

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

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

Part NO. : _____ WF84A. C113. 190B. 221 _____

Write By: _____ Damon Cui _____

Issued Date: _____ 2022-11-10 _____

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

Specification Summary

A. Electrical Characteristics	
Frequency	2.4GHz ~2.4835GHz 5.15GHz ~5.85GHz
Return Loss	<-10.0
Efficiency	>40%
Peak Gain	5.2dbi (max.)
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Cable Type	φ 1.13MM Black
Connector Type	/
Dimension	At Attachment
Heat-durability	280±5°C, 10sec.
C. Environmental Characteristics	
Operation Temperature	- 20 °C ~ + 80 °C
Storage Temperature	- 30 °C ~ + 85 °C

□ Test Equipment & Conditions

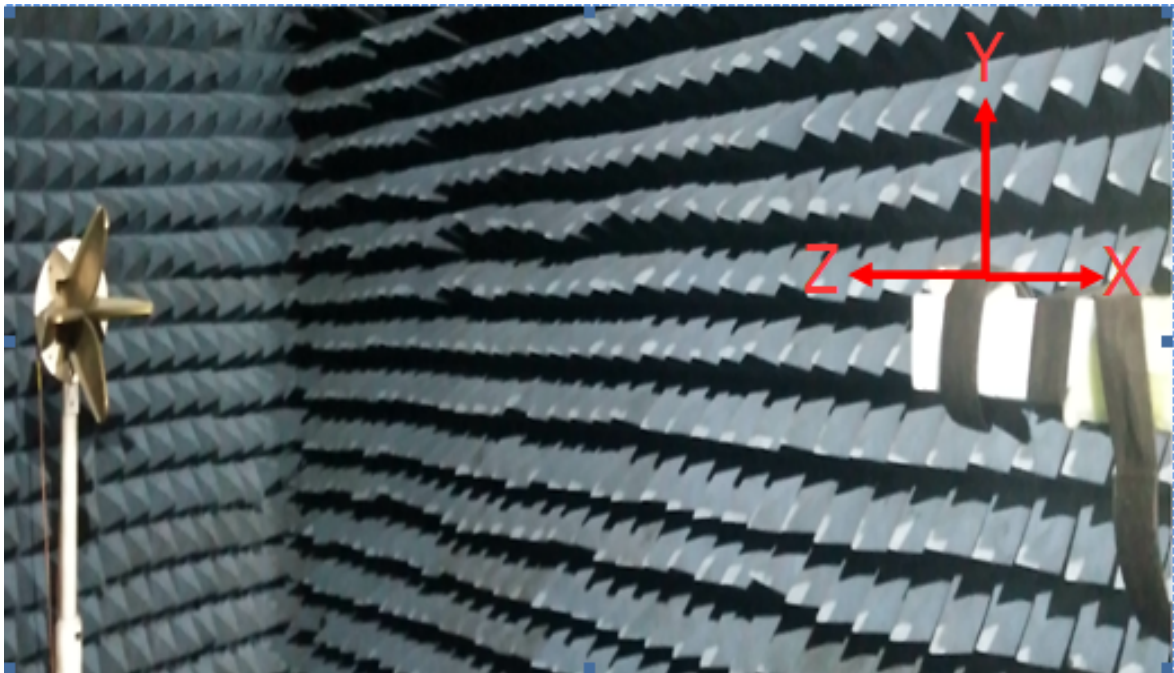
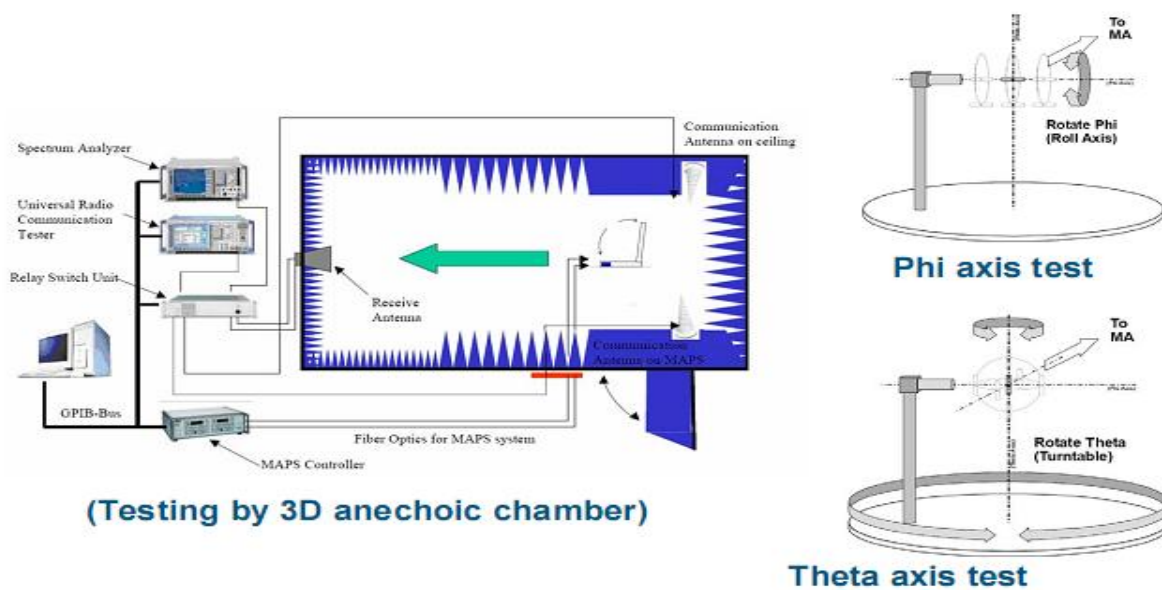
1. Network Analyzers :

