

## ShenZhen City Flink Wi Technology CO., LTD.

### SPECIFICATION FOR APPROVED

CUSTOMER: \_\_\_\_\_

PRODUCTS: \_\_\_\_\_ FPC Antenna \_\_\_\_\_

PART NO: \_\_\_\_\_

Spec. : \_\_\_\_\_ YL-H41-V3/YL-H41B-V3 \_\_\_\_\_

Data: \_\_\_\_\_ 2023. 04. 13 \_\_\_\_\_

SUPPLIER		
PREPARED BY	CHECKED BY	APPROVED BY

CUSTOMER		
ACCEPTED BY	CHECKED BY	APPROVED BY

REMARK: Please send us one (or copy) of this approval with stamp after accepting, other copies filed by the customer.

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# ANTENNASPECIFICATION

## Revision history

VERSIONS	DATE	STATE
V1	2022-10-18	First Version
V2	2023-01-18	Second Version
V3	2023-03-28	Third Version

# ANTENNASPECIFICATION

## 1. Project Information

### 1.1. Appearance and Dimensions

Test point	Specifications	Test result
Overall dimensions	9.51mm*9.4mm (±0.3mm)	OK
Golden finger	2.98*2.13mm 3.08*2.17mm	OK
Drawing		

Inspection items		Inspection results
Material specification	25um copper+12.5um glue+12.5umPI	OK
Material	Half and half (Electrolytic copper)	OK
Material	gummed paper (3M300LSE)	OK
Electroplate	Gold plating	OK
Appearance	Surface: matte black	OK

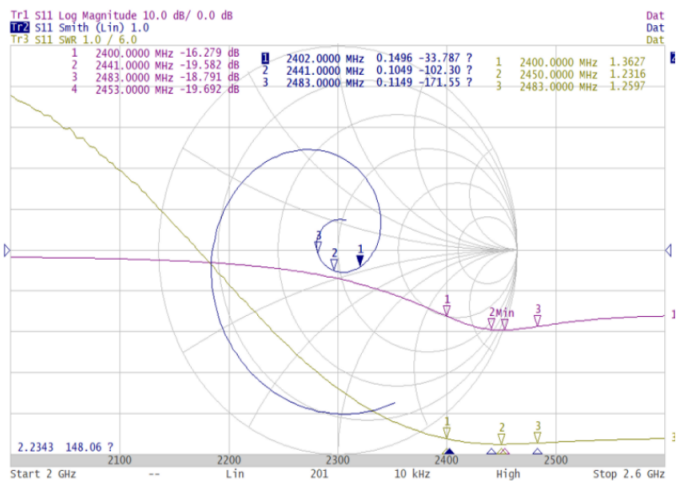
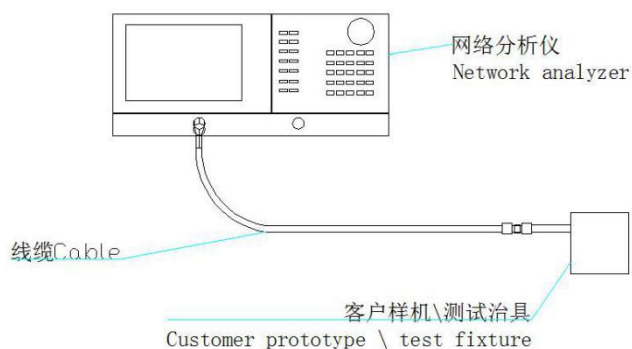
# ANTENNA SPECIFICATION

