

## Solid State High Power Amplifier Systems

**10KHz-100MHz /66dB Gain/66dBm Psat/380V AC**

**Model: TLPA10K100M-66-66-BC**

TLPA10K100M-66-66-BC is a solid state high power amplifier systems provides high output power and high gain across the 10KHz to 100MHz 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:

- Wide Band: 10KHz-100MHz
- Gain: 66dB Min
- Psat Output Power:66dBm Min
- Protection:Over TEM,over voltage, over current ,over VSWR,open/circuit break,overexcitation protection
- 50 Ohm Matched Input / Output

### Electrical Characteristics:

| Parameter         | Symbol      | Min          | Typ | Max       | Units |
|-------------------|-------------|--------------|-----|-----------|-------|
| Frequency range   | BW          | 10KHz-100MHz |     |           |       |
| Power Gain        | GP          | 66           |     |           | dB    |
| Gain flatness     | $\Delta$ GL |              |     | $\pm 2.5$ | dB    |
| Output Psat       | Psat        | 3500         |     |           | W     |
| Output P1dB       | P1dB        | 2500         |     |           | W     |
| Spurious          | Spur        |              |     | -60       | dBc   |
| Harmonics         | HAM         |              |     | -15       | dBc   |
| Input VSWR        | VSWRin      |              |     | 2         | :1    |
| AC Voltage        | Vac         |              | 380 |           | V AC  |
| Power Consumption | Pdiss       |              |     | 10        | KW    |
| Impedance         | I/O-IMP     | 50           |     |           | Ohms  |

## Mechanical Specifications:

| Parameter                | Value                               | Units |
|--------------------------|-------------------------------------|-------|
| Input /Output Connector  | N Female/7/16 DIN Female (optional) |       |
| Forward/Reverse Coupling | N Female/ N Female (optional)       |       |
| Size                     | 600*800*1600/19 Inch*1600           | mm    |
| Weight                   | ≤200                                | Kg    |

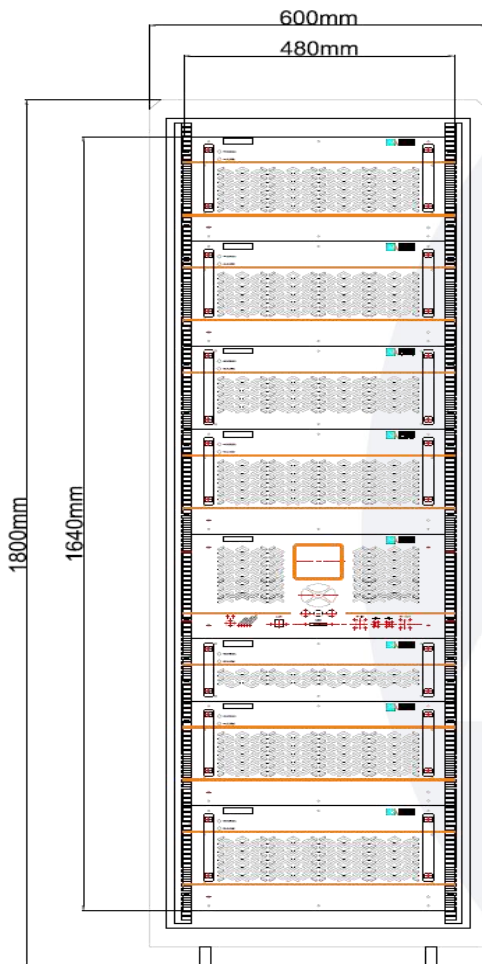
Note: Dual directional coupler can be selected as built-in or external..

