



Antenna Datasheet

Product OC: Y0RPV0CA0BA

Version: 1.0

Date: 2024-09-25

Product Name: WIFI Sucker Antenna

Key Features:

Frequency Band: 2400-2500 MHz

Dimensions: Φ 29.6 mm $\times$ 223 mm

Efficiency: Up to 16.4 % (MP)

RoHS Compliant

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1 Specification

Test Condition: On 300 × 300 mm metal plane & Free Space

1.1. Electrical

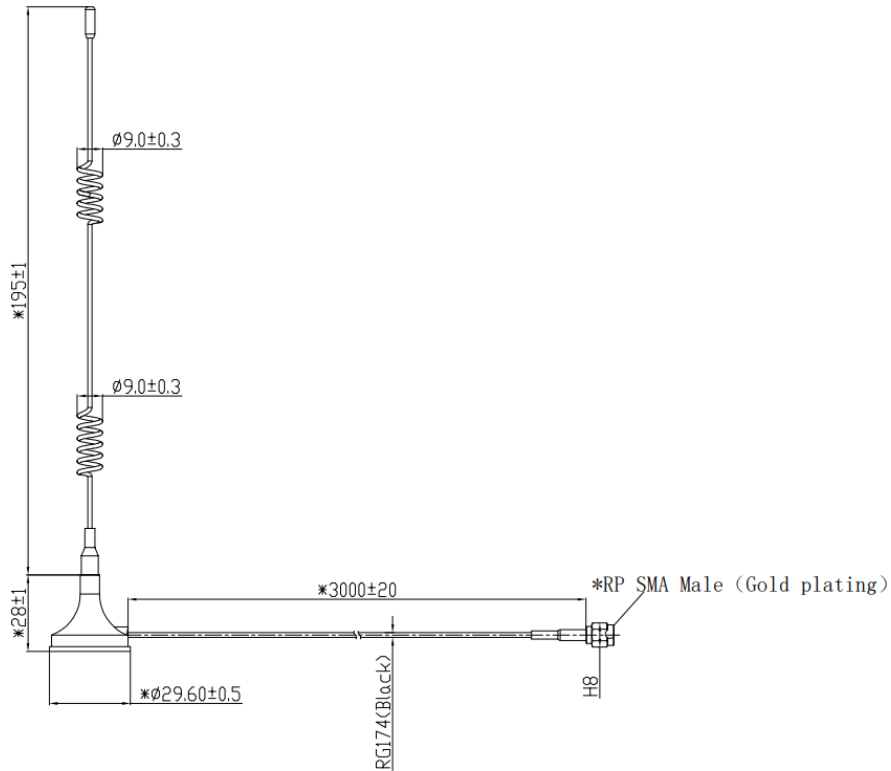
Electrical		
Frequency Range	2400–2500 MHz	
Impedance	50 Ω	
Polarization	Linear	
Radiation Pattern	Omni-directional	
Max. VSWR	MP	≤ 1.7
	FS	≤ 1.7
Max. Peak Gain (dBi)	MP	≤ -2.5 dBi
	FS	≤ -2.4 dBi

- FS: Free Space
- MP: On 300 mm × 300 mm metal plane

1.2. Mechanical & Environmental

Mechanical	
Antenna Dimensions	Φ 29.6 mm × 223 mm
Material & Color	Carbon Steel & Black
Cable Type & Color & Length	RG174 & Black & 3000 mm
Connector Type	RP SMA Male
Mounting Type	Magnet
Weight	Typ. 46.8 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS Compliant	Yes

