



Low Noise Amplifier

Model: LNA8G40G-2745

8-40GHz 27dB, Gain 4.5dB, NF

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

Features:

- Frequency range: 8-40GHz
- small Signal Gain: 27dB typ.
- Output P1dB: 16dBm typ.
- Noise Figure: 4.5dB typ.
- Operating voltage/current: +12 VDC/270mA.
- 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 LNA8G40G-2745 is a coaxial low noise operating in the 8 to 40 GHz frequency range. The amplifier offers a typical noise figure of 4.5 dB, 16 dBm typical of output P1dB and a typical small signal gain of 27 dB. The DC power requirement for the amplifier is +12 VDC/270 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	8		40	GHz
Small Signal Gain	25	27		dB
Noise Figure		4.5		dB
Output P1dB	15.5	16		dBm
Output Psat		18		dBm
Spurious		-40		dBc
Input VSWR		2	2.4	:1
Output VSWR		2	2.4	:1
DC Voltage	+11	+12	+13	V DC
DC Supply Current		270		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/2.92mmFemale	
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	44 x 36 x 12	mm

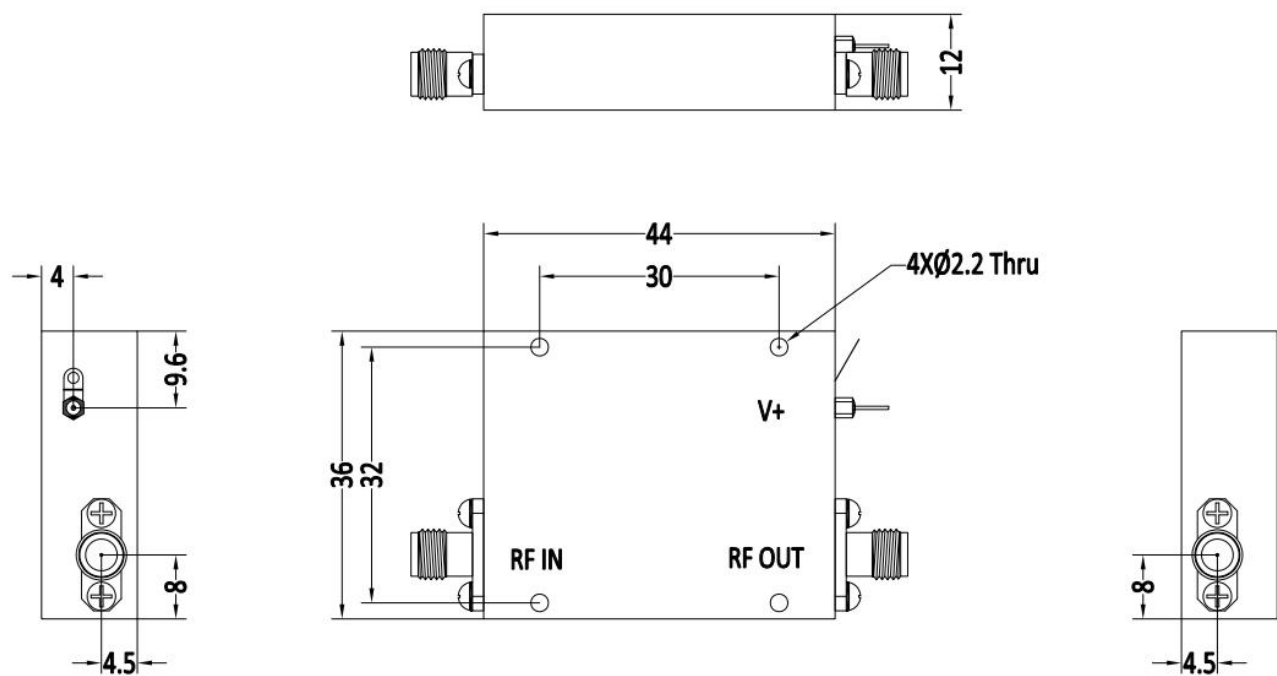
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+13 V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Ordering Information:

Base Number	Description	Optional
LNA8G40G-2745	Low Noise Amplifier, 8-40GHz, Gain:27dB,Noise Figure:4.5dB,P1dB:16dBm,+12V DC	Without Heatsink
LNA8G40G-2745-HS	Low Noise Amplifier, 8-40GHz, Gain:27dB,Noise Figure:4.5dB,P1dB:16dBm,+12V DC	With Heatsink