

Antenna Datasheet

Product OC: Y0BYB0CA0BA

Version: 1.0

Date: 2025-04-14

Product Name: WIFI PCB Antenna

Key Features:

Frequency Band: 2400–2500 MHz, 5150–5850 MHz

Dimensions: 40 mm × 18.5 mm

Efficiency: Up to 64.89 %

RoHS Compliant

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1 Specification

Test Condition: Assembled in test device

1.1. Electrical

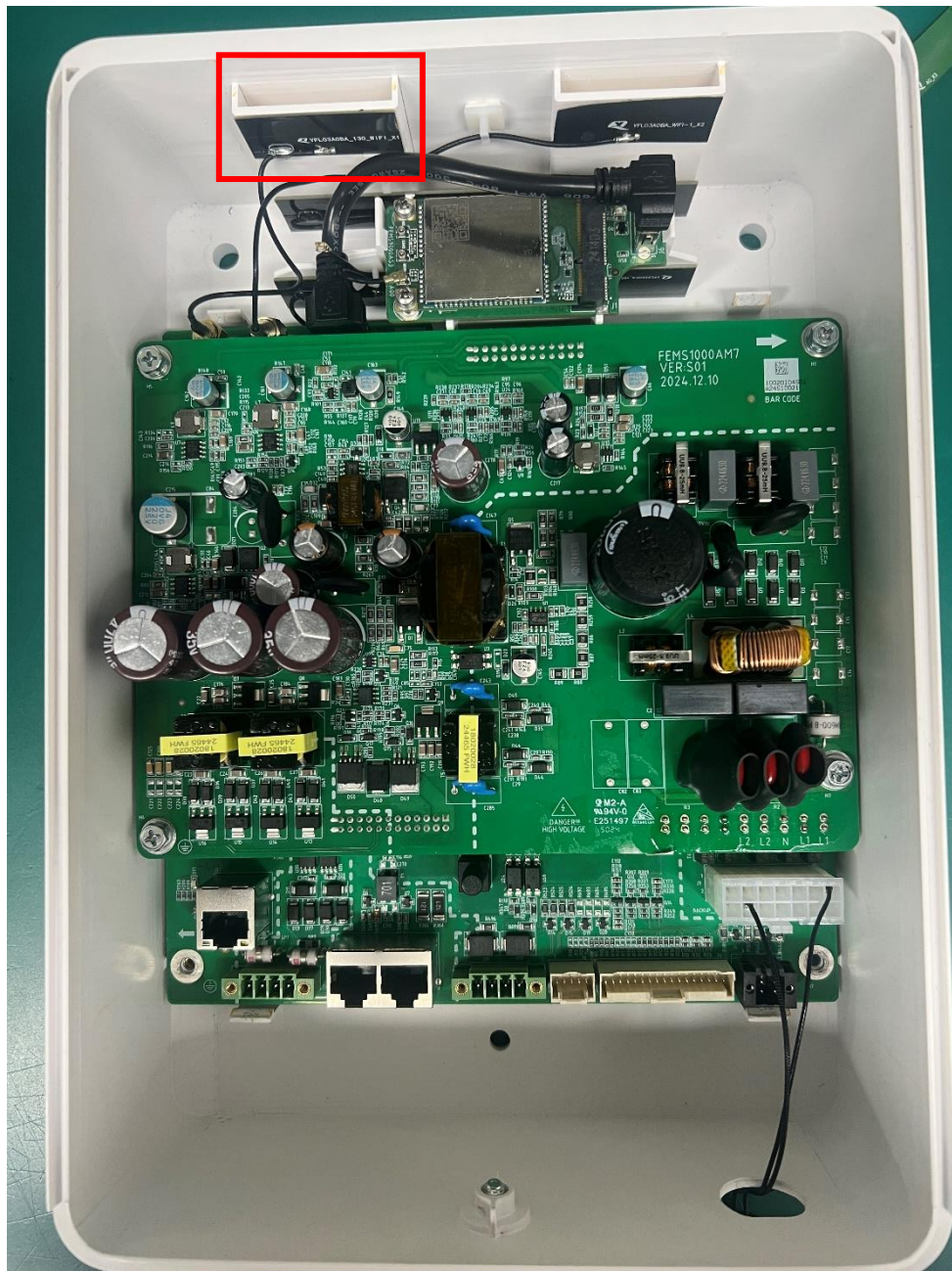
Electrical	
Frequency Range	2400–2500 MHz, 5150–5850 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional
VSWR	≤ 2.1
Peak Gain	≤ 5.6 dBi

