



Low Noise Amplifier

Model: LNA0.5G6G-3525

0.5-6GHz 35dB, Gain 2.5dB, NF

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

Features:

- Frequency range: 0.5-6GHz
- Small Signal Gain: 35dB typ.
- Output P1dB: 20dBm typ.
- Noise Figure: 2.5dB max.
- Operating voltage/current: +12 VDC/200mA.
- 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 LNA0.5G6G-3525 is a coaxial low noise operating in the 0.5 to 6 GHz frequency range. The amplifier offers a maximum noise figure of 2.5 dB, 20 dBm typical of output P1dB and a typical 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/200 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	0.5		6	GHz
Small Signal Gain	30	35		dB
Small Signal Gain flatness		±1.0	±2.5	dB
Gain Variation Over Temperature		±1.0		dB
Noise Figure		2.2	2.5	dB
Output P1dB	17	20		dBm
Output Psat		20		dBm
Output IP3		29		dBm
Input VSWR		1.6	2.0	:1
Output VSWR		1.5	2.2	:1
DC Voltage		+12		V DC
DC Supply Current		200		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	
Material	Aluminium/Gold Painting	
Package Sealing	General Sealing(Standard)	
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	35 x 30 x 10	mm
Weight	30	g

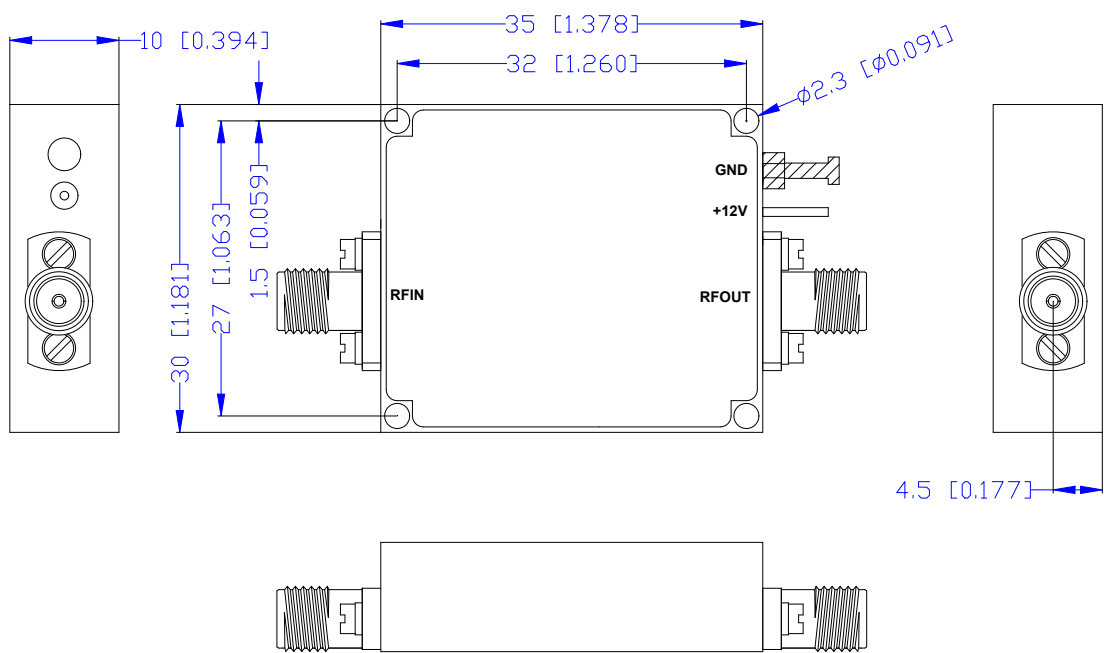


Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
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
LNA0.5G6G-3525	Low Noise Amplifier, 0.5-6GHz, Gain:35dB,Noise Figure:2.5dB,P1dB:20dBm,+12V DC	Without Heatsink
LNA0.5G6G-3525-HS	Low Noise Amplifier, 0.5-6GHz, Gain:35dB,Noise Figure:2.5dB,P1dB:20dBm,+12V DC	With Heatsink