

Shenzhen Yunding Communication  
Electronics Co., LTD

TEL: +86 0755-23073599

FAX: +860755-23097189

E- mail: wht0809@163. com

acknowledgement  
APPROVAL

client  
: Foscombe

Product name External antenna KH 610-1 2 dBi 2.0 (White) SMA  
specification header L=106mm nonbend

DESCRIPTION:

P / N  
PART NO.: YD-C01-0015

Customer material  
number 303305000081  
CUS PART NO.:

date  
DATE: 2024. 10. 28

Genting is signed in a sample

engineering ENGINEERING DEPARTMENT	QA Q C DEPARTMENT	vocational work SALES DEPARTMENT

The customer acknowledges the signature

engineering ENGINEERING DEPARTMENT	QA Q C DEPARTMENT	purchase PURCHASING DEPARTMENT

Contact number: 0755-23073599

✂ The admission is in triplicate, and Hui company admits the signature

✂ Approval induplicate, please signed by yourcompany.

Address: 3015, Jinzhi Center,  
Aviation Road, Baoan District,  
Shenzhen

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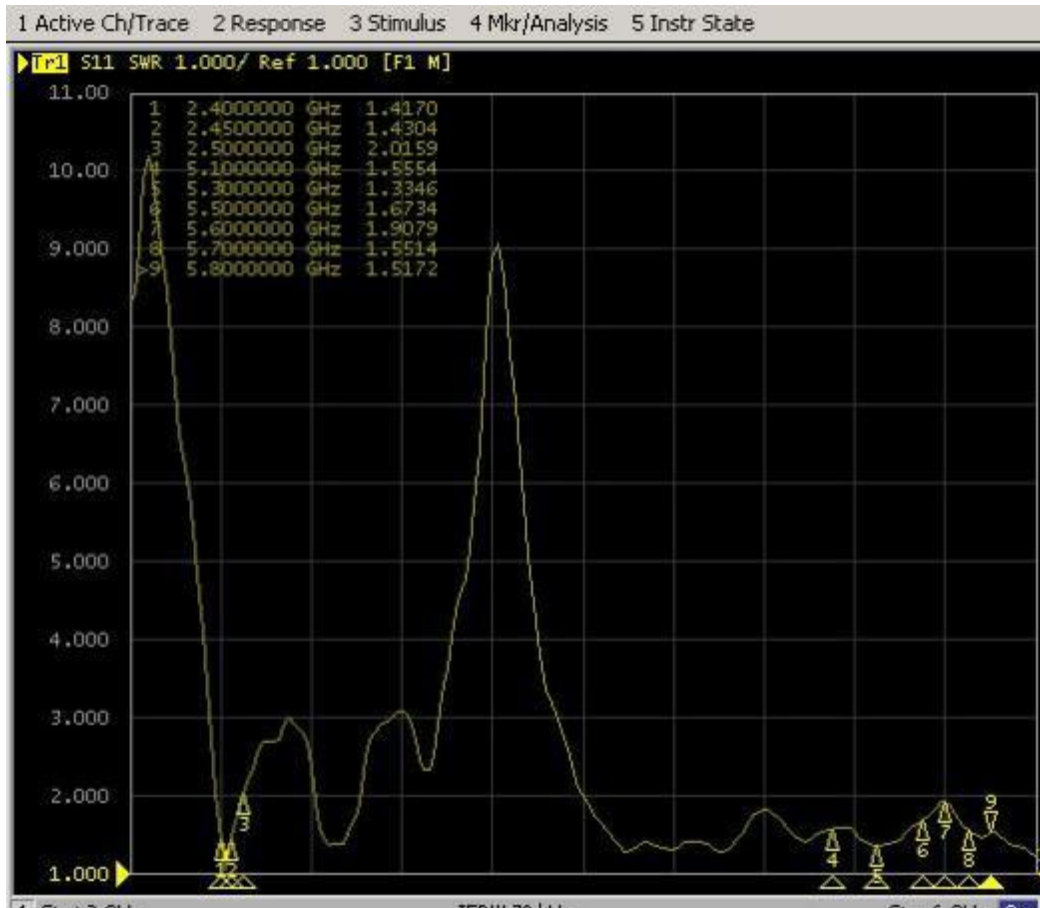
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## 1. Antenna performance:

SWR



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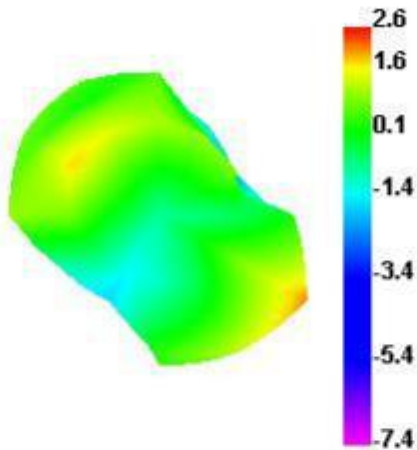
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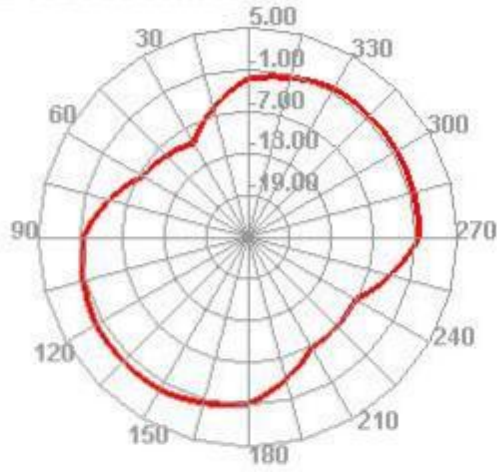
## 2. Antenna efficiency and gain

Passive Test For WIFI2.4		
Freq (MHz )	Effi (%)	Gain (dBi )
2400	80.62	2.61
2410	78.51	2.42
2420	72.72	2
2430	72.41	2.05
2440	75.43	2.34
2450	79.14	2.79
2460	77.32	2.86
2470	79	3.1
2480	78.9	3.16
2490	81.48	3.19
2500	79.22	3.07

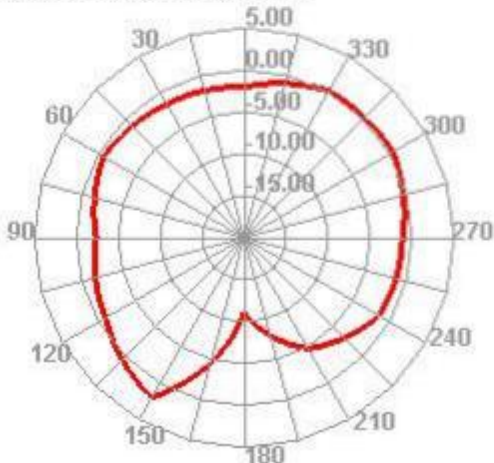
2400.000MHz



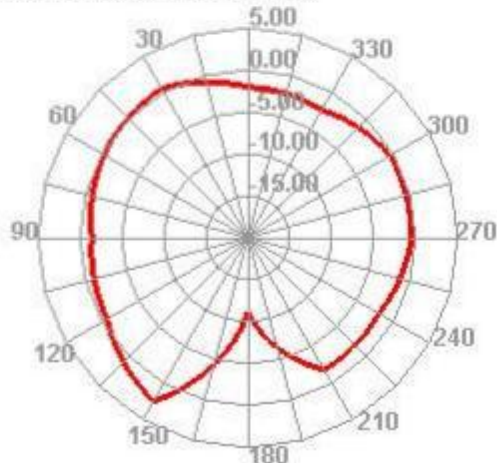
2400.000MHz H



2400.000MHz E1



2400.000MHz E2



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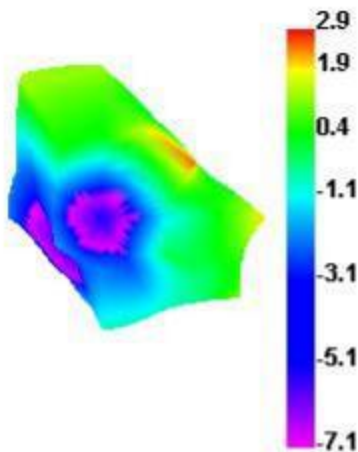
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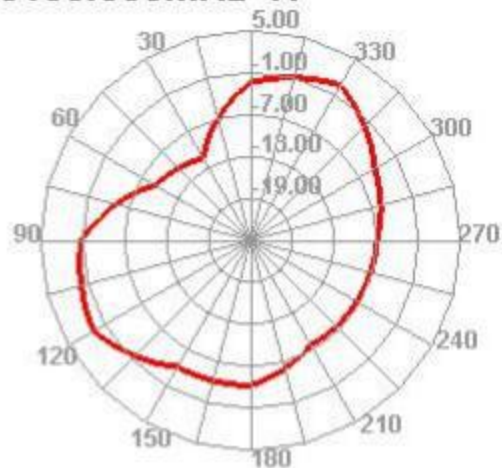
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Passive Test For WIFI5.8		
Freq (MHz )	Effi (%)	Gain (dBi )
5150	63.73	2.92
5250	55.87	2.47
5350	55.61	2.11
5450	60.88	2.39
5550	46.94	1.13
5650	50.15	1.56
5750	49.32	1.35
5850	48.16	1.28

