泰莱微波 Talent Microwave
Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Low Phase Noise Power Amplifier Systems

50-500MHz/38dB Gain/33dBm Psat/8CH Model: TLPNA50M500M-33-8CH-AC

TLPA50M500M-40-33-8CH-SAC is an 8 channel, low phase noise, power amplifie Systems with a typical signal gain of 39 dB and a minimun Psat of 32 dBm across the frequency range of 50 to 500 MHz. The AC power requirement for the amplifier is +220V AC. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 50-500MHz
- Gain: 39dB Typ
- Output Power Psat: 32dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- AOM

电气特性 Electrical Characteristics:

参数 Parameter		Min	Typ	Max	单位 Units
频率范围 Frequency range		50		500	MHz
小信号增益 Small Signal Gain			39		dB
增益平坦度 Gain Flatness			±2		dB
噪声系数 Noise Figure			5		dB
线性输出功率 Output P1dB		31	32		dBm
饱和输出功率 Output Psat		32	33		dBm
输入驻波 Input VSWR			2.0		:1
交流电压 AC Voltage			220		V AC
阻抗 Impedance			50		Ohms
相位噪声 Phase Noise(50MHz)	@100Hz			-134	dBc/Hz
	@1KHz			-138	dBc/Hz
	@10KHz			-149	dBc/Hz
	@100KHz			-149	dBc/Hz
	@1MHz			-149	dBc/Hz

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

机械特性 Mechanical Specifications:

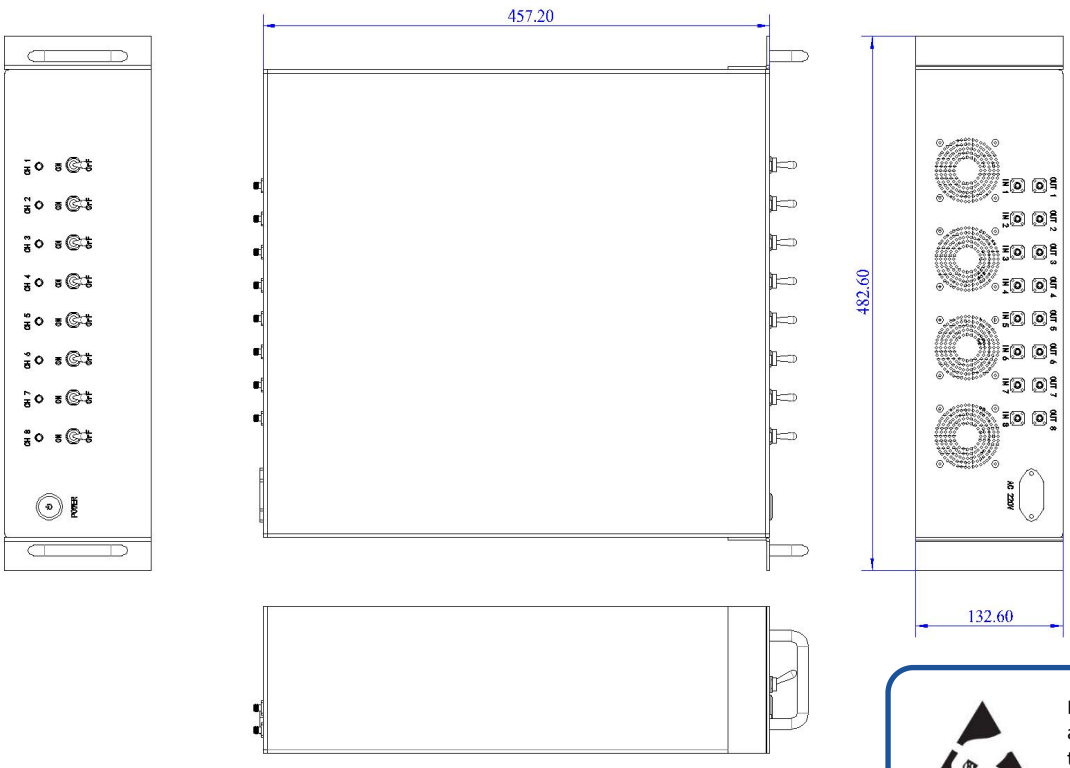
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
尺寸 Size	457.2*482.6*132.6	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	220V
输入功率 RF Input Power	0dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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:

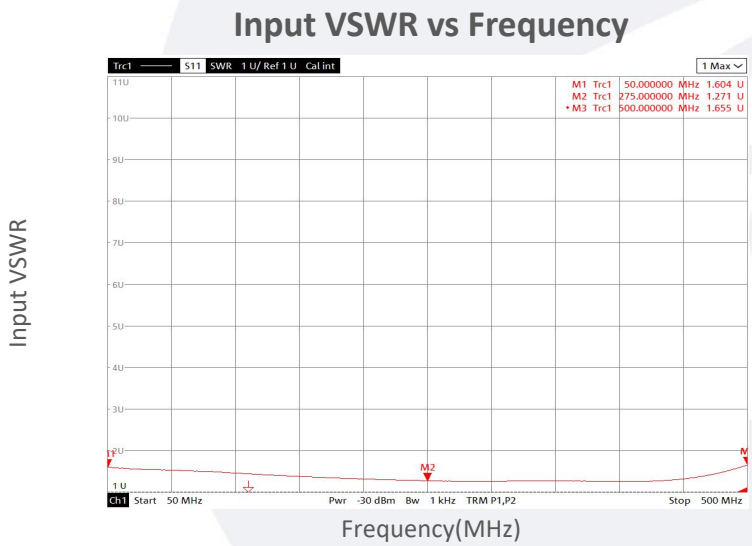
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+60	℃
存储温度 Non-operating Temperature*	-50		+70	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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
TLPNA50M500M-33-8CH-AC	8CH Power amplifier Simple System 50-500MHz, Gain:39dB,Psat:32dBm,+220V AC,Built in Fan Cooling	Rev.1.0

典型曲线 Typical Performance Data:

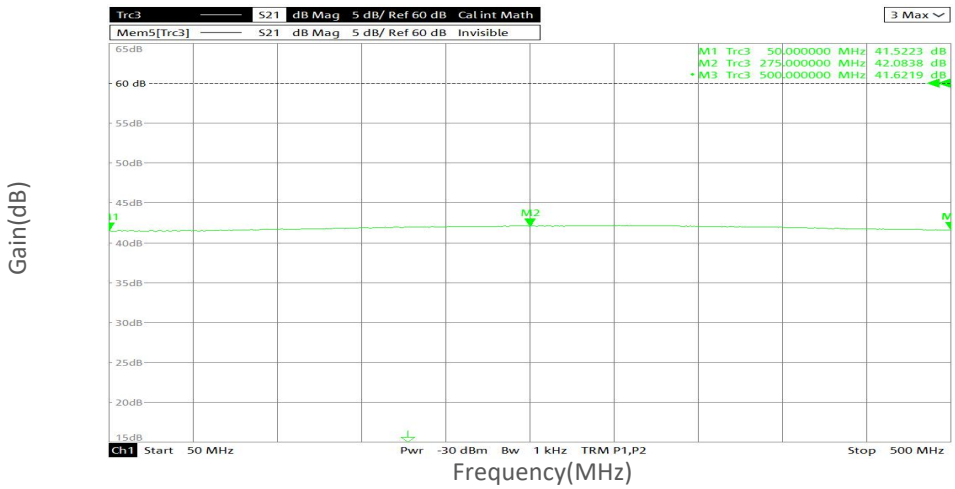


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

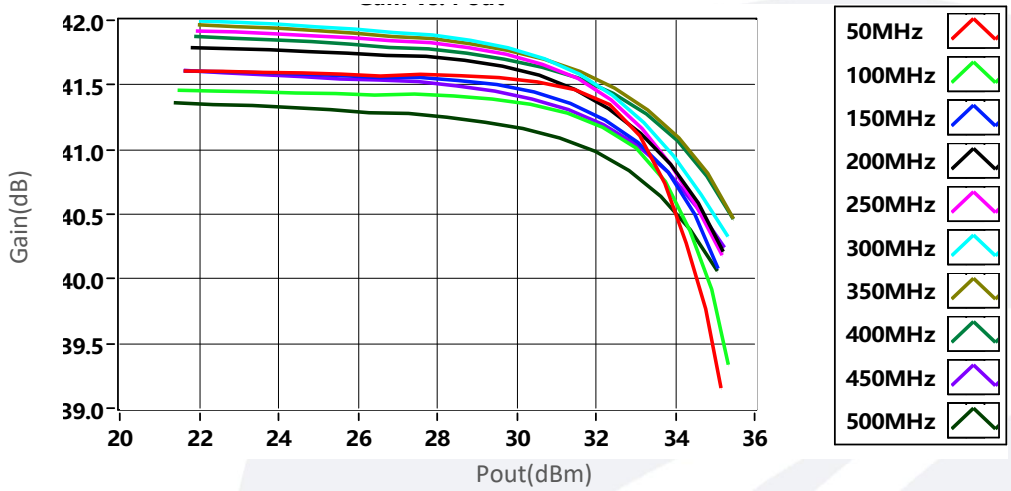
Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

典型曲线 Typical Performance Data:

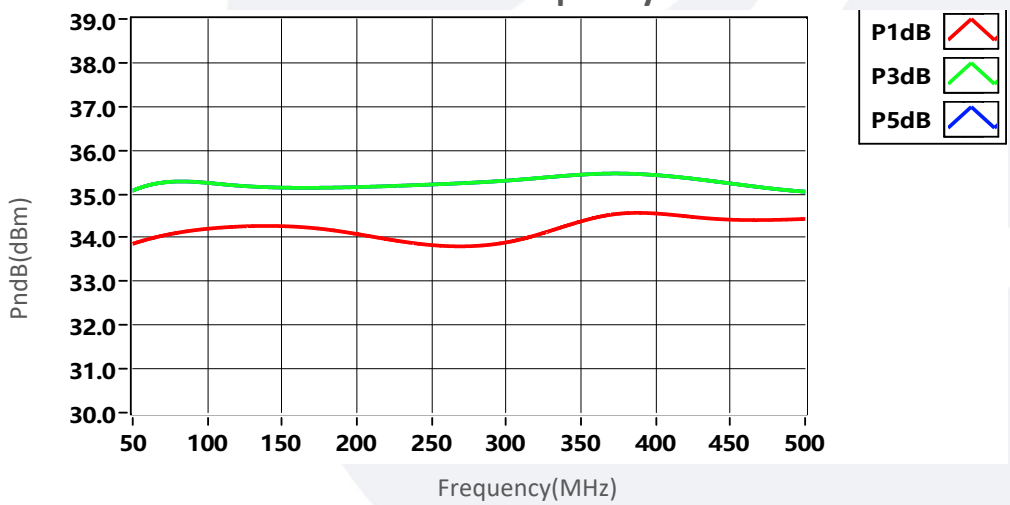
Small Signal Gain vs Frequency



Gain vs Output Power



PndB vs Frequency

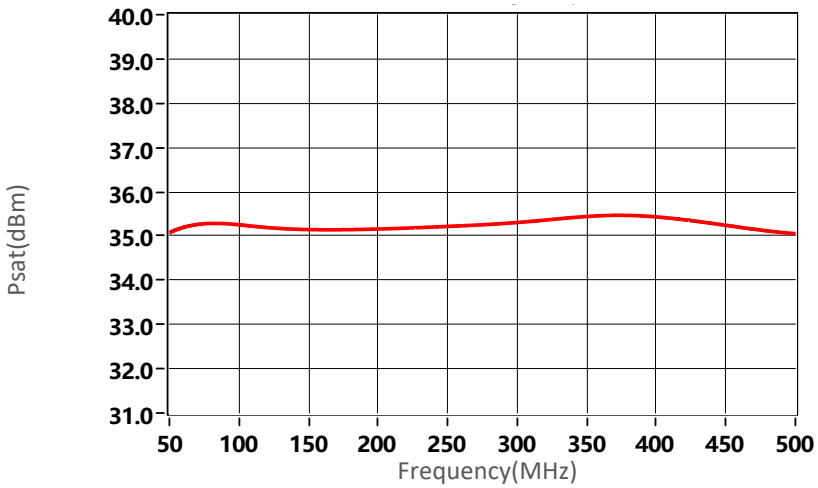


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

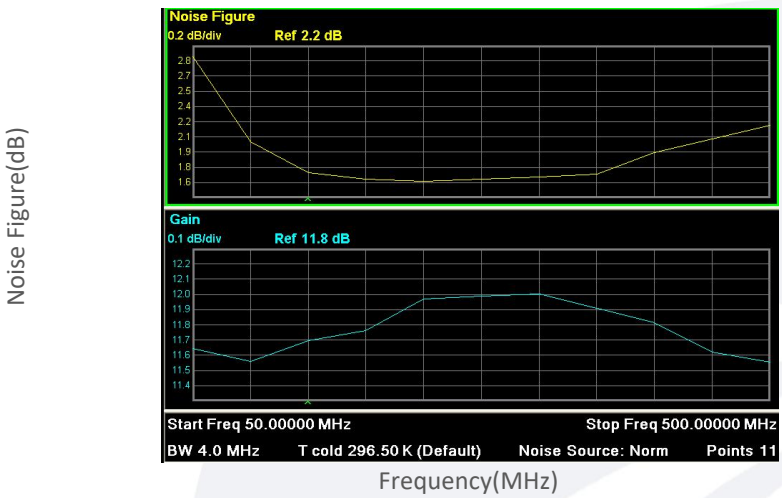
Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

典型曲线 Typical Performance Data:

Psat vs Frequency



Noise Figure vs Frequency



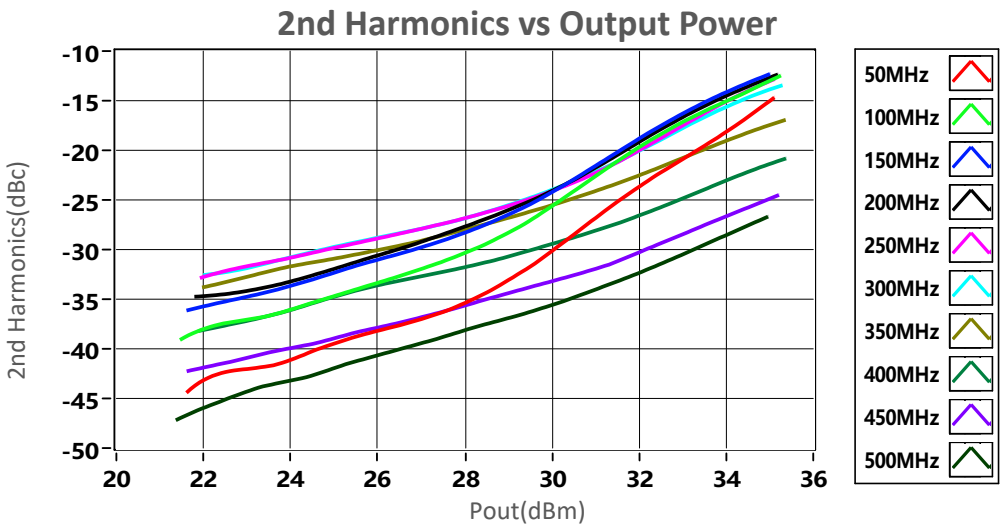
Phase Noise@Pout=33dBm

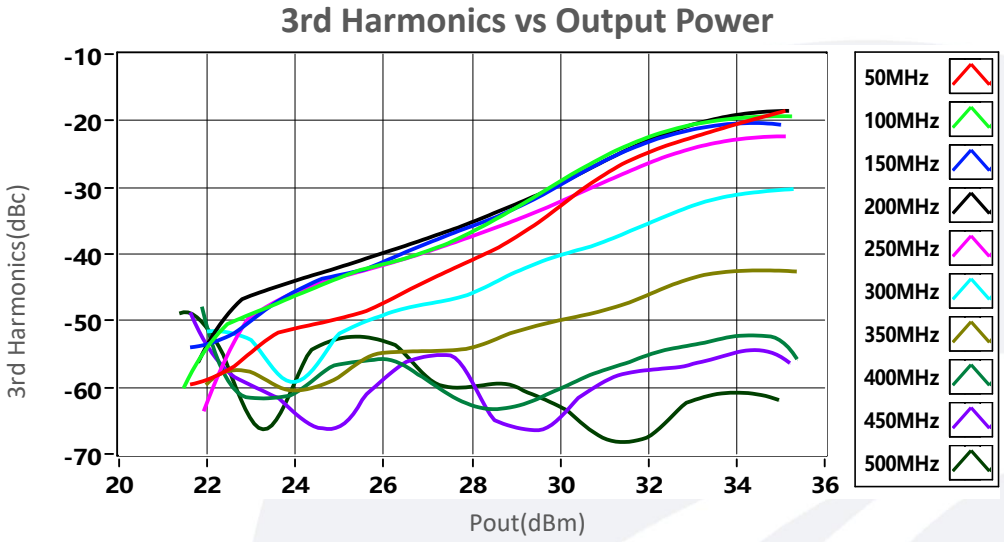
Parameter	100Hz	1KHz	10KHz	100KHz	1MHz	10MHz
Phase Noise (50MHz)	-134.62dBc/Hz	-138.21dBc/Hz	-149.92dBc/Hz	-149.95dBc/Hz	-149.63dBc/Hz	-149.64dBc/Hz
Phase Noise (100MHz)	-123.51dBc/Hz	-142.05dBc/Hz	-146.83dBc/Hz	-149.33dBc/Hz	-149.88dBc/Hz	-149.59dBc/Hz
Phase Noise (200MHz)	-126.51dBc/Hz	-143.94dBc/Hz	-148.93dBc/Hz	-149.06dBc/Hz	-149.68dBc/Hz	-149.22dBc/Hz
Phase Noise (300MHz)	-118.35dBc/Hz	-143.50dBc/Hz	-147.90dBc/Hz	-148.96dBc/Hz	-149.54dBc/Hz	-149.27dBc/Hz
Phase Noise (400MHz)	-122.85dBc/Hz	-146.34dBc/Hz	-147.61dBc/Hz	-149.09dBc/Hz	-149.17dBc/Hz	-149.26dBc/Hz
Phase Noise (500MHz)	-114.76dBc/Hz	-140.31dBc/Hz	-147.44dBc/Hz	-147.59dBc/Hz	-147.89dBc/Hz	-147.89dBc/Hz

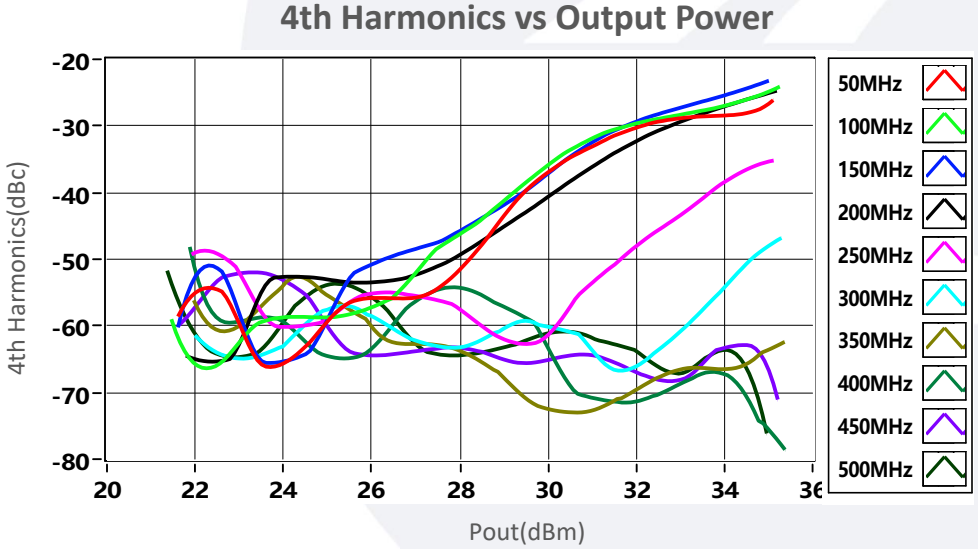
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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

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.