# HD31288
# SOLID STATE HIGH POWER AMPLIFIER

**FEATURES**

Class AB GaN Chip & Wire technology
Instantaneous wide Bandwidth
Suitable for all single channel modulation standards
Built-in protection circuits
High reliability and ruggedness



**ELECTRICAL SPECIFICATIONS**

| Parameter | Specification | Notes |
|---|---|---|
| Operating Frequency Range | 2.0 - 8.0 GHz | |
| Power Output Past | 10 Watt Min / 12 Watt Typ | CW |
| Small Signal Gain | 40 dB Min | |
| Power Gain Flatness | 3.0 dB p-p Max | |
| Input Return Loss | 10 dB Min | 50 Ohm reference |
| 2-Tone Intermodulation (IMD) | -30 dBc Typ | 30dBm/Tone, Δ = 1MHz |
| Harmonics | -20 dBc Typ | At rated Pout |
| Spurious | -60 dBc Max | Non-Harmonics |
| Noise Figure | 10 dB Max | |
| Operating Voltage | 32 VDC Nom | |
| Current Consumption | 3 Amp Max / 3.5 Amp @ Psat | |
| Max Input Power Protection | +5 dBm Max | <10Sec without damage |
| Load VSWR Protection | 5 : 1 | |

**ENVIRONMENTAL CHARACTERISTICS**

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

**MECHANICAL SPECIFICATIONS**

| Parameter | Specification | Notes |
|---|---|---|
| Dimensions | 140 x 75 x 25 mm | Excluding Connectors |
| Weight | 450 gr. | Typical |
| RF Connectors In/Out | SMA female | Cover Flange |
| DC Power / Interface Connector | 9-Pin D Sub | |
| Cooling | External Heatsink | Forced air required |

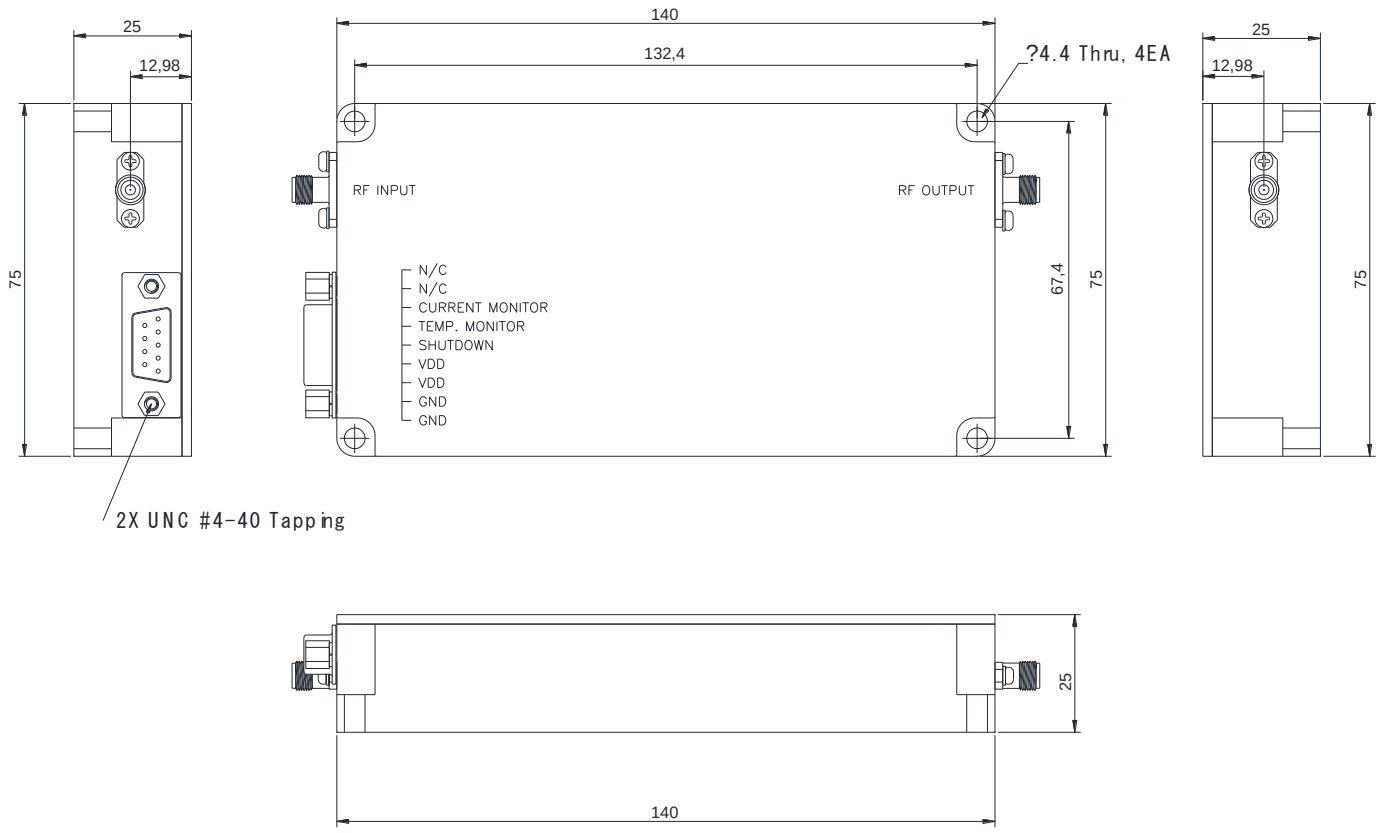
**D-SUB CONNECTOR PIN ASSIGNMENT**

| Pin | Function | Description |
|---|---|---|
| 1 | | N/A |
| 2 | | N/A |
| 3 | Current Sensor | $I_D$@20mV/100mA Typ |
| 4 | Temp Sensor | $V_T$@10mV/°C + 500mV Typ |
| 5 | Shutdown | TTL |
| 6,7 | VDD | 32VDC |
| 8,9 | GND | Ground |

332C Dante Ct. Holbrook, NY 11741 Phone: 631-588-3877 Fax: 631-648-0518
www.rfamplifiers.com www.rfcomp.com sales@hdcom.com

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## OUTLINE DRAWING





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