

Antenna Datasheet

Product OC: Y0CAJ0CA1AA

Version: 1.0

Date: 2024-09-22

Product Name: External 4G Antenna

Key Features:

Frequency Band: 600–960 MHz, 1710–2700 MHz, 3500-3700 MHz

Dimensions: 109.97 × 18 × 13 mm

Efficiency: Up to 65.4%

RoHS and REACH Compliant

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1 Specification

Test Condition: Assembled in test device

1.1. Electrical

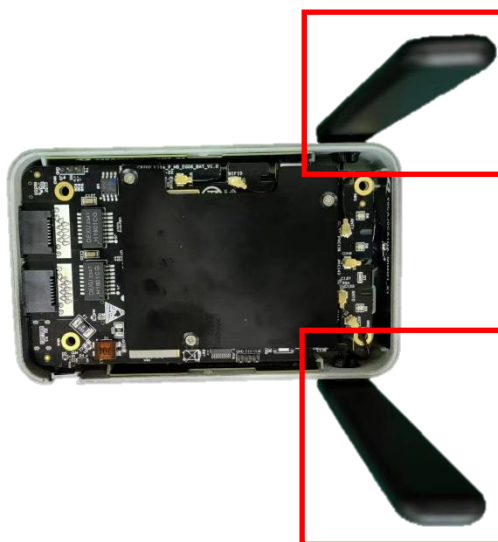
Electrical	
Frequency Range	600–960 MHz, 1710–2700 MHz, 3500-3700 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional
VSWR	≤ 3.4
Peak Gain	4.6 dBi

1.2. Mechanical & Environmental

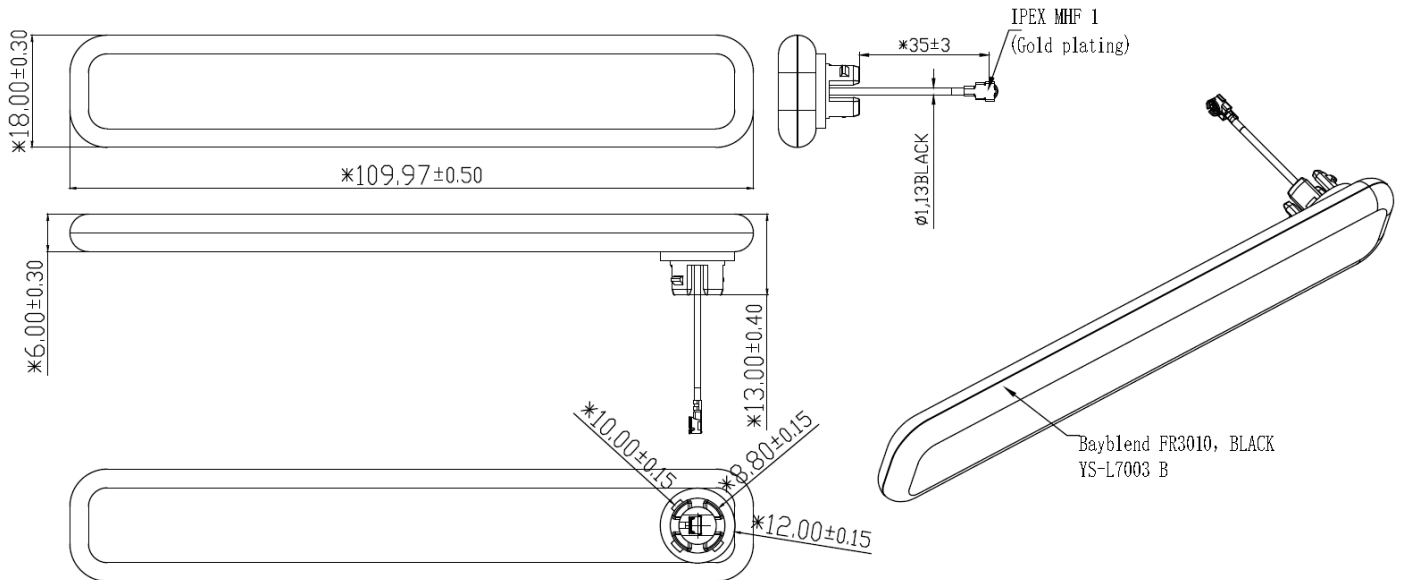
Mechanical	
Antenna Dimensions	109.97 × 18 × 13mm
Material & Color	Bayblend FR3010 & Black
Cable Type & Color & Length	Φ1.13 & Black & 35mm
Connector Type	IPEX MHF 1
Weight	Buckle
Mounting Type	Typ.7.6 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C

