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

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

● 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	SMAMF
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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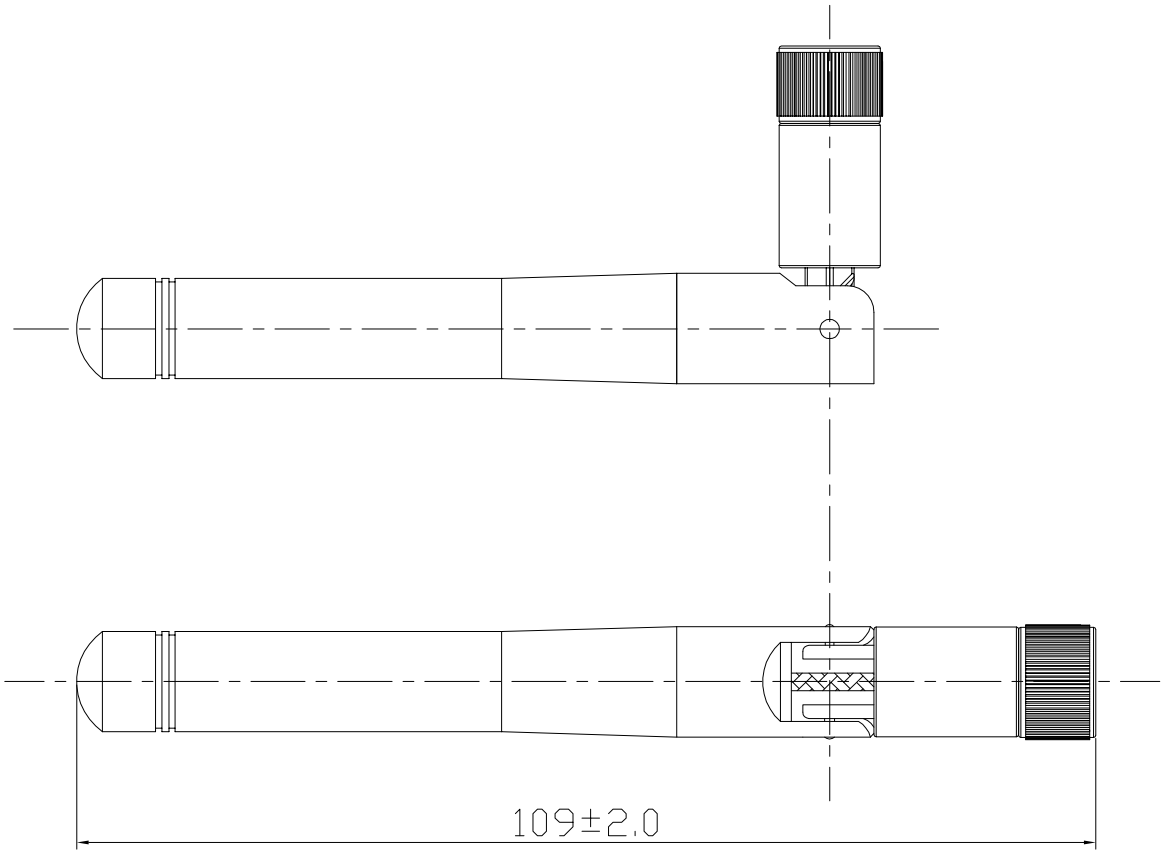
RoHS
Compliant
G P



Rev	Description	Date	Remark
A	New drawing		

SHEN ZHEN SKYLink CO.,LTD

Third Angle				Project		Date	2024-06-07
0～10	±0.05	○	0.02	Part Name		Designed by	
10～18	±0.10	◎	⌀0.03	Part No.	EWF001.D2B01B.SMAMF	Checked by	MD
18～30	±0.12	⊥	0.02	Material			RF
30～40	±0.15	▱	0.04	DWG No.		Approved by	
40～	±0.20	Angle	±0.5°			Unit mm	Scale 1:1 Rev A
Location							

