

## Solid State High Power Amplifier Systems

6-8GHz/50dB Gain/48dBm Psat/220V AC

Model: TLPA6G8G-50-48-BC

TLPA6G8G-50-48-BC is a solid state high power amplifier systems provides high output power and high gain across the 6 to 8GHz 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: 6-8GHz
- Gain: 50dB Min
- Psat Output Power: 48dBm Min
- Protection: Over TEM, over voltage, over current ,infinite VSWR protection
- 50 Ohm Matched Input / Output



### Electrical Characteristics:

| Parameter         | Symbol             | Min | Typ     | Max | Units |
|-------------------|--------------------|-----|---------|-----|-------|
| Frequency range   | BW                 | 6-8 |         |     | GHz   |
| Power Gain        | GP                 | 50  |         |     | dB    |
| Gain flatness     | $\Delta GL$        |     | $\pm 3$ |     | dB    |
| Output Psat       | Psat               | 48  |         |     | dBm   |
| Spurious          | Spur               |     |         | -60 | dBc   |
| Harmonics         | HAM                |     | -20     |     | dBc   |
| Input VSWR        | VSWR <sub>in</sub> |     |         | 2.0 | :1    |
| AC Voltage        | Vac                |     | 220     |     | V AC  |
| Power Consumption | Pdiss              |     |         | 500 | W     |
| Impedance         | I/O-IMP            | 50  |         |     | Ohms  |

### Mechanical Specifications:

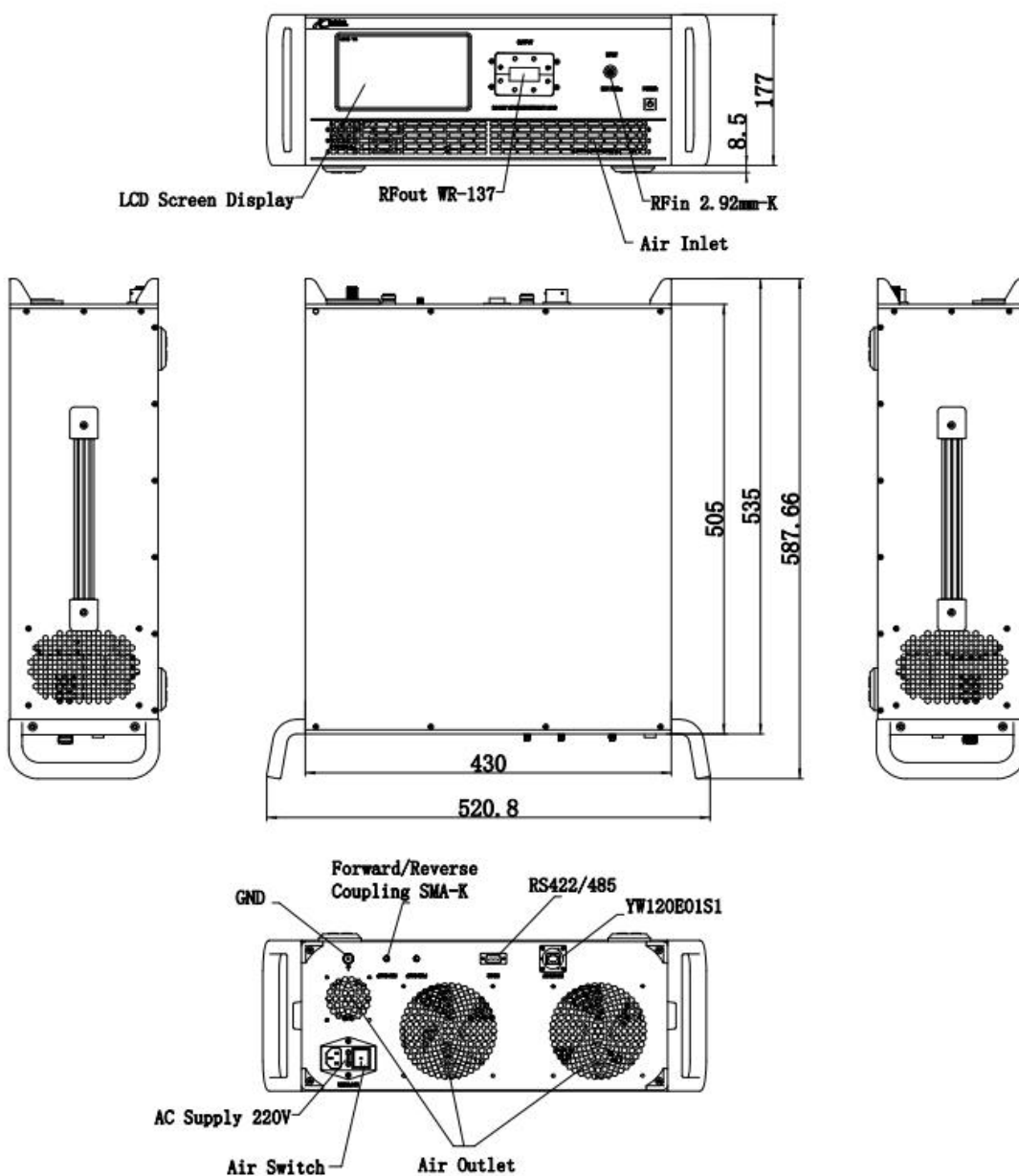
| Parameter               | Value          | Units |
|-------------------------|----------------|-------|
| Input /Output Connector | N Female/WR137 |       |
| Size                    | 19 Inch 4U     |       |
| Weight                  | ≤35            | Kg    |

## 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<br>2, ALC automatic level control             |
| Protection functions | 1, Over TEM<br>2, Over voltage<br>3, Over current<br>4, Infinite VSWR |
| Remote control       | RS422/Ethernet                                                        |
| 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 11msc half sin wave, 3 axis both directions |     |     |       |

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

## Ordering Information:

| Base Number       | Description                                                                                           | Revision |
|-------------------|-------------------------------------------------------------------------------------------------------|----------|
| TLPA6G8G-50-48-BC | Solid State High Power Amplifier Systems 6-8GHz, Gain:50dB, Psat:48dBm, 220V AC, Built in Fan Cooling | Rev.1.1  |