HD Communications Corp.

HD30990
SOLID STATE HIGH POWER PULSE AMPLIFIER

FEATURES

High power pulse linear GaN Devices
Designed for high power X-Band Pulse applications
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	9.3 - 9.5 GHz	
Peak Pulse Output	2 KW Min	
Saturated Gain	20 dB Min	
Input / Output VSWR	1.5 : 1 / 2:1 Max	Relative to 50 Ohm
Harmonics	-20 dBc Max @ Psat	
Spurious	-55 dBc Max	
Pulse Width	0.5 - 30 µS Max	
Duty Cycle	5 % Max	
PRF	25 KHz Max	
Pulse Droop	0.8 dB Max	
Rise / Fall Time	50 nS Max	
Operating Voltage	48 VDC ± 1.0 V	
Efficiency (PAE)	18 % @ Psat	
Quiescent Current	TBD	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Note
Operating Case Temperature	-20 to +60 °C	
Storage Temperature	-40 to +70 °C	
Relative Humidity	5 to 95 %	Non Condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Value
Dimensions	300 X 200 X 40 mm	
Weight	TBD	
Cooling	External Heatsink	Forced air required
Input Connector	SMA female	
Output Connector	Waveguide	
DC Connector	9-Pin Hybrid D-Sub	

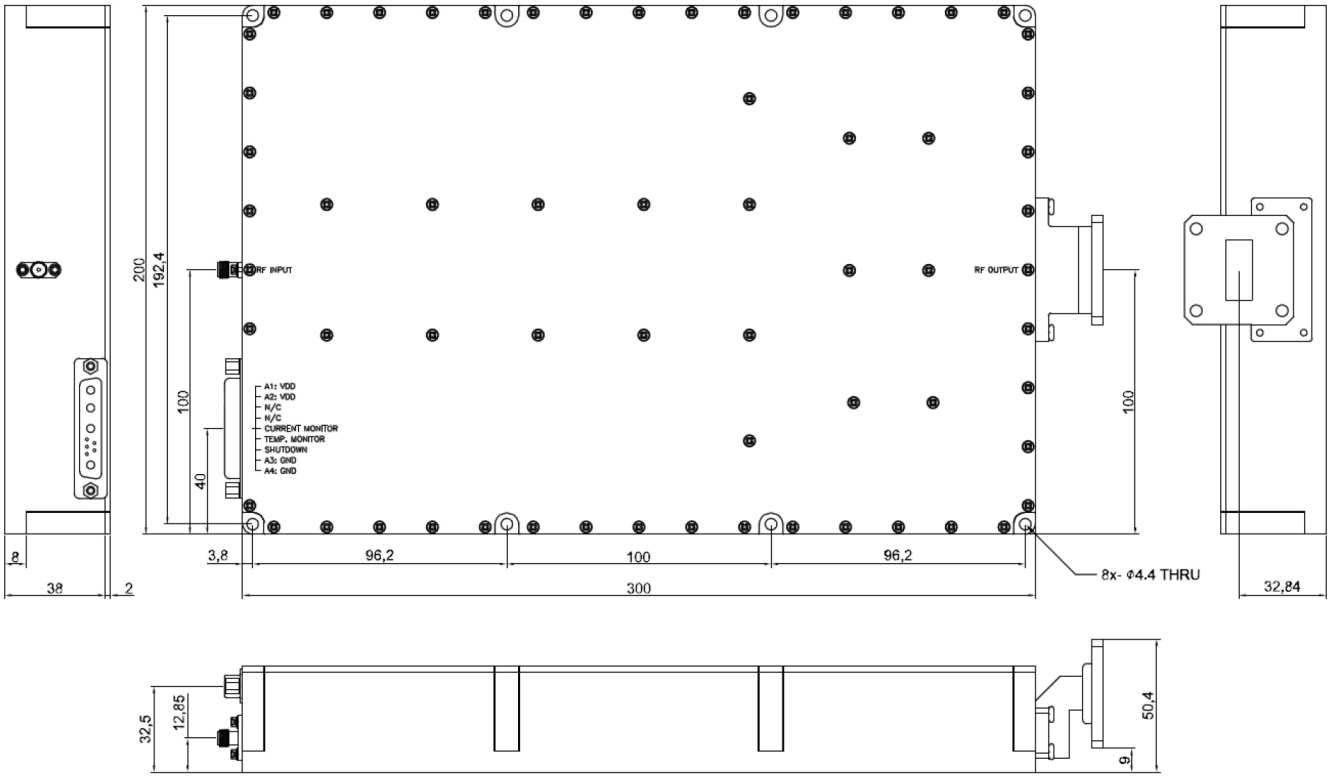
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	N/C	
2	N/C	
3	CURRENT SENSOR	I_D@50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL "Hi" = Disable Function @ 50mS (**Option**: 5uS Trigger/Pulse Modulator)
A1, A2	VDD	48VDC
A3, A4	GND	Ground

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OUTLINE DRAWING



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