



Low Noise Amplifier

Model: LNA0.4G50G-4060

0.4-50GHz 40dB, Gain 6.0dB, NF

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

Features:

- Frequency range: 0.4-50GHz
- Small Signal Gain: 40dB typ.
- Output P1dB: 18dBm typ.
- Noise Figure: 6.0dB typ.
- Operating voltage/current: +12 VDC/500mA.
- 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 LNA0.4G50G-4060 is a coaxial low noise operating in the 0.4 to 50 GHz frequency range. The amplifier offers a typical noise figure of 6.0 dB, 18 dBm typical of output P1dB and a typical small signal gain of 40 dB with the excellent gain flatness of ± 2.5 dB nominal. The DC power requirement for the amplifier is +12 VDC/500 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	0.4		60	GHz
Small Signal Gain		40		dB
Small Signal Gain flatness		±2.5	±4	dB
Noise Figure		6		dB
Output P1dB		18		dBm
Output IP3		21		dBm
Spurious		-60		dBc
Input VSWR		2	2.5	:1
Output VSWR		2	2.5	:1
DC Voltage	+8	+12		V DC
DC Supply Current		500		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	48	g

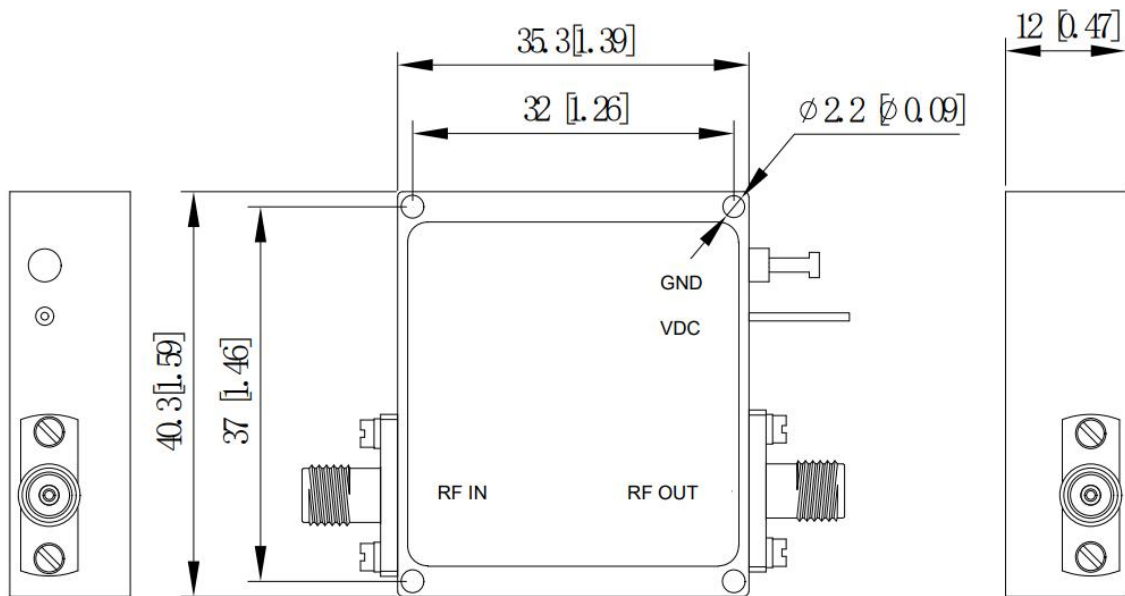
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	-15 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Ordering Information:

Base Number	Description	Optional
LNA0.4G50G-4060	Low Noise Amplifier, 0.4-50GHz, Gain:40dB,Noise Figure:6.0dB,P1dB:18dBm,+12V DC	Without Heatsink
LNA0.4G50G-4060-HS	Low Noise Amplifier, 0.4-50GHz, Gain:40dB,Noise Figure:6.0dB,P1dB:18dBm,+12V DC	With Heatsink