

MMIC Amplifier

GALI-39+

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 = 35mA, Vd = 3.61V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	23.37	25.47	34.83	26.79	1.03	0.79	25.44	12.34	2.10
100	23.39	25.50	34.38	26.25	1.03	0.79	25.39	12.09	2.30
200	23.29	25.46	33.11	25.57	1.03	0.78	25.42	12.17	2.16
300	23.17	25.47	31.75	25.11	1.03	0.77	25.44	12.08	2.38
400	23.03	25.42	31.39	24.15	1.04	0.76	25.00	12.15	2.20
500	22.86	25.40	29.97	23.72	1.04	0.75	24.87	11.98	2.34
600	22.69	25.33	29.35	23.12	1.04	0.74	24.76	12.06	2.21
700	22.51	25.32	28.81	22.85	1.05	0.73	25.10	12.19	2.22
800	22.31	25.28	28.51	22.49	1.06	0.71	25.31	12.14	2.23
1000	21.91	25.19	28.11	22.07	1.07	0.69	25.34	11.98	2.24
1200	21.51	25.12	28.00	21.81	1.08	0.66	25.07	11.64	2.32
1400	21.11	25.02	27.49	21.80	1.10	0.64	24.75	11.89	2.38
1600	20.70	24.94	27.18	22.13	1.12	0.62	24.96	11.59	2.43
1800	20.29	24.87	26.21	22.55	1.14	0.59	25.45	11.52	2.35
2000	19.89	24.77	25.06	23.11	1.15	0.57	25.50	11.68	2.32
2200	19.52	24.71	24.17	23.94	1.18	0.55	25.44	11.94	2.39
2400	19.12	24.64	23.04	25.04	1.20	0.53	25.35	11.97	2.40
2600	18.78	24.61	22.03	26.52	1.22	0.51	25.24	11.59	2.36
2800	18.46	24.56	20.61	27.98	1.24	0.49	25.30	11.63	2.41
3000	18.16	24.48	19.32	28.80	1.26	0.48	25.48	11.64	2.43
3200	17.88	24.48	18.24	29.80	1.28	0.46	25.44	11.47	2.44
3400	17.61	24.41	17.32	29.02	1.30	0.45	25.38	11.72	2.54
3600	17.37	24.38	16.57	27.52	1.32	0.44	25.02	11.62	2.69
3800	17.13	24.45	15.95	26.07	1.35	0.43	24.73	11.67	2.70
4000	16.91	24.48	15.59	24.69	1.37	0.42	24.70	11.94	2.70
4200	16.71	24.50	15.43	23.83	1.39	0.41	24.80	11.79	2.62
4400	16.56	24.48	14.98	23.08	1.41	0.41	24.78	11.68	2.67
4600	16.42	24.50	15.08	22.74	1.43	0.40	24.49	11.56	2.68
4800	16.29	24.58	15.07	22.11	1.45	0.40	24.15	11.63	2.81
5000	16.25	24.62	15.08	21.88	1.46	0.39	23.82	11.93	2.77
5200	16.19	24.71	15.07	21.68	1.48	0.39	23.81	11.69	2.64
5400	16.17	24.80	15.22	21.42	1.50	0.38	23.57	11.41	2.66
5600	16.13	24.78	15.81	21.06	1.51	0.38	23.45	11.41	2.75
5800	16.14	24.82	16.18	20.94	1.51	0.38	23.03	10.72	2.84
6000	16.19	24.89	16.25	20.98	1.52	0.38	22.40	10.46	2.87
6200	16.18	24.83	16.75	21.20	1.51	0.38	22.22	10.55	2.92
6400	16.22	24.93	17.01	21.15	1.52	0.38	21.97	10.34	2.94
6600	16.14	24.95	17.10	21.70	1.54	0.37	21.69	10.41	2.95
6800	16.28	24.42	18.41	18.94	1.45	0.41	21.31	10.23	3.02
7000	16.07	24.63	16.76	18.74	1.50	0.39	20.98	10.09	3.10

