

Solid State High Power Amplifier Systems

9-10GHz/62dB Gain/62dBm Psat/28V DC

Model: TLPA9G10G-62-62-P-BC

TLPA9G10G-62-62-P-BC is a solid state high power amplifier systems provides high output power and high gain across the 9 to 10 GHz frequency range. The amplifier features +28V DC 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: 9-10GHz
- Gain: 62dB Min
- Psat Output Power:62dBm Min
- Protection:Over TEM,over voltage, over current 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	9-10			GHz
功率增益 Power Gain	GP	62			dB
小信号增益平坦度 Small Signal Gain flatness	ΔGL		± 4	± 4.5	dB
功率增益平坦度 Power Gain flatness@Pout=62dBm	ΔGP		± 4	± 4.5	dB
饱和输出功率 Output Psat	Psat	62			dBm
杂散 Spurious@Pout=62dBm	Spur			-60	dBc
谐波 Harmonics@Pout=62dBm	HAM			-30	dBc
底噪 Ground Noise	NL			-80	dBm/Hz
调制信号电平 Modulation Signal Level	TTL	0		5	V
调制频率 Modulation Frequency	MF	0.5		100	KHz
脉冲宽度 Pulse Width	T	0.3		500	us
占空比 Duty Cycle	τ			10	%
上升/下降沿 Rise/Fall Time	Tr		50	100	ns
顶降 Pulse Drop@T=100us	Pdrop		0.5		dB
直流供电 DC Supply Voltage	Vdc		28		V
启动冲击电流 Inrush Impulse Current@10%	IPC			20	A
输入驻波 Input VSWR	VSWRin			1.5	:1
输出驻波 Output VSWR	VSWRout			2	:1

电气特性 Electrical Characteristics:

参数 Parameter	代码 Symbol	Min	Typ	Max	单位 Units
功耗 Power consumption@5%	Pdiss			450	W
功耗 Power consumption@10%	Pdiss			900	W

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/WRD90	Height-reduced WR 90
正向/反向耦合 Forward/Reverse Coupling	SMA Female/SMA Female	40±2dB
直流供电连接器 DC Supply Interface	DSUB-8W8	Pin1~4:+28V Pin5~8:GND
控制接口 Control Connector	J30J-15ZKP	
尺寸 Size	398*320*149	mm
重量 Weight	/	Kg

绝对最大值 Absolute Maximum Ratings:

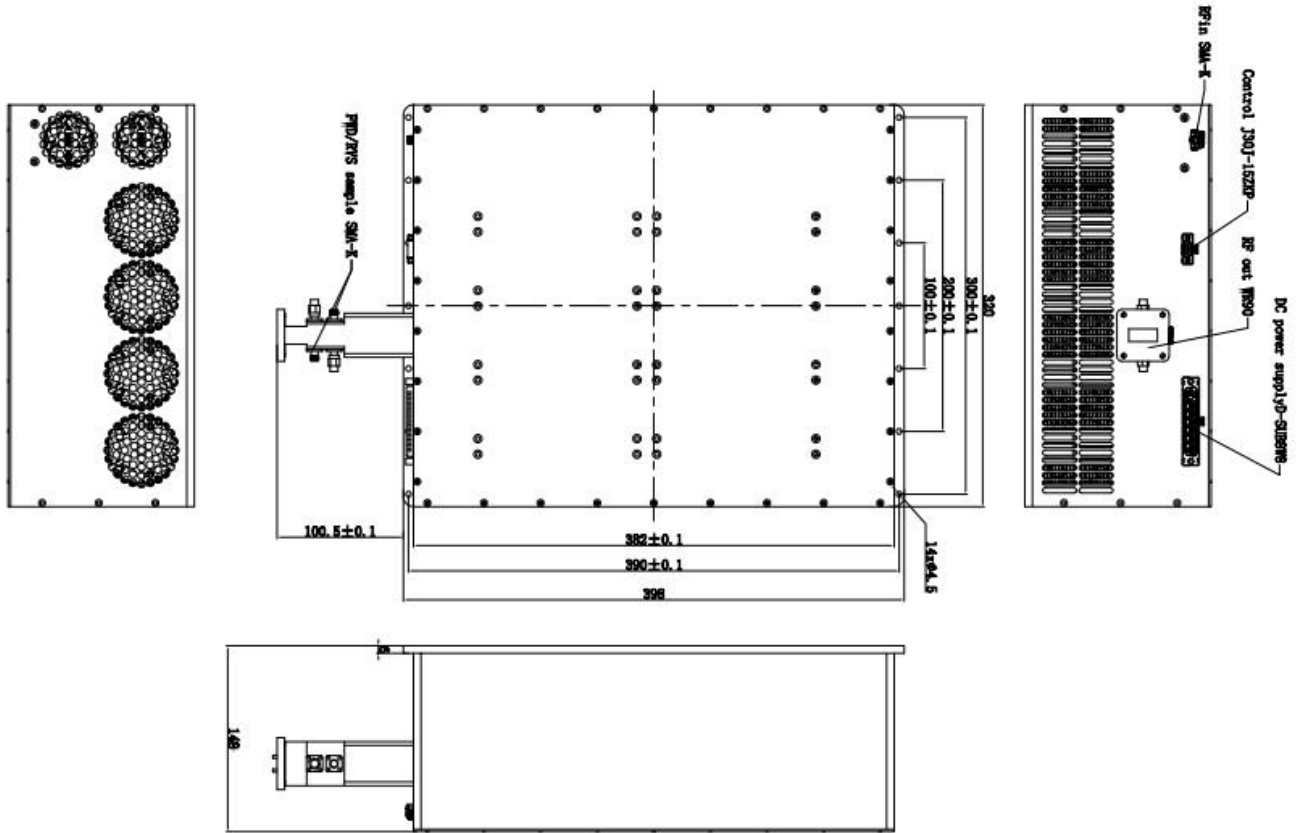
参数 Parameter	指标 Value
输入功率 RF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

控制接口 Control Connector(J30J-15ZKP):

引脚 Pin	功能 Function
Pin1	TTL(Modulating signal)
Pin2	GND(Modulating signal)
Pin3	0.5dB Attenuation Bit
Pin4	1dB Attenuation Bit
Pin5	2dB Attenuation Bit
Pin6	4dB Attenuation Bit
Pin7	8dB Attenuation Bit
Pin8	16dB Attenuation Bit
Pin9~15	GND

外形图 Outline Drawing:

Unit:mm



主要功能 Key Features:

参数 Parameter	特点 Advantages
内置保护功能 Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Over VSWR*
冷却系统 Cooling system	Built in Cooling system,forced air cooling

*Note: This function can be provided according to customer requirements..

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
TLPA9G10G-62-62-P-BC	Solid State High Power Amplifier Systems 9-10GHz, Gain:62dB, Psat:60 dBm, +28V DC, Built in Fan Cooling	Rev.1.1