

Shenzhen Xiangboyi Technology Co. Ltd

Antenna Specification

Customer	SHENZHEN FCAR TECHNOLOGY CO., LTD
Project	HD3100PRO
Project NO	XBY220183

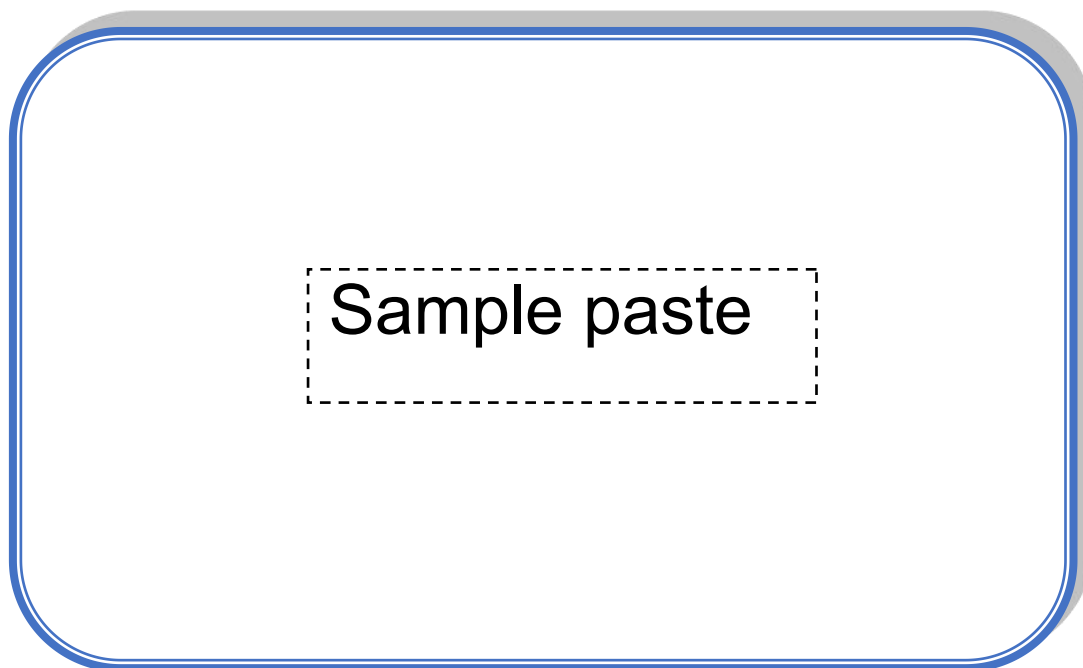
Shenzhen Xiangboyi Technology Co. Ltd

Date : 2022/9/29

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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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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 -

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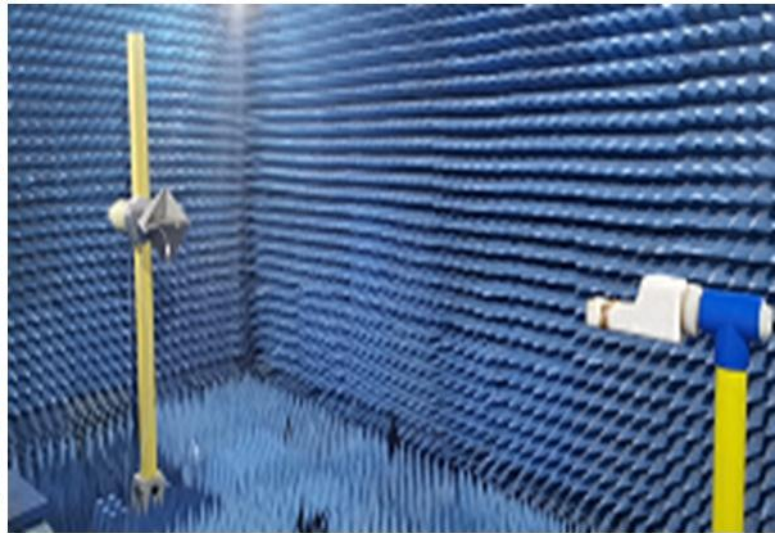
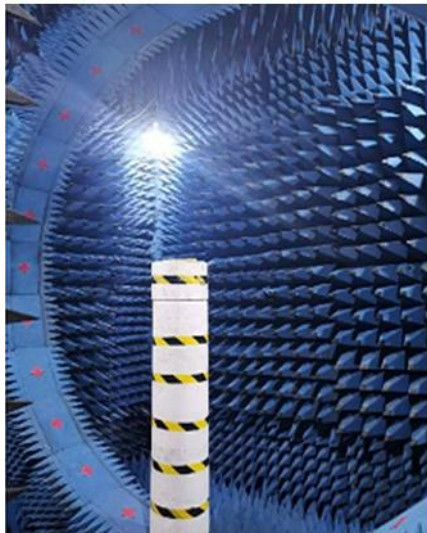
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1 Test System and Equipment

