

W-Band Power Amplifier

WR-10/75-110GHz/33dB Gain/34dBm Psat

Model: TMPA-075110-3334-10

TMPA-075110-3334-10 is a W-Band power amplifier with a typical power gain of 33 dB and a nominal Psat of 34 dBm across the frequency range of 75 to 110 GHz. The DC power requirement for the amplifier is +18 VDC/10 A. The input and output port configuration offers an inline structure with WR-10 waveguides and UG-387/U-M anticocking flanges.

Features:

- Frequency range: 75-110 GHz
- Gain: 33dB Typ
- Output Power Psat: 34dBm 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	75		110	GHz
功率增益 Power Gain	30	33		dB
饱和输出功率 Output Psat	33	34		dBm
输入驻波 Input VSWR		2		:1
输出驻波 Output VSWR		2		:1
直流电压 DC Voltage	17.5	18	18.5	V DC
直流电流 DC Supply Current		10	16	A

机械特性 Mechanical Specifications:

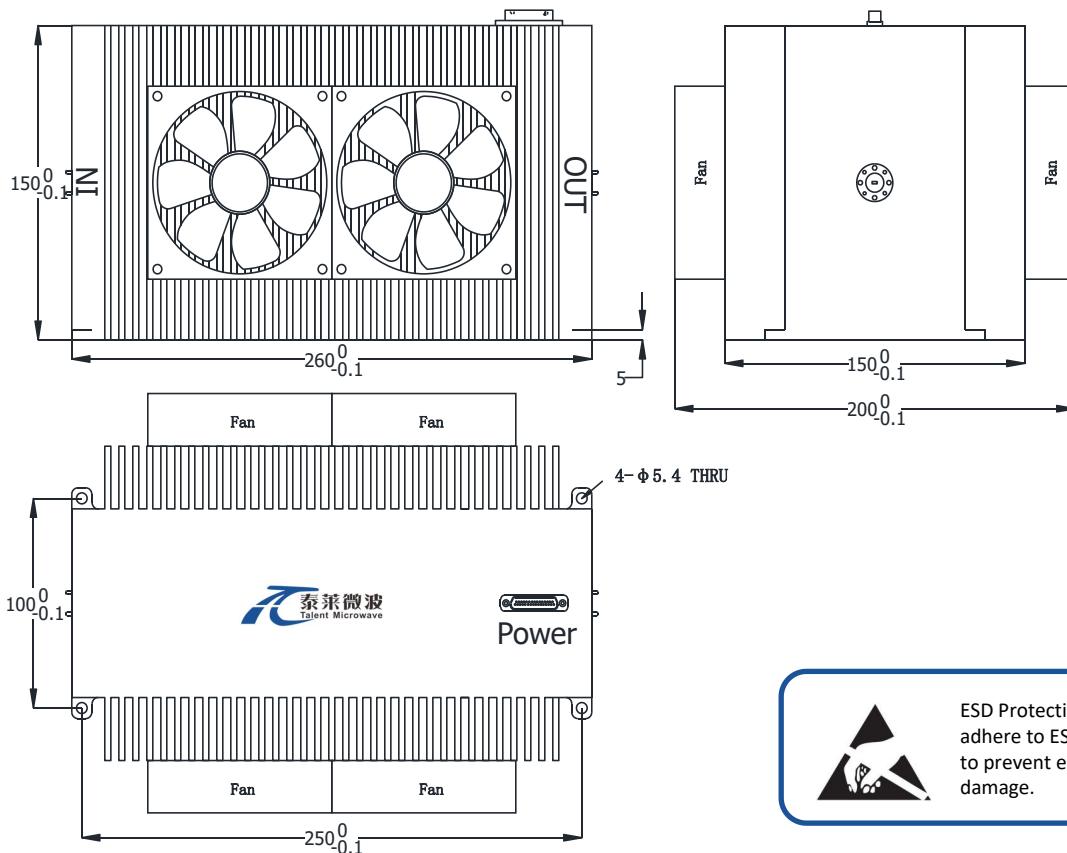
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	WR-10/UG-387/U	
直流偏置 DC Bias	J30J-31ZKP	Pin1~16:+18V Pin17~31:GND
尺寸 Size	260*200*150	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+18.5 V
输入功率 RF Input Power	+13 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.

