



Lejin RF

Shenzhen Lejin radio frequency technology Co., LTD

SPECIFICATIONS FOR APPROVAL

Customer Name: SHENZHEN ELECTRON TECHNOLOGY CO.,LTD

Product Name: WIFI Antenna

Product Model: WL1012T/WL1016T

Part Number: LJF01-19041901-R0A

Write By : Huxuwen

Issued Date: 2019-04-19

CUSTOMER

REV	MODIFIED DESCRIPTION	DATE	REMARK
V1.0	Initial Draft Release	2019/04/19	
V1.1	Support new model WL1016T	2022/10/20	



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3. Product Specification

A. Electrical Characteristics	
Frequency	2400MHz ~2500 MHz
VSWR	<2.0
Efficiency	≥40%
Impedance	50Ohm
Polarization	Linear
Gain(2.4GHz)	≤1.99dBi
B. Material & Mechanical Characteristics	
Material of Radiator	FPC(Black),LJWF28C
Cable Type	Φ1.13mm,L100mm,Black
Connector Type	IPX1
Dimension	25.0*13.0mm
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

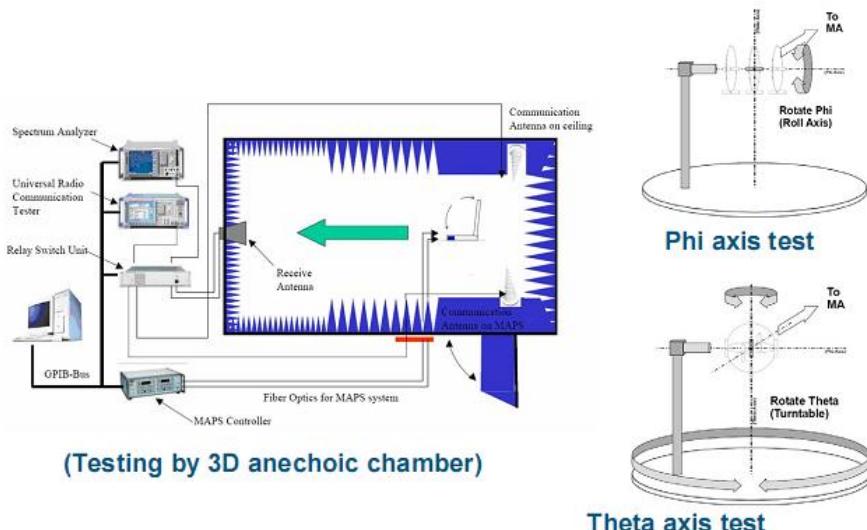


Chart 1 Test topology

5. Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

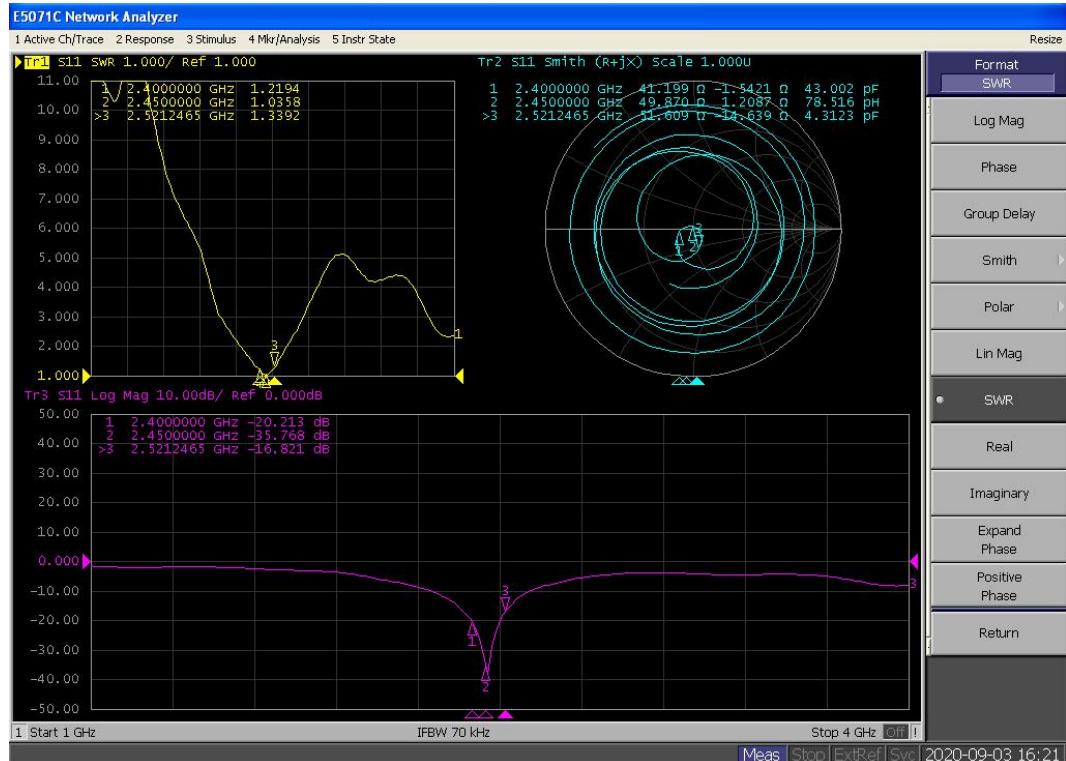
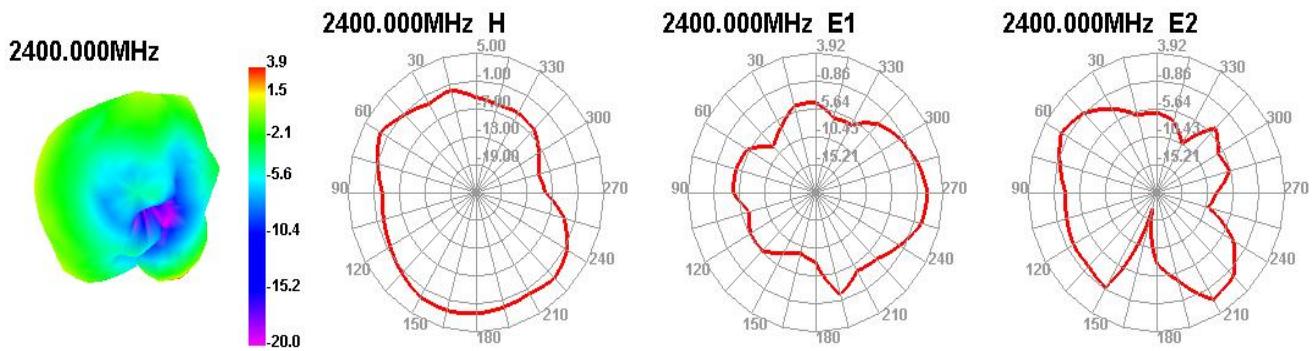


