

Features:

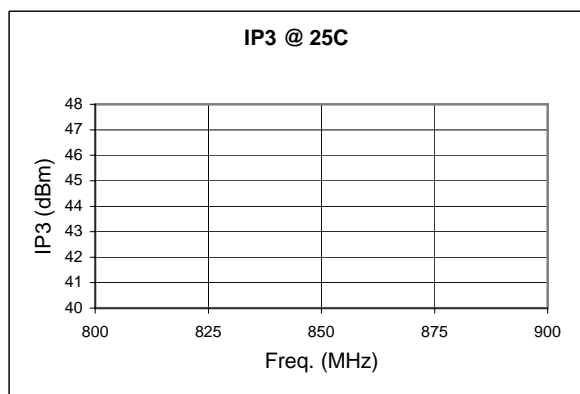
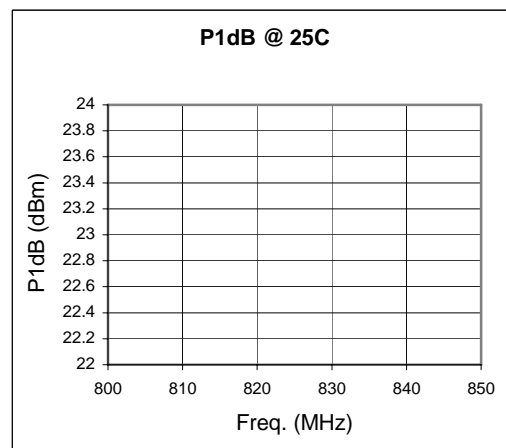


- 0.8 dB NF
- 13.5 dB Gain
- +23 dBm P1dB
- Single Positive Bias
- Leadless Surface Mount Package

The MPS-090917N-02 is a low cost high linearity modular amplifier designed to meet the ultra-linear transmitter driver requirements for commercial 2G, 2.5G, 3G, GSM, TDMA, EDGE, UMTS, WCDMA, CDMA2000, and TD-SCDMA applications. Key advantages are low intermodulation performance for multi-carrier and CDMA systems and exceptionally low input/output return loss for ease of integration.

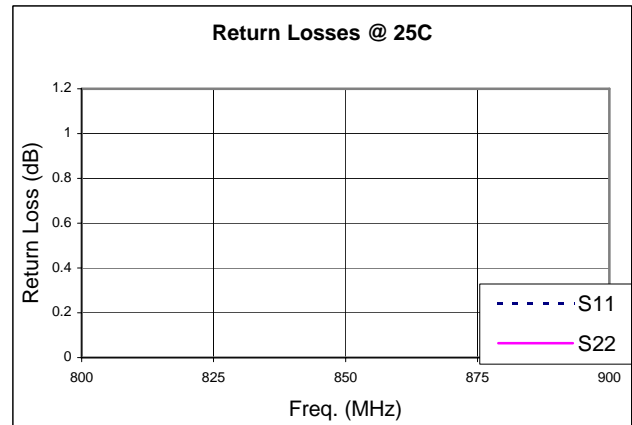
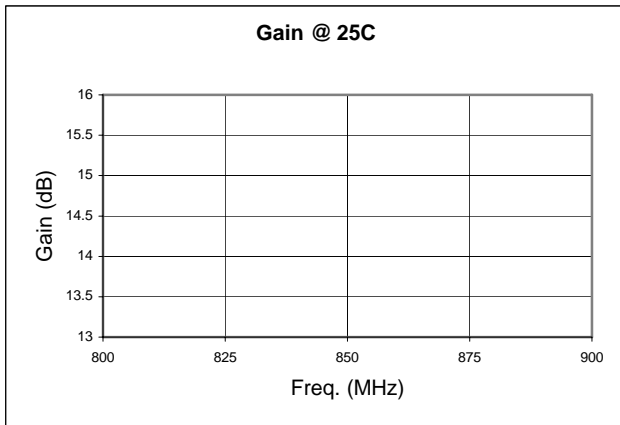
Electrical Specifications @ 25°C, V_{dd} = 7.5 V, Z_o = 50 ohms

SYMBOL	PARAMETERS	Min	Typical	Max	Unit
Freq.	Frequency Range	920		965	MHz
SSG	Small Signal Gain	12.0	13.5		dB
P1 dB	Pout at 1 dB Comp Point		+23.0		dBm
IP3	Third-Order Intercept		36.0		dBm
NF	Noise Figure		0.8	1.1	dB
VSWR	VSWR (Input/Output)		2.0:1		
GOF	Gain Var. over Frequency		± 0.2	± 0.5	dB
GOT	Gain Var. over Temp		-0.015		dB/°C
I _{dd}	DC Current		180	250	mA

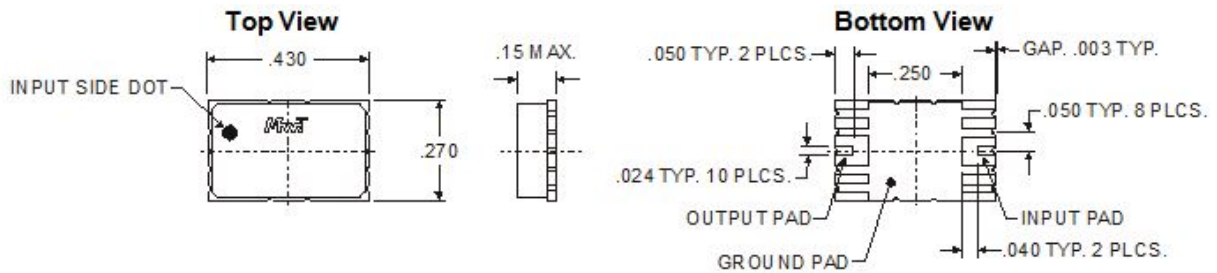


Absolute Maximum Ratings

Maximum Bias Voltage	7.0 V
Maximum Continuous RF Input Power	+25 dBm
Maximum Peak Input Power	+27 dBm
Maximum Case Operating Temperature	+85 °C
Maximum Storage Temperature	- 65 to + 150 °C



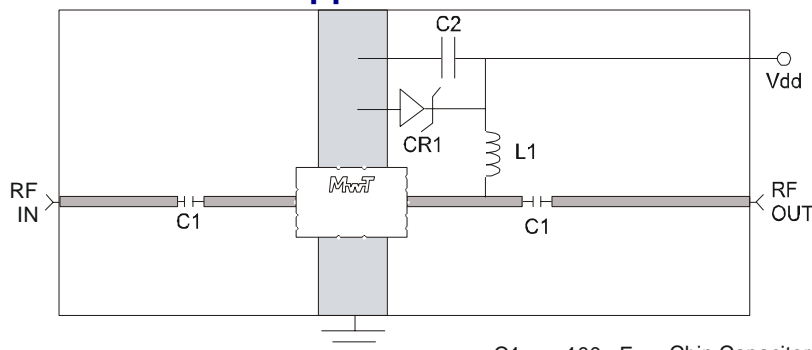
Outline Diagram



All dimensions are in inches

Pin Designation (Top View)			
Pin 1 (DOT Top Left)	GND	Pin 10	GND
Pin 2	GND	Pin 9	GND
Pin 3	RF In/Vg	Pin 8	RF Out/Vdd
Pin 4	GND	Pin 7	GND
Pin 5	GND	Pin 6	GND

Application Circuit



- C1 100 pF Chip Capacitor
- C2 22 uF Capacitor
- L1 160 nH Printed or Wound Coil
- CR1 7.0 V Zener Diode

50 ohm Microstrip Line