

Solid State High Power Amplifier Systems

1-6GHz/45dB Gain/45dBm Psat/220V AC

Model: TLPA1G6G-45-45-BC

TLPA1G6G-45-45-BC is a solid state high power amplifier systems provides high output power and high gain across the 1 to 6 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: 1-6GHz
- Gain: 45dB Min
- Psat Output Power: 45dBm Min
- 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	1-6			GHz
功率增益 Power Gain	GP	45	47		dB
增益平坦度 Gain flatness	ΔGL		±4	±5	dB
线性输出功率 Output P1dB	P1dB		42		dBm
饱和输出功率 Output Psat	Psat	45	46		dBm
杂散 Spurious@Pout=45dBm	Spur			-60	dBc
谐波 Harmonics@Pout=45dBm	HAM			-10	dBc
输入驻波 Input VSWR	VSWRin		1.5	2.0	:1
交流电压 AC Voltage	Vac	110	220		V AC
交流电流 AC Supply Current	Iac		2		A
阻抗 Impedance	I/O-IMP	50			Ohms

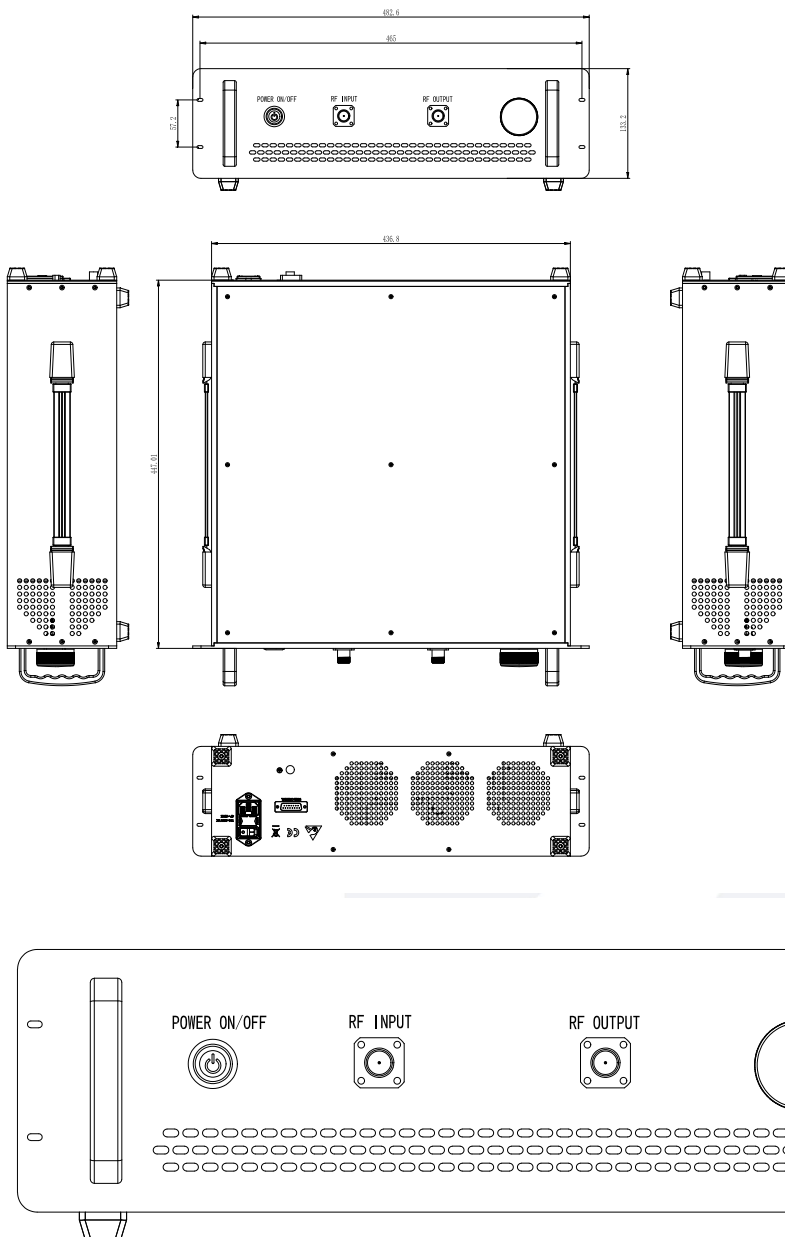
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/N Female	
尺寸 Size	3U*500 depth	mm
重量 Weight	≤27	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



温度环境 Environmental Conditions:

