



Antenna Test report

Model Name: G85_DH8082T

Date: 17th Apr, 2024

Shenzhen Xinlingke Technology Co., Ltd.

www.kpantenna.com

诚信 · 感恩

CONTENT

- 01 Project Introduction and Photos**
- 02 Report Versions**
- 03 Introduction of Company and Test Environment**
- 04 Enviornment Test**
- 05 Matching Circuit**
- 06 Data of WIFI Antenna**
- 07 Antenna Location**
- 08 Conclusion**

01.Project Introduction and Photoes-Project Introduction



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



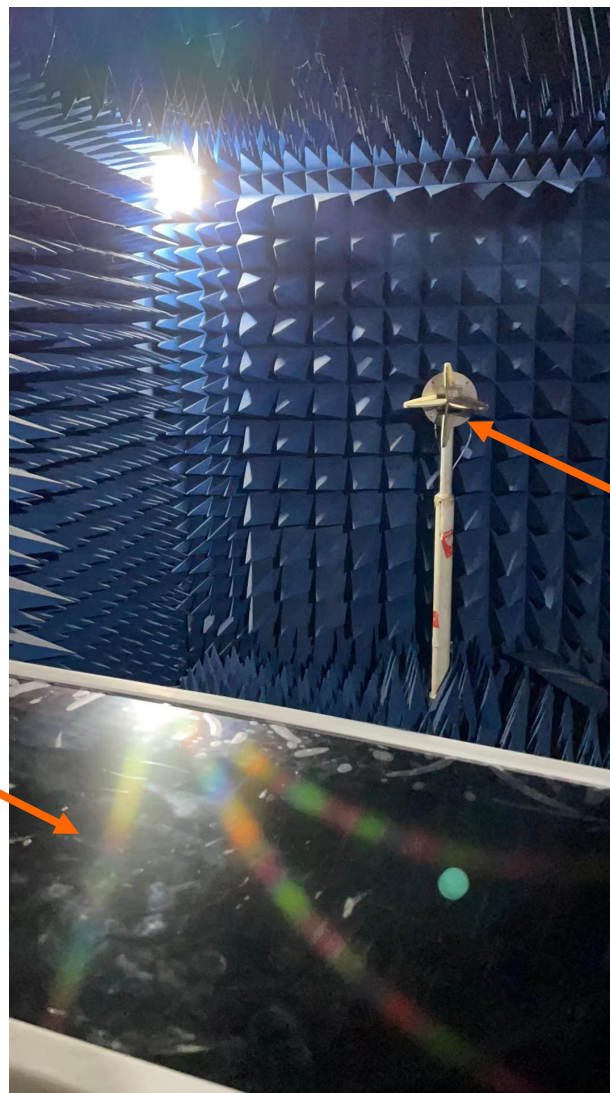
The company owns several OTA darkrooms whose frequency bands covers from 400mhz to 8.5ghz.

- 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
- Providing 2D pattern / Apple chart analysis
- Providing upper and lower hemisphere efficiency
- Providing mutual interference correlation coefficient test items.

05.Environment Test



Location of
Tested
Machine



Location of
Loudspeaker

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

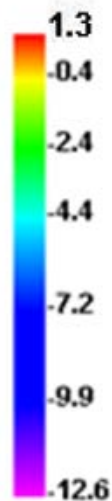
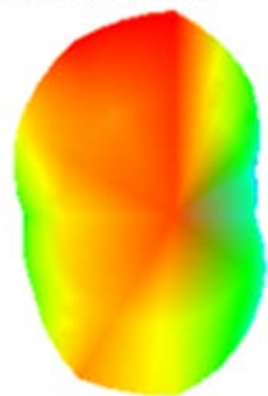
5GWIFI	802.11a (54M)		
channel	36	149	165
TRP	7.05	6.34	6.11
TIS			-69.07

