HD31775
SOLID STATE HIGH POWER AMPLIFIER

HD Communications Corp.

FEATURES

Class AB linear GaN design
Instantaneous ultra-wide bandwidth
Suitable for all single channel modulations standards
Small form factor & light weight
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	1.0 - 6.0 GHz	
Power Output	100 Watt Min	CW
Power Output @ P1dB	50 Watt Typ	CW
Power Gain	20 - 30 dB Nom	
Power Gain Flatness	3.0 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	40 dBm/Tone, Δ = 1 MHz
Harmonics	>20 dBc Typ	At rated Pout
Non-Harmonics Spurious	>60 dBc	
Operating Voltage	28 - 30 VDC Nom	28V Opt Available
Current Consumption	24 Amp Max	At rated Pout
Operating Input Power	1 Watt Max	Without damage
Load VSWR Protection	5 : 1	At rated output
Turn On / Off Speed	5 µSec Max	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +65 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non Condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	250 x 200 x 27mm	Excluding Connectors
Weight	3.1 Kg.	
RF Connectors In/Out	SMA / Type-N female	
DC Power / Interface Connector	Hybrid 9-Pin D-Sub	9W4
Cooling	External Heatsink	Forced air required

332C Dante Ct. Holbrook, NY 11741 Phone: 631-588-3877 Fax: 631-648-0518
www.rfamplifiers.com www.rfcomp.com sales@hdcom.com

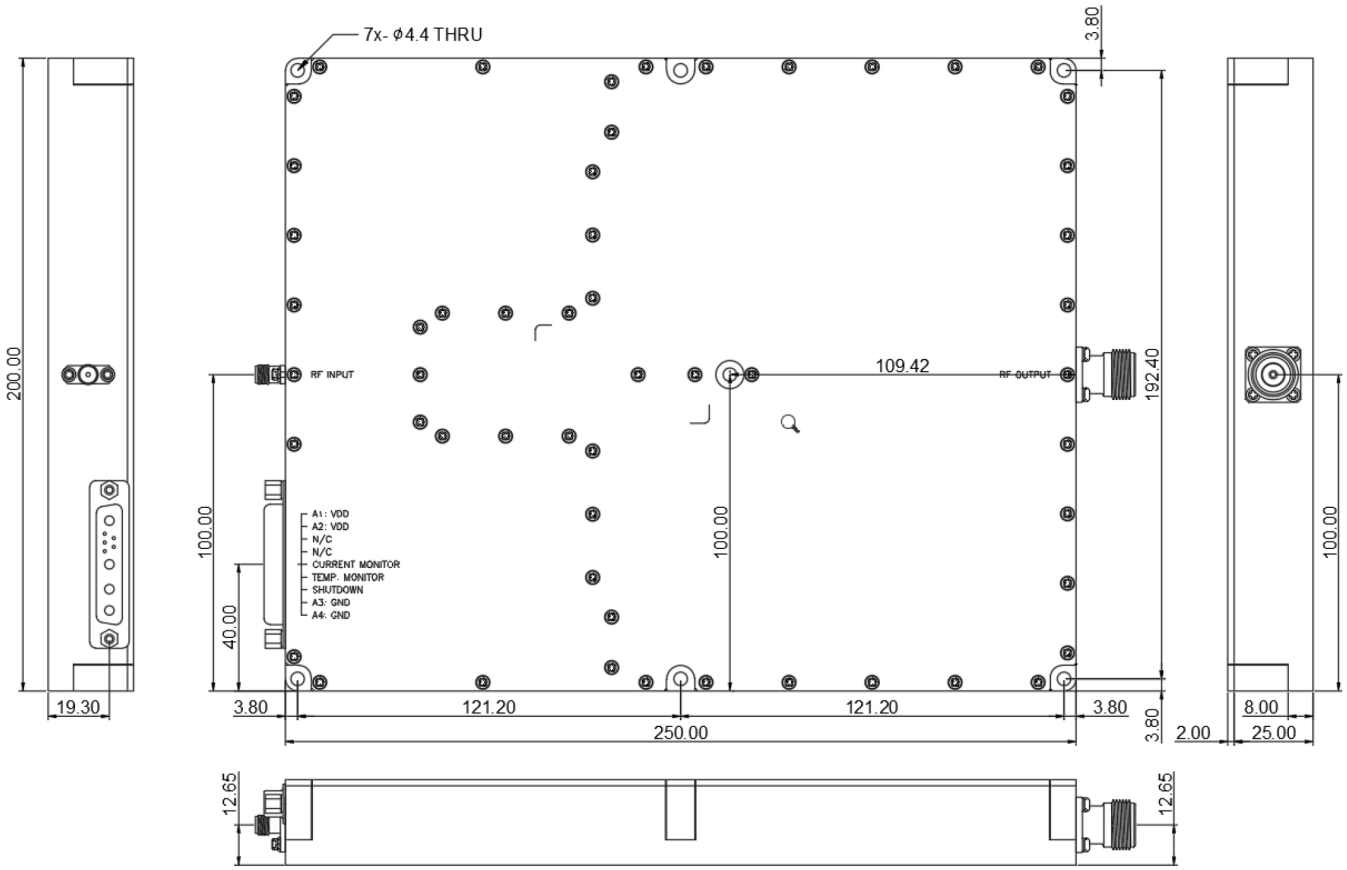
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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	OPTION 101 - Forward power detect
2	VVA	OPTION 103 - Variable Voltage Attenuator
3	CURRENT SENSOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
A1, A2	VDD	28 - 30VDC
A3, A4	GND	Ground

OUTLINE DRAWING



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