



Shenzhen Lejin radio frequency technology Co., LTD

SPECIFICATIONS FOR APPROVAL

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

Product Name: WIFI/BT Antenna

Product Model: L016

Part Number: LJF02-25030108-R0A

Write By : FUQIANG

Issued Date: 2025-03-01

CUSTOMER

| ENGINEER R&D DEPT | BUSSINESS DEPT | APPROVAL |
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| R&D DEPT | ENGINEER DEPT | APPROVAL |
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| REV | MODIFIED DESCRIPTION | DATE | REMARK |
|------|-----------------------|------------|--------|
| V1.0 | Initial Draft Release | 2025/03/01 | |
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3.Product Specification

| A. Electrical Characteristics | |
|--|----------------------|
| Frequency | 2400MHz ~2500 MHz |
| VSWR | <2.0 |
| Efficiency | ≥40% |
| Impedance | 50Ohm |
| Polarization | Linear |
| Gain(2.4G) | ≤3.50dBi |
| B. Material & Mechanical Characteristics | |
| Material of Radiator | FPC(Black),LJWF2505 |
| Cable Type | Φ1.13mm,L200mm,Black |
| Connector Type | IPX1 |
| Dimension | 33.50mm*9.80mm |
| C. Environmental | |
| Operation Temperature | - 30 °C ~ + 80 °C |
| Storage Temperature | - 30 °C ~ + 85 °C |
| Humidity | 40%~95% |

