

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____ 2.4G/5.8G WIFI Antenna

Part NO. : _____ TY06

Write By: _____ YAN PEI HAI

Issued Date: _____ 2025-08-21

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	>50%
Peak Gain	1.93dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	/
Cable Type	/
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

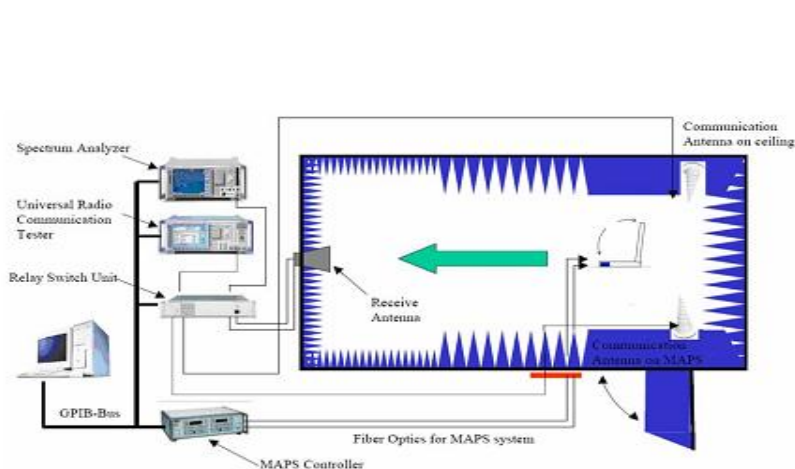
1. Network Analyzers :

Agilent 8753D 5071B

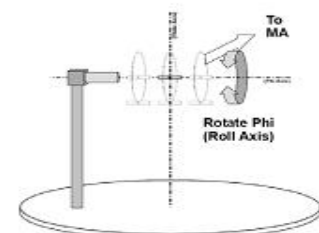
Communications Test Set:

Agilent E5515C CMW500

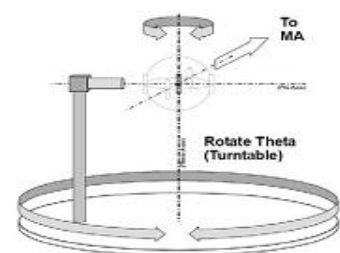
2. 3D Chamber Test System



(Testing by 3D anechoic chamber)

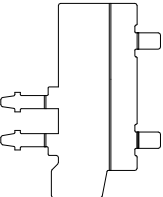
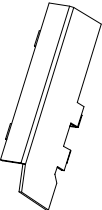
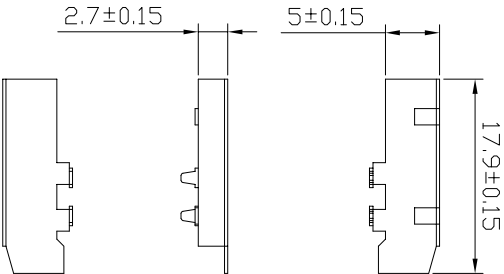
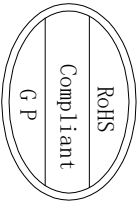


Phi axis test



Theta axis test





SHEN ZHEN SKYLINK CO., LTD									
		Third Angle		Project		Date		2024-08-12	
0~10	±0.05	○	0.02	Part Name		Designed by			
10~18	±0.10	◎	0.03	Part No.		Checked by		MD	
18~30	±0.12	⊥	0.02	Material		Approved by		RF	
30~40	±0.15	∇	0.04	DWG No.		Unit		mm	
40~	±0.20	Angle	±0.5°			Scale		1:1	
Location						Rev		A	

