

Specification For Approval

Data: 2025.02.18

Version: v1.0

Customer: /

Customer P/N: /

Supplier P/N: F00100010086

XGimi P/N: 409-00235-001

Description:

Silk Screen Printing: 409-00235-001

XGimi Checked By: 席小凡
Customer Approved By:

Product Number: 409-00235-001
Prodict Name: Antenna

Revision Record

Data	person	Content	State	Version
2025.02.18	席小凡	初始发布	Released	1.0

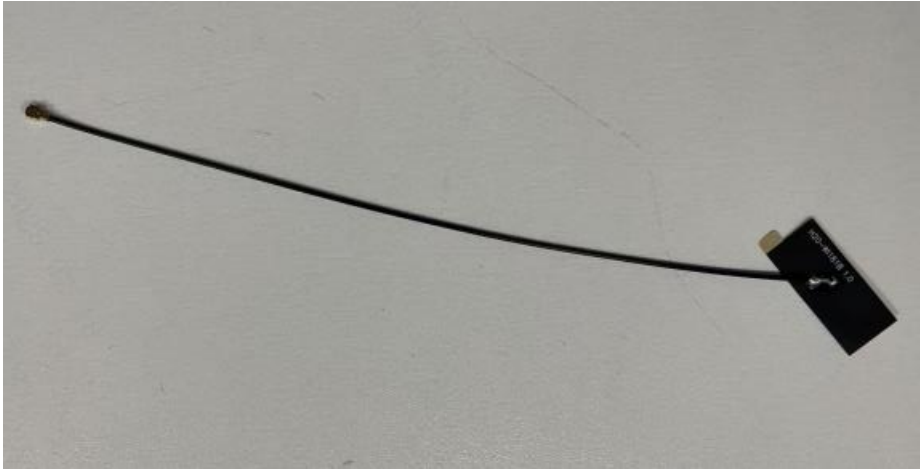
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Product Number: 409-00235-001

Product Name: Antenna

1. Specification

Sample Photo	
	
A.Electrical Characteristics	
Frequency	☐ 2400~2500Mhz ☐ 433Mhz ☐ 5150~5850Mhz ☒ 2400~2500Mhz&5150~5850Mhz
Impedance	50 Ohm
S.W.R.	≤2.0
Antenna Type	FPC
Antenna Gain	2.4G: 0.98dBi, 5G: 5.55dBi
Antenna Size	43*10*181mm
Max Input Power	2W
Polarization	Linear
Radiation pattern	Omni-Directional
B.Material&Mechanical Characteristics	
Material of Radiator	Cu
Cable Type	O.D.1.13mm(Black)
Cable Length	181mm
Connector Type	I-pex (the first Generation)
Connector Pull Test	0.5Kg
C.Environmental	
Operation Temperature	- 40℃~ + 80℃
Storage Temperature	- 40℃~ + 80℃

