

## Solid State High Power Amplifier Systems

2MHz-2GHz/60dB Gain/49dBm Psat/220V AC

Model: TLPA2M2G-60-49-BC

TLPA2M2G-60-49-BC is a solid state high power amplifier systems provides high output power and high gain across the 2MHz to 2GHz frequency range. The amplifier features a built-in 220V power supply, making it easy to use in most lab environments. This model features thermal self protection, preventing damage to the amplifier and providing added reliability.

### Features:

- Frequency range: 2MHz-2GHz
- Gain: 60dB Min
- Psat Output Power: 49dBm Min
- 50 Ohm Matched Input / Output

### 电气特性 Electrical Characteristics:

参数 Parameter	代码 Symbol	Min	Typ	Max	单位 Units
频率范围1 Frequency range 1	BW1	2-500			MHz
频率范围2 Frequency range 2	BW2	0.5-2			GHz
小信号增益 Small Signal Gain	GP	60	65		dB
增益平坦度 Gain flatness	$\Delta$ GL		$\pm 3$	$\pm 4$	dB
增益调节范围 Gain adjust Range	$\Delta$ GR		30		dB
线性输出功率 Output P1dB	P1dB		47		dBm
饱和输出功率 Output Psat	Psat	49	50		dBm
杂散 Spurious	Spur			-60	dBc
谐波 Harmonics	HAM			-10	dBc
输入驻波 Input VSWR	VSWRin		1.5	2.0	:1
交流电压 AC Voltage	Vac	110	220		V AC
交流电流 AC Supply Current	Iac		3		A
阻抗 Impedance	I/O-IMP	50			Ohms

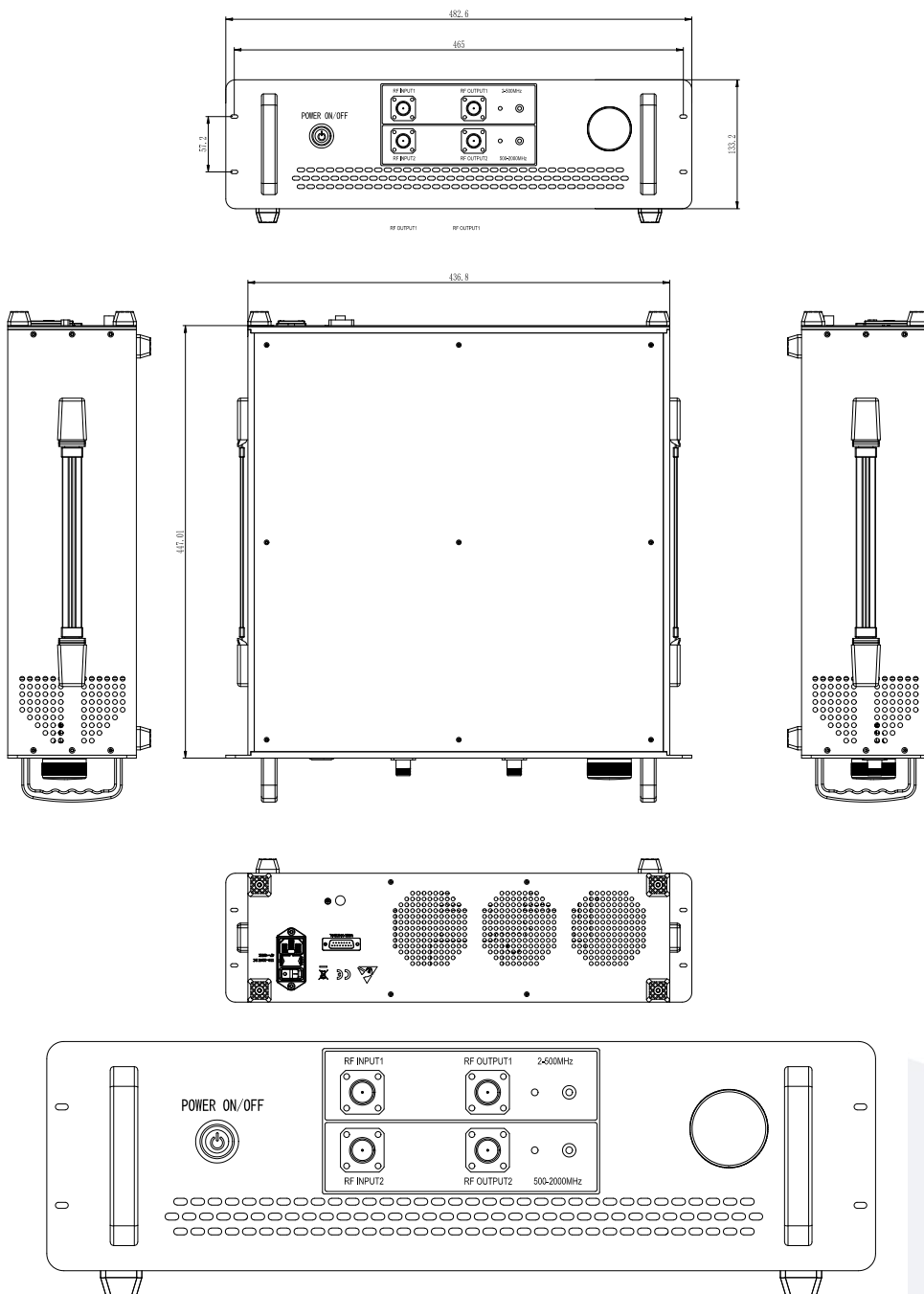
### 机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/N Female	
尺寸 Size	3U*500	mm
重量 Weight	$\leq 27$	Kg

