Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____

Part NO.: EWF002.D2B01B.SMAMM

Write By: Damon Cui

Issued Date: 2022.07.01

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval
颜培海	深圳市天联凌科技有限公司 工程专用章	

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**
VSWR	**<2.0**
Efficiency	**>40%**
Peak Gain	**2.17dbi**
Impedance	**50 Ohm**
Polarization	**Line**
B. Material & Mechanical Characteristics	
Material of Radiator	**Cu**
Cable Type	**/**
Connector Type	**SMA**
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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● Test Equipment & Conditions

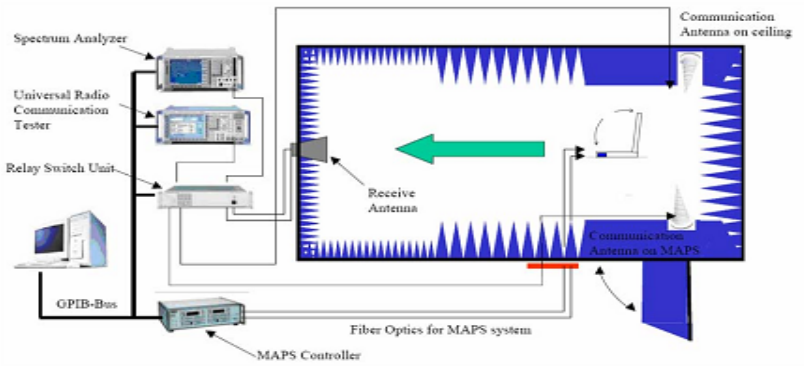
1. Network Analyzers :

Agilent 8753D 5071B

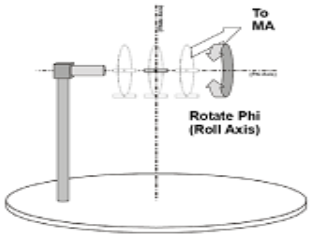
Communications Test Set:

Agilent E5515C CMW500

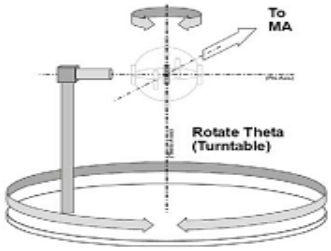
2. 3D Chamber Test System



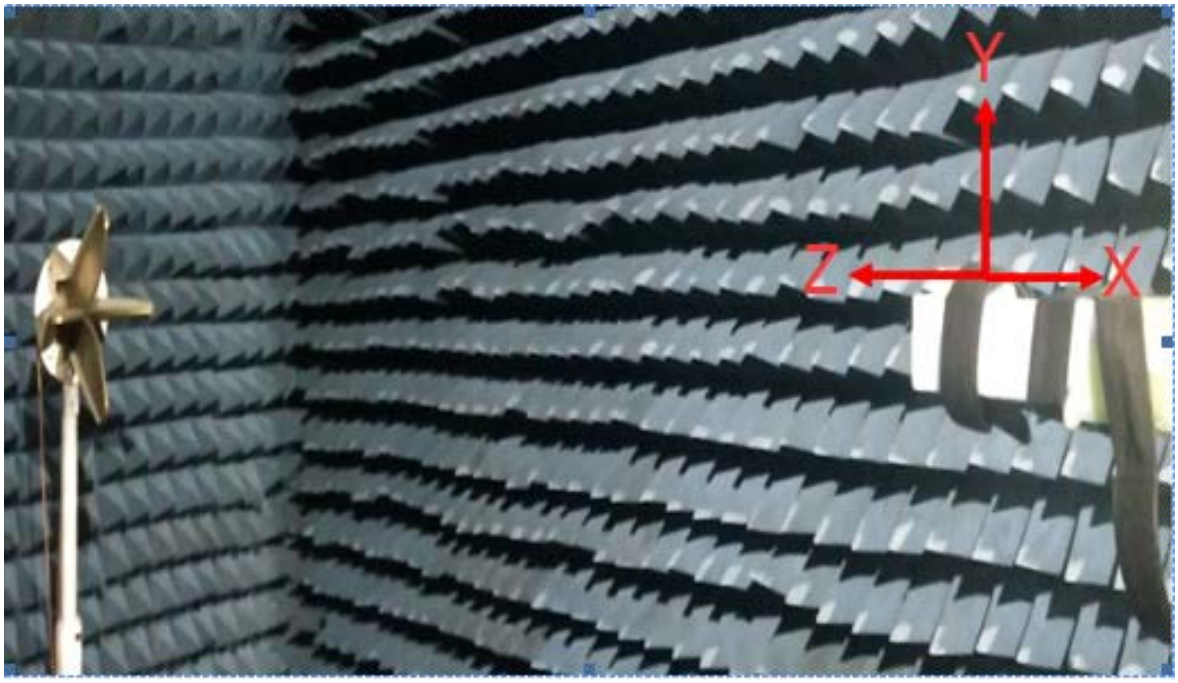
(Testing by 3D anechoic chamber)



