



Low Noise Amplifier

Model: LNA0.1G2.5G-3020

0.1-2.5GHz 30dB, Gain 2.0dB, NF

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

Features:

- Frequency range: 0.1-2.5GHz
- Small Signal Gain: 30dB min.
- Output P1dB: 16dBm typ.
- Noise Figure: 2.0dB typ.
- Operating voltage/current: +5 VDC/60mA.
- 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 LNA0.1G2.5G-3020 is a coaxial low noise operating in the 0.1 to 2.5 GHz frequency range. The amplifier offers a typical noise figure of 2.0 dB, 16 dBm typical of output P1dB and a minimum small signal gain of 30 dB with the excellent gain flatness of ± 0.8 dB nominal. The DC power requirement for the amplifier is +5 VDC/60 mA. The input and output port configuration offers coax adapter structure with SMA female.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	0.1		2.5	GHz
Small Signal Gain	30			dB
Small Signal Gain flatness		±0.8		dB
Noise Figure		2		dB
Output P1dB		16		dBm
Output IP3		25		dBm
Input VSWR		1.5		:1
Output VSWR		2		:1
DC Voltage		+5	+8	V DC
DC Supply Current		60		mA
Impedance		50		Ohms

*Performance may degrade below 300 MHz. Please refer to below typical test plots

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	SMA Female/SMA 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	20 x 28 x 10	mm

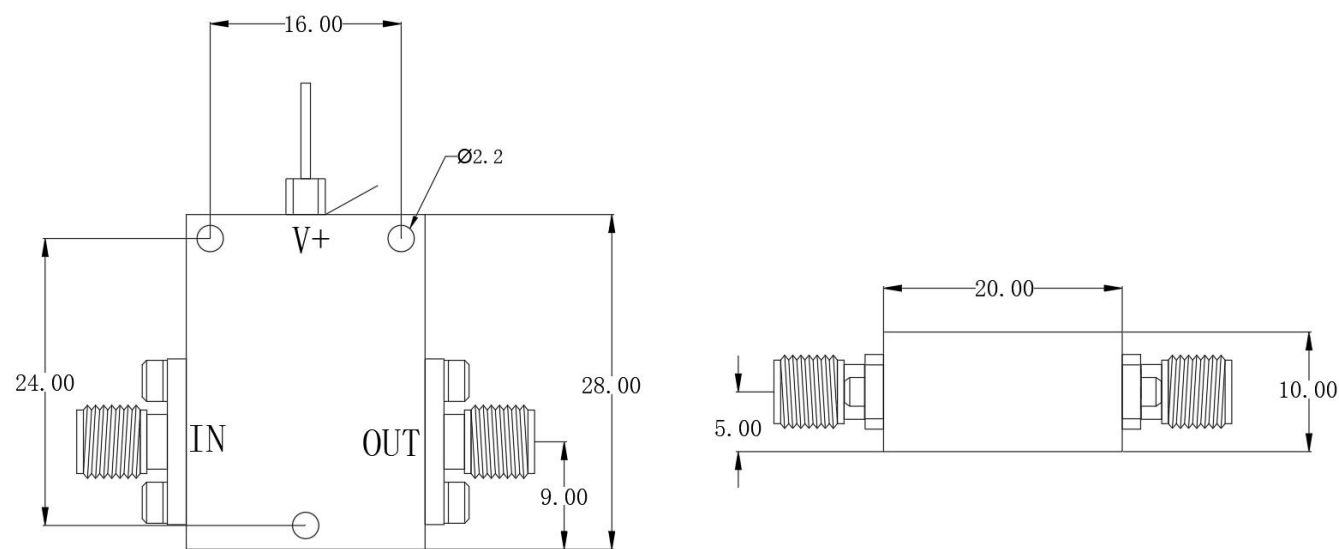
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+8 V
RF Input Power	-6 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Ordering Information:

Base Number	Description	Optional
LNA0.1G2.5G-3020	Low Noise Amplifier, 0.1-2.5GHz, Gain:30dB,Noise Figure:2.0dB,P1dB:16dBm,+5V DC	Without Heatsink
LNA0.1G2.5G-3020-HS	Low Noise Amplifier, 0.1-2.5GHz, Gain:30dB,Noise Figure:2.0dB,P1dB:16dBm,+5V DC	With Heatsink