

## Solid State High Power Amplifier Systems

18-40GHz/43dB Gain/43dBm Psat/220V AC

Model: TLPA18G40G-43-43-BC

TLPA18G40G-43-43-BC is a solid state high power amplifier systems provides high output power and high gain across the 18 to 40 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:

- Wide Band: 18-40 GHz
- 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	18-40			GHz
Power Gain	GP	43			dB
Gain flatness	$\Delta$ GL		$\pm 5$		dB
Output Psat	Psat	43	44		dBm
ALC accuracy	ALC			$\pm 0.5$	dB
Spurious@Pout=43dBm	Spur			-50	dBc
Harmonics@Pout=43dBm	HAM			-15	dBc
Rise/Fall Time	Tr		50		ns
Input VSWR	VSWRin			2	:1
AC Voltage	Vac		220		V AC
Power Consumption	Pdiss			600	W
Working Mode	MOD	CW/PULSE compatible			
Impedance	I/O-IMP	50			Ohms

### Mechanical Specifications:

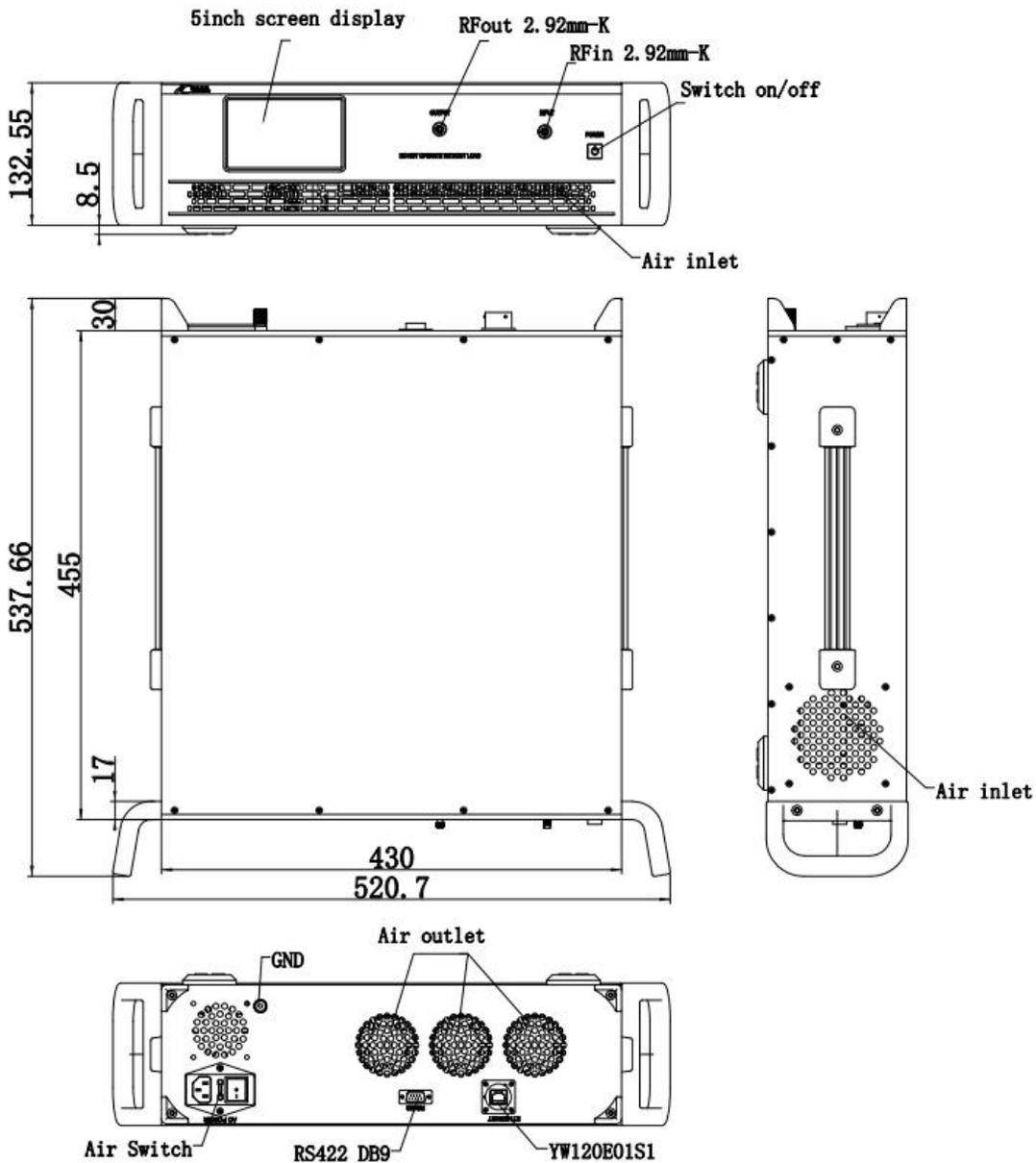
Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
Communication Connector	DB9/RJ45	
Size	19 Inch 3U*550	mm
Weight	$\leq 35$	Kg

