

Low Noise Amplifier

22.55-23.55GHz /1.8dB NF/45dB Gain

Model: TLLA22.55G23.55G-45-18-WR34

TLLA22.55G23.55G-45-18-WR34 is a K-Band low noise amplifier with a minimum small signal gain of 45 dB and a maximum noise figure of 1.8 dB across the frequency range of 22.55 to 23.55 GHz. The DC power requirement for the amplifier is +15 VDC. The input configuration offers an inline structure with WR-34 waveguides and UBR 260 TYPE anti-cocking flanges and output port is a female 2.92mm connector.

Features:

- Frequency range:22.55-23.55GHz
- Gain: 45dB Min
- Noise Figure: 1.8dB Min
- Unconditional stability

Applications:

- 5G & 6G
- Test & Measurement
- Mobile & Satellite Communications
- Radar Systems
- Weather & Earth Observation

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	22.55		23.55	GHz
小信号增益 Small Signal Gain	45			dB
噪声系数 Noise Figure			1.8	dB
输出功率1dB压缩点 Output P1dB		10		dBm
输入驻波 Input VSWR			1.35	:1
输出驻波 Output VSWR			1.35	:1
直流电压 DC Voltage		+15V		V DC

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入接口 Input Connector	WR-34/ UBR 260 TYPE	
输出接口 Output Connector	2.92mm Female	
供电引脚 Power Supply Pin	Solder Pin	
尺寸 Size	TBD	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+18 V
输入功率 RF Input Power	+12 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°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			
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 Base Number	描述 Description	版本号 Revision
TLLA22.55G23.55G-45-18-WR34	Low Noise Amplifier,22.55-23.55GHz, Noise Figure:1.8dB, Gain:45dB,+15V DC,WR-34	Rev.1.0