

Shenzhen Xiangboyi Technology Co. Ltd

Antenna Specification

Customer	SHENZHEN FCAR TECHNOLOGY CO., LTD
Project	E81
Project NO	XBY220080

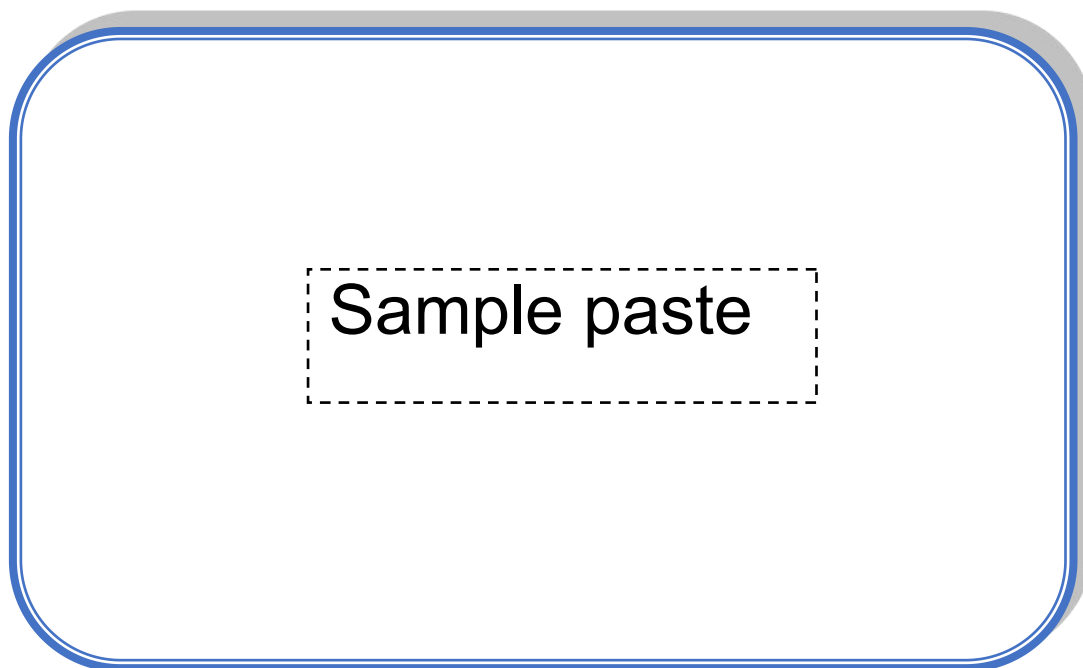
Shenzhen Xiangboyi Technology Co. Ltd

Date : 2022/9/29

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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.



Customer confirmation			
Engineer	PM	Quality	Approval

Supplier confirmation			
ME	RF	Examine	Approval

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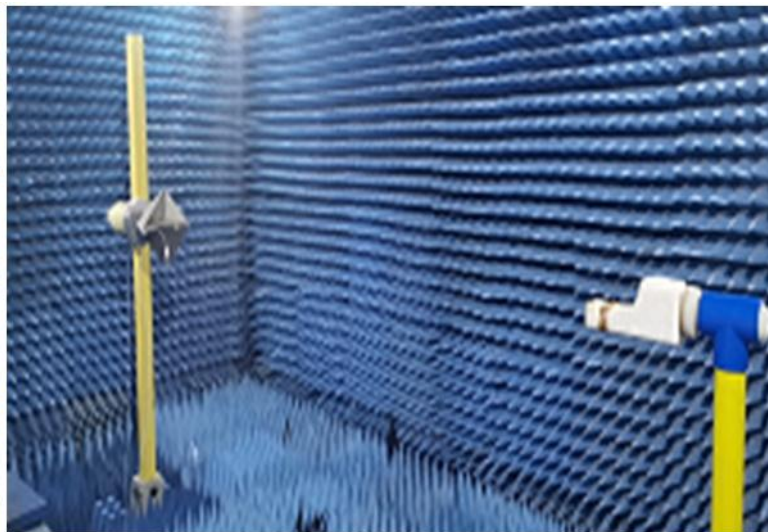
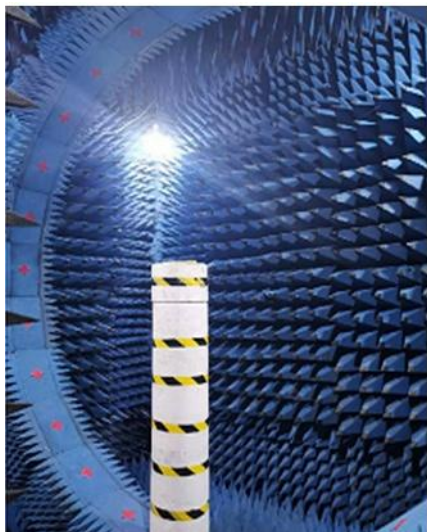
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1 Test System and Equipment