Phi axis test



Theta axis test



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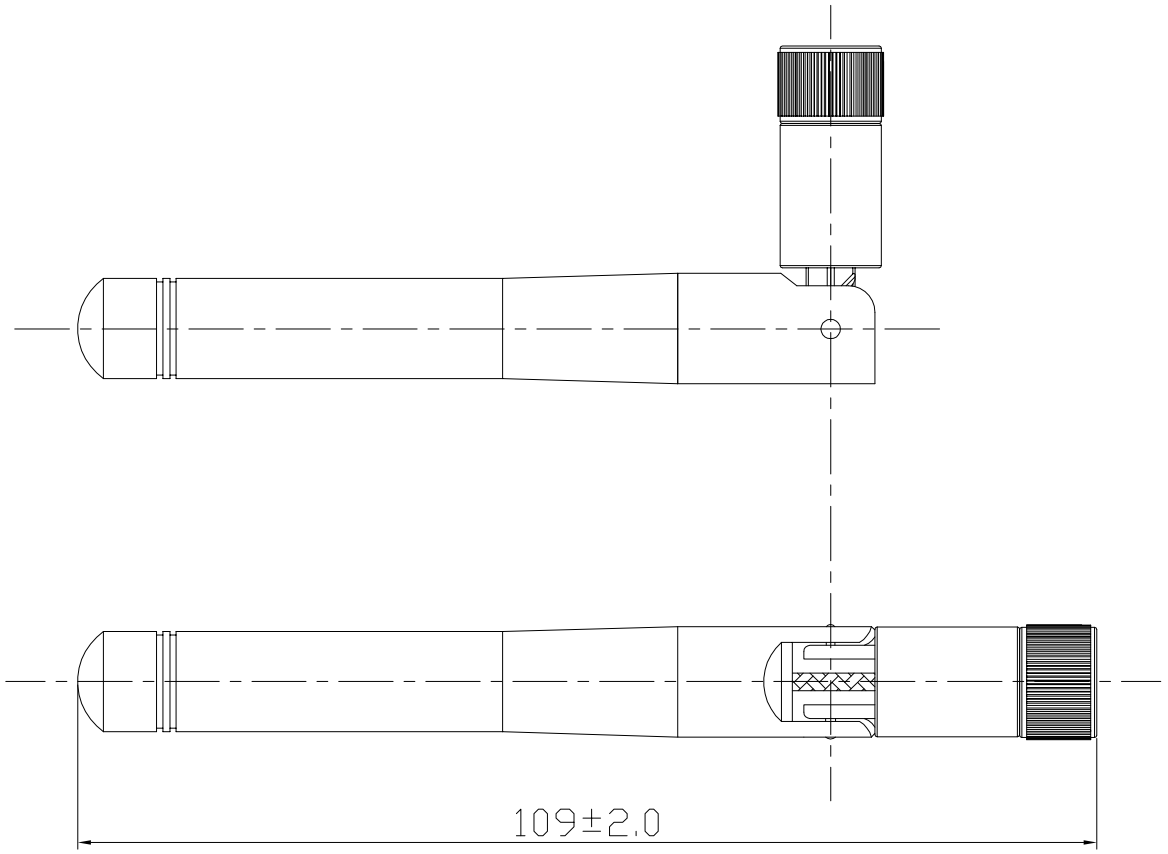
RoHS
Compliant
G P



