TLL-SKYLink
天联凌

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: 2.4G WIFI Antenna

Part NO.: WF15B.C113.195B.122800.221

Write By: Damon Cui

Issued Date: 2022-12-29

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

R & D Center：Room D 5th Floor Building L,Block E ,71 Baocheng District ,Baoan District ,Shenzhen
Factory：6 Floor,GangHuaXing Industrial Park,Rongshu Road 2nd ,Fuyong,Baoan ,shenzhen
Email:damoncui@tllskylink.com

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● Specification Summary

A. Electrical Characteristics	
Frequency	**2400MHz ~2500MHz**
Return Loss	**<-10.0**
Efficiency	**>40%**
Peak Gain	**1.48dbi**
Impedance	**50 Ohm**
Polarization	**Line**
B. Material & Mechanical Characteristics	
Material of Radiator	**Cu**
Cable Type	**Φ1.13MM 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**

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● Test Equipment & Conditions

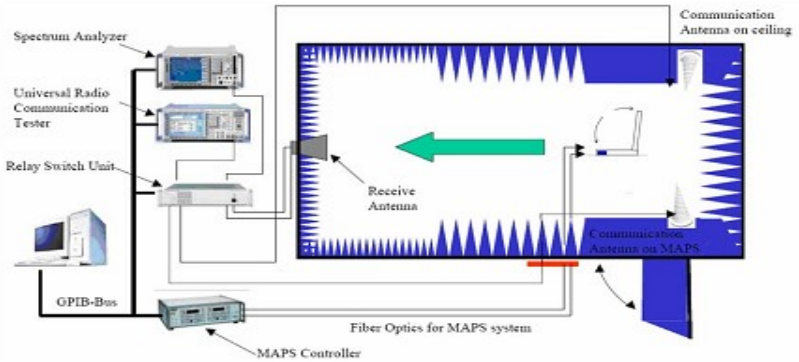
1. Network Analyzers :

Agilent 8753D 5071B

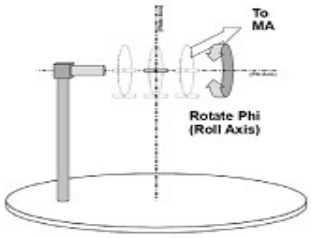
Communications Test Set:

Agilent E5515C CMW500

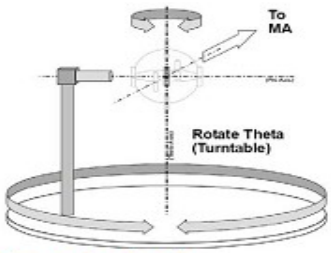
2. 3D Chamber Test System



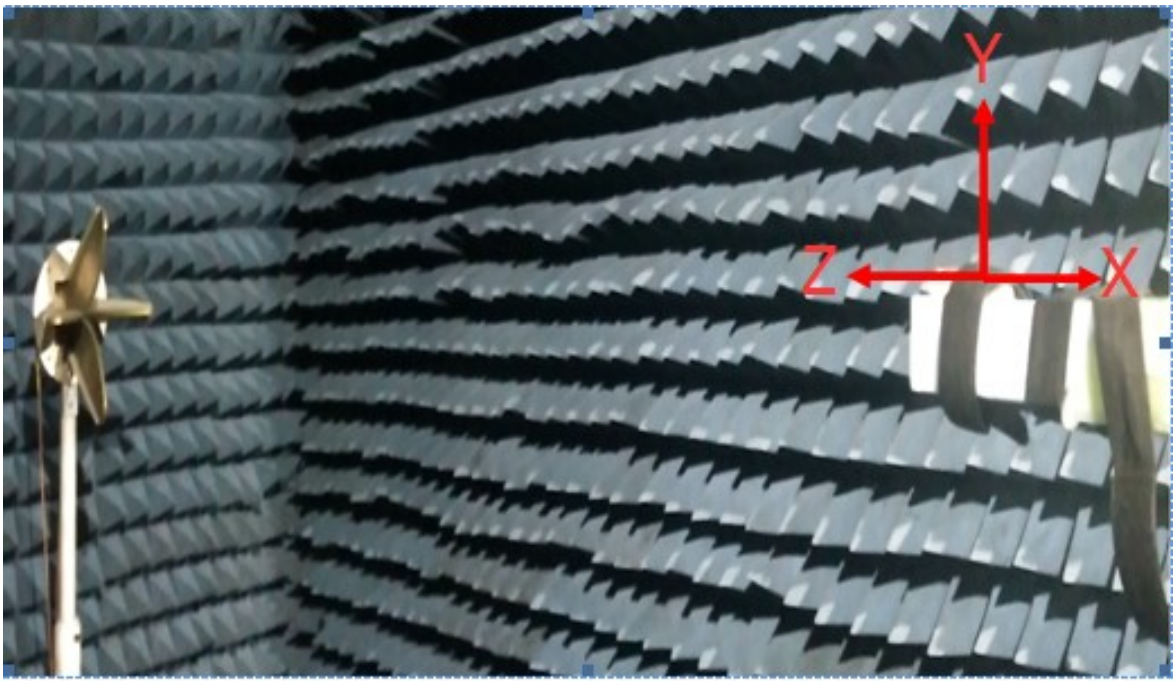
(Testing by 3D anechoic chamber)



