MMIC Amplifier GALI-74+

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 = 80mA, Vd = 4.81V @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	25.06	28.07	26.28	16.98	1.05	0.71	50	36.87	19.44	2.66
100	24.98	28.10	25.79	16.72	1.06	0.70	100	36.26	19.71	2.82
200	24.76	28.02	24.65	15.67	1.06	0.69	150	37.07	19.58	2.76
400	24.20	27.89	23.04	13.97	1.06	0.66	200	36.20	19.54	2.66
600	23.53	27.66	22.10	12.70	1.07	0.63	250	35.94	19.56	2.68
800	22.82	27.43	21.36	11.67	1.08	0.59	300	36.06	19.51	2.89
1000	22.04	27.20	20.69	10.97	1.10	0.55	350	36.76	19.57	2.77
1200	21.27	26.94	19.97	10.43	1.12	0.52	400	35.65	19.51	2.73
1400	20.57	26.60	18.80	9.96	1.13	0.49	450	35.88	19.53	2.72
1600	19.82	26.31	17.99	9.70	1.15	0.46	500	34.97	19.51	2.90
1800	19.16	25.95	17.26	9.44	1.16	0.44	550	35.35	19.49	2.90
2000	18.52	25.64	16.19	9.30	1.18	0.42	600	34.59	19.38	2.79
2200	17.92	25.33	15.71	9.23	1.19	0.40	650	34.89	19.36	2.80
2400	17.38	24.99	14.94	9.20	1.20	0.39	700	34.28	19.28	2.94
2600	16.80	24.63	14.35	9.20	1.21	0.38	750	34.35	19.28	2.95
2800	16.31	24.33	13.95	9.20	1.23	0.37	800	33.89	19.29	2.86
3000	15.84	24.08	13.46	9.23	1.24	0.35	850	33.86	19.26	2.77
3200	15.43	23.77	13.05	9.27	1.24	0.35	900	33.61	18.98	2.90
3400	15.01	23.51	12.75	9.28	1.26	0.34	950	33.40	18.97	2.90
3600	14.66	23.30	12.46	9.36	1.27	0.33	1000	33.14	18.95	2.84
3800	14.29	23.08	12.36	9.39	1.28	0.33	1050	32.73	18.81	2.73
4000	13.96	22.85	12.21	9.39	1.29	0.32	1100	32.67	18.85	2.85
4200	13.62	22.64	12.08	9.35	1.31	0.32	1150	32.20	18.49	3.01
4400	13.31	22.48	12.19	9.30	1.33	0.32	1200	32.17	18.57	2.91
4600	13.03	22.31	12.11	9.20	1.34	0.32	1250	31.80	18.27	2.78
5000	12.48	22.13	12.24	8.90	1.38	0.31	1300	31.62	18.33	2.84
5500	11.70	21.98	11.96	8.37	1.45	0.31	1350	31.22	18.09	3.03
6000	10.83	22.02	11.23	7.72	1.55	0.31	1400	31.15	18.02	3.02
6500	9.73	22.12	10.14	7.19	1.69	0.31	1450	30.88	17.74	2.86
7000	8.42	22.29	9.12	6.62	1.88	0.32	1500	30.76	17.73	2.97
7500	6.82	22.33	8.22	6.12	2.11	0.32	1550	30.53	17.42	2.83
8000	5.19	21.81	7.64	5.67	2.26	0.33	1600	30.83	17.40	3.07
8500	3.51	21.08	7.00	5.32	2.37	0.35	1650	30.46	17.07	3.03
9000	1.93	20.07	6.38	5.07	2.38	0.36	1700	30.92	16.94	2.83
10000	-0.51	16.94	5.61	4.96	2.06	0.38	1750	29.83	16.72	2.92
11000	-1.66	13.30	5.80	5.58	1.67	0.37	1800	30.45	16.67	2.99
12000	-1.67	9.38	7.36	7.07	1.36	0.38	1850	29.18	16.46	2.92
13000	-1.54	5.69	9.42	8.76	1.16	0.51	1900	29.99	16.23	2.90
14000	-2.61	4.37	6.70	6.57	1.09	0.64	1950	28.92	16.13	2.95
15000	-4.69	5.29	3.94	4.12	1.10	0.70	2000	29.58	15.90	2.95

