

AMP1093 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear LDMOS design
Instantaneous ultra-wide bandwidth
Suitable for all single channel modulations standards
Smallest form factor & lightest weight
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	200 - 600 MHz	
Power Output @ Psat	100 Watt Min	CW
Power Gain	50 dB Min	0dBm or less for rated Pout
Power Gain Flatness	2.0 dB p-p Max	
Input Return Loss	10 dB Min	
2-Tone Intermodulation (IMD)	-30 dBc Typ	40dBm/Tone, Δ = 1MHz
Harmonics	2 nd : -30 dBc Typ 3 rd : -20 dBc Typ	At rated Pout -13dBc Typ in band
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 VDC Nom	
Current Consumption	9 Amp Max / 7 Amp Typ	At rated Pout
Max Input Power	+8 dBm Max	<10 Sec without damage
Load VSWR Protection	5 : 1 Max	<1 minute at rated Pout
Turn On / Off Speed	5 μSec Max	Optional

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

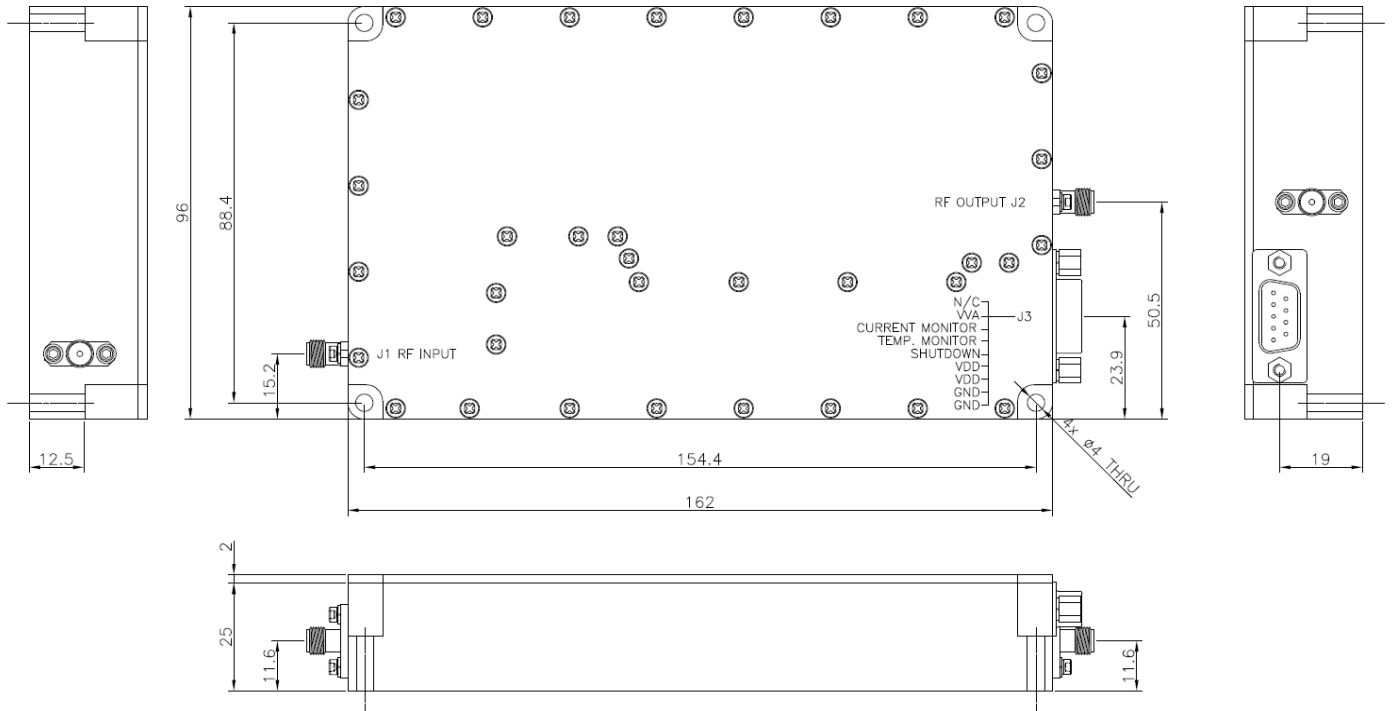
Parameter	Specification	Notes
Dimensions	Option-00 - 162 x 96 x 27 mm Option-01 - 200 x 100 x 27 mm	Excluding Connectors
Weight	700 gr.	Max Weight
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

