



Index

- 1. Cover • • • • • 1
- 2. Index • • • • • 2
- 3. Product Specification • • • • • 3
- 4. Test Equipment & Conditions • • • • • 3
- 5. Test Report • • • • • 4
- 6. Reliability Test • • • • • 5
- 7. Real picture • • • • • 8
- 8. Product Drawing • • • • • 9



3.Product Specification

| A. Electrical Characteristics | |
|--|-----------------------|
| Frequency | 2400~2500MHz |
| VSWR | <2.0 |
| Efficiency | >40% |
| Impedance | 50Ohm |
| Polarization | Linear |
| Gain | >=1.0dB |
| B. Material & Mechanical Characteristics | |
| Material of Radiator | Internal FPC(LJWF27A) |
| Cable Type | Φ1.13,Black,L165mm |
| Connector Type | IPX1 |
| Dimension | |
| C. Environmental | |
| Operation Temperature | - 30 °C ~ + 80 °C |
| Storage Temperature | - 20 °C ~ + 75 °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 | |

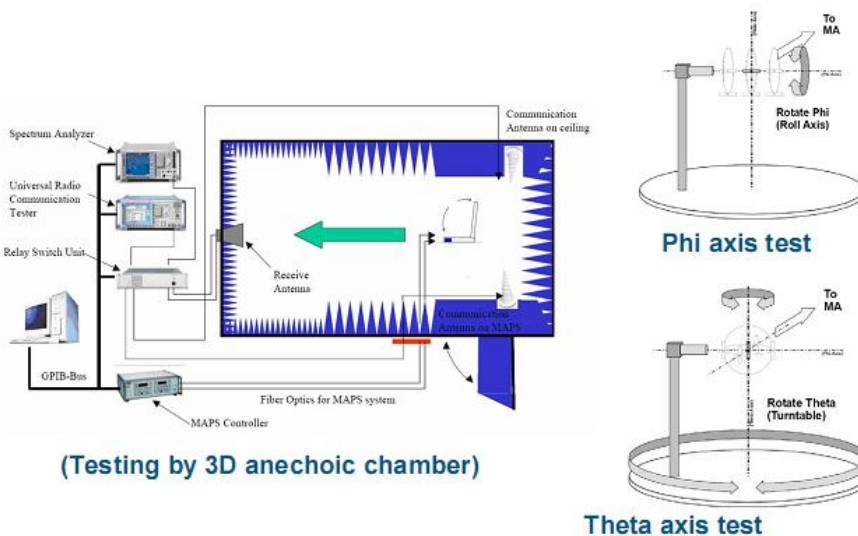


图 1 test topology



5. Test Report

5.1 Voltage Standing Wave Ratio(VSWR).



图 2 VSWR

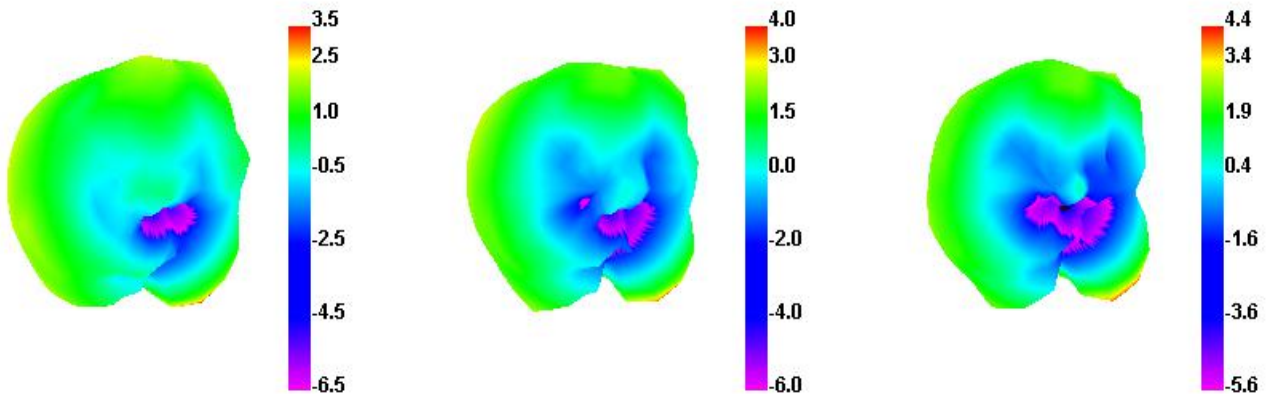
5.2 Efficient and gain(All data were tested in the chamber,25°C, 40%RH—65%RH).

