

Solid State High Power Amplifier Systems

2-6GHz/53dB Gain/53dBm Psat/220V AC

Model: TLPA2G6G-53-53-BC

TLPA2G6G-53-53-BC is a solid state high power amplifier systems provides high output power and high gain across the 2 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: 2-6GHz
- Gain: 53dB Min
- Psat Output Power: 53dBm 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	2-6			GHz
功率增益 Power Gain	GP	53	55		dB
增益平坦度 Gain flatness	ΔGL		± 3.5		dB
增益调节范围 Gain adjust Range	ΔGR		31.5		dB
线性输出功率 Output P1dB	P1dB		49		dBm
饱和输出功率 Output Psat	Psat	53			dBm
杂散 Spurious@Pout=53dBm	Spur			-60	dBc
谐波 Harmonics@Pout=53dBm	HAM		-10		dBc
输入驻波 Input VSWR	VSWRin			2	:1
交流电压 AC Voltage	Vac		220		V AC
交流电流 AC Supply Current	Iac		10		A
阻抗 Impedance	I/O-IMP	50			Ohms

机械特性 Mechanical Specifications:

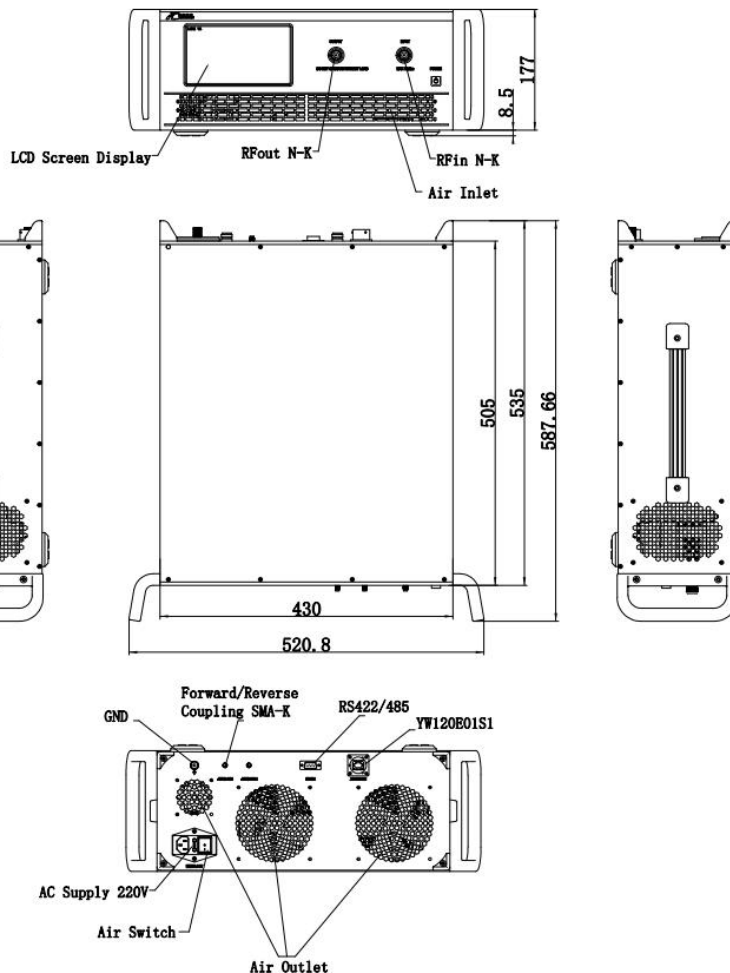
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/N Female	
液晶显示屏 Front Panel LCD Screen Display	7 inch LCD Screen Display	
尺寸 Size	19 Inch 4U*600	mm
重量 Weight	≤30	Kg

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



直流供电接口 DC Supply Connector(DSUB-15 Female):

引脚 Pin	名称 Name	功能 Function
1	Reset	When the amplifier triggers overcurrent or standing wave protection, the amplifier will be turned off and enter a state of lockout. Placing a 10ms high level on this pin will restart the amplifier. Only overcurrent or standing wave protection can be reset.
2	Over voltage	When the supply voltage exceeds 32V, the power amplifier will be turned off. This pin will output a high level. When the supply voltage is lower than 32V, this pin will output a low level.
3	Over current	When the power amplifier current exceeds the limit, the power amplifier will be closed and enter the state lock, this pin will output a high level.
4	Over TEM	When the temperature of the case exceeds 85 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 70 °C, the power amplifier will return to normal operation, and this pin will be pulled low.
5	infinite VSWR	When the external standing wave of the power amplifier output is greater than 5, the power amplifier is turned off, and this pin will output a high level. When the external standing wave is less than 5, this pin outputs a low level.
6	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground
7	GND	Ground
8~15	NC	No connected

主要功能 Key Features:

参数 Parameter	特点 Advantages
控制功能 Control functions	1, Power setting On/Off
内置保护功能 Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Infinite VSWR
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
TLPA2G6G-53-53-BC	Solid State High Power Amplifier Systems 0.5-6GHz,Gain:53dB,Psat:53dBm,220V AC,Built in Fan Cooling	Rev.1.1