

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____

Part NO. : _____ EWF001.D2B01B. SMAMF

Write By: _____ Damon Cui

Issued Date: _____ 2024.12.30

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
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	/
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

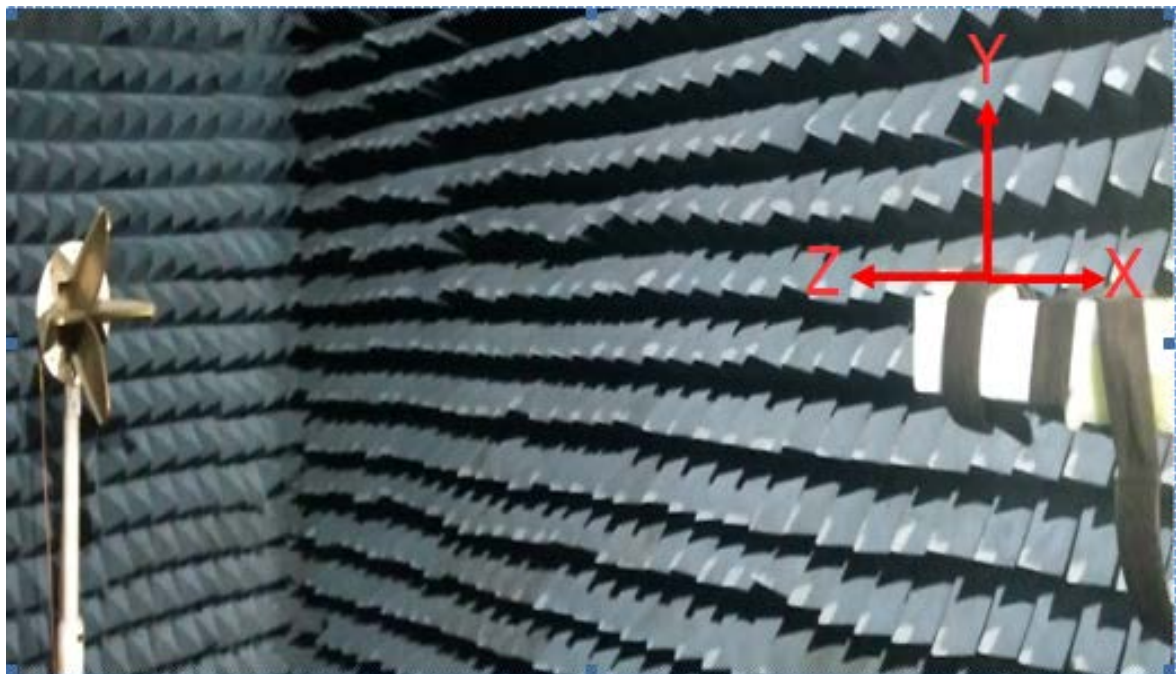
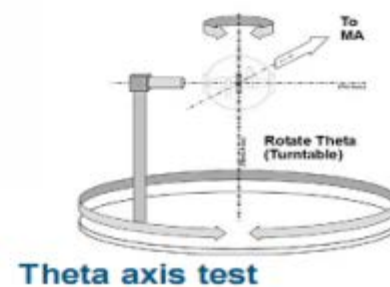
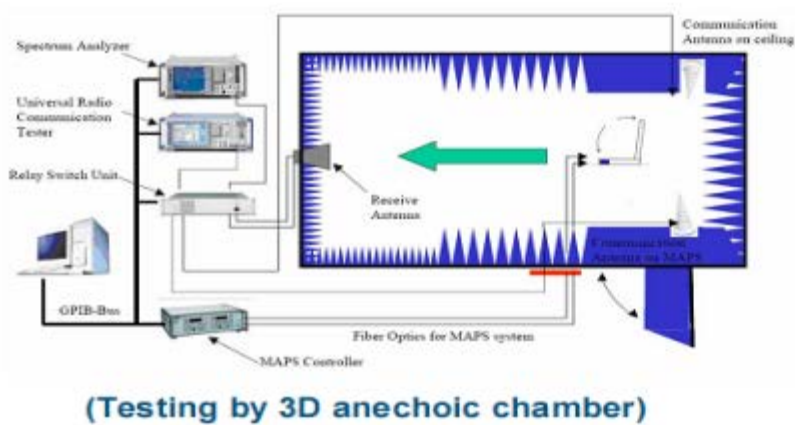
1. Network Analyzers :

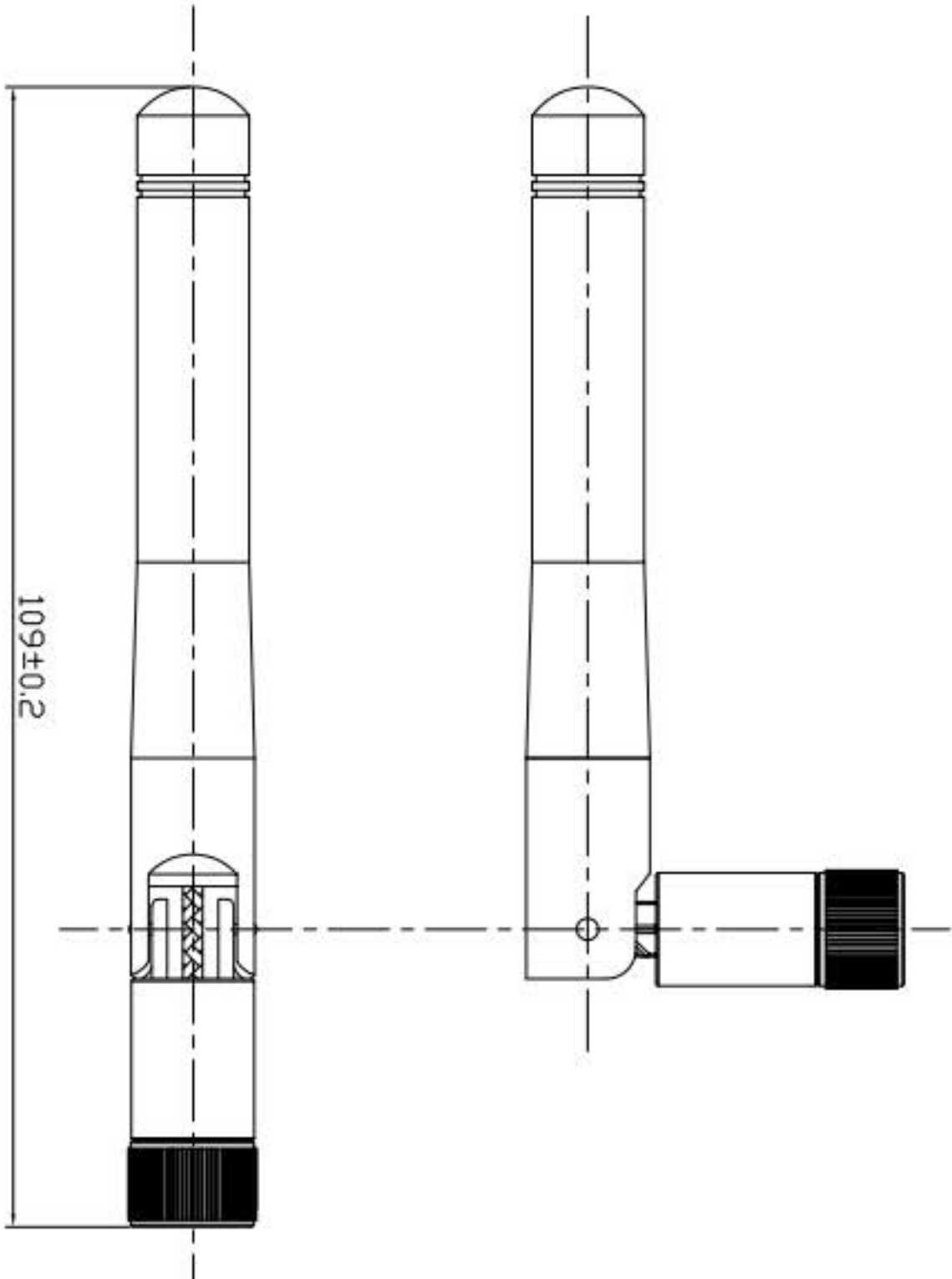
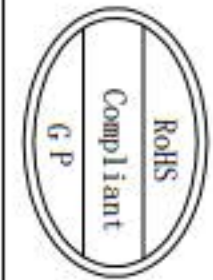
Agilent 8753D 5071B

Communications Test Set:

Agilent E5515C CMW500

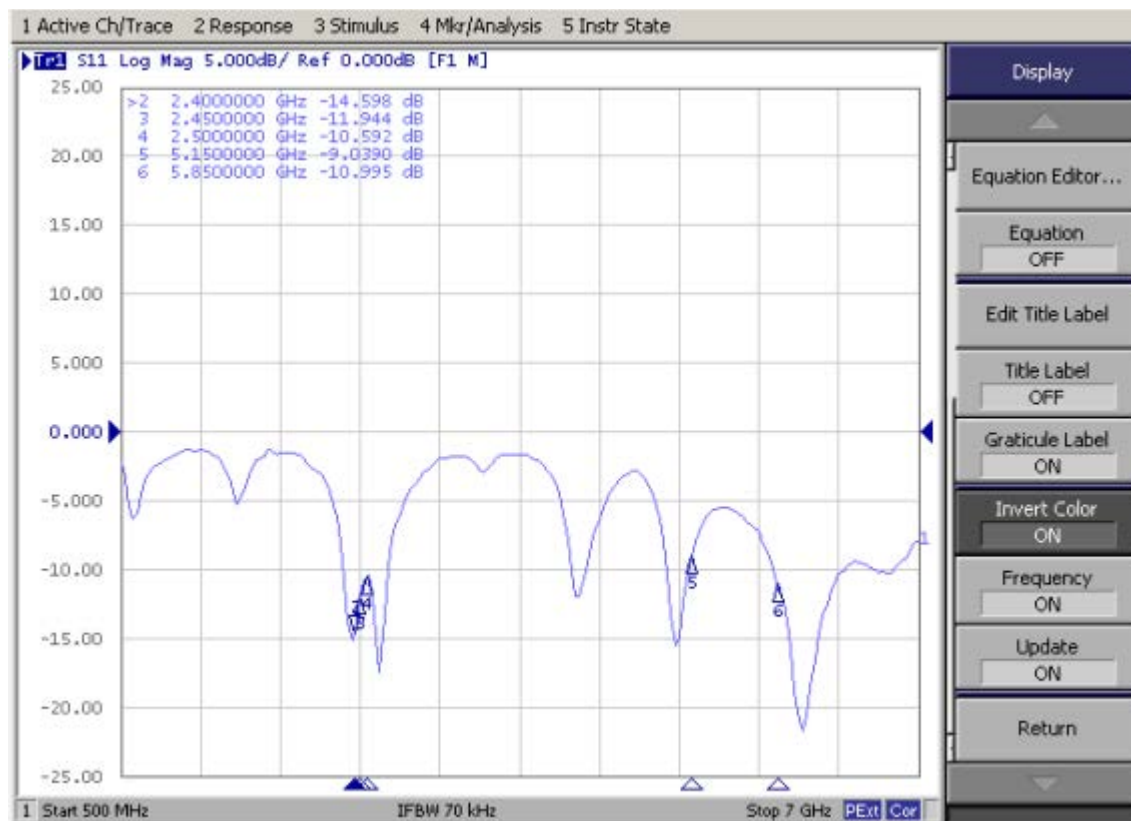
2. 3D Chamber Test System



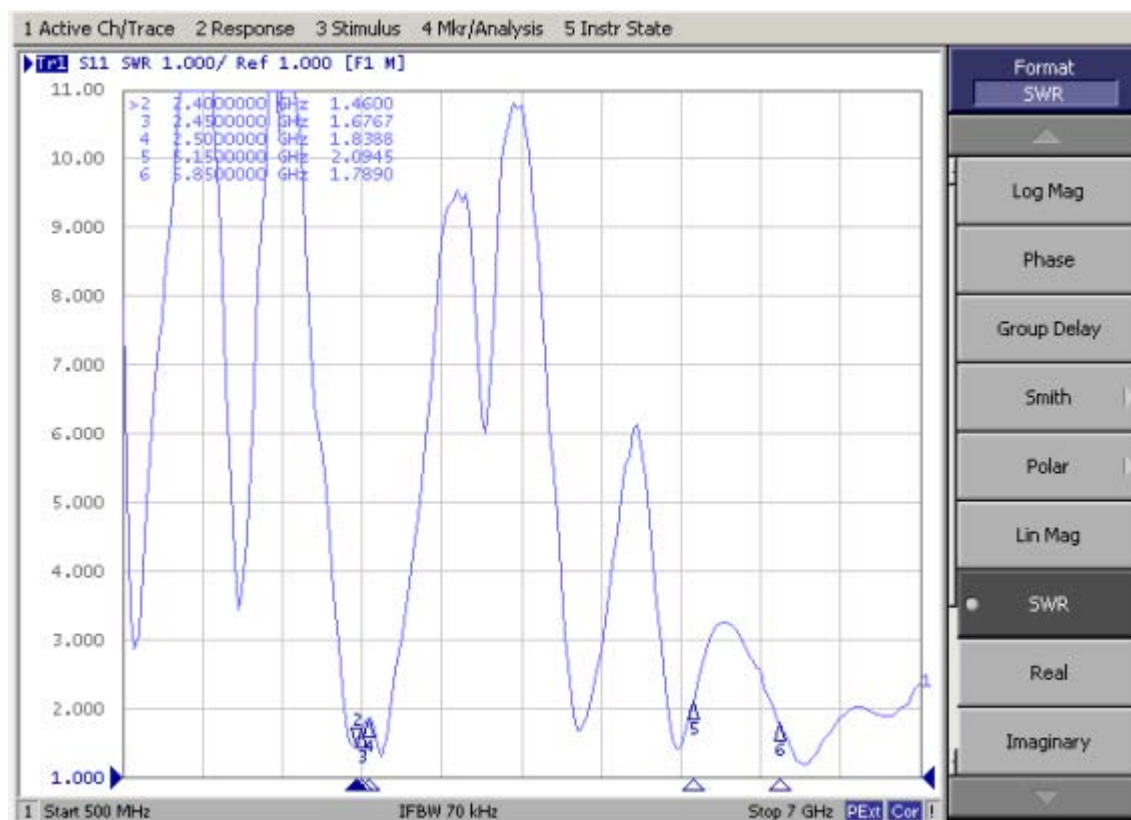


SHEN ZHEN SKYlink CO.,LTD		Project		Date		2024-07-10	
		Third Angle		Part Name		Designed by	
0~10		±0.05		○		0.02	
10~18		±0.10		◎		ø0.03	
18~30		±0.12		⊥		0.02	
30~40		±0.15		∇		0.04	
40~		±0.20		Angle		±0.5°	
Location		Part No.		Material		Checked by	
		FWF001.D2B01B.SMAMF				MD	
DWG No.		Approved by		RF			
Unit		mm		Scale		1:1	
Rev		Description		Date		Rev	
A		New drawing					
1		2		3		4	

◆ Return Loss



◆ VSWR

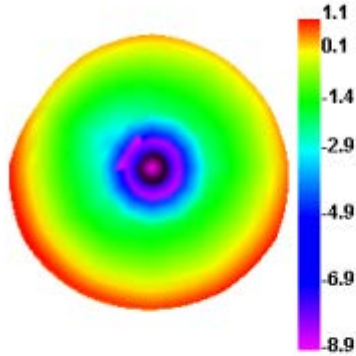


◆ Gain & Efficiency

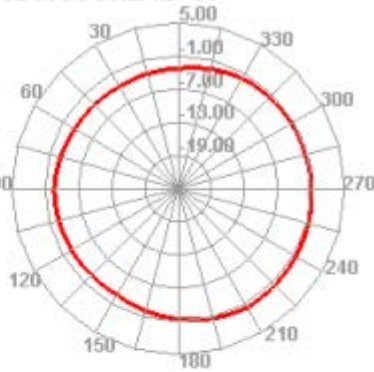
Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	56.15	1.07	5150	49.38	1.73
2410	60.04	1.27	5200	48.3	0.91
2420	65.02	1.42	5250	51.88	0.54
2430	66.52	1.31	5300	55.62	0.45
2440	62.62	0.82	5350	58.14	0.93
2450	58.8	0.33	5400	60	0.86
2460	58.49	0.12	5450	56.85	0.61
2470	60.75	0.21	5500	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

◆ Radiation Pattern

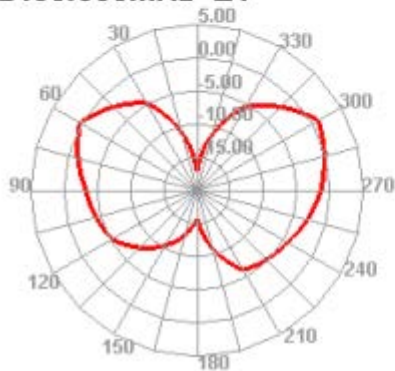
2400.000MHz



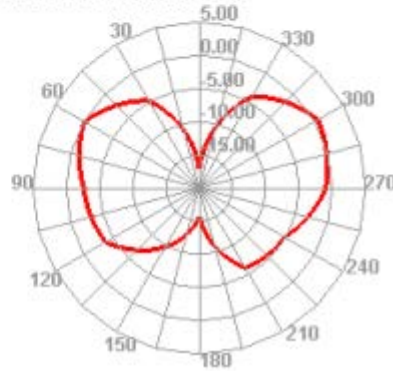
2400.000MHz H



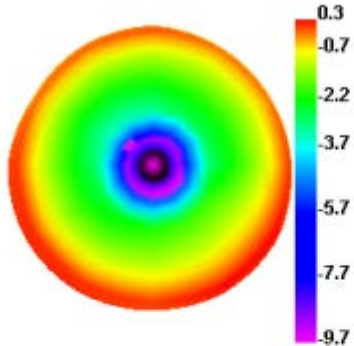
2400.000MHz E1



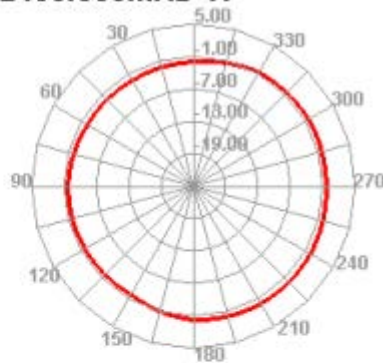
2400.000MHz E2



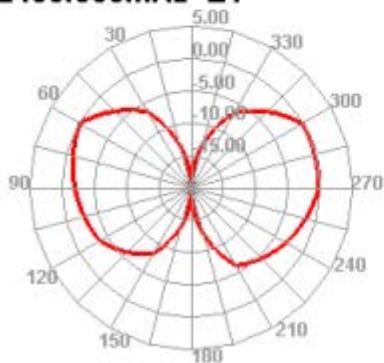
2450.000MHz



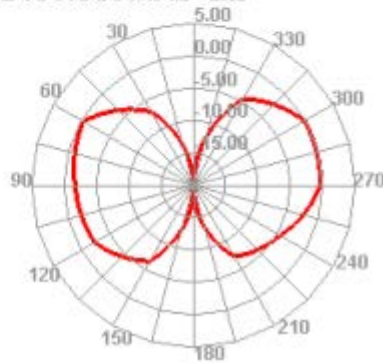
2450.000MHz H



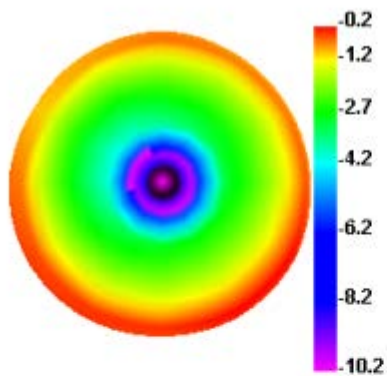
2450.000MHz E1



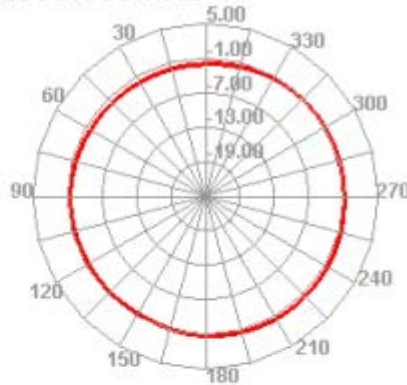
2450.000MHz E2



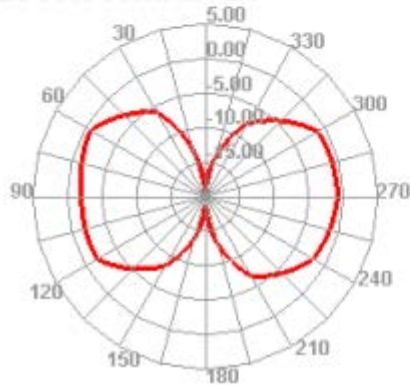
2500.000MHz



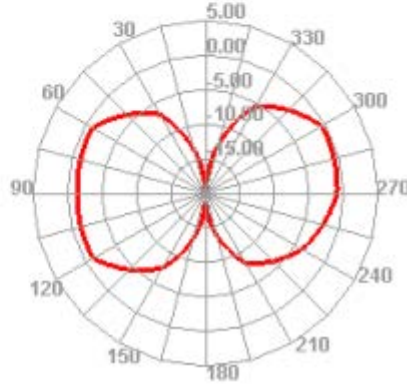
2500.000MHz H



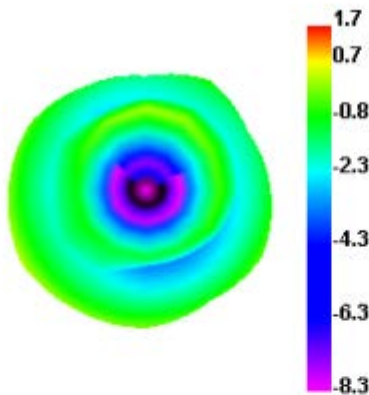
2500.000MHz E1



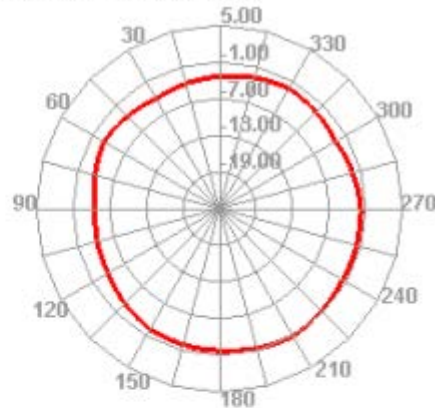
2500.000MHz E2



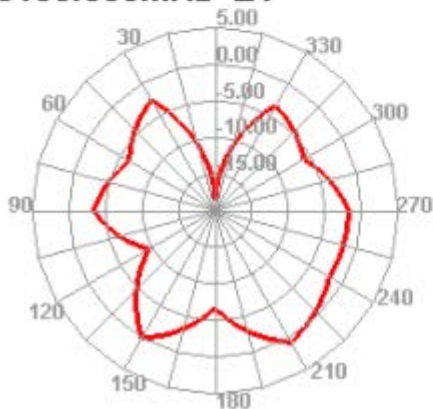
5150.000MHz



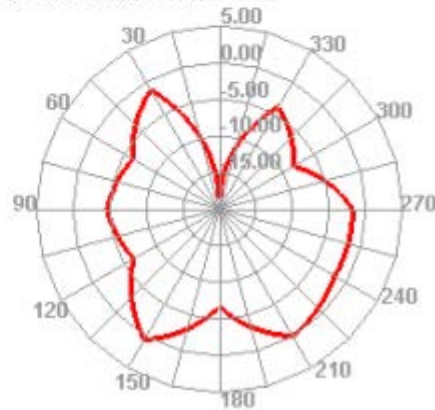
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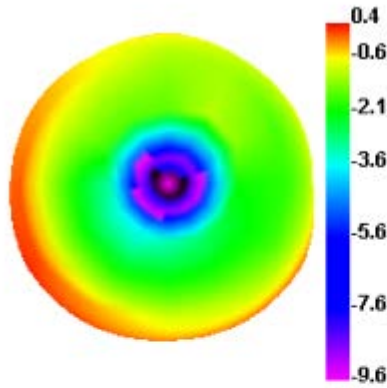
5150.000MHz E1



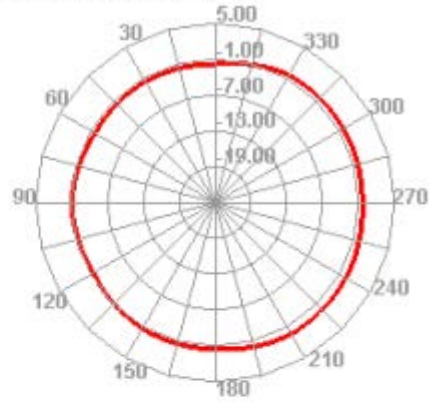
5150.000MHz E2



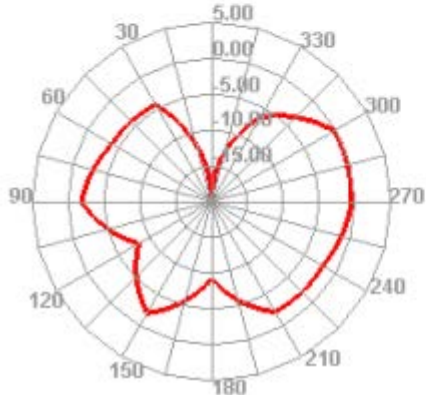
5500.000MHz



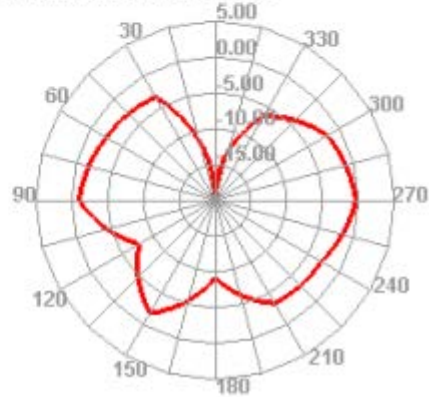
5500.000MHz H



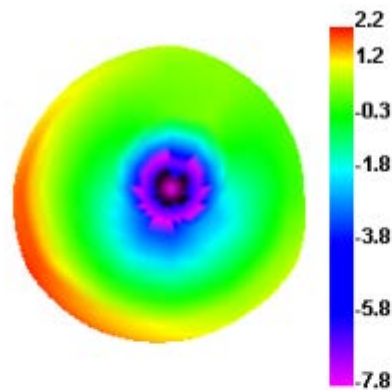
5500.000MHz E1



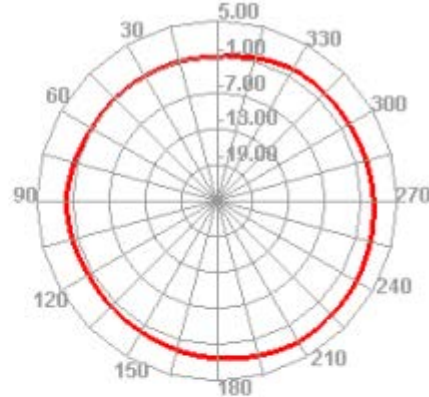
5500.000MHz E2



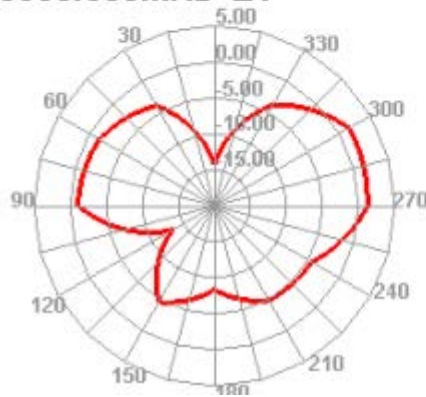
5850.000MHz



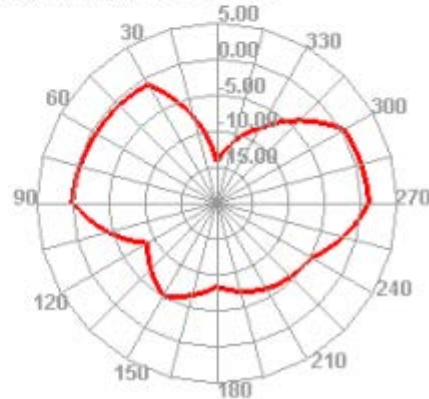
5850.000MHz H



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-Spray6 pray Test	Placing antenna in the Salt-Spray Tester ,set the test condition , Temp: 35±2℃ Humidity: 85% NaCl saltspray :5 ±1 %.PH value :6.5~7.2 Test time:24hours	Salt-Spray Tester	No color change No appear rusting	PASS