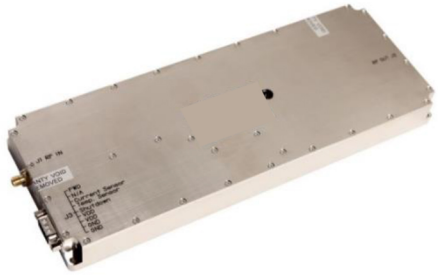
HD31853
SOLID STATE HIGH POWER AMPLIFIER

HD Communications Corp.

FEATURES

Class AB linear GaN design
Small form factor, light weight
Instantaneous bandwidth
Suitable for all single channel modulations standards
Built-in protection circuits
High reliability and ruggedness



ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	5.1 - 5.9 GHz	
Power Output Psat	90 Watt Max	CW
Power Gain	49 dB Min	
Power Gain Flatness	2.0 dB p-p Max	Constant input power
Input Return Loss	10 dB Min	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	>30 dBc	40dBm/Tone, Δ = 1MHz
Harmonics 2nd / 3rd	>20 dBc	At Rated Pout
Non Harmonics Spurious	>60 dBc	
Operating Voltage	28 VDC Nom	
Current Consumption	12 Amp Max	At rated output
Load VSWR Protection	10 : 1	<1 Minute
Enable / Disable Speed	<10 µS	

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	285 x 106 x 27 mm	Excluding Connectors
Weight	950 gr.	Max Weight
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin D-Sub	
Cooling	External Heatsink	Forced air required

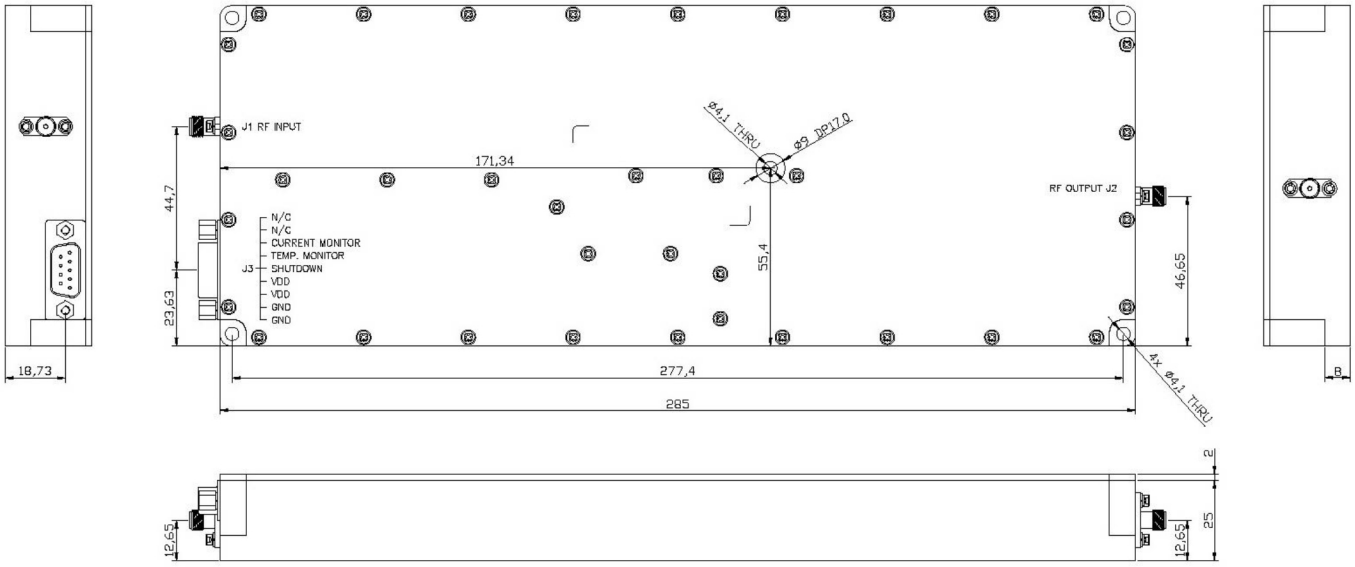
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	FWD	Option 101 - RMS detector
2	REV	Option 102 - RMS detector
3	CURRENT SENSOR	I_D@100mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = Open or TTL “Low” (0V) - Disable = TTL “High” (<3.2V)
6, 7	VDD	28VDC
8, 9	GND	Ground

332C Dante Ct. Holbrook, NY 11741 Phone: 631-588-3877 Fax: 631-648-0518
www.rfamplifiers.com www.rfcomp.com sales@hdcom.com

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OUTLINE DRAWING



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