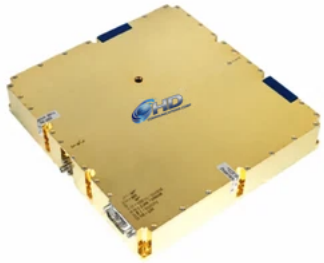
HD35254
SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES

Class AB linear GaN design
High dynamic range
Suitable for airborne and phase array X-Band pulse applications
Built-thermal, load VSWR, pulse width, duty cycle protections
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS : 50Ω, 25°C

Parameter	Specification			Notes	
Operating Frequency Range	9.1 - 9.9 GHz				
Power Output @ Pulse	1000 Watt Min			Peak Pulse	
Pulse Characteristics	**Width (tp)**	**Duty (δ)**	**PRF**	**Rise / Fall**	**Droop**
	100 µS	10 %	500 KHz	<60 nS Typ	0.8 dB Max
Switching Delay Time (Td)	300 nS Typ				
Power Gain	60 dB Min			0dBm or less for rated Pout	
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	
Operating Voltage	42 VDC Nom				
Current Consumption	17 Amp Avg Typ			δ = 10%, tp = 100µS	
Input Power Protection	+5 dBm Max			<10 Sec without damage	
Load VSWR Protection	∞ : 1 (output isolator)			<1 minute at rated Pout	

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 36 mm	Excluding connectors
Weight	4 Kg. Max	
RF Connectors In/Out	SMA Female / WR90	Type-N optional
DC Power / Interface Connector	9-Pin Hybrid D-Sub	9W4
Cooling	External Heatsink	Forced air required

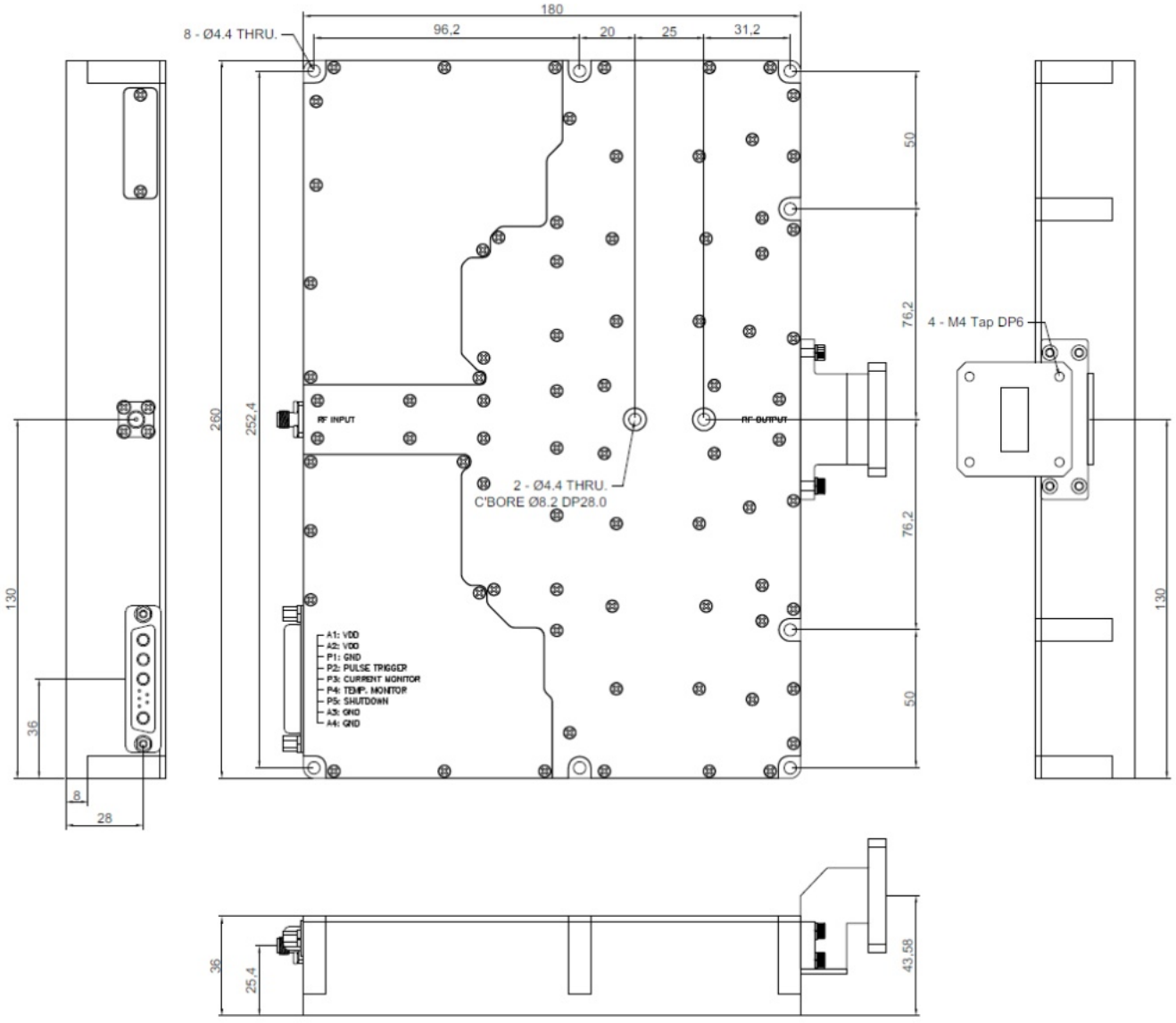
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Specifications subject to change without notice. Specifications and drawings may vary with selected options.

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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 SENSOR	I_D@25mV/100mA Typ
P4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
P5	SHUTDOWN	Enable = TTL "High" - Disable = Open or TTL "Low"
A1, A2	VDD	+42VDC
A3, A4	GND	Ground

OUTLINE DRAWING



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