

## Solid State High Power Amplifier Systems

2-18GHz/43dB Gain/43dBm Psat/220V AC

Model: TLPA2G18G-43-43-BC

TLPA2G18G-43-43-BC is a solid state high power amplifier systems provides high output power and high gain across the 2 to 18 GHz 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: 2-18GHz
- Gain: 43dB Min
- Psat Output Power: 43dBm 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	2-18			GHz
Power Gain	GP	43			dB
Gain flatness	$\Delta$ GL				dB
Output Psat	Psat	43			dBm
Spurious@Pout=43dBm	Spur		-60		dBc
Harmonics@Pout=43dBm	HAM		-10		dBc
Input VSWR	VSWRin			2	:1
AC Voltage	Vac		220		V AC
Power Consumption	Pdiss			400	W
Impedance	I/O-IMP	50			Ohms

### Mechanical Specifications:

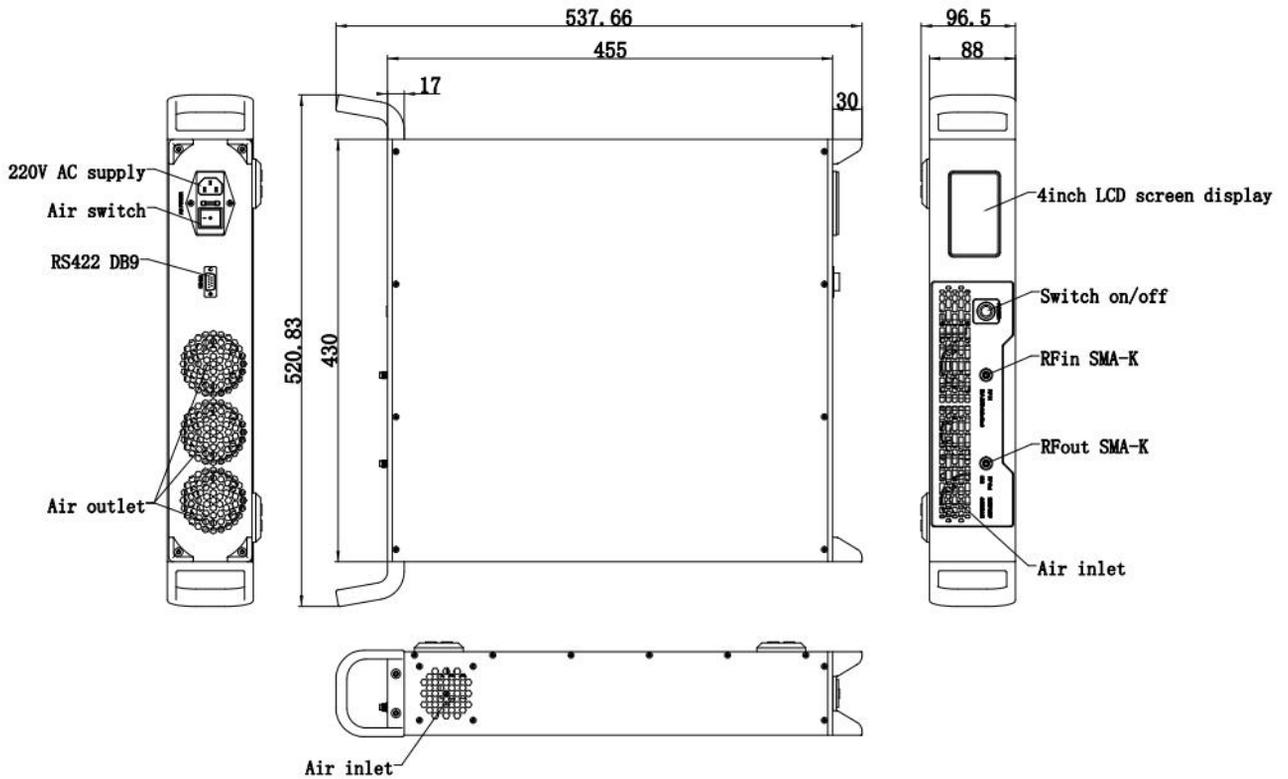
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
AC Power Interface	Air switch	
Size	19 Inch 2U*485mm depth	mm
Weight	≤20	Kg

### Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

### Outline Drawing:

Unit:mm



### Key Features:

Parameter	Advantages
Control functions	1, Power setting On/Off 2, ALC automatic level control
Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR
Remote control	RS422/Ethernet
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			

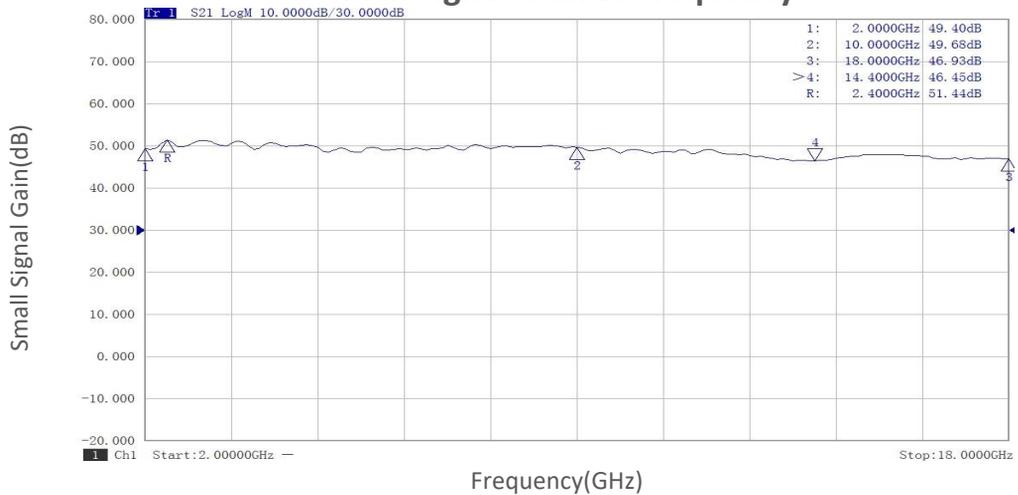
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

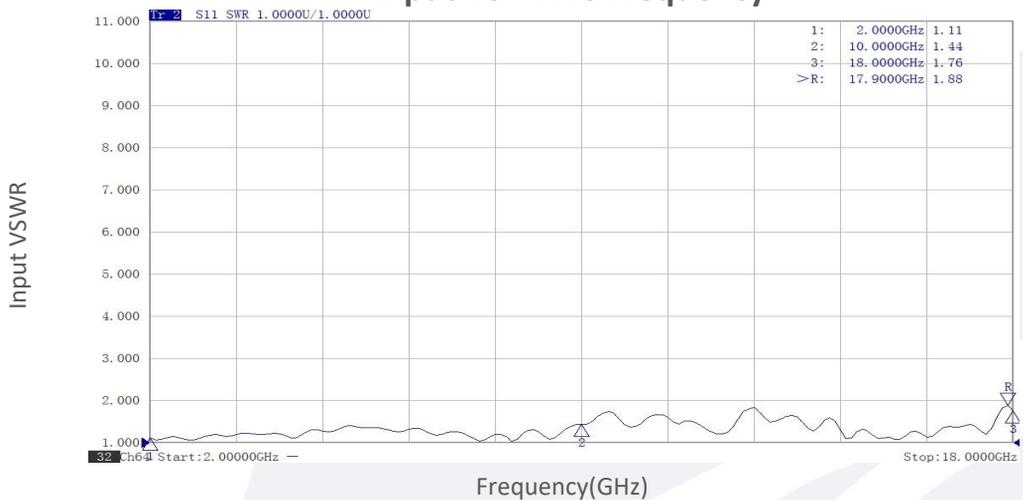
Base Number	Description	Revision
TLPA2G18G-43-43-BC	Solid State High Power Amplifier Systems 2-18GHz, Gain:43dB, Psat:43dBm, 220V AC, Built in Fan Cooling	Rev.1.1

