

## Solid State High Power Amplifier Systems

0.7-6GHz/53dB Gain/53dBm Psat/220V AC

Model: TLPA0.7G6G-53-53-BC

TLPA0.7G6G-53-53-BC is a solid state high power amplifier systems provides high output power and high gain across the 0.5 to 6 GHz frequency range. The amplifier features a built-in 220V 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: 0.7-6GHz
- Gain: 53dB Min
- Psat Output Power: 53dBm 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          | 0.7-6 |           |      | GHz   |
| Power Gain           | GP          | 53    |           |      | dB    |
| Gain flatness        | $\Delta$ GL |       | $\pm 3.5$ |      | dB    |
| Output Psat          | Psat        | 53    | 54        |      | dBm   |
| Spurious@Pout=54dBm  | Spur        |       |           | -60  | dBc   |
| Harmonics@Pout=54dBm | HAM         |       |           | -10  | dBc   |
| Input VSWR           | VSWRin      |       |           | 2    | :1    |
| AC Voltage           | Vac         |       | 220       |      | V AC  |
| Power Consumption    | Pdiss       |       |           | 3300 | W     |
| Impedance            | I/O-IMP     | 50    |           |      | Ohms  |

### Mechanical Specifications:

| Parameter                      | Value                     | Units |
|--------------------------------|---------------------------|-------|
| Input /Output Connector        | N Female/N Female         |       |
| Communication Connector        | DB9/RJ45                  |       |
| Front Panel LCD Screen Display | 7 inch LCD Screen Display |       |
| Size                           | 19 Inch 5U                | mm    |
| Weight                         | $\leq 45$                 | Kg    |

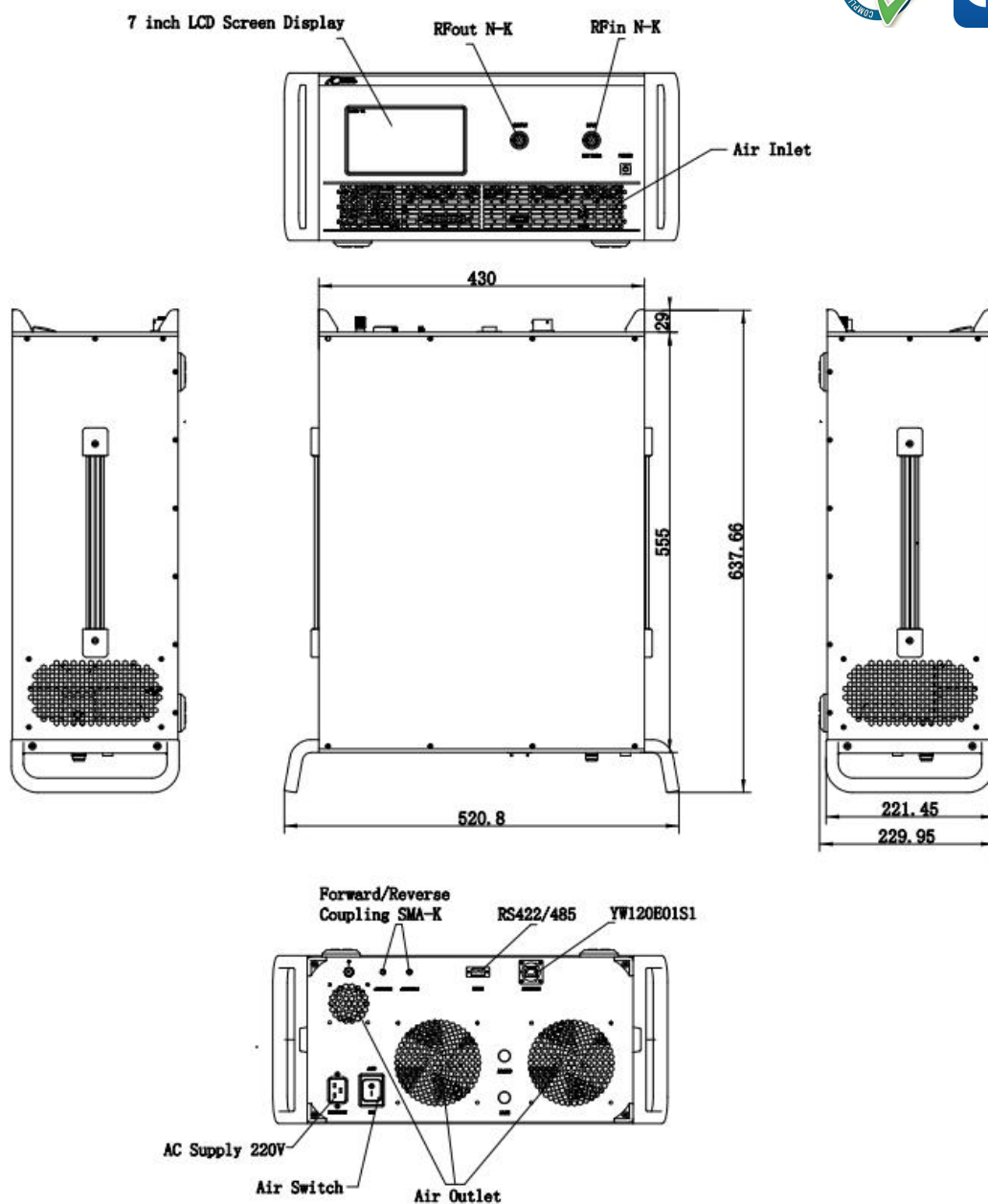
## Absolute Maximum Ratings:

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

## Outline Drawing:

Unit:mm

## Regulatory Compliance:



## Key Features:

| Parameter            | Advantages                                                        |
|----------------------|-------------------------------------------------------------------|
| Control functions    | 1, Power setting On/Off<br>2, ALC automatic level control         |
| Protection functions | 1, Over TEM<br>2, Over voltage<br>3, Over current<br>4, Over 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 |     |     |       |

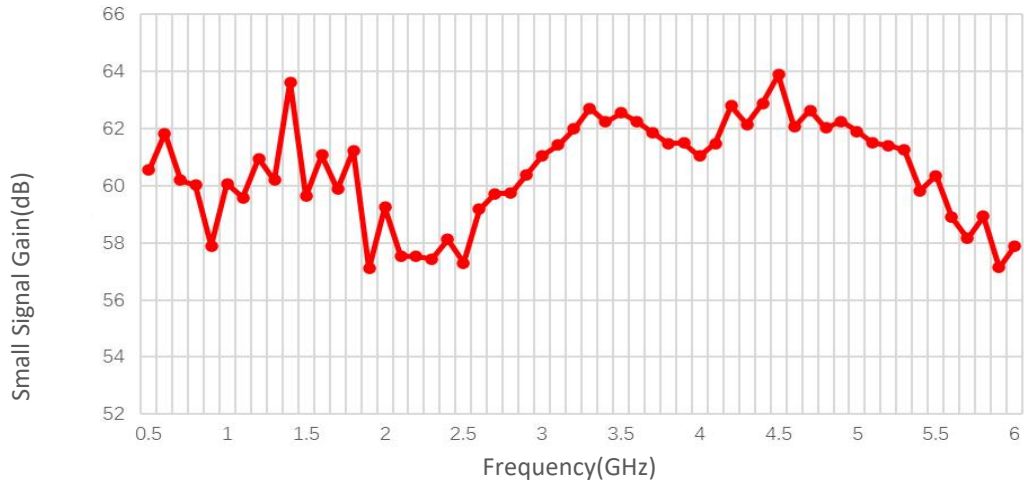
\*Note: For a wider temperature range, please consult the manufacturer.

## Ordering Information:

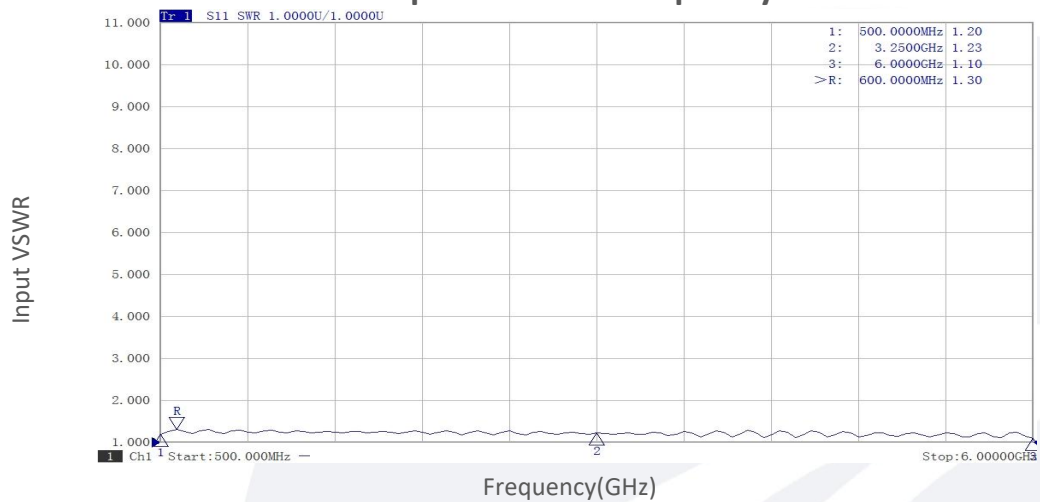
| Base Number         | Description                                                                                             | Revision |
|---------------------|---------------------------------------------------------------------------------------------------------|----------|
| TLPA0.7G6G-53-53-BC | Solid State High Power Amplifier Systems 0.7-6GHz, Gain:53dB, Psat:53dBm, 220V AC, Built in Fan Cooling | Rev.1.1  |

