



# SHUN DA CHENG TECHNOLOGY CO., LTD

## 承 认 书

### SPECIFICATION FOR APPROVAL

Customer Name	Century Dingchuang		
Customer Project Name	TF790	SDC Project Name	TF790
Customer P/N		SDC P/N	WF714B-1131L-170
Band	2. 4G/5G		
Version	A0		
Designer Information			
RF Engineer	Yong-hui Yang	R&D Director	FuXueRong
ME Engineer	Huang Zongbao		

Approval			Customer Approval		
	Prepared By	Checked By	Approval By	Checked By	Approval By
Signature	Huang Zongbao	Yong-hui Yang	FuXueRong		
Date	2024. 4. 23	2024. 4. 23	2024. 4. 23		

Change Log				
Version	Change Description	Person in Charge	Approval By	Date



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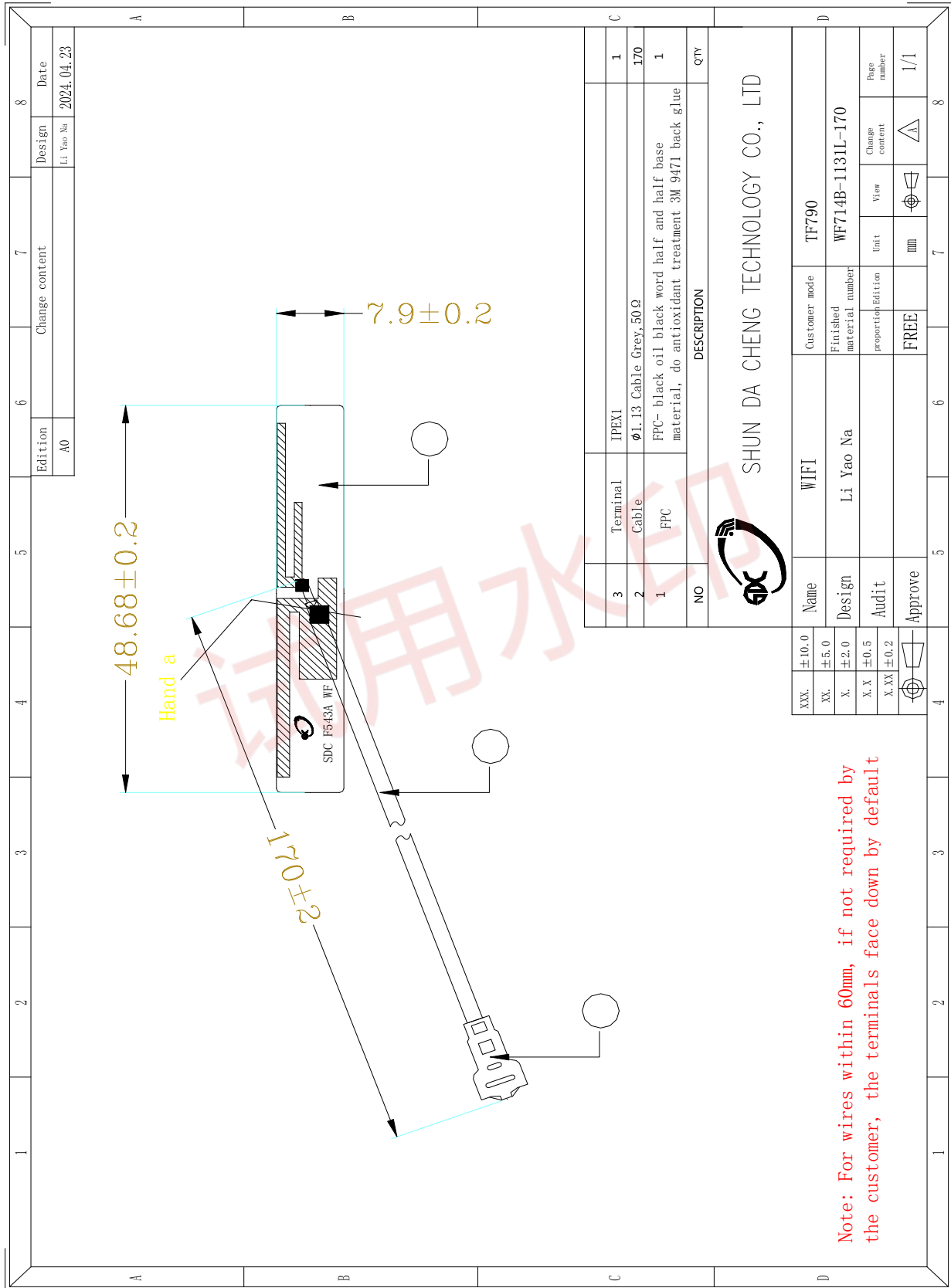
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Drawing or Product Image





