Antenna Test report

Model Name：YX-P550-X2

Date: 23th Dec, 2023

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	YX-P550-X2
Antenna Type	PIFA	Structure mode	FPC+Coaxial line
Main Antenna	2G:850/900/1800/1900 3G:850/1900 4G:B2.3.4.5.7.8.28A.40		
Other Antenna	Diversity Three-in-one antenna		

02.Report Versions

Version	Report Time	Commissioning Overview
A0	2023.12.23	Antenna Test Report
A1		
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.

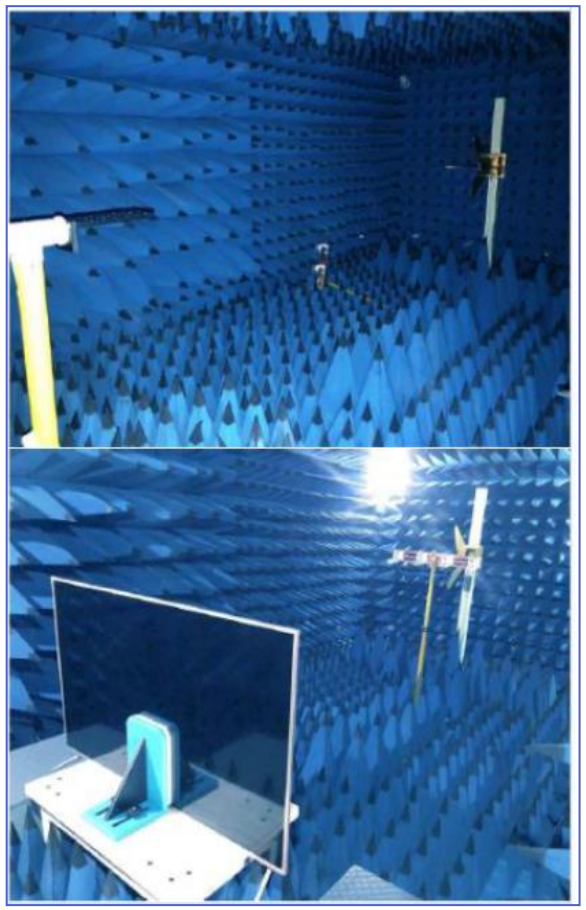
Product Range

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

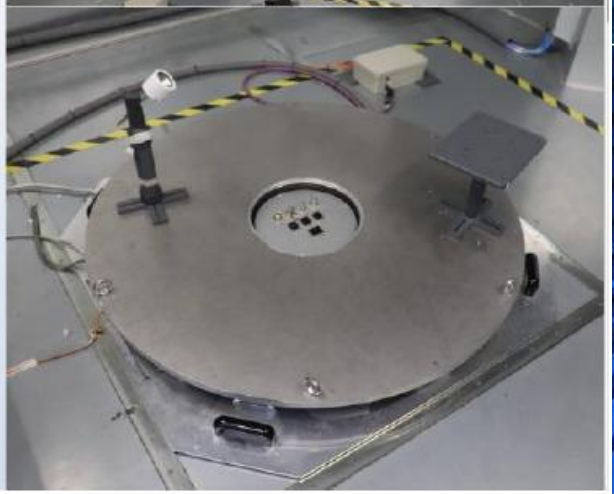
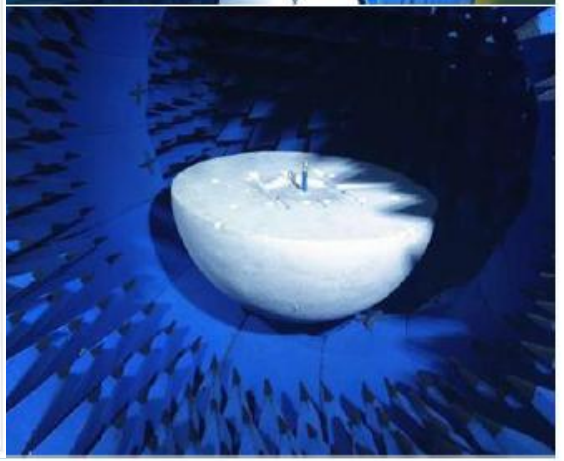
Core Task

