



ShenZhen City Flink Wi Technology CO., LTD.

SPECIFICATION FOR APPROVED

CUSTOMER: \_\_\_\_\_  
PRODUCTS: FPC Antenna  
PART NO: \_\_\_\_\_  
Spec. : YL-ER02A-V2  
Data: 2024. 04. 19

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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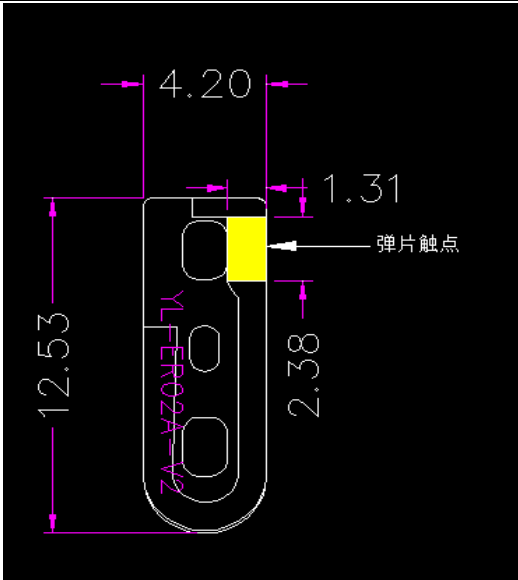
## Revision history

VERSIONS	DATE	STATE
V1	2023-10-19	First Version
V2	2024-01-06	Second Version

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## 1. Project Information

### 1.1. Appearance and Dimensions

Test point	Specifications	Test result
Overall dimensions	12.53mm*4.2mm	OK
Golden finger	2.38mm*1.31mm	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

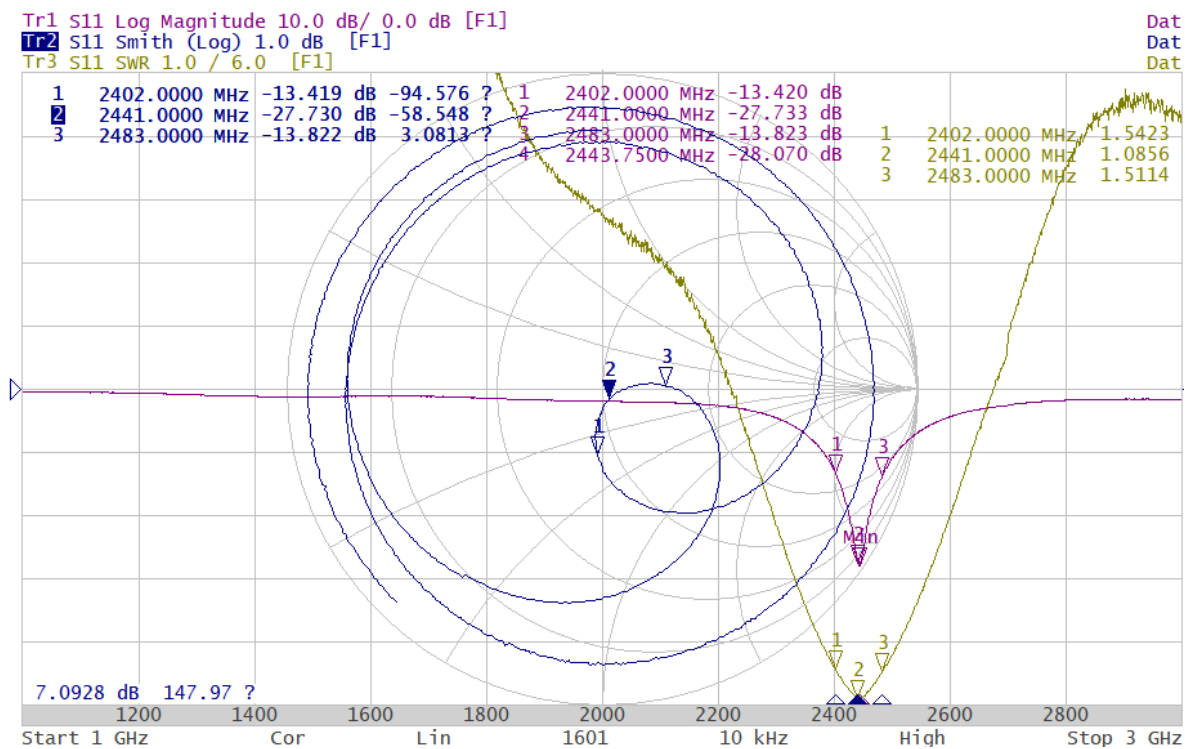
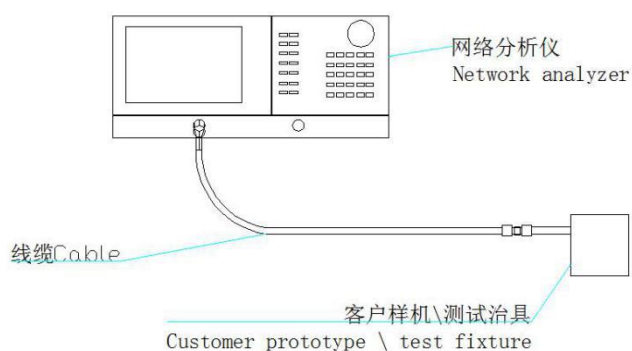
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## 2. Electrical Characteristics

