

# **Antenna Test report**

**Model Name: X1100** 

**Date: 17st Jun, 2022** 

Shenzhen Xinlingke Technology Co., Ltd.

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#### **Catalogue**



#### CONTENT

- O1 Project Introducation and Photoes
- 02 Report Versions
- Introduction of Company and Test Environment
- 04 Enviornment Test
- 05 Matching Circuit
- 06 Data of BT Antenna
- 07 Antenna Location
- 08 Conclusion

## 01.Project Introducation and Photoes-Project Introducation



RF Engineer	Engineer Kong	Email	2532625702@qq.com			
		Mobile	18477016343			
Antenna Overview						
Status of Sample machine	Whole machine	Project Name	X1100			
Antenna Type	monopole	Structure mode	FPC+Electronic cable			
Main Antenna	Bluetooth antenna					
Other Antenna						

## **01.Project Introducation and Photoes-Photos**



The front



The back



The inside



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## **02.Report Versions**



Version	Report Time	Commissioning Overview
A0	2022.06.17	Antenna Test Report
A1		
A2		
A3		
A4		
A5		
A6		
A7		
A8		
A9		
A10		

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### **03.Introduction of Company and Test Environment- Company**



# **Company Experience**

Shenzhen Xinlingke Technology Co., Ltd. owns 12 years of experience in R & D and production of various mobile communication terminals. Company has established a joint RF device laboratory with universities. Company is proficient in antennas of 5G NSA and SA, ultra thin mobile phones, NB IOT / EMTC, and base station.



The products of company cover many fields, such as smart home, Internet of vehicles, smart wear, mobile phones, pad, base station etc.

#### **Core Task**

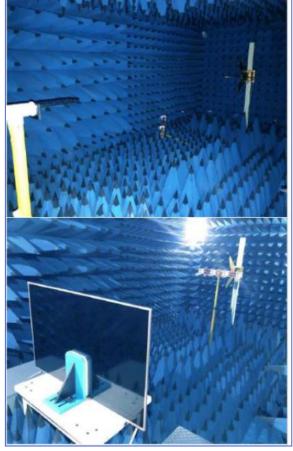
Company has been committed to improving our long-term competitiveness by providing whole RF solution, insisted on taking customer demand as the first place.

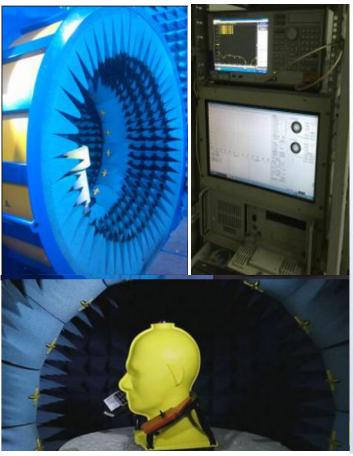


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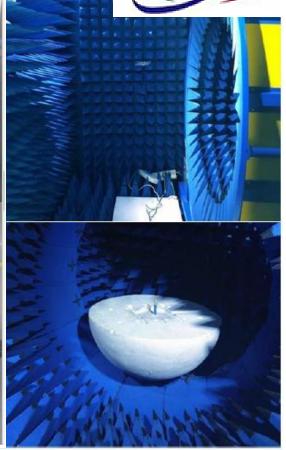
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# **03.Introduction of Company and Test Environment-Test Environment**









#### The company owns several OTA darkrooms whose frequency bands covers from 400mhz to 8.5ghz.

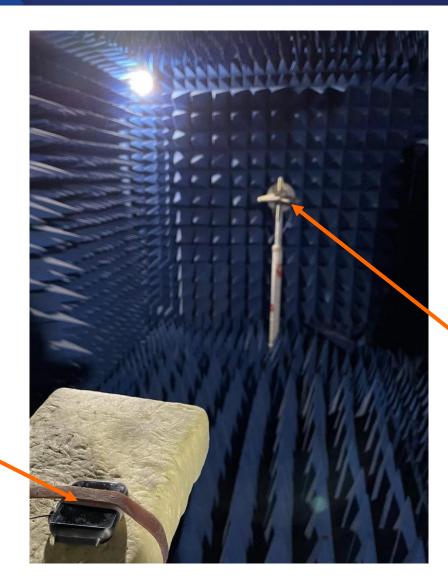
 Providing OTA test for whole machine which include but not be limited to 5G NSA, SA(trp/tis), WiFi active test (supporting 11b/11g/11n/11ax mode), bluetooth/GPS active test

- Providing antenna gain and efficiency
- Providing2D pattern / Apple chart analysis
- Providing upper and lower hemisphere efficiency
- Providing mutual interference correlation coefficient test items.

