

Specification For Approval

Data: 2025.03.27

Version: v1.0

Customer: /

Customer P/N: /

Supplier P/N: F00100010110

XGimi P/N: 409-00241-001

Description:

Silk Screen Printing: 409-00241-001

XGIMI Checked By: 席小凡
Customer Approved By:

Product Number: 409-00241-001
Prodect Name: Antenna

Revision Record

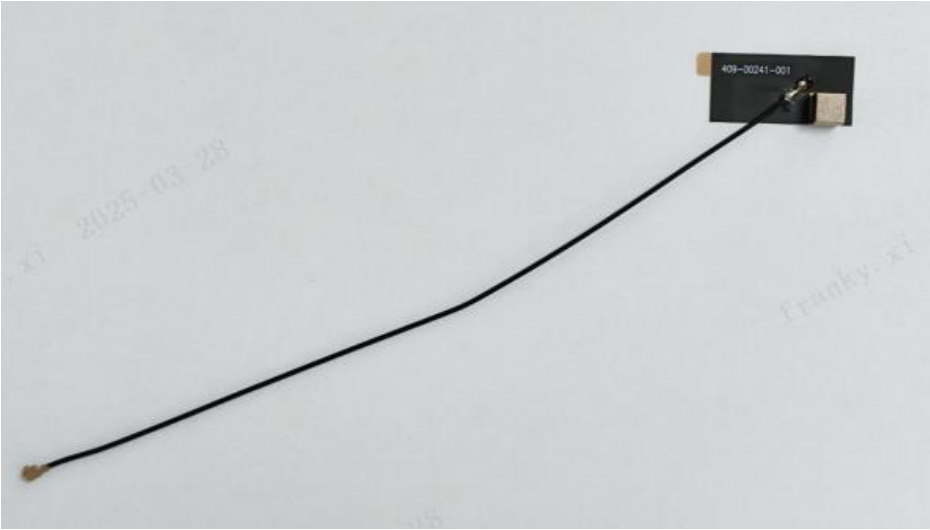
Data	person	Content	State	Version
2025.03.27	席小凡	初始发布	Released	1.0
2025.04.09	席小凡	修改增益详细说明	Released	1.1

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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	Dipole
Antenna Gain	2.4G: 0.9dBi; 5G: 7.8dBi
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	185mm
Connector Type	I-pex (the first Generation)
Connector Pull Test	0.5Kg
C.Environmental	
Operation Temperature	- 40℃~ + 80℃
Storage Temperature	- 40℃~ + 80℃

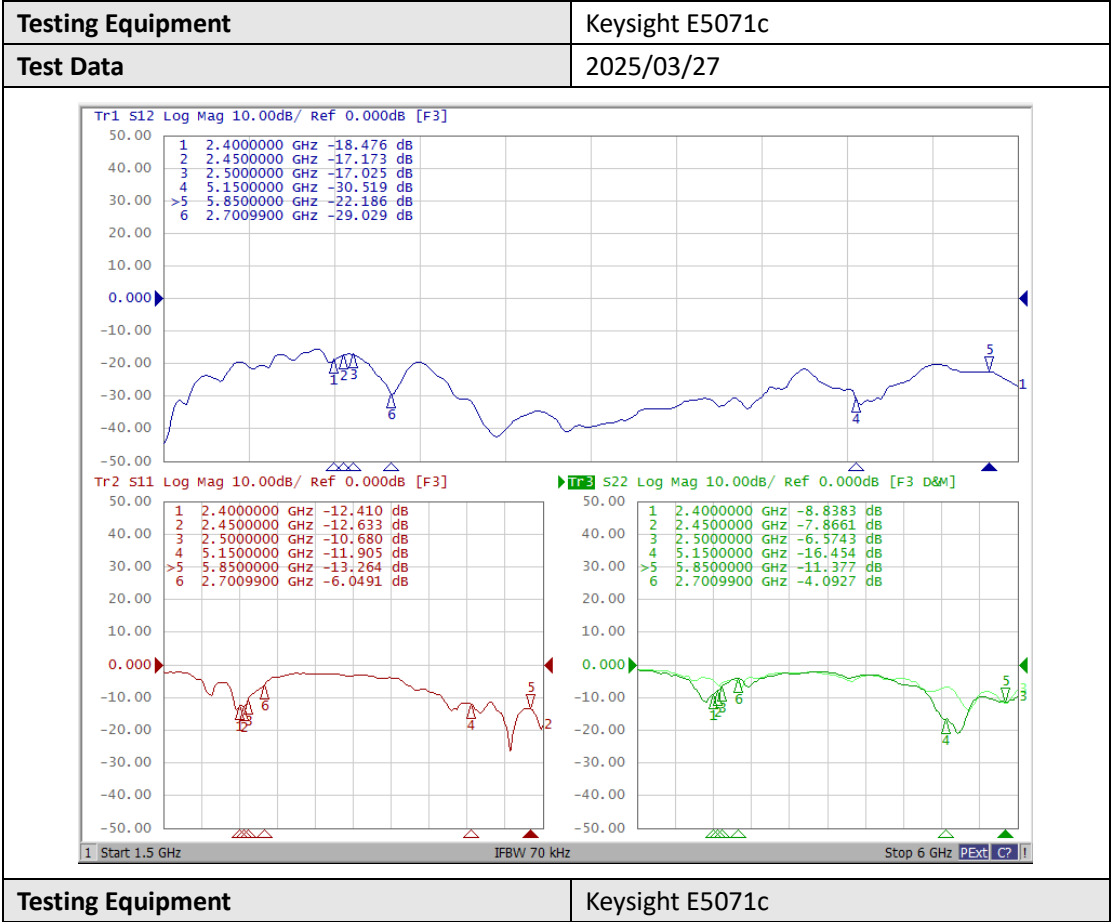
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2. Characteristics and Reliability Test