## Typical Performance Data:

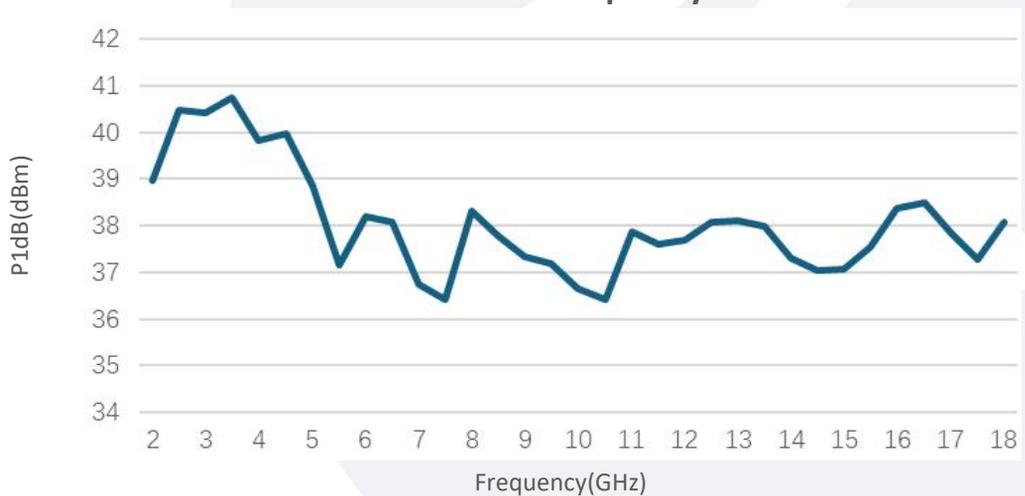
### Small Signal Gain vs Frequency



### Input VSWR vs Frequency



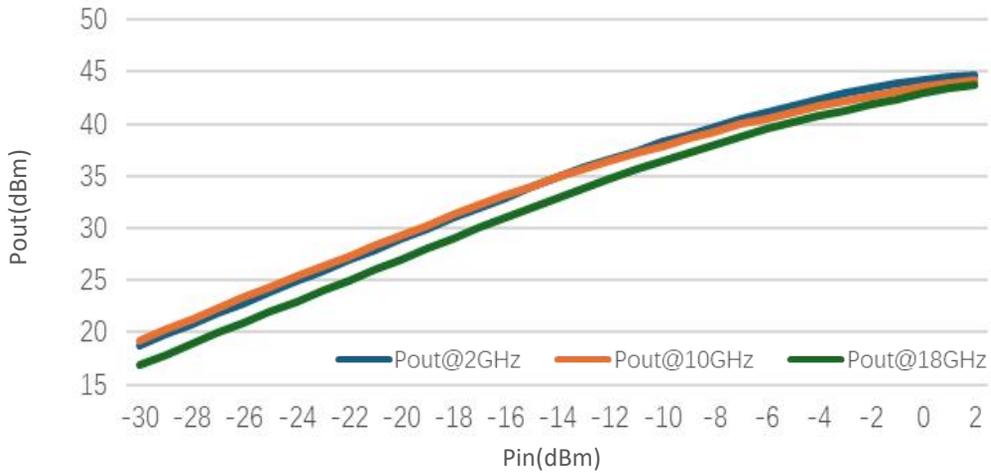
### P1dB vs Frequency



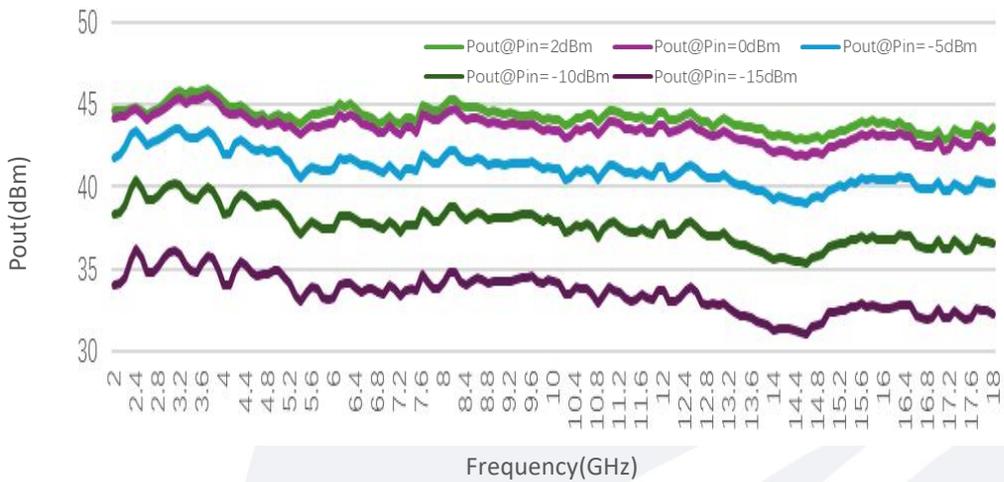
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