	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	
Range Of Frequency	2400-2500Mhz ;	
VSWR	2400-2500Mhz<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



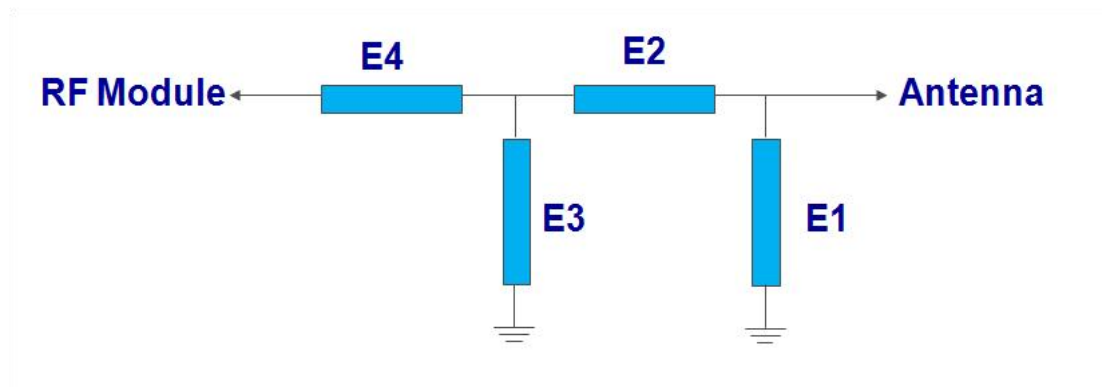
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4 Matching Circuits



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	13.3	14.51	13.05	10.79	10.05	10.04
TIS			-67.4			-65.43

WIFI BAND	802.11n : MCS7 (2.4G)					
Channel	CH1	CH6	CH11			
TRP	12.7	12.9	12.6			
TIS			-64.41			

WIFI天线效率，增益		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	46.86	1.81
2450	47.18	1.83
2500	46.47	1.7

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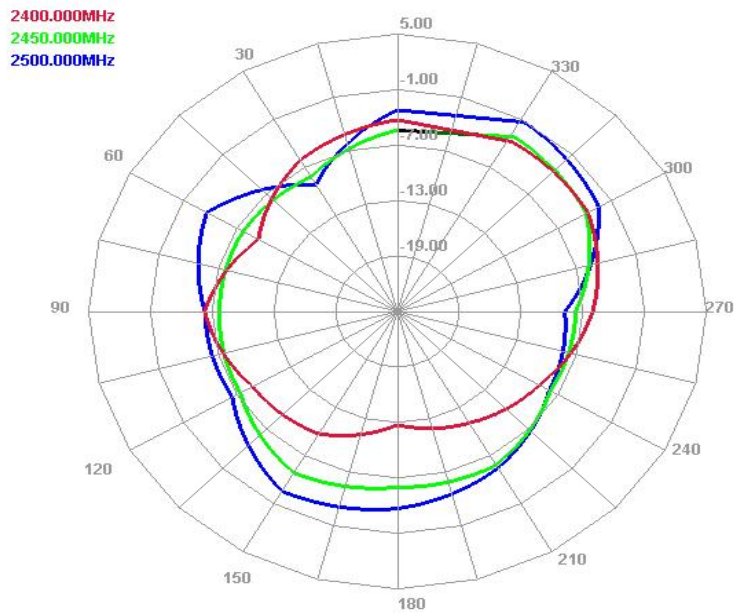
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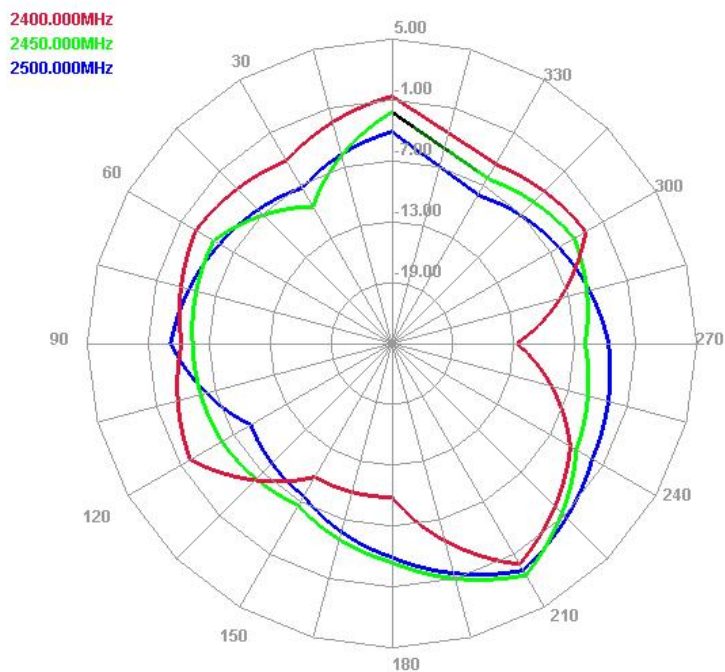
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WiF idirectional diagram; directivity diagram

