

## Solid State High Power Amplifier Systems

18-40GHz/40dB Gain/40dBm Psat/220V AC

Model: TLPA18G40G-40-40-BC

TLPA18G40G-40-40-BC is a solid state high power amplifier systems provides high output power and high gain across the 18 to 40GHz 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: 18-40GHz
- Gain: 40dB Min
- Psat Output Power: 40dBm Min
- Protection: Over TEM, over voltage, over current, over VSWR protection
- 50 Ohm Matched Input / Output



### Electrical Characteristics:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	18-40			GHz
Power Gain	GP	40			dB
Gain flatness	$\Delta$ GL		$\pm 5$		dB
Output Psat	Psat	40	41		dBm
ALC Accuracy	ALC			$\pm 0.5$	dB
Spurious	Spur			-50	dBc
Harmonics	HAM			-15	dBc
Input VSWR	VSWRin			2.0	:1
AC Voltage	Vac		220		V AC
Impedance	I/O-IMP	50			Ohms

### Mechanical Specifications:

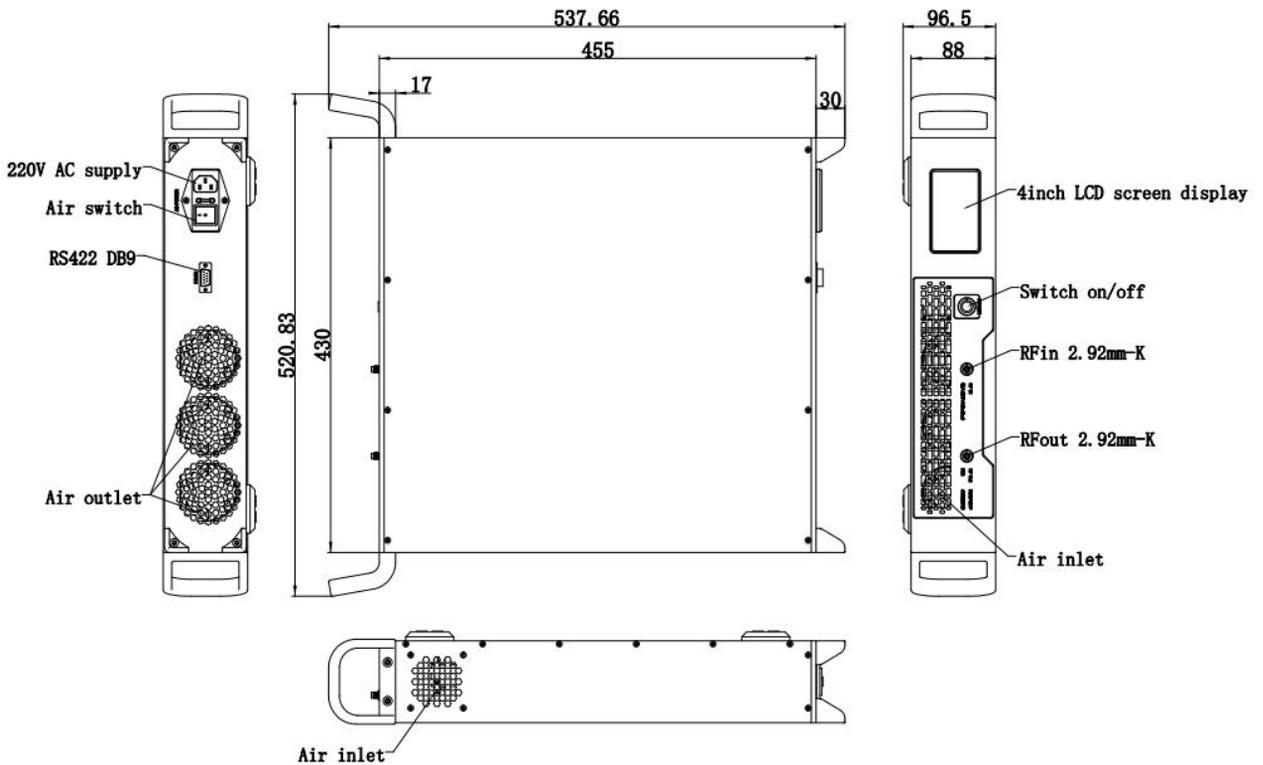
Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
Communication Connector	DB9	
Size	19 Inch 2U	
Weight	$\leq 25$	Kg

