

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: ☐ qualified ☐ 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)

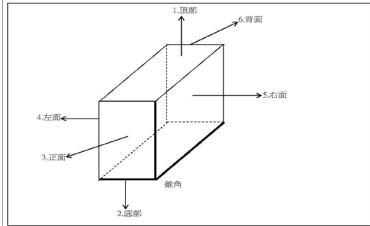
Serial number	project	Specifications	Test conditions
1	Frequency (MHz)	240 0 -250 0	Microwave darkroom
2	Gain test	≥ 1 dBi , ≤ 3 d Bi	Microwave darkroom
3	Efficiency test	≥ 3 0%, ≤ 60 %	Microwav e darkroom
4	Center frequency characteristic impedance (Ω)	50	Network Analyzer

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.

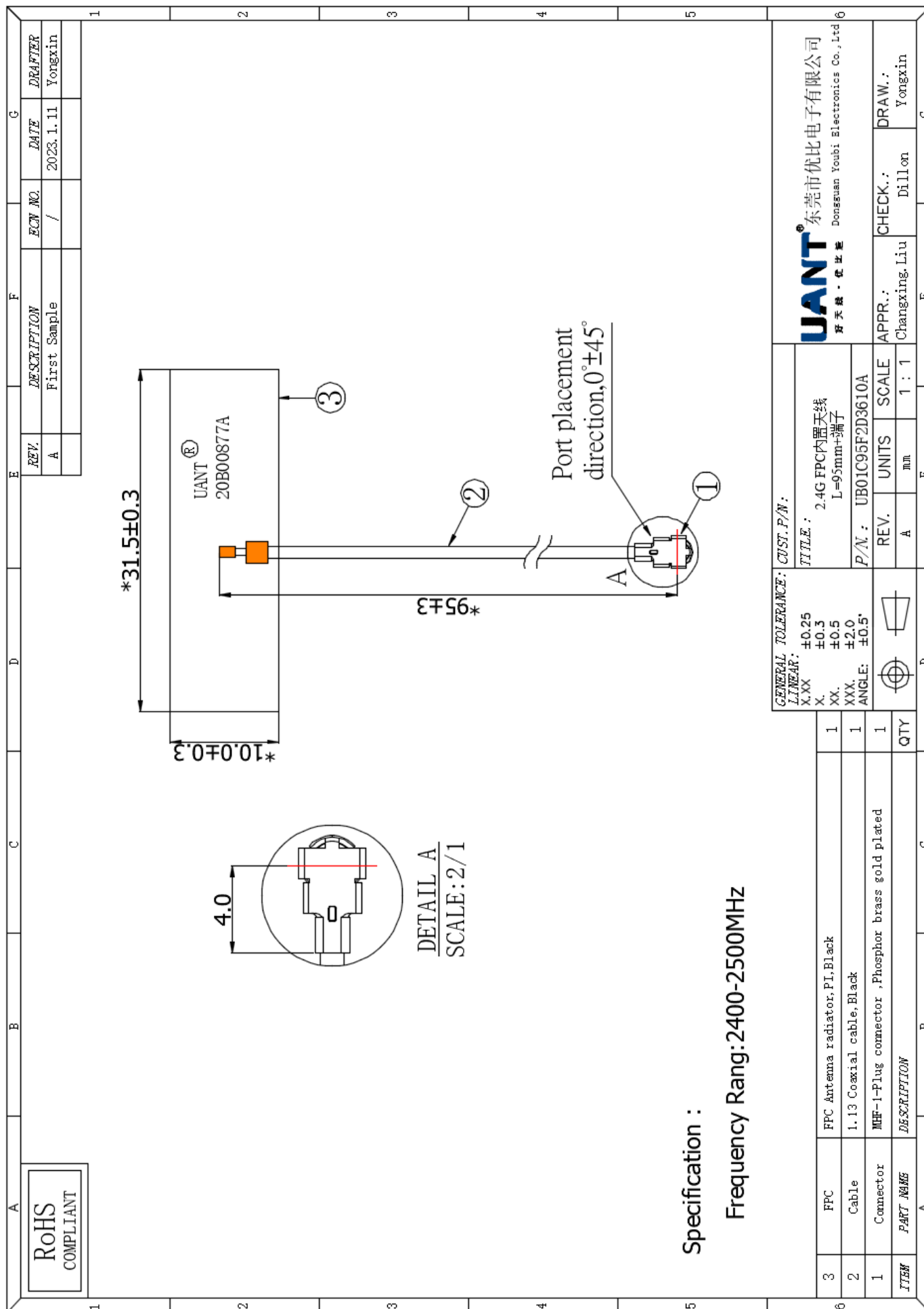
3. Reliability test (Instructions for filling in: The relevant requirements of the reliability test must clearly state the items, conditions, and judgment criteria)

