

## Features:



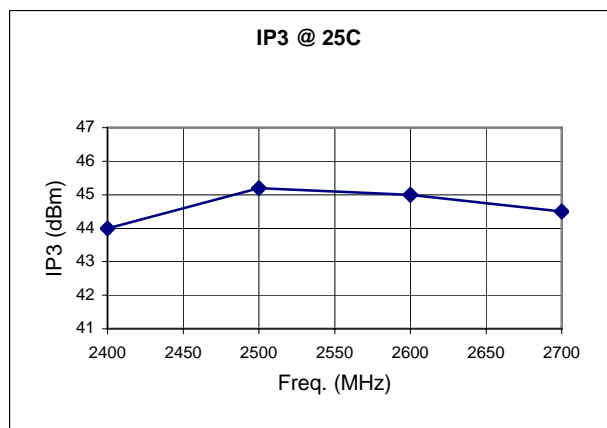
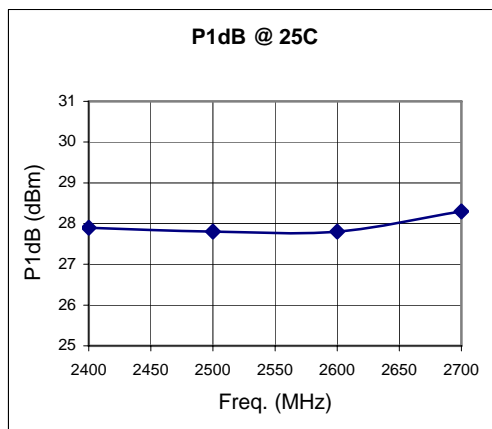
- 45 dBm IP3**
- 13 dB Gain**
- +28.0 dBm P1dB**
- Single Positive Bias**
- Leadless Surface Mount Package**

The MPS-242717-02 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> = 6.0 to 7.0 V, Z<sub>o</sub> = 50 ohms

SYMBOL	PARAMETERS	Min	Typical	Max	Unit
Freq.	Frequency Range	2400		2700	MHz
SSG	Small Signal Gain	12.0	13.0		dB
P1 dB	Pout at 1 dB Comp Point		+28.0		dBm
IP3 (1)	Third-Order Intercept	42.0	45.0		dBm
VSWR	VSWR (Input/Output)		2.0:1		
GOF	Gain Var. over Frequency		± 0.25	± 0.50	dB
GOT	Gain Var. over Temp		-0.015		dB/°C
I <sub>dd</sub>	DC Current		380	450	mA

(1) Two tone test @ 13 dBm/tone, centered at 2,400 MHz with 20 MHz separation.



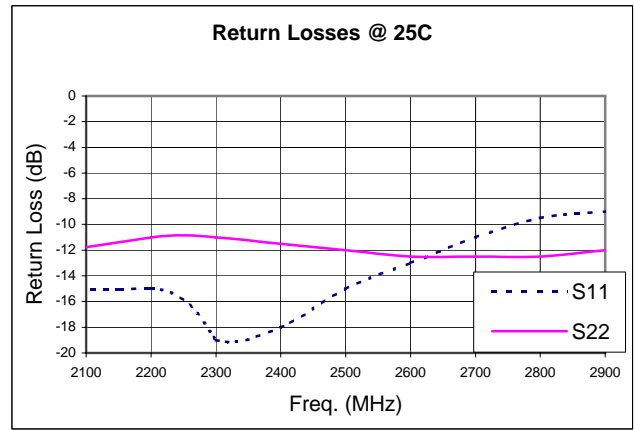
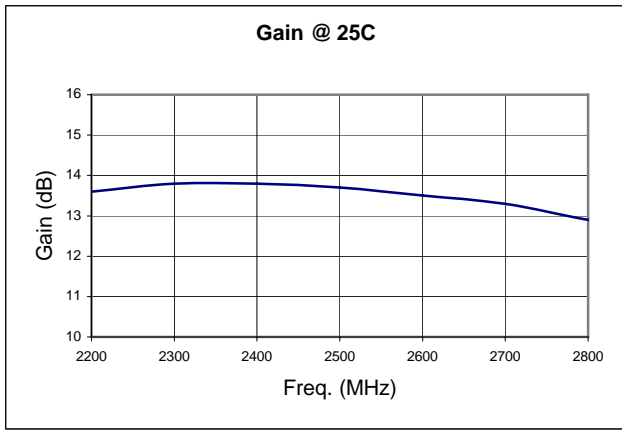
## Absolute Maximum Ratings

Maximum Bias Voltage	8.0 V
Maximum Continuous RF Input Power	950 mW
Maximum Peak Input Power	1400 mW
Maximum Case Operating Temperature	+85 °C
Maximum Storage Temperature	- 65 to + 150 °C

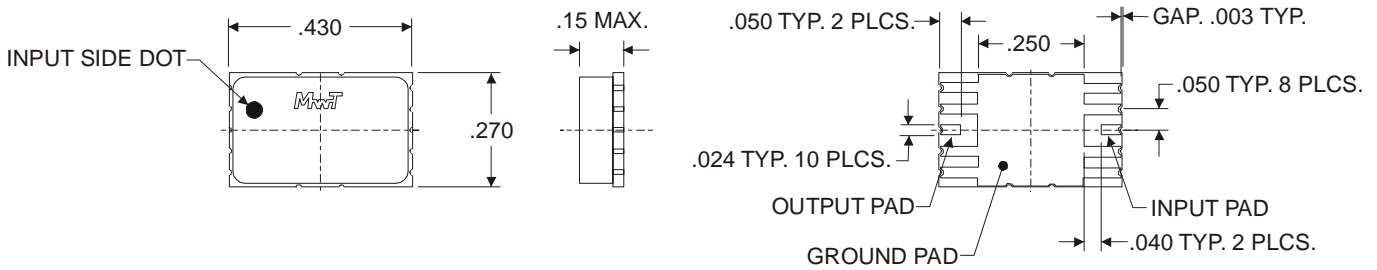


# MPS-242717-02

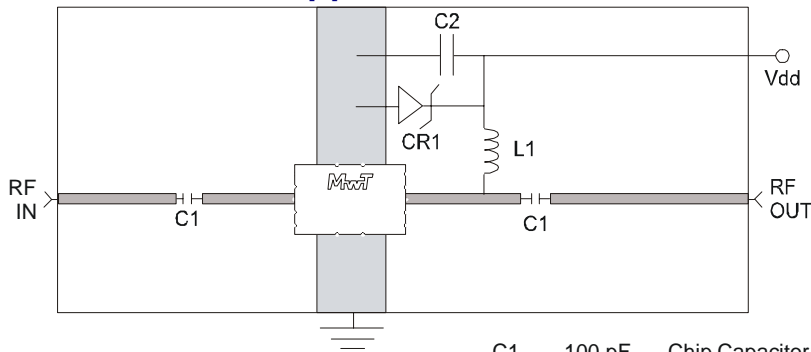
2400 to 2700 MHz Linear Amplifier



## 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