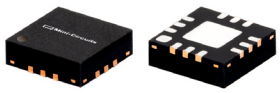
MEDIUM POWER, WIDEBAND, HIGH IP3

Monolithic Amplifier PMA3-83MP+

50Ω 0.4 to 8 GHz 0.5W

THE BIG DEAL

- High P_{OUT}, 0.5 W to 2 GHz
- High IP3, +37.9 dBm Typ.
- Low Noise Figure, 3.1 dB Typ.
- Small 3x3 mm package
- Patent Pending



Generic photo used for illustration purposes only

CASE STYLE: DQ1225

+RoHS Compliant
The +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

APPLICATIONS

- WiFi
- WLAN
- LTE/WCDMA/EDGE
- L, S and C-band Radar
- C-band Satcom

PRODUCT OVERVIEW

The PMA3-83MP+ is a GaAs PHEMT based wideband, low noise MMIC amplifier with a unique combination of low noise, high IP3, and high output power, over a wideband making it ideal for sensitive, high-dynamic range receiver applications. This design operates on a single supply of +8V, is well matched for 50Ω and comes in a tiny, low profile package (3 x 3 mm-12 lead), accommodating dense circuit board layouts.

KEY FEATURES

Feature	Advantages
Low noise, 3 dB Typical up to 8 GHz	Enables lower system noise figure performance.
High IP3 • +39.5 dBm at 0.4 GHz • +37.9 dBm at 2 GHz • +39.0 dBm at 4 GHz • +38.6 dBm at 8 GHz	Combination of low noise and high IP3 makes this MMIC amplifier ideal for use in low noise receiver front end (RFE) as it gives the user advantages of sensitivity and two-tone IM performance at both ends of the dynamic range.
V_{DD} Operates over +5V to +8V	Allows the designer to tailor Pout and OIP3 via DC input for easier integration.
3 x 3 mm - 12-lead MCLP package	Tiny footprint saves space in dense layouts while providing low inductance, repeatable transitions, and excellent thermal contact to the PCB.
Wide bandwidth with flat gain • ±1.5 dB over 4 to 7 GHz • ±2.0 dB over 0.4 to 8 GHz	Enables a single amplifier to be used in many wideband applications including defense, instrumentation and more.

ELECTRICAL SPECIFICATIONS[1] AT +25°C, 50Ω, UNLESS NOTED

Parameter	Condition (MHz)	V_{DD}= +8V & V_{ladj}= +1.7 V			Units
		Min.	Typ.	Max.	
Frequency range		400		8000	MHz
Gain	400	19.6	21.7	23.9	dB
	2000	18.9	21.0	23.1	
	4000	17.0	18.9	20.8	
	5000	16.7	18.6	20.5	
	8000	—	17.3	—	
Input Return loss	400		13.1		dB
	2000		14.8		
	4000		8.3		
	5000		8.4		
	8000		10.4		
Output Return loss	400		9.8		dB
	2000		17.3		
	4000		13.8		
	5000		11.8		
	8000		23.6		
Output Power at 1 dB Compression (P1dB)	400		+27.2		dBm
	2000		+27.8		
	4000		+25.9		
	5000		+25.1		
	8000		+25.3		
Output IP3 (OIP3) (P_{OUT}= +18 dBm/Tone)	400		+39.5		dBm
	2000		+37.9		
	4000		+39.0		
	5000		+35.2		
	8000		+38.6		
Noise Figure	400		3.5		dB
	2000		3.2		
	4000		3.2		
	6000		3.0		
	8000		3.3		
Device Operating Voltage (V_{DD})		+7.6	+8.0	+8.4	V
Device Operating Current (I_{DD})			144	175	mA
Current at Vladj (I_{adj})			115		µA
Device Current Variation vs.Temperature[2]			-50		µA/°C
Device Current Variation vs Voltage[3]			0.02		mA/mV
Thermal Resistance, junction-to-ground Lead			46.3		°C/W

1. Measured on Mini-Circuits Characterization Test Board TB-PMA3-83MP+. See Characterization Test & Application Circuit (Fig. 1)
2. Device Current Variation vs. Temperature= (Current in mA at 85°C - Current in mA at -45°C)/130°C
3. Device Current Variation vs. Voltage = (Current in mA at 8.4V – Current in mA at 7.6V) / ((8.4V-7.6V)*1000 mA/mV)

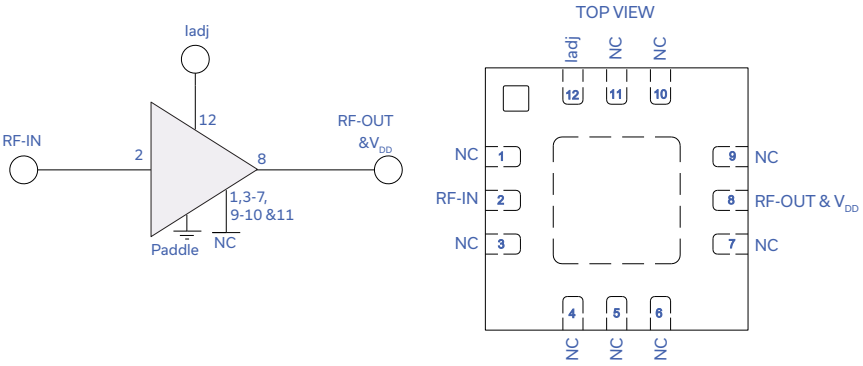
ABSOLUTE MAXIMUM RATINGS[4]

Parameter	Ratings
Operating Temperature (ground lead)	-40°C to +85°C
Storage Temperature	-65°C to +150°C
Junction Temperature	+150°C
Total Power Dissipation	1.4 W
Input power (CW)	+22 dBm (5 minutes max.) +17 dBm (continuous)
DC voltage at Vladj	+2.0 V
DC voltage at VDD	+9 V

4. Permanent damage may occur if any of those limits are exceeded.
Electrical maximum ratings are not intended for continuous normal operation.

Monolithic Amplifier PMA3-83MP+

SIMPLIFIED SCHEMATIC AND PAD DESCRIPTION



Function	Pad Number	Description (Fig 1)
RF-IN	2	Connects to RF input via C1
RF-OUT & V_{DD}	8	Connects to RF out via C2 and connects to V_{DD} via L1
ladj	12	Current Adjustment Pad. Connects to Vladj
No Connection	1,3-7, 9,10,11	Not used internally. Connected to ground on Test Board
Ground	Paddle	Connects to ground on Test board.

CHARACTERIZATION TEST & APPLICATION CIRCUIT

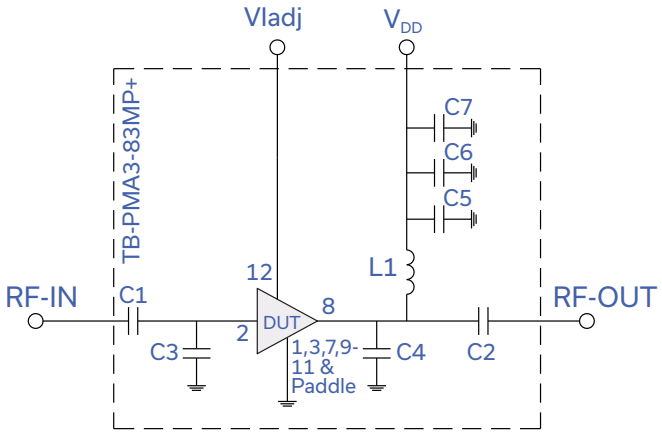


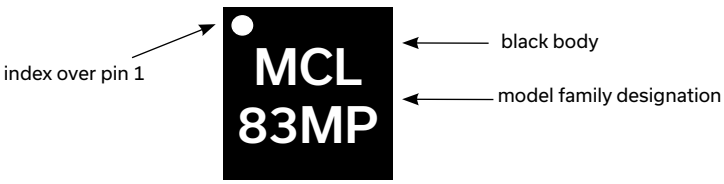
Fig 1. Application and Characterization Circuit
Note: This block diagram is used for characterization. (DUT is soldered on Mini-Circuits Characterization test board TB-PMA3-83MP+)

Gain, Return loss, Output power at 1dB compression (P1dB), Output IP3 (OIP3) and Noise Figure measured using Agilent's N5242A PNA-X microwave network analyzer.

Conditions:
1. V_{DD}= +8V, Vladj = +1.7V
2. Gain and Return Loss: P_{IN}= -25dBm
3. Output IP3 (OIP3): Two tones, spaced 1 MHz apart, 18 dBm/tone at output.

Component	Size	Value	Part Number	Manufacturer
C1	0402	100pF	GRM1555C1H101JA01D	Murata
C2	0402	100pF	GRM1555C1H101JA01D	Murata
C3	0402	0.3pF	GQM1555C2DR30WB01D	Murata
C4	0402	0.3pF	GQM1555C2DR30WB01D	Murata
C5	0402	10pF	GRM1555C1H100JA01D	Murata
C6	0402	1uF	GRM155C71A105KE11D	Murata
C7	0603	10uF	GRM188D71A106MA73J	Murata
L1	0603	33nH	0603CS-33NXJEU	Coilcraft

PRODUCT MARKING



Marking may contain other features or characters for internal lot control

Monolithic Amplifier PMA3-83MP+

ADDITIONAL DETAILED TECHNICAL INFORMATION IS AVAILABLE ON OUR DASH BOARD. TO ACCESS CLICK HERE

Performance Data	Data Table Swept Graphs S-Parameter (S2P Files) Data Set (.zip file)
Case Style	DQ1225 Plastic package, exposed paddle, lead finish: Matt Tin
Tape & Reel **Standard quantities available on reel**	F66 7" reels with 20, 50, 100, 200, 500 or 2K devices
Suggested Layout for PCB Design	PL-706
Evaluation Board	TB-PMA3-83MP+
Environmental Ratings	ENV08T1

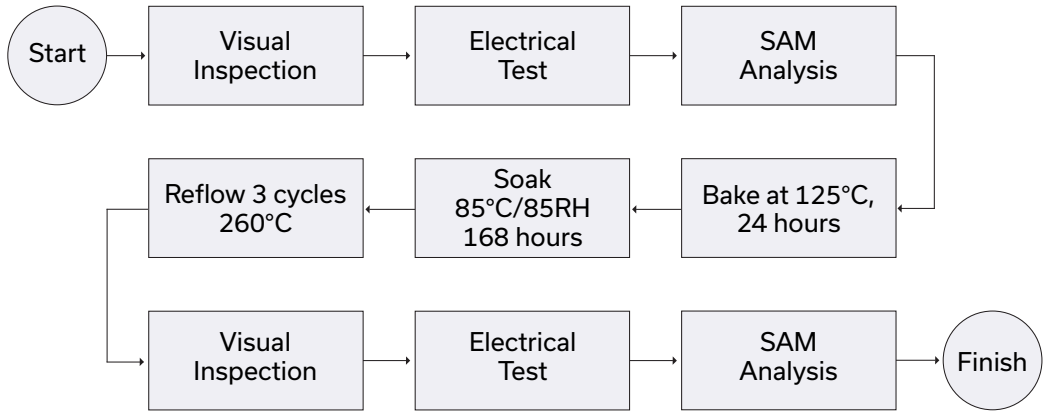
ESD RATING

Human Body Model (HBM): Class 1A (250V) in accordance with ANSI/ESD STM 5.1 - 2001

MSL RATING

Moisture Sensitivity: MSL1 in accordance with IPC/JEDEC J-STD-020D

MSL TEST FLOW CHART



NOTES

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html

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: Vd = 8.00V, Vadj = 1.7V , Id = 139mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	22.02	29.21	13.58	10.46	1.29	0.73	38.43	26.99	3.28
600	22.04	29.04	15.19	12.39	1.30	0.76	38.45	27.16	3.23
800	21.95	28.96	15.97	13.50	1.30	0.78	38.22	27.30	3.29
1000	21.82	28.93	16.32	14.77	1.32	0.80	38.04	27.48	3.20
1200	21.71	28.87	16.35	15.44	1.32	0.82	37.83	27.56	3.21
1400	21.53	28.84	16.28	16.20	1.34	0.83	37.84	27.69	3.10
1600	21.41	28.78	16.02	16.19	1.34	0.84	37.98	27.67	3.11
1800	21.21	28.80	15.75	16.12	1.36	0.85	37.68	27.54	3.12
2000	21.11	28.75	15.44	15.67	1.37	0.85	37.41	27.65	3.09
2200	20.93	28.71	14.84	15.11	1.38	0.86	37.24	27.42	3.01
2400	20.76	28.76	14.17	14.81	1.40	0.87	37.40	27.49	2.93
2600	20.49	28.87	13.50	14.19	1.44	0.88	37.49	27.15	3.05
2800	20.21	29.01	12.96	14.44	1.48	0.91	38.14	27.02	3.08
3000	19.91	29.09	12.16	14.23	1.50	0.93	39.50	26.86	3.08
3200	19.74	29.02	11.38	14.57	1.49	0.95	41.03	26.76	3.12
3400	19.58	28.96	10.57	14.39	1.46	0.98	43.69	26.68	3.08
3600	19.36	29.01	9.87	14.22	1.47	1.00	42.22	26.45	3.01
3800	19.24	28.96	9.04	13.24	1.44	1.01	39.83	26.38	2.98
4000	19.08	29.01	8.35	12.27	1.45	1.01	38.65	25.85	2.99
4200	19.02	28.96	7.72	11.07	1.43	1.00	36.83	25.20	2.99
4400	18.93	28.89	7.25	10.39	1.43	0.99	35.36	25.28	3.00
4600	18.92	28.72	7.02	9.92	1.42	0.96	34.28	24.33	2.84
4800	18.93	28.49	7.07	10.07	1.42	0.95	33.95	25.25	2.81
5000	18.98	28.14	7.41	10.44	1.41	0.93	33.87	24.42	2.70
5200	19.15	27.74	8.02	11.73	1.39	0.92	33.06	24.96	2.66
5400	19.29	27.45	8.90	13.31	1.39	0.91	33.40	25.72	2.62
5600	19.47	27.09	9.61	16.60	1.35	0.91	34.22	25.86	2.60
5800	19.52	26.96	10.19	21.49	1.36	0.92	35.13	26.19	2.59
6000	19.45	26.89	10.00	31.42	1.36	0.94	36.28	26.16	2.66
6200	19.22	26.95	9.32	26.65	1.38	0.98	37.49	26.05	2.76
6400	19.04	27.09	8.26	20.99	1.38	1.02	38.44	25.92	2.80
6600	18.93	27.28	7.48	18.66	1.37	1.07	39.12	25.84	2.87
6800	18.98	27.37	6.91	17.85	1.33	1.10	38.92	25.74	2.97
7000	18.86	27.51	6.57	18.83	1.33	1.13	38.77	25.68	2.93
7200	18.66	27.64	6.32	19.11	1.34	1.16	38.43	25.63	2.89
7400	18.57	27.92	6.61	20.05	1.41	1.15	38.25	25.67	2.92
7600	18.29	28.10	7.33	22.79	1.54	1.11	37.90	25.81	2.91
7800	18.04	27.88	8.05	24.67	1.60	1.07	37.64	25.81	2.88
8000	17.93	27.74	8.65	30.63	1.64	1.05	37.64	25.79	2.98