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



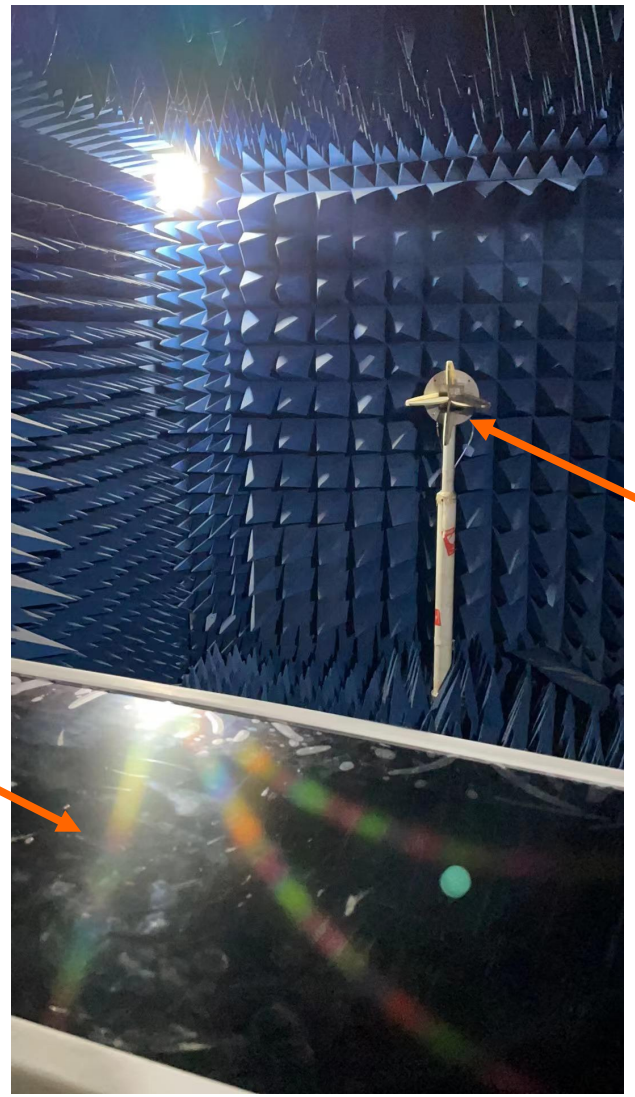


The company owns several OTA darkrooms whose frequency bands covers from 400mhz to 8.5ghz.

- 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
B2	L	16.6	
	M	17.6	
	H	17.5	-93.4
B3	L	17.4	
	M	16.1	
	H	15.4	-93.5
B4	L	17.2	
	M	16.2	
	H	15.3	-91.2
B5	L	18.5	
	M	18.3	
	H	17.5	-90.1

Band	Channel	TRP	TIS
B7	L	14.6	
	M	14.3	
	H	14.1	-89.4
B8	L	15.2	
	M	13.7	
	H	12.5	-86.2
B28a	L	14.6	
	M	16.1	-92.5
B40	L	14.2	
	M	14.6	
	H	15.5	-90.4

