



Antenna Test report

Model Name: Z108-C8-US version

Date: 20260817

Shenzhen Xinlingke Technology Co., Ltd.

www.kpantenna.com

Integrity and Gratitude

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01.Project Introducation and Photoes-Project Introducation



Company name	Shenzhen Xinlingke Technology Co., Ltd	company email	sales8@kpantenna.com
		Company address	5th Floor, Shenzhen Flour Company Office Building, North Zone of High-tech Industrial Park, Nanshan District, Shenzhen
Antenna Overview			
sample status	complete machine	Project Name	Z108-C8-US version
Antenna type	PIFA	structural form	FPC+coaxial cable
Main antenna	GSM: B2/B3/B5/B8 WCDMA:B2/B4/B5/B8 LTE 2/3/4/5/7/8/17/28/40		
Other antennas	dividing antenna Tri-band antenna		

01.Project Overview and Actual Photos--Actual Photos



02.Report Versions



Version	Report Time	Commissioning Overview
A0	2026.08.17	Z108-C8 Antenna Test Report (S622C8-US Version-80 Print Head-Android 14 System-Withoutprint)
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
- Providing 2D pattern / Apple chart analysis
- Providing upper and lower hemisphere efficiency
- Providing mutual interference correlation coefficient test items.

05.Main antenna related data



Band	Channel	TRP	TIS
B2	L	18.45	
	M	18.23	
	H	18.69	-90.58
B3	L	18.57	
	M	18.67	
	H	18.47	-90.13
B4	L	18.2	
	M	18.68	
	H	18.37	-90.76
B5	L	14.39	
	M	15.15	
	H	15.62	-86.23

Band	Channel	TRP	TIS
B7	L	18.45	
	M	18.23	
	H	18.69	-90.58
B8	L	17.57	
	M	17.67	
	H	17.47	-86.53
B17	L	15.2	
	M	15.68	
	H	15.37	-82.76
B28	L	15.39	
	M	15.15	
	H	15.32	-80.73
B40	L	18.47	
	M	18.32	
	H	18.68	-89.48

05.Main antenna related data



Band	Channel	TRP	TIS
850	L	24.45	
	M	25.23	
	H	26.69	-98.63
900	L	26.57	
	M	26.67	-100.47
	H	26.47	
1800	L	25.2	
	M	25.68	
	H	24.37	100.31
1900	L	24.18	
	M	25.84	
	H	25.13	-101.24

Band	Channel	TRP	TIS
W2	L	17.45	
	M	18.23	
	H	18.69	-101.30
W4	L	18.57	
	M	18.67	
	H	18.47	-102.27
W5	L	15.2	
	M	15.68	
	H	16.37	-102.32
W8	L	16.18	
	M	16.84	-101.09
	H	16.13	

05.Main antenna related data



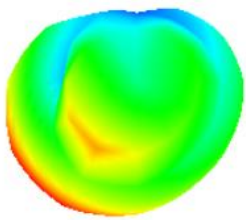
Freq (MHz)	Gain (dBi)
700	-2.74
710	-2.54
720	-3.36
730	-2.96
740	-3.66
750	-3.45
760	-3.28
770	-3.59
780	-3.67
790	-4.55
800	-4.19
810	-4.03
820	-3.94
830	-3.27
840	-2.97
850	-2.46
860	-2.04
870	-1.6
880	-2.16
890	-2.02
900	-1.34
910	-1.21
920	-1.12
930	-1.48
940	-1.29
950	-2.04
960	-1.71

Freq (MHz)	Gain (dBi)		
1700	-2.77	2180	-0.17
1720	-2.46	2190	0.06
1740	-2.76	2200	-0.89
1760	-2.73	2300	-2.14
1780	-2.09	2310	-2.05
1800	-2.51	2320	-1.52
1820	-1.46	2330	-0.89
1840	-0.84	2340	-0.75
1860	-0.63	2350	-0.66
1880	1.13	2360	-0.66
1900	-0.02	2370	-0.91
1920	2.15	2380	-1.02
1940	0.85	2390	-0.63
1960	0.66	2400	-0.98
1980	0.09	2500	0.1
2000	1.9	2520	1.33
2020	1.98	2540	1.08
2040	2.75	2560	0.58
2060	2.6	2580	0.93
2080	1.8	2600	-0.28
2100	1.88	2620	0.42
2110	2.74	2640	-0.68
2120	1.36	2660	-0.58
2130	0.72	2680	-1.02
2140	1.73	2700	-1.39
2150	1.21		
2160	-0.38		
2170	-0.25		

