Antenna Datasheet

Product OC: Y0DPW00A0BA
Version: 1.1
Date: 2026-03-03

Product Name: WIFI Adhesive FPC PIFA Antenna
Key Features:
Frequency Band: 2400–2500 MHz, 5150–5850 MHz
Dimensions: 30.23 mm × 14.85 mm
Efficiency: Up to 44 %
ROHS and REACH Compliant

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1 Specification

Test Condition: Assembled in test device

1.1. Electrical

Electrical	
Frequency Range	2400–2500 MHz, 5150–5850 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional
VSWR	≤ 2.2
Peak Gain	2.9 dBi

1.2. Mechanical & Environmental

Mechanical	
Antenna Dimensions	30.23 mm × 14.85 mm
Material & Color	FPC & Black
Weight	Typ. 0.05 g
Mounting Type	Adhesive
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS & REACH Compliant	Yes

1.3. Antenna Assembly

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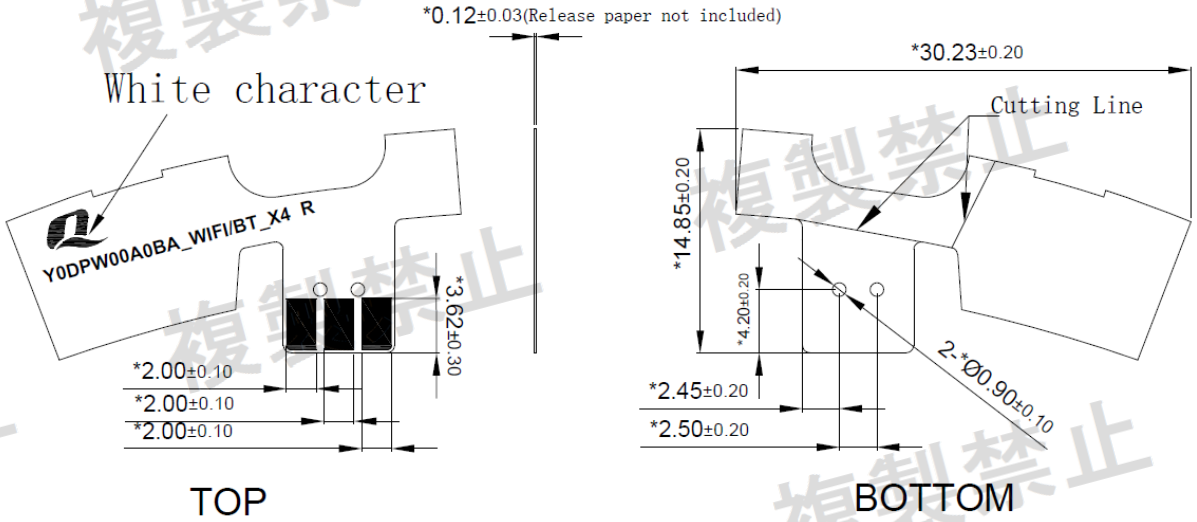
2 Drawing

