

ShenZhen City Flink Wi Technology CO., LTD.

SPECIFICATION FOR APPROVED

CUSTOMER: _____

PRODUCTS: _____ FPC Antenna _____

PART NO: _____

Spec. : _____ YL-H50-V3 _____

Data: _____ 2024. 01. 11 _____

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.

ShenZhen City Flink Wi Technology CO., LTD.

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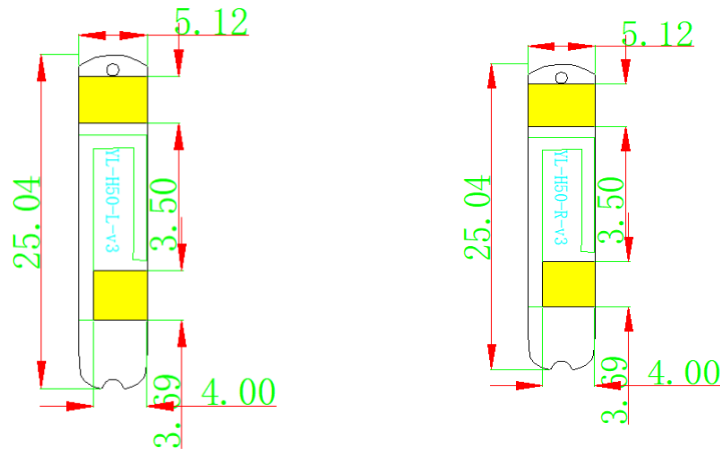
Revision history

VERSIONS	DATE	STATE
V1	2023-7-10	First Version
V2	2023-9-26	Second Version
V3	2023-10-12	Third Version

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1. Project Information

1.1. Appearance and Dimensions

Test point	Specifications	Test result
Overall dimensions	25.04mm*5.12mm (± 0.25 mm)	OK
Golden finger	3.5*5.12mm 3.69*4.00mm	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

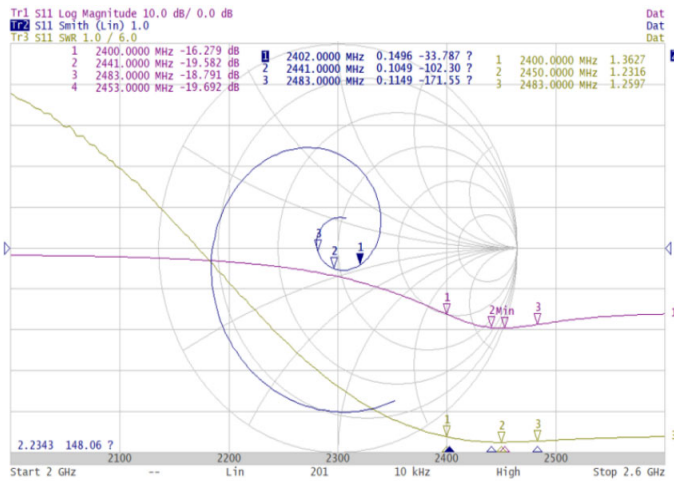
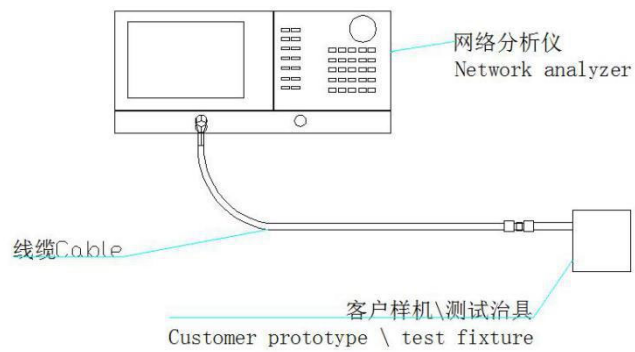
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2. Electrical Characteristics

