

## Model: TLLA4G8G-37-00-Cryo

## C-band Cryogenic Low Noise Amplifier 4-8GHz, Noise temperature: 2.5K, Gain: 40 dB

### Feature:

- Ultra Wide Band: 4-8GHz
- Gain: 40 dB Min
- Average Noise temperature: 3.5K Max@12K, 2.5K Max@4K
- Technology: InP / GaAs
- 50 Ohm Matched Input / Output

### 电气特性 Electrical:

参数Parameter	Min.	Typ.	Max.	单位Units
频率范围 Frequency range	4-8			GHz
增益 Gain	40			dB
增益平坦度 Gain Flatness		±1.0		dB
平均噪声温度 Average Noise temperature	@12K		3.5	K
	@4K		2.5	
输入回波损耗 Input Return Loss			-6	dB
输出回波损耗 Output Return Loss			-13	dB
漏极电压范围 Drain voltage range	0.6		1.2	V
漏极电流范围 Drain current range		20		mA
栅极电压范围 Gate voltage range	-2		+2	V
功耗 Power Consumption			10	mw
阻抗 Impedance	50			Ohms

### 机械特性 Mechanical:

参数Parameter	指标 Value	单位Units
输入输出接口 Input /Output Connector	SMA Female	
直流偏置 Bias	Nano D connector	
尺寸 Size	46*29*9	mm



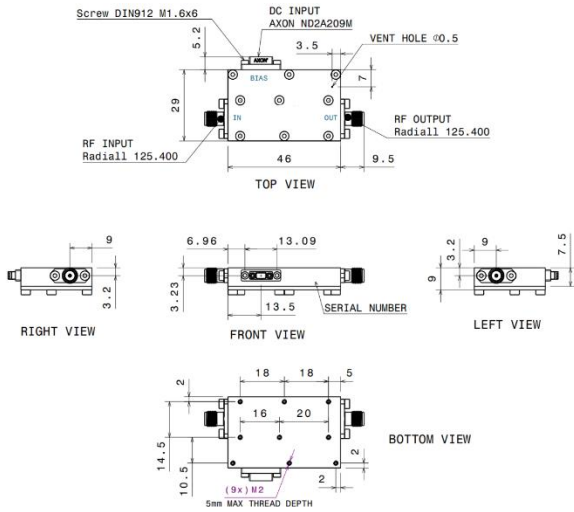
Available 220V System  
Benchtop Amplifier

### 绝对最大值 Absolute Maximum Ratings:

参数Parameter	指标 Value
漏极电压 Drain voltage	+1.2V
栅极电压 Gate voltage	+2 V
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

**外形尺寸 Outline Drawing:**

Unit: mm



Nano D connector Define	
引脚 Pin #	功能 Function
1	GND
2	VD1
3	VG1
4-9	NC



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

**温度环境 Environmental Conditions:**

参数 Parameter	Min.	Typ.	Max.	单位 Units
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
TLLA4G8G-37-00-Cryo	C-band Cryogenic Low Noise Amplifier 4-8GHz, Noise temperature:2.5K, Gain:40 dB	Rev.1.1

典型曲线 Typical Performance Data:

