CREALITY 深圳市创想三维科技有限公司 Shenzhen Creality 3D Technology Co., LTD.

Part acceptance form

Supplier: Shenzhen Lejin Radio Frequency Technology Co., LTD

Material name: Antenna

Bom number: 3102070202

Specifications and Models: FPC antenna _L300_2.4G_Lejin antenna

Supplier's Material number: LJF02-22030208B-R0A

Application date: 2022-06-29

Department to sign：	data	OK	reliability	OK
	appearance	OK	size	OK
	assembly	OK	function	OK

List of Acknowledgement

1. Function introduction and product specifications

2. Certificate of raw material /MSDS

3. Structural drawings

4. FAI full-size measurement report/attached self-evaluation

5. Reliability test report

6. SGS of raw materials shall be confirmed within the validity period of 1 year

7. Environmental Statement

8. Relevant certification certificates

Note:

The part acceptance letter shall include but not limited to the above information. If there are other requirements, it shall be supplemented, such as CPK report of part acceptance, process roadmap, QC engineering drawing, BOM, inspection specification on parts, product packaging specification, FMEA, etc. In addition, it is necessary to verify the supplier's manufacturing capability, quality control ability, and keep original records for the customer to acknowledge the supplier's parts.

3.Product Specification

A. Electrical Characteristics	
Frequency	**2400MHz ~2500 MHz**
VSWR	**<2.0**
Efficiency	**>40%**
Impedance	**50Ohm**
Polarization	**Linear**
Gain	**⩽2.24dB**
B. Material & Mechanical Characteristics	
Material of Radiator	**FPC(Black),LJWF28A**
Cable Type	**Φ1.13mm,L300mm,Black**
Connector Type	**IPX1**
Dimension	**25.0*13.0mm**
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

