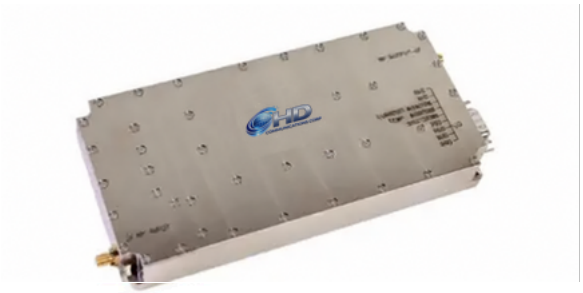
HD31513
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Designed for VHF, FM range high power applications
Class AB linear LDMOS design
Instantaneous wide bandwidth
Suitable for all single channel modulation standards
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS : 50Ω, 15°C

Parameter	Specification	Notes
Operating Frequency Range	30 - 88 MHz	
Power Output @ Psat	250 Watt Typ	CW
Power Output @ P1dB	225 Watt Min	CW
Power Gain	54 dB Typ	0dBm or less for rated Pout
Power Gain Flatness	2.0 dB p-p Max	Constant input power
Input Return Loss	-12 dB Max	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-26 dBc Typ	44 dBm/Tone, Δ = 1MHz
Harmonics 2^{nd} / 3^{rd}	-25 dBc/ -15 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Noise Figure	10 dB Typ	
Operating Voltage	50 VDC Nom	
Current Consumption	15 Amp Max	At rated Pout
Input Power Protection	+5 dBm Max	<10 Sec without damage
Load VSWR Protection	2.5 : 1 Max	<1 minute at rated Pout Optional : Load VSWR shutdown

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[1]	

1. MIL-Spec available for quotation

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	200 x 106 x 28 mm	Excluding connectors
Weight	700 gr.	Typical weight
RF Connectors In/Out	SMA female / Type-N Female	
DC Power / Interface Connector	9-Pin D-Sub	Pin assignment table
Cooling	External Heatsink	Forced air required

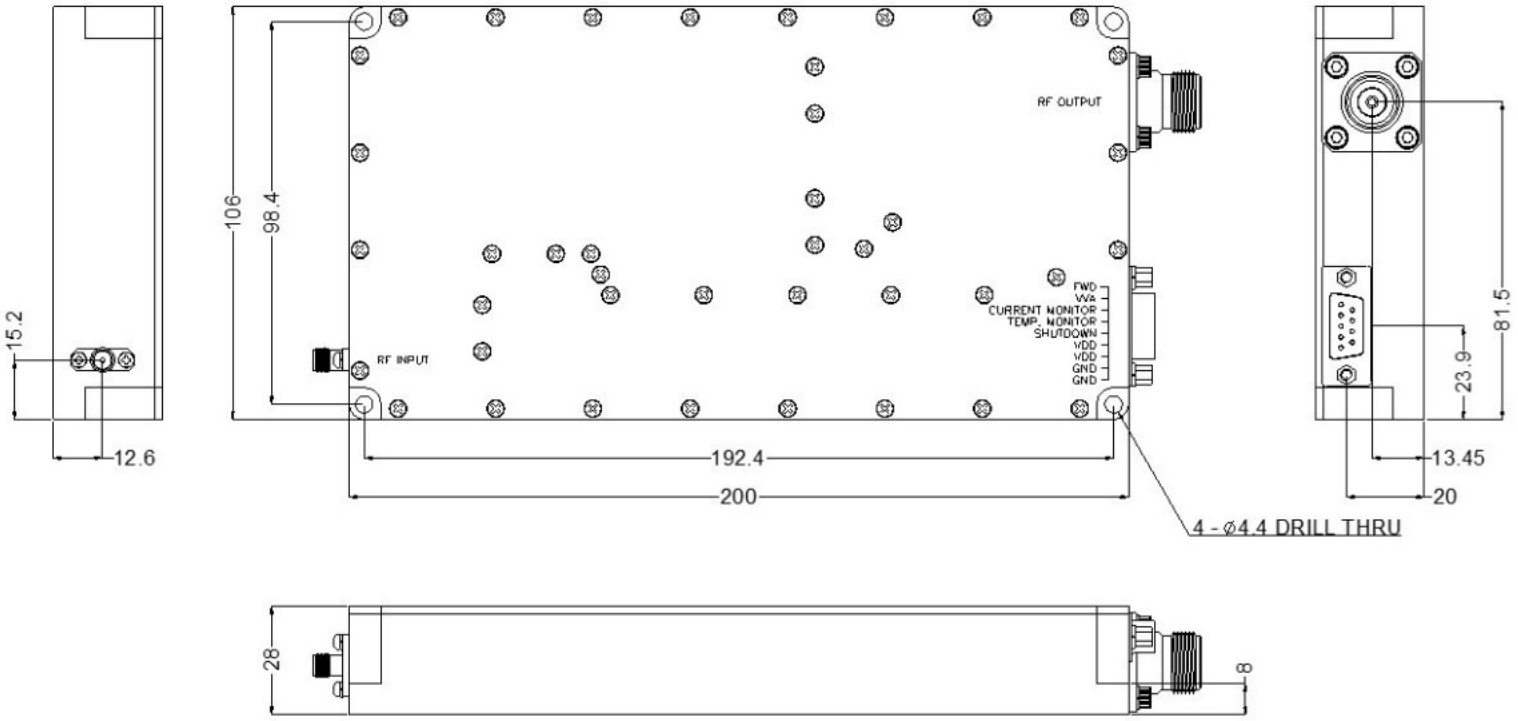
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Specifications subject to change without notice. Specifications and drawings may vary with selected options.

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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	VDD	50VDC
2	N/A	Option-103
3	VSWR alarm	VSWR tripped = TTL High (No latch / 3.3V / P_{REV} = 40W) Normal Operation = TTL Low
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL High or Open; Disable = TTL Low or Short
6, 7	VDD	50VDC
8, 9	GND	Ground

OUTLINE DRAWING



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