

HIGH DOSE RADIATION TEST REPORT ADRF6780S-CSL

October 2024

Generic

Radiation Test Report	
Product:	ADRF6780S-CSL
Gamma:	0,100k
Gamma Source:	Co60/TM1019 Condition A
Dose Rate:	167 Rad/s
Facilities:	VPT RAD
Tested:	October 9, 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:

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.

		IP18_IQmode_LOx1_DetOff_RFoff		IPB1_IQmode_LOx1_DetOff_RFoff		IPBB_IQmode_LOx1_DetOff_RFoff	
		PRE	100k	PRE	100k	PRE	100k
CTRL	28	0.394	0.395	16.13	16.09	19.14	19.10
	1	0.391	0.394	16.27	16.23	18.95	18.72
100k Biased	5	0.399	0.392	16.31	16.31	18.38	18.86
	8	0.389	0.390	16.20	16.21	18.96	19.30
	24	0.397	0.388	16.20	16.18	18.79	18.57
	25	0.385	0.390	16.11	16.07	19.03	18.77
	26	0.377	0.382	16.32	16.34	18.69	19.32
	27	0.385	0.376	16.28	16.28	19.21	19.06
	Min	0.3769	0.3764	16.11	16.07	18.38	18.57
	Max	0.3992	0.3939	16.32	16.34	19.21	19.32
	Mean	0.3891	0.3874	16.24	16.23	18.86	18.94
	Std. Dev	0.0076	0.0061	0.0754	0.0884	0.2696	0.2902
	Mean - 3 Sigma	0.3664	0.3690	16.02	15.96	18.05	18.07
	Mean + 3 Sigma	0.4117	0.4058	16.47	16.49	19.67	19.81
		(mA)		(mA)		(mA)	

		IPDT_IQmode_LOx1_DetOff_RFoff		IPLO_IQmode_LOx1_DetOff_RFoff		IPRF_IQmode_LOx1_DetOff_RFoff	
		PRE	100k	PRE	100k	PRE	100k
CTRL	28	1.170	1.183	278.59	278.43	157.81	157.63
	1	1.177	1.178	281.82	280.68	158.32	160.48
100k Biased	5	1.199	1.197	281.99	281.98	159.49	158.74
	8	1.172	1.195	284.17	284.17	158.46	160.42
	24	1.173	1.173	280.68	279.79	158.21	158.71
	25	1.182	1.177	282.97	282.31	160.93	159.91
	26	1.178	1.195	284.16	283.88	158.58	159.87
	27	1.192	1.171	281.42	280.52	160.67	159.86
	Min	1.1722	1.1707	280.68	279.79	158.21	158.71
	Max	1.1994	1.1967	284.17	284.17	160.93	160.48
	Mean	1.1819	1.1837	282.46	281.91	159.24	159.71
	Std. Dev	0.0101	0.0117	1.35	1.69	1.15	0.72
	Mean - 3 Sigma	1.1516	1.1487	278.40	276.85	155.80	157.55
	Mean + 3 Sigma	1.2122	1.2187	286.51	286.96	162.68	161.87
		(mA)		(mA)		(mA)	

		VPBB+VPLO+VPBI_IQmode_LOx1_DetOff_R_Foff		VPDT+VPRF_IQmode_LOx1_DetOff_RFoff		IP18_IQmode_LOx2_DetOff_RFoff	
		PRE	100k	PRE	100k	PRE	100k
CTRL	28	313.86	313.62	158.98	158.82	0.3886	0.4029
	1	317.04	315.63	159.50	161.65	0.3960	0.3817
100k Biased	5	316.68	317.15	160.69	159.94	0.3875	0.3875
	8	319.33	319.67	159.63	161.61	0.3854	0.3796
	24	315.66	314.54	159.38	159.88	0.3844	0.3886
	25	318.12	317.15	162.11	161.08	0.4035	0.3929
	26	319.17	319.53	159.76	161.06	0.3923	0.3971
	27	316.91	315.86	161.86	161.03	0.3790	0.3806
	Min	315.66	314.54	159.38	159.88	0.3790	0.3796
	Max	319.33	319.67	162.11	161.65	0.4035	0.3971
	Mean	317.56	317.08	160.42	160.89	0.3897	0.3869
	Std. Dev	1.36	1.95	1.15	0.7203	0.0082	0.0066
	Mean - 3 Sigma	313.48	311.23	156.96	158.73	0.3652	0.3670
	Mean + 3 Sigma	321.64	322.92	163.88	163.06	0.4143	0.4067
		(mA)		(mA)		(mA)	