09. Antenna gain

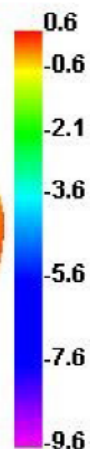
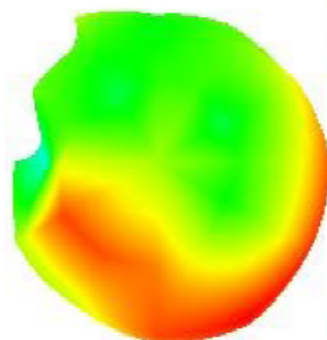


G85 DH8082T	
Band	Gain (dBi)
GSM850	-2.5
EGSM900	-1.8
DCS1800	0.8
PCS1900	0.9
WCDMA2100	0.7
WCDMA1900	0.9
WCDMA850	-2.5
WCDMA900	-1.8
Band1	0.9
Band3	0.6
Band5	-2.5
Band7	0.7
Band8	-1.8
Band20	-2.5
Band26	-2.5
Band28	-3.2
Band34	0.8
Band38	0.7
Band39	0.8
Band40	1.1
Band41	0.7
GPS	1
WIFI2.4g	1.3
WIFI5.8g	0.6
BT	1.3

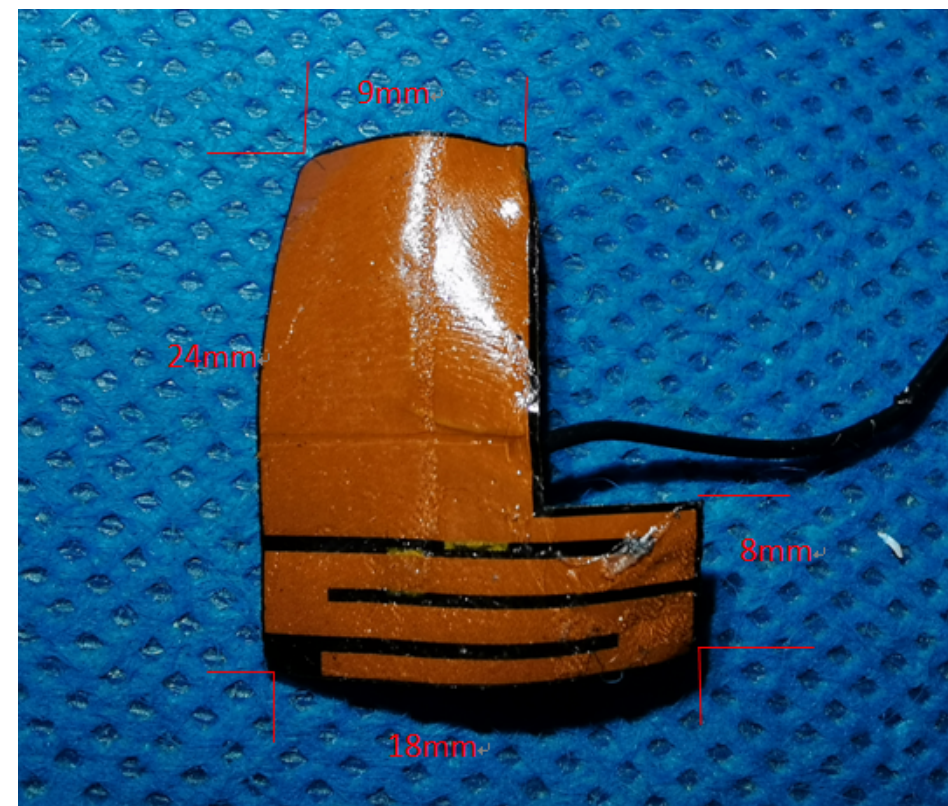
2400.000MHz



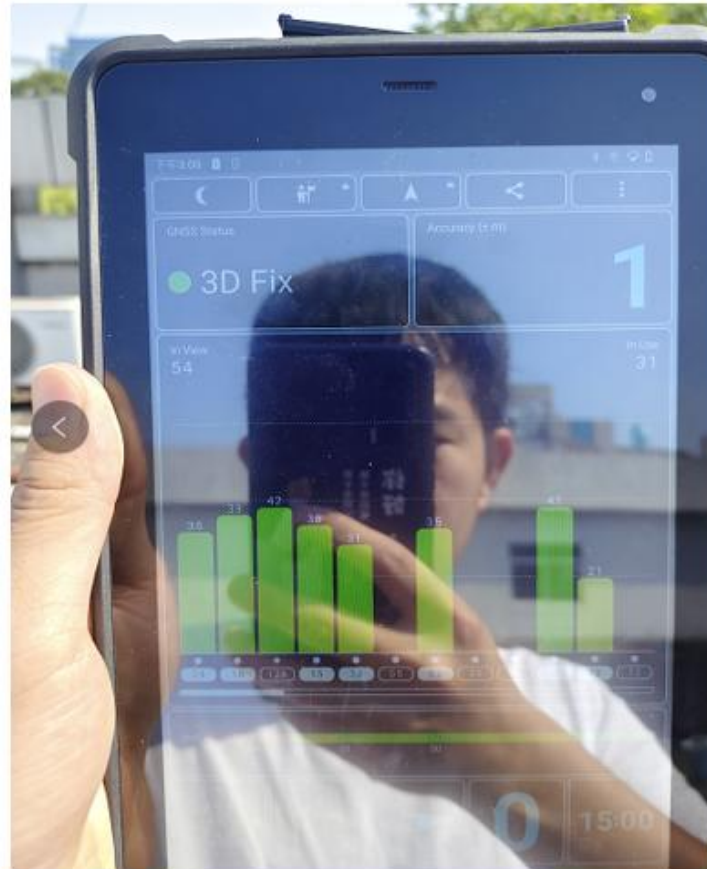
5000.000MHz



ANT size:

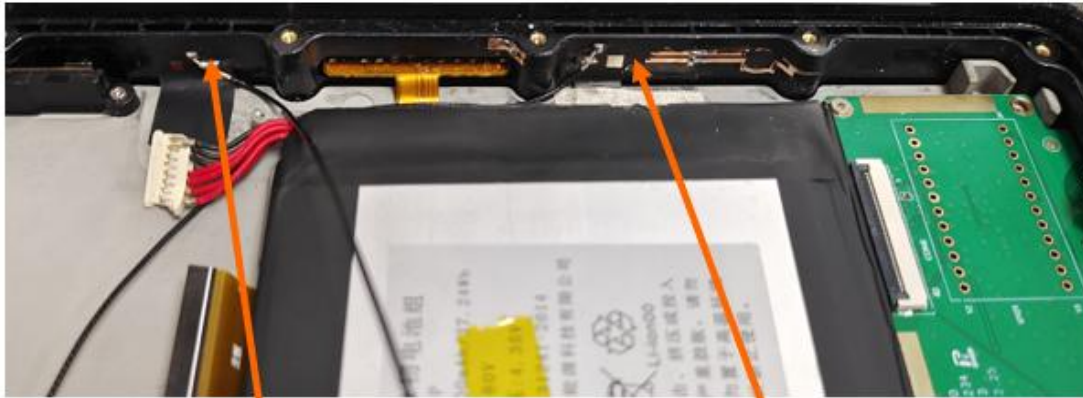


10. GPS/BT Measured data



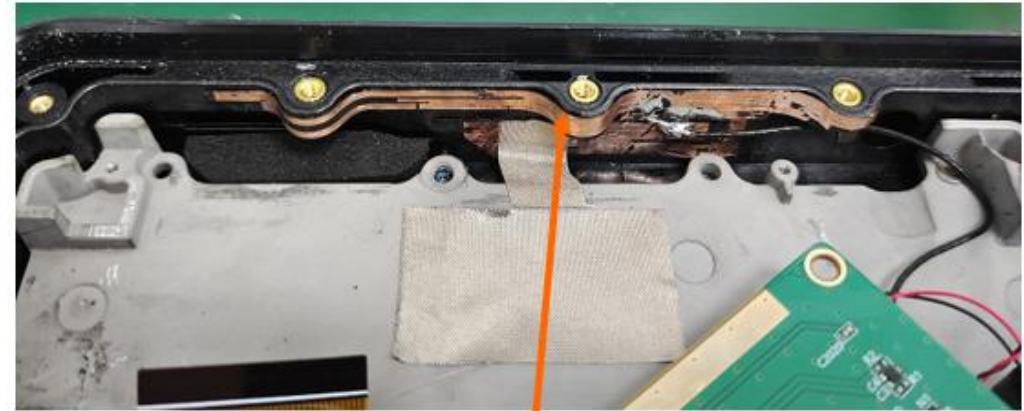
GPS在我司五楼楼顶搜星40以上的2-3颗，定位时间1分钟。蓝牙无遮挡12米听歌流畅。