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 | |

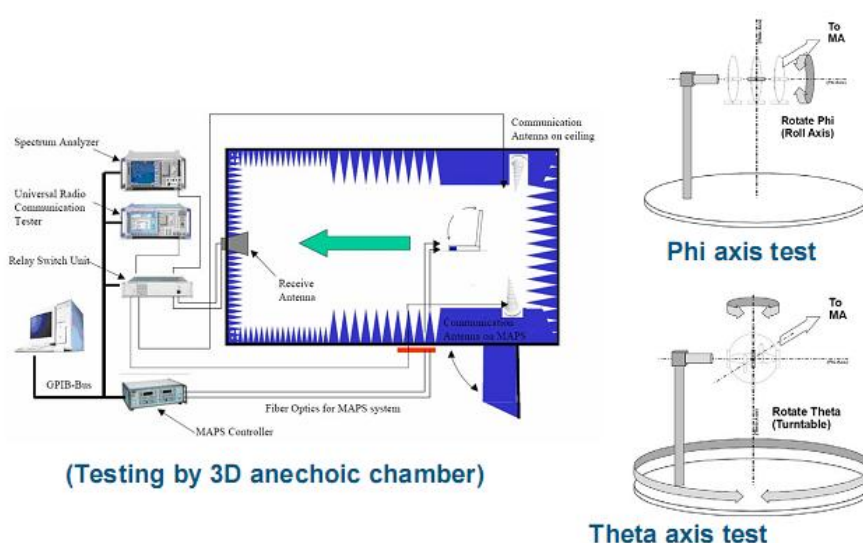


Chart 1 Test topology

5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

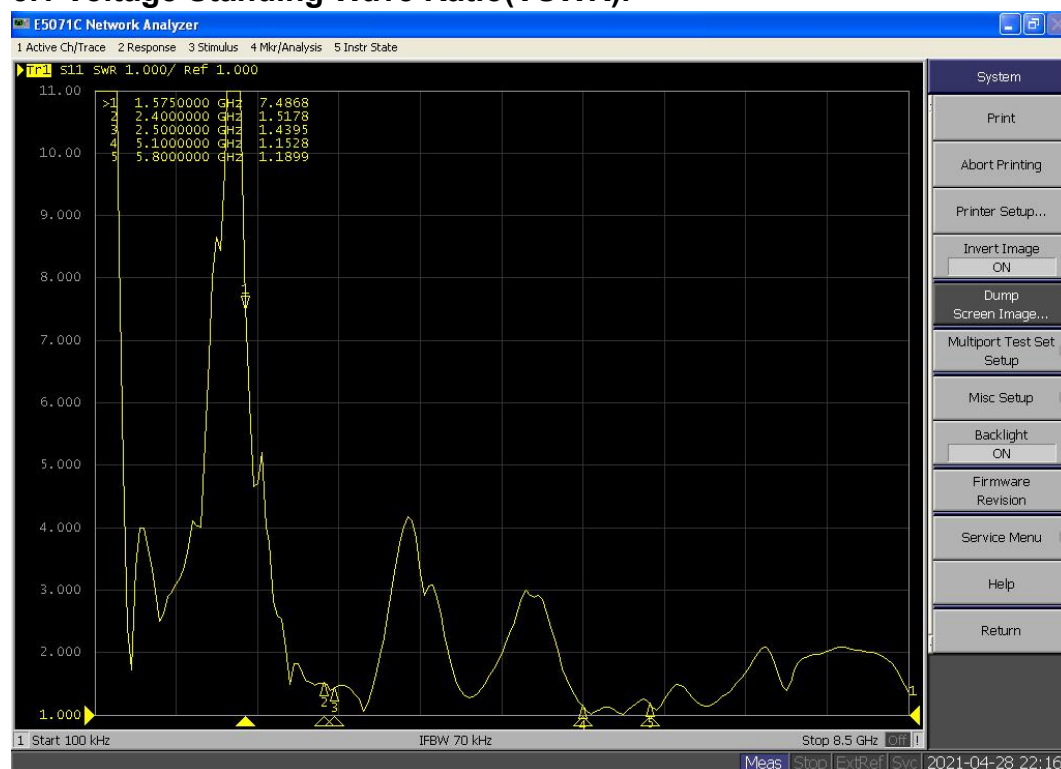
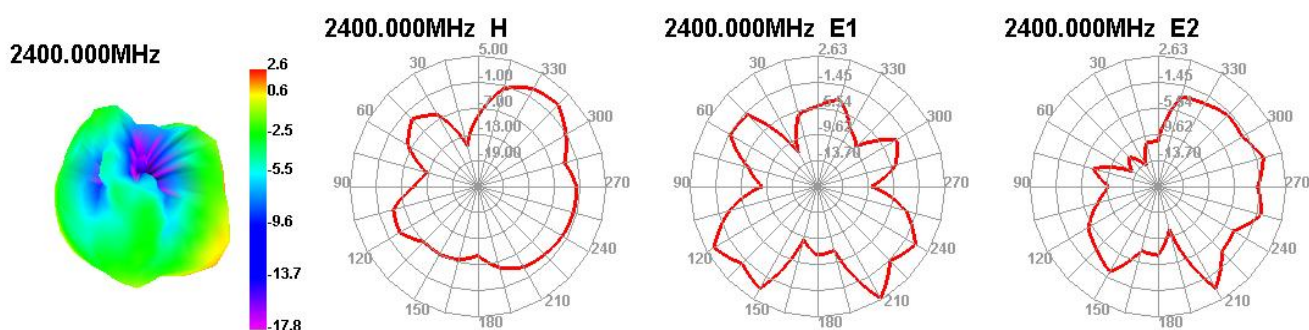


