

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

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

Part NO. : _____ K233.WIFI.V2.C113.150B.1 _____

Write By: _____ YAN PEI HAI _____

Issued Date: _____ 2023-03-15 _____

Customer

R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz 5100MHz ~5800MHz
VSWR	<2.0
Efficiency	>50%
Peak Gain	2.36dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Cable Type	RG1.13 Black
Connector Type	I
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**

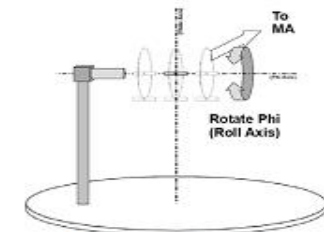
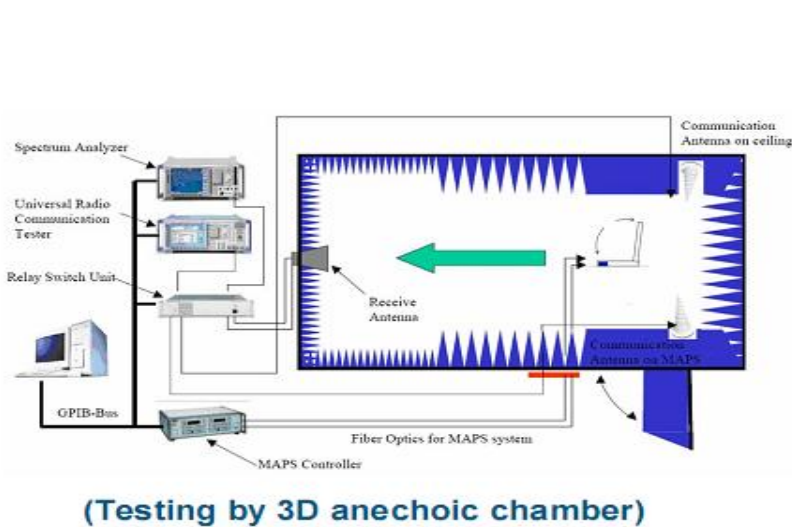
1. **Network Analyzers :**

Agilent 8753D 5071B

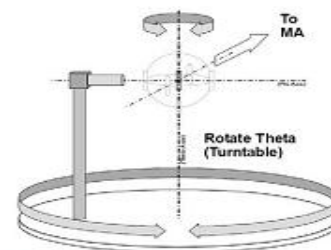
Communications Test Set:

Agilent E5515C CMW500

2. **3D Chamber Test System**



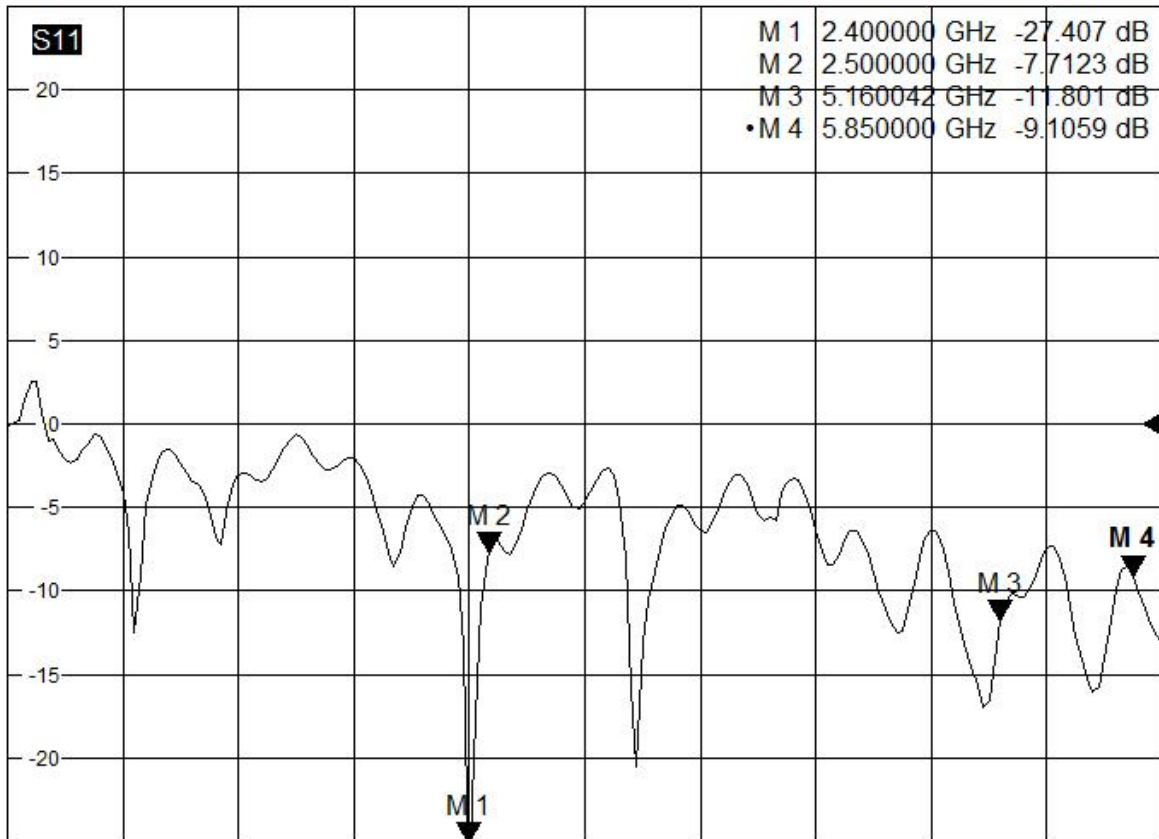
Phi axis test



Theta axis test



◆ Return Loss



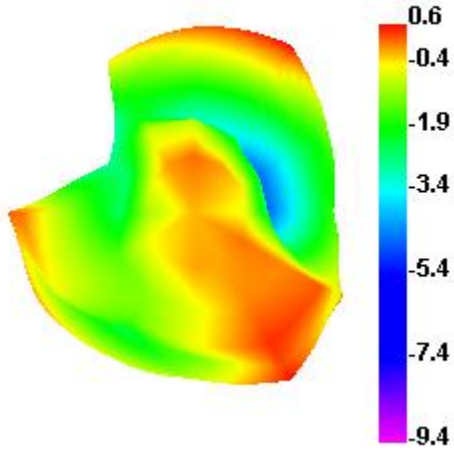
◆ Gain & Efficiency

Fre (MHz)	Eff (%) (dB)	Gain (dB)
2400	67.22	2.36
2410	68.36	2.36
2420	68.52	2.33
2430	68.41	1.85
2440	67.52	1.57
2450	65.23	1.55
2460	65.33	1.87
2470	64.52	2.12
2480	64.55	2.11
2490	63.25	2.31
2500	62.51	2.19

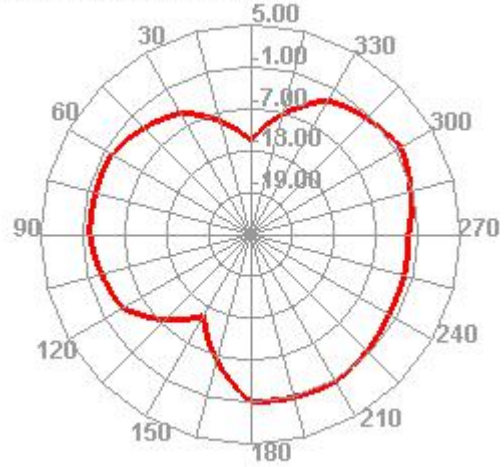
Fre (MHz)	Eff (%) (dB)	Gain (dB)
5100	53.62	2.23
5200	52.33	2.22
5300	50.23	2.21
5400	48.62	1.89
5500	47.55	1.74
5600	50.23	2.1
5700	51.26	2
5800	50.3	2.34