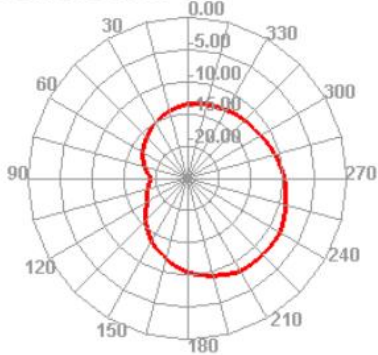
05.Main antenna related data



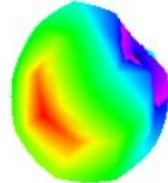
690.00
700.00MHz



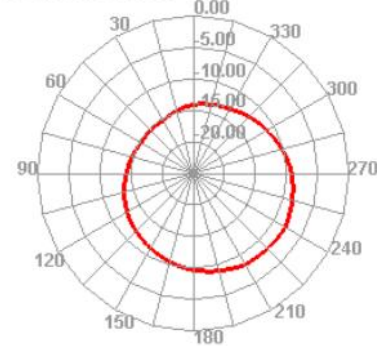
760.00 830.00
700.00MHz H



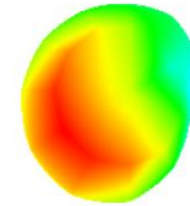
740.00MHz



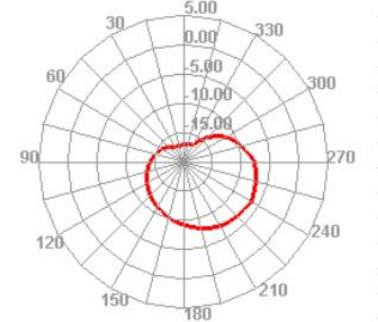
740.00MHz H



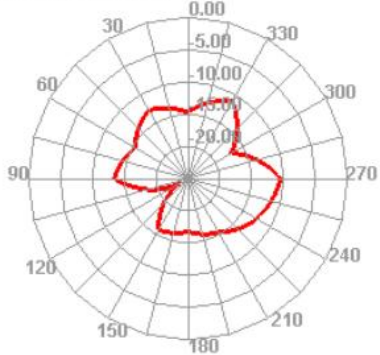
780.00MHz



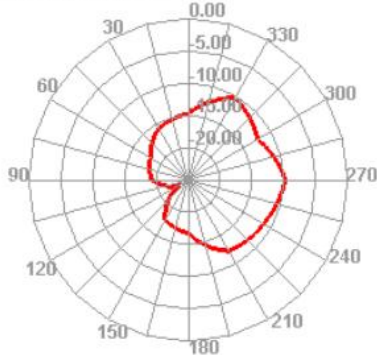
780.00MHz H



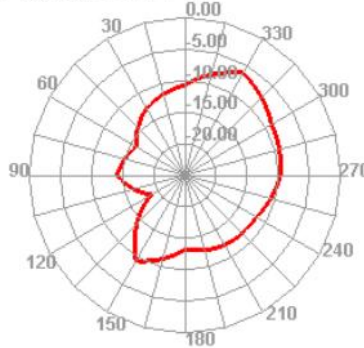
700.00MHz E1



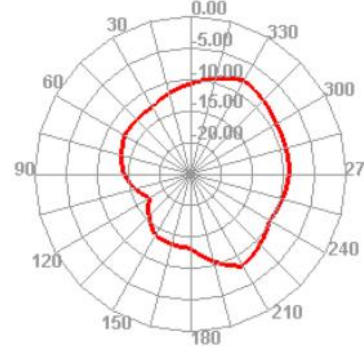
700.00MHz E2



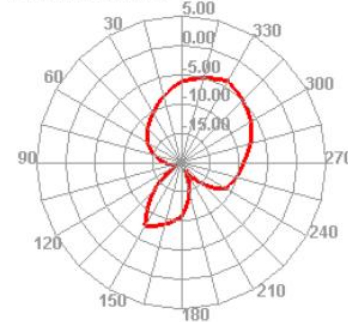
740.00MHz E1



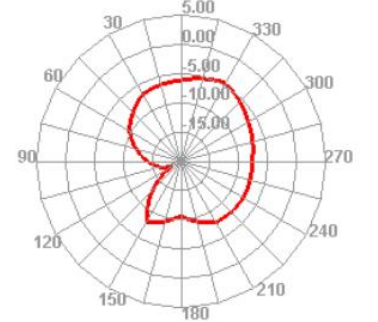
740.00MHz E2



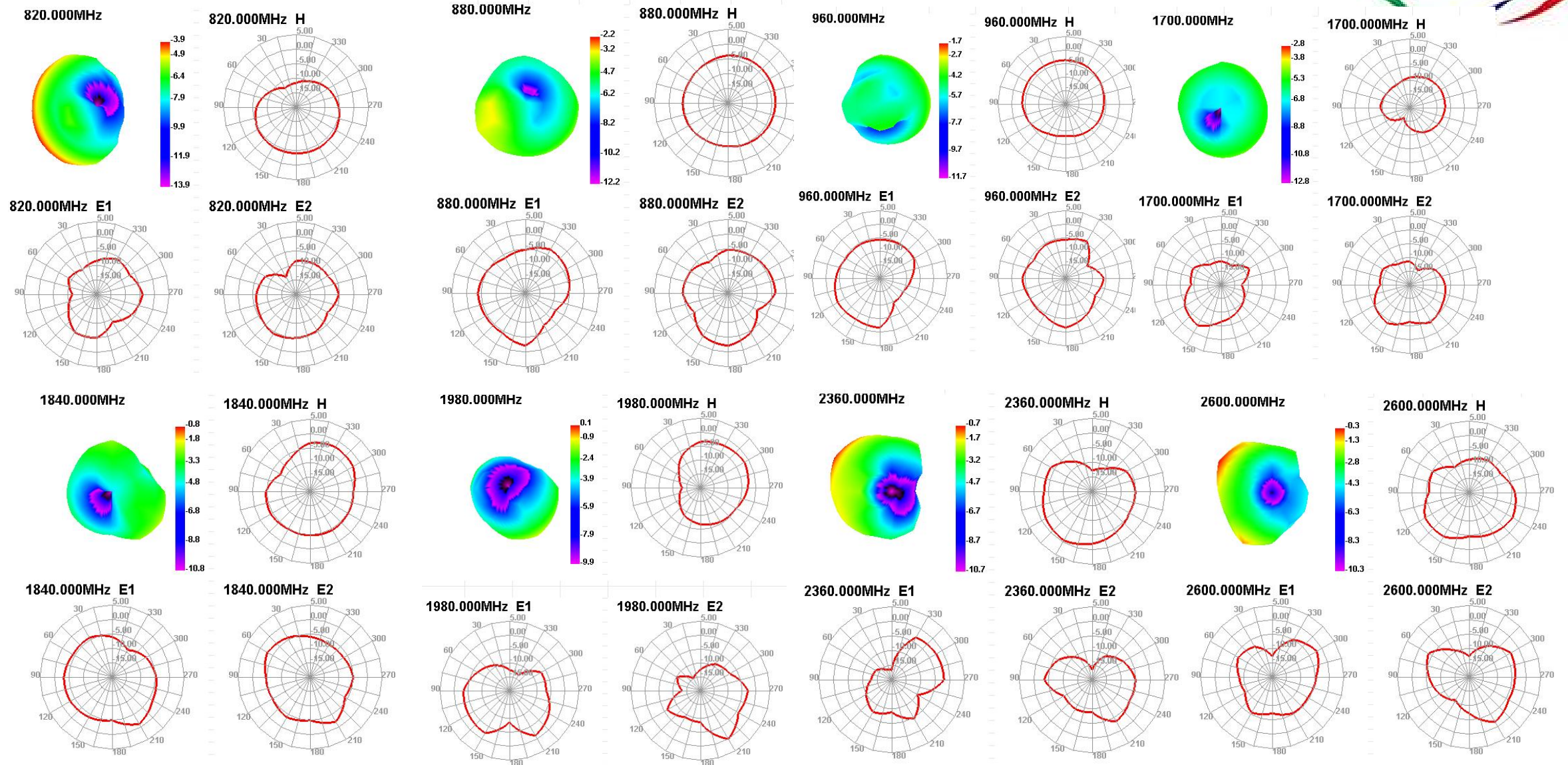
780.00MHz E1



780.00MHz E2



05.Main antenna related data



06.WIFI antenna related data



2.4GWIFI	802.11b (11M)		
channel	1	7	13
TRP	12.32	13.21	13.52
TIS			-80.56

5GWIFI	802.11a (54M)			
channel	36	64	149	165
TRP	7.31	7.31	8.41	8.23
TIS				69.15

