泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Power Amplifier

1-500MHz /45dB Gain/45 dBm Psat

Model: TLPA1M500M-45-45

TLPA1M500M-45-45 is a power amplifier with a typical small signal gain of 47 dB and a nominal Psat of 45.5 dBm across the frequency range of 1 to 500 MHz. The DC power requirement for the amplifier is +28 VDC/5 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Output Frequency: 1-500MHz
- Gain: 45dB Min
- Output Power Psat: 45dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	1		500	MHz
小信号增益 Small Signal Gain	45	47		dB
增益平坦度 Gain Flatness		±2	±3	dB
饱和输出功率 Output Psat	45	45.5		dBm
杂散 Supurious			-60	dBc
谐波抑制 Harmonic			-10	dBc
输入驻波 Input VSWR			2	:1
直流电压 DC Voltage		28		V DC
直流电流 DC Supply Current		5		A
阻抗 Impedance	50			Ohms

*Performance may degrade below 300 MHz. Please refer to below typical test plots

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

机械特性 Mechanical Specifications:

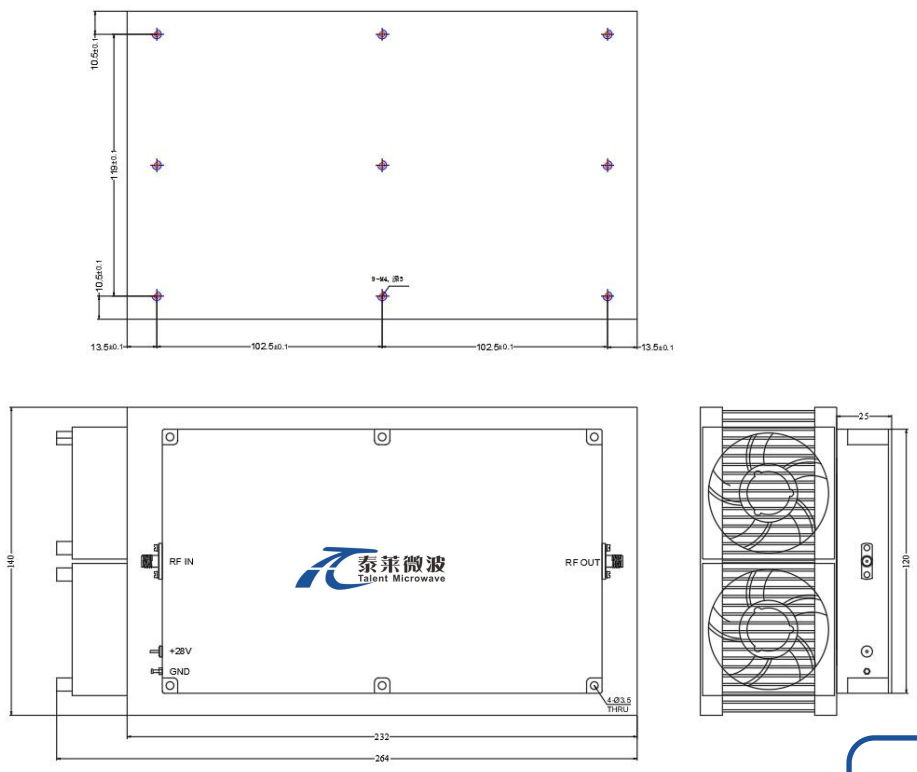
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	200*120*25	mm
重量 Weight	500	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+32 V
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm;Tolerance:±0.1mm



风扇供电 Fans Supply Current: 0.4A@24V

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

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+50	℃
存储温度 Non-operating Temperature*	-50		+60	℃
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			

*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA1M500M-45-45	Power amplifier 1-500MHz, Gain:45dB,Psat:45dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA1M500M-45-45-HS	Power amplifier 1-500MHz, Gain:45dB,Psat:45dBm,+28V DC,With Heatsink	Rev.1.1