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 = 64mA, Vd = 4.77V @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	24.82	27.77	31.59	18.75	1.05	0.72	50	33.89	18.31	2.64
100	24.76	27.78	30.57	18.32	1.05	0.71	100	33.34	18.59	2.78
200	24.55	27.74	27.94	16.99	1.05	0.69	150	34.17	18.40	2.70
400	23.99	27.59	24.71	14.83	1.06	0.66	200	33.40	18.39	2.61
600	23.33	27.41	23.04	13.29	1.07	0.62	250	33.35	18.40	2.63
800	22.64	27.18	21.80	12.10	1.08	0.59	300	33.44	18.39	2.83
1000	21.89	26.95	20.74	11.28	1.09	0.55	350	34.22	18.40	2.73
1200	21.13	26.69	19.82	10.68	1.11	0.52	400	33.26	18.41	2.69
1400	20.42	26.35	18.47	10.16	1.12	0.49	450	33.57	18.41	2.65
1600	19.69	26.13	17.65	9.86	1.14	0.46	500	32.92	18.46	2.81
1800	19.02	25.75	16.85	9.59	1.15	0.44	550	33.30	18.37	2.84
2000	18.39	25.46	15.78	9.41	1.17	0.42	600	32.79	18.33	2.73
2200	17.78	25.12	15.30	9.34	1.18	0.40	650	33.09	18.37	2.72
2400	17.23	24.83	14.56	9.32	1.19	0.38	700	32.79	18.32	2.87
2600	16.69	24.50	13.96	9.31	1.20	0.37	750	32.76	18.29	2.89
2800	16.19	24.27	13.58	9.31	1.22	0.36	800	32.56	18.40	2.80
3000	15.71	23.97	13.12	9.33	1.24	0.35	850	32.49	18.29	2.72
3200	15.30	23.65	12.73	9.40	1.24	0.34	900	32.43	18.19	2.82
3400	14.89	23.45	12.46	9.40	1.26	0.33	950	32.19	18.18	2.82
3600	14.53	23.23	12.13	9.49	1.27	0.32	1000	32.08	18.16	2.80
3800	14.15	23.03	12.07	9.55	1.29	0.32	1050	31.71	18.14	2.66
4000	13.85	22.80	11.90	9.52	1.29	0.31	1100	31.67	18.10	2.78
4200	13.50	22.63	11.80	9.51	1.31	0.31	1150	31.27	17.89	2.95
4400	13.18	22.44	11.92	9.46	1.33	0.31	1200	31.24	17.85	2.85
4600	12.90	22.31	11.84	9.36	1.35	0.31	1250	30.96	17.69	2.73
5000	12.34	22.11	11.99	9.10	1.40	0.30	1300	30.77	17.71	2.77
5500	11.56	21.98	11.77	8.59	1.47	0.30	1350	30.42	17.55	2.95
6000	10.68	21.99	11.10	7.94	1.57	0.31	1400	30.32	17.42	2.96
6500	9.58	22.11	10.07	7.43	1.72	0.31	1450	30.10	17.21	2.79
7000	8.27	22.29	9.09	6.85	1.92	0.31	1500	29.99	17.11	2.90
7500	6.70	22.29	8.21	6.31	2.15	0.32	1550	29.81	16.91	2.73
8000	5.08	21.83	7.64	5.84	2.31	0.33	1600	30.05	16.78	2.99
8500	3.41	21.10	7.01	5.47	2.42	0.34	1650	29.78	16.49	2.98
9000	1.84	20.08	6.39	5.21	2.43	0.35	1700	30.16	16.36	2.77
10000	-0.60	16.96	5.62	5.07	2.10	0.38	1750	29.19	16.17	2.84
11000	-1.73	13.35	5.79	5.67	1.69	0.36	1800	29.71	16.09	2.93
12000	-1.75	9.43	7.33	7.15	1.38	0.37	1850	28.56	15.92	2.84
13000	-1.61	5.73	9.38	8.80	1.17	0.50	1900	29.25	15.70	2.80
14000	-2.64	4.37	6.68	6.59	1.10	0.64	1950	28.31	15.59	2.86
15000	-4.70	5.29	3.94	4.13	1.10	0.70	2000	28.87	15.37	2.86

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 = 96mA, Vd = 4.86V @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	25.19	28.11	23.94	15.98	1.05	0.72	50	39.05	19.70	2.74
100	25.12	28.28	23.52	15.69	1.05	0.70	100	38.36	19.96	2.92
200	24.90	28.24	22.92	14.94	1.06	0.69	150	38.99	19.94	2.82
400	24.32	28.07	21.87	13.45	1.06	0.66	200	38.01	19.96	2.73
600	23.65	27.91	21.26	12.32	1.08	0.62	250	37.54	20.05	2.76
800	22.92	27.64	20.83	11.39	1.09	0.59	300	37.62	19.99	2.97
1000	22.15	27.38	20.43	10.77	1.11	0.55	350	38.15	20.04	2.85
1200	21.37	27.07	19.89	10.27	1.12	0.52	400	37.04	20.01	2.79
1400	20.66	26.70	18.90	9.82	1.13	0.50	450	37.13	20.02	2.79
1600	19.92	26.45	18.12	9.58	1.16	0.47	500	36.11	19.91	2.98
1800	19.25	26.10	17.47	9.34	1.17	0.45	550	36.40	19.90	2.98
2000	18.62	25.75	16.43	9.21	1.18	0.43	600	35.53	19.78	2.85
2200	18.00	25.37	15.97	9.14	1.19	0.41	650	35.76	19.72	2.85
2400	17.45	25.12	15.23	9.13	1.21	0.39	700	35.04	19.60	3.02
2600	16.91	24.74	14.60	9.11	1.22	0.38	750	35.12	19.61	3.06
2800	16.41	24.46	14.20	9.12	1.23	0.37	800	34.55	19.58	2.92
3000	15.93	24.13	13.72	9.14	1.24	0.36	850	34.56	19.59	2.85
3200	15.52	23.81	13.28	9.21	1.24	0.35	900	34.21	19.25	2.98
3400	15.13	23.57	12.99	9.20	1.25	0.35	950	34.01	19.26	2.97
3600	14.74	23.31	12.67	9.25	1.26	0.34	1000	33.71	19.23	2.90
3800	14.38	23.10	12.60	9.31	1.28	0.33	1050	33.31	19.09	2.80
4000	14.07	22.87	12.43	9.28	1.28	0.33	1100	33.23	19.15	2.94
4200	13.73	22.68	12.30	9.24	1.30	0.33	1150	32.74	18.73	3.09
4400	13.43	22.48	12.41	9.18	1.31	0.33	1200	32.71	18.86	2.96
4600	13.14	22.35	12.31	9.05	1.33	0.32	1250	32.31	18.52	2.86
5000	12.59	22.14	12.41	8.76	1.37	0.32	1300	32.15	18.62	2.95
5500	11.82	21.98	12.09	8.21	1.43	0.32	1350	31.74	18.39	3.12
6000	10.97	22.01	11.33	7.55	1.52	0.32	1400	31.66	18.34	3.08
6500	9.86	22.12	10.19	7.02	1.66	0.32	1450	31.39	18.05	2.92
7000	8.54	22.31	9.15	6.47	1.85	0.33	1500	31.29	18.05	3.04
7500	6.94	22.34	8.22	5.97	2.08	0.33	1550	31.03	17.77	2.89
8000	5.29	21.83	7.65	5.54	2.23	0.34	1600	31.32	17.75	3.13
8500	3.60	21.09	7.00	5.21	2.33	0.35	1650	30.93	17.42	3.09
9000	2.02	20.06	6.38	4.98	2.34	0.37	1700	31.42	17.35	2.93
10000	-0.45	16.91	5.62	4.90	2.04	0.39	1750	30.33	17.10	3.02
11000	-1.60	13.28	5.82	5.51	1.65	0.37	1800	30.99	17.07	3.08
12000	-1.60	9.36	7.39	7.04	1.36	0.38	1850	29.66	16.86	2.97
13000	-1.50	5.68	9.47	8.73	1.16	0.51	1900	30.51	16.65	2.96
14000	-2.58	4.37	6.70	6.54	1.09	0.65	1950	29.40	16.54	3.05
15000	-4.67	5.29	3.95	4.12	1.10	0.70	2000	30.09	16.33	3.04

