MMIC Amplifier GALI-21+

Typical Performance Data

NOTE: Use PDF Bookmarks to view DATA at required conditions or to view GRAPHS.

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

TEST CONDITIONS: Icc = 40mA, Vd = 3.50V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	14.75	18.95	41.14	31.05	1.12	0.62	28.67	12.49	3.29
100	14.79	18.97	35.82	30.58	1.12	0.62	28.65	12.56	3.40
200	14.73	18.97	36.75	29.42	1.12	0.61	28.77	12.48	3.26
400	14.56	18.96	31.47	27.69	1.13	0.60	28.33	12.27	3.33
600	14.37	18.90	28.06	26.29	1.14	0.59	28.09	12.48	3.32
800	14.19	18.89	25.89	25.06	1.14	0.58	27.91	12.12	3.46
1000	14.03	18.89	24.76	24.74	1.16	0.57	28.34	11.82	3.41
1200	13.88	18.91	23.84	24.38	1.17	0.56	28.37	11.83	3.49
1400	13.72	18.96	22.62	24.49	1.18	0.55	28.05	12.10	3.51
1600	13.55	19.03	21.85	25.02	1.20	0.53	27.82	11.79	3.57
1800	13.38	19.08	20.99	25.49	1.21	0.52	27.79	11.71	3.54
2000	13.24	19.10	20.07	26.50	1.22	0.51	27.78	11.84	3.54
2200	13.06	19.21	19.70	28.43	1.25	0.49	27.52	12.07	3.56
2400	12.89	19.25	18.91	30.52	1.26	0.48	27.21	11.83	3.60
2600	12.75	19.35	18.44	33.91	1.29	0.47	27.35	11.49	3.63
2800	12.57	19.43	17.76	37.26	1.31	0.45	27.12	11.46	3.61
3000	12.41	19.55	17.52	44.91	1.34	0.44	26.82	11.87	3.55
3200	12.26	19.61	17.36	51.17	1.36	0.43	26.66	11.78	3.66
3400	12.09	19.73	17.23	41.33	1.39	0.42	26.45	11.34	3.74
3600	11.95	19.84	17.21	36.38	1.42	0.41	26.38	11.32	3.68
3800	11.83	19.96	17.55	33.74	1.45	0.39	26.29	11.66	3.71
4000	11.70	20.08	17.52	31.89	1.48	0.38	25.97	11.78	3.70
4200	11.58	20.16	17.62	31.10	1.51	0.38	25.93	11.37	3.69
4400	11.51	20.27	17.57	30.60	1.53	0.37	25.71	11.24	3.75
4600	11.36	20.35	17.65	28.50	1.56	0.36	25.49	11.58	3.94
4800	11.26	20.48	17.45	26.96	1.59	0.35	25.10	11.41	3.95
5000	11.22	20.62	16.62	25.98	1.62	0.35	24.79	10.79	3.94
5200	11.12	20.72	16.45	24.32	1.64	0.34	24.54	10.60	4.11
5400	11.07	20.86	15.51	23.83	1.67	0.33	24.18	10.97	4.13
5600	10.99	20.93	14.63	22.56	1.68	0.33	23.76	10.61	4.17
5800	10.93	21.02	13.99	21.36	1.70	0.33	23.42	10.13	4.17
6000	10.88	21.18	13.14	20.44	1.72	0.33	23.47	10.02	4.21
6200	10.81	21.23	12.33	18.91	1.72	0.33	23.00	10.22	4.33
6400	10.72	21.28	11.46	17.46	1.72	0.33	22.62	9.69	4.46
6600	10.62	21.50	10.74	16.62	1.75	0.33	22.47	9.11	4.50
6800	10.54	21.46	9.92	15.08	1.73	0.34	22.24	9.25	4.44
7000	10.41	21.45	9.24	13.80	1.72	0.35	21.79	9.49	4.53
7200	10.26	21.41	8.68	12.70	1.70	0.36	21.39	8.74	4.72
7600	9.69	21.67	7.46	11.18	1.75	0.37	20.87	8.13	4.83
8000	8.97	21.84	6.70	10.22	1.82	0.37	20.43	7.60	5.12

