HD31858
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

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



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	400 - 500 MHz	
Power Output @ Psat	5 Watt Typ	CW
Power Gain	37 dB Min	0dBm or less for rated Pout
Power Gain Flatness	1.0 dB p-p Max	Constant input power
Input Return Loss	-10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Max	30dBm/Tone, Δ = 1MHz
Harmonics 2^{nd}/ 3^{rd}	-30 dBc Max	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	12 VDC Nom	
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-condensation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	125 x 63 x 27 mm	Excluding connectors
Weight	380 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

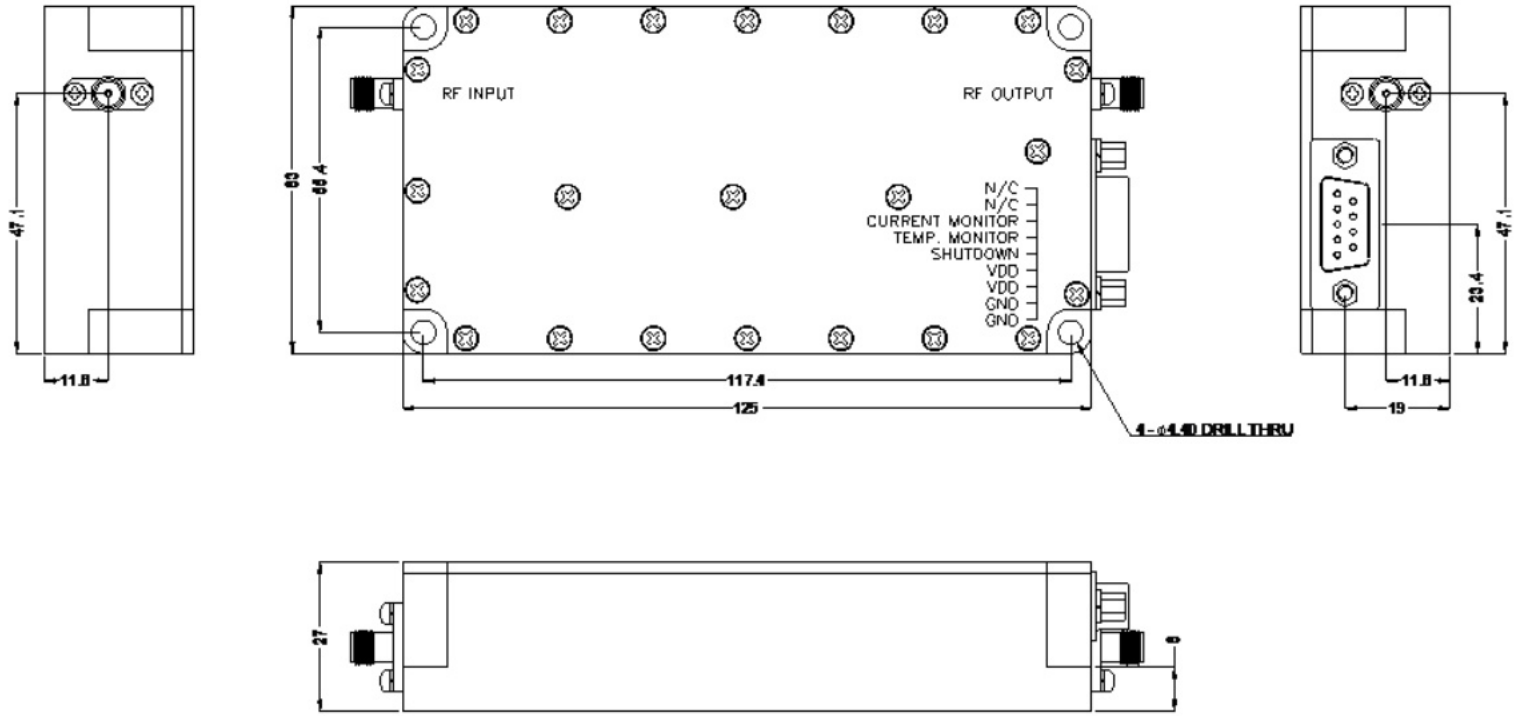
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	Option-101 (With larger housing dimensions)
2	REV	Option-102 (With larger housing dimensions)
3	CURRENT SENSOR	I_D@50mV/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	12VDC
8, 9	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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