

SPECIFICATION FOR APPROVAL

(Product Acknowledgement)

Product Name: WIFI ANTENNA

Product model (original model): UB01C95F2D3610A

Customer's Material Name: WIFI Antenna UB01C95F2D3610A

Customer's "Specification Model": Frequency: 2.4GHZ_Built-in_FPC antenna_Black coaxial cable with terminal cable length L=95mm±3mm ROHS

Customer's "Material Code": 18600000009856

Changes to content:

Serial number	Content before change	Changed content	Change Date	Version	page number	Responsible Person
0	First edition	First edition	2023-1-11	A0	10	Eddy

Supplier Name: Dongguan Youbi Electronics Co., Ltd.		
Supplier address: Building 79 , New Sun Industrial City, No. 9 Xinfa Road, Lincun, Tangxia Town,		
Contact number: 0769-81777126	Fax: 0769-8177712 6	Email: zq@ub-rf.com
(Supplier's signature)		
Responsible person/date	Review/Date	Approval/Date

This letter of acknowledgment includes the following: (Each one is indispensable)

1. Cover
2. Parameter Specification
3. Structural dimensions
4. BOM
5. Packaging diagram
6. Production process flow chart
- VII . Certification Test Status

Customer Name: <u>Shenzhen Aoni Electronics Co., Ltd.</u>
Demander (customer) judgment result: <input type="checkbox"/> qualified <input type="checkbox"/> unqualified
Acknowledgement from the buyer (customer) (please sign the entire acknowledgment after confirmation)

Development Design Engineer/Date	SQE Engineer/Date	Purchasing Department Head/Date	Development Manager Approval/Date

2. Parameter Specification

1. Electrical performance parameters (Instructions for filling in: The relevant parameters of electrical performance must specify the unit, tolerance, and conditions)

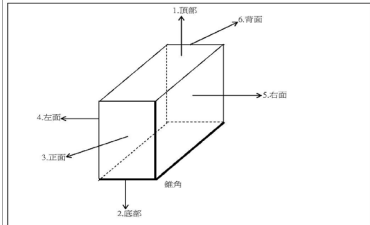
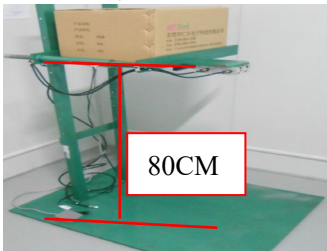
Serial number	project	Specifications	Test conditions
1	Frequency (MHz)	240 0 -250 0	Microwave darkroom
2	Gain test	≥ 1 dBi , ≤ 3 d Bi	Microwave darkroom
3	Efficiency test	≥ 3 0%, ≤ 60 %	Microwav e darkroom
4	Center frequency characteristic impedance (Ω)	50	Network Analyzer

