泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Low Noise Amplifier

0.01-40GHz /4.5dB NF/48dB Gain/14dBm P1dB Model: TLLA0.01G40G-48-45

TLLA0.01G40G-48-45 is a low noise amplifier with a typical small signal gain of 48 dB and a nominal noise figure of 4.5 dB across the frequency range of 0.01 to 40 GHz. The DC power requirement for the amplifier is +24 V DC/100 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Ultra Wide Band:0.01-40GHz
- Gain: 48dB Typ
- Noise Figure: 4.5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.01		40	GHz
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	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	50*60*12(Without Heatsink) 90*60*12(With Heatsink)	mm

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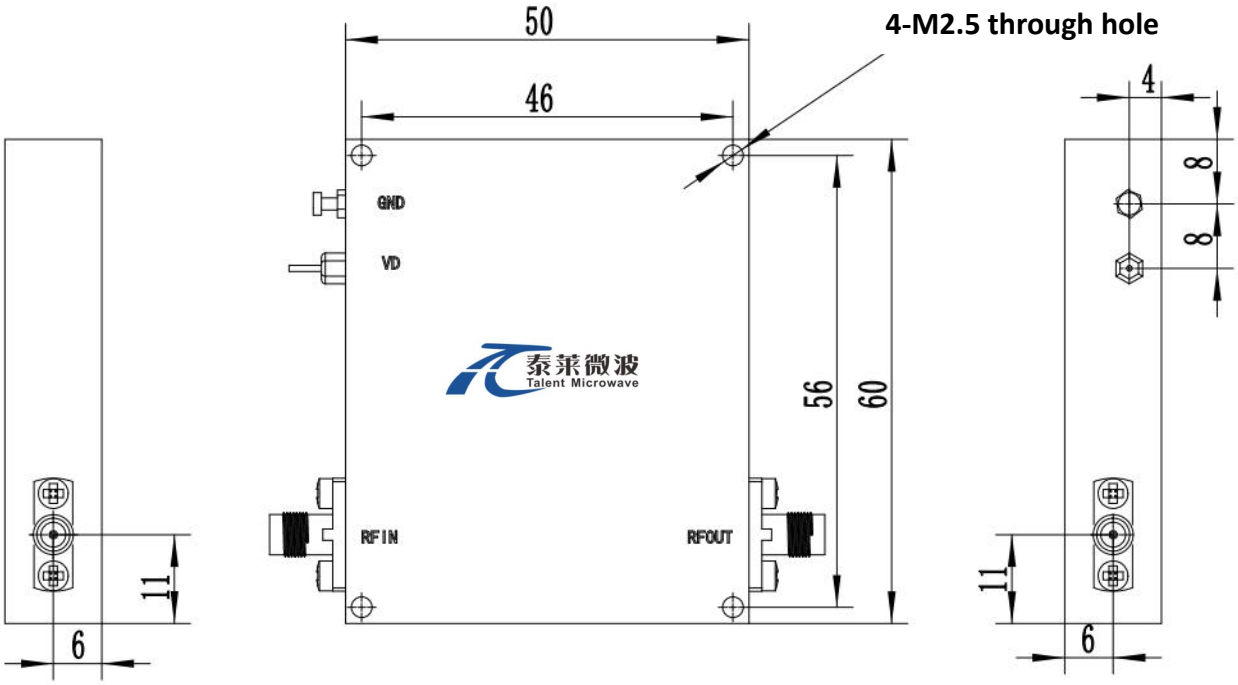
Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm

Regulatory Compliance:



4-M2.5 through hole

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

ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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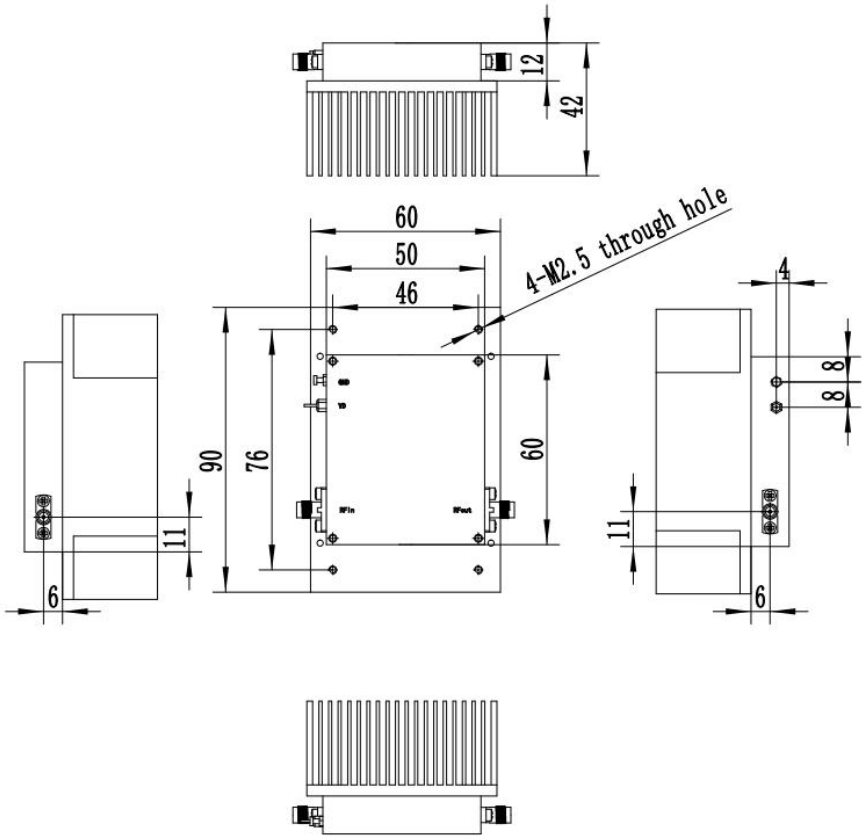
Unit:mm



Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	℃
Non-operating Temperature	-55		+125	℃
Relative humidity		95		%
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			

Ordering Information:

Base Number	Description	Revision
TLLA0.01G40G-48-45	Low Noise Amplifier, 0.01-40GHz, Noise Figure:4.5dB, Gain:48 dB,P1dB:14dBm,+24V DC,Without Heatsink	Rev.1.1
TLLA0.01G40G-48-45-HS	Low Noise Amplifier, 0.01-40GHz, Noise Figure:4.5dB, Gain:48 dB,P1dB:14dBm,+24V DC,With Heatsink	Rev.1.1