

## Solid State High Power Amplifier Systems

6-18GHz /55dB Gain/55 dBm Psat/220V AC

Model:TLPA6G18G-55-55-BC

TLPA6G18G-55-55-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 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:

- Wide Band: 6-18GHz
- Gain: 55dB Min
- Psat Output Power:55dBm Min
- Protection:Over TEM,over voltage, over current ,over 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          | 6-18 |         |      | GHz      |
| 功率增益 Power Gain         | GP          | 55   |         |      | dB       |
| 增益平坦度 Gain flatness     | $\Delta$ GL |      | $\pm 5$ |      | dB       |
| 饱和输出功率 Output Psat      | Psat        | 55   |         |      | dBm      |
| 杂散 Spurious@Pout=55dBm  | Spur        |      |         | -60  | dBc      |
| 谐波 Harmonics@Pout=55dBm | HAM         |      |         | -15  | dBc      |
| 输入驻波 Input VSWR         | VSWRin      |      |         | 2    | :1       |
| 交流电压 AC Voltage         | Vac         |      | 220     |      | V AC     |
| 功耗 Power Consumption    | Pdiss       |      |         | 3500 | W        |
| 阻抗 Impedance            | I/O-IMP     | 50   |         |      | Ohms     |

### 机械特性 Mechanical Specifications:

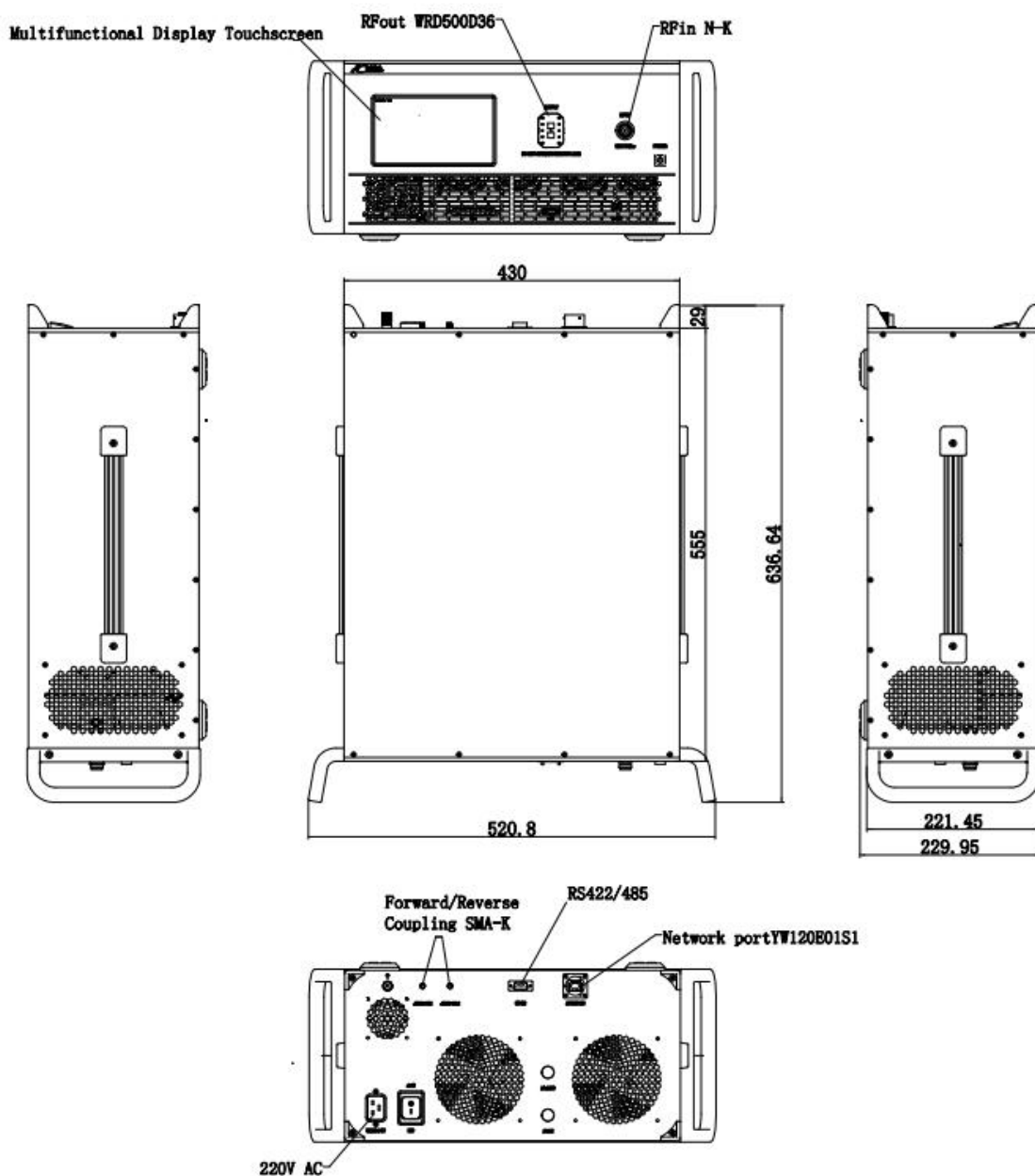
| 参数 Parameter                         | 指标 Value                  | 单位 Units |
|--------------------------------------|---------------------------|----------|
| 输入/输出接口 Input /Output Connector      | N Female/WRD500           |          |
| 正向/反向耦合 Forward/Reverse Coupling     | SMA Female/ SMA Female    |          |
| 通信接口 Communication Connector         | DB9/RJ45                  |          |
| 液晶显示屏 Front Panel LCD Screen Display | 7 inch LCD Screen Display |          |
| 尺寸 Size                              | 19 Inch 5U*550            | mm       |
| 重量 Weight                            | $\leq 35$                 | 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, Gain control                        |
| 内置保护功能 Protection functions | 1, Over TEM<br>2, Over voltage<br>3, Over current<br>4, Over VSWR |
| 监控和控制 Remote control        | RS422/Ethernet                                                    |
| 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                                                 |     | +40 | °C       |
| 存储温度 Non-operating Temperature*    | -30                                                 |     | +50 | °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 |     |     |          |

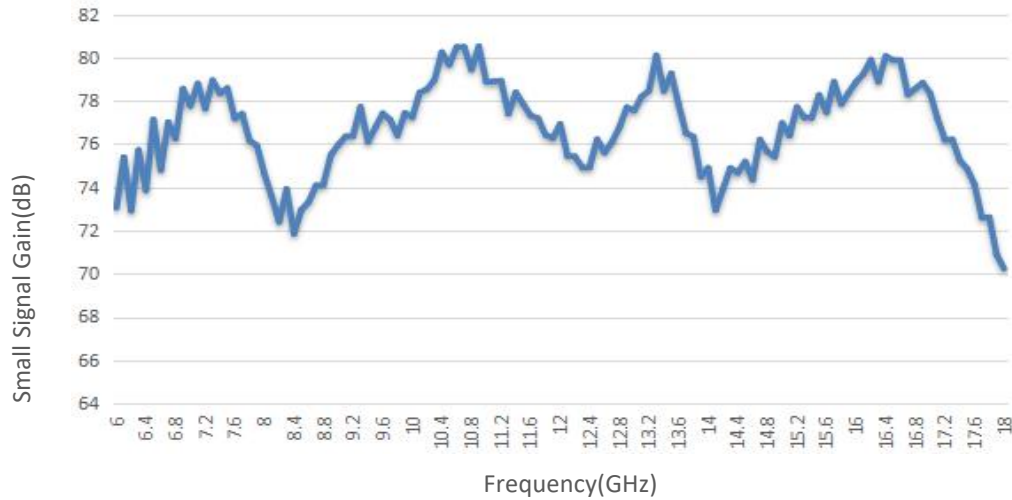
\*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

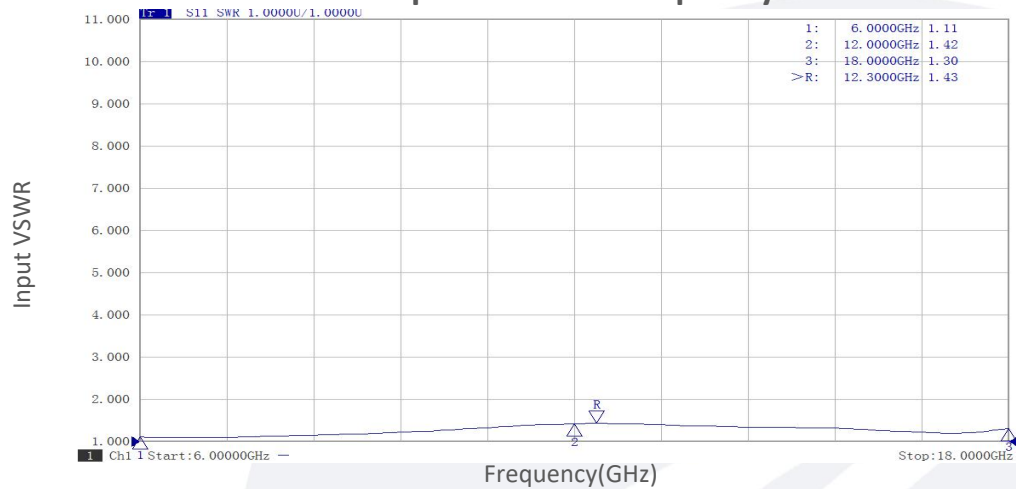
| 标准型号 Base Number   | 描述 Description                                                                                           | 版本号 Revision |
|--------------------|----------------------------------------------------------------------------------------------------------|--------------|
| TLPA6G18G-55-55-BC | Solid State High Power Amplifier Systems 6-18Hz, Gain: 55dB, Psat: 55 dBm, 220V AC, Built in Fan Cooling | Rev. 1.1     |

## 典型曲线 Typical Performance Data:

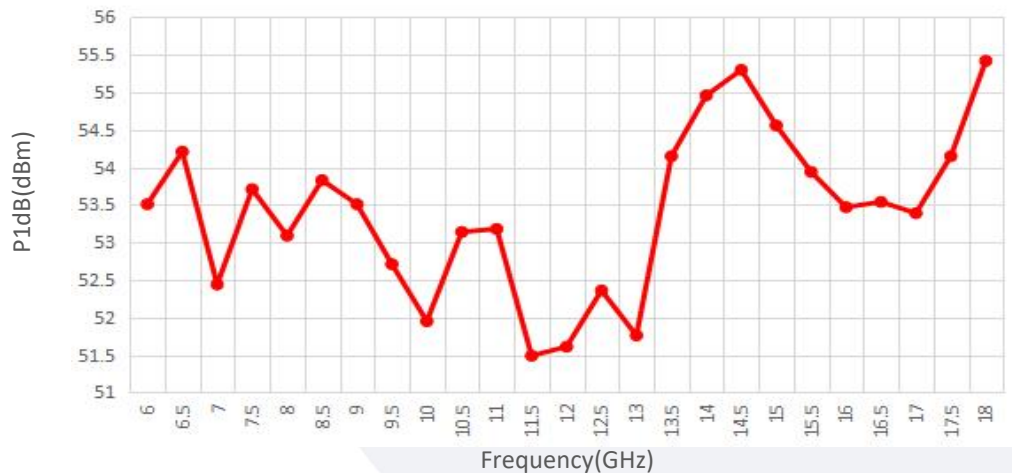
### Small Signal Gain vs Frequency



### Input VSWR vs Frequency



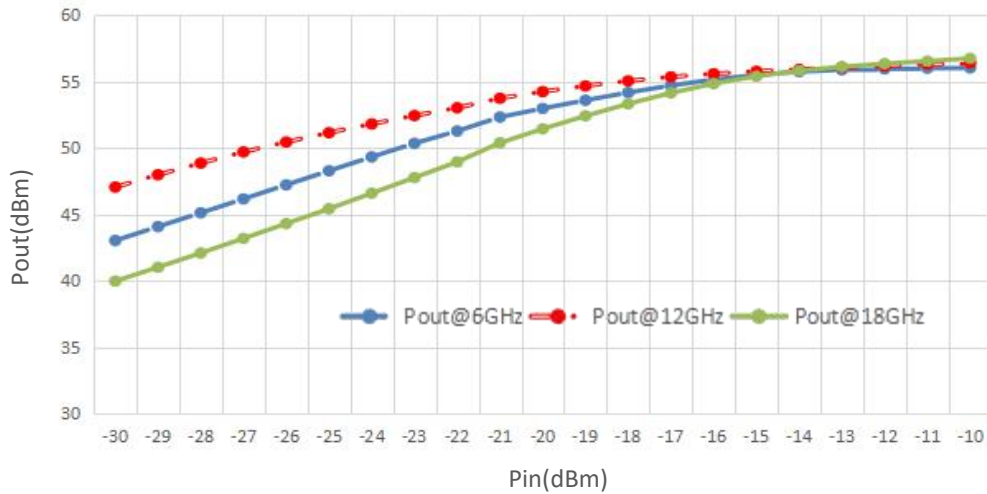
### P1dB vs Frequency



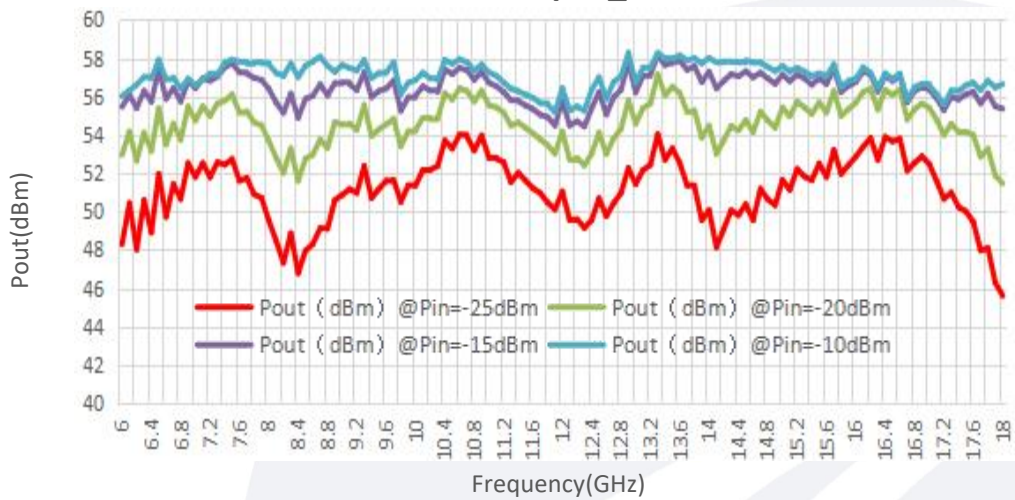
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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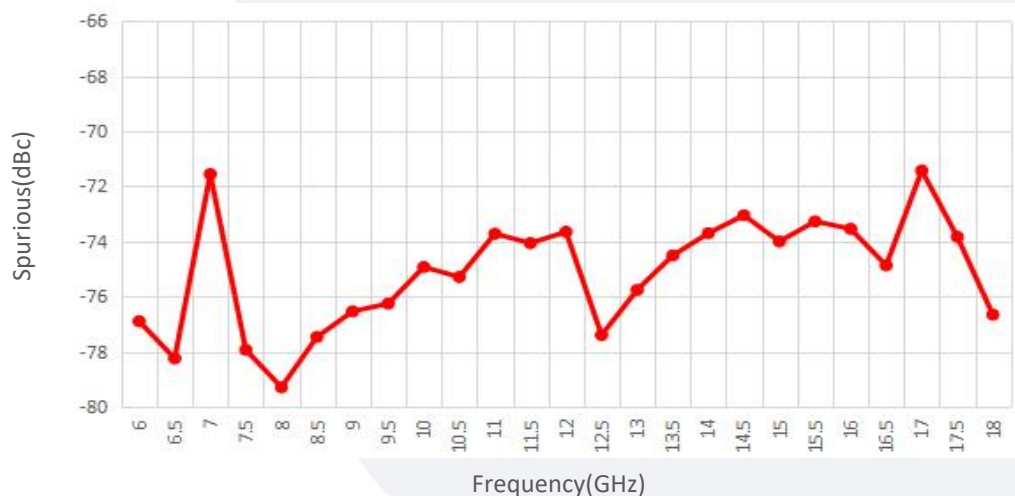
**Pout@Pin**



**Pout@Equal\_Pin**

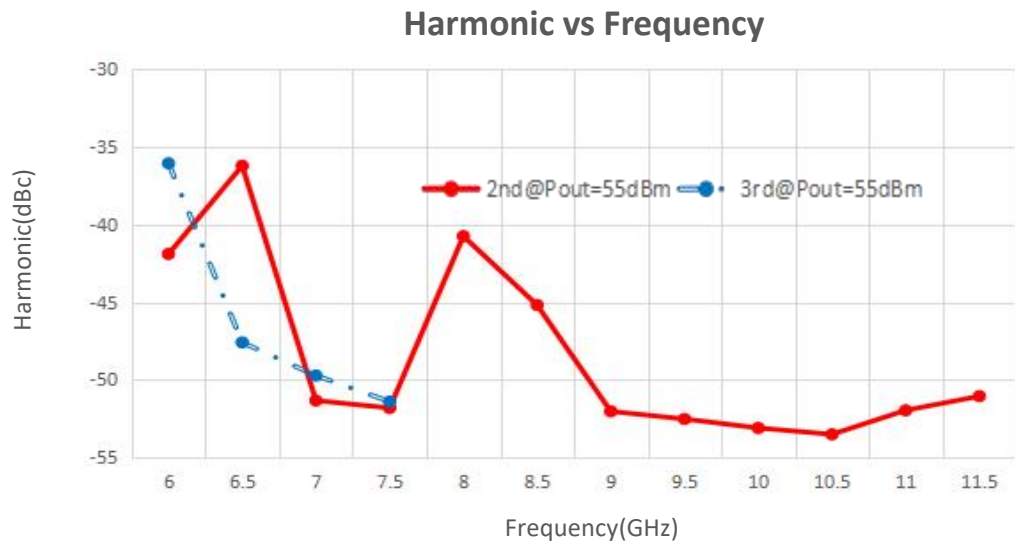


**Spurious vs Frequency**



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