



SHUN DA CHENG TECHNOLOGY CO., LTD

SPECIFICATION FOR APPROVAL

Customer Name	A Long		
Customer Project Name	P30T (P5B2)	SDC Project Name	P30Tcase (P5B2)
Customer P/N		SDC P/N	WG5630B-0813L-165
Band	WiFi2. 4G/5G/GPS/BT		
Version	A0		
Designer Information			
RF Engineer	Fu Xuerong	R&D Diretor	Xia Chenglei
ME Engineer	Wong Chung-po		

Approval			
	Prepared By	Checked By	Approval By
Signature	Li Yaona	Xia Chenglei	Chen Huaming
Date	2024. 12. 05	2024. 12. 05	2024. 12. 05

Manufacturer: SHUN DA CHENG TECHNOLOGY CO., LTD

Address: 4th Floor, Building B5, Xinfu Industrial Park, Chongqing Road, Fuyong Town, Baoan District, Shenzhen

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

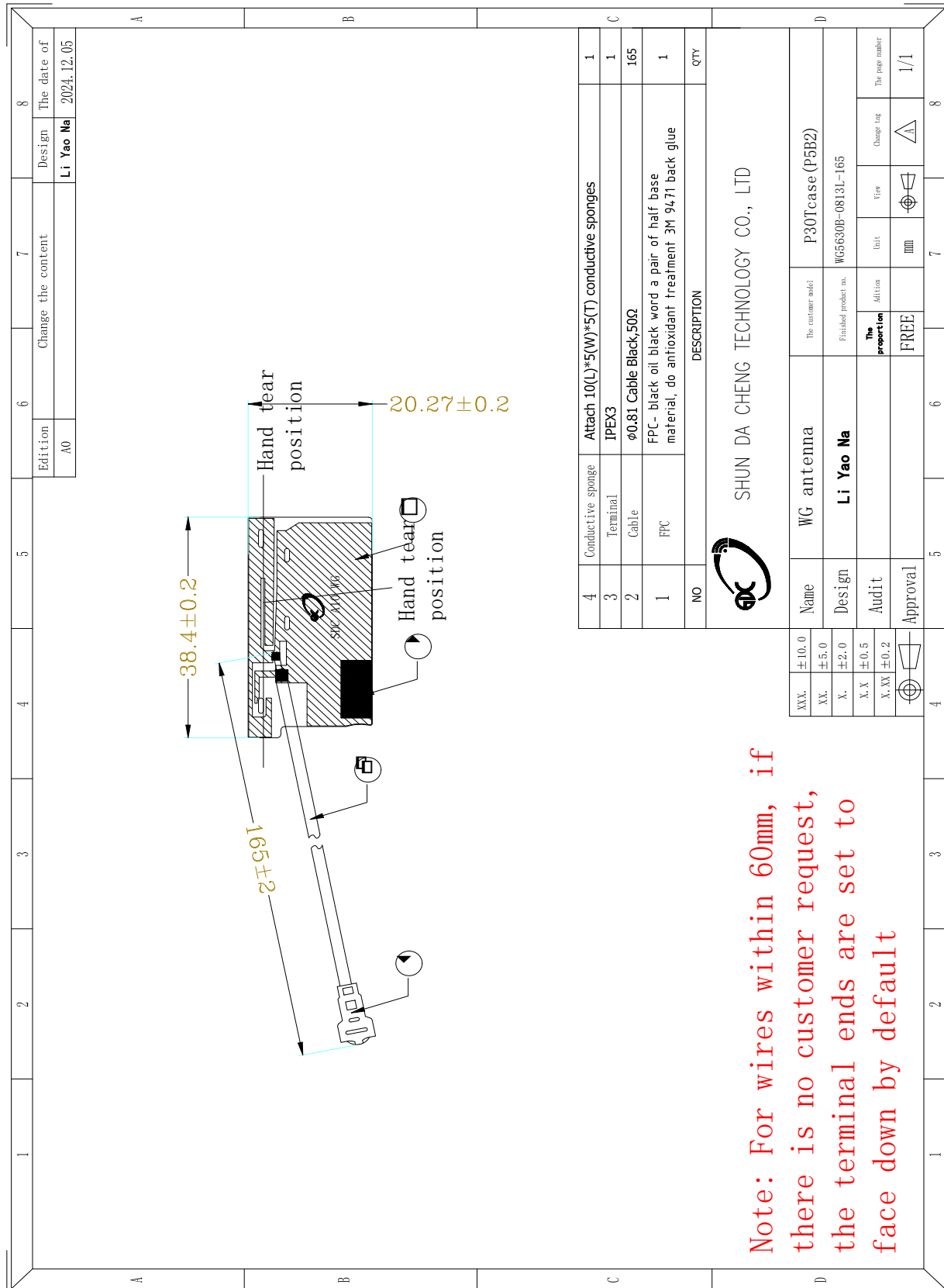


Catalogue

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Drawing or Product Image





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Sample Dimensions Test Report

