Acknowledgment Letter

SPECIFICATION FOR APPROVAL

Customer Name	Shiyutong		
Customer Project Name	BAT-06	Project Name	BAT-06
Customer P/N		SDC P/N	WF4584B-B45R-A
Band	2.4G		
Version	A0		
Designer Information			
RF Engineer	Fu Xuerong	R&D Diretor	Xia Chenglei
ME Engineer	Huang Zongbao		

Approval				ustomer Approval	
	Prepared By	Checked By	Approval By	Checked By	Approval By
Signature	Huang Zongbao	Fu Xuerong	Xia Chenglei		
Date	2024.5.26	2024.5.26	2024.5.26		

hange Log				
Version	Change Description	Person in Charge	Approval By	Date

Catalogue

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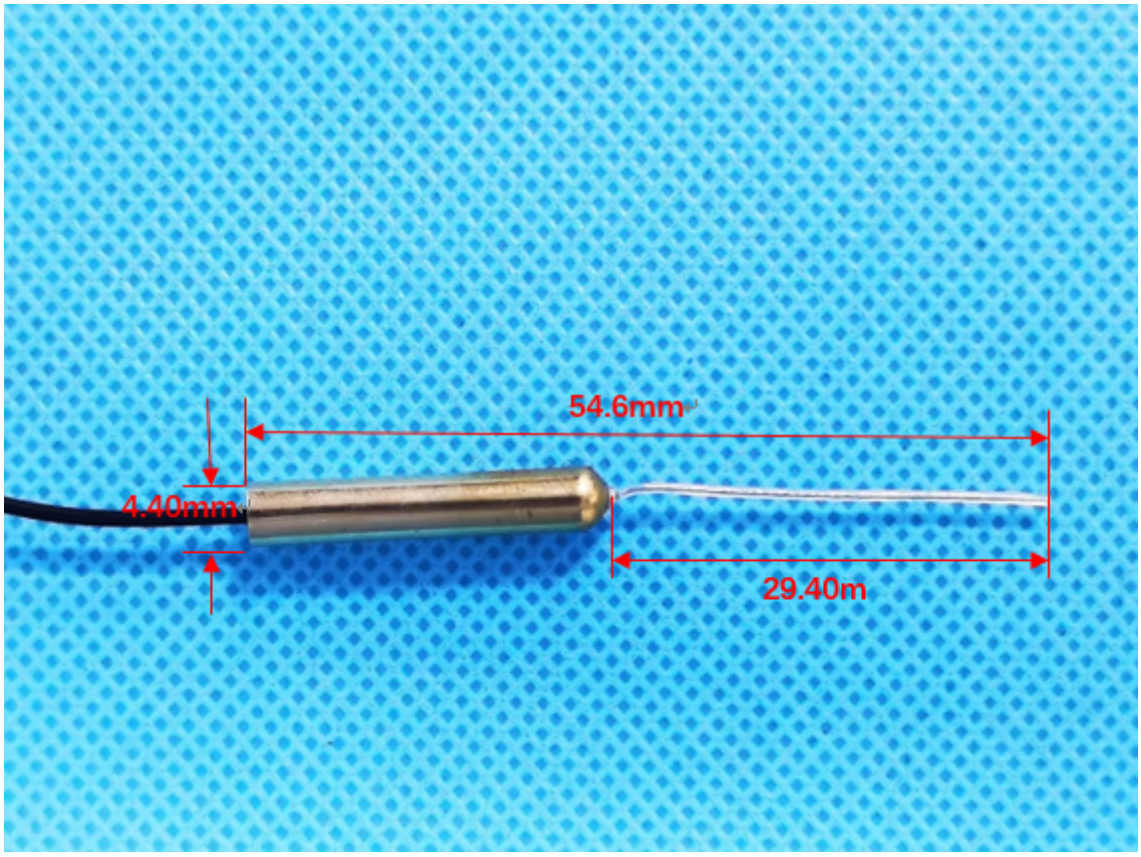
Drawing or Product Image



Company Address: 4th Floor, Building B5, Xinfu Industrial Park, Chongqing Road, Fuyong Town, Bao'an District, Shenzhen TEL:0755-27211658 FAX:0755-29485750

