Turpanic Co, Ltd
Email: johnny@turpanic.com
Mob/WeChat/WhatsApp: +8613088887527

TURLA50K20G-1830 is a low noise amplifier with a typical small signal gain of 18 dB and a nominal noise figure of 2.5 dB across the frequency range of 50 KHz to 20 GHz. The DC power requirement for the amplifier is +12 V DC/70 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 50KHz-20GHz
- Gain: 18dB Typ
- Noise Figure: 2.5dB 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		50KHz-20GHz		
小信号增益 Small Signal Gain		18		dB
增益平坦度 Gain Flatness		±2.0		dB
噪声系数 Noise Figure		2.5	4.0	dB
线性输出功率 Output P1dB		15		dBm
输入驻波 Input VSWR		2.0		:1
输出驻波 Output VSWR		2.0	2.2	:1
直流电压 DC Voltage	+10	+12	+15	V DC
直流电流 DC Supply Current		70		mA
阻抗 Impedance		50		Ohms

机械特性 Mechanical Specifications:

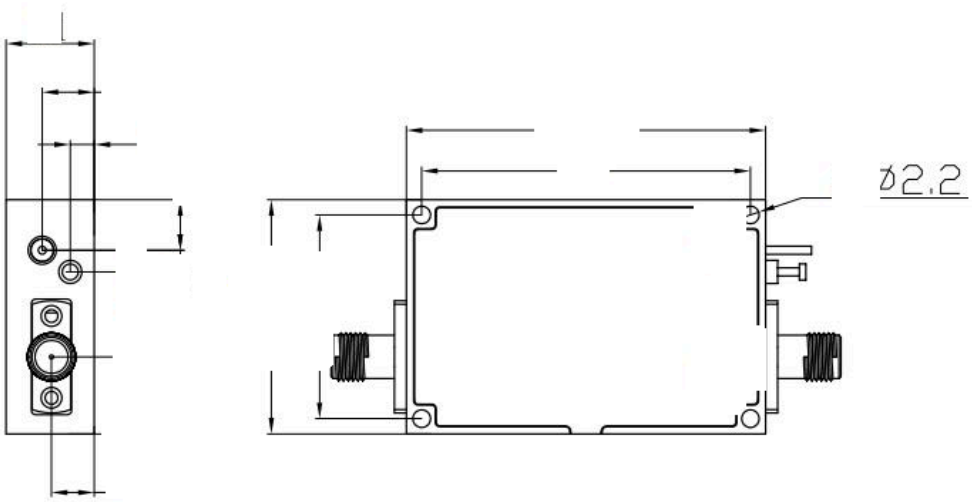
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female	
直流偏置 DC Bias	Solder Pin	

Turpanic Co, Ltd
Email: johnny@turpanic.com
Mob/WeChat/WhatsApp: +8613088887527

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



***

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

温度环境 Environmental Conditions:

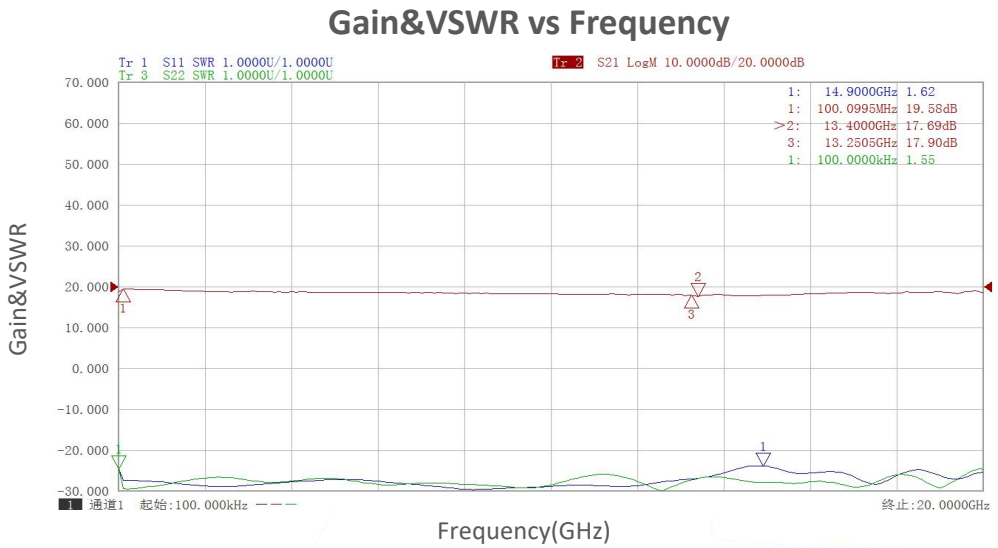
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	℃
存储温度 Non-operating Temperature	-55		+125	℃
相对湿度 Relative humidity		95		%
海拔 Altitude		50,000		feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			

