



AMP7007A SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class A/AB linear advanced technology design
Designed for all single carrier modulation standards, CW, and Comm applications
Suitable for EMC-EMI/RFI, Lab, and general communication applications
Built-in monitoring and protection circuits
Small form factor, high power density
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	1450 - 1550 MHz	
Output Power @ Psat	20 Watt Typ	CW, Digital modulation
Output Power @ P1dB	15 Watt Typ	
Power Gain	43 dB Min	0dBm or less for rated Pout
Power Gain Flatness	1.5 dB p-p Max	Constant input power
Input Return Loss	10 dB Min	
2-Tone Intermodulation (IMD)	-30 dBc Max	33dBm/Tone, $\Delta = 1\text{MHz}$
Harmonics	-30 dBc Max	At Rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	12 VDC Nom	
Current Consumption	4 Amp Max	At rated output
Input Power Protection	+8 dBm Max	<1 min without damage
Load VSWR Protection	$\infty : 1$	<1 min @ rated output

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 meter	
Shock & Vibration	Normal transport ¹	

¹ MIL Spec available for quotation.

MECHANICAL SPECIFICATIONS

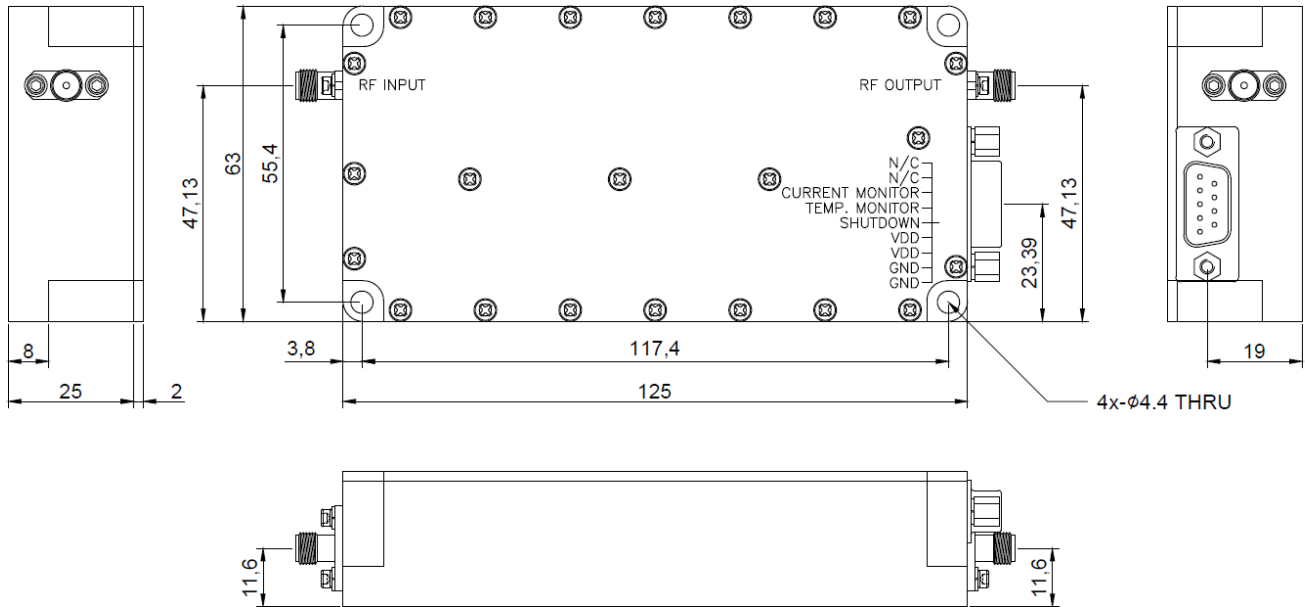
Parameter	Specification	Notes
Dimensions	125 x 63 x 27 mm	Excluding connectors
Weight	380 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	NA	Reserved
2	NA	Reserved
3	CURRENT SENSOR	$I_D @ 20\text{mV}/100\text{mA Typ}$
4	TEMP SENSOR	$V_T @ 10\text{mV}/^\circ\text{C} + 500\text{mV Typ}$
5	SHUTDOWN	Enable = TTL "High" or Open / Disable = TTL "Low" or Short
6, 7	VDD	12VDC
8, 9	GND	Ground

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OUTLINE DRAWING



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