



SHUN DA CHENG TECHNOLOGY CO., LTD

SPECIFICATION FOR APPROVAL

Customer Name	DE BEN		
Customer Project Name	DB64	SDC Project Name	DB64
Customer P/N		SDC P/N	WF688B-0814R-60
Band	WIFI2.4G/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	2025.07.01	2025.07.01	2025.07.01		

Change Log				
Version	Change Description	Person in Charge	Approval By	Date



Catalogue

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Drawing or Product Image

1	2	3	4	5	6
A	B	C	D	E	F
F	REV	DATE	DESCRIPTION		
A0	2025.07.01	New Issue			

Observed = All through holes

3	4	5	6
端子	IPEX4	1	
Cable	?0.81 Cable Black,50Ω	60	
FPC	FPC Black oil black and white one half base material, do anti-oxidation treatment 3M 9471 back adhesive	1	
NO	DESCRIPTION	Q'TY	REMARK
3	IPEX4	1	
2	?0.81 Cable Black,50Ω	60	
1	FPC	1	

xx. ± 5	APPROVED	CUSTOMER:	De Ben	Shenzhen City
x. ± 3.0	Fu Xuerong	WIFI antenna 0873 FPC (silk screen SNC 10/61 W7/0.8) Black cable + IPEX4 L=80mm		
xx. ± 1.0	CHECKED			
x. ± 0.5	Li Yona	PART NAME:	SDC P/NO : WF688B-0814R-60 REV / UNIT : A0 m/m SHEET : 1/1	
xx. ± 0.1	DRAWING	FILE :		
xxx. ± 0.1	Li Yona	Li Yona		

Note: The terminal head is facing down



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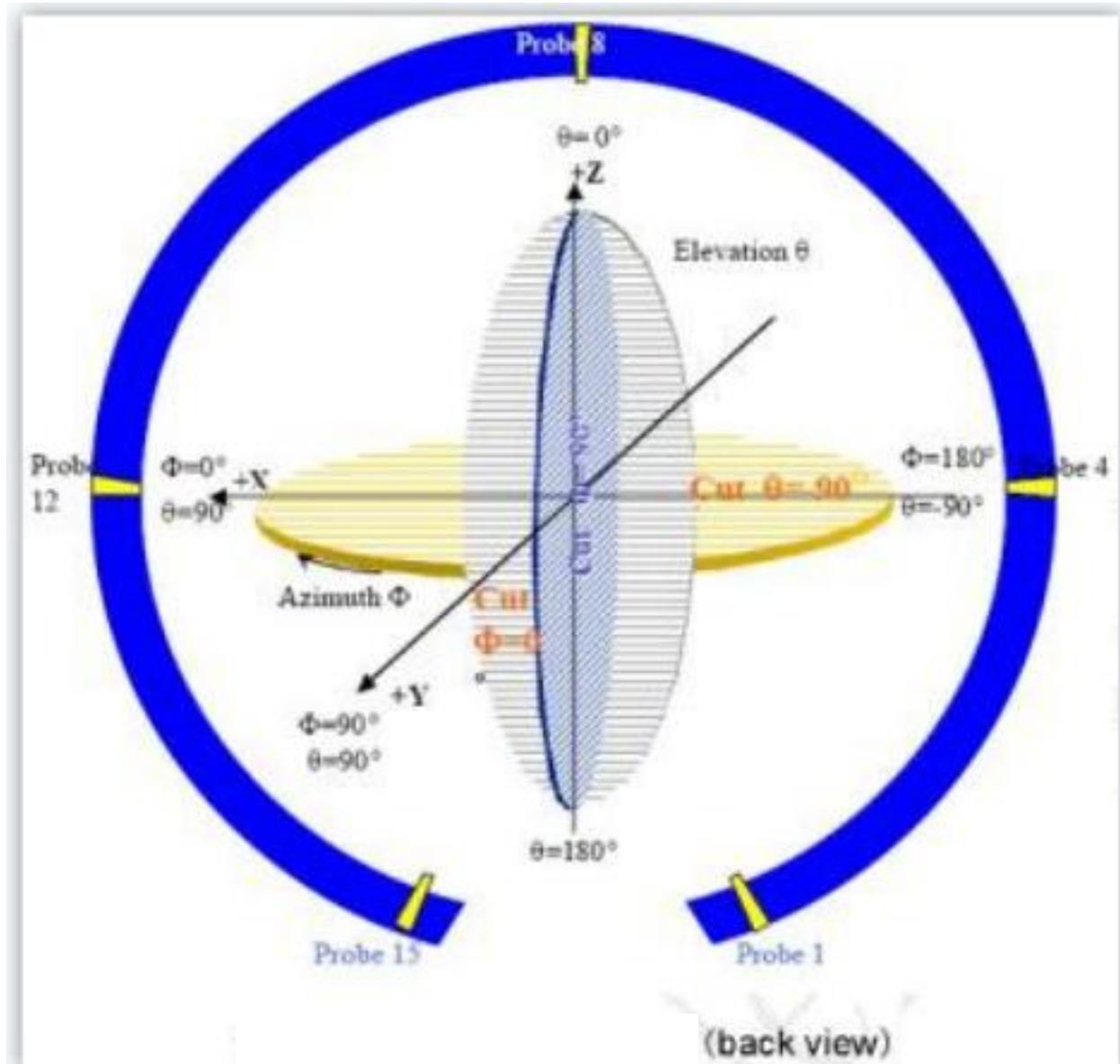
Sample Dimensions Test Report