SHEN ZHEN SKYLink CO.,LTD

Third Angle				Project		Date	2022-07-01
0～10	±0.05	○	0.02	Part Name		Designed by	
10～18	±0.10	◎	⌀0.03	Part No.	EWF002.D2B01B.SMAMM	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							

Rev	Description	Date	Remark
A	New drawing		

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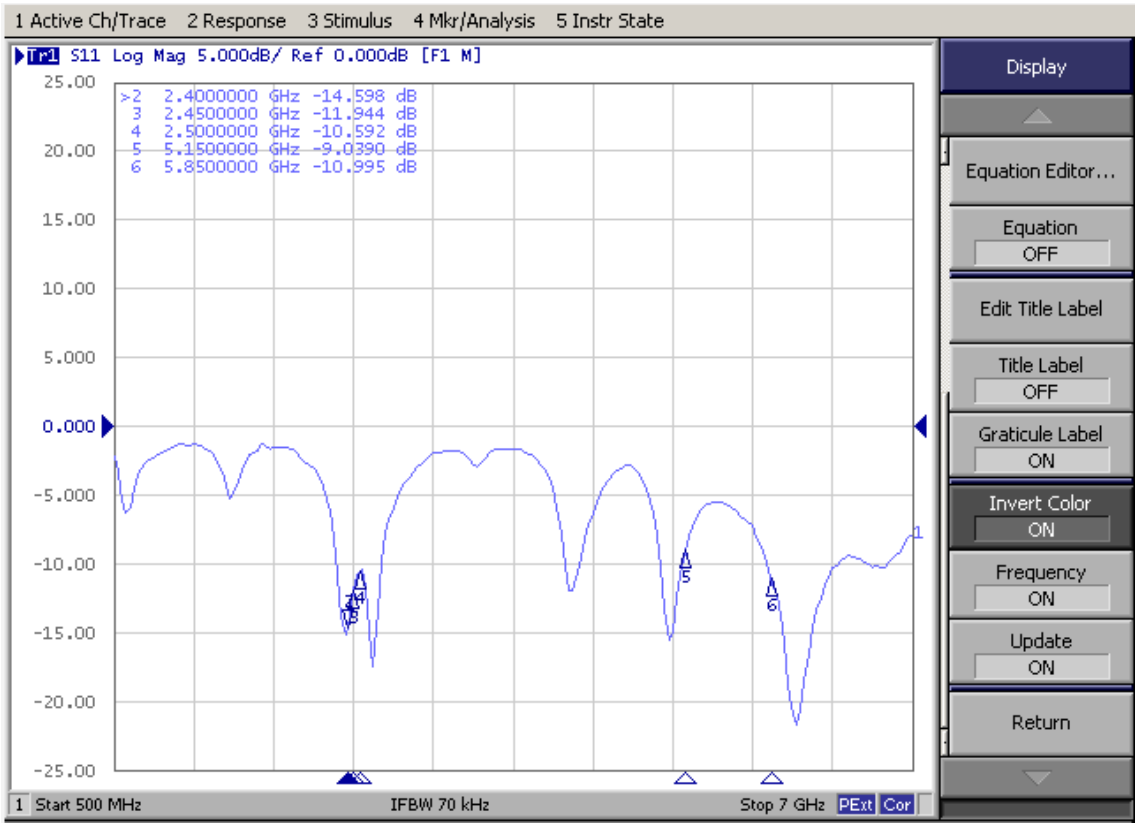
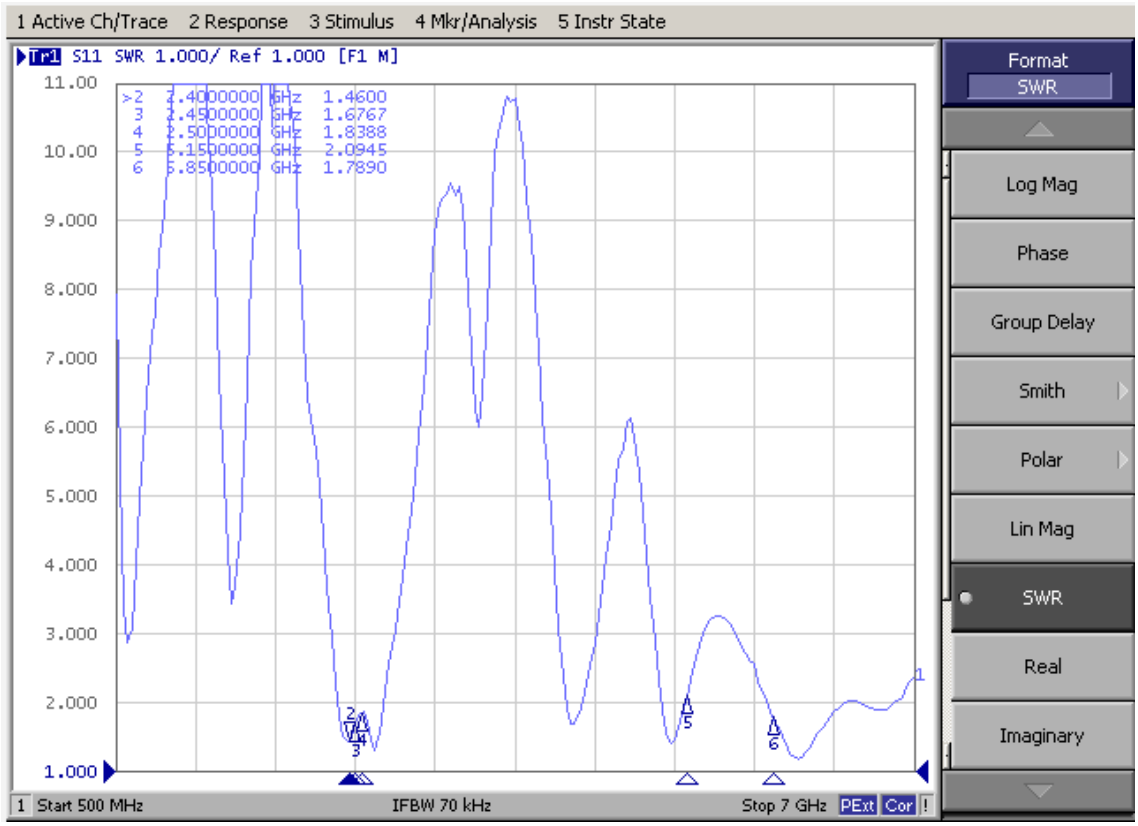
◆ Return Loss



