MMIC Amplifier GALI-84+

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 = 100mA, Vd = 5.76V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
50	25.68	29.60	25.63	16.34	1.08	0.63	50	37.67	21.85	4.07
100	25.65	29.87	25.32	16.02	1.09	0.61	100	37.59	21.91	4.22
200	25.50	29.53	25.84	15.53	1.08	0.62	200	37.76	21.70	4.23
400	25.06	29.43	24.81	14.14	1.08	0.59	400	37.38	21.77	4.30
600	24.43	29.26	24.03	12.67	1.09	0.56	600	37.16	21.49	4.30
800	23.72	28.96	23.13	11.58	1.10	0.53	800	37.58	21.49	4.47
1000	22.96	28.77	22.21	10.75	1.13	0.49	1000	37.79	21.53	4.38
1200	22.19	28.44	21.48	10.12	1.14	0.47	1200	37.63	21.12	4.41
1400	21.46	28.09	20.67	9.64	1.16	0.45	1400	37.30	21.10	4.32
1600	20.75	27.73	19.97	9.30	1.18	0.42	1600	37.71	21.17	4.48
1800	20.07	27.41	19.43	9.03	1.20	0.40	1800	38.26	21.06	4.52
2000	19.46	27.07	18.68	8.85	1.21	0.39	2000	38.03	21.16	4.33
2200	18.89	26.79	18.20	8.85	1.23	0.37	2200	37.73	21.26	4.38
2400	18.36	26.45	17.70	8.85	1.25	0.36	2400	37.43	21.26	4.47
2600	17.89	26.08	16.97	8.85	1.25	0.35	2600	37.13	21.14	4.45
2800	17.40	25.99	16.97	9.01	1.30	0.33	2800	37.29	21.03	4.41
3000	17.05	25.49	16.23	8.95	1.27	0.33	3000	37.35	20.88	4.39
3200	16.67	25.22	16.01	9.06	1.28	0.33	3200	37.32	20.70	4.47
3400	16.33	25.01	15.79	9.17	1.30	0.32	3400	37.16	20.45	4.55
3600	16.02	24.75	15.62	9.20	1.30	0.32	3600	36.60	20.22	4.64
3800	15.72	24.53	15.57	9.25	1.31	0.32	3800	35.47	19.78	4.60
4000	15.47	24.41	15.49	9.28	1.33	0.31	4000	34.65	19.23	4.64
4200	15.17	24.26	15.84	9.21	1.35	0.31	4200	35.11	18.81	4.69
4400	14.88	24.15	16.00	9.15	1.37	0.30	4400	34.83	18.52	4.74
4600	14.68	23.97	15.99	9.00	1.37	0.31	4600	34.50	18.14	4.89
4800	14.40	23.95	16.10	8.73	1.40	0.30	4800	34.24	17.67	4.98
5000	14.17	23.94	16.57	8.56	1.43	0.30	5000	33.96	17.23	5.02
5200	13.93	23.94	16.58	8.37	1.45	0.29	5200	33.96	16.89	5.02
5400	13.64	23.86	16.60	8.08	1.47	0.29	5400	33.36	16.66	5.12
5600	13.38	23.91	17.32	7.97	1.52	0.28	5600	33.19	16.42	5.14
6000	12.69	24.02	17.45	7.64	1.63	0.27	5800	33.07	15.95	5.35
6500	11.60	24.21	16.78	7.33	1.84	0.27	6000	32.75	15.50	5.27
7000	10.15	24.45	14.06	7.05	2.16	0.26	6200	32.89	15.08	5.28
7500	8.43	24.43	11.12	6.71	2.47	0.27	6400	32.80	14.65	5.30
8000	6.56	23.93	9.04	6.40	2.69	0.29	6600	32.24	14.35	5.41
8500	4.69	23.00	7.75	6.12	2.79	0.30	6800	32.31	14.18	5.52
9000	3.18	21.79	6.90	5.86	2.67	0.30	7000	33.07	14.00	5.60
10000	0.94	18.56	6.72	6.11	2.34	0.27	7200	33.50	13.57	5.58
12000	-1.34	11.90	7.50	7.28	1.61	0.26	7500	32.55	13.06	5.55
13000	-1.79	7.82	9.18	8.78	1.28	0.32	8000	30.07	11.61	6.10