1.2. Mechanical & Environmental

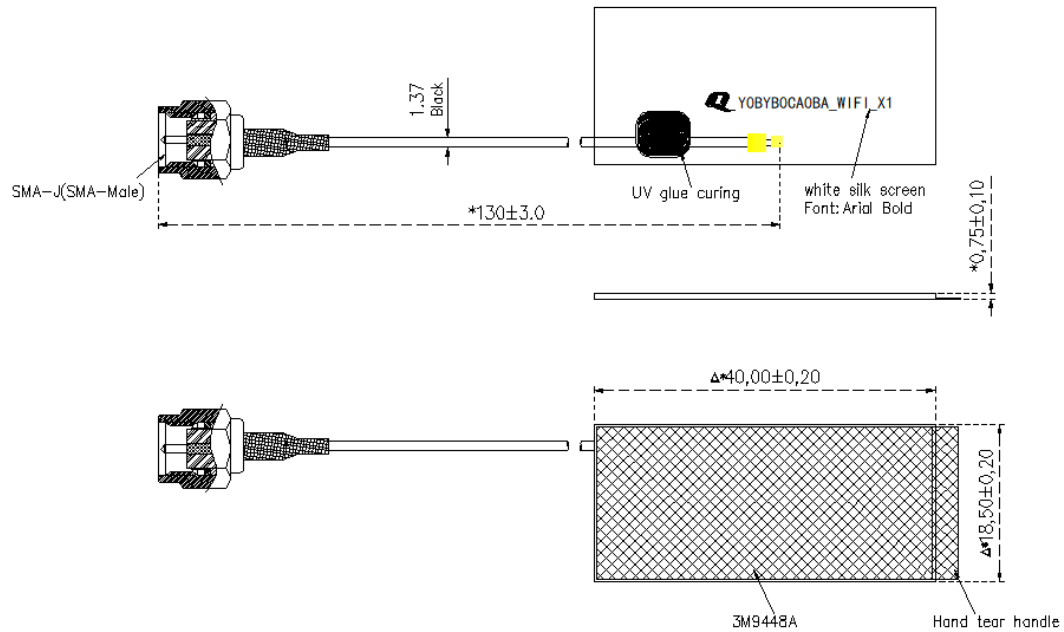
Mechanical	
Antenna Dimensions	40 mm × 18.5 mm
Material & Color	PCB & Black
Cable Type & Color & Length	Φ 1.37 & Black & 130 mm
Connector Type	SMA Male
Weight	/
Mounting Type	Adhesive
Environmental	
Operation Temperature	-40 °C to +85 °C

Storage Temperature	-40 °C to +85 °C
RoHS	Yes

1.3. Antenna Assembly



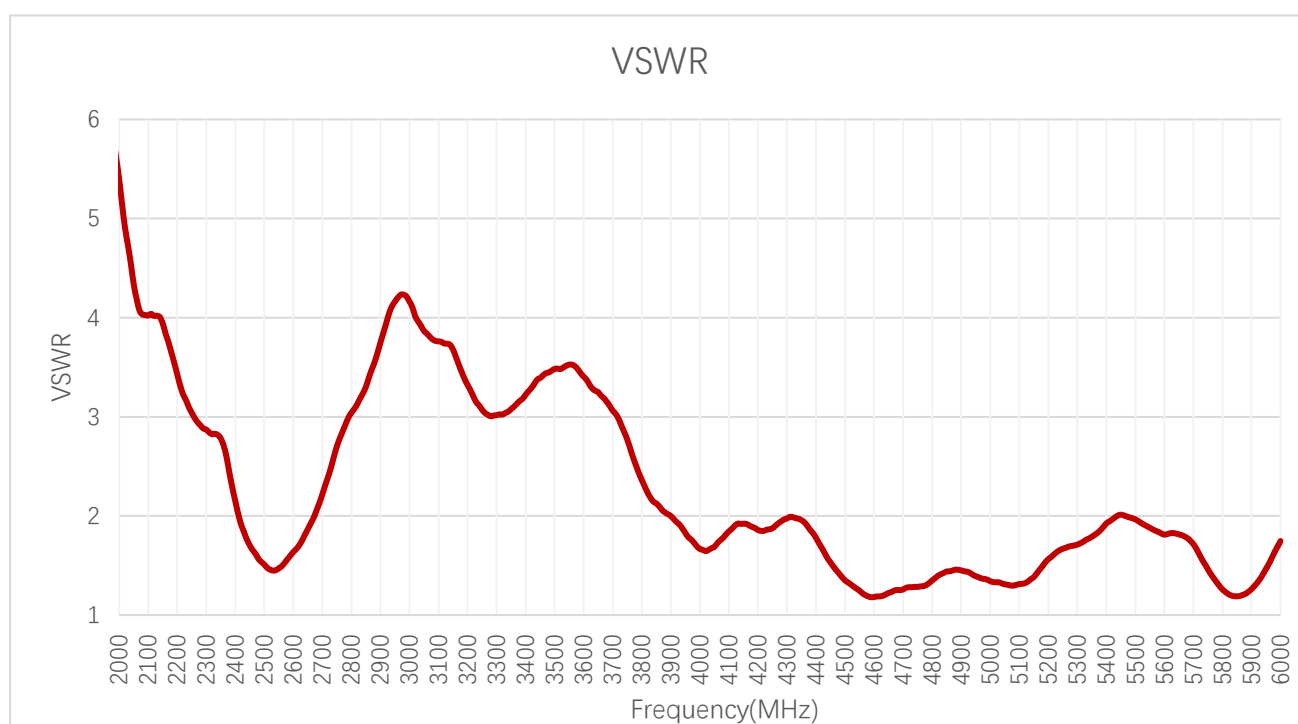
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

