Antenna Test report

Model Name：G85_DH8082T

Date: 17th Apr, 2024

Shenzhen Xinlingke Technology Co., Ltd.

www.kpantenna.com

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Catalogue

BTantenna

CONTENT

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	G85_DH8082T
Antenna Type	PIFA	Structure mode	FPC+3th Generation coaxial line
Main Antenna	GSM：2 3 5 8 WCDMA：1 2 5 8 LTE：B1 3 5 7 8 20 26 28 34 38 39 40 41		
Other Antenna	Diversity　WiFi　GPS		

02.Report Versions

Version	Report Time	Commissioning Overview
A0	2022.08.19	Preliminary Antenna Test Report
A1	2022.09.08	Antenna Test Report
A2		
A3		
A4		
A5		
A6		
A7		
A8		
A9		
A10		

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.

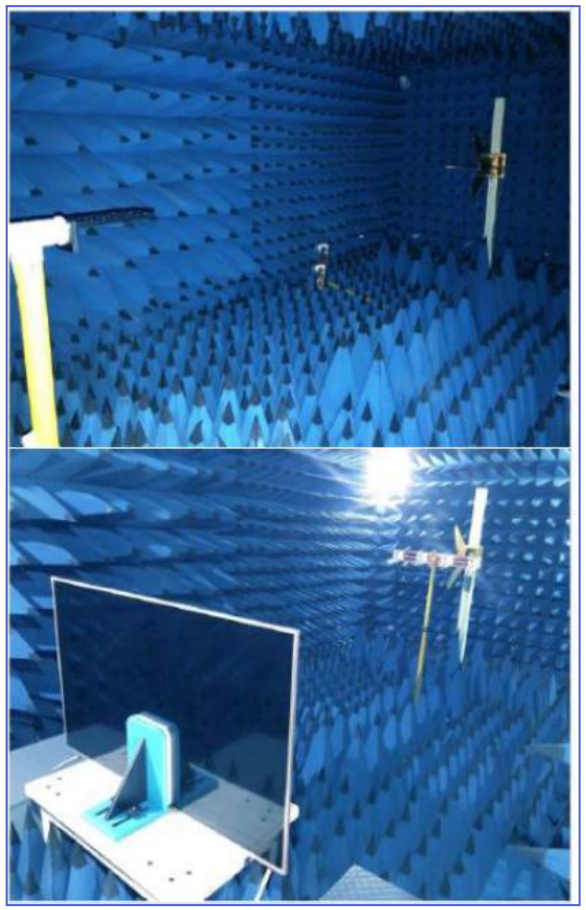
Product Range

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

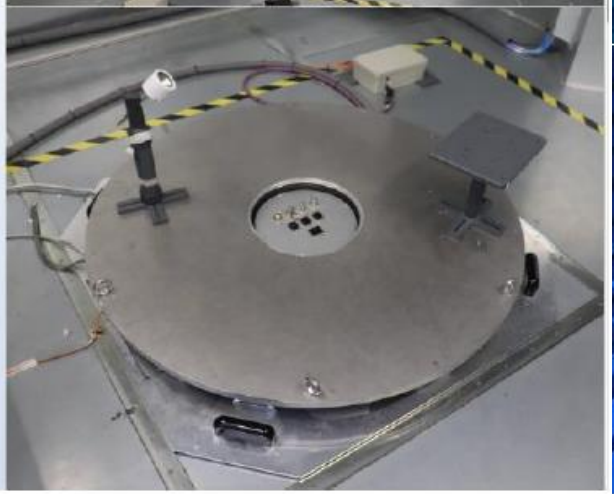
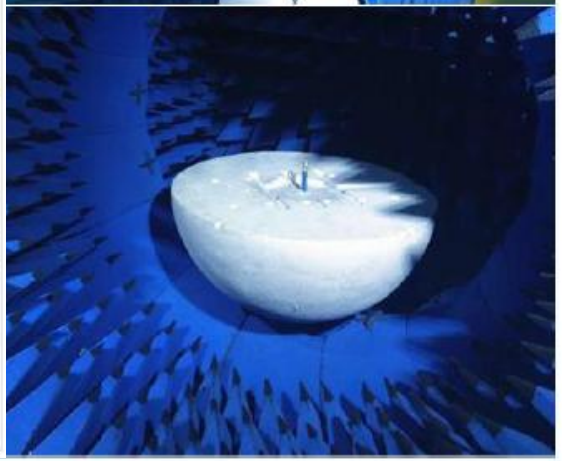
Core Task

