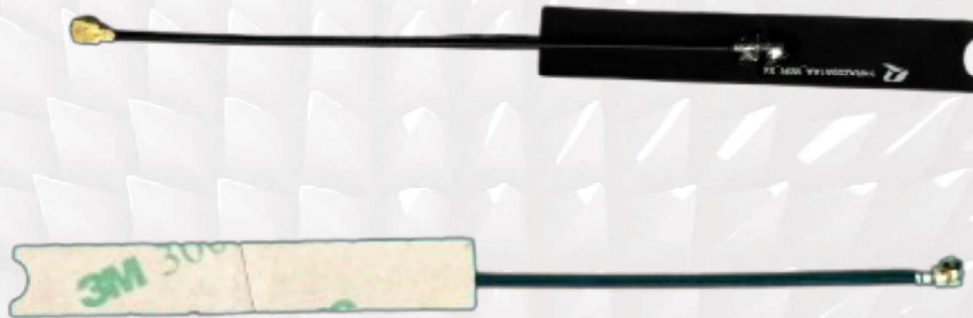




Antenna Datasheet

Product OC: Y4RAZ00A1AA

Version: 1.0

Date: 2024-10-21

Status: Preliminary

Product Name: Wi-Fi Adhesive Mount FPC Dipole Antenna

Key Features:

Frequency band: 2400–2500 MHz

Peak efficiency: 48 %

Dimensions: 49 × 8.1 mm

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
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional

Specification	Band	Band	Wi-Fi 2G	Wi-Fi 5G	Wi-Fi 6G
		Freq. (MHz)	2400–2500	5150–5850	5925–7125
Max. VSWR			1.7	-	-
Max. Return Loss (dB)			-11.7	-	-
AVG Eff. (%)			44.5	-	-
AVG Gain (dB)			-3.5	-	-
Max. Peak Gain (dBi)			3.5	-	-
VSWR			≤ 1.7		
Return Loss			≤ -11.7 dB		
Peak Gain			≤ 3.5 dBi		

1.2. Mechanical & Environmental

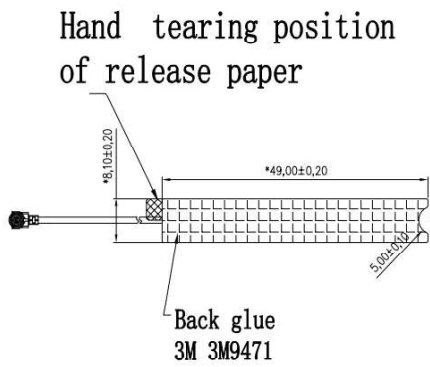
Mechanical	
Antenna Size	49 × 8.1 mm
Antenna Material & Color	FPC & Black
Cable Type & Color & Length	Φ 1.13 & Black & 80 mm
Connector Type	IPEX MHF I
Mounting Type	Adhesive
Antenna Weight	Typ. 0.5 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS and REACH Compliant	Yes

