HD33869
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

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



ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	20 - 2700 MHz Min	20 – 3000 MHz Typ
Power Output Psat	15 Watt Min / 20 Watt Typ	CW
Power Output @ P1dB GCP	10 Watt Typ	100 - 3000 MHz
Power Gain	44 dB Min	
Power Gain Flatness	4.0 dB p-p Max	
Input Return Loss	-10 dB Max	
2-Tone Intermodulation (IMD)	-30 dBc Typ	30dBm/Tone, Δ = 1MHz
Harmonics 2^{nd} / 3^{rd}	2^{nd} -12dBc Typ / 3^{rd} -20dBc Typ	At rated Pout
Spurious Distortions	-60 dBc Max	Non-harmonics
Operating Voltage	28 - 30 VDC	
Current Consumption	3 Amp Max	At rated Pout
Input Power Protection	+8 dBm Max	<10 Sec without damage
Load VSWR Protection	∞ : 1	<1 minute at rated Pout

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +75 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	125 x 63 x 27 mm	Excluding connectors
Weight	400 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

D-SUB CONNECTOR PIN ASSIGNMENT

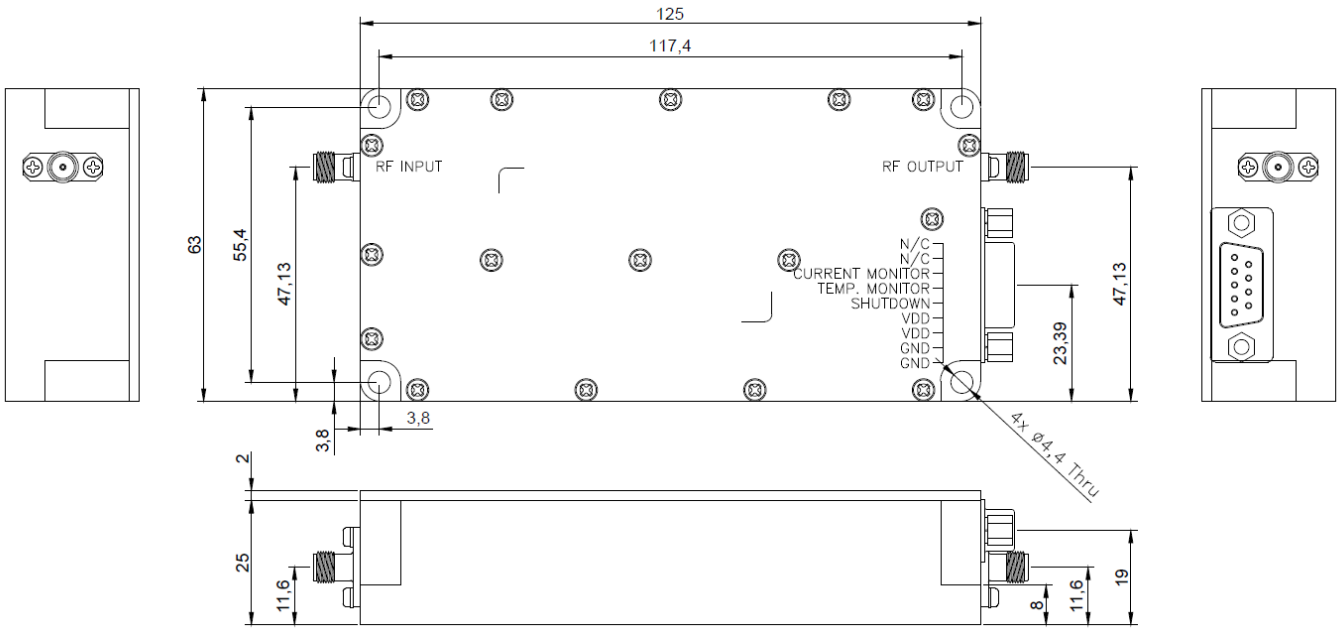
Pin	Function	Description
1	FWD	N/C
2	VVA	N/C
3	CURRENT SENSOR	I_D@50mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL “Hi” or Open; Disable = TTL “Lo” or Short
6, 7	VDD	28VDC
8, 9	GND	Ground

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OUTLINE DRAWING



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