



Low Noise Amplifier

Model: LNA6G18G-3830

6-18GHz 38dB, Gain 3.0dB, NF

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

Features:

- Frequency range: 6-18GHz
- Small Signal Gain: 38dB typ.
- Output P1dB: 20dBm min.
- Noise Figure: 3.0dB max.
- Operating voltage/current: +12 VDC/280mA.
- 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 LNA6G18G-3830 is a coaxial low noise operating in the 6 to 18 GHz frequency range. The amplifier offers a maximum noise figure of 3.0 dB, 20 dBm minimum of output P1dB and a typical small signal gain of 38 dB with the excellent gain flatness of ± 2.0 dB nominal. The DC power requirement for the amplifier is +12 VDC/280 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	6		18	GHz
Small Signal Gain	35	38	41	dB
Small Signal Gain Flatness		±2	±2.5	dB
Noise Figure		2	3	dB
Output P1dB	20	22		dBm
Output IP3	27	30		dBm
Spurious			-60	dBc
Revsrse Isolation	40	45		dB
Input VSWR		1.8	2.5	:1
Output VSWR		1.8	2.5	:1
DC Voltage	+10	+12	+15	V DC
DC Supply Current	250	280	320	mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temerature	-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	1.5 x 1 x 0.4	Inch

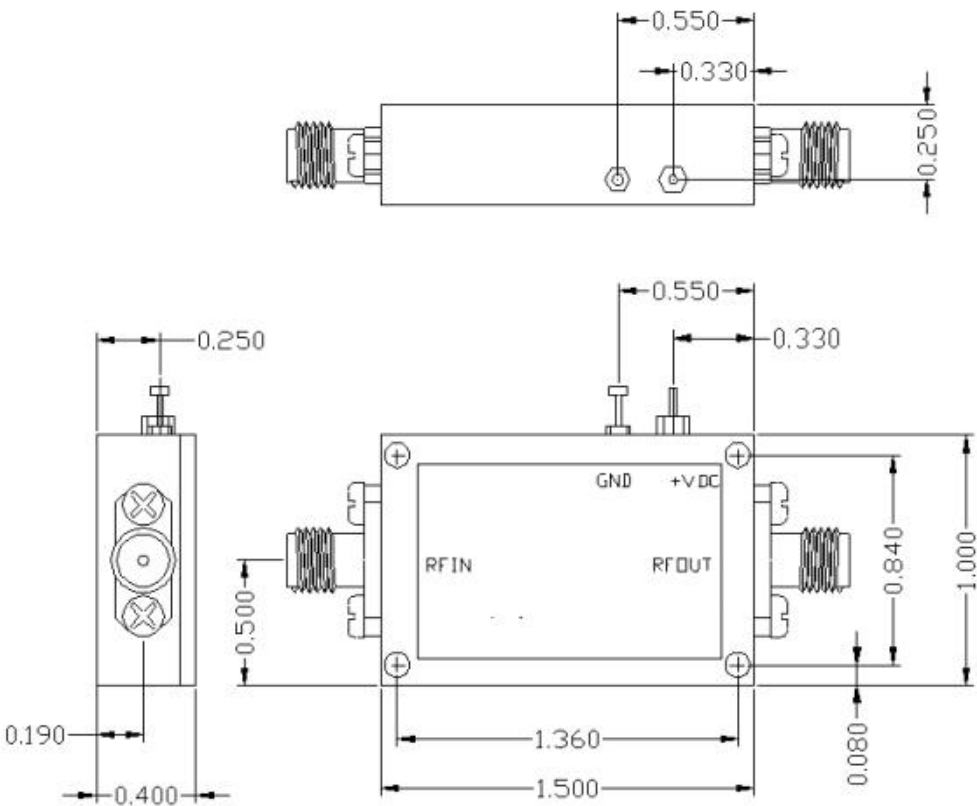


Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15V
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
LNA6G18G-3830	Low Noise Amplifier, 6-18GHz, Gain:38dB,Noise Figure:3.0dB,P1dB:20dBm,+12V DC	Without Heatsink
LNA6G18G-3830-HS	Low Noise Amplifier, 6-18GHz, Gain:38dB,Noise Figure:3.0dB,P1dB:20dBm,+12V DC	With Heatsink