07.WIFI active data

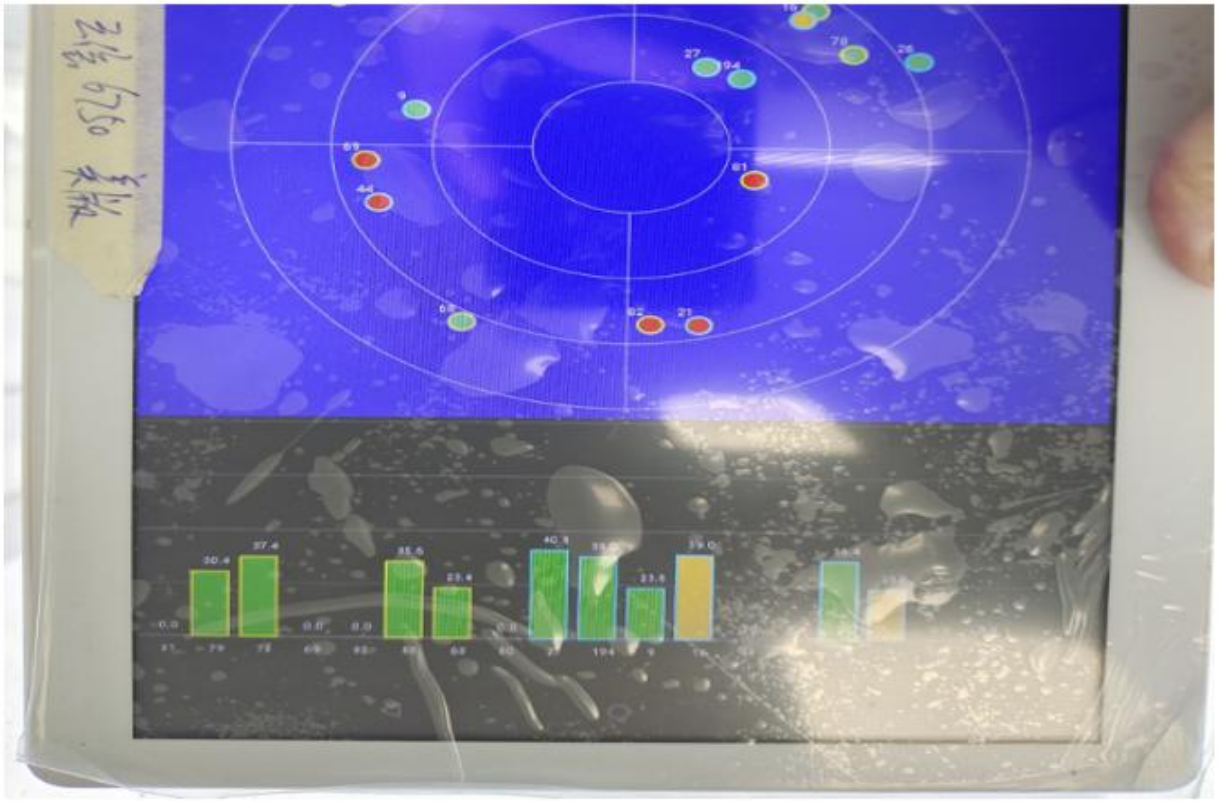
2.4G WIFI active data

2.4GWIFI	802.11b（11M）		
channel	1	7	13
TRP	11.4	12.5	12.6
TIS			-81.6

5G WIFI active data

5GWIFI	802.11a（54M）		
channel	36	149	165
TRP	3.6	6.7	6.6
TIS			-66.5

08. GPS/BT/ measured data



GPS在我司五楼楼顶搜星情况，定位时间1分钟。蓝牙无遮挡12米听歌流畅。

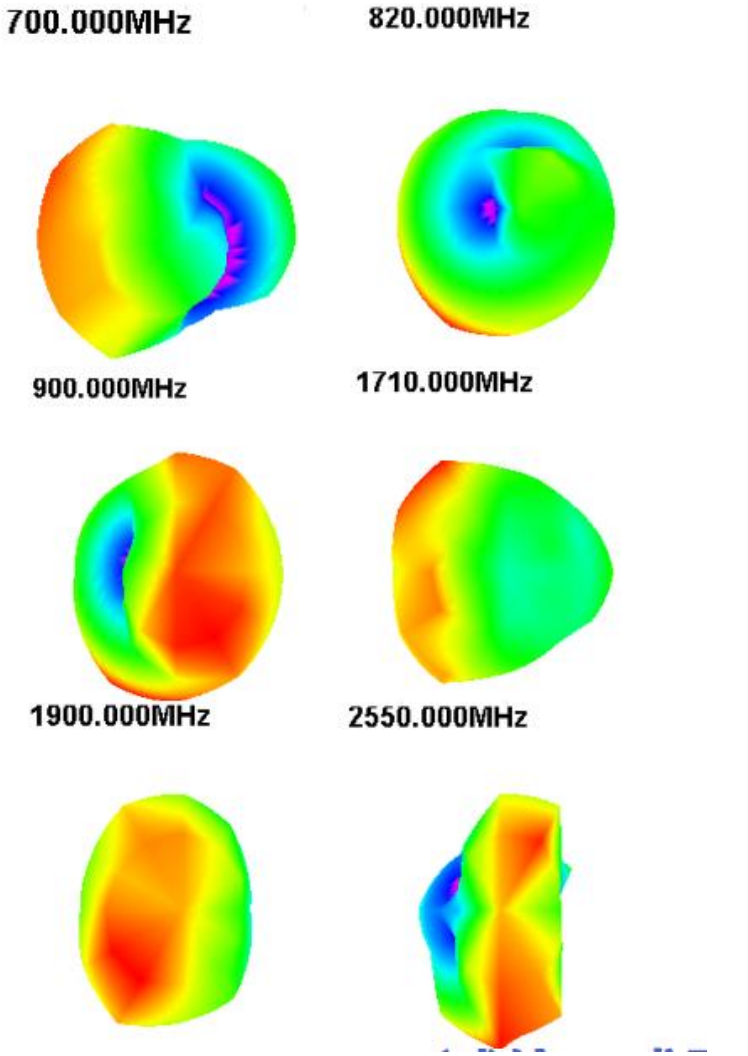
09. Gain data

Freq (MHz)	Gain (dBi)
700	-4.85
710	-3.94
720	-3.69
730	-3.62
740	-3.96
750	-3.32
760	-3
770	-3.1
780	-3.26
790	-2.91
800	-2.2
810	-1.94
820	-1.47
830	-0.75
840	-0.62
850	-0.24
860	-0.93
870	-1.95
880	-2.73
890	-3.54
900	-4.42
910	-5
920	-4.63
930	-5.33
940	-5.5
950	-6.72