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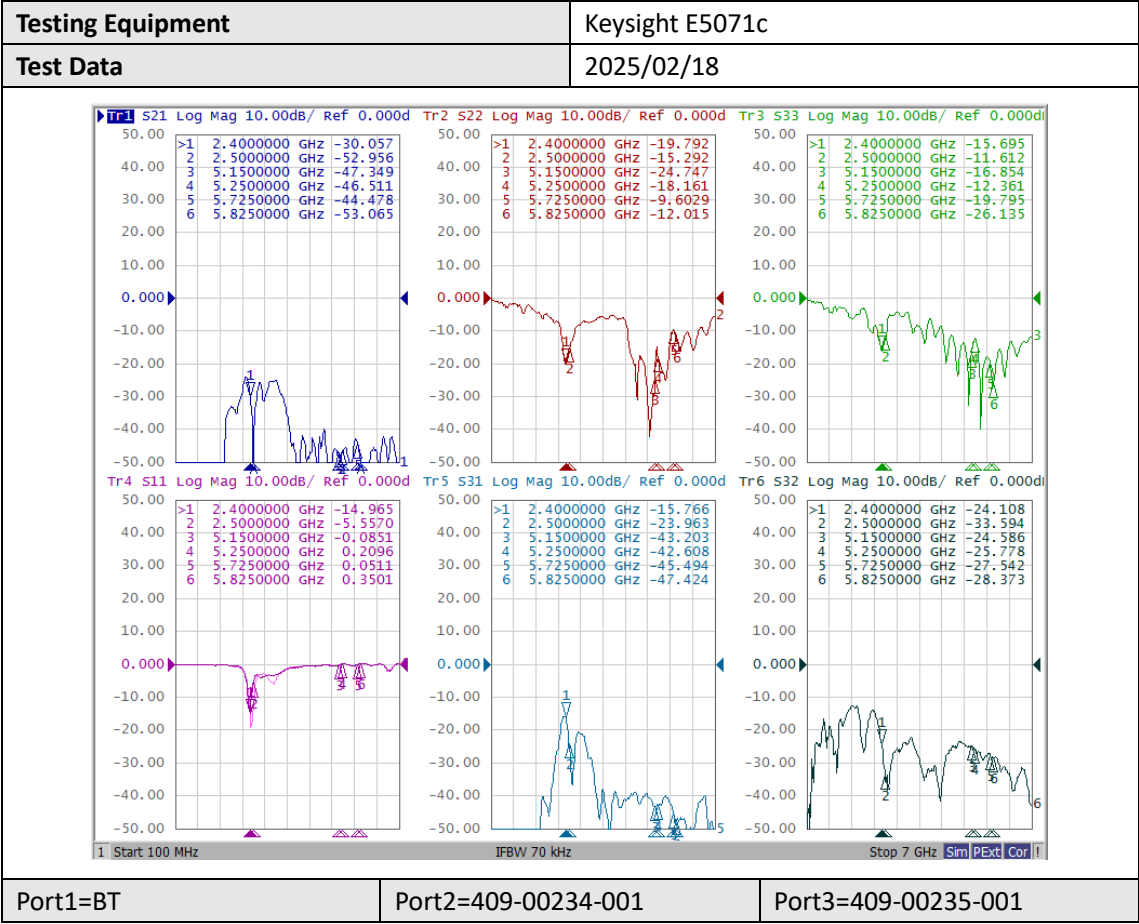
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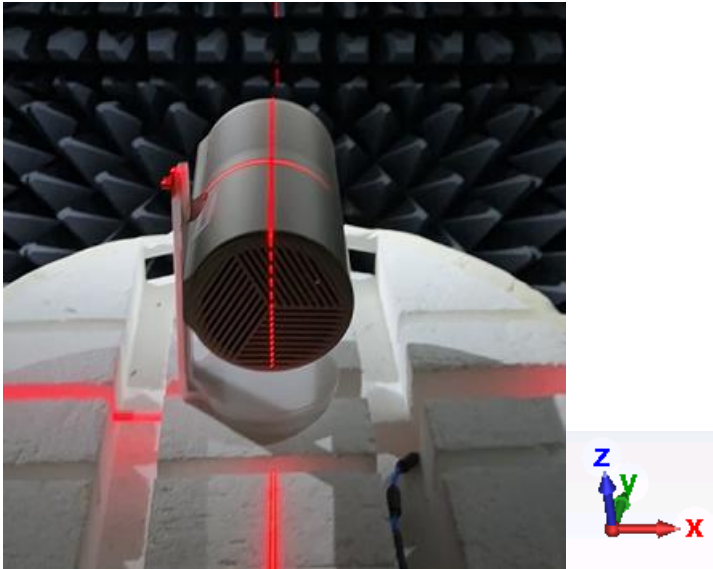
2. Characteristics and Reliability Test

