MMIC Amplifier Die LTA-2183-D+

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: Vd = 4.00V, Id = 210.04mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
1000	6.20	68.98	7.30	4.63	367.19	0.78	22.73	13.16	8.75
1500	14.92	75.14	9.82	11.97	430.62	1.03	30.97	18.37	6.87
2000	15.47	72.42	11.65	17.83	322.77	1.05	31.25	18.96	6.83
2500	15.33	69.68	13.07	20.45	245.60	1.04	30.86	19.00	6.80
3000	15.30	68.34	14.23	21.48	214.45	1.03	30.36	19.22	6.70
3500	15.34	67.29	15.22	21.83	190.64	1.02	29.78	19.07	6.64
4000	15.42	67.16	15.98	21.67	186.97	1.02	29.72	19.38	6.52
4500	15.52	66.64	16.58	21.38	174.59	1.01	29.37	19.11	6.45
5000	15.65	66.79	16.81	21.18	175.10	1.01	29.16	19.37	6.34
5500	15.93	67.68	16.81	21.15	187.81	1.01	28.88	19.12	6.28
6000	16.10	68.36	16.70	20.97	198.96	1.01	28.65	19.39	6.18
6500	16.21	68.13	16.39	21.00	191.25	1.01	28.81	19.01	6.06
7000	16.30	67.72	15.91	21.32	180.24	1.02	28.43	19.29	5.97
7500	16.42	66.54	15.31	21.90	154.63	1.02	28.53	19.34	5.88
8000	16.53	66.68	14.69	22.44	154.54	1.03	28.14	19.43	5.80
8500	16.58	66.73	14.09	22.69	153.82	1.03	28.05	19.55	5.64
9000	16.60	67.93	13.53	22.54	174.99	1.04	27.85	19.65	5.60
9500	16.62	67.81	13.16	22.18	171.48	1.04	27.66	19.58	5.51
10000	16.60	66.92	12.85	21.39	154.34	1.04	27.19	19.72	5.43
10500	16.56	66.24	12.67	20.50	142.78	1.04	26.98	19.60	5.38
11000	16.49	66.56	12.46	19.56	148.76	1.04	26.63	19.77	5.26
11500	16.39	65.87	12.28	18.85	138.23	1.05	26.43	19.09	5.12
12000	16.32	64.33	12.02	18.09	116.04	1.05	25.98	19.29	5.04
12500	16.24	62.53	11.77	17.37	94.50	1.05	25.61	19.27	4.92
13000	16.17	61.16	11.58	16.77	80.95	1.05	25.51	19.37	4.87
13500	16.13	60.25	11.43	16.30	72.92	1.05	25.29	18.63	4.75
14000	16.10	59.21	11.26	15.96	64.53	1.05	25.03	18.43	4.78
14500	16.12	58.27	11.14	15.76	57.55	1.05	24.97	18.37	4.71
15000	16.15	57.02	11.16	15.71	49.73	1.05	24.88	18.36	4.68
15500	16.20	55.69	11.37	15.51	42.49	1.04	24.94	18.30	4.68
16000	16.23	54.79	11.61	15.31	38.30	1.04	24.68	18.54	4.67
16500	16.23	54.46	12.04	15.17	37.07	1.03	24.42	18.64	4.72
17000	16.25	54.61	12.75	15.25	38.07	1.02	24.03	18.01	4.70
17500	16.31	54.17	13.61	15.55	36.37	1.01	23.76	18.02	4.84
18000	16.42	54.38	14.68	16.16	37.27	1.01	23.46	17.88	4.94
18500	16.51	54.82	15.73	16.70	39.18	1.01	23.19	17.81	5.00
19000	16.56	55.39	16.16	17.34	41.83	1.01	22.95	17.69	5.14
19500	16.50	56.81	15.56	17.90	49.55	1.01	22.75	17.69	5.19
20000	16.32	58.50	14.24	18.61	61.03	1.02	22.52	17.97	5.41

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: Vd = 3.75V, Id = 212.00mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
1000	6.62	69.20	7.33	4.63	360.16	0.78	21.08	12.54	8.66
1500	15.32	75.61	9.88	11.97	434.01	1.03	27.89	17.52	6.84
2000	15.87	72.54	11.74	17.83	312.43	1.05	28.08	18.13	6.80