● Test Equipment & Conditions

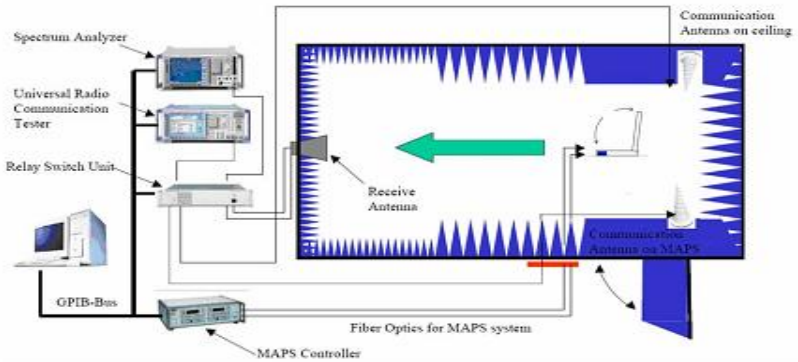
1. Network Analyzers :

Agilent 8753D 5071B

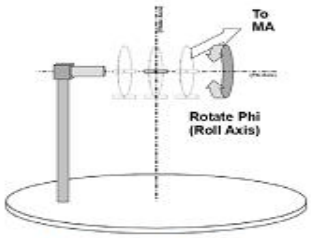
Communications Test Set:

Agilent E5515C CMW500

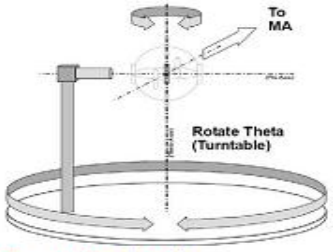
2. 3D Chamber Test System



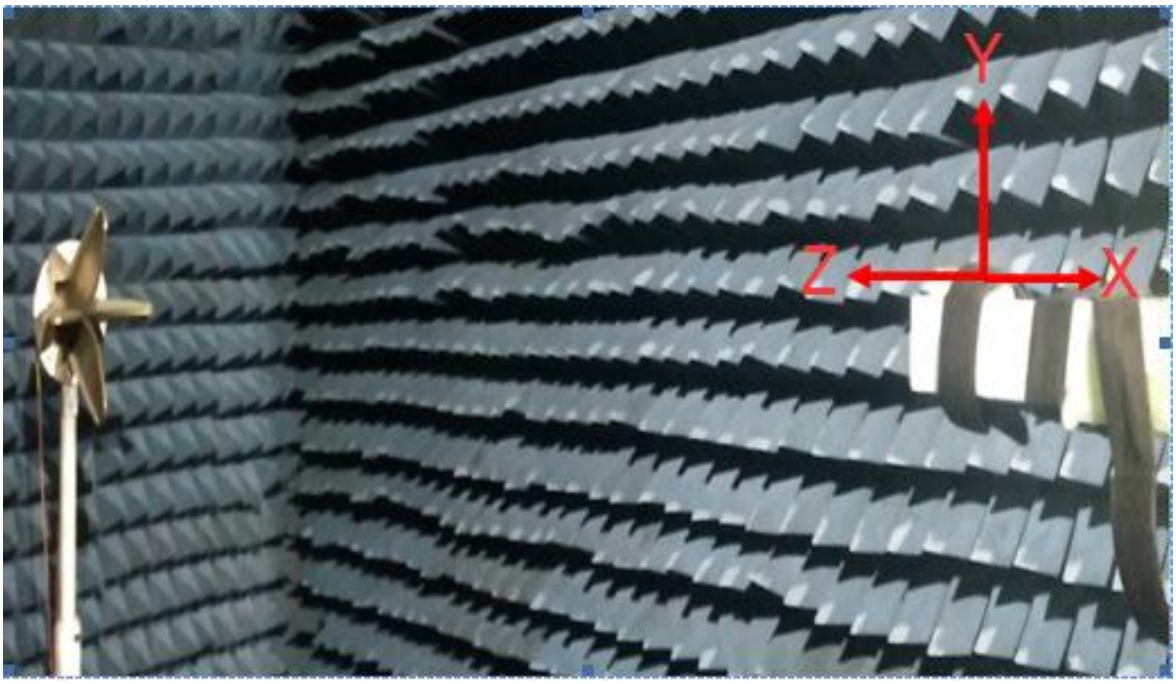
(Testing by 3D anechoic chamber)



