

LINEAR WIDEBAND POWER AMPLIFIER

Model – ML5.9018G185515



General Description:

Elite RF's **ML Series** amplifier is a wideband power amplifier designed for CW signals fabricated on GaN on SiC process and can operate up to **18 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

Wide Freq. Range
High Output Power
High Gain
High Reverse Isolation
Built-in Protection

Indicator options

DC Power
Temp Fault

Protections

Thermal Overload
Over Voltage
Reverse Polarity

ELECTRICAL SPECIFICATIONS

| Parameter | Symbol | Min | Typ | Max | Unit |
|--|------------|------|-------|-------|-------|
| Frequency Range | BW | 5900 | | 18000 | MHz |
| Output Power CW | Psat | | .1 | | Watt |
| Output Power at 1 dB Compression | P1dB | | .05 | | Watt |
| Small Signal Gain | Gp | | 55 | | dB |
| Gain Flatness | Delta Gp 1 | | +/- 3 | | dB |
| Input VSWR | S11 | | 2:1 | | Ratio |
| IMD @ 12 GHz @ .01 watt/tone / 1 MHz spacing | IP3 | | 27 | | dBm |
| Harmonics | H | | -20 | | dBc |
| Spurious Signals | Spur | | -50 | | dBc |
| Operating Voltage | VDC | 14 | 15 | 16 | VDC |
| Current at 0.1 watts | Current | | .60 | | Amps |
| Class of Operation | C | | A | | Class |
| Noise Figure | NF | | 5 | | dB |
| Large Signal Gain | Lsg | | 53 | | dB |
| Max Load VSWR @ 0.1 watts | ML | | 20:1 | | 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 | | 6.0 x 4.0 x 1.0 | | 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