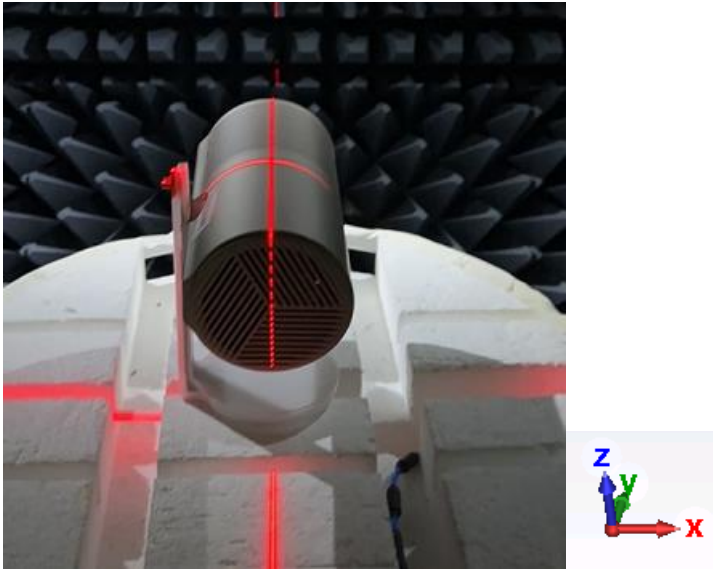
Test items		Test Condition and Procedure	Requirements
T1	S.W.R	Set DUT on Network Analyzer and make individual calibration to test	Meet XGIMI Antenna specification
T2	Antenna Gain	Set DUT on Antenna Chamber and make individual calibration to test	Meet XGIMI Antenna specification
M1	Terminal- Pull Test	MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal	1. Meet XGIMI Antenna specification 2. Frequency Tol. $\leq 5\%$
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°C ; RH: $93\% \pm 3\%$; NaCl solution proportion: 1.026~1.041; Time: 12 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$
E2	Thermal Shock	One Cycle: -40°C (30 minutes) to $+80^{\circ}\text{C}$ (30 minutes) Cycles: 24.	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$
E3	Life(High Temp.)	MIL-STD-202G, 108A, cond. A Temp: 80°C ; Time: 8 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$

3. Antenna S-parameter Test Data



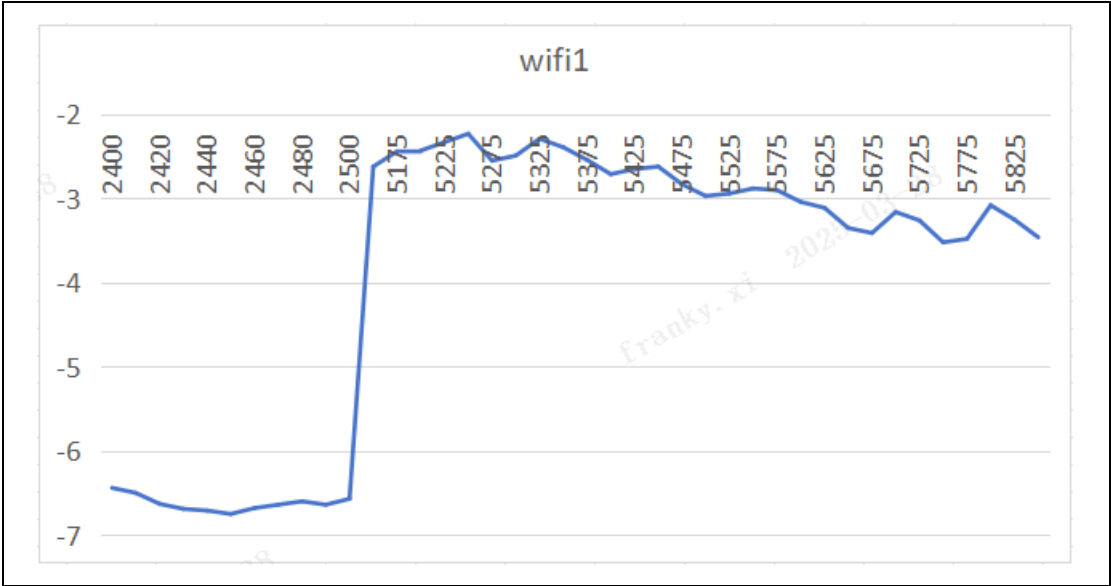
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4. Antenna Radiation Pattern Test Data

