

## Low Noise Amplifier

2-40GHz/4.0dB NF/43dB Gain/18dBm P1dB

Model: TLLA2G40G-40-40

TLLA2G40G-40-40 is a low noise amplifier with a typical small signal gain of 43 dB and a nominal noise figure of 4.0 dB across the frequency range of 2 to 40 GHz. The DC power requirement for the amplifier is +12 V DC/350 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

### Features:

- Frequency range: 2-40GHz
- Gain: 43dB Typ
- Noise Figure: 4.0dB 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	2		40	GHz
小信号增益 Small Signal Gain	38	43		dB
增益平坦度 Gain Flatness		±1.5	±2.0	dB
噪声系数 Noise Figure		4.0	6.5	dB
线性输出功率 Output P1dB	15	18		dBm
饱和输出功率 Output Psat	20	21		dBm
杂散 Spurious		-60		dBc
驻波 VSWR		1.8	2.0	:1
直流电压 DC Voltage	8	12		V DC
直流电流 DC Supply Current		350		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	35.3*40.3*12	mm
重量 Weight	30	g

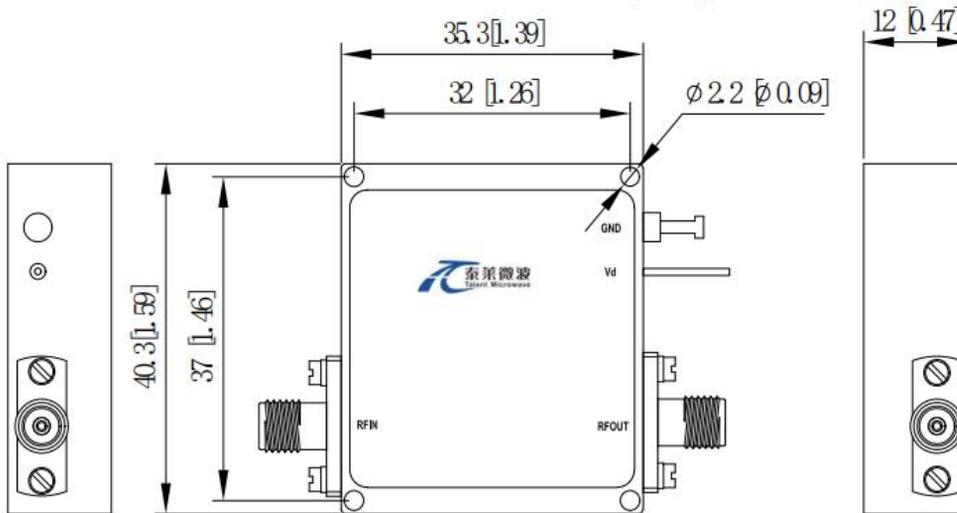
### 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15 V
输入功率 RF Input Power	-15 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



### 外形图 Outline Drawing:

Unit:mm



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

### 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	50,000			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
TLLA2G40G-40-40	Low Noise Amplifier, 2-40GHz, Noise Figure:4.0dB, Gain:43 dB,P1dB:18dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA2G40G-40-40-HS	Low Noise Amplifier, 2-40GHz, Noise Figure:4.0dB, Gain:43 dB,P1dB:18dBm,+12V DC,With Heatsink	Rev.1.1

## 典型曲线 Typical Performance Data:

### Gain&Return Loss

Gain(dB)

Frequency(GHz)

Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.