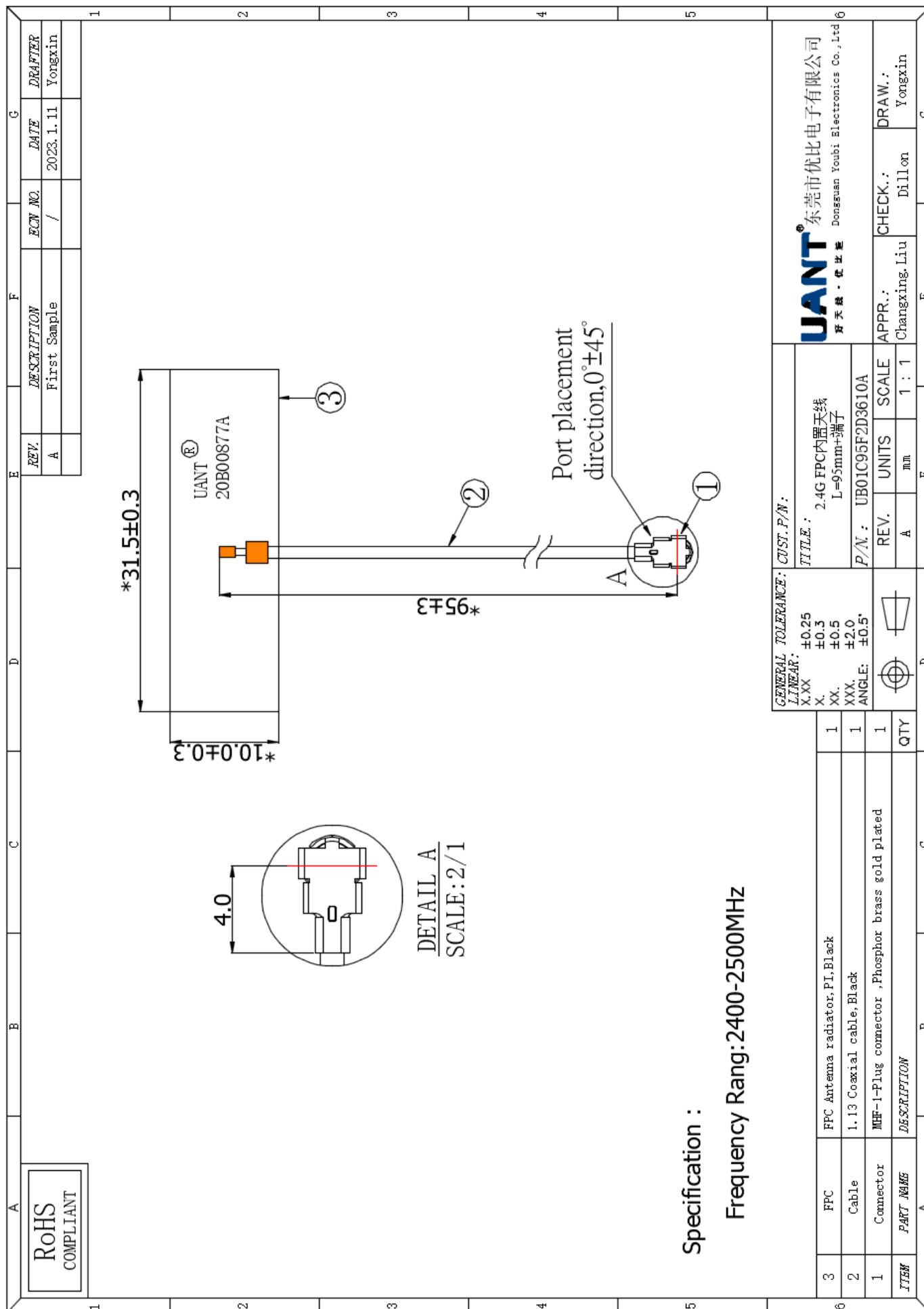
2. Mechanical performance parameters (Instructions for filling in: The relevant parameters of mechanical physical performance must specify the unit, tolerance, and conditions)

Serial number	project	Specifications	Test conditions
1	Cable length	95 ± 3 (mm)	Use a steel ruler to measure, if the length is within 95 ± 3 (mm) it is OK, otherwise it is NG.
2	FPC length	31.5 ± 0.3 (mm)	Use a digital caliper to measure. If the length is within 31.5 ± 0.3 (mm), it is OK. Otherwise, it is NG.
3	FPC width	10 ± 0.3 (mm)	Use a digital caliper to measure. If the width is within 10 ± 0.3 (mm), it is OK. Otherwise, it is NG.

3. Reliability test (Instructions for filling in: The relevant requirements of the reliability test must clearly state the items, conditions, and judgment criteria)

