泰莱微波 Talent Microwave

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W-Band Power Amplifier

WR-10/75-110GHz /30dB Gain/24 dBm Psat Model: TMPA-075110-3020-10

TMPA-075110-3020-10 is a W-Band power amplifier with a typical small signal gain of 30 dB and a minimum Psat of 24 dBm across the frequency range of 75 to 110 GHz. The DC power requirement for the amplifier is +16 VDC. The input and output port configuration offers an inline structure with WR-10 waveguides and UG-387/U-M anticocking flanges.

Features:

- Ultra Wide Band: 75-110GHz
- Gain: 30dB Typ
- Output Power Psat: 24dBm Min
- Good Power and Gain Flatness

Applications:

- Passive Imaging
- Communication Systems
- Radar Systems

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range		75-110		GHz
小信号增益 Small Signal Gain		30		dB
饱和输出功率 Output Psat	24			dBm
输入驻波 Input VSWR		3		:1
输出驻波 Output VSWR		1.5		:1
直流电压 DC Voltage		16		V DC
直流电流 DC Supply Current		180		mA

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 DC Bias	Solder Pin	
尺寸 Size	45*30*23(Without Heatsink) 45*70*43(With Heatsink)	mm

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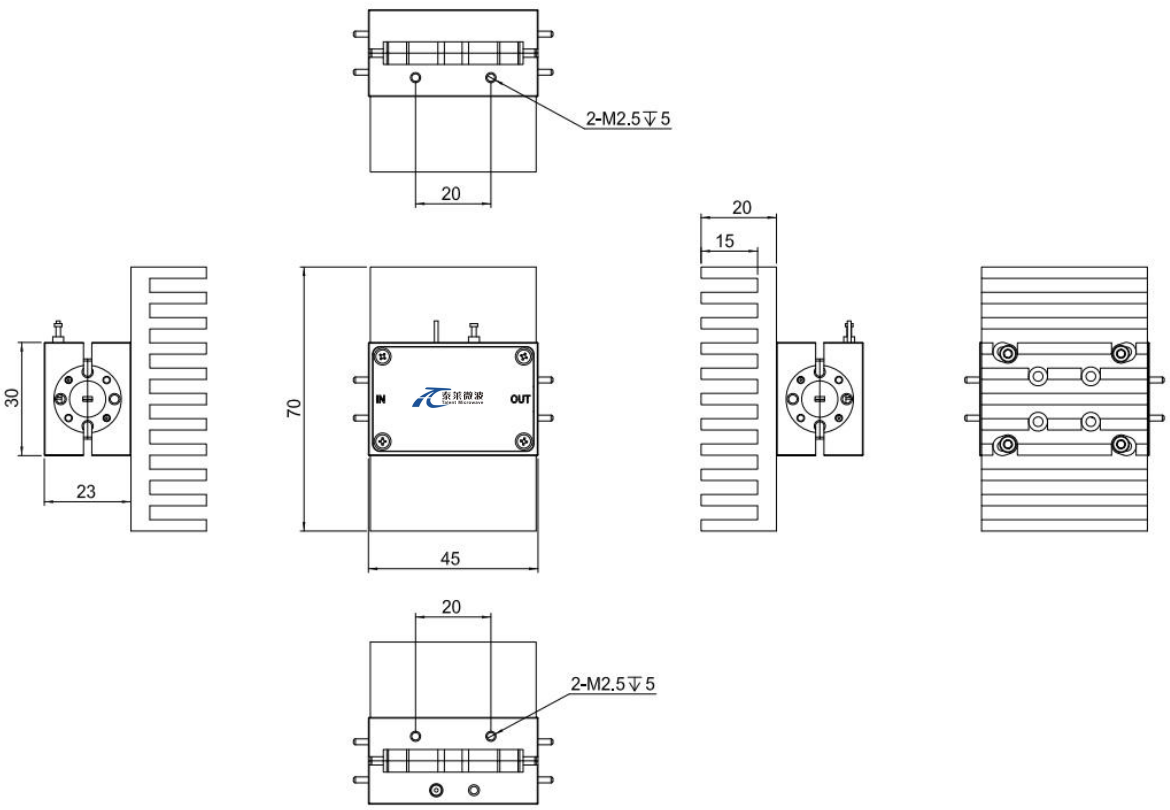
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+20 V
输入功率 RF Input Power	+15 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