Freq (MHz)	Gain (dBi)
1700	-0.5
1710	0.62
1720	0.05
1730	0.09
1740	0.46
1750	0.17
1760	-0.02
1770	0.03
1780	-0.21
1790	-0.12
1800	0.67
1810	0.67
1820	0.52
1830	0.38
1840	1.28
1850	1.39
1860	0.81
1870	0.36
1880	1.87
1890	1.14
1900	1.2
1910	0.81
1920	1.41
1930	1.04
1940	1
1950	1.22
1960	0.71
1970	-0.12
1980	-0.49
1990	-0.19
2000	-0.95

2000	-0.95
2010	-2.23
2020	-1.53
2030	-0.89
2040	-1.01
2050	-0.64
2060	-0.86
2070	-0.46
2080	-1.29
2090	-0.83
2100	-0.33
2110	-0.54
2120	-1.03
2130	-0.91
2140	-0.12
2150	-0.71
2160	-1.1
2170	-0.71
2300	-1.22
2310	-1.09
2320	-0.87
2330	-0.45
2340	-0.57
2350	-0.29
2360	0.43
2370	-0.1
2380	-0.03
2390	0.51
2400	0.39
2500	0.25
2510	0.27
2520	0.49
2530	0.28
2540	-0.02

2500	0.25
2510	0.27
2520	0.49
2530	0.28
2540	-0.02
2550	-0.39
2560	-0.48
2570	-0.32
2580	-0.1
2590	-0.34
2600	-0.32
2610	0.5
2620	0.09
2630	-0.12
2640	-0.27
2650	0.45

