HD31870
SOLID STATE HIGH POWER PULSE AMPLIFIER

Communications Corp.

FEATURES

Ruggedized, compact Class AB linear LDMOS design
Suitable for L-Band high power radar pulse applications
Internal capacitive bank provides low output droop
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS – Relative to 50 Ω

Parameter	Specification			Notes
Operating Frequency	960 - 1215 MHz	950 - 1250 MHz		
Peak Pulse Output Power	1200 Watt Min	1100 Watt Min		Peak Pulse
Peak Power Gain	16 dB Min			Needs AMP3120 Driver
Input Pulse Characteristics	Pulse Width(tp)	Duty Cycle(δ)	PRF	
	0.2 - 2 µS	-	300 Hz	Nominal values
Pulse Rise / Fall Time	100 nS Max			
Pulse Droop	0.5 dB Max			
Input Return Loss	10 dB Min			Relative to 50 Ohm
Harmonics	-30 dBc Max			
Spurious	-60 dBc Max			Non-harmonics or Gaussian
Operating Voltage	48 VDC Nom			
Current Consumption	50 Amp Peak Max / 2 Amp Avg Max			
Load VSWR	∞ : 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	130 x 150 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

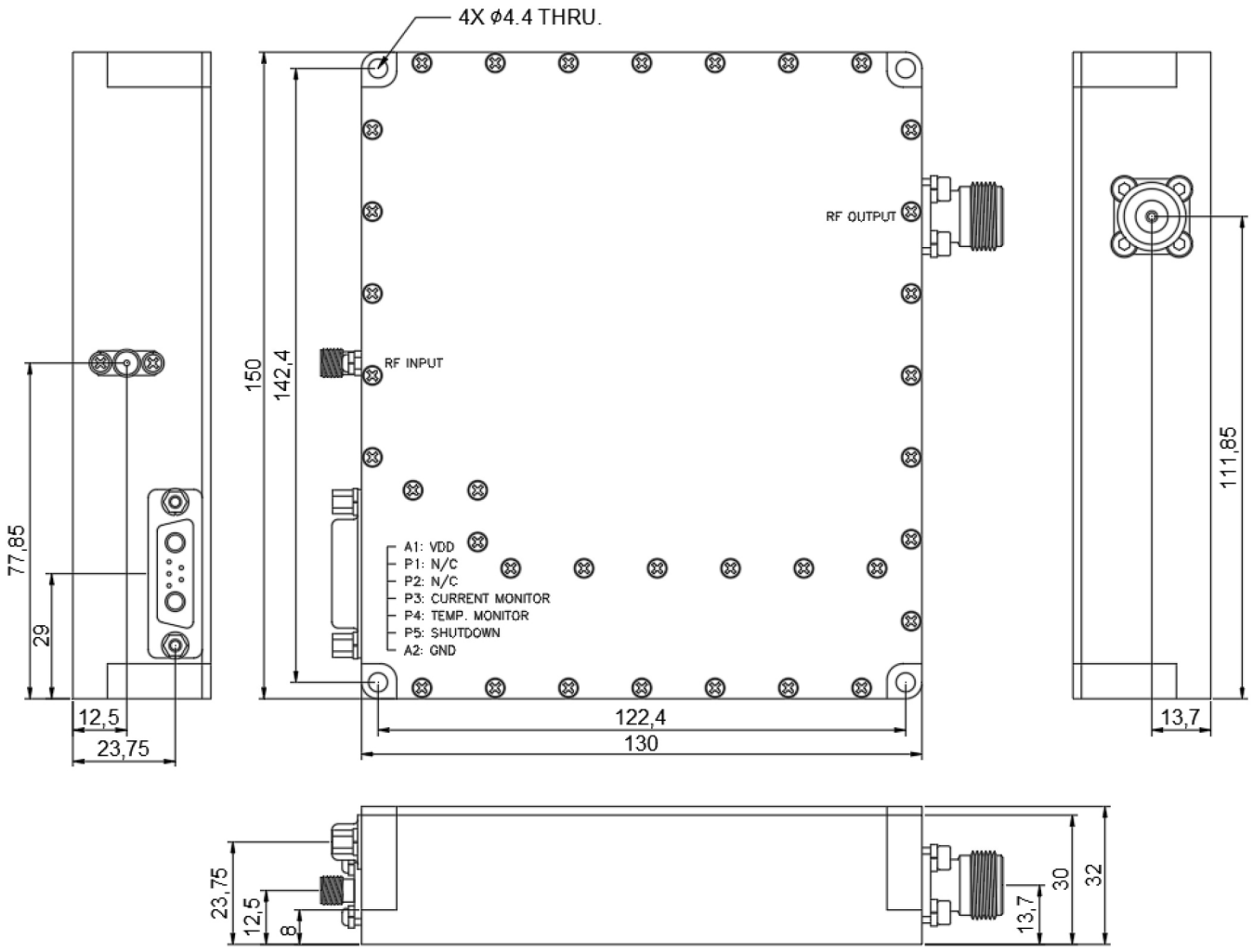
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	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	VDD	48VDC
A2	GND	Ground

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OUTLINE DRAWING



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