

深圳市乐进射频科技有限公司

样 品 承 认 书

客户名称： 深圳市智能派科技有限公司

品 名： 内置天线

规 格： 内置隐藏式天线，尺寸：49*14*3.5mm,线长 120mm

客户料号： 10.102.0154

供应商确认签章栏		
制作	审核	批准
日期：2024 年 09 月 02 日		

智能派确认签章栏		
研发	品质	备注
日期： 年 月 日		

公司名称：深圳市乐进射频科技有限公司

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Attachment one

1.1 Product Specification

A. Electrical Characteristics	
Frequency	2400MHz ~2500 MHz 5150MHz ~5850 MHz
VSWR	<2.0
Efficiency	≥40%
Impedance	50Ohm
Polarization	Linear
Gain(2.4GHz)	≤2.24dBi
Gain(5.8GHz)	≤3.44dBi
B. Material & Mechanical Characteristics	
Material of Radiator	PCB(Black)
Cable Type	Φ1.13mm,L120mm,Black
Connector Type	IPX1
Dimension	49.0mm*14.0mm
C. Environmental	
Operation Temperature	- 20 °C ~ + 70 °C
Storage Temperature	- 30 °C ~ + 85 °C
Humidity	40%~95%

1.2. 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 | |

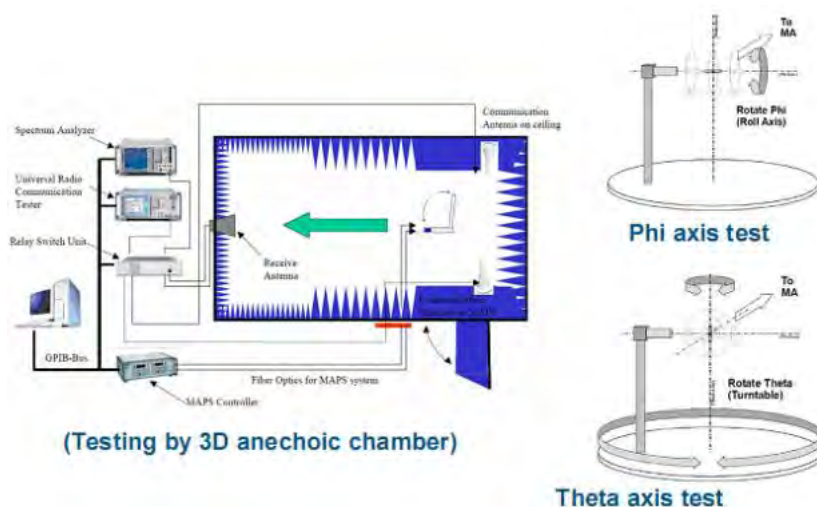


Chart 1 Test topology

1.3 Test Report

1.3.1 Voltage Standing Wave Ratio(VSWR).

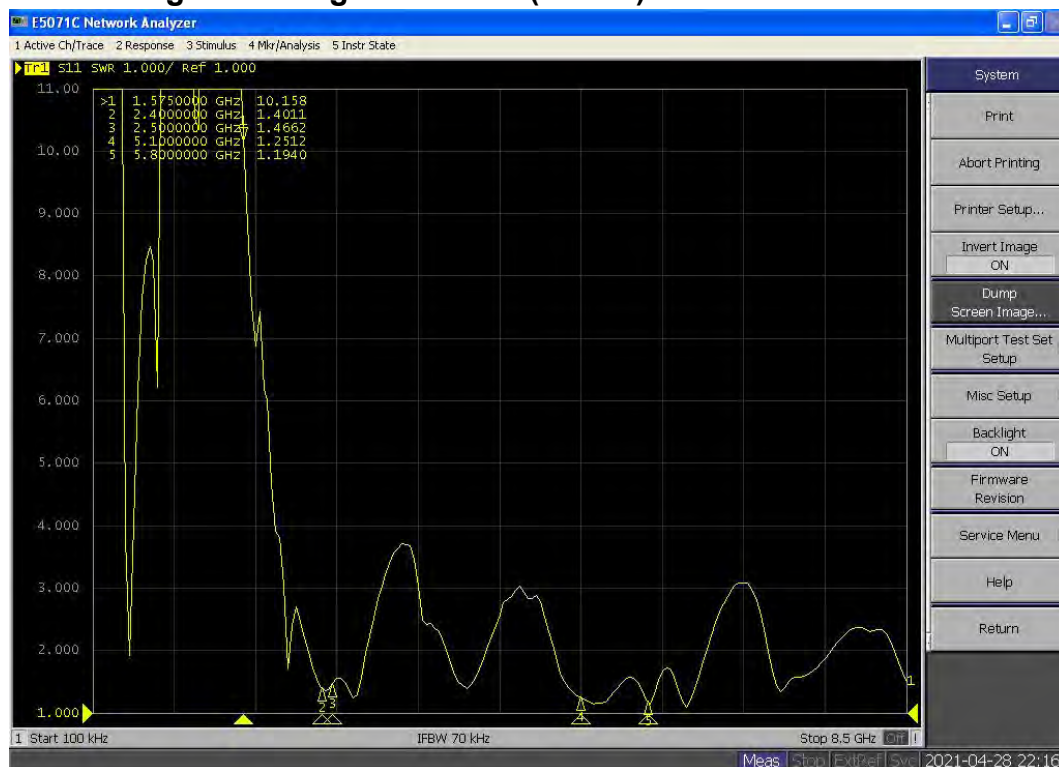


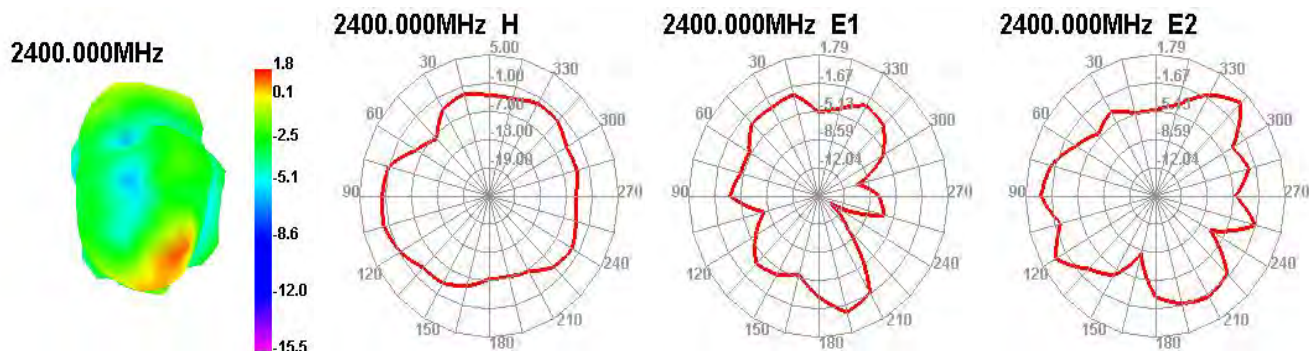
Chart 2 VSWR

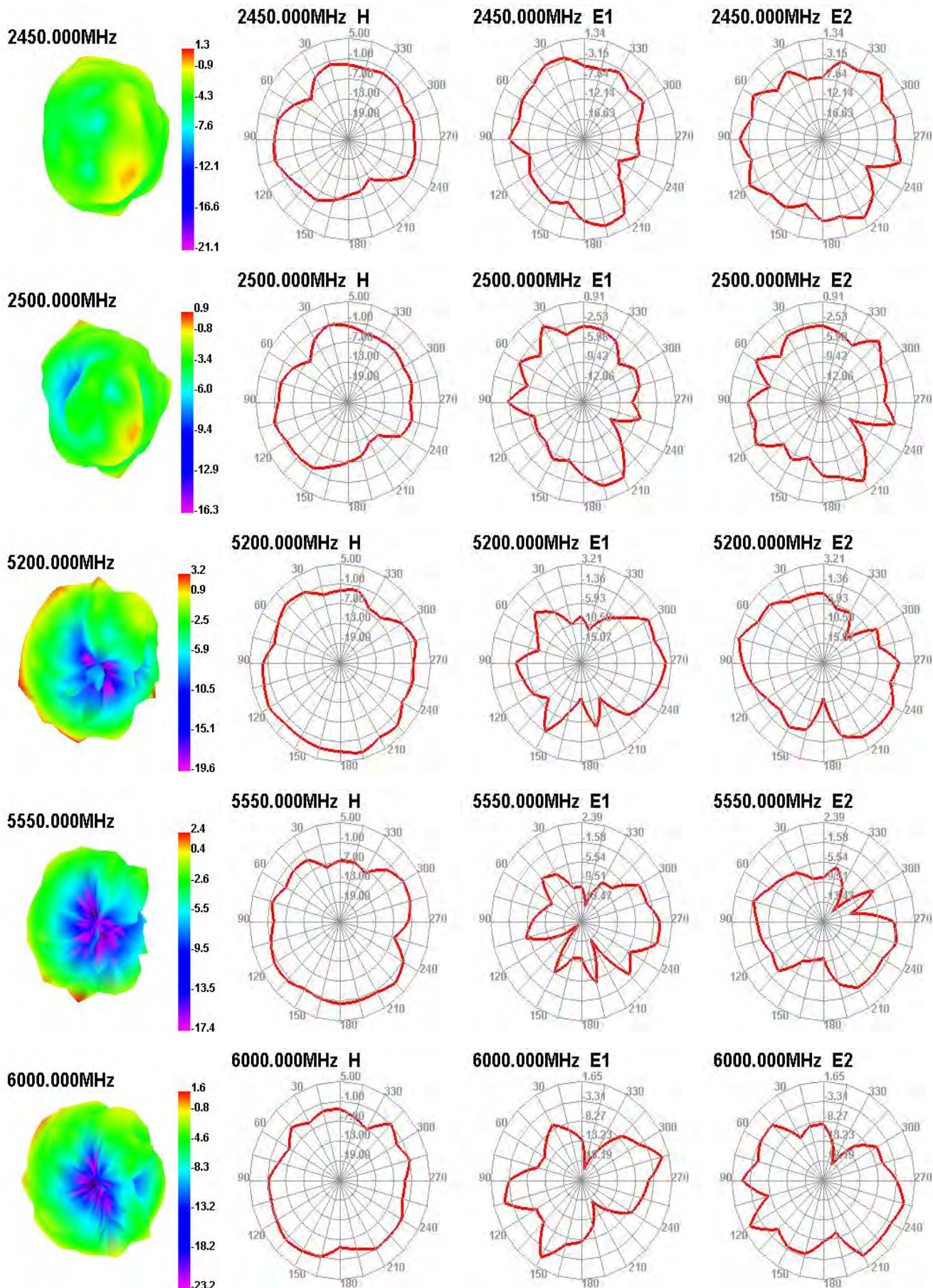
1.3.2 Efficient and gain.

