
Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

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

Part NO. : _____ EVOCAIERA. 2. C113. 380B. 1. _____

Write By: _____ Fang Zhengfeng _____

Issued Date: _____ 2024-04-12 _____

Customer

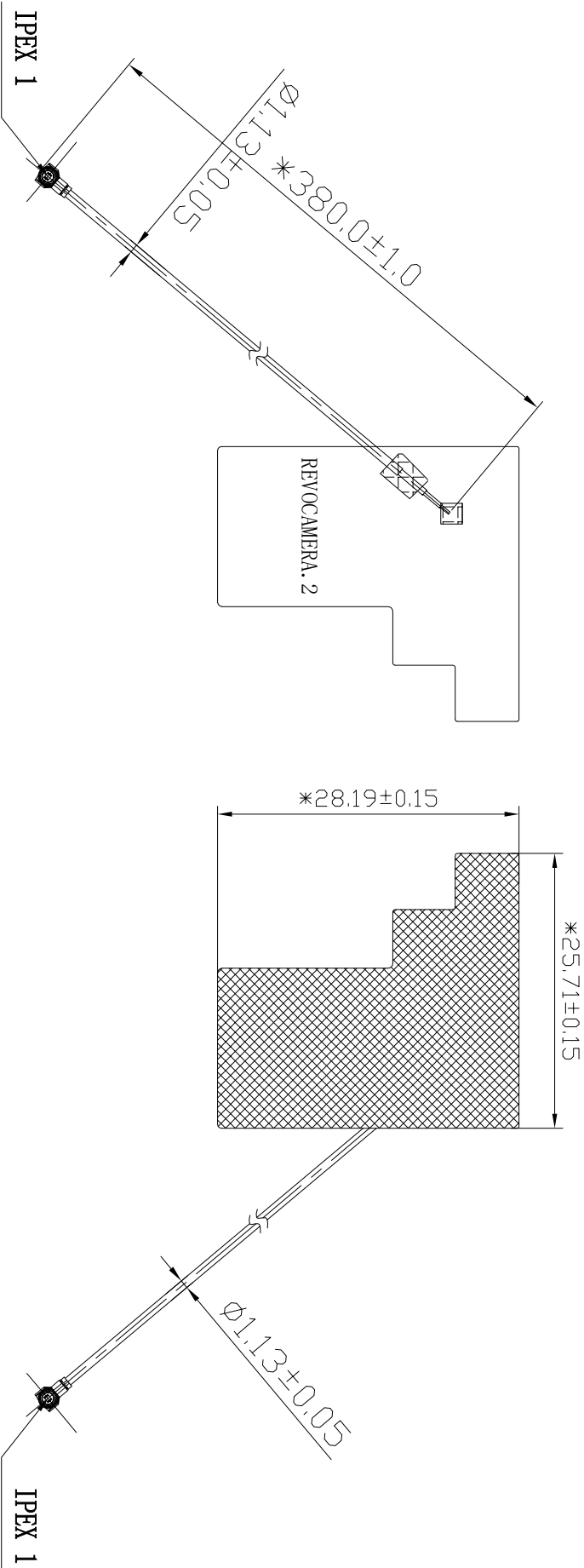
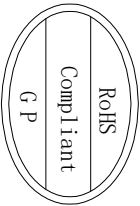
R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz 5150MHz ~5850MHz
Log Mag	<-5dB
Efficiency	>40%
Peak Gain	2.5dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Cable Type	1.13mm Black
Connector Type	1
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
A		New drawing			
1					

				SHEN ZHEN SKYLINK CO., LTD			
		Third Angle	Project	Part Name		Date	2024-04-11
0~10		± 0.05	$\bigcirc$	0.02			
10~18		± 0.10	$\odot$	$\phi 0.03$			
18~30		± 0.12	$\perp$	0.02			
30~40		± 0.15	∇	0.04			
40~		± 0.20	Angle	$\pm 0.5^\circ$			
Location		DWG No.		Approved by		Unit	mm
						Scale	1:1
						Rev	A