◆ Radiation Pattern

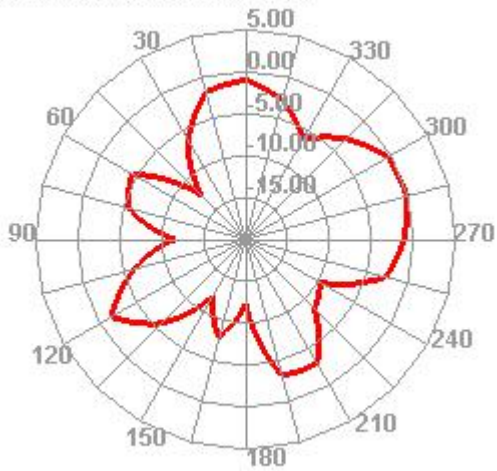
2400.000MHz



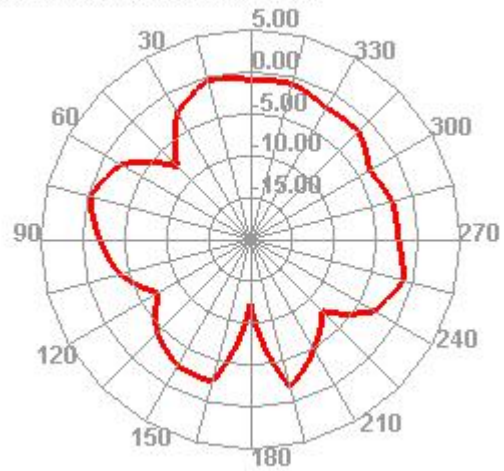
2400.000MHz H



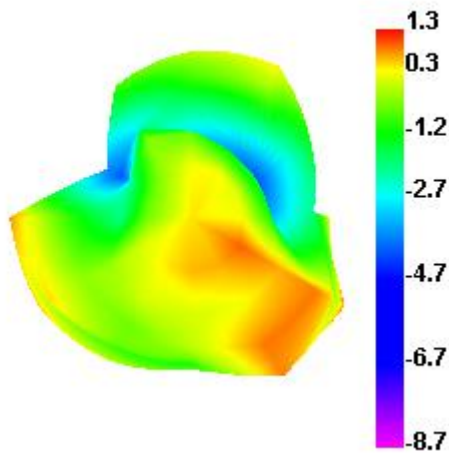
2400.000MHz E1



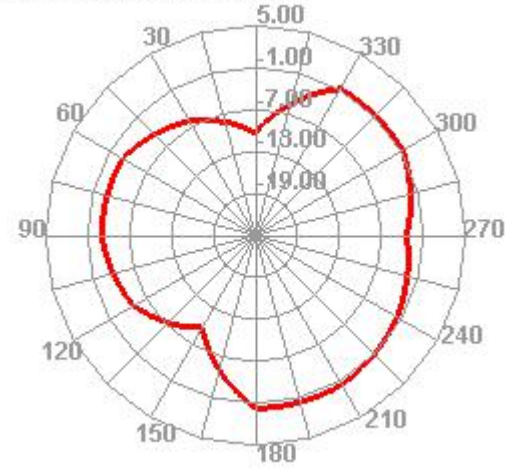
2400.000MHz E2



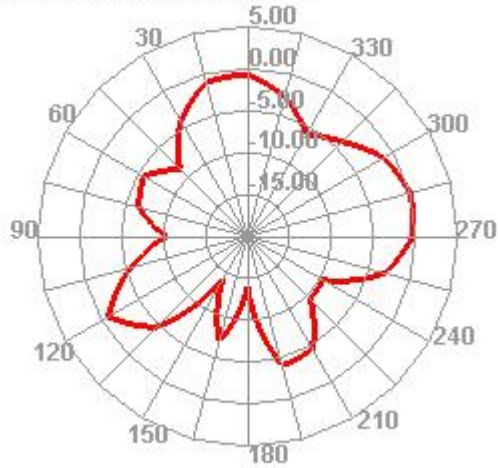
2450.000MHz



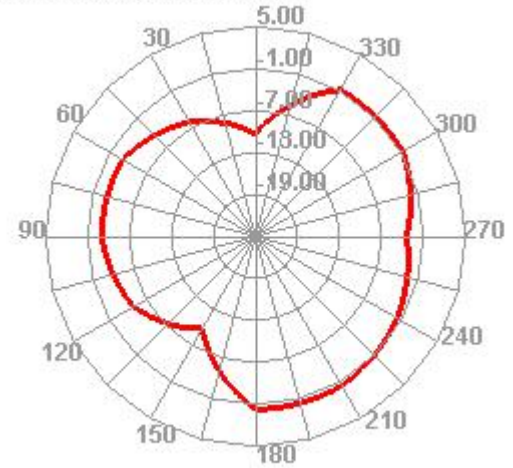
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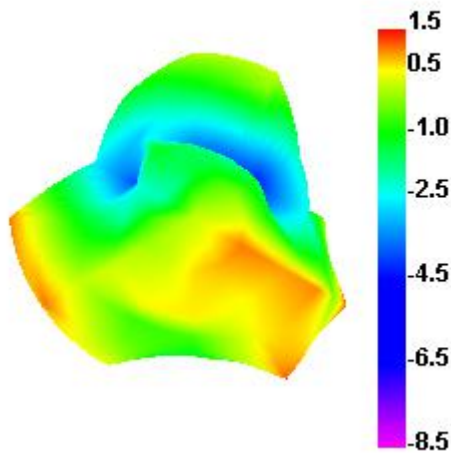
2450.000MHz E1



