

## Solid State High Power Amplifier Systems

75-110GHz/33dB Gain/33dBm Psat/220V AC

Model: TLPA75G110G-33-33-BC

TLPA75G110G-33-33-BC is a solid state high power amplifier systems provides high output power and high gain across the 75 to 110 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: 75-110GHz
- Gain: 33dB Min
- Psat Output Power: 33dBm 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     | 75-110 |     |     | GHz   |
| Power Gain        | GP     | 33     |     |     | dB    |
| Output Psat       | Psat   | 33     |     |     | dBm   |
| Spurious          | Spur   |        |     | -50 | dBc   |
| Harmonics         | HAM    |        |     | -30 | dBc   |
| Input VSWR        | VSWRin |        | 2.5 |     | :1    |
| AC Voltage        | Vac    |        | 220 |     | V AC  |
| Power Consumption | Pdiss  |        |     | 100 | W     |

### Mechanical Specifications:

| Parameter                      | Value                     | Units |
|--------------------------------|---------------------------|-------|
| Input /Output Connector        | WR10/WR10                 |       |
| Communication Connector        | DB9/RJ45                  |       |
| Front Panel LCD Screen Display | 5 inch LCD Screen Display |       |
| Size                           | 19 Inch 3U                | mm    |
| Weight                         | ≤30                       | Kg    |

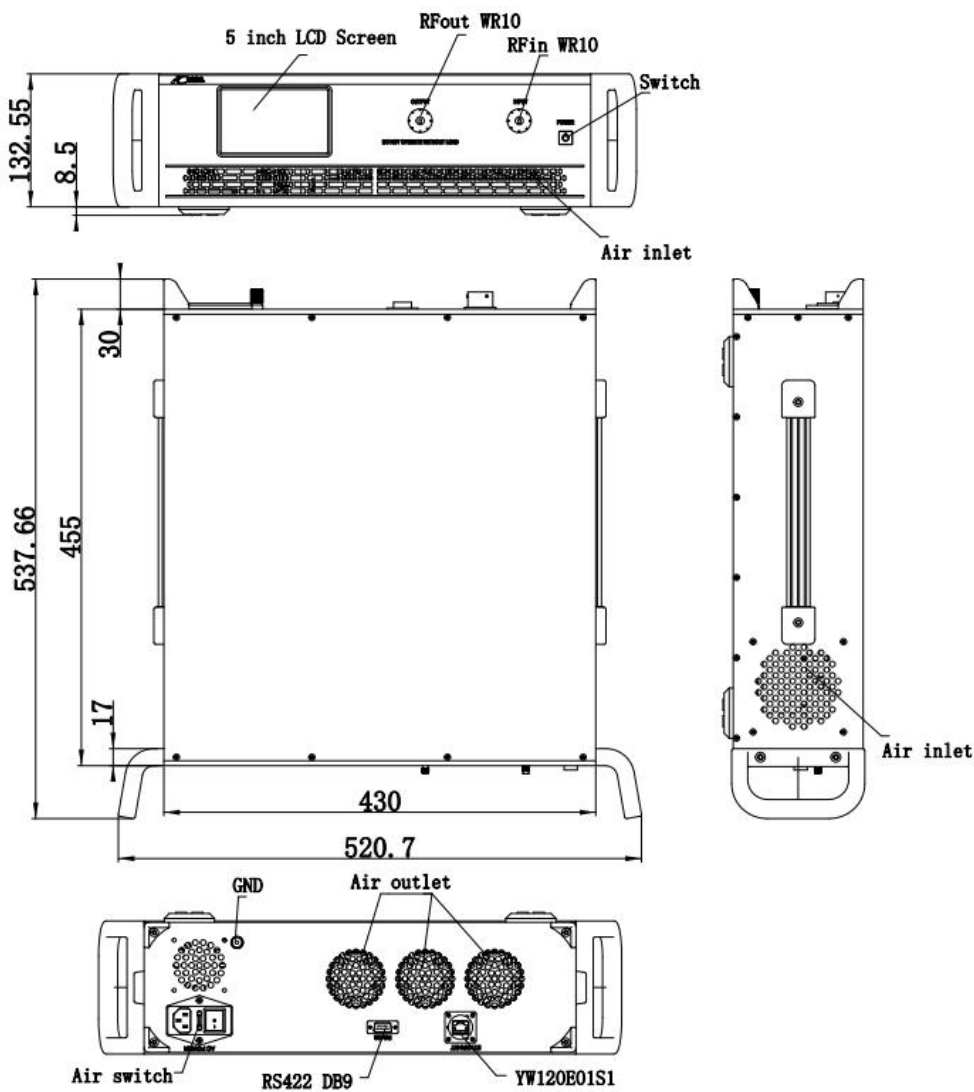
## Absolute Maximum Ratings:

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

## Outline Drawing:

Unit:mm

## Regulatory Compliance:



## 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, Over VSWR |
| Remote control       | RS422/Ethernet                                                    |
| Cooling system       | Built in Cooling system, forced air cooling                       |

## Environmental Conditions:

| Parameter                       | Min                                                 | Typ | Max | Units |
|---------------------------------|-----------------------------------------------------|-----|-----|-------|
| Operating Temperature*          | -20                                                 |     | +50 | °C    |
| Non-operating Temperature*      | -30                                                 |     | +60 | °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 |
|----------------------|-----------------------------------------------------------------------------------------------------------|----------|
| TLPA75G110G-33-33-BC | Solid State High Power Amplifier Systems 75-110GHz, Gain:33dB, Psat:33 dBm, 220V AC, Built in Fan Cooling | Rev.1.1  |