HD31147
SOLID STATE HIGH POWER AMPLIFIER

HD Communications Corp.

FEATURES

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

ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	6.0 - 12.0 GHz	
Power Output	10 Watt Min	CW
Power Gain	40 dB Min	
Power Gain Flatness	4.0 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	30 dBm/Tone, Δ = 1 MHz
Harmonics @ Rated Pout (2^{nd} & 3^{rd})	-30 dBc Typ	2^{nd}: 6.0 - 6.5 GHz: 13dBc Typ
Spurious	-60 dBc Max	Non-harmonics
Noise Figure	8.0 dB Max	
Operating Voltage	28 - 30 VDC	
Current Consumption	<3.0 Amp Typ / 3.8 Amp Max	At rated Pout
Max Input Power	+2 dBm	<10 Sec without damage
Load VSWR Protection	3 : 1	1 minute 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-condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	100 x 100 x 27 mm	Excluding Connectors
Weight	TBD	
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

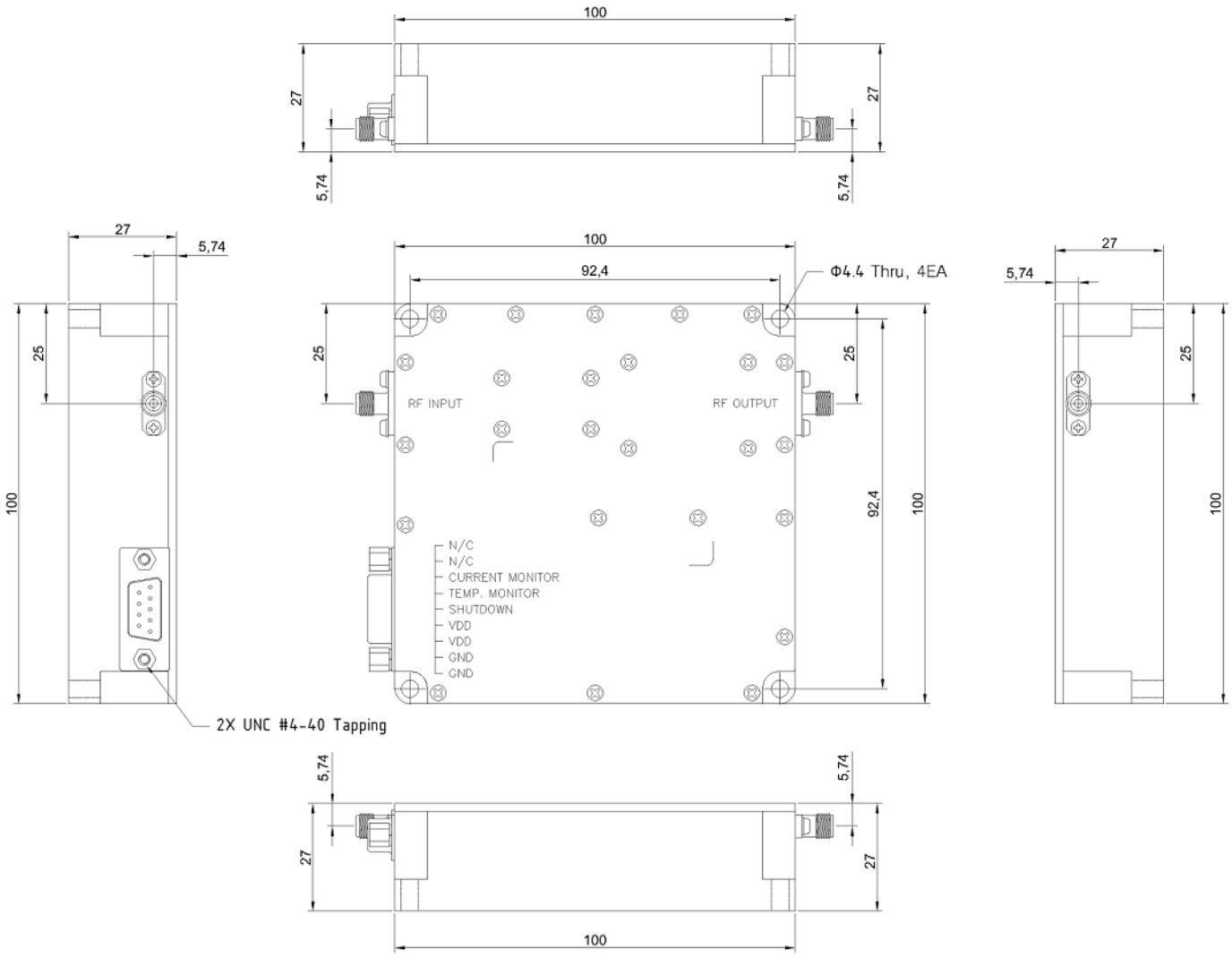
Pin	Function	Description
1	FWD	Reserved
2	VVA	Reserved
3	CURRENT SENSOR	I_D@50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL
6, 7	VDD	28VDC
8, 9	GND	Ground

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OUTLINE DRAWING



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