Test items		Test Condition and Procedure	Requirements
T1	S.W.R	Set DUT on Network Analyzer and make individual calibration to test	Meet XGIMI Antenna specification
T2	Antenna Gain	Set DUT on Antenna Chamber and make individual calibration to test	Meet XGIMI Antenna specification
M1	Terminal- Pull Test	MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal	1. Meet XGIMI Antenna specification 2. Frequency Tol.<=5%
M2	Welding Spot-Pull Test	Normal temperature and humidity force applied to axis of terminal Pulling force=3kg, keep 3 seconds	1. welding Spot has no damaged
E1	Salt Spray	Temp:35℃;RH:93%±3%; NaCl solution proportion:1.026~1.041; Time:12hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.≤5%
E2	Thermal Shock	One Cycle: -40℃ (30 minutes)to +80℃ (30 minutes) Cycles: 24.	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.≤5%
E3	Life(High Temp.)	MIL-STD-202G, 108A,cond. A Temp: 80℃; Time: 8 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<=5%

3. Antenna S-parameter Test Data

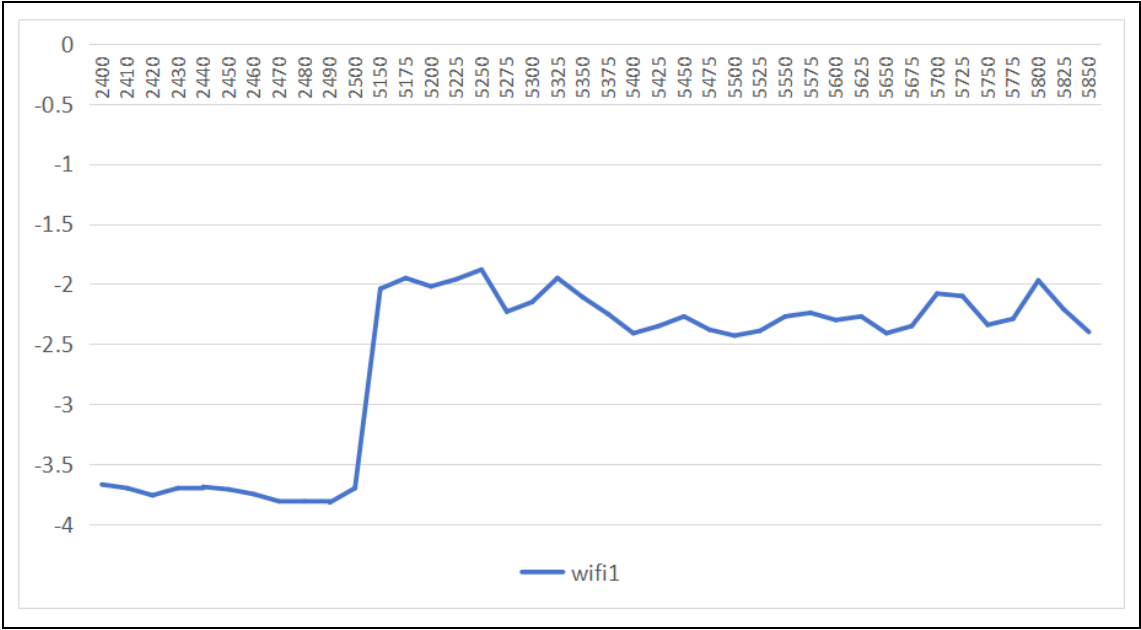


4. Antenna Radiation Pattern Test Data

Chamber Specification	
Absorption Darkroom	GTS 2800
Testing Equipment(passive)	Keysight E5080b
Testing Equipment(active)	R&S CMW270
Testing Equipment(Throughput)	Asus RT-AX88U
	
