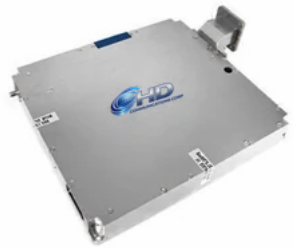
# HD35257
# SOLID STATE HIGH POWER PULSE AMPLIFIER

**FEATURES**

Class AB linear GaN design
High dynamic range
Suitable for airborne and phase array X-Band pulse applications
Built-in protection circuits
High reliability and ruggedness



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

| Parameter | Specification | | | Notes | |
|---|---|---|---|---|---|
| Operating Frequency Range | 9.0 - 10.0 GHz | | | | |
| Output Power @ Pulse | 1000 Watt Min | | | Peak Pulse | |
| Power Gain @ Peak Pulse | 60 dB Min | | | 0dBm or less for rated Pout | |
| Pulse Characteristics (Max values) | **Width** | **Duty** | **PRF** | **Rise/Fall** | **Droop** |
| | 100 µS | 10 % | 500 KHz | 60 nS Typ | 0.8 dB Max |
| Power Gain Flatness | 3.0 dB p-p Max | | | Constant Pin | |
| Input VSWR | 1.5 : 1 Max | | | | |
| Output VSWR | 2.0 : 1 Max | | | | |
| Harmonics | -35 dBc Max @ Psat | | | At rated Pout | |
| Spurious | -60 dBc Max | | | Non-harmonics | |
| Switching Delay Time (Td) | 2.0 uSec Typical | | | | |
| Operating Voltage | 40 VDC Nom | | | (can operate at lower voltages) | |
| Current Consumption | 17 Amp Avg Typ | | | At 10% Duty-Cycle | |
| Input Power Protection | +5 dBm Max | | | <10 Sec without damage | |
| Load VSWR Protection | ∞ : 1 (output isolator option required for continuous) | | | <1 minute @ rated Pout | |

*consult factory

**ENVIRONMENTAL CHARACTERISTICS**

| Parameter | Specification | Notes |
|---|---|---|
| Operating Case Temperature | -40 to +75 °C | |
| Storage Temperature | -40 to +85 °C | |
| Relative Humidity | up to 95 % | Non-condensing |
| Altitude | 3000 meters | |
| Shock & Vibration | Normal transport | |

1 MIL Spec available for quotation

**MECHANICAL SPECIFICATIONS**

| Parameter | Specification | Notes |
|---|---|---|
| Dimensions | 180 X 260 X 50mm | Excluding connectors |
| Weight | 4 Kg. Max | |
| Cooling | External Heatsink | Forced air required |
| Input / Output RF Connectors | SMA-F / WR90 | Type-N optional |

**AVAILABLE SPECIAL OPTIONS**

| Parameter | Specification | Notes |
|---|---|---|
| Option ISO | Built in Isolator | |
| Option NFO | N-Female RF Output | |

**38 Jericho Turnpike, Suite 387, Syosset NY, 11791 (631)-588-3877**
**www.rfamplifiers.com sales@hdcom.com. www.rfcomp.com**
**Specifications subject to change without notice. Specifications and drawings may vary with selected options.**

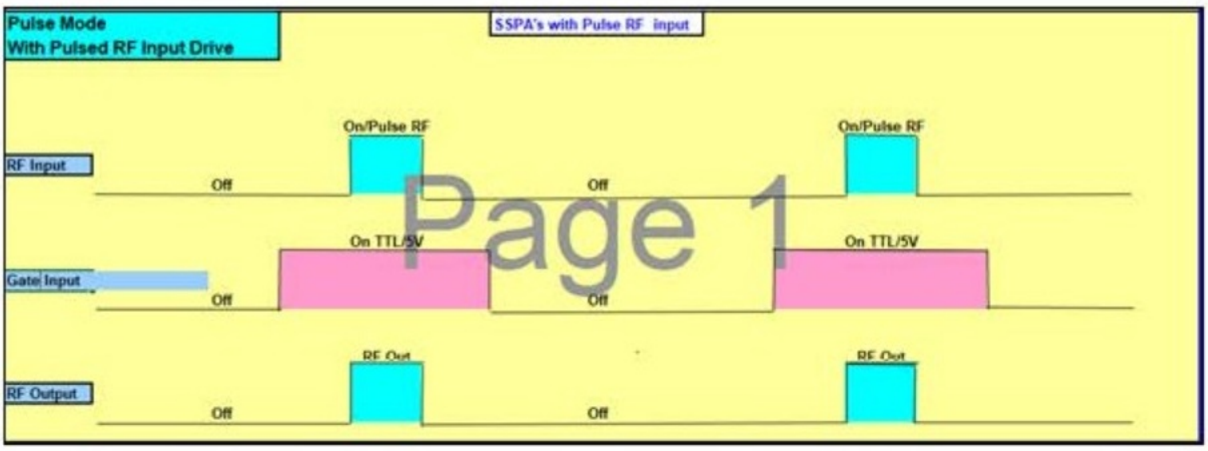
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**D-SUB CONNECTOR PIN ASSIGNMENT**

