

Solid State High Power Amplifier Systems

1.5GHz/65dB Gain/65dBm Psat/48V AC

Model: TLPA1.5G-65-65-P

TLPA1.5G-65-65-P is a solid state high power amplifier systems provides high output power and high gain at the frequency point of 1.5GHz. The amplifier features a built-in 48V 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: 1.5GHz
- Gain: 65dB Min
- Psat Output Power: 65dBm Min
- Protection: Over TEM, over voltage, over current, over VSWR protection
- 50 Ohm Matched Input / Output



Electrical Characteristics:

| Parameter | Symbol | Min | Typ | Max | Units |
|-------------------------|---------------------------------------|------------|-----|-----|-------|
| Frequency range | BW | 1.5 | | | GHz |
| Working Mode | MOD | PULSE ONLY | | | |
| Power Gain | GP | 65 | | | dB |
| Output Psat | Psat | 65 | 66 | | dBm |
| Spurious@Pout=65dBm | Spur | | | -60 | dBc |
| Harmonics@Pout=65dBm | HAM | | | -20 | dBc |
| Input Signal Mode | IPS_MOD | CW/PULSE | | | |
| Modulation Signal Level | TTL | 0 | | 5 | V |
| Modulation Frequency | MF | 1 | | 100 | KHz |
| Pulse Width | T | 1 | | 500 | us |
| Duty Cycle | τ | 0.1 | | 30 | % |
| Rise/Fall Time | Tr | | 50 | 100 | ns |
| Pulse Input | TTL level, 50 ohm nominal termination | | | | |
| Pulse Drop@T=100us | Pdrop | | 0.5 | 1 | dB |
| Star Delay | DSU | | 150 | | ns |
| Shutoff Delay | TOF | | 250 | | ns |
| Input VSWR | VSWRin | | | 1.5 | :1 |

Electrical Characteristics:

| Parameter | Symbol | Min | Typ | Max | Units |
|-------------------|---------|-----------------------------------|-----|------|-------|
| Output VSWR | VSWRout | | | 2 | :1 |
| AC Voltage | Vac | 48(It can be changed to 220 V AC) | | | V AC |
| Power consumption | Pdiss | | | 2000 | W |
| Impedance | I/O-IMP | 50 | | | Ohms |

Mechanical Specifications:

| Parameter | Value | Units |
|-------------------------|----------------|-------|
| Input /Output Connector | N Female/WR510 | |
| Pulse Input Connector | J30J-15ZKP | |
| Supply Connector | Y50DX-1804 | |
| Size | 510*450*134 | mm |
| Weight | ≤35 | Kg |

Absolute Maximum Ratings:

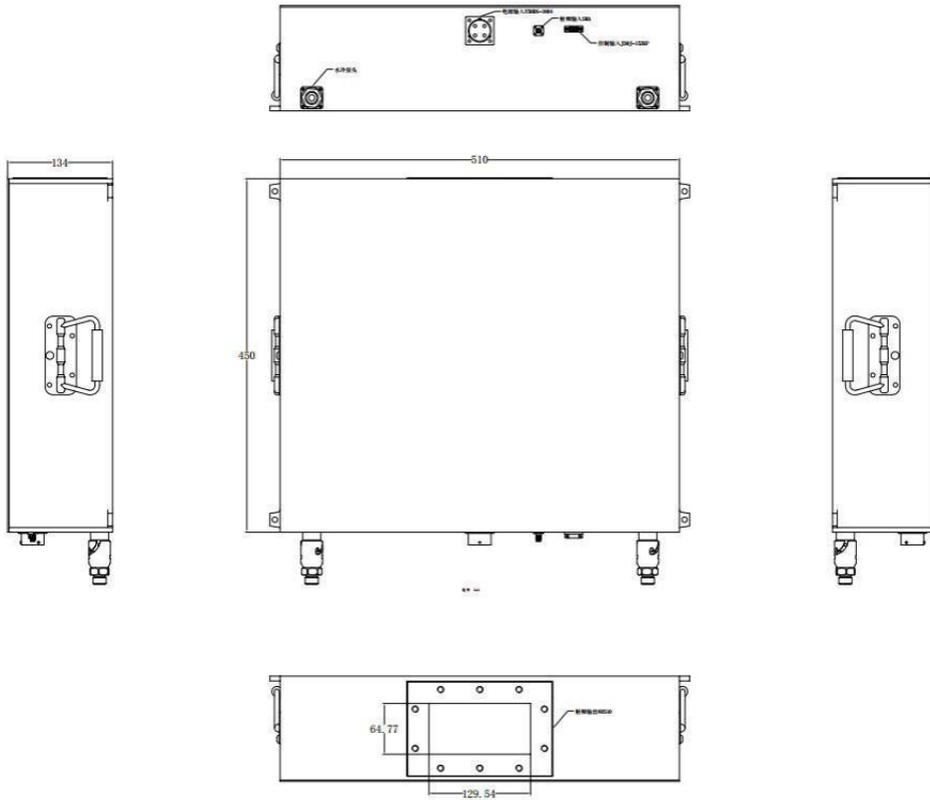
| Parameter | Value |
|-----------------------|----------------------|
| RF Input Power | +5 dBm |
| ESD sensitivity (HBm) | Class 0, passed 150V |

Key Features:

| Parameter | Advantages |
|----------------------|---|
| Control functions | 1, Power setting On/Off 2, ALC automatic level control |
| Protection functions | 1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR |
| Remote control | RS422 |
| Cooling system | Built in Cooling system, liquid cooling |

Outline Drawing:

Unit:mm



Environmental Conditions:

| Parameter | Min | Typ | Max | Units |
|---------------------------------|---|-----|-----|-------|
| Operating Temperature* | -20 | | +40 | °C |
| Non-operating Temperature* | -30 | | +50 | °C |
| Relative humidity | | 95 | | % |
| Altitude | 10,000 | | | feet |
| Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour per axis | | | |
| Shock(non operating) | 20G for 11msc half sin wave,3 axis both directions | | | |

*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

| Base Number | Description | Revision |
|------------------|--|----------|
| TLPA1.5G-65-65-P | Solid State High Power Amplifier Systems,1.5GHz, Gain:65dB,Psat:65dBm,+48V AC,Built in liquid Cooling | Rev.1.1 |