

## Solid State High Power Amplifier Systems

6-18GHz /58dB Gain/58 dBm Psat/380V AC

Model: TLPA6G18G-58-58-BC

TLPA6G18G-58-58-BC is a solid state high power amplifier systems provides high output power and high gain across the 6 to 18 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: 6-18GHz
- Gain: 58dB Min
- Psat Output Power:58dBm 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      | 6-18 |      |     | GHz   |
| Power Gain           | GP      | 58   |      |     | dB    |
| Gain flatness        | ΔGL     |      | ±4.5 |     | dB    |
| Output Psat          | Psat    | 58   |      |     | dBm   |
| Output P1dB          | P1dB    | 55   | 57   |     | dBm   |
| Spurious@Pout=58dBm  | Spur    |      |      | -60 | dBc   |
| Harmonics@Pout=58dBm | HAM     |      | -15  | -10 | dBc   |
| Input VSWR           | VSWRin  |      |      | 2   | :1    |
| AC Voltage           | Vac     |      | 380  |     | V AC  |
| Power Consumption    | Pdiss   |      |      | 15  | KW    |
| Impedance            | I/O-IMP | 50   |      |     | Ohms  |

## Mechanical Specifications:

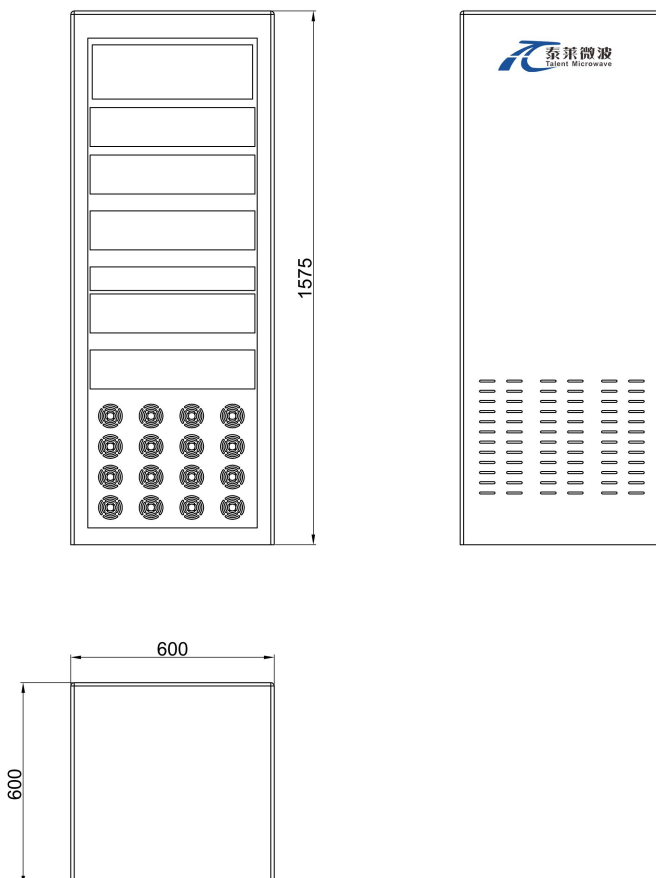
| Parameter                  | Value              | Units |
|----------------------------|--------------------|-------|
| Input /Output Connector    | N Female/WRD500D36 |       |
| Network port Communication | RS422/LAN          |       |
| Size                       | 32U                |       |
| Weight                     | ≤350               | Kg    |

## Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| RF Input Power        | +5 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,Over VSWR |
| Remote control       | RS422/LAN/GPIB/USB                                            |
| 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  |     |     |       |

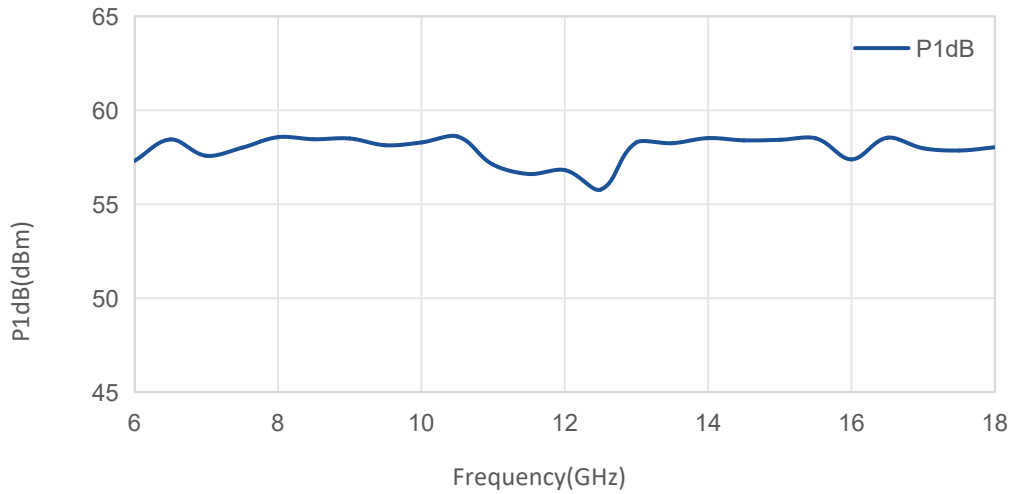
\*Note: For a wider temperature range, please consult the manufacturer.

