

F-Band Power Amplifier

WR-08/100-115GHz/32dB Gain/30 dBm Psat

Model: TMPA-100115-3230-08

TMPA-100115-3230-08 is a F-Band power amplifier with small signal gain of 32 dB and Psat of 30 dBm across the frequency range of 100 to 115 GHz. The DC power requirement for the amplifier is +16V DC/1.3 A. The input and output port configuration offers an inline structure with WR-8 waveguides and UG-387/U-M anticocking flanges.

Features:

- Frequency range: 100-115 GHz
- Gain: 32dB Typ
- Output Power Psat: 30 dBm Typ
- Good Power and Gain Flatness

Applications:

- F Band Communication
- Test Equipment
- Radar Systems

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	100-115			GHz
小信号增益 Small Signal Gain		32		dB
饱和输出功率 Output Psat		30		dBm
输入驻波 Input VSWR		2.5		:1
直流电压 DC Voltage		16		V DC
直流电流 DC Current		1.3		A

机械特性 Mechanical Specifications:

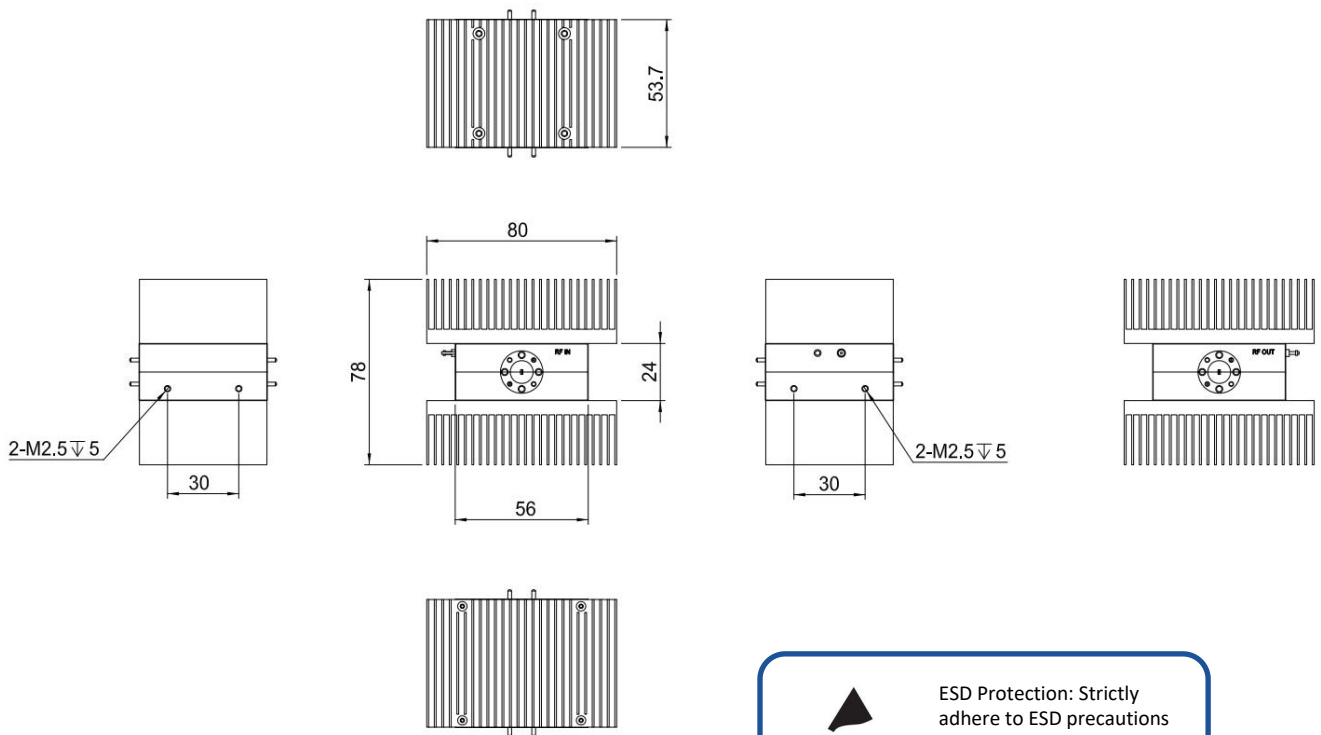
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	WR-08/UG-387/U	
供电接口 Power Supply Pin	Solder Pin	
尺寸 Size	80*78*53.7(With heatsink)	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	+15 dBm
供电电压 Supply Bias Voltage	+18V DC
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:

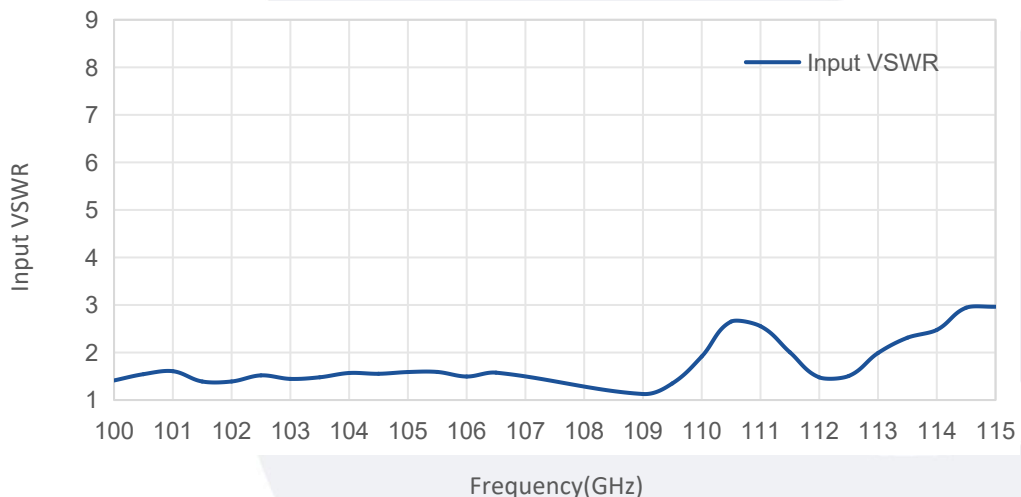
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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-100115-3230-08	Power Amplifier, 110-170GHz, Gain:32 dB Typ, Psat:30 dBm Typ, 16V DC,WR-08,Without heatsink	Rev.1.1
TMPA-100115-3230-08-HS	Power Amplifier, 110-170GHz, Gain:32 dB Typ, Psat:30 dBm Typ, 16V DC,WR-08,With heatsink	Rev.1.1

典型曲线 Typical Performance Data:

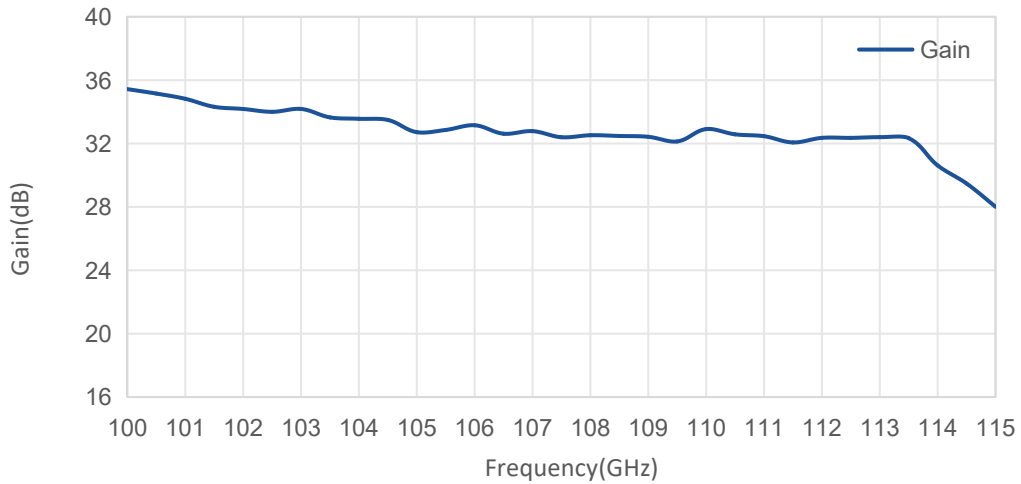
Input VSWR vs Frequency



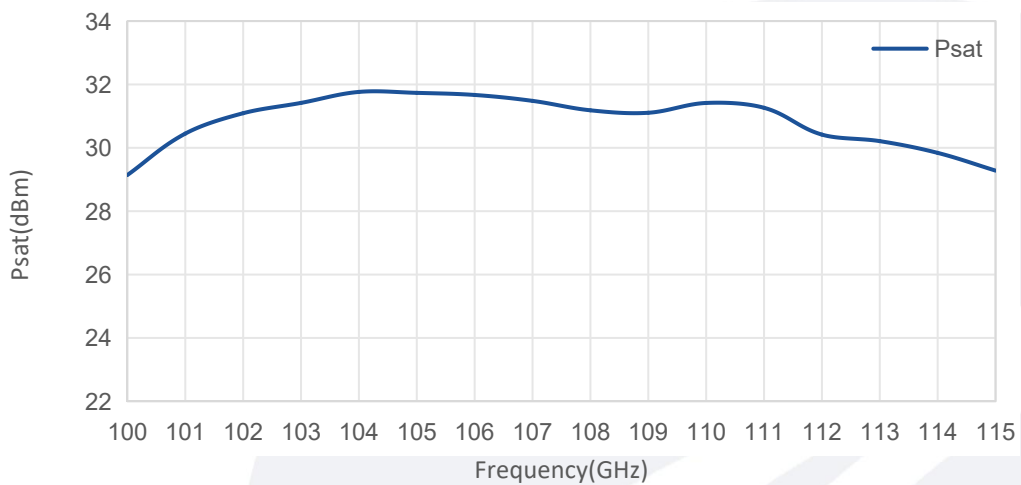
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

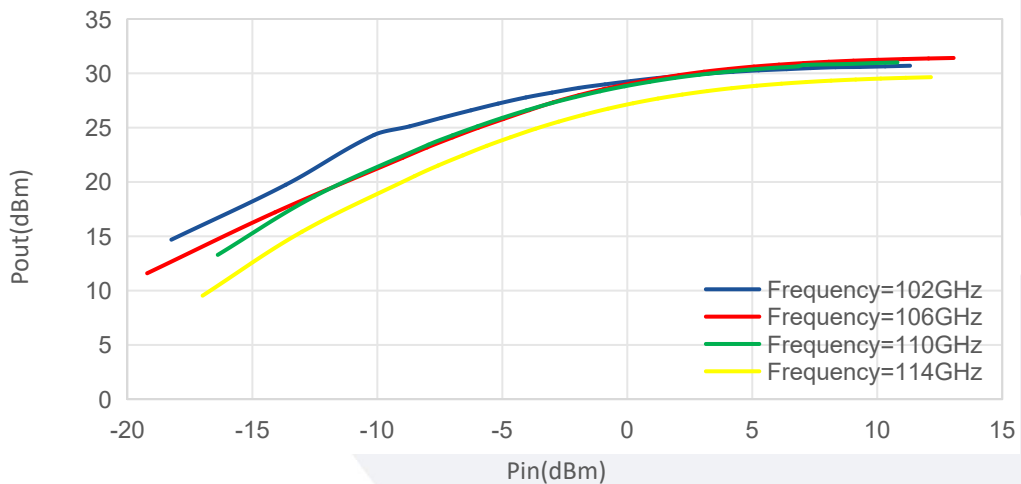
Gain vs Frequency



Psat vs Frequency



Pout@Pin vs Frequency



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