	Test items	equipment
1 : S parameter	1. Return loss 2. VSWR	Network analyzer: A338/A333/HP8753D
2 : Active test	1. Transmitting power 2. Receiving sensitivity	Comprehensive test instrument: Agilent 8960/ CMW500
3 : Radiation mode and gain	1. Radiation mode 2. Gain	1. Shielding room: 7x4x3 m (ETS-3D) 2. Network analyzer: HP 8753D



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2 Product Description

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

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3 Device Description

The whole machine photo



Antenna photo



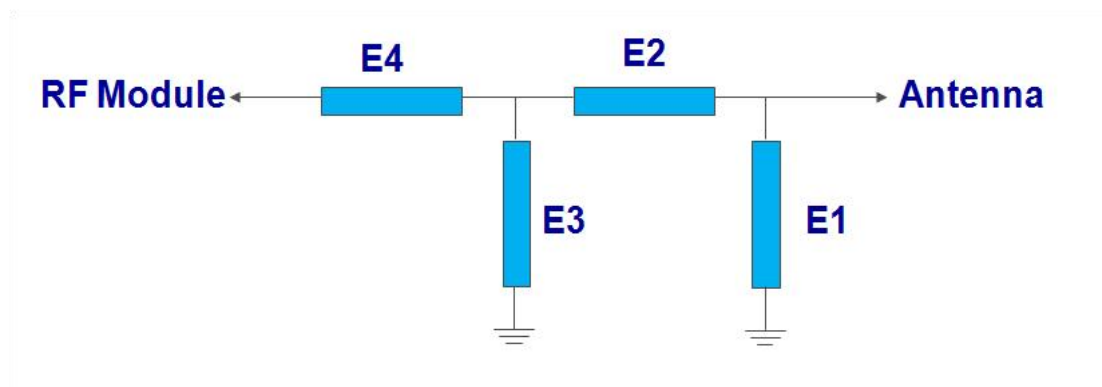
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4 Matching Circuits



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

Original match unchanged.

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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