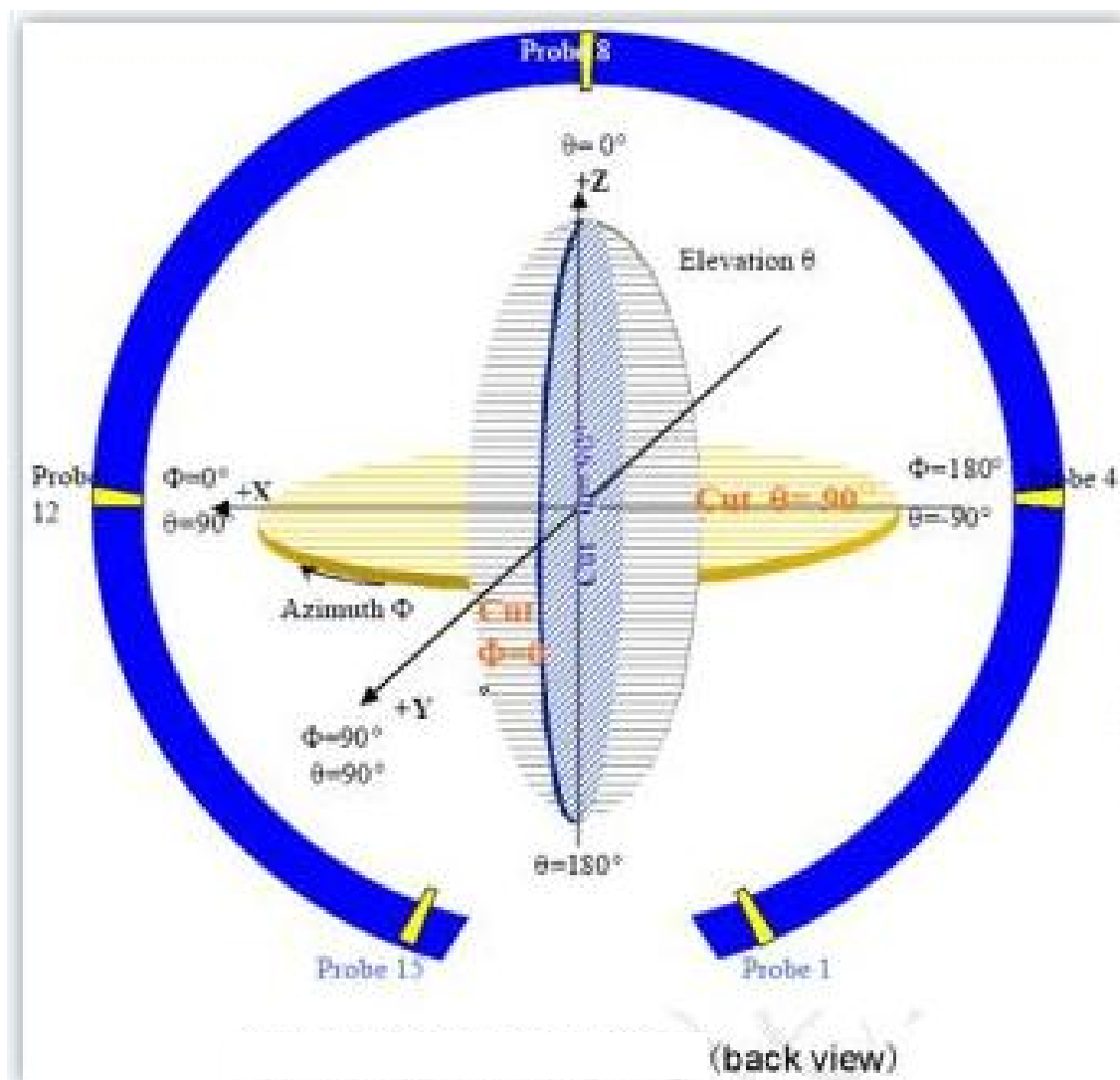
Test Date	2024. 12. 05	Sample Qty.	3	Inspector	Xu Yanfang
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	38.4±0.2mm	38.4	38.5	38.4	Pass
②width	20.27±0.2mm	20.27	20.37	20.27	Pass
③thickness	0.1±0.03mm	0.1	0.1	0.1	Pass
④wire length	165±2mm	165	166	165	Pass
Conclusion					PASS
Inspector & Date	Xu Yanfang 2024. 12. 05		Approval & Date		



RF Performance Test Report

Antenna Test Equipment Introduction

Test of antenna input characteristics using **Agilent E50710** 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:



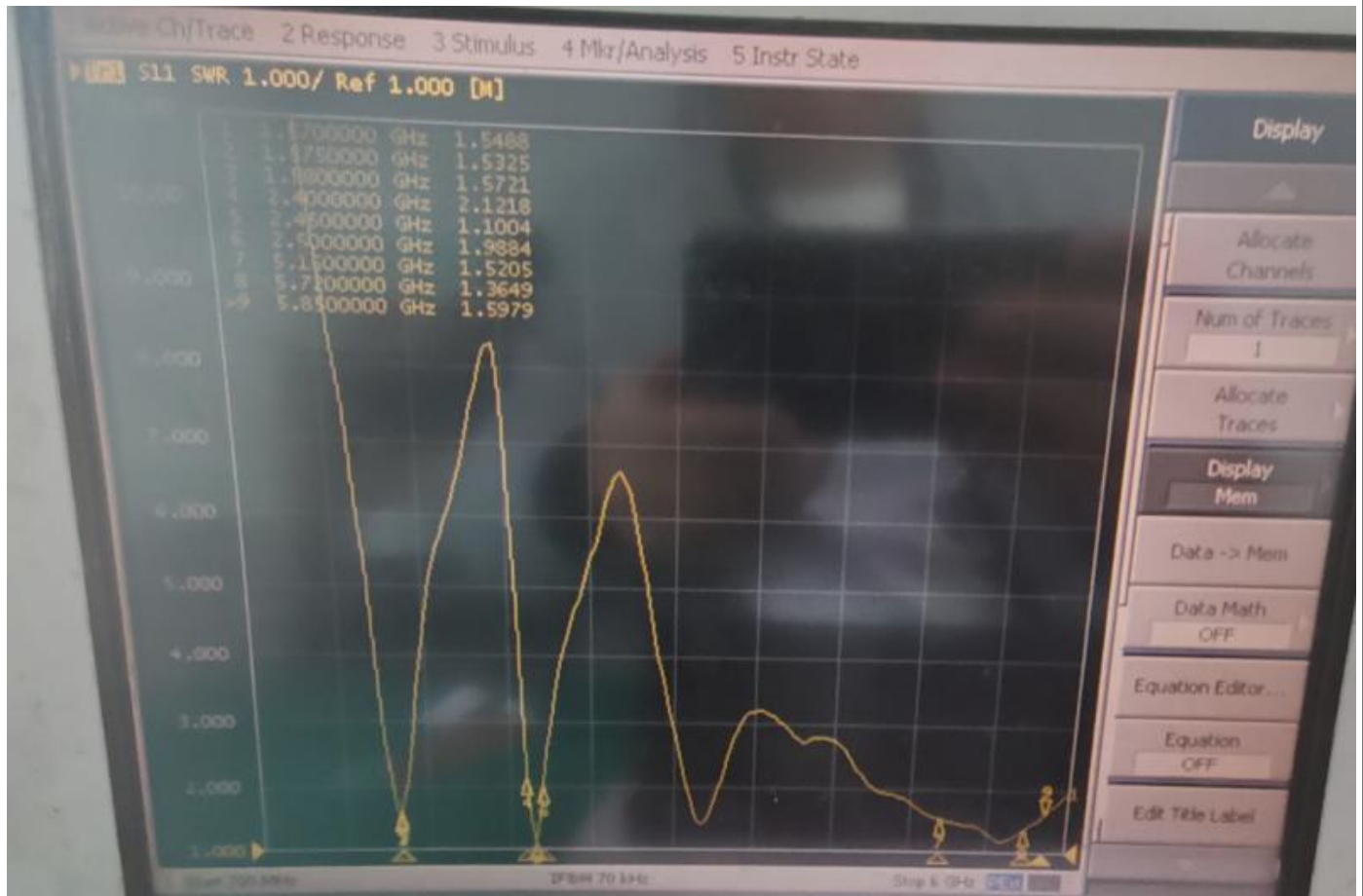
1. **S11 Parameter-VSWR**

Measuring Method is a 50 Ω 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.

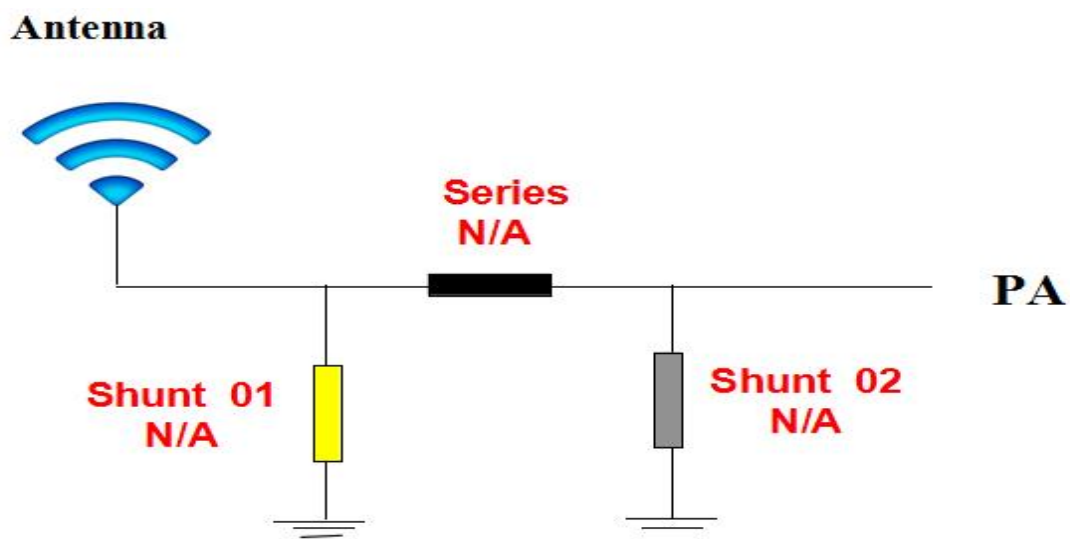
S11 Parameter-VSWR



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2. Antenna Matching Network



3. Gain & Efficiency

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

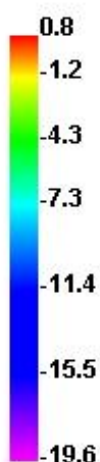
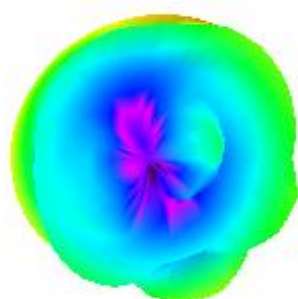


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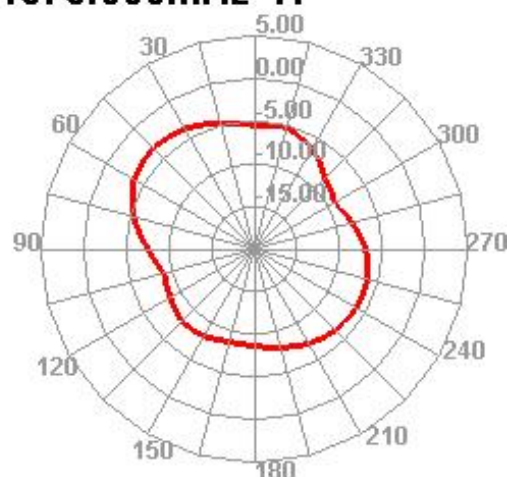
Passive Test For GPS-RB										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
1500	32.5	-3.14	2.8	0.65	16.66	31.838	0.8	-20.4	43.83	44.08
1525	32.86	-3.2	0.59	0.44	15.309	32.552	0.59	-21.47	43.89	43.93
1550	43.28	-3.64	1.82	-0.33	12.607	30.669	1.82	-15.36	44.11	44.11
1575	38.85	-4.58	0.81	-1.34	9.312	25.539	0.81	-19.56	44.82	44.78
1600	34.74	-4.59	0.67	-1.48	10.102	24.642	0.67	-20.95	46.1	45.91

