



Shenzhen Lejin radio frequency technology Co., LTD

## SPECIFICATIONS FOR APPROVAL

Customer Name: SHENZHEN ELECTRON TECHNOLOGY CO.,LTD

Product Name: WIFI Antenna

Product Model: 103

Part Number: LJF02-22121308-R0A

Write By : Huxuwen

Issued Date: 2023-02-17

### 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	2023/02/17	



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## 5. Test Report

### 5.1 Voltage Standing Wave Ratio(VSWR).

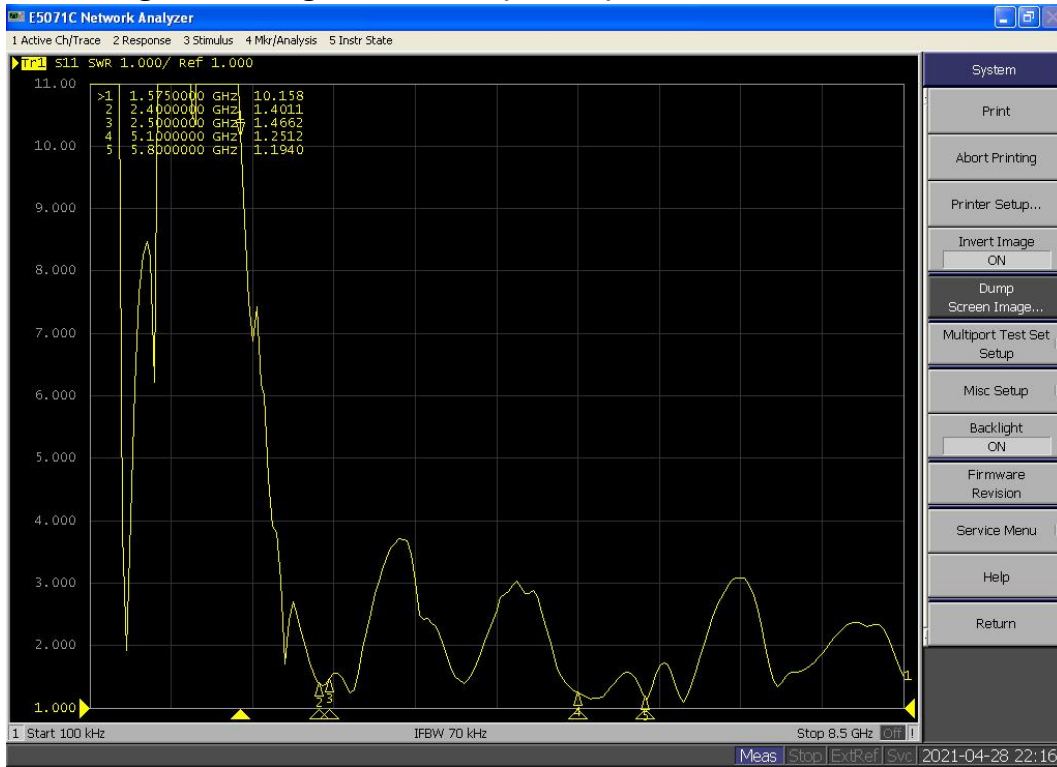


Chart 2 VSWR

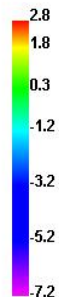
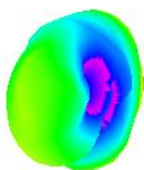
### 5.2 Efficient and gain.

Passive Test For 2.4G	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
	Effi(%)	42.92	48.42	45.89	49.73	45.98	49.52	47.16	50.01	43.90	43.55	41.54
	Gain(dBi)	1.92	2.00	2.05	2.16	2.13	2.27	2.03	2.15	2.25	2.14	1.88

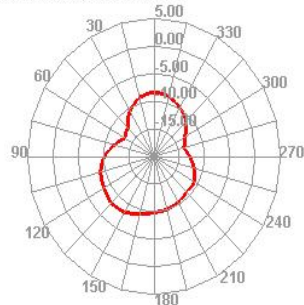
Passive Test For WIFI 5G	Freq(MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
	Effi(%)	51.22	53.19	50.84	54.64	52.43	54.77	57.28	52.72	54.71	50.55	55.99	51.51	53.22	57.32	51.92
	Gain(dBi)	2.11	2.25	2.19	2.24	2.22	2.15	2.24	2.18	2.12	2.28	2.23	2.15	2.24	2.21	2.15

