



AHEAD OF WHAT'S POSSIBLE™

# HIGH DOSE RADIATION TEST REPORT OP77S

March 2004

Generic



Radiation Test Report	
Product:	OP77S
Gamma:	0, 30k, 50k, 100k, 24Hr
Gamma Source:	Co60/TM1019 Condition A
Dose Rate:	43.82 Rad/s
Facilities:	National Semiconductor
Tested:	March 4th, 2004

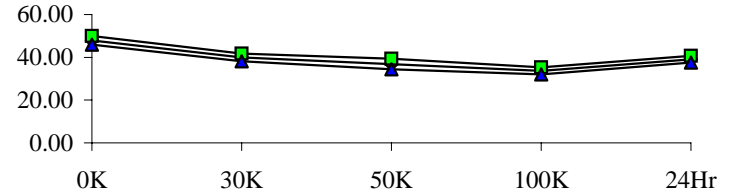
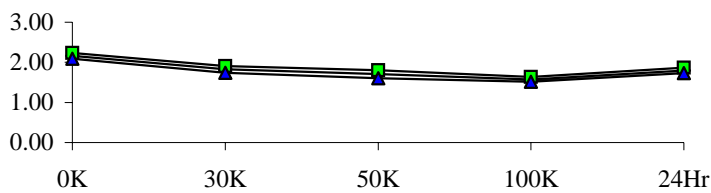
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It is the responsibility of the Procuring Activity to screen products from Analog Devices, Inc. for compliance to Nuclear Hardness Critical Items (HCI) specifications.

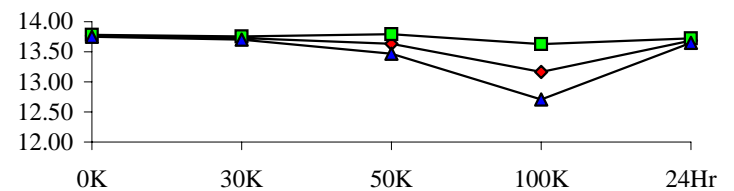
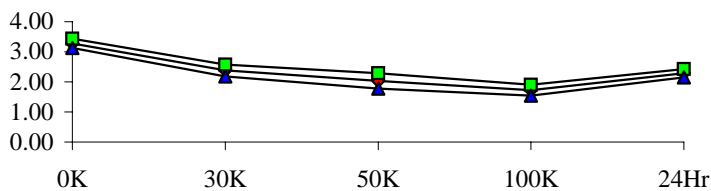
### Warning:

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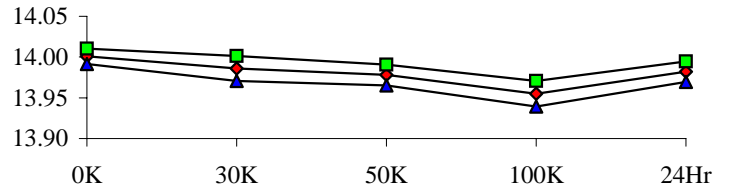
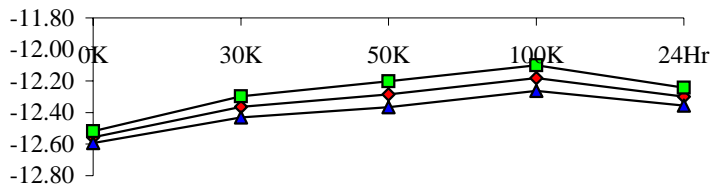
T# 1	ISY @ +22V					mA	T# 2	Pd					mW
	SN	0K	30K	50K	100K			24Hr	SN	0K	30K	50K	
923	2.18	2.17	2.16	2.16	2.17	923	48.65	48.39	48.49	48.56	48.37		
924	2.19	1.88	1.77	1.62	1.83	924	48.99	41.07	38.49	34.68	39.81		
925	2.18	1.85	1.73	1.59	1.82	925	48.65	40.63	37.56	34.17	39.88		
926	2.18	1.85	1.73	1.59	1.82	926	48.47	40.27	37.47	34.14	39.61		
927	2.15	1.80	1.67	1.55	1.78	927	47.69	39.46	35.96	32.90	38.54		
929	2.15	1.83	1.71	1.57	1.80	929	47.70	40.20	36.97	33.55	38.85		
930	2.11	1.82	1.72	1.57	1.76	930	46.67	40.23	37.19	33.75	38.37		
931	2.14	1.79	1.67	1.56	1.77	931	47.22	39.21	36.18	33.12	38.61		
932	2.17	1.82	1.70	1.57	1.79	932	48.08	39.82	36.52	33.33	39.18		
933	2.18	1.82	1.68	1.57	1.80	933	48.04	39.84	36.43	33.67	38.99		
934	2.17	1.80	1.67	1.56	1.79	934	47.84	39.29	35.98	33.23	38.99		
Min	2.11	1.79	1.67	1.55	1.76	Min	46.67	39.21	35.96	32.90	38.37		
Max	2.19	1.88	1.77	1.62	1.83	Max	48.99	41.07	38.49	34.68	39.88		
Stdev	0.02	0.03	0.03	0.02	0.02	Stdev	0.68	0.59	0.82	0.55	0.53		
Average	2.16	1.83	1.71	1.58	1.80	Average	47.94	40.00	36.88	33.65	39.08		
+3S	2.24	1.91	1.81	1.64	1.86	+3S	49.98	41.79	39.32	35.30	40.68		
-3S	2.09	1.74	1.60	1.51	1.73	-3S	45.89	38.22	34.43	32.01	37.49		