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: Icc = 80mA, Vd=5.72V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
50	25.43	28.60	22.54	18.45	1.04	0.69	50	33.82	19.25	4.09
100	25.36	29.30	22.08	18.12	1.08	0.63	100	33.63	19.34	4.21
200	25.21	29.11	21.97	17.33	1.07	0.63	200	33.72	19.15	4.22
400	24.79	29.15	21.97	15.28	1.09	0.59	400	33.69	18.96	4.39
600	24.16	28.92	21.57	13.49	1.09	0.56	600	33.79	19.05	4.32
800	23.47	28.60	21.25	12.13	1.10	0.53	800	34.46	18.79	4.44
1000	22.74	28.45	20.71	11.12	1.12	0.49	1000	34.84	18.88	4.37
1200	22.00	28.06	20.34	10.37	1.13	0.47	1200	34.94	19.17	4.38
1400	21.28	27.81	19.66	9.82	1.15	0.44	1400	34.82	19.32	4.45
1600	20.59	27.47	19.11	9.45	1.16	0.42	1600	35.19	19.21	4.45
1800	19.92	27.20	18.41	9.16	1.19	0.40	1800	35.95	19.09	4.38
2000	19.34	26.88	17.75	8.96	1.20	0.39	2000	35.76	19.11	4.32
2200	18.75	26.57	17.31	8.89	1.22	0.37	2200	35.88	19.06	4.39
2400	18.23	26.22	16.75	8.86	1.22	0.36	2400	35.76	19.09	4.38
2600	17.77	25.99	16.29	8.87	1.24	0.34	2600	35.79	18.94	4.42
2800	17.34	25.71	15.95	8.95	1.26	0.33	2800	35.68	18.59	4.40
3000	16.96	25.39	15.47	8.96	1.26	0.33	3000	35.76	18.08	4.44
3200	16.56	25.21	15.40	9.12	1.29	0.32	3200	35.76	17.87	4.39
3400	16.27	24.91	15.06	9.20	1.28	0.32	3400	35.48	17.66	4.54
3600	15.96	24.60	14.89	9.22	1.28	0.32	3600	35.16	17.30	4.57
3800	15.64	24.42	14.82	9.31	1.30	0.31	3800	34.29	16.77	4.69
4000	15.37	24.27	14.78	9.32	1.32	0.31	4000	33.51	16.41	4.65
4200	15.07	24.11	14.86	9.31	1.34	0.31	4200	33.47	16.13	4.81
4400	14.79	24.06	14.97	9.22	1.37	0.30	4400	33.47	15.86	4.71
4600	14.53	23.87	15.00	9.03	1.37	0.30	4600	33.04	15.68	4.89
4800	14.20	23.79	15.31	8.80	1.40	0.30	4800	32.61	15.35	4.88
5000	13.99	23.92	15.72	8.75	1.45	0.29	5000	32.53	14.75	5.05
5200	13.71	23.93	15.92	8.50	1.48	0.28	5200	32.46	13.32	5.01
5400	13.40	23.88	16.47	8.25	1.52	0.28	5400	32.02	12.95	5.15
5600	13.16	23.88	17.29	8.16	1.56	0.28	5600	31.62	13.44	5.22
6000	12.47	24.19	16.86	7.85	1.70	0.26	5800	31.43	13.41	5.27
6500	11.51	24.29	16.72	7.75	1.91	0.26	6000	31.38	13.35	5.34
7000	10.15	24.42	14.04	7.47	2.20	0.26	6200	31.51	13.41	5.35
7500	8.31	24.24	11.31	7.22	2.53	0.27	6400	31.88	13.49	5.36
8000	6.44	24.17	9.02	6.67	2.84	0.28	6600	31.00	13.50	5.48
8500	4.55	23.74	7.81	6.38	3.13	0.29	6800	30.55	13.47	5.62
9000	2.92	21.97	7.23	6.22	2.95	0.29	7000	30.45	13.43	5.75
10000	0.72	18.57	6.96	6.62	2.54	0.26	7200	30.89	12.86	5.81
12000	-1.52	12.08	7.54	7.45	1.69	0.25	7500	30.69	11.99	5.89
13000	-1.98	7.92	9.04	8.44	1.29	0.31	8000	29.31	11.45	6.53

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 = 120mA, Vd = 5.81V @Temperature = +25degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
50	25.85	30.23	28.44	15.16	1.10	0.60	50	40.55	22.76	4.14
100	25.82	29.88	28.42	14.89	1.08	0.62	100	40.66	22.85	4.31
200	25.66	29.82	29.12	14.57	1.08	0.61	200	40.70	22.72	4.28
400	25.21	29.66	27.02	13.44	1.09	0.59	400	39.88	22.81	4.38
600	24.57	29.48	25.60	12.25	1.10	0.56	600	39.10	22.50	4.38
800	23.85	29.23	24.38	11.26	1.11	0.53	800	38.91	22.50	4.54
1000	23.07	28.91	23.20	10.53	1.13	0.50	1000	38.85	22.54	4.46
1200	22.29	28.63	22.33	9.95	1.15	0.47	1200	38.61	22.34	4.48
1400	21.55	28.24	21.40	9.50	1.17	0.45	1400	38.23	22.32	4.41
1600	20.83	27.91	20.66	9.19	1.19	0.42	1600	38.46	22.35	4.56
1800	20.15	27.55	20.05	8.94	1.20	0.41	1800	38.81	22.23	4.61
2000	19.54	27.22	19.26	8.78	1.22	0.39	2000	38.42	22.20	4.43
2200	18.95	26.88	18.76	8.79	1.24	0.37	2200	38.04	22.15	4.47
2400	18.42	26.59	18.25	8.80	1.26	0.36	2400	37.75	22.01	4.54
2600	17.96	26.14	17.48	8.80	1.25	0.35	2600	37.35	21.92	4.55
2800	17.46	26.04	17.50	8.95	1.30	0.34	2800	37.45	21.81	4.49
3000	17.11	25.53	16.71	8.89	1.27	0.34	3000	37.51	21.68	4.49
3200	16.74	25.28	16.46	9.00	1.28	0.33	3200	37.45	21.36	4.58
3400	16.40	25.04	16.23	9.10	1.30	0.33	3400	37.50	21.07	4.68
3600	16.09	24.77	16.07	9.12	1.30	0.32	3600	36.88	20.83	4.76
3800	15.78	24.52	16.02	9.15	1.31	0.32	3800	35.94	20.37	4.70
4000	15.55	24.40	15.90	9.18	1.32	0.32	4000	35.12	19.77	4.76
4200	15.25	24.25	16.26	9.10	1.34	0.31	4200	35.13	19.34	4.82
4400	14.97	24.16	16.41	9.00	1.36	0.31	4400	35.53	19.09	4.87
4600	14.78	24.02	16.42	8.83	1.36	0.31	4600	34.96	18.73	5.00
4800	14.51	23.90	16.54	8.57	1.38	0.31	4800	34.73	18.22	5.11
5000	14.27	23.90	17.01	8.37	1.40	0.30	5000	34.34	17.76	5.17
5200	14.04	23.93	16.97	8.16	1.43	0.29	5200	34.28	17.47	5.14
5400	13.76	23.84	17.02	7.86	1.44	0.29	5400	33.80	17.24	5.29
5600	13.52	23.85	17.75	7.74	1.48	0.29	5600	33.47	17.04	5.30
6000	12.85	24.00	17.85	7.39	1.58	0.28	5800	33.13	16.56	5.51
6500	11.79	24.11	17.07	7.03	1.77	0.27	6000	33.20	16.12	5.42
7000	10.33	24.36	14.22	6.76	2.07	0.27	6200	33.51	15.56	5.45
7500	8.63	24.34	11.20	6.44	2.37	0.28	6400	33.36	14.98	5.48
8000	6.73	23.85	9.08	6.15	2.59	0.29	6600	32.53	14.79	5.61
8500	4.85	22.94	7.77	5.91	2.69	0.31	6800	32.46	14.52	5.72
9000	3.34	21.76	6.94	5.66	2.60	0.31	7000	33.32	14.46	5.79
10000	1.07	18.53	6.75	5.93	2.28	0.28	7200	33.43	14.12	5.78
12000	-1.22	11.85	7.54	7.16	1.58	0.26	7500	32.64	13.50	5.77
13000	-1.69	7.78	9.23	8.69	1.27	0.33	8000	30.18	12.01	6.34

