

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____ 2.4G/5.8G WIFI Antenna _____

Part NO. : _____ W59PX.V2.WIFI.C113.42B.1 _____

Write By: _____ Damon Cui _____

Issued Date: _____ 2026.09.09 _____

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz 5150MHz ~5850MHz
Return Loss	<-5
Efficiency	>25%
Peak Gain	2.4G:-0.86 dbi 5.8G:2.6 dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Cable Type	1.13MM Black
Connector Type	I
Dimension	At Attachment
Heat-durability	280±5℃, 10sec.
C. Environmental Characteristics	
Operation Temperature	- 20 °C ~ + 80 °C
Storage Temperature	- 30 °C ~ + 85 °C

● Test Equipment & Conditions

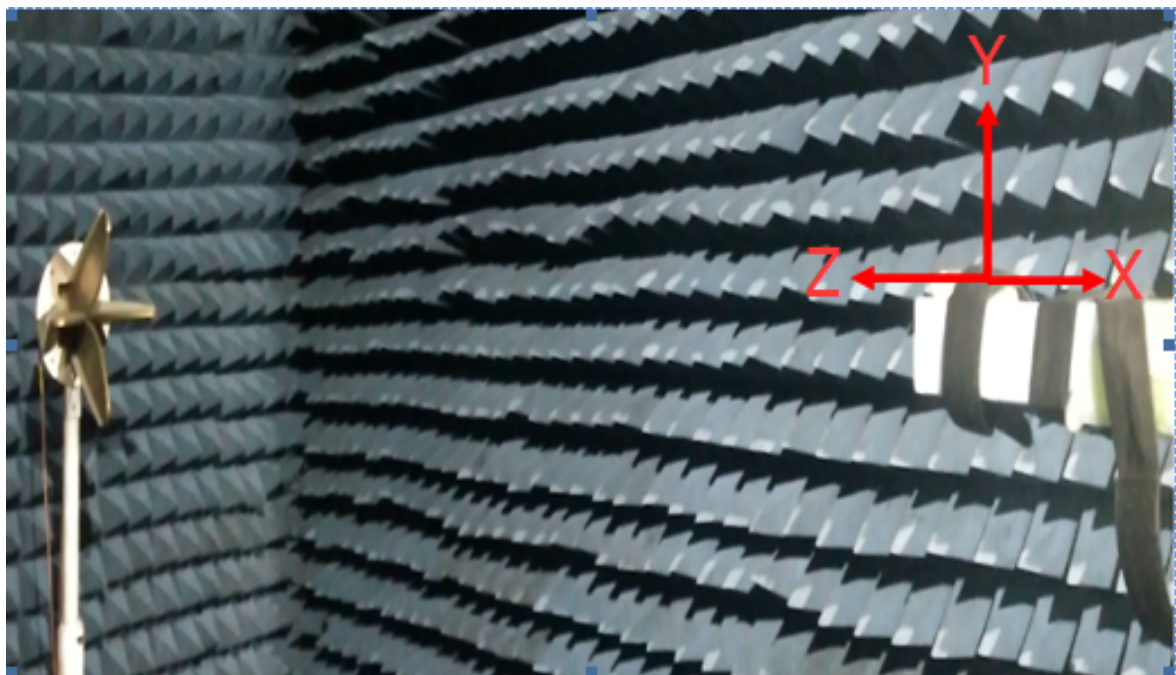
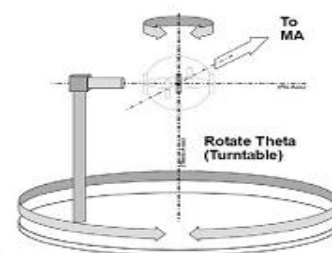
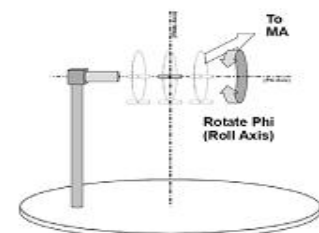
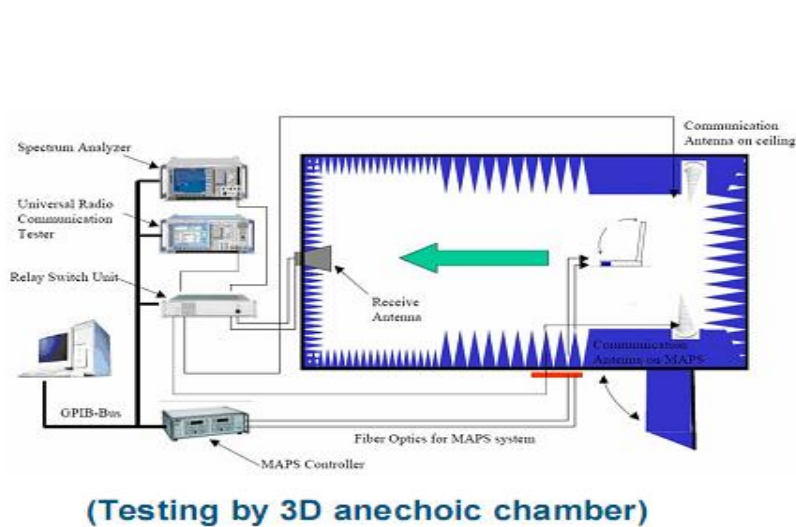
1. Network Analyzers :