06.WIFI antenna related data



GPS

Freq (MHz)	Gain (dBi)
1550	-2.2
1555	-2.31
1560	-2.68
1565	-2.74
1570	-2.85
1575	-2.86
1580	-2.6
1585	-2.65
1590	-2.94
1595	-2.83
1600	-2.33

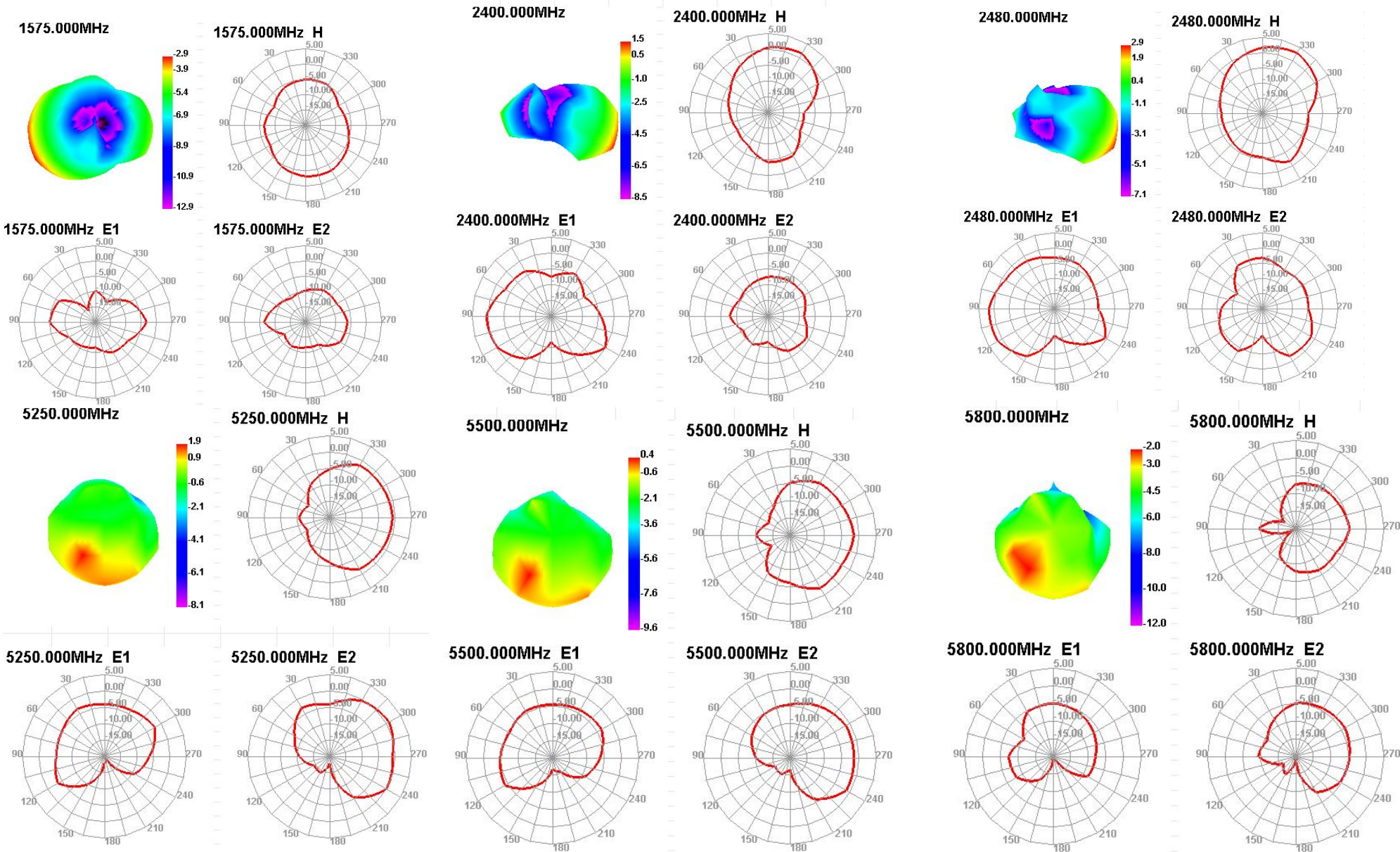
2.4GWIFI

Freq (MHz)	Gain (dBi)
2400	1.5
2410	1.87
2420	2.23
2430	2.48
2440	2.16
2450	2.19
2460	2.97
2470	2.53
2480	2.93
2490	2.6
2500	2.47

5GWIFI

Freq (MHz)	Gain (dBi)
5150	1.39
5200	1.39
5250	1.93
5300	1.19
5350	1.5
5400	1.2
5450	1.16
5500	0.41
5550	-0.36
5600	-0.18
5650	-1.21
5700	0.07
5750	-0.71
5800	-2
5850	-1.82

