

## Typical Performance Data

### Definitions:

Input Return Loss = S11 (dB)

Gain(Power Gain) = S21 (dB)

Isolation = -S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS:  $V_{DD} = +8.00V$ ,  $I_{DD} = 160mA$  @ Temperature =  $+25^{\circ}C$

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
					K	Measure			
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
0.05	20.50	63.94	-11.49	-14.39	66.51	1.03	39.54	25.70	6.94
0.10	18.29	66.84	-16.79	-19.62	129.75	1.01	37.68	24.43	5.56
0.50	17.15	68.00	-22.29	-24.09	174.72	1.00	36.56	23.18	4.05
1.00	17.02	59.84	-19.27	-24.72	69.41	1.01	36.99	23.22	3.86
1.50	16.73	58.71	-15.99	-23.51	62.51	1.02	37.29	23.41	3.59
2.00	16.57	55.58	-13.62	-26.64	44.13	1.04	36.60	23.41	3.23
2.50	16.38	55.65	-12.63	-24.49	45.49	1.05	36.67	23.55	3.20
3.00	16.02	57.29	-12.43	-23.79	58.01	1.05	35.75	23.45	2.61
3.50	15.76	57.93	-13.51	-21.84	66.05	1.04	35.36	23.25	2.37
4.00	15.77	51.69	-17.05	-21.29	33.29	1.01	34.63	23.18	1.99
4.50	15.97	49.37	-22.26	-20.71	25.33	1.00	33.71	23.06	1.69
5.00	16.09	47.43	-29.55	-20.64	20.09	0.99	33.13	22.96	1.54
5.50	16.17	46.16	-29.70	-20.41	17.19	0.99	32.49	22.90	1.46
6.00	16.23	45.32	-23.35	-20.28	15.48	0.99	32.12	22.90	1.53
6.50	16.24	44.25	-20.31	-19.77	13.61	1.00	31.68	22.60	1.55
7.00	16.26	43.05	-19.37	-19.24	11.82	1.00	30.92	22.30	1.60
7.50	16.26	42.15	-19.21	-18.99	10.67	1.00	30.62	21.96	1.66
8.00	16.30	40.94	-18.43	-19.64	9.30	1.00	30.33	21.74	1.76
8.50	16.33	40.16	-16.71	-21.07	8.49	1.01	30.08	21.93	1.80
9.00	16.33	39.45	-14.71	-23.49	7.82	1.03	30.05	22.00	1.85
9.50	16.30	38.84	-13.23	-25.29	7.29	1.04	29.98	22.08	1.99
10.00	16.30	38.32	-12.92	-24.51	6.87	1.04	29.77	22.08	1.91
10.50	16.30	37.75	-13.72	-22.18	6.51	1.03	29.35	21.96	2.01
11.00	16.32	37.14	-15.36	-20.43	6.15	1.01	28.78	22.04	2.01
11.50	16.37	36.39	-17.38	-19.15	5.70	1.00	28.33	21.91	2.10
12.00	16.39	35.74	-17.86	-18.76	5.32	0.99	28.01	21.72	2.20
12.50	16.42	35.01	-16.99	-18.53	4.88	0.99	27.67	21.44	2.32
13.00	16.42	34.56	-15.20	-18.56	4.60	1.00	27.20	21.48	2.41
13.50	16.38	34.21	-13.23	-19.19	4.40	1.02	26.82	21.61	2.55
14.00	16.29	33.80	-11.82	-20.43	4.19	1.05	26.64	21.59	2.64
14.50	16.18	33.61	-11.09	-22.20	4.13	1.06	26.45	21.68	2.69
15.00	16.13	33.36	-11.23	-24.25	4.07	1.06	26.04	21.76	2.75
15.50	16.14	32.96	-12.28	-25.47	3.97	1.04	25.53	21.62	3.00
16.00	16.20	32.52	-13.90	-24.76	3.85	1.02	25.18	21.81	3.03
16.50	16.22	31.96	-15.14	-22.72	3.66	1.00	24.33	21.81	3.20
17.00	16.18	31.57	-15.07	-21.42	3.53	1.00	24.18	21.76	3.34
17.50	16.12	31.19	-14.93	-20.20	3.41	1.00	23.97	21.70	3.47
18.00	16.02	30.75	-15.30	-19.16	3.29	1.00	23.39	21.37	3.64
18.50	15.89	30.62	-16.44	-18.19	3.32	0.99	22.95	21.16	3.92
19.00	15.67	30.43	-17.74	-17.26	3.35	0.98	22.02	21.57	4.20
19.50	15.36	30.37	-18.48	-16.56	3.47	0.97	21.29	21.48	4.58
20.00	14.95	30.23	-17.29	-16.55	3.59	0.97	20.35	21.40	5.13

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Isolation = -S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS:  $V_{DD} = +8.00V$ ,  $I_{DD} = 150mA$  @ Temperature =  $+25^{\circ}C$

