

Shenzhen Xiangboyi Technology Co. Ltd

Antenna Specification

Customer	SHENZHEN FCAR TECHNOLOGY CO., LTD
Project	HD430
Project NO	XBY240048

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 : 2024/4/15



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.....	- 5 -
4 Matching Circuits.....	- 6 -
5 Test Data.....	- 7 -
6 EngineeringDrawing.....	- 12 -
7 Physical Assembly Picture.....	- 13 -

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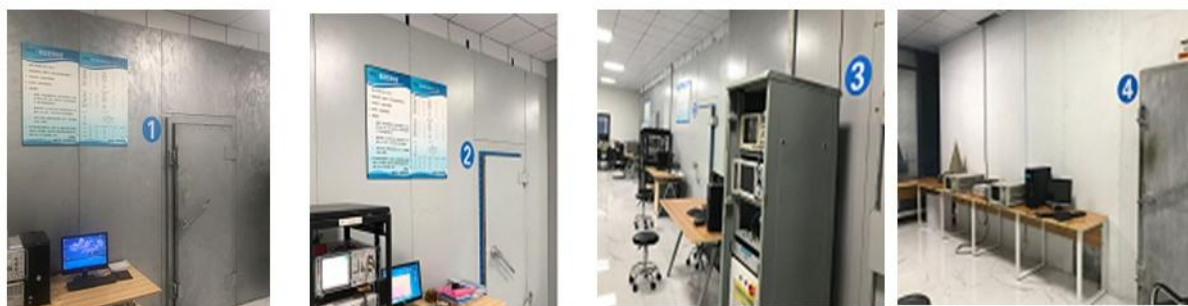
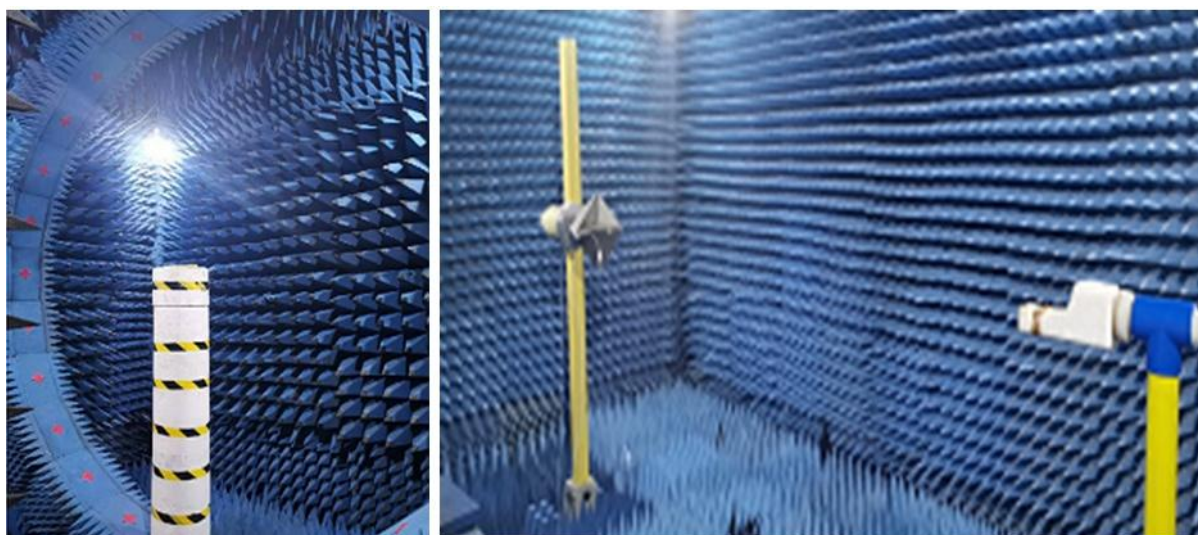
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1 Test System and Equipment

	Test items	equipment
1 : S parameter	<ol style="list-style-type: none"> 1. Return loss 2. VSWR 	Network analyzer: A338/A333/HP8753D
2 : Active test		Comprehensive test instrument: Agilent 8960/ CMW500
3 : Radiation mode and gain	<ol style="list-style-type: none"> 1. Radiation mode 2. Gain 	<ol style="list-style-type: none"> 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	

