泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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www.talentmw.com

Power Amplifier

10-1000MHz/39dB Gain/39dBm Psat

Model: TLPA10M1000M-39-39

TLPA10M1000M-39-39 is a power amplifier with a minimum small signal gain of 39 dB and a minimum Psat of 39 dBm across the frequency range of 10 to 1000 MHz. The DC power requirement for the amplifier is +28 VDC/1.5 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 10-1000MHz
- Gain: 39dB Min
- Output Power Psat: 39dBm 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	10		1000	MHz
小信号增益 Small Signal Gain	39	40		dB
增益平坦度 Gain Flatness			±3	dB
线性输出功率 Output P1dB	38			dBm
饱和输出功率 Output Psat	39			dBm
输入驻波 Input VSWR		1.5	2.0	:1
直流电压 DC Voltage		+28		V DC
直流电流 DC Supply Current		1.5		A
阻抗 Impedance		50		Ohms

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

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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	90*48*15(Without heatsink) 90*144*45(With heatsink)	mm
重量 Weight	150	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+30 V
输入功率 RF Input Power	+3 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



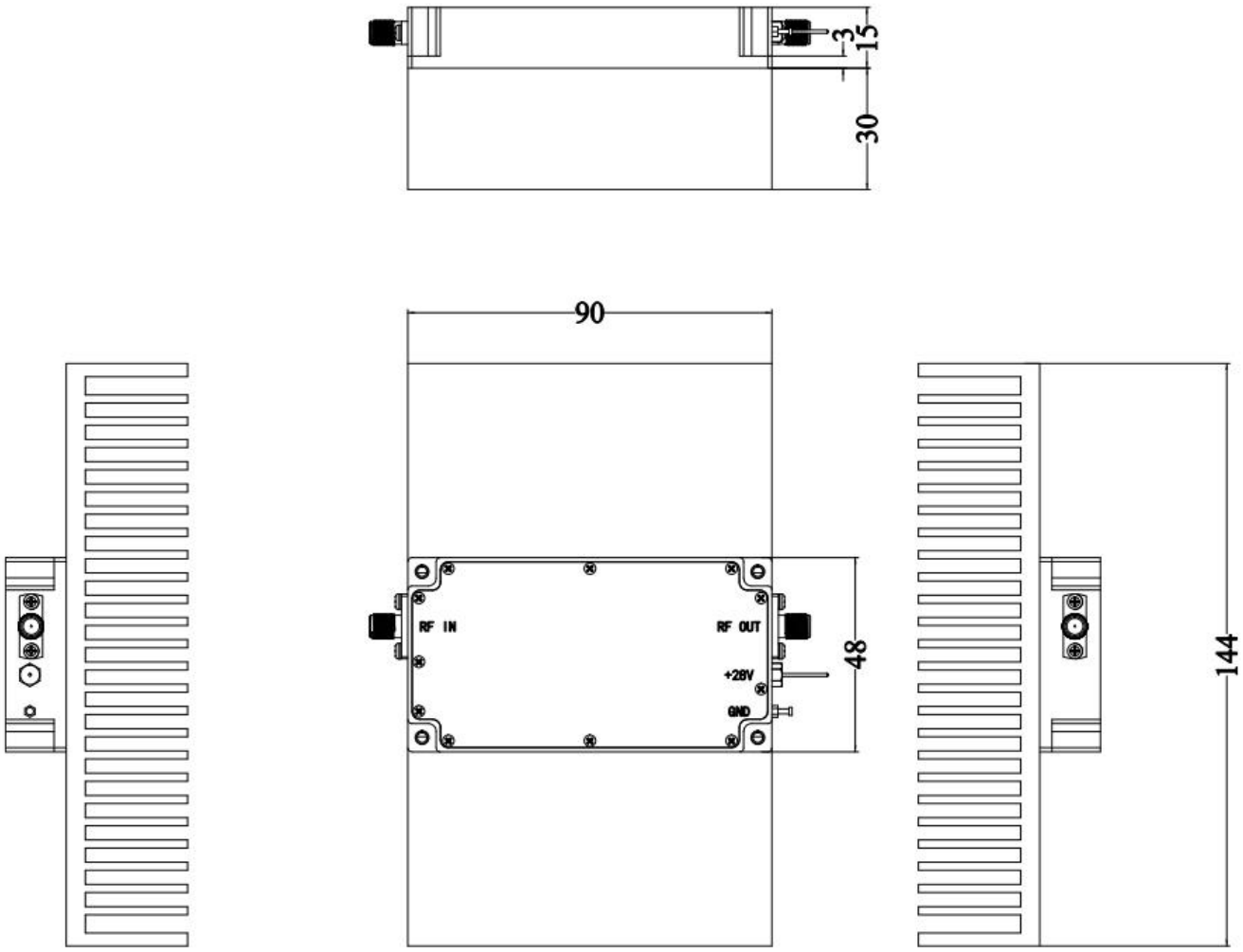
***Heat Sink Required During Operation

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

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外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+60	℃
存储温度 Non-operating Temperature*	-50		+70	℃
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.

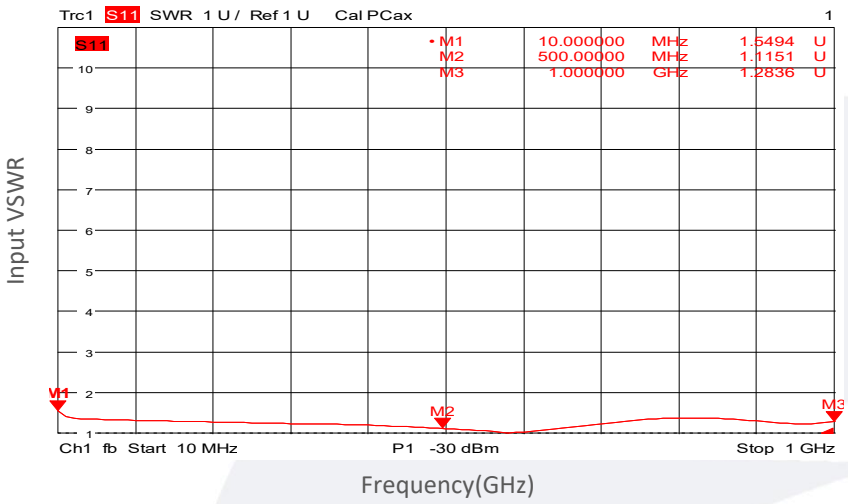
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订货信息 Ordering Information:

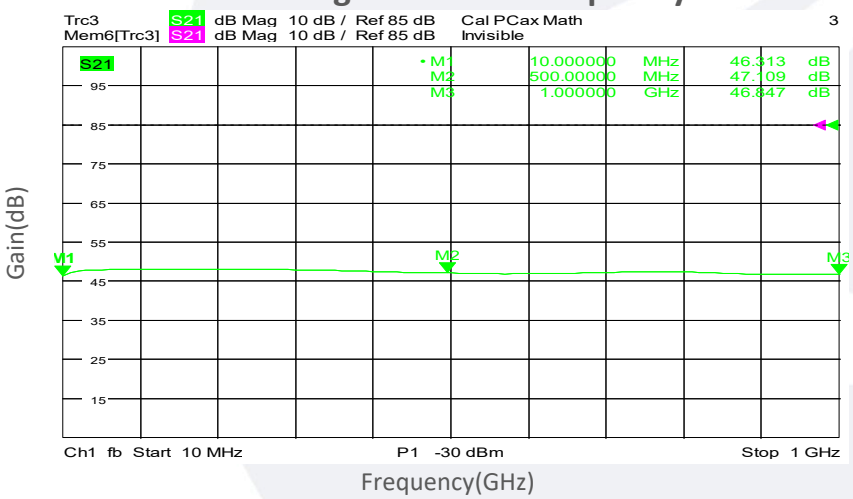
标准型号 Base Number	描述 Description	版本号 Revision
TLPA10M1000M-39-39	Power amplifier 10-1000MHz, Gain:39dB,Psat:39dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA10M1000M-39-39-HS	Power amplifier 10-1000MHz, Gain:39dB,Psat:39dBm,+28V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

