

## Solid State High Power Amplifier Systems

47-52.5GHz/55dB Gain/55dBm Psat/380V AC

Model: TLP47G52.5G-55-55-BC

TLP47G52.5G-55-55-BC is a solid state high power amplifier systems provides high output power and high gain across the 47 to 52.5GHz frequency range. The amplifier features a built-in 380V 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: 47-52.5GHz
- Gain: 55dB Min
- Psat Output Power: 55dBm 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        | 47-52.5 |      |      | GHz      |
| 功率增益 Power Gain                           | GP        | 55      |      |      | dB       |
| 线性增益平坦度<br>Linear Gain flatness@500MHz    | ΔGL       |         | ±1   |      | dB       |
| 线性增益平坦度<br>Linear Gain flatness@full band | ΔGL       |         | ±3.5 |      | dB       |
| 饱和输出功率 Output Psat                        | Psat      | 55      | 56   |      | dBm      |
| 杂散 Spurious@Pout=55dBm                    | Spur      |         |      | -55  | dBc      |
| 输入驻波 Input VSWR                           | VSWRin    |         |      | 2    | :1       |
| 交流电压 AC Voltage                           | Vac       |         | 380  |      | V AC     |
| 功耗 Power Consumption                      | Pdiss     |         |      | 5500 | W        |
| 阻抗 Impedance                              | I/O-IMP   | 50      |      |      | Ohms     |

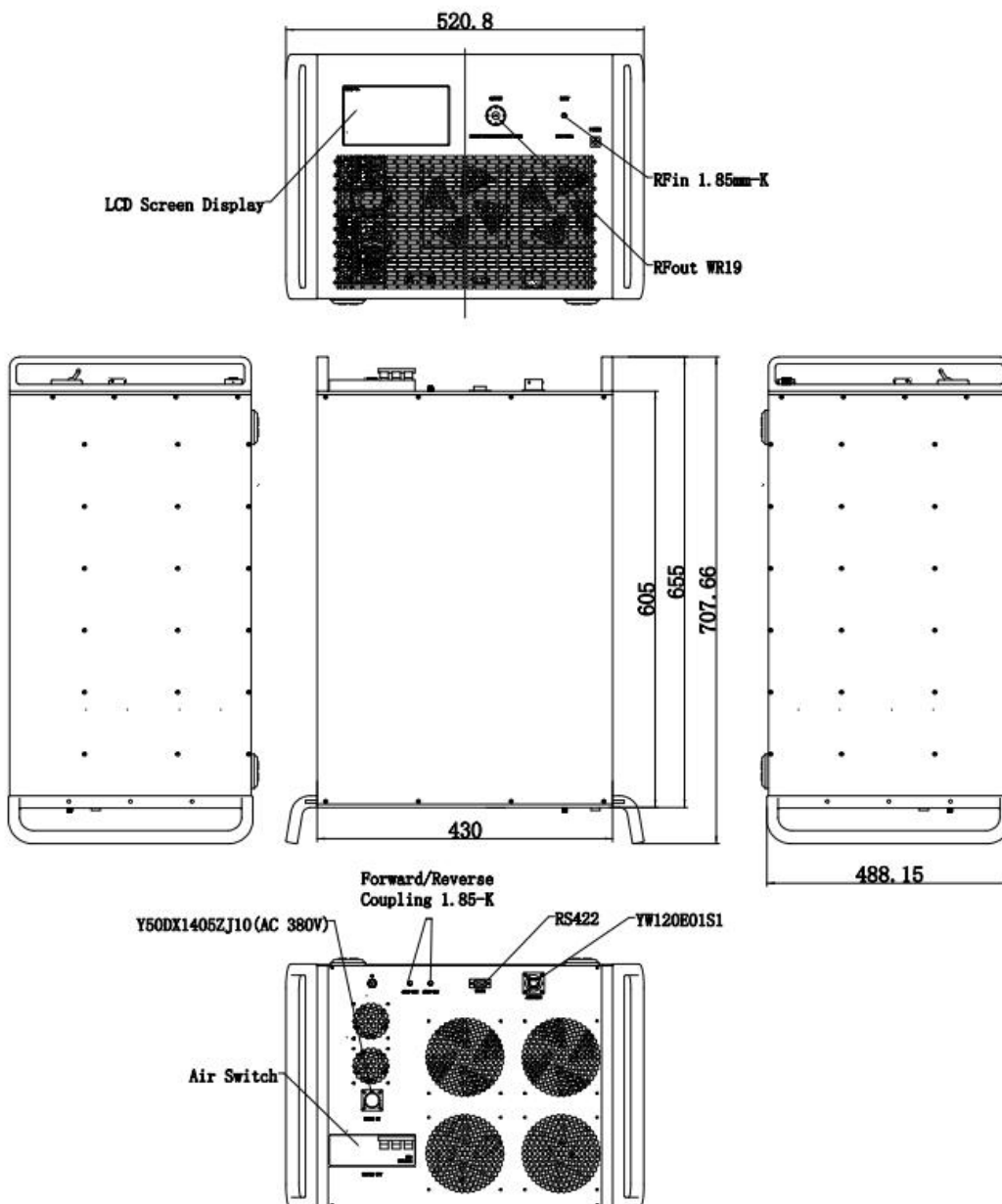
### 机械特性 Mechanical Specifications:

| 参数 Parameter                     | 指标 Value                    | 单位 Units |
|----------------------------------|-----------------------------|----------|
| 输入/输出接口 Input /Output Connector  | 1.85mm Female/WR19          |          |
| 正向/反向耦合 Forward/Reverse Coupling | 1.85mm Female/1.85mm Female |          |
| 通信接口 Communication Connector     | DB9/RJ45                    |          |
| 尺寸 Size                          | 19 Inch 8U*550              | mm       |
| 重量 Weight                        | ≤85                         | 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, RF setting on/off<br>3, ALC automatic level control                            |
| 内置保护功能 Protection functions | 1, Over TEM<br>2, Over voltage<br>3, Over current<br>4, Over VSWR  |
| 监测功能 Monitoring functions   | 1, TEM<br>2, Operating voltage<br>3, Operating current<br>4, Output/reflected power<br>5, Fault informations |
| 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 |
|-----------------------|---|--------------|
| TLPA47G52.5G-55-55-BC | Solid State High Power Amplifier Systems 47-52.5GHz, Gain:55dB, Psat:55dBm, 380V AC, Built in Fan Cooling | Rev.1.1      |