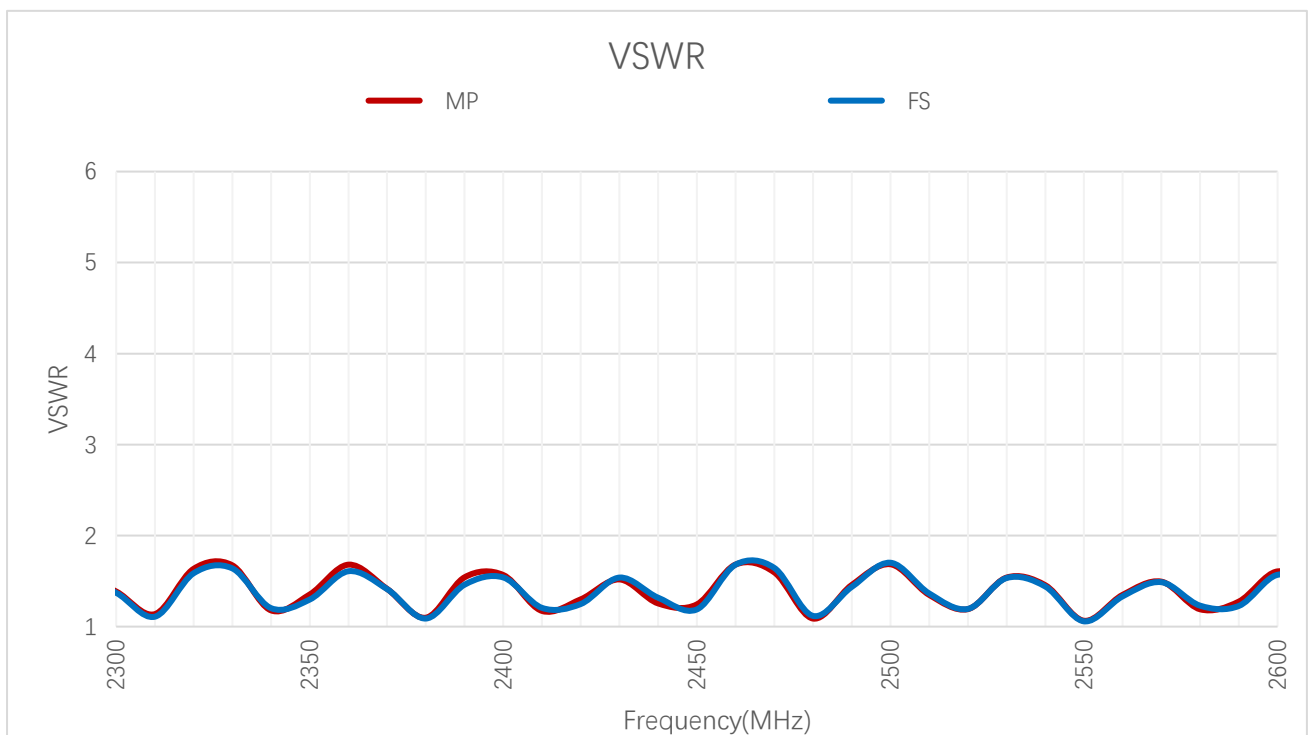
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

