

Solid State High Power Amplifier Systems

12-18GHz/63dB Gain/62dBm Psat/220V AC

Model: TLPA12G18G-63-62-P-BC

TLPA12G18G-63-62-P-BC is a solid state high power amplifier systems provides high output power and high gain across the 12 to 18 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: 12-18GHz
- Gain: 63dB Min
- Psat Output Power: 62dBm 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	12-18			GHz
Power Gain	GP	63			dB
Peak Output Power	P.P	62	63		dB
Output Power adjust Range	Δ PR		40		dB
Output Power adjust Step	Δ PS		0.5		dB
Output power control accuracy	Δ PA		± 1		dB
Spurious	Spur			-60	dBc
Harmonics	HAM			-20	dBc
Modulation Frequency	MF	0.2		100	KHz
Pulse Width	T	0.2		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@10% duty cycle	Pdiss		1500		W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	N Female WR62	
Forward/Reverse Coupling	SMA Female/SMA Female	
Front Panel LCD Screen Display	7 inch LCD Screen Display	
Pulse Input Connector	TNC Female	
Communication Connector	DB9/RJ-45	
Size	19 Inch 5U	
Weight	≤45	Kg

Absolute Maximum Ratings:

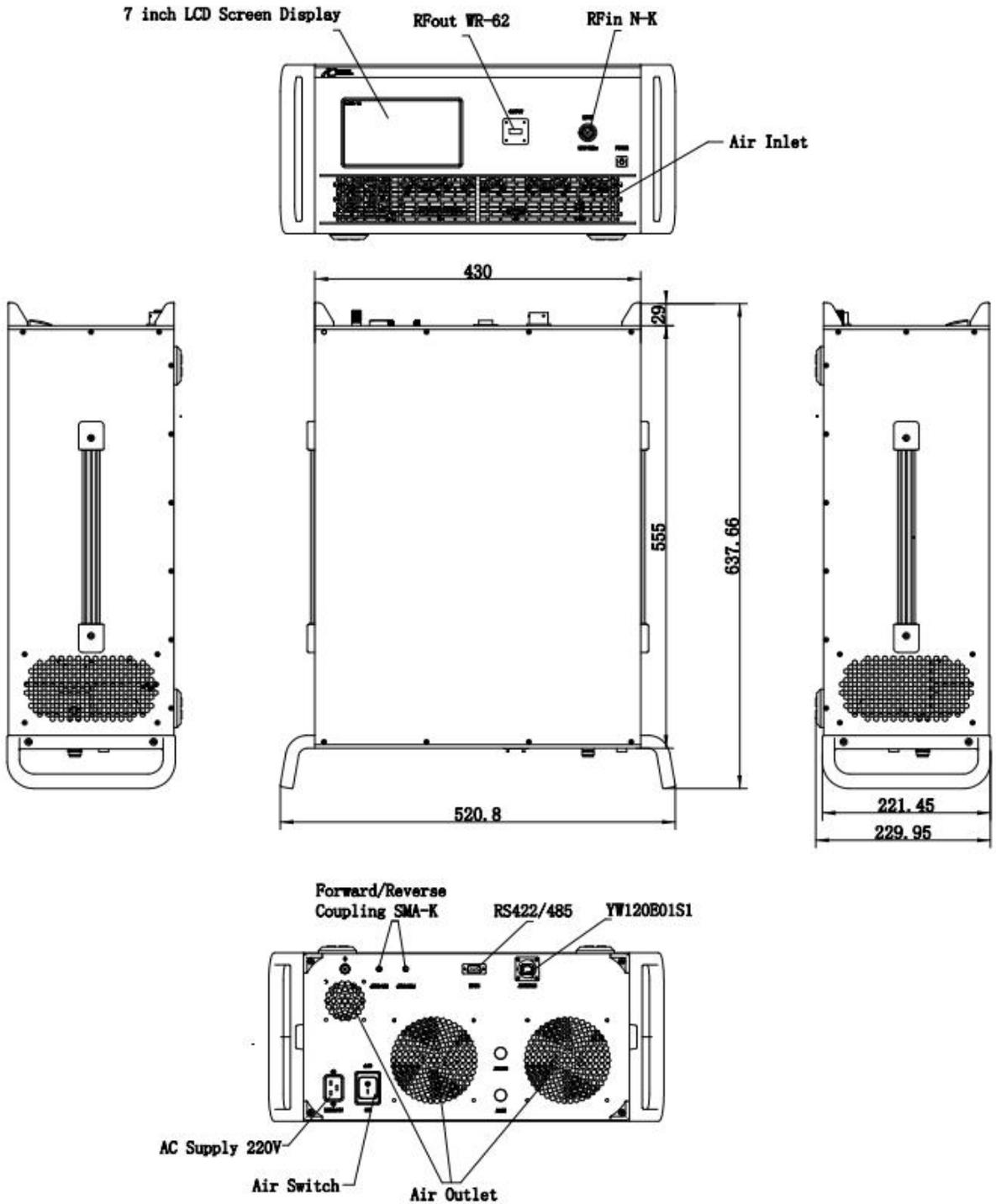
Parameter	Value
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Key Features:

Parameter	Advantages
Control functions	1, Power setting on/off 2, ALC automatic level control 3, RF ON/OFF 4, Gain adjustment 5, Real time status query
Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR
Remote control	RS422/Ethernet
Indications	1, AC on/off 2, DC on/off 3, RF on/off 4, Fault
Cooling system	Built in Cooling system, forced air cooling

Outline Drawing:

Unit:mm



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
TLPA12G18G-63-62-P-BC	Solid State High Power Amplifier Systems 12-18GHz, Gain:63dB, Psat:62dBm, 220V AC, Built in Fan Cooling	Rev.1.1