

Power Amplifier

2-8GHz/50dB Gain/50dBm Psat

Model: TLPA2G8G-50-50

TLPA2G8G-50-50 is a power amplifier with power gain of 50 dB and a nominal Psat of 50 dBm across the frequency range of 2 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/1350 W. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N female.

Features:

- Frequency range: 2-8 GHz
- Gain: 50dB Min
- Output Power Psat: 50dBm Min
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	2		8	GHz
Power Gain	50			dB
Linear Gain flatness			±2.5	dB
Gain adjust Range		31.5		dB
Gain adjust Step		0.5		dB
Output Psat	50			dBm
Spurious@Pout=50dBm			-60	dBc
Harmonics@Pout=50dBm		-15	-10	dBc
Input VSWR			2	:1
Output VSWR			2.5	:1
DC Voltage		28	29	V DC
Power Consumption@Pout=50dBm			1350	W
Power Consumption@Psat			1700	W
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Supply Connector	DSUB-5W5	Pin1~2: +28V Pin3~5: GND
Size	364*330*97.5	mm
Weight	≤12	Kg

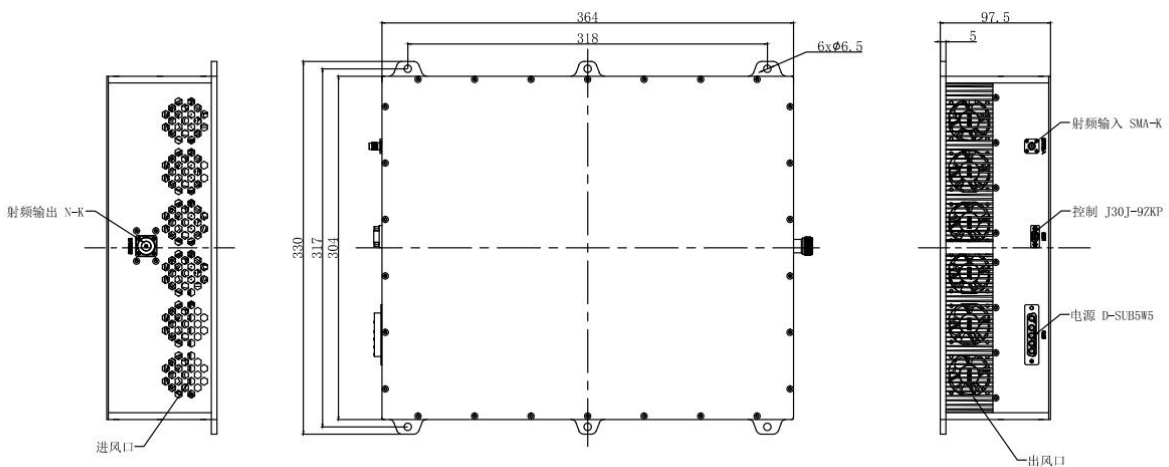
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Key Features:

Parameter	Advantages
Control functions	1, Power setting on/off 2, Gain control
Cooling system	Built in Cooling system, forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	°C
Non-operating Temperature*	-30		+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
TLPA2G8G-50-50	Power amplifier 2-8GHz, Gain:50dB, Psat:50dBm, +28V DC, With Heatsink	Rev.1.0