

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____ WIFI Antenna

Part NO. : _____ K06. 1. WIFI. C081. 70B. 3

Write By: _____ Zhengfeng Fang

Issued Date: _____ 2023-10-30

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz
Log Mag	<-5dB
Efficiency	>40%
Peak Gain	0.9dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	FPC
Cable Type	0.81mm Black
Connector Type	3
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
A	RoHS Compliant G P							
B								
C								
D								

K06.1.WIFI

天联凌®
TLL-SKYLINK

*70±1.0

Ø0.81±0.05

IPEX 3

*23.9±0.2

*10.6±0.2

SHEN ZHEN SKYLINK CO.,LTD	
Third Angle	Project
0~10 ±0.05 ○ 0.02	Part Name
10~18 ±0.10 ◎ Ø0.03	Part No.
18~30 ±0.12 ⊥ 0.02	Material
30~40 ±0.15 ▽ 0.04	DWG No.
40~ ±0.20 Angle ±0.5°	
Location	

Date		2023-10-24	
Designed by			
Checked by		MD	
Approved by		RF	
Unit	mm	Scale	1:1
Rev	A	Rev	A

● Test Equipment & Conditions

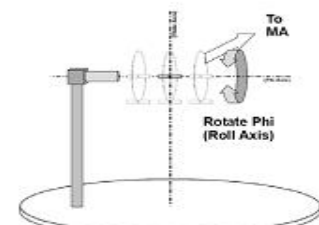
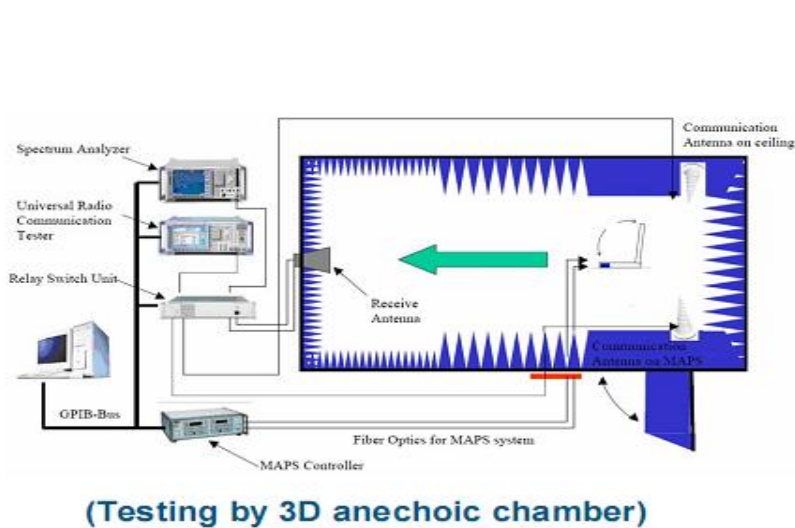
1. Network Analyzers :

Agilent 8753D 5071B

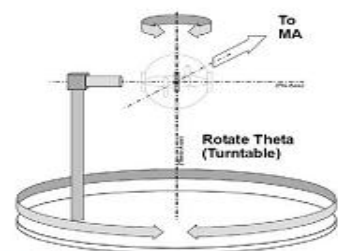
Communications Test Set:

