

Solid State High Power Amplifier Systems

4-8GHz/57dB Gain/55 dBm Psat/220V AC

Model: TLPA4G8G-57-55-BC

TLPA4G8G-57-55-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: 57dB Min
- Output Psat:55dBm Min
- Protection:Over TEM,over voltage,under voltage, input overdrive ,load 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	57			dB
工作模式 Working Mode	MOD	CW			
输入功率 Input Power	Pin	-2			dBm
增益调节范围 Gain adjust Range	ΔGR	20			dB
增益调节步进 Gain adjust Step	ΔGS		0.5		dB
饱和输出功率 Output Psat	Psat	55			dBm
饱和输出功率平坦度 Saturated output power flatness	ΔPsat			±2	dB
线性输出功率 Output P1dB	P1dB		47		dBm
杂散 Spurious@Pout=58dBm	Spur			-60	dBc
谐波 Harmonics @Pout=55dBm	@4-4.5GHz	HAM		-15	dBc
	@4.5-8GHz			-20	
输入驻波 Input VSWR	VSWRin			1.25	:1
交流电压 AC Voltage	Vac		220		V AC
功耗 Power Consumption@Pout=55dBm	Pdiss		2.7		KW
功耗 Power Consumption@Psat	Pdiss			3.5	KW
阻抗 Impedance	I/O-IMP	50			Ohms

机械特性 Mechanical Specifications:

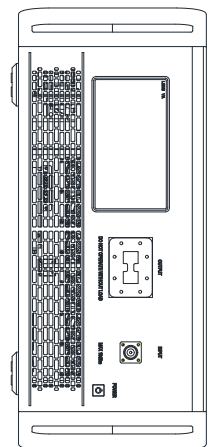
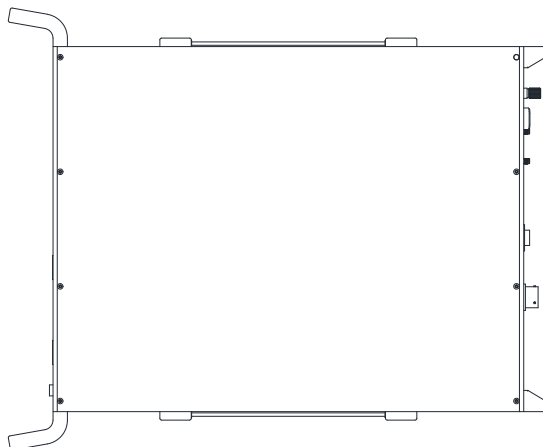
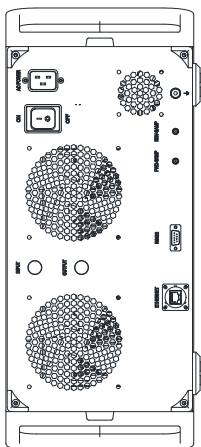
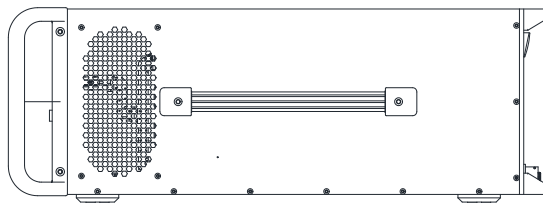
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/WRD350	
正向/反向耦合 Forward/Reverse Coupling	N Female/N Female	
通信接口 Communication Connector	Serial:RS422;Ethernet:RJ-45	
液晶显示屏 Front Panel LCD Screen Display	7 inch LCD Screen Display	
尺寸 Size	19 Inch 5U	mm
重量 Weight	≤40	Kg

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
内置保护功能 Protection functions	1,Input overdrive:≥10dBm shutdown 2,Over TEM:≥+45°C shutdown 3,Over DC voltage:≥29V shutdown 4,Under DC voltage:≤20V shutdown 5,Load VSWR protection:The unit disables RF when reverse power exceeds the safe level of 3:1 VSWR or reduces power by 6dB
监控和控制 Remote control	RS422/LAN
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*	-10		+40	°C
存储温度 Non-operating Temperature*	-20		+70	°C
相对湿度 Relative humidity			95	%
海拔 Altitude	3,000			meters
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-57-55-BC	Solid State High Power Amplifier Systems 4-8GHz,Gain:57dB,Psat:55 dBm,220V AC,Built in Fan Cooling	Rev.1.1