HD33629
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Designed for Radar, EMC-EMI/RFI, Lab, and general comm applications.
Small form factor, high power density
Class A/AB linear advanced technology design
Instantaneous bandwidth
Suitable for X-Band CW linear applications
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS : 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	9.5 - 10.25GHz	BW = 750MHz
Power Output @ Psat	50 Watt Min	CW
Power Gain	47 dB Min	0dBm or less for rated Pout
Power Gain Flatness	2.0 dB p-p Max	Constant input power
Input / Output Return Loss	-10 dB Max	
Harmonics	-30 dBc Max	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 VDC ± 0.5 V	
Current Consumption	10 Amp Max	At rated Pout
Input Power Protection	+10 dBm Max	<10 Sec without damage
Load VSWR Protection	∞ : 1	<1 Minute with output Isolator

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	up to 95 %	Non-condensing
Altitude	45000 feet[1]	
Shock & Vibration	Normal transport[2]	

1 For airborne applications, designed to meet, testing will be quoted.
2 MIL Spec available for quotation.

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	160 x 120 x 27 mm	Excluding connectors
Weight	2.0 Kg. Typ	
RF Connectors In/Out	SMA F / Type N-Female	Optional Wave Guide (WR90)
DC Power / Interface Connector	Hybrid D-Sub	
Cooling	External Heatsink[3]	Forced air required

3 Adequate cooling for proper operation and long-term reliability.

D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	N/C
2	REV	N/C
3	CURRENT SENSOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL "High" or Open; Disable = TTL "Low" or Short
A1	VDD	28VDC
A2	GND	Ground

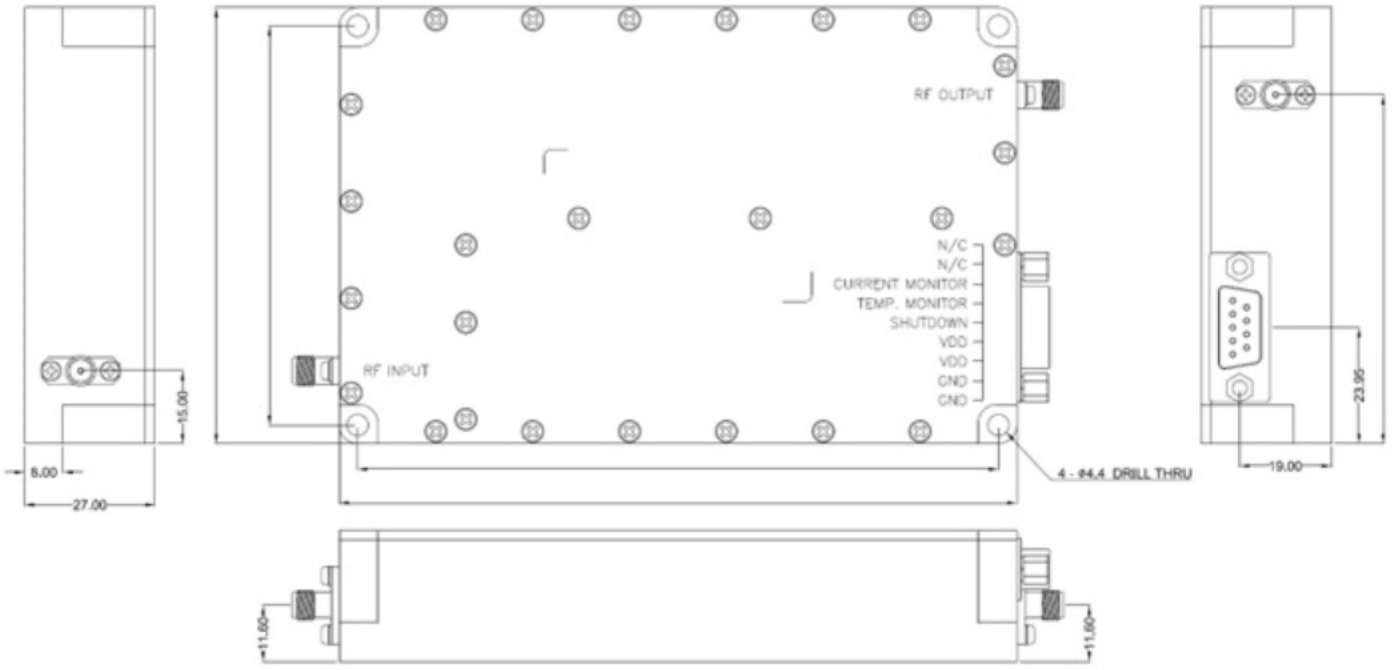
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Specifications subject to change without notice.
Specifications and drawings may vary with selected options.

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AVAILABLE SPECIAL OPTIONS

Parameter	Specification	Notes
Option 107: Low Enable	Reverse Shutdown Polarity	High Disable
Option HS: Heatsink	Module Heatsink mounted	
Option HSF: Heatsink & Fans	Module Heatsink mounted with fans	
Option ISO: External Isolator	External Isolator load-mismatch protection	Termination attached
Option CIR: External Circulator	External circulator load-mismatch protection	Termination required

OUTLINE DRAWING



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