

## Solid State High Power Amplifier Systems

2-4GHz/57dB Gain/57dBm Psat/220V AC

Model: TLPA2G4G-57-57-BC

TLPA2G4G-57-57-BC is a solid state high power amplifier systems provides high output power and high gain across the 2 to 4 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: 2-4GHz
- Gain: 57dB Min
- Psat Output Power: 500W 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	2-4			GHz
Power Gain	GP	57	58		dB
Gain flatness	$\Delta$ GL		$\pm 3$	$\pm 4$	dB
Gain adjust Range	$\Delta$ GR				dB
Gain adjust Step	$\Delta$ GS				dB
Output P1dB	P1dB		200		W
Output Psat	Psat	500	550		W
Spurious@Pout=500W	Spur			-50	dBc
Harmonics@Pout=500W	HAM		-15	-10	dBc
Input VSWR	VSWRin		1.5	2	:1
AC Voltage	Vac	110	220		V AC
Power Consumption	Pdiss			4000	W
Impedance	I/O-IMP	50			Ohms

### Mechanical Specifications:

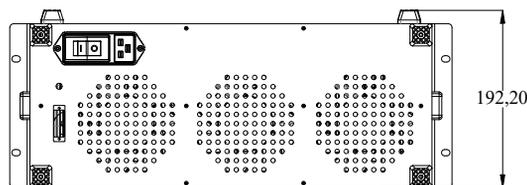
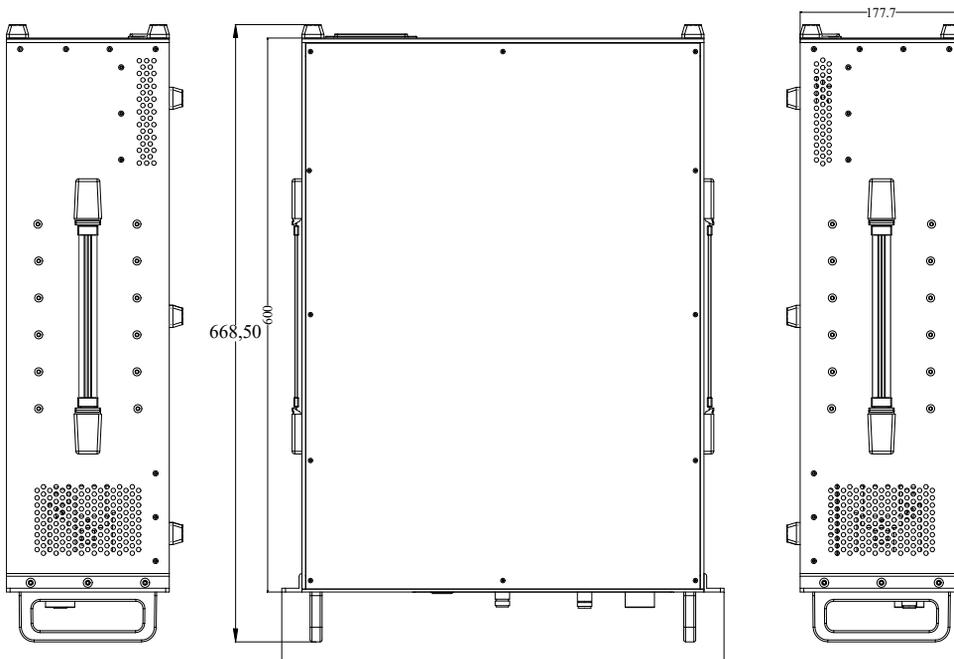
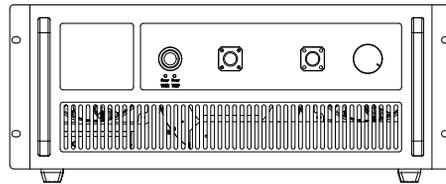
Parameter	Value	Units
Input /Output Connector	N Female/7/16 DIN Female	
Size	482.6*133.2*668.5	mm
Weight	$\leq 40$	Kg

