



SHUN DA CHENG TECHNOLOGY CO., LTD

承 认 书 SPECIFICATION FOR APPROVAL

Customer Name	Fuwei		
Customer Project Name	F152AN-WB	SDC Project Name	F152AN-WB
Customer P/N		SDC P/N	WF5223B-0814R-315 (MIAN) WF5224B-0814R-390 (AUX)
Band	WIFI2. 4G/5. 8G/BT		
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	2023. 12. 14	2023. 12. 14	2023. 12. 14		

Change Log				
Version	Change Description	Person in Charge	Approval By	Date



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Drawing or Product Image

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				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Terminal</th> <th>IPEX4</th> <th>QTY</th> </tr> <tr> <td>2</td> <td>∅0.81 Cable Black, 50Ω</td> <td>315</td> </tr> <tr> <td>1</td> <td>FPC- black oil black word half and half base material, do antioxidant treatment 3M 9471 back glue</td> <td>1</td> </tr> </table>		Terminal	IPEX4	QTY	2	∅0.81 Cable Black, 50Ω	315	1	FPC- black oil black word half and half base material, do antioxidant treatment 3M 9471 back glue	1																					
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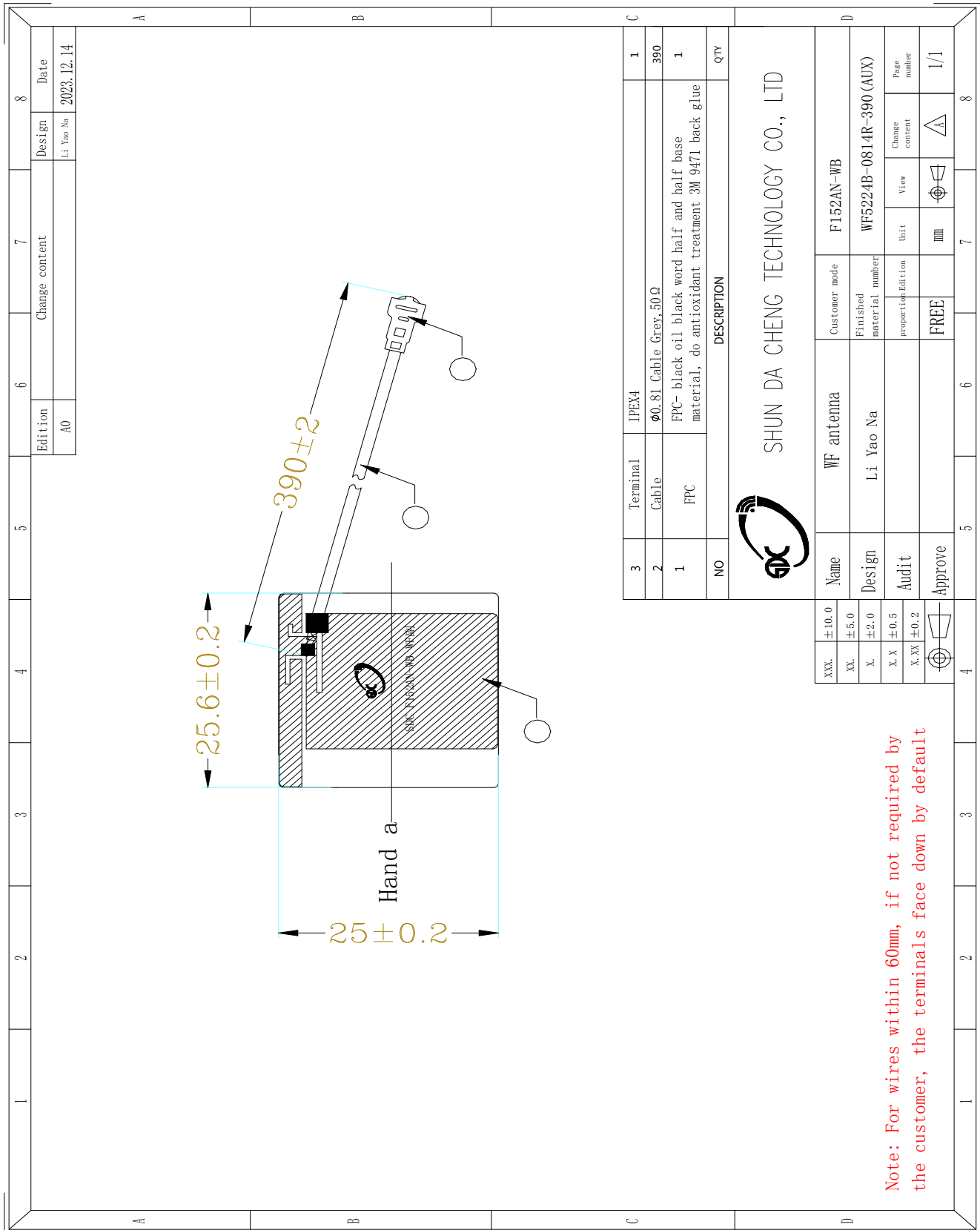
Sample Dimensions Test Report