◆ VSWR



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◆ Gain & Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	56.15	1.07	5150	49.38	1.73
2410	60.04	1.27	5200	48.3	0.91
2420	65.02	1.42	5250	51.88	0.54
2430	66.52	1.31	5300	55.62	0.45
2440	62.62	0.82	5350	58.14	0.93
2450	58.8	0.33	5400	60	0.86
2460	58.49	0.12	5450	56.85	0.61
2470	60.75	0.21	5500	56.97	0.44
2480	58.25	0.02	5550	58.96	0.54
2490	59.24	0.07	5600	57.43	0.63
2500	56.45	-0.19	5650	57.99	0.68
			5700	57.91	0.83
			5750	60.99	1.21
			5800	60.45	1.36
			5850	66.35	2.17

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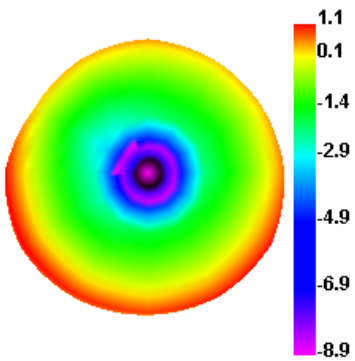
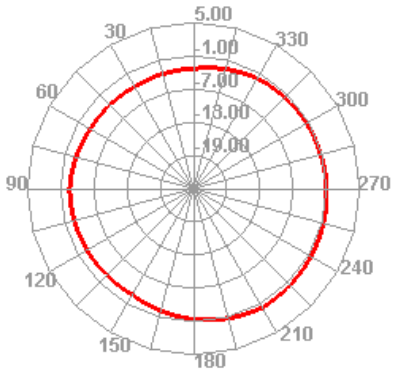
◆ Radiation Pattern