		IPB1_IQmode_LOx2_DetOff_RFoff		IPBB_IQmode_LOx2_DetOff_RFoff		IPDT_IQmode_LOx2_DetOff_RFoff	
		PRE	100k	PRE	100k	PRE	100k
CTRL	28	16.16	16.13	19.62	18.66	1.172	1.152
	1	16.28	16.26	19.10	19.32	1.180	1.176
100k Biased	5	16.34	16.33	19.06	19.16	1.204	1.185
	8	16.21	16.23	18.59	18.86	1.181	1.180
	24	16.24	16.18	18.76	18.46	1.181	1.172
	25	16.13	16.09	18.53	18.82	1.181	1.165
	26	16.37	16.34	18.16	19.31	1.176	1.183
	27	16.30	16.31	19.45	18.96	1.192	1.192
	Min	16.13	16.09	18.16	18.46	1.176	1.165
	Max	16.37	16.34	19.45	19.32	1.204	1.192
	Mean	16.26	16.25	18.81	18.99	1.185	1.179
	Std. Dev	0.0818	0.0909	0.4304	0.3084	0.00958	0.00894
	Mean - 3 Sigma	16.02	15.98	17.52	18.06	1.156	1.152
	Mean + 3 Sigma	16.51	16.52	20.10	19.91	1.214	1.206
		(mA)		(mA)		(mA)	

		IPLO_IQmode_LOx2_DetOff_RFoff		IPRF_IQmode_LOx2_DetOff_RFoff		VPBB+VPLO+VPBI_IQmode_LOx2_DetOff_RFoff	
		PRE	100k	PRE	100k	PRE	100k
CTRL	28	328.71	328.44	157.72	158.49	364.48	363.22
	1	331.92	331.85	160.52	160.26	367.30	367.44
100k Biased	5	332.59	333.46	159.61	159.63	367.99	368.95
	8	334.93	335.07	158.75	158.83	369.73	370.16
	24	330.85	330.58	159.26	159.46	365.84	365.22
	25	334.46	334.46	160.07	161.48	369.12	369.37
	26	335.60	335.94	161.23	161.24	370.13	371.59
	27	331.99	331.99	160.70	160.54	367.73	367.26
	Min	330.85	330.58	158.75	158.83	365.84	365.22
	Max	335.60	335.94	161.23	161.48	370.13	371.59
	Mean	333.19	333.34	160.02	160.21	368.26	368.57
	Std. Dev	1.7977	1.9437	0.87	0.97	1.50	2.11
	Mean - 3 Sigma	327.80	327.50	157.41	157.31	363.76	362.24
	Mean + 3 Sigma	338.59	339.17	162.63	163.10	372.77	374.90
		(mA)		(mA)		(mA)	

		VPDT+VPRF_IQmode_LOx2_DetOff_RFoff		IP18_IQmode_LOx1_DetOn_RFoff		IPB1_IQmode_LOx1_DetOn_RFoff	
		PRE	Post	PRE	Post	PRE	Post
CTRL	SN						
	28	158.89	159.64	0.4114	0.3902	16.16	16.16
100k Biased	1	161.70	161.44	0.3822	0.3939	16.30	16.28
	5	160.81	160.82	0.3950	0.3913	16.35	16.36
	8	159.93	160.01	0.3881	0.3785	16.24	16.25
	24	160.44	160.63	0.3764	0.3944	16.24	16.21
	25	161.25	162.65	0.3923	0.3897	16.15	16.12
	26	162.40	162.42	0.3891	0.3897	16.39	16.36
	27	161.90	161.74	0.3950	0.3801	16.32	16.32
	Min	159.93	160.01	0.3764	0.3785	16.15	16.12
	Max	162.40	162.65	0.3950	0.3944	16.39	16.36
	Mean	161.21	161.39	0.3883	0.3882	16.28	16.27
	Std. Dev	0.8694	0.9641	0.00689	0.00639	0.0819	0.0863
	Mean - 3 Sigma	158.60	158.49	0.3676	0.3691	16.04	16.01
	Mean + 3 Sigma	163.81	164.28	0.4090	0.4074	16.53	16.53
		(mA)		(mA)		(mA)	

		IPBB_IQmode_LOx1_DetOn_RFoff		IPDT_IQmode_LOx1_DetOn_RFoff		IPLO_IQmode_LOx1_DetOn_RFoff	
		PRE	Post	PRE	Post	PRE	Post
CTRL	SN						
	28	19.13	18.67	51.46	51.32	280.28	279.75
100k Biased	1	17.79	18.86	51.57	51.71	283.39	282.56
	5	18.89	19.34	51.74	51.91	283.74	283.79
	8	18.93	19.01	51.97	51.96	285.84	285.93
	24	19.51	18.86	51.51	51.54	282.32	281.42
	25	18.69	19.23	51.56	51.59	284.59	283.92
	26	18.90	18.25	51.92	52.00	285.96	285.66
	27	19.26	18.94	52.13	52.01	283.05	282.24
	Min	17.79	18.25	51.51	51.54	282.32	281.42
	Max	19.51	19.34	52.13	52.01	285.96	285.93
	Mean	18.85	18.93	51.77	51.82	284.13	283.65
	Std. Dev	0.5411	0.3496	0.2382	0.2025	1.39	1.71
	Mean - 3 Sigma	17.23	17.88	51.06	51.21	279.96	278.52
	Mean + 3 Sigma	20.48	19.98	52.48	52.43	288.30	288.77
		(mA)		(mA)		(mA)	