### Absolute Maximum Ratings:

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

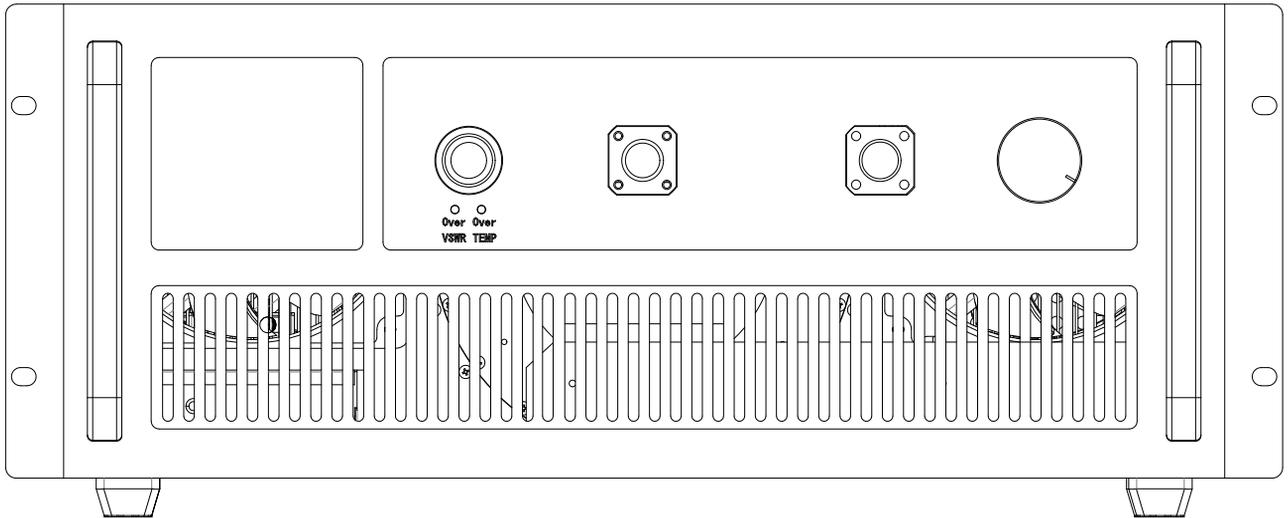
### Outline Drawing:

Unit:mm



Outline Drawing:

Unit:mm



**监控 Monitor and control interface,D-sub15 Female:**

Pin	Description	Specification
1	FWD	Forward detected power (analog voltage: 0 – 5 Volt)
2	REV	Reverse detected power (analog voltage: 0 – 5 Volt)
3	Summary Fault	Summary Fault: Active TTL Logic Low ( $\leq 0.7V$ ) = Fault (Internally Pulled-High)
4	Shutdown	Amplifier Disable: TTL Logic Low ( $\leq 0.7V$ ) (Internally Pulled-High)
5	Over Temp	TTL Logic High (2V-5V) = Fault (Internally Pulled-Low)
6	Over RF IN	TTL Logic High (2V-5V) = Fault (Internally Pulled-Low)
7	Over VSWR	TTL Logic High (2V-5V) = Fault (Internally Pulled-Low)
8	GND	Ground
9-15	NC	No Connection

### Key Features:

Parameter	Advantages
Control functions	1, Power setting On/Off
Protection functions	1, Input overdrive: $\geq 10\text{dBm}$ , shutdown 2, Over VSWR: $\geq 4:1$ , shutdown 3, Thermal – graceful degradation: ambient $50^{\circ}\text{C}$
Cooling system	Built in Cooling system, forced air cooling

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	$^{\circ}\text{C}$
Non-operating Temperature*	-30		+50	$^{\circ}\text{C}$
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
TLPA2G4G-57-57-BC	Solid State High Power Amplifier Systems 2-4GHz, Gain:57dB, Psat:57dBm, 220V AC, Built in Fan Cooling	Rev.1.1