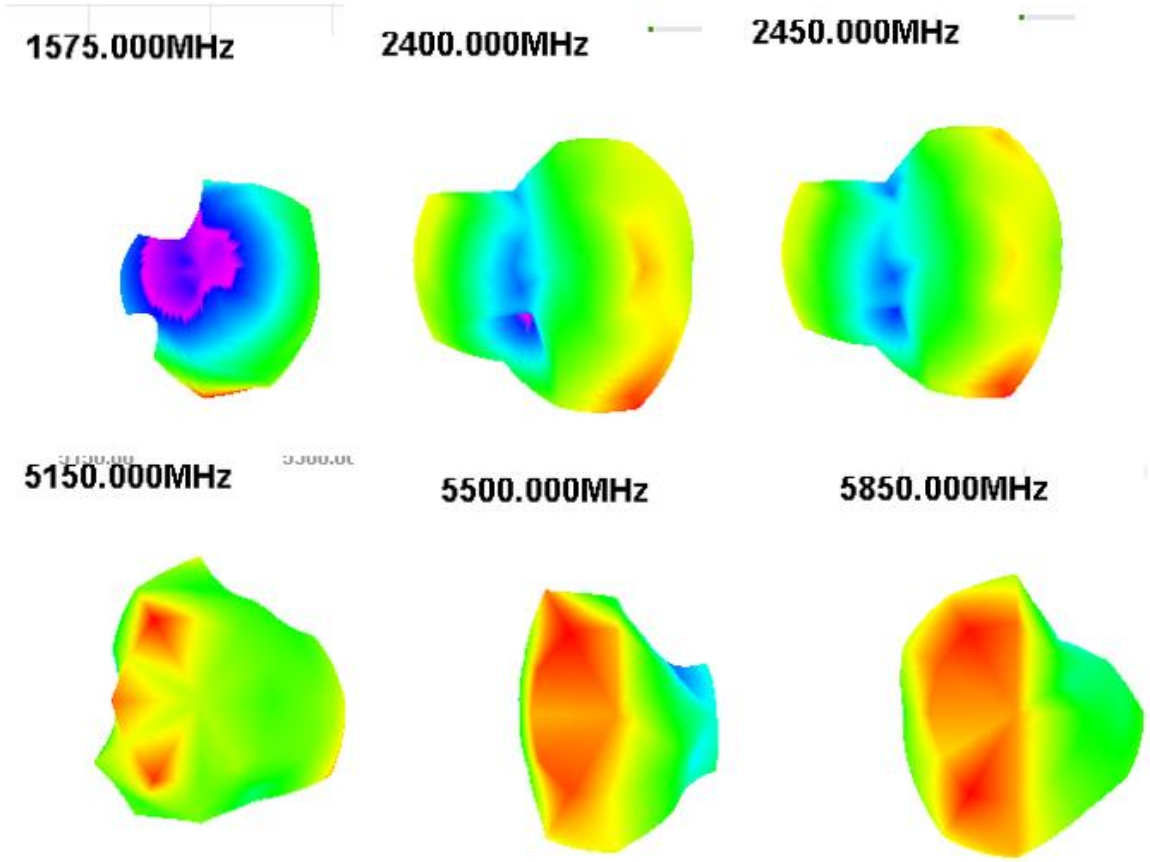


10. Gain data

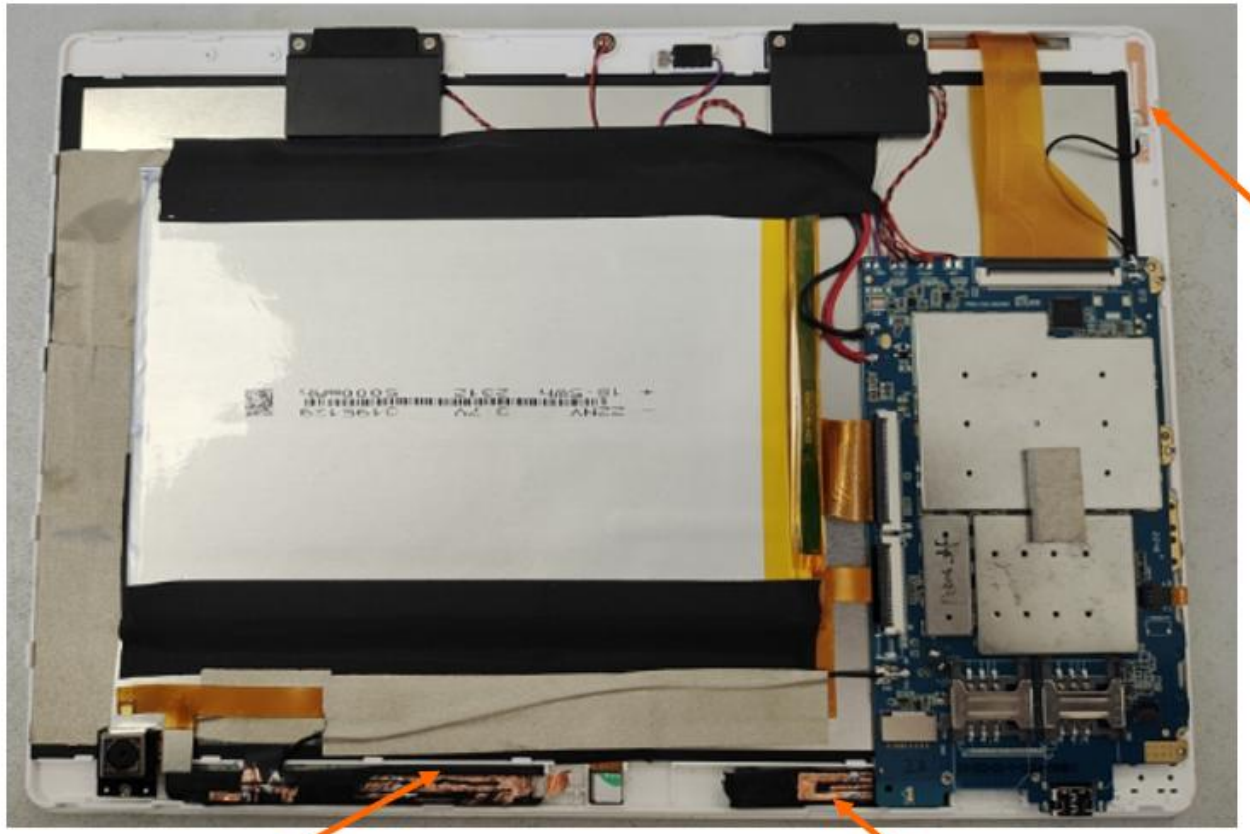
Freq (MHz)	Gain (dBi)
1550	-2.94
1555	-2.98
1560	-2.95
1565	-2.89
1570	-3.07
1575	-3.06
1580	-2.76
1585	-2.71
1590	-3
1595	-3.28
1600	-3.32

Freq (MHz)	Gain (dBi)
2400	-3.17
2410	-2.91
2420	-2.97
2430	-3.2
2440	-2.59
2450	-2.56
2460	-2.81
2470	-3.28
2480	-3.1
2490	-3.32
2500	-3.7

Freq (MHz)	Gain (dBi)
5150	-0.44
5200	-2.76
5250	-3.63
5300	-3.47
5350	-2.76
5400	-2.45
5450	-1.82
5500	-1.2
5550	-1.6
5600	-1.99
5650	-2.04
5700	-1.23
5750	-2.37
5800	-2.52
5850	-1.87