1500.00MHz - 1600.00MHz Gain

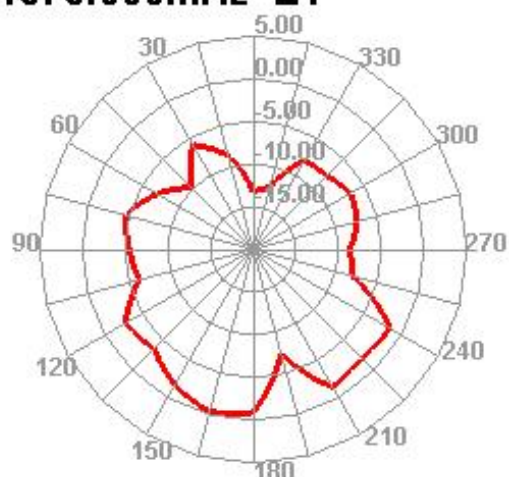
1575.000MHz



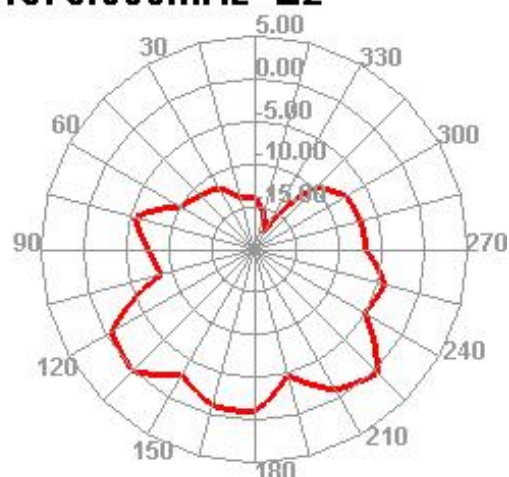
1575.000MHz H



1575.000MHz E1



1575.000MHz E2





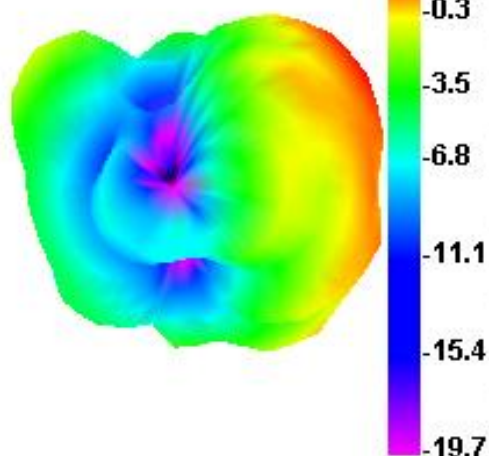
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Passive Test For 2.4G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	43.91	-3.57	1.84	-0.31	22.401	21.511	1.84	-19.67	49.25	48.85
2450	44.86	-3.48	2.13	-0.02	22.886	21.973	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

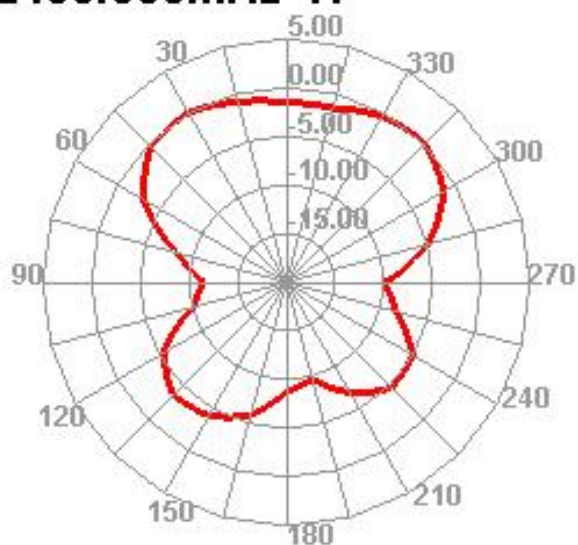
2400.00MHz - 2500.00MHz Gain

5.00

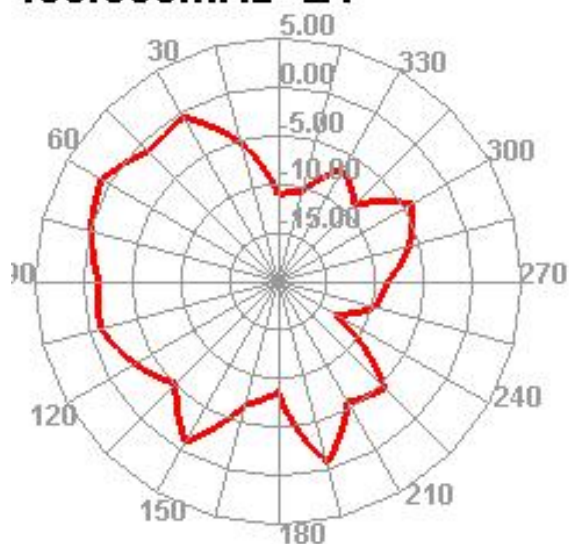
2400.000MHz



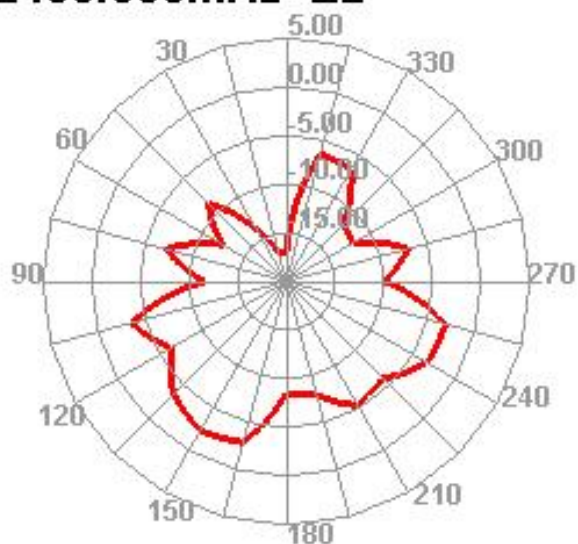
2400.000MHz H



400.000MHz E1



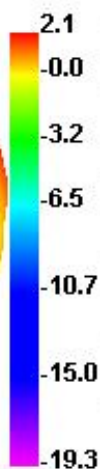
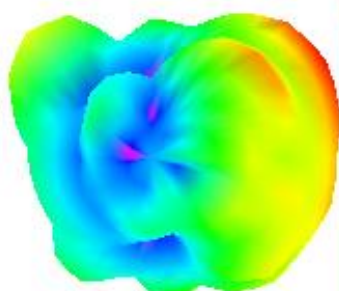
2400.000MHz E2