2500	15.75	69.44	13.20	20.47	228.08	1.04	27.78	18.18	6.76
3000	15.72	68.23	14.39	21.52	202.04	1.03	27.58	18.43	6.65
3500	15.77	67.64	15.44	21.87	189.19	1.02	27.19	18.25	6.60
4000	15.85	67.15	16.24	21.71	178.02	1.02	27.26	18.60	6.47
4500	15.96	66.69	16.89	21.42	167.17	1.01	27.23	18.25	6.42
5000	16.09	67.12	17.17	21.24	173.30	1.01	27.15	18.59	6.27
5500	16.39	67.55	17.20	21.21	176.10	1.01	27.14	18.27	6.24
6000	16.56	68.47	17.11	21.01	191.50	1.01	27.10	18.58	6.11
6500	16.68	68.44	16.80	21.00	188.08	1.01	27.14	18.13	6.04
7000	16.77	67.70	16.33	21.30	170.53	1.02	27.06	18.43	5.96
7500	16.91	66.60	15.72	21.90	147.58	1.02	27.08	18.45	5.85
8000	17.02	66.86	15.08	22.46	149.49	1.03	27.05	18.56	5.77
8500	17.08	66.91	14.45	22.69	148.63	1.03	26.93	18.68	5.63
9000	17.12	68.21	13.89	22.48	170.95	1.03	26.86	18.77	5.58
9500	17.14	68.24	13.52	22.11	170.33	1.04	26.73	18.69	5.47
10000	17.14	67.85	13.19	21.36	162.12	1.04	26.46	18.84	5.41
10500	17.11	67.02	12.99	20.51	147.33	1.04	26.39	18.66	5.32
11000	17.04	66.65	12.76	19.54	141.57	1.04	26.15	18.86	5.21
11500	16.95	66.09	12.57	18.73	133.60	1.04	25.97	18.12	5.09
12000	16.88	64.53	12.28	17.92	111.76	1.04	25.71	18.30	5.01
12500	16.81	62.48	11.99	17.23	88.31	1.04	25.52	18.24	4.88
13000	16.73	61.23	11.77	16.69	76.65	1.04	25.61	18.34	4.82
13500	16.69	60.31	11.59	16.28	68.97	1.04	25.35	17.59	4.72
14000	16.67	59.20	11.38	15.95	60.50	1.04	25.23	17.40	4.74
14500	16.68	58.25	11.22	15.67	53.91	1.05	25.31	17.34	4.64
15000	16.71	57.09	11.19	15.45	46.96	1.04	25.41	17.38	4.62
15500	16.76	55.68	11.35	15.16	39.72	1.04	25.44	17.34	4.63
16000	16.79	54.80	11.51	14.95	35.81	1.04	25.13	17.61	4.61
16500	16.80	54.61	11.89	14.93	35.21	1.03	25.07	17.70	4.66
17000	16.83	54.71	12.54	15.09	35.86	1.02	24.74	17.07	4.64
17500	16.90	54.20	13.38	15.40	33.93	1.02	24.63	17.05	4.78
18000	17.05	54.31	14.44	15.98	34.29	1.01	24.41	16.91	4.85
18500	17.19	54.85	15.59	16.55	36.32	1.01	24.22	16.85	4.90
19000	17.29	55.28	16.38	17.32	38.04	1.00	24.08	16.74	5.02
19500	17.29	56.51	16.14	18.07	43.91	1.01	23.91	16.76	5.10
20000	17.16	57.99	15.05	18.95	52.61	1.02	23.69	17.03	5.29

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: Vd = 4.25V, Id = 211.61mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
1000	5.93	69.09	7.29	4.62	383.36	0.78	23.10	13.41	8.87
1500	14.66	75.09	9.80	11.97	440.59	1.03	29.96	18.93	6.96
2000	15.21	72.36	11.61	17.86	329.81	1.05	30.79	19.50	6.91
2500	15.07	69.55	13.01	20.52	249.30	1.04	30.60	19.53	6.88
3000	15.03	68.15	14.13	21.57	216.14	1.03	30.23	19.66	6.78
3500	15.08	67.44	15.09	21.91	199.79	1.02	29.57	19.58	6.71
4000	15.15	67.13	15.85	21.74	192.01	1.02	29.29	19.79	6.59
4500	15.25	66.66	16.41	21.46	180.36	1.02	28.96	19.65	6.53
5000	15.37	66.91	16.63	21.28	183.38	1.01	28.62	19.81	6.42
5500	15.65	67.29	16.61	21.25	185.41	1.01	28.25	19.65	6.38
6000	15.82	68.21	16.49	21.07	201.89	1.01	27.91	19.83	6.24
6500	15.92	68.31	16.19	21.07	201.58	1.02	27.81	19.61	6.14
7000	16.00	67.35	15.70	21.41	178.37	1.02	27.47	19.84	6.07
7500	16.12	66.43	15.10	22.05	157.81	1.02	27.37	19.91	5.96
8000	16.23	66.64	14.49	22.66	159.08	1.03	27.17	19.99	5.90
8500	16.27	66.24	13.89	22.92	150.42	1.04	27.00	20.11	5.74
9000	16.29	67.87	13.36	22.71	179.99	1.04	26.77	20.17	5.68
9500	16.30	68.02	12.99	22.34	181.89	1.04	26.58	20.13	5.58
10000	16.28	66.83	12.70	21.58	158.33	1.05	26.25	20.22	5.51
10500	16.24	66.17	12.51	20.73	146.85	1.05	25.91	20.15	5.46
11000	16.16	66.44	12.31	19.76	152.12	1.05	25.67	20.28	5.33
11500	16.06	65.77	12.15	18.92	141.75	1.05	25.40	19.73	5.20
12000	15.98	64.27	11.90	18.12	119.62	1.05	25.07	19.91	5.12
12500	15.91	62.52	11.66	17.46	97.98	1.05	24.76	19.85	5.00
13000	15.84	61.13	11.49	16.98	83.67	1.05	24.59	19.90	4.96
13500	15.80	60.20	11.36	16.60	75.23	1.05	24.44	19.28	4.87
14000	15.78	59.12	11.22	16.30	66.33	1.05	24.06	19.08	4.86
14500	15.80	58.28	11.11	16.02	59.85	1.05	24.01	19.04	4.77
15000	15.83	56.95	11.17	15.78	51.23	1.05	23.86	19.01	4.75
15500	15.87	55.70	11.41	15.48	44.23	1.04	23.81	18.93	4.78
16000	15.90	54.69	11.67	15.30	39.36	1.04	23.64	19.11	4.78
16500	15.90	54.38	12.14	15.33	38.26	1.03	23.32	19.22	4.83
17000	15.92	54.51	12.88	15.52	39.18	1.02	22.87	18.63	4.80
17500	15.96	54.02	13.77	15.82	37.30	1.01	22.70	18.61	4.96
18000	16.06	54.38	14.80	16.30	38.91	1.01	22.33	18.46	5.06
18500	16.13	54.96	15.67	16.71	41.59	1.01	22.02	18.38	5.11
19000	16.14	55.57	15.89	17.28	44.72	1.01	21.78	18.24	5.27
19500	16.05	56.98	15.10	17.85	53.02	1.01	21.54	18.23	5.34
20000	15.85	58.95	13.74	18.64	67.47	1.03	21.30	18.47	5.55

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: Vd = 4.00V, Id = 210.70mA @ Temperature = -45°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
1000	7.94	68.88	7.47	4.39	291.59	0.75	18.42	10.20	7.30
1500	17.07	75.03	10.07	11.58	331.62	1.02	25.00	16.53	5.76
2000	17.63	72.75	11.98	17.50	262.16	1.04	25.36	16.62	5.77
2500	17.50	69.39	13.45	19.98	185.94	1.03	25.17	16.46	5.77
3000	17.47	68.59	14.70	21.33	172.50	1.03	25.07	16.52	5.68
3500	17.54	67.69	16.13	21.88	155.82	1.02	24.87	16.50	5.64
4000	17.65	67.52	17.63	21.90	152.02	1.01	24.93	16.61	5.54
4500	17.76	66.73	18.06	20.98	137.18	1.01	24.87	16.70	5.52
5000	17.89	67.06	17.94	20.91	140.20	1.01	24.81	16.65	5.40
5500	18.22	67.30	18.02	20.69	138.74	1.01	24.81	16.69	5.39
6000	18.43	68.20	18.31	20.13	150.16	1.00	24.79	16.70	5.23
6500	18.58	67.10	18.29	20.04	130.09	1.00	24.91	16.96	5.17
7000	18.70	66.50	17.61	20.30	119.35	1.01	24.81	16.96	5.10
