

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____ 2.4G WIFI Antenna _____

Part NO.: _____ C081.29B.100.000 _____

Write By: _____ Damon Cui _____

Issued Date: _____ 2024.08.31 _____

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	<-5.0
Efficiency	>40%
Peak Gain	2.5dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	/
Cable Type	0.81mm 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

● Test Equipment & Conditions

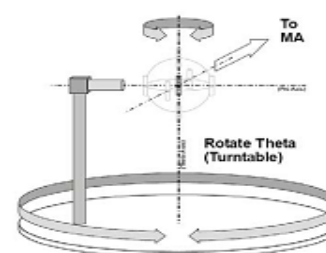
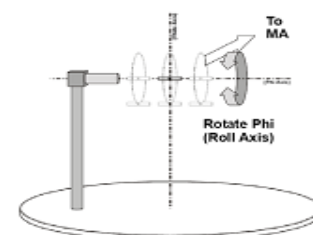
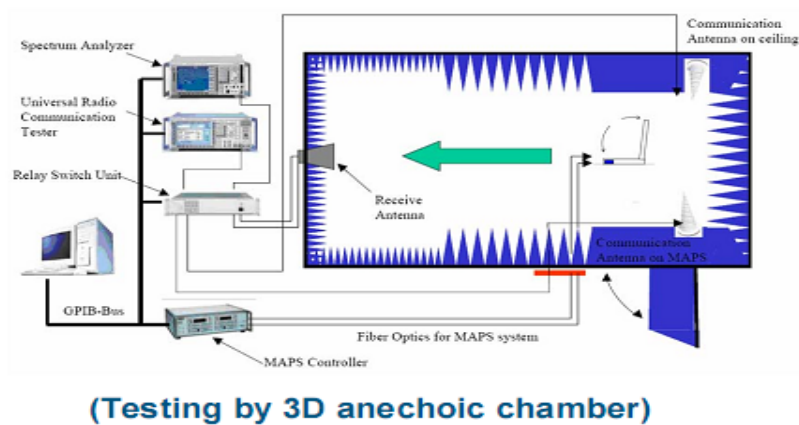
1. Network Analyzers :

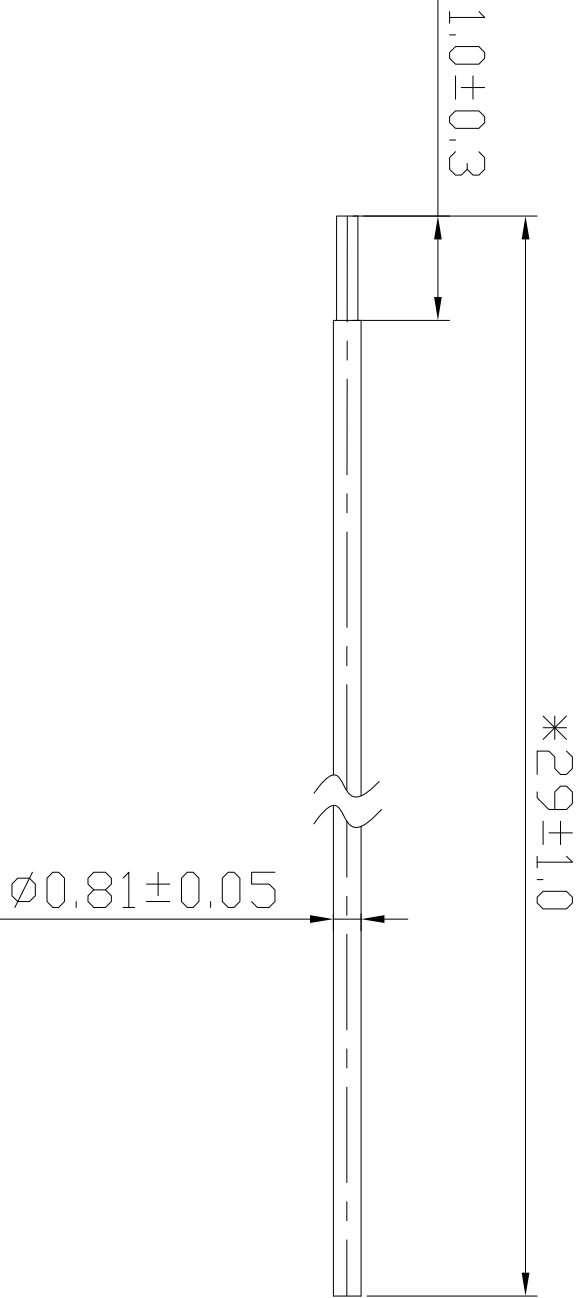
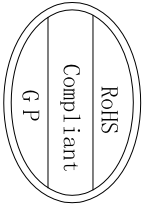
Agilent 8753D 5071B