### 5.3 Radiation pattern.

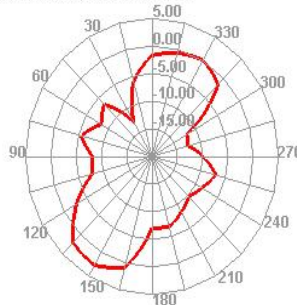
2400.000MHz



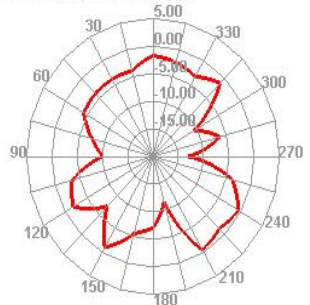
2400.000MHz H



2400.000MHz E1

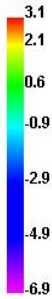
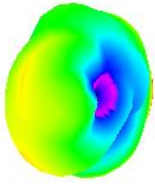


2400.000MHz E2

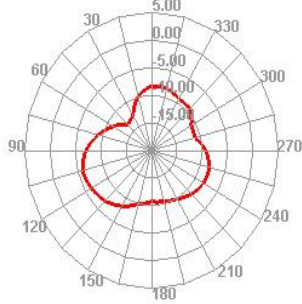




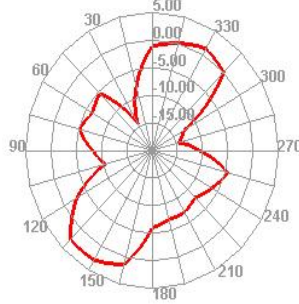
2450.000MHz



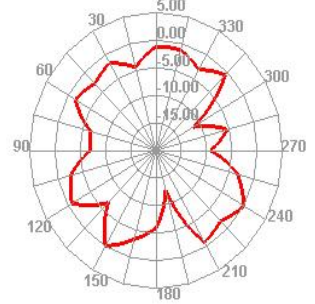
2450.000MHz H



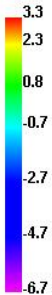
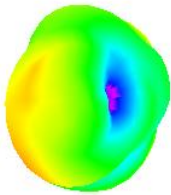
2450.000MHz E1



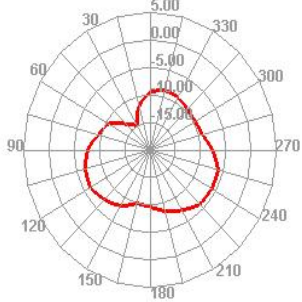
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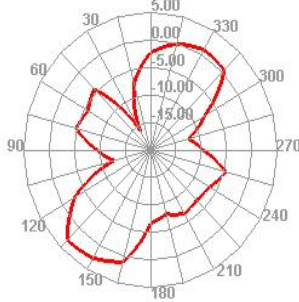
2500.000MHz



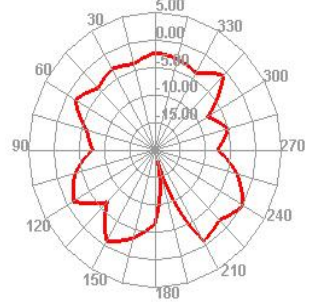
2500.000MHz H



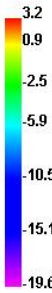
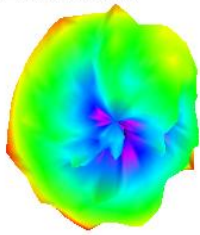
2500.000MHz E1



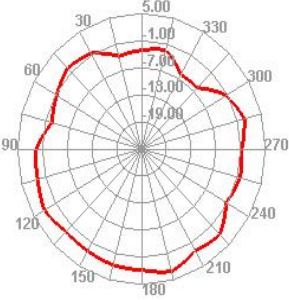
2500.000MHz E2



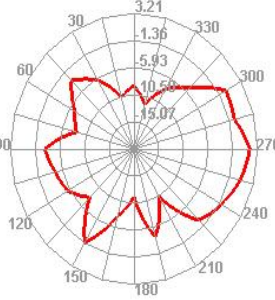
5200.000MHz



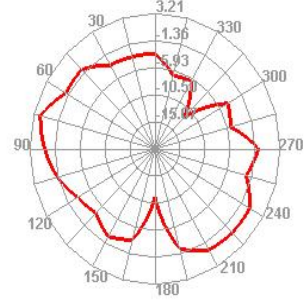
5200.000MHz H



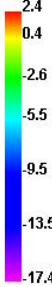
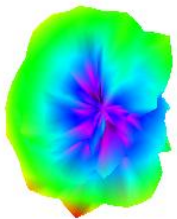
5200.000MHz E1



