

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____ I6K WIFI Antenna _____

Part NO. _____ IK6. C113. 60B. 221 _____

Write By: _____ zhangchanghua _____

Issued Date: _____ 2023-08-28 _____

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz
Return Loss	-10dB
Efficiency	>35%
Peak Gain	0.79dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	FPC
Cable Type	1.13 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

1	2	3	4	5	6	7	8
RoHS Compliant G P							
A		A					
B		B					
C		C					
D		D					

Rev		Description		Date		Remark	
1							
A		New drawing					

Project		Date		2023-08-28	
Part Name		Designed by			
Part No.		Checked by			
Material		Approved by			
DWG No.		Unit		mm	
Scale		1:1		Rev A	

● Test Equipment & Conditions

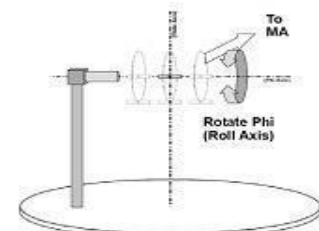
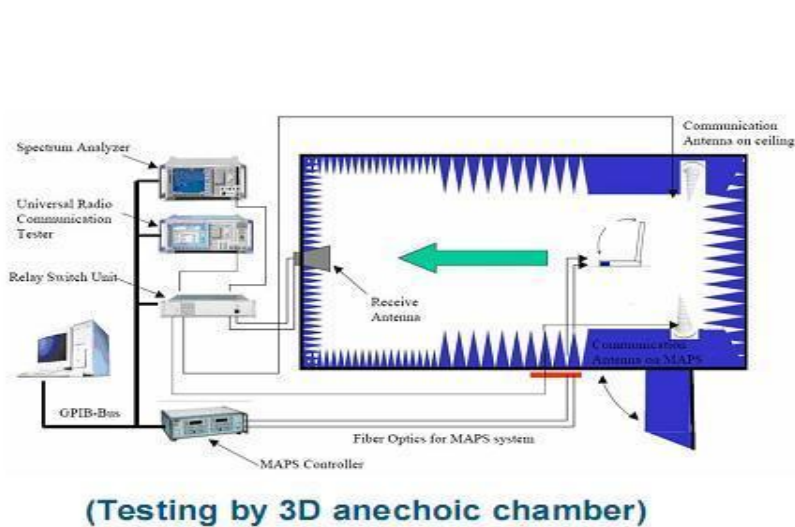
1. Network Analyzers :

Agilent 8753D 5071B

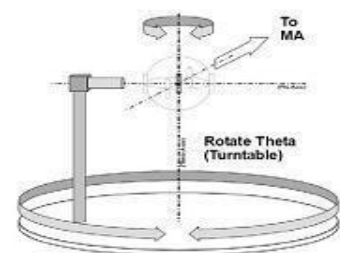
Communications Test Set:

Agilent E5515C CMW500

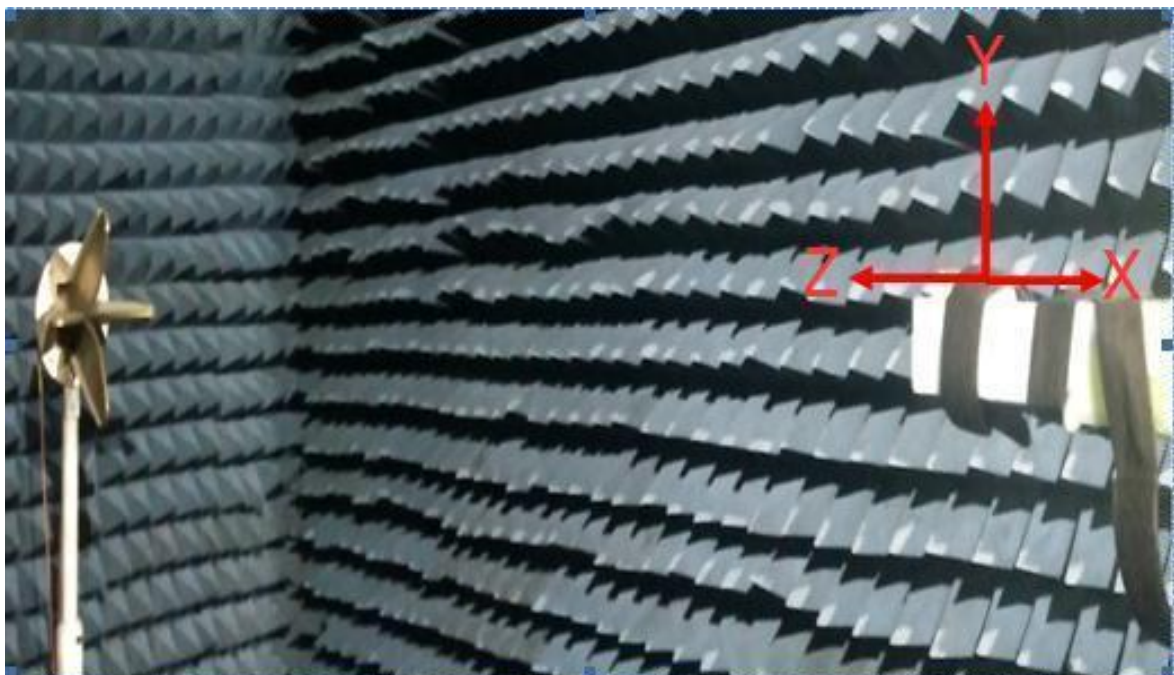
2. 3D Chamber Test System



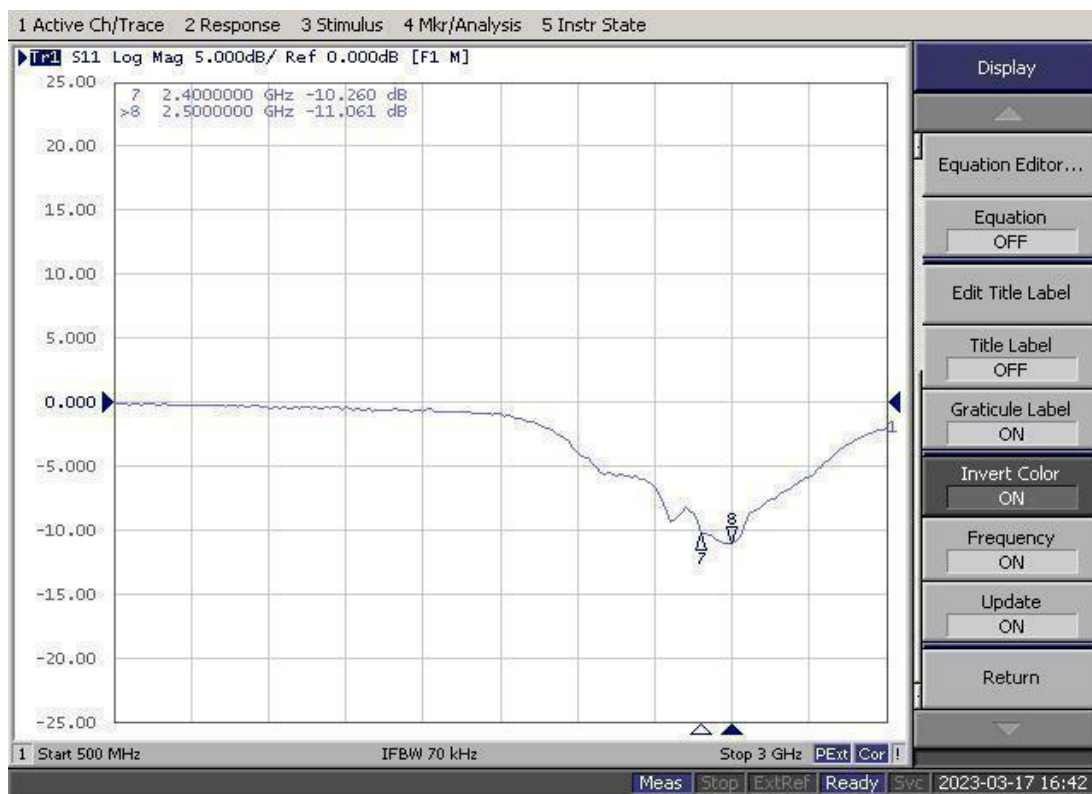
Phi axis test



Theta axis test



