

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



电气特性 Electrical Characteristics:

参数 Parameter	代码 Symbol	Min	Typ	Max	单位 Units
频率范围 Frequency range	BW	1.5			GHz
工作模式 Working Mode	MOD	PULSE ONLY			
功率增益 Power Gain	GP	65			dB
饱和输出功率 Output Psat	Psat	65	66		dBm
杂散 Spurious@Pout=65dBm	Spur			-60	dBc
谐波 Harmonics@Pout=65dBm	HAM			-20	dBc
输入信号体制 Input Signal Mode	IPS_MOD	CW/PULSE			
调制信号电平 Modulation Signal Level	TTL	0		5	V
调制频率 Modulation Frequency	MF	1		100	KHz
脉冲宽度 Pulse Width	T	1		500	us
占空比 Duty Cycle	τ	0.1		30	%
上升/下降沿 Rise/Fall Time	Tr		50	100	ns
脉冲输入 Pulse Input	TTL level, 50 ohm nominal termination				
顶降 Pulse Drop@T=100us	Pdrop		0.5	1	dB
启动延迟 Star Delay	DSU		150		ns
关断延迟 Shutoff Delay	TOF		250		ns
输入驻波 Input VSWR	VSWRin			1.5	:1

电气特性 Electrical Characteristics:

参数 Parameter	代码 Symbol	Min	Typ	Max	单位 Units
输出驻波 Output VSWR	VSWRout			2	:1
交流电压 AC Voltage	Vac	48(It can be changed to 220 V AC)			V AC
功耗 Power consumption	Pdiss			2000	W
阻抗 Impedance	I/O-IMP	50			Ohms

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/WR510	
脉冲输入接口 Pulse Input Connector	J30J-15ZKP	
供电接口 Supply Connector	Y50DX-1804	
尺寸 Size	510*450*134	mm
重量 Weight	≤35	Kg

绝对最大值 Absolute Maximum Ratings:

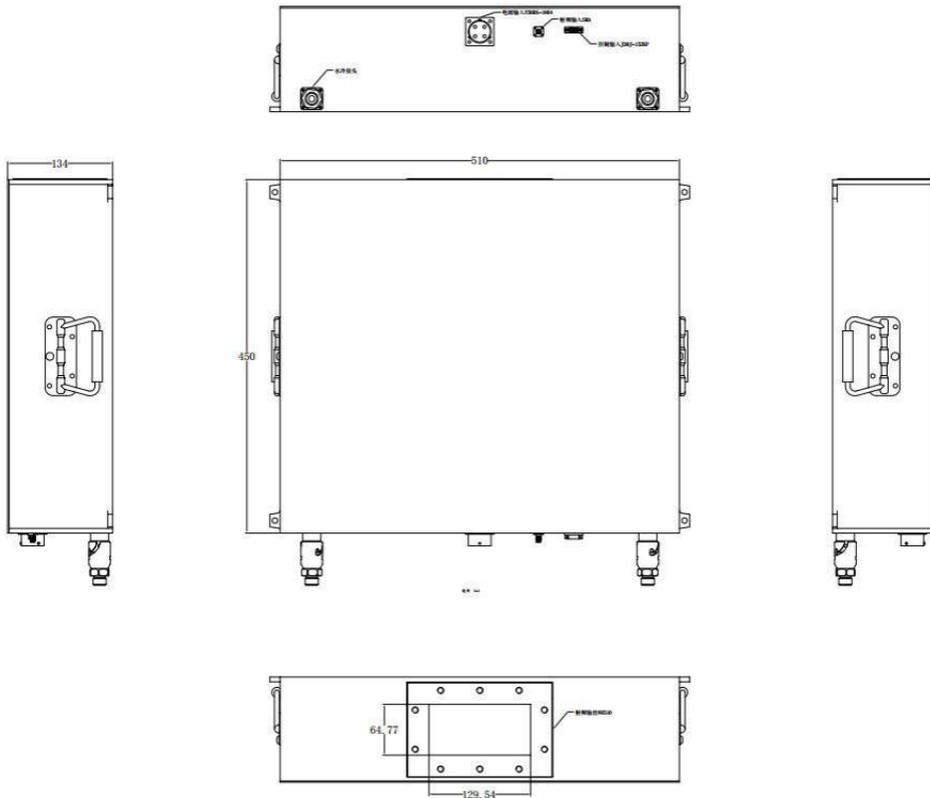
参数 Parameter	指标 Value
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

主要功能 Key Features:

参数 Parameter	特点 Advantages
控制功能 Control functions	1, Power setting On/Off 2, ALC automatic level control
内置保护功能 Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR
监控和控制 Remote control	RS422
冷却系统 Cooling system	Built in Cooling system, liquid cooling

外形图 Outline Drawing:

Unit:mm



温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+40	°C
存储温度 Non-operating Temperature*	-30		+50	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 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