泰莱微波 Talent Microwave

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Low Noise Amplifier

0.1-20GHz/5.5dB NF/27dB Gain/30dBm P1dB Model: TLLA0.1G20G-27-55

TLLA0.1G20G-27-55 is a low noise amplifier with a typical small signal gain of 27 dB and a nominal noise figure of 5.5 dB across the frequency range of 0.1 to 20 GHz. The DC power requirement for the amplifier is +16 V DC/700 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.1-20GHz
- Gain: 27dB Typ
- Noise Figure: 5.5dB 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	0.1		20	GHz
小信号增益 Small Signal Gain	25	27		dB
噪声系数 Noise Figure		5.5		dB
线性输出功率 Output P1dB	29	30		dBm
饱和输出功率 Output Psat		31		dBm
输入驻波 Input VSWR		1.6		:1
输出驻波 Output VSWR		1.8		:1
直流电压 DC Voltage		+16	+18	V DC
直流电流 DC Supply Current		700		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	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	50*66*14	mm

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绝对最大值 Absolute Maximum Ratings:

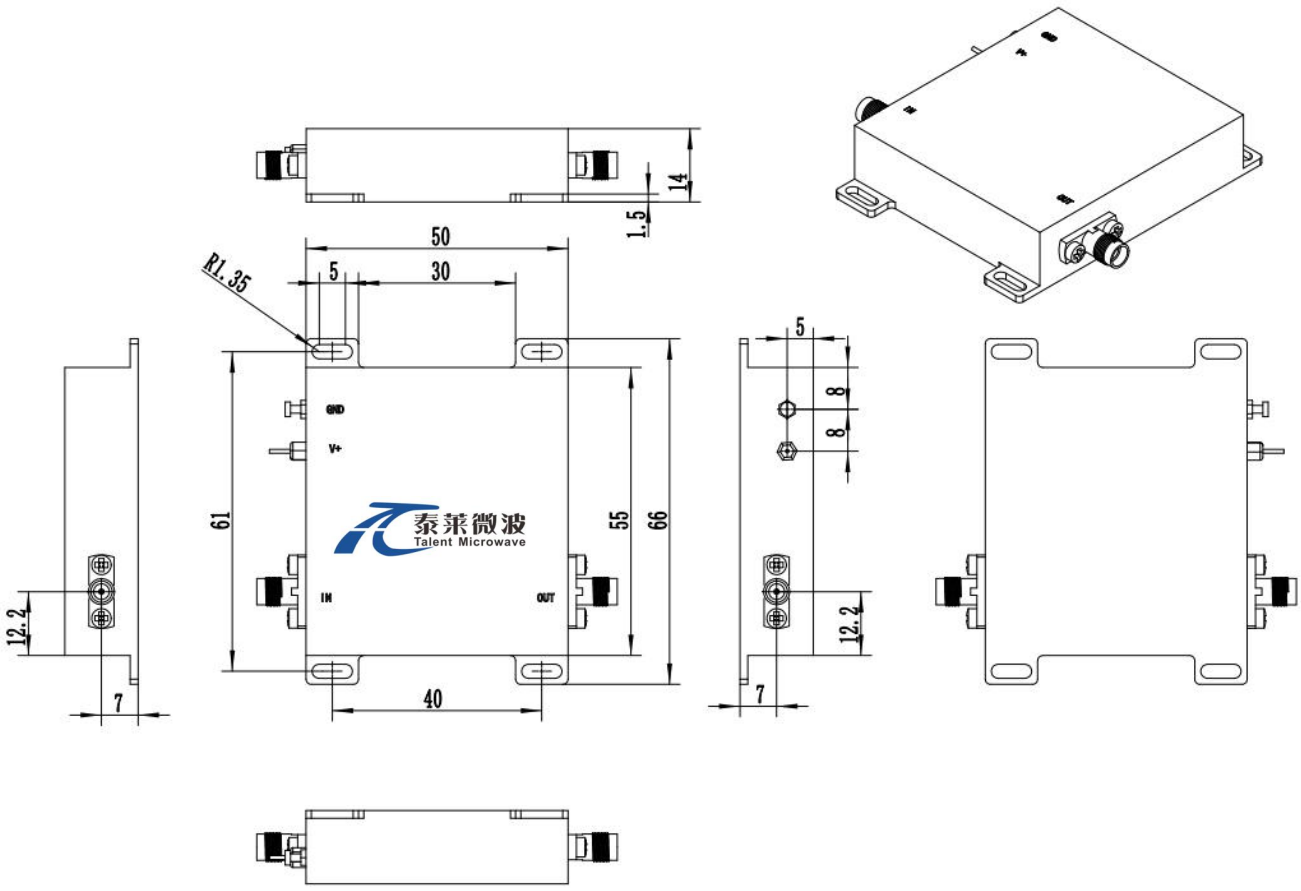
参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+18 V
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



***Heat Sink Required During Operation

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

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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			
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
TLLA0.1G20G-27-55	Low Noise Amplifier, 0.1-20GHz, Noise Figure: 5.5dB, Gain: 27 dB, P1dB: 30dBm, +16V DC, Without Heatsink	Rev.1.1
TLLA0.1G20G-27-55-HS	Low Noise Amplifier, 0.1-20GHz, Noise Figure: 5.5dB, Gain: 27 dB, P1dB: 30dBm, +16V DC, With Heatsink	Rev.1.1