HD31083
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

GaAsFET high linearity design
Designed for C-Band linear applications
Suitable for all single channel modulation standards
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	6.725 - 7.025 GHz	
Power Output Psat / P1dB	100 Watt Typ / 80 Watt Min	CW
Power Gain	60 dB Min	
Power Gain Flatness	2.0 dB p-p Max	Constant input power
Input / Output Return Loss	-12 dB Max	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Max	40dBm/Tone, Δ = 1MHz
Harmonics	-25 dBc Max	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Noise Figure	8.0 dB Max	
Operating Voltage	12 VDC Nom	
Current Consumption	70.0 Amp Max	At rated Pout
Input Power Protection	+8 dBm Max	Without damage
Load VSWR Protection	10 : 1 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	230 x 160 x 27 mm	Excluding connectors
Weight	-	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

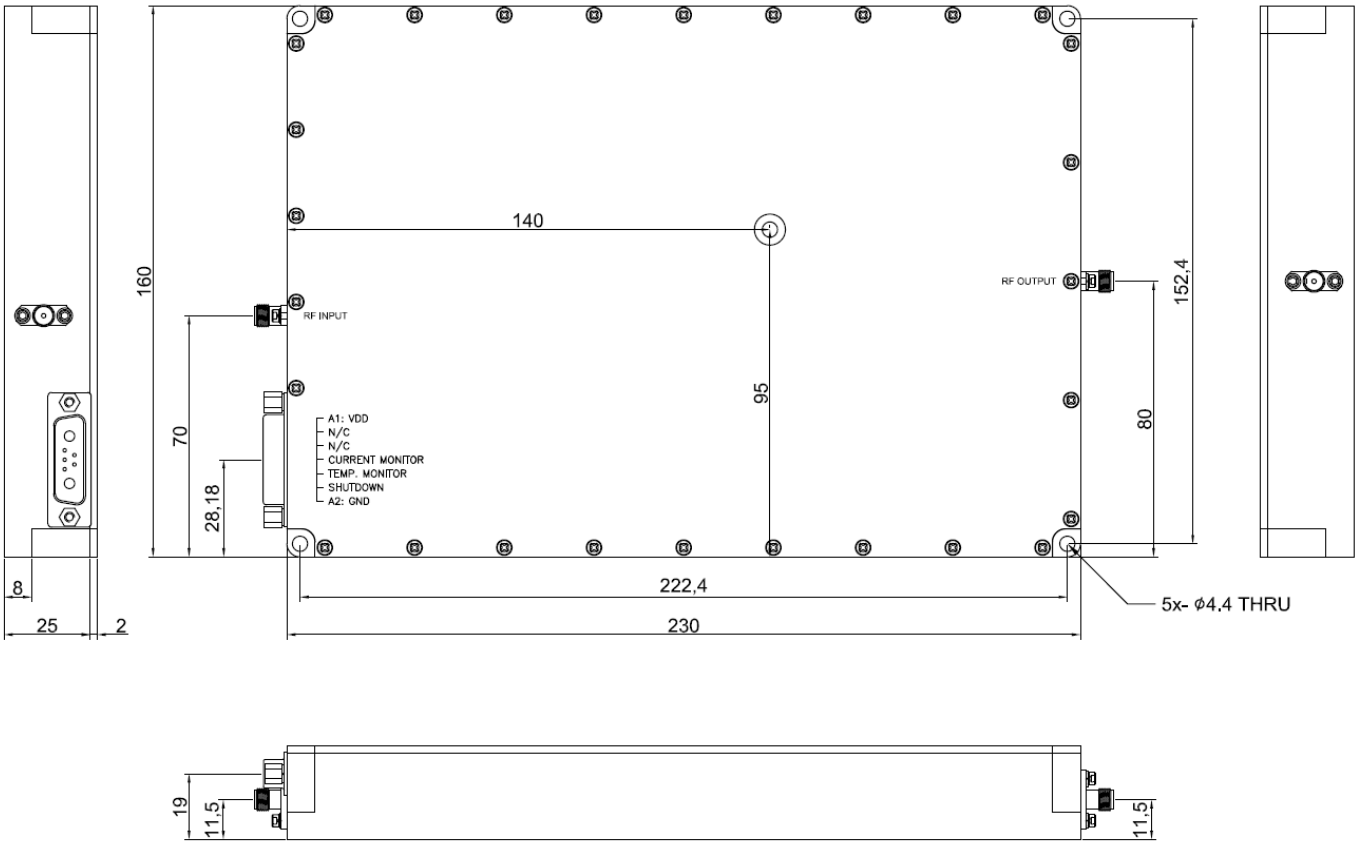
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	Reserved
2	VVA	Reserved
3	CURRENT SENSOR	I_D@50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
A1	VDD	12VDC Nom
A2	GND	Ground

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OUTLINE DRAWING



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