3 Device Description

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The whole machine photo



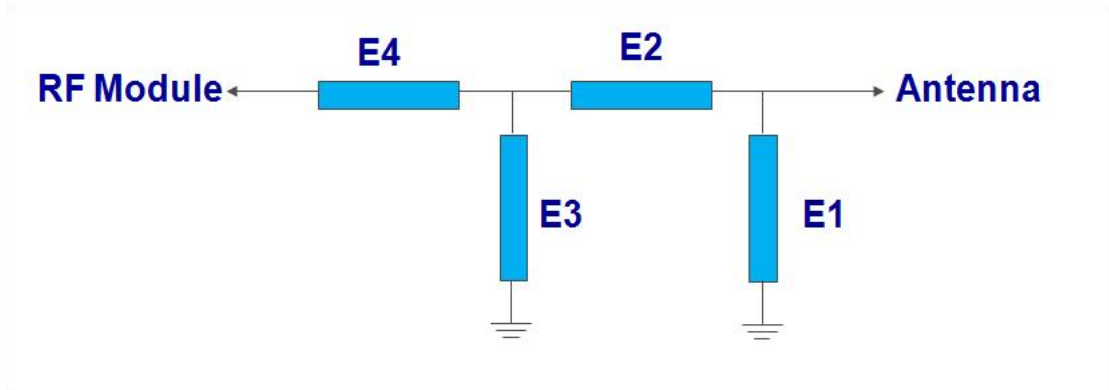
4 Matching Circuits

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

Original match unchanged.

5 Test Data

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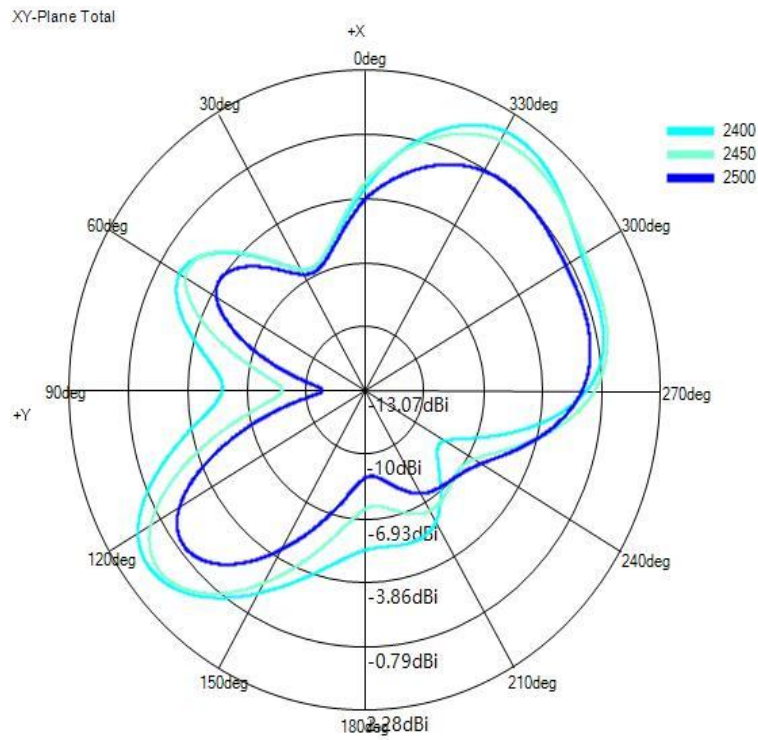
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Freq (MHz)	Gain (dBi)	Efficiency (%)
2400	2.23	56.51
2450	1.56	52.16
2500	1.25	42.28
5000	3.57	52.28
5100	3.94	58.29
5200	3.95	60.18
5300	3.38	51.9
5400	3.3	58.69
5500	3.05	54.65
5600	3.38	66.24
5700	2.56	59
5800	1.93	55.76
5900	1.88	51.56
6000	2.07	47.76