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 = 80mA, Vd = 5.10V @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	25.17	28.21	26.40	17.01	1.05	0.71	50	37.42	19.92	2.34
100	25.10	28.19	27.39	16.88	1.05	0.71	100	36.85	20.21	2.49
200	24.91	28.05	26.48	15.96	1.05	0.70	150	37.73	20.05	2.37
400	24.34	27.91	22.85	13.71	1.06	0.67	200	36.93	19.97	2.28
600	23.69	27.72	21.98	12.43	1.07	0.64	250	36.87	20.03	2.25
800	22.98	27.52	21.36	11.45	1.08	0.60	300	37.00	20.00	2.53
1000	22.25	27.26	21.08	10.82	1.09	0.56	350	37.83	20.07	2.37
1200	21.48	26.98	20.19	10.29	1.11	0.53	400	36.69	20.03	2.32
1400	20.78	26.61	18.93	9.79	1.11	0.51	450	37.00	20.04	2.28
1600	20.04	26.38	18.29	9.52	1.14	0.48	500	36.08	20.05	2.44
1800	19.40	25.98	17.66	9.22	1.15	0.46	550	36.52	20.00	2.48
2000	18.77	25.66	16.81	9.06	1.16	0.44	600	35.74	19.94	2.36
2200	18.18	25.30	16.30	8.97	1.17	0.42	650	36.13	19.95	2.34
2400	17.63	25.02	15.49	8.95	1.18	0.41	700	35.49	19.86	2.52
2600	17.12	24.66	14.81	8.90	1.18	0.40	750	35.64	19.88	2.53
2800	16.61	24.37	14.35	8.93	1.20	0.38	800	35.14	19.92	2.40
3000	16.16	24.04	13.82	8.94	1.20	0.37	850	35.25	19.88	2.32
3200	15.75	23.76	13.42	9.01	1.21	0.36	900	34.92	19.66	2.42
3400	15.37	23.48	13.18	8.89	1.21	0.36	950	34.82	19.68	2.46
3600	15.01	23.24	12.90	8.92	1.22	0.35	1000	34.52	19.67	2.37
3800	14.66	23.02	12.87	8.98	1.23	0.35	1050	34.22	19.57	2.26
4000	14.38	22.75	12.57	8.95	1.23	0.35	1100	34.14	19.58	2.39
4200	14.02	22.58	12.33	8.91	1.25	0.34	1150	33.73	19.25	2.52
4400	13.72	22.41	12.32	8.81	1.26	0.34	1200	33.67	19.32	2.42
4600	13.44	22.24	12.14	8.72	1.26	0.34	1250	33.34	19.06	2.31
5000	12.93	22.03	12.48	8.41	1.30	0.33	1300	33.17	19.12	2.38
5500	12.28	21.75	12.62	7.79	1.33	0.34	1350	32.83	18.88	2.55
6000	11.49	21.75	11.43	7.09	1.39	0.35	1400	32.75	18.80	2.51
6500	10.41	21.88	9.92	6.43	1.49	0.35	1450	32.57	18.55	2.37
7000	9.14	22.08	8.77	5.93	1.64	0.36	1500	32.38	18.53	2.45
7500	7.60	22.10	8.03	5.50	1.83	0.36	1550	32.27	18.23	2.33
8000	6.01	21.64	7.57	5.14	1.97	0.36	1600	32.45	18.19	2.56
8500	4.35	20.91	6.87	4.90	2.06	0.38	1650	32.19	17.85	2.55
9000	2.73	19.90	6.14	4.61	2.06	0.40	1700	32.57	17.75	2.35
10000	0.11	17.00	5.24	4.43	1.82	0.43	1750	31.58	17.57	2.42
11000	-1.17	13.37	5.43	4.95	1.49	0.41	1800	32.17	17.49	2.48
12000	-1.01	9.26	7.12	6.58	1.24	0.42	1850	30.92	17.28	2.37
13000	-1.13	5.74	7.93	7.45	1.07	0.56	1900	31.74	17.07	2.35
14000	-1.80	3.84	7.35	6.99	1.03	0.68	1950	30.66	16.95	2.42
15000	-4.26	4.99	3.55	3.75	1.04	0.76	2000	31.40	16.78	2.43