### 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	Power setting On/Off
Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Over VSWR
Remote control	RS422/Ethernet
Display functions	1,Output/reflected power 2,Fault informations
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			

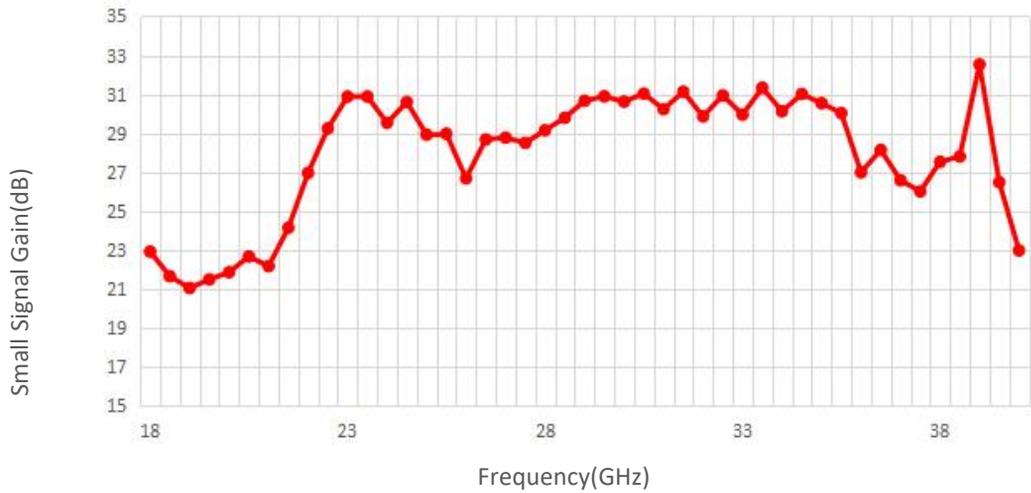
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

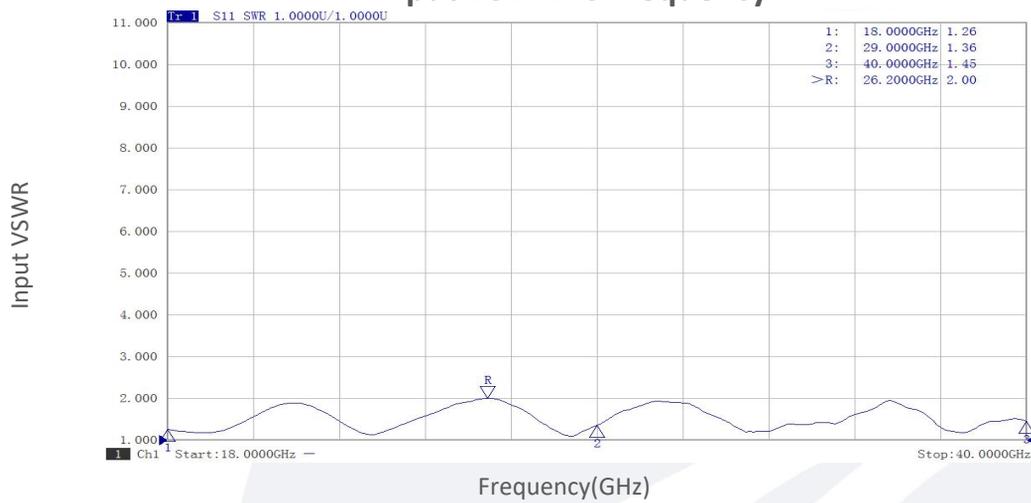
Base Number	Description	Revision
TLPA18G40G-43-43-BC	Solid State High Power Amplifier Systems 18-40GHz,Gain:43dB,Psat:43 dBm,220V AC,Built in Fan Cooling	Rev.1.1