		IPRF_IQmode_LOx1_DetOn_RFoff		VPBB+VPLO+VPBI_IQmode_LOx1_DetOn_RFoff		VPDT+VPRF_IQmode_LOx1_DetOn_RFoff	
		PRE	Post	PRE	Post	PRE	Post
CTRL	SN						
	28	159.24	157.48	315.57	314.59	210.70	208.80
100k Biased	1	159.33	160.01	317.49	317.70	210.90	211.72
	5	159.95	158.88	318.98	319.50	211.69	210.79
	8	158.46	159.15	321.01	321.19	210.43	211.11
	24	160.30	159.45	318.07	316.50	211.81	210.99
	25	159.59	161.52	319.43	319.27	211.15	213.11
	26	160.23	160.70	321.25	320.28	212.15	212.71
	27	159.68	160.32	318.64	317.50	211.81	212.33
	Min	158.46	158.88	317.49	316.50	210.43	210.79
	Max	160.30	161.52	321.25	321.19	212.15	213.11
	Mean	159.65	160.00	319.27	318.85	211.42	211.82
	Std. Dev	0.6278	0.9308	1.4167	1.6710	0.6108	0.9111
	Mean - 3 Sigma	157.77	157.21	315.02	313.83	209.59	209.09
	Mean + 3 Sigma	161.53	162.80	323.52	323.86	213.25	214.56
		(mA)		(mA)		(mA)	

		IP18_IFmode_LOx1_DetOff_RFoff		IPB1_IFmode_LOx1_DetOff_RFoff		IPBB_IFmode_LOx1_DetOff_RFoff	
		PRE	Post	PRE	Post	PRE	Post
CTRL	SN						
	28	0.3966	0.4019	16.20	16.20	154.43	154.12
100k Biased	1	0.3907	0.3875	16.35	16.33	157.74	156.71
	5	0.3844	0.3923	16.42	16.40	155.65	155.28
	8	0.3796	0.3817	16.29	16.31	156.74	156.71
	24	0.4008	0.3806	16.29	16.26	154.71	153.69
	25	0.4051	0.3934	16.18	16.18	155.93	155.99
	26	0.3907	0.3806	16.45	16.43	156.94	156.86
	27	0.3860	0.3806	16.39	16.35	155.64	155.98
	Min	0.3796	0.3806	16.18	16.18	154.71	153.69
	Max	0.4051	0.3934	16.45	16.43	157.74	156.86
	Mean	0.3910	0.3853	16.34	16.32	156.19	155.89
	Std. Dev	0.0091	0.0057	0.0916	0.0854	1.01	1.12
	Mean - 3 Sigma	0.3638	0.3680	16.06	16.07	153.16	152.53
	Mean + 3 Sigma	0.4183	0.4025	16.61	16.58	159.22	159.25
		(mA)		(mA)		(mA)	

		IPDT_IFmode_LOx1_DetOff_RFoff		IPLO_IFmode_LOx1_DetOff_RFoff		IPRF_IFmode_LOx1_DetOff_RFoff	
		PRE	Post	PRE	Post	PRE	Post
CTRL	SN						
	28	1.18	1.17	280.48	280.26	149.41	148.86
100k Biased	1	1.19	1.20	283.56	282.83	151.04	152.65
	5	1.19	1.21	283.84	284.10	152.08	151.30
	8	1.18	1.19	286.05	286.13	152.36	150.40
	24	1.17	1.17	282.57	281.64	151.18	151.88
	25	1.18	1.17	284.73	284.25	152.89	153.70
	26	1.20	1.21	286.34	285.95	151.92	153.26
	27	1.19	1.17	283.34	282.55	153.19	151.74
	Min	1.17	1.17	282.57	281.64	151.04	150.40
	Max	1.20	1.21	286.34	286.13	153.19	153.70
	Mean	1.19	1.19	284.35	283.92	152.09	152.13
	Std. Dev	0.01	0.02	1.42	1.70	0.81	1.15
	Mean - 3 Sigma	1.16	1.14	280.09	278.81	149.68	148.68
	Mean + 3 Sigma	1.22	1.24	288.61	289.03	154.51	155.58
		(mA)		(mA)		(mA)	

		VPBB+VPLO+VPBI_IFmode_LOx1_DetOff_RFoff		VPDT+VPRF_IFmode_LOx1_DetOff_RFoff		IP18_IFmode_LOx2_DetOff_RFoff	
	SN	PRE	Post	PRE	Post	PRE	Post
CTRL	28	451.11	450.58	150.59	150.04	0.40	0.40
100k Biased	1	457.65	455.87	152.23	153.85	0.39	0.39
	5	455.91	455.78	153.27	152.50	0.41	0.39
	8	459.08	459.14	153.54	151.59	0.38	0.38
	24	453.57	451.59	152.35	153.05	0.40	0.39
	25	456.84	456.42	154.07	154.87	0.39	0.39
	26	459.73	459.25	153.13	154.47	0.39	0.39
	27	455.37	454.88	154.38	152.91	0.40	0.38
	Min	453.57	451.59	152.23	151.59	0.38	0.38
	Max	459.73	459.25	154.38	154.87	0.41	0.39
	Mean	456.88	456.13	153.28	153.32	0.39	0.39
	Std. Dev	2.15	2.62	0.81	1.15	0.0112	0.0055
	Mean - 3 Sigma	450.42	448.26	150.86	149.87	0.36	0.37
	Mean + 3 Sigma	463.33	464.00	155.70	156.77	0.43	0.41
		(mA)		(mA)		(mA)	