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
					K	Measure			
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
0.05	20.38	66.18	-11.47	-14.59	87.40	1.03	38.61	25.55	6.67
0.10	18.19	76.31	-16.78	-19.65	390.86	1.01	36.05	24.20	5.40
0.50	17.05	63.99	-22.30	-23.86	111.47	1.00	34.89	22.86	4.08
1.00	16.91	59.11	-19.26	-24.57	64.64	1.01	35.88	22.94	3.80
1.50	16.62	55.16	-16.00	-23.32	42.03	1.02	36.33	23.12	3.51
2.00	16.46	54.53	-13.64	-26.61	39.59	1.04	35.78	23.17	3.17
2.50	16.27	53.86	-12.65	-24.58	37.50	1.05	36.03	23.33	3.14
3.00	15.91	55.56	-12.44	-23.98	48.17	1.05	35.88	23.25	2.53
3.50	15.65	55.60	-13.52	-22.01	51.18	1.04	35.31	23.05	2.25
4.00	15.66	51.62	-17.06	-21.44	33.44	1.01	34.32	22.97	1.93
4.50	15.86	49.29	-22.24	-20.79	25.39	1.00	33.72	22.83	1.61
5.00	15.98	47.07	-29.38	-20.69	19.51	0.99	32.96	22.73	1.49
5.50	16.06	46.10	-29.68	-20.41	17.30	0.99	32.70	22.66	1.46
6.00	16.12	44.88	-23.41	-20.29	14.92	0.99	32.09	22.69	1.51
6.50	16.13	43.97	-20.36	-19.75	13.35	1.00	31.92	22.38	1.51
7.00	16.15	42.59	-19.39	-19.21	11.36	1.00	31.41	22.11	1.60
7.50	16.15	41.80	-19.22	-19.00	10.38	1.00	30.96	21.74	1.63
8.00	16.19	40.74	-18.45	-19.73	9.21	1.00	30.69	21.54	1.76
8.50	16.22	40.05	-16.74	-21.20	8.49	1.01	30.53	21.75	1.80
9.00	16.22	39.34	-14.77	-23.76	7.83	1.03	30.24	21.81	1.92
9.50	16.18	38.92	-13.31	-25.62	7.46	1.04	30.34	21.88	1.92
10.00	16.19	38.00	-13.00	-24.74	6.72	1.04	29.99	21.90	1.87
10.50	16.18	37.55	-13.77	-22.34	6.45	1.03	29.76	21.76	1.95
11.00	16.21	36.99	-15.36	-20.54	6.13	1.01	29.21	21.80	2.01
11.50	16.25	36.22	-17.32	-19.23	5.66	1.00	28.67	21.68	2.09
12.00	16.27	35.62	-17.82	-18.79	5.31	0.99	28.40	21.46	2.17
12.50	16.30	34.97	-17.03	-18.53	4.92	0.99	28.15	21.17	2.26
13.00	16.30	34.32	-15.28	-18.56	4.55	1.00	27.62	21.21	2.45
13.50	16.25	33.96	-13.31	-19.24	4.34	1.02	27.15	21.35	2.55
14.00	16.16	33.54	-11.88	-20.51	4.14	1.05	27.00	21.37	2.60
14.50	16.05	33.37	-11.14	-22.39	4.09	1.06	26.74	21.49	2.69
15.00	16.00	33.20	-11.27	-24.55	4.06	1.06	26.39	21.58	2.81
15.50	16.01	32.80	-12.30	-25.85	3.96	1.04	26.01	21.42	2.88
16.00	16.06	32.29	-13.90	-25.08	3.81	1.02	25.56	21.63	2.93
16.50	16.09	31.94	-15.12	-22.99	3.71	1.01	24.71	21.68	3.14
17.00	16.05	31.40	-15.10	-21.56	3.52	1.00	24.52	21.63	3.27
17.50	15.99	31.11	-15.03	-20.20	3.43	1.00	24.25	21.60	3.44
18.00	15.89	30.74	-15.42	-19.01	3.34	1.00	23.87	21.28	3.56
18.50	15.76	30.60	-16.58	-17.98	3.36	0.99	23.40	21.05	3.90
19.00	15.54	30.44	-17.89	-17.12	3.41	0.98	22.44	21.49	4.11
19.50	15.22	30.31	-18.52	-16.57	3.50	0.97	21.69	21.46	4.56
20.00	14.81	30.18	-17.32	-16.71	3.62	0.97	20.82	21.41	5.05

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Isolation = -S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS:  $V_{DD} = +8.00V$ ,  $I_{DD} = 170mA$  @ Temperature =  $+25^{\circ}C$