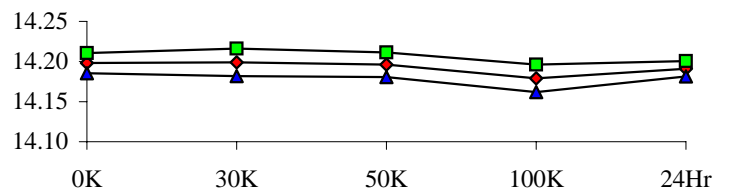
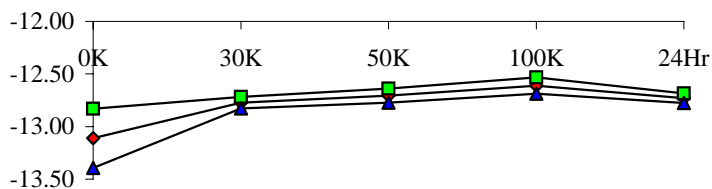
T# 3	Pd @ +3V					mW	T# 4	+VO @ 1K					V
	SN	0K	30K	50K	100K			24Hr	SN	0K	30K	50K	
923	3.28	3.27	3.27	3.27	3.27	923	13.77	13.77	13.77	13.77	13.78		
924	3.33	2.51	2.15	1.84	2.33	924	13.76	13.74	13.70	13.31	13.70		
925	3.36	2.42	2.08	1.76	2.33	925	13.77	13.73	13.67	13.14	13.69		
926	3.28	2.38	2.02	1.75	2.33	926	13.76	13.73	13.66	13.27	13.69		
927	3.28	2.36	1.97	1.69	2.32	927	13.77	13.73	13.60	13.04	13.69		
929	3.29	2.42	2.07	1.76	2.25	929	13.76	13.71	13.56	13.04	13.66		
930	3.20	2.41	2.18	1.76	2.25	930	13.76	13.74	13.70	13.40	13.70		
931	3.20	2.34	1.96	1.67	2.20	931	13.76	13.72	13.62	13.18	13.68		
932	3.28	2.38	1.97	1.66	2.28	932	13.77	13.73	13.58	12.95	13.68		
933	3.31	2.30	1.96	1.67	2.32	933	13.77	13.72	13.56	13.02	13.68		
934	3.26	2.28	1.96	1.67	2.26	934	13.76	13.73	13.66	13.32	13.70		
Min	3.20	2.28	1.96	1.66	2.20	Min	13.76	13.71	13.56	12.95	13.66		
Max	3.36	2.51	2.18	1.84	2.33	Max	13.77	13.74	13.70	13.40	13.70		
Stdev	0.05	0.07	0.08	0.06	0.05	Stdev	0.01	0.01	0.05	0.15	0.01		
Average	3.28	2.38	2.03	1.72	2.29	Average	13.76	13.73	13.63	13.17	13.69		
+3S	3.43	2.58	2.28	1.90	2.42	+3S	13.78	13.76	13.79	13.63	13.72		
-3S	3.13	2.18	1.78	1.54	2.15	-3S	13.75	13.70	13.47	12.71	13.65		



