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HIGH DOSE RADIATION TEST REPORT ADL8143-CSL

October 2024

Generic



Radiation Test Report	
Product:	ADL8143-CSL
Gamma:	0,100k
Gamma Source:	Co60/TM1019 Condition A
Dose Rate:	169 Rad/s
Facilities:	VPT RAD
Tested:	October 9th, 2024

The RADTEST® 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.

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

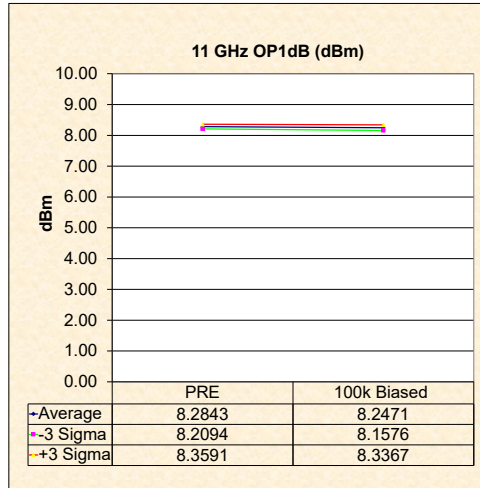
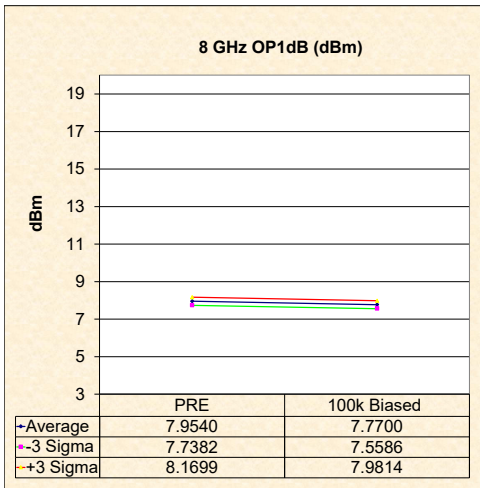
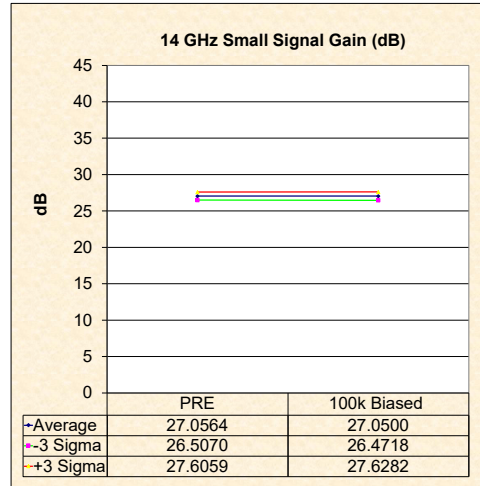
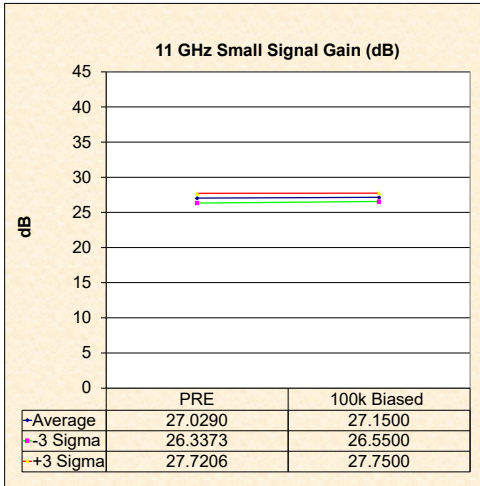
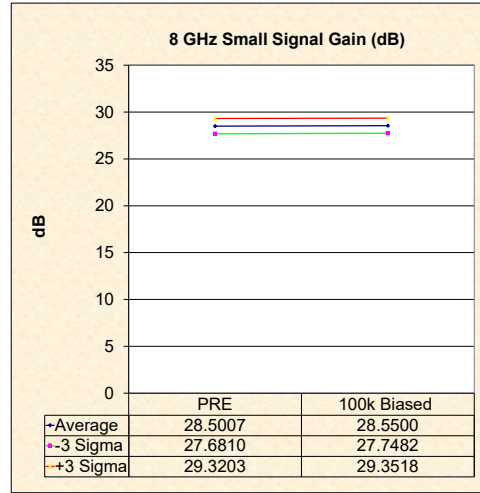
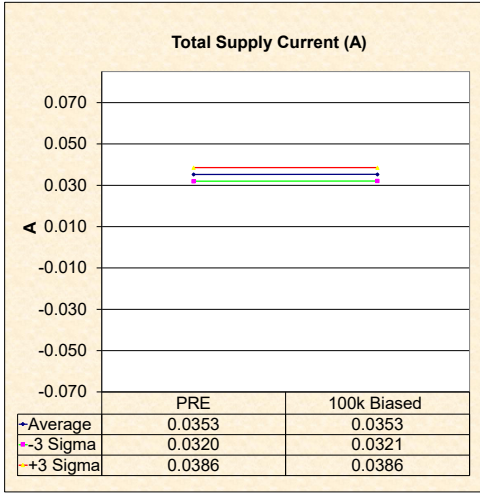
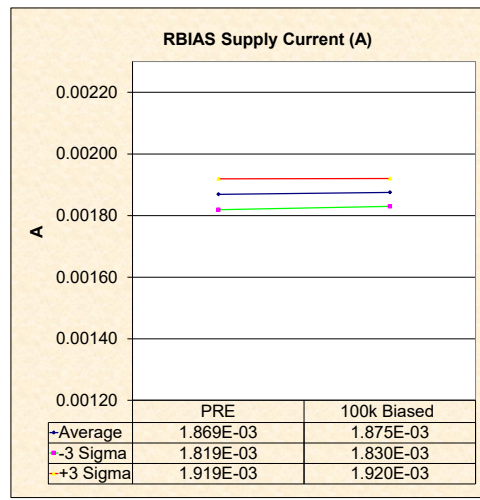
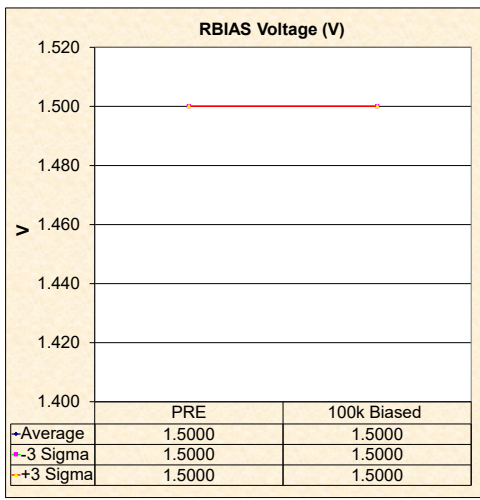
Warning:

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		RBIAS Voltage (V)		RBIAS Supply Current (A)		Total Supply Current (A)		
		PRE	100k	PRE	100k	PRE	100k	
CTRL	SN	20	1.500	1.500	1.866E-03	1.870E-03	0.034	0.034
	2	1.500	1.500	1.839E-03	1.850E-03	0.036	0.036	
100k Biased	4	1.500	1.500	1.875E-03	1.880E-03	0.036	0.036	
	5	1.500	1.500	1.885E-03	1.890E-03	0.035	0.036	
	6	1.500	1.500	1.880E-03	1.890E-03	0.035	0.035	
	7	1.500	1.500	1.864E-03	1.870E-03	0.035	0.035	
	8	1.500	1.500	1.887E-03	1.890E-03	0.034	0.035	
	9	1.500	1.500	1.853E-03	1.860E-03	0.037	0.037	
	10	1.500	1.500	1.867E-03	1.870E-03	0.033	0.033	
	Min	1.5000	1.5000	1.839E-03	1.850E-03	0.0332	0.0333	
	Max	1.5000	1.5000	1.887E-03	1.890E-03	0.0367	0.0368	
	Mean	1.5000	1.5000	1.869E-03	1.875E-03	0.0352	0.0353	
Std. Dev	0.0000	0.0000	1.666E-05	1.512E-05	0.0011	0.0011		
Mean - 3 Sigma	1.5000	1.5000	1.819E-03	1.830E-03	0.0319	0.0321		
Mean + 3 Sigma	1.5000	1.5000	1.919E-03	1.920E-03	0.0385	0.0386		

		8 GHz Small Signal Gain (dB)		11 GHz Small Signal Gain (dB)		14 GHz Small Signal Gain (dB)		
		PRE	100k	PRE	100k	PRE	100k	
CTRL	SN	20	28.455	28.400	26.994	27.100	26.777	27.000
	2	28.935	28.900	27.339	27.400	27.237	27.300	
100k Biased	4	28.635	28.700	27.234	27.300	27.213	27.200	
	5	28.402	28.300	26.986	27.000	26.954	27.000	
	6	28.230	28.400	26.895	27.000	26.918	26.900	
	7	28.531	28.600	27.089	27.200	27.152	27.100	
	8	28.505	28.600	27.028	27.200	27.054	27.000	
	9	28.721	28.800	27.113	27.300	27.229	27.200	
	10	28.089	28.100	26.589	26.800	26.738	26.700	
	Min	28.0892	28.1000	26.5890	26.8000	26.7382	26.7000	
	Max	28.9350	28.9000	27.3389	27.4000	27.2367	27.3000	
	Mean	28.5060	28.5500	27.0342	27.1500	27.0618	27.0500	
Std. Dev	0.2694	0.2673	0.2274	0.2000	0.1799	0.1927		
Mean - 3 Sigma	27.6977	27.7482	26.3519	26.5500	26.5222	26.4718		
Mean + 3 Sigma	29.3142	29.3518	27.7164	27.7500	27.6014	27.6282		

		8 GHz OP1dB (dBm)		11 GHz OP1dB (dBm)		14 GHz OP1dB (dBm)		
		PRE	100k	PRE	100k	PRE	100k	
CTRL	SN	20	7.997	7.810	8.241	8.220	8.327	8.240
	2	7.956	7.760	8.306	8.260	8.454	8.400	
100k Biased	4	7.848	7.680	8.270	8.210	8.474	8.370	
	5	7.930	7.760	8.244	8.210	8.407	8.300	
	6	8.022	7.830	8.283	8.240	8.428	8.340	
	7	8.022	7.840	8.318	8.290	8.445	8.360	
	8	8.025	7.840	8.286	8.270	8.378	8.300	
	9	7.881	7.680	8.285	8.250	8.507	8.410	
	10	8.110	7.920	8.271	8.240	8.368	8.250	
	Min	7.8476	7.6800	8.2435	8.2100	8.3678	8.2500	
	Max	8.1105	7.9200	8.3178	8.2900	8.5068	8.4100	
	Mean	7.9744	7.7888	8.2827	8.2463	8.4326	8.3413	
Std. Dev	0.0868	0.0841	0.0228	0.0277	0.0473	0.0549		
Mean - 3 Sigma	7.7139	7.5365	8.2143	8.1630	8.2909	8.1766		
Mean + 3 Sigma	8.2348	8.0410	8.3511	8.3295	8.5744	8.5059		



14 GHz OP1dB (dBm)

