# AMP3100
# SOLID STATE HIGH POWER AMPLIFIER

**FEATURES**

Class AB linear GaAsFET hybrid 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 | 41 - 45 GHz | |
| Power Output Psat | 4 Watt Min / 6 Watt Typ | |
| Power Output @ P1dB | 3.5 Watt Typ | |
| Power Gain | 37 dB Min | |
| Power Gain Flatness | 4.0 dB p-p Max | Constant input power |
| Input / Output Return Loss | 10 dB Min | Relative to 50 Ohm |
| Noise Figure | 12 dB Max | |
| Harmonics | >20 dBc | At rated Pout |
| Non Harmonics Spurious | >60 dBc Min | |
| Operating Voltage | 12 VDC Nom | |
| Current Consumption | 17 Amp Typ | At rated Pout |
| Max Input Power | +3 dBm | 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 | 100 X 100 X 27 mm | Excluding Connectors |
| Weight | TBD | |
| RF Connectors In/Out | SMA K Type female / WR28 WG | |
| 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 | 12VDC |
| 8,9 | GND | Ground |

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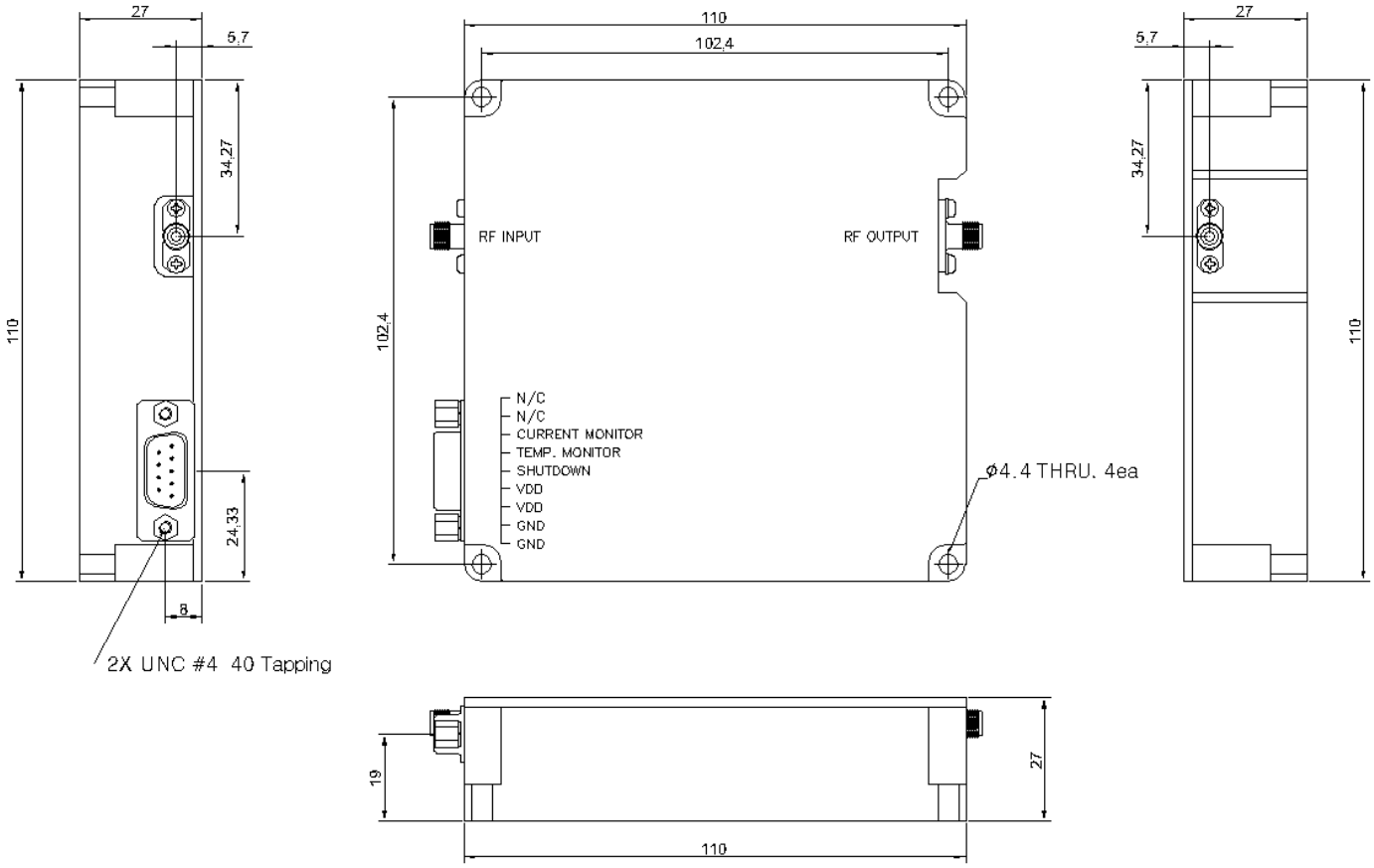
**OUTLINE DRAWING**