Agilent 8753D 5071B

Communications Test Set:

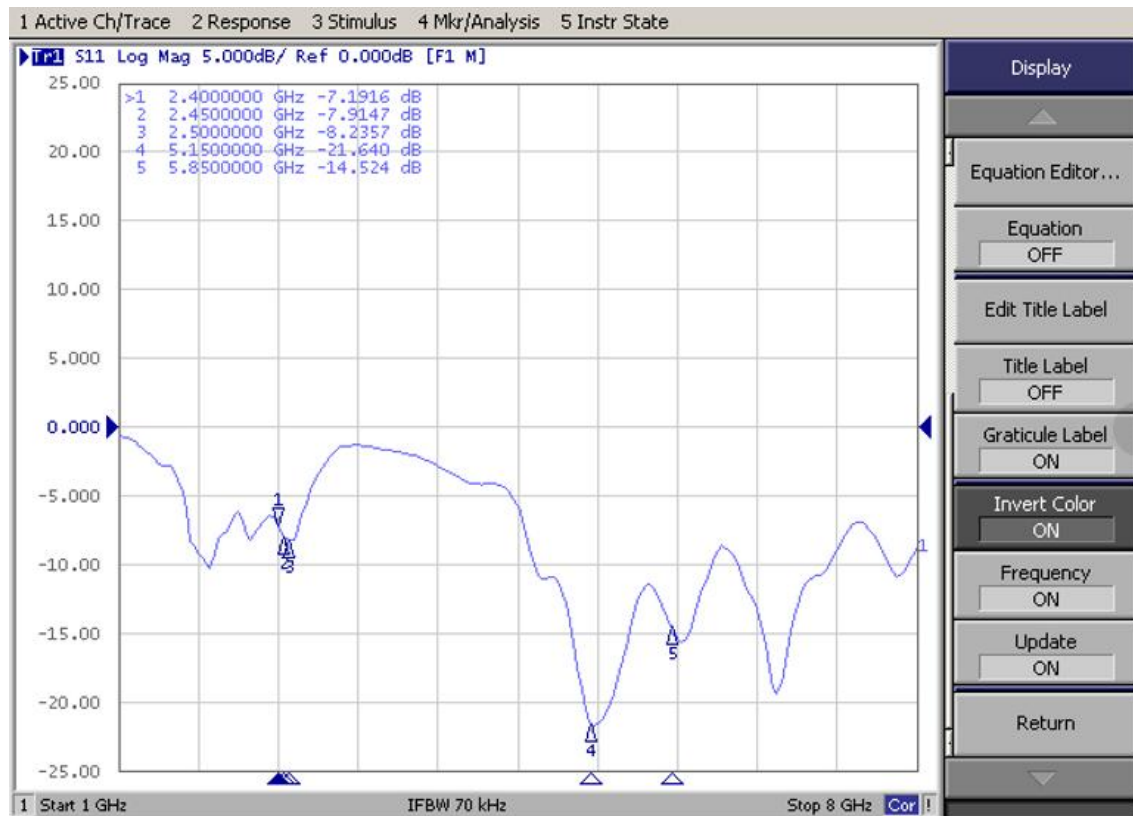
Agilent E5515C CMW500

2. 3D Chamber Test System



[illegible]

