

Shenzhen Tianlianling Technology Co., Ltd.

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification Confirmation Letter

Number: SLSOA20240821YPH01

customer name : Glimpse

Project Name: P170. MH Product Description: FPC

soldered black coaxial cable, 1.13 mm diameter, length 110 mm, first-generation terminal

Customer Part Number: _____

Product Code: P170. MH. WIFI. V2. C113. 110B. 1

Board Version: V2. 0

date : 2024-08-21

client

This Acknowledgment Form Cannot Be Modified

Engineering	Purchase	Admit

Tianlianling

Research and development	Engineering	Examine and verify

● Specification Overview

Electrical characteristics	
Frequency	2400MHz~2500MHz 5100MHz~5800MHz
Return loss	<-12
Productiveness	>50%
Maximum gain	2 DBi
Impedance	50 ohm
Polarization Method	Linear polarization
Material and Mechanical Properties	
Material	FPC
Wire Type	1.13 mm Black Coaxial Cable
Terminal Type	Single-terminal
Drawing Size	See the detailed drawings for specifics.
Silk Screen Method	White text on a white background
Environmental characteristics	
Storage temperature	- 30 °C ~ + 85 °C
FPC welding temperature	Soaking temperature: 280 ± 5°C; Soaking time: 10 seconds
Radio frequency wire welding temperature	320 ± 5°C for 2–3 seconds

