



Low Noise Amplifier

Model: LNA8G12G-3520

8-12GHz 35dB, Gain 2.0dB, NF

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

Features:

- Frequency range: 8-12GHz
- Small Signal Gain: 35dB typ.
- Output P1dB: 27dBm typ.
- Noise Figure: 2.0dB typ.
- Operating voltage/current: +15 VDC/320mA.
- 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 LNA8G12G-3520 is a coaxial low noise operating in the 8 to 12 GHz frequency range. The amplifier offers a typical noise figure of 2.0 dB, 27 dBm typical of output P1dB and a typical small signal gain of 35 dB. The DC power requirement for the amplifier is +15 VDC/320 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	8		12	GHz
Small Signal Gain	34	35		dB
Noise Figure		2	2.5	dB
Output P1dB	25.5	27		dBm
Output Psat	26.5	28		dBm
Input VSWR		1.8		:1
Output VSWR		1.8		:1
Monitor Power Threshold(Control NC)		20		dBm
TTL Monitor Output TTL		0/+3.3		V
DC Voltage	+12	+15	+16	V DC
DC Supply Current		320		mA
Impedance		50		Ohms

Mechanical Specifications:

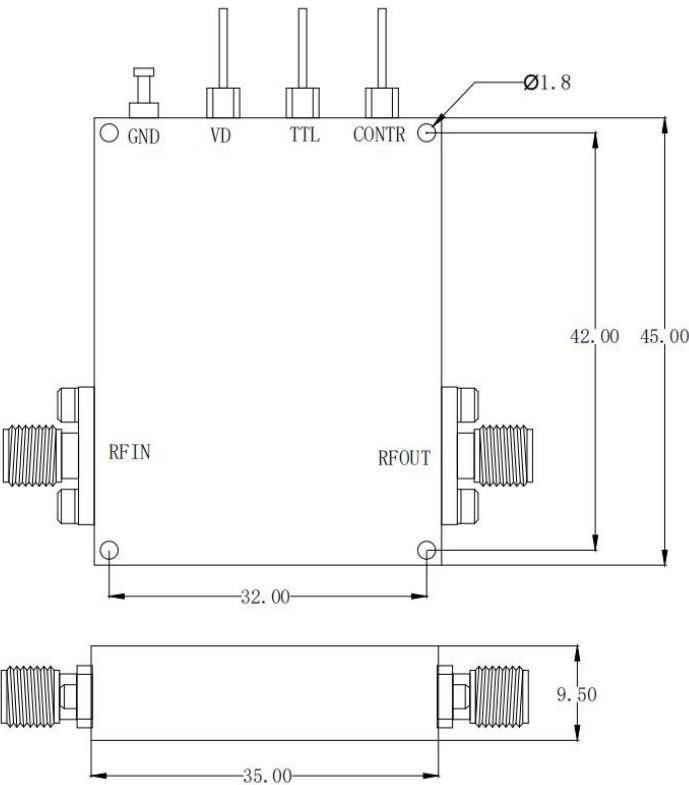
Parameter	Value	Notes
Operating Temperature	-40°C to +70°C	
Non-operating Temperature	-55°C to +85°C	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Altitude	10,000	feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H x D	34 x 45 x 9.5	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+16V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing: Unit:mm; Tolerance:±0.1mm



Ordering Information:

Base Number	Description	Optional
LNA8G12G-3520	Low Noise Amplifier, 8-12GHz, Gain:35dB,Noise Figure:2.0dB,P1dB:27dBm,+15V DC	Without Heatsink
LNA8G12G-3520-HS	Low Noise Amplifier, 8-12GHz, Gain:35dB,Noise Figure:2.0dB,P1dB:27dBm,+15V DC	With Heatsink