

Solid State High Power Amplifier Systems

16-16.5GHz/64dB Gain/64dBm Psat/220V AC

Model: TLPA16G16.5G-64-64-P-BC

TLPA16G16.5G-64-64-P-BC is a solid state high power amplifier systems provides high output power and high gain across the 16 to 16.5 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: 16-16.5GHz
- Gain: 64dB Min
- Psat Output Power: 64dBm Min
- Protection: Over TEM, over voltage, over current, output mismatch 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	16-16.5			GHz
工作模式 Working Mode	MOD	PULSE ONLY			
功率增益 Power Gain	GP	64			dB
饱和输出功率 Output Psat	Psat	64	65		dBm
杂散 Spurious@Pout=64dBm	Spur			-60	dBc
谐波 Harmonics@Pout=64dBm	HAM			-30	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		10	KHz
脉冲宽度 Pulse Width	T	1		500	us
占空比 Duty Cycle	τ			10	%
输出上升/下降沿 Output Rise/Fall Time	Tr		50	100	ns
顶降 Pulse Drop	Pdp		0.5		dB
启动冲击电流 Inrush Impulse Current@10%	IPC			20	A
功耗 Power consumption@5%	Pdiss			800	W
功耗 Power consumption@10%	Pdiss			1200	W
交流电压 AC Voltage	Vac		220		V AC
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 WRD62	
正向/反向耦合 Forward/Reverse Coupling	SMA Female/SMA Female	
液晶显示屏 Front Panel LCD Screen Display	7 inch LCD Screen Display	
调制接口 Modulation Interface	BNC Female	
尺寸 Size	19 Inch 5U*550 depth	mm
重量 Weight	≤45	Kg

绝对最大值 Absolute Maximum Ratings:

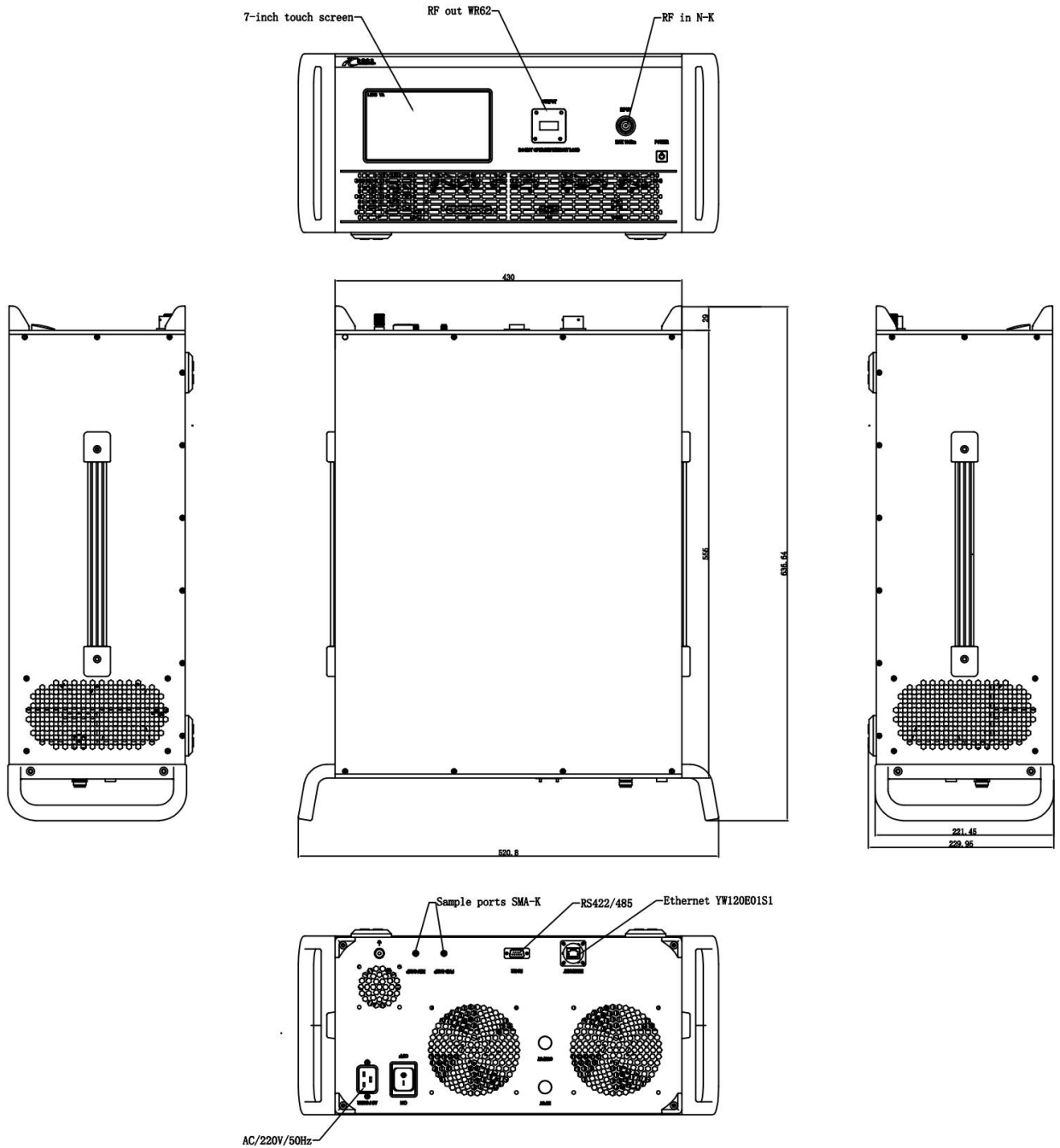
参数 Parameter	指标 Value
输入功率 RF Input Power	0 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

主要功能 Key Features:

参数 Parameter	特点 Advantages
控制功能 Control functions	1, Power setting On/Off 2, Gain control
内置保护功能 Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Output mismatch
监控和控制 Remote control	RS422/LAN
监测功能 Monitor functions	1, Output power 2, Reflected power 3, TEM 4, Operating voltage 5, Operating current
冷却系统 Cooling system	Built in Cooling system, forced air 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	℃
存储温度 Non-operating Temperature*	-30		+50	℃
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
TLPA16G16.5G-64-64-P-BC	Solid State High Power Amplifier Systems 16-16.5GHz,Gain:64dB,Psat:64dBm,220V AC,Built in Fan Cooling	Rev.1.1