● Testing Equipment and Conditions

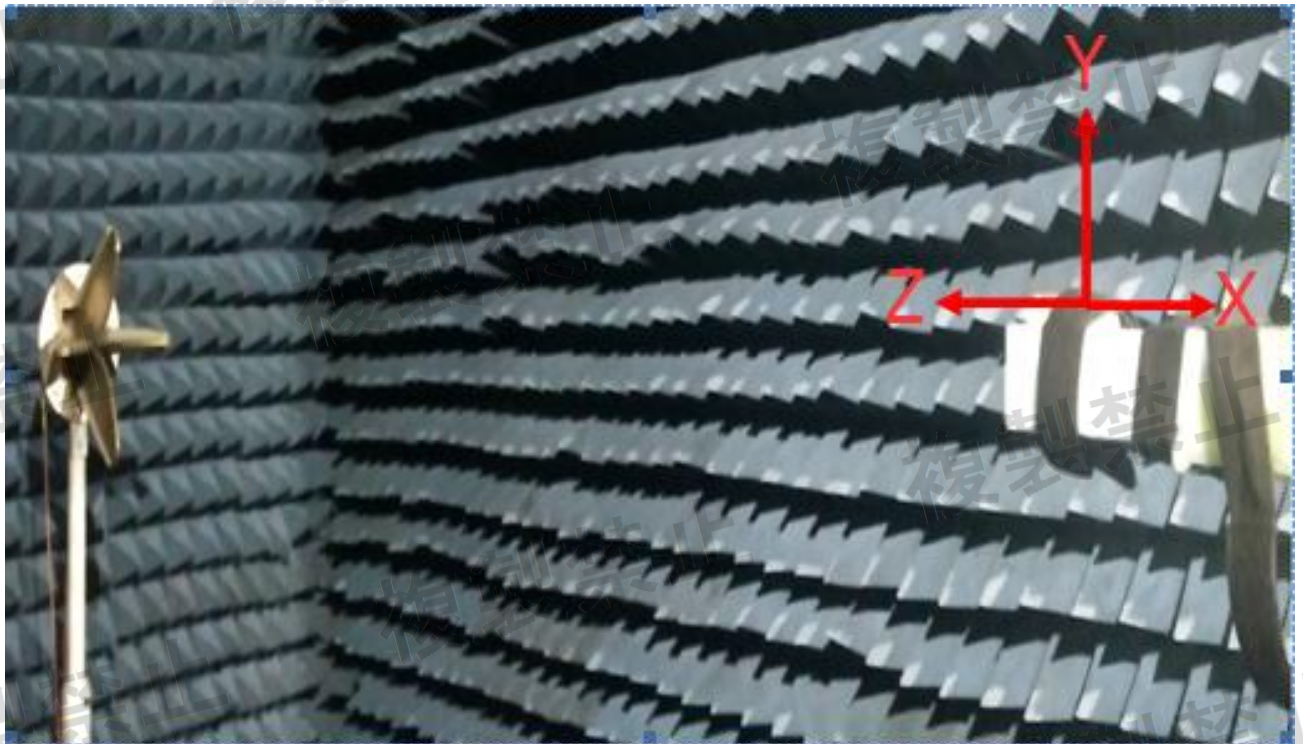
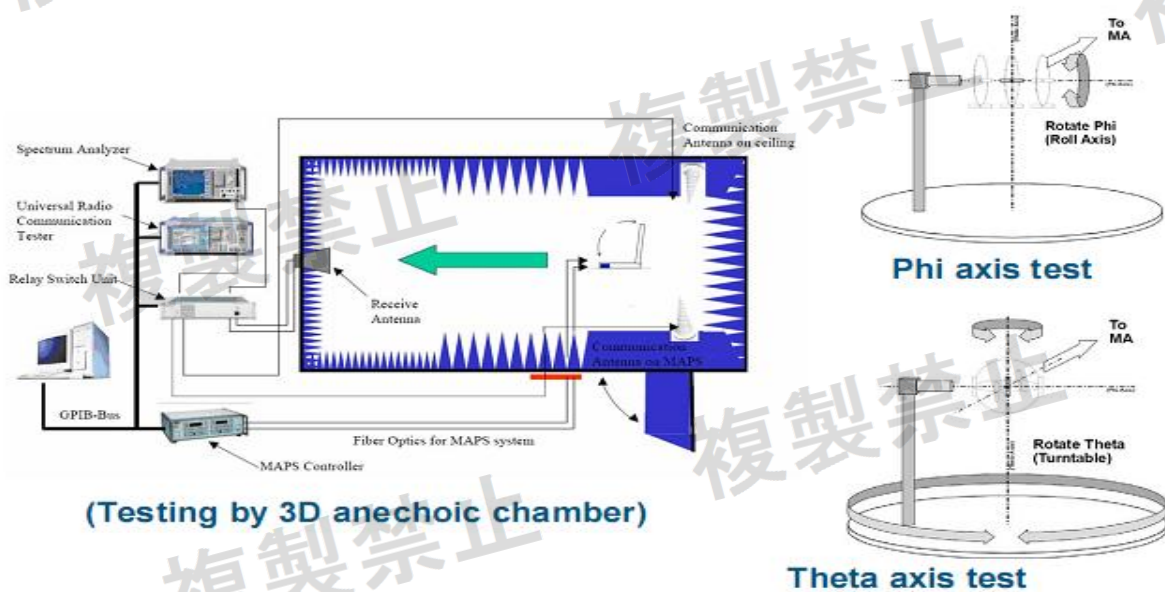
1. network analyzer :

Agilent 8753D Agilent 5071B

Communication Testing Equipment:

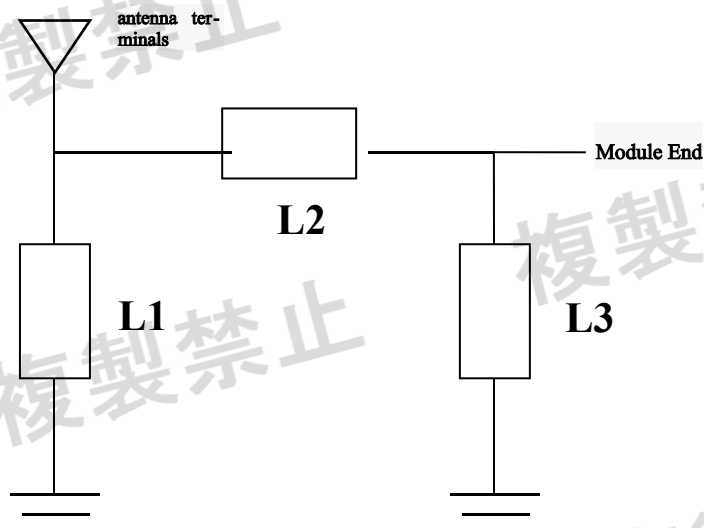
Agilent E5515C R&S CMW500

2. 3D Testing System



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RoHS Compliant G P															
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注:		1. “*”为重点尺寸； 2. 未标注尺寸请依图纸； 3. Pb、Hg、Cr+6、PBBs、PBDEs各项小于1000PPM, Cd小于100PPM。													
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A		B		C		D		A		B		C		D	
Rev		Description		Date		Remark		Location		DWG No.		Unit		Scale	
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● Matching Circuit



The original motherboard matching circuit remains unchanged.

Electron device	Price
L1	/
L2	/
L3	/

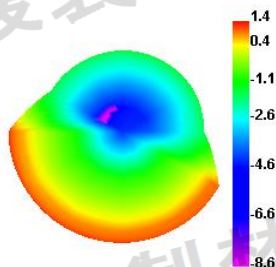
● 2.4G/5.8G Efficiency

Fre (MHz)	Eff (%) (dB)	Gain (dB)
2400	55.63	1.45
2410	55.78	1.42
2420	56.32	1.52
2430	56.41	1.48
2440	58.23	1.51
2450	58.41	1.57
2460	57.32	1.49
2470	57.46	1.42
2480	56.39	1.24
2490	54.27	1.14
2500	54.13	1.01

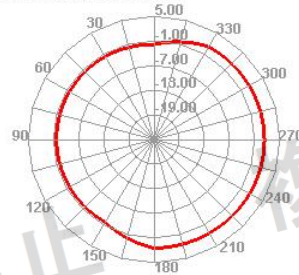
Fre (MHz)	Eff (%) (dB)	Gain (dB)
5100	53.21	0.48
5200	54.21	0.52
5300	55.66	1.87
5400	58.74	2.34
5500	58.68	2.66
5600	57.24	2.43
5700	57.38	2.14
5800	56.41	1.98

