

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

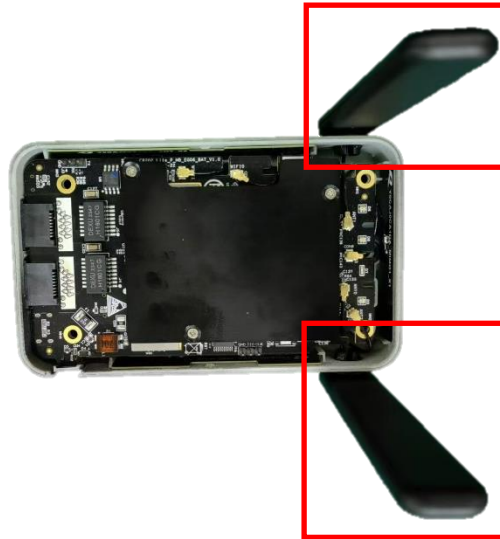
Electrical	
Frequency Range	600–960 MHz, 1710–2700 MHz, 3500-3700 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional
VSWR	≤ 3.4
Peak Gain	4.6 dBi

1.2. Mechanical & Environmental

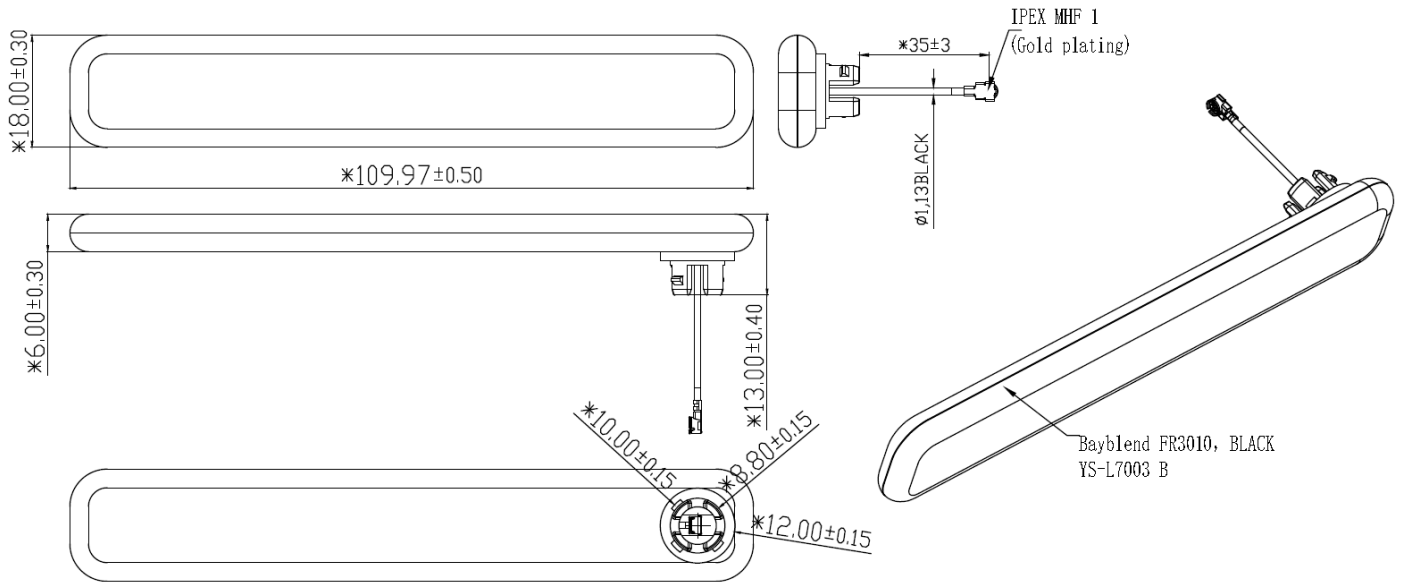
Mechanical	
Antenna Dimensions	109.97 × 18 × 13mm
Material & Color	Bayblend FR3010 & Black
Cable Type & Color & Length	Φ1.13 & Black & 35mm
Connector Type	IPEX MHF 1
Weight	Buckle
Mounting Type	Typ.7.6 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C