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 = 64mA, Vd = 5.05V @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	24.96	28.04	31.33	18.52	1.06	0.70	50	34.31	18.57	2.26
100	24.90	27.99	32.28	18.38	1.05	0.70	100	33.75	18.88	2.36
200	24.70	27.83	29.58	17.22	1.05	0.70	150	34.59	18.60	2.30
400	24.15	27.68	24.47	14.50	1.06	0.67	200	33.88	18.65	2.24
600	23.52	27.46	23.05	12.96	1.06	0.64	250	34.04	18.68	2.21
800	22.82	27.29	21.96	11.81	1.07	0.60	300	34.14	18.67	2.42
1000	22.10	27.04	21.28	11.11	1.09	0.56	350	35.03	18.70	2.31
1200	21.34	26.76	20.17	10.55	1.10	0.53	400	34.05	18.71	2.28
1400	20.65	26.40	18.73	9.99	1.11	0.51	450	34.46	18.74	2.24
1600	19.92	26.17	18.05	9.68	1.13	0.48	500	33.76	18.78	2.39
1800	19.27	25.82	17.29	9.36	1.14	0.45	550	34.22	18.67	2.41
2000	18.66	25.46	16.45	9.18	1.15	0.44	600	33.72	18.65	2.30
2200	18.06	25.19	15.94	9.08	1.16	0.42	650	34.09	18.71	2.30
2400	17.52	24.86	15.11	9.04	1.17	0.40	700	33.77	18.68	2.46
2600	17.00	24.54	14.44	9.03	1.18	0.39	750	33.82	18.65	2.47
2800	16.50	24.25	14.04	9.01	1.19	0.38	800	33.63	18.73	2.38
3000	16.04	23.96	13.49	9.07	1.20	0.37	850	33.61	18.62	2.28
3200	15.63	23.65	13.11	9.13	1.20	0.36	900	33.56	18.59	2.36
3400	15.23	23.41	12.86	9.00	1.21	0.35	950	33.42	18.52	2.43
3600	14.89	23.20	12.61	9.04	1.22	0.34	1000	33.31	18.57	2.33
3800	14.54	22.97	12.56	9.11	1.24	0.34	1050	33.00	18.58	2.22
4000	14.24	22.70	12.27	9.09	1.23	0.34	1100	32.98	18.51	2.31
4200	13.89	22.52	12.05	9.07	1.25	0.33	1150	32.65	18.46	2.45
4400	13.60	22.34	12.05	8.97	1.26	0.33	1200	32.64	18.34	2.38
4600	13.30	22.20	11.90	8.89	1.27	0.33	1250	32.40	18.33	2.27
5000	12.79	22.00	12.24	8.59	1.31	0.33	1300	32.21	18.27	2.32
5500	12.12	21.75	12.43	7.98	1.35	0.33	1350	31.93	18.20	2.47
6000	11.34	21.73	11.30	7.31	1.42	0.34	1400	31.81	18.06	2.46
6500	10.25	21.89	9.85	6.66	1.53	0.34	1450	31.68	17.95	2.30
7000	8.99	22.03	8.74	6.15	1.67	0.35	1500	31.52	17.82	2.40
7500	7.47	22.10	8.02	5.69	1.87	0.35	1550	31.42	17.67	2.26
8000	5.87	21.62	7.56	5.31	2.01	0.35	1600	31.57	17.53	2.50
8500	4.22	20.90	6.88	5.04	2.11	0.37	1650	31.45	17.26	2.49
9000	2.62	19.93	6.15	4.74	2.11	0.39	1700	31.74	17.15	2.28
10000	0.04	17.02	5.24	4.53	1.85	0.42	1750	30.86	16.99	2.34
11000	-1.26	13.43	5.42	5.05	1.52	0.40	1800	31.34	16.90	2.41
12000	-1.08	9.31	7.10	6.66	1.25	0.41	1850	30.26	16.72	2.34
13000	-1.20	5.77	7.89	7.50	1.08	0.55	1900	30.94	16.51	2.29
14000	-1.84	3.84	7.32	7.01	1.03	0.68	1950	30.01	16.41	2.36
15000	-4.28	4.98	3.55	3.76	1.04	0.76	2000	30.62	16.25	2.37

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 = 96mA, Vd = 5.18V @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	25.31	28.40	24.24	16.00	1.05	0.71	50	39.68	20.37	2.37
100	25.24	28.44	25.04	15.99	1.06	0.70	100	39.16	20.68	2.56
200	25.04	28.28	24.47	15.23	1.05	0.70	150	39.88	20.69	2.42
400	24.46	28.09	21.76	13.23	1.06	0.67	200	39.01	20.63	2.35
600	23.81	27.88	21.14	12.09	1.07	0.64	250	38.72	20.69	2.33
800	23.09	27.67	20.77	11.18	1.08	0.60	300	38.78	20.57	2.55
1000	22.34	27.42	20.76	10.63	1.10	0.56	350	39.41	20.64	2.41
1200	21.58	27.13	20.03	10.15	1.12	0.53	400	38.26	20.64	2.37
1400	20.87	26.79	18.94	9.67	1.12	0.51	450	38.39	20.65	2.33
1600	20.13	26.49	18.36	9.41	1.14	0.48	500	37.35	20.59	2.52
1800	19.48	26.10	17.81	9.14	1.15	0.46	550	37.74	20.55	2.54
2000	18.87	25.78	17.01	8.98	1.16	0.44	600	36.84	20.47	2.40
2200	18.27	25.41	16.51	8.90	1.17	0.43	650	37.19	20.43	2.39
2400	17.73	25.09	15.72	8.86	1.18	0.41	700	36.36	20.31	2.58
2600	17.19	24.71	15.03	8.84	1.19	0.40	750	36.56	20.33	2.57
2800	16.70	24.44	14.61	8.84	1.20	0.39	800	35.92	20.32	2.45
3000	16.24	24.14	14.06	8.87	1.21	0.38	850	36.08	20.34	2.37
3200	15.84	23.81	13.66	8.95	1.21	0.37	900	35.65	20.01	2.50
3400	15.46	23.52	13.41	8.80	1.21	0.36	950	35.56	20.06	2.57
3600	15.11	23.30	13.14	8.84	1.22	0.36	1000	35.21	20.04	2.42
3800	14.76	23.04	13.08	8.88	1.23	0.35	1050	34.91	19.89	2.34
4000	14.48	22.80	12.79	8.86	1.23	0.35	1100	34.79	19.94	2.44
4200	14.14	22.59	12.55	8.80	1.24	0.35	1150	34.37	19.54	2.59
4400	13.83	22.39	12.52	8.70	1.25	0.35	1200	34.32	19.67	2.47
4600	13.55	22.27	12.32	8.59	1.26	0.34	1250	33.95	19.38	2.37
5000	13.05	21.99	12.65	8.27	1.28	0.34	1300	33.79	19.45	2.43
5500	12.40	21.76	12.78	7.64	1.32	0.35	1350	33.43	19.20	2.62
6000	11.63	21.74	11.52	6.93	1.37	0.36	1400	33.35	19.16	2.58
6500	10.55	21.87	9.96	6.28	1.46	0.36	1450	33.17	18.89	2.41
7000	9.27	22.08	8.78	5.78	1.61	0.36	1500	33.00	18.90	2.52
7500	7.75	22.11	8.03	5.37	1.79	0.36	1550	32.85	18.60	2.40
8000	6.12	21.65	7.55	5.02	1.93	0.37	1600	33.05	18.59	2.61
8500	4.43	20.89	6.87	4.80	2.03	0.38	1650	32.77	18.23	2.60
9000	2.83	19.89	6.14	4.52	2.02	0.40	1700	33.15	18.16	2.40
10000	0.20	16.96	5.24	4.36	1.79	0.43	1750	32.10	17.96	2.48
11000	-1.08	13.35	5.44	4.88	1.47	0.41	1800	32.77	17.89	2.54
12000	-0.93	9.24	7.14	6.54	1.23	0.42	1850	31.45	17.69	2.42
13000	-1.08	5.72	7.95	7.43	1.07	0.57	1900	32.34	17.51	2.40
14000	-1.76	3.83	7.36	6.97	1.03	0.68	1950	31.18	17.38	2.51
15000	-4.23	4.98	3.55	3.75	1.04	0.76	2000	32.00	17.20	2.51