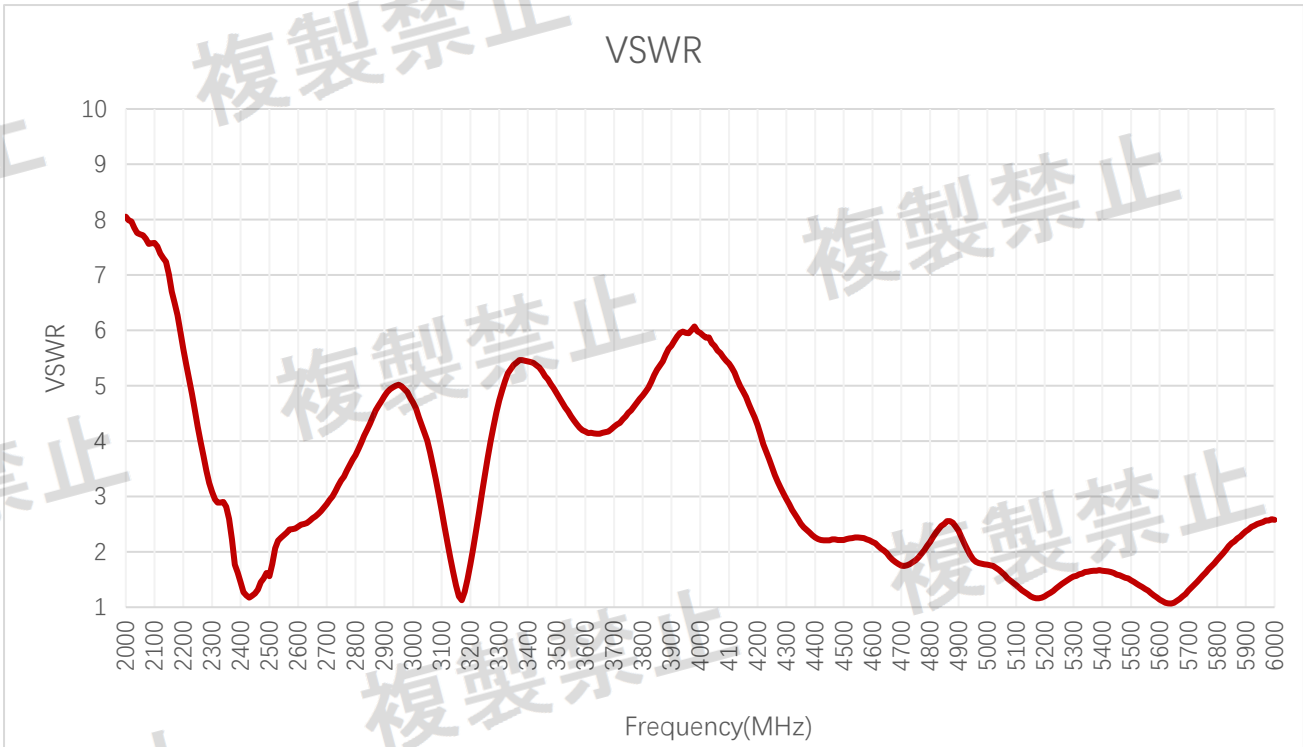

*0.12±0.03(Release paper not included)
White character
Y0DPW00A0BA_WIFI/BT_X4 R
*3.62±0.30
*2.00±0.10
*2.00±0.10
*2.00±0.10
TOP
*30.23±0.20
Cutting Line
*14.85±0.20
*4.20±0.20
2-*Ø0.90±0.10
*2.45±0.20
*2.50±0.20
BOTTOM

3 Detailed Performance

- Manufacturer: Quectel Wireless Solutions (Changzhou) Co., Ltd.
  Address: No.8 Nanhu West Road, Wujin District, Changzhou City, Jiangsu Province, China