### 2.1. Test Environment Conditions

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

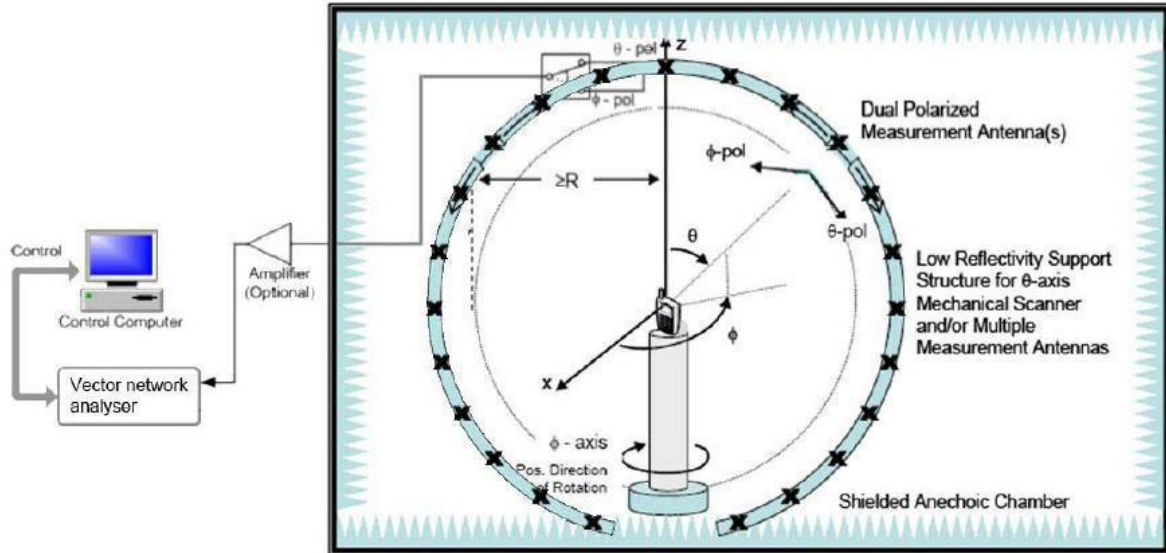
### 2.2. Measurement method



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## 2.3. Efficiency and Gain

### 2.3.1. Test system



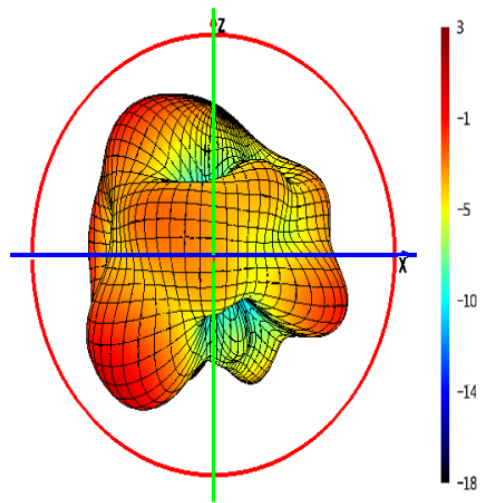
### 2.3.2. No-source test data

frequency 频率(MHz)	gain 增益(dB)	mingain 最小增益	CO Gain 主极化最	CP Gain 交叉极化	efficiency 效率(dB)	efficiency 效率
2400	-1.98	-33.37	-3.31	-2.26	-5.96	28.34%
2410	-1.1	-36.74	-2.5	-1.37	-5.09	30.99%
2420	-2.35	-41.77	-3.9	-2.62	-6.42	27.80%
2430	-0.15	-37.31	-3.83	-2.44	-6.33	30.27%
2440	0.18	-32.43	-3.01	-1.48	-5.49	30.25%
2450	0.69	-33.04	-3.86	-2.18	-6.22	33.88%
2460	0.76	-33.77	-3.87	-2.03	-6.12	34.45%
2470	0.6	-34.12	-3.23	-1.28	-5.4	31.82%
2480	-1.5	-35.77	-3.83	-1.78	-5.94	29.49%
2490	-0.92	-36.61	-3.22	-1.2	-5.34	29.24%
2500	-0.82	-37.96	-2.95	-1.08	-5.17	30.44%
2510	-1.83	-40.28	-3.93	-2.08	-6.14	24.34%
2520	-1.15	-39.06	-3.24	-1.39	-5.43	28.66%
2530	-1.1	-40.44	-3.05	-1.3	-5.3	29.49%
2540	-1.62	-41.75	-3.52	-1.74	-5.8	26.30%
2550	-1.26	-40.19	-3.17	-1.4	-5.5	28.20%
2560	-1.08	-39.28	-3.09	-1.26	-5.43	28.62%
2570	-1.29	-37.88	-3.42	-1.52	-5.79	26.39%
2580	-1.25	-36.89	-3.35	-1.53	-5.85	25.98%
2590	-1.39	-35.9	-3.54	-1.69	-6.05	24.85%
2600	-1.54	-35.03	-3.67	-1.86	-6.24	23.76%