06.WIFI antenna related data



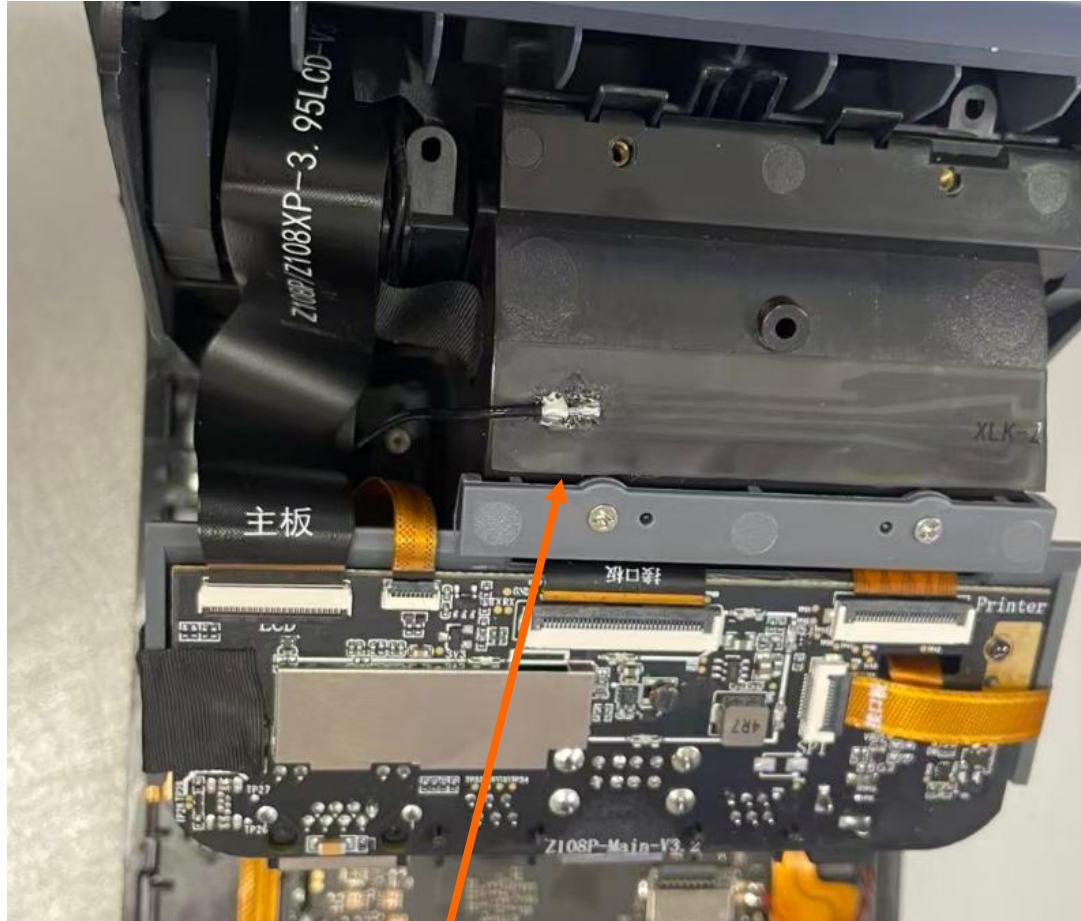
6.WIFI antenna related data

GPS/BT measured data

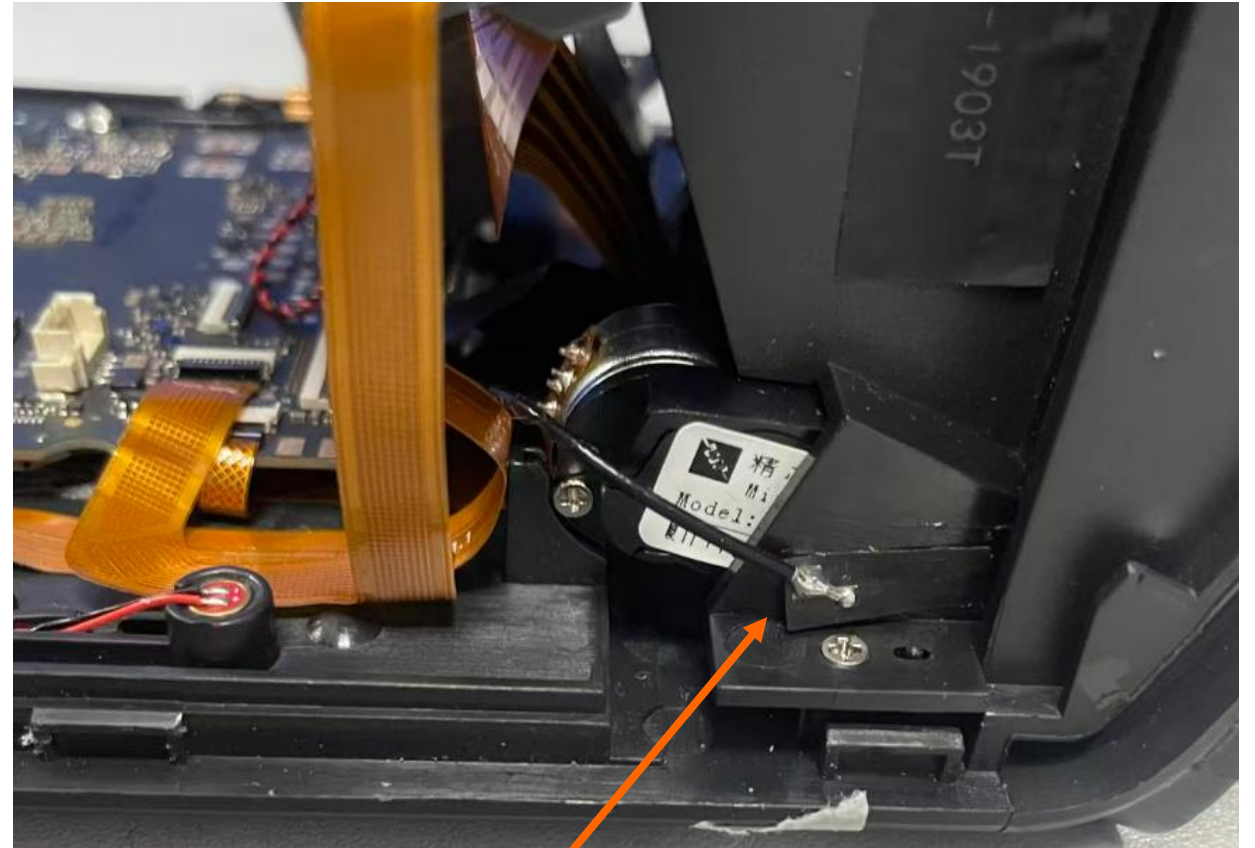
GPS satellite search at our company's window takes 1 minute for positioning. Bluetooth music playback is smooth at a distance of 12 meters without obstruction