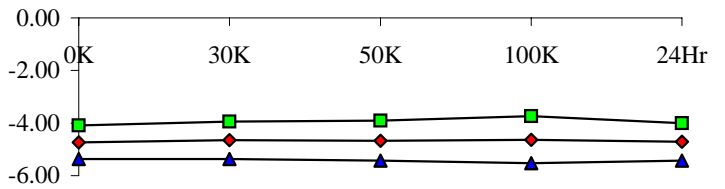
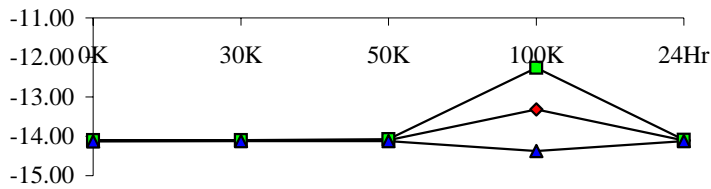
T# 5	-VO @ 1K				V	T# 6	+VO @ 2K				V
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K	24Hr
923	-12.58	-12.57	-12.57	-12.56	-12.57	923	14.01	14.00	14.00	14.00	14.01
924	-12.56	-12.38	-12.32	-12.21	-12.31	924	14.00	13.99	13.98	13.96	13.98
925	-12.57	-12.38	-12.31	-12.20	-12.32	925	14.00	13.99	13.98	13.95	13.98
926	-12.55	-12.36	-12.27	-12.17	-12.29	926	14.00	13.99	13.98	13.96	13.99
927	-12.56	-12.36	-12.28	-12.17	-12.30	927	14.00	13.99	13.98	13.95	13.98
929	-12.54	-12.34	-12.25	-12.14	-12.27	929	14.00	13.98	13.97	13.95	13.98
930	-12.57	-12.41	-12.33	-12.23	-12.33	930	14.00	13.98	13.98	13.96	13.98
931	-12.53	-12.33	-12.25	-12.15	-12.27	931	14.00	13.98	13.98	13.96	13.98
932	-12.56	-12.36	-12.28	-12.18	-12.30	932	14.00	13.99	13.98	13.95	13.98
933	-12.56	-12.36	-12.27	-12.18	-12.30	933	14.00	13.98	13.97	13.95	13.98
934	-12.56	-12.36	-12.28	-12.18	-12.30	934	14.01	13.99	13.98	13.96	13.99
Min	-12.57	-12.41	-12.33	-12.23	-12.33	Min	14.00	13.98	13.97	13.95	13.98
Max	-12.53	-12.33	-12.25	-12.14	-12.27	Max	14.01	13.99	13.98	13.96	13.99
Stdev	0.01	0.02	0.03	0.03	0.02	Stdev	0.00	0.01	0.00	0.01	0.00
Average	-12.56	-12.36	-12.28	-12.18	-12.30	Average	14.00	13.99	13.98	13.96	13.98
+3S	-12.52	-12.30	-12.20	-12.10	-12.24	+3S	14.01	14.00	13.99	13.97	13.99
-3S	-12.59	-12.43	-12.37	-12.26	-12.36	-3S	13.99	13.97	13.97	13.94	13.97



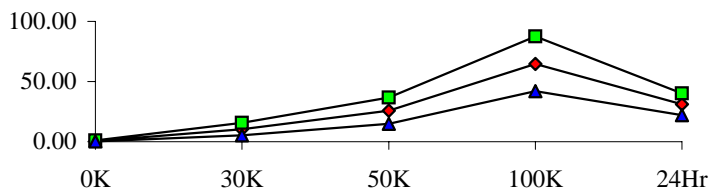
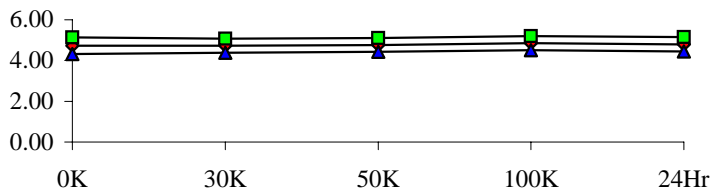
T# 7	-VO @ 2K				V	T# 8	+VO @ 10K				V
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K	24Hr
923	-13.17	-13.20	-13.20	-13.20	-13.16	923	14.20	14.20	14.20	14.19	14.20
924	-13.18	-12.79	-12.73	-12.64	-12.74	924	14.20	14.20	14.20	14.18	14.19
925	-13.26	-12.78	-12.72	-12.63	-12.74	925	14.19	14.19	14.19	14.18	14.19
926	-13.04	-12.77	-12.70	-12.60	-12.72	926	14.20	14.20	14.20	14.18	14.19
927	-13.07	-12.77	-12.70	-12.60	-12.73	927	14.20	14.20	14.20	14.18	14.19
929	-13.01	-12.75	-12.68	-12.58	-12.70	929	14.20	14.20	14.20	14.18	14.19
930	-13.18	-12.81	-12.75	-12.66	-12.75	930	14.20	14.20	14.20	14.18	14.19
931	-12.99	-12.75	-12.68	-12.58	-12.71	931	14.20	14.20	14.20	14.18	14.19
932	-13.22	-12.77	-12.70	-12.60	-12.73	932	14.19	14.20	14.19	14.17	14.19
933	-13.12	-12.76	-12.69	-12.60	-12.73	933	14.20	14.19	14.19	14.17	14.19
934	-13.05	-12.77	-12.70	-12.62	-12.74	934	14.20	14.21	14.19	14.19	14.20
Min	-13.26	-12.81	-12.75	-12.66	-12.75	Min	14.19	14.19	14.19	14.17	14.19
Max	-12.99	-12.75	-12.68	-12.58	-12.70	Max	14.20	14.21	14.20	14.19	14.20
Stdev	0.09	0.02	0.02	0.03	0.02	Stdev	0.00	0.01	0.01	0.01	0.00
Average	-13.11	-12.77	-12.71	-12.61	-12.73	Average	14.20	14.20	14.20	14.18	14.19
+3S	-12.83	-12.72	-12.64	-12.53	-12.68	+3S	14.21	14.22	14.21	14.20	14.20
-3S	-13.39	-12.83	-12.77	-12.69	-12.77	-3S	14.19	14.18	14.18	14.16	14.18