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

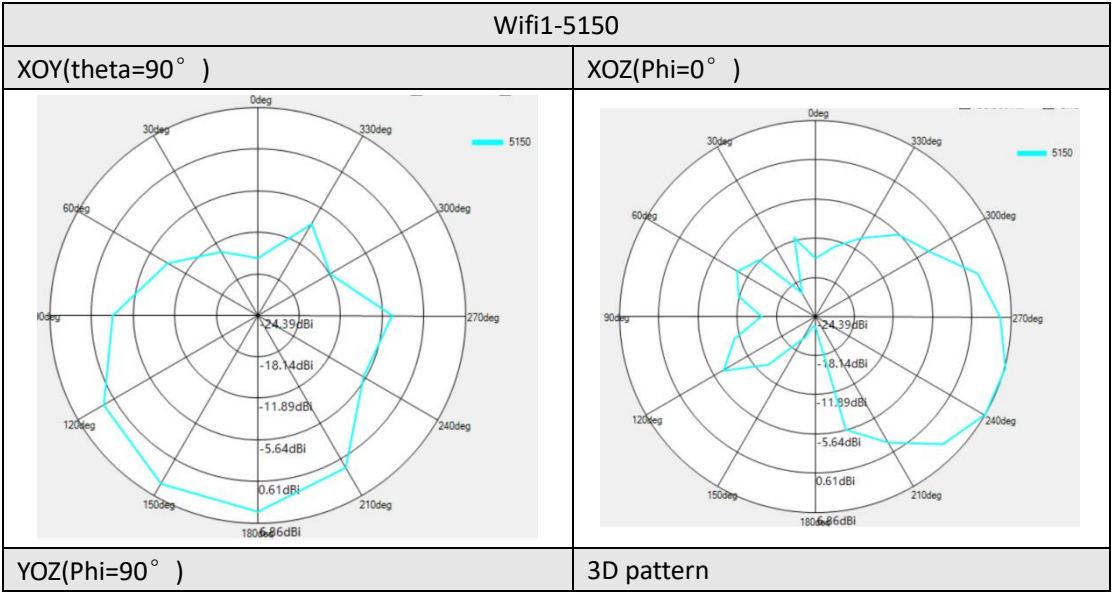
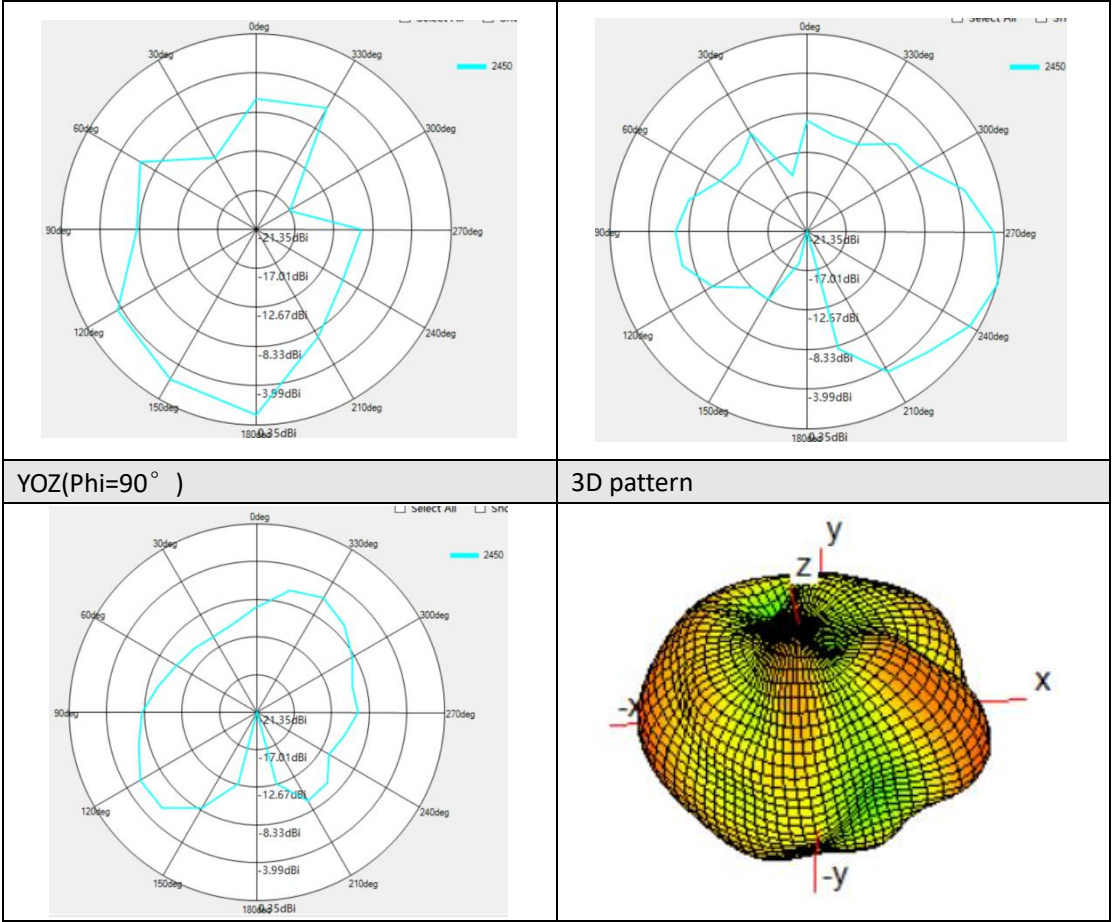
Freq.(Mhz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Peak Gain(dB)	0.89	0.88	0.83	0.75	0.59	0.35	0.24	0.14	0.05	0.2	0.5
Efficiency(dB)	-6.44	-6.5	-6.63	-6.69	-6.71	-6.75	-6.68	-6.64	-6.6	-6.64	-6.57
Freq.(Mhz)	5150	5175	5200	5225	5250	5275	5300	5325	5350	5375	5400
Peak Gain(dB)	6.86	7.02	6.93	6.9	6.84	6.38	6.48	6.78	6.73	6.69	6.66
Efficiency(dB)	-2.62	-2.44	-2.43	-2.33	-2.23	-2.55	-2.49	-2.29	-2.39	-2.54	-2.71
Freq.(Mhz)	5425	5450	5475	5500	5525	5550	5575	5600	5625	5650	5675
Peak Gain(dB)	6.81	7.01	7.09	7.18	7.31	7.27	6.92	6.48	6.2	5.62	5.49
Efficiency(dB)	-2.65	-2.62	-2.83	-2.97	-2.94	-2.88	-2.9	-3.04	-3.11	-3.35	-3.41
Freq.(Mhz)	5700	5725	5750	5775	5800	5825	5850				
Peak Gain(dB)	5.8	5.95	5.86	5.77	5.9	5.41	5.09				
Efficiency(dB)	-3.16	-3.26	-3.52	-3.48	-3.08	-3.25	-3.46				