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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: I_{cc} = 28mA, V_d = 3.59V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	22.68	24.88	26.23	33.35	1.03	0.78	22.13	9.02	2.11
100	22.69	24.85	26.64	32.85	1.03	0.78	22.11	8.97	2.23
200	22.61	24.83	26.34	33.97	1.03	0.77	22.11	9.19	2.19
300	22.49	24.84	27.36	32.65	1.04	0.76	22.12	8.82	2.31
400	22.36	24.78	27.18	33.30	1.04	0.76	21.70	8.90	2.26
500	22.24	24.76	27.71	32.23	1.04	0.75	21.61	8.98	2.29
600	22.08	24.70	27.01	31.91	1.04	0.74	21.55	8.89	2.27
700	21.88	24.68	27.54	31.10	1.05	0.72	21.91	9.11	2.16
800	21.72	24.66	27.59	30.66	1.05	0.71	22.16	9.09	2.26
1000	21.38	24.59	26.74	29.58	1.07	0.69	22.22	8.89	2.22
1200	21.00	24.53	25.78	28.62	1.08	0.66	21.94	8.69	2.31
1400	20.62	24.46	24.43	27.96	1.09	0.64	21.69	8.78	2.36
1600	20.20	24.42	23.26	27.64	1.11	0.61	21.92	8.67	2.39
1800	19.83	24.39	22.11	27.24	1.13	0.59	22.60	8.58	2.30
2000	19.46	24.32	20.89	27.07	1.15	0.57	22.69	8.87	2.27
2200	19.09	24.28	20.13	27.38	1.17	0.55	22.85	8.97	2.35
2400	18.71	24.25	19.19	27.25	1.19	0.52	22.97	8.98	2.33
2600	18.38	24.25	18.48	27.05	1.22	0.50	23.03	9.16	2.32
2800	18.07	24.21	17.46	26.15	1.24	0.49	23.28	8.85	2.37
3000	17.79	24.16	16.56	25.25	1.25	0.47	23.57	8.79	2.39
3200	17.49	24.19	15.66	24.58	1.28	0.46	23.55	8.69	2.42
3400	17.23	24.15	15.03	23.63	1.29	0.45	23.52	8.81	2.53
3600	17.00	24.16	14.44	22.53	1.31	0.44	23.29	8.73	2.66
3800	16.76	24.25	14.01	21.63	1.34	0.42	23.18	8.60	2.71
4000	16.56	24.30	13.71	20.90	1.37	0.42	23.28	9.02	2.69
4200	16.38	24.34	13.66	20.28	1.39	0.41	23.42	9.13	2.61
4400	16.23	24.34	13.30	20.03	1.41	0.40	23.28	9.06	2.66
4600	16.09	24.37	13.42	19.86	1.43	0.40	23.02	8.95	2.70
4800	15.97	24.46	13.41	19.63	1.46	0.39	22.78	9.14	2.77
5000	15.92	24.52	13.48	19.49	1.47	0.39	22.61	9.61	2.70
5200	15.87	24.62	13.50	19.55	1.49	0.38	22.85	9.26	2.61
5400	15.83	24.71	13.56	19.38	1.51	0.38	22.81	9.22	2.62
5600	15.81	24.70	14.07	19.36	1.52	0.38	22.88	8.71	2.70
5800	15.82	24.74	14.35	19.46	1.53	0.38	22.59	8.86	2.77
6000	15.85	24.80	14.28	19.53	1.53	0.38	22.05	8.80	2.80
6200	15.86	24.74	14.65	19.99	1.53	0.38	21.99	8.99	2.85
6400	15.90	24.81	14.72	20.05	1.53	0.38	21.75	9.26	2.86
6600	15.80	24.83	14.84	20.95	1.55	0.37	21.46	9.33	2.86
6800	15.91	24.29	15.66	18.66	1.47	0.40	21.19	9.39	2.94
7000	15.70	24.50	14.59	18.95	1.51	0.38	20.84	9.17	3.03

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: Icc = 42mA, Vd = 3.63V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	23.78	25.91	24.23	20.89	1.03	0.79	28.15	14.41	2.12
100	23.79	25.91	24.65	20.82	1.03	0.79	28.11	14.24	2.34
200	23.67	25.90	24.29	20.60	1.03	0.78	28.14	14.20	2.13
300	23.55	25.87	24.32	20.25	1.03	0.77	28.10	14.14	2.43
400	23.40	25.85	23.70	19.93	1.04	0.76	27.59	14.25	2.20
500	23.22	25.77	23.89	19.64	1.04	0.75	27.29	14.02	2.41
600	23.05	25.75	23.38	19.47	1.04	0.74	27.08	14.09	2.24
700	22.85	25.70	23.60	19.14	1.05	0.73	27.26	14.05	2.26
800	22.64	25.66	23.60	19.00	1.06	0.71	27.34	14.11	2.23
1000	22.23	25.55	23.80	18.90	1.07	0.69	27.23	13.98	2.24
1200	21.81	25.44	24.15	18.95	1.08	0.67	26.94	13.73	2.33
1400	21.39	25.35	24.79	19.21	1.10	0.64	26.54	13.76	2.42
1600	20.97	25.26	25.44	19.35	1.12	0.62	26.64	13.64	2.45
1800	20.55	25.17	25.91	19.81	1.14	0.59	26.68	13.62	2.39
2000	20.15	25.05	26.19	20.43	1.16	0.57	26.67	13.80	2.37
2200	19.75	24.97	26.18	21.32	1.18	0.55	26.54	13.94	2.44
2400	19.37	24.88	25.51	22.41	1.20	0.53	26.24	13.88	2.43
2600	19.01	24.83	24.73	23.88	1.22	0.51	25.95	13.89	2.41
2800	18.68	24.75	23.17	25.58	1.24	0.50	25.84	13.67	2.44
3000	18.39	24.65	21.60	27.16	1.26	0.48	25.83	13.55	2.47
3200	18.10	24.62	20.34	30.17	1.28	0.47	25.71	13.71	2.49
3400	17.82	24.56	19.26	31.36	1.30	0.46	25.60	13.65	2.57
3600	17.58	24.51	18.25	31.41	1.32	0.45	25.15	13.62	2.70
3800	17.33	24.55	17.50	30.12	1.34	0.43	24.85	13.53	2.72
4000	17.12	24.56	17.07	27.91	1.37	0.43	24.72	13.61	2.73
4200	16.91	24.57	16.70	26.71	1.39	0.42	24.77	13.62	2.64
4400	16.76	24.54	16.23	25.62	1.40	0.41	24.63	13.49	2.66
4600	16.61	24.55	16.24	25.00	1.42	0.41	24.38	13.28	2.73
4800	16.48	24.62	16.29	24.00	1.45	0.40	23.97	13.26	2.82
5000	16.44	24.66	16.23	23.72	1.45	0.40	23.60	13.17	2.80
5200	16.39	24.73	16.22	23.42	1.47	0.39	23.55	12.78	2.71
5400	16.36	24.82	16.46	22.86	1.49	0.39	23.30	12.55	2.71
5600	16.32	24.80	17.08	22.38	1.49	0.39	23.04	12.14	2.83
5800	16.34	24.85	17.57	22.19	1.50	0.39	22.64	11.94	2.90
6000	16.38	24.91	17.77	22.04	1.50	0.38	21.98	11.49	2.93
6200	16.39	24.85	18.46	22.15	1.50	0.39	21.83	11.21	2.99
6400	16.44	24.96	18.87	22.01	1.50	0.38	21.61	11.05	3.02
6600	16.36	24.99	19.02	22.28	1.52	0.38	21.29	11.05	3.04
6800	16.52	24.47	21.04	19.23	1.43	0.41	20.95	10.86	3.12
7000	16.32	24.68	18.56	18.70	1.48	0.40	20.57	10.52	3.20