RoHS & REACH Compliant	Yes
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1.3. Antenna Assembly



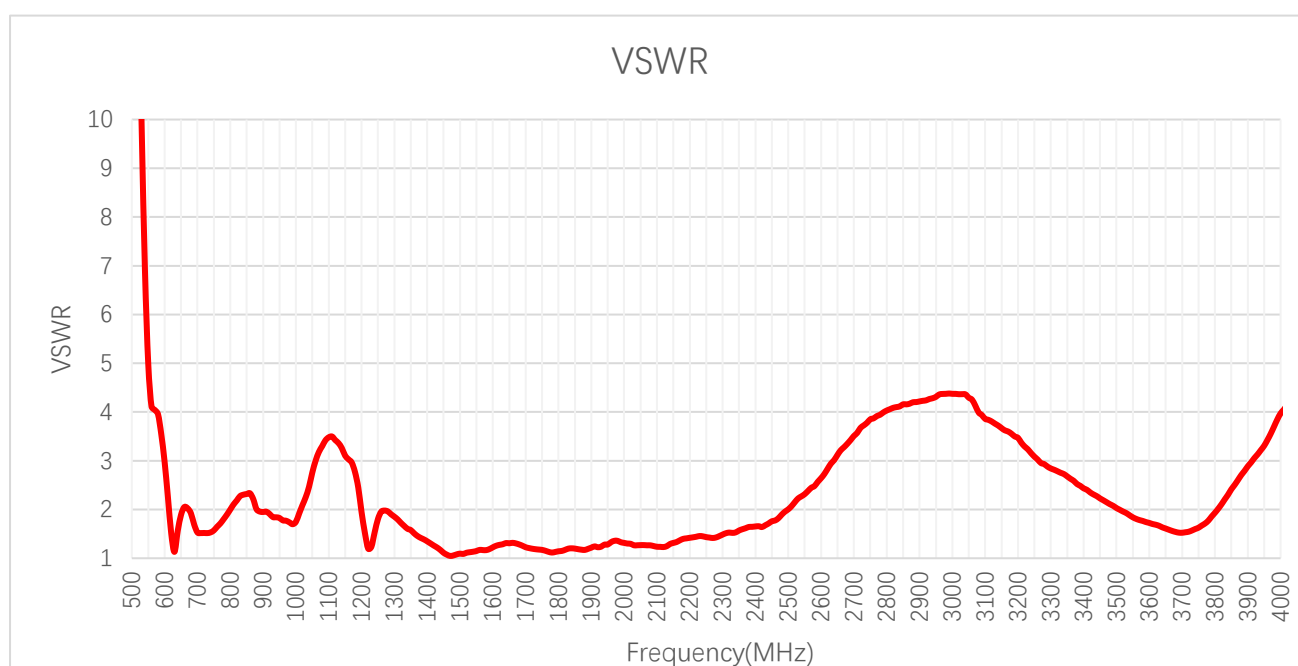
2 Drawing



3 Detailed Performance

3.1. S-Parameter Test

3.1.1. VSWR

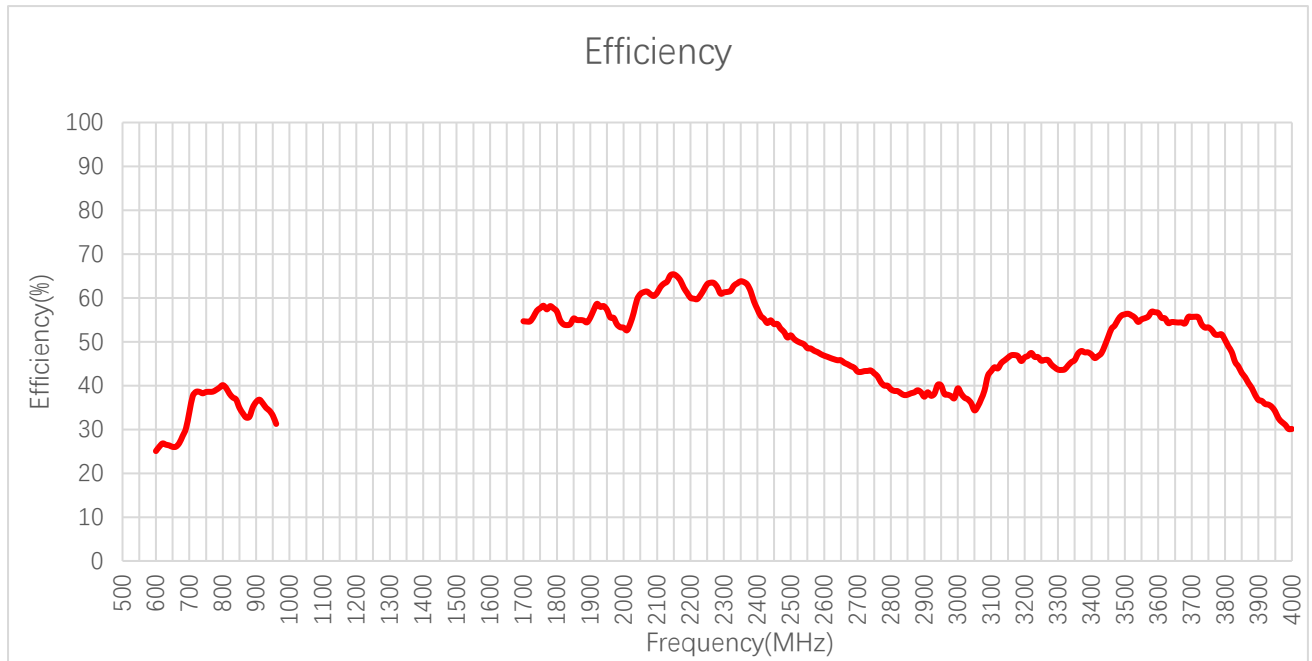


VSWR

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)**

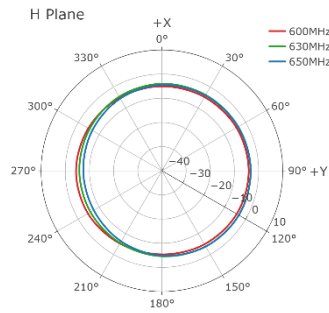
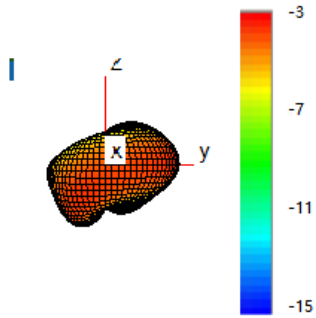
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Peak Gain (dBi)	-4.1	-3.2	-0.8	-0.8	-0.5	-1.5	-	2.6	3.4	3.5
Frequency (MHz)	1950	2140	2350	2450	2600	2690	3500	3700	5500	6000
Peak Gain (dBi)	3.9	4.5	0.82	3.0	0.3	-0.7	0.25	1.0	-	-