| Passive | Freq (MHz) | 2400 | 2410 | 2420 | 2430 | 2440 | 2450 | 2460 | 2470 | 2480 | 2490 | 2500 |
|-----------------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test For WIFI 2.4G | Effi (%) | 40.99 | 40.83 | 38.76 | 38.93 | 45.19 | 46.05 | 48.24 | 43.33 | 47.13 | 46.78 | 51.87 |
| | Gain (dBi) | 1.98 | 1.78 | 1.80 | 1.86 | 1.93 | 2.30 | 1.88 | 1.88 | 1.91 | 1.84 | 1.74 |

2400.000MHz

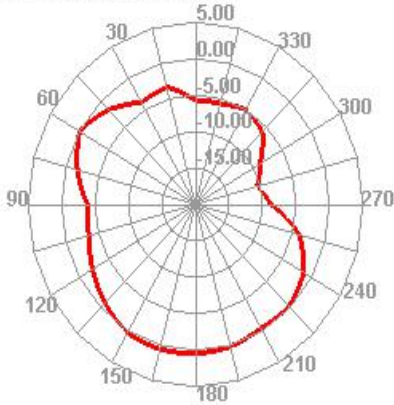
2450.000MHz

2500.000MHz

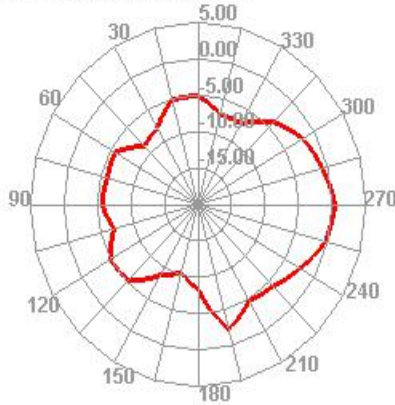




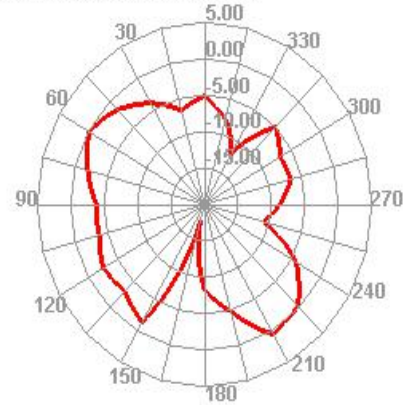
2400.000MHz H



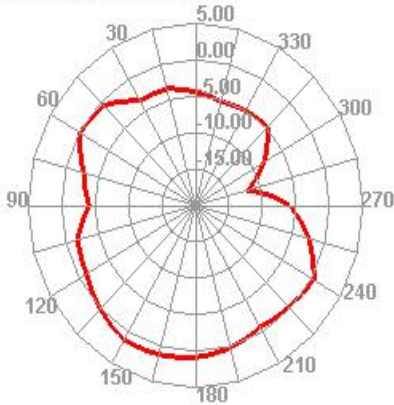
2400.000MHz E1



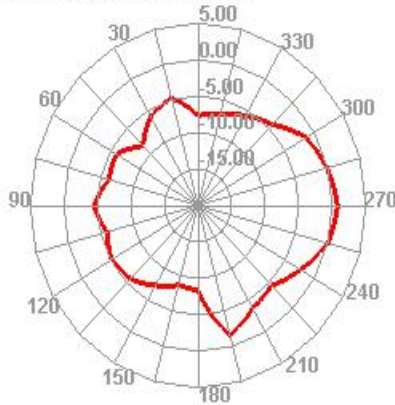
2400.000MHz E2



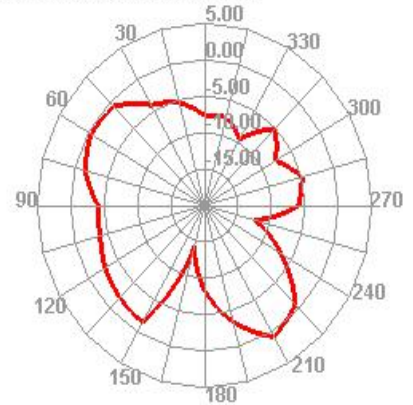
2450.000MHz H



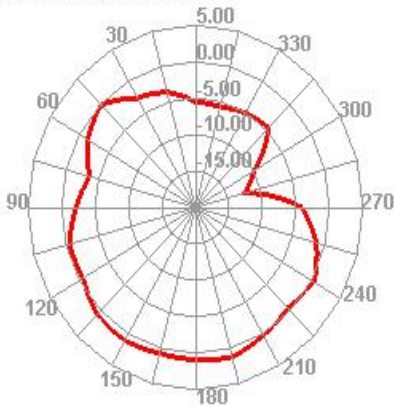
2450.000MHz E1



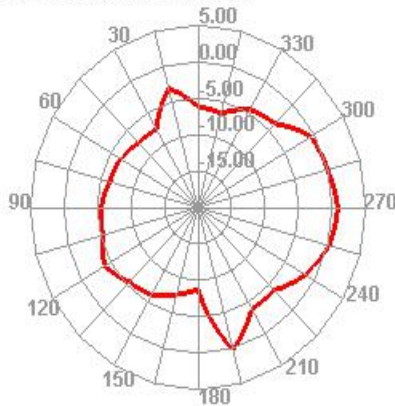
2450.000MHz E2



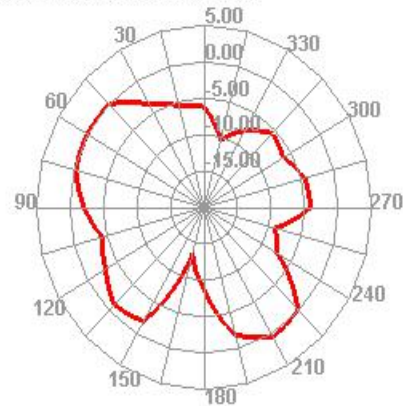
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



6. Reliability Test

| Test Item | Test condition | Equipment | Specification | Result |
|-----------|----------------|-----------|---------------|--------|
|-----------|----------------|-----------|---------------|--------|



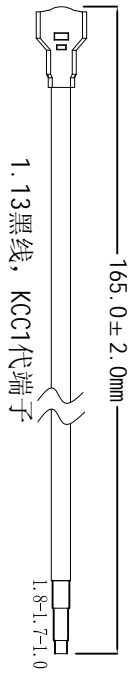
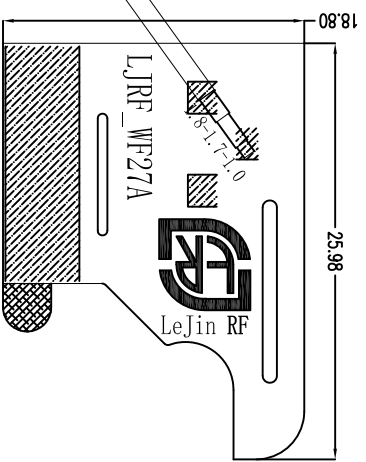