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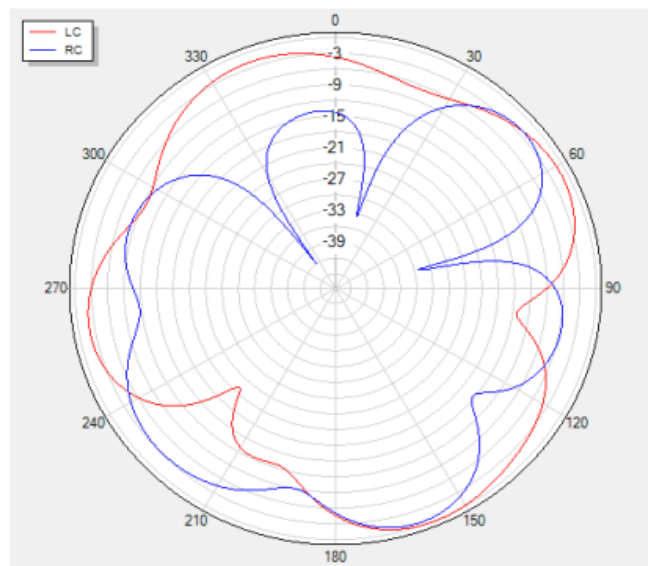
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## 2.3.3. 3D Radiation Drawing



## 2.3.4. directional drawing of horizontal plane

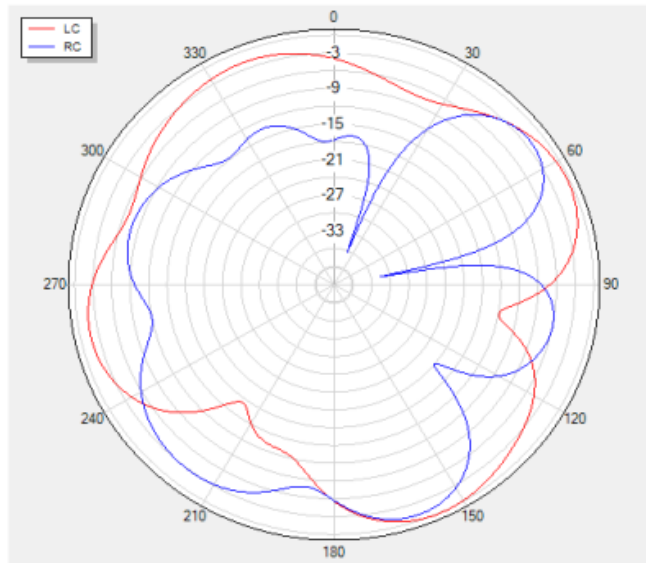
**Theta=90 freq=2400MHz**



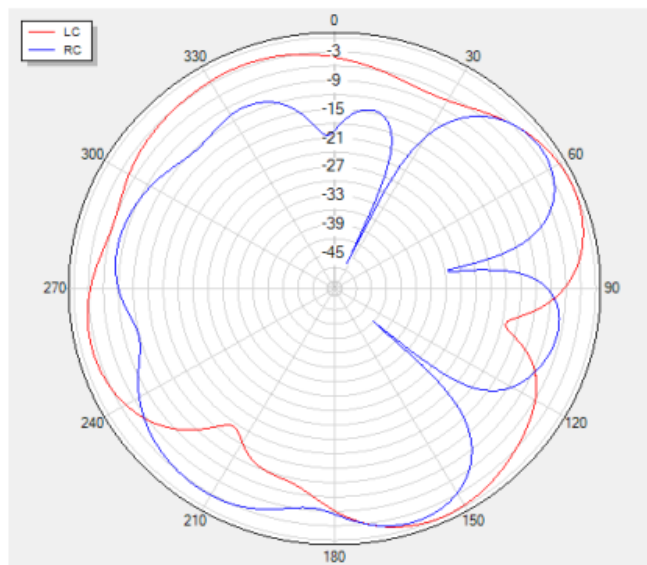
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## Theta=90 freq=2450MHz



## Theta=90 freq=2480MHz



### 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	$70^{\circ}\text{C} - 20^{\circ}\text{C}$ 5 cycles , Under normal conditions 1-2H	