

Antenna Datasheet

Product OC: Y0CAJ0CA1CA

Version: 1.0

Date: 2024-09-22

Product Name: 4G & WIFI Antenna

Key Features:

Frequency Band: 1710–2690 MHz, 2400–2500 MHz, 3500–3700 MHz

Dimensions: 84 × 18 × 0.6 mm

Efficiency: Up to 51.3%

RoHS and REACH Compliant

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1 Specification

Test Condition: Assembled in test device

1.1. Electrical

Electrical		
Frequency Range	MIMO 2	1710–2690 MHz, 3500-3700 MHz
	WIFI AUX	2400–2500 MHz
Impedance		50 Ω
Polarization		Linear
Radiation Pattern		Omni-directional
VSWR	MIMO 2	≤ 5.3
	WIFI AUX	≤ 2.0
Peak Gain	MIMO 2	3.5 dBi
	WIFI AUX	3.2 dBi

1.2. Mechanical & Environmental

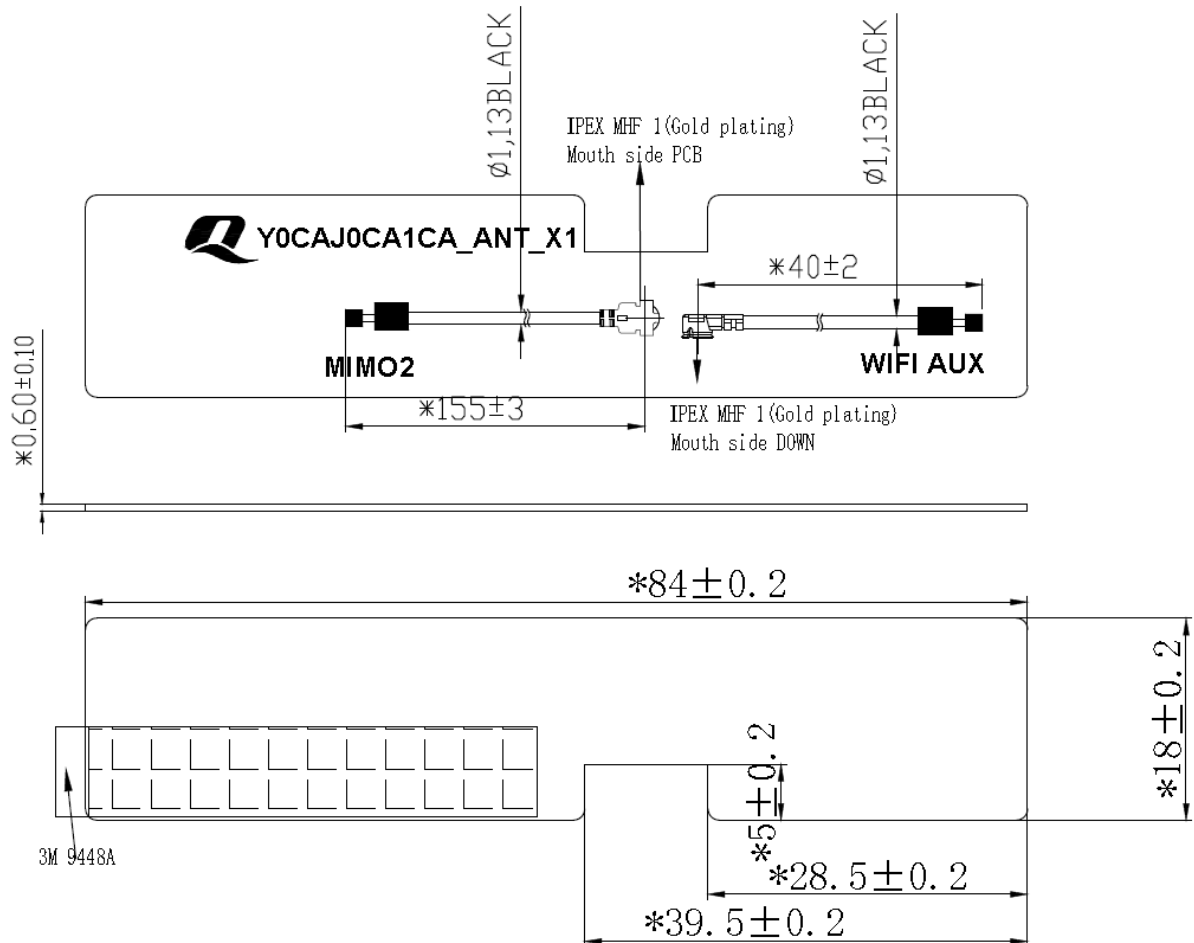
Mechanical		
Antenna Dimensions		84 × 18 × 0.6mm
Material & Color		PCB & Black
Cable Type & Color & Length	MIMO 2	Φ1.13 & Black & 155mm
	WIFI AUX	Φ1.13 & Black & 40mm
Connector Type		IPEX MHF 1
Mounting Type		Adhesive