3.1. S-Parameter Test

3.1.1. VSWR

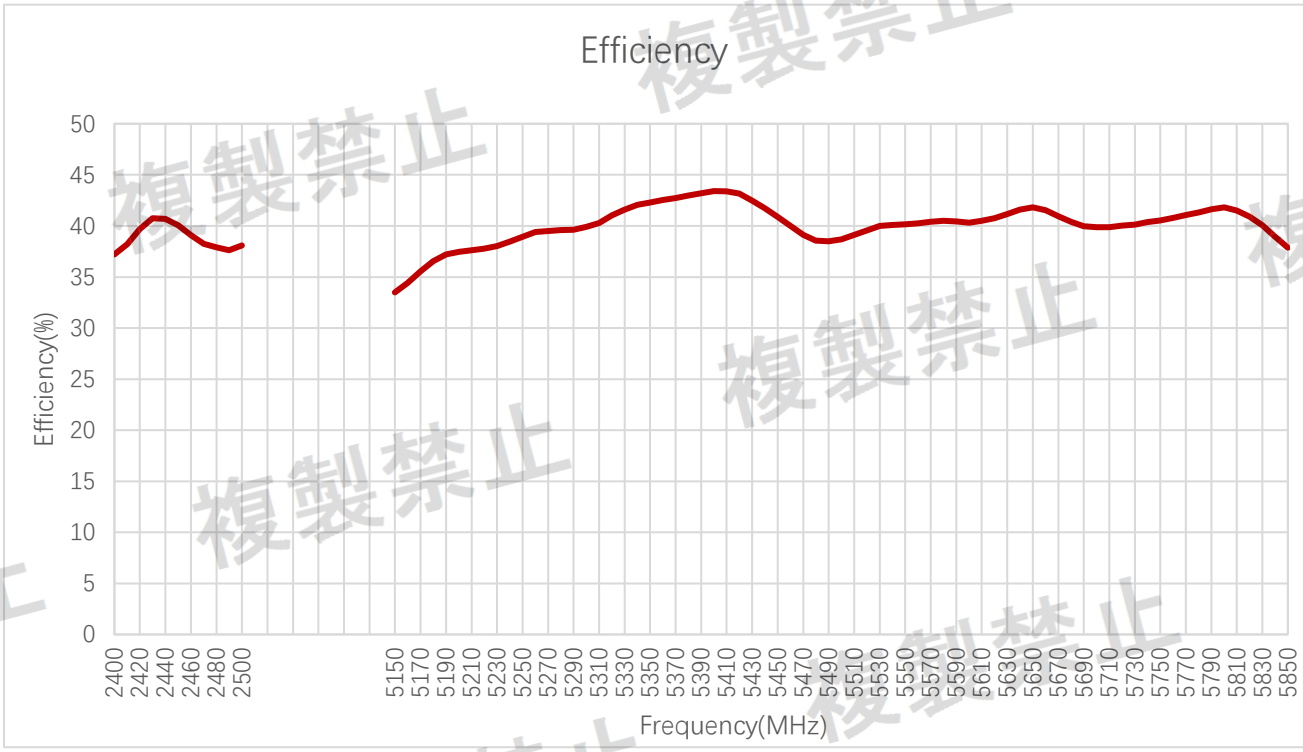


VSWR

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
VSWR	1.5	1.2	1.6	1.2	1.5	2.2	-	-	-	-

