



Low Noise Amplifier

Model: LNA1G18G-5030H

1-18GHz 50dB, Gain 3.0dB, NF

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

Features:

- Frequency range: 1-18GHz
- Small Signal Gain: 50dB min.
- Output P1dB: 15dBm typ.
- Noise Figure: 3.0dB typ.
- Operating voltage/current: +12 VDC/3W.
- 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 LNA1G18G-5030H is a coaxial low noise operating in the 1 to 18 GHz frequency range. The amplifier offers a typical noise figure of 3.0 dB, 15 dBm typical of output P1dB and a minimum small signal gain of 50 dB with the excellent gain flatness of ± 3.0 dB nominal. The DC power requirement for the amplifier is +12 VDC/3 W. 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		18	GHz
Small Signal Gain	50			dB
Small Signal Gain Flatness		±3.0		dB
Noise Figure		3.0		dB
Output P1dB		15		dBm
Spurious			-60	dBc
Harmonics			-10	dBc
Input VSWR		2.0		:1
Output VSWR		2.0		:1
DC Voltage		+12		V DC
Power Consumption		3		W
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	60 x 65 x 11	mm
Weight	200	g

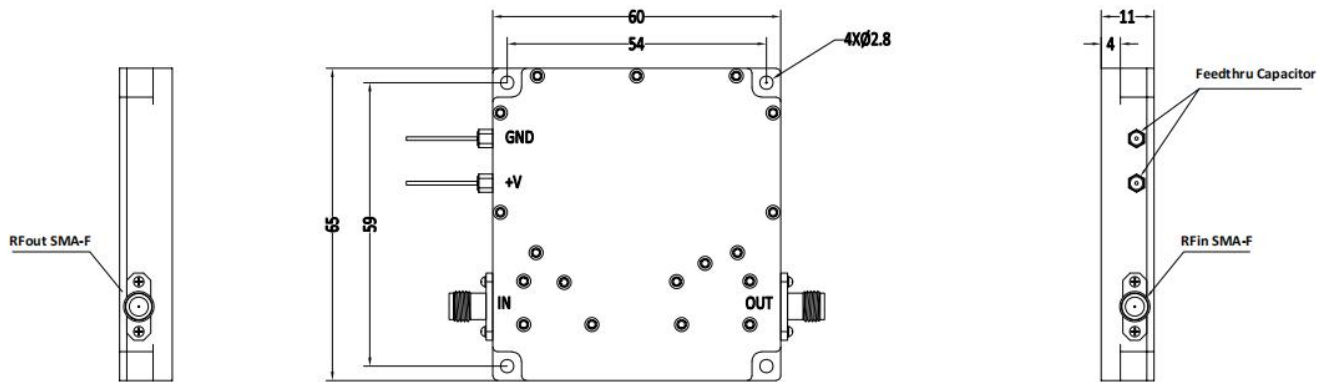
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	-30 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Ordering Information:

Base Number	Description	Optional
LNA1G18G-5030H	Low Noise Amplifier, 1-18GHz, Gain:50dB,Noise Figure:3.0dB,P1dB:15dBm,+12V DC	Without Heatsink
LNA1G18G-5030H-HS	Low Noise Amplifier, 1-18GHz, Gain:50dB,Noise Figure:3.0dB,P1dB:15dBm,+12V DC	With Heatsink