HD Communications Corp.

HD31767
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB GaN linear design
Instantaneous wide bandwidth
Suitable for all single channel modulations standards
Built-in T/R switch
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

Parameter	Specification			Notes
Operating Frequency Range	1.0 - 2.0 GHz			
Power Output Psat	15 Watt Min			CW
Output Power @ P1dB	6 Watt Min			
Power Gain	42 dB Min			
Gain Flatness	3.0 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	>20 dBc Typ			
Non Harmonics Distortions	>60 dBc			
Operating Voltage	28 - 30 VDC Nom			
Current Consumption	1.5 Amp Max			At rated Pout
Max Input Power Protection	+8 dBm			0 dBm normal operation
Load VSWR Protection	∞ : 1			<1 Minute
Transmit / Receive Switch Characteristics	**Speed**	**Isolation**	**Control**	Transmitter must be off between Tx & Rx modes
	5 µS Max	50 dB Min	TTL	

ENVIRONMENTAL CHARACTERISTICS

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

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	150 x 80 x 27 mm	Without Connectors
Weight		
RF Connectors Input / Tx / Rx	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

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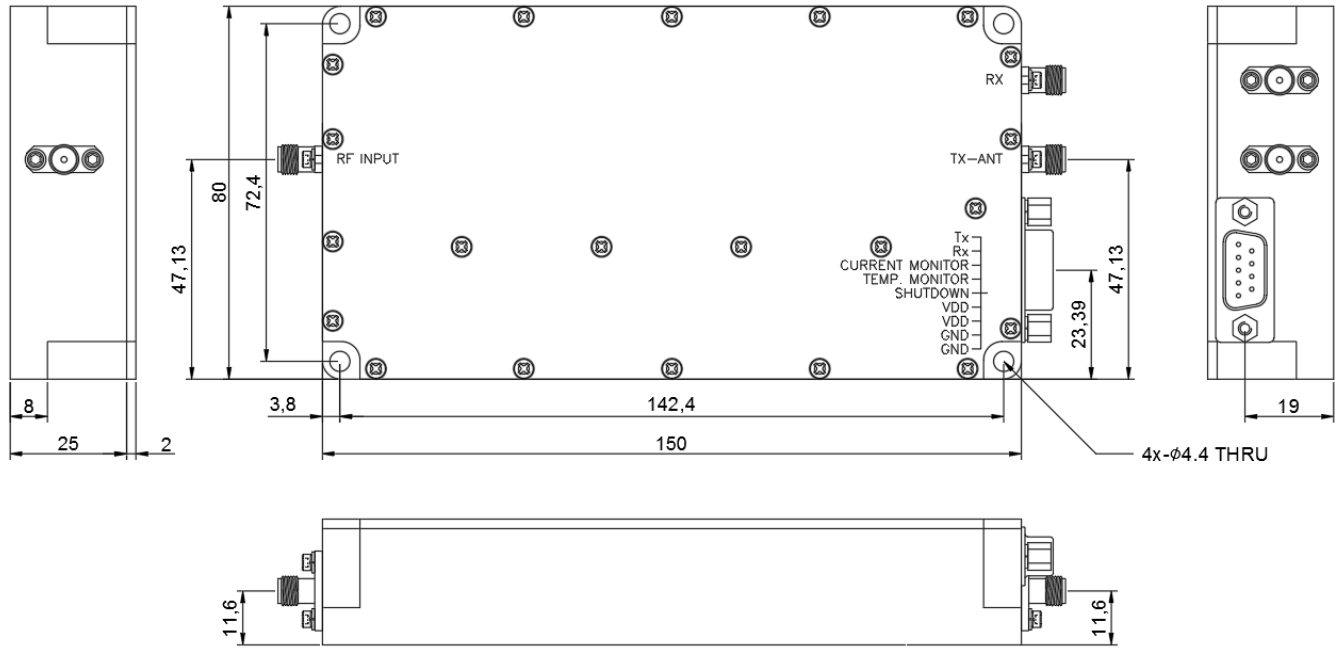
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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	OPTION 101 - Forward power detect
2	TX / Rx CONTROL	TTL
3	CURRENT SENSOR	I_D@100mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground

OUTLINE DRAWING



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