



Features

- +36 dBm Typical IP3
- +24 dBm Typical P1dB
- 12 dB Typical Gain
- 10 Volt Bias
- Surface Mount

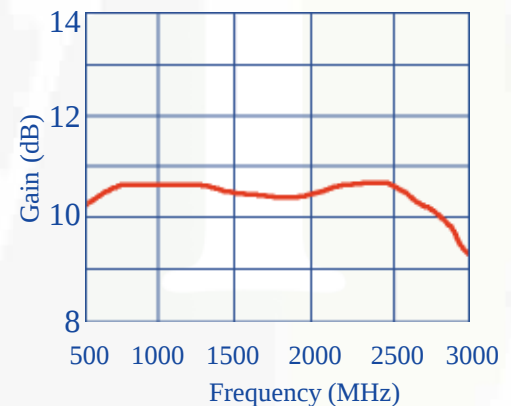
The MPS-082509-82 is a broadband, self-biased GaAs FET amplifier. It is ideal for digital communications applications where excellent linearity is required. Typical applications for this device include driver stages for AMPS, TACS, NMT, IS-95, PDC and GSM systems. It is also useful for a micro-cell or pico-cell output stage. The device may be directly connected to a 50 ohm microstrip circuit without additional matching elements.

Specifications

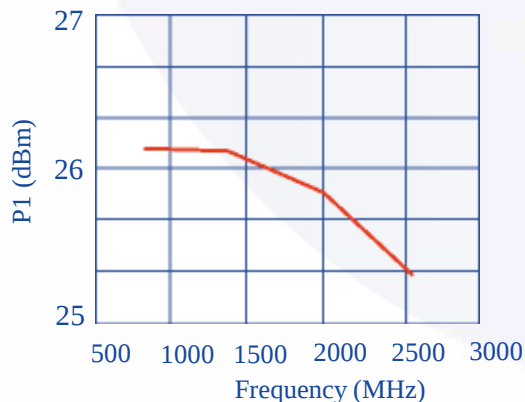
- Electrical at 25°C, Vdd= 10.0 V, Zo= 50 Ω

Symbol	Parameter	Min.	Typical	Max	Unit
Freq	Frequency Range	800		2500	MHz
SSG	Small Signal Gain	10	12		dB
P1dB	P out at 1 dB Compression	+23	+25.5		dBm
IP3	Third-order Intercept		+36.0		dBm
NF	Noise Figure		5.0		dB
VSWR	Input VSWR		2.0:1	2.5:1	
Δ GOF	Gain Variation over Freq.		+/-0.5	+/-1.0	dB
Δ GOT	Gain Variation over Temp.		- 0.01		dB/°C
I _{dd}	DC Current		135	200	mA
PAE	Power Added Efficiency		25		%

Gain vs. Frequency



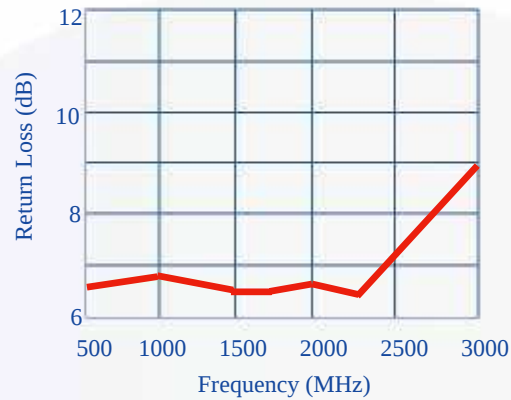
Output Power at P1dB



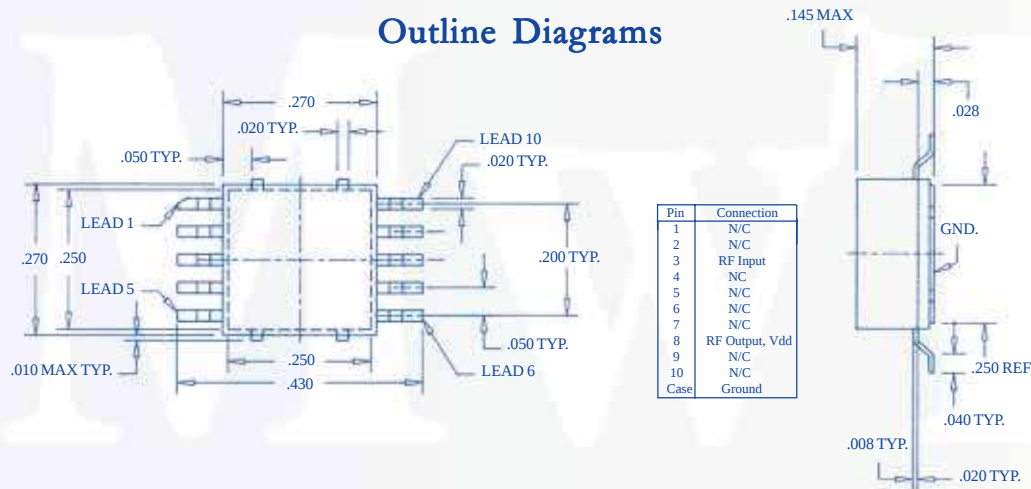
Absolute Maximum Ratings

Maximum Bias Voltage	12.0 V
Maximum Continuous RF Input Power	300 mW
Maximum Peak Input Power	450 mW
Maximum Case Operating Temperature	+85°C
Maximum Storage Temperature	-65°C to +150°C

Return Loss vs. Frequency



Outline Diagrams



Application Circuit