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
					K	Measure			
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
0.05	20.61	64.26	-11.48	-14.20	68.05	1.03	41.59	25.91	7.30
0.10	18.40	64.70	-16.83	-19.58	100.15	1.01	40.03	24.74	5.79
0.50	17.26	59.85	-22.28	-24.36	67.57	1.00	38.54	23.70	4.17
1.00	17.12	59.19	-19.24	-24.87	63.71	1.01	36.92	23.76	3.85
1.50	16.83	57.53	-15.98	-23.60	53.91	1.02	37.04	23.87	3.54
2.00	16.68	56.94	-13.62	-26.62	50.94	1.04	35.90	23.84	3.20
2.50	16.48	55.70	-12.63	-24.41	45.22	1.05	35.52	23.96	3.17
3.00	16.12	57.99	-12.42	-23.57	62.15	1.05	35.19	23.83	2.56
3.50	15.86	58.20	-13.51	-21.69	67.35	1.04	34.48	23.62	2.33
4.00	15.87	52.03	-17.06	-21.18	34.21	1.01	33.78	23.58	1.97
4.50	16.07	49.65	-22.31	-20.60	25.84	1.00	33.00	23.48	1.72
5.00	16.19	47.79	-29.66	-20.60	20.68	0.99	32.51	23.38	1.62
5.50	16.28	46.80	-29.68	-20.41	18.28	0.99	32.00	23.34	1.44
6.00	16.33	45.45	-23.32	-20.30	15.53	0.99	31.13	23.29	1.52
6.50	16.35	44.27	-20.28	-19.79	13.48	1.00	31.02	23.01	1.58
7.00	16.37	43.11	-19.33	-19.27	11.75	1.00	30.32	22.66	1.63
7.50	16.37	42.40	-19.19	-18.94	10.84	1.00	30.10	22.37	1.69
8.00	16.41	40.96	-18.41	-19.52	9.21	1.00	29.71	22.12	1.75
8.50	16.44	40.23	-16.71	-20.92	8.45	1.01	29.35	22.29	1.82
9.00	16.44	39.67	-14.69	-23.28	7.92	1.03	29.23	22.34	1.92
9.50	16.41	39.08	-13.17	-25.07	7.39	1.04	29.27	22.46	1.86
10.00	16.41	38.38	-12.85	-24.32	6.83	1.04	29.13	22.42	1.94
10.50	16.41	38.01	-13.66	-22.00	6.61	1.03	28.56	22.30	1.98
11.00	16.44	37.26	-15.36	-20.32	6.15	1.01	28.06	22.43	2.01
11.50	16.49	36.62	-17.43	-19.09	5.77	1.00	27.57	22.29	2.14
12.00	16.51	35.88	-17.88	-18.73	5.33	0.99	27.20	22.14	2.23
12.50	16.54	35.34	-16.97	-18.53	5.00	0.99	26.94	21.88	2.28
13.00	16.54	34.77	-15.13	-18.56	4.65	1.00	26.47	21.93	2.42
13.50	16.50	34.29	-13.17	-19.15	4.37	1.02	26.08	22.03	2.58
14.00	16.41	33.95	-11.77	-20.34	4.20	1.05	25.89	21.98	2.61
14.50	16.31	33.80	-11.05	-22.07	4.16	1.06	25.69	22.02	2.74
15.00	16.26	33.44	-11.18	-23.98	4.05	1.06	25.30	22.10	2.84
15.50	16.27	33.11	-12.26	-25.14	3.98	1.04	24.90	21.98	2.92
16.00	16.33	32.66	-13.90	-24.45	3.85	1.02	24.46	22.18	3.06
16.50	16.35	32.14	-15.15	-22.51	3.68	1.00	23.67	22.12	3.18
17.00	16.32	31.70	-15.06	-21.31	3.53	1.00	23.39	22.05	3.30
17.50	16.26	31.29	-14.87	-20.19	3.39	1.00	23.16	21.97	3.50
18.00	16.16	30.92	-15.20	-19.30	3.30	1.00	22.68	21.61	3.70
18.50	16.04	30.71	-16.35	-18.36	3.30	0.99	22.27	21.43	3.87
19.00	15.83	30.61	-17.66	-17.36	3.36	0.98	21.31	21.77	4.21
19.50	15.52	30.41	-18.39	-16.55	3.42	0.97	20.54	21.62	4.63
20.00	15.11	30.27	-17.31	-16.37	3.53	0.97	19.67	21.51	5.11

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Isolation = -S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS:  $V_{DD} = +8.00V$ ,  $I_{DD} = 160mA$  @ Temperature =  $-45^{\circ}C$