Agilent 8753D 5071B

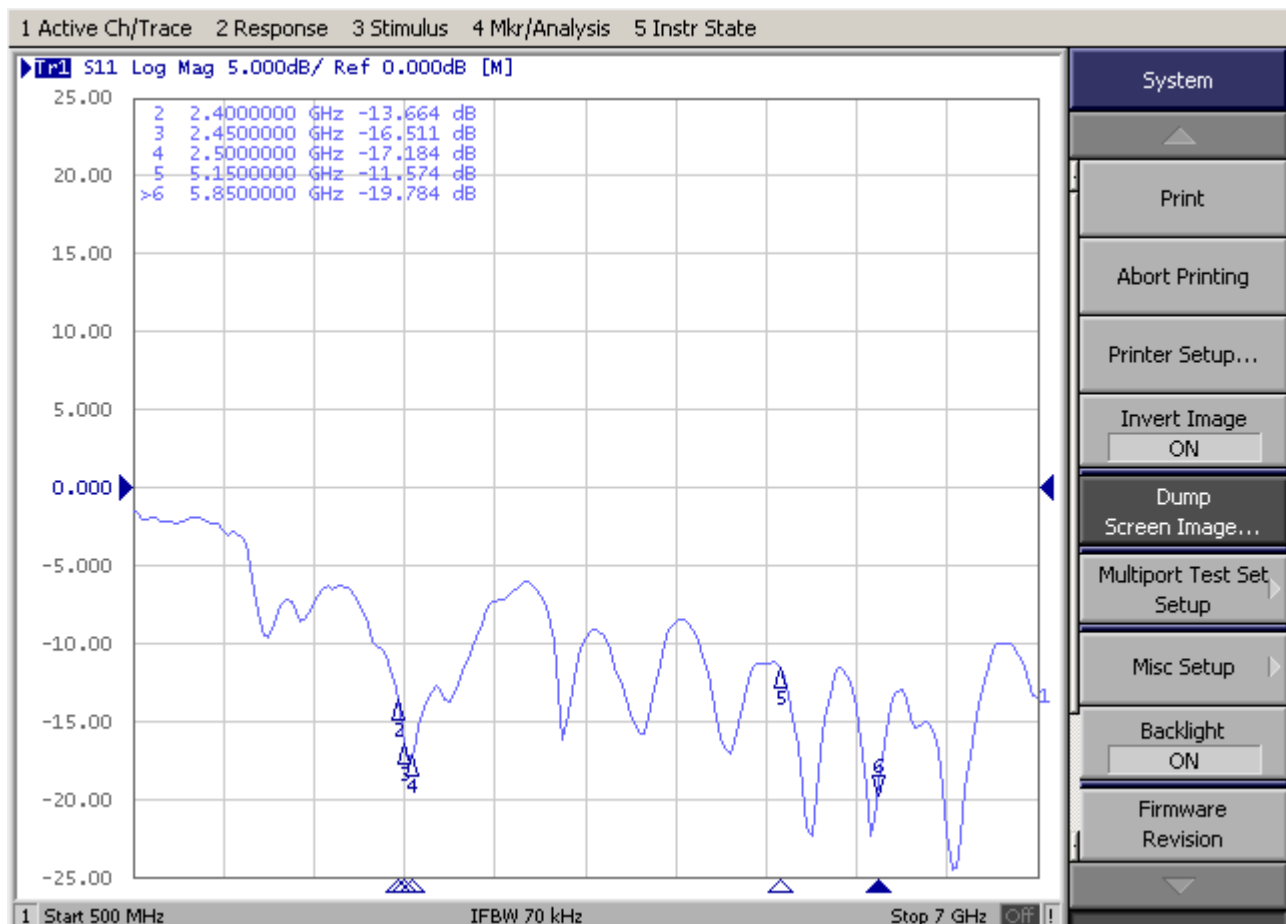
Communications Test Set:

Agilent E5515C CMW500

2. 3D Chamber Test System



□ Return Loss

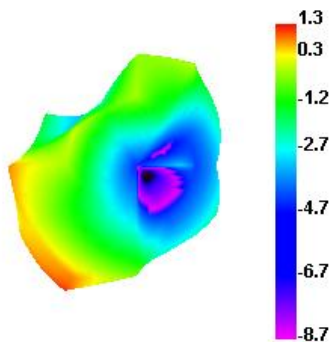


□ Gain & Efficiency

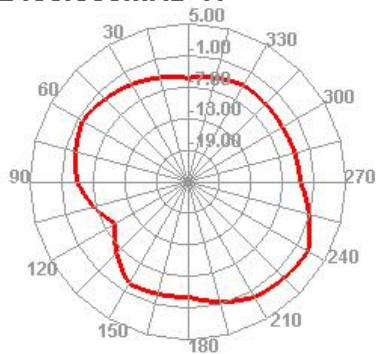
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	48.7	1.31	5150	44.82	3.11
2410	50.33	1.72	5200	44.98	3.13
2420	53.26	2.19			
2430	56.91	2.45			
2440	54.06	2.45			
2450	51.16	2.45			
2460	51.82	2.31			
2470	55.15	2.43			
2480	57.02	2.61			
2490	60.23	2.23			
2500	59.46	2.14			
			5750	53.98	4.84
			5800	55.51	4.95
			5850	59.87	5.2