### 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

### 外形图 Outline Drawing: Unit:mm



### 温度环境 Environmental Conditions:

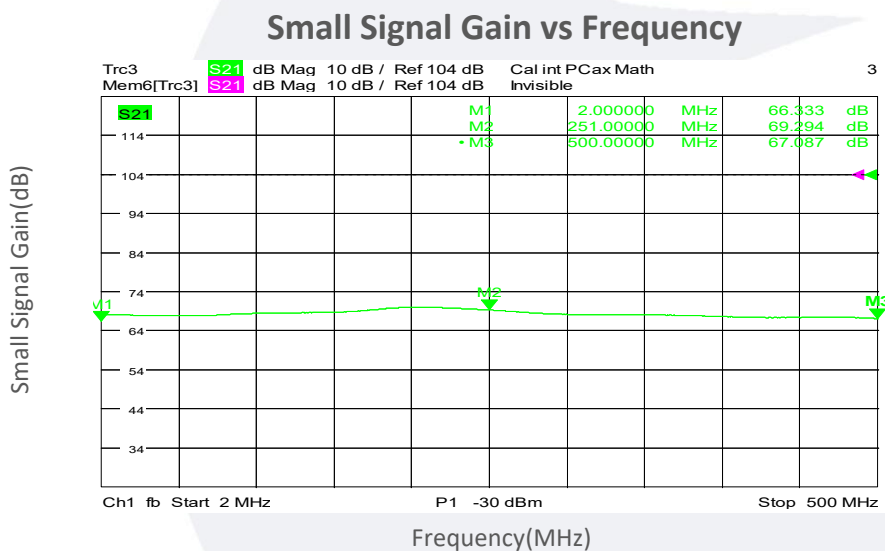
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+40	°C
存储温度 Non-operating Temperature*	-30		+50	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc 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
TLPA2M2G-60-49-BC	Solid State High Power Amplifier Systems 0.5-6GHz, Gain:51dB, Psat:51 dBm, 220V AC, Built in Fan Cooling	Rev.1.1