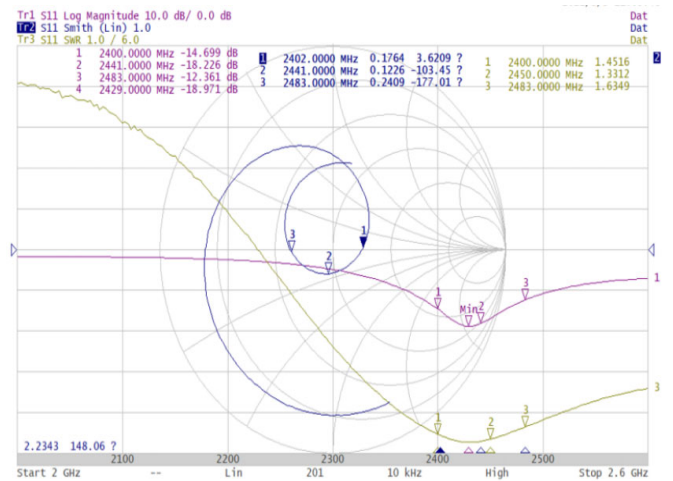
2.1. Test Environment Conditions

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

2.2. Measurement method



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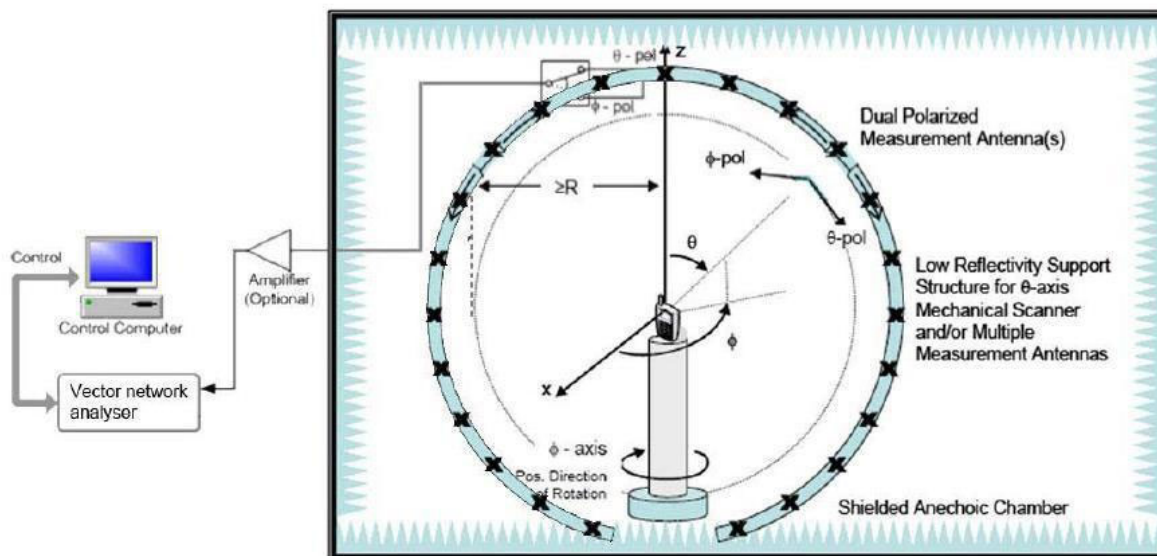


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2.3. Efficiency and Gain

2.3.1. Test system



2.3.2. No-source test data

Gain&Efficiency 增益、效率			
frequency 频率(MHz)	gain 增益(dBi)	efficiency 效率(dB)	efficiency 效率(%)
2400	1.35	-4.13	38.66
2410	1.12	-4.21	37.95
2420	1.93	-3.8	41.67
2430	2.1	-3.87	41.06
2440	1.5	-3.96	40.22
2450	2.04	-3.84	41.33
2460	2	-4.01	39.72
2470	1.7	-3.98	39.99
2480	2.04	-3.86	41.14
2490	1.4	-4.34	36.81
2500	1.56	-4.11	38.8

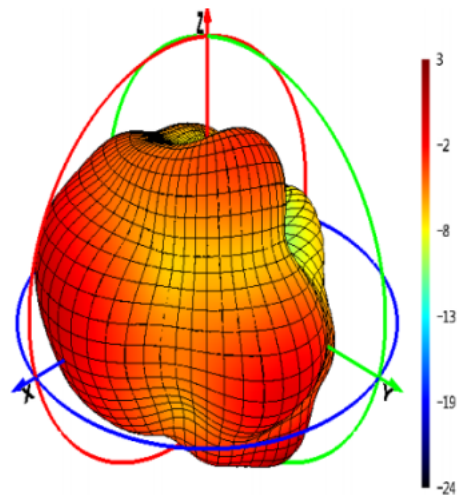
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Gain&Efficiency 增益、效率			
frequency 频率(MHz)	gain 增益(dBi)	efficiency 效率(dB)	efficiency 效率(%)
2400	1.57	-4.37	40.02
2410	1.67	-4.04	40.66
2420	1.93	-3.97	40.42
2430	1.87	-3.73	43.34
2440	2.26	-4.44	39.07
2450	2.20	-3.89	43.12
2460	2.15	-4.77	39.29
2470	1.93	-4.87	35.65
2480	1.74	-4.86	36.83
2490	1.24	-4.93	36.47
2500	1.35	-4.89	37.27

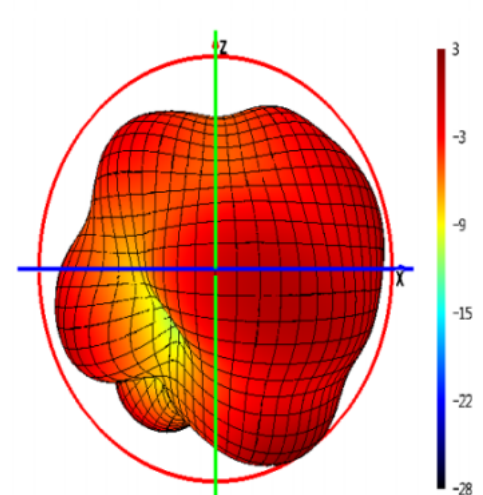
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2.3.3. 3D Radiation Drawing