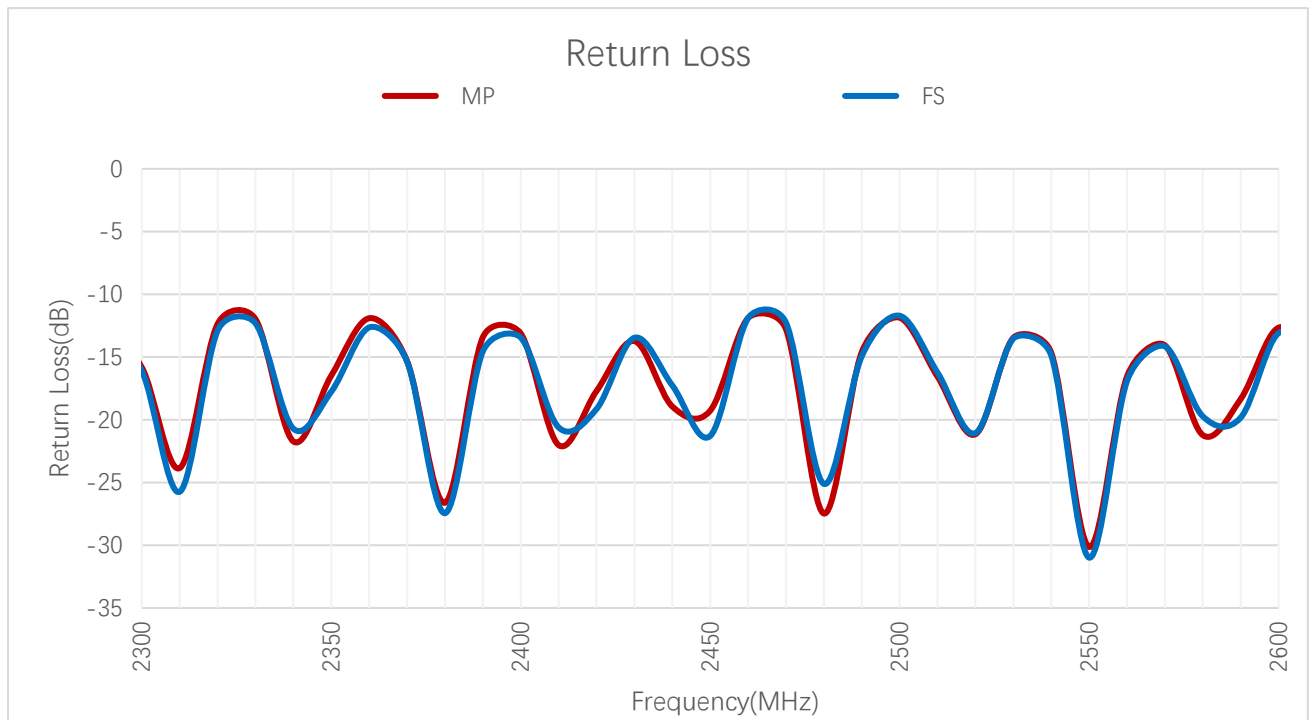
3.1.1. VSWR



VSWR

Frequency (MHz)		2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
VSWR	MP	1.6	1.2	1.7	-	-	-	-	-	-	-
	FS	1.5	1.2	1.7	-	-	-	-	-	-	-

3.1.2. Return Loss

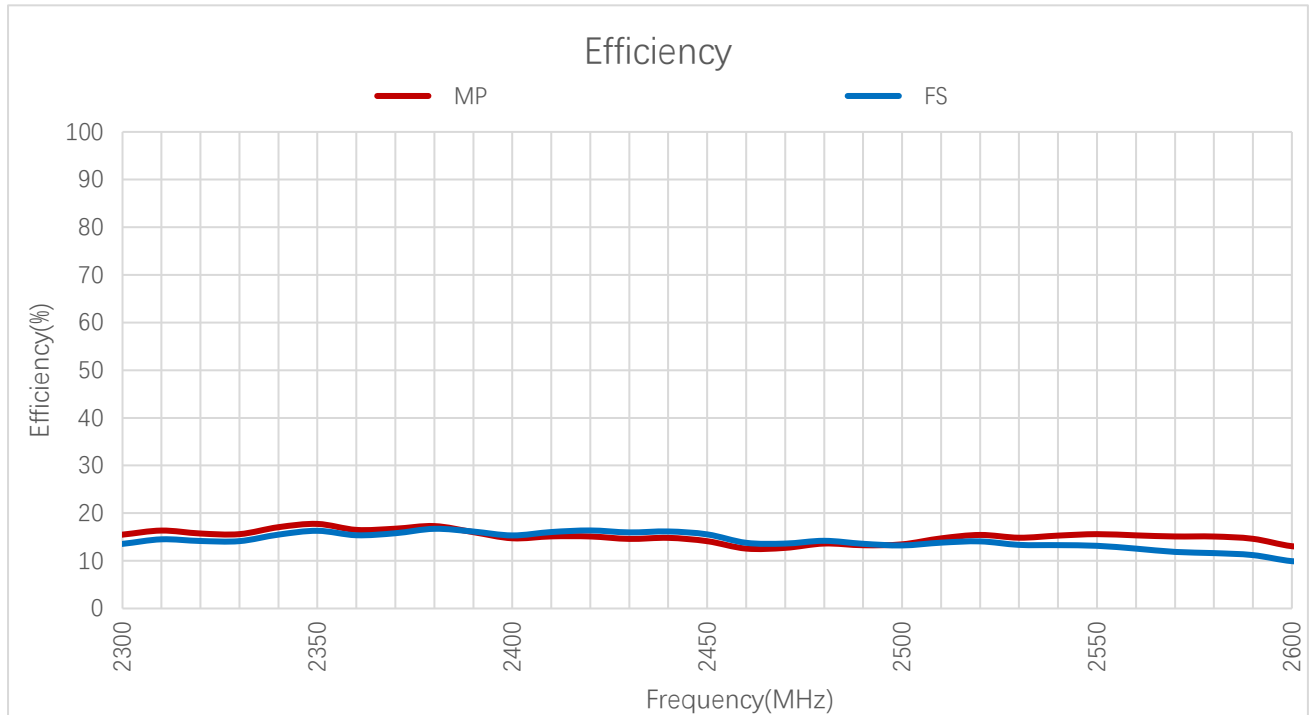


Return Loss

Frequency (MHz)		2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Return Loss (dB)	MP	-13.1	-19.3	-11.9	-	-	-	-	-	-	-
	FS	-13.4	-21.3	-11.7	-	-	-	-	-	-	-

