

## RADIATION TEST REPORT

PRODUCT:	REF01AL/QMLL
GAMMA:	0, 50k, 75k, 100k/TM1019 Condition D
GAMMA SOURCE:	Co60
DOSE RATE:	7.3 mRad/s
FACILITIES:	University of Massachusetts @ Lowell
TESTED:	2010

The RADTEST<sup>SM</sup> DATA SERVICE is a compilation of radiation test results on Analog Devices' Space grade products. It is designed to assist customers in selecting the right product for applications where radiation is a consideration. Many products manufactured by Analog Devices, Inc. have been shown to be radiation tolerant to most tactical radiation environments. Analog Devices, Inc. does not make any claim to maintain or guarantee these levels of radiation tolerance without lot qualification test.

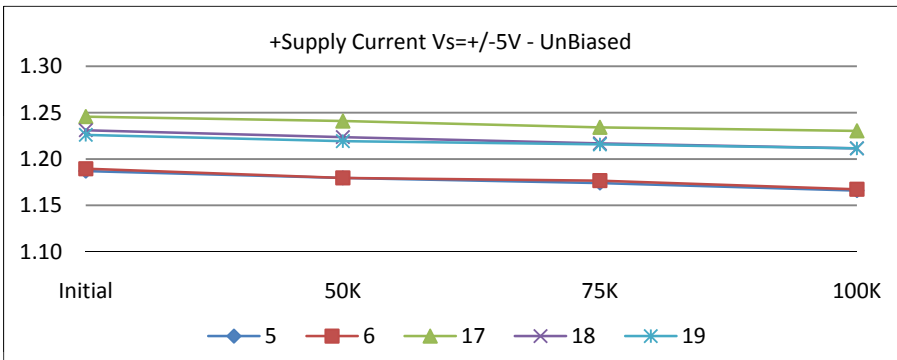
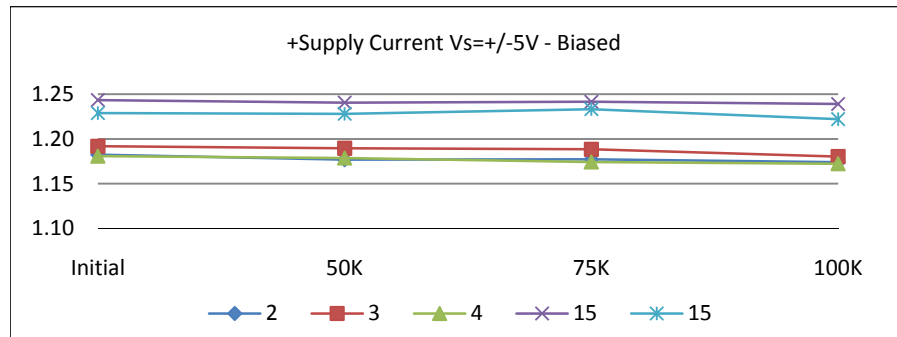
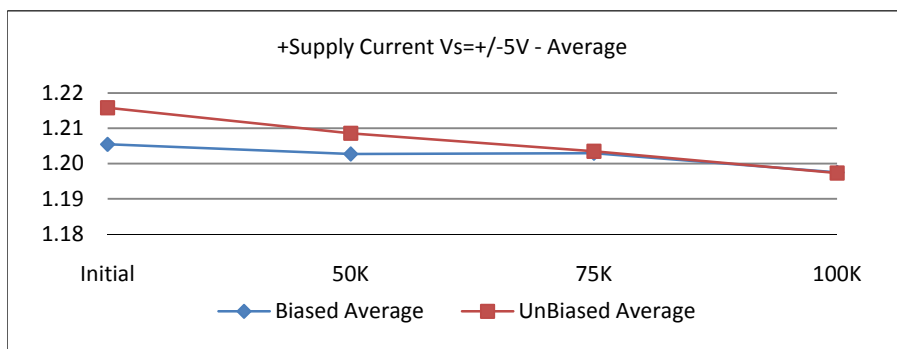
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### WARNING:

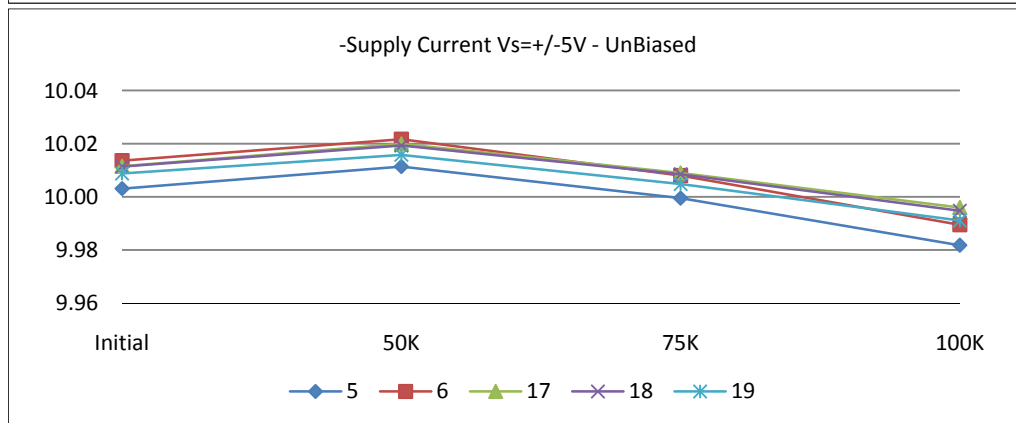
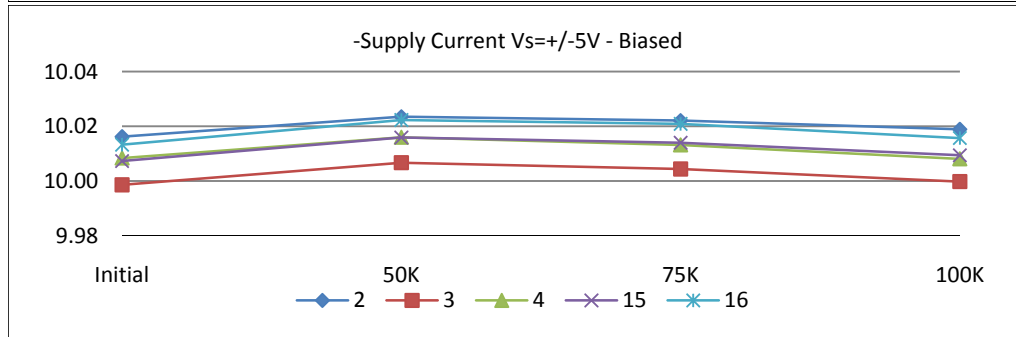
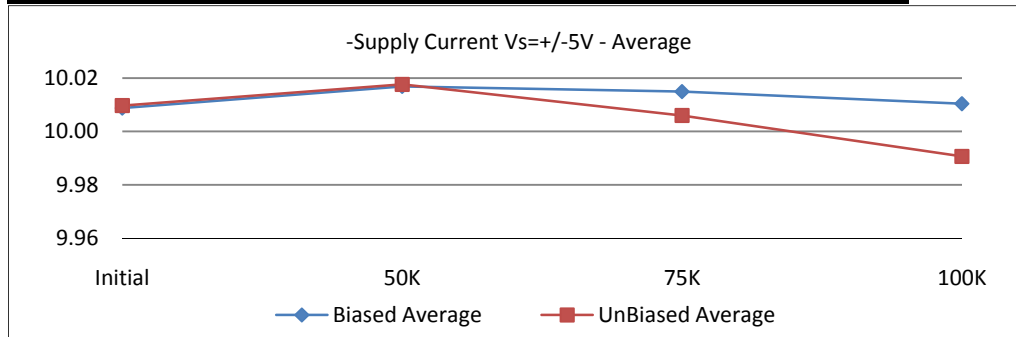
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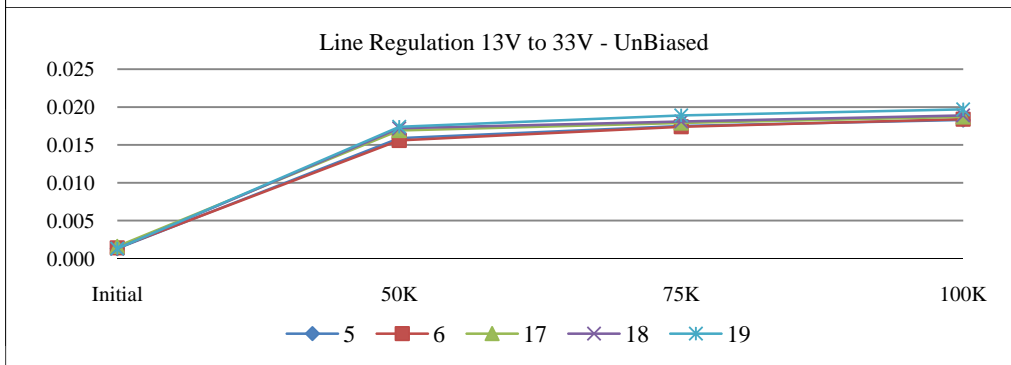
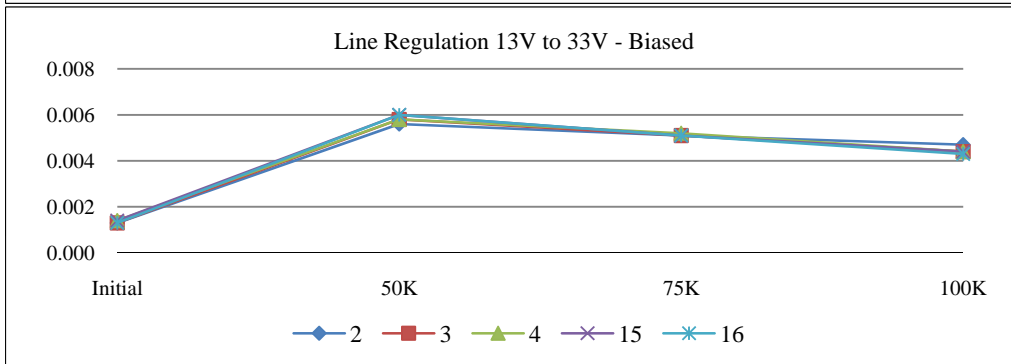
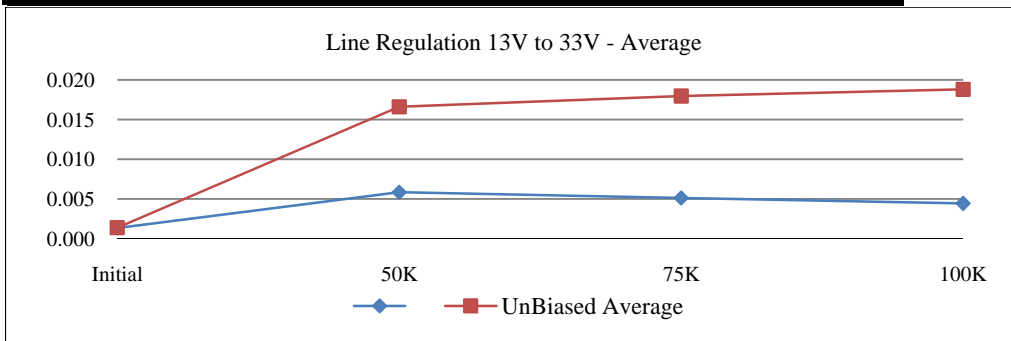
	T# 1	IQ+ @ VS=+-5V				mA
	SN	Initial	50K	75K	100K	Limit
Control	8	1.1933	1.189	1.195	1.190	<1.4
	21	1.226	1.219	1.220	1.221	
Biased	2	1.182	1.177	1.177	1.174	
	3	1.192	1.190	1.188	1.180	
	4	1.181	1.179	1.174	1.172	
	15	1.244	1.241	1.242	1.239	
	16	1.229	1.228	1.233	1.222	
	Min	1.181	1.177	1.174	1.172	
	Max	1.244	1.241	1.242	1.239	
Average	1.205	1.203	1.203	1.198		
UnBiased	5	1.187	1.180	1.174	1.166	
	6	1.190	1.180	1.177	1.167	
	17	1.246	1.241	1.234	1.230	
	18	1.231	1.224	1.217	1.212	
	19	1.226	1.219	1.216	1.211	
	Min	1.187	1.180	1.174	1.166	
	Max	1.246	1.241	1.234	1.230	
Average	1.216	1.209	1.203	1.197		



