



AHEAD OF WHAT'S POSSIBLE™

HIGH DOSE RADIATION TEST REPORT AD844S

November 2010

Generic



Radiation Test Report	
Product:	AD844S
Gamma:	0,100k, 24Hr
Gamma Source:	Co60/TM1019 Condition A
Dose Rate:	130 Rad/s
Facilities:	U Mass Lowell
Tested:	November 18th, 2010

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Wafer #	SN	IQ+ @ VCC=+-15V (mA)			IQ- @ VCC=+-15V (mA)			VOUT+ @ VCC=+-18V, NO LOAD (V)		
		0K	100K	Anneal	0K	100K	Anneal	0K	100K	Anneal
6	7	5.994	5.994	5.99	-6.005	-6.004	-5.989	16.995	16.994	16.993
7	30	6.075	6.038	6.029	-6.08	-6.044	-6.034	16.977	16.973	16.972
8	41	5.967	5.971	5.964	-5.969	-5.979	-5.972	16.974	16.975	16.973
6	8	5.992	5.461	5.974	-6.003	-5.463	-5.981	17	16.951	16.952
6	9	6.053	5.477	5.979	-6.057	-5.484	-5.989	17.01	16.953	16.956
6	10	5.963	5.532	5.941	-5.968	-5.536	-5.946	17.001	16.945	16.946
6	11	6.026	5.6	5.946	-6.032	-5.614	-5.949	17.009	16.946	16.946
7	31	5.93	5.515	5.912	-5.936	-5.519	-5.918	16.994	16.944	16.942
7	32	6.012	5.706	5.999	-6.015	-5.713	-6.004	16.987	16.927	16.93
7	33	6.03	5.777	6.006	-6.031	-5.778	-6.002	16.995	16.934	16.936
7	34	6.008	5.442	5.982	-6.015	-5.457	-5.991	16.995	16.948	16.945
8	42	5.989	5.482	5.961	-5.995	-5.483	-5.97	16.959	16.91	16.908
8	43	6.024	5.562	6	-6.031	-5.575	-6.009	16.98	16.931	16.929
8	50	6.01	5.557	5.942	-6.016	-5.567	-5.949	16.991	16.936	16.933
8	51	6.091	5.636	5.971	-6.091	-5.642	-5.98	16.986	16.926	16.922
min		5.930	5.442	5.912	-6.091	-5.778	-6.009	16.959	16.910	16.908
max		6.091	5.777	6.006	-5.936	-5.457	-5.918	17.010	16.953	16.956
mean		6.011	5.562	5.968	-6.016	-5.569	-5.974	16.992	16.938	16.937
std. dev		0.041	0.102	0.028	0.040	0.102	0.028	0.014	0.014	0.014
mean - 3 sigma		5.887	5.255	5.883	-6.135	-5.874	-6.058	16.951	16.900	16.896
mean +3 sigma		6.134	5.869	6.053	-5.897	-5.264	-5.890	17.033	16.976	16.978

Wafer #	SN	VOUT- @ VCC=+-18V, NO LOAD (V)			VIO (mV)			IIB+ (nA)		
		0K	100K	Anneal	0K	100K	Anneal	0K	100K	Anneal
6	7	-16.302	-16.299	-16.299	-0.011	-0.014	-0.014	93.351	92.947	92.984
7	30	-16.258	-16.257	-16.257	-0.035	-0.035	-0.037	83.849	85.521	85.966
8	41	-16.286	-16.284	-16.283	-0.057	-0.056	-0.057	190.063	189.795	190.487
6	2	-16.307	-16.249	-16.235	-0.039	0.231	-0.068	112.911	-2114.055	146.17
6	3	-16.308	-16.249	-16.235	0.018	0.209	-0.069	25.389	-2114.112	315.499
6	4	-16.316	-16.249	-16.237	-0.067	0.071	-0.117	117.284	-1175.076	234.142
6	5	-16.297	-16.233	-16.222	0.018	0.056	-0.053	125.691	-509.133	356.826
7	18	-16.317	-16.258	-16.244	-0.04	0.055	-0.101	134.879	-986.379	239.848
7	19	-16.283	-16.214	-16.202	-0.058	-0.092	-0.092	65.778	-323.925	111.653
7	20	-16.297	-16.226	-16.216	-0.049	-0.036	-0.095	136.55	-109.974	221.488
7	21	-16.326	-16.268	-16.253	-0.039	0.292	-0.104	84.304	-2562.229	203.344
8	47	-16.278	-16.222	-16.209	-0.065	0.109	-0.106	110.833	-1307.475	182.238
8	48	-16.302	-16.238	-16.225	-0.049	0.077	-0.099	83.19	-1073.531	157.961
8	49	-16.287	-16.224	-16.21	-0.045	0.07	-0.076	74.979	-822.229	107.467
8	50	-16.297	-16.238	-16.224	-0.003	0.236	-0.063	39.291	-434.283	219.443
min		-16.326	-16.268	-16.253	-0.067	-0.036	-0.117	25.389	-2562.229	107.467
max		-16.278	-16.214	-16.202	0.018	0.292	-0.053	136.550	-109.974	356.826
mean		-16.301	-16.239	-16.226	-0.035	0.096	-0.087	92.590	-1127.700	208.007
std. dev		0.014	0.016	0.015	0.030	0.100	0.020	36.575	780.433	75.147
mean - 3 sigma		-16.345	-16.287	-16.272	-0.124	-0.204	-0.148	-17.134	-3468.999	-17.434
mean +3 sigma		-16.258	-16.191	-16.180	0.054	0.395	-0.026	202.314	1213.599	433.447

