

Solid State High Power Amplifier Systems

6-18GHz/43dB Gain/43dBm Psat/220V AC

Model: TLPA6G18G-43-43-BC

TLPA6G18G-43-43-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:

- Frequency range: 6-18GHz
- Gain: 43dB Min
- Psat Output Power: 43dBm Min
- Protection: Over TEM, over voltage, over current, infinite 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	43			dB
增益平坦度 Gain flatness	ΔGL		±4		dB
ALC 精度 ALC accuracy	ALC			±0.5	dB
饱和输出功率 Output Psat	Psat	43			dBm
杂散 Spurious@Pout=43dBm	Spur			-60	dBc
谐波 Harmonics@Pout=43dBm	HAM			-15	dBc
输入驻波 Input VSWR	VSWRin			2.0	:1
交流电压 AC Voltage	Vac		220		V AC
功耗 Power Consumption	Pdiss			400	W
阻抗 Impedance	I/O-IMP	50			Ohms

机械特性 Mechanical Specifications:

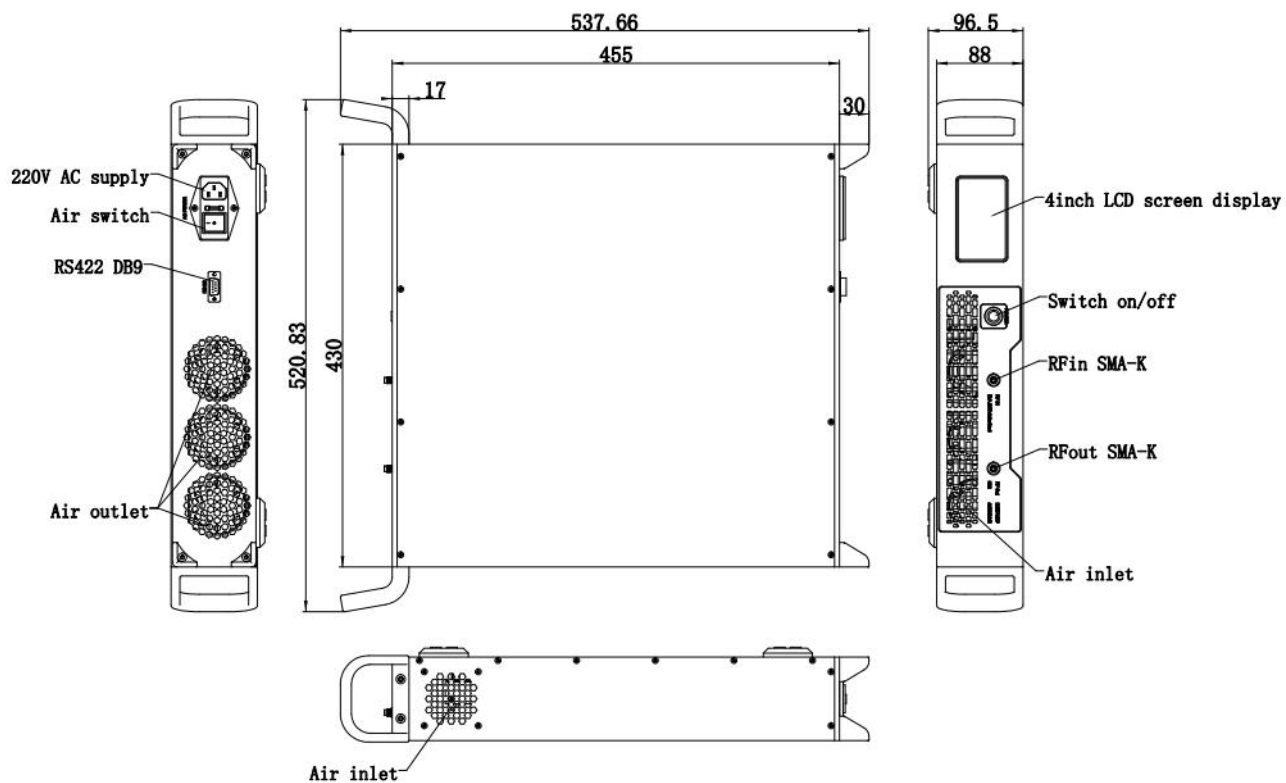
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/ SMA Female	
程控接口 Network port Communication	RS422/RJ-45	
尺寸 Size	19 Inch 2U	
重量 Weight	≤20	Kg

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 2,ALC automatic level control
显示功能 Display functions	1,Output Power 2,Reflect Power 3,Fault informations
内置保护功能 Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Infinite 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		+50	℃
存储温度 Non-operating Temperature*	-30		+60	℃
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			