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## Sample Dimensions Test Report

Test Date	2024. 4. 23	Sample Qty.	3	Inspector	Xu Yanfang
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	48.68±0.2mm	48.7	48.8	48.7	Pass
②width	7.9±0.2mm	7.9	8.0	7.9	Pass
③thickness	0.1±0.03mm	0.1	0.1	0.1	Pass
④Line length	170±2mm	170	171	170	Pass
Conclusion					PASS
Inspector & Date	Xu Yanfang 2024. 4. 23		Approval & Date		



RF Performance Test Report

Antenna Test Equipment Introduction

Test of antenna input characteristics using Agilent E5071C and Agilent 5062A vector network analyzer; The radiation pattern of the antenna are tested using the guangping 3D near field Anechoic Chamber, and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:

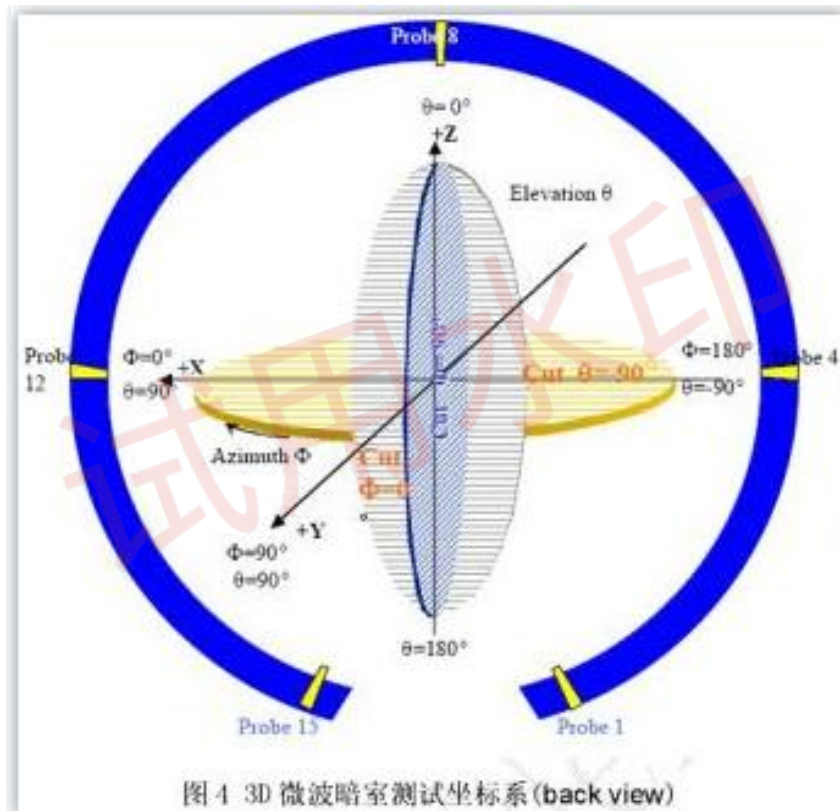


图4 3D 微波暗室测试坐标系 (back view)

