



Shenzhen Lejin radio frequency technology Co., LTD

SPECIFICATIONS FOR APPROVAL

Customer Name: 深圳金亚太科技有限公司

Product Name: WIFI Dual Antenna

Product Model: TX

Part Number: LJF01-18091104-R0A

Write By : Qiang Fu

Issued Date: 2018-09-11

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	2018/9/11	
V1.1	Revise the length of cable	2019/2/27	
V1.2	Add radiation pattern data	2021/11/11	



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3.Product Specification

A. Electrical Characteristics	
Frequency	2400MHz ~2500 MHz 5150 MHz ~5850 MHz
VSWR	<2.0
Efficiency	>40%
Impedance	50Ohm
Polarization	Linear
Gain	>=2.0dB
B. Material & Mechanical Characteristics	
Material of Radiator	FPC(Black)
Cable Type	Φ1.13mm,L92mm,Black
Connector Type	IPX1
Dimension	38.0*9.0mm
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

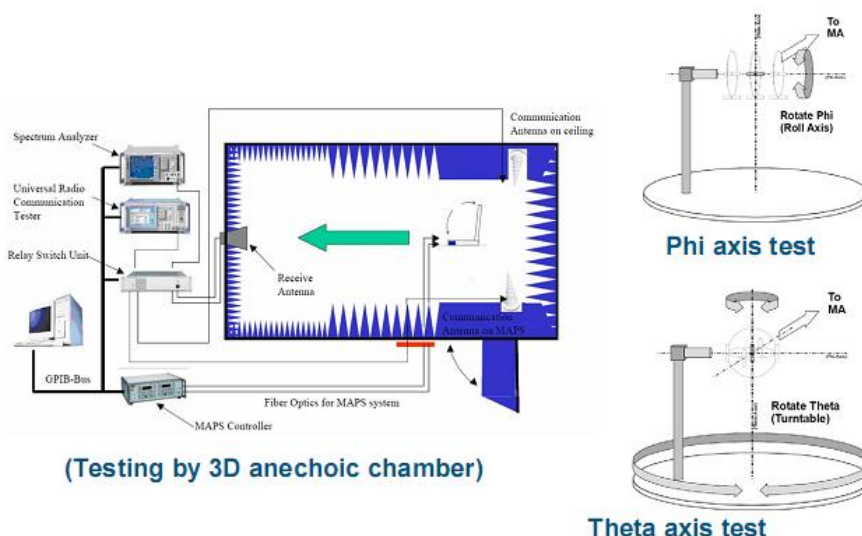


Chart 1 Test topology

5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

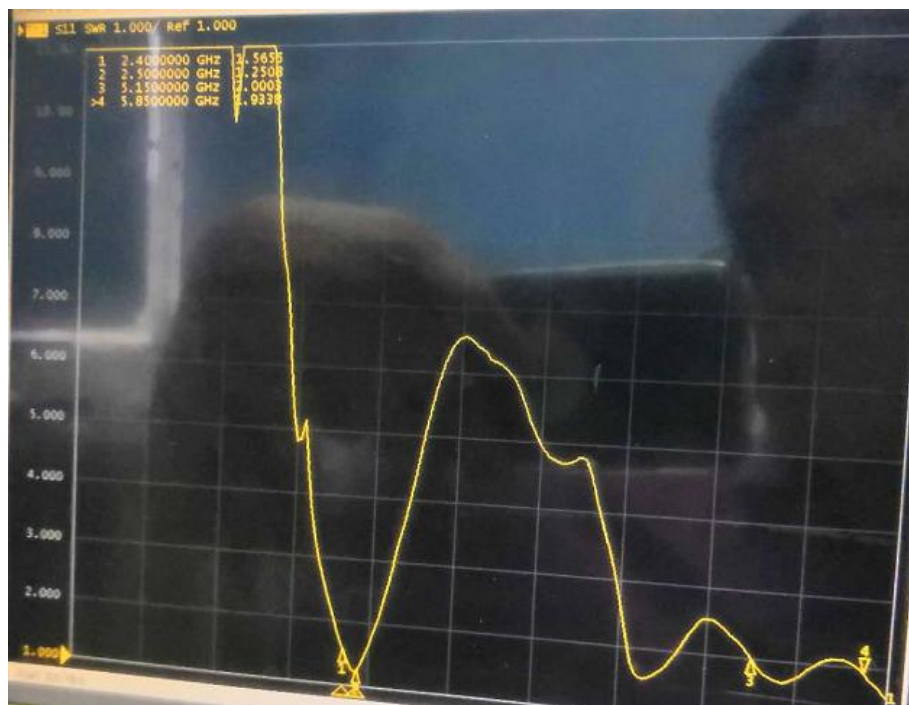


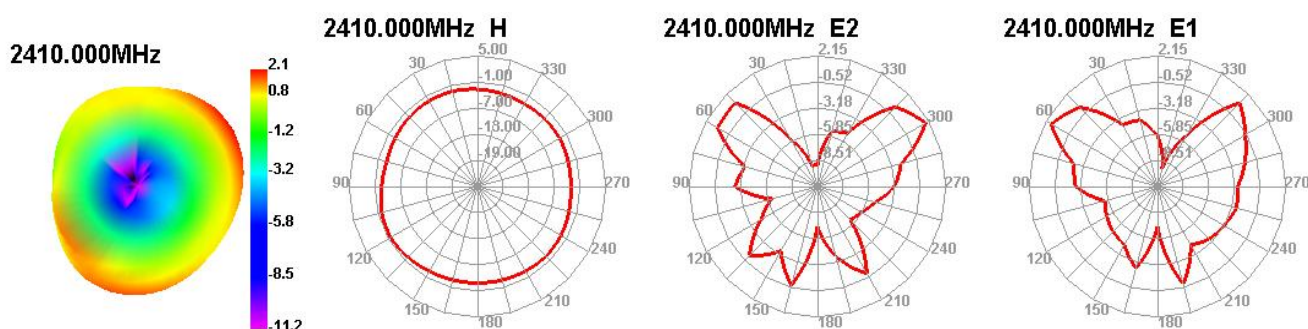
Chart 2 VSWR

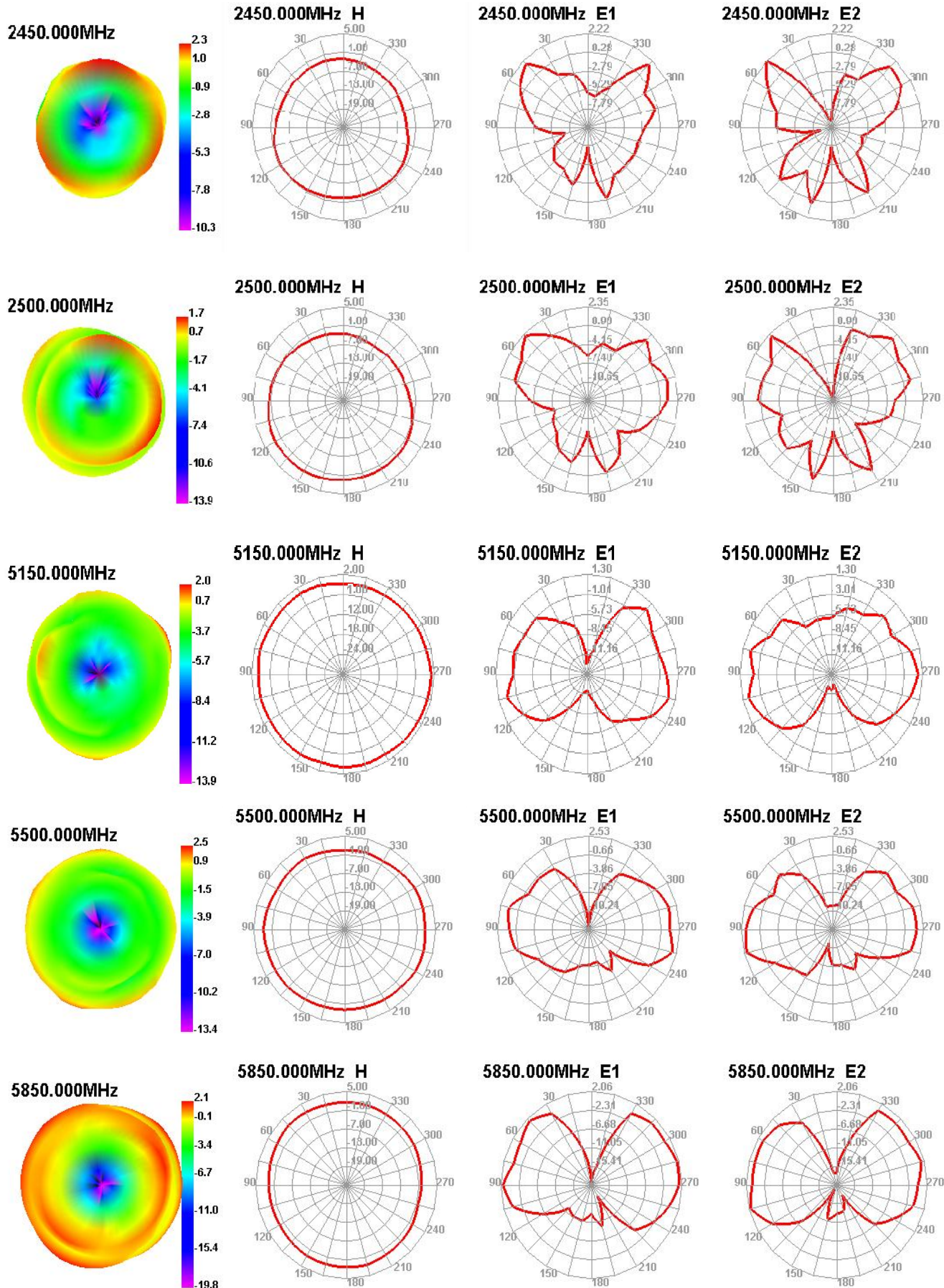
5.2 Efficient and gain.

