

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

Electrical Characteristics:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	47-52.5			GHz
Power Gain	GP	55			dB
Linear Gain flatness@500MHz	ΔGL		±1		dB
Linear Gain flatness@full band	ΔGL		±3.5		dB
Output Psat	Psat	55	56		dBm
Spurious@Pout=55dBm	Spur			-55	dBc
Input VSWR	VSWRin			2	:1
AC Voltage	Vac		380		V AC
Power Consumption	Pdiss			5500	W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	1.85mm Female/WR19	
Forward/Reverse Coupling	1.85mm Female/1.85mm Female	
Communication Connector	DB9/RJ45	
Size	19 Inch 8U*550	mm
Weight	≤85	Kg

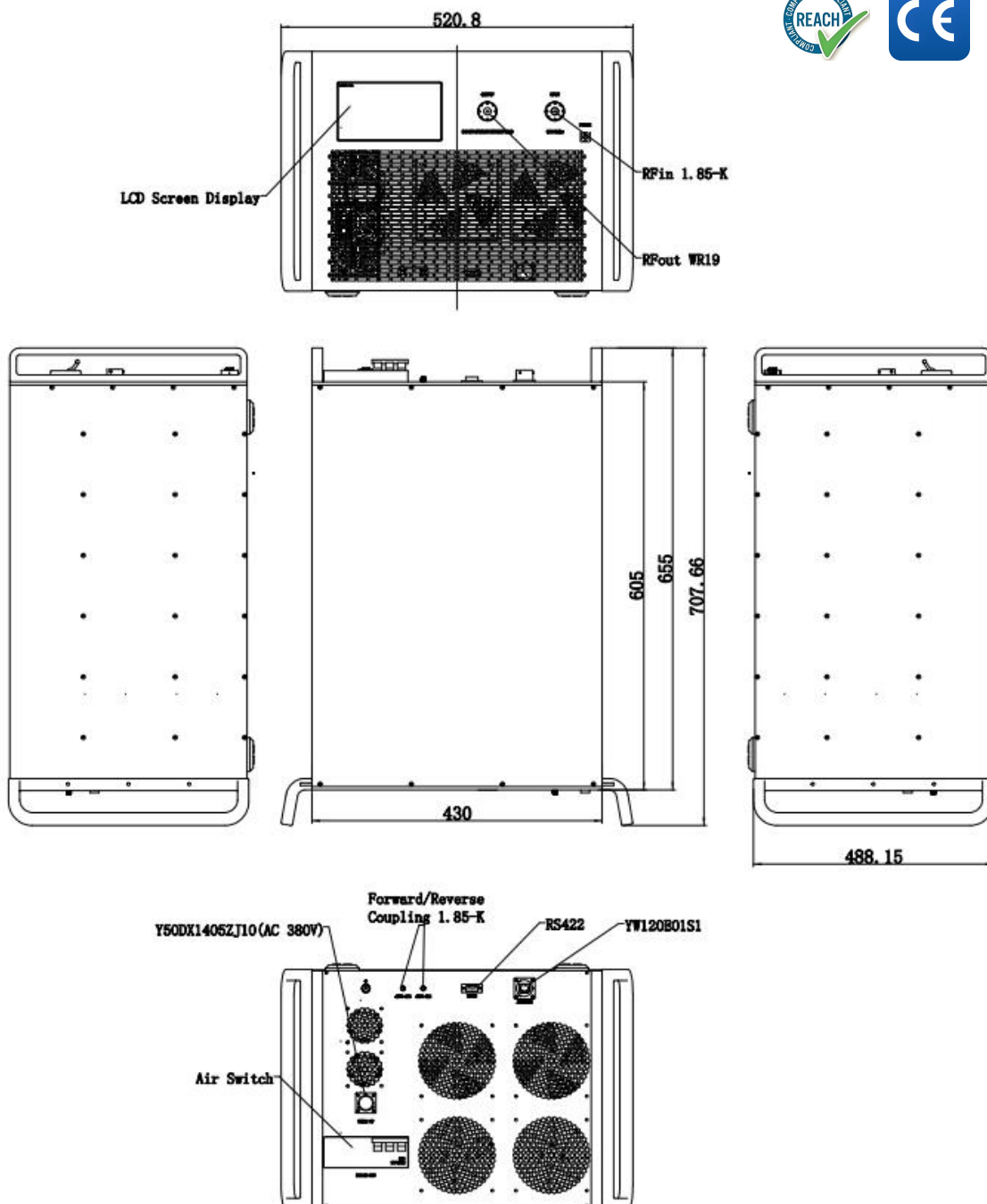
Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+5 dBm
ESD sensitivity (HBM)	Class 0, passed 150V

Outline Drawing:

Unit:mm

Regulatory Compliance:



Key Features:

Parameter	Advantages
Control functions	1, Power setting on/off 2, RF setting on/off 3, ALC automatic level control
Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR
Monitoring functions	1, TEM 2, Operating voltage 3, Operating current 4, Output/reflected power 5, Fault informations
Cooling system	Built in Cooling system, forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	°C
Non-operating Temperature*	-30		+50	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave, 3 axis both directions			

*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	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