7500	18.87	65.59	16.86	21.35	105.30	1.01	24.88	17.15	5.01
8000	19.03	65.24	16.47	22.47	99.30	1.02	24.84	17.10	4.90
8500	19.14	64.85	16.12	22.44	93.51	1.02	24.82	17.21	4.78
9000	19.21	65.29	15.52	21.15	97.13	1.02	24.80	17.20	4.73
9500	19.27	65.47	15.00	20.47	98.03	1.02	24.80	17.24	4.63
10000	19.30	64.69	14.39	20.63	88.76	1.03	24.73	17.21	4.58
10500	19.35	64.02	14.05	20.37	81.52	1.03	24.55	17.23	4.49
11000	19.32	63.62	14.01	19.23	77.83	1.03	24.53	17.15	4.41
11500	19.22	63.11	13.46	16.52	73.03	1.02	24.51	17.28	4.31
12000	19.14	62.43	12.65	15.48	67.13	1.02	24.26	17.18	4.19
12500	19.04	61.67	11.96	15.14	61.49	1.03	24.14	17.07	4.10
13000	19.01	60.56	11.70	15.89	54.30	1.04	24.26	17.02	4.02
13500	19.04	59.65	11.82	16.86	49.13	1.04	24.40	17.09	3.87
14000	19.05	58.79	11.99	16.92	44.62	1.04	24.14	17.03	3.89
14500	19.05	57.88	11.90	14.91	39.63	1.03	24.17	17.03	3.76
15000	18.97	57.30	11.43	12.88	36.38	1.02	24.27	16.98	3.78
15500	18.98	56.63	10.82	12.23	32.97	1.02	24.32	16.94	3.74
16000	19.04	55.76	10.72	12.50	29.67	1.02	24.21	16.95	3.72
16500	19.21	55.27	11.61	13.90	28.42	1.02	24.34	17.08	3.74
17000	19.37	55.05	13.04	15.47	28.12	1.02	24.01	16.92	3.69
17500	19.48	54.38	13.82	15.73	25.96	1.01	23.98	16.88	3.72
18000	19.47	53.89	13.12	14.25	24.14	1.01	23.72	16.68	3.79
18500	19.54	53.78	12.63	14.22	23.48	1.01	23.40	16.53	3.88
19000	19.85	53.62	13.32	15.69	22.66	1.02	23.09	16.29	3.93
19500	20.21	53.84	14.95	18.04	22.90	1.02	22.66	16.20	3.97
20000	20.33	54.73	17.58	19.88	25.53	1.01	22.45	16.10	4.12

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: Vd = 3.75V, Id = 210.30mA @ Temperature = -45°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
1000	8.24	68.88	7.51	4.40	281.83	0.75	17.78	9.56	7.25
1500	17.37	75.35	10.12	11.57	332.74	1.02	23.02	15.83	5.76
2000	17.94	72.28	12.07	17.49	240.07	1.04	24.86	15.95	5.77
2500	17.81	69.63	13.57	19.97	184.61	1.03	24.85	15.83	5.75
3000	17.78	68.27	14.87	21.36	160.56	1.03	24.88	15.86	5.67
3500	17.86	67.36	16.36	21.90	144.88	1.02	24.59	15.82	5.61
4000	17.97	67.32	17.93	21.93	143.36	1.01	24.76	15.84	5.49
4500	18.08	66.84	18.39	21.00	133.98	1.01	24.67	15.91	5.50
5000	18.22	67.12	18.33	20.95	136.17	1.01	24.66	15.92	5.38
5500	18.56	67.55	18.44	20.74	137.49	1.01	24.63	15.96	5.36
6000	18.77	67.86	18.77	20.16	139.02	1.00	24.67	15.91	5.25
6500	18.93	67.44	18.78	20.08	130.12	1.00	24.72	16.13	5.17
7000	19.06	66.65	18.10	20.30	116.79	1.01	24.64	16.13	5.09
7500	19.23	65.58	17.32	21.40	101.17	1.01	24.73	16.31	5.01
8000	19.40	65.50	16.92	22.48	98.33	1.01	24.74	16.37	4.89
8500	19.52	64.89	16.57	22.51	90.21	1.02	24.73	16.49	4.74
9000	19.59	65.58	15.97	21.14	96.35	1.02	24.72	16.49	4.71
9500	19.65	65.65	15.44	20.48	96.00	1.02	24.78	16.52	4.64
10000	19.70	65.07	14.81	20.64	88.89	1.02	24.63	16.45	4.57