Input VSWR vs Frequency



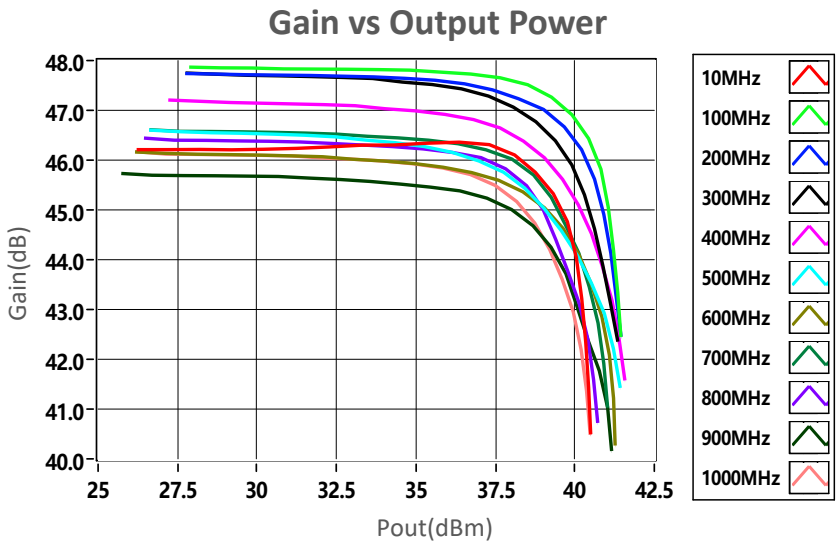
Small Signal Gain vs Frequency

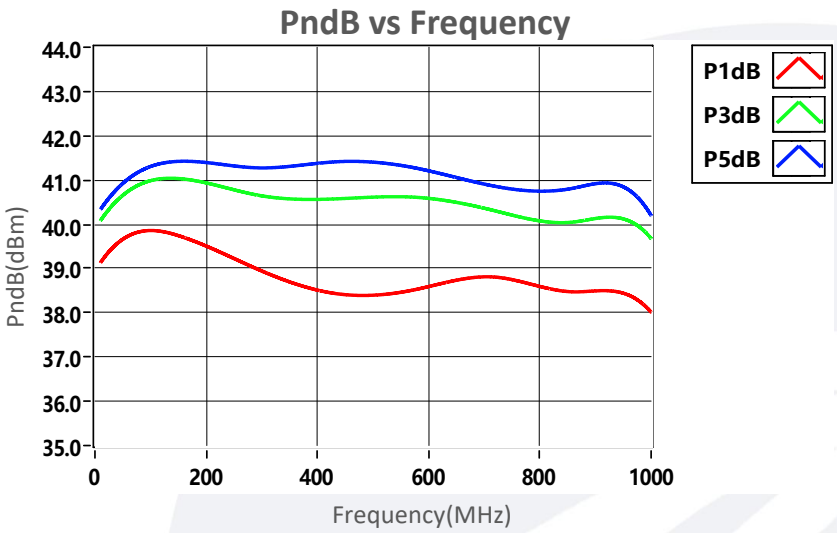


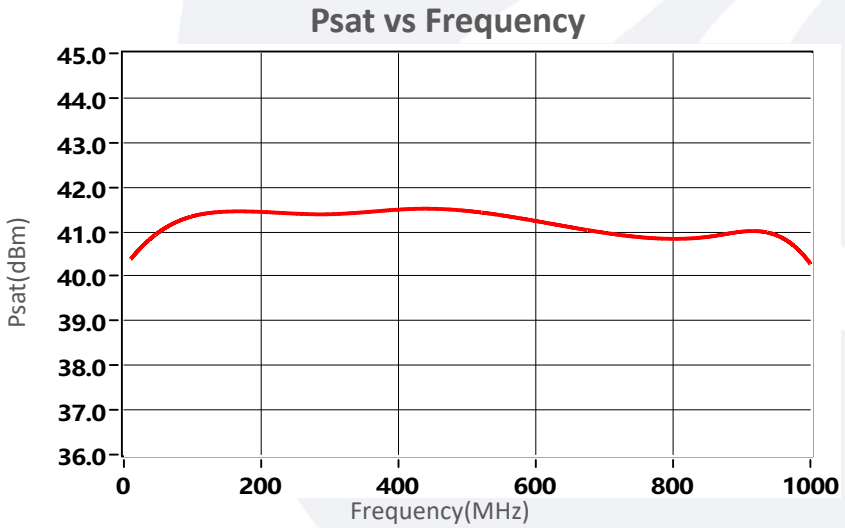
