Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions

Definitions:

Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: RF Input Power = -25dBm, Vd = 5.00V, Id = 58.6mA @ Temperature = 25degC

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)
50	25.55	29.50	8.40	15.44	0.97	0.71	32.94	19.82	0.64
60	25.36	29.61	8.79	16.44	1.00	0.73	33.24	20.01	0.64
70	25.26	29.10	9.28	17.63	1.00	0.68	33.07	20.01	0.58
80	25.17	28.94	9.57	18.66	1.01	0.67	32.74	19.80	0.62
90	25.09	28.92	9.81	19.42	1.02	0.66	32.71	19.77	0.64
100	25.04	28.85	9.97	20.01	1.03	0.66	32.64	19.63	0.61
150	24.77	28.63	10.53	21.37	1.04	0.65	32.64	19.96	0.56
200	24.47	28.65	10.80	20.85	1.07	0.67	32.85	19.64	0.59
250	24.14	28.62	11.03	20.03	1.09	0.68	32.83	19.85	0.53
300	23.78	28.40	11.27	19.05	1.10	0.69	33.04	19.75	0.66
350	23.39	28.21	11.48	18.34	1.11	0.70	33.04	19.94	0.64
400	23.00	28.00	11.63	17.66	1.12	0.71	33.22	19.61	0.64
450	22.59	27.78	11.85	17.13	1.13	0.72	33.65	19.94	0.65
500	22.17	27.55	12.02	16.72	1.14	0.73	33.45	20.11	0.65
550	21.75	27.20	12.19	16.34	1.14	0.73	33.87	19.91	0.60
650	20.94	26.66	12.51	15.75	1.16	0.75	33.94	20.16	0.64
700	20.54	26.30	12.60	15.51	1.16	0.75	34.24	20.24	0.62
750	20.14	25.96	12.75	15.36	1.16	0.76	34.04	20.37	0.78
800	19.77	25.66	12.87	15.18	1.16	0.76	34.26	20.58	0.70
850	19.39	25.37	12.98	15.00	1.16	0.77	34.60	20.62	0.65
900	19.03	25.02	13.08	14.84	1.16	0.77	34.76	20.75	0.67
950	18.68	24.68	13.18	14.68	1.16	0.77	34.72	21.05	0.71
1000	18.34	24.43	13.25	14.55	1.16	0.78	34.42	21.09	0.68
1200	17.08	23.23	13.51	14.16	1.16	0.78	35.00	21.25	0.79
1400	15.96	22.21	13.75	13.88	1.16	0.79	34.93	21.24	0.80
1600	14.95	21.21	13.96	13.54	1.15	0.79	35.26	21.71	0.84
1800	14.07	20.31	14.15	13.38	1.15	0.79	35.58	21.36	0.89
2000	13.26	19.47	14.39	13.09	1.14	0.78	35.94	22.09	0.93
2200	12.51	18.76	14.49	12.95	1.14	0.78	35.80	21.75	0.90
2400	11.85	18.06	14.55	12.86	1.14	0.78	35.95	22.05	0.89
2600	11.23	17.45	14.59	12.80	1.14	0.78	36.06	22.05	1.05
2800	10.67	16.82	14.47	12.86	1.13	0.78	35.64	21.94	1.09
3000	10.15	16.25	14.35	12.81	1.13	0.78	35.61	21.53	1.03
3200	9.67	15.74	14.01	13.01	1.12	0.78	35.74	21.99	1.25
3400	9.22	15.23	13.59	13.14	1.11	0.79	35.08	22.07	1.30
3600	8.78	14.77	13.11	13.38	1.11	0.79	35.07	22.07	1.30
3800	8.37	14.34	12.56	13.62	1.11	0.80	34.61	22.02	1.35
4000	7.97	13.94	12.02	13.79	1.10	0.81	35.40	22.79	1.47

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: RF Input Power = -25dBm, Vd = 4.75V, Id = 55.66mA @ Temperature = 25degC

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)
50	25.46	28.31	8.37	15.30	0.93	0.60	32.67	20.05	0.62
60	25.27	28.99	8.70	16.26	0.98	0.67	33.00	20.01	0.62
70	25.17	29.06	9.11	17.32	1.00	0.68	32.85	19.99	0.57
80	25.08	28.98	9.40	18.24	1.01	0.68	32.54	19.75	0.63
90	25.01	28.87	9.64	18.95	1.02	0.67	32.50	19.76	0.62
100	24.95	28.94	9.80	19.53	1.03	0.67	32.40	19.63	0.62
150	24.69	28.87	10.36	20.79	1.06	0.68	32.31	19.91	0.53
200	24.40	28.62	10.60	20.32	1.07	0.67	32.54	19.73	0.59
250	24.07	28.43	10.83	19.60	1.08	0.67	32.69	19.79	0.53
300	23.72	28.36	11.08	18.79	1.10	0.69	32.71	19.74	0.60
350	23.33	28.16	11.27	18.18	1.11	0.70	32.65	19.95	0.62
400	22.94	27.97	11.45	17.56	1.12	0.71	32.84	19.62	0.65
450	22.53	27.77	11.66	17.01	1.13	0.72	33.28	19.98	0.64
500	22.12	27.44	11.83	16.63	1.13	0.73	33.08	20.12	0.64
550	21.70	27.17	11.98	16.26	1.14	0.74	33.50	20.00	0.63
650	20.89	26.52	12.33	15.72	1.15	0.75	33.68	20.16	0.64
700	20.49	26.21	12.43	15.52	1.15	0.75	33.88	20.34	0.62
750	20.10	25.88	12.60	15.43	1.15	0.76	33.68	20.42	0.74
800	19.72	25.64	12.73	15.24	1.16	0.77	33.84	20.66	0.68
850	19.35	25.27	12.82	15.05	1.16	0.77	34.18	20.68	0.67
900	18.99	24.99	12.92	14.85	1.16	0.77	34.36	20.85	0.68
950	18.64	24.70	13.02	14.65	1.16	0.78	34.43	21.11	0.68
1000	18.31	24.31	13.08	14.50	1.15	0.77	33.85	21.17	0.70
1200	17.04	23.20	13.39	14.23	1.16	0.78	34.46	21.36	0.82
1400	15.93	22.13	13.61	13.86	1.15	0.79	34.48	21.40	0.84
1600	14.93	21.16	13.86	13.61	1.15	0.79	34.82	21.75	0.84
1800	14.04	20.26	14.02	13.36	1.15	0.79	34.85	21.45	0.90
2000	13.24	19.43	14.27	13.18	1.14	0.78	35.40	22.13	0.92
2200	12.50	18.71	14.37	12.98	1.14	0.78	35.02	21.81	0.92
2400	11.83	18.01	14.44	12.89	1.14	0.78	35.14	22.13	0.91
2600	11.22	17.39	14.47	12.88	1.13	0.78	35.43	22.12	1.05
2800	10.66	16.78	14.29	12.92	1.13	0.78	34.79	21.98	1.12
3000	10.13	16.23	14.31	12.90	1.13	0.78	34.42	21.69	1.06
3200	9.66	15.68	13.87	12.99	1.12	0.78	34.52	22.03	1.16
3400	9.20	15.20	13.49	13.34	1.11	0.79	33.63	22.03	1.27
3600	8.77	14.73	13.00	13.43	1.11	0.79	33.46	22.09	1.18
3800	8.36	14.30	12.49	13.76	1.10	0.80	32.95	22.04	1.28
4000	8.0	13.9	11.90	13.85	1.10	0.81	33.89	22.74	1.62

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: RF Input Power = -25dBm, Vd = 5.25V, Id = 61.32mA @ Temperature = 25degC