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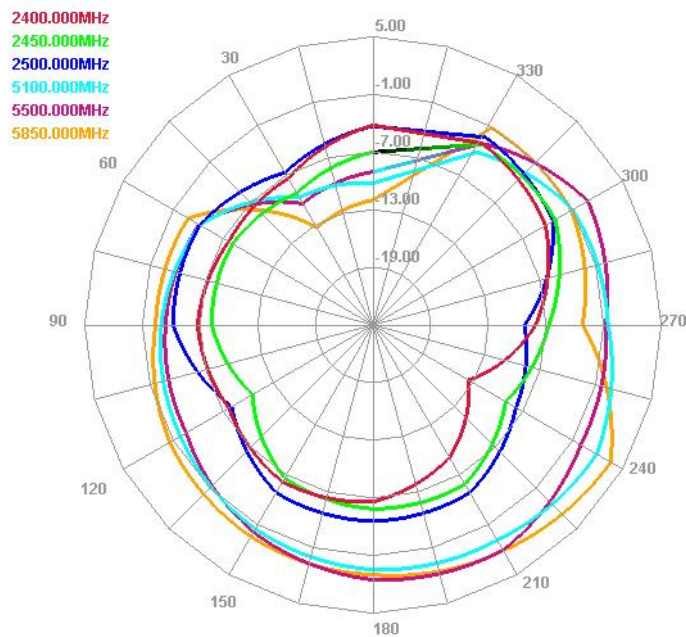
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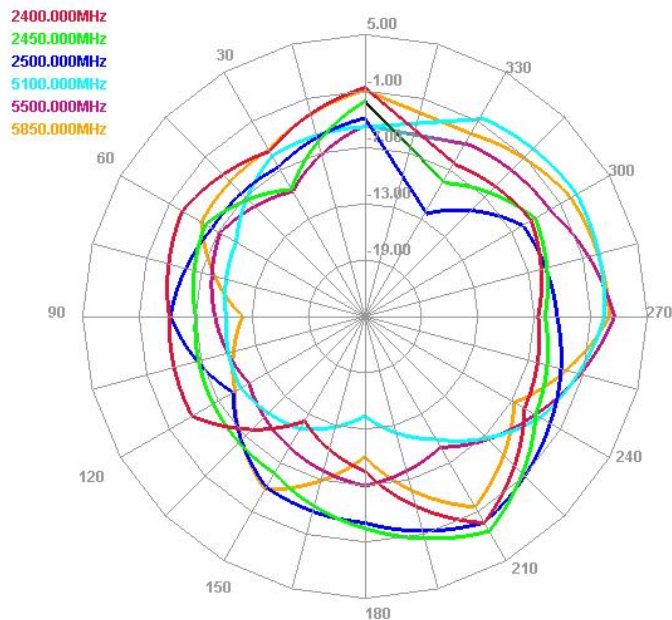
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WiF