

Solid State High Power Amplifier Systems

1-2GHz/65dB Gain/65dBm Psat/380V AC

Model: TLPA1G2G-63-63-BC

TLPA1G2G-63-63-BC is a solid state high power amplifier systems provides high output power and high gain across the 1 to 2 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: 1-2GHz
- Gain: 65dB Min
- Psat Output Power: 65dBm 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	1		2	GHz
工作体制 Working Mode	Mode	AM/FM/PM/CW			
功率增益 Power Gain	GP	65			dB
增益平坦度 Gain flatness	Δ GL		± 3		dB
增益调节范围 Gain adjust Range	Δ GR		30		dB
增益调节步进 Gain adjust Step	Δ GS		0.5		dB
饱和输出功率 Output Psat	Psat	65			dBm
杂散 Spurious	Spur			-60	dBc
谐波 Harmonics	HAM		-15	-10	dBc
输入驻波 Input VSWR	VSWRin			2	:1
交流电压 AC Voltage	Vac	340	380	420	V AC
功耗 Power Consumption	Pdiss			18000	W
阻抗 Impedance	I/O-IMP	50			Ohms

机械特性 Mechanical Specifications:

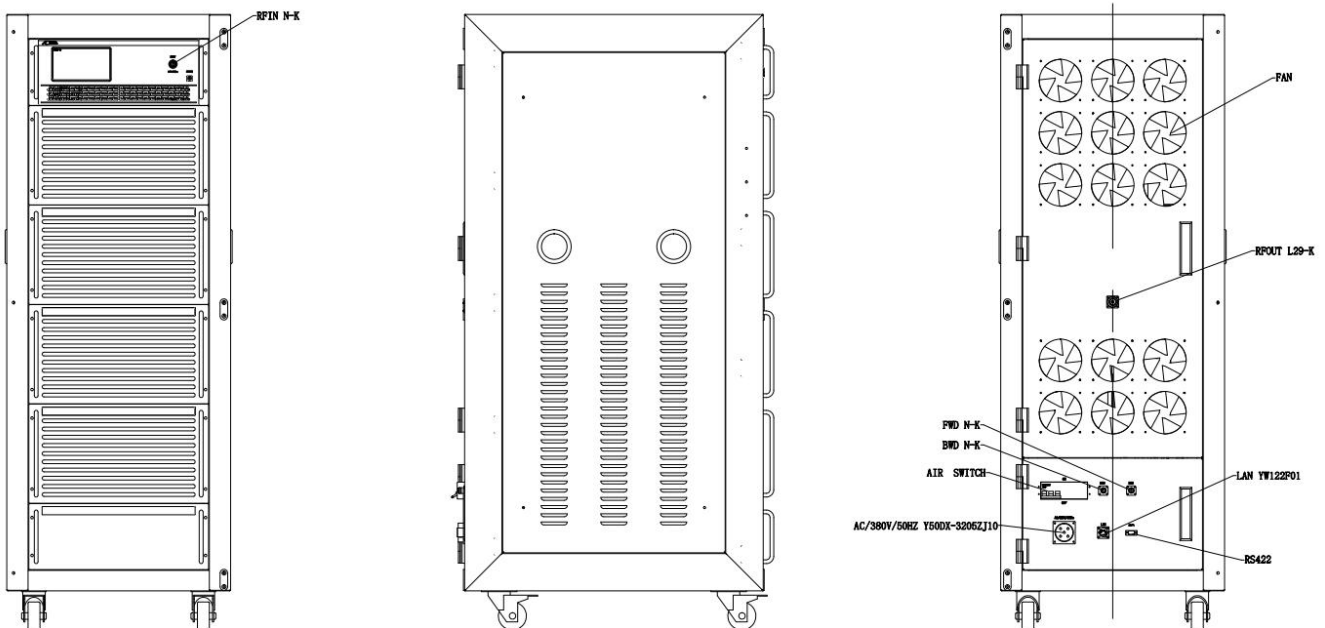
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/1-5/8 EVA	
正向/反向耦合 Forward/Reverse Coupling	N Female/ N Female	
程控接口 Remote Control Connector	RS422/LAN/GPIB/USB	
液晶显示屏 Front Panel LCD Screen Display	7 inch LCD Screen Display	
尺寸 Size	32U*800 depth	
重量 Weight	≤260	Kg

