

**Model: TMLA-075110-2304-10-Cryo**

**Cryogenic Low Noise Amplifier  
75-110GHz, NF:3.5 dB, Gain:23 dB**

**Feature:**

- Ultra Wide Band: 75-110 GHz
- Gain: 33dB Typ
- Noise Figure:3.5dB Typ
- Good Power and Gain Flatness
- Using InP HEMT technology

**电气特性 Electrical Specifications:**

参数Parameter	Min	Typ	Max	单位Units
频率范围 Frequency range	75-110			GHz
增益 Gain		23		dB
增益平坦度 Gain Flatness		±1.5		dB
噪声系数 Noise Figure		3.5		dB
输出功率1dB压缩点 Output P1dB		-5		dBm
输入驻波 Input VSWR		2.0		:1
输出驻波 Output VSWR		2.0		:1
直流电压 DC power	Vd=1.0V, Id=35mA Vgs=-0.3V			V DC

**机械特性 Mechanical Specifications:**

参数Parameter	指标 Value	单位Units
输入/输出接口 Input/Output Connector	WR-10/ UG-387/U	
直流偏置 Bias	Solder Pin	
材料 Case Material	Copper	
表面处理 Finish	Gold Plated	
尺寸 Size	30*20*20	mm
重量 Weight	45	g

**绝对最大值 Absolute Maximum Ratings:**

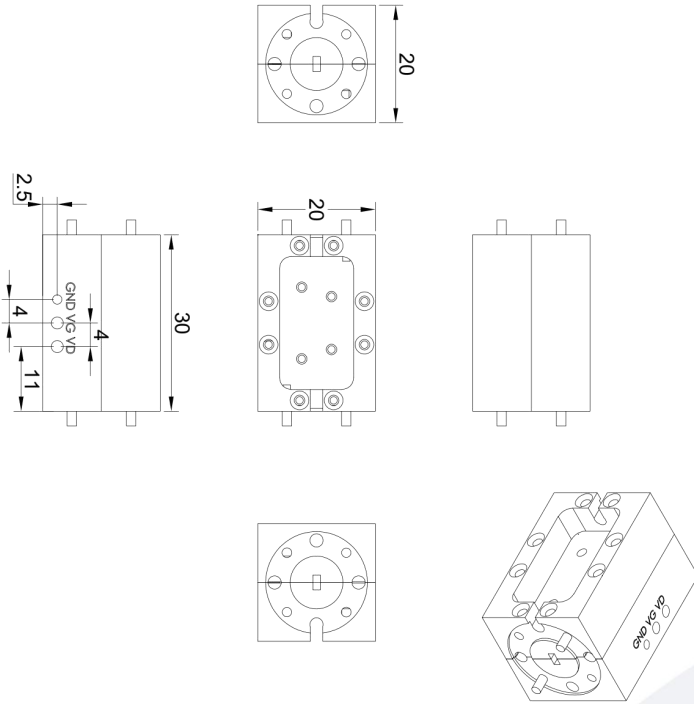
参数Parameter	指标 Value
漏极电压 Drain voltage	2 V
漏极电流 Input Drain Current	100 mA
栅极电压 Gate voltage	0 V
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



Available 220V System  
Benchtop Amplifier

外形尺寸 Outline Drawing:

Unit: mm



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

温度环境 Environmental Conditions:

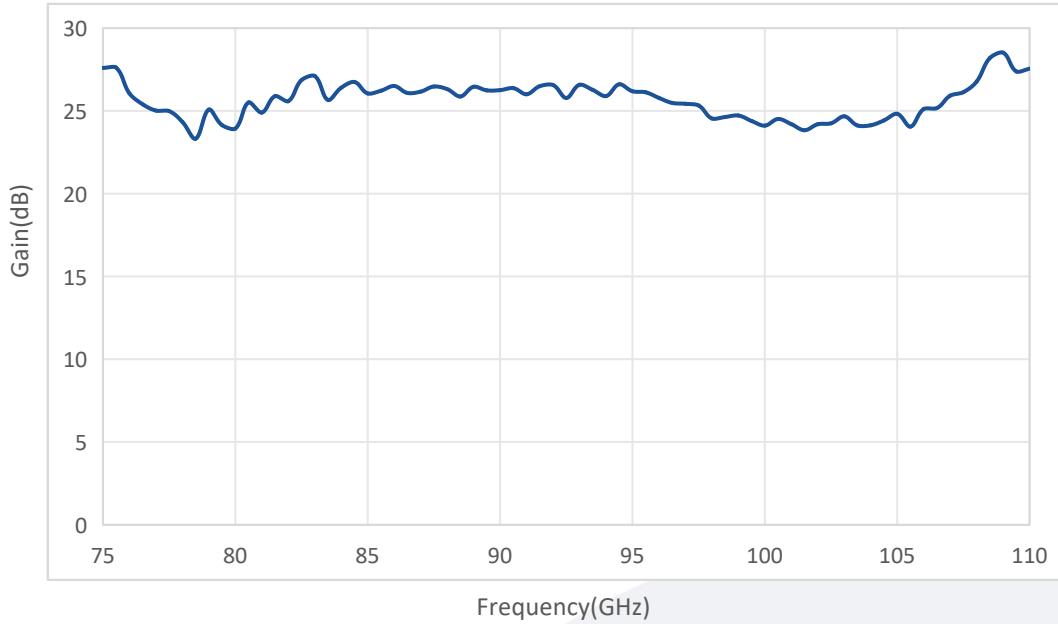
参数Parameter	Min	Typ	Max	单位Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

标准型号 Part Number	描述 Description	版本号Revision
TMLA-075110-2304-10-Cryo	Cryogenic Low Noise Amplifier 75-110GHz, Noise Figure:3.5dB, Gain:23dB,WR-10	Rev.1.1

典型曲线 Typical Performance Data:

Gain vs Frequency



Noise Figure vs Frequency

