



Low Noise Amplifier

Model: LNA24G44G-4050

24-44GHz 40dB, Gain 5.0dB, NF

Ultrabroad frequency range, high small signal gain, low noise figure and good gain flatness

Features:

- Frequency range: 24-44GHz
- Small Signal Gain: 40dB typ.
- Output P1dB: 21dBm typ.
- Noise Figure: 5.0dB typ.
- Operating voltage/current: +12 VDC/750mA.
- Simple 220V system available SAC option.
- 50 Ohm Matched Input / Output.

Applications:

- Laboratory Applications
- R&D Labs
- Radar Systems
- ISM
- Test Instrumentation

Product Overview:

The LNA24G44G-4050 is a coaxial low noise operating in the 24 to 44 GHz frequency range. The amplifier offers a typical noise figure of 5.0 dB, 21 dBm typical of output P1dB and a typical small signal gain of 40 dB with the excellent gain flatness of ± 3.0 dB nominal. The DC power requirement for the amplifier is +12 VDC/750 mA. The input and output port configuration offers coax adapter structure with 2.4mm female.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	24		44	GHz
Small Signal Gain	38	40		dB
Small Signal Gain Flatness		±3.0	±4.0	dB
Noise Figure		5	6	dB
Output P1dB	20	21		dBm
Output Psat		22		dBm
Spurious		-60		dBc
Output IP3		30		dBm
Input VSWR		1.8	2.5	:1
Output VSWR		1.8	2.5	:1
DC Voltage		+12		V DC
DC Supply Current		750		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature	-40°C to +70°C	
Non-operating Temperature	-55°C to +85°C	
Relative humidity	95	%
RF Input/Output Connector	2.4mm Female/2.4mm Female	
DC Bias	Solder Pin	
Altitude	10,000	feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H x D	35.3 x 40.3 x 12	mm
Weight	50	g

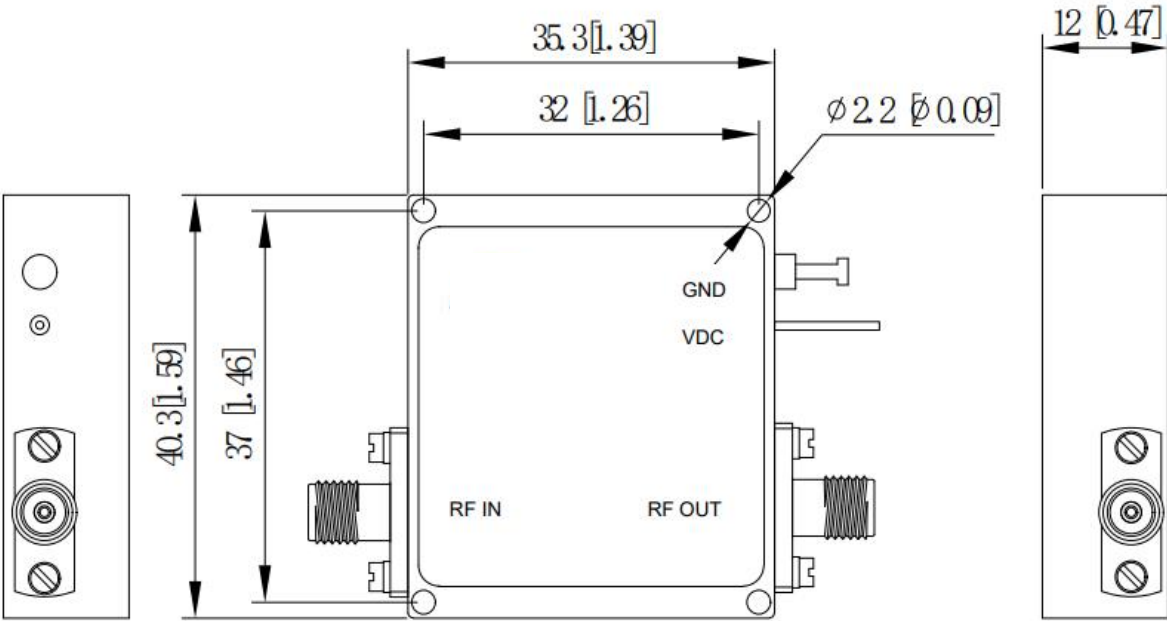


Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+18 V
RF Input Power	-5 dBm
ESD sensitivity (Hbm)	Class 0, passed 150V

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Ordering Information:

Base Number	Description	Optional
LNA24G44G-4050	Low Noise Amplifier, 24-44GHz, Gain:40dB,Noise Figure:5.0dB,P1dB:21dBm,+12V DC	Without Heatsink
LNA24G44G-4050-HS	Low Noise Amplifier, 24-44GHz, Gain:40dB,Noise Figure:5.0dB,P1dB:21dBm,+12V DC	With Heatsink