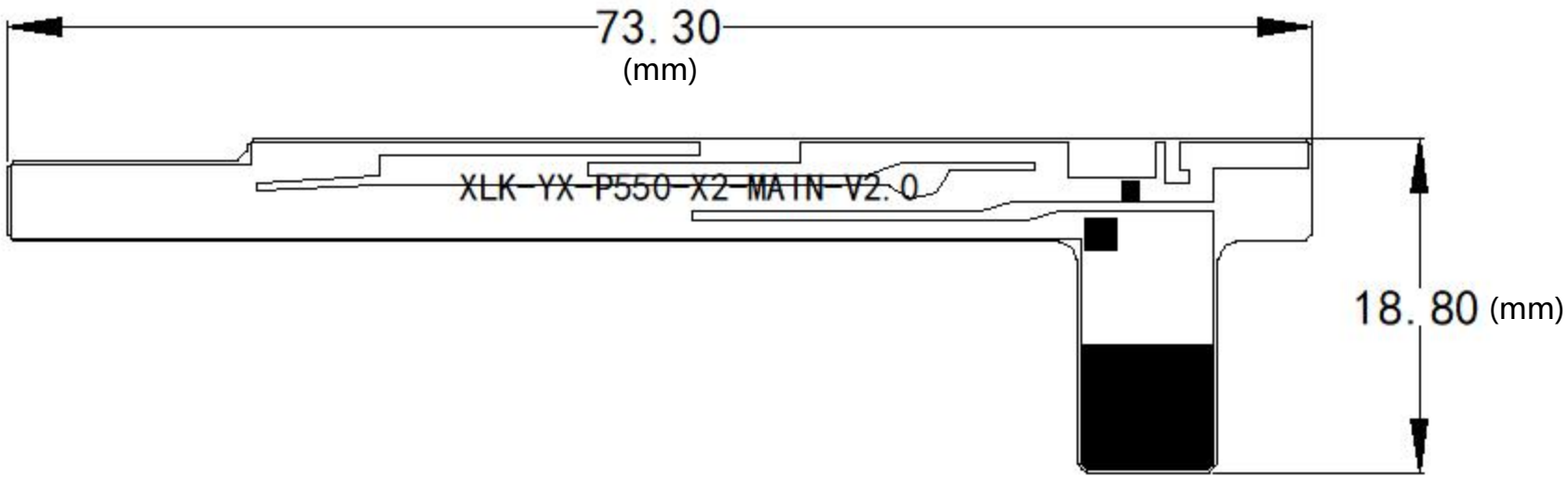


11. Antenna location diagram



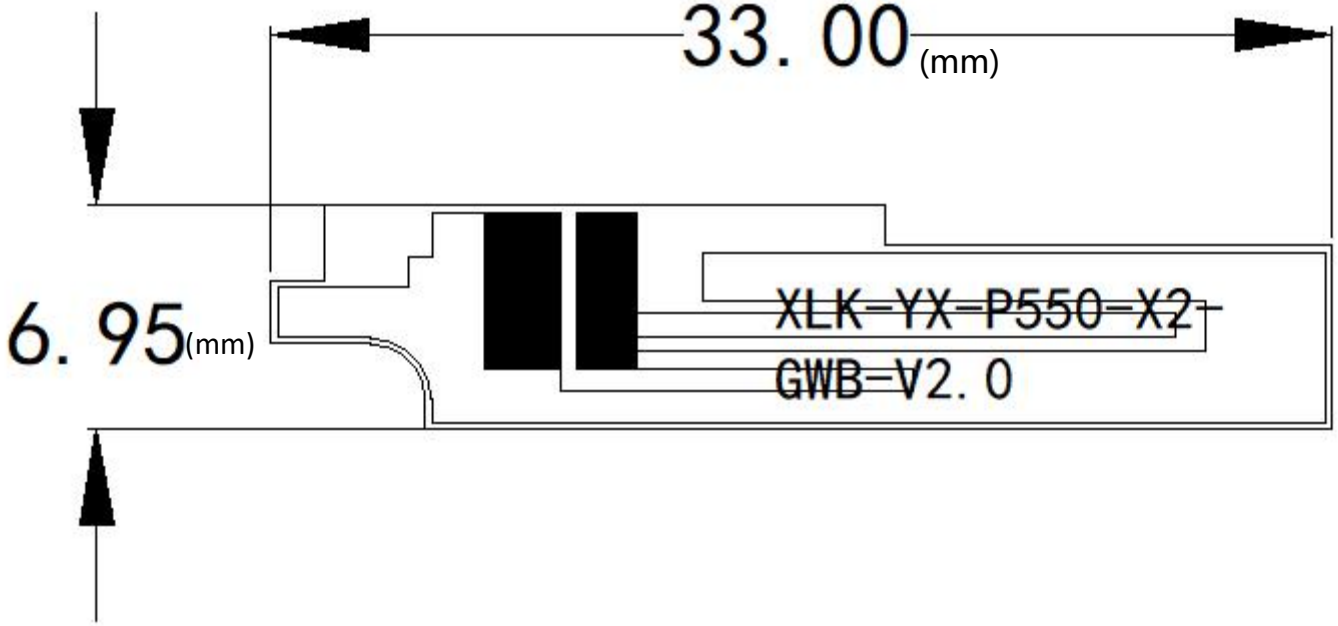
12. Antenna structure

Main antenna



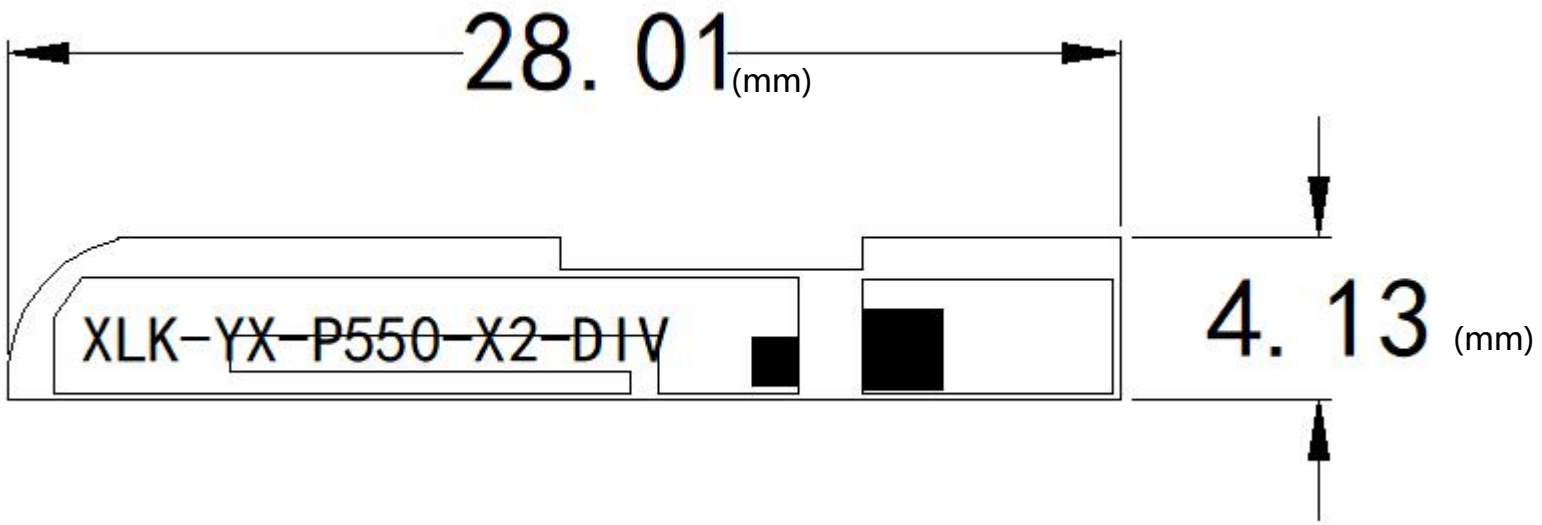
13. Antenna structure

Three-in-one antenna

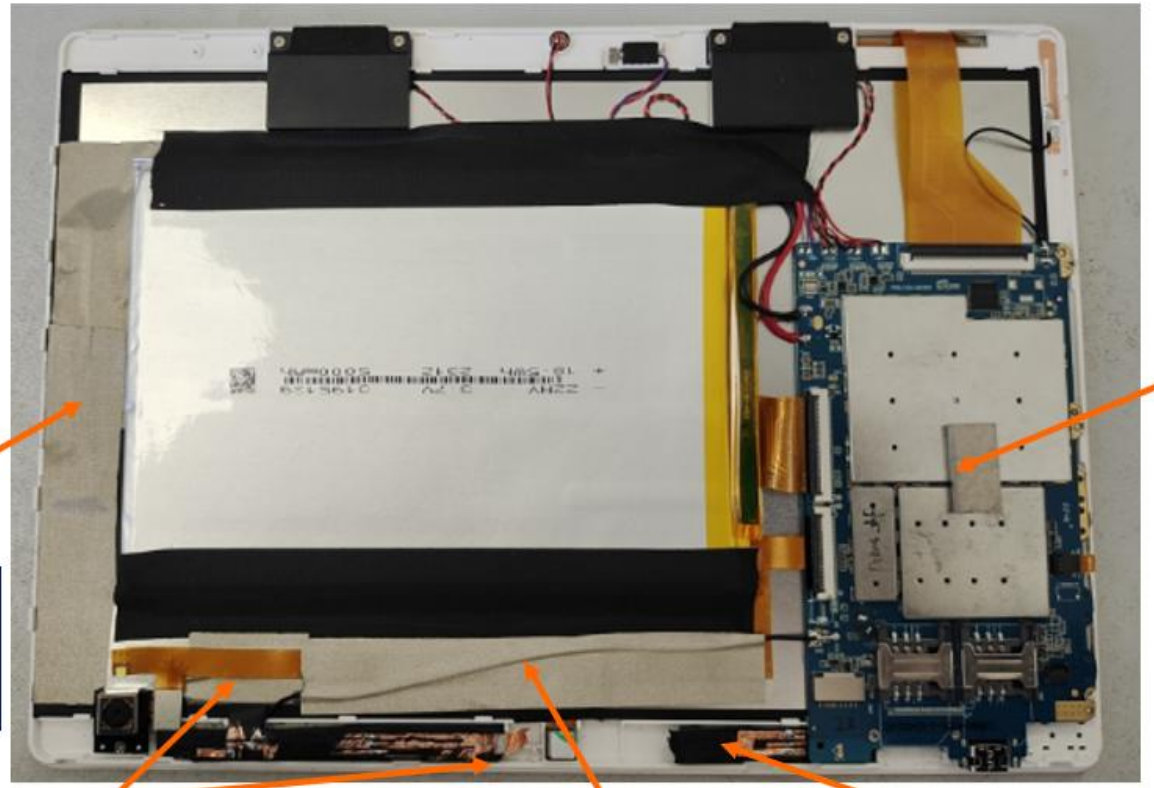


14. Antenna structure