□ Radiation Pattern

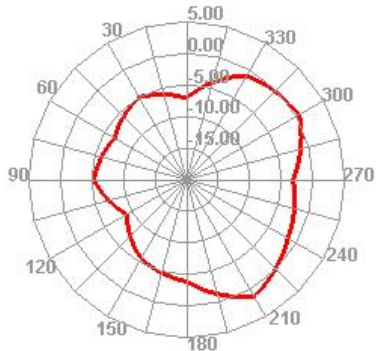
2400.000MHz



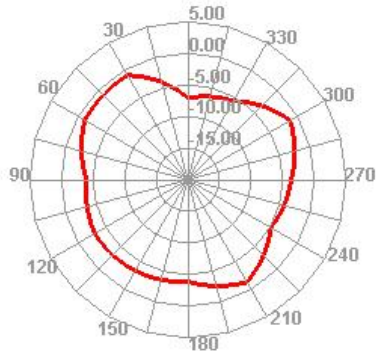
2400.000MHz H



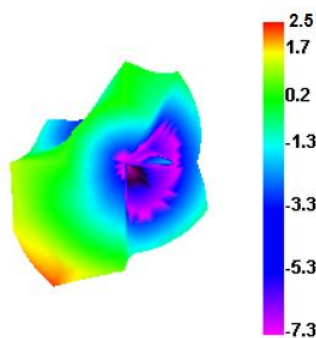
2400.000MHz E1



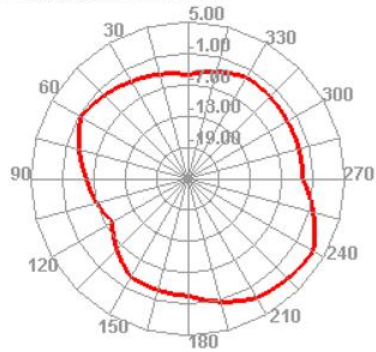
2400.000MHz E2



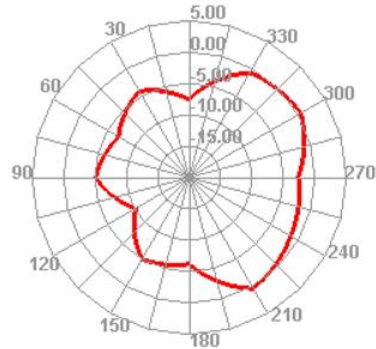
2450.000MHz



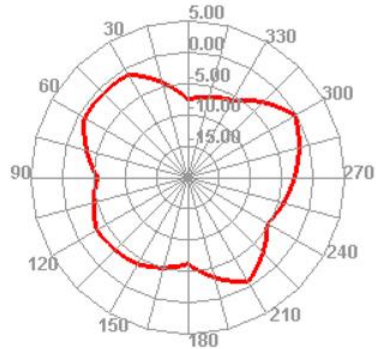
2450.000MHz H



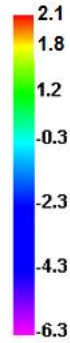
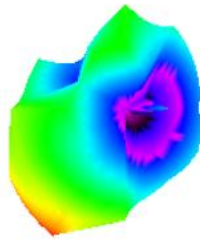
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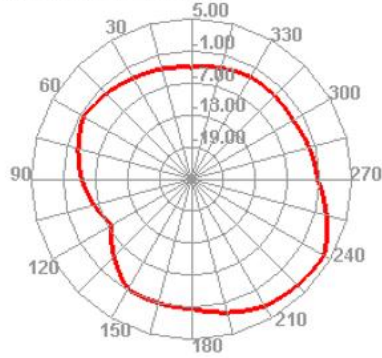
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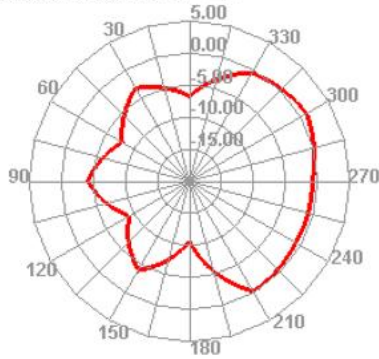
2500.000MHz



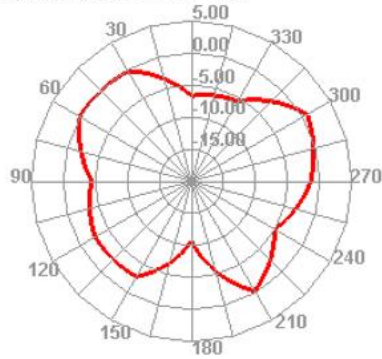
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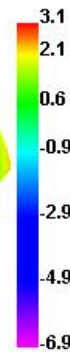
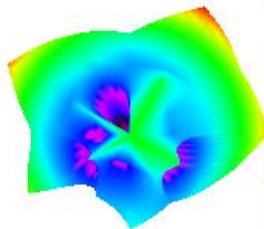
2500.000MHz E1



