

Power Amplifier

WR-15/50-75GHz/50dB Gain/37dBm Psat**Model: TMPA-050075-3737-15**

TMPA-050075-3737-15 is a power amplifier with a typical small signal gain of 50 dB and a minimum Psat of 37 dBm across the frequency range of 50 to 75 GHz. The DC power requirement for the amplifier is +24VDC/4.2 A. The input and output port configuration offers an inline structure with WR-15 waveguides and UG-385/U-M antcocking flanges.

Features:

- Frequency range: 50-75GHz
- Gain: 50dB Typ
- Output Power Psat: 37dBm 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		50		dB
饱和输出功率 Output Psat	37			dBm
线性输出功率 Output P1dB	30			dBm
杂散 Spurious@Pout=37dBm			-50	dBc
直流电压 DC Voltage		24		V DC
直流电流 DC Supply Current		4.2		A

机械特性 Mechanical Specifications:

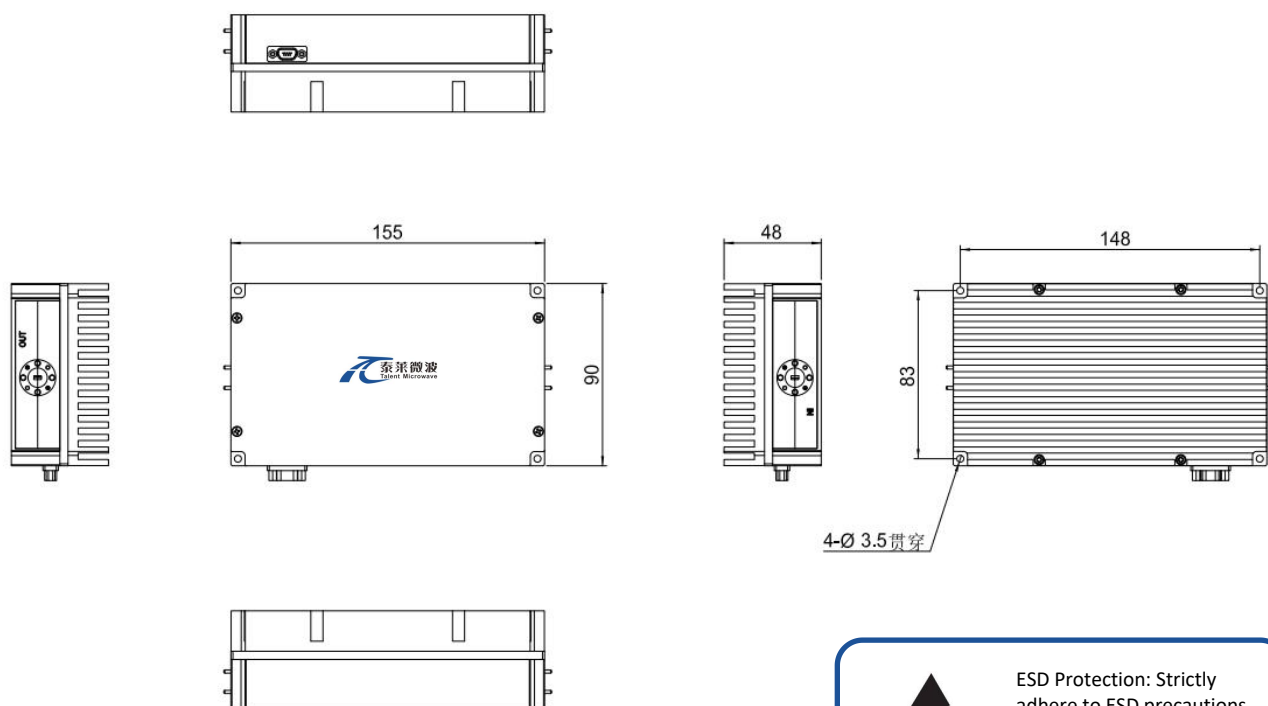
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	WR-15/UG-385/U	
直流供电接口 DC Supply Connector	J30J-9ZKP	Pin1~5:+24V Pin6~9:GND
尺寸 Size	155*90*28(Without heatsink) 155*90*48(With heatsink)	mm
重量 Weight	≤300	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+25 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; Tolerance:±0.1mm



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

温度环境 Environmental Conditions:

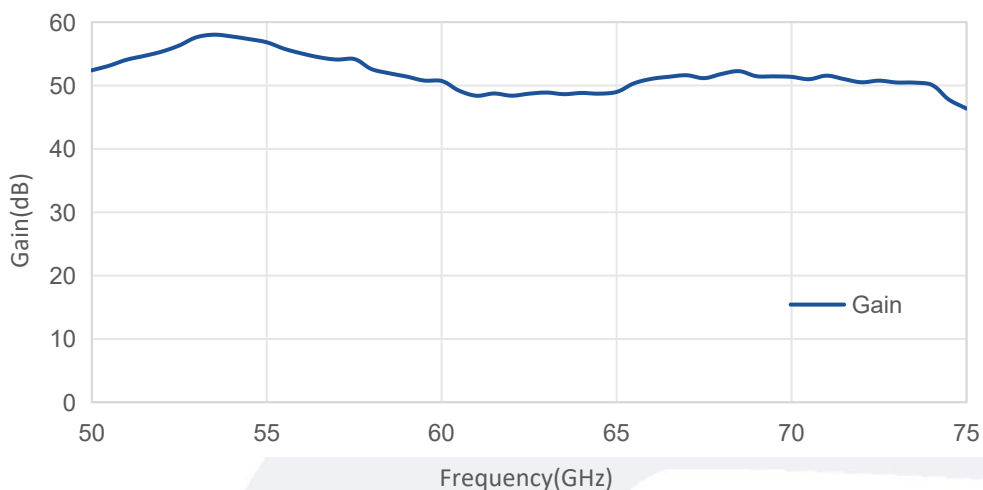
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-40		+60	°C
存储温度 Non-operating Temperature	-50		+70	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