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 = 100mA, Vd = 6.03V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
50	25.81	29.75	25.09	16.07	1.07	0.63	50	37.88	21.80	3.65
100	25.78	29.62	24.31	16.12	1.07	0.63	100	37.67	21.91	3.81
200	25.64	29.74	23.99	15.98	1.08	0.61	200	37.77	21.65	3.80
400	25.22	29.48	25.86	13.79	1.08	0.60	400	37.69	21.85	3.87
600	24.61	29.32	24.36	12.60	1.09	0.57	600	37.56	21.54	3.85
800	23.93	29.02	23.39	11.57	1.10	0.54	800	38.00	21.57	3.98
1000	23.20	28.72	22.60	10.88	1.11	0.51	1000	38.36	21.56	3.90
1200	22.44	28.44	22.20	10.21	1.13	0.48	1200	38.39	21.15	3.91
1400	21.72	28.09	21.50	9.61	1.14	0.46	1400	38.26	21.16	3.82
1600	21.02	27.79	20.63	9.29	1.16	0.44	1600	38.68	21.27	3.98
1800	20.36	27.43	20.14	9.00	1.18	0.42	1800	39.96	21.19	4.04
2000	19.76	27.08	19.50	8.82	1.19	0.41	2000	40.16	21.27	3.80
2200	19.19	26.80	19.05	8.77	1.21	0.39	2200	40.22	21.50	3.82
2400	18.67	26.53	18.66	8.75	1.23	0.38	2400	40.36	21.59	3.92
2600	18.21	26.10	17.78	8.73	1.22	0.37	2600	39.93	21.50	3.88
2800	17.74	25.96	17.74	8.85	1.26	0.35	2800	40.07	21.41	3.85
3000	17.40	25.44	17.07	8.81	1.23	0.36	3000	40.53	21.34	3.80
3200	17.06	25.25	16.90	8.92	1.25	0.35	3200	40.68	21.24	3.91
3400	16.73	24.98	16.66	9.07	1.26	0.34	3400	40.90	21.14	3.96
3600	16.43	24.73	16.52	9.00	1.26	0.34	3600	39.77	21.06	4.01
3800	16.17	24.51	16.48	9.10	1.27	0.34	3800	38.27	20.75	3.96
4000	15.94	24.35	16.71	9.11	1.28	0.34	4000	36.92	20.28	4.02
4200	15.68	24.20	17.18	8.95	1.29	0.34	4200	37.85	19.92	4.07
4400	15.42	24.01	17.42	8.74	1.29	0.34	4400	38.86	19.59	4.08
4600	15.26	23.98	17.09	8.58	1.30	0.33	4600	37.94	19.28	4.26
4800	15.03	23.79	17.22	8.24	1.29	0.33	4800	37.78	18.88	4.28
5000	14.84	23.81	17.61	8.01	1.31	0.33	5000	37.09	18.47	4.32
5200	14.66	23.73	17.36	7.82	1.31	0.32	5200	37.47	18.07	4.30
5400	14.46	23.73	17.40	7.52	1.32	0.32	5400	37.24	17.80	4.43
5600	14.25	23.71	17.81	7.45	1.34	0.32	5600	36.27	17.64	4.39
6000	13.75	23.72	18.49	7.06	1.39	0.31	5800	36.45	17.32	4.61
6500	12.80	23.84	18.28	6.50	1.52	0.31	6000	36.22	16.93	4.49
7000	11.46	24.06	14.86	6.07	1.73	0.30	6200	36.27	16.15	4.51
7500	9.80	24.01	11.28	5.79	1.96	0.32	6400	37.27	15.35	4.53
8000	7.96	23.58	9.17	5.66	2.16	0.33	6600	36.34	15.02	4.61
8500	6.12	22.65	7.89	5.52	2.24	0.34	6800	35.42	14.89	4.70
9000	4.54	21.54	6.96	5.19	2.18	0.34	7000	37.18	14.77	4.79
10000	2.08	18.54	6.55	5.29	1.94	0.32	7200	36.90	14.21	4.76
12000	-0.13	11.80	7.47	6.82	1.38	0.30	7500	34.77	13.81	4.71
13000	-0.88	7.88	8.22	7.72	1.12	0.37	8000	32.29	12.76	5.32