3.2.3. 2D Radiation Pattern

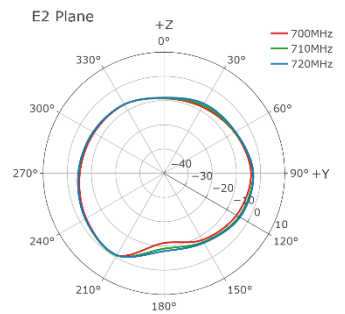
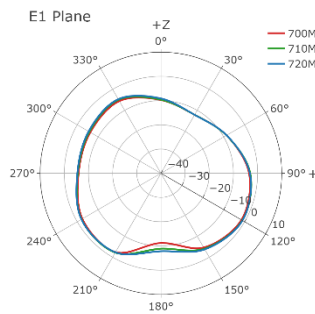
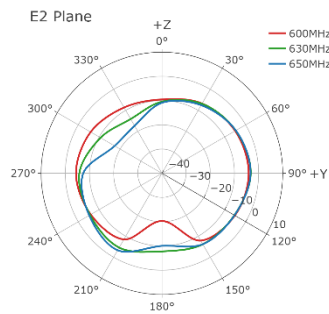
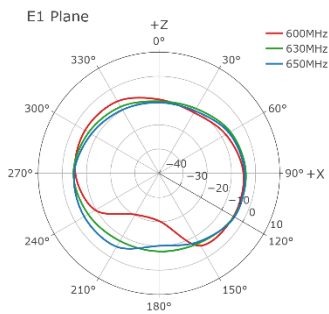
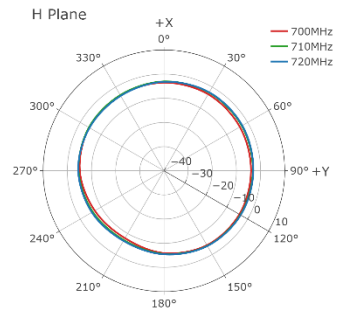
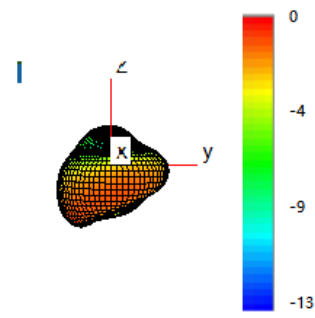
- Test Condition: Assembled in test device
- Test Chamber: HF-G-1



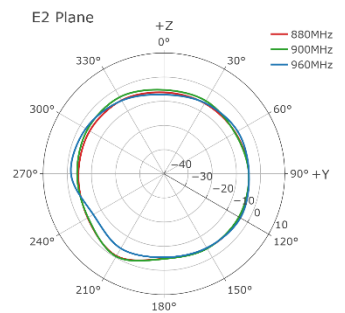
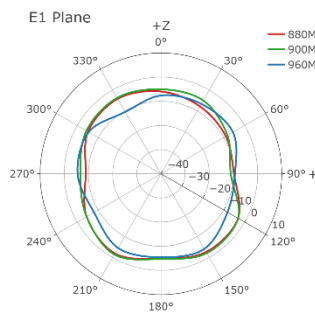
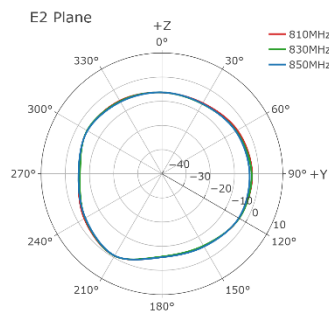
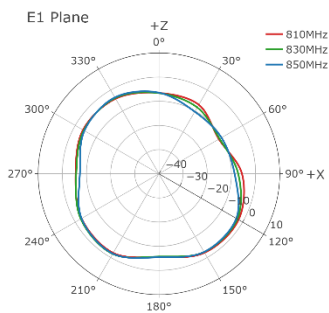
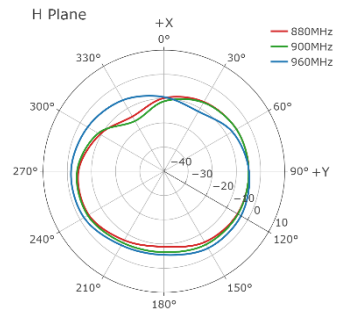
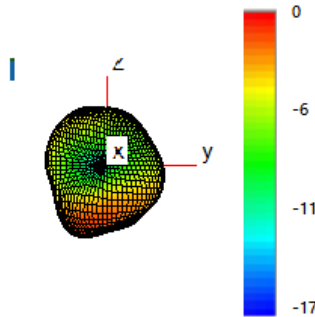
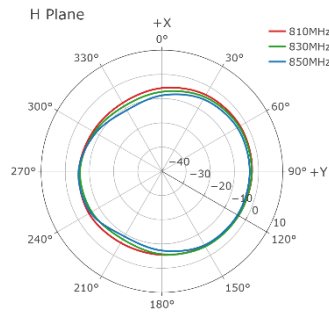
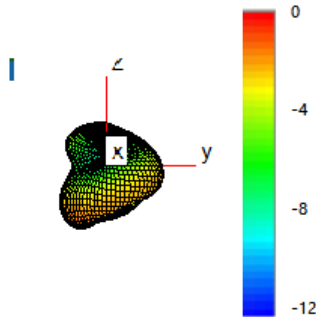
630MHz