**Typical Performance Data:**

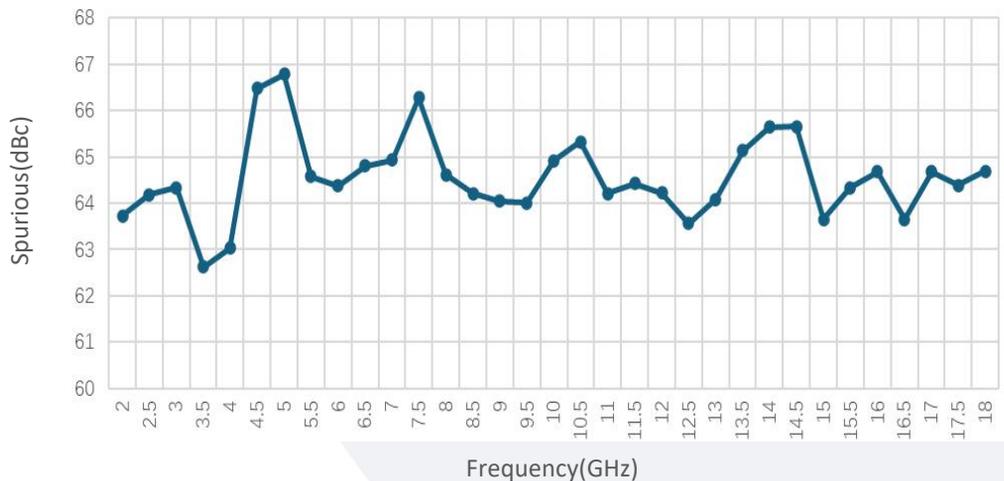
**Pout@Pin**



**Pout@Equal\_Pin**

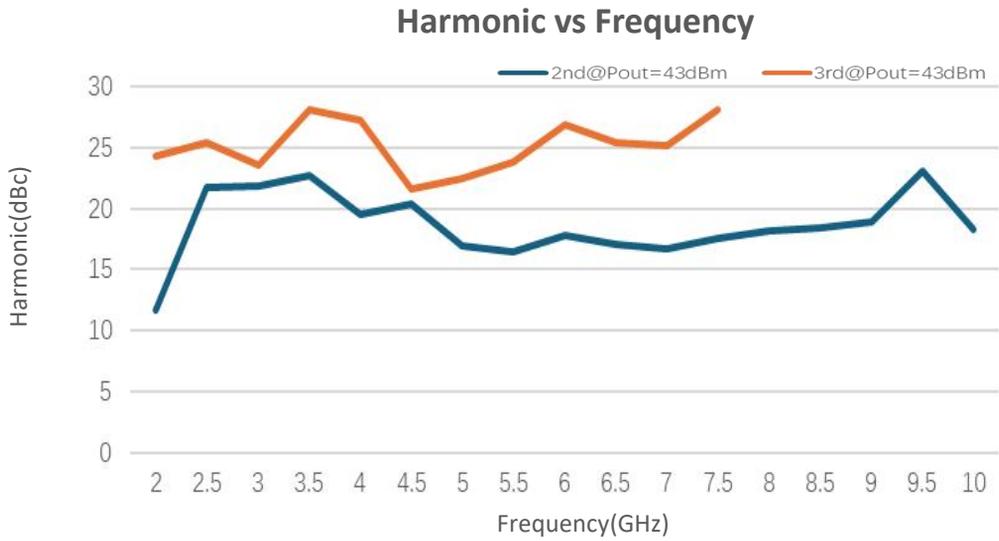


**Spurious vs Frequency**



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