3.2. Radiation Performance Test

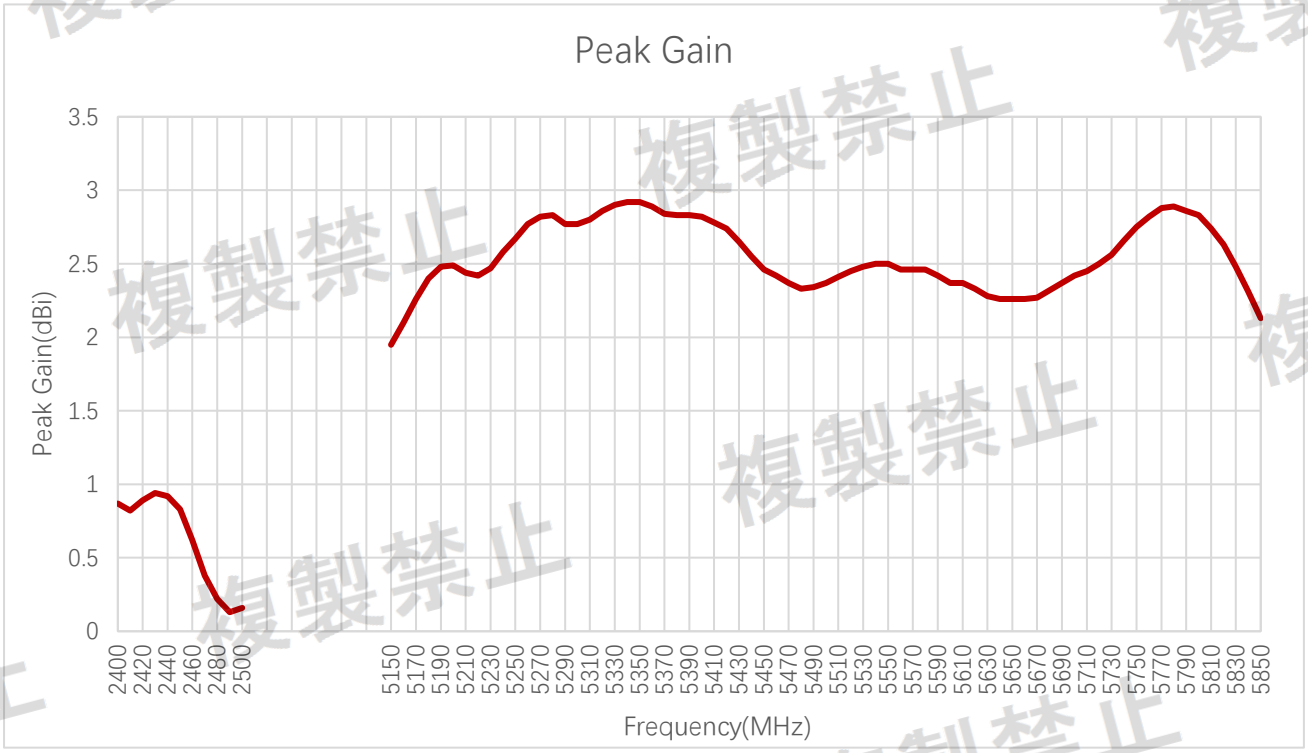
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Efficiency (%)	37.2	40.1	38.1	33.5	38.7	37.9	-	-	-	-

3.2.2. Peak Gain



Peak Gain (dBi)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Peak Gain (dBi)	0.9	0.8	0.2	2.0	2.4	2.1	-	-	-	-

2.4-2.5GHz			
Freq(MHz)	Efii(dB)	Gain(dBi)	Effi(%)
2400	-4.29	0.87	37.22
2410	-4.18	0.82	38.21
2420	-4.01	0.89	39.70
2430	-3.90	0.94	40.74
2440	-3.91	0.92	40.68
2450	-3.97	0.83	40.07
2460	-4.08	0.62	39.10
2470	-4.17	0.38	38.26
2480	-4.21	0.22	37.91
2490	-4.24	0.13	37.63
2500	-4.19	0.16	38.08

