泰莱微波 Talent Microwave

Suzhou Talent Microwave,Inc
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Power Amplifier

0.01-40GHz/28dB Gain/20dBm Psat

Model: TLPA10M40G-28-20

TLPA10M40G-28-20 is a power amplifier with a typical small signal gain of 28 dB and a nominal Psat of 20 dBm across the frequency range of 0.01 to 40 GHz. The DC power requirement for the amplifier is +12 VDC/400 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 0.01-40GHz
- Gain: 28dB Typ
- Output Power Psat: 20dBm 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	0.01		40	GHz
小信号增益 Small Signal Gain		28		dB
增益平坦度 Gain Flatness		±2		dB
线性输出功率 Output P1dB		18		dBm
饱和输出功率 Output Psat		20		dBm
杂散 Spurious		-60		dBc
噪声系数 Noise Figure		6		dB
输入驻波 Input VSWR		2		:1
输出驻波 Output VSWR		2		:1
直流电压 DC Voltage		+12		V DC
直流电流 DC Supply Current		400		mA
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	2.92 Female/2.92 Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	44*36*12	mm

绝对最大值 Absolute Maximum Ratings:

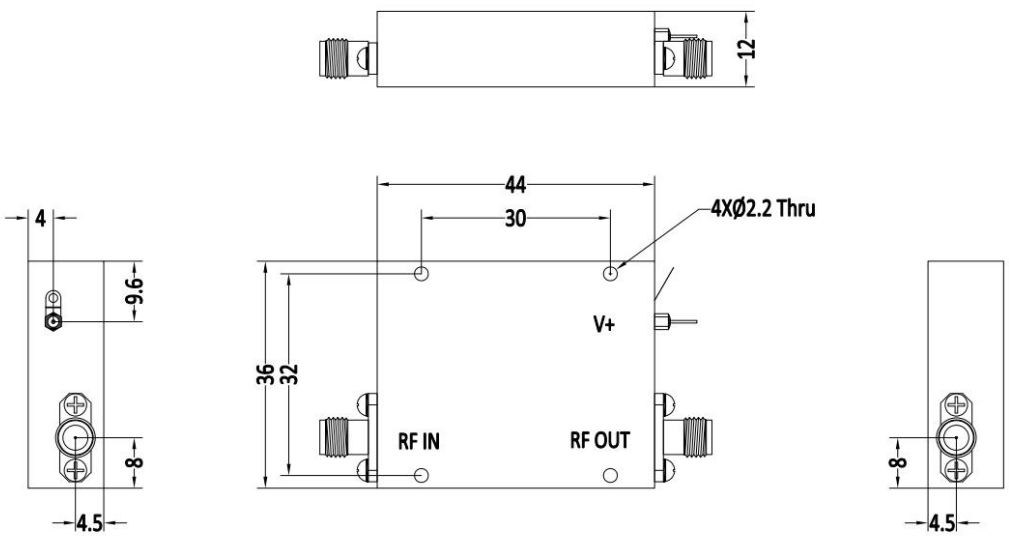
参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+12 V
输入功率 RF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



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:

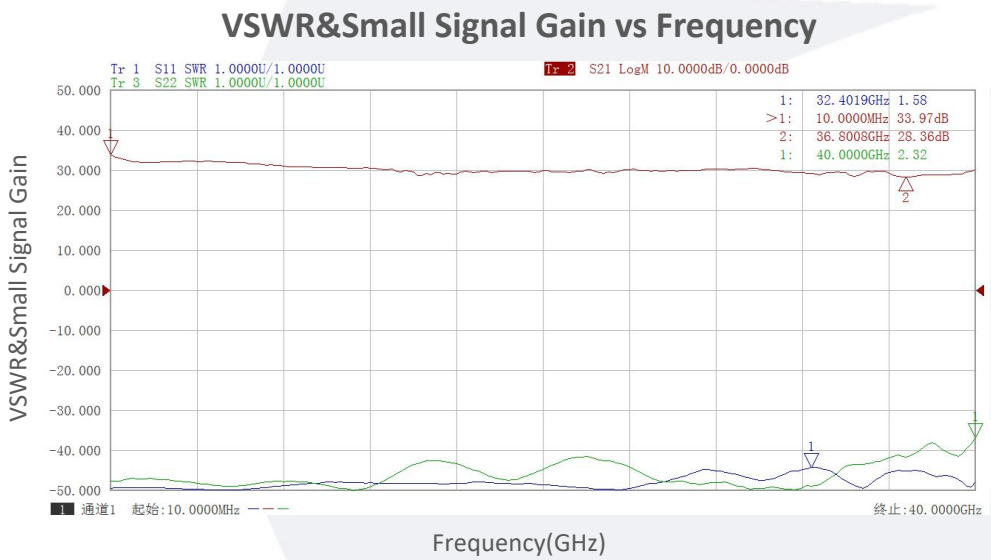
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-45		+85	℃
存储温度 Non-operating Temperature*	-55		+125	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc 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
TLPA10M40G-28-20	Power amplifier 10MHz-40GHz, Gain:28dB,Psat:20dBm,+12V DC,Without Heatsink.	Rev.1.1
TLPA10M40G-28-20-HS	Power amplifier 10MHz-40GHz, Gain:28dB,Psat:20dBm,+12V DC,With Heatsink.	Rev.1.1

典型曲线 Typical Performance Data:



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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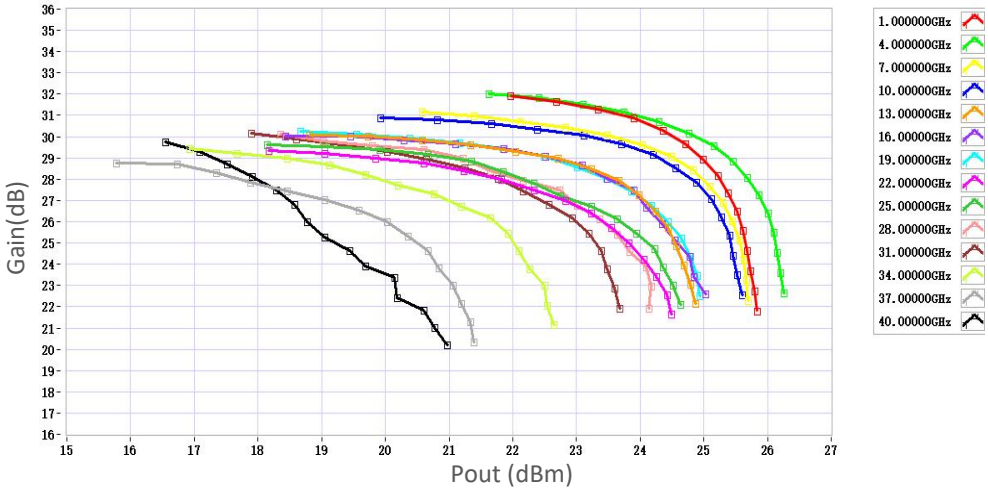
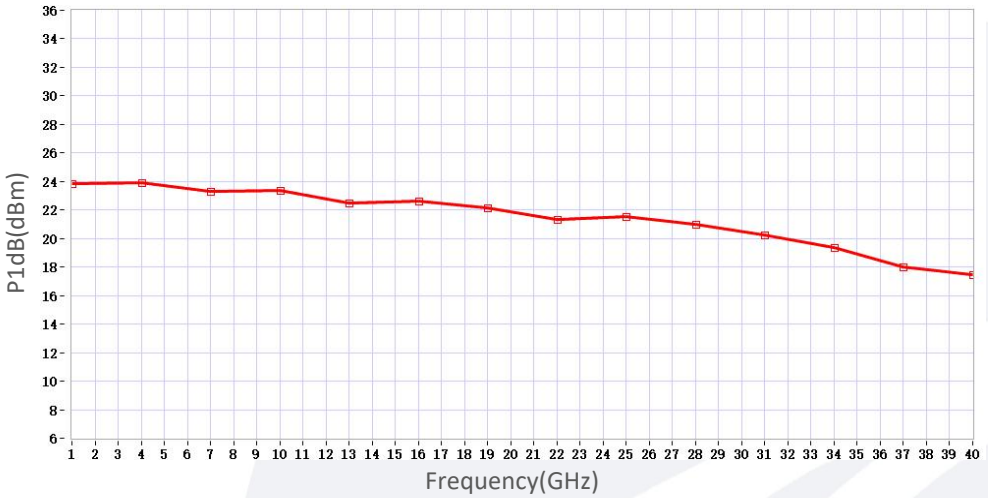
典型曲线 Typical Performance Data:

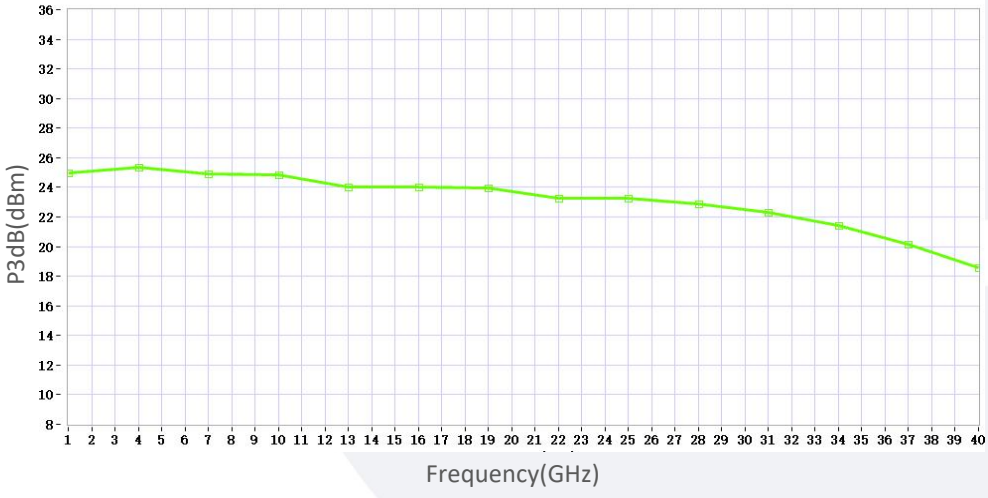
Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency



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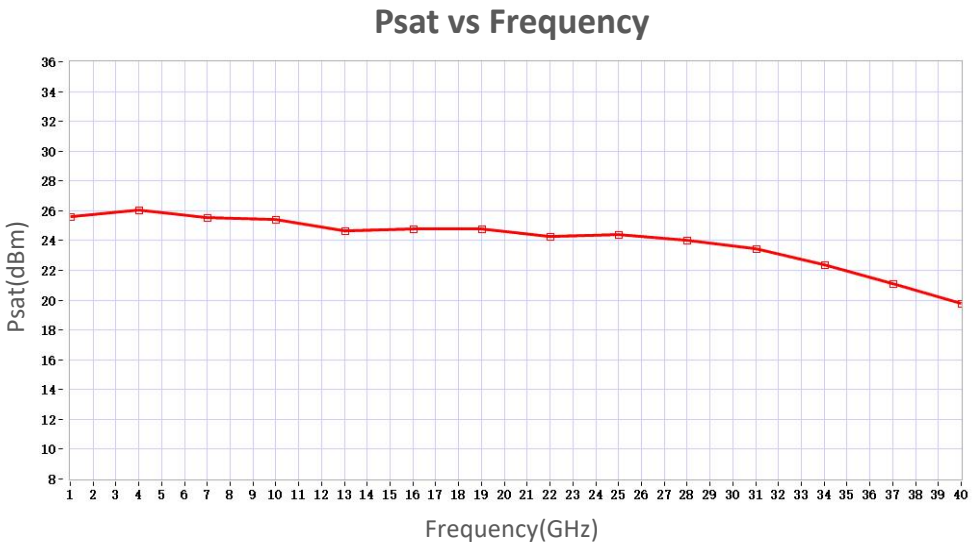

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