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: Icc = 32mA, Vd = 3.43V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	14.48	18.71	30.46	44.84	1.12	0.61	24.96	10.21	3.23
100	14.55	18.78	30.14	41.96	1.12	0.61	24.91	10.60	3.34
200	14.46	18.76	30.80	37.35	1.12	0.61	25.07	10.35	3.25
400	14.31	18.73	29.59	33.08	1.13	0.60	24.73	10.08	3.29
600	14.13	18.69	27.52	30.76	1.14	0.59	24.62	10.58	3.29
800	13.96	18.68	25.78	28.90	1.15	0.58	24.49	10.18	3.41
1000	13.79	18.68	24.71	28.31	1.16	0.57	25.00	9.97	3.38
1200	13.65	18.72	23.77	27.78	1.17	0.56	25.29	9.87	3.43
1400	13.50	18.73	22.32	28.04	1.18	0.55	24.88	10.31	3.46
1600	13.32	18.81	21.57	28.61	1.20	0.53	24.90	9.98	3.51
1800	13.16	18.87	20.54	29.28	1.21	0.52	25.02	9.89	3.47
2000	13.03	18.91	19.64	30.73	1.23	0.51	25.21	9.94	3.47
2200	12.84	19.02	19.11	33.82	1.25	0.49	24.88	10.26	3.51
2400	12.67	19.07	18.24	37.07	1.27	0.48	24.67	10.01	3.54
2600	12.52	19.18	17.72	43.81	1.29	0.46	25.01	9.64	3.56
2800	12.36	19.23	17.04	44.78	1.31	0.45	25.01	9.55	3.53
3000	12.20	19.33	16.81	38.32	1.33	0.44	24.68	10.16	3.48
3200	12.06	19.43	16.60	35.53	1.36	0.43	24.48	10.07	3.57
3400	11.91	19.55	16.44	33.64	1.39	0.42	24.59	9.71	3.65
3600	11.75	19.65	16.43	31.69	1.42	0.41	24.72	9.61	3.60
3800	11.65	19.80	16.67	30.38	1.45	0.39	24.57	10.03	3.64
4000	11.50	19.88	16.71	30.12	1.48	0.39	24.34	10.27	3.61
4200	11.39	19.96	16.80	29.85	1.50	0.38	24.49	9.95	3.62
4400	11.30	20.09	16.72	29.91	1.53	0.37	24.42	9.83	3.67
4600	11.18	20.16	16.83	28.67	1.56	0.36	24.22	10.27	3.83
4800	11.07	20.29	16.75	27.26	1.59	0.35	23.94	10.26	3.84
5000	11.02	20.43	15.97	26.39	1.61	0.35	23.73	9.82	3.85
5200	10.92	20.58	15.89	24.73	1.65	0.34	23.63	9.59	3.99
5400	10.86	20.68	15.05	24.28	1.67	0.33	23.25	9.93	4.02
5600	10.78	20.77	14.23	22.96	1.68	0.33	22.97	9.76	4.04
5800	10.73	20.84	13.61	21.56	1.69	0.33	22.65	9.30	4.10
6000	10.67	21.01	12.80	20.54	1.72	0.33	22.62	9.08	4.11
6200	10.59	21.06	12.02	19.03	1.72	0.33	22.30	9.42	4.25
6400	10.51	21.11	11.21	17.58	1.72	0.33	21.97	9.04	4.36
6600	10.39	21.35	10.51	16.73	1.76	0.33	21.75	8.43	4.38
6800	10.29	21.31	9.73	15.20	1.74	0.34	21.64	8.49	4.29
7000	10.15	21.29	9.07	13.93	1.72	0.35	21.29	8.88	4.40
7200	9.99	21.29	8.53	12.86	1.72	0.36	20.97	8.21	4.55
7600	9.40	21.51	7.36	11.41	1.76	0.36	20.57	7.54	4.65
8000	8.67	21.67	6.66	10.49	1.85	0.36	20.22	7.26	4.95

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: Icc = 48mA, Vd = 3.57V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	14.91	19.06	50.13	27.58	1.11	0.62	31.40	13.63	3.34
100	14.94	19.09	41.56	27.20	1.11	0.62	31.40	13.63	3.47
200	14.86	19.11	38.23	26.51	1.12	0.61	31.40	13.71	3.32
400	14.71	19.07	31.24	25.39	1.13	0.61	30.73	13.58	3.38
600	14.53	19.03	27.59	24.26	1.13	0.60	30.29	13.63	3.36
800	14.33	19.01	25.37	23.29	1.14	0.58	30.02	13.13	3.50
1000	14.16	19.01	24.31	23.01	1.15	0.57	30.22	12.63	3.45
1200	14.01	19.05	23.61	22.73	1.17	0.56	29.81	12.83	3.54
1400	13.86	19.09	22.46	22.88	1.18	0.55	29.45	13.10	3.54
1600	13.68	19.13	21.84	23.34	1.20	0.54	29.10	12.65	3.62
1800	13.51	19.19	21.09	23.77	1.21	0.52	28.84	12.50	3.60
2000	13.37	19.23	20.30	24.63	1.22	0.51	28.64	12.82	3.63
2200	13.19	19.33	20.03	26.11	1.25	0.49	28.44	13.10	3.65
2400	13.03	19.38	19.24	27.74	1.26	0.48	28.16	12.75	3.66
2600	12.88	19.48	18.82	30.04	1.29	0.47	28.00	12.23	3.70
2800	12.69	19.55	18.20	32.10	1.31	0.45	27.74	12.28	3.69
3000	12.54	19.65	18.03	35.77	1.34	0.44	27.47	12.70	3.61
3200	12.39	19.74	17.88	39.53	1.36	0.43	27.34	12.58	3.70
3400	12.22	19.85	17.82	40.07	1.39	0.42	26.99	12.03	3.79
3600	12.06	19.96	17.74	37.74	1.42	0.40	26.73	12.02	3.77
3800	11.96	20.11	18.13	35.07	1.46	0.39	26.63	12.45	3.77
4000	11.82	20.20	18.09	32.30	1.48	0.38	26.40	12.40	3.78
4200	11.70	20.27	18.20	31.20	1.51	0.38	26.14	11.86	3.77
4400	11.61	20.39	18.10	30.47	1.54	0.37	25.80	11.80	3.85
4600	11.49	20.46	18.16	28.14	1.56	0.36	25.59	12.17	4.00
4800	11.38	20.60	17.92	26.64	1.60	0.35	25.28	11.86	4.04
5000	11.33	20.73	17.02	25.70	1.62	0.35	24.94	11.21	4.02
5200	11.24	20.84	16.87	24.07	1.65	0.34	24.62	11.06	4.19
5400	11.18	20.97	15.87	23.61	1.67	0.33	24.24	11.41	4.21
5600	11.10	21.05	14.94	22.40	1.68	0.33	23.84	10.98	4.26
5800	11.07	21.13	14.26	21.33	1.70	0.33	23.54	10.48	4.29
6000	11.03	21.29	13.40	20.47	1.72	0.33	23.55	10.44	4.32
6200	10.95	21.32	12.58	18.95	1.72	0.33	23.05	10.63	4.48
6400	10.88	21.37	11.67	17.49	1.72	0.33	22.62	10.01	4.64
6600	10.79	21.60	10.95	16.65	1.75	0.33	22.48	9.51	4.63
6800	10.72	21.56	10.07	15.08	1.72	0.34	22.25	9.66	4.59
7000	10.61	21.53	9.38	13.78	1.70	0.35	21.78	9.84	4.68
7200	10.46	21.51	8.78	12.64	1.69	0.36	21.36	9.04	4.91
7600	9.92	21.74	7.53	11.08	1.73	0.37	20.81	8.44	4.98
8000	9.23	21.93	6.72	10.05	1.79	0.38	20.30	7.88	5.34

