
Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____ 2.4G/5.8G WIFI Antenna _____

Part NO. : _____ EWF001. D2B01B. SMAMF _____

Write By: _____ Fang Zhengfeng _____

Issued Date: _____ 2024-06-07 _____

Customer

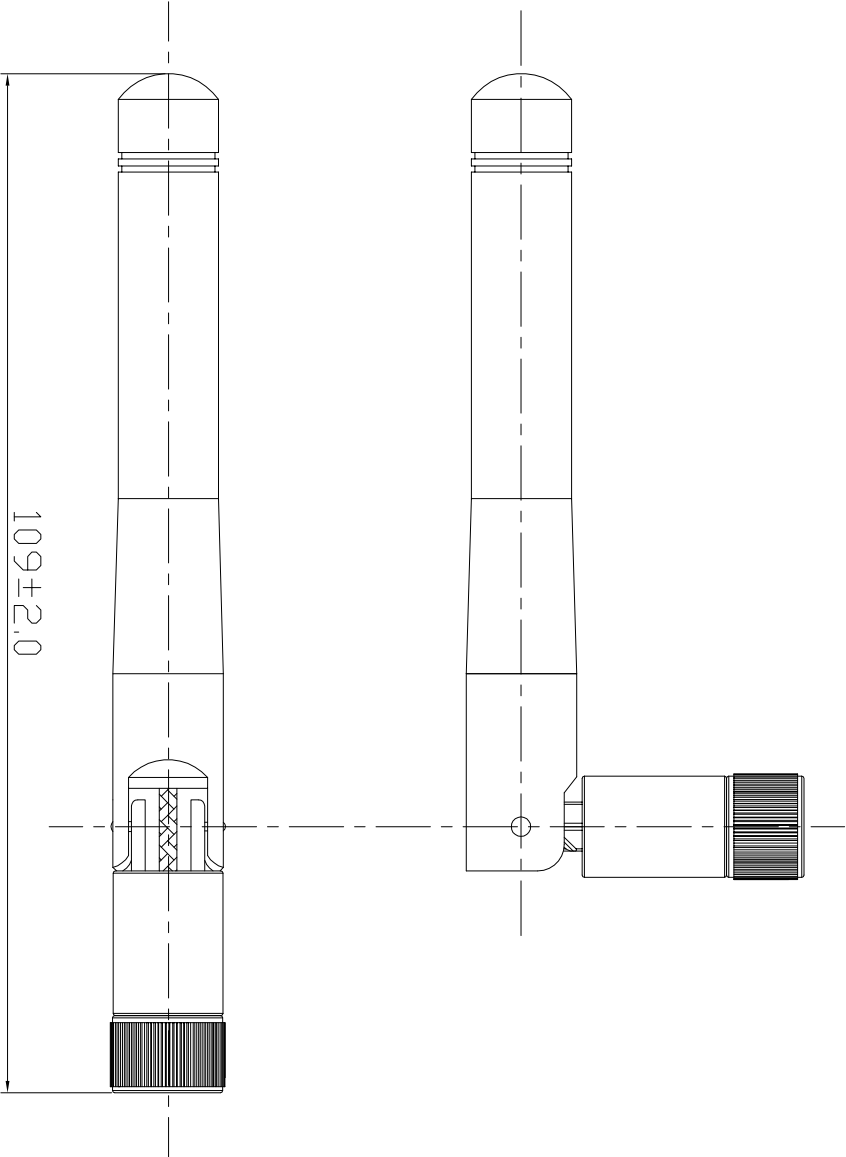
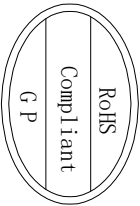
R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz 5150MHz ~5850MHz
Log Mag	<-5dB
Efficiency	>45%
Peak Gain	1.56dBi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Cable Type	/
Connector Type	SMAMP
Dimension	At Attachment
Heat-durability	280±5°C, 10sec.
C. Environmental Characteristics	
Operation Temperature	- 20 °C ~ + 80 °C
Storage Temperature	- 30 °C ~ + 85 °C



Rev		Description		Date	Remark
1		New drawing			

Third Angle				Project				Date			
0~10	±0.05	○	0.02	Part Name				Designed by			
10~18	±0.10	◎	0.03	Part No. EWF001.D2B01B.SMAMF				MD			
18~30	±0.12	⊥	0.02	Material				Checked by			
30~40	±0.15	∠	0.04	DWG No.				RF			
40~	±0.20	Angle	±0.5°	Approved by				Unit			
Location				mm				Scale 1:1			

SHEN ZHEN SKYLINK CO., LTD

2024-06-07

● Test Equipment & Conditions

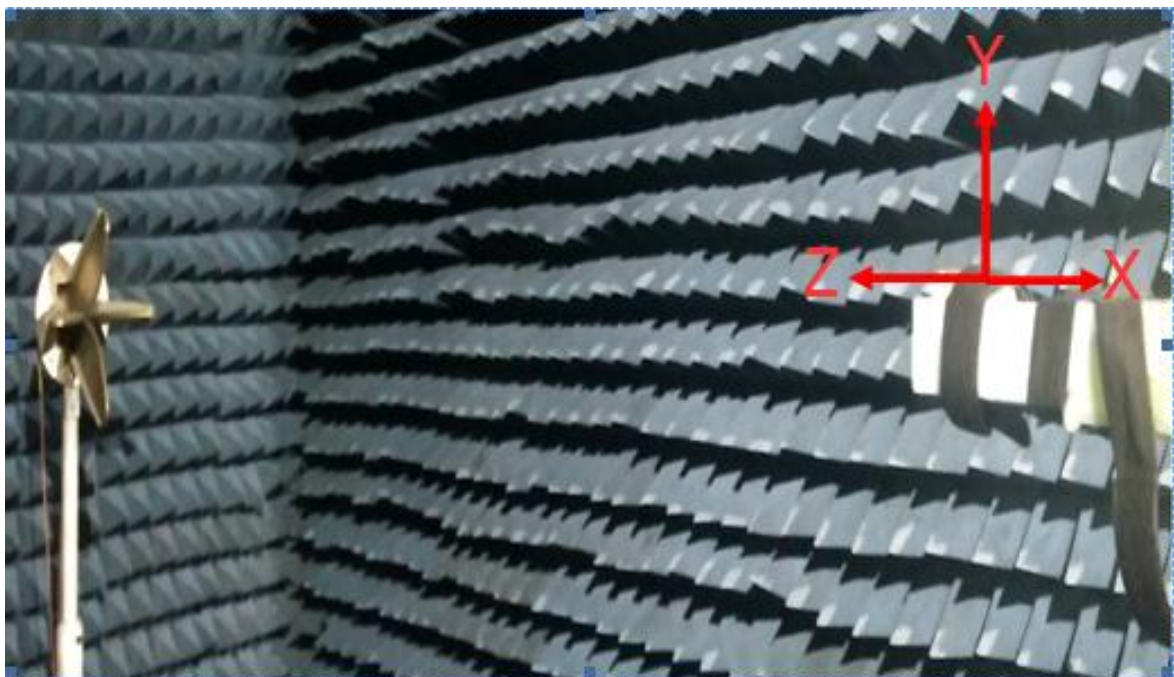
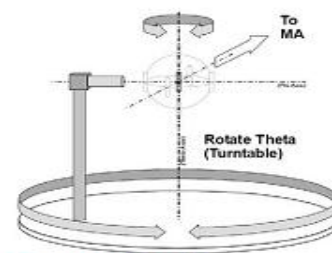
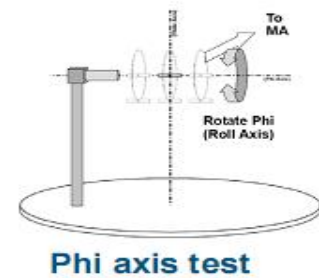
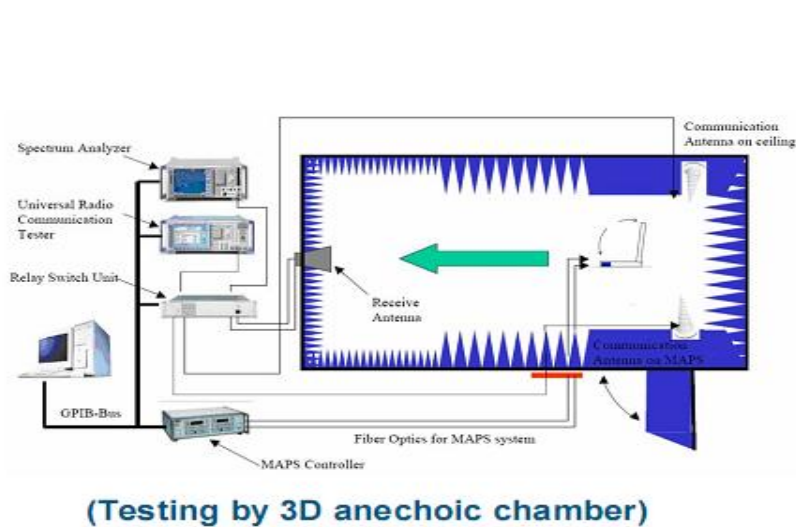
1. Network Analyzers :

