

RADIATION TEST REPORT

PRODUCT: REF43-803RC

MASK:

FILE:

DATE CODE:

GAMMA: 0, 30K,50K,100K,24Hr

GAMMA SOURCE: Co60

DOSE RATE: 43.82 rad/sec

FACILITIES: National Semiconductor
Sunnyvale, Ca.

TESTED: March 16, 2004

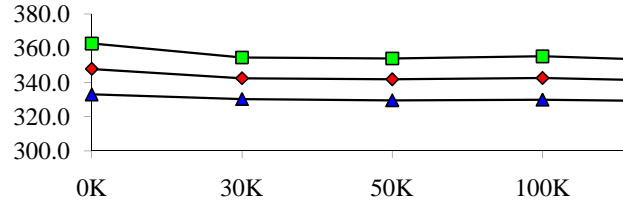
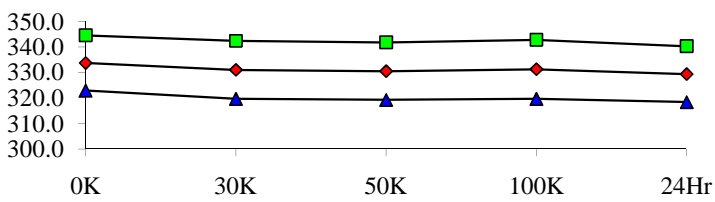
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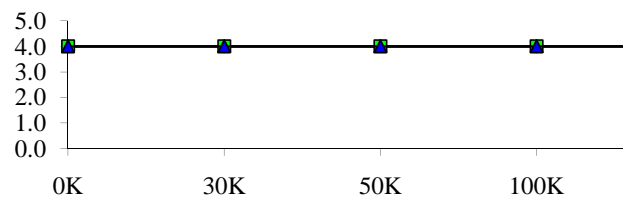
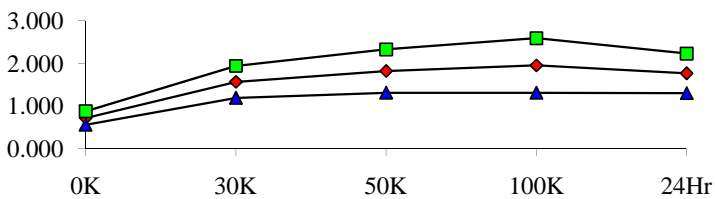
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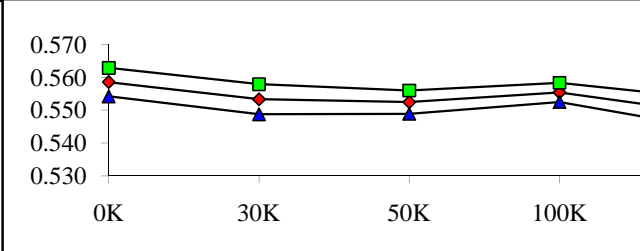
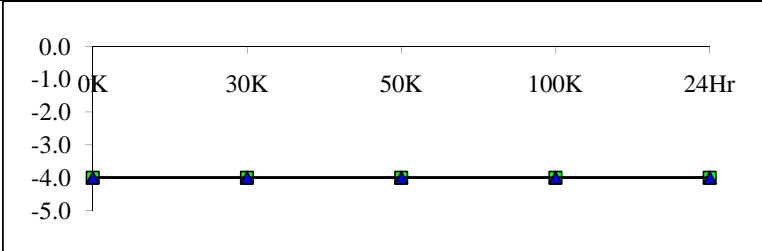
T#7	ISY @ VIN=+5V, IL=0MA				uA	T#8	ISY @ VIN=+40V			
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K
716	337.8	335.6	335.5	335.6	335.4	716	352.2	349.8	349.9	350.1
717	330.3	327.2	326.7	327.5	325.8	717	343.8	338.8	337.9	339.0
718	333.3	331.0	330.6	331.2	329.2	718	347.4	342.3	341.5	342.4
719	332.9	330.8	330.0	330.9	328.6	719	345.9	341.8	341.2	341.4
720	330.3	327.2	327.1	327.5	325.7	720	343.4	338.6	338.4	338.5
721	340.9	338.5	337.9	338.7	336.5	721	357.3	350.4	349.8	350.8
722	333.0	330.4	329.7	330.6	328.7	722	347.0	341.5	340.9	341.8
723	333.9	331.2	330.8	331.8	329.5	723	348.2	343.2	342.7	344.0
724	339.3	336.5	336.0	337.0	334.9	724	356.3	348.5	348.0	349.0
725	332.2	329.3	328.9	329.6	327.7	725	346.0	340.6	340.0	340.4
727	331.1	327.9	327.1	327.6	326.6	727	343.8	338.6	337.9	338.8
Min	330.3	327.2	326.7	327.5	325.7	Min	343.4	338.6	337.9	338.5
Max	340.9	338.5	337.9	338.7	336.5	Max	357.3	350.4	349.8	350.8
Stdev	3.6	3.8	3.7	3.9	3.6	Stdev	5.0	4.1	4.1	4.2
Average	333.7	331.0	330.5	331.2	329.3	Average	347.9	342.4	341.8	342.6
+3S	344.5	342.3	341.7	342.8	340.2	+3S	362.8	354.6	354.1	355.3
-3S	322.9	319.7	319.2	319.7	318.4	-3S	333.0	330.3	329.6	329.9