Phi axis test



Theta axis test



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RoHS
Compliant
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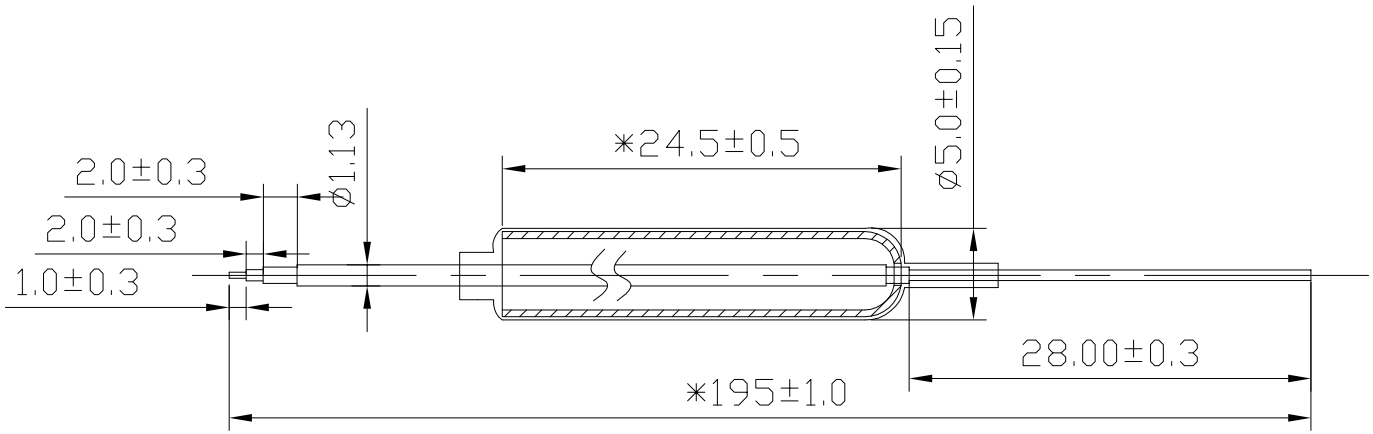

Rev	Description	Date	Remark
A	New drawing		

Third Angle			
0～10	±0.05	○	0.02
10～18	±0.10	◎	⌀0.03
18～30	±0.12	⊥	0.02
30～40	±0.15	▱	0.04
40～	±0.20	Angle	±0.5°
Location			

SHEN ZHEN SKYLink CO.,LTD

Project		Date	2022-12-29
Part Name		Designed by	
Part No.	WF15B.C113.195B.122800.221	Checked by	MD
Material			RF
DWG No.		Approved by	
		Unit mm	Scale 1:1 Rev A

◆ Return Loss

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◆ Gain & Efficiency

Fre (MHz)	Eff (%) (dB)	Gain(dB)
2400	51.51	1.11
2410	50.15	0.98
2420	49.17	0.84
2430	48.17	0.66
2440	47.7	0.59
2450	47.84	0.64
2460	48.13	0.73
2470	44.24	0.7
2480	44.87	1
2490	46.9	1.48
2500	46.12	1.41