Agilent 8753D 5071B

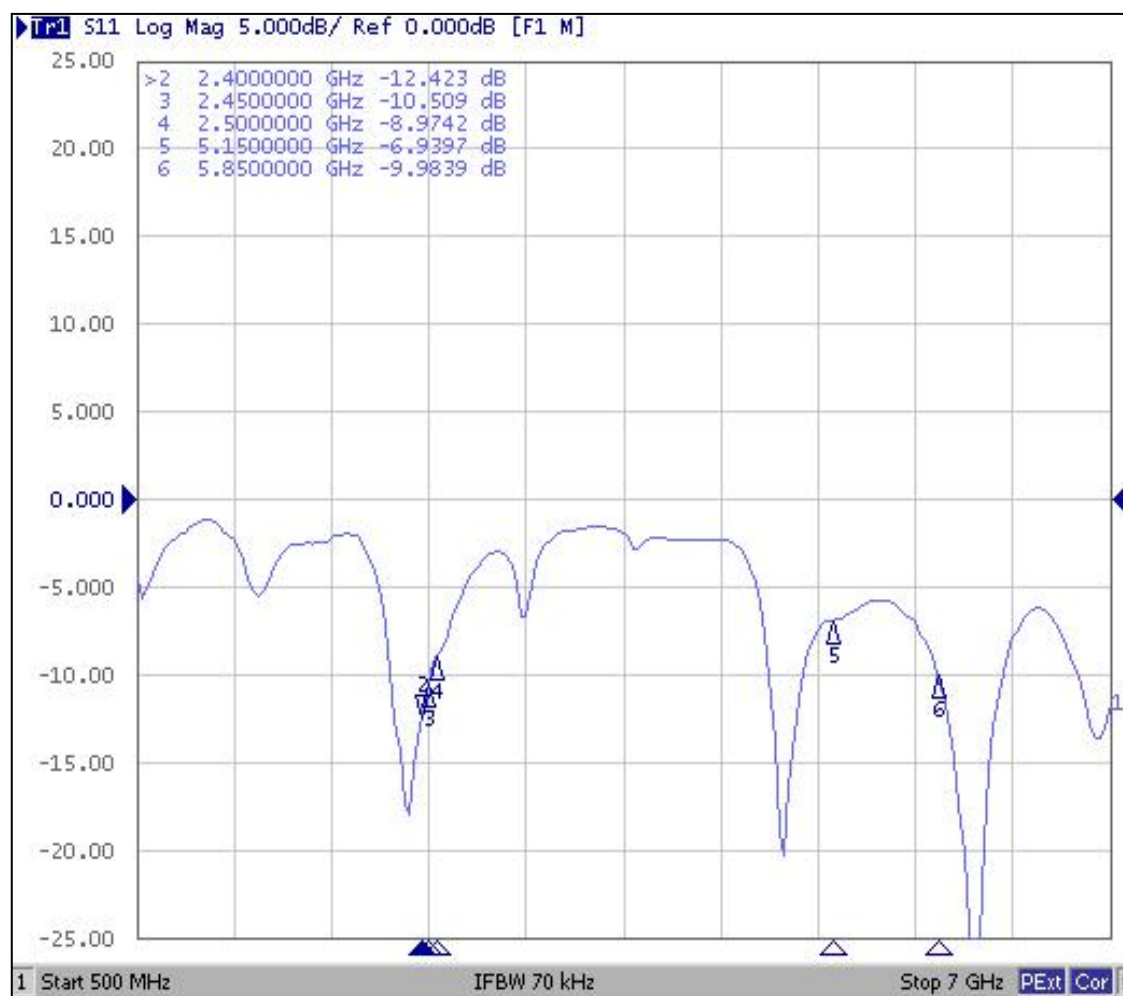
Communications Test Set:

Agilent E5515C CMW500

2. 3D Chamber Test System



● Return Loss

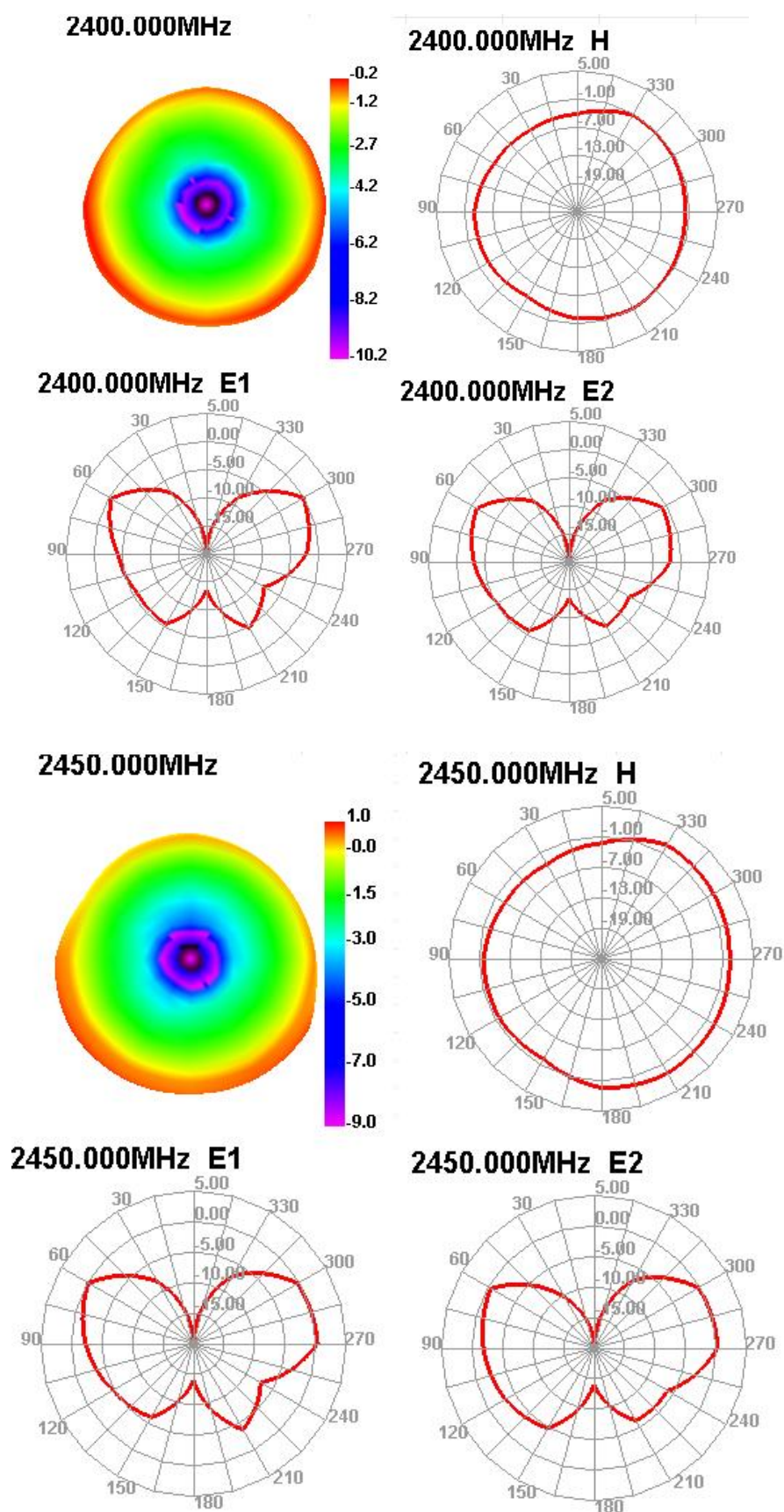


● Gain & Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)
2400	60.66	-0.16
2410	59.36	-0.31
2420	57.61	0.12
2430	55.86	0.65
2440	55.15	0.93
2450	55.36	0.96
2460	54.45	1.18
2470	53.85	1.27
2480	52.24	1.28
2490	49.36	1.39
2500	45.03	1.37