07. Antenna position diagram

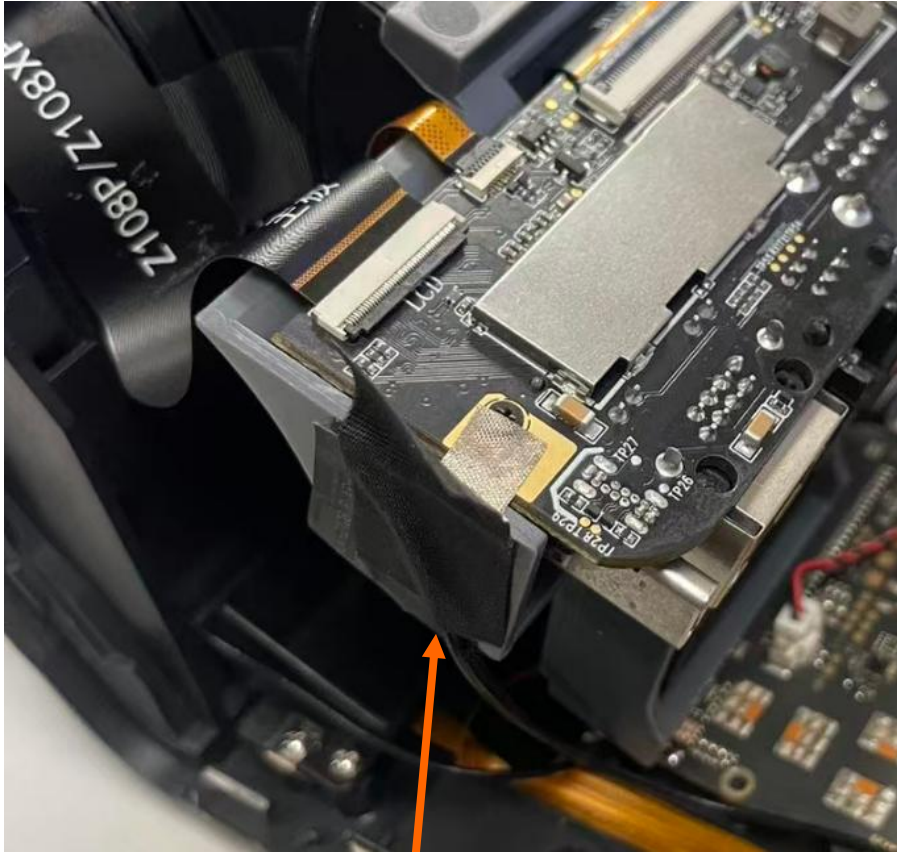


Main antenna



dividing antenna

07. Antenna position diagram

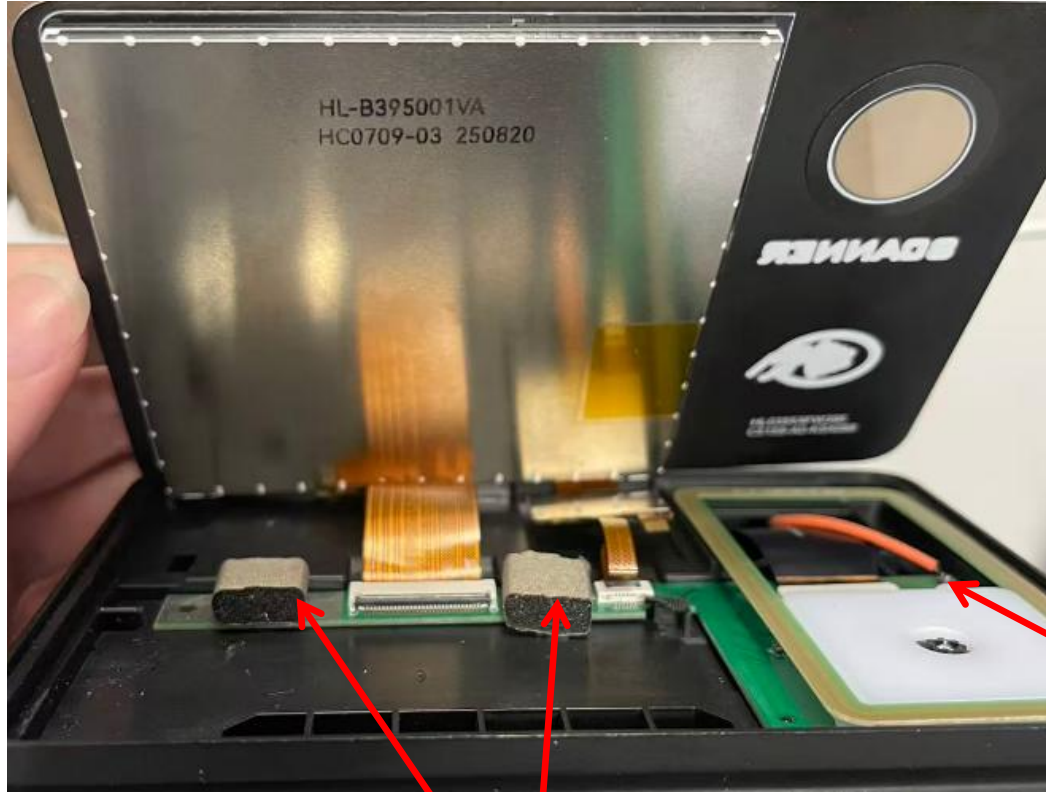


Tri-band antenna

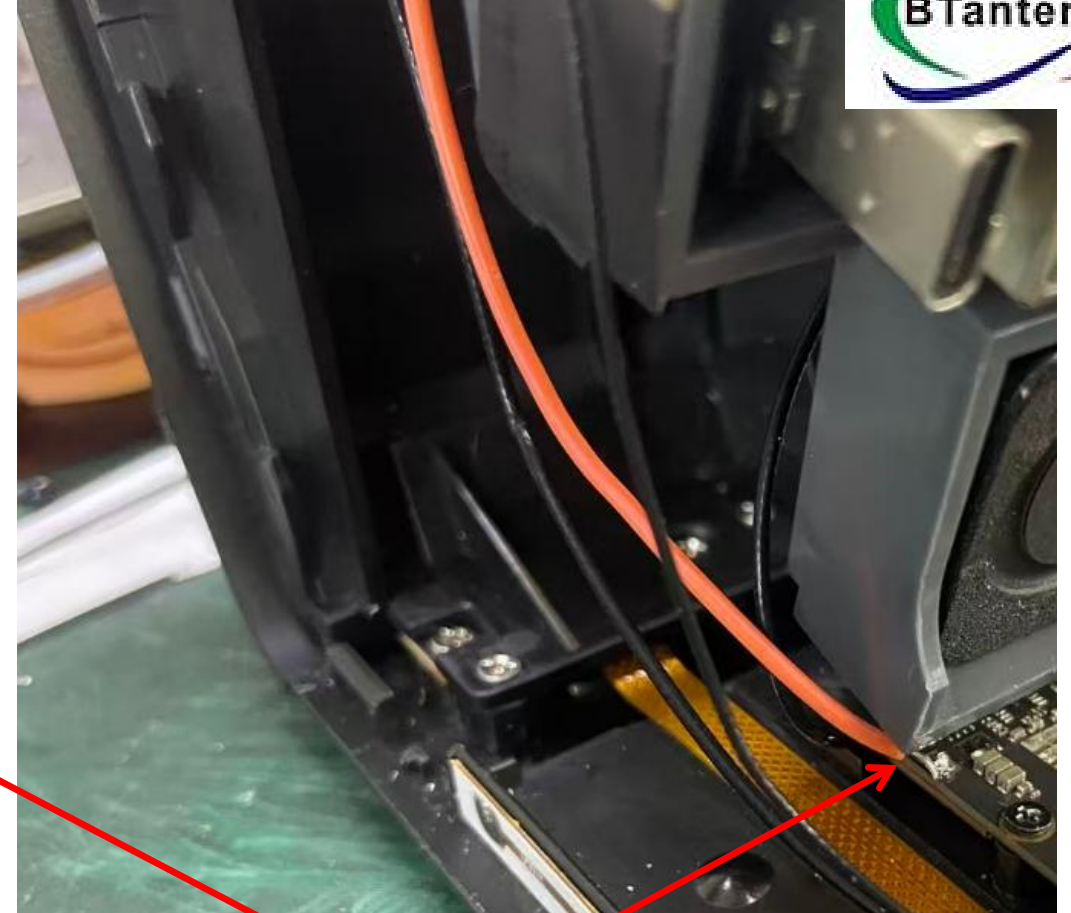


Secure the ribbon cable with masking tape

8.Environmental treatment

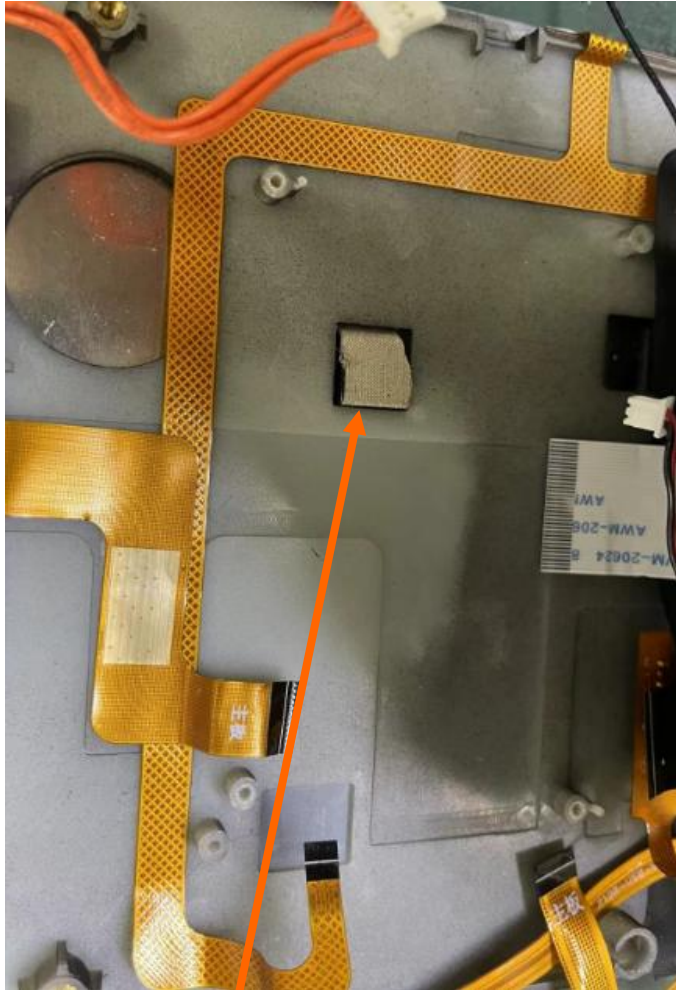