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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 = 35mA, Vd = 3.80V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	23.66	25.69	29.87	24.24	1.03	0.79	25.83	12.27	1.67
100	23.66	25.71	31.44	24.67	1.03	0.79	25.73	11.86	1.92
200	23.56	25.67	31.83	25.22	1.03	0.79	25.75	11.95	1.72
300	23.46	25.65	29.33	23.15	1.03	0.78	25.90	11.72	1.97
400	23.30	25.62	26.54	21.93	1.03	0.77	25.55	12.21	1.82
500	23.16	25.57	26.15	21.15	1.04	0.76	25.45	11.91	1.92
600	22.98	25.53	25.22	21.12	1.04	0.75	25.39	12.17	1.81
700	22.81	25.47	25.70	20.59	1.04	0.74	25.72	12.09	1.76
800	22.63	25.43	25.83	20.68	1.05	0.73	25.95	12.09	1.79
1000	22.23	25.34	26.02	20.53	1.06	0.70	26.03	11.84	1.76
1200	21.83	25.25	25.68	20.22	1.07	0.68	25.82	11.59	1.83
1400	21.42	25.15	25.47	20.18	1.09	0.66	25.53	11.82	1.89
1600	21.04	25.08	25.83	20.65	1.11	0.63	25.76	11.58	1.92
1800	20.63	25.00	25.80	21.21	1.12	0.61	26.27	11.31	1.85
2000	20.25	24.88	25.29	21.87	1.14	0.59	26.39	11.53	1.81
2200	19.88	24.81	25.09	22.34	1.16	0.57	26.30	11.88	1.88
2400	19.48	24.74	24.40	23.43	1.18	0.55	26.26	11.98	1.84
2600	19.15	24.68	23.62	25.03	1.20	0.53	26.14	11.77	1.82
2800	18.83	24.59	22.27	26.97	1.22	0.51	26.27	11.56	1.87
3000	18.55	24.52	21.09	28.48	1.23	0.50	26.47	11.54	1.87
3200	18.27	24.49	20.07	31.50	1.25	0.49	26.53	11.72	1.92
3400	18.01	24.42	19.13	31.74	1.27	0.48	26.51	11.88	1.95
3600	17.78	24.39	18.11	30.34	1.28	0.47	26.13	11.48	2.10
3800	17.54	24.42	17.32	28.47	1.31	0.45	25.87	11.68	2.11
4000	17.34	24.41	16.90	26.27	1.33	0.45	25.81	11.84	2.12
4200	17.16	24.41	16.62	25.42	1.34	0.44	26.02	12.01	2.05
4400	17.02	24.36	16.40	24.57	1.35	0.43	26.01	11.85	2.03
4600	16.86	24.38	16.45	24.22	1.37	0.43	25.75	11.64	2.06
4800	16.75	24.44	16.48	22.86	1.39	0.42	25.37	11.75	2.11
5000	16.70	24.47	16.19	22.61	1.40	0.42	25.03	12.25	2.12
5200	16.62	24.52	16.31	22.05	1.42	0.41	25.05	12.08	2.05
5400	16.60	24.63	16.45	21.13	1.43	0.41	24.97	11.95	2.06
5600	16.54	24.56	16.56	20.56	1.43	0.41	24.72	11.91	2.09
5800	16.62	24.69	16.97	19.95	1.44	0.41	24.37	11.46	2.15
6000	16.67	24.71	17.64	20.09	1.44	0.41	23.76	11.39	2.17
6200	16.73	24.65	18.54	20.33	1.43	0.41	23.59	11.26	2.28
6400	16.82	24.71	19.25	20.14	1.43	0.41	23.39	11.31	2.29
6600	16.82	24.79	19.22	21.00	1.44	0.41	23.00	11.42	2.28
6800	16.97	24.33	20.63	18.84	1.37	0.44	22.76	11.27	2.29
7000		24.53	18.37	19.01	1.40	0.43	22.08	11.21	2.39

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Definitions:

Input Return Loss = -S11 (dB)

Gain(Power Gain) = S21 (dB)

Reverse Isolation = -S12 (dB)

Output Return Loss = -S22 (dB)