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: Icc = 40mA, Vd = 3.69V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	14.77	18.90	35.94	33.70	1.11	0.62	29.44	12.63	2.88
100	14.81	18.94	32.55	33.55	1.11	0.62	29.42	12.81	2.96
200	14.73	18.93	34.40	31.79	1.12	0.62	29.55	12.71	2.81
400	14.59	18.87	30.87	30.01	1.12	0.61	29.20	12.54	2.87
600	14.42	18.83	28.37	27.82	1.13	0.60	29.03	12.81	2.84
800	14.25	18.82	26.65	26.06	1.14	0.59	28.90	12.45	2.96
1000	14.09	18.81	25.18	25.50	1.15	0.58	29.45	12.31	2.89
1200	13.94	18.83	24.75	24.97	1.16	0.57	29.54	12.25	2.93
1400	13.80	18.86	22.84	25.01	1.17	0.56	29.14	12.51	2.96
1600	13.63	18.91	22.19	25.34	1.18	0.54	29.01	12.23	3.01
1800	13.47	18.95	21.41	25.60	1.20	0.53	29.06	12.18	2.99
2000	13.34	18.99	20.34	26.77	1.21	0.52	28.94	12.31	2.98
2200	13.17	19.10	20.11	28.70	1.23	0.50	28.72	12.48	2.99
2400	13.00	19.13	19.20	30.24	1.25	0.49	28.50	12.27	3.04
2600	12.86	19.23	18.67	33.28	1.27	0.48	28.67	12.07	3.05
2800	12.69	19.30	17.96	37.87	1.29	0.47	28.52	12.04	3.03
3000	12.54	19.37	17.77	41.42	1.31	0.45	28.21	12.41	2.98
3200	12.40	19.45	17.53	50.32	1.33	0.44	28.10	12.28	3.03
3400	12.27	19.56	17.39	48.04	1.35	0.43	28.06	12.02	3.11
3600	12.10	19.66	17.33	38.93	1.38	0.42	27.97	12.03	3.07
3800	11.95	19.78	17.85	35.47	1.42	0.41	27.89	12.24	3.10
4000	11.84	19.91	17.85	33.02	1.45	0.40	27.61	12.35	3.10
4200	11.74	19.88	17.57	33.99	1.45	0.39	27.63	12.16	3.05
4400	11.70	20.15	17.76	32.43	1.49	0.38	27.48	12.10	3.09
4600	11.54	20.19	18.41	29.19	1.52	0.37	27.37	12.39	3.25
4800	11.50	20.39	18.00	27.93	1.55	0.36	27.09	12.32	3.28
5000	11.43	20.47	17.10	26.94	1.57	0.36	26.68	11.85	3.28
5200	11.34	20.55	16.71	25.97	1.59	0.35	26.55	11.70	3.45
5400	11.27	20.64	16.02	23.97	1.61	0.35	26.13	12.00	3.42
5600	11.23	20.76	15.19	23.27	1.62	0.35	25.80	11.70	3.45
5800	11.17	20.82	14.47	22.35	1.63	0.34	25.44	11.28	3.51
6000	11.17	20.96	13.72	21.41	1.65	0.34	25.53	11.19	3.49
6200	11.05	20.87	12.80	19.55	1.64	0.35	25.24	11.40	3.69
6400	11.09	20.88	12.04	18.18	1.62	0.35	24.76	10.85	3.77
6600	11.00	20.99	11.08	16.70	1.62	0.36	24.53	10.43	3.76
6800	10.85	21.41	10.04	15.87	1.68	0.35	24.42	10.55	3.66
7000	10.82	20.99	9.63	14.63	1.60	0.37	23.99	10.67	3.76
7200	10.72	20.84	8.85	12.99	1.56	0.39	23.47	9.95	3.93
7600	10.26	21.28	7.46	11.03	1.60	0.40	23.13	9.53	3.98
8000	9.59	21.05	6.66	10.21	1.60	0.41	22.79	8.93	4.21