## Typical Performance Data:

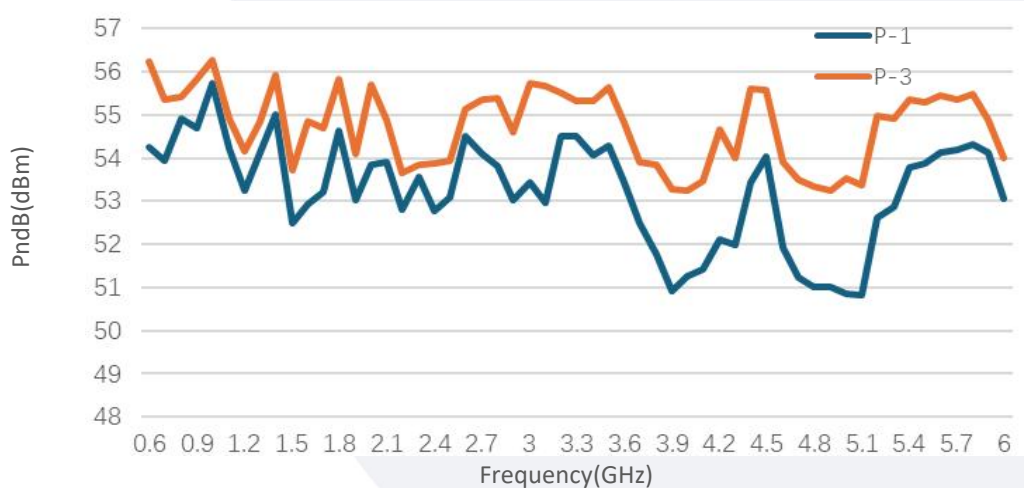
### Small Signal Gain vs Frequency



### Input VSWR vs Frequency

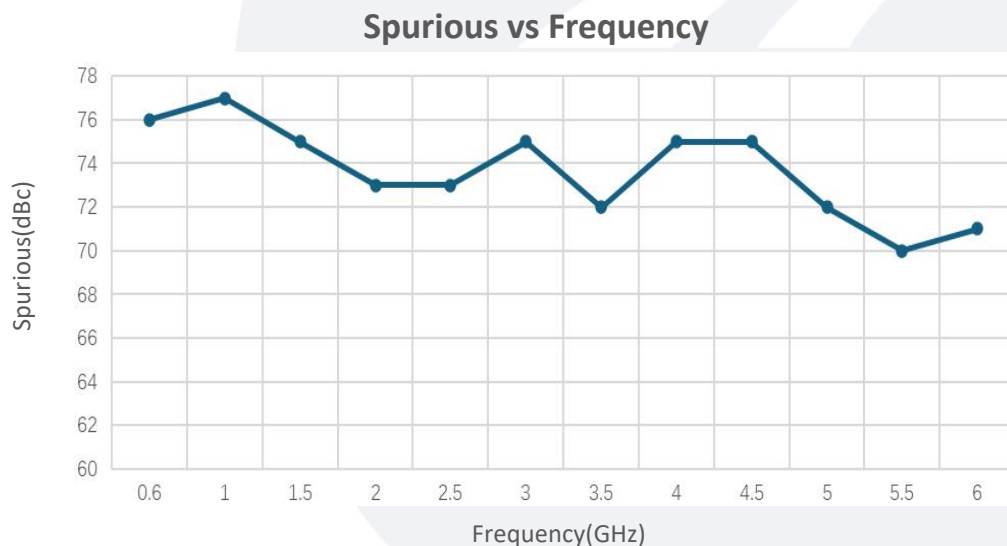
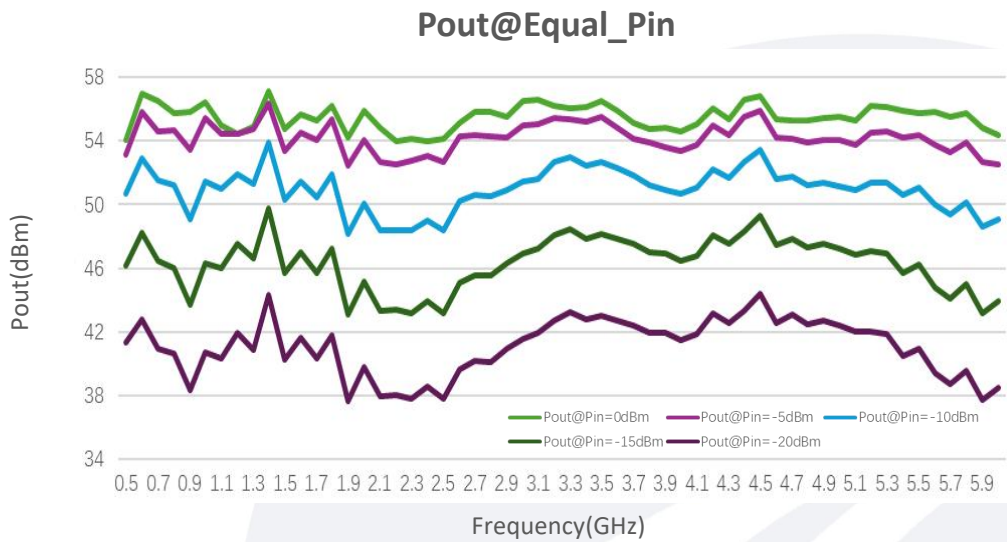
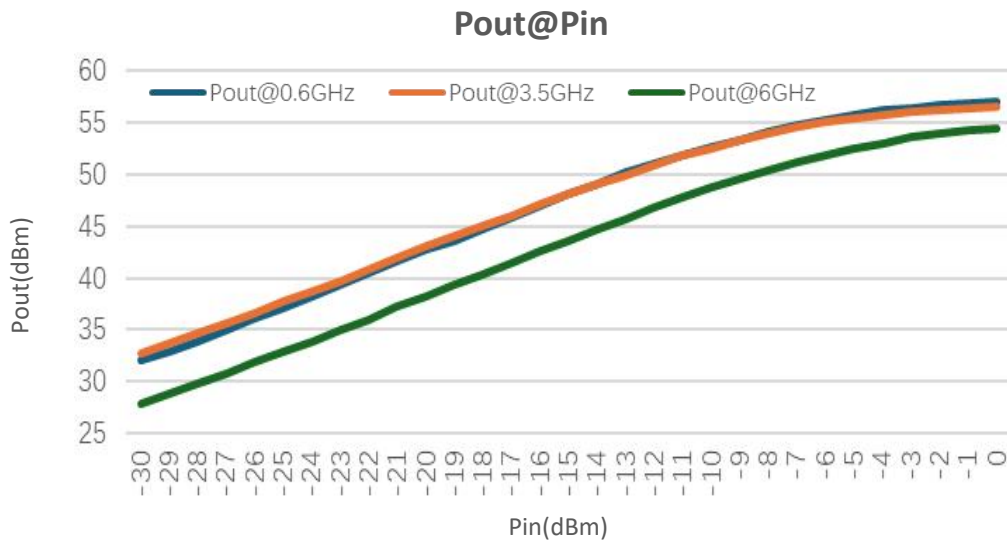


