



Low Noise Amplifier

Model: LNA6G12G-5020

6-12GHz 50dB, Gain 2.0dB, NF

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

Features:

- Frequency range: 6-12GHz
- Small Signal Gain: 50dB min.
- Output P1dB: 10dBm min.
- Noise Figure: 2.0dB 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 LNA6G12G-5020 is a coaxial low noise operating in the 6 to 12 GHz frequency range. The amplifier offers a maximum noise figure of 2.0 dB, 10 dBm minimum of output P1dB and a minimum small signal gain of 50 dB with the excellent gain flatness of ± 2.0 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	6		12	GHz
Small Signal Gain	50			dB
Small Signal Gain Flatness		±2.0		dB
Noise Figure			2	dB
Output P1dB	10			dBm
Input VSWR			2	:1
Output VSWR			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 23.2 x 11	mm

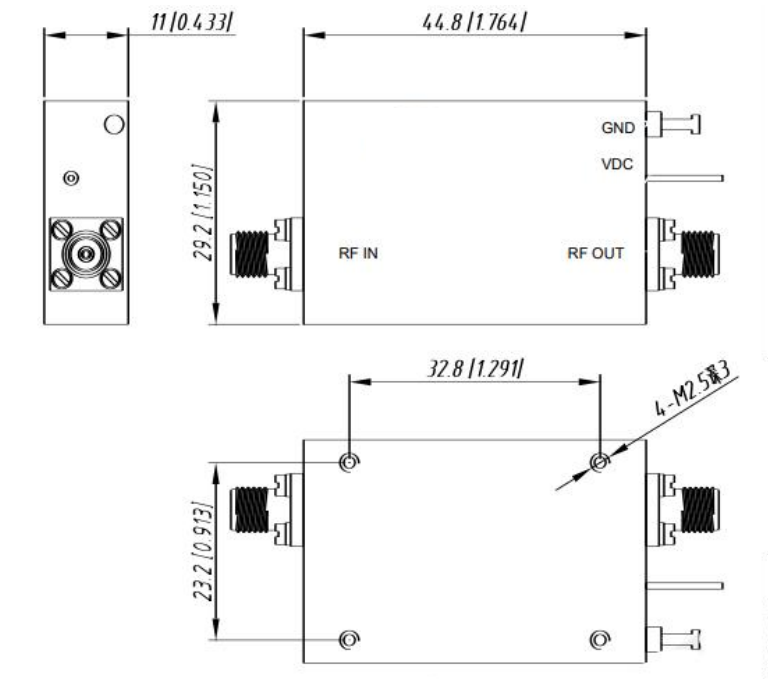
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Ordering Information:

Base Number	Description	Optional
LNA6G12G-5020	Low Noise Amplifier, 6-12GHz, Gain:50dB,Noise Figure:2.0dB,P1dB:10dBm,+12V DC	Without Heatsink
LNA6G12G-5020-HS	Low Noise Amplifier, 6-12GHz, Gain:50dB,Noise Figure:2.0dB,P1dB:10dBm,+12V DC	With Heatsink