

Features:

- Broadband, high gain and high power output
- Low VSWR, unconditional stable
- SMA female connector I/O
- Single DC power supply required
- Operating temperature -40~+75°C, storage temperature -55~+85°C

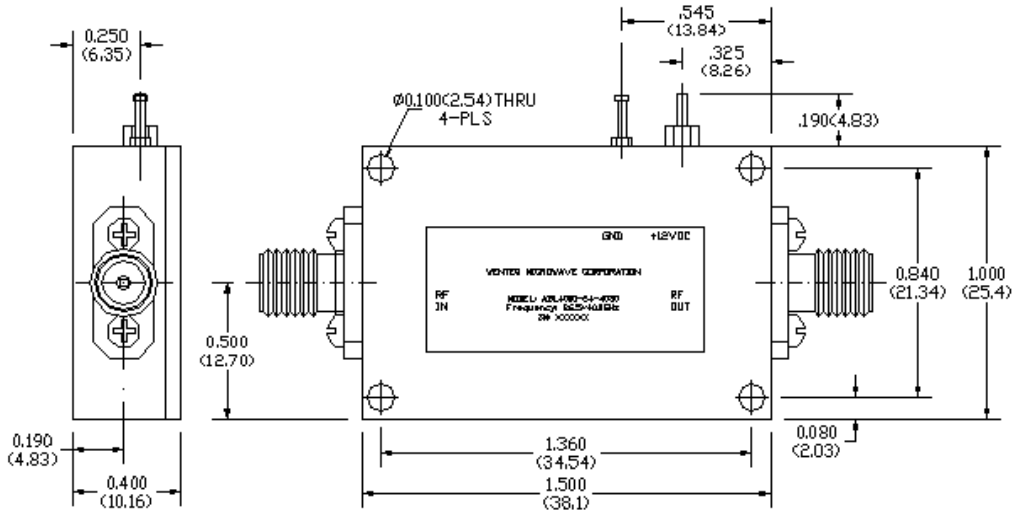
General Description

ABP1800-01-2425 is a two stage MMIC broadband power amplifier module operating in the frequency of 100MHz to 18GHz. The amplifier provides 24dB of small signal gain, +25dBm of typical output power at 1dB gain compression. It has excellent gain flatness and good VSWR at both input and output. The amplifier requires only a single positive DC power supply, its built-in DC voltage regulator and internal sequencing circuitry makes the application more robust.

Electrical Specifications

| Parameters | Units | Specifications | | |
|--|--------|----------------|------------|------------|
| | | Minimum | Typical | Maximum |
| Frequency Range | GHz | 0.1 | | 18.0 |
| P-1dB Compression Point | dBm | +23.0 | +25.0 | |
| Output IP3 | dBm | +30.0 | +33.0 | |
| Output IP2 | dBm | +43.0 | +45.0 | |
| Nominal Gain @25°C | dB | 22.0 | 24.0 | 26.0 |
| Gain flatness over frequency | dB | | +/-1.0 | +/-1.25 |
| Gain Variation over Temperature | dB | | +/-2.0 | +/-2.5 |
| Noise Figure at 25 degree C 0.1~1.5GHz 1.5~18.0GHz | dB | | 4.0 3.0 | 6.0 4.0 |
| Input VSWR | | | 1.7:1 | 2.0:1 |
| Output VSWR | | | 1.7:1 | 2.0:1 |
| Spurious | dBc | | | -60.0 |
| Operating Temperature | °C | -40.0 | | +75.0 |
| Survival Temperature | °C | -45.0 | | +125.0 |
| DC Power Supply Voltage | V | | +12.0 | |
| DC Power Supply Current | mA | 300 | 330 | 500 |
| In/Out connectors | | SMA female | | |
| Size | inches | 1.5x1.2x0.4 | | |

Mechanical Structure:



Note: All units in inches (mm).

Absolute Maximum Ratings

| | |
|-----------------------|------------|
| DC Voltage | +13V |
| RF Input Power | 15 dBm |
| Storage Temperature | -55~+125°C |
| Operating Temperature | -40~+75°C |



Electrostatic sensitive device, please observe precautions for handling this amplifier.