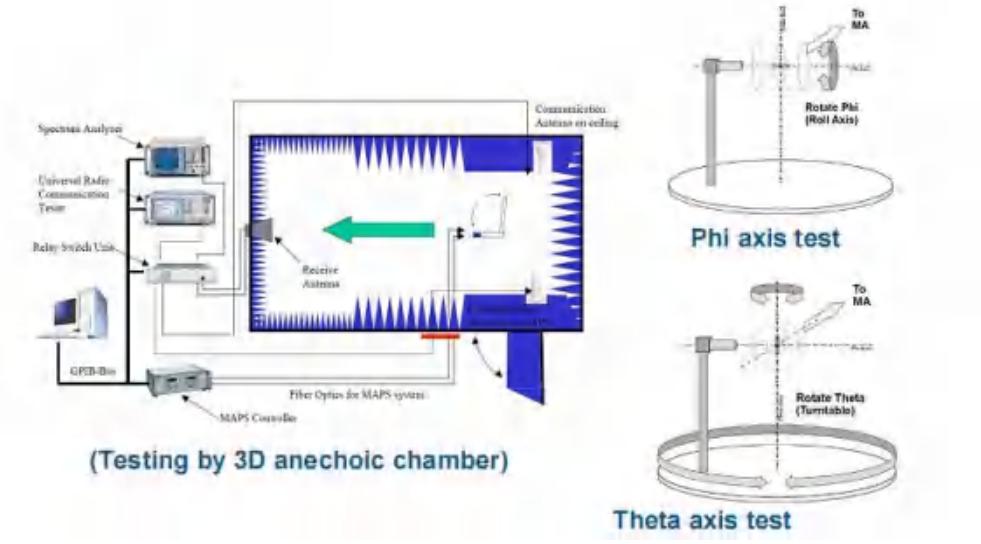

图 1 Test topology

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5.Test Report

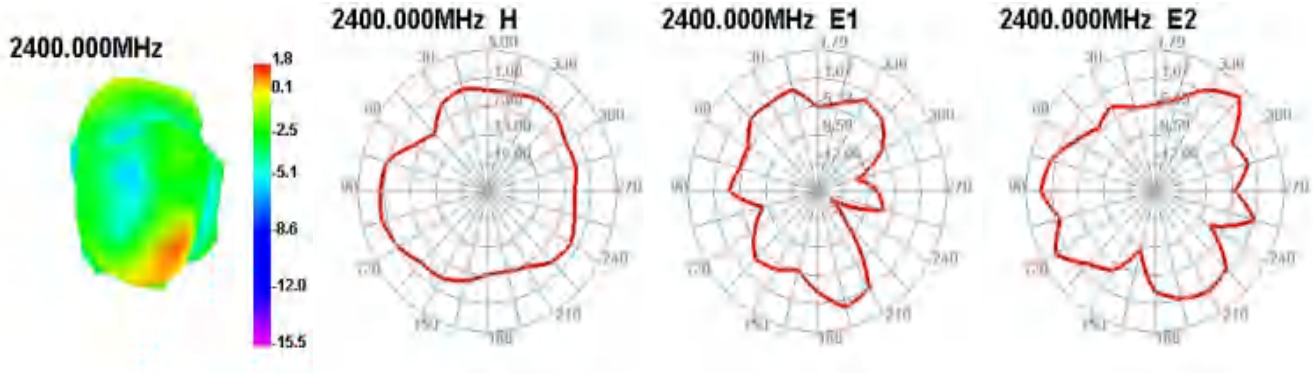
5.1 Voltage Standing Wave Ratio(VSWR).

图 2 VSWR

5.2 Efficient and gain(estimating conducted by Lejin in Jan,2021,using 3D drawing document that provided by Creality.)

Passive Test For WIFI 2.4G	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
	Effi(%)	58.62	51.84	56.47	55.07	54.54	53.06	51.80	52.38	53.21	52.77	50.64
	Gain(dBi)	2.24	2.04	2.06	2.05	1.94	1.99	2.02	2.19	1.90	1.77	1.36

5.3 Radiation pattern.



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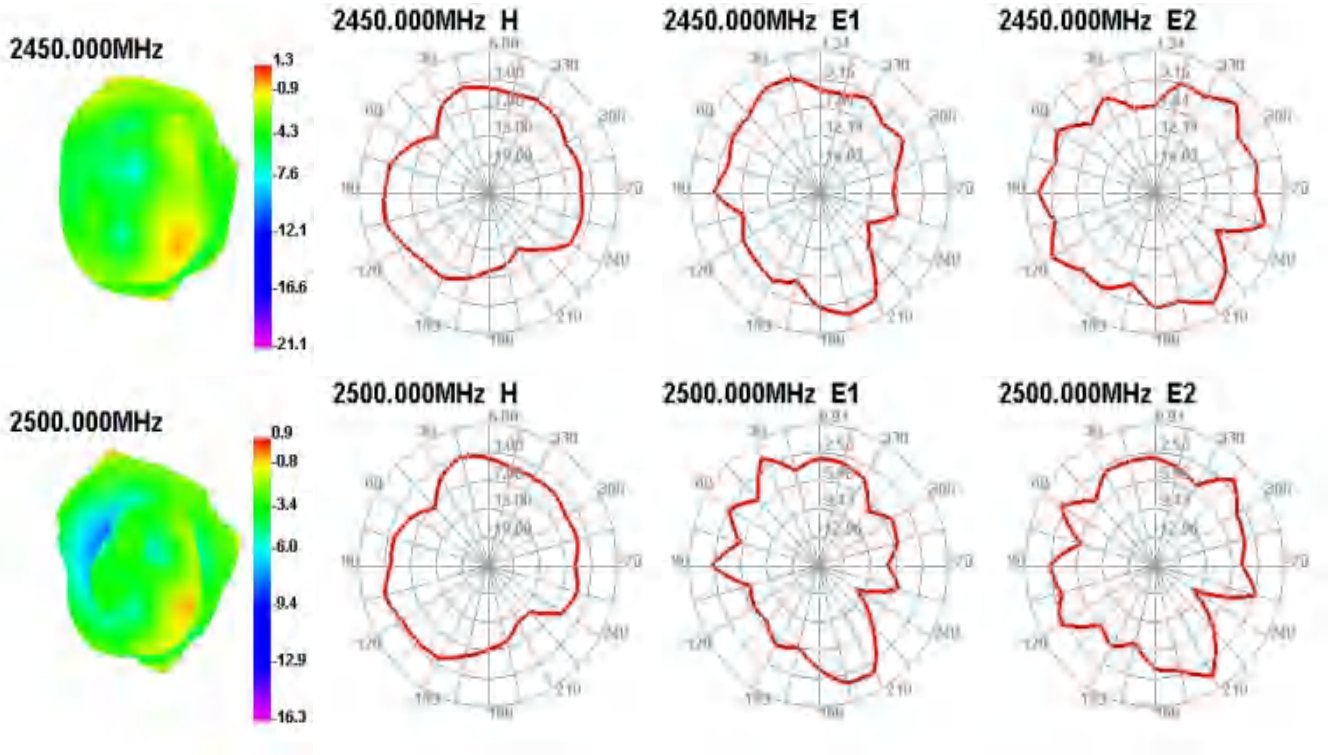