5.15-5.85GHz							
Freq(MHz)	Efii(dB)	Gain(dBi)	Effi(%)	Freq(MHz)	Efii(dB)	Gain(dBi)	Effi(%)
5150	-4.75	1.95	33.49	5510	-4.08	2.41	39.12
5160	-4.63	2.10	34.42	5520	-4.03	2.45	39.57
5170	-4.49	2.26	35.56	5530	-3.98	2.48	39.99
5180	-4.37	2.40	36.55	5540	-3.97	2.50	40.10
5190	-4.29	2.48	37.22	5550	-3.96	2.50	40.17
5200	-4.26	2.49	37.47	5560	-3.95	2.46	40.24
5210	-4.25	2.44	37.61	5570	-3.93	2.46	40.41
5220	-4.23	2.42	37.77	5580	-3.93	2.46	40.49
5230	-4.20	2.47	38.02	5590	-3.93	2.42	40.43
5240	-4.15	2.58	38.47	5600	-3.95	2.37	40.31
5250	-4.10	2.67	38.94	5610	-3.92	2.37	40.51
5260	-4.04	2.77	39.42	5620	-3.90	2.33	40.76
5270	-4.03	2.82	39.50	5630	-3.86	2.28	41.15
5280	-4.02	2.83	39.60	5640	-3.81	2.26	41.59
5290	-4.02	2.77	39.61	5650	-3.79	2.26	41.81
5300	-3.99	2.77	39.90	5660	-3.81	2.26	41.55
5310	-3.95	2.80	40.29	5670	-3.88	2.27	40.94
5320	-3.87	2.86	41.04	5680	-3.93	2.32	40.42
5330	-3.81	2.90	41.60	5690	-3.98	2.37	39.97
5340	-3.76	2.92	42.06	5700	-4.00	2.42	39.86
5350	-3.74	2.92	42.28	5710	-3.99	2.45	39.86
5360	-3.71	2.89	42.53	5720	-3.98	2.50	40.04
5370	-3.69	2.84	42.72	5730	-3.97	2.56	40.12
5380	-3.67	2.83	42.97	5740	-3.94	2.66	40.37
5390	-3.65	2.83	43.19	5750	-3.92	2.75	40.53
5400	-3.62	2.82	43.41	5760	-3.90	2.82	40.78
5410	-3.63	2.78	43.40	5770	-3.87	2.88	41.05
5420	-3.65	2.74	43.15	5780	-3.84	2.89	41.33
5430	-3.72	2.65	42.47	5790	-3.81	2.86	41.63
5440	-3.80	2.55	41.73	5800	-3.79	2.83	41.82
5450	-3.89	2.46	40.88	5810	-3.82	2.74	41.52
5460	-3.98	2.42	39.99	5820	-3.88	2.63	40.90
5470	-4.08	2.37	39.11	5830	-3.97	2.48	40.07
5480	-4.14	2.33	38.57	5840	-4.10	2.31	38.94
5490	-4.15	2.34	38.49	5850	-4.22	2.13	37.86
5500	-4.12	2.37	38.69				