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
					K	Measure			
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
0.05	21.08	59.47	-11.46	-13.22	36.73	1.02	35.50	24.21	4.75
0.10	18.82	62.05	-16.85	-18.72	70.15	1.01	33.65	22.84	4.22
0.50	17.71	61.78	-23.72	-24.74	80.29	1.00	32.46	22.11	3.36
1.00	17.65	62.35	-21.40	-24.91	86.64	1.00	33.53	22.11	3.17
1.50	17.41	61.63	-17.61	-23.82	81.60	1.01	33.81	22.09	2.93
2.00	17.43	62.01	-14.97	-26.34	84.76	1.03	33.20	21.94	2.56
2.50	17.32	62.01	-13.85	-24.13	86.02	1.04	33.03	22.15	2.61
3.00	17.06	65.19	-13.14	-22.90	128.98	1.04	32.89	22.08	2.06
3.50	16.79	61.37	-13.48	-21.87	87.14	1.04	32.75	21.95	1.85
4.00	16.71	53.66	-16.66	-21.86	37.41	1.02	32.37	21.84	1.53
4.50	16.87	50.66	-21.74	-21.94	26.48	1.00	31.71	21.62	1.26
5.00	16.94	48.93	-27.97	-21.78	21.66	0.99	31.34	21.45	1.07
5.50	17.02	48.57	-31.01	-21.38	20.63	0.99	30.80	21.18	0.88
6.00	17.07	46.44	-25.70	-21.09	16.04	0.99	30.35	21.13	0.94
6.50	17.13	46.05	-22.36	-20.53	15.19	1.00	30.03	20.94	0.96
7.00	17.19	44.36	-20.90	-19.73	12.40	1.00	29.61	20.87	1.02
7.50	17.24	43.24	-20.68	-19.16	10.86	1.00	29.46	20.73	1.02
8.00	17.34	41.99	-20.87	-19.18	9.35	0.99	29.10	20.53	1.05
8.50	17.46	41.18	-19.70	-20.05	8.46	1.00	28.65	20.31	1.17
9.00	17.56	40.72	-16.46	-22.02	7.93	1.01	28.25	20.21	1.21
9.50	17.59	40.11	-13.55	-23.99	7.29	1.04	28.25	20.28	1.23
10.00	17.63	39.55	-12.33	-23.90	6.73	1.05	28.31	20.14	1.18
10.50	17.65	38.98	-12.58	-21.39	6.31	1.04	28.41	20.14	1.24
11.00	17.73	38.78	-14.13	-19.63	6.23	1.02	28.00	20.17	1.23
11.50	17.86	37.68	-16.80	-18.91	5.53	1.00	27.66	20.02	1.24
12.00	17.96	37.12	-19.16	-18.77	5.22	0.99	28.03	20.13	1.28
12.50	18.09	36.39	-20.15	-18.64	4.77	0.98	28.41	19.96	1.37
13.00	18.22	35.67	-18.43	-18.34	4.33	0.99	28.02	19.84	1.44
13.50	18.34	35.07	-15.84	-18.28	3.96	1.00	27.44	19.87	1.60
14.00	18.38	34.66	-13.49	-18.63	3.72	1.02	27.21	19.83	1.60
14.50	18.33	34.33	-11.50	-19.12	3.52	1.04	27.71	20.17	1.77
15.00	18.26	34.15	-10.45	-20.34	3.43	1.07	28.79	20.59	1.80
15.50	18.25	33.91	-10.56	-22.21	3.37	1.07	29.31	20.37	1.79
16.00	18.36	33.49	-11.95	-23.89	3.28	1.04	27.67	20.54	1.84
16.50	18.55	33.02	-14.64	-25.18	3.16	1.01	26.76	20.39	1.84
17.00	18.74	32.39	-17.72	-26.30	2.97	0.98	26.32	20.17	1.93
17.50	18.90	31.82	-18.82	-23.31	2.76	0.97	26.36	20.05	1.99
18.00	18.98	31.27	-17.56	-19.28	2.57	0.97	25.86	19.82	2.04
18.50	19.01	30.88	-16.89	-17.09	2.43	0.96	25.59	19.59	2.18
19.00	18.99	30.46	-17.36	-15.79	2.32	0.95	25.65	19.78	2.31
19.50	18.93	30.22	-19.21	-15.52	2.30	0.94	25.31	19.41	2.49
20.00	18.94	30.04	-20.98	-16.42	2.29	0.94	25.05	19.44	2.67

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Output Return Loss = S22 (dB)

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FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
					K	Measure			
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
0.05	20.84	69.35	-11.49	-13.25	118.09	1.02	39.69	24.55	4.53
0.10	18.58	63.99	-16.83	-18.73	90.16	1.01	37.77	23.23	4.04
0.50	17.46	63.03	-23.55	-24.70	95.41	1.00	36.01	22.47	3.29
1.00	17.39	61.56	-21.12	-24.88	81.46	1.00	36.32	22.48	3.08
1.50	17.14	60.79	-17.35	-23.78	76.26	1.01	38.37	22.48	2.78
2.00	17.15	62.08	-14.76	-26.26	88.09	1.03	37.30	22.38	2.56
2.50	17.04	60.82	-13.65	-24.11	77.36	1.04	37.38	22.56	2.64
3.00	16.77	63.75	-12.99	-22.87	112.68	1.04	36.75	22.50	2.05
3.50	16.51	59.82	-13.38	-21.85	75.18	1.04	36.23	22.35	1.86
4.00	16.43	53.94	-16.59	-21.82	39.88	1.02	35.99	22.27	1.54
4.50	16.60	51.14	-21.69	-21.89	28.91	1.00	34.47	22.04	1.17
5.00	16.66	49.01	-28.22	-21.73	22.56	0.99	33.96	21.89	1.04
5.50	16.74	47.80	-31.27	-21.36	19.50	0.99	32.85	21.66	0.98
6.00	16.80	46.52	-25.59	-21.09	16.71	0.99	31.90	21.66	0.86
6.50	16.86	45.72	-22.15	-20.57	15.10	1.00	31.10	21.47	0.92
7.00	16.92	44.49	-20.60	-19.82	12.99	1.00	30.60	21.29	0.97
7.50	16.96	43.36	-20.36	-19.23	11.36	1.00	30.22	21.10	0.99
8.00	17.06	42.11	-20.39	-19.27	9.79	1.00	29.57	20.85	1.11
8.50	17.17	41.20	-19.12	-20.14	8.76	1.00	28.96	20.78	1.04
9.00	17.27	40.53	-16.03	-22.11	8.01	1.02	28.37	20.80	1.17
9.50	17.29	40.11	-13.34	-24.21	7.53	1.04	28.26	20.87	1.22
10.00	17.32	39.23	-12.24	-24.02	6.71	1.05	28.08	20.85	1.14
10.50	17.35	39.01	-12.56	-21.43	6.55	1.05	28.07	20.81	1.21
11.00	17.43	38.61	-14.16	-19.59	6.32	1.02	27.51	20.86	1.20
11.50	17.56	37.72	-16.84	-18.73	5.76	1.00	27.17	20.75	1.20
12.00	17.65	37.10	-19.05	-18.56	5.39	0.99	27.35	20.82	1.28
12.50	17.78	36.25	-19.69	-18.51	4.86	0.98	27.63	20.57	1.34
13.00	17.90	35.57	-17.85	-18.39	4.43	0.99	27.20	20.44	1.43
13.50	17.99	35.04	-15.32	-18.53	4.10	1.00	26.54	20.49	1.52
14.00	18.02	34.70	-13.10	-19.04	3.88	1.02	26.25	20.46	1.59
14.50	17.95	34.23	-11.25	-19.71	3.62	1.05	26.44	20.76	1.71
15.00	17.87	34.23	-10.35	-21.07	3.60	1.07	27.18	21.05	1.74
15.50	17.87	34.03	-10.59	-23.01	3.57	1.07	27.81	20.82	1.79
16.00	17.99	33.49	-12.14	-24.36	3.43	1.04	26.46	20.94	1.88
16.50	18.16	33.05	-14.94	-24.95	3.32	1.01	25.31	20.80	1.87
17.00	18.32	32.34	-17.78	-25.03	3.09	0.99	25.00	20.65	1.92
17.50	18.45	31.89	-18.26	-22.46	2.92	0.98	24.96	20.58	2.04
18.00	18.49	31.33	-16.91	-19.38	2.72	0.97	24.51	20.39	2.10
18.50	18.49	30.95	-16.37	-17.58	2.59	0.97	24.11	20.09	2.22
19.00	18.44	30.68	-17.09	-16.35	2.52	0.97	24.02	20.23	2.36
19.50	18.35	30.51	-19.12	-15.88	2.53	0.95	23.81	20.14	2.63
20.00	18.31	30.22	-21.30	-16.39	2.49	0.95	23.52	20.14	2.77