TEST CONDITIONS: Icc = 28mA, Vd = 3.77V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	23.06	25.11	32.05	55.56	1.03	0.79	22.36	9.09	1.68
100	23.01	25.12	29.26	41.07	1.03	0.78	22.28	8.62	1.86
200	22.95	25.08	29.33	37.76	1.03	0.78	22.26	8.95	1.77
300	22.85	25.08	30.42	36.59	1.03	0.77	22.37	8.87	1.89
400	22.71	25.00	33.76	32.56	1.03	0.77	22.06	8.79	1.85
500	22.60	25.00	31.45	29.89	1.04	0.76	22.00	9.10	1.87
600	22.42	24.95	31.08	29.49	1.04	0.75	21.98	9.02	1.83
700	22.26	24.90	29.92	27.78	1.04	0.74	22.35	9.17	1.73
800	22.10	24.88	29.53	27.74	1.05	0.73	22.59	8.74	1.82
1000	21.74	24.81	28.62	26.92	1.06	0.70	22.67	8.58	1.77
1200	21.38	24.73	28.10	25.84	1.07	0.68	22.41	8.51	1.81
1400	20.99	24.67	26.87	25.24	1.09	0.65	22.23	8.71	1.86
1600	20.61	24.58	25.45	25.59	1.10	0.63	22.47	8.65	1.91
1800	20.24	24.54	24.40	25.82	1.12	0.61	23.13	8.75	1.83
2000	19.88	24.46	22.79	26.52	1.13	0.59	23.29	8.71	1.79
2200	19.51	24.42	22.24	26.75	1.16	0.57	23.24	9.11	1.83
2400	19.13	24.39	21.10	27.82	1.18	0.54	23.39	8.98	1.81
2600	18.80	24.35	20.13	28.89	1.20	0.52	23.48	8.81	1.78
2800	18.49	24.30	18.92	29.07	1.21	0.51	23.75	8.99	1.83
3000	18.21	24.25	18.03	28.14	1.23	0.49	24.07	8.97	1.84
3200	17.94	24.25	17.25	26.53	1.25	0.48	24.18	8.77	1.89
3400	17.68	24.21	16.54	25.70	1.27	0.47	24.17	8.80	1.95
3600	17.46	24.20	15.79	24.37	1.28	0.46	23.91	8.66	2.07
3800	17.22	24.26	15.23	23.28	1.31	0.45	23.73	8.76	2.09
4000	17.03	24.27	14.97	22.12	1.33	0.44	23.87	8.96	2.10
4200	16.87	24.29	14.76	21.73	1.35	0.43	24.17	9.13	2.03
4400	16.73	24.26	14.58	21.27	1.36	0.43	24.06	9.10	2.04
4600	16.58	24.29	14.64	21.22	1.38	0.42	23.80	8.77	2.03
4800	16.47	24.36	14.72	20.35	1.40	0.42	23.39	9.09	2.10
5000	16.41	24.42	14.47	20.30	1.41	0.41	23.30	9.79	2.10
5200	16.33	24.46	14.61	20.01	1.43	0.41	23.56	9.66	2.01
5400	16.31	24.59	14.75	19.34	1.45	0.40	23.71	9.62	1.99
5600	16.25	24.53	14.76	19.22	1.45	0.40	23.79	8.95	2.02
5800	16.34	24.64	15.14	18.87	1.46	0.40	23.58	9.01	2.08
6000	16.39	24.67	15.61	19.09	1.46	0.40	23.10	9.23	2.10
6200	16.45	24.61	16.20	19.50	1.45	0.41	23.00	9.43	2.21
6400	16.54	24.65	16.56	19.46	1.44	0.41	22.84	9.77	2.22
6600	16.54	24.71	16.47	20.57	1.45	0.40	22.52	9.91	2.20
6800	16.67	24.25	17.32	18.74	1.38	0.43	22.27	9.96	2.23
7000	16.53	24.43	15.89	19.21	1.41	0.42	21.70	9.86	2.33

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 = 42mA, Vd = 3.82V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	24.01	26.06	23.21	19.91	1.03	0.80	28.66	14.46	1.71
100	24.02	26.09	23.79	20.15	1.03	0.79	28.58	14.43	1.96
200	23.92	26.05	24.44	20.57	1.03	0.79	28.64	14.24	1.73
300	23.81	26.03	23.09	19.34	1.03	0.78	28.76	14.27	2.01
400	23.64	25.99	21.81	18.61	1.03	0.77	28.34	14.37	1.80
500	23.49	25.95	21.72	18.17	1.04	0.76	28.10	14.14	1.95
600	23.29	25.91	21.40	18.05	1.04	0.75	27.94	14.34	1.79
700	23.12	25.84	21.59	17.88	1.04	0.74	28.17	14.38	1.80
800	22.93	25.79	21.90	18.00	1.05	0.73	28.28	14.14	1.80
1000	22.52	25.68	22.28	17.98	1.06	0.70	28.25	13.99	1.78
1200	22.11	25.58	22.37	17.90	1.07	0.68	28.03	13.87	1.84
1400	21.70	25.46	22.54	17.96	1.09	0.66	27.68	13.87	1.91
1600	21.27	25.36	23.29	18.47	1.11	0.63	27.79	13.80	1.97
1800	20.86	25.26	23.97	19.01	1.12	0.61	27.93	13.64	1.89
2000	20.47	25.12	24.63	19.59	1.14	0.59	28.02	13.97	1.87
2200	20.09	25.04	25.10	20.10	1.16	0.57	27.91	14.14	1.91
2400	19.69	24.95	25.40	21.10	1.18	0.55	27.63	14.01	1.88
2600	19.36	24.87	25.75	22.54	1.20	0.53	27.33	13.86	1.83
2800	19.05	24.75	25.01	24.33	1.22	0.52	27.29	13.82	1.90
3000	18.75	24.67	23.72	25.91	1.23	0.50	27.36	13.71	1.90
3200	18.47	24.62	22.50	29.97	1.25	0.49	27.29	13.74	1.93
3400	18.20	24.54	21.36	32.12	1.27	0.48	27.14	13.79	1.97
3600	17.97	24.49	20.00	34.48	1.28	0.47	26.77	13.73	2.10
3800	17.72	24.51	19.07	33.62	1.31	0.46	26.50	13.56	2.12
4000	17.53	24.48	18.45	30.07	1.32	0.45	26.26	13.83	2.14
4200	17.35	24.47	18.12	28.45	1.34	0.44	26.38	13.82	2.06
4400	17.19	24.42	17.73	27.29	1.35	0.44	26.36	13.65	2.07
4600	17.06	24.43	17.82	26.63	1.37	0.43	26.17	13.58	2.09
4800	16.92	24.46	17.77	24.88	1.38	0.43	25.81	13.75	2.16
5000	16.89	24.49	17.56	24.41	1.39	0.42	25.41	13.83	2.15
5200	16.81	24.52	17.65	23.69	1.40	0.42	25.34	13.70	2.09
5400	16.79	24.64	17.79	22.47	1.42	0.41	25.11	13.37	2.12
5600	16.73	24.56	18.01	21.69	1.42	0.42	24.79	12.97	2.16
5800	16.80	24.69	18.48	20.88	1.42	0.41	24.36	12.92	2.19
6000	16.86	24.71	19.27	20.96	1.42	0.41	23.72	12.47	2.26
6200	16.91	24.66	20.42	21.15	1.41	0.42	23.46	12.35	2.35
6400	17.02	24.72	21.67	20.89	1.41	0.42	23.27	12.20	2.35
6600	17.03	24.80	21.80	21.55	1.42	0.42	22.91	12.11	2.34
6800	17.19	24.33	23.93	19.13	1.35	0.45	22.62	11.92	2.34
7000	17.10	24.56	20.69	19.08	1.38	0.43	21.94	11.70	2.45

