

## Solid State High Power Amplifier Systems

4-8GHz /61dB Gain/61 dBm Psat/380V AC

Model: TLPA4G8G-61-61-BC

TLPA4G8G-61-61-BC is a solid state high power amplifier systems provides high output power and high gain across the 4 to 8 GHz frequency range. The amplifier features a built-in 380V 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: 4-8 GHz
- Gain: 61dB Min
- Psat Output Power:61dBm Min
- Protection:Over TEM,over voltage, over current ,output mismatch protection
- 50 Ohm Matched Input / Output

### Electrical Characteristics:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	4-8			GHz
Working Mode	MOD	CW/PULSE compatible			
Power Gain	GP	61			dB
Gain flatness	$\Delta$ GL		$\pm 4$		dB
Output Psat	Psat	61			dBm
Spurious@Pout=60dBm	Spur			-60	dBc
Harmonics@Pout=60dBm	HAM		-15		dBc
AC Voltage	Vac		380		V AC
Power Consumption@Pout=60dBm	Pdiss		10000		W
Impedance	I/O-IMP	50			Ohms

### Mechanical Specifications:

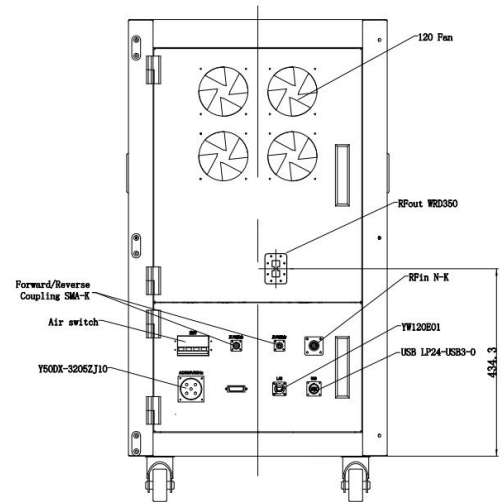
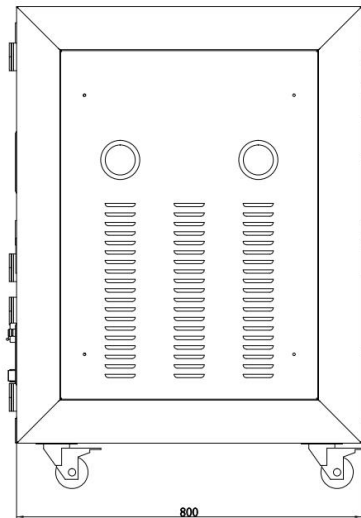
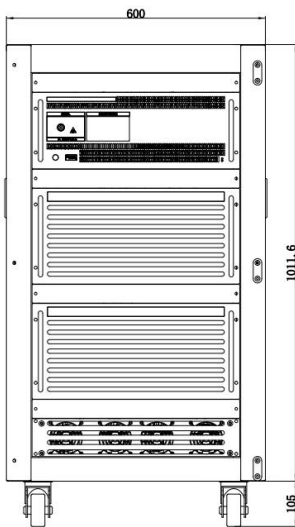
Parameter	Value	Units
Input /Output Connector	N Female WRD350	
Forward/Reverse Coupling	SMA Female/SMA Female	
Front Panel LCD Screen Display	7 inch LCD Screen Display	
Communication Interface	DB9/RJ-45	
Size	20U*600 width*800 depth	mm
Weight	$\leq 300$	Kg

### 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, Gain control
Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Output mismatch
Remote control	RS422/LAN
Monitor functions	1, Output power 2, Reflected power 3, TEM 4, Operating voltage 5, Operating current
Cooling system	Built in Cooling system, forced air cooling

