

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

Contents

Contents	1
1 Specification	2
1.1. Electrical	2
1.2. Mechanical & Environmental	3
1.3. Antenna Assembly	3
2 Drawing	4
3 Detailed Performance	5
3.1. S-Parameter Test	5
3.1.1. VSWR	5
3.1.2. Return Loss	6
3.2. Radiation Performance Test	7
3.2.1. Efficiency	7
3.2.2. Average Gain	8
3.2.3. Peak Gain	9
3.2.4. 3D & 2D Radiation Pattern	10
4 Packaging	12
Contact Us.....	14
Legal Notices	15
Revision History	17

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

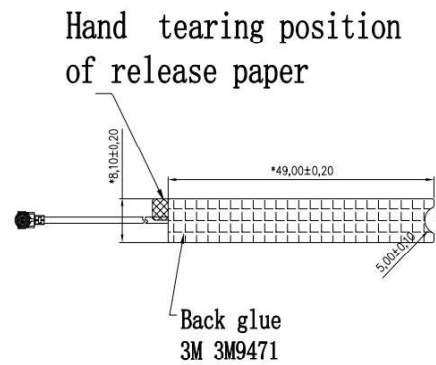
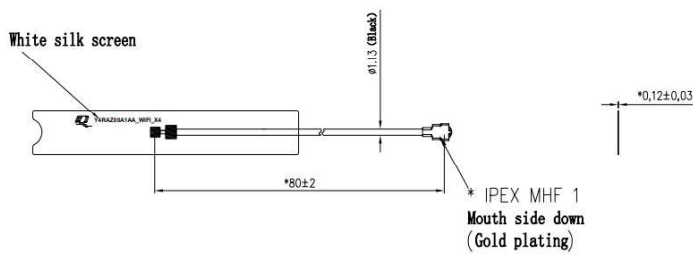
Mechanical	
Antenna Size	49 × 8.1 mm
Antenna Material & Color	FPC & Black
Cable Type & Color & Length	Φ 1.13 & Black & 80 mm
Connector Type	IPEX MHF I
Mounting Type	Adhesive
Antenna Weight	Typ. 0.5 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS and REACH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

1.3. Antenna Assembly



Y4RAZ00A1AA

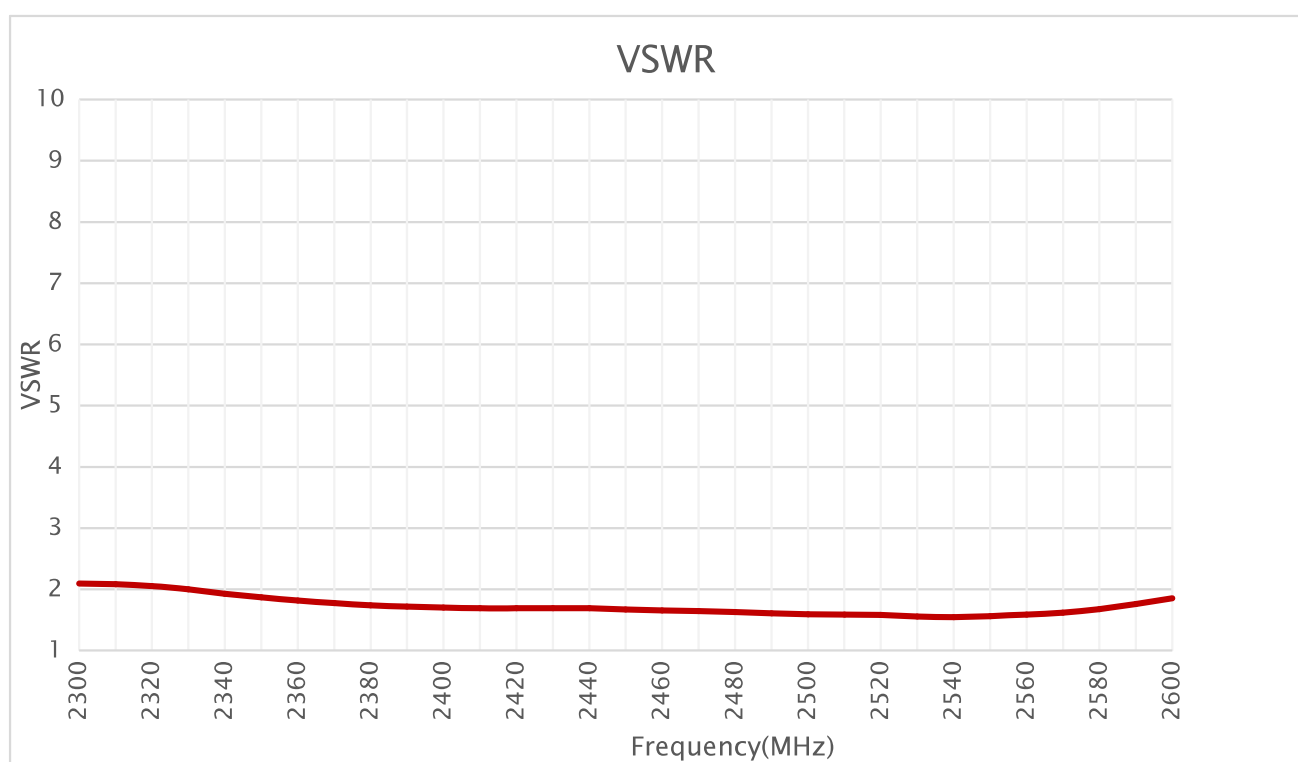
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

