

## 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

### Electrical Characteristics:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range 1	BW1	2-500			MHz
Frequency range 2	BW2	0.5-2			GHz
Small Signal Gain	GP	60	65		dB
Gain flatness	$\Delta$ GL		$\pm 3$	$\pm 4$	dB
Gain adjust Range	$\Delta$ GR		30		dB
Output P1dB	P1dB		47		dBm
Output Psat	Psat	49	50		dBm
Spurious	Spur			-60	dBc
Harmonics	HAM			-10	dBc
Input VSWR	VSWRin		1.5	2.0	:1
AC Voltage	Vac	110	220		V AC
AC Supply Current	Iac		3		A
Impedance	I/O-IMP	50			Ohms

### Mechanical Specifications:

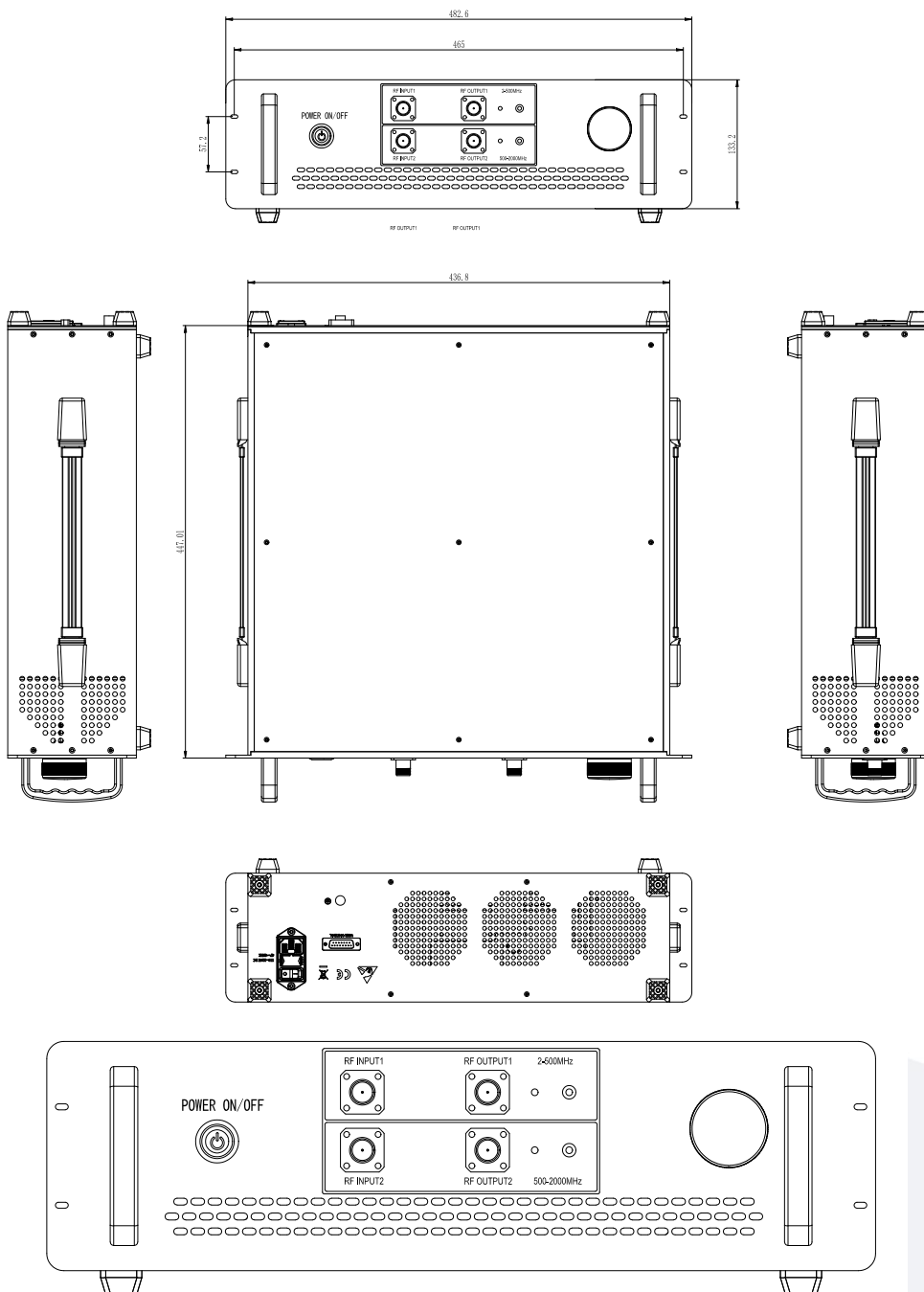
Parameter	Value	Units
Input /Output Connector	N Female/N Female	
Size	3U*500	mm
Weight	$\leq 27$	Kg

### Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

### Outline Drawing:

Unit:mm



### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	°C
Non-operating Temperature*	-30		+50	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

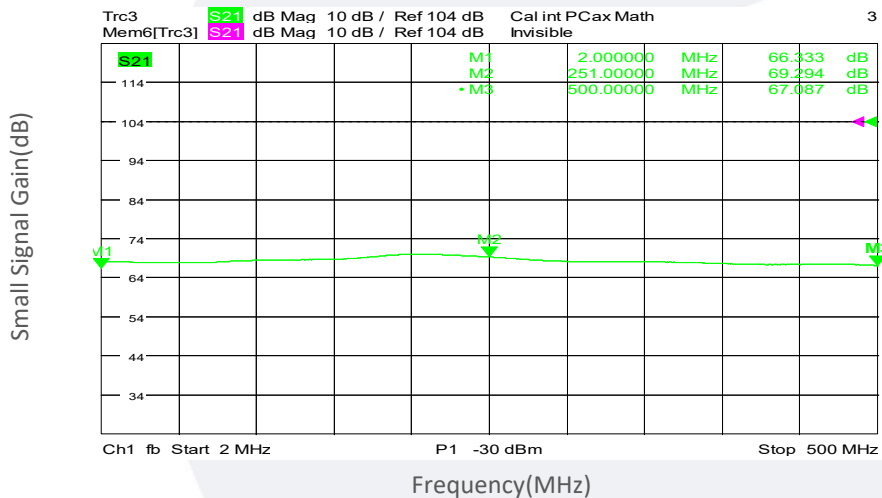
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

Base Number	Description	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

### Typical Performance Data:

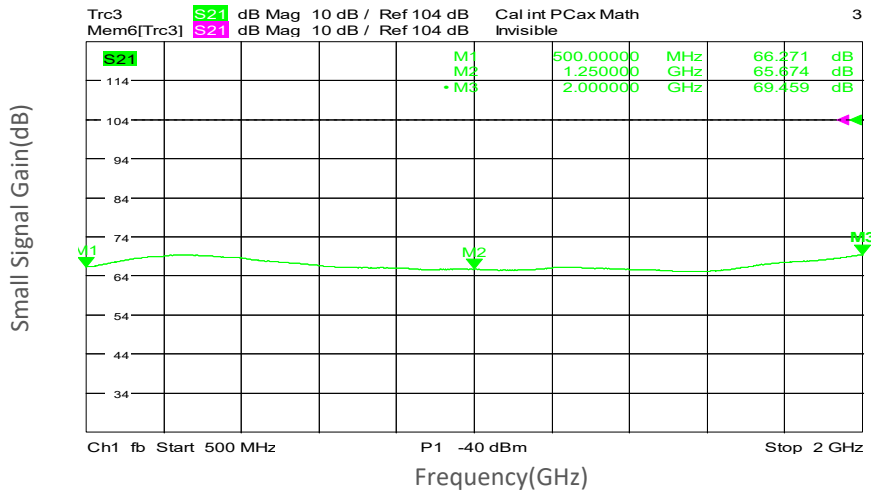
#### Small Signal Gain vs Frequency



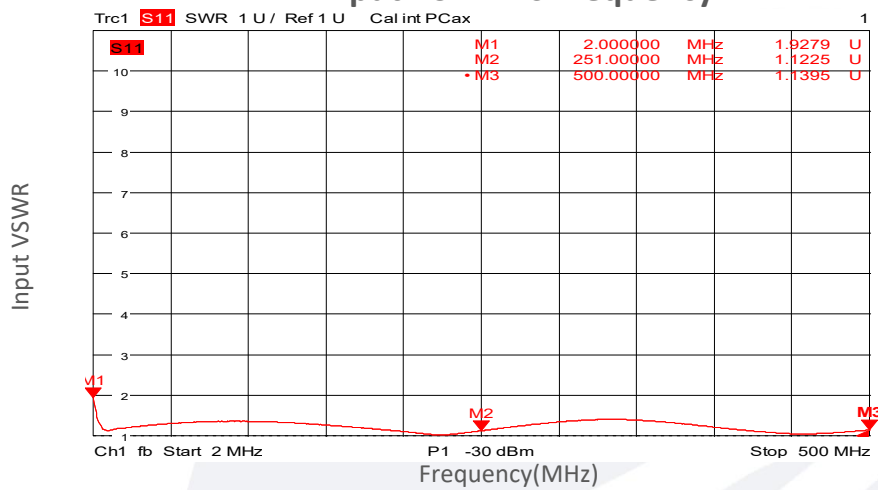
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

