3.Product Specification

A. Electrical Characteristics	
Frequency	2400MHz ~2500 MHz 5150MHz ~5850 MHz
VSWR	<2.0
Efficiency	≥30%
Impedance	50Ohm
Polarization	Linear
Gain(2.4GHz)	≤2.48dBi
Gain(5.8GHz)	≤3.92dBi
B. Material & Mechanical Characteristics	
Material of Radiator	FPC(Yellow),LJWF20J-L
Cable Type	Φ1.13mm,L120mm,Black
Connector Type	IPX1
Dimension	26.0mm*21.5mm
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

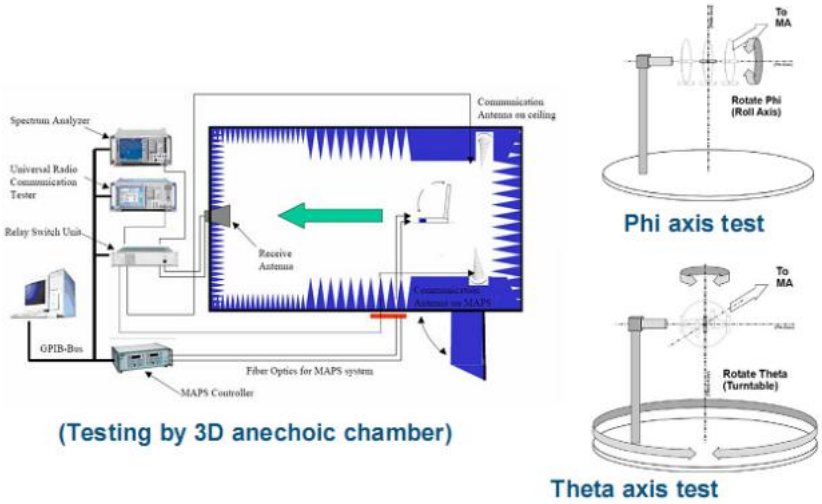

Chart 1 Test topology

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5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

