

AMP1014-1 SOLID STATE HIGH POWER AMPLIFIER

FEATURES

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



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	130 - 180 MHz	
Power Output Psat	100 Watt Min	CW
Power Gain	50 dB Min	
Power Gain Flatness	2.0 dB p-p Max	
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30 dBc Typ	40dBm/Tone, $\Delta = 1\text{MHz}$
Harmonics	2nd > 35dBc Typ 3rd > 15dBc Typ	At rated Pout
Non Harmonics Spurious	>60 dBc	
Operating Voltage	28 VDC Nom	
Current Consumption	9 Amp Max	At rated Pout
Max Input Power	+8 dBm	Without damage
Load VSWR Protection	$\infty : 1$ Min	
Turn On / Off Speed	5 μSec 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

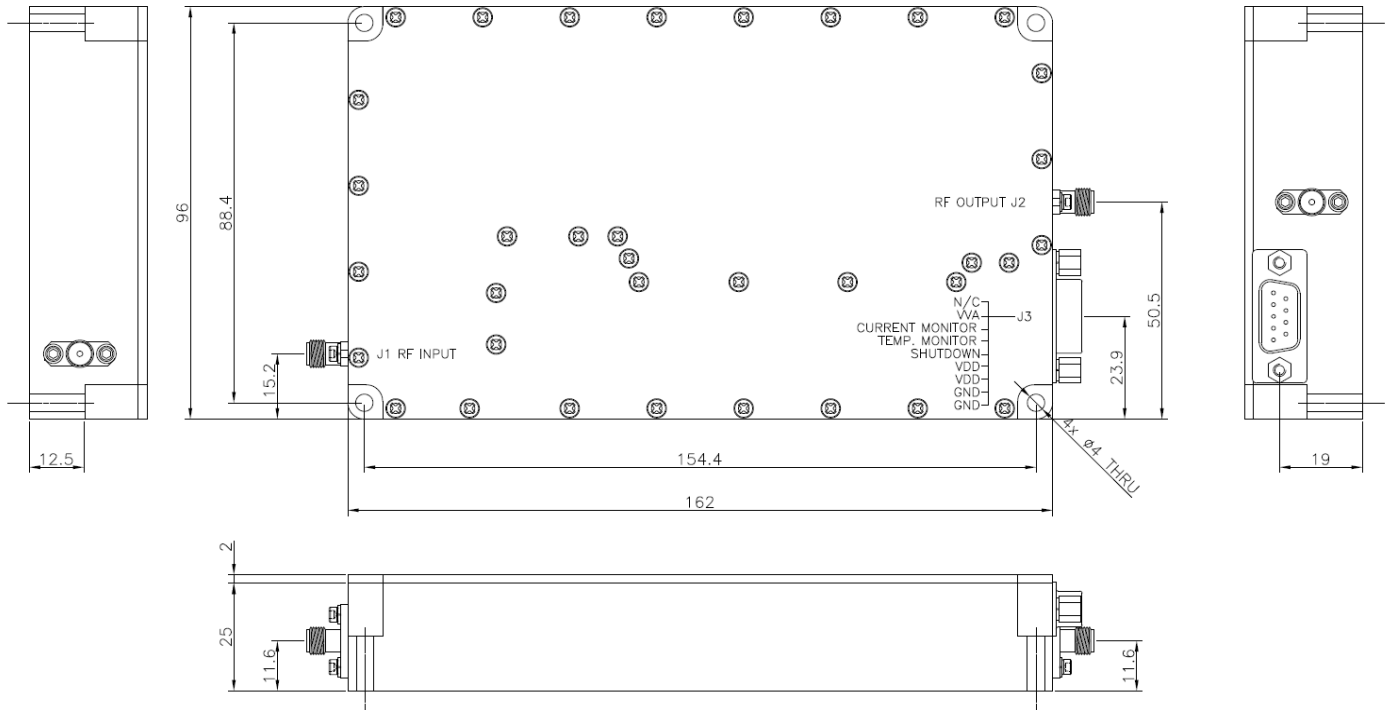
Parameter	Specification	Notes
Dimensions	Option-00 - 162 x 96 x 27 mm Option-01 - 200 x 100 x 27 mm	Excluding Connectors
Weight	975 gr.	Max Weight
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