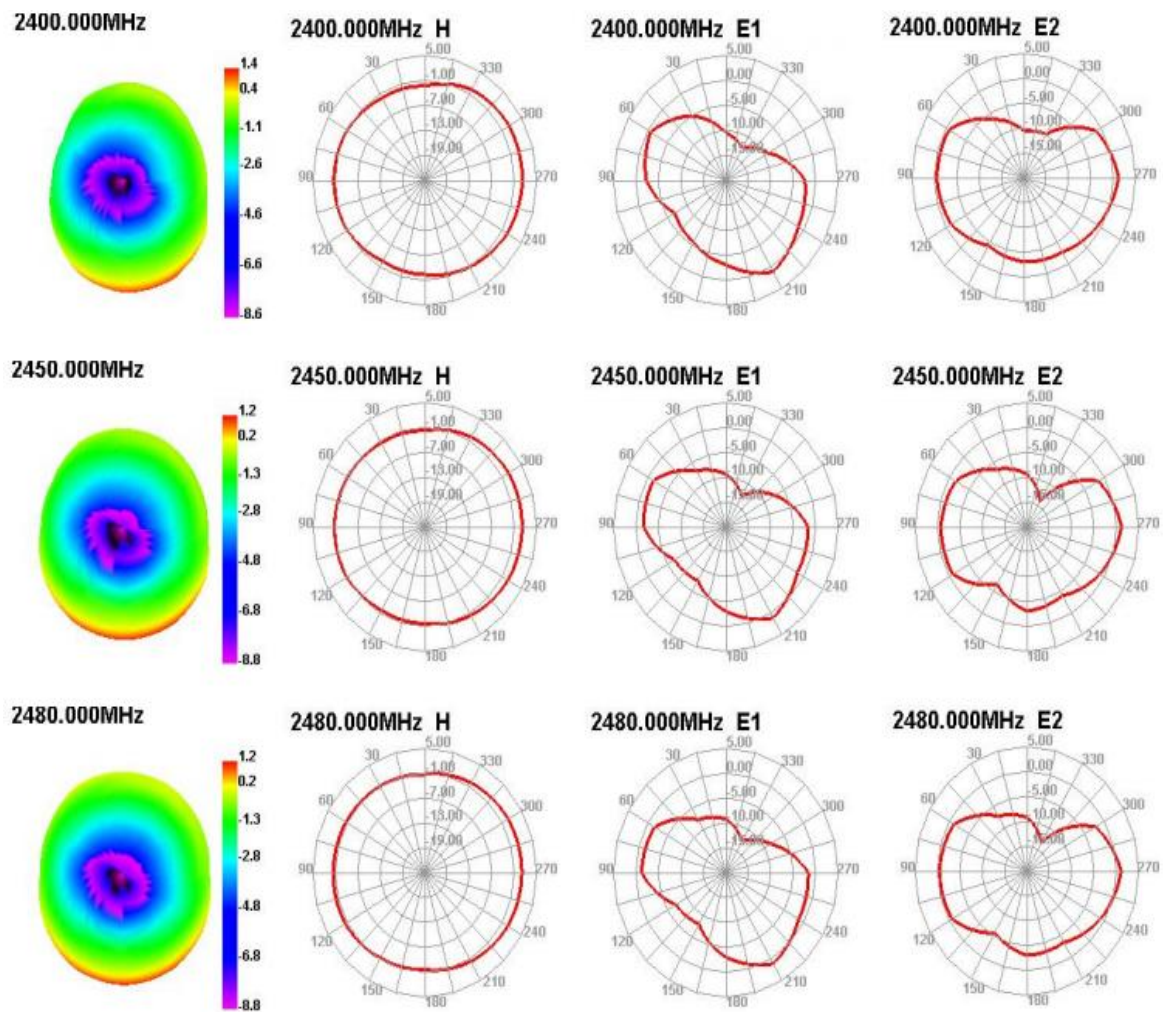
Rev	Description	Date	Remark
1	New drawing		

◆ Gain & Efficiency

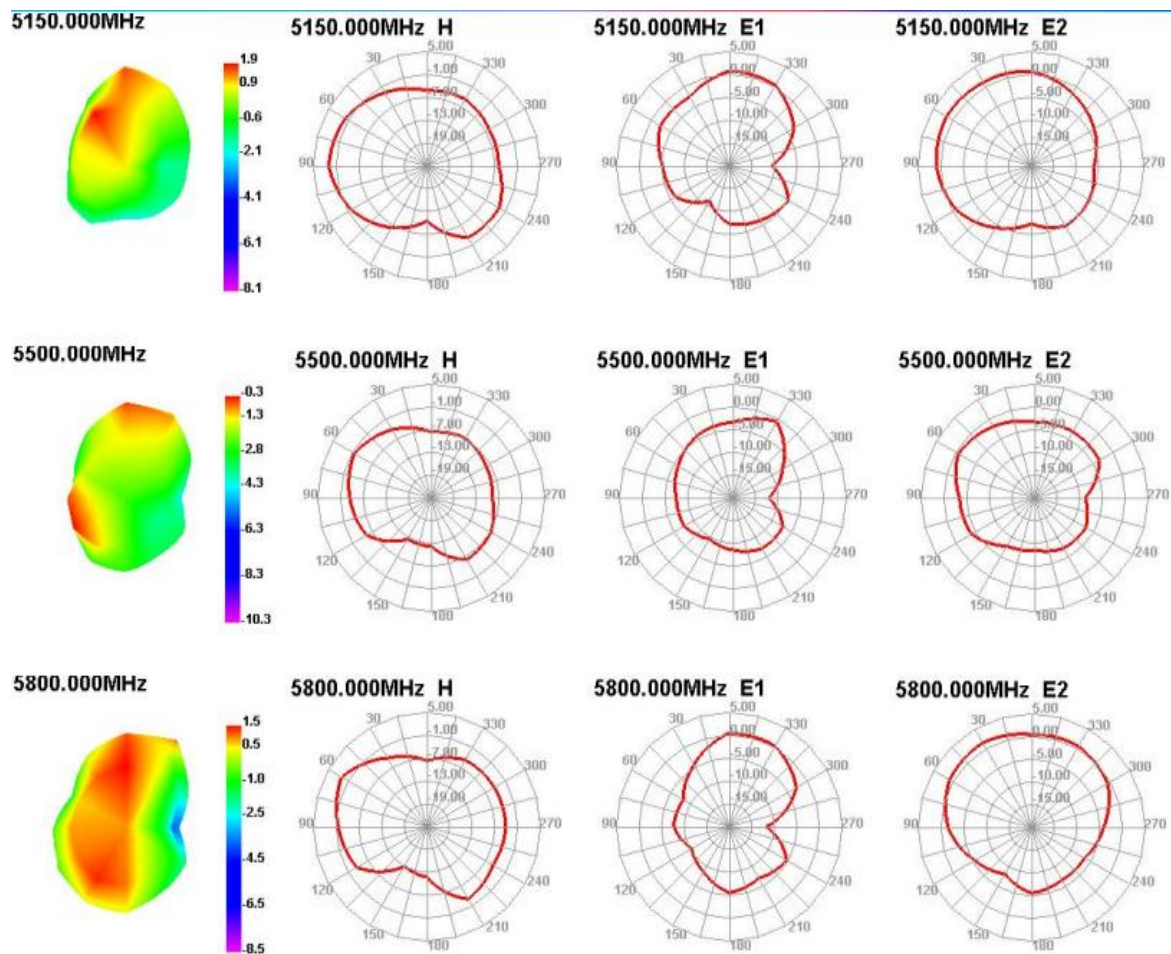
Fre (MHz)	Eff (%) (dB)	Gain (dB)
2400	56.38	1.37
2410	56.47	1.32
2420	57.63	1.41
2430	57.64	1.45
2440	56.27	1.27
2450	56.34	1.16
2460	56.38	1.26
2470	55.62	1.17
2480	55.74	1.18
2490	55.32	1.08
2500	56.42	1.13

