SPECIFICATION FOR APPROVAL

Manufacturer	SHEN DA CHENG TECHNOLOGY CO, LTD		
Customer Project Name	S14A	SDC Project Name	S14A
Customer P/N		SDC P/N	WF2253B-0814L-300(MAIN) WF2253B-0814L-340(AUX)
Band	WIFI2.4G/5.8G/BT		
Version	A0		
Designer Information			
RF Engineer	Yong-hui Yang	R&D Diretor	FuXueRong
ME Engineer	Huang Zongbao		

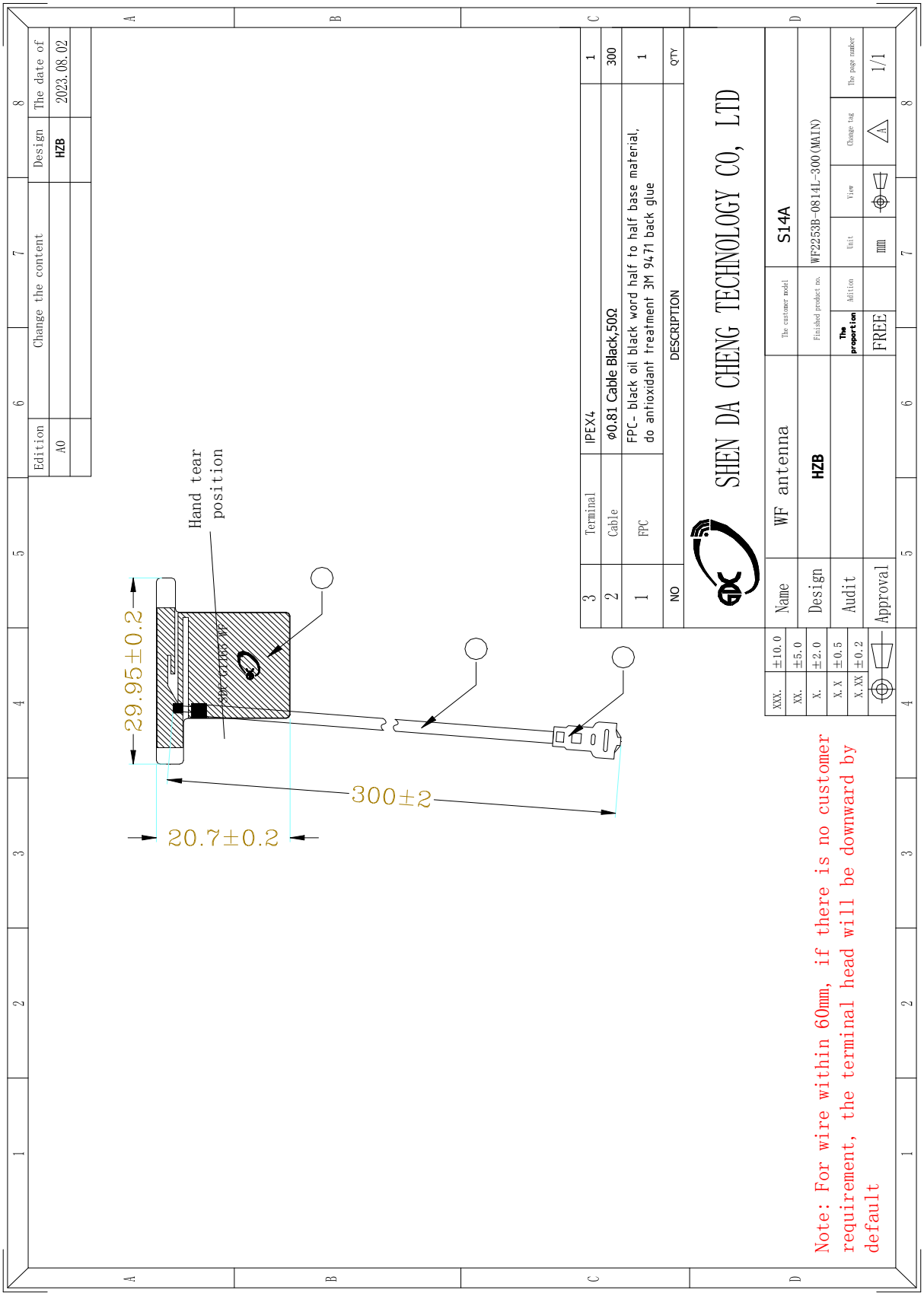
Approval				Customer Approval	
	Prepared By	Checked By	Approval By	Checked By	Approval By
Signature	Huang Zongbao	Yong-hui Yang	FuXueRong		
Date	2023.08.02	2023.08.02	2023.08.02		

