

LINEAR WIDEBAND POWER AMPLIFIER

Model – MB2.0100M505028



General Description:

Elite RF's **MB Series** amplifier is a wideband power amplifier designed for CW signals fabricated on LDMOS process and can operate up to **100 MHz**. These amplifiers offer high power density, low thermal resistance, and wideband performance. They can be widely used for military and commercial applications.

Like all Elite RF amplifiers, this product comes with an industry leading **3-year warranty**.

Features

- Wide Freq. Range
- High Output Power
- High Gain
- High Reverse Isolation
- AGC pin (8 vdc max gain, 0 vdc min gain)

ELECTRICAL SPECIFICATIONS

| Parameter | Symbol | Min | Typ | Max | Unit |
|-----------------------------------|------------|-----|-------|-----|-------|
| Frequency Range | BW | 2 | | 100 | MHz |
| Output Power CW | Psat | | 100 | | Watt |
| Output Power at 1 dB Compression | P1dB | | 25 | | Watt |
| Small Signal Gain | Gp | | 50 | | dB |
| Gain Flatness | Delta Gp 1 | | +/- 3 | | dB |
| Input VSWR | S11 | | 2:1 | | Ratio |
| IMD @ 1 watt/tone @ 1 MHz spacing | IP3 | | 50 | | dBm |
| Harmonics | H | | -20 | | dBc |
| Spurious Signals | Spur | | -60 | | dBc |
| Operating Voltage | VDC | 27 | 28 | 29 | VDC |
| Current at 100 watts | Current | | 7 | | Amps |
| Class of Operation | C | | AB | | Class |
| Noise Figure | NF | | N/A | | dB |
| Large Signal Gain | Lsg | | 48 | | dB |
| Max Load VSWR @ 100 Watts | ML | | 6:1 | | Ratio |

ENVIRONMENTAL CHARACTERISTICS

| Parameter | Symbol | Min | Typ | Max | Unit |
|------------------------------------|--------|-----|------------------------|--------|--------|
| Operating Case Temperature | Tc | -20 | | +60 | Deg. C |
| Storage Temperature | Tstg | -40 | | +85 | Deg. C |
| Relative Humidity (non-condensing) | RH | | | 95 | % |
| Altitude | ALT | | | 10,000 | Feet |
| Vibration/Shock | VI /SH | | Normal Truck Transport | | |

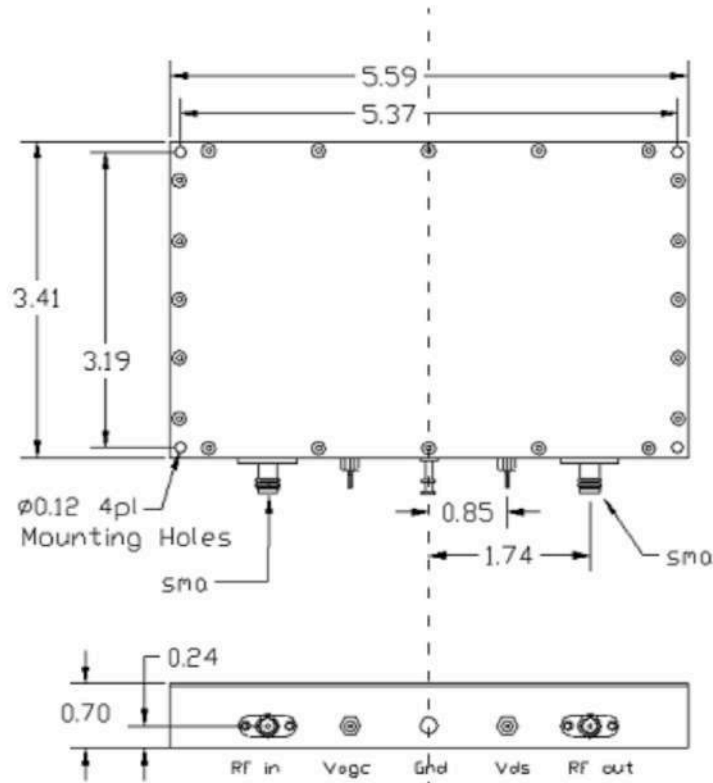
MECHANICAL CHARACTERISTICS

| Parameter | Symbol | Min | Typ | Max | Unit |
|-------------------|---------|-----|--------------------|-----|--------|
| Dimensions | Dim | | 5.60 x 3.40 x 0.7 | | Inches |
| Weight | Wt. | | 1 | | lbs. |
| Connectors In/Out | RF Conn | | SMA/SMA | | - |
| Cooling | Th | | Heat sink required | | - |

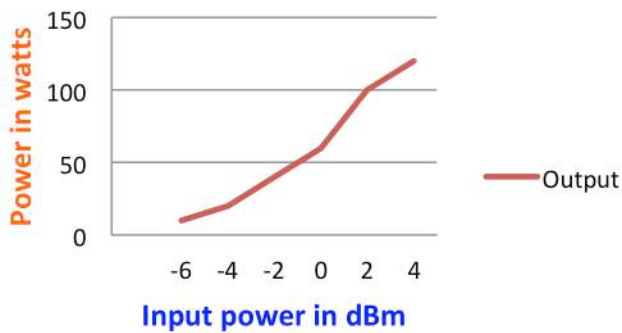
OPTIONS

| Parameter | Add suffix to part number |
|---|---------------------------|
| Heat sink and fans | - H |
| Isolator with forward and reverse voltage outputs | N/A |
| TTL Input Trigger | - T |

Mechanical Drawings



Output Power CW vs. Input Power



Gain vs. Frequency

