
Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name: _____

Product Name: _____ NES WIFI Antenna

Part NO. : _____ WF80H. C113. 380B. 1

Write By: _____ Damon Cui

Issued Date: _____ 2026. 04. 26

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	<3.0
Efficiency	>40%
Peak Gain	2.4G:2.83 dBi 5.8G: 3.81dBi
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

● Test Equipment & Conditions

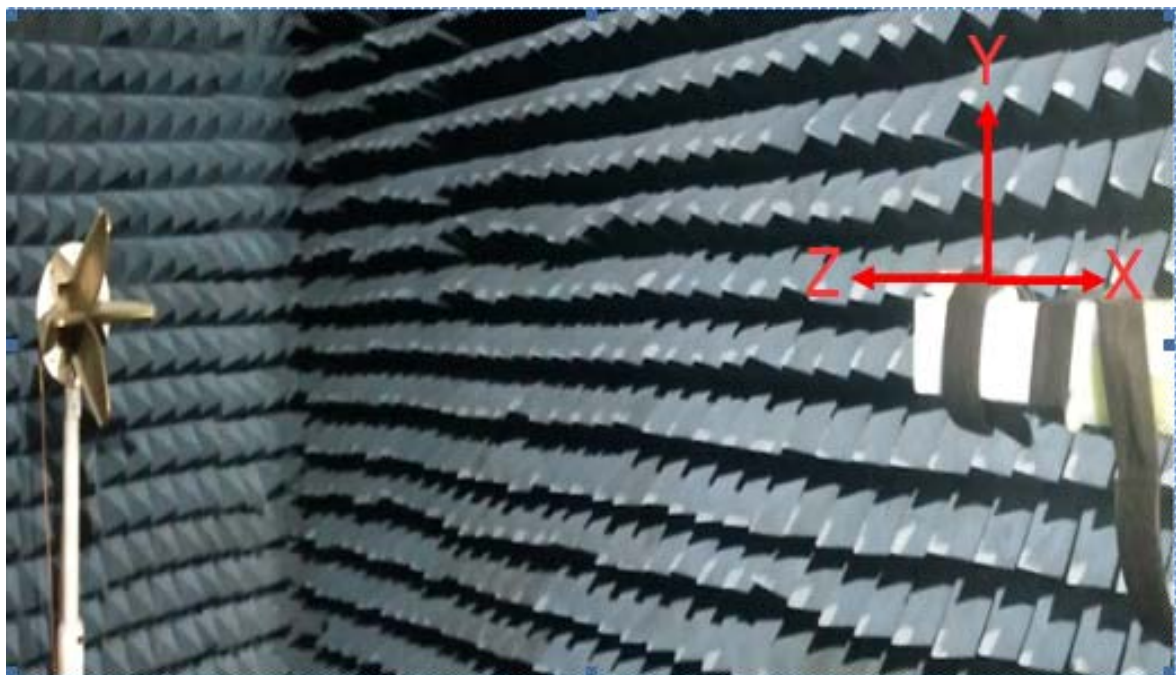
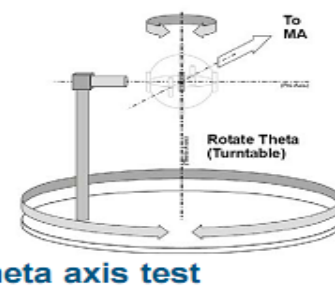
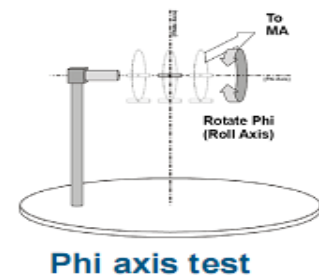
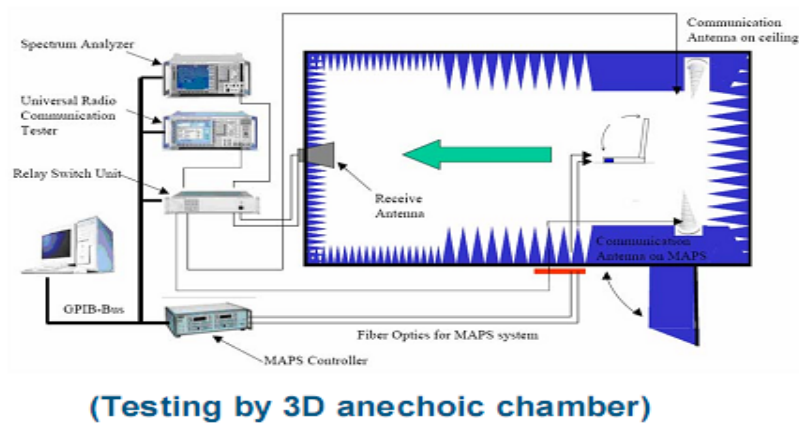
1. Network Analyzers :

