

## Solid State High Power Amplifier Systems

17-22GHz/53dB Gain/53dBm Psat/220V AC

Model: TLPA17G22G-53-53-BC

TLPA17G22G-53-53-BC is a solid state high power amplifier systems provides high output power and high gain across the 17 to 22 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: 17-22GHz
- Gain: 53dB Min
- Psat Output Power: 53dBm Min
- Protection: Over TEM, over voltage, over current, infinite VSWR protection
- 50 Ohm Matched Input / Output



### 电气特性 Electrical Characteristics:

| 参数 Parameter            | 代码 Symbol | Min   | Typ | Max  | 单位 Units |
|-------------------------|-----------|-------|-----|------|----------|
| 频率范围 Frequency range    | BW        | 17-22 |     |      | GHz      |
| 功率增益 Power Gain         | GP        | 53    |     |      | dB       |
| 增益平坦度 Gain flatness     | ΔGL       |       | ±4  |      | dB       |
| 饱和输出功率 Output Psat      | Psat      | 53    |     |      | dBm      |
| 杂散 Spurious@Pout=51dBm  | Spur      |       |     | -60  | dBc      |
| 谐波 Harmonics@Pout=51dBm | HAM       |       |     | -20  | dBc      |
| 输入驻波 Input VSWR         | VSWRin    |       |     | 2.0  | :1       |
| 交流电压 AC Voltage         | Vac       |       | 220 |      | V AC     |
| 功耗 Power Consumption    | Pdiss     |       |     | 2500 | W        |
| 阻抗 Impedance            | I/O-IMP   | 50    |     |      | Ohms     |

### 机械特性 Mechanical Specifications:

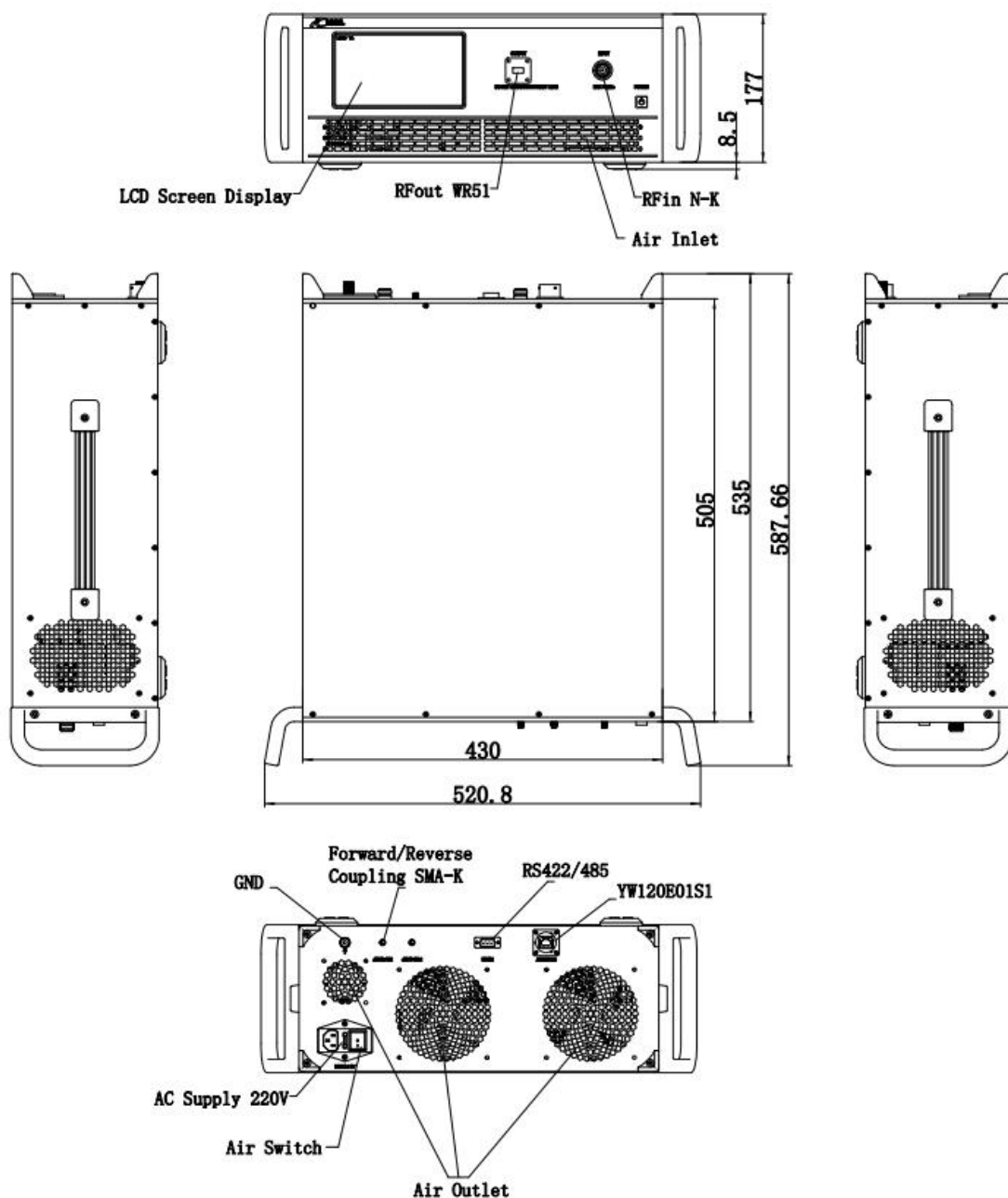
| 参数 Parameter                         | 指标 Value                  | 单位 Units |
|--------------------------------------|---------------------------|----------|
| 输入/输出接口 Input /Output Connector      | N Female/WR51             |          |
| 通信接口 Communication Connector         | DB9/RJ45                  |          |
| 液晶显示屏 Front Panel LCD Screen Display | 7 inch LCD Screen Display |          |
| 尺寸 Size                              | 19 Inch 4U                |          |
| 重量 Weight                            | ≤35                       | Kg       |