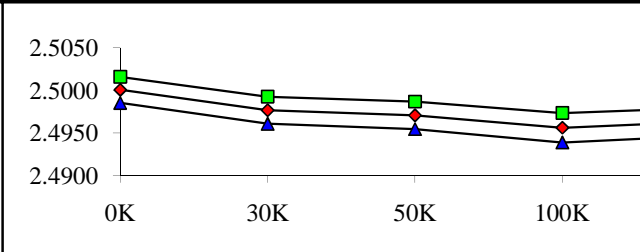
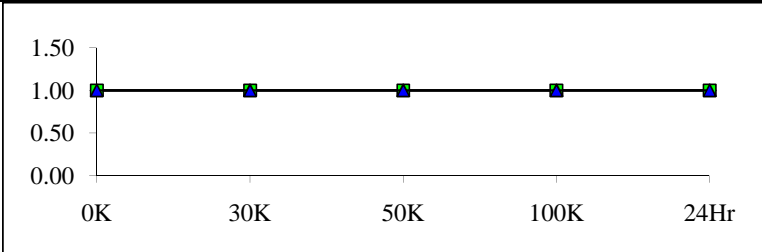
T#9	[PPM/V] LN REG. @ VIN=4.5V-40V				PPM/V	T#10	DELTA VTRIM+			
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K
716	0.741	0.666	0.677	0.666	0.645	716	4.0	4.0	4.0	4.0
717	0.774	1.698	1.988	2.181	1.988	717	4.0	4.0	4.0	4.0
718	0.731	1.612	1.902	2.052	1.816	718	4.0	4.0	4.0	4.0
719	0.774	1.623	1.923	2.031	1.816	719	4.0	4.0	4.0	4.0
720	0.613	1.558	1.891	2.063	1.805	720	4.0	4.0	4.0	4.0
721	0.731	1.558	1.719	1.848	1.676	721	4.0	4.0	4.0	4.0
722	0.741	1.633	1.988	2.160	1.859	722	4.0	4.0	4.0	4.0
723	0.677	1.236	1.429	1.451	1.429	723	4.0	4.0	4.0	4.0
724	0.698	1.537	1.741	1.816	1.709	724	4.0	4.0	4.0	4.0
725	0.666	1.580	1.741	1.902	1.676	725	4.0	4.0	4.0	4.0
727	0.763	1.623	1.891	2.020	1.902	727	4.0	4.0	4.0	4.0
Min	0.613	1.236	1.429	1.451	1.429	Min	4.0	4.0	4.0	4.0
Max	0.774	1.698	1.988	2.181	1.988	Max	4.0	4.0	4.0	4.0
Stdev	0.053	0.125	0.170	0.214	0.155	Stdev	0.0	0.0	0.0	0.0
Average	0.717	1.566	1.821	1.952	1.768	Average	4.0	4.0	4.0	4.0
+3S	0.875	1.941	2.331	2.594	2.232	+3S	4.0	4.0	4.0	4.0
-3S	0.559	1.191	1.312	1.311	1.303	-3S	4.0	4.0	4.0	4.0