Weight	Typ.2.72 g
Environmental	
Operation Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
RoHS & REACH Compliant	Yes

1.3. Antenna Assembly



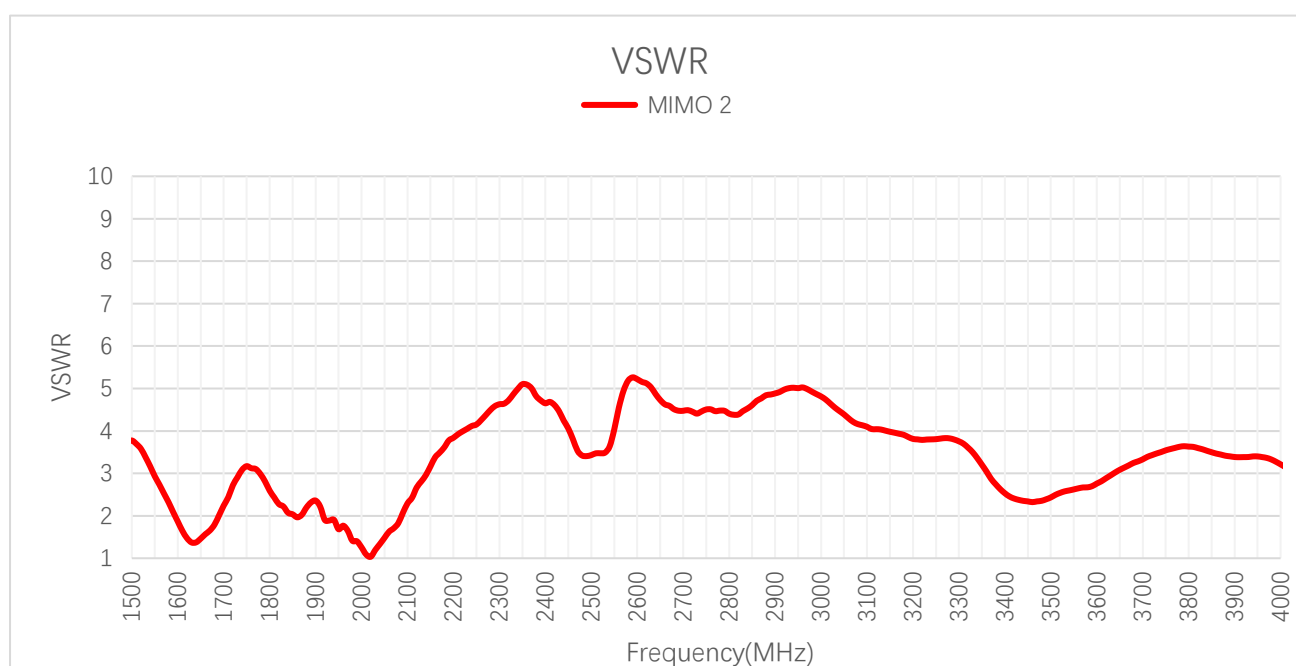
2 Drawing



3 Detailed Performance

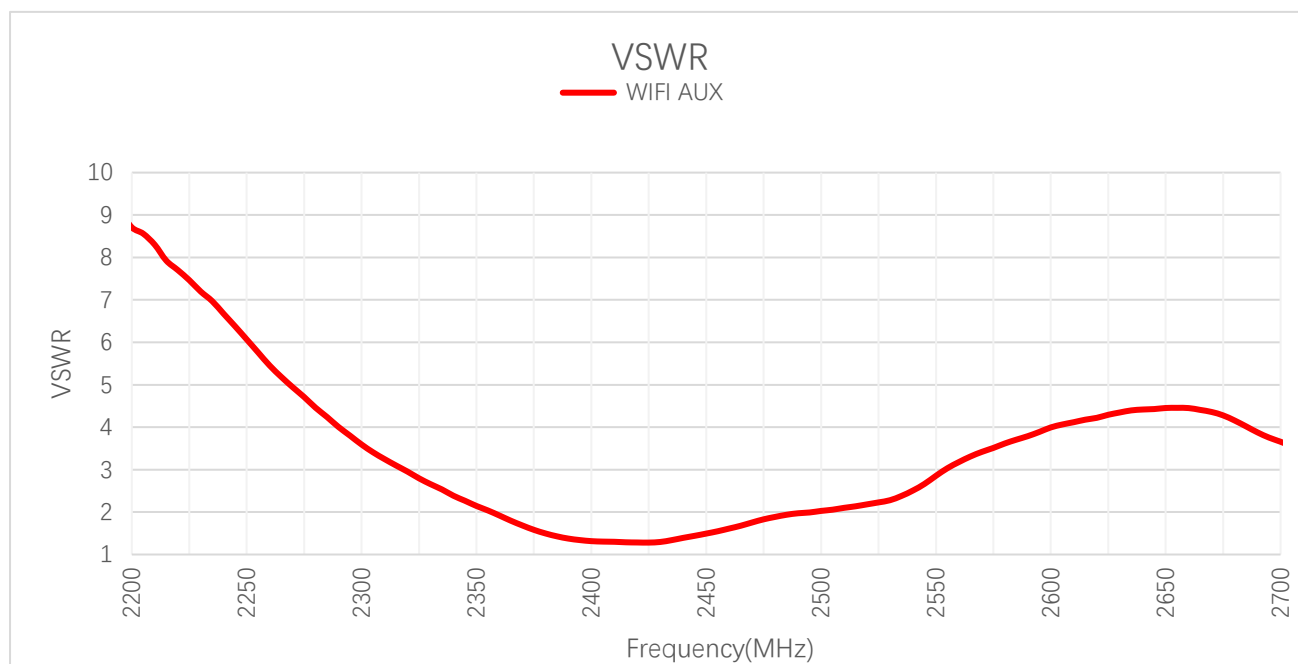
3.1. S-Parameter Test

3.1.1. VSWR



VSWR-MIMO 2