Phi axis test



Theta axis test



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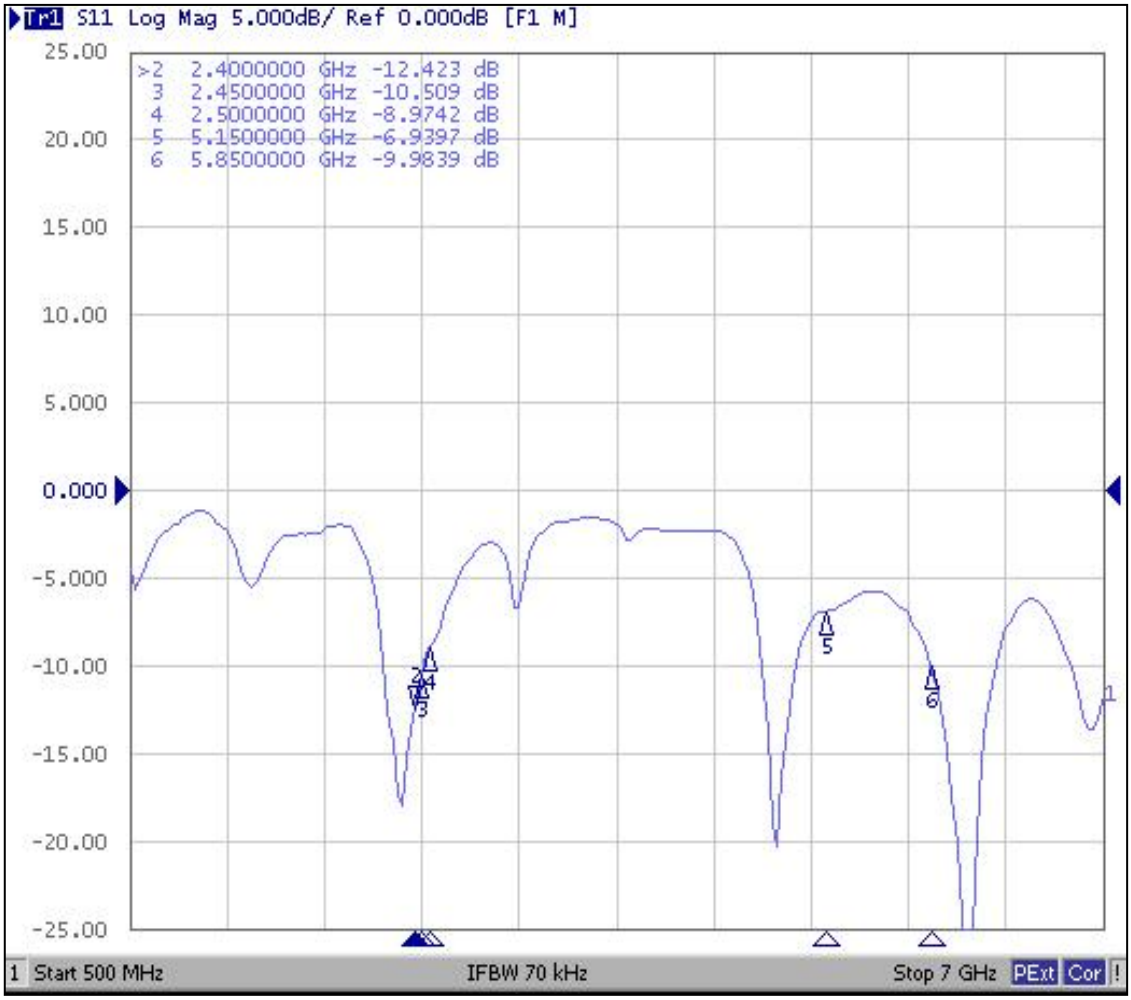
● Return Loss



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● 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

