

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, over VSWR protection
- 50 Ohm Matched Input / Output

Electrical Characteristics:

Parameter	Symbol	Min	Typ	Max	Units
Frequency range	BW	9-10			GHz
Power Gain	GP	62			dB
Small Signal Gain flatness	ΔGL		± 4	± 4.5	dB
Power Gain flatness@Pout=62dBm	ΔGP		± 4	± 4.5	dB
Output Psat	Psat	62			dBm
Spurious@Pout=62dBm	Spur			-60	dBc
Harmonics@Pout=62dBm	HAM			-30	dBc
Ground Noise	NL			-80	dBm/Hz
Modulation Signal Level	TTL	0		5	V
Modulation Frequency	MF	0.5		100	KHz
Pulse Width	T	0.3		500	us
Duty Cycle	τ			10	%
Rise/Fall Time	Tr		50	100	ns
Pulse Drop@T=100us	Pdrop		0.5		dB
DC Supply Voltage	Vdc		28		V
Inrush Impulse Current@10%	IPC			20	A
Input VSWR	VSWRin			1.5	:1
Output VSWR	VSWRout			2	:1

Electrical Characteristics:

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

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/WRD90	Height-reduced WR 90
Forward/Reverse Coupling	SMA Female/SMA Female	40±2dB
DC Supply Interface	DSUB-8W8	Pin1~4:+28V Pin5~8:GND
Control Connector	J30J-15ZKP	
Size	398*320*149	mm
Weight	≈30	Kg

Absolute Maximum Ratings:

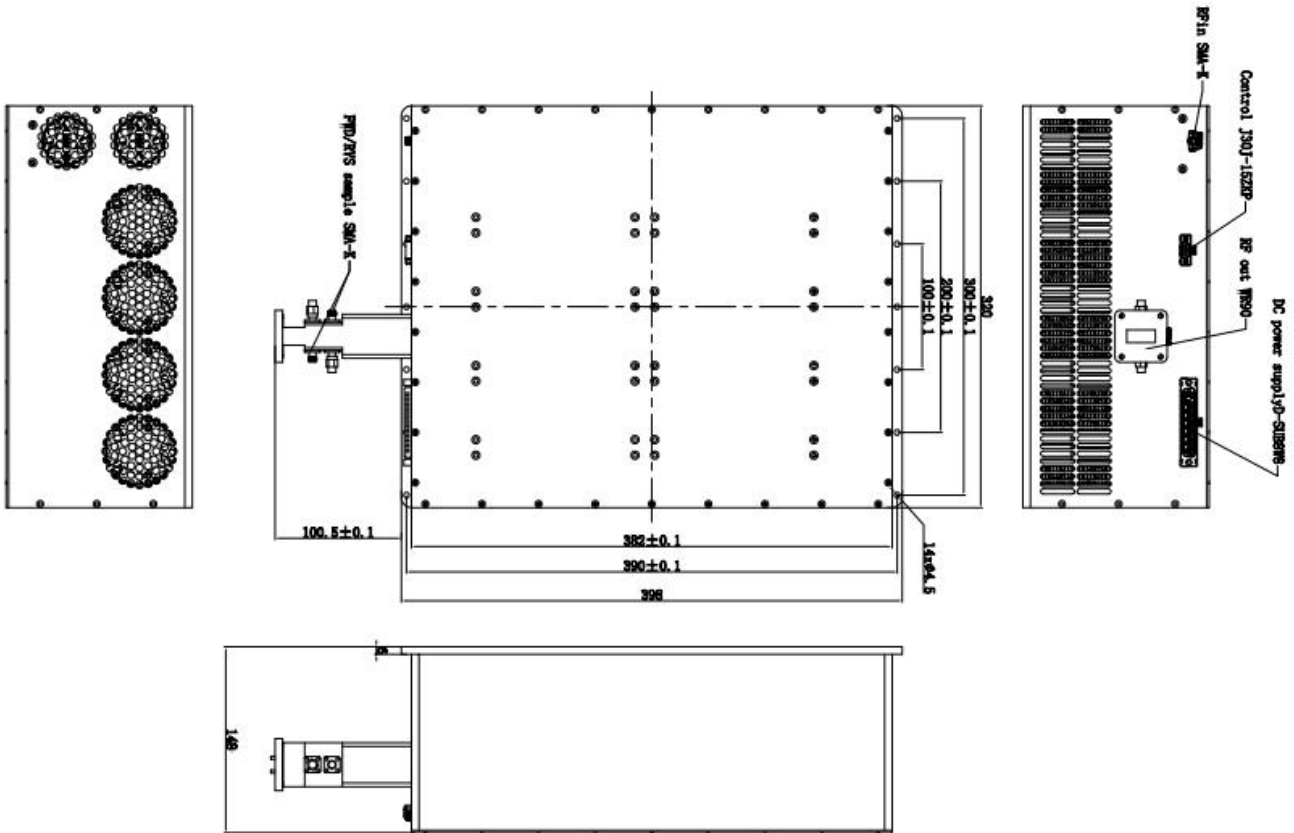
Parameter	Value
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Control Connector(J30J-15ZKP):

Pin	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

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Key Features:

Parameter	Advantages
Protection functions	1,Over TEM 2,Over voltage 3,Over current 4,Over VSWR
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+40	°C
Non-operating Temperature*	-30		+50	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	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