

## Solid State High Power Amplifier Systems

2-4GHz/55dB Gain/55dBm Psat/220V AC

Model: TLPA2G4G-55-55-P-BC

TLPA2G4G-55-55-P-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: 55dB Min
- Psat Output Power: 55dBm Typ
- 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	55	58		dB
Gain flatness	$\Delta$ GL		$\pm 2$	$\pm 3$	dB
Gain adjust Range	$\Delta$ GR		31.5		dB
Gain adjust Step	$\Delta$ GS		0.5		dB
Output P1dB @(100us PW, 10% Duty cycle)	P1dB	50	51		dBm
Output Psat @(100us PW, 10% Duty cycle)	Psat	54.5	55		dBm
杂散 Spurious@Pout=300W	Spur			-60	dBc
2nd Harmonics @Pout=300W	HAM		-15	-10	dBc
3rd Harmonics @Pout=300W	HAM		-20	-15	dBc
Input VSWR	VSWRin			2	:1
AC Voltage	Vac		220		V AC
AC Supply Current	Iac		1		A
Power Consumption	Pdiss		220		W
Impedance	I/O-IMP		50		Ohms

### Mechanical Specifications:

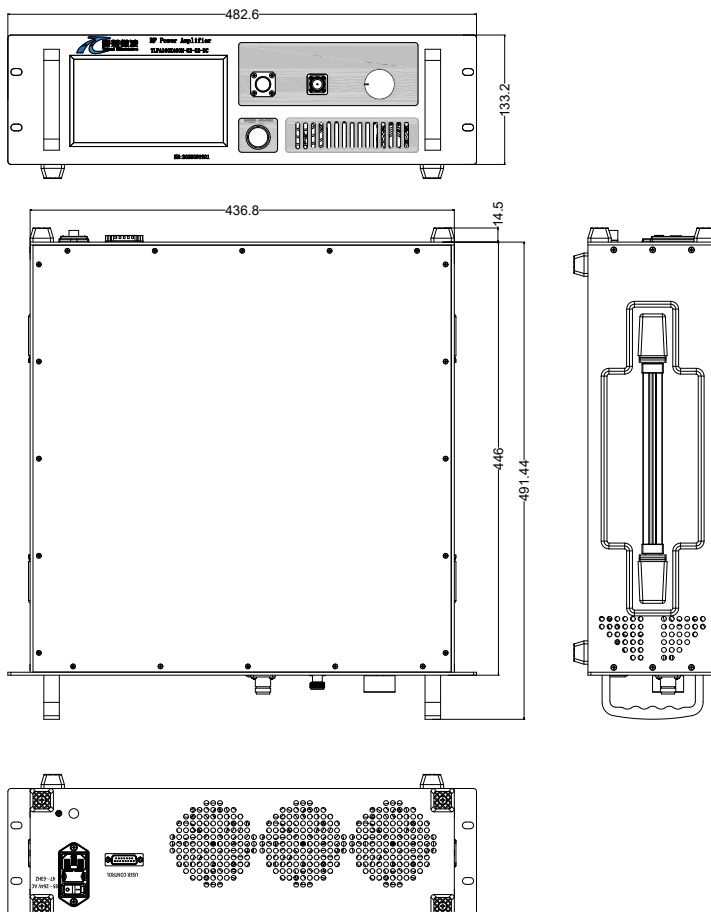
Parameter	Value	Units
Input /Output Connector	N Female/N Female	
Communication Connector	DB15	
Front Panel LCD Screen Display	7 inch LCD Screen Display	
Size	19 Inch 3U*550	mm
Weight	≤25	Kg

### 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	Power setting on/off
Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Over VSWR
Cooling system	Built in Cooling system,forced air cooling

### Control Connector(D-SUB 15Pin):

Pin	Name	Function
1	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: TTL Low(0V)
2	Over Voltage	Voltage FAULT:(TTL High= Fault, TTL Low =Normal)
3	Over Current	Current FAULT:(TTL High= Fault, TTL Low =Normal)
4	Over TEM	Temperature FAULT:(TTL High= Fault, TTL Low =Normal)
5	Over VSWR	VSWR FAULT:(TTL High= Fault, TTL Low =Normal)
6	Reset	Resets PA when logic LOW is applied and released (Internally Pulled-High)
7	GND	Ground
8~15	NC	Not connected

### 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 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-55-55-P-BC	Solid State High Power Amplifier Systems 2-4GHz, Gain:55dB, Psat:55dBm, 220V AC, Built in Fan Cooling	Rev.1.0