SPECIFICATION FOR APPROVAL
(Product Recognition)

Product Name: WIFI Antenna

Product model (original model): UB01NF2D1112A

Customer's Material Name: _ WIFI Antenna _ UB01NF2D1112A

Customer's "specification model": WIFI antenna UB01NF2D1112A frequency: 2.4/5.8 GHz built-in FPC size: 17.4*16.6 gold finger gold plated ROHS-

Customer's "Material Code":

Resume of changes:

Serial number	Content before change	Content after change	Date of change	Version	Page number	Responsible person
0	First edition	First edition	2023-2-28	A0	10	Eddy

Name of supplier: Dongguan Youbi Electronics Co., Ltd.		
Supplier's address: Building 79, New Sun Industrial City, No.9 Xinfa Road, Lincun, Tangxia Town, Dongguan City		
Tel: 0769-81777126	**Fax: 0769-81777126**	**Email: zq@ub-rf.com**
(Signed by the Supplier)		
Responsible person/date	**Review/Date**	**Approval/Date**

This acknowledgement includes the following contents: (All are indispensable)

First, the cover
II. Parameter Specification
III. Structural Dimension Drawing
IV. BOM
V. Packaging drawing
VI. Production Process Flow Table
VII. Certification Test Status

Customer name: Shenzhen Oni Electronics Co., Ltd.			
Judgment result of buyer (customer):-qualified-unqualified			
Buyer (customer) acknowledges (please mark back the whole acknowledgement bookmark after confirmation)			
Development Design Engr/Date	**SQE Engr/Date**	**Head of Purchasing Department/Date**	**Approval by Development Manager/Date**

II. Parameter Specification

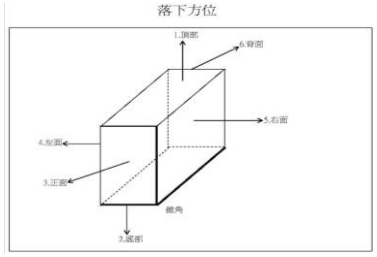
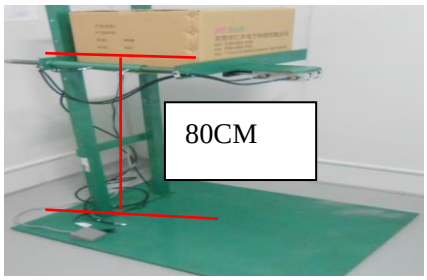
1. Electrical performance parameters (fill in instructions: the relevant parameters of electrical performance must specify the unit, tolerance and conditions)

Serial number	Project	Parameter specification	Test conditions
1	Frequency (MHz)	2400-2500; 5150-5850	Microwave anechoic chamber
2	Gain test	≥ 1 dBi, ≤ 3 dBi	Microwave anechoic chamber
3	Efficiency test	≥ 40%, ≤ 70%	Microwav e anechoic chamber
4	Center frequency characteristic impedance (Ω)	50	Network analyzer

2. Mechanical performance parameters (fill in instructions: the relevant parameters of mechanical and physical properties must specify the unit, tolerance and conditions)

Serial number	Project	Parameter specification	Test conditions
1	FPC length	17.4 ± 0.3 (mm)	Measured with a digital caliper, it is OK within 17.4 0.3 (mm) in length and dimension, and NG on the contrary.
2	FPC width	16.6 ± 0.3 (mm)	Measured with a digital caliper, the width dimension is OK within 16.6 ± 0.3 (mm), and vice versa is NG.

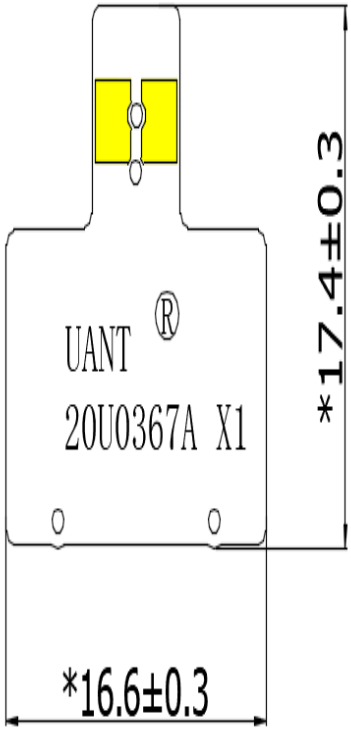
3. Reliability test (fill in instructions: the relevant requirements of reliability test must specify the items, conditions and judgment criteria)