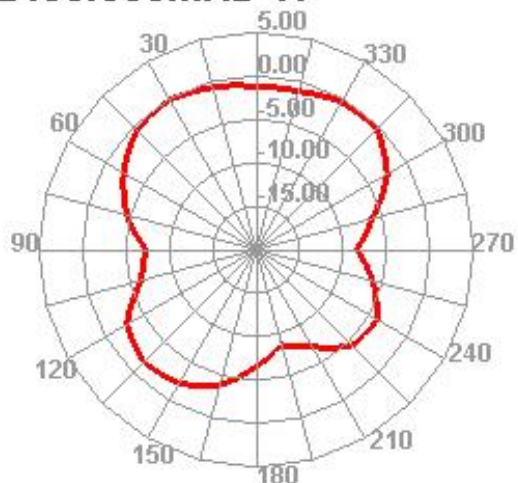


SHUN DA CHENG TECHNOLOGY CO., LTD

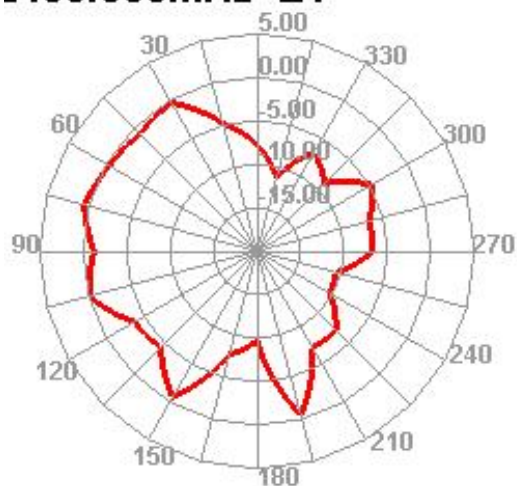
2450.000MHz



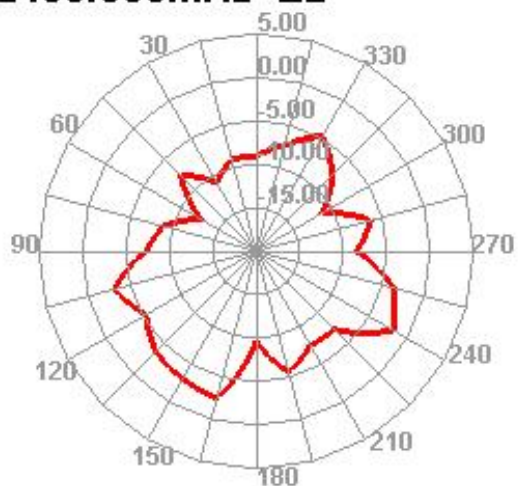
2450.000MHz H



2450.000MHz E1



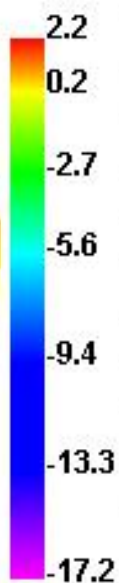
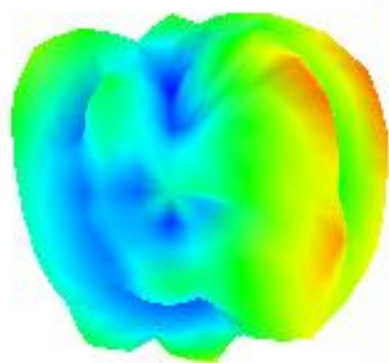
2450.000MHz E2



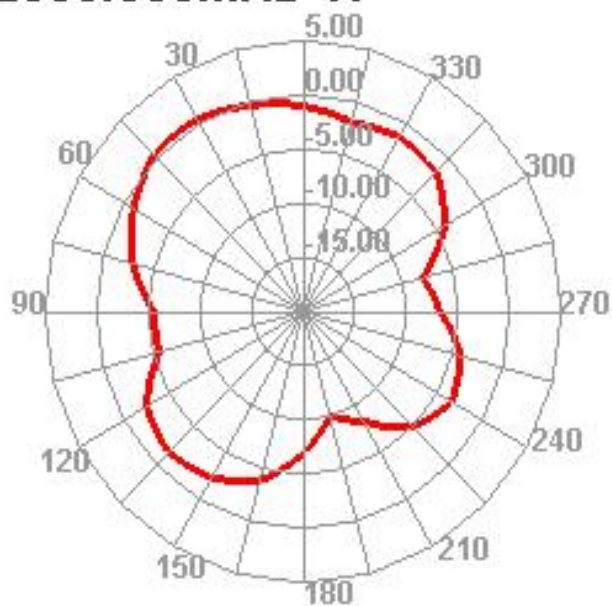


SHUN DA CHENG TECHNOLOGY CO., LTD

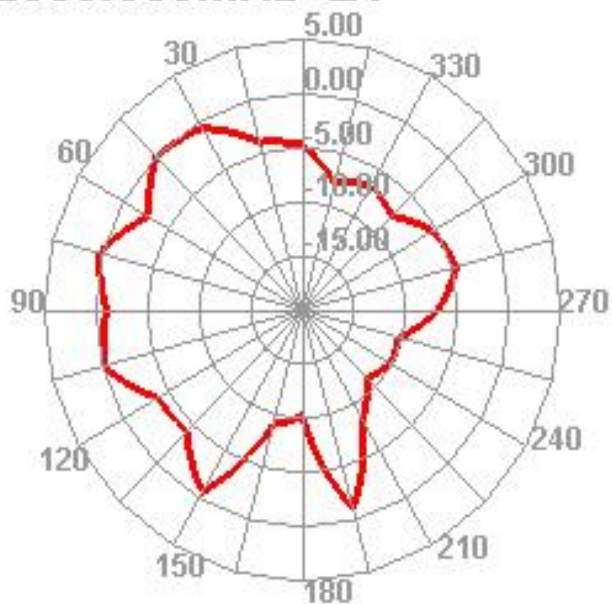
2500.000MHz



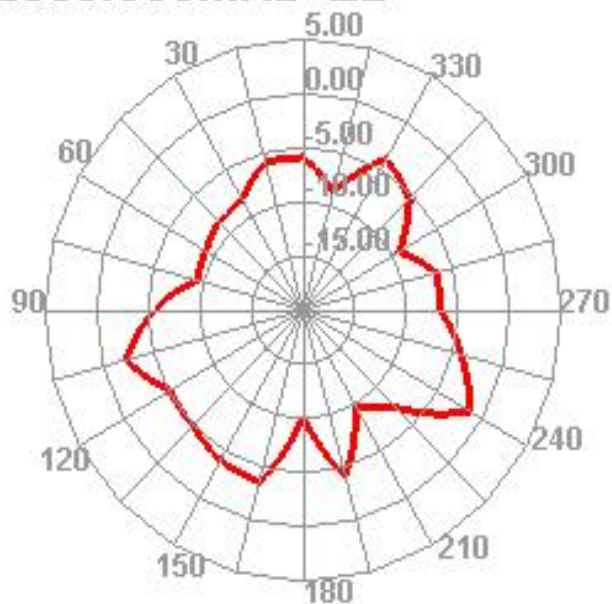
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