Position&Coordinate System	
	

4.1. Peak Gain and Efficiency

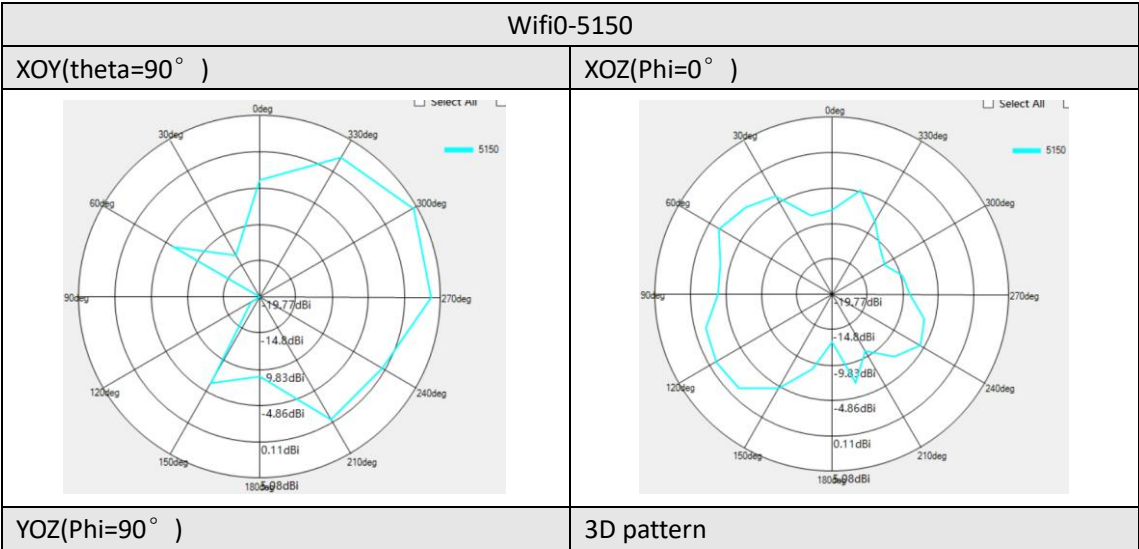
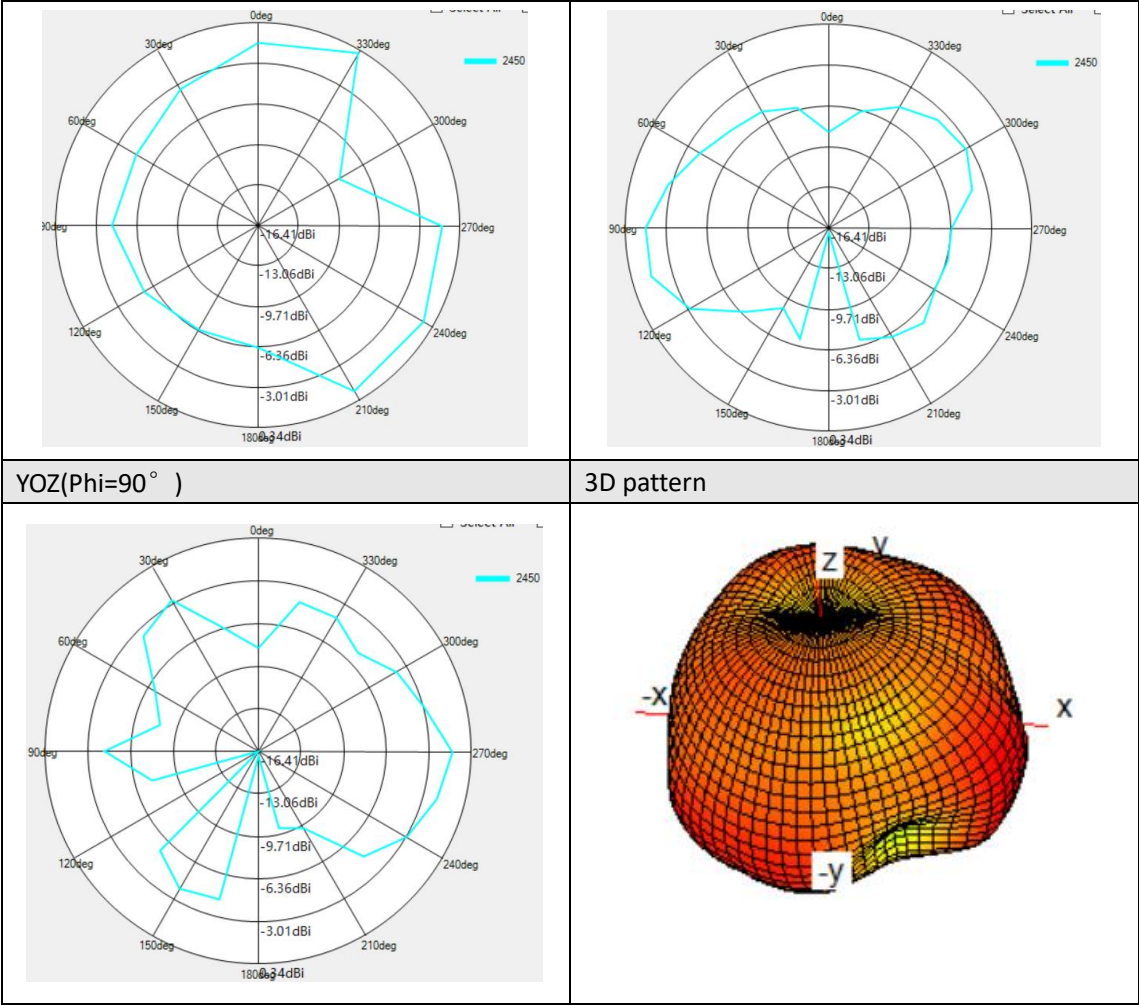
Freq.(Mhz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain(dB)	0.98	0.85	0.69	0.57	0.49	0.34	0.19	0.08	-0.07	-0.15	0.07
Efficiency(dB)	-3.67	-3.7	-3.76	-3.7	-3.69	-3.71	-3.75	-3.81	-3.81	-3.82	-3.7
Freq.(Mhz)	5150	5175	5200	5225	5250	5275	5300	5325	5350	5375	5400
Peak Gain(dB)	5.08	5.05	4.66	4.74	4.79	4.41	4.57	4.8	4.61	4.45	4.34
Efficiency(dB)	-2.04	-1.95	-2.02	-1.96	-1.88	-2.23	-2.15	-1.95	-2.11	-2.25	-2.41
Freq.(Mhz)	5425	5450	5475	5500	5525	5550	5575	5600	5625	5650	5675
Peak Gain(dB)	4.55	4.59	4.47	4.38	4.34	4.51	4.57	4.53	4.69	4.65	4.79
Efficiency(dB)	-2.35	-2.27	-2.38	-2.43	-2.39	-2.27	-2.24	-2.3	-2.27	-2.41	-2.35
Freq.(Mhz)	5700	5725	5750	5775	5800	5825	5850				
Peak Gain(dB)	5.13	5.16	4.98	5.13	5.55	5.51	5.39				
Efficiency(dB)	-2.08	-2.1	-2.34	-2.29	-1.97	-2.21	-2.4				



