HD31817
SOLID STATE HIGH POWER AMPLIFIER

Communications Corp.

FEATURES

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



ELECTRICAL SPECIFICATIONS - 50 Ohm Impedance

Parameter	Specification	Notes
Operating Frequency Range	30 - 2000 MHz	
Output Power @ Psat	20 Watt Min	CW
Output Power @ P1dB	7 Watt Typ	
Power Gain	43 dB Min	
Power Gain Flatness	2 dB p-p Max	Constant input power
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30 dBc Typ	33dBm/Tone, Δ = 1MHz
Harmonics	>20dBc Typ	At rated output
Noise Figure	10 dB Max	
Spurious	>60dBc	Non harmonics
Operating Voltage	32 VDC Nom	
Current Consumption	3 Amp Max / 2.5 Amp Typ	At rated Pout
Max Input Power	+8 dBm	Without damage
Load VSWR Protection	∞ : 1	

ENVIRONMENTAL CHARACTERISTICS

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

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	162 x 86 x 27 mm	Excluding connectors
Weight		
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

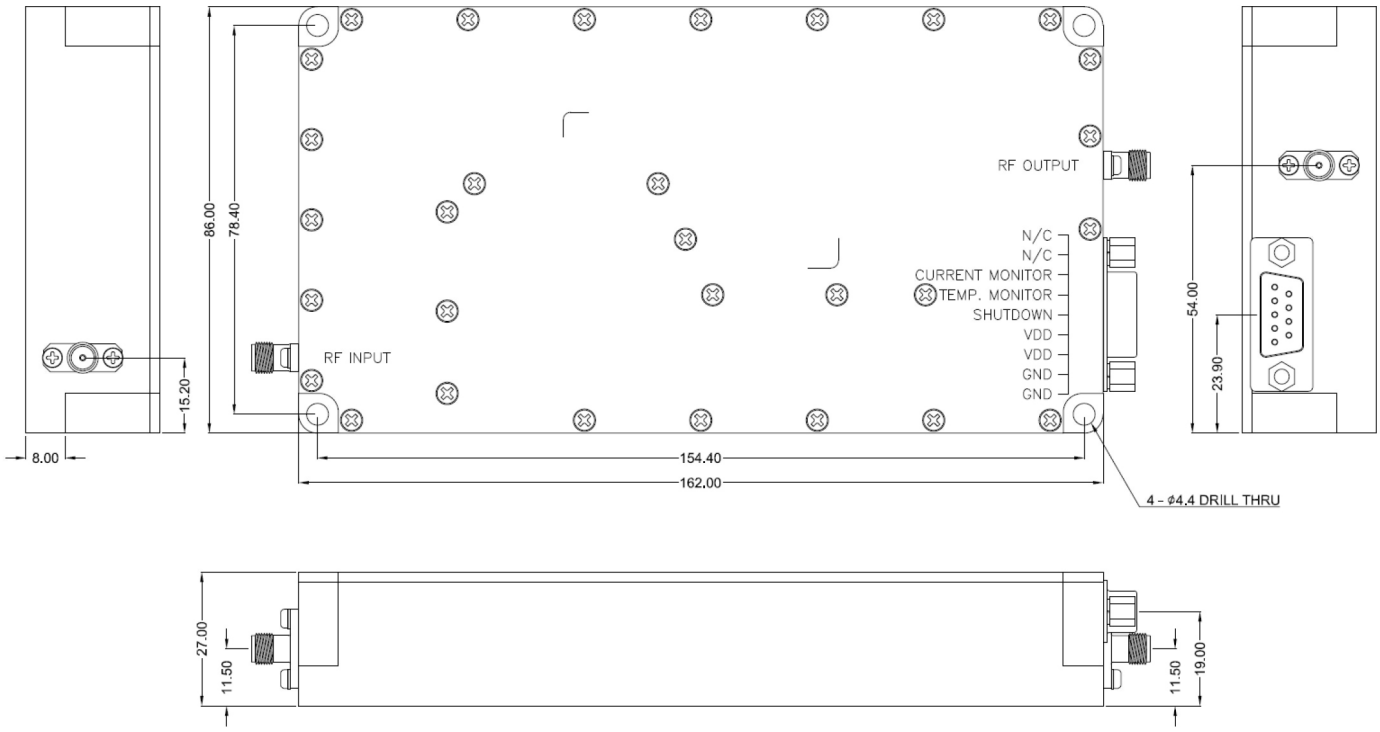
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	N/C	Reserved
2	N/C	Reserved
3	CURRENT SENSOR	I_D@50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = Open or TTL “Low” (0V) - Disable = TTL “High” (<3.2V)
6, 7	VDD	32VDC
8, 9	GND	Ground

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OUTLINE DRAWING



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