Horizontal



E1 Face



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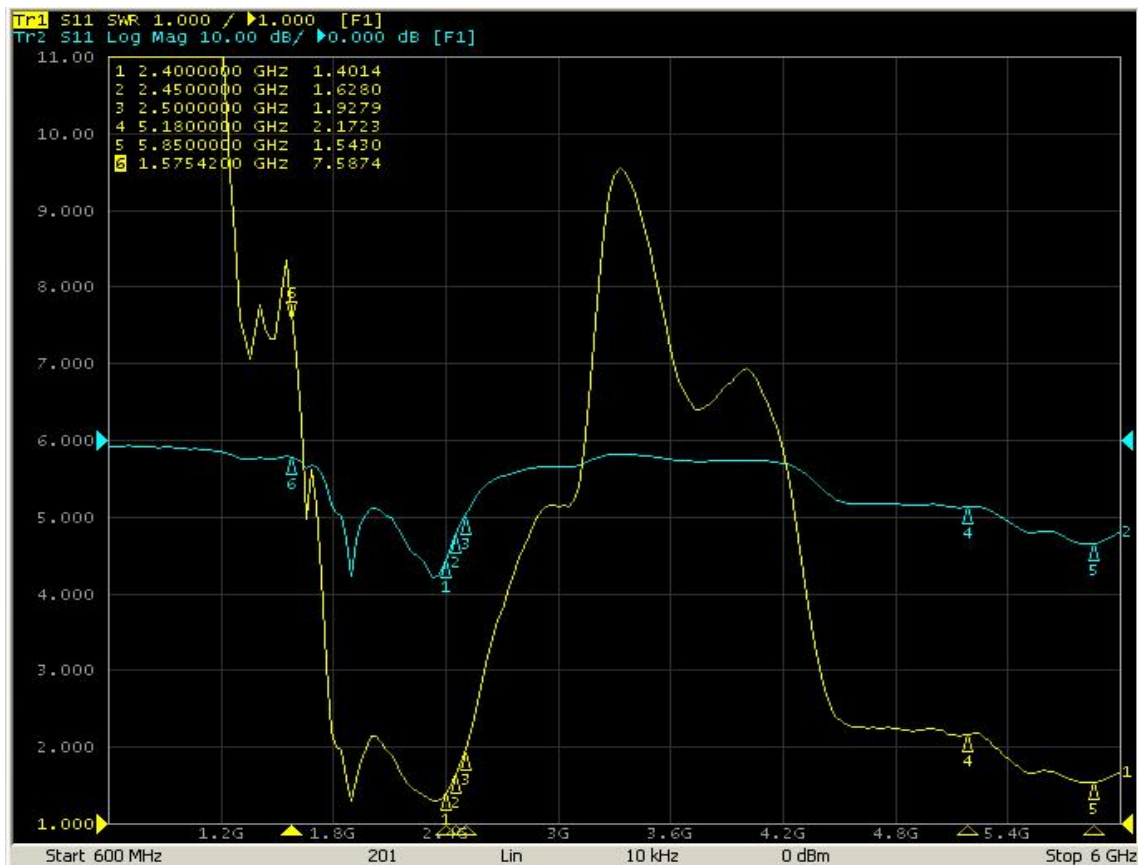
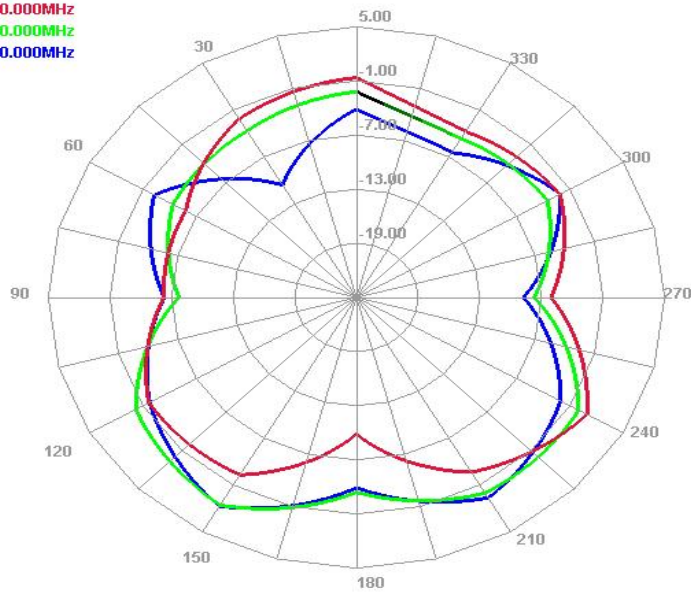
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E2 Face