3.2. Radiation Performance Test

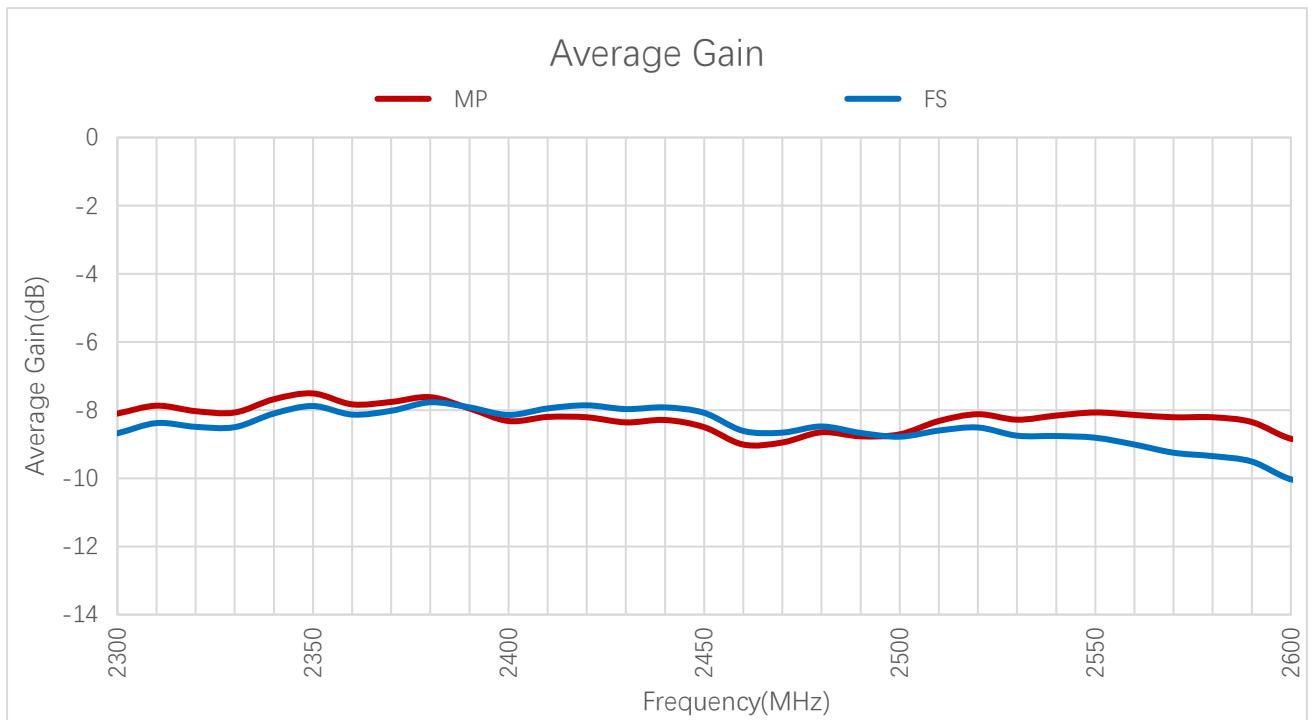
3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)		2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Efficiency (%)	MP	14.7	14.1	13.5	-	-	-	-	-	-	-
	FS	15.3	15.6	13.2	-	-	-	-	-	-	-

