

V-Band Power Amplifier

WR-15/50-75GHz/18dB Gain/16dBm Psat**Model: TMPA-050075-1616-15**

TMPA-050075-1616-15 is a V-Band power amplifier with a typical small signal gain of 18 dB and a minimum Psat of 16 dBm across the frequency range of 50 to 75 GHz. The DC power requirement for the amplifier is +12 VDC/70 mA. The input and output port configuration offers an inline structure with WR-15 waveguides and UG-385/U-M antickocking flanges.

Features:

- Frequency range: 50-75GHz
- Gain: 18dB Typ
- Output Power Psat: 16dBm 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	50		75	GHz
小信号增益 Small Signal Gain		18		dB
增益平坦度 Gain Flatness		±2		dB
饱和输出功率 Output Psat	16	17		dBm
输入驻波 Input VSWR		2.2		:1
输出驻波 Output VSWR		1.8		:1
直流电压 DC Voltage		12		V DC
直流电流 DC Supply Current		70		mA

机械特性 Mechanical Specifications:

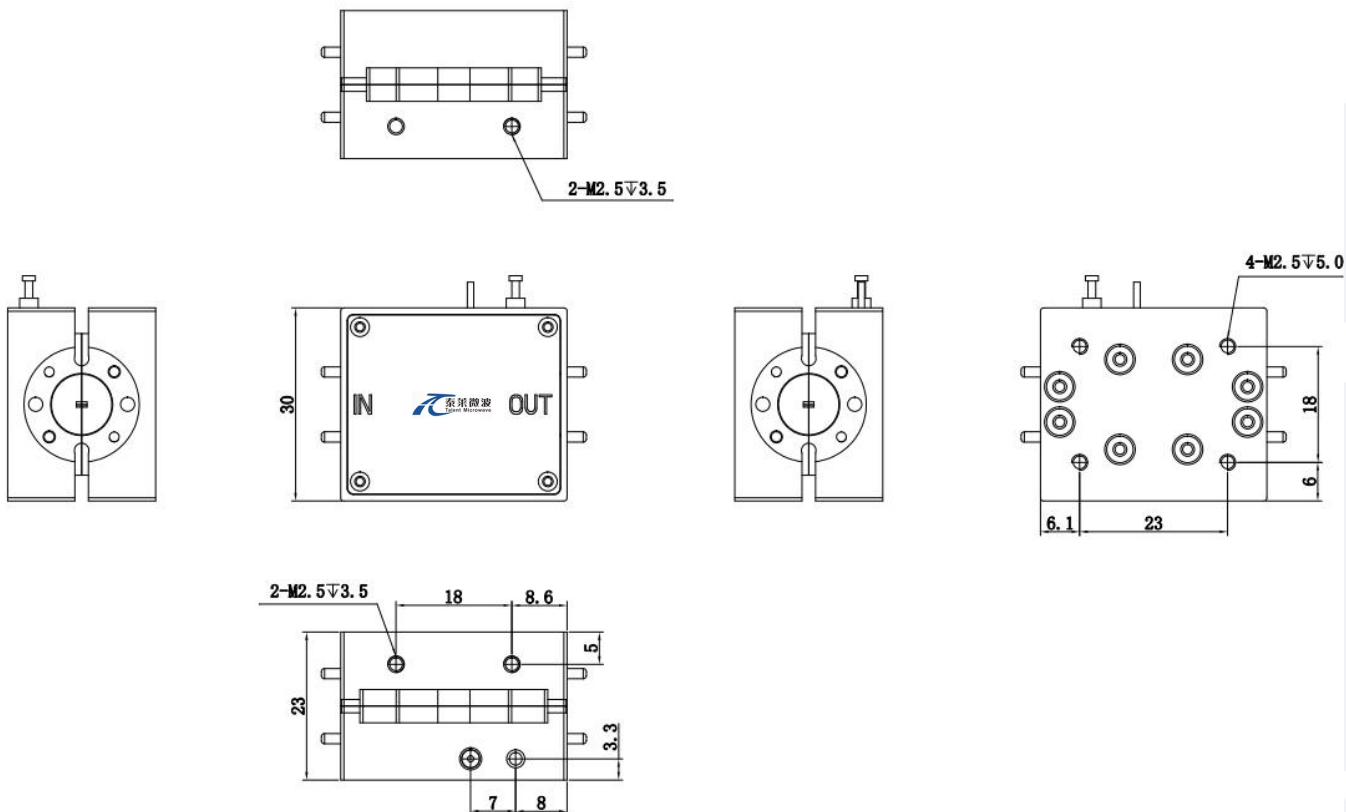
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	WR-15/UG-385/U	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	35.2*30*23	mm

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	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

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.