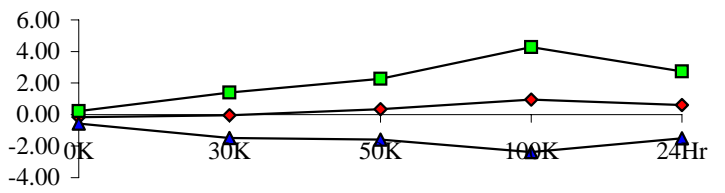
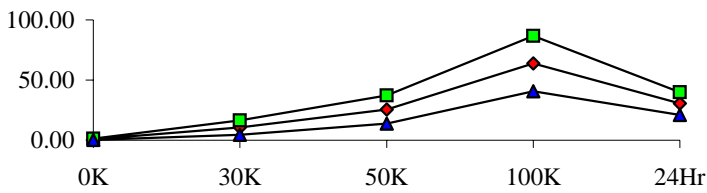
T# 9	-VO @ 10K				V	T# 10	NULL-				mV
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K	24Hr
923	-14.11	-14.11	-14.11	-14.10	-14.11	923	-4.89	-4.83	-4.83	-4.82	-4.89
924	-14.11	-14.11	-14.11	-13.90	-14.11	924	-4.86	-4.78	-4.79	-4.76	-4.83
925	-14.12	-14.11	-14.11	-13.23	-14.11	925	-4.81	-4.72	-4.71	-4.69	-4.78
926	-14.11	-14.11	-14.10	-13.17	-14.10	926	-4.44	-4.37	-4.37	-4.32	-4.41
927	-14.12	-14.11	-14.10	-13.14	-14.11	927	-4.86	-4.83	-4.89	-4.93	-4.89
929	-14.11	-14.11	-14.09	-13.11	-14.10	929	-4.86	-4.77	-4.79	-4.77	-4.84
930	-14.12	-14.11	-14.11	-14.06	-14.11	930	-4.88	-4.83	-4.84	-4.79	-4.88
931	-14.11	-14.11	-14.09	-13.11	-14.10	931	-4.39	-4.27	-4.26	-4.19	-4.33
932	-14.12	-14.12	-14.10	-13.15	-14.11	932	-4.88	-4.79	-4.81	-4.78	-4.87
933	-14.12	-14.11	-14.10	-13.17	-14.11	933	-4.45	-4.32	-4.30	-4.15	-4.39
934	-14.11	-14.11	-14.09	-13.15	-14.10	934	-4.89	-4.87	-4.92	-4.94	-4.93
Min	-14.12	-14.12	-14.11	-14.06	-14.11	Min	-4.89	-4.87	-4.92	-4.94	-4.93
Max	-14.11	-14.11	-14.09	-13.11	-14.10	Max	-4.39	-4.27	-4.26	-4.15	-4.33
Stdev	0.01	0.00	0.01	0.35	0.01	Stdev	0.21	0.24	0.25	0.30	0.24
Average	-14.12	-14.11	-14.10	-13.32	-14.11	Average	-4.73	-4.66	-4.67	-4.63	-4.72
+3S	-14.10	-14.10	-14.08	-12.26	-14.09	+3S	-4.10	-3.95	-3.90	-3.74	-4.00
-3S	-14.13	-14.12	-14.12	-14.38	-14.12	-3S	-5.37	-5.36	-5.43	-5.52	-5.43