### Environmental Conditions:

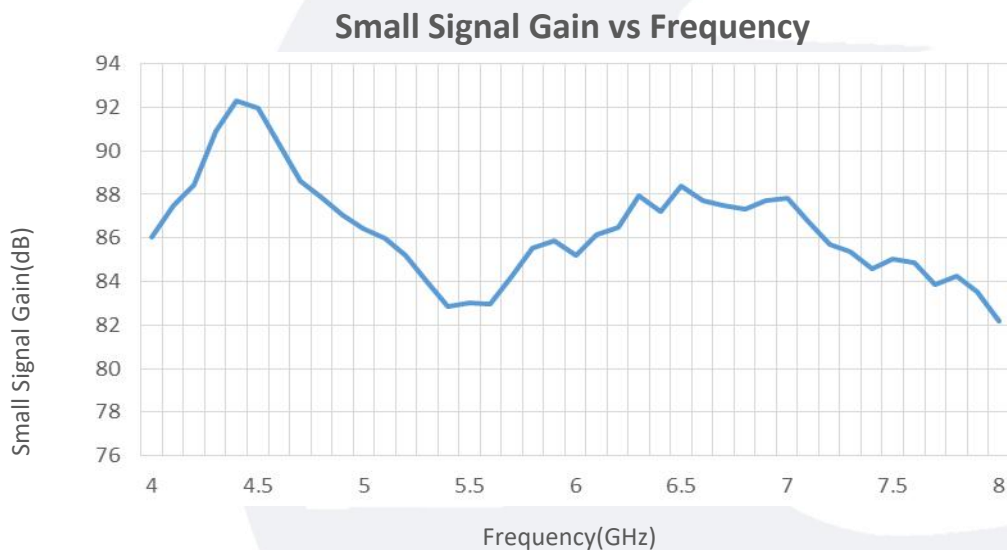
Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	°C
Non-operating Temperature*	-30		+50	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msec half sin wave,3 axis both directions			

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

### Ordering Information:

Base Number	Description	Revision
TLPA4G8G-61-61-BC	Solid State High Power Amplifier Systems 4-8GHz, Gain:61dB, Psat:61 dBm, 380V AC, Built in Fan Cooling	Rev.1.1

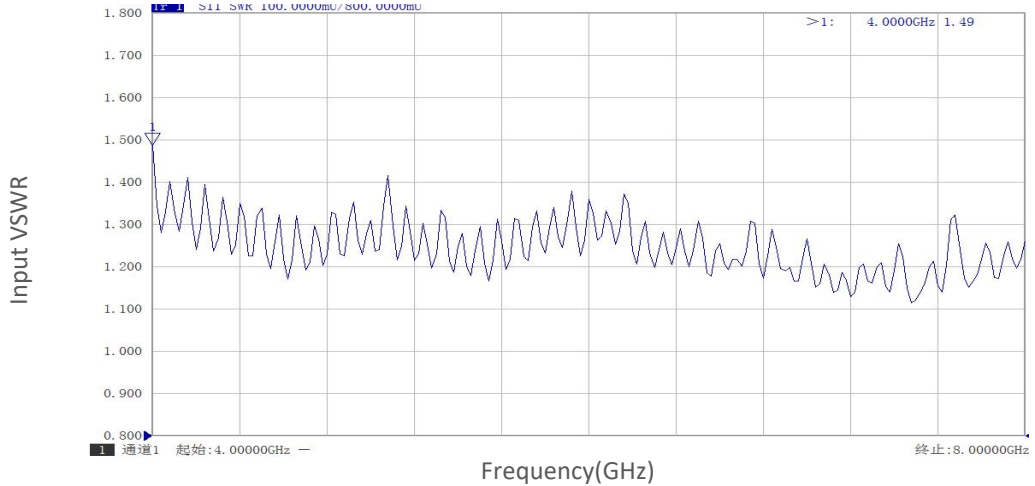
### Typical Performance Data:



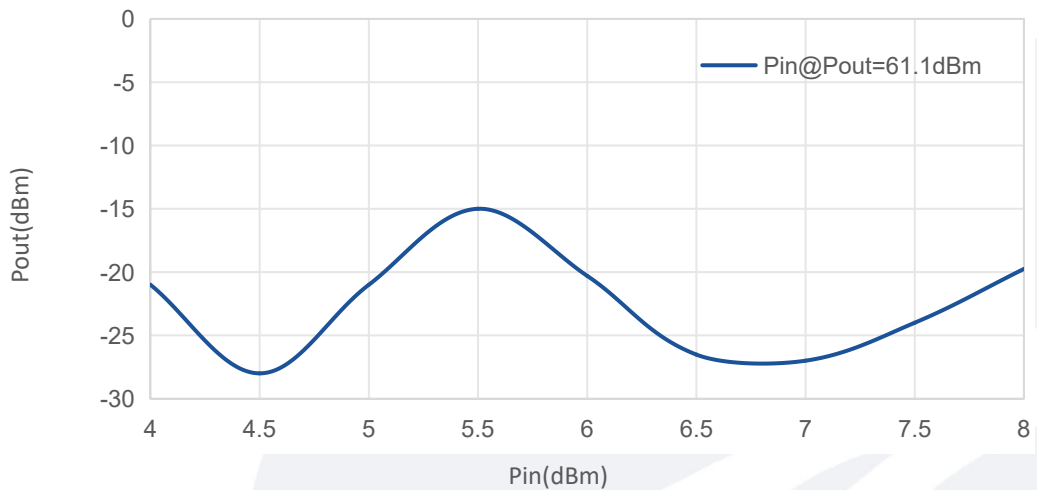
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