## 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    | 1, Power setting On/Off                                                                                                                  |
| Protection functions | 1,Over TEM: 70°C<br>2,Over voltage<br>3,Over current<br>4,Over VSWR: 6:1 (adjustable)<br>5,Open/circuit break<br>6,Overexcitation: 3600W |
| Remote control       | GPIO/Ethernet                                                                                                                            |
| Cooling system       | Built in Cooling system,forced air cooling                                                                                               |

## Environmental Conditions:

| Parameter                       | Min                                                 | Typ | Max | Units |
|---------------------------------|-----------------------------------------------------|-----|-----|-------|
| Operating Temperature*          | 0                                                   |     | 40  | °C    |
| Non-operating Temperature*      | -15                                                 |     | +65 | °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  |     |     |       |

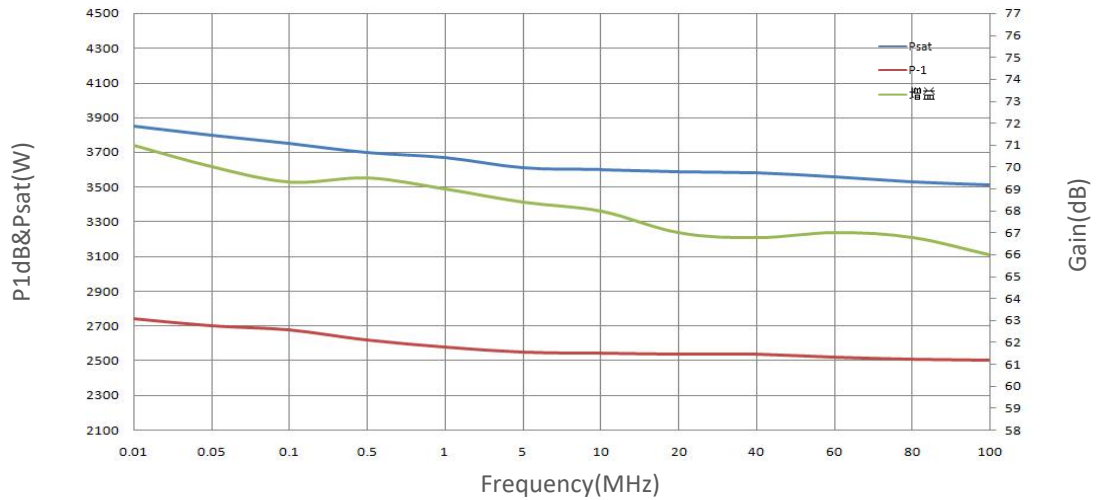
\*Note: For a wider temperature range, please consult the manufacturer.

## Ordering Information:

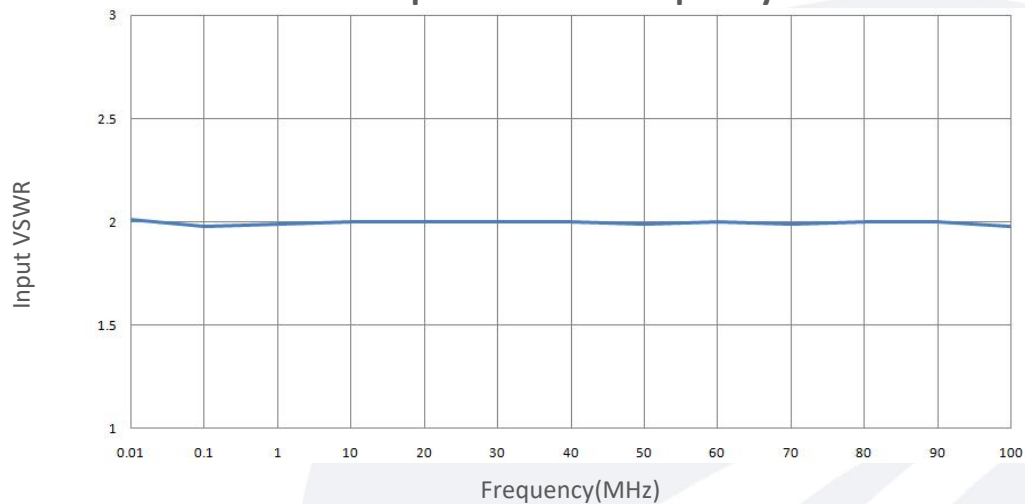
| Base Number          | Description                                                                                             | Revision |
|----------------------|---------------------------------------------------------------------------------------------------------|----------|
| TLPA10K100M-66-66-BC | Solid State High Power Amplifier Systems 10KHz-100MHz,Gain:66dB,Psat:66dBm,380V AC,Built in Fan Cooling | Rev.1.1  |

## Typical Performance Data:

### Power Gain&P1dB&Psat vs Frequency



### Input VSWR 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.