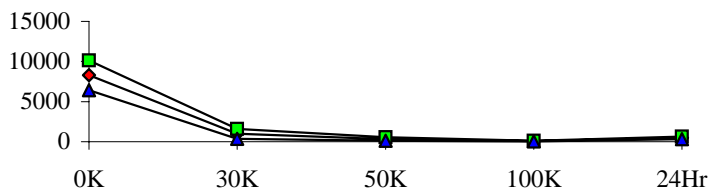
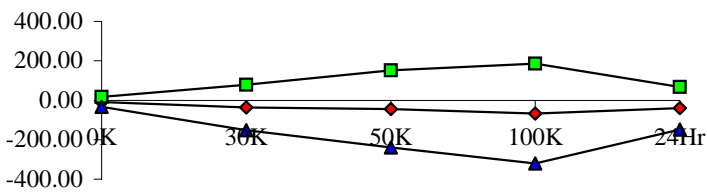
T# 11	NULL+				mV	T# 12	IB+				nA
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K	24Hr
923	4.92	4.84	4.84	4.83	4.90	923	0.41	0.42	0.45	0.44	0.42
924	4.83	4.83	4.87	4.97	4.89	924	0.62	9.16	22.47	58.14	28.78
925	4.82	4.82	4.87	4.95	4.89	925	0.31	11.33	28.18	69.39	32.67
926	4.54	4.54	4.58	4.67	4.60	926	0.57	10.38	25.78	65.08	30.85
927	4.82	4.76	4.76	4.81	4.83	927	0.51	11.82	28.46	71.08	33.22
929	4.87	4.86	4.90	4.98	4.93	929	0.75	10.98	27.48	69.52	32.99
930	4.83	4.81	4.83	4.93	4.88	930	0.52	7.59	19.68	53.13	26.87
931	4.51	4.56	4.62	4.75	4.61	931	0.49	9.89	24.89	62.06	30.07
932	4.75	4.76	4.81	4.89	4.83	932	0.58	12.68	30.12	73.06	34.73
933	4.58	4.65	4.72	4.88	4.71	933	0.67	12.57	29.94	72.10	34.34
934	4.77	4.69	4.67	4.69	4.76	934	0.36	8.35	21.54	53.57	26.41
Min	4.51	4.54	4.58	4.67	4.60	Min	0.31	7.59	19.68	53.13	26.41
Max	4.87	4.86	4.90	4.98	4.93	Max	0.75	12.68	30.12	73.06	34.73
Stdev	0.14	0.11	0.11	0.12	0.12	Stdev	0.13	1.73	3.63	7.59	2.99
Average	4.73	4.73	4.76	4.85	4.79	Average	0.54	10.48	25.85	64.71	31.09
+3S	5.14	5.07	5.10	5.20	5.15	+3S	0.94	15.67	36.76	87.48	40.07
-3S	4.33	4.39	4.43	4.51	4.44	-3S	0.14	5.28	14.95	41.94	22.12



