

## Solid State High Power Amplifier Systems

18-26.5GHz/43dB Gain/40dBm Psat/220V AC

Model: TLPA18G26.5G-40-40-BC

TLPA18G26.5G-40-40-BC is a solid state high power amplifier systems provides high output power and high gain across the 18 to 26.5 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: 18-26.5GHz
- Gain: 43dB Min
- Psat Output Power: 40dBm Min
- Protection: Over TEM, over voltage, over current ,infinite VSWR protection
- 50 Ohm Matched Input / Output

### 电气特性 Electrical Characteristics:

| 参数 Parameter                          | 代码 Symbol     | Min     | Typ       | Max     | 单位 Units |
|---------------------------------------|---------------|---------|-----------|---------|----------|
| 频率范围 Frequency range                  | BW            | 18-26.5 |           |         | GHz      |
| 小信号增益 Small Signal Gain               | SSGP          |         | 46        |         | dB       |
| 功率增益<br>Power Gain@Pout=40dBm         | GP            | 43      |           |         | dB       |
| 增益平坦度 Gain flatness                   | $\Delta$ GL   |         | $\pm 2.5$ |         | dB       |
| 饱和输出功率 Output Psat                    | Psat          | 40      | 41        |         | dBm      |
| 饱和输出功率平坦度<br>Saturated Power flatness | $\Delta$ Psat |         |           | $\pm 1$ | dB       |
| 线性输出功率 Output P1dB                    | P1dB          |         | 35        |         | dBm      |
| 杂散 Spurious@Pout=40dBm                | Spur          |         |           | -50     | dBc      |
| 谐波 Harmonics@Pout=40dBm               | HAM           |         |           | -20     | dBc      |
| 输入驻波 Input VSWR                       | VSWRin        |         | 1.5       | 2.0     | :1       |
| 交流电压 AC Voltage                       | Vac           |         | 220       |         | V AC     |
| 功耗 Power Consumption                  | Pdiss         |         |           | 70      | W        |
| 阻抗 Impedance                          | I/O-IMP       | 50      |           |         | Ohms     |

## 机械特性 Mechanical Specifications:

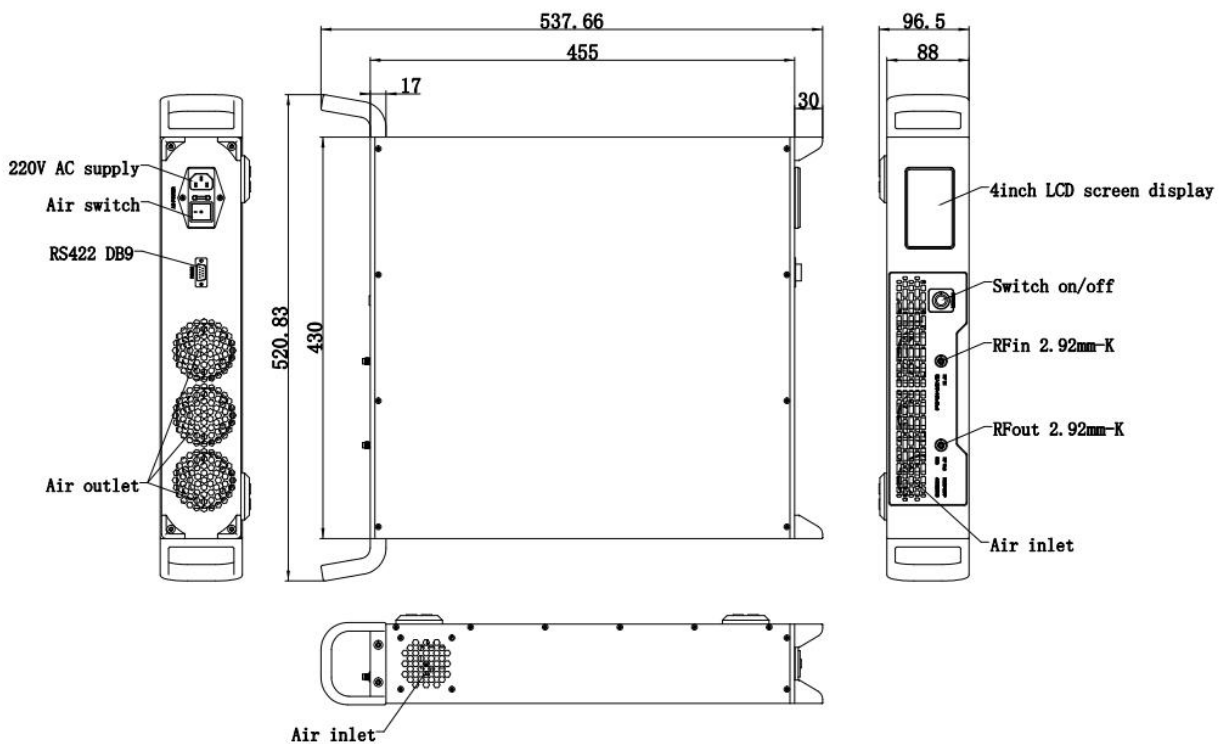
| 参数 Parameter                    | 指标 Value                    | 单位 Units |
|---------------------------------|-----------------------------|----------|
| 输入/输出接口 Input /Output Connector | 2.92mm Female/2.92mm Female |          |
| 尺寸 Size                         | 19 Inch 2U                  |          |
| 重量 Weight                       | ≤20                         | Kg       |

## 绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter                 | 指标 Value             |
|------------------------------|----------------------|
| 输入功率 RF Input Power          | +5 dBm               |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

## 外形图 Outline Drawing:

Unit:mm



## 主要功能 Key Features:

| 参数 Parameter                | 特点 Advantages                                                         |
|-----------------------------|-----------------------------------------------------------------------|
| 控制功能 Control functions      | 1, Power setting on/off<br>2, ALC automatic level control             |
| 内置保护功能 Protection functions | 1, Over TEM<br>2, Over voltage<br>3, Over current<br>4, Infinite VSWR |
| 监控和控制 Remote control        | RS422                                                                 |
| 冷却系统 Cooling system         | Built in Cooling system, forced air cooling                           |

## 温度环境 Environmental Conditions:

| 参数 Parameter                       | Min                                                 | Typ | Max | 单位 Units |
|------------------------------------|-----------------------------------------------------|-----|-----|----------|
| 操作温度 Operating Temperature*        | -20                                                 |     | +50 | °C       |
| 存储温度 Non-operating Temperature*    | -30                                                 |     | +60 | °C       |
| 相对湿度 Relative humidity             |                                                     | 95  |     | %        |
| 海拔 Altitude                        | 10,000                                              |     |     | feet     |
| 震动 Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour per axis |     |     |          |
| 冲击 Shock(non operating)            | 20G for 11msc half sin wave, 3 axis both directions |     |     |          |

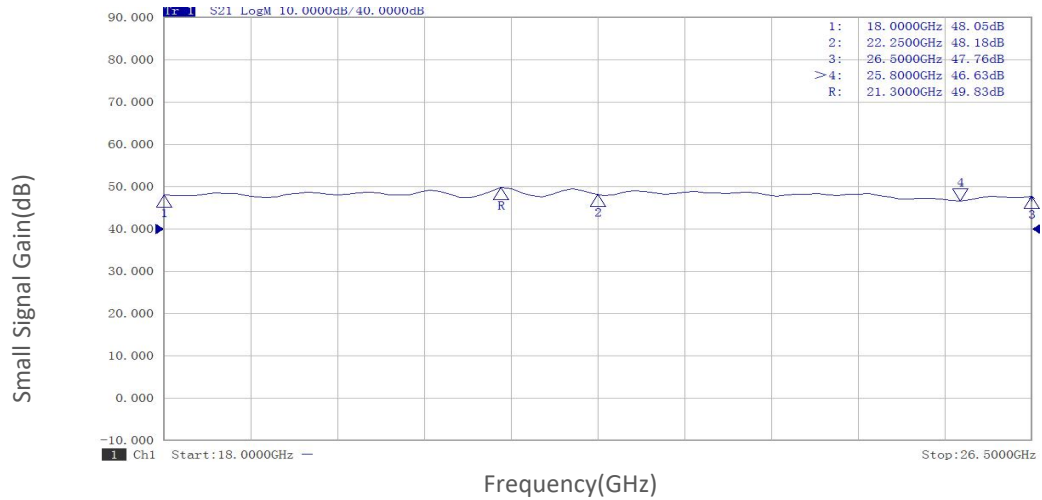
\*Note: For a wider temperature range, please consult the manufacturer.

## 订货信息 Ordering Information:

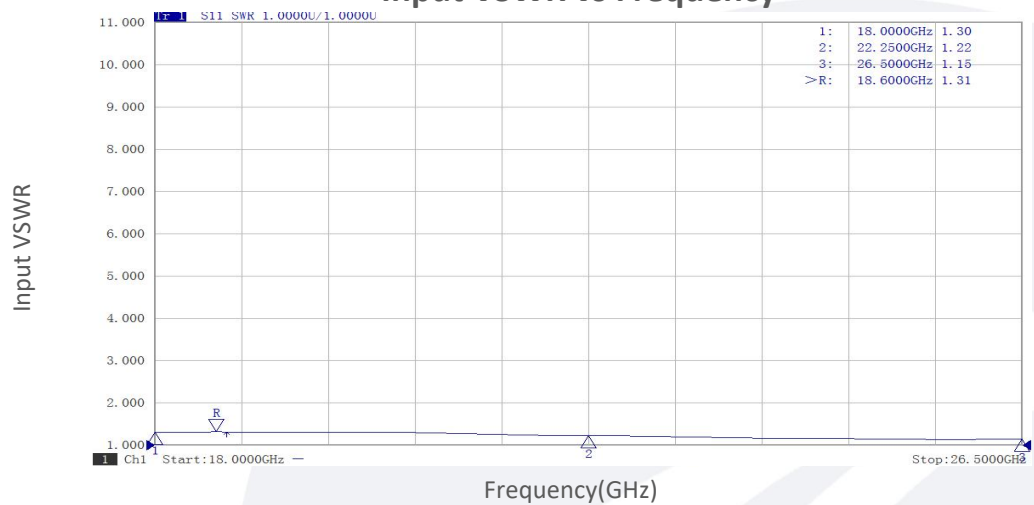
| 标准型号 Base Number      | 描述 Description                                                                                              | 版本号 Revision |
|-----------------------|-------------------------------------------------------------------------------------------------------------|--------------|
| TLPA18G26.5G-40-40-BC | Solid State High Power Amplifier Systems 18-26.5GHz, Gain: 43dB, Psat: 40dBm, 220V AC, Built in Fan Cooling | Rev.1.1      |

## 典型曲线 Typical Performance Data:

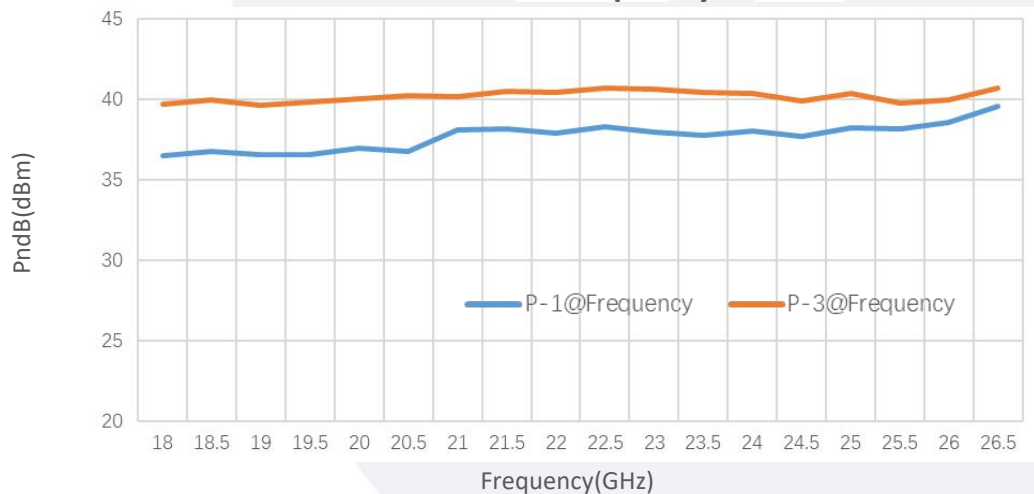
### Small Signal Gain vs Frequency



### Input VSWR vs Frequency

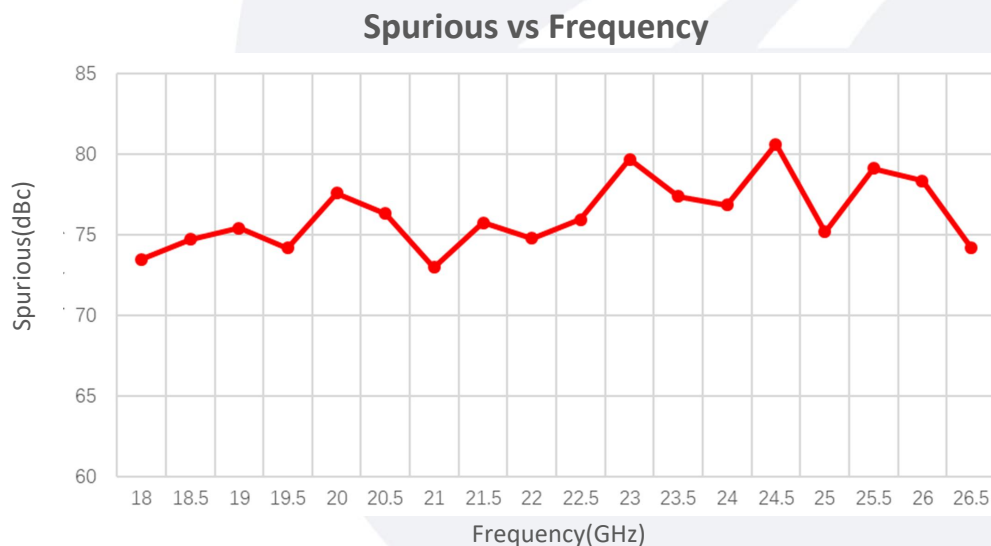
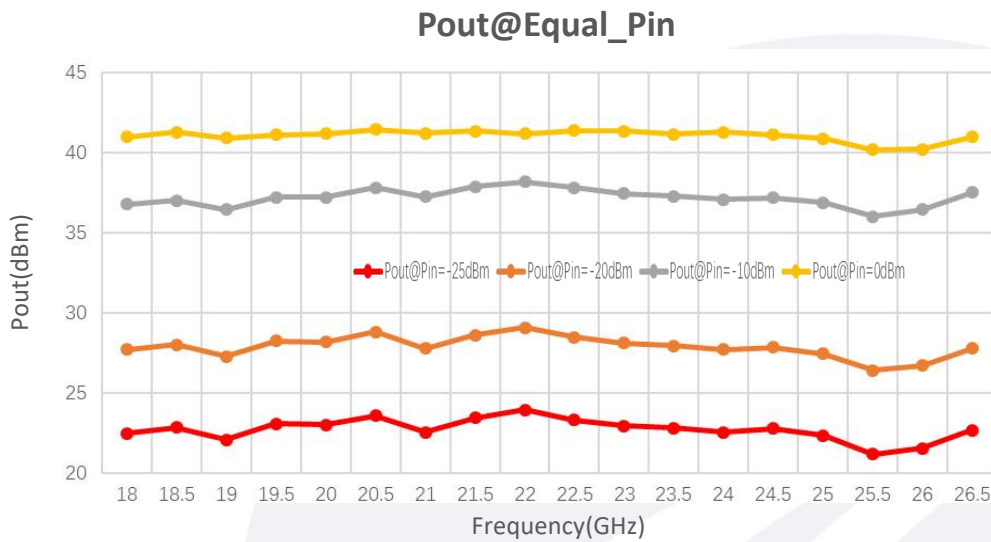
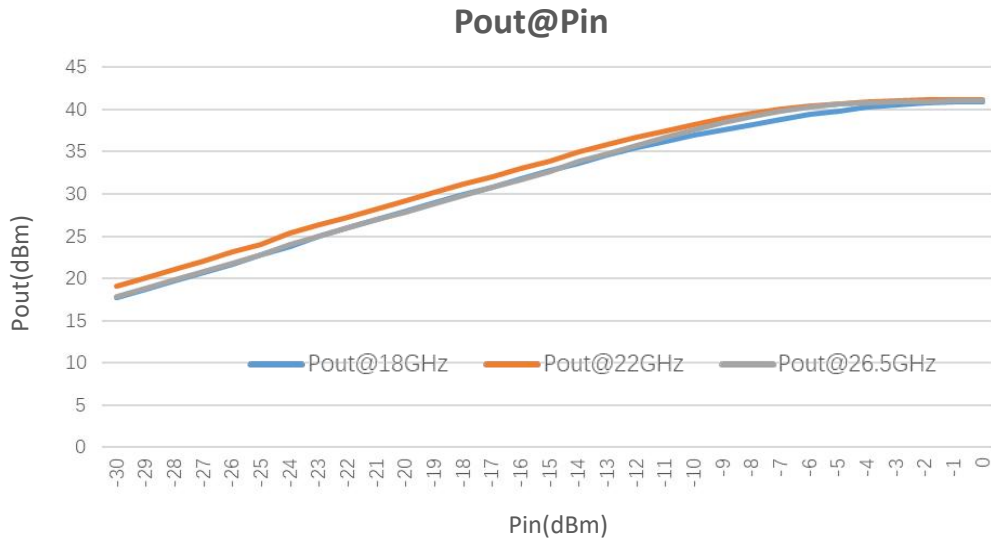


### PndB vs Frequency



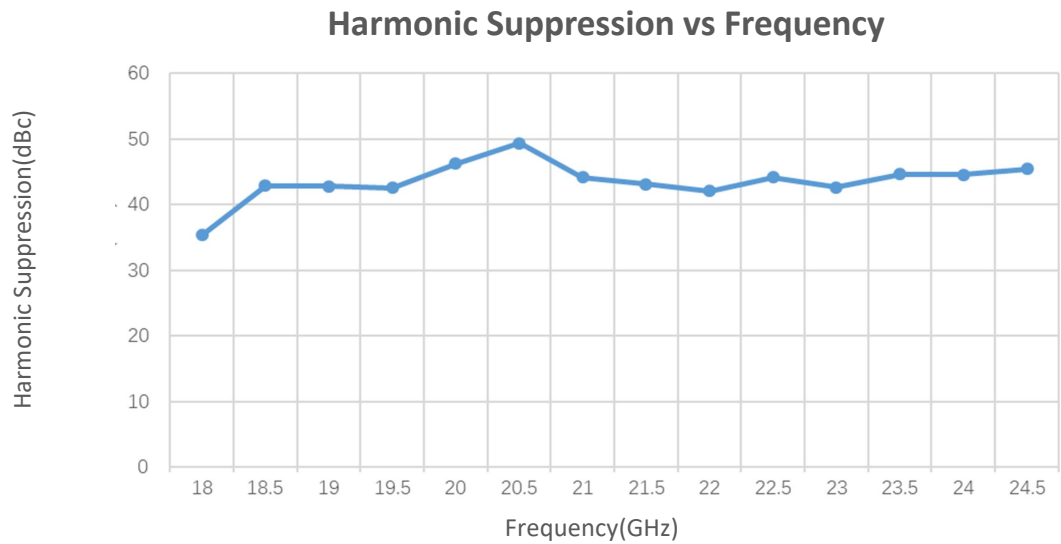
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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