Change Log				
Version	Change Description	Person in Charge	Approval By	Date

Company Address: 4th Floor, Building B5, Xinfu Industrial Park, Chongqing Road, Fuyong Town, Baoan District, Shenzhen Telephone :0755-27211658 Fax :0755-29485750

Catalogue

Drawing or Product Image



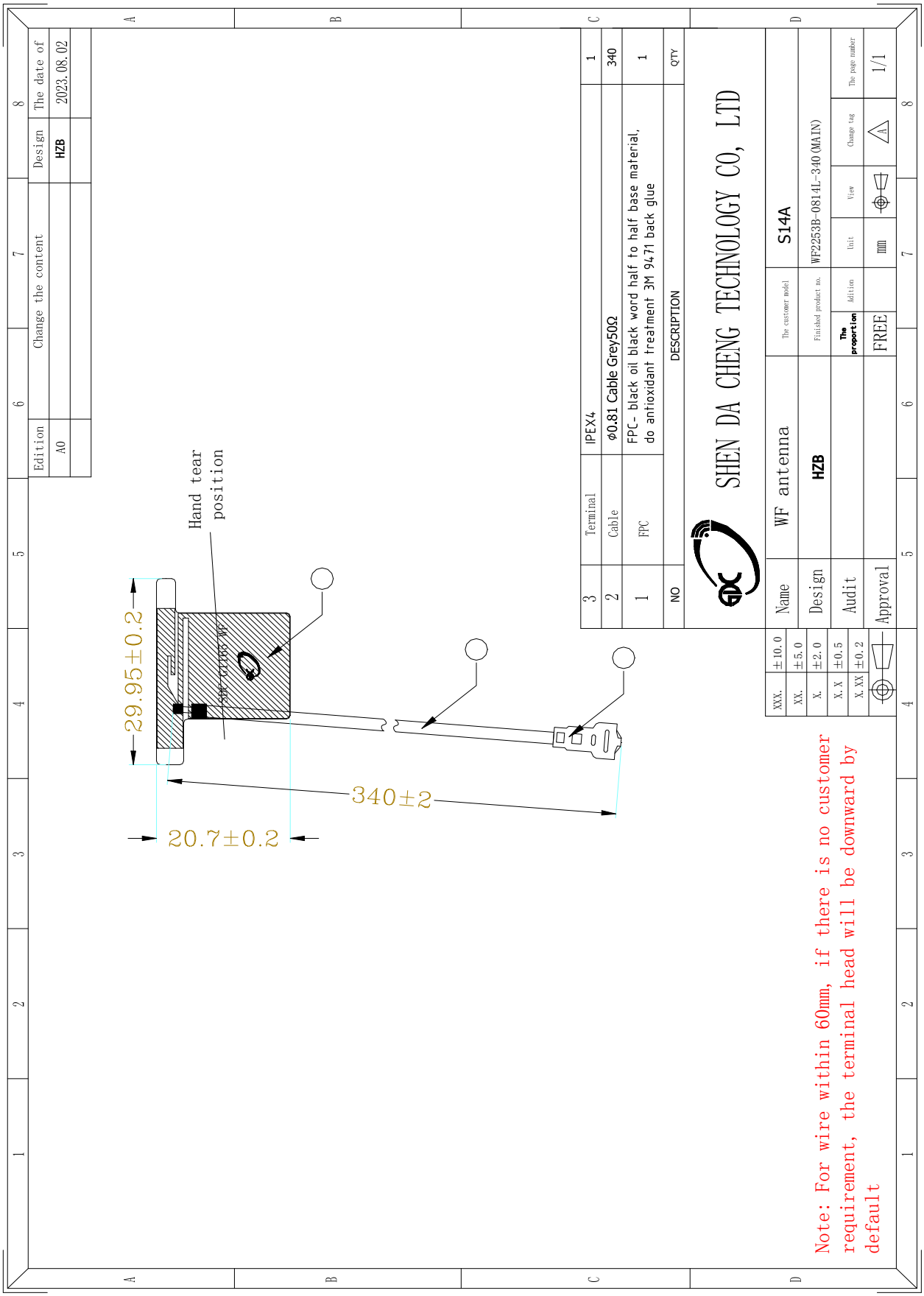
SHEN DA CHENG TECHNOLOGY CO, LTD

Sample Dimensions Test Report

Test Date	2023.08.02	Sample Qty.	3	Inspector	Xu Yanfang
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	29.95±0.2mm	29.95	29.95	30.05	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	300±2mm	300	301	301	Pass
⑤					
⑥					
⑦					
Conclusion					PASS
Inspector & Date	Xu Yanfang 2023.08.02		Approval &Date		

Company Address: 4th Floor, Building B5, Xinfu Industrial Park, Chongqing Road, Fuyong Town, Baoan District, Shenzhen Telephone :0755-27211658 Fax :0755-29485750