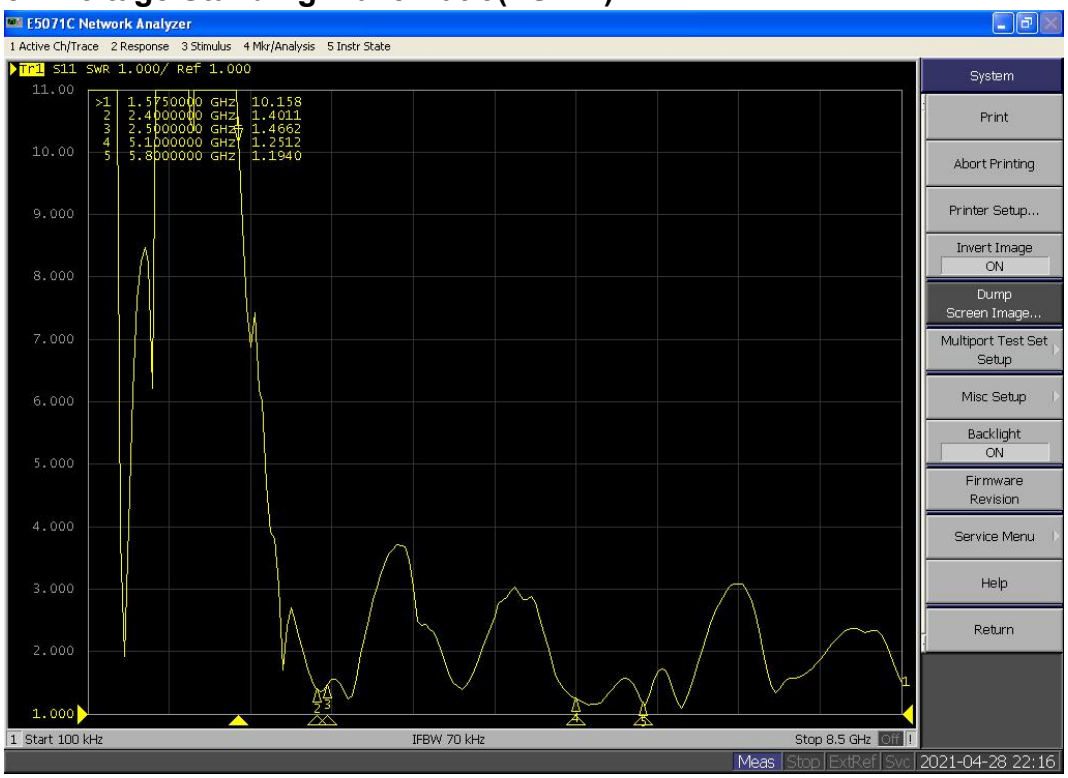


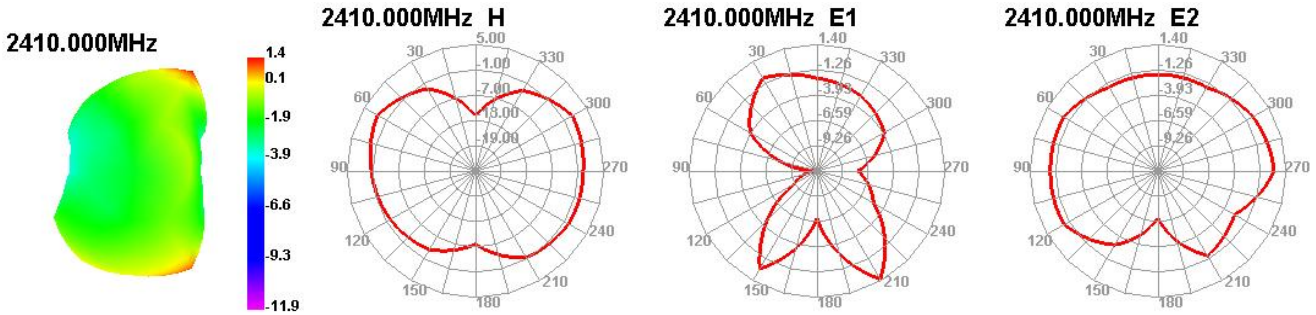
Chart 2 VSWR

5.2 Efficient and gain.

Passive Test 2.4GHz	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
	Effi(%)	36.23	27.26	29.09	22.08	41.90	45.61	38.20	39.67	43.83	45.67	35.28
	Gain(dBi)	1.40	1.38	1.04	0.46	1.75	2.13	1.82	2.09	2.47	2.48	1.83

Passive Test WIFI 5G	Freq(MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850	5900	5950	6000
	Effi(%)	34.10	42.72	37.03	30.55	46.31	52.69	48.92	54.08	45.34	55.57	53.23	45.72	51.04	53.42	54.68	58.21	37.54	47.26
	Gain(dBi)	3.70	3.92	3.20	2.44	3.07	3.34	3.36	3.60	3.46	3.43	3.50	3.28	3.78	3.27	3.59	3.81	2.36	3.35

5.3 Radiation pattern.



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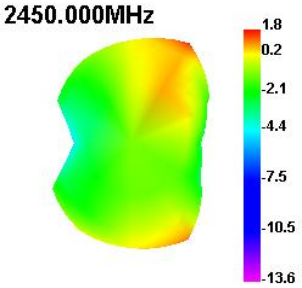
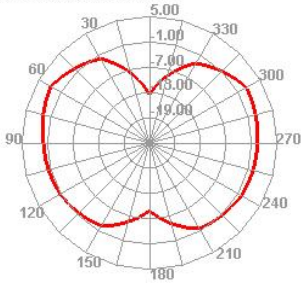
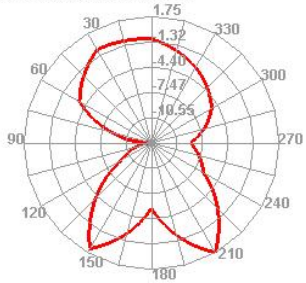
2450.000MHz