Test Date	2023. 12. 14	Sample Qty.	3	Inspector	Xu Yanfang
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	27. 4±0. 2mm	27. 4	27. 5	27. 5	Pass
②width	20. 7±0. 2mm	20. 7	20. 8	20. 7	Pass
③thickness	0. 1±0. 03mm	0. 1	0. 1	0. 1	Pass
④Line length	315±2mm	315	316	315	Pass
Conclusion					PASS
Inspector & Date	Xu Yanfang 2023. 12. 14		Approval & Date		



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Drawing or Product Image



Note: For wires within 60mm, if not required by the customer, the terminals face down by default



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Sample Dimensions Test Report

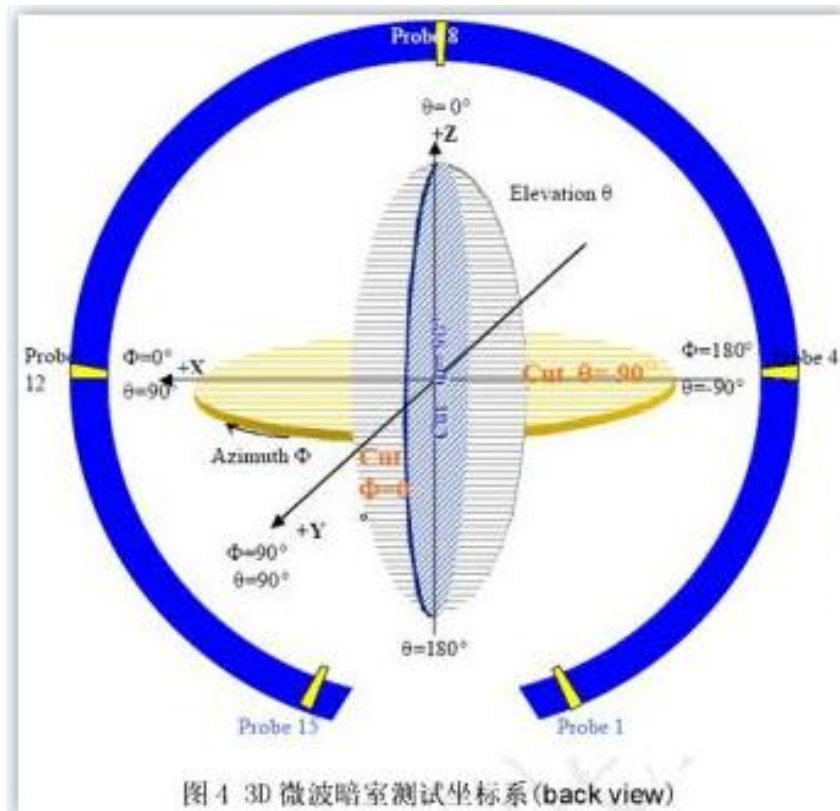
Test Date	2023. 12. 14	Sample Qty.	3	Inspector	Xu Yanfang
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	25. 6±0. 2mm	25. 6	25. 6	25. 7	Pass
②width	25±0. 2mm	25	25. 1	25. 1	Pass
③thickness	0. 1±0. 03mm	0. 1	0. 1	0. 1	Pass
④Line length	390±2mm	390	391	390	Pass
Conclusion					PASS
Inspector & Date	Xu Yanfang 2023. 12. 14		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:



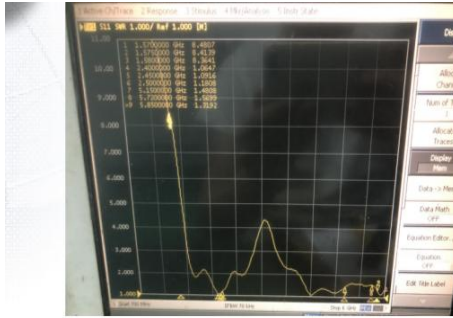
1. S11 Parameter-VSWR

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.

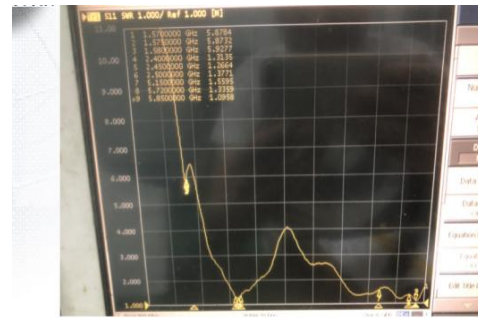


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S11 Parameter-VSWR



Frequency(MHz)	2400	2450	2500	5150	5720	5850
VSWR	1.06	1.09	1.18	1.48	1.56	1.31



Frequency(MHz)	2400	2450	2500	5150	5720	5850
VSWR	1.31	1.26	1.37	1.55	1.33	1.09

2. Antenna Matching Network

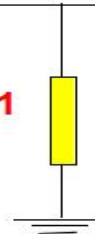
Antenna



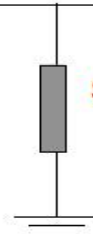
Series
N/A

PA

Shunt 01
N/A



Shunt 02
N/A

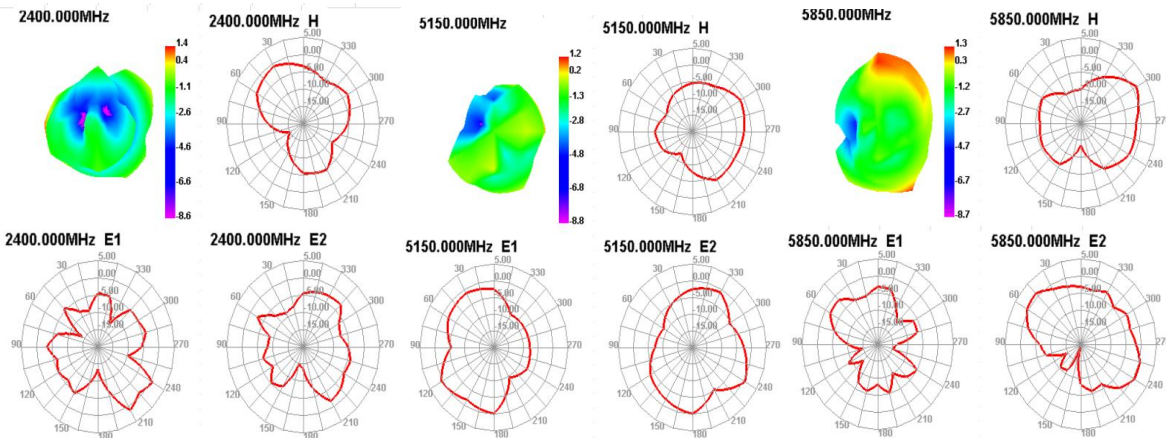




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3. Gain & Efficiency

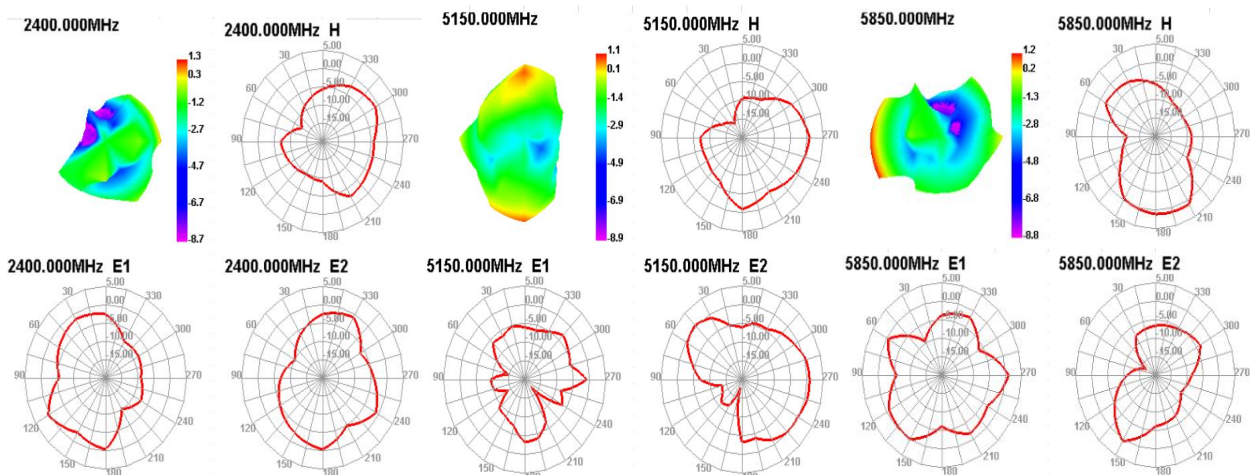
WIFI主Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	40.54	1.35
2450	40.35	1.32
2500	39.84	1.26
5150	34.33	1.14
5700	34.47	1.18
5850	35.66	1.26





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WIFI副Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	40.38	1.32
2450	39.42	1.24
2500	40.63	1.37
5150	33.43	1.09
5700	34.51	1.20
5850	33.72	1.15



4.WIFI OTA Data



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2.4G	802.11b, (2.4G)11M		
Channel	CH1	CH6	CH11
TRP	11.41	11.62	11.24
TIS	-77.22	-77.37	-77.42

5G	802.11a, 54M		
Channel	CH36	CH60	CH161
TRP	9.13	9.68	9.37
TIS	-67.51	-67.38	-67.19



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Reliability Test Report

Test Date	2023. 12. 14	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
Conclusion						Pass
Inspector & Date	Xu Yanfang 2023. 12. 14		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