Drawing or Product Image



SHEN DA CHENG TECHNOLOGY CO, LTD

Sample Dimensions Test Report

Test Date	2023.08.02	Sample Qty.	3	Inspector	Xu Yanfang
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	29.95±0.2mm	29.95	29.95	30.05	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	340±2mm	340	341	341	Pass
⑤					
⑥					
⑦					
Conclusion					PASS
Inspector & Date	Xu Yanfang 2023.08.02		Approval &Date		

Company Address: 4th Floor, Building B5, Xinfu Industrial Park, Chongqing Road, Fuyong Town, Baoan District, Shenzhen Telephone :0755-27211658 Fax :0755-29485750

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:

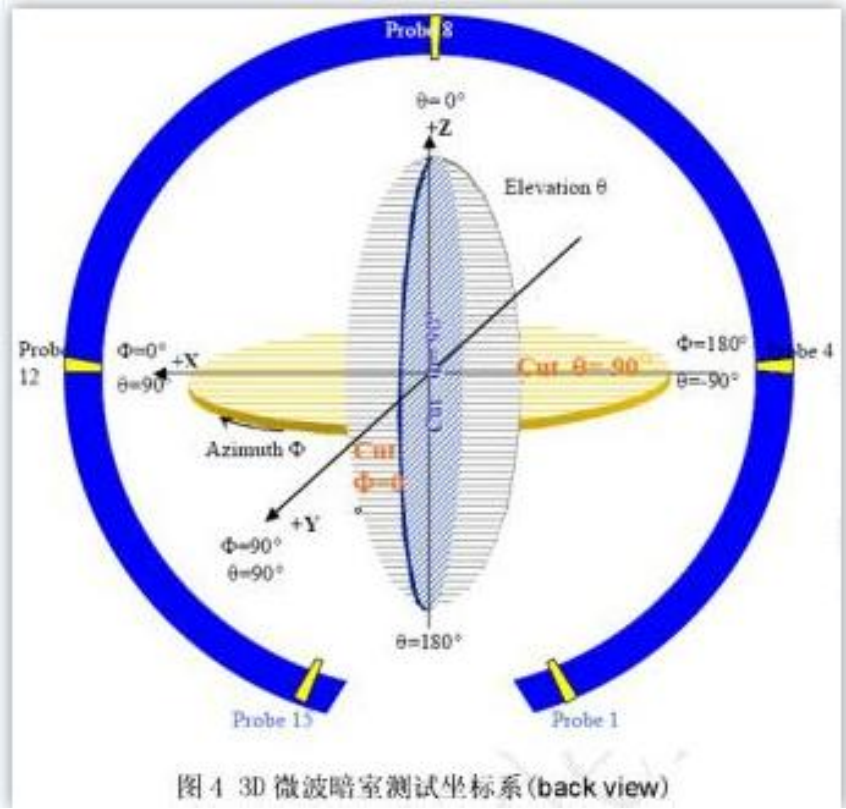
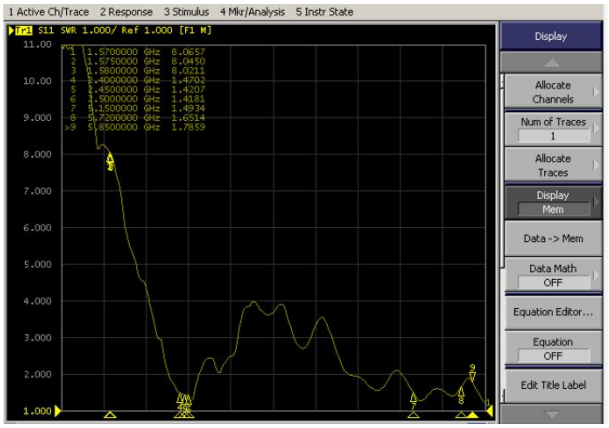