## Typical Performance Data

### Definitions:

Input Return Loss = S11 (dB)

Gain(Power Gain) = S21 (dB)

Isolation = -S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS:  $V_{DD} = +8.00V$ ,  $I_{DD} = 170mA$  @ Temperature =  $-45^{\circ}C$

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
					K	Measure			
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
0.05	21.29	62.42	-11.48	-13.21	50.47	1.02	32.56	24.11	5.00
0.10	19.04	61.28	-16.85	-18.71	62.64	1.01	31.40	22.74	4.36
0.50	17.93	71.30	-23.97	-24.79	234.28	1.00	30.54	22.05	3.35
1.00	17.87	63.66	-21.60	-24.96	98.33	1.00	31.23	22.07	3.16
1.50	17.63	60.79	-17.80	-23.86	72.25	1.01	31.13	22.04	2.93
2.00	17.65	61.06	-15.14	-26.36	74.16	1.03	30.85	21.88	2.65
2.50	17.55	61.64	-14.01	-24.12	80.35	1.04	30.89	22.03	2.68
3.00	17.29	67.90	-13.28	-22.94	171.69	1.04	30.71	21.95	2.06
3.50	17.03	60.40	-13.58	-21.90	75.97	1.04	30.56	21.81	1.89
4.00	16.94	53.62	-16.73	-21.88	36.31	1.01	30.32	21.71	1.58
4.50	17.10	50.77	-21.78	-21.96	26.16	1.00	30.04	21.53	1.34
5.00	17.17	49.36	-27.78	-21.83	22.18	0.99	29.69	21.41	1.15
5.50	17.24	48.14	-30.68	-21.42	19.13	0.99	29.45	21.14	0.96
6.00	17.30	46.45	-25.85	-21.13	15.64	0.99	29.16	21.09	0.98
6.50	17.36	45.60	-22.53	-20.49	14.05	1.00	28.81	20.90	1.01
7.00	17.42	44.35	-21.11	-19.66	12.08	1.00	28.57	20.75	1.01
7.50	17.47	43.33	-20.98	-19.07	10.68	0.99	28.55	20.61	1.03
8.00	17.57	41.98	-21.27	-19.07	9.10	0.99	28.24	20.45	1.09
8.50	17.69	41.23	-20.18	-19.94	8.30	1.00	27.96	20.17	1.16
9.00	17.80	40.51	-16.81	-21.87	7.55	1.01	27.60	19.98	1.24
9.50	17.83	40.28	-13.75	-23.91	7.25	1.04	27.63	20.00	1.21
10.00	17.87	39.35	-12.44	-23.79	6.42	1.05	27.78	19.85	1.16
10.50	17.89	38.92	-12.61	-21.35	6.11	1.04	27.92	19.85	1.22
11.00	17.97	38.65	-14.12	-19.65	5.98	1.02	27.46	19.82	1.29
11.50	18.11	37.80	-16.76	-19.06	5.46	1.00	27.36	19.68	1.26
12.00	18.20	37.22	-19.22	-18.97	5.14	0.99	27.69	19.76	1.29
12.50	18.34	36.46	-20.50	-18.78	4.68	0.98	27.92	19.68	1.40
13.00	18.48	35.72	-18.93	-18.33	4.23	0.98	27.67	19.67	1.48
13.50	18.60	35.02	-16.29	-18.10	3.83	0.99	27.35	19.58	1.56
14.00	18.67	34.70	-13.86	-18.31	3.63	1.01	27.20	19.45	1.63
14.50	18.62	34.31	-11.72	-18.68	3.41	1.04	27.75	19.87	1.69
15.00	18.55	34.18	-10.57	-19.78	3.33	1.06	28.85	20.42	1.83
15.50	18.54	33.89	-10.55	-21.55	3.25	1.07	29.08	20.26	1.80
16.00	18.65	33.60	-11.83	-23.32	3.20	1.04	27.67	20.42	1.81
16.50	18.85	33.01	-14.41	-25.16	3.05	1.01	26.85	20.26	1.87
17.00	19.05	32.46	-17.55	-27.36	2.89	0.98	26.48	20.04	1.87
17.50	19.23	31.95	-19.11	-24.09	2.71	0.97	26.52	19.88	2.00
18.00	19.34	31.38	-18.12	-19.27	2.51	0.96	26.02	19.61	2.09
18.50	19.41	30.86	-17.39	-16.73	2.33	0.96	25.98	19.35	2.25
19.00	19.41	30.45	-17.72	-15.31	2.22	0.95	26.01	19.60	2.26
19.50	19.37	30.19	-19.39	-15.12	2.18	0.94	25.60	19.12	2.47
20.00	19.41	29.85	-20.82	-16.32	2.13	0.93	25.36	19.14	2.59