Typical Performance Data

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

TEST CONDITIONS: Vd = 7.60V, Vadj = 1.7V , Id = 127mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	21.83	28.90	13.52	10.39	1.28	0.72	38.63	26.57	3.26
600	21.86	28.84	15.15	12.25	1.29	0.75	38.50	26.74	3.14
800	21.78	28.78	15.96	13.39	1.30	0.78	38.21	26.90	3.26
1000	21.66	28.76	16.34	14.61	1.31	0.80	38.04	27.09	3.25
1200	21.55	28.71	16.41	15.32	1.32	0.81	37.84	27.17	3.12
1400	21.38	28.67	16.36	16.06	1.33	0.83	37.88	27.29	3.05
1600	21.26	28.61	16.12	16.10	1.34	0.84	38.05	27.25	3.05
1800	21.07	28.63	15.86	16.04	1.36	0.85	37.80	27.17	3.08
2000	20.97	28.51	15.53	15.59	1.36	0.85	37.64	27.25	3.03
2200	20.80	28.54	14.93	15.03	1.38	0.85	37.42	27.00	2.99
2400	20.63	28.57	14.25	14.73	1.39	0.87	37.53	27.09	2.95
2600	20.37	28.67	13.57	14.15	1.43	0.88	37.73	26.73	3.00
2800	20.09	28.85	13.04	14.36	1.48	0.90	38.40	26.64	3.04
3000	19.80	28.92	12.24	14.21	1.50	0.93	39.73	26.51	3.04
3200	19.63	28.84	11.46	14.52	1.48	0.95	41.33	26.51	3.12
3400	19.48	28.78	10.66	14.40	1.45	0.97	44.45	26.43	3.06
3600	19.27	28.83	9.94	14.21	1.46	1.00	41.00	26.31	3.06
3800	19.14	28.80	9.12	13.28	1.43	1.01	39.22	26.34	2.96
4000	18.99	28.84	8.41	12.29	1.44	1.01	38.12	25.92	3.02
4200	18.94	28.78	7.77	11.12	1.42	1.00	36.56	25.49	2.97
4400	18.86	28.74	7.28	10.40	1.42	0.98	35.17	25.53	2.94
4600	18.85	28.63	7.04	9.96	1.42	0.96	34.08	24.53	2.84
4800	18.86	28.33	7.08	10.08	1.41	0.95	33.64	25.39	2.80
5000	18.91	28.01	7.42	10.48	1.41	0.93	33.42	24.47	2.71
5200	19.07	27.64	8.05	11.75	1.39	0.92	32.58	24.85	2.64
5400	19.22	27.31	8.94	13.39	1.38	0.91	33.02	25.56	2.63
5600	19.41	27.03	9.69	16.68	1.36	0.91	33.63	25.64	2.59
5800	19.46	26.83	10.30	21.76	1.35	0.92	34.72	25.88	2.58
6000	19.39	26.79	10.12	31.81	1.36	0.94	36.14	25.85	2.60
6200	19.18	26.84	9.42	26.28	1.38	0.97	37.98	25.67	2.69
6400	18.99	26.96	8.35	20.79	1.37	1.02	38.94	25.53	2.76
6600	18.89	27.17	7.56	18.48	1.37	1.06	39.22	25.44	2.81
6800	18.94	27.27	7.00	17.72	1.33	1.09	38.92	25.37	2.96
7000	18.83	27.41	6.64	18.66	1.33	1.13	38.48	25.30	2.93
7200	18.63	27.55	6.40	19.03	1.34	1.15	38.10	25.29	2.93
7400	18.55	27.80	6.68	19.95	1.40	1.14	37.98	25.35	2.94
7600	18.26	27.99	7.40	22.83	1.54	1.11	37.76	25.53	2.85
7800	18.02	27.76	8.12	24.87	1.59	1.07	37.55	25.54	2.86
8000	17.92	27.63	8.73	31.58	1.63	1.04	37.55	25.52	2.92

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: Vd = 8.40V, Vadj = 1.7V , Id = 150mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	22.25	29.26	13.50	10.60	1.27	0.72	38.44	27.45	3.32
600	22.26	29.18	15.11	12.46	1.29	0.76	38.55	27.64	3.23
800	22.16	29.10	15.90	13.74	1.29	0.78	38.36	27.75	3.30
1000	22.04	29.07	16.20	14.88	1.31	0.80	38.21	27.95	3.18
1200	21.91	29.01	16.23	15.70	1.31	0.82	38.03	28.01	3.23
1400	21.74	29.00	16.13	16.31	1.33	0.83	38.00	28.11	3.09
1600	21.59	28.93	15.88	16.41	1.34	0.84	38.19	28.06	3.07
1800	21.40	28.89	15.60	16.26	1.35	0.85	37.76	27.99	3.06
2000	21.29	28.85	15.29	15.81	1.36	0.85	37.37	28.09	3.02
2200	21.12	28.81	14.70	15.26	1.37	0.86	37.31	27.86	3.08
2400	20.93	28.86	14.05	14.89	1.39	0.87	37.34	27.93	3.14
2600	20.67	28.97	13.37	14.36	1.42	0.88	37.45	27.61	3.05
2800	20.38	29.10	12.83	14.48	1.47	0.91	38.08	27.45	3.08
3000	20.08	29.21	12.01	14.38	1.49	0.93	39.42	27.30	3.12
3200	19.91	29.09	11.24	14.57	1.47	0.96	40.86	27.05	3.08
3400	19.73	29.07	10.44	14.49	1.45	0.98	43.23	26.98	3.04
3600	19.53	29.09	9.69	14.15	1.45	1.00	43.42	26.68	3.09
3800	19.37	29.09	8.91	13.25	1.43	1.02	40.43	26.49	3.02
4000	19.23	29.10	8.21	12.17	1.43	1.02	39.09	25.80	3.04
4200	19.15	29.05	7.59	11.06	1.42	1.00	37.18	24.90	3.02
4400	19.08	28.95	7.11	10.29	1.41	0.99	35.60	24.96	2.90
4600	19.05	28.83	6.90	9.90	1.41	0.97	34.59	24.03	2.85
4800	19.06	28.54	6.95	9.97	1.40	0.95	34.36	25.04	2.82
5000	19.12	28.26	7.29	10.43	1.40	0.93	34.00	24.26	2.77
5200	19.27	27.84	7.89	11.60	1.38	0.92	33.37	24.91	2.70
5400	19.43	27.50	8.74	13.27	1.37	0.91	34.06	25.86	2.65
5600	19.60	27.24	9.46	16.32	1.35	0.91	34.72	26.06	2.60
5800	19.65	27.01	10.02	21.32	1.34	0.92	35.62	26.48	2.60
6000	19.57	26.94	9.83	30.44	1.35	0.94	36.52	26.46	2.64
6200	19.36	27.02	9.12	26.99	1.37	0.98	37.36	26.40	2.79
6400	19.15	27.18	8.10	21.39	1.37	1.03	38.06	26.29	2.73
6600	19.06	27.36	7.31	18.81	1.36	1.07	38.77	26.22	2.87
6800	19.09	27.44	6.77	18.15	1.32	1.11	38.72	26.08	2.90
7000	18.99	27.57	6.40	18.98	1.31	1.14	38.75	25.98	2.94
7200	18.76	27.72	6.19	19.38	1.33	1.17	38.58	25.95	2.95
7400	18.69	28.00	6.47	20.08	1.39	1.15	38.44	25.93	2.94
7600	18.38	28.19	7.19	22.83	1.53	1.12	38.20	26.02	2.96
7800	18.15	27.95	7.88	24.06	1.59	1.08	37.95	26.04	2.81
8000	18.03	27.85	8.48	29.61	1.64	1.05	37.84	26.01	3.01

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: Vd = 8.00V, Vadj = 1.7V , Id = 176mA Temperature = -45°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	21.65	29.33	12.82	8.27	1.28	0.67	38.92	27.36	2.93
600	21.72	29.21	14.08	9.49	1.30	0.71	39.20	27.50	2.84
800	21.68	29.14	14.94	9.92	1.30	0.72	39.03	27.60	2.82
1000	21.62	29.05	15.68	10.98	1.32	0.75	38.82	27.83	2.86
1200	21.58	28.95	16.20	11.49	1.31	0.76	38.50	27.96	2.83
1400	21.45	28.93	16.48	12.30	1.34	0.78	38.34	28.10	2.71
1600	21.40	28.85	16.28	12.52	1.33	0.79	38.23	28.14	2.69
1800	21.20	28.91	16.06	12.65	1.37	0.80	37.84	28.02	2.66
2000	21.15	28.76	15.52	12.42	1.35	0.80	37.55	28.09	2.56
2200	20.97	28.85	14.68	11.91	1.38	0.80	37.31	27.87	2.65
2400	20.86	28.76	13.77	11.97	1.38	0.81	37.15	27.96	2.74
2600	20.57	28.97	13.08	11.44	1.42	0.83	37.18	27.63	2.65
2800	20.38	29.02	12.76	12.05	1.45	0.85	37.33	27.53	2.71
3000	20.08	29.15	12.58	12.31	1.50	0.88	38.22	27.44	2.71
3200	20.03	28.97	11.97	13.43	1.47	0.91	38.94	27.49	2.65
3400	19.98	28.85	11.45	13.98	1.44	0.93	40.30	27.43	2.65
3600	19.84	28.82	11.09	15.51	1.45	0.96	43.80	27.31	2.57
3800	19.85	28.68	10.39	15.60	1.41	0.98	40.93	27.28	2.55
4000	19.73	28.77	9.80	15.52	1.44	0.99	39.34	26.93	2.61
4200	19.77	28.66	9.10	13.88	1.41	0.98	38.06	26.59	2.50
4400	19.69	28.63	8.51	12.97	1.42	0.97	36.30	26.77	2.41
4600	19.76	28.48	8.07	11.98	1.39	0.95	35.19	25.59	2.32
4800	19.73	28.38	8.03	12.00	1.40	0.94	35.11	26.39	2.31
5000	19.76	28.16	8.29	12.07	1.39	0.92	34.89	25.89	2.20
5200	19.82	27.82	8.96	13.68	1.38	0.91	34.14	26.23	2.28
5400	19.81	27.52	10.02	15.49	1.38	0.89	34.77	27.02	2.10
5600	19.94	27.29	10.82	19.57	1.36	0.89	35.53	27.31	2.14
5800	20.02	27.06	11.48	22.85	1.35	0.88	36.65	27.27	2.15
6000	20.03	27.03	11.35	21.92	1.35	0.88	38.20	27.28	2.20
6200	19.89	27.13	10.63	19.29	1.37	0.91	41.09	27.00	2.26
6400	19.71	27.26	9.43	17.39	1.38	0.95	43.33	26.72	2.30
6600	19.57	27.26	8.57	16.53	1.37	0.98	42.95	26.62	2.38
6800	19.65	27.28	7.84	16.14	1.32	1.01	41.78	26.44	2.41
7000	19.61	27.39	7.30	17.14	1.30	1.05	41.31	26.29	2.45
7200	19.69	27.40	6.74	18.79	1.25	1.09	40.59	26.27	2.50
7400	19.39	27.72	7.12	20.50	1.33	1.10	40.23	26.00	2.45
7600	19.17	27.54	7.66	25.62	1.37	1.07	40.63	26.54	2.42
7800	18.85	27.47	8.56	38.34	1.46	1.03	40.39	26.55	2.43
8000	18.66	27.73	9.50	24.82	1.58	1.00	40.11	26.56	2.45

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: Vd = 7.60V, Vadj = 1.7V Id = 162mA @ Temperature = -45°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	21.78	29.25	12.43	8.23	1.26	0.66	38.93	26.74	2.86
600	21.83	29.10	13.70	9.15	1.27	0.69	39.11	26.87	2.83
800	21.79	29.05	14.58	9.84	1.28	0.71	38.94	27.02	2.88
1000	21.75	28.97	15.26	10.60	1.29	0.73	38.80	27.25	2.78
1200	21.69	28.90	15.87	11.33	1.30	0.75	38.55	27.38	2.79
1400	21.60	28.82	16.13	11.93	1.30	0.77	38.41	27.56	2.68
1600	21.50	28.80	16.07	12.26	1.32	0.78	38.34	27.56	2.66
1800	21.35	28.76	15.77	12.39	1.33	0.79	38.06	27.50	2.60
2000	21.26	28.73	15.29	12.10	1.34	0.79	37.86	27.56	2.58
2200	21.12	28.68	14.38	11.77	1.34	0.79	38.06	27.36	2.61
2400	20.95	28.74	13.55	11.60	1.36	0.80	37.51	27.41	2.63
2600	20.73	28.85	12.82	11.38	1.38	0.82	37.45	27.12	2.62
2800	20.47	28.94	12.55	11.67	1.43	0.84	37.67	27.02	2.64
3000	20.22	29.07	12.32	12.26	1.47	0.87	38.31	26.94	2.72
3200	20.16	28.87	11.84	13.00	1.43	0.90	39.14	27.04	2.61
3400	20.10	28.77	11.35	14.02	1.41	0.93	40.38	26.93	2.60
3600	20.02	28.69	10.90	15.14	1.40	0.95	43.16	26.85	2.55
3800	19.95	28.63	10.37	15.91	1.39	0.98	40.22	26.90	2.58
4000	19.91	28.58	9.74	15.58	1.39	0.98	39.18	26.57	2.57
4200	19.89	28.51	9.06	14.33	1.38	0.98	38.09	26.39	2.55
4400	19.87	28.52	8.41	13.10	1.38	0.97	36.38	26.54	2.37
4600	19.88	28.42	8.03	12.34	1.37	0.95	35.14	25.47	2.34
4800	19.90	28.25	7.93	12.09	1.37	0.93	34.91	26.32	2.56
5000	19.91	28.06	8.22	12.45	1.37	0.92	34.94	25.78	2.26
5200	19.92	27.76	8.90	13.78	1.36	0.91	34.01	26.19	2.21
5400	19.96	27.43	9.94	16.01	1.36	0.89	34.81	26.79	2.14
5600	20.05	27.26	10.86	19.56	1.35	0.89	35.85	27.10	2.15
5800	20.12	27.02	11.55	23.16	1.33	0.87	37.70	26.92	2.14
6000	20.12	27.01	11.38	21.59	1.34	0.88	40.19	26.88	2.21
6200	20.01	27.07	10.59	18.67	1.35	0.90	43.76	26.60	2.28
6400	19.79	27.21	9.44	17.17	1.36	0.94	41.43	26.29	2.26
6600	19.69	27.24	8.54	16.07	1.35	0.97	39.33	26.16	2.33
6800	19.71	27.26	7.84	15.95	1.31	1.01	38.40	25.94	2.48
7000	19.76	27.29	7.20	16.70	1.26	1.05	38.31	25.82	2.46
7200	19.74	27.39	6.76	18.62	1.24	1.09	38.32	25.83	2.52
7400	19.53	27.62	7.10	20.08	1.30	1.09	38.17	25.50	2.50
7600	19.25	27.53	7.69	25.63	1.37	1.06	39.55	26.09	2.44
7800	18.98	27.44	8.53	35.78	1.44	1.03	39.94	26.09	2.46
8000	18.73	27.74	9.57	23.81	1.57	1.00	39.88	26.13	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: Vd = 8.40V, Vadj = 1.7V , Id = 182mA @ Temperature = -45°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	21.62	29.41	13.02	8.34	1.30	0.68	38.95	27.92	2.94
600	21.72	29.26	14.29	9.79	1.31	0.72	39.34	28.06	2.84
800	21.64	29.21	15.15	10.03	1.31	0.73	39.18	28.16	2.85
1000	21.61	29.10	15.89	11.39	1.33	0.76	38.97	28.38	2.83
1200	21.54	29.02	16.42	11.59	1.33	0.77	38.65	28.50	2.77
1400	21.42	29.00	16.66	12.80	1.35	0.79	38.46	28.63	2.76
1600	21.36	28.90	16.44	12.60	1.34	0.79	38.32	28.65	2.71
1800	21.17	28.94	16.21	13.17	1.38	0.81	37.80	28.54	2.75
2000	21.10	28.80	15.70	12.46	1.36	0.80	37.36	28.59	2.64
2200	20.92	28.87	14.85	12.38	1.39	0.81	37.11	28.38	2.68
2400	20.83	28.86	13.93	12.00	1.39	0.82	36.98	28.41	2.72
2600	20.51	28.99	13.24	11.85	1.44	0.84	36.94	28.14	2.67
2800	20.34	29.06	12.90	12.11	1.46	0.86	37.20	28.03	2.68
3000	19.98	29.22	12.77	12.71	1.53	0.89	37.85	27.93	2.75
3200	20.02	28.95	12.02	13.48	1.47	0.91	38.58	27.98	2.66
3400	19.85	28.91	11.55	14.41	1.47	0.94	39.67	27.85	2.63
3600	19.83	28.79	11.07	15.33	1.44	0.96	42.77	27.71	2.61
3800	19.72	28.83	10.44	15.91	1.45	0.98	42.25	27.74	2.54
4000	19.66	28.79	9.77	14.90	1.44	0.99	40.03	27.26	2.61
4200	19.67	28.69	9.10	13.95	1.43	0.98	38.42	26.81	2.47
4400	19.59	28.70	8.51	12.42	1.43	0.97	36.81	26.98	2.43
4600	19.67	28.52	8.07	12.03	1.41	0.95	35.33	25.69	2.37
4800	19.59	28.46	8.07	11.50	1.43	0.93	35.06	26.54	2.35
5000	19.72	28.15	8.24	12.14	1.40	0.92	34.91	26.03	2.26
5200	19.63	27.93	9.07	13.08	1.42	0.91	34.24	26.29	2.21
5400	19.79	27.47	9.94	15.66	1.38	0.90	34.79	27.22	2.19
5600	19.82	27.37	10.79	18.45	1.38	0.89	35.50	27.49	2.14
5800	19.95	27.11	11.39	23.71	1.36	0.89	36.47	27.63	2.16
6000	19.91	27.10	11.37	22.19	1.37	0.89	37.56	27.62	2.19
6200	19.87	27.10	10.58	19.57	1.37	0.91	39.36	27.38	2.29
6400	19.59	27.29	9.48	18.08	1.40	0.95	40.92	27.12	2.30
6600	19.56	27.26	8.53	16.66	1.37	0.98	42.58	27.03	2.35
6800	19.50	27.40	7.93	16.74	1.36	1.02	43.15	26.85	2.44
7000	19.63	27.29	7.20	17.24	1.28	1.06	42.50	26.72	2.44
7200	19.50	27.53	6.86	19.67	1.30	1.10	41.64	26.74	2.54
7400	19.39	27.64	7.02	20.37	1.31	1.10	41.27	26.48	2.48
7600	19.02	27.64	7.70	27.19	1.41	1.07	40.59	26.90	2.44
7800	18.83	27.47	8.48	38.96	1.46	1.04	39.98	26.97	2.39
8000	18.50	27.84	9.55	24.33	1.62	1.00	39.70	27.01	2.49

