



# SPECIFICATION

ShenZhen TianDa Communication CO., LTD

## Y0110 antenna Product Recognition Letter

Customer	WUUK	Frequency band	2400-2500MHz
Project name	Y0110	Version	A
Project item number	WK-Y0-11-WI-A 02.06.0025	Color	Black
R F design	Xinchuang Wang	Structure Design	Luhong Zhou
Date	2023.06.28		

Customer confirmation:

Does the assembly meet your company's requirements: OK NG

ShenZhen TianDa Communication CO., LTD.

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## 1. WIFI antenna

1. Specifications This admission letter mainly provides the test status of the electrical and structural performance parameters of the WIFI antenna in the Y0110 project. Below is a picture of the WIFI antenna.



### 1.1、Electrical specifications

1.1.1. Electrical performance index The antenna working frequency band of the project is 2400-2500 MHz, and below are the electrical performance indicators of the antenna design and trial production.

WIFI		
frequency range	frequency (MHz)	VSWR
WIFI	2400~2500	≤2.0

### 1.1.2、Matching circuit diagrams

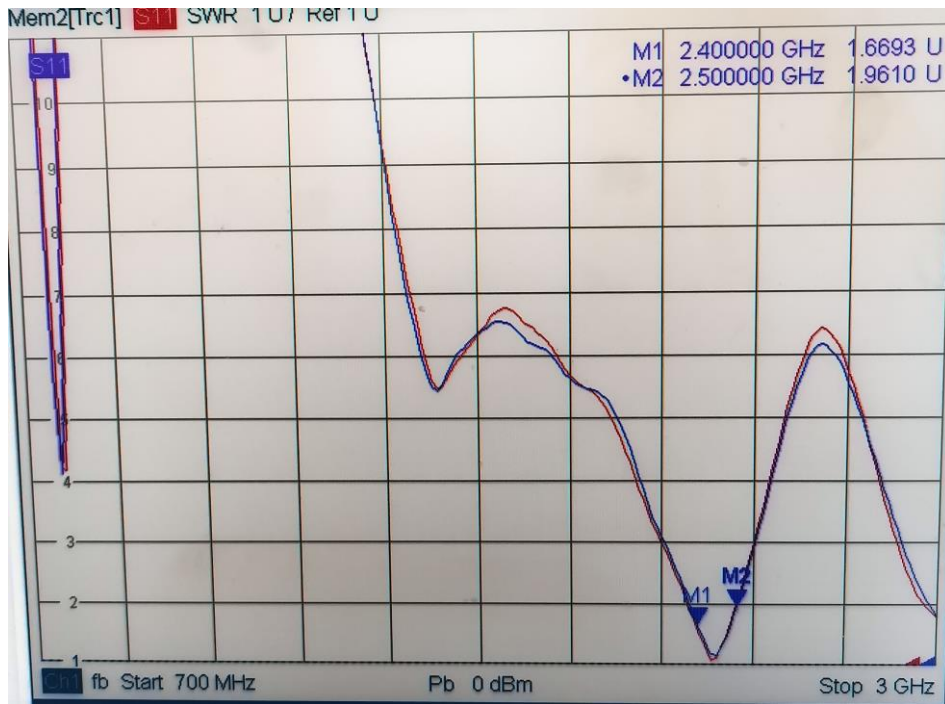


The matching circuit of WIFI antenna matches the main board with no changes.

## 1.2. Test

### 1.2.1. Passive test

#### 1.2.1.1. Antenna standing wave test (VSWR)

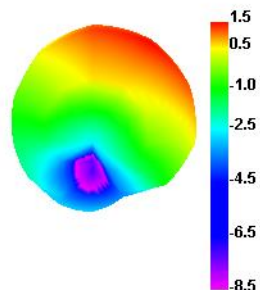


#### 1.2.1.2. Antenna gain, and efficiency

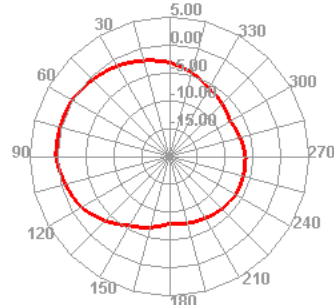
Passive Test For 2400-2500MHz									
Freq (MHz)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	AttH (dB)	AttV (dB)
2400	47.84	1.54	-0.61	29.064	18.777	1.54	-16.72	49.56	50.15
2410	50.18	2.06	-0.09	30.82	19.361	2.06	-16.17	49.79	50.51
2420	47.98	1.79	-0.36	29.412	18.566	1.79	-16.5	49.81	50.44
2430	50.3	2.05	-0.1	31.191	19.114	2.05	-16.4	49.9	50.67
2440	50.01	2.05	-0.1	31.076	18.936	2.05	-16.49	50.01	50.88
2450	50.75	1.87	-0.28	31.647	19.103	1.87	-16.85	50.17	50.97
2460	54.5	2.17	0.02	34.183	20.315	2.17	-16.43	50.3	51.18
2470	53.57	2.36	0.21	33.5	20.073	2.36	-16.78	50.29	51.14
2480	50.9	2.09	-0.06	31.606	19.297	2.09	-16.8	50.15	50.99
2490	48.41	1.86	-0.29	29.8	18.605	1.86	-16.84	50.02	50.92
2500	48.71	1.63	-0.52	29.97	18.745	1.63	-16.42	50.06	50.9

