

## Solid State High Power Amplifier Systems

1-6GHz/57dB Gain/57dBm Psat/380V AC

Model: TLPA1G6G-57-57-BC

TLPA1G6G-57-57-BC is a solid state high power amplifier systems provides high output power and high gain across the 1 to 6 GHz 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: 1-6GHz
- Gain: 57dB Min
- Psat Output Power: 57dBm 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        | 1-6 |     |     | GHz      |
| 功率增益 Power Gain          | GP        | 57  |     |     | dB       |
| 增益平坦度 Gain flatness      | ΔGL       |     | ±3  |     | dB       |
| 增益调节范围 Gain adjust Range | ΔGR       |     | 30  |     | dB       |
| 增益调节步进 Gain adjust Step  | ΔGS       |     | 0.5 |     | dB       |
| 饱和输出功率 Output Psat       | Psat      | 57  |     |     | dBm      |
| 线性输出功率 Output P1dB       | P1dB      |     | 52  |     | dBm      |
| 杂散 Spurious@Pout=        | Spur      |     |     | -60 | dBc      |
| 谐波 Harmonics@Pout=       | HAM       |     | -15 | -10 | dBc      |
| 输入驻波 Input VSWR          | VSWRin    |     |     | 2.0 | :1       |
| 交流电压 AC Voltage          | Vac       |     | 380 |     | V AC     |
| 阻抗 Impedance             | I/O-IMP   | 50  |     |     | Ohms     |

### 机械特性 Mechanical Specifications:

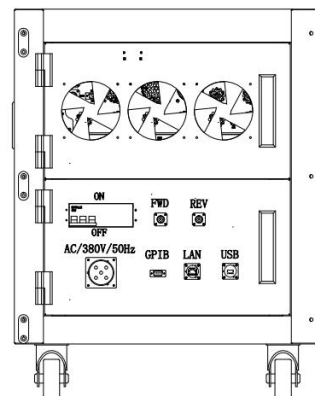
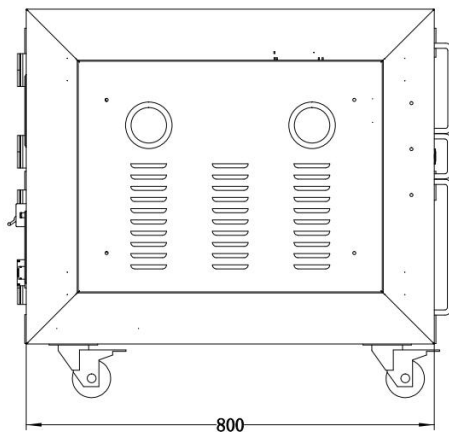
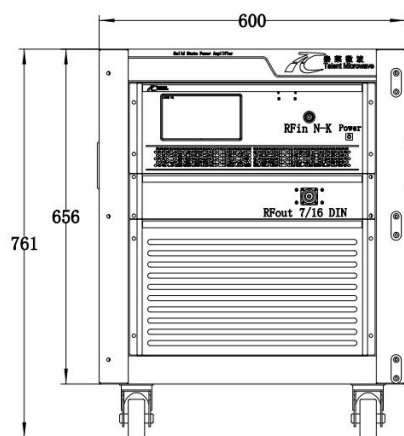
| 参数 Parameter                    | 指标 Value            | 单位 Units |
|---------------------------------|---------------------|----------|
| 输入/输出接口 Input /Output Connector | N Female/L29 Female |          |
| 尺寸 Size                         | 12U                 |          |
| 重量 Weight                       | ≤150                | 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                                                 |     | +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 Desciption                                                                                       | 版本号 Revision |
|-------------------|-----------------------------------------------------------------------------------------------------|--------------|
| TLPA1G6G-57-57-BC | Solid State High Power Amplifier Systems 0.5-6GHz,Gain:57dB,Psat:57dBm,380V AC,Built in Fan Cooling | Rev.1.1      |