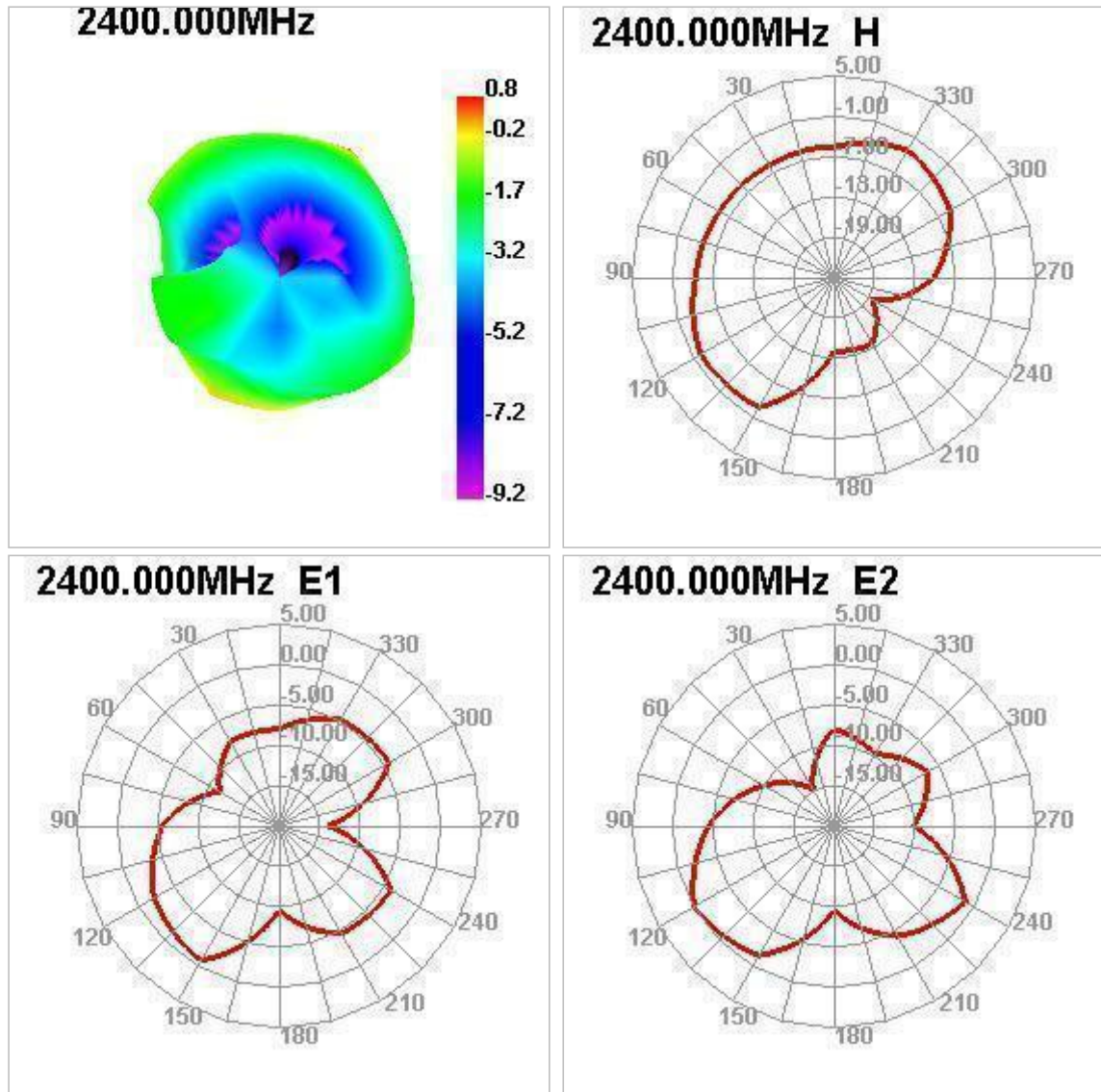
◆ Return Loss

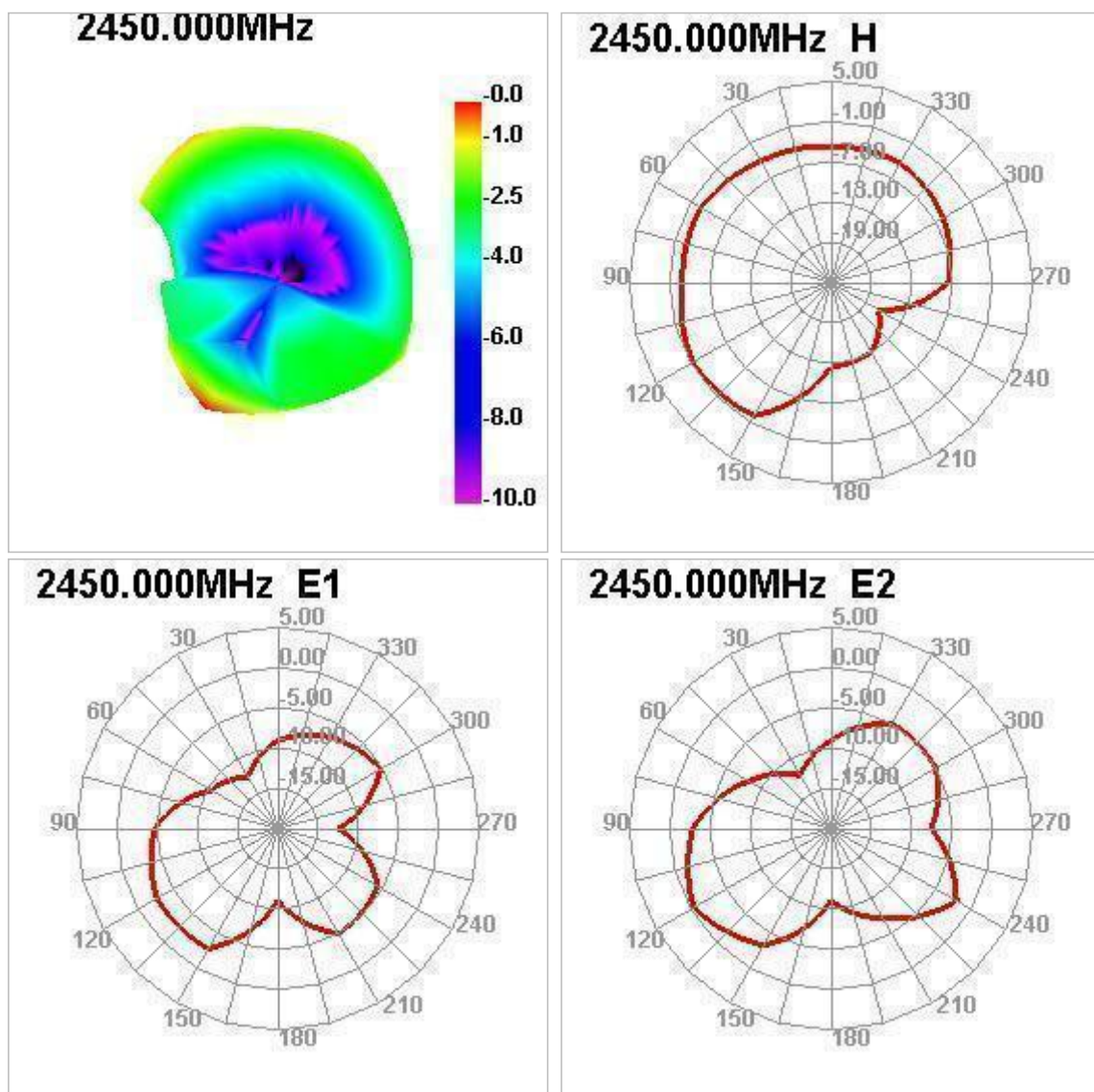


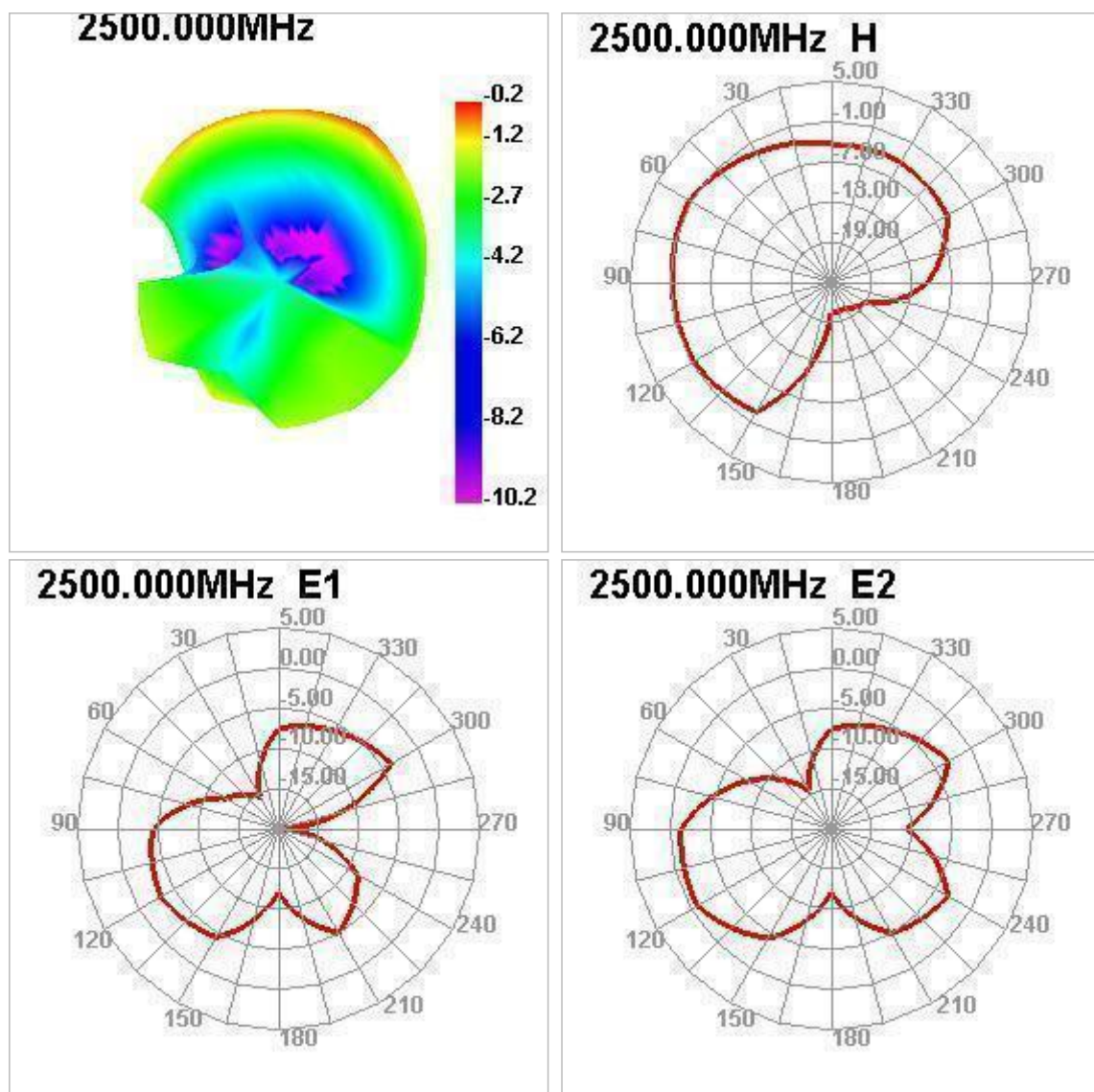
◆ Gain & Efficiency

Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400	