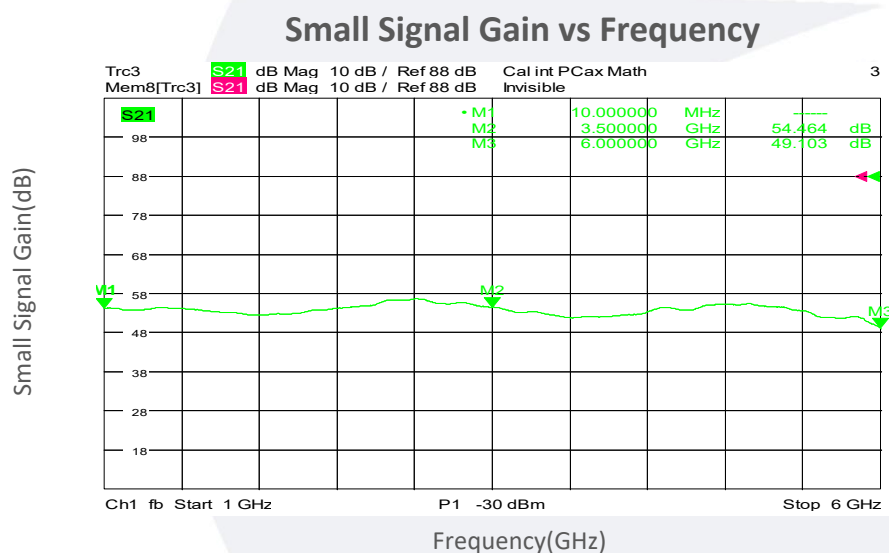
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+50	°C
存储温度 Non-operating Temperature*	-30		+60	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc 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
TLPA1G6G-45-45-BC	Solid State High Power Amplifier Systems 1-6GHz, Gain:45dB, Psat:45dBm, 220V AC, Built in Fan Cooling	Rev.1.1

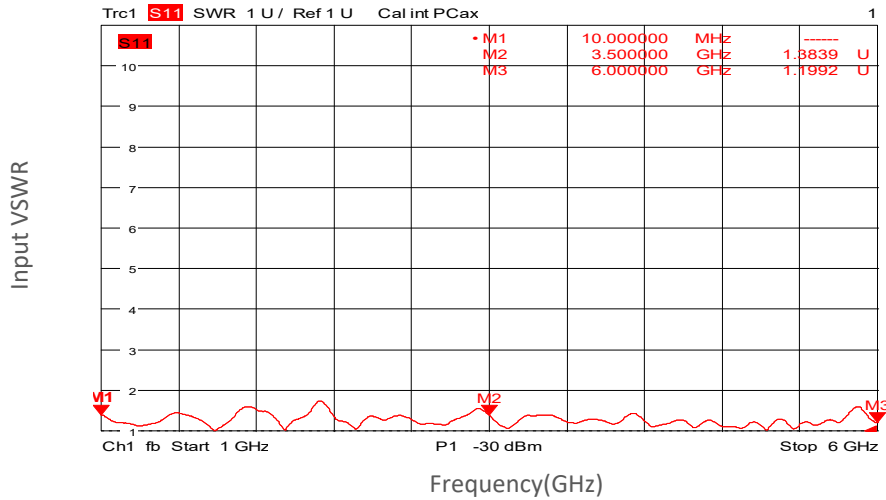
典型曲线 Typical Performance Data:



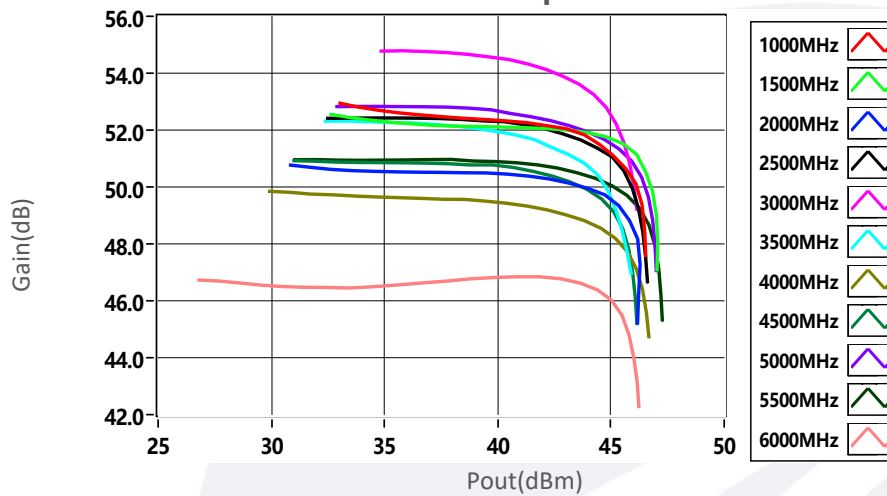
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

