

## Solid State High Power Amplifier Systems

1-2GHz/65dB Gain/65dBm Psat/380V AC

Model: TLPA1G2G-65-65-BC

TLPA1G2G-65-65-BC is a solid state high power amplifier systems provides high output power and high gain across the 1 to 2 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: 1-2GHz
- Gain: 65dB Min
- Psat Output Power: 65dBm Min
- Protection: Over TEM, over voltage, over current ,infinite VSWR protection
- 50 Ohm Matched Input / Output

### Electrical Characteristics:

| Parameter         | Symbol             | Min | Typ | Max   | Units |
|-------------------|--------------------|-----|-----|-------|-------|
| Frequency range   | BW                 | 1-2 |     |       | GHz   |
| Power Gain        | GP                 | 65  |     |       | dB    |
| Gain flatness     | ΔGL                |     | ±3  |       | dB    |
| Output Psat       | Psat               | 65  |     |       | dBm   |
| Spurious          | Spur               |     |     | -60   | dBc   |
| Harmonics         | HAM                |     | -15 |       | dBc   |
| Input VSWR        | VSWR <sub>in</sub> |     |     | 2     | :1    |
| AC Voltage        | Vac                | 340 | 380 | 420   | V AC  |
| Power Consumption | Pdiss              |     |     | 18000 | W     |
| Impedance         | I/O-IMP            | 50  |     |       | Ohms  |

### Mechanical Specifications:

| Parameter                      | Value                     | Units |
|--------------------------------|---------------------------|-------|
| Input /Output Connector        | N Female/L29 Female       |       |
| Forward/Reverse Coupling       | N Female/ N Female        |       |
| Front Panel LCD Screen Display | 7 inch LCD Screen Display |       |
| Size                           | 32U                       |       |
| Weight                         | ≤350                      | Kg    |

## Absolute Maximum Ratings:

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

## Outline Drawing:

Unit:mm



## Key Features:

| Parameter            | Advantages                                                        |
|----------------------|-------------------------------------------------------------------|
| Control functions    | Power setting On/Off                                              |
| Protection functions | 1,Over TEM<br>2,Over voltage<br>3,Over current<br>4,Infinite VSWR |
| Remote control       | RS422/Ethernet                                                    |
| Cooling system       | Built in Cooling system,forced air cooling                        |

## 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 |
|-------------------|---------------------------------------------------------------------------------------------------|----------|
| TLPA1G2G-65-65-BC | Solid State High Power Amplifier Systems 1-2GHz,Gain:65dB,Psat:65dBm,380V AC,Built in Fan Cooling | Rev.1.1  |