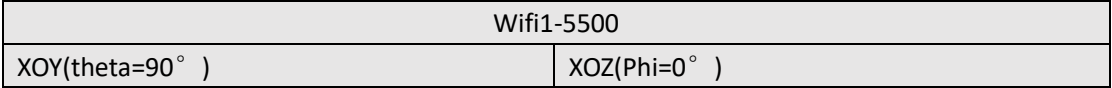
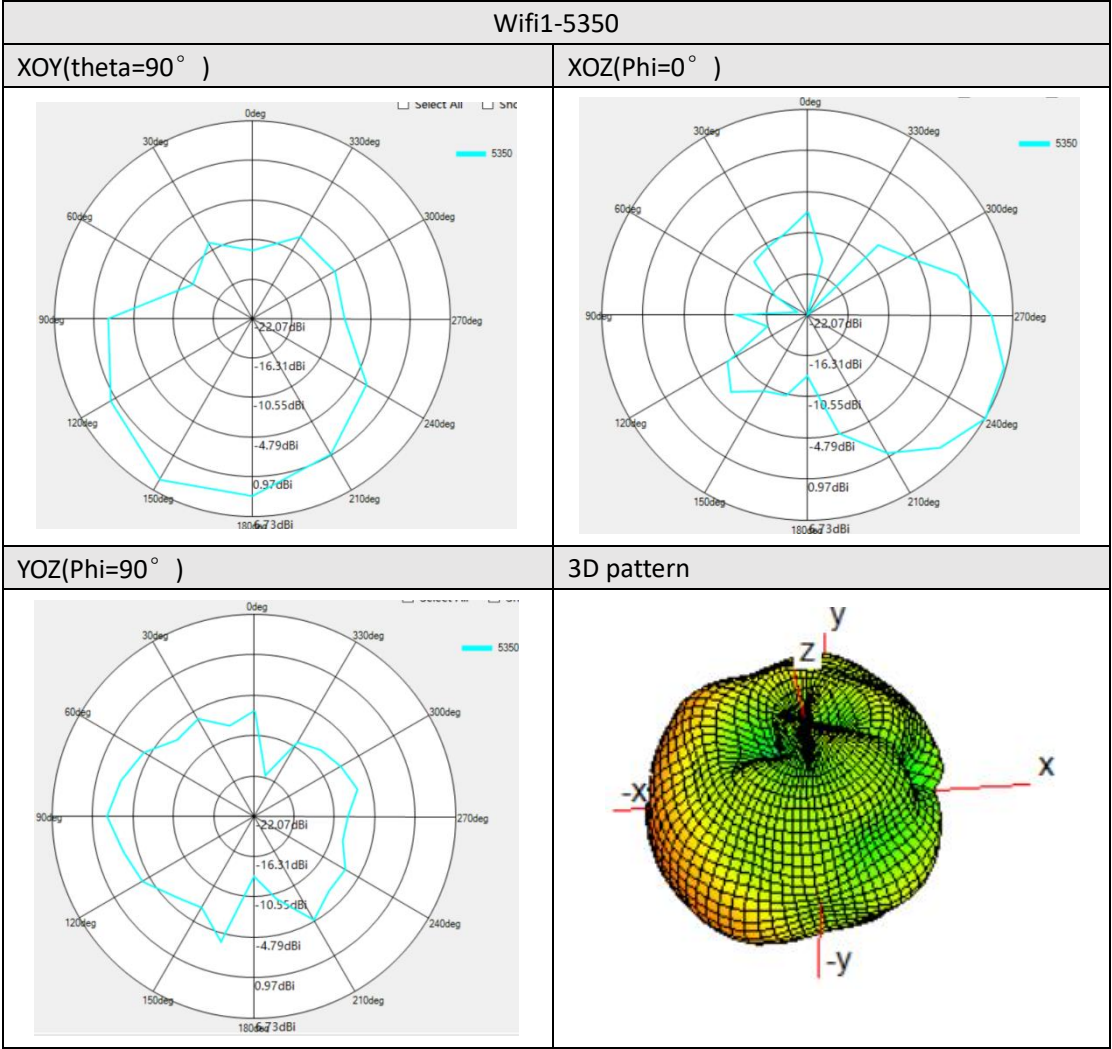
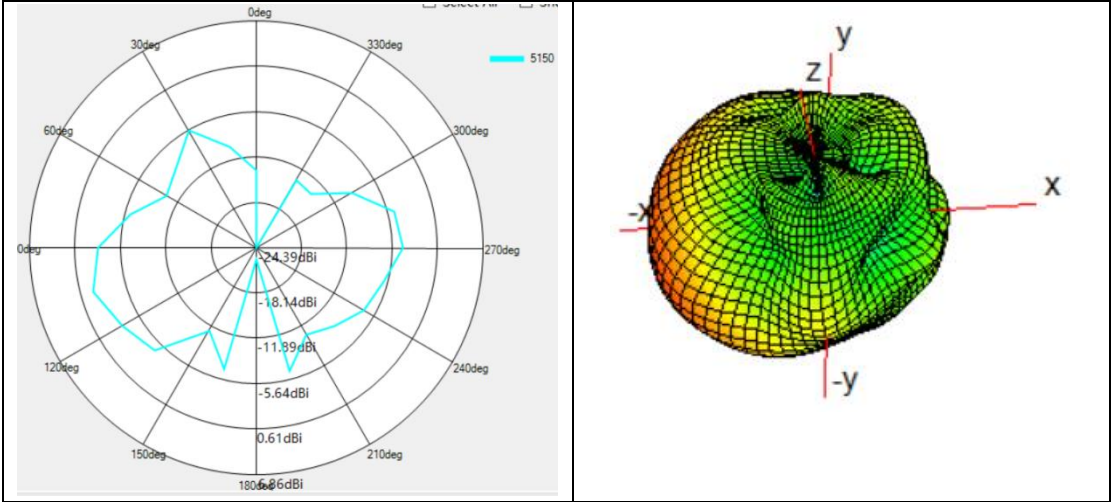
4.2. Radiation Pattern