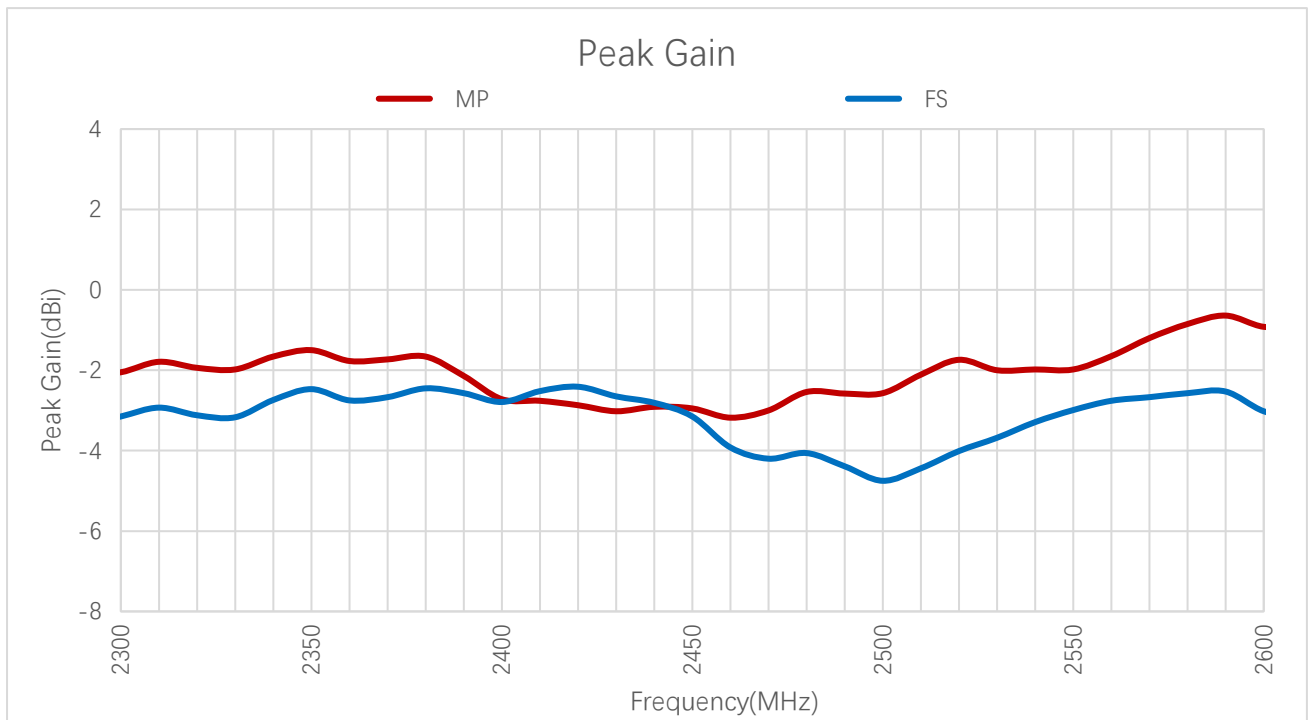
3.2.2. Average Gain



Average Gain (dB)

Frequency (MHz)		2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Average Gain (dB)	MP	-8.3	-8.5	-8.7	-	-	-	-	-	-	-
	FS	-8.1	-8.1	-8.8	-	-	-	-	-	-	-

