



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

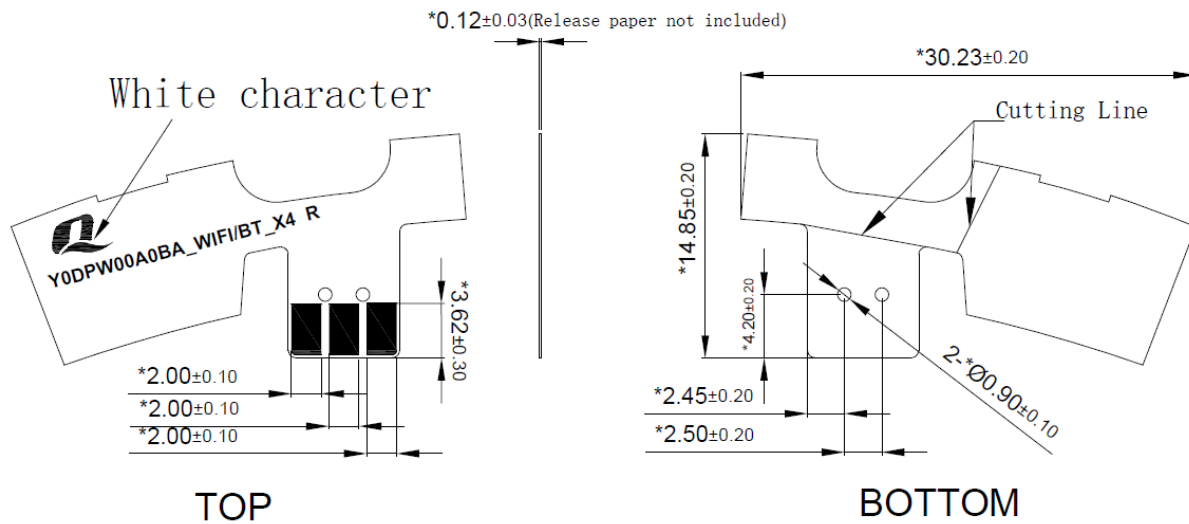
1.2. Mechanical & Environmental

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



