

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:

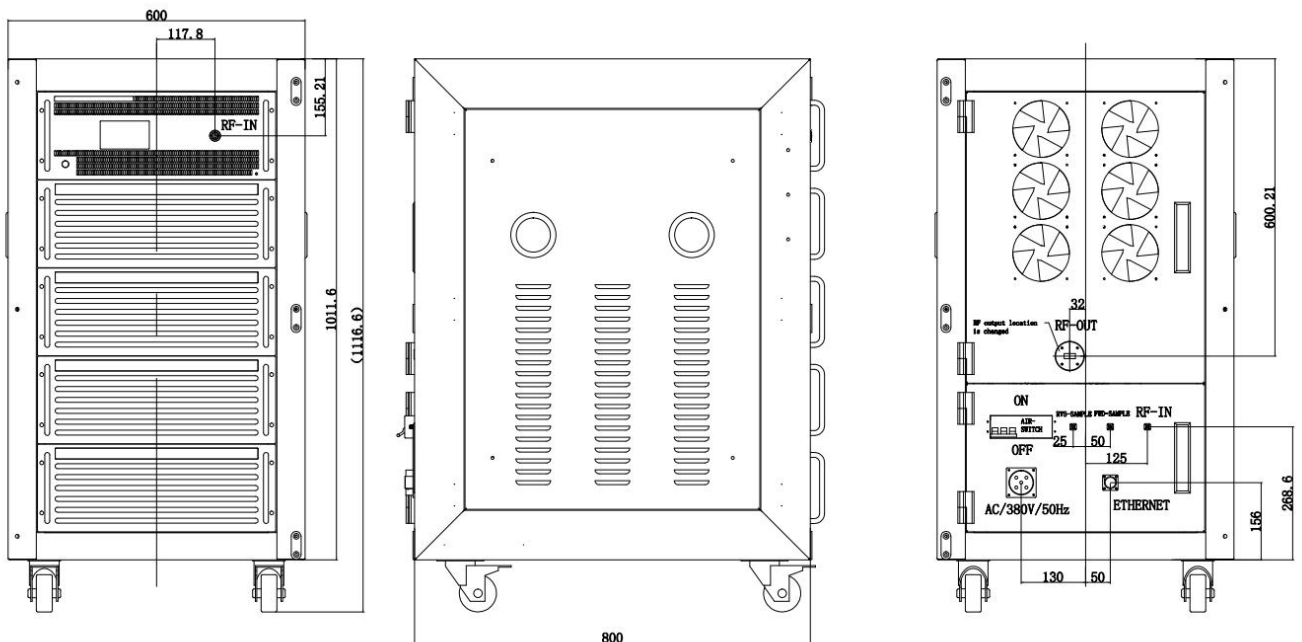
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/WR90	
正向/反向耦合 Forward/Reverse Coupling	N Female/ N Female	
AC供电接口 AC Supply Connector	Y50DX-3205	
通信接口 Communication Connector	RS422/RJ45	
液晶显示屏 Front Panel LCD Screen Display	7 inch LCD Screen Display	
尺寸 Size	20U	mm
重量 Weight	≤250	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			

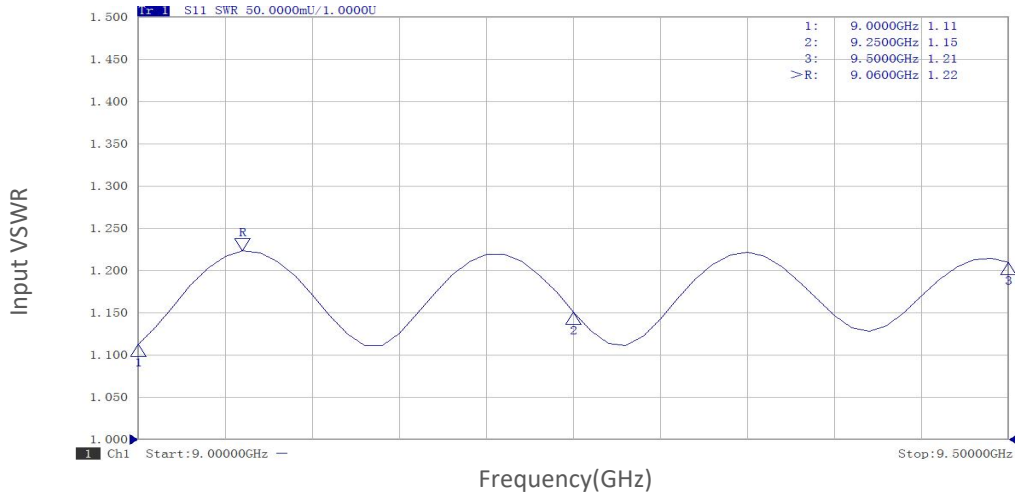
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