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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 = 35mA, Vd = 3.46V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	23.10	25.23	49.73	32.29	1.03	0.78	25.54	12.10	2.47
100	23.10	25.25	45.45	30.34	1.03	0.78	25.58	12.11	2.68
200	22.98	25.22	36.56	27.60	1.03	0.77	25.66	12.08	2.47
300	22.84	25.22	35.54	27.08	1.04	0.76	25.60	12.18	2.73
400	22.71	25.16	36.12	27.52	1.04	0.75	25.02	11.98	2.63
500	22.55	25.16	34.80	27.03	1.04	0.74	24.80	11.91	2.75
600	22.38	25.10	33.85	26.66	1.05	0.73	24.63	12.27	2.65
700	22.18	25.06	33.20	25.96	1.05	0.72	24.91	12.09	2.61
800	21.99	25.03	33.00	25.60	1.06	0.70	25.05	11.99	2.62
1000	21.60	24.97	31.75	25.31	1.07	0.68	25.02	11.67	2.64
1200	21.20	24.90	30.22	25.10	1.09	0.65	24.75	11.60	2.72
1400	20.79	24.81	28.21	24.97	1.10	0.63	24.41	11.67	2.80
1600	20.36	24.75	26.77	24.98	1.13	0.60	24.65	11.25	2.87
1800	19.96	24.68	24.95	24.86	1.14	0.58	25.03	11.27	2.76
2000	19.55	24.61	23.22	24.93	1.16	0.56	25.03	11.60	2.74
2200	19.17	24.57	22.13	25.68	1.19	0.53	24.96	11.88	2.86
2400	18.77	24.50	20.75	26.21	1.21	0.51	24.79	11.82	2.86
2600	18.41	24.49	19.74	27.18	1.24	0.49	24.60	11.77	2.85
2800	18.09	24.45	18.50	27.55	1.26	0.48	24.61	11.40	2.87
3000	17.78	24.39	17.36	27.26	1.28	0.46	24.71	11.48	2.91
3200	17.49	24.42	16.35	26.40	1.30	0.45	24.51	11.51	2.95
3400	17.21	24.37	15.55	25.24	1.32	0.44	24.38	11.65	3.06
3600	16.96	24.37	14.85	23.88	1.34	0.43	24.01	11.40	3.24
3800	16.71	24.43	14.28	22.76	1.37	0.41	23.67	11.40	3.25
4000	16.50	24.46	13.90	21.76	1.40	0.41	23.68	11.55	3.24
4200	16.30	24.52	13.73	21.20	1.43	0.40	23.68	11.76	3.14
4400	16.15	24.48	13.46	21.06	1.44	0.39	23.43	11.33	3.20
4600	15.98	24.53	13.67	21.24	1.47	0.39	23.18	11.25	3.31
4800	15.85	24.57	13.72	21.38	1.49	0.38	22.83	11.36	3.41
5000	15.78	24.60	13.75	21.74	1.51	0.38	22.50	11.33	3.34
5200	15.69	24.67	13.87	22.23	1.53	0.37	22.47	10.94	3.20
5400	15.65	24.80	14.10	22.02	1.56	0.36	22.15	10.69	3.24
5600	15.58	24.76	14.57	22.12	1.57	0.36	21.90	10.27	3.35
5800	15.57	24.87	14.65	21.58	1.58	0.36	21.48	10.12	3.46
6000	15.59	24.89	14.78	21.17	1.59	0.36	21.01	9.86	3.46
6200	15.55	24.83	14.97	21.37	1.59	0.36	20.78	9.55	3.51
6400	15.55	24.94	15.30	21.14	1.60	0.35	20.59	9.44	3.52
6600	15.42	24.91	15.34	21.26	1.62	0.35	20.24	9.64	3.56
6800	15.46	24.49	16.20	18.92	1.56	0.37	20.00	9.45	3.65
7000	15.21	24.66	15.49	18.79	1.61	0.36	19.72	9.24	3.76

