泰莱微波
Talent Microwave

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

Power Amplifier

10MHz-1GHz/35dB Gain/40dBm Psat

Model: TLPA10M1G-35-40

TLPA10M1G-35-40 is a power amplifier with a typical small signal gain of 35 dB and a nominal Psat of 40 dBm across the frequency range of 10 MHz to 1 GHz. The DC power requirement for the amplifier is +28 VDC/0.2 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 10MHz-1GHz
- Gain: 35dB Typ
- Output Power Psat: 40dBm Typ
- 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	10MHz		1GHz	
小信号增益 Small Signal Gain	32	35		dB
增益平坦度 Gain Flatness		±2	±3	dB
线性输出功率 Output P1dB	37	38		dBm
饱和输出功率 Output Psat	39	40		dBm
谐波抑制 Harmonics			-10	dBc
输入驻波 Input VSWR		1.5	2.0	:1
直流电压 DC Voltage	+26	+28	+30	V DC
直流电流 DC Supply Current		0.2	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	76*48*15(Without heatsink) 90*144*45(With heatsink)	mm
重量 Weight	250	g

绝对最大值 Absolute Maximum Ratings:

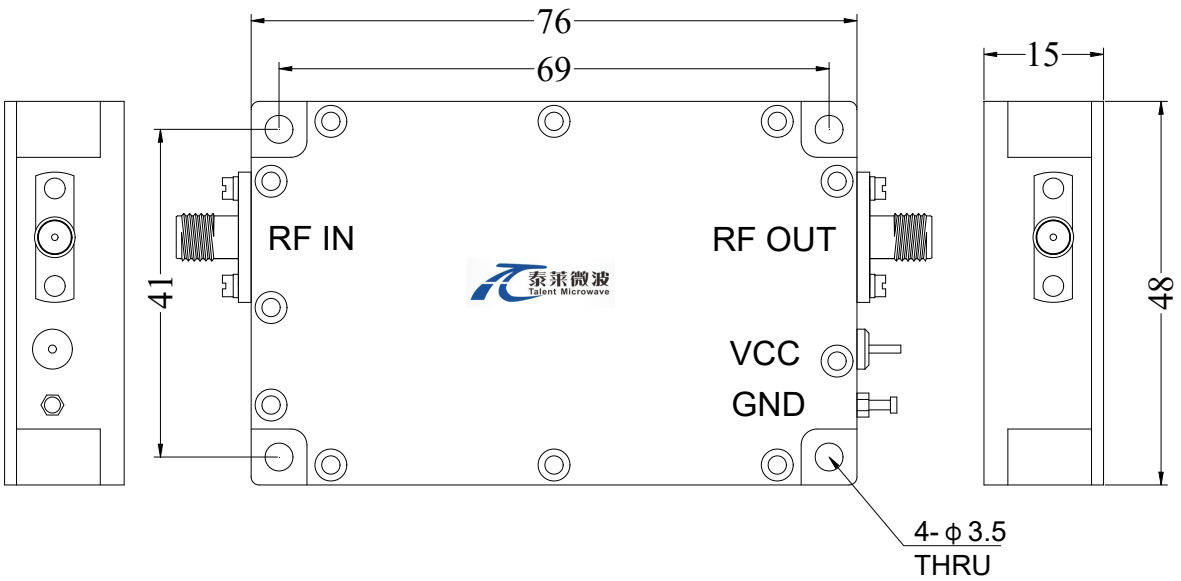
参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+30 V
输入功率 RF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