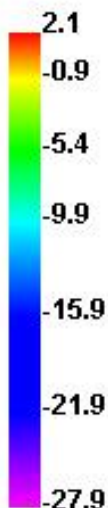
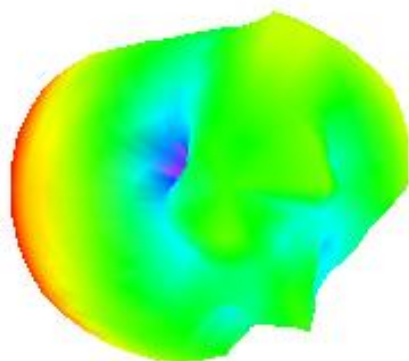


SHUN DA CHENG TECHNOLOGY CO., LTD

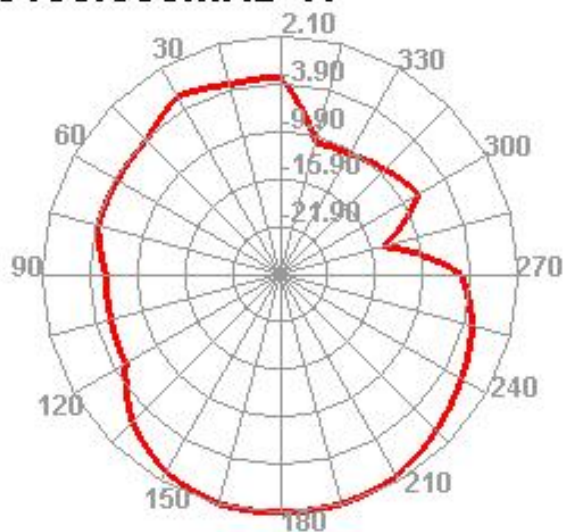
Passive Test For 5.8G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5100	39.74	-4.01	2.1	-0.05	19.309	20.435	2.1	-27.87	64.41	63.8
5207.14	32.4	-4.9	0.91	-1.24	15.743	16.652	0.91	-24.89	61.01	60.71
5314.28	35.76	-4.47	1.73	-0.42	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

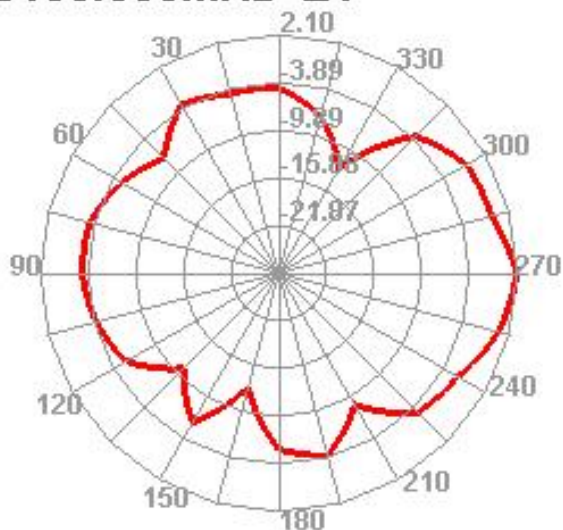
5100.000MHz



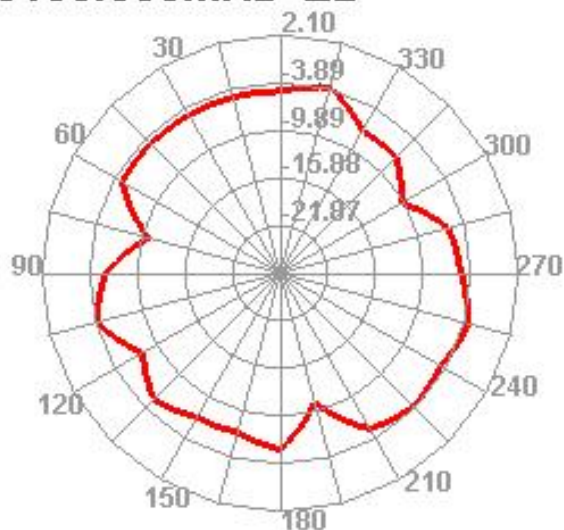
5100.000MHz H



5100.000MHz E1



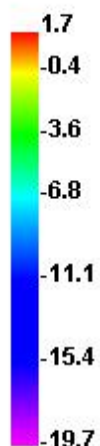
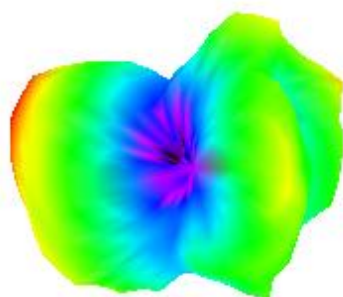
5100.000MHz E2



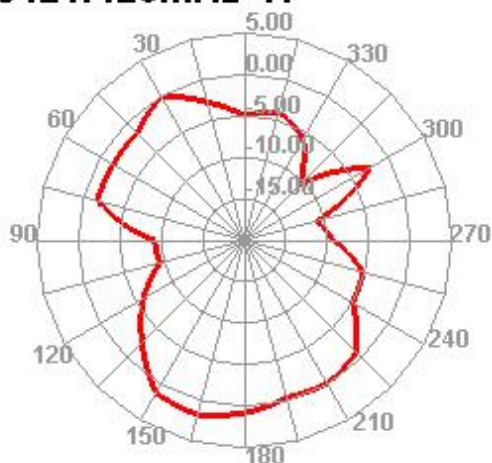


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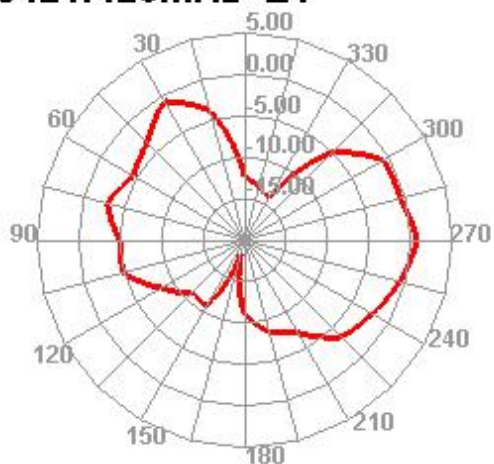
5421.426MHz