## Typical Performance Data

### Definitions:

Input Return Loss = S11 (dB)

Gain(Power Gain) = S21 (dB)

Isolation = -S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS:  $V_{DD} = +8.00V$ ,  $I_{DD} = 160mA$  @ Temperature =  $+85^{\circ}C$

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
					K	Measure			
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
0.05	20.44	60.85	-11.50	-14.50	47.01	1.03	35.90	25.40	8.19
0.10	18.24	66.04	-16.88	-19.81	119.15	1.01	34.47	24.12	6.56
0.50	17.06	59.81	-22.32	-24.53	68.88	1.00	33.49	22.87	4.75
1.00	16.91	56.64	-19.46	-24.84	48.66	1.01	34.30	22.85	4.40
1.50	16.62	56.72	-16.07	-23.61	50.34	1.02	34.22	22.91	4.06
2.00	16.43	53.97	-13.68	-26.85	37.29	1.04	34.32	22.87	3.70
2.50	16.20	53.61	-12.81	-24.73	36.78	1.05	34.89	22.92	3.66
3.00	15.82	53.42	-12.69	-24.21	38.19	1.05	34.58	22.79	3.04
3.50	15.59	56.34	-13.88	-21.85	56.35	1.03	34.30	22.60	2.75
4.00	15.65	51.40	-17.84	-21.06	32.75	1.01	33.94	22.63	2.39
4.50	15.86	48.33	-23.46	-20.44	22.75	1.00	33.85	22.55	2.10
5.00	15.98	46.61	-29.86	-20.41	18.48	0.99	33.32	22.47	1.99
5.50	16.06	45.52	-29.41	-20.16	16.17	0.99	33.27	22.34	1.94
6.00	16.10	44.24	-23.54	-20.04	13.86	0.99	33.18	22.34	1.92
6.50	16.10	43.13	-20.57	-19.48	12.17	1.00	32.88	22.02	2.00
7.00	16.10	41.98	-19.60	-19.14	10.66	1.00	32.54	21.77	2.06
7.50	16.08	40.91	-19.35	-18.96	9.46	1.00	32.14	21.44	2.11
8.00	16.10	39.89	-18.58	-19.78	8.45	1.00	31.86	21.32	2.19
8.50	16.11	39.40	-16.90	-21.40	8.00	1.01	31.92	21.46	2.27
9.00	16.08	38.67	-14.85	-23.82	7.38	1.03	31.74	21.51	2.40
9.50	16.03	38.09	-13.47	-25.31	6.92	1.04	31.64	21.55	2.36
10.00	16.00	37.48	-13.30	-24.55	6.49	1.04	31.46	21.56	2.35
10.50	15.98	37.03	-14.15	-22.40	6.25	1.03	31.24	21.40	2.49
11.00	15.97	36.51	-15.60	-20.75	5.98	1.01	30.52	21.38	2.59
11.50	15.99	35.68	-17.16	-19.39	5.48	1.00	30.23	21.23	2.66
12.00	16.00	35.00	-17.34	-18.81	5.10	0.99	29.98	21.02	2.76
12.50	16.02	34.51	-16.60	-18.54	4.82	1.00	29.72	20.76	2.89
13.00	16.02	33.91	-15.10	-18.67	4.48	1.00	29.22	20.81	2.95
13.50	15.97	33.47	-13.28	-19.45	4.25	1.02	28.90	20.93	3.09
14.00	15.87	33.13	-11.86	-20.72	4.08	1.05	28.60	20.91	3.24
14.50	15.76	32.88	-11.13	-22.26	3.99	1.06	28.52	20.99	3.31
15.00	15.72	32.62	-11.33	-23.83	3.93	1.06	28.23	21.03	3.38
15.50	15.74	32.25	-12.48	-24.40	3.85	1.04	27.84	20.96	3.56
16.00	15.79	31.83	-13.98	-23.62	3.73	1.02	27.53	21.13	3.64
16.50	15.79	31.38	-14.97	-22.41	3.60	1.00	26.94	21.01	3.82
17.00	15.74	30.87	-14.98	-21.54	3.43	1.00	26.79	20.97	3.97
17.50	15.67	30.53	-15.06	-20.21	3.33	1.00	26.46	20.85	4.15
18.00	15.56	30.28	-15.55	-18.93	3.29	1.00	26.01	20.50	4.36
18.50	15.41	30.03	-16.94	-17.69	3.28	0.99	25.48	20.20	4.67
19.00	15.18	29.95	-18.25	-16.90	3.36	0.98	24.57	20.68	4.97
19.50	14.85	29.80	-18.30	-16.73	3.45	0.97	23.88	20.66	5.39
20.00	14.42	29.72	-16.74	-17.21	3.59	0.98	23.05	20.47	5.89