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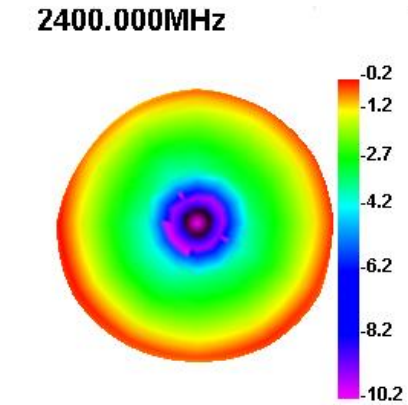
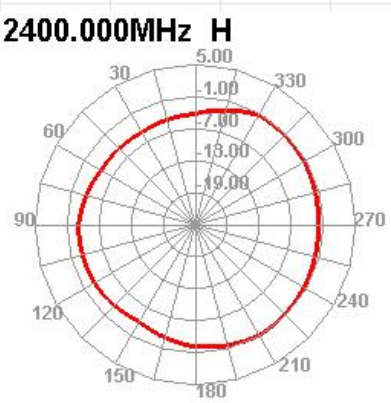
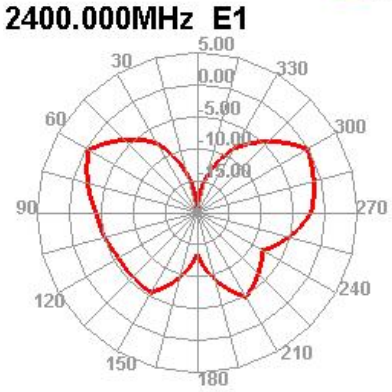
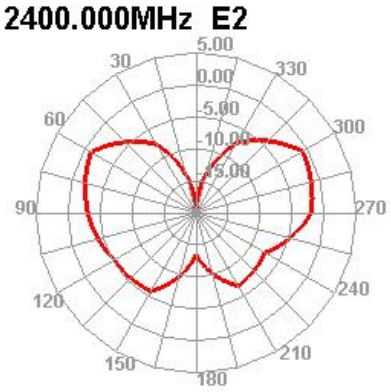
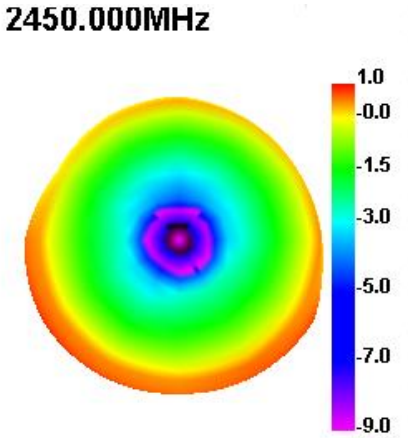
● Radiation Pattern