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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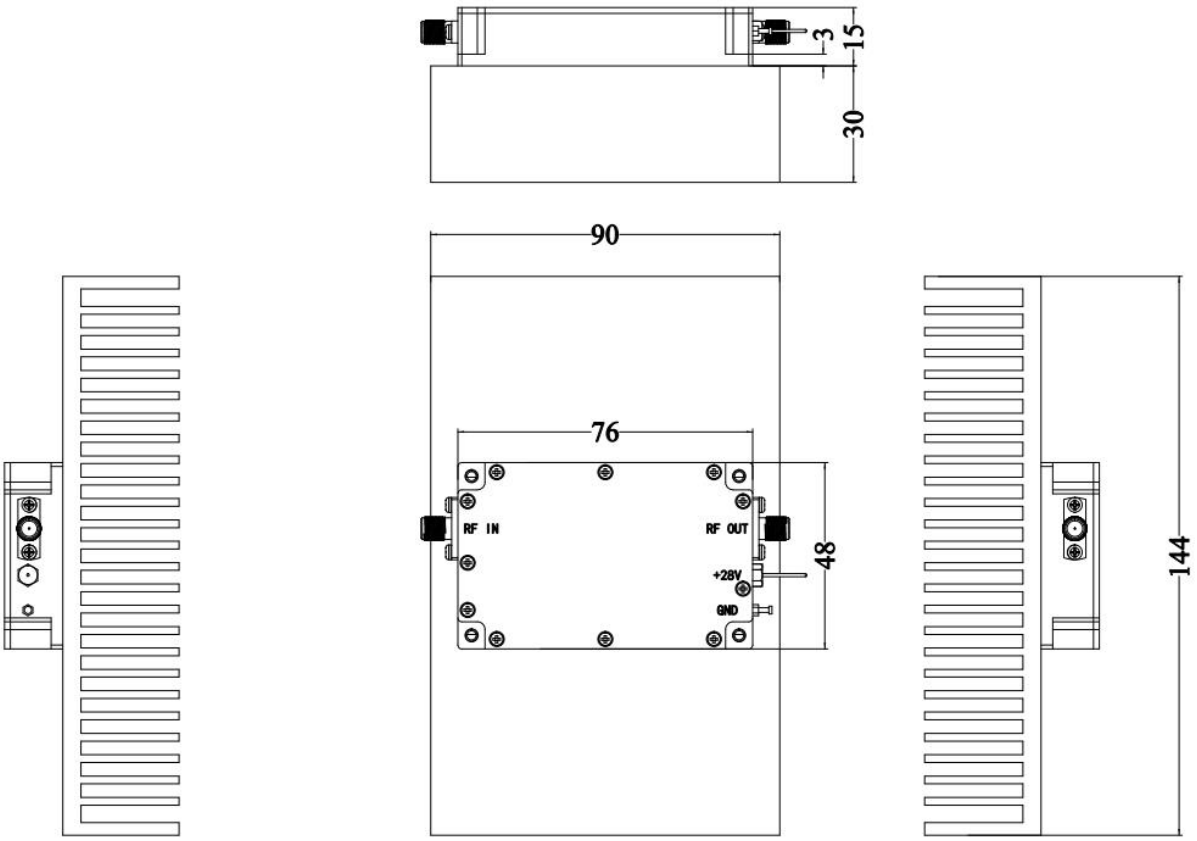

温度环境 Environmental Conditions:

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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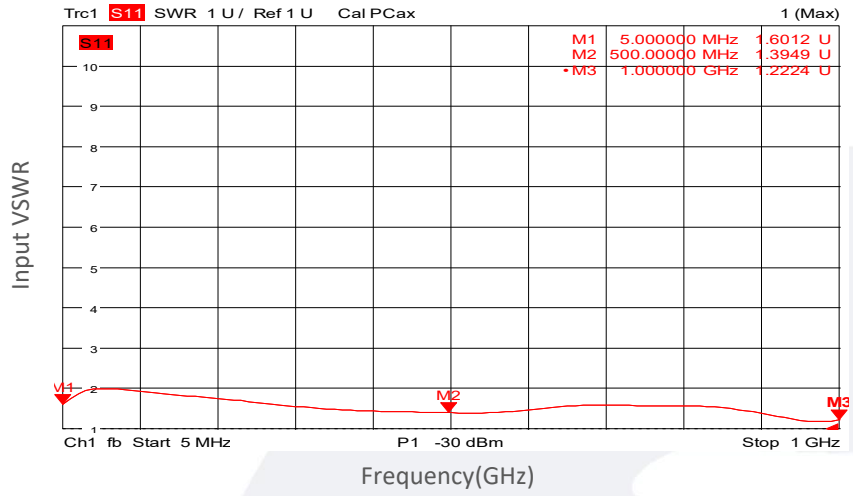
订货信息 Ordering Information:

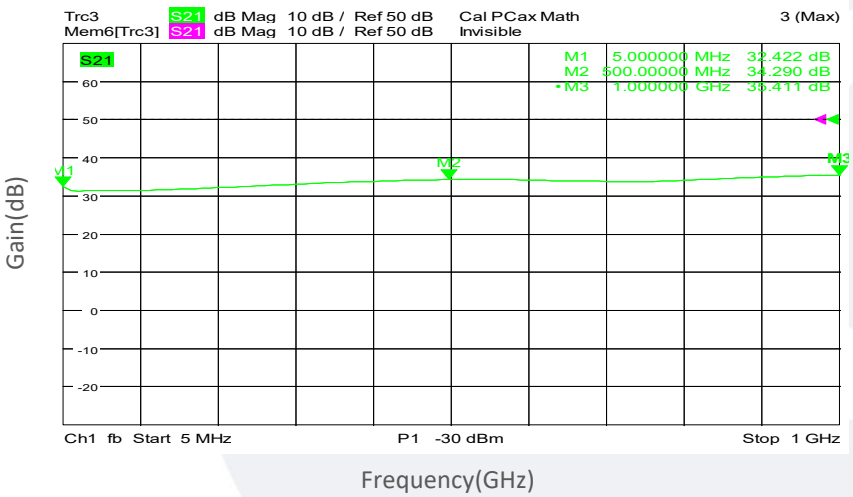
标准型号 Base Number	描述 Description	版本号 Revision
TLPA10M1G-35-40	Power amplifier 10MHz-1GHz, Gain:35dB,Psat:40dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA10M1G-35-40-HS	Power amplifier 10MHz-1GHz, Gain:35dB,Psat:40dBm,+28V DC,With Heatsink	Rev.1.1

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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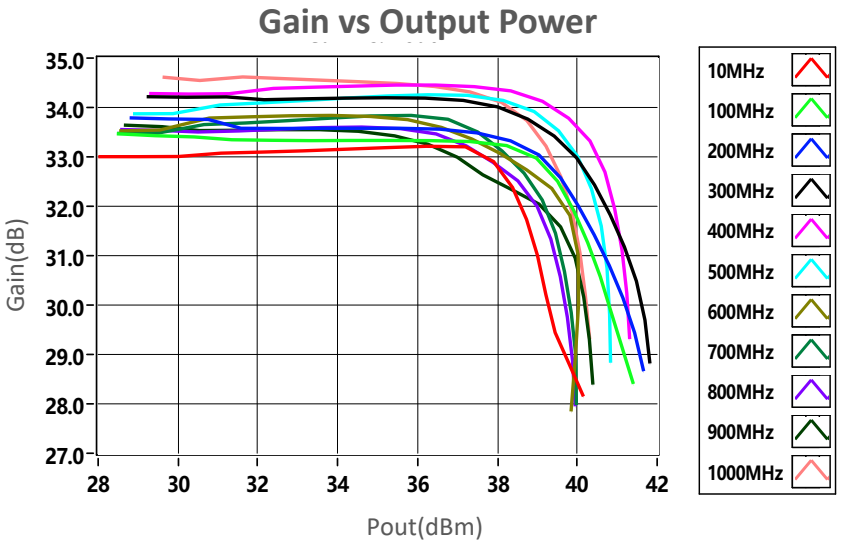

