

Shenzhen SKYLink Technology Co.,Ltd

Antenna Test Report

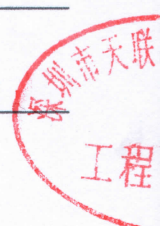
Customer Name: _____

Product Name: _____ 2.4G _____

Part NO.: _____ WF87A-C113-95B-102650-211 _____

Test Engineer: _____ Zhengfeng Fang _____

Test Date: _____ 2023-6-27 _____



Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval
方正锋		孙永

● Laboratory Environment

Temperature	Min. =19° C, Max.= 25C	
Relative humidity	Min.=40%, Max.=72%	
Shield effect	0.7-6GHz	> 100dB
Ground resistance	<0.5 Ω	

● Equipment List

Type of Equipment	Manufacture	Model Number	S/N	Calibration Date	Expiration Time
Network Analyzer	Key sight	E5071B	00019-116-784-839	2023/3/3	2024/3/2
Switch Control System	ETS	OTA-10378TT	W3TDVL8J	N/A	N/A

● Applicant and Manufacturer Information

Applicant Name	Shenzhen SKYLink Technology Co.,Ltd
Applicant address	R&D Center: Room D 5 th Floor Building L,Block E ,71 Baocheng District , Baoan District ,Shenzhen
Manufacturer Name	Shenzhen SKYLink Technology Co.,Ltd
Manufacturer address	R&D Center: Room D 5 th Floor Building L,Block E ,71 Baocheng District , Baoan District ,Shenzhen

● Test Equipment & Conditions

1. Network Analyzers :

Agilent 8753D E5071B

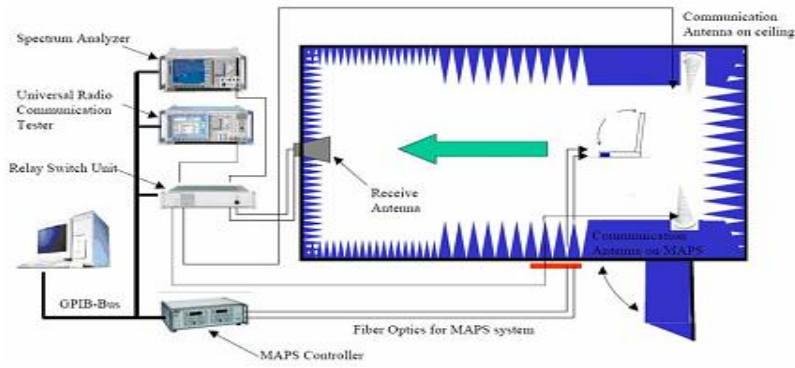
Calibration Date:2023/03/03

Communications Test Set:

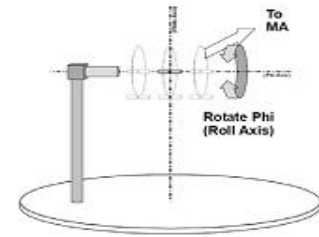
Agilent E5515C CMW500

Calibration Date:2023/03/03

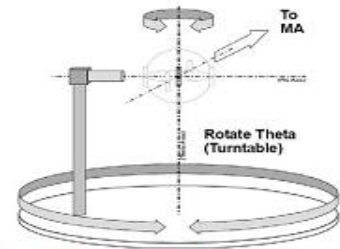
2. 3D Chamber Test System



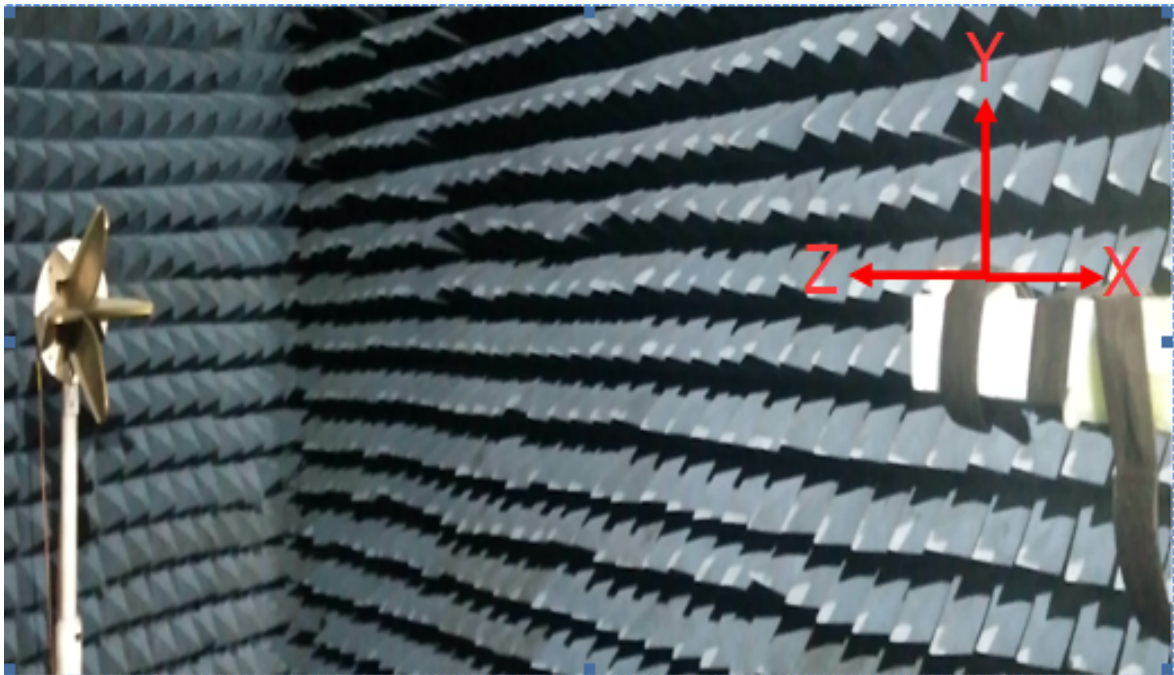
(Testing by 3D anechoic chamber)