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)
50	25.62	29.29	8.19	15.31	0.95	0.70	33.04	19.79	0.65
60	25.43	28.76	8.79	16.48	0.97	0.63	33.32	19.87	0.65
70	25.33	29.13	9.16	17.43	1.00	0.67	33.09	19.90	0.60
80	25.24	29.09	9.44	18.36	1.01	0.67	32.73	19.67	0.64
90	25.17	29.10	9.69	19.09	1.02	0.67	32.68	19.65	0.65
100	25.11	29.02	9.82	19.59	1.03	0.67	32.64	19.47	0.65
150	24.85	28.85	10.38	20.69	1.05	0.66	32.62	19.80	0.56
200	24.55	28.79	10.64	20.13	1.07	0.67	32.78	19.54	0.58
250	24.21	28.61	10.88	19.35	1.08	0.68	32.77	19.69	0.54
300	23.85	28.54	11.12	18.49	1.10	0.69	33.04	19.65	0.61
350	23.45	28.26	11.33	17.78	1.11	0.69	33.07	19.77	0.62
400	23.05	28.13	11.51	17.15	1.12	0.71	33.25	19.61	0.67
450	22.64	27.90	11.72	16.64	1.13	0.72	33.61	19.76	0.68
500	22.22	27.67	11.90	16.23	1.14	0.73	33.23	19.86	0.68
550	21.80	27.42	12.06	15.88	1.15	0.74	33.63	19.73	0.59
650	20.97	26.78	12.41	15.30	1.16	0.75	33.87	19.93	0.65
700	20.57	26.43	12.52	15.13	1.16	0.76	34.17	20.06	0.64
750	20.18	26.08	12.68	15.00	1.16	0.76	34.19	20.18	0.69
800	19.80	25.76	12.80	14.84	1.16	0.76	34.19	20.37	0.68
850	19.42	25.45	12.93	14.63	1.16	0.77	34.58	20.35	0.69
900	19.06	25.10	13.02	14.42	1.16	0.77	34.73	20.53	0.70
950	18.70	24.80	13.10	14.25	1.16	0.77	34.73	20.80	0.69
1000	18.36	24.54	13.18	14.11	1.16	0.78	34.13	20.86	0.71
1200	17.09	23.37	13.49	13.82	1.17	0.79	35.08	20.94	0.82
1400	15.97	22.26	13.72	13.46	1.16	0.79	34.93	20.95	0.84
1600	14.97	21.30	13.97	13.24	1.16	0.79	35.17	21.42	0.83
1800	14.08	20.41	14.13	12.97	1.15	0.79	35.65	21.12	0.93
2000	13.28	19.59	14.38	12.77	1.15	0.79	36.21	21.84	0.91
2200	12.53	18.83	14.47	12.59	1.14	0.78	35.88	21.46	0.92
2400	11.86	18.15	14.54	12.53	1.14	0.78	36.21	21.83	0.90
2600	11.25	17.52	14.58	12.49	1.14	0.78	36.36	21.92	1.04
2800	10.68	16.90	14.41	12.51	1.13	0.78	35.62	21.64	1.17
3000	10.16	16.36	14.42	12.49	1.13	0.78	35.78	21.41	1.05
3200	9.68	15.80	13.97	12.61	1.12	0.78	35.81	21.83	1.16
3400	9.22	15.31	13.61	12.89	1.12	0.79	35.21	21.92	1.30
3600	8.79	14.85	13.09	12.93	1.11	0.80	35.32	21.88	1.30
3800	8.38	14.43	12.61	13.29	1.11	0.80	35.05	21.80	1.29
4000	7.97	14.01	12.01	13.35	1.10	0.81	35.79	22.67	1.57

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: RF Input Power = -25dBm, Vd = 5.00V, Id = 60.19mA @ Temperature = -45degC

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)
50	25.40	28.48	9.24	15.36	0.91	0.66	33.39	20.52	0.54
60	25.14	31.48	9.65	16.47	1.10	0.89	34.00	20.64	0.54
70	24.99	28.28	10.94	18.79	0.98	0.63	33.94	20.73	0.47
80	24.86	28.12	11.49	20.70	1.00	0.61	33.59	20.34	0.51
90	24.77	28.16	11.90	22.38	1.01	0.62	33.74	20.41	0.52
100	24.69	28.10	12.20	24.23	1.02	0.62	33.85	20.30	0.49
150	24.41	27.88	13.32	38.26	1.04	0.60	33.87	20.83	0.45
200	24.13	27.85	13.54	33.27	1.06	0.61	33.97	20.31	0.49
250	23.83	27.75	13.96	26.93	1.08	0.62	34.18	20.50	0.43
300	23.52	27.63	14.13	23.79	1.09	0.63	34.34	20.43	0.50
350	23.17	27.52	14.36	22.10	1.11	0.64	34.26	20.59	0.51
400	22.82	27.28	14.46	20.99	1.11	0.65	34.48	20.01	0.55
450	22.45	27.15	14.51	19.85	1.13	0.67	34.93	20.71	0.54
500	22.07	26.91	14.60	19.00	1.14	0.67	34.69	20.93	0.49
550	21.68	26.60	14.45	18.29	1.14	0.68	35.41	20.68	0.42
650	20.93	26.20	14.56	17.24	1.15	0.70	35.43	21.05	0.52
700	20.55	25.83	14.74	16.90	1.15	0.70	35.59	21.18	0.46
750	20.19	25.55	14.79	16.70	1.16	0.71	35.51	21.22	0.54
800	19.83	25.29	14.87	16.56	1.16	0.72	35.58	21.73	0.53
850	19.48	25.01	14.95	16.36	1.16	0.72	35.97	21.70	0.54
900	19.14	24.68	14.83	16.10	1.16	0.73	36.23	21.95	0.52
950	18.80	24.41	14.92	15.82	1.16	0.73	36.24	22.27	0.52
1000	18.48	24.12	14.70	15.65	1.16	0.74	35.77	22.29	0.53
1200	17.26	22.98	14.91	15.22	1.15	0.75	36.59	22.48	0.64
1400	16.17	21.93	14.90	14.80	1.15	0.75	36.82	22.52	0.63
1600	15.19	20.99	14.95	14.51	1.14	0.76	36.91	22.84	0.62
1800	14.32	20.10	14.88	14.21	1.13	0.76	37.38	22.62	0.72
2000	13.54	19.28	15.21	13.88	1.13	0.75	38.05	23.15	0.71
2200	12.80	18.55	15.16	13.56	1.12	0.75	37.59	22.97	0.69
2400	12.15	17.85	15.25	13.41	1.12	0.75	38.02	23.16	0.65
2600	11.54	17.23	15.24	13.28	1.11	0.75	38.19	23.19	0.78
2800	10.99	16.59	15.35	13.14	1.11	0.74	37.49	23.09	0.91
3000	10.45	16.06	15.20	13.12	1.10	0.75	38.15	22.75	0.78
3200	10.00	15.51	14.62	13.13	1.09	0.75	37.97	22.92	0.95
3400	9.54	15.03	14.24	13.55	1.09	0.75	37.70	22.98	1.02
3600	9.14	14.58	13.89	13.41	1.08	0.75	37.68	23.04	0.91
3800	8.74	14.13	13.21	13.91	1.08	0.76	37.17	22.95	0.96
4000	8.33	13.74	12.30	14.24	1.07	0.78	38.03	23.66	1.02

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: RF Input Power = -25dBm, Vd = 4.75V, Id = 57.2mA @ Temperature = -45degC