2400.000MHz
2450.000MHz
2500.000MHz



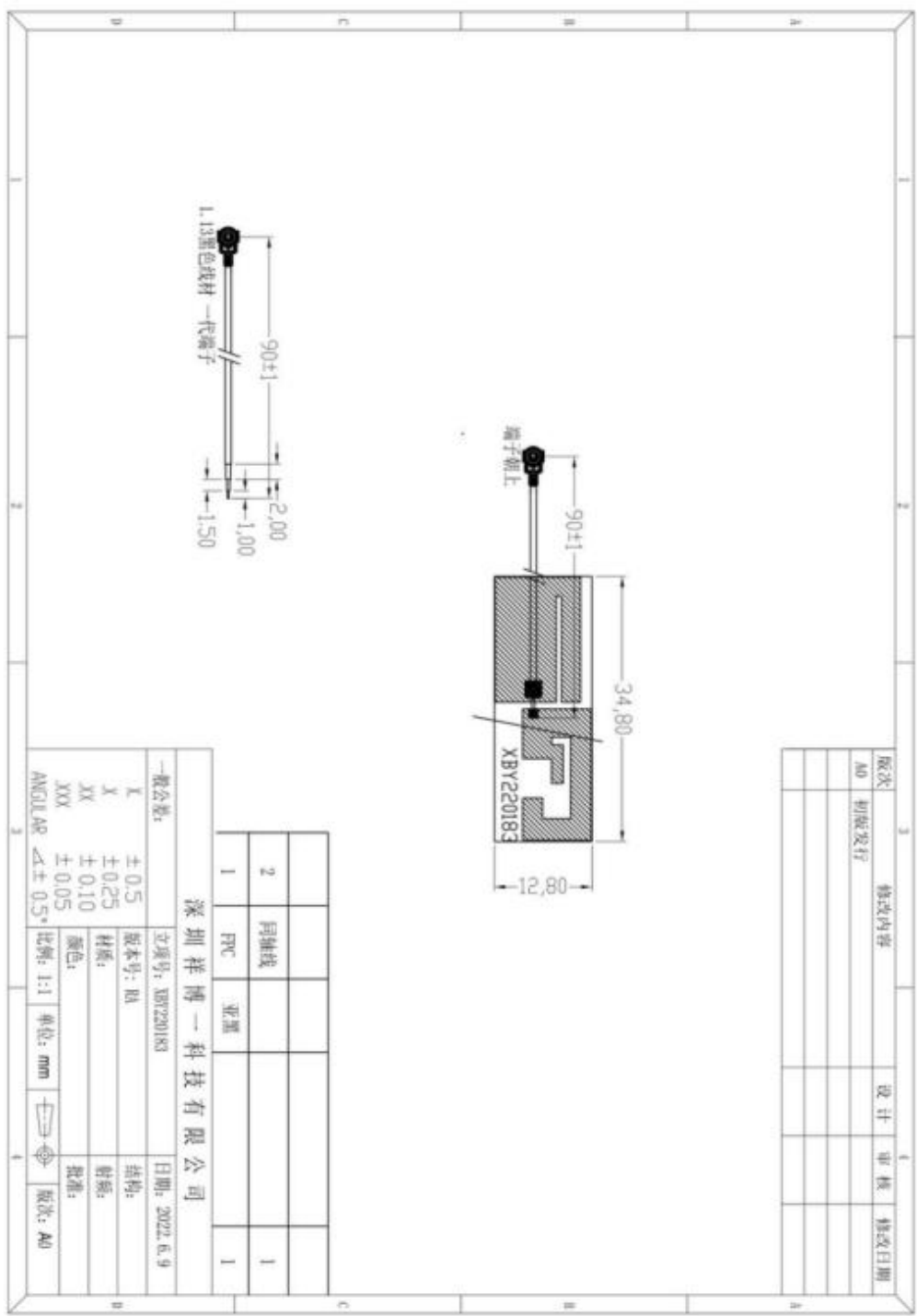
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6 Engineering Drawing



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7. Physical Assembly Picture



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