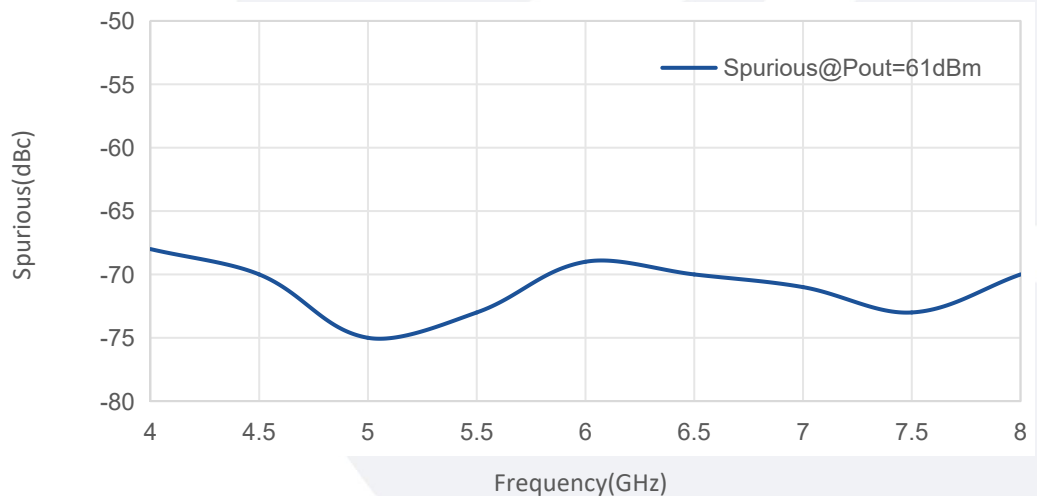
### Input VSWR vs Frequency



### Pout@Pin



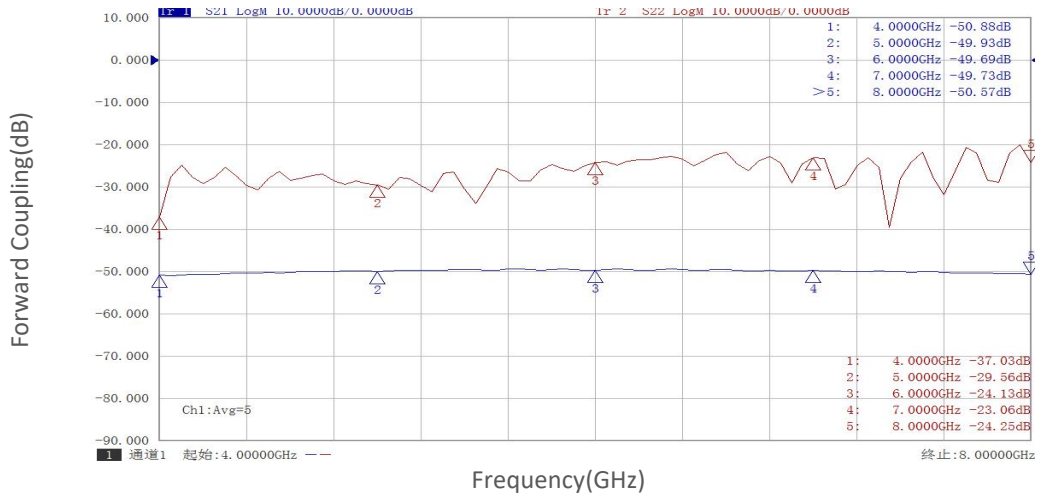
### Spurious vs Frequency



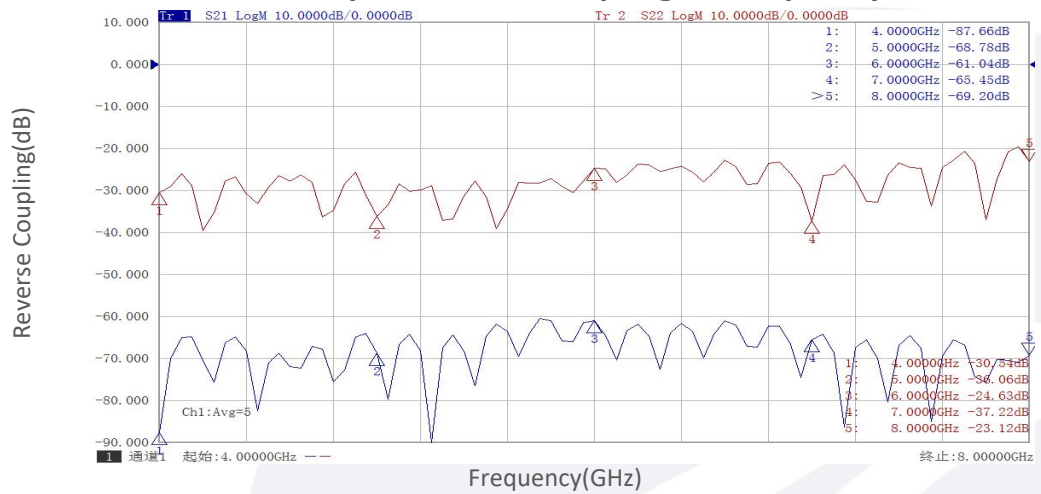
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## Typical Performance Data:

### Output Forward Coupling vs Frequency

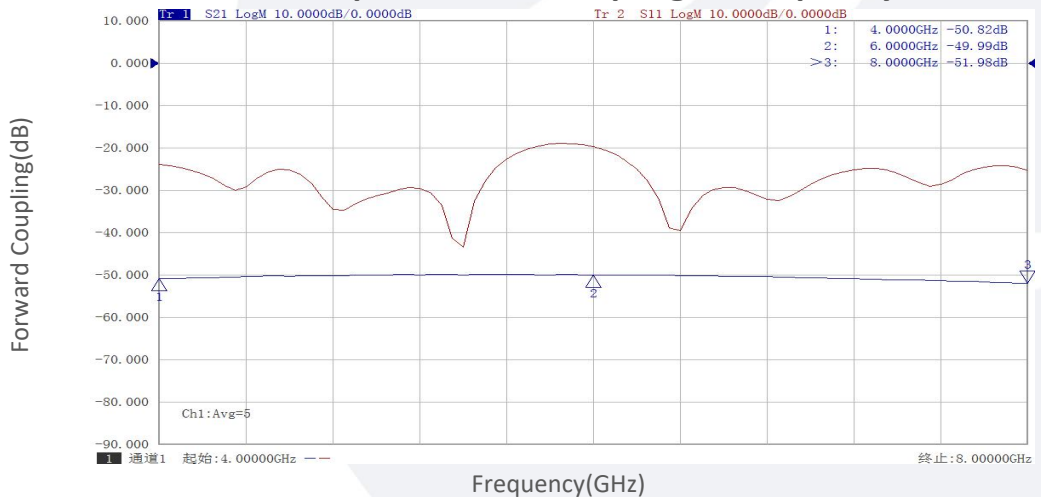


### Output Reverse Coupling vs Frequency



## Final enclosure 001

### Output Forward Coupling vs Frequency

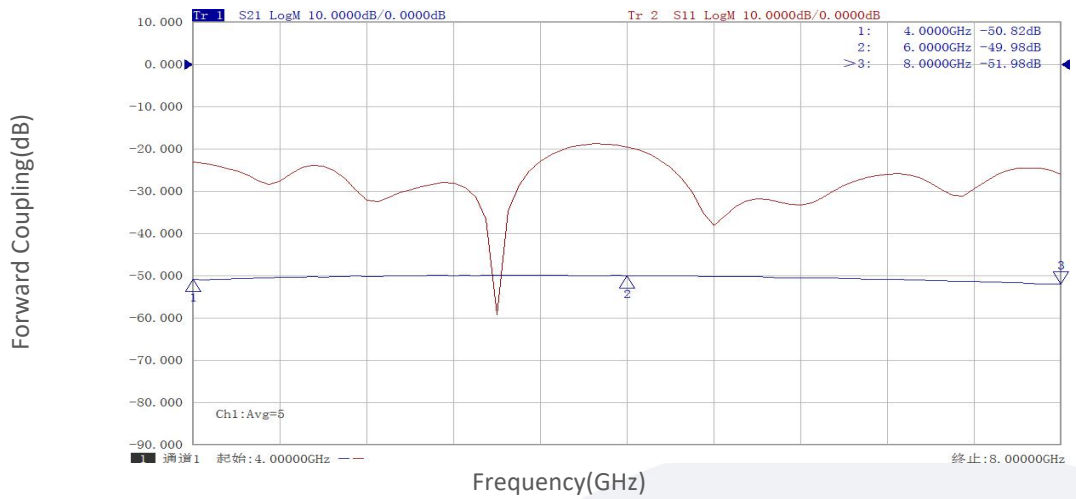


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

### Final enclosure 002

#### Output Forward Coupling vs Frequency



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