

## Solid State High Power Amplifier Systems

4-8GHz/63dB Gain/63dBm Psat/220V AC

Model: TLPA4G8G-63-62-P-BC

TLPA4G8G-63-62-P-BC is a solid state high power amplifier systems provides high output power and high gain across the 4 to 8 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: 4-8GHz
- Gain: 63dB Min
- Psat Output Power: 62dBm 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	4-8			GHz
功率增益 Power Gain	GP	63			dB
输出功率调节范围 Output Power adjust Range	$\Delta$ PR		30		dB
输出功率调节步进 Output Power adjust Step	$\Delta$ PS		0.5		dB
饱和输出功率 Output Psat	Psat	62			dBm
峰值输出功率 Peak Output Power	P.P	62	63		dBm
峰值功率平坦度 Peak Power flatness	$\Delta$ P.PL		$\pm 0.5$		dB
杂散 Spurious	Spur			-60	dBc
谐波 Harmonics	HAM			-12	dBc
调制频率 Modulation Frequency	MF	0.2		100	KHz
脉冲宽度 Pulse Width	T	0.2		300	us
占空比 Duty Cycle	$\tau$			10	%
上升/下降沿 Rise/Fall Time	Tr		50	100	ns
输入驻波 Input VSWR	VSWR			2	:1
交流电压 AC Voltage	Vac		220		V AC
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:

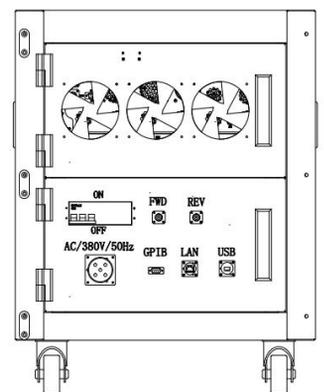
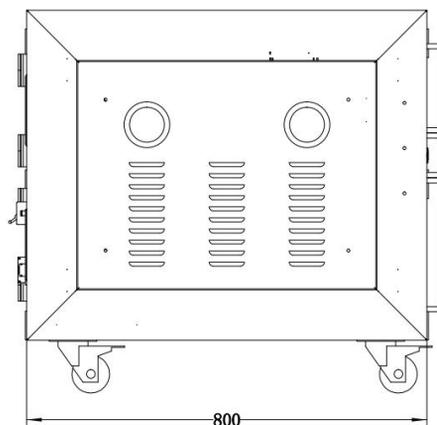
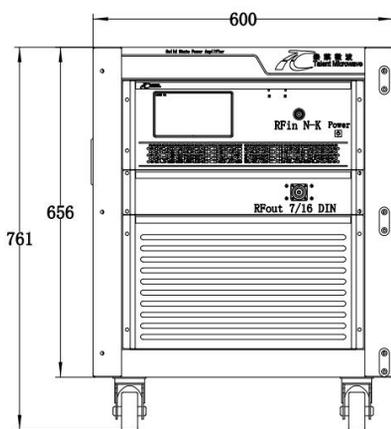
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input/Output Connector	TNC Female/WRD-350	
供电启动按键 AC power Soft-Start	Push-button	
正向/反向耦合 Forward/Reverse Coupling Connector	SMA Female/SMA Female	
液晶显示屏 Front Panel LCD Screen Display	7 inch touch screen	
通信接口 Communication Interfaces	RJ45/DB9	
脉冲输入接口 Pulse Input Connector	TNC Female	
尺寸 Size	12U	
重量 Weight	≤150	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 3, RF setting on/off 4, Gain adjustment 5, Real time status query
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

## 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
TLPA4G8G-63-62-P-BC	Solid State High Power Amplifier Systems 4-8GHz, Gain:63dB, Psat:62dBm, 220V AC, Built in Fan Cooling	Rev.1.1