● 2.4G Direction Pattern

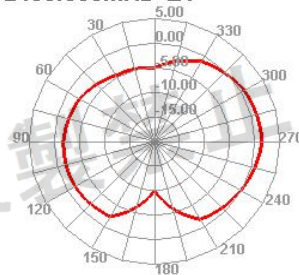
2400.000MHz



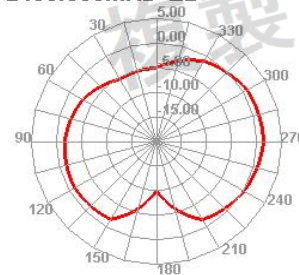
2400.000MHz H



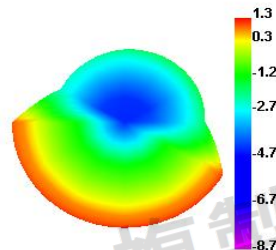
2400.000MHz E1



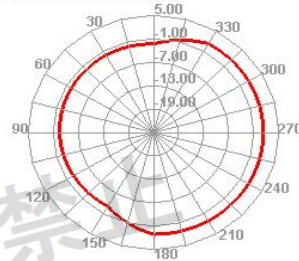
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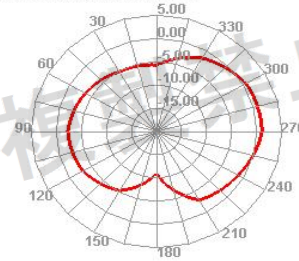
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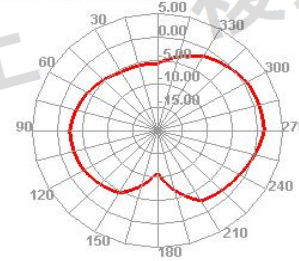
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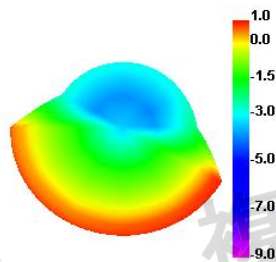
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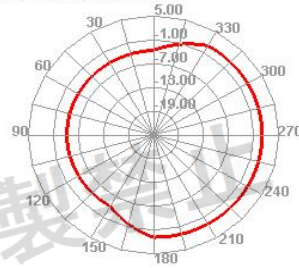
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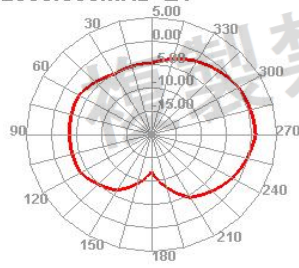
2500.000MHz



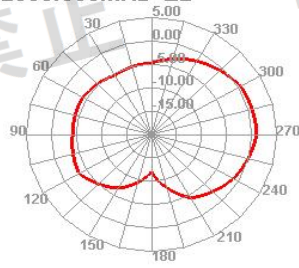
2500.000MHz H



2500.000MHz E1

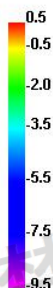
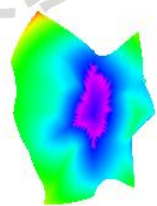


2500.000MHz E2

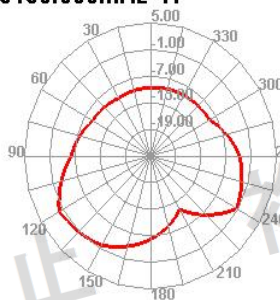


● 5.8G Direction Pattern

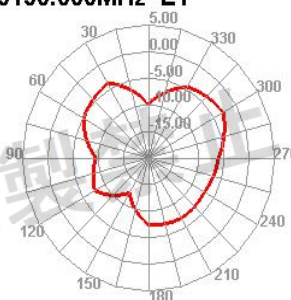
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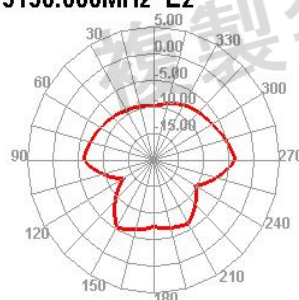
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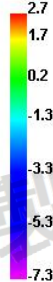
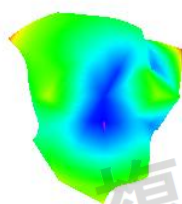
5150.000MHz E1



