Shenzhen Lejin radio frequency technology Co., LTD

SPECIFICATIONS FOR APPROVAL

Customer Name: SHENZHEN ELECTRON TECHNOLOGY CO.,LTD

Product Name: WIFI Antenna(WIFI1)

Product Model: WF3205T

Part Number: LJF02-22072608A-R0A

Write By : Huxuwen

Issued Date: 2022-07-26

CUSTOMER

ENGINEER R&D DEPT	BUSSINESS DEPT	APPROVAL
		刘建红

LEJIN

R&D DEPT	ENGINEER DEPT	APPROVAL

REV	MODIFIED DESCRIPTION	DATE	REMARK
V1.0	Initial Draft Release	2022/07/26	

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3.Product Specification

A. Electrical Characteristics	
Frequency	2400MHz ~2500 MHz 5150MHz ~5850 MHz
VSWR	<2.0
Efficiency	⩾45%
Impedance	50Ohm
Polarization	Linear
B. Material & Mechanical Characteristics	
Material of Radiator	PCB(Black)
Cable Type	Φ1.13mm,L415mm,Black
Connector Type	IPX1
Dimension	49.0*14.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

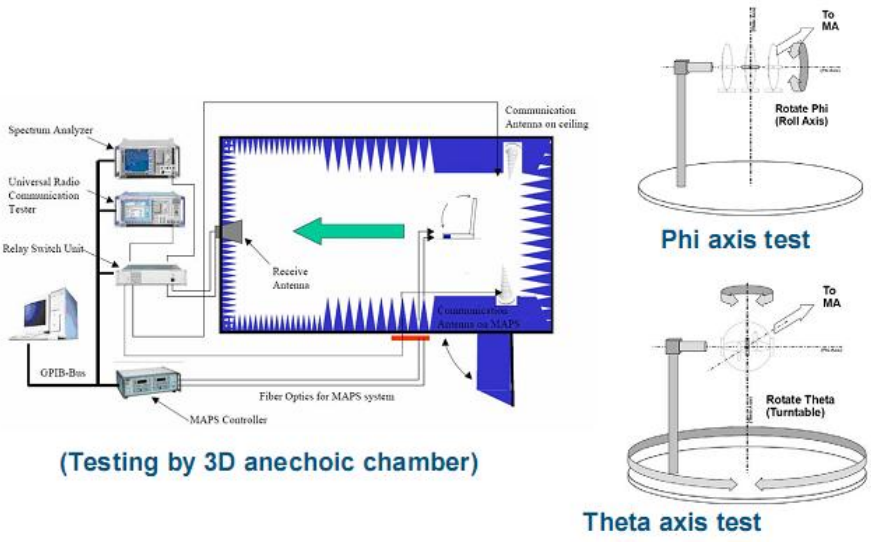

Chart 1 Test topology

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5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