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)
50	25.45	28.57	9.48	15.63	0.93	0.64	33.28	20.08	0.49
60	25.19	28.79	10.26	17.23	0.97	0.68	33.79	20.28	0.49
70	25.05	28.39	10.97	18.89	0.98	0.64	33.75	20.41	0.44
80	24.92	28.35	11.53	20.61	1.00	0.63	33.59	19.93	0.48
90	24.83	28.33	11.99	22.26	1.02	0.63	33.65	20.07	0.49
100	24.76	28.18	12.31	24.10	1.02	0.62	33.70	19.96	0.49
150	24.47	28.01	13.32	38.59	1.05	0.61	33.59	20.65	0.43
200	24.19	28.00	13.75	33.70	1.07	0.62	33.99	19.95	0.47
250	23.89	27.81	14.03	27.13	1.08	0.62	33.99	20.12	0.43
300	23.58	27.80	14.26	23.90	1.10	0.64	34.19	20.04	0.44
350	23.23	27.69	14.45	22.18	1.11	0.65	34.09	20.26	0.47
400	22.87	27.49	14.50	20.86	1.12	0.66	34.28	19.80	0.51
450	22.50	27.26	14.61	19.89	1.13	0.67	34.76	20.53	0.50
500	22.12	27.03	14.64	19.15	1.14	0.68	34.58	20.79	0.50
550	21.74	26.84	14.66	18.47	1.15	0.69	35.17	20.51	0.47
650	20.98	26.22	14.76	17.36	1.15	0.70	35.20	20.86	0.50
700	20.61	25.97	14.78	16.98	1.16	0.71	35.45	20.97	0.47
750	20.23	25.67	14.87	16.77	1.16	0.72	35.22	21.16	0.53
800	19.88	25.35	14.93	16.58	1.16	0.72	35.40	21.51	0.54
850	19.53	25.01	14.98	16.38	1.16	0.72	35.79	21.53	0.52
900	19.18	24.74	14.98	16.18	1.16	0.73	36.08	21.77	0.50
950	18.85	24.45	14.96	15.95	1.16	0.73	36.02	22.02	0.54
1000	18.53	24.14	14.92	15.75	1.16	0.73	35.50	22.07	0.53
1200	17.30	23.03	14.95	15.25	1.16	0.75	36.17	22.28	0.62
1400	16.22	21.99	14.96	14.86	1.15	0.75	36.33	22.34	0.63
1600	15.24	20.99	15.00	14.59	1.14	0.75	36.53	22.67	0.64
1800	14.37	20.15	15.01	14.21	1.14	0.76	36.82	22.48	0.68
2000	13.58	19.30	15.17	14.00	1.13	0.75	37.29	22.93	0.67
2200	12.84	18.58	15.28	13.64	1.12	0.75	37.16	22.78	0.69
2400	12.19	17.87	15.33	13.55	1.12	0.75	37.45	22.97	0.63
2600	11.58	17.24	15.35	13.30	1.11	0.75	37.63	23.00	0.73
2800	11.03	16.63	15.26	13.29	1.11	0.74	36.88	22.87	0.81
3000	10.49	16.10	15.33	13.24	1.11	0.74	36.95	22.56	0.74
3200	10.05	15.52	14.77	13.27	1.09	0.74	37.19	22.84	0.82
3400	9.59	15.06	14.35	13.54	1.09	0.75	36.19	22.80	0.98
3600	9.19	14.58	13.93	13.54	1.08	0.75	36.13	22.88	0.85
3800	8.78	14.12	13.22	14.15	1.08	0.76	35.76	22.80	0.98
4000	8.39	13.74	12.40	14.32	1.07	0.77	36.86	23.46	1.05

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: RF Input Power = -25dBm, Vd = 5.25V, Id = 64.46mA @ Temperature = -45degC

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)
50	25.60	28.59	9.55	15.62	0.92	0.64	33.74	20.60	0.53
60	25.35	28.99	10.32	17.39	0.97	0.68	34.12	20.94	0.53
70	25.20	28.52	11.11	19.10	0.98	0.63	34.18	20.95	0.46
80	25.08	28.43	11.69	20.92	1.00	0.62	33.93	20.64	0.51
90	24.99	28.38	12.14	22.68	1.01	0.62	34.02	20.69	0.54
100	24.92	28.38	12.47	24.42	1.02	0.62	33.95	20.52	0.50
150	24.62	28.37	13.51	39.07	1.06	0.63	34.09	20.97	0.43
200	24.34	28.21	13.94	32.43	1.07	0.62	34.29	20.53	0.49
250	24.03	27.99	14.23	26.51	1.08	0.62	34.42	20.82	0.42
300	23.71	27.94	14.45	23.37	1.10	0.64	34.74	20.66	0.50
350	23.35	27.81	14.59	21.70	1.12	0.65	34.69	20.93	0.47
400	22.99	27.60	14.67	20.48	1.12	0.66	34.80	20.35	0.54
450	22.61	27.37	14.76	19.52	1.13	0.67	35.37	20.88	0.51
500	22.23	27.12	14.79	18.79	1.14	0.68	35.13	21.10	0.52
550	21.84	26.93	14.81	18.17	1.15	0.69	35.64	20.86	0.44
650	21.07	26.36	14.91	17.11	1.16	0.70	35.99	21.08	0.48
700	20.69	26.02	14.94	16.76	1.16	0.71	36.15	21.23	0.46
750	20.31	25.78	15.05	16.50	1.16	0.72	35.89	21.38	0.53
800	19.95	25.44	15.08	16.30	1.16	0.72	36.01	21.65	0.58
850	19.60	25.14	15.13	16.14	1.16	0.72	36.66	21.62	0.52
900	19.25	24.82	15.13	15.94	1.16	0.73	36.64	21.96	0.51
950	18.91	24.53	15.12	15.72	1.16	0.73	36.83	22.28	0.54
1000	18.58	24.31	15.06	15.52	1.16	0.74	36.38	22.35	0.56
1200	17.35	23.13	15.09	15.04	1.16	0.75	37.04	22.51	0.63
1400	16.26	22.06	15.11	14.66	1.15	0.75	37.12	22.54	0.63
1600	15.28	21.07	15.15	14.37	1.14	0.75	37.40	22.99	0.67
1800	14.41	20.18	15.17	14.03	1.13	0.75	37.75	22.64	0.67
2000	13.61	19.38	15.29	13.78	1.13	0.75	38.42	23.26	0.68
2200	12.88	18.62	15.40	13.44	1.12	0.75	38.43	23.03	0.68
2400	12.22	17.94	15.44	13.35	1.12	0.75	38.94	23.30	0.68
2600	11.61	17.27	15.52	13.08	1.11	0.74	38.80	23.31	0.75
2800	11.06	16.70	15.42	13.11	1.11	0.74	37.93	23.13	0.88
3000	10.52	16.16	15.45	12.98	1.11	0.74	38.71	22.76	0.76
3200	10.07	15.58	14.92	13.07	1.09	0.74	38.83	22.94	0.91
3400	9.61	15.10	14.48	13.29	1.09	0.75	38.74	23.09	0.94
3600	9.20	14.62	14.04	13.30	1.08	0.75	38.67	23.09	0.93
3800	8.79	14.18	13.33	13.84	1.08	0.76	38.42	22.99	0.93
4000	8.40	13.78	12.52	14.05	1.07	0.77	38.89	23.78	1.09

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: RF Input Power = -25dBm, Vd = 5.00V, Id = 57.4mA @ Temperature = 85degC

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)
50	25.39	29.37	7.25	13.54	0.97	0.68	31.89	18.36	0.79
60	25.22	29.95	7.55	13.92	1.01	0.74	31.94	18.24	0.79
70	25.15	29.48	7.81	14.53	1.01	0.71	31.61	18.33	0.74
80	25.07	29.45	7.99	14.94	1.02	0.70	31.32	18.12	0.75
90	25.01	29.39	8.15	15.28	1.02	0.70	31.24	18.12	0.76
100	24.96	29.37	8.25	15.46	1.03	0.70	31.14	17.98	0.75
150	24.72	29.36	8.67	15.99	1.06	0.71	31.14	18.38	0.65
200	24.42	29.11	8.97	16.01	1.06	0.71	31.32	18.08	0.68
250	24.07	28.83	9.21	15.83	1.07	0.71	31.39	18.22	0.63
300	23.70	28.74	9.44	15.50	1.09	0.73	31.69	18.14	0.65
350	23.29	28.41	9.67	15.19	1.09	0.73	31.60	18.27	0.70
400	22.87	28.25	9.84	14.85	1.11	0.74	31.74	18.12	0.77
450	22.44	28.02	10.07	14.56	1.12	0.75	32.00	18.43	0.74
500	22.02	27.70	10.29	14.36	1.12	0.76	31.75	18.51	0.75
550	21.59	27.37	10.53	14.23	1.13	0.77	32.09	18.32	0.69
650	20.76	26.79	10.99	14.07	1.14	0.78	32.30	18.57	0.75
700	20.34	26.46	11.16	13.98	1.15	0.79	32.55	18.67	0.75
750	19.93	26.13	11.37	13.89	1.15	0.79	32.50	18.83	0.79
800	19.55	25.80	11.51	13.79	1.15	0.79	32.55	18.97	0.83
850	19.17	25.46	11.64	13.61	1.15	0.80	32.88	18.95	0.81
900	18.80	25.21	11.75	13.41	1.16	0.80	33.18	19.10	0.79
950	18.44	24.89	11.90	13.25	1.16	0.80	33.01	19.32	0.83
1000	18.10	24.54	11.99	13.14	1.15	0.80	32.44	19.52	0.83
1200	16.82	23.37	12.49	13.04	1.16	0.81	33.26	19.57	0.97
1400	15.69	22.34	12.82	12.70	1.16	0.81	33.15	19.54	0.98
1600	14.69	21.35	13.16	12.62	1.16	0.81	33.49	19.91	0.98
1800	13.80	20.45	13.45	12.41	1.16	0.81	33.78	19.58	1.12
2000	12.99	19.66	13.77	12.34	1.16	0.81	34.35	20.34	1.09
2200	12.24	18.95	13.91	12.28	1.16	0.81	33.97	19.83	1.09
2400	11.57	18.22	13.93	12.30	1.16	0.81	34.47	20.27	1.12
2600	10.95	17.57	13.91	12.41	1.15	0.81	34.21	20.31	1.31
2800	10.38	17.01	13.67	12.57	1.15	0.81	33.79	20.11	1.39
3000	9.86	16.43	13.53	12.76	1.15	0.81	33.31	19.88	1.29
3200	9.37	15.90	13.09	12.88	1.14	0.82	33.43	20.24	1.49
3400	8.89	15.43	12.75	13.15	1.14	0.83	32.56	20.67	1.59
3600	8.45	14.99	12.26	13.14	1.14	0.83	32.59	20.50	1.56
3800	8.02	14.56	11.93	13.35	1.13	0.84	32.29	20.45	1.61
4000	7.61	14.17	11.39	13.19	1.13	0.85	33.18	21.25	1.84