		IPB1_IFmode_LOx2_DetOff_RFoff		IPBB_IFmode_LOx2_DetOff_RFoff		IPDT_IFmode_LOx2_DetOff_RFoff	
	SN	PRE	Post	PRE	Post	PRE	Post
CTRL	28	16.25	16.23	153.72	154.71	1.18	1.18
100k Biased	1	16.38	16.36	158.49	157.85	1.19	1.20
	5	16.45	16.45	156.28	155.33	1.20	1.19
	8	16.31	16.32	156.80	156.63	1.19	1.20
	24	16.33	16.29	155.88	154.94	1.17	1.19
	25	16.23	16.21	156.45	155.74	1.19	1.19
	26	16.47	16.46	157.46	156.68	1.20	1.20
	27	16.42	16.40	156.10	156.05	1.20	1.20
	Min	16.23	16.21	155.88	154.94	1.17	1.19
	Max	16.47	16.46	158.49	157.85	1.20	1.20
	Mean	16.37	16.36	156.78	156.17	1.19	1.20
	Std. Dev	0.0852	0.0887	0.9124	0.9758	0.0112	0.0053
	Mean - 3 Sigma	16.11	16.09	154.04	153.25	1.16	1.18
	Mean + 3 Sigma	16.63	16.62	159.52	159.10	1.23	1.21
		(mA)		(mA)		(mA)	

		IPLO_IFmode_LOx2_DetOff_RFoff		IPRF_IFmode_LOx2_DetOff_RFoff		VPBB+VPLO+VPBI_IFmode_LOx2_DetOff_RFoff	
	SN	PRE	Post	PRE	Post	PRE	Post
CTRL	28	331.34	331.11	150.35	149.51	501.30	502.05
100k Biased	1	335.05	334.78	152.02	150.53	509.92	508.99
	5	335.55	336.56	151.06	150.42	508.28	508.34
	8	337.88	338.04	151.02	149.62	510.99	511.00
	24	334.07	333.73	150.11	151.86	506.28	504.95
	25	337.44	337.50	153.42	152.91	510.13	509.45
	26	338.52	338.94	150.95	152.71	512.45	512.07
	27	335.31	335.21	151.86	152.49	507.83	507.66
	Min	334.07	333.73	150.11	149.62	506.28	504.95
	Max	338.52	338.94	153.42	152.91	512.45	512.07
	Mean	336.26	336.39	151.49	151.51	509.41	508.92
	Std. Dev	1.6728	1.8945	1.0605	1.3029	2.0837	2.3173
	Mean - 3 Sigma	331.24	330.71	148.31	147.60	503.16	501.97
	Mean + 3 Sigma	341.28	342.08	154.67	155.41	515.66	515.88
		(mA)		(mA)		(mA)	

		VPDT+VPRF_IFmode_LOx2_DetOff_RFoff		IP18_pwdn_IQmode_LOx1_DetOff_RFoff		IPB1_pwdn_IQmode_LOx1_DetOff_RFoff	
	SN	PRE	Post	PRE	Post	PRE	Post
CTRL	28	151.53	150.68	0.3220	0.3751	0.2656	0.2709
100k Biased	1	153.21	151.74	0.3486	0.3432	0.2762	0.2762
	5	152.27	151.61	0.3486	0.3273	0.2815	0.2656
	8	152.22	150.82	0.3273	0.3220	0.2868	0.2656
	24	151.28	153.05	0.3698	0.3432	0.2762	0.2815
	25	154.61	154.10	0.3432	0.3486	0.2975	0.2762
	26	152.15	153.91	0.3379	0.3273	0.2602	0.2868
	27	153.06	153.69	0.3486	0.3645	0.3134	0.3134
	Min	151.28	150.82	0.3273	0.3220	0.2602	0.2656
	Max	154.61	154.10	0.3698	0.3645	0.3134	0.3134
	Mean	152.69	152.70	0.3463	0.3395	0.2846	0.2808
	Std. Dev	1.0648	1.3026	0.0130	0.0149	0.0171	0.0164
	Mean - 3 Sigma	149.49	148.80	0.3074	0.2947	0.2334	0.2316
	Mean + 3 Sigma	155.88	156.61	0.3851	0.3842	0.3357	0.3299
		(mA)		(mA)		(mA)	

		IPBB_pwdn_IQmode_LOx1_DetOff_RFoff		IPDT_pwdn_IQmode_LOx1_DetOff_RFoff		IPLO_pwdn_IQmode_LOx1_DetOff_RFoff	
	SN	PRE	Post	PRE	Post	PRE	Post
CTRL	28	3.36	3.05	0.1946	0.2052	4.39	4.72
100k Biased	1	3.81	3.37	0.1946	0.1999	4.59	4.86
	5	3.66	3.51	0.1893	0.1787	4.79	4.86
	8	3.48	3.70	0.1840	0.2211	4.92	4.72
	24	3.92	3.16	0.2264	0.1840	4.86	4.59
	25	3.98	3.49	0.1999	0.1893	5.12	5.06
	26	2.96	3.42	0.2052	0.1946	5.19	4.92
	27	3.00	3.87	0.1787	0.1840	4.32	4.72
	Min	2.96	3.16	0.1787	0.1787	4.32	4.59
	Max	3.98	3.87	0.2264	0.2211	5.19	5.06
	Mean	3.55	3.50	0.1969	0.1931	4.83	4.82
	Std. Dev	0.4194	0.2296	0.0159	0.0143	0.3016	0.1540
	Mean - 3 Sigma	2.29	2.81	0.1493	0.1503	3.92	4.36
	Mean + 3 Sigma	4.81	4.19	0.2444	0.2359	5.73	5.28
		(mA)		(mA)		(mA)	

