



Low Noise Amplifier

Model: LNA37G42G-2050

37-42GHz 20dB, Gain 5.0dB, NF

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

Features:

- Frequency range: 37-42GHz
- Small Signal Gain: 20dB min.
- Output P1dB: 15dBm min.
- Noise Figure: 5.0dB max.
- 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 LNA37G42G-2050 is a coaxial low noise operating in the 37 to 42 GHz frequency range. The amplifier offers a maximum noise figure of 5.0 dB, 15 dBm minimum of output P1dB and a minimum small signal gain of 20 dB. 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	37		42	GHz
Small Signal Gain	20			dB
Noise Figure			5	dB
Output P1dB	15			dBm
Spurious			-50	dBc
Input VSWR		2	2.5	:1
Output VSWR		2	2.5	:1
DC Voltage		+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	60 x 65 x 11	mm
Weight	200	g

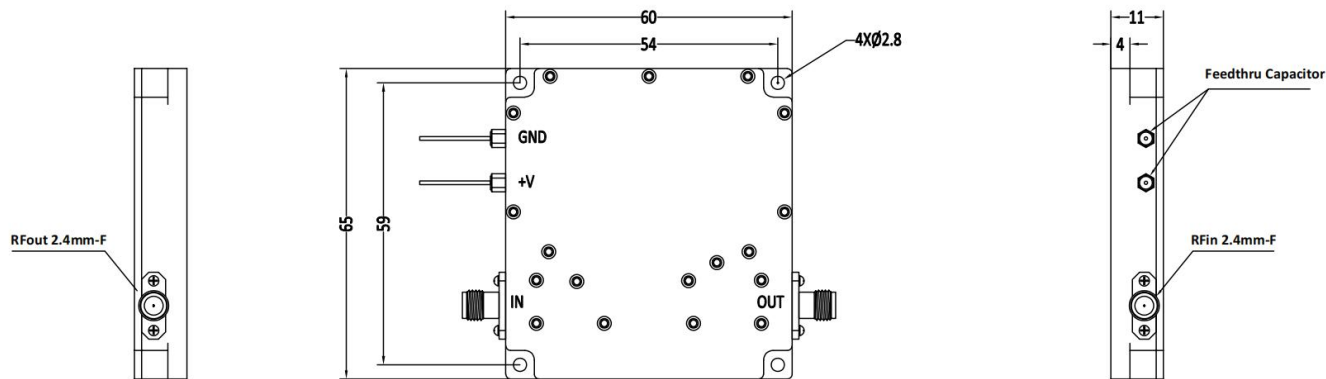
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Ordering Information:

Base Number	Description	Optional
LNA37G42G-2050	Low Noise Amplifier, 37-42GHz, Gain:20dB,Noise Figure:5.0dB,P1dB:15dBm,+12V DC	Without Heatsink
LNA37G42G-2050-HS	Low Noise Amplifier, 37-42GHz, Gain:20dB,Noise Figure:5.0dB,P1dB:15dBm,+12V DC	With Heatsink