

Power Source Specification

2450MHz/72dBm Psat

Model: TLS2450M-72-72-BC

TLS2450M-72-72-BC is a power source specification with a minimum Psat of 72 dBm at the 2450MHz frequency point. The power source specification features a built-in 380V power supply, making it easy to use in most lab environments. The RF output port is WR340.

Features:

- Frequency point: 2450MHz
- Output Power Psat: 72dBm Min
- Protection: Over TEM, over voltage, under voltage, load VSWR, chip damage protection
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

电气特性 Electrical Characteristics:

参数 Parameter		Min	Typ	Max	单位 Units
频率范围 Frequency range			2450		MHz
频率误差 Frequency error			±50		ppm
饱和输出功率 Output Psat		72			dBm
功率稳定度 Power stability@24h				±0.02	dB
ALC范围 ALC Range			30		dB
ALC步进 ALC Step	@1~10W range		0.5		W
	@10~50W range		1		
	@50~300W range		5		
	@0.3~1KW range		10		
	@1~5KW range		20		
	@5~10KW range		50		
	@10~15KW range		100		
相位调节范围 Phase Adjustment Range			360		°
相位调节步进 Phase Adjustment Step			5.625		°

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
输出驻波 Output VSWR		1.5		:1
交流电压 AC Voltage		380		V AC
交流效率 AC Efficiency @Pout =60 dBm		60		%
功率源效率 Power source Efficiency@Pout =60 dBm		56		%
阻抗 Impedance		50		Ohms

*Note: The interconnect between the power source and AC/DC is calculated based on a 10m cable.

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
TLS2450M-72-72-BC		
输出接口 Output Connector	WR340	
控制接口 M&C connectors	Serial:DB9 Ethernet: RJ-45	Internal only, controlled at the AC/DC end
供电接口 Power Supply Connector	Y50DX-3204*8	Internal only
液冷接口 Liquid Interfaces	ZFS-08	Coolant temp range:15~30℃ Pressure: 1.5 bar Liquid flow: 50L/min
尺寸 Size	600*540*359	mm
重量 Weight	≤80	Kg
冷却系统 Cooling system	Liquid cooling	

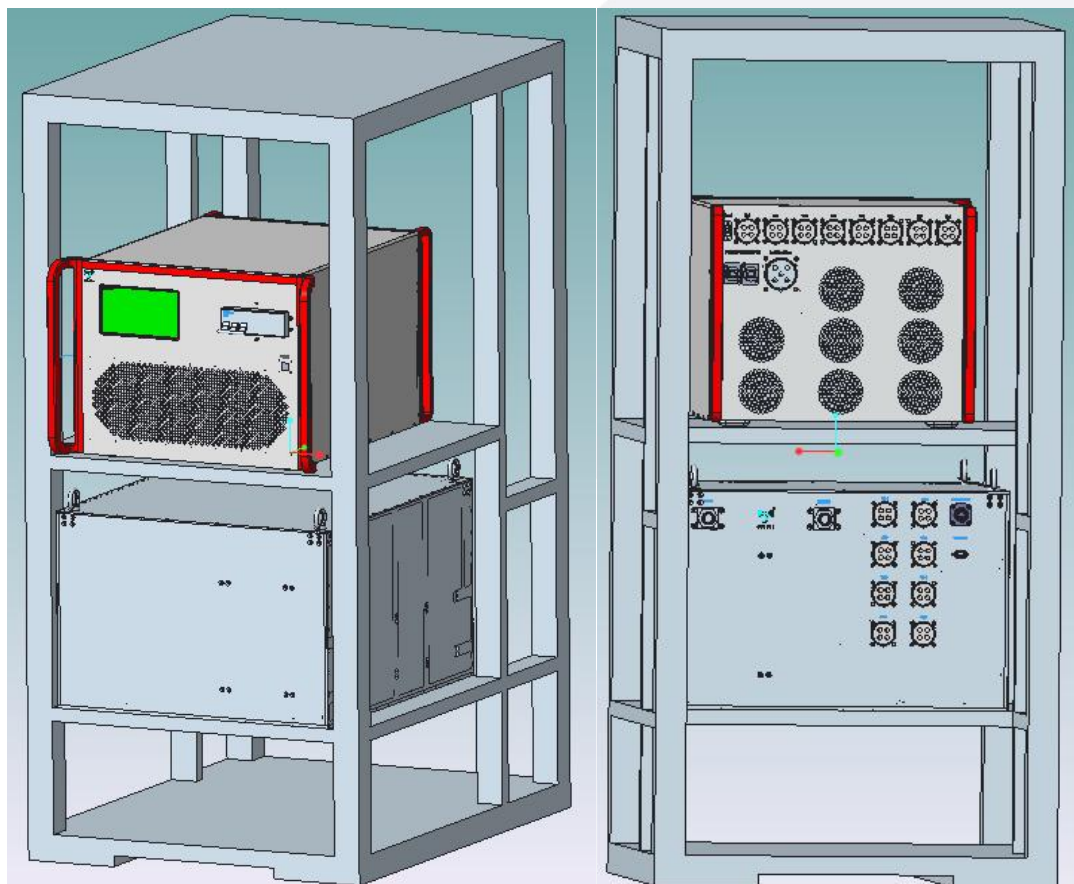
AC/DC		
交流接口 AC Connector	380V:Y50DX-3205	Internal only
直流接口 DC Connector	Y50DX-3204*8	Internal only
控制接口 Control Connector	RS422 Serial:DB9 Ethernet: RJ-45	Equipped with air switch
液晶显示屏 Front Panel LCD Screen Display	7 inch LCD Screen Display	
尺寸 Size	19 Inch 8U*800 depth	mm
重量 Weight	≈80	Kg
冷却系统 Cooling system	Forced air cooling	

