

## Model:TLPA2G4G-57-57-BC

## Solid State High Power Amplifier Systems 2-4GHz,Gain:57dB,Psat:500 Watts

### Feature:

- Wide Band: 2-4GHz
- Gain: 57dB Min
- Psat Output Power: 500 Watts Min
- Protection:Over TEM,over voltage, over current ,over VSWR protection.
- 50 Ohm Matched Input / Output



### Electrical Specifications:

| Parameter           | Symbo       | Min | Typ       | Max       | Units |
|---------------------|-------------|-----|-----------|-----------|-------|
| Frequency range     | BW          | 2-4 |           |           | GHz   |
| Gain                | GP          | 57  | 58        |           | dB    |
| Gain Flatness       | $\Delta$ GL |     | $\pm 3.0$ | $\pm 4.0$ | dB    |
| Output P1dB         | P1dB        |     | 200       |           | Watts |
| Output Psat         | Psat        | 500 | 550       |           | Watts |
| Spurious@500 Watts  | Spur        |     |           | -50       | dBc   |
| Harmonics@500 Watts | HAM         |     | -15       | -10       | dBc   |
| Input VSWR          | VSWRin      |     | 1.5       | 2.0       | :1    |
| AC Voltage          | Vac         | 110 | 220       |           | V AC  |
| AC Input Power      | Pdiss       |     |           | 4000      | Watts |
| Impedance           | I/O-IMP     | 50  |           |           | Ohms  |

### Mechanical Specifications:

| Parameter               | Value                       | Units | Notes             |
|-------------------------|-----------------------------|-------|-------------------|
| Input /Output Connector | Input:N- K<br>Output:7/16-K |       |                   |
| Size                    | 482.6*133.2*668.5           | mm    | Excluding handles |
| Weight                  | 40                          | kg    |                   |

### Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| RF INPUT POWER        | 5 dBm                |
| ESD sensitivity (HBm) | Class 0, passed 150V |

## PROTECTIONS:

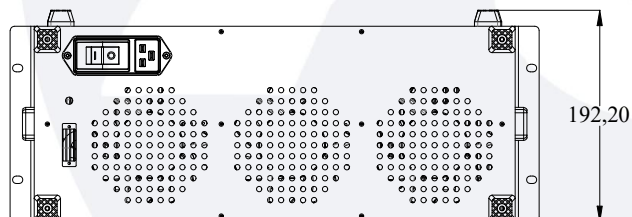
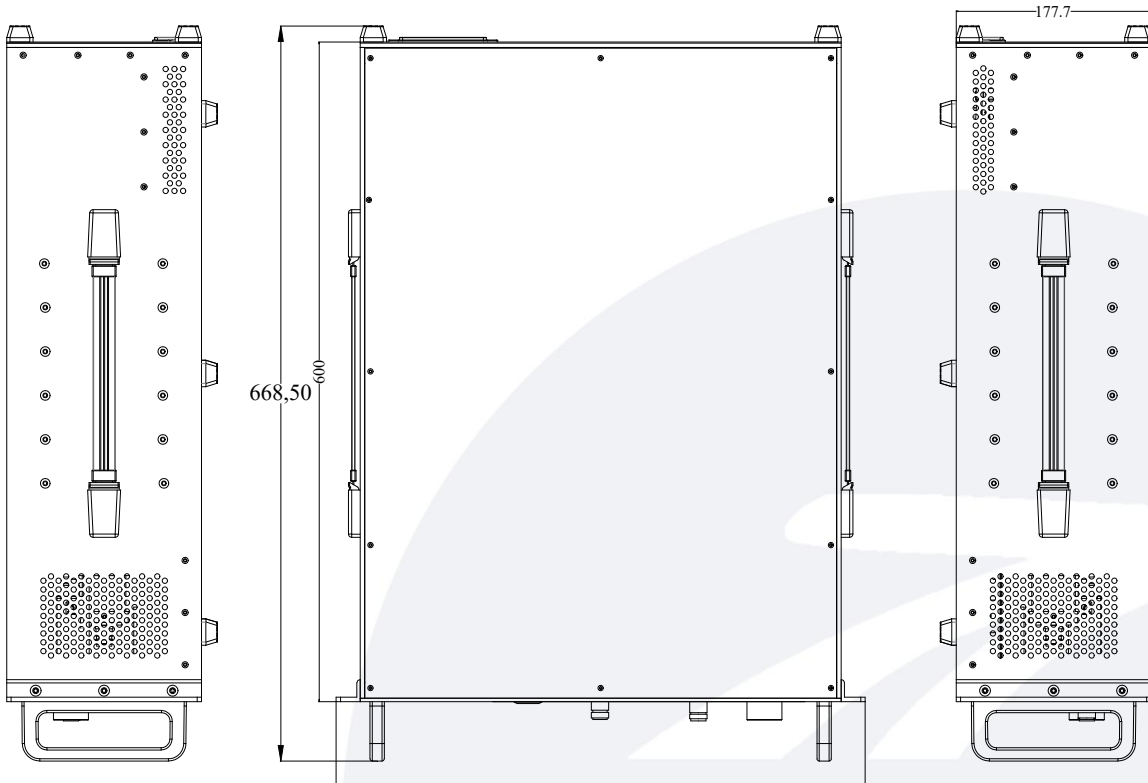
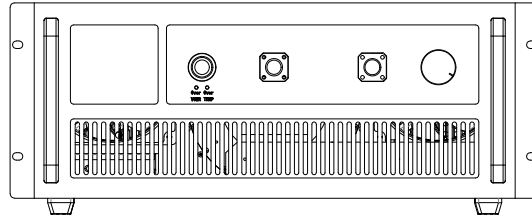
| Parameter                      | Specification                             |
|--------------------------------|-------------------------------------------|
| Input Overdrive                | At +10 dBm or higher, PA will be shutdown |
| VSWR protection                | At 4:1 or higher, PA will be shutdown     |
| Thermal – Graceful Degradation | Ambient 50°C                              |

