# HD31114
# SOLID STATE HIGH POWER AMPLIFIER

**FEATURES**

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

**ELECTRICAL SPECIFICATIONS**

| Parameter | Specification | Notes |
|---|---|---|
| Operating Frequency Range | 26.0 - 31.0 GHz | |
| Power Output Psat | 5 Watt Min | |
| Power Output @ P1dB G.C.P. | 4 Watt Min | |
| Power Gain | 37 dB Min | |
| Power Gain Flatness | 4.0 dB p-p Max | Constant input power |
| Input / Output Return Loss | -10 dB Max | Relative to 50 Ohm |
| Noise Figure | 12 dB Max | |
| Harmonics | -20 dBc Max | At rated Pout |
| Spurious | -60 dBc Max | Non-harmonics |
| Operating Voltage | 9 VDC Nom | |
| Current Consumption | 10 Amp Max / 7 Amp Typ | At rated Pout |
| Input Power Protection | +3 dBm Max | <10 Sec without damage |
| Load VSWR Protection | 5 : 1 Max | <1 minute at rated Pout |

**ENVIRONMENTAL CHARACTERISTICS**

| Parameter | Specification | Notes |
|---|---|---|
| Operating Case Temperature | -20 to +65 °C | |
| Storage Temperature | -40 to +85 °C | |
| Relative Humidity | 5 to 95 % | Non-condensing |

**MECHANICAL SPECIFICATIONS**

| Parameter | Specification | Notes |
|---|---|---|
| Dimensions | 100 x 100 x 27 mm | Excluding connectors |
| Weight | 600 gr. | |
| RF Connectors In/Out | SMA K Type female | |
| DC Power / Interface Connector | 9-Pin D-Sub | |
| Cooling | External Heatsink | Forced air required |

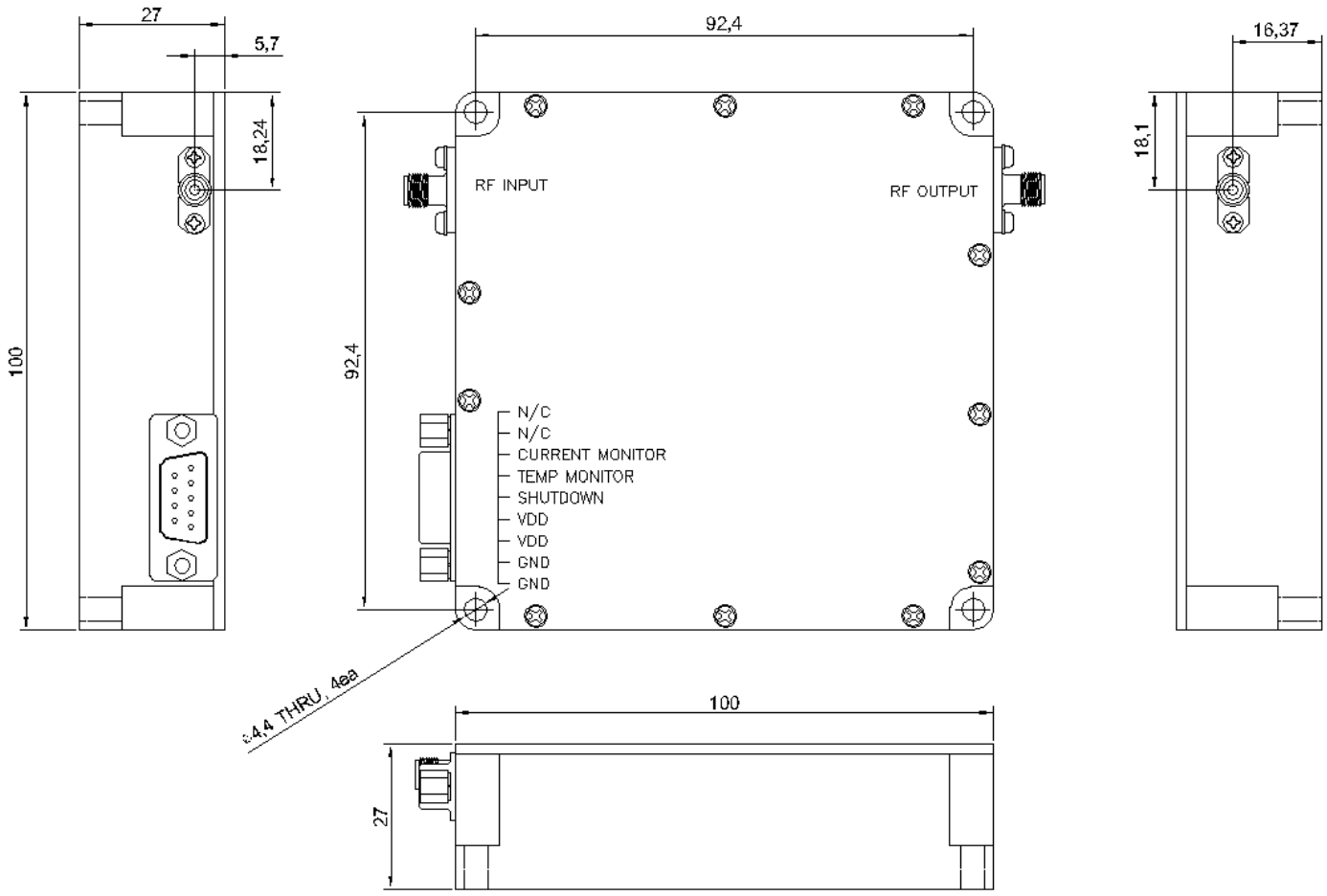
**D-SUB CONNECTOR PIN ASSIGNMENT**

| Pin | Function | Description |
|---|---|---|
| 1 | N/C | Reserved |
| 2 | N/C | Reserved |
| 3 | CURRENT SENSOR | $I_D$@20mV/100mA Typ |
| 4 | TEMP SENSOR | $V_T$@10mV/°C + 500mV Typ |
| 5 | SHUTDOWN | TTL |
| 6,7 | VDD | 9VDC |
| 8,9 | GND | Ground |

HD Communications Corp. 338 Jericho Tpke. Ste 387
Syosset, NY 11791
Tel: (631) 588-3877 Email: sales@hdcom.com

# HD31114
# SOLID STATE HIGH POWER AMPLIFIER

**OUTLINE DRAWING**




HD Communications Corp. 338 Jericho Tpke. Ste 387
Syosset, NY 11791
Tel: (631) 588-3877 Email: sales@hdcom.com