## 2. Electrical Characteristics

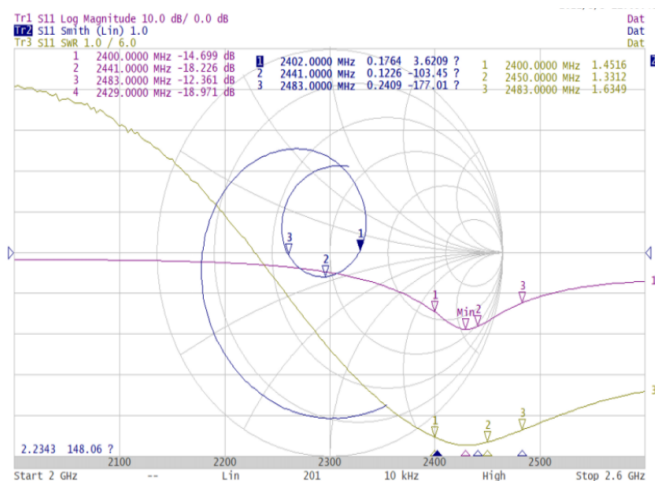
### 2.1. Test Environment Conditions

Temperature	Ordinary Temperature (5 to 35°C)
Humidity	Ordinary Humidity (25 to 85% RH)