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

04.Introduction of Company and Test Environment-Test Environment



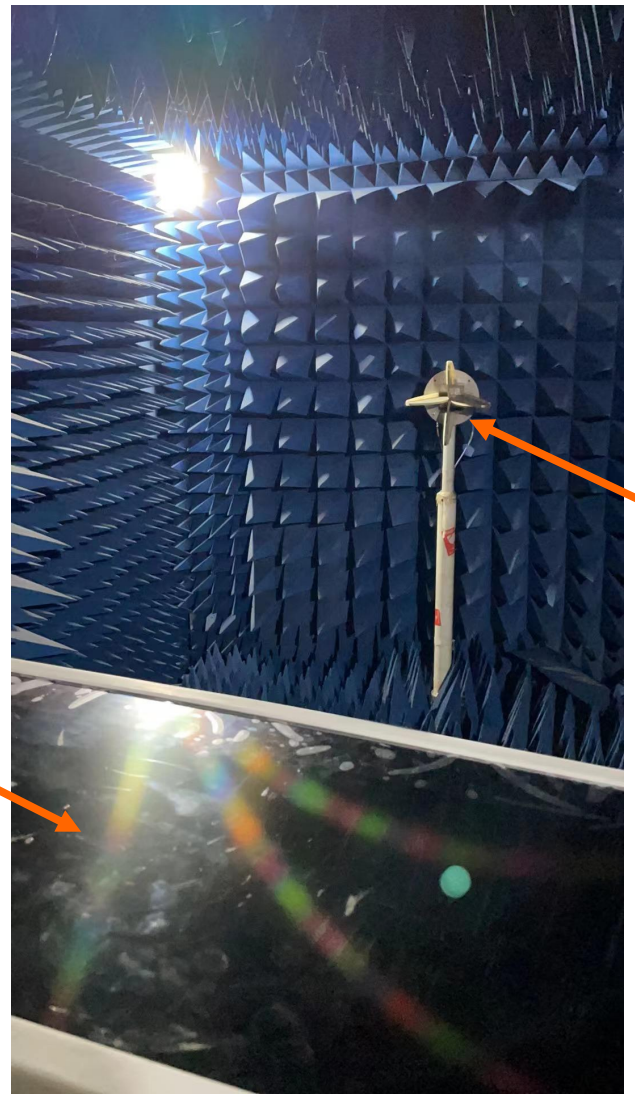


The company owns several OTA darkrooms whose frequency bands covers from 400mhz to 8.5ghz.

- 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.

05.Enviornment Test



06.Antenna correlation data

Main antenna active data

Band	Channel	TRP	TIS
GSM850	L	22.22	
	M	22.23	
	H	22.95	-102.75
EGSM900	L	25.96	
	M	25.61	
	H	25.03	-100.05
DCS1800	L	24.76	
	M	25.76	
	H	24.26	-102.18
PCS1900	L	23.05	
	M	25.13	
	H	25.69	-102.78

Band	Channel	TRP	TIS
W1	L	16.27	
	M	16.57	
	H	17.28	-100.62
W2	L	16.4	
	M	17.75	
	H	18.75	-103.75
W5	L	16.26	
	M	16.35	
	H	16.73	-104.75
W8	L	16.85	
	M	16.73	
	H	16.35	-100.09

07.Antenna correlation data

Main antenna active data

Band	Channel	TRP	TIS
B1(10m)	L	18.42	
	M	18.18	
	H	18.08	-92.86
B3(10m)	L	17.28	
	M	16.39	
	H	16.15	-92.02
B5(10m)	L	15.85	
	M	16.11	
	H	16.75	-90.42
B7(10m)	L	16.75	
	M	17.13	
	H	17.12	-91.33

Band	Channel	TRP	TIS
B8(10m)	L	16.69	
	M	16.34	
	H	16.16	-87.02
B20(10m)	L	16	
	M	16.29	
	H	16.58	-86.24
B26(10m)	L	15.07	
	M	16.02	
	H	16.85	-92.11
B28(10m)	L	5.75	
	M	6.32	
	H	7.13	-88.15