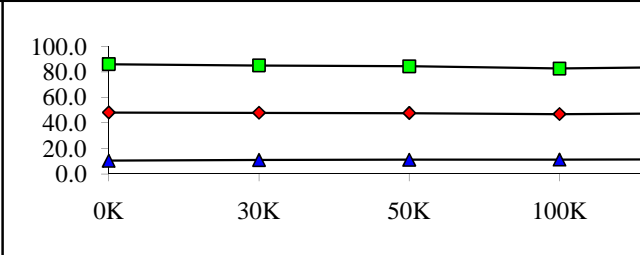
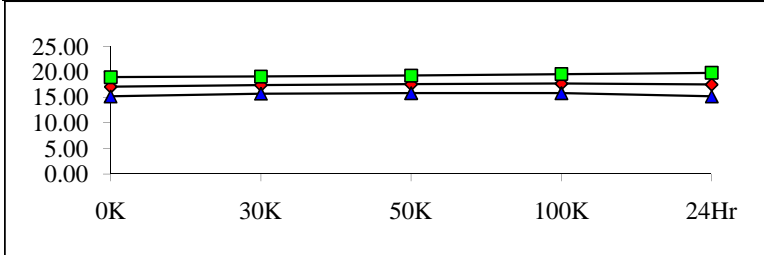
T#11	DELTA VTRIM-					%	T#12	VT			
SN	0K	30K	50K	100K	24Hr		SN	0K	30K	50K	100K
716	-4.0	-4.0	-4.0	-4.0	-4.0		716	0.556	0.550	0.549	0.550
717	-4.0	-4.0	-4.0	-4.0	-4.0		717	0.558	0.552	0.551	0.554
718	-4.0	-4.0	-4.0	-4.0	-4.0		718	0.558	0.554	0.553	0.556
719	-4.0	-4.0	-4.0	-4.0	-4.0		719	0.560	0.556	0.555	0.557
720	-4.0	-4.0	-4.0	-4.0	-4.0		720	0.558	0.553	0.553	0.555
721	-4.0	-4.0	-4.0	-4.0	-4.0		721	0.557	0.553	0.552	0.555
722	-4.0	-4.0	-4.0	-4.0	-4.0		722	0.560	0.555	0.554	0.557
723	-4.0	-4.0	-4.0	-4.0	-4.0		723	0.557	0.552	0.551	0.555
724	-4.0	-4.0	-4.0	-4.0	-4.0		724	0.557	0.552	0.551	0.555
725	-4.0	-4.0	-4.0	-4.0	-4.0		725	0.559	0.553	0.552	0.555
727	-4.0	-4.0	-4.0	-4.0	-4.0		727	0.562	0.555	0.554	0.556
Min	-4.0	-4.0	-4.0	-4.0	-4.0		Min	0.557	0.552	0.551	0.554
Max	-4.0	-4.0	-4.0	-4.0	-4.0		Max	0.562	0.556	0.555	0.557
Stdev	0.0	0.0	0.0	0.0	0.0		Stdev	0.001	0.002	0.001	0.001
Average	-4.0	-4.0	-4.0	-4.0	-4.0		Average	0.559	0.553	0.552	0.555
+3S	-4.0	-4.0	-4.0	-4.0	-4.0		+3S	0.563	0.558	0.556	0.558
-3S	-4.0	-4.0	-4.0	-4.0	-4.0		-3S	0.554	0.549	0.549	0.552