## Monitor and control interface, D-sub, 15-Pin, Female

| Pin  | Description   | Specification                                                                        |
|------|---------------|--------------------------------------------------------------------------------------|
| 1    | FWD           | Forward detected power (analog voltage: 0 – 5 Volt)                                  |
| 2    | REV           | Reverse detected power (analog voltage: 0 – 5 Volt)                                  |
| 3    | Summary Fault | Summary Fault: Active TTL Logic Low ( $\leq 0.7V$ ) = Fault (Internally Pulled-High) |
| 4    | Shutdown      | Amplifier Disable: TTL Logic Low ( $\leq 0.7V$ ) (Internally Pulled-High)            |
| 5    | Over Temp     | TTL Logic High (2V-5V) = Fault (Internally Pulled-Low)                               |
| 6    | Over RF IN    | TTL Logic High (2V-5V) = Fault (Internally Pulled-Low)                               |
| 7    | Over VSWR     | TTL Logic High (2V-5V) = Fault (Internally Pulled-Low)                               |
| 8    | GND           | Ground                                                                               |
| 9-15 | NC            | No Connection                                                                        |

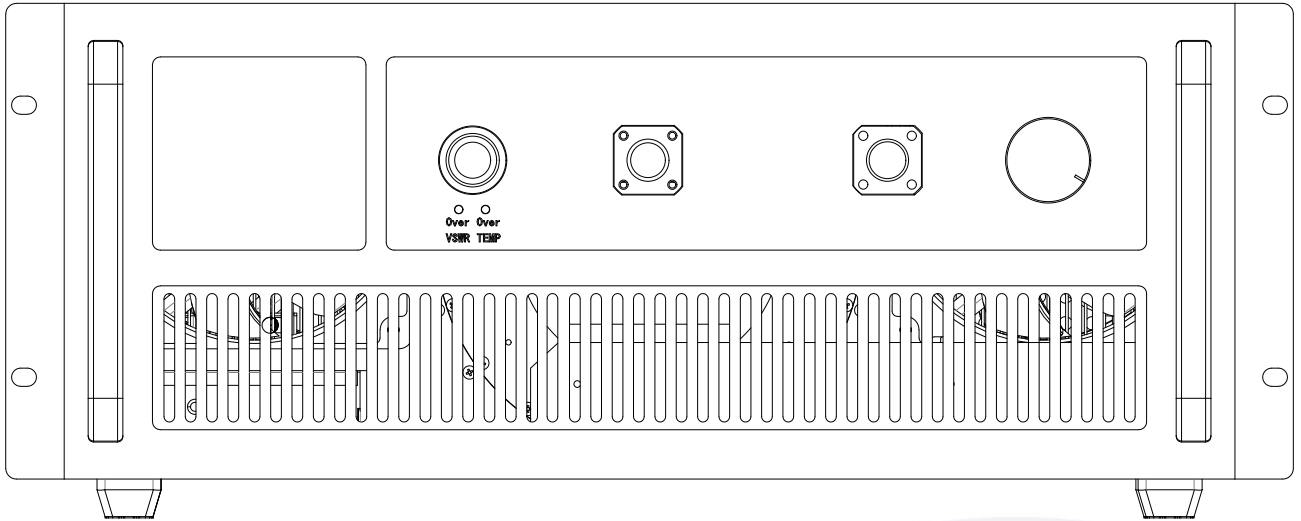
Outline Drawing:

Unit: mm



## Outline Drawing:

Unit: mm



## Key Features:



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

| Parameter            | Advantages                                                                   |
|----------------------|------------------------------------------------------------------------------|
| Control functions    | 1, Power setting On/Off                                                      |
| Protection functions | 1, Over TEM<br>2, Over voltage<br>3, Over current protection<br>4, Over VSWR |
| Cooling system       | Built in Cooling system, forced air cooling                                  |

#### Environmental Conditions:

| Parameter                       | Min                    | Typ | Max | Units |
|---------------------------------|------------------------|-----|-----|-------|
| Operating Temperature           | 0                      |     | +50 | °C    |
| Non-operating Temperature       | -40                    |     | +85 | °C    |
| Relative humidity               |                        | 95  |     | %     |
| Altitude                        | 15,000                 |     |     | feet  |
| Shock / Vibration(MIL-STD-810F) | Normal Truck Transport |     |     |       |

#### Ordering Information:

| Part Number       | Description                                                                                           | Revision |
|-------------------|-------------------------------------------------------------------------------------------------------|----------|
| TLPA2G4G-57-57-BC | Solid State High Power Amplifier Systems 2-4GHz,Gain:57dB,Psat:500 Watts,220V AC,Built in Fan Cooling | Rev.1.0  |