		IPRF_pwdn_IQmode_LOx1_DetOff_RFoff		SCLK_High_Leakage		SDIN_High_Leakage		
		SN	PRE	Post	PRE	Post	PRE	Post
CTRL		28	2.120	0.711	1.097E-04	1.089E-04	1.082E-04	1.084E-04
100k Biased		1	0.577	3.126	1.086E-04	1.061E-04	1.093E-04	1.069E-04
		5	0.845	2.858	1.065E-04	1.052E-04	1.065E-04	1.050E-04
		8	2.925	3.663	1.069E-04	1.112E-04	1.059E-04	1.102E-04
		24	0.644	-0.362	1.095E-04	1.074E-04	1.084E-04	1.071E-04
		25	0.510	1.181	1.046E-04	1.024E-04	1.061E-04	1.050E-04
		26	1.852	1.114	1.065E-04	1.054E-04	1.065E-04	1.056E-04
		27	2.522	1.516	1.056E-04	1.039E-04	1.048E-04	1.039E-04
		Min	0.510	-0.362	1.046E-04	1.024E-04	1.048E-04	1.039E-04
		Max	2.925	3.663	1.095E-04	1.112E-04	1.093E-04	1.102E-04
		Mean	1.411	1.871	1.069E-04	1.059E-04	1.068E-04	1.063E-04
		Std. Dev	1.0114	1.4097	1.694E-06	2.807E-06	1.558E-06	2.059E-06
		Mean - 3 Sigma	-1.623	-2.358	1.018E-04	9.752E-05	1.021E-04	1.001E-04
		Mean + 3 Sigma	4.445	6.100	1.120E-04	1.144E-04	1.115E-04	1.124E-04
			(mA)			(A)		(A)

		SDTO_High_Leakage		SENB_High_Leakage		SCLK_Low_Leakage	
		PRE	Post	PRE	Post	PRE	Post
CTRL	28	1.071E-04	1.067E-04	1.071E-07	9.668E-07	5.369E-07	3.220E-07
100k Biased	1	1.091E-04	1.069E-04	1.397E-06	9.668E-07	-3.228E-07	5.369E-07
	5	1.061E-04	1.031E-04	7.519E-07	3.220E-07	9.668E-07	7.519E-07
	8	1.061E-04	1.110E-04	1.397E-06	5.369E-07	3.220E-07	7.519E-07
	24	1.089E-04	1.074E-04	3.220E-07	7.519E-07	1.071E-07	7.519E-07
	25	1.063E-04	1.039E-04	1.397E-06	3.220E-07	7.519E-07	1.071E-07
	26	1.071E-04	1.046E-04	9.668E-07	1.182E-06	9.668E-07	-1.079E-07
	27	1.052E-04	1.033E-04	1.397E-06	9.668E-07	-5.377E-07	-5.377E-07
	Min	1.052E-04	1.031E-04	3.220E-07	3.220E-07	-5.377E-07	-5.377E-07
	Max	1.091E-04	1.110E-04	1.397E-06	1.182E-06	9.668E-07	7.519E-07
	Mean	1.070E-04	1.057E-04	1.090E-06	7.212E-07	3.220E-07	3.220E-07
	Std. Dev	1.486E-06	2.881E-06	4.273E-07	3.382E-07	6.079E-07	5.116E-07
	Mean - 3 Sigma	1.025E-04	9.709E-05	-1.923E-07	-2.935E-07	-1.502E-06	-1.213E-06
	Mean + 3 Sigma	1.114E-04	1.144E-04	2.372E-06	1.736E-06	2.146E-06	1.857E-06
			(A)		(A)		(A)

		SDIN_Low_Leakage		SDTO_Low_Leakage		SENB_Low_Leakage		
		SN	PRE	Post	PRE	Post	PRE	Post
CTRL		28	1.397E-06	1.182E-06	-1.079E-07	-1.183E-06	-2.183E-04	-2.189E-04
100k Biased		1	1.071E-07	1.612E-06	3.220E-07	7.519E-07	-2.144E-04	-2.157E-04
		5	-3.228E-07	1.071E-07	5.369E-07	1.071E-07	-2.185E-04	-2.189E-04
		8	9.668E-07	1.612E-06	1.071E-07	1.397E-06	-2.155E-04	-2.133E-04
		24	5.369E-07	7.519E-07	1.182E-06	3.220E-07	-2.178E-04	-2.189E-04
		25	1.397E-06	1.071E-07	3.220E-07	-3.228E-07	-2.144E-04	-2.144E-04
		26	5.369E-07	1.182E-06	5.369E-07	3.220E-07	-2.185E-04	-2.183E-04
		27	5.369E-07	-3.228E-07	5.369E-07	9.668E-07	-2.150E-04	-2.159E-04
		Min	-3.228E-07	-3.228E-07	1.071E-07	-3.228E-07	-2.185E-04	-2.189E-04
		Max	1.397E-06	1.612E-06	1.182E-06	1.397E-06	-2.144E-04	-2.133E-04
		Mean	5.369E-07	7.212E-07	5.062E-07	5.062E-07	-2.163E-04	-2.165E-04
		Std. Dev	5.550E-07	7.792E-07	3.382E-07	5.744E-07	1.892E-06	2.246E-06
		Mean - 3 Sigma	-1.128E-06	-1.616E-06	-5.084E-07	-1.217E-06	-2.220E-04	-2.232E-04
		Mean + 3 Sigma	2.202E-06	3.059E-06	1.521E-06	2.230E-06	-2.106E-04	-2.097E-04
			(A)		(A)		(A)	

