

## Model:TLPA27.5G31G-52-52-BC-IP54-T

## Solid State High Power Amplifier Systems 27.5-31GHz,Gain:52dB,Psat:52 dBm,220V AC

### Feature:

- Wide Band: 27.5-31GHz
- Gain: 52dB Min
- Psat Output Power:52dBm 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          | 27.5-31  |         |         | GHz   |
| Power Gain                       | GP          | 52       |         |         | dB    |
| Gain flatness                    | $\Delta GL$ |          | $\pm 3$ | $\pm 4$ | dB    |
| Gain fluctuation@Full TEMP range | $\Delta G2$ |          | $\pm 3$ |         | dB    |
| Output Psat                      | Psat        | 52       |         |         | dBm   |
| Spurious@Pout=52dBm              | Spur        |          |         | -60     | dBc   |
| Output IM3*                      | IM3         |          |         | -25     | dBc   |
| Input VSWR                       | VSWRin      |          |         | 1.5     | :1    |
| Output VSWR                      | VSWRout     |          | 1.5     |         | :1    |
| AC Voltage                       | Vac         |          | 220     |         | V AC  |
| Power Consumption                | Pdiss       | 1450@Max |         |         | W     |
| Ingress Protection Grade*        | IPG         | IP-65    |         |         |       |
| Impedance                        | I/O-IMP     | 50       |         |         | Ohms  |

### \*Note:

Two-tone interval is 5 MHz,The total power of the two-tone synthesis is 48 dBm.

The default waveguide only has waterproof gasket and no pressure window.If the pressure window is needed, consult with the manufacturer

### Mechanical Specifications:

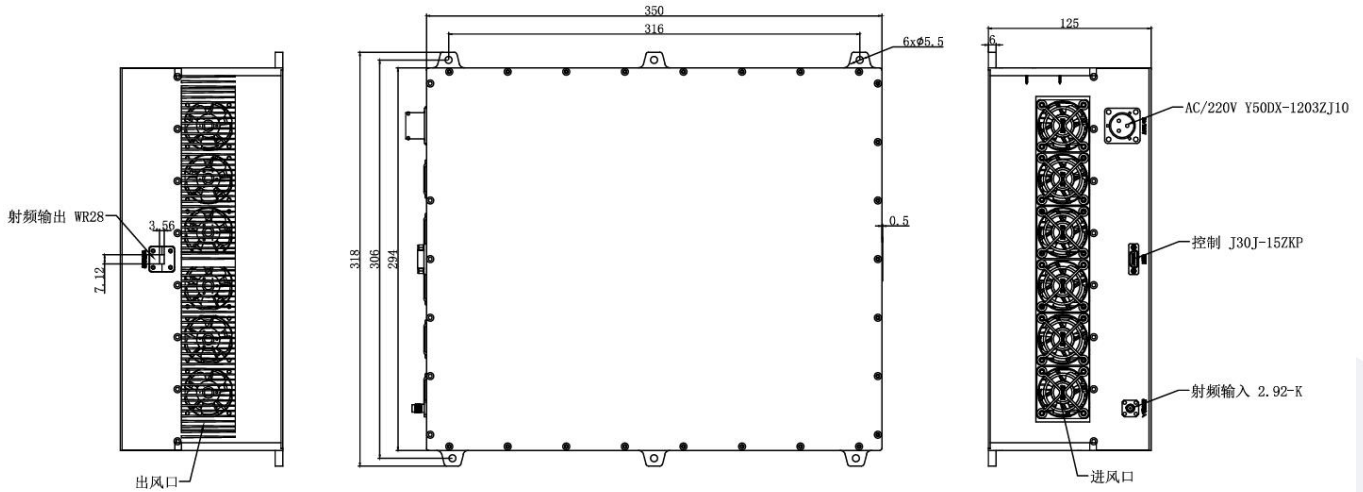
| Parameter               | Value              | Units           |
|-------------------------|--------------------|-----------------|
| Input /Output Connector | 2.92mm Female/WR28 |                 |
| Communication Connector | J30J-15ZKP         |                 |
| Supply Bias             | Y50DX-1203         | A1L,A2:N,A3:GND |
| Size                    | 350*318*125        | mm              |
| Weight                  | $\leq 20$          | Kg              |

### Absolute Maximum Ratings:

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

### Outline Drawing:

Unit: mm



### Key Features:



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

| Parameter            | Advantages                                                                   |
|----------------------|------------------------------------------------------------------------------|
| Protection functions | 1, Over TEM<br>2, Over voltage<br>3, Over current protection<br>4, Over VSWR |
| Query parameters     | 1, TEM<br>2, Voltage<br>3, Current<br>4, Output power and reflect power      |
| Remote control       | RS422                                                                        |
| 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                         | 10000                                               |     |     | 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:

| Part Number                  | Description                                                                                            | Revision |
|------------------------------|--------------------------------------------------------------------------------------------------------|----------|
| TLPA27.5G31G-52-52-BC-IP54-T | Solid State High Power Amplifier Systems 27.5-31GHz,Gain:52dB,Psat:52 dBm,220V AC,Built in Fan Cooling | Rev.1.0  |