



Lejin RF

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	

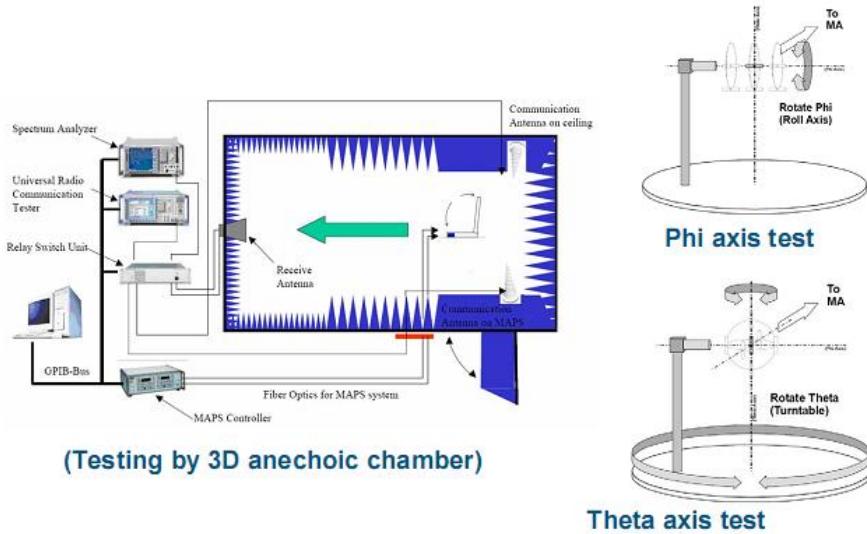


Chart 1 Test topology

5. Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

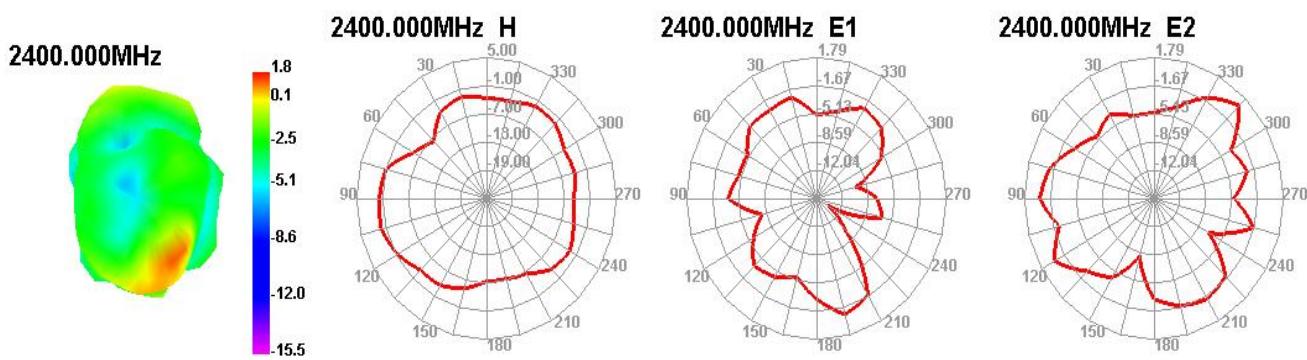


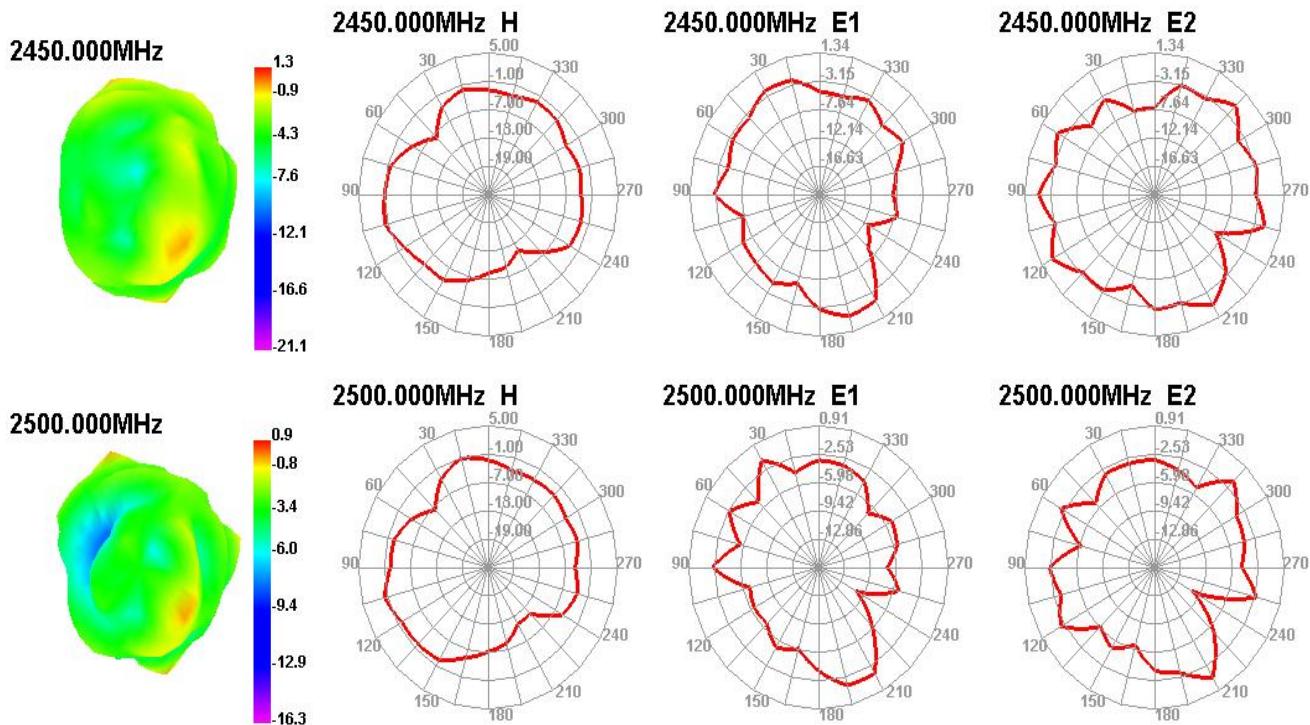
Chart 2 VSWR

5.2 Efficient and gain.

Passive Test For	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Effi(%)	42.62	46.84	51.47	55.07	53.54	48.06	51.80	49.38	44.21	42.77	40.64	
2.4G Gain(dBi)	1.47	1.44	1.56	1.65	1.54	1.09	1.62	1.59	1.62	1.37	0.36	

5.3 Radiation pattern.





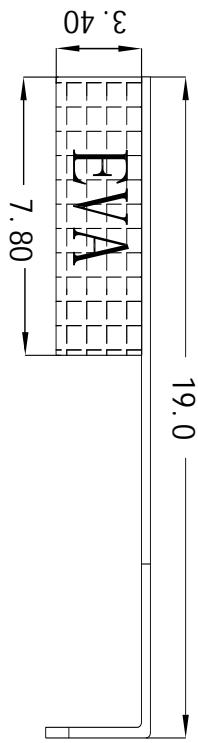
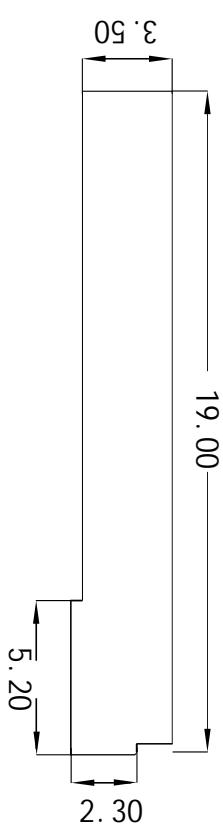
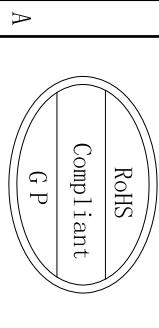
6. Reliability Test

Test Item		Test condition	Equipment	Specification	Result
1	Low Temp. Storage Test	Temperature: -30°C , Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25 °C and humidity is 65% for one hour, then step-down the temp. to -30 °C in one hour, store antenna for44 hours; step-up temp to 25 °C,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°C Humidity: 85% RH Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25 °C and humidity is 65% for one hour, then step-up the temp. to 80 °C and the humidity up to 85% in one hour, store antenna for 44 hours; step-down temp to 25 °C ,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°C 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

1 2 3 4 5 6 7 8



C

B

A

C

B

A

Rev	Description	Date	Remark	Location	5	6	7	8
1	2	3	4					

D	<p>深圳乐进射频科技有限公司 SHEN ZHEN LEJIN RADIO FREQUENCY CO., LTD</p> <p>Third Angle</p> <p>0~10 ± 0.05 0.02</p> <p>10~18 ± 0.10 0.03</p> <p>18~30 ± 0.12 0.02</p> <p>30~40 ± 0.15 0.04</p> <p>40~ ± 0.20 Angle $\pm 0.5^\circ$</p> <p>Project LJJW01-17091602-R0A</p> <p>Part Name 2.4G-WIFI-ANT</p> <p>Designed by</p> <p>Part No.</p> <p>Material</p> <p>Treatment LJJW01-17091602-R0A</p> <p>Approved by</p> <p>Unit mm Scale FIT Rev A</p>	<p>2017-09-16</p> <p>MD</p> <p>RF</p> <p>LJJW01-17091602-R0A</p> <p>Unit mm Scale FIT Rev A</p>
A	<p>New drawing</p>	