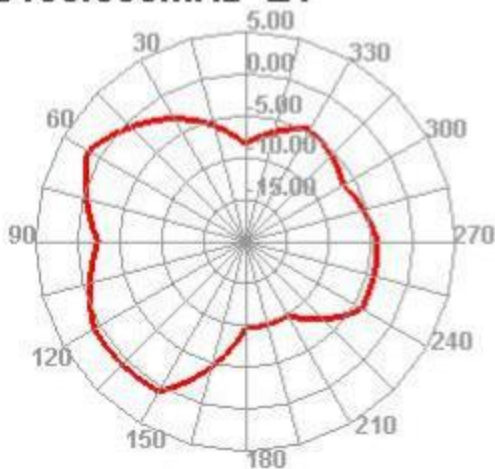
5150.000MHz



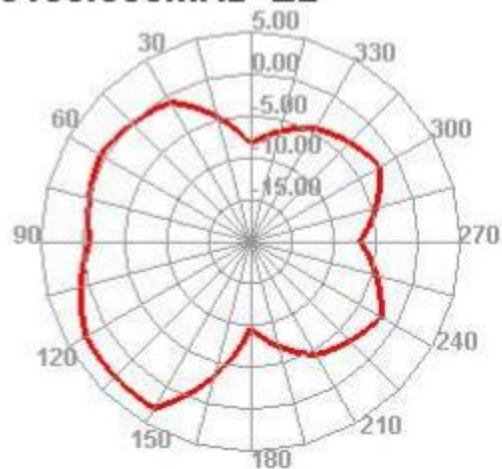
5150.000MHz H



5150.000MHz E1



5150.000MHz E2



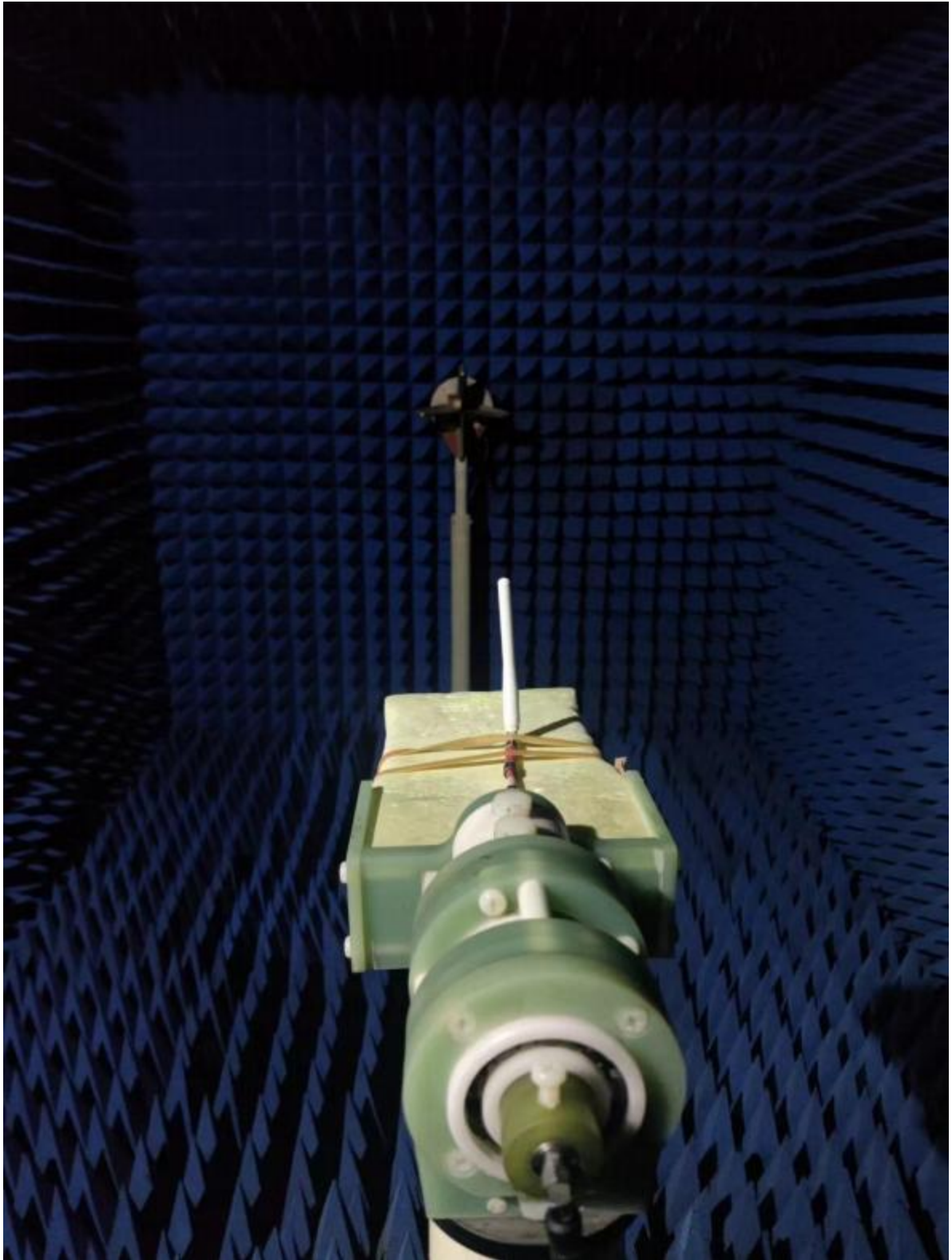
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## 3. Dark room test pictures





