

Solid State High Power Amplifier Systems

0.5-3GHz/50dB Gain/50dBm Psat/220V AC

Model: TLPA500M3000M-50-50-BC

TLPA500M3000M-50-50-BC is a solid state high power amplifier systems provides high output power and high gain across the 0.5 to 3 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: 0.5-3GHz
- 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 | 0.5-3 | | | GHz |
| 功率增益 Power Gain | GP | 50 | | | dB |
| 增益平坦度 Gain flatness | Δ GL | | ± 3 | ± 4 | dB |
| 增益调节范围 Gain adjust Range | Δ GR | | 30 | | dB |
| 饱和输出功率 Output Psat | Psat | 50 | | | dBm |
| 线性输出功率 Output P1dB | P1dB | | 47 | | dBm |
| 杂散 Spurious | Spur | | | -60 | dBc |
| 谐波 Harmonics | HAM | | | -10 | dBc |
| 输入驻波 Input VSWR | VSWRin | | 1.5 | 2.0 | :1 |
| 交流电压 AC Voltage | Vac | 110 | 220 | | V AC |
| 交流电流 AC Supply Current | Iac | | 2.5 | | A |
| 阻抗 Impedance | I/O-IMP | 50 | | | Ohms |

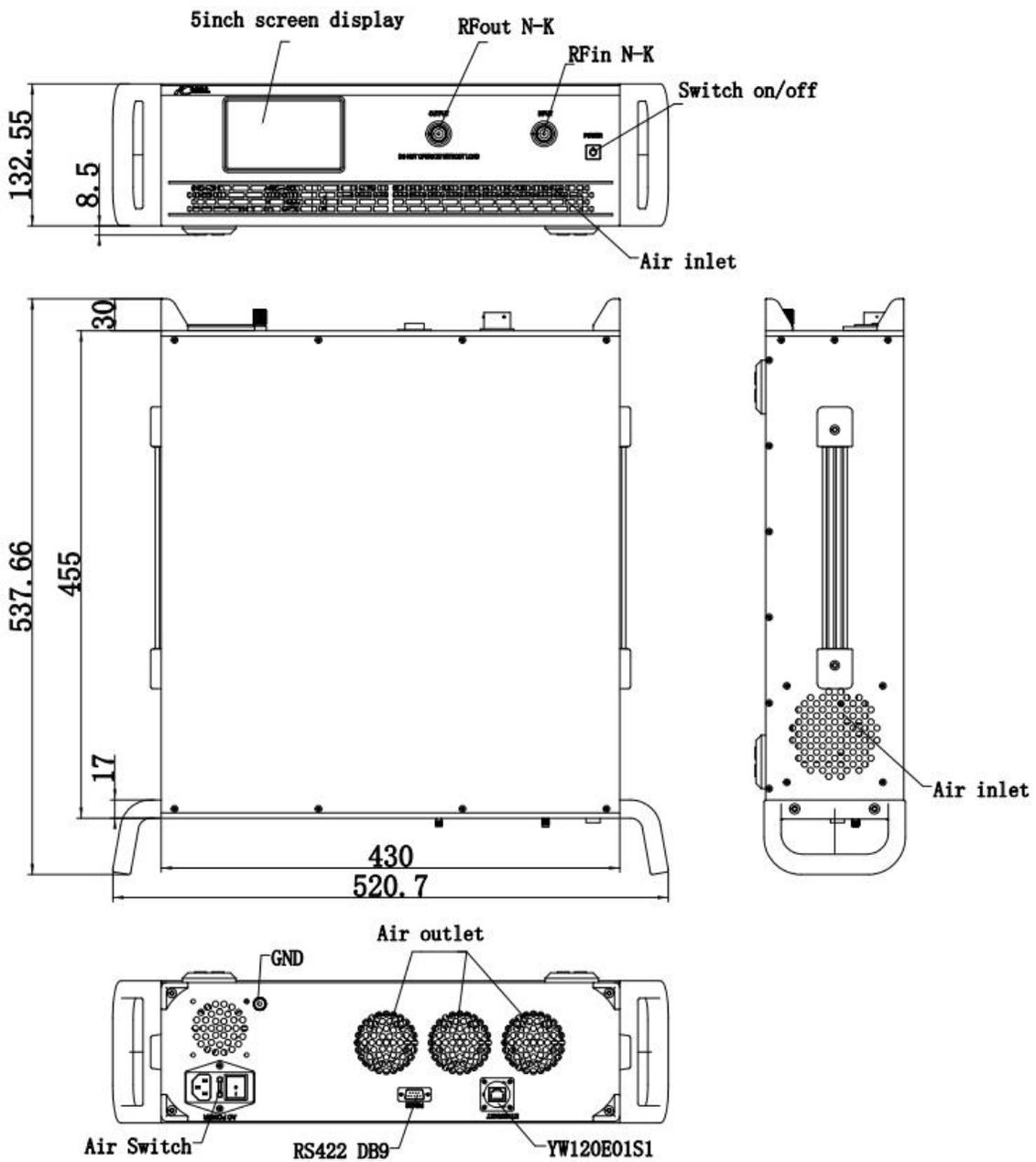
机械特性 Mechanical Specifications:

| 参数 Parameter | 指标 Value | 单位 Units |
|---------------------------------|-------------------|----------|
| 输入/输出接口 Input /Output Connector | N Female/N Female | |
| 尺寸 Size | 19 Inch 3U | |
| 重量 Weight | ≤ 25 | 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 2, ALC automatic level control |
| 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 |

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 |
|------------------------|---|--------------|
| TLPA500M3000M-50-50-BC | Solid State High Power Amplifier Systems 0.5-3GHz, Gain:50dB, Psat:50dBm, 220V AC, Built in Fan Cooling | Rev.1.1 |