		IF_Gain_Low_6000MHz_LOx1_DetOn		LO_Feethru_6800MHz_IFmode_LOx1_DetOn		Pout_Low_RF_6000MHz_IFmode_LOx1_DetOn	
SN		PRE	Post	PRE	Post	PRE	Post
CTRL	28	11.62	11.70	-26.18	-25.31	-0.6840	-0.6641
	1	11.49	11.49	-26.00	-25.38	-0.8573	-0.7933
100k Biased	5	11.62	11.75	-24.04	-22.79	-0.8329	-0.6247
	8	11.75	11.76	-21.54	-21.38	-0.6249	-0.5870
	24	11.55	11.63	-26.85	-24.91	-0.7887	-0.6739
	25	11.84	11.86	-42.78	-39.52	-0.5455	-0.5166
	26	11.76	11.82	-29.46	-28.48	-0.6378	-0.5413
	27	11.78	11.85	-29.35	-29.58	-0.6398	-0.5604
	Min	11.49	11.49	-42.78	-39.52	-0.8573	-0.7933
	Max	11.84	11.86	-21.54	-21.38	-0.5455	-0.5166
	Mean	11.68	11.74	-28.57	-27.43	-0.7038	-0.6139
	Std. Dev	0.1317	0.1356	6.8631	6.0633	0.1205	0.0951
	Mean - 3 Sigma	11.29	11.33	-49.16	-45.62	-1.0654	-0.8991
	Mean + 3 Sigma	12.08	12.14	-7.98	-9.24	-0.3422	-0.3287
		(dB)		(dBm)		(dBm)	

		IF_Gain_Mid_11760MHz_LOx1_DetOn		IF_Gain_High_20000MHz_LOx2_DetOn		Pout_High_RF_20000MHz_IFmode_LOx2_DetOn		
		SN	PRE	Post	PRE	Post	PRE	Post
CTRL		28	12.78	13.02	12.74	12.85	0.66	0.80
100k Biased	1	12.68	12.80	12.57	12.75	0.51	0.68	
	5	12.83	13.10	12.75	13.03	0.73	1.02	
	8	13.04	13.08	13.05	13.21	0.98	1.16	
	24	12.78	12.94	12.72	12.90	0.66	0.83	
	25	13.18	13.26	13.33	13.44	1.23	1.35	
	26	13.00	13.16	13.04	13.19	1.00	1.11	
	27	12.90	13.11	12.84	13.08	0.78	1.04	
	Min	12.68	12.80	12.57	12.75	0.51	0.68	
	Max	13.18	13.26	13.33	13.44	1.23	1.35	
	Mean	12.92	13.06	12.90	13.08	0.84	1.03	
	Std. Dev	0.1694	0.1495	0.2543	0.2235	0.2454	0.2196	
	Mean - 3 Sigma	12.41	12.62	12.14	12.41	0.10	0.37	
Mean + 3 Sigma	13.42	13.51	13.66	13.76	1.58	1.69		
		(dB)		(dB)		(dBm)		

		LO_Feedthru_2000MHz_IFmode_LOx2_DetOn		IF_Gain_Low_6000MHz_LOx1_VVA_Adjust@Vcc6:0		IF_P1dB_Gain_Low_6000MHz_LOx1@Pwr:0		
		SN	PRE	Post	PRE	Post	PRE	Post
CTRL	28	-35.87	-29.40	-11.55	-11.45	11.36	11.40	
100k Biased	1	-35.50	-37.20	-11.14	-11.44	11.19	11.24	
	5	-30.63	-27.87	-11.98	-11.03	11.26	11.39	
	8	-26.62	-25.23	-10.65	-11.04	11.42	11.39	
	24	-27.97	-27.65	-11.39	-11.15	11.33	11.31	
	25	-30.59	-33.11	-10.89	-10.84	11.50	11.55	
	26	-33.06	-34.83	-10.95	-11.16	11.48	11.53	
	27	-31.43	-31.36	-11.02	-11.32	11.42	11.51	
	Min	-35.50	-37.20	-11.98	-11.44	11.19	11.24	
	Max	-26.62	-25.23	-10.65	-10.84	11.50	11.55	
	Mean	-30.83	-31.04	-11.15	-11.14	11.37	11.42	
	Std. Dev	2.9744	4.3194	0.4310	0.1992	0.1161	0.1188	
	Mean - 3 Sigma	-39.75	-43.99	-12.44	-11.74	11.02	11.06	
Mean + 3 Sigma	-21.91	-18.08	-9.85	-10.54	11.72	11.77		
		(dBm)		(dB)		(dB)		

		IF_P1dB_Pout_Low_RF_6000MHz_LOx1_DetOn@Pwr:0		GainM1_IF		IF_P1dB_Gain_Mid_11750MHz_LOx1@Pwr:0		
		SN	PRE	Post	PRE	Post	PRE	Post
CTRL	28	10.46	10.51	10.89	10.99	12.35	12.46	
	1	10.27	10.36	10.80	10.81	12.25	12.32	
100k Biased	5	10.34	10.52	10.88	10.98	12.33	12.55	
	8	10.51	10.58	10.99	11.02	12.50	12.59	
	24	10.42	10.47	10.84	10.90	12.33	12.47	
	25	10.60	10.67	11.06	11.14	12.65	12.76	
	26	10.55	10.66	11.02	11.09	12.54	12.60	
	27	10.53	10.62	11.05	11.09	12.41	12.64	
	Min	10.27	10.36	10.80	10.81	12.25	12.32	
	Max	10.60	10.67	11.06	11.14	12.65	12.76	
	Mean	10.46	10.55	10.95	11.01	12.43	12.56	
	Std. Dev	0.1192	0.1097	0.1059	0.1174	0.1406	0.1391	
	Mean - 3 Sigma	10.10	10.23	10.63	10.65	12.01	12.14	
	Mean + 3 Sigma	10.82	10.88	11.27	11.36	12.85	12.98	
		(dB)		(dB)		(dB)		

		IF_P1dB_Pout_Mid_RF_11750MHz_LOx1_DetOn@Pwr:0		IF_P1dB_Gain_High_20000MHz_LOx2@Pwr:0		IF_P1dB_Pout_High_RF_20000MHz_LOx2_DetOn@Pwr:0		
		SN	PRE	Post	PRE	Post	PRE	Post
CTRL	28	11.69	11.79	12.08	12.13	12.67	12.75	
100k Biased	1	11.54	11.65	12.02	12.02	12.62	12.77	
	5	11.62	11.87	12.25	12.44	12.84	13.05	
	8	11.81	11.92	12.49	12.56	13.07	13.20	
	24	11.62	11.79	12.14	12.27	12.73	12.89	
	25	11.98	12.09	12.57	12.64	13.16	13.29	
	26	11.83	11.95	12.45	12.53	13.04	13.15	
	27	11.80	11.97	12.26	12.35	12.85	13.06	
	Min	11.54	11.65	12.02	12.02	12.62	12.77	
	Max	11.98	12.09	12.57	12.64	13.16	13.29	
	Mean	11.74	11.89	12.31	12.40	12.90	13.06	
	Std. Dev	0.1560	0.1404	0.1979	0.2089	0.1965	0.1785	
	Mean - 3 Sigma	11.27	11.47	11.72	11.78	12.31	12.52	
Mean + 3 Sigma	12.21	12.31	12.91	13.03	13.49	13.59		
		(dB)		(dB)		(dB)		

		IF_P1dB_Pout_Highest_RF_23500MHz_LOx2_DetOn@Pwr:2		F1_Pout_RF_5p999GHz_LOx1		F1_Suppression_RF_5p999GHz_LOx1		
		SN	PRE	Post	PRE	Post	PRE	Post
CTRL		28	7.36	7.59	-1.13	-1.05	53.72	53.62
100k Biased		1	7.59	7.78	-1.28	-1.18	53.81	53.94
		5	8.07	8.26	-1.26	-1.04	53.75	53.66
		8	7.87	8.15	-1.08	-0.98	53.45	53.55
		24	7.04	7.26	-1.21	-1.09	53.89	53.85
		25	7.64	7.77	-0.98	-0.89	53.51	53.66
		26	7.31	7.44	-1.07	-0.94	53.79	53.73
		27	7.15	7.36	-1.07	-0.95	53.78	53.51
		Min	7.04	7.26	-1.28	-1.18	53.45	53.51
		Max	8.07	8.26	-0.98	-0.89	53.89	53.94
		Mean	7.53	7.72	-1.14	-1.01	53.71	53.70
		Std. Dev	0.3780	0.3896	0.1143	0.0981	0.1639	0.1567
		Mean - 3 Sigma	6.39	6.55	-1.48	-1.31	53.22	53.23
	Mean + 3 Sigma	8.66	8.89	-0.79	-0.72	54.20	54.17	
		(dBm)		(dBm)		(dB)		

