
Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____ PACE. 12 WIFI Antenna

Part NO. : _____ WF84A. C113. 120B. 1

Write By: _____ YANPEIHAI

Issued Date: _____ 2025. 07. 02

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz 5100MHz ~5800MHz
VSWR	< 2.0
Efficiency	>40%
Peak Gain	2.4G@ 1 dbi 5.8G @2dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Cable Type	1.13mm Black
Connector Type	1
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

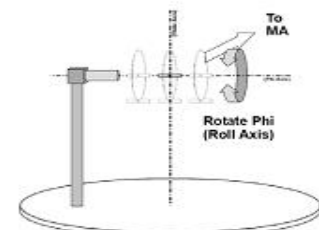
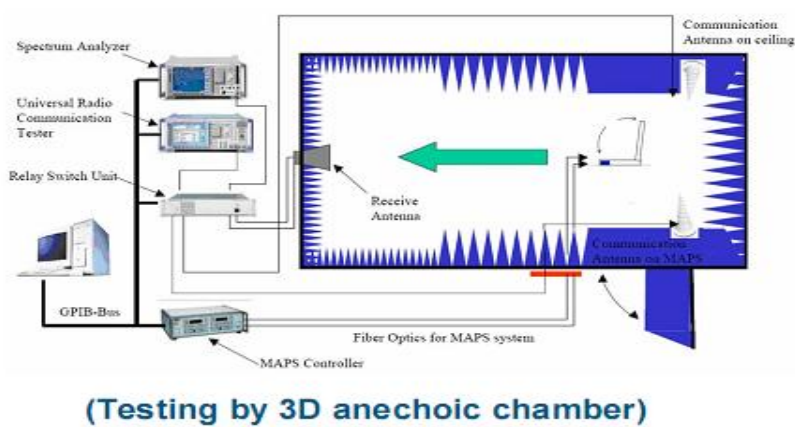
1. Network Analyzers :

Agilent 8753D 5071B

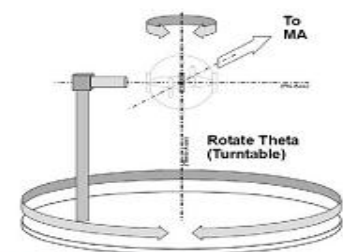
Communications Test Set:

Agilent E5515C CMW500

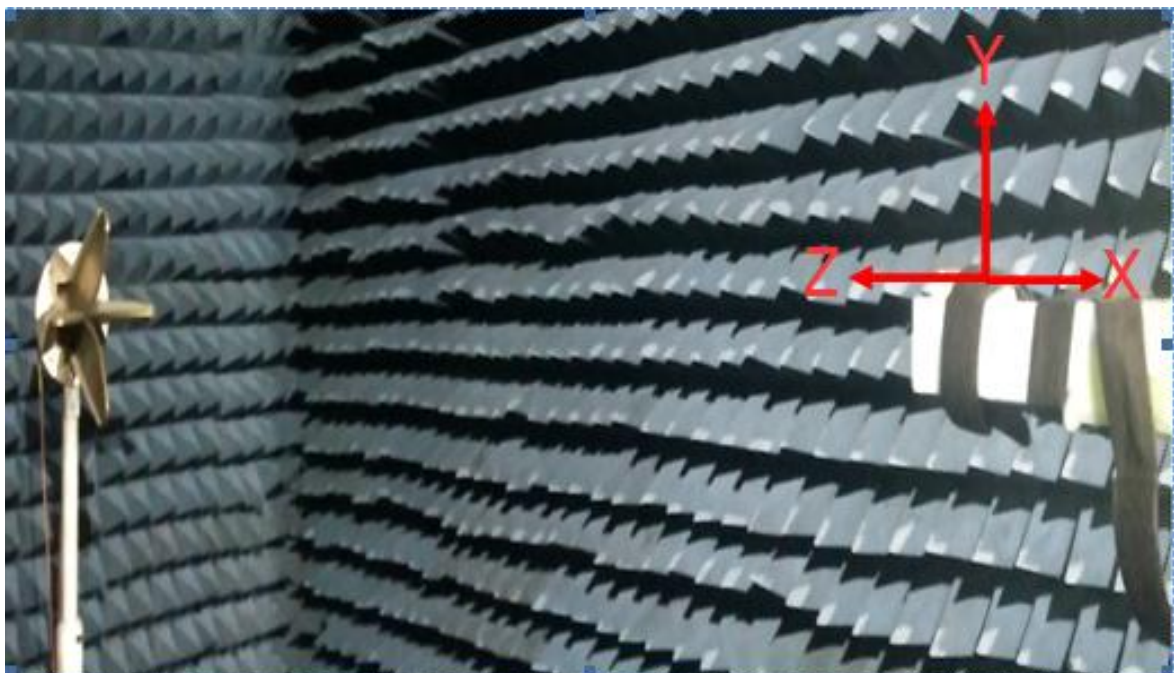
2. 3D Chamber Test System



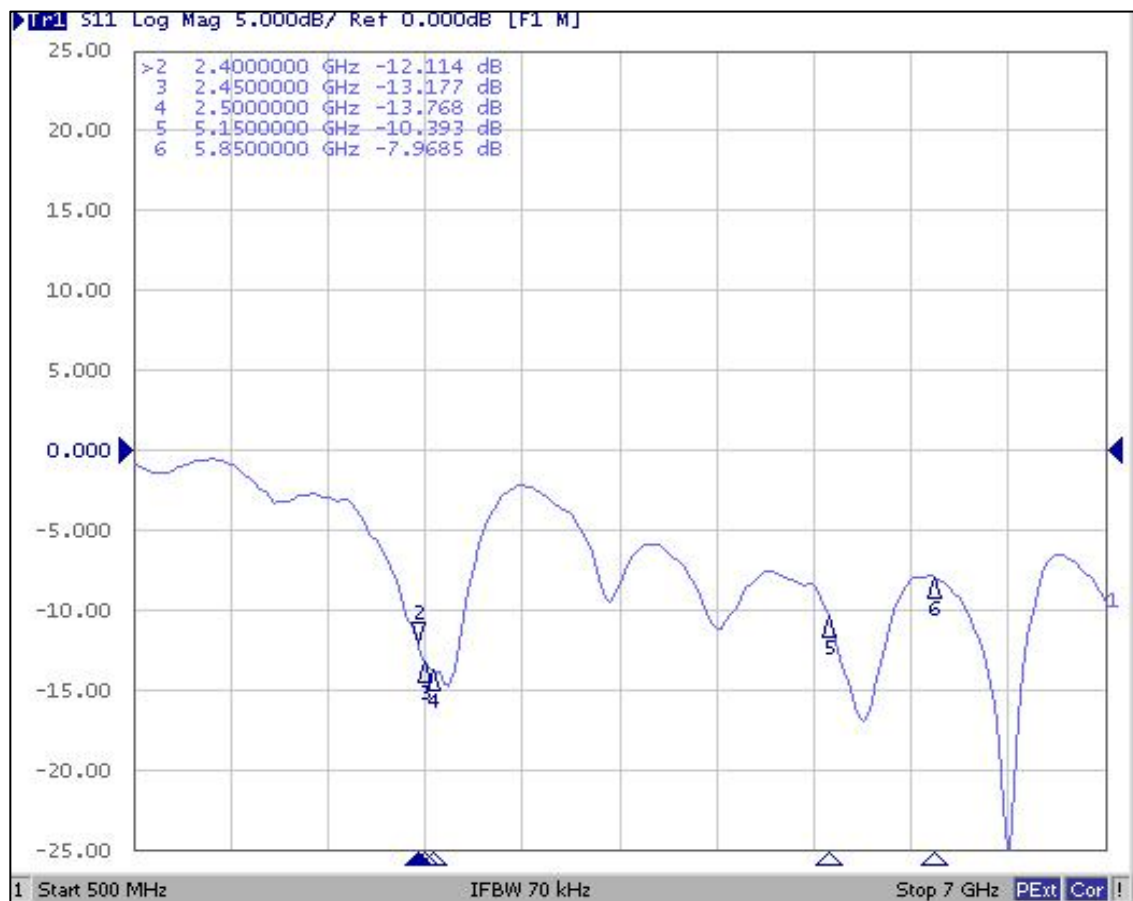
Phi axis test



Theta axis test



◆ Return Loss



◆ Gain & Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)
2400	62.72	1.53
2410	61.74	1.44
2420	60.1	1.13
2430	56.55	0.97
2440	57.72	1.15
2450	53.67	0.83
2460	54.15	0.8
2470	50.64	0.38
2480	52.96	0.44
2490	54.42	0.64
2500	56.4	0.81

Freq (MHz)	Effi (%)	Gain (dBi)
5150	51.81	-0.12
5200	51.85	-0.13
5250	54.01	0.87
5300	52.43	2.71
5350	51.35	2.08
5400	51.32	2.47
5450	53.07	2.54
5500	50.38	2.48
5550	54.05	2.26