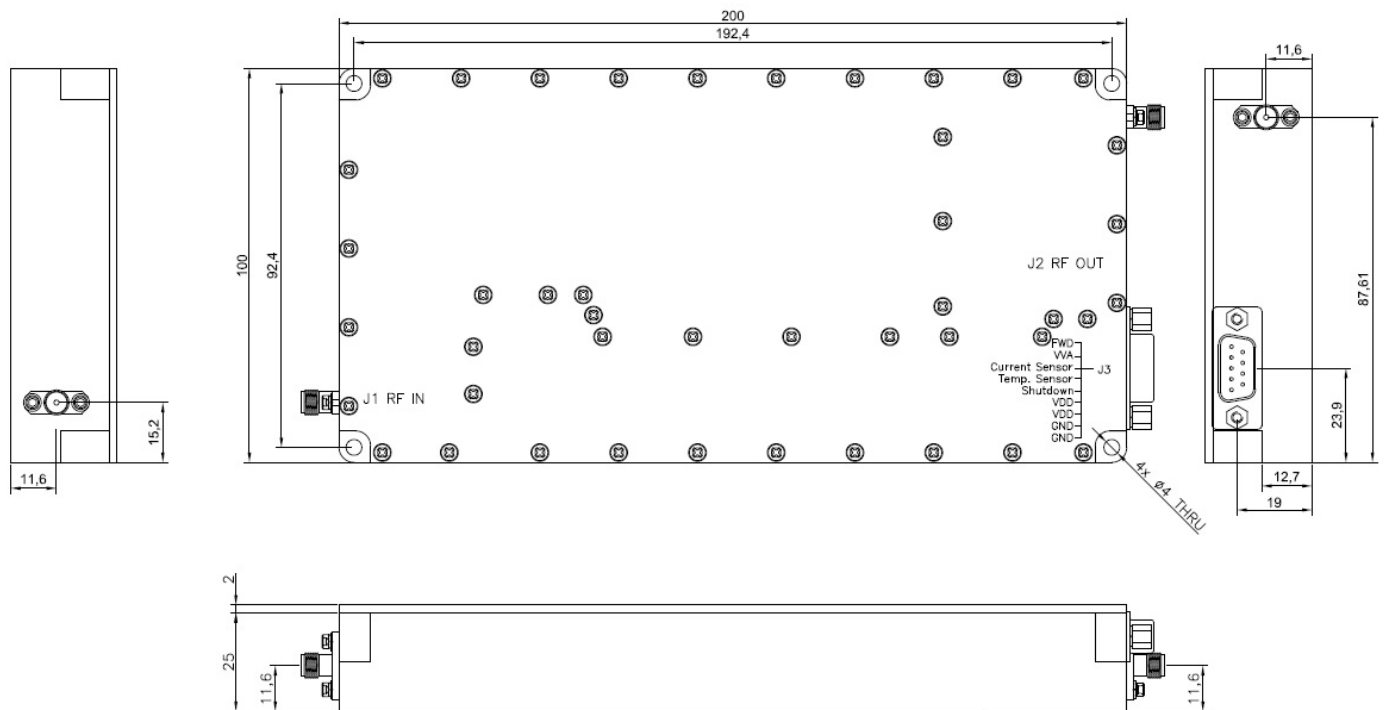
Pin	Function	Description
1	FWD	Option-101 - Analog Forward Power Indicator
2	VVA	Option-103 - Analog Gain Control
3	CURRENT SENSOR	$I_D @ 20\text{mV}/100\text{mA}$ Typ
4	TEMP SENSOR	$V_T @ 10\text{mV}/^\circ\text{C} + 500\text{mV}$ Typ
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground

AMP1014-1 SOLID STATE HIGH POWER AMPLIFIER

OUTLINE DRAWING - STANDARD



OUTLINE DRAWING - OPTION 101 & 103





AMP1014-1 SOLID STATE HIGH POWER AMPLIFIER

OPTION ORDERING INFORMATION:

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