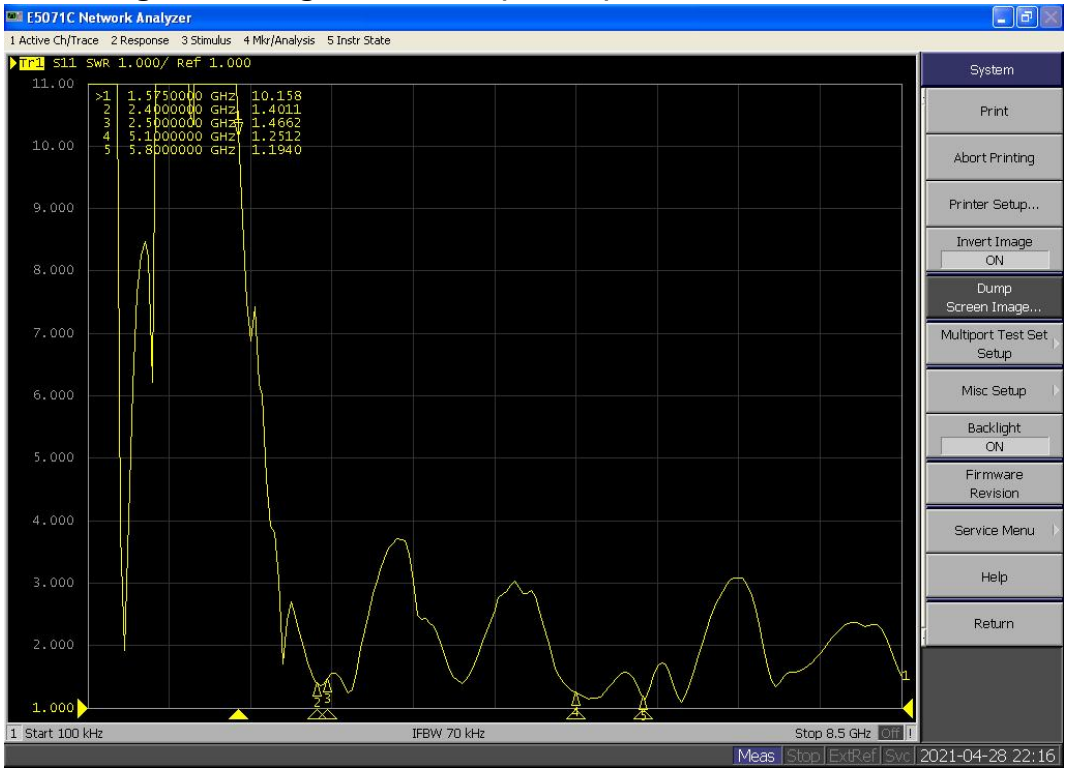


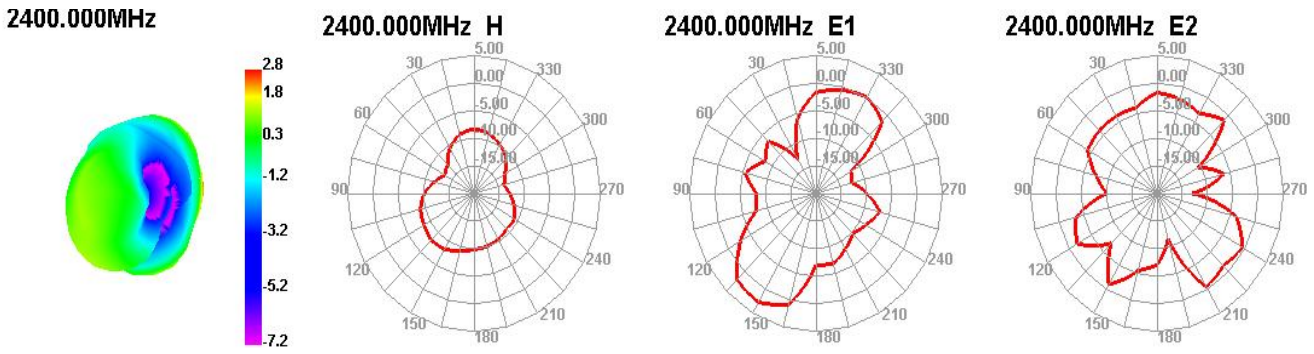
Chart 2 VSWR

5.2 Efficient and gain.

Passive Test For 2.4G	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
	Effi(%)	52.39	53.08	55.47	58.44	61.55	59.22	63.77	56.72	53.40	53.04	50.96
	Gain(dBi)	2.19	2.11	2.21	2.16	2.13	2.29	2.25	2.27	2.10	2.15	2.07

Passive Test For WIFI 5G	Freq(MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
	Effi(%)	56.12	57.89	55.78	59.20	57.21	59.31	61.57	57.47	59.26	55.52	60.42	56.38	57.92	61.61	56.75
	Gain(dBi)	2.14	2.30	2.23	2.28	2.26	2.38	2.48	2.22	2.45	2.39	2.47	2.38	2.28	2.25	2.19

5.3 Radiation pattern.



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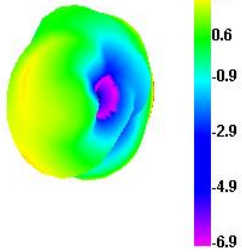
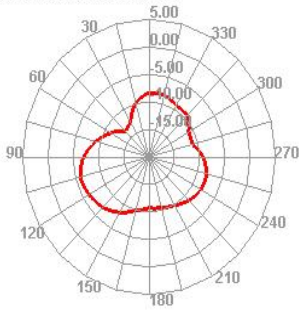
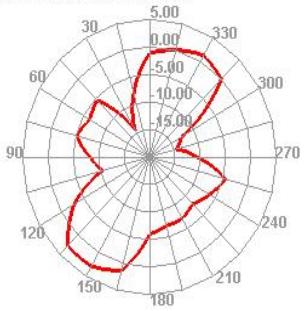
2450.000MHz



