**WENTEQ**
**MICROWAVE CORP**

# GAN RF POWER AMPLIFIER
# ABP0100-05-4040

## Features:

- 10 Watt saturated output power
- Good VSWR, unconditional stable
- Class AB operation for high efficiency
- SMA female connector I/O
- Operating temperature -20~+65°C, storage temperature -45~+125°C

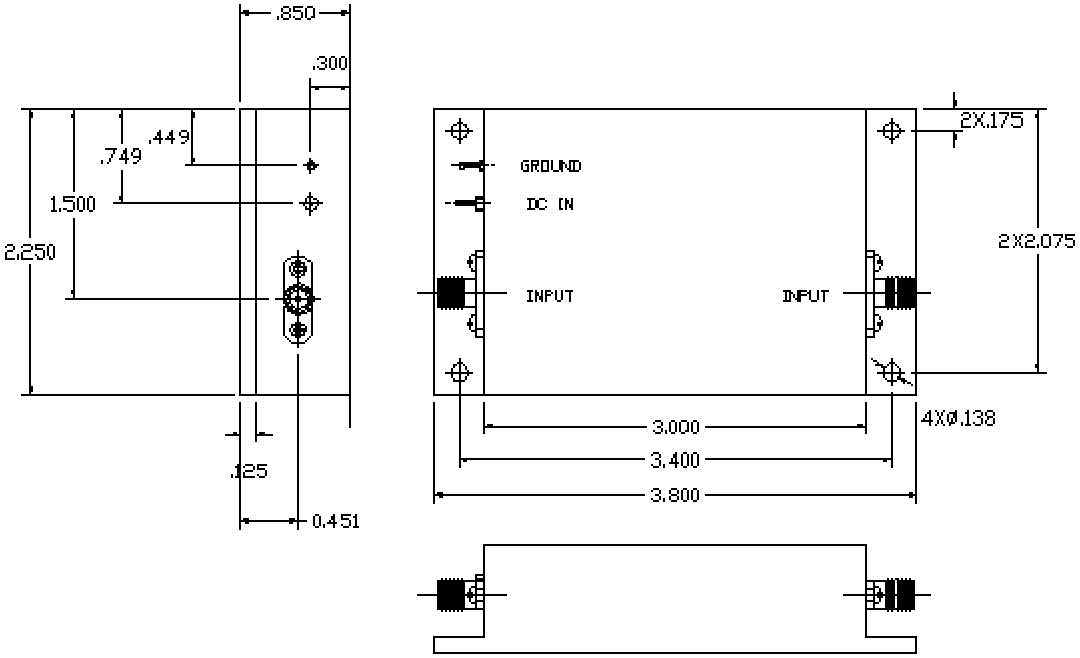
## DESCRIPTION:

ABP0100-05-4040 is a two-stage power amplifier operating over the frequency from 50MHz to 1GHz range with output power of 10 Watt CW. The power amplifier consists of an GaN device as output power stage and an E-pHEMT device as driving stage. The amplifier provides 40dB of small signal gain and requires only a single positive DC power supply to operate.

## Electrical Specifications

| Parameters | Units | Specifications | | |
|---|---|---|---|---|
| | | Minimum | Typical | Maximum |
| Frequency Range | MHz | 50 | | 1000 |
| Saturated power at output | dBm | +39.5 | +40.0 | |
| Nominal small signal Gain @25°C base plate temperature | dB | 37.0 | 40.0 | 43.0 |
| Gain flatness | dB | | +/-1.5 | +/-2.0 |
| Gain Variation over temperature | dB | | +/-1.5 | |
| Noise Figure | dB | | 5.0 | 8.0 |
| Input VSWR | | | 1.5:1 | 2.0:1 |
| Output VSWR | | | 2.0:1 | 3.0:1 |
| Spurious | dBc | | | -60.0 |
| Operating Temperature | °C | -40.0 | | +75.0 |
| Survival Temperature | °C | -45.0 | | +125.0 |
| DC Power Supply Voltage | V | 25.0 | 28.0 | 30.0 |
| DC Current | | | | |
| Quiescent (no RF) | mA | | 250 | 350 |
| @Pout=+40dBm | | | 900 | 1200 |
| In/Out connectors | | SMA-type female | | |
| Size | inches | 3.8x2.25x0.85 | | |

Mechanical Structure:



Note: All units in inches.