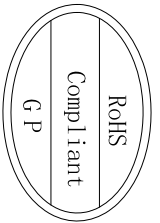
| | | | | | |
|---|------------------------------------|--|-----------------------|---|------|
| 1 | Low Temp. Storage Test | Temperature: -30℃, Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-down the temp. to -30℃ in one hour, store antenna for 44 hours; step-up temp to 25℃, test antenna after 2 hours. | Temp.&Humidity 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.&Humidity 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 appearance rusting | PASS |

7.Real picture



图 3 Real picture

8.Product Drawing



| Rev | Description | Date | Remark |
|-----|-------------|------|--------|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| A | New drawing | | |

| | | | |
|--|---|--|---|
| | | 深圳乐进射频科技有限公司 SHEN ZHEN LEJIN RADIO FREQUENCY CO., LTD | |
| 0~10 10~18 18~30 30~40 40~ | ±0.05 ±0.10 ±0.12 ±0.15 ±0.20 | Third Angle 0.02 ∅0.03 0.02 0.04 ±0.5° | Project Part Name Part No. Material Treatment |
| 随晨科技P07S WIFI 2.4G | | Date 2021-03-06 | LWF27A LF02-210401088-R0A |
| Location | Angle | Designed by | Checked by |
| | | MD | RF |
| 由 Autodesk 教育版产品制作 | | Unit | Scale |
| 由 Autodesk 教育版产品制作 | | mm | 1:1 |
| 由 Autodesk 教育版产品制作 | | Scale | Fit |
| 由 Autodesk 教育版产品制作 | | Rev | A |