

Solid State High Power Amplifier Systems

4-8GHz/60dB Gain/60dBm Psat/220V AC

Model: TLPA4G8G-60-60-BC

TLPA4G8G-60-60-BC is a solid state high power amplifier systems provides high output power and high gain across the 4 to 8 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: 4-8GHz
- Gain: 60dB Min
- Psat Output Power: 60dBm Typ
- Protection: Over TEM, over voltage, over current, infinite VSWR protection
- 50 Ohm Matched Input / Output



Electrical Characteristics:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	4-8			GHz
Power Gain	GP	60			dB
Output Power adjust Range	ΔPR		± 3		dB
Output Power adjust Step	ΔPS		30		dB
Gain adjust Step	ΔGS		0.5		dB
Peak Output Power	P.P	59	60		dBm
Peak Power flatness	$\Delta P.PL$			± 0.5	dB
Spurious	Spur		-60	-50	dBc
Harmonics	HAM		-15	-12	dBc
Modulation Frequency	MF	0.5		100	KHz
Pulse Width	T	0.3		300	us
Duty Cycle	τ			10	%
Rise/Fall Time	Tr		50	100	ns
Input VSWR	VSWR			2	:1
AC Voltage	Vac		220		V AC
Power consumption@5% duty cycle	Pdiss			430	W
Power consumption@20% duty cycle	Pdiss			850	W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

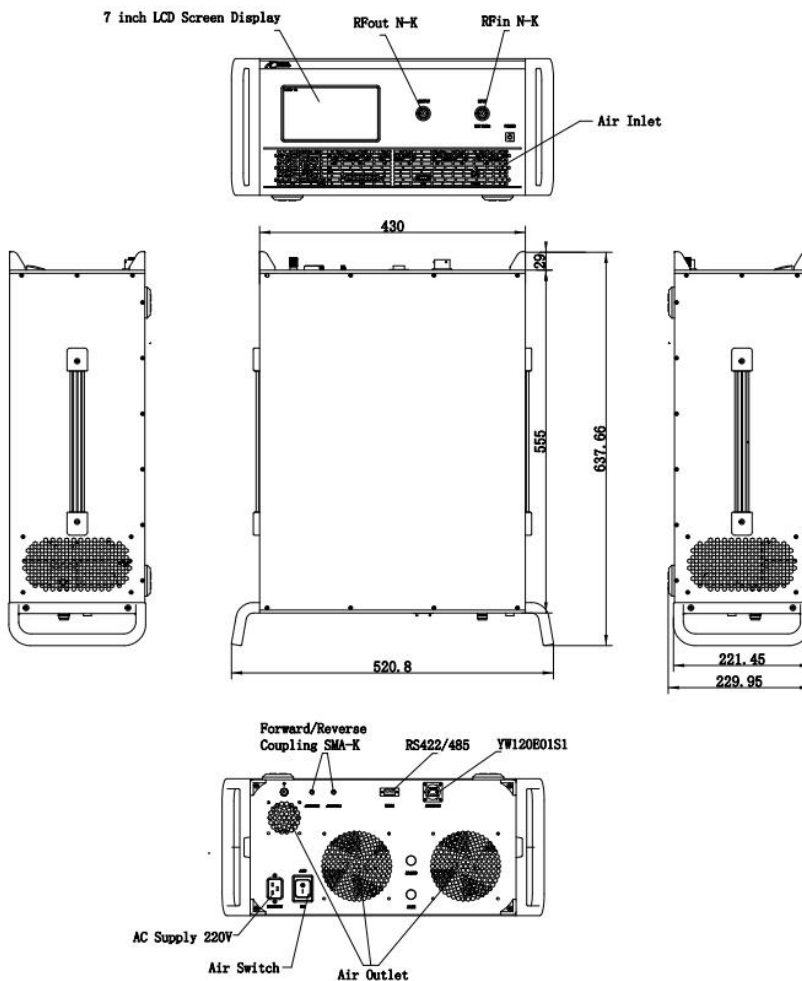
Parameter	Value	Units
Input /Output Connector	N Female/N Female	
Control Connector	RS422/LAN	
Size	19 Inch 5U	
Weight	≤45	Kg

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	TBD
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 3, RF setting on/off 4, Gain adjustment 5, Real time status query
Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Infinite VSWR
Remote control	RS422/Ethernet
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
TLPA4G8G-60-60-BC	Solid State High Power Amplifier Systems 4-8GHz, Gain:60dB, Psat:60dBm, 220V AC, Built in Fan Cooling	Rev.1.1