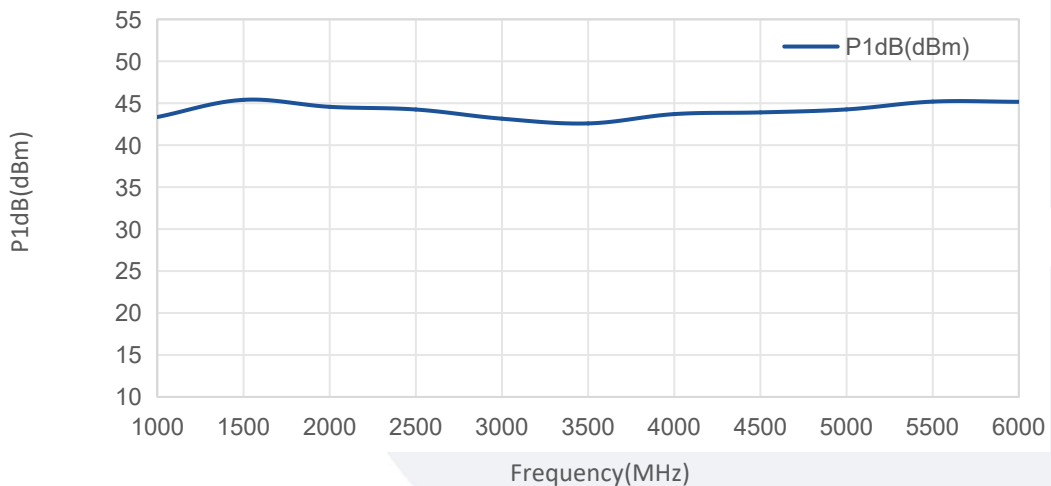
Input VSWR vs Frequency



Gain vs Output Power



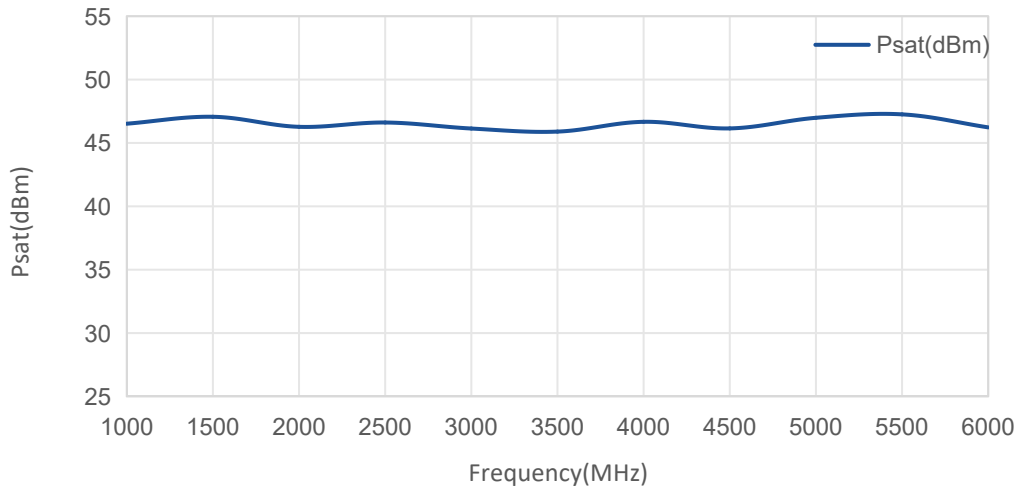
P1dB vs Frequency



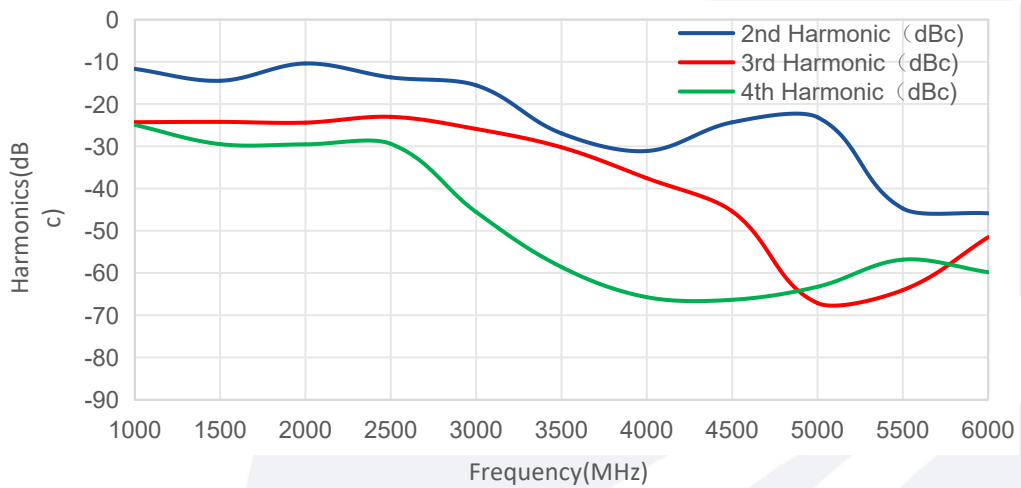
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典型曲线 Typical Performance Data:

Psat vs Frequency



Harmonics vs Frequency



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