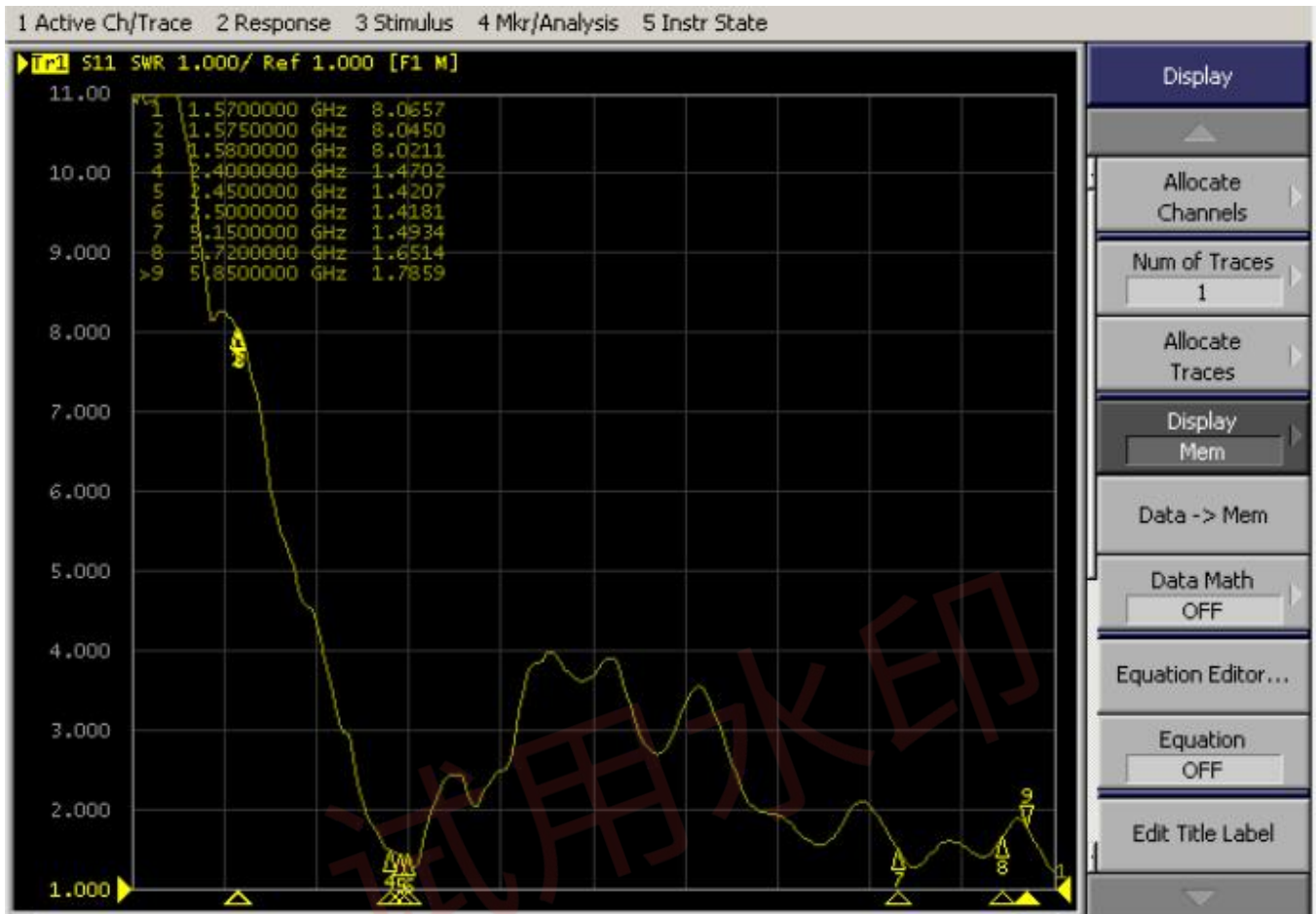
1. S11 Parameter-VSWR

Measuring Method is a 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the S11 parameter, Keeping this fixture away from metal at least 20cm.