Communications Test Set:

Agilent E5515C CMW500

2. 3D Chamber Test System





1	2	3	4	5	6	7	8
A				A			
B				B			
C				C			
D				D			
Rev				Rev			
A				A			
New drawing				New drawing			
Description				Description			
Date				Date			
Remark				Remark			
1				1			
2				2			
3				3			
4				4			
5				5			
6				6			
7				7			
8				8			

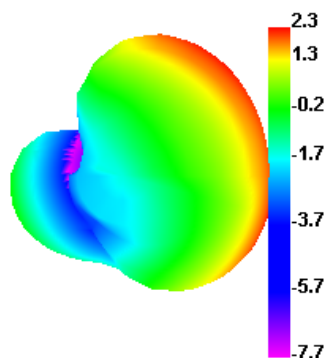
SHEN ZHEN SKYlink CO., LTD		Project		Part Name		Date		2024-08-21	
Third Angle		0.02		Part No.		Designed by		MD	
0~10 ±0.05		0.03		C081.29B.100.000		Checked by		RF	
10~18 ±0.10		0.02				Approved by			
18~30 ±0.12		0.04							
30~40 ±0.15		0.04							
40~ ±0.20		0.04							
Angle ±0.5°									
Location									

◆ Gain & Efficiency

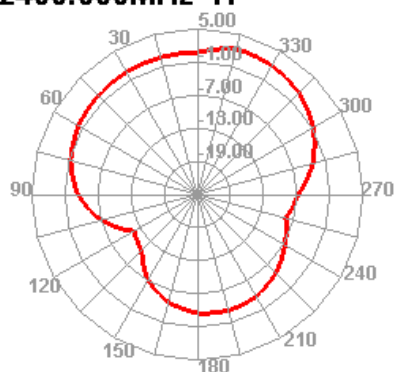
Freq (MHz)	Effi (%)	Gain (dBi)
2400	47.47	2.33
2410	48.27	2.46
2420	49.38	2.50
2430	48.92	2.39
2440	46.28	1.97
2450	43.74	1.48
2460	44.44	1.23
2470	45.45	1.08
2480	46.78	1.38
2490	49.8	1.87
2500	50.85	2.08