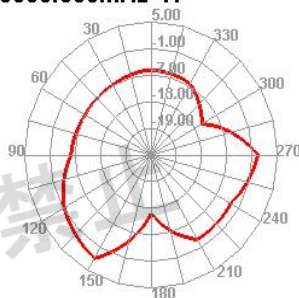
5150.000MHz E2



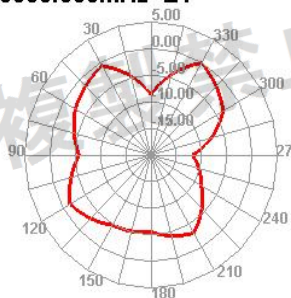
5500.000MHz



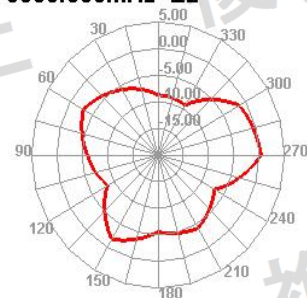
5500.000MHz H



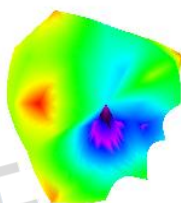
5500.000MHz E1



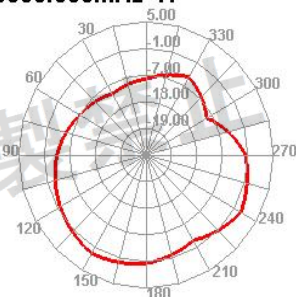
5500.000MHz E2



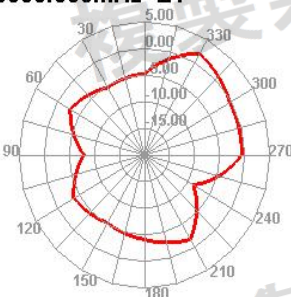
5800.000MHz



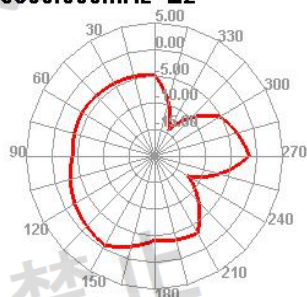
5800.000MHz H



5800.000MHz E1



5800.000MHz E2