Wifi1-2450	
XOY(theta=90°)	XOZ(Phi=0°)

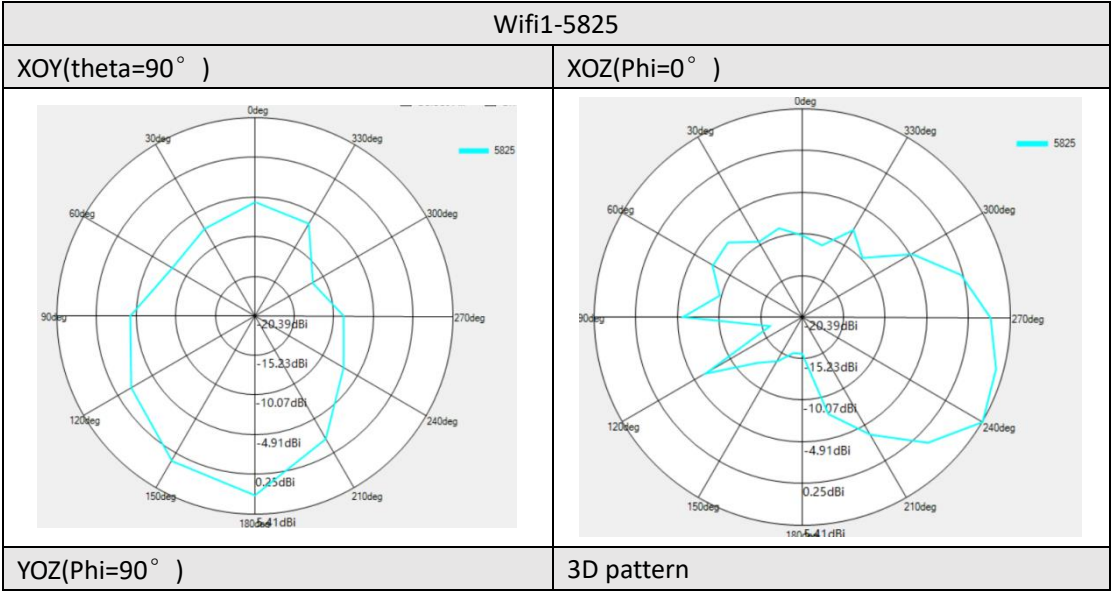
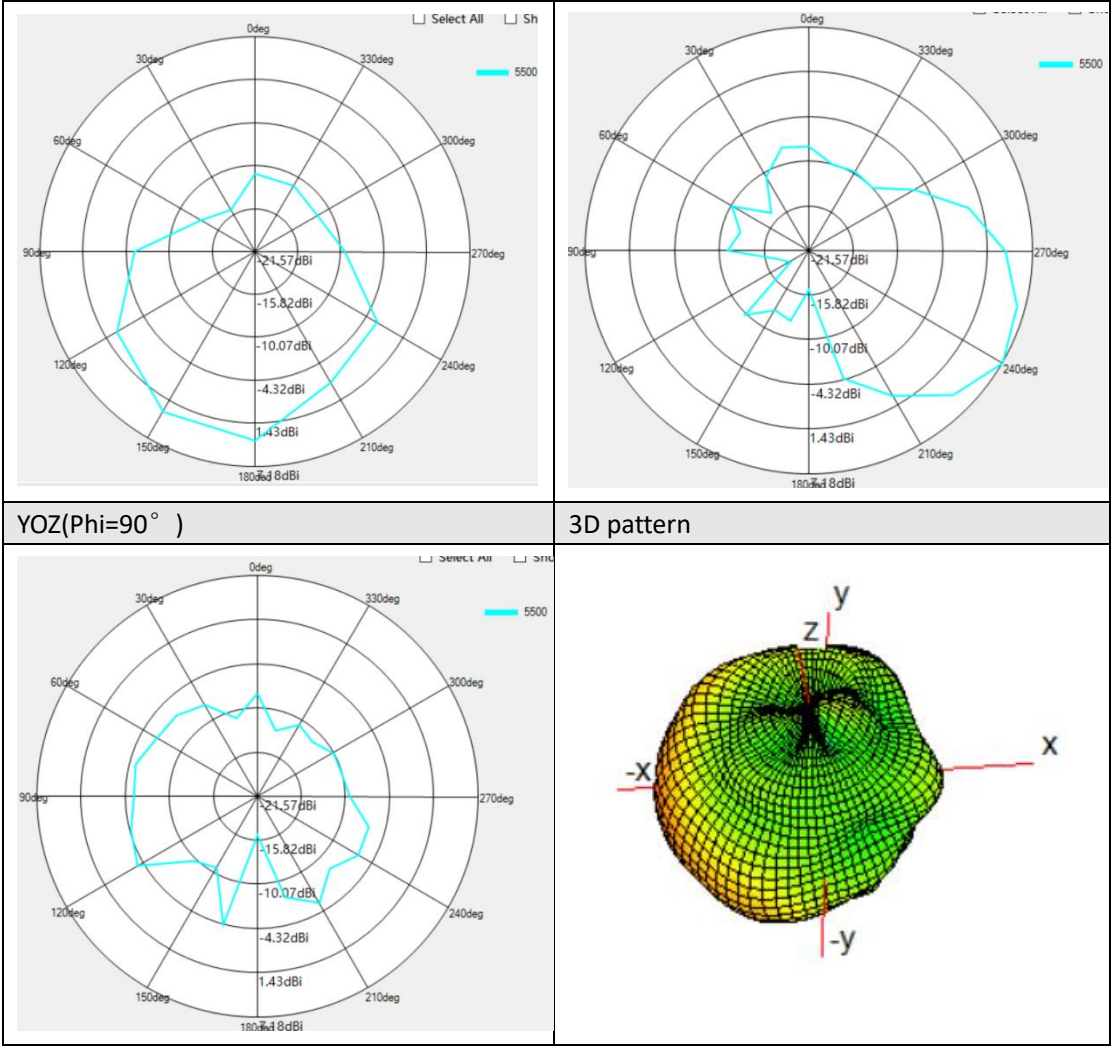
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Product Name: Antenna