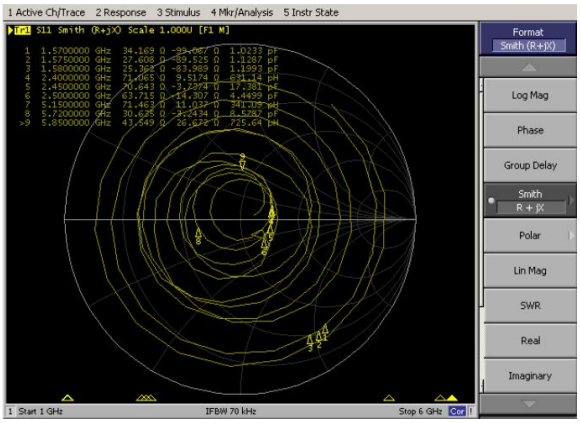
图 4 3D 微波暗室测试坐标系(back view)

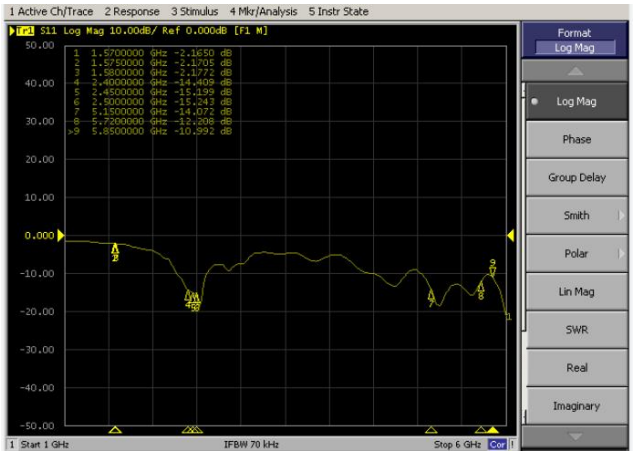
1. *S11 Parameter-VSWR*

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.

