

## Solid State High Power Amplifier Systems

26.5-40GHz /53dB Gain/53 dBm Psat/380V AC

Model: TLPA26.5G40G-53-53-BC

TLPA26.5G40G-53-53-BC is a solid state high power amplifier systems provides high output power and high gain across the 26.5 to 40 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:

- Wide Band: 26.5-40GHz
- 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          | 26.5-40 |     |         | GHz   |
| Power Gain           | GP          | 53      |     |         | dB    |
| Gain flatness        | $\Delta GL$ |         |     | $\pm 5$ | dB    |
| Output Psat          | Psat        | 53      |     |         | dBm   |
| Spurious@Pout=53dBm  | Spur        |         |     | -50     | dBc   |
| Harmonics@Pout=53dBm | HAM         |         |     | -20     | dBc   |
| Input VSWR           | VSWRin      |         |     | 2       | :1    |
| AC Voltage           | Vac         |         | 380 |         | V AC  |
| Power Consumption    | Pdiss       |         |     | 5000    | W     |
| Impedance            | I/O-IMP     | 50      |     |         | Ohms  |

### Mechanical Specifications:

| Parameter                      | Value                        | Units |
|--------------------------------|------------------------------|-------|
| Input /Output Connector        | 2.92 Female/WR-28            |       |
| Forward/Reverse Coupling       | 2.92mm Female/ 2.92mm Female |       |
| Communication Connector        | RJ45/DB9/GPIB                |       |
| Front Panel LCD Screen Display | 5.6 inch LCD Screen Display  |       |
| Size                           | 19 Inch 20U                  | mm    |
| Weight                         | /                            | Kg    |

## Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| RF Input Power        | +10 dBm              |
| ESD sensitivity (HBm) | Class 0, passed 150V |

## Outline Drawing:

Unit:mm



## 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/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 |     |     |       |

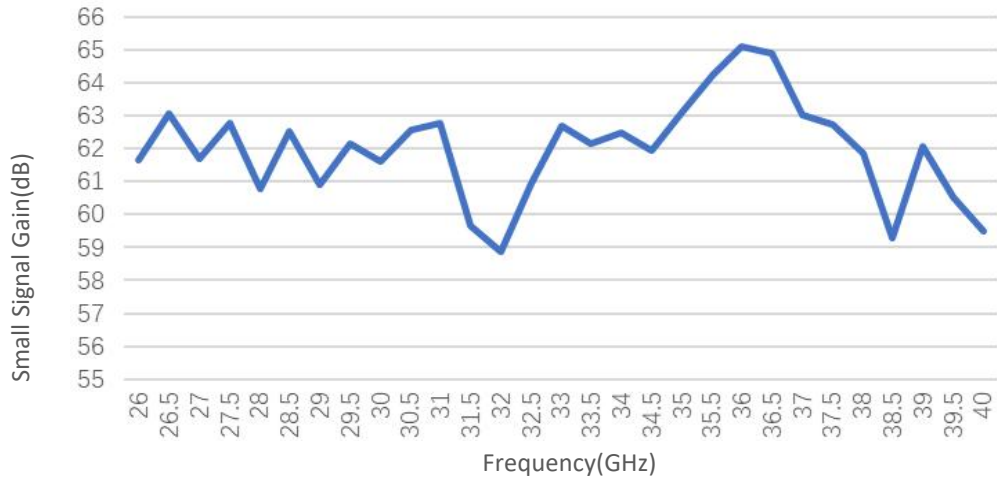
\*Note: For a wider temperature range, please consult the manufacturer.

## Ordering Information:

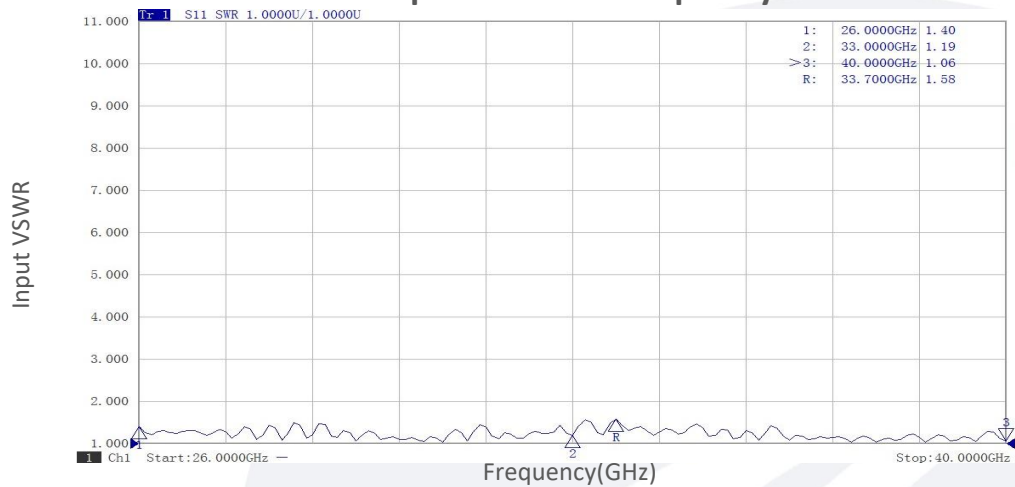
| Base Number           | Description                                                                                                  | Revision |
|-----------------------|--------------------------------------------------------------------------------------------------------------|----------|
| TLPA26.5G40G-53-53-BC | Solid State High Power Amplifier Systems 26.5-40GHz, Gain: 53dB, Psat: 53 dBm, 380V AC, Built in Fan Cooling | Rev.1.1  |