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
VSWR	-	-	-	-	-	-	-	2.4	3.1	2.2
Frequency (MHz)	1950	2140	2350	2450	2600	2690	3500	3700	5500	6000
VSWR	1.7	3.0	5.1	4.1	5.2	4.5	2.4	3.3	-	-

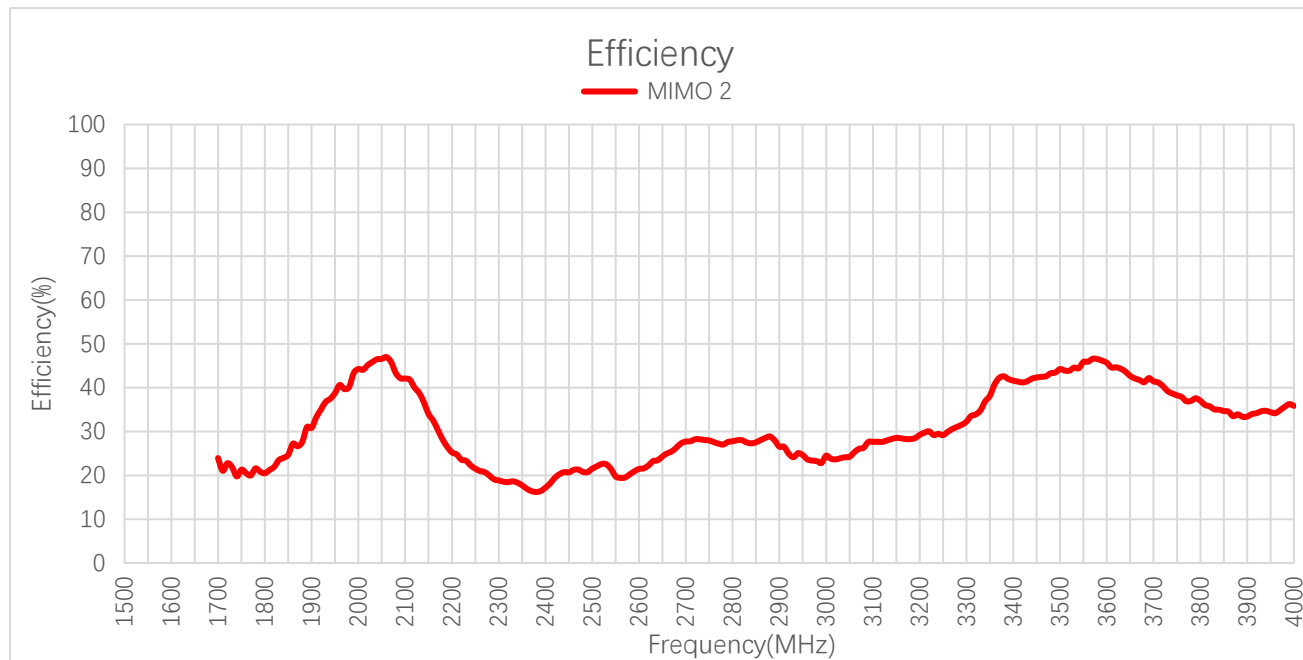


VSWR-WIFI AUX

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125	-
VSWR	1.3	1.5	2.0	-	-	-	-	-	-	-