11. Antenna location diagram



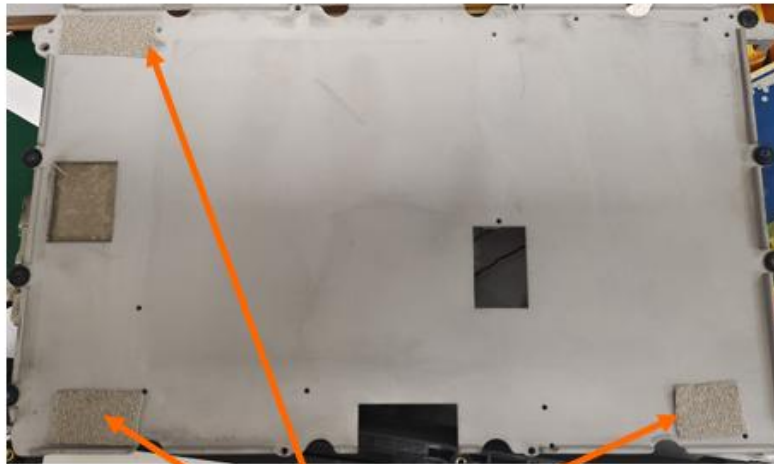
WiFi Antenna
position

Main antenna
Antenna position

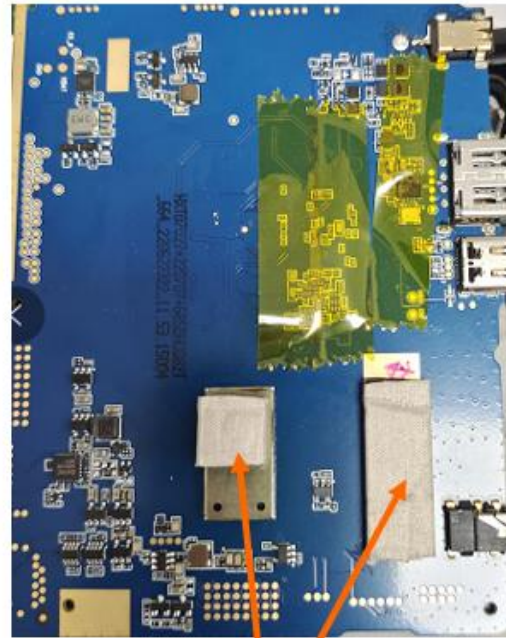


Diversity antenna
Antenna position

12. Environmental Treatment



The iron frame
is grounded to
the screen

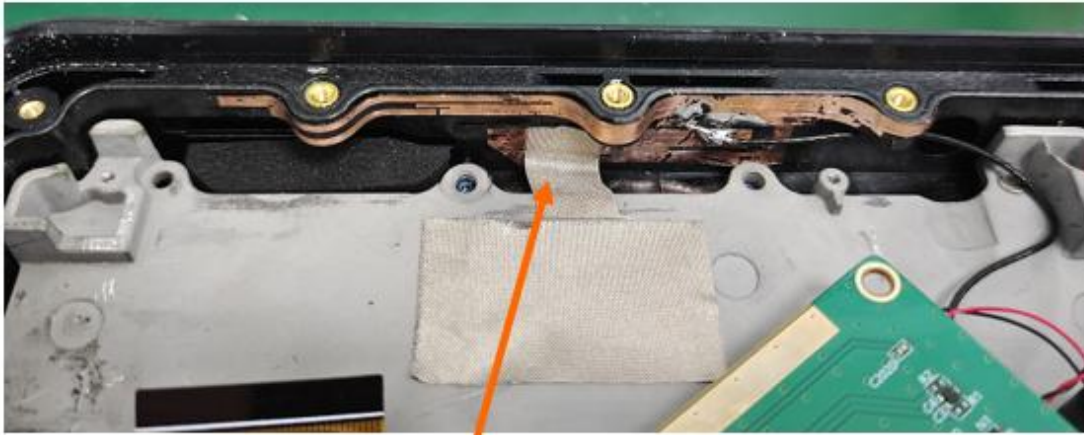


Main board
grounding