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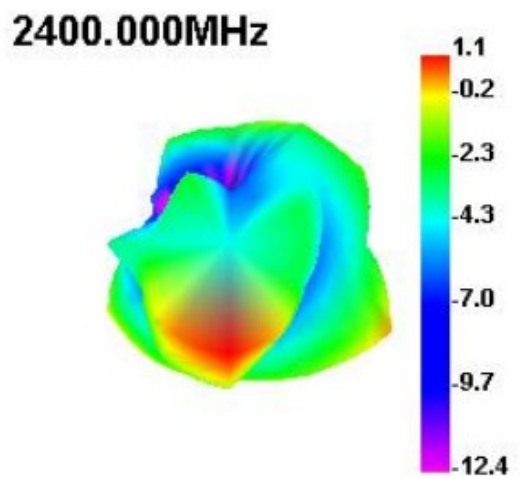
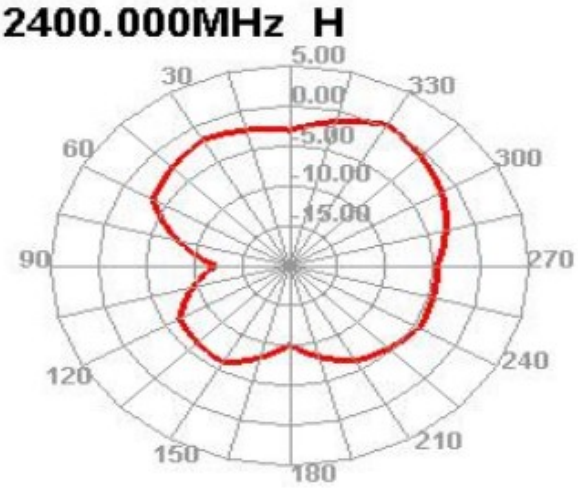
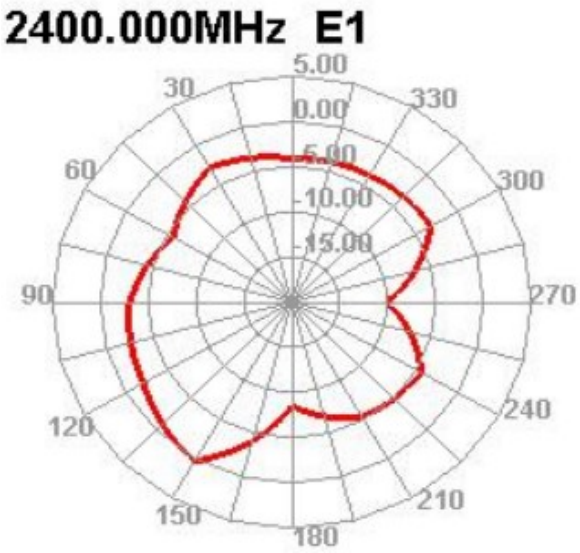
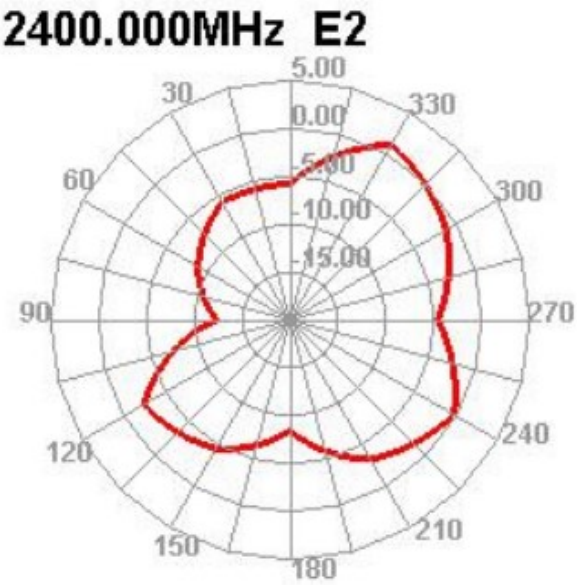
◆ Radiation Pattern