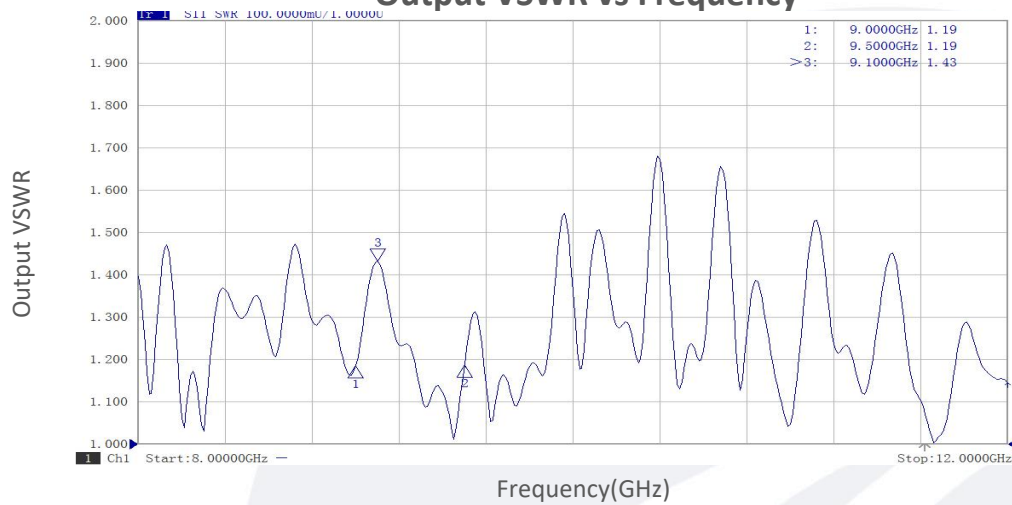
标准型号 Base Number	描述 Description	版本号 Revision
TLPA9G9.5G-60-60-BC	Solid State High Power Amplifier Systems 9-9.5GHz,Gain:60dB,Psat:60 dBm,380V AC,Built in Fan Cooling	Rev.1.1

典型曲线 Typical Performance Data:

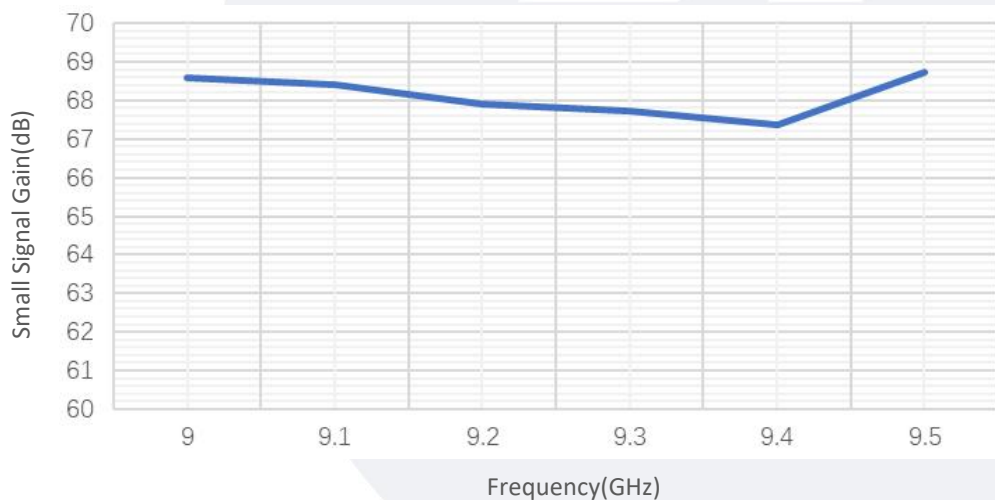
Input VSWR vs Frequency



Output VSWR vs Frequency



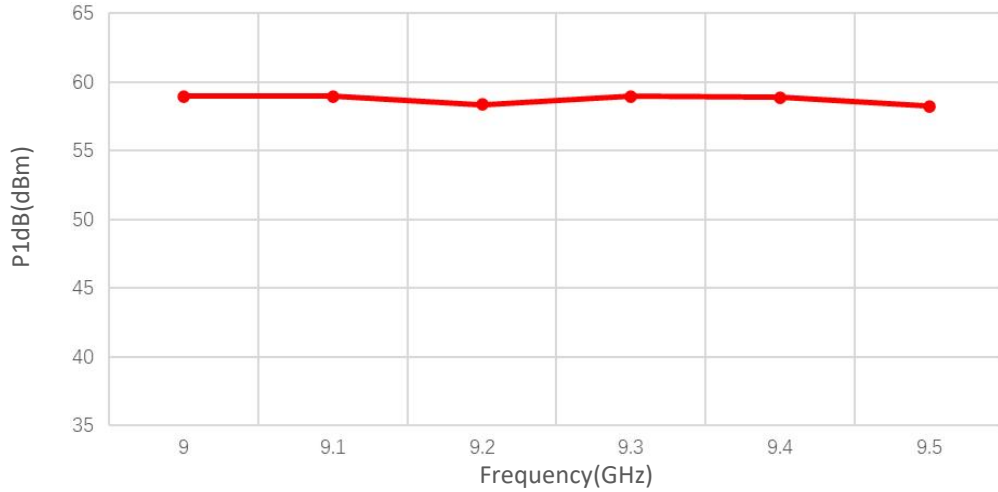
Small Signal Gain vs Frequency



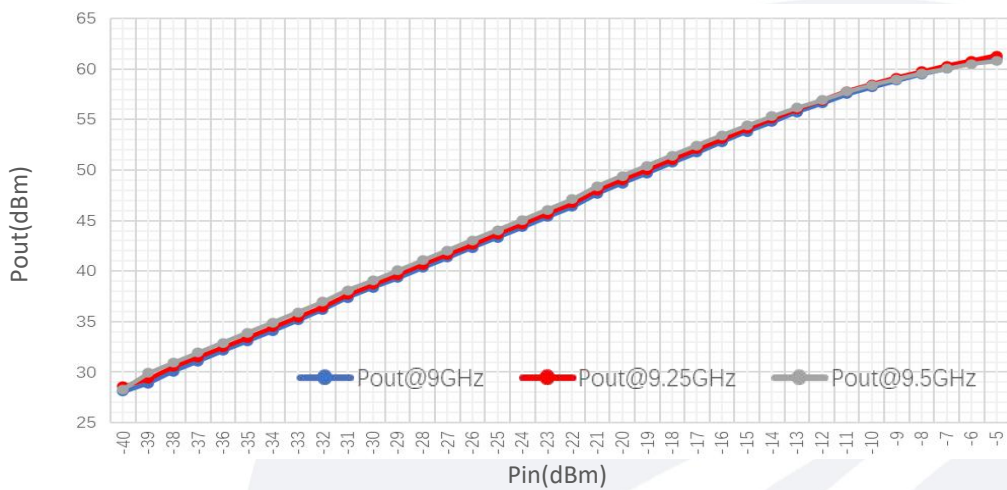
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