## **04.Enviornment Test**



Location of Tested Machine

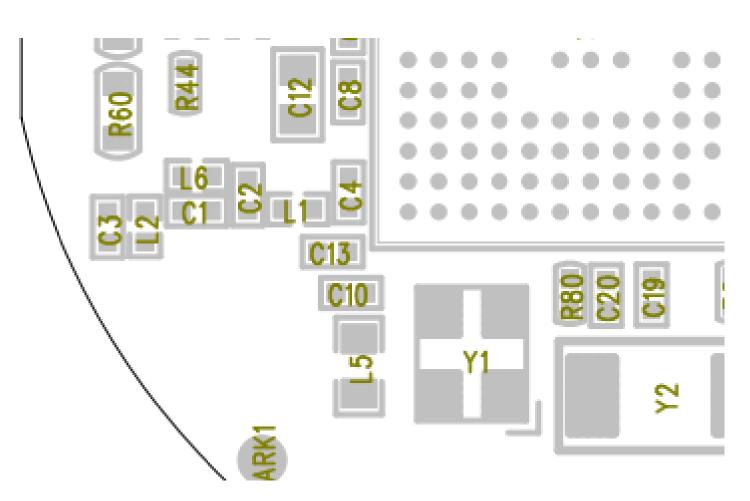


Location of Loudspeaker

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### **05.**Matching Circuit





Matching Circuit
C3 Blank paste,
L2 Zero ohm,
C1 Zero ohm,

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#### **06.**Data of WIFI Antenna

#### **Passive Data of Bluetooth**



#### Standing wave ratio



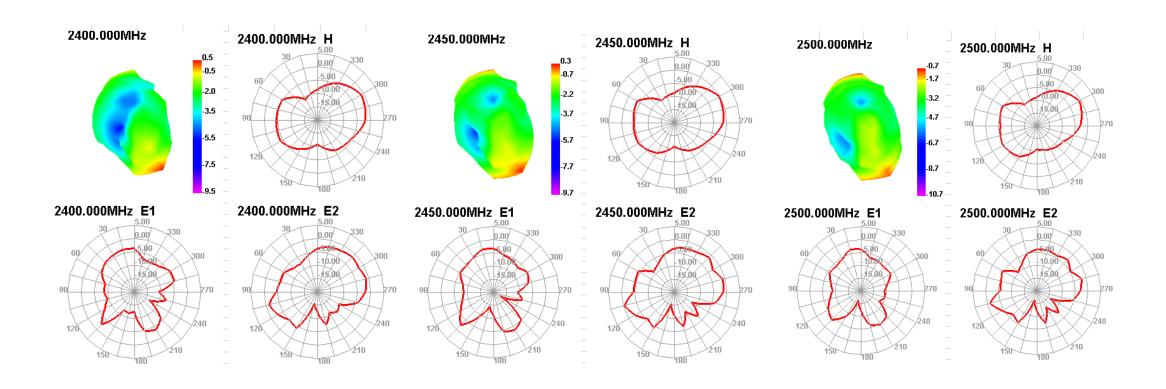
#### Efficiency and gain

Freq (MHz)	Effi (%)	Gain (dBi)
2400	25.03	0.46
2410	23.46	0.36
2420	25.02	0.29
2430	22.84	-0.03
2440	25.52	0.63
2450	21.65	0.33
2460	22.86	-0.41
2470	19.95	-0.65
2480	20.62	-0.92
2490	22.71	-0.8
2500	18.28	-0.71

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### **06.** Data of BT Antenna-Passive Efficiency Data of BT of 2.4G BT





