

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____ 2.4G WIFI Antenna _____

Part NO.: _____ WF87A.C113.135B.122400.1 _____

Write By: _____ Damon Cui _____

Issued Date: _____ 2024.07.19 _____

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz
VSWR	<2.0
Efficiency	>50%
Peak Gain	2.2dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Cable Type	1.13MM Black
Connector Type	1
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

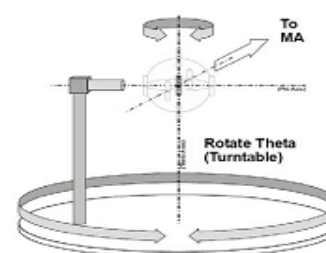
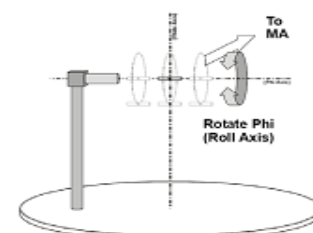
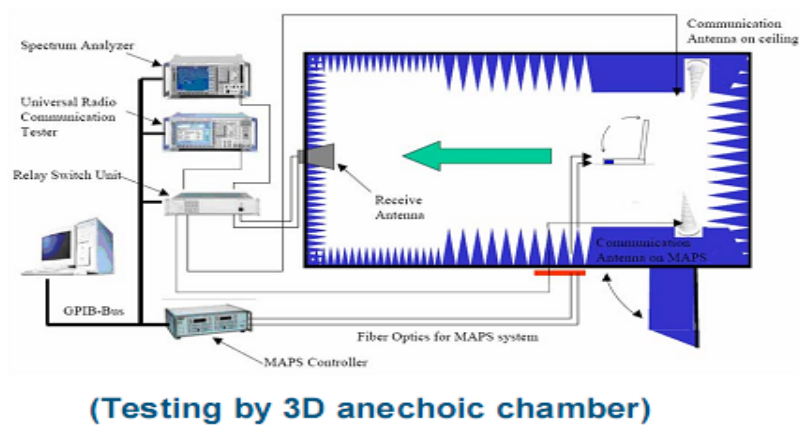
1. Network Analyzers :

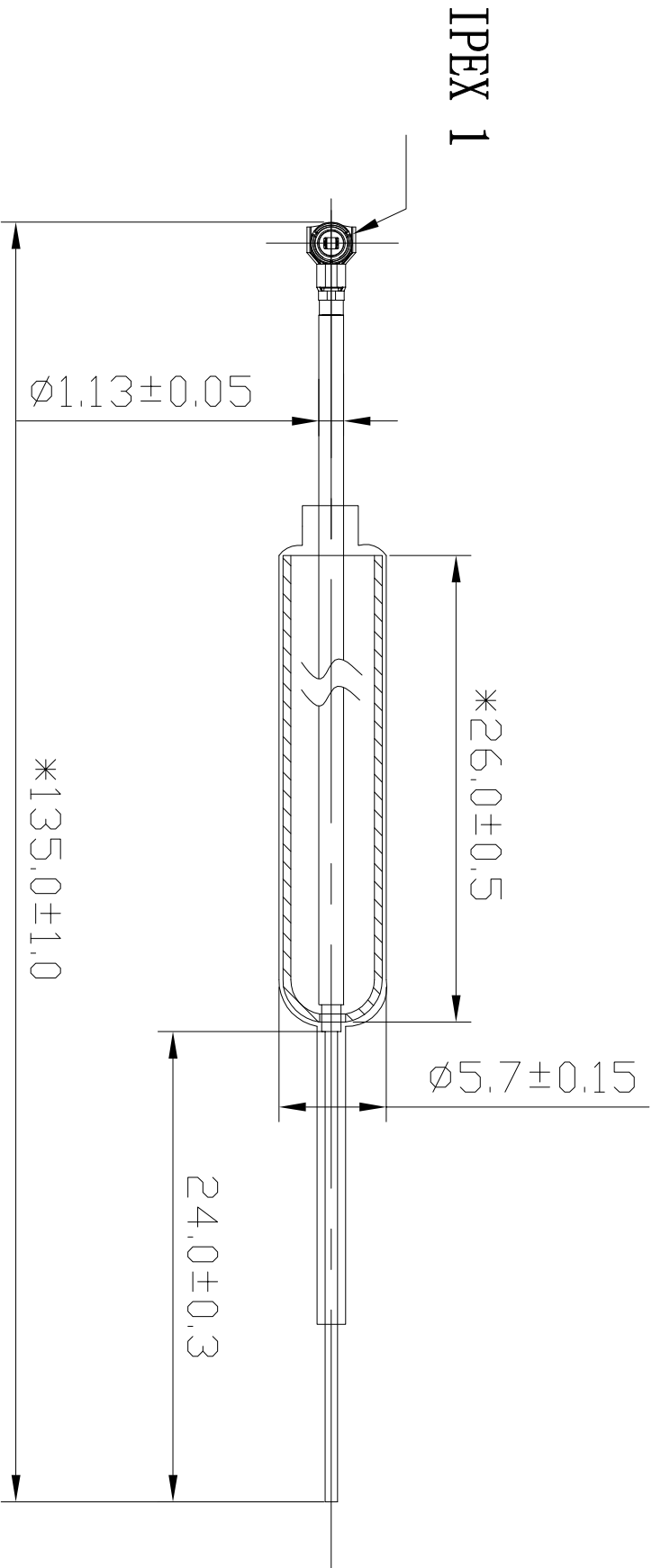
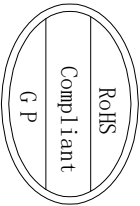
Agilent 8753D 5071B

