

Solid State High Power Amplifier Systems

3.1-3.4GHz/59dB Gain/59dBm Psat/220V AC

Model: TLPA3.1G3.4G-59-59-P-BC

TLPA3.1G3.4G-59-59-P-BC is a solid state high power amplifier systems provides high output power and high gain across the 3.1 to 3.4 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: 3.1-3.4GHz
- Gain: 59dB Min
- Psat Output Power: 59dBm 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	3.1-3.4			GHz
Power Gain	GP	59			dB
Gain flatness	ΔGL		± 3		dB
Output Psat	Psat	59			dBm
Spurious@Pout=59dBm	Spur			-60	dBc
Harmonics@Pout=59dBm	HAM			-20	dBc
Modulation Signal Level	TTL	0		5	V
Modulation Frequency	MF	0.5		100	KHz
Pulse Width	T	0.3		500	us
Duty Cycle	τ	0.1		20	%
Input VSWR	VSWR		1.5	2	:1
AC Voltage	Vac		220		V AC
Power consumption@20%	Pdiss		1000		W
Impedance	I/O-IMP		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	N Female/N Female	
Forward/Reverse Coupling	SMA Female/SMA Female	
Front Panel LCD Screen Display	7 inch LCD Screen Display	
Size	19 Inch 4U	
Weight	≤35	Kg

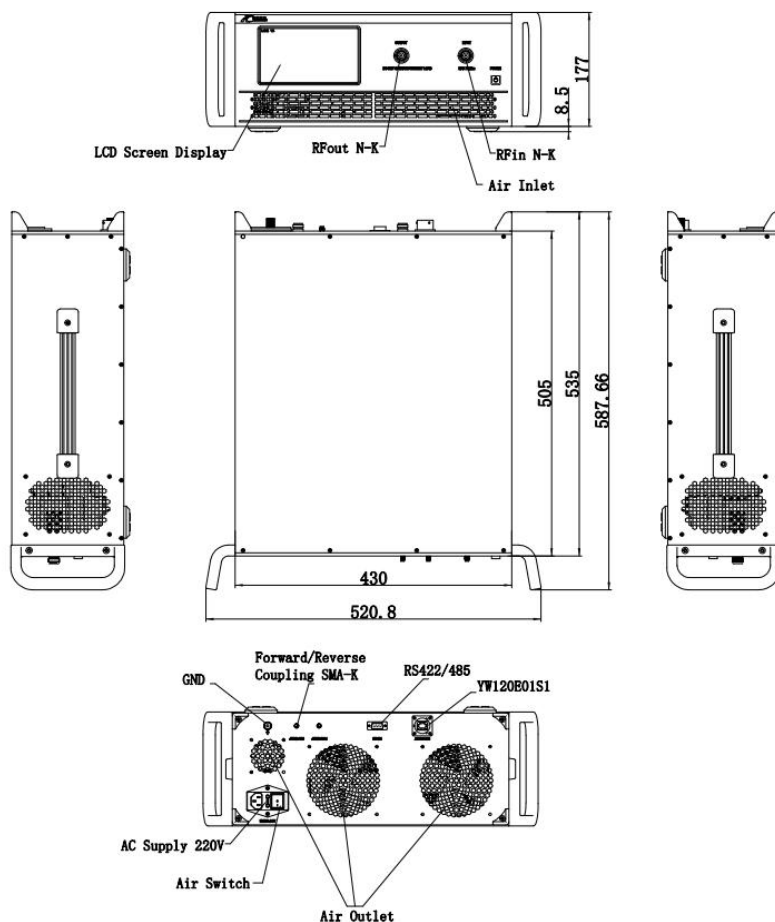
Absolute Maximum Ratings:

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, 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, 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
TLPA3.1G3.4G-59-59-P-BC	Solid State High Power Amplifier Systems 3.1-3.4GHz, Gain:59dB, Psat:59dBm, 220V AC, Built in Fan Cooling	Rev.1.1