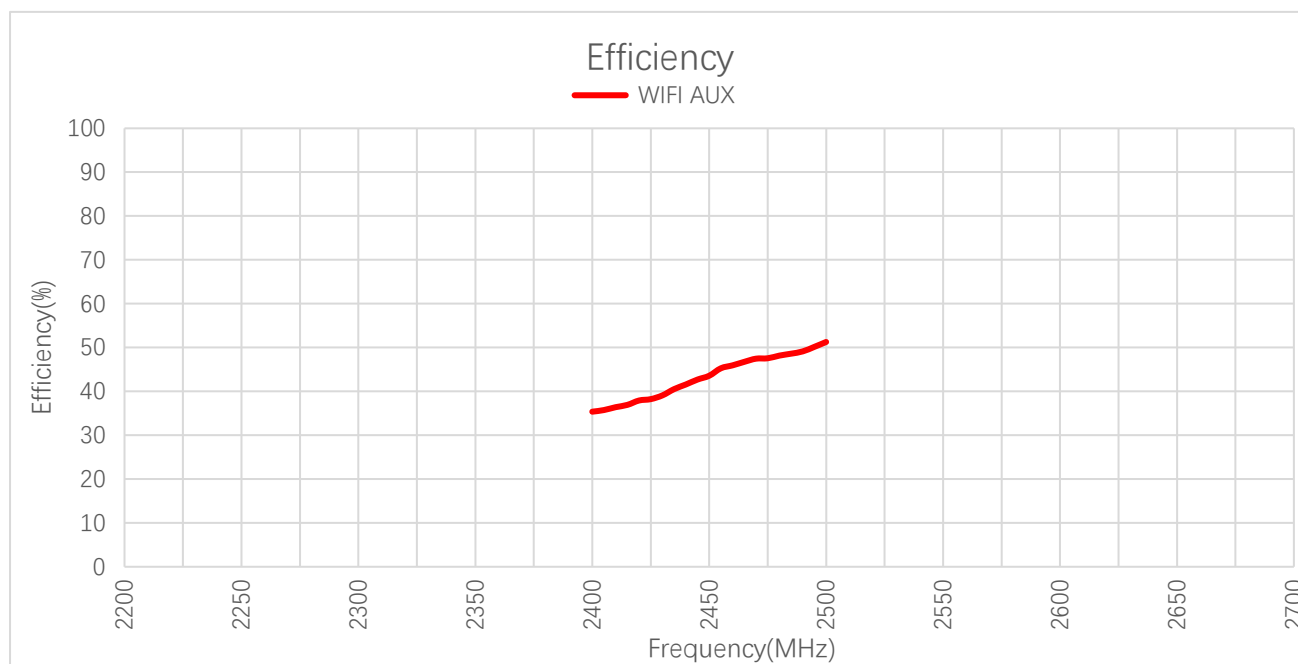
3.2. Radiation Performance Test

3.2.1. Efficiency



Efficiency (%) - MIMO 2

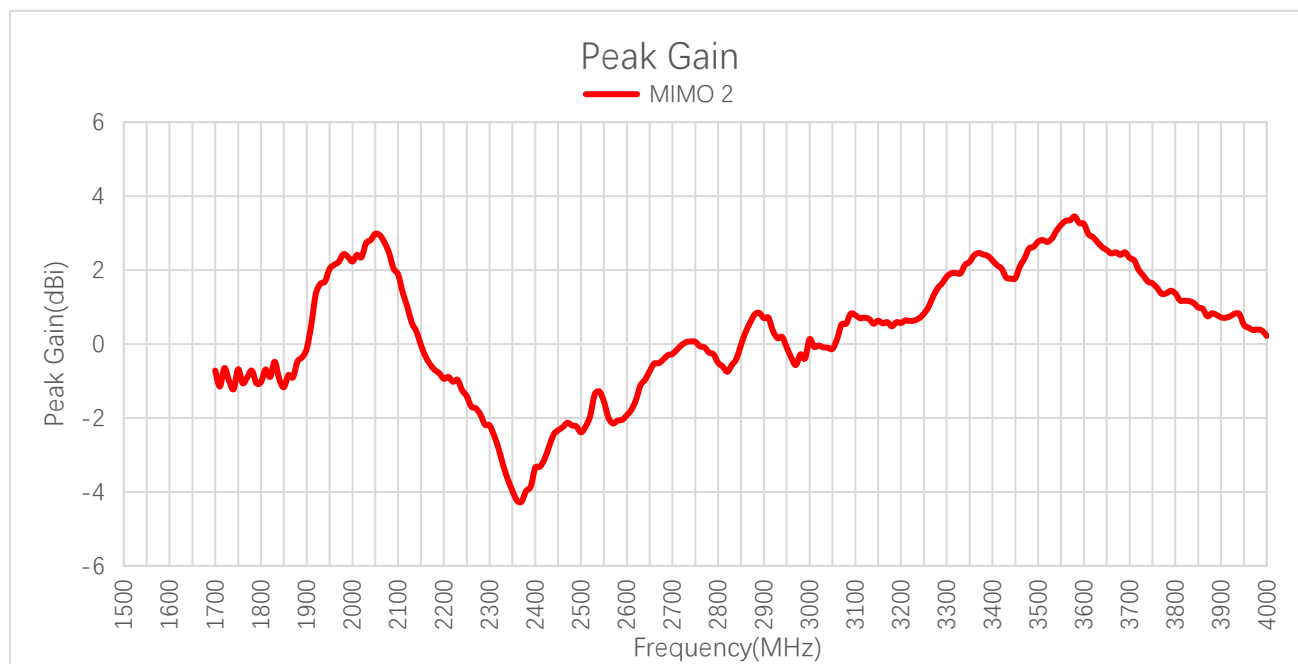
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Efficiency (%)	-	-	-	-	-	-	-	21.0	19.7	27.6