### PndB vs Frequency



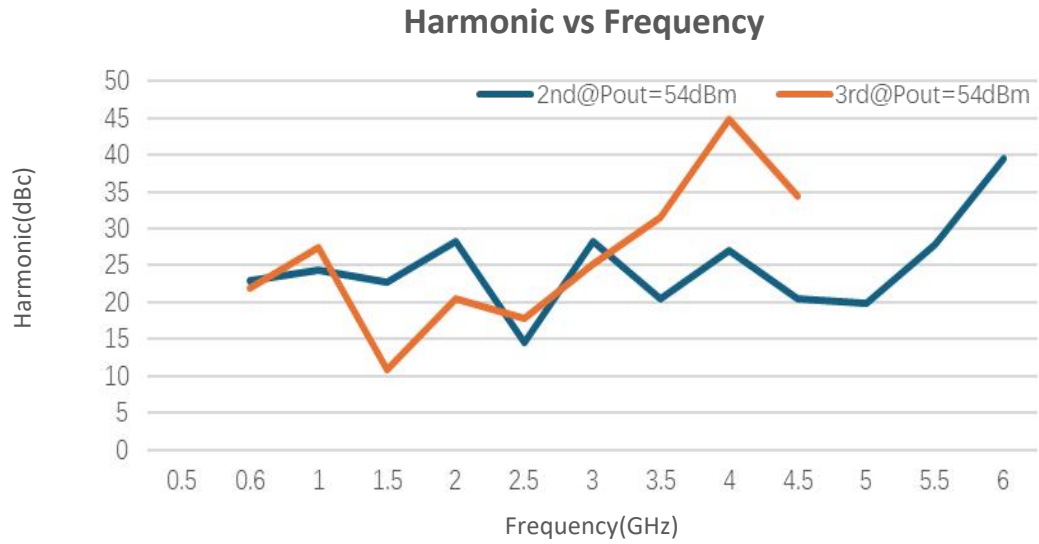
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:



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.

## Typical Performance Data:



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.