10500	19.75	64.28	14.44	20.39	80.38	1.03	24.48	16.45	4.47
11000	19.73	63.93	14.42	19.27	77.26	1.02	24.37	16.37	4.39
11500	19.64	63.31	13.83	16.48	71.51	1.02	24.41	16.56	4.33
12000	19.56	62.82	12.97	15.44	67.11	1.02	24.31	16.48	4.20
12500	19.46	61.81	12.25	15.10	59.77	1.03	24.23	16.37	4.12
13000	19.44	60.75	11.97	15.86	53.07	1.04	24.30	16.35	4.00
13500	19.47	59.80	12.03	16.85	47.69	1.04	24.32	16.36	3.88
14000	19.47	58.91	12.22	16.88	43.17	1.04	24.17	16.29	3.88
14500	19.47	57.92	12.10	14.82	38.02	1.03	24.24	16.38	3.77
15000	19.39	57.42	11.59	12.74	35.18	1.01	24.27	16.32	3.76
15500	19.39	56.77	10.89	12.07	31.91	1.01	24.33	16.28	3.75
16000	19.44	55.71	10.76	12.35	28.16	1.02	24.20	16.27	3.71
16500	19.60	55.31	11.60	13.74	27.25	1.02	24.24	16.38	3.72
17000	19.76	55.06	12.96	15.30	26.83	1.02	24.11	16.27	3.66
17500	19.87	54.50	13.67	15.52	25.11	1.01	24.02	16.25	3.70
18000	19.84	53.97	12.93	14.00	23.23	1.01	23.77	16.07	3.78
18500	19.91	53.81	12.40	13.96	22.44	1.01	23.48	15.93	3.84
19000	20.25	53.58	12.98	15.41	21.44	1.02	23.07	15.68	3.89
19500	20.65	53.82	14.74	17.83	21.66	1.02	22.67	15.58	3.91
20000	20.83	54.48	17.85	19.64	23.44	1.01	22.45	15.46	4.03

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: Vd = 4.25V, Id = 211.41mA @ Temperature = -45°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
1000	7.47	69.06	7.45	4.38	313.13	0.75	19.59	11.51	7.43
1500	16.62	75.44	10.01	11.57	365.71	1.02	25.64	17.39	5.82
2000	17.18	72.73	11.89	17.48	274.98	1.05	26.00	17.51	5.81
2500	17.04	69.61	13.30	19.91	200.60	1.04	25.62	17.40	5.80
3000	17.01	68.28	14.52	21.30	175.38	1.03	25.63	17.42	5.73
3500	17.07	67.59	15.88	21.82	162.29	1.02	25.34	17.44	5.68
4000	17.18	67.15	17.30	21.85	153.74	1.01	25.47	17.54	5.58
4500	17.28	66.70	17.66	20.89	144.27	1.01	25.37	17.62	5.57
5000	17.40	66.69	17.54	20.85	141.95	1.01	25.33	17.59	5.46
5500	17.73	67.12	17.57	20.63	143.54	1.01	25.31	17.68	5.42
6000	17.93	67.54	17.81	20.04	147.14	1.01	25.30	17.67	5.29
6500	18.07	66.99	17.78	20.00	135.98	1.01	25.41	17.94	5.21
7000	18.19	66.37	17.09	20.24	124.61	1.01	25.33	18.01	5.14
7500	18.35	65.35	16.36	21.38	108.54	1.02	25.38	18.20	5.04
8000	18.50	65.02	15.94	22.46	102.66	1.02	25.30	18.15	4.95
8500	18.60	64.66	15.63	22.47	97.08	1.02	25.32	18.25	4.83
9000	18.67	64.96	15.05	21.12	99.19	1.02	25.28	18.26	4.74
9500	18.71	65.31	14.53	20.51	102.27	1.03	25.22	18.30	4.67
10000	18.74	64.55	13.94	20.70	92.90	1.03	25.02	18.28	4.63
10500	18.77	64.01	13.63	20.44	86.65	1.03	24.95	18.29	4.51
11000	18.73	63.40	13.61	19.28	80.91	1.03	24.80	18.22	4.44
11500	18.62	62.95	13.05	16.48	76.48	1.03	24.83	18.46	4.35
12000	18.54	62.37	12.27	15.47	71.07	1.03	24.58	18.31	4.25
12500	18.43	61.63	11.65	15.20	65.33	1.04	24.40	18.15	4.15
