



# AMP3096P-1 SOLID STATE HIGH POWER AMPLIFIER

## FEATURES

- Class AB linear GaN design
- Instantaneous bandwidth
- Suitable C-Band high peak power pulse applications
- Small form factor & light weight
- Built-in protection circuits
- High reliability and ruggedness



## ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification			Notes	
Operating Frequency Range	5.35 - 5.46 GHz				
Power Output Peak Pulse	400 Watt Min				
Power Gain	30 dB Min			Pin = 28dBm Nom	
Power Gain Flatness	1.0 dB p-p Max			Constant input power	
Input / Output Return Loss	-10 dB Max			Relative to 50 Ohm	
Input Pulse Characteristics	<b>Width</b>	<b>Duty</b>	<b>Droop</b>	<b>Rise/Fall</b>	
	2 - 21 μS	0.01 %	<1 dB	<100 nS	
Harmonics	<-20 dBc Typ			At rated Pout	
Spurious	-60 dBc Max			Non-harmonics	
Noise figure	10 dB Max				
Operating Voltage	50 VDC Nom				
Efficiency	25 % Typ			At rated Pout	
Input Power Protection	+30 dBm Max			Without damage	
Load VSWR Protection	∞ : 1			Output isolator	
Turn On / Off Speed	1 μSec Max			Fast switching option	

## ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +65 °C	Target: -40 to +60 °C
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

## MECHANICAL SPECIFICATIONS

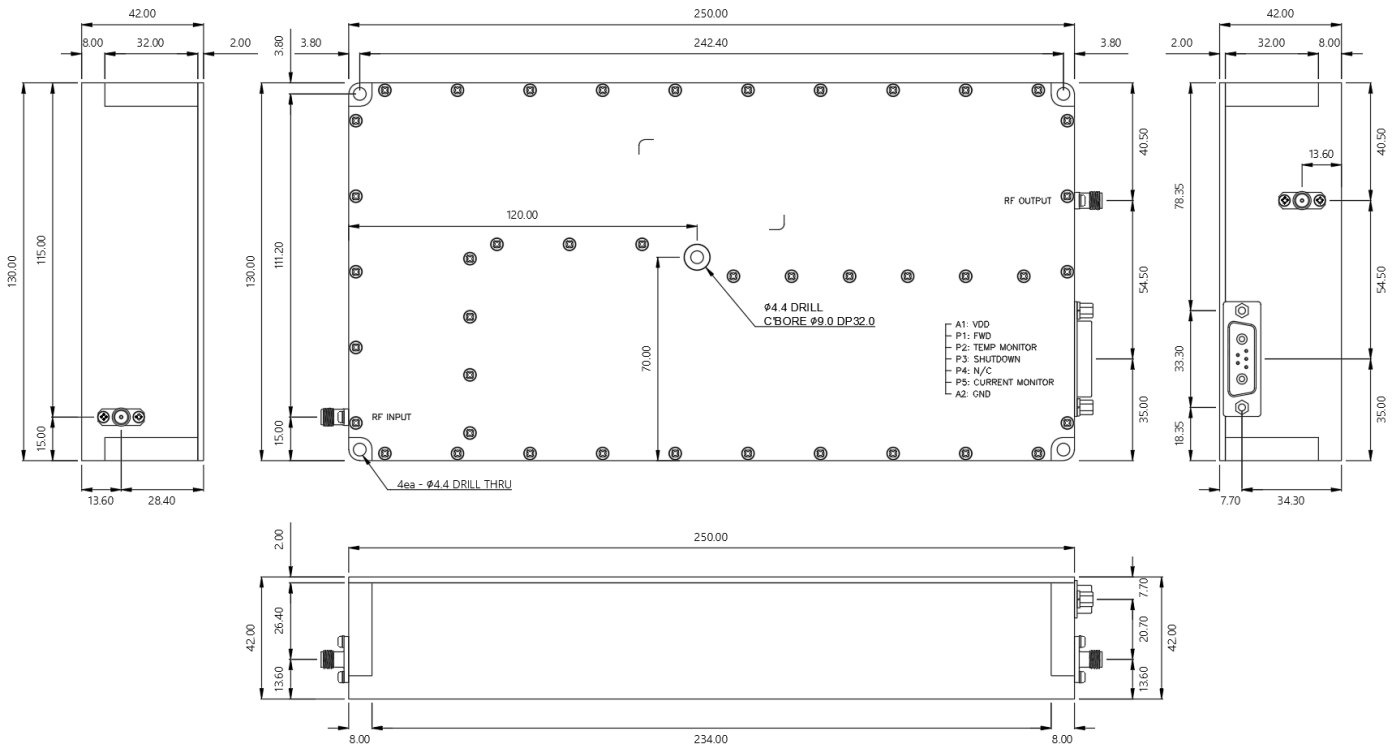
Parameter	Specification	Notes
Dimensions	250 x 130 x 42 mm	Target: 166 x 135 x 65 mm
Weight	5 lb.	
RF Connectors In/Out	SMA / Type-N female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	7W2
Cooling	External Heatsink	Forced air required

