

Typical Performance Data

Definitions:

Input Return Loss = S11 (dB)

Gain(Power Gain) = S21 (dB)

Reverse Isolation = S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS: $V_{DD} = +7\text{ V}$, $I_{DD} = 1250\text{ mA}$ @ Temperature = $+25^{\circ}\text{C}$

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	IP-3 Output	1dB Comp. Output	Noise Figure	Psat Output	PAE
(GHz)	(dB)	(dB)	(dB)	(dB)	(dBm)	(dBm)	(dB)	(dBm)	(%)
7.5	27.3	-73.67	-17.31	-7.16	36.87	33.54	9.36	34.28	26.35
7.6	27.4	-73.67	-16.84	-7.55	37.33	34.00	9.18	34.56	29.05
7.7	27.6	-74.23	-16.47	-8.01	37.50	34.25	9.11	34.82	31.87
7.8	27.8	-74.81	-16.07	-8.55	37.80	34.34	8.97	34.81	32.93
7.9	28.0	-74.78	-15.67	-9.15	37.87	34.35	8.84	34.79	32.91
8.0	28.3	-75.01	-15.32	-9.84	38.07	34.46	8.64	34.91	32.98
8.1	28.6	-74.72	-15.08	-10.67	38.23	34.63	8.55	35.04	32.72
8.2	28.9	-75.82	-14.91	-11.57	38.17	34.76	8.52	35.12	32.44
8.3	29.2	-76.67	-14.71	-12.54	38.13	34.81	8.42	35.21	32.63
8.4	29.5	-74.96	-14.42	-13.48	38.23	34.69	8.29	35.15	31.57
8.5	29.7	-73.50	-14.18	-14.26	38.30	34.67	8.17	35.17	31.48
8.6	30.0	-73.90	-14.08	-14.85	38.34	34.71	8.12	35.21	30.99
8.7	30.2	-75.49	-14.09	-15.45	38.45	34.82	8.04	35.30	30.67
8.8	30.4	-75.89	-14.10	-16.18	38.52	34.97	7.92	35.41	31.00
8.9	30.5	-75.65	-14.13	-16.90	38.64	35.08	7.82	35.50	31.70
9.0	30.6	-75.37	-14.19	-17.32	38.96	35.07	7.71	35.48	32.19
9.1	30.6	-75.98	-14.32	-17.47	39.33	34.98	7.68	35.42	32.54
9.2	30.6	-76.05	-14.47	-17.59	39.56	34.93	7.57	35.37	32.31
9.3	30.6	-76.61	-14.64	-17.74	39.73	35.02	7.46	35.40	32.19
9.4	30.5	-77.85	-14.82	-18.01	39.71	35.13	7.38	35.43	32.43
9.5	30.4	-79.81	-14.91	-18.42	39.85	35.19	7.30	35.48	32.75
9.6	30.2	-78.67	-14.97	-18.98	40.02	35.14	7.24	35.48	32.91
9.7	30.1	-76.58	-14.97	-19.37	40.02	34.99	7.15	35.50	31.26
9.8	30.0	-76.21	-14.92	-19.51	40.01	34.90	7.05	35.47	31.43
9.9	29.8	-76.79	-14.82	-19.50	40.10	34.95	6.96	35.50	32.68
10.0	29.8	-76.48	-14.65	-19.33	40.18	35.00	6.85	35.49	33.59
10.1	29.6	-74.09	-14.40	-19.20	40.09	35.04	6.85	35.58	34.52
10.2	29.6	-73.33	-14.04	-19.21	40.02	35.00	6.75	35.62	35.44
10.3	29.5	-74.16	-13.65	-19.34	40.01	34.78	6.69	35.53	35.69
10.4	29.5	-74.43	-13.29	-19.28	40.03	34.67	6.63	35.52	36.13
10.5	29.4	-73.01	-13.01	-18.89	39.99	34.63	6.58	35.57	36.71
10.6	29.4	-72.37	-12.71	-18.18	39.82	34.57	6.49	35.60	36.74
10.7	29.4	-72.61	-12.45	-17.36	39.59	34.58	6.45	35.66	37.31
10.8	29.4	-73.88	-12.21	-16.56	39.64	34.51	6.42	35.64	37.55
10.9	29.4	-75.30	-12.00	-15.96	39.60	34.48	6.31	35.65	38.01
11.0	29.5	-77.61	-11.85	-15.42	39.46	34.42	6.28	35.65	38.22
11.1	29.5	-78.26	-11.70	-14.75	39.24	34.37	6.27	35.63	37.97
11.2	29.6	-76.52	-11.53	-13.91	38.92	34.35	6.26	35.63	38.07
11.3	29.7	-77.84	-11.41	-13.11	39.03	34.40	6.24	35.63	37.29
11.4	29.8	-82.67	-11.33	-12.35	39.00	34.46	6.20	35.64	36.77
11.5	29.8	-81.44	-11.27	-11.67	38.96	34.49	6.15	35.61	36.31
11.6	29.9	-77.64	-11.23	-11.04	38.61	34.53	6.17	35.63	36.06
11.7	30.0	-75.31	-11.18	-10.41	38.53	34.56	6.15	35.64	35.61
11.8	30.1	-74.17	-11.11	-9.83	38.41	34.58	6.14	35.65	35.14
11.9	30.2	-73.71	-11.03	-9.36	38.23	34.68	6.05	35.68	34.54
12.0	30.3	-73.24	-10.95	-9.00	38.12	34.75	6.11	35.72	33.92
12.1	30.4	-72.51	-10.86	-8.74	38.20	34.92	6.18	35.80	33.75
12.2	30.5	-72.05	-10.77	-8.47	37.97	35.12	6.17	35.86	33.40
12.3	30.5	-70.76	-10.63	-8.11	37.17	35.18	6.16	35.87	33.20
12.4	30.6	-69.19	-10.44	-7.82	37.13	35.08	6.12	35.81	32.81
12.5	30.7	-68.76	-10.25	-7.68	37.43	34.97	6.19	35.71	31.98

