泰莱微波 Talent Microwave

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Low Noise Amplifier

30KHz-0.6GHz/2.2dB NF/50dB Gain/14dBm P1dB Model: TLLA30K0.6G-50-22

TLLA30K0.6G-50-22 is a low noise amplifier with a typical small signal gain of 50 dB and a nominal noise figure of 2.2 dB across the frequency range of 30 KHz to 0.6 GHz. The DC power requirement for the amplifier is +15 V DC/85 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 30KHz-0.6GHz
- Gain: 50dB Typ
- Noise Figure: 2.2dB 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		30KHz		0.6GHz	
小信号增益 Small Signal Gain	@30KHz	47	48.5		dB
	@20-600MHz	48	50		
增益平坦度 Gain Flatness			±1.2	±1.5	dB
噪声系数 Noise Figure @300MHz			2.2	2.5	dB
线性输出功率 Output P1dB @300MHz		12	14		dBm
输出三阶交调 Output IP3 @300MHz		22	24		dBc
反向隔离 Reverse Isolation @300MHz			-60	-50	dB
输入驻波 Input VSWR @300MHz			1.5	2	:1
输出驻波 Output VSWR @300MHz			1.2	1.7	:1
直流电压 DC Voltage		14	15	18	V DC
直流电流 DC Supply Current			85	100	mA
阻抗 Impedance			50		Ohms

*Performance may degrade below 300 MHz. Please refer to below typical test plots

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

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	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	31.75*31.75*14.29	mm

绝对最大值 Absolute Maximum Ratings:

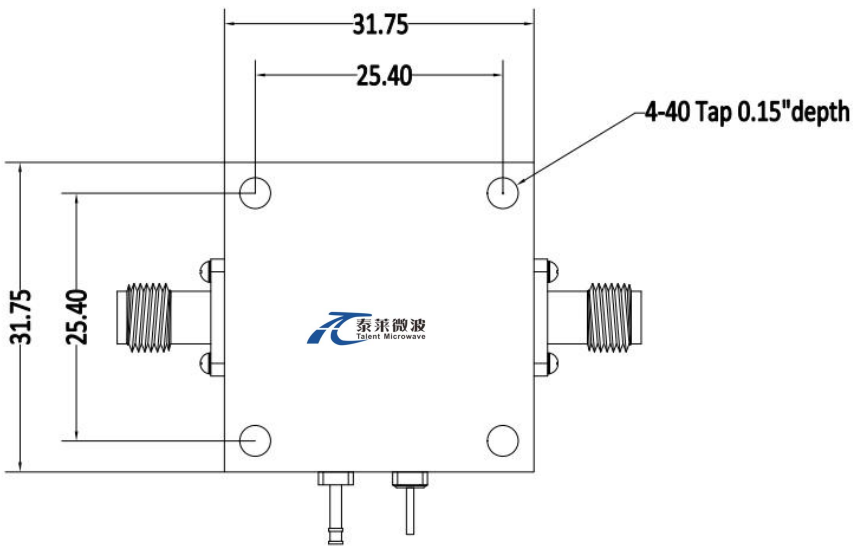
参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+20 V
输入功率 RF Input Power	+13 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

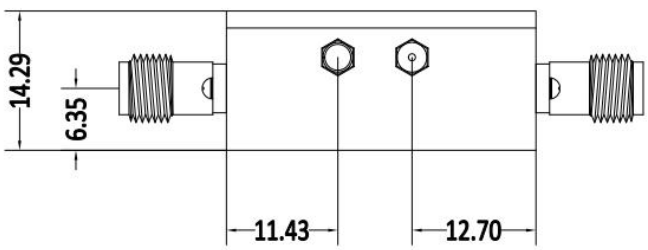


Simple 220V System
Available SAC option

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm







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

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-40		+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			
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
TLLA30K0.6G-50-22	Low Noise Amplifier, 30KHz-0.6GHz, Noise Figure:2.2dB, Gain:50dB,P1dB:14dBm,+15V DC,Without Heatsink	Rev.1.0
TLLA30K0.6G-50-22-HS	Low Noise Amplifier, 30KHz-0.6GHz, Noise Figure:2.2dB, Gain:50dB,P1dB:14dBm,+15V DC,With Heatsink	Rev.1.0