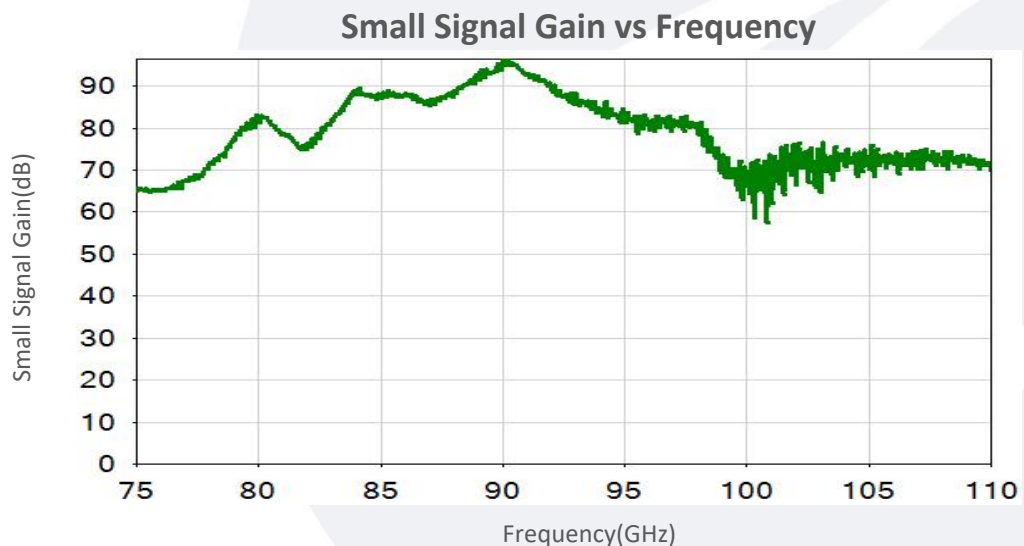
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	+10		+40	°C
存储温度 Non-operating Temperature	0		+50	°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-075110-3334-10	Power Amplifier, 75-110 GHz, Gain:33 dB Type, Psat:34 dBm Type, +18V DC,WR-10, Without heatsink	Rev.1.1
TMPA-075110-3334-10-HS	Power Amplifier, 75-110 GHz, Gain:33 dB Type, Psat:34 dBm Type, +18V DC,WR-10, Without heatsink	Rev.1.1

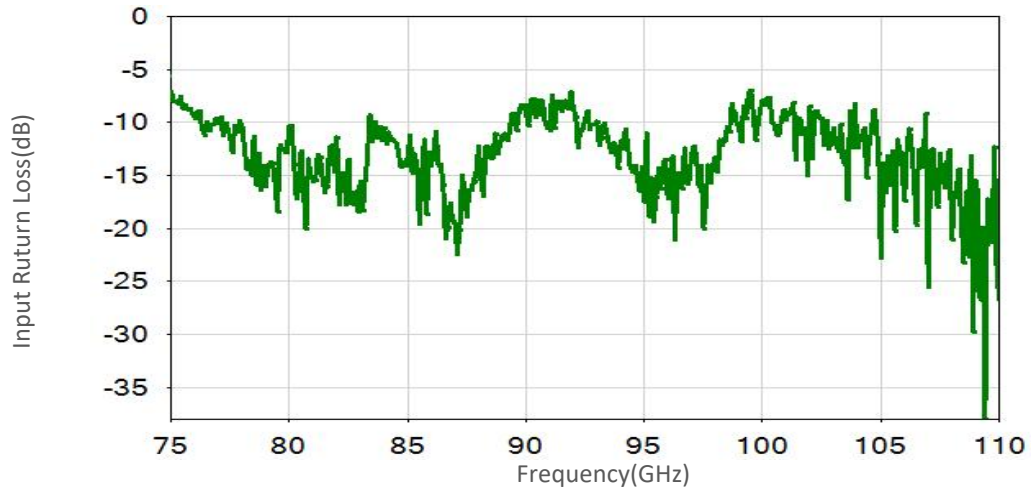
典型曲线 Typical Performance Data:



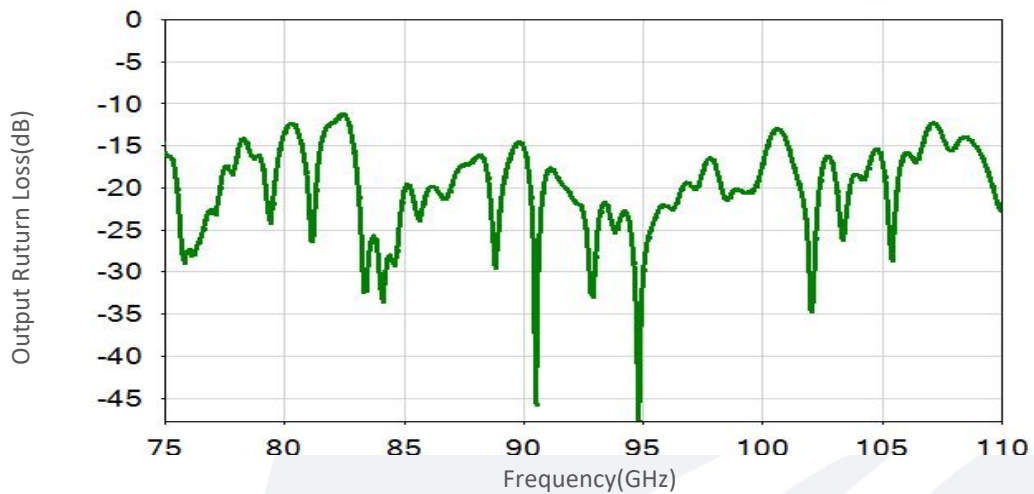
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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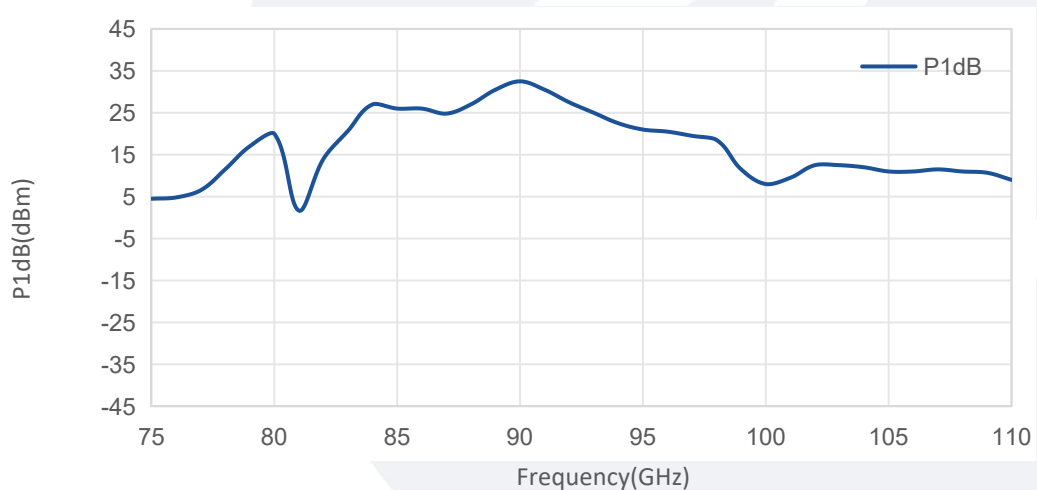
Input Return Loss vs Frequency



Output Return Loss vs Frequency

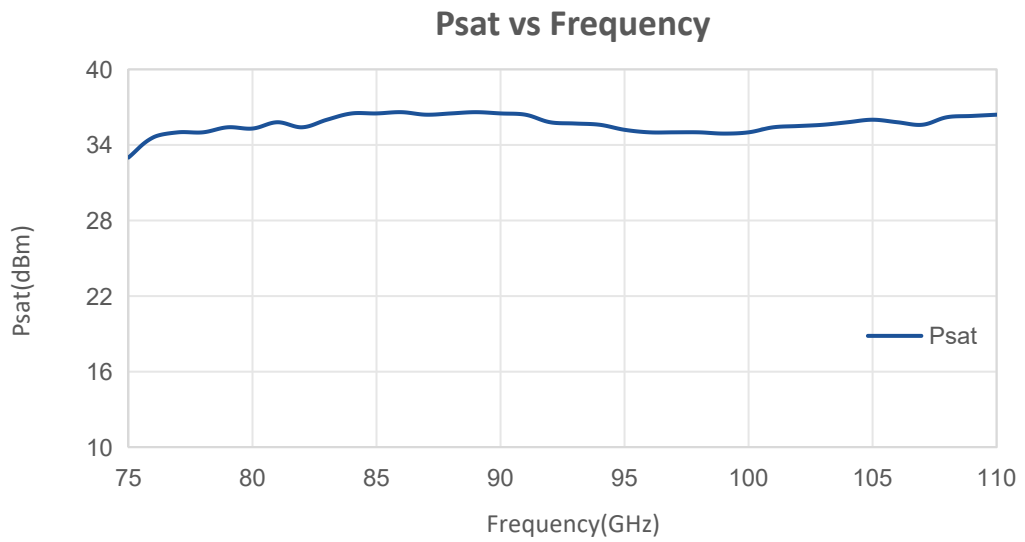


P1dB vs Frequency



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