WiF directivity diagram



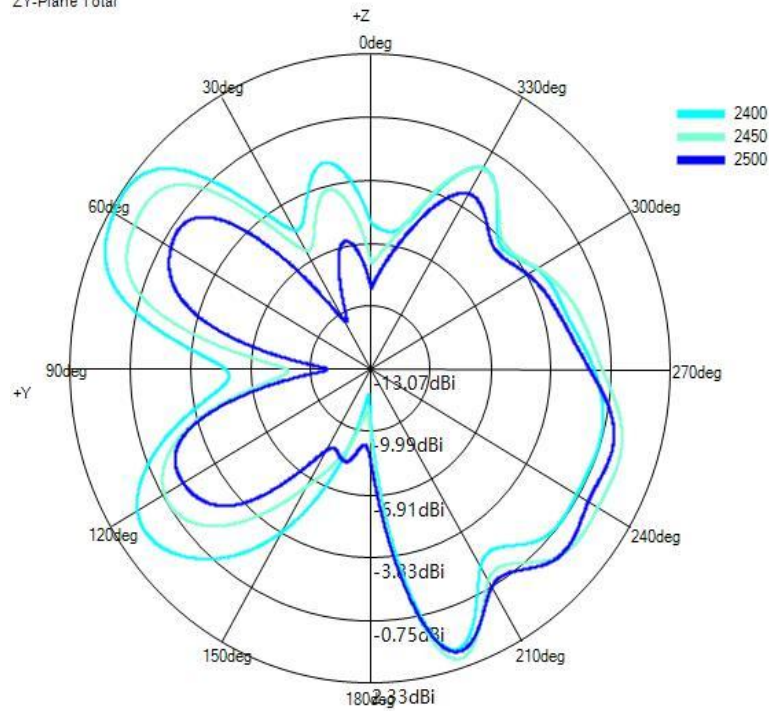
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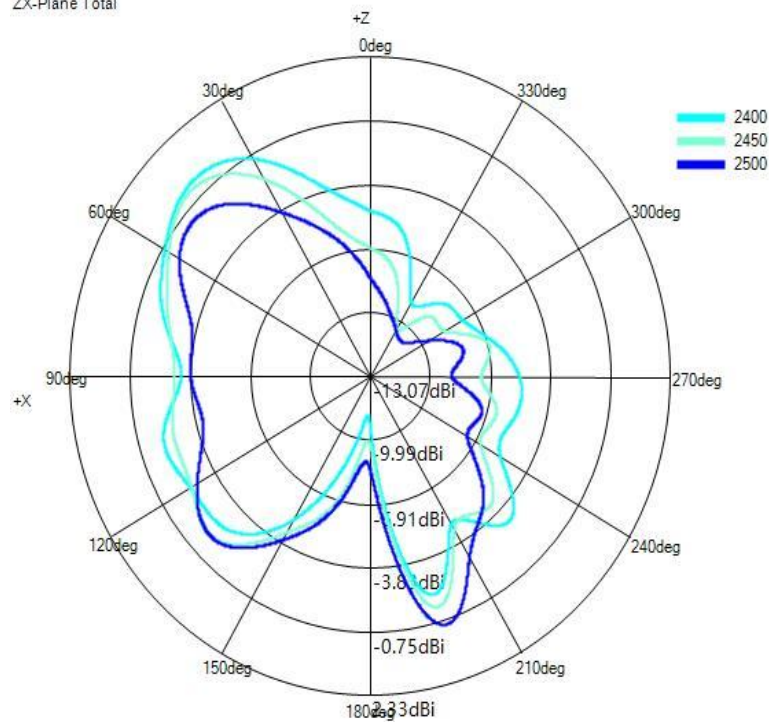
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ZY-Plane Total



