



# SPECIFICATIONS FOR APPROVAL

Customer Name: Shenzhen Creality 3D Technology Co.,LTD

Product Name: WIFI Antenna

Product Model: 星云屏

Part Number: LJF02-23022509-R0A

Write By : Huxuwen

Issued Date: 2023-02-27

## CUSTOMER

ENGINEER R&D DEPT	BUSSINESS DEPT	APPROVAL

## LEJIN

R&D DEPT	ENGINEER DEPT	APPROVAL

REV	MODIFIED DESCRIPTION	DATE	REMARK
V1.0	Initial Draft Release	2023/02/27	



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### 3.Product Specification

A. Electrical Characteristics	
<b>Frequency</b>	<b>2400MHz ~2500 MHz</b>
<b>VSWR</b>	<b>&lt;2.0</b>
<b>Efficiency</b>	<b>&gt;40%</b>
<b>Impedance</b>	<b>50Ohm</b>
<b>Polarization</b>	<b>Linear</b>
<b>Gain</b>	<b>2.43dB</b>
B. Material & Mechanical Characteristics	
<b>Material of Radiator</b>	<b>FPC(Black),LJWF25A</b>
<b>Cable Type</b>	<b>Φ1.13mm,L50mm,Black</b>
<b>Connector Type</b>	<b>IPX1</b>
<b>Dimension</b>	<b>26.0*16.8mm</b>
C. Environmental	
<b>Operation Temperature</b>	<b>- 30 °C ~ + 80 °C</b>
<b>Storage Temperature</b>	<b>- 30 °C ~ + 85 °C</b>
<b>Humidity</b>	<b>40%~95%</b>

### 4.Test Equipment & Conditions

- 1.Network Analyzers Agilent 8753D/5071C
- 2.HSPA and LTE protocol test set R&S CMW500 -PT
- 3.Communications Test Set Agilent 8960
- 4.3D Chamber Test System

