

Shenzhen Xiangboyi Technology Co. Ltd

Antenna Specification

Customer	SHENZHEN FCAR TECHNOLOGY CO., LTD
Project	F9S
Project NO	XBY210643

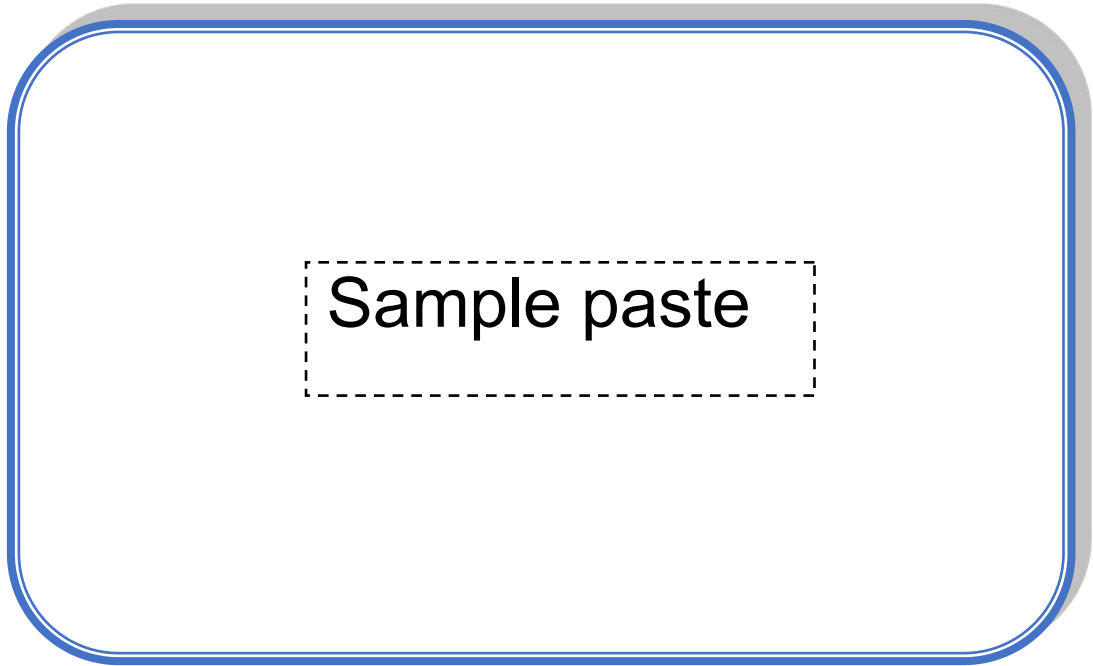
Shenzhen Xiangboyi Technology Co. Ltd

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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.

Date: 2023/7/18



Customer confirmation			
Engineer	PM	Quality	Approval

Supplier confirmation			
ME	RF	Examine	Approval

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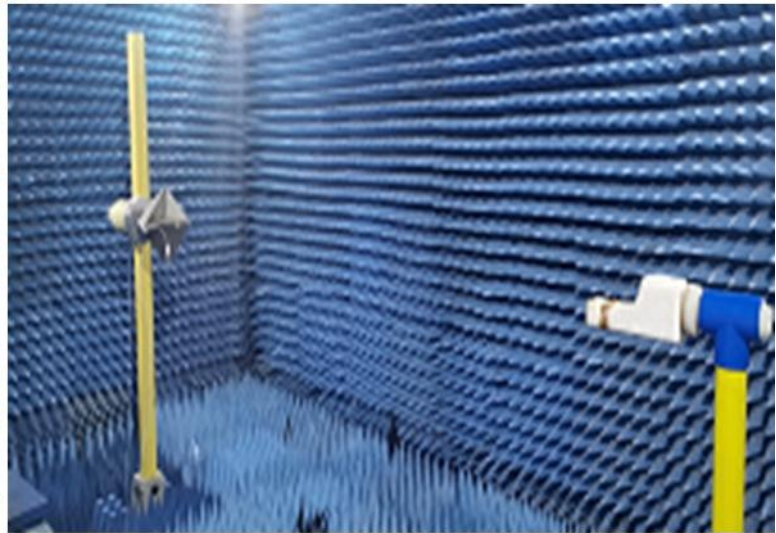
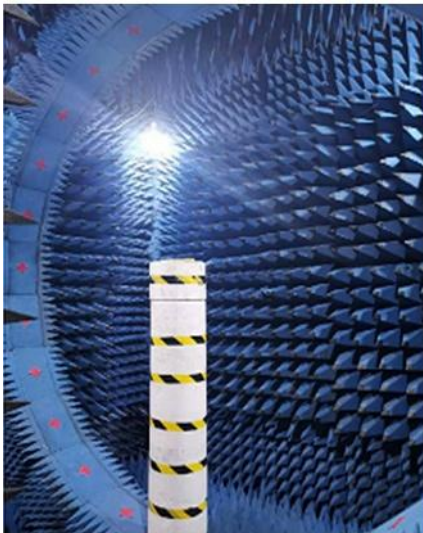
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1 Test System and Equipment