3.1.1. VSWR

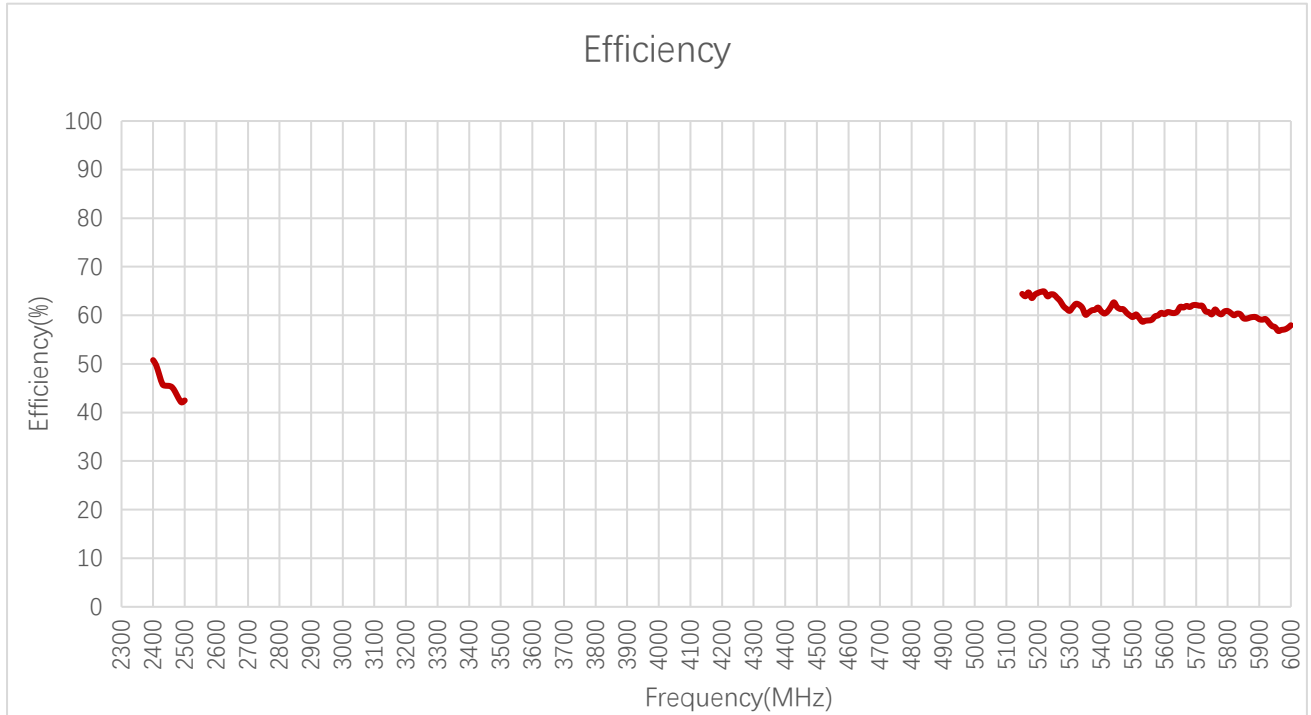


VSWR

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
VSWR	2.1	1.7	1.5	1.4	2.0	1.2	-	-	-