Serial number	Project	Test conditions	Standard requirements
1	Salt spray test	Test specification: Test temperature: 35 ℃, salt solution concentration: 5% (the standard PH value of salt solution after modulation and cooling is between 6.5 and 7.2), average salt solution collection amount: 1.0 ~ 2.0 (ml/hr), test time: 48 hours (terminal)/8H (wire) Experimental method: Inject the prepared brine into the test liquid storage bucket, place the tested object on the test shelf, then close the test cover, and pour the water into the sealed groove until there is no gap. After 48H/8H test, if there is no oxidation on the surface of the product, it will be OK, otherwise it will be NG.	After 48H/8H, there is no oxidation on the surface of the product, and the electrical test is OK.
4	Drop test	Test conditions: 1. Drop the 6 sides of the carton (as shown in Figure 1)  Figure I 2. The product is 80 CM away from the floor steel plate (As shown in Figure 2)  Figure II Test method: 1. Fix the packing box to be tested on the product bracket to fix and clamp the test sample, and the clamping force should be appropriate to avoid clamping the tested sample. 2. Adjust the falling height by 80CM. 3. First, turn on the main power switch and turn on the trachea. 4. After the work is finished, disconnect the trachea and power switch and take off the sample.	1. After testing, the packing box shall not be obviously damaged. 2. After the test, the product should be inspected, and the electrical property should not be defective after external inspection.

三、Structural Dimension Drawing (CAD Drawing File)

RoHS COMPLIANT

REV.	DESCRIPTION	ECN NO.	DATE	DRAFTER
A	First Sample	/	2023.2.28	Yongxin



Specification :

Frequency Rang:2400-2500MHz

GENERAL TOLERANCE:
LINEAR:
X.XX ±0.25
X. ±0.3
XX. ±0.5
XXX. ±2.0
ANGLE: ±0.5°

CUST. P/N.:

TITLE.: 2.4G FPC内置天线

P/N.: UB01NF2D1112A

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ITEM	PART NAME	DESCRIPTION	QTY
1	FPC	FPC Antenna radiator,PI,Black	1

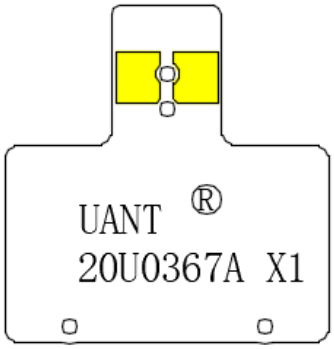
REV.	UNITS	SCALE	APPR.:	CHECK.:	DRAW.:
A	mm	1 : 1	Changxing.Liu	Dillon	Yongxin

IV. BOM (Bill of Materials)

Serial number	Component material name	Material	Specification/model	Brand	Name of Supplier	Dosage
1	FPC	PI	17.4 mm long * 16.6 mm wide	\	QG	1PCS
2	PE bag	PE	Choose suitable specifications	\	Pond dragon	1/200 PCS
3	Carton	\	Choose suitable specifications	\	Jiulongda	/
4						
5						

V. Packaging drawing (filling in instructions: the inserted pictures must be clearly visible)

1. Packaging photos (pictures):

1. Photos or pictures of individual material packaging	2. Photos or pictures placed on a single layer of inner packaging
 Remarks:	 Remarks:
3. Photos or pictures of the outer packaging	4. Anti-counterfeiting mark of supplier's material packaging
 Remarks:	aoni奥尼 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 Remarks:

Supplier Material Coding Rules:

General process product coding rules:

UB + 01 + N + F + 2D + 1112 + A

① ② ③ ④ ⑤ ⑥ ⑦

1. UB stands for antenna products;
2. Classification of finished products: 01 is the terminal built-in class;
3. Connection mode code: N is antenna direct connection;
4. F stands for FPCB;
5. Gain description: gain digit + D (DBi);
6. Serial number: 1 to 999999999;
7. Version number: Version A code is A.