Band	Channel	TRP	TIS
B34(10m)	L	17.78	
	M	17.81	
	H	17.21	-92.13
B38(20m)	L	17.61	
	M	17.34	
	H	17	-91.16
B39(20m)	L	18.35	
	M	17.74	
	H	18.01	-90.05
B40(20m)	L	18.25	
	M	18.53	
	H	18.16	-90.85
B41(20m)	L	16.85	
	M	16.82	
	H	16.86	-91.32

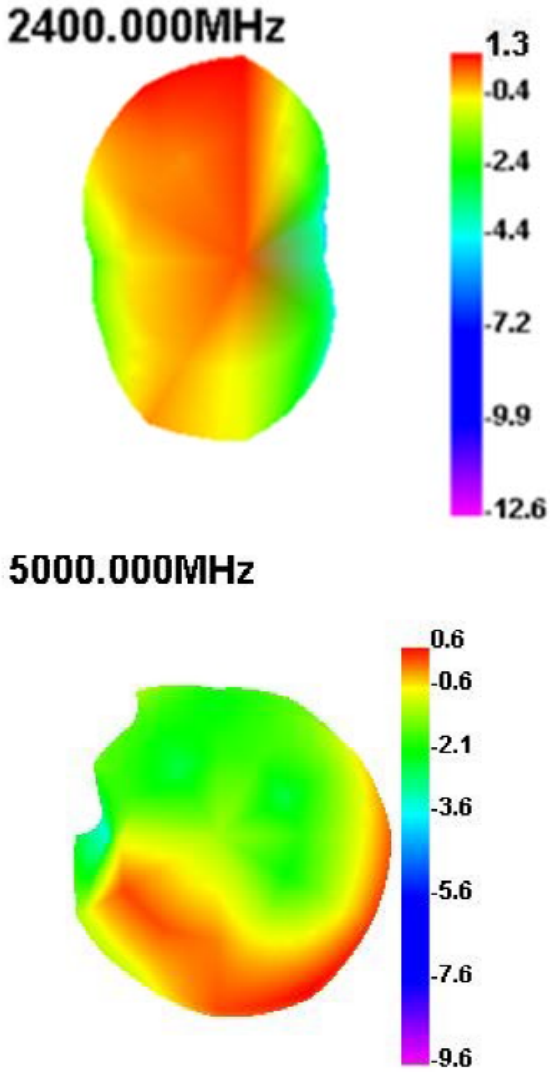
08. WIFI active data

2.4GWIFI	802.11b (11M)		
channel	1	7	13
TRP	13.03	13.75	13.89
TIS			-77.16

5GWIFI	802.11a (54M)		
channel	36	149	165
TRP	7.05	6.34	6.11
TIS			-69.07

09. Antenna gain

G85_DH8082T	
Band	Gain (dBi)
GSM850	-2.5
EGSM900	-1.8
DCS1800	0.8
PCS1900	0.9
WCDMA2100	0.7
WCDMA1900	0.9
WCDMA850	-2.5
WCDMA900	-1.8
Band1	0.9
Band3	0.6
Band5	-2.5
Band7	0.7
Band8	-1.8
Band20	-2.5
Band26	-2.5
Band28	-3.2
Band34	0.8
Band38	0.7
Band39	0.8
Band40	1.1
Band41	0.7
GPS	1
WIFI2.4g	1.3
WIFI5.8g	0.6
BT	1.3



