	507.4515	507.6079	1.0044	1.0045	-8.6126	73.8675
14	41	507.1314	507.2169	1.0040	1.0038	-13.6826	64.4040
14	42	508.7777	509.0189	1.0064	1.0065	-17.1165	62.3403
	min	507.0044	506.6515	1.0035	1.0028	-20.2058	30.3558
	max	508.7777	509.0189	1.0064	1.0065	-8.6126	73.8675
	mean	507.4874	507.5203	1.0045	1.0043	-13.4321	60.4800
	std. dev	0.5694	0.6960	0.0009	0.0011	4.0016	13.5636
	- 3 sigma	505.7792	505.4321	1.0018	1.0009	-25.4369	19.7891
	+3 sigma	509.1956	509.6084	1.0072	1.0076	-1.4274	101.1708

Wafer #	SN	Vreg Shunt Max 65V (mV)		Vreg PSRR Shunt Min (uV/V)		Vreg PSRR Shunt Max (uV/V)	
		0K	100K	0K	100K	0K	100K
13	14	-11.5337	-11.1918	18.3312	15.4419	17.1503	13.2948
14	58	-13.4450	-13.4611	19.3850	15.3345	14.9836	13.6526
13	2	-9.9953	70.1054	18.5459	24.4239	17.1861	22.5988
13	3	-15.9207	65.8636	17.5797	24.4954	15.8264	22.3483
13	4	-10.8611	53.2858	20.2277	21.7042	16.2558	18.0541
13	5	-20.4052	30.2167	15.9695	16.0860	13.5004	14.5830
14	39	-11.7787	62.8801	20.4782	26.8214	19.1900	22.9925
14	40	-8.7662	73.6475	20.0130	24.0660	17.0430	20.7380
14	41	-13.8362	64.3023	18.5817	23.4219	15.7190	23.2787
14	42	-17.2764	62.1223	17.9018	22.4199	15.3970	19.6287
	min	-20.4052	30.2167	15.9695	16.0860	13.5004	14.5830
	max	-8.7662	73.6475	20.4782	26.8214	19.1900	23.2787
	mean	-13.6050	60.3030	18.6622	22.9298	16.2647	20.5278
	std. dev	4.0079	13.5512	1.5397	3.1614	1.6430	3.0132
	- 3 sigma	-25.6288	19.6492	14.0432	13.4456	11.3357	11.4880
	+3 sigma	-1.5811	100.9567	23.2812	32.4140	21.1937	29.5675



