HD33618
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear GaN design
Instantaneous ultra-wide S, X, & Ku bands coverage
Suitable for all single channel modulation standards
Built-in protection circuits
High reliability and ruggedness
Liquid cooling required



ELECTRICAL SPECIFICATIONS : @ 50 Ω, 25 °C, 28 VDC

Parameter	Specification	Notes
Operating Frequency Range	6.0 - 18.0 GHz	
Power Output Psat	50 Watt Min	40 W over Temp range
Power Gain	47 dB Min	0 dBm Typ for Nom Pout
Power Gain Flatness	±3.0 dB Max	
Input / Output VSWR	2 : 1 / 3 : 1 Max	
Harmonics	-12 dBc Max	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Noise Floor @ On / Off	-90 dBm/Hz / -170 dBm/Hz Max	
Noise Figure	10 dB Max	
Operating Voltage	28 VDC ±1.5 V	
Power Dissipation	500 Watt Max	Efficiency >10 %
Input Power Protection	+3 dBm Max	<10 Sec without damage
Load VSWR Protection	3 : 1 Max	<1 minute @ rated Pout
Protection	Over Temp, Over Current	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +50 °C	
Storage Temperature	-40 to +75 °C	
Relative Humidity	5 to 95 %	Non-condensing
Shock	MIL-STD-810F, Method 516.5	
Vibration	MIL-STD-810F Method 514.3	

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	180 x 95 x 35 mm	Excluding connectors
Weight	1.5 kg	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	7-Pin Hybrid D-Sub	
Cooling	**Liquid cooling only**	Air cooling not allowed

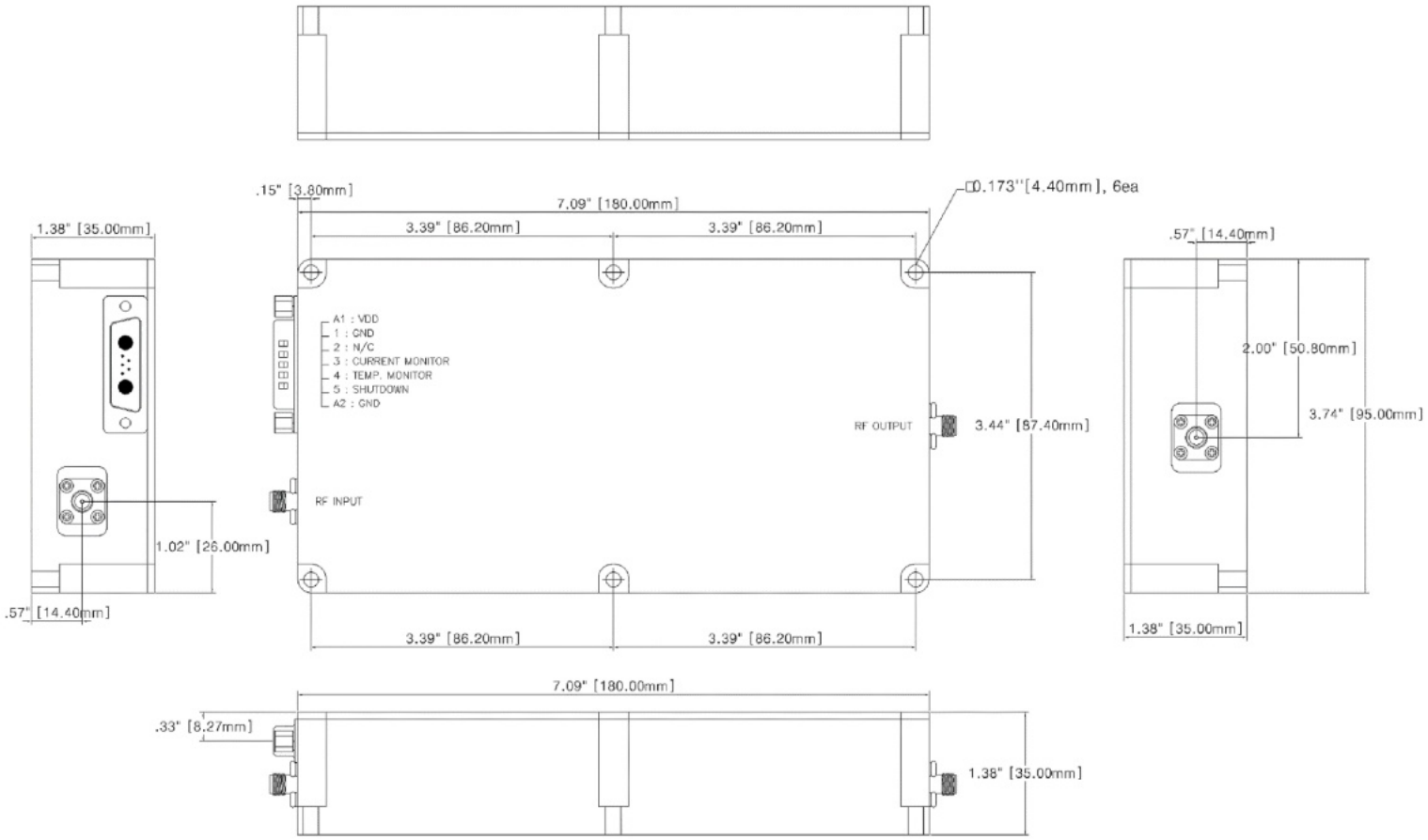
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	Summary Fault	Summary Fault
2	Status Pin	Status Pin
3	CURRENT SENSOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL "Hi" (3.3V) / Disable = TTL "Lo" or open @ ≤1 µS
A1	VDD	28VDC
A2	GND	Ground

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Specifications subject to change without notice. Specifications and drawings may vary with selected options.

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OUTLINE DRAWING



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