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ROHS certificate of the product

Certificate

Certificate Number: UNIB23083106HC-01



Product: 5G/4G/WIFI/GPS/BT antenna

Applicant: ShenZhen ShunDaCheng Technology Co., Ltd.
4th Floor, Building B5, Xinfu Industrial Zone, Fuyong Chongqing Road, Baoan District, Shenzhen

Manufacturer: N/A

Model No.: N/A

Trade Name: N/A

Test Methods: IEC 62321-2:2021, IEC 62321-3-1:2013, IEC 62321-4:2013 +A1:2017, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-8:2017

The laboratory tested the product provided by the applicant according to the above test methods. According to the test results, the product conforms to RoHS Directive [(2011/65/EU and Amendment (EU) 2015/863)] issued by the European Commission. It is possible to use CE marking to demonstrate the compliance with RoHS Directive.

The certificate applies to the tested sample above mentioned only and shall not imply an assessment of the whole production. It is only valid in connection with the test report number: UNIB23083106HR-01.

Note: According to the requirements of the applicant for testing, details are shown in the test report.

RoHS

Sep. 06, 2023
Issue Date

Hoffer Lau
Hoffer Lau



Shenzhen United Testing Technology Co., Ltd.

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Guangzhou: No.47-3, Industrial Road, Zhushan, Dalong Street, Panyu District, Guangzhou, Guangdong, China/511450;

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Web Site: www.uni-lab.hk/ E-mail: hofferlau@uni-lab.hk



Certificate of Compliance