T#13	OSC. DETECT: 0=FAIL, 1=PASS					T#14	VO @ IL=0MA			
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K
716	1.00	1.00	1.00	1.00	1.00	716	2.5007	2.5007	2.5007	2.5007
717	1.00	1.00	1.00	1.00	1.00	717	2.4993	2.4968	2.4961	2.4946
718	1.00	1.00	1.00	1.00	1.00	718	2.5001	2.4980	2.4974	2.4961
719	1.00	1.00	1.00	1.00	1.00	719	2.5000	2.4979	2.4973	2.4959
720	1.00	1.00	1.00	1.00	1.00	720	2.5001	2.4975	2.4969	2.4955
721	1.00	1.00	1.00	1.00	1.00	721	2.5002	2.4979	2.4973	2.4957
722	1.00	1.00	1.00	1.00	1.00	722	2.5007	2.4982	2.4977	2.4962
723	1.00	1.00	1.00	1.00	1.00	723	2.5006	2.4980	2.4973	2.4959
724	1.00	1.00	1.00	1.00	1.00	724	2.5000	2.4978	2.4972	2.4959
725	1.00	1.00	1.00	1.00	1.00	725	2.4991	2.4967	2.4961	2.4945
727	1.00	1.00	1.00	1.00	1.00	727	2.5004	2.4980	2.4973	2.4958
Min	1.00	1.00	1.00	1.00	1.00	Min	2.4991	2.4967	2.4961	2.4945
Max	1.00	1.00	1.00	1.00	1.00	Max	2.5007	2.4982	2.4977	2.4962
Stdev	0.00	0.00	0.00	0.00	0.00	Stdev	0.0005	0.0005	0.0005	0.0006
Average	1.00	1.00	1.00	1.00	1.00	Average	2.5001	2.4977	2.4971	2.4956
+3S	1.00	1.00	1.00	1.00	1.00	+3S	2.5016	2.4993	2.4987	2.4973
-3S	1.00	1.00	1.00	1.00	1.00	-3S	2.4985	2.4961	2.4954	2.4939



T#15	[PPM/MA] LD REG. IL=0-10MA VIN=5V				PPM/mA	T#16	ISC @ VOUT=0V			
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K
716	15.98	16.02	16.17	16.02	16.21	716	56.5	57.3	57.3	57.3
717	16.48	16.82	16.67	17.24	16.98	717	55.7	55.3	54.9	53.8
718	16.17	16.52	16.94	16.56	16.29	718	29.8	29.9	29.9	29.6
719	17.24	17.74	17.78	17.97	17.97	719	56.3	55.8	55.5	54.5
720	17.17	17.66	17.66	17.81	18.01	720	55.3	55.2	54.5	53.4
721	16.86	17.36	17.62	17.66	17.05	721	57.1	56.7	56.5	55.6
722	17.62	18.08	18.04	18.62	18.16	722	56.8	56.1	55.7	54.7
723	17.97	18.01	18.04	18.31	18.20	723	56.2	56.1	55.9	55.0
724	16.56	17.01	17.17	17.28	16.90	724	30.0	30.2	30.2	29.8
725	16.78	17.01	17.20	17.36	16.94	725	30.2	30.4	30.4	30.0
727	17.97	17.97	18.54	18.27	18.62	727	55.0	54.6	54.5	53.5
Min	16.17	16.52	16.67	16.56	16.29	Min	29.8	29.9	29.9	29.6
Max	17.97	18.08	18.54	18.62	18.62	Max	57.1	56.7	56.5	55.6
Stdev	0.62	0.55	0.57	0.62	0.77	Stdev	12.6	12.3	12.2	11.9
Average	17.08	17.42	17.57	17.71	17.51	Average	48.2	48.0	47.8	47.0
+3S	18.95	19.08	19.28	19.56	19.81	+3S	86.0	85.1	84.4	82.6
-3S	15.21	15.76	15.85	15.86	15.22	-3S	10.4	11.0	11.2	11.3



uA
24Hr
349.8
337.3
340.6
339.7
336.8
348.5
340.0
341.5
346.8
339.2
337.5
336.8
348.5
3.9
340.8
352.6
329.0



24Hr

%
24Hr
4.0
4.0
4.0
4.0
4.0
4.0
4.0
4.0
4.0
4.0
4.0
4.0
4.0
0.0
4.0
4.0
4.0



24Hr

V
24Hr
0.549
0.548
0.549
0.551
0.549
0.548
0.551
0.548
0.548
0.548
0.549
0.552
0.548
0.552
0.002
0.549
0.554
0.545



24Hr

V
24Hr
2.5007
2.4954
2.4968
2.4966
2.4962
2.4965
2.4969
2.4966
2.4965
2.4953
2.4966
2.4953
2.4969
0.0006
2.4963
2.4980
2.4947



24Hr

mA
24Hr
57.4
54.7
30.1
55.5
54.5
56.6
55.6
56.0
30.4
30.6
54.2
30.1
56.6
12.1
47.8
84.0
11.6

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24Hr