

Solid State High Power Amplifier Systems

1.5GHz/65dB Gain/65dBm Psat/48V AC

Model: TLPA1.5G-65-65-P

TLPA1.5G-65-65-P is a solid state high power amplifier systems provides high output power and high gain at the frequency point of 1.5GHz. The amplifier features a built-in 48V 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: 1.5GHz
- Gain: 65dB Min
- Psat Output Power: 65dBm 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	1.5			GHz
Working Mode	MOD	PULSE ONLY			
Power Gain	GP	65			dB
Output Psat	Psat	65	66		dBm
Spurious@Pout=65dBm	Spur			-60	dBc
Harmonics@Pout=65dBm	HAM			-20	dBc
Input Signal Mode	IPS_MOD	CW/PULSE			
Modulation Signal Level	TTL	0		5	V
Modulation Frequency	MF	1		100	KHz
Pulse Width	T	1		500	us
Duty Cycle	τ	0.1		30	%
Rise/Fall Time	Tr		50	100	ns
Pulse Input	TTL level, 50 ohm nominal termination				
Pulse Drop@T=100us	Pdrop		0.5	1	dB
Star Delay	DSU		150		ns
Shutoff Delay	TOF		250		ns
Input VSWR	VSWRin			1.5	:1

Electrical Characteristics:

Parameter	Symbol	Min	Typ	Max	Units
Output VSWR	VSWRout			2	:1
AC Voltage	Vac	48(It can be changed to 220 V AC)			V AC
Power consumption	Pdiss			2000	W
Impedance	I/O-IMP	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	N Female/WR510	
Pulse Input Connector	J30J-15ZKP	
Supply Connector	Y50DX-1804	
Size	510*450*134	mm
Weight	≤35	Kg

Absolute Maximum Ratings:

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

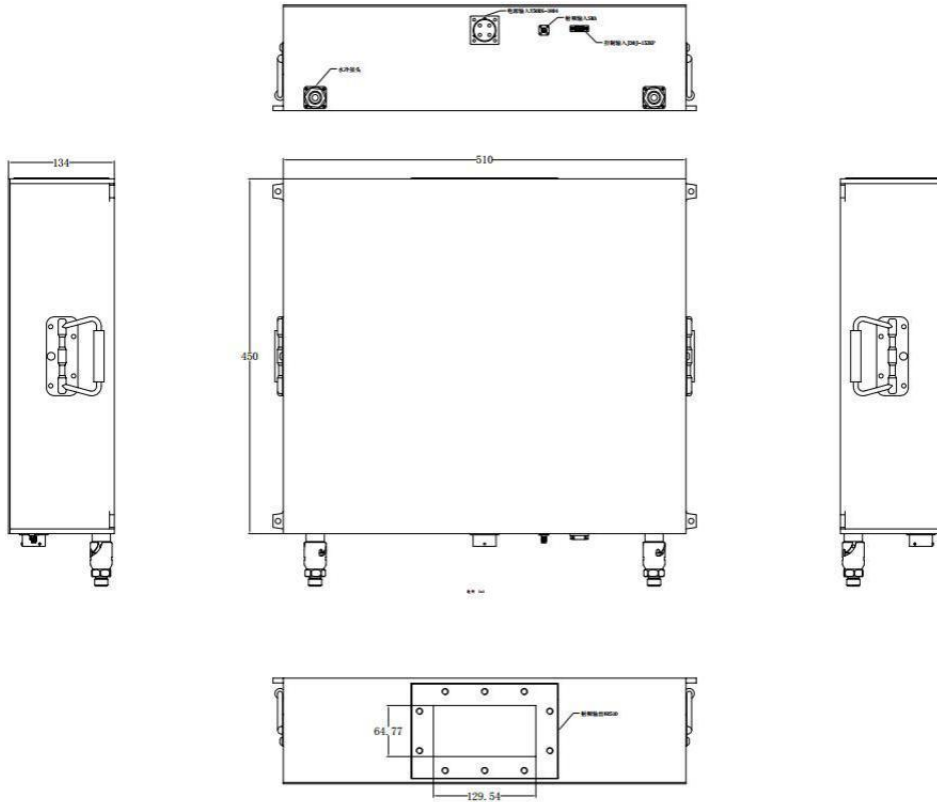
Key Features:

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

Outline Drawing:

Unit:mm

Regulatory Compliance:



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
TLPA1.5G-65-65-P	Solid State High Power Amplifier Systems,1.5GHz, Gain:65dB,Psat:65dBm,+48V AC,Built in liquid Cooling	Rev.1.1