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: RF Input Power = -25dBm, Vd = 4.75V, Id = 54.51mA @ Temperature = 85degC

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)
50	25.35	30.10	7.27	13.70	1.00	0.76	32.04	18.50	0.73
60	25.18	29.02	7.69	14.32	0.98	0.67	32.25	18.53	0.73
70	25.10	29.23	7.93	14.87	1.00	0.69	31.91	18.52	0.68
80	25.02	29.34	8.12	15.35	1.02	0.71	31.59	18.32	0.70
90	24.96	29.23	8.29	15.68	1.02	0.70	31.56	18.33	0.71
100	24.91	29.26	8.39	15.91	1.03	0.70	31.42	18.20	0.70
150	24.66	29.25	8.85	16.53	1.06	0.71	31.39	18.43	0.60
200	24.37	28.92	9.08	16.42	1.06	0.70	31.49	18.32	0.64
250	24.02	28.68	9.32	16.23	1.07	0.70	31.59	18.42	0.60
300	23.65	28.60	9.55	15.90	1.09	0.72	31.88	18.38	0.63
350	23.25	28.40	9.79	15.61	1.10	0.73	31.78	18.55	0.67
400	22.84	28.18	9.99	15.30	1.11	0.74	31.85	18.29	0.74
450	22.42	27.92	10.23	15.02	1.12	0.75	32.23	18.57	0.75
500	22.00	27.56	10.44	14.83	1.12	0.75	31.99	18.76	0.72
550	21.57	27.27	10.64	14.65	1.13	0.76	32.40	18.52	0.69
650	20.75	26.63	11.09	14.44	1.14	0.77	32.70	18.74	0.70
700	20.34	26.27	11.26	14.40	1.14	0.78	32.75	18.90	0.70
750	19.93	26.01	11.48	14.30	1.15	0.79	32.66	18.98	0.82
800	19.55	25.62	11.61	14.23	1.14	0.79	32.82	19.23	0.80
850	19.17	25.33	11.75	14.01	1.15	0.79	33.24	19.20	0.77
900	18.80	25.05	11.85	13.79	1.15	0.80	33.38	19.38	0.77
950	18.44	24.76	11.98	13.59	1.15	0.80	33.31	19.57	0.81
1000	18.11	24.44	12.06	13.50	1.15	0.80	32.76	19.64	0.78
1200	16.84	23.26	12.56	13.47	1.16	0.80	33.51	19.81	0.91
1400	15.70	22.20	12.85	13.05	1.16	0.81	33.45	19.74	0.93
1600	14.71	21.24	13.18	13.07	1.16	0.81	33.65	20.16	0.97
1800	13.81	20.35	13.42	12.76	1.15	0.81	34.01	19.85	1.04
2000	13.02	19.53	13.77	12.72	1.15	0.80	34.35	20.65	1.07
2200	12.25	18.83	13.86	12.60	1.16	0.81	33.95	20.20	1.05
2400	11.60	18.12	13.91	12.62	1.15	0.80	34.25	20.61	1.07
2600	10.98	17.48	13.90	12.68	1.15	0.80	34.36	20.70	1.22
2800	10.41	16.89	13.69	12.79	1.15	0.81	33.68	20.36	1.29
3000	9.89	16.33	13.61	12.96	1.14	0.81	33.33	20.21	1.26
3200	9.40	15.80	13.18	13.12	1.14	0.81	33.49	20.60	1.46
3400	8.92	15.32	12.86	13.31	1.14	0.82	32.53	20.97	1.51
3600	8.49	14.88	12.36	13.44	1.13	0.83	32.54	20.84	1.47
3800	8.07	14.45	12.02	13.51	1.13	0.83	32.03	20.87	1.59
4000	7.66	14.05	11.51	13.57	1.12	0.84	32.84	21.58	1.74

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: RF Input Power = -25dBm, Vd = 5.25V, Id = 59.82mA @ Temperature = 85degC

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)
50	25.50	29.09	7.50	14.04	0.94	0.67	31.46	18.27	0.75
60	25.33	30.02	7.74	14.51	1.01	0.75	31.45	18.24	0.75
70	25.25	29.43	8.08	15.16	1.01	0.70	31.18	18.18	0.69
80	25.17	29.41	8.28	15.64	1.02	0.70	30.99	18.02	0.74
90	25.11	29.34	8.44	16.01	1.02	0.69	30.91	17.97	0.73
100	25.06	29.36	8.55	16.23	1.03	0.70	30.70	17.80	0.71
150	24.81	29.35	9.00	16.81	1.06	0.71	30.77	18.07	0.62
200	24.50	29.11	9.25	16.61	1.07	0.70	30.87	17.92	0.69
250	24.16	28.87	9.49	16.32	1.08	0.70	30.99	18.07	0.63
300	23.78	28.72	9.73	15.92	1.09	0.72	31.24	18.02	0.66
350	23.37	28.53	9.98	15.62	1.10	0.73	31.20	18.24	0.69
400	22.96	28.32	10.19	15.22	1.11	0.74	31.39	18.01	0.74
450	22.53	28.03	10.42	14.91	1.12	0.74	31.48	18.19	0.73
500	22.10	27.83	10.65	14.66	1.13	0.76	31.29	18.39	0.73
550	21.67	27.46	10.84	14.43	1.14	0.76	31.55	18.12	0.73
650	20.84	26.91	11.29	14.18	1.15	0.78	31.59	18.39	0.72
700	20.43	26.50	11.45	14.12	1.15	0.78	32.02	18.53	0.69
750	20.02	26.16	11.67	14.02	1.15	0.78	32.06	18.68	0.78
800	19.63	25.85	11.80	13.93	1.16	0.79	32.11	18.82	0.78
850	19.25	25.58	11.93	13.69	1.16	0.79	32.37	18.80	0.78
900	18.87	25.27	12.04	13.49	1.16	0.80	32.64	18.96	0.79
950	18.52	24.93	12.16	13.30	1.16	0.80	32.40	19.14	0.82
1000	18.18	24.62	12.23	13.18	1.16	0.80	31.88	19.28	0.81
1200	16.90	23.46	12.74	13.13	1.17	0.81	32.67	19.31	0.91
1400	15.76	22.41	13.01	12.70	1.17	0.81	32.49	19.27	0.94
1600	14.77	21.43	13.35	12.72	1.17	0.81	32.94	19.70	0.98
1800	13.86	20.55	13.57	12.41	1.16	0.81	33.22	19.38	1.09
2000	13.07	19.75	13.93	12.35	1.16	0.80	33.67	20.11	1.08
2200	12.30	19.01	14.01	12.22	1.16	0.81	33.40	19.72	1.09
2400	11.64	18.30	14.09	12.19	1.16	0.80	33.81	20.03	1.07
2600	11.02	17.66	14.07	12.26	1.16	0.80	33.31	20.04	1.24
2800	10.45	17.06	13.89	12.33	1.15	0.81	33.13	19.90	1.35
3000	9.93	16.51	13.78	12.48	1.15	0.81	32.42	19.53	1.26
3200	9.45	15.97	13.37	12.62	1.14	0.81	32.79	19.92	1.44
3400	8.96	15.49	13.05	12.79	1.14	0.82	31.77	20.33	1.53
3600	8.54	15.02	12.55	12.91	1.13	0.82	31.93	20.12	1.52
3800	8.11	14.61	12.21	12.97	1.13	0.83	31.67	19.96	1.59
4000	7.71	14.21	11.69	13.05	1.12	0.84	32.51	20.91	1.74