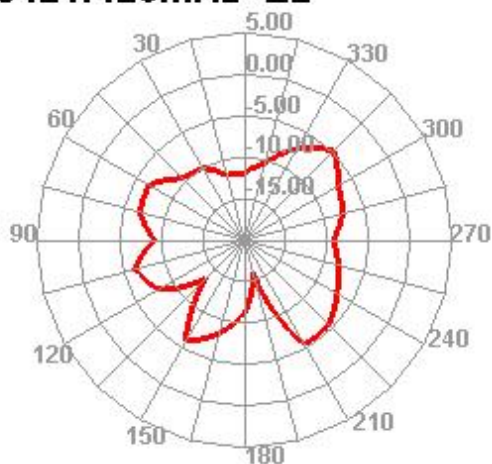
5421.426MHz H



5421.426MHz E1



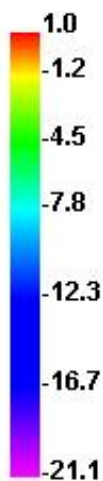
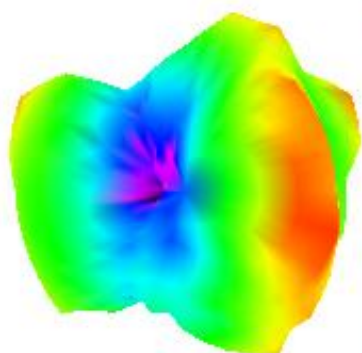
5421.426MHz E2



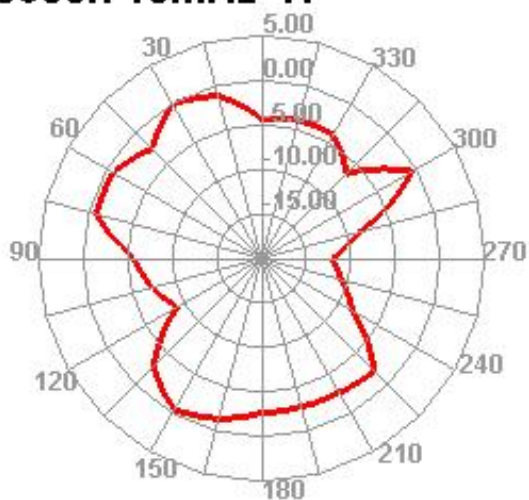


SHUN DA CHENG TECHNOLOGY CO., LTD

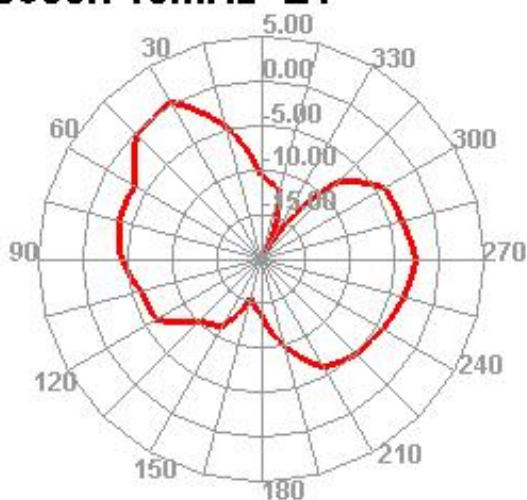
5635.710MHz



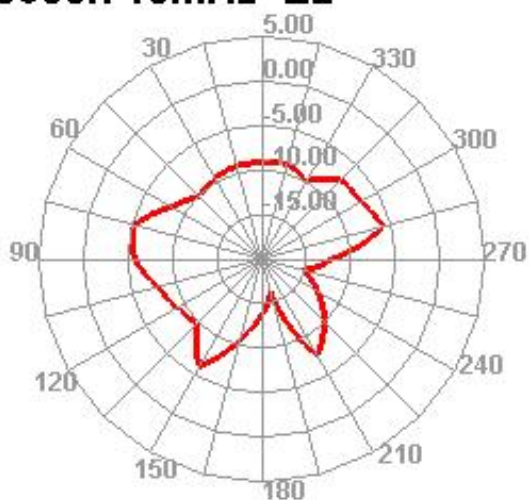
5635.710MHz H



5635.710MHz E1

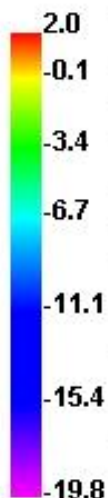
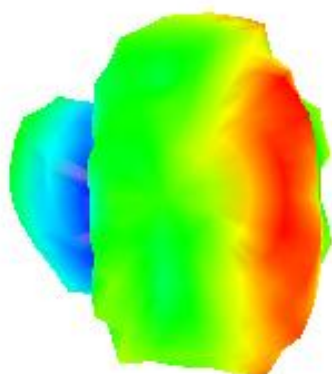