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: I_{cc} = 28mA, V_d = 3.44V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	22.34	24.56	23.41	26.55	1.03	0.78	22.51	9.15	2.43
100	22.36	24.60	23.81	27.27	1.03	0.77	22.52	9.20	2.59
200	22.27	24.57	25.26	29.02	1.03	0.77	22.60	9.12	2.52
300	22.13	24.56	24.76	28.81	1.04	0.76	22.54	8.97	2.66
400	22.01	24.55	24.29	27.70	1.04	0.75	22.02	9.02	2.67
500	21.88	24.49	23.16	27.48	1.04	0.74	21.85	9.06	2.68
600	21.73	24.46	23.63	27.50	1.05	0.73	21.76	9.04	2.67
700	21.52	24.42	23.49	28.06	1.05	0.72	22.09	9.22	2.56
800	21.37	24.40	23.33	28.23	1.06	0.70	22.28	8.84	2.65
1000	21.02	24.33	22.63	28.17	1.07	0.68	22.30	8.79	2.63
1200	20.65	24.28	22.25	28.36	1.08	0.66	22.01	8.32	2.71
1400	20.26	24.22	21.52	28.08	1.10	0.63	21.74	8.78	2.79
1600	19.83	24.23	21.16	28.60	1.12	0.60	22.02	8.61	2.81
1800	19.46	24.17	20.15	27.84	1.14	0.58	22.68	8.38	2.72
2000	19.09	24.11	19.13	26.97	1.15	0.56	22.74	8.80	2.70
2200	18.72	24.09	18.44	26.36	1.18	0.53	22.86	9.12	2.80
2400	18.33	24.06	17.50	25.39	1.20	0.51	22.95	9.11	2.82
2600	18.00	24.08	16.78	24.69	1.22	0.49	22.97	9.03	2.79
2800	17.67	24.08	15.82	23.85	1.25	0.47	23.17	8.65	2.84
3000	17.38	24.05	15.01	22.94	1.27	0.46	23.42	8.72	2.86
3200	17.08	24.12	14.29	21.63	1.29	0.44	23.36	8.71	2.94
3400	16.81	24.11	13.63	20.93	1.31	0.43	23.25	9.01	3.04
3600	16.56	24.14	13.13	20.14	1.34	0.42	23.07	8.93	3.22
3800	16.32	24.22	12.73	19.43	1.37	0.41	22.94	8.97	3.24
4000	16.13	24.26	12.41	18.78	1.39	0.40	23.07	9.15	3.21
4200	15.95	24.33	12.22	18.58	1.42	0.40	23.06	9.21	3.13
4400	15.79	24.33	12.10	18.55	1.44	0.39	22.92	8.96	3.17
4600	15.64	24.37	12.25	18.85	1.47	0.38	22.71	8.86	3.26
4800	15.51	24.43	12.36	19.02	1.50	0.38	22.42	9.20	3.35
5000	15.45	24.46	12.33	19.42	1.51	0.37	22.27	9.48	3.27
5200	15.36	24.55	12.52	19.92	1.54	0.36	22.32	9.25	3.14
5400	15.31	24.69	12.71	19.80	1.57	0.36	22.23	9.06	3.14
5600	15.25	24.63	12.96	20.17	1.57	0.36	22.09	8.60	3.26
5800	15.24	24.74	13.13	19.85	1.59	0.35	21.76	8.71	3.37
6000	15.25	24.77	13.20	19.62	1.60	0.36	21.32	8.42	3.37
6200	15.22	24.71	13.33	19.99	1.60	0.36	21.22	8.46	3.41
6400	15.21	24.78	13.47	19.84	1.61	0.35	20.92	8.60	3.41
6600	15.08	24.74	13.60	20.38	1.63	0.35	20.63	8.77	3.46
6800	15.10	24.31	14.25	18.58	1.57	0.37	20.46	8.59	3.56
7000	14.86	24.46	13.63	18.81	1.61	0.35	20.17	8.62	3.65

Typical Performance Data

Definitions:

Input Return Loss = -S11 (dB)

Gain(Power Gain) = S21 (dB)

Reverse Isolation = -S12 (dB)

Output Return Loss = -S22 (dB)