5600	54.01	2.47
5650	52.04	1.35
5700	51.58	1.35
5750	54.78	0.96
5800	51.84	1.27
5850	54.55	2.11

◆ OTA

2.4G-B模

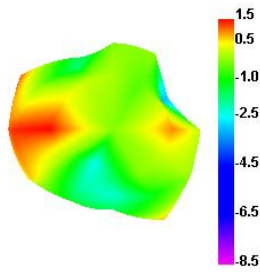
Test	Wifi 2G TRP			Test	Wifi 2G TIS		
Result	1	6	11	Result	1	6	11
Frequency (MHz)	2412	2437	2462	Frequency (MHz)	2412	2437	2462
TRP (dBm)	14.91	14.1	14.25	TIS (dBm)	-83.43	-83.36	-84.21

5.8G-N模

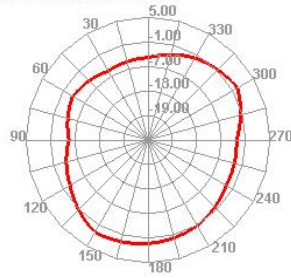
Test	Wifi 5G TRP			Test	Wifi 5G TIS		
Result	36	149	161	Result	36	149	161
Frequency (MHz)	5180	5745	5805	Frequency (MHz)	5180	5745	5805
TRP (dBm)	10.32	9.84	9.37	TIS (dBm)	-66.52	-65.54	-65.06

◆ Radiation Pattern(2.4G)