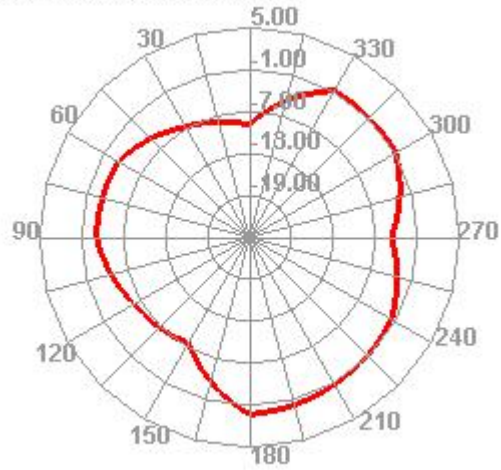
2450.000MHz H



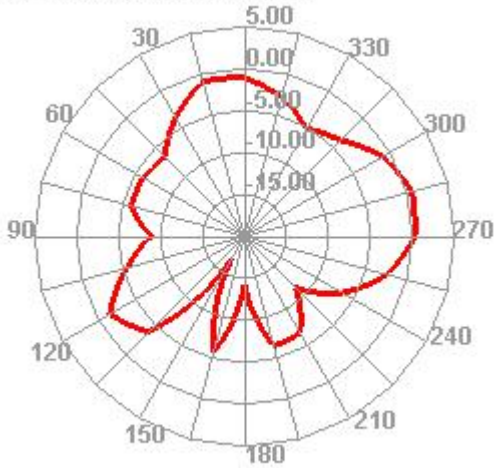
2500.000MHz



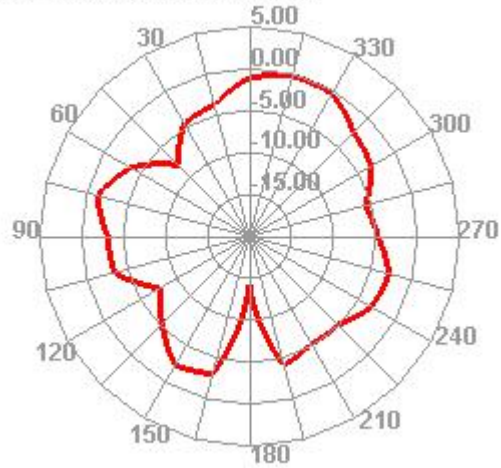
2500.000MHz H



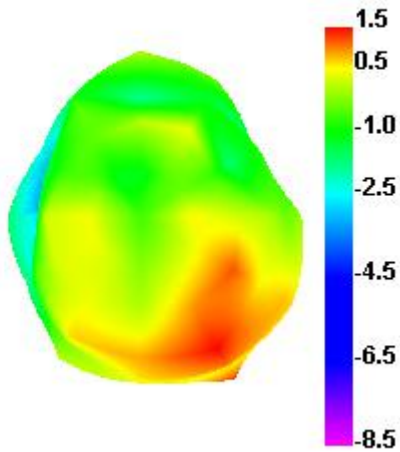
2500.000MHz E1



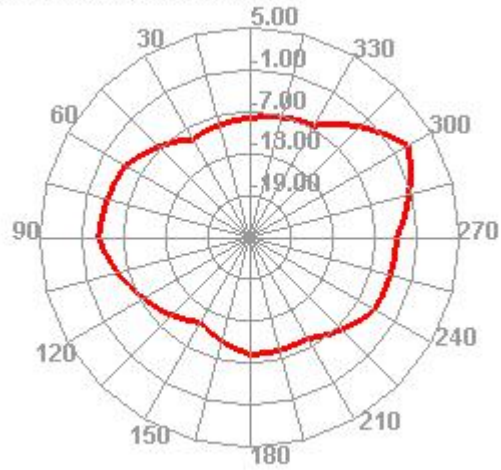
2500.000MHz E2



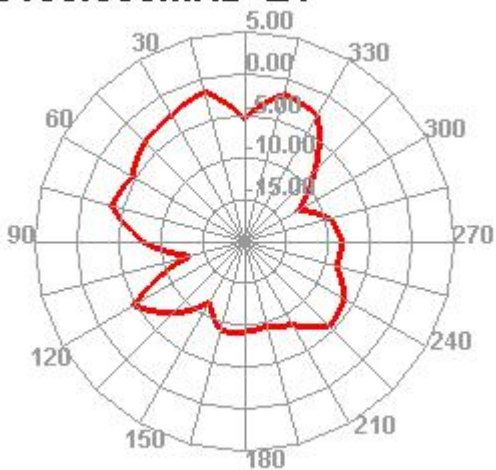