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: Icc = 32mA, Vd = 3.61V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	14.55	18.76	28.23	58.28	1.12	0.62	25.52	10.14	2.83
100	14.58	18.74	27.67	47.34	1.12	0.62	25.44	10.65	2.88
200	14.52	18.75	29.24	38.06	1.12	0.61	25.61	10.35	2.80
400	14.38	18.69	27.98	35.03	1.12	0.61	25.35	9.99	2.86
600	14.20	18.66	27.04	32.25	1.13	0.60	25.31	10.63	2.81
800	14.04	18.63	26.20	29.54	1.14	0.59	25.18	10.26	2.94
1000	13.88	18.64	24.85	28.85	1.15	0.58	25.69	10.19	2.88
1200	13.74	18.65	24.58	28.11	1.16	0.57	26.02	9.94	2.91
1400	13.60	18.70	22.65	28.22	1.17	0.56	25.65	10.44	2.93
1600	13.43	18.72	21.90	28.62	1.18	0.54	25.69	10.08	2.98
1800	13.28	18.80	21.04	28.83	1.20	0.53	25.83	10.01	2.95
2000	13.16	18.82	19.88	30.39	1.21	0.52	25.99	10.07	2.92
2200	12.97	18.94	19.48	33.23	1.23	0.50	25.68	10.40	2.94
2400	12.81	18.96	18.60	35.20	1.25	0.49	25.51	10.09	2.98
2600	12.67	19.05	18.02	39.78	1.26	0.48	25.89	9.82	2.98
2800	12.52	19.14	17.33	41.88	1.28	0.47	25.93	9.74	2.98
3000	12.36	19.20	17.10	39.21	1.30	0.45	25.58	10.36	2.94
3200	12.23	19.25	16.89	36.29	1.32	0.45	25.43	10.21	2.97
3400	12.09	19.38	16.63	34.67	1.35	0.43	25.62	9.96	3.09
3600	11.91	19.50	16.62	32.87	1.38	0.42	25.81	9.88	3.01
3800	11.78	19.62	17.10	32.05	1.41	0.41	25.67	10.27	3.03
4000	11.67	19.75	17.09	31.38	1.44	0.40	25.46	10.49	3.06
4200	11.57	19.73	16.86	33.07	1.45	0.39	25.79	10.36	3.00
4400	11.53	19.99	17.01	31.35	1.49	0.38	25.74	10.16	3.04
4600	11.37	20.04	17.67	29.30	1.52	0.37	25.54	10.59	3.21
4800	11.33	20.22	17.34	28.07	1.55	0.36	25.30	10.78	3.20
5000	11.27	20.32	16.55	27.28	1.57	0.36	25.20	10.44	3.23
5200	11.17	20.38	16.19	26.59	1.59	0.35	25.08	10.27	3.36
5400	11.11	20.45	15.60	24.42	1.60	0.35	24.64	10.57	3.36
5600	11.06	20.55	14.83	23.70	1.62	0.35	24.37	10.51	3.38
5800	10.99	20.68	14.11	22.67	1.64	0.34	24.16	10.14	3.42
6000	11.01	20.80	13.40	21.47	1.64	0.34	24.18	9.98	3.40
6200	10.86	20.72	12.51	19.75	1.64	0.35	24.02	10.31	3.58
6400	10.91	20.72	11.78	18.11	1.62	0.35	23.61	10.03	3.69
6600	10.80	20.88	10.87	16.82	1.63	0.35	23.38	9.55	3.68
6800	10.64	21.28	9.89	15.91	1.69	0.35	23.25	9.56	3.52
7000	10.59	20.86	9.45	14.69	1.61	0.37	22.98	9.91	3.66
7200	10.49	20.71	8.73	13.09	1.57	0.39	22.55	9.26	3.78
7600	10.00	21.10	7.36	11.21	1.61	0.40	22.35	8.91	3.85
8000	9.32	20.93	6.59	10.46	1.62	0.40	22.11	8.41	4.04

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: Icc = 48mA, Vd = 3.76V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	14.90	19.06	39.04	29.56	1.12	0.62	32.34	14.17	2.93
100	14.95	19.02	36.31	29.58	1.11	0.63	32.25	14.14	3.01
200	14.89	19.04	39.02	28.62	1.11	0.62	32.45	14.16	2.86
400	14.73	18.98	32.07	27.39	1.12	0.61	31.94	13.96	2.90
600	14.55	18.95	28.38	25.66	1.13	0.60	31.51	14.08	2.86
800	14.39	18.93	26.30	24.28	1.14	0.59	31.35	13.69	2.99
1000	14.23	18.92	24.80	23.87	1.14	0.58	31.69	13.38	2.93
1200	14.08	18.94	24.56	23.42	1.16	0.57	31.37	13.43	3.00
1400	13.93	18.99	22.78	23.45	1.17	0.56	31.03	13.66	2.99
1600	13.76	19.03	22.17	23.76	1.18	0.55	30.71	13.33	3.07
1800	13.59	19.08	21.50	23.97	1.20	0.53	30.51	13.27	3.06
2000	13.47	19.11	20.51	24.95	1.21	0.52	30.28	13.50	3.02
2200	13.29	19.20	20.39	26.58	1.23	0.51	30.04	13.67	3.03
2400	13.12	19.25	19.57	27.87	1.25	0.49	29.87	13.43	3.07
2600	12.97	19.34	19.05	30.20	1.27	0.48	29.75	13.13	3.07
2800	12.80	19.42	18.36	33.16	1.29	0.47	29.58	13.12	3.07
3000	12.67	19.48	18.19	35.10	1.31	0.46	29.24	13.43	3.03
3200	12.51	19.54	17.95	39.52	1.33	0.44	29.16	13.33	3.10
3400	12.38	19.65	17.85	45.04	1.35	0.43	29.01	12.95	3.15
3600	12.20	19.75	17.83	41.16	1.38	0.42	28.73	12.99	3.13
3800	12.07	19.90	18.36	36.37	1.42	0.41	28.64	13.30	3.15
4000	11.95	20.03	18.39	32.99	1.45	0.40	28.44	13.33	3.15
4200	11.85	19.98	18.09	33.13	1.45	0.39	28.29	12.93	3.13
4400	11.82	20.26	18.28	32.24	1.49	0.38	27.91	12.92	3.16
4600	11.64	20.30	18.96	28.81	1.52	0.37	27.77	13.18	3.33
4800	11.60	20.48	18.46	27.64	1.55	0.36	27.53	12.96	3.33
5000	11.54	20.58	17.54	26.66	1.57	0.36	27.14	12.44	3.36
5200	11.45	20.65	17.06	25.58	1.59	0.35	26.86	12.26	3.51
5400	11.39	20.71	16.30	23.72	1.60	0.35	26.44	12.58	3.48
5600	11.35	20.85	15.51	23.05	1.62	0.35	26.17	12.19	3.54
5800	11.30	20.91	14.70	22.19	1.63	0.34	25.92	11.76	3.60
6000	11.31	21.07	13.99	21.42	1.65	0.34	25.94	11.72	3.61
6200	11.17	20.96	12.96	19.48	1.63	0.35	25.62	11.89	3.81
6400	11.24	20.99	12.21	18.19	1.61	0.36	25.10	11.27	3.90
6600	11.14	21.10	11.25	16.68	1.62	0.36	24.91	10.86	3.88
6800	11.01	21.51	10.21	15.81	1.67	0.35	24.78	11.03	3.78
7000	11.00	21.06	9.76	14.65	1.59	0.37	24.25	11.11	3.89
7200	10.90	20.90	8.98	12.96	1.55	0.40	23.75	10.35	4.08
7600	10.46	21.29	7.47	10.92	1.58	0.41	23.36	9.92	4.13
8000	9.80	21.13	6.68	10.06	1.59	0.42	22.96	9.27	4.37