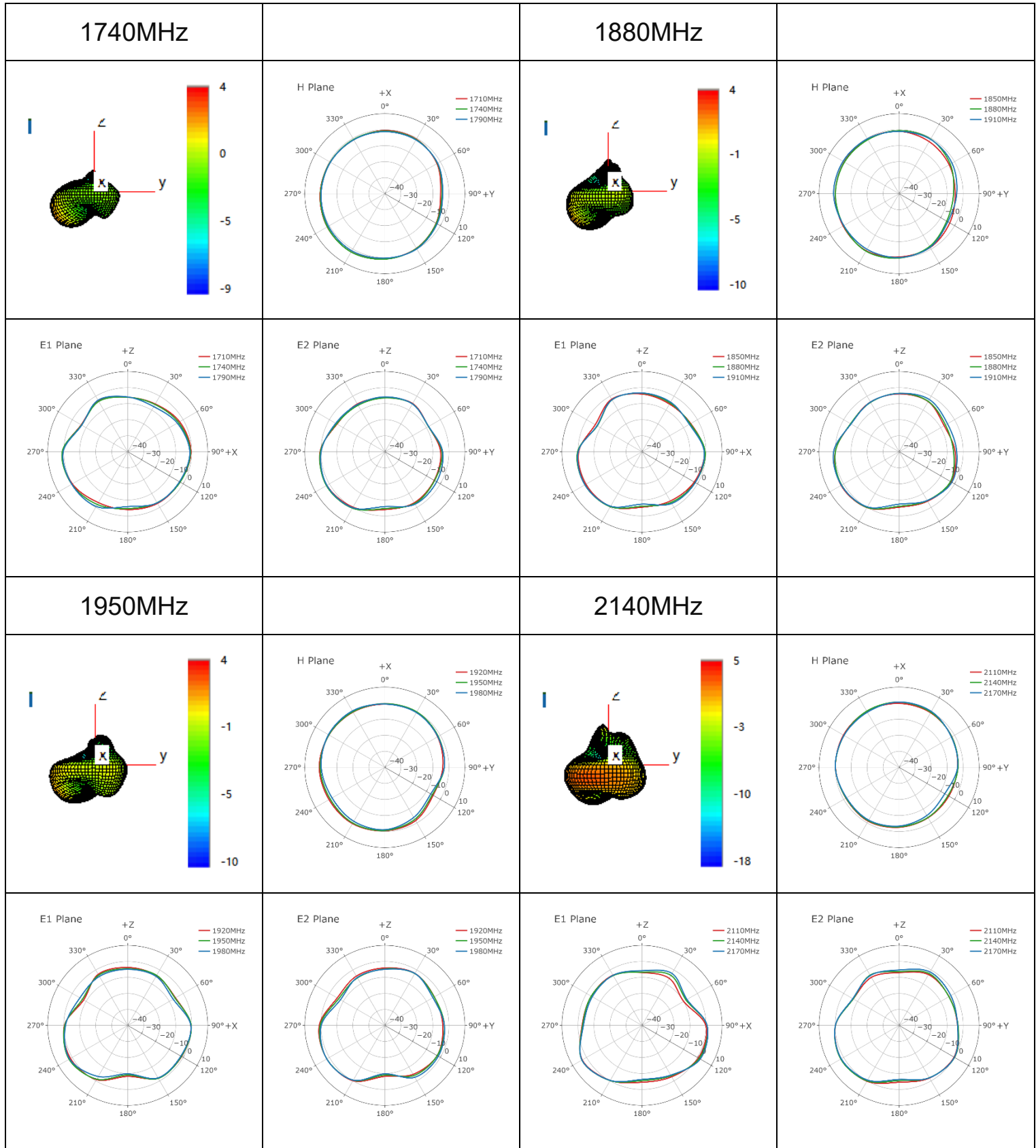


710MHz

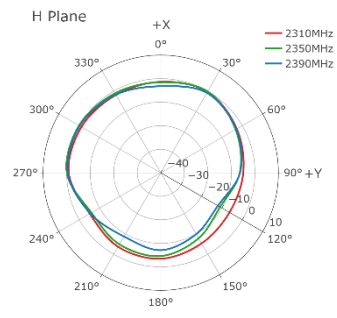
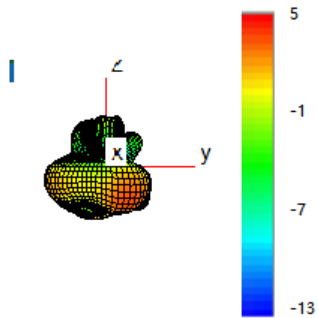


830MHz

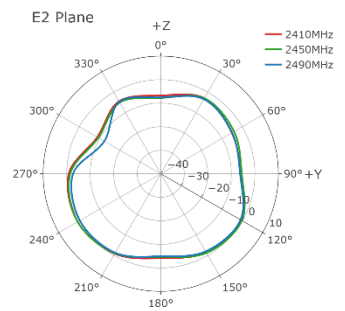
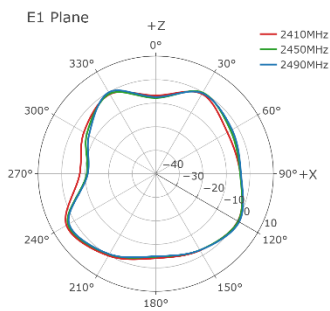
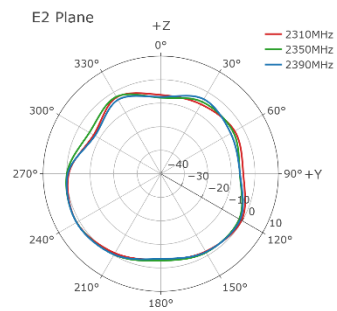
