

## Solid State High Power Amplifier Systems

0.5-6GHz/50dB Gain/49dBm Psat/220V AC

Model: TLPA0.5G6G-50-49-BC

TLPA0.5G6G-50-49-BC is a solid state high power amplifier systems provides high output power and high gain across the 0.5 to 6 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: 0.5-6GHz
- Gain: 50dB Min
- Psat Output Power: 49dBm 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                 | 0.5-6 |           |     | GHz   |
| Power Gain        | GP                 | 50    |           |     | dB    |
| Gain flatness     | $\Delta GL$        |       | $\pm 3.5$ |     | dB    |
| Gain adjust Range | $\Delta GR$        | 20    |           |     | dB    |
| Gain adjust Step  | $\Delta GS$        |       | 0.5       |     | dB    |
| Output Psat       | Psat               | 49    |           |     | dBm   |
| Spurious          | Spur               |       |           | -60 | dBc   |
| Harmonics         | HAM                |       | -10       |     | dBc   |
| Input VSWR        | VSWR <sub>in</sub> |       |           | 2.0 | :1    |
| AC Voltage        | Vac                |       | 220       |     | V AC  |
| Impedance         | I/O-IMP            | 50    |           |     | Ohms  |

### Mechanical Specifications:

| Parameter               | Value             | Units |
|-------------------------|-------------------|-------|
| Input /Output Connector | N Female/N Female |       |
| AC Supply Interface     | Air switch        |       |
| Size                    | 19 Inch 3U        | mm    |
| Weight                  | ≤30               | Kg    |

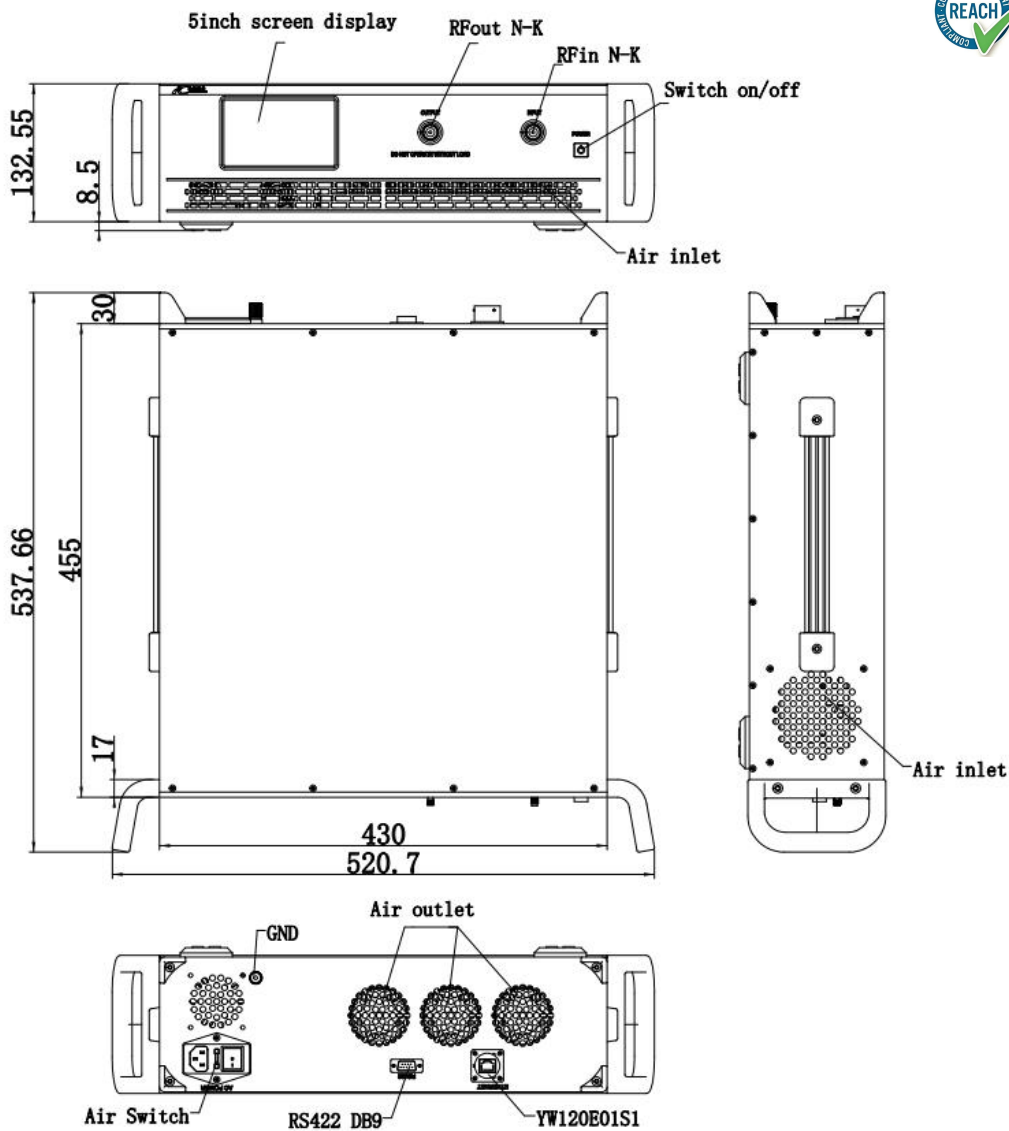
## Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | 260 VAC              |
| RF Input Power        | +5 dBm               |
| ESD sensitivity (HBm) | Class 0, passed 150V |

## Outline Drawing:

Unit:mm

## Regulatory Compliance:



## Key Features:

| Parameter            | Advantages                                                    |
|----------------------|---------------------------------------------------------------|
| Remote Control       | Ethernet RJ-45 TCP/IP                                         |
| Monitoring functions | 1,Forward power<br>2,Temp fault                               |
| Protection functions | 1,Over TEM<br>2,Over voltage<br>3,Over current<br>4,Over VSWR |
| Control functions    | 1,Gain/power setting with 31.5dB range<br>2,ALC               |
| 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 |
|---------------------|------------------------------------------------------------------------------------------------------|----------|
| TLPA0.5G6G-50-49-BC | Solid State High Power Amplifier Systems 0.5-6GHz,Gain:50dB,Psat:49 dBm,220V AC,Built in Fan Cooling | Rev.1.1  |