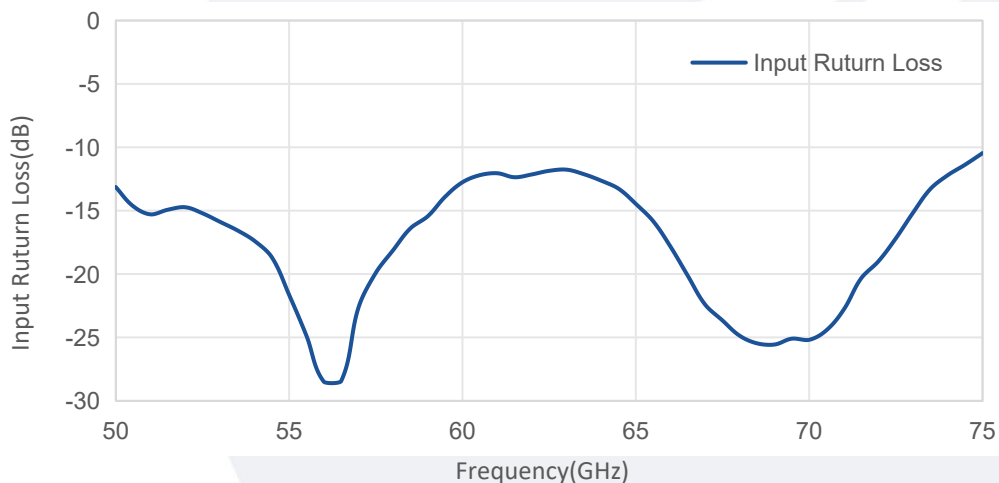
标准型号 Base Number	描述 Description	版本号 Revision
TMPA-050075-3737-15	Power Amplifier, 50-75 GHz, Gain:50dB Min, Psat:37 dBm Min, +24V DC,WR-15,With Heatsink	Rev.1.2

典型曲线 Typical Performance Data:

Gain vs Frequency



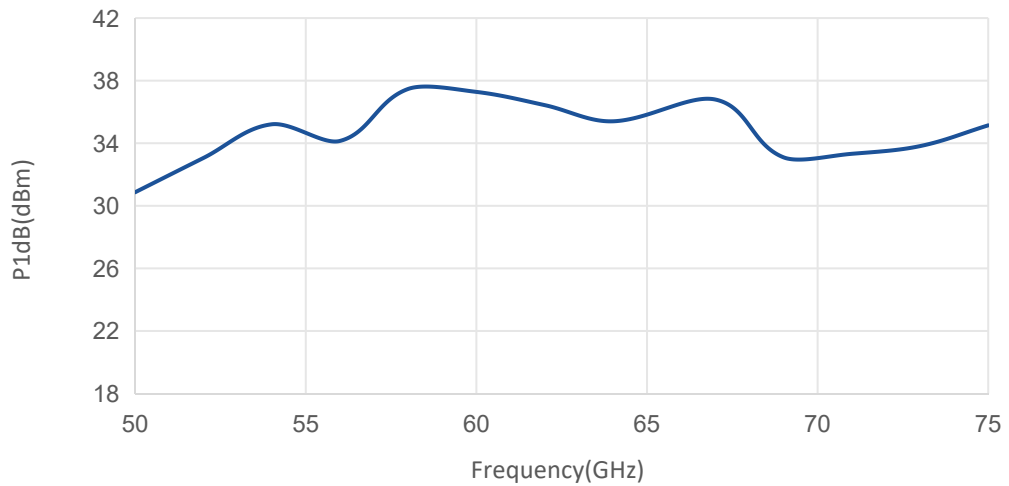
Input Return Loss vs Frequency



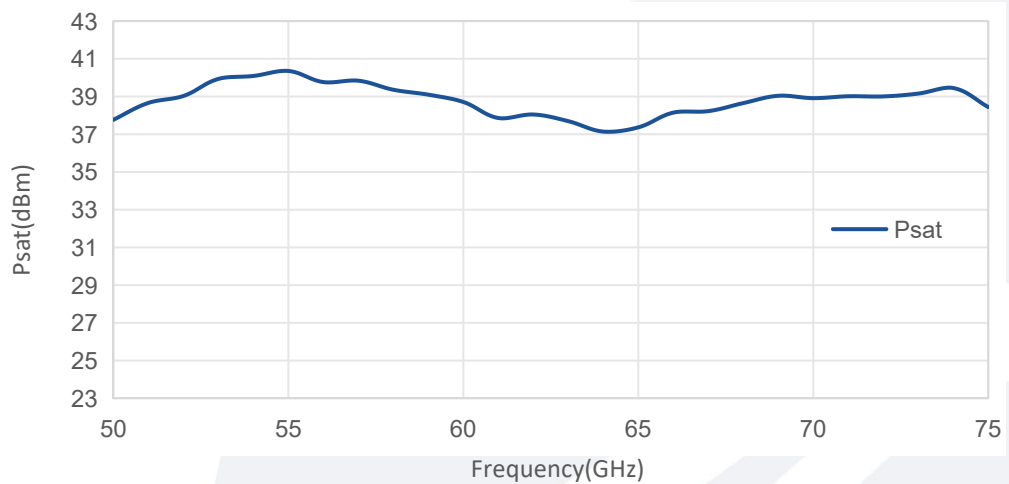
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

P1dB vs Frequency



Psat vs Frequency



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