HD31223
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Designed for EMC-EMI/RFI, Lab, and general comm applications
Compact Small form factor, light weight, high power density
Class A/AB linear advanced technology design
Instantaneous ultra-wide bandwidth
Suitable for all single channel modulation standards
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS : 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	20 - 500 MHz	
Output Power @ Psat	25 Watt Min	CW
Output Power @ P1dB	12 Watt Min	CW
Power Gain	44 dB Min	0dBm or less for rated Pout
Power Gain Flatness	3 dB p-p Max	Constant input power
Input Return Loss	-10 dB Max	
2-Tone Intermodulation (IMD)	-30 dBc Typ	35 dBm/Tone, Δ = 1 MHz
Harmonics 2^{nd}/ 3^{rd}	-30 dBc / -15 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 - 30 VDC	
Current Consumption	5 Amp Max	At rated Pout
Input Power Protection	+10 dBm Max	<10 Sec without damage
Load VSWR Protection	∞ : 1[1]	<1 minute at rated output

1 Modules could be damaged due to excessive VSWR beyond 1 minute

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	up to 95 %	Non-condensing
Altitude	3000 meters	
Shock & Vibration	Normal transport[2]	

2 MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	170 x 90 x 24 mm	Excluding connectors
Weight	400 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

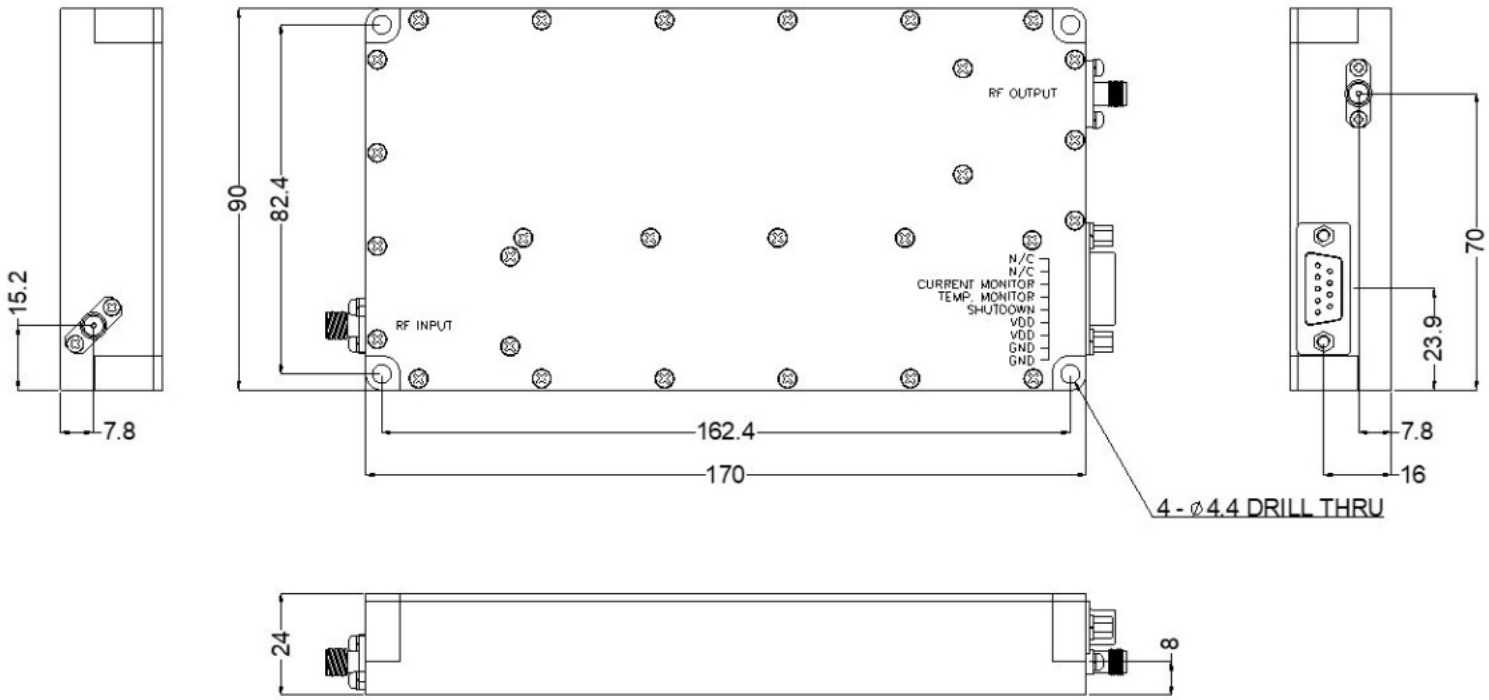
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
	FWD	Option-101
	VVA	Option-103
3	CURRENT SENSOR	I_D@50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL High or Open; Disable = TTL Low or Short
6,7	VDD	28VDC
8,9	GND	Ground

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Specifications subject to change without notice. Specifications and drawings may vary with selected options.

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OUTLINE DRAWING



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