

RADIATION TEST REPORT

PRODUCT: AD8561AQQMLR

MASK:

FILE:

DATE CODE:

GAMMA: 0, 100K

GAMMA SOURCE: Co60

DOSE RATE: 48.05 rad/sec

FACILITIES: National Semiconductor
Sunnyvale, Ca.

TESTED: June 23,2003

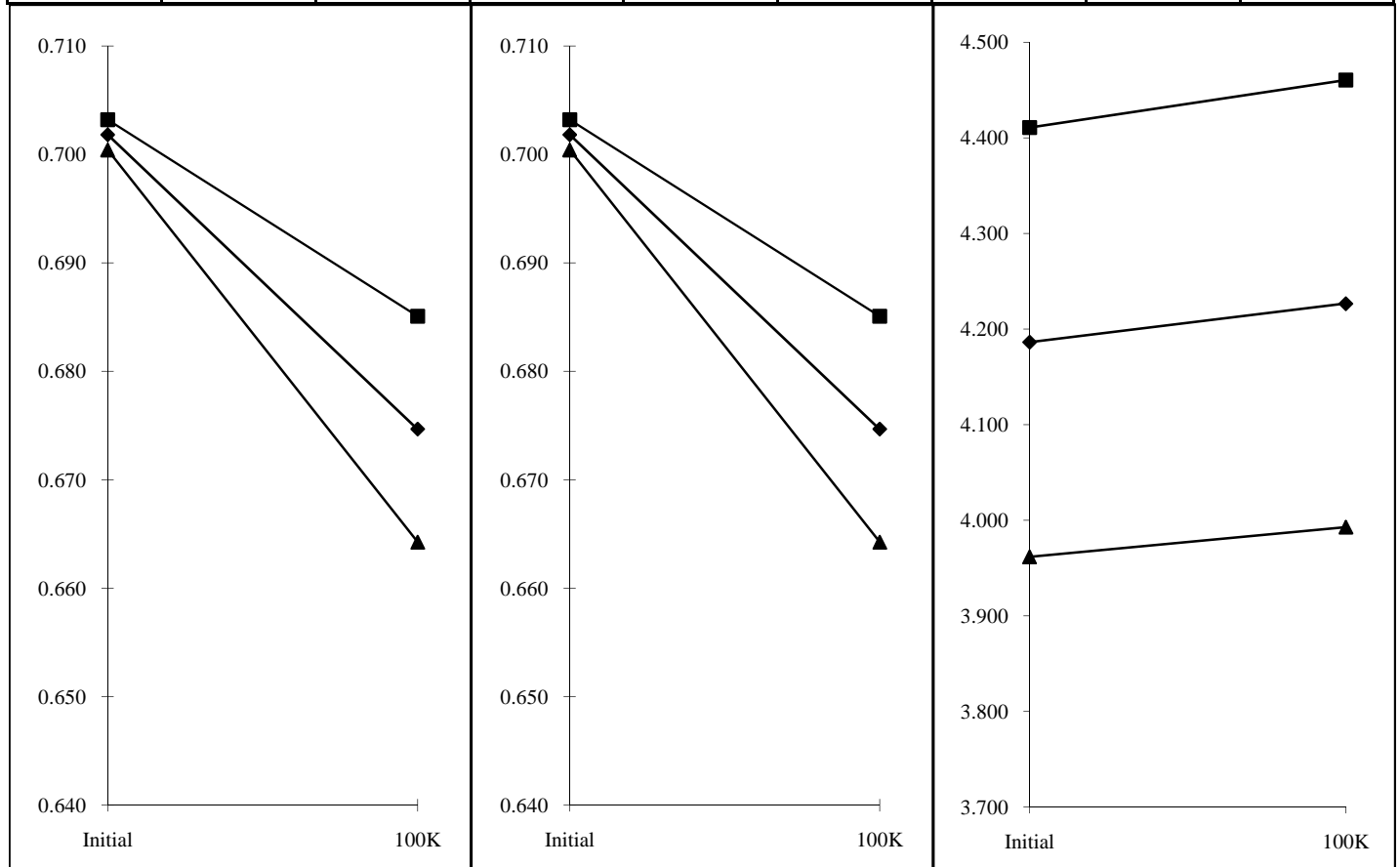
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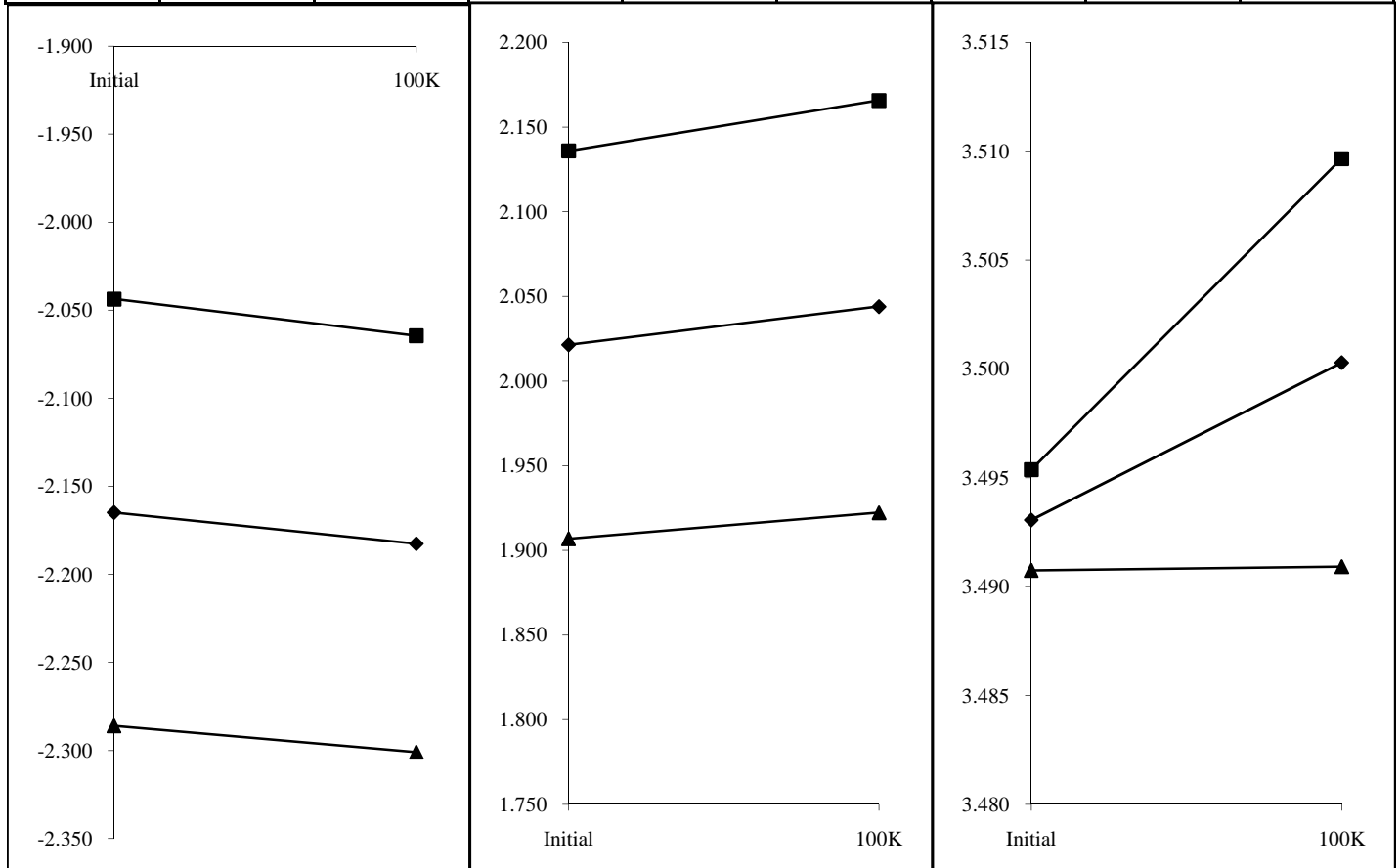
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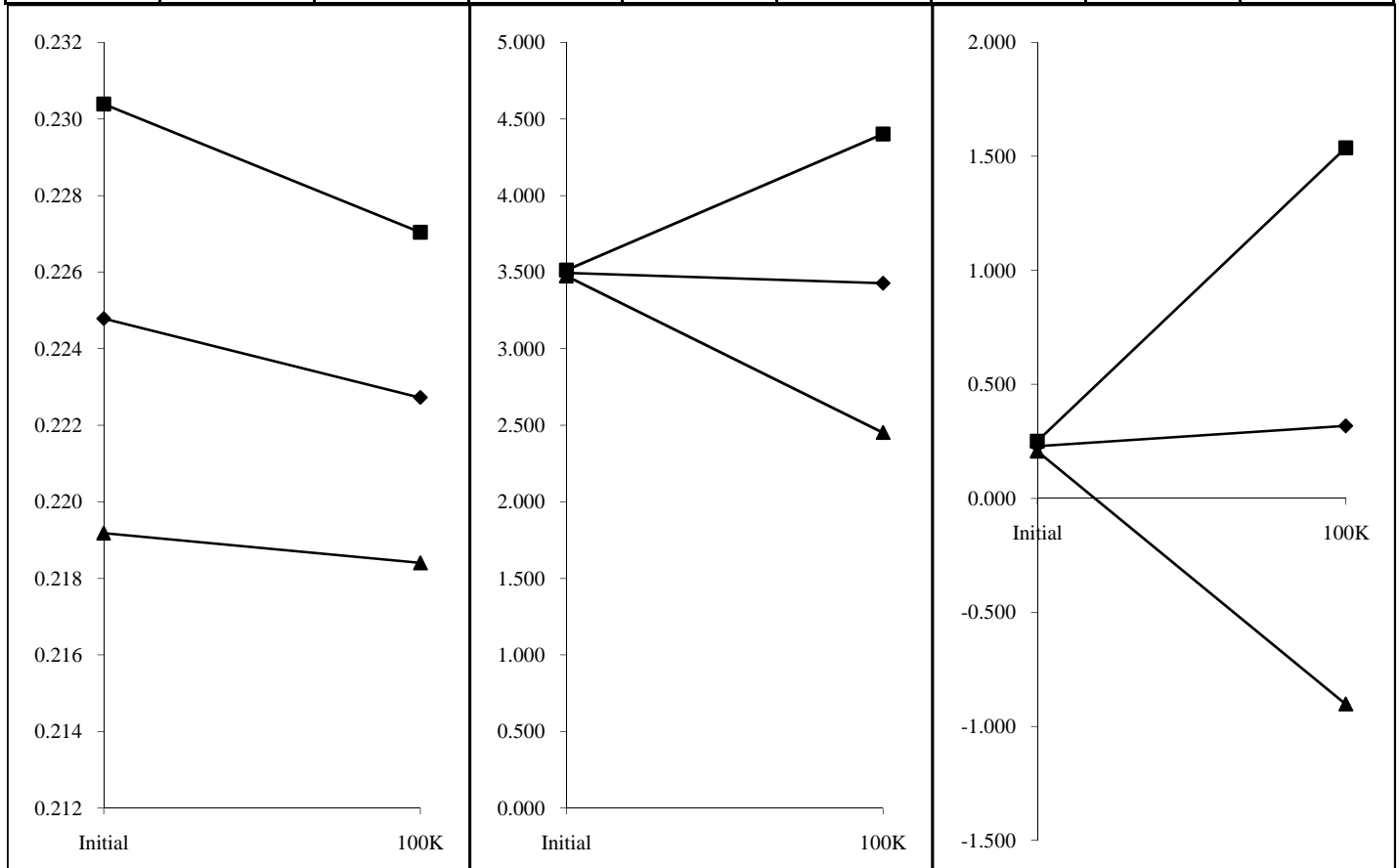
T# 1.0	Cont. Opens	V	T# 2.0	Cont. Shorts	V	T# 3.0	+V_A Isy	mA
SN	Initial	100K	SN	Initial	100K	SN	Initial	100K
1	0.702	0.702	1	0.702	0.702	1	4.268	4.269