Attach conductive foam to the PCB and ground the sub-display



Use electronic wire to screw the motherboard and PCB to ground

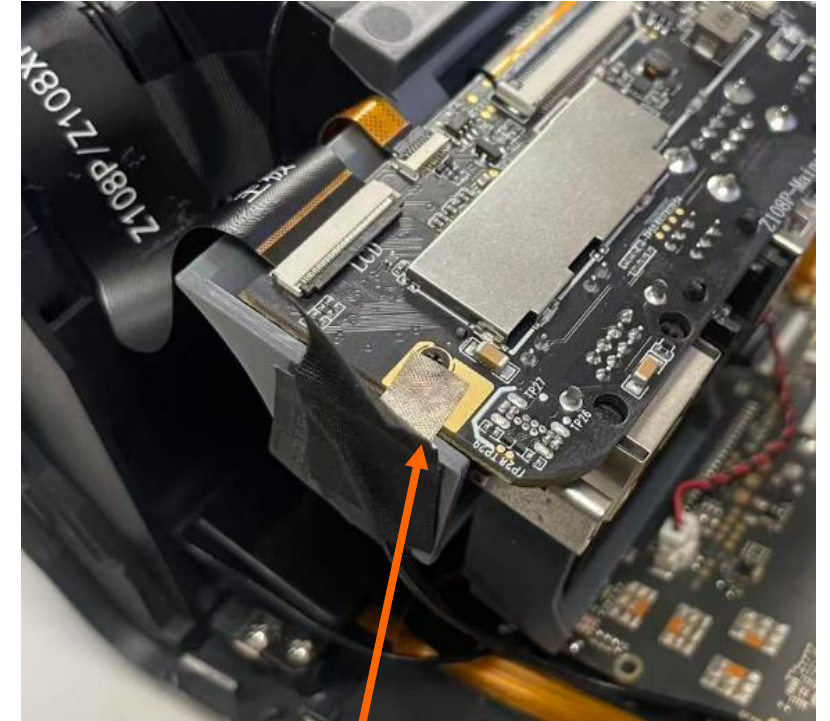
08.Environmental treatment



Screen and mainboard grounded with conductive foam



Screen ribbon cable attached to conductive cloth for grounding

