

Solid State High Power Amplifier Systems

13.75-14.5GHz/52dB Gain/52dBm Psat/220V AC

Model: TLPA13.7G14.5G-52-52-BC-IP54-T

TLPA13.7G14.5G-52-52-BC-IP54-T is a solid state high power amplifier systems provides high output power and high gain across the 13.75 to 14.5 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: 13.75-14.5GHz
- Gain: 52dB Min
- Psat Output Power: 52dBm Min
- Protection: Over TEM, over voltage, over current, infinite 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	13.75-14.5			GHz
功率增益 Power Gain	GP	52			dB
增益平坦度 Gain flatness	ΔGL		± 2	± 3	dB
增益波动 Gain fluctuation @Full TEMP range	$\Delta G2$		± 3		dB
饱和输出功率 Output Psat	Psat	52			dBm
杂散 Spurious@Pout=52dBm	Spur			-60	dBc
三阶互调 Output IM3*	IM3			-25	dBc
驻波 VSWR	VSWR			1.5	:1
交流电压 AC Voltage	Vac		220		V AC
功耗 Power Consumption	Pdiss			1100	W
防护等级 Ingress Protection Grade*	IPG	IP-65			
阻抗 Impedance	I/O-IMP	50			Ohms

*Note:

Two-tone interval is 5 MHz, The total power of the two-tone synthesis is 48 dBm.

The default waveguide only has waterproof gasket and no pressure window. If the pressure window is needed, consult with the manufacturer

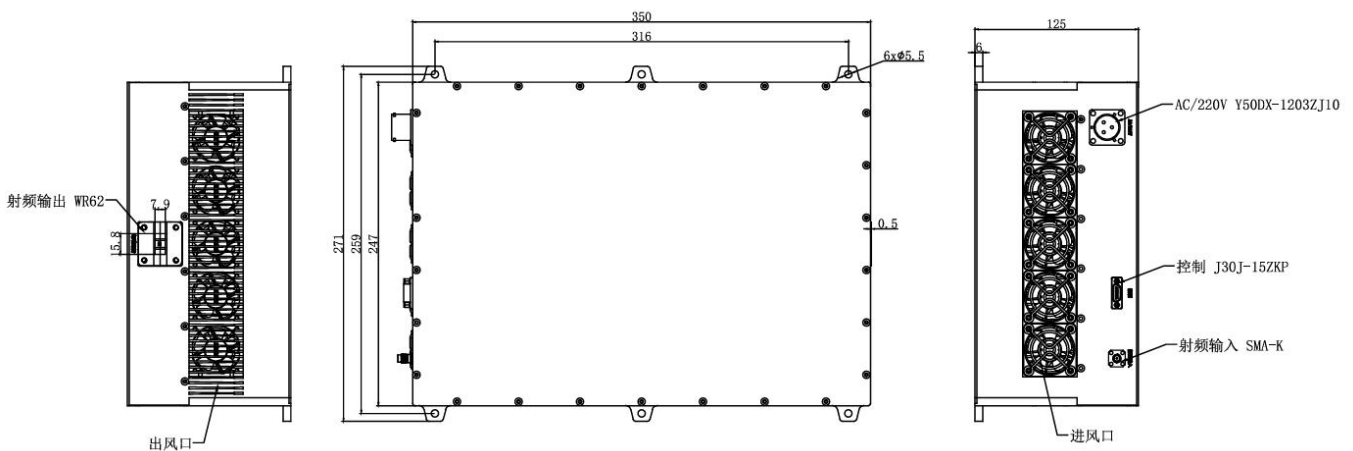
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/WR62	
供电接口 Power Supply Interface	Y50DX-1203	A1:L, A2:N, A3:GND
通信接口 Communication Connector	J30J-15ZKP	
尺寸 Size	350*271*125	mm
重量 Weight	≤15	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

外形图 Outline Drawing: Unit:mm



主要功能 Key Features:

参数 Parameter	特点 Advantages
查询参数 Query parameters	1,TEM 2,Voltage 3,Current 4,Output power and reflect power
内置保护功能 Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Infinite 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 Description	版本号 Revision
TLPA13.7G14.5G-52-52-BC-IP54-T	Solid State High Power Amplifier Systems 13.75-14.5GHz, Gain:52dB, Psat:52dBm, 220V AC, Built in Fan Cooling	Rev.1.1