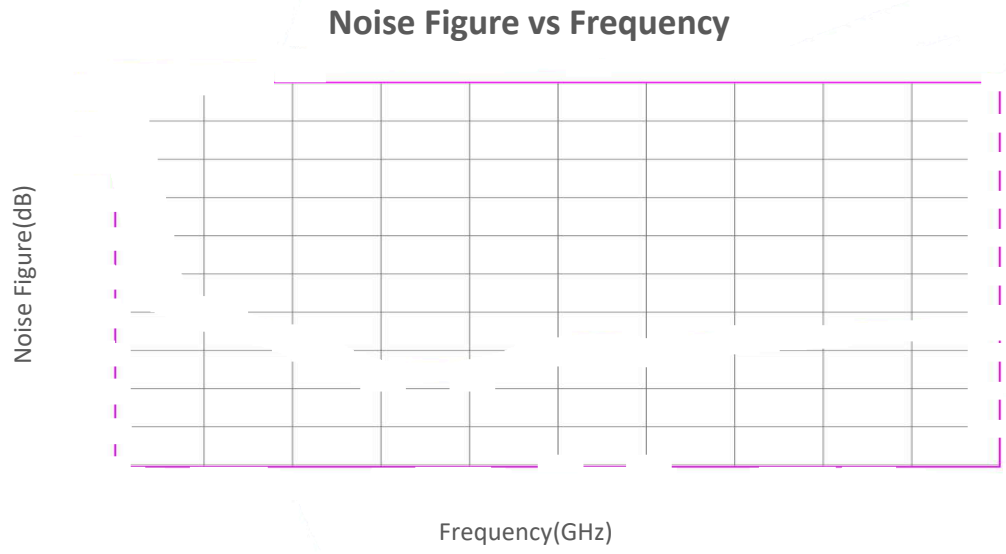
Turpanic Co, Ltd
Email: johnny@turpanic.com
Mob/WeChat/WhatsApp: +8613088887527

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TURLA50K20G-1830	Low Noise Amplifier, 50KHz-20GHz, Noise Figure:2.5dB, Gain:18 dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TURLA50K20G-1830 HS	Low Noise Amplifier, 50KHz-20GHz, Noise Figure:2.5dB, Gain:18 dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

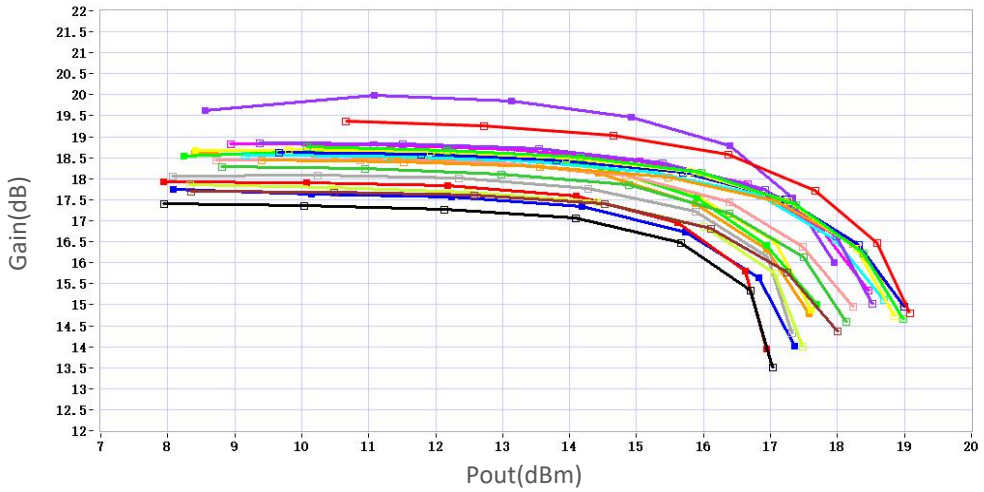




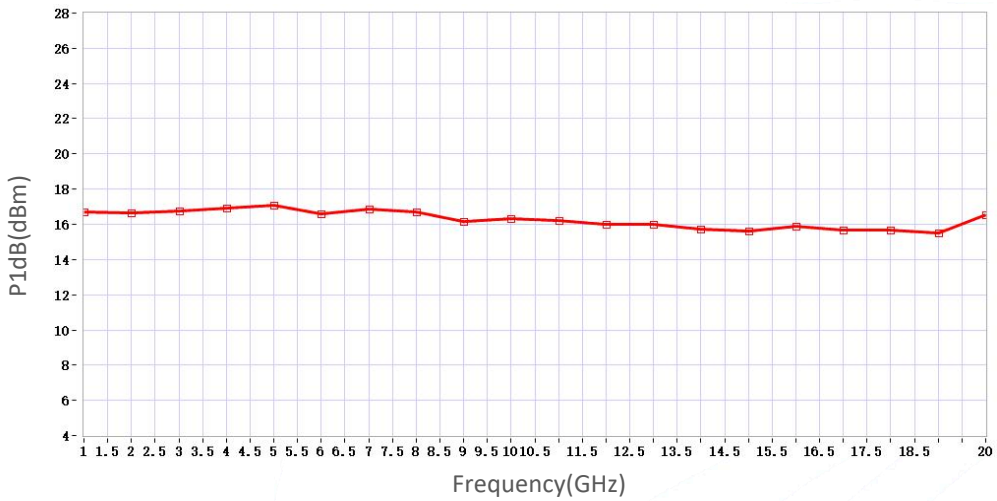
Turpanic Co, Ltd
Email: johnny@turpanic.com
Mob/WeChat/WhatsApp: +8613088887527

典型曲线 Typical Performance Data:

Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency