

Solid State High Power Amplifier Systems

9-9.5GHz/60dB Gain/60dBm Psat/380V AC

Model: TLPA9G9.5G-60-60-BC

TLPA9G9.5G-60-60-BC is a solid state high power amplifier systems provides high output power and high gain across the 9 to 9.5 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:

- Frequency range: 9-9.5 GHz
- Gain: 60dB Min
- Psat Output Power: 60dBm Min
- Protection: Over TEM, over/under voltage, load 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 | 9-9.5 | | | GHz |
| 功率增益 Power Gain | GP | 60 | | | dB |
| 增益平坦度 Gain flatness | Δ GL | | ± 1.5 | | dB |
| 增益调节范围 Gain adjust Range | Δ GR | 20 | | | dB |
| 增益调节步进 Gain adjust Step | Δ GS | | 0.5 | | dB |
| 饱和输出功率 Output Psat | Psat | 60 | | | dBm |
| 线性输出功率 Output P1dB | P1dB | | 54 | | dB |
| 增益稳定度 Gain stability@24h | Gs | | | ± 0.25 | dB |
| 杂散 Spurious | Spur | | | -60 | dBc |
| 谐波 Harmonics@Pout=60dBm | HAM | | | -20 | dBc |
| 输入驻波 Input VSWR | VSWRin | | | 1.25 | :1 |
| 输出驻波 Output VSWR | VSWRout | | | 1.5 | :1 |
| 交流电压 AC Voltage | Vac | | 380 | 420 | V AC |
| 功耗 Power Consumption@Psat | Pdiss | | 10 | 11 | KW |
| 工作模式 Working Mode | MOD | CW/PULSE compatible | | | |
| 阻抗 Impedance | I/O-IMP | 50 | | | Ohms |

机械特性 Mechanical Specifications:

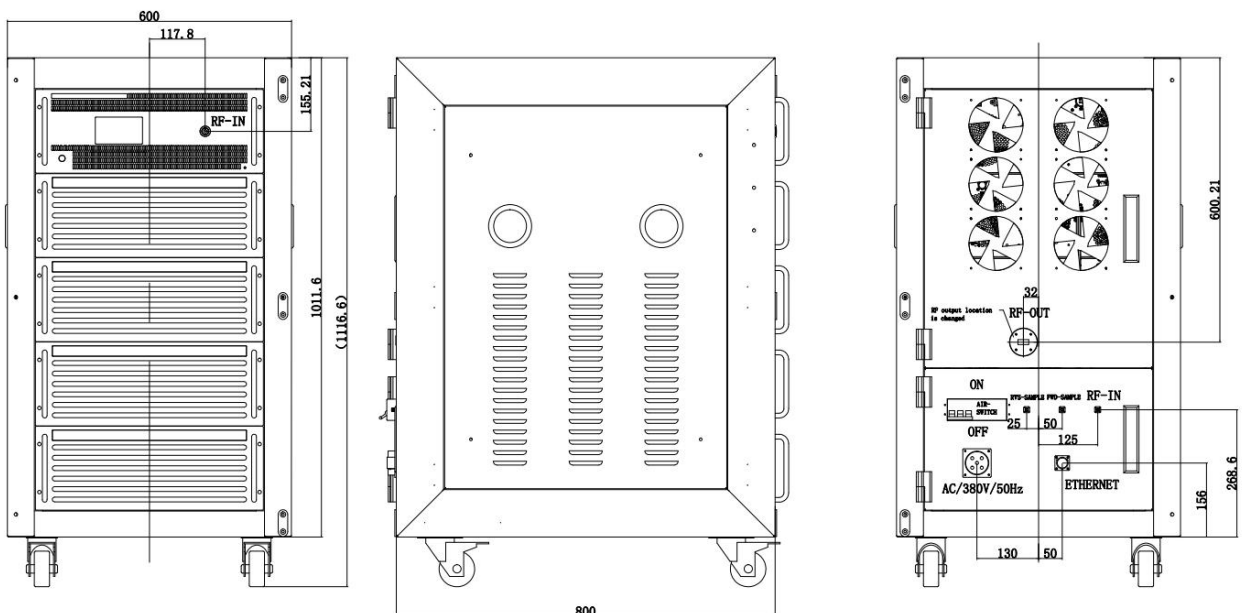
| 参数 Parameter | 指标 Value | 单位 Units |
|--------------------------------------|---------------------------|----------|
| 输入/输出接口 Input /Output Connector | N Female/WR90 | |
| 正向/反向耦合 Forward/Reverse Coupling | N Female/ N Female | |
| AC供电接口 AC Supply Connector | Y50DX-3205 | |
| 通信接口 Communication Connector | RS422/RJ45 | |
| 液晶显示屏 Front Panel LCD Screen Display | 7 inch LCD Screen Display | |
| 尺寸 Size | 20U | mm |
| 重量 Weight | ≤250 | 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 | Power setting On/Off |
| 内置保护功能 Protection functions | 1,Over TEM 2,Over voltage 3,Under voltage 4,Load 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* | -10 | | +40 | °C |
| 存储温度 Non-operating Temperature* | -20 | | +70 | °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 | | | |

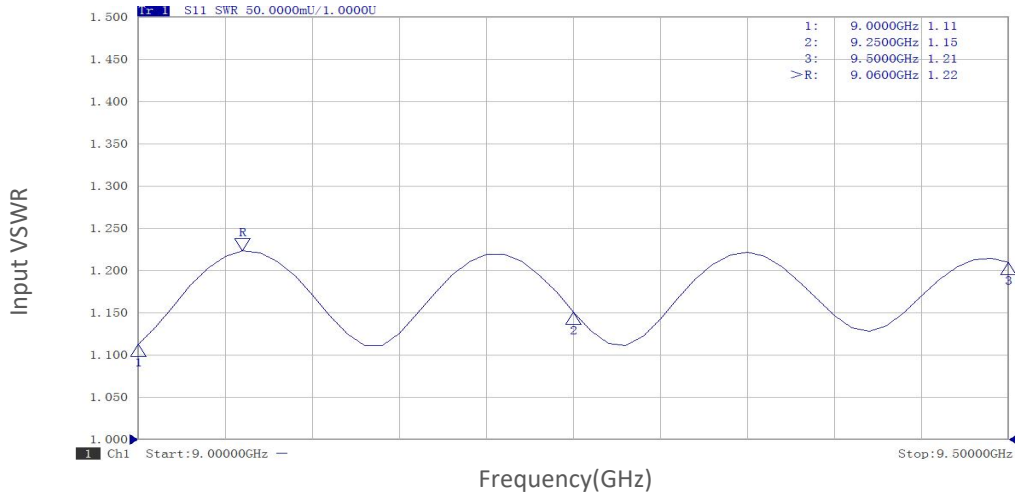
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

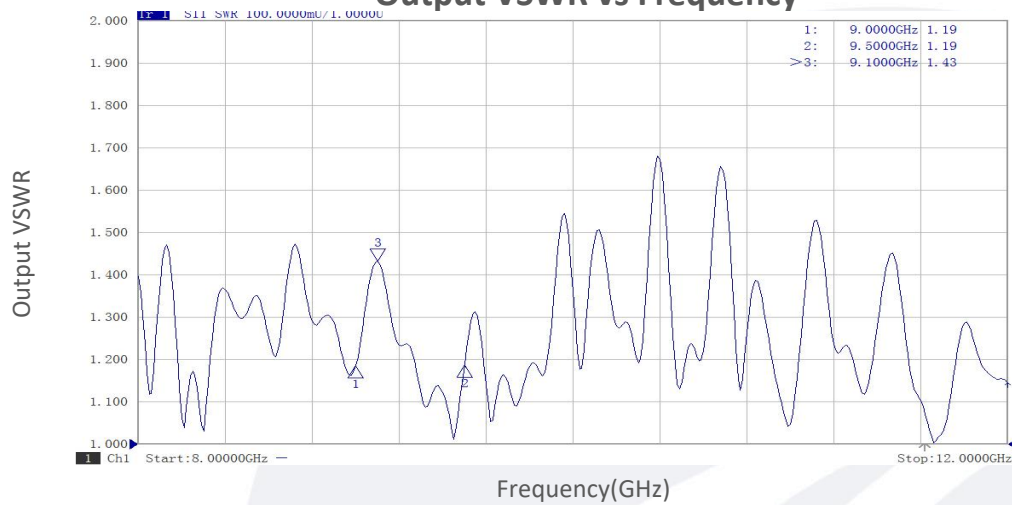
| 标准型号 Base Number | 描述 Description | 版本号 Revision |
|---------------------|--|--------------|
| TLPA9G9.5G-60-60-BC | Solid State High Power Amplifier Systems 9-9.5GHz,Gain:60dB,Psat:60 dBm,380V AC,Built in Fan Cooling | Rev.1.1 |

典型曲线 Typical Performance Data:

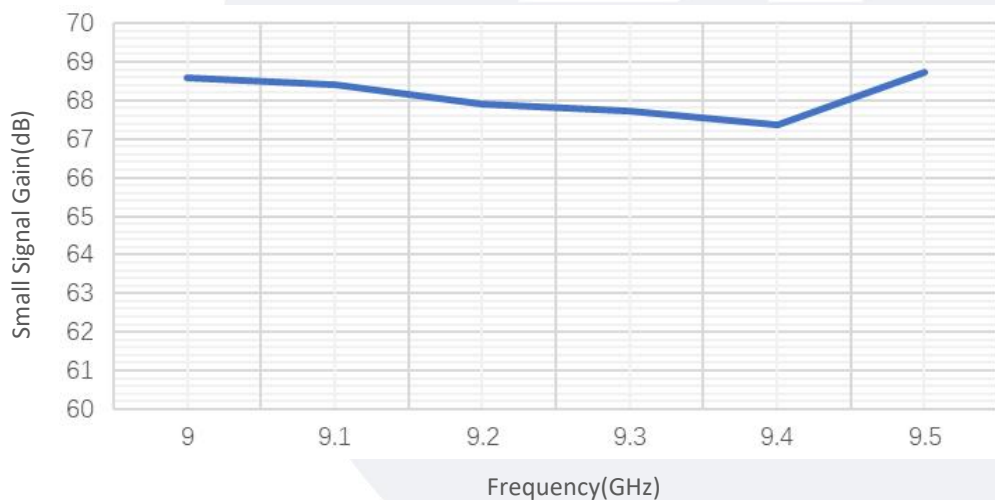
Input VSWR vs Frequency



Output VSWR vs Frequency



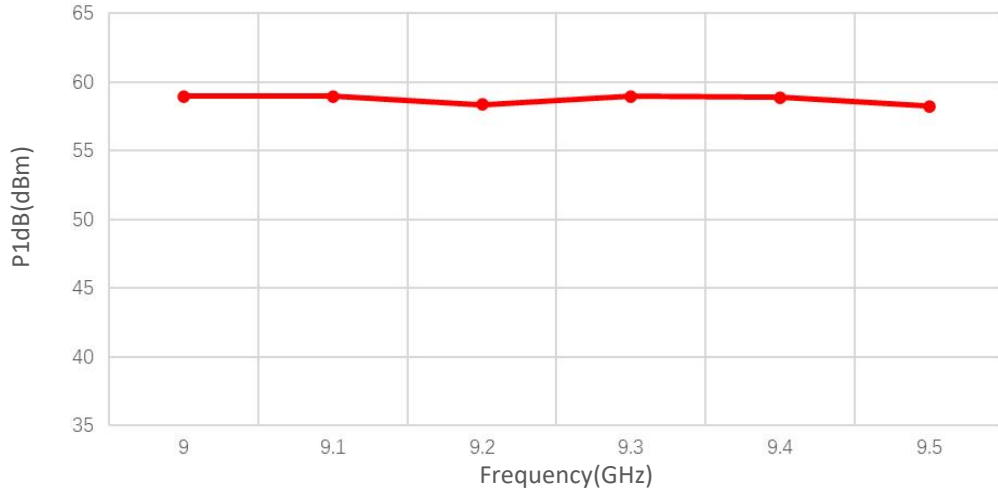
Small Signal Gain vs Frequency



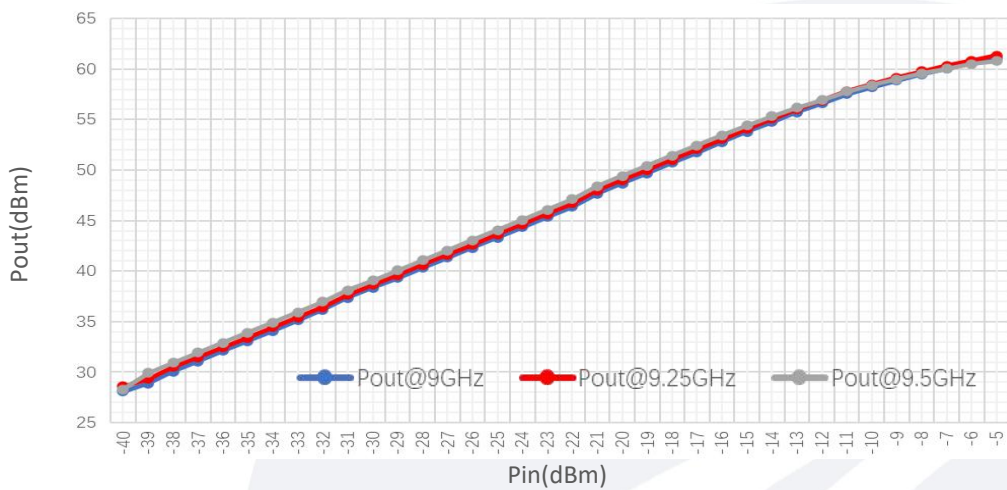
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

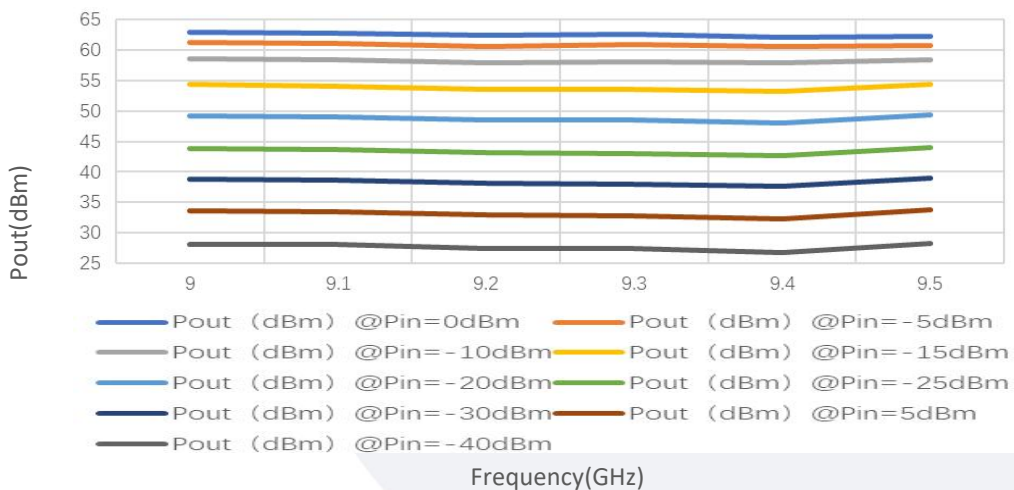
P1dB vs Frequency



Pout@Pin



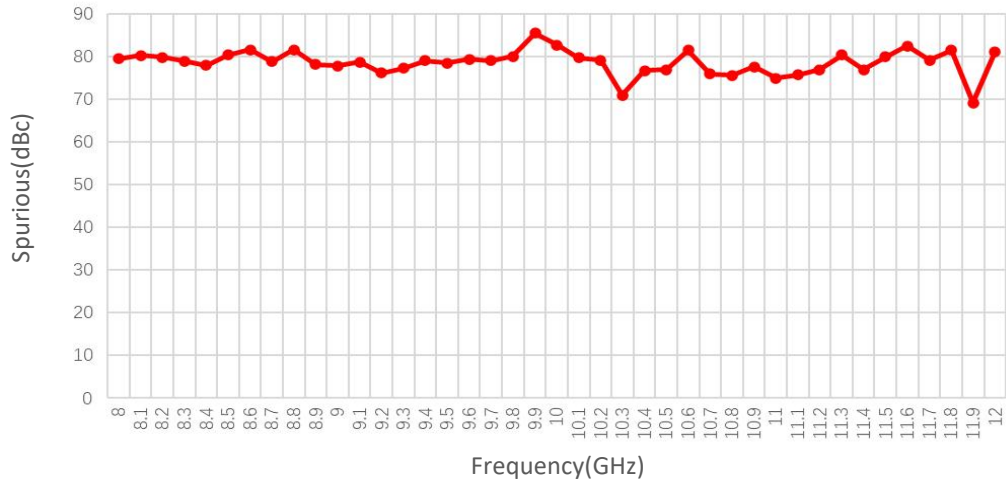
Pout@Equal_Pin



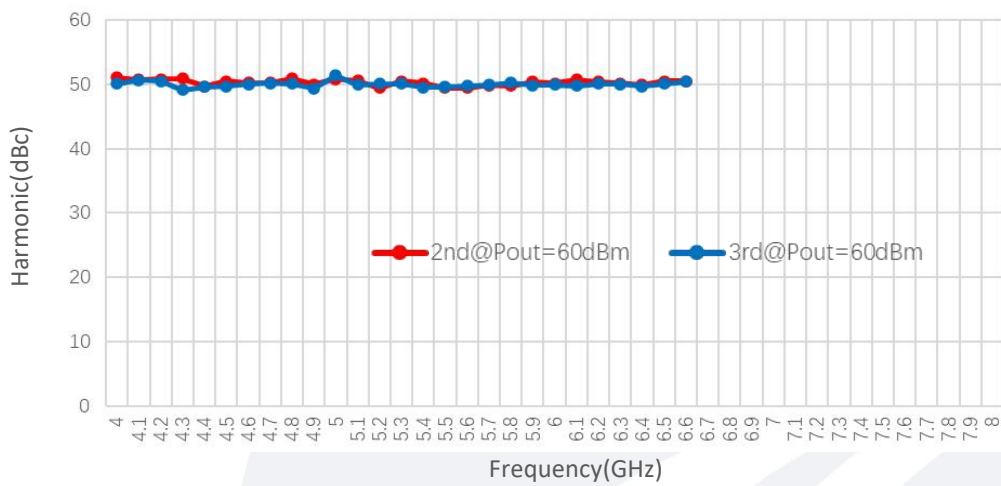
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典型曲线 Typical Performance Data:

Spurious vs Frequency



Harmonic vs Frequency



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