◆ Return Loss

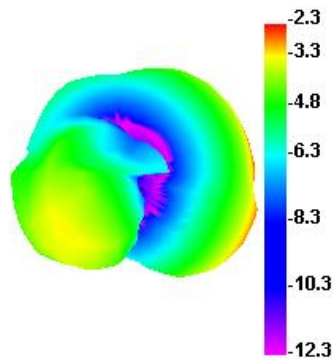


◆ Gain & Efficiency

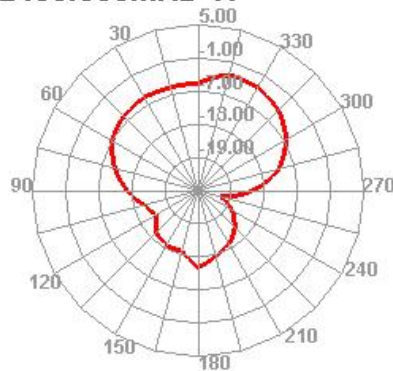
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	30.89	-2.34	5150	55.72	2.55
2410	30.64	-2.51	5200	53.53	2.16
2420	29.91	-2.85	5250	53.37	2.34
2430	29.5	-3.13	5300	51.55	2.36
2440	29.61	-3.12	5350	49.91	2.37
2450	30.13	-3.12	5400	45.21	2.1
2460	30.12	-3.37	5450	40.44	1.79
2470	30.58	-3.21	5500	42.02	2.12
2480	31.81	-2.61	5550	39.85	1.65
2490	30.31	-1.71	5600	38.28	1.41
2500	29.92	-0.86	5650	42.19	1.28
			5700	43.04	0.71
			5750	45.88	0.99
			5800	47.1	1.06
			5850	45.35	0.8