#### 1.2.1.2. antenna pattern

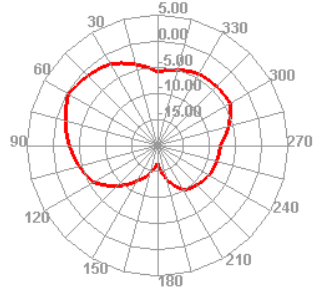
2400.000MHz



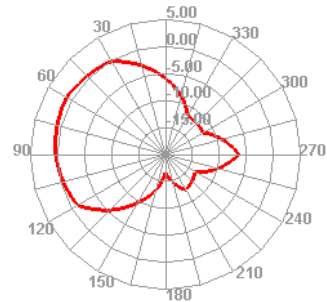
2400.000MHz H



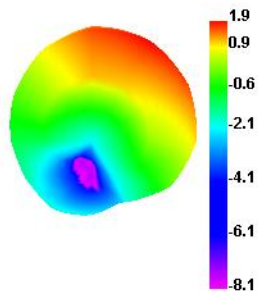
2400.000MHz E1



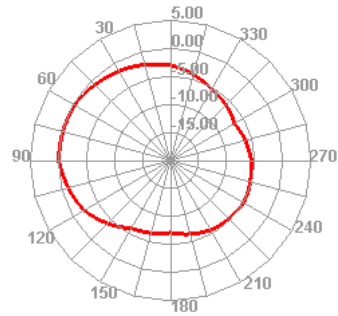
2400.000MHz E2



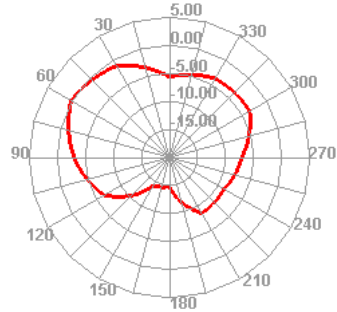
2450.000MHz



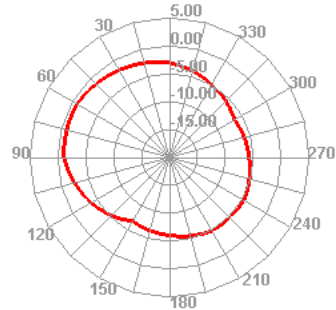
2450.000MHz H



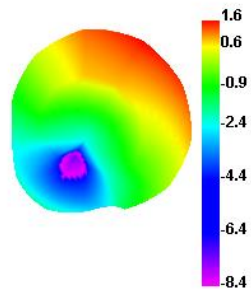
2450.000MHz E1



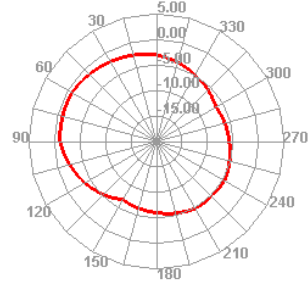
2500.000MHz H



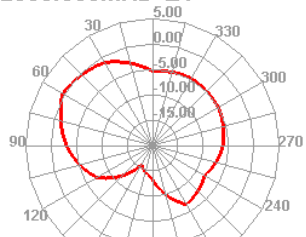
2500.000MHz



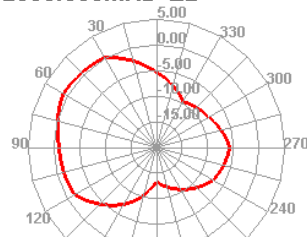
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



### 1.2.2、Active test data of the whole machine

b模式 (11M)	暗室 ■ 三角锥 □ 屏蔽箱 □		
Band	2.4G		
Channel	1	6	13
TRP	16.1	16.0	17.5
TIS	-85.8	-83.4	-83.4

Above is the WIFI active test antenna data of the whole machine.

## 2. Structural specifications

### 2.1、Antenna composition

WIFI antenna is mainly composed of cable + FPC line.

### 2.2、engineering drawing

12345678

ABCD

RoHS  
Compliant  
G P

此框内不能有胶

备注：

- 正面背胶(3M9471).
- 表面黑油(哑光).
- 各零件中Pb、Hg、Cr+6、PBBs、PBDEs各项小于500PPM，Cd小于50PPM.

<b>TiND</b>		深圳市天达通信有限公司 ShenZhen TianDa Communication Co.,Ltd	
		Project	Y0110
Third Angle		Part Name	WIFI FPC
0~10	±0.05	Part No.	WK-Y0-11-WI-A
10~18	±0.10	Material	PI
18~30	±0.12	Date	
30~40	±0.15	Designed by	
40~	±0.20	Checked by	
	Angl±0.5°	Approved by	
		Unit	mm
		Scale	1:1

12345678

### 2.3、dimensional measurement

Quantity Size	1	2	3	4
$32.60 \pm 0.2$	32.58	32.60	32.59	32.61
$11.0 \pm 0.2$	11.00	11.01	10.99	11.01
$28.0 \pm 2.0$	28.10	28.03	28.00	27.98

### 3. conclusion

This antenna is designed on the prototype currently provided by the customer. The electrical parameters and structural dimensions have met the technical requirements.

Please confirm!

### 4. pack

Package in PE bags.