RoHS & REACH Compliant	Yes
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1.3. Antenna Assembly



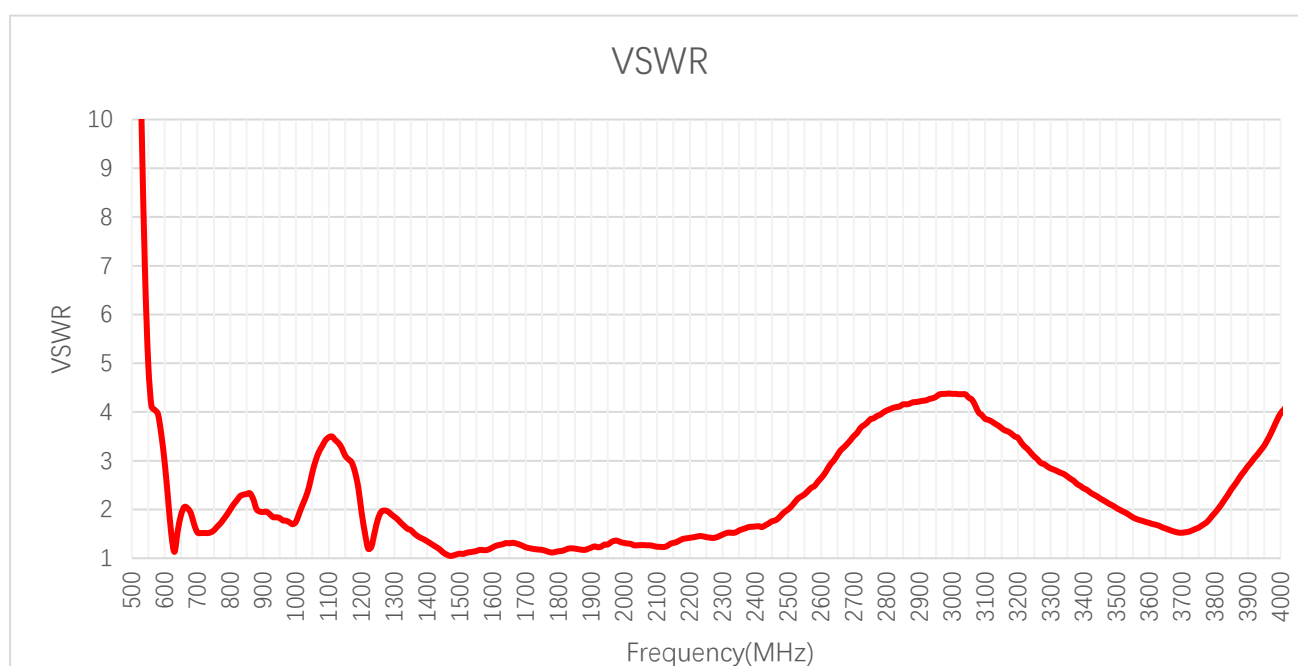
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

