

Solid State High Power Amplifier Systems

15-18GHz/60dB Gain/60dBm Psat/220V AC

Model: TLPA15G18G-60-60-BC

TLPA15G18G-60-60-BC is a solid state high power amplifier systems provides high output power and high gain across the 15 to 18 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: 15-18GHz
- Gain: 60dB Min
- Psat Output Power: 60dBm 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	15-18			GHz
功率增益 Power Gain	GP	60			dB
增益平坦度 Gain flatness	ΔGL		± 3		dB
峰值输出功率 Peak Output Power	P.P	60			dB
输出功率调节范围 Output Power adjust Range	ΔPR		30		dB
输出功率调节步进 Output Power adjust Step	ΔPS		0.5		dB
峰值输出功率平坦度 Peak Output Power flatness	$\Delta P.P$			± 1.5	dB
杂散 Spurious	Spur		-60	-50	dBc
谐波 Harmonics	HAM		-20		dBc
调制频率 Modulation Frequency	MF			100	KHz
脉冲宽度 Pulse Width	T	0.1		300	us
占空比 Duty Cycle	τ			20	%
上升/下降沿 Rise/Fall Time	Tr		30	50	ns
输入驻波 Input VSWR	VSWR			2	:1
交流电压 AC Voltage	Vac		220		V AC
5%占空比功耗 Power consumption@5% duty cycle	Pdiss			380	W
10%占空比功耗 Power consumption@10% duty cycle	Pdiss			730	W
阻抗 Impedance	I/O-IMP	50			Ohms

机械特性 Mechanical Specifications:

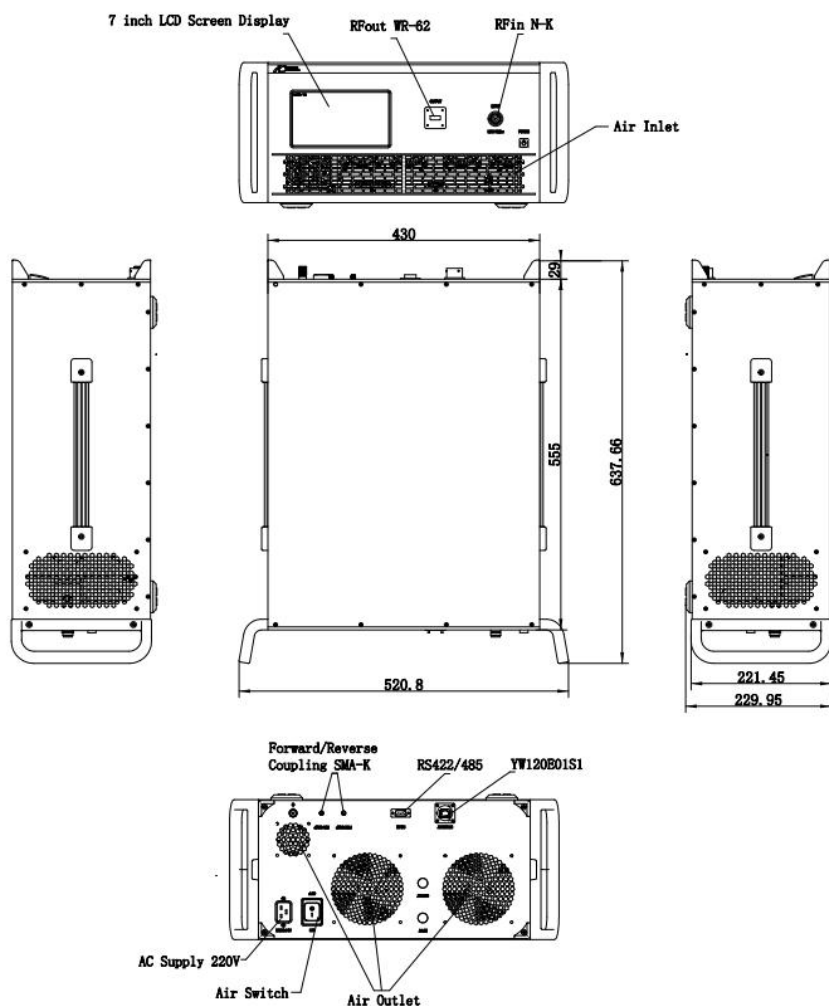
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/WR62	
通信接口 Communication Connector	DB9/RJ45	
尺寸 Size	19 Inch 5U	
重量 Weight	≤45	Kg

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	TBD
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, RF ON/OFF 4, Gain adjustment 5, Real time status query
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
指示灯 Indications	1, AC on/off 2, DC on/off 3, RF on/off 4, Fault
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	°C
存储温度 Non-operating Temperature*	-30		+50	°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
TLPA15G18G-60-60-BC	Solid State High Power Amplifier Systems 15-18GHz, Gain: 60dB, Psat: 60dBm, 220V AC, Built in Fan Cooling	Rev.1.1