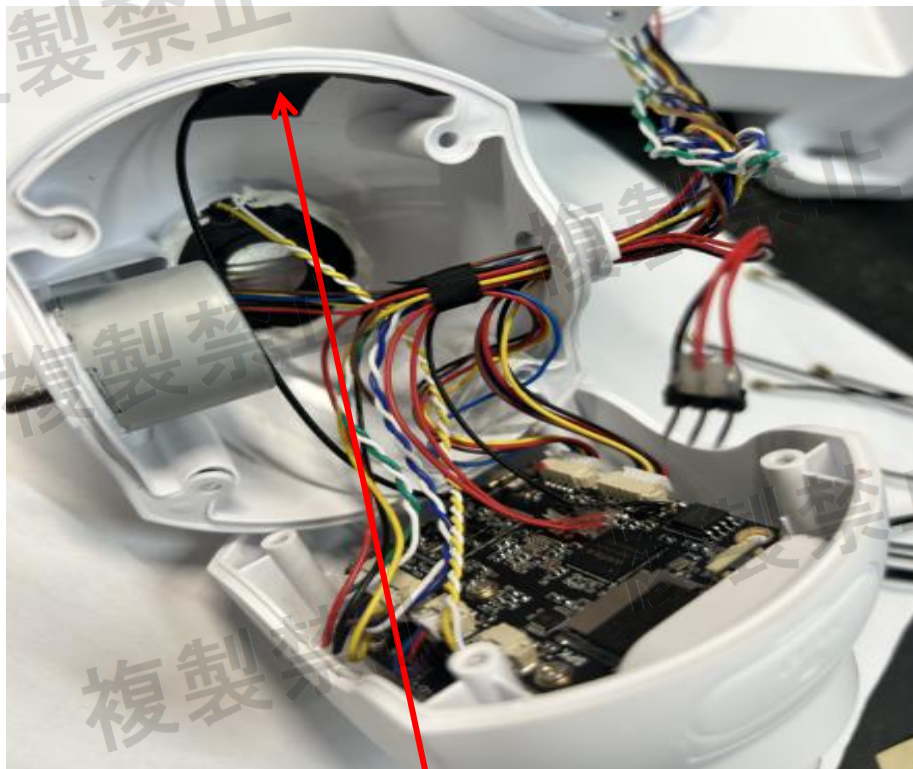


● OTA data

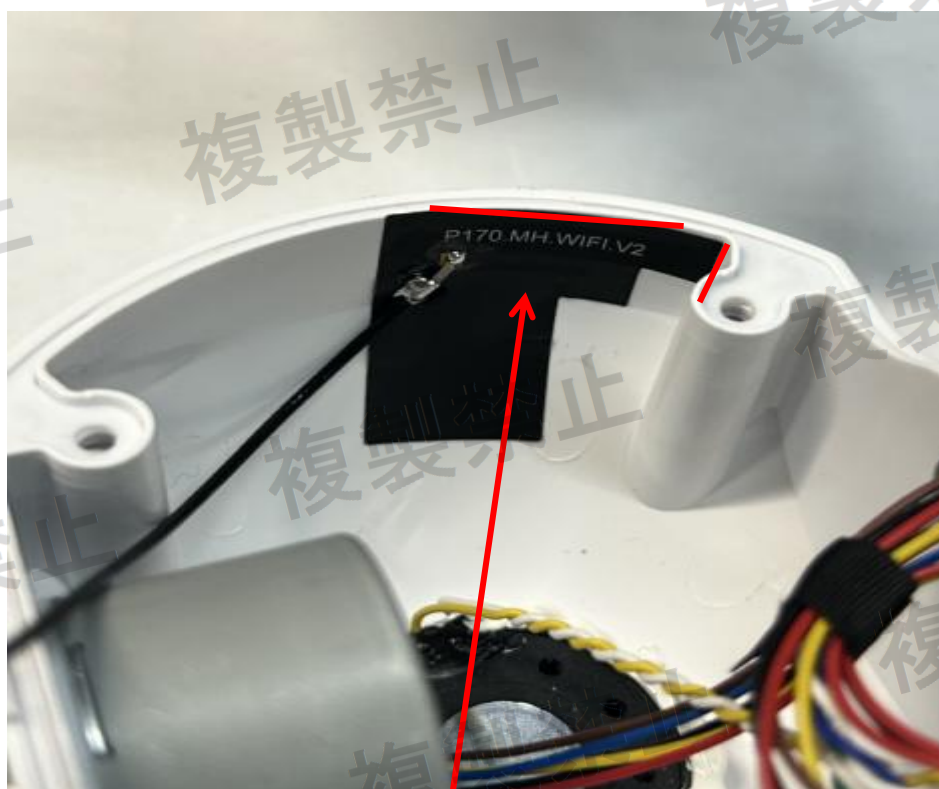
Test Result	Wifi 2G TRP			Test Result	Wifi 2G TIS		
	1	6	11		1	6	11
Frequency (MHz)	2412	2437	2462	Frequency (MHz)	2412	2437	2462
TRP (dBm)	17.07	17.76	16.13	TIS (dBm)	-84.13	-84.9	-83.18

Test Result	Wifi 5G TRP			Test Result	Wifi 5G TIS		
	36	149	161		36	149	161
Frequency (MHz)	5180	5745	5805	Frequency (MHz)	5180	5745	5805
TRP (dBm)	14.78	14.11	13.4	TIS (dBm)	-67.49	-69.63	-69.68