Small plate
ground

13. Environmental Treatment



Diversity antenna
grounding



Main antenna
ground

14.Environmental Treatment

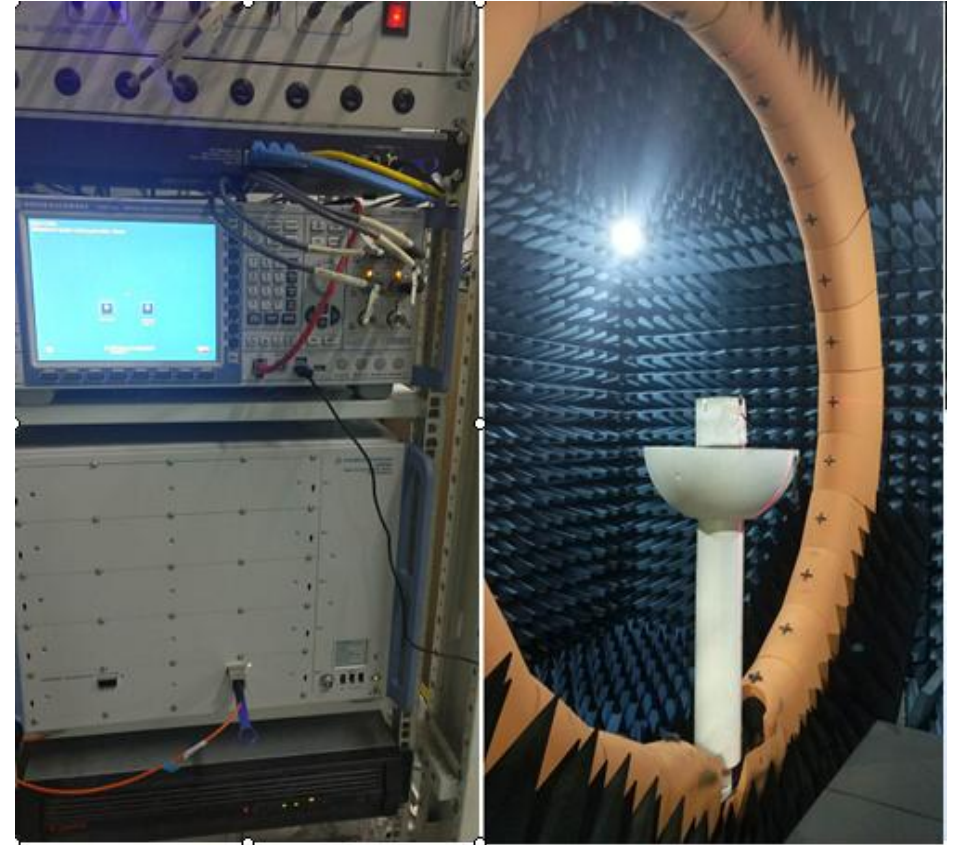


Antenna cycloidal
position

15.Conclusion



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



THANKS!

Shenzhen Xinlingke Technology Co., Ltd.

www.kpantenna.com

诚信 · 感恩