Frequency (MHz)	1950	2140	2350	2450	2600	2690	3500	3700	5500	6000
Efficiency (%)	38.7	36.6	17.7	20.7	21.5	27.3	44.2	41.4	-	-



Efficiency (%) -WIFI AUX

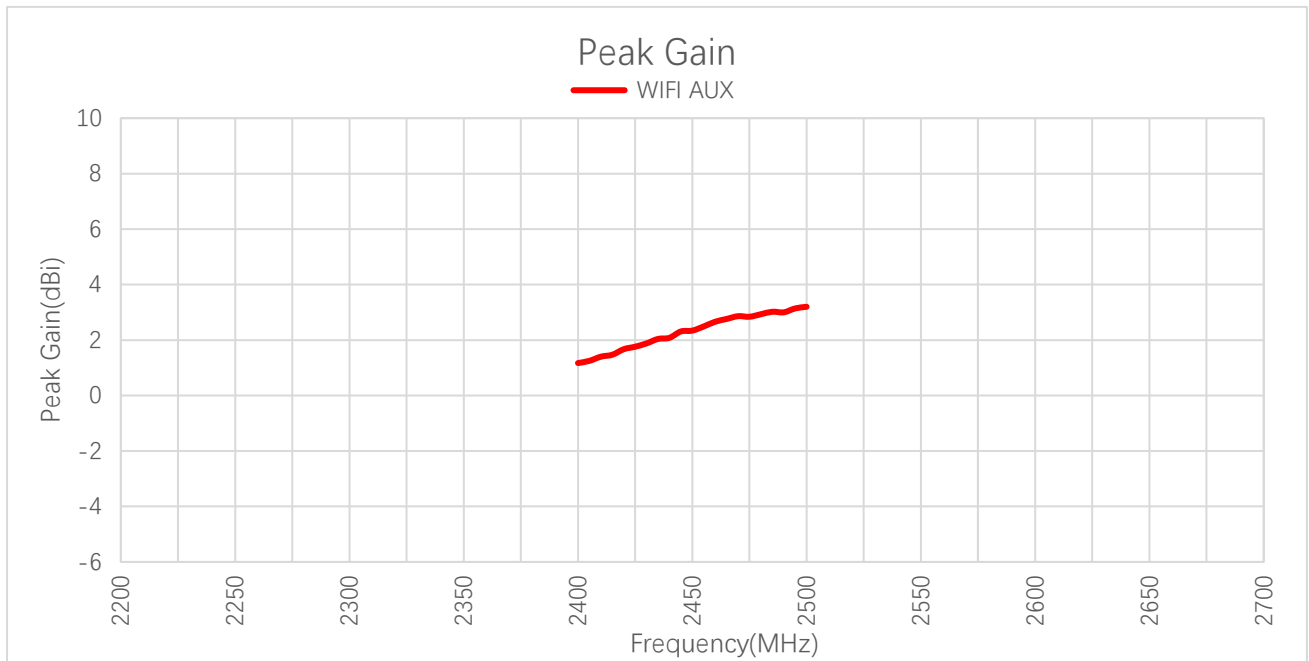
Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125	-
Efficiency (%)	35.4	43.6	51.3	-	-	-	-	-	-	-