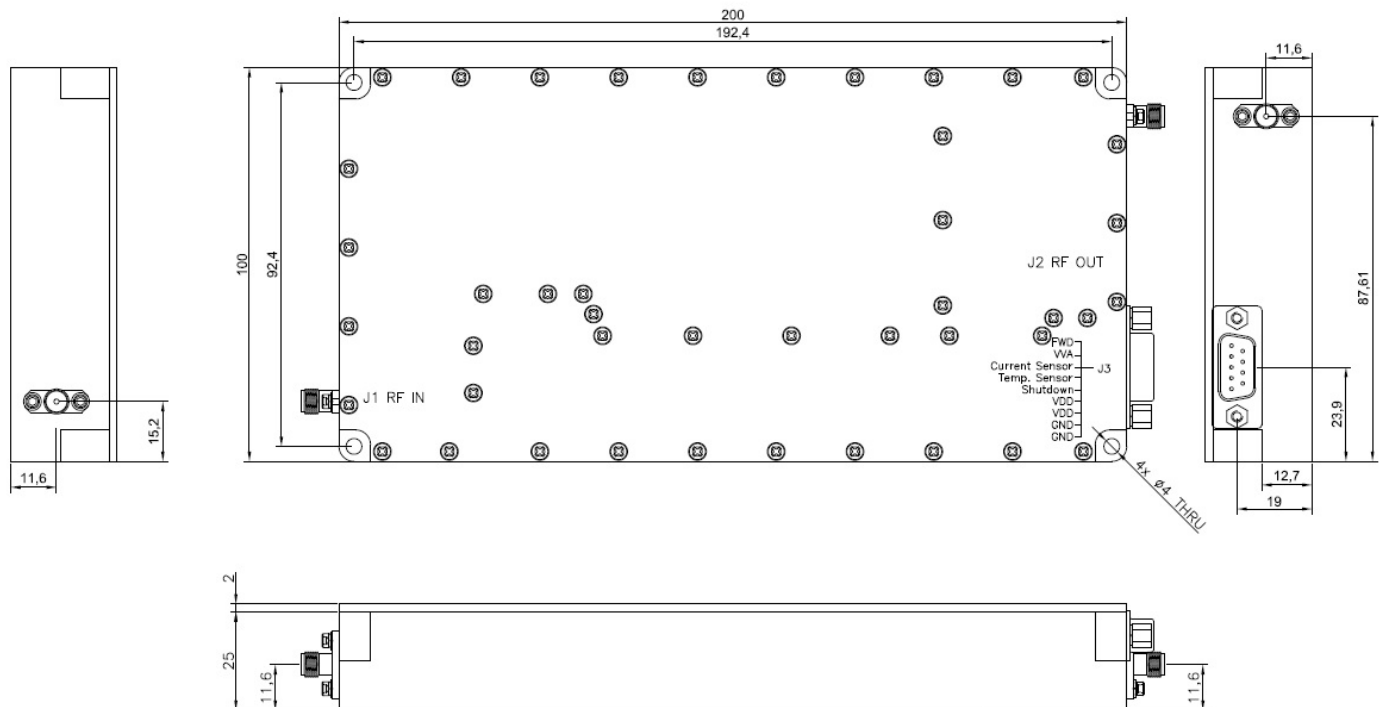
Pin	Function	Description
1	FWD	Option-101 - Analog Forward Power Indicator
2	VVA	Option-103 - Analog Gain Control
3	CURRENT SENSOR	I _b @20mV/100mA Typ
4	TEMP SENSOR	V _t @10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = Open or TTL "High" (>3.2V) - Disable = TTL "Low" (0V)
6, 7	VDD	28VDC
8, 9	GND	Ground

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OUTLINE DRAWING - STANDARD



OUTLINE DRAWING - OPTION 101 & 103





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OPTION ORDERING INFORMATION:

OPTION	Function	Description
101	FWD	Forward Power Detect
103	VVA	Variable Voltage Attenuator