### Absolute Maximum Ratings:

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

### Outline Drawing:

Unit:mm



### Key Features:

Parameter	Advantages
Control functions	1, Power setting on/off 2, RF on/off 3, Gain adjustment
Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR
Remote control	RS422
Cooling system	Built in Cooling system, forced air cooling

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	°C
Non-operating Temperature*	-30		+60	°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			

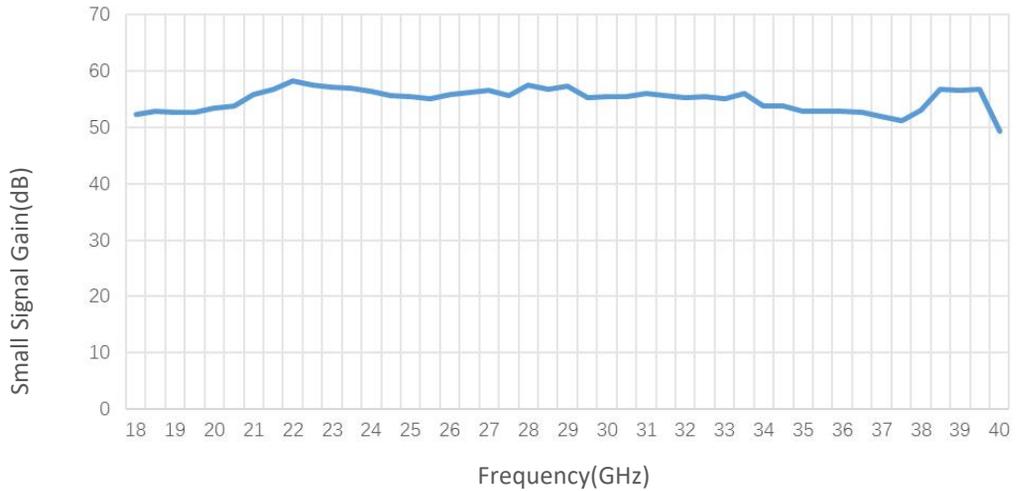
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

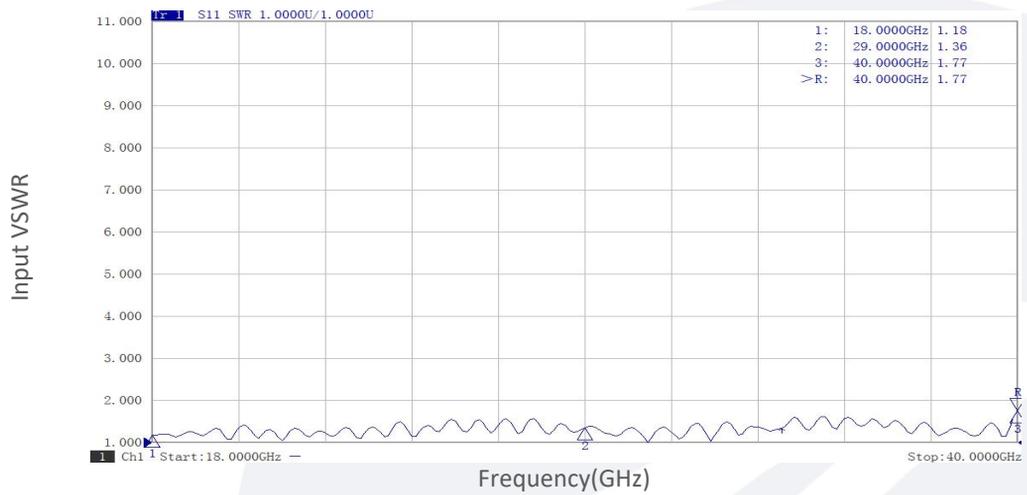
Base Number	Description	Revision
TLPA18G40G-40-40-BC	Solid State High Power Amplifier Systems 18-40GHz, Gain:40dB, Psat:40dBm, 220V AC, Built in Fan Cooling	Rev.1.1