3.1.1. VSWR

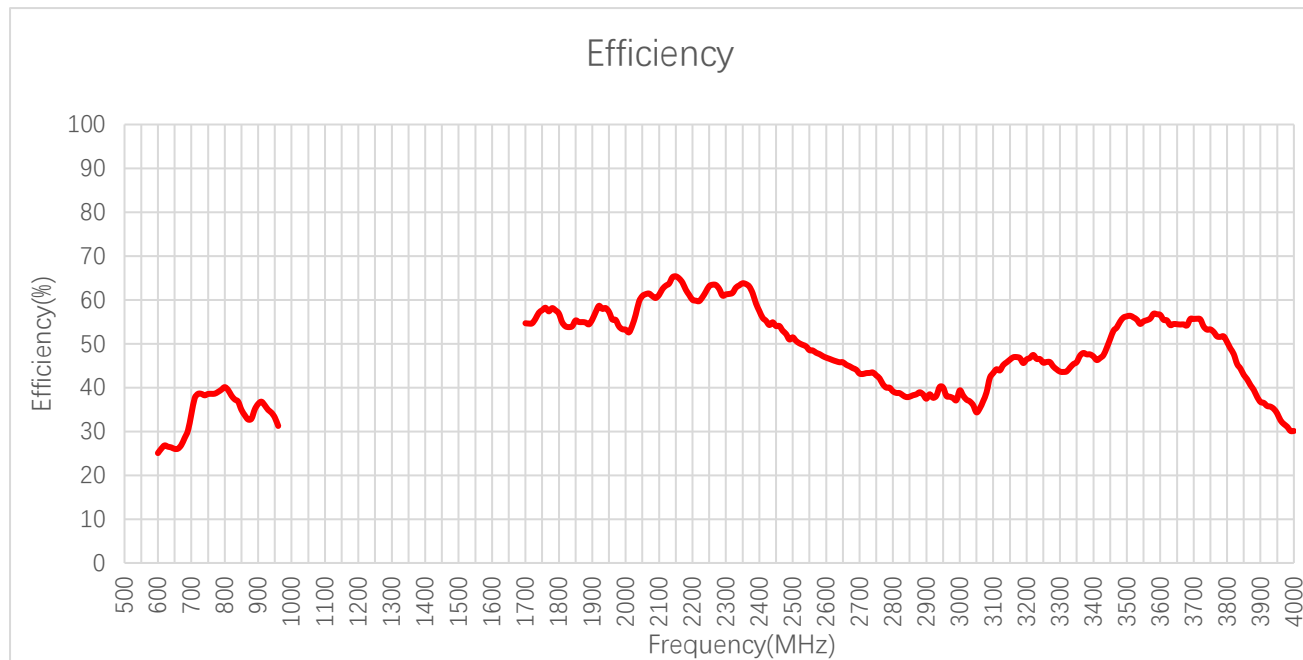


VSWR

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
VSWR	3.0	1.4	1.7	2.4	2.0	1.8	-	1.2	1.1	1.2
Frequency (MHz)	1950	2140	2350	2450	2600	2690	3500	3700	5500	6000
VSWR	1.3	1.4	1.6	2.0	2.7	3.1	2.0	1.5	-	-

3.2. Radiation Performance Test

3.2.1. Efficiency



Efficiency (%)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Efficiency (%)	25.1	26.5	37.6	37.3	36.3	31.3	-	54.6	57.1	54.8
Frequency (MHz)	1950	2140	2350	2450	2600	2690	3500	3700	5500	6000
Efficiency (%)	57.3	65.2	63.8	54.0	46.8	44.1	56.3	55.7	-	-

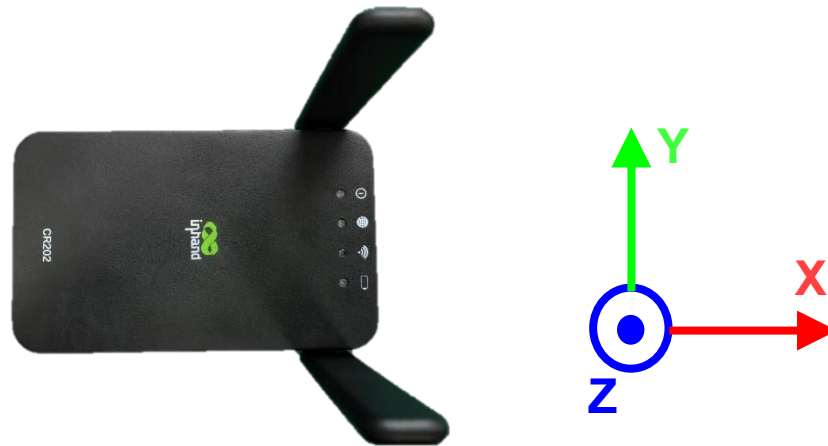
3.2.2. Peak Gain

Peak Gain (dBi)

