

## Solid State High Power Amplifier Systems

8-12GHz/51dB Gain/51dBm Psat/220V AC

Model: TLPA8G12G-51-51-BC

TLPA8G12G-51-51-BC is a solid state high power amplifier systems provides high output power and high gain across the 8 to 12 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: 8-12GHz
- Gain: 51dB Min
- Psat Output Power: 51dBm Min
- Protection: Over TEM, over voltage, over current, over 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        | 8   |     | 12  | GHz      |
| 功率增益 Power Gain         | GP        | 51  |     |     | dB       |
| 增益平坦度 Gain flatness     | ΔGL       |     | ±3  |     | dB       |
| 饱和输出功率 Output Psat      | Psat      | 51  |     |     | 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   | :1       |
| 交流电压 AC Voltage         | Vac       |     | 220 |     | V AC     |
| 功耗 Power Consumption    | Pdiss     |     |     | 800 | W        |
| 阻抗 Impedance            | I/O-IMP   | 50  |     |     | Ohms     |

### 机械特性 Mechanical Specifications:

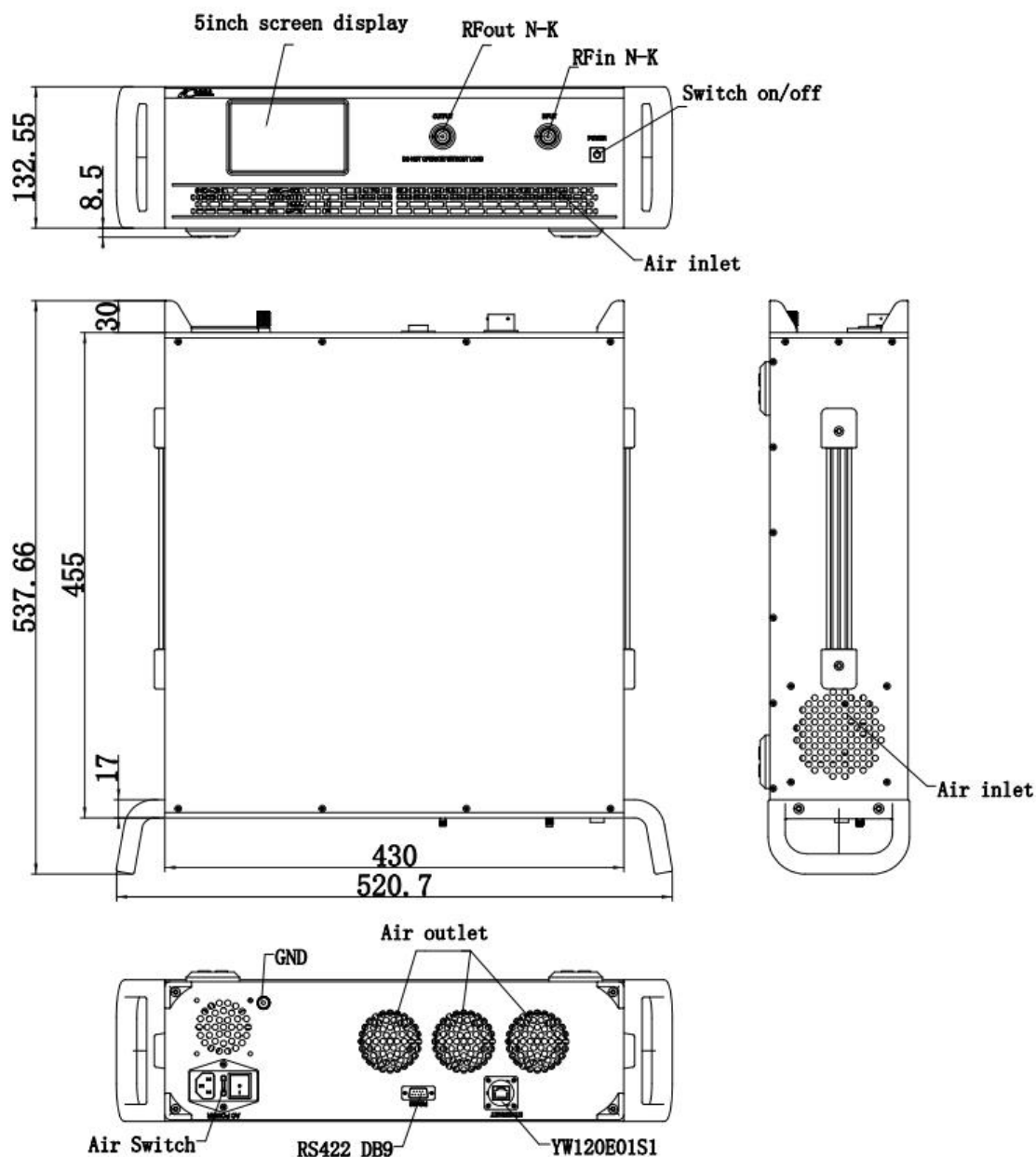
| 参数 Parameter                         | 指标 Value                    | 单位 Units |
|--------------------------------------|-----------------------------|----------|
| 输入/输出接口 Input /Output Connector      | N Female/N Female           |          |
| 通信接口 Communication Connector         | DB9/RJ45                    |          |
| 液晶显示屏 Front Panel LCD Screen Display | 5.6 inch LCD Screen Display |          |
| 尺寸 Size                              | 19 Inch 3U*550              | mm       |
| 重量 Weight                            | ≤30                         | 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, Output power adjustment<br>3, Gain adjustment<br>4, Condition monitoring |
| 显示功能 Display functions      | 1, Output/reverse 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, Over 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 | °C       |
| 存储温度 Non-operating Temperature*    | -30                                                 |     | +50 | °C       |
| 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 |
|--------------------|---------------------------------------------------------------------------------------------------------|--------------|
| TLPA8G12G-51-51-BC | Solid State High Power Amplifier Systems 8-12GHz, Gain:51dB, Psat:51 dBm, 220V AC, Built in Fan Cooling | Rev.1.0      |