

Solid State High Power Amplifier Systems

4.4-5GHz/70dB Gain/60dBm Psat/380V AC

Model: TLPA4.4G5G-70-60-BC

TLPA4.4G5G-70-60-BC is a solid state high power amplifier systems provides high output power and high gain across the 4.4 to 5 GHz 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: 4.4-5GHz
- Gain: 70dB Min
- Psat Output Power: 60dBm 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	4.4-5			GHz
Power Gain	GP	70	73		dB
Gain flatness	Δ GL		± 3		dB
Output Psat	Psat	60			dBm
Output P1dB	P1dB		57		dBm
Spurious	Spur			-60	dBc
Harmonics	HAM		-20		dBc
Input VSWR	VSWR _{in}		1.5	2	:1
AC Voltage	Vac		380		V AC
Power Consumption	Pdiss		45000		W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

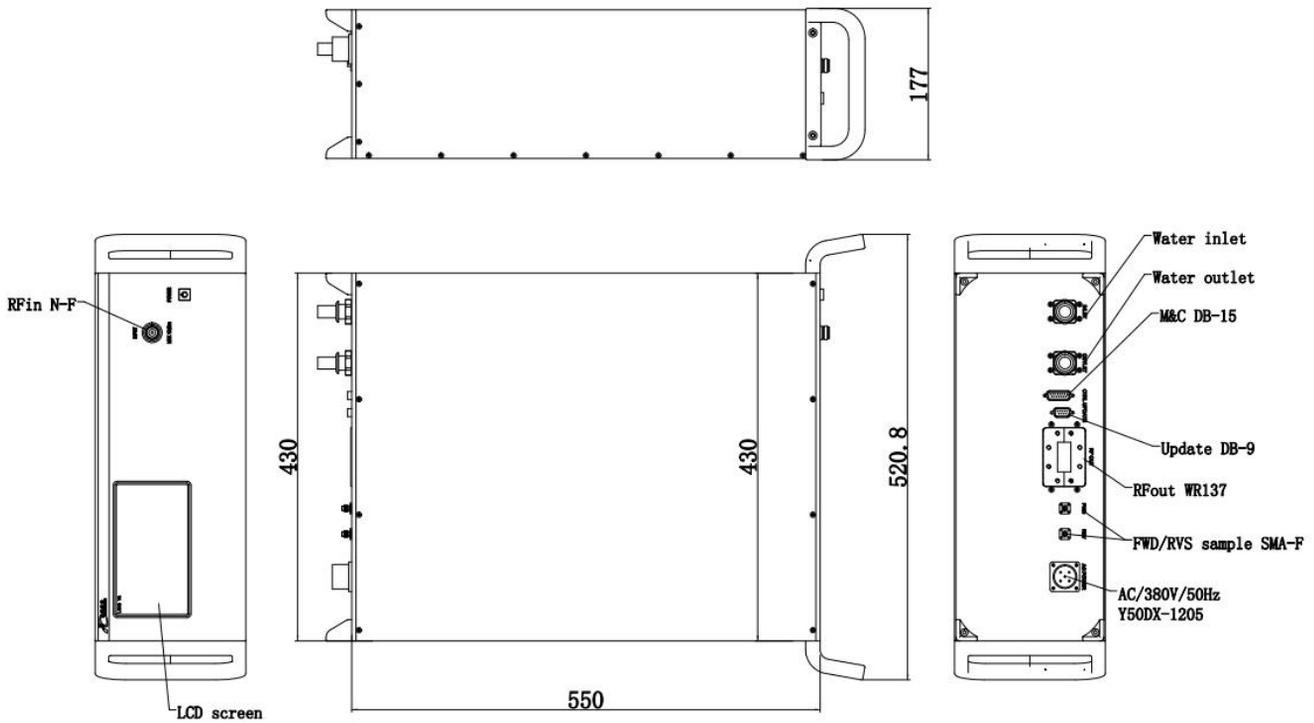
Parameter	Value	Units
Input /Output Connector	N Female/WR187	
Monitor and control Connector	D-SUB15	
Size	19 Inch 4U	
Weight	≤ 50	Kg

Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm



Key Features:

Parameter	Advantages
Control functions	1, Power setting On/Off 2, ALC automatic level control
Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR
Remote control	RS422/Ethernet
Cooling system	Built in Cooling system, liquid cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-10		+50	°C
Non-operating Temperature*	-40		+85	°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
TLPA4.4G5G-70-60-BC	Solid State High Power Amplifier Systems 4.4-5GHz, Gain:70dB, Psat:60dBm, 220V AC, Built in Liquid Cooling	Rev.1.1