Diversity antenna



15. Environmental treatment



Screen TP adhesive conductive cloth shielding interference

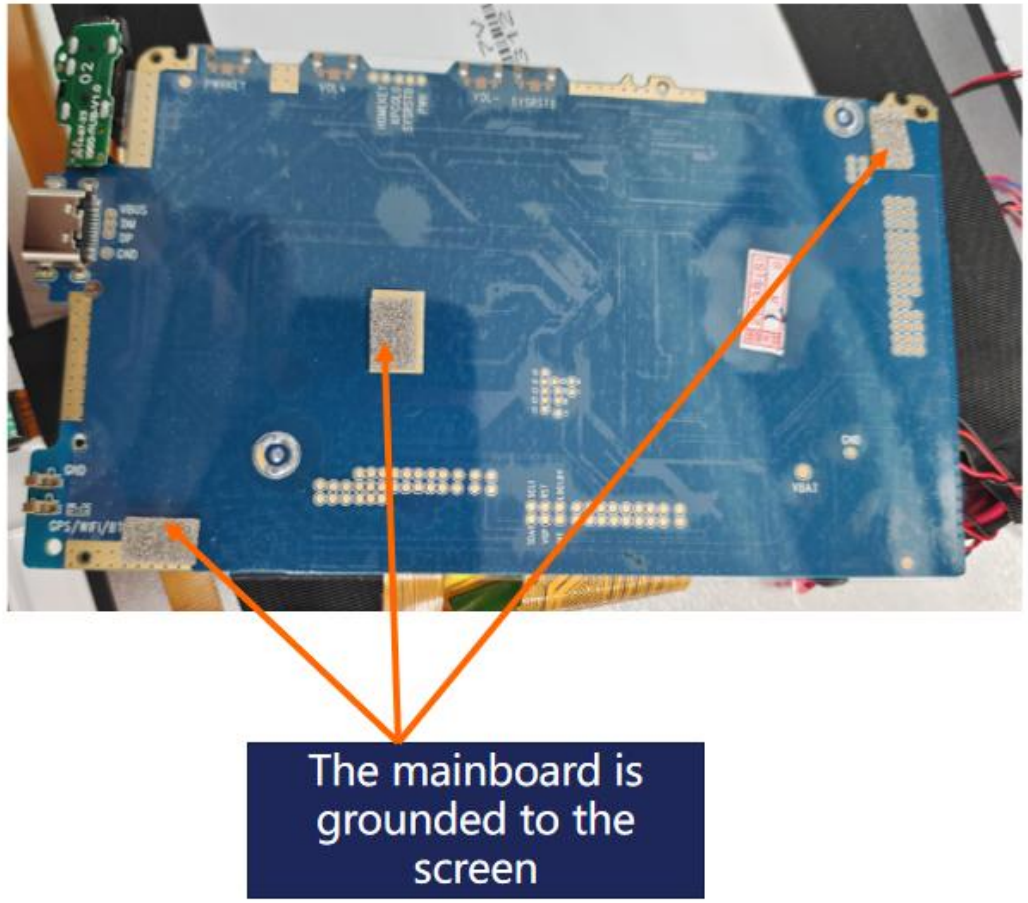
The conductive sponge attached to the mainboard is grounded to the bottom shell

The small board of the main antenna is grounded with conductive cloth and the screen. The antenna should be padded with foam cotton. The higher the better

The coaxial line is covered with conductive cloth to shield interference

Antenna with foam cotton pad high

16.Environmental treatment



THANKS!

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