

## Solid State High Power Amplifier Systems

2.7-3.7GHz /62dB Gain/62dBm Psat/220V AC

Model: TLPA2.7G3.7G-62-62-BC

TLPA2.7G3.7G-62-62-BC is a solid state high power amplifier systems provides high output power and high gain across the 5.2 to 5.9 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: 2.7-3.7 GHz
- Gain: 62dB Min
- Psat Output Power:62dBm 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        | 2.7-3.7    |     |     | GHz      |
| 工作模式 Working Mode                 | MOD       | PULSE ONLY |     |     |          |
| 功率增益 Power Gain                   | GP        | 62         |     |     | dB       |
| 饱和输出功率<br>Output Psat@Pout=62dBm  | Psat      | 62         |     |     | dBm      |
| 杂散 Spurious@Pout=62dBm            | Spur      |            |     | -60 | dBc      |
| 谐波 Harmonics@Pout=62dBm           | HAM       |            | -20 |     | dBc      |
| 输入信号体制 Input Signal Mode          | IPS_MOD   | CW/PULSE   |     |     |          |
| 调制信号电平 Modulation Signal Level    | TTL       | 0          |     | 5   | V        |
| 调制频率 Modulation Frequency         | MF        | 1          |     | 100 | KHz      |
| 脉冲宽度 Pulse Width                  | T         | 0.3        |     | 300 | us       |
| 占空比 Duty Cycle                    | $\tau$    | 0.1        |     | 10  | %        |
| 上升/下降沿 Rise/Fall Time             | Tr        |            | 50  | 100 | ns       |
| 顶降 Pulse Drop@T=100us             | Pdrop     |            | 0.5 | 1   | dB       |
| 输入驻波 Input VSWR                   | VSWR      |            | 1.5 | 2   | :1       |
| 交流电压 AC Voltage                   | Vac       |            | 220 |     | V AC     |
| 10%占空比功耗<br>Power consumption@10% | Pdiss     |            | 800 |     | W        |
| 阻抗 Impedance                      | I/O-IMP   |            | 50  |     | Ohms     |

## 机械特性 Mechanical Specifications:

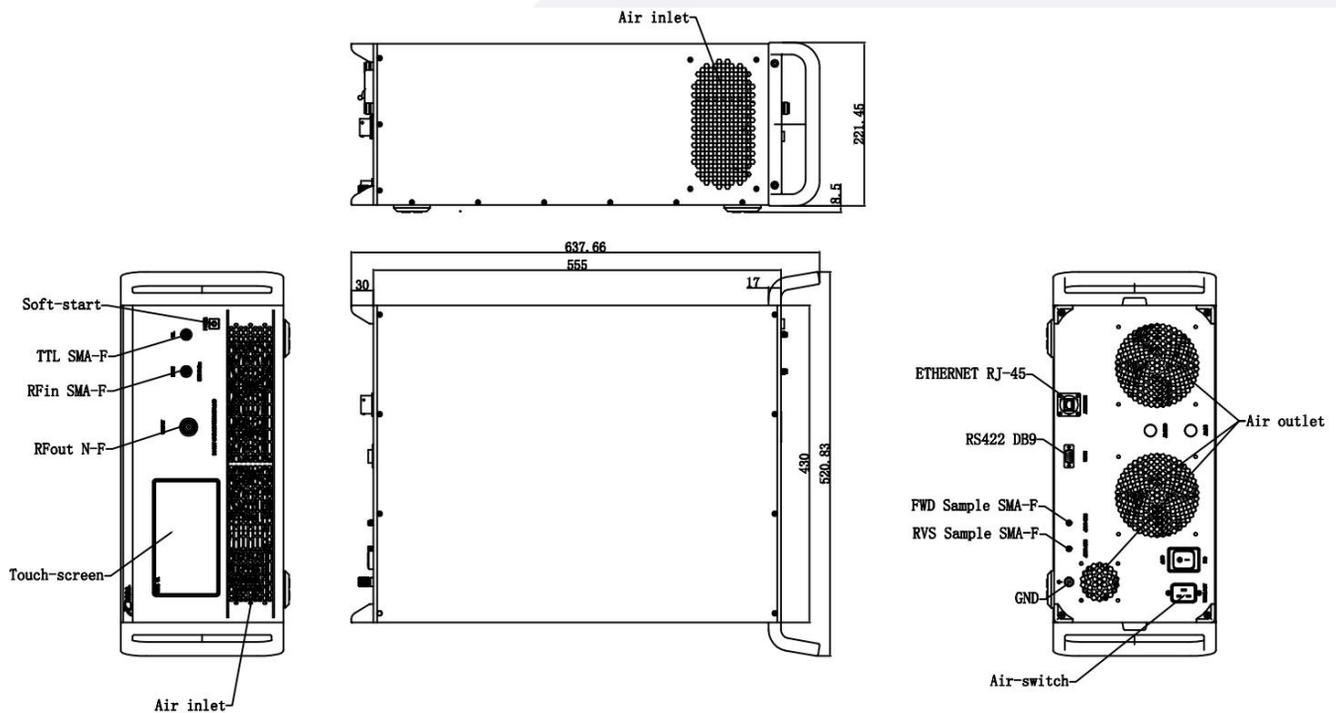
| 参数 Parameter                         | 指标 Value                  | 单位 Units |
|--------------------------------------|---------------------------|----------|
| 输入/输出接口 Input /Output Connector      | SMA Female/N Female       |          |
| 正向/反向耦合 Forward/Reverse Coupling     | SMA Female/SMA Female     |          |
| 液晶显示屏 Front Panel LCD Screen Display | 7 inch LCD Screen Display |          |
| 脉冲输入接口 Pulse Input Connector         | BNC Female                |          |
| 通信接口 Communication Connector         | DB9/RJ-45                 |          |
| 尺寸 Size                              | 19 Inch 5U*550 depth      | mm       |
| 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         |
| 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   |     | +50 | °C       |
| 存储温度 Non-operating Temperature*    | -30   |     | +60 | °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 |
|-----------------------|--|--------------|
| TLPA2.7G3.7G-62-62-BC | Solid State High Power Amplifier Systems 2.7-3.7GHz, Gain:62dB, Psat:62 dBm, 220V AC, Built in Fan Cooling | Rev.1.1      |