



Low Noise Amplifier

Model: LNA1G40G-4240

1-40GHz 42dB, Gain 4.0dB, NF

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

Features:

- Frequency range: 1-40GHz
- Small Signal Gain: 42dB typ.
- Output P1dB: 18dBm typ.
- Noise Figure: 4.0dB typ.
- Operating voltage/current: +12 VDC/420mA.
- 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 LNA1G40G-4240 is a coaxial low noise operating in the 1 to 40 GHz frequency range. The amplifier offers a typical noise figure of 4.0 dB, 18 dBm typical of output P1dB and a typical small signal gain of 42 dB with the excellent gain flatness of ± 3.5 dB nominal. The DC power requirement for the amplifier is +12 VDC/420 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.



Electrical Specifications at 25°C:

Parameter		Min	Typ	Max	Units
Frequency range		1		40	GHz
Small Signal Gain		40	42		dB
Small Signal Gain Flatness			±3.5		dB
Noise Figure			4	5	dB
Output P1dB	@1~30GHz		18		dBm
	@30~40GHz		16		dBm
Input VSWR			1.8		:1
Output VSWR			1.8		:1
DC Voltage		+9	+12	+16	V DC
DC Supply Current			420		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	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Shell Material	Aluminum	feet
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	50 x 60 x 12	mm

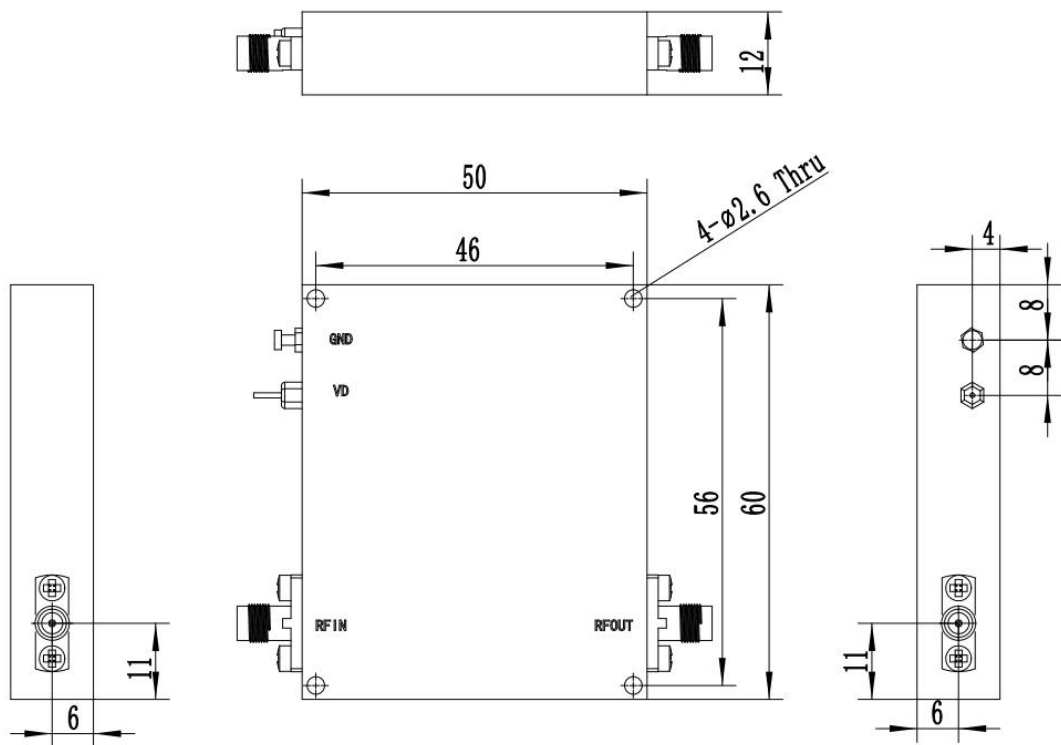
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+16 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
LNA1G40G-4240	Low Noise Amplifier, 1-40GHz, Gain:42dB,Noise Figure:4.0dB,P1dB:18dBm,+12V DC	Without Heatsink
LNA1G40G-4240-HS	Low Noise Amplifier, 1-40GHz, Gain:42dB,Noise Figure:4.0dB,P1dB:18dBm,+12V DC	With Heatsink