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: Icc = 40mA, Vd = 3.38V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	14.67	18.94	37.68	31.37	1.12	0.61	28.38	12.27	3.64
100	14.72	18.95	40.79	30.33	1.12	0.61	28.33	12.26	3.77
200	14.65	18.93	36.32	29.22	1.12	0.61	28.44	12.18	3.64
400	14.47	18.89	31.10	27.47	1.13	0.60	27.81	11.97	3.71
600	14.28	18.88	27.55	26.21	1.14	0.59	27.48	12.14	3.71
800	14.08	18.86	25.80	25.17	1.15	0.58	27.19	11.67	3.87
1000	13.91	18.88	24.64	25.12	1.16	0.56	27.47	11.28	3.82
1200	13.76	18.89	23.75	24.99	1.17	0.55	27.36	11.37	3.88
1400	13.59	18.95	22.55	25.26	1.19	0.54	26.98	11.69	3.93
1600	13.41	19.01	21.71	25.98	1.21	0.52	26.74	11.27	3.98
1800	13.24	19.06	20.80	26.49	1.22	0.51	26.55	11.06	3.96
2000	13.09	19.11	19.74	27.79	1.24	0.50	26.43	11.31	3.98
2200	12.91	19.22	19.30	29.93	1.26	0.48	26.17	11.62	4.00
2400	12.72	19.28	18.40	32.29	1.28	0.47	25.90	11.36	4.06
2600	12.57	19.38	17.95	36.15	1.31	0.46	25.90	10.81	4.10
2800	12.40	19.47	17.36	40.66	1.33	0.44	25.62	10.78	4.06
3000	12.24	19.53	17.15	46.55	1.35	0.43	25.28	11.27	3.99
3200	12.09	19.60	16.92	47.74	1.37	0.42	25.12	11.13	4.11
3400	11.93	19.76	16.95	38.72	1.41	0.41	24.92	10.56	4.18
3600	11.74	19.83	16.94	35.64	1.44	0.40	24.63	10.49	4.16
3800	11.64	19.97	17.13	33.61	1.47	0.39	24.53	10.97	4.18
4000	11.51	20.01	16.76	33.79	1.49	0.38	24.10	10.98	4.18
4200	11.37	20.14	16.93	31.92	1.53	0.37	23.95	10.40	4.17
4400	11.30	20.36	17.03	30.15	1.57	0.36	23.73	10.23	4.26
4600	11.09	20.45	17.59	26.34	1.62	0.35	23.42	10.69	4.45
4800	10.99	20.57	17.49	25.48	1.65	0.34	23.08	10.43	4.45
5000	10.99	20.74	16.69	24.60	1.67	0.33	22.67	9.74	4.43
5200	10.86	20.80	15.83	24.57	1.69	0.33	22.42	9.48	4.63
5400	10.76	20.92	15.08	23.44	1.72	0.32	21.99	9.90	4.63
5600	10.63	20.98	14.10	22.33	1.74	0.32	21.59	9.47	4.70
5800	10.60	21.12	13.66	21.50	1.76	0.32	21.27	8.93	4.73
6000	10.59	21.29	12.85	19.94	1.78	0.31	21.17	8.76	4.74
6200	10.39	21.46	11.82	19.09	1.82	0.31	20.71	9.07	4.88
6400	10.32	21.37	11.13	17.12	1.79	0.32	20.31	8.48	5.04
6600	10.16	21.64	10.42	16.35	1.84	0.31	20.02	7.82	5.06
6800	10.03	21.80	9.83	15.18	1.87	0.31	19.89	7.96	5.05
7000	9.87	21.70	9.16	14.03	1.84	0.33	19.40	8.29	5.13
7200	9.67	21.19	8.89	12.85	1.77	0.35	18.90	7.48	5.32
7600	9.02	22.10	7.40	11.37	1.94	0.34	18.52	6.83	5.48
8000	8.27	22.39	6.74	10.41	2.06	0.34	17.99	6.44	5.83