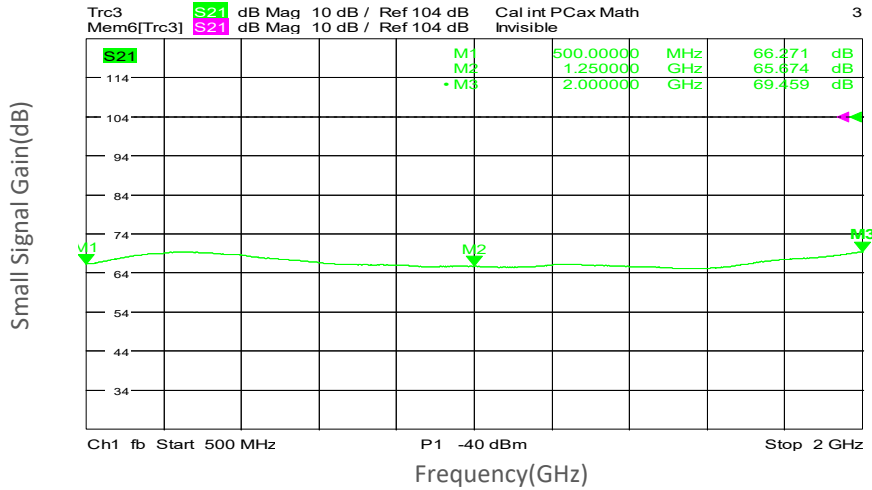
### 典型曲线 Typical Performance Data:



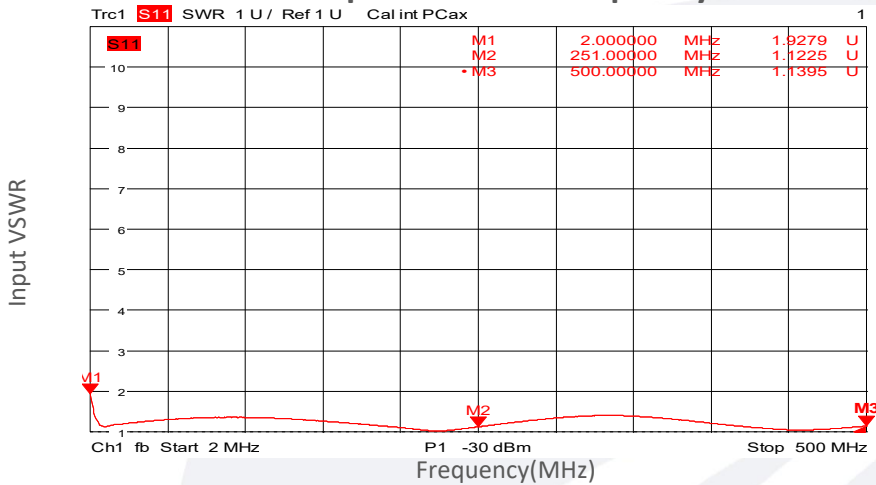
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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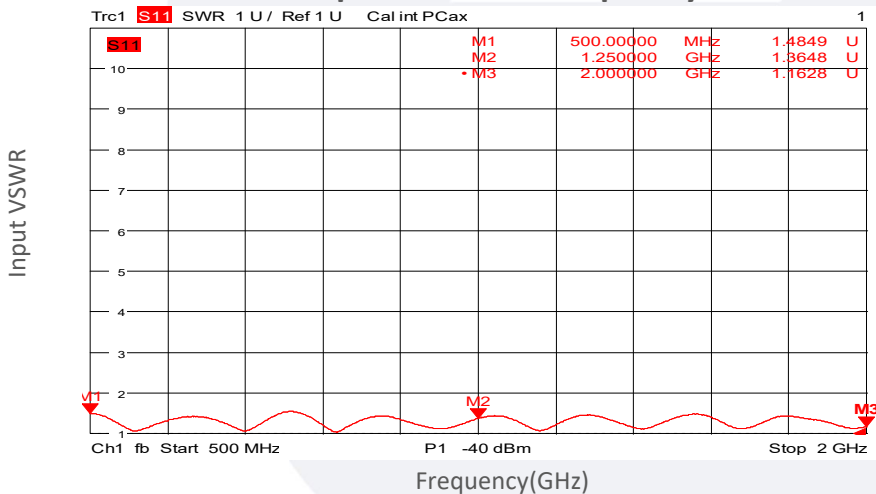
Small Signal Gain vs Frequency