Test Date	2025. 07. 01	Sample Qty.	3	Inspector	Xu Yanfang
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	21. 91±0. 2mm	21. 95	22	21. 95	Pass
②width	10±0. 2mm	10	10. 1	10	Pass
③thickness	0. 1±0. 03mm	0. 1	0. 1	0. 1	Pass
④Line length	60±2mm	60	61	60	Pass
Conclusion					PASS
Inspector & Date	Xu Yanfang 2025. 07. 01	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:



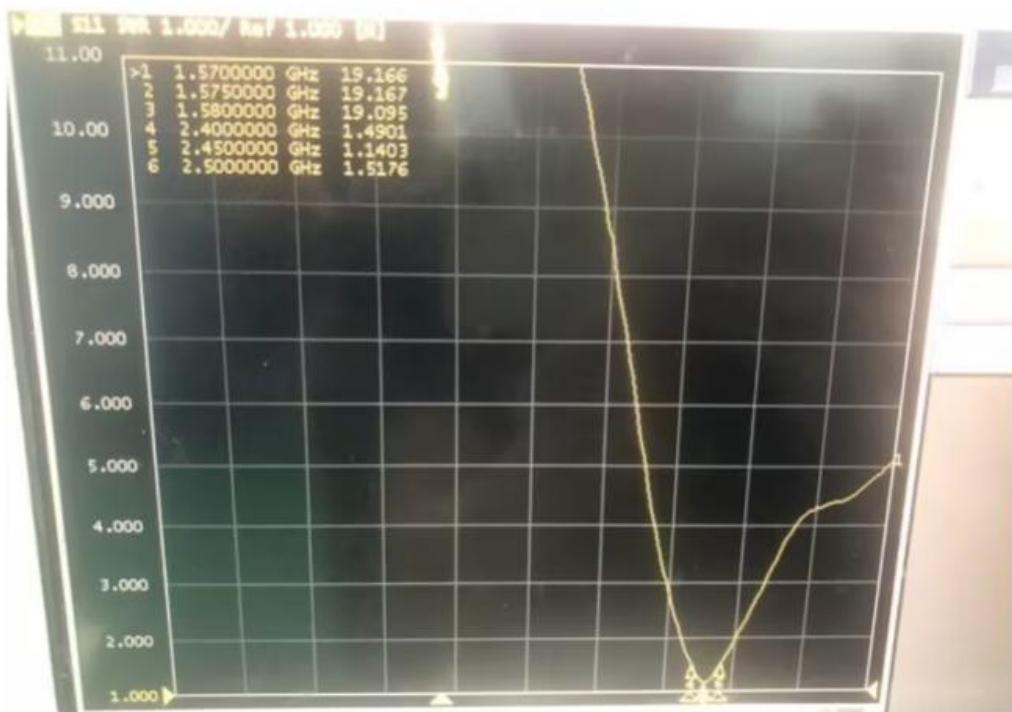
1. S11 Parameter-VSWR

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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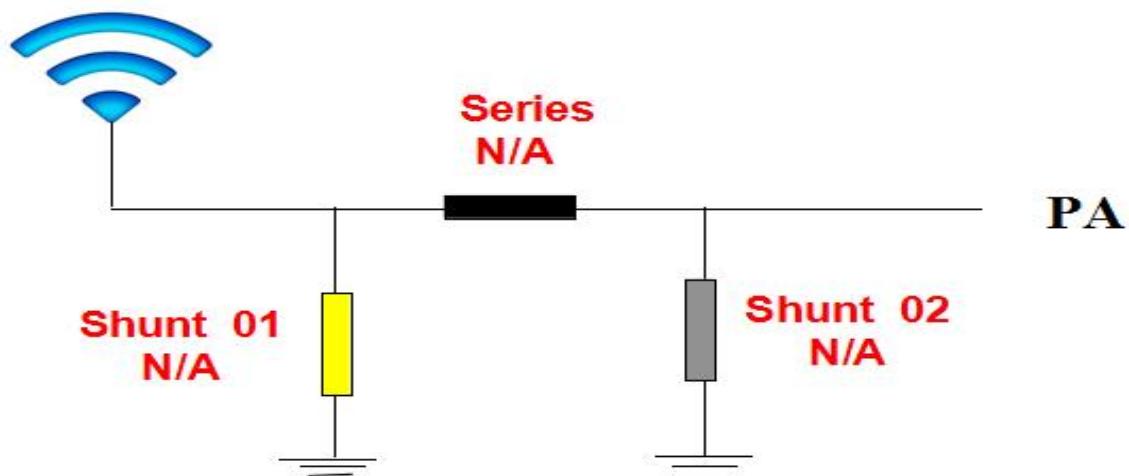
S11 Parameter-VSWR



