

## Features:

- 300 to 2500 MHz Frequency Range
- +42 dBm OIP3
- High P1dB +25 dBm Typ (.3-2.1 GHz)
- 1.2:1 Typical Output VSWR in 50  $\Omega$  System
- 13.5 dB Typical Gain
- Single Positive Bias
- Surface Mount Gull-Wing Package



## Description:

The MPS-0325A9D-82 is a high linearity modular amplifier designed to meet the ultra-linear transmitter driver amplifier requirements for cellular CDMA, GSM and WCDAM base station transceivers. Key advantages are low inter-modulation performance for multi-carrier or wideband CDMA systems and exceptionally low input/output return loss in 50  $\Omega$  impedance systems for ease of integration. It can also be used in military applications. The package meets gross leak requirements.

## Electrical Specifications:

- @ 25°C, Vdd = 7.5 V, Zo = 50 ohms

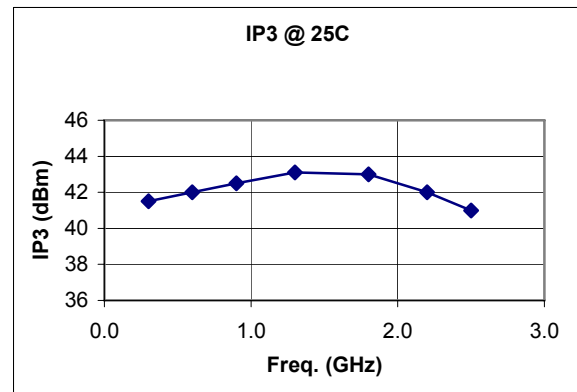
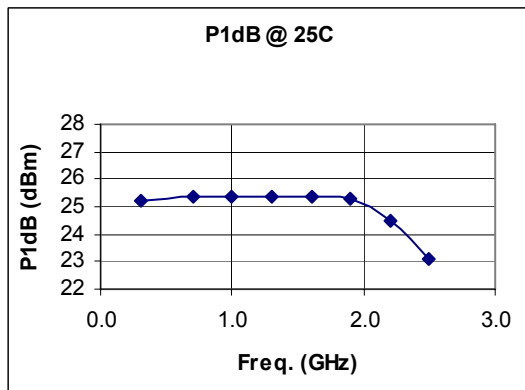
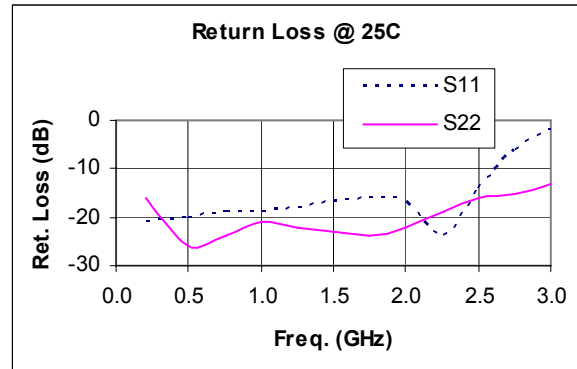
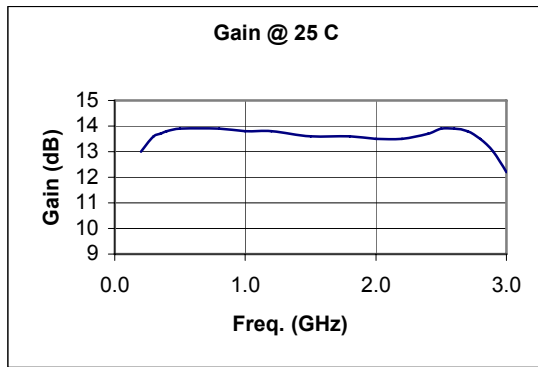
SYMBOL	PARAMETERS	Min	Typ	Max	Unit
Freq.	Frequency Range	300		2500	MHz
SSG	Small Signal Gain	12.5	13.5		dB
P1 dB	Pout at 1 dB Comp Point				
	0.3-2.1 GHz		+25.0		dBm
	2.1-2.5 GHz		+23.0		
IP3 (1)	Third-Order Intercept	+39.0	+42.0		dBm
VSWR	Input VSWR		1.4:1	1.7:1	
	Output VSWR		1.2:1	1.7:1	
GOF	Gain Var. over Frequency (over 200 MHz BW)		$\pm 0.6$	$\pm 0.9$	dB
			$\pm 0.2$	$\pm 0.6$	
GOT	Gain Var. over Temp		-0.015		dB/°C
NF	Noise Figure		4.0		dB
Idd	DC Current		300	330	mA

(1) Two tone test @ 13 dBm/tone, centered at 1.5 GHz with 10 MHz separation.

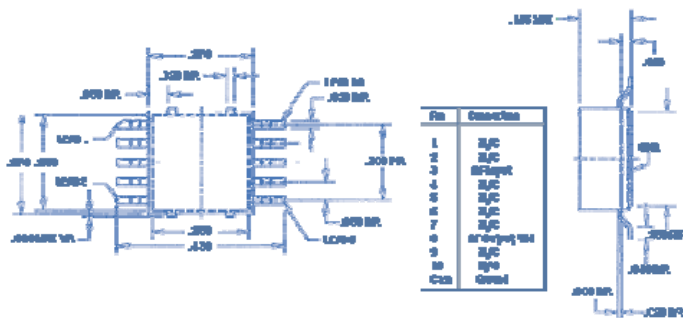
## Absolute Maximum Ratings: (Ta=25 °C)

Maximum Bias Voltage	8.0 V
Maximum Continuous RF Input Power	+25 dBm
Maximum Peak Input Power	+27 dBm
Maximum Case Operating Temperature	+ 85 °C
Maximum Storage Temperature	- 65 °C to + 150 °C

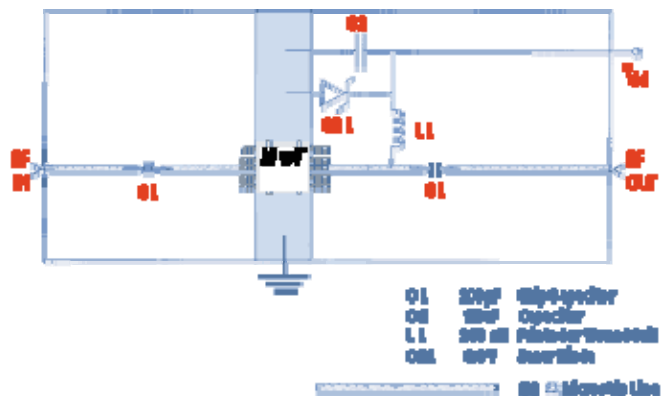
## Typical Performance



## Outline Diagram



## Application Circuit



Note: Contact Factory for evaluation board.