

# Shenzhen Xiangboyi Technology Co. Ltd

# Antenna Specification

<b>Customer</b>	SHENZHEN FCAR TECHNOLOGY CO., LTD
<b>Project</b>	E81
<b>Project NO</b>	XBY220080

**Shenzhen Xiangboyi Technology Co. Ltd**

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

Date : 2022/9/29



<b>Customer confirmation</b>			
<b>Engineer</b>	<b>PM</b>	<b>Quality</b>	<b>Approval</b>

<b>Supplier confirmation</b>			
<b>ME</b>	<b>RF</b>	<b>Examine</b>	<b>Approval</b>

**Shenzhen Xiangboyi Technology Co. Ltd**

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

# Catalogue

1 Test System and Equipment.....	- 4 -
2 Product Description.....	- 5 -
3 Device Description.....	- 6 -
4 Matching Circuits.....	- 7 -
5 Test Data.....	- 8 -
6 EngineeringDrawing.....	- 11 -
7. Physical Assembly Picture	- 11 -

## **Shenzhen Xiangboyi Technology Co. Ltd**

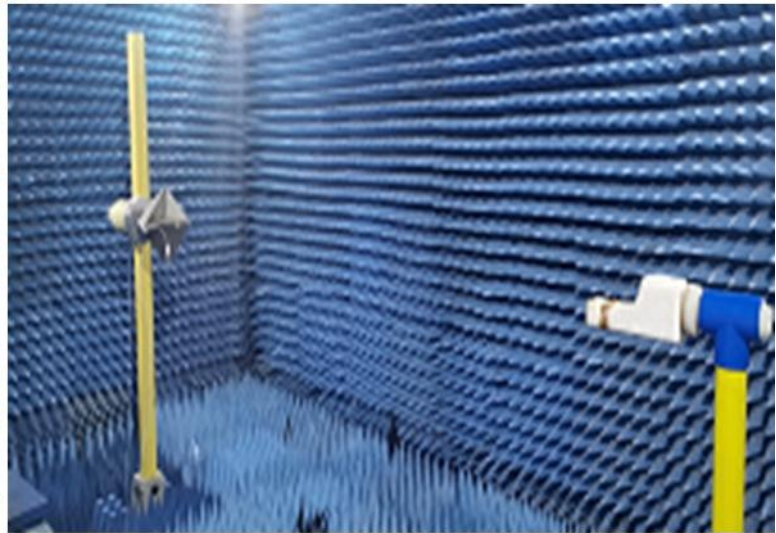
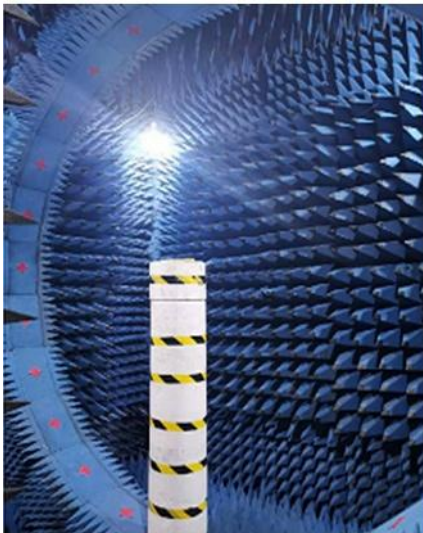
Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

# 1 Test System and Equipment

	Test items	equipment
1 : S parameter	<ol style="list-style-type: none"> <li>1. Return loss</li> <li>2. VSWR</li> </ol>	Network analyzer: A338/A333/HP8753D
2 : Active test	<ol style="list-style-type: none"> <li>1. Transmitting power</li> <li>2. Receiving sensitivity</li> </ol>	Comprehensive test instrument: Agilent 8960/ CMW500
3 : Radiation mode and gain	<ol style="list-style-type: none"> <li>1. Radiation mode</li> <li>2. Gain</li> </ol>	<ol style="list-style-type: none"> <li>1. Shielding room: 7x4x3 m (ETS-3D)</li> <li>2. Network analyzer: HP 8753D</li> </ol>



## Shenzhen Xiangboyi Technology Co. Ltd

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

## 2 Product Description

Technical requirements	Technical index	Remarks
<b>Band</b>	WIFI:2.4G/5G	
<b>Range Of Frequency</b>	2400-2500Mhz; 5180-5850Mhz	
<b>VSWR</b>	2400-2500Mhz<2.0 5180-5850Mhz<2.0	Center Frequency
<b>Impedance</b>	50Ω	
<b>Polarization</b>	Linear polarization	
<b>operating temperature</b>	-32℃ / +55℃	
<b>storage temperature</b>	-55℃ / +85℃	
<b>Salt Fog</b>	24h(24h alternating wet & dry)	
<b>RoHS Compliant</b>	yes	

