

## Solid State High Power Amplifier Systems

40-50GHz/50dB Gain/50dBm Psat/220V AC

Model: TLPA40G50G-50-50-BC

TLPA40G50G-50-50-BC is a solid state high power amplifier systems provides high output power and high gain across the 40 to 50 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: 40-50GHz
- Gain: 50dB Min
- Psat Output Power: 50dBm 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          | 40  |         | 50   | GHz      |
| 功率增益<br>Power Gain@Pout=50dBm | GP          | 50  |         |      | dB       |
| 增益平坦度 Gain flatness           | $\Delta GL$ |     | $\pm 5$ |      | dB       |
| 饱和输出功率 Output Psat            | Psat        | 50  |         |      | dBm      |
| 杂散 Spurious@Pout=50dBm        | Spur        |     |         | -60  | dBc      |
| 谐波 Harmonics                  | HAM         |     |         | -20  | dBc      |
| 输入驻波 Input VSWR               | VSWRin      |     | 2.5     | 3    | :1       |
| 交流电压 AC Voltage               | Vac         |     | 220     |      | V AC     |
| 功耗 Power Consumption          | Pdiss       |     |         | 2000 | W        |
| 阻抗 Impedance                  | I/O-IMP     | 50  |         |      | Ohms     |

## 机械特性 Mechanical Specifications:

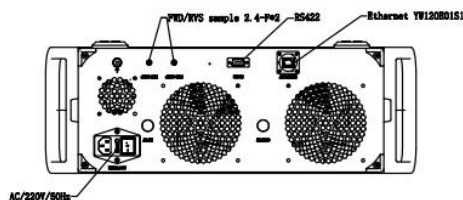
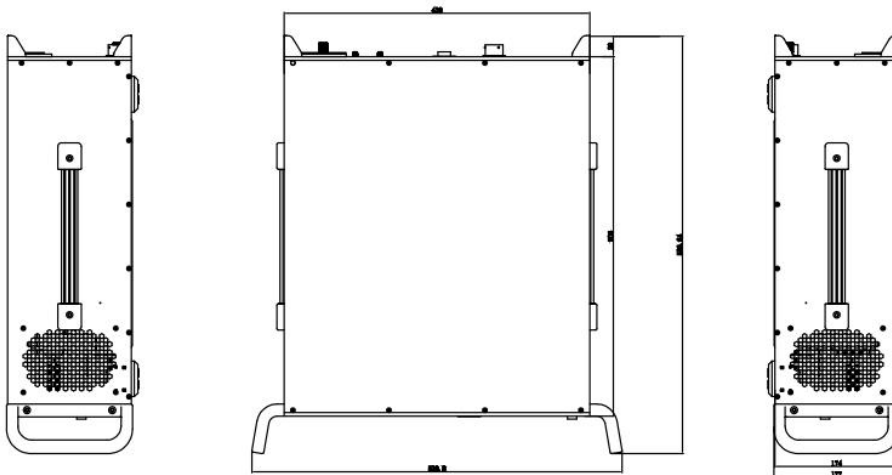
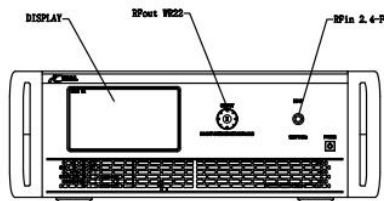
| 参数 Parameter                     | 指标 Value                  | 单位 Units |
|----------------------------------|---------------------------|----------|
| 输入/输出接口 Input /Output Connector  | 2.4mm Female/WR22         |          |
| 正向/反向耦合 Forward/Reverse Coupling | 2.4mm Female/2.4mm Female |          |
| 通信接口 Communication Connector     | DB9/RJ45                  |          |
| 尺寸 Size                          | 19 Inch 4U*550            | 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; Tolerance:±0.1mm



## 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 |
| 显示功能 Display functions      | 1, Output/reflected power<br>2, Fault informations                |
| 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 |
|---------------------|-----------------------------------------------------------------------------------------------------|--------------|
| TLPA40G50G-50-50-BC | Solid State High Power Amplifier Systems 40-50GHz,Gain:50dB,Psat:50dBm,220V AC,Built in Fan Cooling | Rev.1.0      |