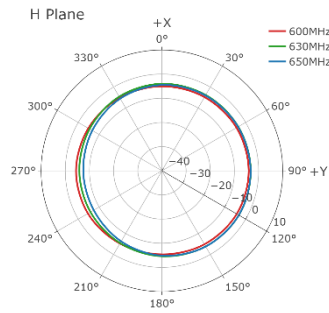
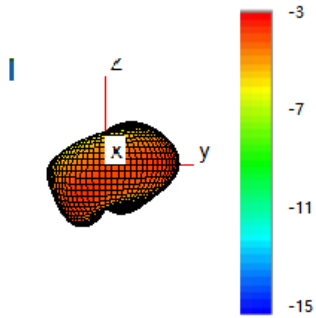
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Peak Gain (dBi)	-4.1	-3.2	-0.8	-0.8	-0.5	-1.5	-	2.6	3.4	3.5
Frequency (MHz)	1950	2140	2350	2450	2600	2690	3500	3700	5500	6000
Peak Gain (dBi)	3.9	4.5	0.82	3.0	0.3	-0.7	0.25	1.0	-	-

3.2.3. 2D Radiation Pattern

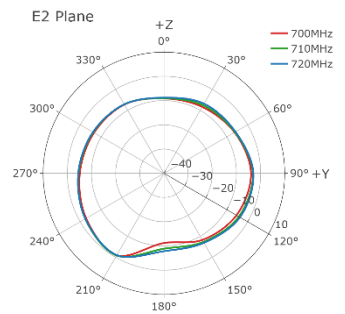
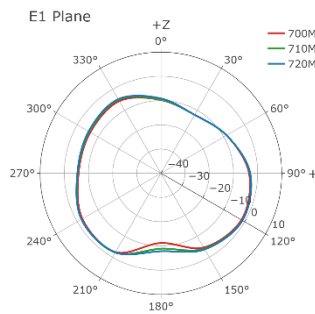
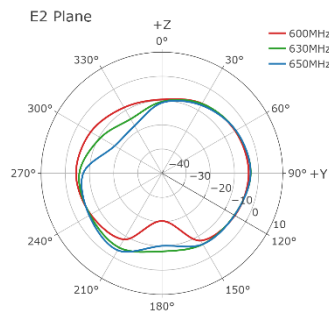
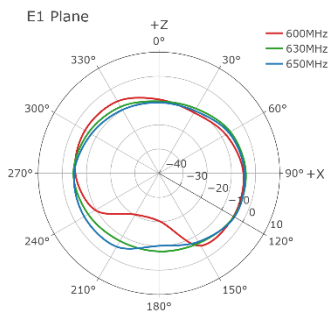
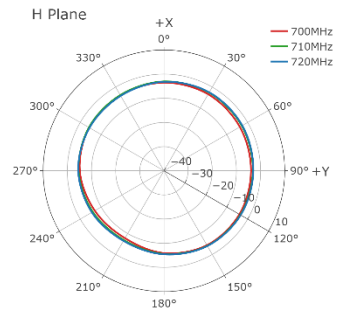
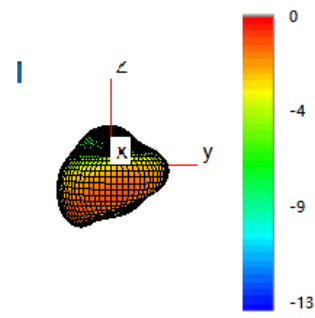
- Test Condition: Assembled in test device
- Test Chamber: HF-G-1



