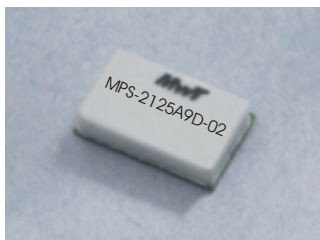


Features:

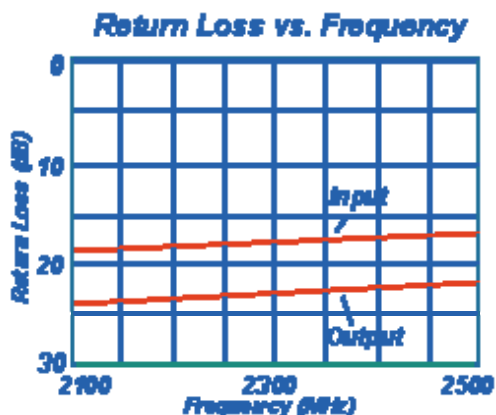
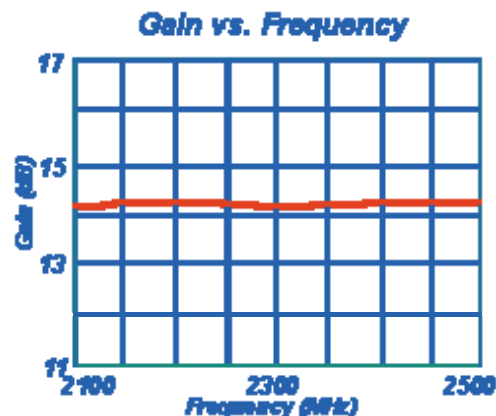


- 1.2:1 Typical Output VSWR
- +42 dBm Typical IP3
- +26 dBm Typical P1dB
- 14 dB Typical Gain
- Single Positive Bias
- Surface Mount Package

The MPS 2125A9D-02 is a high quality linearity modular amplifier designed to meet the ultra-linear transmitter driver requirements for commercial IMT 2000 Wireless Local Loop (WLL) applications. Key advantages are low inter-modulation performance for multi-carrier or wideband CDMA systems (IMD3 -70 dBc typical) and exceptionally low input/output return loss for ease of integration.

Electrical Specifications @ 25°C, Vdd = 7.5 V, Zo = 50 ohms

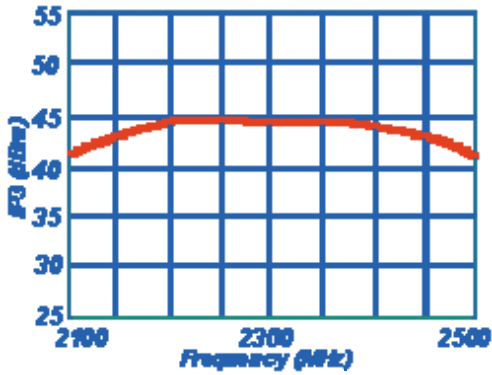
| SYMBOL | PARAMETERS | Min | Typical | Max | Unit |
|--------|--------------------------|-------|-------------|--------|-------|
| Freq. | Frequency Range | 2100 | | 2500 | MHz |
| SSG | Small Signal Gain | 13 | 14 | | dB |
| P1 dB | Pout at 1 dB Comp Point | +25.0 | +26.0 | | dBm |
| IP3 | Third-Order Intercept | +41.0 | +42.0 | | dBm |
| VSWR | VSWR (Input/Output) | | 1.4:1/1.2:1 | 1.5:1 | |
| GOF | Gain Var. over Frequency | | ± 0.20 | ± 0.50 | dB |
| GOT | Gain Var. over Temp | | -0.015 | | dB/°C |
| Idd | DC Current | | 230 | 320 | mA |



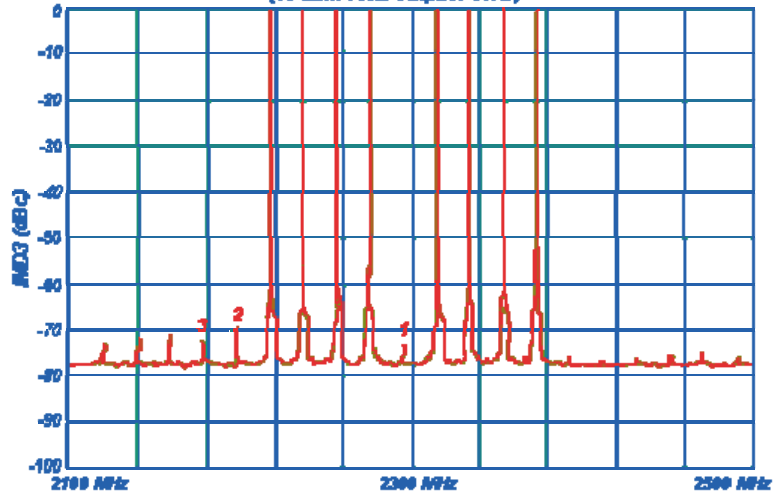
Absolute Maximum Ratings

| | |
|------------------------------------|------------------|
| 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 to + 150 °C |

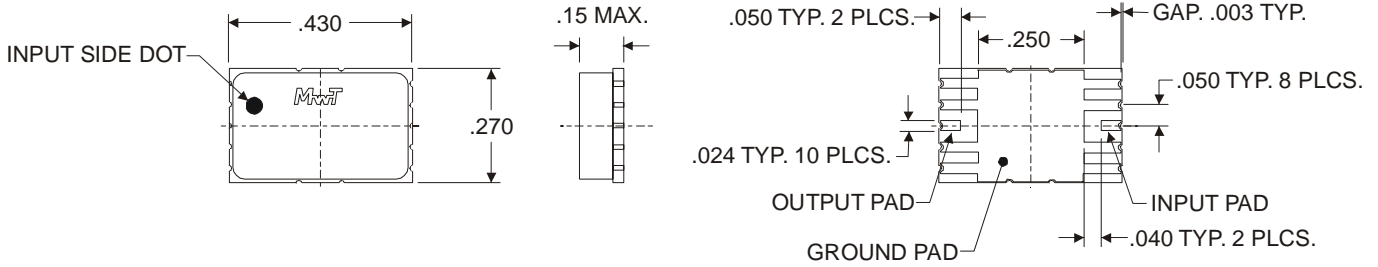
IP3 at 13 dBm/Tone



8-Tone IMD Testing (10 dBm Total Output Power)



Outline Diagram



Application Circuit