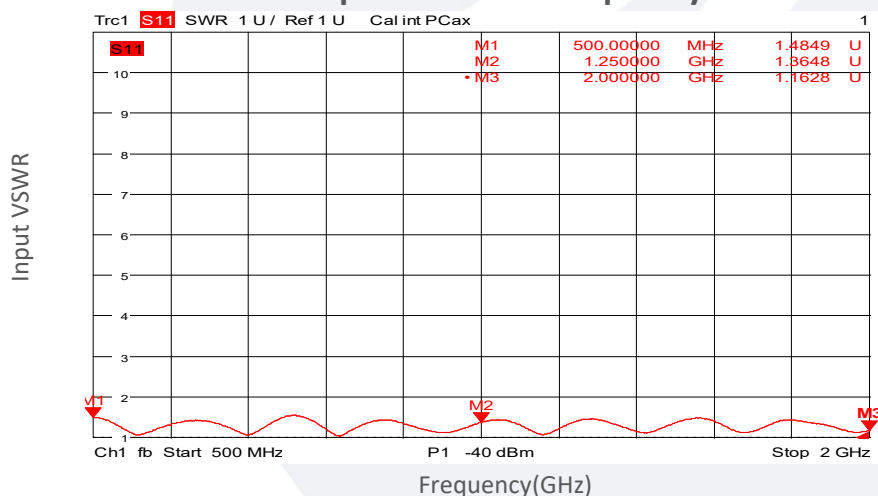
### Small Signal Gain vs Frequency



### Input VSWR vs Frequency



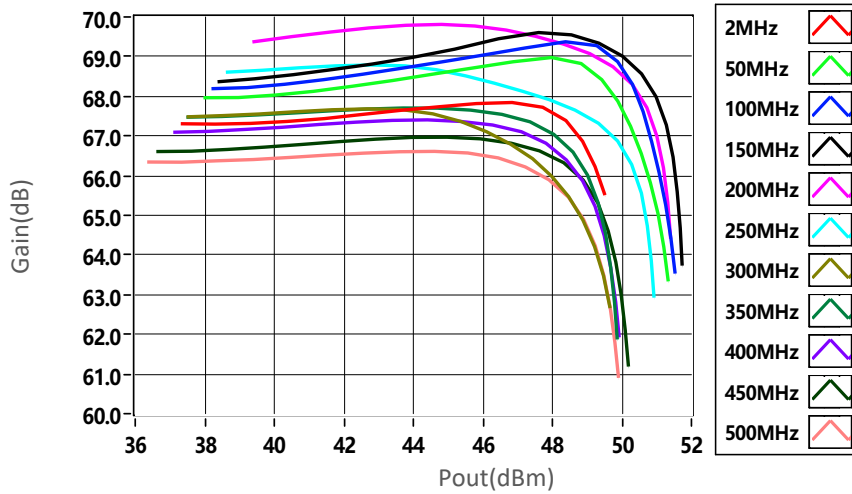
### Input VSWR vs Frequency



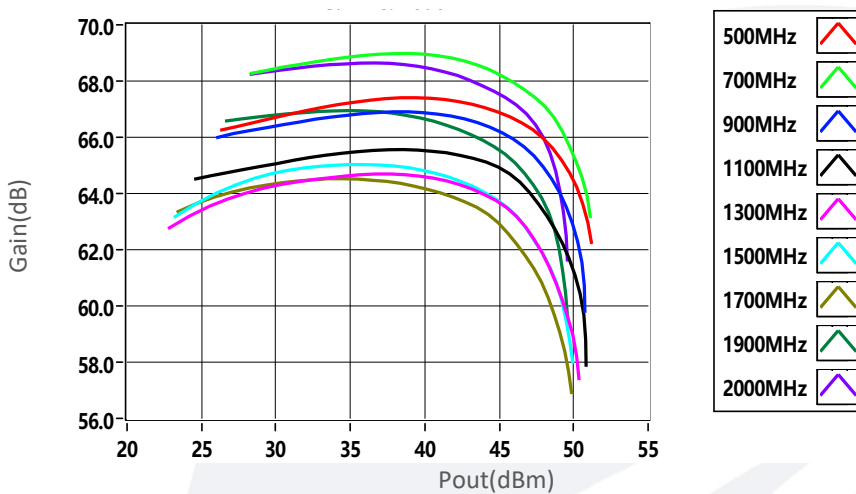
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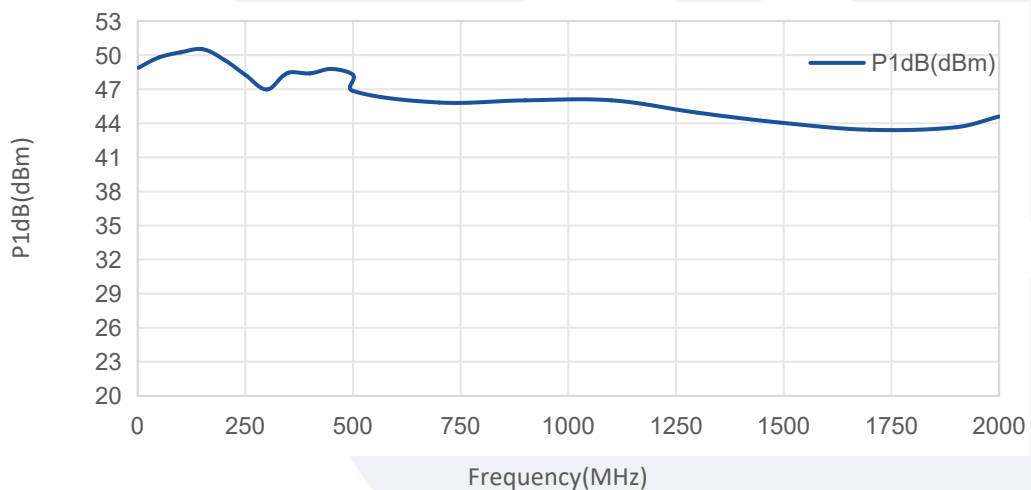
### Gain vs Output Power