13000	18.42	60.54	11.45	16.07	57.85	1.04	24.54	18.19	4.05
13500	18.45	59.71	11.56	17.12	52.73	1.05	24.53	18.12	3.90
14000	18.46	58.50	11.79	17.16	46.00	1.04	24.40	17.97	3.92
14500	18.47	57.91	11.73	15.00	42.41	1.03	24.43	18.01	3.85
15000	18.40	57.35	11.30	12.91	39.04	1.02	24.55	18.00	3.79
15500	18.42	56.65	10.69	12.28	35.17	1.02	24.57	17.93	3.80
16000	18.48	55.77	10.70	12.63	31.71	1.02	24.52	17.96	3.76
16500	18.66	55.19	11.70	14.17	30.11	1.03	24.36	18.05	3.79
17000	18.83	54.88	13.20	15.87	29.45	1.02	24.20	17.88	3.74
17500	18.94	54.37	13.99	16.13	27.68	1.01	24.07	17.82	3.80
18000	18.92	53.83	13.37	14.54	25.65	1.01	23.80	17.62	3.87
18500	18.98	53.77	12.98	14.48	25.16	1.01	23.60	17.44	3.95
19000	19.26	53.64	13.57	15.97	24.41	1.02	23.33	17.21	4.04
19500	19.55	54.00	14.97	18.32	25.16	1.02	22.90	17.20	4.07
20000	19.61	55.03	16.99	20.04	28.63	1.01	22.76	17.12	4.23

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: Vd = 4.00V, Id = 209.98mA @ Temperature = +85°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
1000	5.09	69.27	7.19	4.81	438.38	0.80	24.97	13.13	10.10
1500	13.55	75.06	9.77	12.39	501.59	1.04	26.67	18.24	7.93
2000	14.08	72.11	11.65	18.41	365.86	1.05	26.60	18.79	7.86
2500	13.96	69.59	13.07	21.23	285.43	1.04	26.53	18.86	7.82
3000	13.93	68.13	14.21	22.26	245.49	1.03	26.49	19.05	7.70
3500	13.96	67.31	15.26	22.67	224.39	1.02	26.12	18.90	7.61
4000	14.04	67.16	15.95	22.23	219.35	1.02	26.05	19.25	7.49
4500	14.13	66.56	16.48	21.89	203.14	1.02	25.74	18.90	7.42
5000	14.26	66.99	16.66	21.55	210.46	1.01	25.65	19.24	7.28
5500	14.52	67.73	16.60	21.61	222.02	1.01	25.30	18.92	7.26
6000	14.68	68.13	16.41	21.60	228.10	1.02	25.20	19.29	7.07
6500	14.77	67.72	15.89	21.44	214.66	1.02	24.89	18.80	7.01
7000	14.84	66.89	15.33	21.62	193.15	1.02	24.71	19.14	6.91
7500	14.94	66.35	14.66	21.80	178.51	1.03	24.56	19.15	6.79
8000	15.04	65.90	14.07	22.86	166.81	1.03	24.46	19.31	6.70
8500	15.08	66.10	13.45	23.33	169.02	1.04	24.37	19.40	6.56
9000	15.08	67.10	12.94	24.15	188.62	1.05	24.23	19.55	6.49
9500	15.08	67.08	12.70	24.09	187.74	1.05	24.02	19.45	6.41
10000	15.05	66.32	12.58	23.10	172.02	1.05	23.84	19.63	6.33
10500	14.99	65.87	12.56	22.34	164.21	1.05	23.64	19.56	6.28
11000	14.91	65.30	12.35	21.27	154.57	1.05	23.45	19.71	6.15
11500	14.82	65.10	12.33	21.97	152.76	1.05	23.21	19.01	6.05
12000	14.75	63.68	12.39	21.08	130.73	1.05	22.99	19.34	5.96
12500	14.70	62.38	12.46	19.98	113.11	1.05	22.77	19.38	5.82
13000	14.61	61.03	12.28	18.18	97.03	1.04	22.61	19.42	5.79
13500	14.51	60.21	11.80	16.82	88.23	1.04	22.44	18.69	5.74
14000	14.44	59.12	11.16	15.80	77.10	1.05	22.21	18.54	5.76
14500	14.42	58.19	10.80	15.66	68.81	1.05	22.06	18.40	5.67
15000	14.48	57.14	10.95	16.52	61.10	1.06	21.74	18.34	5.64
