

零件承认书

供应商：深圳市乐进射频科技有限公司

物料名称：蓝牙天线

物料编码：3102070256

规格型号：FPC 天线 L300 2.4G, 2dBi 乐进天线

供应商料号：LJF02-23010308-R0A

申请日期：2023-03-08

资料 ☐OK ☐NG可靠性 ☐OK ☐NG部门会签：外观 ☐OK ☐NG尺寸 ☐OK ☐NG装配 ☐OK ☐NG功能 ☐OK ☐NG

供应商确认

核准	工程	制作	签章

创想三维确认

核准	研发/工程	品质	签章

确认结果：☐合格 ☐不合格 ☐其它



3.Product Specification

A. Electrical Characteristics	
Frequency	2400MHz ~2500 MHz
VSWR	<2.0
Efficiency	>40%
Impedance	50Ohm
Polarization	Linear
Gain	≤2.0dB
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 | |

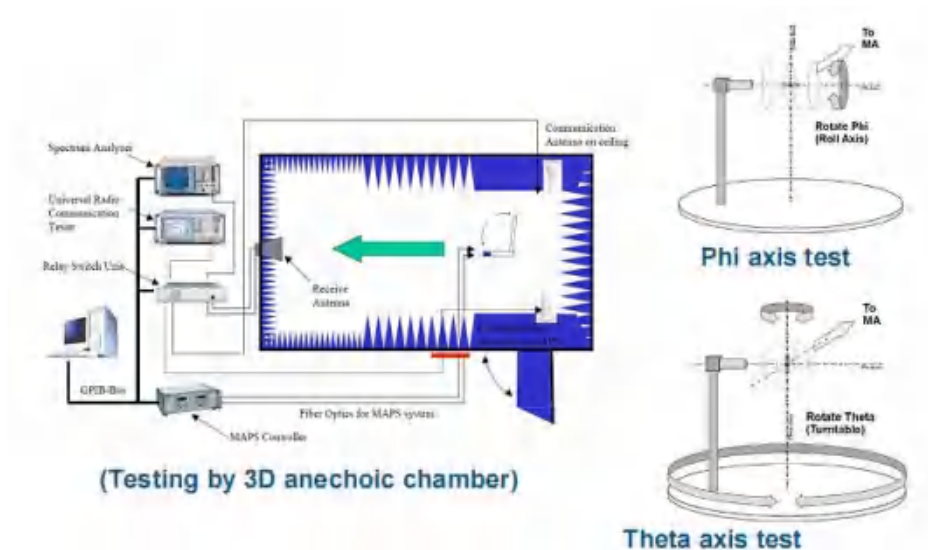


图 1 Test topology



5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

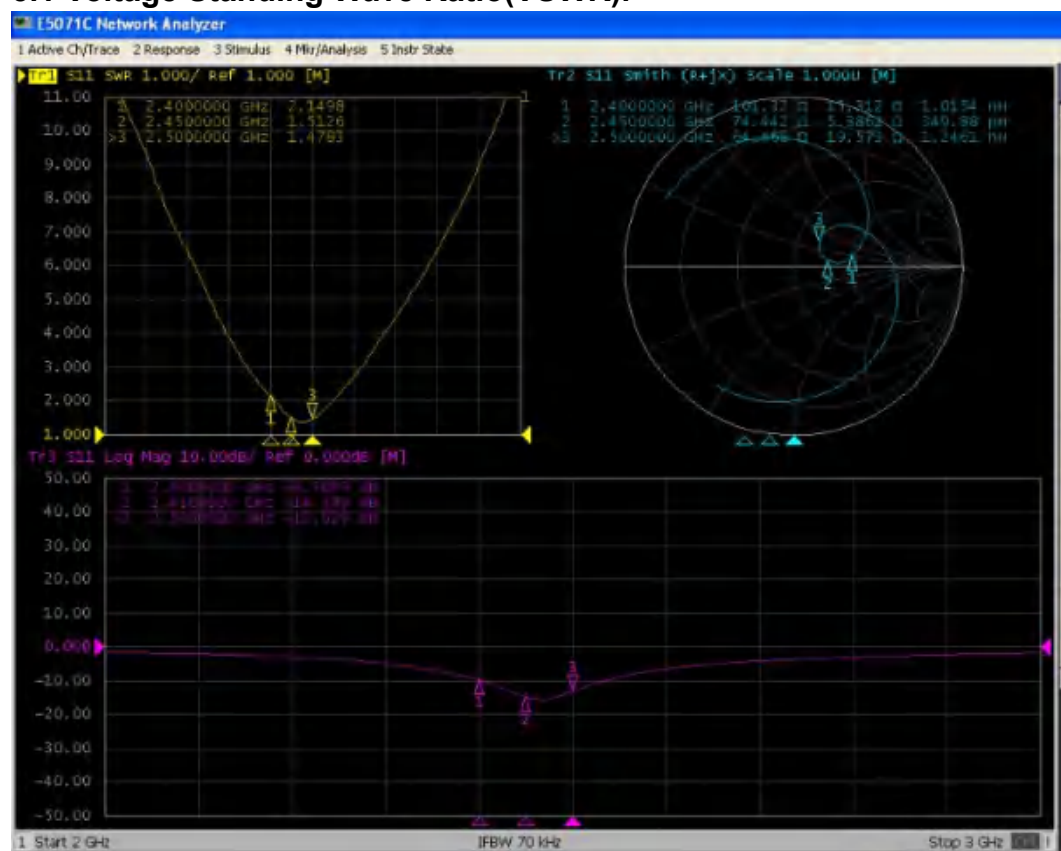
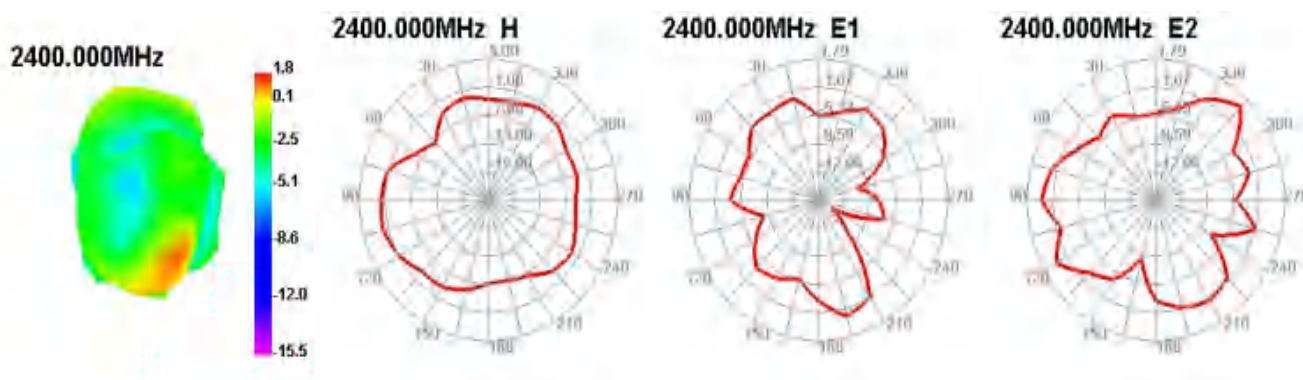