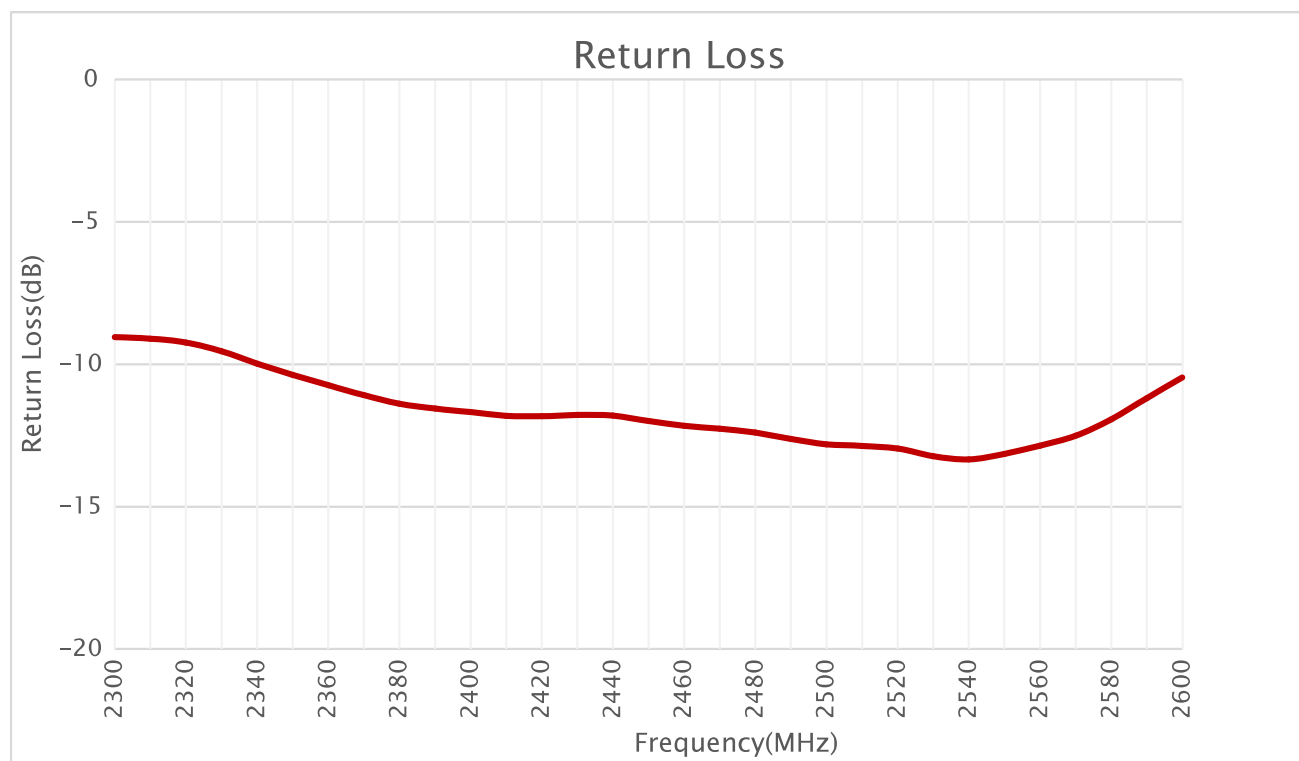
3.1.1. VSWR



VSWR

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