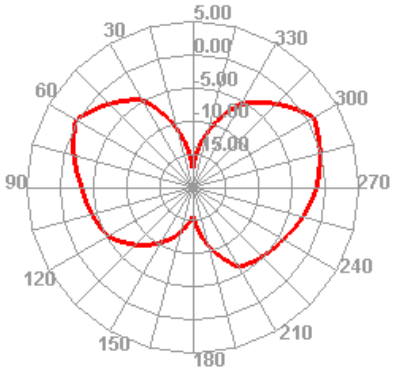
2400.000MHz



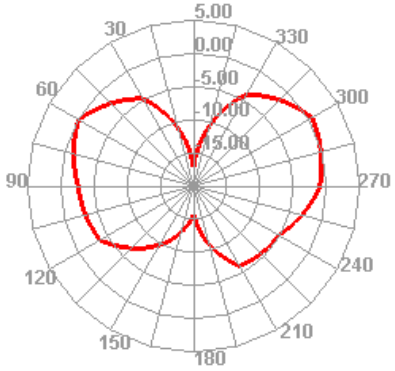
2400.000MHz H



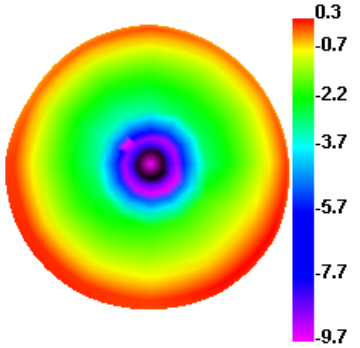
2400.000MHz E1



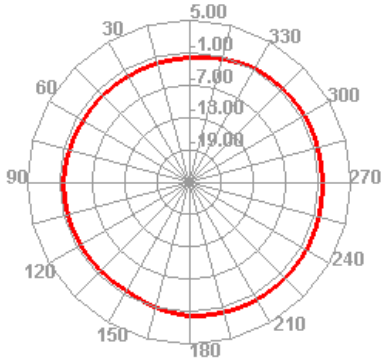
2400.000MHz E2



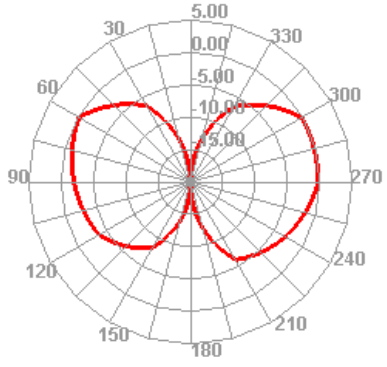
2450.000MHz



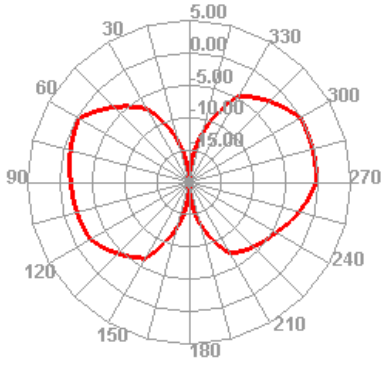
2450.000MHz H



2450.000MHz E1



2450.000MHz E2



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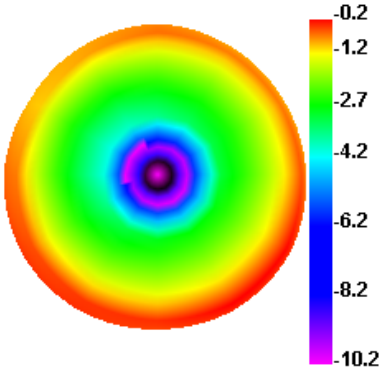
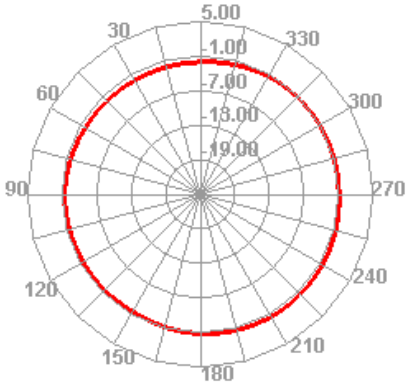
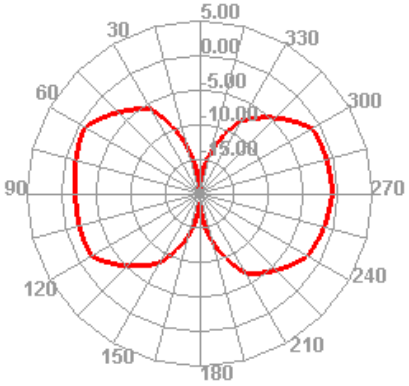
2500.000MHz