Agilent E5515C CMW500

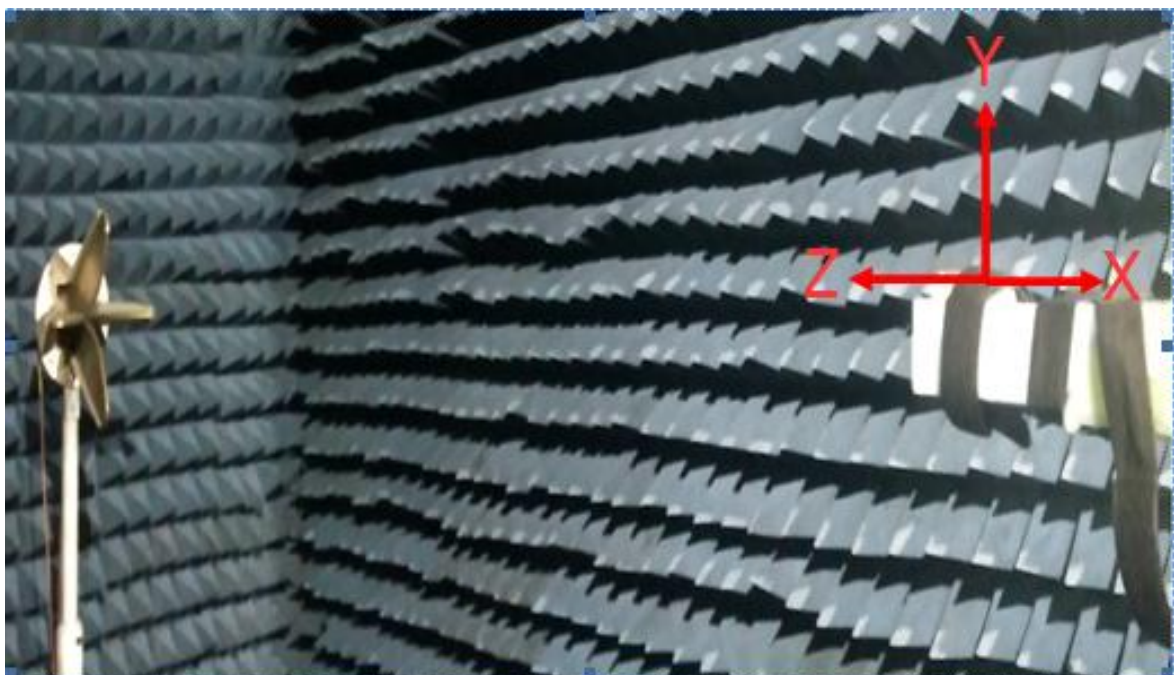
2. 3D Chamber Test System



Phi axis test



Theta axis test



◆ Return Loss

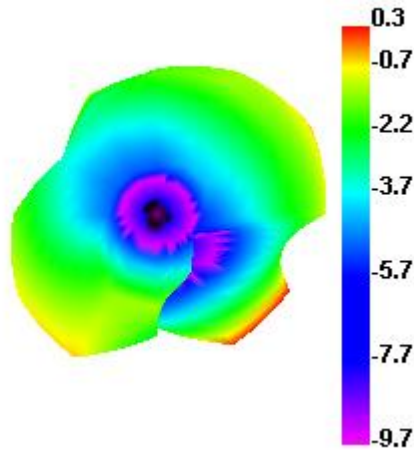


◆ Gain & Efficiency

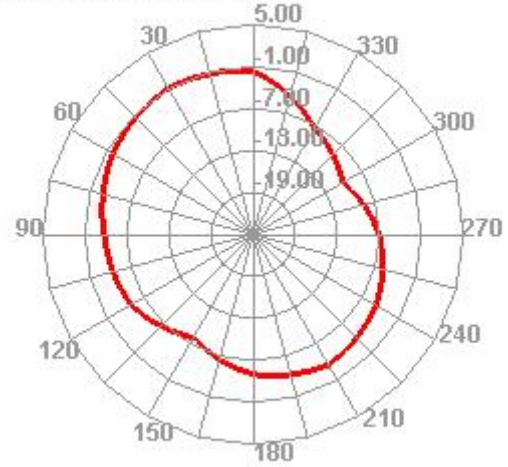
Freq (MHz)	Effi (%)	Gain (dBi)
2400	40.67	0.25
2410	40.5	0.19
2420	41.04	0.12
2430	41.35	0.06
2440	45.88	0.57
2450	45.2	0.46
2460	46.25	0.5
2470	45.06	0.35
2480	46.84	0.62
2490	49.32	0.88
2500	47	0.6

