

Solid State High Power Amplifier Systems

27.5-31GHz /52dB Gain/52dBm Psat/220V AC

Model: TLPA27.5G31G-52-52-BC-IP54-T

TLPA27.5G31G-52-52-BC-IP54-T is a solid state high power amplifier systems provides high output power and high gain across the 27.5 to 31 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: 27.5-31GHz
- Gain: 52dB Min
- Psat Output Power:52dBm 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	27.5-301			GHz
Power Gain	GP	52			dB
Gain flatness	ΔGL		± 3	± 4	dB
Gain fluctuation@Full TEMP range	$\Delta G2$		± 3		dB
Output Psat	Psat	52			dBm
Output IM3*	IM3			-25	dBc
Spurious	Spur			-60	dBc
Input VSWR	VSWRin		1.5		:1
Output VSWR	VSWRout		1.5		:1
AC Voltage	Vac		220		V AC
Power Consumption	Pdiss	1450@Max			W
Ingress Protection Grade*	IPG	IP-54			
Impedance	I/O-IMP	50			Ohms

*Note:

Two-tone interval is 5 MHz,The total power of the two-tone synthesis is 48 dBm.

The default waveguide only has waterproof gasket and no pressure window.If the pressure window is needed, consult with the manufacturer

Mechanical Specifications:

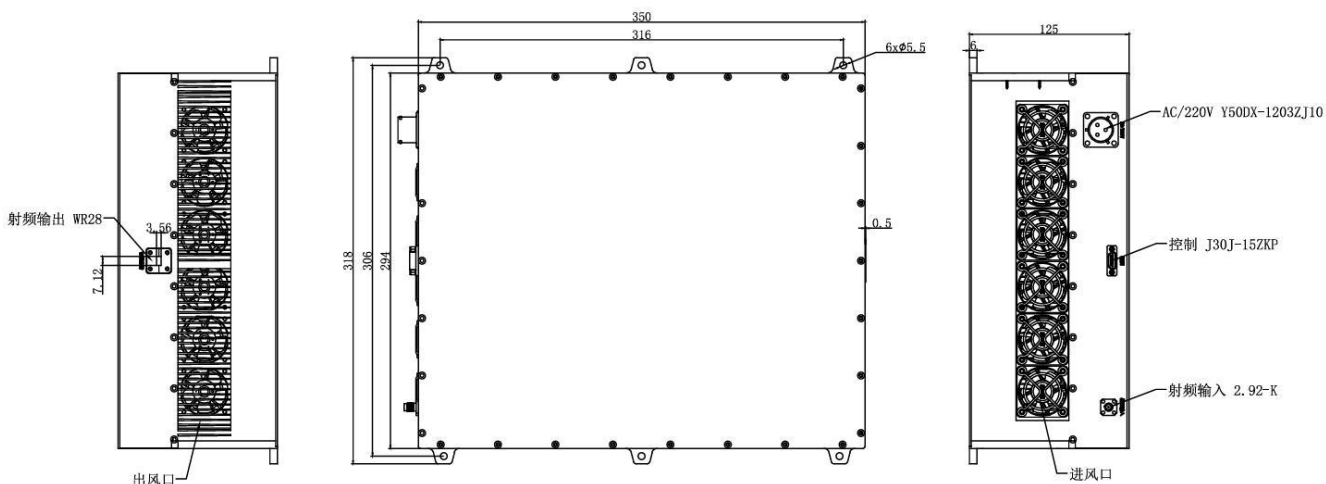
Parameter	Value	Units
Input /Output Connector	2.92 Female/WR-28	
Communication Connector	J30J-15ZKP	
Supply Bias	Y50DX-1203	A1L,A2:N,A3:GND
Size	350*318*125	mm
Weight	≤20	Kg

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



Key Features:

Parameter	Advantages
Protection functions	1,Over TEM 2,Over voltage 3,Over current protection 4,Over VSWR
Query parameters	1,TEM 2,Voltage 3,Current 4,Output power and reflect power
Remote control	RS422
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+55	°C
Non-operating Temperature*	-45		+60	°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
TLPA27.5G31G-52-52-BC-IP54-T	Solid State High Power Amplifier Systems 27.5-31GHz,Gain:52dB,Psat:52 dBm,220V AC,Built in Fan Cooling	Rev.1.0