HD31774
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear GaN design
Instantaneous wide bandwidth
Designed for broadband EMI/RFI, Lab, Comm. and EW applications
Suitable for all single channel modulation standards
Small form factor & light weight
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	0.7 - 6.0 GHz	
Power Output @ Psat	100 Watt Min	CW
Power Output @ P1dB	60 Watt Typ	CW
Power Gain	20 - 30 dB Nom	0dBm or less for rated Pout
Power Gain Flatness	4.0 dB p-p Max	Constant input power
Input Return Loss	-10 dB Max	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	40 dBm/Tone, Δ = 1 MHz
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	24 Amp Max	At rated Pout
Input Power Protection	+37 dBm Max	<10 Sec without damage
Load VSWR Protection	5 : 1 Max	<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

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	260 x 200 x 27 mm	Excluding connectors
Weight	3.2 Kg.	
RF Connectors In/Out	SMA female / Type-N female	
DC Power / Interface Connector	9-Pin Hybrid D-Sub	9W4
Cooling	External Heatsink	Forced air required

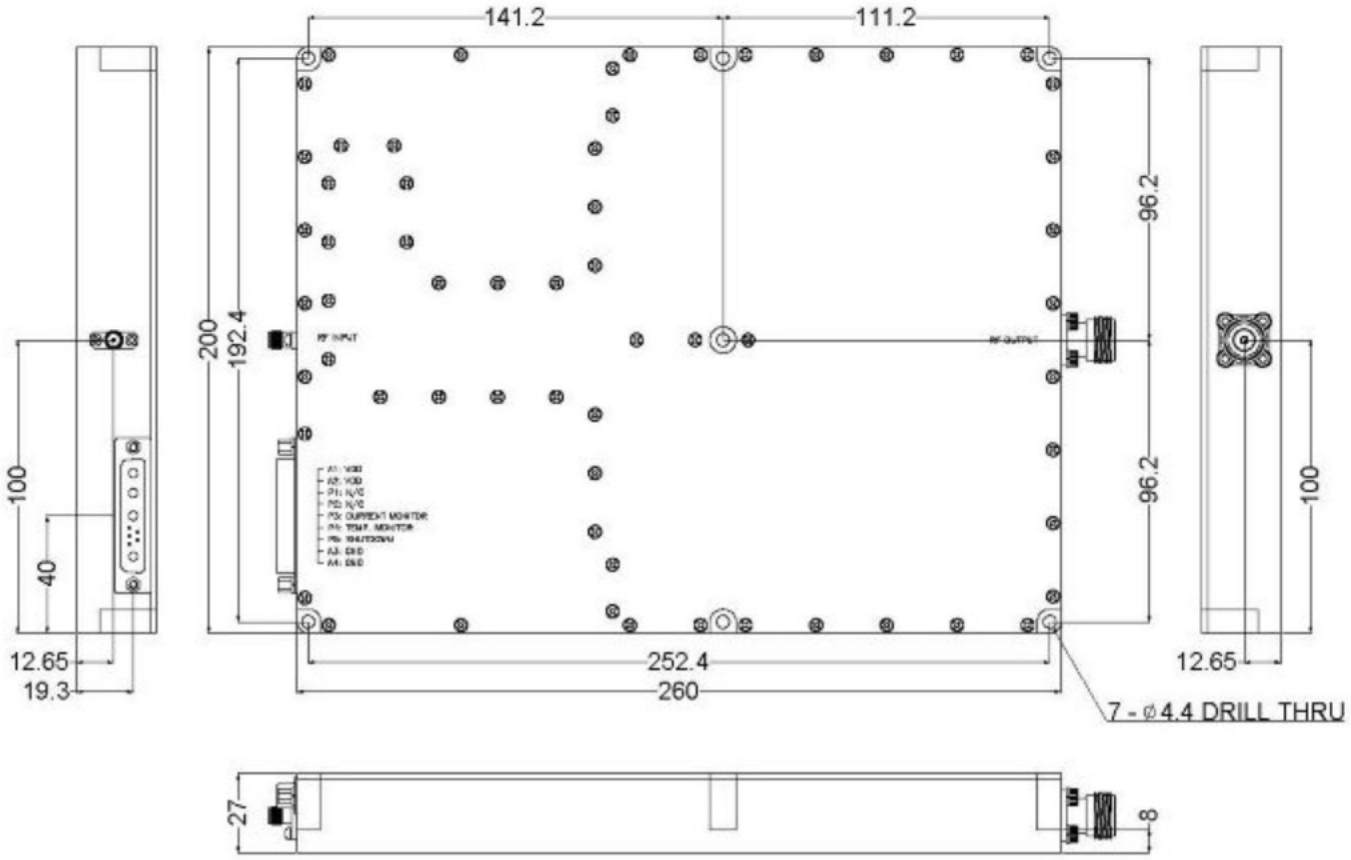
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	N/C	N/C
2	N/C	N/C
3	CURRENT SENSOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL High or Open; Disable = TTL Low or Short
A1, A2	VDD	28VDC
A3, A4	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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