| Pin | Function | Description |
|---|---|---|
| P1 | GND | Ground |
| P2 | PULSE TRIGGER | Enable = TTL "High" - Disable = Open or TTL "Low" |
| P3 | CURRENT MONITOR | $I_D$ @ 25mV/100mA Typ |
| P4 | TEMP MONITOR | $V_T$ @ 10mV/°C + 500mV Typ |
| P5 | SHUTDOWN | Enable = TTL "High" - Disable = Open or TTL "Low" |
| A1, A2 | VDD | +40VDC (or agreed upon voltage) |
| A3, A4 | GND | Ground |

## OUTLINE DRAWING

Gating-The Signal Generator or the Signal Source must produce RF Pulses, which need to be delayed from the Gate Input Pulse by approximately 2.0 µSec

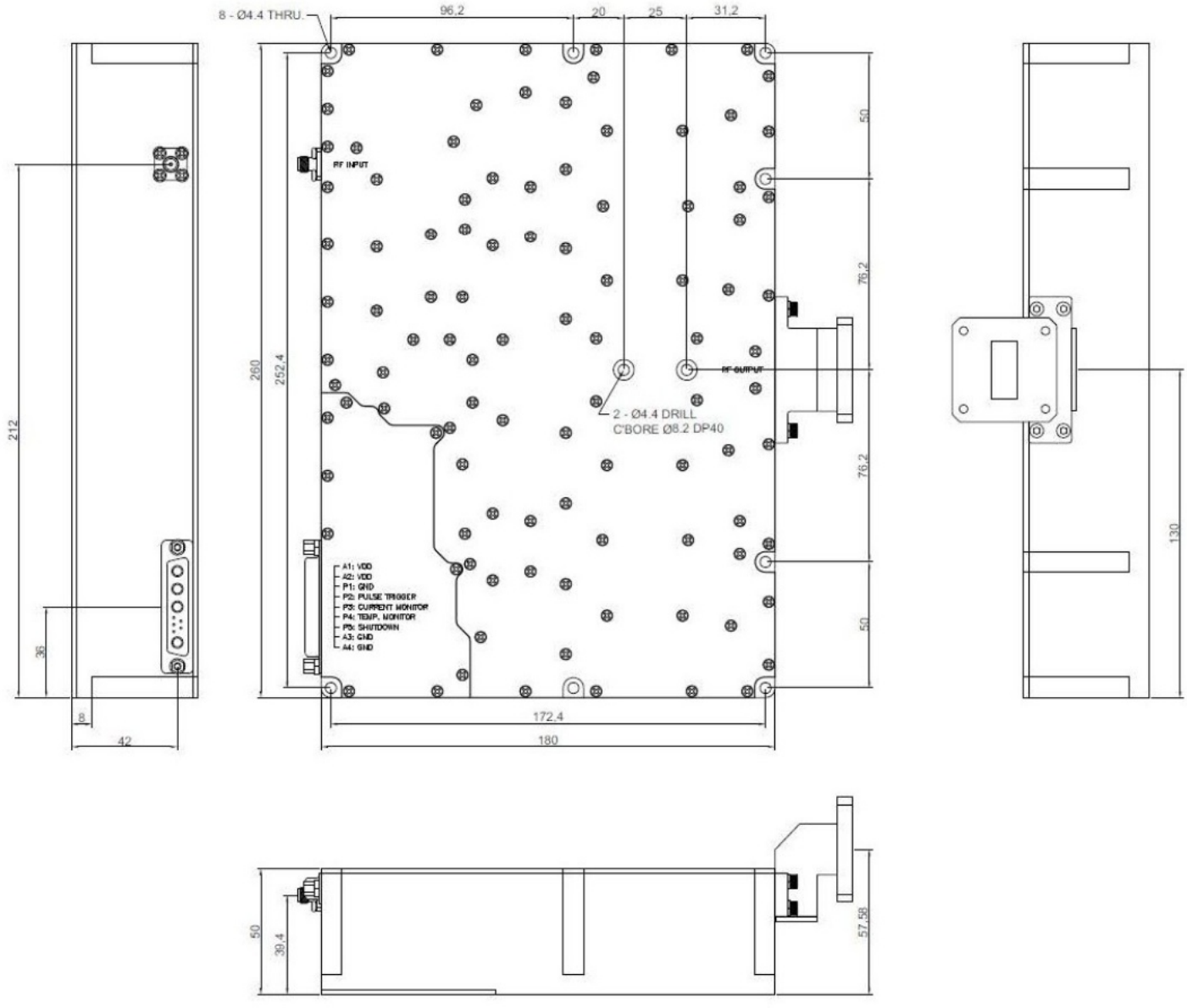



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## OUTLINE DRAWING




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