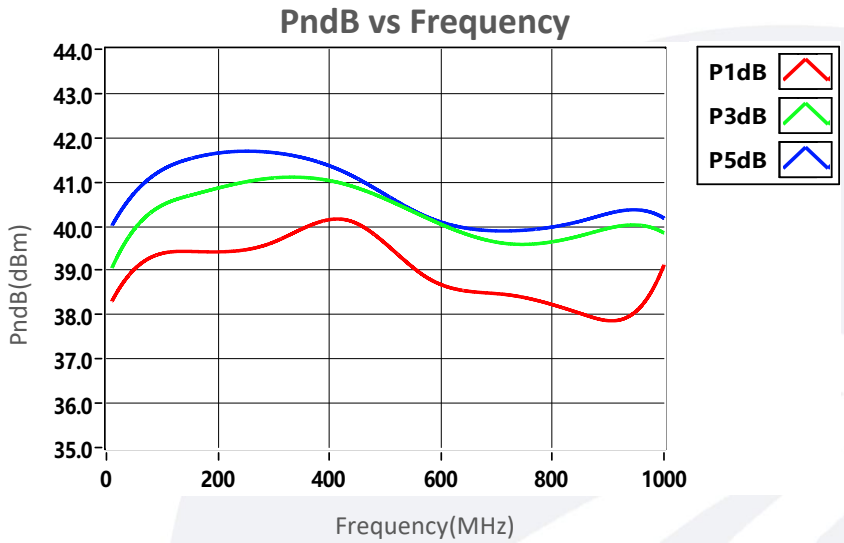

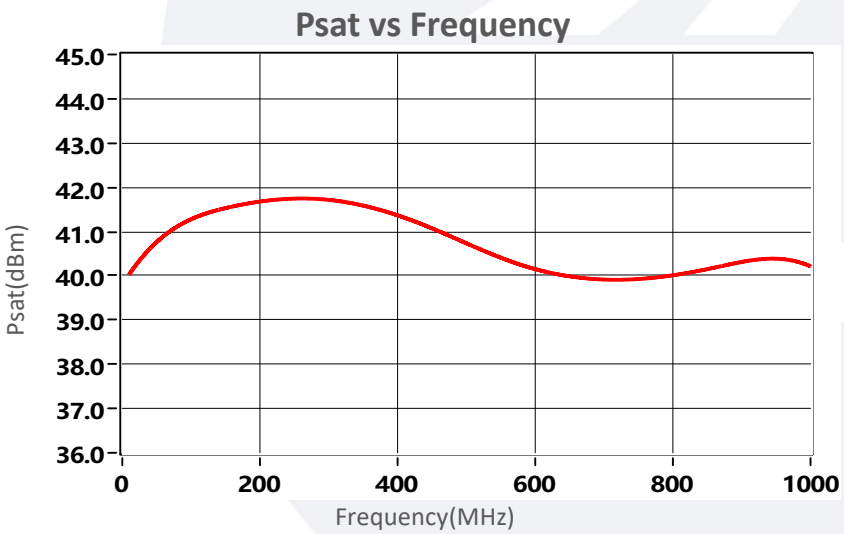

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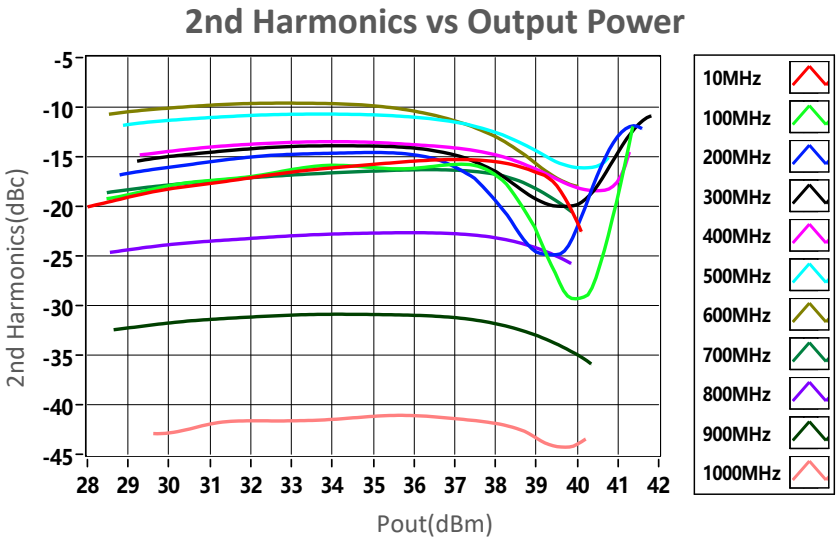

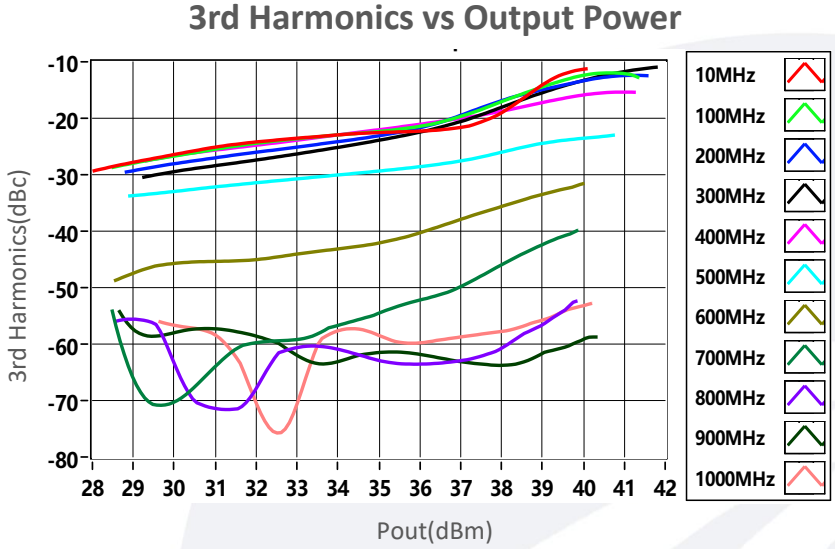

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