● Test Equipment & Conditions

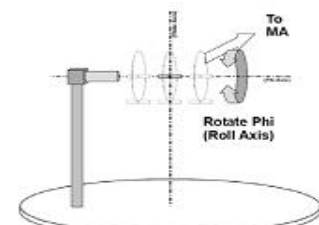
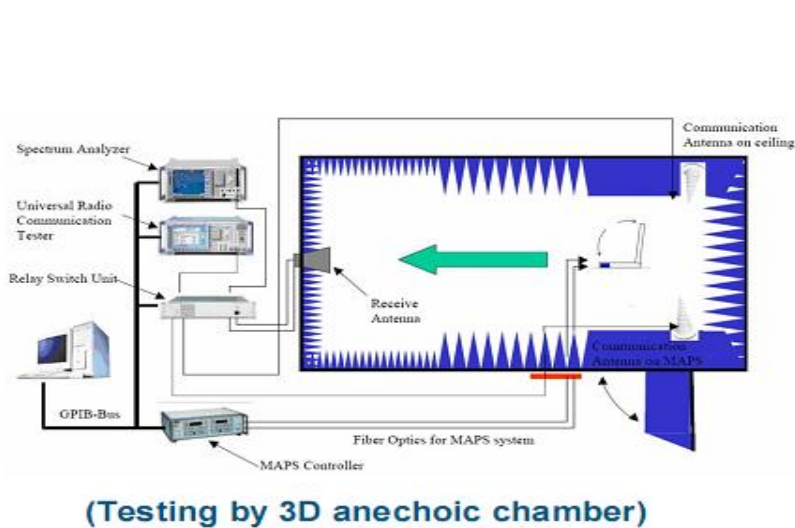
1. Network Analyzers :

Agilent 8753D 5071B

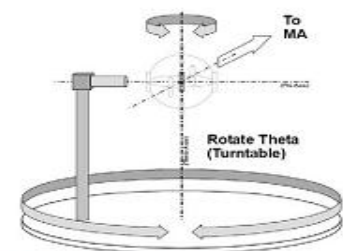
Communications Test Set:

Agilent E5515C CMW500

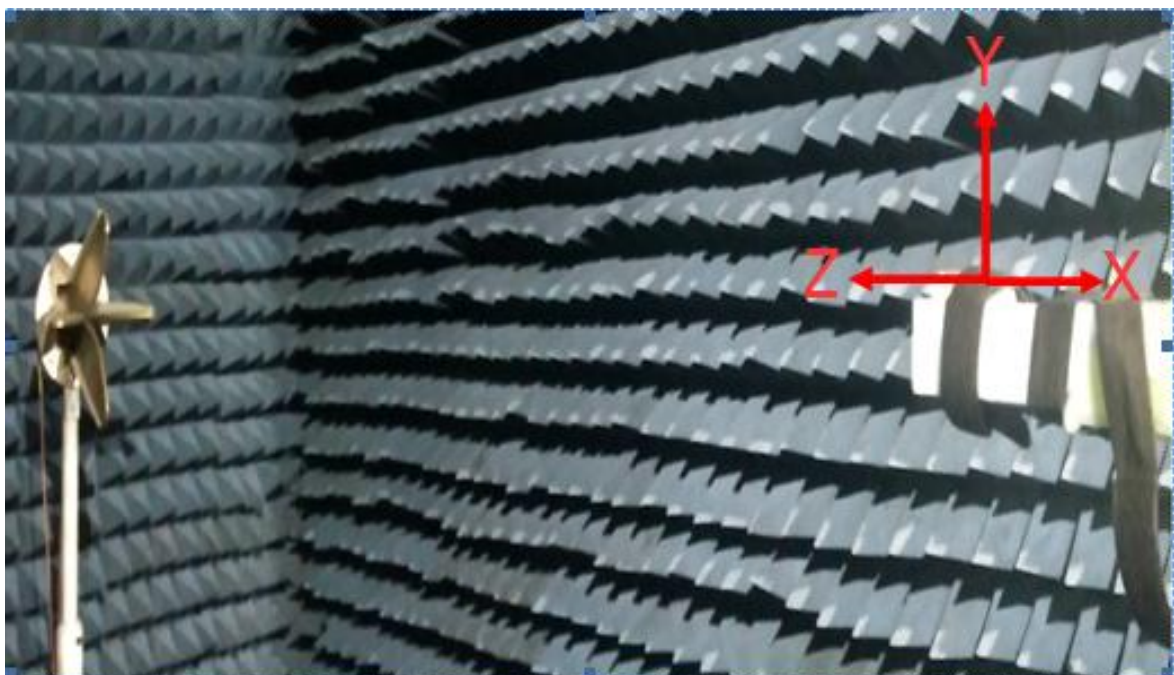
2. 3D Chamber Test System



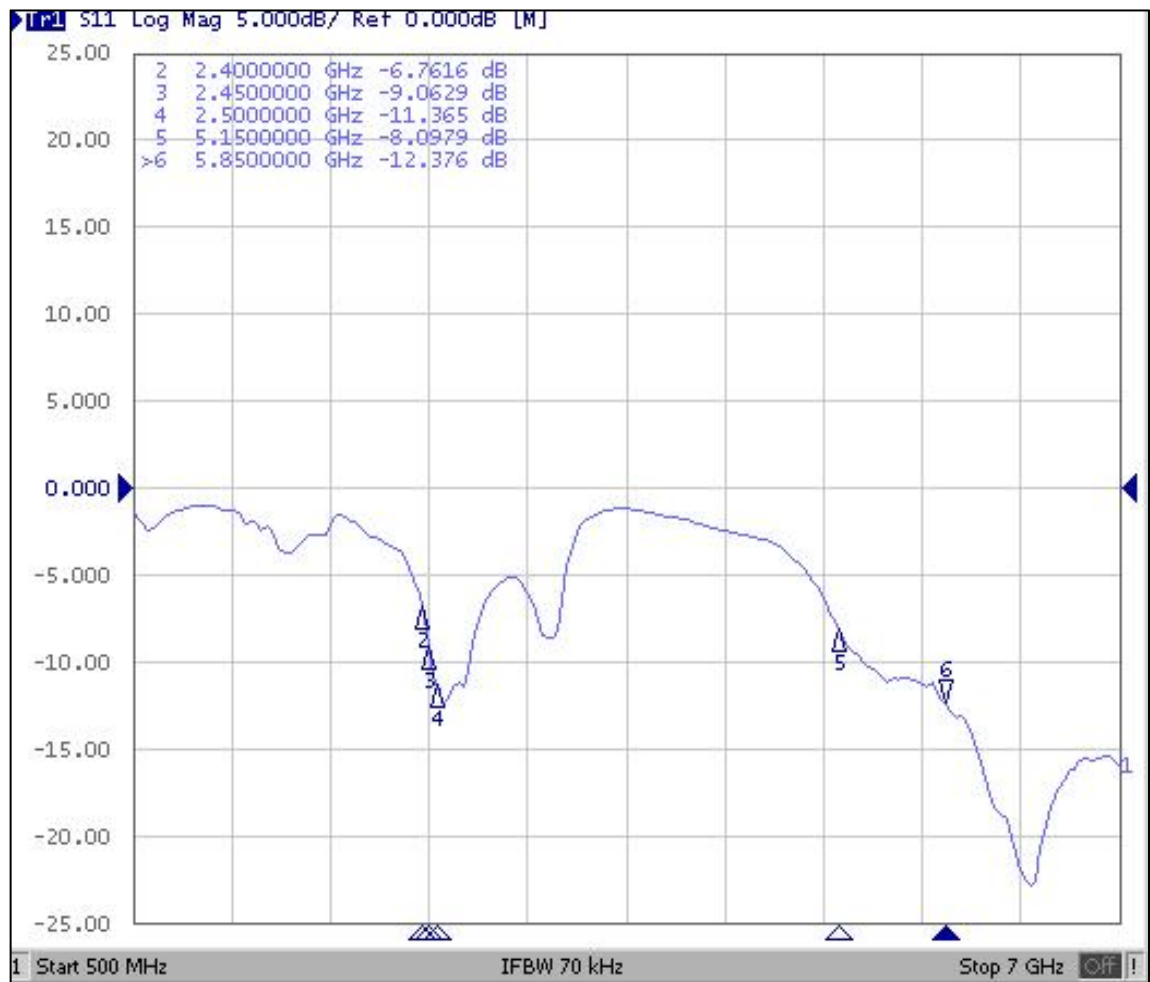
Phi axis test



Theta axis test



◆ Return Loss



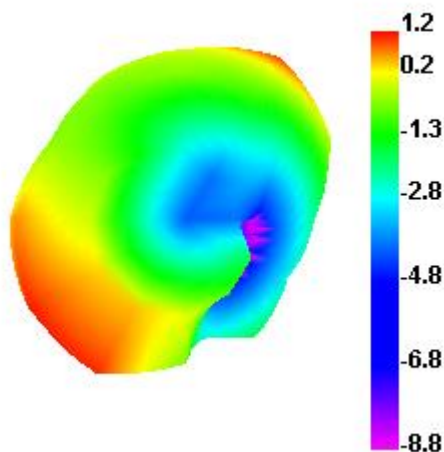
◆ Gain & Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)
2400	57.37	1.15
2410	56.95	1.04
2420	58.82	1.28
2430	61.26	1.48
2440	61.58	1.41
2450	58.51	1.07