◆ Radiation Pattern

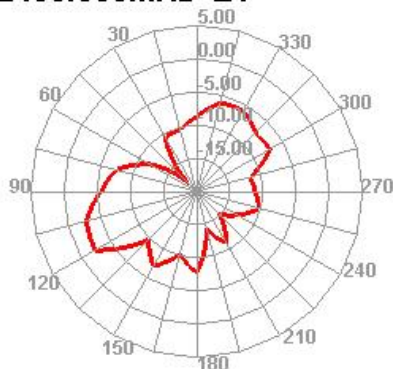
2400.000MHz



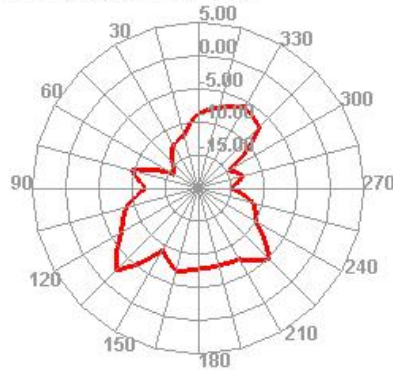
2400.000MHz H



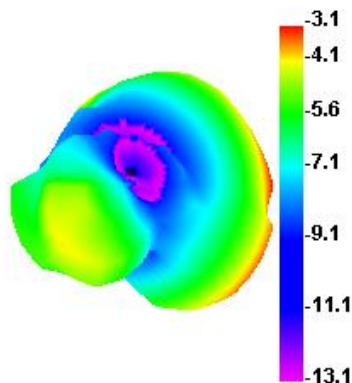
2400.000MHz E1



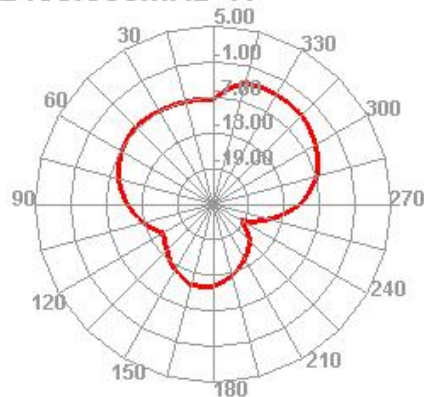
2400.000MHz E2



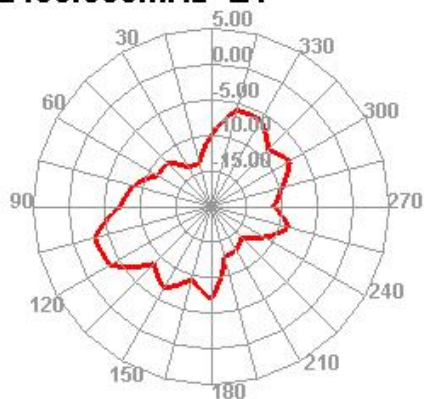
2450.000MHz



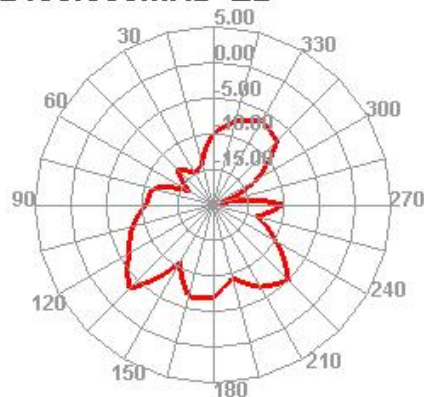
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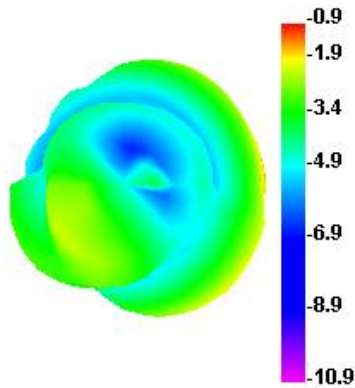
2450.000MHz E1



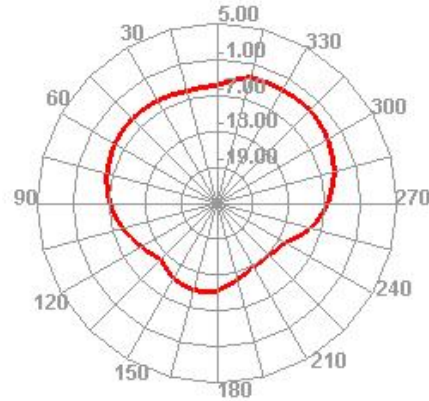
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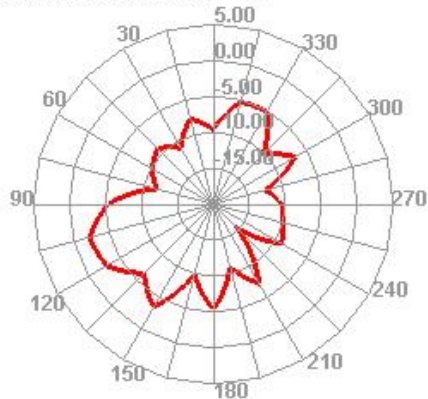
2500.000MHz



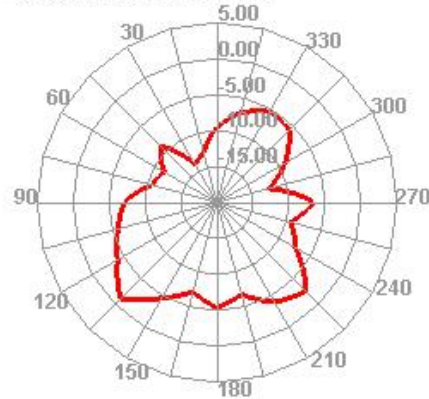
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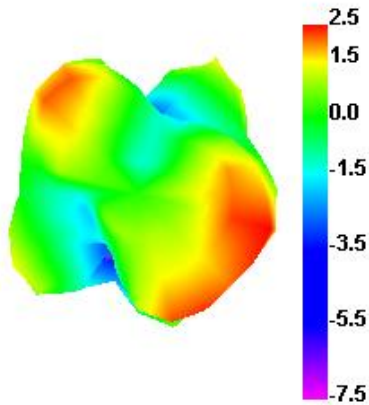
2500.000MHz E1



