

## Low Noise Amplifier

8-40GHz/4.5dB NF/27dB Gain/16dBm P1dB

Model: TLLA8G40G-27-45

TLLA8G40G-27-45 is a low noise amplifier with a typical small signal gain of 27 dB and a nominal noise figure of 4.5 dB across the frequency range of 8 to 40 GHz. The DC power requirement for the amplifier is +12 V DC/270 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

### Features:

- Frequency range: 8-40GHz
- Gain: 27dB 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	8		40	GHz
小信号增益 Small Signal Gain	25	27		dB
噪声系数 Noise Figure		4.5		dB
线性输出功率 Output P1dB	15.5	16		dBm
饱和输出功率 Output Psat		18		dBm
杂散 Spurious		-40		dBc
输入驻波 Input VSWR		2	2.4	:1
输出驻波 Output VSWR		2	2.4	:1
直流电压 DC Voltage	+11	+12	+13	V DC
直流电流 DC Supply Current		270		mA
阻抗 Impedance		50		Ohms

### 机械特性 Mechanical Specifications:

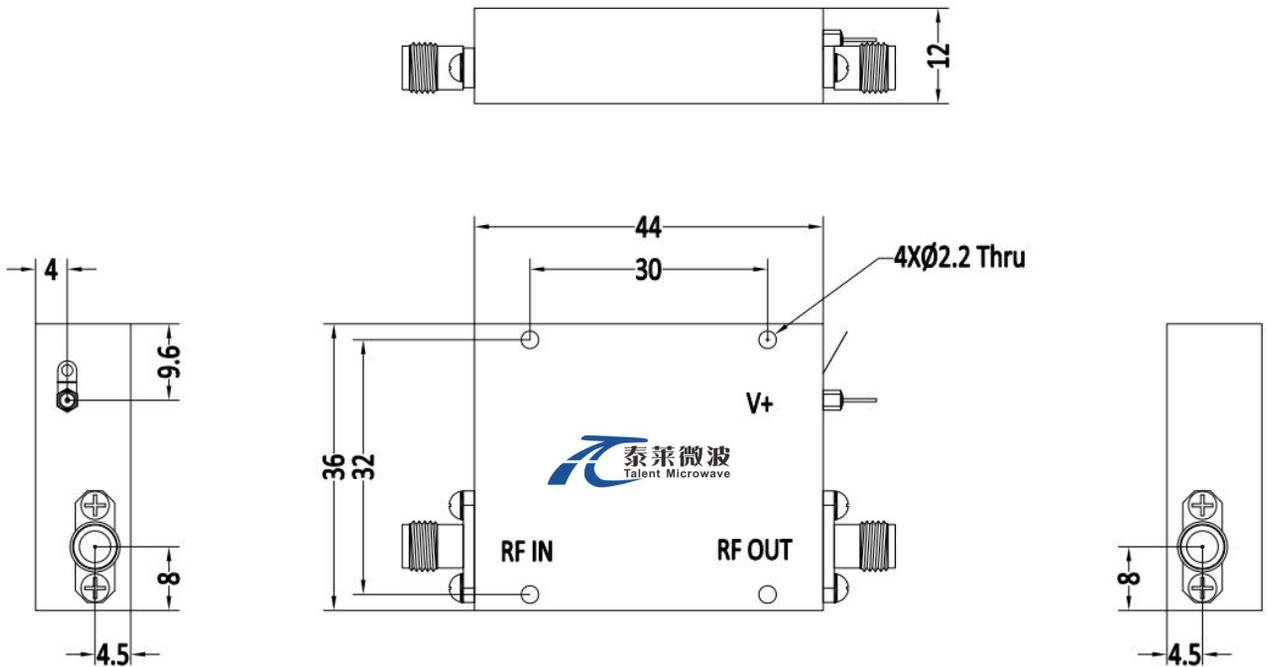
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	44*36*12	mm

### 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+13 V
输入功率 RF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

### 外形图 Outline Drawing:

Unit:mm



**\*\*\*Heat Sink Required During Operation**



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

## 温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
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
TLLA8G40G-27-45	Low Noise Amplifier, 8-40GHz, Noise Figure:4.5dB, Gain:27dB,P1dB:16dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA8G40G-27-45-HS	Low Noise Amplifier, 8-40GHz, Noise Figure:4.5dB, Gain:27dB,P1dB:16dBm,+12V DC,With Heatsink	Rev.1.1