



Low Noise Amplifier

Model: LNA1G1.6G-3205

1-1.6GHz 32dB, Gain 0.5dB, NF

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

Features:

- Frequency range: 1-1.6GHz
- Small Signal Gain: 32dB typ.
- Output P1dB: 13dBm typ.
- Noise Figure: 0.5dB max.
- Operating voltage/current: +5 VDC/50mA.
- 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 LNA1G1.6G-3205 is a coaxial low noise operating in the 1 to 1.6 GHz frequency range. The amplifier offers a maximum noise figure of 0.5 dB, 13 dBm typical of output P1dB and a typical small signal gain of 32 dB with the excellent gain flatness of ± 1.0 dB nominal. The DC power requirement for the amplifier is +5 VDC/50 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	1		1.6	GHz
Small Signal Gain	27	32		dB
Small Signal Gain flatness		±1.0	±1.75	dB
Noise Figure			0.5	dB
Output P1dB	12	13		dBm
Input VSWR		1.4	1.8	:1
Output VSWR		1.4	1.8	:1
DC Voltage	+4.85	+5	+6	V DC
DC Supply Current		50	60	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	17.8 x 20 x 8.35	mm
Weight	11	g

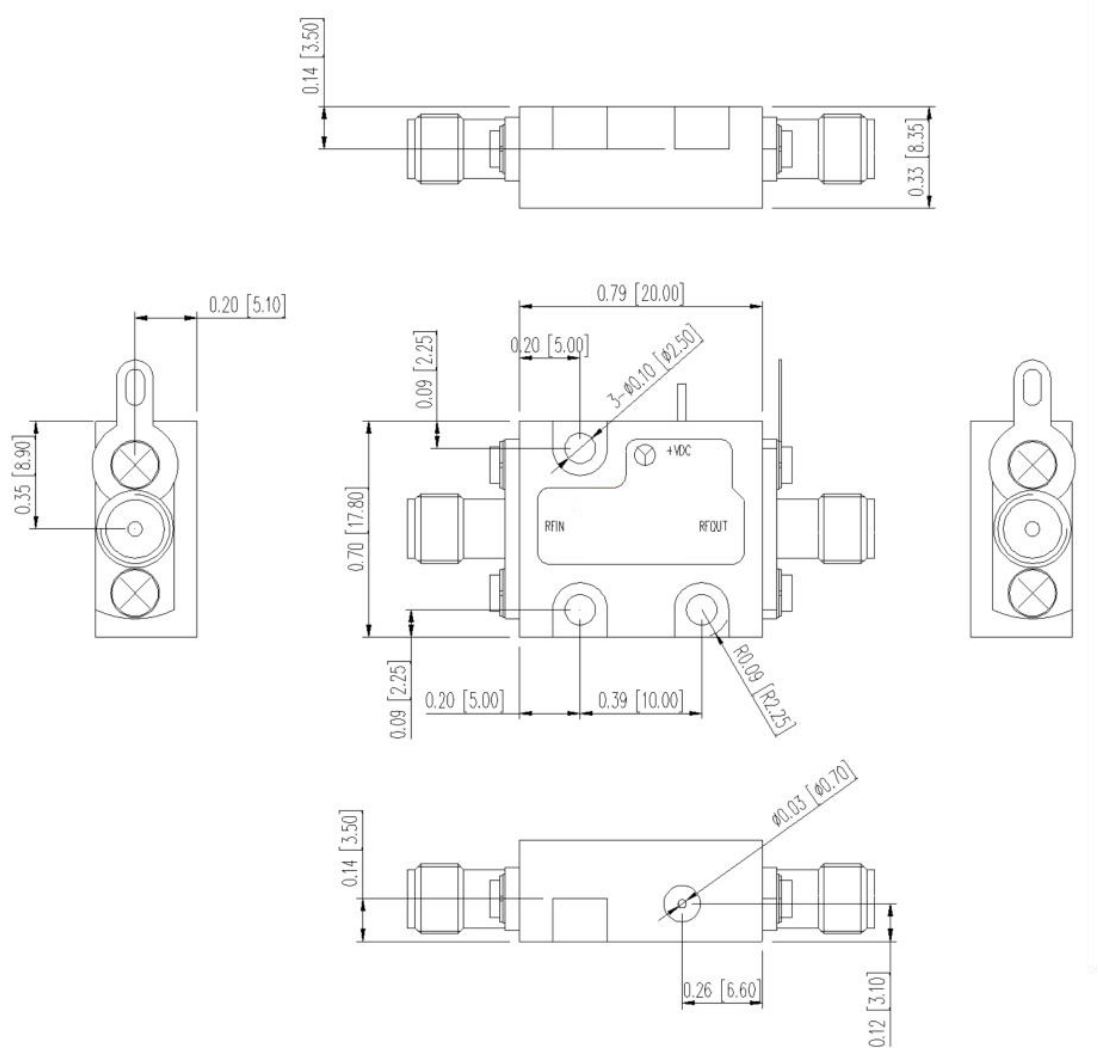
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
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
LNA1G1.6G-3205	Low Noise Amplifier, 1-1.6GHz, Gain:32dB,Noise Figure:0.5dB,P1dB:13dBm,+5V DC	Without Heatsink
LNA1G1.6G-3205-HS	Low Noise Amplifier, 1-1.6GHz, Gain:32dB,Noise Figure:0.5dB,P1dB:13dBm,+5V DC	With Heatsink