

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____ 2921-CX13 (2.4G WIFI Antenna) _____

Part NO. : _____ C113.93G.003600.111 _____

Write By: _____ Zhengfeng Fang _____

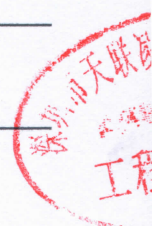
Issued Date: _____ 2023-12-28 _____

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval
方正	侯建恒	张木



● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz
Log Mag	<-5dB
Efficiency	>30%
Peak Gain	1.35 dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Cable Type	1.13mm Grey
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

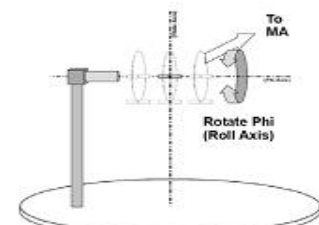
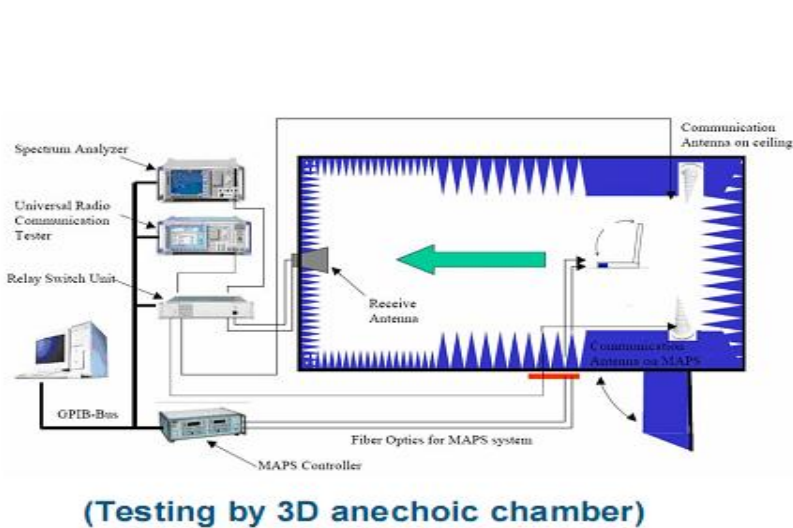
1. Network Analyzers :

Agilent 8753D 5071B

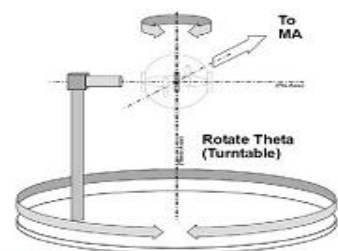
Communications Test Set:

