

Power Amplifier

700MHz-2.2GHz/62dB Gain/32dBm P1dB

Model: TLPA700M2G2-62-32

TLPA700M2G2-62-32 is a power amplifier with a minimum small signal gain of 62 dB and a minimum P1dB of 32 dBm across the frequency range of 700MHz to 2.2 GHz. The DC power requirement for the amplifier is +28 VDC/2 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 700MHz-2.2GHz
- Gain: 62dB Min
- Output Power P1dB: 32dBm 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	700MHz		2.2GHz	
小信号增益 Small Signal Gain	62			dB
增益平坦度 Gain Flatness			±2	dB
线性输出功率 Output P1dB	32			dBm
噪声 Noise Figure		2.5	3	dB
谐波 Harmonic			-25	dBc
输入驻波 Input VSWR		1.5	2	:1
直流电压 DC Voltage		+28		V DC
直流电流 DC Supply Current		2		A
阻抗 Impedance		50		Ohms

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	140*80*22	mm
重量 Weight	200	g

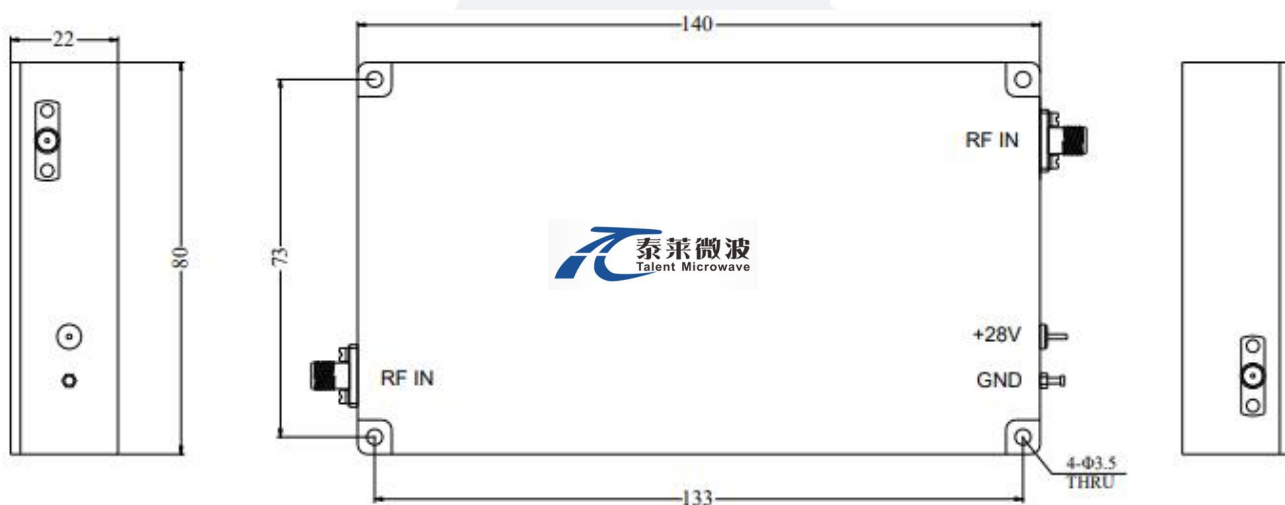
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+32 V
输入功率 RF Input Power	-20 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



外形图 Outline Drawing:

Unit:mm



*****Heat Sink Required During Operation**



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

温度环境 Environmental Conditions:

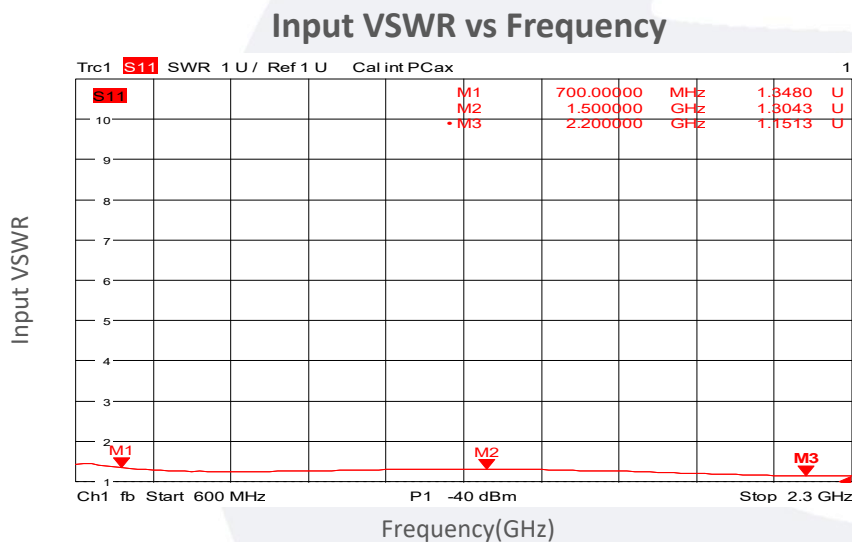
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+60	°C
存储温度 Non-operating Temperature*	-50		+70	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc 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
TLPA700M2G2-62-32	Power amplifier 700MHz-2.2GHz, Gain:62dB,P1dB:32dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA700M2G2-62-32-HS	Power amplifier 700MHz-2.2GHz, Gain:62dB,P1dB:32dBm,+28V DC,With Heatsink	Rev.1.1

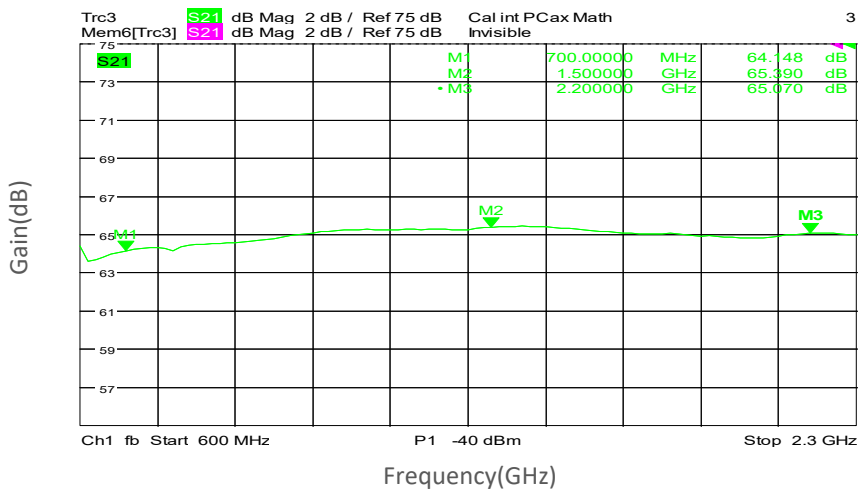
典型曲线 Typical Performance Data:



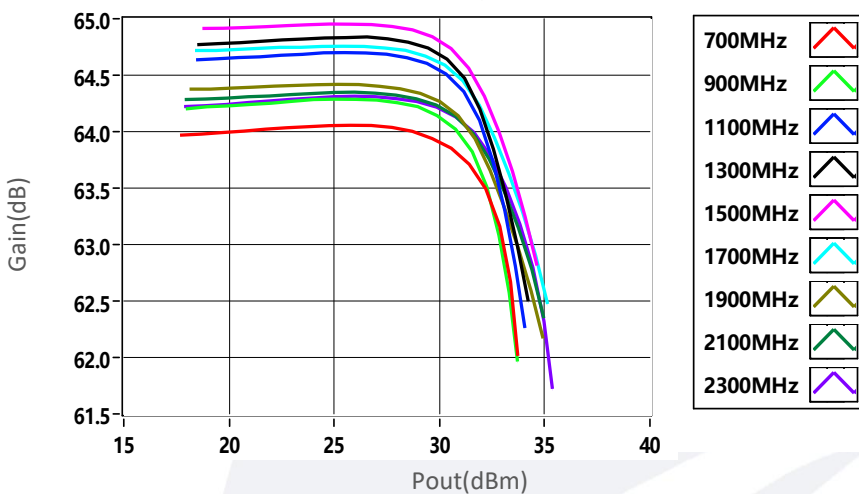
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