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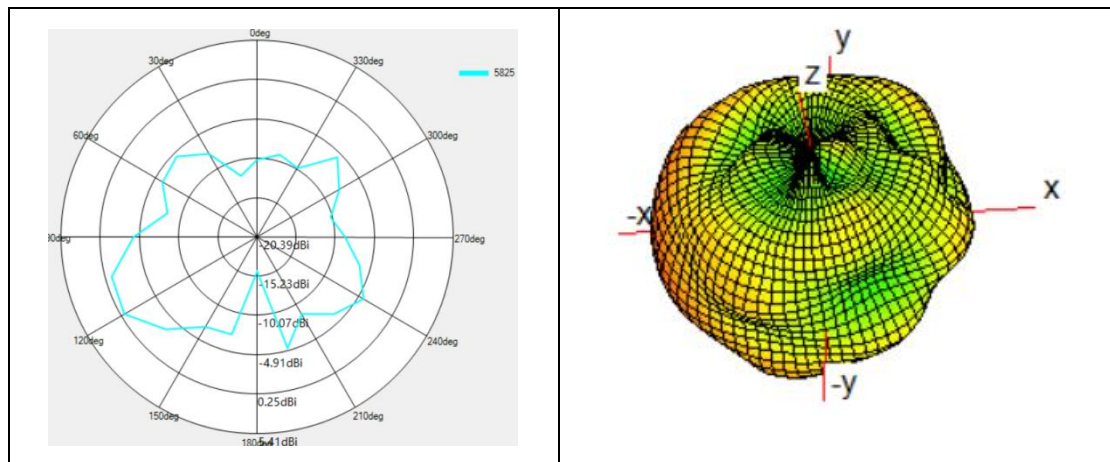