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 = 80mA, Vd=6.01V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
50	25.59	28.77	21.83	18.18	1.04	0.68	50	33.93	19.08	3.63
100	25.52	29.31	21.51	18.21	1.07	0.64	100	33.65	19.07	3.71
200	25.38	29.22	21.34	17.60	1.07	0.63	200	33.73	18.88	3.76
400	24.99	29.36	22.77	14.85	1.09	0.59	400	33.91	18.83	3.88
600	24.40	28.96	22.19	13.35	1.08	0.57	600	34.04	18.91	3.80
800	23.72	28.72	21.55	12.01	1.09	0.54	800	34.70	18.63	3.91
1000	23.00	28.43	21.29	11.14	1.10	0.51	1000	35.08	18.83	3.83
1200	22.28	28.12	20.87	10.39	1.12	0.49	1200	35.26	19.11	3.83
1400	21.57	27.82	20.37	9.80	1.13	0.46	1400	35.33	19.39	3.88
1600	20.87	27.51	19.81	9.41	1.15	0.44	1600	35.66	19.32	3.88
1800	20.23	27.29	19.31	9.13	1.17	0.42	1800	36.63	19.14	3.77
2000	19.65	26.87	18.62	8.89	1.17	0.41	2000	36.78	19.19	3.74
2200	19.08	26.63	18.37	8.79	1.20	0.39	2200	37.15	19.26	3.77
2400	18.57	26.26	17.87	8.72	1.20	0.38	2400	37.50	19.29	3.78
2600	18.10	26.09	17.41	8.81	1.23	0.36	2600	37.85	19.46	3.78
2800	17.70	25.73	17.02	8.81	1.23	0.36	2800	37.80	19.12	3.75
3000	17.35	25.32	16.48	8.78	1.21	0.35	3000	38.13	18.78	3.80
3200	17.02	25.08	16.42	8.97	1.23	0.35	3200	38.32	18.68	3.73
3400	16.70	24.89	16.09	8.92	1.24	0.34	3400	38.28	18.46	3.87
3600	16.43	24.57	15.73	9.07	1.24	0.34	3600	38.09	18.14	3.86
3800	16.14	24.41	15.57	9.22	1.25	0.34	3800	36.82	17.75	3.97
4000	15.89	24.25	15.43	9.16	1.26	0.33	4000	35.78	17.41	3.91
4200	15.63	23.99	15.36	8.97	1.25	0.34	4200	35.71	17.15	4.10
4400	15.34	23.87	15.42	8.70	1.26	0.33	4400	36.18	16.84	3.96
4600	15.12	23.81	15.89	8.46	1.28	0.33	4600	35.75	16.66	4.11
4800	14.84	23.68	16.11	8.25	1.29	0.33	4800	35.61	16.43	4.05
5000	14.66	23.68	16.21	7.97	1.30	0.32	5000	35.10	15.90	4.22
5200	14.43	23.76	16.77	7.79	1.33	0.31	5200	34.79	14.48	4.21
5400	14.22	23.76	17.26	7.60	1.35	0.31	5400	34.92	14.06	4.35
5600	14.03	23.66	18.75	7.42	1.37	0.31	5600	33.92	14.40	4.38
6000	13.52	23.76	18.43	7.15	1.44	0.31	5800	33.41	14.32	4.44
6500	12.81	23.64	17.91	6.97	1.54	0.32	6000	33.70	14.27	4.45
7000	11.51	24.38	14.00	6.23	1.80	0.31	6200	33.47	14.39	4.46
7500	9.63	23.23	12.07	6.30	1.93	0.32	6400	33.87	14.43	4.48
8000	7.85	23.13	9.35	5.87	2.12	0.32	6600	33.44	14.42	4.53
8500	5.90	22.48	8.10	5.83	2.34	0.33	6800	32.86	14.33	4.69
9000	4.38	21.64	6.92	5.52	2.31	0.34	7000	32.71	14.24	4.84
10000	1.97	18.63	6.52	5.69	2.06	0.31	7200	32.52	13.83	4.88
12000	-0.22	11.80	7.20	7.19	1.41	0.30	7500	32.70	13.02	4.93
13000	-1.11	8.12	8.16	7.57	1.13	0.33	8000	31.21	12.90	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 = 120mA, Vd = 6.09V @Temperature = -45degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
50	25.96	29.97	27.92	15.12	1.08	0.62	50	40.80	23.04	3.70
100	25.93	29.97	26.63	15.07	1.08	0.62	100	40.64	23.13	3.85
200	25.79	29.80	26.29	15.08	1.07	0.62	200	40.60	22.97	3.85
400	25.35	29.73	28.00	13.20	1.08	0.60	400	40.17	23.10	3.92
600	24.74	29.49	25.89	12.20	1.09	0.57	600	39.64	22.88	3.89
800	24.04	29.25	24.57	11.25	1.10	0.54	800	39.71	22.89	4.03
1000	23.30	28.89	23.57	10.65	1.11	0.51	1000	39.92	22.91	3.95
1200	22.54	28.62	23.03	10.04	1.14	0.48	1200	39.99	22.67	3.96
1400	21.81	28.26	22.13	9.48	1.15	0.46	1400	39.89	22.64	3.88
1600	21.10	27.89	21.23	9.19	1.17	0.44	1600	40.37	22.69	4.02
1800	20.43	27.60	20.72	8.92	1.19	0.42	1800	41.71	22.63	4.09
2000	19.84	27.19	20.02	8.76	1.20	0.41	2000	41.63	22.69	3.88
2200	19.26	26.86	19.57	8.71	1.21	0.40	2200	41.46	22.74	3.91
2400	18.73	26.56	19.17	8.68	1.23	0.38	2400	41.37	22.63	3.98
2600	18.28	26.18	18.26	8.67	1.23	0.37	2600	40.85	22.54	3.97
2800	17.81	26.02	18.25	8.78	1.26	0.36	2800	40.93	22.58	3.95
3000	17.47	25.58	17.56	8.76	1.24	0.36	3000	41.69	22.41	3.90
3200	17.12	25.25	17.38	8.87	1.24	0.35	3200	41.31	22.15	3.99
3400	16.80	25.02	17.17	9.01	1.26	0.35	3400	41.45	21.95	4.03
3600	16.50	24.77	17.02	8.94	1.26	0.34	3600	40.79	21.84	4.09
3800	16.24	24.52	16.98	9.03	1.26	0.34	3800	38.88	21.49	4.03
4000	16.01	24.41	17.17	9.04	1.28	0.34	4000	38.04	20.93	4.11
4200	15.76	24.23	17.67	8.86	1.28	0.34	4200	39.16	20.50	4.16
4400	15.50	24.01	17.91	8.63	1.28	0.34	4400	40.97	20.19	4.18
4600	15.34	23.92	17.56	8.45	1.28	0.34	4600	39.81	19.88	4.33
4800	15.11	23.80	17.72	8.12	1.28	0.34	4800	40.16	19.47	4.36
5000	14.94	23.81	18.13	7.88	1.30	0.33	5000	39.78	19.01	4.41
5200	14.76	23.77	17.85	7.67	1.30	0.33	5200	39.55	18.62	4.38
5400	14.58	23.70	17.90	7.36	1.30	0.33	5400	39.96	18.38	4.53
5600	14.37	23.72	18.32	7.28	1.32	0.32	5600	38.58	18.26	4.49
6000	13.89	23.68	18.99	6.85	1.36	0.32	5800	39.22	17.89	4.73
6500	12.97	23.76	18.73	6.27	1.47	0.31	6000	39.92	17.47	4.62
7000	11.65	23.95	15.05	5.83	1.66	0.32	6200	40.97	16.87	4.66
7500	9.99	23.94	11.35	5.56	1.88	0.33	6400	42.99	16.08	4.68
8000	8.15	23.57	9.24	5.43	2.09	0.34	6600	39.61	15.49	4.79
8500	6.30	22.62	7.93	5.32	2.17	0.34	6800	39.90	15.36	4.85
9000	4.70	21.49	6.99	5.02	2.11	0.35	7000	43.22	15.26	4.92
10000	2.24	18.48	6.58	5.13	1.88	0.32	7200	39.15	14.82	4.89
12000	0.00	11.74	7.54	6.72	1.36	0.30	7500	35.85	14.27	4.87
13000	-0.76	7.83	8.28	7.63	1.10	0.38	8000	32.59	13.25	5.49