idirectional diagram; directivity diagram

Horizontal



E1 Face



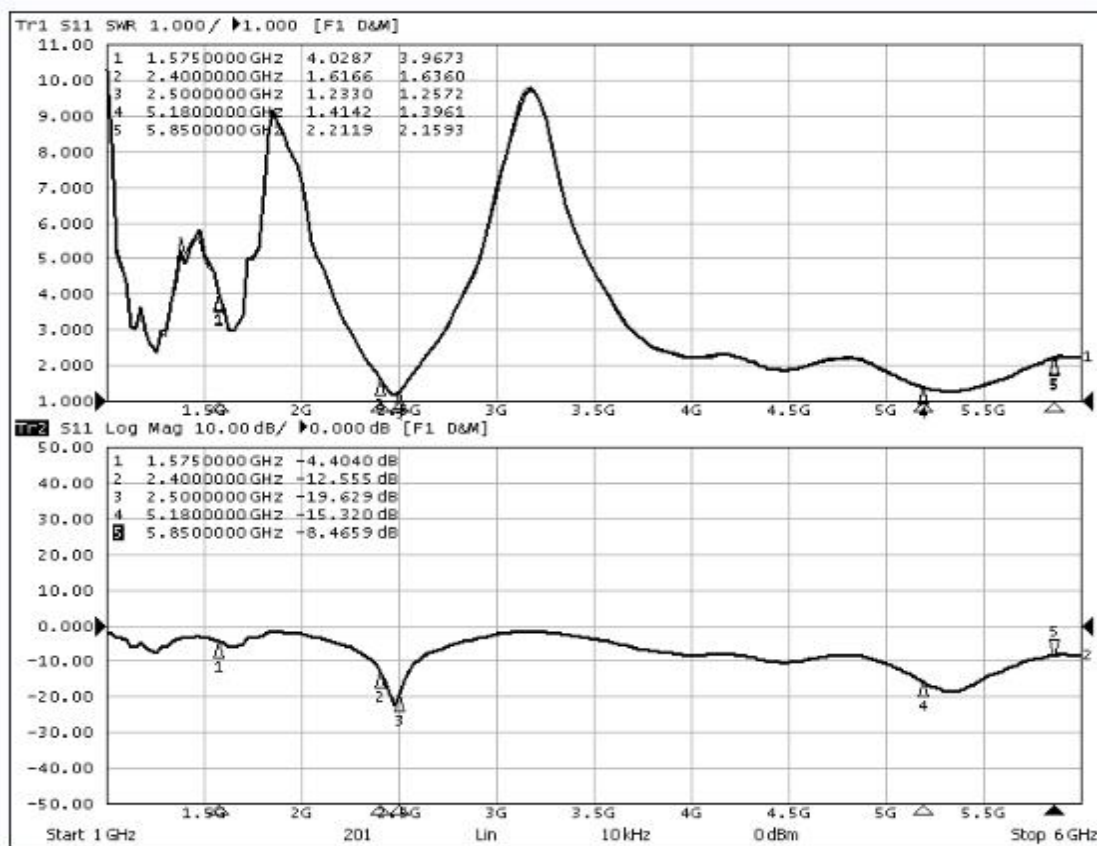
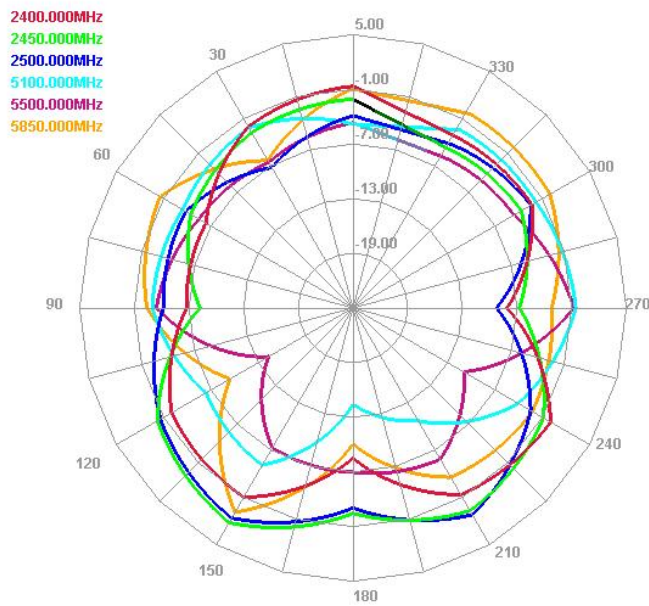
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E2 Face



