

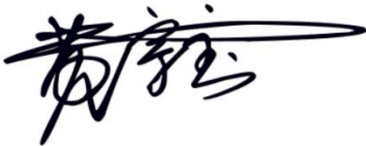


Acknowledgment Letter

SPECIFICATION FOR APPROVAL

Customer Name	LEKU		
Customer Project Name	070	Project Name	070
Antenna type	Four in one antenna	SDC P/N	WF070-B60L-A
Band	WIFI2. 4G/BT		
Version	A0		
Designer Information			
RF Engineer		R&D Director	
ME Engineer			

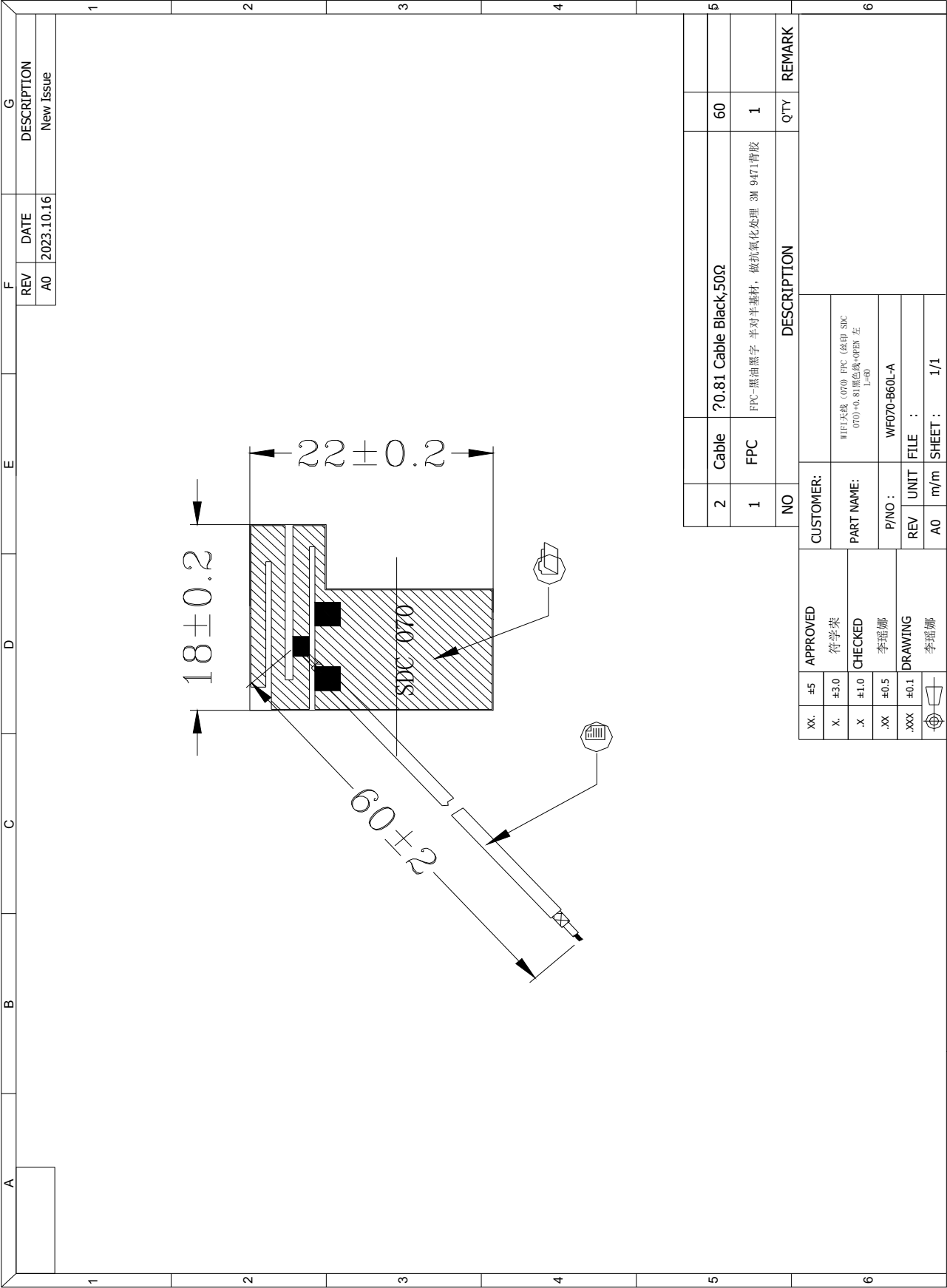
Approval				ustomer Approval	
	Prepared By	Checked By	Approval By	Checked By	Approval By
Signature	Huang Zongbao	Fu Xuerong	Xia Chenglei		
Date	2023. 10. 16	2023. 10. 16	2023. 10. 16		