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 = 100mA, Vd = 5.56V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
50	25.54	29.58	25.38	16.87	1.08	0.62	50	37.33	21.73	4.43
100	25.50	29.41	25.77	16.32	1.07	0.63	100	37.35	21.81	4.59
200	25.35	29.33	27.16	15.52	1.08	0.62	200	37.59	21.65	4.60
400	24.89	29.44	24.27	14.33	1.09	0.58	400	36.96	21.71	4.71
600	24.25	29.12	23.07	12.94	1.10	0.56	600	36.51	21.39	4.71
800	23.52	28.90	22.14	11.75	1.11	0.52	800	36.72	21.36	4.88
1000	22.75	28.61	21.22	10.95	1.13	0.49	1000	36.70	21.40	4.82
1200	21.96	28.31	20.60	10.29	1.15	0.46	1200	36.39	21.00	4.84
1400	21.22	27.98	19.90	9.75	1.17	0.43	1400	35.91	21.03	4.79
1600	20.49	27.64	19.26	9.37	1.19	0.41	1600	36.09	21.06	4.92
1800	19.80	27.38	18.67	9.11	1.21	0.39	1800	36.24	20.98	4.99
2000	19.17	26.99	17.97	8.93	1.22	0.37	2000	35.92	20.96	4.80
2200	18.57	26.77	17.43	8.91	1.26	0.35	2200	35.42	20.98	4.89
2400	18.04	26.40	16.97	8.93	1.27	0.34	2400	35.24	20.90	4.98
2600	17.56	26.08	16.27	8.93	1.28	0.33	2600	34.65	20.81	4.97
2800	17.05	25.88	16.21	9.09	1.32	0.32	2800	34.65	20.64	4.92
3000	16.67	25.47	15.59	9.05	1.30	0.32	3000	34.51	20.41	4.93
3200	16.28	25.28	15.34	9.18	1.33	0.31	3200	34.19	20.08	5.01
3400	15.92	25.04	15.05	9.34	1.35	0.30	3400	33.98	19.79	5.11
3600	15.58	24.82	14.82	9.45	1.36	0.29	3600	33.51	19.50	5.21
3800	15.25	24.58	14.81	9.58	1.38	0.29	3800	32.65	19.03	5.14
4000	14.98	24.42	14.71	9.67	1.39	0.29	4000	32.13	18.40	5.22
4200	14.67	24.31	15.02	9.67	1.43	0.28	4200	31.94	18.01	5.26
4400	14.36	24.24	15.17	9.62	1.46	0.28	4400	31.76	17.78	5.31
4600	14.11	24.11	15.20	9.46	1.48	0.28	4600	31.27	17.37	5.48
4800	13.80	24.07	15.30	9.21	1.51	0.27	4800	30.95	16.84	5.61
5000	13.51	24.08	15.72	9.04	1.56	0.27	5000	30.70	16.42	5.64
5200	13.20	24.16	15.59	8.86	1.61	0.26	5200	30.48	16.14	5.64
5400	12.87	24.09	15.73	8.62	1.64	0.26	5400	29.92	15.88	5.75
5600	12.55	24.16	16.26	8.56	1.71	0.25	5600	29.61	15.61	5.80
6000	11.75	24.33	16.65	8.35	1.89	0.24	5800	29.44	15.12	6.04
6500	10.56	24.50	16.19	8.18	2.18	0.23	6000	29.38	14.72	5.99
7000	9.05	24.71	13.75	7.98	2.58	0.23	6200	29.32	14.23	6.00
7500	7.33	24.67	11.10	7.61	2.96	0.24	6400	29.21	13.85	6.02
8000	5.44	24.13	8.98	7.08	3.19	0.26	6600	29.00	13.52	6.12
8500	3.58	23.25	7.60	6.58	3.28	0.27	6800	28.85	13.43	6.23
9000	2.11	22.01	6.82	6.24	3.13	0.28	7000	28.62	13.32	6.36
10000	0.04	18.65	6.78	6.63	2.69	0.24	7200	28.77	12.95	6.35
12000	-2.32	12.04	7.50	7.45	1.83	0.24	7500	28.03	12.56	6.34
13000	-2.60	7.89	9.53	9.21	1.42	0.29	8000	26.61	11.02	6.87