### 2.2. Measurement method



Left

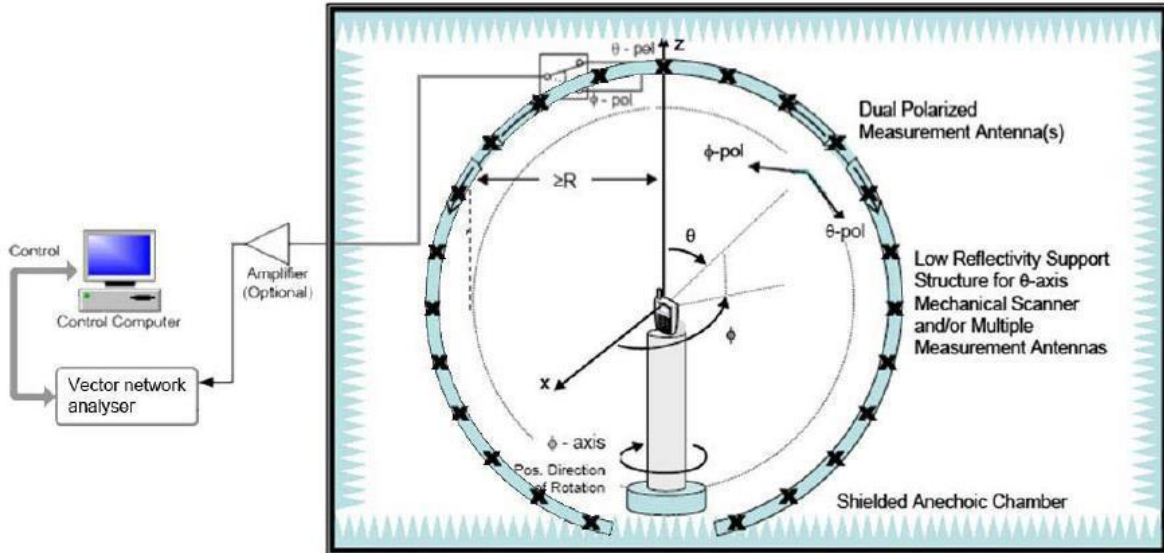


Right

# ANTENNA SPECIFICATION

## 2.3. Efficiency and Gain

### 2.3.1. Test system

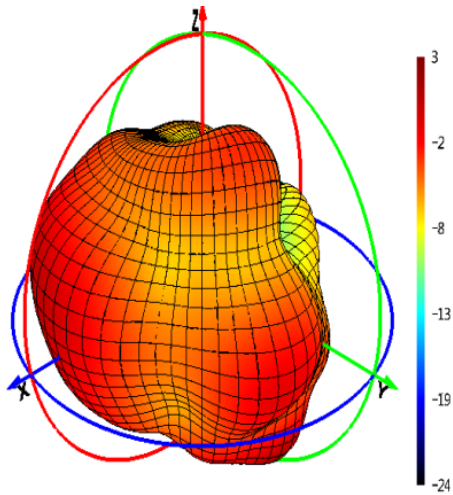


### 2.3.2. No-source test data

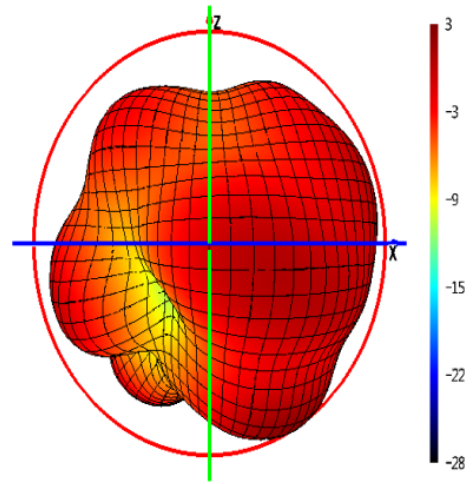
Gain&Efficiency			
frequency 频率	gain 增益(dBi)	efficiency 效率(dB)	efficiency 效率(%)
2400	2.11	-2.82	46.24%
2410	1.76	-3.01	47.06%
2420	2.52	-2.65	50.31%
2430	2.6	-2.74	49.22%
2440	2.07	-2.81	49.41%
2450	2.62	-2.68	50%
2460	2.65	-2.8	48.46%
2470	2.38	-2.77	48.86%
2480	2.82	-2.63	47.54%
2490	2.25	-3.15	44.41%
2500	2.4	-2.95	44.74%

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## 2.3.3. 3D Radiation Drawing



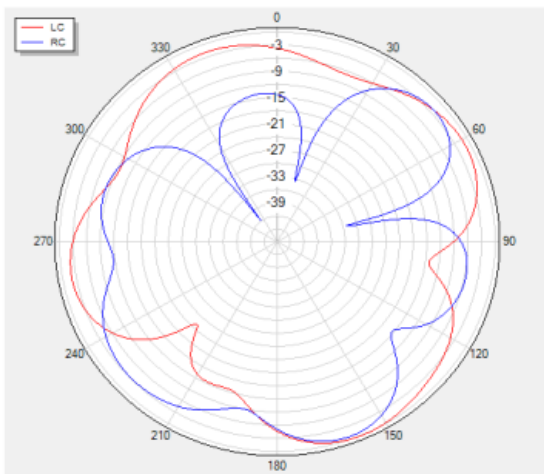
Left



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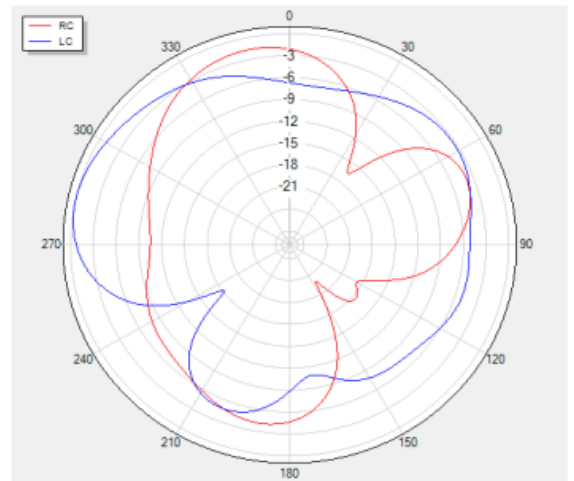
## 2.3.4. directional drawing of horizontal plane

