

## Power Amplifier

WR-4.3/180-260GHz/17dB Gain/10dBm Psat

Model: TMPA-180260-1710-04

TMPA-180260-1710-04 is a power amplifier with a typical small signal gain of 17 dB and a nominal Psat of 10 dBm across the frequency range of 180 to 260 GHz. The DC power requirement for the amplifier is +12 VDC/210 mA. The input and output port configuration offers an inline structure with WR-4.3 waveguides and UG-387/U-M antcocking flanges.

### Features:

- Frequency range: 180-260GHz
- Gain: 17dB Typ
- Output Power Psat: 10dBm Typ
- 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	180		260	GHz
小信号增益 Small Signal Gain		17		dB
饱和输出功率 Output Psat		10		dBm
输入驻波 Input VSWR		2.5		:1
输出驻波 Output VSWR		3		:1
直流电压 DC Voltage		12		V DC
直流电流 DC Supply Current		210		mA

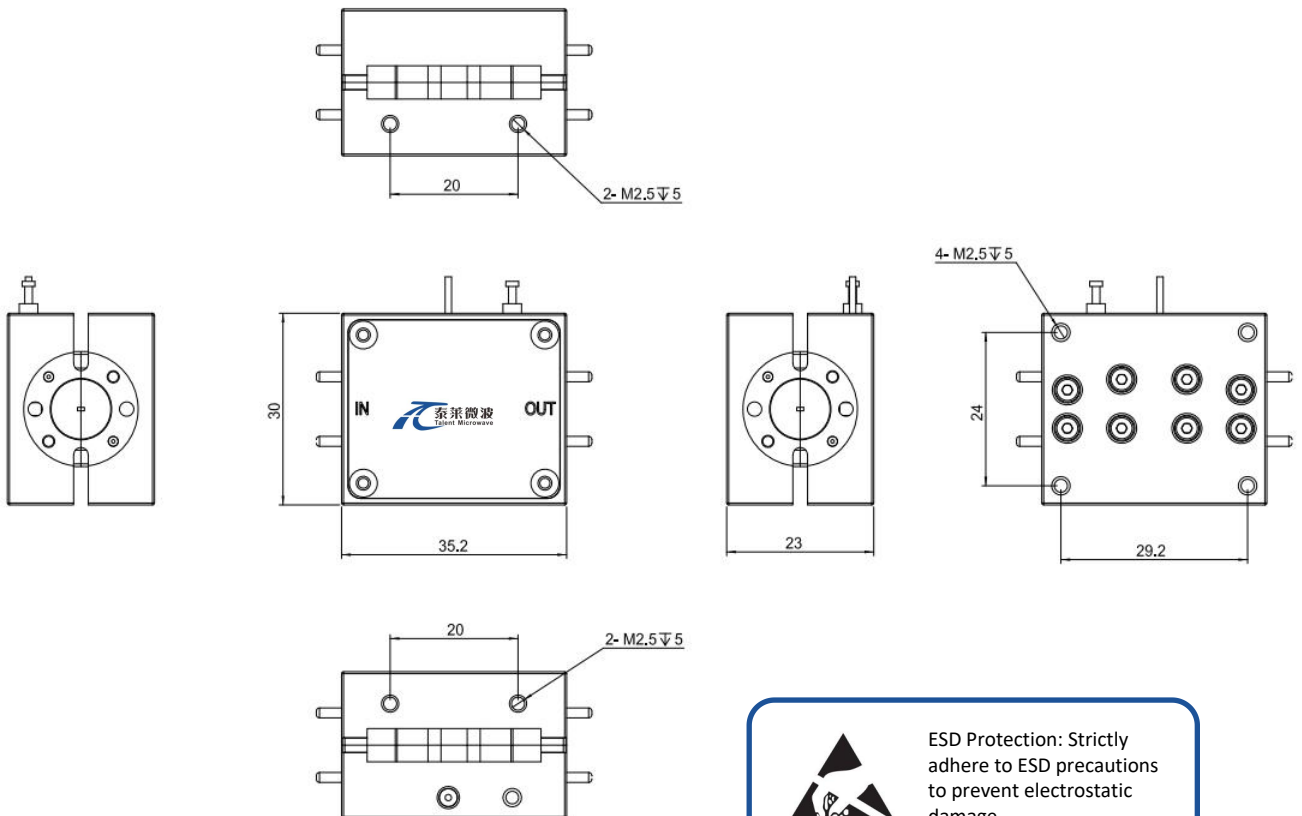

### 机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	WR-4.3/UG-387/U	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	35.2*30*23	mm