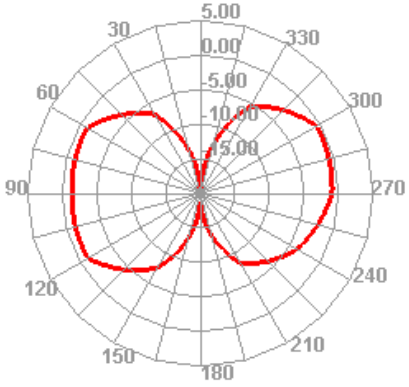
2500.000MHz H



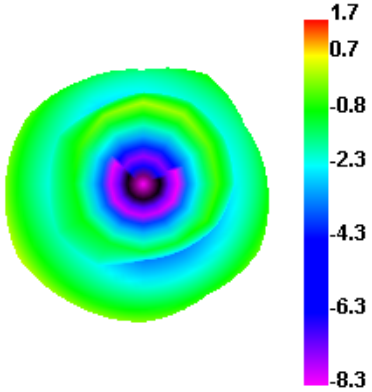
2500.000MHz E1



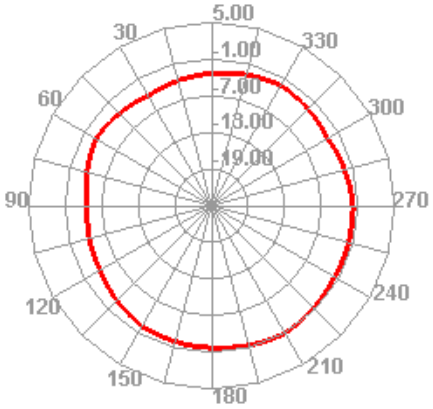
2500.000MHz E2



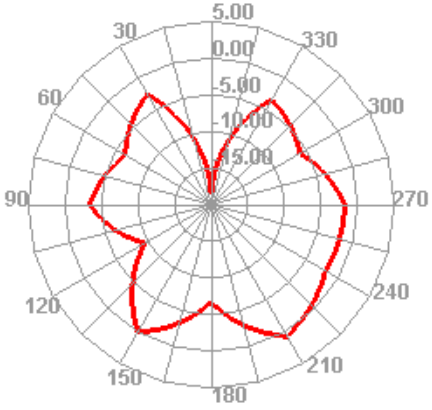
5150.000MHz



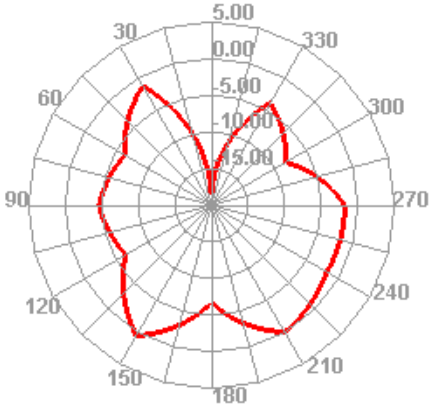
5150.000MHz H



5150.000MHz E1



5150.000MHz E2



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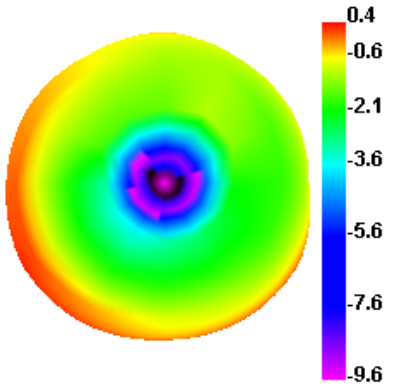
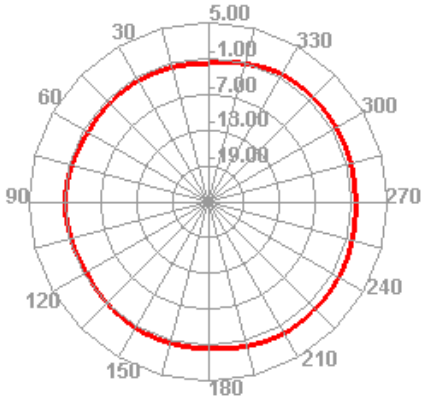