ZX-Plane Total



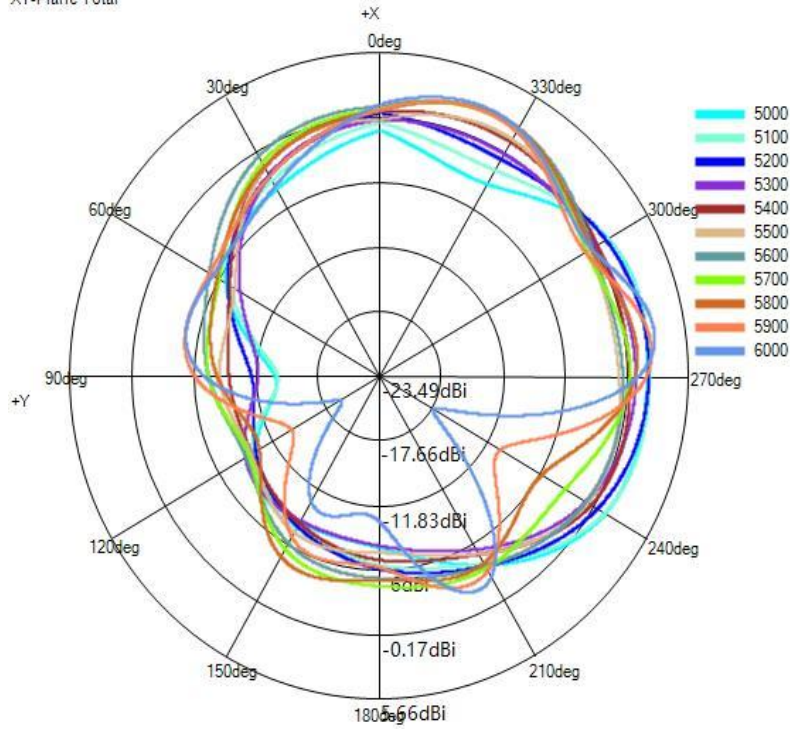
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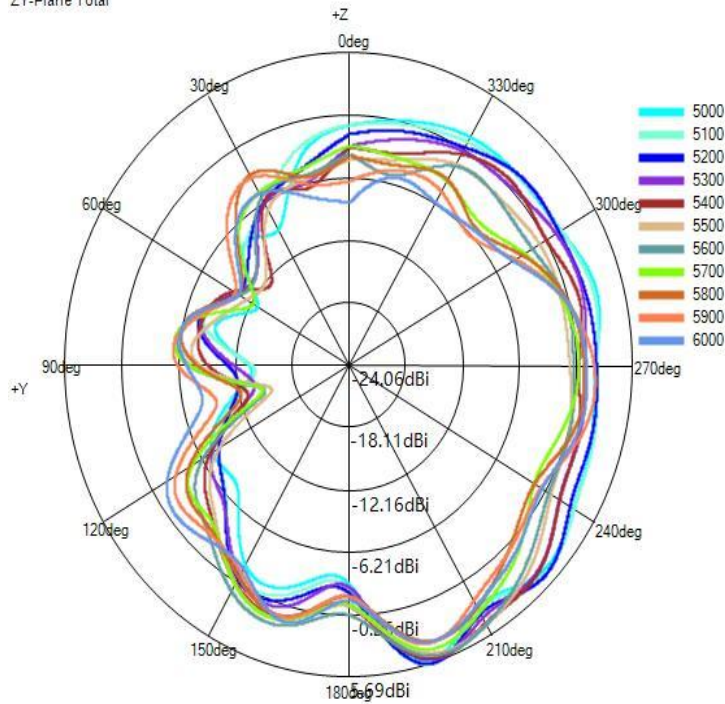
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XY-Plane Total



ZY-Plane Total

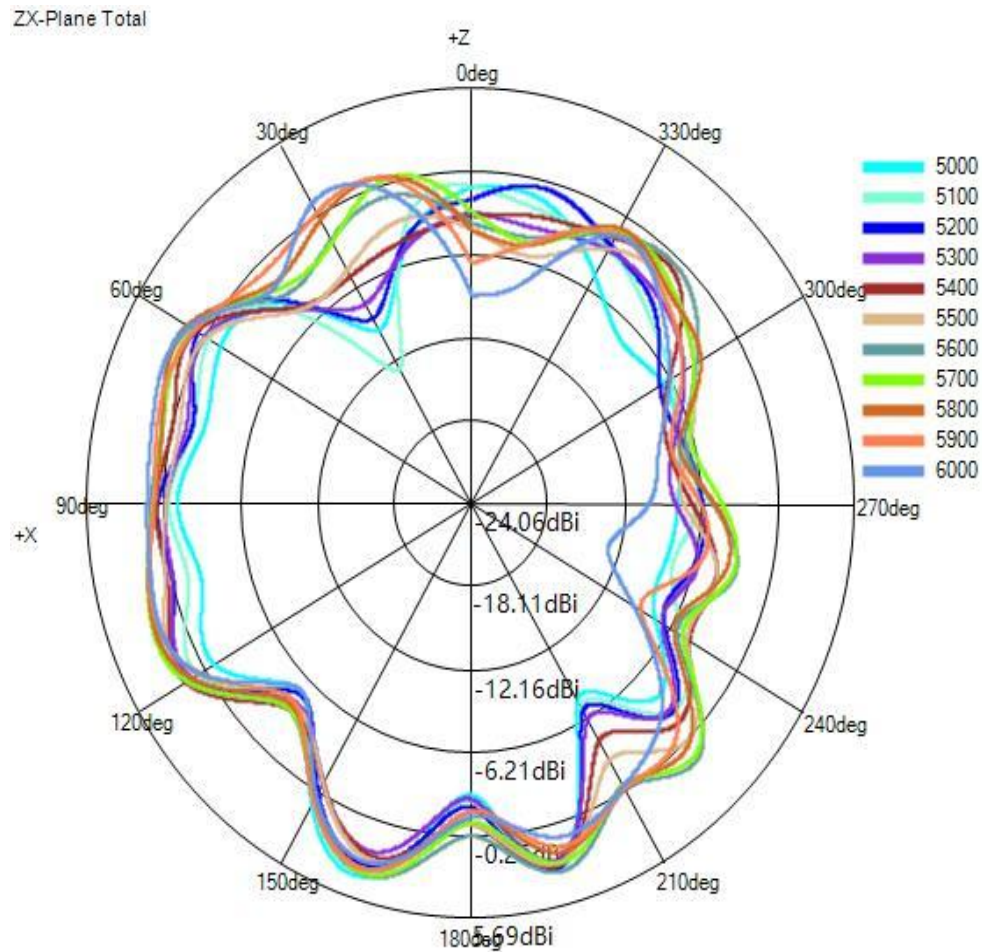


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Note: This antenna is only applicable to the motherboard version of the commissioning prototype. With changes or RF materials, peripheral components around the antenna, it must be tested and verified by our company.

