# HD31076
# 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 | 5.6 - 6.0 GHz | |
| Power Output | 40 Watt Min / 50W Typ | CW |
| Power Gain | 46 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 | 35 dBm/Tone, Δ = 1 MHz |
| Harmonics | -20 dBc Typ | At rated Pout |
| Non-Harmonics Spurious | -60 dBc Max | |
| Operating Voltage | 30 VDC± Nom | |
| Current Consumption | 7 Amp | At rated Pout |
| Max Input Power | +8 dBm | Without damage |
| Load VSWR Protection | ∞ : 1 | |

## 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 | 825 gr. | Max Weight |
| RF Connectors In/Out | SMA female | |
| DC Power / Interface Connector | 9-Pin D-Sub | |
| Cooling | External Heatsink | Forced air required |

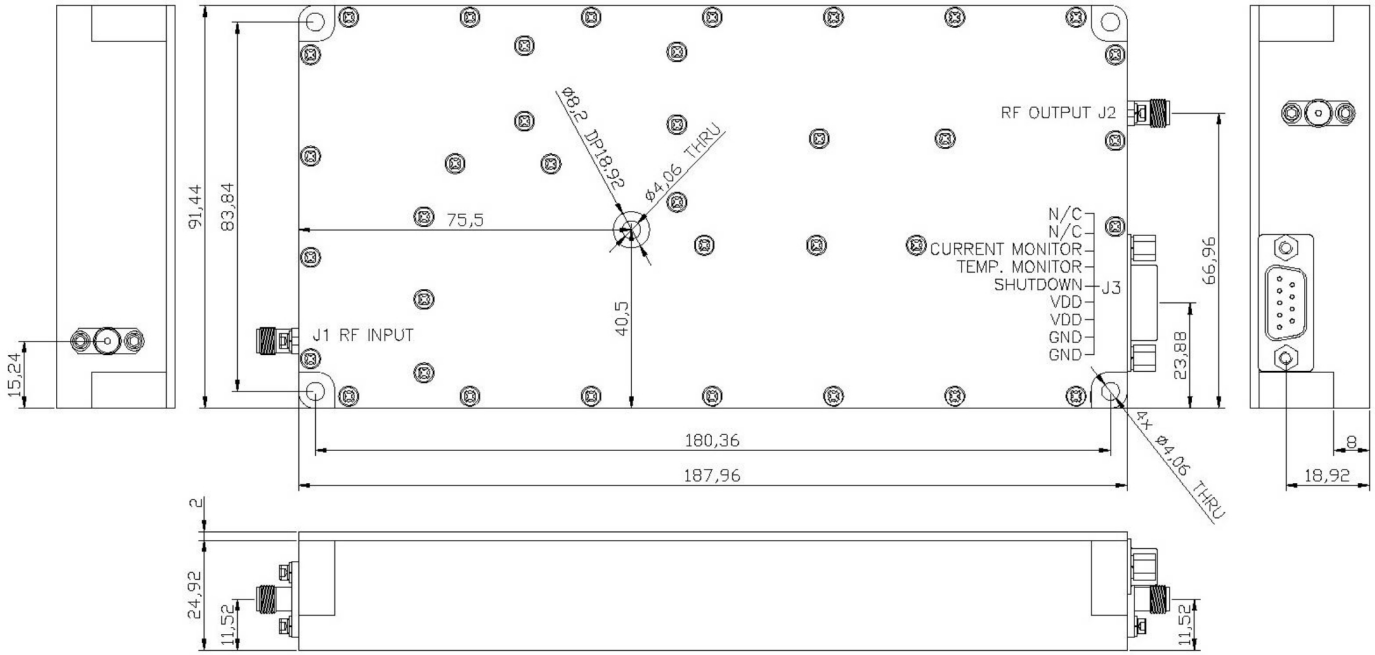
## D-SUB CONNECTOR PIN ASSIGNMENT

| Pin | Function | Description |
|---|---|---|
| 1 | FWD | OPTION 101 - Forward power detect |
| 2 | VVA | OPTION 103 - Variable Voltage Attenuator |
| 3 | CURRENT SENSOR | $I_D$@20mV/100mA Typ |
| 4 | TEMP SENSOR | $V_T$@10mV/°C + 500mV Typ |
| 5 | SHUTDOWN | TTL |
| 6, 7 | VDD | 30VDC |
| 8, 9 | GND | Ground |

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**OUTLINE DRAWING - OPTION 101**




**OPTION ORDERING INFORMATION:**

| OPTION | Function | Description |
|---|---|---|
| 101 | FWD | Forward power detect |
| 103 | VVA | Variable Voltage Attenuator |


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