### Gain vs Output Power



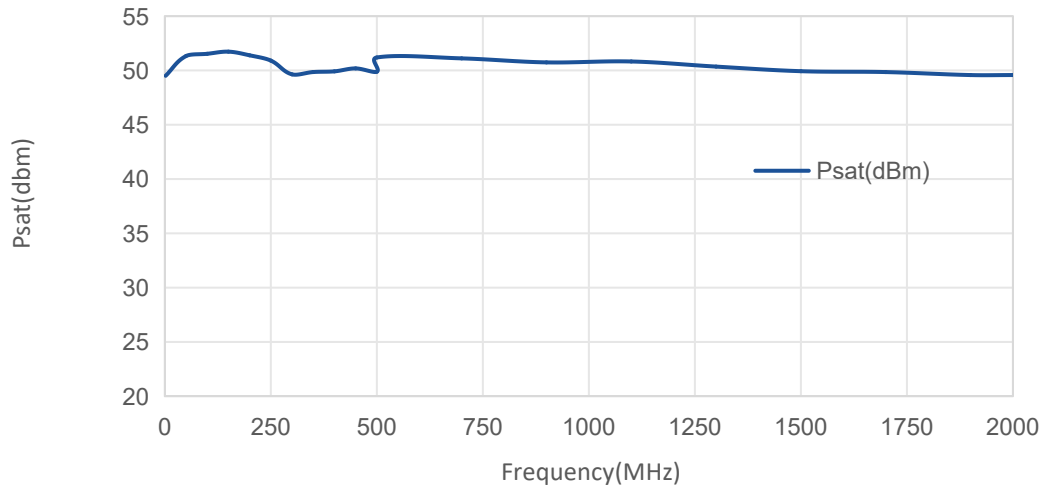
### P1dB vs Frequency



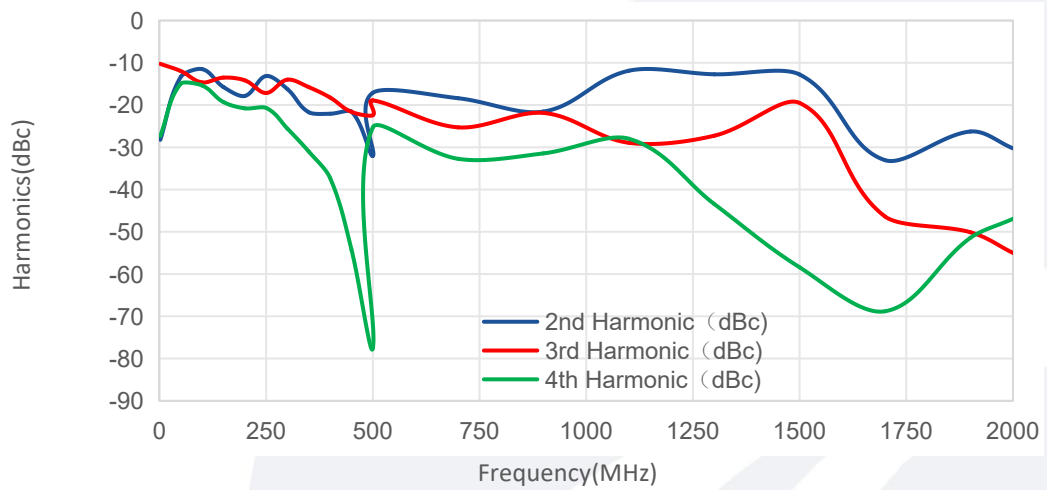
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## Typical Performance Data:

### Psat vs Frequency



### Harmonics vs Frequency



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