

MPS-0325A9D-82

300 to 2500 MHz Linear Amplifier
Preliminary Data Sheet
June 2007

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 Ω 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 S | pecifications: | • | @ 25°C, Vd | d = 7.5 V | $'$, $Z_0 = 50$ | ohms |
|---------------------|----------------|---|------------|------------|------------------|-------|
| CVMDOL | DADAMETERS | | N/I: | T | Mass | 114:4 |

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

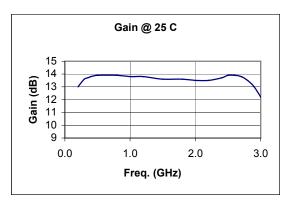
Maximum Bias Voltage8.0 VMaximum Continuous RF Input Power+25 dBmMaximum Peak Input Power+27 dBmMaximum Case Operating Temperature+ 85 °CMaximum Storage Temperature- 65 °C to + 150 °C

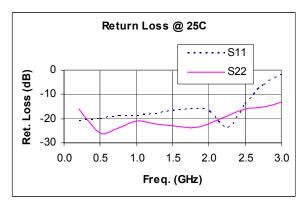


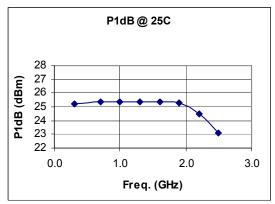
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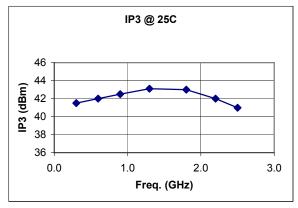
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Typical Performance



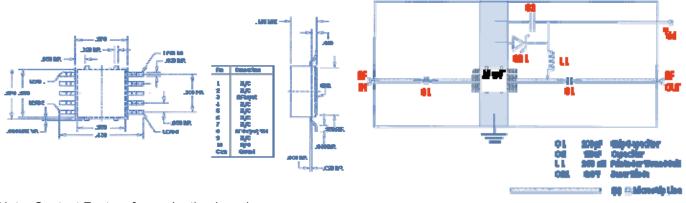






Outline Diagram

Application Circuit



Note: Contact Factory for evaluation board.