HD Communications Corp.

HD31879
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

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



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	2.1 - 2.3 GHz	
Power Output	500 Watt Min	CW
Power Gain	57 dB Min	
Power Gain Flatness	1.0 dB p-p Max	Constant input power
Input / Output Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30 dBc Typ	47 dBm/Tone, Δ = 1MHz
Harmonics 2^{nd} / 3^{rd}	-30 dBc Typ	At rated Pout
Non Harmonics Spurious	>60 dBc	
Operating Voltage	32 VDC Nom	
Current Consumption	50 Amp Typ	At rated Pout
Load VSWR Protection	5 : 1	At rated Pout

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	390 x 250 x 30 mm	Excluding Connectors
Weight	6 Kg. (13.22 lb.)	
RF Connectors In/Out	SMA female / Type-N Female	
DC Power / Interface Connector	7 Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

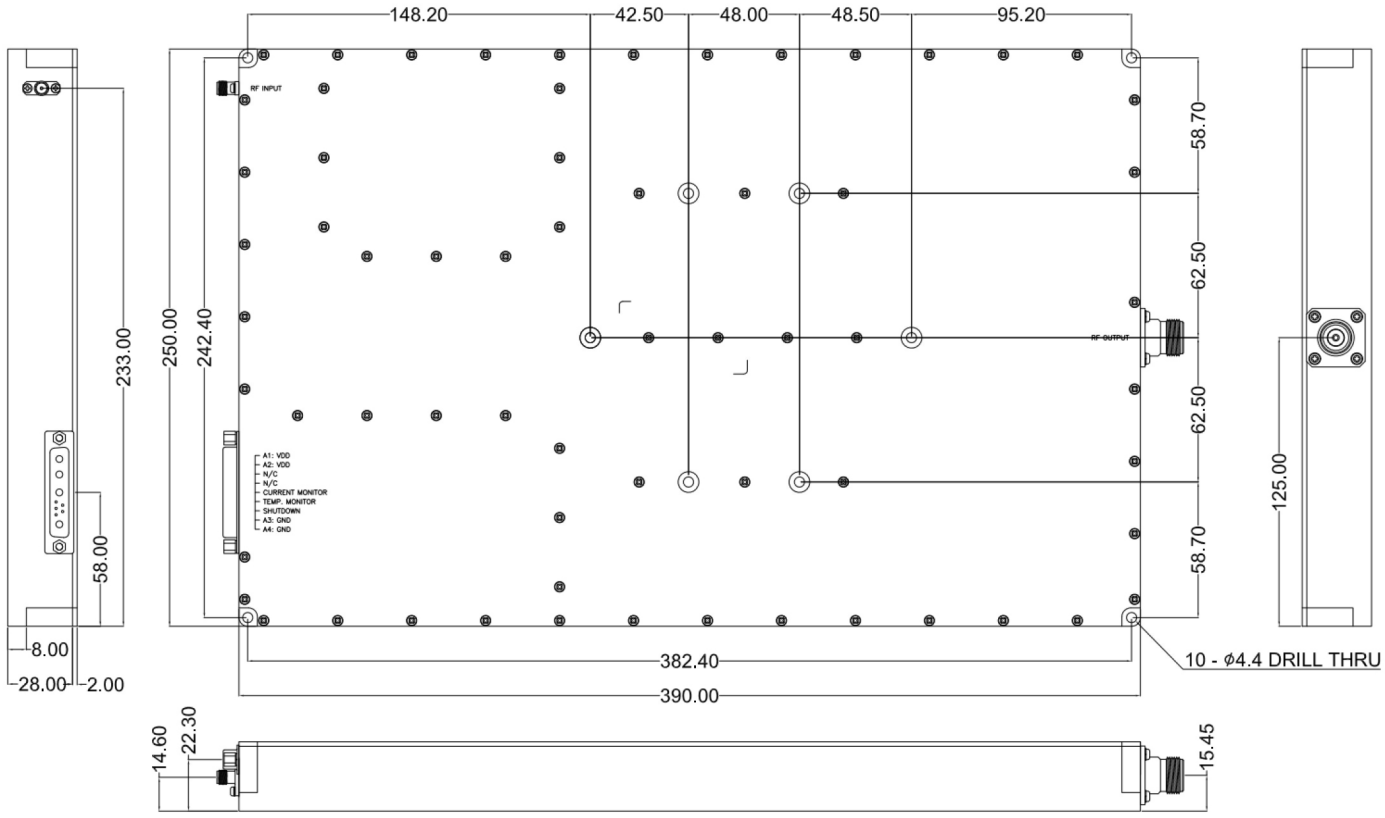
Pin	Function	Description
1	FWD	N/C
2	VVA	N/C
3	CURRENT SENSOR	I_D@10mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
A1	VDD	32VDC
A2	GND	Ground

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OUTLINE DRAWING



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