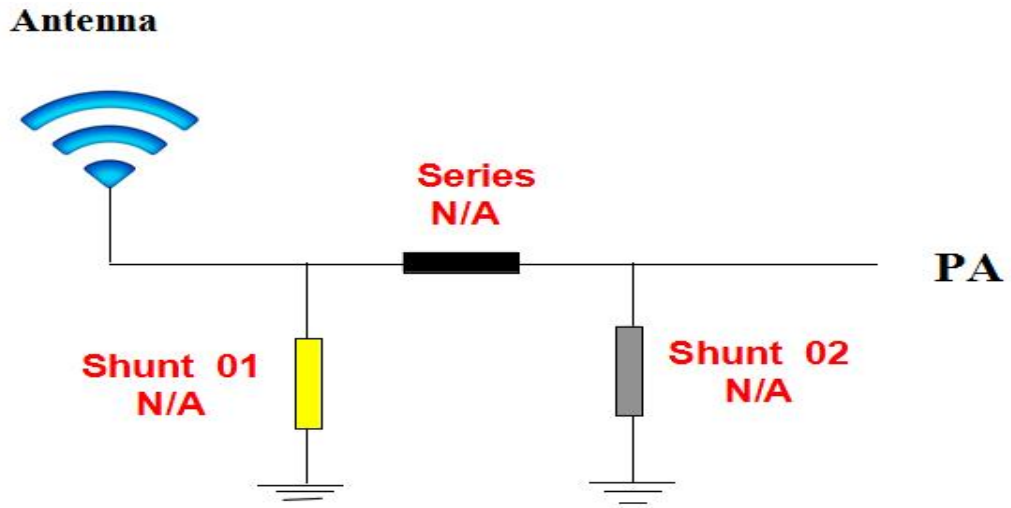
S11 Parameter-VSWR







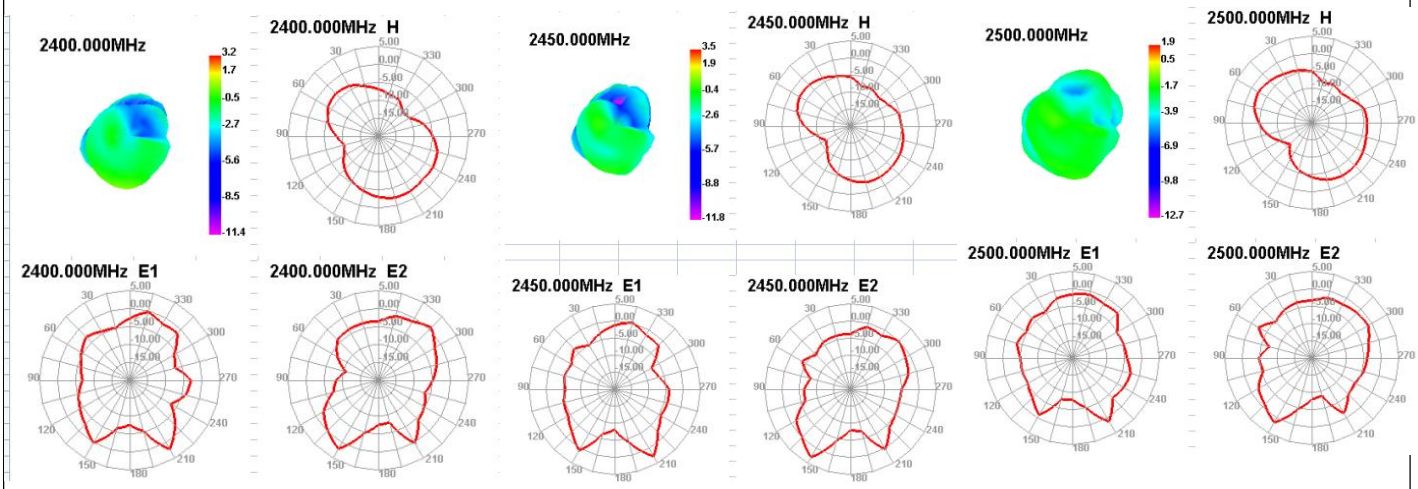
2. Antenna Matching Network



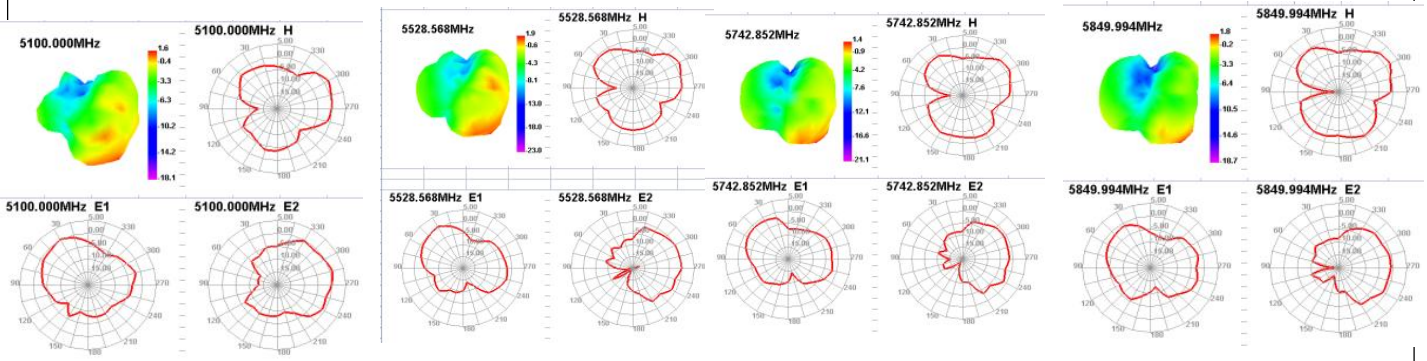
WIFI MANI Antenna

3.Gain & Efficiency

Passive Test For 2.4G									
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Atter Hor
2400	46.9	-3.29	3.16	1.01	22.318	24.585	3.16	-11.43	49
2450	49.71	-3.04	3.46	1.31	22.77	26.939	3.46	-11.81	49
2500	46.11	-3.36	1.93	-0.22	23.105	23.007	1.93	-12.73	49