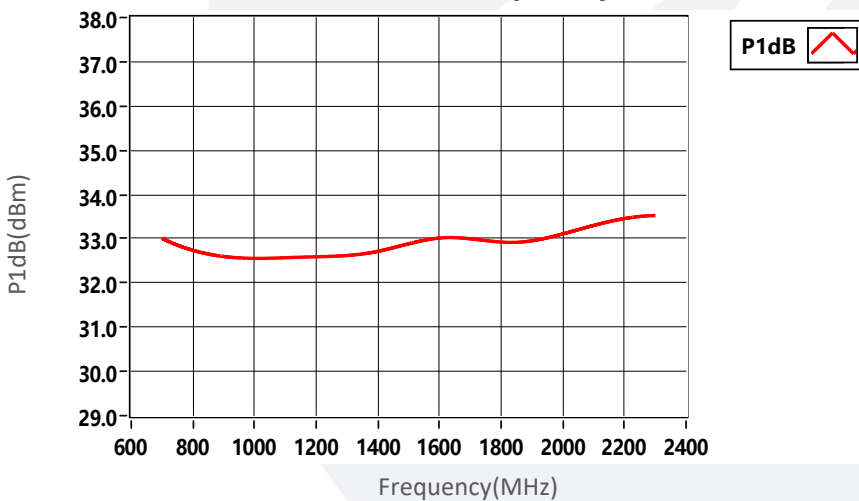
Gain vs Frequency



Gain vs Output Power



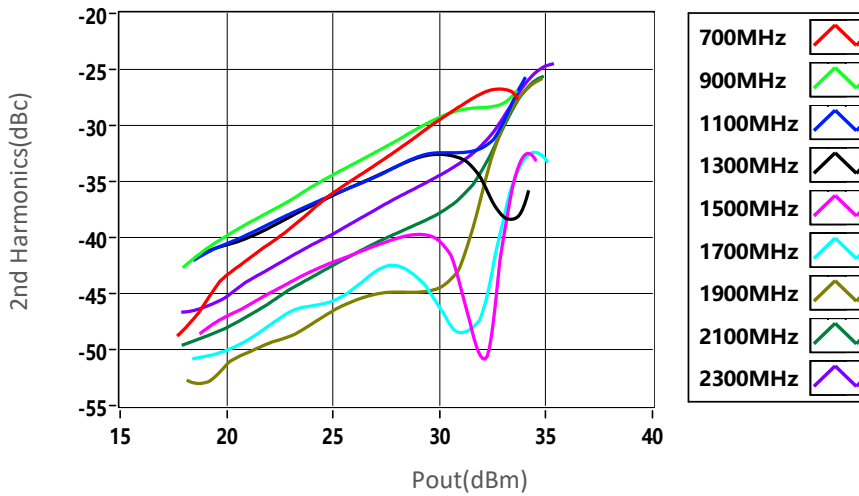
P1dB vs Frequency



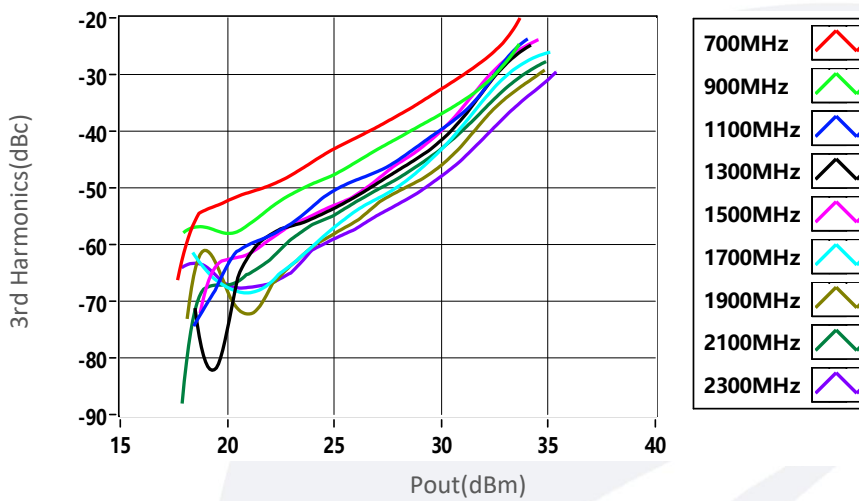
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典型曲线 Typical Performance Data:

2nd Harmonics vs Output Power



3rd Harmonics vs Output Power



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