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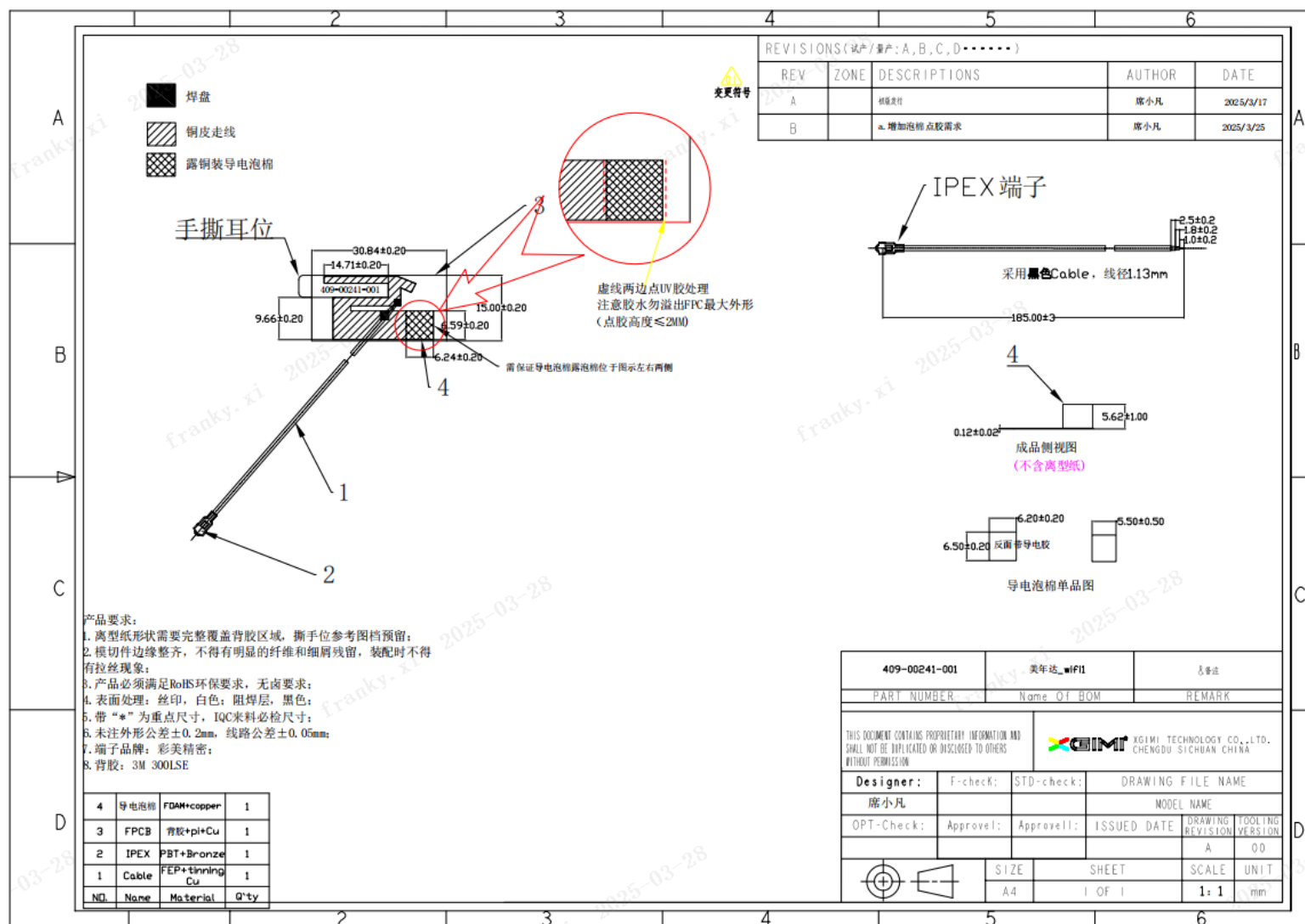
Product Name: Antenna



4.3. throughput

N/A

Product Name: Antenna



Product Number: 409-00241-001

Product Name: Antenna

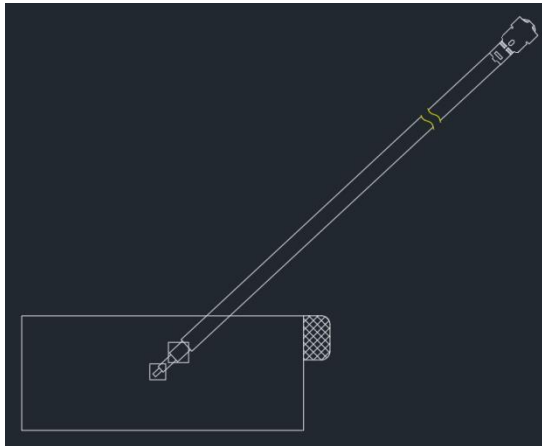
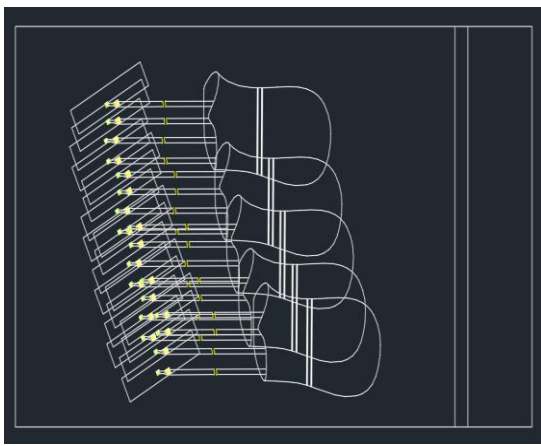
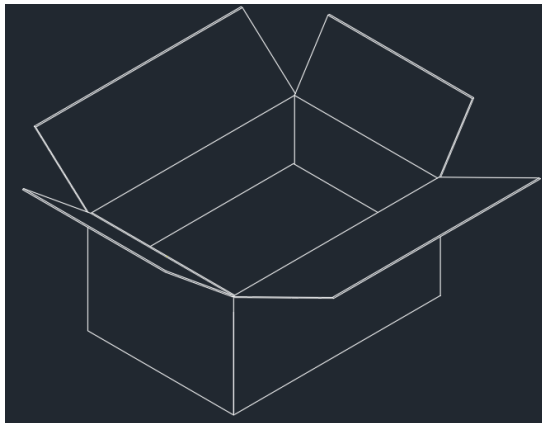
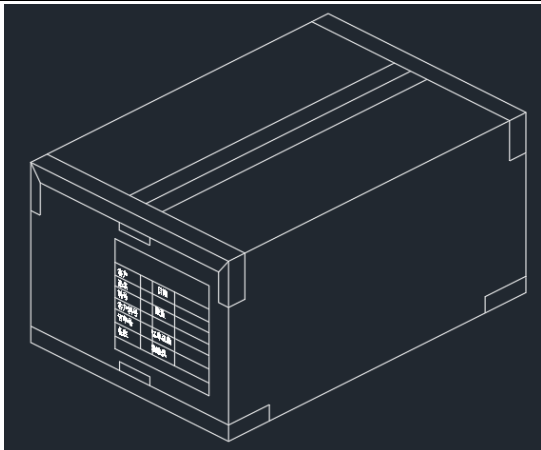
6. RoHS Report(Provided by 汉阳)