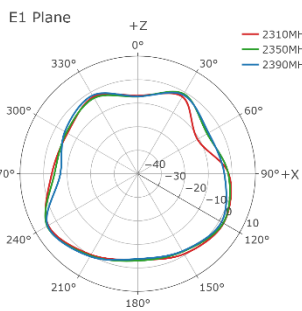
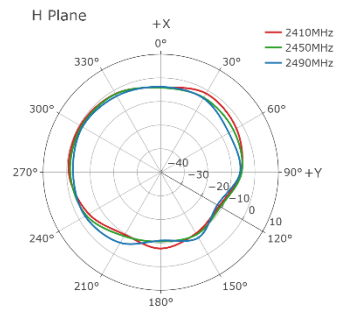
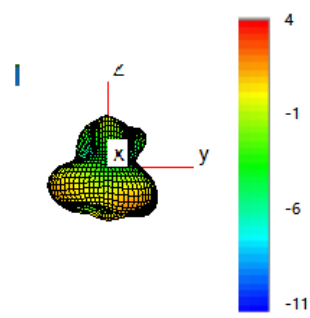




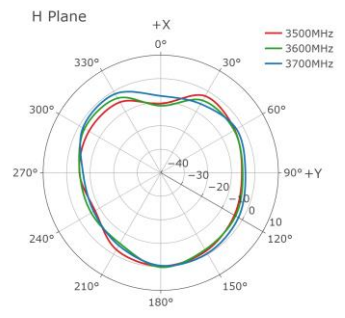
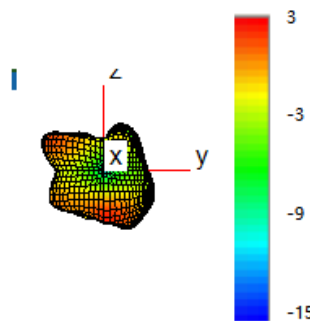
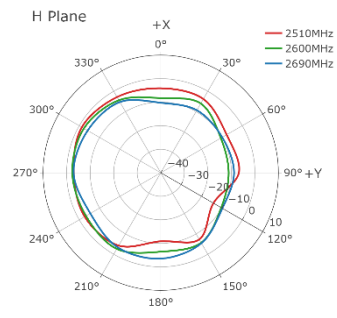
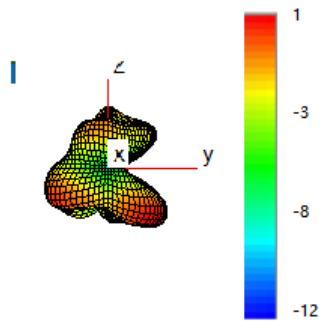
2350MHz