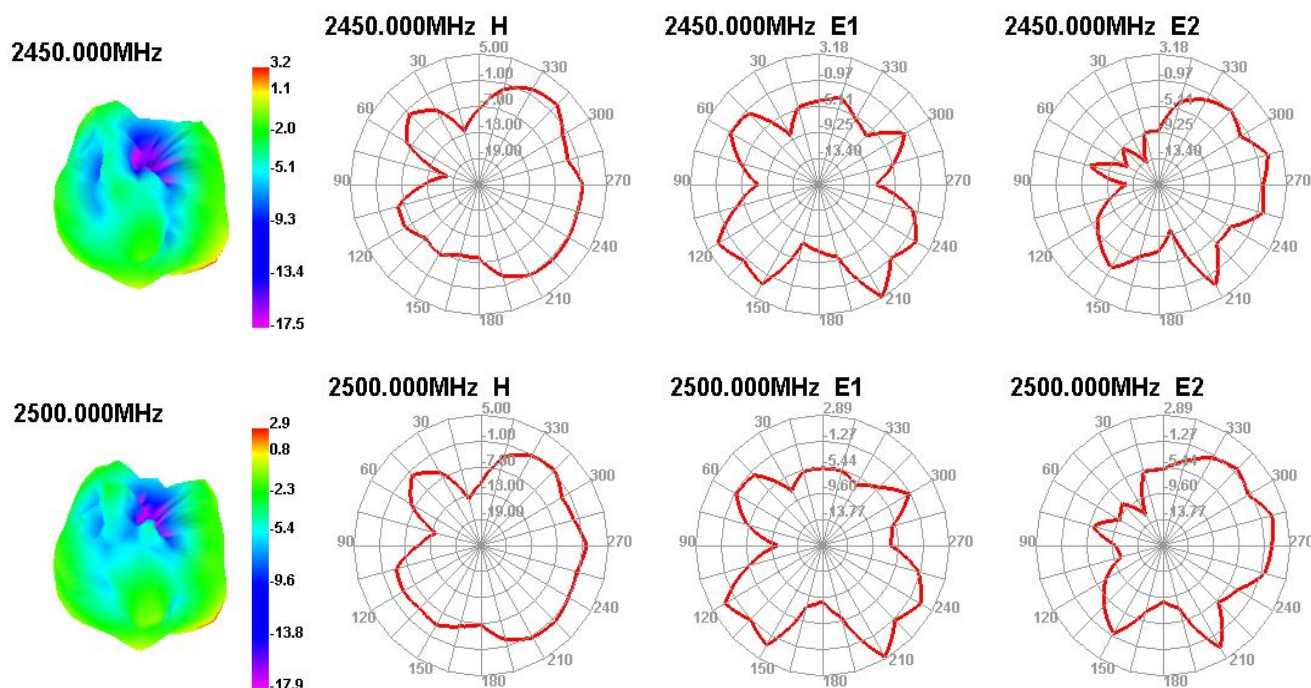
Chart 2 VSWR

5.2 Efficient and gain.

| Passive Test | Freq(MHz) | 2400 | 2410 | 2420 | 2430 | 2440 | 2450 | 2460 | 2470 | 2480 | 2490 | 2500 |
|--------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Effi(%) | 57.00 | 58.65 | 60.41 | 61.53 | 58.99 | 62.19 | 62.03 | 65.84 | 55.44 | 62.97 | 58.75 |
| 2.4GHz | Gain(dBi) | 2.63 | 2.82 | 2.94 | 3.09 | 2.85 | 3.18 | 3.20 | 3.50 | 2.63 | 3.27 | 2.89 |

5.3 Radiation pattern.





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.&Humi. 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.&Humi. 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

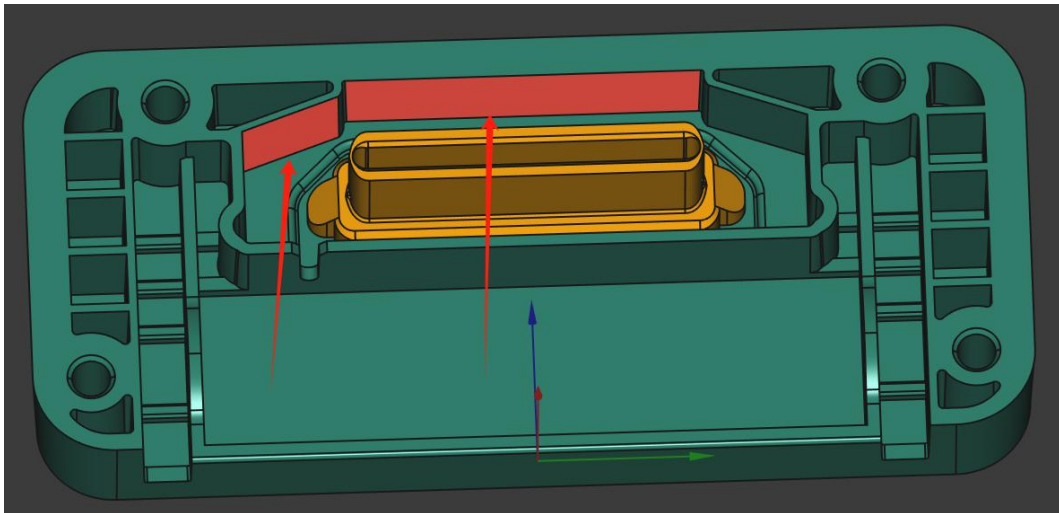


Chart 3 Assemble type

8.Product Drawing

A

-1.0
-1.5
-1.8

1.FPC material:Electrolytic copper.

2. Backing in behind: 3M300LSE.

3. Tolerance: Cutting die: ± 0.1 mm; Circuit on FPC: ± 0.05 mm; others are ± 0.05 mm.

4.ROHS:(Pb,Hg,Cr+6,PBBs,PBDEs),<1000ppm; Cd,<100ppm..

Devices



Third Angle

| Project | 创想三维 |
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| Treatment | JF02-25030108-R04 |
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Treatment

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