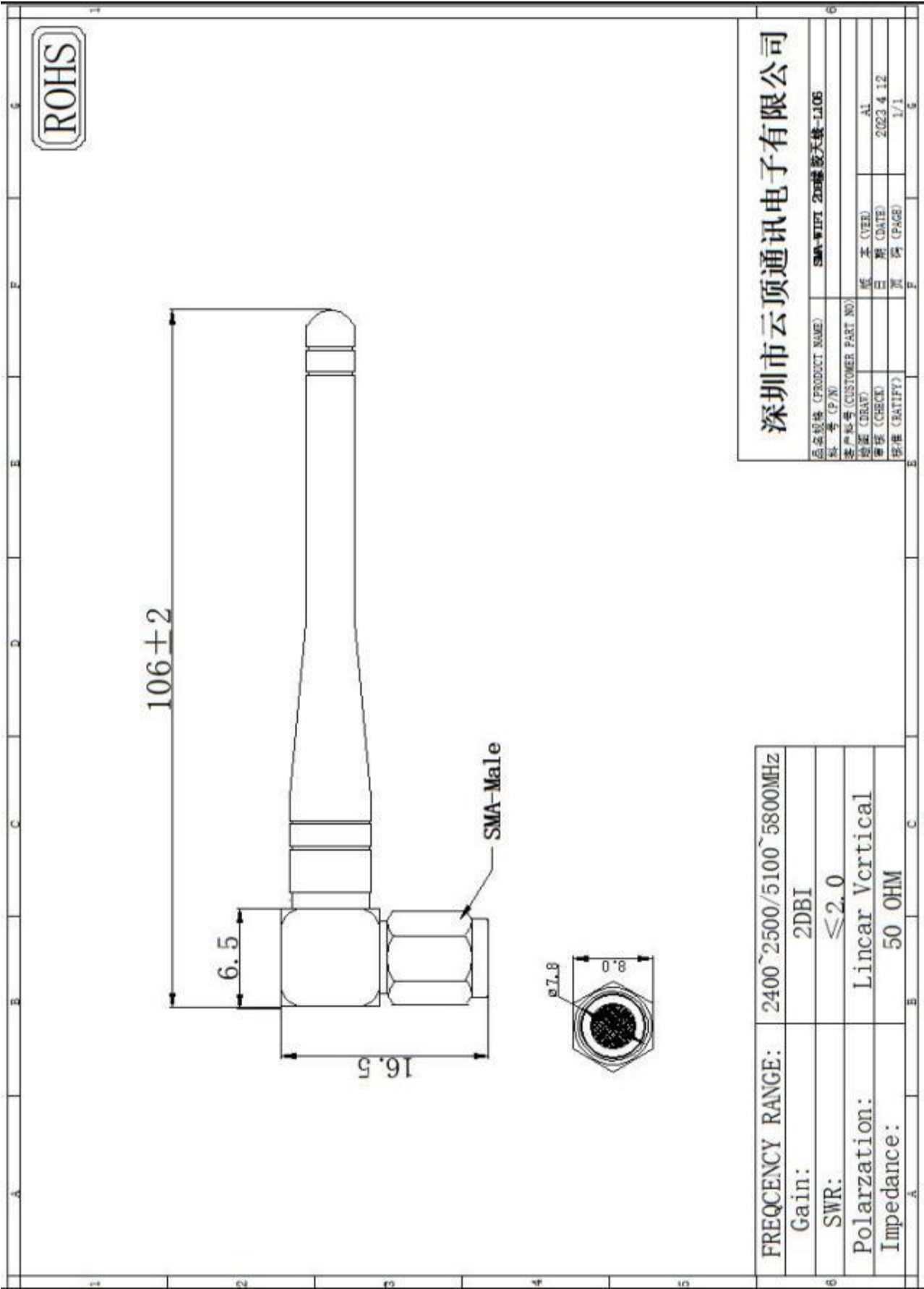
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## 4. Antenna structure diagram:



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Electrical technical parameters			
Electrical performance index		Electrical Specifications	
frequency range	2400~2500/5100~5800 MHz	Frequency Range	2400~2500/5100~5800 MHz
voltage standing-wave ratio	≤2.0	VSWR	≤2.0
gain	2 DBI	Gain	2 DBI
input impedance	50 Ω	Input Impedance	50 Ω
Maximum input power	50W	MaximumInput Power	50W
Mechanical indicators		Mechanical Specifications	
Antenna color	white	Antenna Color	White
Interface form	SMA	Input connector	SMA
Antenna length	106MM	Antenna length	106MM
working temperature	-40℃~+85℃	Working Temperature	-40℃~+85℃
Working humidity	20~80%	Working Humidity	20~80%

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## Environmental Performance Test (Environment performance test):

project	test condition	test result
Storage environment	Test temperature, humidity, air pressure without specified: 1. The temperature is $-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$ 2. Relative humidity is 45% -85% 3. Air pressure is 86 kpa-106 kpa	Electrical and mechanical properties are normal
thermocycling	Five cycles were performed between $70^{\circ}\text{C}$ and $-40^{\circ}\text{C}$ and then under normal conditions 1-2H, check the appearance quality.	Dimensions shall meet the requirements and shall be satisfied In the mechanical and electrical performance
Resistance to constant damp and heat test	Relative humidity: $95 \pm 3\%$ , test temperature: $40^{\circ}\text{C}$ . After a sustained 2H action, The electrical performance is measured within 5 min after the removal, and the test article is in the normal strip Part under 1-2H, to check the appearance quality	Dimensions shall meet the requirements and shall be satisfied In the mechanical and electrical performance
vibration test	Vibration frequency range: 10-55 HZ, displacement amplitude: 0.35 MM, acceleration amplitude: 50.0M/S, Scan cycle times: 30 times	Electrical and mechanical properties are normal
fall-down test	1M falls 3 times in the axis direction vertical to each other	Electrical and mechanical properties are normal

Project	Test condition	Test results
Storage environment	Test temperature, humidity, pressure without stated condition as follows: 1. Temperature: $-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$ ; 2. Relative humidity: 45%-85%; 3. Pressure: 86 kpa-106 kpa	Electrical and mechanical performance normal
High and low temperature test	Having 5 times cycle between $-40^{\circ}\text{C}$ to $70^{\circ}\text{C}$ , Then in common condition 1-2 hours test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.

<b>Resistance constant hot and humid test</b>	Relative humidity: $95\pm 3\%$ , Test temperature: 40℃, last 2 hours, put it after 5 min test the electrical function. Test products during common condition 1-2 hours, Then test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.
<b>Vibration test</b>	Vibrate Frequency: 10-55 HZ; Distance: 0.35 mm; Acceleration: 50.0m/s; Sweep frequency cycle: 30 times	Electrical and mechanical performance normal
<b>Fall test</b>	From 1 m height fall down 3 times freely ( vertical direction)	Electrical and mechanical performance normal

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