

Solid State High Power Amplifier Systems

18-40GHz/43dB Gain/43dBm Psat/220V AC

Model: TLPA18G40G-43-43-BC

TLPA18G40G-43-43-BC is a solid state high power amplifier systems provides high output power and high gain across the 18 to 40 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: 18-40 GHz
- Gain: 43dB Min
- Psat Output Power: 43dBm 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		18-40		GHz
功率增益 Power Gain	GP	43			dB
增益平坦度 Gain flatness	ΔGL		±5		dB
饱和输出功率 Output Psat	Psat	43	44		dBm
ALC 精度 ALC accuracy	ALC			±0.5	dB
杂散 Spurious@Pout=43dBm	Spur			-50	dBc
谐波 Harmonics@Pout=43dBm	HAM			-15	dBc
上升/下降沿 Rise/Fall Time	Tr		50		ns
输入驻波 Input VSWR	VSWRin			2	:1
交流电压 AC Voltage	Vac		220		V AC
功耗 Power Consumption	Pdiss			600	W
工作模式 Working Mode	MOD	CW/PULSE compatible			
阻抗 Impedance	I/O-IMP	50			Ohms

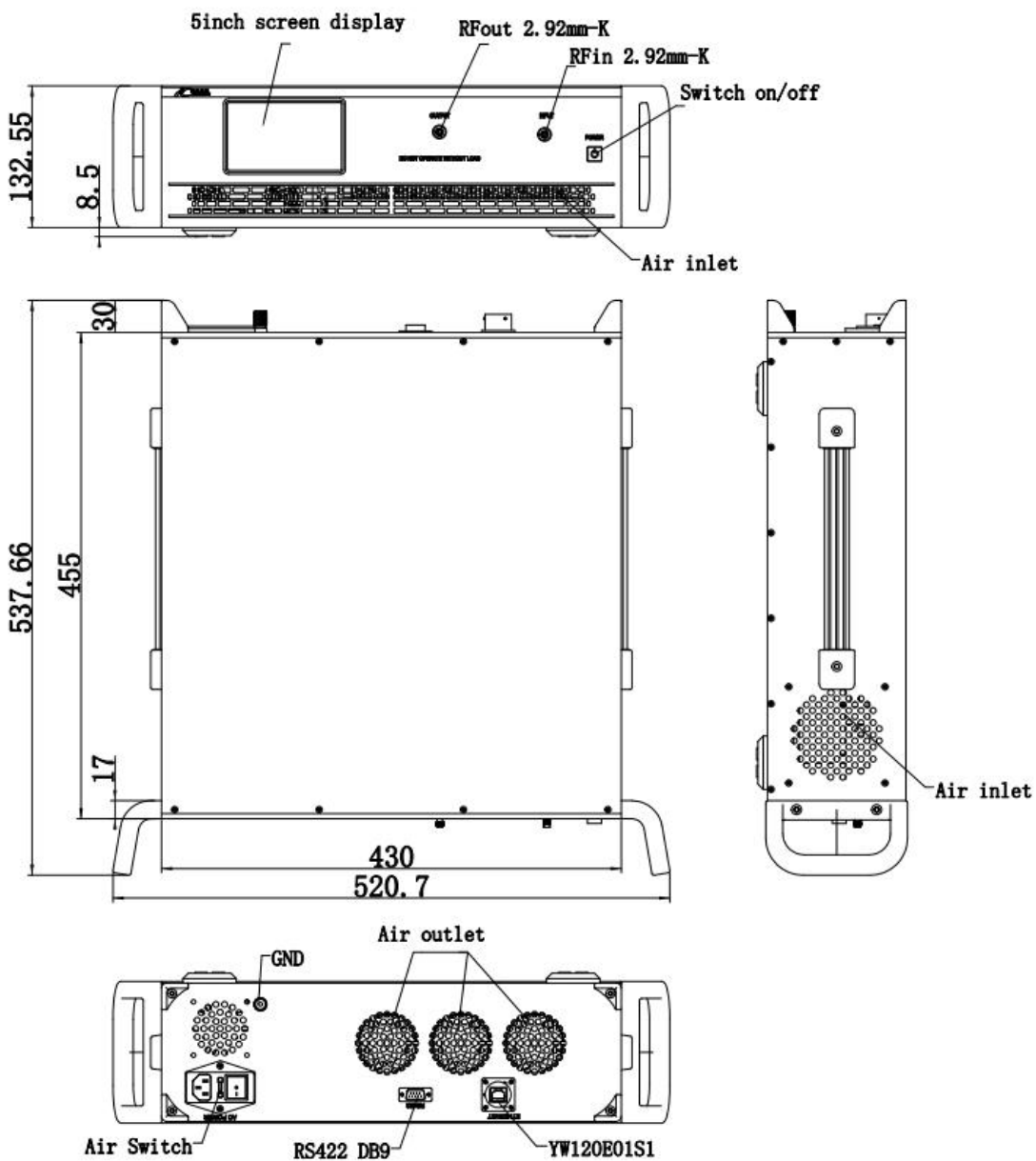
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
通信接口 Communication Connector	DB9/RJ45	
尺寸 Size	19 Inch 3U*550	mm
重量 Weight	≤35	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



