



Shenzhen Lejin radio frequency technology Co., LTD

SPECIFICATIONS FOR APPROVAL

Customer Name: _____

Product Name: 2.4GHz Antenna

Product Model: _____

Part Number: LJW01-17091602-R0A

Write By : Huxuwen

Issued Date: 2021-04-08

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 | 2021/04/08 | |
| | | | |
| | | | |



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3.Product Specification

| A. Electrical Characteristics | |
|--|---------------------|
| Frequency | 2400MHz ~2500 MHz |
| VSWR | <2.0 |
| Efficiency | >40% |
| Impedance | 50Ohm |
| Polarization | Linear |
| Gain | 1.65dBi |
| B. Material & Mechanical Characteristics | |
| Material of Radiator | Metal |
| Cable Type | N/A |
| Connector Type | N/A |
| Dimension | 19.0*3.50*3.75(H)mm |
| C. Environmental | |
| Operation Temperature | - 20 °C ~ + 70 °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 | |

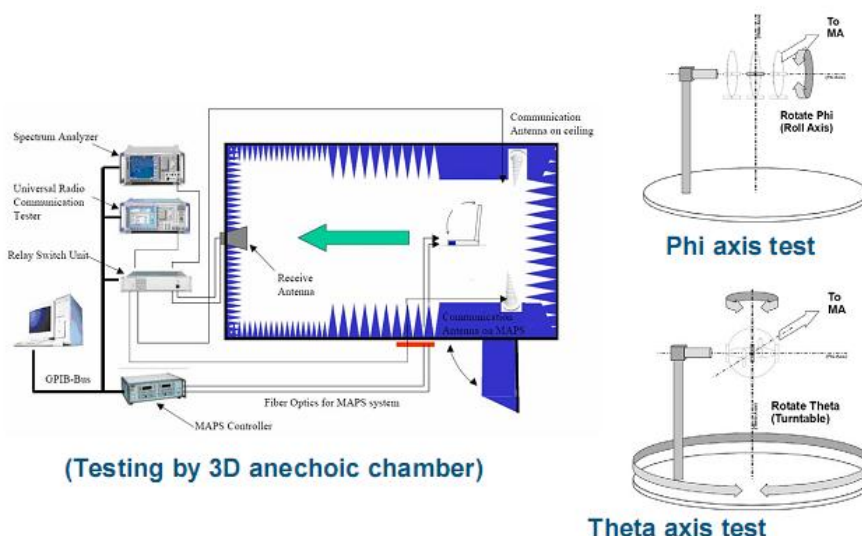


Chart 1 Test topology

5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

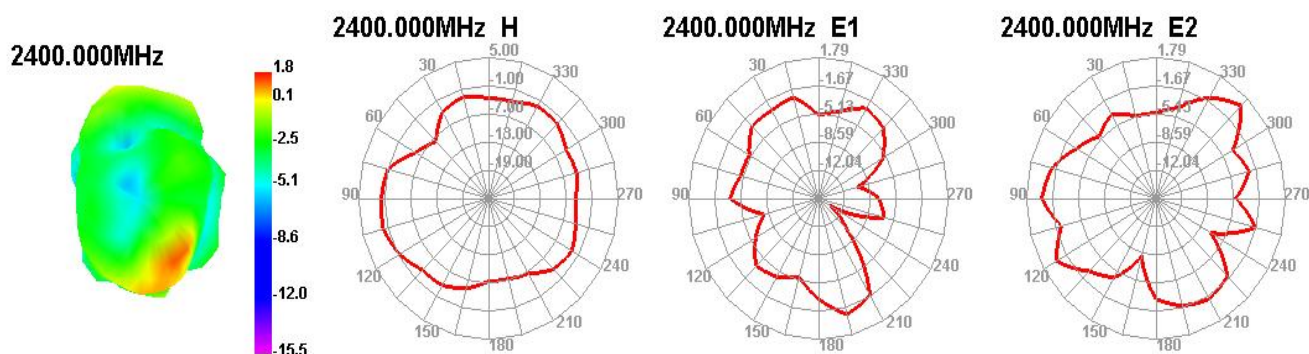


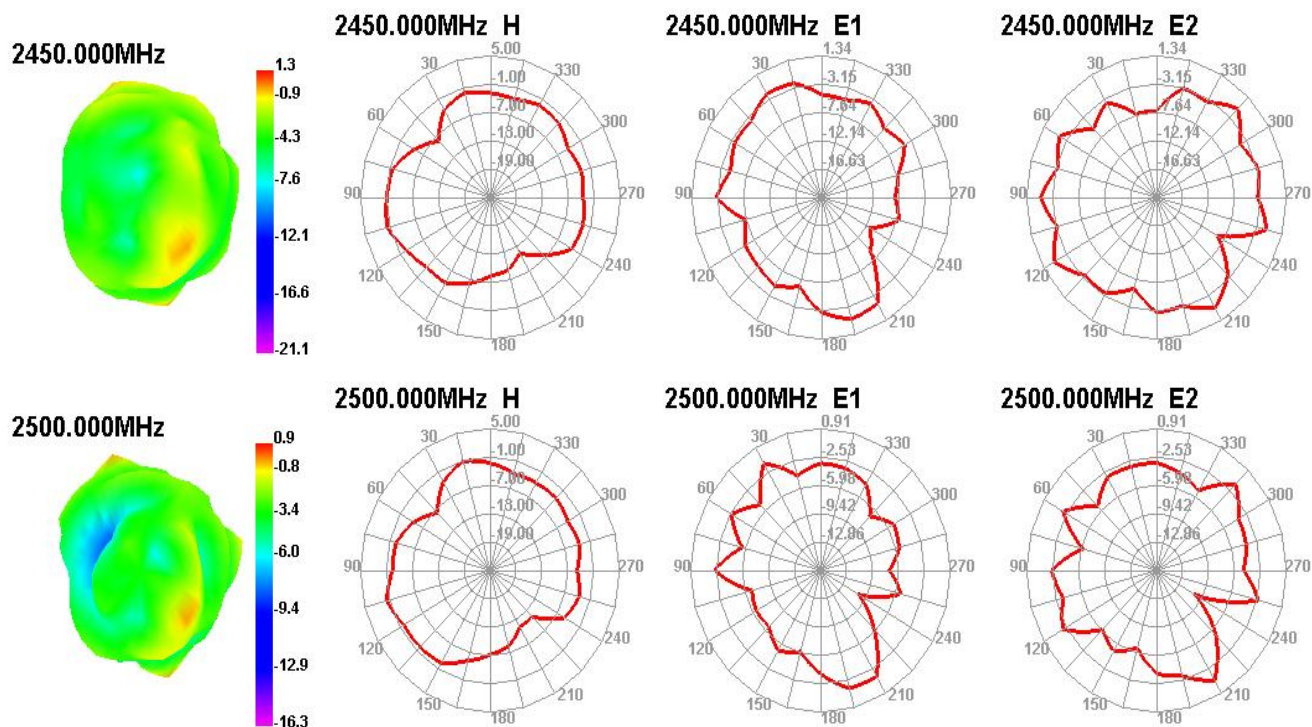
Chart 2 VSWR

5.2 Efficient and gain.

| Passive | Freq(MHz) | 2400 | 2410 | 2420 | 2430 | 2440 | 2450 | 2460 | 2470 | 2480 | 2490 | 2500 |
|---------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Test For WIFI | Effi(%) | 42.62 | 46.84 | 51.47 | 55.07 | 53.54 | 48.06 | 51.80 | 49.38 | 44.21 | 42.77 | 40.64 |
| | Gain(dBi) | 1.47 | 1.44 | 1.56 | 1.65 | 1.54 | 1.29 | 1.62 | 1.59 | 1.62 | 1.37 | 0.36 |

