

AMP3054 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

| Parameter | Specification | Notes |
|------------------------------|-----------------------|------------------------------------|
| Operating Frequency Range | 900 - 1000 MHz | |
| Power Output Psat | 100 Watt Min | CW |
| Power Gain | 50 dB Min | |
| Power Gain Flatness | 1.0 dB p-p Max | |
| Input Return Loss | 10 dB Min | Relative to 50 Ohm |
| 2-Tone Intermodulation (IMD) | >30 dBc Typ | 40dBm/Tone, $\Delta = 1\text{MHz}$ |
| Harmonics | >30 dBc Typ | At rated Pout |
| Non Harmonics Spurious | >60 dBc | |
| Operating Voltage | 28 VDC Nom | |
| Current Consumption | 9 Amp Max | At rated Pout |
| Max Input Power | +8 dBm | Note 1 |
| Load VSWR Protection | $\infty : 1$ Min | |
| Turn On / Off Speed | 5 μSec Max | |

- Nominal Input Power is 0dBm Max input power protection for 10 seconds without damage

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

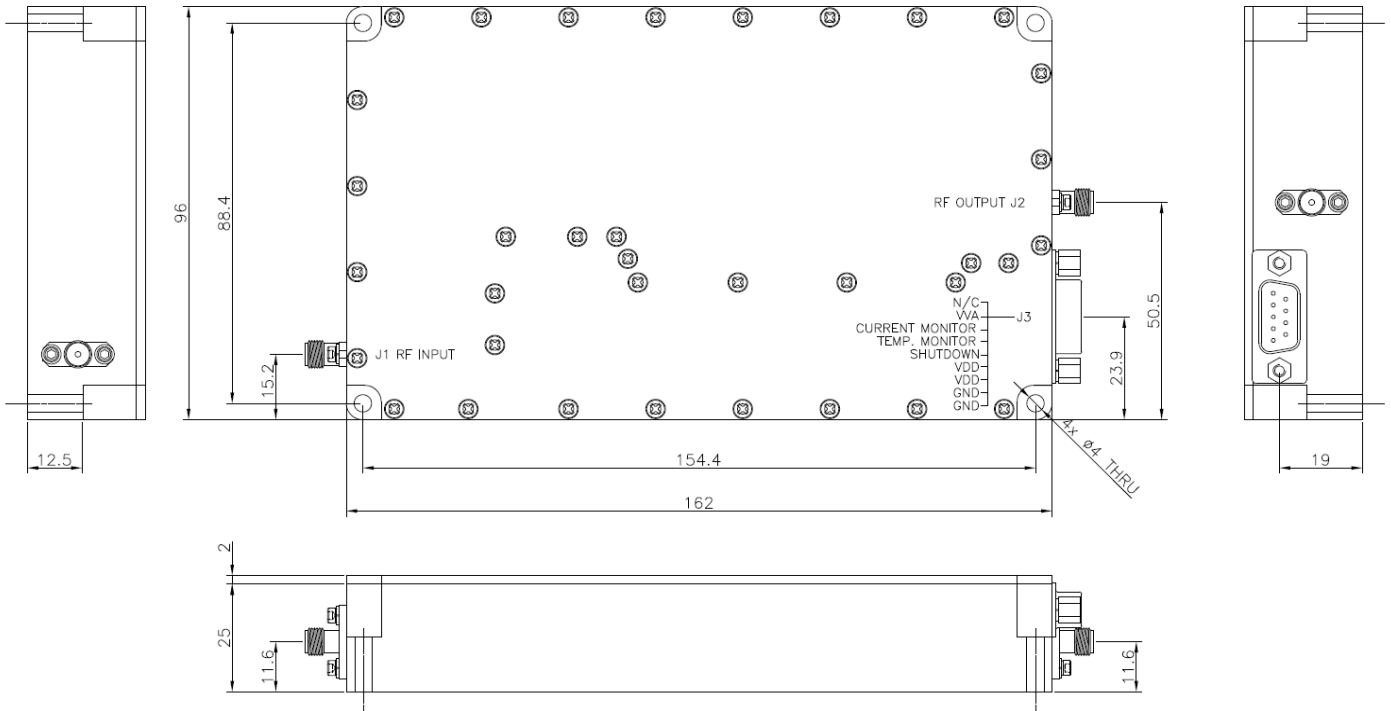
| Parameter | Specification | Notes |
|--------------------------------|---|----------------------|
| Dimensions | Option-00 - 162 x 96 x 27 mm Option-01 - 200 x 100 x 27 mm | Excluding Connectors |
| Weight | 700 gr. | Max Weight |
| RF Connectors In/Out | SMA female | |
| DC Power / Interface Connector | 9-Pin D-Sub | |
| Cooling | External Heatsink | Forced air required |

