

Solid State High Power Amplifier Systems

1-6GHz/63dB Gain/63dBm Psat/220V AC

Model: TLPA1G6G-63-63-P-BC

TLPA1G6G-63-63-P-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 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: 1-6GHz
- Gain: 63dB Min
- Psat Output Power: 63dBm 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 | 63 | | | dB |
| 功率增益平坦度 Power Gain flatness@Pout=63dBm | ΔGL | | ±4 | | dB |
| 饱和输出功率 Output Psat | Psat | 63 | | | dBm |
| 杂散 Spurious@Pout=63dBm | Spur | | | -60 | dBc |
| 谐波 Harmonics@Pout=63dBm | HAM | | | -10 | dBc |
| 调制信号电平 Modulation Signal Level | TTL | 0 | | 5 | V |
| 调制频率 Modulation Frequency | MF | 1 | | 1000 | Hz |
| 脉冲宽度 Pulse Width | T | 20 | | 1000 | ns |
| 占空比 Duty Cycle | τ | | | 10 | % |
| 上升/下降沿 Rise/Fall Time | Tr | | 15 | | ns |
| 顶降 Pulse Drop@T=1us | Pdrop | | 0.5 | | dB |
| 交流电压 AC Voltage | Vac | | 220 | | V AC |
| 静态功耗 Static Power consumption | Pdiss | | 2500 | | W |
| 10%占空比功耗 Power consumption@10% duty cycle | Pdiss | | 3000 | | 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/L29 | |
| 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 | Ethernet/RS422 | |
| 尺寸 Size | 32U*600*850 depth | mm |
| 重量 Weight | ≤500 | Kg |

绝对最大值 Absolute Maximum Ratings:

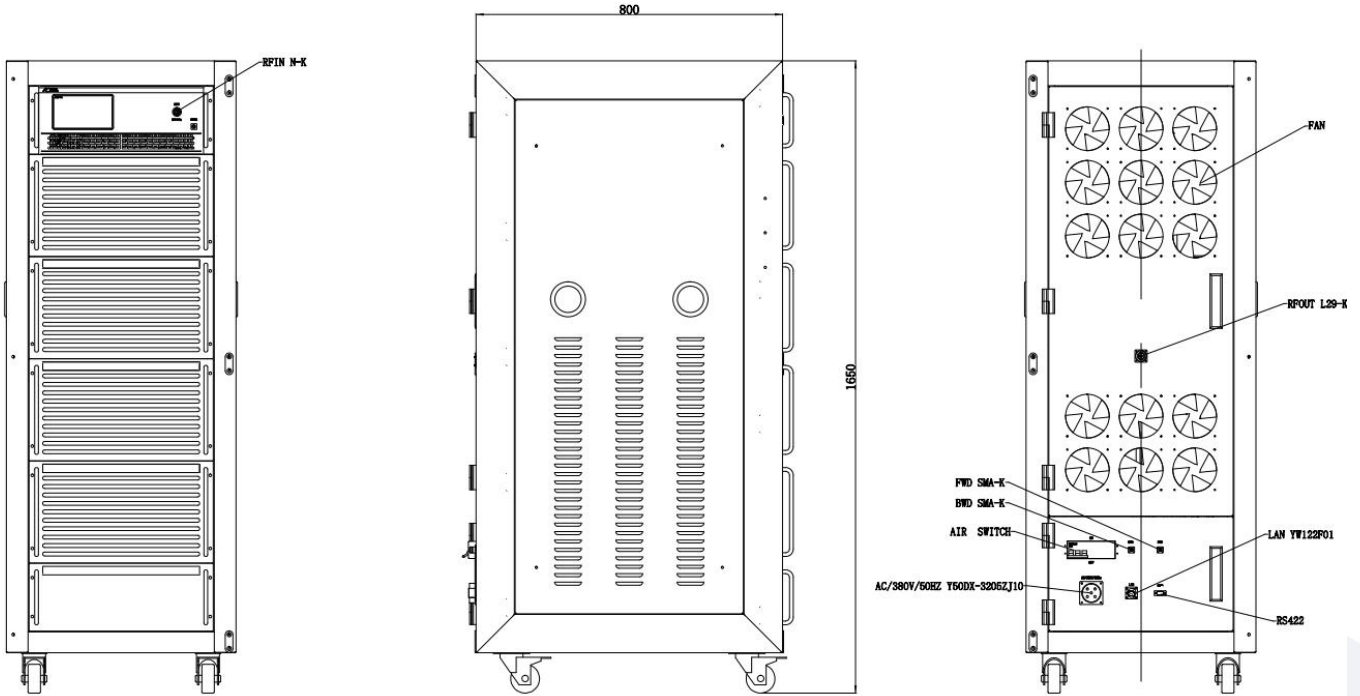
| 参数 Parameter | 指标 Value |
|------------------------------|----------------------|
| 输入功率 RF Input Power | +5 dBm |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

主要功能 Key Features:

| 参数 Parameter | 特点 Advantages |
|-----------------------------|---|
| 控制功能 Control functions | 1, Power setting on/off 2, Output power&gain level control 3, Status monitoring |
| 显示功能 Display functions | 1, Output&reflected power 2, Fault informations |
| 内置保护功能 Protection functions | 1, Over TEM 2, Over voltage 3, Over current 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 |

外形图 Outline Drawing:

Unit:mm



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 |
|---------------------|---|--------------|
| TLPA1G6G-63-63-P-BC | Solid State High Power Amplifier Systems 1-6GHz, Gain:63dB, Psat:63dBm, 220V AC, Built in Fan Cooling | Rev.1.0 |