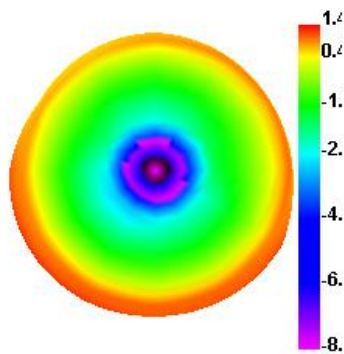
Freq (MHz)	Effi (%)	Gain (dBi)
5150	59.62	1.22
5200	55.53	0.79
5250	55.33	0.73
5300	55.16	0.88
5350	58.42	0.98
5400	58.79	0.98
5450	52.4	0.9
5500	54.16	0.9
5550	56.35	1.12
5600	52.17	1.01
5650	54.48	1.09
5700	55.14	1.14
5750	55.07	1.15
5800	56.26	1.17
5850	57.55	1.56

● Radiation Pattern

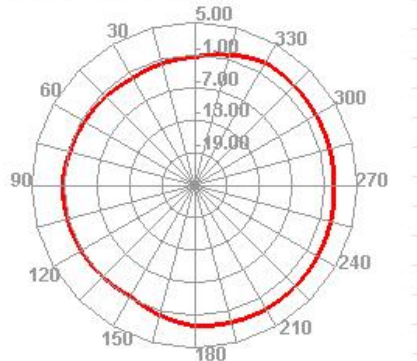


● Radiation Patter

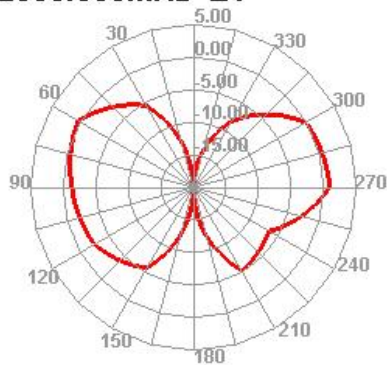
2500.000MHz



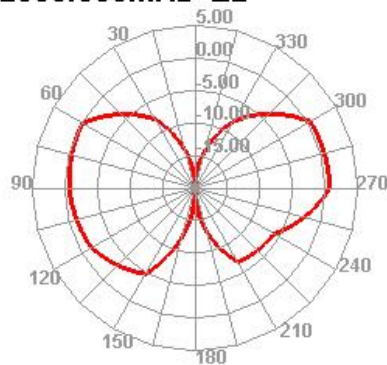
2500.000MHz H



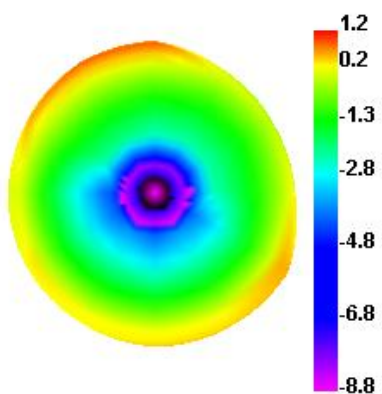
2500.000MHz E1



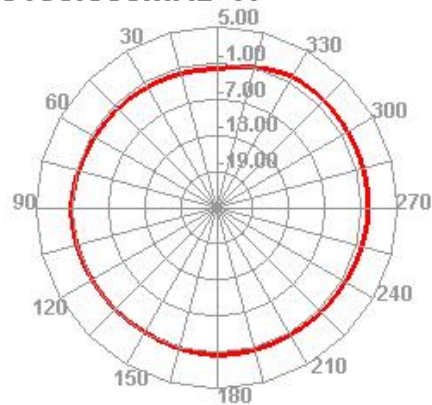
2500.000MHz E2



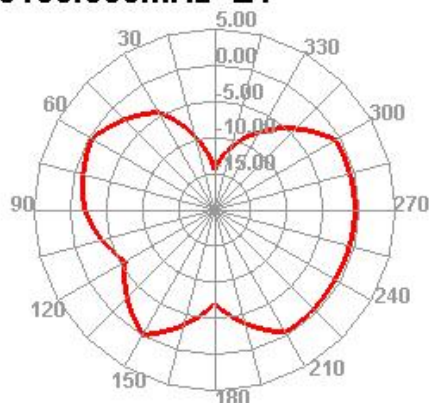