## Typical Performance Data

### Definitions:

Input Return Loss = S11 (dB)

Gain(Power Gain) = S21 (dB)

Isolation = -S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS:  $V_{DD} = +8.00V$ ,  $I_{DD} = 150mA$  @ Temperature =  $+85^{\circ}C$

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
					K	Measure			
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
0.05	20.32	63.31	-11.49	-14.66	63.40	1.03	35.26	25.14	8.01
0.10	18.11	67.58	-16.85	-19.84	144.27	1.01	33.83	23.69	6.38
0.50	16.94	61.84	-22.32	-24.26	88.15	1.00	32.87	22.37	4.68
1.00	16.79	56.40	-19.46	-24.71	48.03	1.01	33.66	22.34	4.37
1.50	16.50	55.25	-16.07	-23.48	43.12	1.02	33.67	22.41	4.02
2.00	16.30	52.07	-13.68	-26.78	30.42	1.04	33.74	22.38	3.69
2.50	16.08	52.91	-12.83	-24.82	34.46	1.05	34.14	22.44	3.66
3.00	15.70	54.23	-12.73	-24.47	42.57	1.05	34.14	22.31	3.03
3.50	15.46	53.66	-13.91	-22.02	42.02	1.03	33.75	22.10	2.74
4.00	15.53	51.03	-17.89	-21.20	31.81	1.01	33.57	22.13	2.34
4.50	15.74	47.50	-23.52	-20.47	20.98	1.00	33.27	22.05	2.06
5.00	15.86	46.17	-29.77	-20.45	17.83	0.99	33.05	21.96	1.93
5.50	15.94	44.94	-29.18	-20.12	15.35	0.99	32.97	21.84	1.91
6.00	15.97	43.55	-23.46	-20.00	13.00	0.99	32.65	21.84	1.90
6.50	15.97	42.88	-20.51	-19.42	11.99	1.00	32.58	21.52	2.03
7.00	15.96	41.85	-19.55	-19.10	10.66	1.00	32.13	21.28	2.01
7.50	15.95	40.86	-19.32	-18.96	9.54	1.00	31.83	20.97	2.13
8.00	15.97	39.73	-18.59	-19.86	8.42	1.00	31.91	20.88	2.13
8.50	15.97	39.13	-16.90	-21.57	7.88	1.01	31.75	21.04	2.29
9.00	15.94	38.42	-14.88	-24.07	7.29	1.03	31.67	21.10	2.31
9.50	15.89	38.00	-13.56	-25.48	6.97	1.04	31.76	21.12	2.44
10.00	15.87	37.26	-13.42	-24.63	6.43	1.04	31.64	21.14	2.39
10.50	15.84	36.80	-14.27	-22.45	6.19	1.03	31.38	20.97	2.49
11.00	15.84	36.26	-15.65	-20.80	5.90	1.01	30.80	20.91	2.52
11.50	15.86	35.56	-17.15	-19.46	5.50	1.00	30.25	20.75	2.61
12.00	15.86	34.90	-17.32	-18.87	5.13	0.99	30.09	20.52	2.78
12.50	15.87	34.24	-16.62	-18.58	4.75	0.99	29.78	20.24	2.85
13.00	15.87	33.68	-15.16	-18.70	4.43	1.00	29.34	20.29	2.99
13.50	15.82	33.28	-13.36	-19.46	4.22	1.02	28.96	20.41	3.12
14.00	15.72	33.04	-11.96	-20.73	4.12	1.04	28.85	20.42	3.21
14.50	15.62	32.71	-11.23	-22.37	3.99	1.06	28.65	20.54	3.38
15.00	15.57	32.40	-11.42	-24.02	3.91	1.06	28.38	20.58	3.40
15.50	15.59	32.14	-12.54	-24.63	3.87	1.04	28.26	20.50	3.56
16.00	15.64	31.62	-14.02	-23.81	3.71	1.02	27.79	20.68	3.64
16.50	15.64	31.22	-15.01	-22.52	3.59	1.00	27.24	20.59	3.81
17.00	15.59	30.76	-15.06	-21.58	3.45	1.00	27.03	20.56	4.03
17.50	15.51	30.48	-15.17	-20.14	3.37	1.00	26.83	20.45	4.15
18.00	15.39	30.10	-15.73	-18.80	3.28	0.99	26.28	20.14	4.34
18.50	15.25	29.91	-17.13	-17.57	3.30	0.98	25.84	19.82	4.64
19.00	15.02	29.82	-18.42	-16.83	3.37	0.98	24.98	20.34	4.94
19.50	14.69	29.74	-18.44	-16.76	3.49	0.97	24.24	20.42	5.42
20.00	14.25	29.65	-16.83	-17.41	3.64	0.98	23.40	20.28	5.89