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 = 80mA, Vd=5.54V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
50	25.27	29.19	21.34	19.43	1.08	0.63	50	33.74	19.42	4.46
100	25.19	29.34	22.03	18.68	1.09	0.61	100	33.65	19.53	4.57
200	25.04	28.96	22.85	17.40	1.08	0.63	200	33.82	19.42	4.58
400	24.60	28.96	21.39	15.50	1.09	0.59	400	33.56	19.10	4.76
600	23.98	28.81	20.71	13.72	1.10	0.55	600	33.52	19.16	4.71
800	23.27	28.46	20.24	12.25	1.10	0.53	800	34.04	18.88	4.83
1000	22.53	28.27	19.77	11.30	1.12	0.49	1000	34.30	18.97	4.78
1200	21.78	28.02	19.45	10.51	1.14	0.46	1200	34.25	19.20	4.80
1400	21.04	27.65	18.90	9.92	1.15	0.44	1400	33.98	19.31	4.87
1600	20.32	27.42	18.48	9.51	1.18	0.41	1600	34.26	19.19	4.89
1800	19.66	27.11	17.82	9.22	1.20	0.39	1800	34.73	18.94	4.77
2000	19.06	26.84	17.18	9.00	1.21	0.37	2000	34.43	18.88	4.74
2200	18.47	26.53	16.65	8.97	1.23	0.35	2200	34.32	18.77	4.81
2400	17.94	26.22	16.07	8.94	1.25	0.34	2400	34.01	18.65	4.85
2600	17.47	25.90	15.53	9.03	1.26	0.33	2600	33.81	18.40	4.87
2800	17.01	25.69	15.20	9.05	1.28	0.32	2800	33.62	18.00	4.87
3000	16.61	25.34	14.71	9.04	1.28	0.31	3000	33.54	17.44	4.91
3200	16.22	25.15	14.50	9.24	1.31	0.30	3200	33.22	17.19	4.86
3400	15.88	24.90	14.26	9.32	1.32	0.30	3400	33.00	16.94	5.03
3600	15.54	24.66	14.20	9.46	1.34	0.29	3600	32.56	16.57	5.09
3800	15.22	24.54	14.15	9.63	1.37	0.29	3800	31.76	15.99	5.20
4000	14.93	24.37	14.07	9.72	1.39	0.28	4000	31.26	15.57	5.14
4200	14.60	24.16	14.21	9.70	1.41	0.28	4200	31.00	15.34	5.34
4400	14.29	24.05	14.42	9.63	1.44	0.28	4400	30.88	15.07	5.24
4600	13.97	24.01	14.65	9.48	1.48	0.28	4600	30.43	14.83	5.42
4800	13.64	23.94	14.74	9.29	1.51	0.27	4800	30.20	14.57	5.42
5000	13.35	24.02	14.78	9.12	1.56	0.26	5000	29.98	13.99	5.60
5200	13.02	24.10	14.88	8.93	1.62	0.26	5200	29.64	12.64	5.58
5400	12.70	24.17	15.18	8.83	1.69	0.25	5400	29.29	12.46	5.73
5600	12.37	24.28	15.64	8.78	1.77	0.24	5600	28.87	12.90	5.82
6000	11.60	24.47	16.06	8.51	1.95	0.23	5800	28.72	12.88	5.87
6500	10.50	24.56	16.69	8.57	2.24	0.22	6000	28.55	12.85	5.98
7000	9.08	25.20	13.61	8.21	2.73	0.22	6200	28.54	12.96	6.01
7500	7.23	24.34	11.21	8.12	2.96	0.24	6400	28.22	13.01	6.04
8000	5.42	24.12	8.89	7.41	3.24	0.25	6600	28.06	13.02	6.15
8500	3.55	23.17	7.85	6.87	3.35	0.26	6800	27.75	12.98	6.28
9000	1.94	22.14	7.24	6.58	3.40	0.27	7000	27.71	12.92	6.41
10000	-0.16	18.75	7.04	7.01	2.90	0.24	7200	27.19	12.45	6.49
12000	-2.30	11.93	7.67	7.59	1.83	0.23	7500	27.63	11.64	6.58
13000	-2.79	8.08	9.78	8.88	1.46	0.27	8000	26.29	10.57	7.20

