HD31023
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	430 - 470 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, Δ = 1MHz
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	∞ : 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

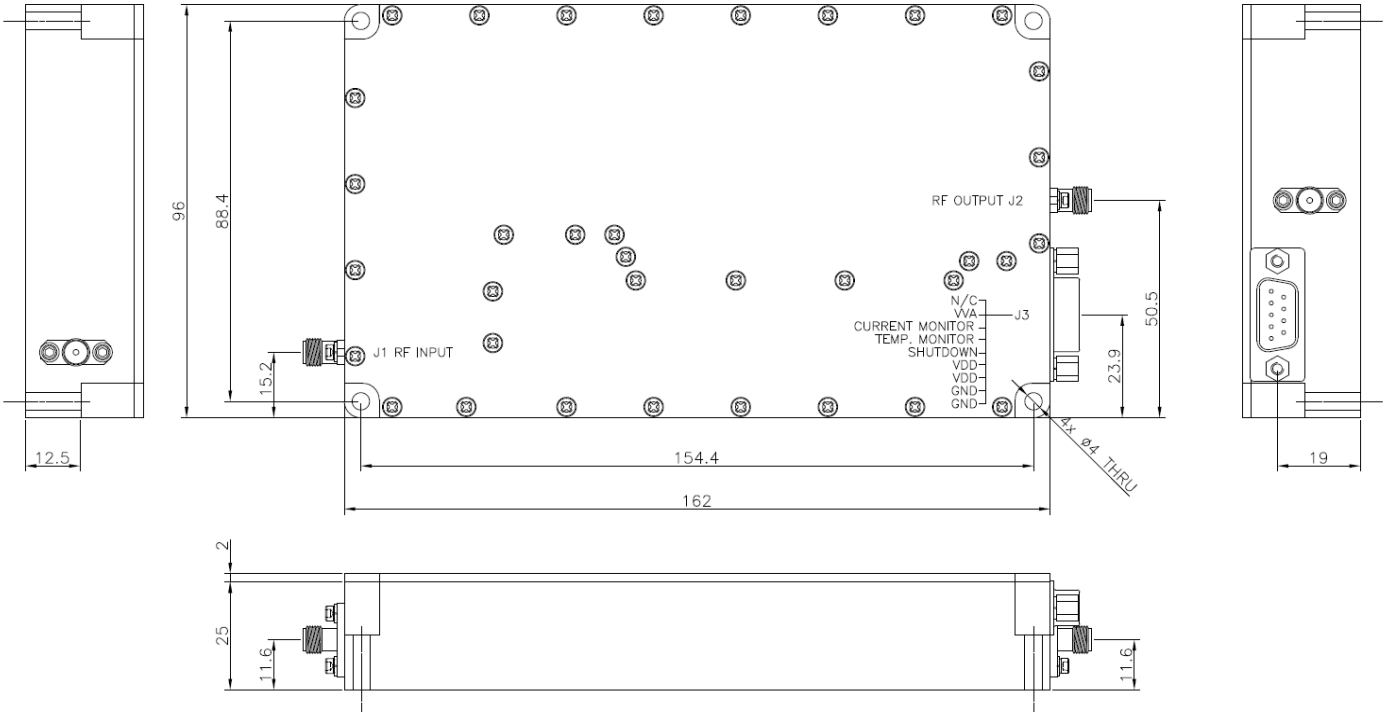
D-SUB CONNECTOR PIN ASSIGNMENT

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

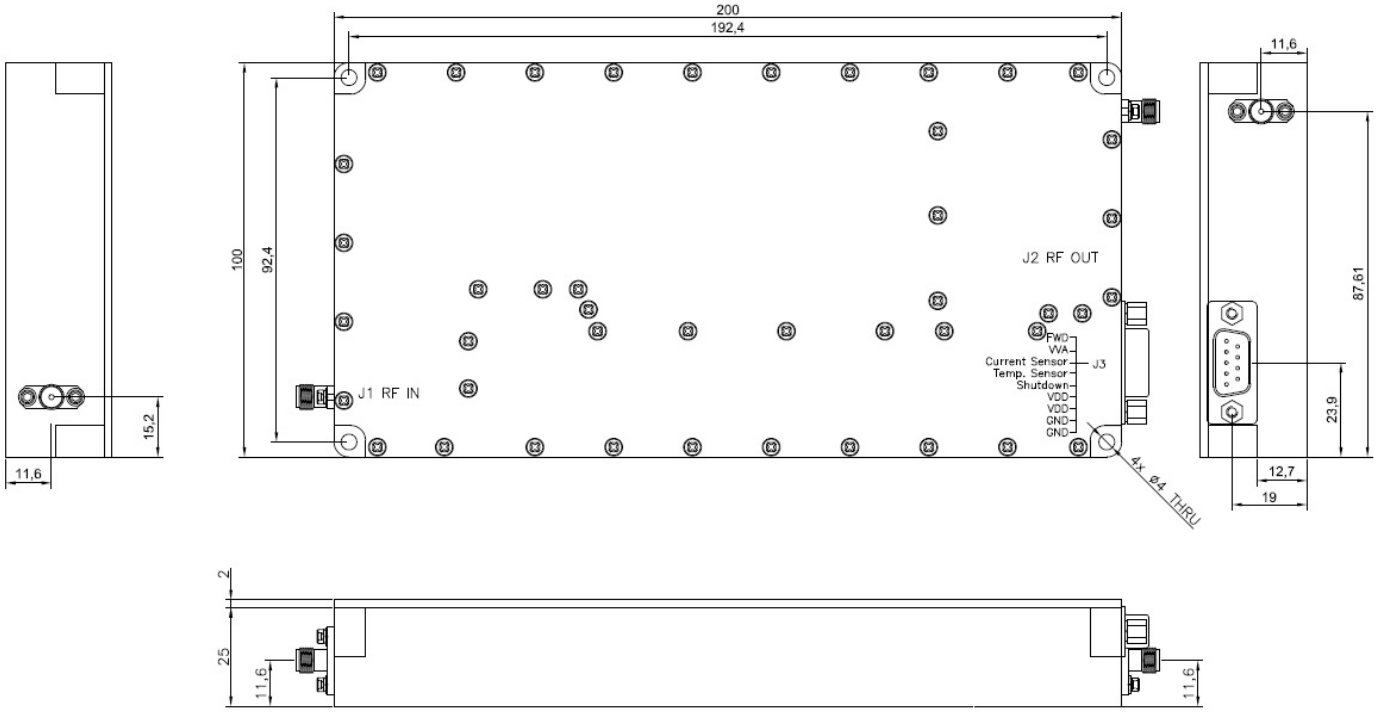
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OUTLINE DRAWING - STANDARD



OUTLINE DRAWING - OPTION 101 & 103



OPTION ORDERING INFORMATION:

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Communications Corp.

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

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