1.3. Antenna Assembly



Y4RAZ00A1AA

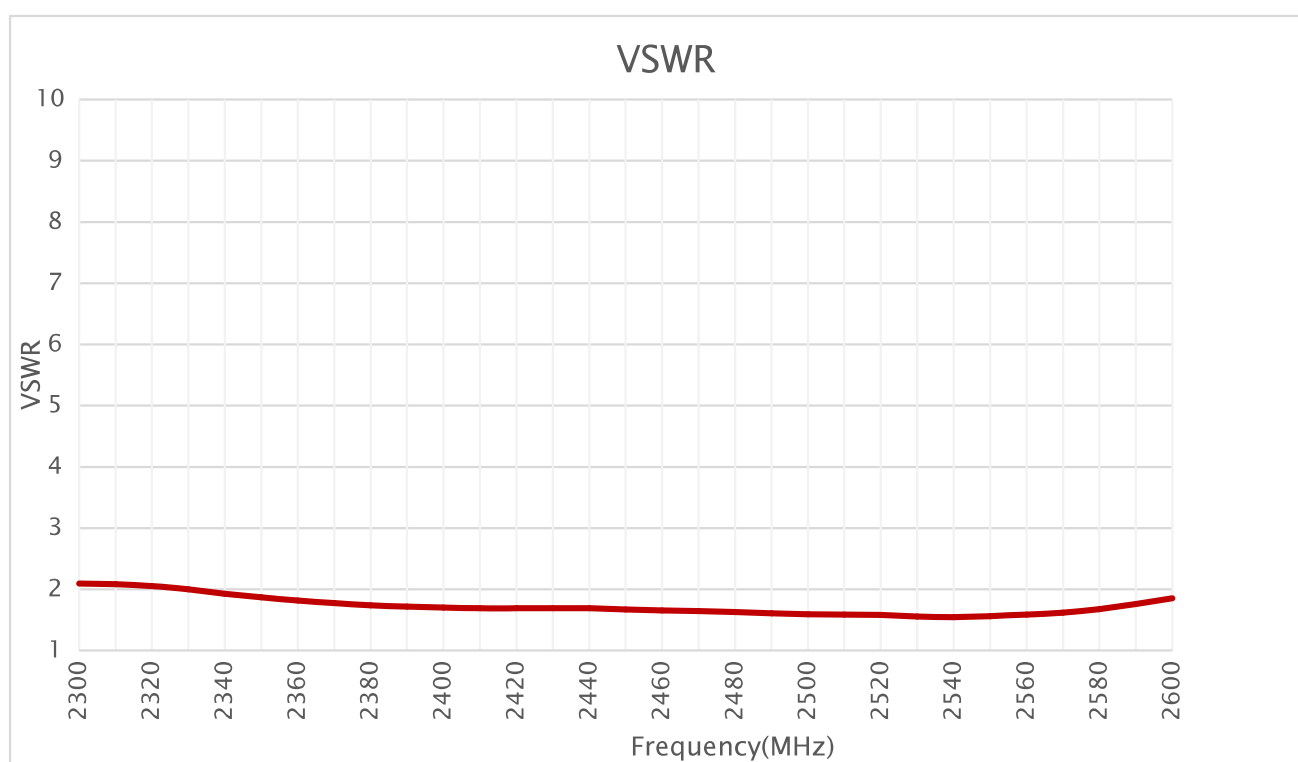
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

