HD31868
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear design
Instantaneous bandwidth
Suitable for Medium and long pulse TACAN frequency applications
Small form factor & light weight
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification			Notes
Operating Frequency Range	960 - 1220 MHz			
Power Output Peak Pulse	135 Watt Min			
Pulse Characteristics	**Width**	**Duty**	**Droop**	
	6 - 60 µS	10 %	<1 dB	
Power Gain	51 dB Min			
Power Gain Flatness	2.0 dB p-p Max			Constant input power
Input Return Loss	-10 dB Max			Relative to 50 Ohm
Noise Figure	8 dB Max			
2-Tone Intermodulation (IMD)	-30 dBc Typ			36dBm/Tone, Δ = 1MHz
Harmonics	-30 dBc Typ			At rated Pout
Spurious	-60 dBc Max			Non-harmonics
Operating Voltage	32 VDC Nom			
Current Consumption	12 Amp Avg.			At rated Pout
Input Power Protection	+8 dBm Max			<10 Sec without damage
Load VSWR Protection	∞ : 1			<1 minute at rated Pout
Turn On / Off Speed	5 µSec Max			
Phase Matching Module to Module	20 Deg p-p			
Amplitude Matching Module to Module	2 dB p-p			

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	220 x 106 x 32 mm	Excluding connectors
Weight		
RF Connectors In/Out	SMA female / Type N female	
DC Power / Interface Connector	9 Pin D-Sub	
Cooling	External Heatsink	Forced air required

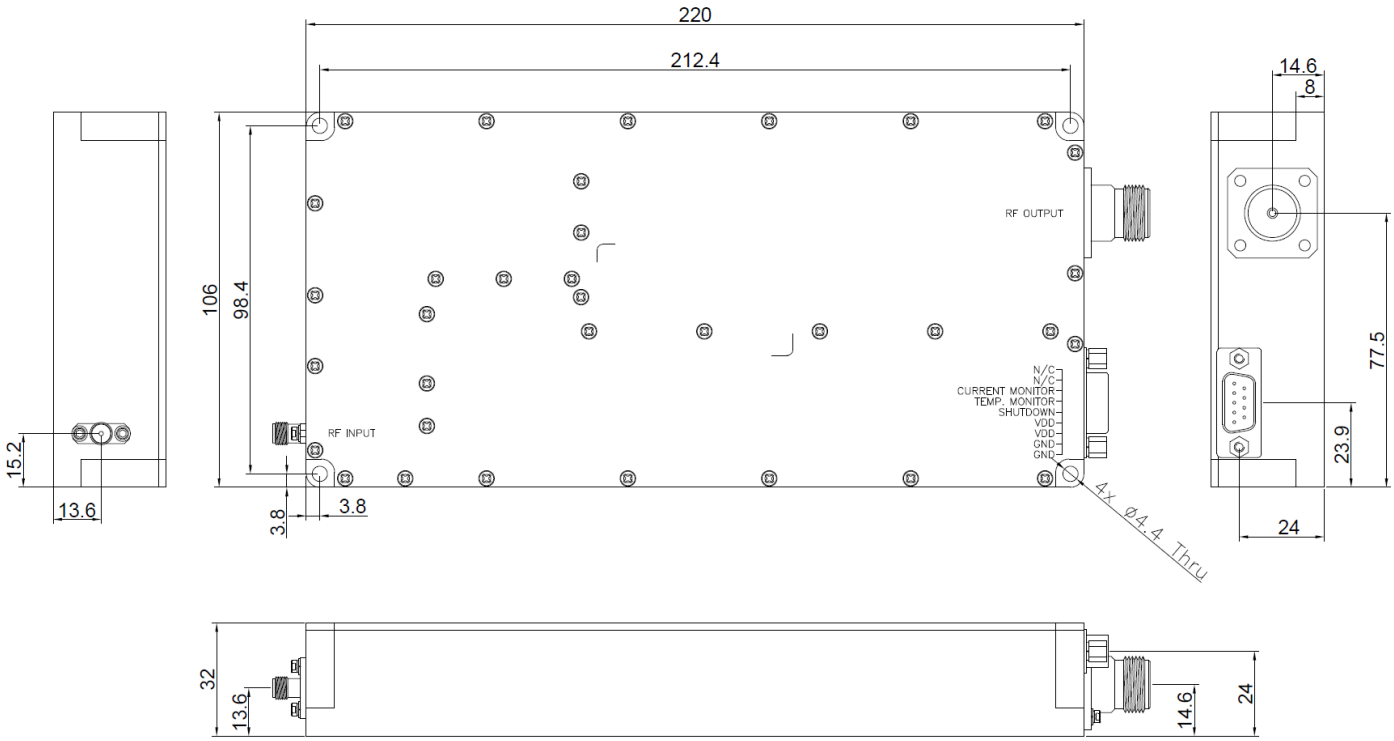
HD Communications Corp. 338 Jericho Tpke. Ste 387
Syosset, NY 11791
Tel: (631) 588-3877 Email: sales@hdcom.com

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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	Enable = TTL Hi or Open (Pull-Up resistor); Disable = TTL or Short
6, 7	VDD	32VDC
8, 9	GND	Ground

OUTLINE DRAWING



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