Agilent E5515C CMW500

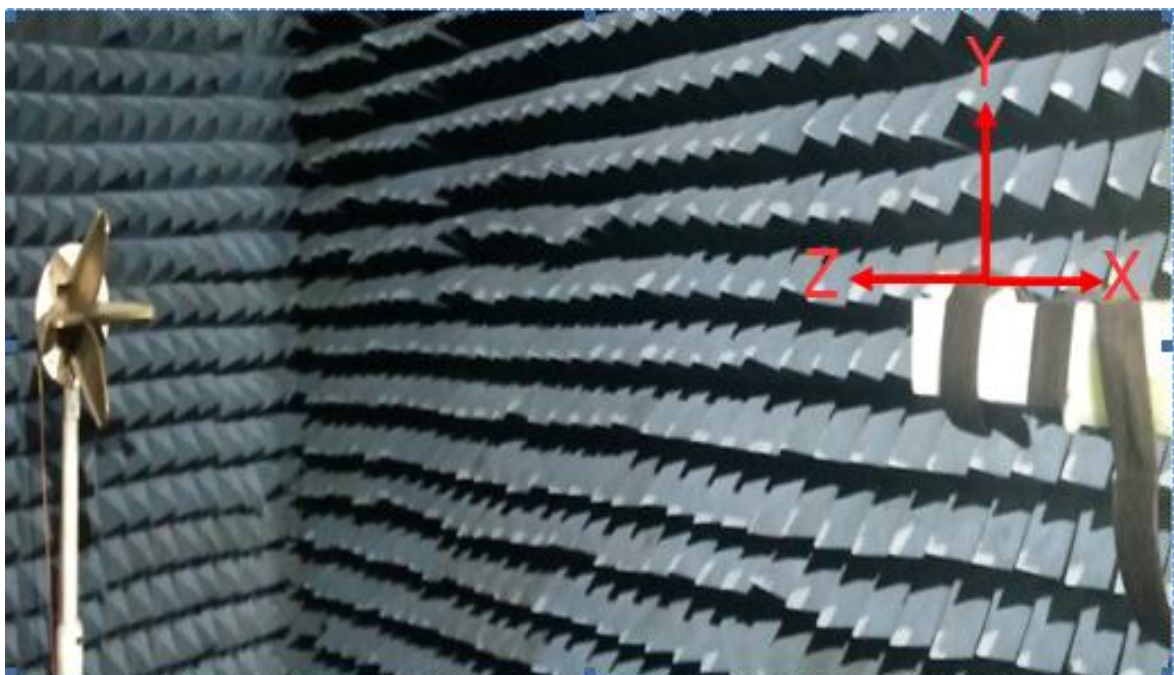
2. 3D Chamber Test System



Phi axis test



Theta axis test



◆ Return Loss

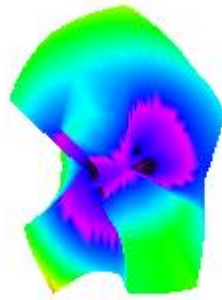


◆ Gain & Efficiency

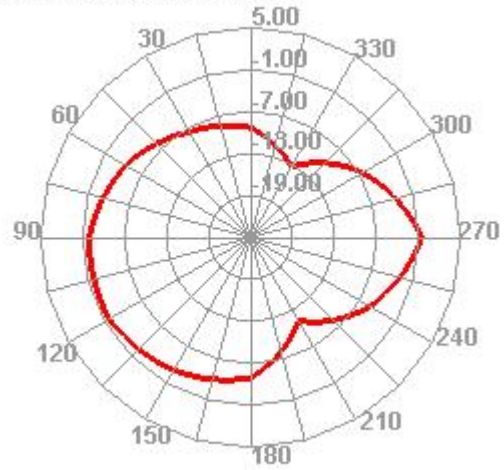
Freq (MHz)	Effi (%)	Gain (dB)
2400	38.68	0.37
2410	36.9	0.11
2420	37.46	0.27
2430	38.98	0.6
2440	36.94	0.45
2450	34.27	0.24
2460	32.5	0.17
2470	34.39	0.73
2480	35.01	0.97
2490	37.25	1.35
2500	34.18	0.82

◆ Radiation Pattern

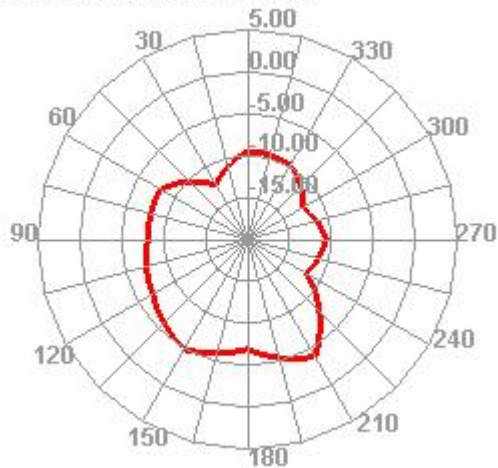
2400.000MHz



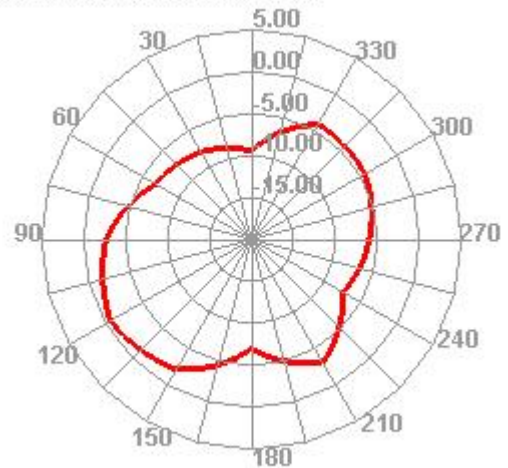
2400.000MHz H



2400.000MHz E1

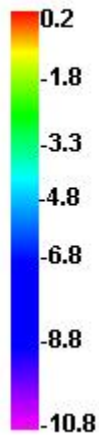
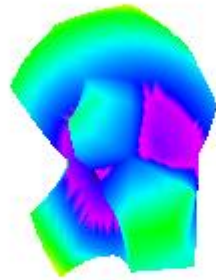