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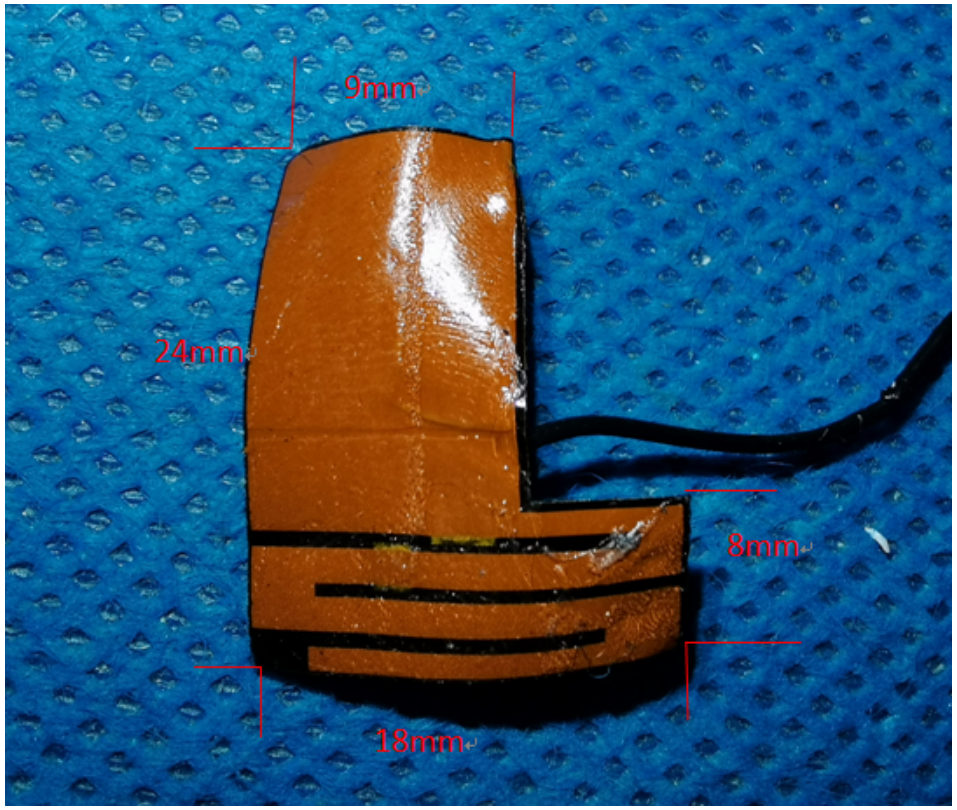
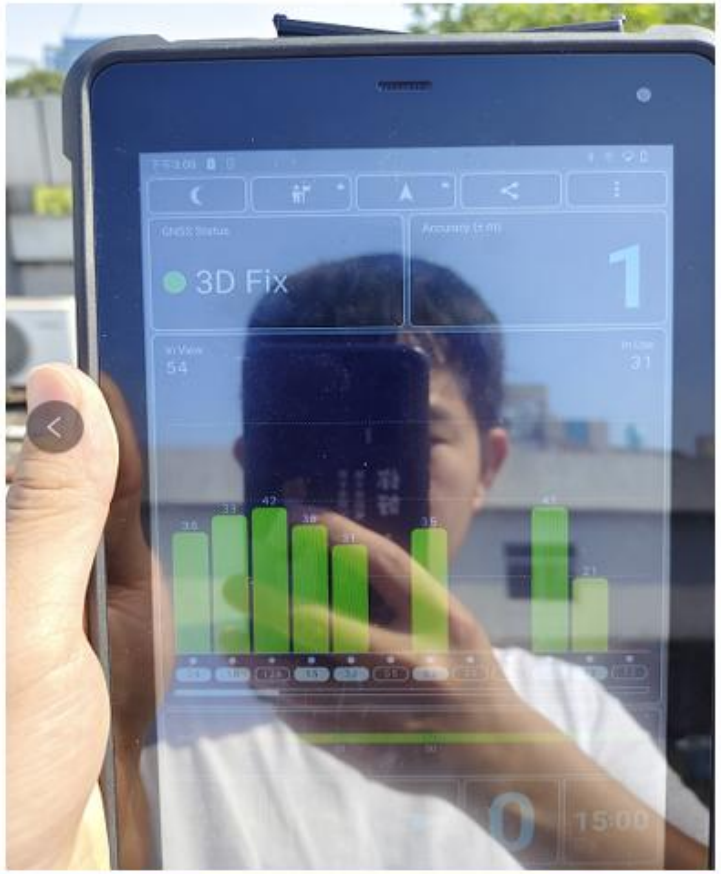
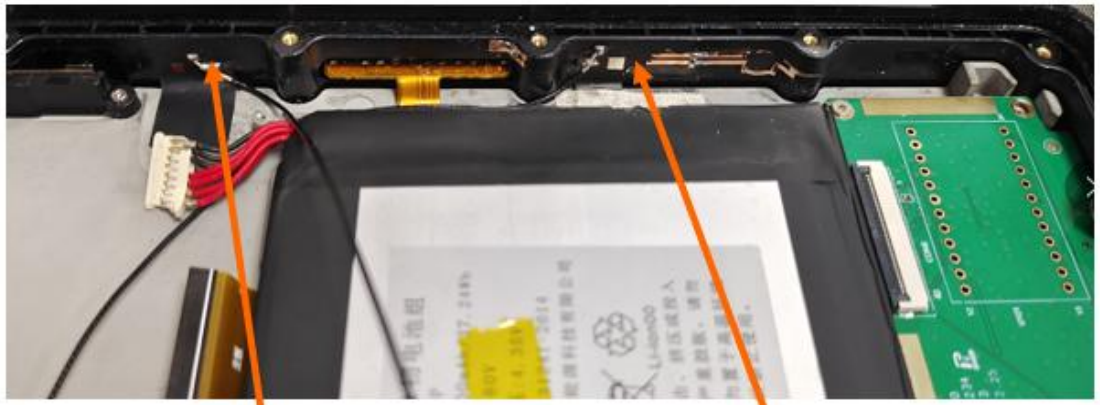