3.2.3. Peak Gain



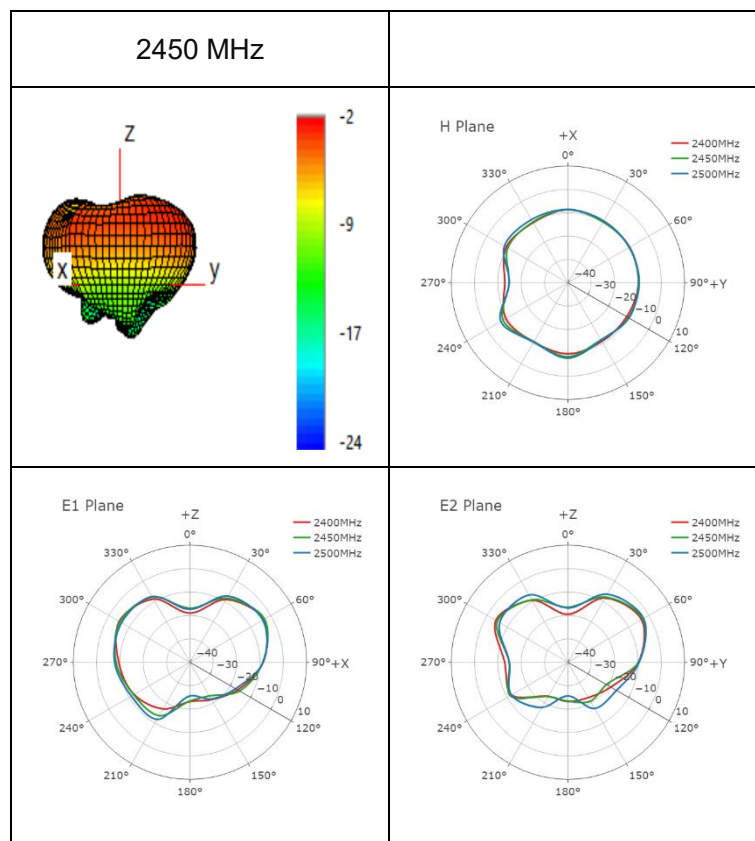
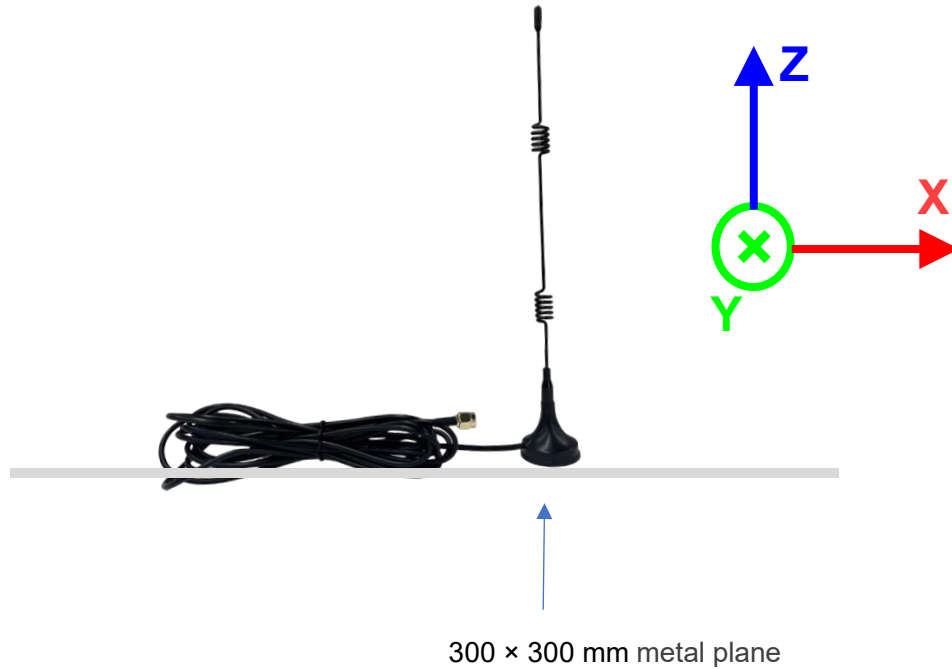
Peak Gain (dBi)

Frequency (MHz)		2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Peak Gain (dBi)	MP	-2.7	-3.0	-2.6	-	-	-	-	-	-	-
	FS	-2.8	-3.2	-4.8	-	-	-	-	-	-	-