2	0.702	0.671	2	0.702	0.671	2	4.305	4.342
3	0.703	0.669	3	0.703	0.669	3	4.305	4.378
4	0.703	0.673	4	0.703	0.673	4	4.268	4.305
5	0.702	0.672	5	0.702	0.672	5	4.305	4.342
46	0.702	0.678	46	0.702	0.678	46	4.122	4.123
27	0.702	0.671	27	0.702	0.671	27	4.122	4.196
28	0.701	0.674	28	0.701	0.674	28	4.122	4.159
29	0.702	0.675	29	0.702	0.675	29	4.122	4.196
50	0.701	0.682	50	0.701	0.682	50	4.232	4.269
51	0.703	0.680	51	0.703	0.680	51	4.195	4.232
52	0.701	0.678	52	0.701	0.678	52	4.232	4.269
53	0.703	0.675	53	0.703	0.675	53	4.195	4.232
75	0.701	0.676	75	0.701	0.676	75	4.086	4.123
76	0.702	0.674	76	0.702	0.674	76	4.086	4.123
77	0.701	0.670	77	0.701	0.670	77	4.086	4.159
78	0.702	0.676	78	0.702	0.676	78	4.122	4.123
100	0.701	0.673	100	0.701	0.673	100	4.232	4.269
101	0.702	0.672	101	0.702	0.672	101	4.195	4.232
102	0.701	0.677	102	0.701	0.677	102	4.195	4.232
103	0.702	0.678	103	0.702	0.678	103	4.195	4.232
min	0.701	0.669	min	0.701	0.669	min	4.086	4.123
max	0.703	0.682	max	0.703	0.682	max	4.305	4.378
stdev	0.000	0.003	stdev	0.000	0.003	stdev	0.075	0.078
average	0.702	0.675	average	0.702	0.675	average	4.186	4.227
+3S	0.703	0.685	+3S	0.703	0.685	+3S	4.411	4.461
-3S	0.700	0.664	-3S	0.700	0.664	-3S	3.962	3.993



