Coaxial

Low Noise Amplifier (LNA) with Integrated Bias Tee LNA50M4GBT

50Ω Wideband 50 to 4000 MHz

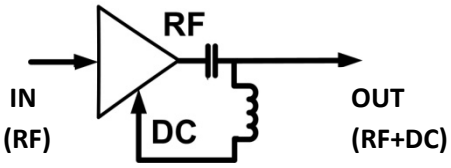
Case PN: 6UDD2W6S1P2

Features:

* Frequency Range: 50 MHz to 4 GHz;
* Noise Figure: 0.8 dB @ 900 MHz, typical <1dB
* Gain: 18 dB Gain at 900MGHz
* Output P1dB: +22 dBm CW
* Output IP3: +33 dBm
* DC Voltage: +3 to +5V
* Operating Current: 54 mA
* Stainless Steel SMA Female Connector
* High Quality Isola-Tera RF PCB
(very low loss and high thermal performance)
* ROHS Compliant

Applications:

* Repeaters/DAS
* Mobile Infrastructure
* LTE/WCDMA/CDMA/GSM
* General Purpose Wireless
* SDR & Ham Radio
* Test Instrumentation



Product Overview:

LNA50M4GBT is a high-linearity, low noise amplifier designed for operation from 50MHz to 4GHz in a small 15/16”x15/16”x0.48” shielded RF enclosure (PN: 6UDD2W6S1P2). At 900 MHz, the amplifier typically provides 18 dB gain, +33 dBm OIP3 at a 54 mA bias setting, and 0.8 dB noise figure. The LNA can be biased from a single supply +3V to +5V. The DC power is fed through output SMA connector. It combines Bias Tee and LNA in one with DC Power via RF output port.

Electrical Specifications:

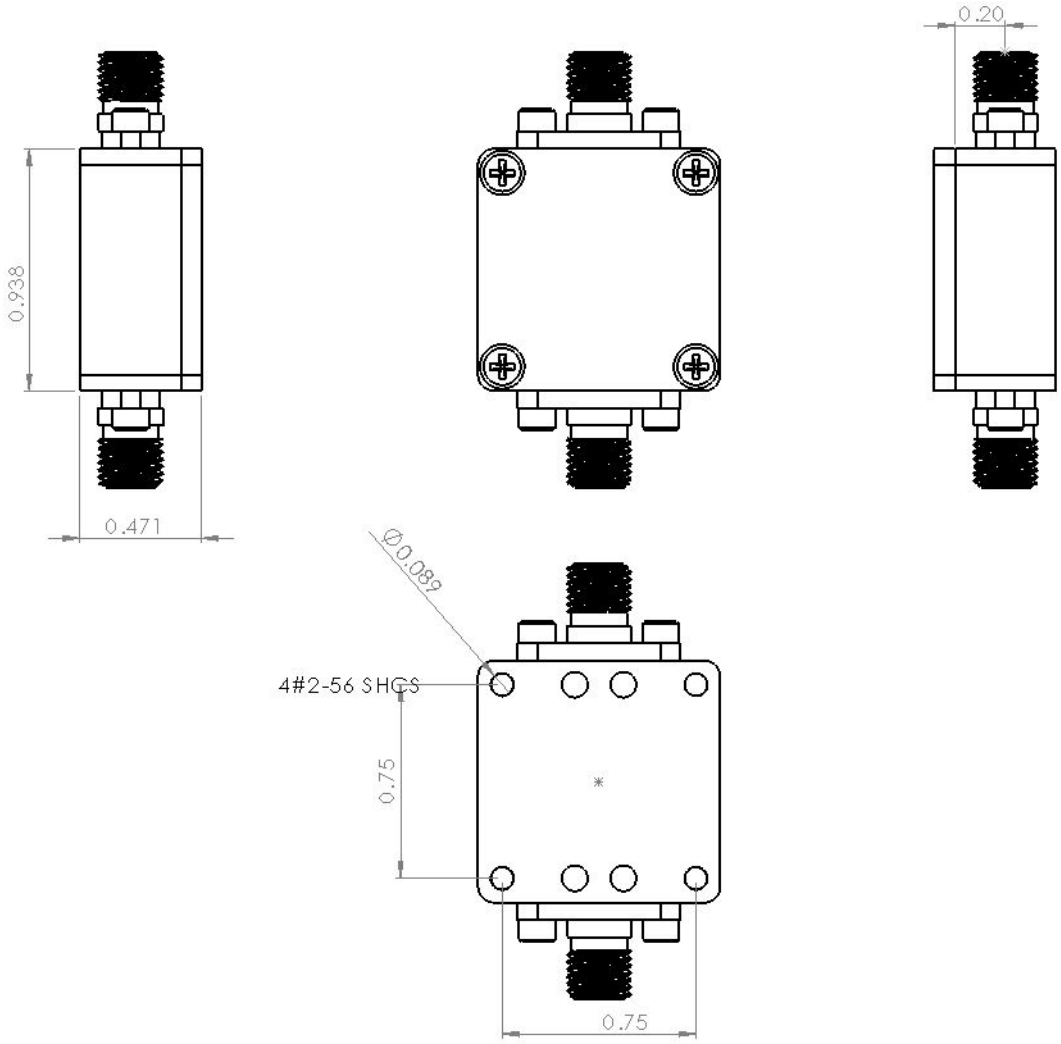
Item	Parameter	Condition	Electrical Specification			
			MIN	TYP	MAX	UNITS
1	Small Signal Power Gain	0.9 GHz	16.7	18.2	19.7	dB
		1.9 GHz	11.4	12.9	14.4	dB
2	Output Power at 1dB Compression	0.9 GHz	17.4	22.6		dBm
		1.9 GHz		22.7		dBm
3	Output Third Order Intercept Point	0.9 GHz	30.0	33.0		dBm
		1.9 GHz		35.0		dBm
4	Noise Figure	0.9 GHz		0.8	1.0	dB
		1.9 GHz		0.8		dB
5	Input Return Loss	0.9 GHz	13.0	16.0		dB
		1.9 GHz		17.5		dB
6	Output Return Loss	0.9 GHz	14.5	17.5		
		1.9 GHz		16.5		
7	Reverse Isolation	0.9 GHz		23.5		
		1.9 GHz		19.0		
8	Operating Voltage			5	5.25	V
9	Operating Current (Quiescent)		28	46	54	mA

Test Conditions: V=5V, I = 46mA

Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	Max Device Current	100	mA
2	Max Device Voltage	5.5	V
3	Max RF input Power	25	dBm
4	Max Dissipated Power	330	mW
5	Operating Temp.	-40 to +85	ºC
6	Max Storage Temp.	-65 to +150	ºC

Outline Drawing (inch)



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