2460	58.04	0.93
2470	58.42	0.82
2480	60.16	0.75
2490	63.71	1.08
2500	61.34	1.2

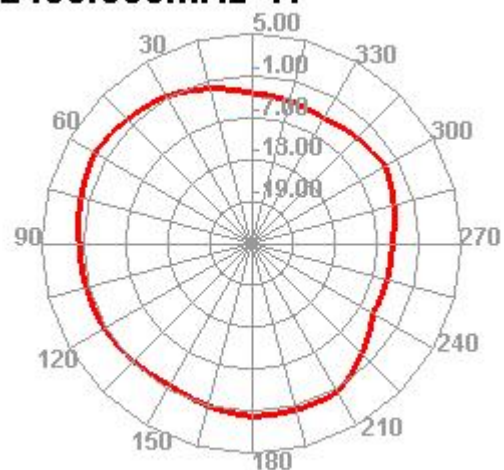
Freq (MHz)	Effi (%)	Gain (dBi)
5150	42.2	2.29
5200	42.34	1.54
5250	43.72	0.75
5300	43.92	0.78
5350	43.97	1.12
5400	48.12	1.28
5450	50.19	1.32
5500	55.08	1.87
5550	57.57	2.02
5600	60.86	2.48
5650	65.26	1.9
5700	64.85	1.91
5750	67.89	2.11
5800	64.84	2.11
5850	61.09	2.39