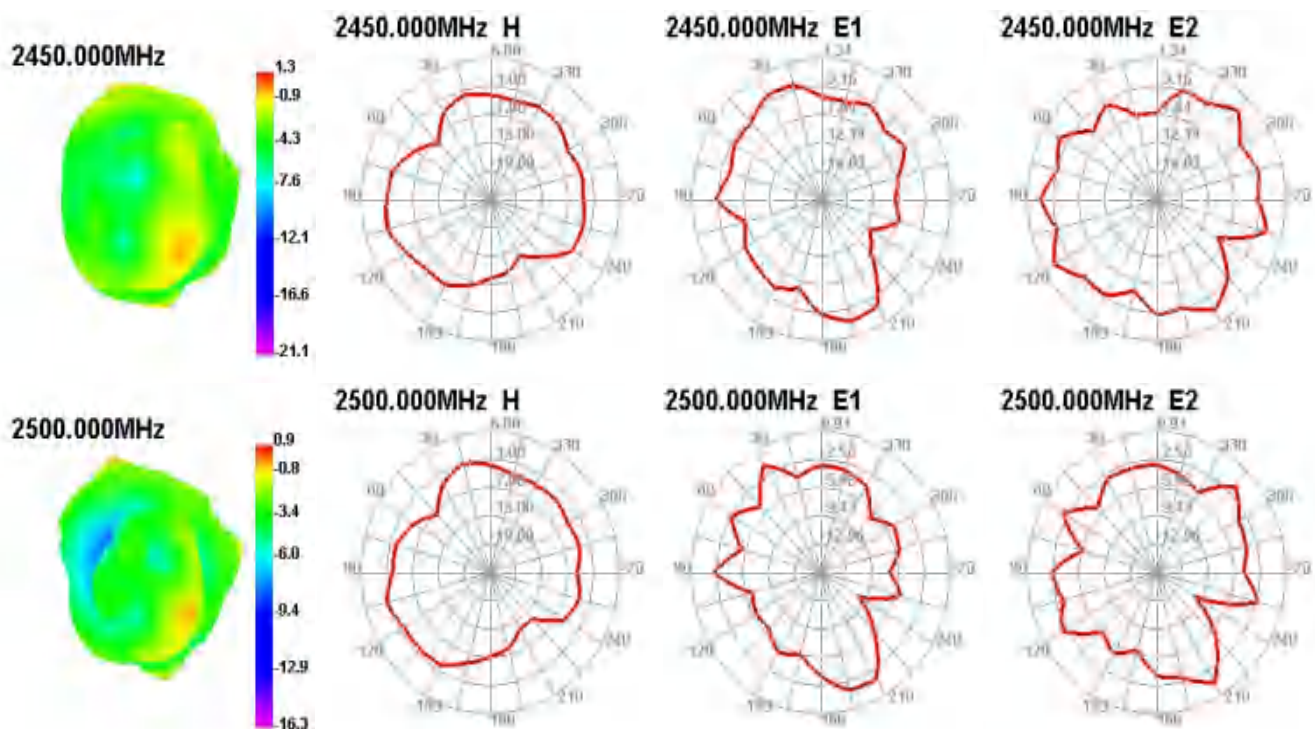
图 2 VSWR

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

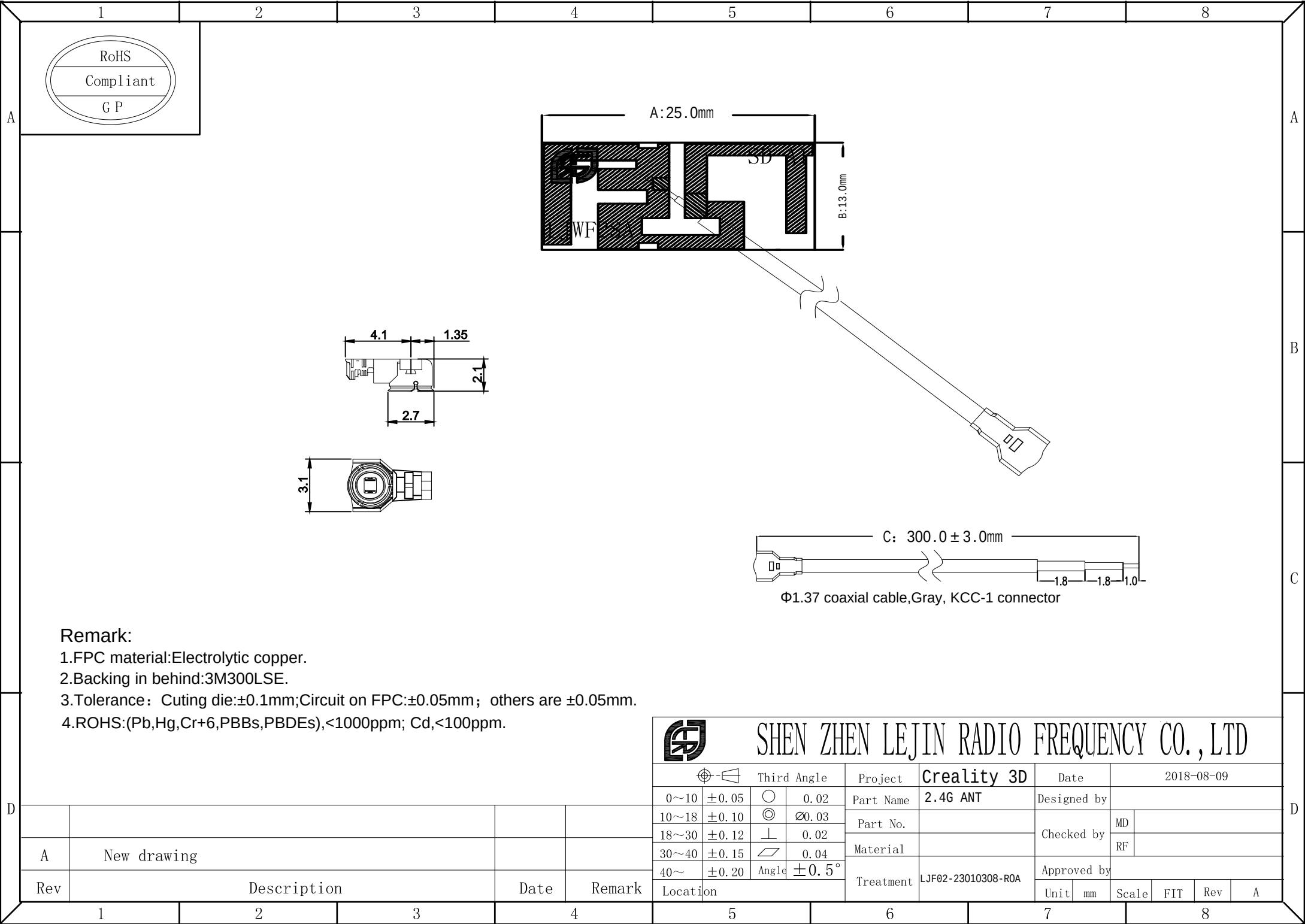
5.3 Radiation pattern.





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.&Hu mi. 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.&Hu mi. 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



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

		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					
18~30	±0.12		0.02	Material							
30~40	±0.15		0.04		Treatment	LJF02-23010308-R0A	Approved by				
40~	±0.20	Angle	±0.5°	Location		Unit	mm	Scale	FIT	Rev	

A	New drawing				
Rev	Description			Date	Remark