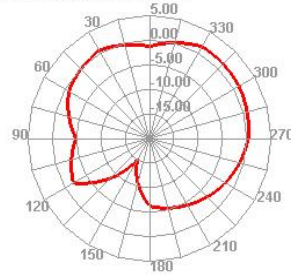
2400.000MHz



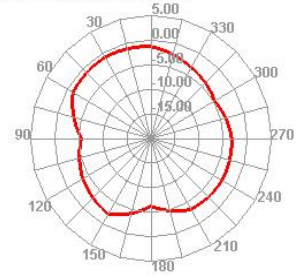
2400.000MHz H



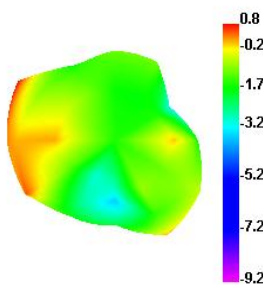
2400.000MHz E1



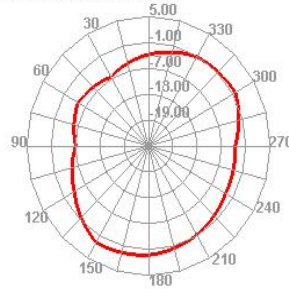
2400.000MHz E2



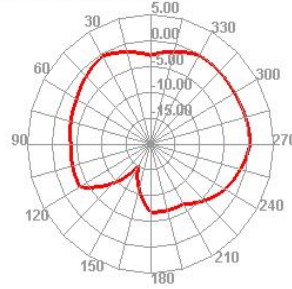
2450.000MHz



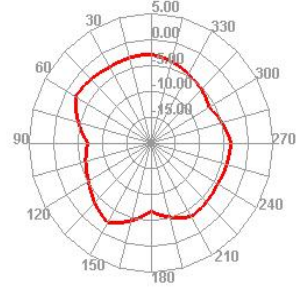
2450.000MHz H



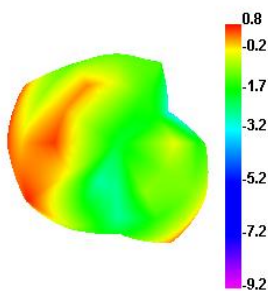
2450.000MHz E1



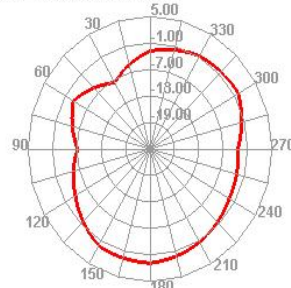
2450.000MHz E2



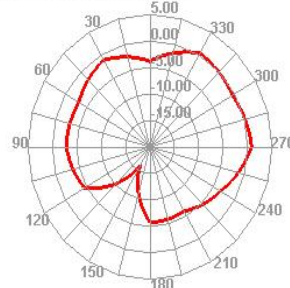
2500.000MHz



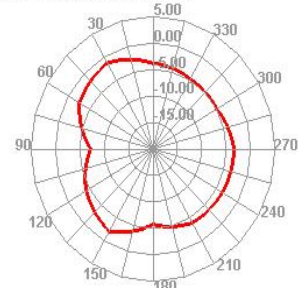
2500.000MHz H



2500.000MHz E1

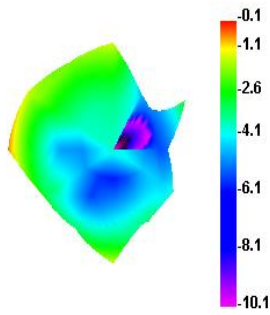


2500.000MHz E2

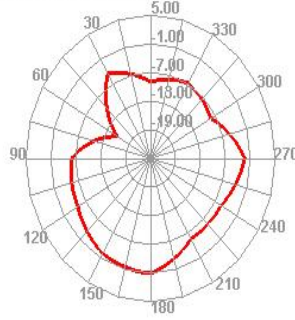


◆ Radiation Pattern(5.8G)

