

Solid State High Power Amplifier Systems

27.5-30GHz /50dB Gain/57 dBm Psat/220V AC

Model: TLPA27.5G30G-50-50-BC

TLPA27.5G30G-50-50-BC is a solid state high power amplifier systems provides high output power and high gain across the 27.5 to 30 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:

- Wide Band: 27.5-30GHz
- 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	27.5-30			GHz
功率增益 Power Gain	GP	50			dB
增益平坦度 Gain flatness	ΔGL	±1.5@200MHz bandwidth			dB
增益稳定度 Gain Stability	Gstb	±3@Full temperature range			dB
饱和输出功率 Output Psat	Psat	50	51		dBm
三阶互调 Output IM3	IM3		-30	-25	dBc
杂散 Spurious	Spur			-60	dBc
噪声功率谱密度 Noise PSD	ND	-90			dBm/Hz
输入驻波 Input VSWR	VSWRin			1.5	:1
输出驻波 Output VSWR	VSWRout		1.5	1.8	:1
交流电压 AC Voltage	Vac		220		V AC
功耗 Power Consumption	Pdiss	1200@Max			W
阻抗 Impedance	I/O-IMP	50			Ohms

机械特性 Mechanical Specifications:

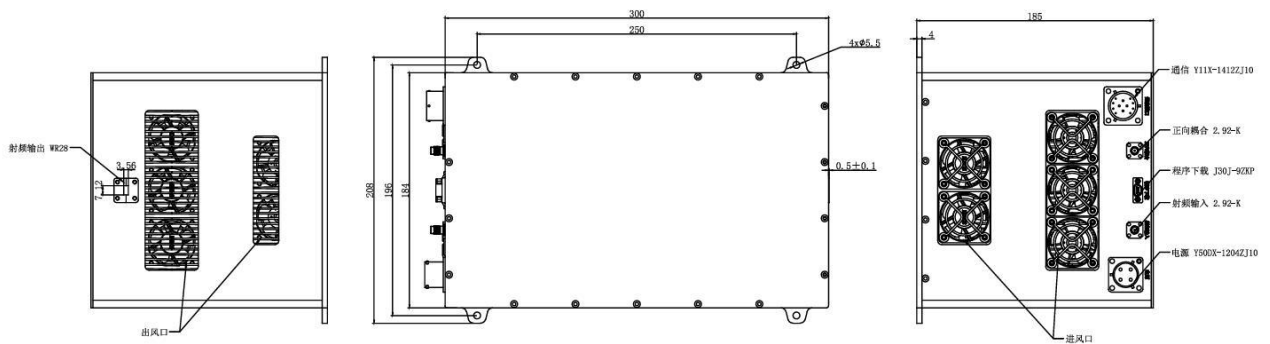
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92 Female/WR-28	
正向/反向耦合 Forward/Reverse Coupling	2.92mm Female/ 2.92mm Female	
尺寸 Size	300*208*185	mm
重量 Weight	≤25	Kg

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
控制功能 Control functions	1, Power setting On/Off
监控功能 Monitor functions	Operating voltage, current, temperature, transmitting power and reflection power
内置保护功能 Protection functions	1,Over TEM 2,Over voltage 3,Over current protection 4,Over VSWR
监控和控制 Remote control	RS422/LAN
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*	-40		+55	℃
存储温度 Non-operating Temperature*	-55		+85	℃
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
TLPA27.5G30G-50-50-BC	Solid State High Power Amplifier Systems 27.5-30GHz,Gain:50dB,Psat:50 dBm,220V AC,Built in Fan Cooling	Rev.1.0