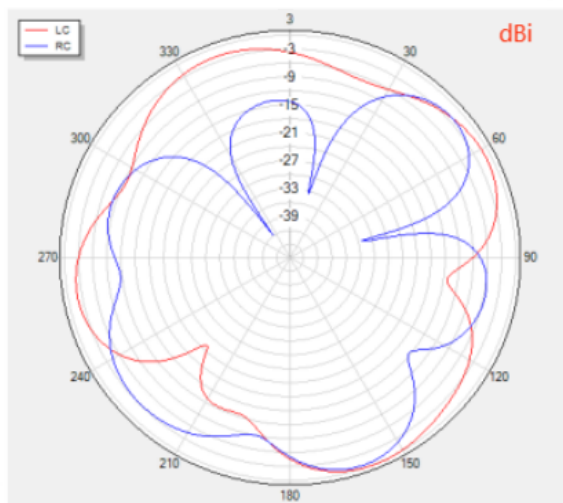
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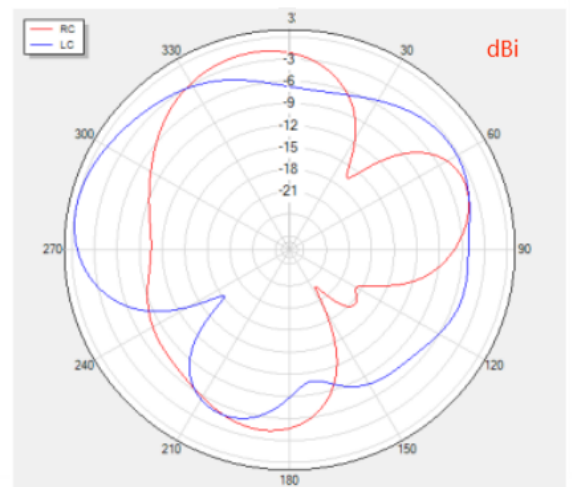
2.3.4. directional drawing of horizontal plane

Theta=90 freq=2400MHz



Left

Theta=90 freq=2400MHz



Right

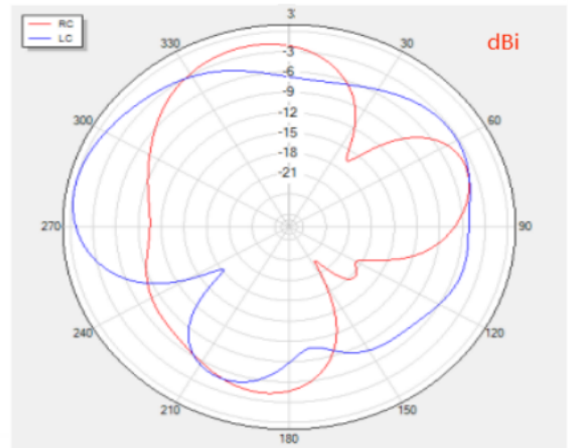
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Theta=90 freq=2400MHz



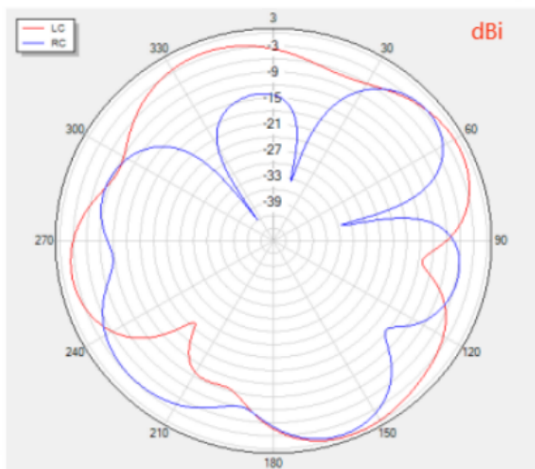
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Theta=90 freq=2400MHz



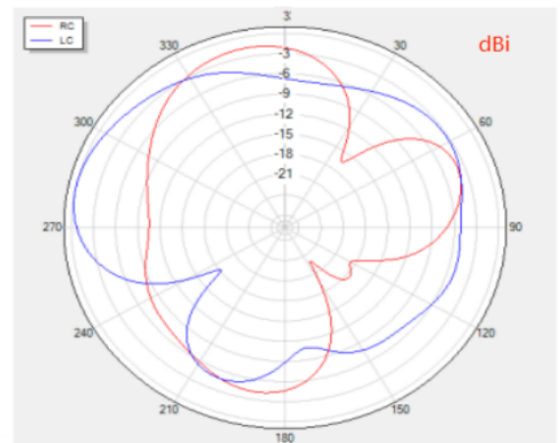
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Theta=90 freq=2400MHz



Left

Theta=90 freq=2400MHz



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.

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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°C – 20°C 5 cycles , Under normal conditions 1–2H	