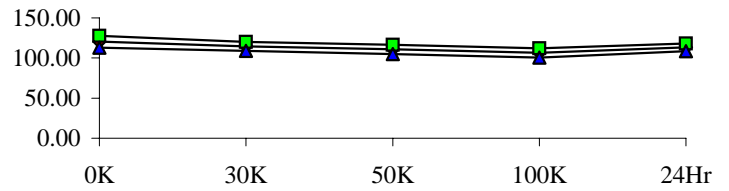
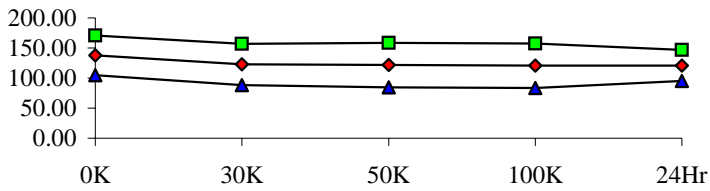
T# 13	IB-					nA	T# 14	IOS					nA
SN	0K	30K	50K	100K	24Hr		SN	0K	30K	50K	100K	24Hr	
923	0.64	0.65	0.64	0.67	0.64		923	-0.23	-0.23	-0.21	-0.22	-0.22	
924	0.81	9.39	22.58	57.74	28.85		924	-0.18	-0.26	-0.10	0.46	-0.10	
925	0.64	10.89	26.74	67.04	31.36		925	-0.26	0.37	1.47	2.32	1.28	
926	0.71	10.57	25.82	65.84	31.22		926	-0.14	-0.12	-0.11	-0.66	-0.42	
927	0.75	11.90	28.35	70.21	33.00		927	-0.23	-0.12	0.20	0.92	0.26	
929	0.77	10.29	26.56	66.90	31.13		929	-0.01	0.59	0.89	2.66	1.84	
930	0.78	7.21	18.98	51.81	25.97		930	-0.25	0.47	0.71	1.36	0.84	
931	0.44	10.41	24.69	62.06	29.48		931	0.05	-0.56	0.18	-0.03	0.59	
932	1.01	13.61	30.83	73.44	34.82		932	-0.42	-0.94	-0.64	-0.39	-0.09	
933	0.83	12.71	30.13	70.87	33.55		933	-0.15	-0.19	-0.17	1.25	0.81	
934	0.52	8.12	20.54	52.03	25.27		934	-0.16	0.26	0.93	1.59	1.10	
Min	0.44	7.21	18.98	51.81	25.27		Min	-0.42	-0.94	-0.64	-0.66	-0.42	
Max	1.01	13.61	30.83	73.44	34.82		Max	0.05	0.59	1.47	2.66	1.84	
Stdev	0.16	1.96	3.90	7.68	3.12		Stdev	0.13	0.48	0.64	1.11	0.70	
Average	0.73	10.51	25.52	63.79	30.47		Average	-0.18	-0.05	0.34	0.95	0.61	
+3S	1.21	16.38	37.23	86.82	39.82		+3S	0.22	1.39	2.27	4.27	2.73	
-3S	0.24	4.64	13.82	40.77	21.11		-3S	-0.57	-1.49	-1.59	-2.38	-1.50	



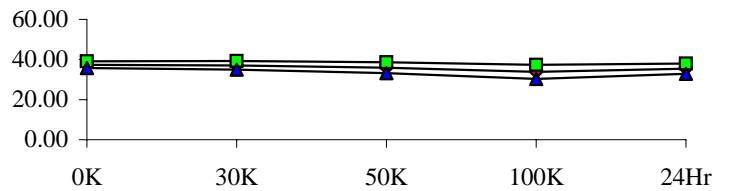
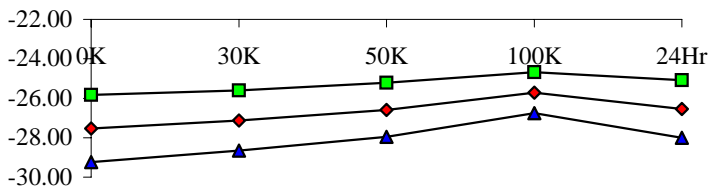
T# 15	VOS					uV	T# 16	AVO RI=2K VO=+/-10V					V/mV
SN	0K	30K	50K	100K	24Hr		SN	0K	30K	50K	100K	24Hr	
923	-7.30	-7.15	-7.29	-7.34	-7.68		923	8946	9013	9212	8331	8904	
924	-17.40	-47.95	-60.67	-110.97	-54.10		924	7683	1184	440	106	544	
925	-15.96	-48.87	-75.96	-122.40	-57.06		925	9187	1198	386	88	555	
926	9.32	-22.77	-35.02	-97.35	-29.55		926	8309	985	345	91	520	
927	-4.38	10.01	47.23	48.82	4.45		927	7976	667	225	66	392	
929	-15.08	-38.34	-49.03	-83.77	-44.12		929	8719	883	298	82	452	
930	-10.75	-19.75	-23.79	-82.49	-29.62		930	7878	1270	449	120	526	
931	-3.75	-72.21	-109.13	-197.23	-73.68		931	8773	960	338	90	490	
932	-0.62	-40.04	-50.38	-105.01	-44.82		932	7359	815	265	71	438	
933	-14.92	-107.89	-152.77	-0.03	-99.90		933	7930	1131	296	99	523	
934	-8.57	26.61	65.45	79.63	24.44		934	9046	765	276	96	466	
Min	-17.40	-107.89	-152.77	-197.23	-99.90		Min	7359	667	225	66	392	
Max	9.32	26.61	65.45	79.63	24.44		Max	9187	1270	449	120	555	
Stdev	8.45	38.42	65.17	84.49	35.90		Stdev	617	205	75	16	52	
Average	-8.21	-36.12	-44.41	-67.08	-40.40		Average	8286	986	332	91	491	
+3S	17.14	79.14	151.11	186.39	67.29		+3S	10136	1600	555	138	648	
-3S	-33.56	-151.38	-239.93	-320.55	-148.08		-3S	6436	372	108	44	333	