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: RF Input Power = -25dBm, Vd = 3.00V, Id = 35.11mA @ Temperature = 25degC

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)
50	24.45	29.13	7.26	14.17	0.96	0.81	28.45	16.42	0.59
60	24.25	28.24	7.81	15.12	0.96	0.72	28.79	16.44	0.59
70	24.15	28.37	8.13	15.92	0.99	0.73	28.54	16.50	0.53
80	24.07	28.26	8.39	16.62	1.00	0.72	28.23	16.24	0.58
90	24.00	28.25	8.59	17.20	1.01	0.72	28.21	16.27	0.60
100	23.95	28.20	8.73	17.62	1.02	0.72	28.19	16.11	0.60
150	23.70	28.12	9.18	18.83	1.04	0.72	28.12	16.76	0.49
200	23.45	27.91	9.43	19.26	1.05	0.72	28.10	16.31	0.60
250	23.15	27.73	9.64	19.35	1.06	0.73	28.09	16.45	0.54
300	22.83	27.42	9.83	19.28	1.06	0.72	28.17	16.44	0.64
350	22.48	27.29	10.02	19.26	1.07	0.74	28.16	16.51	0.58
400	22.12	26.91	10.18	19.10	1.07	0.74	28.13	16.17	0.66
450	21.74	26.67	10.37	18.93	1.08	0.75	28.44	16.66	0.65
500	21.35	26.34	10.52	18.87	1.08	0.75	28.28	16.91	0.62
550	20.97	26.02	10.67	18.78	1.09	0.76	28.71	16.75	0.56
650	20.20	25.37	10.99	18.69	1.10	0.76	28.69	16.99	0.62
700	19.82	25.01	11.10	18.64	1.10	0.77	28.86	17.15	0.64
750	19.44	24.70	11.25	18.66	1.10	0.77	28.71	17.28	0.70
800	19.08	24.36	11.38	18.59	1.10	0.77	28.89	17.67	0.67
850	18.73	24.08	11.49	18.43	1.11	0.78	29.20	17.57	0.67
900	18.38	23.77	11.57	18.29	1.11	0.78	29.36	17.77	0.70
950	18.04	23.44	11.67	18.16	1.11	0.78	29.20	18.04	0.70
1000	17.72	23.15	11.74	18.04	1.11	0.78	28.88	18.18	0.67
1200	16.49	22.04	12.04	18.01	1.12	0.79	29.60	18.33	0.82
1400	15.40	20.96	12.25	17.68	1.12	0.79	29.71	18.48	0.81
1600	14.42	20.03	12.50	17.53	1.12	0.79	29.88	18.84	0.80
1800	13.55	19.16	12.63	17.22	1.12	0.79	30.46	18.61	0.88
2000	12.76	18.36	12.88	17.03	1.12	0.79	30.88	19.20	0.89
2200	12.04	17.62	12.94	16.86	1.12	0.79	30.55	19.01	0.86
2400	11.38	16.93	12.99	16.85	1.11	0.78	30.98	19.17	0.90
2600	10.78	16.32	13.02	16.89	1.11	0.78	31.12	19.26	0.97
2800	10.22	15.74	12.88	17.07	1.11	0.78	30.89	19.19	1.07
3000	9.71	15.19	12.88	17.12	1.11	0.78	31.17	18.99	0.99
3200	9.23	14.65	12.46	17.37	1.10	0.78	31.27	19.32	1.18
3400	8.77	14.19	12.16	17.89	1.10	0.79	31.33	19.38	1.19
3600	8.35	13.75	11.70	17.96	1.10	0.79	31.07	19.46	1.12
3800	7.94	13.33	11.28	18.54	1.09	0.80	31.36	19.52	1.30
4000	7.53	12.97	10.75	18.30	1.09	0.81	31.62	19.95	1.35

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: RF Input Power = -25dBm, Vd = 2.7V, Id = 31.15mA @ Temperature = 25degC

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)
50	24.13	27.50	7.28	14.03	0.92	0.68	27.53	15.62	0.59
60	23.93	28.11	7.60	14.77	0.97	0.73	27.82	15.65	0.59
70	23.83	28.08	7.93	15.55	0.99	0.73	27.59	15.60	0.54
80	23.75	28.14	8.19	16.26	1.00	0.74	27.28	15.35	0.59
90	23.68	28.03	8.41	16.81	1.01	0.73	27.17	15.31	0.61
100	23.62	27.95	8.53	17.22	1.02	0.73	27.15	15.18	0.61
150	23.39	27.87	9.01	18.49	1.04	0.73	27.10	15.64	0.54
200	23.14	27.59	9.22	18.90	1.04	0.73	27.07	15.39	0.58
250	22.85	27.35	9.39	19.07	1.05	0.73	27.05	15.57	0.56
300	22.54	27.11	9.59	19.16	1.05	0.73	27.06	15.55	0.60
350	22.19	26.90	9.77	19.23	1.06	0.74	27.02	15.79	0.62
400	21.84	26.60	9.92	19.19	1.06	0.75	26.99	15.25	0.65
450	21.47	26.30	10.08	19.17	1.07	0.75	27.26	15.78	0.66
500	21.10	25.92	10.23	19.17	1.07	0.75	27.08	16.13	0.63
550	20.72	25.67	10.38	19.16	1.07	0.76	27.53	15.91	0.60
650	19.96	25.07	10.68	19.26	1.08	0.77	27.47	16.19	0.63
700	19.59	24.67	10.79	19.25	1.08	0.77	27.62	16.26	0.66
750	19.22	24.39	10.93	19.36	1.09	0.78	27.48	16.38	0.69
800	18.86	24.05	11.05	19.30	1.09	0.78	27.64	16.72	0.70
850	18.51	23.75	11.15	19.19	1.09	0.78	27.95	16.67	0.68
900	18.17	23.46	11.24	19.06	1.09	0.79	28.08	16.97	0.68
950	17.83	23.14	11.32	18.97	1.10	0.79	27.93	17.20	0.69
1000	17.51	22.85	11.37	18.92	1.10	0.79	27.68	17.36	0.66
1200	16.29	21.71	11.67	19.02	1.10	0.79	28.38	17.42	0.82
1400	15.21	20.69	11.86	18.72	1.11	0.79	28.48	17.62	0.83
1600	14.24	19.75	12.08	18.67	1.11	0.79	28.61	17.98	0.83
1800	13.38	18.89	12.21	18.35	1.11	0.79	29.28	17.76	0.91
2000	12.60	18.10	12.43	18.20	1.11	0.79	29.65	18.29	0.89
2200	11.87	17.35	12.50	18.01	1.11	0.79	29.33	18.16	0.85
2400	11.22	16.69	12.54	18.05	1.11	0.79	29.85	18.40	0.88
2600	10.62	16.06	12.57	18.07	1.11	0.78	29.85	18.36	0.97
2800	10.06	15.49	12.43	18.32	1.11	0.79	29.72	18.37	1.10
3000	9.56	14.96	12.41	18.35	1.11	0.78	29.96	18.15	0.96
3200	9.08	14.43	12.02	18.64	1.10	0.79	30.09	18.50	1.12
3400	8.62	13.98	11.74	19.19	1.10	0.79	30.13	18.56	1.23
3600	8.20	13.53	11.30	19.21	1.09	0.79	29.95	18.61	1.18
3800	7.79	13.12	10.89	19.68	1.09	0.80	30.29	18.71	1.26
4000	7.37	12.77	10.37	19.27	1.09	0.81	30.39	19.14	1.38

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: RF Input Power = -25dBm, Vd = 3.3V, Id = 38.52mA @ Temperature = 25degC