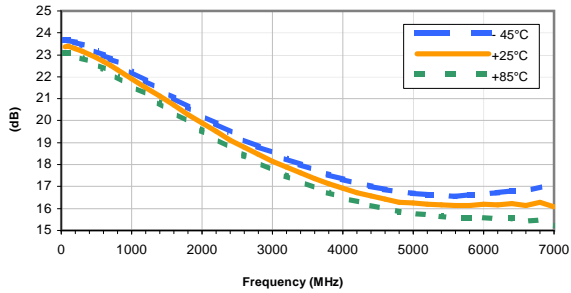
TEST CONDITIONS: Icc = 42mA, Vd = 3.48V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP3 Output	1dB Comp. Output	Noise Figure
					K	Delta			
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(dBm)	(dBm)	(dB)
50	23.53	25.66	27.48	23.11	1.03	0.79	28.17	13.92	2.48
100	23.51	25.68	26.56	22.36	1.03	0.78	28.25	13.80	2.74
200	23.38	25.67	24.91	21.16	1.03	0.77	28.27	13.96	2.45
300	23.27	25.64	25.48	21.37	1.04	0.77	28.09	13.65	2.79
400	23.11	25.60	26.29	21.57	1.04	0.75	27.45	13.58	2.62
500	22.96	25.56	26.97	21.71	1.04	0.74	27.02	13.64	2.78
600	22.74	25.51	26.70	21.31	1.05	0.73	26.74	13.69	2.64
700	22.58	25.47	27.25	21.36	1.05	0.72	26.84	13.55	2.66
800	22.38	25.43	27.43	21.25	1.06	0.71	26.82	13.57	2.66
1000	21.95	25.33	28.40	21.23	1.07	0.68	26.62	13.59	2.65
1200	21.53	25.25	29.05	21.25	1.09	0.65	26.29	13.20	2.76
1400	21.09	25.16	29.12	21.30	1.11	0.63	25.88	13.39	2.86
1600	20.66	25.08	29.14	21.57	1.13	0.60	25.99	13.21	2.90
1800	20.23	24.99	27.89	21.85	1.15	0.58	25.91	13.19	2.82
2000	19.82	24.88	26.45	22.20	1.17	0.56	25.85	13.42	2.79
2200	19.43	24.83	25.32	23.02	1.19	0.54	25.68	13.47	2.91
2400	19.03	24.75	23.59	24.02	1.21	0.52	25.31	13.39	2.91
2600	18.67	24.71	22.23	25.59	1.24	0.50	25.00	13.25	2.88
2800	18.34	24.64	20.63	27.29	1.26	0.48	24.85	13.16	2.92
3000	18.02	24.57	19.23	28.60	1.28	0.47	24.84	13.00	2.95
3200	17.71	24.57	17.94	29.88	1.31	0.45	24.55	13.05	3.02
3400	17.42	24.52	16.89	29.09	1.33	0.44	24.39	12.99	3.10
3600	17.18	24.50	16.07	27.26	1.35	0.43	23.99	12.95	3.28
3800	16.92	24.54	15.38	25.65	1.37	0.42	23.72	12.87	3.29
4000	16.70	24.56	14.98	24.11	1.40	0.41	23.57	12.94	3.27
4200	16.51	24.60	14.74	23.16	1.43	0.40	23.50	12.87	3.20
4400	16.35	24.56	14.44	22.89	1.44	0.40	23.33	12.69	3.23
4600	16.18	24.59	14.67	22.84	1.47	0.39	23.01	12.36	3.35
4800	16.04	24.64	14.69	22.95	1.49	0.38	22.57	12.28	3.46
5000	15.97	24.65	14.68	23.22	1.50	0.38	22.23	12.16	3.42
5200	15.89	24.73	14.88	23.66	1.52	0.37	22.17	11.67	3.27
5400	15.83	24.85	15.09	23.31	1.55	0.37	21.89	11.50	3.29
5600	15.77	24.81	15.60	23.14	1.56	0.36	21.61	11.01	3.43
5800	15.78	24.92	15.76	22.49	1.57	0.36	21.15	10.84	3.54
6000	15.77	24.95	15.94	21.93	1.58	0.36	20.58	10.30	3.57
6200	15.74	24.89	16.25	21.94	1.58	0.36	20.42	10.16	3.59
6400	15.73	25.01	16.57	21.65	1.60	0.36	20.24	9.88	3.60
6600	15.62	24.98	16.70	21.50	1.61	0.35	19.94	9.91	3.65
6800	15.66	24.56	17.77	18.97	1.55	0.37	19.70	9.76	3.77
7000	15.42	24.75	16.81	18.66	1.60	0.36	19.30	9.60	3.86

