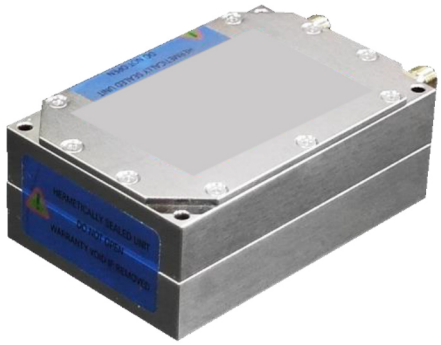
HD31968-TTL
SOLID STATE BDA POWER AMPLIFIER

FEATURES

L & S Band Bidirectional SSPA
Class AB linear GaN design
Instantaneous wide bandwidth
Suitable for all single channel modulation standards
Small form factor and light weight
Built-in protection circuits
High reliability and ruggedness



TRANSMIT ELECTRICAL SPECIFICATIONS @ 28VDC, 25°C, 50 Ohm

Parameter	Specification	Notes
Operating Frequency Range	1.0 - 2.5 GHz	
Power Output Psat	7 Watt Min / 10 Watt Typ	At nominal Pin=+5dBm
Linear Output Power	2.5 Watt. 5% EVM Nom	802.11g, 10MHz BW, 16QAM
Transmit Power Gain	35 dB Typ	
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 Typ	30dBm/Tone, Δ = 1MHz
Harmonics 2nd / 3rd	-20 dBc Typ	At rated Pout
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	24 - 32 VDC Nom	
Transmit Current Consumption	2.0 Amp Max	28VDC @ rated Pout
Max Input Power Protection	+8 dBm	<10 Sec without damage
Load VSWR Protection	∞ : 1	<1 minute at rated Pout
T/R Switching Speed	1.5 µS Max	

RECEIVE ELECTRICAL SPECIFICATIONS

LNA Gain	13 dB Typ	
Receive Current Consumption	100 mA Typ	
Receive Noise Figure	3.5 dB Typ	

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
Altitude	30,000 ft	MIL-STD-810F – Method 500.4

MECHANICAL SPECIFICATIONS

Parameter	Specification	Notes
Dimensions	3.0 x 2.0 x 1.16 mm	Excluding connectors
Weight	5.8 oz.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	9-Pin Micro D-Sub	
Cooling	External Heatsink	Forced air required

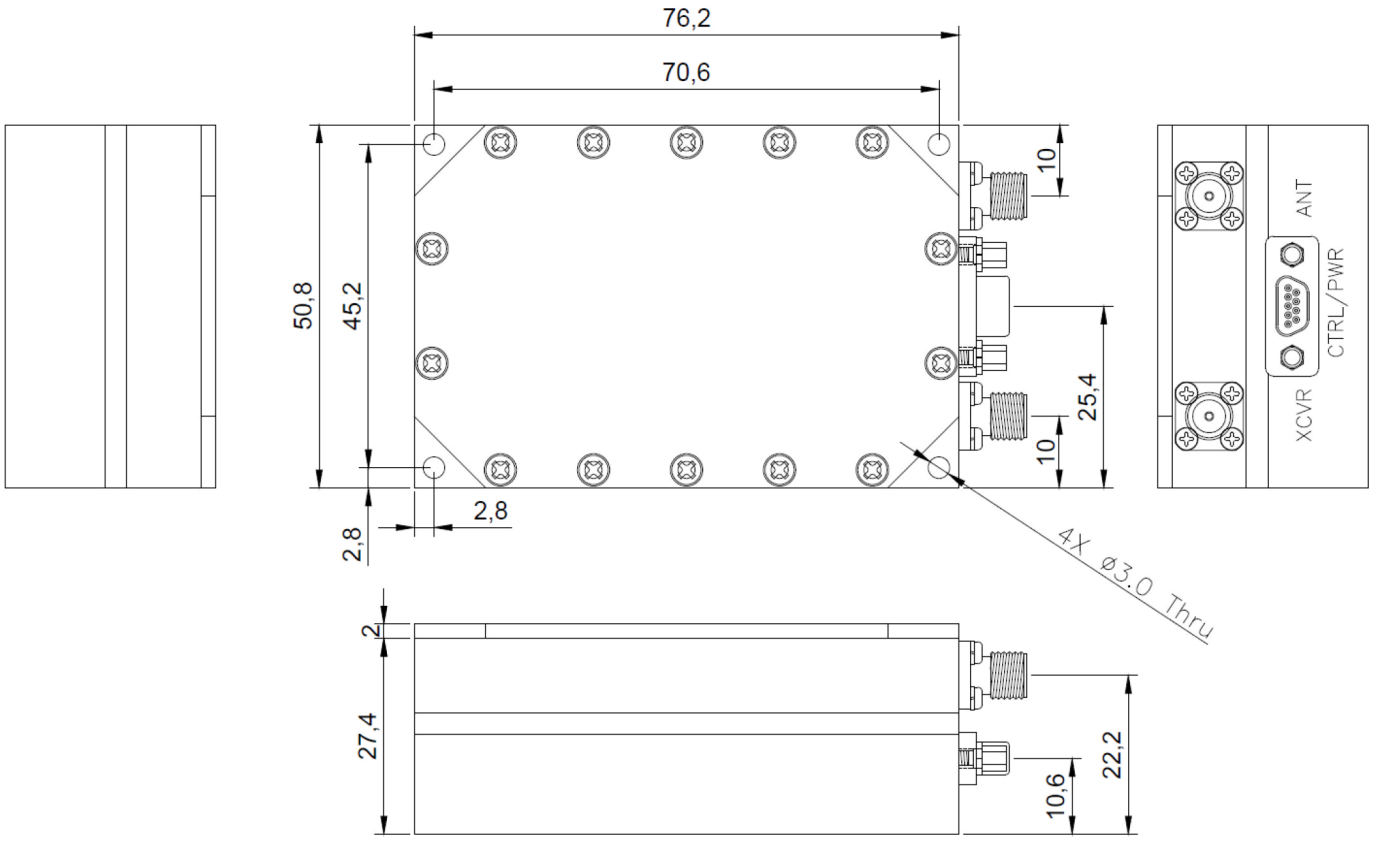
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MICRO D-SUB CONNECTOR PIN ASSIGNMENT

Pin	Function	Description
6	N/A	
7	N/A	
8	Tx/Rx Switching	TTL
1, 2, 9	VDD	24 - 32VDC
3, 4, 5	GND	Ground

OUTLINE DRAWING



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