HD31811
SOLID STATE HIGH POWER AMPLIFIER

FEATURES

Class AB linear GaN design
Instantaneous wide bandwidth
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	1.0 - 2.0 GHz	2.0 - 3.2 GHz	
Power Output CW	250 Watt Min	150 Watt Min	
Power Output @ P1dB GCP	150 Watt Min	80 Watt Min	
Power Gain	54 dB Min		
Power Gain Flatness	3.0 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		43dBm/Tone, Δ = 1 MHz
Harmonics	-20 dBc Typ		At rated Pout
Spurious	-60 dBc Max		Non-harmonics
Operating Voltage	32 VDC Nom		
Current Consumption	40 Amp Max		At 250W Pout
Input Power Protection	+8 dBm Max		<10 Sec without damage
Load VSWR Protection	∞ : 1		<1 minute at rated Pout

ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Notes
Operating Case Temperature	-20 to +65 °C	
Storage Temperature	-40 to +85 °C	
Relative Humidity	5 to 95 %	Non-condensing

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	300 x 220 x 27 mm	Excluding connectors
Weight	3.5 Kg.	
RF Connectors In/Out	SMA / Type-N female	
DC Power / Interface Connector	Hybrid 9-Pin D-Sub	9W4
Cooling	External Heatsink	Forced air required

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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
A1, A2	VDD	32VDC
A3, A4	GND	Ground

OUTLINE DRAWING

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