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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,Over current 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			

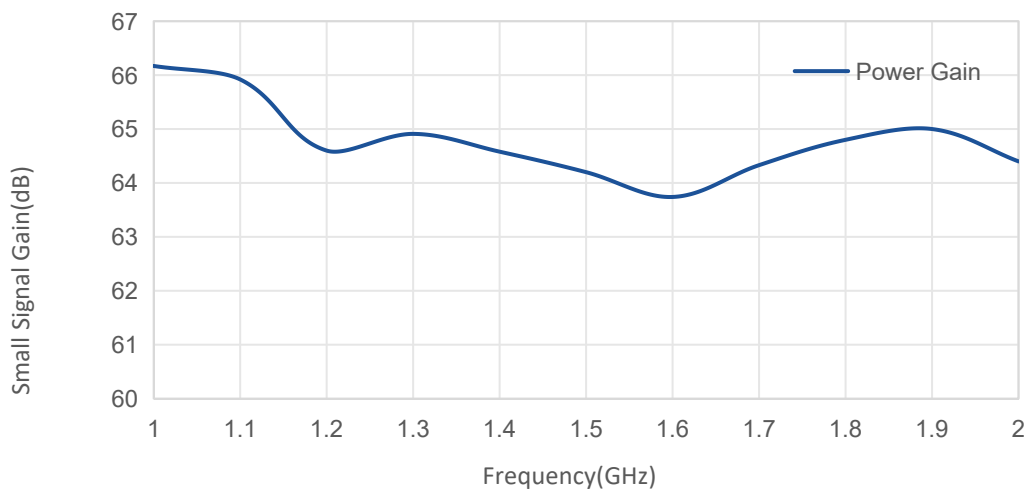
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

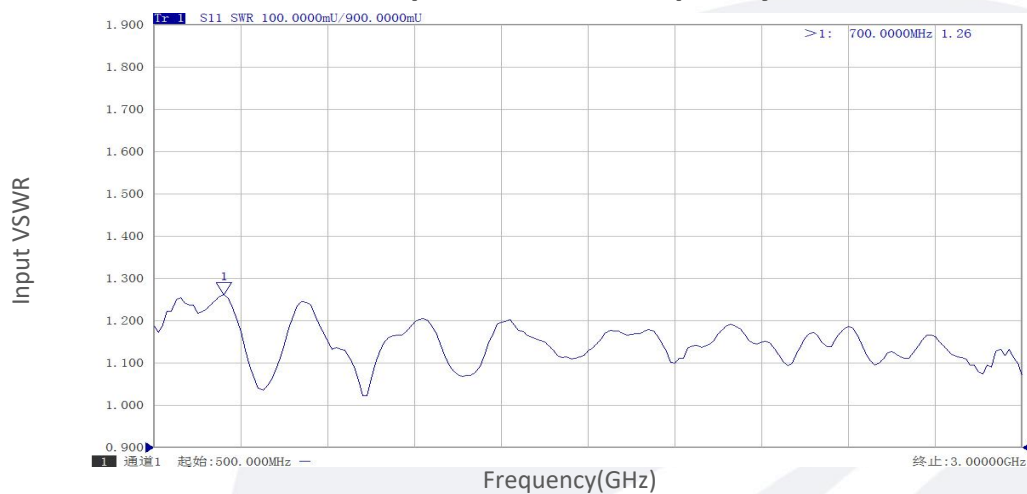
标准型号 Base Number	描述 Description	版本号 Revision
TLPA1G2G-63-63-BC	Solid State High Power Amplifier Systems 1-2GHz,Gain:65dB,Psat:65dBm,380V AC,Built in Fan Cooling	Rev.1.2

典型曲线 Typical Performance Data:

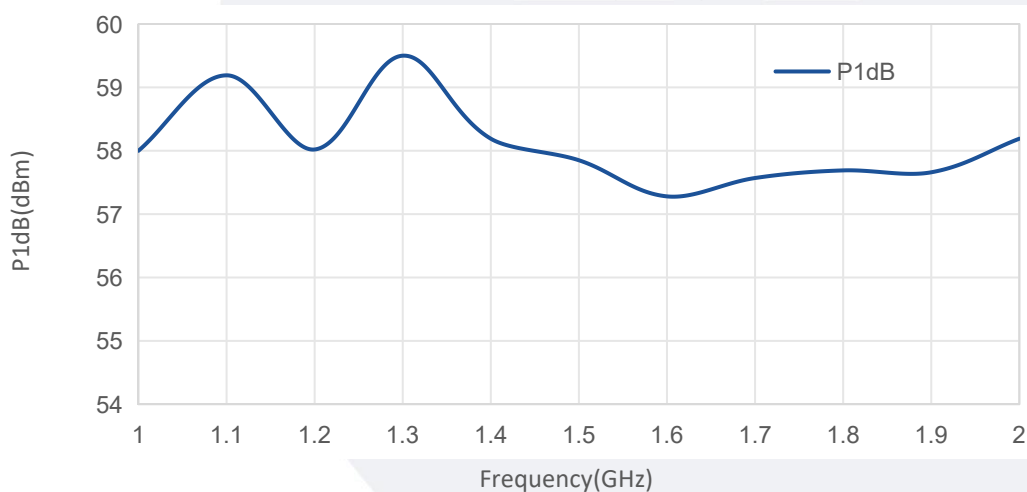
Power Gain vs Frequency



Input VSWR vs Frequency



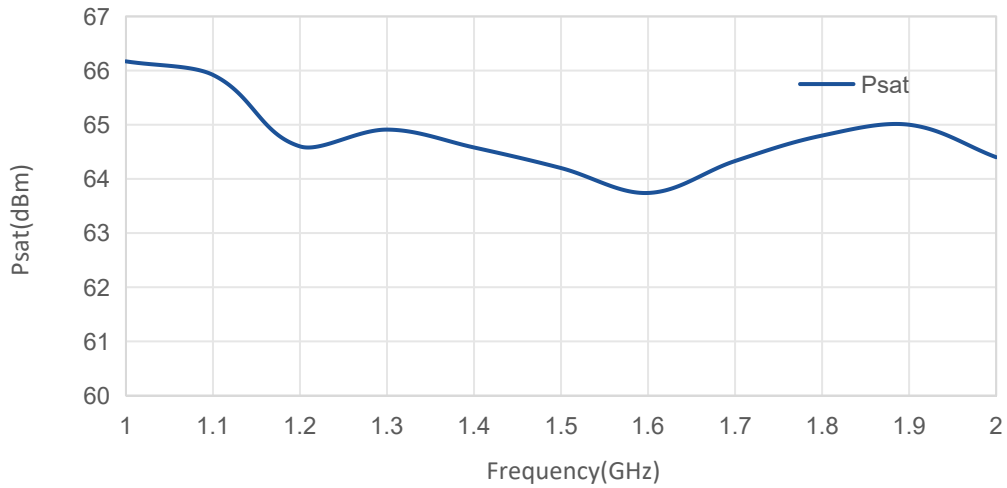
P1dB vs Frequency



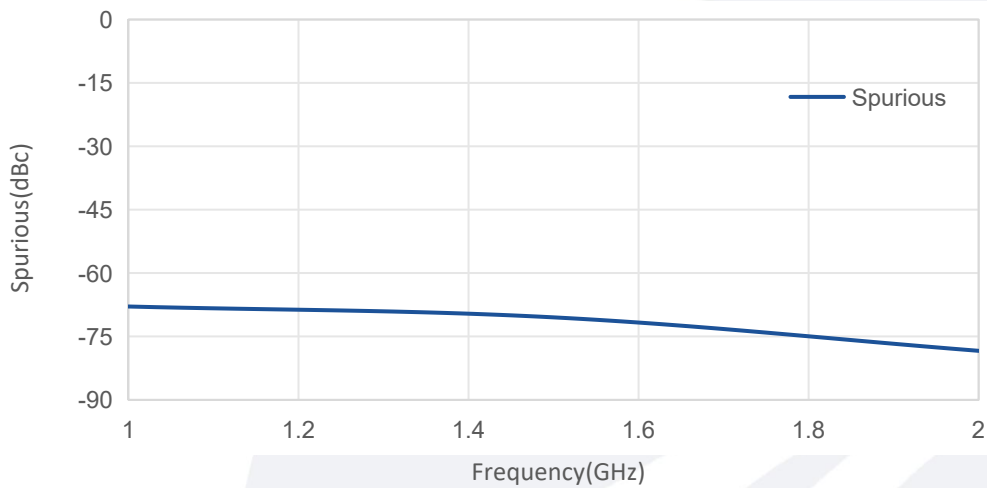
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