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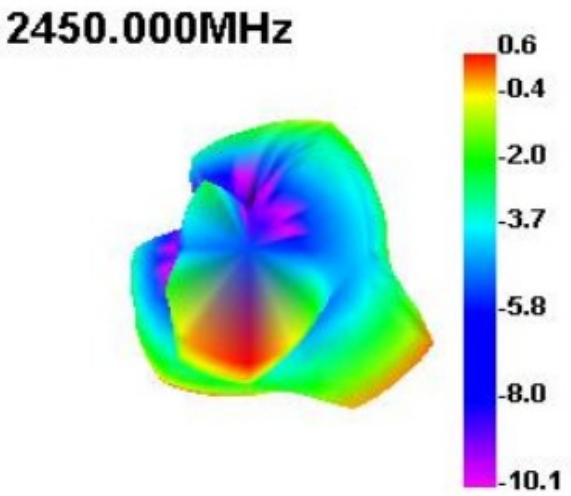

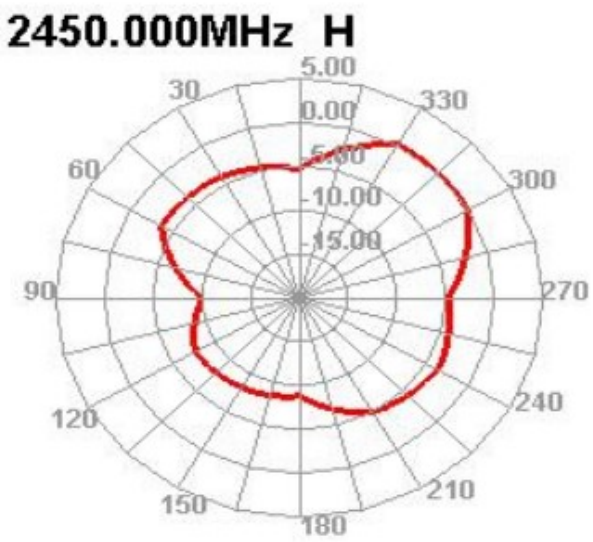

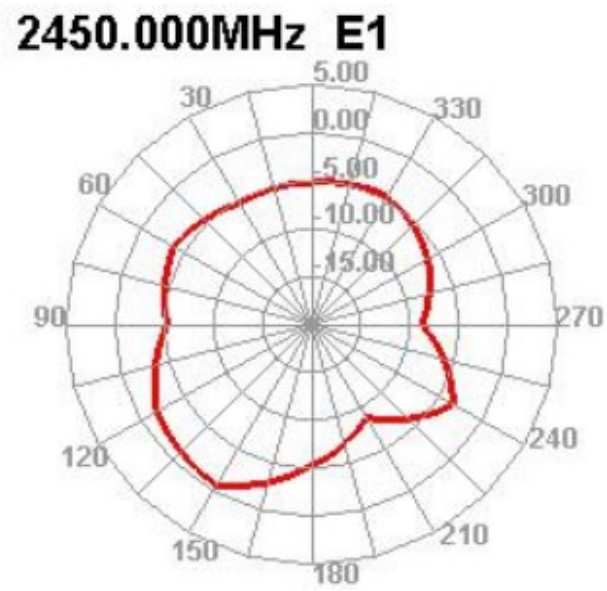

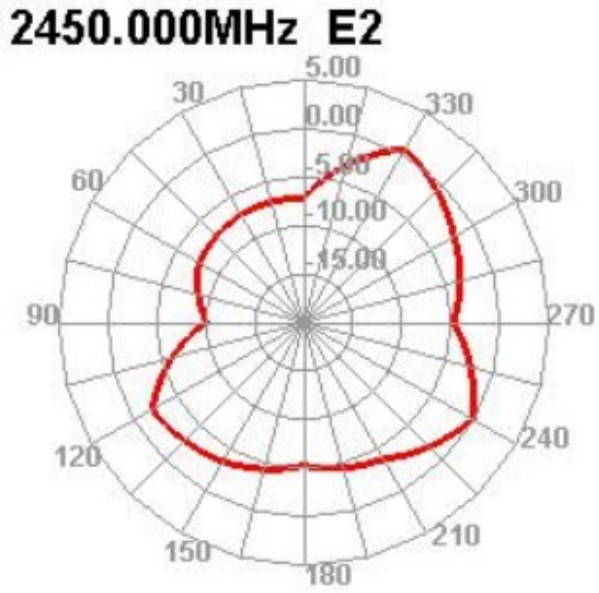

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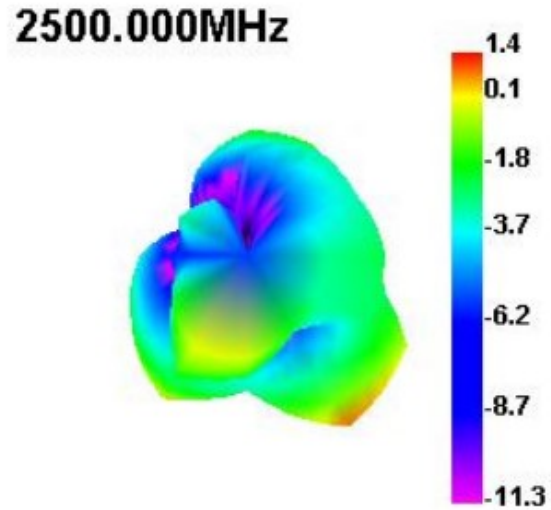

