

Power Amplifier

WR-12/76-81GHz/20dB Gain/32dBm Psat**Model: TMPA-076081-2033-12**

TMPA-076081-2033-12 is a power amplifier with a typical small signal gain of 20 dB and a nominal Psat of 32 dBm across the frequency range of 76 to 81 GHz. The DC power requirement for the amplifier is +18 VDC/290 mA. The input and output port configuration offers an inline structure with WR-12 waveguides and UG-387/U-M anticocking flanges.

Features:

- Frequency range: 76-81GHz
- Gain: 20dB Typ
- Output Power Psat: 32dBm 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	76		81	GHz
小信号增益 Small Signal Gain		20		dB
饱和输出功率 Output Psat		32		dBm
输入驻波 Input VSWR		4		:1
输出驻波 Output VSWR		2.5		:1
直流电压 DC Voltage		18		V DC
直流电流 DC Supply Current		290		mA

机械特性 Mechanical Specifications:

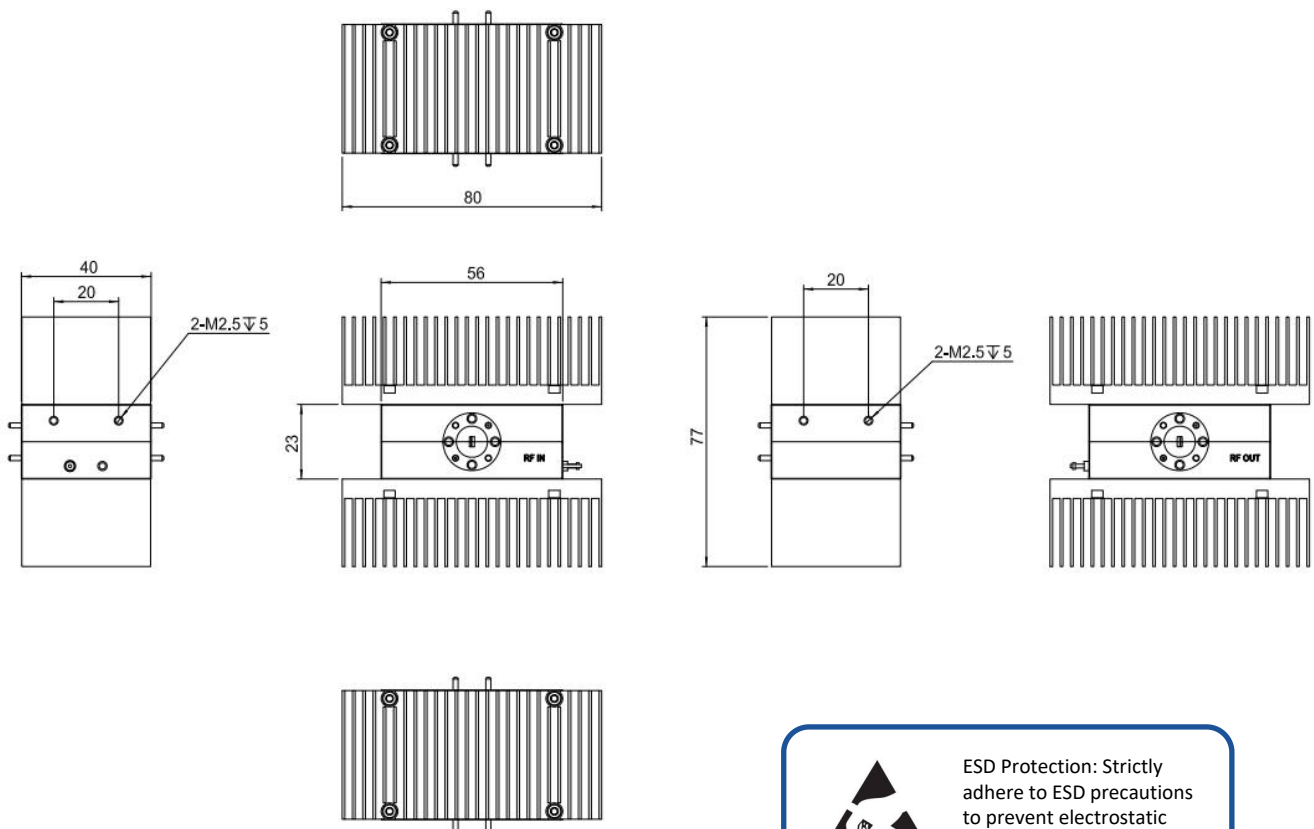
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	WR-12/UG-387/U	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	80*77*40(With heatsink) 56*23*40(Without heatsink)	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+19 V
输入功率 RF Input Power	+26 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:

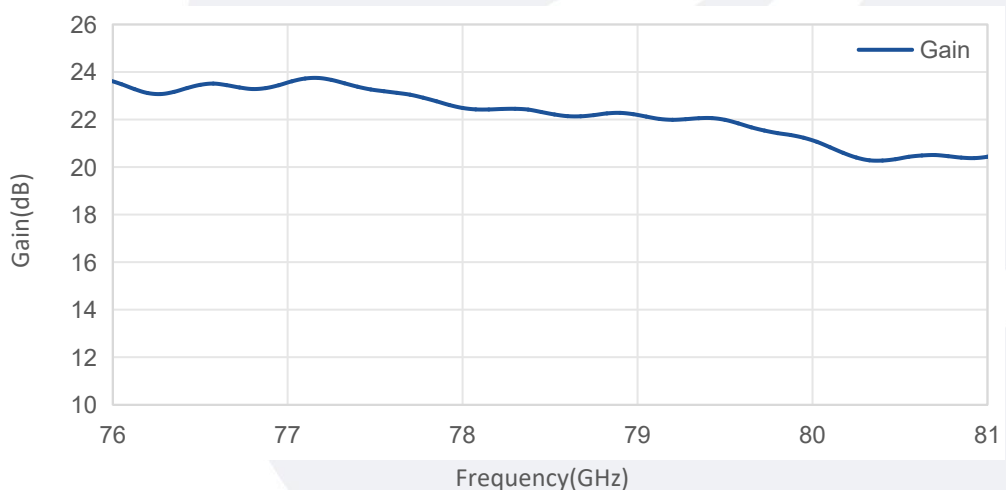
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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-076081-2033-12	Power Amplifier, 76-81GHz, Gain: 20dB Type, P _{sat} : 32dBm Type, +18V DC,WR-12	Rev.1.1

典型曲线 Typical Performance Data:

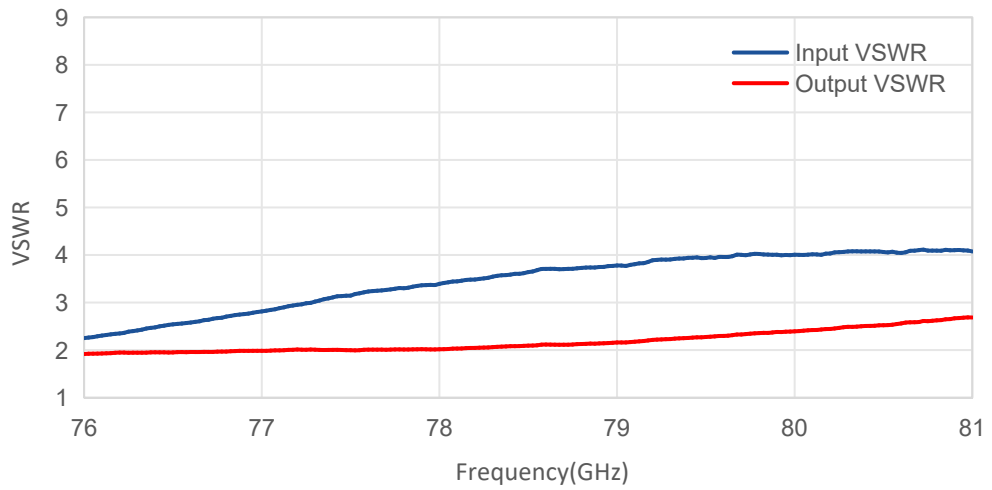
Gain vs Frequency



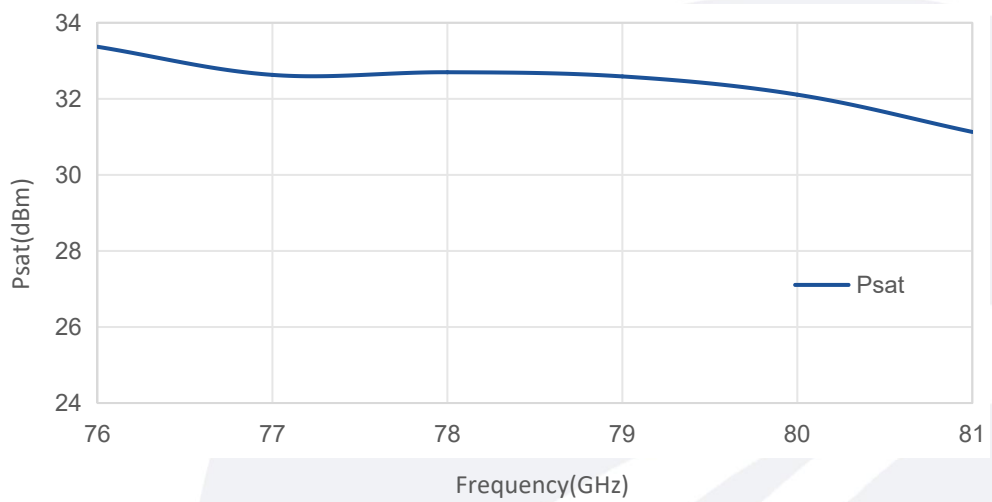
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

VSWR vs Frequency



Psat vs Frequency



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.