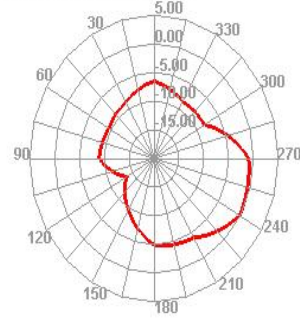
5150.000MHz



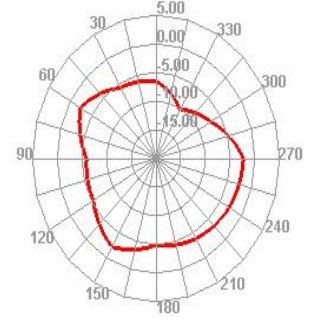
5150.000MHz H



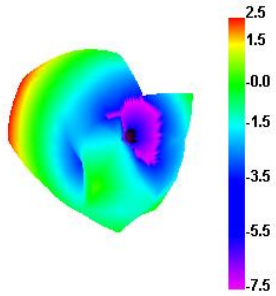
5150.000MHz E1



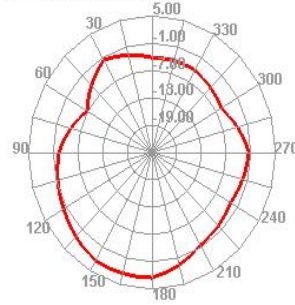
5150.000MHz E2



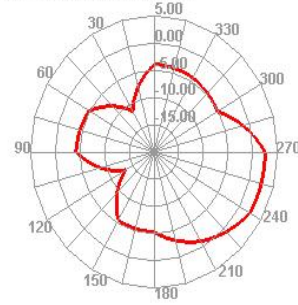
5500.000MHz



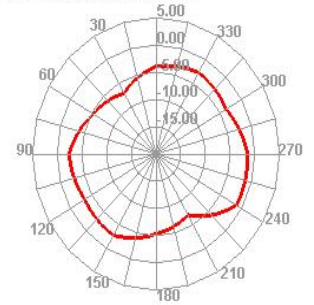
5500.000MHz H



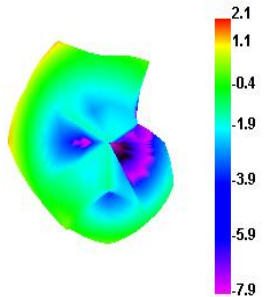
5500.000MHz E1



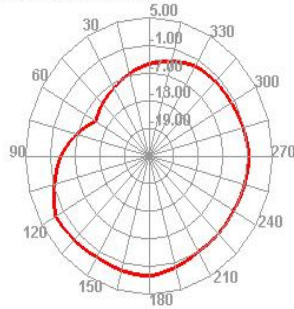
5500.000MHz E2



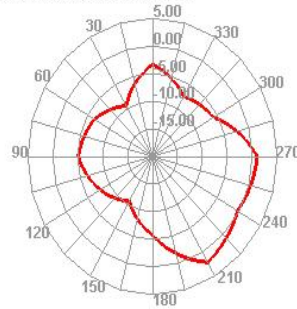
5850.000MHz



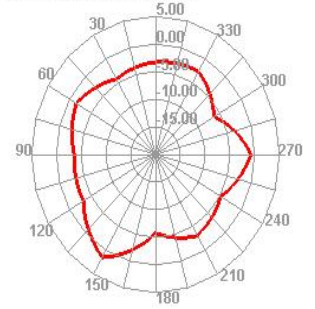
5850.000MHz H



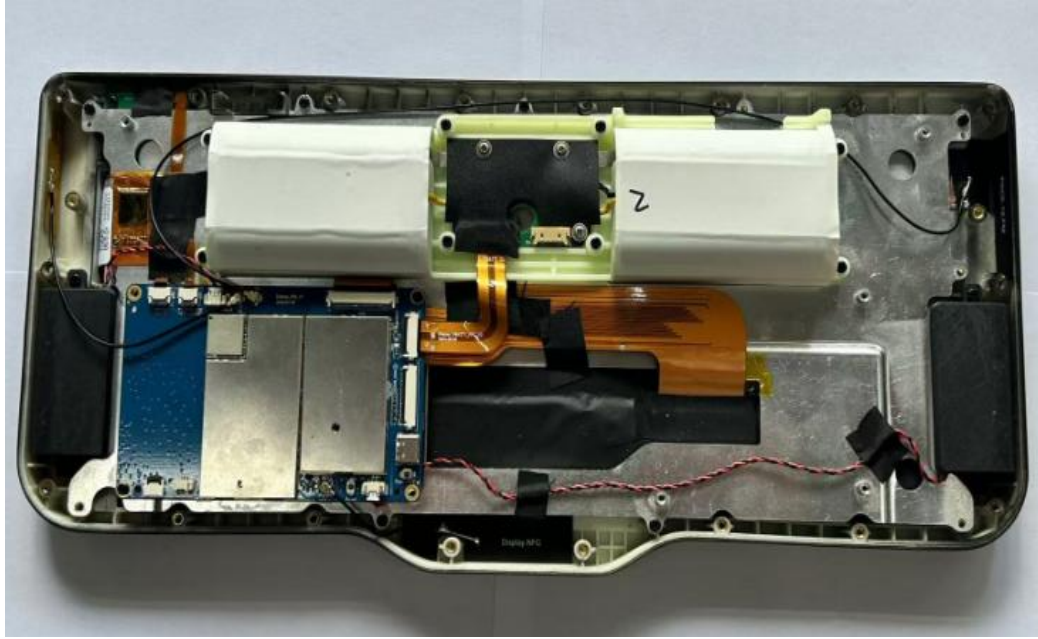
5850.000MHz E1



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: $35 \pm 2^{\circ}\text{C}$ 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