hange Log				
Version	Change Description	Person in Charge	Approval By	Date

Catalogue

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Drawing or Product Image



Sample Dimensions Test Report

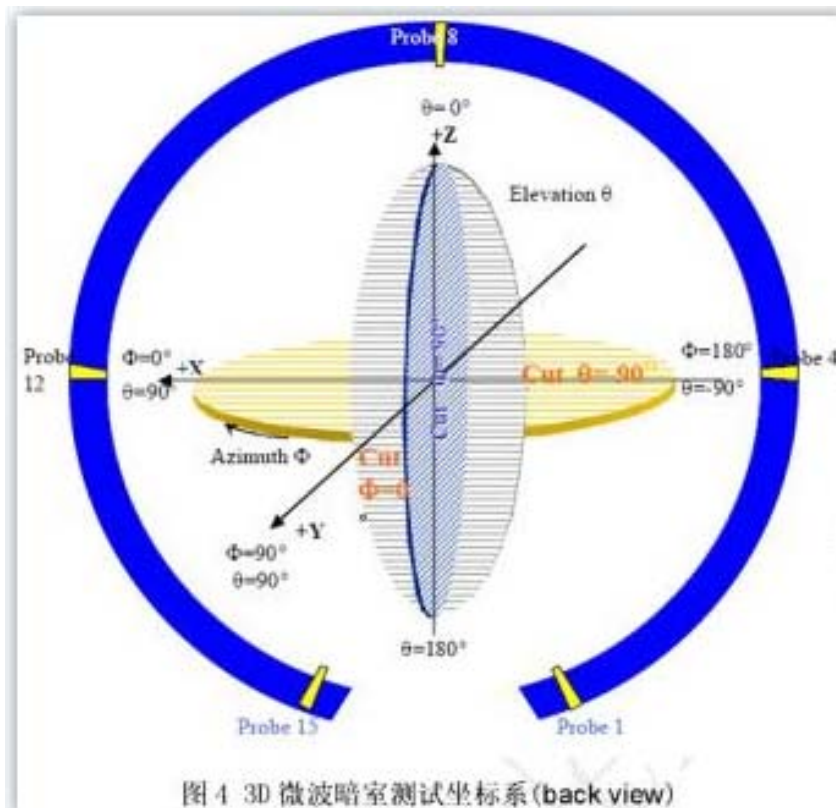
Test Date	2023. 10. 16	Sample Qty.	3	Inspector	Xu Yanfang
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Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	18±0. 2mm	18	18	18	Pass
②width	22±0. 2mm	22	22	22	Pass
③ thickness	0. 1±0. 03mm	0. 1	0. 1	0. 1	Pass
④Line length	100±2mm	100	101	100	Pass
⑤					
⑥					
⑦					
Conclusion					PASS
Inspector & Date	Xu Yanfang 2023. 10. 16		Approval &D ate		