◆ Radiation Pattern

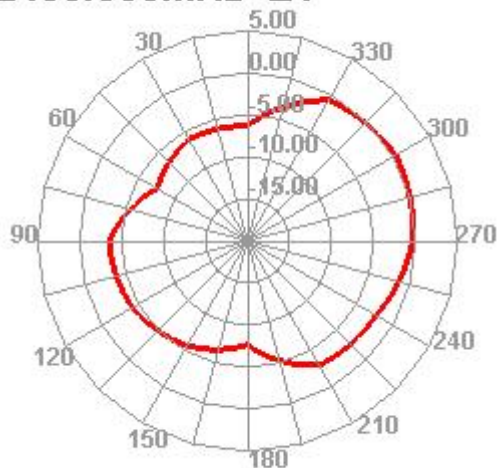
2400.000MHz



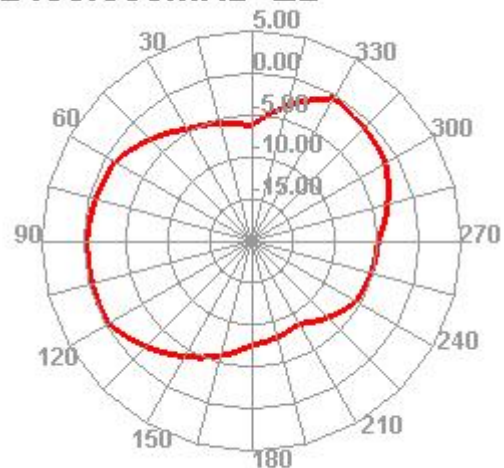
2400.000MHz H



2400.000MHz E1

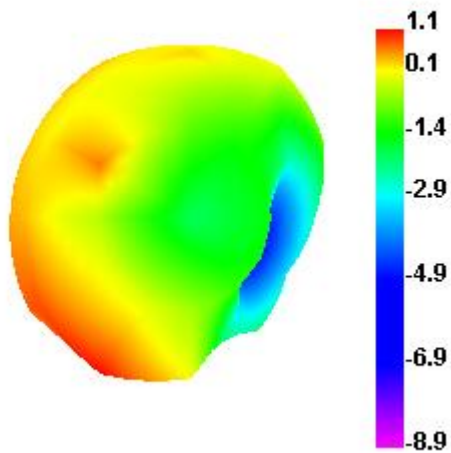


2400.000MHz E2

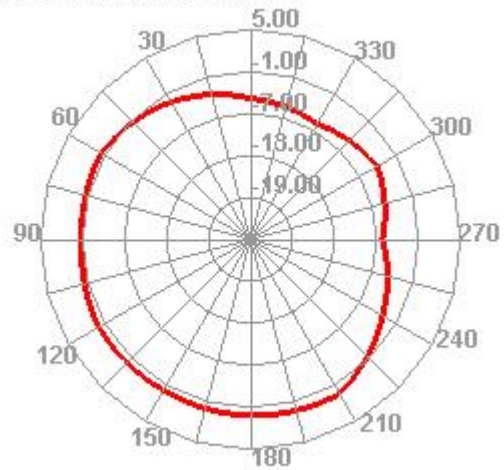


◆ Radiation Pattern

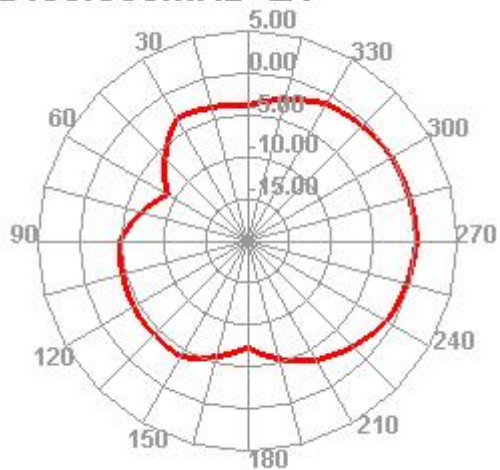
2450.000MHz



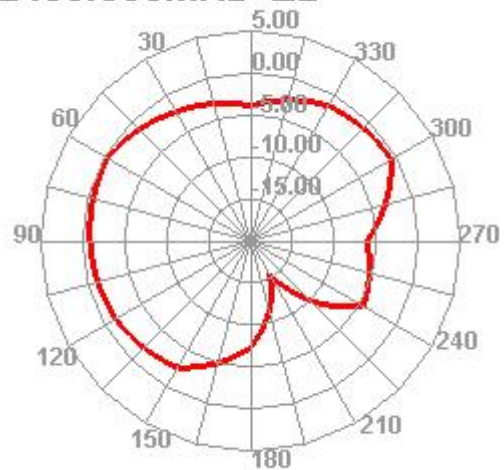
2450.000MHz H



2450.000MHz E1

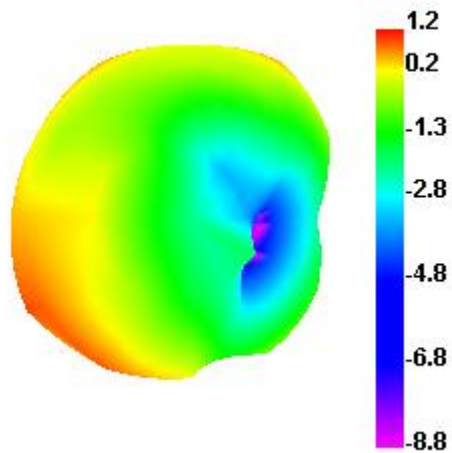


2450.000MHz E2

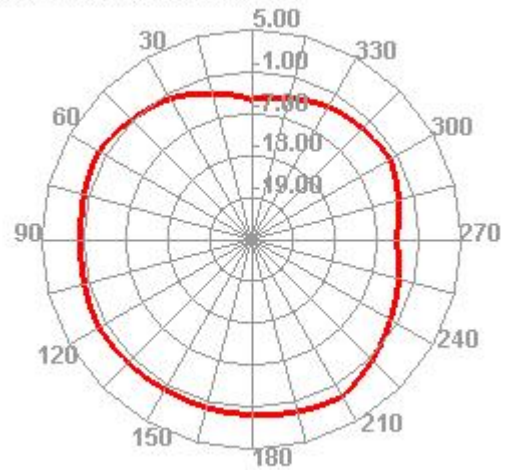


◆ Radiation Pattern

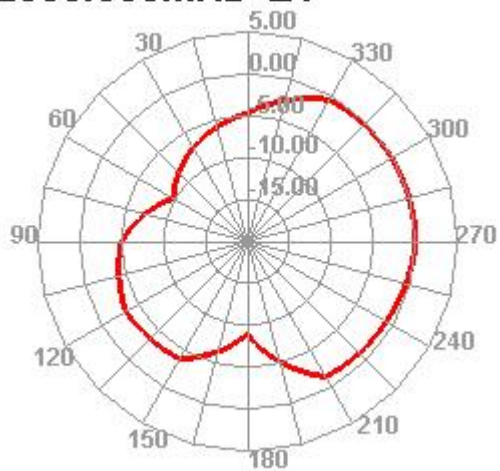
2500.000MHz



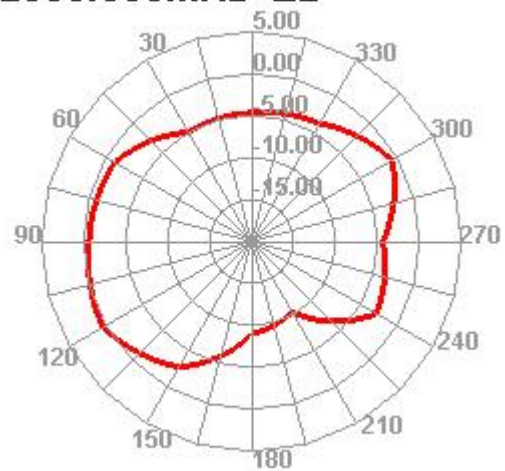
2500.000MHz H



2500.000MHz E1

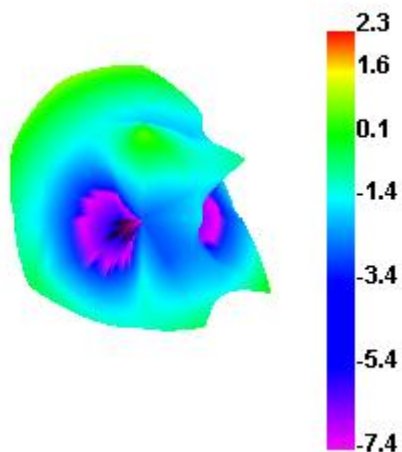


2500.000MHz E2

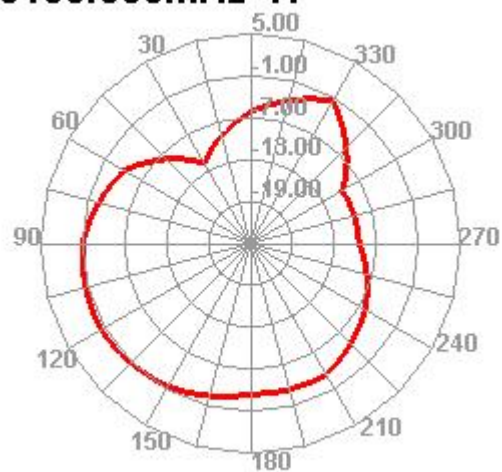


◆ Radiation Pattern

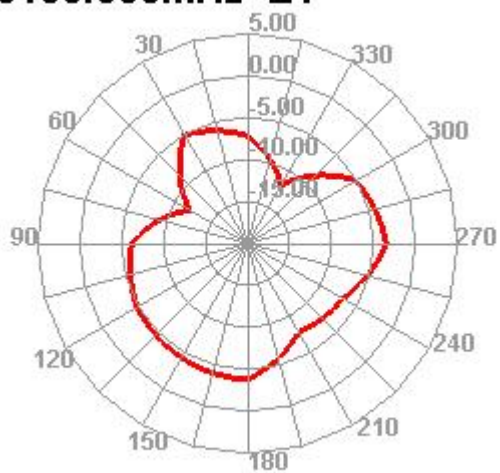
5150.000MHz



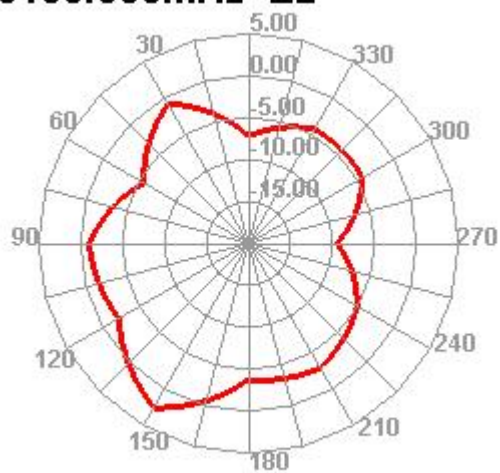
5150.000MHz H



5150.000MHz E1

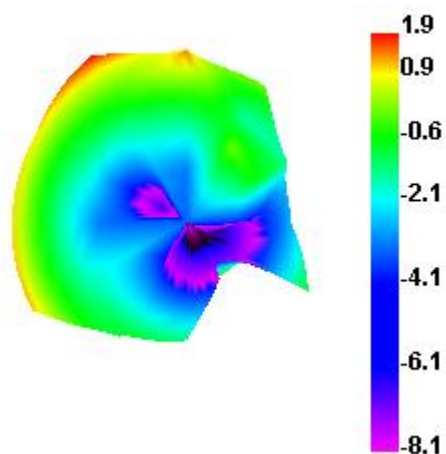


5150.000MHz E2

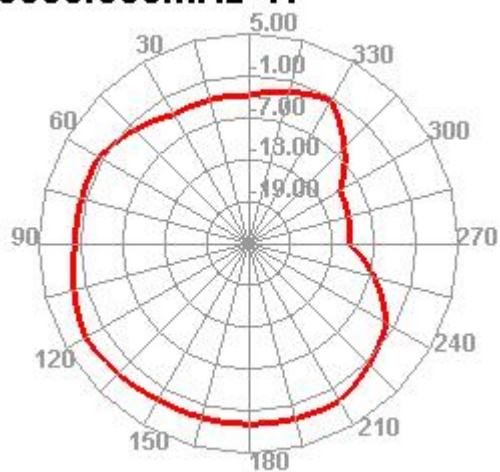


◆ Radiation Pattern

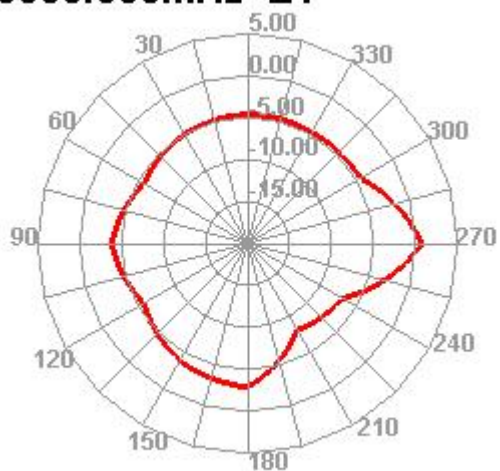
5500.000MHz



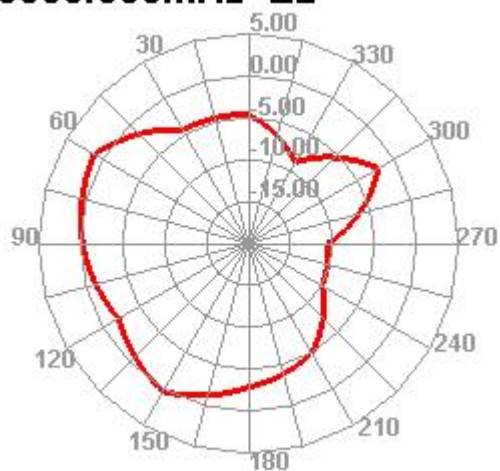
5500.000MHz H



5500.000MHz E1

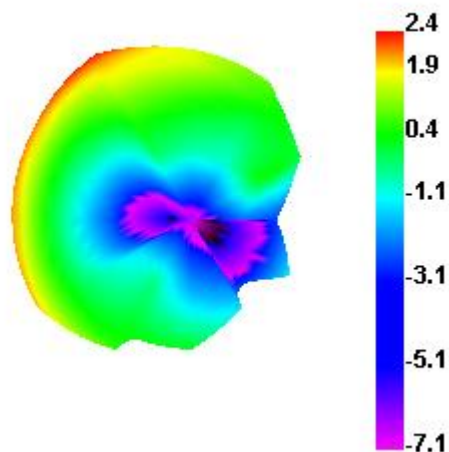


5500.000MHz E2

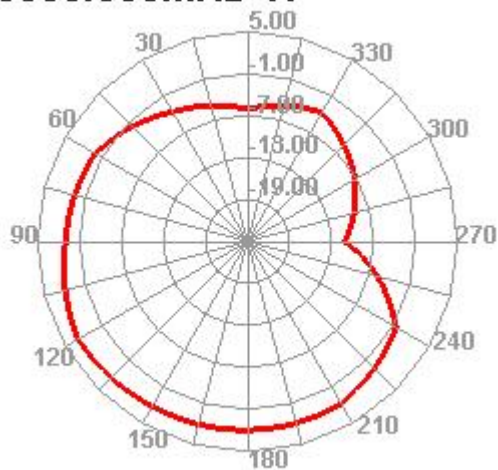


◆ Radiation Pattern

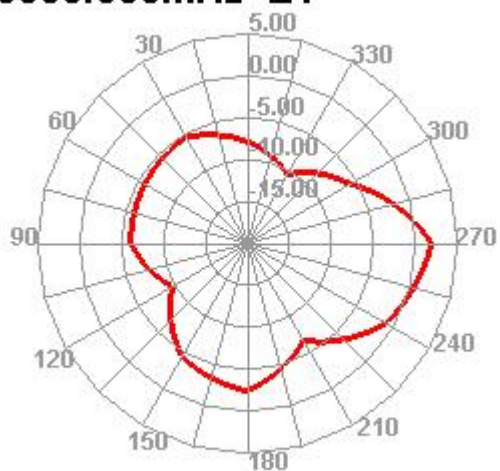
5850.000MHz



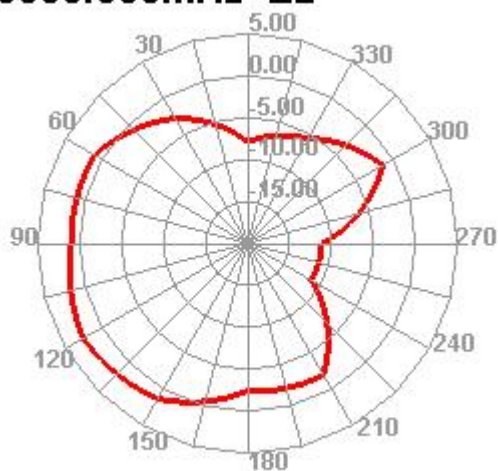
5850.000MHz H



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: $35\pm 2^{\circ}\text{C}$ 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