**Typical Performance Data:**

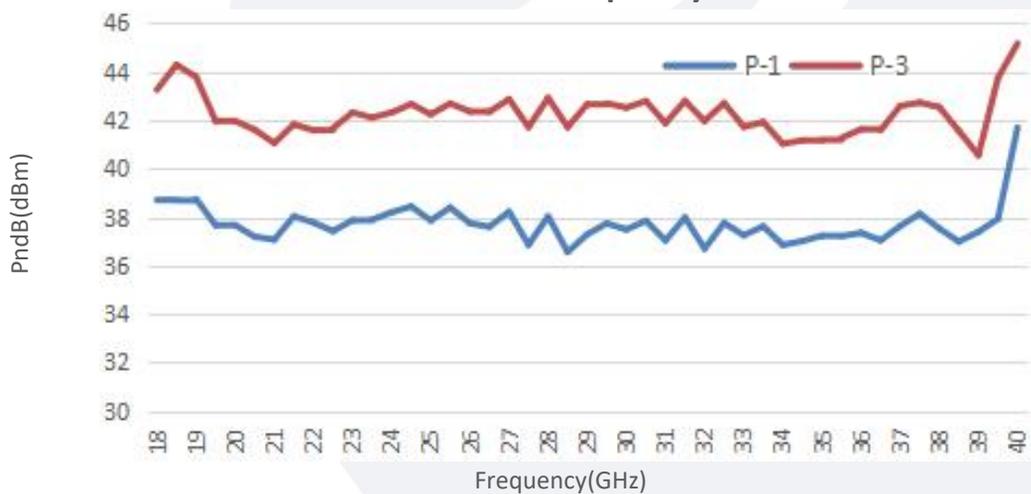
**Small Signal Gain vs Frequency**



**Input VSWR vs Frequency**

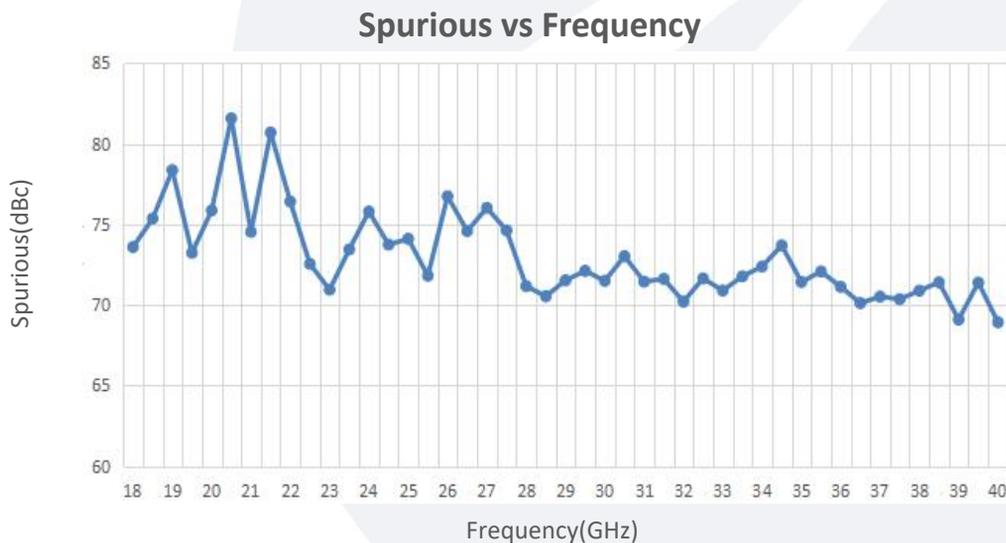
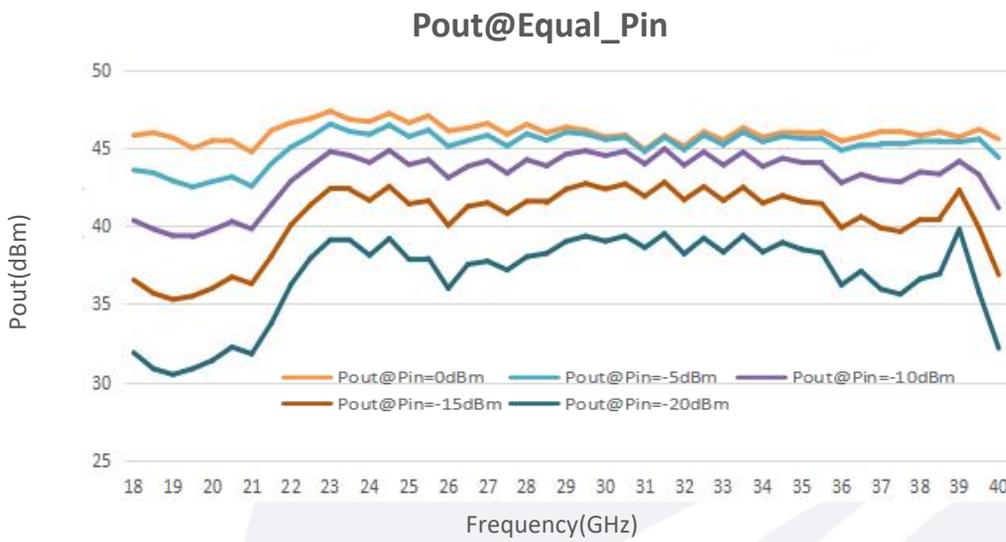
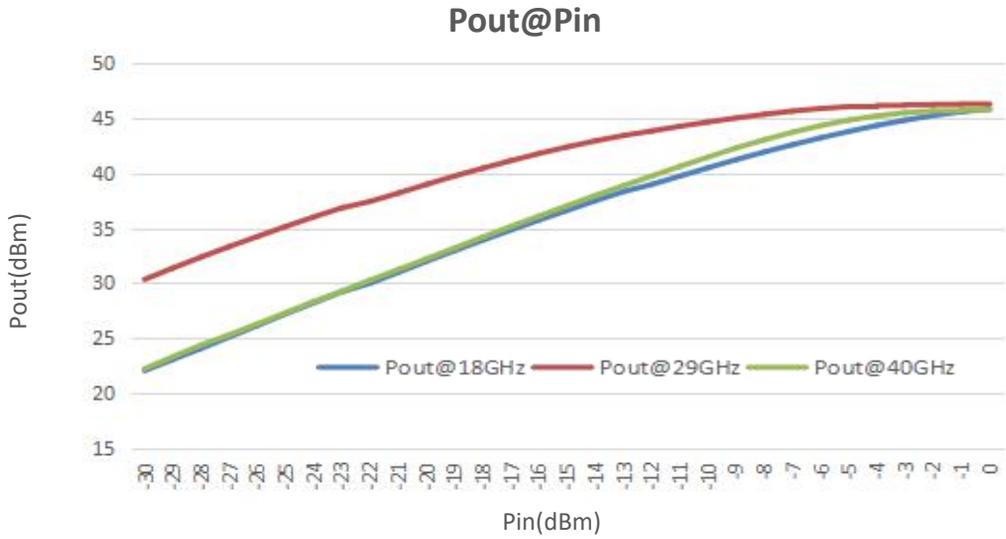