Input VSWR vs Frequency



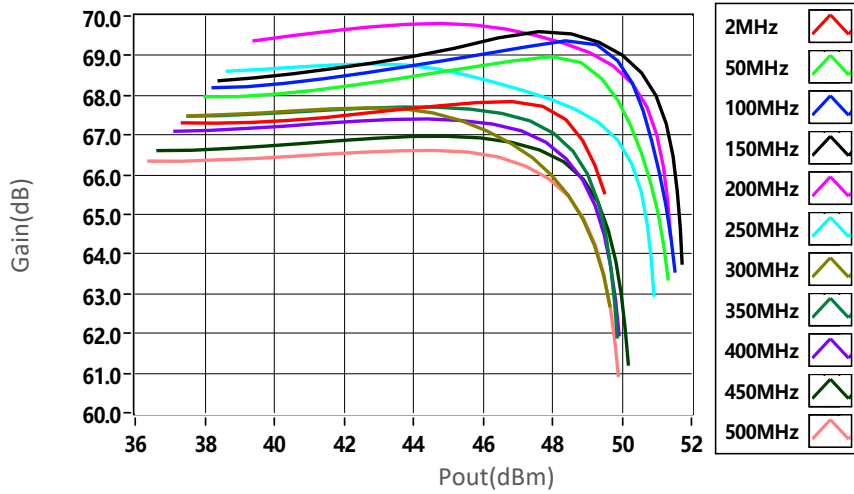
Input VSWR vs Frequency



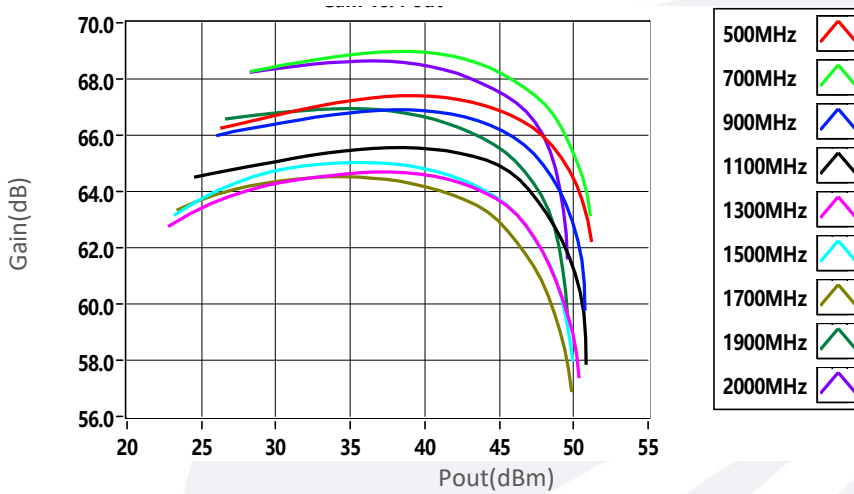
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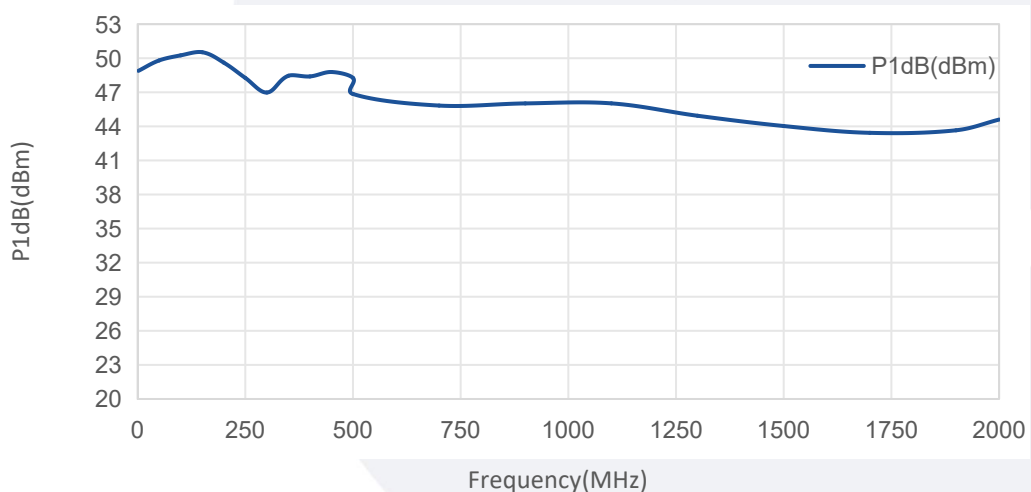
**Gain vs Output Power**