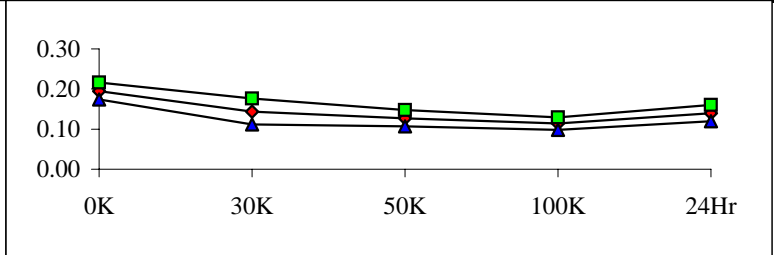
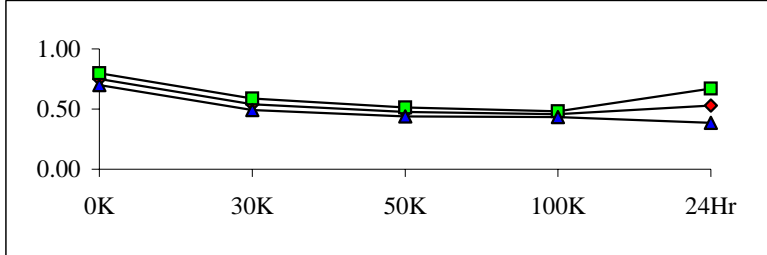
T# 17	CMRR VCM=+13V				dB	T# 18	PSRR @ +3V TO +-18V				dB
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K	24Hr
923	144.92	147.76	145.31	148.08	146.65	923	119.37	119.40	120.24	119.70	119.41
924	151.12	126.08	123.70	121.98	123.29	924	122.20	116.66	112.80	107.68	115.15
925	134.65	120.19	118.54	123.22	119.11	925	118.92	112.91	109.51	104.43	111.60
926	158.39	130.10	133.71	146.64	126.42	926	119.40	112.88	109.43	105.22	112.08
927	127.80	113.67	109.40	105.76	114.57	927	119.47	113.85	109.90	105.47	113.25
929	143.77	148.15	140.63	124.08	137.25	929	120.38	115.30	111.37	106.57	113.09
930	131.45	123.83	125.62	128.26	127.34	930	118.38	116.01	114.25	110.80	115.54
931	135.11	115.20	111.96	110.09	114.26	931	123.72	117.74	112.91	106.69	115.27
932	143.85	128.30	136.35	123.43	125.12	932	119.59	113.34	109.14	104.19	112.43
933	126.66	109.76	108.24	116.62	109.66	933	124.40	114.23	108.99	106.17	112.69
934	126.33	111.44	108.05	105.14	111.57	934	116.43	112.03	109.34	106.59	111.13
Min	126.33	109.76	108.05	105.14	109.66	Min	116.43	112.03	108.99	104.19	111.13
Max	158.39	148.15	140.63	146.64	137.25	Max	124.40	117.74	114.25	110.80	115.54
Stdev	10.99	11.47	12.29	12.25	8.59	Stdev	2.47	1.86	1.92	1.89	1.58
Average	137.91	122.67	121.62	120.52	120.86	Average	120.29	114.50	110.76	106.38	113.22
+3S	170.88	157.09	158.50	157.28	146.62	+3S	127.68	120.08	116.52	112.06	117.97
-3S	104.95	88.25	84.74	83.76	95.10	-3S	112.89	108.91	105.00	100.70	108.48