Frequency(MHz)	2400	2450	2500
VSWR	1.49	1.14	1.51

2. Antenna Matching Network

Antenna

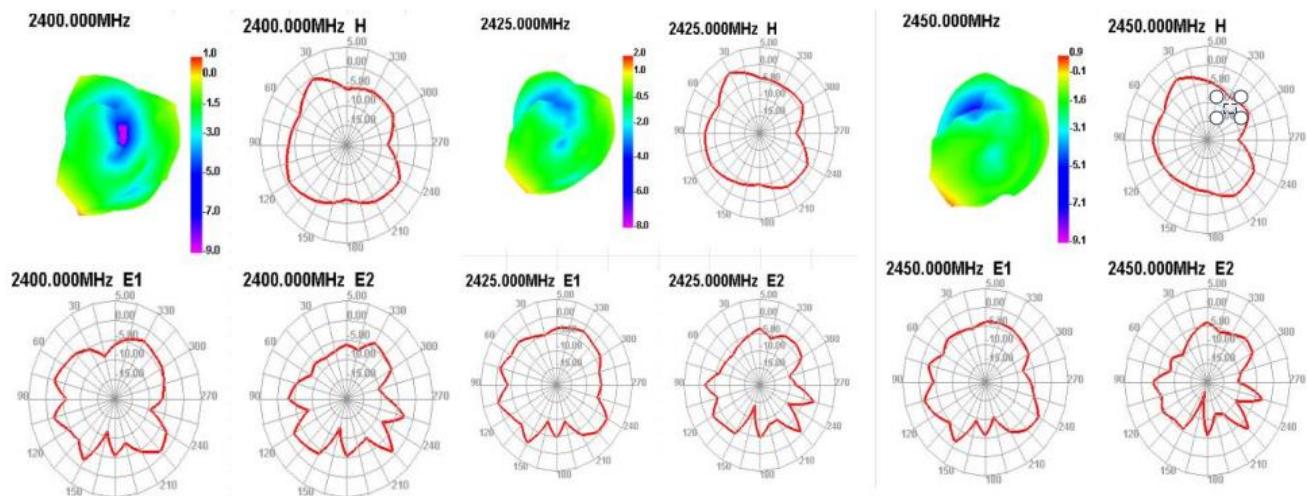




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3. Gain & Efficiency

Passive Test For 2.4G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	irectivit (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	43.54	-3.61	1.03	-1.12	20.581	22.962	1.03	-15.9	4.64	15	48.93	49.09
2425	45.48	-2.97	1.96	-0.19	23.926	26.555	1.96	-16.48	4.93	15	49.09	49.22
2450	36.53	-4.37	0.87	-1.28	17.136	19.397	0.87	-19.74	5.24	15	49.25	49.27
2475	35.97	-4.44	0.52	-1.63	17.205	18.763	0.52	-23.22	4.96	75	49.98	49.91
2500	36.94	-4.32	0.32	-1.83	17.676	19.267	0.32	-18.36	4.64	75	49.71	49.62





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Reliability Test Report

Test Date	2025. 07. 01	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	1.13Wire diameter ≥ 10N 0.81Wire diameter ≥ 8N RG174 ≥60N RG178 ≥50N	Push pull meter	≥10N	≥10N	≥10N	Pass
Conclusion						Pass
Inspector & Date	Xu Yanfang 2025. 07. 01	Approval & Date				

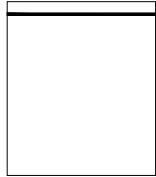
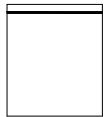


Packing rules

Project name: DB64

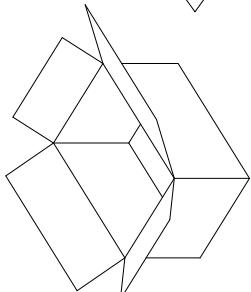
Product name: FPC antenna

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).



supplier	
purchase order number	
material code	
specifications and models	
quantity	
date	

(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)

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



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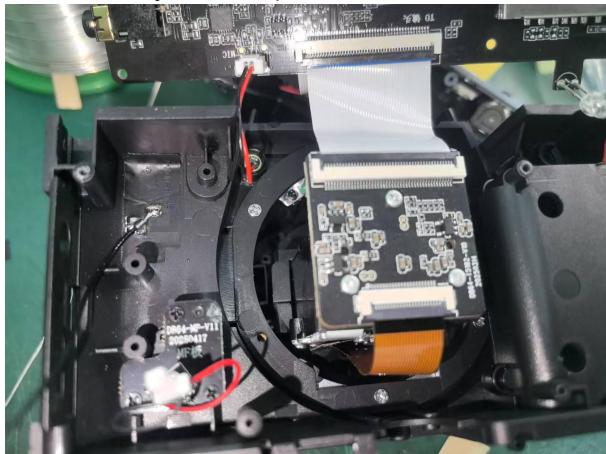
Install Wizard or Other

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





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ROHS certificate of the product

Certificate

Certificate Number: UNIB24083009HC-01



Product: 5G/4G/WIFI/GPS/BT antenna/M808 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.
4th Floor, Building B5, Xinfu Industrial Zone, Fuyong Chongqing Road, Baoan District, Shenzhen
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: UNIB24083009HR-01.

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

RoHS

Sep. 06, 2024

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
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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