

## Solid State High Power Amplifier Systems

0.5-3GHz /50dB Gain/50dBm Psat/220V AC

Model: TLPA500M3000M-50-50-BC

TLPA500M3000M-50-50-BC is a solid state high power amplifier systems provides high output power and high gain across the 0.5 to 3 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:

- Wide Band: 0.5-3GHz
- Gain: 50dB Min
- Psat Output Power:50dBm 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      | 0.5-3        |     |     | GHz   |
| Power Gain            | GP      | 50           |     |     | dB    |
| Gain adjustable range | ΔGR     |              | 30  |     | dB    |
| Gain flatness         | ΔGL     |              | ±3  | ±4  | dB    |
| Output Psat           | Psat    | 50           |     |     | dBm   |
| Output P1dB           | P1dB    |              | 47  |     | dBm   |
| Spurious              | Spur    |              |     | -60 | dBc   |
| Harmonics             | HAM     |              |     | -10 | dBc   |
| Input VSWR            | VSWRin  |              | 1.5 | 2.0 | :1    |
| AC Voltage            | Vac     | 110          | 220 |     | V AC  |
| AC Supply Current     | Iac     | 2.5A@220V AC |     |     | A AC  |
| Impedance             | I/O-IMP | 50           |     |     | Ohms  |

### Mechanical Specifications:

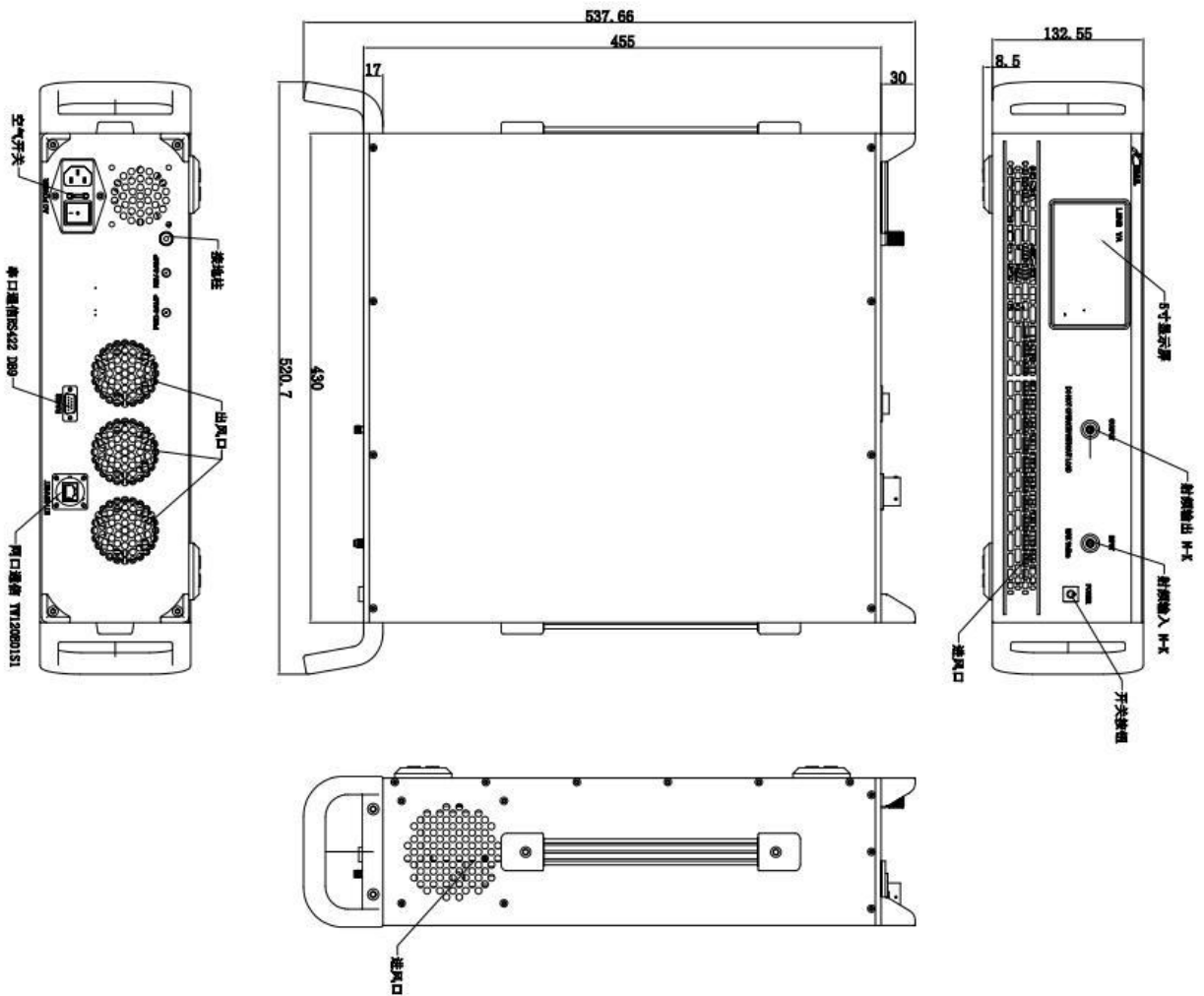
| Parameter               | Value      | Units |
|-------------------------|------------|-------|
| Input /Output Connector | N Female   |       |
| Size                    | 19 Inch 3U |       |
| Weight                  | 25         | Kg    |

## 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       | 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 |
| Communication functions | 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*      | -55                                                 |     | +125 | °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 |
|------------------------|--------------------------------------------------------------------------------------------------------------|----------|
| TLPA500M3000M-50-50-BC | Solid State High Power Amplifier Systems 500-3000MHz, Gain: 50dB, Psat: 50dBm, 220V AC, Built in Fan Cooling | Rev.1.0  |