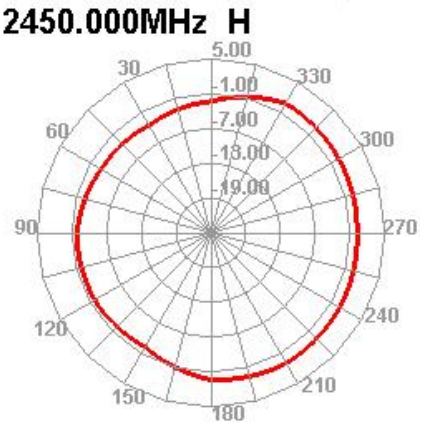


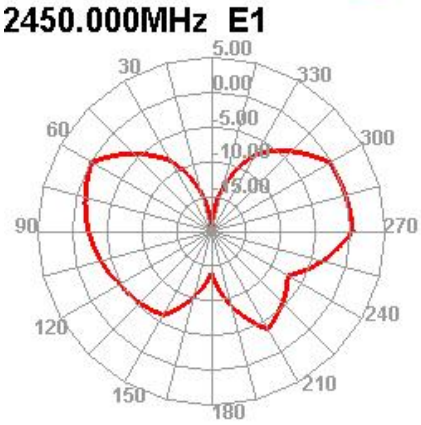


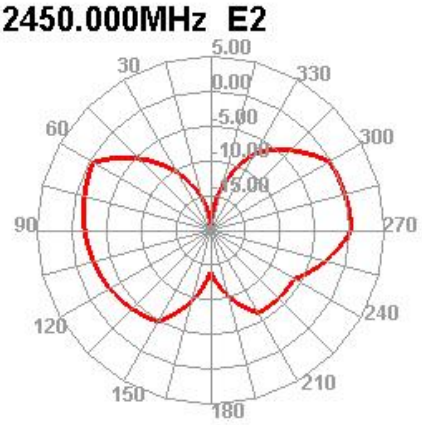












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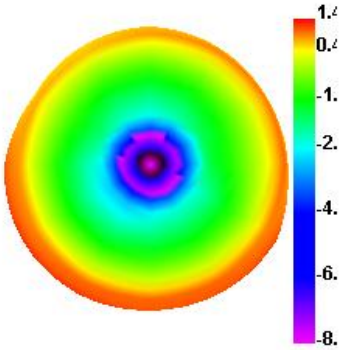
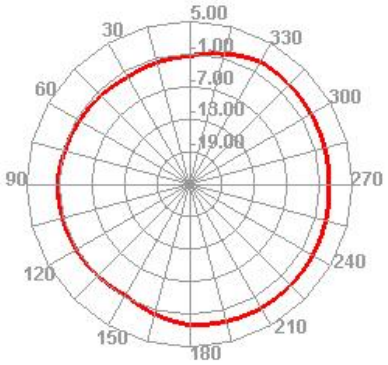
● Radiation Patter