主要功能 Key Features:

参数 Parameter	特点 Advantages
内置保护功能 Protection functions	1, Over TEM: $\geq +80^{\circ}\text{C}$ case temp –shutdown $\geq +45^{\circ}\text{C}$ environment temp –shutdown $\geq +40^{\circ}\text{C}$ Coolant temp –shutdown 2, Over voltage: $\geq 110\%$ DC voltage supply-shutdown 3, Under voltage: $\leq 90\%$ DC voltage supply-shutdown 4, Load VSWR protection: The unit disables RF when reverse power exceeds the safe level of 3:1 VSWR or reduces power by 6dB. 5, Chip damage: ≤ 2 pieces warning (without short-circuit) ≥ 3 pieces or short-circuit–shutdown
通信功能 Communication functions	1, Serial: RS422/485 2, Ethernet: LAN 3, Chip: state of each chip (gate voltage, drain current, output power, case temperature) 4, System: Output power, reflected power, load standing wave, operating voltage, operating current, ambient temperature, cold plate temperature

外形图 Outline Drawing:

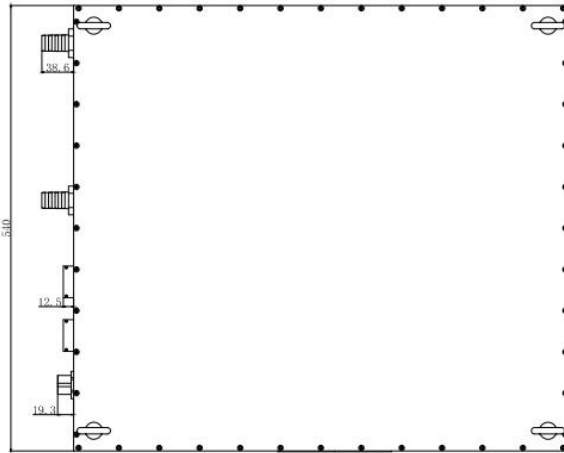
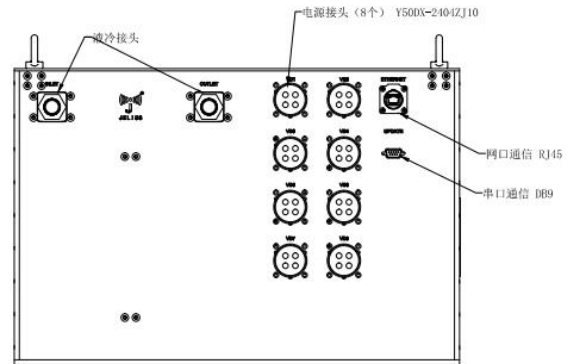
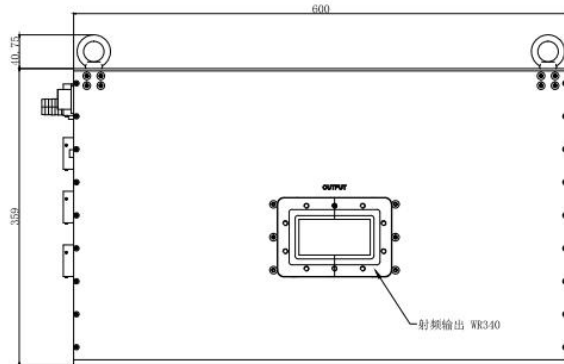
Unit:mm; Tolerance: $\pm 0.1\text{mm}$



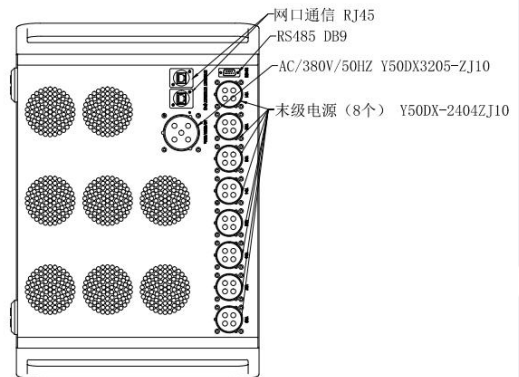
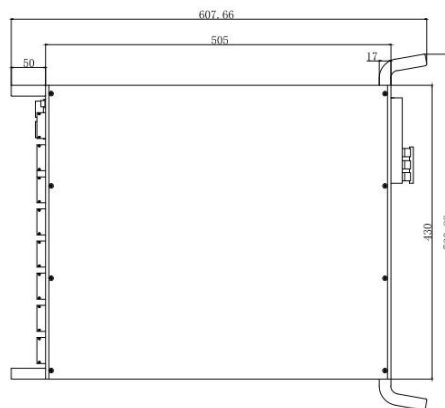
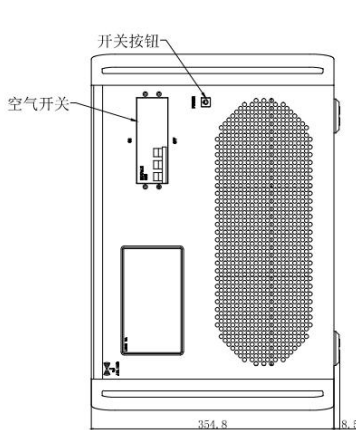
Integration diagram

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



TLS2450M-72-72-BC



AC/DC

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	0		+40	℃
存储温度 Non-operating Temperature*	-20		+70	℃
相对湿度 Relative humidity			95	%
海拔 Altitude	3,000			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
TLS2450M-72-72-BC	Power Source Specification 2450MHz, Psat:72dBm,380V AC,Built in liquid Cooling	Rev.1.0