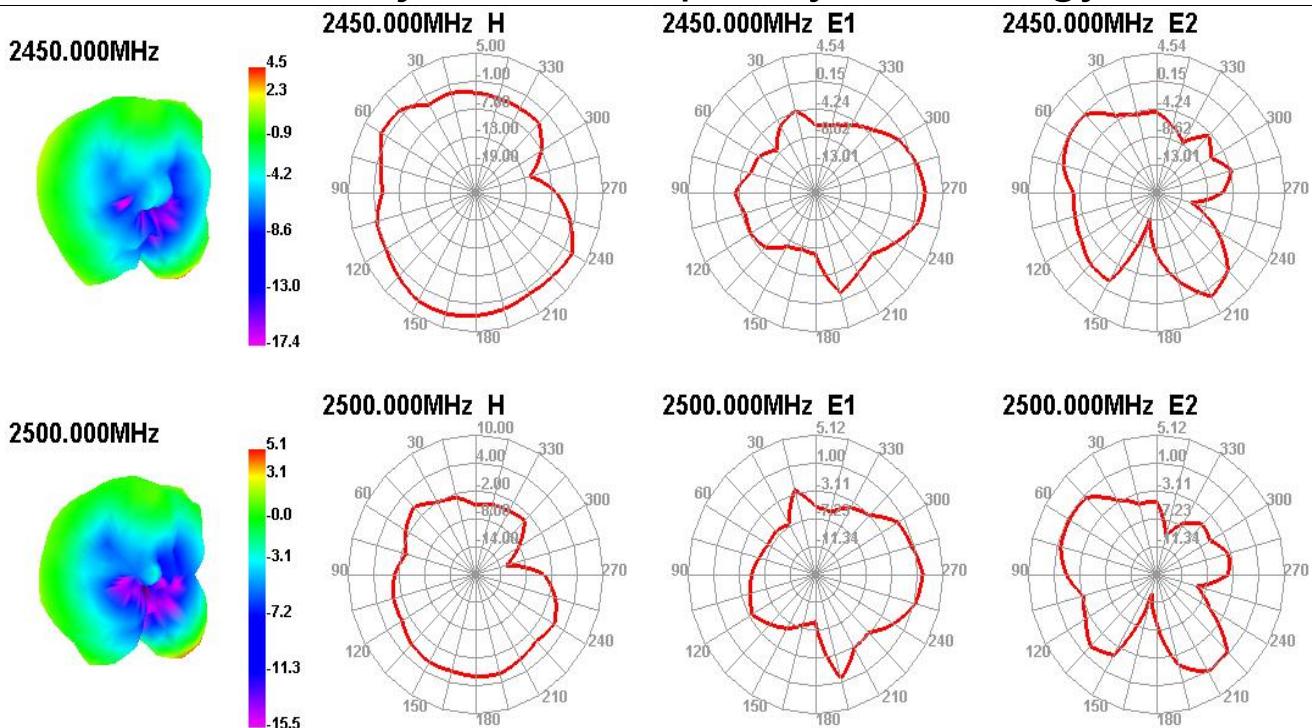
Chart 2 VSWR

5.2 Efficient and gain.

Passive Test For 2.4G	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
	Effi(%)	49.63	47.27	45.06	48.89	47.57	50.64	49.99	52.53	50.40	52.25	46.44
	Gain(dBi)	1.78	1.81	1.99	1.76	1.93	1.95	1.89	1.91	1.85	1.85	1.40