## Typical Performance Data:

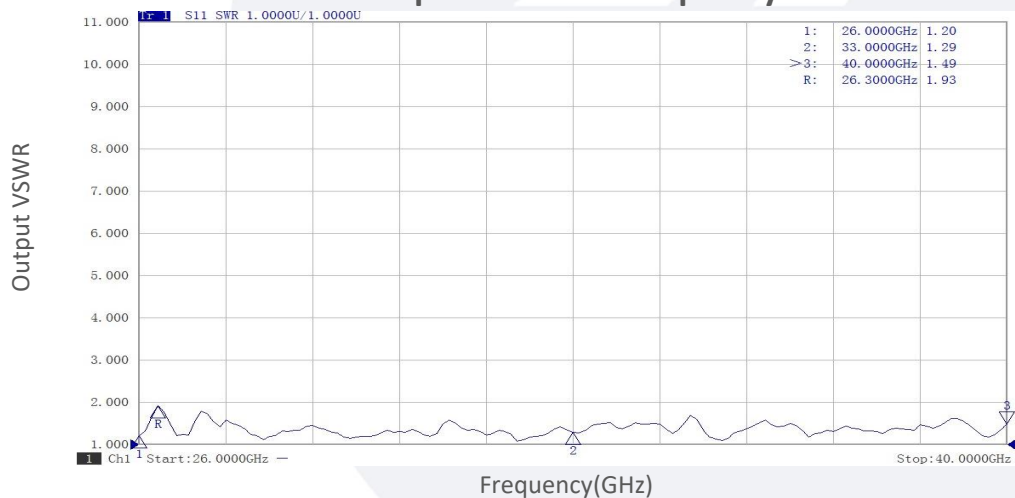
### Small Signal Gain vs Frequency



### Input VSWR vs Frequency

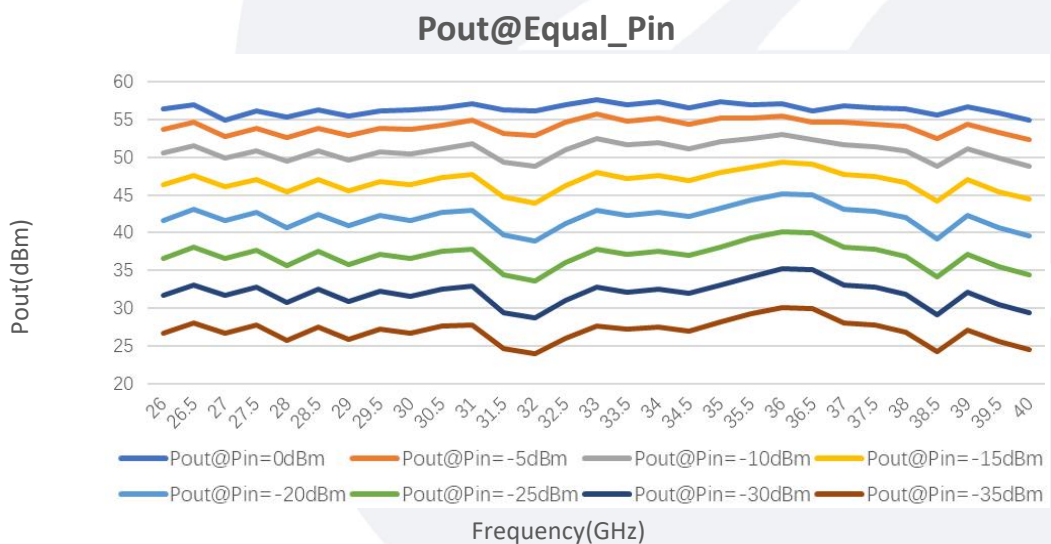
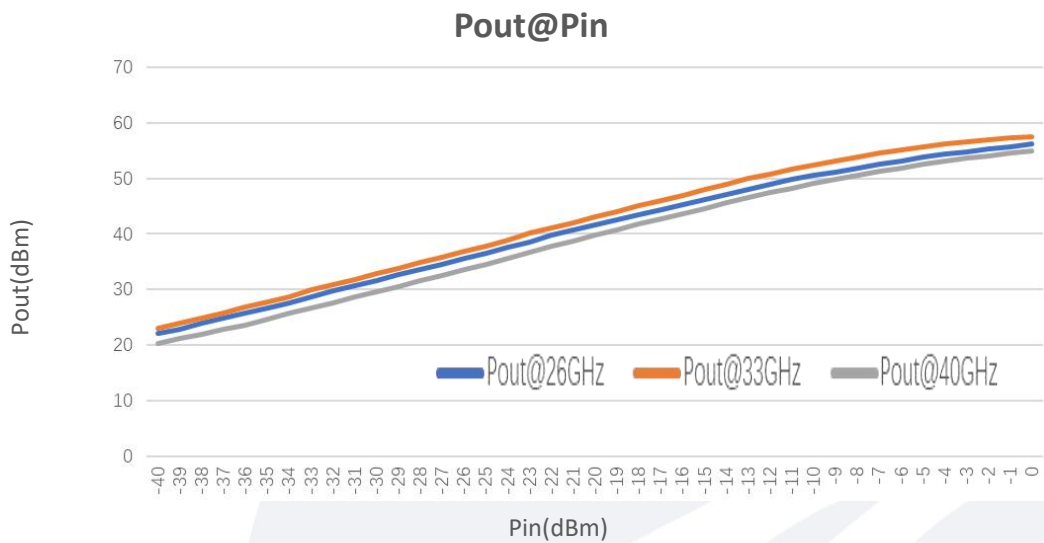