VII. Certification Test Status (Fill in the instructions: If relevant test certification is done, please tick in 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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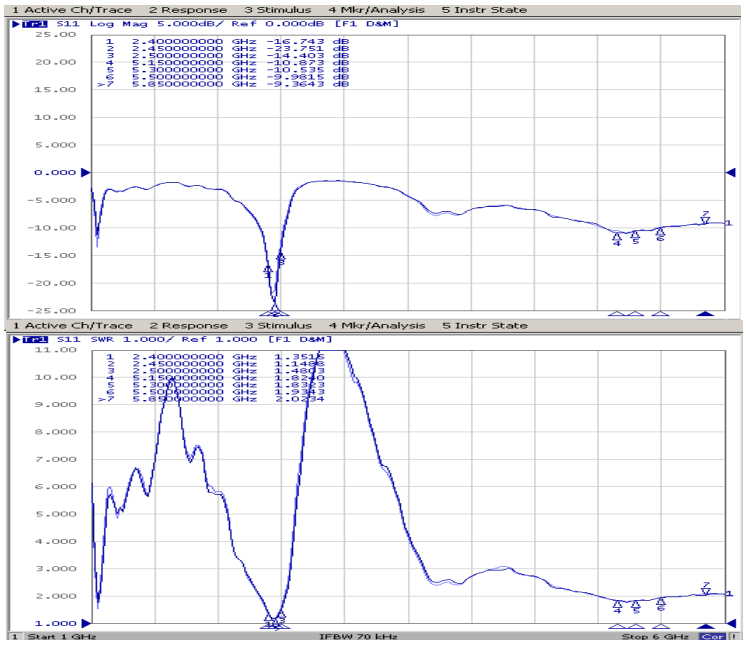
好天线 · 优比造 Dongguan Youbi Electronics Co.,Ltd

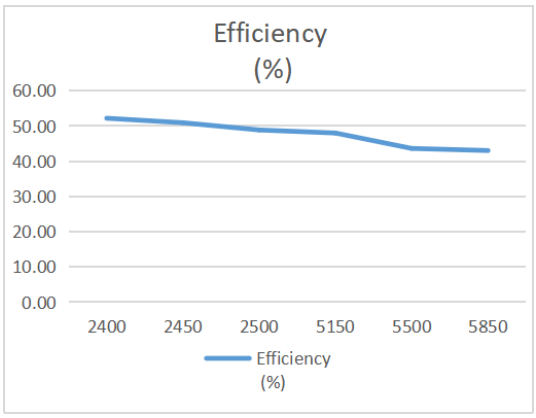
1. S Parameter

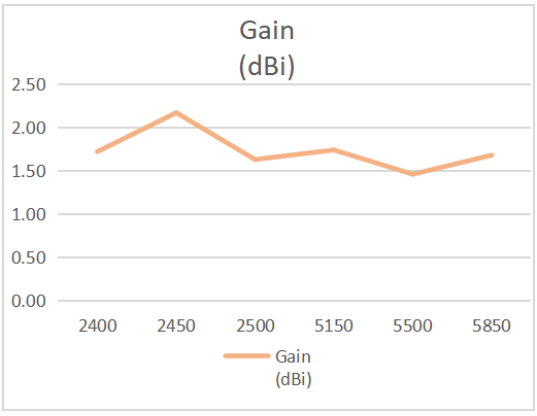


Frequency (MHz)	Return Loss (dB)	VSWR
2400	-16.74	1.35
2450	-23.75	1.14
2500	-14.40	1.48
5150	-10.87	1.82
5300	-10.53	1.83
5500	-9.98	1.93
5850	-9.36	2.02

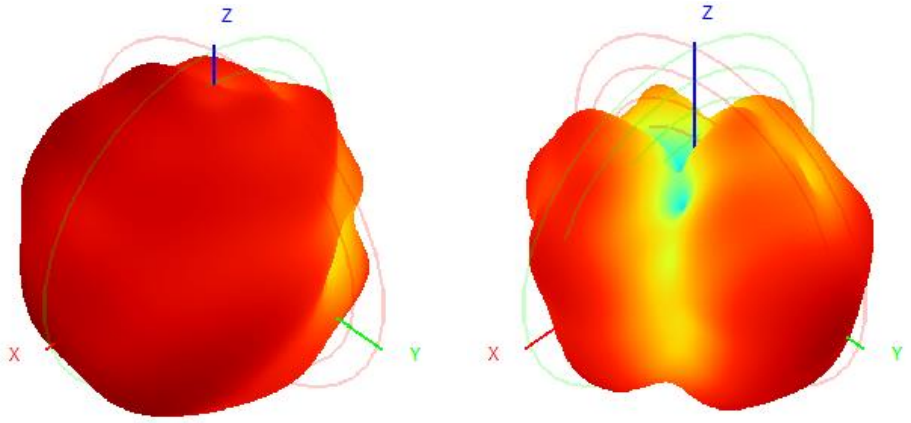
2. Efficiency and Gain

Frequency (MHz)	2400	2450	2500	5150	5500	5850
Efficiency (%)	52.17	50.89	48.84	47.97	43.6	43
Gain (dBi)	1.72	2.17	1.63	1.74	1.46	1.68

