



# AMP1002A SOLID STATE HIGH POWER AMPLIFIER

## FEATURES

- Class AB linear GaN design
- Instantaneous ultra-wide bandwidth
- Suitable for all single channel modulation standards
- Small form factor and light weight
- Built-in protection circuits
- High reliability and ruggedness



## ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	1.0 - 6.0 GHz	
Power Output Psat	15 Watt Min / 20 Watt Typ	At nominal Pin=0dBm
Output Power @ P1dB	5 Watt Min	
Power Gain	42 dB Min	
Power Gain Flatness	3.0 dB p-p Max	Constant input power
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	30dBm/Tone, Δ = 1MHz
Harmonics 2 <sup>nd</sup> / 3 <sup>rd</sup>	<-15 dBc / -20 dBc Typ	At Rated Pout -13 dBc Typ from 1-1.5GHz
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 - 30 VDC Nom	
Current Consumption	4.0 Amp Max / 3.0 Amp Typ	At rated Pout
Max Input Power Protection	+8 dBm	<10 Sec without damage
Load VSWR Protection	∞ : 1	<1 minute at rated Pout
Enable / Disable Switching Speed	<10 μS	10 -90% of Rise & Fall time

## 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

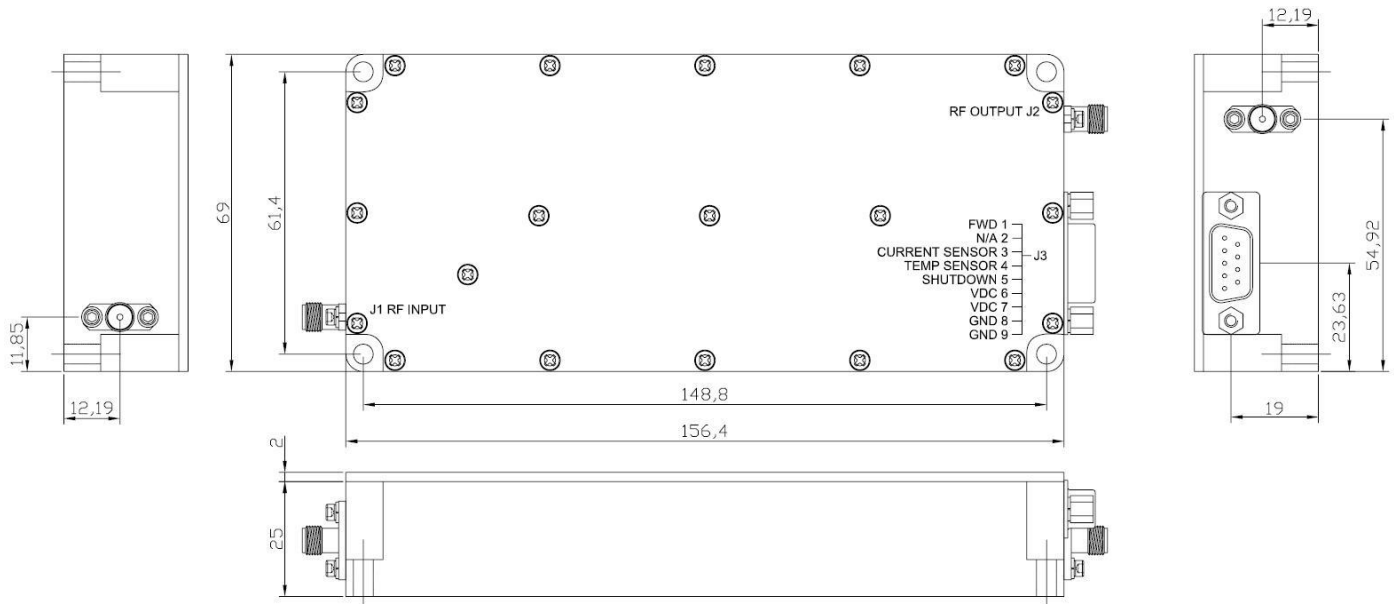
Parameter	Specification	Notes
Dimensions	157 x 69 x 27 mm	Excluding connectors
Weight	525 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

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### D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	OPTION 101 -RMS Forward power detector
2	REV	OPTION 102 -RMS Reverse power detector
3	CURRENT SENSOR	$I_D@100mV/100mA$ Typ
4	TEMP SENSOR	$V_T@10mV/^\circ C + 500mV$ Typ
5	SHUTDOWN	Enable = High (2.5 - 5V) or Open / Disable = Low (0 - 1.0V)
6, 7	VDD	28VDC
8, 9	GND	Ground

### OUTLINE DRAWING- OPTION 101



### OPTION ORDERING INFORMATION:

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

### OUTLINE DRAWING - OPTION 101 & 102

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