◆ Radiation Pattern

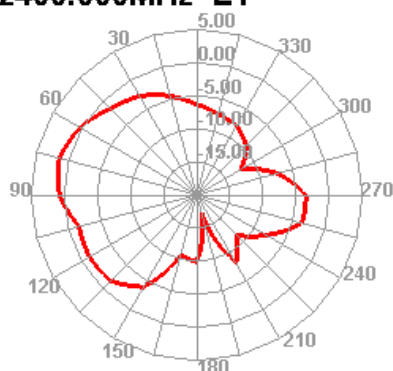
2400.000MHz



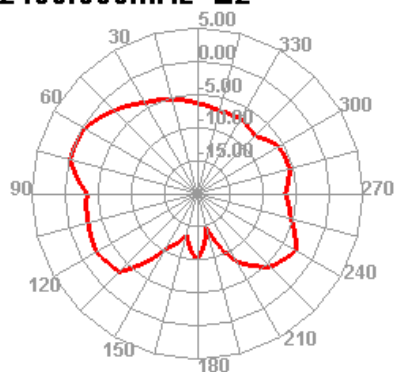
2400.000MHz H



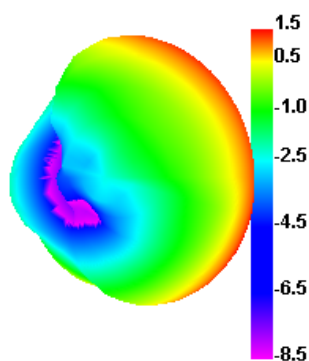
2400.000MHz E1



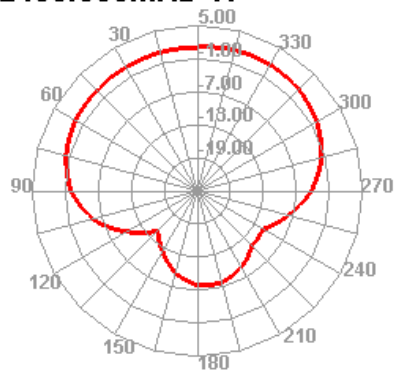
2400.000MHz E2



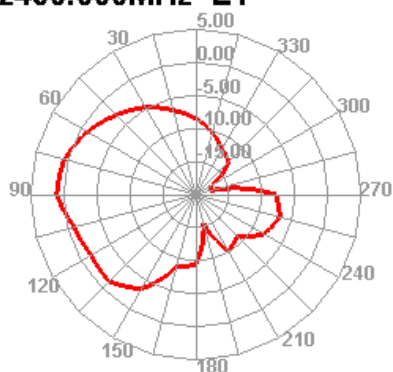
2450.000MHz



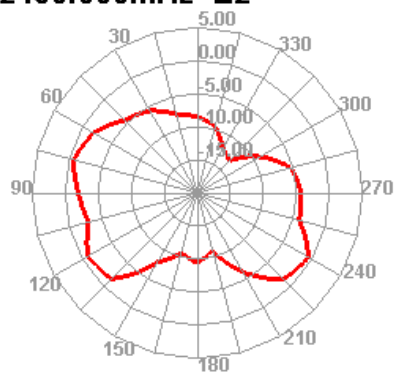
2450.000MHz H



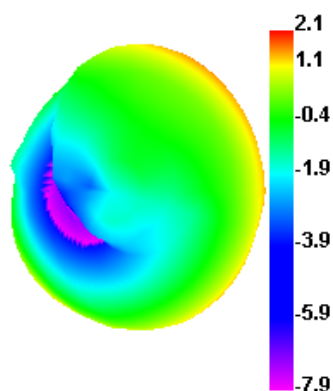
2450.000MHz E1



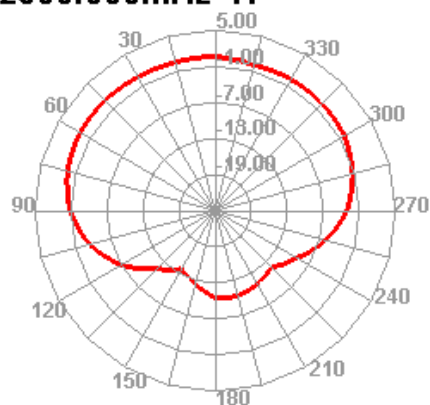
2450.000MHz E2



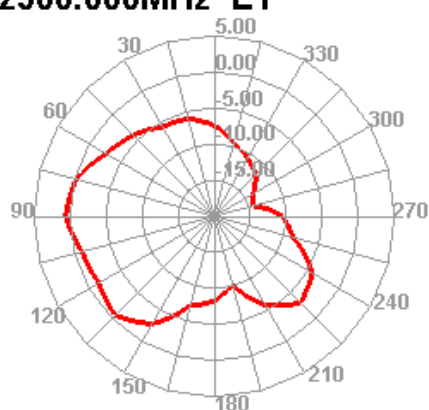
2500.000MHz



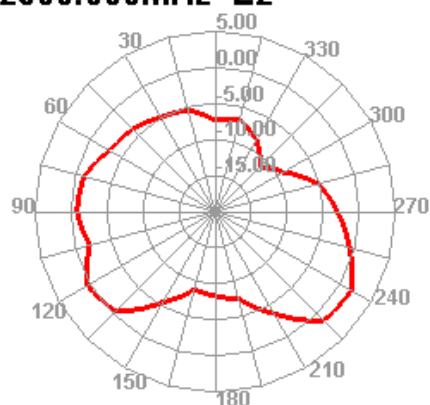
2500.000MHz H



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±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