



AMP3091P SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES

Ruggedized, compact Class AB high power pulse SSPA
 Suitable for L-Band, high power Radar applications
 Internal capacitive bank provides low output droop over extended pulse widths.

ELECTRICAL SPECIFICATIONS

| Parameter | Specification | | | Notes |
|-----------------------------------|-------------------------|-----------------|------------|---------------------------|
| Operating Frequency | 1.2 - 1.4 GHz | | | |
| Peak Pulse Output Power | 1000 Watt Min | | | Peak Pulse |
| Peak Power Gain | 60 dB Min | | | |
| Input Pulse Characteristics | Width(tp) | Duty (δ) | PRF | Nominal values |
| | 10 μS | 1 % | 10 KHz | |
| Pulse Rise / Fall Time | 100 nS Max | | | |
| Pulse Droop | 0.5 dB Max | | | |
| Input Return Loss | -12 dB Max | | | Relative to 50 Ohm |
| Harmonics | -30 dBc Max | | | |
| Spurious | -60 dBc Max | | | Non-harmonics or gaussian |
| Operating Voltage | 50 VDC Nom | | | |
| Current Consumption at rated Pout | 1 Amp / 51 Amp Peak Max | | | 10 μS, 1% |
| Load VSWR | ∞ : 1 | | | <1 minute at rated Pout |

ENVIRONMENTAL CHARACTERISTICS

| Parameter | Specification | Note |
|----------------------------|---------------|----------------|
| Operating Case Temperature | -20 to +70°C | |
| Storage Temperature | -40 to +85 °C | |
| Relative Humidity | 5 to 95 % | Non-condensing |

MECHANICAL SPECIFICATIONS

| Parameter | Specification | Notes |
|--------------------------------|----------------------------|---------------------|
| Dimensions | 250 x 180 x 32 mm | Excluding heatsink |
| Weight | TBD | |
| RF Connectors In/Out | SMA female / Type N female | |
| DC Power / Interface Connector | 7-Pin Hybrid D-Sub | |
| Cooling | External Heatsink | Forced air required |

D-SUB CONNECTOR PIN ASSIGNMENT

| Pin | Function | Description |
|-----|----------------|--|
| 1 | N/C | |
| 2 | N/C | |
| 3 | CURRENT SENSOR | I _b @50mV/100mA Typ |
| 4 | TEMP SENSOR | V _T @10mV/°C + 500mV Typ |
| 5 | SHUTDOWN | TTL "Hi" = Disable Function @ 50mS (Option: 5uS Trigger/Pulse Modulator) |
| A1 | VDD | 50VDC |
| A2 | GND | Ground |

AMP3091P SOLID STATE HIGH POWER PULSE AMPLIFIER

OUTLINE DRAWING