Serial num	project	Test conditions	Standard requirements

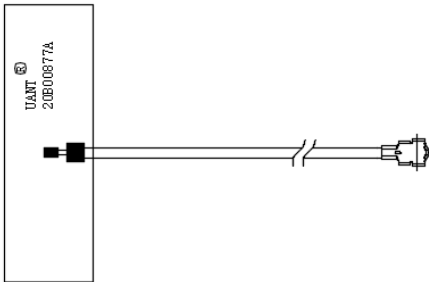





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1	Salt spray test	<p>Test specifications: Test temperature : 35 °C, salt solution concentration : 5% (the pH value of the salt solution after cooling is between 6.5 and 7.2), average amount of collected salt solution : 1.0 to 2.0 (ml/hr) , test time : 48 hours (terminal) / 8 hours (wire)</p> <p>Experimental method: Pour the prepared salt water into the test liquid storage bucket, place the object to be tested on the test rack , then close the test cover and pour water into the sealing groove until there is no gap . After the test for 48H/8H , if there is no oxidation on the surface of the product visually, it is OK, otherwise it is NG.</p>	48H/8H, there is no oxidation on the product surface and the electrical test is OK.
2	Terminal pull test	<p>Test method: Adjust the height of the upper and lower cross arms to make the distance between the clamps appropriate; clamp the upper end of the test piece with the upper clamp , and press the zeroing button to return the pointer to zero; Press the dynamometer pointer lock switch; clamp the lower end of the specimen with the lower fixture; rotate the hand wheel to lower the lower cross arm to stretch the specimen;</p>	If the tensile force value read on the tensile gauge is $\geq 1\text{KG}$, it is judged as OK, otherwise it is NG.
3	Terminal pull-out test	<p>Test method: snap the terminal into the terminal holder, shake the hand wheel to move the jaws of the pull-out test fixture to the appropriate position; open the jaws to hook the back of the terminal. Return the pointer to zero and shake the hand wheel to start the test.</p>	If the tensile force value read on the tensile gauge is within the range of 0.8-1.5KG, it is judged as OK, otherwise it is NG.
4	Drop test	<p>Test conditions:</p> <p>1. Drop the six sides of the carton (as shown in Figure 1)</p>  <p>Figure 1</p> <p>2. The distance between the product and the ground steel plate is 80 CM (As shown in Figure 2)</p>  <p>Figure 2</p> <p>Test method:</p> <p>1. First, fix the packaging box to be tested on the product bracket to fix the test sample. The clamping force should be</p>	<p>1. After the test, the packaging box should not be obviously damaged.</p> <p>2. After testing, inspect the product and make sure there are no defects in electrical and external inspection.</p>



Serial number	Sub-item material name	Material	Specifications/Models	brand	Supplier Name	Dosage
1	FPC	PI	31.5 mm long * 10 mm wide	\	QG	1PCS
2	Terminals	Phosphor bronze gold plated	1.13 Generation Terminal	\	CM	1PCS
3	Wire	FEP/Silver-plated copper	RF-1.13	\	SY	1PCS
4	PE bag	PE	Choose the appropriate specifications	\	Tanglong	1 /200 PCS
5	Carton	\	Choose the appropriate specifications	\	Jiulongda	/

5. Packaging diagram (Instructions: The inserted picture must be clearly visible)

1. Packaging photos (pictures) :

1. Photos or images of individual material packaging	2. Photos or pictures of the inner packaging in a single layer																												
<div></div> <div>Remark:</div>	<div></div> <div>Remark:</div>																												
3. Photos or pictures of the outer packaging	4. Supplier material packaging anti-counterfeiting mark																												
<div></div> <div>Remark:</div>	<div><table><tr><th colspan="4"> 装 箱 清 单</th></tr><tr><td>供方名称</td><td>东莞优比电子有限公司</td><td>商 标</td><td>UB</td></tr><tr><td>合同单号</td><td></td><td>数 量</td><td></td></tr><tr><td>物料名称</td><td></td><td>颜 色</td><td></td></tr><tr><td>物料编码</td><td></td><td>检 验 员</td><td></td></tr><tr><td>生产班组</td><td></td><td>领 班</td><td></td></tr><tr><td>原料名称</td><td></td><td>日 期</td><td></td></tr></table></div> <div>Remark:</div>	 装 箱 清 单				供方名称	东莞优比电子有限公司	商 标	UB	合同单号		数 量		物料名称		颜 色		物料编码		检 验 员		生产班组		领 班		原料名称		日 期	
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【Supplier material coding rules】：

General process finished product coding rules:

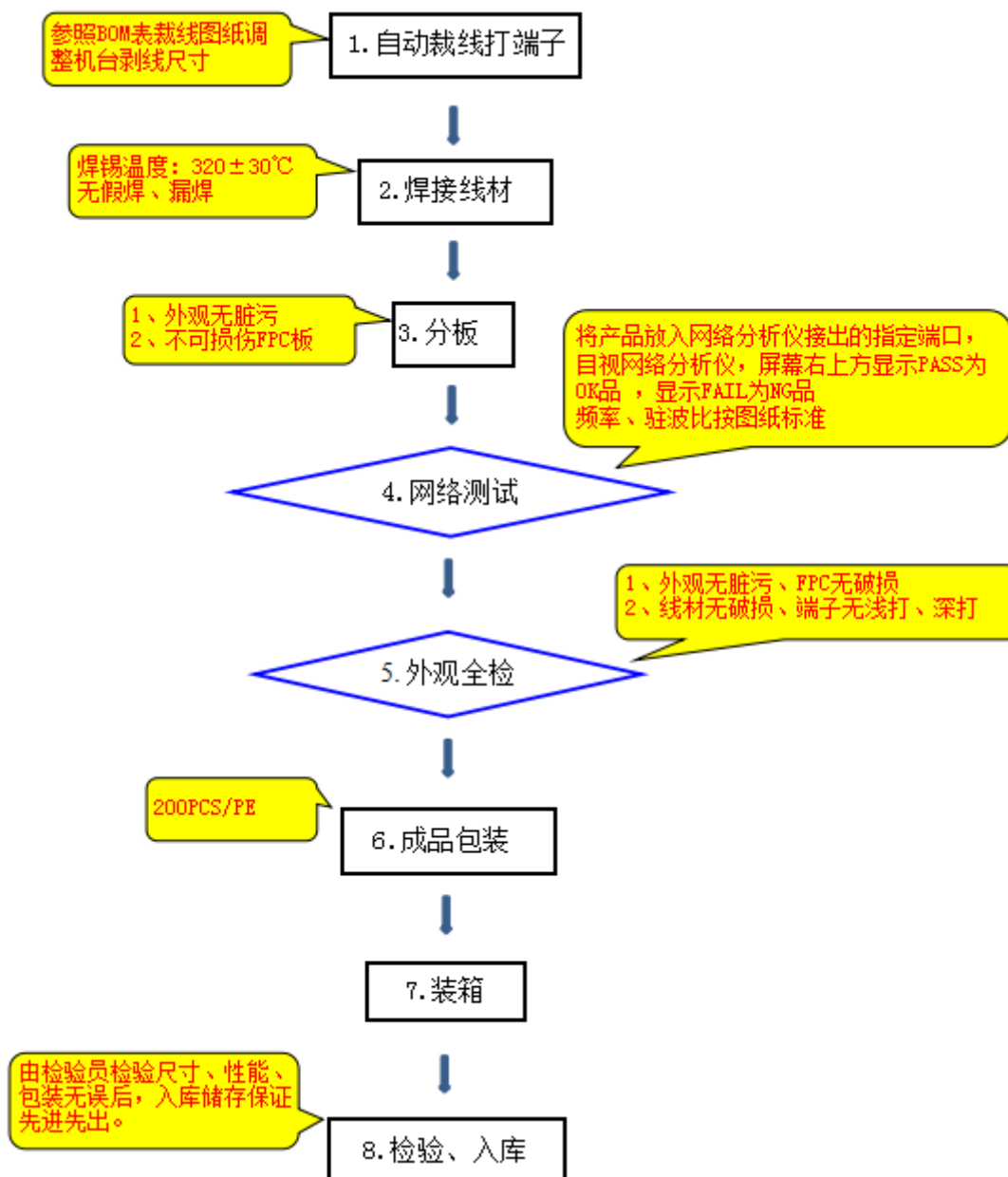
UB + 01 + C + 95 + F + 2 D + 3610 + A

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

1. UB represents antenna products;
2. Finished product categories: 01 is for terminal built-in products;
3. Connection code: C is for outgoing wire connection ;

4. 95 represents the length of the wire
5. Material and color description: F stands for FPC ;
6. Gain description: Gain number + D (DBi);
7. Serial number: 1 to 9999999999;
8. Version number: Version A is coded as A.

6. Production process flow chart (filling instructions: the entire production process must be indicated, please especially indicate the key workstations)



VII . Certification and testing status (Instructions for filling in: If relevant testing and certification have been done, please tick in the brackets and indicate the corresponding certification or report number)

- () UL Certification or report number ;
- () VDE Certification or report number ;
- () CE Certification or report number ;
- () FCC Certification or report number ;
- (☒) ROHS Certification or report number : A2220006213101E
- () REACH Certification or report number : _____
- () EMC Certification or report number ;

- () CCC Certification or report number ;
 () SRRC Certification or report number ;
 () Other Certification or report number ;
 () No product certification