3.2. Radiation Performance Test

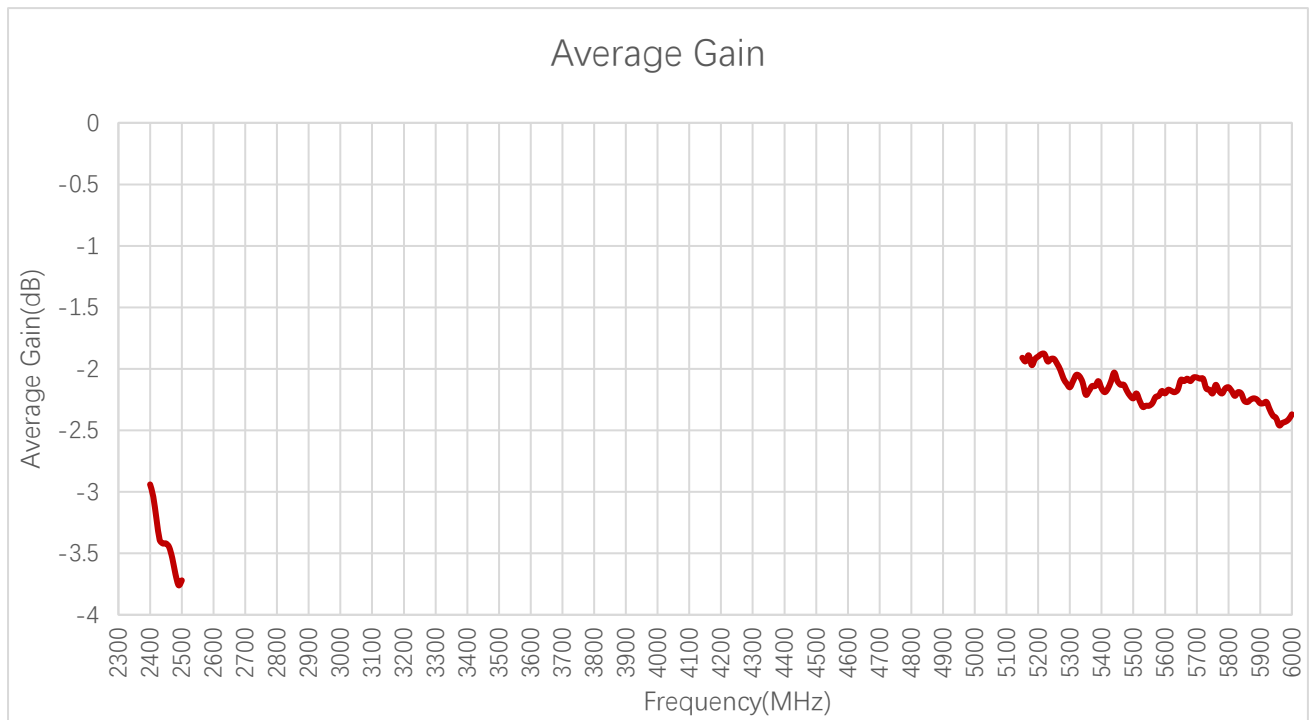
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
Efficiency (%)	50.8	45.5	42.5	64.4	59.6	59.4	-	-	-