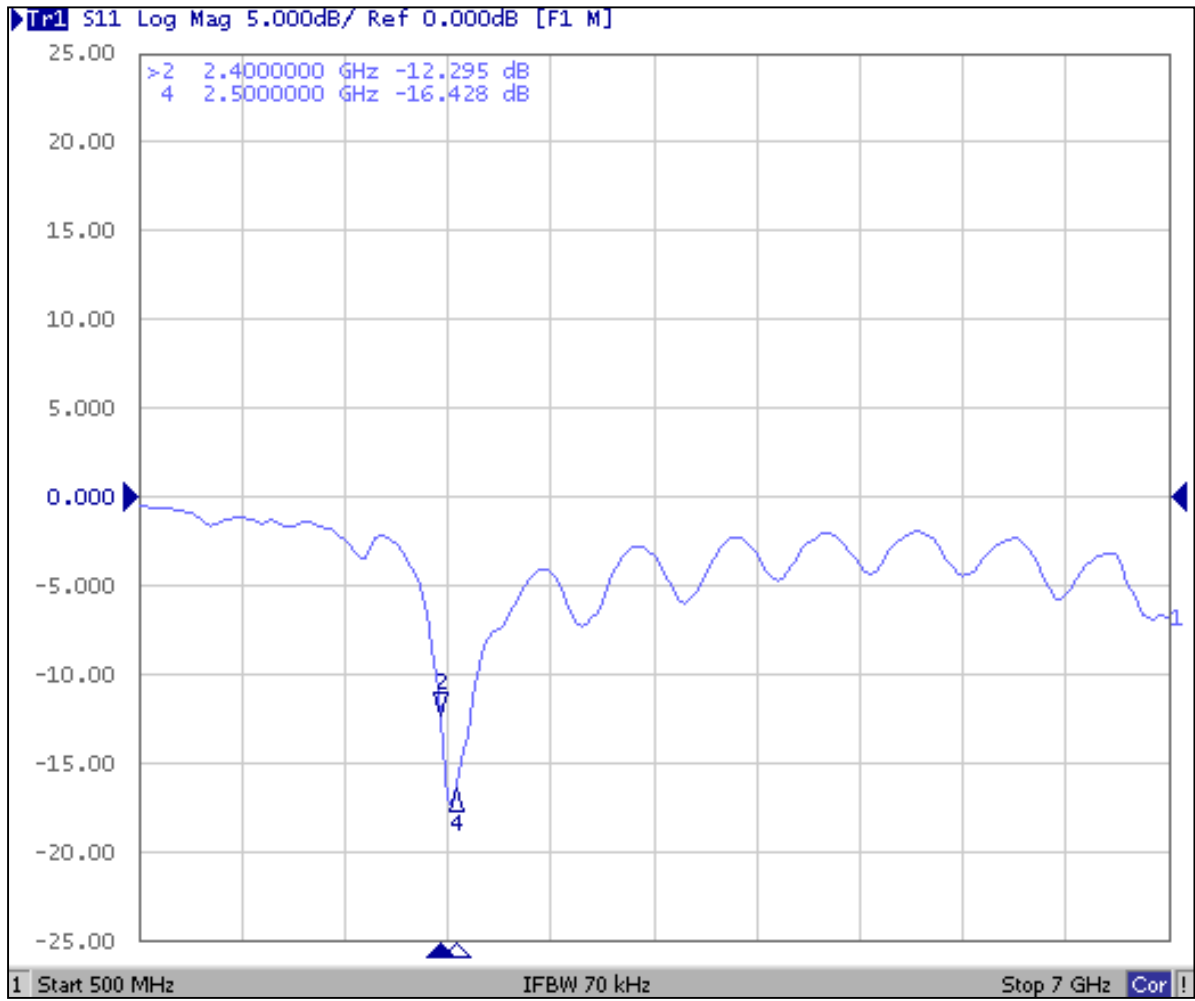
Phi axis test



Theta axis test



◆ Return Loss

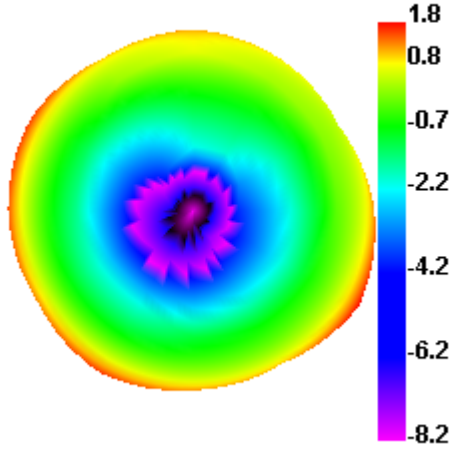


◆ Gain & Efficiency

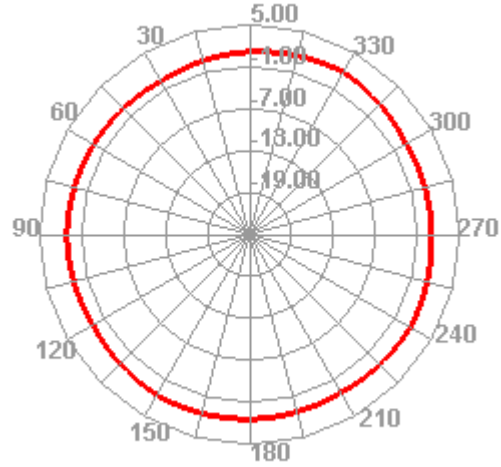
Freq (MHz)	Effi (%)	Gain (dBi)
2400	67.72	1.77
2410	66.38	1.69
2420	67.63	1.75
2430	68.07	1.75
2440	65.66	1.57
2450	59.88	1.29
2460	58.58	1.43
2470	60	1.6
2480	60.96	1.69
2490	63.94	1.81
2500	62	1.77