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)
50	24.69	28.88	7.69	14.58	0.94	0.76	29.44	17.28	0.60
60	24.49	28.20	8.14	15.64	0.96	0.69	29.84	17.46	0.60
70	24.39	28.46	8.54	16.54	0.99	0.71	29.63	17.39	0.53
80	24.30	28.39	8.83	17.36	1.01	0.71	29.24	17.15	0.57
90	24.23	28.32	9.05	18.05	1.01	0.70	29.18	17.17	0.60
100	24.17	28.31	9.20	18.58	1.02	0.70	29.15	17.01	0.62
150	23.93	28.25	9.72	20.08	1.05	0.71	29.11	17.46	0.50
200	23.66	27.95	9.97	20.42	1.05	0.70	29.14	17.11	0.59
250	23.36	27.77	10.17	20.33	1.06	0.70	29.10	17.36	0.52
300	23.03	27.58	10.38	20.05	1.07	0.71	29.21	17.22	0.55
350	22.68	27.33	10.57	19.76	1.08	0.71	29.17	17.48	0.62
400	22.32	27.16	10.72	19.47	1.09	0.73	29.19	17.04	0.64
450	21.93	26.81	10.91	19.17	1.09	0.73	29.53	17.49	0.64
500	21.55	26.57	11.05	18.93	1.10	0.74	29.37	17.77	0.63
550	21.16	26.26	11.20	18.71	1.10	0.75	29.80	17.59	0.58
650	20.38	25.65	11.52	18.38	1.11	0.76	29.84	17.95	0.63
700	20.00	25.29	11.62	18.27	1.11	0.76	29.98	17.97	0.59
750	19.63	24.99	11.77	18.22	1.12	0.76	29.87	18.18	0.68
800	19.26	24.65	11.89	18.13	1.12	0.77	29.99	18.43	0.68
850	18.91	24.33	12.01	17.91	1.12	0.77	30.33	18.44	0.66
900	18.56	24.03	12.09	17.71	1.12	0.77	30.48	18.68	0.68
950	18.22	23.76	12.18	17.53	1.12	0.78	30.32	18.87	0.68
1000	17.89	23.46	12.23	17.38	1.13	0.78	30.06	19.03	0.69
1200	16.66	22.31	12.54	17.23	1.13	0.78	30.74	19.15	0.79
1400	15.57	21.25	12.72	16.82	1.13	0.79	30.73	19.33	0.81
1600	14.58	20.30	12.98	16.63	1.13	0.79	30.92	19.66	0.80
1800	13.71	19.41	13.11	16.30	1.12	0.79	31.38	19.43	0.87
2000	12.92	18.59	13.36	16.09	1.12	0.78	31.77	19.99	0.87
2200	12.19	17.89	13.41	15.90	1.12	0.78	31.47	19.79	0.88
2400	11.53	17.21	13.46	15.82	1.12	0.78	31.85	20.05	0.86
2600	10.93	16.57	13.51	15.83	1.12	0.78	32.02	20.02	0.97
2800	10.37	15.98	13.35	15.94	1.11	0.78	31.61	19.99	1.05
3000	9.86	15.43	13.35	16.00	1.11	0.78	31.84	19.73	0.96
3200	9.38	14.89	12.93	16.16	1.10	0.78	31.88	20.05	1.11
3400	8.93	14.43	12.62	16.66	1.10	0.78	31.89	20.12	1.18
3600	8.50	13.97	12.14	16.73	1.10	0.79	31.68	20.15	1.15
3800	8.09	13.56	11.68	17.29	1.10	0.80	31.64	20.21	1.21
4000	7.68	13.18	11.12	17.18	1.09	0.80	31.99	20.71	1.41

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: RF Input Power = -25dBm, Vd = 3.00V, Id = 38.55mA @ Temperature = -45degC

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)
50	24.67	27.40	8.64	14.87	0.90	0.62	29.35	17.84	0.44
60	24.42	28.15	9.26	16.26	0.96	0.70	29.89	17.97	0.44
70	24.28	27.93	9.93	17.76	0.98	0.68	29.68	17.93	0.42
80	24.16	27.78	10.42	19.20	1.00	0.66	29.38	17.88	0.45
90	24.07	27.61	10.80	20.52	1.00	0.65	29.42	17.83	0.47
100	24.00	27.70	11.07	21.78	1.02	0.65	29.40	17.77	0.46
150	23.73	27.56	11.93	27.48	1.05	0.65	29.26	18.14	0.38
200	23.48	27.39	12.26	29.40	1.06	0.65	29.39	17.91	0.46
250	23.21	27.36	12.52	27.96	1.08	0.66	29.39	18.00	0.42
300	22.92	27.10	12.72	25.69	1.08	0.66	29.39	17.89	0.48
350	22.60	26.98	12.88	24.28	1.10	0.67	29.54	18.07	0.47
400	22.28	26.80	13.00	22.93	1.11	0.68	29.53	17.93	0.50
450	21.93	26.58	13.10	21.99	1.11	0.68	29.84	18.01	0.50
500	21.57	26.38	13.16	21.23	1.12	0.69	29.67	18.19	0.48
550	21.21	26.08	13.22	20.50	1.12	0.70	30.13	18.00	0.47
650	20.49	25.58	13.37	19.42	1.14	0.71	30.06	18.18	0.47
700	20.13	25.29	13.42	19.06	1.14	0.72	30.34	18.37	0.45
750	19.77	25.05	13.54	18.85	1.14	0.73	30.17	18.46	0.52
800	19.44	24.74	13.59	18.62	1.14	0.73	30.36	18.58	0.51
850	19.10	24.42	13.67	18.38	1.14	0.73	30.71	18.53	0.51
900	18.76	24.16	13.70	18.23	1.14	0.74	30.90	18.67	0.48
950	18.44	23.89	13.73	17.97	1.15	0.74	30.67	18.67	0.55
1000	18.12	23.59	13.70	17.76	1.14	0.75	30.40	18.84	0.50
1200	16.93	22.45	13.78	17.26	1.14	0.75	31.21	18.91	0.62
1400	15.87	21.41	13.83	16.87	1.14	0.76	31.23	19.05	0.60
1600	14.90	20.50	13.87	16.58	1.13	0.76	31.50	19.38	0.63
1800	14.05	19.61	13.91	16.21	1.13	0.76	32.15	19.21	0.70
2000	13.27	18.81	14.05	15.97	1.12	0.76	32.62	19.61	0.63
2200	12.55	18.06	14.15	15.61	1.12	0.76	32.33	19.49	0.62
2400	11.90	17.38	14.16	15.56	1.11	0.76	32.90	19.66	0.61
2600	11.30	16.74	14.20	15.28	1.11	0.76	32.93	19.66	0.73
2800	10.76	16.12	14.12	15.41	1.10	0.75	32.61	19.62	0.81
3000	10.23	15.60	14.17	15.31	1.10	0.75	32.99	19.38	0.72
3200	9.78	15.05	13.69	15.52	1.09	0.75	33.27	19.65	0.87
3400	9.33	14.57	13.33	15.88	1.09	0.76	33.20	19.70	0.87
3600	8.93	14.10	12.92	16.04	1.08	0.76	33.02	19.80	0.87
3800	8.52	13.67	12.28	16.88	1.08	0.77	33.33	19.82	0.84
4000	8.13	13.29	11.53	17.29	1.07	0.78	33.94	20.23	0.90

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: RF Input Power = -25dBm, Vd = 2.7V, Id = 39.41mA @ Temperature = -45degC