## 绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter                 | 指标 Value             |
|------------------------------|----------------------|
| 输入功率 RF Input Power          | +5 dBm               |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

## 外形图 Outline Drawing:

Unit:mm



主要功能 Key Features:

| 参数 Parameter                | 特点 Advantages                                                     |
|-----------------------------|-------------------------------------------------------------------|
| 控制功能 Control functions      | 1, Power setting On/Off<br>2,ALC automatic level control          |
| 显示功能 Display functions      | 1,Output/reflected power<br>2,Fault informations                  |
| 内置保护功能 Protection functions | 1,Over TEM<br>2,Over voltage<br>3,Over current<br>4,Infinite VSWR |
| 监控和控制 Remote control        | RS422/Ethernet                                                    |
| 冷却系统 Cooling system         | Built in Cooling system,forced air cooling                        |

温度环境 Environmental Conditions:

| 参数 Parameter                       | Min                                                 | Typ | Max | 单位 Units |
|------------------------------------|-----------------------------------------------------|-----|-----|----------|
| 操作温度 Operating Temperature*        | -20                                                 |     | +40 | ℃        |
| 存储温度 Non-operating Temperature*    | -30                                                 |     | +50 | ℃        |
| 相对湿度 Relative humidity             |                                                     | 95  |     | %        |
| 海拔 Altitude                        | 10,000                                              |     |     | feet     |
| 震动 Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour per axis |     |     |          |
| 冲击 Shock(non operating)            | 20G for 11msc half sin wave,3 axis both directions  |     |     |          |

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

订货信息 Ordering Information:

| 标准型号 Base Number    | 描述 Description                                                                                      | 版本号 Revision |
|---------------------|-----------------------------------------------------------------------------------------------------|--------------|
| TLPA17G22G-53-53-BC | Solid State High Power Amplifier Systems 17-22GHz,Gain:53dB,Psat:53dBm,220V AC,Built in Fan Cooling | Rev.1.1      |