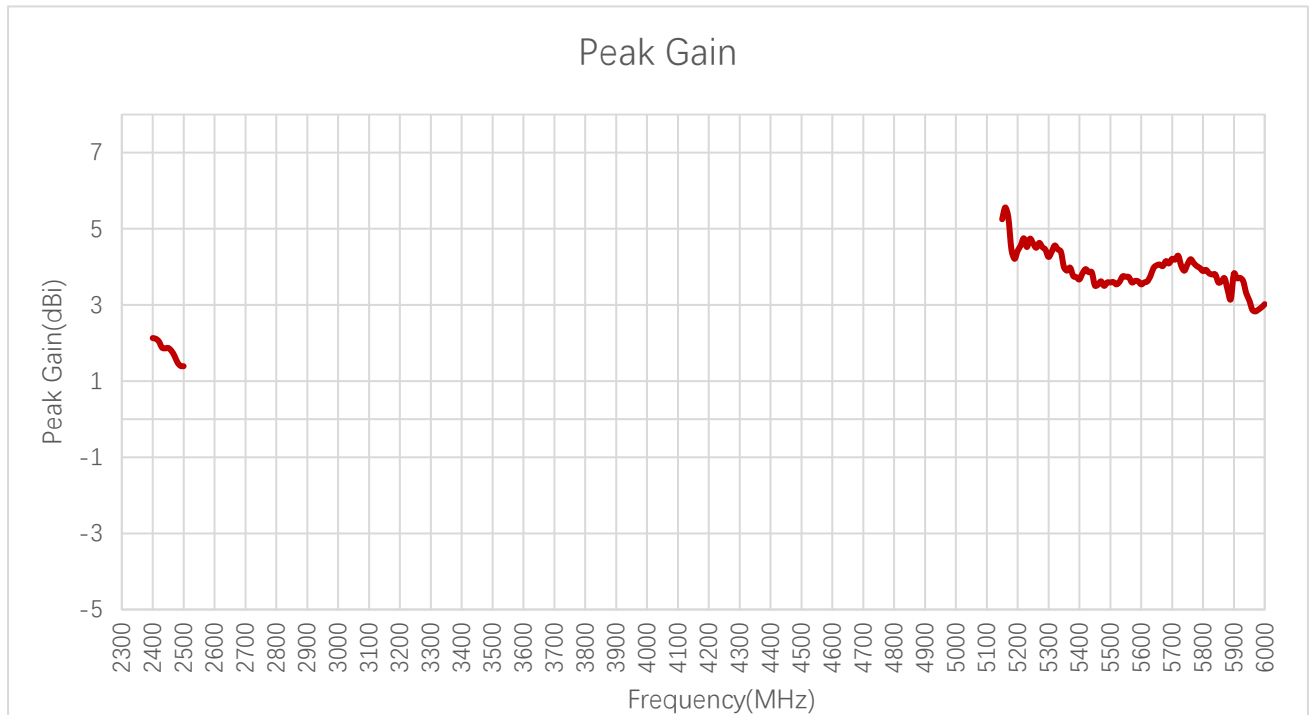
3.2.2. Average Gain



Average Gain (dB)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
Average Gain (dB)	-2.9	-3.4	-3.7	-1.9	-2.2	-2.3	-	-	-