### Shenzhen Xiangboyi Technology Co. Ltd

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

### 3 Device Description

The whole machine photo



Antenna photo



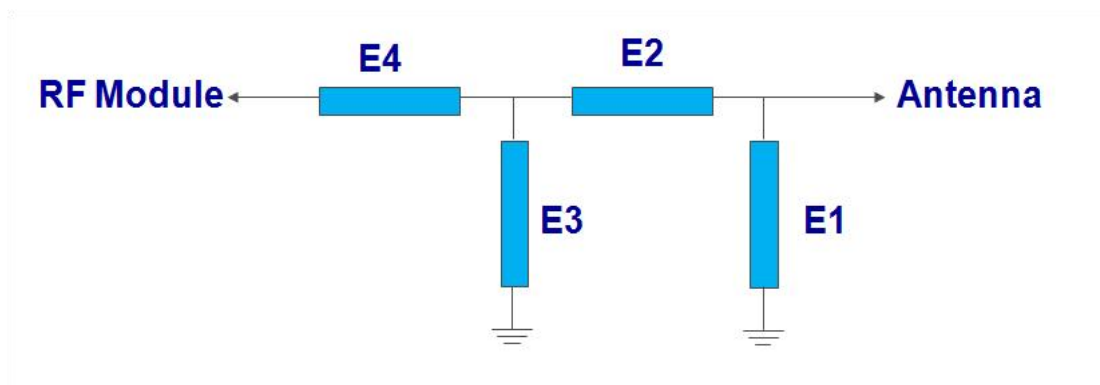
**Shenzhen Xiangboyi Technology Co. Ltd**

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

## 4 Matching Circuits



Element	Value	Vender
E1(0402)	NA	
E2(0402)	0Ω	
E3(0402)	NA	
E4(0402)	0Ω	

Original match unchanged.

### Shenzhen Xiangboyi Technology Co. Ltd

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

## 5 Test Data

WIFI BAND	802.11b : 11Mbps(2.4G)			802.11g : 54Mbps(2.4G)		
Channel	CH1	CH6	CH11	CH1	CH6	CH11
TRP	16.09	14.66	15.7	14.54	14.73	15.03
TIS			-86.57			-72.54

WIFI BAND	802.11n : MCS7(2.4G)			802.11a : 54Mbps(5G)		
Channel	CH1	CH6	CH11	CH36	CH149	CH161
TRP	14.78	14.62	14.96	13.77	12.67	12.34
TIS			-75.89			-70.45

WIFI天线效率, 增益		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	44.02	1.65
2450	45.52	2.21
2500	47.07	1.73
5100	48.82	1.89
5500	40.51	2.06
5850	58.13	3.56

### Shenzhen Xiangboyi Technology Co. Ltd

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

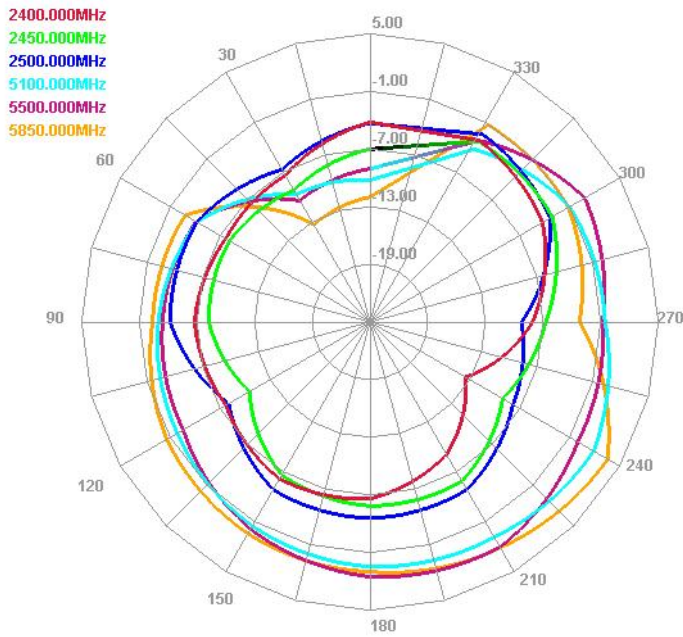
**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

