



Shenzhen Lejin radio frequency technology Co., LTD

SPECIFICATIONS FOR APPROVAL

Customer Name: SHENZHEN ELECTRON TECHNOLOGY CO.,LTD

Product Name: WIFI Antenna

Product Model: WT8012T/WT8017T/WT8018T

Part Number: LJF02-20120308A-R0A

Write By : Limingjin

Issued Date: 2020-12-03

CUSTOMER

ENGINEER R&D DEPT	BUSSINESS DEPT	APPROVAL
		Jack.Li

LEJIN

R&D DEPT	ENGINEER DEPT	APPROVAL
		Menna.Tao

REV	MODIFIED DESCRIPTION	DATE	REMARK
V1.0	Initial Draft Release	2020/12/03	
V1.1	Support new model WT8016T	2022/10/21	



Index

1. Cover	1
2. Index	2
3. Product Specification	3
4. Test Equipment & Conditions	3
5. Test Report	4
6. Reliability Test	5
7. Assemble type	6
8. Product Drawing	

3.Product Specification

A. Electrical Characteristics	
Frequency	2400MHz ~2500 MHz
VSWR	<2.0
Efficiency	>40%
Impedance	50Ohm
Polarization	Linear
Gain	2.53dBi
B. Material & Mechanical Characteristics	
Material of Radiator	FPC(Black),LJWF29A
Cable Type	Φ1.13mm,L80mm,Black
Connector Type	IPX1
Dimension	43.0mm*11.5mm
C. Environmental	
Operation Temperature	- 30 °C ~ + 80 °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