## Typical Performance Data:

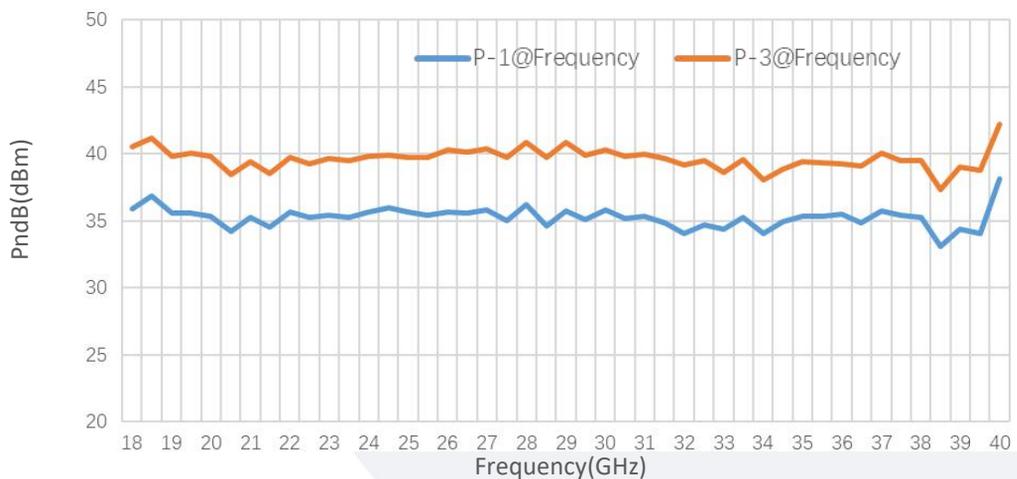
### Small Signal Gain vs Frequency



### Input VSWR vs Frequency

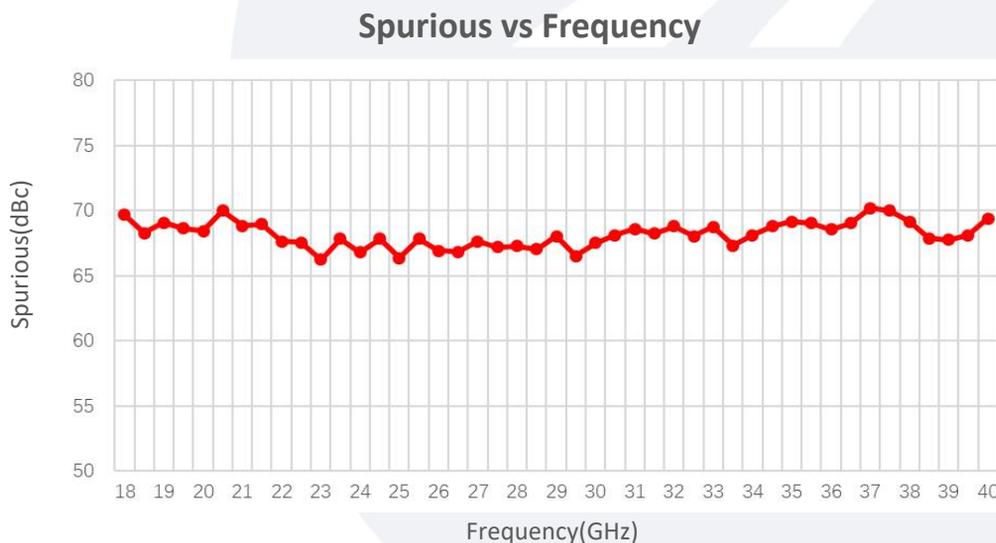
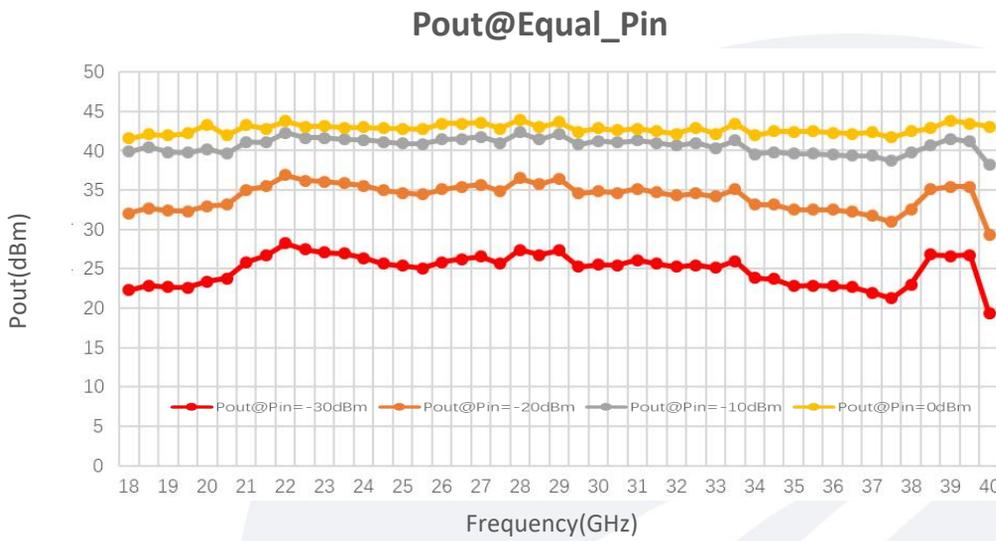
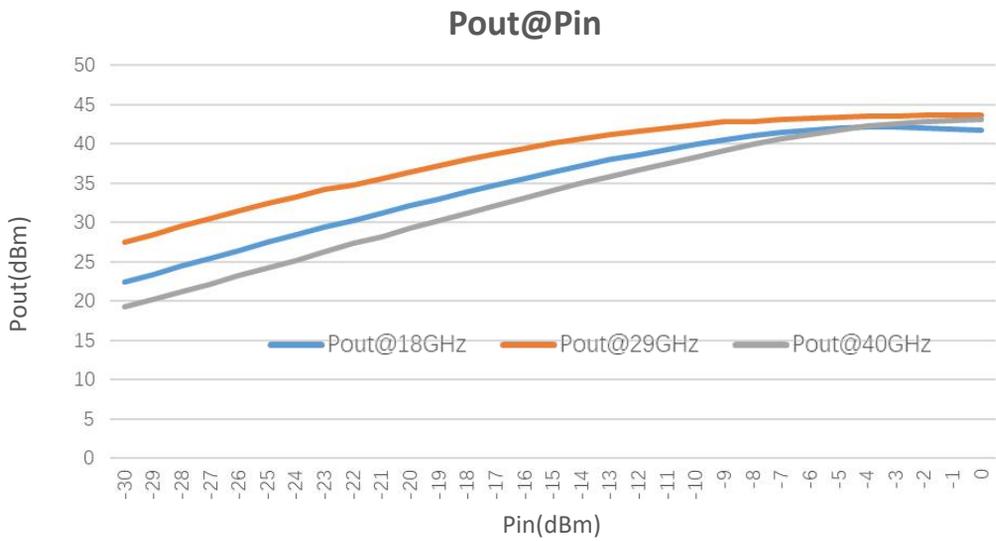