2 Drawing

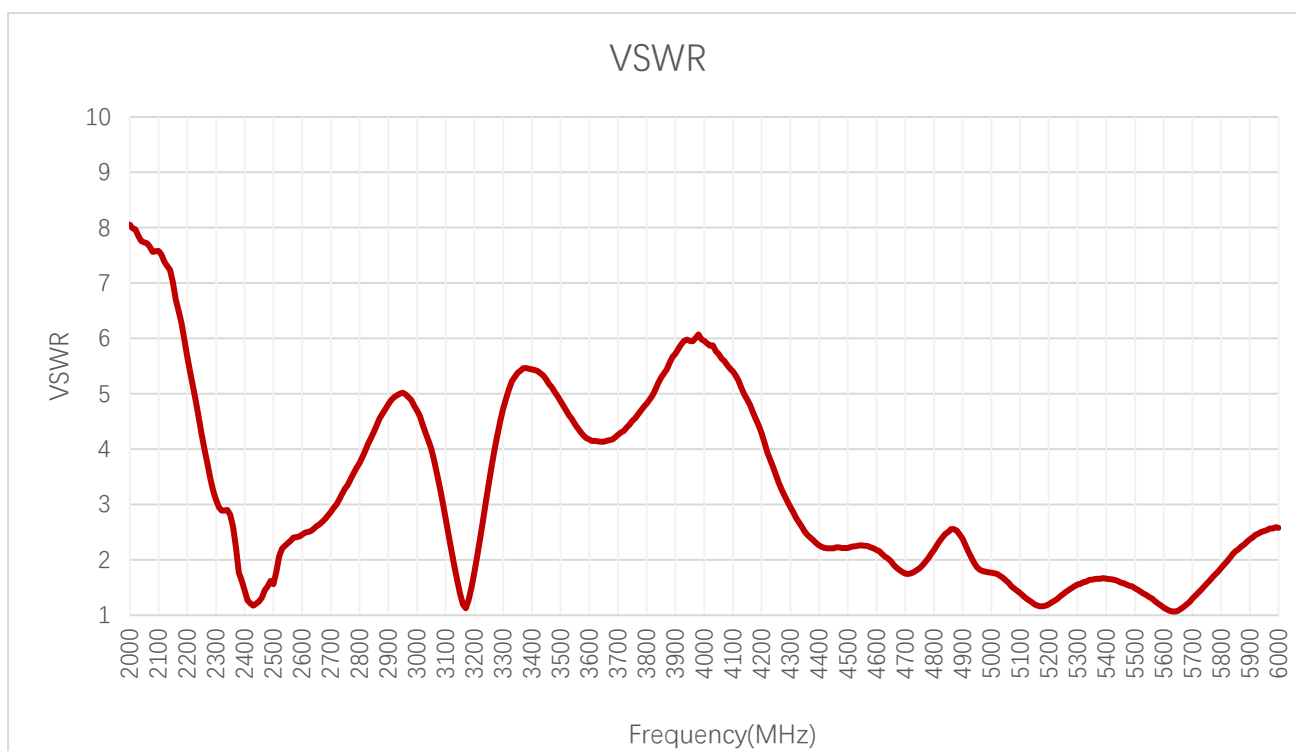


3 Detailed Performance

- 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

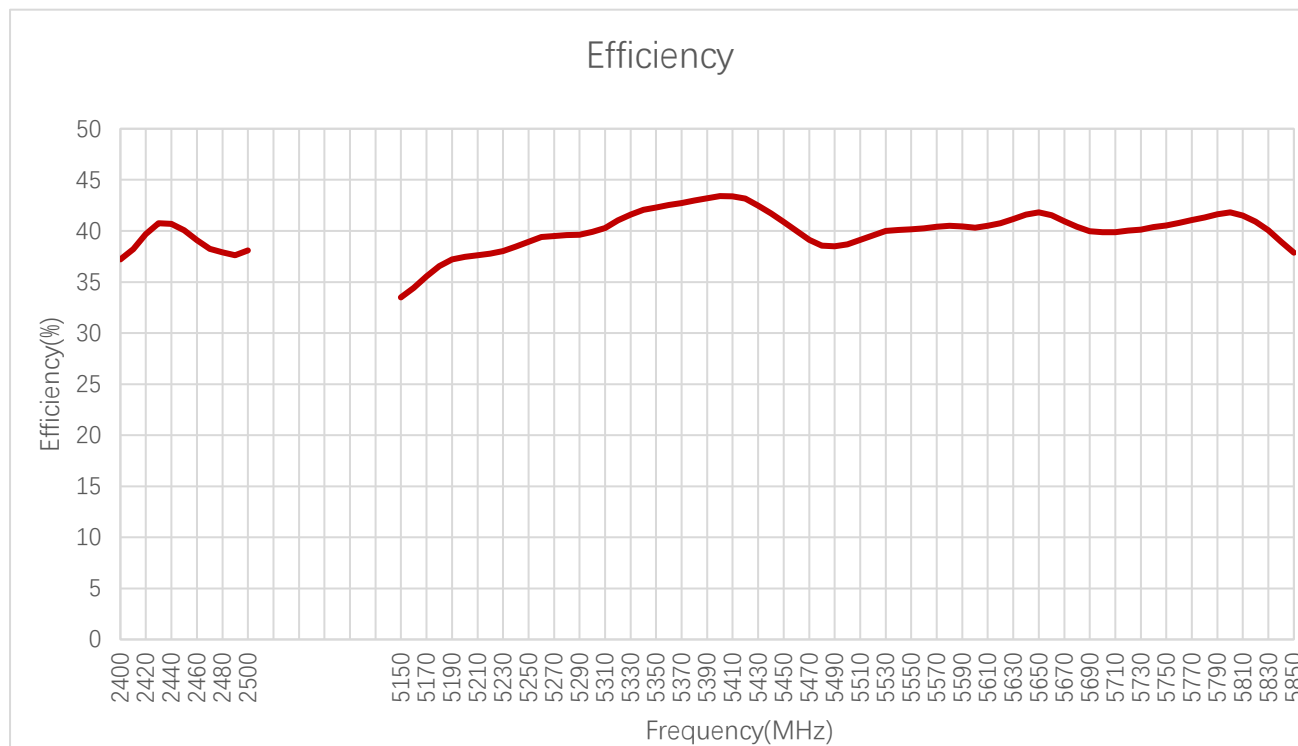