◆ Radiation Pattern

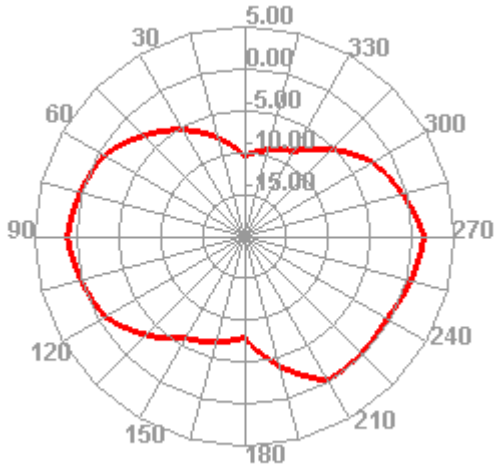
2400.000MHz



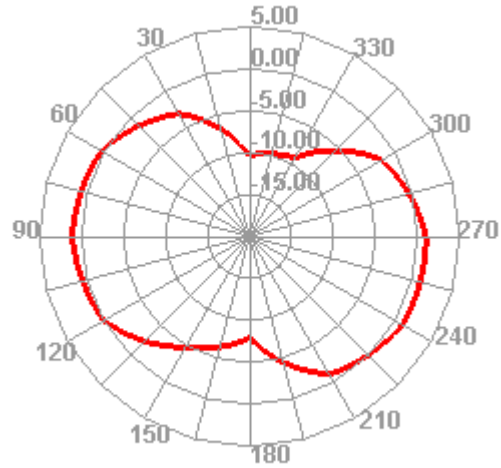
2400.000MHz H



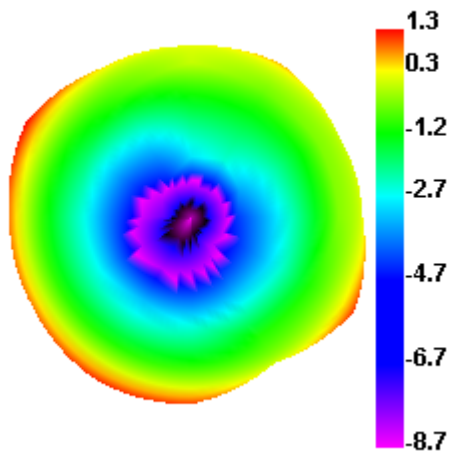
2400.000MHz E1



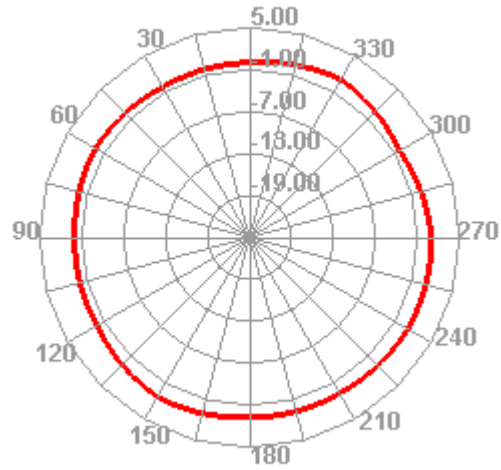
2400.000MHz E2



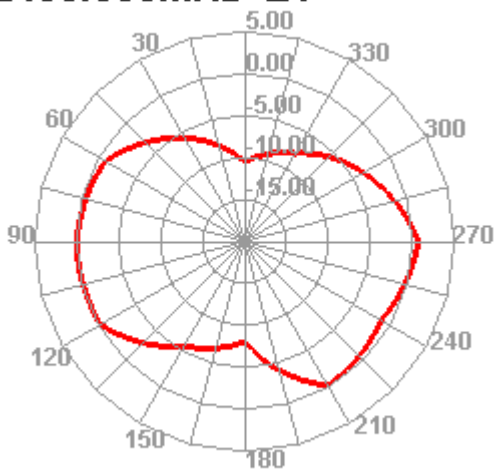
2450.000MHz



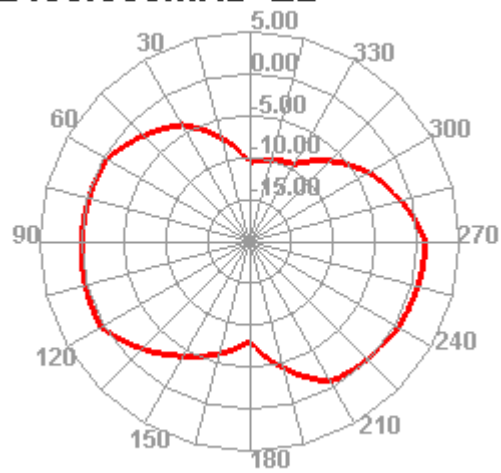
2450.000MHz H



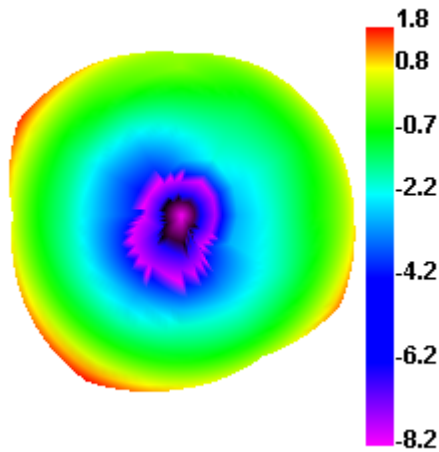
2450.000MHz E1



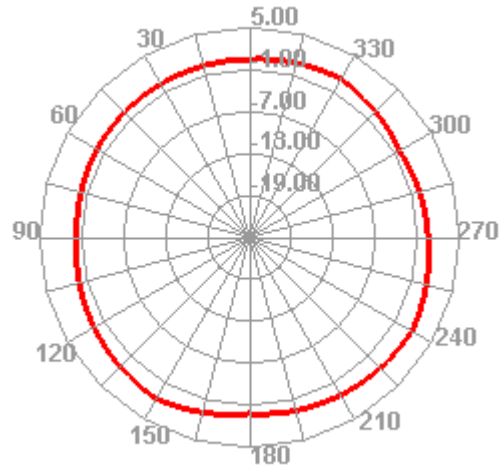
2450.000MHz E2



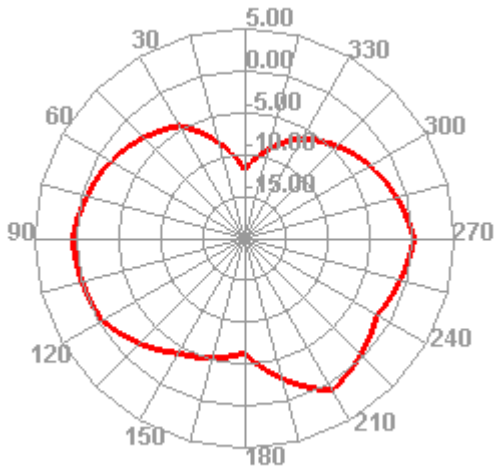
2500.000MHz



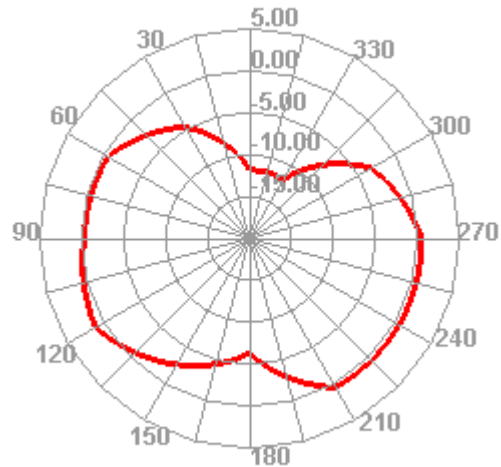
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



◆ Antenna Picture



◆ Reliability Test

Test Item	Test condition	Equipment	Specification	Result
1 Low Temp. Storage Test	<p>Temperature: -30℃, Time:48hrs</p> <p>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.</p>	Temp.&Humi. Tester	<p>No material deformation is allowed.</p> <p>Electronic Performance is ok .</p>	PASS
2 High Temp./High Humid Storage Test	<p>Temperature: 85℃ Humidity: 85% RH Time:48hrs</p> <p>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.</p>	Temp.&Humi. Tester	<p>No material deformation is allowed.</p> <p>Electronic Performance is ok .</p>	PASS
3 Salt-Spray 6 pray Test	<p>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</p>	Salt-Spray Tester	<p>No color change</p> <p>No appear rusting</p>	PASS