## Typical Performance Data

### Definitions:

Input Return Loss = S11 (dB)

Gain(Power Gain) = S21 (dB)

Isolation = -S12 (dB)

Output Return Loss = S22 (dB)

TEST CONDITIONS:  $V_{DD} = +8.00V$ ,  $I_{DD} = 170mA$  @ Temperature =  $+85^{\circ}C$

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
					K	Measure			
(GHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
0.05	20.55	72.62	-11.48	-14.36	179.80	1.03	37.05	25.58	8.43
0.10	18.33	62.61	-16.87	-19.79	79.43	1.01	34.90	24.42	6.76
0.50	17.16	65.49	-22.36	-24.78	130.85	1.00	34.10	23.28	4.74
1.00	17.01	58.99	-19.46	-25.01	63.06	1.01	34.70	23.27	4.43
1.50	16.72	56.21	-16.06	-23.72	46.98	1.02	34.95	23.31	4.11
2.00	16.53	54.30	-13.67	-26.85	38.30	1.04	34.90	23.27	3.75
2.50	16.31	53.77	-12.81	-24.59	37.03	1.05	35.28	23.34	3.69
3.00	15.92	55.00	-12.68	-23.98	45.24	1.05	35.41	23.18	3.11
3.50	15.69	56.35	-13.86	-21.69	55.74	1.03	34.69	23.00	2.82
4.00	15.74	50.77	-17.78	-20.93	30.09	1.01	34.49	23.02	2.41
4.50	15.96	48.34	-23.41	-20.39	22.52	1.00	33.81	22.96	2.12
5.00	16.09	46.84	-29.75	-20.41	18.76	0.99	33.92	22.88	2.04
5.50	16.16	45.56	-29.59	-20.17	16.06	0.99	33.61	22.78	1.93
6.00	16.21	44.31	-23.64	-20.08	13.82	0.99	33.01	22.74	1.98
6.50	16.20	43.27	-20.65	-19.52	12.22	1.00	32.74	22.44	2.00
7.00	16.20	42.43	-19.66	-19.16	11.09	1.00	32.17	22.16	2.10
7.50	16.19	41.22	-19.39	-18.93	9.68	1.00	32.09	21.84	2.05
8.00	16.20	40.33	-18.64	-19.67	8.77	1.00	31.80	21.69	2.24
8.50	16.21	39.57	-16.92	-21.18	8.05	1.01	31.73	21.82	2.30
9.00	16.19	38.88	-14.82	-23.51	7.45	1.03	31.24	21.85	2.42
9.50	16.13	38.08	-13.40	-25.05	6.83	1.04	31.24	21.91	2.36
10.00	16.11	37.76	-13.21	-24.47	6.61	1.04	30.90	21.90	2.48
10.50	16.09	37.11	-14.07	-22.33	6.22	1.03	30.90	21.74	2.51
11.00	16.08	36.67	-15.55	-20.67	6.00	1.01	30.24	21.76	2.61
11.50	16.10	35.89	-17.15	-19.31	5.55	1.00	29.81	21.63	2.66
12.00	16.11	35.16	-17.34	-18.76	5.13	0.99	29.61	21.44	2.76
12.50	16.13	34.59	-16.59	-18.50	4.80	0.99	29.23	21.18	2.89
13.00	16.13	34.04	-15.07	-18.63	4.48	1.00	28.67	21.24	2.98
13.50	16.08	33.54	-13.22	-19.41	4.22	1.02	28.52	21.36	3.19
14.00	15.99	33.36	-11.78	-20.70	4.13	1.05	28.28	21.29	3.29
14.50	15.88	33.13	-11.04	-22.16	4.05	1.06	27.95	21.35	3.44
15.00	15.84	32.74	-11.24	-23.64	3.92	1.06	27.69	21.37	3.47
15.50	15.86	32.40	-12.41	-24.16	3.85	1.04	27.39	21.34	3.60
16.00	15.91	31.85	-13.92	-23.41	3.69	1.02	27.10	21.49	3.68
16.50	15.92	31.41	-14.91	-22.23	3.56	1.00	26.39	21.35	3.86
17.00	15.86	31.00	-14.89	-21.45	3.43	1.00	26.17	21.29	4.03
17.50	15.80	30.71	-14.92	-20.22	3.35	1.00	25.96	21.19	4.22
18.00	15.68	30.33	-15.40	-19.11	3.26	1.00	25.42	20.80	4.41
18.50	15.55	30.10	-16.79	-17.85	3.26	0.99	24.77	20.53	4.70
19.00	15.32	30.04	-18.08	-16.96	3.34	0.98	24.04	20.96	4.97
19.50	14.99	29.82	-18.11	-16.67	3.40	0.97	23.29	20.87	5.44
20.00	14.57	29.75	-16.66	-17.03	3.54	0.98	22.44	20.64	5.96