

Solid State High Power Amplifier Systems

1-40GHz/40dB Gain/40dBm Psat/220V AC

Model: TLPA1G40G-40-40-BC

TLPA1G40G-40-40-BC is a solid state high power amplifier systems provides high output power and high gain across the 1 to 40 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: 1-40GHz
- Gain: 40dB Min
- Psat Output Power: 40dBm 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	Band A: 1-18 Band B: 18-40			GHz
功率增益 Power Gain		GP	40			dB
增益平坦度 Gain flatness	@Band A	Δ GL		± 5		dB
	@Band B			± 5		
饱和输出功率 Output Psat		Psat	40			dBm
杂散 Spurious@Pout=40dBm		Spur			-60	dBc
谐波 Harmonics	@Band A	HAM			-10	dBc
	@Band B				-15	
输入驻波 Input VSWR	@Band A	VSWRin			2.0	:1
	@Band B				2.5	
交流电压 AC Voltage		Vac		220		V AC
功耗 Power Consumption	@Band A	Pdiss			400	W
	@Band B				300	
阻抗 Impedance		I/O-IMP	50			Ohms

机械特性 Mechanical Specifications:

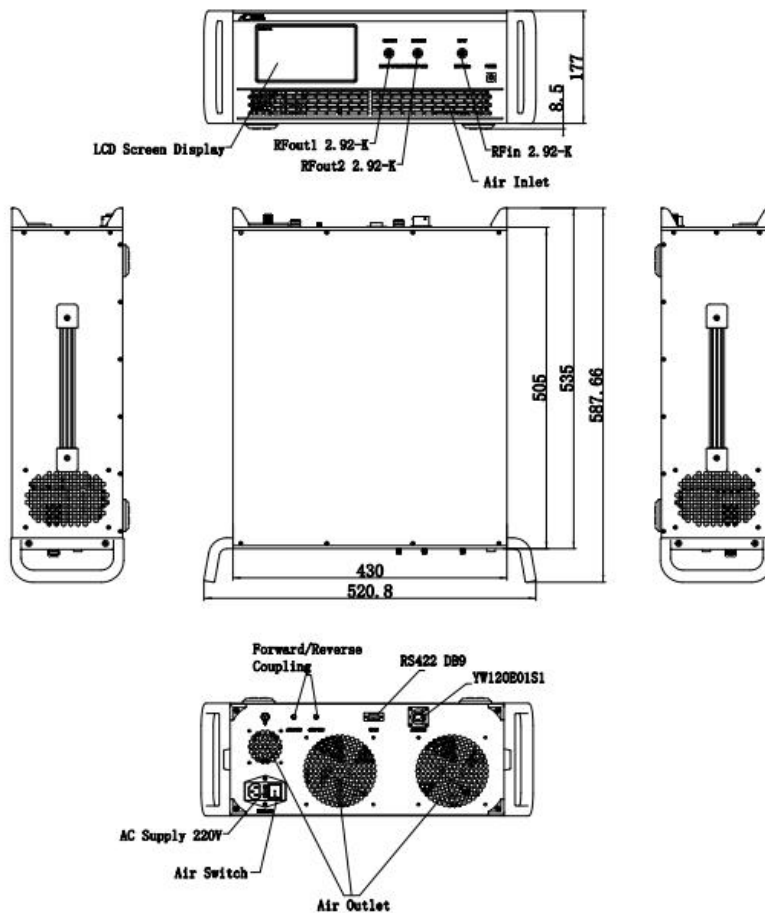
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
液晶显示屏 Front Panel LCD Screen Display	7 inch LCD Screen Display	
尺寸 Size	19 Inch 4U*540	mm
重量 Weight	≤30	Kg

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 2, ALC automatic level control 3, Frequency Band Switching
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/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		+50	°C
存储温度 Non-operating Temperature*	-30		+60	°C
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
TLPA1G40G-40-40-BC	Solid State High Power Amplifier Systems 1-40GHz, Gain: 40dB, Psat: 40 dBm, 220V AC, Built in Fan Cooling	Rev.1.1