

Solid State High Power Amplifier Systems

4-8GHz/60dB Gain/60dBm Psat/220V AC

Model: TLPA4G8G-60-60-BC

TLPA4G8G-60-60-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: 60dB Min
- Psat Output Power: 60dBm Typ
- 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	4-8			GHz
功率增益 Power Gain	GP	60			dB
增益平坦度 Gain flatness	ΔGL		± 3		dB
输出功率调节范围 Output Power adjust Range	ΔPR		30		dB
输出功率调节步进 Output Power adjust Step	ΔPS		0.5		dB
峰值输出功率 Peak Output Power	P.P	59	60		dBm
峰值功率平坦度 Peak Power flatness	$\Delta P.PL$			± 0.5	dB
杂散 Spurious	Spur		-60	-50	dBc
谐波 Harmonics	HAM		-15	-12	dBc
调制频率 Modulation Frequency	MF	0.5		100	KHz
脉冲宽度 Pulse Width	T	0.3		300	us
占空比 Duty Cycle	τ			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
5%占空比功耗 Power consumption@5% duty cycle	Pdiss			430	W
20%占空比功耗 Power consumption@20% duty cycle	Pdiss			850	W
阻抗 Impedance	I/O-IMP	50			Ohms

机械特性 Mechanical Specifications:

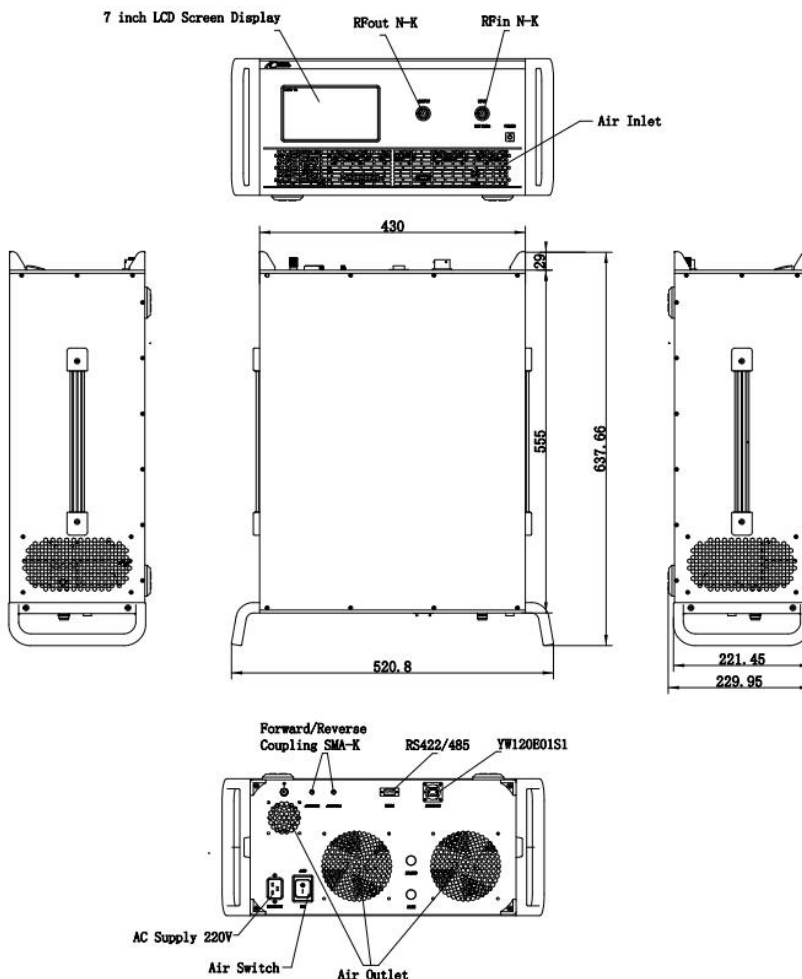
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/N Female	
控制接口 Control Connector	RS422/LAN	
尺寸 Size	19 Inch 5U	
重量 Weight	≤45	Kg

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	TBD
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, 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		+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-60-60-BC	Solid State High Power Amplifier Systems 4-8GHz, Gain:60dB, Psat:60dBm, 220V AC, Built in Fan Cooling	Rev.1.1