◆ Radiation Pattern

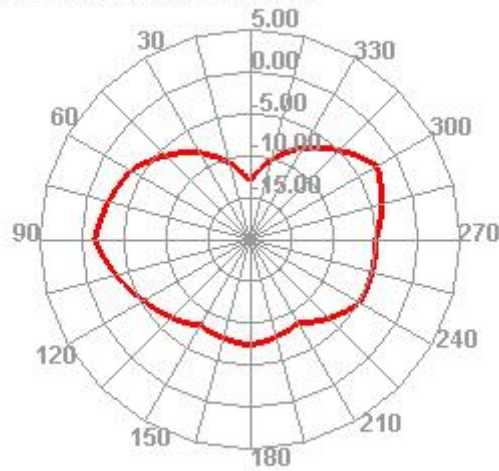
2400.000MHz



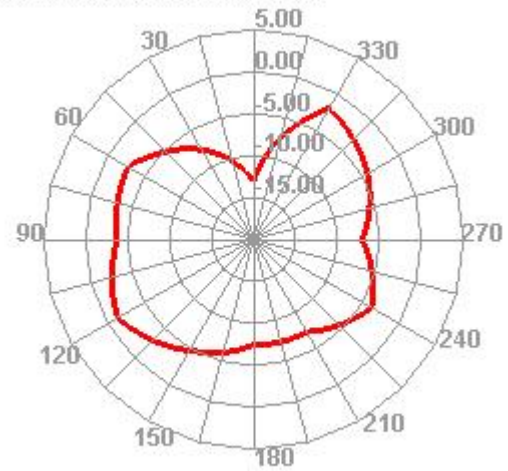
2400.000MHz H



2400.000MHz E1

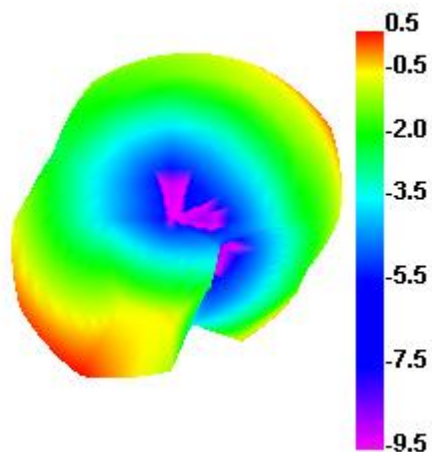


2400.000MHz E2

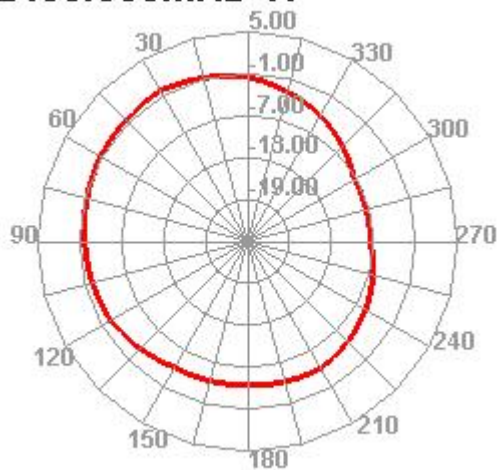


◆ Radiation Pattern

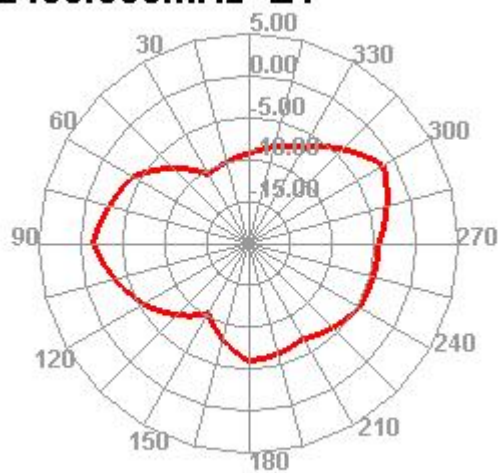
2450.000MHz



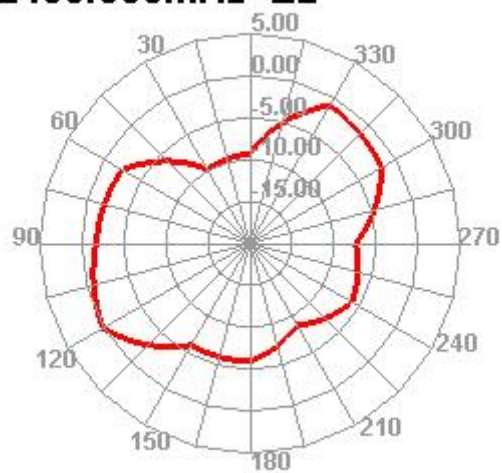
