

LINEAR WIDEBAND POWER AMPLIFIER

Model – AB2.0018G4348AC

General Description:

Elite RF's **AB Series** amplifier is a wideband power amplifier designed for CW signals fabricated on GaN on SiC process and can operate up to **18.0 GHz**. 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 warranty.



| Features | Indicator options | Protections |
|------------------------|-------------------|------------------|
| Wide Freq. Range | DC Power | Thermal Overload |
| High Output Power | Temp Fault | Over Voltage |
| High Gain | | Reverse Polarity |
| High Reverse Isolation | | |
| Built-in Protection | | |

ELECTRICAL SPECIFICATIONS

| Parameter | Symbol | Min | Typ | Max | Unit |
|---|------------|------|-------|-------|-------|
| Frequency Range | BW | 2000 | | 18000 | MHz |
| Output Power CW | Psat | | 20 | | Watt |
| Output Power at 1 dB Compression Small | P1dB | | 5 | | Watt |
| Signal Gain | Gp | | 48 | | dB |
| Gain Flatness | Delta Gp 1 | | +/- 3 | | dB |
| Input VSWR | S11 | | 2:1 | | Ratio |
| IMD @ 12 GHz @ 1 watt one / 1 MHz spacing | IP3 | | 45 | | dBm |
| Harmonics | H | | -20 | | dBc |
| Spurious Signals | Spur | | -50 | | dBc |
| AC Operating Voltage | VAC | 100 | 120 | 240 | VAC |
| AC Power at 20 watts | Pdiss | | 100 | | Watts |
| Class of Operation | C | | AB | | Class |
| Noise Figure | NF | | 5 | | dB |
| Large Signal Gain | Lsg | | 42 | | dB |
| Max Load VSWR @ 20 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 | | 19 x 15 x 3.5 | | Inches |
| Weight | Wt. | | 25 | | lbs. |
| Connectors In/Out | RF Conn | | N Type/N Type | | - |
| Cooling | Th | | Heat sink required | | - |

OPTIONS

| Parameter | Add suffix to part number |
|--------------------|---------------------------|
| Heat sink and fans | - N/A |
| Enable/Disable | - N/A |
| TTL Input Trigger | - N/A |

Mechanical Drawings