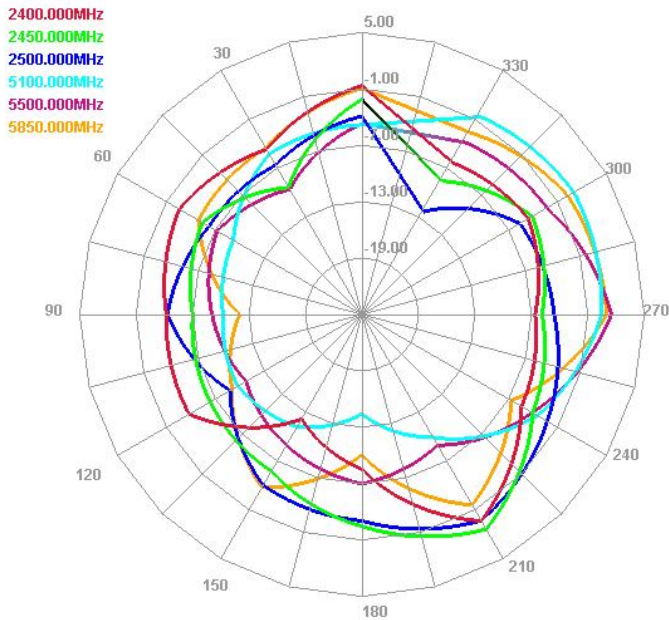


# WiF idirectional diagram; directivity diagram

## Horizontal



## E1 Face



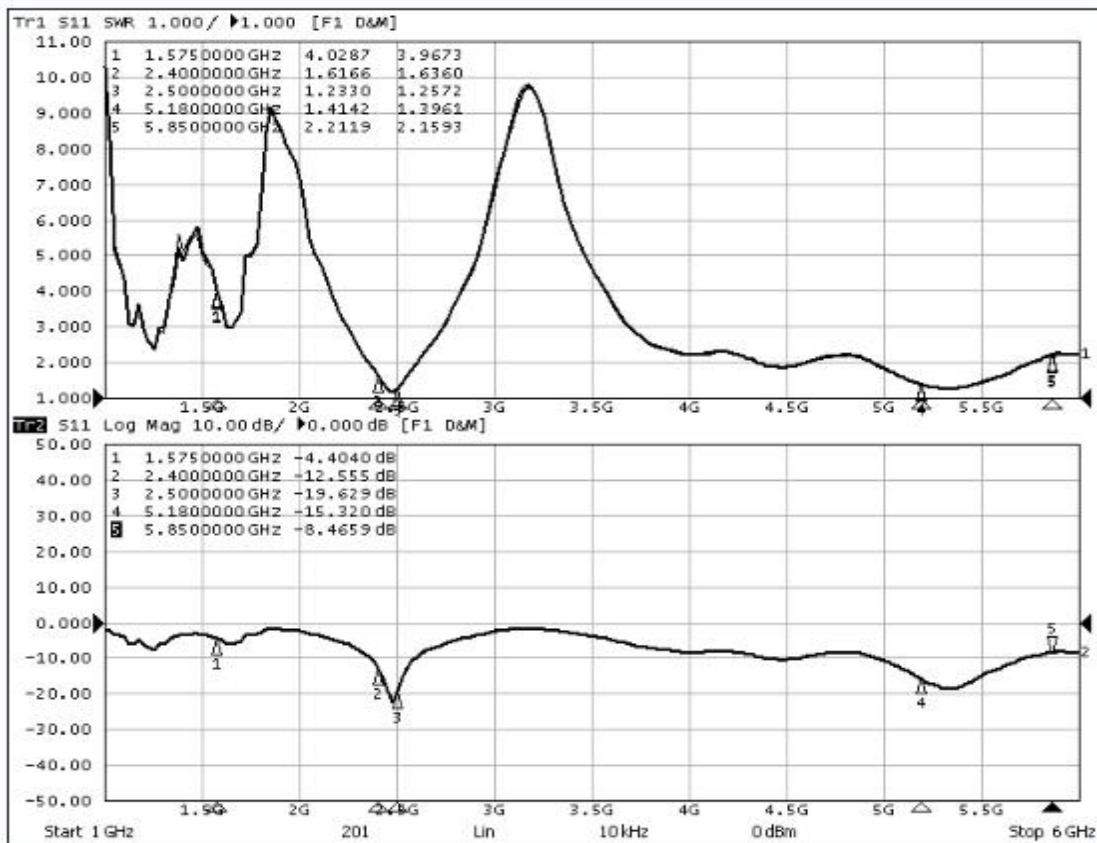
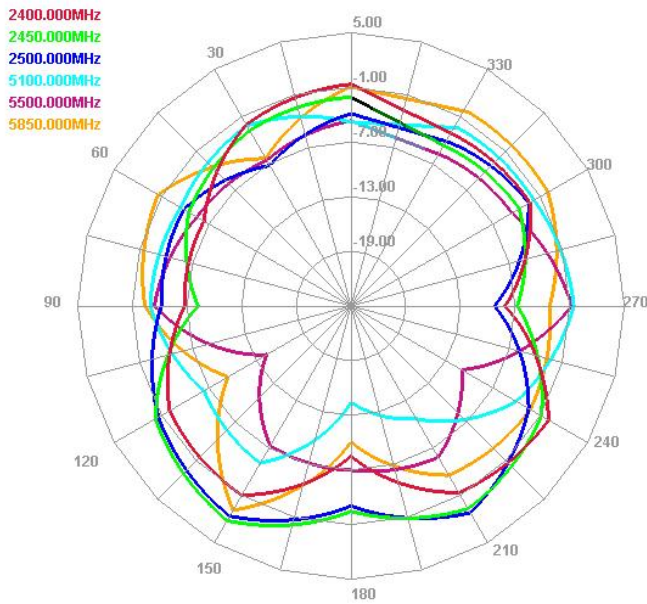
## Shenzhen Xiangboyi Technology Co. Ltd