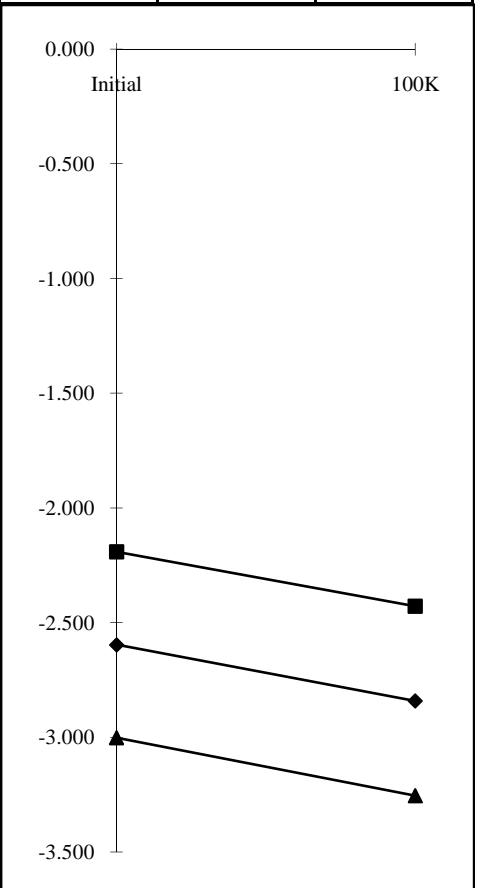
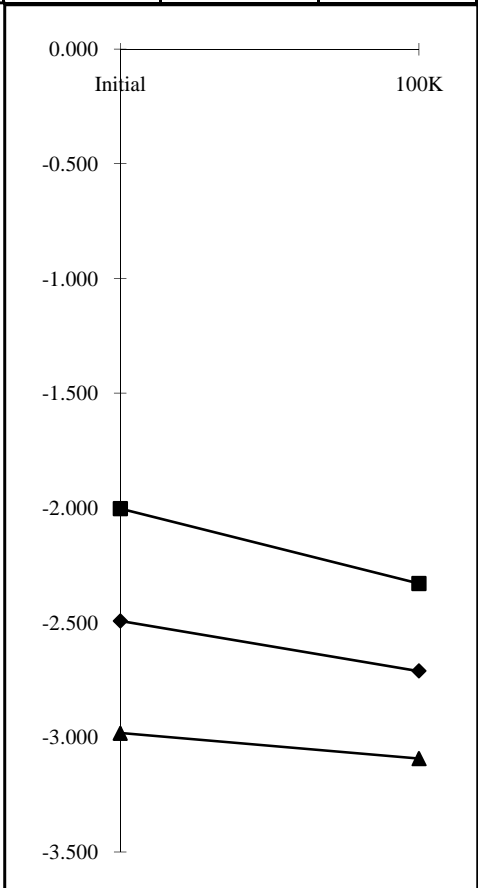
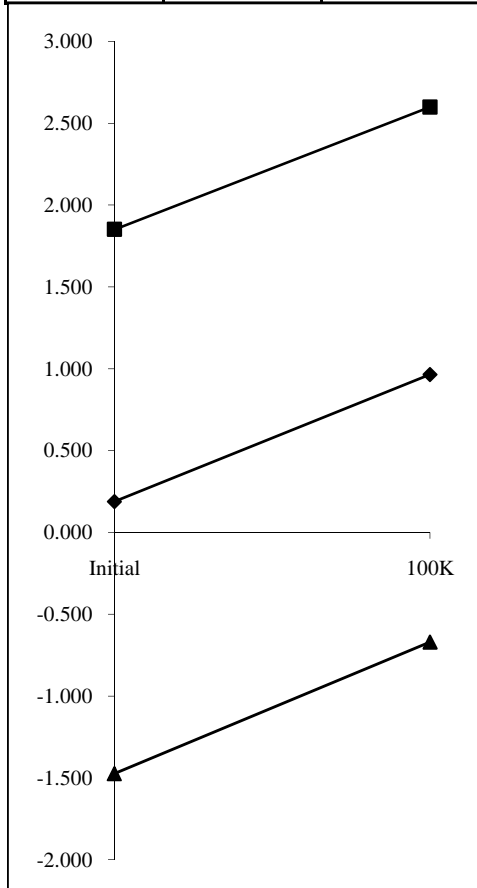
T# 4.0	-V_A Isy	mA	T# 5.0	GND I:	mA	T# 6.0	VOH(Q)	V
SN	Initial	100K	SN	Initial	100K	SN	Initial	100K
1	-2.202	-2.227	1	2.066	2.041	1	3.493	3.494
2	-2.234	-2.243	2	2.071	2.099	2	3.493	3.499
3	-2.218	-2.243	3	2.087	2.135	3	3.492	3.498
4	-2.202	-2.212	4	2.066	2.094	4	3.493	3.498
5	-2.218	-2.259	5	2.087	2.083	5	3.492	3.500
46	-2.124	-2.133	46	1.998	1.989	46	3.492	3.495
27	-2.140	-2.165	27	1.982	2.031	27	3.494	3.503
28	-2.124	-2.149	28	1.998	2.010	28	3.493	3.502
29	-2.155	-2.180	29	1.967	2.015	29	3.492	3.502
50	-2.202	-2.196	50	2.029	2.073	50	3.493	3.495
51	-2.171	-2.180	51	2.024	2.052	51	3.491	3.499
52	-2.187	-2.196	52	2.045	2.073	52	3.493	3.502
53	-2.171	-2.180	53	2.024	2.052	53	3.492	3.501
75	-2.109	-2.118	75	1.977	2.005	75	3.493	3.498
76	-2.109	-2.133	76	1.977	1.989	76	3.493	3.503
77	-2.124	-2.149	77	1.962	2.010	77	3.494	3.509
78	-2.109	-2.133	78	2.014	1.989	78	3.493	3.500
100	-2.202	-2.212	100	2.029	2.057	100	3.494	3.499
101	-2.155	-2.180	101	2.040	2.052	101	3.493	3.501
102	-2.187	-2.196	102	2.009	2.036	102	3.495	3.502
103	-2.155	-2.196	103	2.040	2.036	103	3.494	3.500
min	-2.234	-2.259	min	1.962	1.989	min	3.491	3.495
max	-2.109	-2.118	max	2.087	2.135	max	3.495	3.509
stdev	0.040	0.039	stdev	0.038	0.041	stdev	0.001	0.003
average	-2.165	-2.183	average	2.021	2.044	average	3.493	3.500
+3S	-2.044	-2.064	+3S	2.136	2.166	+3S	3.495	3.510
-3S	-2.286	-2.301	-3S	1.907	1.922	-3S	3.491	3.491



