

Solid State High Power Amplifier Systems

1-4GHz/57dB Gain/57dBm Psat/220V AC

Model: TLPA1G4G-57-57-BC

TLPA1G4G-57-57-BC is a solid state high power amplifier systems provides high output power and high gain across the 1 to 4 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: 1-4GHz
- Gain: 57dB Min
- Psat Output Power: 57dBm 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	1		4	GHz
Working Mode	MOD	CW/PULSE compatible			
Power Gain	GP	57			dB
Gain flatness	Δ GL		± 3		dB
Gain adjust Range	Δ GR		20		dB
Gain adjust Step	Δ GS		0.5		dB
Output Psat	Psat	57			dBm
Spurious@Pout=57dBm	Spur			-60	dBc
Harmonics@Pout=57dBm	HAM		-15	-10	dBc
Input VSWR	VSWRin			1.5	:1
AC Voltage	Vac		220		V AC
Power Consumption	Pdiss		3500		W
Impedance	I/O-IMP		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Interface*	N Female/L29 Female	
Forward/Reverse Coupling	SMA Female/SMA Female	
Communication Connector	DB9/RJ45	
Front Panel LCD Screen Display	7 inch LCD Screen Display	
Size	19 Inch 8U*600	mm
Weight	≤50	Kg

*Note: The RF output interface position may be adjusted.

Absolute Maximum Ratings:

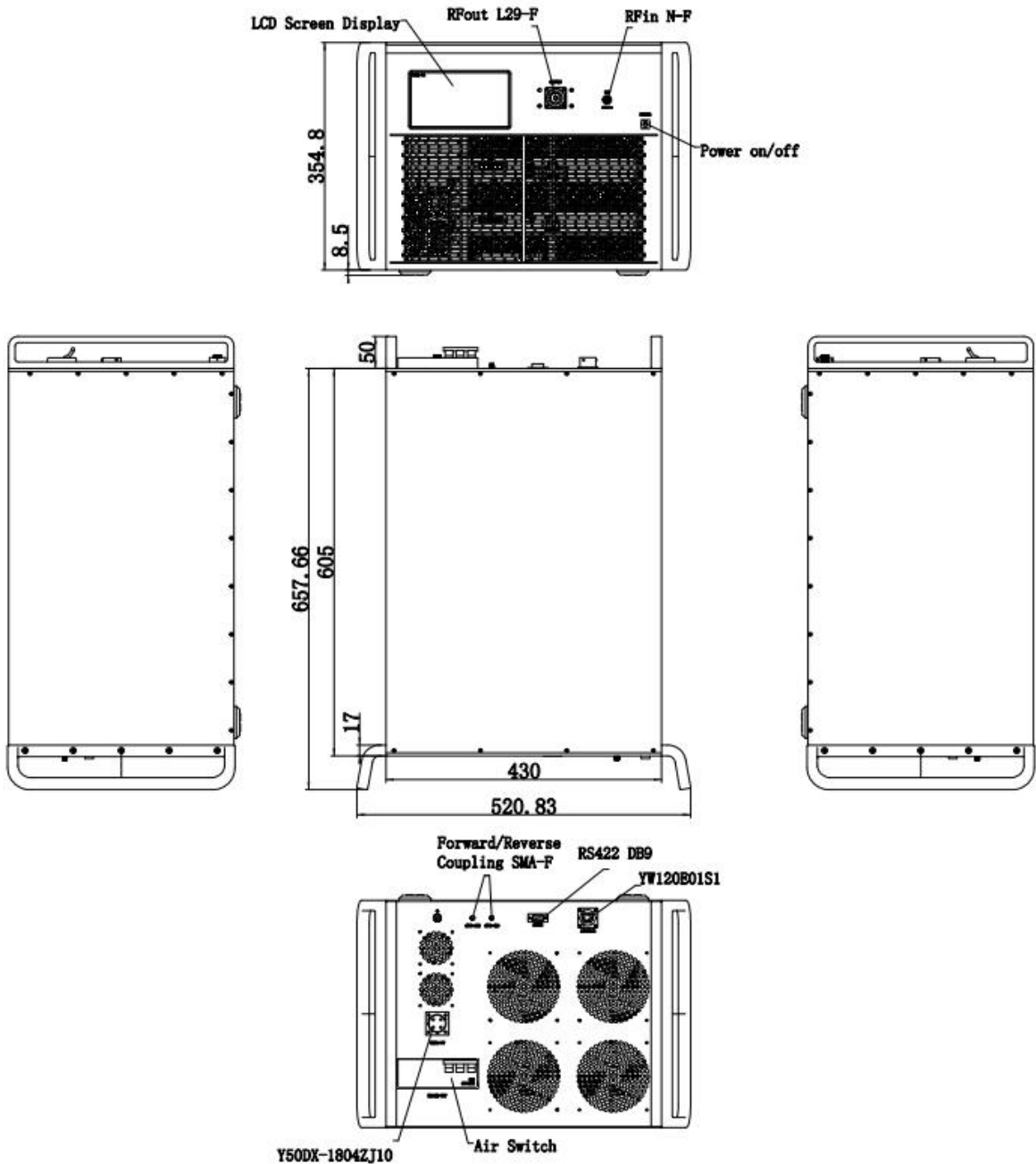
Parameter	Value
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

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 function	1, Temperature 2, Working voltage/current 3, Output power
Remote control	RS422/Ethernet
Cooling system	Built in Cooling system, forced air cooling

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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
TLPA1G4G-57-57-BC	Solid State High Power Amplifier Systems1-4GHz,Gain:57dB,Psat:7dBm,220V AC,Built in Fan Cooling	Rev.1.0