温度环境 Environmental Conditions:

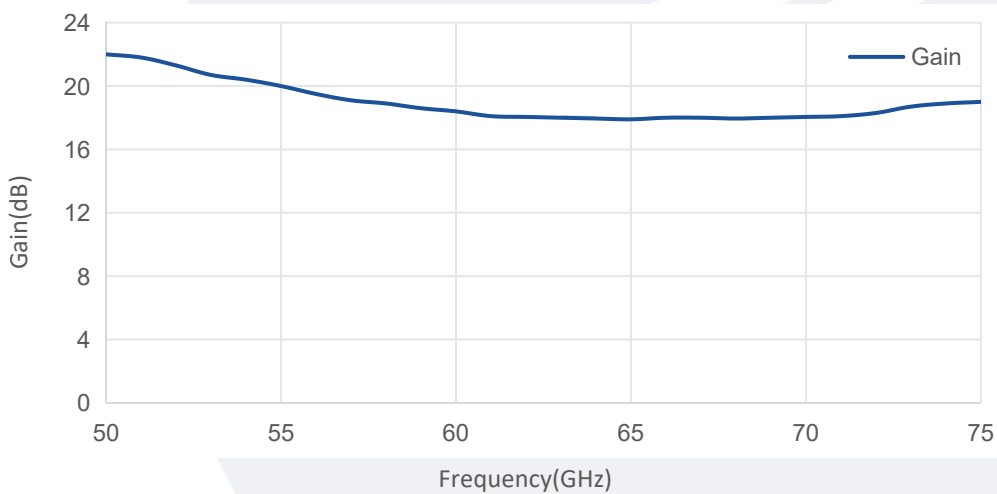
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	℃
存储温度 Non-operating Temperature	-45		+85	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TMPA-050075-1616-15	Power Amplifier, 50-75GHz, Gain: 18dB Type, Psat: 16dBm Min, +12V DC,WR-15,Without heatsink	Rev.1.1
TMPA-050075-1616-15-HS	Power Amplifier, 50-75GHz, Gain: 18dB Type, Psat: 16dBm Min, +12V DC,WR-15,With heatsink	Rev.1.1

典型曲线 Typical Performance Data:

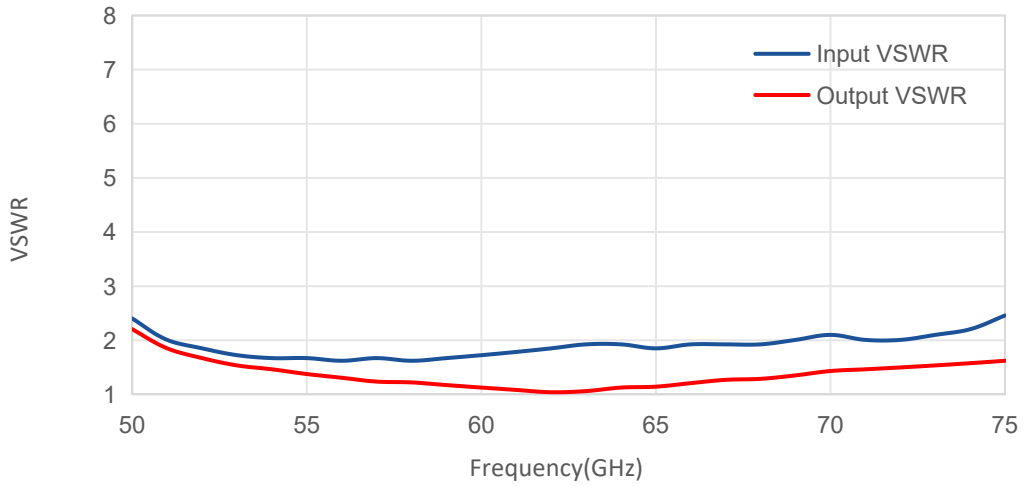
Gain vs Frequency



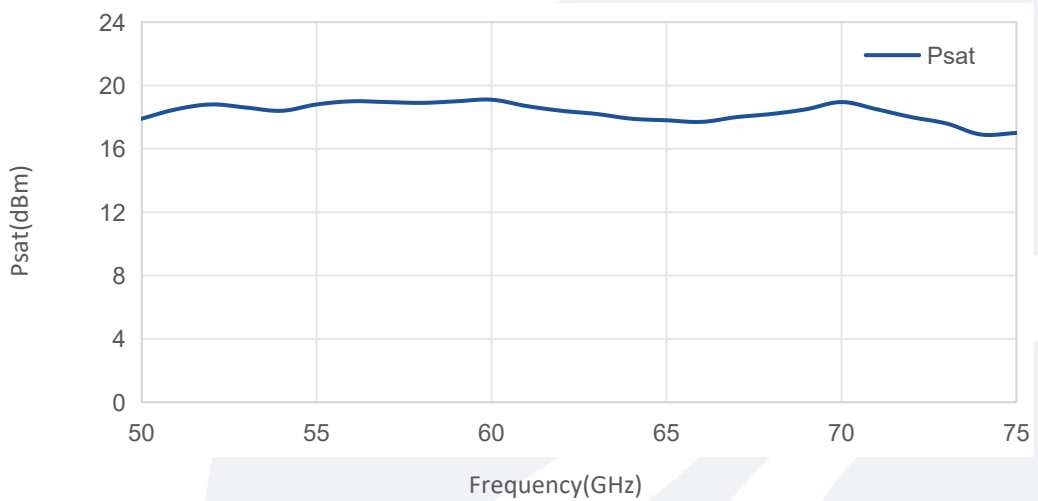
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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.