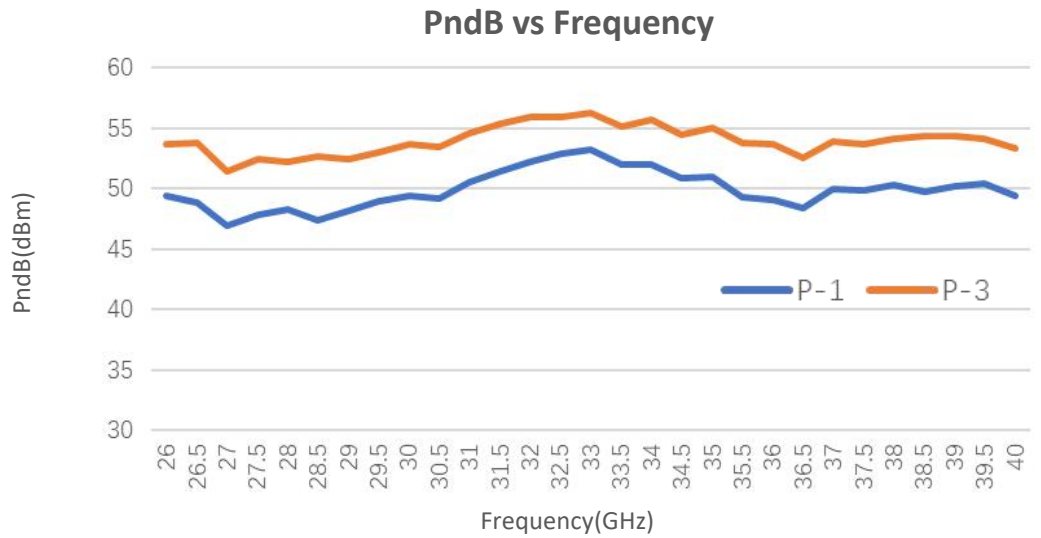


### Output VSWR vs Frequency



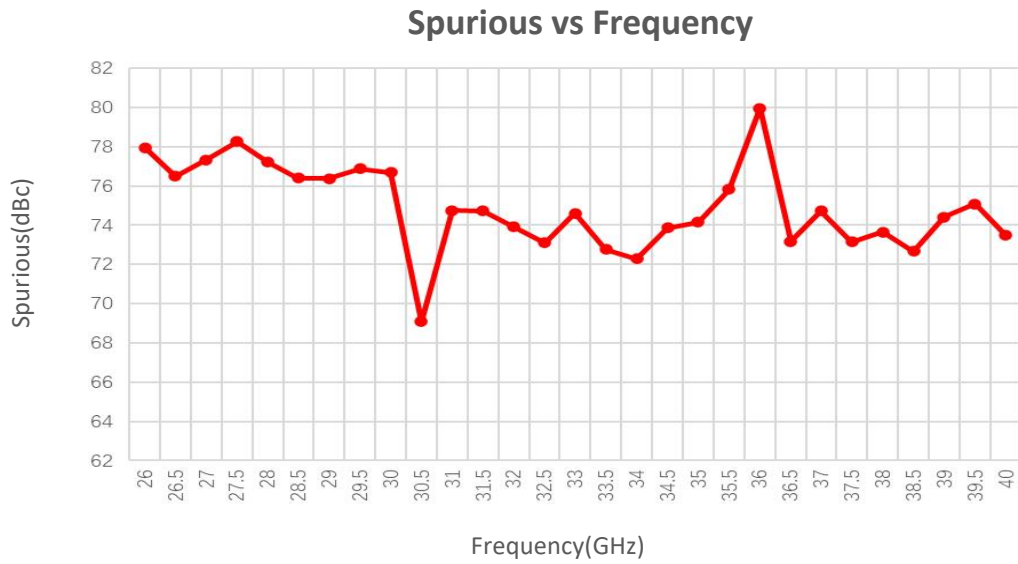
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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