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
显示功能 Display functions	1,Output/reflected power 2,Fault informations
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	°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			

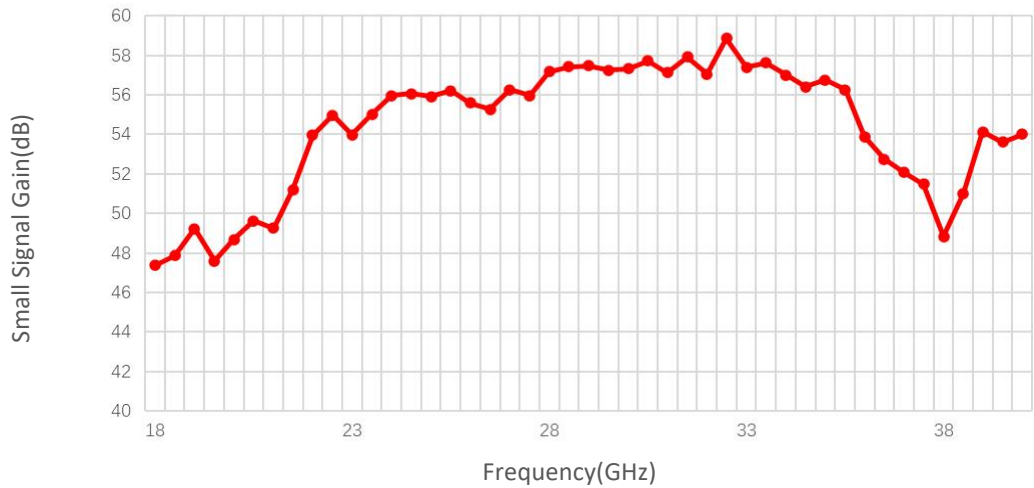
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

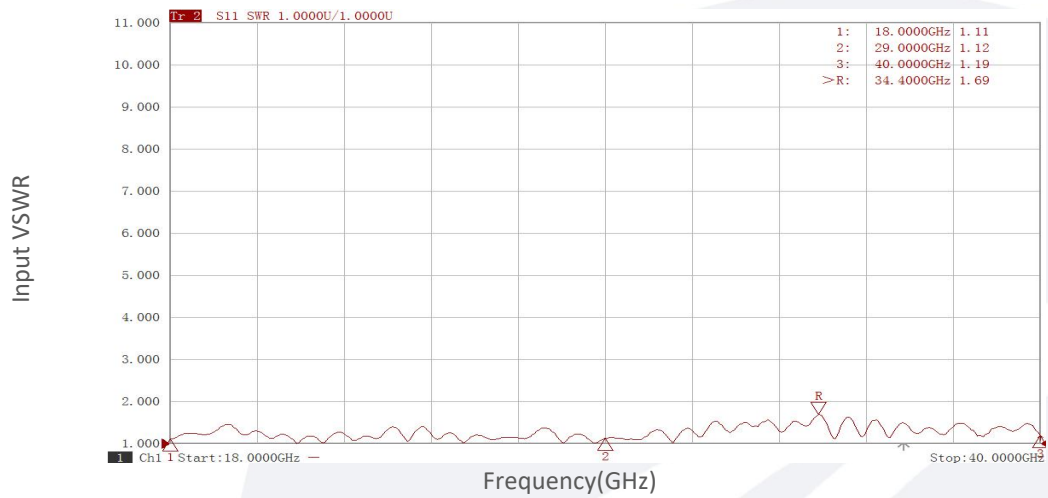
标准型号 Base Number	描述 Description	版本号 Revision
TLPA18G40G-43-43-BC	Solid State High Power Amplifier Systems 18-40GHz, Gain:43dB, Psat:43 dBm, 220V AC, Built in Fan Cooling	Rev.1.1

典型曲线 Typical Performance Data:

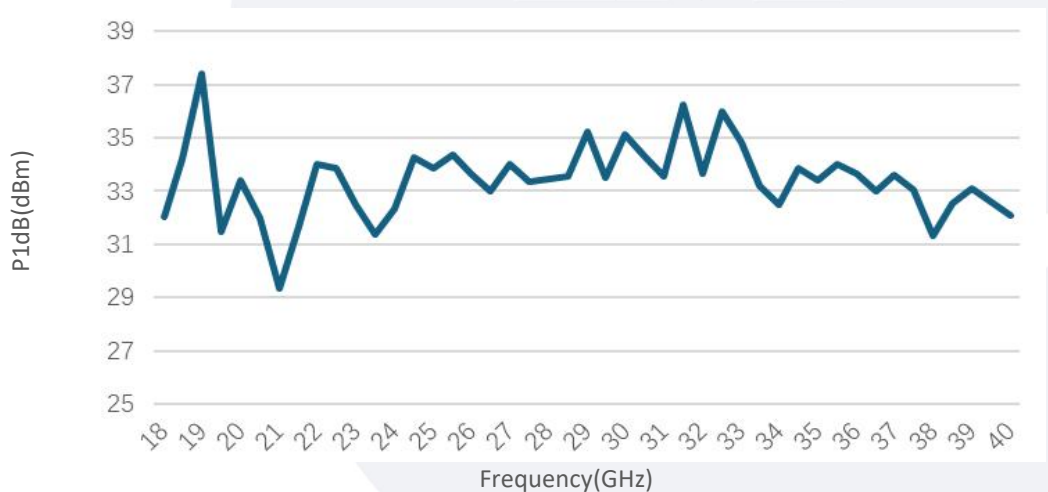
Small Signal Gain vs Frequency



Input VSWR vs Frequency

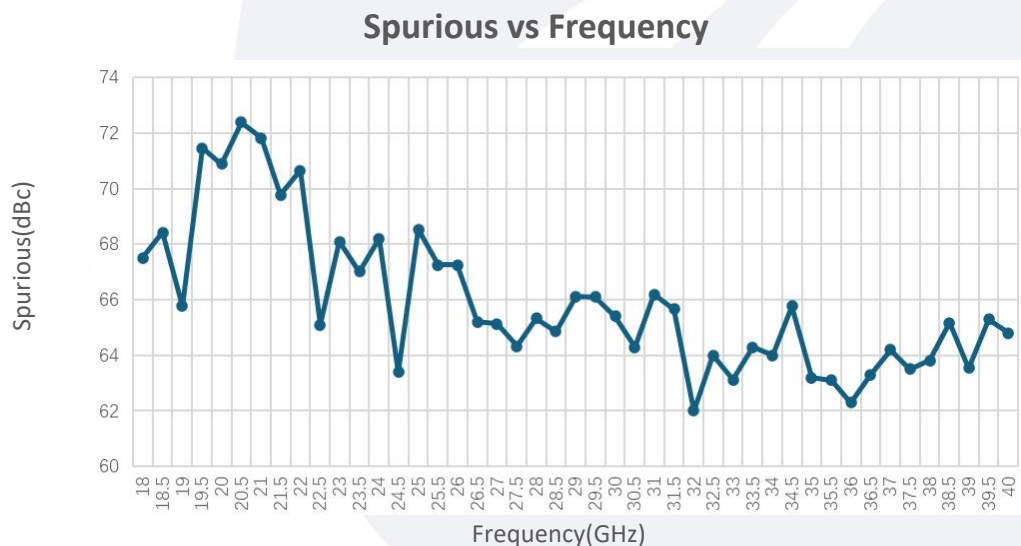
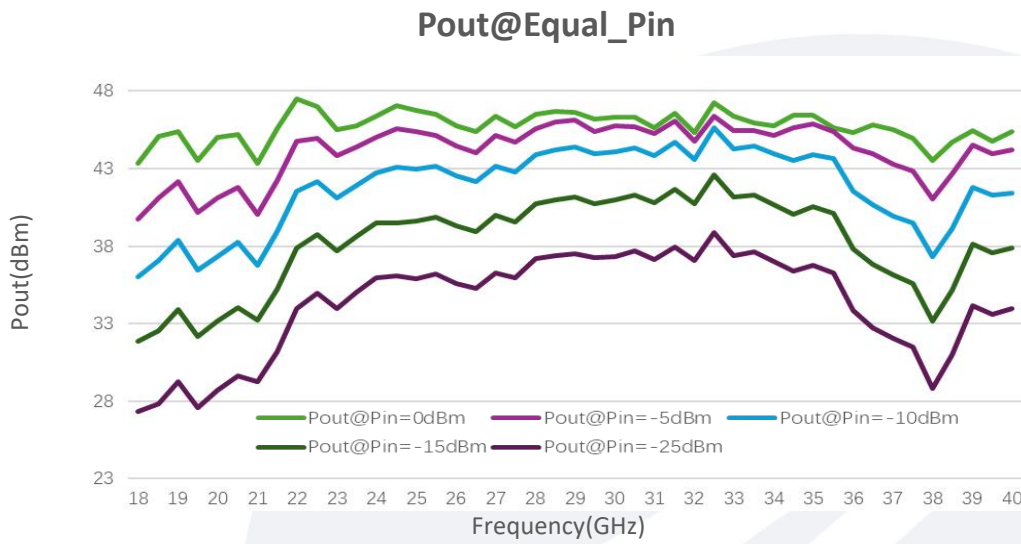
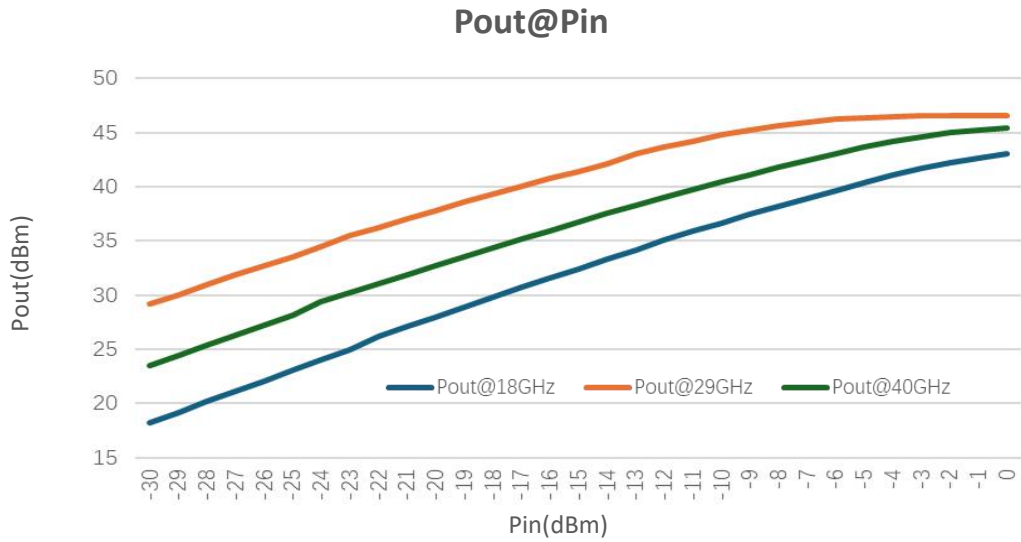