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

### E2 Face



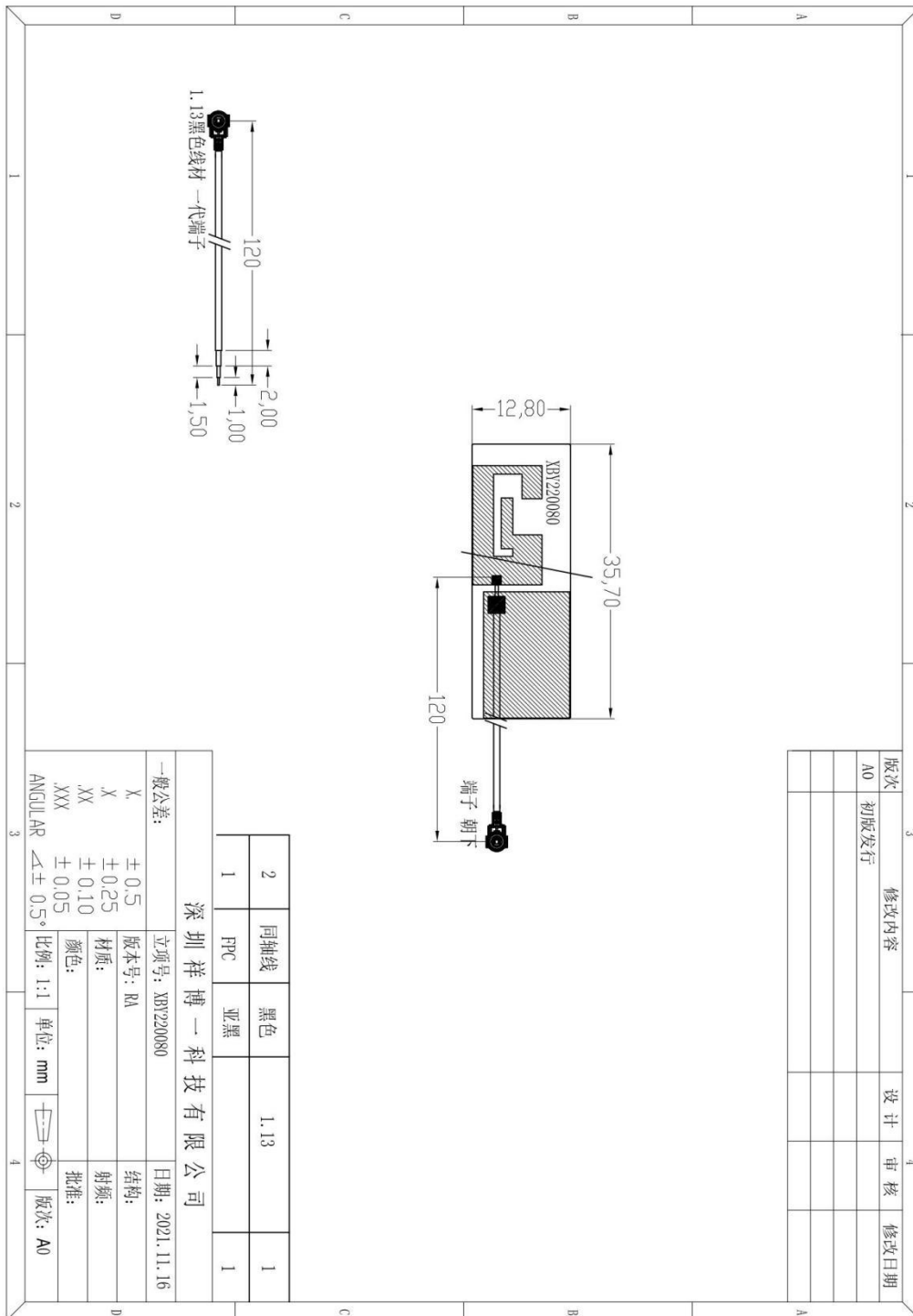
### Shenzhen Xiangboyi Technology Co. Ltd