## **07.**Antenna Location

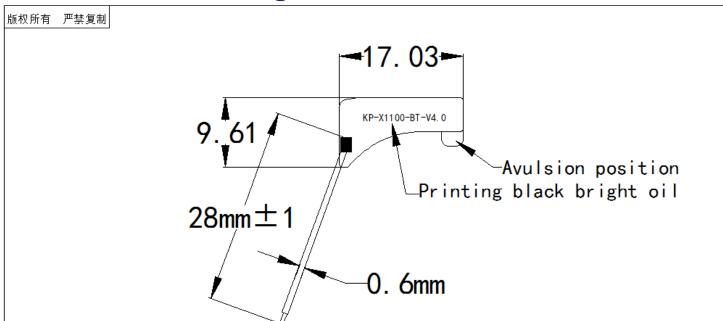


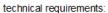


Bluetooth antenna

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## 08. Antenna dimension drawing





- 1. The material is electrolytic copper with a thickness of 0.05mm;
- 2.Back glue: 3M9471;
- 3. Anti oxidation treatment for gold finger surface;
- 4.Protective film for:Black oil;
- 5. Overall thickness should be less than or equal to 0.15mm;
- 6.Accurate tolerance range:0.1mm;
- 7. Only the product diagram is allowed to conduct electricity,
- 8. Where A stands for adhesive and B is FPC;
- 9.Please refer to the drawing for dimensions not specified.

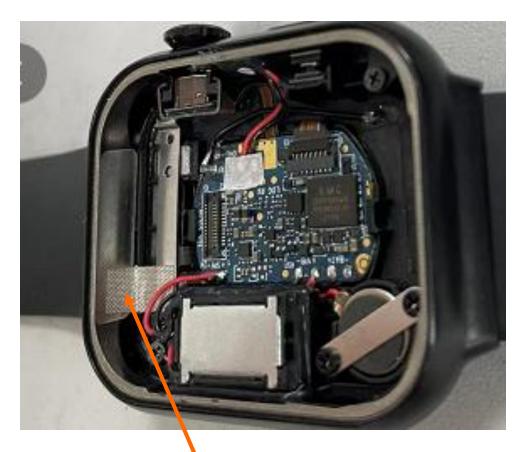
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<b>⊕</b> €∃			entry name:	Date	2022-06-08		
0~3	±0.05	#	0. 03	X1100 Product name:	Design	Zsb	
3~30	±0.1	0	0. 03	Bluetooth antenna		MD	
30~50	±0.15	0	Ф0. 02	Material code:	examine	RF	
50~80	±0.2	上	0. 02			IXI	
angle	±1°		0. 05	Material Science:	approval		
			FPC	unit:mm	ratio:FIT		

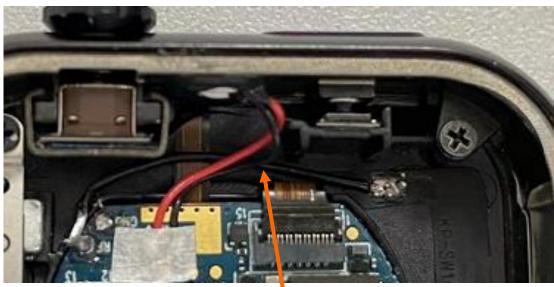


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#### **09.** Environmental treatment







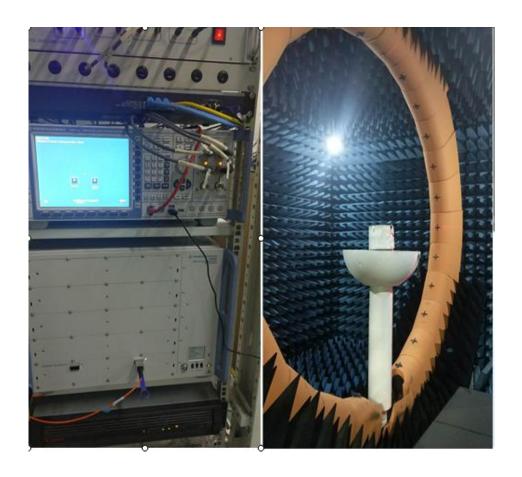
Paste conductive cloth here

The welding line needs to go down

#### **10.**Conclusion



The software and hardware of batch prodution should be the same as the sample machine.



# THANKS!

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