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: Vd = 8.00V, Vadj = 1.7V , Id = 117mA @ Temperature = +85°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	22.00	28.94	13.59	12.37	1.29	0.76	40.60	26.71	3.47
600	21.99	28.82	15.16	15.66	1.30	0.79	40.52	26.92	3.51
800	21.86	28.77	15.65	17.88	1.31	0.82	40.16	27.03	3.46
1000	21.68	28.75	15.64	19.57	1.32	0.84	40.45	27.17	3.43
1200	21.52	28.70	15.37	19.80	1.33	0.85	40.72	27.21	3.42
1400	21.30	28.68	15.12	19.82	1.34	0.86	41.34	27.29	3.28
1600	21.14	28.67	14.81	18.91	1.35	0.87	42.56	27.19	3.35
1800	20.93	28.66	14.65	18.37	1.37	0.88	41.26	27.12	3.31
2000	20.81	28.55	14.50	17.65	1.37	0.88	40.62	27.09	3.25
2200	20.64	28.55	14.20	17.15	1.39	0.89	40.78	27.06	3.24
2400	20.44	28.61	13.76	16.57	1.42	0.90	41.88	27.00	3.23
2600	20.18	28.70	13.18	15.86	1.45	0.91	42.06	26.79	3.32
2800	19.88	28.81	12.52	15.61	1.49	0.93	41.90	26.62	3.32
3000	19.54	28.95	11.55	14.77	1.51	0.96	39.92	26.49	3.36
3200	19.29	28.95	10.68	14.35	1.51	0.98	38.16	26.13	3.32
3400	19.05	28.99	9.75	13.45	1.49	1.00	37.33	26.15	3.31
3600	18.76	29.11	8.92	12.52	1.49	1.02	35.31	25.85	3.26
3800	18.56	29.09	8.07	11.32	1.46	1.03	34.30	25.42	3.28
4000	18.36	29.19	7.41	10.32	1.47	1.02	33.76	24.86	3.36
4200	18.26	29.15	6.86	9.39	1.45	1.00	33.02	23.95	3.21
4400	18.19	29.11	6.46	8.83	1.45	0.98	32.56	24.03	3.17
4600	18.19	28.94	6.29	8.55	1.44	0.96	32.08	22.87	3.09
4800	18.25	28.69	6.32	8.69	1.43	0.95	31.91	23.67	3.10
5000	18.32	28.32	6.61	9.13	1.42	0.94	31.30	22.75	2.96
5200	18.49	27.80	7.15	10.31	1.40	0.94	30.91	23.21	2.98
5400	18.64	27.37	7.99	11.89	1.39	0.93	31.20	24.05	2.95
5600	18.83	27.02	8.67	14.78	1.37	0.95	31.31	24.19	2.89
5800	18.92	26.76	9.25	19.48	1.36	0.96	32.04	24.79	2.95
6000	18.92	26.75	9.13	29.33	1.37	0.98	33.21	24.79	3.00
6200	18.73	26.85	8.60	30.88	1.39	1.02	34.26	24.89	3.07
6400	18.48	27.01	7.72	22.28	1.39	1.07	34.81	24.96	3.14
6600	18.29	27.21	7.07	19.37	1.40	1.11	35.40	24.93	3.24
6800	18.25	27.34	6.56	18.18	1.38	1.14	35.60	24.89	3.30
7000	18.06	27.51	6.20	18.02	1.38	1.17	35.31	24.81	3.28
7200	17.88	27.58	5.96	16.78	1.37	1.19	35.04	24.69	3.32
7400	17.77	27.68	6.12	16.94	1.42	1.17	35.05	24.60	3.31
7600	17.49	27.81	6.77	17.92	1.55	1.13	34.89	24.46	3.31
7800	17.25	27.51	7.50	19.45	1.61	1.09	34.77	24.44	3.26
8000	17.14	27.38	8.17	25.42	1.67	1.07	34.83	24.30	3.32

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: Vd = 7.60V, Vadj = 1.7V , Id = 107mA @ Temperature = +85°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	21.88	28.76	13.50	12.47	1.28	0.76	41.45	26.24	3.51
600	21.88	28.64	15.07	15.84	1.29	0.79	40.90	26.44	3.51
800	21.74	28.57	15.59	18.32	1.30	0.81	40.20	26.54	3.45
1000	21.58	28.56	15.54	19.84	1.31	0.83	40.39	26.71	3.41
1200	21.40	28.52	15.30	20.30	1.32	0.85	40.94	26.74	3.48
1400	21.21	28.49	15.03	19.92	1.33	0.86	41.63	26.82	3.34
1600	21.03	28.48	14.74	19.19	1.34	0.87	42.81	26.76	3.34
1800	20.84	28.45	14.58	18.38	1.36	0.88	41.83	26.67	3.31
2000	20.71	28.35	14.45	17.77	1.36	0.88	41.02	26.65	3.26
2200	20.54	28.33	14.16	17.20	1.38	0.89	41.14	26.61	3.30
2400	20.34	28.44	13.74	16.61	1.41	0.90	41.98	26.51	3.34
2600	20.09	28.52	13.17	15.94	1.44	0.91	41.86	26.28	3.32
2800	19.79	28.67	12.50	15.59	1.48	0.93	41.63	26.14	3.28
3000	19.46	28.77	11.52	14.79	1.50	0.96	39.47	25.98	3.31
3200	19.21	28.80	10.64	14.24	1.49	0.98	37.84	25.74	3.39
3400	18.95	28.83	9.71	13.37	1.48	1.00	36.95	25.82	3.34
3600	18.69	28.92	8.83	12.34	1.47	1.02	35.20	25.55	3.32
3800	18.45	28.99	8.02	11.20	1.46	1.02	34.06	25.13	3.34
4000	18.28	29.08	7.33	10.15	1.46	1.02	33.75	24.69	3.31
4200	18.17	29.10	6.78	9.29	1.45	1.00	33.14	23.76	3.27
4400	18.11	29.01	6.37	8.70	1.43	0.98	32.72	23.89	3.22
4600	18.11	28.86	6.20	8.46	1.43	0.96	32.02	22.58	3.12
4800	18.17	28.63	6.22	8.55	1.42	0.95	31.87	23.43	3.12
5000	18.27	28.22	6.49	9.03	1.41	0.94	31.32	22.38	3.00
5200	18.42	27.72	7.05	10.14	1.39	0.94	30.97	22.93	2.94
5400	18.59	27.29	7.85	11.79	1.38	0.94	30.98	23.73	2.94
5600	18.76	26.92	8.59	14.57	1.36	0.95	31.18	23.90	2.94
5800	18.87	26.66	9.18	19.40	1.35	0.96	31.81	24.46	2.93
6000	18.86	26.64	9.10	28.52	1.36	0.98	32.77	24.45	2.94
6200	18.72	26.72	8.54	29.74	1.37	1.02	33.79	24.52	3.09
6400	18.45	26.93	7.72	22.20	1.39	1.07	34.38	24.56	3.18
6600	18.27	27.10	7.06	19.20	1.39	1.11	34.93	24.52	3.19
6800	18.20	27.24	6.58	18.12	1.37	1.14	35.09	24.49	3.27
7000	18.04	27.35	6.18	17.75	1.36	1.17	34.77	24.41	3.26
7200	17.83	27.48	5.96	16.58	1.37	1.19	34.50	24.33	3.30
7400	17.75	27.54	6.09	16.60	1.39	1.17	34.51	24.27	3.31
7600	17.46	27.63	6.73	17.68	1.52	1.13	34.47	24.11	3.27
7800	17.24	27.32	7.44	19.12	1.58	1.09	34.31	24.12	3.33
8000	17.12	27.18	8.14	25.33	1.64	1.07	34.44	24.00	3.31

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: Vd = 8.40V, Vadj = 1.7V , Id = 127mA @ Temperature = +85°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	22.09	29.12	13.68	12.26	1.30	0.76	40.16	27.15	3.67
600	22.06	29.00	15.26	15.54	1.31	0.80	40.16	27.36	3.46
800	21.95	28.93	15.74	17.47	1.31	0.82	40.09	27.47	3.50
1000	21.75	28.94	15.76	19.40	1.34	0.84	40.45	27.63	3.47
1200	21.60	28.87	15.47	19.37	1.34	0.85	40.68	27.63	3.48
1400	21.36	28.87	15.23	19.79	1.36	0.86	41.23	27.70	3.41
1600	21.22	28.82	14.89	18.68	1.36	0.87	42.27	27.59	3.48
1800	21.00	28.83	14.73	18.42	1.39	0.88	41.02	27.50	3.34
2000	20.88	28.69	14.57	17.54	1.38	0.88	40.50	27.47	3.36
2200	20.70	28.72	14.26	17.13	1.41	0.89	40.50	27.50	3.32
2400	20.51	28.78	13.80	16.55	1.43	0.90	41.40	27.41	3.27
2600	20.23	28.87	13.22	15.82	1.47	0.92	41.66	27.22	3.33
2800	19.94	29.01	12.57	15.66	1.51	0.94	41.86	26.97	3.34
3000	19.60	29.08	11.61	14.77	1.52	0.96	40.37	26.82	3.39
3200	19.34	29.10	10.73	14.46	1.52	0.98	38.56	26.34	3.37
3400	19.12	29.10	9.80	13.54	1.50	1.00	37.77	26.38	3.47
3600	18.80	29.24	9.03	12.68	1.52	1.02	35.50	25.98	3.39
3800	18.64	29.23	8.13	11.42	1.48	1.03	33.61	25.55	3.38
4000	18.41	29.33	7.50	10.45	1.49	1.02	34.26	24.92	3.34
4200	18.35	29.25	6.93	9.47	1.46	1.00	33.42	23.91	3.38
4400	18.24	29.23	6.56	8.96	1.47	0.98	32.67	23.95	3.30
4600	18.27	29.03	6.37	8.61	1.45	0.96	32.17	22.86	3.22
4800	18.29	28.79	6.43	8.81	1.45	0.95	32.05	23.74	3.19
5000	18.37	28.42	6.72	9.19	1.44	0.94	31.59	22.88	3.06
5200	18.55	27.92	7.26	10.45	1.41	0.94	31.02	23.44	3.07
5400	18.68	27.51	8.10	11.93	1.41	0.93	31.45	24.30	3.01
5600	18.89	27.14	8.74	14.96	1.38	0.95	31.81	24.47	2.99
5800	18.97	26.90	9.29	19.46	1.37	0.96	32.72	25.12	2.96
6000	18.96	26.86	9.15	30.04	1.38	0.98	33.81	25.11	3.00
6200	18.74	26.97	8.62	32.13	1.41	1.02	34.89	25.25	3.11
6400	18.52	27.13	7.70	22.38	1.41	1.07	35.46	25.38	3.14
6600	18.31	27.31	7.07	19.67	1.42	1.11	35.96	25.34	3.31
6800	18.30	27.47	6.54	18.35	1.39	1.14	36.11	25.29	3.30
7000	18.08	27.62	6.25	18.42	1.41	1.17	35.85	25.18	3.36
7200	17.94	27.70	5.95	17.00	1.38	1.19	35.66	25.03	3.40
7400	17.80	27.87	6.13	17.27	1.45	1.17	35.49	24.93	3.33
7600	17.55	27.94	6.76	18.07	1.56	1.14	35.28	24.77	3.37
7800	17.29	27.66	7.52	19.65	1.63	1.10	35.11	24.76	3.31
8000	17.19	27.48	8.14	25.28	1.68	1.07	35.18	24.60	3.28