3.1.2. Return Loss

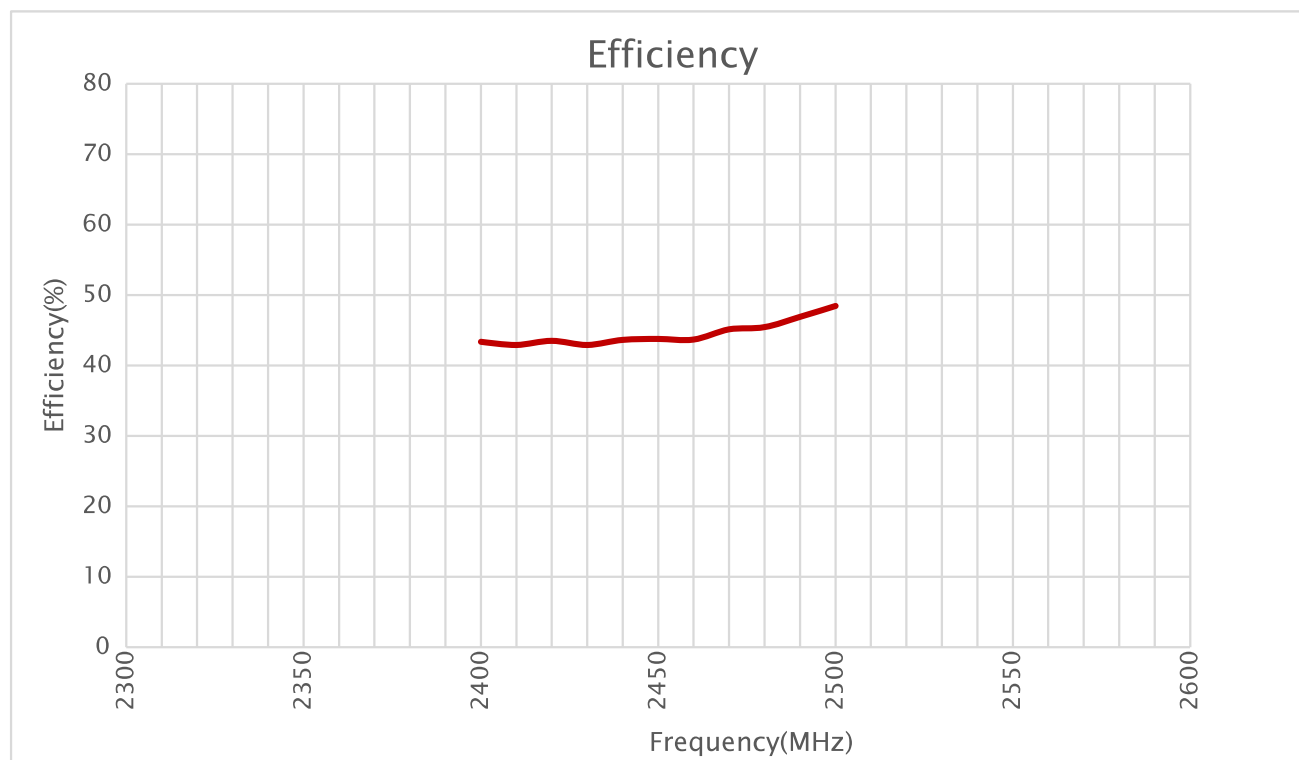


Return Loss (dB)

