泰莱微波 Talent Microwave

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Solid State High Power Amplifier Systems

0.5-3GHz/50dB Gain/50dBm Psat/220V AC Model: TLPA500M3000M-50-50-BC

TLPA500M3000M-50-50-BC is a solid state high power amplifier systems provides high output power and high gain across the 0.5 to 3 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: 0.5-3GHz
- Gain: 50dB Min
- Psat Output Power: 50dBm 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		0.5-3		GHz
功率增益 Power Gain	GP	50			dB
增益平坦度 Gain flatness	ΔGL		±3	±4	dB
增益调节范围 Gain adjust Range	ΔGR		30		dB
饱和输出功率 Output Psat	Psat	50			dBm
线性输出功率 Output P1dB	P1dB		47		dBm
杂散 Spurious	Spur			-60	dBc
谐波 Harmonics	HAM			-10	dBc
输入驻波 Input VSWR	VSWRin		1.5	2.0	:1
交流电压 AC Voltage	Vac	110	220		V AC
交流电流 AC Supply Current	Iac		2.5		A
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/N Female	
尺寸 Size	19 Inch 3U	
重量 Weight	≤25	Kg

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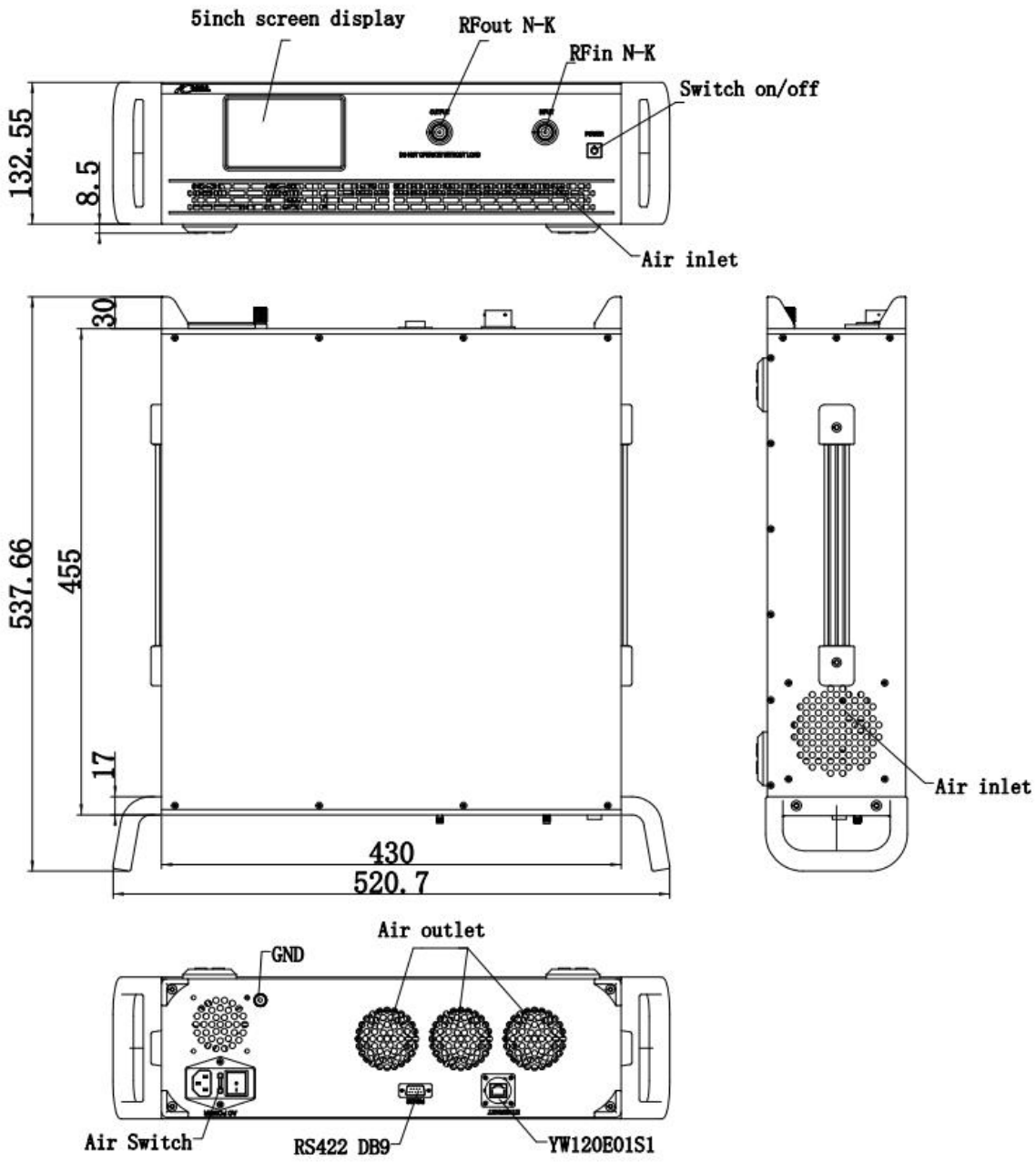
绝对最大值 Absolute Maximum Ratings:

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

外形图 Outline Drawing: Unit:mm



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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/Ethernet
冷却系统 Cooling system	Built in Cooling system,forced air cooling

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 Desciption	版本号 Revision
TLPA500M3000M-50-50-BC	Solid State High Power Amplifier Systems 0.5-3GHz,Gain:50dB,Psat:50dBm,220V AC,Built in Fan Cooling	Rev.1.1