HD31859
SOLID STATE HIGH POWER AMPLIFIER

HD Communications Corp.

FEATURES

Class AB linear GaN design
Instantaneous bandwidth
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	5.6 - 6.2 GHz	
Power Output @ P1dB GCP	50 Watt Min	CW
Power Gain	47 dB Min	
Power Gain Flatness	2.0 dB p-p Max	Constant input power
Input / Output Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	37 dBm/Tone, Δ = 1 MHz
Harmonics	-20 dBc Typ	At rated Pout
Non-Harmonics Spurious	-60 dBc Max	
Operating Voltage	32 VDC± Nom	
Current Consumption	18 Amp Max	At rated Pout
Max Input Power Protection	+8 dBm	10 Sec. without damage
Load VSWR Protection	∞ : 1	1 Minute @ rated output

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	230 x 106 x 27 mm 250 x 106 x 27 mm	Excluding Connectors Option 101 and 102
Weight	1.3 Kg.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

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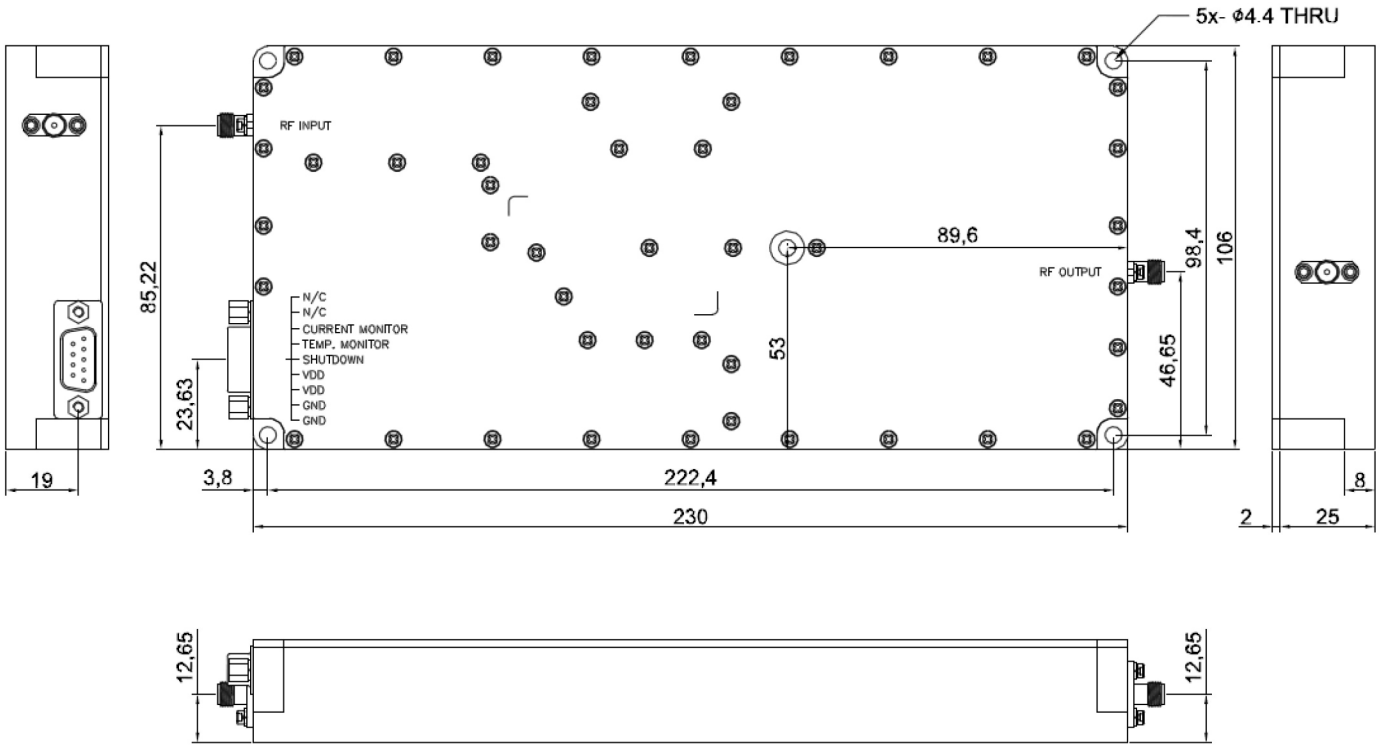
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D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	OPTION 101 - Forward power detect
2	VVA	OPTION 103 - Variable Voltage Attenuator
3	CURRENT SENSOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	TTL - Optional 5µS switching speed
6, 7	VDD	28VDC
8, 9	GND	Ground

OUTLINE DRAWING



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