**Theta=90 freq=2400MHz**



Left

**Theta=90 freq=2400MHz**

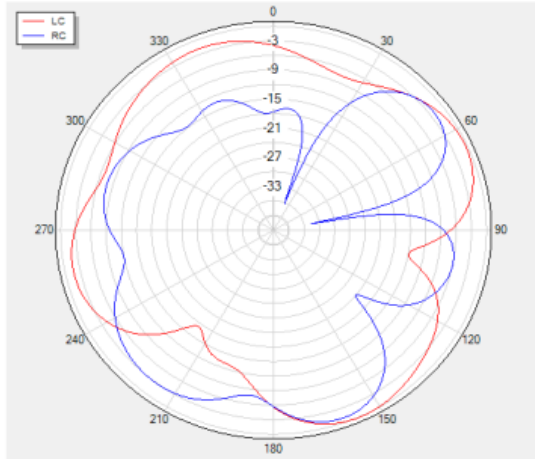


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# ANTENNASPECIFICATION

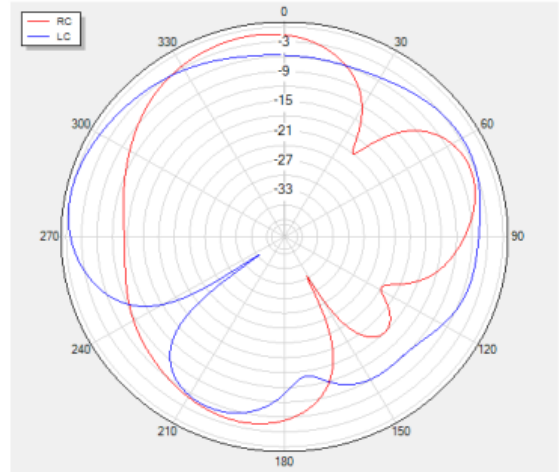
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**Theta=90 freq=2450MHz**



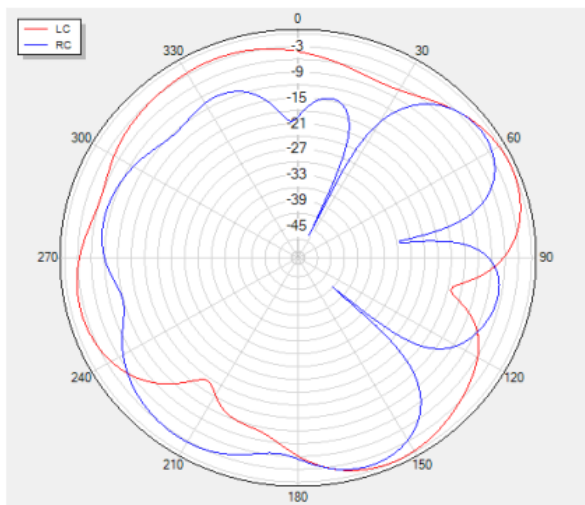
Left

**Theta=90 freq=2450MHz**



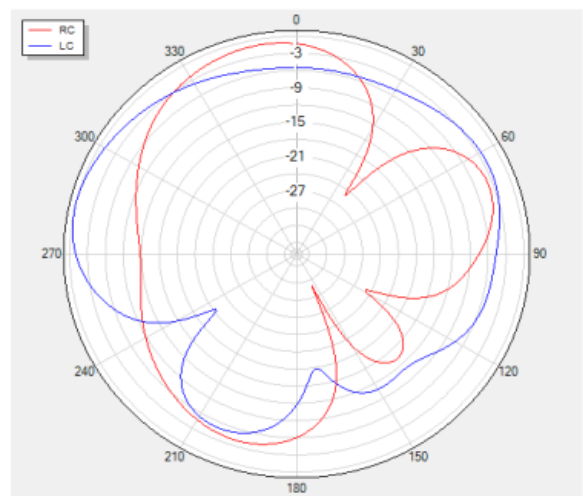
Right

**Theta=90 freq=2480MHz**



Left

**Theta=90 freq=2480MHz**



Right

## 3. Notes

- 1、Pay attention not to be too close to the metal during installation to avoid affecting the antenna performance.
- 2、This antenna is only suitable for this model, and the position of the antenna cannot be changed.



## ANTENNA SPECIFICATION

### 4. Reliability test

Item	Test methods and conditions	Specifications and requirements
Storage conditions	Temperature, humidity and air pressure are as follows: 1、 Temperature: $-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$ 2、 Air pressure: 45%-85% 3、 Pressure :86Kpa-106Kpa	There is no change in appearance, and all antenna parameters are consistent with those of previous tests
Salt spray test	salinity is in range of 5% ;PH6.5-7.2;Temperature $35 \pm 1^{\circ}\text{C}$ ;Corrosion time 16H.	
Vibration test	10-2000-10HZ amplitude 1.52mm Ten times along the X,Y,Z direction	
Drop Test	Drop from 1m onto the board	
Pull test	Bearing capacity $\geq 4\text{N}$	
Constant temperature and humidity	humidity : $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , 90-95%RH Duration: 4H recovery time: 1-2H	
High and low temperature test	$70^{\circ}\text{C} - 20^{\circ}\text{C}$ 5 cycles , Under normal conditions 1-2H	