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

3.2. Radiation Performance Test

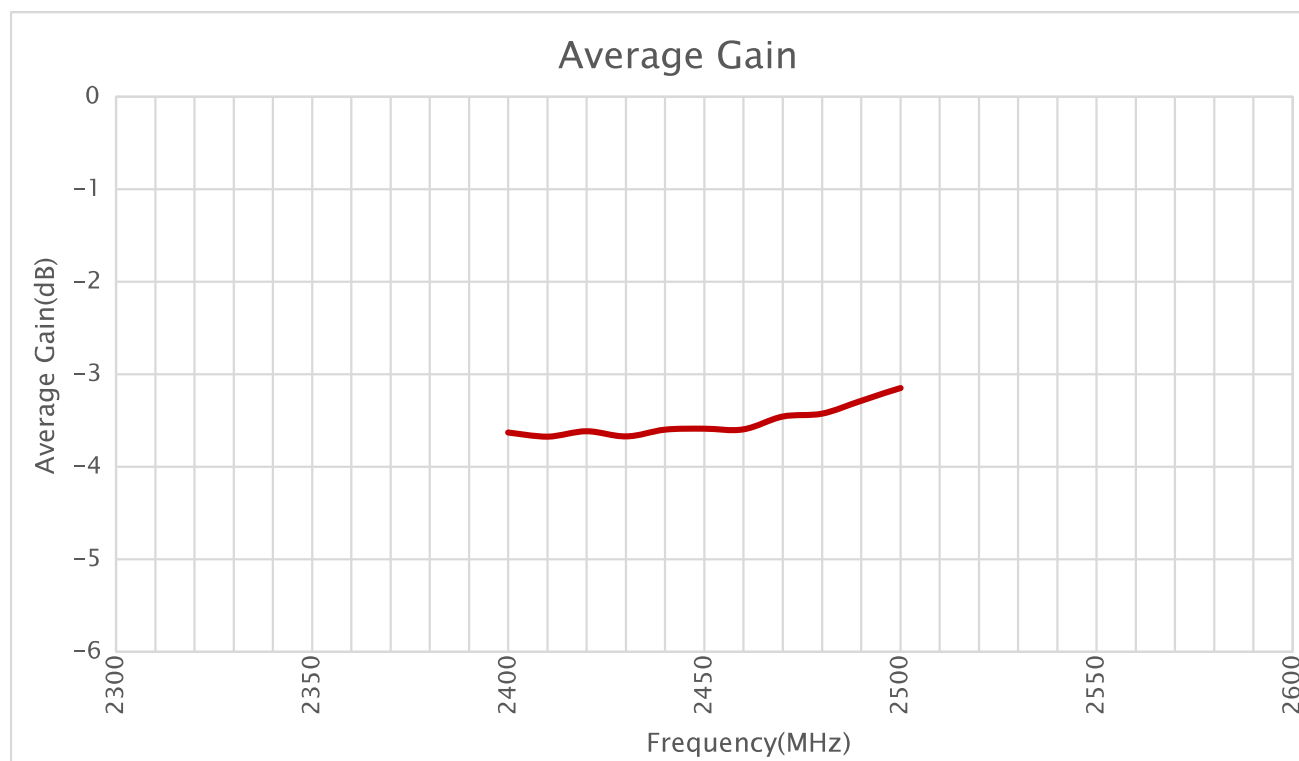
3.2.1. Efficiency



Efficiency (%)