3.2.4. 3D & 2D Radiation Pattern

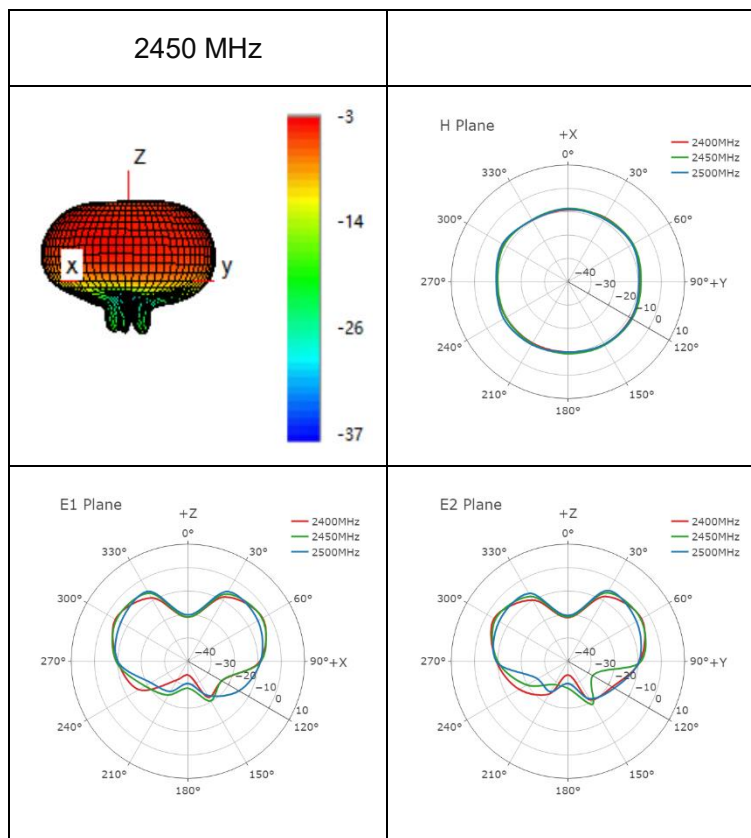
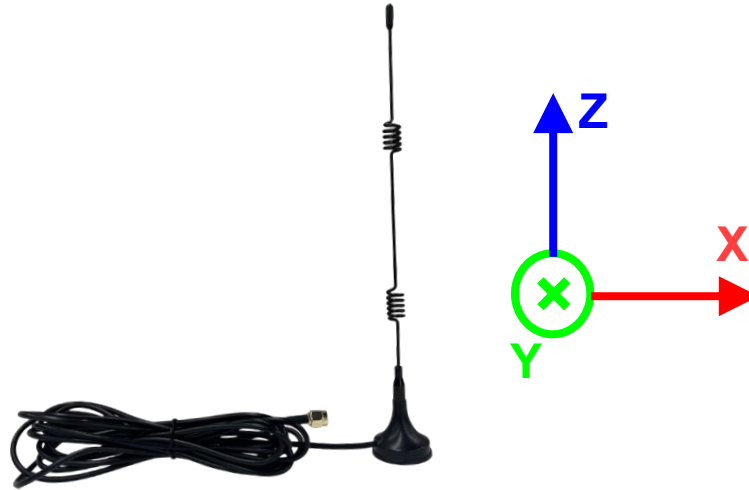
3.2.4.1. Test Condition: On 300×300 mm metal plane

- Test Chamber: GL-G-1

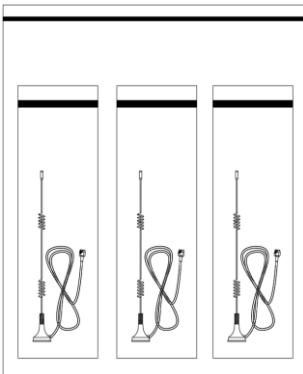
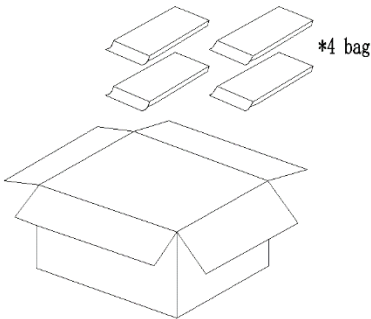


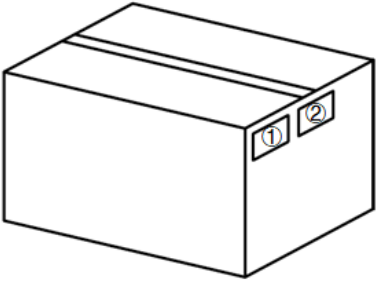
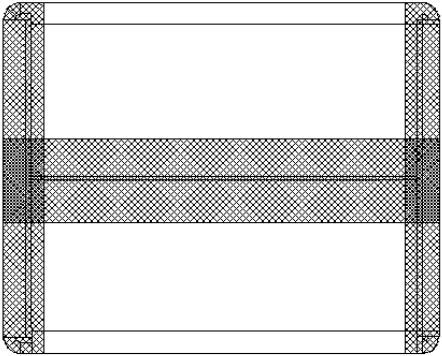
3.2.4.1. Test Condition: Free Space

- Test Chamber: GL-G-1



4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		1 pc antenna product in a small PE bag. (1 PC Antenna / PE Bag)
2		50 pcs antenna products in a big PE bag. (50 PCS Antennas / Big PE Bag)
3		(4 Big PE Bags / Carton Box) (200 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 = 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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Revision History

Version	Date	Author	Note
-	2024-09-25	Nico PAN/ Lucky FENG/ David LIU/ Aria CHU	Creation of the document
1.0	2024-09-25	Nico PAN/ Lucky FENG/ David LIU/ Aria CHU	First official release



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