HD31829
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear GaN design
Instantaneous ultra-wide bandwidth
High power covering the full S and C bands
Suitable for all Single channel modulation standards
Small form factor & light weight
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS: 50Ω, 25°C

Parameter	Specification	Notes
Operating Frequency Range	2.0 - 8.0 GHz	
Power Output	50 Watt Min	Pout foldback 7.5-8GHz
Power Gain	47 dB Min	
Power Gain Flatness	4.0 dB p-p Max	Constant input power
Input / Output Return Loss	-10 dB Max	Relative to 50 Ohm
2-Tone Intermodulation (IMD)	-30 dBc Typ	37 dBm/Tone, Δ = 1 MHz
Harmonics	-20 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	32 VDC Nom	
Current Consumption	10 Amp Typ / 12 Amp Max	At rated Pout / Psat
Input Power Protection	+5 dBm Max	<10 Sec Without damage
Load VSWR Protection	∞ : 1 @ any Phase & Angle	<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-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	200 x 110 x 25 mm	Excluding connectors
Weight	1.4 Kg	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9 Pin D-Sub	
Cooling	External Heatsink	Forced air required

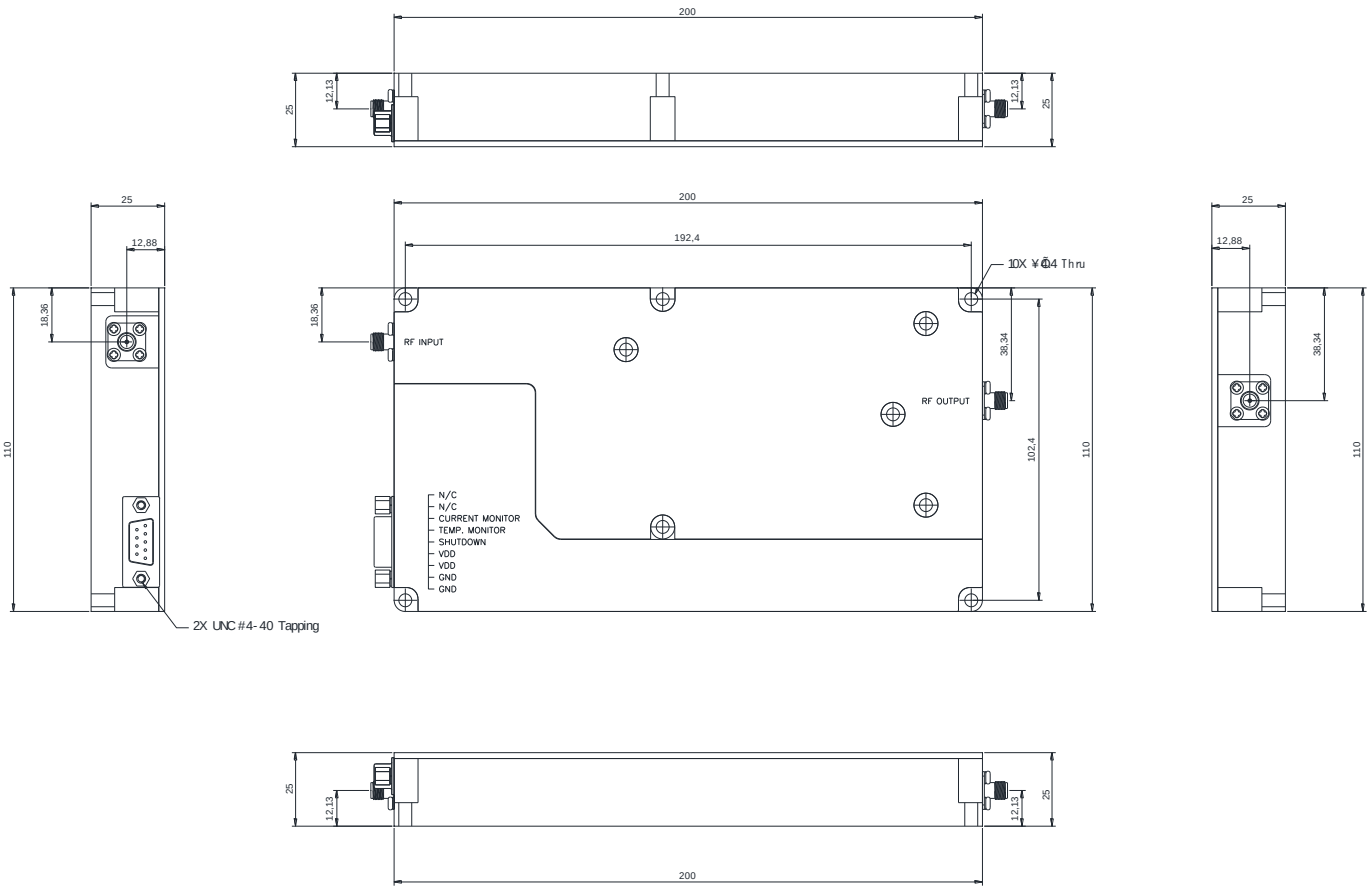
D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
1	N/C	N/C
2	VVA	N/C
3	CURRENT SENSOR	I_D@20mV/100mA Typ
4	TEMP SENSOR	V_T@10mV/°C + 500mV Typ
5	SHUTDOWN	Enable = TTL “Low” or 0V / Disable = TTL “High” (>3.2V)
6, 7	VDD	32VDC
8, 9	GND	Ground

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OUTLINE DRAWING



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