



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: 2.4GHz/5GHz 天线

Product Model: ATV586MAX/APC395X3

Part Number: LJF02-20092203-R0A

Write By : 胡雪文

Issued Date: 2020-09-22

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	2020/09/22	
V1.1	Support new model APC395X3	2021/06/29	
V1.2	Add radiation pattern	2024/10/28	

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3.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	FPC(Yellow),LJWF20L
Cable Type	Φ1.13mm,L110mm,Black
Connector Type	IPX1
Dimension	26.0mm*21.5mm
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 | |

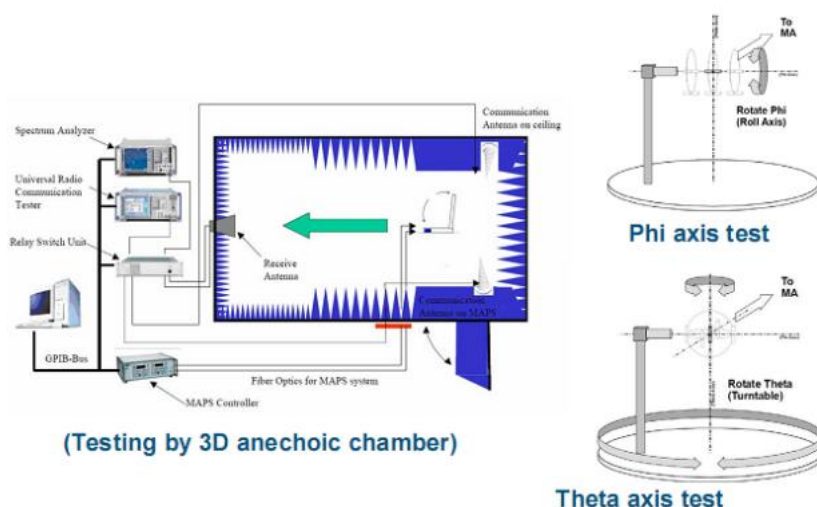


Chart 1 Test topology

