

Solid State High Power Amplifier Systems

47-52.5GHz/55dB Gain/55dBm Psat/380V AC

Model: TLPA47G52.5G-55-55-BC

TLPA47G52.5G-55-55-BC is a solid state high power amplifier systems provides high output power and high gain across the 47 to 52.5GHz frequency range. The amplifier features a built-in 380V 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: 47-52.5GHz
- Gain: 55dB Min
- Psat Output Power: 55dBm 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	47-52.5			GHz
功率增益 Power Gain	GP	55			dB
线性增益平坦度 Linear Gain flatness@500MHz	ΔGL		±1		dB
线性增益平坦度 Linear Gain flatness@full band	ΔGL		±3.5		dB
饱和输出功率 Output Psat	Psat	55	56		dBm
杂散 Spurious@Pout=55dBm	Spur			-55	dBc
输入驻波 Input VSWR	VSWRin			2	:1
交流电压 AC Voltage	Vac		380		V AC
功耗 Power Consumption	Pdiss			5500	W
阻抗 Impedance	I/O-IMP	50			Ohms

机械特性 Mechanical Specifications:

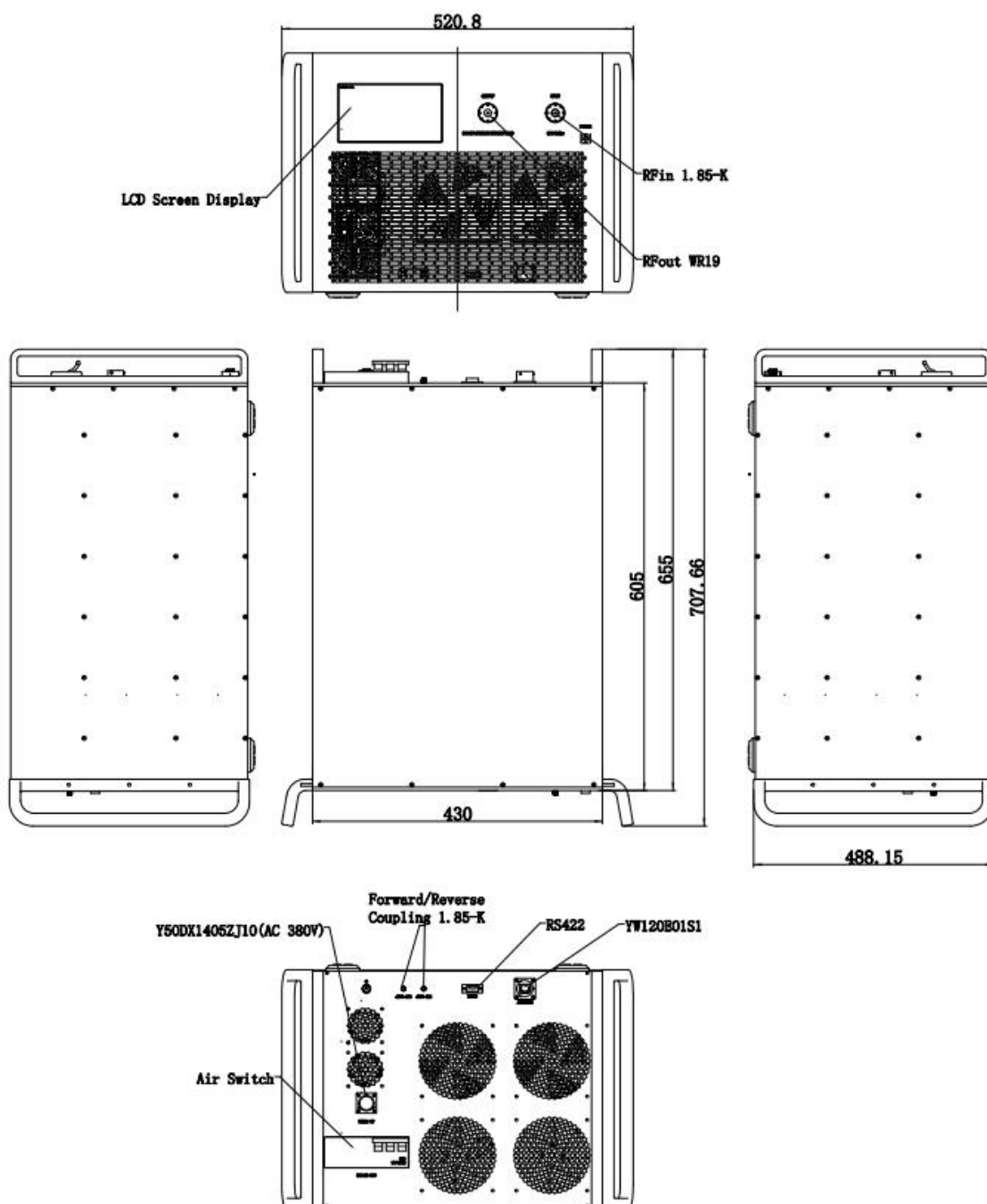
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	1.85mm Female/WR19	
正向/反向耦合 Forward/Reverse Coupling	1.85mm Female/1.85mm Female	
通信接口 Communication Connector	DB9/RJ45	
尺寸 Size	19 Inch 8U*550	mm
重量 Weight	≤85	Kg

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, RF setting on/off 3, ALC automatic level control
内置保护功能 Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR
监测功能 Monitoring functions	1, TEM 2, Operating voltage 3, Operating current 4, Output/reflected power 5, Fault informations
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
TLPA47G52.5G-55-55-BC	Solid State High Power Amplifier Systems 47-52.5GHz, Gain: 55dB, Psat: 55dBm, 380V AC, Built in Fan Cooling	Rev.1.1