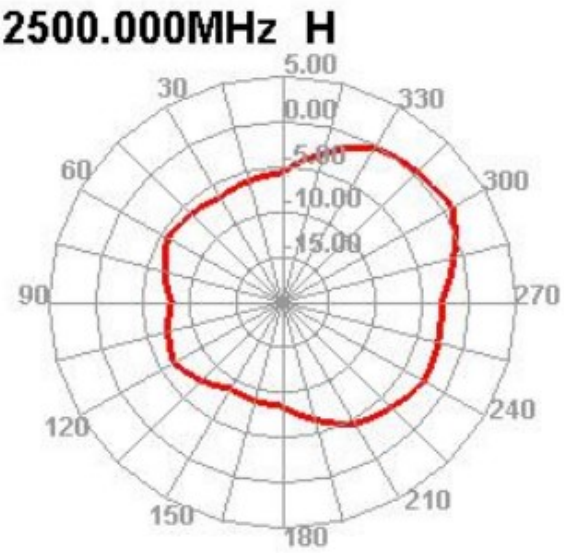

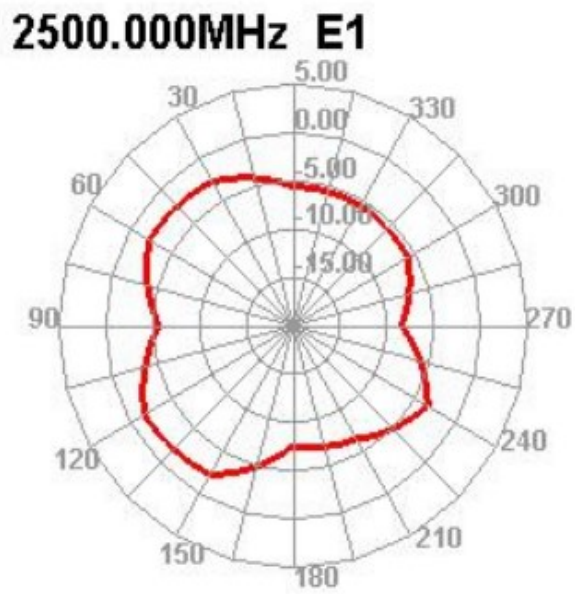

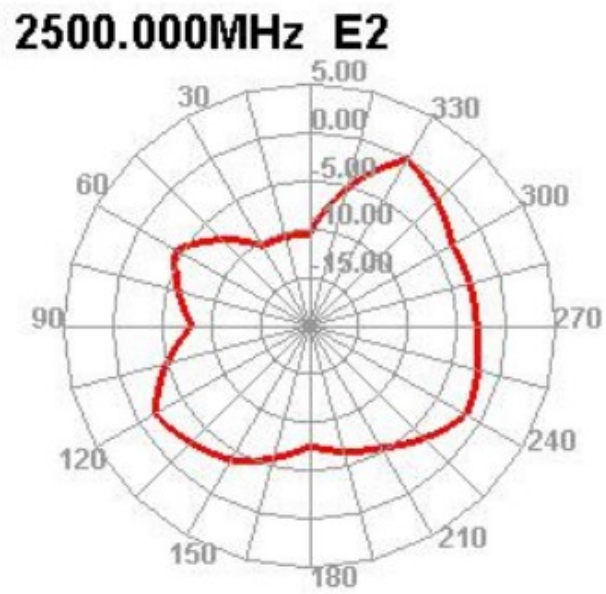

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◆ Reliability Test

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

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