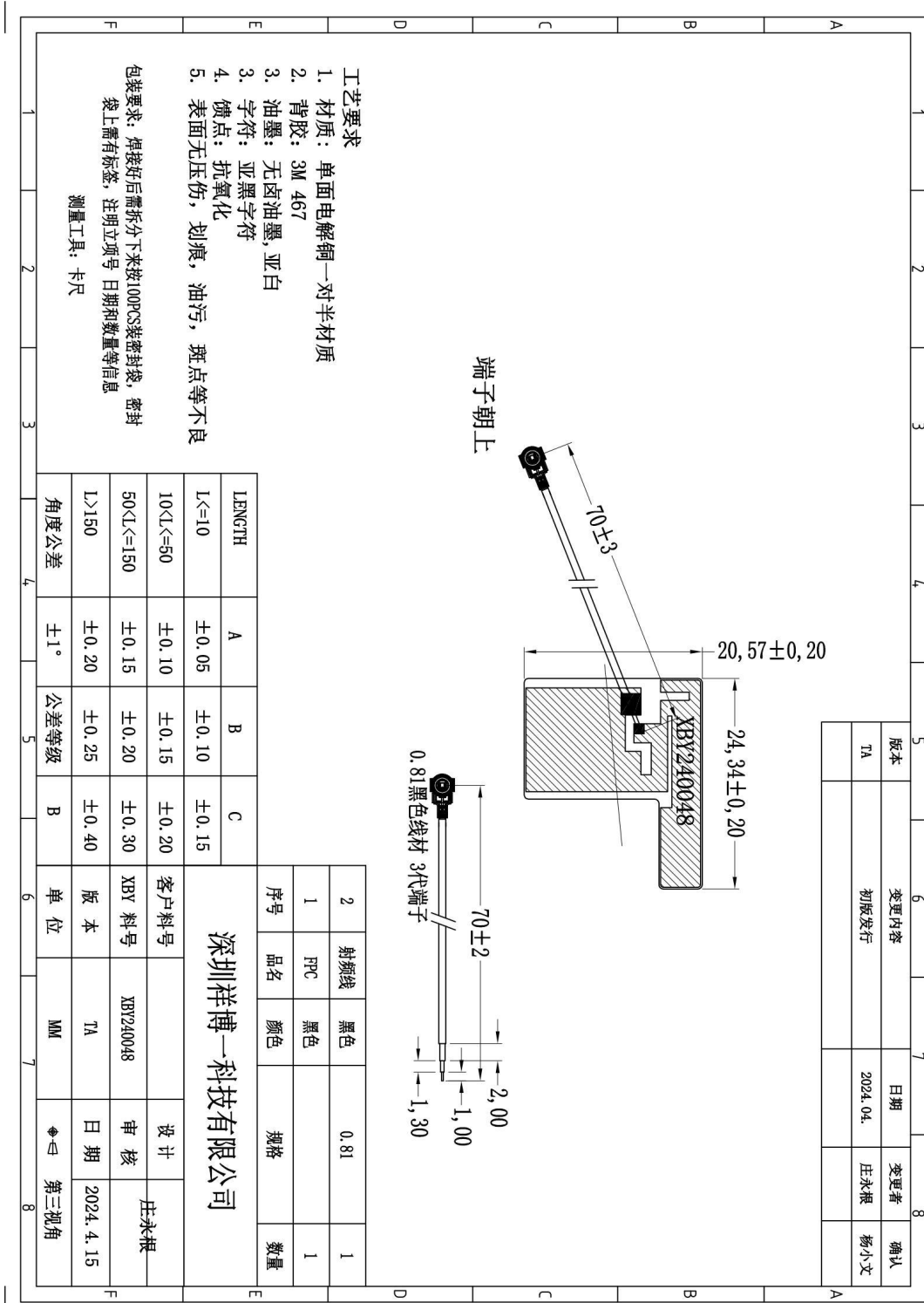
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6 Engineering Drawing



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7. Physical Assembly Picture



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