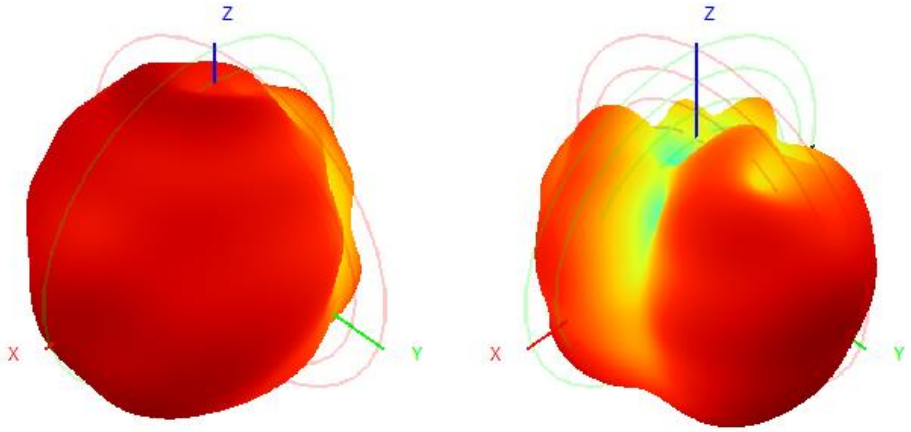




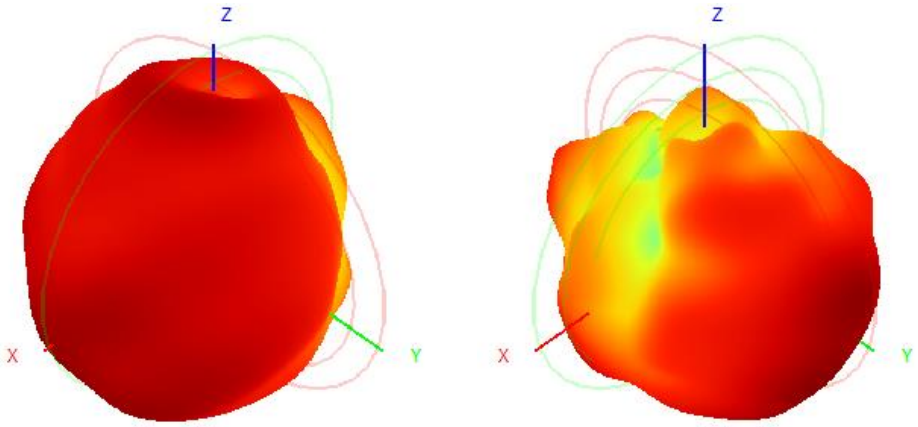
3. Radiation Pattern



2400MHz 5150MHz



2450MHz 5500MHz



2500MHz 5850MHz

4. Active test data

4-1 Active test data-1 #

Item	Measurement	Total
1	TRP	16.22
6	TRP	16.28
11	TRP	16.05
1	TIS (EIRP)	-82.07
6	TIS (EIRP)	-81.38
11	TIS (EIRP)	-81.47

Item	Measurement	Total
36	TRP	11.56
149	TRP	12.35
165	TRP	12.15
36	TIS (EIRP)	-70.01
149	TIS (EIRP)	-68.86
165	TIS (EIRP)	-68.58

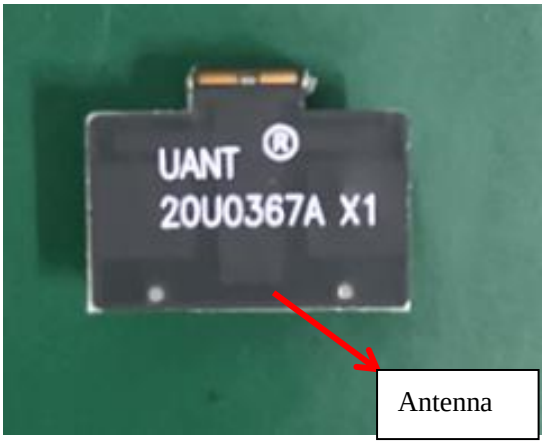
5. Antenna Installation

4-2 Active test data-2 #

Item	Measurement	Total
1	TRP	16.17
6	TRP	16.03
11	TRP	15.89
1	TIS (EIRP)	-81.58
6	TIS (EIRP)	-80.69
11	TIS (EIRP)	-81.39

Item	Measurement	Total
36	TRP	11.33
149	TRP	12.53
165	TRP	12.32
36	TIS (EIRP)	-70.60
149	TIS (EIRP)	-69.40
165	TIS (EIRP)	-69.19

5. Antenna installation diagram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