# HD31238
# SOLID STATE HIGH POWER AMPLIFIER

**FEATURES**

Class AB linear GaN design
Instantaneous wide bandwidth
Suitable for all modulations standards
Built-in protection circuits
High reliability and ruggedness



**ELECTRICAL SPECIFICATIONS**

| Parameter | Specification | Notes |
|---|---|---|
| Operating Frequency Range | 380 - 3800 MHz | |
| Power Output | 50 Watt Min | CW |
| Power Gain | 47 dB Min | |
| Power Gain Flatness | 3.0 dB p-p Max | Constant input power |
| Input Return Loss | >10 dB | Relative to 50 Ohm |
| 2-Tone Intermodulation (IMD) | >30 dBc Typ | 37dBm/Tone, Δ = 1MHz |
| Harmonics | >20 dBc Typ | At rated Pout |
| Non Harmonics Spurious | >60 dBc | |
| Operating Voltage | 28 - 30 VDC | |
| Current Consumption | 7 Amp Max | At rated Pout |
| Max Input Power | +8 dBm | Without damage |
| Load VSWR Protection | ∞ : 1 | |
| 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 | 238 x 92 x 27 mm (9.37 x 3.62 x 1.06 inch) | Excluding Connectors |
| Weight | 900 gr. | |
| RF Connectors In/Out | SMA female | |
| DC Power / Interface Connector | 9-Pin D-Sub | |
| Cooling | External Heatsink | Forced air required |

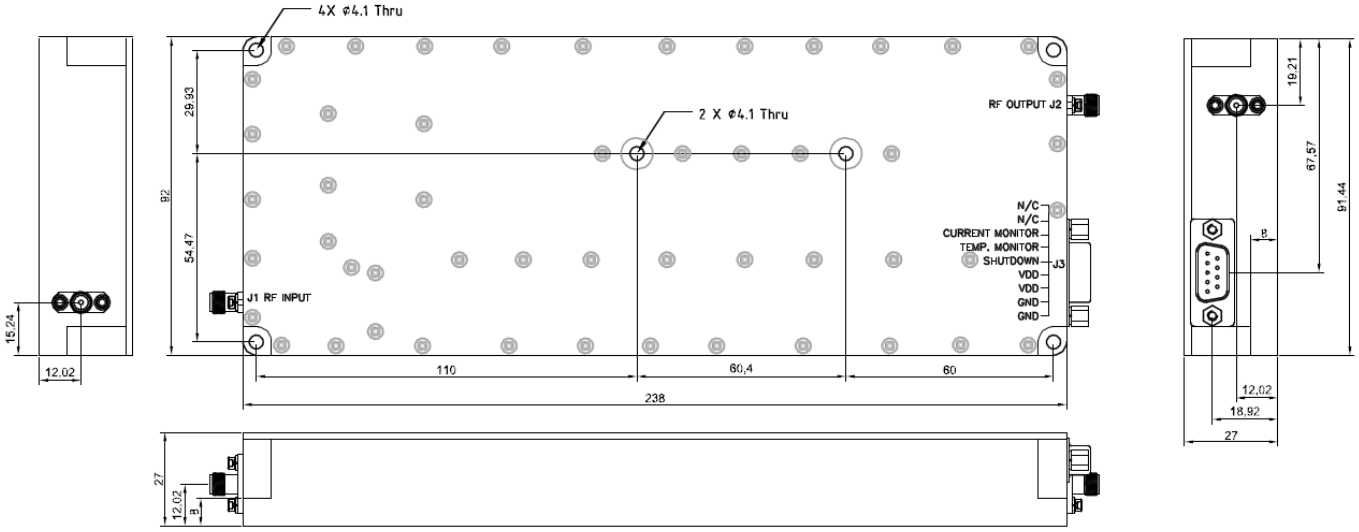
**D-SUB CONNECTOR PIN ASSIGNMENT**

| Pin | Function | Description |
|---|---|---|
| 1 | FWD | N/C |
| 2 | REV | N/C |
| 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 |

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## OUTLINE DRAWING





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