T# 19	ISC-				mA	T# 20	ISC+				mA
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K	24Hr
923	-27.26	-27.62	-27.70	-27.78	-27.30	923	37.14	37.79	37.87	37.99	37.26
924	-27.50	-27.09	-26.65	-25.80	-26.57	924	37.42	37.42	36.61	34.71	36.09
925	-28.03	-27.70	-27.18	-26.08	-27.05	925	37.99	38.07	37.26	35.03	36.57
926	-27.34	-26.97	-26.45	-25.60	-26.45	926	37.30	36.61	35.28	32.85	34.91
927	-27.99	-27.46	-26.89	-25.88	-26.89	927	37.71	37.30	36.00	33.78	35.72
929	-27.58	-27.18	-26.65	-25.68	-26.57	929	37.62	36.57	34.99	32.52	34.59
930	-26.69	-26.45	-26.00	-25.23	-25.80	930	36.33	36.73	36.17	34.83	35.64
931	-27.01	-26.57	-26.08	-25.27	-26.04	931	36.90	35.88	34.38	32.00	34.06
932	-28.39	-27.86	-27.18	-26.08	-27.26	932	38.03	37.87	36.73	34.79	36.33
933	-27.95	-27.50	-26.81	-26.16	-26.85	933	37.79	37.62	36.41	34.91	36.09
934	-26.81	-26.49	-25.96	-25.35	-25.96	934	36.86	36.37	35.11	33.01	34.71
Min	-28.39	-27.86	-27.18	-26.16	-27.26	Min	36.33	35.88	34.38	32.00	34.06
Max	-26.69	-26.45	-25.96	-25.23	-25.80	Max	38.03	38.07	37.26	35.03	36.57
Stdev	0.57	0.51	0.46	0.35	0.49	Stdev	0.55	0.71	0.91	1.15	0.85
Average	-27.53	-27.13	-26.59	-25.71	-26.54	Average	37.40	37.04	35.89	33.84	35.47
+3S	-25.82	-25.60	-25.22	-24.67	-25.08	+3S	39.05	39.19	38.64	37.31	38.01
-3S	-29.24	-28.65	-27.95	-26.75	-28.01	-3S	35.740	34.901	33.150	30.379	32.929



T# 21	BANDWIDTH (UGBW)				MHz	T# 22	SR+				V/uS
SN	0K	30K	50K	100K	24Hr	SN	0K	30K	50K	100K	24Hr
923	0.74	0.74	0.75	0.75	0.74	923	0.19	0.19	0.18	0.18	0.19
924	0.75	0.55	0.49	0.47	0.52	924	0.19	0.15	0.13	0.11	0.14
925	0.77	0.56	0.49	0.46	0.53	925	0.20	0.14	0.13	0.12	0.15
926	0.78	0.55	0.49	0.47	0.66	926	0.20	0.15	0.14	0.12	0.15
927	0.74	0.52	0.47	0.45	0.50	927	0.19	0.14	0.12	0.12	0.14
929	0.74	0.54	0.47	0.46	0.52	929	0.19	0.14	0.13	0.11	0.13
930	0.73	0.56	0.49	0.46	0.51	930	0.19	0.14	0.13	0.11	0.14
931	0.73	0.52	0.46	0.46	0.50	931	0.19	0.14	0.12	0.11	0.14
932	0.76	0.54	0.47	0.45	0.52	932	0.19	0.14	0.13	0.11	0.14
933	0.75	0.52	0.47	0.45	0.51	933	0.20	0.13	0.12	0.12	0.13
934	0.74	0.53	0.46	0.45	0.51	934	0.21	0.17	0.12	0.11	0.14
Min	0.73	0.52	0.46	0.45	0.50	Min	0.19	0.13	0.12	0.11	0.13
Max	0.78	0.56	0.49	0.47	0.66	Max	0.21	0.17	0.14	0.12	0.15
Stdev	0.02	0.02	0.01	0.01	0.05	Stdev	0.01	0.01	0.01	0.01	0.01
Average	0.75	0.54	0.48	0.46	0.53	Average	0.20	0.14	0.13	0.11	0.14
+3S	0.80	0.59	0.51	0.48	0.67	+3S	0.22	0.18	0.15	0.13	0.16
-3S	0.70	0.49	0.44	0.43	0.39	-3S	0.17	0.11	0.11	0.10	0.12



T# 23	SR-				V/uS
SN	0K	30K	50K	100K	24Hr
923	0.18	0.18	0.18	0.18	0.17
924	0.18	0.13	0.10	0.09	0.11
925	0.18	0.12	0.10	0.09	0.12
926	0.19	0.13	0.10	0.09	0.12
927	0.18	0.11	0.10	0.09	0.11
929	0.18	0.12	0.10	0.09	0.11
930	0.17	0.13	0.11	0.09	0.11
931	0.18	0.12	0.10	0.09	0.11
932	0.18	0.12	0.10	0.09	0.11
933	0.19	0.12	0.09	0.09	0.11
934	0.19	0.12	0.10	0.09	0.11
Min	0.17	0.11	0.09	0.09	0.11
Max	0.19	0.13	0.11	0.09	0.12
Stdev	0.01	0.01	0.00	0.00	0.00
Average	0.18	0.12	0.10	0.09	0.11
+3S	0.20	0.14	0.11	0.09	0.12
-3S	0.16	0.10	0.09	0.09	0.10