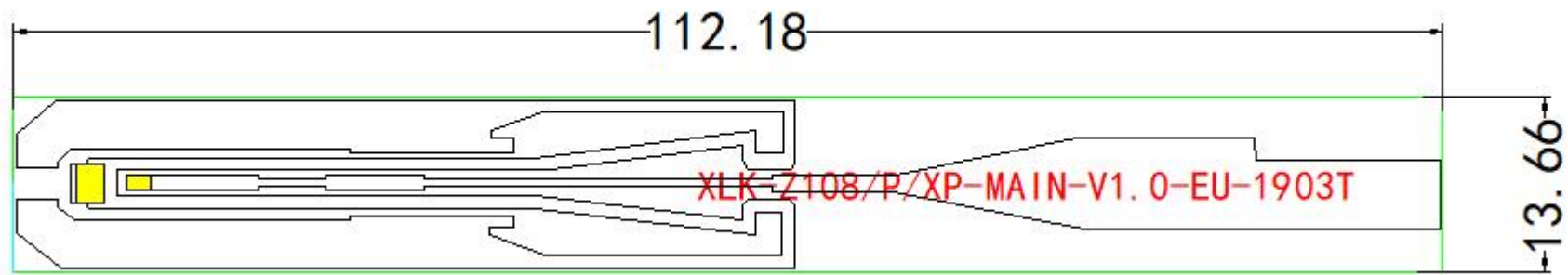


Three-in-one antenna grounding

NFC Antenna information

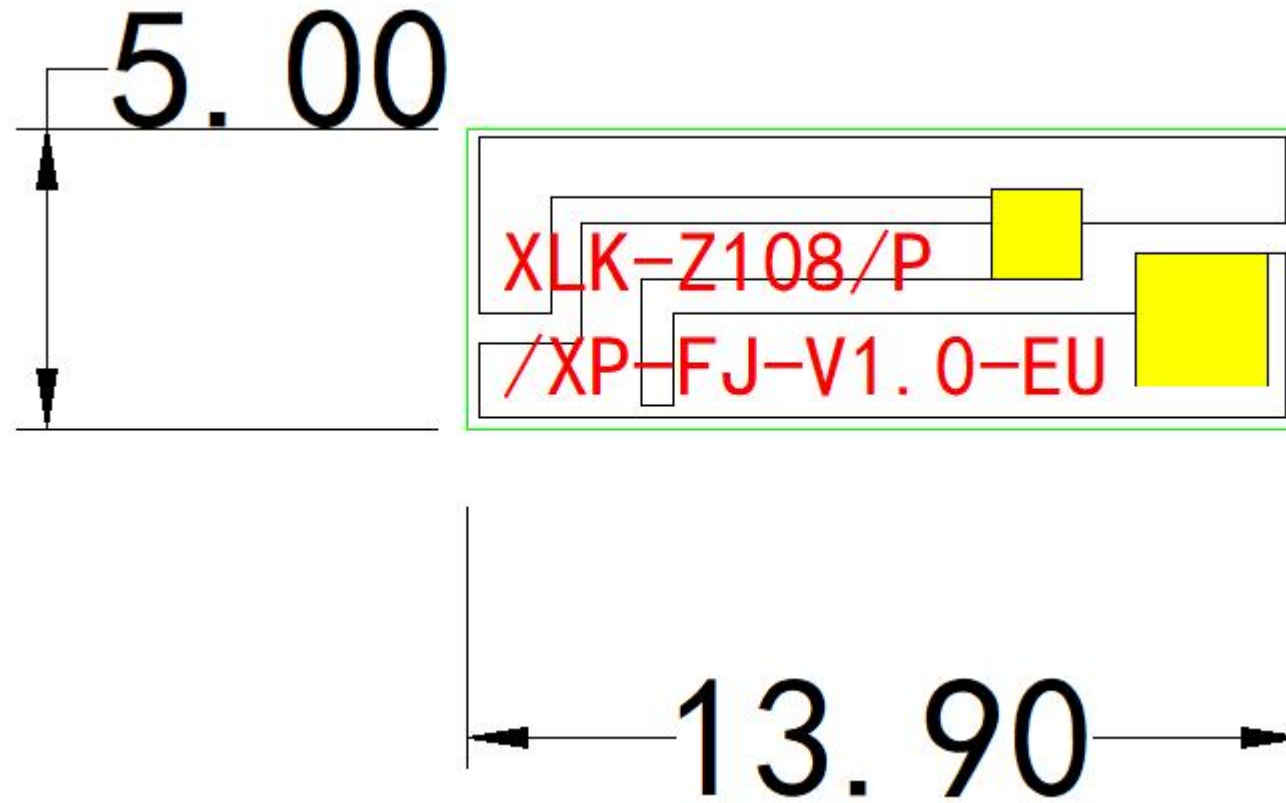
- 1Antenna part number: Y.ZZ.XC.0010178
- 2antenna manufacturer: Xinling Technology Co
- 3Antenna type: PCB coil
- 4Installation type: Built-in permanent welding
- 5Connection method: welding; without ferrite