3.2.2. Peak Gain



Peak Gain (dBi)-MIMO 2

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Peak Gain (dBi)	-	-	-	-	-	-	-	-1.2	-1.2	-0.5
Frequency (MHz)	1950	2140	2350	2450	2600	2690	3500	3700	5500	6000
Peak Gain (dBi)	2.0	0.3	-4.0	-2.3	-1.9	-0.3	2.8	2.3	-	-

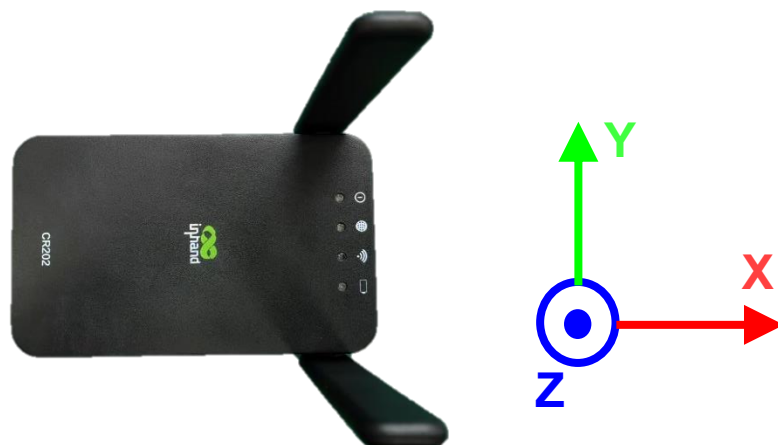


Peak Gain (dBi)-WIFI AUX

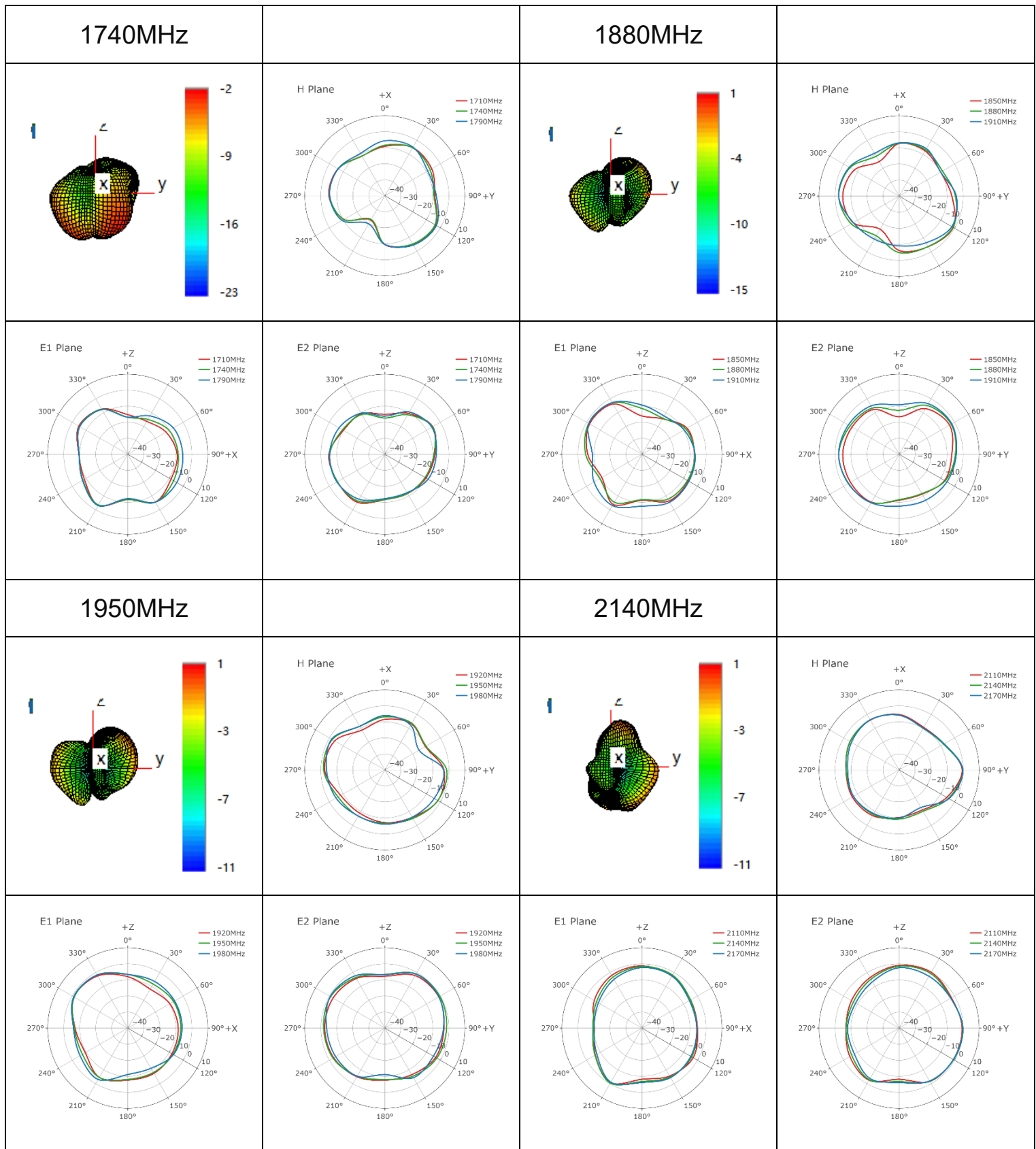
Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6525	7125	-
Peak Gain (dBi)	1.2	2.3	3.2	-	-	-	-	-	-	-

