



Low Noise Amplifier

Model: LNA10M40G-4845

10MHz-40GHz 48dB, Gain 4.5dB, NF

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

Features:

- Frequency range: 10MHz-40GHz
- Small Signal Gain: 48dB typ.
- Output P1dB: 15dBm typ.
- Noise Figure: 4.5dB typ.
- Operating voltage/current: +24 VDC/100mA.
- 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 LNA10M40G-4845 is a coaxial low noise operating in the 10MHz to 40GHz frequency range. The amplifier offers a typical noise figure of 4.5 dB, 15 dBm typical of output P1dB and a typical small signal gain of 48 dB. The DC power requirement for the amplifier is +24 VDC/100 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	10MHz		40GHz	
Small Signal Gain	45	48		dB
Noise Figure		4.5	6.5	dB
Output P1dB		14		dBm
Output Psat		15		dBm
Spurious			-60	dBc
Harmonic			-20	dBc
Input VSWR		1.8		:1
Output VSWR		1.8		:1
DC Voltage	+12	+24	+28	V DC
DC Supply Current		100		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	50 x 60 x 12(Without Heatsink) 90 x 60 x 42(With Heatsink)	mm

Absolute Maximum Ratings:

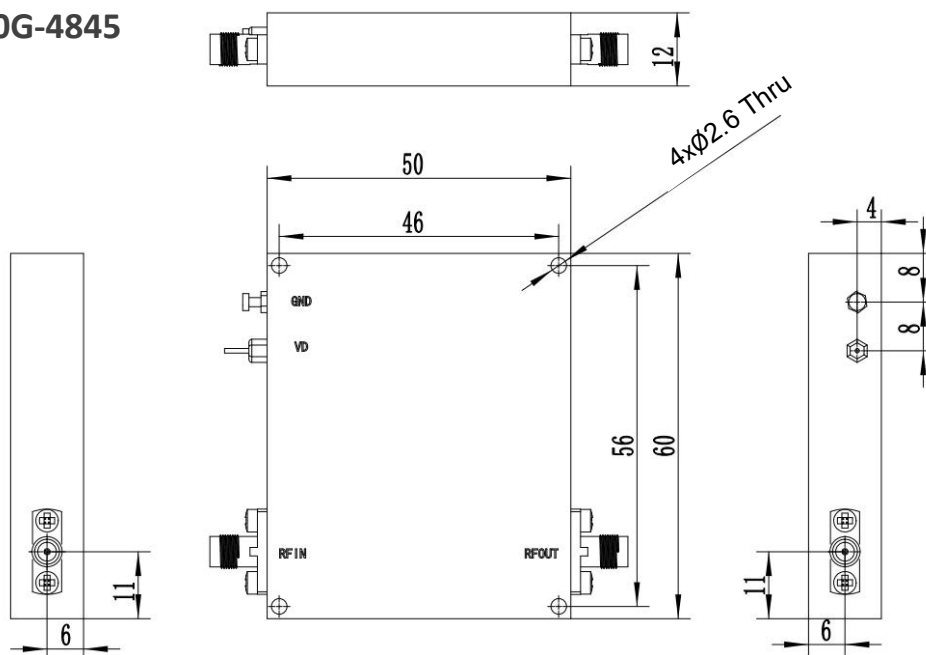
Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



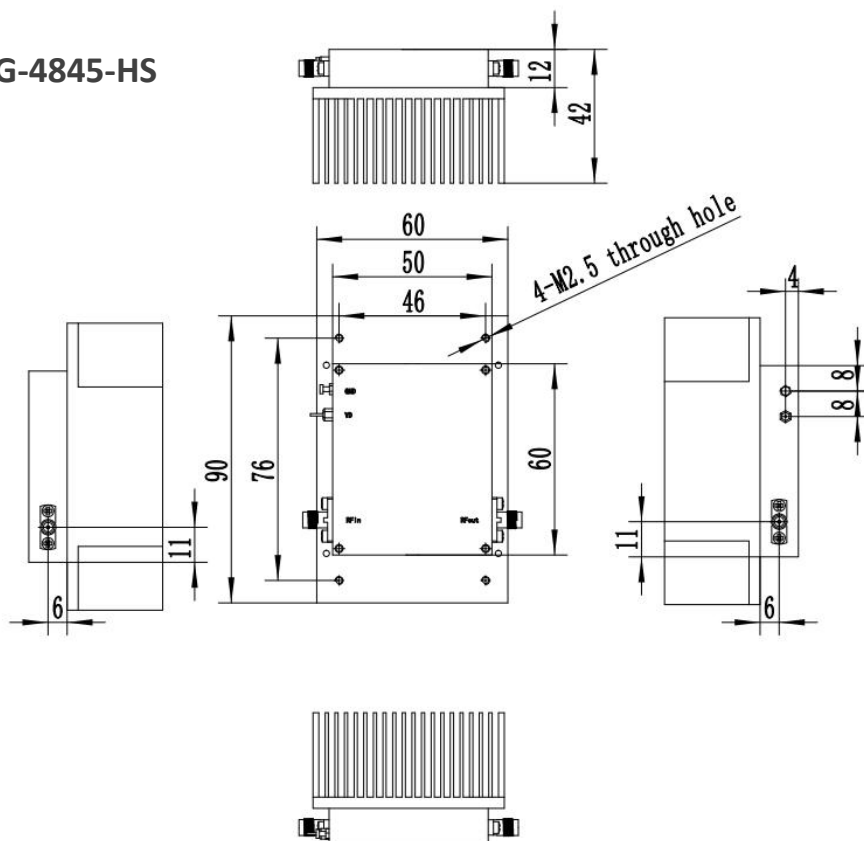
Outline Drawing:

Unit:mm; Tolerance:±0.1mm

LNA10M40G-4845



LNA10M40G-4845-HS



Note: The power supply range is +12 to +28V. The recommended power supply voltage is +24V.



Ordering Information:

Base Number	Description	Optional
LNA10M40G-4845	Low Noise Amplifier, 10MHz-40GHz, Gain:48dB,Noise Figure:4.5dB,P1dB:15dBm,+24V DC	Without Heatsink
LNA10M40G-4845-HS	Low Noise Amplifier, 10MHz-40GHz, Gain:48dB,Noise Figure:4.5dB,P1dB:15dBm,+24V DC	With Heatsink