HD33590
SOLID STATE HIGH POWER AMPLFIER

FEATURES

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



ELECTRICAL SPECIFICATIONS : @ 25°C, 28VDC

Parameter	Specification	Notes
Operating Frequency Range	0.7 - 6.0 GHz	
Power Output @ Psat	10 Watt Min / 15 Watt Typ	CW
Power Output @ P1dB	10 Watt Min	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 Min	
2-Tone Intermodulation (IMD)	-30 dBc Typ	30dBm/Tone, Δ = 1MHz
Harmonics 2^{nd}/ 3^{rd}	<-15 dBc / -20 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	28 - 30 VDC	
Current Consumption	4.0 Amp Max / 3.0 Amp Typ	At rated Pout
Input Power Protection	+8 dBm Max	<10 Sec without damage
Load VSWR Protection	∞ : 1	<1 minute at rated Pout
Turn On / Off Speed	5 µSec Max	Optional

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +65 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	up to 95 %	Non-condensing
Altitude	3000 meters	
Shock & Vibration	Normal transport[1]	

1 MIL Spec available for quotation.

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	156.4 x 69 x 16 mm	Excluding connectors
Weight	225 gr. Max	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	Feed Thru	
Cooling	External Heatsink	Forced air required

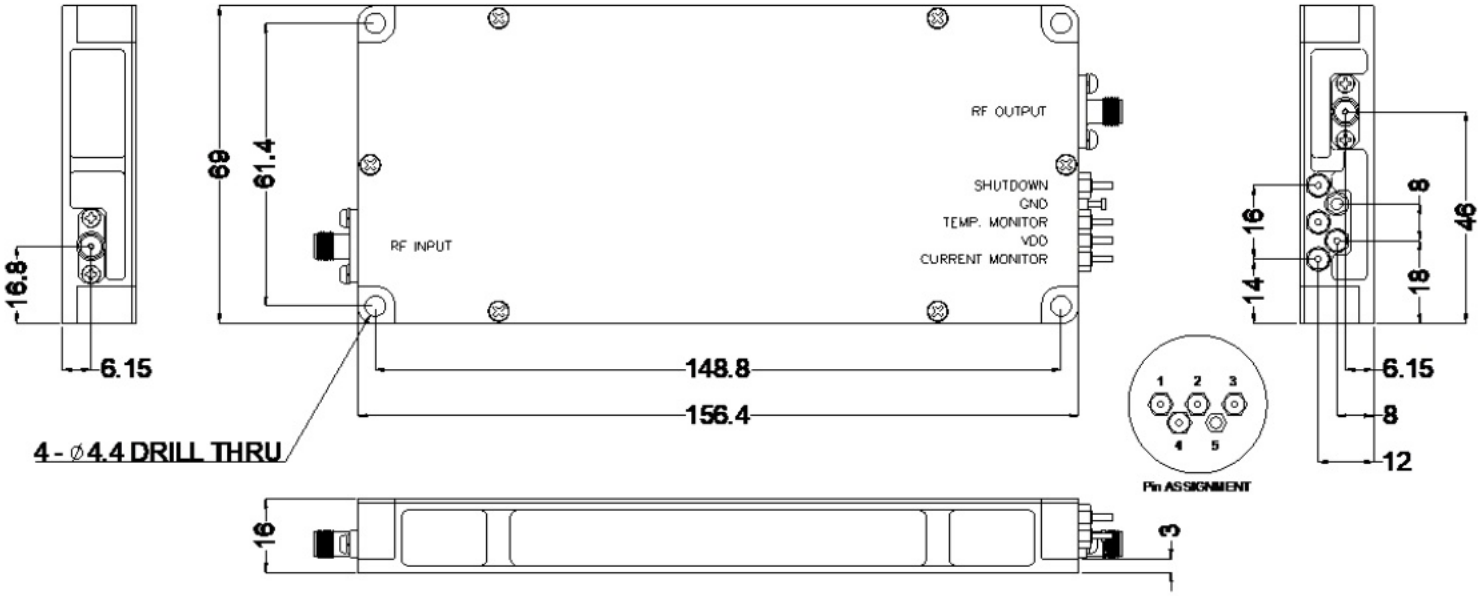
PIN ASSIGNMENT

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