Sample Dimensions Test Report

Test Date	2023.5.26	Sample Qty.	3	Inspector	Xu Yanfang
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	18.8±0.2mm	18.8	18.9	18.8	Pass
②width	14.52±0.2mm	14.52	14.62	14.52	Pass
③ thickness	0.1±0.03mm	0.1	0.1	0.1	Pass
④Line length	45±2mm	45	46	46	Pass
⑤					
⑥					
⑦					
Conclusion					PASS
Inspector & Date	Xu Yanfang 2023.5.26		Approval &D ate		

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:

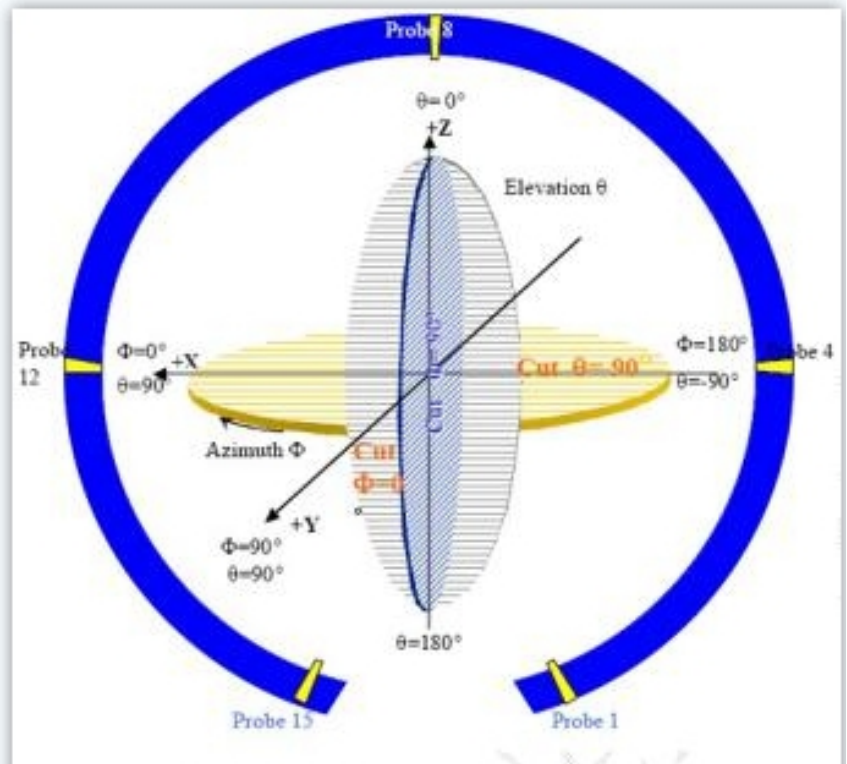


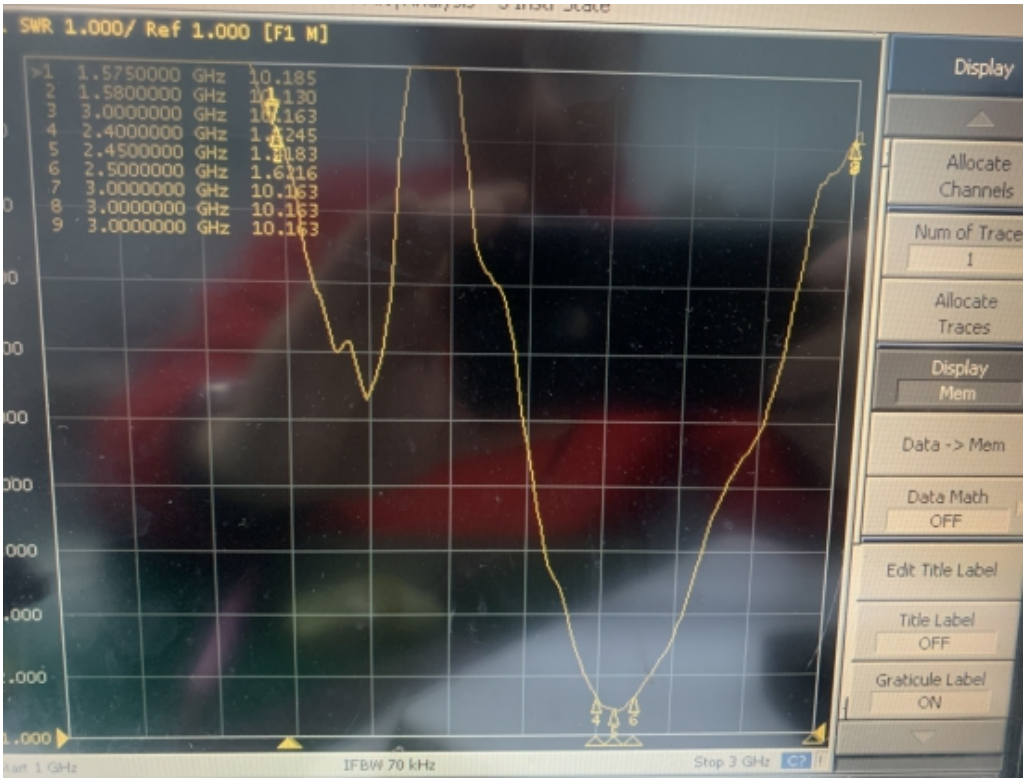
图 4 3D 微波暗室测试坐标系(back view)

1. *S11 Parameter-VSWR*

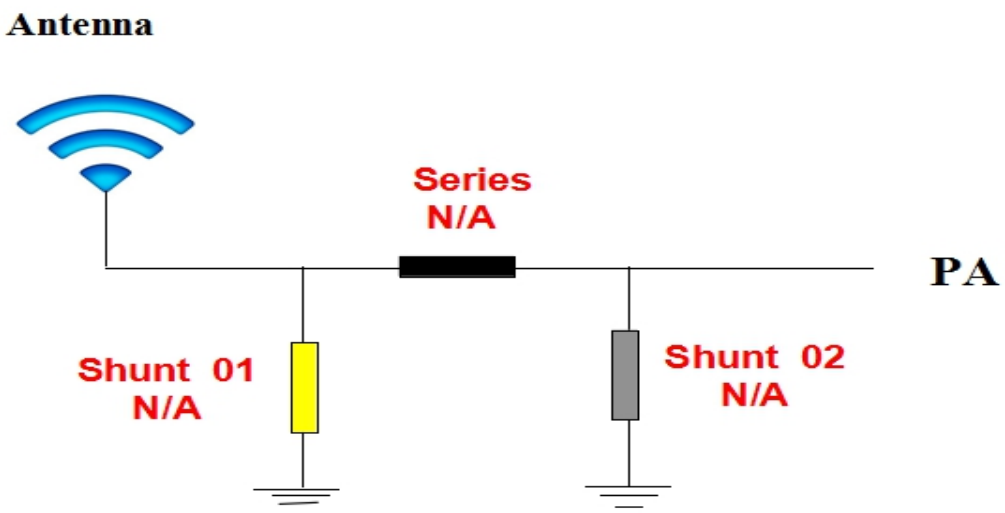
Measuring Method is a 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the S11 parameter, Keeping this fixture away from metal at least 20cm.