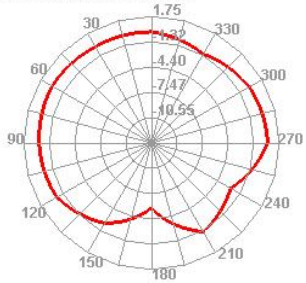
2450.000MHz H



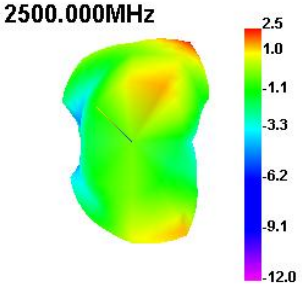
2450.000MHz E1



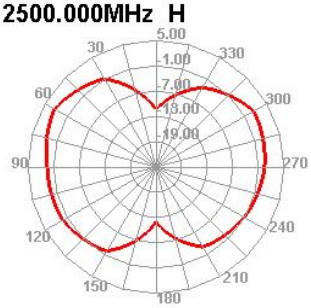
2450.000MHz E2



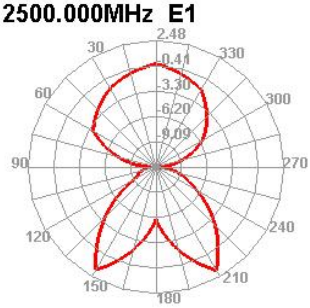
2500.000MHz



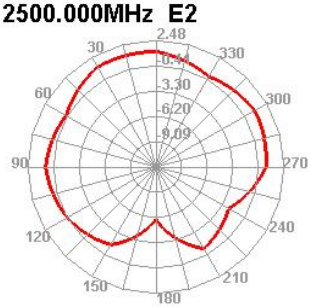
2500.000MHz H



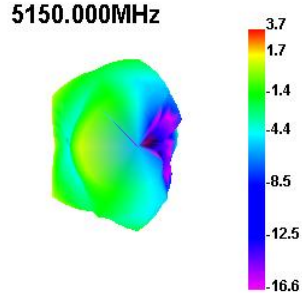
2500.000MHz E1



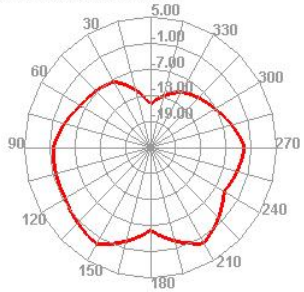
2500.000MHz E2



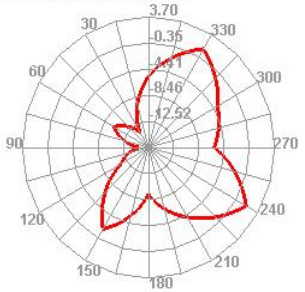
5150.000MHz



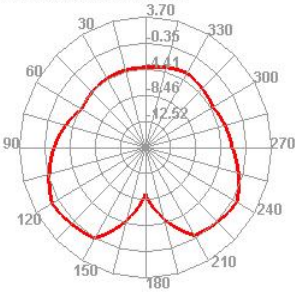
5150.000MHz H



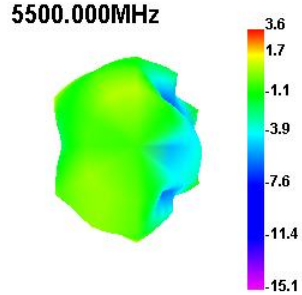
5150.000MHz E1



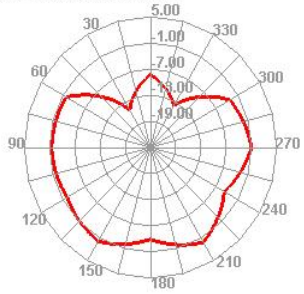
5150.000MHz E2



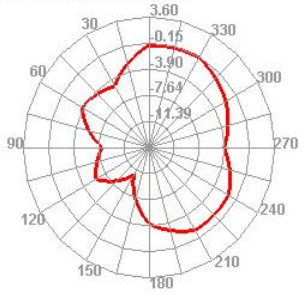
5500.000MHz



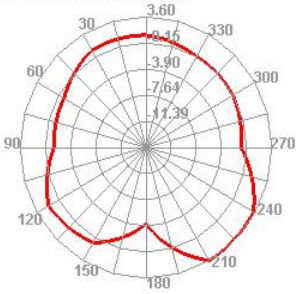
5500.000MHz H



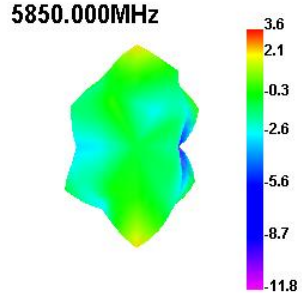
5500.000MHz E1



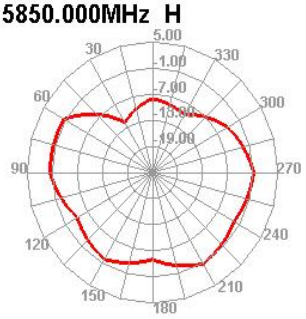
5500.000MHz E2



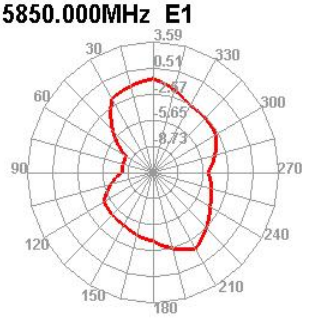
5850.000MHz