6.Reliability Test

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

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RoHS
Compliant
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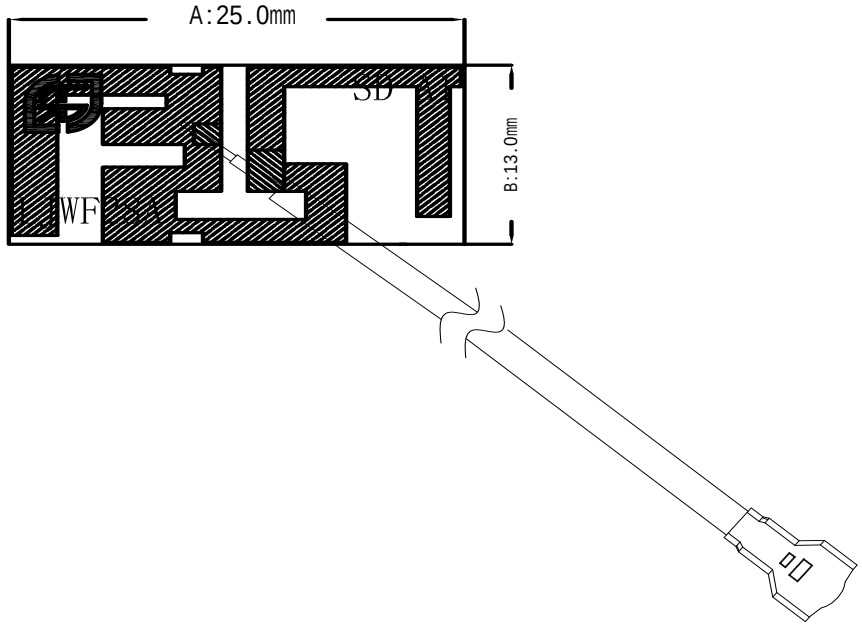

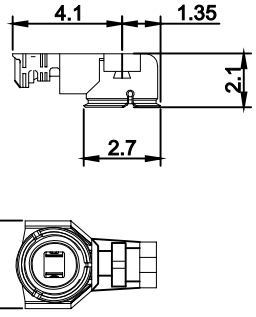

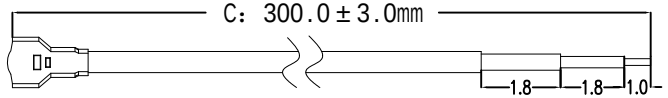

Φ1.37 coaxial cable,Gray, KCC-1 connector

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		

SHEN ZHEN LEJIN RADIO FREQUENCY CO.,LTD

Third Angle				Project	Creality 3D	Date	2018-08-09
0～10	±0.05	○	0.02	Part Name	2.4G 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	LJF02-23010308-ROA	Approved by	
Location						Unit mm	Scale FIT / Rev A