

Features:



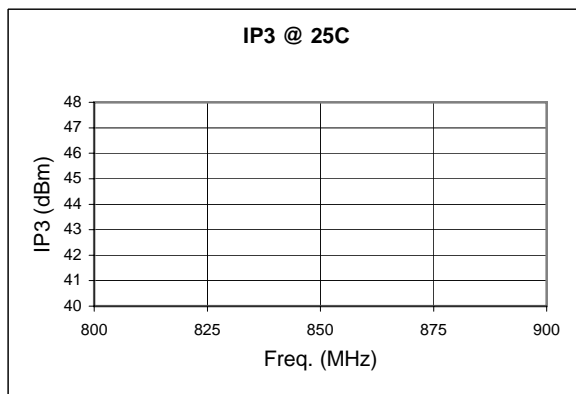
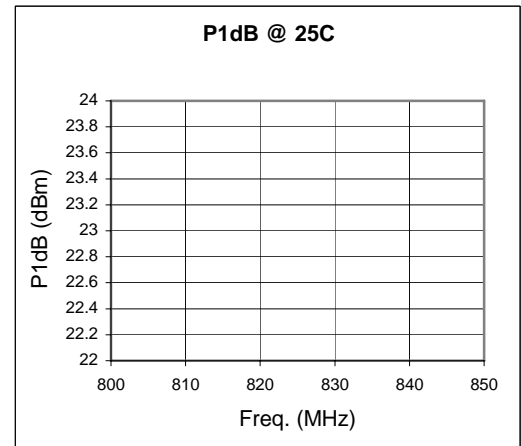
- 0.8 dB NF
- 13.5 dB Gain
- +23 dBm P1dB

- Single Positive Bias
- Leadless Surface Mount Package

The MPS-080917N-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.

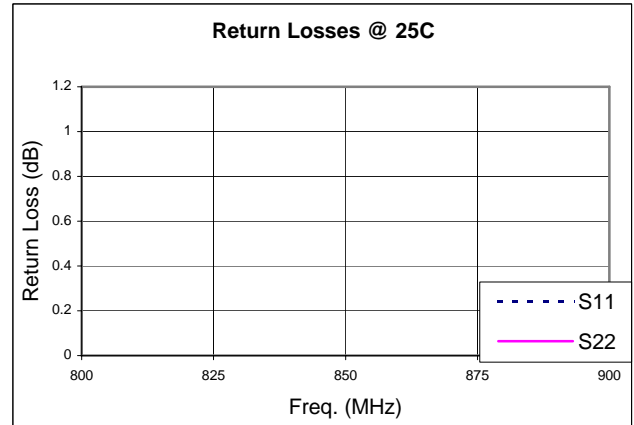
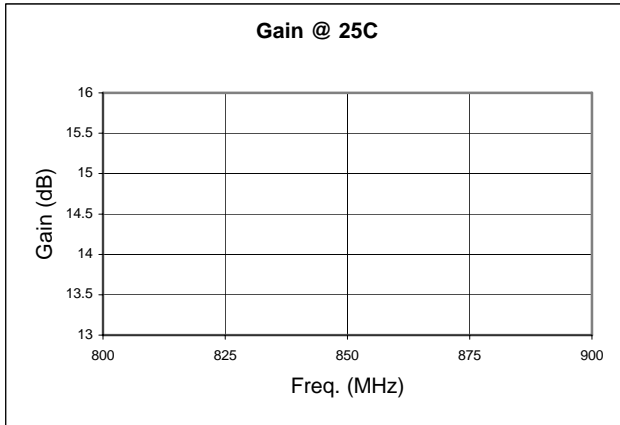
Electrical Specifications @ 25°C, V_{dd} = 7.5 V, Z_o = 50 ohms

| SYMBOL | PARAMETERS | Min | Typical | Max | Unit |
|-----------------|--------------------------|------|---------|-------|-------|
| Freq. | Frequency Range | 864 | | 899 | MHz |
| SSG | Small Signal Gain | 12.0 | 13.5 | | dB |
| P1 dB | Pout at 1 dB Comp Point | | +23.0 | | dBm |
| IP3 | Third-Order Intercept | | 36.0 | | dBm |
| NF | Noise Figure | | 0.8 | 1.1 | dB |
| VSWR | VSWR (Input/Output) | | 2.0:1 | | |
| GOF | Gain Var. over Frequency | | ± 0.2 | ± 0.5 | dB |
| GOT | Gain Var. over Temp | | -0.015 | | dB/°C |
| I _{dd} | DC Current | | 180 | 250 | mA |

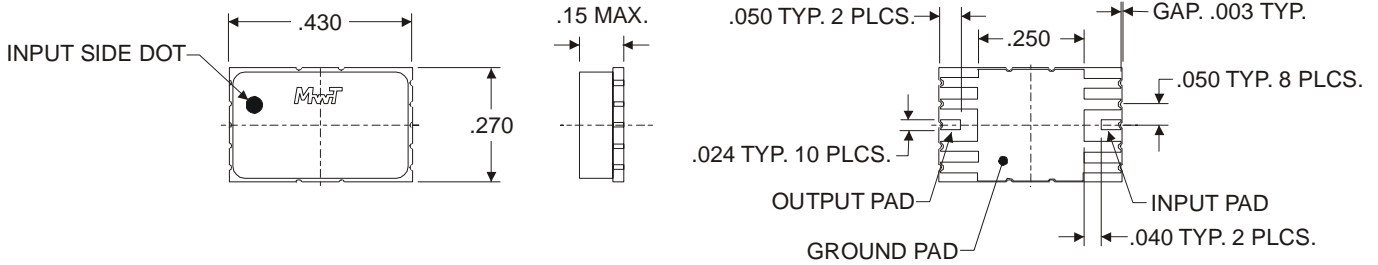


Absolute Maximum Ratings

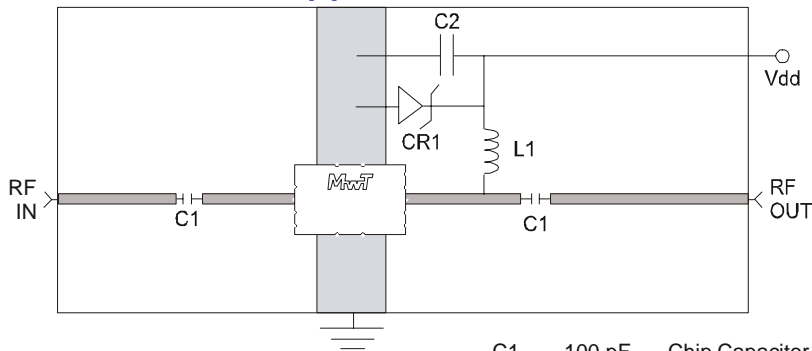
| | |
|------------------------------------|------------------|
| Maximum Bias Voltage | 7.0 V |
| Maximum Continuous RF Input Power | +25 dBm |
| Maximum Peak Input Power | +27 dBm |
| Maximum Case Operating Temperature | +85 °C |
| Maximum Storage Temperature | - 65 to + 150 °C |



Outline Diagram



Application Circuit



| | | |
|-----|--------|-----------------------|
| C1 | 100 pF | Chip Capacitor |
| C2 | 22 uF | Capacitor |
| L1 | 160 nH | Printed or Wound Coil |
| CR1 | 7.0 V | Zener Diode |

— 50 ohm Microstrip Line

MicroWave Technology, Inc. an IXYS Company, 4268 Solar Way, Fremont, CA 94538

510-651-6700 FAX 510-651-2208 EMAIL info@mwtec.com

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