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)
50	24.42	27.08	8.45	14.76	0.90	0.61	28.16	16.72	0.45
60	24.17	27.71	9.02	16.10	0.95	0.68	28.57	16.82	0.45
70	24.03	27.65	9.62	17.40	0.98	0.68	28.38	16.76	0.40
80	23.91	27.64	10.07	18.77	1.00	0.68	28.10	16.62	0.46
90	23.82	27.55	10.44	19.95	1.01	0.67	28.14	16.62	0.49
100	23.75	27.54	10.69	21.07	1.02	0.67	28.13	16.52	0.50
150	23.49	27.46	11.44	25.76	1.05	0.67	28.06	16.96	0.39
200	23.24	27.22	11.79	27.92	1.06	0.66	28.04	16.68	0.45
250	22.98	27.12	12.00	27.75	1.07	0.67	28.10	16.85	0.39
300	22.69	26.97	12.23	26.44	1.08	0.67	28.12	16.72	0.48
350	22.38	26.73	12.40	25.44	1.09	0.68	28.15	17.03	0.48
400	22.06	26.57	12.48	24.22	1.10	0.69	28.11	16.67	0.48
450	21.72	26.41	12.58	23.34	1.11	0.70	28.33	16.94	0.52
500	21.36	26.13	12.64	22.60	1.11	0.70	28.22	17.14	0.50
550	21.01	25.89	12.70	21.96	1.12	0.71	28.65	16.99	0.46
650	20.29	25.31	12.85	20.87	1.12	0.72	28.56	17.17	0.46
700	19.94	24.99	12.89	20.46	1.13	0.72	28.78	17.34	0.43
750	19.58	24.72	13.00	20.29	1.13	0.73	28.67	17.42	0.74
800	19.25	24.41	13.06	20.10	1.13	0.73	28.83	17.59	0.53
850	18.91	24.13	13.13	19.90	1.13	0.74	29.13	17.58	0.50
900	18.58	23.87	13.16	19.66	1.13	0.74	29.31	17.68	0.49
950	18.26	23.55	13.19	19.45	1.13	0.75	29.05	17.72	0.50
1000	17.94	23.25	13.17	19.21	1.13	0.75	28.81	17.92	0.50
1200	16.76	22.16	13.23	18.77	1.13	0.76	29.59	17.94	0.62
1400	15.70	21.13	13.30	18.34	1.13	0.76	29.63	18.08	0.61
1600	14.74	20.19	13.33	18.06	1.13	0.77	29.87	18.40	0.60
1800	13.89	19.31	13.36	17.67	1.12	0.77	30.52	18.25	0.67
2000	13.12	18.49	13.49	17.48	1.12	0.76	30.94	18.67	0.66
2200	12.40	17.77	13.57	17.04	1.11	0.76	30.57	18.56	0.63
2400	11.75	17.08	13.60	17.00	1.11	0.76	31.21	18.75	0.61
2600	11.16	16.44	13.64	16.74	1.10	0.76	30.97	18.66	0.73
2800	10.62	15.83	13.54	16.93	1.10	0.75	30.90	18.69	0.79
3000	10.09	15.30	13.58	16.83	1.10	0.75	30.79	18.46	0.77
3200	9.64	14.74	13.12	17.15	1.09	0.75	31.13	18.83	0.86
3400	9.18	14.26	12.78	17.62	1.08	0.76	30.53	18.85	0.80
3600	8.79	13.82	12.36	17.88	1.08	0.76	30.65	18.92	0.83
3800	8.37	13.38	11.77	18.84	1.08	0.77	30.74	18.93	0.86
4000	7.98	12.99	11.05	19.44	1.07	0.78	31.19	19.30	0.98

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: RF Input Power = -25dBm, Vd = 3.3V, Id = 46.36mA @ Temperature = -45degC

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)
50	24.83	29.06	8.80	14.85	0.95	0.76	30.10	17.77	0.46
60	24.58	28.00	9.52	16.47	0.95	0.67	30.58	18.26	0.46
70	24.43	27.96	10.18	17.96	0.98	0.66	30.44	18.26	0.42
80	24.31	27.80	10.67	19.43	0.99	0.65	30.04	18.00	0.47
90	24.22	27.69	11.07	20.88	1.01	0.64	30.14	18.05	0.49
100	24.15	27.77	11.37	22.25	1.02	0.64	30.22	17.95	0.49
150	23.88	27.57	12.22	28.90	1.04	0.63	29.96	18.50	0.38
200	23.62	27.47	12.61	30.80	1.06	0.64	30.09	18.04	0.46
250	23.35	27.43	12.90	28.08	1.08	0.65	30.17	18.33	0.41
300	23.06	27.30	13.10	25.41	1.09	0.66	30.22	18.08	0.45
350	22.73	27.09	13.28	23.69	1.10	0.66	30.26	18.41	0.50
400	22.40	27.00	13.36	22.32	1.11	0.68	30.21	17.98	0.50
450	22.05	26.71	13.46	21.33	1.12	0.68	30.67	18.39	0.50
500	21.69	26.57	13.52	20.55	1.13	0.69	30.45	18.66	0.52
550	21.33	26.28	13.58	19.85	1.13	0.70	30.99	18.50	0.43
650	20.60	25.75	13.73	18.76	1.14	0.71	31.00	18.69	0.46
700	20.24	25.46	13.75	18.39	1.14	0.72	31.11	18.82	0.44
750	19.88	25.19	13.88	18.11	1.15	0.72	30.99	18.92	0.52
800	19.54	24.86	13.94	17.93	1.15	0.72	31.16	19.20	0.50
850	19.20	24.60	14.00	17.71	1.15	0.73	31.54	19.16	0.49
900	18.87	24.28	14.03	17.50	1.15	0.73	31.75	19.36	0.49
950	18.54	24.05	14.06	17.28	1.15	0.74	31.56	19.41	0.51
1000	18.22	23.75	14.02	17.06	1.15	0.74	31.26	19.57	0.54
1200	17.02	22.65	14.08	16.54	1.15	0.75	31.95	19.66	0.59
1400	15.96	21.62	14.15	16.16	1.14	0.76	32.10	19.78	0.63
1600	14.99	20.67	14.18	15.86	1.14	0.76	32.18	20.11	0.60
1800	14.14	19.79	14.21	15.49	1.13	0.76	32.66	19.93	0.66
2000	13.35	18.99	14.36	15.28	1.13	0.76	32.95	20.38	0.62
2200	12.63	18.25	14.44	14.89	1.12	0.76	32.78	20.24	0.59
2400	11.98	17.54	14.48	14.85	1.12	0.76	33.17	20.42	0.63
2600	11.38	16.91	14.52	14.57	1.11	0.76	33.33	20.39	0.76
2800	10.84	16.30	14.43	14.69	1.11	0.75	32.86	20.38	0.78
3000	10.31	15.78	14.48	14.61	1.10	0.75	33.41	20.13	0.67
3200	9.86	15.18	13.98	14.75	1.09	0.75	33.38	20.51	0.79
3400	9.40	14.73	13.60	15.07	1.09	0.76	33.75	20.50	0.85
3600	9.01	14.27	13.18	15.20	1.08	0.76	33.34	20.54	0.81
3800	8.59	13.84	12.54	15.94	1.08	0.77	33.32	20.57	0.86
4000	8.21	13.43	11.77	16.30	1.07	0.78	33.50	21.03	1.10

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: RF Input Power = -25dBm, Vd = 3.00V, Id = 34.09mA @ Temperature = 85degC

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)
50	24.26	29.16	6.53	12.90	0.98	0.78	28.35	16.02	0.68
60	24.09	28.37	6.84	13.44	0.97	0.72	28.69	15.91	0.68
70	24.00	28.75	7.11	13.90	1.00	0.76	28.34	15.87	0.64
80	23.93	28.65	7.29	14.32	1.01	0.75	27.95	15.66	0.67
90	23.87	28.62	7.43	14.62	1.02	0.75	27.85	15.66	0.68
100	23.83	28.53	7.52	14.83	1.02	0.75	27.83	15.53	0.66
150	23.61	28.51	7.91	15.55	1.04	0.76	27.78	15.98	0.60
200	23.35	28.14	8.14	15.80	1.04	0.75	27.77	15.68	0.63
250	23.05	27.96	8.33	15.96	1.05	0.76	27.73	15.85	0.60
300	22.71	27.54	8.54	15.99	1.04	0.75	27.75	15.82	0.68
350	22.35	27.29	8.75	16.10	1.05	0.76	27.72	16.07	0.66
400	21.98	26.95	8.94	16.09	1.05	0.77	27.75	15.61	0.70
450	21.59	26.64	9.14	16.09	1.05	0.77	28.01	16.04	0.71
500	21.20	26.33	9.35	16.15	1.06	0.78	27.83	16.26	0.69
550	20.81	25.94	9.53	16.21	1.06	0.78	28.24	16.21	0.69
650	20.03	25.22	9.94	16.45	1.06	0.78	28.22	16.46	0.70
700	19.65	24.96	10.11	16.58	1.07	0.79	28.37	16.55	0.71
750	19.26	24.63	10.31	16.66	1.08	0.80	28.23	16.65	0.74
800	18.89	24.35	10.45	16.65	1.08	0.80	28.39	17.06	0.76
850	18.53	24.00	10.59	16.51	1.08	0.80	28.70	17.01	0.78
900	18.17	23.69	10.67	16.37	1.08	0.81	28.81	17.20	0.78
950	17.83	23.41	10.79	16.28	1.09	0.81	28.68	17.55	0.78
1000	17.51	23.11	10.86	16.30	1.09	0.81	28.33	17.66	0.80
1200	16.27	21.98	11.36	16.60	1.10	0.81	29.07	17.82	0.92
1400	15.17	20.99	11.61	16.28	1.11	0.81	29.11	17.99	0.93
1600	14.20	20.05	11.93	16.55	1.12	0.81	29.25	18.37	0.97
1800	13.32	19.17	12.16	16.19	1.12	0.81	29.83	18.07	1.06
2000	12.54	18.38	12.46	16.30	1.12	0.81	30.18	18.76	1.03
2200	11.80	17.70	12.56	16.19	1.13	0.81	29.90	18.50	1.05
2400	11.15	17.01	12.60	16.34	1.13	0.81	30.31	18.80	1.03
2600	10.53	16.37	12.60	16.48	1.12	0.81	30.40	18.78	1.14
2800	9.98	15.82	12.43	16.79	1.13	0.81	30.10	18.71	1.23
3000	9.46	15.28	12.33	17.06	1.13	0.81	30.37	18.55	1.09
3200	8.97	14.76	11.95	17.34	1.12	0.81	30.43	18.84	1.38
3400	8.50	14.31	11.68	17.56	1.12	0.82	30.53	18.95	1.46
3600	8.07	13.86	11.24	17.76	1.11	0.82	30.28	19.02	1.32
3800	7.65	13.47	10.95	17.58	1.11	0.83	30.34	19.09	1.47
4000	7.25	13.09	10.49	17.63	1.11	0.83	30.58	19.61	1.62