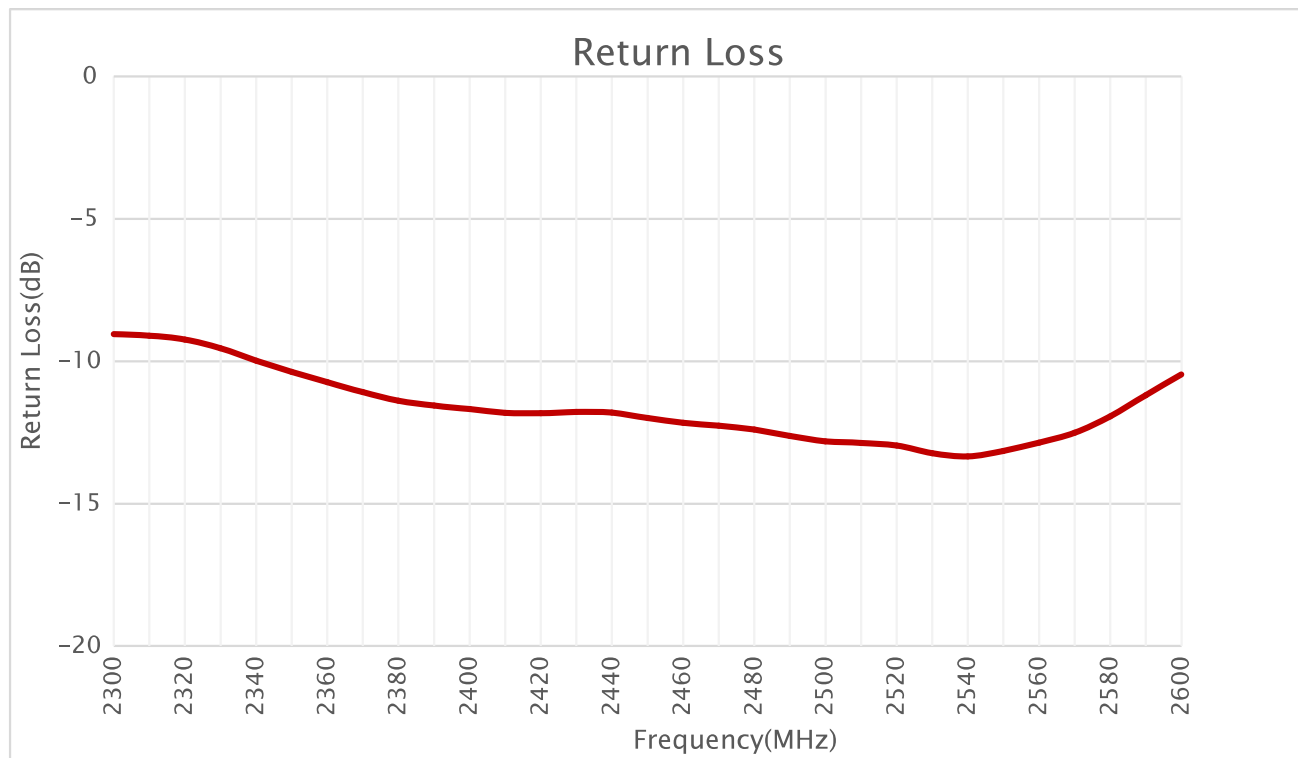
3.1.1. VSWR



VSWR

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
VSWR	1.7	1.7	1.6	-	-	-	-	-	-