5150.000MHz



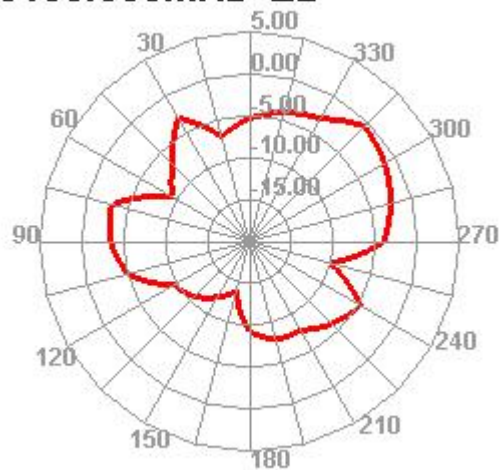
5150.000MHz H



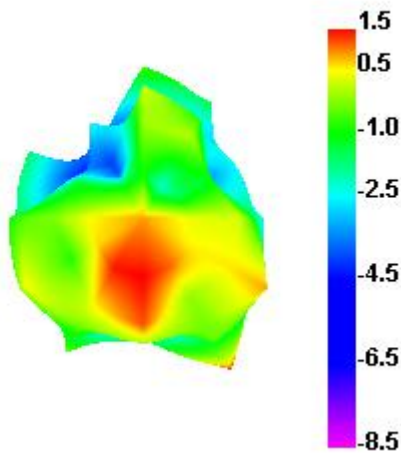
5150.000MHz E1



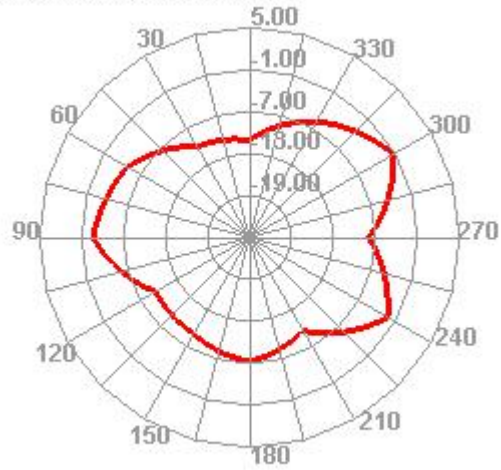
5150.000MHz E2



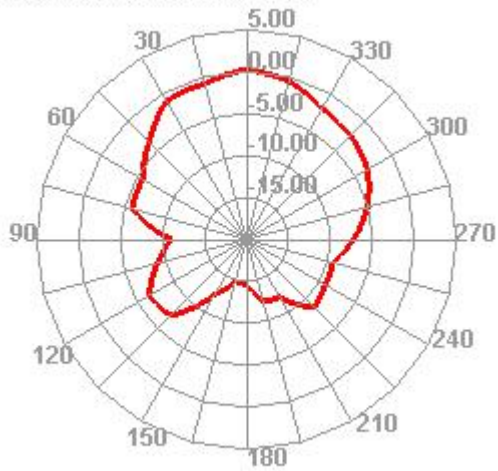
5550.000MHz



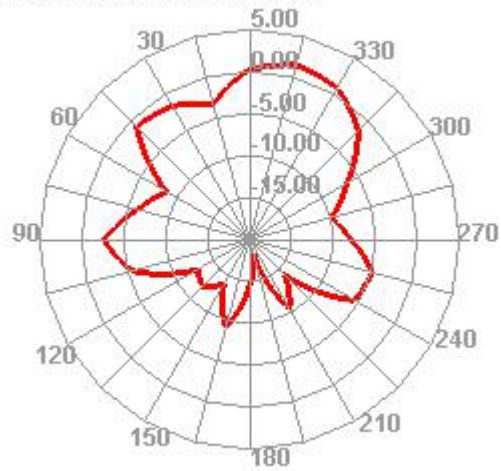
5550.000MHz H



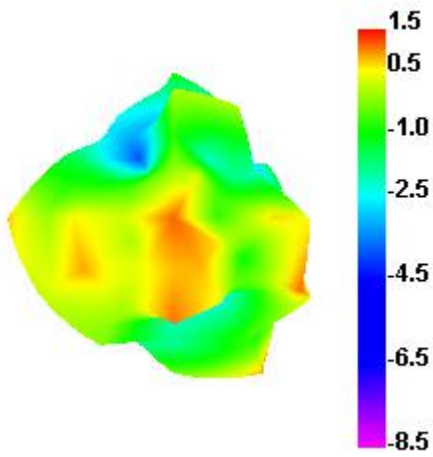