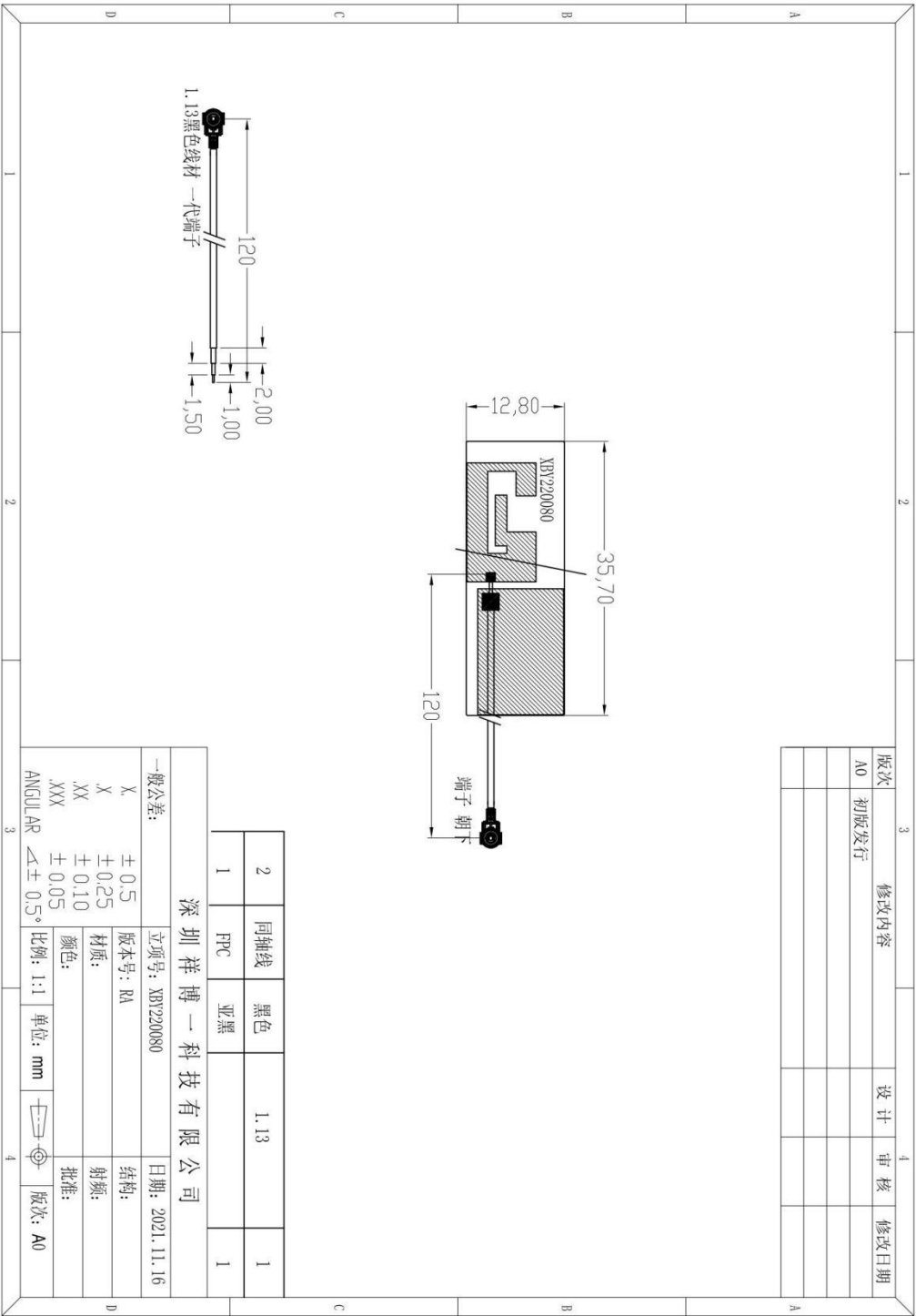
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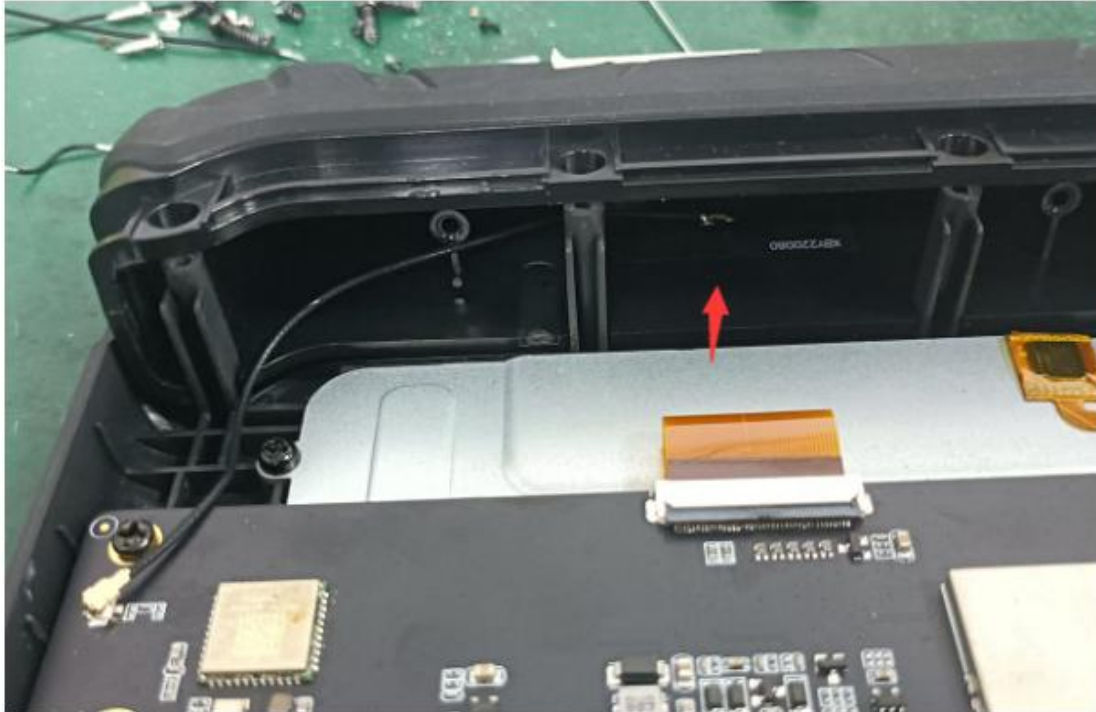
6 Engineering Drawing



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7. Physical Assembly Picture



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