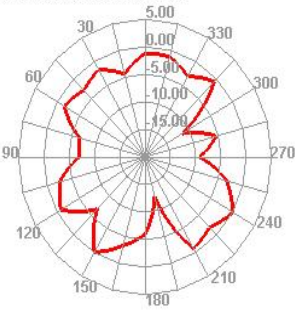
2450.000MHz H



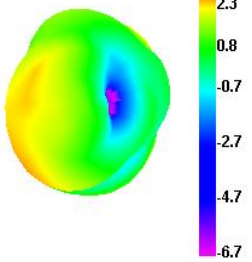
2450.000MHz E1



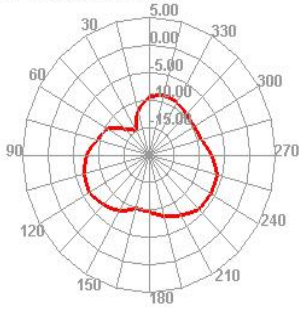
2450.000MHz E2



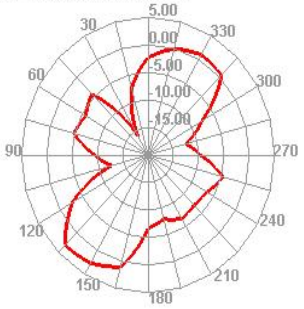
2500.000MHz



2500.000MHz H



2500.000MHz E1



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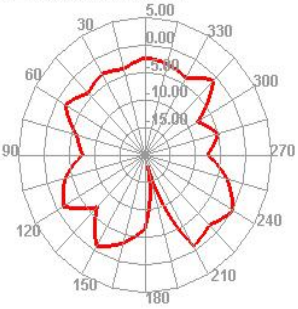
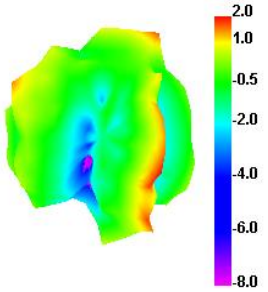


5150.000MHz



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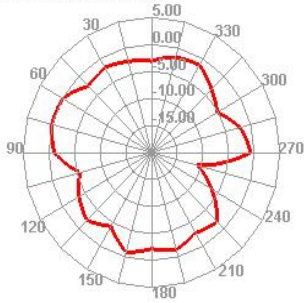
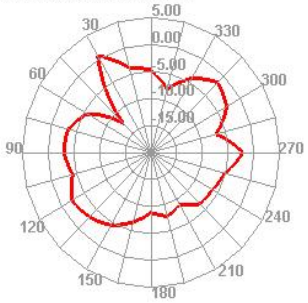
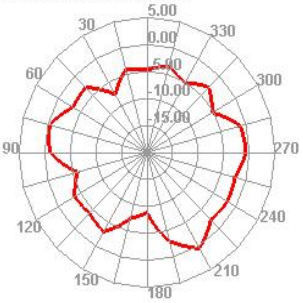


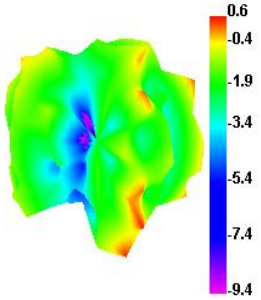
5150.000MHz E1



5150.000MHz E2



5550.000MHz



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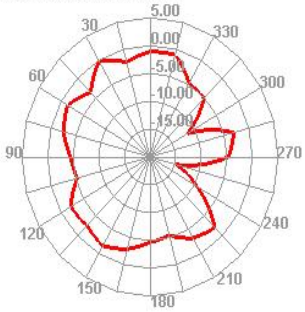
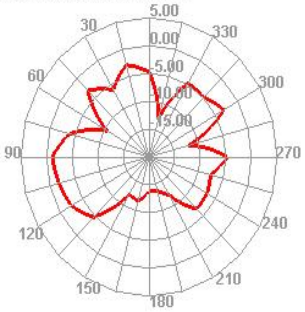


5550.000MHz E1



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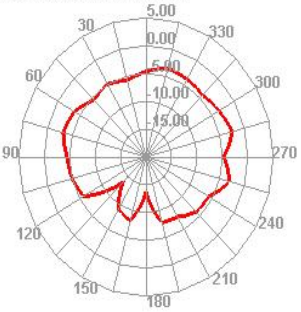
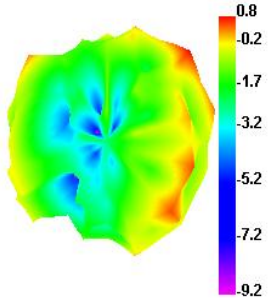
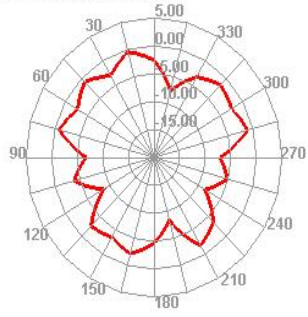