VSWR

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

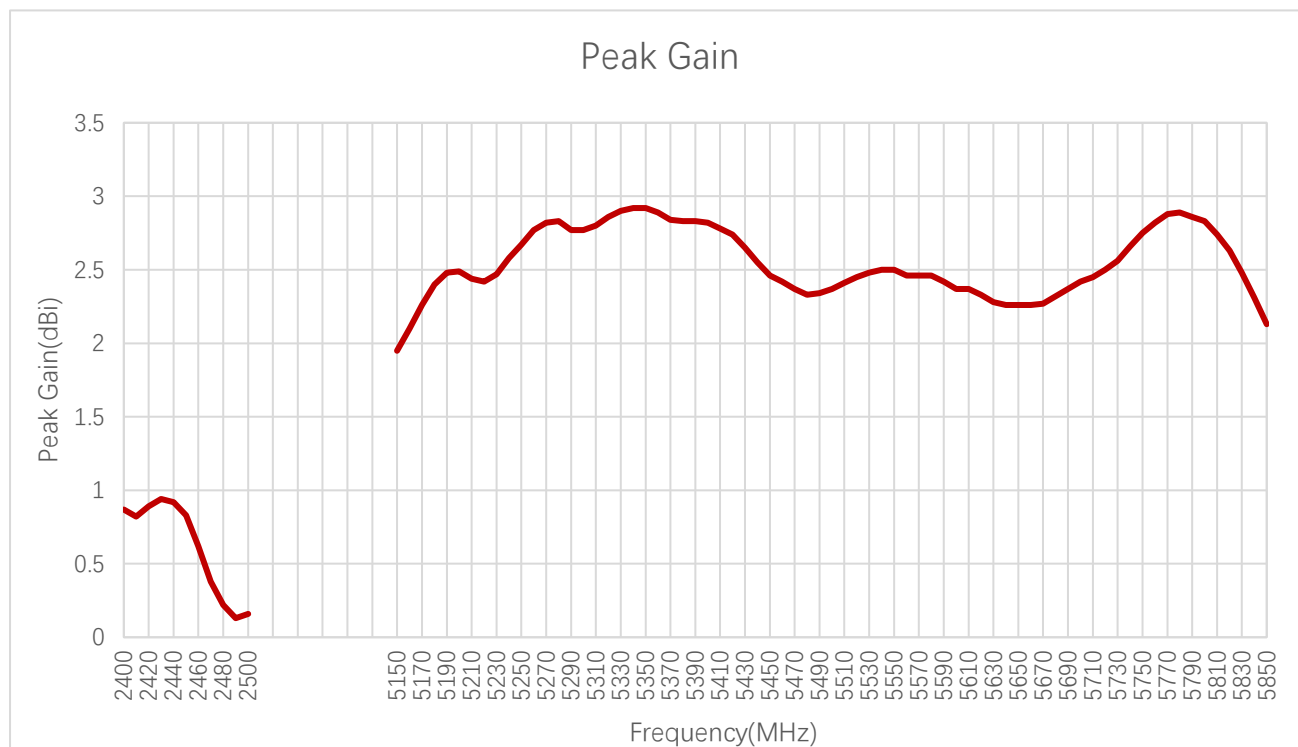
3.2.1. Efficiency



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)

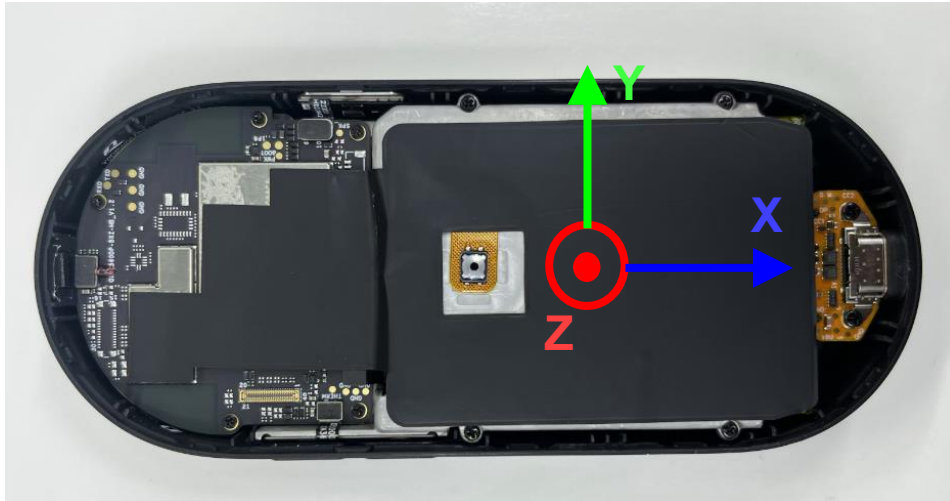
Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Peak Gain (dBi)	0.9	0.8	0.2	2.0	2.4	2.1	-	-	-	-

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

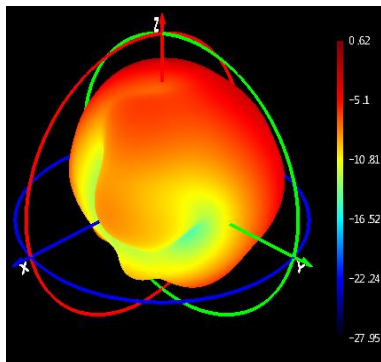
5.15-5.85GHz							
Freq (MHz)	Efii (dB)	Gain (dBi)	Effi (%)	Freq (MHz)	Efii (dB)	Gain (dBi)	Effi (%)
5150	-4.75	1.95	33.49	5510	-4.08	2.41	39.12
5160	-4.63	2.10	34.42	5520	-4.03	2.45	39.57
5170	-4.49	2.26	35.56	5530	-3.98	2.48	39.99
5180	-4.37	2.40	36.55	5540	-3.97	2.50	40.10
5190	-4.29	2.48	37.22	5550	-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				

3.2.3. 2D Radiation Pattern

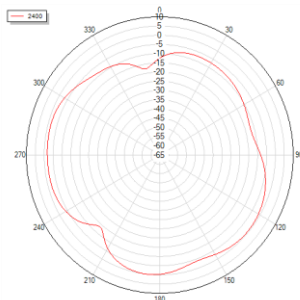
- Test Condition: Assembled in test device
- Test Chamber: HF-S-1



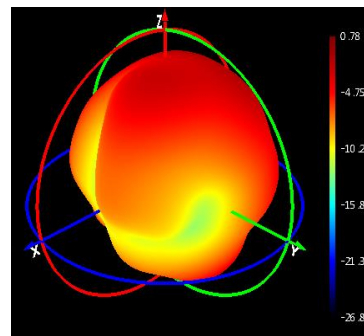
2400MHz



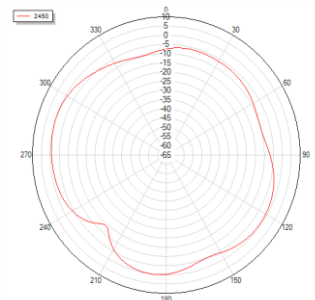
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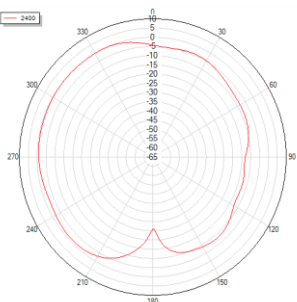
2450 MHz



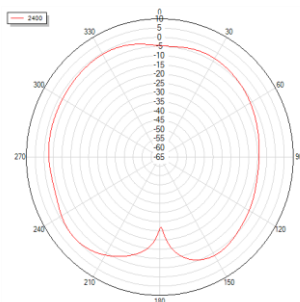
Theta=90 freq=2450MHz



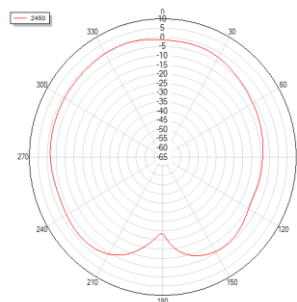
Phi=0 freq=2400MHz



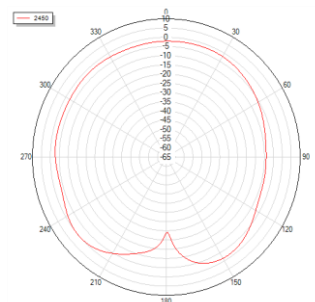
Phi=90 freq=2400MHz



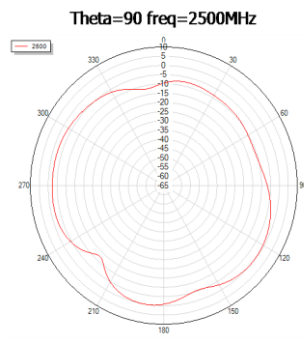
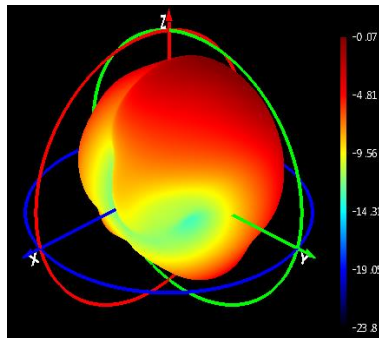
Phi=0 freq=2450MHz



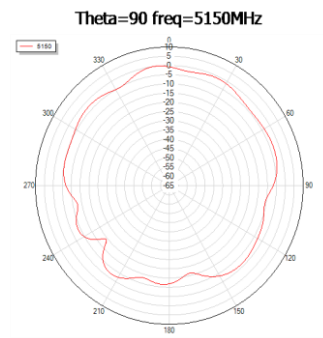
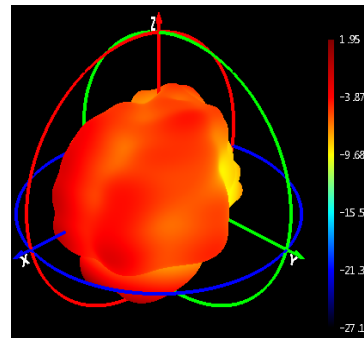
Phi=90 freq=2450MHz



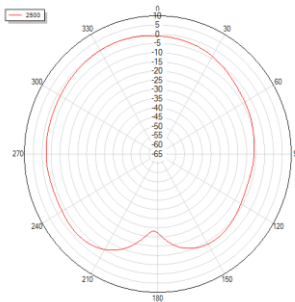
2500 MHz



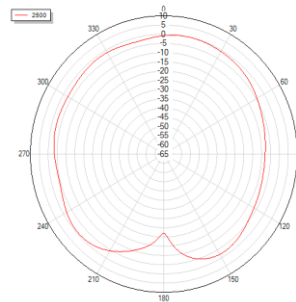
5150 MHz



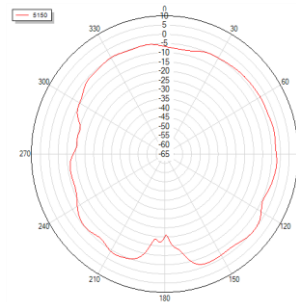
Phi=0 freq=2500MHz



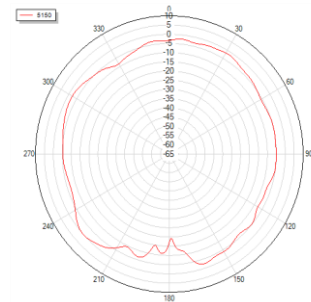
Phi=90 freq=2500MHz



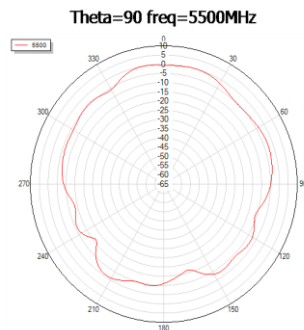
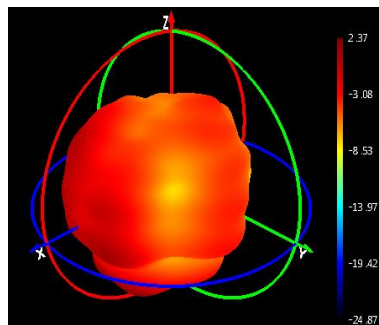
Phi=0 freq=5150MHz