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: RF Input Power = -25dBm, Vd = 2.7V, Id = 30.24mA @ Temperature = 85degC

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)
50	23.92	28.03	6.37	12.58	0.94	0.72	27.39	15.27	0.66
60	23.74	28.33	6.65	13.02	0.97	0.76	27.66	15.02	0.66
70	23.67	28.35	6.84	13.46	0.99	0.76	27.32	15.03	0.63
80	23.59	28.47	7.01	13.84	1.01	0.77	26.99	14.78	0.66
90	23.54	28.29	7.16	14.12	1.01	0.76	26.90	14.79	0.69
100	23.49	28.34	7.25	14.32	1.02	0.76	26.83	14.64	0.70
150	23.28	28.12	7.62	14.97	1.03	0.76	26.77	15.23	0.63
200	23.03	27.87	7.83	15.26	1.03	0.76	26.72	14.87	0.65
250	22.73	27.60	8.02	15.45	1.03	0.76	26.64	14.93	0.62
300	22.41	27.29	8.22	15.61	1.03	0.77	26.68	15.02	0.62
350	22.06	27.02	8.41	15.73	1.03	0.78	26.60	15.08	0.67
400	21.70	26.61	8.60	15.79	1.03	0.78	26.58	14.74	0.74
450	21.32	26.24	8.79	15.85	1.03	0.78	26.80	15.32	0.73
500	20.93	25.90	8.99	15.98	1.03	0.78	26.66	15.45	0.72
550	20.54	25.61	9.17	16.10	1.04	0.79	27.05	15.36	0.66
650	19.78	24.93	9.58	16.49	1.05	0.80	27.03	15.62	0.71
700	19.40	24.60	9.73	16.69	1.05	0.80	27.16	15.72	0.71
750	19.02	24.25	9.94	16.80	1.06	0.80	27.02	15.80	0.79
800	18.66	23.97	10.07	16.84	1.06	0.81	27.16	16.16	0.79
850	18.30	23.66	10.19	16.74	1.06	0.81	27.49	16.21	0.76
900	17.95	23.37	10.29	16.62	1.07	0.81	27.60	16.40	0.79
950	17.61	23.10	10.40	16.65	1.07	0.82	27.42	16.75	0.79
1000	17.29	22.78	10.48	16.67	1.07	0.81	27.14	16.84	0.78
1200	16.07	21.67	10.94	17.14	1.09	0.82	27.85	16.99	0.92
1400	14.97	20.68	11.20	16.94	1.10	0.82	27.93	17.18	0.95
1600	14.01	19.74	11.50	17.30	1.11	0.82	28.10	17.57	0.94
1800	13.13	18.93	11.72	16.99	1.11	0.82	28.74	17.29	1.02
2000	12.35	18.13	12.01	17.15	1.12	0.81	29.14	17.91	1.05
2200	11.61	17.44	12.10	17.06	1.12	0.81	28.80	17.71	1.04
2400	10.97	16.77	12.14	17.31	1.12	0.81	29.31	18.07	1.02
2600	10.36	16.15	12.13	17.44	1.12	0.81	29.38	17.98	1.14
2800	9.80	15.58	11.97	17.86	1.12	0.81	29.17	17.83	1.24
3000	9.29	15.05	11.89	18.13	1.12	0.81	29.48	17.76	1.13
3200	8.81	14.53	11.55	18.42	1.12	0.82	29.57	18.04	1.33
3400	8.33	14.08	11.28	18.61	1.12	0.82	29.67	18.17	1.43
3600	7.90	13.67	10.85	18.68	1.11	0.83	29.45	18.17	1.44
3800	7.49	13.27	10.57	18.44	1.11	0.83	29.68	18.31	1.45
4000	7.08	12.89	10.12	18.32	1.11	0.84	29.79	18.78	1.67

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: RF Input Power = -25dBm, Vd = 3.3V, Id = 37.88mA @ Temperature = 85degC

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)
50	24.54	30.06	6.77	13.17	1.01	0.84	29.33	16.41	0.66
60	24.37	28.97	7.13	13.75	0.98	0.76	29.62	16.55	0.66
70	24.29	28.80	7.34	14.29	1.00	0.74	29.26	16.62	0.61
80	24.21	28.74	7.53	14.71	1.01	0.74	28.89	16.40	0.65
90	24.15	28.70	7.69	15.03	1.02	0.73	28.86	16.40	0.66
100	24.11	28.62	7.78	15.26	1.02	0.73	28.76	16.30	0.66
150	23.88	28.57	8.19	16.05	1.04	0.74	28.66	16.89	0.61
200	23.61	28.29	8.41	16.22	1.04	0.73	28.74	16.45	0.65
250	23.30	28.06	8.63	16.31	1.05	0.74	28.68	16.55	0.58
300	22.96	27.78	8.83	16.28	1.05	0.74	28.78	16.57	0.62
350	22.60	27.49	9.07	16.33	1.06	0.75	28.76	16.66	0.66
400	22.21	27.27	9.24	16.23	1.07	0.76	28.75	16.36	0.72
450	21.82	26.94	9.47	16.13	1.07	0.77	29.07	16.83	0.70
500	21.42	26.54	9.67	16.13	1.07	0.77	28.84	17.05	0.68
550	21.02	26.29	9.85	16.12	1.08	0.78	29.30	16.94	0.68
650	20.23	25.66	10.28	16.22	1.09	0.79	29.31	17.18	0.71
700	19.84	25.30	10.45	16.31	1.09	0.79	29.45	17.34	0.69
750	19.45	24.98	10.65	16.34	1.10	0.79	29.28	17.27	0.77
800	19.08	24.67	10.78	16.34	1.10	0.80	29.43	17.64	0.75
850	18.71	24.33	10.93	16.15	1.10	0.80	29.76	17.68	0.76
900	18.36	23.98	11.01	15.97	1.10	0.80	29.87	17.95	0.79
950	18.01	23.69	11.15	15.83	1.10	0.80	29.77	18.22	0.75
1000	17.68	23.40	11.22	15.77	1.11	0.80	29.43	18.35	0.80
1200	16.44	22.27	11.70	15.98	1.12	0.81	30.05	18.57	0.88
1400	15.33	21.25	11.97	15.62	1.12	0.81	30.02	18.63	0.89
1600	14.36	20.29	12.29	15.77	1.13	0.81	30.29	19.04	0.96
1800	13.47	19.47	12.52	15.43	1.13	0.81	30.63	18.73	1.06
2000	12.69	18.65	12.82	15.47	1.13	0.81	30.94	19.46	1.06
2200	11.94	17.94	12.93	15.34	1.13	0.81	30.68	19.13	1.06
2400	11.29	17.27	12.98	15.44	1.13	0.81	30.94	19.51	1.00
2600	10.67	16.62	12.97	15.58	1.13	0.80	31.06	19.48	1.13
2800	10.11	16.04	12.82	15.82	1.13	0.81	30.68	19.36	1.25
3000	9.59	15.48	12.71	16.04	1.13	0.81	30.85	19.21	1.12
3200	9.11	14.98	12.33	16.33	1.12	0.81	30.89	19.48	1.33
3400	8.64	14.51	12.04	16.55	1.12	0.82	30.85	19.62	1.47
3600	8.21	14.09	11.59	16.76	1.12	0.82	30.60	19.67	1.42
3800	7.79	13.68	11.28	16.64	1.11	0.83	30.38	19.73	1.51
4000	7.38	13.28	10.80	16.79	1.11	0.83	30.71	20.27	1.73