Communications Corp.

HD31909
SOLID STATE LOW NOISE AMPLIFIER

FEATURES

Class AB linear GaN design
Low noise over ultra-wide bandwidth
Suitable for all single channel modulation standards
Built-in protection circuits
High reliability and ruggedness

ELECTRICAL SPECIFICATIONS

Parameter	Specification	Notes
Operating Frequency Range	50 - 6000 MHz	
Power Output P1dB	25 dBm Min	CW
Power Gain	25 dB Min	
Gain Flatness	3.0 dB p-p Max	
Input Return Loss	-10 dB Max	Relative to 50 Ohm
Noise Figure	3.5 dB Typ	
Harmonics 2nd / 3rd	-15 dBc / -20 dBc Typ	At rated Pout
2-Tone Intermodulation (IMD)	-30 dBc Typ	15dBm/Tone, Δ = 1MHz
Spurious	-60 dBc Max	Non-harmonics
Operating Voltage	12 VDC Nom	
Current Consumption	1 Amp Max / <0.5 Amp Typ	At rated Pout
Max Input Power Protection	+8 dBm	<10 Sec without damage
Load VSWR Protection	∞ : 1	<1 minute at rated Pout

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	60 x 50 x 27 mm	Excluding connectors
Weight	160 gr.	
RF Connectors In/Out	SMA female	
DC Power / Interface Connector	Feed-Thru	
Cooling	External Heatsink	Forced air required

FEED THRU PIN ASSIGNMENT

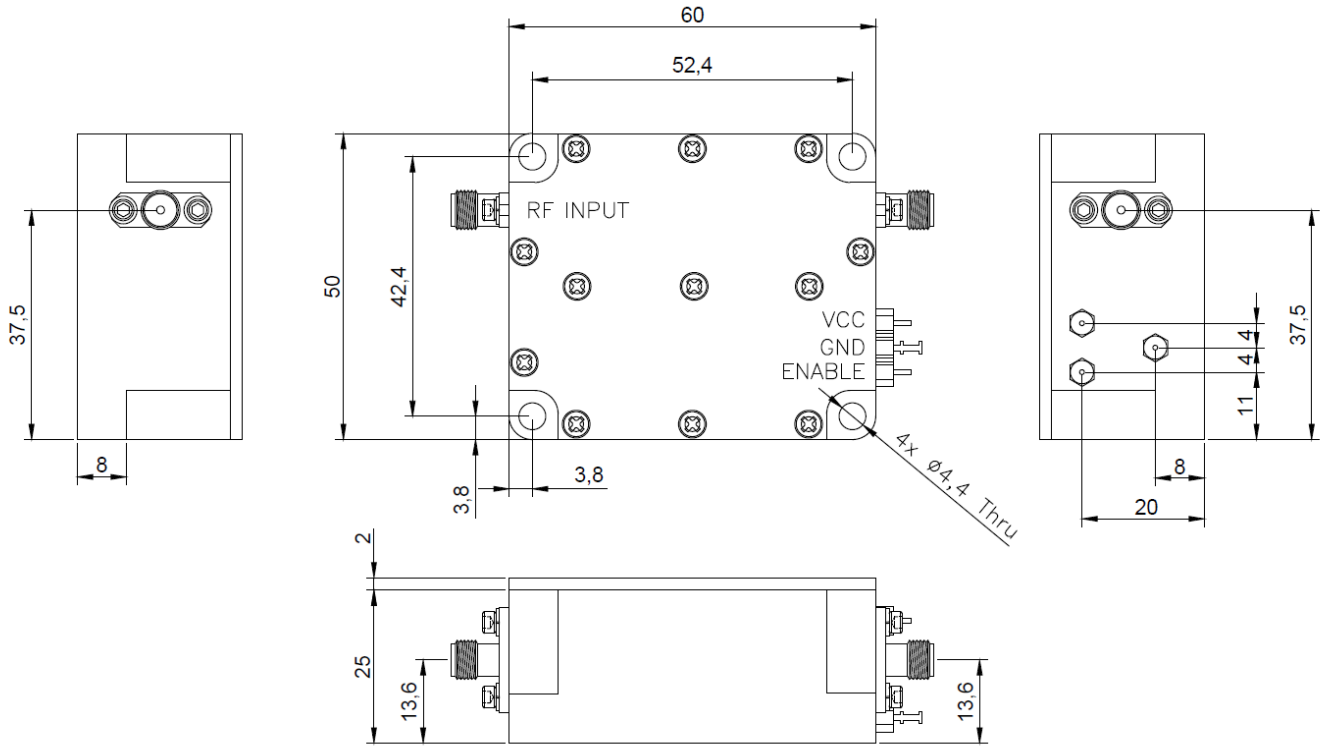
Pin	Function	Description
1	SHUTDOWN	TTL
2	VDD	12VDC
3	GND	Ground

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OUTLINE DRAWING



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