3.1.2. Return Loss

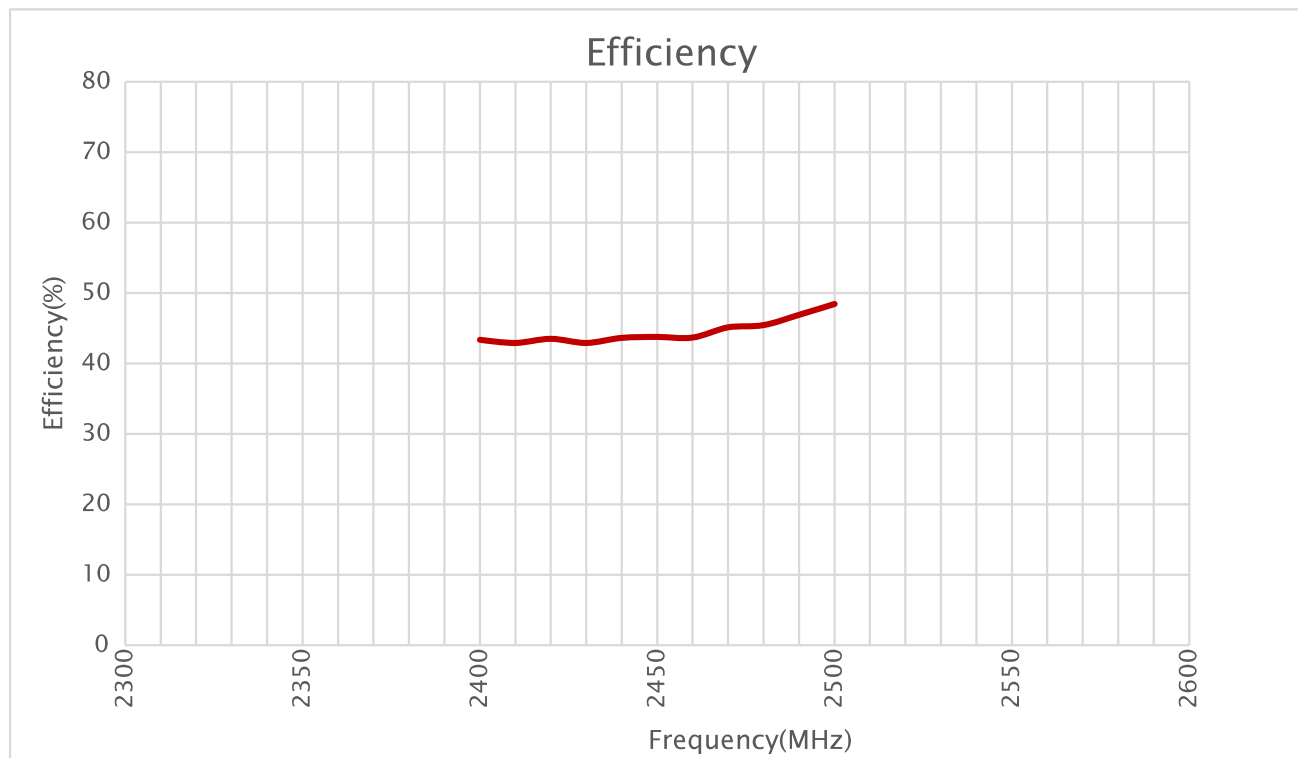


Return Loss (dB)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
Return Loss	-11.7	-12.0	-12.8	-	-	-	-	-	-

3.2. Radiation Performance Test

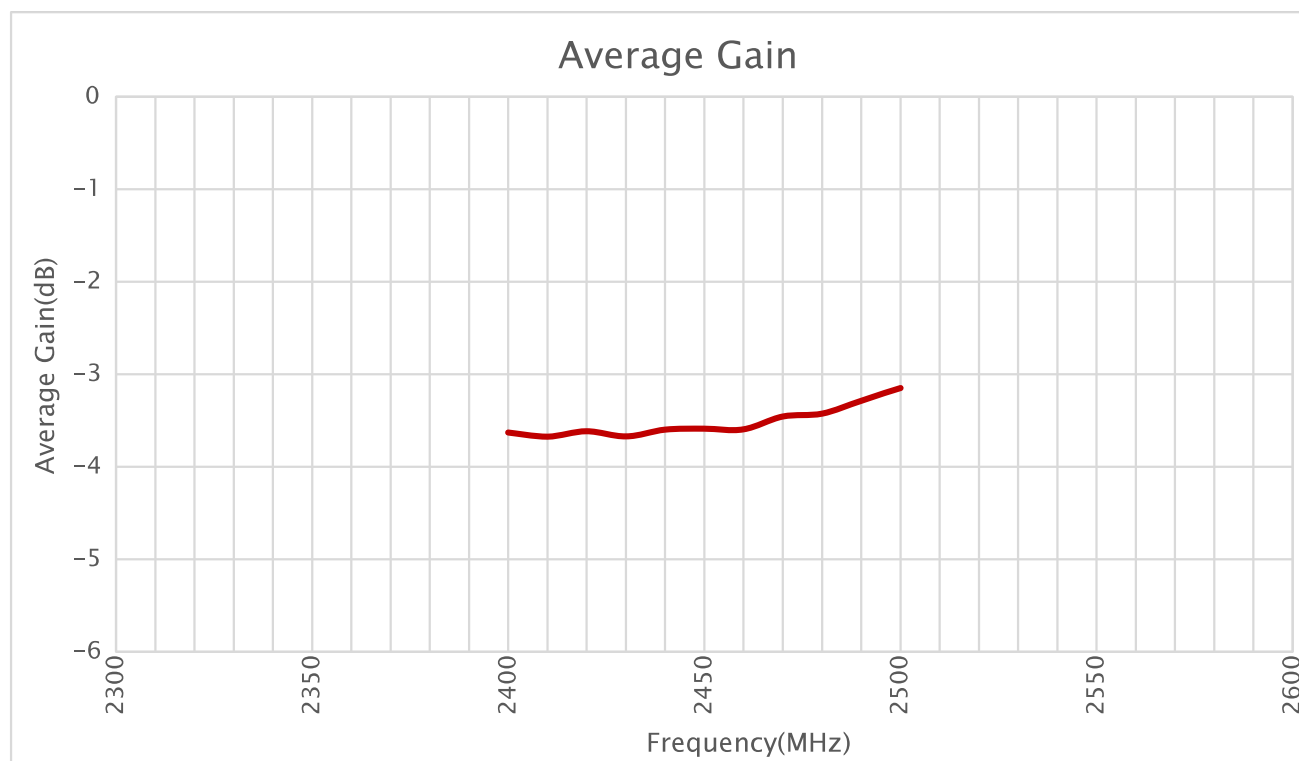
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
Efficiency	43.3	43.8	48.4	-	-	-	-	-	-