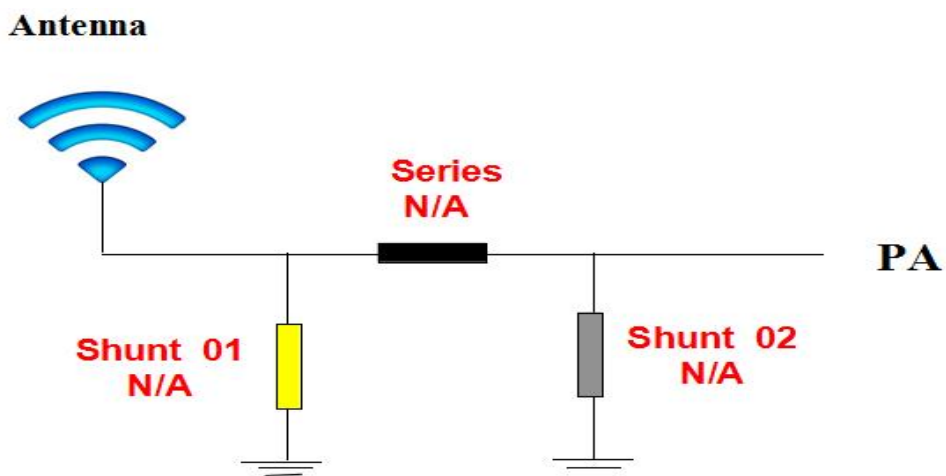


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## S11 Parameter-VSWR



## 2. Antenna Matching Network





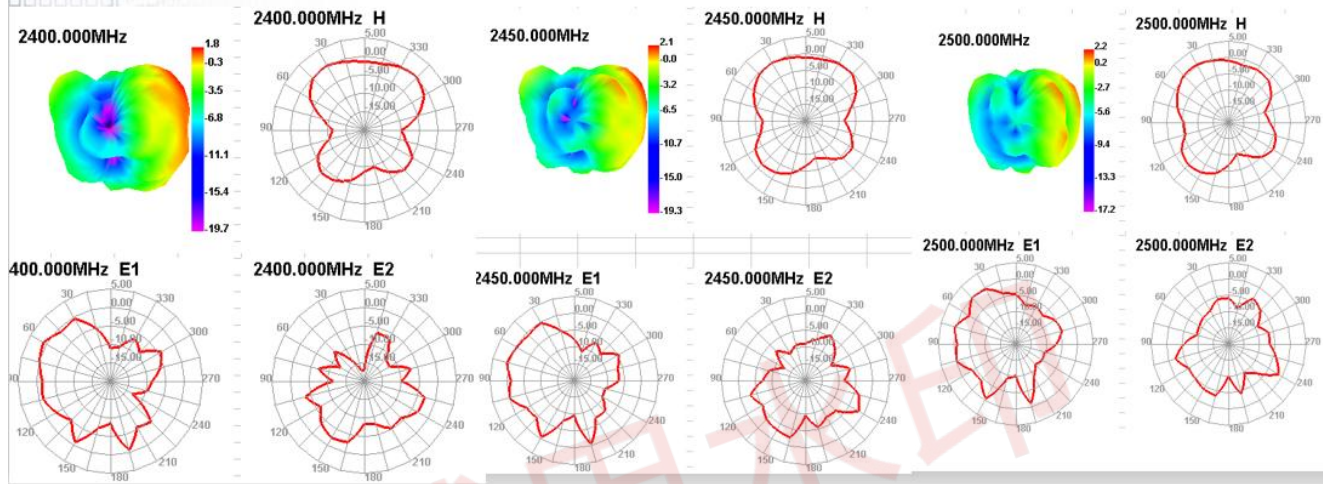
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## 3. Gain & Efficiency

Passive Test For 2.4G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	43.91	-3.57	1.84	-0.31	22.401	21.511	1.84	-19.67	49.25	48.85
2450	44.86	-3.48	2.13	-0.02	22.886	21.973	2.13	-19.33	49.5	49.28
2500	45.49	-3.42	2.16	0.01	23.63	21.862	2.16	-17.15	49.61	49.52