Passive Test For 5.8G								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)
5100	43.79	-3.59	1.57	-0.58	26.644	17.141	1.57	-18.08
5207.14	40.4	-4.04	0.87	-1.28	23.155	16.245	0.87	-20.26
5314.28	40.93	-4.33	0.52	-1.63	21.301	15.632	0.52	-17.83
5421.43	42.97	-3.67	1.36	-0.79	24.578	18.389	1.36	-21.39
5528.57	44.41	-3.53	1.87	-0.28	26.025	18.384	1.87	-22.99
5635.71	40.03	-4.31	0.72	-1.43	21.579	15.451	0.72	-21.86
5742.85	42.47	-3.72	1.37	-0.78	23.828	18.643	1.37	-21.09
5849.99	46.72	-3.3	1.82	-0.33	25.53	21.193	1.82	-18.71

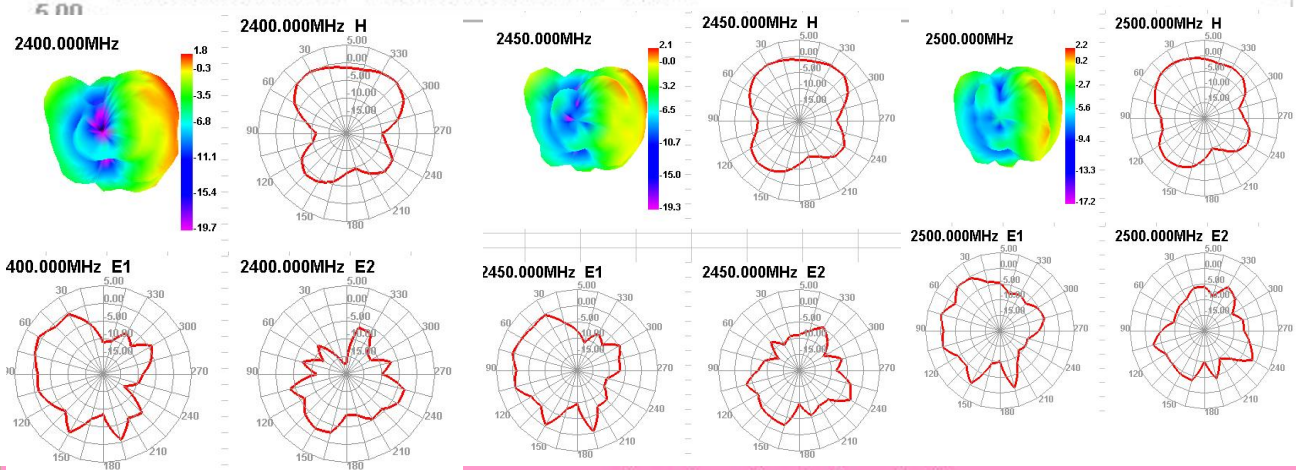


SHEN DA CHENG TECHNOLOGY CO, LTD

WIFI AUX Antenna

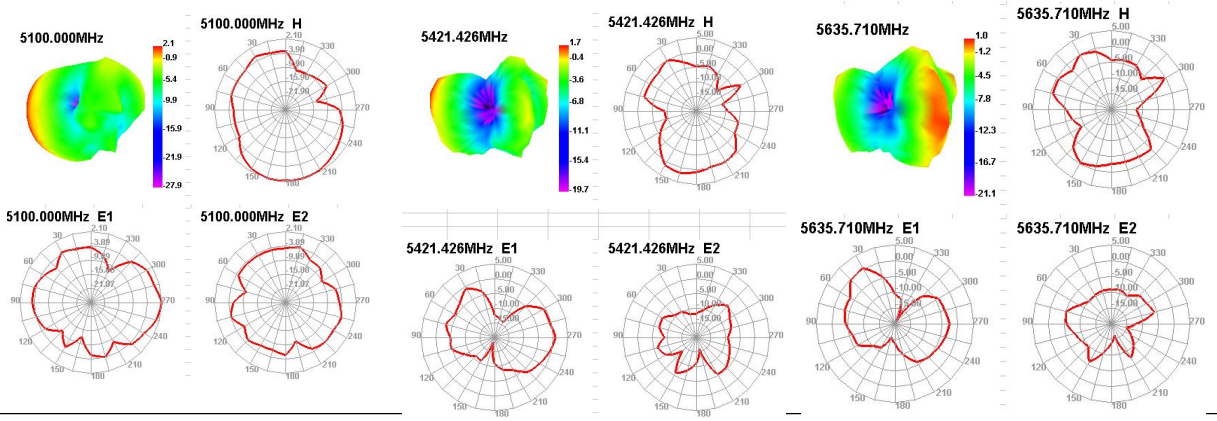
Passive Test For 2.4G									
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Atten Hor
2400	43.91	-3.57	1.84	-0.31	22.401	21.511	1.84	-19.67	49.
2450	44.86	-3.48	2.13	-0.02	22.886	21.973	2.13	-19.33	4
2500	45.49	-3.42	2.16	0.01	23.63	21.862	2.16	-17.15	49.

