

### Features:



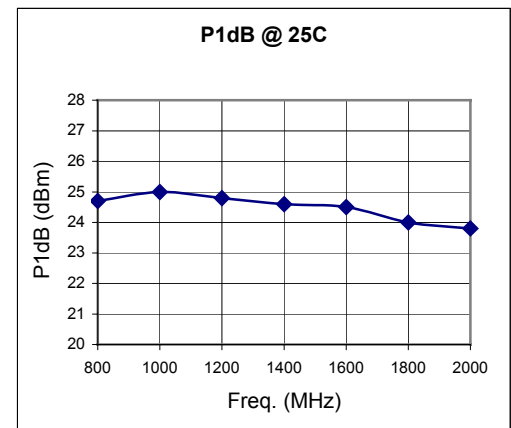
- -67 dBc ACPR
- +43 dBm IP3
- 13.5 dB Gain
- 1.4:1 VSWR

- Custom Frequencies Available
- +24 dBm P1dB
- Single Positive Bias
- Leadless Surface Mount Package

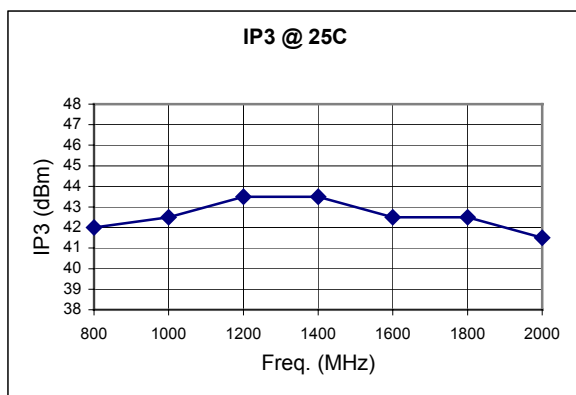
The MPS-0820A9D-02 is a low cost high linearity modular amplifier designed to meet the ultra-linear transmitter driver requirements for commercial 2G, 2.5G, 3G, GSM, TDMA, EDGE, UMTS, WCDMA, CDMA2000, and TD-SCDMA applications. Key advantages are low intermodulation performance for multi-carrier and CDMA systems and exceptionally low input/output return loss for ease of integration.

### Electrical Specifications @ 25°C, $V_{dd}^{(1)} = 6.0\text{ V}$ , $Z_o = 50\text{ ohms}$

SYMBOL	PARAMETERS	Min	Typical	Max	Unit
Freq.	Frequency Range	800		2050	MHz
SSG	Small Signal Gain	12.5	13.5		dB
P1 dB	Pout at 1 dB Comp Point		+24.0		dBm
IP3 (2)	Third-Order Intercept		+43.0		dBm
NF	Noise Figure		5.5		dB
ACPR (3)	Adj. Ch. Power Ratio (Pout = 11dBm)		-67		dBc
VSWR	VSWR (Input/Output)		1.4:1		
GOF	Gain Var. over Frequency (over 200MHz BW)		± 0.5 ± 0.2		dB
GOT	Gain Var. over Temp		-0.015		dB/°C
I <sub>dd</sub>	DC Current		220	280	mA

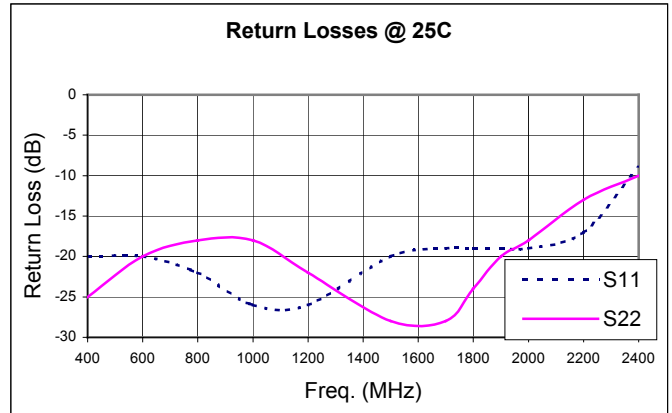
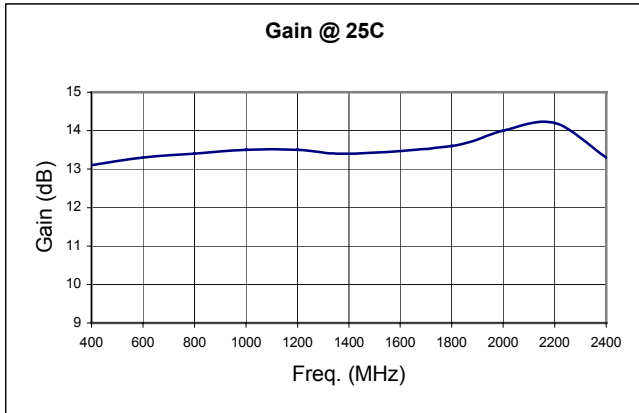


