

Power Amplifier

WR-10/90-100GHz/42dB Gain/22dBm Psat**Model: TMPA-090100-4020-10**

TMPA-090100-4020-10 is a power amplifier with a typical small signal gain of 42 dB and a nominal Psat of 22 dBm across the frequency range of 90 to 100 GHz. The DC power requirement for the amplifier is +5 VDC/950 mA. The input and output port configuration offers an inline structure with WR-10 waveguides and UG-387/U-M anticocking flanges.

Features:

- Frequency range: 90-100GHz
- Gain: 42dB Typ
- Output Power Psat: 22dBm 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	90		100	GHz
小信号增益 Small Signal Gain	40	42		dB
饱和输出功率 Output Psat	20	22		dBm
输入驻波 Input VSWR		2.5		:1
输出驻波 Output VSWR		2.5		:1
直流电压 DC Voltage		5		V DC
直流电流 DC Supply Current		950		mA

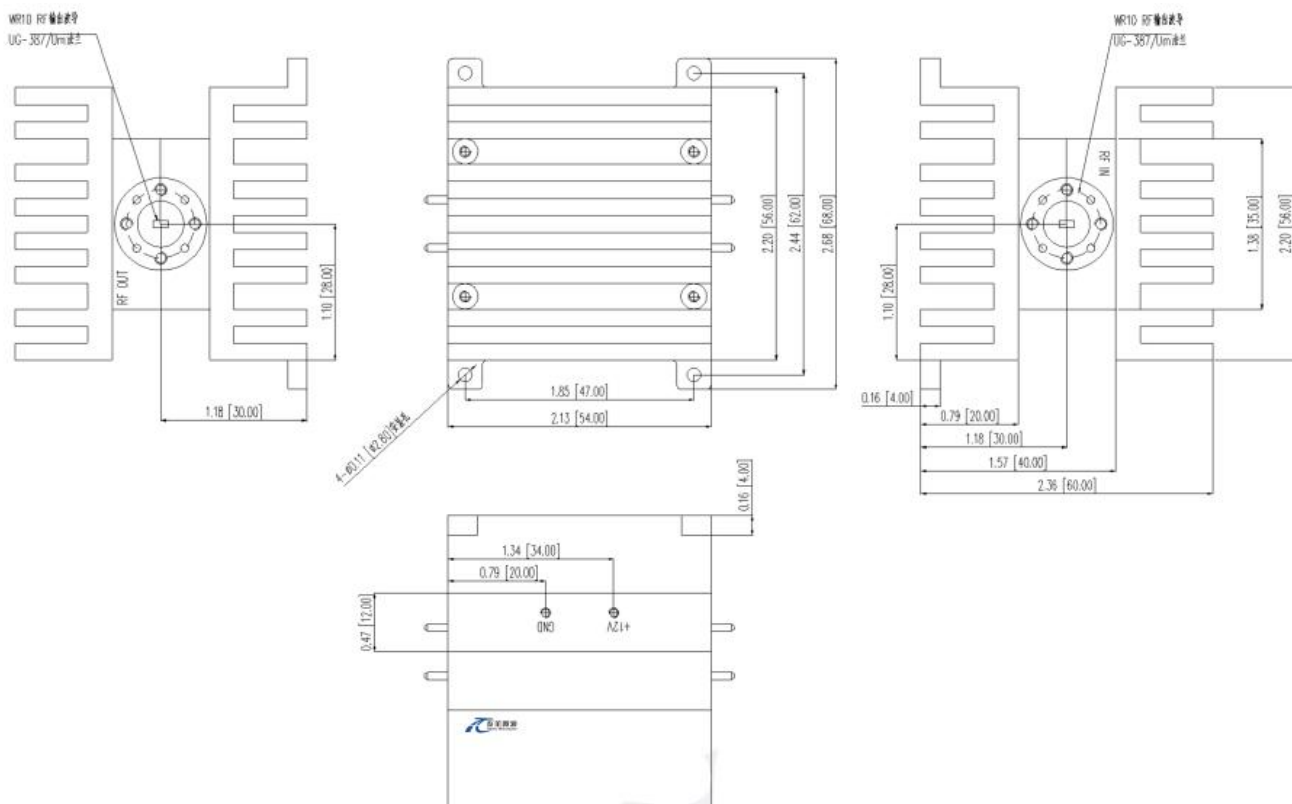
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	WR-10/UG-387/U	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	54*35*20(Without Heatsink) 54*68*60(With 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	TBD
输入功率 RF Input Power	TBD
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm; Tolerance: ± 0.1 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-090100-4020-10	Power Amplifier, 90-100GHz, Gain: 42dB Type, Psat: 22dBm Type, +5V DC, WR-10, With heasink	Rev.1.1