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 = 4.70V @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	24.88	27.99	27.15	17.75	1.06	0.70	50	36.35	18.96	3.01
100	24.79	27.97	25.89	16.94	1.06	0.70	100	35.79	19.20	3.20
200	24.56	27.91	23.93	15.62	1.06	0.69	150	36.59	19.11	3.10
400	23.98	27.78	23.66	14.32	1.07	0.65	200	35.69	19.09	2.98
600	23.29	27.53	22.61	12.98	1.08	0.62	250	35.30	19.12	3.02
800	22.56	27.32	21.98	12.00	1.09	0.58	300	35.38	19.07	3.16
1000	21.79	27.08	20.97	11.32	1.11	0.54	350	35.99	19.11	3.14
1200	20.99	26.78	20.07	10.75	1.13	0.50	400	34.89	19.08	3.08
1400	20.28	26.47	18.72	10.22	1.14	0.48	450	35.05	19.07	3.08
1600	19.51	26.21	17.86	9.92	1.17	0.45	500	34.13	19.01	3.25
1800	18.82	25.89	16.99	9.62	1.18	0.42	550	34.43	19.01	3.27
2000	18.17	25.53	15.84	9.47	1.19	0.40	600	33.68	18.88	3.11
2200	17.54	25.25	15.26	9.41	1.22	0.38	650	33.90	18.86	3.14
2400	16.97	24.95	14.42	9.41	1.23	0.37	700	33.31	18.75	3.29
2600	16.40	24.58	13.80	9.42	1.24	0.35	750	33.31	18.73	3.33
2800	15.86	24.33	13.40	9.47	1.27	0.34	800	32.86	18.77	3.20
3000	15.37	24.05	12.94	9.50	1.28	0.33	850	32.77	18.69	3.12
3200	14.94	23.78	12.56	9.62	1.29	0.32	900	32.56	18.40	3.25
3400	14.51	23.51	12.34	9.68	1.31	0.31	950	32.27	18.39	3.36
3600	14.15	23.28	12.12	9.80	1.32	0.30	1000	32.07	18.35	3.22
3800	13.77	23.10	12.12	9.92	1.35	0.30	1050	31.61	18.23	3.11
4000	13.44	22.86	12.03	9.91	1.36	0.30	1100	31.56	18.26	3.23
4200	13.08	22.72	11.95	9.88	1.39	0.29	1150	31.04	17.88	3.40
4400	12.73	22.51	12.17	9.75	1.42	0.29	1200	31.05	17.96	3.27
4600	12.43	22.39	12.09	9.57	1.44	0.29	1250	30.63	17.63	3.17
5000	11.81	22.27	11.98	9.23	1.50	0.29	1300	30.47	17.72	3.23
5500	10.94	22.16	11.46	8.93	1.60	0.28	1350	30.04	17.47	3.41
6000	10.02	22.22	11.07	8.49	1.74	0.27	1400	30.00	17.36	3.40
6500	8.89	22.32	10.47	8.09	1.94	0.27	1450	29.67	17.10	3.24
7000	7.55	22.45	9.69	7.49	2.20	0.28	1500	29.63	17.05	3.36
7500	5.92	22.46	8.64	6.82	2.47	0.29	1550	29.30	16.79	3.21
8000	4.26	21.94	7.98	6.22	2.65	0.30	1600	29.64	16.74	3.47
8500	2.55	21.21	7.22	5.70	2.75	0.32	1650	29.25	16.40	3.44
9000	0.99	20.17	6.52	5.41	2.74	0.33	1700	29.72	16.28	3.23
10000	-1.22	16.84	5.94	5.50	2.32	0.34	1750	28.63	16.07	3.30
11000	-2.18	13.11	6.35	6.25	1.86	0.33	1800	29.23	15.98	3.39
12000	-2.44	9.51	7.48	7.36	1.51	0.36	1850	28.00	15.81	3.36
13000	-2.26	5.92	9.84	9.28	1.27	0.46	1900	28.72	15.57	3.28
14000	-3.19	4.65	6.80	6.68	1.16	0.60	1950	27.76	15.49	3.36
15000	-5.16	5.69	4.16	4.17	1.16	0.66	2000	28.29	15.24	3.35

