

TURLA50K20G-3030

TURLA50K20G-3030 is a low noise amplifier with a typical small signal gain of 30 dB and a nominal noise figure of 3.0 dB across the frequency range of 50 KHz to 20 GHz. The DC power requirement for the amplifier is +12 V DC/180 mA. The input and output port configuration offers coax adapter structure with SMA female.

## Features:

- Frequency range: 50KHz-20GHz
- Gain: 30dB Typ
- Noise Figure: 3.0dB 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	50KHz-20GHz			
小信号增益 Small Signal Gain		30		dB
增益平坦度 Gain Flatness		±1.5		dB
噪声系数 Noise Figure		3		dB
线性输出功率 Output P1dB	15	16		dBm
输入驻波 Input VSWR		1.8	2	:1
输出驻波 Output VSWR		1.8	2	:1
直流电压 DC Voltage		+12		V DC
直流电流 DC Supply Current		180		mA
阻抗 Impedance	50			Ohms

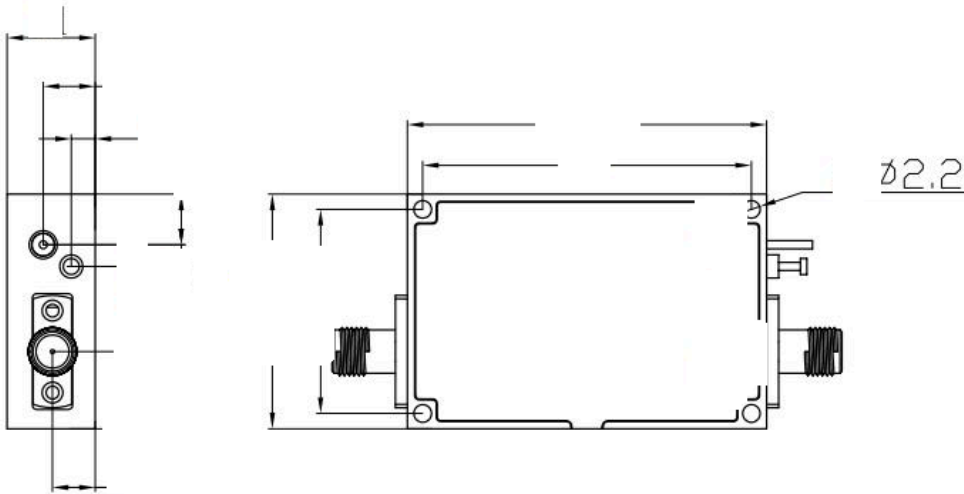
## 机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流偏置 DC Bias	Solder Pin	

## 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



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## 温度环境 Environmental Conditions:

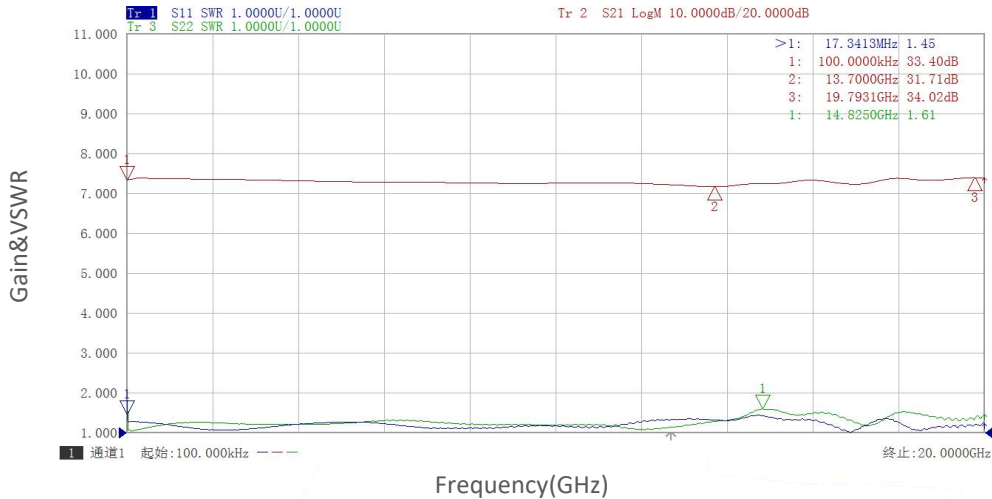
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude		10,000		feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			

## 订货信息 Ordering Information:

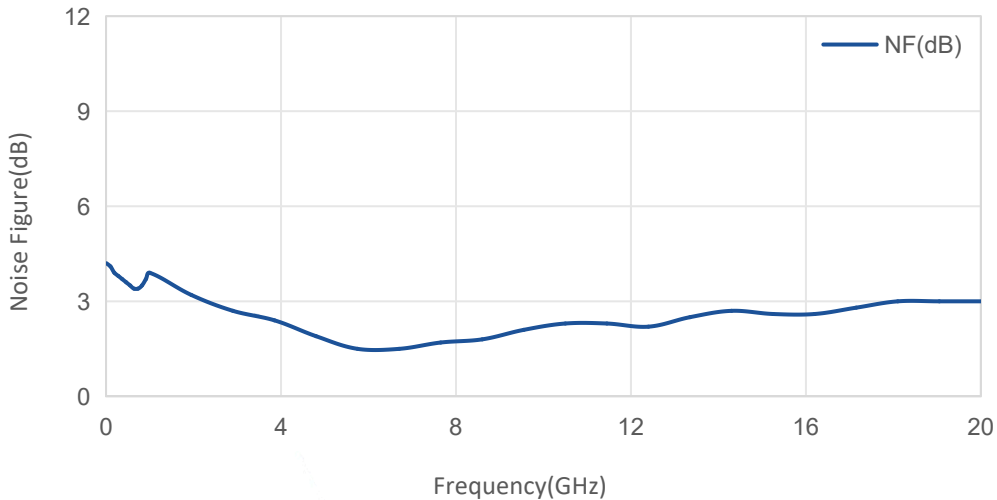
标准型号 Base Number	描述 Description	版本号 Revision
TURLA50K20G-3030	Low Noise Amplifier, 50KHz-20GHz, Noise Figure:3.0dB, Gain:30 dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TURLA50K20G-3030 HS	Low Noise Amplifier, 50KHz-20GHz, Noise Figure:3.0dB, Gain:30 dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1