## Ordering Information:

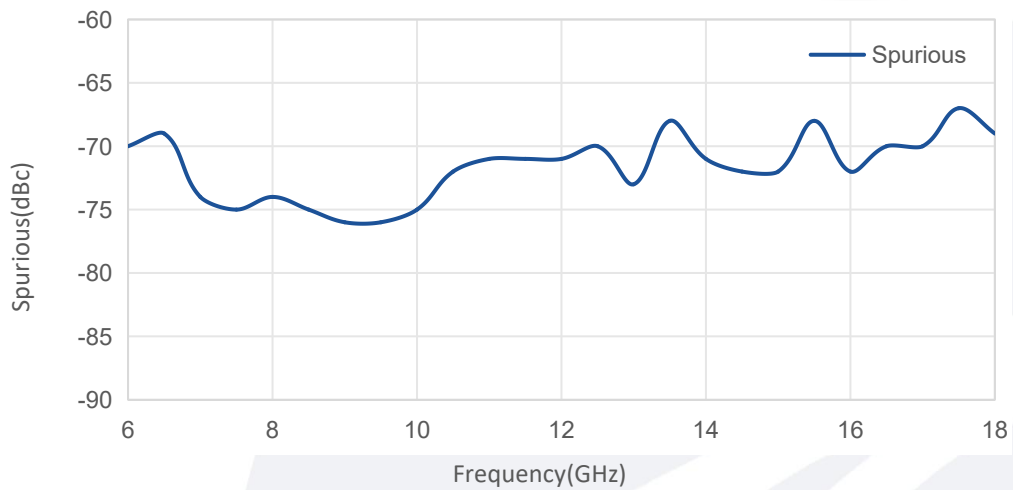
| Base Number        | Description                                                                                             | Revision |
|--------------------|---------------------------------------------------------------------------------------------------------|----------|
| TLPA6G18G-58-58-BC | Solid State High Power Amplifier Systems 6-18GHz, Gain:58dB, Psat:58 dBm, 380V AC, Built in Fan Cooling | Rev.1.1  |

## Typical Performance Data:

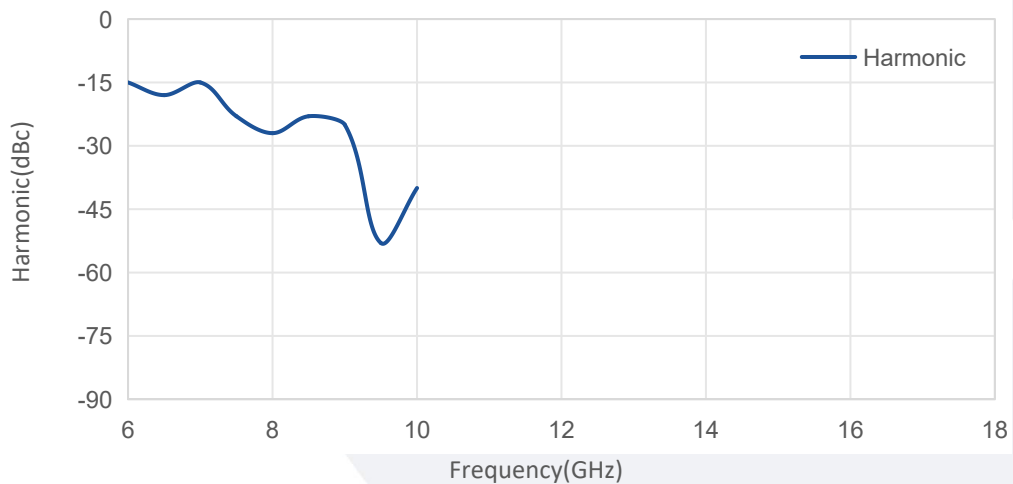
### P1dB vs Frequency



### Spurious vs Frequency



### Harmonic vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.