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

Not available

Antenna photo



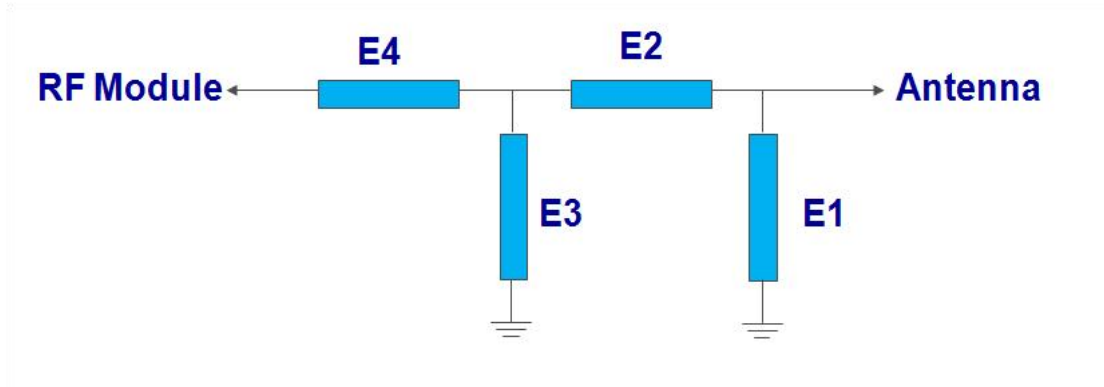
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4 Matching Circuits



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	14.5	14.37	15.73	13.82	13.01	14.12
TIS			-82.78			-69.96

WIFI BAND	802.11n : MCS7 (2.4G)			802.11a : 54Mbps (5G)		
Channel	CH1	CH6	CH11	CH36	CH149	CH161
TRP	13.13	13.15	14.19	13.62	11.67	12.16
TIS			-70.32			-68.45

Freq (MHz)	Effi (%)	Gain (dBi)
2400	38.72	0.34
2450	42.76	0.88
2500	45.42	1.73
5150	35.07	-1.35
5500	43.33	0.76
5850	48.14	2.32

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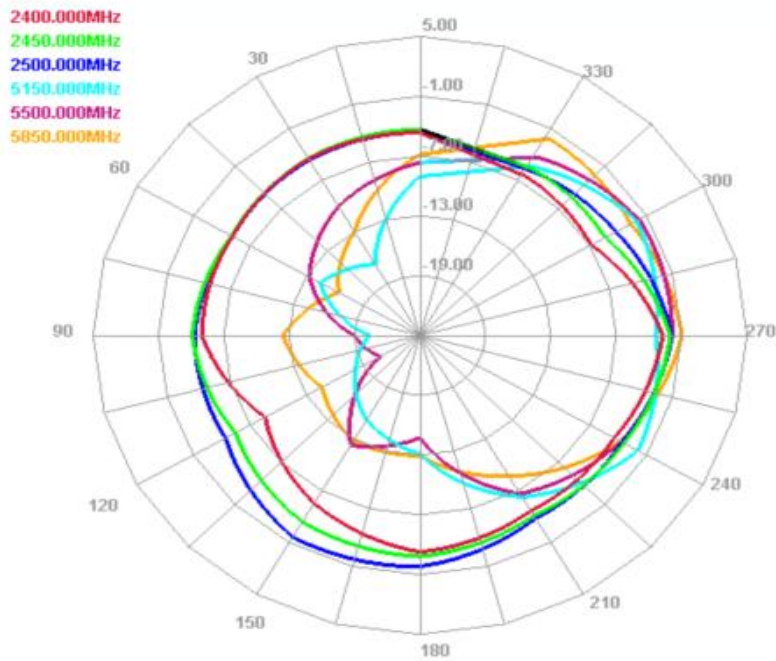
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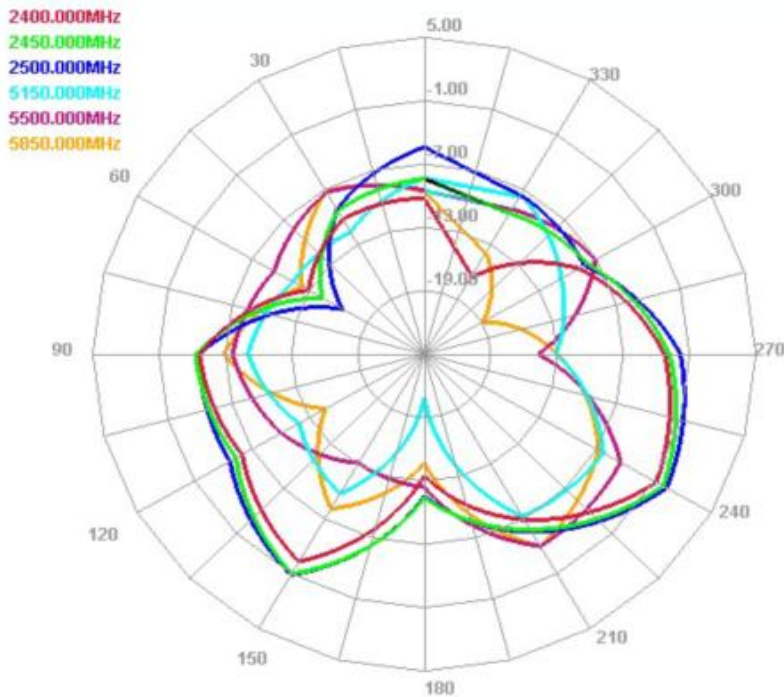
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WiF directivity diagram