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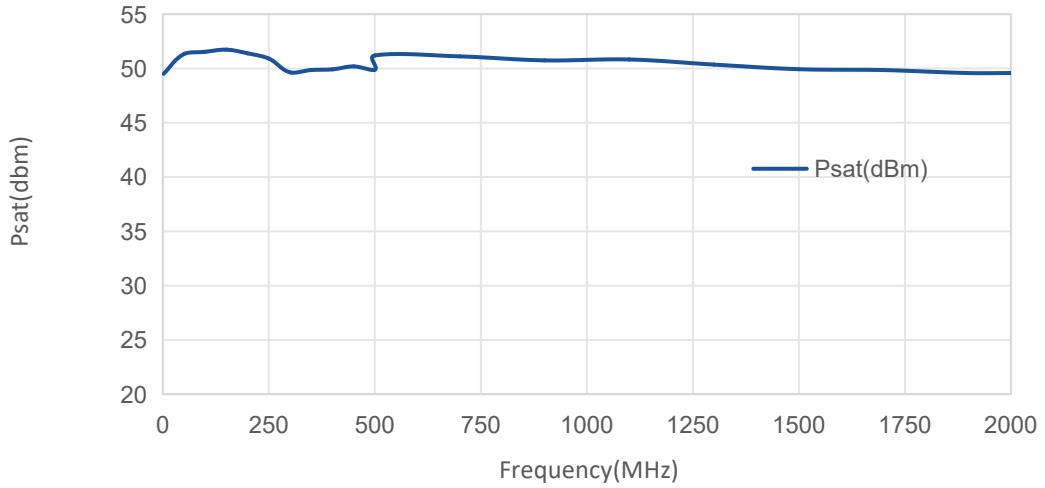
**P1dB vs Frequency**



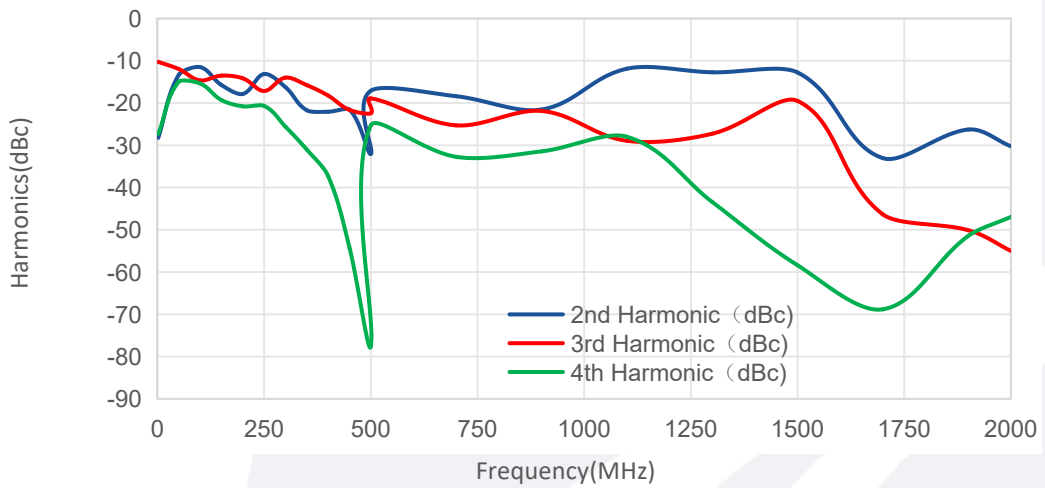
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**典型曲线 Typical Performance Data:**

**Psat vs Frequency**



**Harmonics vs Frequency**



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