5635.710MHz E2

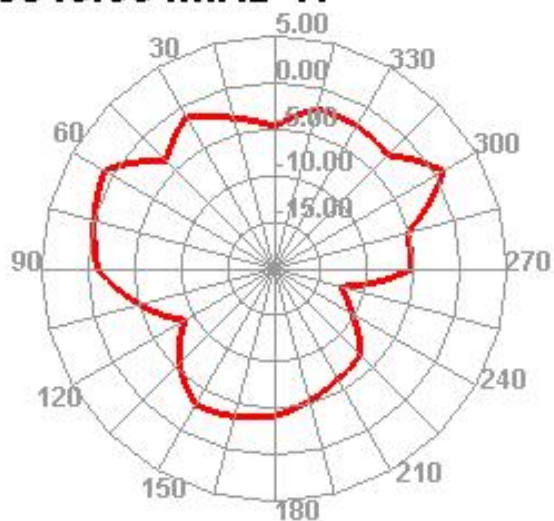




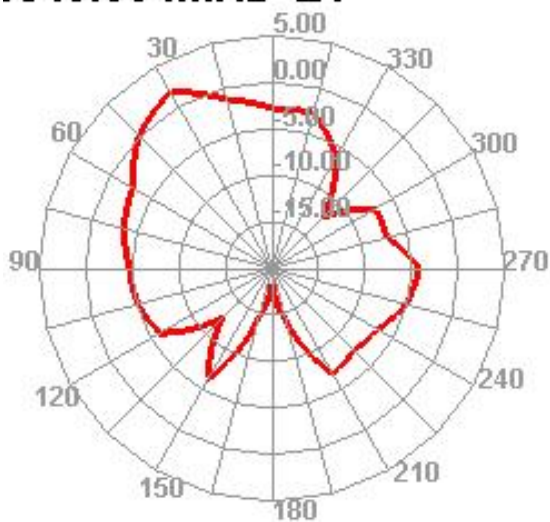
5849.994MHz



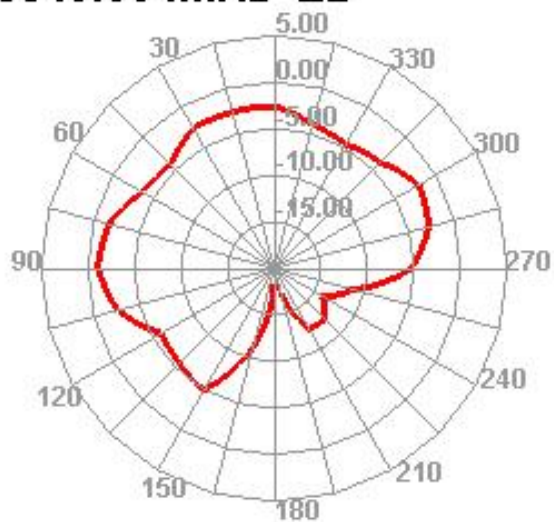
5849.994MHz H



5849.994MHz E1



5849.994MHz E2



4. WIFI OTA Data



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2.4G	802.11b, (2.4G) 11M		
Channel	CH1	CH6	CH11
TRP	13.87	13.92	13.56
TIS	-79.65	-78.54	-79.03
5.8G	802.11a, (5.8G) 54M		
Channel	CH36	CH60	CH161
TRP	11.77	11.65	10.92
TIS	-70.5	-69.82	-69.74

5. GPS





Reliability Test Report

Test Date	2024. 12. 05	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

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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. 13Wire diameter ≥ 10N 0. 81Wire diameter ≥ 8N RG174 ≥60N RG178 ≥50N	Push pull meter	≥10N	≥10N	≥10N	Pass
Conclusion						Pass
Inspector & Date	Xu Yanfang 2024. 12. 05		Approval & Date			

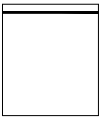


Packing rules

Project name: P30Tcase(P5B2)	Product name: FPC antenna
------------------------------	---------------------------

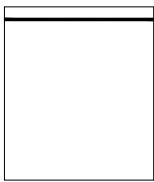
FPC antenna (one)

↓



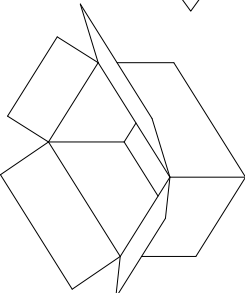
(two) Each PE bag contains 100pcs of products (subject to actual packaging)

↓



(three) Then put the small antenna bag neatly into (Figure 3) and fill 10 small bags (the actual packaging shall prevail).

↓



(four) The packaged antenna can be put into a carton, which can hold 5 large bags, each box can hold 5000PCS (Figure 4). (Subject to actual packaging)

↓

supplier	
purchase order number	
material code	
specifications and models	
quantity	
date	

(five) After the packaging is completed, the shipping label should be affixed (Figure 5).



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Install Wizard or Other

Installation process:

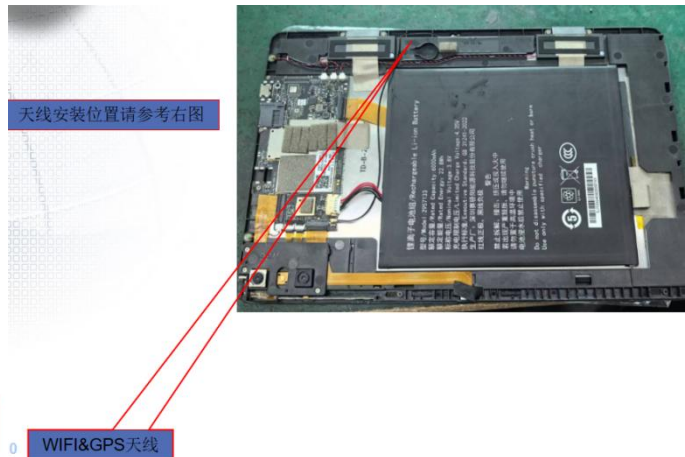
Take 1PCS of products and tear off the release paper on the back of the FPC by hand. Then align the positioning holes of the FPC with the positioning holes of the shell (positioning bars or positioning wires) and attach them to the shell smoothly. The specific positions are shown in the figure below:

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



需要用导电泡棉对金属后壳镭雕处做接地处理。





SHUN DA CHENG TECHNOLOGY CO., LTD

ROHS

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



Shenzhen United Testing Technology Co., Ltd.

Shenzhen: D101&D401, No. 107, Kaicheng High-Tech Park, Taoyuan Community, Dalang, Sub-District
Longhua District, Shenzhen, Guangdong, China/518109
Guangzhou: No.47-3, Industrial Road, Zhushan, Dalong Street, Panyu District, Guangzhou, Guangdong,
China/511450;

101/F, Building 2, Tongxin Industrial Park, Xinqiao Village, Dalong Street, Panyu District, Guangzhou,
Guangdong, China/511450

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

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



Certificate of Compliance

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