

## Low Noise Amplifier

0.8-21GHz/3.5dB NF/26dB Gain/23dBm P1dB

Model: TLLA0.8G21G-26-30

TLLA0.8G21G-26-30 is a low noise amplifier with a typical small signal gain of 26 dB and a nominal noise figure of 3.5 dB across the frequency range of 0.8 to 21 GHz. The DC power requirement for the amplifier is +12 V DC/250 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

### Features:

- Frequency range: 0.8-21GHz
- Gain: 26dB Typ
- Noise Figure: 3.5dB 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	0.8		21	GHz
小信号增益 Small Signal Gain	23	26		dB
增益平坦度 Gain Flatness		±2.0	±3.0	dB
噪声系数 Noise Figure		3.5	5.5	dB
线性输出功率 Output P1dB		23		dBm
输入驻波 Input VSWR		1.8	2.2	:1
输出驻波 Output VSWR		1.8	2.2	:1
直流电压 DC Voltage		12	15	V DC
直流电流 DC Supply Current		250		mA
阻抗 Impedance		50		Ohms

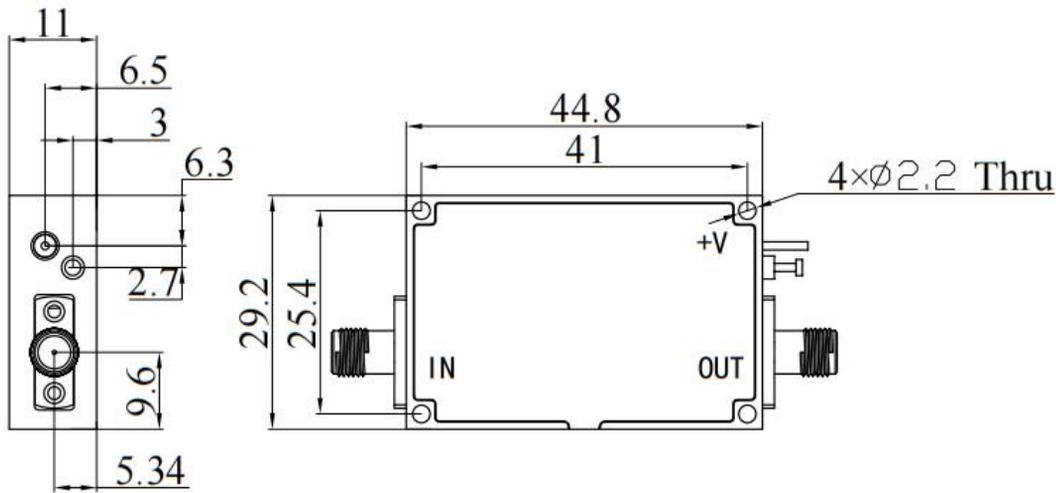
## 机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	

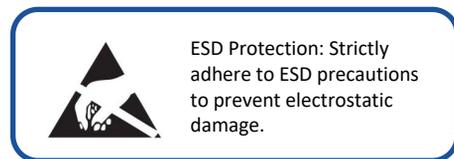
## 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15V
输入功率 RF Input Power	+15dBm
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:

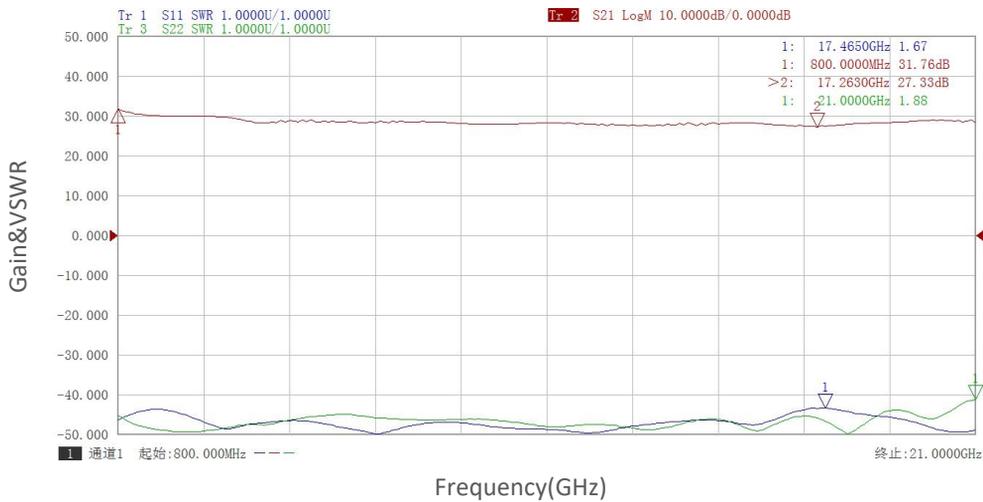
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude		50,000		feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			