T# 7.0	VOL(Q)	V	T# 8.0	VOH(QB)	V	T# 9.0	VOL(QB)	V
SN	Initial	100K	SN	Initial	100K	SN	Initial	100K
1	0.225	0.225	1	3.496	3.498	1	0.226	0.225
2	0.224	0.221	2	3.498	3.501	2	0.225	0.223
3	0.228	0.222	3	3.496	3.498	3	0.229	0.226
4	0.226	0.225	4	3.495	3.498	4	0.227	0.228
5	0.224	0.221	5	3.497	3.500	5	0.225	0.223
46	0.227	0.223	46	3.497	3.495	46	0.227	0.226
27	0.225	0.223	27	3.498	3.504	27	0.226	0.225
28	0.225	0.224	28	3.498	3.483	28	0.225	0.252
29	0.226	0.224	29	3.495	2.046	29	0.228	2.046
50	0.225	0.224	50	3.497	3.497	50	0.227	0.226
51	0.224	0.222	51	3.470	3.501	51	0.255	0.224
52	0.225	0.224	52	3.486	3.495	52	0.240	0.236
53	0.224	0.222	53	3.490	3.501	53	0.232	0.224
75	0.227	0.225	75	3.498	3.500	75	0.227	0.226
76	0.227	0.224	76	3.497	3.504	76	0.227	0.226
77	0.226	0.223	77	3.498	3.511	77	0.228	0.224
78	0.226	0.224	78	3.497	3.500	78	0.226	0.227
100	0.223	0.222	100	3.496	3.498	100	0.226	0.227
101	0.221	0.219	101	3.496	3.502	101	0.224	0.222
102	0.221	0.221	102	3.497	3.502	102	0.222	0.222
103	0.224	0.222	103	3.497	3.501	103	0.224	0.224
min	0.221	0.219	min	3.470	2.046	min	0.222	0.222
max	0.228	0.225	max	3.498	3.511	max	0.255	2.046
stdev	0.002	0.001	stdev	0.006	0.325	stdev	0.007	0.407
average	0.225	0.223	average	3.495	3.427	average	0.228	0.318
+3S	0.230	0.227	+3S	3.514	4.402	+3S	0.250	1.538
-3S	0.219	0.218	-3S	3.475	2.452	-3S	0.207	-0.903