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: Icc = 32mA, Vd = 3.31V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	14.39	18.72	28.77	50.16	1.13	0.61	24.84	10.12	3.59
100	14.44	18.69	29.80	44.85	1.12	0.61	24.78	10.46	3.70
200	14.36	18.72	31.02	38.83	1.13	0.61	24.92	10.29	3.62
400	14.18	18.67	29.43	33.24	1.13	0.60	24.51	9.95	3.68
600	14.00	18.64	26.90	31.09	1.14	0.59	24.30	10.45	3.68
800	13.83	18.63	25.50	29.25	1.15	0.57	24.15	10.09	3.80
1000	13.65	18.65	24.44	29.24	1.16	0.56	24.56	9.80	3.77
1200	13.50	18.67	23.50	29.12	1.18	0.55	24.77	9.76	3.83
1400	13.35	18.72	22.16	29.46	1.19	0.54	24.38	10.10	3.87
1600	13.17	18.76	21.28	30.46	1.21	0.52	24.34	9.73	3.91
1800	13.00	18.85	20.27	31.18	1.22	0.51	24.36	9.64	3.93
2000	12.86	18.88	19.16	33.35	1.24	0.50	24.41	9.71	3.92
2200	12.66	19.00	18.61	37.49	1.26	0.48	24.15	10.03	3.92
2400	12.49	19.05	17.71	42.17	1.28	0.47	23.92	9.77	3.99
2600	12.35	19.16	17.19	44.79	1.30	0.46	24.11	9.41	3.99
2800	12.16	19.23	16.62	39.62	1.33	0.44	24.06	9.33	3.98
3000	12.01	19.32	16.32	36.75	1.35	0.43	23.74	9.89	3.92
3200	11.87	19.38	16.17	34.08	1.37	0.42	23.53	9.81	4.01
3400	11.72	19.56	16.10	31.63	1.41	0.41	23.59	9.35	4.10
3600	11.54	19.63	16.08	31.10	1.44	0.40	23.52	9.27	4.08
3800	11.42	19.76	16.24	29.97	1.47	0.39	23.39	9.68	4.09
4000	11.29	19.80	15.96	31.06	1.49	0.38	23.03	9.91	4.09
4200	11.16	19.92	16.16	30.23	1.52	0.37	23.08	9.43	4.09
4400	11.08	20.17	16.20	28.91	1.57	0.36	22.91	9.17	4.18
4600	10.88	20.24	16.82	26.23	1.61	0.35	22.65	9.66	4.38
4800	10.78	20.34	16.70	25.52	1.64	0.34	22.29	9.65	4.35
5000	10.77	20.55	16.06	24.47	1.67	0.33	22.02	8.96	4.33
5200	10.63	20.59	15.26	24.95	1.69	0.33	21.83	8.73	4.51
5400	10.55	20.71	14.62	23.80	1.72	0.32	21.42	9.16	4.53
5600	10.42	20.79	13.71	22.72	1.74	0.32	21.08	8.87	4.58
5800	10.39	20.94	13.30	21.68	1.76	0.31	20.77	8.32	4.60
6000	10.36	21.10	12.50	19.88	1.78	0.31	20.68	8.02	4.59
6200	10.16	21.27	11.54	19.24	1.82	0.31	20.36	8.48	4.73
6400	10.08	21.21	10.88	17.25	1.80	0.32	19.98	7.94	4.91
6600	9.92	21.44	10.20	16.47	1.84	0.31	19.66	7.17	4.93
6800	9.78	21.61	9.62	15.41	1.87	0.31	19.53	7.35	4.87
7000	9.60	21.54	9.00	14.19	1.86	0.32	19.15	7.82	4.97
7200	9.38	21.04	8.74	13.02	1.79	0.34	18.71	7.02	5.14
7600	8.71	21.84	7.34	11.64	1.94	0.33	18.38	6.31	5.30
8000	7.97	22.17	6.70	10.76	2.08	0.33	18.00	6.02	5.61