2450.000MHz H



2450.000MHz E1

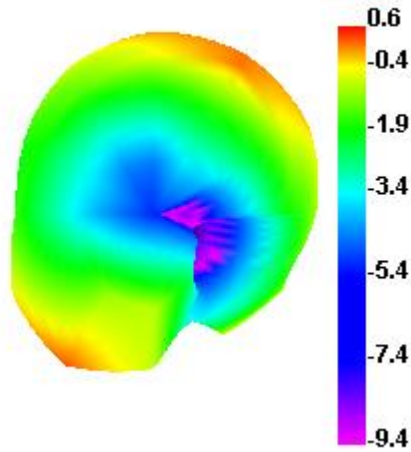


2450.000MHz E2

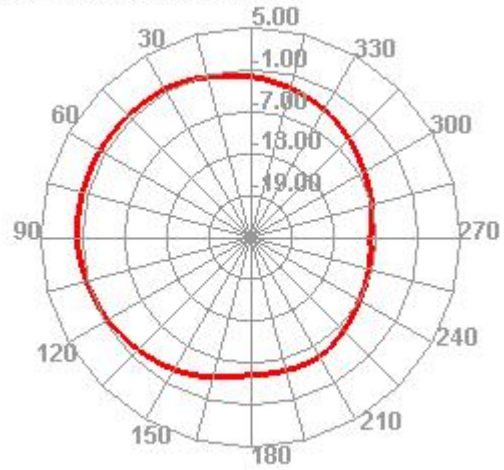


◆ Radiation Pattern

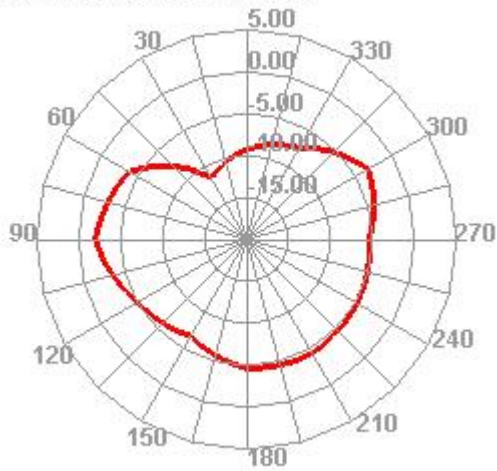
2500.000MHz



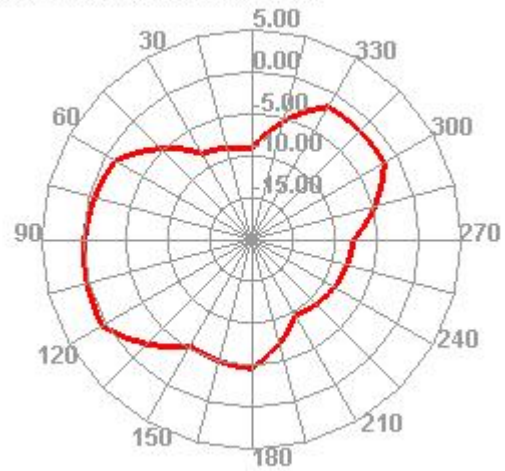
2500.000MHz H



2500.000MHz E1



2500.000MHz 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