



AMP5005P SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear LDMOS design
 High power single frequency
 Suitable for linear pulse applications
 Built-in monitoring and protection circuits
 High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

| Parameter | Specification | Notes |
|--|---------------------|----------------------------|
| Operating Frequency Range | 2.865 GHz | |
| Power Output Peak Pulse | 450 Watt Min | |
| Power Output @ P1dB | 200 Watt Typ | |
| Dynamic Range | 50 dB Min | |
| Pulse Width | 1.5 - 4.0 μ Sec | |
| Duty Cycle | 0.1 % Max | PRF = 60 Hz |
| Rise / Fall time | 100 nSec Max | |
| Output pulse amplitude / Phase Stability | 0.04 % / 0.09° Max | |
| Phase shifting within output pulse | $\pm 1^\circ$ Max | |
| Output pulse jitter | ± 5 nSec Max | |
| Power Gain | 56 dB Min | Optional: 10dB gain adjust |
| Input Return Loss | 10 dB Min | Relative to 50 Ω |
| Harmonics | >30 dBc | At rated Pout |
| Non Harmonics Spurious | >60 dBc | |
| Operating Voltage | 48 VDC | |
| Current Consumption | 30 Amp Typ | Peak current @ rated Pout |
| Max Input Power | +8 dBm | Without damage |
| Load VSWR Protection | $\infty : 1$ | Output Isolator |

ENVIRONMENTAL CHARACTERISTICS

| Parameter | Specification | Notes |
|----------------------------|---------------|------------------|
| Operating Case Temperature | -20 to +75 °C | |
| Storage Temperature | -40 to +85 °C | |
| Relative Humidity | 5 to 95 % | Non Condensation |

MECHANICAL SPECIFICATIONS

| Parameter | Specification | Notes |
|--------------------------------|-------------------|----------------------|
| Dimensions | 250 x 180 x 32 mm | Excluding Connectors |
| Weight | TBD g. | Typical Weight |
| RF Connectors In/Out | SMA-F / Type N-F | |
| DC Power / Interface Connector | Hybrid D-Sub | |
| Cooling | External Heatsink | Forced air required |

D-SUB CONNECTOR PIN ASSIGNMENT

| Pin | Function | Description |
|-----|-----------------|-----------------------------------|
| 1 | FWD | N/C |
| 2 | VVA | Gain Adjustment |
| 3 | CURRENT MONITOR | $I_D @ 10mV/100mA$ Typ |
| 4 | TEMP SENSOR | $V_T @ 10mV/^\circ C + 500mV$ Typ |
| 5 | SHUTDOWN | TTL |
| A1 | VDD | 48VDC |
| A2 | GND | Ground |

OUTLINE DRAWING