Typical Performance Data

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

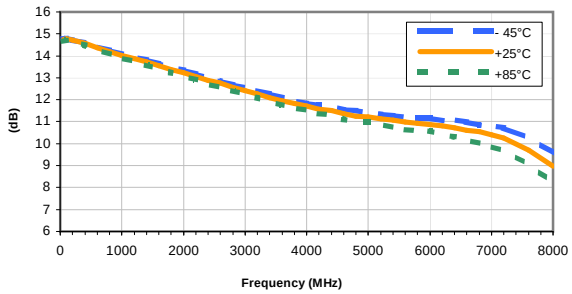
TEST CONDITIONS: Icc = 48mA, Vd = 3.44V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	14.67	18.94	37.68	31.37	1.12	0.61	31.28	13.30	3.71
100	14.72	18.95	40.79	30.33	1.12	0.61	31.15	13.05	3.86
200	14.65	18.93	36.32	29.22	1.12	0.61	31.06	13.17	3.70
400	14.47	18.89	31.10	27.47	1.13	0.60	30.05	13.10	3.78
600	14.28	18.88	27.55	26.21	1.14	0.59	29.24	13.07	3.78
800	14.08	18.86	25.80	25.17	1.15	0.58	28.75	12.50	3.92
1000	13.91	18.88	24.64	25.12	1.16	0.56	28.63	11.93	3.88
1200	13.76	18.89	23.75	24.99	1.17	0.55	28.08	12.15	3.95
1400	13.59	18.95	22.55	25.26	1.19	0.54	27.64	12.44	4.01
1600	13.41	19.01	21.71	25.98	1.21	0.52	27.22	11.90	4.07
1800	13.24	19.06	20.80	26.49	1.22	0.51	26.89	11.65	4.05
2000	13.09	19.11	19.74	27.79	1.24	0.50	26.55	12.07	4.07
2200	12.91	19.22	19.30	29.93	1.26	0.48	26.35	12.38	4.11
2400	12.72	19.28	18.40	32.29	1.28	0.47	26.05	11.99	4.17
2600	12.57	19.38	17.95	36.15	1.31	0.46	25.86	11.37	4.18
2800	12.40	19.47	17.36	40.66	1.33	0.44	25.47	11.40	4.15
3000	12.24	19.53	17.15	46.55	1.35	0.43	25.15	11.85	4.09
3200	12.09	19.60	16.92	47.74	1.37	0.42	24.94	11.71	4.19
3400	11.93	19.76	16.95	38.72	1.41	0.41	24.66	10.98	4.29
3600	11.74	19.83	16.94	35.64	1.44	0.40	24.26	10.99	4.25
3800	11.64	19.97	17.13	33.61	1.47	0.39	24.06	11.51	4.27
4000	11.51	20.01	16.76	33.79	1.49	0.38	23.75	11.44	4.25
4200	11.37	20.14	16.93	31.92	1.53	0.37	23.60	10.76	4.27
4400	11.30	20.36	17.03	30.15	1.57	0.36	23.17	10.67	4.38
4600	11.09	20.45	17.59	26.34	1.62	0.35	22.96	11.14	4.56
4800	10.99	20.57	17.49	25.48	1.65	0.34	22.62	10.75	4.58
5000	10.99	20.74	16.69	24.60	1.67	0.33	22.27	10.03	4.54
5200	10.86	20.80	15.83	24.57	1.69	0.33	21.97	9.82	4.74
5400	10.76	20.92	15.08	23.44	1.72	0.32	21.51	10.25	4.75
5600	10.63	20.98	14.10	22.33	1.74	0.32	21.18	9.78	4.83
5800	10.60	21.12	13.66	21.50	1.76	0.32	20.85	9.20	4.84
6000	10.59	21.29	12.85	19.94	1.78	0.31	20.70	9.07	4.89
6200	10.39	21.46	11.82	19.09	1.82	0.31	20.34	9.39	5.01
6400	10.32	21.37	11.13	17.12	1.79	0.32	19.92	8.71	5.20
6600	10.16	21.64	10.42	16.35	1.84	0.31	19.64	8.10	5.22
6800	10.03	21.80	9.83	15.18	1.87	0.31	19.52	8.20	5.21
7000	9.87	21.70	9.16	14.03	1.84	0.33	19.05	8.58	5.31
7200	9.67	21.19	8.89	12.85	1.77	0.35	18.51	7.72	5.55
7600	9.02	22.10	7.40	11.37	1.94	0.34	18.15	7.03	5.67
8000	8.27	22.39	6.74	10.41	2.06	0.34	17.66	6.65	6.09