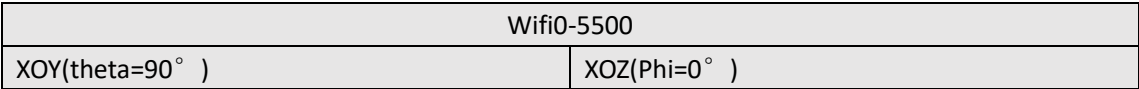
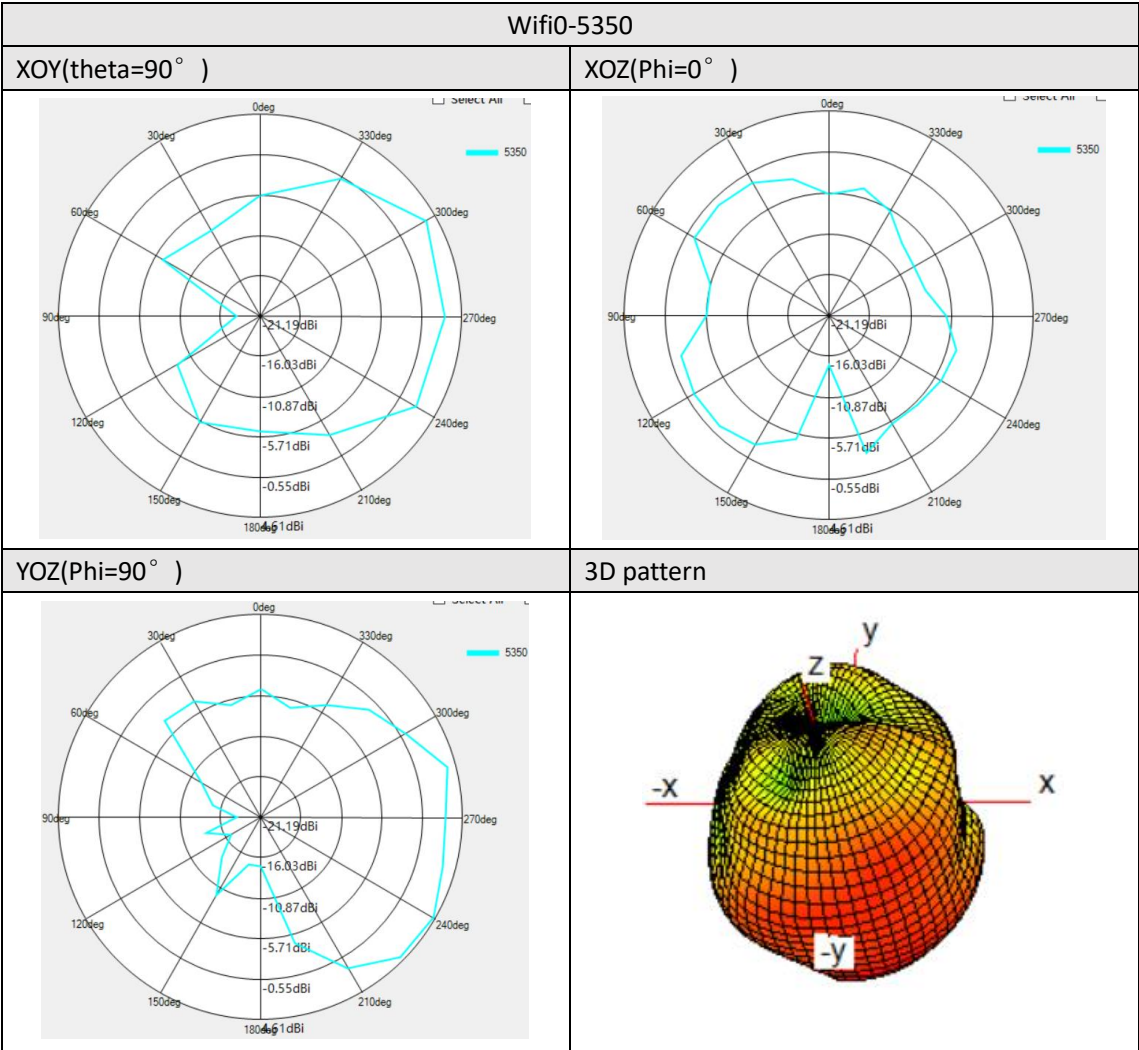
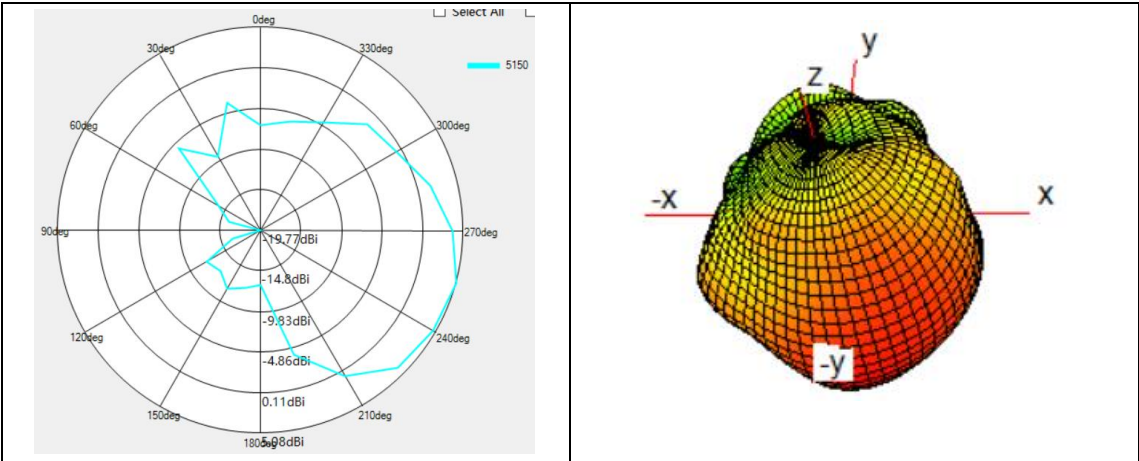
4.2. Radiation Pattern