N o.	Product Model	Constituents	Material	Test Result for RoHS-corresponding Substance						PFOS	Halogen				Series No.	Data	附件	Test Agent	
				Cd	Pb	Hg	Cr(VI)	PBBs	PBDEs	PFOS	F	Cl	Br	I					
1	N/A	FPC	材	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.		N. D.	85	N. D.	N. D.	SHAEC24000428806 SHAEC24000428808	2024/1/12 2024/1/12	  11880000-中文.pdf 11880000-CP.pdf	SGS	
2			黑色油墨	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.						ETR24600712 ETR23202417A02	2024/6/13 2024/2/29	  ETR24600712000 ETR23202417A02 色黑油墨 24600712000 ETR23202417A02	SGS
3			3M 300(9471)LSE	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.						SHAEC23021627701	2023/12/27	 3M™ Double Coated Tapes 3M	SGS
5	N/A	1.13 同轴 线	FEP-黑色	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.		>100000	N. D.	N. D.	N. D.	SHAEC24003618801 SHAEC24003618803	2024/1/4 2024/3/6	  FEP Black-Black-SHAEC-Halogen-5	SGS	
6			FEP 护套	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	>100000	N. D.	N. D.	N. D.	SHAEC23021984701 SHAEC23021984703	2023/12/11 2023/12/11	  FEP护套-RoHS+ FEP护套-卤素 第12 SHAEC2302 SHAEC23021984	SGS	
7			FEP 绝缘	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	>100000	N. D.	N. D.	N. D.	SHAEC23020095573 SHAEC23020095531	2024/4/12	  FEP绝缘-RoHS+ FEP绝缘-卤素 第12 SHAEC2302 SHAEC23020095	SGS	
8						N. D.	N. D.	N. D.	N. D.	N. D.						A2240182175102001E	2024/3/6	 11880000_A22401 12175102001E-1	CTI
9	N/A	1 代端子	PBT F202G15BK	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.		N. D.	N. D.	N. D.	N. D.	ETR24705739	2024/8/5	 F202G15BK_RoHS+ S+12P+10+绝缘	SGS	
10				N. D.	6	N. D.	N. D.	N. D.	N. D.		N. D.	N. D.	N. D.	N. D.	CANEC24000977301	2024/1/19	 CANEC24000977301 RoHS+卤素	SGS	
11			镀镍层	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	A2240410234101002E	2024/7/16	 A224041023410 1002E 镀镍层 .pdf	CTI	

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12			镀金层	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	A2240410234101001E	2024/7/16	 A224041023410 1001E 全数符合SJ	CTI
13	NA	导电泡棉	导电布	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.	A2250021139102002E	2025/1/9	 SGS 导电布 A225002113910	CTI
14			导电胶	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.		N. D.	N. D.	N. D.	N. D.	A2240677668101001ER1	2024/10/12	 特胶RoHS+卤素(28)(1)(1).pdf	CTI
15			PU 棉	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.		N. D.	N. D.	N. D.	N. D.	A2240597376101004E A2240597376101009E	2024/9/26 2024/9/26	  240929--黑色RO 240929--黑色卤 HS (A22405973素 (A224059737	CTI
16			热熔胶	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.		N. D.	N. D.	N. D.	N. D.	NGBEC25001234402	2025/3/11	 RoHS中文结构胶. pdf	SGS
17	NA	UV 胶	UV 胶水	N. D.	N. D.	N. D.	N. D.	N. D.	N. D.						CANEC24025860610	2024/11/25	 丰源中文版ROHS -UV胶.pdf	SGS

7. Packing Drawing(Provided by 汉阳)

			
图 1 WIFI 天线		图 2 PE 袋包装（200PCS 每袋），	
			
图 3 装箱（400*250*195mm）每箱装 5000pcs（以实际包装为准）		图 4 封箱，	
产品料号：	F00100010086		
部件名称：	WIFI 1 天线		
产品版本：	V01		
包装材料：	/		
签名：	邹荣凯（汉阳人员）		

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Product Name: Antenna

8. Attachment(Provided by 汉阳)



N7011A(409-00
241-001) -WIFI15