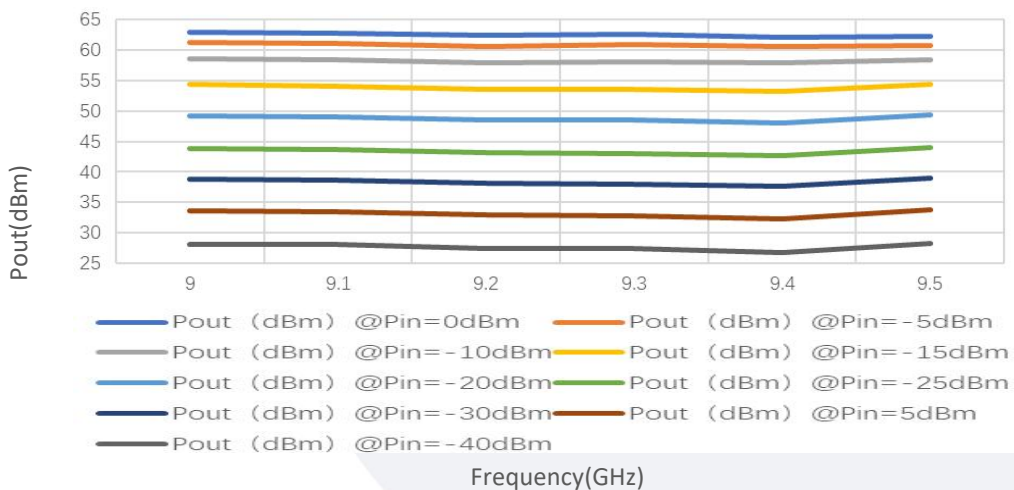
P1dB vs Frequency



Pout@Pin



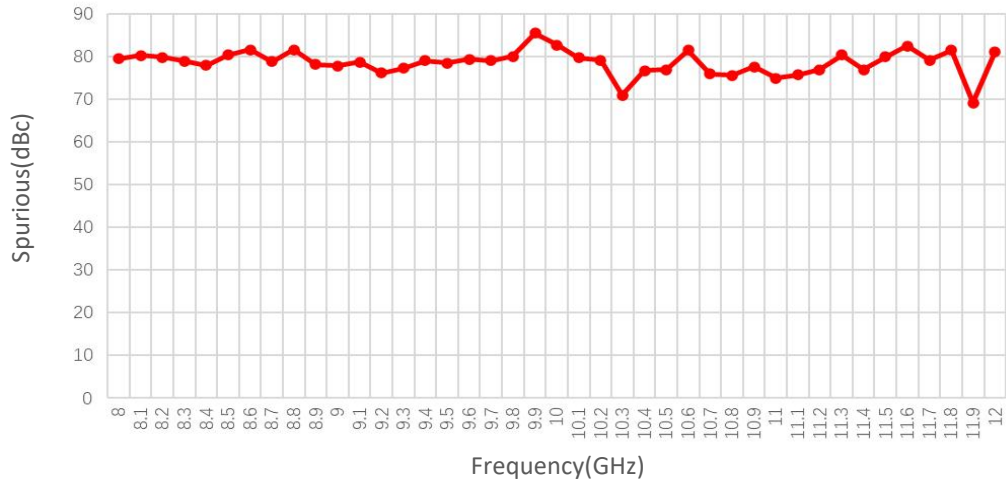
Pout@Equal_Pin



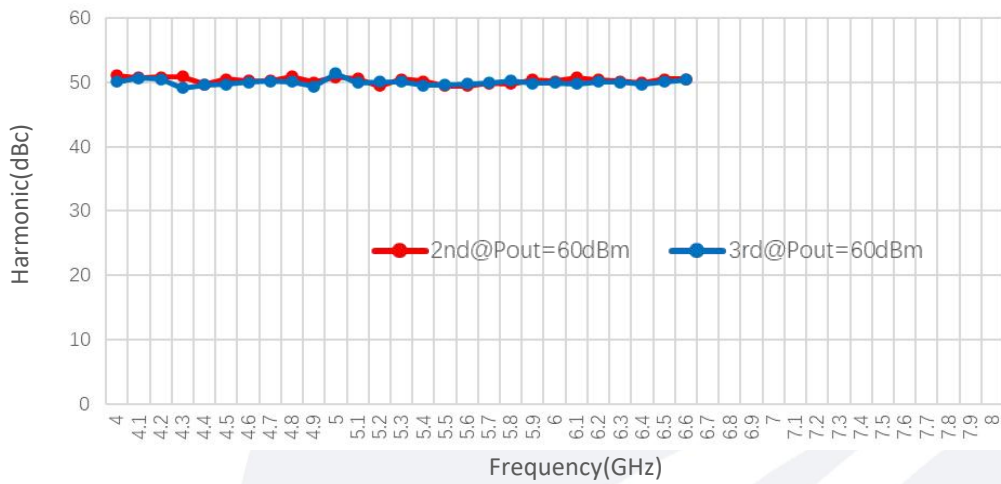
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典型曲线 Typical Performance Data:

Spurious vs Frequency



Harmonic vs Frequency



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