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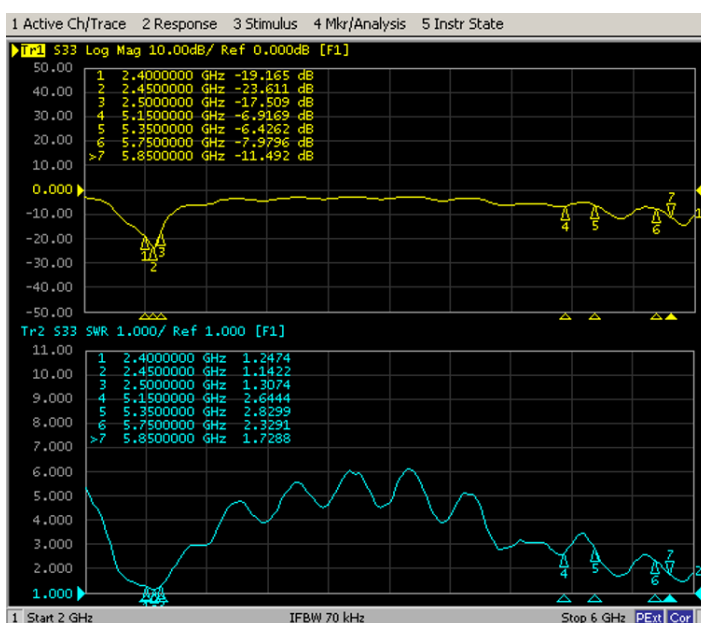
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Dongguan Youbi Electronics Co., Ltd

1. S Parameter

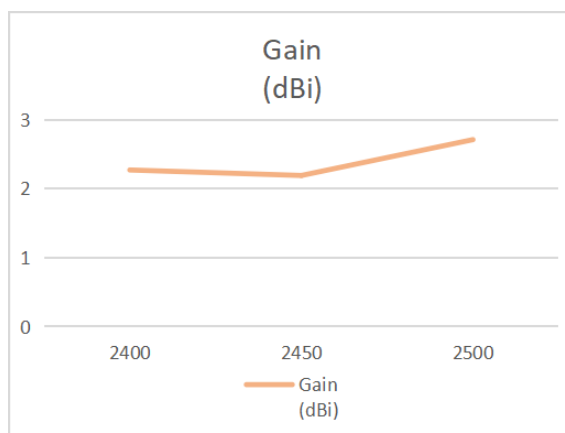
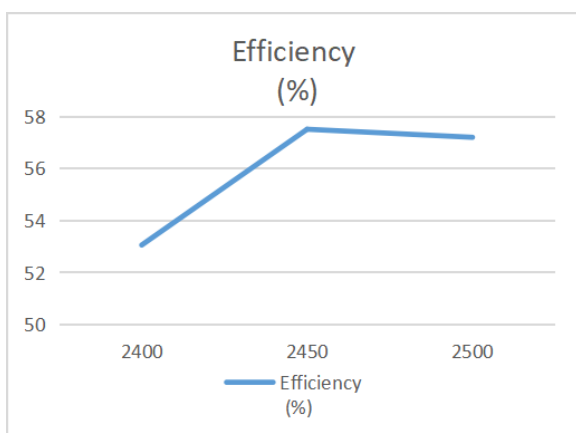
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-19.16	1.24
2450	-23.61	1.14
2500	-17.50	1.30

* Voltage Standing Wave Ratio(VSWR)
 Return Loss(RL)
 $RL = 20 \cdot \log_{10}[(VSWR+1)/(VSWR-1)]$



2. Efficiency and Gain

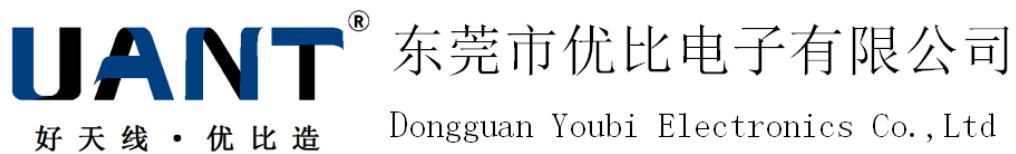
Frequency (MHz)	2400	2450	2500
Efficiency (%)	53.06	57.51	57.2
Gain (dBi)	2.27	2.19	2.71



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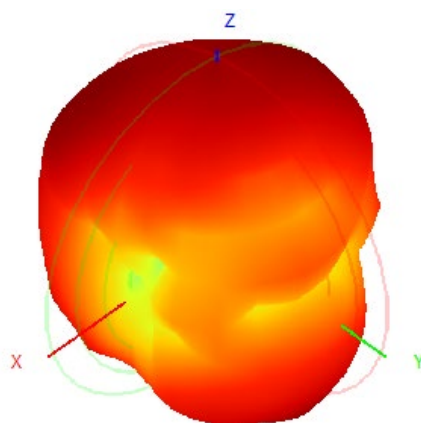
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Room 106,Building 3,Letong Science Park, Room 106, Building A,Xinzheng Industrial Park,
No.500 Qiuyi Road,Binjiang District 57 Liuxian Road, Bao'an District, Shenzhen

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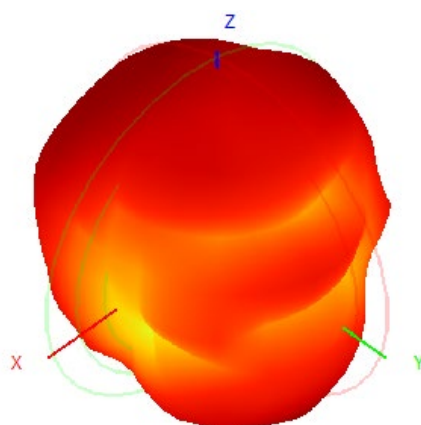


3. Radiation Pattern

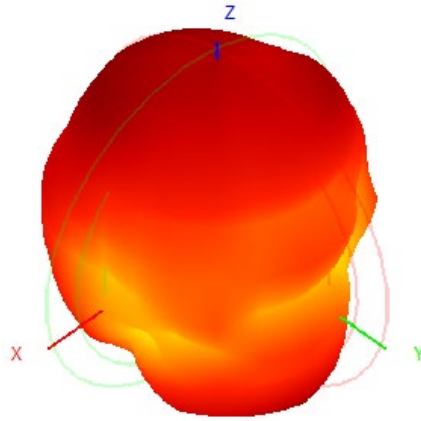
3-1 Antenna 3D Radiation Pattern



2400MHz



2450MHz



2500MHz

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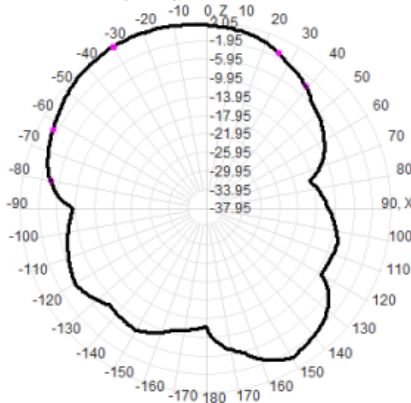
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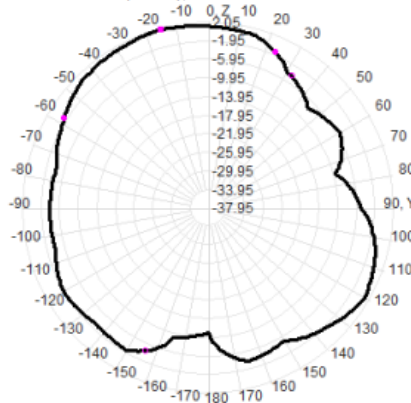
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3-2 Antenna 2D Radiation Pattern

