



AMP1048A SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear LDMOS design
 Instantaneous wide bandwidth
 Suitable for all single channel modulation standards
 Built-in monitoring and protection circuits
 High reliability and ruggedness

ELECTRICAL SPECIFICATIONS @ 25°C, 28VDC

| Parameter | Specification | Notes |
|------------------------------|---------------------|-------------------------|
| Operating Frequency Range | 20 - 500 MHz | |
| Power Output Psat | 200 Watt Min | CW |
| Power Gain | 53 dB Min | |
| Power Gain Flatness | 3.0 dB p-p Max | |
| Input Return Loss | -10 dB Max | Relative to 50 Ohm |
| 2-Tone Intermodulation (IMD) | -30 dBc Typ | 43dBm/Tone, Δ = 1MHz |
| Harmonics 2nd / 3rd | -35dBc / -15dBc Typ | At rated Pout |
| Spurious | -60 dBc Max | Non-harmonics |
| Operating Voltage | 28 - 30 VDC | |
| Current Consumption | 18 Amp Max | At rated Pout |
| Input Power Protection | +8 dBm Max | <10 Sec without damage |
| Load VSWR Protection | 10 : 1 | <1 minute at rated Pout |
| Turn On / Off Speed | 5 μSec Max | |

ENVIRONMENTAL CHARACTERISTICS

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

MECHANICAL SPECIFICATIONS

| Parameter | Specification | Notes |
|--------------------------------|-------------------|----------------------|
| Dimensions | 162 x 106 x 27 mm | Excluding connectors |
| Weight | 700 gr. | |
| RF Connectors In/Out | SMA-F / Type-N | |
| DC Power / Interface Connector | 9-Pin D-Sub | |
| Cooling | External Heatsink | Forced air required |

D-SUB CONNECTOR PIN ASSIGNMENT

| Pin | Function | Description |
|------|----------------|---|
| 1 | FWD | Option-101 - Analog Forward Power Indicator |
| 2 | VVA | Option-103 - Analog Gain Control |
| 3 | CURRENT SENSOR | I _D @20mV/100mA Typ |
| 4 | TEMP SENSOR | V _T @10mV/°C + 500mV Typ |
| 5 | SHUTDOWN | TTL |
| 6, 7 | VDD | 28VDC |
| 8, 9 | GND | Ground |

OUTLINE DRAWING - OPTION 103

