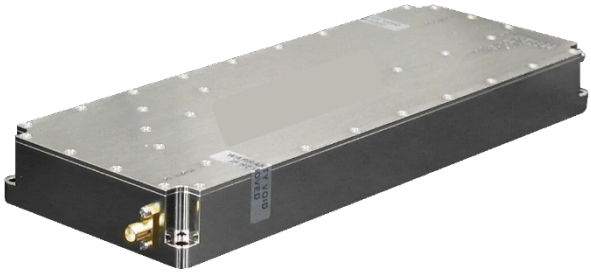
# HD31760
# SOLID STATE HIGH POWER AMPLIFIER

Communications Corp.

**FEATURES**

Class AB linear GaN design
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 - 6.0 GHz | |
| Power Output | 35 Watt Min / 50 Watt Typ | At nominal Pin = 0dBm |
| Power Gain | 47 dB Min | |
| Power Gain Flatness | 3.0 dB p-p Max | Constant input power |
| Input / Output Return Loss | 10 dB Min | Relative to 50 Ohm |
| 2-Tone Intermodulation (IMD) | -30 dBc Typ | 35dBm/Tone, Δ = 1 MHz |
| Harmonics | -20 dBc Typ | At rated Pout |
| Spurious | -60 dBc Max | Non-harmonic |
| Operating Voltage | 28 - 32 VDC | |
| Current Consumption | 7 Amp Max / <6 Amp Typ | At rated Pout |
| Max Input Power Protection | +8 dBm | <10 Sec without damage |
| Load VSWR Protection | ∞ : 1 | <1 Min @ rated pout |
| Enable / Disable Switching Speed | <5 µS | 10 - 90% of Rise & Fall time |

**ENVIRONMENTAL CHARACTERISTICS**

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

**MECHANICAL SPECIFICATIONS**

| Parameter | Specification | Notes |
|---|---|---|
| Dimensions | 188 x 92 x 27 mm | Excluding Connectors |
| Weight | 1050 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**

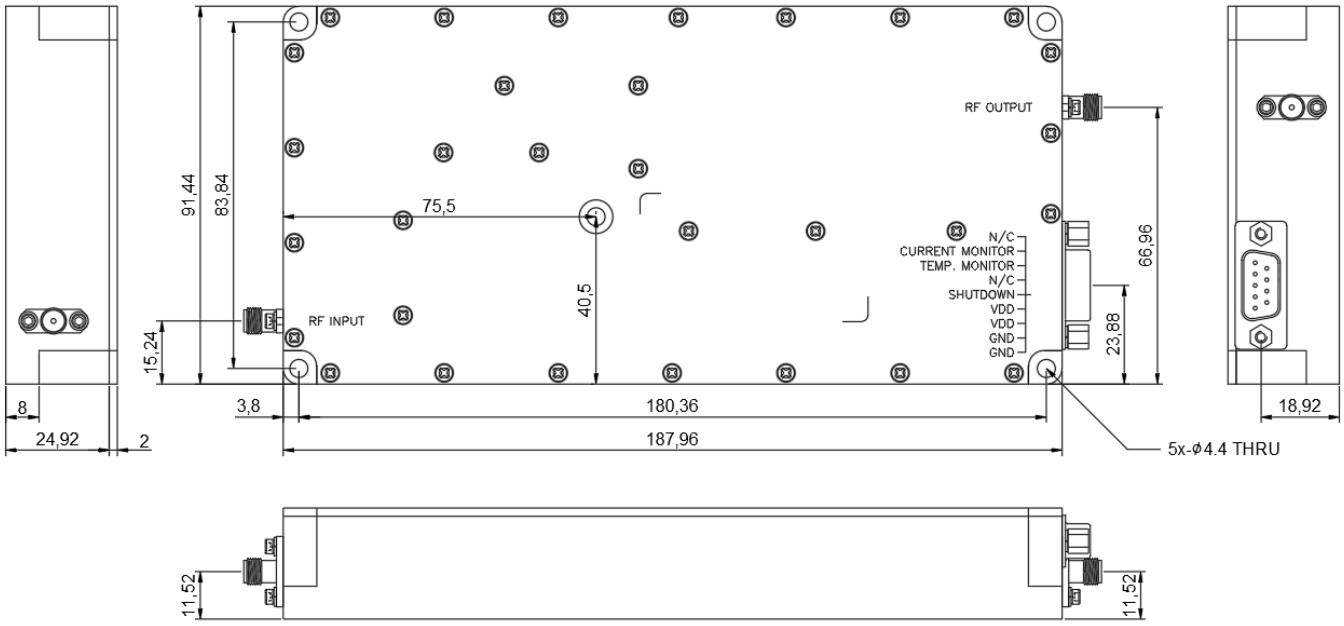
| Pin | Function | Description |
|---|---|---|
| 1 | FWD | N/C |
| 2 | CURRENT SENSOR | $I_D$@20mV/100mA Typ |
| 3 | TEMP SENSOR | $V_T$@10mV/°C + 500mV Typ |
| 4 | VVA | N/C |
| 5 | SHUTDOWN | Enable = TTL “Low” or 0V / Disable = TTL “High” (>3.2V) |
| 6, 7 | VDD | 30VDC |
| 8, 9 | GND | Ground |

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## OUTLINE DRAWING





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