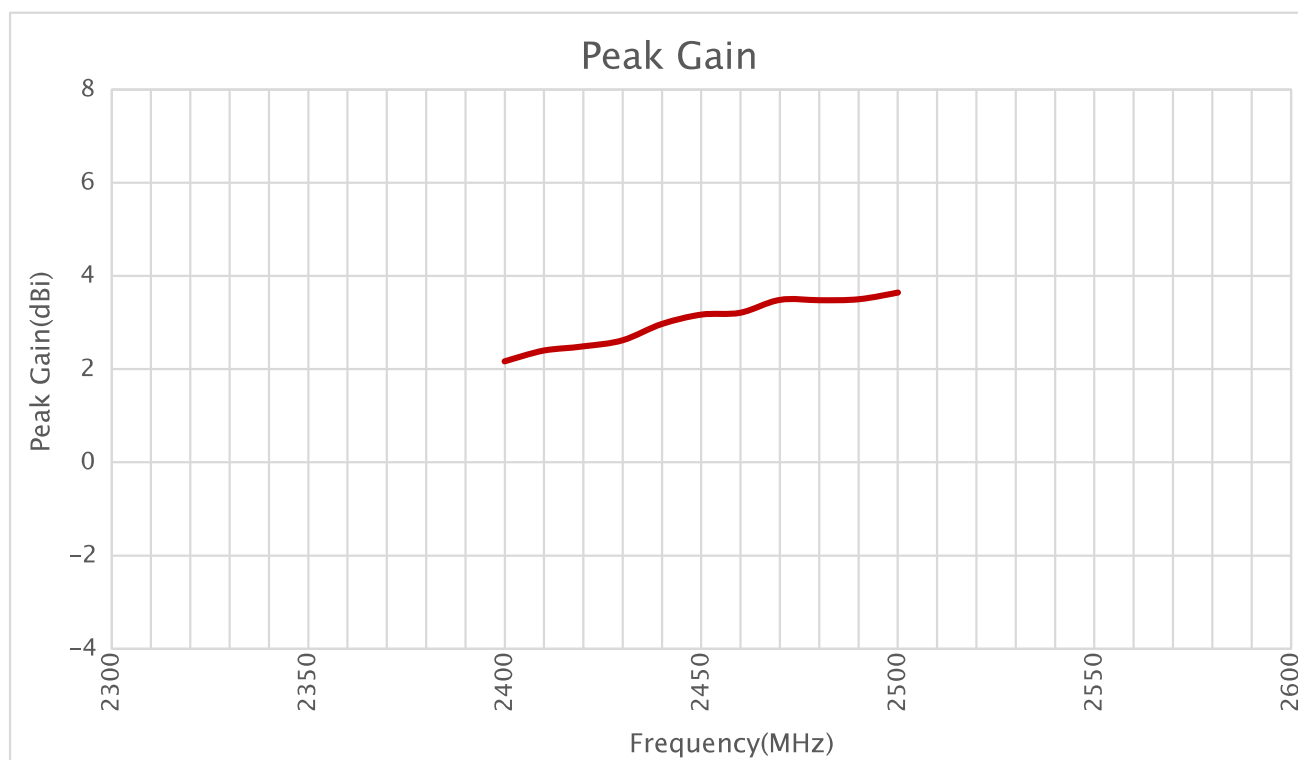
3.2.2. Average Gain



Average Gain (dB)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
Average Gain	-3.6	-3.6	-3.1	-	-	-	-	-	-