5.3 Radiation pattern.





6. Reliability Test

Test Item		Test condition	Equipment	Specification	Result
1	Low Temp. Storage Test	<p>Temperature: -30°C , Time:48hrs</p> <p>Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25 °C and humidity is 65% for one hour, then step-down the temp. to -30 °C in one hour, store antenna for44 hours; step-up temp to 25 °C ,test antenna after 2 hours.</p>	Temp.&Hum i. Tester	<p>No material deformation is allowed.</p> <p>Electronic Performance is ok .</p>	PASS
2	High Temp./High Humid Storage Test	<p>Temperature: 85°C Humidity: 85% RH Time:48hrs</p> <p>Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25 °C and humidity is 65% for one hour, then step-up the temp. to 80 °C and the humidity up to 85% in one hour, store antenna for 44 hours; step-down temp to 25°C,test antenna after 2 hours.</p>	Temp.&Hum i. Tester	<p>No material deformation is allowed.</p> <p>Electronic Performance is ok .</p>	PASS
3	Salt-Spray Test	<p>Placing antenna in the Salt-Spray Tester ,set the test condition , Temp: 35 ± 2 °C Humidity: 85% NaCl salt spray :5 $\pm 1\%$.PH value :6.5~7.2 Testtime:24hours</p>	Salt-Spray Tester	<p>No color change</p> <p>No appear rusting</p>	PASS

7. Assemble type



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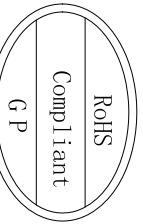
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Chart 3 WL1012T/WL1016T assemble type

8. Product Drawing

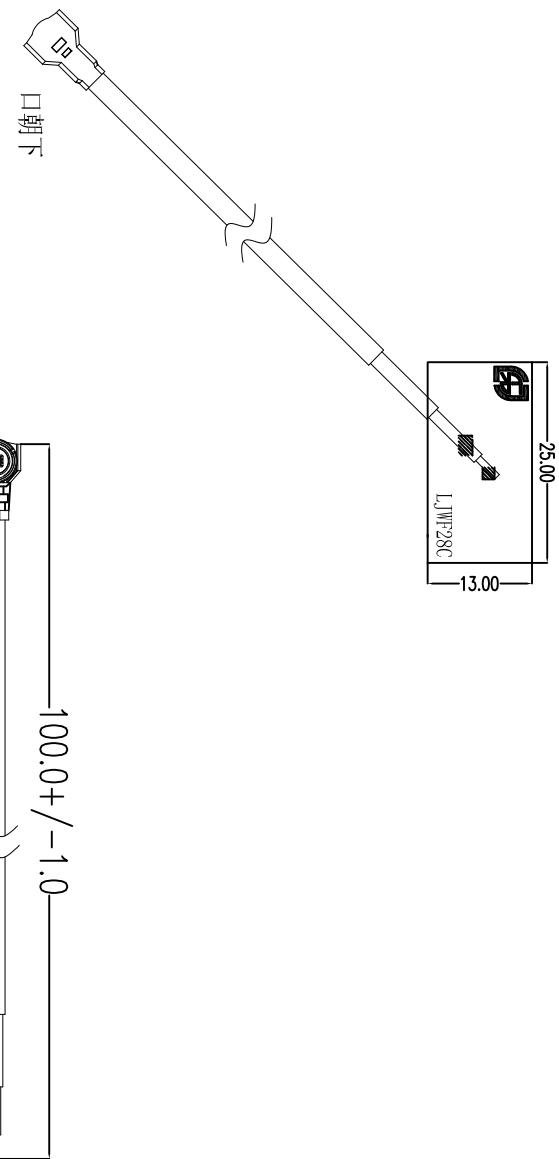
此FPC为焊接类型的PC,
油墨耐温300°以上高温



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要求:

1. “*”为重点尺寸.
2. FPC材料:电解铜,一对半材质(蔡伦格帝).
3. 反面背胶(3M300LSE).
4. 未标公差尺寸请依图纸,模具冲出尺寸公差为±0.1,铜箔线条尺寸公差为±0.05,标重点的孔公差为±0.05.
5. 各零件中Pb、Hg、Cr+6、PBBs、PBDEs各项小于1000PPM, Cd小于100PPM.



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