泰莱微波 Talent Microwave

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Low Noise Amplifier

WR-6.5/100-140GHz/5.5dB NF/30dB Gain Model: TMLA-100140-3050-06

TMLA-100140-3050-06 is a F-Band low noise amplifier with a typical small signal gain of 30 dB and a nominal noise figure of 5.5 dB across the frequency range of 100 to 140 GHz. The DC power requirement for the amplifier is +5 VDC /80 mA. The input and output port configuration offers an inline structure with WR-6.5 waveguides and UG-387/U-M anti-cocking flanges.

Features:

- Frequency range:100-140GHz
- Gain: 30dB Typ
- Noise Figure: 5.5dB Typ
- Unconditional stability

Applications:

- Passive Imaging
- 5G Systems

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	100		140	GHz
小信号增益 Small Signal Gain		30		dB
噪声系数 Noise Figure		5.5		dB
输出功率1dB压缩点 Output P1dB		-10		dBm
输入驻波 Input VSWR		3		:1
输出驻波 Output VSWR		2.5		:1
直流电压 DC Voltage		5		V DC
直流电流 DC Supply Current		80		mA

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入接口 Input Connector	WR-6.5/ UG-387/U	
输出接口 Output Connector	WR-6.5/ UG-387/U	
供电引脚 Power Supply Pin	Solder Pin	
尺寸 Size	40*30*22	mm

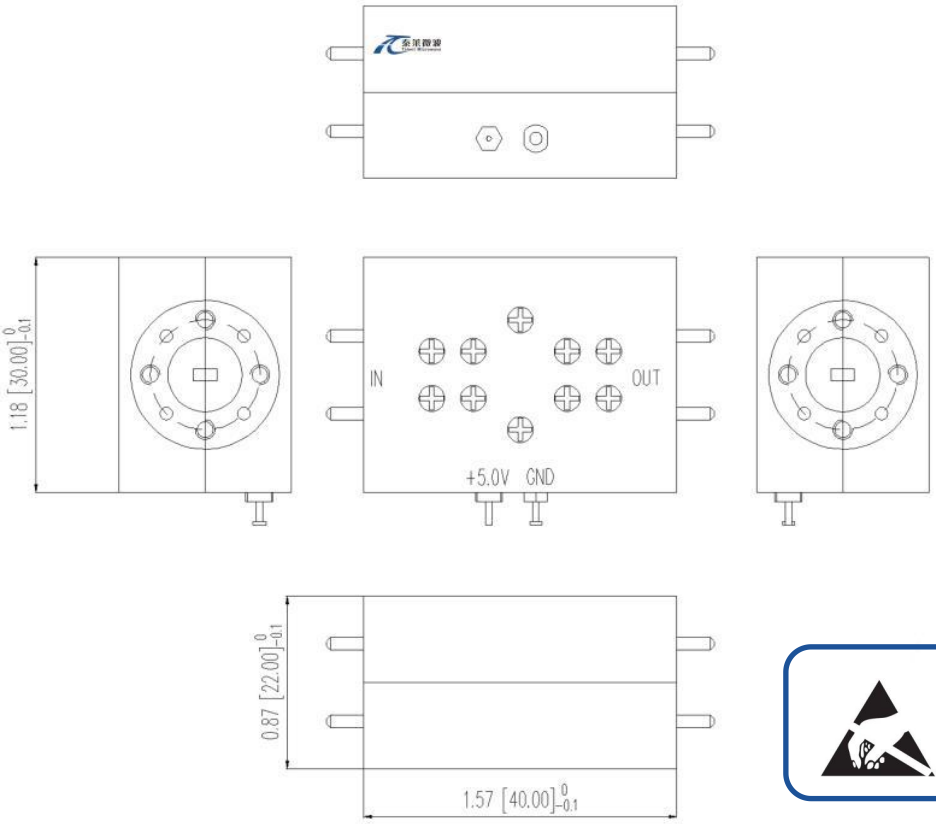
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绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+6 V
输入功率 RF Input Power	TBD
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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	-40		+75	℃
存储温度 Non-operating Temperature	-55		+85	℃
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 Base Number	描述 Description	版本号 Revision
TMLA-100140-3050-06	Low Noise Amplifier,100-140GHz, Noise Figure:5.5dB, Gain:30dB, +5V DC,WR-6.5	Rev.1.0