## 典型曲线 Typical Performance Data:

### Gain&VSWR vs Frequency

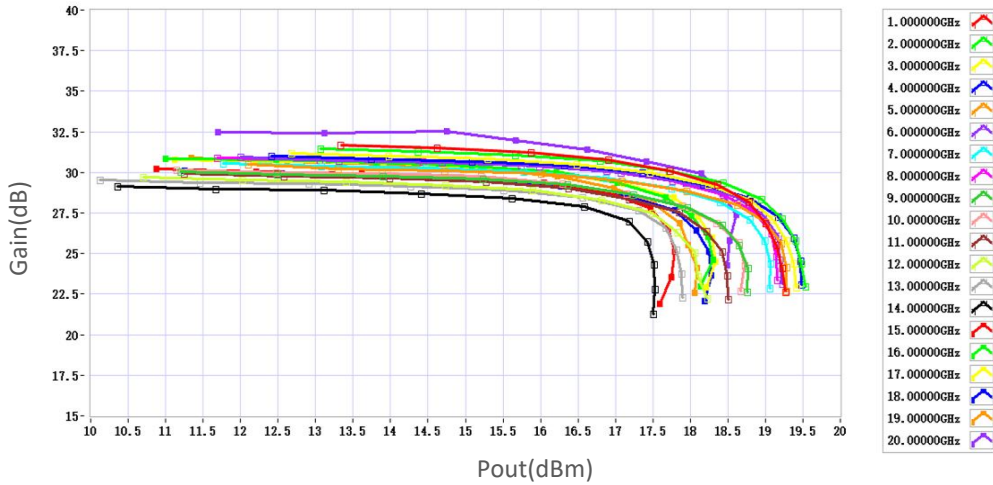


### Noise Figure vs Frequency

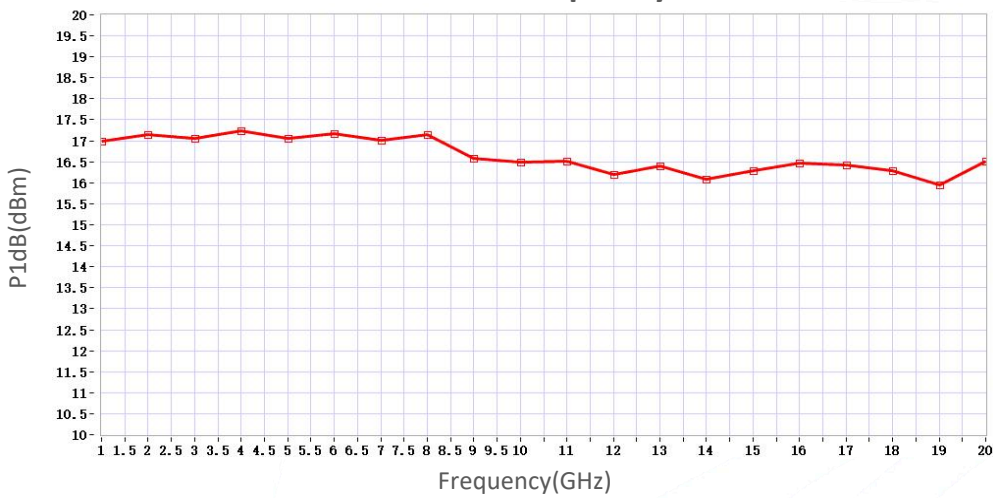


## 典型曲线 Typical Performance Data:

### Gain vs Output Power



### P1dB vs Frequency

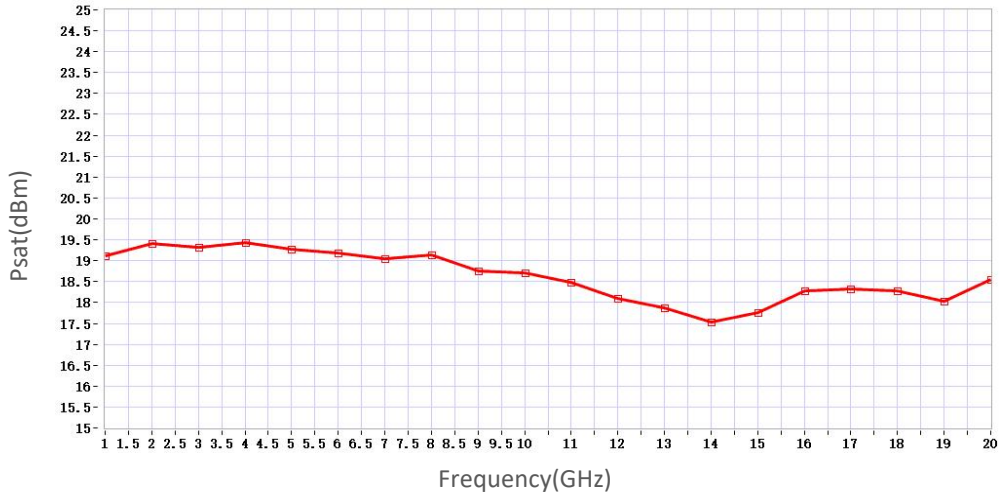


### P3dB vs Frequency



## 典型曲线 Typical Performance Data:

### Psat 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.