3.2.3. 2D Radiation Pattern

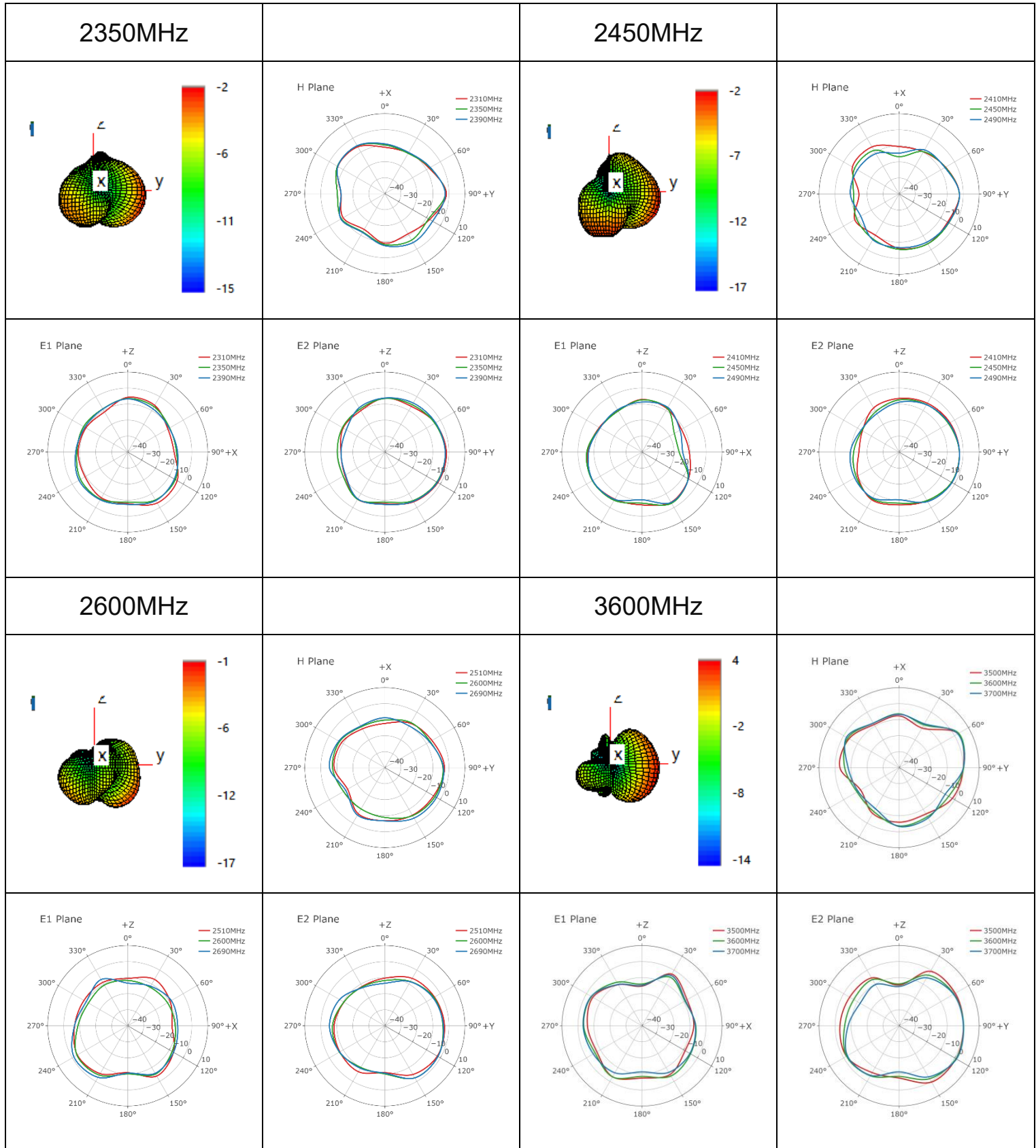
- Test Condition: Assembled in test device
- Test Chamber: HF-G-1



