HD Communications Corp.

HD32303
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear hybrid GaN design
Instantaneous ultra-wide bandwidth
Suitable for all single channel modulation standards
Suitable for S, X and Ku band applications
Small size and light weight design
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	6.0 - 18.0 GHz	
Power Output Psat	40 Watt Min	CW
Power Gain	46 dB Min	
Power Gain Flatness	±2.5 dB Max	
Input / Output VSWR	2 : 1 Max	
Harmonics	-20 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Noise Figure	10 dB Max	
Operating Voltage	32 VDC ±5 %	
Efficiency	10 % Min	At rated Pout
Input Power Protection	+3 dBm Max	<10 Sec without damage
Load VSWR Protection	3 : 1 Max	<1 minute @ rated Pout
Gain Matching	±2.5 dB Max	Note 1
Phase Matching	±25 Deg Max	Note 1

Notes:

1. Gain and Phase matching over operating temperature range and input power @ 0dBm ±1dB

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	0 to +50°C	
Storage Temperature	-40 to +85°C	
Relative Humidity	5 to 95 %	Non-condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	177.8 x 101.6 x 38.1 mm (7 x 4 x1.5 inch)	Excluding connectors
Weight	2.5 Kg	
RF Connectors In/Out	SMA female	Cover Flange
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	External Heatsink	Forced air required

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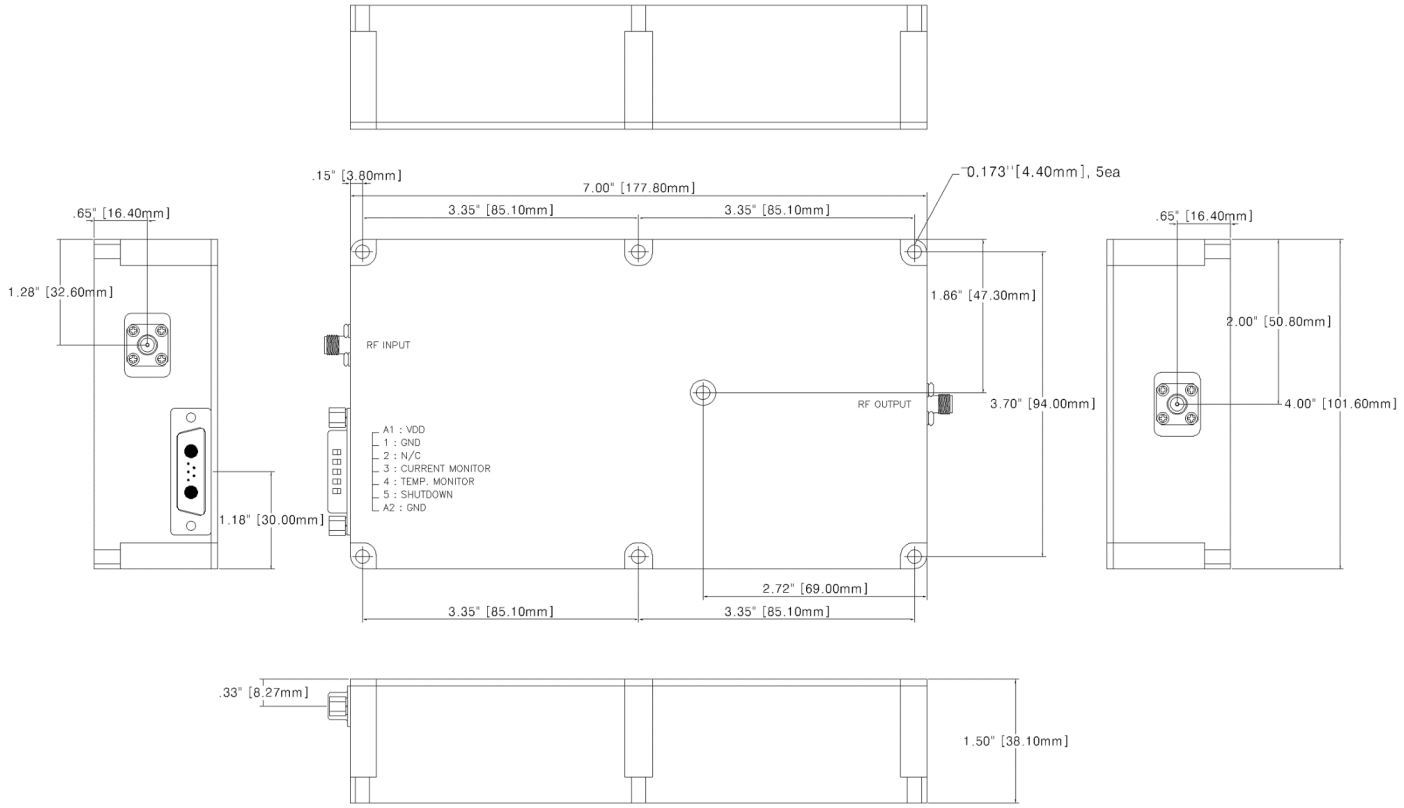
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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	GND	Ground
2	Temp Alarm	TTL
3	Current Sensor	I_D@20mV/100mA Typ
4	Temp. Sensor	V_T@10mV/°C + 500mV Typ
5	Shutdown	Enable = TTL “Hi” or open / Disable = TTL “Lo” or short, Within **1uSec**
A1	VDD	32VDC
A2	GND	Ground

OUTLINE DRAWING



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