3.2.3. Peak Gain

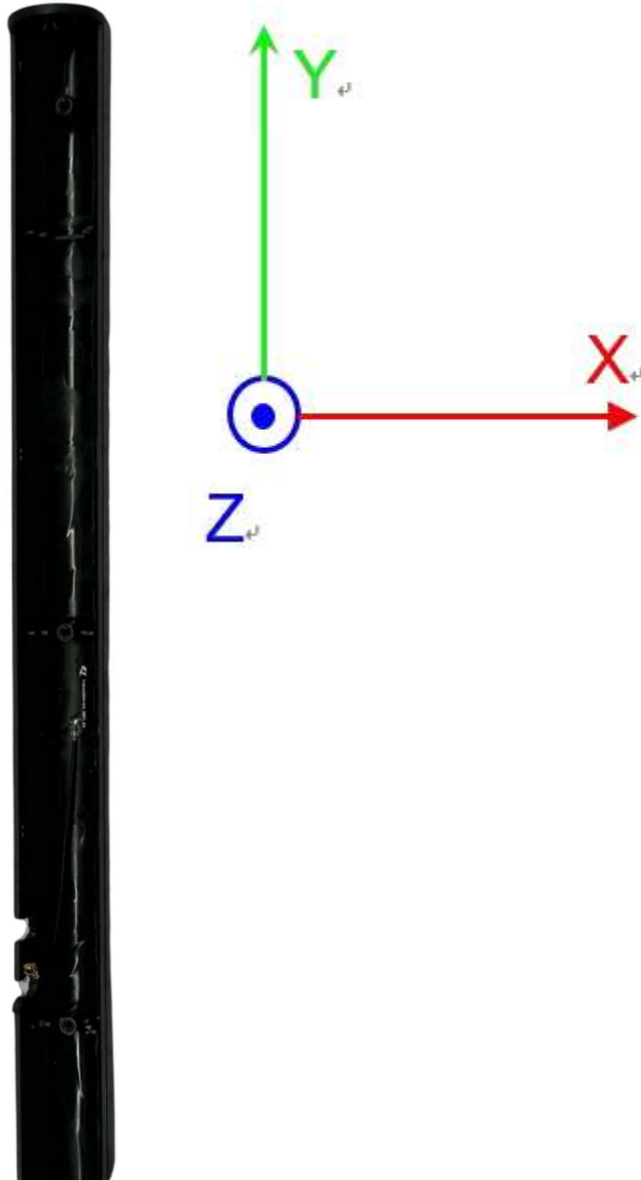


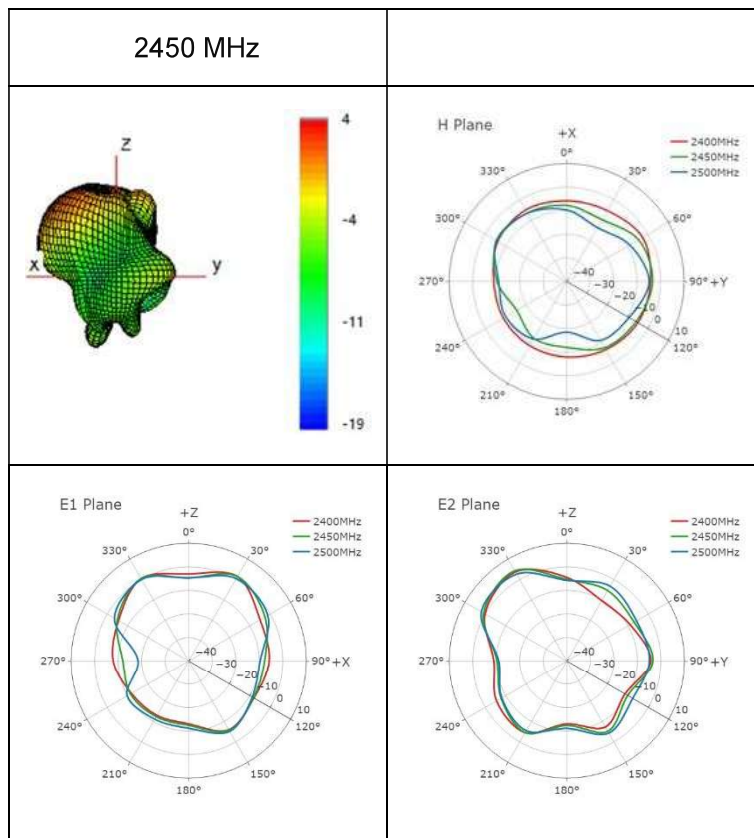
Peak Gain (dBi)

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125
Peak Gain	2.2	3.0	3.5	-	-	-	-	-	-

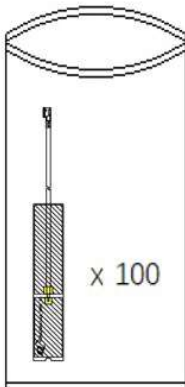
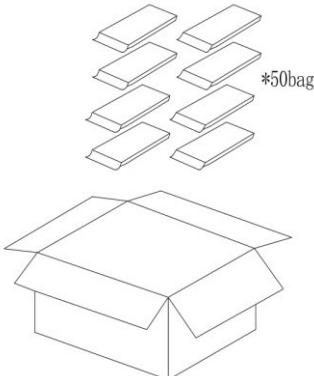
3.2.4. 3D & 2D Radiation Pattern

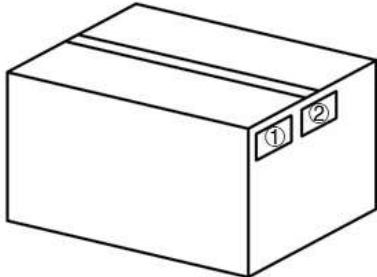
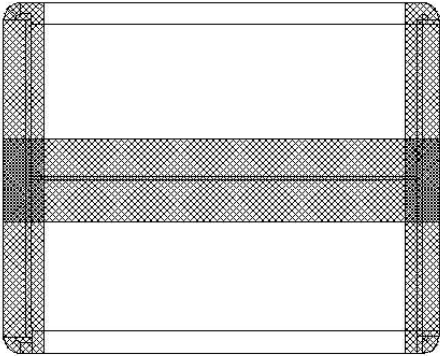
- Test Condition: Assembled in test device
- Test Chamber: GL-G-1





4 Packaging

Step	Packaging picture / 2D picture	Description
1		Product drawing
2		100 pcs Antenna products in a PE bag (100 pcs Antenna / Per PE Bag)
3		50 PE Bag / Per Carton Box (5000 pcs Antenna / Per 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 = 300 × 250 × 200 mm</u>

4		Position for Attaching Labels--- ① Carton Label ② Quality Label
5		Sealing Cartons--- “工” type sealing cartons
6	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
-	2024-10-21	Tina GAN/ Lucky FENG/ David LIU/ Rainey LIAO	Creation of the document
1.0	2024-10-21	Tina GAN/ Lucky FENG/ David LIU/ Rainey LIAO	First official release



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