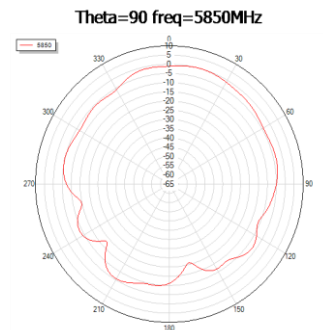
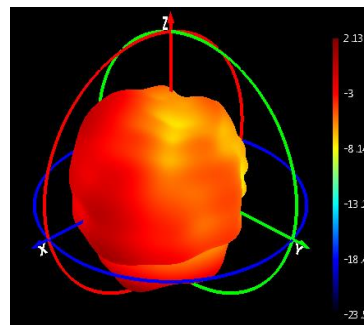
Phi=90 freq=5150MHz



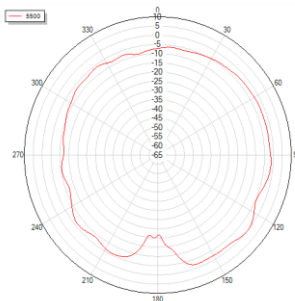
5500 MHz



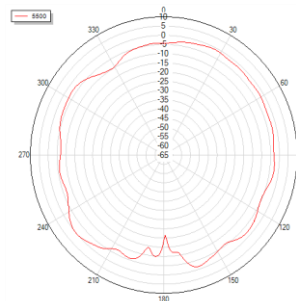
5850 MHz



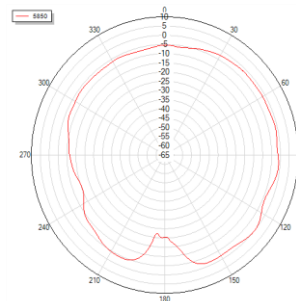
Phi=0 freq=5500MHz



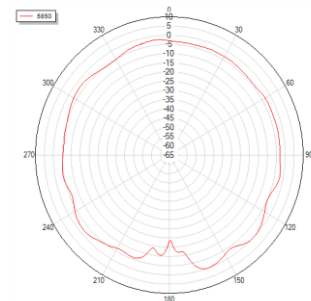
Phi=90 freq=5500MHz



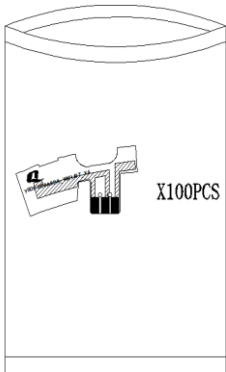
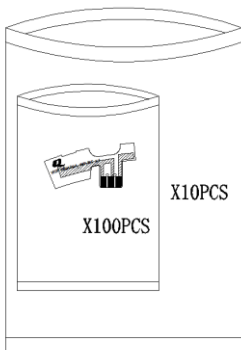
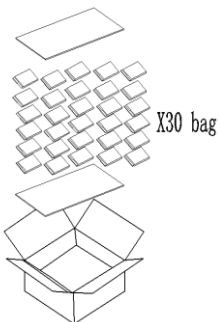
Phi=0 freq=5850MHz

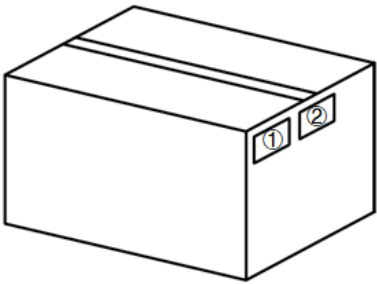
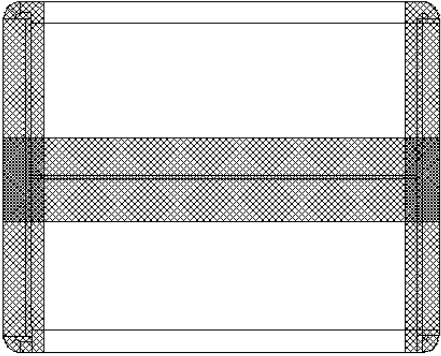


Phi=90 freq=5850MHz



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.	

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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Tel: +86 21 5108 6236

Email: info@quectel.com

Or our local offices. For more information, please visit:

<https://www.quectel.com/contact/>.

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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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