Horizontal



E1 Face



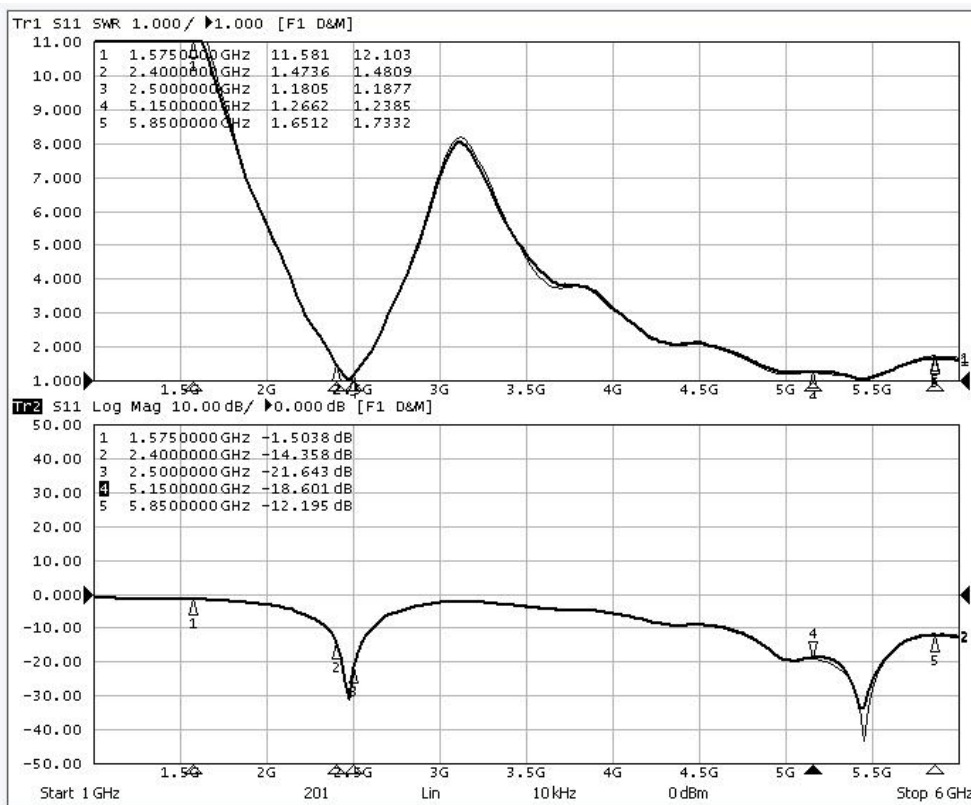
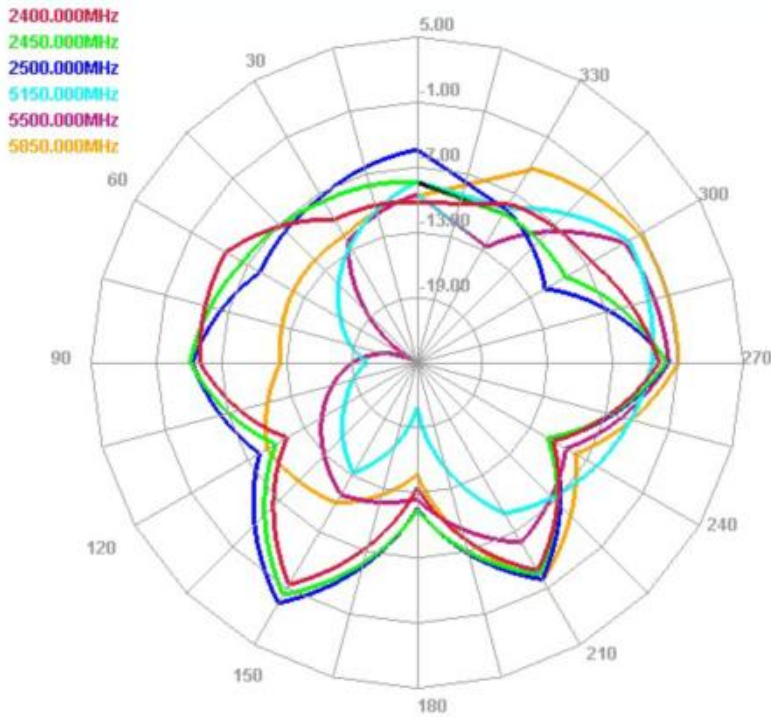
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E2 Face