5.Test Report

5.1 Voltage Standing Wave Ratio(VSWR).

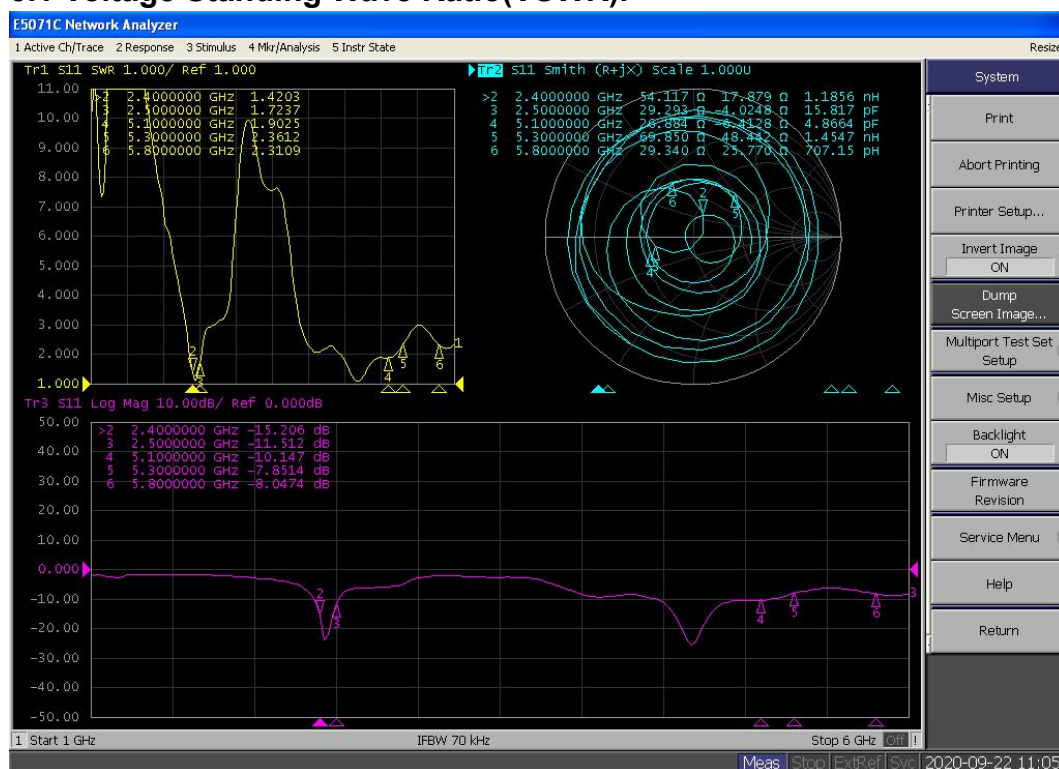


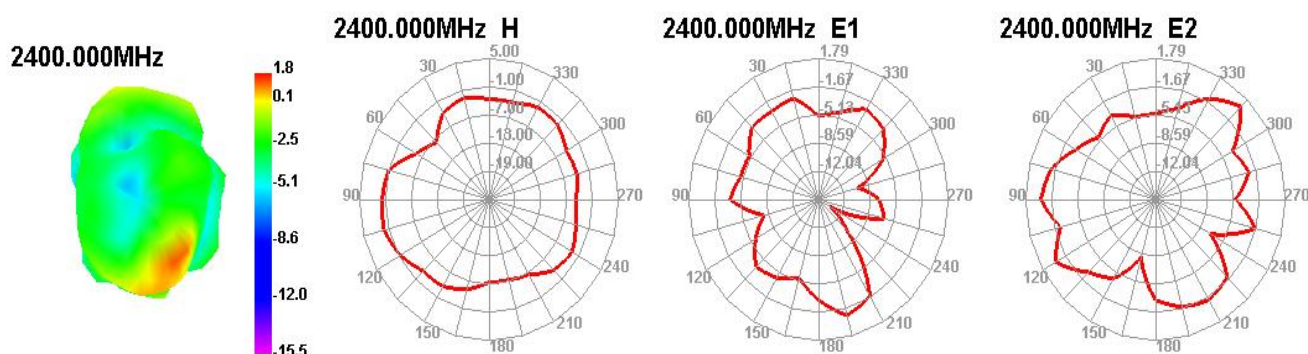
Chart 2 VSWR

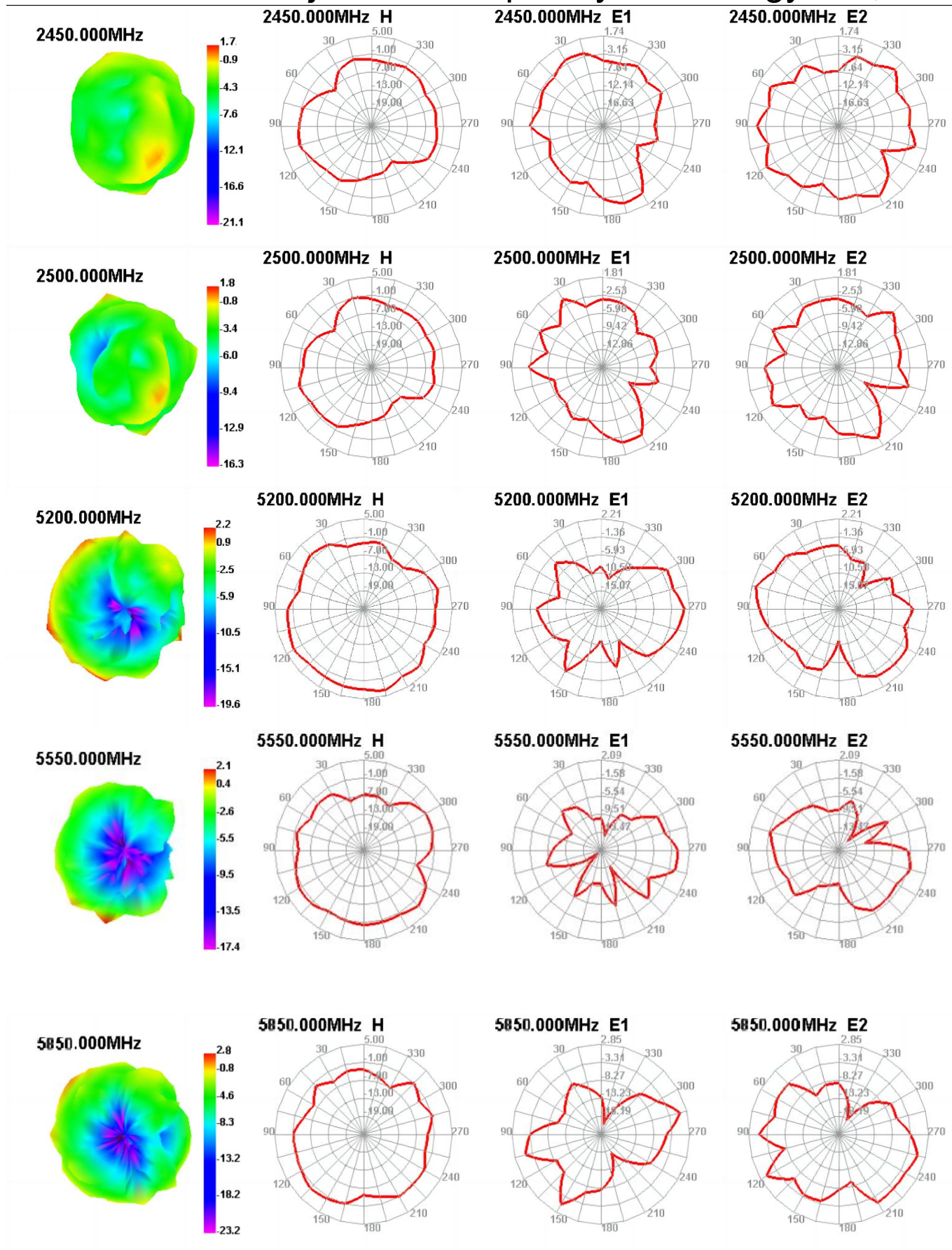
5.2 Efficient and gain.

Passive Test	Freq(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
2.4GHz	Effi(%)	52.18	45.17	44.40	46.98	50.61	49.28	48.90	51.86	50.60	45.73	49.19
	Gain(dBi)	1.71	1.00	1.00	1.39	1.76	1.67	1.66	1.82	1.77	1.32	1.78

Passive Test	Freq(MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650	5700	5750	5800	5850
For 5G	Effi(%)	44.83	46.18	46.12	46.21	46.36	44.38	44.11	44.91	45.67	45.82	45.99	46.75	46.90	43.18	45.54
	Gain(dBi)	2.66	2.13	2.41	2.39	2.62	2.27	2.55	2.09	2.00	2.72	2.08	2.62	2.21	2.07	2.81

5.3 Radiation pattern.







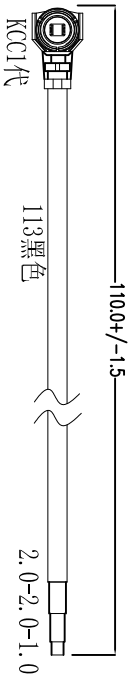
6. Reliability Test

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 appearance rusting	PASS

7. Product Drawing

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Date						D	
Remark						D	
Location						D	
40~						D	
30~40						D	
18~30						D	
10~18						D	
0~10						D	
Third Angle						D	
0.02						D	
0.03						D	
0.02						D	
0.04						D	
±0.5°						D	
Treatment						D	
LJF02-20092203-R0A						D	
Unit						D	
mm						D	
Scale						D	
FIT						D	
Rev						D	
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