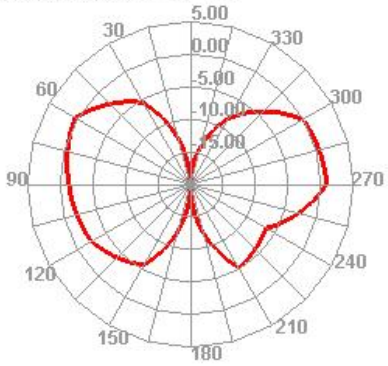
2500.000MHz



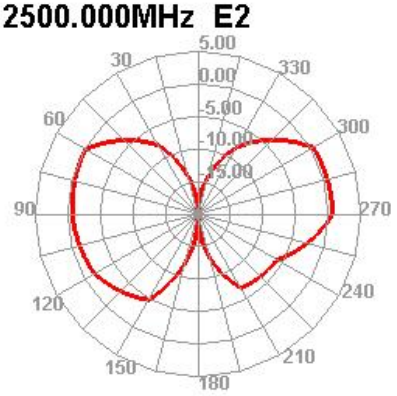
2500.000MHz H



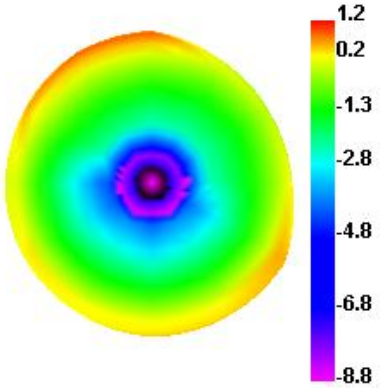
2500.000MHz E1



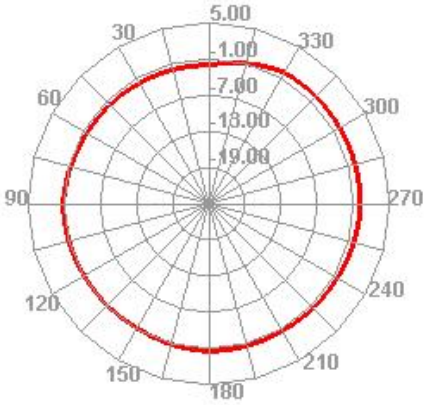
2500.000MHz E2



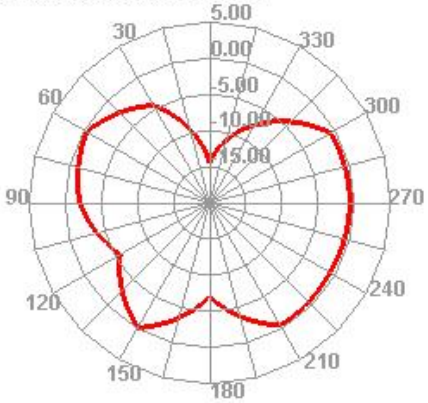
5150.000MHz



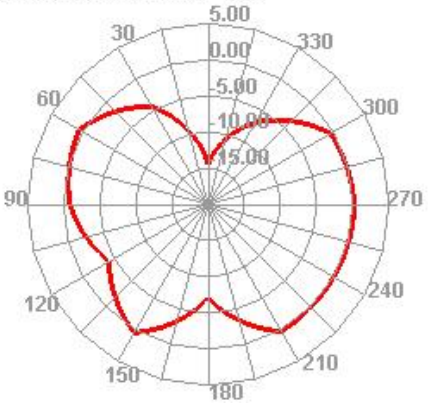
5150.000MHz H



5150.000MHz E1



5150.000MHz E2



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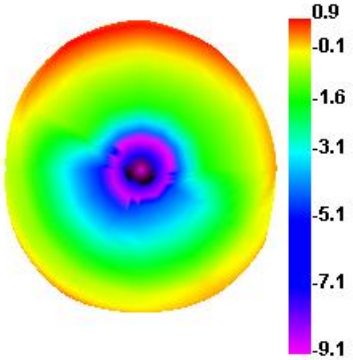
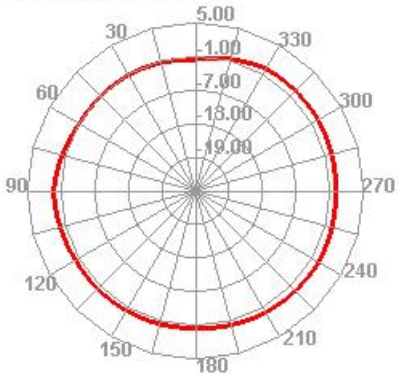
● Radiation Pattern

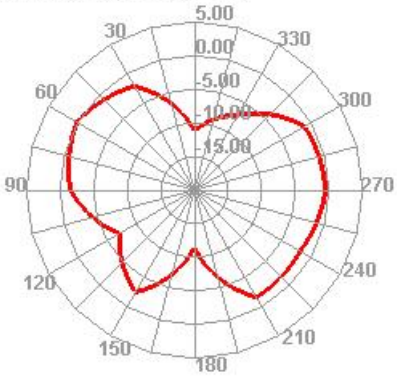
5500.000MHz



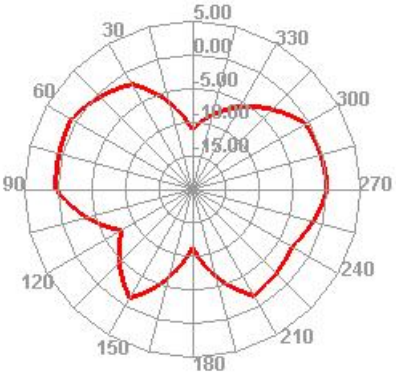
5500.000MHz H



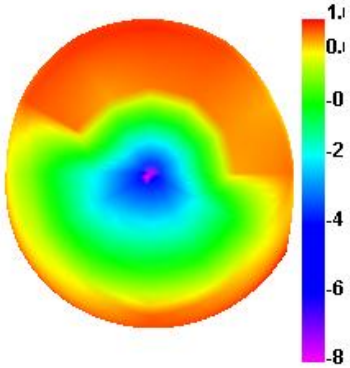
5500.000MHz E1



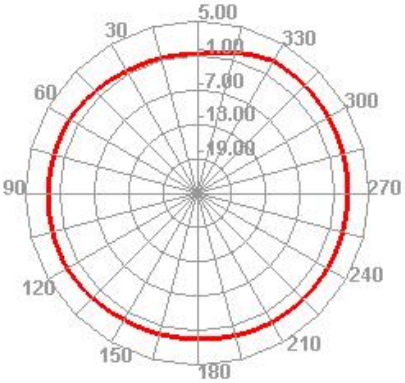
5500.000MHz E2



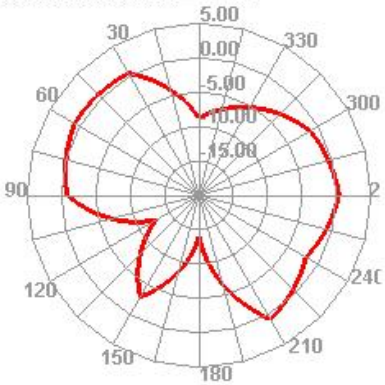
5850.000MHz



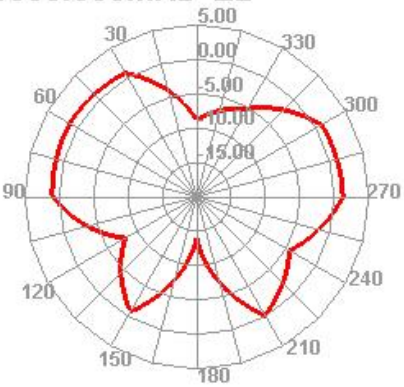
5850.000MHz H



5850.000MHz E1



5850.000MHz E2



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● Antenna Picture

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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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