T# 10.0	VOS V	mV	T# 11.0	IB+ +/-5V	uA	T# 12.0	IB- +/-5V	uA
SN	Initial	100K	SN	Initial	100K	SN	Initial	100K
1	0.346	0.322	1	-2.268	-2.261	1	-2.462	-2.415
2	-0.295	0.563	2	-2.494	-2.714	2	-2.596	-2.802
3	-0.689	0.135	3	-2.468	-2.688	3	-2.529	-2.802
4	0.059	0.880	4	-2.241	-2.581	4	-2.449	-2.736
5	0.373	1.205	5	-2.468	-2.714	5	-2.569	-2.802
46	-0.477	0.350	46	-2.468	-2.728	46	-2.529	-2.829
27	0.221	1.001	27	-2.228	-2.541	27	-2.395	-2.669
28	0.002	0.752	28	-2.601	-2.861	28	-2.742	-3.016
29	0.938	1.404	29	-2.561	-2.781	29	-2.662	-2.936
50	0.865	1.509	50	-2.468	-2.581	50	-2.529	-2.776
51	0.188	0.989	51	-2.561	-2.714	51	-2.649	-2.816
52	-0.150	0.554	52	-2.468	-2.594	52	-2.529	-2.749
53	1.310	2.178	53	-2.534	-2.714	53	-2.662	-2.869
75	0.187	1.022	75	-2.334	-2.594	75	-2.489	-2.709
76	-0.412	0.248	76	-2.321	-2.594	76	-2.489	-2.682
77	-0.097	0.684	77	-2.241	-2.541	77	-2.395	-2.642
78	0.086	0.857	78	-2.468	-2.701	78	-2.529	-2.802
100	0.722	1.558	100	-2.735	-2.874	100	-2.796	-3.069
101	-0.047	0.783	101	-2.735	-2.968	101	-2.809	-3.069
102	-0.187	0.624	102	-2.735	-2.888	102	-2.796	-3.069
103	1.177	1.995	103	-2.721	-2.861	103	-2.796	-2.989
min	-0.689	0.135	min	-2.735	-2.968	min	-2.809	-3.069
max	1.310	2.178	max	-2.228	-2.541	max	-2.395	-2.642
stdev	0.554	0.545	stdev	0.163	0.127	stdev	0.135	0.138
average	0.189	0.965	average	-2.492	-2.712	average	-2.597	-2.842
+3S	1.851	2.599	+3S	-2.003	-2.330	+3S	-2.192	-2.428
-3S	-1.474	-0.670	-3S	-2.982	-3.093	-3S	-3.002	-3.255



T# 13.0	IOS +/-5V	uA
SN	Initial	100K
1	-0.194	-0.155
2	-0.101	-0.088
3	-0.061	-0.115
4	-0.208	-0.155
5	-0.101	-0.088
46	-0.061	-0.102
27	-0.168	-0.128
28	-0.141	-0.155
29	-0.101	-0.155
50	-0.061	-0.195
51	-0.088	-0.102
52	-0.061	-0.155
53	-0.128	-0.155
75	-0.154	-0.115
76	-0.168	-0.088
77	-0.154	-0.102
78	-0.061	-0.102
100	-0.061	-0.195
101	-0.074	-0.102
102	-0.061	-0.182
103	-0.074	-0.128
min	-0.208	-0.195
max	-0.061	-0.088
stdev	0.046	0.036
average	-0.104	-0.130
+3S	0.035	-0.024
-3S	-0.243	-0.237

