

**Model: TLLA50K50G-33-60**
**Low Noise Amplifier**
**50KHz-50GHz, NF:6dB, Gain:32dB, P1dB:19dBm**
**Feature:**

- Ultra Wide Band: 50KHz-50GHz
- Gain: 32dB Typ
- Noise Figure: 6dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

**电气特性 Electrical Specifications:**

| 参数Parameter            | Min         | Typ  | Max | 单位Units |
|------------------------|-------------|------|-----|---------|
| 频率范围 Frequency range   | 50KHz-50GHz |      |     | GHz     |
| 增益 Gain                |             | 32   |     | dB      |
| 增益平坦度 Gain Flatness    |             | ±3.5 |     | dB      |
| 噪声系数 Noise Figure      |             | 6    |     | dB      |
| 线性输出功率P1dB             |             | 19   |     | dBm     |
| 输入驻波 Input VSWR        |             | 1.9  |     | :1      |
| 输出驻波 Output VSWR       |             | 1.9  |     | :1      |
| 直流电压 DC Voltage        |             | 12   |     | V DC    |
| 直流电流 DC Supply Current |             | 400  |     | 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 | 2.4mm Female |         |
| 直流偏置 DC Bias                   | Solder Pin   |         |
| 尺寸 Size                        | 40*35*12     | mm      |

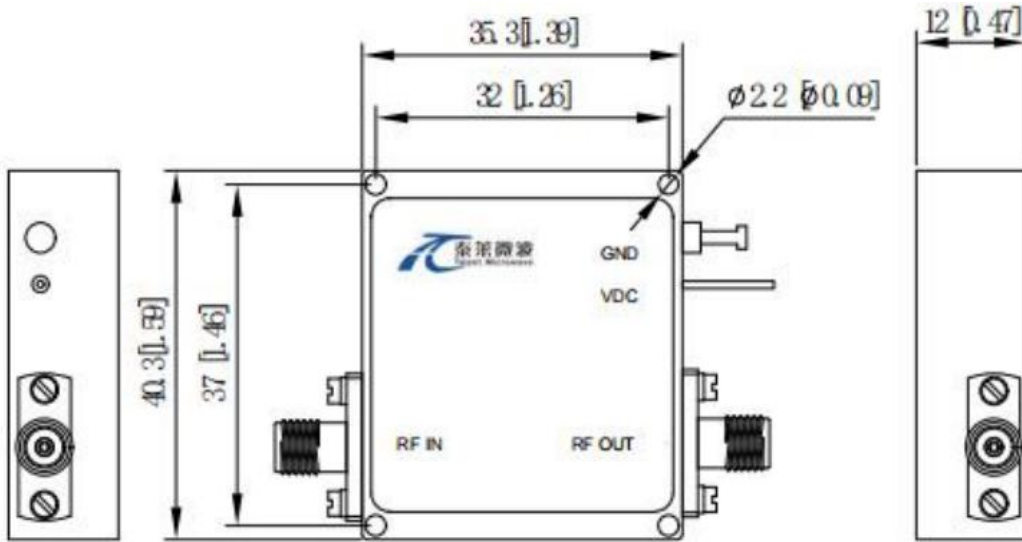
**绝对最大值 Absolute Maximum Ratings:**

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


**Available 220V System  
Benchtop Amplifier**

外形尺寸 Outline Drawing:

Unit: mm(inches)



\*\*\*Heat Sink Required During Operation



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

温度环境 Environmental Conditions:

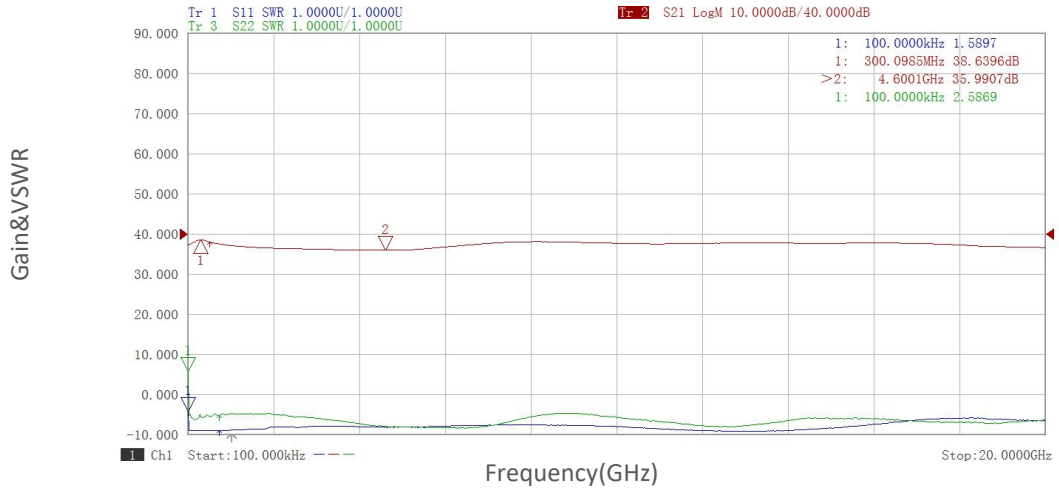
| 参数Parameter                        | Min   | Typ | Max | 单位Units |
|------------------------------------|---|-----|-----|---------|
| 操作温度 Operating Temperature         | -40   |     | +75 | °C      |
| 存储温度 Non-operating Temperature     | -55   |     | +85 | °C      |
| 相对湿度 Relative humidity             |   | 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:

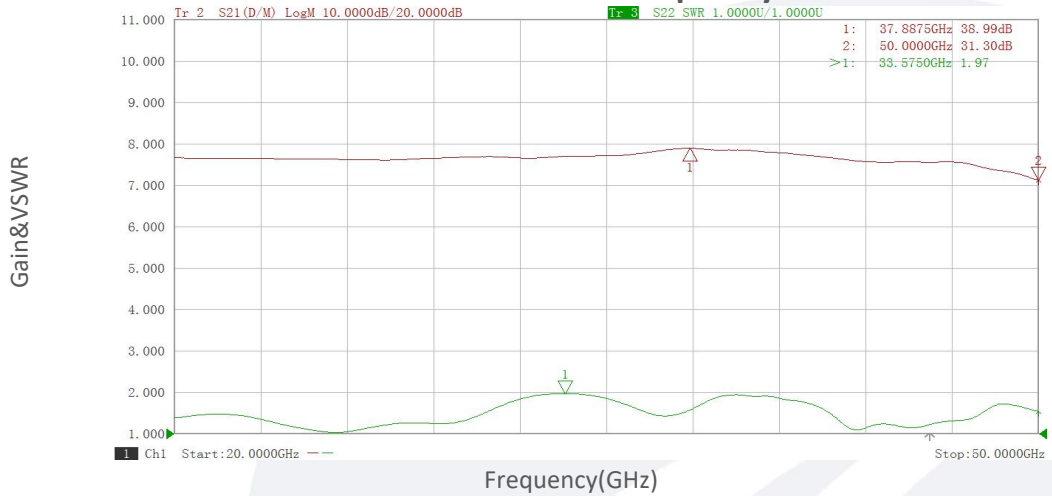
| 标准型号 Part Number    | 描述 Description  | 版本号Revision |
|---------------------|---|-------------|
| TLLA50K50G-33-60    | Low Noise Amplifier, 50KHz-50GHz, Noise Figure:6dB, Gain:32 dB,P1dB:19dBm,12V DC,Without Heatsink | Rev.1.1     |
| TLLA50K50G-33-60-HS | Low Noise Amplifier, 50KHz-50GHz, Noise Figure:6dB, Gain:32 dB,P1dB:19dBm,12V DC,With Heatsink    | Rev.1.1     |

典型曲线 Typical Performance Data:

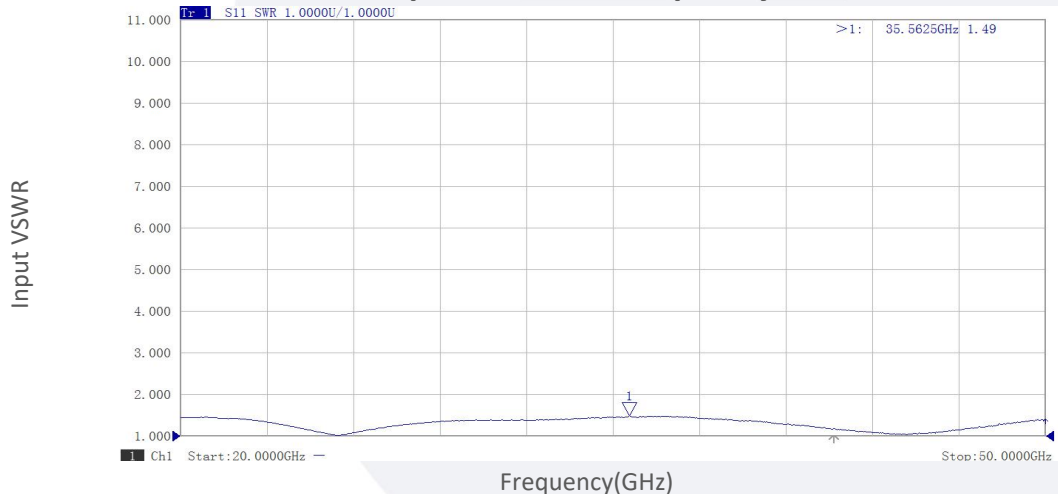
Gain&VSWR vs Frequency



Gain&VSWR vs Frequency



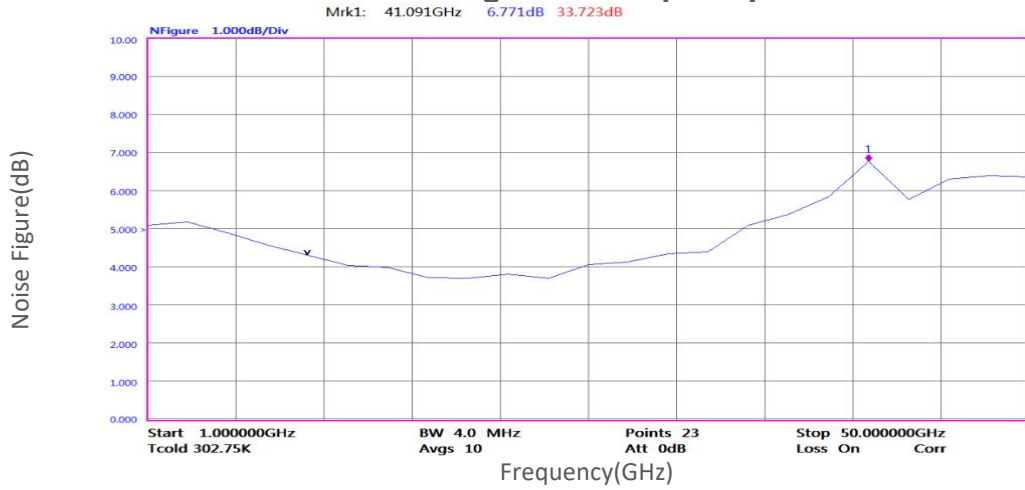
Input VSWR vs Frequency



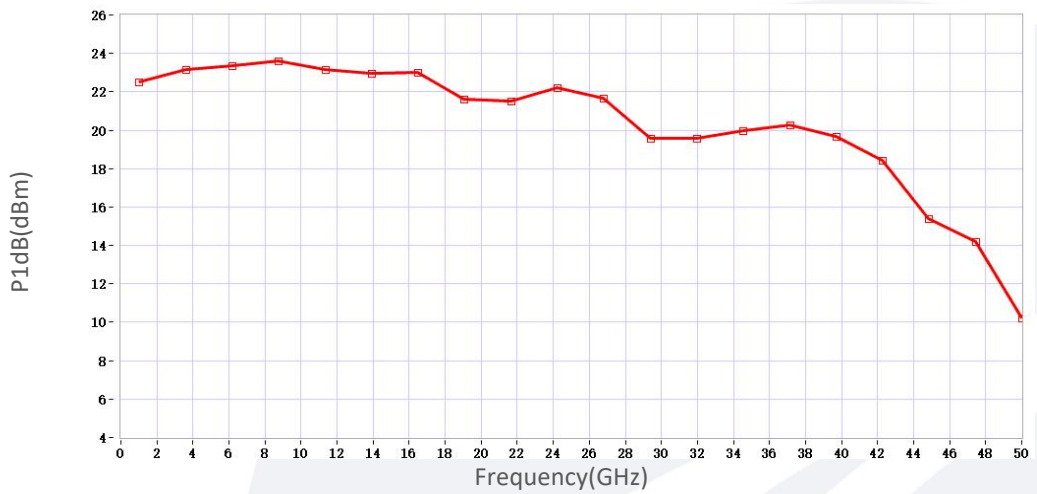
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

**Noise Figure vs Frequency**



**P1dB vs Frequency**



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.