## 绝对最大值 Absolute Maximum Ratings:

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

## 外形图 Outline Drawing: Unit:mm

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

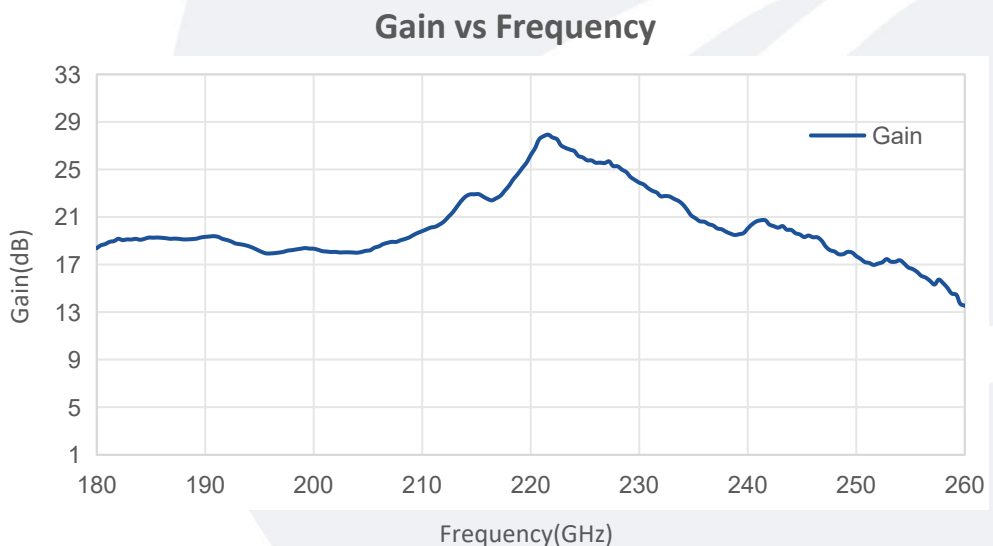
## 温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
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
TMPA-180260-1710-04	Power Amplifier, 180-260GHz, Gain: 17dB Type, P <sub>sat</sub> : 10dBm Type, +12V DC, WR-4.3	Rev.1.0

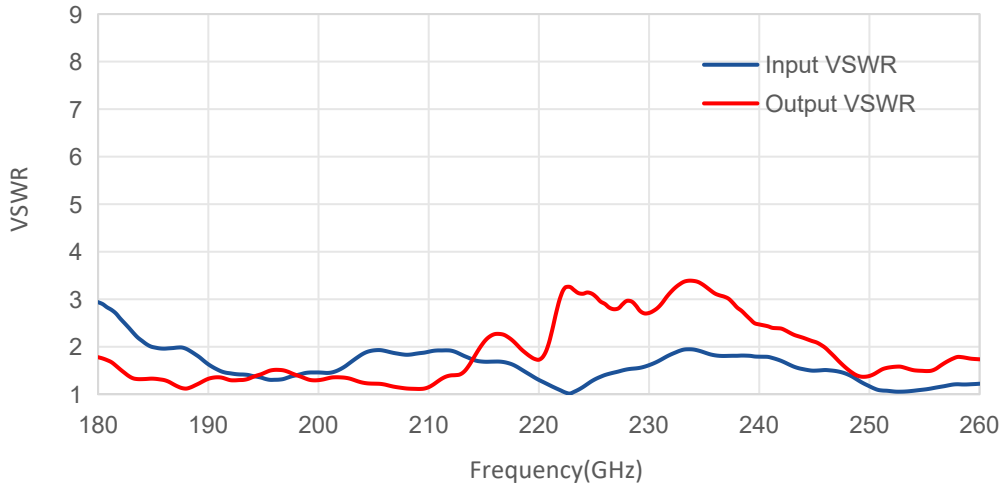
## 典型曲线 Typical Performance Data:



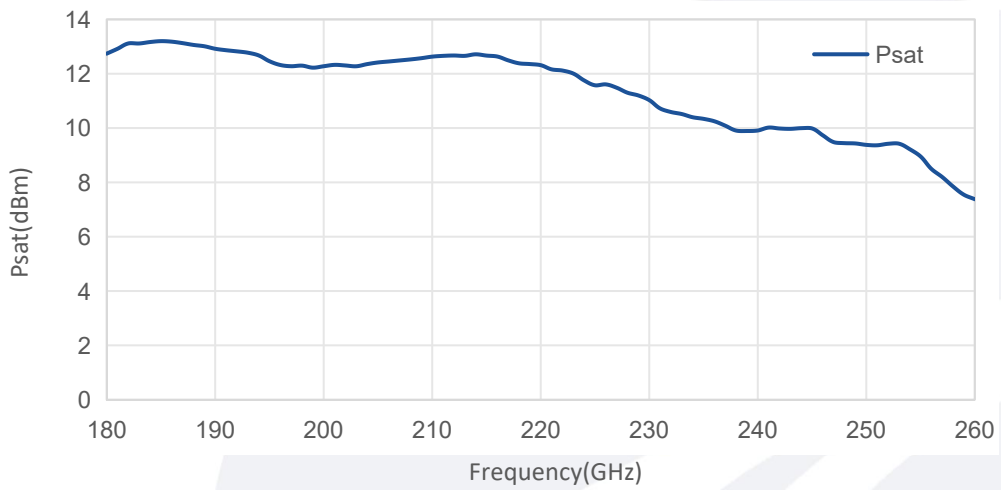
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

**典型曲线 Typical Performance Data:**

**VSWR vs Frequency**



**Psat vs Frequency**



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