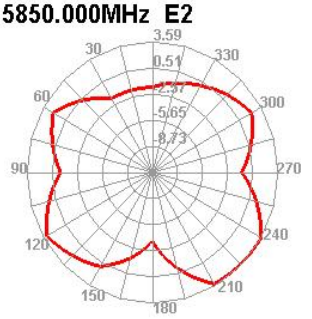
5850.000MHz H



5850.000MHz E1



5850.000MHz 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

Chart 4 assemble type

8.Product Drawing

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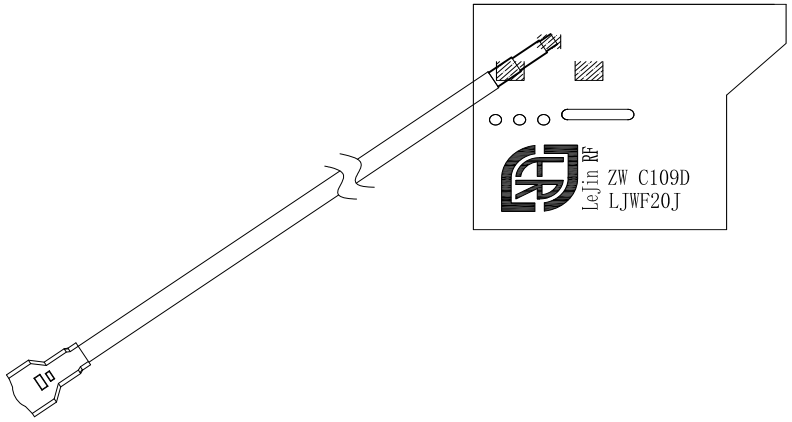
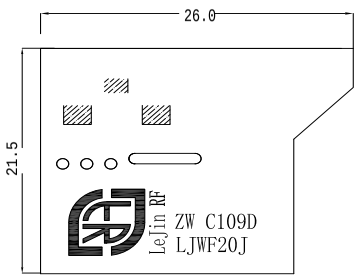
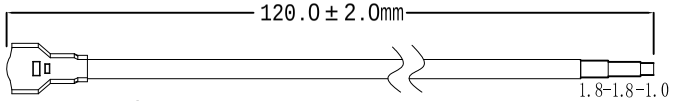
由 Autodesk 教育版产品制作

RoHS
Compliant
G P







Φ1.13 coaxial cable,black, KCC-1 connector

Remark:

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

Rev	Description	Date	Remark
A	New drawing		

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SHEN ZHEN LEJIN RADIO FREQUENCY CO.,LTD

Third Angle				Project	智能派	Date	2025-01-10		
0～10	±0.05	○	0.02	Part Name	WIFI/BT ANT	Designed by			
10～18	±0.10	◎	∅0.03	Part No.		Checked by	MD		
18～30	±0.12	⊥	0.02				RF		
30～40	±0.15	▱	0.04	Material					
40～	±0.20	Angle	±0.5°	Treatment	LJF02-24122008-R0A	Approved by			
Location						Unit mm	Scale FIT	Rev	A