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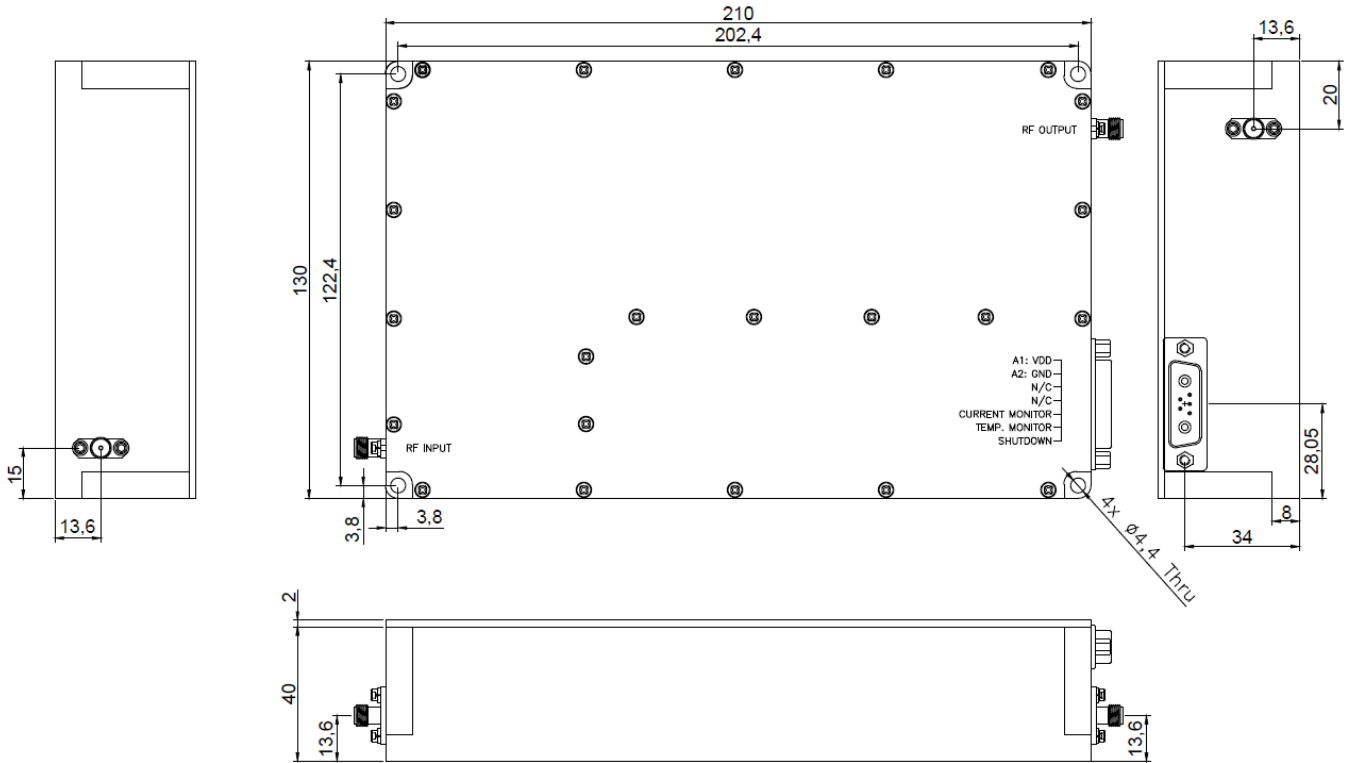
## D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	N/C
2	TEMP SENSOR	$V_T @ 10\text{mV}/^\circ\text{C} + 500\text{mV Typ}$
3	SHUTDOWN	TTL
4	N/C	
5	CURRENT SENSOR	$I_D @ 20\text{mV}/100\text{mA Typ}$
A1	VDD	50VDC
A2	GND	Ground

## OUTLINE DRAWING



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## OUTLINE DRAWING WITH OPTIONAL HEATSINK