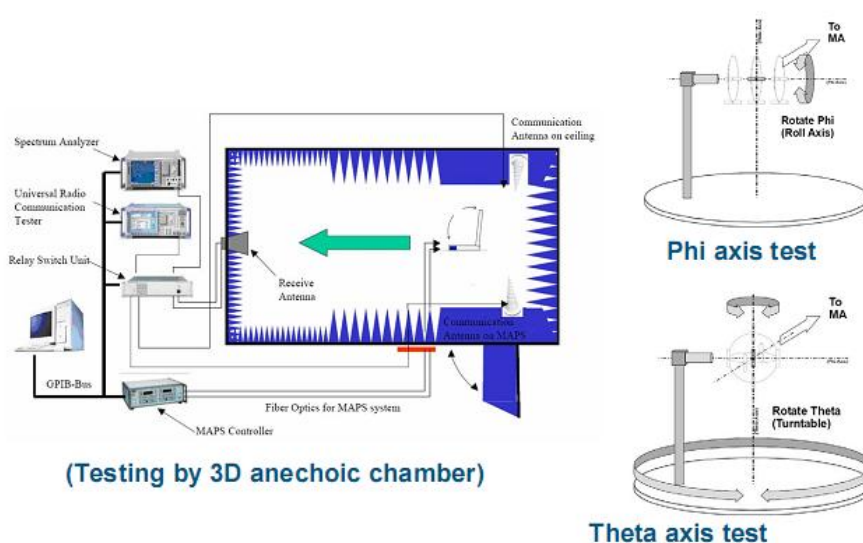


图 1 test topology

5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

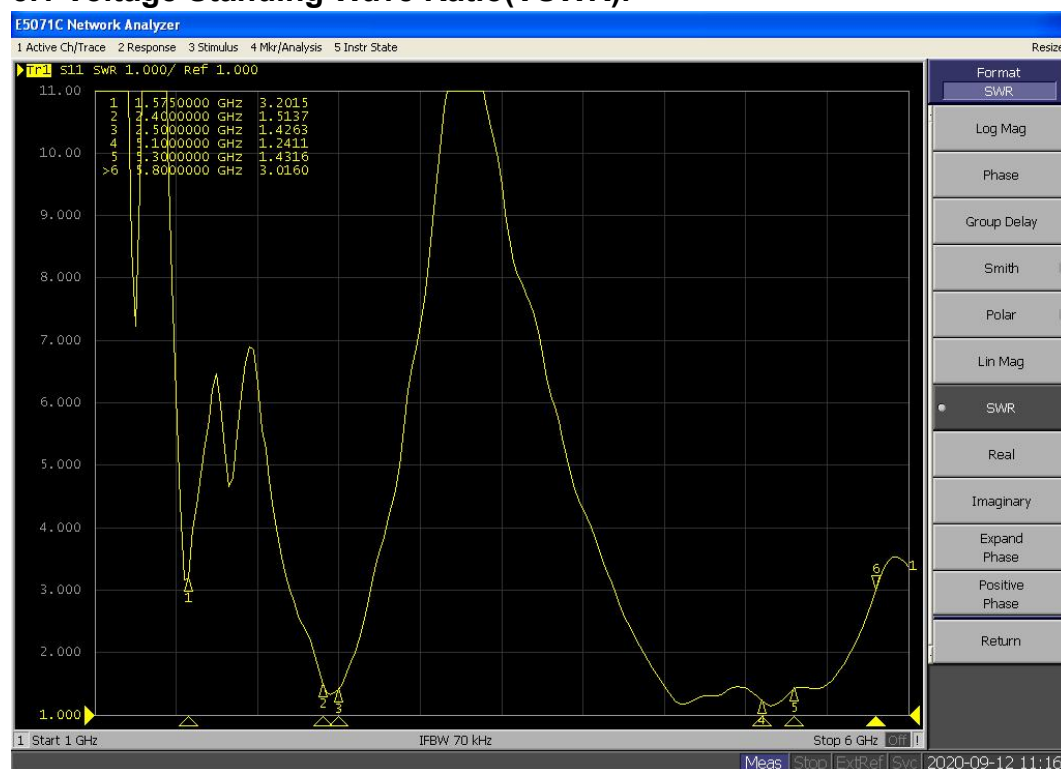
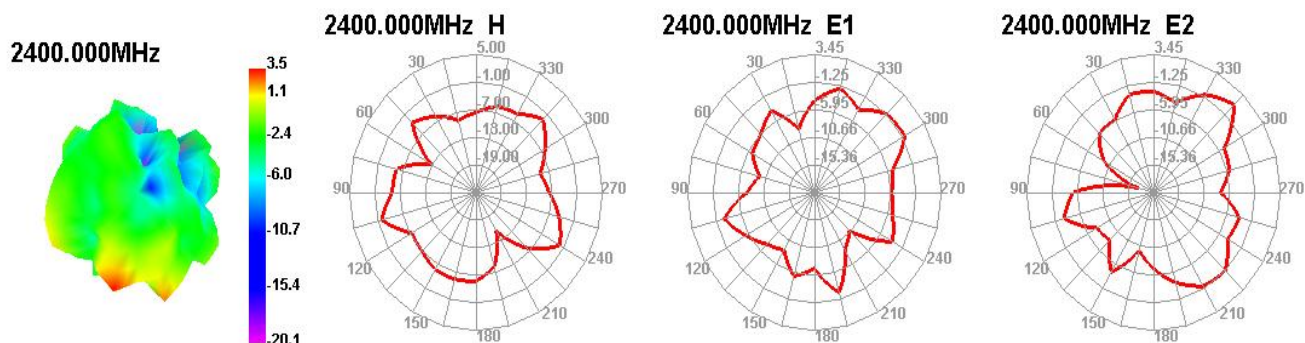