38.85	0.79
2410	37.03	0.46
2420	36.41	0.05
2430	37.46	0.59
2440	39.04	0.62
2450	37.32	-0.02
2460	37.57	0.16
2470	37.6	0.23
2480	37.71	0.22
2490	37.76	0.15
2500	36.6	-0.24

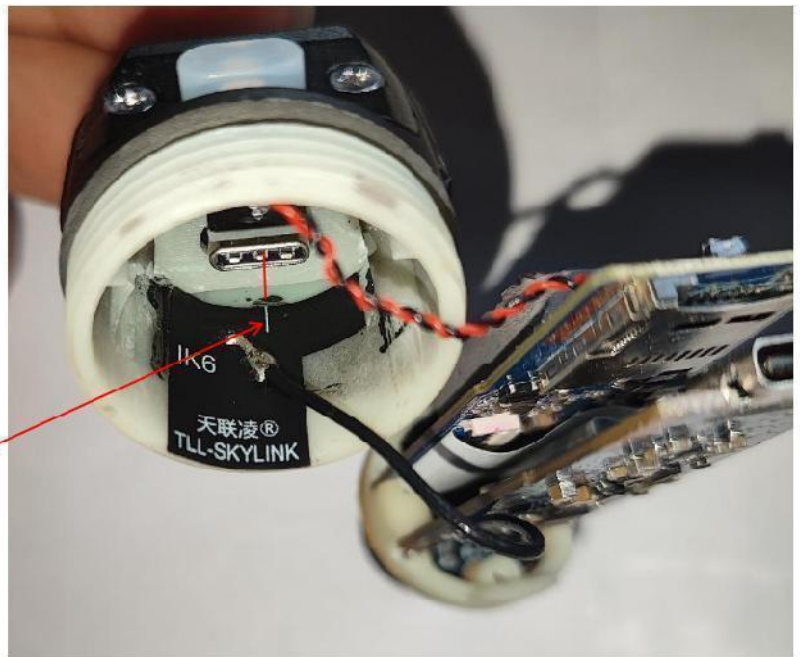
◆ Radiation Pattern







◆ Antenna Picture



antenna position

◆ 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