### 订货信息 Ordering Information:

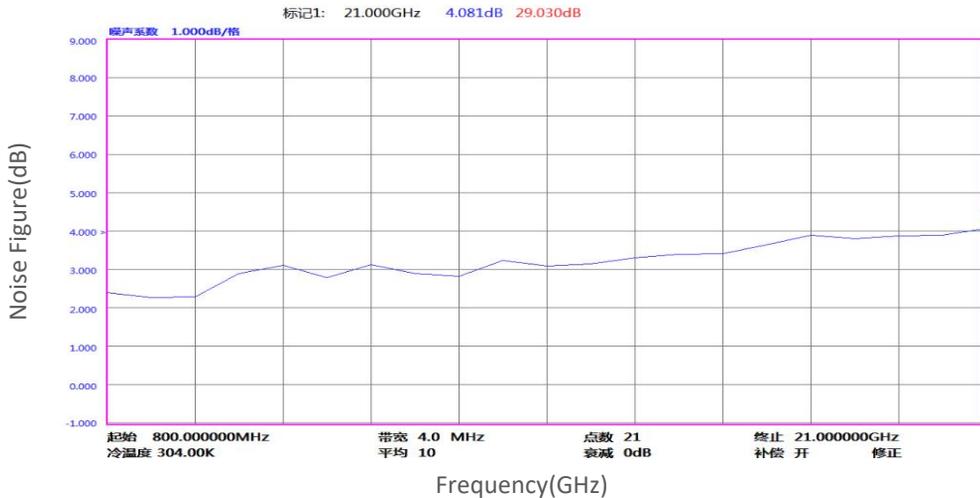
标准型号 Base Number	描述 Description	版本号 Revision
TLLA0.8G21G-26-30	Low Noise Amplifier, 0.8-21GHz, Noise Figure:3.5dB, Gain: 26dB,P1dB:23dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA0.8G21G-26-30-HS	Low Noise Amplifier, 0.8-21GHz, Noise Figure:3.5dB, Gain: 26dB,P1dB:23dBm,+12V DC,With Heatsink	Rev.1.1

### 典型曲线 Typical Performance Data:

#### Gain&VSWR vs Frequency



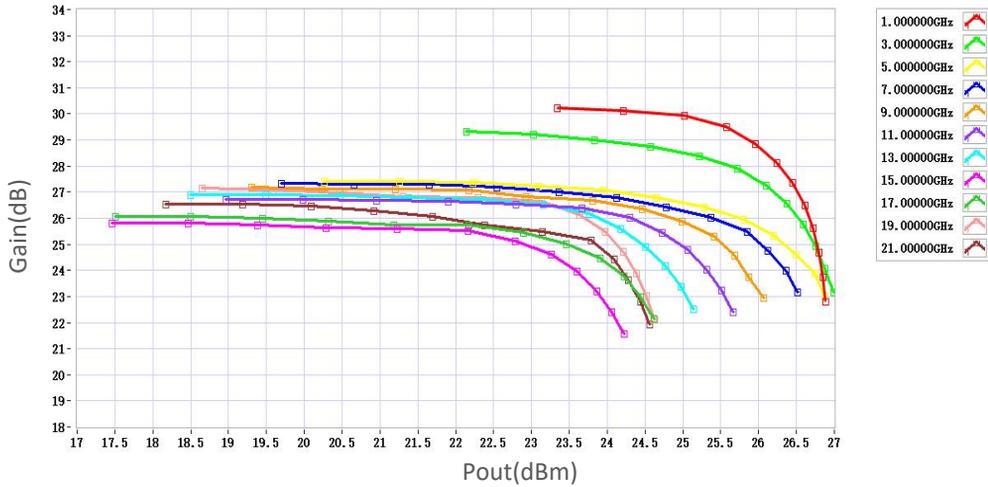
#### Noise Figure vs Frequency



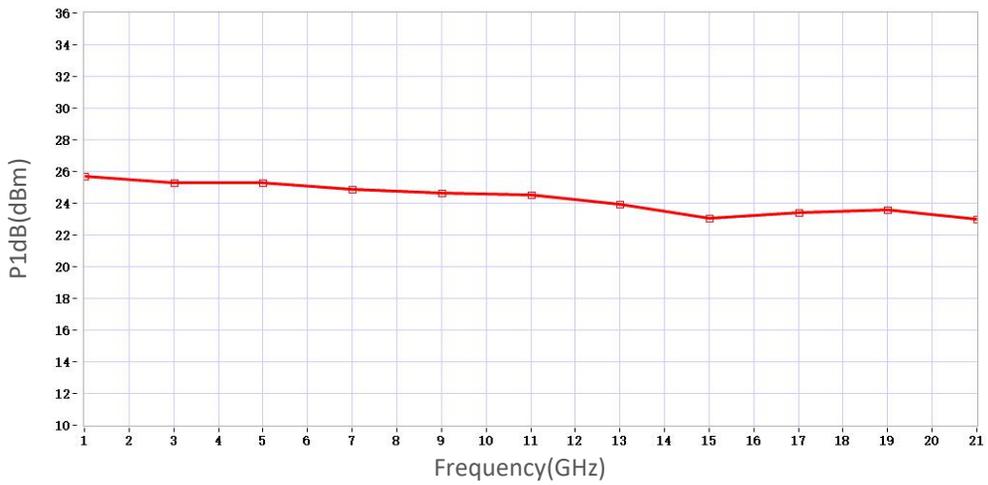
Note: Above data is for ref only, actual data may vary from unit to unit depending

## 典型曲线 Typical Performance Data:

### Gain vs Output Power



### P1dB vs Frequency



### P3dB vs Frequency

P3dB(dBm)