Communications Test Set:

Agilent E5515C CMW500

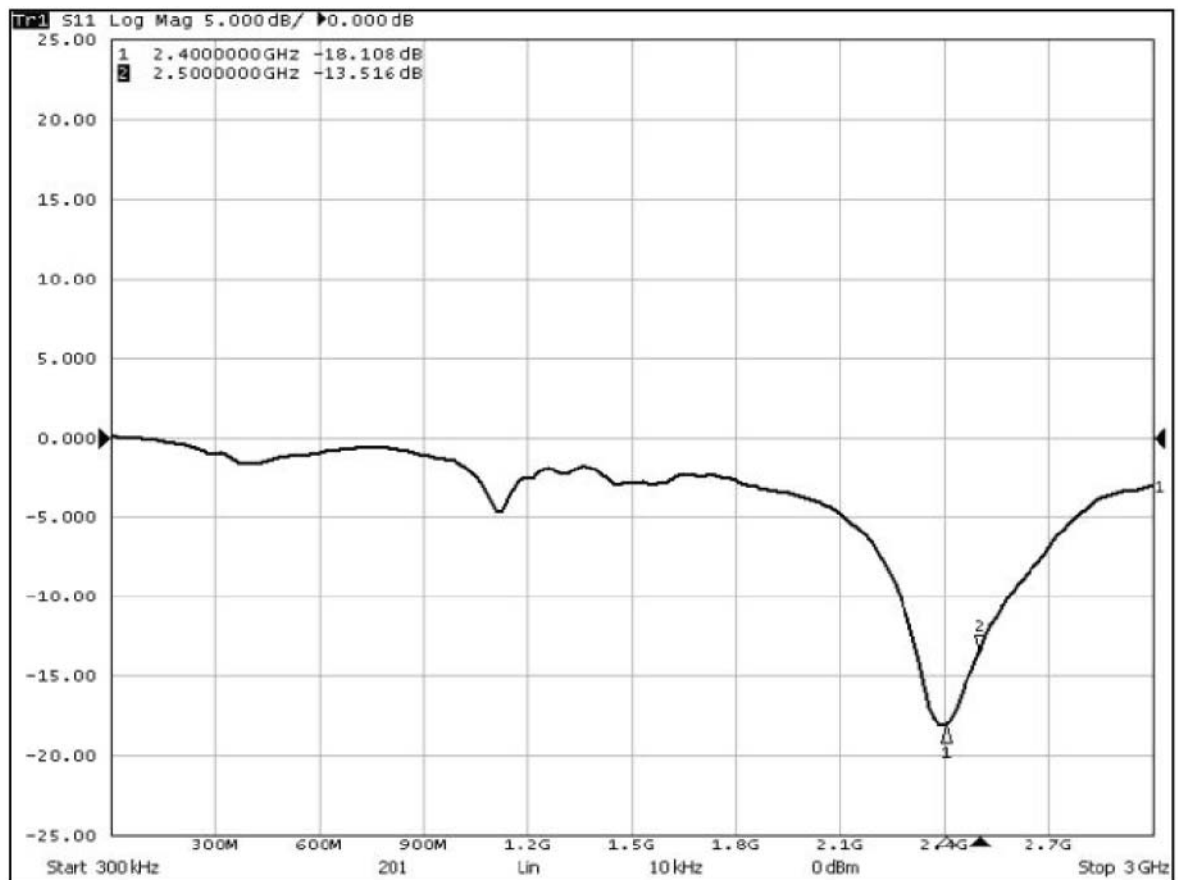
2. 3D Chamber Test System





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				Third Angle		Project		Date	
				0~10 ±0.05		○ 0.02		Designed by	
				10~18 ±0.10		◎ 0.03		MD	
				18~30 ±0.12		⊥ 0.02		Checked by	
				30~40 ±0.15		∇ 0.04		RF	
				40~ ±0.20		Angle±0.5°			
				Location		DWG No.		Approved by	
								Unit	
				5		6		mm	
						7		Scale 1:1	
						8		Rev A	
Rev				Description		Date		Remark	
A				New drawing					
D									
D									
1				2		3		4	

◆ Return Loss

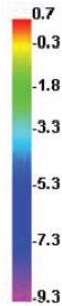
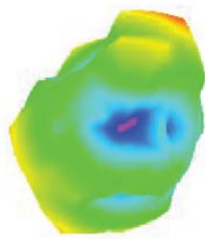


