



Low Noise Amplifier

Model: LNA23.8G24.2G-1845

23.8-24.2GHz 18dB, Gain 4.5dB, NF

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

Features:

- Frequency range: 23.8-24.2GHz
- Small Signal Gain: 18dB min.
- Output P1dB: 13dBm min.
- Noise Figure: 4.5dB max.
- Operating voltage/current: +12 VDC/120mA.
- 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 LNA23.8G24.2G-1845 is a coaxial low noise operating in the 23.8 to 24.2 GHz frequency range. The amplifier offers a maximum noise figure of 4.5 dB, 13 dBm minimum of output P1dB and a minimum small signal gain of 18 dB with the excellent gain flatness of ± 0.6 dB nominal. The DC power requirement for the amplifier is +12 VDC/120 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	23.8		24.2	GHz
Small Signal Gain	18			dB
Small Signal Gain Flatness		±0.6		dB
Noise Figure			4.5	dB
Output P1dB	13			dBm
Input VSWR			1.8	:1
Output VSWR			1.8	:1
DC Voltage		+12		V DC
DC Supply Current		120		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	2.92mm Female/2.92mm 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	32.1 x 29.2 x 11	mm

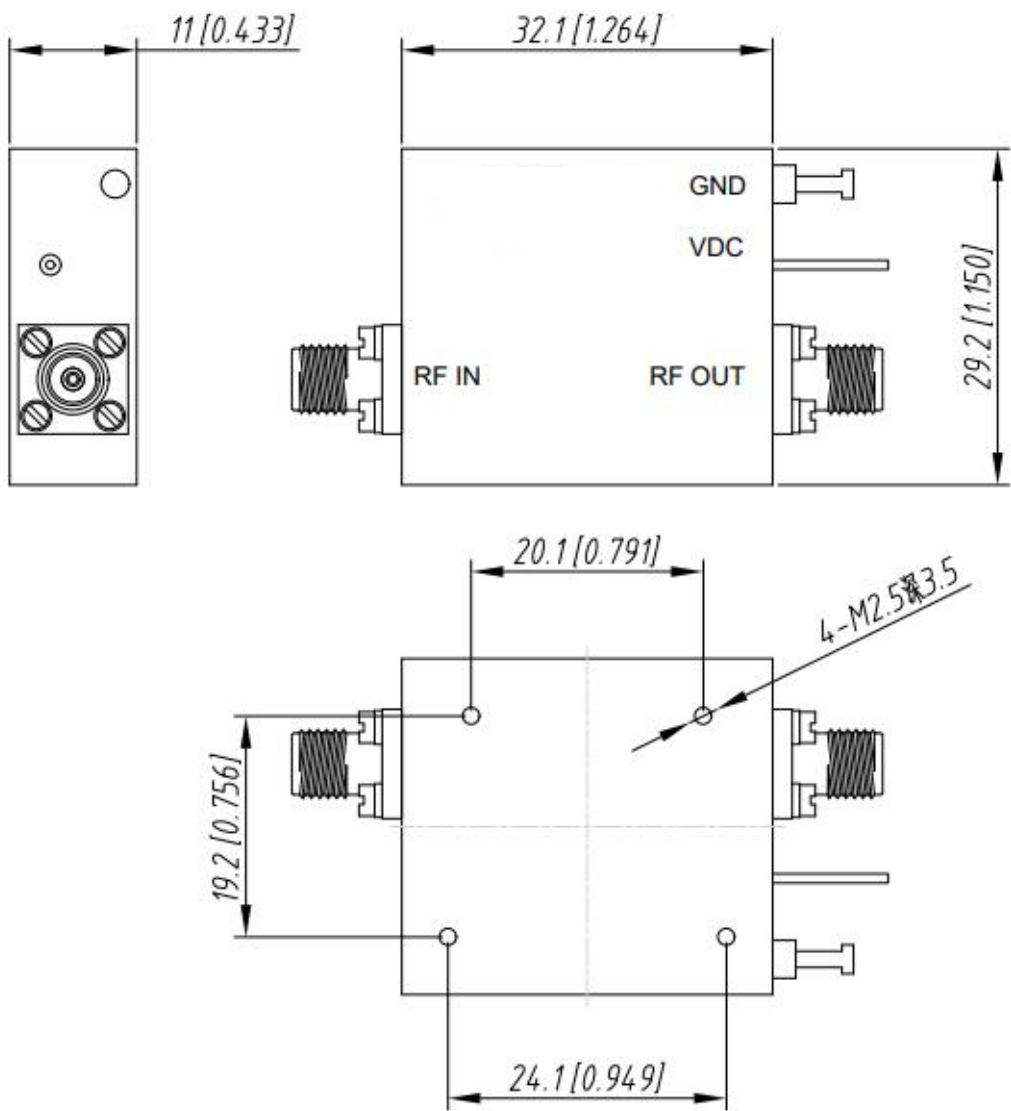
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Ordering Information:

Base Number	Description	Optional
LNA23.8G24.2G-1845	Low Noise Amplifier, 23.8-24.2GHz, Gain:18dB,Noise Figure:4.5dB,P1dB:13dBm,+12V DC	Without Heatsink
LNA23.8G24.2G-1845-HS	Low Noise Amplifier, 23.8-24.2GHz, Gain:18dB,Noise Figure:4.5dB,P1dB:13dBm,+12V DC	With Heatsink