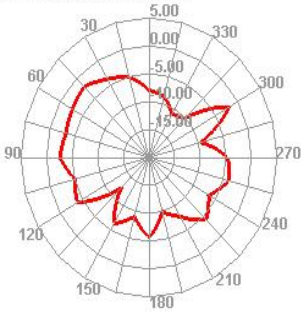
6000.000MHz



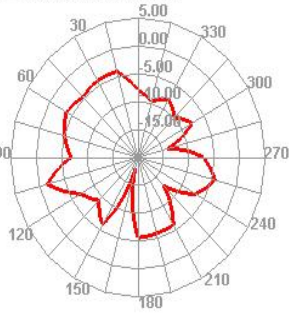
6000.000MHz H



6000.000MHz E1



6000.000MHz E2



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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 for44 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 tempto 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

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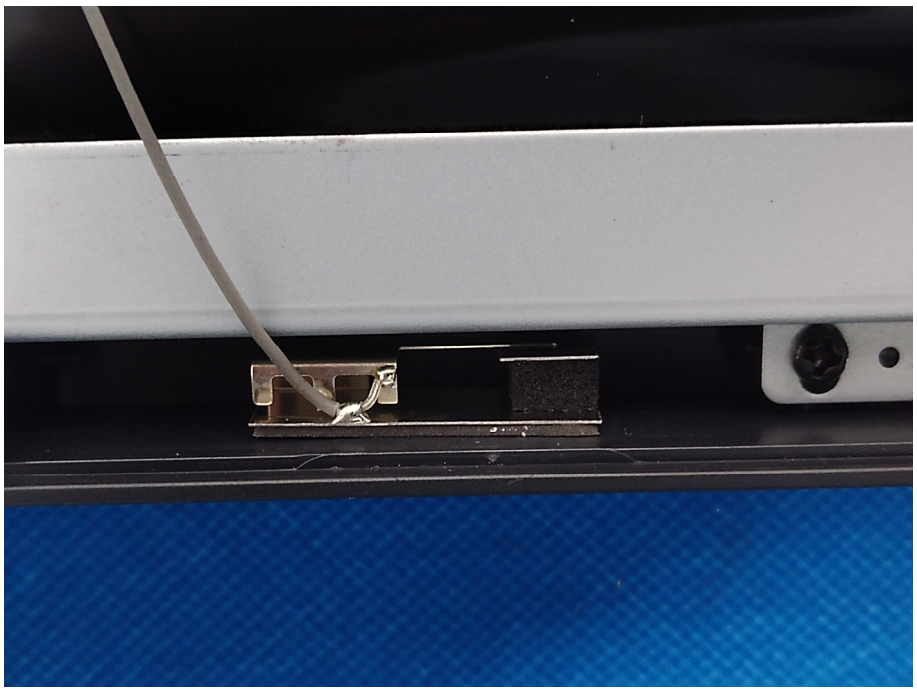

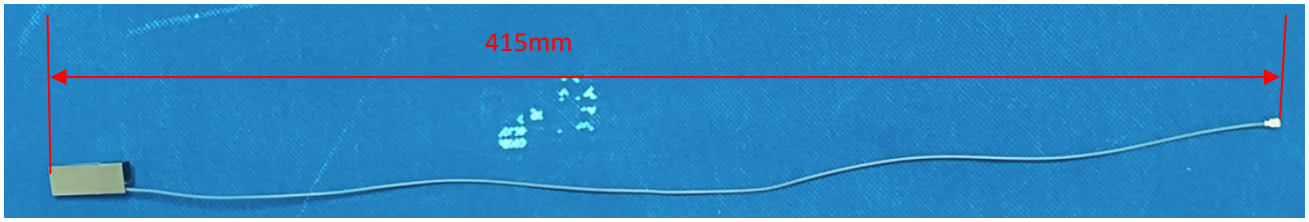

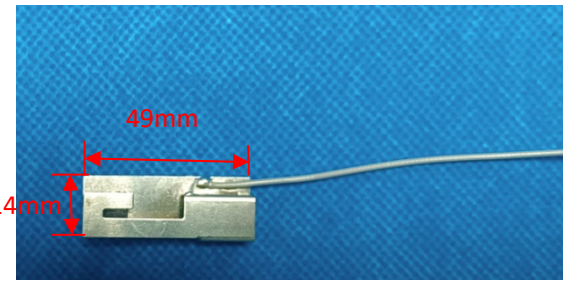

Chart 3 WF3205T assemble type

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