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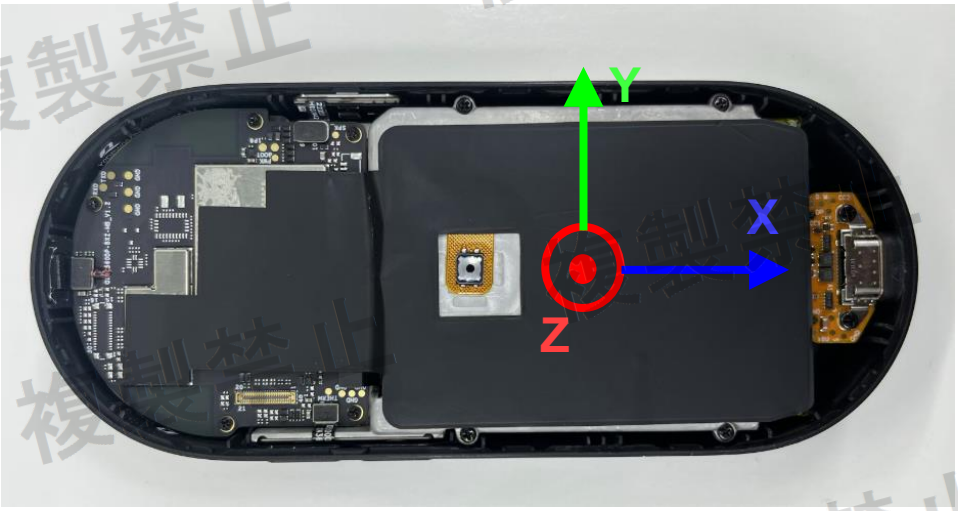
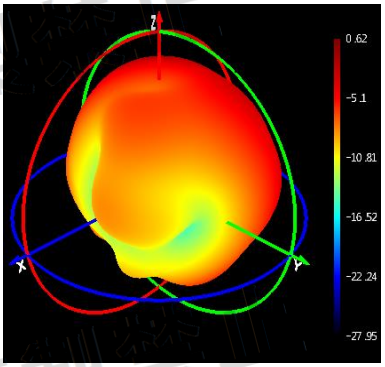
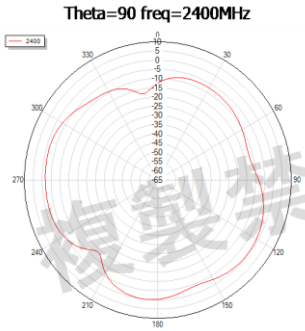
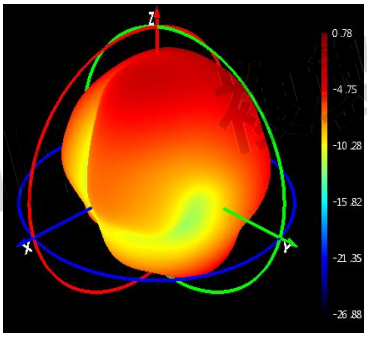
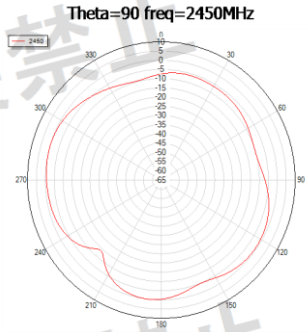
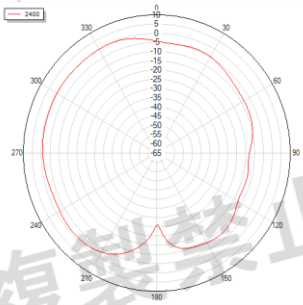
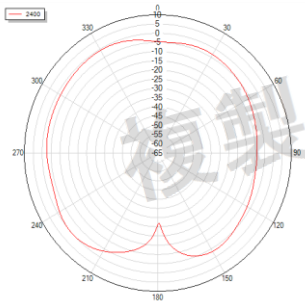
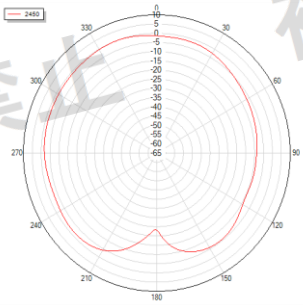
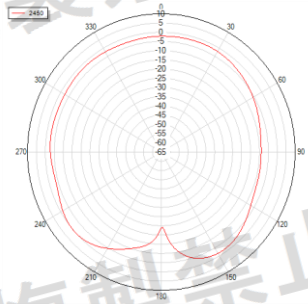
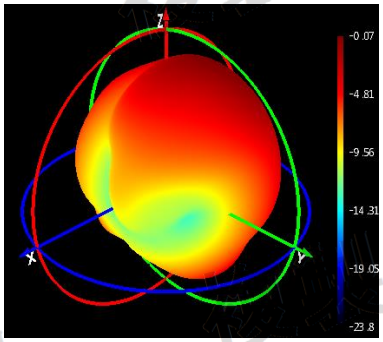
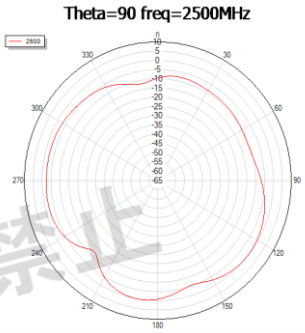
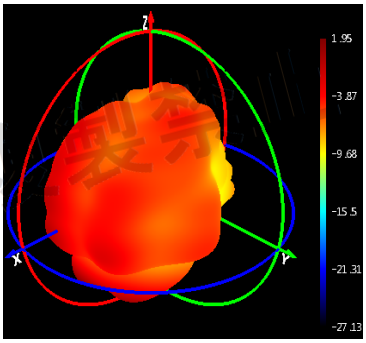
