

Power Amplifier

4-8GHz/53dB Gain/53dBm Psat

Model: TLPA4G8G-53-53

TLPA4G8G-53-53 is a power amplifier with a minimum power gain of 53 dB and a minimum Psat of 53 dBm across the frequency range of 4 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/1250 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: 4-8GHz
- Gain: 53dB Min
- Output Power Psat: 53dBm Min
- Protection: Over TEM, over current, over voltage, over VSWR protection
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	4		8	GHz
Power Gain@Pout=53dBm	53			dB
Output Psat	53			dBm
Gain adjust Range		31.5		dB
Gain adjust Step		0.5		dB
Small Signal Gain flatness		±3.5		dB
2nd Harmonics		-15		dBc
Input VSWR			2	:1
DC Voltage		+28	+29	V DC
Power Consumption			1250	W
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Supply Connector	DSUB-5W5	
Control Connector	J30J-9ZKP	
Communication Connector	RS422	
Size	310*326*98	mm
Weight	≤15	Kg

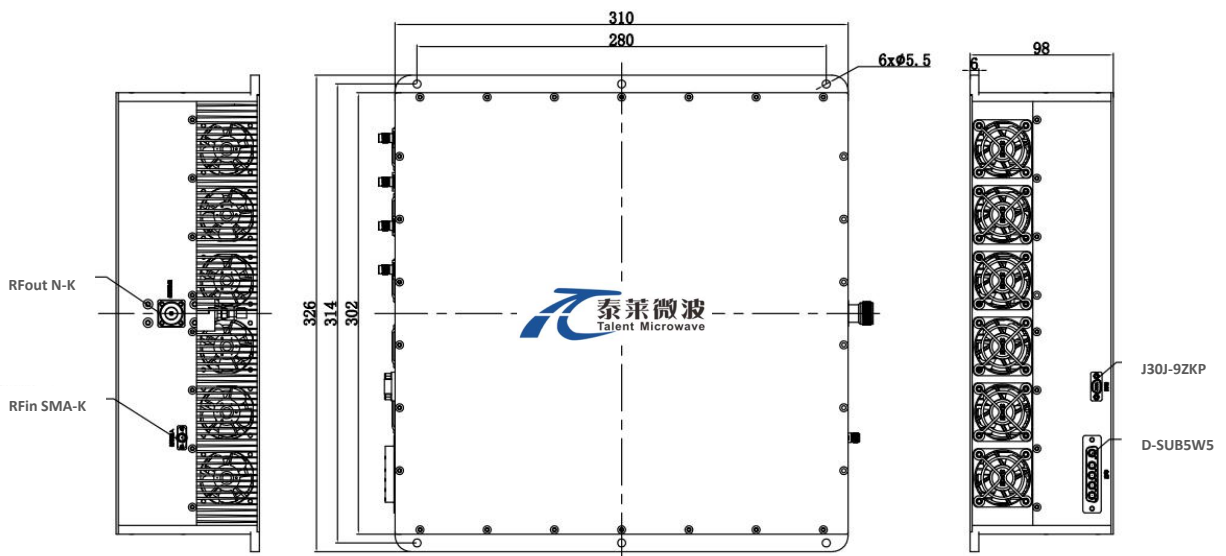
Absolute Maximum Ratings:

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, RF setting on/off 3, ALC automatic level control
Monitoring functions	1, TEM 2, Operating voltage 3, Operating current 4, Output/reflected power
Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR: the safe level of 3:1
Remote control	RS422
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
TLPA4G8G-53-53	Power amplifier 4-8GHz, Gain:53dB, Psat:53dBm, +28V DC, With Heatsink	Rev.1.1