S11 Parameter-VSWR

frequency（MHZ）	2400	2450	2500
standing-wave ratio	1.62	1.41	1.62

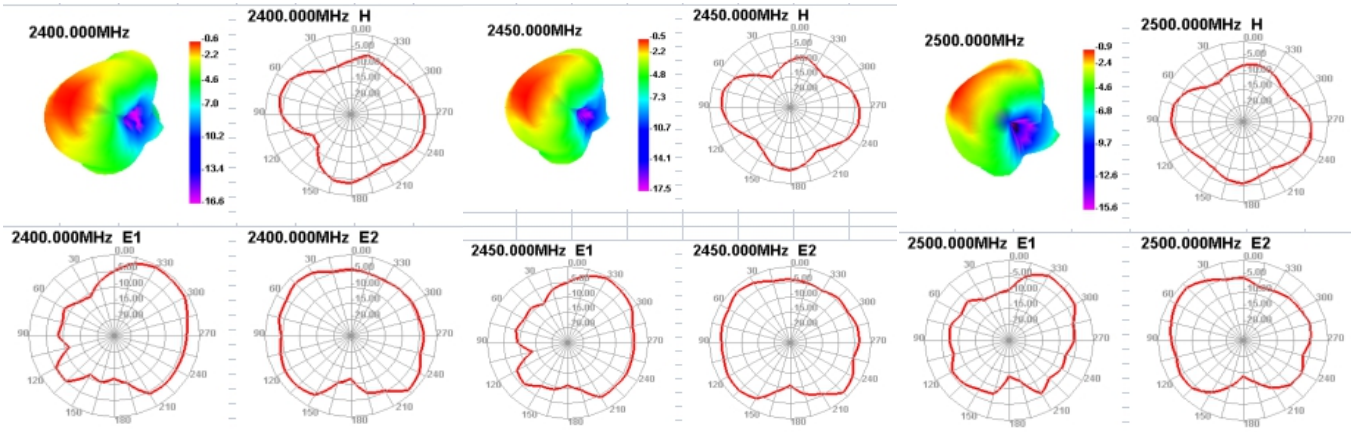


2. Antenna Matching Network



3. Gain & Efficiency

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	31.74	-0.59
2450	29.65	-0.51
2500	28.15	-0.93



Reliability Test Report

Test Date	2023.5.26	Sample Qty.	3	Inspector	Xu Yanfang	
Test Item	**Requirement**	**testing equipment**	**Sample 1**	**Sample 2**	**Sample 3**	**PASS/NG**
high temperature storage	Expose to+85 ℃ for 24 hours, recover for 2 hours, and conduct testing	Constant temperature and humidity box	OK	OK	OK	Pass
low temperature storage	Expose to -40 ° C for 24 hours, recover for 2 hours, and perform testing	Constant temperature and humidity box	OK	OK	OK	Pass
High temperature operation	Powered on for 24 hours at+60 ℃	Constant temperature and humidity box	OK	OK	OK	Pass
Low temperature operation	Powered on for 24 hours at -20 ℃	Constant temperature and humidity box	OK	OK	OK	Pass
Salt spray test	(5±0.5)%sodium chloride、pHValue is6.5～7.2, Temperature of experimental chamber (35±2)℃ ☐24H ☑48H	Salt spray testing machine	OK	OK	OK	Pass
Connector riveting and pulling force	1.13Wire diameter≥10N 0.81Wire diameter ≥8N RG174 ≥60N RG178 ≥50N	Push-pull force gauge	≥10N	≥10N	≥10N	Pass
Conclusion						Pass
Inspector & Date	Xu Yanfang 2023.5.26		Approval &Date			

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Product ROHS Composition Declaration Form

product name		Uniform material	Harmful substance content(PPM)					HS test report number	Date of HS test report
			Pb	Cd	Hg	Cr	Br		
WIFI antenna		FPC	ND	ND	ND	ND	ND	UNIB21042707HR-01	2023.5.26
			ND	ND	ND	ND	ND		
			ND	ND	ND	ND	ND		
			ND	ND	ND	ND	ND		
			ND	ND	ND	ND	ND		
		wire rod	ND	ND	ND	ND	ND		
			ND	ND	ND	ND	ND		
			ND	ND	ND	ND	ND		
		termin	ND	ND	ND	ND	ND		

Install Wizard or Other

setup script:

Take 1 PCS of product, tear off the release paper on the back of the FPC by hand, and then align the FPC positioning hole position with the shell positioning hole position (positioning rib position or positioning line), and attach it flat to the shell, as shown in the following figure:

Installation process precautions:

☐Ensure that the FPC is fully attached to the housing after pasting the antenna;

☐Align the positioning hole with the position of the casing positioning column;

☐Align FPC edge with shell edge;

☐When attaching the terminal to the PCBA end of the motherboard, please first align the terminals and then snap them vertically;

☐When disassembling antenna terminals, it is necessary to use a tool (such as a special pry bar) to vertically lift the terminals and not directly pull the wires for disassembly