

## Solid State High Power Amplifier Systems

1.2-1.4GHz/62dB Gain/62dBm Psat/220V AC

Model: TLPA1.2G1.4G-62-62-BC

TLPA1.2G1.4G-62-62-BC is a solid state high power amplifier systems provides high output power and high gain across the 1.2 to 1.4 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: 1.2-1.4GHz
- 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          | 1.2-1.4 |      |         | GHz      |
| 功率增益 Power Gain          | GP          | 62      |      |         | dB       |
| 增益平坦度 Gain flatness      | $\Delta$ GL |         |      | $\pm 2$ | dB       |
| 增益调节范围 Gain adjust Range | $\Delta$ GR | 30      |      |         | dB       |
| 增益调节步进 Gain adjust Step  | $\Delta$ GS |         | 0.5  |         | dB       |
| 饱和输出功率 Output Psat       | Psat        | 62      |      |         | dBm      |
| 噪声系数 Noise Figure        | NF          |         |      | 15      | dB       |
| 杂散 Spurious@Pout=62dBm   | Spur        |         |      | -60     | dBc      |
| 谐波 Harmonics@Pout=62dBm  | HAM         |         |      | -15     | dBc      |
| 输入驻波 Input VSWR          | VSWRin      |         |      | 1.5     | :1       |
| 输出驻波 Output VSWR         | VSWRout     |         |      | 2.5     | :1       |
| 交流电压 AC Voltage          | Vac         |         | 220  |         | V AC     |
| 功耗 Power Consumption     | Pdiss       |         | 4500 |         | W        |
| 阻抗 Impedance             | I/O-IMP     | 50      |      |         | Ohms     |

## 机械特性 Mechanical Specifications:

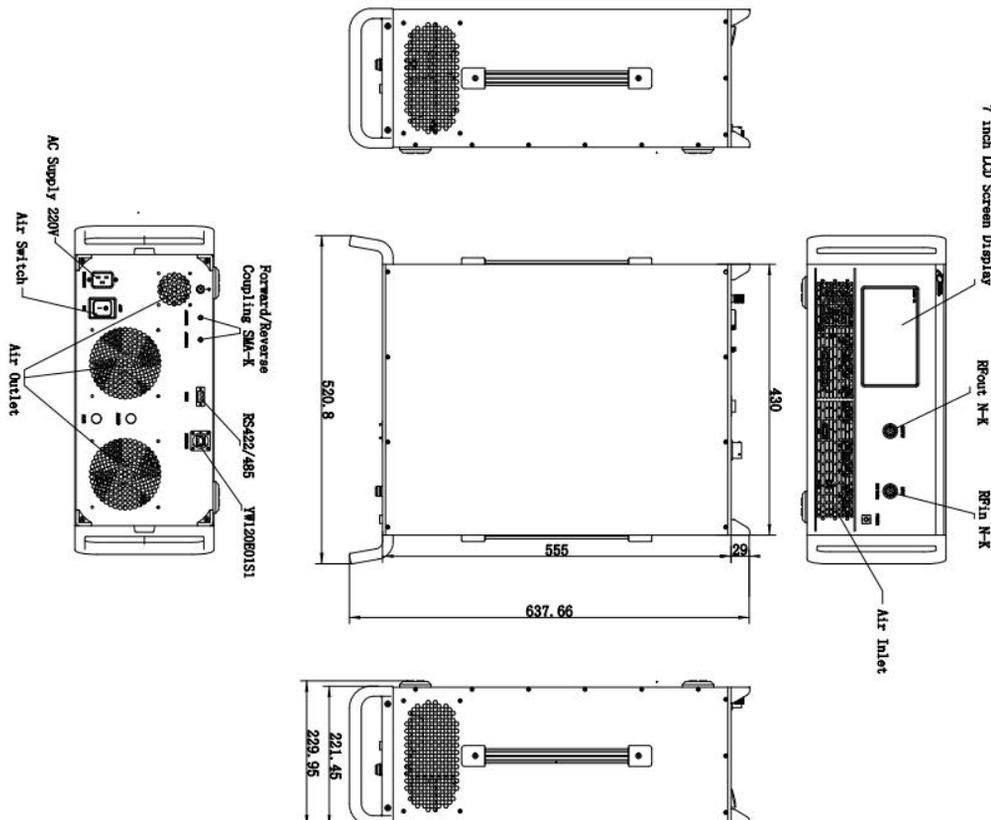
| 参数 Parameter                         | 指标 Value                  | 单位 Units |
|--------------------------------------|---------------------------|----------|
| 输入/输出接口 Input /Output Connector      | N Female/N Female         |          |
| 正向/反向耦合 Forward/Reverse Coupling     | SMA Female/ SMA Female    |          |
| 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 5U                | mm       |
| 重量 Weight                            | ≤45                       | 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<br>3, Gain 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   |     | +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 |
|-----------------------|---|--------------|
| TLPA1.2G1.4G-62-62-BC | Solid State High Power Amplifier Systems 1.2-1.4GHz, Gain:62dB, Psat:62dBm, 220V AC, Built in Fan Cooling | Rev.1.1      |