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

Passive	Freq(MHz)	5100	5200	5300	5400	5500	5600	5700	5800	5900	6000
Test For	Effi(%)	52.8	64.9	67.99	50.82	61.64	66.8	64.38	60.63	55.61	57.48
WIFI 5G	Gain(dBi)	3.02	3.21	3.44	2.87	2.97	2.83	2.93	2.53	2.45	2.65

1.3.3 Radiation pattern.





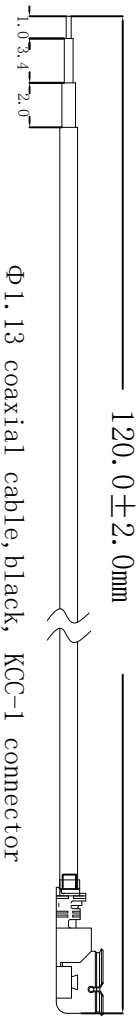
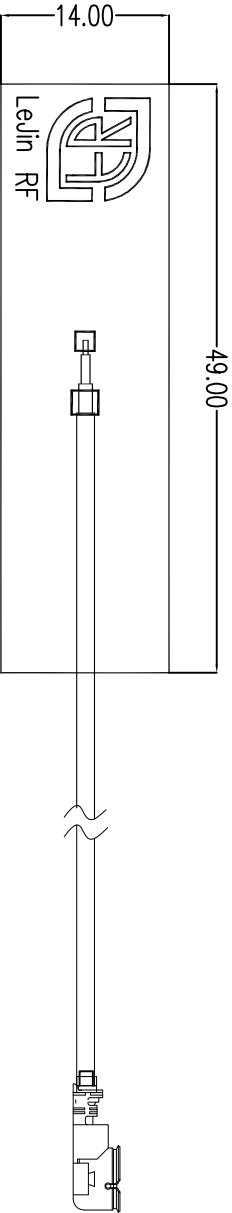
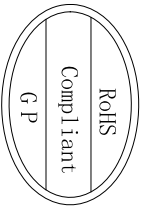


1.4 Assemble type



Chart 4 assemble type

1.5 Product Drawing



Remark:

- 1.PCB material:FR4.
- 2.Backing in behind:gum.
- 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				

D		C		B		A	
A		New drawing					
Rev		Description		Date		Remark	
1							

Third Angle	Project	智能派	Date	2024-04-21
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0~10 ±0.05	○	0.02	Part Name	WIFI/BT	Designed by	
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10~18 ±0.10	◎	0.03	Part No.	ANT	Checked by	MD
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18~30 ±0.12	⊥	0.02	Material	Saturn4	RF	
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30~40 ±0.15	∠	0.04	Treatment	LJP02-24041808-R0A	Approved by	
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40~ ±0.20	Angle	±0.5°	Location		Unit	mm
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5	6	7	8
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