

DISPLACEMENT DAMAGE TEST REPORT ADL8143-CSL

August 2026

Radiation Test Report

Product:	ADL8143-CSL
Die:	P5301
Fluence:	2e12 n/cm ²
Test Method:	MIL-STD-883 TM1017
Facilities:	UMass Lowell
Tested:	December 15th, 2025

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:

Analog Devices, Inc. does not recommend use of this data to qualify other product grades or process levels. Analog Devices, Inc. is not responsible and has no liability for any consequences, and all applicable Warranties are null and void if any Analog Devices product is modified in any way or used outside of normal environmental and operating conditions, including the parameters specified in the corresponding data sheet. Analog Devices, Inc. does not guarantee that wafer manufacturing is the same for all process levels.

	RBIAS Supply Current (A)			Total Supply Current (A)		8 GHz Small Signal Gain (dB)	
	SN	PRE	Post	PRE	Post	PRE	Post
CTRL	CTRL	1.85E-03	1.89E-03	3.67E-02	3.63E-02	29.04	28.19
1.00E+12	22	1.88E-03	1.90E-03	3.53E-02	3.54E-02	28.74	28.71
	23	1.89E-03	1.90E-03	3.55E-02	3.57E-02	28.82	28.79
	24	1.87E-03	1.88E-03	3.66E-02	3.66E-02	29.13	29.11
	25	1.84E-03	1.85E-03	3.80E-02	3.83E-02	28.92	28.93
	27	1.87E-03	1.89E-03	3.75E-02	3.76E-02	28.80	28.79
	28	1.85E-03	1.87E-03	3.88E-02	3.89E-02	29.08	29.07
	Min	1.84E-03	1.85E-03	3.53E-02	3.54E-02	28.74	28.71
	Max	1.89E-03	1.90E-03	3.88E-02	3.89E-02	29.13	29.11
	Mean	1.87E-03	1.88E-03	3.70E-02	3.71E-02	28.91	28.90
	Std. Dev	1.75E-05	1.79E-05	1.39E-03	1.42E-03	0.1583	0.1633
Mean - 3 Sigma	1.81E-03	1.83E-03	3.28E-02	3.28E-02	28.44	28.41	
Mean + 3 Sigma	1.92E-03	1.94E-03	4.11E-02	4.13E-02	29.39	29.39	
2.00E+12	29	1.84E-03	1.85E-03	3.66E-02	3.67E-02	29.08	29.07
	30	1.89E-03	1.91E-03	3.50E-02	3.53E-02	28.62	28.60
	31	1.90E-03	1.91E-03	3.63E-02	3.64E-02	29.06	29.04
	32	1.86E-03	1.88E-03	3.49E-02	3.51E-02	28.60	28.57
	33	1.84E-03	1.86E-03	3.82E-02	3.83E-02	29.35	29.38
	34	1.90E-03	1.92E-03	3.67E-02	3.69E-02	29.06	29.03
	35	1.88E-03	1.89E-03	3.42E-02	3.44E-02	28.04	28.08
	37	1.89E-03	1.90E-03	3.54E-02	3.55E-02	28.51	28.52
	38	1.86E-03	1.88E-03	3.60E-02	3.61E-02	28.94	28.95
	39	1.87E-03	1.88E-03	3.60E-02	3.61E-02	28.78	28.84
Min	1.84E-03	1.85E-03	3.42E-02	3.44E-02	28.04	28.08	
Max	1.90E-03	1.92E-03	3.82E-02	3.83E-02	29.35	29.38	
Mean	1.87E-03	1.89E-03	3.59E-02	3.61E-02	28.80	28.81	
Std. Dev	2.12E-05	2.16E-05	1.14E-03	1.11E-03	0.3760	0.3706	
Mean - 3 Sigma	1.81E-03	1.82E-03	3.25E-02	3.27E-02	27.68	27.70	
Mean + 3 Sigma	1.94E-03	1.95E-03	3.93E-02	3.94E-02	29.93	29.92	

