

# AMP1041 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 - 4.0 GHz	
Power Output	100 Watt Min	CW
Power Output @ P1dB GCP	40 Watt Min	CW
Power Gain	50 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)	>30dBc Typ	40 dBm/Tone, $\Delta = 1\text{MHz}$
Harmonics	>20 dBc Typ	At rated Pout
Non Harmonics Spurious	>60 dBc	
Operating Voltage	30 - 32 VDC Nom	
Current Consumption	16 Amp Max	At rated Pout
Max Input Power	+10dBm	Without damage
Load VSWR Protection	$\infty : 1$	
Turn On / Off Speed	5 $\mu\text{Sec}$ Max	

## ENVIRONMENTAL CHARACTERISTICS

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

## MECHANICAL SPECIFICATIONS

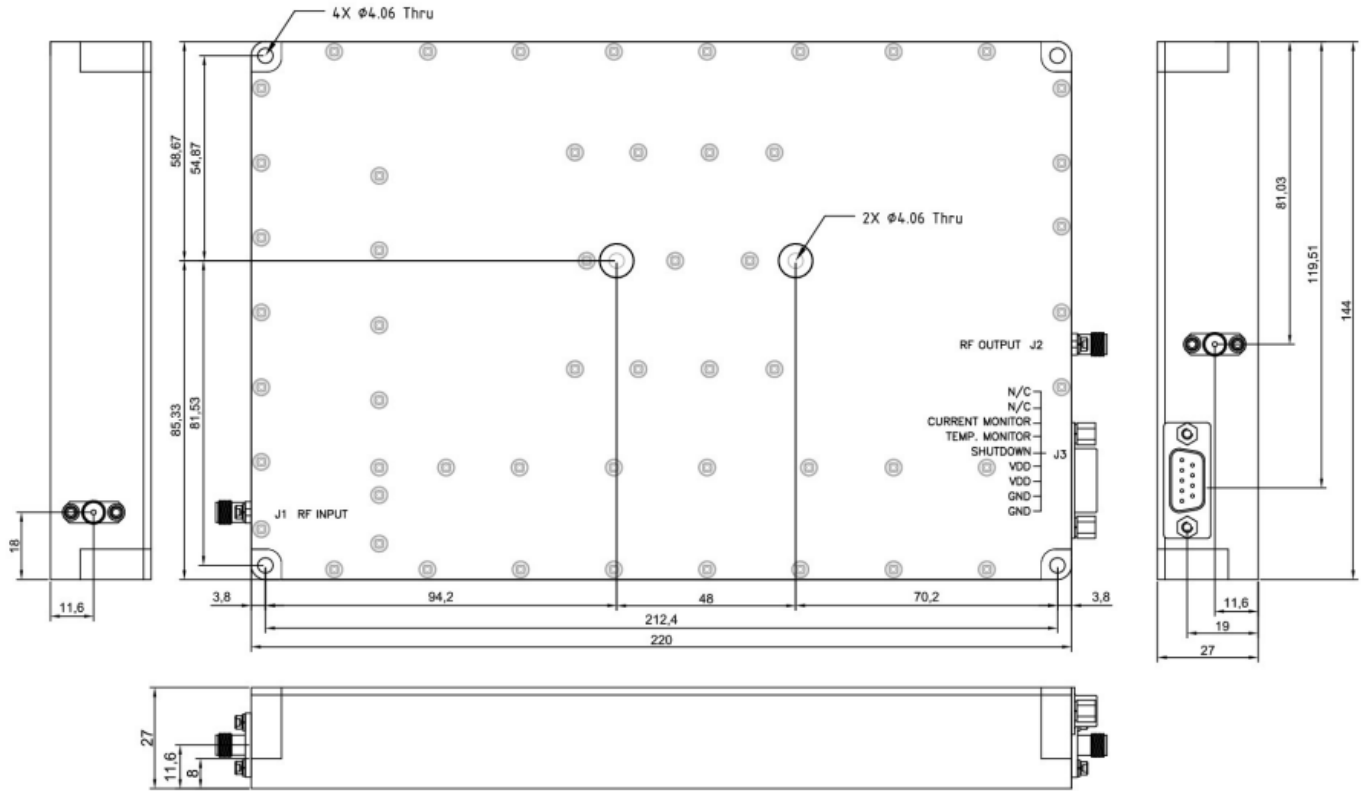
Parameter	Specification	Notes
Dimensions	220 X 144 X 27 mm	Excluding Connectors
Weight	1 Kg.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

## 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	$I_D @ 20\text{mV}/100\text{mA}$ Typ
4	TEMP SENSOR	$V_T @ 10\text{mV}/^\circ\text{C} + 500\text{mV}$ Typ
5	SHUTDOWN	TTL
6, 7	VDD	32VDC
8, 9	GND	Ground

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OUTLINE DRAWING - OPTION 101



**OPTION ORDERING INFORMATION:**

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