Serial num	project	Test conditions	Standard requirements

ber			
1	Salt spray test	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) 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.	48H/8H, there is no oxidation on the product surface and the electrical test is OK.
2	Terminal pull test	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;	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	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.	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	Test conditions: 1. Drop the six sides of the carton (as shown in Figure 1)  Figure 1 2. The distance between the product and the ground steel plate is 80 CM (As shown in Figure 2)  Figure 2 Test method: 1. First, fix the packaging box to be tested on the product bracket to fix the test sample. The clamping force should be	1. After the test, the packaging box should not be obviously damaged. 2. After testing, inspect the product and make sure there are no defects in electrical and external inspection.

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3. Structural dimension drawing (CAD drawing)

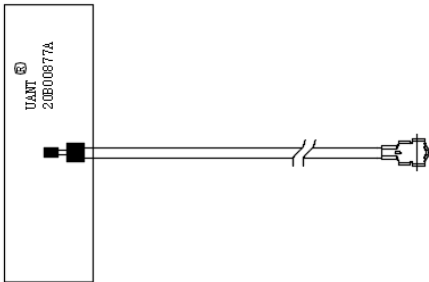


4. BOM (Bill of Materials)

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																												
 Remark:	 Remark:																												
3. Photos or pictures of the outer packaging	4. Supplier material packaging anti-counterfeiting mark																												
 Remark:	<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> Remark:	 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:

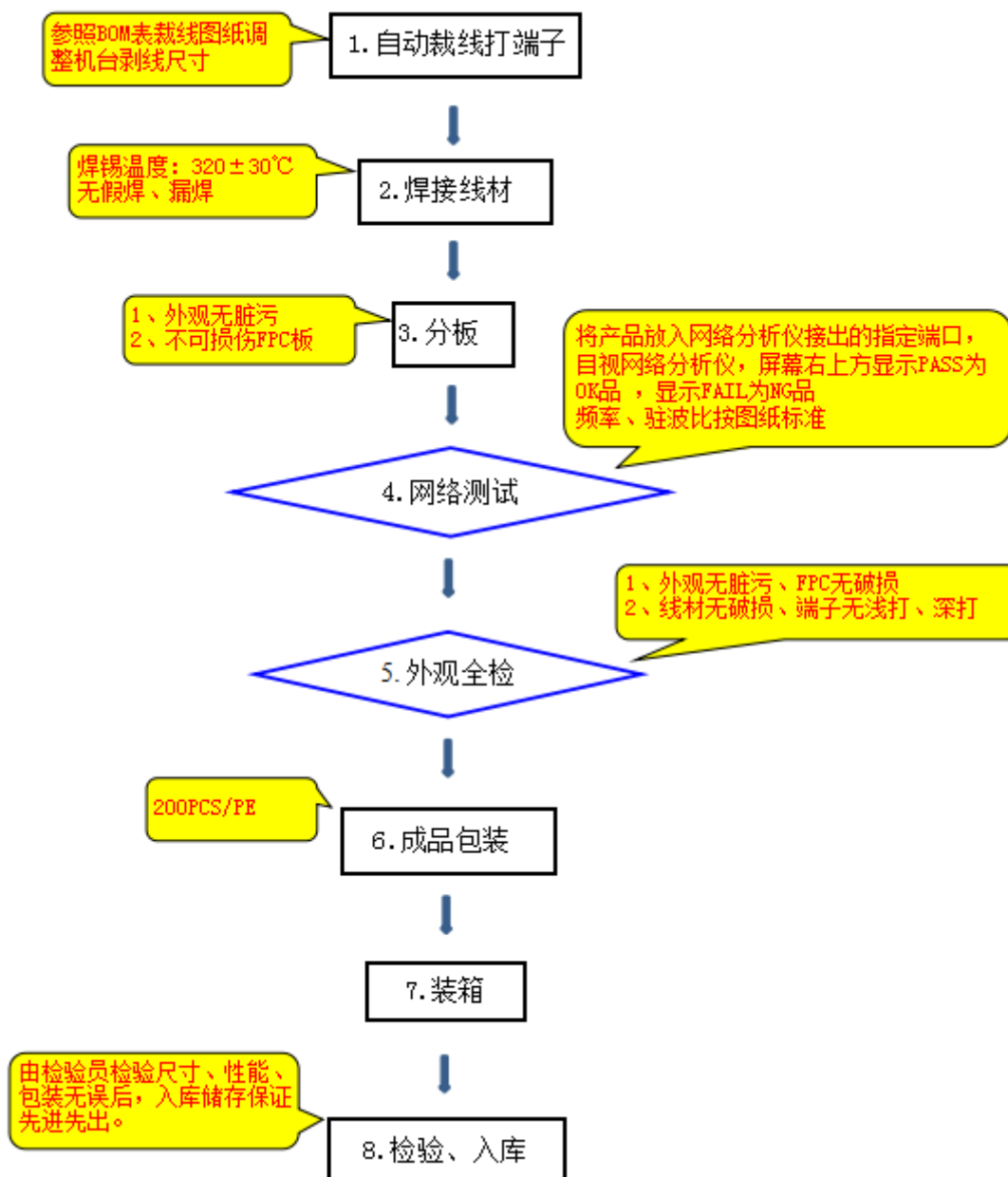
UB + 01 + C + 95 + F + 2 D + 3610 + A

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



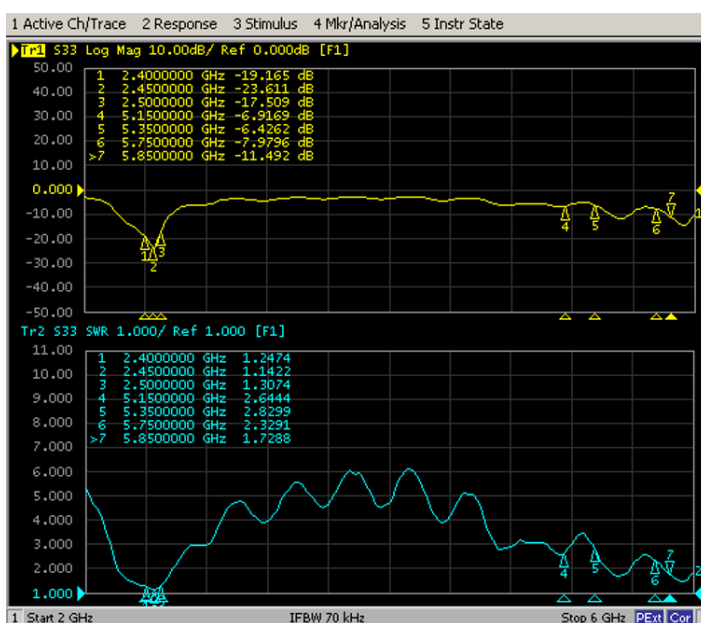
东莞市优比电子有限公司

Dongguan Youbi Electronics Co., Ltd

1. S Parameter

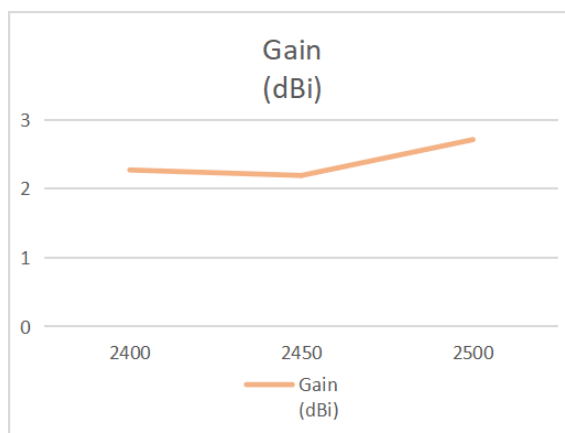
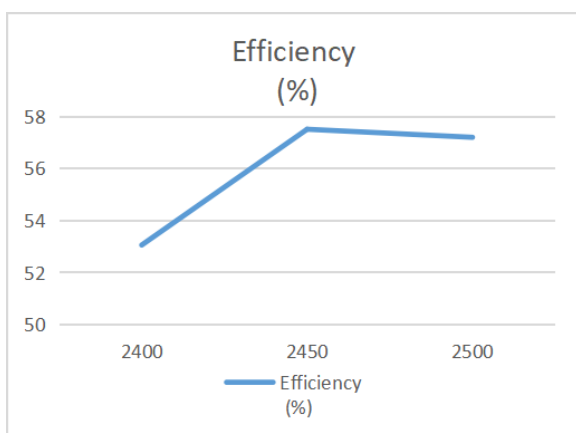
Frequency (MHz)	Return Loss (dB)	VSWR
2400	-19.16	1.24
2450	-23.61	1.14
2500	-17.50	1.30