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: Vd = 8.00V , Iadj connection = Ground, Id = 63mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	20.23	26.83	13.32	13.23	1.27	0.75	35.32	27.04	3.36
600	20.29	26.73	14.98	18.63	1.28	0.79	35.06	27.27	3.27
800	20.17	26.72	15.52	25.07	1.29	0.81	34.42	27.45	3.35
1000	20.04	26.69	15.43	29.40	1.29	0.83	34.16	27.74	3.35
1200	19.87	26.69	15.15	25.57	1.30	0.84	33.96	27.88	3.25
1400	19.70	26.68	14.89	22.12	1.31	0.85	34.01	28.18	3.17
1600	19.54	26.67	14.73	20.30	1.32	0.85	34.02	28.13	3.24
1800	19.37	26.67	14.72	18.98	1.33	0.86	33.87	28.05	3.14
2000	19.28	26.59	14.80	18.41	1.34	0.86	33.91	28.18	3.16
2200	19.16	26.57	14.72	17.94	1.35	0.87	33.71	27.94	3.08
2400	18.99	26.64	14.41	17.24	1.37	0.88	33.44	28.06	2.99
2600	18.77	26.73	13.94	16.58	1.40	0.90	33.27	27.75	3.15
2800	18.47	26.92	13.32	16.04	1.44	0.92	33.45	27.74	3.22
3000	18.15	27.09	12.26	14.91	1.47	0.94	33.96	27.59	3.18
3200	17.95	27.10	11.20	13.82	1.45	0.95	34.52	27.74	3.15
3400	17.71	27.16	10.06	12.46	1.43	0.97	35.04	27.53	3.18
3600	17.47	27.28	9.03	11.15	1.41	0.97	35.33	27.49	3.12
3800	17.23	27.43	8.07	9.91	1.41	0.97	35.25	27.55	3.13
4000	17.04	27.55	7.27	8.85	1.40	0.96	35.72	27.22	3.18
4200	16.93	27.62	6.63	8.04	1.39	0.94	35.81	26.71	3.14
4400	16.85	27.57	6.17	7.50	1.37	0.91	35.83	26.57	3.07
4600	16.84	27.45	5.95	7.30	1.37	0.90	35.95	25.03	3.02
4800	16.91	27.25	5.96	7.40	1.37	0.89	34.89	26.30	2.98
5000	17.07	26.91	6.18	7.79	1.36	0.88	36.22	24.68	2.87
5200	17.31	26.51	6.67	8.60	1.34	0.88	34.41	25.36	2.84
5400	17.63	26.12	7.33	9.74	1.32	0.88	33.50	26.25	2.77
5600	17.93	25.75	8.07	11.66	1.29	0.89	33.31	26.51	2.67
5800	18.13	25.41	8.84	14.54	1.27	0.91	33.52	26.45	2.67
6000	18.17	25.21	9.12	18.39	1.27	0.94	34.19	26.52	2.68
6200	18.14	25.17	8.84	22.22	1.26	0.98	35.48	26.31	2.83
6400	18.08	25.30	8.07	21.09	1.25	1.03	36.70	26.09	2.82
6600	18.05	25.45	7.41	19.03	1.23	1.07	38.35	25.99	2.89
6800	17.98	25.64	6.90	17.59	1.22	1.10	38.75	25.82	2.98
7000	17.80	25.85	6.53	16.71	1.23	1.12	40.41	25.71	3.03
7200	17.49	26.10	6.31	15.53	1.27	1.13	40.27	25.65	3.01
7400	17.36	26.20	6.39	14.75	1.30	1.12	39.05	25.64	2.93
7600	17.17	26.20	6.55	14.81	1.35	1.09	39.35	25.90	2.97
7800	17.14	25.97	6.79	15.51	1.35	1.07	40.02	25.86	2.95
8000	17.13	25.86	7.58	18.94	1.41	1.05	41.20	25.90	2.94

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: Vd = 8.00V , Iadj connection = 0.2V, Id = 77mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	20.94	27.68	13.54	12.38	1.27	0.74	36.86	27.00	3.32
600	20.99	27.49	15.27	15.97	1.27	0.78	36.45	27.20	3.27
800	20.88	27.46	15.95	18.89	1.28	0.80	35.70	27.38	3.25
1000	20.75	27.44	16.01	20.94	1.29	0.82	35.45	27.67	3.29
1200	20.60	27.40	15.84	21.76	1.30	0.83	35.29	27.79	3.24
1400	20.43	27.36	15.62	21.25	1.31	0.84	35.41	28.03	3.10
1600	20.28	27.34	15.42	20.28	1.32	0.85	35.48	27.99	3.14
1800	20.11	27.36	15.33	19.26	1.33	0.86	35.07	27.89	3.10
2000	20.01	27.29	15.26	18.51	1.34	0.86	34.98	28.00	3.10
2200	19.88	27.30	14.99	17.84	1.35	0.87	34.76	27.78	3.00
2400	19.70	27.34	14.52	17.08	1.37	0.88	34.56	27.88	2.90
2600	19.47	27.46	13.94	16.37	1.40	0.89	34.45	27.57	3.08
2800	19.18	27.60	13.32	16.10	1.44	0.91	34.66	27.51	3.14
3000	18.87	27.76	12.31	15.32	1.47	0.94	35.34	27.33	3.14
3200	18.68	27.75	11.35	14.65	1.45	0.96	36.17	27.34	3.12
3400	18.48	27.77	10.31	13.63	1.43	0.98	36.94	27.11	3.05
3600	18.26	27.84	9.35	12.45	1.42	0.99	37.33	26.93	3.06
3800	18.05	27.95	8.43	11.17	1.41	0.99	37.80	26.97	3.08
4000	17.89	28.04	7.64	10.02	1.40	0.98	38.38	26.11	3.13
4200	17.79	28.07	7.00	9.10	1.39	0.96	37.88	25.35	3.00
4400	17.72	28.04	6.52	8.46	1.38	0.94	37.53	25.22	2.93
4600	17.71	27.90	6.30	8.20	1.38	0.92	36.44	23.95	2.95
4800	17.75	27.63	6.33	8.30	1.37	0.91	34.91	25.45	2.87
5000	17.88	27.35	6.58	8.73	1.37	0.90	35.29	23.55	2.83
5200	18.09	26.99	7.11	9.65	1.36	0.89	33.67	24.64	2.72
5400	18.35	26.62	7.83	10.97	1.33	0.89	32.94	26.00	2.65
5600	18.59	26.32	8.59	13.26	1.32	0.90	32.88	26.33	2.65
5800	18.72	25.99	9.29	16.88	1.30	0.92	33.24	26.41	2.69
6000	18.69	25.88	9.41	22.67	1.30	0.95	34.06	26.47	2.67
6200	18.61	25.86	8.96	28.59	1.30	0.98	35.34	26.27	2.78
6400	18.52	26.06	8.08	22.80	1.29	1.03	36.91	26.04	2.75
6600	18.49	26.24	7.38	19.99	1.28	1.07	38.03	25.94	2.82
6800	18.43	26.42	6.89	18.73	1.27	1.11	38.27	25.74	2.87
7000	18.27	26.62	6.58	18.52	1.29	1.13	39.68	25.59	2.95
7200	17.96	26.88	6.42	17.66	1.34	1.14	40.55	25.50	2.96
7400	17.84	26.94	6.59	16.90	1.37	1.13	38.65	25.41	2.87
7600	17.64	26.98	6.84	17.06	1.42	1.10	38.95	25.74	2.96
7800	17.59	26.76	7.12	17.82	1.43	1.08	39.36	25.70	2.82
8000	17.52	26.75	7.93	22.15	1.51	1.06	39.76	25.74	2.93

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: Vd = 8.00V, Iadj connection = 0.4V, Id = 87mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	21.31	28.09	13.55	11.80	1.27	0.74	37.93	26.98	3.25
600	21.35	27.93	15.29	14.64	1.27	0.77	37.45	27.16	3.21
800	21.24	27.89	16.03	16.79	1.28	0.79	36.69	27.31	3.27
1000	21.12	27.85	16.18	18.36	1.29	0.81	36.45	27.59	3.24
1200	20.98	27.82	16.09	19.36	1.30	0.83	36.34	27.73	3.13
1400	20.81	27.78	15.90	19.56	1.31	0.84	36.53	27.90	3.11
1600	20.66	27.76	15.70	19.16	1.32	0.84	36.57	27.85	3.12
1800	20.49	27.75	15.54	18.51	1.33	0.85	36.18	27.76	3.09
2000	20.39	27.69	15.40	17.82	1.34	0.85	36.08	27.86	3.03
2200	20.25	27.68	15.02	17.17	1.35	0.86	35.88	27.65	3.01
2400	20.06	27.73	14.47	16.48	1.37	0.87	35.70	27.76	3.00
2600	19.83	27.86	13.85	15.84	1.40	0.89	35.48	27.43	3.04
2800	19.55	28.03	13.25	15.72	1.45	0.91	35.80	27.35	3.06
3000	19.24	28.15	12.28	15.22	1.47	0.94	36.67	27.09	3.07
3200	19.06	28.10	11.38	14.82	1.45	0.96	37.71	26.96	3.11
3400	18.86	28.11	10.41	14.10	1.43	0.98	39.19	26.76	3.10
3600	18.66	28.17	9.50	13.09	1.42	0.99	40.41	26.50	3.02
3800	18.47	28.26	8.62	11.87	1.41	1.00	40.13	26.33	3.09
4000	18.31	28.32	7.84	10.69	1.41	0.99	39.42	25.48	3.05
4200	18.23	28.31	7.20	9.72	1.39	0.98	38.03	24.70	2.96
4400	18.16	28.28	6.72	9.01	1.39	0.96	37.14	24.74	2.91
4600	18.14	28.15	6.50	8.72	1.38	0.94	35.55	23.28	2.90
4800	18.18	27.88	6.53	8.81	1.38	0.92	34.39	24.96	2.79
5000	18.29	27.58	6.80	9.26	1.37	0.91	34.35	23.01	2.74
5200	18.47	27.27	7.36	10.24	1.37	0.90	32.99	24.33	2.69
5400	18.71	26.91	8.10	11.66	1.35	0.90	32.60	25.83	2.60
5600	18.91	26.60	8.86	14.15	1.33	0.91	32.66	26.23	2.57
5800	19.01	26.33	9.53	18.26	1.32	0.92	33.09	26.36	2.60
6000	18.95	26.24	9.54	25.73	1.32	0.95	34.09	26.41	2.63
6200	18.84	26.24	8.99	31.45	1.32	0.98	35.33	26.25	2.72
6400	18.75	26.42	8.07	22.57	1.31	1.03	36.81	26.02	2.76
6600	18.71	26.60	7.36	19.81	1.30	1.07	37.76	25.91	2.72
6800	18.66	26.79	6.88	18.84	1.29	1.11	37.98	25.70	2.87
7000	18.50	27.00	6.59	19.16	1.31	1.13	38.69	25.50	2.93
7200	18.20	27.25	6.46	18.82	1.36	1.15	38.97	25.40	2.95
7400	18.08	27.38	6.67	18.13	1.41	1.13	38.03	25.34	2.88
7600	17.87	27.38	6.97	18.43	1.46	1.11	38.16	25.64	2.88
7800	17.81	27.16	7.28	19.28	1.47	1.08	38.27	25.64	2.83
8000	17.72	27.16	8.08	24.13	1.55	1.06	38.39	25.70	2.88

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: Vd = 8.00V, Iadj connection = 0.6V, Id = 97mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	21.56	28.37	13.54	11.35	1.27	0.73	38.51	26.95	3.25
600	21.60	28.30	15.26	13.78	1.28	0.76	38.05	27.15	3.17
800	21.50	28.22	16.03	15.55	1.28	0.79	37.34	27.26	3.21
1000	21.38	28.19	16.23	16.89	1.29	0.81	37.14	27.54	3.21
1200	21.24	28.13	16.21	17.88	1.30	0.82	37.06	27.66	3.14
1400	21.08	28.07	16.05	18.31	1.31	0.83	37.31	27.81	3.06
1600	20.93	28.08	15.84	18.17	1.32	0.84	37.48	27.77	3.05
1800	20.76	28.05	15.65	17.74	1.33	0.85	37.08	27.68	3.07
2000	20.65	27.99	15.43	17.13	1.34	0.85	36.98	27.80	3.08
2200	20.51	27.98	14.99	16.53	1.35	0.86	36.67	27.59	2.97
2400	20.32	28.03	14.39	15.93	1.37	0.87	36.52	27.67	2.87
2600	20.08	28.13	13.75	15.35	1.40	0.89	36.34	27.34	3.01
2800	19.80	28.32	13.16	15.31	1.45	0.91	36.91	27.22	3.05
3000	19.50	28.44	12.24	15.00	1.47	0.93	37.84	26.99	3.07
3200	19.32	28.40	11.38	14.81	1.46	0.96	38.97	26.76	3.01
3400	19.13	28.35	10.46	14.36	1.43	0.98	41.15	26.53	3.04
3600	18.94	28.39	9.60	13.52	1.42	1.00	41.33	26.18	2.97
3800	18.75	28.44	8.74	12.39	1.41	1.00	39.77	26.09	3.00
4000	18.61	28.50	7.98	11.20	1.41	1.00	38.39	25.27	3.06
4200	18.53	28.50	7.34	10.18	1.40	0.98	36.91	24.53	2.90
4400	18.46	28.45	6.87	9.44	1.39	0.97	36.08	24.50	2.88
4600	18.44	28.28	6.64	9.13	1.38	0.95	34.70	23.18	2.80
4800	18.47	28.05	6.69	9.20	1.38	0.93	33.93	24.75	2.80
5000	18.57	27.75	6.97	9.66	1.38	0.92	33.75	23.16	2.68
5200	18.73	27.44	7.54	10.68	1.37	0.91	32.68	24.22	2.63
5400	18.95	27.14	8.30	12.17	1.36	0.90	32.47	25.73	2.57
5600	19.13	26.79	9.05	14.81	1.33	0.91	32.60	26.16	2.52
5800	19.20	26.58	9.67	19.27	1.33	0.92	33.11	26.35	2.52
6000	19.12	26.46	9.62	28.55	1.33	0.95	34.13	26.39	2.61
6200	19.00	26.48	9.01	30.47	1.33	0.98	35.56	26.24	2.72
6400	18.90	26.70	8.05	21.92	1.33	1.03	36.90	25.98	2.76
6600	18.86	26.89	7.34	19.45	1.32	1.07	37.91	25.90	2.73
6800	18.81	27.08	6.87	18.71	1.31	1.11	38.09	25.69	2.90
7000	18.66	27.32	6.60	19.43	1.34	1.14	38.41	25.48	2.87
7200	18.36	27.55	6.48	19.59	1.39	1.15	38.38	25.42	2.93
7400	18.25	27.63	6.73	19.05	1.43	1.13	37.81	25.33	2.89
7600	18.04	27.67	7.05	19.50	1.49	1.11	37.77	25.63	2.88
7800	17.97	27.40	7.38	20.44	1.49	1.08	37.75	25.66	2.86
8000	17.86	27.44	8.18	25.77	1.58	1.06	37.84	25.77	2.87