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: Icc = 64mA, Vd = 4.64V @Temperature = +85degC

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability	
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta
50	24.62	27.69	34.54	20.07	1.06	0.70
100	24.52	27.73	31.53	18.85	1.06	0.69
200	24.31	27.57	27.32	17.08	1.06	0.69
400	23.75	27.41	25.28	15.23	1.06	0.66
600	23.09	27.26	23.35	13.58	1.07	0.61
800	22.37	27.03	22.01	12.43	1.08	0.58
1000	21.61	26.78	20.65	11.63	1.10	0.54
1200	20.82	26.58	19.62	11.00	1.12	0.50
1400	20.11	26.24	18.18	10.42	1.13	0.47
1600	19.36	25.94	17.37	10.08	1.15	0.44
1800	18.69	25.66	16.48	9.75	1.17	0.42
2000	18.03	25.32	15.38	9.57	1.18	0.40
2200	17.40	25.07	14.81	9.51	1.21	0.38
2400	16.82	24.75	14.01	9.53	1.22	0.36
2600	16.27	24.45	13.41	9.53	1.23	0.35
2800	15.74	24.20	13.01	9.56	1.26	0.33
3000	15.25	23.92	12.58	9.59	1.27	0.32
3200	14.81	23.66	12.20	9.73	1.29	0.31
3400	14.39	23.39	11.99	9.79	1.30	0.30
3600	14.01	23.21	11.81	9.93	1.33	0.29
3800	13.64	23.02	11.80	10.07	1.35	0.29
4000	13.31	22.81	11.72	10.06	1.37	0.29
4200	12.95	22.63	11.68	10.03	1.39	0.28
4400	12.60	22.46	11.89	9.92	1.42	0.28
4600	12.30	22.38	11.82	9.76	1.45	0.28
5000	11.65	22.22	11.77	9.44	1.51	0.28
5500	10.79	22.12	11.29	9.17	1.62	0.27
6000	9.87	22.22	10.96	8.74	1.77	0.26
6500	8.75	22.29	10.41	8.34	1.98	0.26
7000	7.41	22.42	9.67	7.72	2.24	0.27
7500	5.79	22.44	8.65	7.02	2.52	0.28
8000	4.13	21.93	7.99	6.40	2.71	0.29
8500	2.45	21.21	7.23	5.85	2.81	0.31
9000	0.91	20.17	6.54	5.53	2.78	0.33
10000	-1.29	16.88	5.94	5.61	2.36	0.34
11000	-2.26	13.16	6.34	6.33	1.88	0.32
12000	-2.52	9.55	7.44	7.44	1.53	0.35
13000	-2.32	5.94	9.80	9.31	1.27	0.45
14000	-3.23	4.65	6.78	6.69	1.16	0.60
15000	-5.18	5.68	4.16	4.17	1.16	0.66

FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dBm)	(dBm)	(dB)
50	33.56	18.06	2.93
100	33.04	18.32	3.10
150	33.93	18.11	3.04
200	33.16	18.12	2.95
250	32.98	18.10	2.96
300	33.09	18.10	3.08
350	33.74	18.10	3.10
400	32.78	18.08	3.02
450	33.01	18.12	3.00
500	32.31	18.09	3.15
550	32.64	18.02	3.18
600	32.10	17.95	3.07
650	32.35	18.02	3.09
700	31.97	17.96	3.20
750	31.92	17.93	3.25
800	31.68	18.03	3.16
850	31.55	17.91	3.07
900	31.50	17.75	3.18
950	31.22	17.73	3.20
1000	31.10	17.70	3.14
1050	30.67	17.66	3.03
1100	30.64	17.61	3.13
1150	30.21	17.36	3.32
1200	30.18	17.34	3.22
1250	29.83	17.14	3.10
1300	29.68	17.14	3.13
1350	29.29	16.94	3.34
1400	29.23	16.80	3.32
1450	28.93	16.57	3.19
1500	28.88	16.50	3.26
1550	28.60	16.28	3.13
1600	28.90	16.16	3.39
1650	28.58	15.86	3.37
1700	29.01	15.73	3.14
1750	27.98	15.53	3.20
1800	28.52	15.44	3.31
1850	27.38	15.28	3.29
1900	28.03	15.05	3.20
1950	27.14	14.94	3.25
2000	27.62	14.69	3.24

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 = 96mA, Vd = 4.77V @Temperature = +85degC

