HD35109
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear GaN design
Instantaneous ultra-wide bandwidth
Suitable for all single channel modulation standards
Small form factor and light weight
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS : 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	0.4 - 6.0 GHz	
Power Output Psat	10 Watt Min	CW
Power Output @ P1dB	8 Watt Typ	CW
Power Gain	40 dB Min	0dBm or less for rated Pout
Power Gain Flatness	3.0 dB p-p Max	Constant input power
Input Return Loss	-10 dB Max	
2-Tone Intermodulation (IMD)	-30 dBc Typ	30dBm/Tone, Δ = 1MHz
Harmonics 2nd/ 3rd	-20 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 - 32 VDC Nom	
Current Consumption	3 Amp Max / 2 Amp Typ	At rated Pout
Input Power Protection	+8 dBm Max	<10 Sec without damage
Load VSWR Protection	∞ : 1[1]	<1 minute at rated Pout
Turn On / Off Speed	5 µSec Max	Optional

1 Modules could be damaged due to excessive VSWR beyond 1 minute.

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	3000 meters	
Shock & Vibration	Normal transport[2]	

2 MIL Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	125 x 75 x 24 mm	Excluding connectors
Weight	450 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

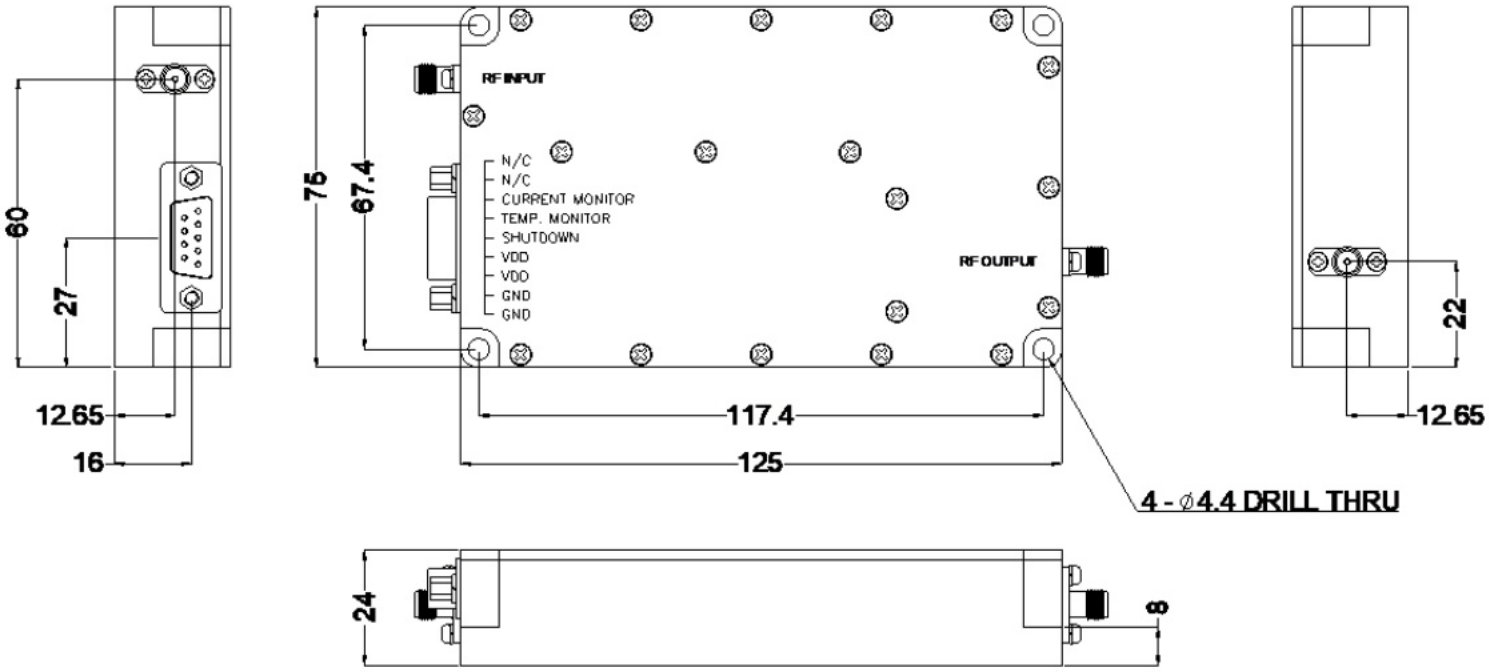
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Specifications subject to change without notice. Specifications and drawings may vary with selected options.

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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	Option-101 (With larger housing dimensions)
2	REV	Option-102 (With larger housing dimensions)
3	CURRENT SENSOR	I_D@100mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL High or Open; Disable = TTL Low or Short
6, 7	VDD	32VDC
8, 9	GND	Ground

OUTLINE DRAWING



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