◆ Gain & Efficiency

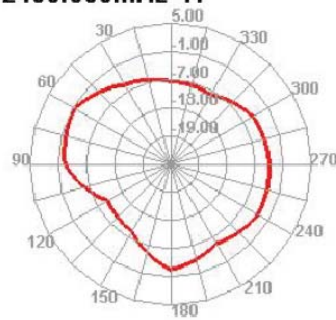
Freq (MHz)	Effi (%)	Gain (dBi)
2400	53.66	0.7
2410	52.19	0.8
2420	53.03	1.09
2430	54.41	1.32
2440	56.67	1.45
2450	55.24	1.2
2460	55.61	1.21
2470	51.91	1.29
2480	54.39	1.66
2490	56.96	2.03
2500	56.23	2.2

◆ Radiation Pattern

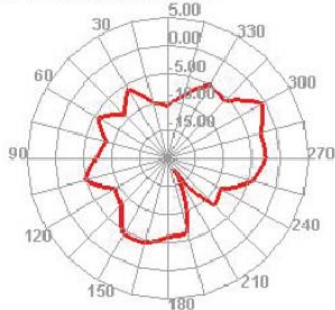
2400.000MHz



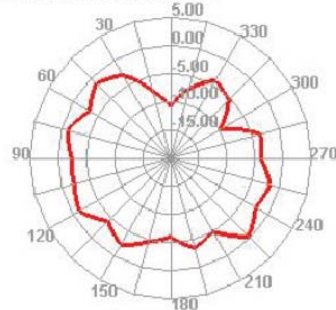
2400.000MHz H



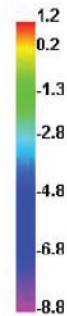
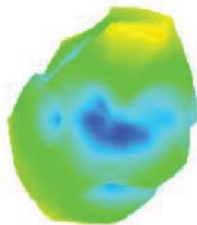
2400.000MHz E1



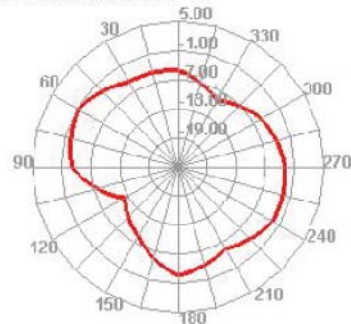
2400.000MHz E2



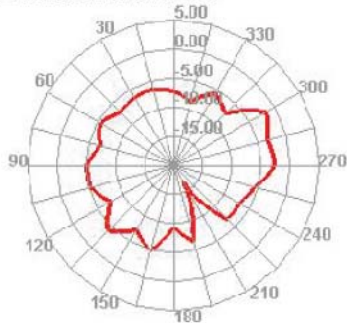
2450.000MHz



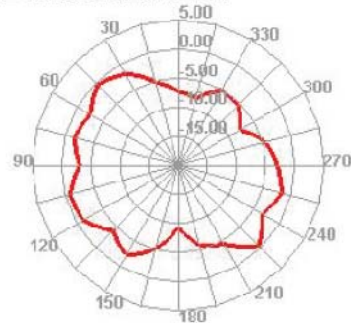
2450.000MHz H



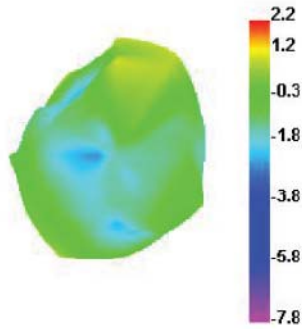
2450.000MHz E1



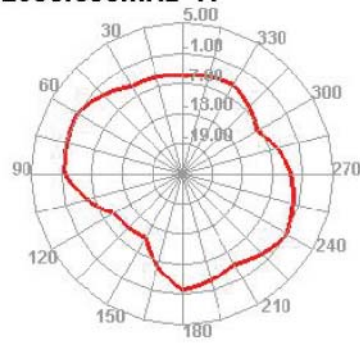
2450.000MHz E2



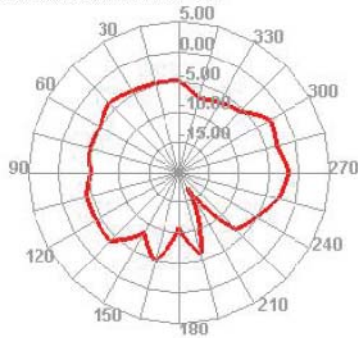
2500.000MHz



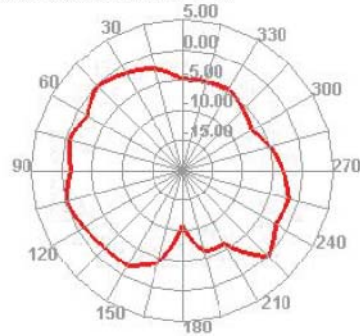
2500.000MHz H



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: $35 \pm 2^{\circ}\text{C}$ 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