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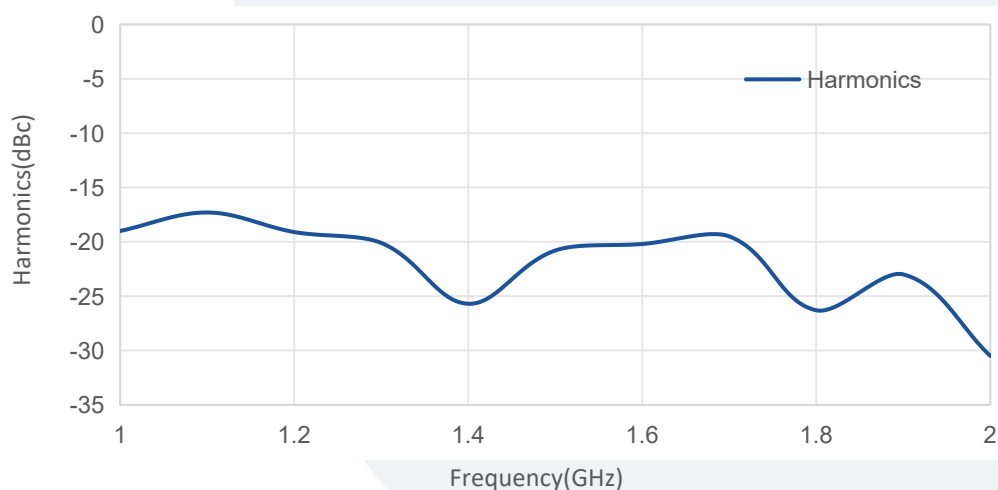
Psat vs Frequency



Spurious vs Frequency

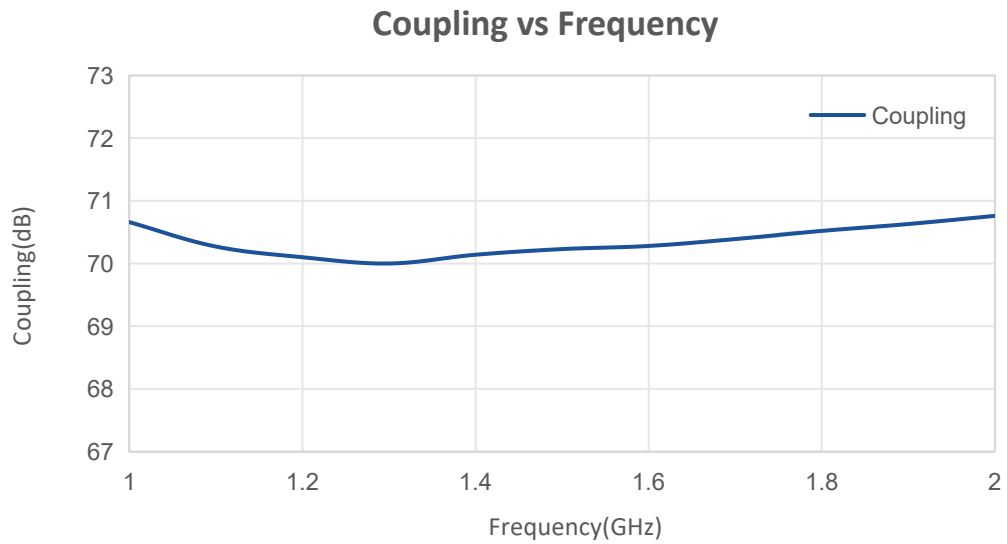


Harmonics vs Frequency



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