P1dB vs Frequency



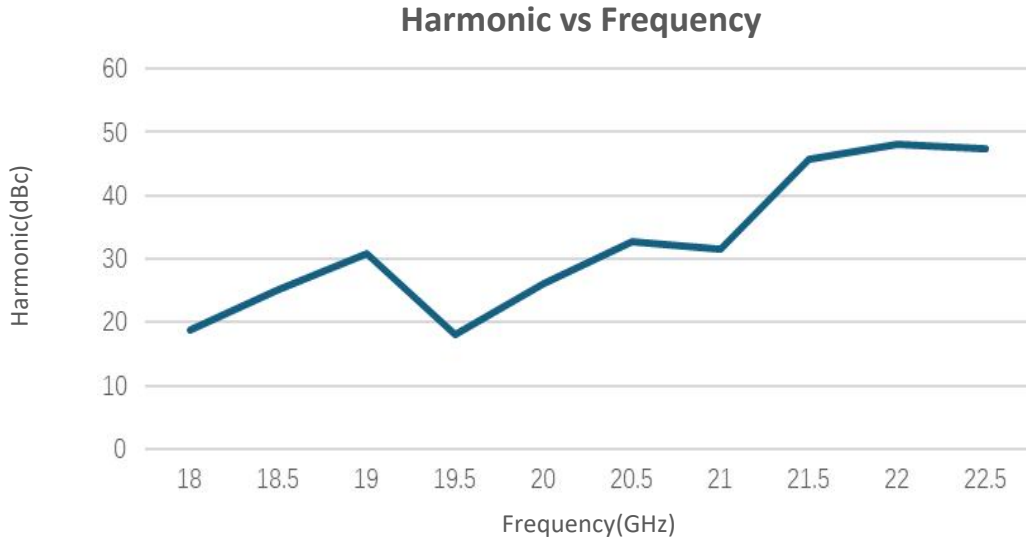
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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