* 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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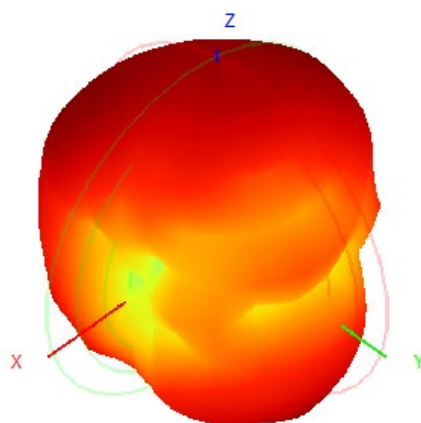
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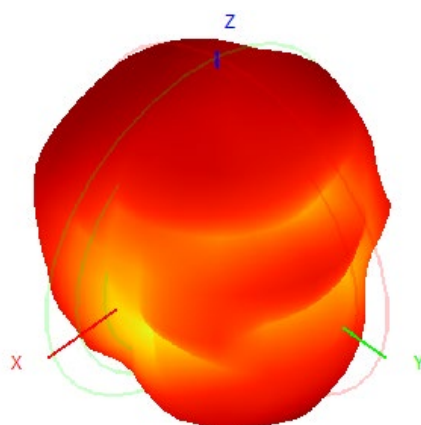
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3. Radiation Pattern

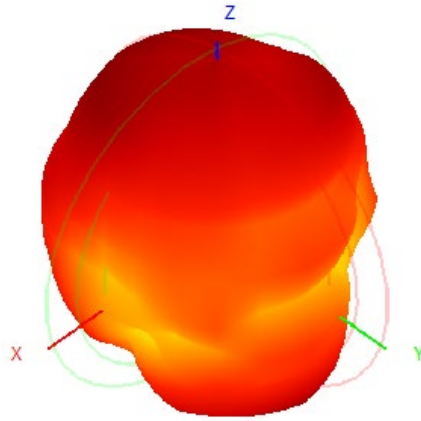
3-1 Antenna 3D Radiation Pattern



2400MHz



2450MHz



2500MHz

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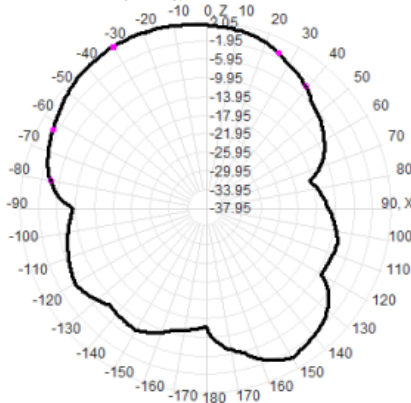
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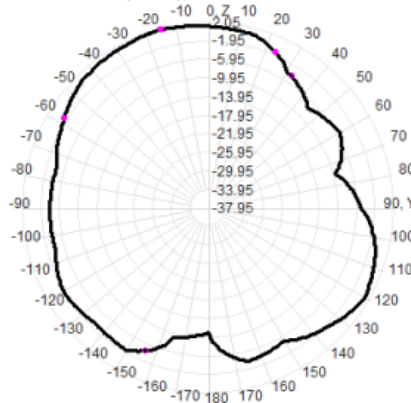
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3-2 Antenna 2D Radiation Pattern