5550.000MHz E1



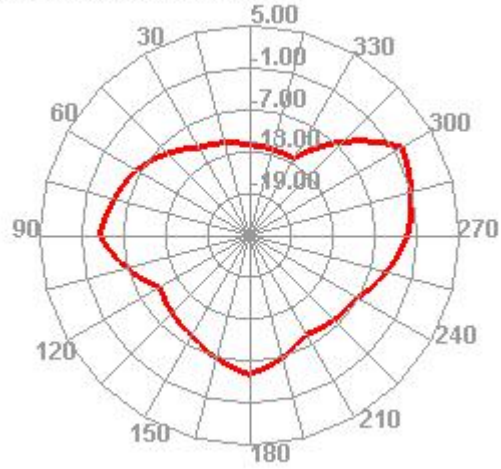
5550.000MHz E2



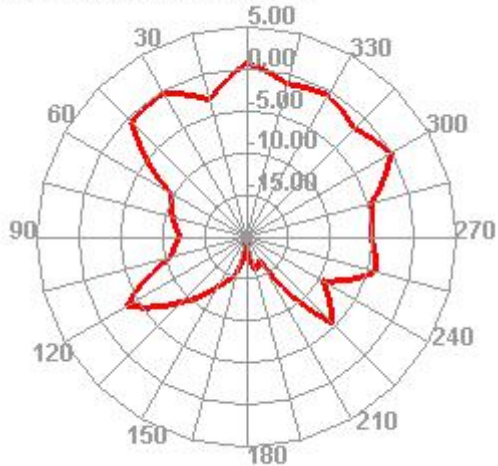
5850.000MHz



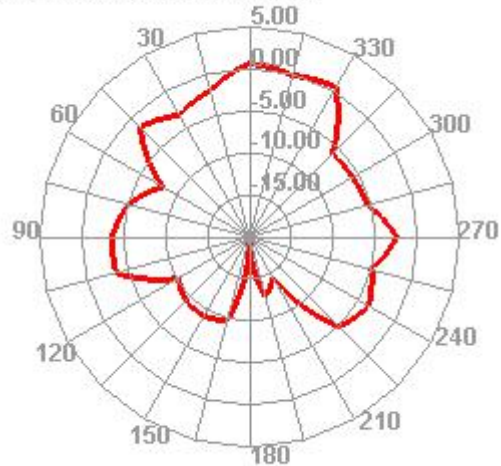
5850.000MHz H



5850.000MHz E1



5850.000MHz 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±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