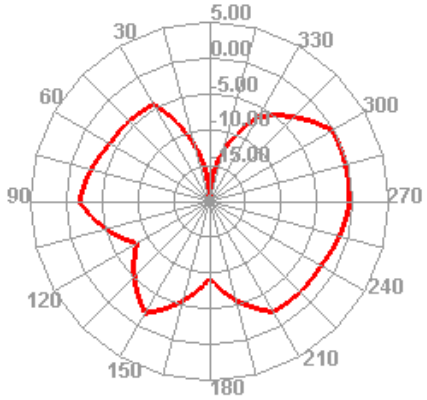
5500.000MHz



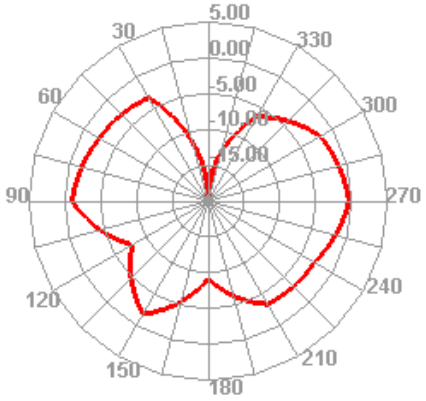
5500.000MHz H



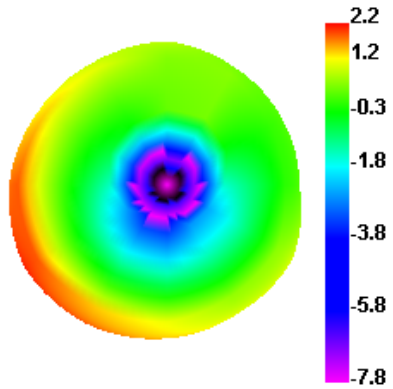
5500.000MHz E1



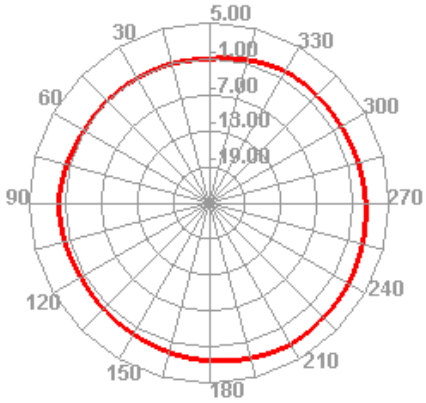
5500.000MHz E2



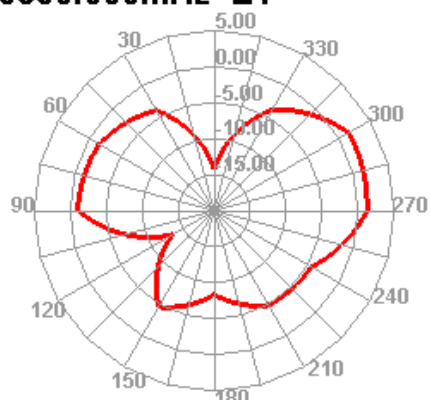
5850.000MHz



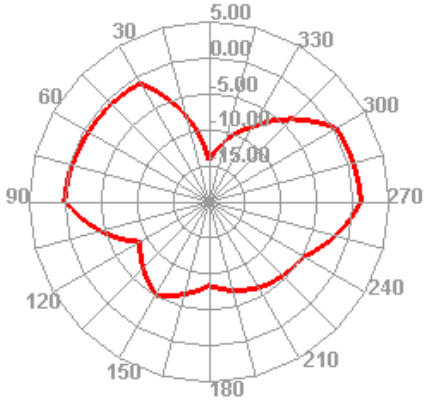
5850.000MHz H



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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