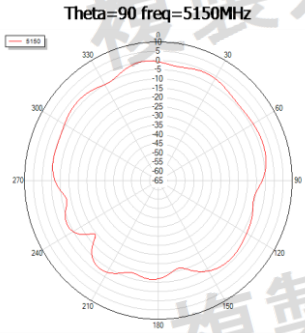
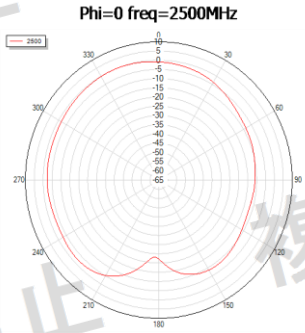
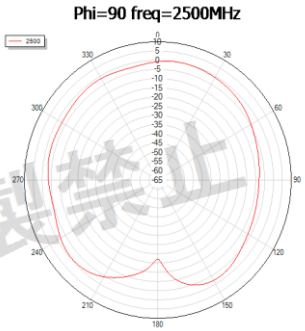
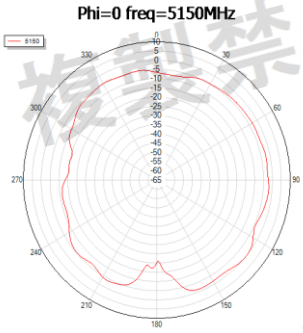
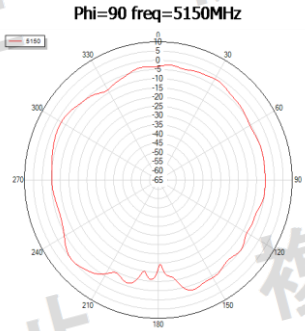
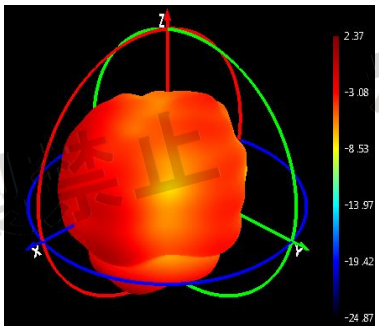
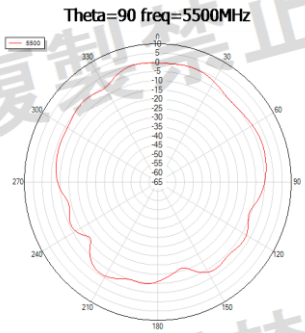
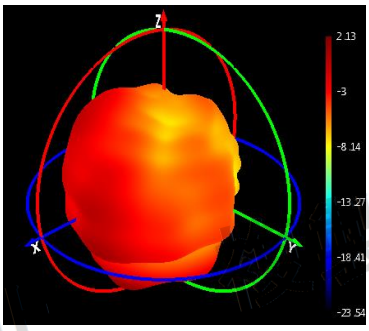
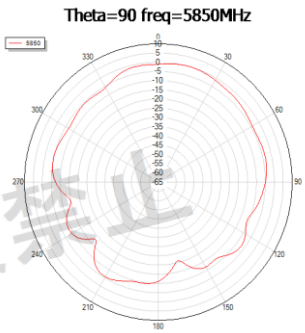
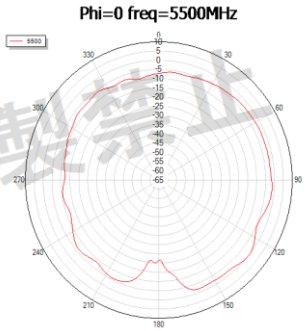
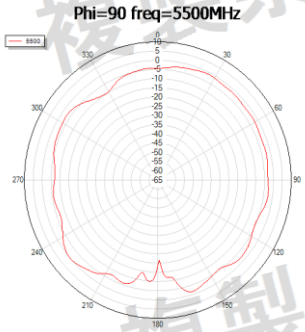
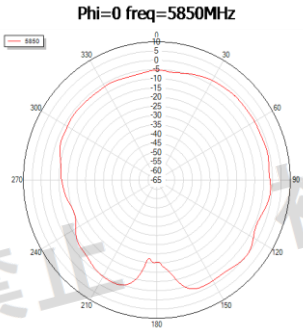
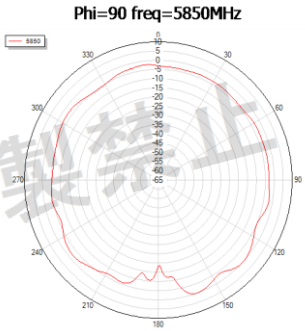
3.2.3. 2D Radiation Pattern

