



Low Noise Amplifier

9-10GHz/2.0dB NF/21dB Gain/18.5dBm P1dB

TLLA9G10G-21-20

TURLA9G10G-2120 is a low noise amplifier with a typical small signal gain of 21 dB and a nominal noise figure of 2.0 dB across the frequency range of 9 to 10 GHz. The DC power requirement for the amplifier is +12 V DC/110 mA. The input and output port configuration offers coax adapter structure with SMA female.

- Features:
- Frequency range: 9-10GHz
 - Gain: 21dB Typ
 - Noise Figure: 2.0dB 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	9		10	GHz
小信号增益 Small Signal Gain		21		dB
增益平坦度 Gain Flatness		±0.4	±0.5	dB
噪声系数 Noise Figure		2	2.4	dB
线性输出功率 Output P1dB	18	18.5		dBm
饱和输出功率 Output Psat	19	19.5		dBm
输入驻波 Input VSWR		2	2.2	:1
输出驻波 Output VSWR		1.5	2.2	:1
直流电压 DC Voltage	+8	+12	+15	V DC
直流电流 DC Supply Current		110		mA
阻抗 Impedance	50			Ohms

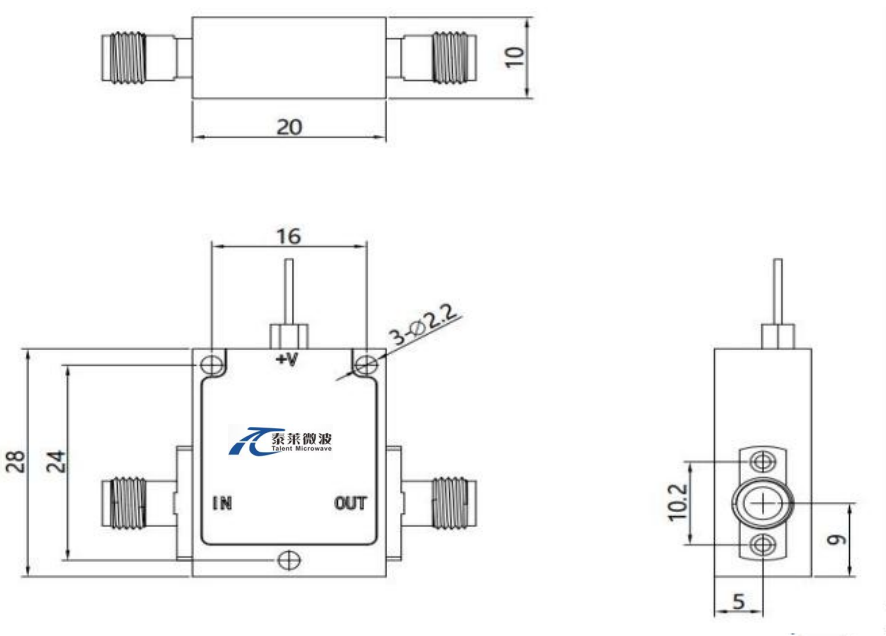
机械特性 Mechanical Specifications:

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

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	+22 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing: Unit:mm



***Heat Sink Required During Operation



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

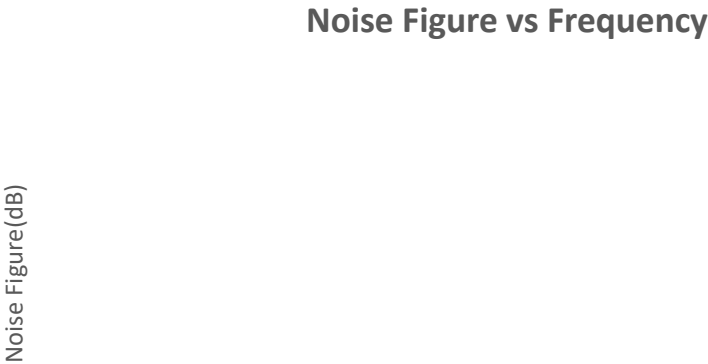
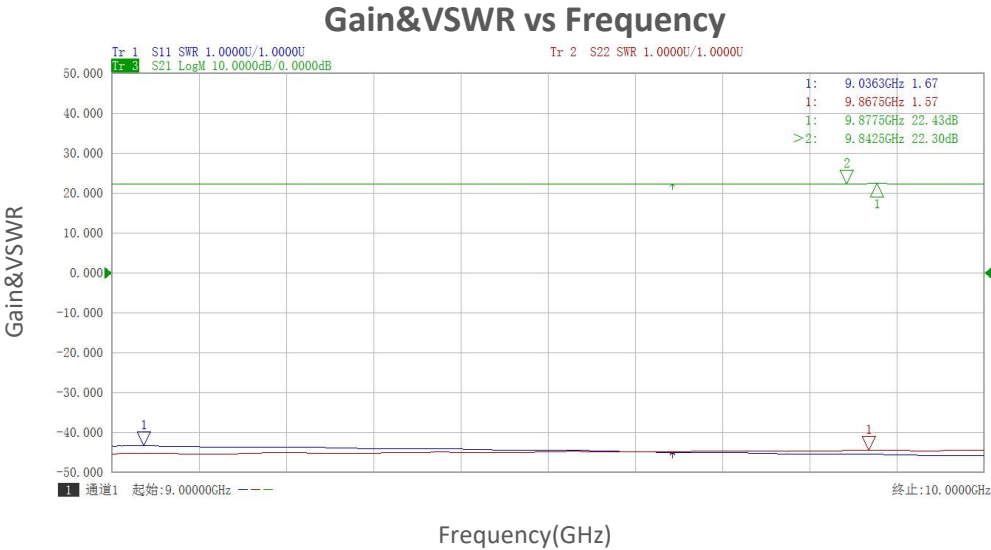
温度环境 Environmental Conditions:

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		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
TURLA9G10G-2120	Low Noise Amplifier, 9-10GHz, Noise Figure:2.0dB, Gain:21dB,P1dB:18.5dBm,+12V DC,Without Heatsink	Rev.1.1
TURLA9G10G-2120 HS	Low Noise Amplifier, 9-10GHz, Noise Figure:2.0dB, Gain:21dB,P1dB:18.5dBm,+12V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:



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