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TEST CONDITIONS: $V_{DD} = +7\text{ V}$, $I_{DD} = 1250\text{ mA}$ @ Temperature = $+25^\circ\text{C}$

FREQ	P _{OUT} (dBm)	V _{REF} - V _{DET}	FREQ	P _{OUT} (dBm)	V _{REF} - V _{DET}	FREQ	P _{OUT} (dBm)	V _{REF} - V _{DET}
(GHz)	(dB)	(V)	(GHz)	(dB)	(V)	(GHz)	(dB)	(V)
8.0	-4.4	0.003	9.0	-3.6	0.005	10.0	-4.5	0.004
8.0	-2.7	0.005	9.0	-1.9	0.007	10.0	-2.7	0.006
8.0	-0.9	0.007	9.0	0.0	0.010	10.0	-0.8	0.009
8.0	1.0	0.011	9.0	1.9	0.015	10.0	1.1	0.014
8.0	2.9	0.016	9.0	3.8	0.022	10.0	3.1	0.021
8.0	4.9	0.024	9.0	5.8	0.033	10.0	5.0	0.031
8.0	6.9	0.036	9.0	7.8	0.049	10.0	7.0	0.046
8.0	8.9	0.054	9.0	9.8	0.071	10.0	9.0	0.067
8.0	10.8	0.077	9.0	11.8	0.103	10.0	11.0	0.096
8.0	12.8	0.110	9.0	13.8	0.144	10.0	13.0	0.140
8.0	15.5	0.183	9.0	16.3	0.223	10.0	15.3	0.206
8.0	17.2	0.233	9.0	18.0	0.286	10.0	17.2	0.264
8.0	19.1	0.305	9.0	19.9	0.372	10.0	19.1	0.346
8.0	21.1	0.398	9.0	21.9	0.488	10.0	21.0	0.454
8.0	23.0	0.523	9.0	23.9	0.640	10.0	23.1	0.597
8.0	25.1	0.691	9.0	26.0	0.846	10.0	25.1	0.783
8.0	27.2	0.922	9.0	28.1	1.134	10.0	27.2	1.044
8.0	29.5	1.258	9.0	30.3	1.543	10.0	29.4	1.408
8.0	31.6	1.679	9.0	32.4	2.058	10.0	31.4	1.874
8.0	33.1	2.050	9.0	33.3	2.316	10.0	33.1	2.368
8.0	34.2	2.427	9.0	34.1	2.538	10.0	33.9	2.606
8.0	34.5	2.582	9.0	35.1	2.832	10.0	34.9	2.989

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TEST CONDITIONS: $V_{DD} = +7\text{ V}$, $I_{DD} = 1250\text{ mA}$ @ Temperature = $+25^{\circ}\text{C}$

FREQ	P _{OUT} (dBm)	V _{REF} - V _{DET}	FREQ	P _{OUT} (dBm)	V _{REF} - V _{DET}
(GHz)	(dB)	(V)	(GHz)	(dB)	(V)
11.0	-4.4	0.005	12.0	-4.9	0.004
11.0	-2.6	0.007	12.0	-2.1	0.007
11.0	-0.6	0.010	12.0	0.8	0.013
11.0	1.3	0.015	12.0	3.7	0.024
11.0	3.3	0.023	12.0	6.7	0.044
11.0	5.2	0.036	12.0	9.7	0.077
11.0	7.2	0.050	12.0	12.7	0.129
11.0	9.2	0.072	12.0	14.6	0.181
11.0	11.2	0.103	12.0	16.5	0.236
11.0	13.2	0.145	12.0	18.4	0.312
11.0	15.4	0.215	12.0	20.4	0.412
11.0	17.2	0.276	12.0	22.4	0.543
11.0	19.2	0.361	12.0	24.5	0.716
11.0	21.2	0.475	12.0	26.6	0.953
11.0	23.2	0.622	12.0	28.6	1.278
11.0	25.2	0.820	12.0	30.5	1.670
11.0	27.4	1.101	12.0	32.2	2.137
11.0	29.5	1.501	12.0	33.1	2.390
11.0	31.6	2.009	12.0	33.8	2.576
11.0	33.2	2.471	12.0	34.5	2.705
11.0	34.2	2.801	12.0	34.9	2.782
11.0	34.9	2.990	12.0	35.2	2.816