D-SUB CONNECTOR PIN ASSIGNMENT

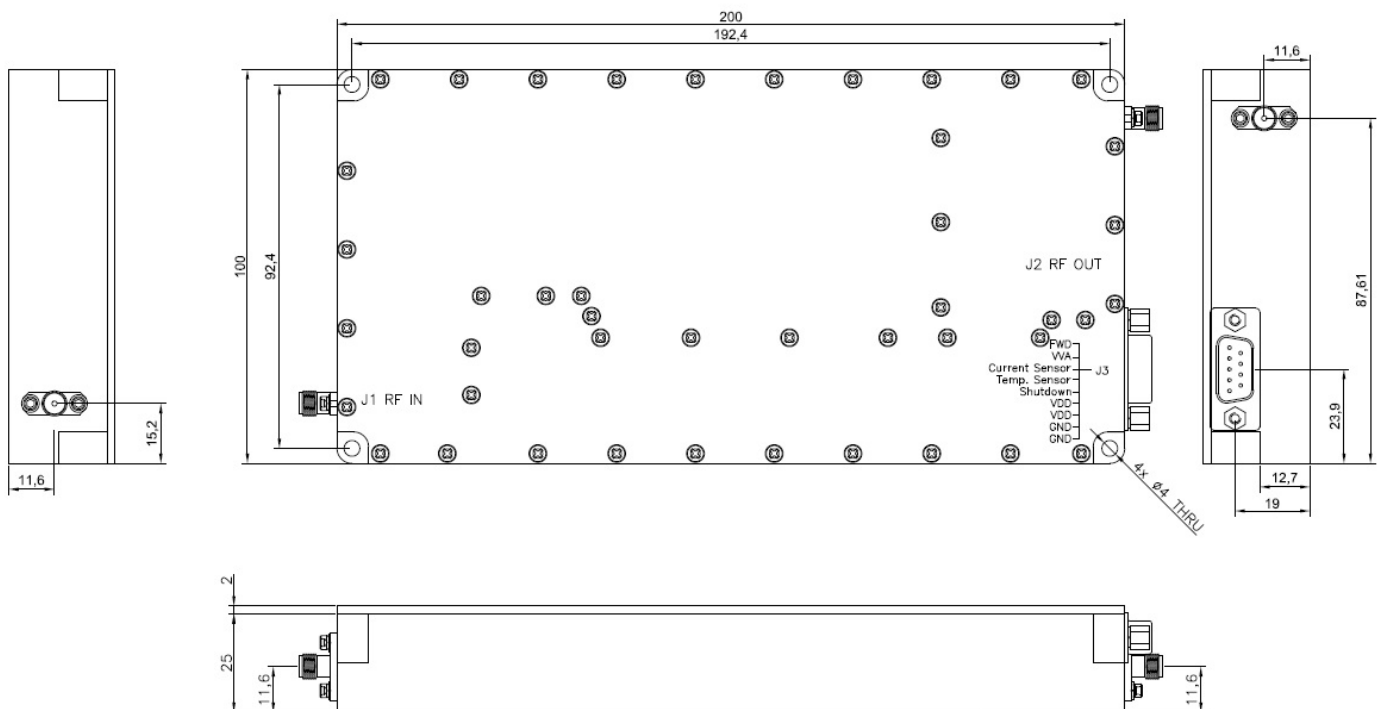
| Pin | Function | Description |
|------|----------------|---|
| 1 | FWD | Option-101 - Analog Forward Power Indicator |
| 2 | VVA | Option-103 - Analog Gain Control |
| 3 | CURRENT SENSOR | $I_D @ 20\text{mV}/100\text{mA}$ Typ |
| 4 | TEMP SENSOR | $V_T @ 10\text{mV}/^\circ\text{C} + 500\text{mV}$ Typ |
| 5 | SHUTDOWN | TTL |
| 6, 7 | VDD | 28VDC |
| 8, 9 | GND | Ground |

AMP3054 SOLID STATE HIGH POWER AMPLIFIER

OUTLINE DRAWING - STANDARD



OUTLINE DRAWING - OPTION 101 & 103





AMP3054 SOLID STATE HIGH POWER AMPLIFIER

OPTION ORDERING INFORMATION:

| OPTION | Function | Description |
|--------|----------|-----------------------------|
| 01 | FWD | Forward power detect |
| 03 | VVA | Variable Voltage Attenuator |