15500	14.54	55.98	11.55	16.71	53.72	1.05	21.60	18.31	5.67
16000	14.58	55.16	12.02	16.79	49.03	1.04	21.31	18.49	5.65
16500	14.54	54.96	12.21	15.70	47.99	1.03	21.22	18.69	5.76
17000	14.48	54.86	12.41	14.75	47.58	1.02	20.76	18.00	5.74
17500	14.46	54.48	12.83	14.81	45.95	1.02	20.44	18.03	5.97
18000	14.53	54.57	13.84	15.46	46.79	1.01	20.03	17.91	6.06
18500	14.60	55.23	15.31	16.69	51.02	1.01	19.84	17.99	6.11
19000	14.57	56.20	16.32	17.01	57.71	1.00	19.53	17.89	6.27
19500	14.43	57.62	15.77	18.00	69.15	1.01	19.31	17.90	6.30
20000	14.19	59.59	13.82	17.86	87.81	1.02	19.19	18.17	6.54

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: Vd = 3.75V, Id = 211.35mA @ Temperature = +85°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
1000	5.34	69.38	7.20	4.81	431.87	0.80	24.94	13.19	9.96
1500	13.78	75.42	9.80	12.37	509.38	1.04	28.20	17.69	7.84
2000	14.32	72.09	11.69	18.34	355.22	1.05	28.12	18.24	7.79
2500	14.20	69.46	13.13	21.12	273.35	1.04	28.16	18.33	7.73
3000	14.17	68.43	14.29	22.14	247.04	1.03	27.99	18.61	7.63
3500	14.21	67.60	15.36	22.56	225.38	1.02	27.69	18.39	7.55
4000	14.29	67.26	16.09	22.11	215.72	1.02	27.55	18.80	7.40
4500	14.39	66.81	16.63	21.79	203.06	1.01	27.21	18.33	7.34
5000	14.52	67.25	16.83	21.42	210.49	1.01	27.07	18.75	7.20
5500	14.79	67.67	16.76	21.47	214.28	1.01	26.80	18.35	7.14
6000	14.95	68.12	16.57	21.44	221.06	1.01	26.57	18.79	7.01
6500	15.04	67.77	16.08	21.25	209.46	1.02	26.23	18.20	6.92
7000	15.11	66.99	15.49	21.41	189.39	1.02	26.06	18.56	6.81
7500	15.22	66.28	14.82	21.55	171.69	1.03	25.96	18.56	6.71
8000	15.32	66.07	14.24	22.58	164.83	1.03	25.84	18.74	6.64
8500	15.37	66.15	13.61	22.97	164.71	1.04	25.68	18.82	6.48
9000	15.37	67.41	13.09	23.77	189.39	1.04	25.48	19.00	6.42
9500	15.38	67.24	12.83	23.70	185.02	1.05	25.23	18.86	6.31
10000	15.35	66.43	12.71	22.75	168.62	1.05	25.04	19.09	6.26
10500	15.30	66.19	12.68	22.01	164.79	1.05	24.82	19.01	6.17
11000	15.22	65.65	12.46	20.94	155.40	1.05	24.55	19.17	6.07
11500	15.13	65.11	12.45	21.65	147.75	1.05	24.31	18.36	5.93
12000	15.06	63.84	12.49	20.74	128.64	1.05	24.01	18.72	5.85
12500	15.01	62.25	12.57	19.70	107.57	1.04	23.75	18.79	5.69
13000	14.92	61.10	12.37	17.93	94.49	1.04	23.59	18.88	5.69
13500	14.82	60.13	11.89	16.61	84.33	1.04	23.38	18.05	5.64
14000	14.75	59.21	11.20	15.58	75.20	1.05	23.17	17.92	5.65
14500	14.74	58.13	10.82	15.44	65.89	1.05	22.89	17.73	5.58
15000	14.80	57.08	10.95	16.30	58.43	1.05	22.63	17.71	5.54
15500	14.86	55.96	11.55	16.44	51.58	1.05	22.46	17.72	5.56
16000	14.91	55.16	11.98	16.53	47.18	1.04	22.16	17.97	5.56
16500	14.87	54.91	12.14	15.47	45.81	1.03	22.06	18.18	5.64
17000	14.82	54.93	12.34	14.56	46.00	1.02	21.60	17.44	5.61
17500	14.81	54.48	12.77	14.66	44.02	1.02	21.29	17.50	5.83