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: Vd = 8.00V, Iadj connection = 0.8V, Id = 106mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	21.75	28.63	13.53	11.03	1.27	0.72	38.69	26.96	3.19
600	21.78	28.51	15.19	13.20	1.28	0.76	38.31	27.14	3.13
800	21.69	28.47	16.00	14.76	1.29	0.78	37.70	27.29	3.14
1000	21.57	28.41	16.24	15.97	1.29	0.80	37.54	27.54	3.15
1200	21.43	28.37	16.26	16.95	1.30	0.82	37.46	27.61	3.13
1400	21.28	28.33	16.12	17.45	1.31	0.83	37.77	27.80	3.03
1600	21.13	28.30	15.91	17.45	1.32	0.84	37.98	27.73	3.03
1800	20.95	28.30	15.69	17.15	1.34	0.85	37.64	27.64	2.96
2000	20.84	28.22	15.44	16.59	1.34	0.85	37.56	27.74	2.88
2200	20.69	28.20	14.95	16.04	1.36	0.86	37.19	27.53	2.96
2400	20.50	28.28	14.32	15.51	1.38	0.87	37.06	27.63	3.04
2600	20.26	28.38	13.65	14.97	1.41	0.88	36.97	27.32	3.00
2800	19.98	28.50	13.09	14.99	1.45	0.90	37.53	27.17	3.00
3000	19.68	28.62	12.19	14.77	1.47	0.93	38.77	26.93	3.08
3200	19.51	28.53	11.37	14.73	1.45	0.95	39.90	26.67	3.01
3400	19.32	28.56	10.49	14.47	1.44	0.98	42.30	26.52	3.03
3600	19.14	28.56	9.66	13.80	1.42	1.00	40.57	26.05	2.93
3800	18.96	28.62	8.83	12.75	1.42	1.01	38.89	26.01	2.99
4000	18.82	28.68	8.08	11.57	1.41	1.01	37.57	25.17	2.99
4200	18.74	28.65	7.45	10.53	1.40	0.99	36.17	24.51	2.91
4400	18.67	28.55	6.97	9.75	1.39	0.97	35.35	24.53	2.84
4600	18.65	28.44	6.75	9.42	1.39	0.95	34.22	23.32	2.77
4800	18.67	28.20	6.80	9.48	1.39	0.94	33.65	24.77	2.73
5000	18.77	27.87	7.09	9.95	1.38	0.92	33.38	23.45	2.67
5200	18.92	27.58	7.67	11.00	1.38	0.91	32.45	24.38	2.62
5400	19.13	27.25	8.44	12.54	1.36	0.90	32.45	25.73	2.57
5600	19.29	26.99	9.19	15.29	1.35	0.91	32.65	26.11	2.50
5800	19.34	26.77	9.79	20.03	1.34	0.92	33.33	26.34	2.54
6000	19.24	26.70	9.67	30.82	1.35	0.95	34.46	26.36	2.55
6200	19.11	26.68	9.02	28.79	1.35	0.99	36.00	26.22	2.72
6400	19.01	26.91	8.04	21.32	1.34	1.03	37.33	26.00	2.74
6600	18.97	27.07	7.32	19.08	1.33	1.07	38.27	25.94	2.80
6800	18.92	27.28	6.86	18.51	1.33	1.11	38.36	25.70	2.86
7000	18.77	27.49	6.60	19.49	1.35	1.14	38.45	25.55	2.84
7200	18.47	27.80	6.50	20.11	1.41	1.15	38.26	25.47	2.94
7400	18.37	27.87	6.76	19.71	1.45	1.14	37.83	25.39	2.88
7600	18.16	27.87	7.11	20.33	1.51	1.11	37.72	25.69	2.86
7800	18.08	27.63	7.45	21.37	1.51	1.09	37.60	25.74	2.78
8000	17.95	27.63	8.24	26.94	1.60	1.06	37.66	25.75	2.82

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: Vd = 8.00V, Iadj connection = 1.0V, Id = 116mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	21.90	28.90	13.49	10.79	1.28	0.72	38.68	26.97	3.23
600	21.93	28.72	15.15	12.78	1.28	0.76	38.37	27.16	3.16
800	21.83	28.65	15.95	14.22	1.29	0.78	37.89	27.31	3.16
1000	21.72	28.61	16.23	15.35	1.30	0.80	37.74	27.53	3.19
1200	21.58	28.55	16.28	16.29	1.30	0.81	37.67	27.64	3.12
1400	21.42	28.51	16.17	16.83	1.31	0.83	38.00	27.78	3.00
1600	21.27	28.52	15.95	16.91	1.33	0.84	38.24	27.72	3.04
1800	21.10	28.47	15.71	16.70	1.34	0.85	37.97	27.63	2.97
2000	20.99	28.40	15.42	16.18	1.35	0.85	37.89	27.72	3.01
2200	20.84	28.40	14.90	15.66	1.36	0.85	37.49	27.51	3.01
2400	20.64	28.46	14.25	15.18	1.38	0.87	37.41	27.60	2.71
2600	20.40	28.53	13.58	14.68	1.41	0.88	37.33	27.29	2.99
2800	20.12	28.69	13.02	14.72	1.45	0.90	37.97	27.14	3.10
3000	19.82	28.80	12.15	14.59	1.48	0.93	39.35	26.90	3.02
3200	19.65	28.71	11.35	14.64	1.46	0.95	40.61	26.64	3.02
3400	19.47	28.68	10.50	14.53	1.44	0.98	42.93	26.47	3.01
3600	19.29	28.71	9.70	13.99	1.43	1.00	40.22	26.12	2.98
3800	19.12	28.74	8.90	13.02	1.42	1.01	38.56	26.00	3.00
4000	18.98	28.78	8.15	11.86	1.41	1.01	37.31	25.25	3.00
4200	18.91	28.74	7.53	10.79	1.40	0.99	36.02	24.56	2.89
4400	18.84	28.70	7.06	9.99	1.40	0.98	35.05	24.55	2.81
4600	18.81	28.53	6.83	9.64	1.39	0.96	34.00	23.53	2.85
4800	18.83	28.30	6.88	9.71	1.39	0.94	33.48	24.82	2.74
5000	18.92	27.96	7.18	10.17	1.38	0.92	33.48	23.75	2.69
5200	19.06	27.67	7.77	11.25	1.38	0.91	32.45	24.52	2.65
5400	19.26	27.35	8.54	12.82	1.36	0.91	32.58	25.78	2.60
5600	19.41	27.12	9.29	15.66	1.35	0.91	32.85	26.10	2.54
5800	19.45	26.85	9.86	20.58	1.34	0.92	33.65	26.36	2.47
6000	19.33	26.80	9.70	32.48	1.35	0.95	34.88	26.38	2.57
6200	19.20	26.82	9.02	27.41	1.35	0.98	36.48	26.24	2.68
6400	19.09	27.04	8.03	20.84	1.35	1.03	37.81	26.02	2.72
6600	19.05	27.22	7.30	18.75	1.34	1.07	38.70	25.92	2.80
6800	19.00	27.42	6.84	18.28	1.33	1.11	38.65	25.75	2.84
7000	18.85	27.64	6.60	19.45	1.36	1.14	38.53	25.59	2.84
7200	18.56	27.90	6.51	20.44	1.42	1.15	38.23	25.51	3.00
7400	18.46	28.03	6.79	20.22	1.46	1.14	37.95	25.47	2.85
7600	18.25	27.97	7.16	21.06	1.51	1.11	37.79	25.76	2.87
7800	18.17	27.77	7.51	22.17	1.53	1.09	37.58	25.81	2.90
8000	18.03	27.79	8.29	27.91	1.61	1.06	37.62	25.81	2.94

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: Vd = 8.00V, Iadj connection = 1.2V, Id = 125mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	22.01	28.96	13.46	10.61	1.27	0.72	38.60	27.03	3.23
600	22.04	28.87	15.10	12.47	1.28	0.75	38.39	27.20	3.14
800	21.94	28.80	15.92	13.82	1.29	0.78	38.00	27.35	3.15
1000	21.83	28.75	16.21	14.90	1.30	0.80	37.88	27.57	3.24
1200	21.69	28.71	16.29	15.82	1.31	0.81	37.80	27.63	3.12
1400	21.54	28.64	16.19	16.39	1.31	0.82	38.09	27.75	3.02
1600	21.39	28.65	15.97	16.50	1.33	0.84	38.34	27.72	3.03
1800	21.21	28.65	15.71	16.35	1.35	0.85	38.17	27.64	3.02
2000	21.10	28.57	15.40	15.87	1.35	0.85	38.03	27.72	2.92
2200	20.95	28.56	14.86	15.37	1.36	0.85	37.61	27.55	2.99
2400	20.75	28.58	14.20	14.91	1.38	0.86	37.52	27.60	2.80
2600	20.51	28.72	13.51	14.44	1.42	0.88	37.47	27.27	3.00
2800	20.23	28.83	12.97	14.51	1.46	0.90	38.11	27.15	3.03
3000	19.93	28.91	12.10	14.43	1.48	0.93	39.54	26.88	3.08
3200	19.76	28.83	11.33	14.54	1.46	0.95	40.91	26.69	3.02
3400	19.58	28.83	10.51	14.54	1.44	0.98	43.58	26.56	2.97
3600	19.41	28.82	9.73	14.12	1.43	1.00	40.64	26.23	3.03
3800	19.24	28.85	8.94	13.22	1.42	1.01	38.19	26.07	2.96
4000	19.11	28.87	8.22	12.08	1.42	1.01	37.10	25.37	2.98
4200	19.03	28.87	7.59	11.00	1.41	1.00	36.03	24.73	2.90
4400	18.97	28.71	7.12	10.18	1.39	0.98	34.88	24.71	2.91
4600	18.94	28.63	6.90	9.83	1.40	0.96	33.90	23.75	2.82
4800	18.95	28.37	6.96	9.89	1.40	0.94	33.56	24.93	2.72
5000	19.03	28.07	7.26	10.36	1.39	0.93	33.41	23.96	2.70
5200	19.17	27.77	7.85	11.45	1.39	0.92	32.63	24.64	2.60
5400	19.37	27.48	8.62	13.04	1.37	0.91	32.76	25.79	2.58
5600	19.51	27.20	9.37	15.94	1.35	0.91	33.09	26.07	2.53
5800	19.53	26.98	9.92	20.99	1.35	0.92	34.01	26.35	2.58
6000	19.41	26.90	9.73	33.43	1.35	0.95	35.35	26.37	2.56
6200	19.27	26.90	9.02	26.39	1.35	0.98	36.92	26.23	2.75
6400	19.16	27.15	8.02	20.45	1.35	1.03	38.09	26.05	2.82
6600	19.12	27.35	7.28	18.48	1.34	1.07	39.00	25.95	2.78
6800	19.07	27.54	6.83	18.09	1.34	1.11	38.92	25.77	2.86
7000	18.92	27.78	6.60	19.37	1.37	1.14	38.67	25.65	2.91
7200	18.64	28.03	6.52	20.68	1.43	1.15	38.34	25.60	2.92
7400	18.54	28.10	6.80	20.57	1.46	1.14	38.08	25.57	2.89
7600	18.33	28.10	7.18	21.63	1.52	1.11	37.85	25.82	2.86
7800	18.24	27.87	7.55	22.80	1.53	1.09	37.61	25.82	2.83
8000	18.10	27.88	8.32	28.70	1.62	1.06	37.55	25.86	2.89

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: Vd = 8.00V, Iadj connection = 1.4V, Id = 134mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	22.10	29.13	13.44	10.48	1.27	0.72	38.52	27.09	3.24
600	22.12	28.98	15.07	12.25	1.28	0.75	38.39	27.22	3.20
800	22.02	28.92	15.88	13.54	1.29	0.77	38.07	27.36	3.16
1000	21.92	28.89	16.19	14.59	1.30	0.79	37.95	27.60	3.20
1200	21.78	28.85	16.29	15.49	1.31	0.81	37.84	27.68	3.13
1400	21.63	28.75	16.19	16.06	1.32	0.82	38.11	27.80	3.06
1600	21.48	28.75	15.98	16.21	1.33	0.83	38.34	27.75	3.05
1800	21.30	28.75	15.71	16.09	1.35	0.84	38.24	27.66	3.07
2000	21.19	28.64	15.37	15.63	1.35	0.84	38.17	27.75	2.99
2200	21.03	28.66	14.82	15.16	1.36	0.85	37.64	27.53	2.96
2400	20.84	28.70	14.15	14.72	1.38	0.86	37.58	27.61	2.93
2600	20.59	28.80	13.46	14.27	1.42	0.88	37.53	27.31	3.06
2800	20.31	28.90	12.92	14.35	1.45	0.90	38.13	27.15	3.04
3000	20.01	29.02	12.07	14.30	1.48	0.93	39.48	26.94	3.00
3200	19.84	28.95	11.32	14.47	1.46	0.95	40.87	26.77	3.05
3400	19.67	28.92	10.52	14.54	1.44	0.98	43.62	26.68	3.04
3600	19.50	28.90	9.75	14.19	1.43	1.00	40.98	26.36	2.96
3800	19.33	28.95	8.98	13.37	1.43	1.01	38.24	26.21	2.98
4000	19.20	28.97	8.26	12.24	1.42	1.01	37.34	25.60	2.99
4200	19.13	28.92	7.64	11.16	1.41	1.00	36.16	24.92	2.92
4400	19.06	28.84	7.17	10.34	1.40	0.98	34.98	24.90	2.87
4600	19.03	28.67	6.95	9.96	1.40	0.96	34.02	23.95	2.75
4800	19.05	28.40	7.02	10.02	1.40	0.94	33.65	25.11	2.79
5000	19.12	28.12	7.32	10.50	1.39	0.93	33.53	24.20	2.71
5200	19.26	27.82	7.92	11.60	1.39	0.92	32.81	24.86	2.61
5400	19.45	27.56	8.69	13.20	1.37	0.91	33.08	25.83	2.56
5600	19.58	27.26	9.43	16.13	1.36	0.91	33.42	26.11	2.58
5800	19.60	27.04	9.95	21.30	1.35	0.92	34.47	26.38	2.61
6000	19.47	26.94	9.74	33.87	1.35	0.95	35.81	26.37	2.58
6200	19.33	27.00	9.01	25.70	1.36	0.98	37.27	26.24	2.70
6400	19.21	27.21	8.00	20.12	1.35	1.03	38.39	26.08	2.76
6600	19.17	27.45	7.27	18.27	1.35	1.07	39.27	25.98	2.81
6800	19.12	27.65	6.83	17.93	1.35	1.10	39.11	25.81	2.87
7000	18.97	27.86	6.61	19.29	1.37	1.13	38.83	25.70	2.95
7200	18.69	28.12	6.53	20.82	1.43	1.15	38.48	25.66	2.90
7400	18.60	28.23	6.82	20.83	1.48	1.14	38.22	25.62	2.91
7600	18.40	28.18	7.19	22.00	1.53	1.11	37.95	25.86	2.88
7800	18.31	27.95	7.56	23.25	1.54	1.09	37.66	25.87	2.81
8000	18.15	27.97	8.34	29.35	1.63	1.06	37.59	25.89	2.87

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: Vd = 8.00V, Iadj connection = 1.6V, Id = 142mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	22.16	29.27	13.42	10.38	1.28	0.72	38.47	27.10	3.22
600	22.19	29.07	15.03	12.10	1.28	0.75	38.41	27.27	3.19
800	22.09	29.00	15.85	13.35	1.29	0.77	38.14	27.41	3.15
1000	21.99	28.98	16.17	14.37	1.30	0.79	38.01	27.63	3.26
1200	21.85	28.91	16.27	15.26	1.31	0.81	37.87	27.68	3.17
1400	21.70	28.86	16.19	15.84	1.32	0.82	38.09	27.85	3.06
1600	21.55	28.83	15.98	15.99	1.33	0.83	38.31	27.80	2.99
1800	21.37	28.82	15.70	15.91	1.35	0.84	38.25	27.71	2.99
2000	21.26	28.76	15.36	15.46	1.35	0.84	38.14	27.79	3.04
2200	21.10	28.73	14.79	15.00	1.36	0.85	37.66	27.56	2.94
2400	20.90	28.78	14.11	14.58	1.39	0.86	37.58	27.62	2.84
2600	20.66	28.89	13.42	14.14	1.42	0.88	37.55	27.32	3.00
2800	20.38	29.02	12.88	14.23	1.46	0.90	38.08	27.16	3.04
3000	20.08	29.14	12.04	14.20	1.49	0.93	39.30	26.99	3.06
3200	19.91	29.04	11.30	14.39	1.47	0.95	40.58	26.84	3.06
3400	19.73	28.97	10.52	14.52	1.44	0.98	43.00	26.76	3.01
3600	19.56	28.98	9.77	14.25	1.43	1.00	41.97	26.48	2.99
3800	19.40	29.00	9.01	13.47	1.43	1.01	38.55	26.34	2.99
4000	19.27	29.00	8.29	12.36	1.42	1.01	37.50	25.78	2.99
4200	19.21	28.98	7.68	11.28	1.41	1.00	36.50	25.06	2.91
4400	19.14	28.88	7.21	10.45	1.40	0.98	35.15	25.12	2.88
4600	19.11	28.70	7.00	10.07	1.40	0.96	34.14	24.18	2.82
4800	19.12	28.50	7.07	10.14	1.40	0.95	33.93	25.24	2.78
5000	19.19	28.16	7.38	10.61	1.39	0.93	33.74	24.43	2.74
5200	19.33	27.90	7.97	11.71	1.39	0.92	33.06	24.98	2.65
5400	19.51	27.59	8.75	13.33	1.37	0.91	33.41	25.91	2.57
5600	19.64	27.32	9.48	16.28	1.36	0.91	33.85	26.12	2.56
5800	19.65	27.14	9.98	21.51	1.36	0.93	34.94	26.38	2.56
6000	19.51	27.01	9.74	33.98	1.36	0.95	36.21	26.37	2.61
6200	19.37	27.06	9.00	25.19	1.36	0.98	37.58	26.25	2.72
6400	19.25	27.29	7.98	19.86	1.36	1.03	38.66	26.07	2.74
6600	19.22	27.52	7.26	18.06	1.35	1.07	39.47	26.00	2.80
6800	19.16	27.71	6.82	17.77	1.35	1.10	39.29	25.85	2.89
7000	19.02	27.93	6.62	19.20	1.38	1.13	39.00	25.75	2.93
7200	18.73	28.18	6.54	20.92	1.44	1.15	38.59	25.71	2.96
7400	18.65	28.28	6.84	21.02	1.48	1.14	38.35	25.71	2.92
7600	18.45	28.23	7.22	22.31	1.53	1.11	38.05	25.90	2.90
7800	18.36	28.03	7.58	23.61	1.54	1.09	37.73	25.92	2.83
8000	18.20	28.04	8.35	29.89	1.63	1.06	37.64	25.92	2.88

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: Vd = 8.00V, Iadj connection = 1.8V, Id = 150mA @ Temperature = +25°C

FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	22.22	29.31	13.40	10.31	1.28	0.72	38.45	27.15	3.26
600	22.24	29.16	15.00	11.97	1.28	0.75	38.46	27.32	3.21
800	22.14	29.07	15.83	13.20	1.29	0.77	38.22	27.46	3.19
1000	22.04	29.04	16.16	14.20	1.30	0.79	38.07	27.65	3.27
1200	21.91	28.99	16.27	15.09	1.31	0.81	37.94	27.73	3.20
1400	21.75	28.94	16.20	15.66	1.32	0.82	38.11	27.89	3.06
1600	21.60	28.90	15.98	15.84	1.33	0.83	38.34	27.84	3.04
1800	21.43	28.91	15.69	15.76	1.35	0.84	38.29	27.73	2.99
2000	21.31	28.83	15.33	15.33	1.35	0.84	38.16	27.80	2.95
2200	21.15	28.81	14.76	14.88	1.37	0.85	37.69	27.60	3.01
2400	20.95	28.86	14.07	14.46	1.39	0.86	37.63	27.63	3.07
2600	20.71	28.94	13.38	14.04	1.42	0.88	37.60	27.33	3.03
2800	20.43	29.07	12.84	14.13	1.46	0.90	37.98	27.20	3.08
3000	20.13	29.19	12.02	14.12	1.48	0.93	39.19	27.02	3.08
3200	19.96	29.10	11.28	14.33	1.47	0.95	40.17	26.94	3.04
3400	19.79	29.05	10.51	14.50	1.45	0.98	42.37	26.86	3.01
3600	19.62	29.05	9.77	14.28	1.44	1.00	43.18	26.64	2.99
3800	19.46	29.04	9.03	13.55	1.42	1.01	39.02	26.53	3.02
4000	19.33	29.10	8.32	12.45	1.43	1.02	38.22	25.96	3.02
4200	19.27	29.01	7.71	11.38	1.41	1.00	36.95	25.31	3.00
4400	19.20	28.92	7.25	10.53	1.40	0.98	35.40	25.34	2.86
4600	19.17	28.74	7.04	10.15	1.40	0.96	34.42	24.40	2.77
4800	19.18	28.55	7.10	10.21	1.40	0.95	34.28	25.36	2.77
5000	19.25	28.22	7.41	10.69	1.40	0.93	34.13	24.64	2.70
5200	19.38	27.94	8.01	11.80	1.39	0.92	33.27	25.18	2.56
5400	19.57	27.63	8.79	13.42	1.37	0.91	33.77	25.96	2.58
5600	19.70	27.39	9.51	16.40	1.36	0.91	34.41	26.11	2.59
5800	19.70	27.13	10.01	21.70	1.35	0.92	35.41	26.40	2.58
6000	19.55	27.08	9.75	34.11	1.36	0.95	36.44	26.38	2.53
6200	19.41	27.11	8.99	24.83	1.36	0.98	37.79	26.25	2.71
6400	19.29	27.34	7.98	19.69	1.36	1.03	38.80	26.08	2.77
6600	19.26	27.54	7.25	17.92	1.35	1.07	39.63	26.00	2.90
6800	19.21	27.78	6.81	17.62	1.35	1.10	39.39	25.86	2.92
7000	19.06	28.00	6.61	19.06	1.38	1.13	39.12	25.79	2.95
7200	18.78	28.20	6.54	20.88	1.43	1.15	38.70	25.75	2.98
7400	18.69	28.31	6.84	21.12	1.48	1.14	38.48	25.76	2.89
7600	18.49	28.28	7.23	22.60	1.53	1.11	38.03	25.93	2.98
7800	18.41	28.06	7.60	24.05	1.54	1.09	37.77	25.95	2.86
8000	18.24	28.10	8.37	30.40	1.64	1.06	37.68	25.95	2.91

Typical Performance Data

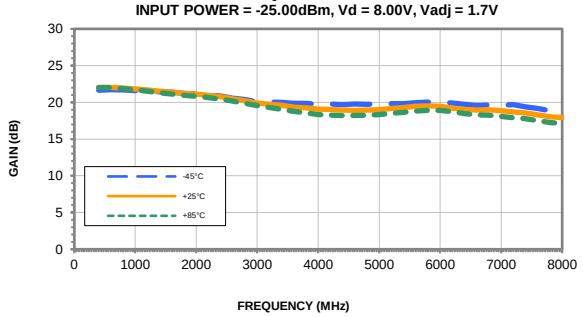
Definitions:
Input Return Loss = -S11 (dB)
Gain(Power Gain) = S21 (dB)
Reverse Isolation = -S12 (dB)
Output Return Loss = -S22 (dB)

TEST CONDITIONS: Vd = 8.00V, Iadj connection = 2.0V, Id = 158mA @ Temperature = +25°C

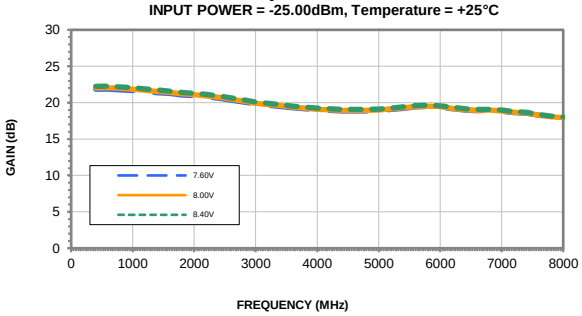
FREQ	Gain	Isolation	Input Return Loss	Output Return Loss	Stability		IP-3 Output	1dB Comp. Output	Noise Figure
(MHz)	(dB)	(dB)	(dB)	(dB)	K	Measure	(dBm)	(dBm)	(dB)
400	22.27	29.32	13.38	10.25	1.27	0.71	38.49	27.22	3.29
600	22.29	29.20	14.98	11.90	1.28	0.75	38.52	27.37	3.16
800	22.19	29.15	15.80	13.09	1.29	0.77	38.30	27.51	3.18
1000	22.08	29.10	16.14	14.08	1.30	0.79	38.16	27.69	3.11
1200	21.95	29.05	16.26	14.96	1.31	0.81	38.02	27.77	3.18
1400	21.80	29.02	16.18	15.55	1.32	0.82	38.14	27.93	3.10
1600	21.65	28.97	15.97	15.73	1.33	0.83	38.41	27.88	3.06
1800	21.47	28.96	15.68	15.66	1.35	0.84	38.36	27.75	3.05
2000	21.36	28.88	15.31	15.23	1.35	0.84	38.25	27.84	2.99
2200	21.20	28.86	14.73	14.80	1.37	0.85	37.76	27.63	3.03
2400	21.00	28.92	14.03	14.38	1.39	0.86	37.68	27.66	3.08
2600	20.75	29.00	13.35	13.96	1.42	0.88	37.67	27.36	3.06
2800	20.47	29.12	12.81	14.06	1.46	0.90	38.03	27.22	3.09
3000	20.17	29.27	11.99	14.05	1.49	0.93	38.95	27.10	3.05
3200	20.00	29.14	11.26	14.27	1.46	0.95	40.03	27.03	3.03
3400	19.83	29.11	10.50	14.47	1.45	0.98	41.91	26.99	3.04
3600	19.66	29.11	9.78	14.28	1.44	1.00	44.66	26.75	3.00
3800	19.50	29.08	9.04	13.59	1.42	1.01	39.59	26.72	3.03
4000	19.38	29.07	8.34	12.52	1.42	1.01	38.73	26.19	3.04
4200	19.32	29.05	7.74	11.44	1.41	1.00	37.41	25.47	2.95
4400	19.25	28.94	7.28	10.59	1.40	0.98	35.73	25.54	2.85
4600	19.22	28.80	7.07	10.22	1.40	0.97	34.72	24.60	2.85
4800	19.22	28.53	7.14	10.27	1.40	0.95	34.64	25.51	2.82
5000	19.29	28.23	7.45	10.75	1.39	0.93	34.38	24.83	2.73
5200	19.43	27.95	8.06	11.87	1.39	0.92	33.56	25.24	2.61
5400	19.61	27.68	8.82	13.50	1.38	0.91	34.23	26.00	2.58
5600	19.74	27.44	9.54	16.50	1.36	0.91	34.81	26.11	2.57
5800	19.74	27.18	10.03	21.85	1.35	0.92	35.77	26.39	2.62
6000	19.59	27.12	9.76	34.05	1.36	0.95	36.73	26.37	2.60
6200	19.44	27.12	9.00	24.57	1.36	0.98	37.98	26.24	2.77
6400	19.33	27.39	7.97	19.51	1.36	1.03	38.90	26.10	2.79
6600	19.29	27.57	7.24	17.78	1.35	1.07	39.55	26.02	2.82
6800	19.24	27.83	6.81	17.51	1.35	1.10	39.52	25.87	2.89
7000	19.09	28.04	6.60	18.94	1.38	1.13	39.16	25.82	2.96
7200	18.82	28.30	6.54	20.86	1.44	1.15	38.79	25.79	3.03
7400	18.73	28.37	6.85	21.18	1.48	1.14	38.58	25.80	2.88
7600	18.54	28.35	7.25	22.80	1.54	1.11	38.11	25.95	2.94
7800	18.45	28.08	7.62	24.34	1.54	1.09	37.74	25.97	2.84
8000	18.28	28.16	8.39	30.95	1.64	1.06	37.71	25.95	2.87

Typical Performance Curves

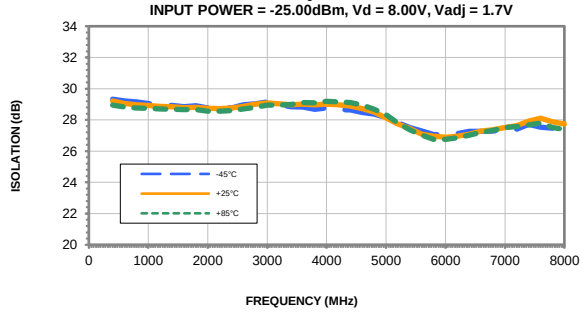
GAIN vs. FREQUENCY & TEMPERATURE
INPUT POWER = -25.00dBm, Vd = 8.00V, Vadj = 1.7V



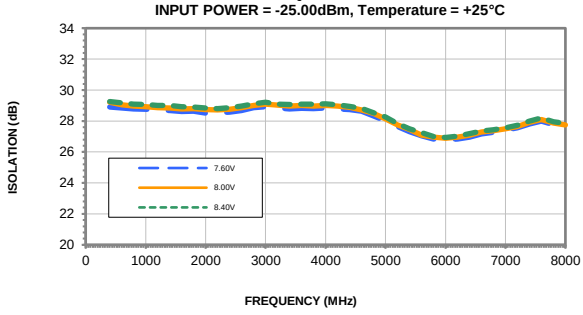
GAIN vs. FREQUENCY & DEVICE VOLTAGE
INPUT POWER = -25.00dBm, Temperature = +25°C



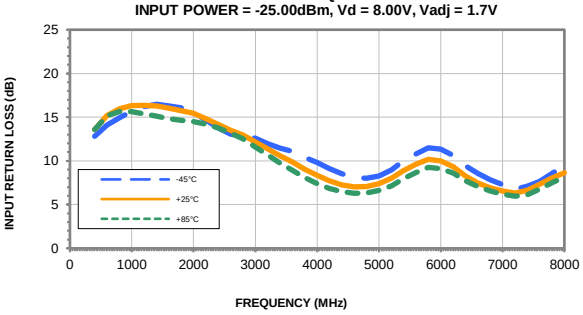
ISOLATION vs. FREQUENCY & TEMPERATURE
INPUT POWER = -25.00dBm, Vd = 8.00V, Vadj = 1.7V



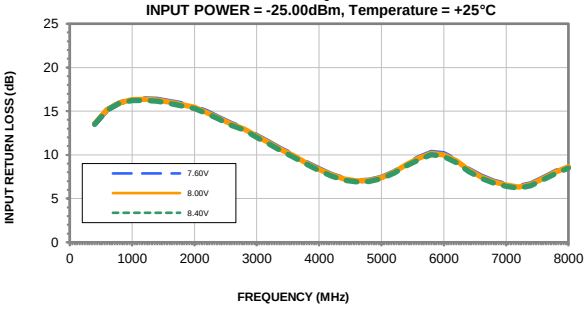
ISOLATION vs. FREQUENCY & DEVICE VOLTAGE
INPUT POWER = -25.00dBm, Temperature = +25°C



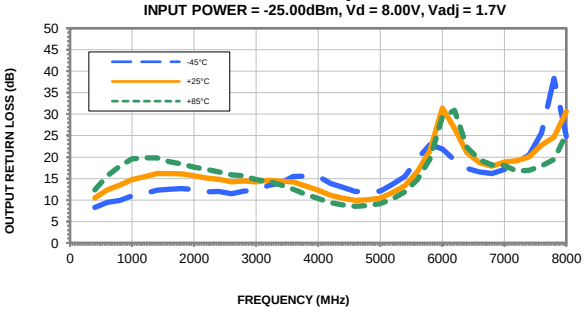
INPUT RETURN LOSS vs. FREQUENCY & TEMPERATURE
INPUT POWER = -25.00dBm, Vd = 8.00V, Vadj = 1.7V



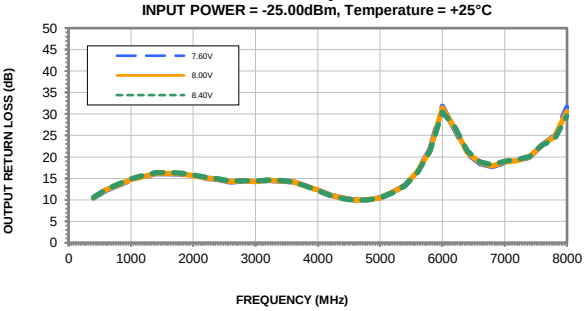
INPUT RETURN LOSS vs. FREQUENCY & DEVICE VOLTAGE
INPUT POWER = -25.00dBm, Temperature = +25°C



OUTPUT RETURN LOSS vs. FREQUENCY & TEMPERATURE
INPUT POWER = -25.00dBm, Vd = 8.00V, Vadj = 1.7V

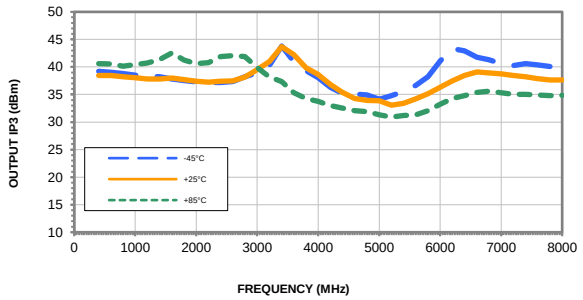


OUTPUT RETURN LOSS vs. FREQUENCY & DEVICE VOLTAGE
INPUT POWER = -25.00dBm, Temperature = +25°C

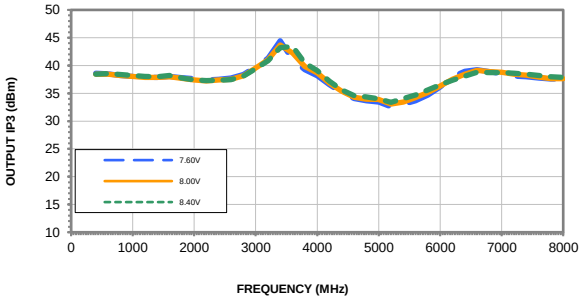


Typical Performance Curves

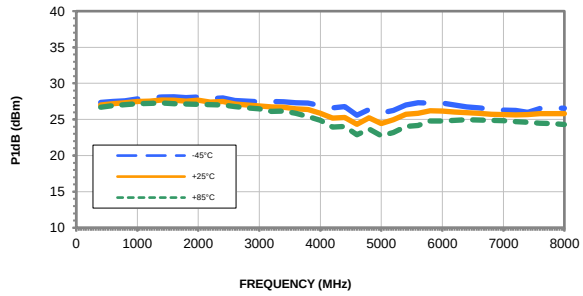
OUTPUT IP3 vs. FREQUENCY & TEMPERATURE
OUTPUT POWER = +18.00dBm, Vd = 8.00V, Vadj = 1.7V



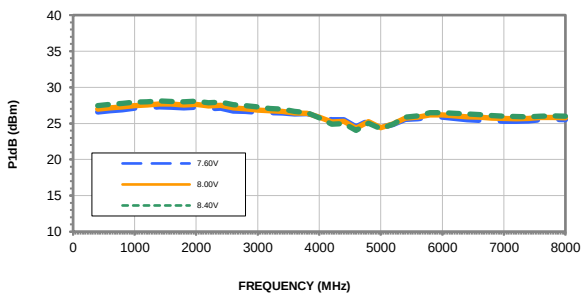
OUTPUT IP3 vs. FREQUENCY & DEVICE VOLTAGE
OUTPUT POWER = +18.00dBm, Temperature = +25°C



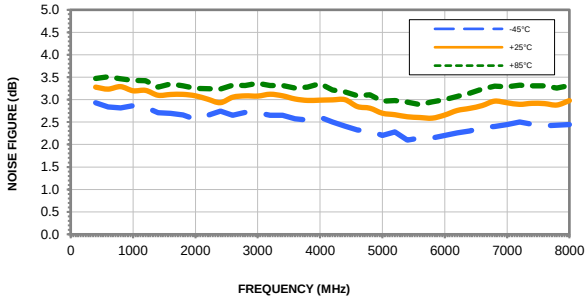
P1dB vs. FREQUENCY & TEMPERATURE
Vd = 8.00V, Vadj = 1.7V



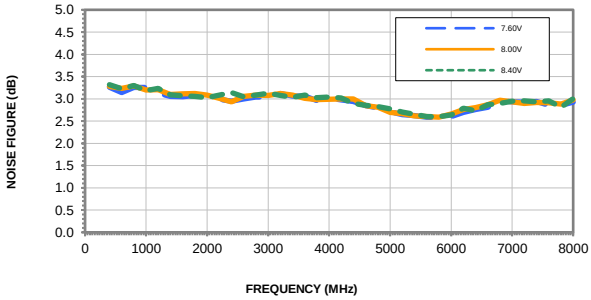
P1dB vs. FREQUENCY & DEVICE VOLTAGE
Temperature = +25°C



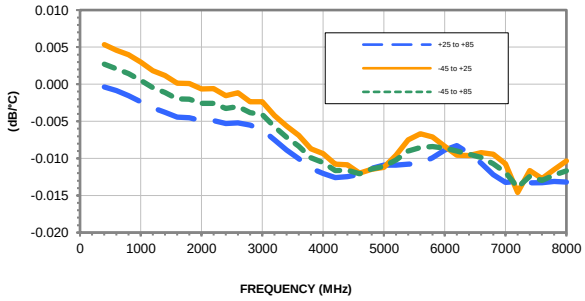
NOISE FIGURE vs. FREQUENCY & TEMPERATURE
Vd = 8.00V, Vadj = 1.7V



NOISE FIGURE vs. FREQUENCY & DEVICE VOLTAGE
Temperature = +25°C

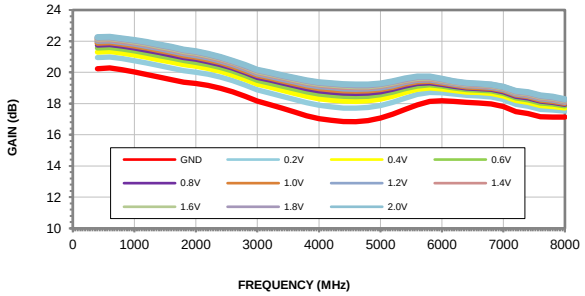


GAIN VARIANTS VS FREQUENCY & TEMPERATURE
INPUT POWER = -25.00dBm, Vd = 8.00V, Vadj = 1.7V

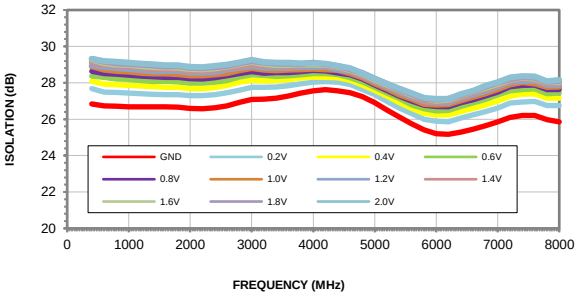


Typical Performance Curves

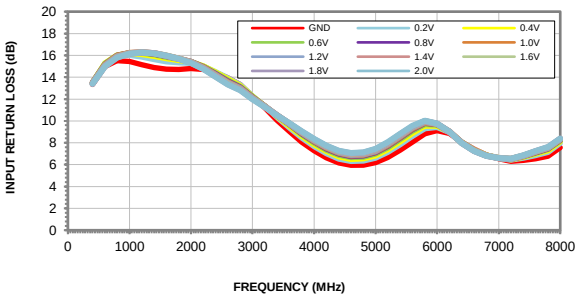
GAIN vs. FREQUENCY & VOLTAGE at IADJ PIN
INPUT POWER = -25.00dBm, Temperature = +25°C



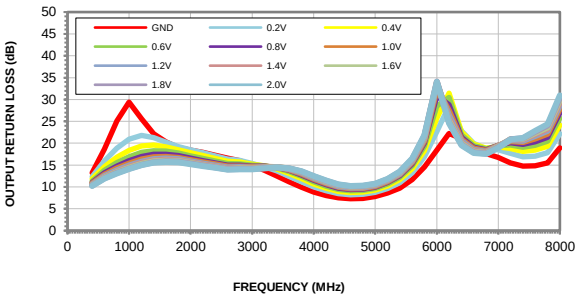
ISOLATION vs. FREQUENCY & VOLTAGE at IADJ PIN
INPUT POWER = -25.00dBm, Temperature = +25°C



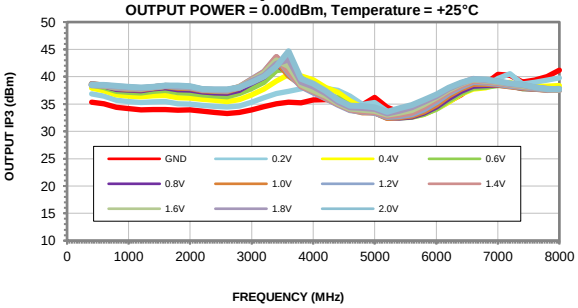
INPUT RETURN LOSS vs. FREQ. & VOLTAGE at IADJ PIN
INPUT POWER = -25.00dBm, Temperature = +25°C



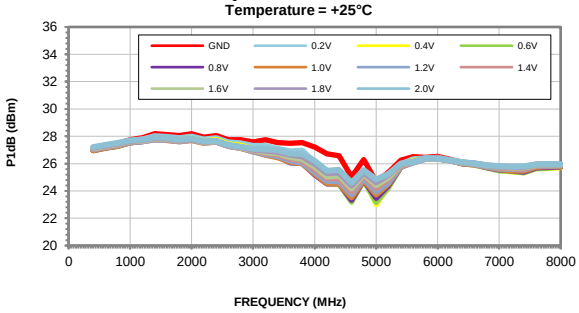
OUTPUT RETURN LOSS vs. FREQ. & VOLTAGE at IADJ PIN INPUT POWER = -25.00dBm, Temperature = +25°C



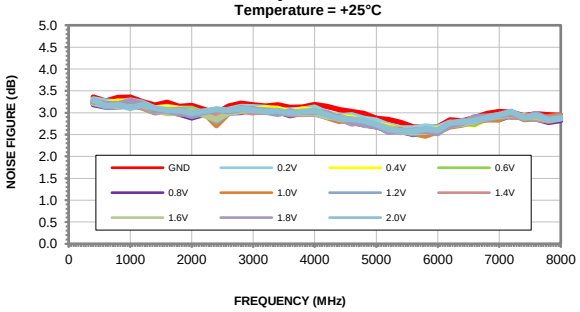
OUTPUT IP3 vs. FREQUENCY & VOLTAGE at IADJ PIN
OUTPUT POWER = 0.00dBm, Temperature = +25°C



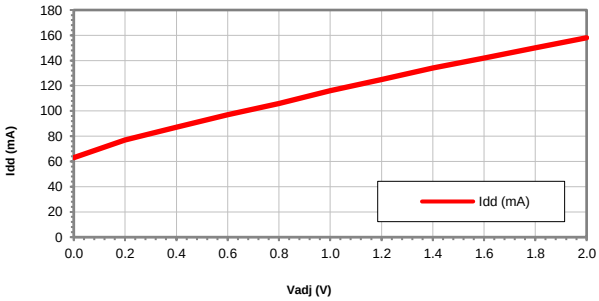
P1dB vs. FREQUENCY & VOLTAGE at IADJ PIN
Temperature = +25°C



NOISE FIGURE vs. FREQUENCY & VOLTAGE at IADJ PIN
Temperature = +25°C



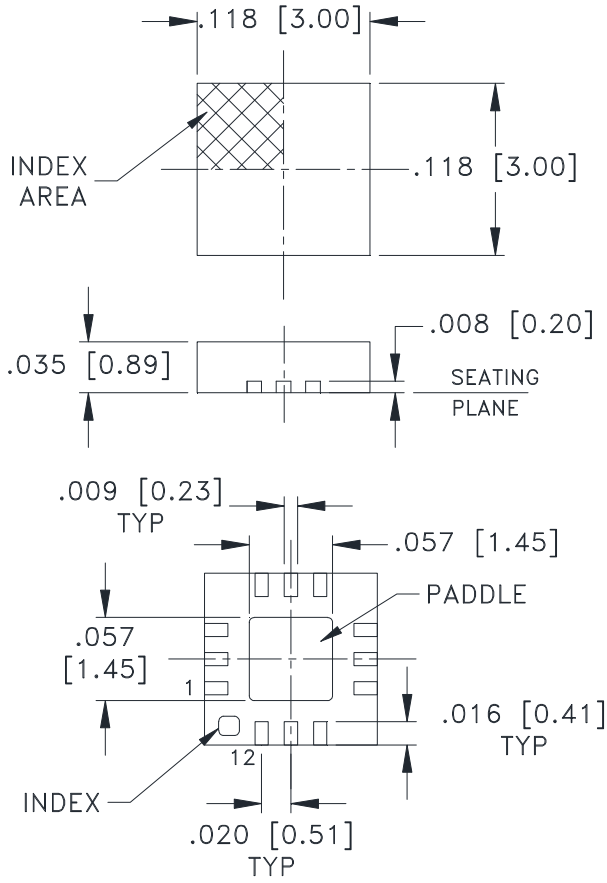
Idd vs. Vadj
INPUT POWER = -25.00dBm, Temperature = +25°C

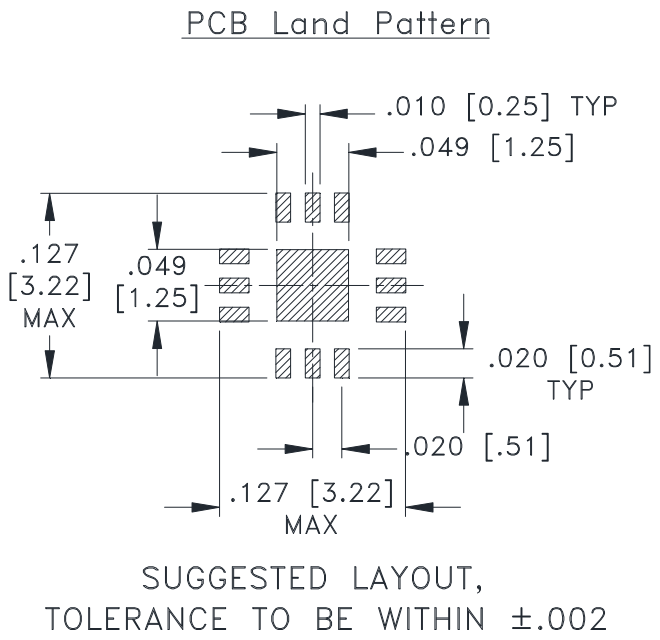


Case Style DQ

DQ1225

Outline Dimensions





Weight: .02 Grams

Dimensions are in inches (mm). Tolerances: 2Pl. ± .01; 3 Pl. ± .004

Notes:

1. Case material: Plastic.
2. Termination finish:
   - For RoHS Case Styles: Tin-Silver alloy plate over Nickel barrier or Matte-Tin. All models, (+) suffix. See Data sheet.
   - For RoHS-5 Case Styles: Tin-Lead plate. All models, no (+) suffix.

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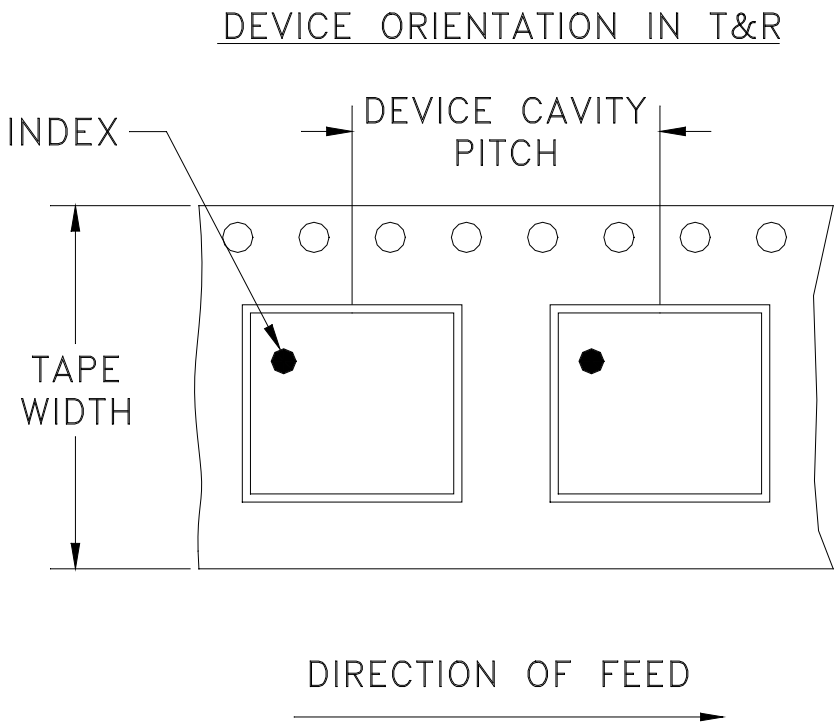
Tape & Reel Packaging TR-F66



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel see note	
8	4	7	Small quantity standard	20
				50
				100
				200
				500
		7	Standard	1000, 2000, 3000

Note: Please consult individual model data sheet to determine device per reel availability.

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

Go to: www.minicircuits.com/pages/pdfs/tape.pdf

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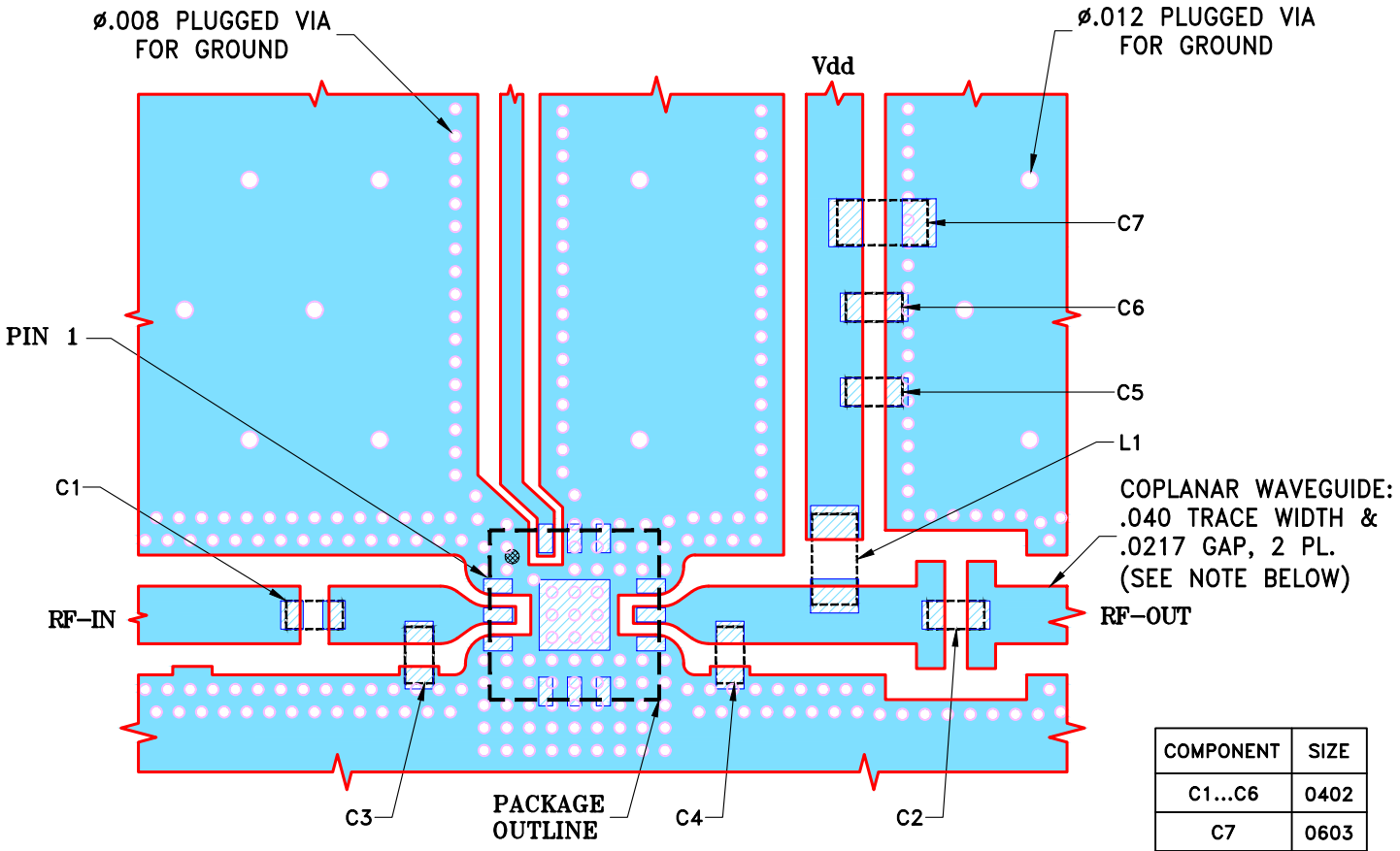
THIRD ANGLE PROJECTION

REVISIONS					
REV	ECN No.	DESCRIPTION	DATE	DR	AUTH
OR	ECO-006929	NEW RELEASE	03/16/21	ITG	IL
A	ECO-010324	REMOVED R1	10/27/21	ITG	JGH

SUGGESTED MOUNTING CONFIGURATION FOR DQ1225 CASE STYLE



COMPONENT	SIZE
C1...C6	0402
C7	0603
L1	0603

NOTES:

1. TRACE WIDTH & GAP PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020±.0015"; COPPER: 1/2 OZ. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
2. CHIP COMPONENT FOOT PRINTS SHOWN FOR REFERENCE. FOR COMPONENT VALUES REFER TO TB-PMA3-83MP+.
3. UNIT LAND PATTERN WAS OPTIMIZED FOR BETTER PERFORMANCE.
4. BOTTOM COPPER OF THE PCB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

UNLESS OTHERWISE SPECIFIED		INITIALS	DATE
DIMENSIONS ARE IN INCHES	DRAWN	ITG	03/16/21
TOLERANCES ON:	CHECKED	GF	03/16/21
2 PL DECIMALS ±	APPROVED	IL	03/16/21
3 PL DECIMALS ± .005			
ANGLES ±			
FRACTIONS ±			

ASHEETA1.DWG REV:A DATE:01/12/95

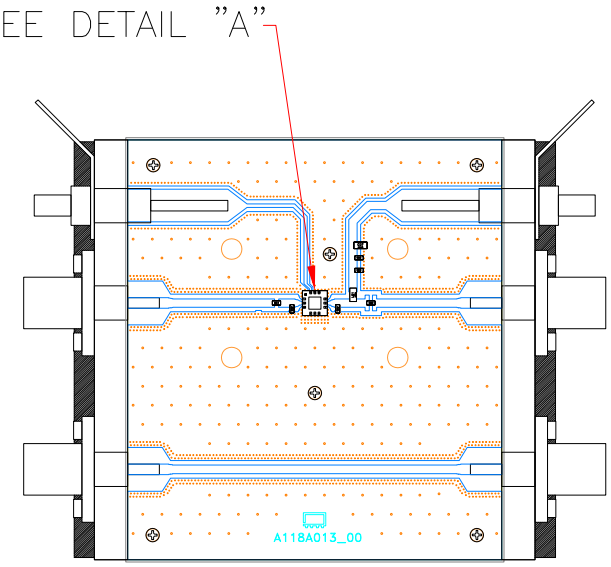
Mini-Circuits® 13 Neptune Avenue Brooklyn NY 11235

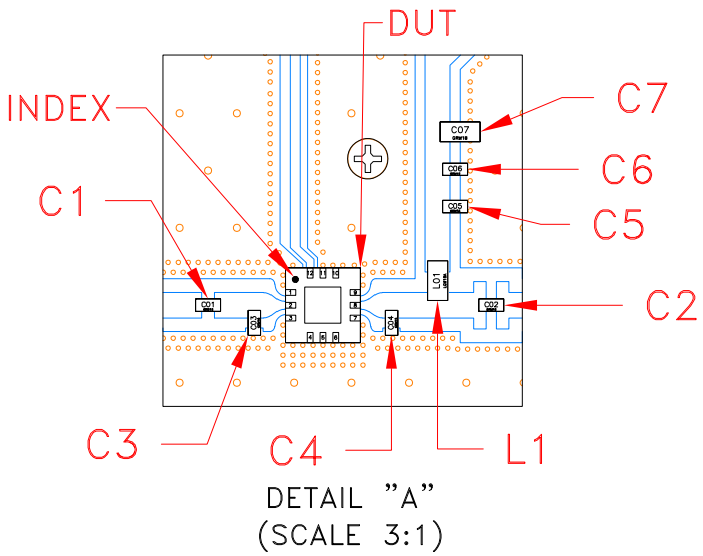
PL, DQ1225, TB-PMA3-83MP+

SIZE	CODE IDENT	DRAWING NO:	REV:
A	15542	98-PL-706	A

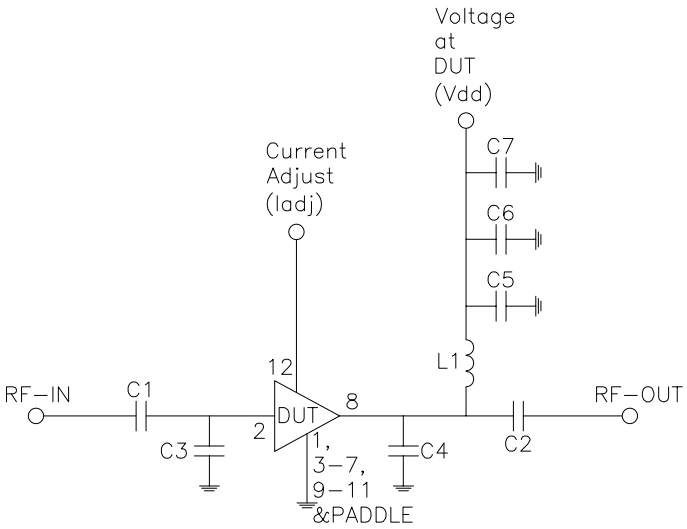
FILE:	SCALE:	SHEET:
98PL706	8:1	1 OF 1

Evaluation Board and Circuit





DETAIL "A"
(SCALE 3:1)



SCHEMATIC DIAGRAM

Component	Size	Value	Part Number	Manufacturer
C1	0402	100pF	GRM1555C1H101JA01D	Murata
C2	0402	100pF	GRM1555C1H101JA01D	Murata
C3	0402	0.3pF	GQM1555C2DR30WB01D	Murata
C4	0402	0.3pF	GQM1555C2DR30WB01D	Murata
C5	0402	10pF	GRM1555C1H100JA01D	Murata
C6	0402	1uF	GRM155C71A105KE11D	Murata
C7	0603	10uF	GRM188D71A106MA73J	Murata
L1	0603	33nH	0603CS-33NXJEU	Coilcraft

Notes:

1. RF Connectors.
2. PCB Material: Roger RO4350B or equivalent, Dielectric constant=3.5, Thickness=0.020 inch

Mini-Circuits®

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Environmental Specifications **ENV08T1**

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85° C or -45° to 85° C or -55° to 105° C or -40° to 105° C or -40° to 95° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C or -65° to 150° Ambient Environment	Individual Model Data Sheet
HTOL	1000 hours at 125°C	MIL-STD-883, Method 1005, Condition B
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Mechanical Shock	1.5Kg, 0.5 ms, 5 shock pulses, Y1 direction only	MIL-STD-883, Method 2002, Condition B, except Y1 direction only
Vibration (Variable Frequency)	50g peak	MIL-STD-883, Method 2007, Condition B
Autoclave	15 psig, 100% RH, 121°C, 96 hours	JESD22-A102, Condition C
HAST	130°C, 85% RH, 96 hours	JESD22-A110
Solderability	10X Magnification	J-STD-002, Para 4.2.5, Test S, 95% Coverage
Solder Reflow Heat	Sn-Pb Eutetic Process: 240°C peak Pb-Free Process: 260°C peak	J-STD-020, Table 4-1, 4-2 and 5-2; Figure 5-1
Moisture Sensitivity: Level 1	Bake at 125°C for 24 hours Soak at 85°C/85% RH for 168 hours, Reflow 3 cycles at 260°C peak	J-STD-020

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215