HD31852
SOLID STATE HIGH POWER PULSE AMPLIFIER

HD Communications Corp.

FEATURES

Ruggedized, compact Class AB high power pulse SSPA
Suitable for S-Band, high power Radar applications
Internal capacitive bank provides low output droop over extended pulse widths.

ELECTRICAL SPECIFICATIONS

Parameter	Specification			Notes
Operating Frequency	2.7 - 3.1 GHz			
Peak Pulse Output Power	500 Watt Min			Peak Pulse
Peak Power Gain	57 dB Min			
Input Pulse Characteristics	Pulse Width(tp)	Duty Cycle(δ)	PRF	
	100 µS	10 %		Nominal Values
Pulse Rise / Fall Time	100 nS Max			
Pulse Droop	0.5 dB Max			
Input Return Loss	12 dB Min			Relative to 50 Ohm
Harmonics	-30 dBc Max			
Spurious	-60 dBc Max			Non-harmonics or Gaussian
Operating Voltage	50 VDC Nom			
Current Consumption	23 Amp Peak Max			
Input Power Protection	+3 dBm Max			<10 Sec without damage
Load VSWR Protection	∞ : 1			<1 minute at rated Pout

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Note
Operating Case Temperature	-20 to +70°C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	180 x 120 x 32 mm	Excluding heatsink
Weight	TBD	
RF Connectors In/Out	SMA female / Type N female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

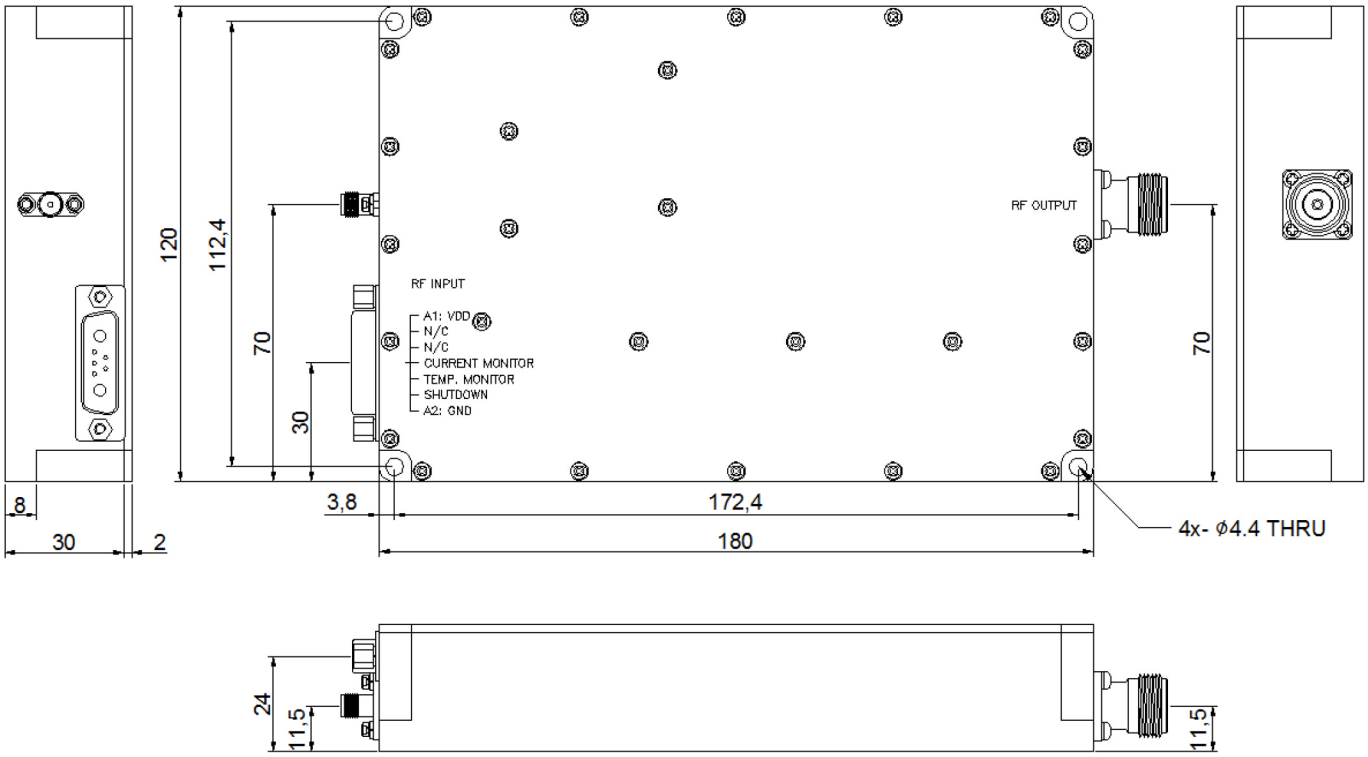
Pin	Function	Description
1	Option	Pulse Trigger
2	N/C	
3	CURRENT SENSOR	I_D@50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	+5VDC or OPEN HPA ON / 0V or SHORT HPA OFF
A1	VDD	50VDC
A2	GND	Ground

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OUTLINE DRAWING



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