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

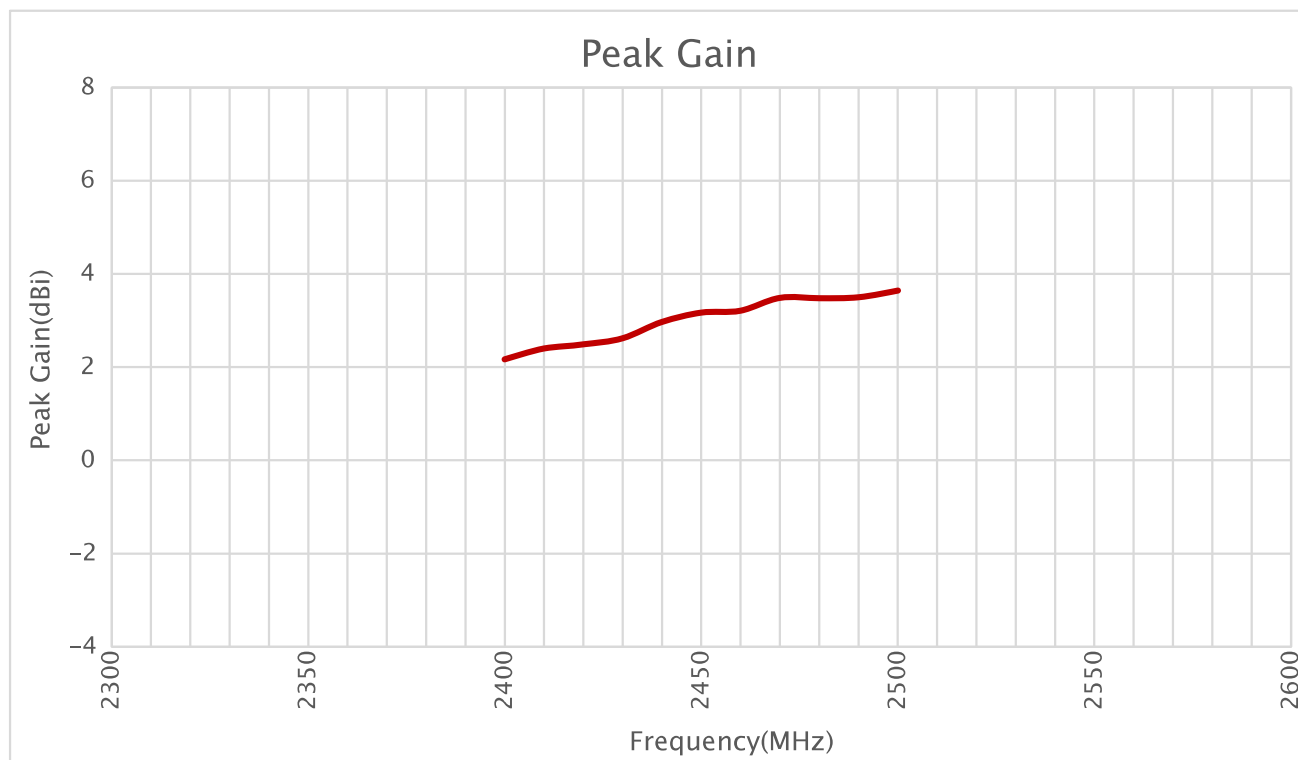
3.2.2. Average Gain



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

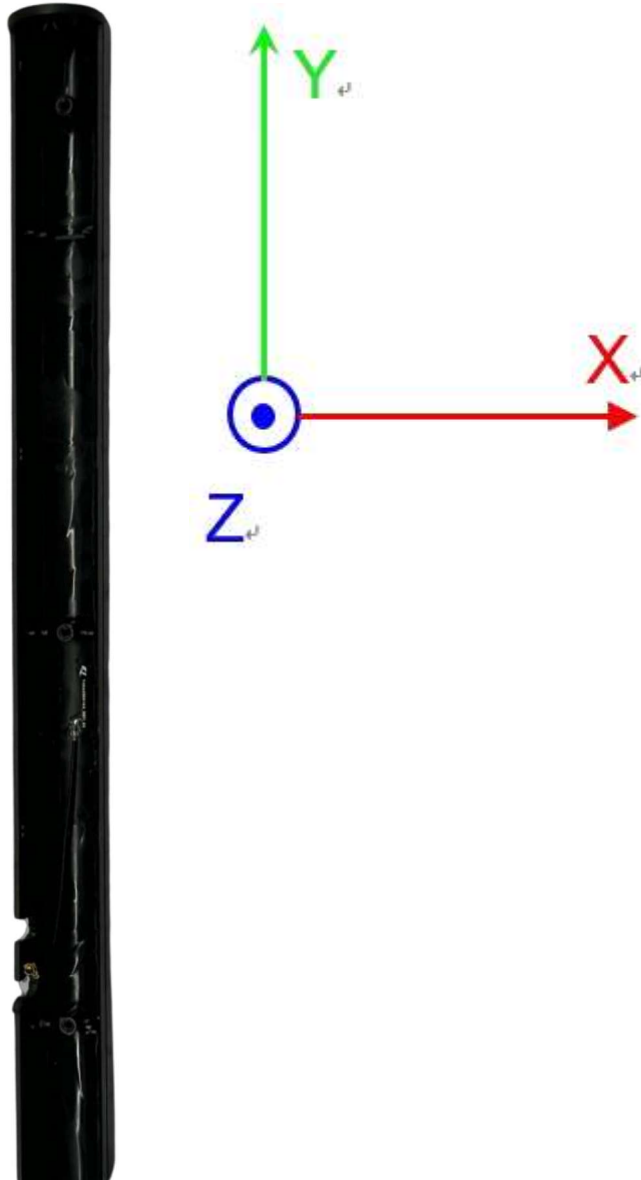


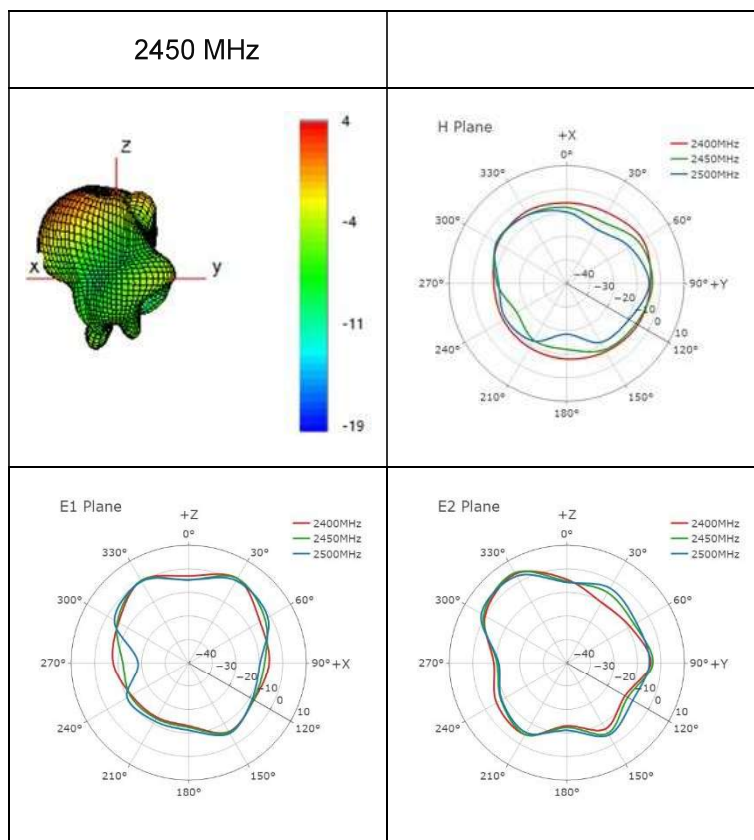
Peak Gain (dBi)

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


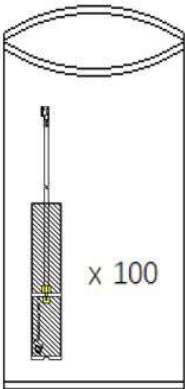
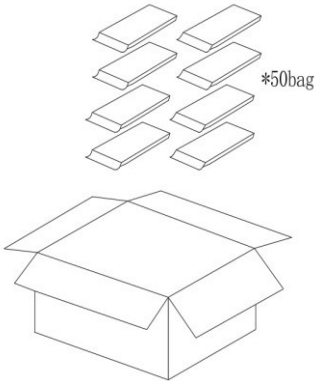
3.2.4. 3D & 2D Radiation Pattern

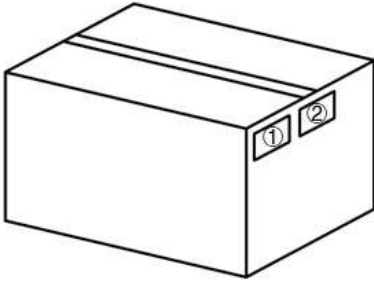
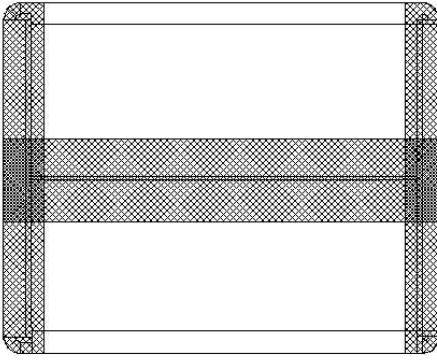
- Test Condition: Assembled in test device
- Test Chamber: GL-G-1





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		<p>Position for Attaching Labels---</p> <p>① Carton Label</p> <p>② Quality Label</p>
5		<p>Sealing Cartons---</p> <p>“工” type sealing cartons</p>
6	<p>The initial packaging method described above is for reference only, and the final actual packaging method shall be subject to the actual shipping packaging.</p>	

Contact Us

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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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