5.3 Radiation pattern.



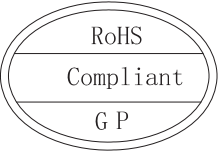
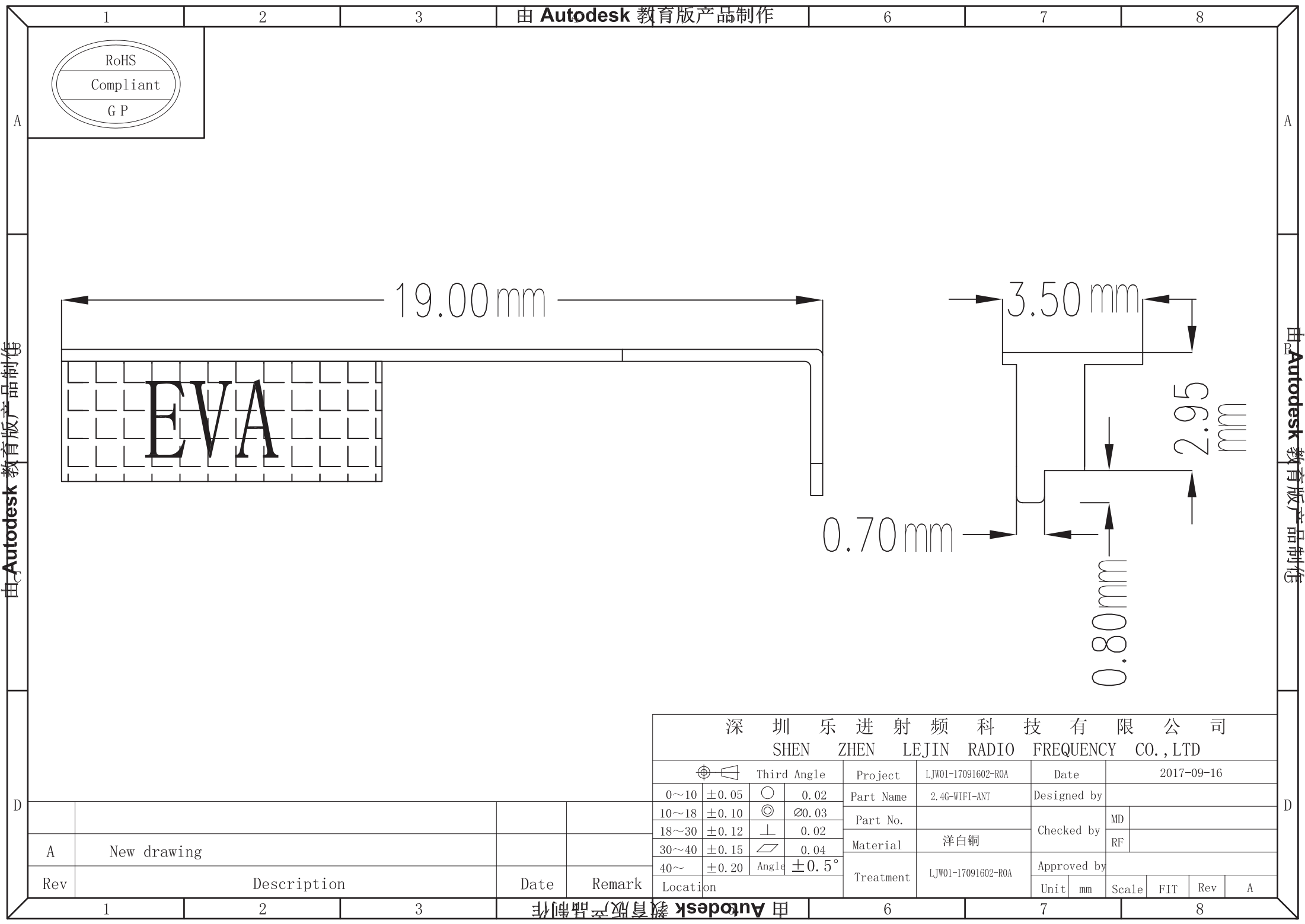


6. Reliability Test

| 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(omitted)

8. Product Drawing



19.00 mm

EVA

0.70 mm

3.50 mm

2.95 mm

0.80 mm

深圳乐进射频科技有限公司
SHEN ZHEN LEJIN RADIO FREQUENCY CO., LTD

| | | | | | | | |
|-------------|-------|---------|--------------------|-----------|--------------------|-------------|-----|
| Third Angle | | Project | LJW01-17091602-ROA | Date | 2017-09-16 | | |
| 0~10 | ±0.05 | ○ | 0.02 | Part Name | 2.4G-WIFI-ANT | Designed by | |
| 10~18 | ±0.10 | ◎ | Ø0.03 | Part No. | | Checked by | MD |
| 18~30 | ±0.12 | ⊥ | 0.02 | Material | 洋白铜 | | RF |
| 30~40 | ±0.15 | ∕ | 0.04 | Treatment | LJW01-17091602-ROA | Approved by | |
| 40~ | ±0.20 | Angle | ±0.5° | | | | |
| Location | | | | | | Unit | mm |
| | | | | | | Scale | FIT |
| | | | | | | Rev | A |

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