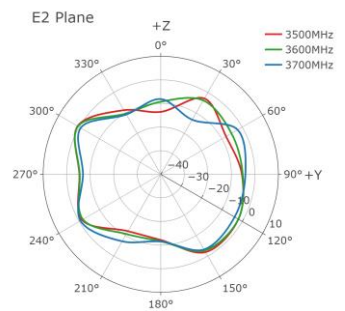
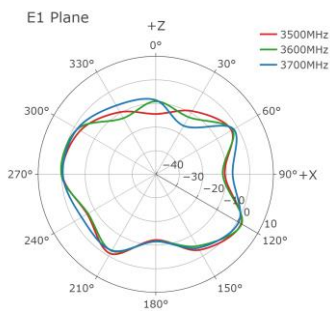
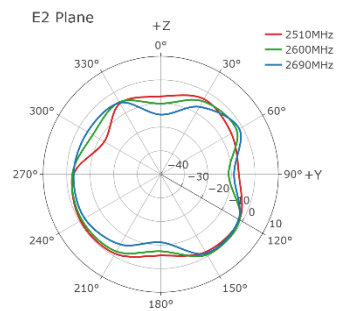
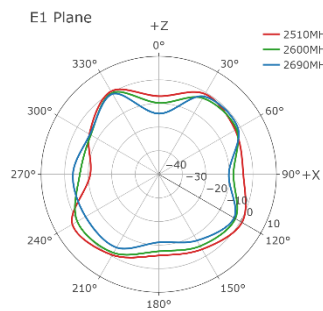
2450MHz



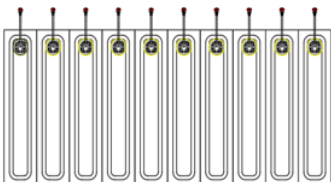
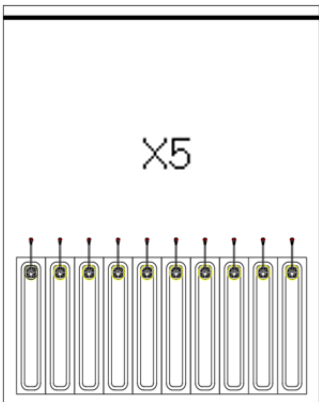
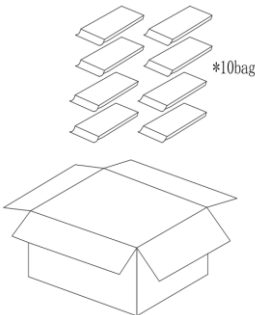
2600MHz

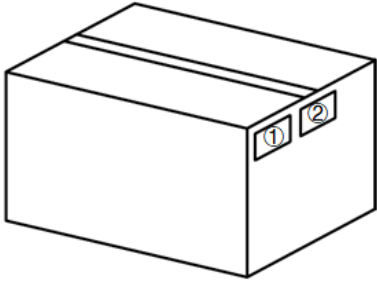
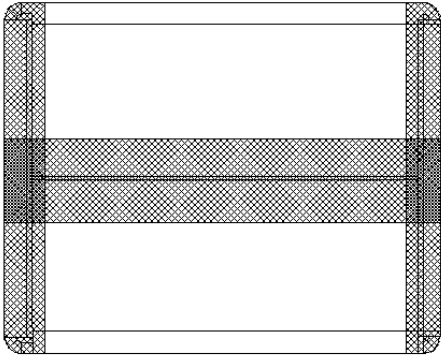


3600MHz



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		Position for Attaching Labels ① Carton Label ② Quality Label
5		Sealing Cartons “I” type 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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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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