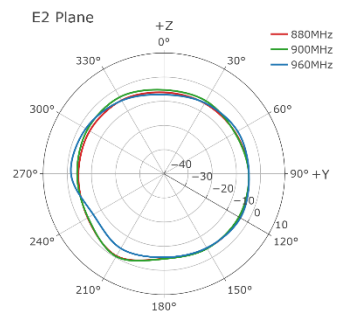
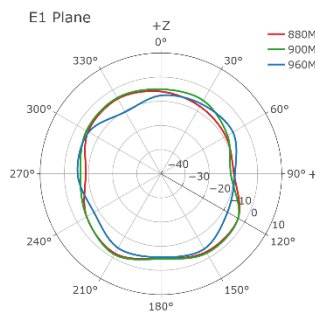
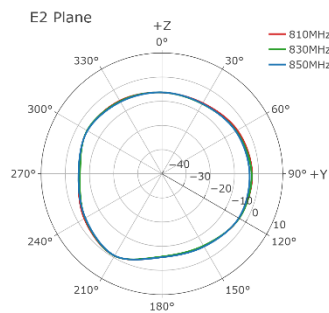
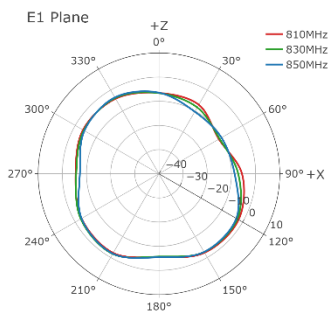
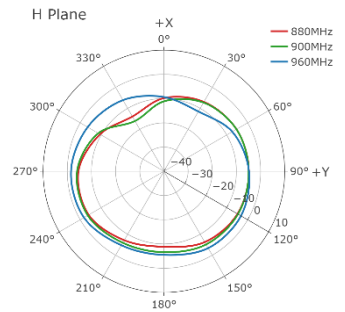
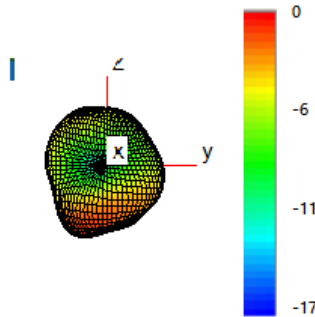
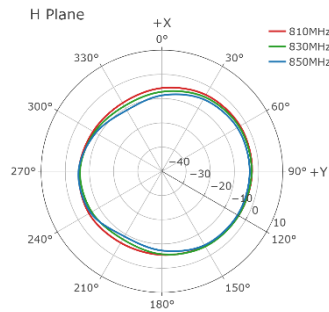
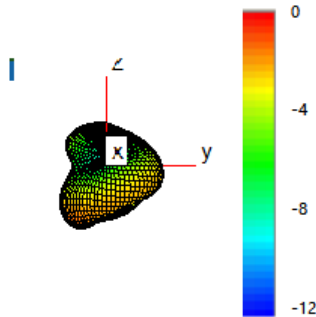
630MHz