10. GPS/BT Measured data



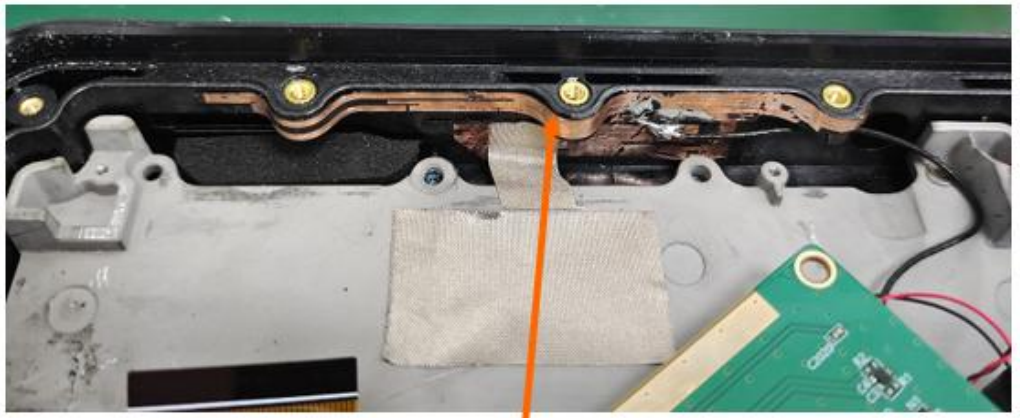
GPS在我司五楼楼顶搜星40以上的2-3颗，定位时间1分钟。蓝牙无遮挡12米听歌流畅。