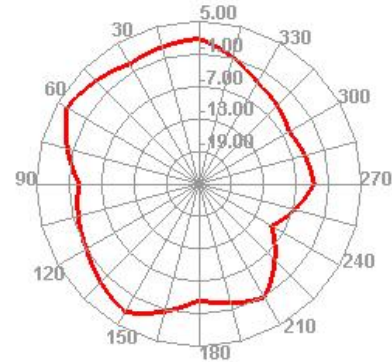
2500.000MHz E2



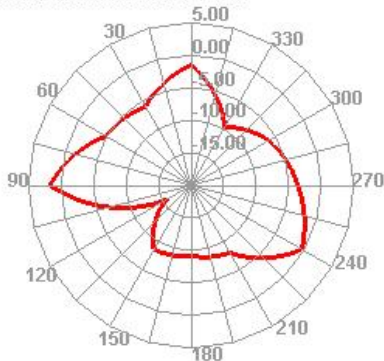
5150.000MHz



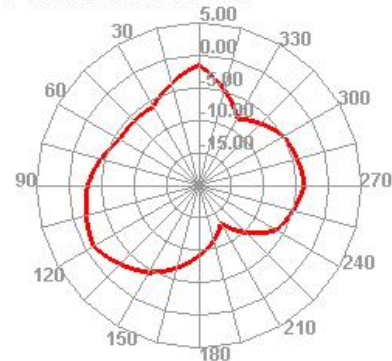
5150.000MHz H



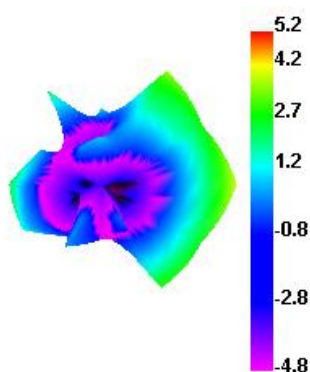
5150.000MHz E1



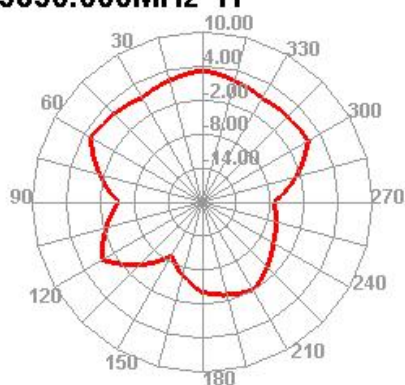
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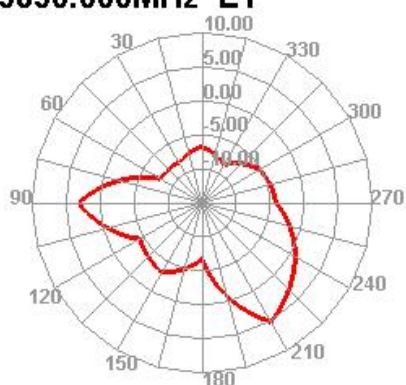
5850.000MHz



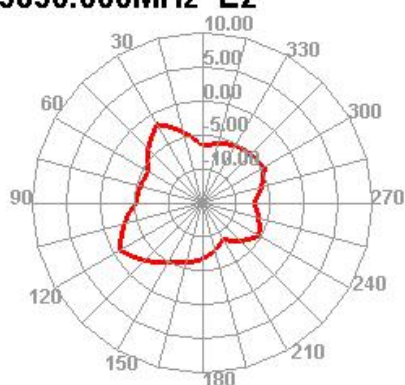
5850.000MHz H



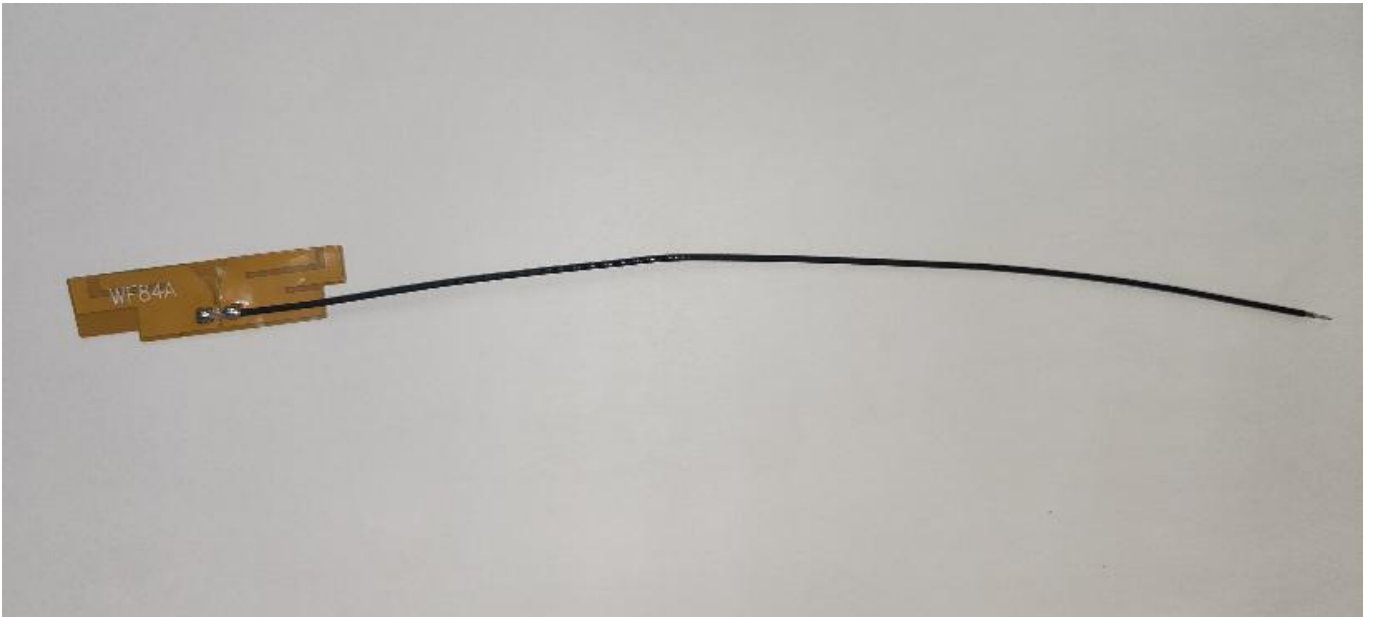
5850.000MHz E1



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: $35\pm 2^{\circ}\text{C}$ Humidity: 85% NaCl salt spray :$5\pm 1\%$.PH value :6.5~7.2 Test time:24hours	Salt-Spray Tester	No color change No appear rusting	PASS