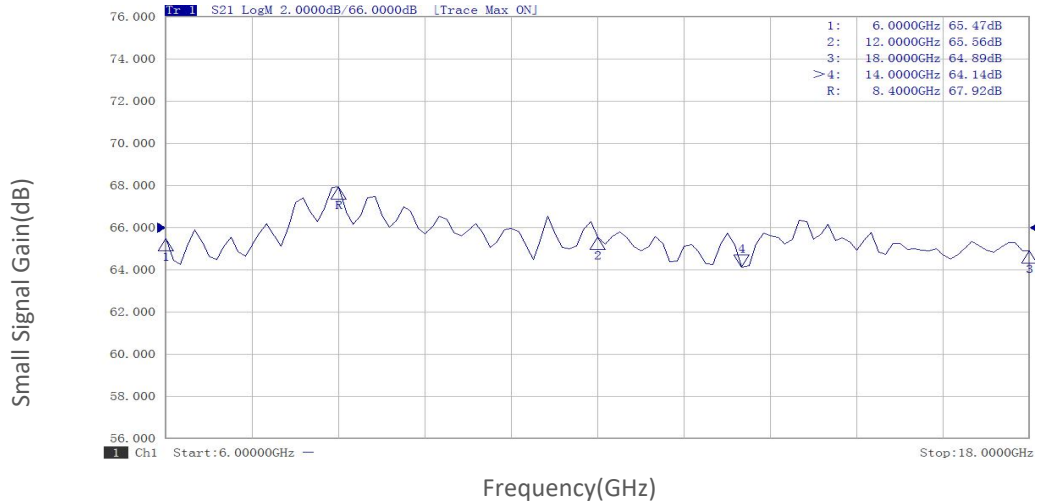
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

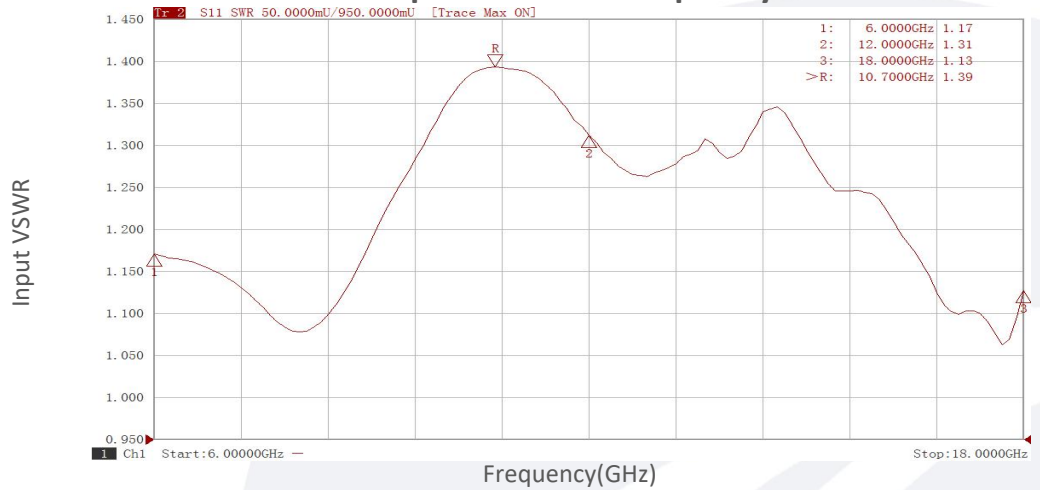
标准型号 Base Number	描述 Description	版本号 Revision
TLPA6G18G-43-43-BC	Solid State High Power Amplifier Systems 6-18GHz,Gain:43dB,Psat:43dBm,220V AC,Built in Fan Cooling	Rev.1.1

典型曲线 Typical Performance Data:

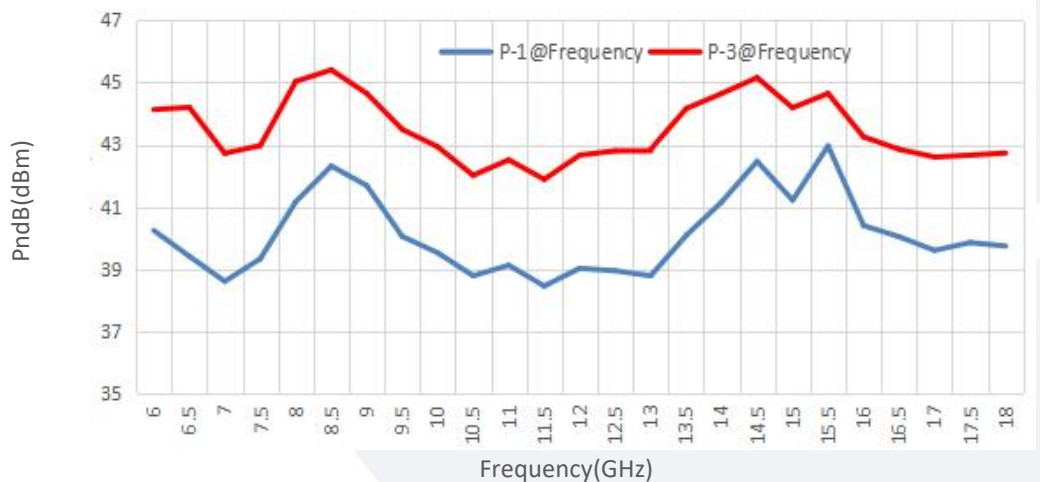
Small Signal Gain vs Frequency



Input VSWR vs Frequency



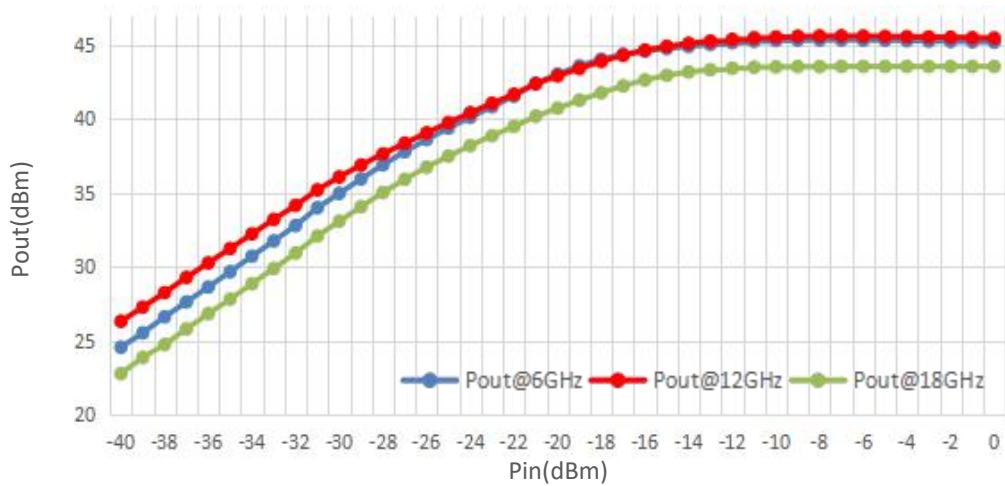
PndB vs Frequency



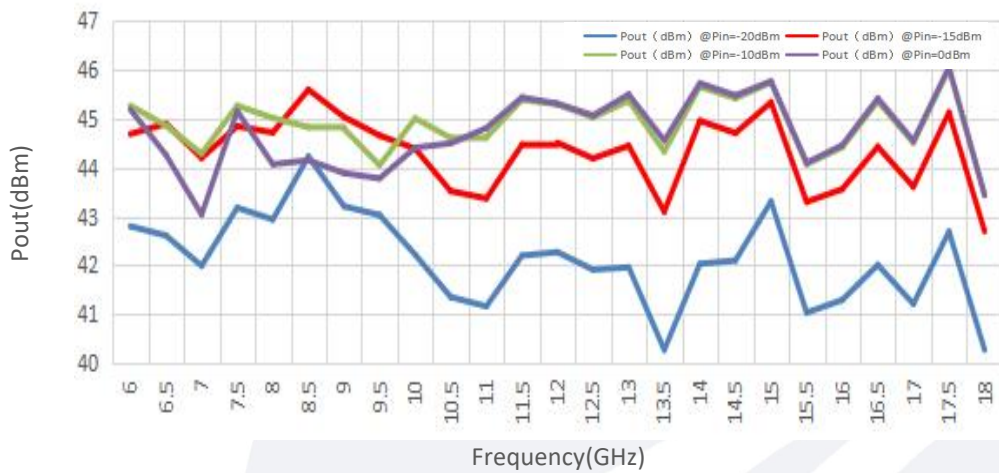
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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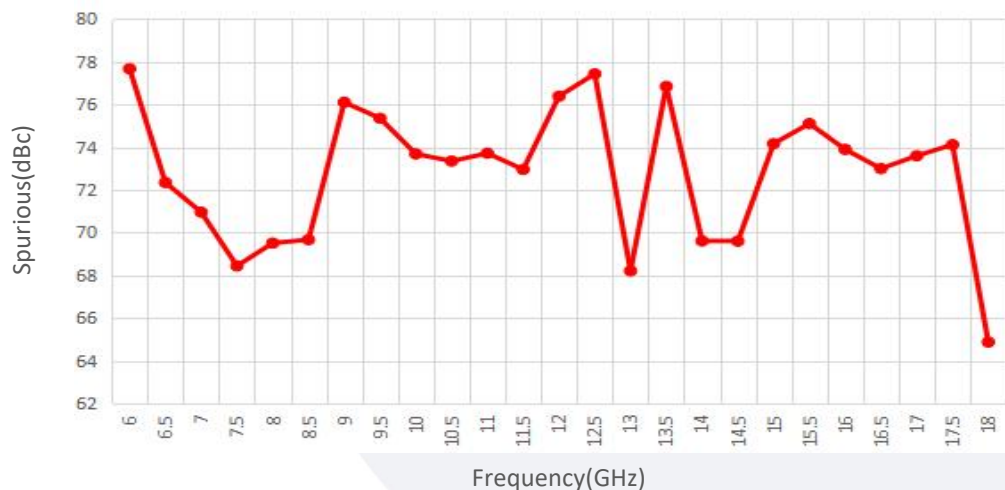
Pout@Pin



Pout@Equal_Pin



Spurious vs Frequency



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