Fre (MHz)	Eff (%) (dB)	Gain (dB)
5100	54.39	1.93
5200	53.66	1.82
5300	50.87	0.14
5400	51.49	-0.26
5500	50.32	-0.3
5600	52.36	0.18
5700	53.62	0.85
5800	53.49	1.53

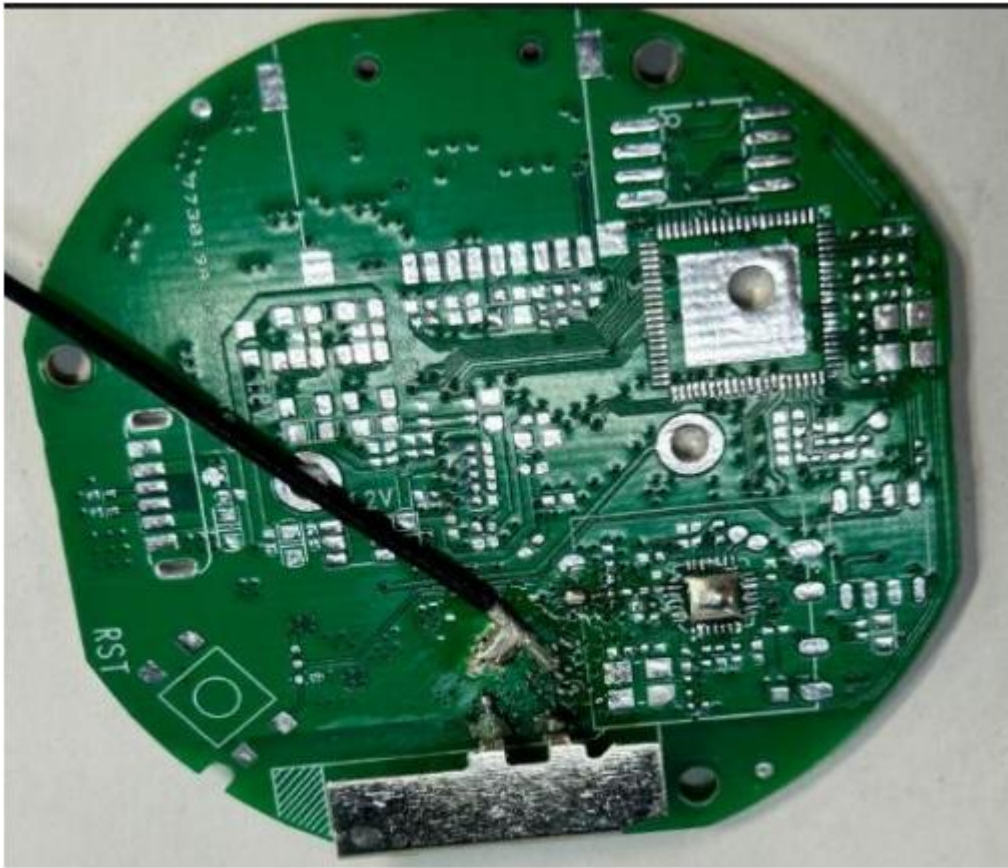
◆ Radiation Pattern (2.4G)



◆ Radiation Pattern (5.8G)



◆ 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