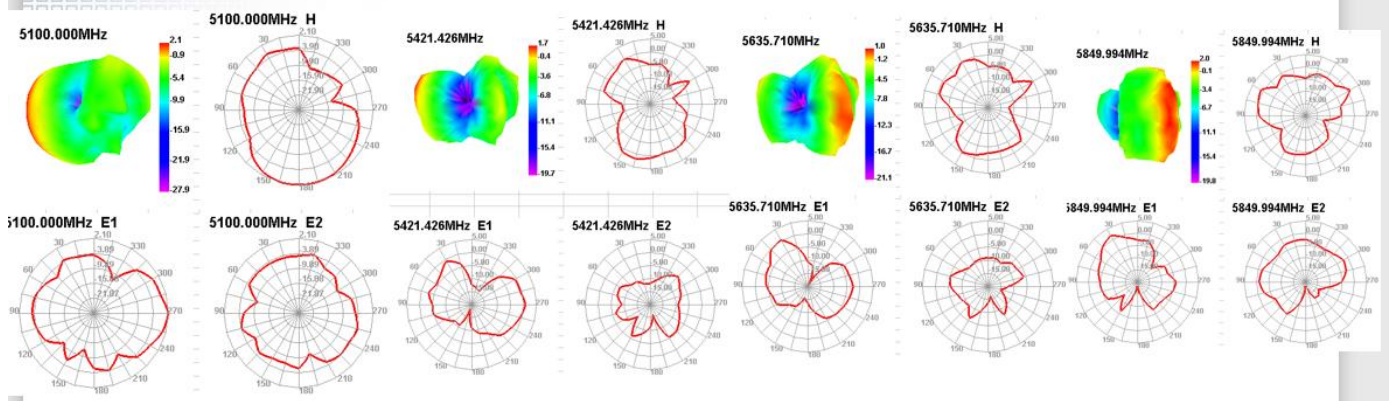
### 2400.00MHz - 2500.00MHz Gain

5.00



Passive Test For 5.8G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5100	39.74	-4.01	2.1	-0.05	19.309	20.435	2.1	-27.87	64.41	63.8
5207.14	32.4	-4.9	0.91	-1.24	15.743	16.652	0.91	-24.89	61.01	60.71
5314.28	35.76	-4.47	1.73	-0.42	17.926	17.834	1.73	-18.84	60.15	59.59
5421.43	37.05	-4.31	1.73	-0.42	19.307	17.743	1.73	-19.66	60.88	60.38
5528.57	44.37	-3.53	2.03	-0.12	24.066	20.305	2.03	-27.5	63.75	63.1
5635.71	34.14	-4.67	1.05	-1.1	19.484	14.656	1.05	-21.15	63	62.42
5742.85	42.37	-3.73	2.27	0.12	26.477	15.897	2.27	-21.05	63.75	63.17
5849.99	41.95	-3.77	2.04	-0.11	27.682	14.265	2.04	-19.81	64.46	64.2

### 5100.00MHz - 5850.00MHz Gain





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### 4. WIFI OTA Data

<b>2.4G</b>	<b>802.11b, (2.4G) 11M</b>		
<b>Channel</b>	<b>CH1</b>	<b>CH6</b>	<b>CH11</b>
<b>TRP</b>	<b>11.92</b>	<b>11.07</b>	<b>11.14</b>
<b>TIS</b>	<b>-81.17</b>	<b>-81.52</b>	<b>-80.63</b>
<b>5.8G</b>	<b>802.11a, (5.8G) 54M</b>		
<b>Channel</b>	<b>CH36</b>	<b>CH60</b>	<b>CH161</b>
<b>TRP</b>	<b>9.09</b>	<b>10.43</b>	<b>9.87</b>
<b>TIS</b>	<b>-70.28</b>	<b>-70.34</b>	<b>-70.8</b>





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## Reliability Test Report

Test Date	2024. 4. 23	Sample Qty.	3	Inspector	Xu Yanfang	
Test Item	Requirement	testing equipment	Sample 1	Sample 2	Sample 3	PASS/NG
High temperature storage	The test was carried out after 24H exposure at +85°C and 2H recovery	Constant temperature and humidity box	OK	OK	OK	Pass
Low temperature storage	The test was carried out after 24H exposure at -40°C and 2H recovery	Constant temperature and humidity box	OK	OK	OK	Pass
High temperature work	At +60°C for 24H	Constant temperature and humidity box	OK	OK	OK	Pass
Work in low temperature	At -20°C under the condition of power work for 24H	Constant temperature and humidity box	OK	OK	OK	Pass
Salt spray test	The pH value was 6.5 ~ 7.2, and the temperature of the experimental chamber was (35±2)°C <input type="checkbox"/> 24H <input checked="" type="checkbox"/> 48H	Salt spray testing machine	OK	OK	OK	Pass
Connector riveting and drawing force	1. 13 线径 ≥10N 0. 81 线径 ≥8N RG174 ≥60N RG178 ≥50N	Push pull meter	≥10N	≥10N	≥10N	Pass
<b>Conclusion</b>						Pass
Inspector & Date	Xu Yanfang 2024. 4. 23		Approval & Date			



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Install Wizard or Other

Installation process:

Take 1PCS of products and tear off the release paper on the back of the FPC by hand. Then align the positioning holes of the FPC with the positioning holes of the shell (positioning bars or positioning wires) and attach them to the shell smoothly. The specific positions are shown in the figure below:

Precautions for installation:

- After attaching the antenna, ensure that the FPC is fully attached to the shell;
- The positioning hole is aligned with the position of the housing positioning column;
- FPC edges are aligned with housing edges;
- When connecting the antenna with terminal to the PCBA end of the motherboard, align the terminal first and then close it vertically.
- When removing the antenna terminal, use a tool (such as a dedicated crowbar) to lift the terminal vertically. Do not pull the cable to remove the terminal directly

试用水印