泰莱微波 Talent Microwave

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

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:

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

Applications:

- Communication systems

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	0.01		40	GHz
小信号增益 Small Signal Gain	45	48		dB
噪声系数 Noise Figure		4.5	6.5	dB
线性输出功率 Output P1dB		14		dBm
饱和输出功率 Output Psat		15		dBm
杂散 Spurious			-60	dBc
谐波 Harmonic			-20	dBc
输入驻波 Input VSWR		1.8		:1
输出驻波 Output VSWR		1.8		:1
直流电压 DC Voltage	+12	+24	+28	V DC
直流电流 DC Supply Current		100		mA
阻抗 Impedance		50		Ohms

*Performance may degrade below 300 MHz. Please refer to below typical test plots

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	50*60*12(Without Heatsink) 90*60*42(With Heatsink)	mm

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绝对最大值 Absolute Maximum Ratings:

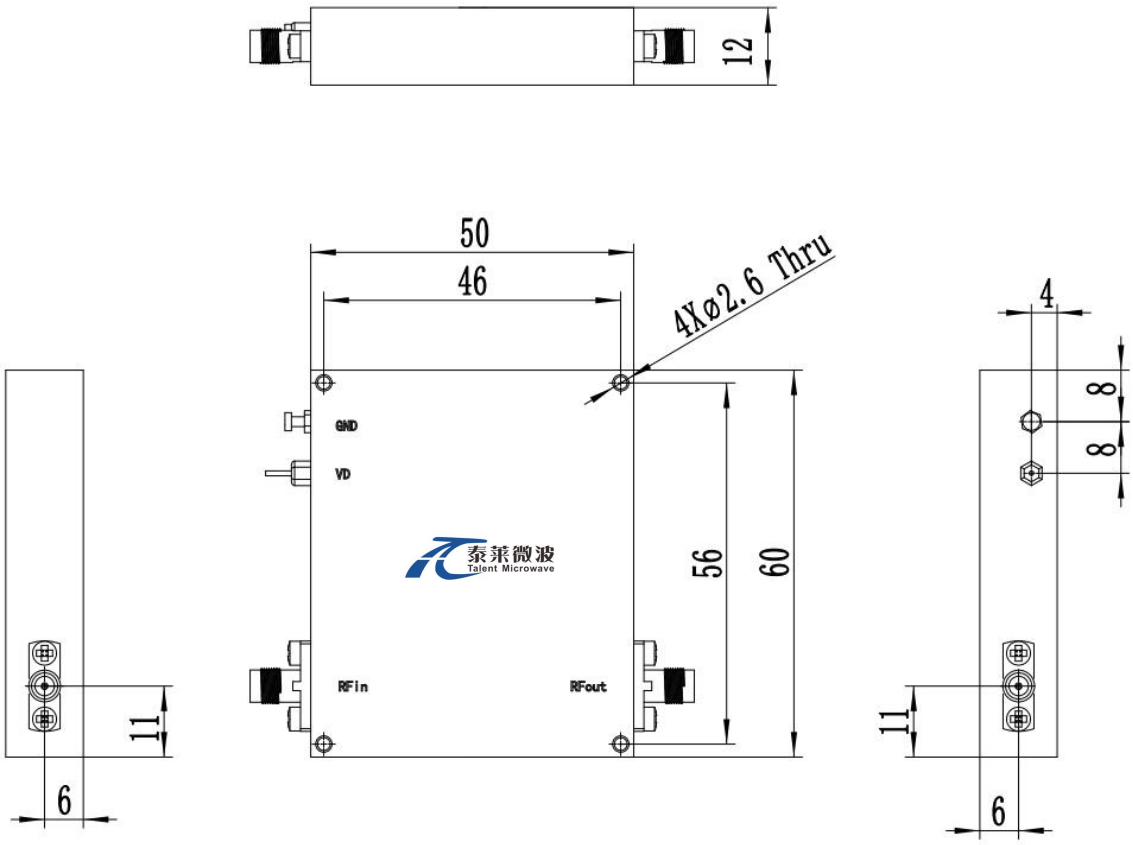
参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+29 V
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



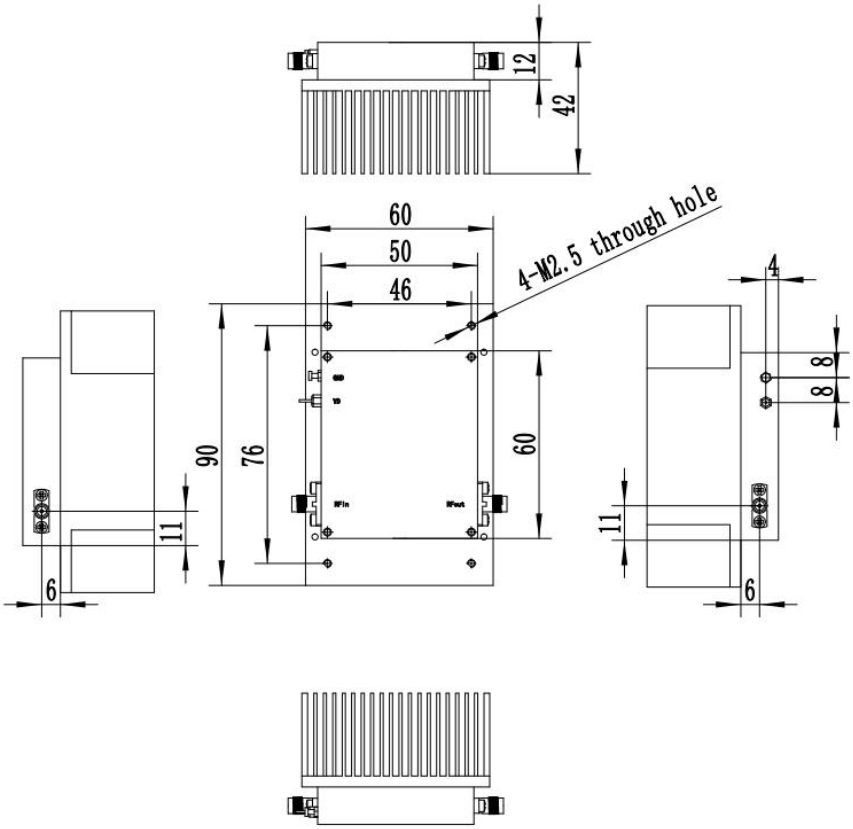
Note: The power supply range is +12 to +28V. The recommended power supply voltage is +24V.

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

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Unit:mm; Tolerance:±0.1mm



温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	℃
存储温度 Non-operating Temperature	-55		+125	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 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