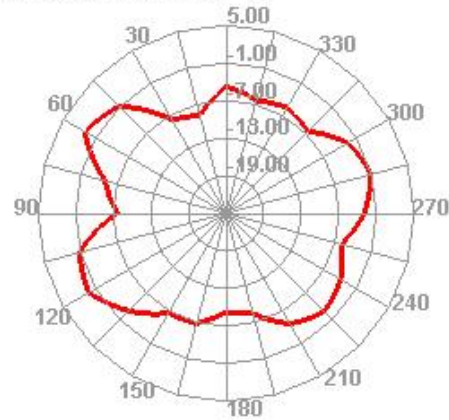
2500.000MHz E2



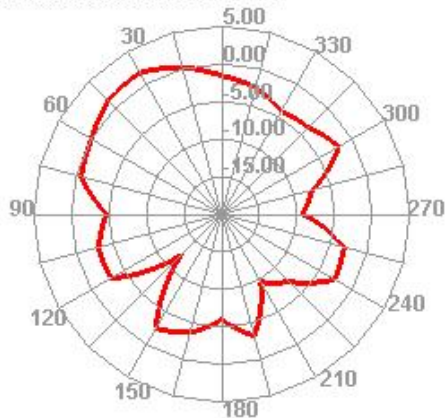
5150.000MHz



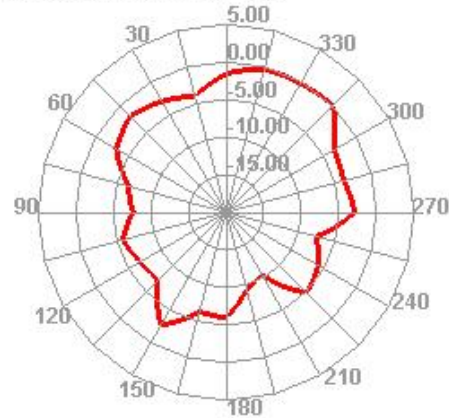
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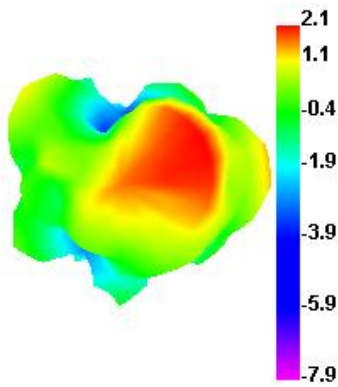
5150.000MHz E1



