

AMP1039 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

- Class AB linear GaN design
- Instantaneous wide bandwidth
- Suitable for all modulations standards
- Built-in protection circuits
- High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	1.0 - 6.0 GHz	
Power Output	20 Watt Min	CW
Output Power @ P1dB G.C.P	12 Watt Typ	
Power Gain	43 dB Min	
Power Gain Flatness	3.0 dB p-p Max	Constant input power
Input / Output Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30 dBc Typ	33 dBm/Tone, $\Delta = 1$ MHz
Harmonics	>20 dBc Typ	At rated Pout
Non Harmonics Spurious	>60 dBc Min	
Operating Voltage	28 - 30 VDC Nom	
Current Consumption	6 Amp	At rated Pout
Max Input Power	+10 dBm	Without damage
Load VSWR Protection	$\infty : 1$	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non Condensation

MECHANICAL SPECIFICATIONS

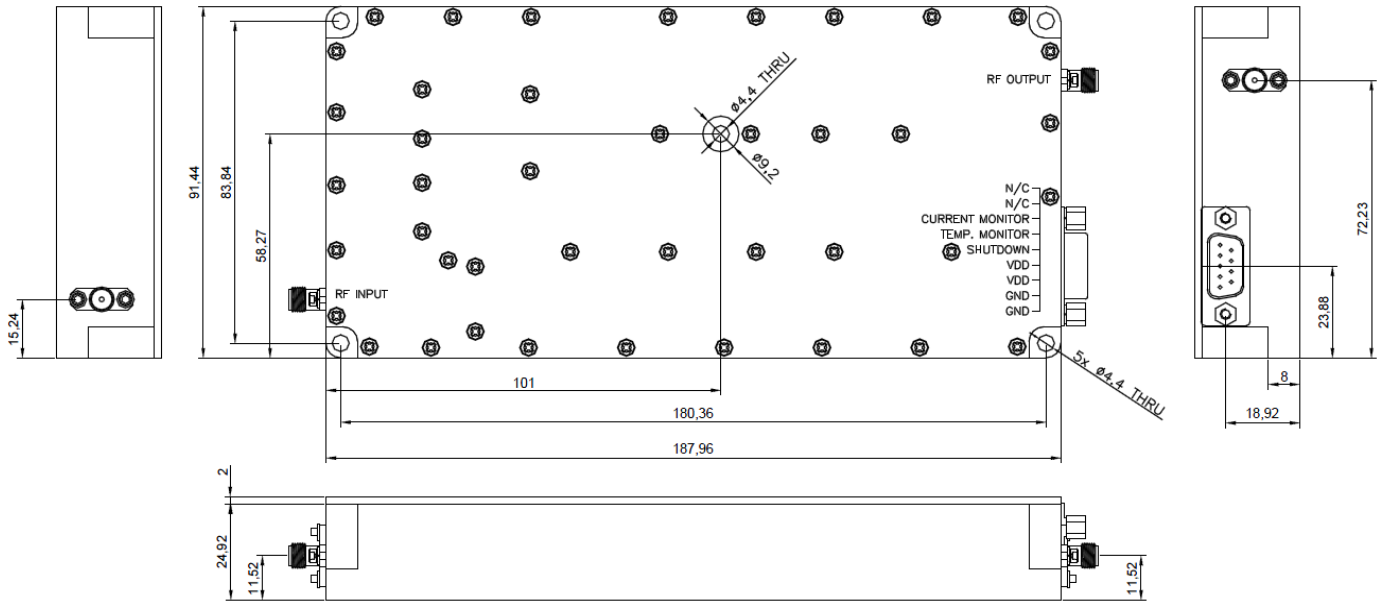
Parameter	Specification	Notes
Dimensions	188 X 92 X 27 mm	Excluding Connectors
Weight	700 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	OPTION 101 - Forward power detect
2	VVA	OPTION 103 - Variable Voltage Attenuator
3	CURRENT SENSOR	$I_D @ 50mV/100mA$ Typ
4	TEMP SENSOR	$V_T @ 10mV/°C + 500mV$ Typ
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground

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OUTLINE DRAWING



OPTION ORDERING INFORMATION:

OPTION	Function	Description
101	FWD	Forward power detect
103	VVA	Variable Voltage Attenuator