RF Performance Test Report

Antenna Test Equipment Introduction

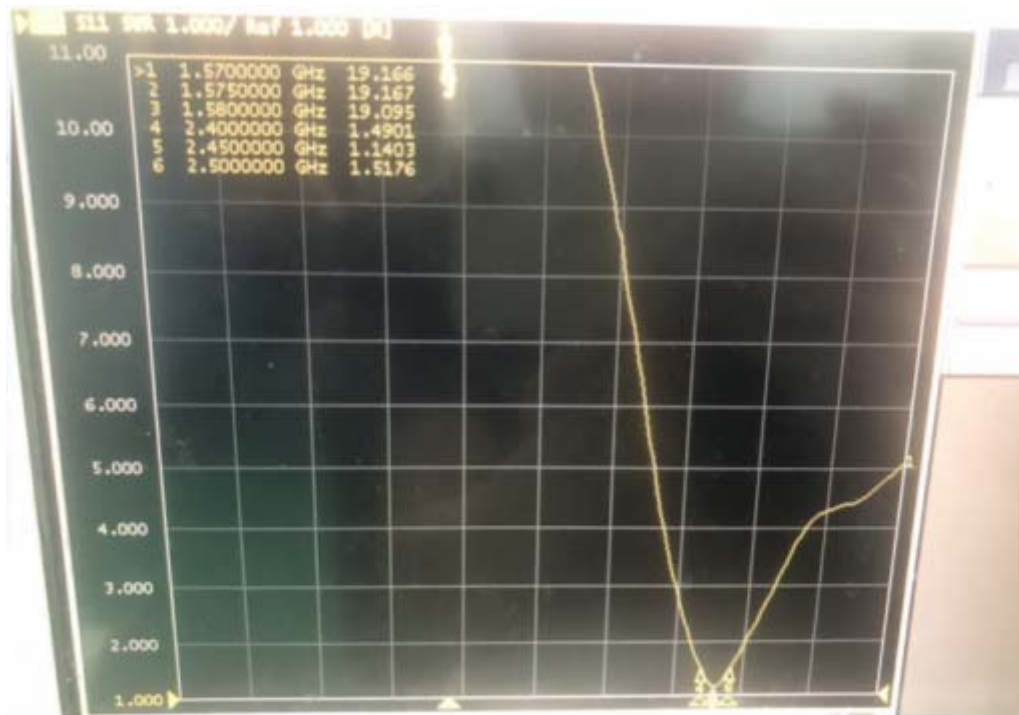
Test of antenna input characteristics using **Agilent E5071C** and **Agilent 5062A** vector network analyzer; The radiation pattern of the antenna are tested using the guangping 3D near field Anechoic Chamber, and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:



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.