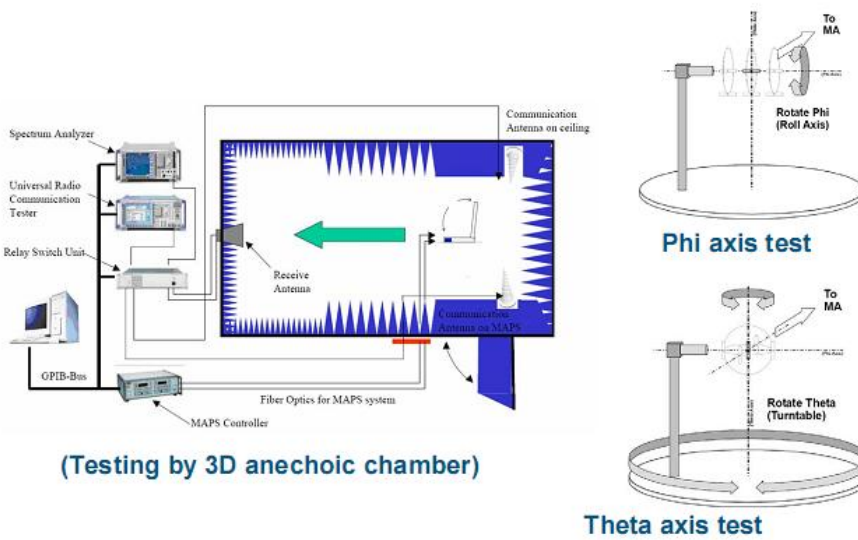


Chart1 Test topology



## 5. Test Report

### 5.1 Voltage Standing Wave Ratio(VSWR).

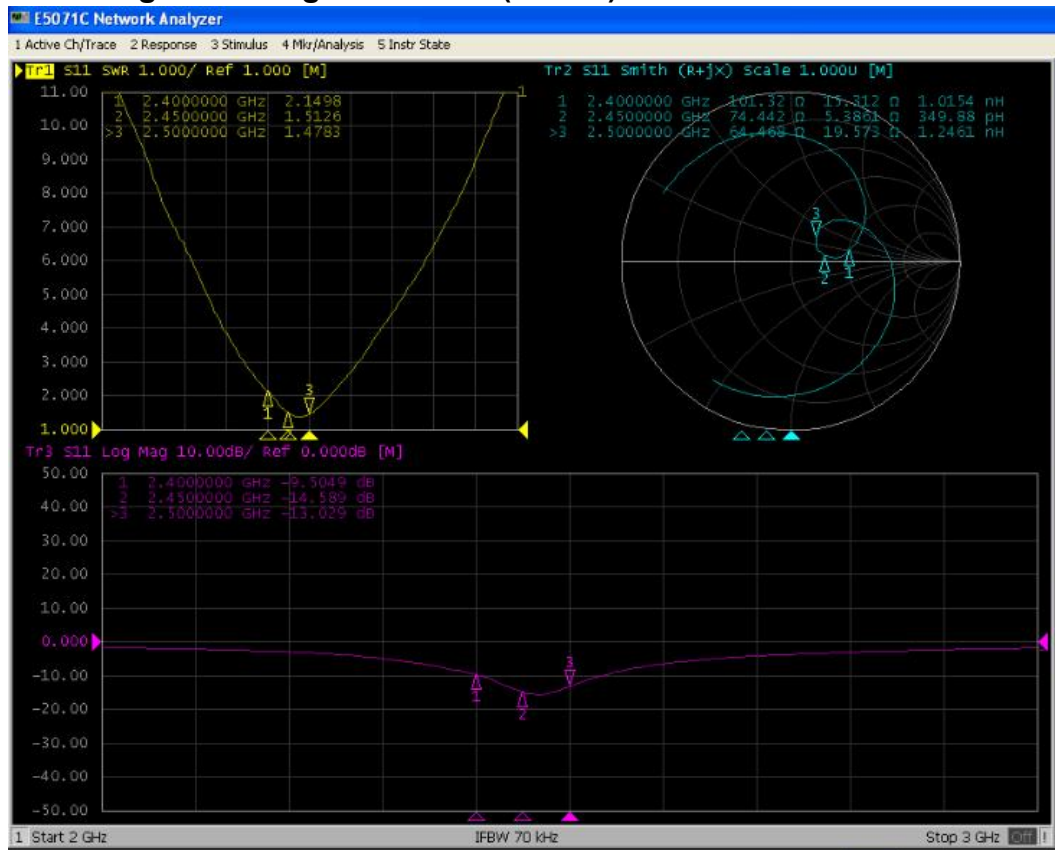
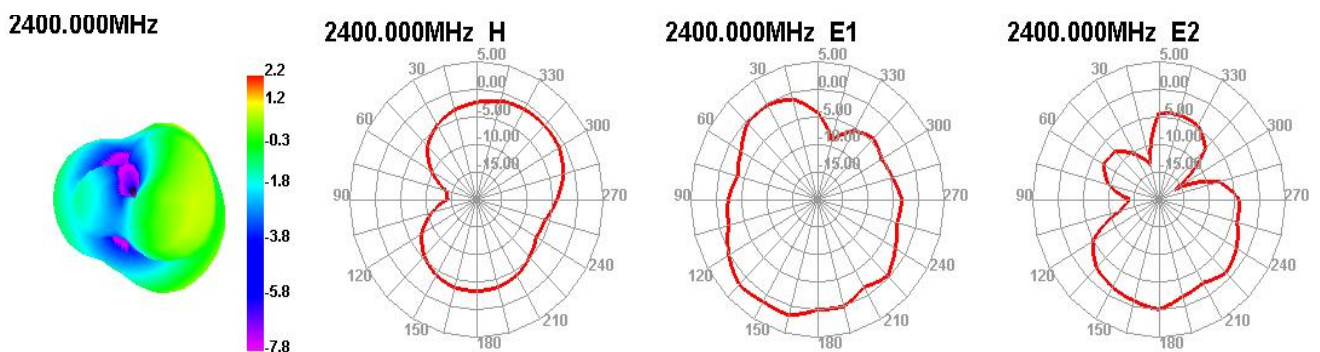


Chart2 VSWR

### 5.2 Efficient and gain(estimating conducted by Lejin in Jan,2021,using 3D drawing document that provided by Crealty.)

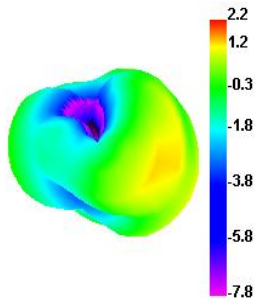
Passive Test For 2.4GHz	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
	Effi(%)	52.41	60.31	56.13	57.45	53.05	54.04	52.66	55.24	61.07	60.08	50.58
Gain(dBi)	2.24	2.34	2.22	2.43	2.17	2.24	2.10	2.18	2.43	2.28	1.60	