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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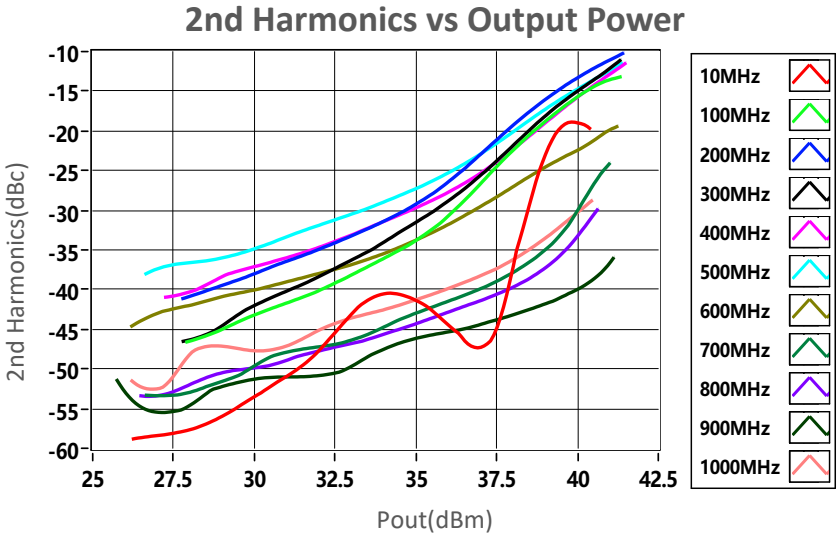


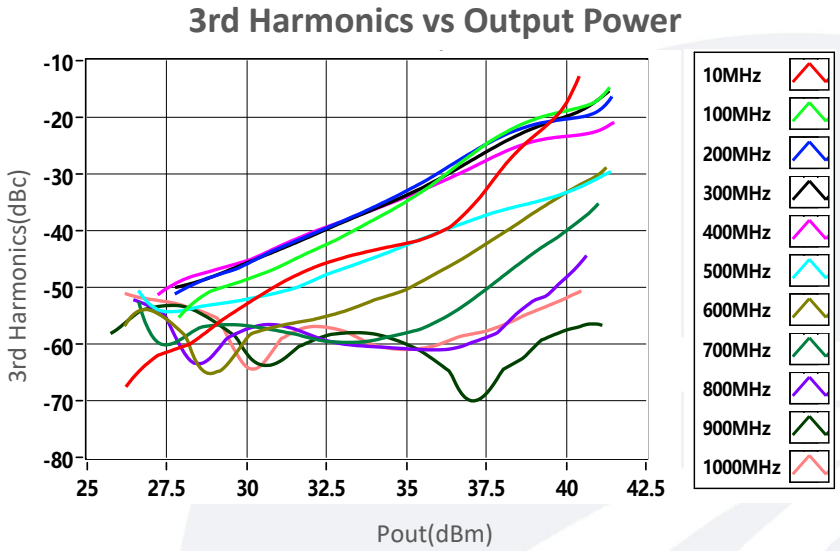


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