- Test Condition: Assembled in test device
- Test Chamber: HF-S-1



2400MHz		2450 MHz	
			
			

2500 MHz		5150 MHz	
			
			
5500 MHz		5850 MHz	
			
			

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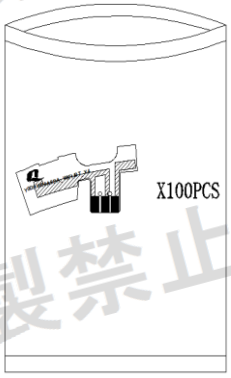
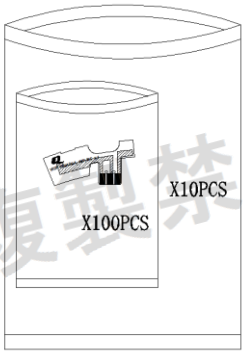
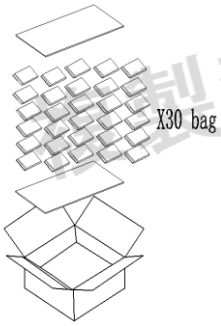
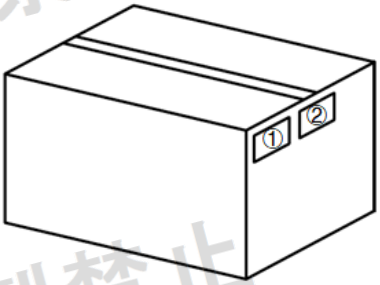
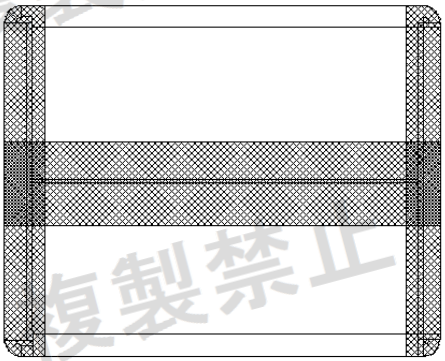
4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		100 antenna products in a small PE bag (100 Antennas / PE Bag)
2		1000 antenna products in a big PE bag (1000 Antennas / PE Bag)
3		30 PE Bags / Carton Box (30000 Antennas / Carton Box) Estimated quantity Products that cannot fill the entire carton box are packed in a suitable size carton box. <u>Carton Size:</u> <u>L × W × H = 370 × 370 × 295 mm</u>

4		**Position for Attaching Labels** ① Carton Label ② Quality Label
5		**Sealing Cartons** H-shaped sealing cartons
Note	The initial packaging method described above is for reference only, and the final actual packaging method shall be subject to the actual shipping packaging.	

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Contact Us

At Quectel, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:

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Email: info@quectel.com

Or our local offices. For more information, please visit:
https://www.quectel.com/contact/.

For technical support, or to report documentation errors, please visit:
https://www.quectel.com/tech-support/.
Or email us at: support@quectel.com.

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Revision History

Version	Date	Author	Note
-	2024-07-01	Edison Liu/ Blake Xiang/ David Liu/ Aria Chu	Creation of the document
1.0	2024-07-01	Edison Liu/ Blake Xiang/ David Liu/ Aria Chu	First official release
1.1	2025-03-03	Blake Xiang/ Edison Liu/ Aria Chu	Numerous changes were made to this document. It should be read in its entirety.

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