### 5.3 Radiation pattern.

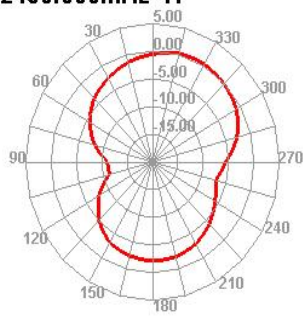




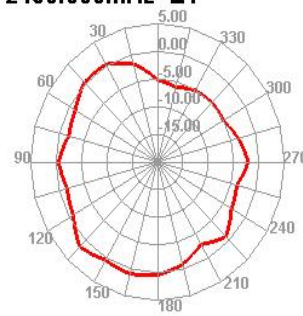
2450.000MHz



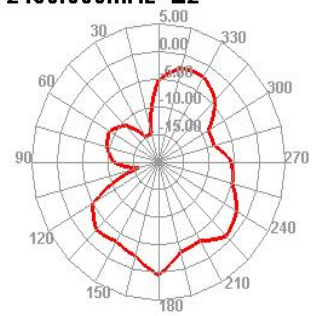
2450.000MHz H



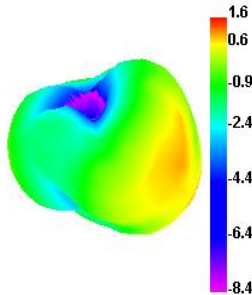
2450.000MHz E1



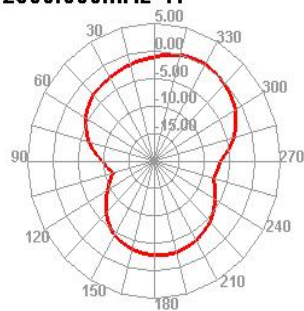
2450.000MHz E2



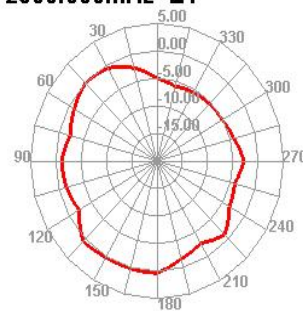
2500.000MHz



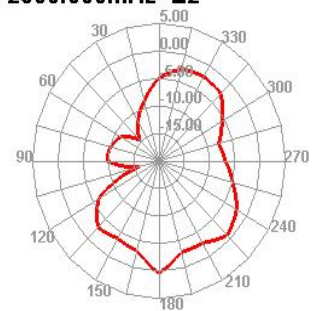
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



## 6. Reliability Test

Test Item	Test condition	Equipment	Specification	Result
1 Low Temp. Storage Test	Temperature: -30℃ , Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-down the temp. to -30℃ in one hour, store antenna for 44 hours; step-up temp to 25℃, test antenna after 2 hours.	Temp.&Hu mi. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
2 High Temp./High Humid Storage Test	Temperature: 85℃ Humidity: 85% RH Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-up the temp. to 80℃ and the humidity up to 85% in one hour, store antenna for 44 hours; step-down temp to 25℃ ,test antenna after 2 hours.	Temp.&Hu mi. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
3 Salt-Spray 6 pray Test	Placing antenna in the Salt-Spray Tester ,set the test condition , Temp: 35±2℃ Humidity: 85% NaCl salt spray :5±1%.PH value :6.5~7.2 Testtime:24hours	Salt-Spray Tester	No color change No appear rusting	PASS

## 7. Assemble type



Chart 3 Add conductive foam to connect with PCB



Chart 4 Assemble type

## 8.Product Drawing

1

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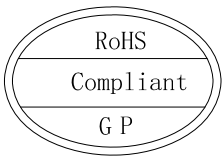
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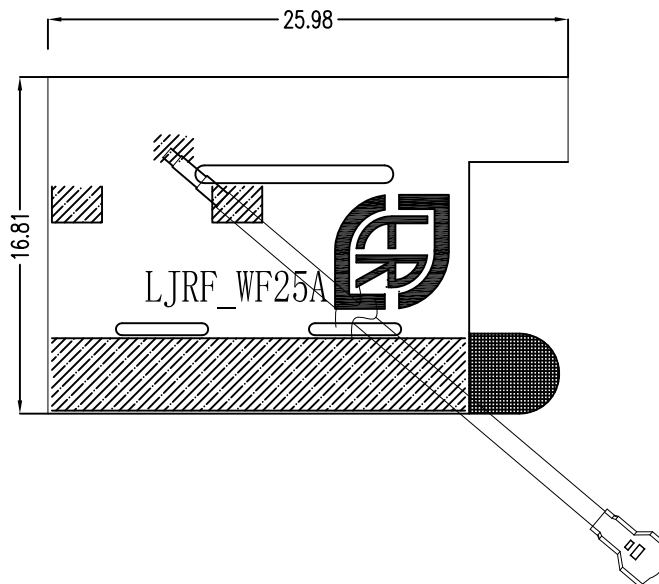
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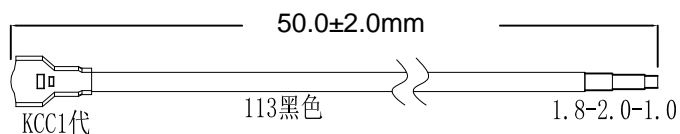


A

A



端子口朝下



深圳乐进射频科技有限公司

SHEN ZHEN LEJIN RADIO FREQUENCY CO., LTD

Third Angle	Project	创想三维	Date	2023-02-27		
0~10 ±0.05	Part Name	2.4G ANT	Designed by			
10~18 ±0.10	Part No.		Checked by	MD		
18~30 ±0.12	Material			RF		
30~40 ±0.15	Treatment	LJF02-23022509-ROA	Approved by			
40~ ±0.20	Location		Unit	mm	Scale	FIT Rev A
Angle ±0.5°						

D

D

A	New drawing		Date	Remark
Rev	Description	Date	Remark	

1

2

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