# HD32813
# SOLID STATE HIGH POWER AMPLIFIER

**FEATURES**

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

**ELECTRICAL SPECIFICATIONS**: 50 Ω, 25°C

| Parameter | | Specification | Notes |
|---|---|---|---|
| Operating Frequency Range | | 0.7 - 6.0 GHz | |
| Power Output @ Psat | | 50 Watt Min | >60 Watt Typ |
| Power Output @ P1dB | | 25 Watt Typ | |
| Power Gain | | 47 dB Min | |
| Power Gain Flatness | | 4.0 dB p-p Max | Constant input power |
| Input / Output Return Loss | | -10 dB Max | |
| 2-Tone Intermodulation (IMD) | | <-30 dBc Typ | 37dBm/Tone, Δ = 1 MHz |
| Harmonics | 2nd | <-20 dBc Typ | -11dBc Typ below 1GHz |
| | 3rd | <-30 dBc Typ | <-15 dBc below 1GHz |
| Spurious | | -60 dBc Max | Non-harmonics |
| Operating Voltage | | 28 VDC Nom | |
| Current Consumption | | 10 Amp Max / <8 Amp Typ | At rated Pout |
| Input Power Protection | | +8 dBm Max | <10 Sec without damage |
| Load VSWR Protection | | 5 : 1 Max | <1 minute at rated Pout |

**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 | 230 (260[1]) x 106 x 27 mm | Excluding connectors |
| Weight | 1.25 Kg. | |
| 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 MONITOE | $I_D$ @ 20mV/100mA Typ |
| 4 | TEMP MONITOR | $V_T$@10mV/°C + 500mV Typ |
| 5 | SHUTDOWN | TTL |
| 6, 7 | VDD | 28VDC |
| 8, 9 | GND | Ground |

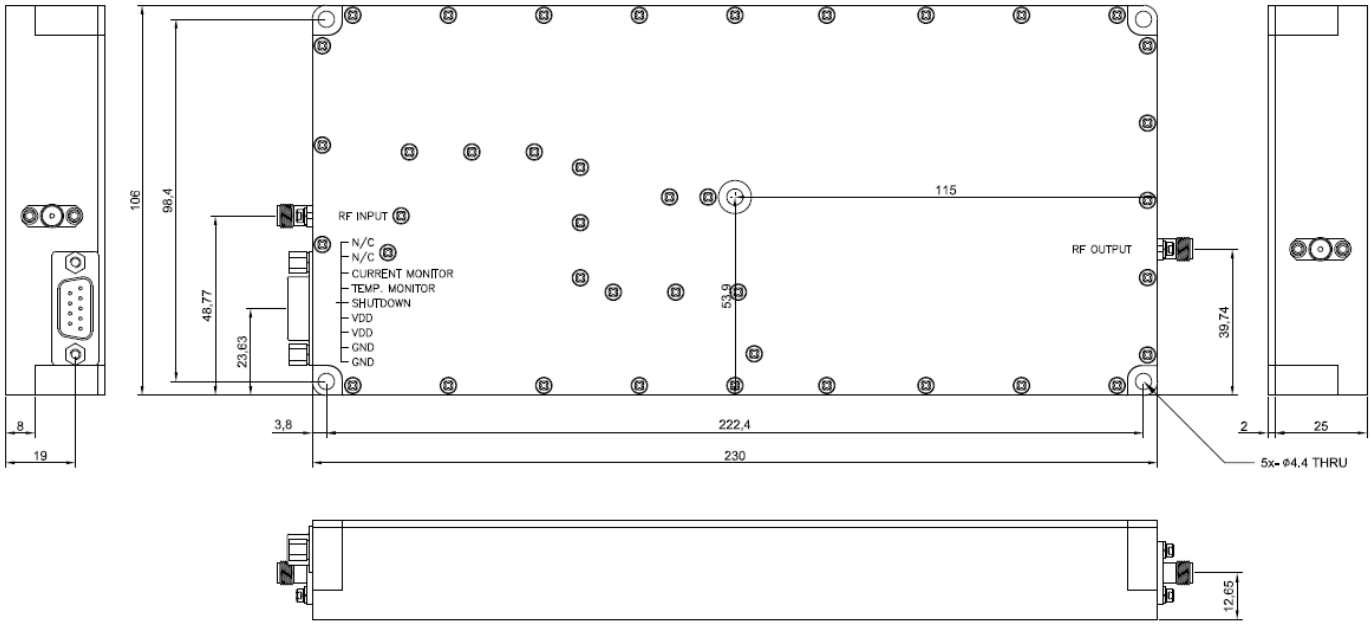
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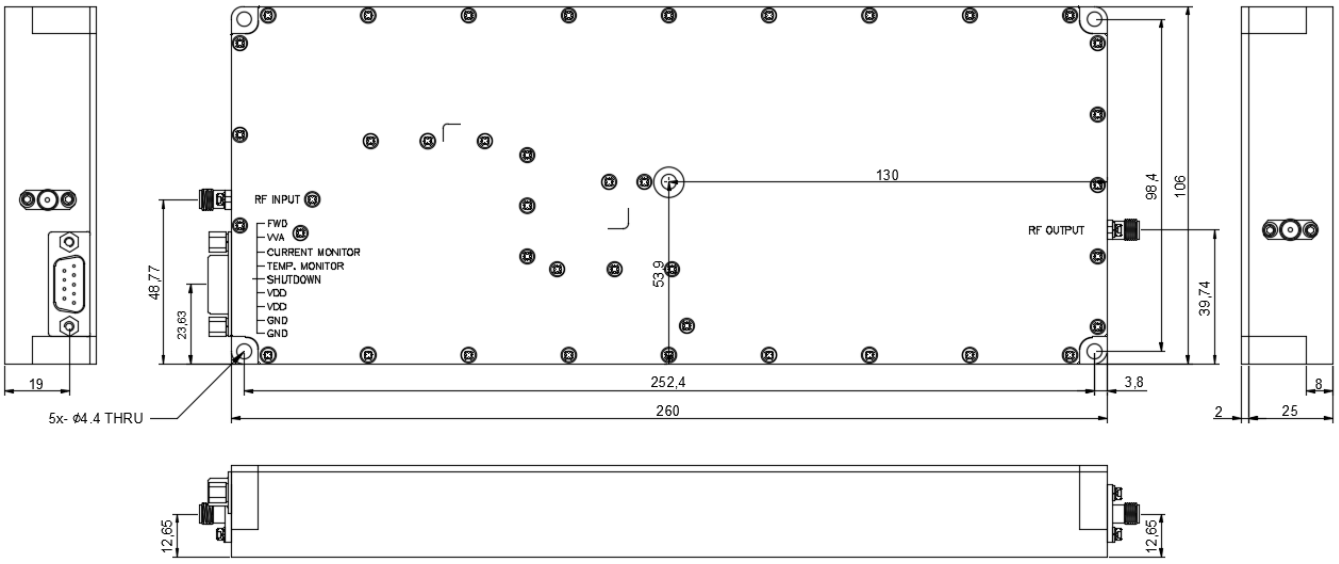
**Notes:**

1. Length with Options 101 & 103

**OUTLINE DRAWING**




**OUTLINE DRAWING WITH OPT 101 &103**





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