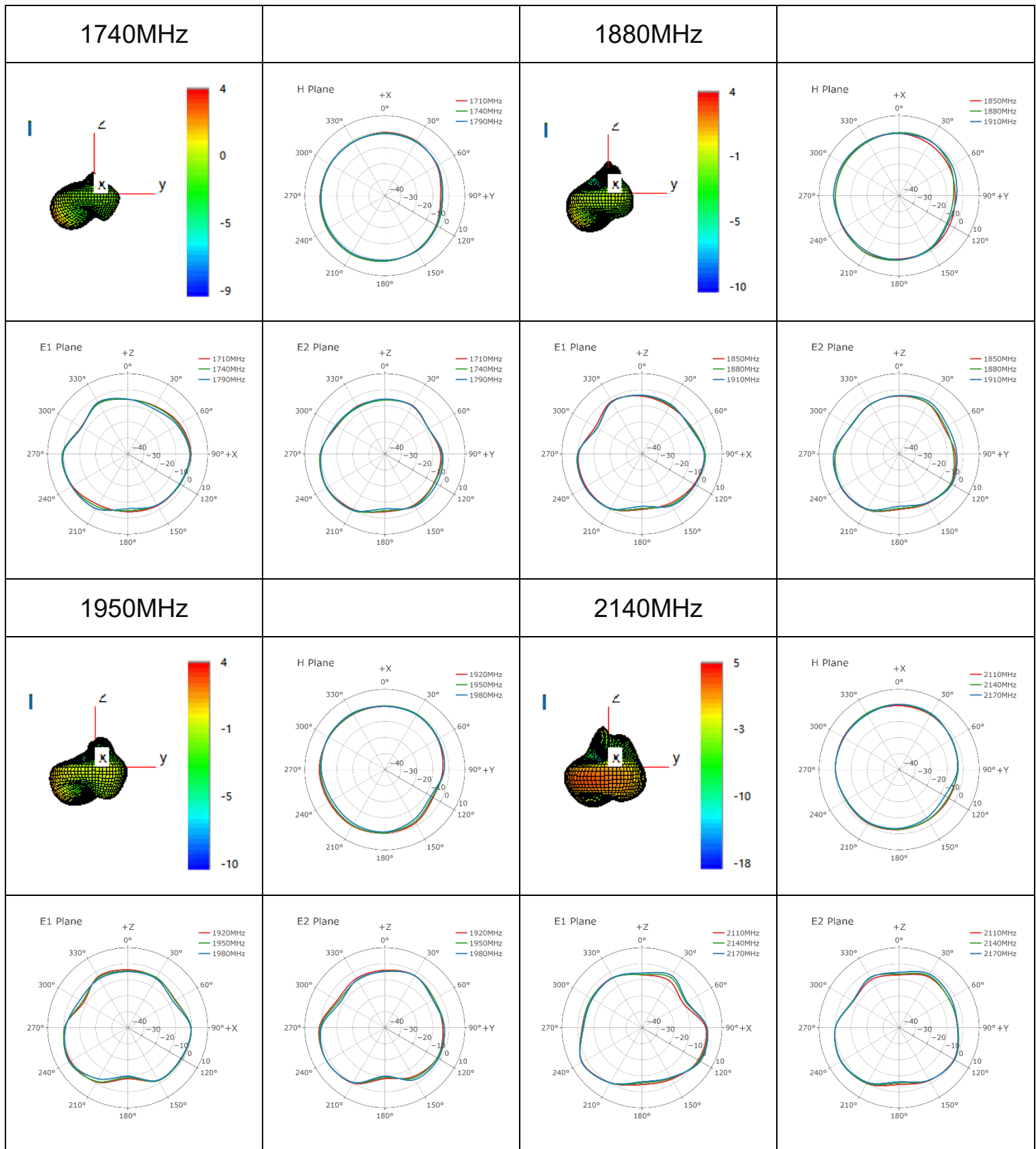


710MHz

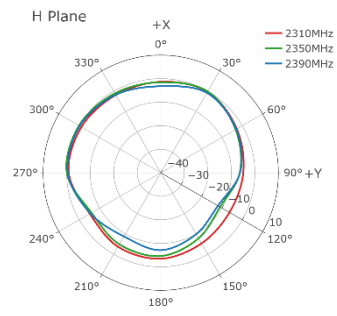
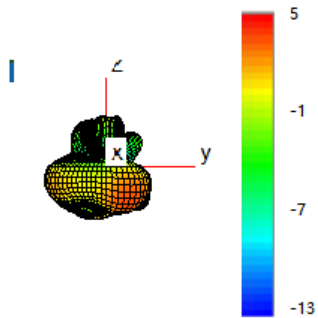


