



Low Noise Amplifier

Model: LNA12G18G-2411

12-18GHz 24dB, Gain 1.1dB, NF

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

Features:

- Frequency range: 12-18GHz
- Small Signal Gain: 24dB typ.
- Output P1dB: 13dBm typ.
- Noise Figure: 1.1dB typ.
- Operating voltage/current: +8 VDC/35mA.
- 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 LNA12G18G-2411 is a coaxial low noise operating in the 12 to 18 GHz frequency range. The amplifier offers a typical noise figure of 1.1 dB, 13 dBm typical of output P1dB and a typical small signal gain of 24 dB with the excellent gain flatness of ± 1.6 dB nominal. The DC power requirement for the amplifier is +8 VDC/35 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	12		18	GHz
Small Signal Gain	20	24		dB
Small Signal Gain Flatness		±1.6	±2	dB
Noise Figure		1.1	1.6	dB
Output P1dB	10	13		dBm
Output Psat		14		dBm
Input VSWR		1.8	2.0	:1
Output VSWR		1.8	2.0	:1
DC Voltage	+5	+8	+12	V DC
DC Supply Current		35		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	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

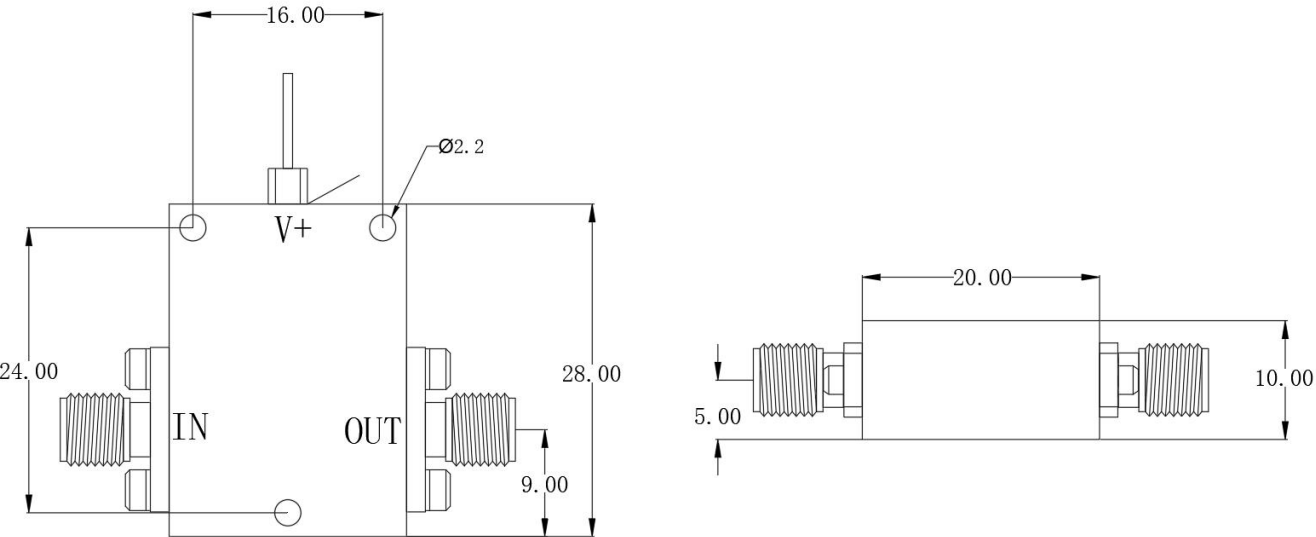
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+12 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
LNA12G18G-2411	Low Noise Amplifier, 12-18GHz, Gain:24dB,Noise Figure:1.1dB,P1dB:13dBm,+8V DC	Without Heatsink
LNA12G18G-2411-HS	Low Noise Amplifier, 12-18GHz, Gain:24dB,Noise Figure:1.1dB,P1dB:13dBm,+8V DC	With Heatsink