●assembly drawing

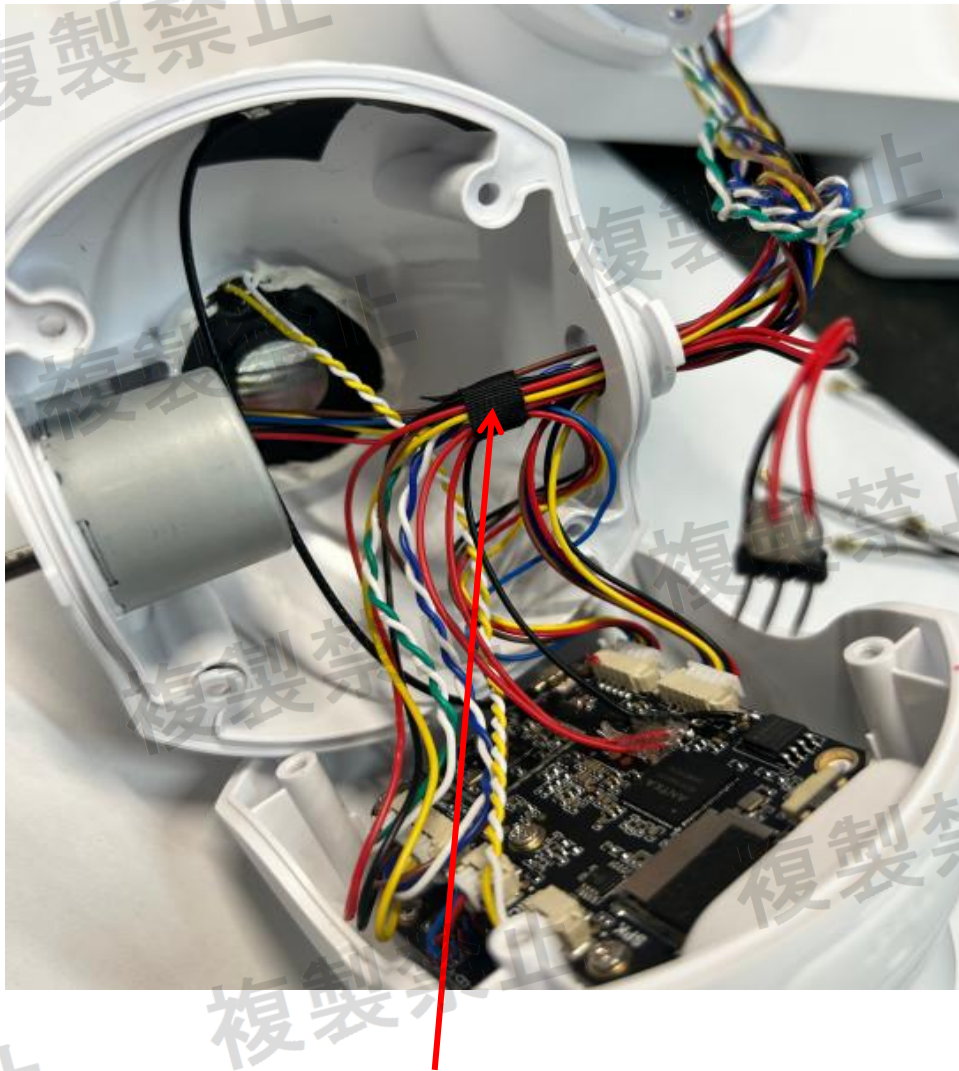


antenna position



Align the antenna above with the edge indicated by the red line

●Environmental Treatment



Electrical wires inside the machine must be secured with adhesive tape to prevent contact with the antenna.

◆ reliability test

Test item		Test condition	Equipment	Standard	Result
1	Low-temperature Testing	Temperature: -30°C, Humidity: 65%, Time: 48 hours Test condition : Place the antenna in a high-low temperature test chamber with the temperature maintained at 25°C and humidity at 65% for 1 hour. Subsequently, reduce the temperature to -30°C and maintain it for 44 hours, then raise the temperature back to 25°C and maintain it for 2 hours.	High and Low Temperature Testing Machine	Material deformation is not allowed. Excellent electronic performance	Pass through
2	High Temperature Testing	Temperature: 85°C, Humidity: 85%, Time: 48 hours Test condition : Place the antenna in a high-low temperature test chamber with the temperature maintained at 25°C and humidity at 65% for 1 hour. Subsequently, raise the temperature to 80°C with humidity at 85% for 44 hours, then lower the temperature back to 25°C and maintain it for 2 hours.	High and Low Temperature Testing Machine	Material deformation is not allowed. Excellent electronic performance	Pass through
3	Salt Spray Test	Salt Spray Test : Place the antenna inside the salt spray tester. Set up the testing environment: Temperature 35±2°C Humidity 85% Salt spray spray: 5±1% pH value 6.5-7.2 Time: 24 hours	Salt Spray Test Machine	No color change No rust has appeared.	Pass through