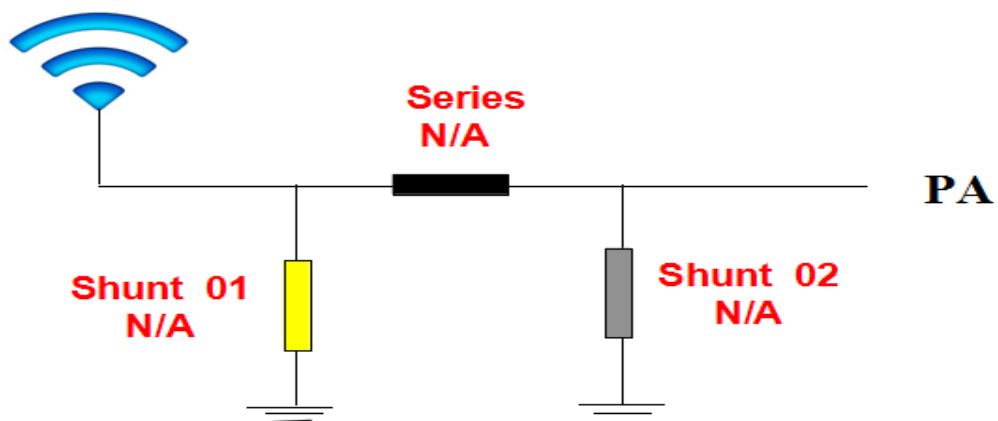
S11 Parameter-VSWR



Frequency(MHz)	2400	2450	2500
VSWR	1.49	1.14	1.51

2. Antenna Matching Network

Antenna

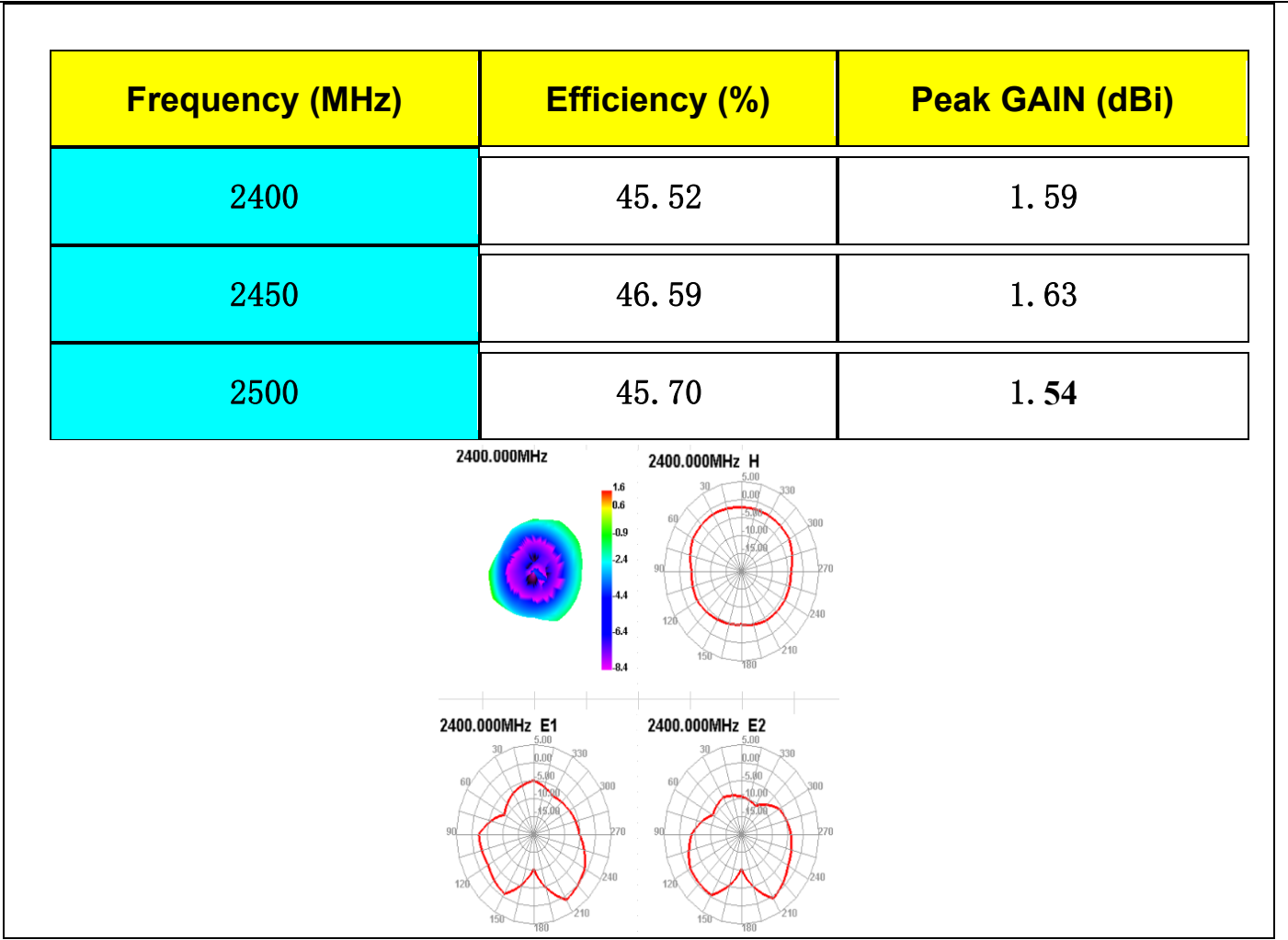


3. Electrical parameter:

Electrical parameter

(Frequency range)	2400-2500Mhz
Polarization mode	Horizontal and vertical polarization
Antenna gain	1.63dbi
standing-wave ratio	<2.0
Measurement program	/
Test equipment	Agilent(5071B) /ROHDE&SCHWARZ (CMW500)
Test Settings	Prepare the tested object with a fixture and place it on the testing turntable for preparation. Open the testing software and select the corresponding frequency band to conduct the test
Testing location	OTA microwave anechoic chamber
Antenna manufacturer	Shenzhen Shundacheng Technology Co., Ltd
Debugging mode	PIFA
Antenna material	FPC + coaxial line

4.Gain & Efficiency



Reliability Test Report

Test Date	2023. 10. 16	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 °C 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 °C	Constant temperature and humidity box	OK	OK	OK	Pass
Low temperature operation	Powered on for 24 hours at -20 °C	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) °C <input type="checkbox"/> 24H <input checked="" type="checkbox"/> 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 2023.10.16		Approval & Date			

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	FPC	ND	ND	ND	ND	ND	UNIB21042707HR-01	2023.10.16
		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		
	terminal	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;

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- 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

Test equipment(The following equipment is calibrated every six months, in March/September of each year)



The Agilent E5071B network analyzer is mainly used for passive 2D/3D antenna testing