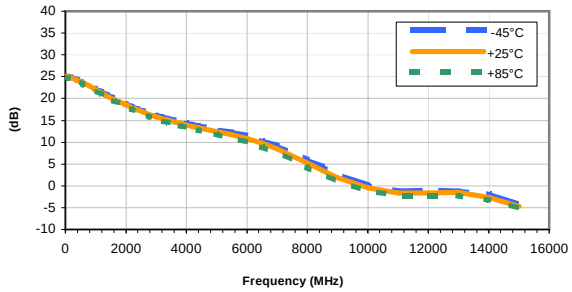
FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability	
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Delta
50	25.03	28.17	24.22	16.57	1.06	0.71
100	24.94	28.20	23.50	15.88	1.06	0.70
200	24.71	28.11	22.07	14.74	1.06	0.69
400	24.13	27.96	22.32	13.72	1.07	0.65
600	23.42	27.76	21.82	12.58	1.08	0.61
800	22.69	27.53	21.60	11.74	1.10	0.57
1000	21.90	27.26	20.91	11.12	1.12	0.54
1200	21.11	26.98	20.17	10.59	1.14	0.50
1400	20.37	26.61	18.96	10.10	1.15	0.48
1600	19.61	26.34	18.11	9.81	1.17	0.45
1800	18.91	25.99	17.27	9.53	1.19	0.43
2000	18.26	25.64	16.10	9.38	1.20	0.41
2200	17.63	25.36	15.56	9.34	1.22	0.39
2400	17.05	25.03	14.70	9.33	1.24	0.37
2600	16.50	24.67	14.06	9.36	1.25	0.36
2800	15.98	24.41	13.66	9.39	1.27	0.35
3000	15.47	24.13	13.17	9.43	1.28	0.33
3200	15.05	23.84	12.80	9.54	1.29	0.32
3400	14.62	23.55	12.56	9.60	1.31	0.32
3600	14.25	23.33	12.33	9.73	1.32	0.31
3800	13.86	23.13	12.32	9.83	1.35	0.30
4000	13.55	22.89	12.24	9.82	1.36	0.30
4200	13.20	22.68	12.18	9.77	1.38	0.30
4400	12.85	22.56	12.37	9.64	1.41	0.30
4600	12.55	22.43	12.27	9.45	1.43	0.30
5000	11.91	22.26	12.12	9.10	1.48	0.29
5500	11.06	22.16	11.56	8.77	1.58	0.29
6000	10.15	22.24	11.12	8.34	1.72	0.28
6500	9.02	22.34	10.51	7.93	1.92	0.28
7000	7.65	22.47	9.69	7.33	2.17	0.28
7500	6.02	22.49	8.63	6.68	2.44	0.29
8000	4.35	21.95	7.96	6.11	2.61	0.30
8500	2.64	21.21	7.20	5.60	2.71	0.32
9000	1.07	20.18	6.51	5.32	2.70	0.34
10000	-1.16	16.80	5.93	5.43	2.29	0.35
11000	-2.11	13.09	6.36	6.19	1.84	0.33
12000	-2.38	9.48	7.48	7.32	1.50	0.36
13000	-2.21	5.90	9.87	9.26	1.26	0.46
14000	-3.15	4.65	6.80	6.67	1.16	0.61
15000	-5.13	5.69	4.15	4.17	1.15	0.66

FREQ	IP3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dBm)	(dBm)	(dB)
50	38.28	19.16	3.07
100	37.66	19.37	3.28
150	38.21	19.35	3.17
200	37.27	19.41	3.03
250	36.70	19.51	3.10
300	36.72	19.50	3.25
350	37.15	19.55	3.22
400	36.08	19.50	3.15
450	36.09	19.50	3.14
500	35.12	19.36	3.34
550	35.36	19.36	3.34
600	34.54	19.23	3.18
650	34.71	19.19	3.20
700	34.00	19.05	3.37
750	34.00	19.04	3.39
800	33.47	19.04	3.27
850	33.41	19.03	3.22
900	33.13	18.68	3.36
950	32.85	18.66	3.40
1000	32.61	18.66	3.27
1050	32.15	18.51	3.17
1100	32.10	18.56	3.30
1150	31.58	18.15	3.47
1200	31.56	18.26	3.36
1250	31.14	17.92	3.24
1300	30.99	18.03	3.33
1350	30.54	17.76	3.51
1400	30.51	17.73	3.47
1450	30.18	17.42	3.32
1500	30.13	17.42	3.42
1550	29.80	17.13	3.32
1600	30.16	17.11	3.55
1650	29.72	16.78	3.51
1700	30.22	16.71	3.32
1750	29.11	16.46	3.40
1800	29.73	16.43	3.49
1850	28.48	16.26	3.42
1900	29.25	16.02	3.39
1950	28.25	15.93	3.45
2000	28.81	15.67	3.44