Wafer #	SN	IIB- (nA)			(TZ) Z-GAIN @ RL=500OHMS (MOhms)			VOUT1+ @ VCC=+-15V, RL=500OHMS (V)		
		0K	100K	Anneal	0K	100K	Anneal	0K	100K	Anneal
6	7	98.84	97.623	96.751	3.5806	3.5778	3.5741	13.624	13.6237	13.6242
7	30	105.604	94.796	91.964	3.3569	3.3327	3.3284	13.6315	13.6327	13.63
8	41	-151.296	-148.366	-151.246	3.6529	3.657	3.6515	13.6332	13.6327	13.6338
6	2	162.727	82.396	-88.73	3.4902	2.9751	2.8503	13.6266	13.6416	13.6234
6	3	187.593	-296.466	-309.467	3.6252	2.9965	2.8878	13.6239	13.6391	13.622
6	4	82.738	-111.876	-263.702	3.7135	3.0302	2.9578	13.6217	13.6326	13.6181
6	5	91.056	-195.922	-320.456	3.6444	2.9351	2.8735	13.6251	13.6349	13.622
7	18	80.239	-178.66	-380.419	3.7132	3.1192	3.0052	13.6288	13.6397	13.6264
7	19	-144.328	-328.124	-470.36	3.5169	2.8216	2.8066	13.6294	13.6356	13.6252
7	20	83.723	-158.064	-290.712	3.6034	2.8433	2.8436	13.6266	13.6315	13.6229
7	21	47.967	-202.502	-441.217	3.6766	3.189	2.9861	13.6229	13.6405	13.62
8	47	81.053	-46.282	-267.237	3.5835	3.0744	2.924	13.6349	13.6495	13.6314
8	48	26.284	-206.683	-380.828	3.7285	3.1591	3.0222	13.6277	13.6408	13.622
8	49	-140.222	-164.333	-450.882	3.7116	3.0988	2.9825	13.631	13.6423	13.6277
8	50	144.78	-149.3	-289.381	3.7195	3.0505	2.9464	13.6318	13.6437	13.63
min		-144.328	-328.124	-470.360	3.490	2.822	2.807	13.622	13.632	13.618
max		187.593	82.396	-88.730	3.729	3.189	3.022	13.635	13.650	13.631
mean		58.634	-162.985	-329.449	3.644	3.025	2.924	13.628	13.639	13.624
std. dev		104.453	107.258	105.338	0.082	0.115	0.071	0.004	0.005	0.004
mean - 3 sigma		-254.726	-484.758	-645.463	3.399	2.679	2.712	13.616	13.624	13.612
mean +3 sigma		371.994	158.789	-13.436	3.889	3.371	3.135	13.639	13.654	13.636

Wafer #	SN	VOUT1- @ VCC=+-15V, RL=500OHMS (V)		
		0K	100K	Anneal
6	7	-12.9289	-12.9299	-12.9289
7	30	-12.9795	-12.9875	-12.9889
8	41	-12.9474	-12.9423	-12.9461
6	2	-12.9299	-12.8037	-12.8153
6	3	-12.9052	-12.788	-12.8037
6	4	-12.9023	-12.7788	-12.7898
6	5	-12.913	-12.8094	-12.8191
7	18	-12.9174	-12.8019	-12.8164
7	19	-12.957	-12.8701	-12.8703
7	20	-12.9353	-12.8466	-12.8507
7	21	-12.9278	-12.8034	-12.8271
8	47	-12.9595	-12.8274	-12.8507
8	48	-12.9168	-12.7842	-12.8034
8	49	-12.924	-12.8051	-12.8228
8	50	-12.9248	-12.8202	-12.8397
min		-12.960	-12.870	-12.870
max		-12.902	-12.779	-12.790
mean		-12.926	-12.812	-12.826
std. dev		0.018	0.023	
mean - 3 sigma		-12.980	-12.891	-12.896
mean +3 sigma		-12.872	-12.733	-12.756

