



Low Noise Amplifier

Model: LNA1G40G-1550

1-40GHz 15dB, Gain 5.0dB, NF

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

Features:

- Frequency range: 1-40GHz
- Small Signal Gain: 15dB typ.
- Output P1dB: 19dBm typ.
- Noise Figure: 5.0dB typ.
- Operating voltage/current: +12 VDC/280mA.
- 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-1550 is a coaxial low noise operating in the 1 to 40 GHz frequency range. The amplifier offers a typical noise figure of 5.0 dB, 19 dBm typical of output P1dB and a typical small signal gain of 15 dB with the excellent gain flatness of ± 1.5 dB nominal. The DC power requirement for the amplifier is +12 VDC/280 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	14	15		dB
Small Signal Gain Flatness		±1.5		dB
Noise Figure		5	6	dB
Output P1dB	18	19		dBm
Output IP3		30		dBm
Input VSWR		1.4	1.9	:1
Output VSWR		1.4	1.9	:1
DC Voltage		+12		V DC
DC Supply Current		280		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	
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	30 x 30 x 8	mm

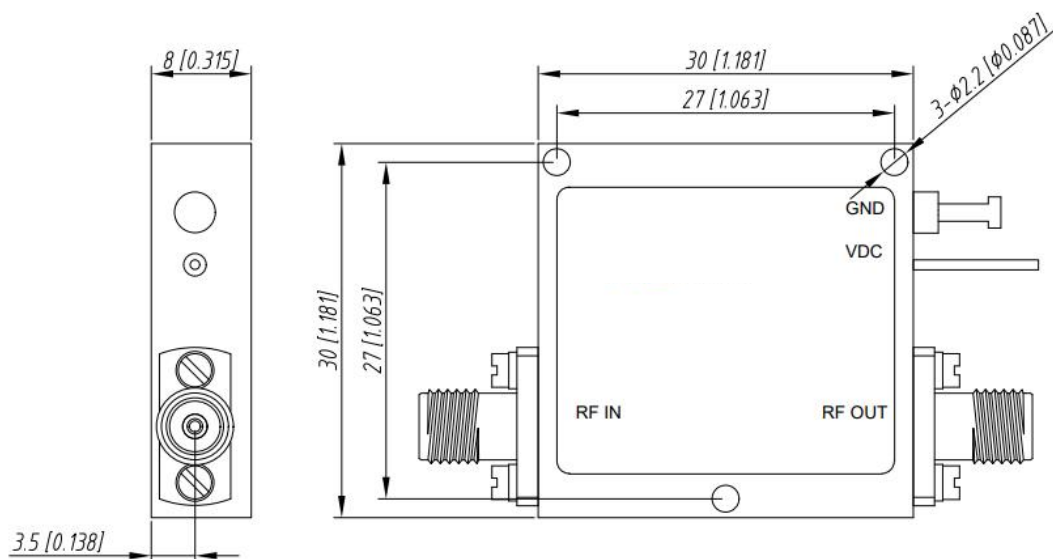
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
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-1550	Low Noise Amplifier, 1-40GHz, Gain:15dB,Noise Figure:5.0dB,P1dB:19dBm,+12V DC	Without Heatsink
LNA1G40G-1550-HS	Low Noise Amplifier, 1-40GHz, Gain:15dB,Noise Figure:5.0dB,P1dB:19dBm,+12V DC	With Heatsink