		F2_Pout_RF_6GHz_LOx1		F2_Suppression_RF_6GHz_LOx1		IQ_Gain_Low_6701MHz_LOx1_DetOff		
		SN	PRE	Post	PRE	Post	PRE	Post
CTRL	28	-0.95	-0.89	53.87	53.88	17.73	17.80	
100k Biased	1	-1.10	-1.02	53.95	54.09	17.49	17.59	
	5	-1.07	-0.87	54.33	53.74	17.59	17.78	
	8	-0.89	-0.83	53.78	53.73	17.63	17.69	
	24	-1.02	-0.93	54.01	54.03	17.60	17.69	
	25	-0.80	-0.72	54.08	53.64	17.71	17.78	
	26	-0.87	-0.80	54.22	53.93	17.74	17.81	
	27	-0.87	-0.78	54.07	53.71	17.69	17.78	
	Min	-1.10	-1.02	53.78	53.64	17.49	17.59	
	Max	-0.80	-0.72	54.33	54.09	17.74	17.81	
	Mean	-0.95	-0.85	54.06	53.84	17.64	17.73	
	Std. Dev	0.1169	0.1016	0.1780	0.1763	0.0865	0.0781	
	Mean - 3 Sigma	-1.30	-1.15	53.53	53.31	17.38	17.50	
Mean + 3 Sigma	-0.60	-0.54	54.60	54.37	17.90	17.97		
		(dBm)		(dB)		(dB)		

		LO_Feedthru_IQ_LOfreq_6700MHz_BBfreq1M Hz		IQ_Gain_Mid_10001MHz_LOx1_DetOff		LO_Feedthru_IQ_LOfreq_10000MHz_BBfreq1MHz	
		PRE	Post	PRE	Post	PRE	Post
CTRL	28	-28.7435	-28.0630	17.3436	17.4441	-22.2078	-21.9135
100k Biased	1	-27.9995	-26.8661	17.1127	17.2193	-21.9548	-21.6293
	5	-28.5465	-26.3961	17.2687	17.4916	-22.2391	-21.2551
	8	-29.3848	-28.0440	17.3316	17.4228	-22.1430	-21.5127
	24	-30.2183	-28.2668	17.2263	17.3238	-23.5415	-22.8298
	25	-29.5935	-29.1219	17.4835	17.5395	-25.5402	-25.3742
	26	-27.5515	-27.1484	17.4422	17.5253	-23.0655	-22.7541
	27	-30.1304	-29.7686	17.3575	17.4817	-24.0743	-23.6525
	Min	-30.2183	-29.7686	17.1127	17.2193	-25.5402	-25.3742
	Max	-27.5515	-26.3961	17.4835	17.5395	-21.9548	-21.2551
	Mean	-29.0606	-27.9446	17.3175	17.4291	-23.2226	-22.7154
	Std. Dev	1.0441	1.2262	0.1275	0.1178	1.2886	1.4561
	Mean - 3 Sigma	-32.1931	-31.6232	16.9350	17.0757	-27.0885	-27.0836
	Mean + 3 Sigma	-25.9282	-24.2660	17.7000	17.7825	-19.3568	-18.3472
		(dBm)		(dB)		(dBm)	

		IQ_Gain_High_20001MHz_LOx2_DetOff		LO_Feedthru_IQ_LOfreq_20000MHz_BBfreq1MHz		IQ_Gain_Highest_23501MHz_LOx2_DetOff	
		PRE	Post	PRE	Post	PRE	Post
CTRL	28	16.483	16.606	-24.506	-24.463	10.060	10.296
100k Biased	1	16.384	16.522	-23.232	-22.783	10.301	10.513
	5	16.609	16.848	-24.759	-23.989	10.801	11.090
	8	16.828	16.945	-24.001	-23.249	10.943	11.172
	24	16.491	16.626	-24.542	-23.890	9.408	9.600
	25	17.041	17.098	-23.682	-23.744	10.890	10.979
	26	16.840	16.912	-23.163	-22.988	10.643	10.754
	27	16.620	16.823	-24.617	-24.466	10.000	10.240
	Min	16.3842	16.5220	-24.7587	-24.4661	9.4085	9.5996
	Max	17.0413	17.0978	-23.1628	-22.7828	10.9430	11.1723
	Mean	16.6876	16.8248	-23.9994	-23.5869	10.4268	10.6213
	Std. Dev	0.2271	0.1951	0.6636	0.6015	0.5632	0.5583
	Mean - 3 Sigma	16.0064	16.2395	-25.9901	-25.3914	8.7373	8.9465
	Mean + 3 Sigma	17.3687	17.4100	-22.0087	-21.7824	12.1163	12.2961
		(dB)		(dBm)		(dB)	

		LO_Feedthru_IQ_LOfreq_23500MHz_BBfreq1MHz		IQ_OIP3L_IQ_RF_6p002GHz_LOx1	
		PRE	Post	PRE	Post
CTRL	28	-25.627	-25.569	26.291	26.394
100k Biased	1	-25.013	-24.402	26.188	26.177
	5	-25.805	-24.908	26.409	26.333
	8	-23.849	-23.580	26.537	26.657
	24	-25.731	-25.436	26.476	26.460
	25	-21.997	-22.164	26.362	26.368
	26	-22.358	-22.528	26.337	26.426
	27	-23.698	-23.283	26.487	26.404
	Min	-25.8054	-25.4361	26.1876	26.1775
	Max	-21.9975	-22.1643	26.5366	26.6573
	Mean	-24.0645	-23.7574	26.3994	26.4037
	Std. Dev	1.5315	1.2154	0.1174	0.1446
	Mean - 3 Sigma	-28.6591	-27.4036	26.0472	25.9699
	Mean + 3 Sigma	-19.4700	-20.1111	26.7516	26.8375
		(dBm)		(dBm)	





