- (1)  $V_{dd} = 5.5\text{V}$  to  $6.5\text{V}$  for typical operation.  
 (2) Two tone test @ 13 dBm/tone, centered at 1.5 GHz with separation of 10 MHz.  
 (3) 3 GPP, TS 25.411, Test Model 1, 64 ch., CH. BW = 3.84 MHz, CH. SP = 5.00 MHz.

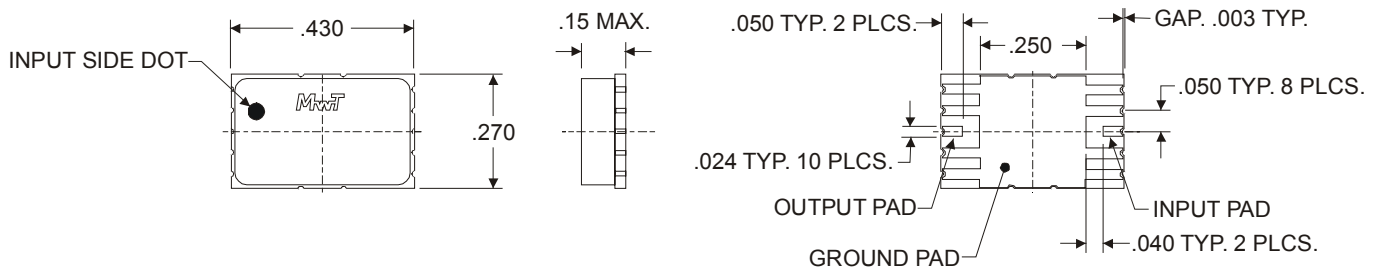


### Absolute Maximum Ratings

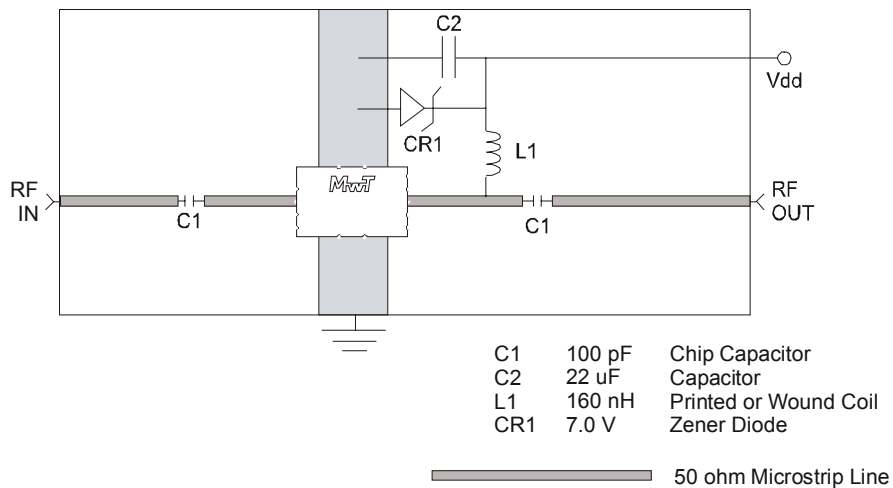
Maximum Bias Voltage	7.0 V
Maximum Continuous RF Input Power	+25 dBm
Maximum Peak Input Power	+27 dBm
Maximum Case Operating Temperature	+85 °C
Maximum Storage Temperature	- 65 to + 150 °C



## Outline Diagram



## Application Circuit



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