Agilent 8753D 5071B

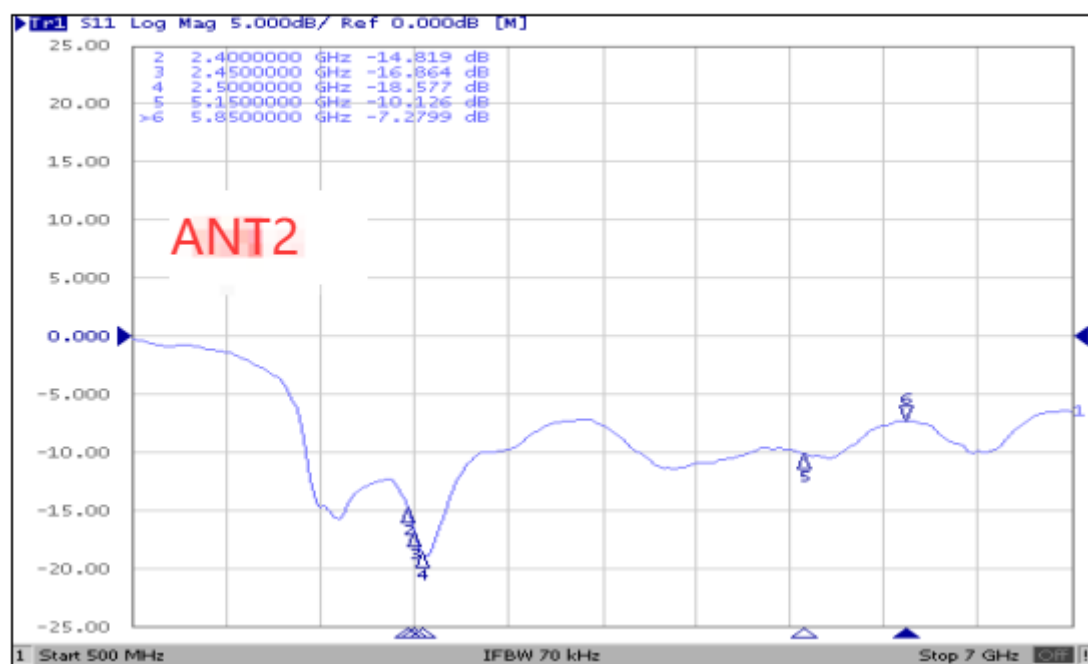
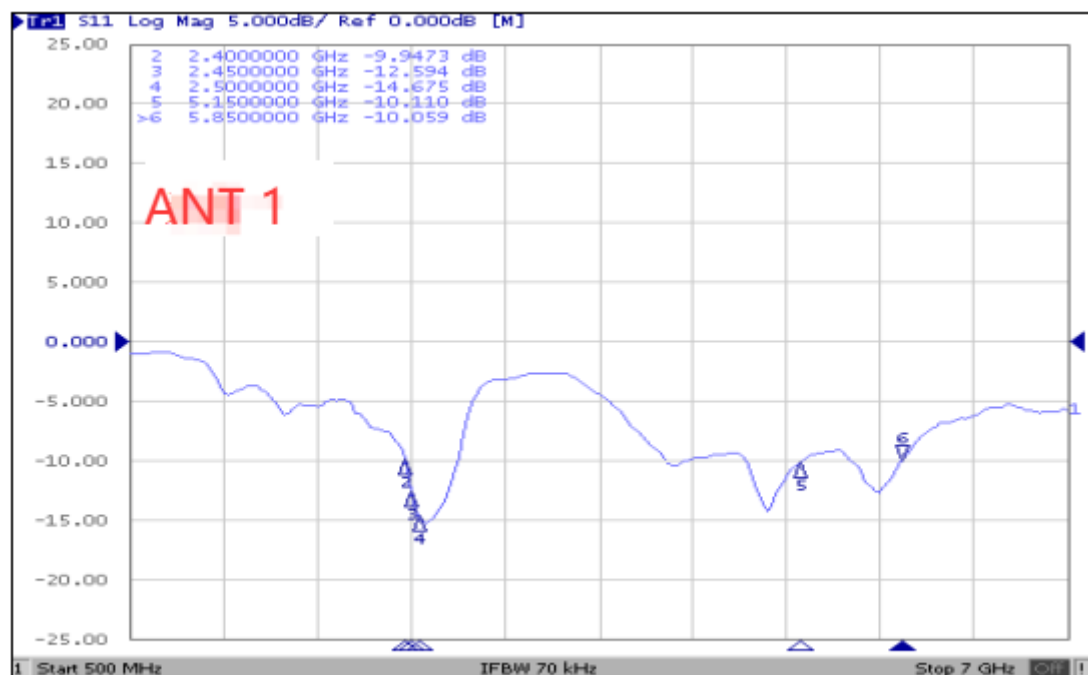
Communications Test Set:

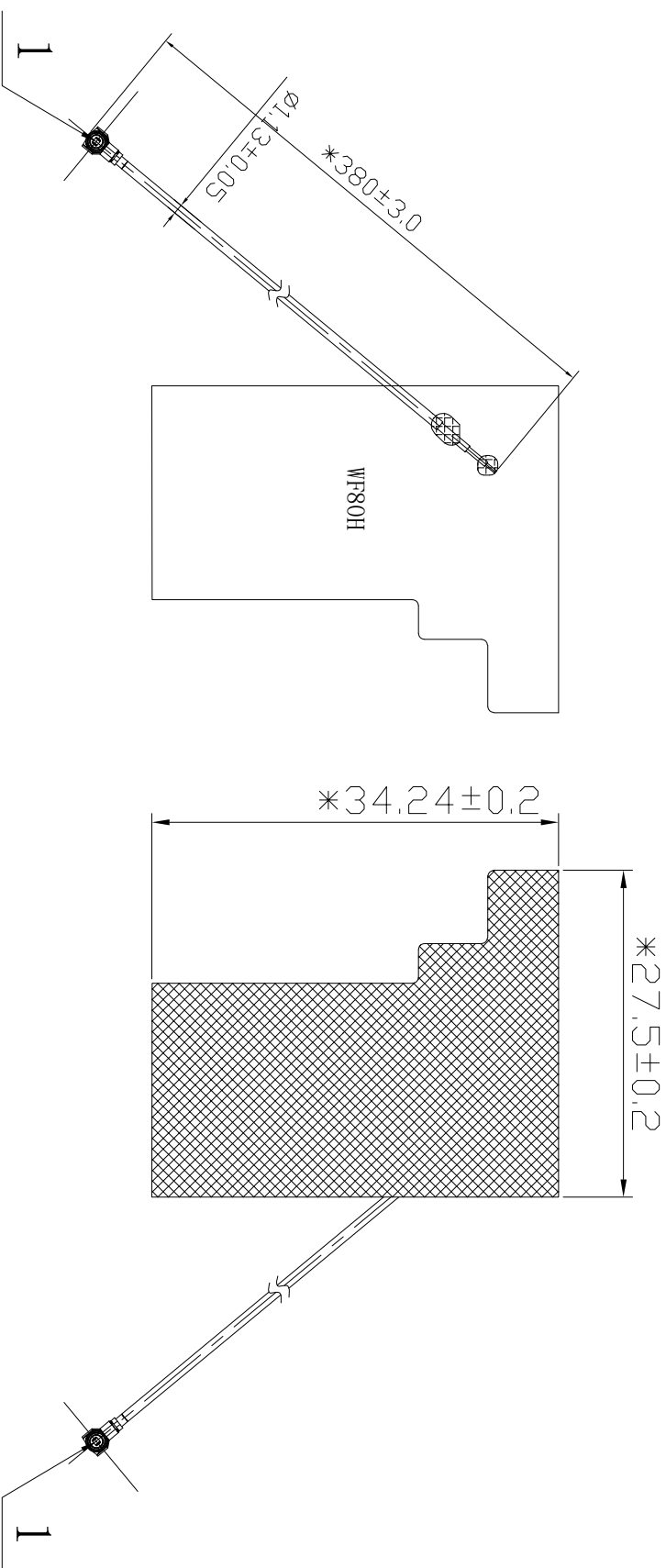
Agilent E5515C CMW500

2. 3D Chamber Test System



◆ Return Loss





SHEN ZHEN SKYlink CO., LTD										
		Third Angle		Project	Date		2026-04-27			
				Part Name	Designed by					
0~10		±0.05		○	0.02					
10~18		±0.10		◎	Ø.03					
18~30		±0.12		⊥	0.02					
30~40		±0.15		∇	0.04					
40~		±0.20		Angle	±0.5°					
Location				DWG No.			Unit	mm	Scale 1:1	Rev A
Rev	Description	Date	Remark							
A	New drawing									

● TRP &TIS

A 模 54M

Test	Wifi 5G TRP			Test	Wifi 5G TIS		
Result	36	149	165	Result	36	149	165
Frequency (MHz)	5180	5745	5825	Frequency (MHz)	5180	5745	5825
TRP (dBm)	11.73	12.97	12.56	TIS (dBm)	-70.73	-69.9	-70.74

B 模 11M

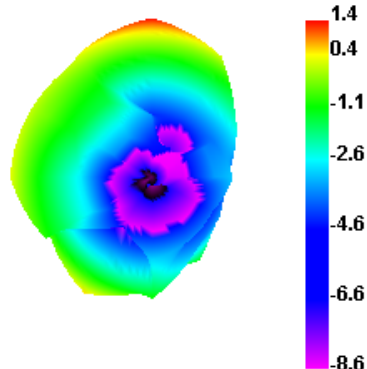
Test	Wifi 2G TRP			Test	Wifi 2G TIS		
Result	1	6	11	Result	1	6	11
Frequency (MHz)	2412	2437	2462	Frequency (MHz)	2412	2437	2462
TRP (dBm)	12.03	12.08	11.44	TIS (dBm)	-78.01	-69.54	-79.54

N 模 MCS7

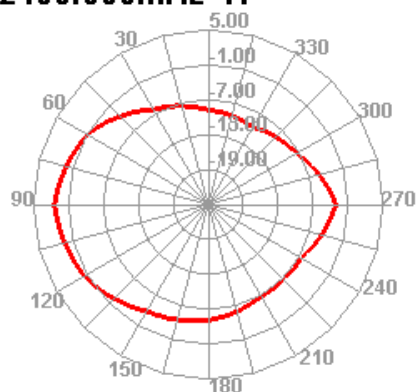
Test	Wifi 2G TRP			Test	Wifi 2G TIS		
Result	1	6	11	Result	1	6	11
Frequency (MHz)	2412	2437	2462	Frequency (MHz)	2412	2437	2462
TRP (dBm)	11.48	12.09	11.59	TIS (dBm)	-66.2	-53.74	-68.88

◆ Radiation Pattern

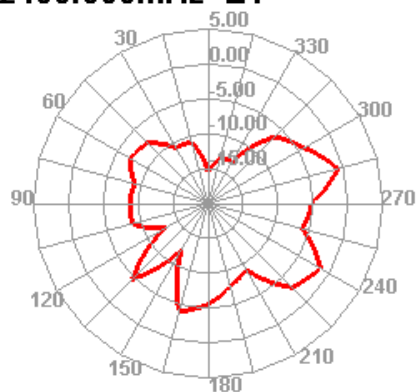
2400.000MHz



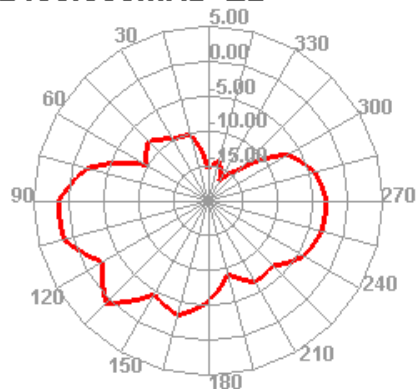
2400.000MHz H



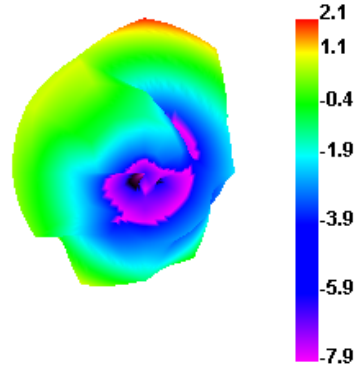
2400.000MHz E1



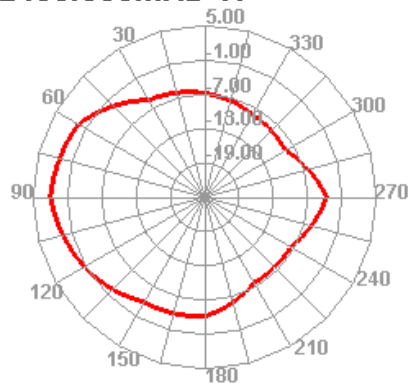
2400.000MHz E2



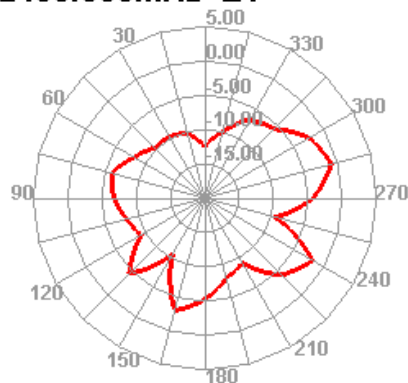
2450.000MHz



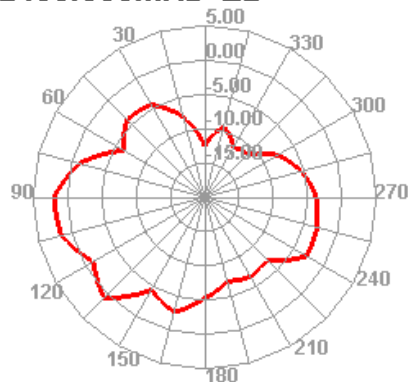
2450.000MHz H



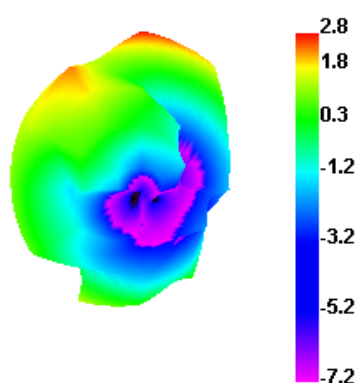
2450.000MHz E1



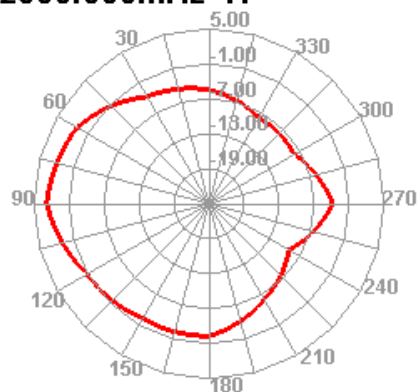
2450.000MHz E2



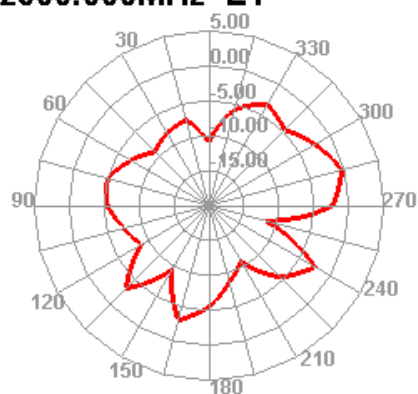
2500.000MHz



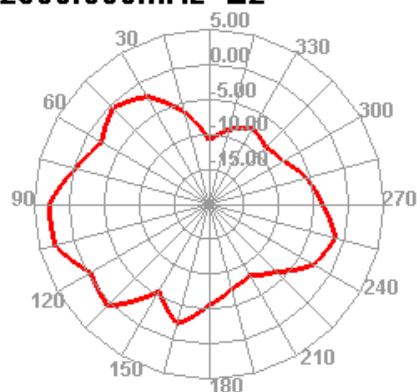
2500.000MHz H



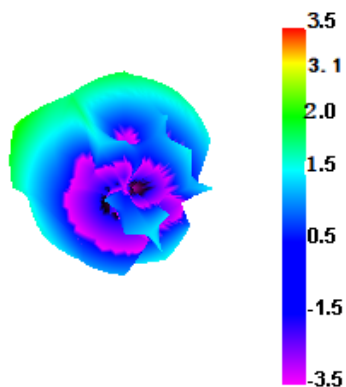
2500.000MHz E1



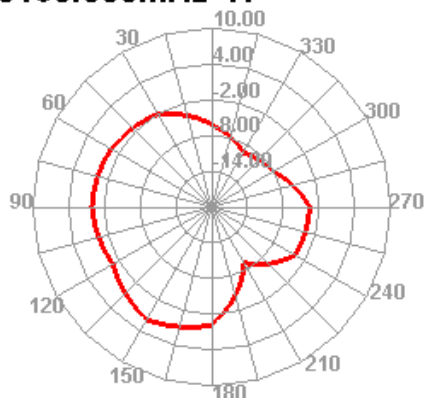
2500.000MHz E2



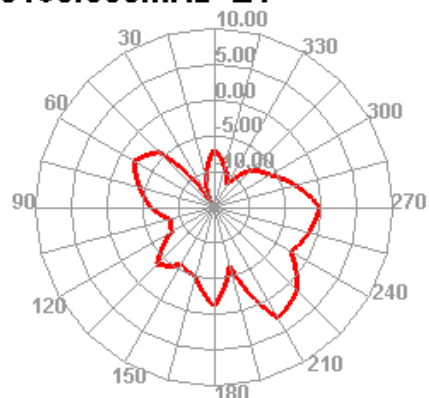
5160.000MHz



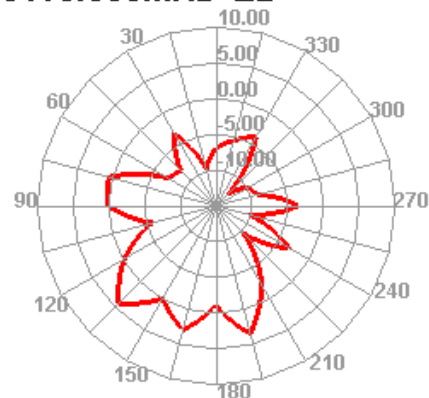
5160.000MHz H



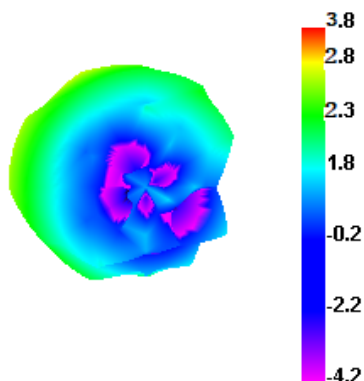
5160.000MHz E1



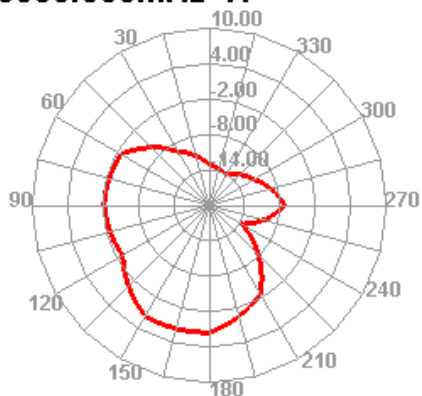
5160.000MHz E2



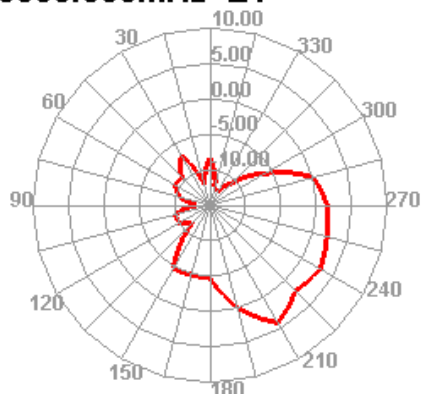
5500.000MHz



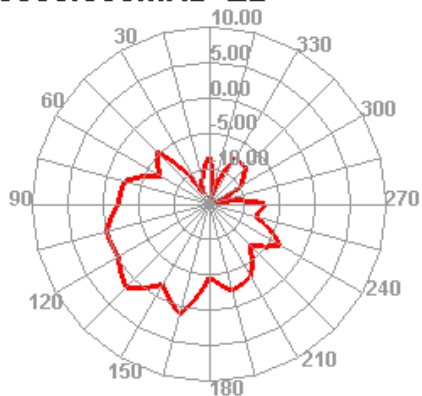
5500.000MHz H



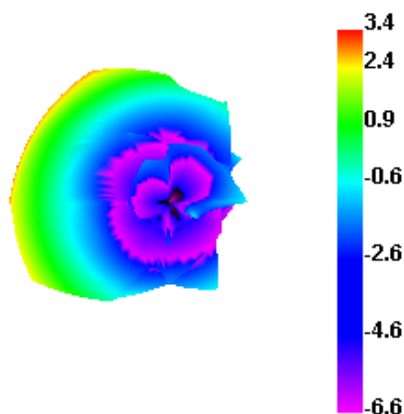
5500.000MHz E1



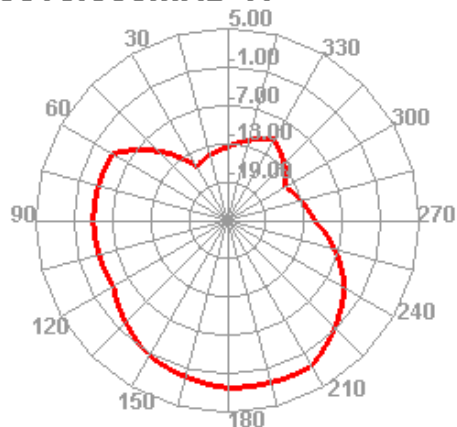
5500.000MHz E2



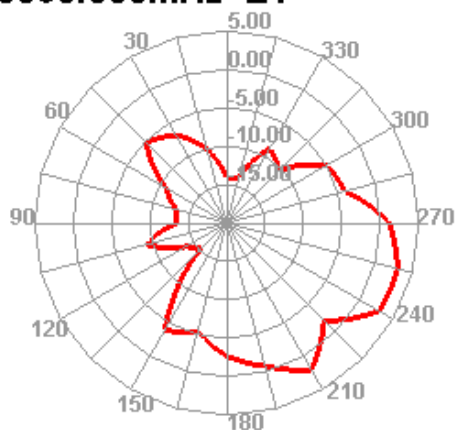
5860.000MHz



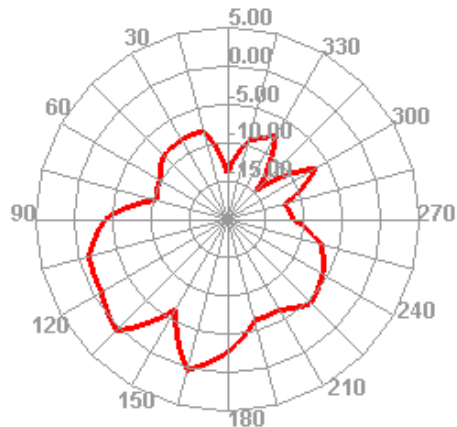
5860.000MHz H



5860.000MHz E1



5860.000MHz E2



◆ Gain & Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
2400	36.12	1.41	5160	58.91	3.52
2410	35.84	1.37	5200	47.12	3.73
2420	36.78	1.6	5300	42.86	3.25
2430	38.37	1.92	5400	57.54	3.08
2440	40.44	2.04	5500	51.2	3.81
2450	41.44	2.11	5600	48.93	3.37
2460	43.81	2.26	5700	43.26	3.54
2470	43.81	2.22	5800	49.27	3.61
2480	45.38	2.54	5860	39.96	3.42
2490	48.1	2.79			
2500	50.37	2.83			

◆ 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