2400.000MHz E2

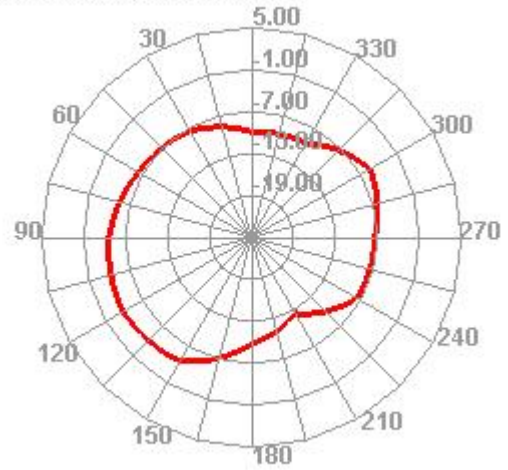


◆ Radiation Pattern

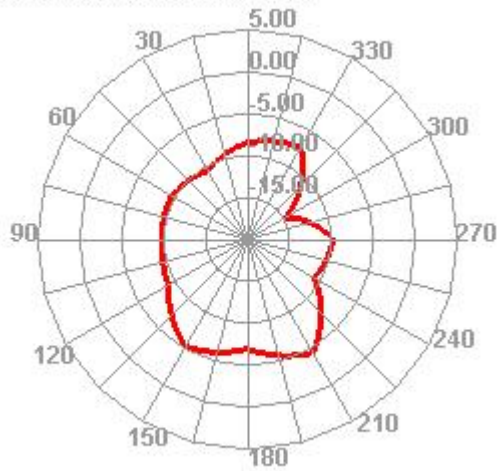
2450.000MHz



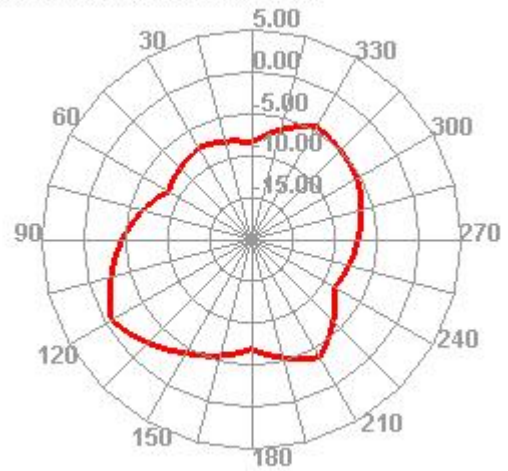
2450.000MHz H



2450.000MHz E1

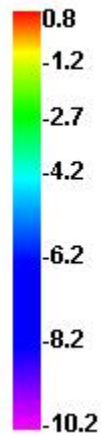
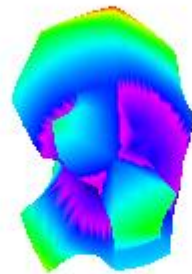


2450.000MHz E2

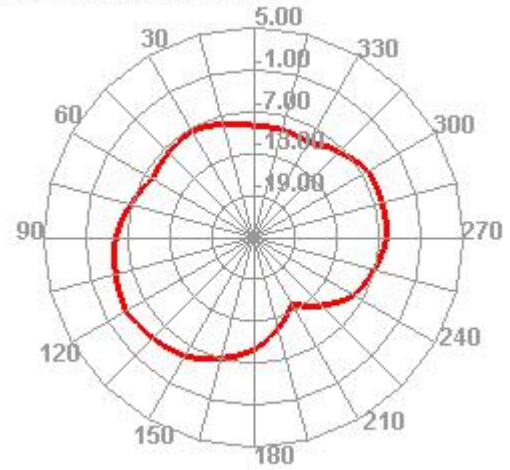


◆ Radiation Pattern

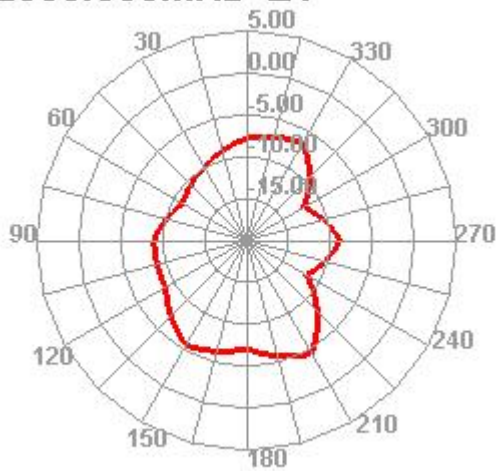
2500.000MHz



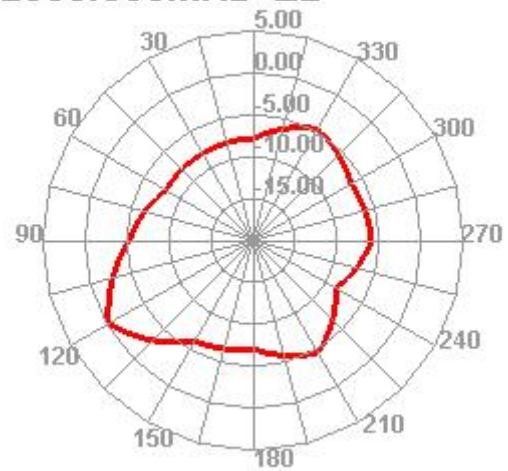
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



◆ 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