5150.000MHz



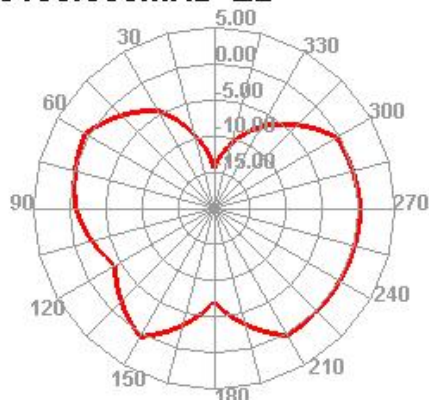
5150.000MHz H



5150.000MHz E1

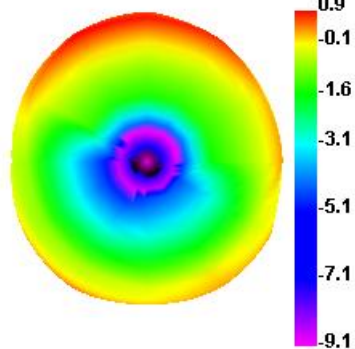


5150.000MHz E2

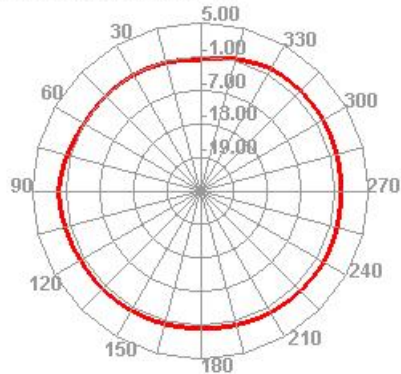


● Radiation Pattern

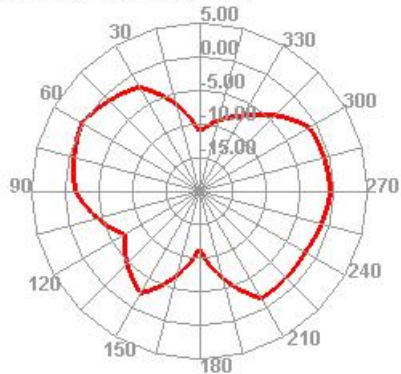
5500.000MHz



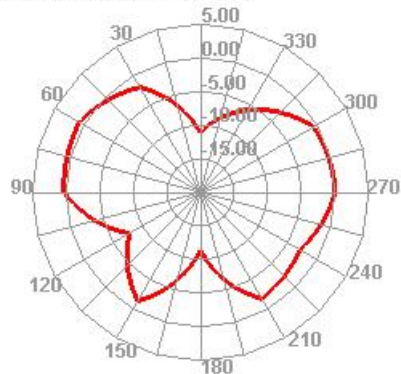
5500.000MHz H



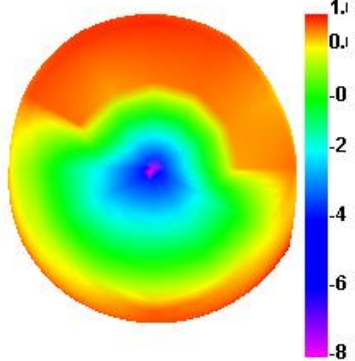
5500.000MHz E1



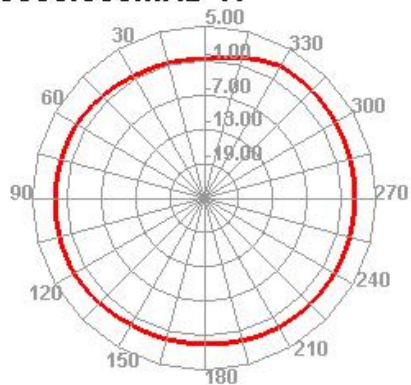
5500.000MHz E2



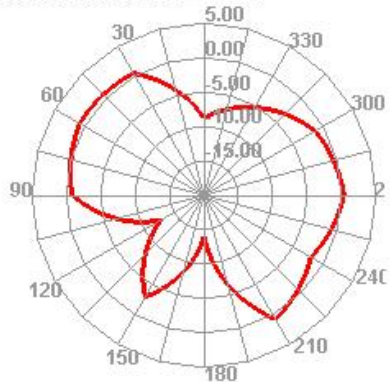
5850.000MHz



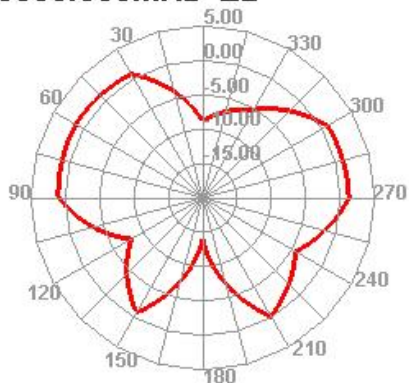
5850.000MHz H



5850.000MHz E1



5850.000MHz E2



● Antenna Picture



● 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