Typical Performance Curves

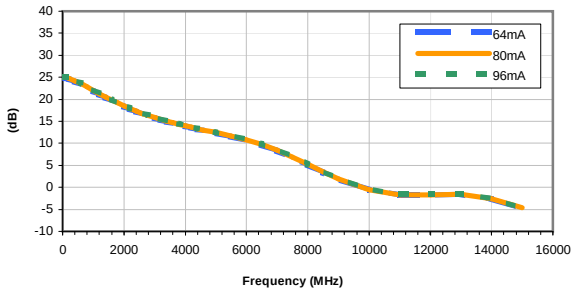
GAIN vs. TEMPERATURE

INPUT POWER = -20dBm, CURRENT = 80mA



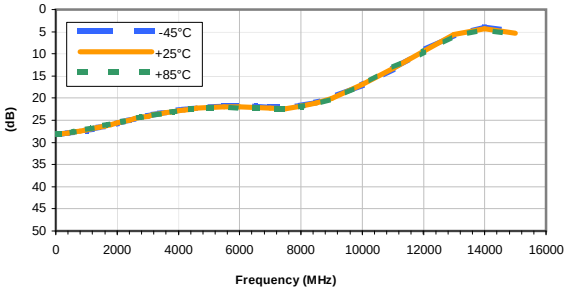
GAIN vs. CURRENT

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



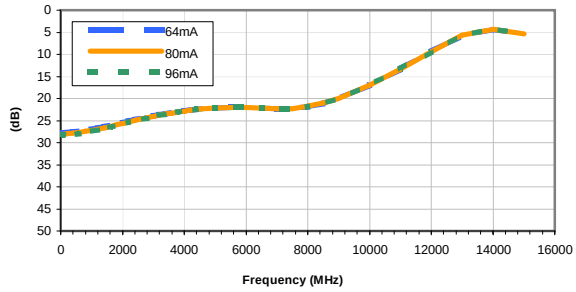
ISOLATION vs. TEMPERATURE

INPUT POWER = -20dBm, CURRENT = 80mA



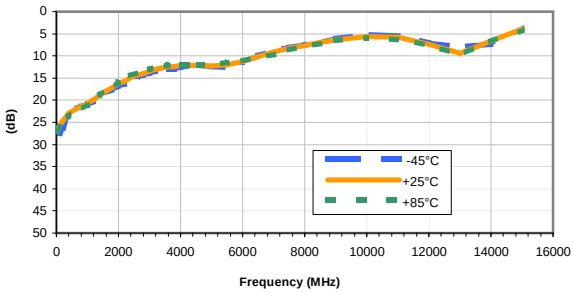
ISOLATION vs. CURRENT

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



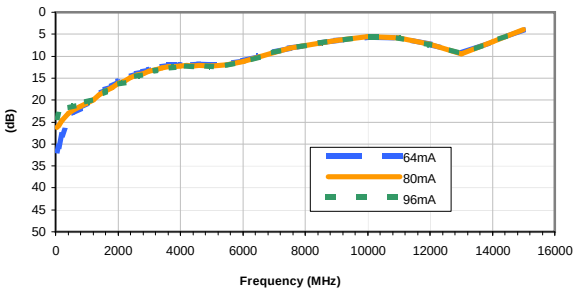
INPUT RETURN LOSS vs. TEMPERATURE

INPUT POWER = -20dBm, CURRENT = 80mA



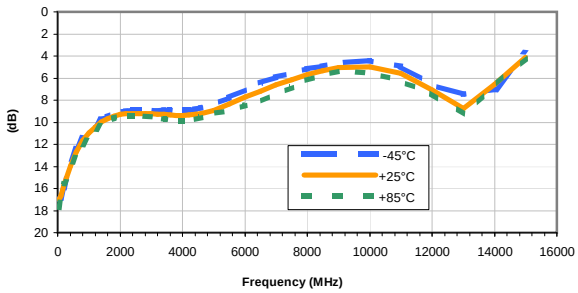
INPUT RETURN LOSS vs. CURRENT

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



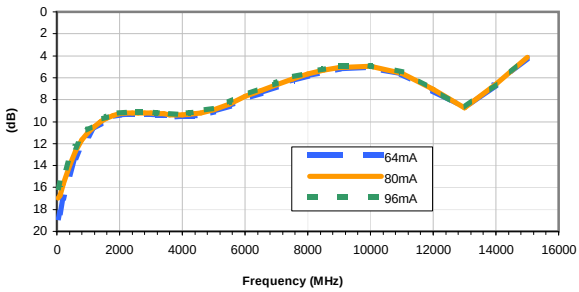
OUTPUT RETURN LOSS vs. TEMPERATURE

INPUT POWER = -20dBm, CURRENT = 80mA



OUTPUT RETURN LOSS vs. CURRENT

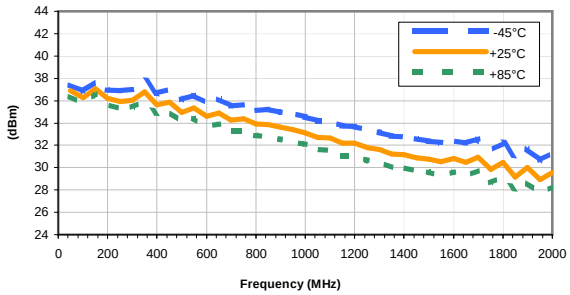
INPUT POWER = -20dBm, Temperature = +25°C



Typical Performance Curves

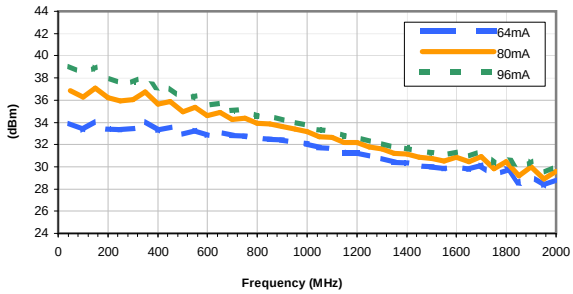
OUTPUT IP3 vs. TEMPERATURE

INPUT POWER = -20dBm, CURRENT = 80mA



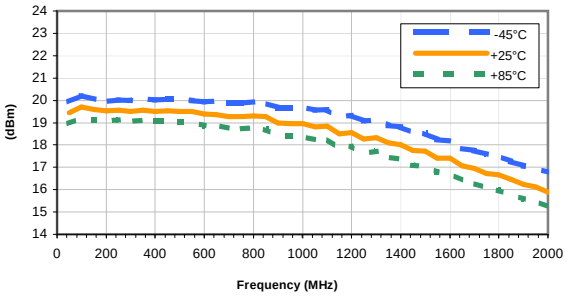
OUTPUT IP3 vs. CURRENT

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



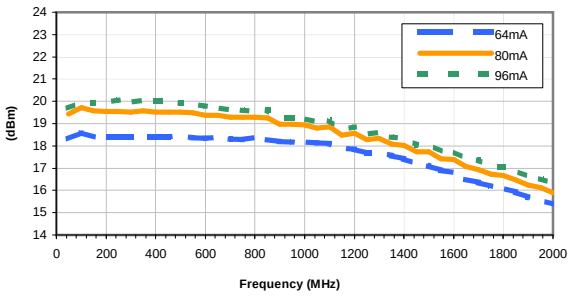
OUTPUT POWER at 1dB Compression vs. TEMPERATURE

CURRENT = 80mA



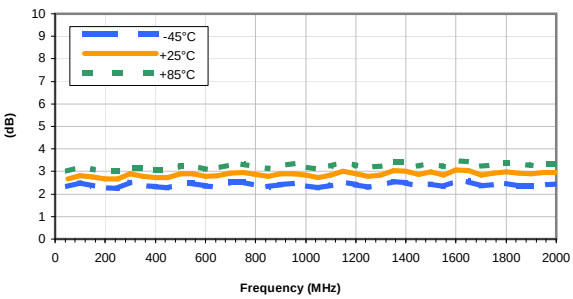
OUTPUT POWER at 1dB Compression vs. CURRENT

Temperature = +25°C



Noise Figure vs. TEMPERATURE

CURRENT = 80mA



Noise Figure vs. CURRENT

Temperature = +25°C