18000	14.90	54.66	13.83	15.38	45.25	1.01	20.82	17.43	5.95
18500	15.01	55.24	15.51	16.69	48.82	1.01	20.53	17.51	5.98
19000	15.00	56.03	16.74	17.01	54.00	1.00	20.34	17.46	6.10
19500	14.87	57.38	16.26	18.11	64.12	1.01	20.14	17.46	6.16
20000	14.66	59.16	14.26	17.97	79.50	1.02	19.98	17.76	6.35

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: Vd = 4.25V, Id = 209.58mA @ Temperature = +85°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
1000	4.78	69.24	7.17	4.81	452.35	0.80	25.08	13.30	10.18
1500	13.24	75.15	9.74	12.40	524.72	1.04	25.39	18.77	8.00
2000	13.78	72.11	11.60	18.41	378.46	1.05	25.44	19.29	7.91
2500	13.65	69.61	13.00	21.25	296.01	1.04	25.35	19.33	7.85
3000	13.61	68.39	14.10	22.26	261.88	1.03	25.23	19.47	7.76
3500	13.64	67.51	15.11	22.69	237.79	1.03	24.78	19.39	7.67
4000	13.71	66.96	15.81	22.21	222.58	1.02	24.84	19.64	7.56
4500	13.80	66.45	16.30	21.91	207.93	1.02	24.43	19.42	7.46
5000	13.92	66.87	16.45	21.52	215.40	1.02	24.40	19.67	7.32
5500	14.18	67.58	16.37	21.59	226.76	1.02	24.05	19.44	7.26
6000	14.33	68.12	16.15	21.60	236.91	1.02	23.89	19.73	7.13
6500	14.42	67.72	15.65	21.43	223.45	1.02	23.66	19.38	7.04
7000	14.47	66.78	15.09	21.63	198.37	1.02	23.46	19.68	6.96
7500	14.57	65.84	14.44	21.79	175.40	1.03	23.32	19.70	6.85
8000	14.66	65.92	13.87	22.92	174.43	1.04	23.29	19.86	6.75
8500	14.69	65.77	13.24	23.33	169.68	1.04	23.18	19.95	6.61
9000	14.68	66.82	12.74	24.19	190.77	1.05	23.02	20.08	6.59
9500	14.68	67.05	12.50	24.12	195.32	1.05	22.91	19.99	6.45
10000	14.64	66.28	12.40	23.10	179.04	1.05	22.73	20.15	6.38
10500	14.58	65.82	12.38	22.39	170.89	1.05	22.57	20.10	6.34
11000	14.49	65.57	12.17	21.27	166.96	1.05	22.39	20.23	6.20
11500	14.40	65.01	12.20	22.11	158.43	1.05	22.19	19.64	6.08
12000	14.32	63.80	12.26	21.11	139.03	1.05	22.05	19.93	5.99
12500	14.27	62.19	12.36	20.08	115.96	1.05	21.83	19.96	5.87
13000	14.18	61.21	12.20	18.25	103.98	1.04	21.69	19.96	5.83
13500	14.08	60.30	11.76	16.93	93.57	1.04	21.52	19.35	5.79
14000	14.01	59.09	11.10	15.87	80.70	1.05	21.29	19.22	5.82
14500	14.00	58.15	10.77	15.75	71.97	1.05	21.11	19.05	5.73
15000	14.05	57.03	10.95	16.67	63.45	1.06	20.86	18.97	5.74
15500	14.11	55.92	11.63	16.80	56.20	1.05	20.67	18.90	5.73
16000	14.14	55.18	12.13	16.95	51.85	1.04	20.45	19.05	5.75
16500	14.09	54.87	12.32	15.83	50.17	1.03	20.25	19.23	5.80
17000	14.01	54.86	12.52	14.84	50.38	1.02	19.85	18.56	5.80
17500	13.96	54.40	12.86	14.86	48.21	1.02	19.53	18.57	6.03
18000	14.00	54.71	13.73	15.44	50.41	1.01	19.16	18.45	6.18
18500	14.05	55.42	15.02	16.62	55.43	1.01	18.88	18.50	6.21
19000	13.99	56.35	15.89	16.81	62.60	1.00	18.70	18.41	6.37
19500	13.81	57.83	15.22	17.86	75.83	1.01	18.52	18.42	6.42
20000	13.54	59.89	13.31	17.64	97.29	1.03	18.31	18.67	6.64