Typical Performance Data

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

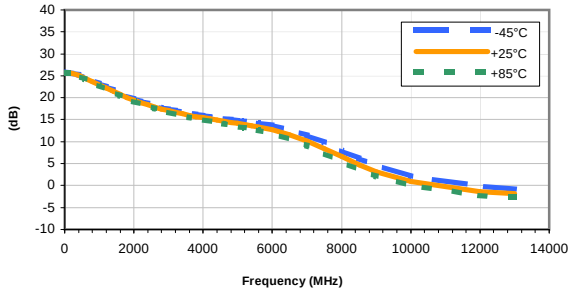
TEST CONDITIONS: Icc = 120mA, Vd = 5.62V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta	(MHz)	(dBm)	(dBm)	(dB)
50	25.72	29.34	28.39	15.50	1.06	0.65	50	39.92	22.57	4.52
100	25.68	29.56	29.19	15.09	1.07	0.63	100	40.11	22.64	4.73
200	25.52	29.65	31.19	14.43	1.08	0.62	200	40.20	22.47	4.69
400	25.04	29.61	26.51	13.60	1.09	0.58	400	39.15	22.55	4.80
600	24.39	29.30	24.73	12.45	1.10	0.56	600	38.17	22.20	4.80
800	23.65	29.16	23.41	11.42	1.12	0.51	800	37.80	22.20	5.00
1000	22.86	28.85	22.26	10.70	1.14	0.48	1000	37.54	22.25	4.90
1200	22.07	28.46	21.50	10.10	1.16	0.46	1200	37.14	22.03	4.95
1400	21.31	28.16	20.66	9.61	1.18	0.43	1400	36.63	21.99	4.89
1600	20.57	27.82	19.96	9.27	1.20	0.41	1600	36.69	21.98	5.03
1800	19.88	27.52	19.35	9.03	1.22	0.39	1800	36.61	21.83	5.12
2000	19.25	27.15	18.57	8.85	1.24	0.37	2000	36.25	21.78	4.93
2200	18.65	26.83	17.98	8.86	1.26	0.36	2200	35.77	21.64	5.00
2400	18.11	26.52	17.47	8.88	1.28	0.34	2400	35.50	21.50	5.09
2600	17.63	26.15	16.76	8.87	1.28	0.34	2600	34.94	21.40	5.10
2800	17.12	25.97	16.70	9.04	1.33	0.32	2800	34.77	21.26	5.09
3000	16.74	25.55	16.02	9.00	1.31	0.32	3000	34.72	21.05	5.06
3200	16.34	25.36	15.76	9.12	1.34	0.31	3200	34.39	20.66	5.17
3400	15.99	25.10	15.49	9.25	1.35	0.30	3400	34.27	20.33	5.24
3600	15.65	24.81	15.24	9.38	1.36	0.30	3600	33.63	20.03	5.35
3800	15.33	24.62	15.21	9.47	1.38	0.30	3800	32.92	19.57	5.33
4000	15.07	24.41	15.08	9.53	1.38	0.29	4000	32.28	18.92	5.40
4200	14.74	24.29	15.41	9.52	1.42	0.29	4200	32.07	18.50	5.44
4400	14.45	24.24	15.54	9.45	1.45	0.29	4400	31.92	18.27	5.48
4600	14.20	24.13	15.57	9.28	1.47	0.28	4600	31.49	17.88	5.64
4800	13.89	24.01	15.67	9.03	1.49	0.28	4800	31.14	17.35	5.80
5000	13.62	24.06	16.05	8.85	1.53	0.27	5000	30.90	16.93	5.80
5200	13.32	24.12	15.92	8.64	1.57	0.27	5200	30.60	16.59	5.82
5400	12.99	24.05	16.03	8.39	1.61	0.26	5400	29.96	16.42	5.97
5600	12.67	24.11	16.57	8.31	1.67	0.26	5600	29.74	16.17	6.02
6000	11.90	24.27	16.95	8.09	1.84	0.24	5800	29.52	14.82	6.23
6500	10.71	24.47	16.40	7.88	2.12	0.24	6000	29.29	15.24	6.19
7000	9.21	24.66	13.85	7.68	2.50	0.23	6200	29.47	14.85	6.21
7500	7.48	24.62	11.15	7.33	2.87	0.24	6400	28.95	14.52	6.23
8000	5.58	24.09	9.00	6.84	3.10	0.26	6600	28.93	13.89	6.32
8500	3.71	23.24	7.62	6.37	3.20	0.28	6800	28.60	13.81	6.48
9000	2.22	21.95	6.84	6.07	3.04	0.29	7000	28.57	13.74	6.63
10000	0.15	18.60	6.81	6.47	2.62	0.25	7200	28.61	13.38	6.62
12000	-2.23	11.96	7.53	7.36	1.79	0.24	7500	27.67	12.94	6.63
13000	-2.52	7.85	9.56	9.15	1.41	0.29	8000	27.18	11.34	7.17