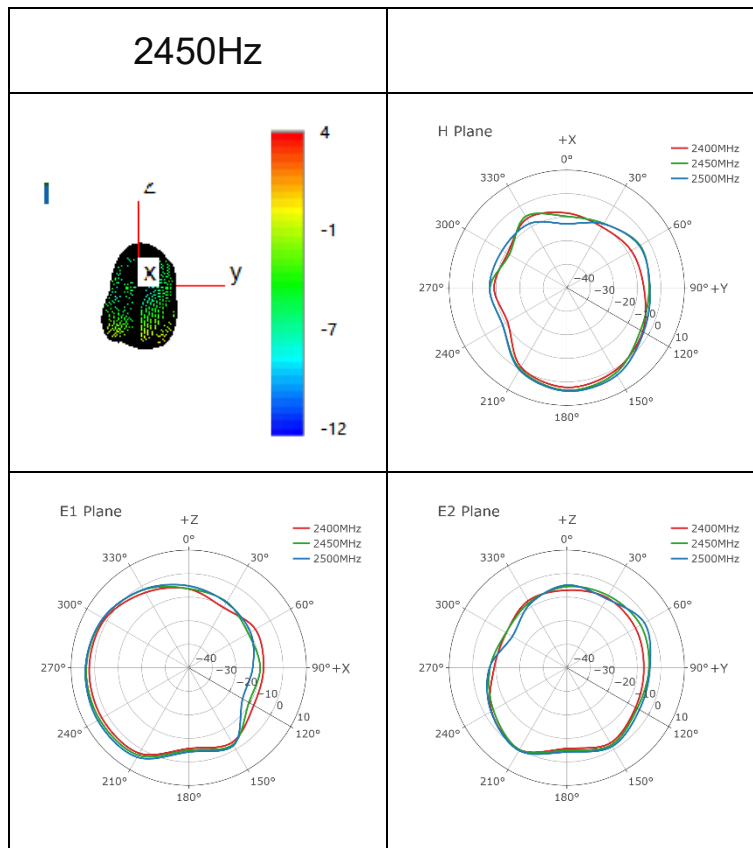
● MIMO 2



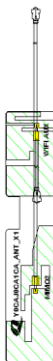
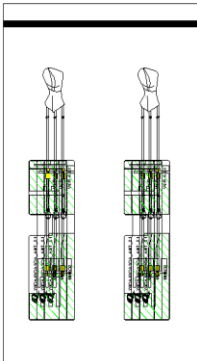
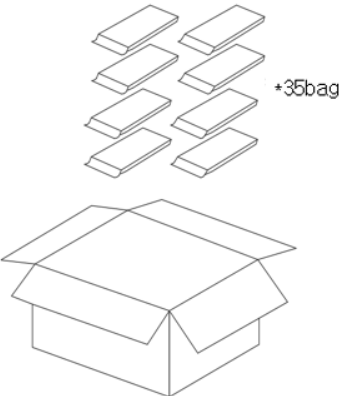
● MIMO 2

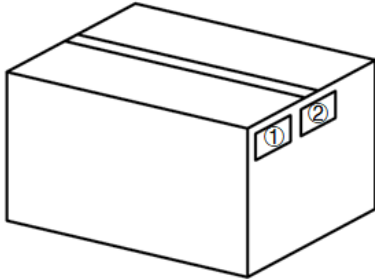
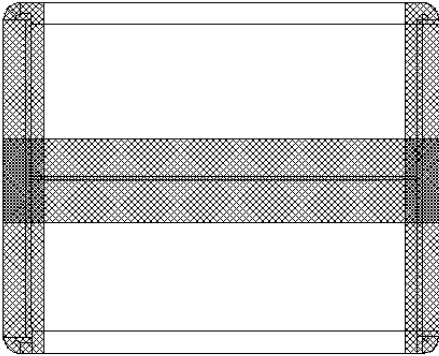


● WIFI AUX



4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		Product drawing
2		100 pcs antenna products in a PE bag (100 PCS Antennas / PE Bag)
3		35 PE Bags / Carton Box (3500 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>① Carton Label ② Quality Label</p>	<p>Position for Attaching Labels</p> <p>① Carton Label ② Quality Label</p>
5		<p>Sealing Cartons “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:

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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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