### PndB vs Frequency



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

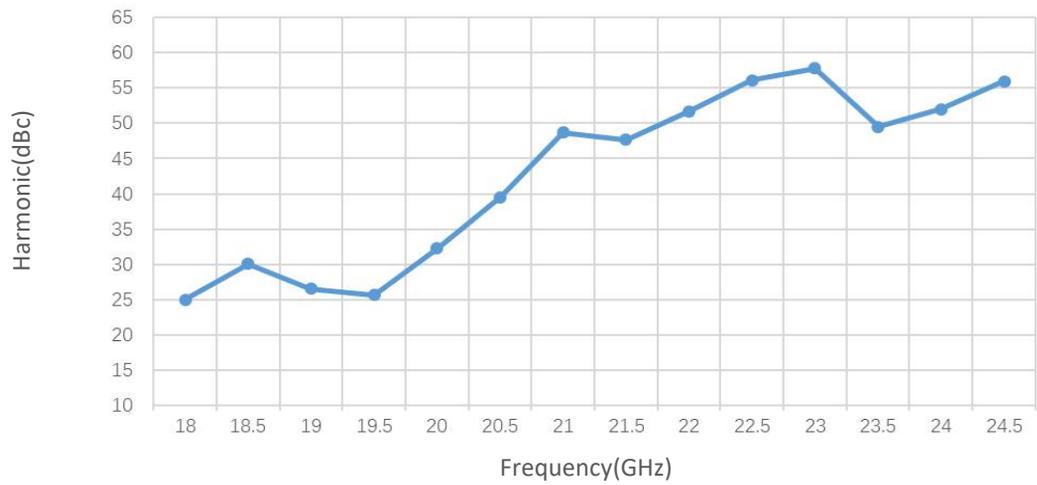
**Typical Performance Data:**



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## Typical Performance Data:

### Harmonic 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.