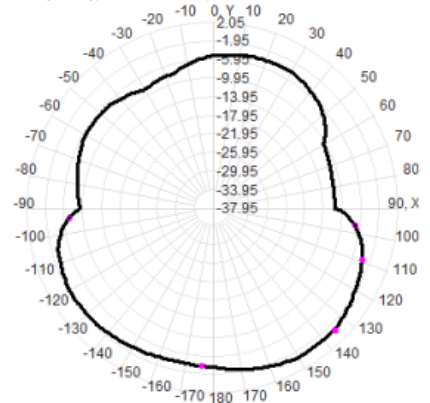
2400.0MHz Total(E1-XZ), Max= 2.05dBi



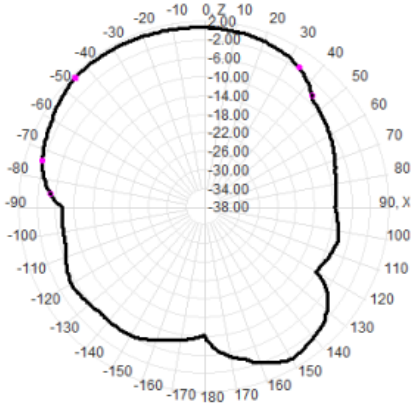
2400.0MHz Total(E2-YZ), Max= 1.72dBi



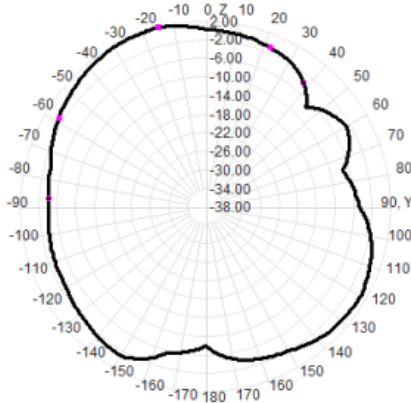
Total(H-XY), Max=-0.95dBi, CirD=10.87



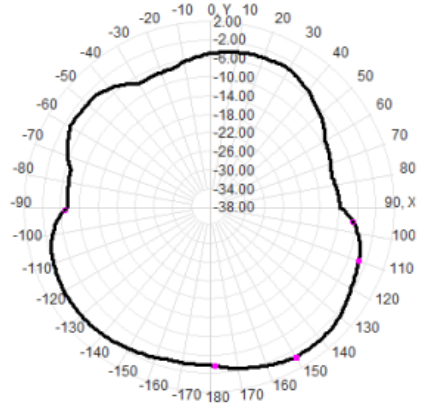
2450.0MHz Total(E1-XZ), Max= 1.33dBi

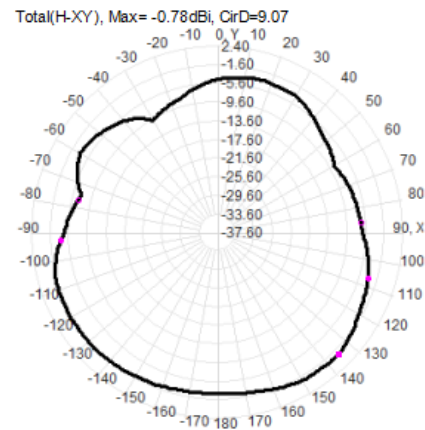
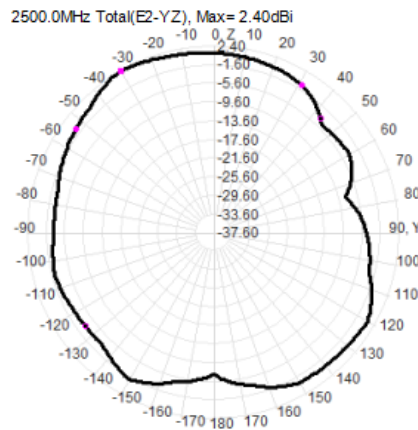
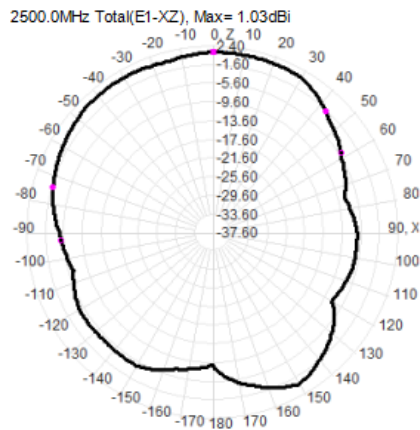


2450.0MHz Total(E2-YZ), Max= 2.00dBi



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





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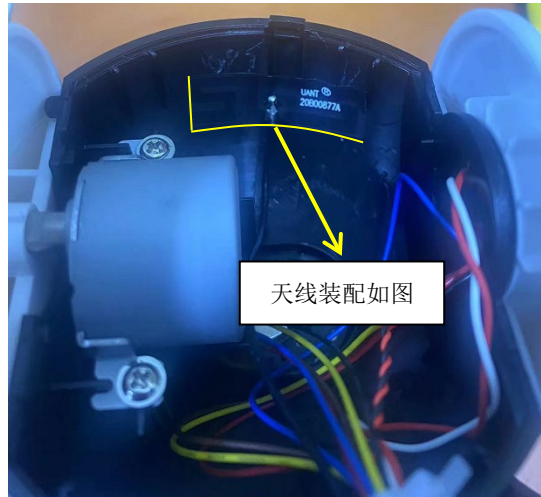
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4. Active test data

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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