Typical Performance Curves

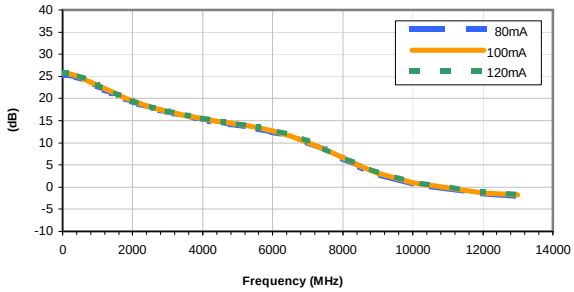
GAIN vs. TEMPERATURE

INPUT POWER = -25dBm,, CURRENT = 100mA



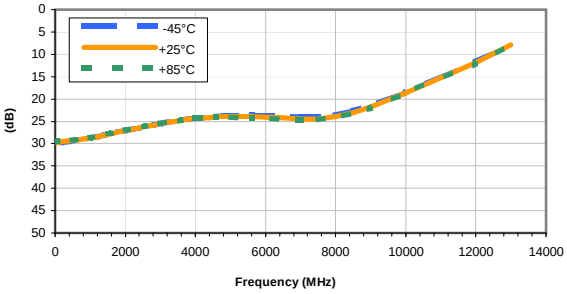
GAIN vs. CURRENT

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



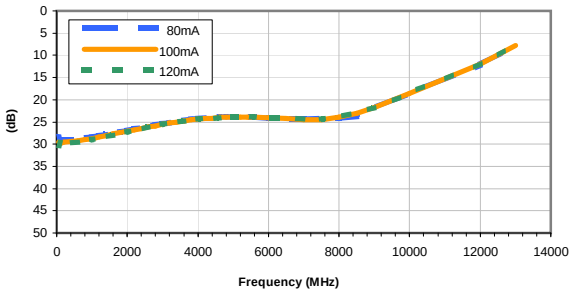
ISOLATION vs. TEMPERATURE

INPUT POWER = -25dBm,, CURRENT = 100mA



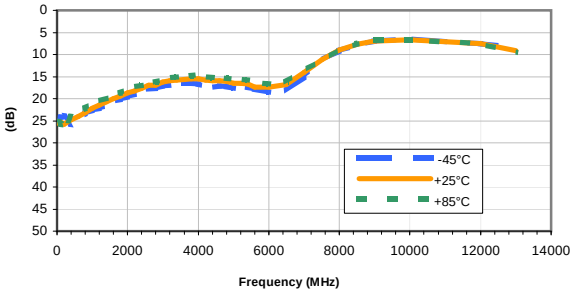
ISOLATION vs. CURRENT

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



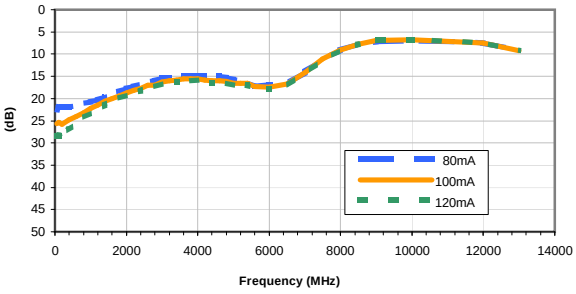
INPUT RETURN LOSS vs. TEMPERATURE

INPUT POWER = -25dBm,, CURRENT = 100mA



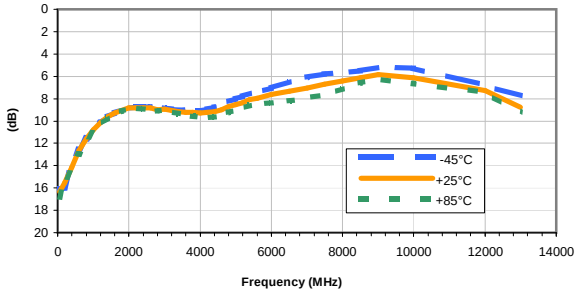
INPUT RETURN LOSS vs. CURRENT

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



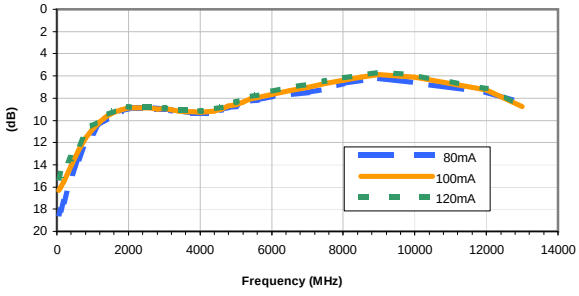
OUTPUT RETURN LOSS vs. TEMPERATURE

INPUT POWER = -25dBm,, CURRENT = 100mA



OUTPUT RETURN LOSS vs. CURRENT

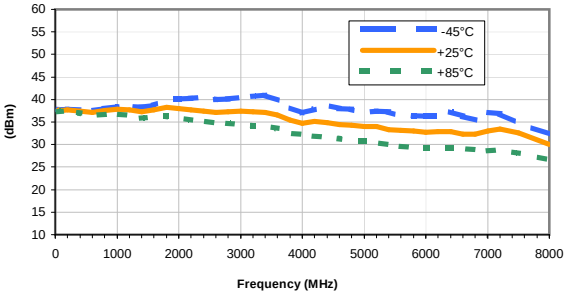
INPUT POWER = -25dBm,, Temperature = +25°C



Typical Performance Curves

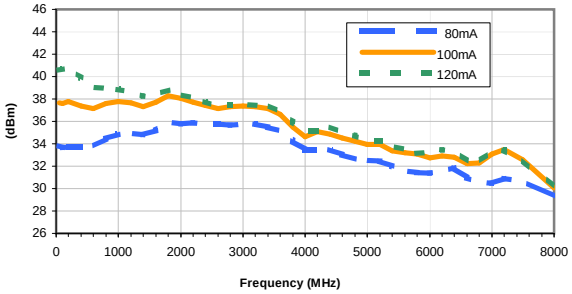
OUTPUT IP3 vs. TEMPERATURE

INPUT POWER = -25dBm,, CURRENT = 100mA



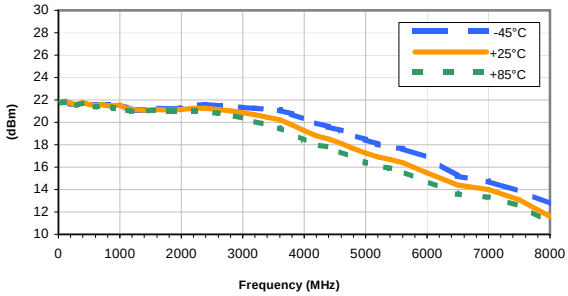
OUTPUT IP3 vs. CURRENT

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



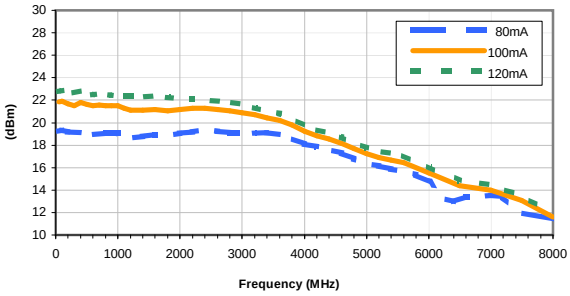
OUTPUT POWER at 1dB Compression vs. TEMPERATURE

CURRENT = 100mA



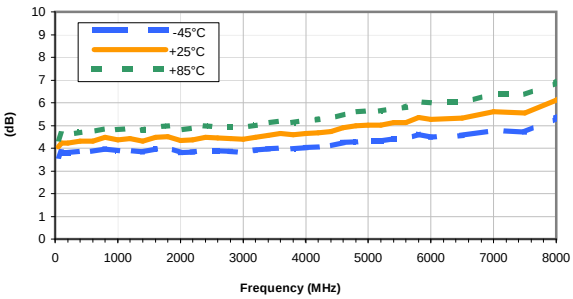
OUTPUT POWER at 1dB Compression vs. CURRENT

Temperature = +25°C



Noise Figure vs. TEMPERATURE

CURRENT = 100mA



Noise Figure vs. CURRENT

Temperature = +25°C