830MHz

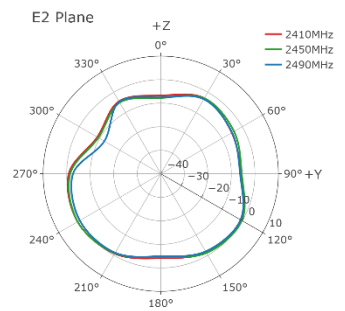
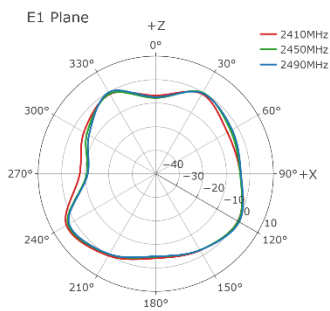
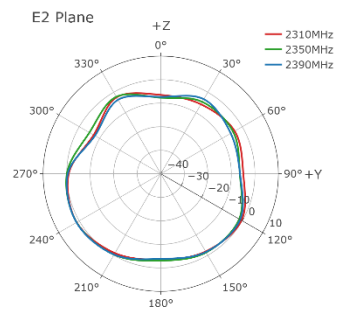
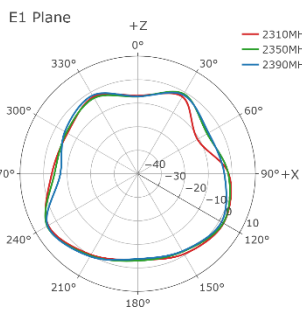
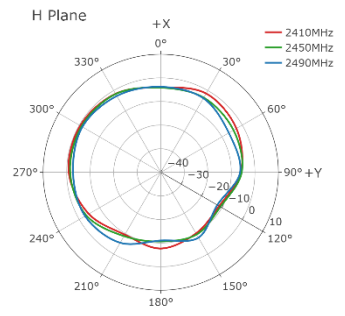
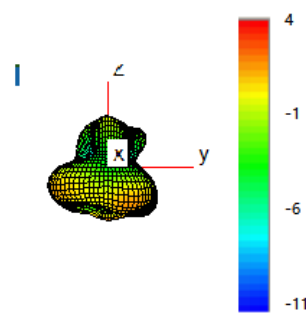




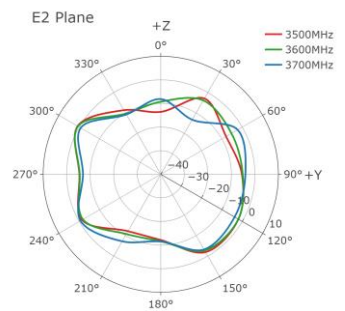
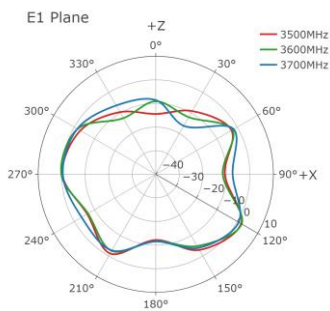
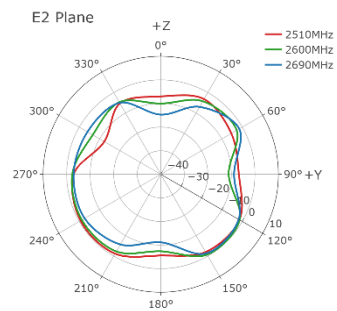
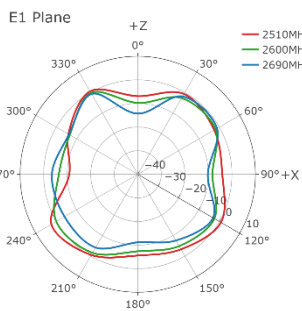
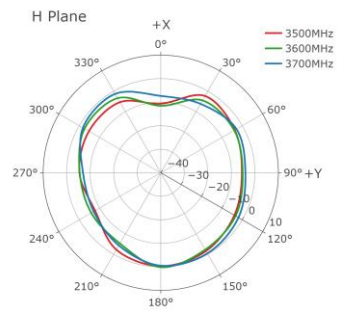
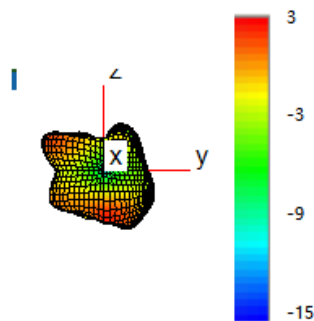
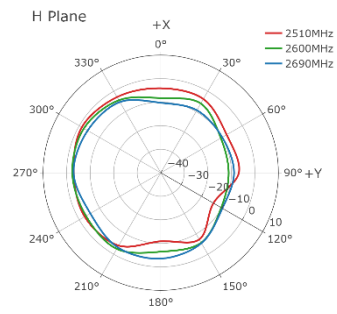
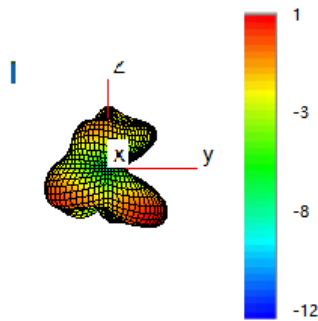
2350MHz