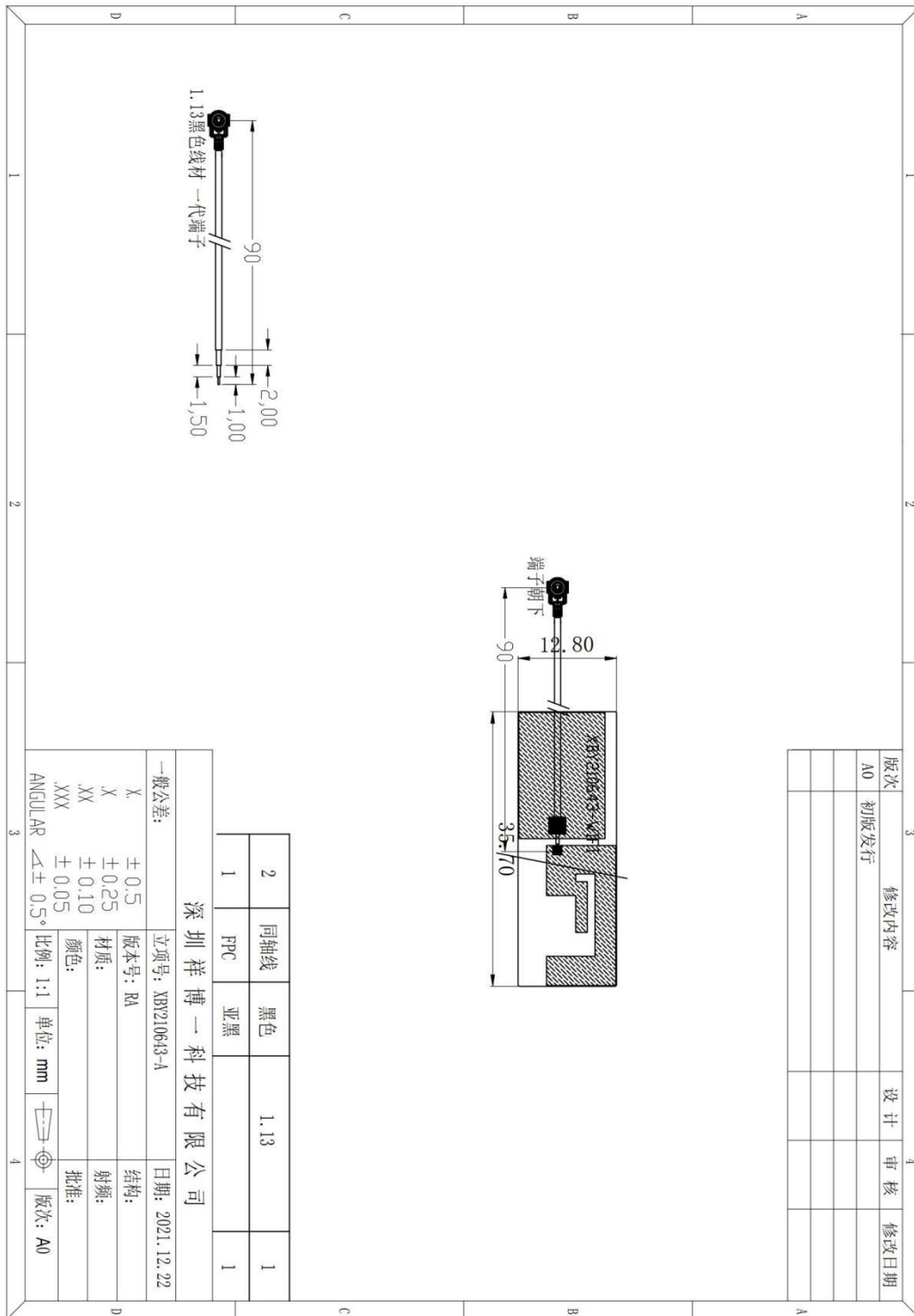
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6 Engineering Drawing



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7. Physical Assembly Picture



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