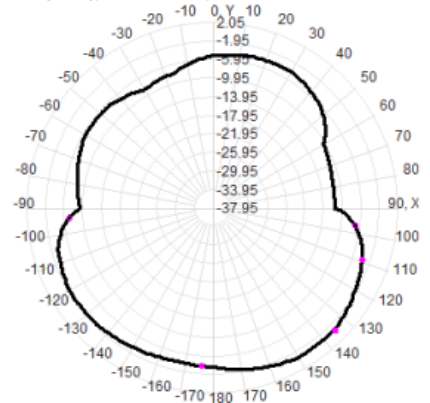
2400.0MHz Total(E1-XZ), Max= 2.05dBi



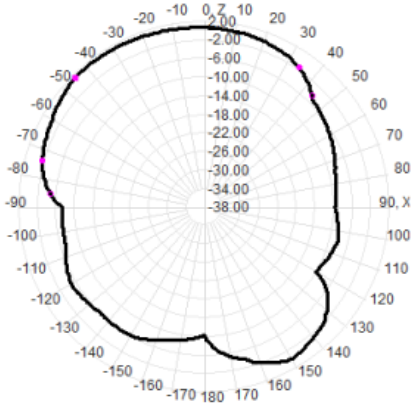
2400.0MHz Total(E2-YZ), Max= 1.72dBi



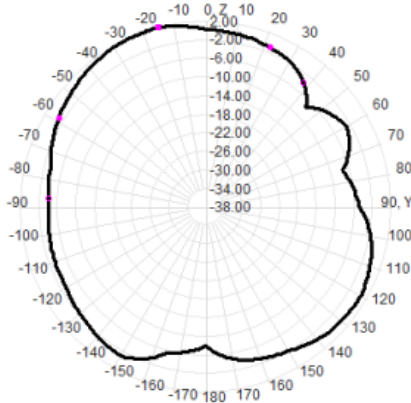
Total(H-XY), Max=-0.95dBi, CirD=10.87



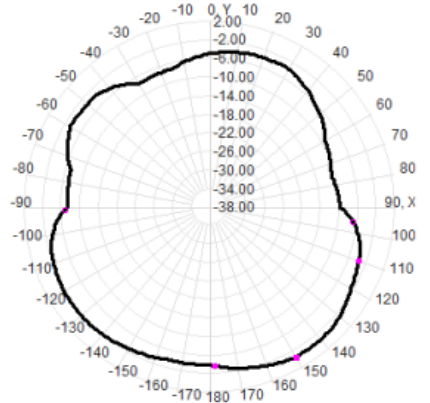
2450.0MHz Total(E1-XZ), Max= 1.33dBi

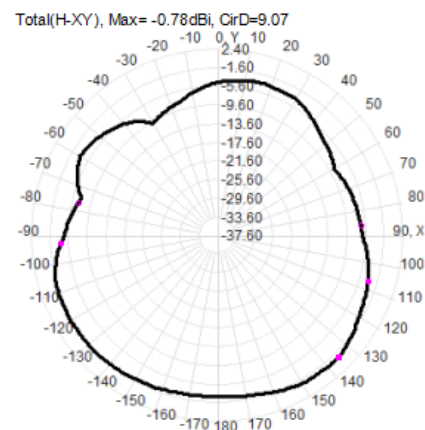
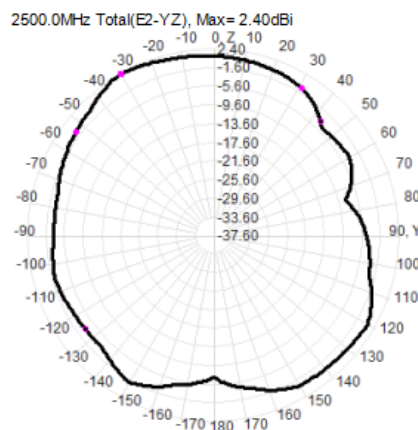
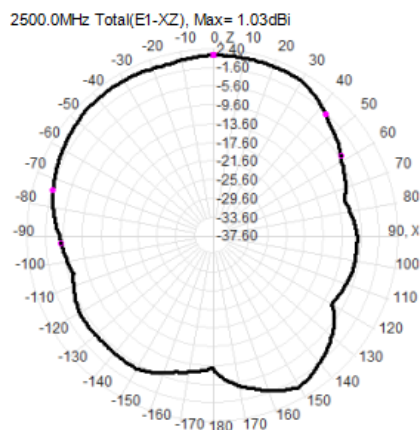


2450.0MHz Total(E2-YZ), Max= 2.00dBi



Total(H-XY), Max= -0.80dBi, CirD=10.16





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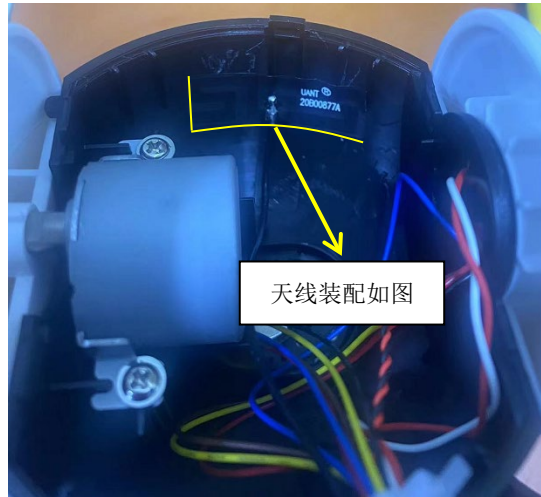
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4. Active test data

Item	Measurement	Total
1	TRP	17.52
6	TRP	18.01
11	TRP	17.22
1	TIS	-91.31
6	TIS	-90.88
11	TIS	-92.24

5. Antenna installation diagram



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