	T#2	VOUT @ Vin=15V,IL=0				mA
	SN	Initial	50K	75K	100K	Limit
Control	8	10.0193	10.019	10.019	10.019	>9.94
	21	10.0095	10.009	10.009	10.009	<10.06
Biased	2	10.016	10.024	10.022	10.019	
	3	9.999	10.007	10.004	10.000	
	4	10.008	10.016	10.013	10.008	
	15	10.007	10.016	10.014	10.009	
	16	10.013	10.022	10.021	10.016	
	Min	9.999	10.007	10.004	10.000	
Max	10.016	10.024	10.022	10.019		
Average	10.009	10.017	10.015	10.010		
UnBiased	5	10.003	10.011	10.000	9.982	
	6	10.014	10.022	10.008	9.990	
	17	10.012	10.020	10.009	9.996	
	18	10.011	10.019	10.009	9.995	
	19	10.009	10.016	10.005	9.991	
	Min	10.003	10.011	10.000	9.982	
	Max	10.014	10.022	10.009	9.996	
Average	10.010	10.018	10.006	9.991		



T#3		LINE REG 13V TO 33V				mV
SN		Initial	50K	75K	100K	25°C
Control	8	0.0013	0.001	0.001	0.001	Limit
	21	0.001	0.001	0.001	0.001	<0.03
Biased	2	0.001	0.006	0.005	0.005	
	3	0.001	0.006	0.005	0.004	
	4	0.001	0.006	0.005	0.004	
	15	0.001	0.006	0.005	0.004	
	16	0.001	0.006	0.005	0.004	
	Min	0.001	0.006	0.005	0.004	
	Max	0.001	0.006	0.005	0.005	
	Average	0.001	0.006	0.005	0.004	
UnBiased	5	0.001	0.016	0.018	0.018	
	6	0.001	0.016	0.017	0.018	
	17	0.002	0.017	0.018	0.019	
	18	0.001	0.017	0.018	0.019	
	19	0.001	0.017	0.019	0.020	
	Min	0.001	0.016	0.017	0.018	
	Max	0.002	0.017	0.019	0.020	
	Average	0.001	0.017	0.018	0.019	



	T#4	LOAD REG 0 TO 10mA				uA
	SN	Initial	50K	75K	100K	25°C
Control	8	0.0011	0.001	0.001	0.001	Limit
	21	0.001	0.001	0.001	0.001	<0.015
Biased	2	0.001	0.001	0.001	0.002	
	3	0.001	0.001	0.001	0.001	
	4	0.001	0.001	0.001	0.001	
	15	0.001	0.001	0.001	0.001	
	16	0.001	0.001	0.001	0.001	
	Min	0.001	0.001	0.001	0.001	
	Max	0.001	0.001	0.001	0.002	
Average	0.001	0.001	0.001	0.001		
UnBiased	5	0.001	0.002	0.002	0.001	
	6	0.001	0.002	0.002	0.002	
	17	0.001	0.002	0.002	0.002	
	18	0.001	0.001	0.001	0.002	
	19	0.001	0.001	0.001	0.002	
	Min	0.001	0.001	0.001	0.001	
	Max	0.001	0.002	0.002	0.002	
Average	0.001	0.002	0.001	0.002		