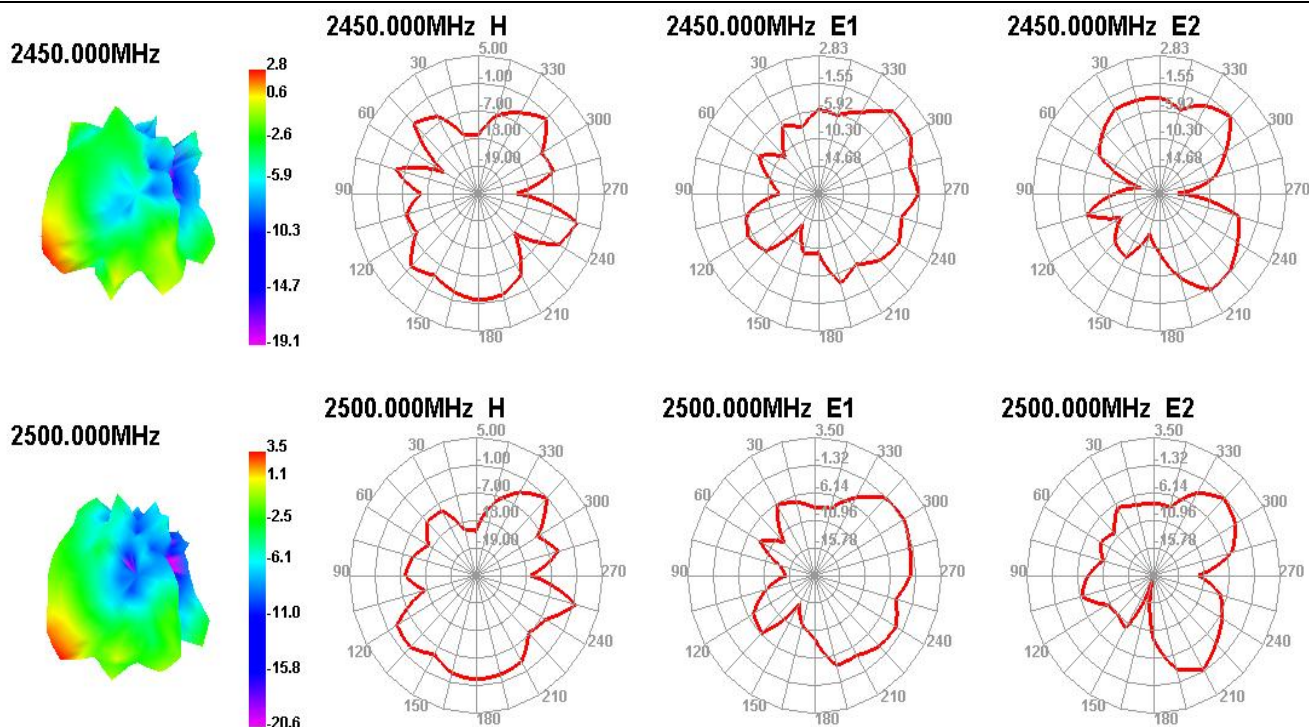
图 2 VSWR

5.2 Efficient and gain.

Passive Test For WIFI 2.4G	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
	Effi(%)	54.14	55.33	57.43	62.27	58.32	61.45	60.42	56.87	56.85	57.17	52.60
	Gain(dBi)	2.53	2.45	2.46	2.50	2.50	2.53	2.53	2.49	2.46	2.35	1.99

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.&Hum. 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. 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

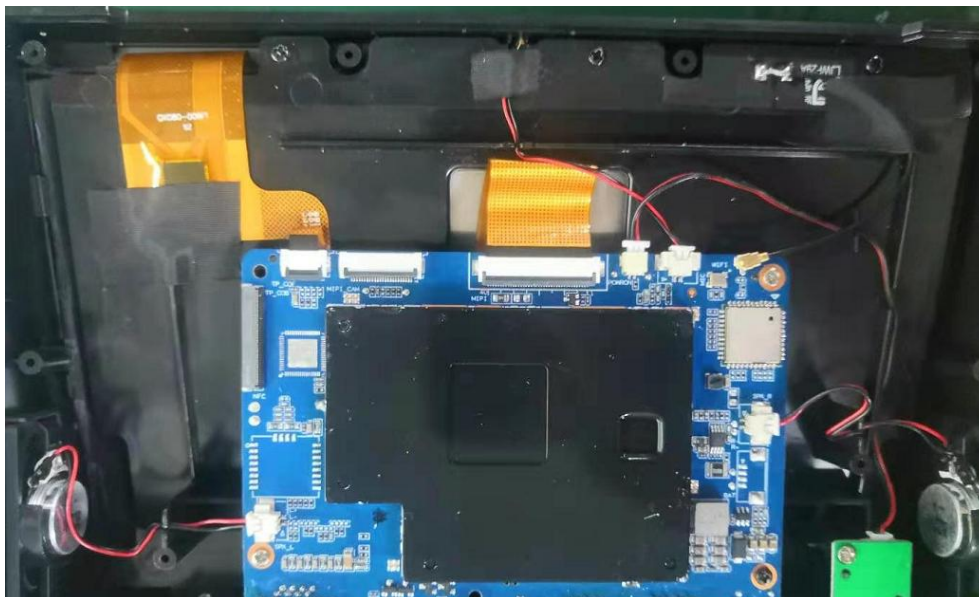


Chart 3 assemble type(overall)