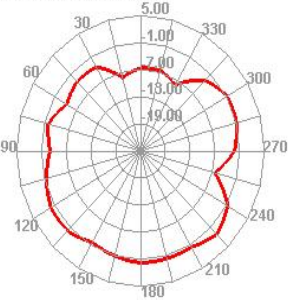
5200.000MHz E2



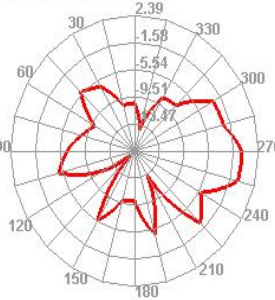
5550.000MHz



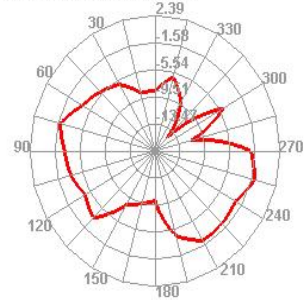
5550.000MHz H



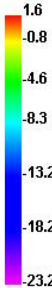
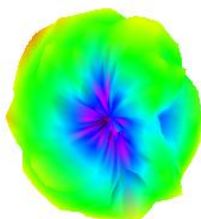
5550.000MHz E1



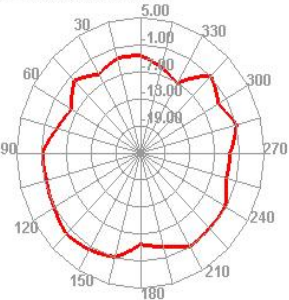
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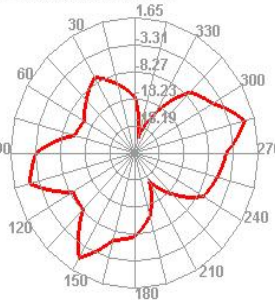
6000.000MHz



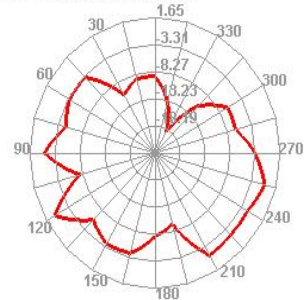
6000.000MHz H



6000.000MHz E1



6000.000MHz E2







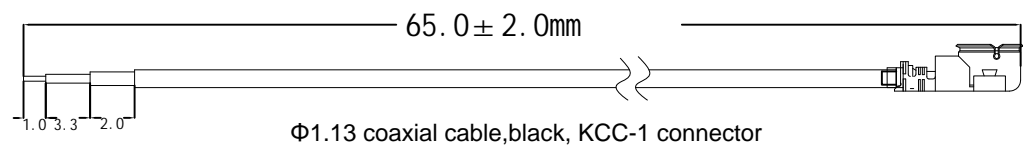
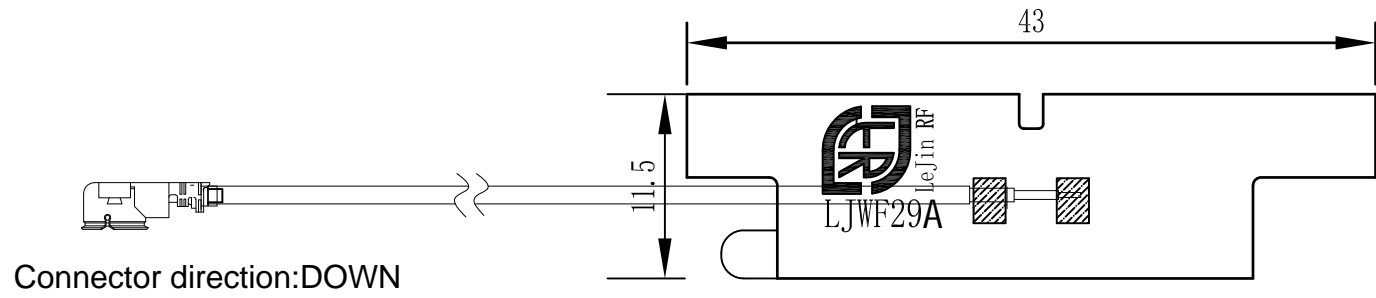
## 6. Reliability Test

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.&Hum i. 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.&Hum i. 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(omit)

## 8. Product Drawing

RoHS  
Compliant  
G P



**Remark:**

- 1.FPC material:Electrolytic copper.
- 2.Backing in behind:3M300LSE.
- 3.Tolerance: Cutting die:±0.1mm;Circuit on FPC:±0.05mm; others are ±0.05mm.
- 4.ROHS:(Pb,Hg,Cr+6,PBBs,PBDEs),<1000ppm; Cd,<100ppm.

Revise record	1			
	2			
	3			

		SHEN ZHEN LEJIN RADIO FREQUENCY CO., LTD					
		Project	乐木骆	Date	2018-10-27		
0~10	±0.05	○	0.02	Part Name	WIFI ANT	Designed by	
10~18	±0.10	◎	∅0.03	Part No.	103	Checked by	MD
18~30	±0.12	⊥	0.02	Material			RF
30~40	±0.15	∕	0.04	Treatment	LJF02-22121308-ROA	Approved by	
40~	±0.20	Angle	±0.5°	Location		Unit	mm
						Scale	FIT
						Rev	A

A	New drawing			
Rev	Description	Date	Remark	