2400.00MHz - 2500.00MHz Gain



Passive Test For 5.8G									
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Atten Hor
5100	39.74	-4.01	2.1	-0.05	19.309	20.435	2.1	-27.87	64
5207.14	32.4	-4.9	0.91	-1.24	15.743	16.652	0.91	-24.89	61
5314.28	35.76	-4.47	1.73	-0.42	17.926	17.834	1.73	-18.84	60
5421.43	37.05	-4.31	1.73	-0.42	19.307	17.743	1.73	-19.66	60
5528.57	44.37	-3.53	2.03	-0.12	24.066	20.305	2.03	-27.5	63
5635.71	34.14	-4.67	1.05	-1.1	19.484	14.656	1.05	-21.15	
5742.85	42.37	-3.73	2.27	0.12	26.477	15.897	2.27	-21.05	63
5849.99	41.95	-3.77	2.04	-0.11	27.682	14.265	2.04	-19.81	64

5100.00MHz - 5850.00MHz Gain



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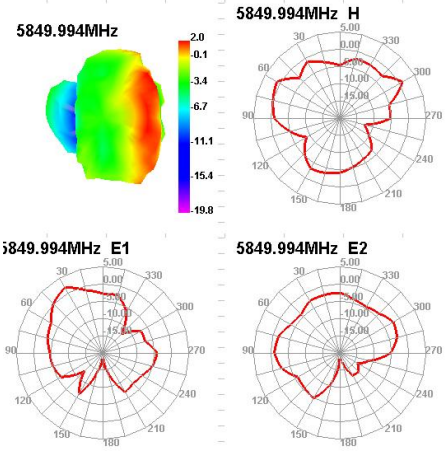

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SHEN DA CHENG TECHNOLOGY CO, LTD

Reliability Test Report

Test Date	2023.08.02	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℃ 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℃ and 2H recovery	Constant temperature and humidity box	OK	OK	OK	Pass
High temperature work	At +60℃ for 24H	Constant temperature and humidity box	OK	OK	OK	Pass
Work in low temperature	At -20℃ 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)℃ ☐24H ☑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 2023.08.02		Approval &Date			

Company Address: 4th Floor, Building B5, Xinfu Industrial Park, Chongqing Road, Fuyong Town, Baoan District, Shenzhen Telephone :0755-27211658 Fax :0755-29485750

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

ROHS certificate of the product

Certificate

Certificate Number: UNIB22051904HC-01

Product:	Fpc antenna
Applicant:	ShenZhen ShunDaCheng Technology Co., Ltd. 4th Floor, Building B5, Xinfu Industrial Zone, Fuyong Chongqing Road, Baoan District, Shenzhen
Manufacturer:	ShenZhen ShunDaCheng Technology Co., Ltd.
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: UNIB22051904HR-01.

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

RoHS

May 27, 2022
Issue Date

Hoffer Lau

CE

Certificate of Compliance

Shenzhen United Testing Technology Co., Ltd.

Shenzhen: 2/F., Annex Building, Jiahuangyuan Tech Park, No.365, Baotian 1st Road, Xin'an Street, Bao'anDistrict, Shenzhen, Guangdong, China/518050

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

Tel:+86-755-86180996/+86-020-39277769 Fax:+86- 0755-86180156

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