9.antenna size



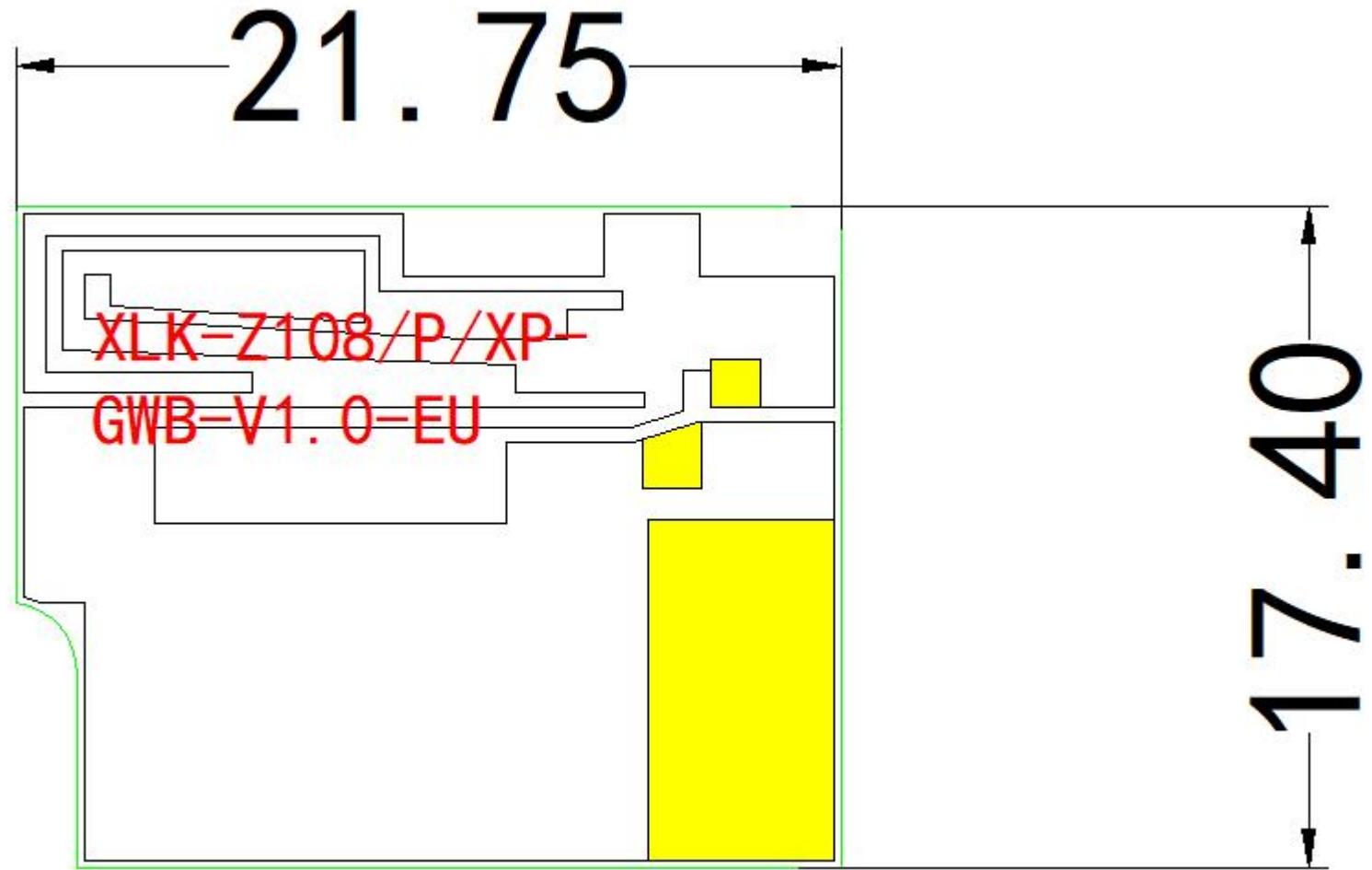
Main antenna

9. antenna size



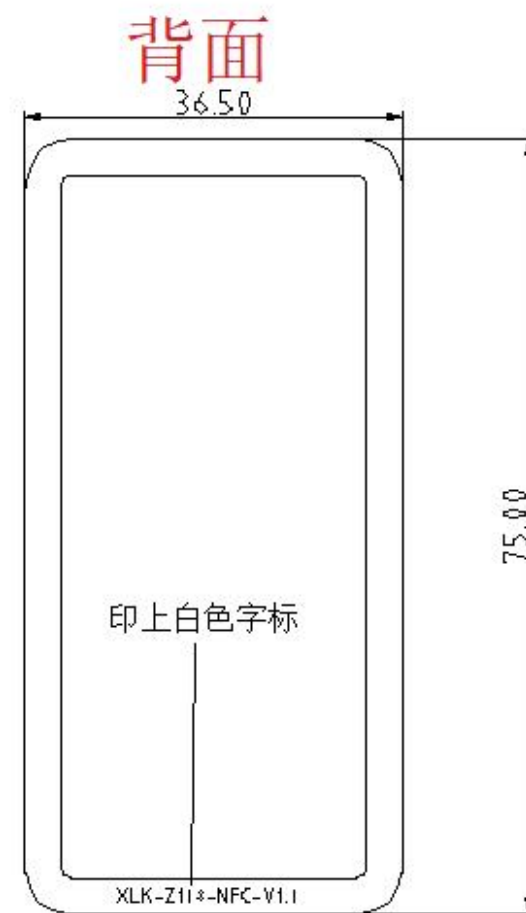
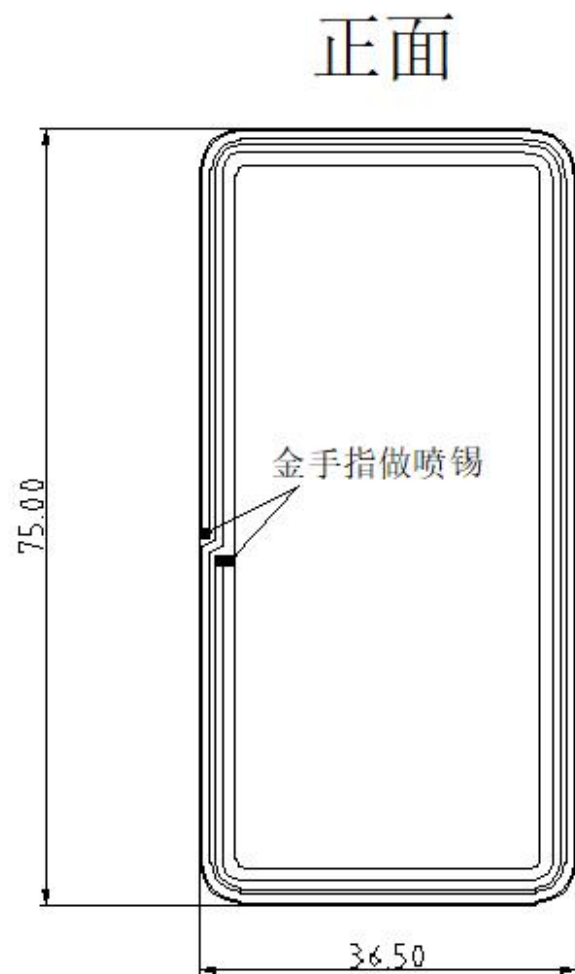
dividing antenna

9.antenna size



Tri-band antenna

9.antenna size



PCB背面无走线

NFCantenna

The background features a dark blue gradient with abstract, layered geometric shapes in various shades of blue and light blue, creating a modern, architectural feel.

THANKS!

Shenzhen Xinlingke Technology Co., Ltd.

www.kpantenna.com

Integrity and Gratitude