



Low Noise Amplifier

Model: LNA11.75G12.75G-3513

11.75-12.75GHz 35dB, Gain 1.3dB, NF

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

Features:

- Frequency range: 11.75-12.75GHz
- Small Signal Gain: 35dB min.
- Output P1dB: 15dBm min.
- Noise Figure: 1.3dB max.
- Operating voltage/current: +12 VDC/100mA.
- 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 LNA11.75G12.75G-3513 is a coaxial low noise operating in the 11.75 to 12.75 GHz frequency range. The amplifier offers a maximum noise figure of 1.3 dB, 15 dBm minimum of output P1dB and a minimum small signal gain of 35 dB with the excellent gain flatness of ± 1 dB nominal. The DC power requirement for the amplifier is +12 VDC/100 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	11.75		12.75	GHz
Small Signal Gain	35	36		dB
Small Signal Gain Flatness		±1		dB
Noise Figure		1	1.3	dB
Output P1dB	15			dBm
Input VSWR		1.8	2	:1
Output VSWR		1.8	2	:1
DC Voltage		+12		V DC
DC Supply Current		100		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	44.8 x 29.2 x 11	mm
Weight	55	g

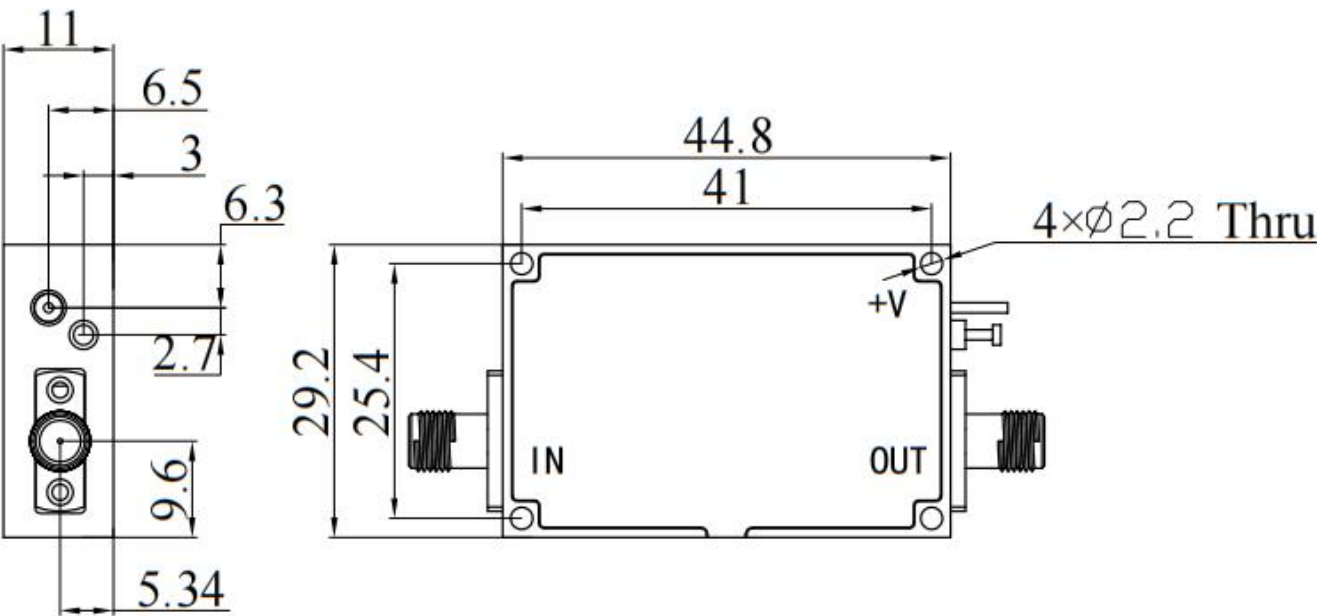
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+15 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Ordering Information:

Base Number	Description	Optional
LNA11.75G12.75G-3513	Low Noise Amplifier, 11.75-12.75GHz, Gain:35dB,Noise Figure:1.3dB,P1dB:15dBm,+12V DC	Without Heatsink
LNA11.75G12.75G-3513- HS	Low Noise Amplifier, 11.75-12.75GHz, Gain:35dB,Noise Figure:1.3dB,P1dB:15dBm,+12V DC	With Heatsink