HD30988
SOLID STATE PULSE POWER 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: 28VDC, 25 °C

Parameter	Specification		Notes
Operating Frequency Range	9.0 - 10 GHz		
Power Output	100 Watt Min		Peak power
Pulse Characteristics	**Width**	**Duty**	
	100 µS Max	20 % Max	
Power Gain	50 dB Min		Pin = 0dBm normal operation
Power Gain Flatness	2.0 dB p-p Max		
Input / Output Return Loss	-10 dB Max		Relative to 50 Ohm
Harmonics	-30 dBc Max		At rated Pout
Spurious	-60 dBc Max		Non-harmonics
Operating Voltage	28 VDC Nom		
Current Consumption	10 Amp Max		At rated Pout
Input Power Protection	+8 dBm Max		<10 Sec without damage
Load VSWR Protection	∞ : 1		<1 minute, output Isolator

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	250 x 189 x 43 mm	
Weight	TBD	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

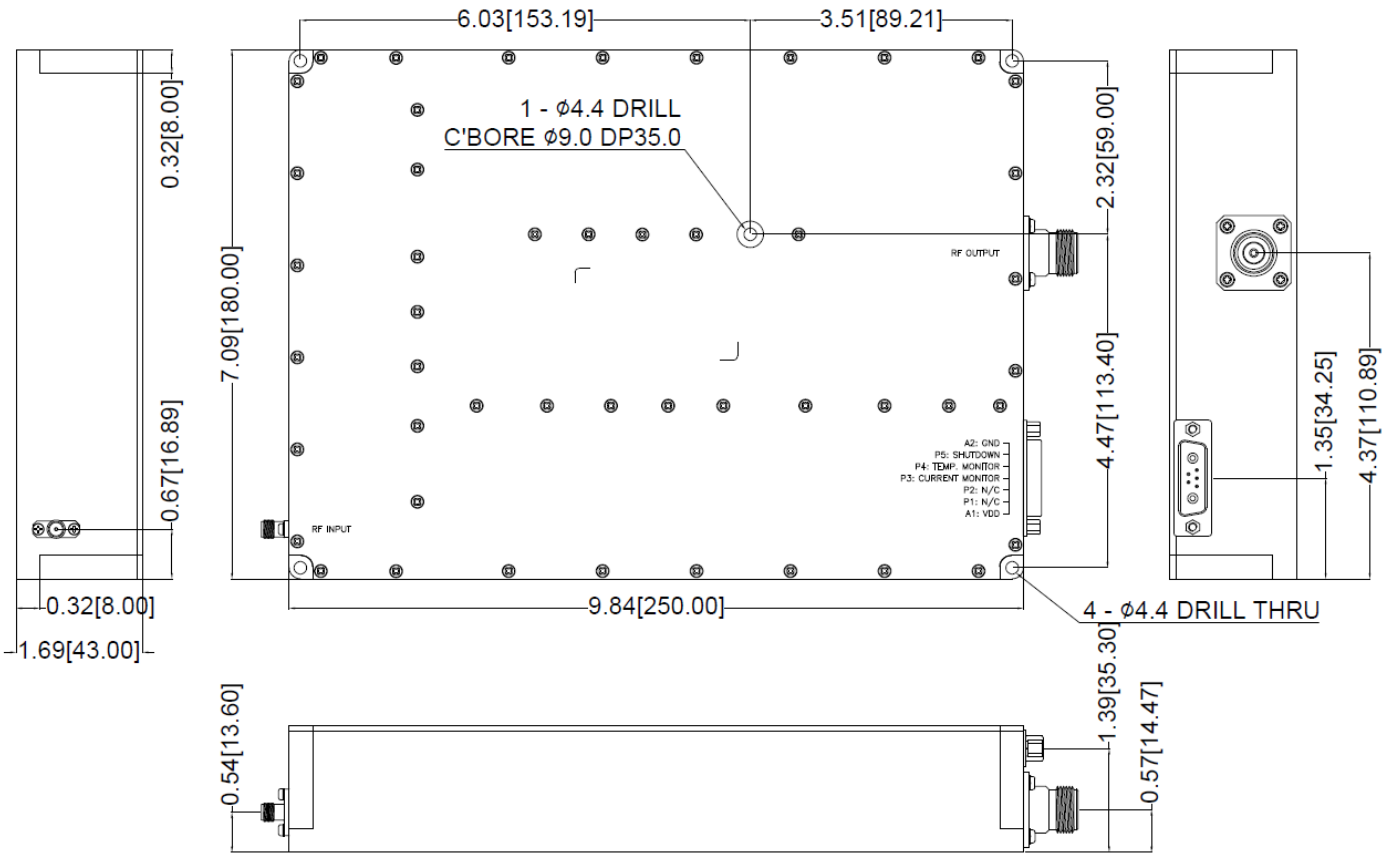
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	N/C	Reserved
2	GATING SIGNAL	TTL “Hi” = Disable Function @ <1 µS
3	CURRENT SENSOR	I_D @ 20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL “Hi” = Shutdown / TTL “Lo” = On @ 1uS switching speed
6, 7	VDD	28VDC
8, 9	GND	Ground

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OUTLINE DRAWING



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