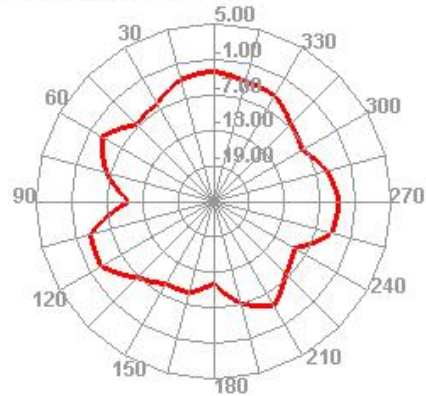
5150.000MHz E2



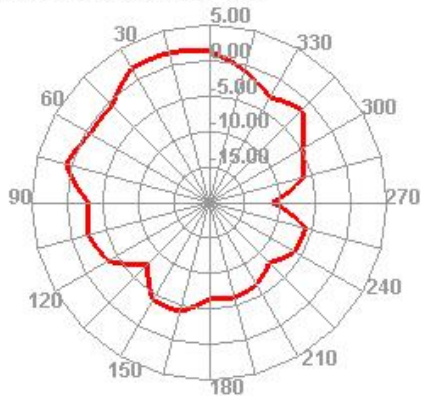
5500.000MHz



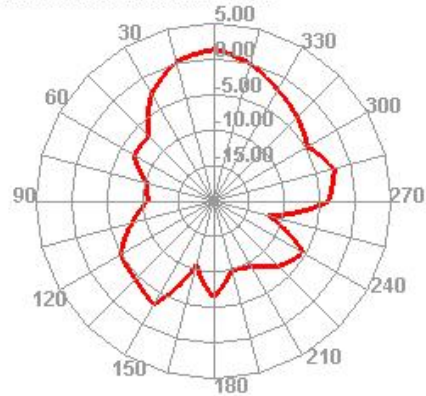
5500.000MHz H



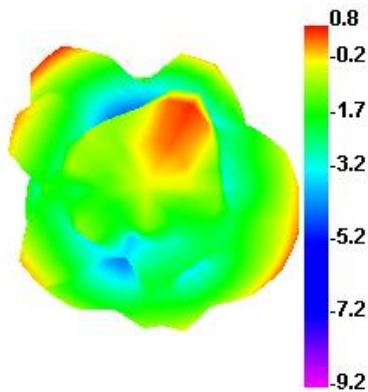
5500.000MHz E1



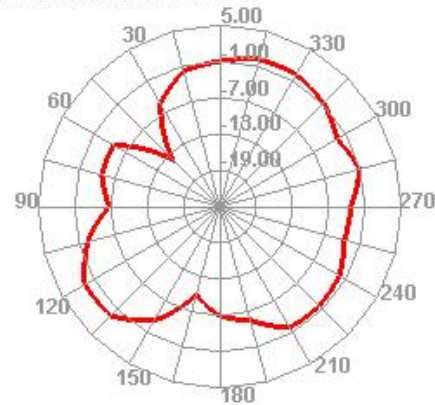
5500.000MHz E2



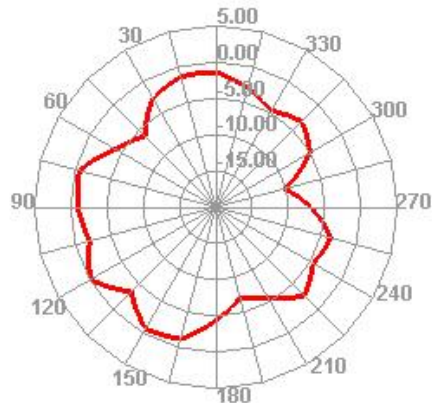
5850.000MHz



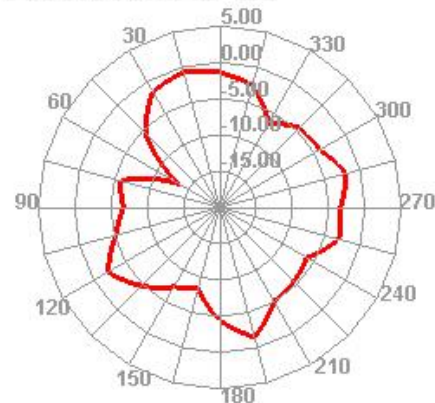
5850.000MHz H



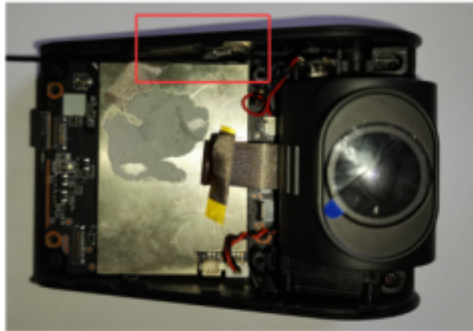
5850.000MHz E1



5850.000MHz E2



◆ Antenna Picture



◆ 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±2℃ Humidity: 85% NaCl salt spray :5 ±1 %.PH value :6.5~7.2 Test time:24hours	Salt-Spray Tester	No color change No appear rusting	PASS