11. Antenna location diagram



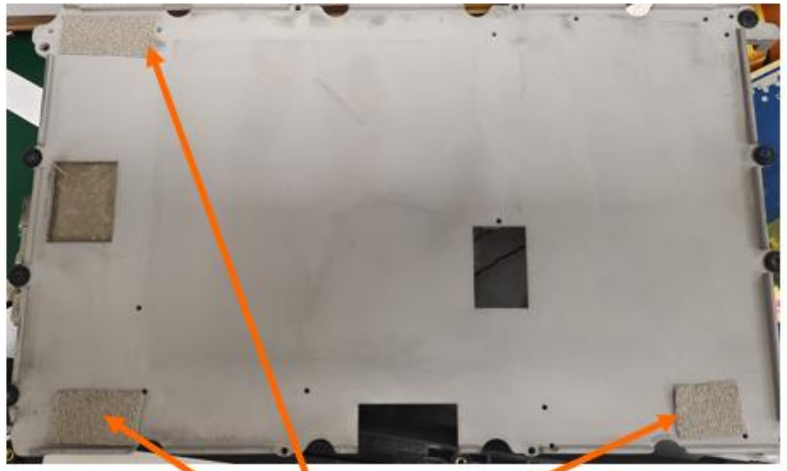
WiFi Antenna position

Main antenna Antenna position

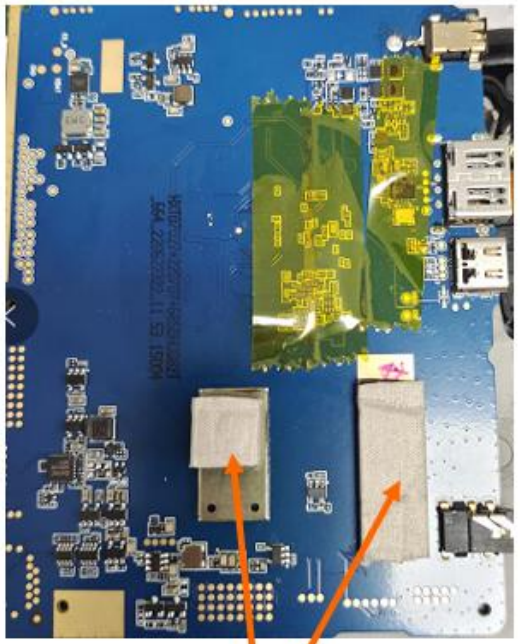


Diversity antenna Antenna position

12. Environmental Treatment



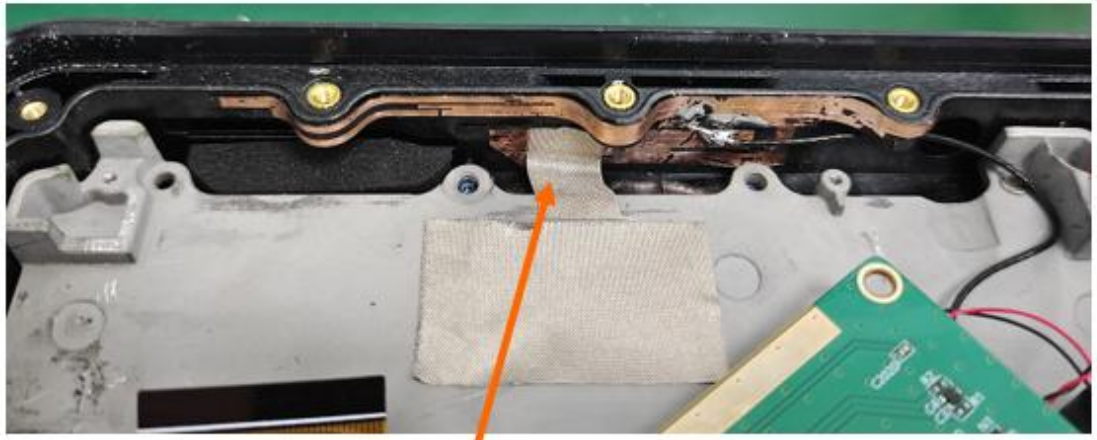
The iron frame is grounded to the screen



