

Solid State High Power Amplifier Systems

8-12GHz/65dB Gain/53dBm Psat/220V AC

Model: TLPA8G12G-65-53-BC

TLPA8G12G-65-53-BC is a solid state high power amplifier systems provides high output power and high gain across the 8 to 12 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: 8-12GHz
- Gain: 65dB Typ
- Psat Output Power: 53dBm Typ
- 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	Min	Typ	Max	单位 Units
频率范围 Frequency range	BW	8		9	8		12	GHz
线性增益 Small Signal Gain	GP	60	65		60	65		dB
增益平坦度 Gain flatness	ΔGL		± 1			± 1		dB
增益调节范围 Gain adjust Range	ΔGR			30			30	dB
增益调节步进 Gain adjust Step	ΔGS	0.5			0.5			dB
线性输出功率 Output P1dB	P1dB		48			48		dBm
饱和输出功率 Output Psat	Psat	53	53.5		52	53		dBm
噪声系数 Noise Figure	NF		4			4		dB
杂散 Spurious	Spur			-60			-60	dBc
谐波 Harmonics	HAM			-20			-20	dBc
输入驻波 Input VSWR	VSWRin		1.5	2.0		1.5	2.0	:1
交流电流(220V AC) AC Supply Current	Iac		2.5	5		2.5	5	A
阻抗 Impedance	I/O-IMP	50						Ohms

机械特性 Mechanical Specifications:

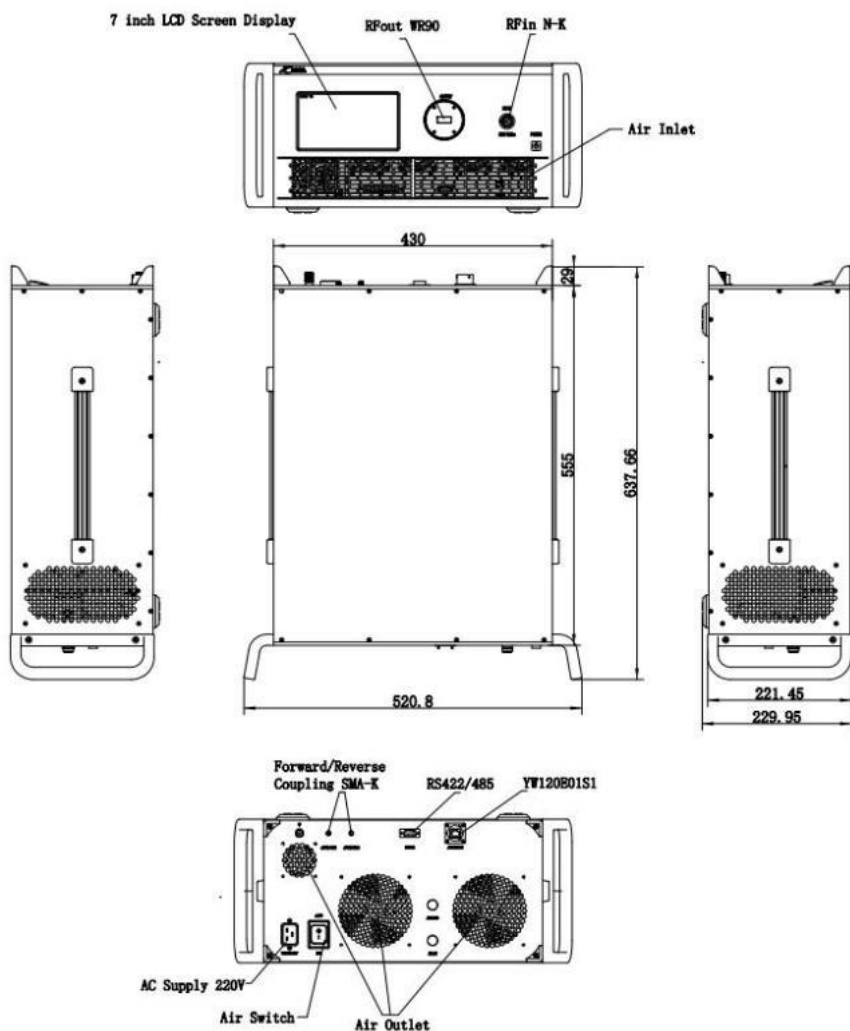
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA-Male/WR-90	
正向/反向耦合 Forward/Reverse Coupling	SMA-Female/ SMA-Female	
通信接口 Communication Connector	USB/LAN	
液晶显示屏 Front Panel LCD Screen Display	7 inch LCD Screen Display	
尺寸 Size	19 Inch 3U*555	mm
重量 Weight	≤35	Kg

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	-10 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
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	USB/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*	0		+40	°C
存储温度 Non-operating Temperature*	-40		+85	°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
TLPA8G12G-65-53-BC	Solid State High Power Amplifier Systems 8-12GHz, Gain: 65dB, Psat: 53dBm, 220V AC, Built in Fan Cooling	Rev.1.0