Typical Performance Curves

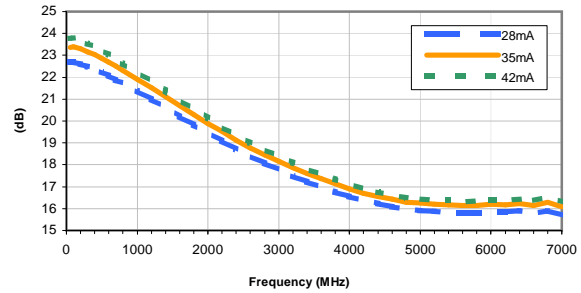
GAIN vs. TEMPERATURE

INPUT POWER = -25dBm, CURRENT = 35mA



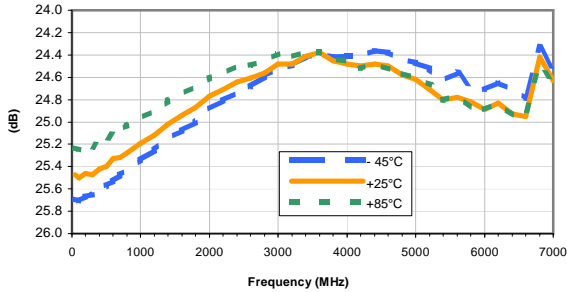
GAIN vs. CURRENT

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



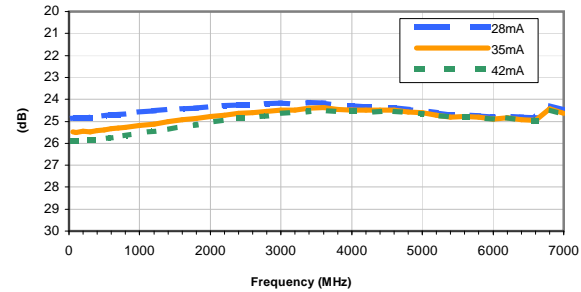
ISOLATION vs. TEMPERATURE

INPUT POWER = -25dBm, CURRENT = 35mA



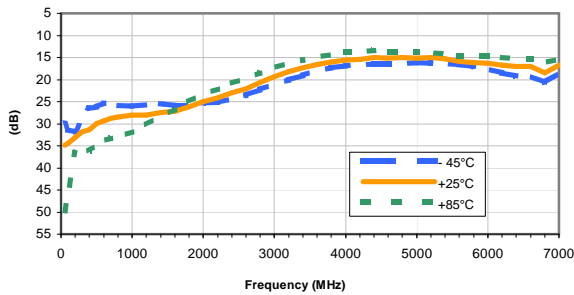
ISOLATION vs. CURRENT

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



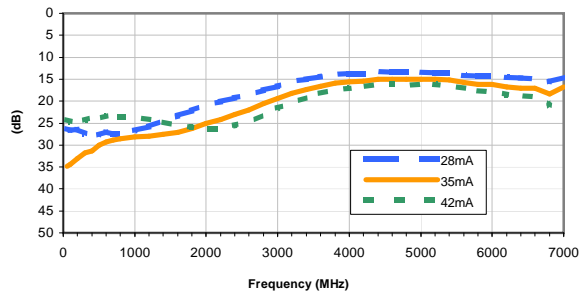
INPUT RETURN LOSS vs. TEMPERATURE

INPUT POWER = -25dBm, CURRENT = 35mA



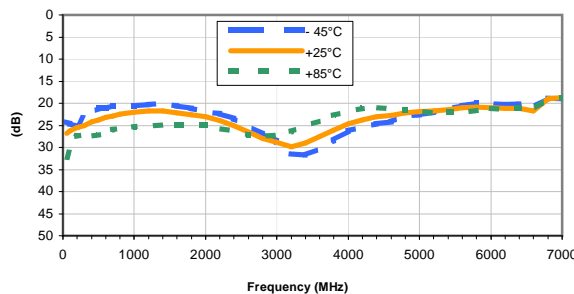
INPUT RETURN LOSS vs. CURRENT

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



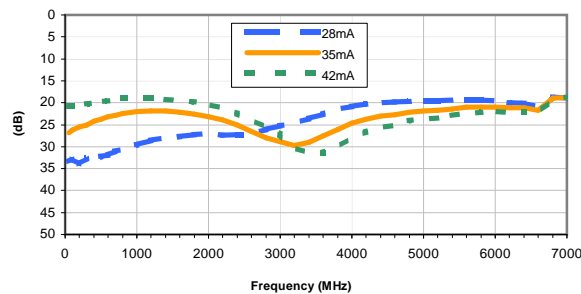
OUTPUT RETURN LOSS vs. TEMPERATURE

INPUT POWER = -25dBm, CURRENT = 35mA



OUTPUT RETURN LOSS vs. CURRENT

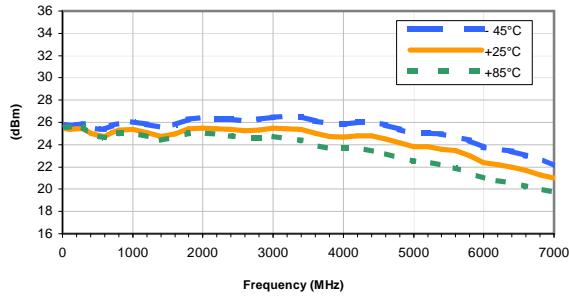
INPUT POWER = -25dBm, Temperature = +25°C



Typical Performance Curves

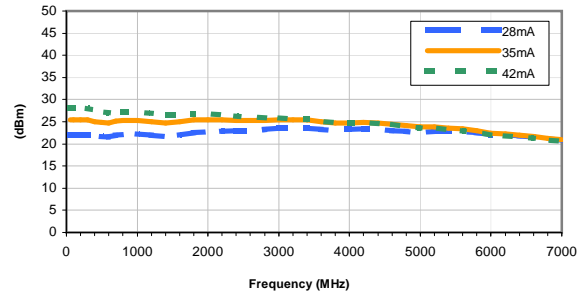
OUTPUT IP3 vs. TEMPERATURE

INPUT POWER = -25dBm, CURRENT = 35mA



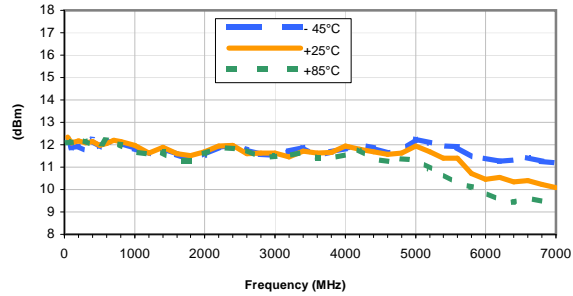
OUTPUT IP3 vs. CURRENT

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



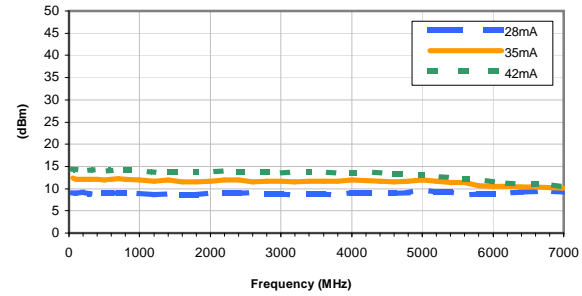
OUTPUT POWER at 1dB Compression vs. TEMPERATURE

CURRENT = 35mA



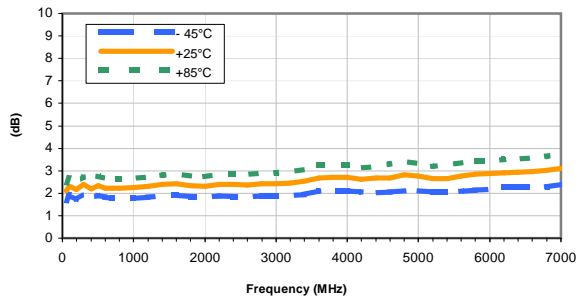
OUTPUT POWER at 1dB Compression vs. CURRENT

Temperature = +25°C



Noise Figure vs. TEMPERATURE

CURRENT = 35mA



Noise Figure vs. CURRENT

Temperature = +25°C