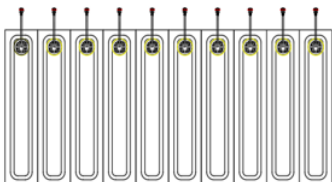
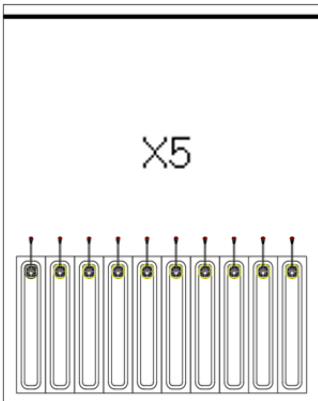
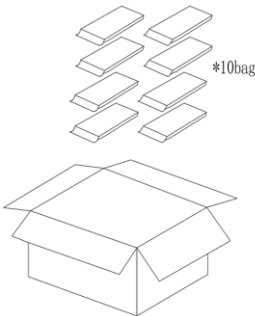
2450MHz

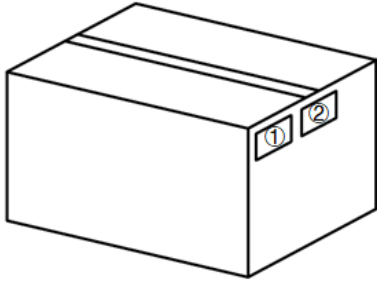
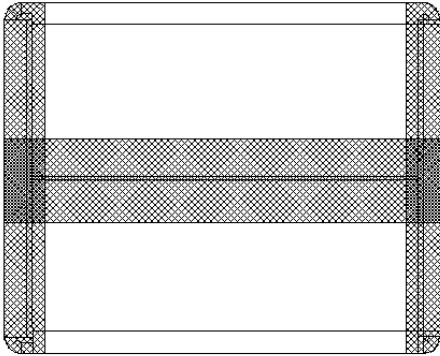


2600MHz



4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		10 pcs antenna products in a One-piece bag (10 PCS Antennas / One-piece bag)
2		50 pcs antenna products in a PE bag (50 PCS Antennas / PE Bag)
3		10 PE Bags / Carton Box (500 PCS Antennas / Carton Box) Estimated quantity Products that cannot fill the entire carton box are packed in a suitable size carton box. Carton Size: <u>L × W × H = 325 × 325 × 200 mm</u>

4		<p>Position for Attaching Labels</p> <ul style="list-style-type: none"> ① Carton Label ② Quality Label
5		<p>Sealing Cartons</p> <p>“I” type sealing cartons</p>
Note	<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

At Quectel, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:

Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China

Tel: +86 21 5108 6236

Email: info@quectel.com

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Revision History

Version	Date	Author	Note
-	2024-09-22	Raoul RAO/ Joye WANG/ David LIU/ Aria CHU	Creation of the document
1.0	2024-09-22	Raoul RAO/ Joye WANG/ David LIU/ Aria CHU	First official release



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