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

# 6 Engineering Drawing



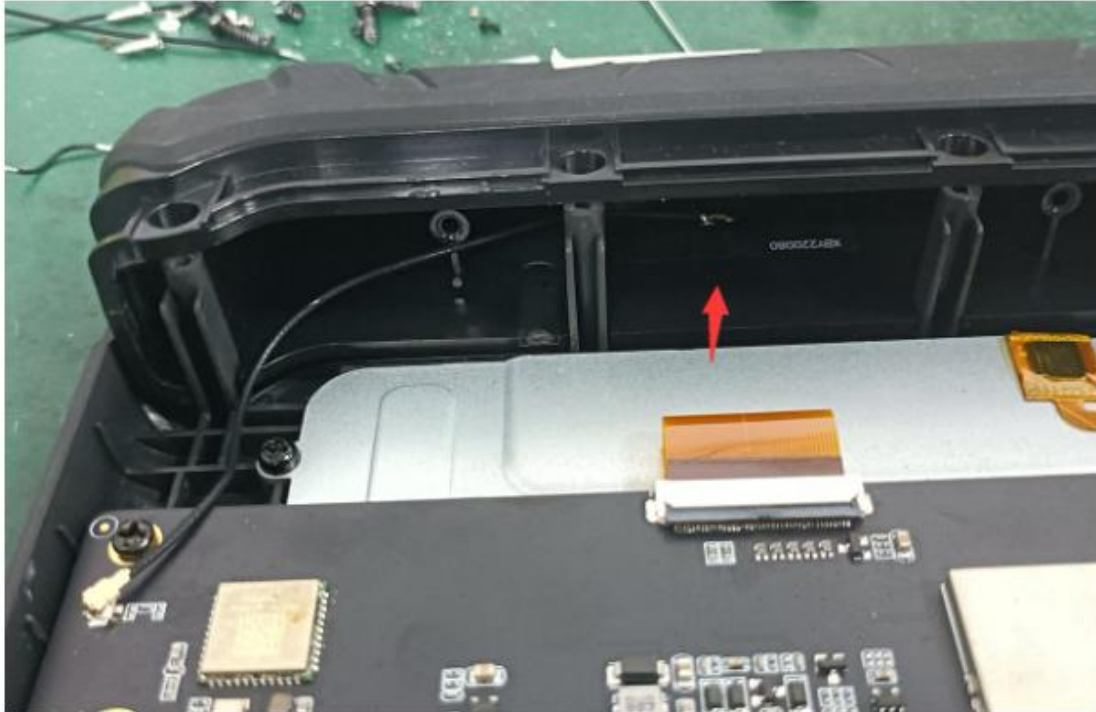
**Shenzhen Xiangboyi Technology Co. Ltd**

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.

## 7. Physical Assembly Picture



### **Shenzhen Xiangboyi Technology Co. Ltd**

Tel: (+86)0755-29369912 Fax: (+86)0755-61624200

**R & D Center:** 101, floor 1, Wencheng building, Yousong Cultural Innovation Park, No. 95, Yousong Road, Longhua District, Shenzhen.

**Production Base:** 5 / F, building B, Huazhi chuangu, No. 7, Yuhua street, 138 Industrial Zone, Tangxia Town, Dongguan City.