Passive Test For WIFI 2.4G	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
	Effi(%)	52.36	54.90	53.66	56.98	55.54	58.73	56.16	57.03	56.49	54.53	45.75
	Gain(dBi)	2.00	1.97	2.15	1.91	2.14	2.36	2.28	2.03	1.81	2.22	1.64

Passive Test For WIFI 5G	Freq(MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
	Effi(%)	50.51	54.04	57.36	60.76	60.64	63.19	62.72	61.57	55.19	58.63	57.75	60.06	57.77	57.70	55.87
	Gain(dBi)	1.99	2.15	2.02	2.27	2.05	2.40	2.15	2.54	2.59	2.33	2.46	2.26	2.05	2.11	2.02

5.3 Radiation pattern.



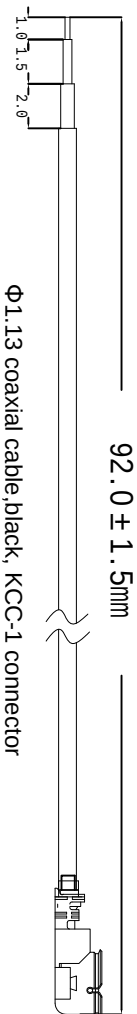
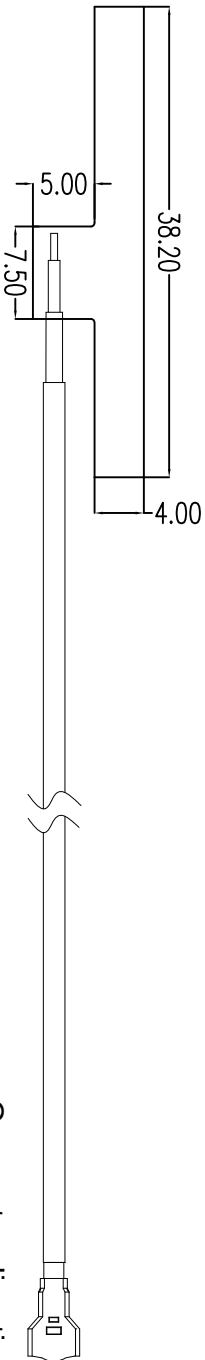
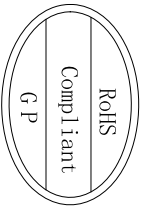




6. Reliability Test

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. & 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 temp to 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: $35 \pm 2^\circ\text{C}$ Humidity: 85% NaCl salt spray: $5 \pm 1\%$. PH value: 6.5~7.2 Testtime: 24 hours	Salt-Spray Tester	No color change No appear rusting	PASS

7. Product Drawing



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.



SHEN ZHEN LEJIN RADIO FREQUENCY CO., LTD

1			
Revise	2		
record	3		

Third Angle	Project	Geniatech	Date	2018-10-27
0~10 ±0.05	Part Name	WIFI ANT	Designed by	
10~18 ±0.10	Part No.	TX	Checked by	MD
18~30 ±0.12	Material		RF	
30~40 ±0.15	Treatment	LJF01-18091104A-ROA	Approved by	
40~ ±0.20	Location		Unit	mm
Angle ±0.5°			Scale	FIT
			Rev	A

Rev	Description	Date	Remark
1	New drawing		

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