	11 GHz Small Signal Gain (dB)			14 GHz Small Signal Gain (dB)		8 GHz OP1dB (dBm)	
	SN	PRE	Post	PRE	Post	PRE	Post
CTRL	CTRL	27.46	26.74	27.31	26.57	7.90	8.65
1.00E+12	22	27.21	27.22	27.04	27.29	7.98	8.73
	23	27.28	27.33	27.12	27.40	7.92	8.66
	24	27.59	27.63	27.50	27.73	7.84	8.61
	25	27.27	27.37	27.07	27.50	7.85	8.59
	27	27.24	27.30	27.02	27.43	7.78	8.55
	28	27.40	27.50	27.26	27.65	7.77	8.53
	Min	27.21	27.22	27.02	27.29	7.77	8.53
	Max	27.59	27.63	27.50	27.73	7.98	8.73
	Mean	27.33	27.39	27.17	27.50	7.86	8.61
	Std. Dev	0.1427	0.1513	0.1855	0.1642	0.0802	0.0762
Mean - 3 Sigma	26.90	26.94	26.61	27.01	7.62	8.38	
Mean + 3 Sigma	27.76	27.85	27.72	27.99	8.10	8.84	
2.00E+12	29	27.42	27.51	27.12	27.57	7.91	8.65
	30	27.05	27.18	26.86	27.28	7.97	8.73
	31	27.41	27.48	27.25	27.53	7.89	8.66
	32	27.19	27.22	27.04	27.35	7.91	8.68
	33	27.65	27.75	27.45	27.87	7.75	8.54
	34	27.48	27.55	27.20	27.65	7.87	8.64
	35	26.74	26.84	26.54	27.02	8.17	8.91
	37	26.89	26.96	26.55	27.06	7.97	8.76
	38	27.37	27.46	27.25	27.64	7.92	8.67
	39	27.18	27.33	26.91	27.35	7.92	8.71
	Min	26.74	26.84	26.54	27.02	7.75	8.54
	Max	27.65	27.75	27.45	27.87	8.17	8.91
	Mean	27.24	27.33	27.02	27.43	7.93	8.69
	Std. Dev	0.2827	0.2806	0.3041	0.2706	0.1040	0.0952
Mean - 3 Sigma	26.39	26.48	26.10	26.62	7.62	8.41	
Mean + 3 Sigma	28.09	28.17	27.93	28.24	8.24	8.98	

		11 GHz OP1dB (dBm)		14 GHz OP1dB (dBm)		
		SN	PRE	Post	PRE	Post
CTRL	CTRL	8.30	8.79	8.53	9.07	
	22	8.31	8.80	8.44	9.03	
1.00E+12	23	8.27	8.77	8.41	9.01	
	24	8.23	8.78	8.46	9.02	
	25	8.31	8.81	8.57	9.16	
	27	8.26	8.76	8.51	9.09	
	28	8.27	8.80	8.58	9.14	
	Min	8.23	8.76	8.41	9.01	
	Max	8.31	8.81	8.58	9.16	
	Mean	8.28	8.79	8.49	9.07	
2.00E+12	Std. Dev	0.0305	0.0189	0.0710	0.0654	
	Mean - 3 Sigma	8.19	8.73	8.28	8.88	
	Mean + 3 Sigma	8.37	8.84	8.71	9.27	
	29	8.28	8.81	8.43	9.03	
	30	8.29	8.80	8.41	9.03	
	31	8.29	8.82	8.49	9.07	
	32	8.22	8.73	8.33	8.94	
	33	8.23	8.80	8.49	9.07	
2.00E+12	34	8.25	8.79	8.43	9.02	
	35	8.30	8.88	8.49	9.10	
	37	8.27	8.84	8.49	9.08	
	38	8.26	8.78	8.44	9.05	
	39	8.28	8.81	8.47	9.09	
	Min	8.22	8.73	8.33	8.94	
	Max	8.30	8.88	8.49	9.10	
	Mean	8.27	8.81	8.45	9.05	
2.00E+12	Std. Dev	0.0271	0.0384	0.0517	0.0481	
	Mean - 3 Sigma	8.19	8.69	8.29	8.90	
	Mean + 3 Sigma	8.35	8.92	8.60	9.19	