Wifi0-2450	
XOY(theta=90°)	XOZ(Phi=0°)

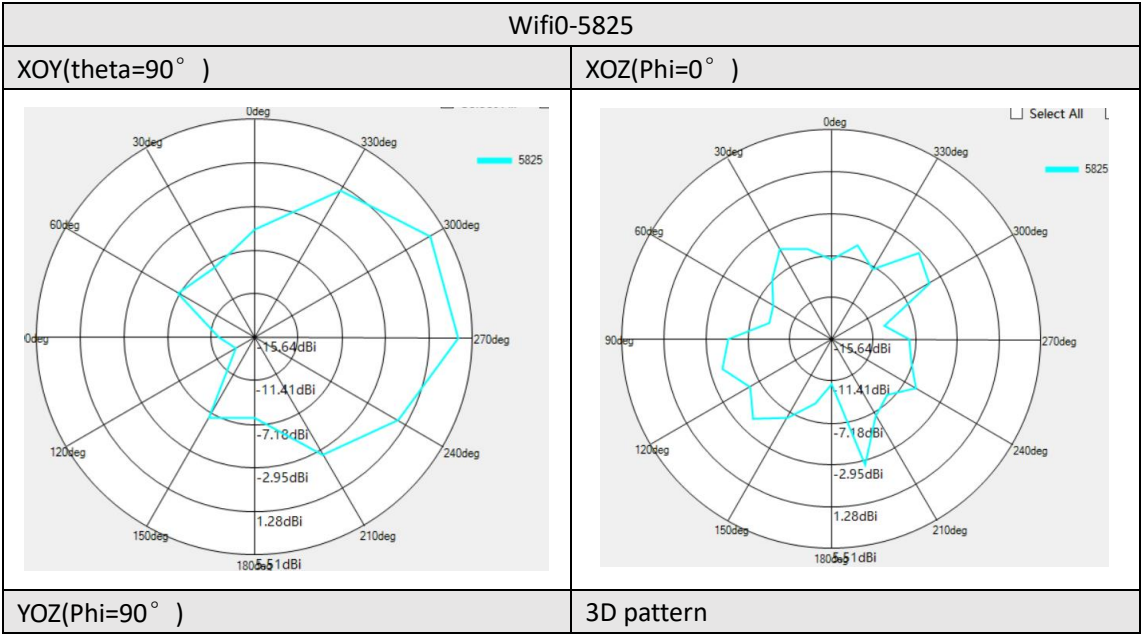