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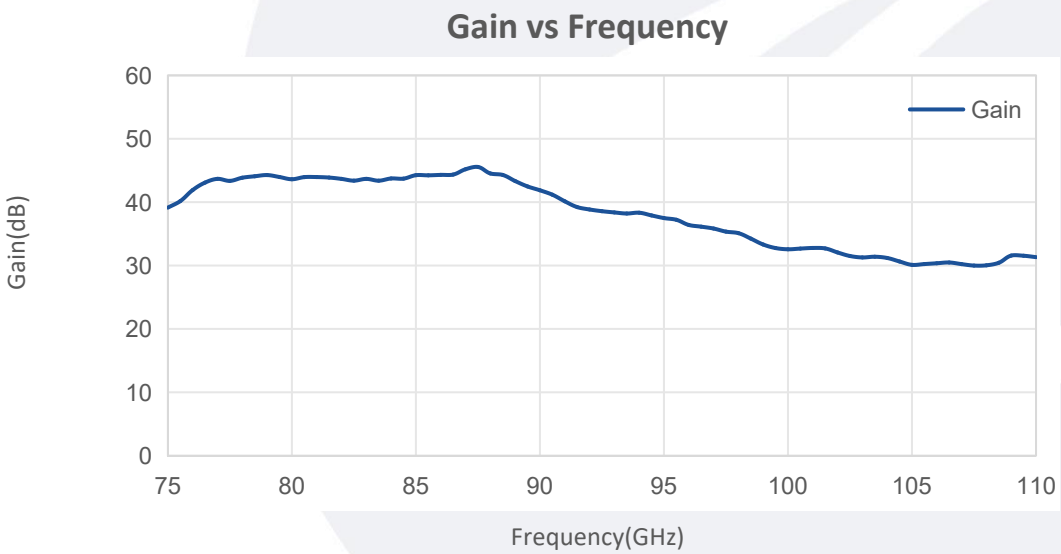
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	℃
存储温度 Non-operating Temperature	-45		+85	℃
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 Desciption	版本号 Revision
TMPA-075110-3020-10	Power Amplifier, 75-110 GHz, Gain:30 dB Type, Psat:24 dBm Min, +16V DC,WR-10,Without Heatsink	Rev.1.1
TMPA-075110-3020-10-HS	Power Amplifier, 75-110 GHz, Gain:30 dB Type, Psat:24 dBm Min, +16V DC,WR-10,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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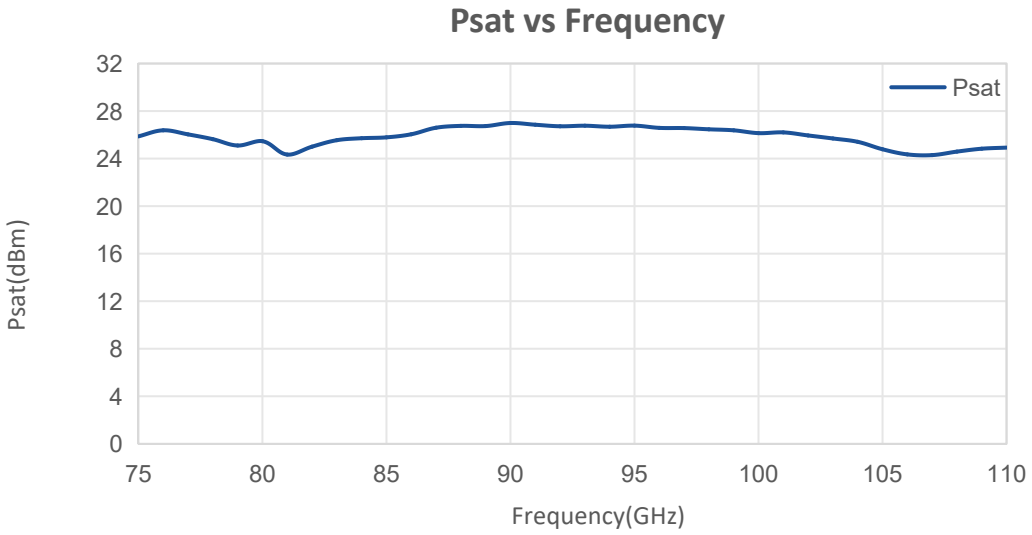

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