

## Features:

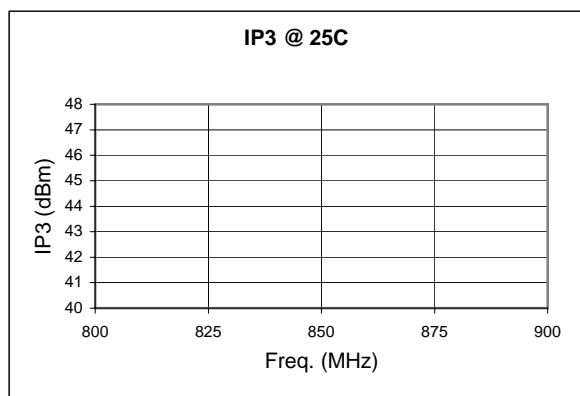
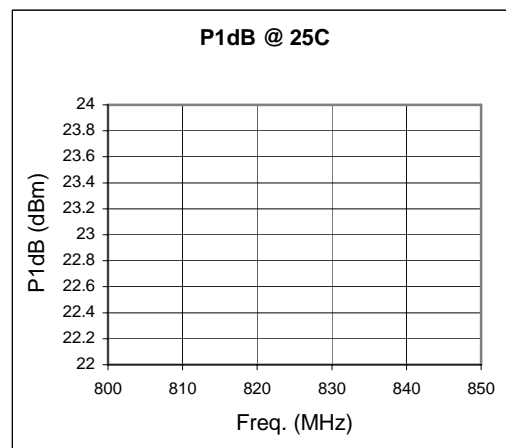


- 0.8 dB NF
- 13.5 dB Gain
- +23 dBm P1dB
- Single Positive Bias
- Leadless Surface Mount Package

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.

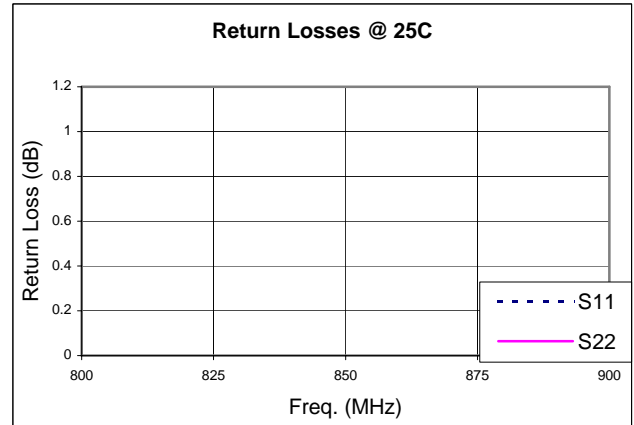
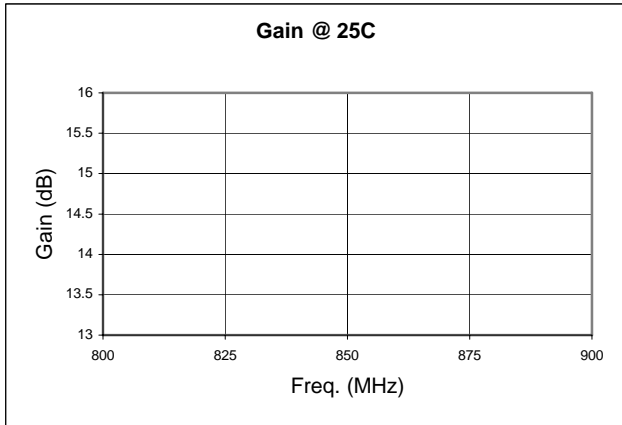
## Electrical Specifications @ 25°C, V<sub>dd</sub> = 7.5 V, Z<sub>o</sub> = 50 ohms

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 <sub>dd</sub>	DC Current		180	250	mA

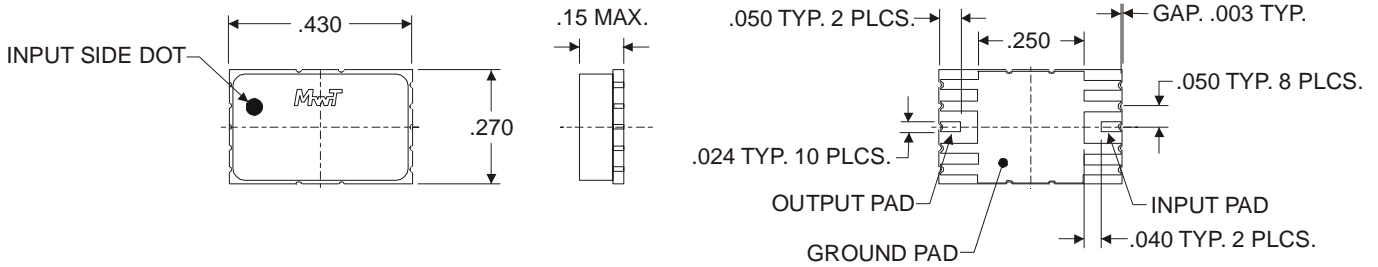


## Absolute Maximum Ratings

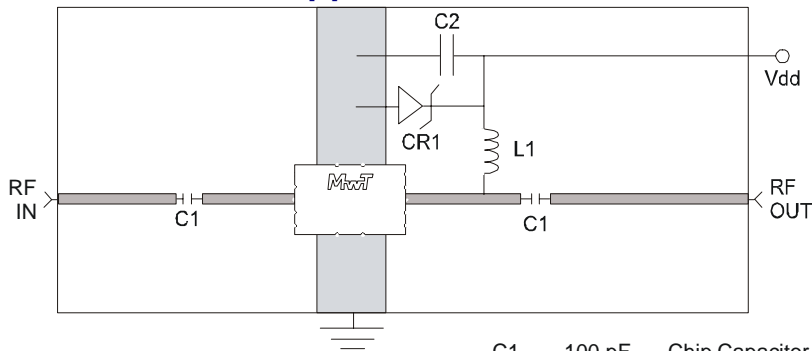
Maximum Bias Voltage	7.0 V
Maximum Continuous RF Input Power	+25 dBm
Maximum Peak Input Power	+27 dBm
Maximum Case Operating Temperature	+85 °C
Maximum Storage Temperature	- 65 to + 150 °C



## Outline Diagram



## 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