Main board grounding

Small plate ground

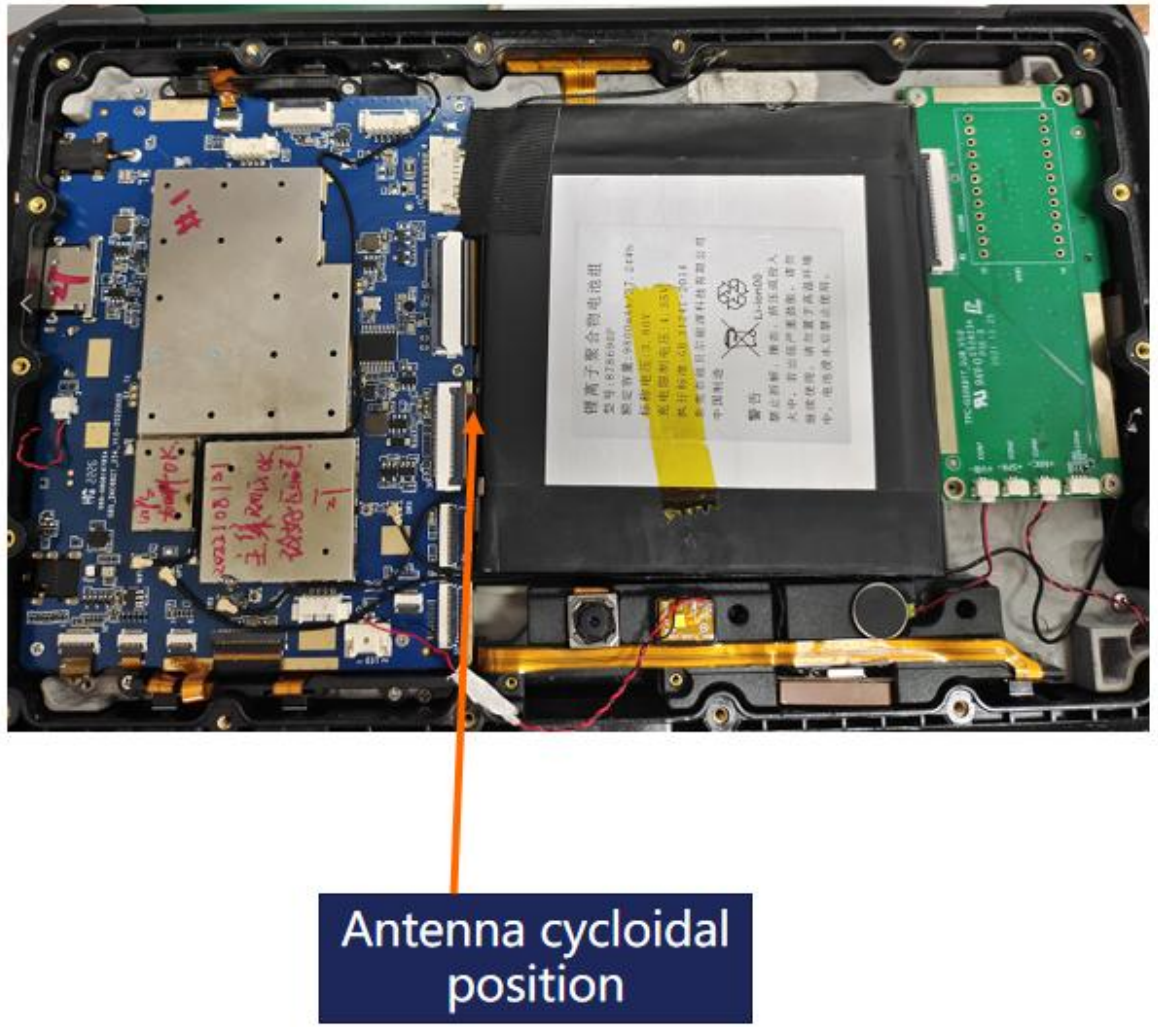
13. Environmental Treatment



Diversity antenna grounding

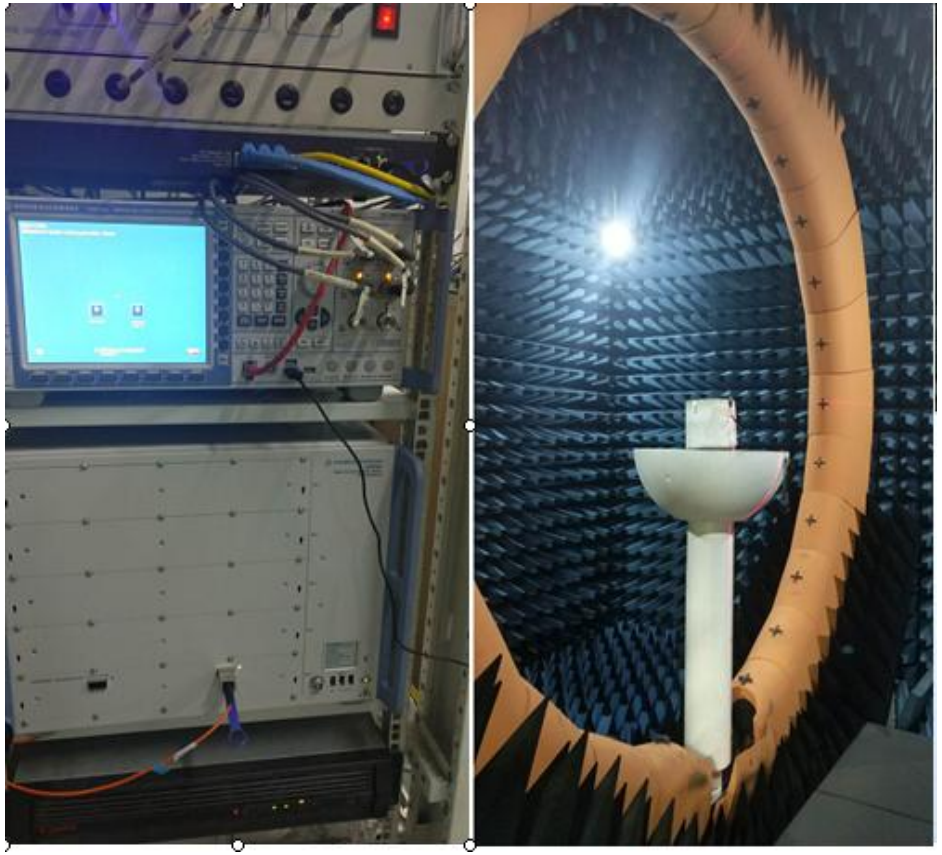
Main antenna ground

14.Environmental Treatment



15.Conclusion

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



THANKS!

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