**PndB vs Frequency**



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

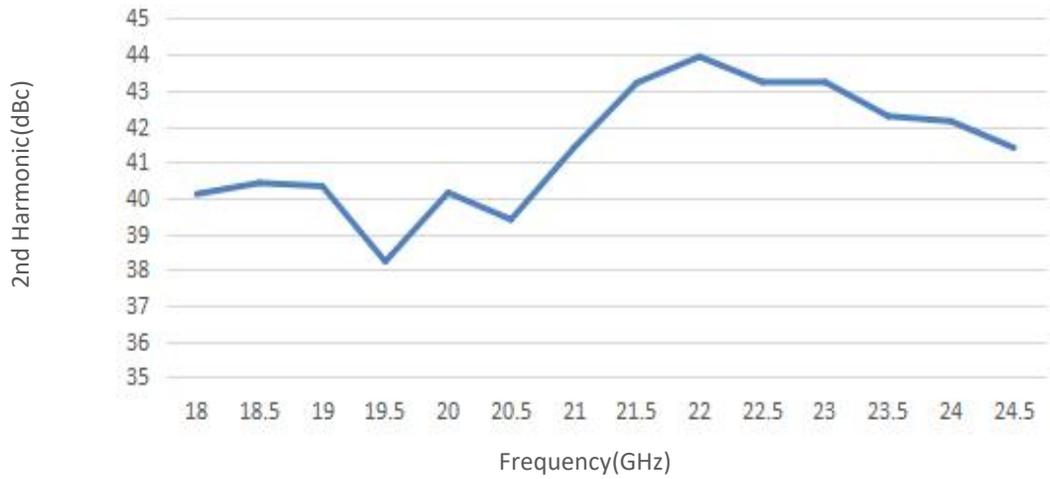
**Typical Performance Data:**



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## Typical Performance Data:

### 2nd Harmonic vs Frequency



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