

## Solid State High Power Amplifier Systems

1-6GHz/57dB Gain/57dBm Psat/220V AC

Model: TLPA1G6G-57-57-P-BC

TLPA1G6G-57-57-P-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: 57dB Min
- Psat Output Power: 57dBm 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		6	GHz
功率增益 Power Gain	GP	57			dB
功率增益平坦度 Power Gain flatness@Pout=57dBm	ΔGL		±4		dB
饱和输出功率 Output Psat	Psat	57			dBm
杂散 Spurious@Pout=57dBm	Spur			-60	dBc
谐波 Harmonics@Pout=57dBm	HAM			-10	dBc
调制信号电平 Modulation Signal Level	TTL	0		5	V
调制频率 Modulation Frequency	MF	1		1000	Hz
脉冲宽度 Pulse Width	T	20		1000	ns
占空比 Duty Cycle	τ			10	%
上升/下降沿 Rise/Fall Time	Tr		15		ns
顶降 Pulse Drop@T=1us	Pdrop		0.5		dB
交流电压 AC Voltage	Vac		220		V AC
静态功耗 Static Power consumption	Pdiss		700		W
10%占空比功耗 Power consumption@10% duty cycle	Pdiss		1000		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/L29	
正向/反向耦合 Forward/Reverse Coupling	SMA Female/SMA Female	
液晶显示屏 Front Panel LCD Screen Display	7 inch LCD Screen Display	
脉冲输入接口 Pulse Input Connector	BNC Female	
通信接口 Communication Connector	Ethernet/RS422	
尺寸 Size	19 Inch*8U*550 depth	mm
重量 Weight	≤65	Kg

## 绝对最大值 Absolute Maximum Ratings:

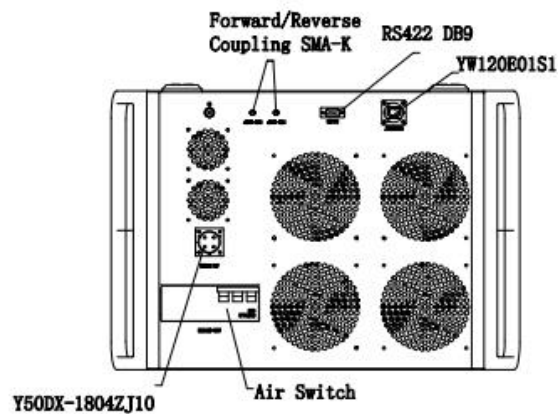
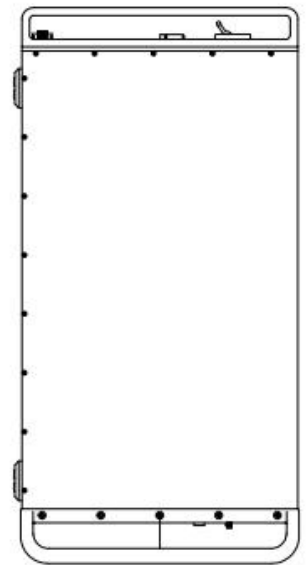
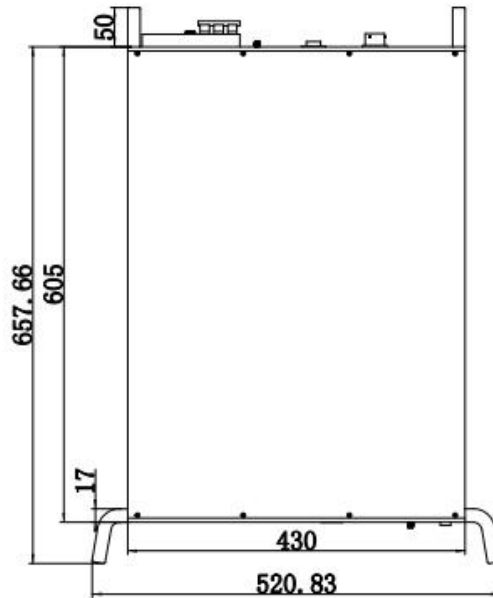
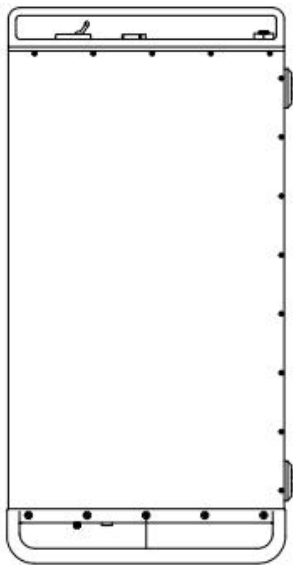
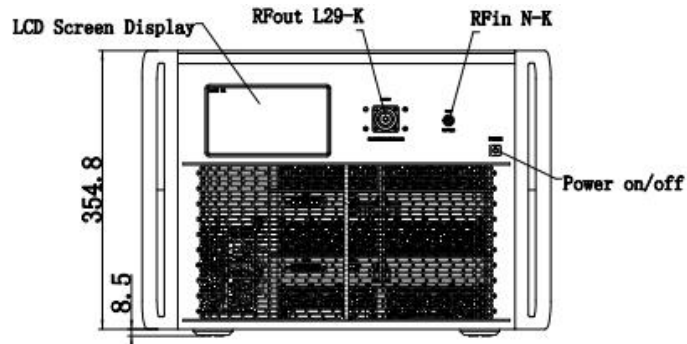
参数 Parameter	指标 Value
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

## 主要功能 Key Features:

参数 Parameter	特点 Advantages
控制功能 Control functions	1, Power setting on/off 2, Output power&gain level control 3, Status monitoring
显示功能 Display functions	1, Output&reflected power 2, Fault informations
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

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		+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
TLPA1G6G-57-57-P-BC	Solid State High Power Amplifier Systems 1-6GHz, Gain:57dB, Psat:57dBm, 220V AC, Built in Fan Cooling	Rev.1.0