3.2.3. Peak Gain

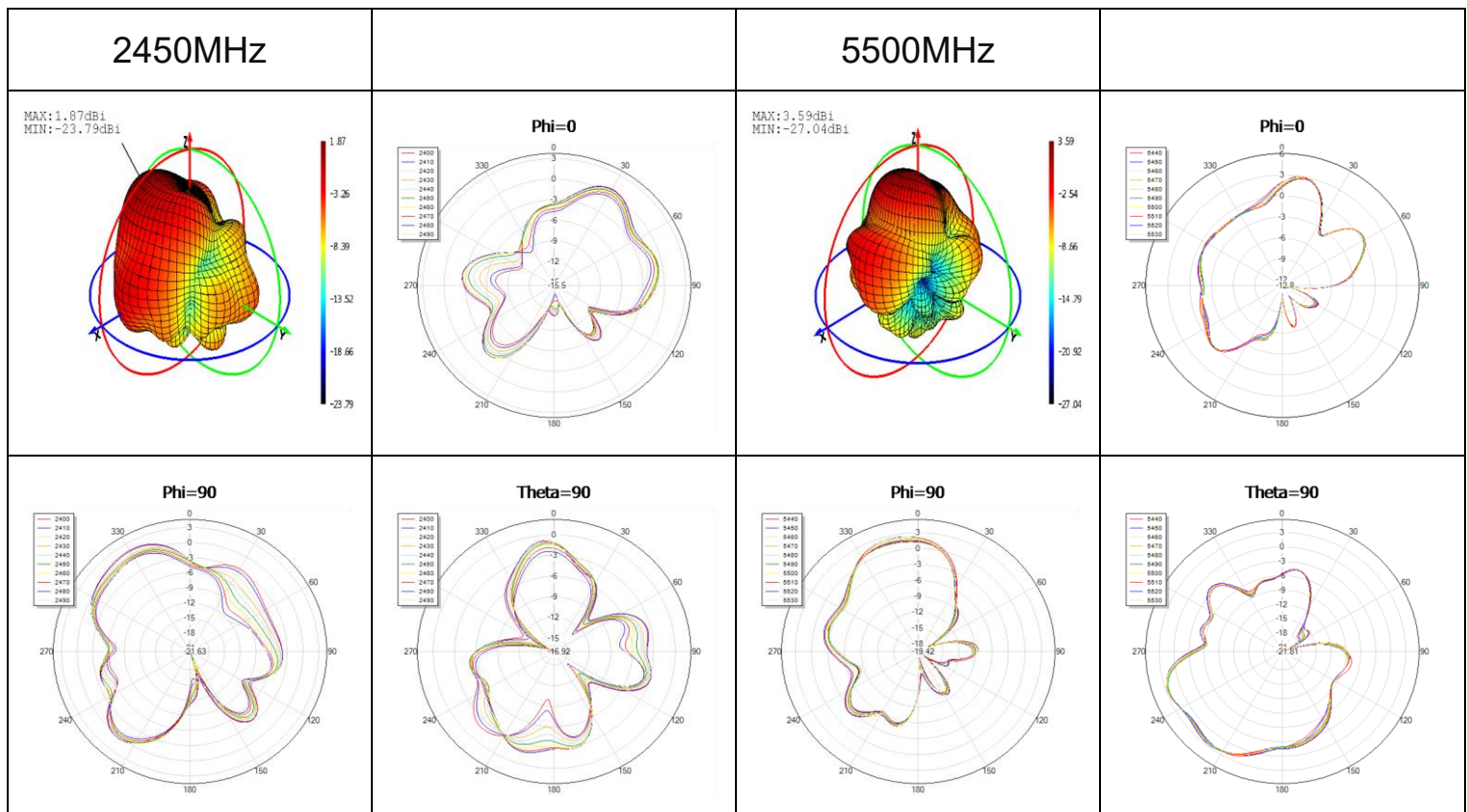


Peak Gain (dBi)

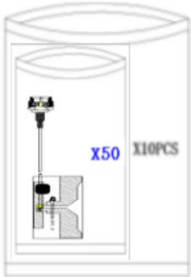
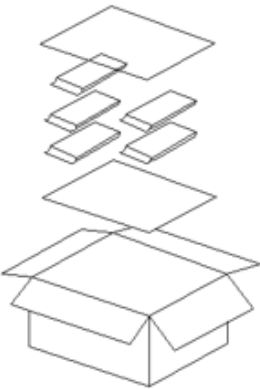
Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
Peak Gain (dBi)	2.1	1.9	1.4	5.3	3.6	3.6	-	-	-

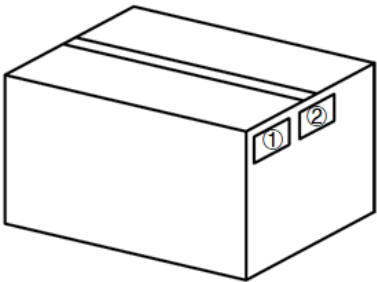
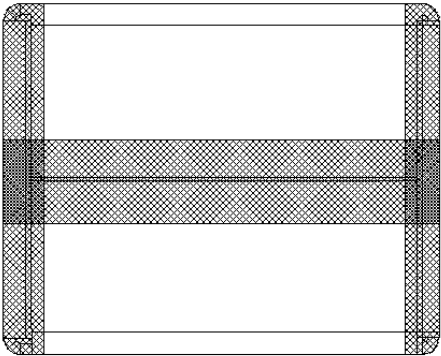
3.2.4. 2D Radiation Pattern

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



4 Packaging

Step	Packaging Picture / 2D Picture	Description
1	 50PCS/Bag	50 pcs antenna products in a small PE bag (50 PCS Antennas / Small PE Bag)
2	 500PCS/bag	500 pcs antenna products in a big PE bag. (500 PCS Antennas / Big PE Bag)
3	 5BAGS/CTN	(5 Big PE Bags / Carton Box) (2500 PCS 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 = 325 × 325 × 200 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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Or our local offices. For more information, please visit:

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Revision History

Version	Date	Author	Note
-	2025-04-14	Qinming PENG Bill MO/ Riva REN Aria CHU	Creation of the document
1.0	2025-04-14	Qinming PENG Bill MO/ Riva REN Aria CHU	First official release



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