



Low Noise Amplifier

Model: LNA4G20G-1265

4-20GHz 12dB, Gain 6.5dB, NF

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

Features:

- Frequency range: 4-20GHz
- Small Signal Gain: 12dB typ.
- Output P1dB: 21dBm typ.
- Noise Figure: 6.5dB typ.
- Operating voltage/current: +8 VDC/135mA.
- 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 LNA4G20G-1265 is a coaxial low noise operating in the 4 to 20 GHz frequency range. The amplifier offers a typical noise figure of 6.5 dB, 21 dBm typical of output P1dB and a typical small signal gain of 12 dB. The DC power requirement for the amplifier is +8 VDC/135 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	4		20	GHz
Small Signal Gain	11	12		dB
Phase Noise	-162@10kHz			dBc/Hz
Noise Figure		6.5		dB
Output P1dB		21		dBm
Output Psat		22		dBm
Input VSWR		1.8		:1
Output VSWR		1.8		:1
DC Voltage	+7	+8	+9	V DC
DC Supply Current		135		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	28 x 20 x 10	mm

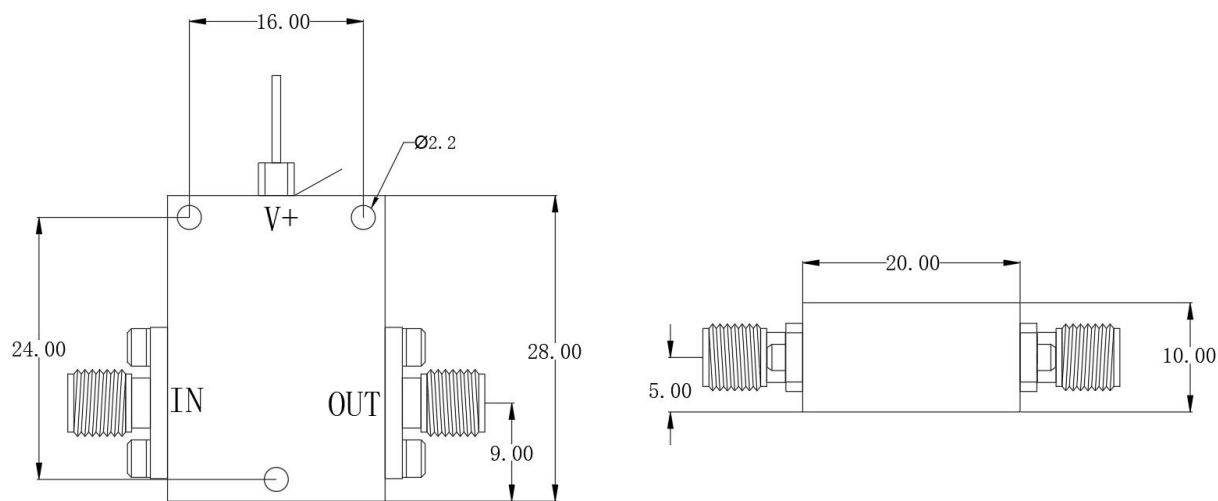
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+9 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
LNA4G20G-1265	Low Noise Amplifier, 4-20GHz, Gain:12dB,Noise Figure:6.5dB,P1dB:21dBm,+8V DC	Without Heatsink
LNA4G20G-1265-HS	Low Noise Amplifier, 4-20GHz, Gain:12dB,Noise Figure:6.5dB,P1dB:21dBm,+8V DC	With Heatsink