Typical Performance Curves

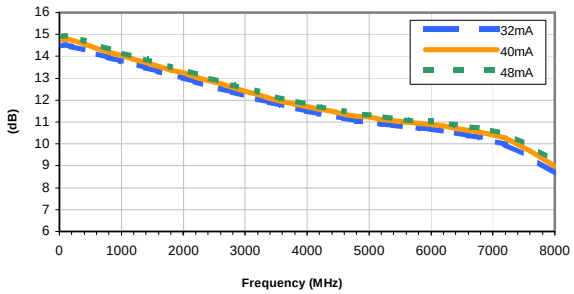
GAIN vs. TEMPERATURE

INPUT POWER = -20dBm,, CURRENT = 40mA



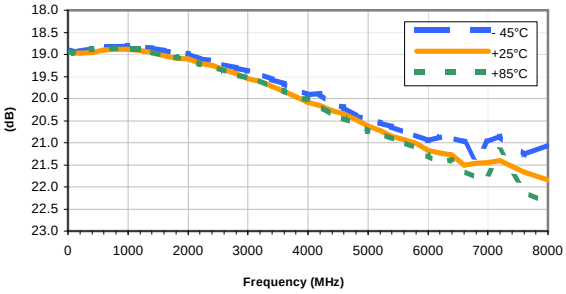
GAIN vs. CURRENT

INPUT POWER = -20dBm,, Temperature = +25°C



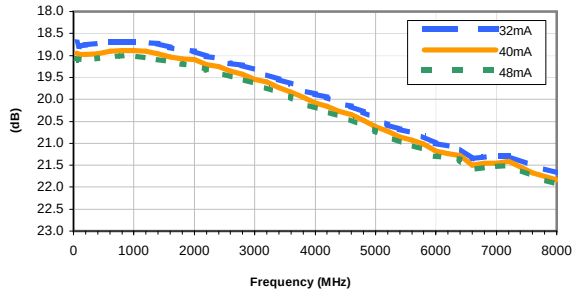
ISOLATION vs. TEMPERATURE

INPUT POWER = -20dBm,, CURRENT = 40mA



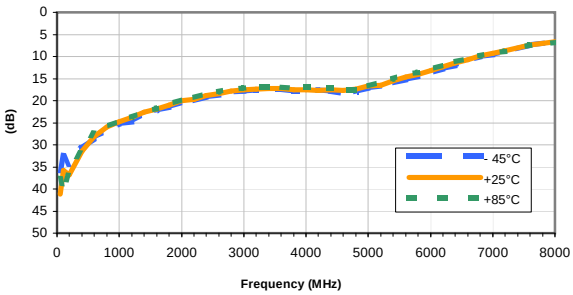
ISOLATION vs. CURRENT

INPUT POWER = -20dBm,, Temperature = +25°C



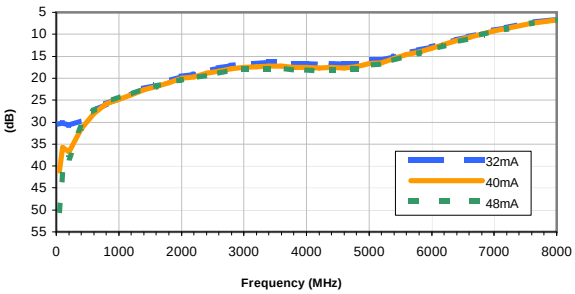
INPUT RETURN LOSS vs. TEMPERATURE

INPUT POWER = -20dBm,, CURRENT = 40mA



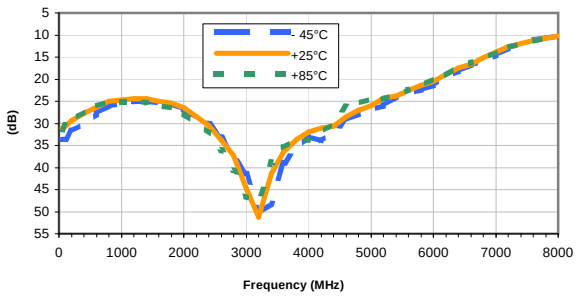
INPUT RETURN LOSS vs. CURRENT

INPUT POWER = -20dBm,, Temperature = +25°C



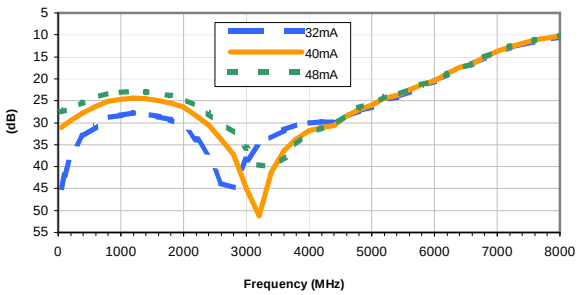
OUTPUT RETURN LOSS vs. TEMPERATURE

INPUT POWER = -20dBm,, CURRENT = 40mA



OUTPUT RETURN LOSS vs. CURRENT

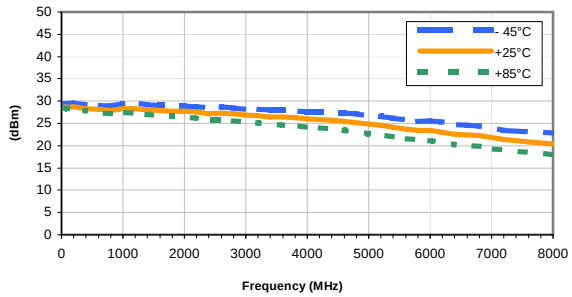
INPUT POWER = -20dBm,, Temperature = +25°C



Typical Performance Curves

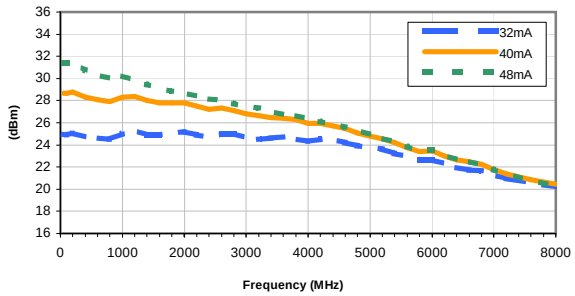
OUTPUT IP3 vs. TEMPERATURE

INPUT POWER = -20dBm,, CURRENT = 40mA



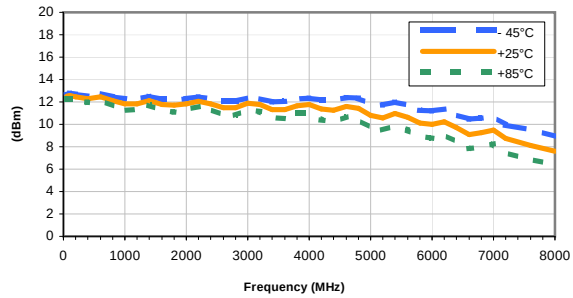
OUTPUT IP3 vs. CURRENT

INPUT POWER = -20dBm,, Temperature = +25°C



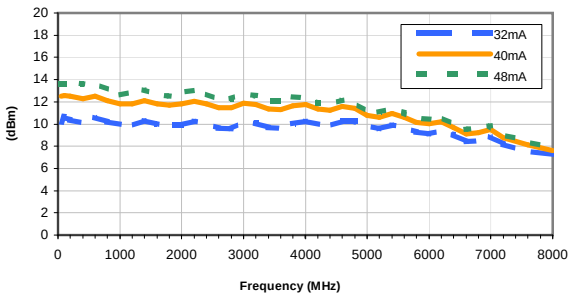
OUTPUT POWER at 1dB Compression vs. TEMPERATURE

CURRENT = 40mA



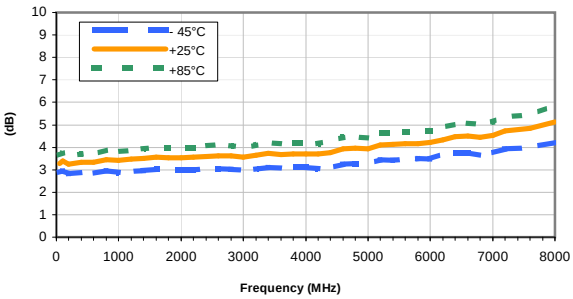
OUTPUT POWER at 1dB Compression vs. CURRENT

Temperature = +25°C



Noise Figure vs. TEMPERATURE

CURRENT = 40mA



Noise Figure vs. CURRENT

Temperature = +25°C