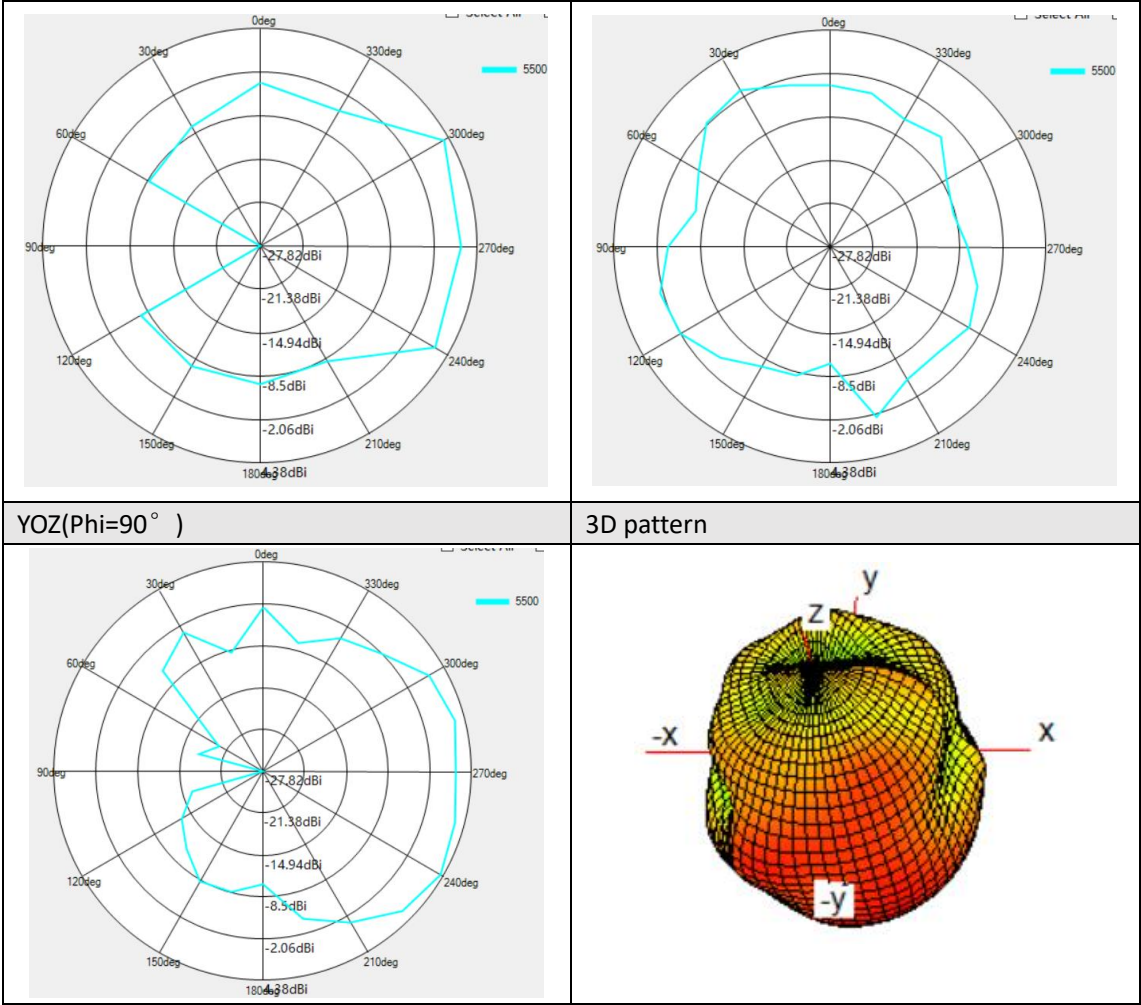
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