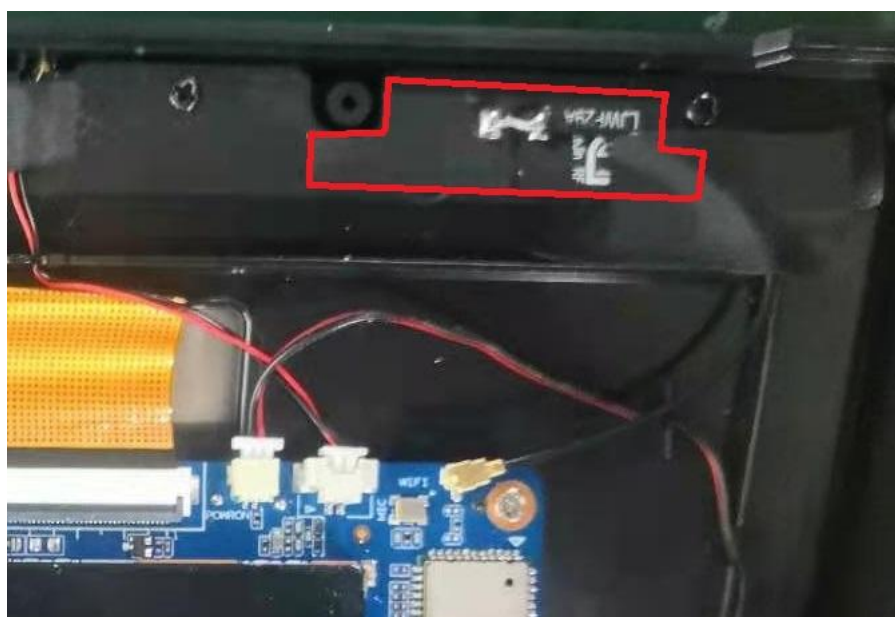
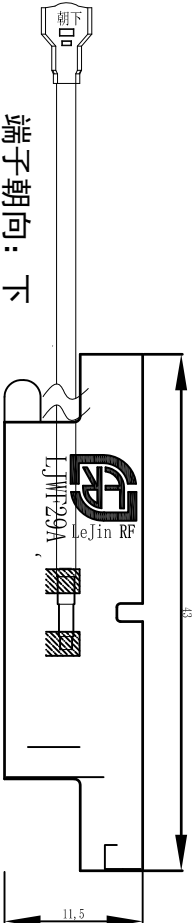
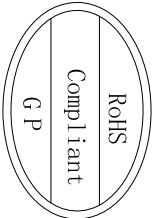
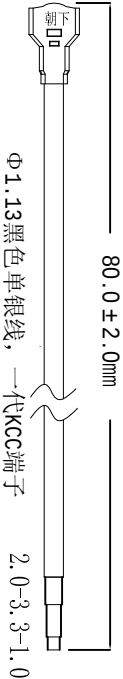


Chart 4 Antenna position

8.Product Drawing



端子朝向：下



变更记录	1	修正	
	2		
	3		

 深圳乐进频率科技有限公司

SHEN ZHEN LEJIN RADIO FREQUENCY CO., LTD

Third Angle		Project	亿莱顿科技	Date	20220510828		
0~10	±0.05	○	0.02	Part Name	WiFi天线	Designed by	
10~18	±0.10	◎	0.03	Part No.		Checked by	MD
18~30	±0.12	⊥	0.02	Material		RF	
30~40	±0.15	∇	0.04	Treatment	LJF02-20120308A-R0A	Approved by	
40~	±0.20	Angle	±0.5°			Unit	mm
Location						Scale	Fit
						Rev	A

Rev		Description	Date	Remark				Unit		Scale	Fit	Rev	A
1		New drawing											
2													
3													