

Antenna

YRM00A2CA Datasheet

Antenna Services

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Status: Preliminary



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About the Document

Revision History

Version	Date	Author	Note
-	2022-06-14	Qinming Peng/ Jason Long	Creation of the document
1.0	2022-06-14	Qinming Peng/ Jason Long	First official release

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1 Product Description

Quectel Wi-Fi antenna covers 2.4 GHz, 5 GHz, and up to 7 GHz bands, fully satisfying customers' requirements for Wi-Fi 5, Wi-Fi 6, and Wi-Fi 6E. There are various antenna types, including built-in FPC antenna, ceramic patch antenna, and other external antennas of different shapes or sizes. The antenna performance meets the customers' demands for efficiency, gain, and radiation and ensures the superior experience of the customers' products in use.

2 Product Features

- Cellular WiFi
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	2400MHz-2500MHz;
Input Impedence	50 Ω
VSWR	≤ 2.0
Gain	≤ 0 dBi
Polarization Type	Linear

Detailed Passive Electrical Specifications

Frequency Range (MHz)	2400-2500
VSWR (Max.)	2.0
Average Efficiency (%)	33.93
Max. Peak Gain (dBi)	-0.37

Mechanical Specifications

Antenna Size	21.5mm $\times$ 6.58 mm
Casing	FPC
Working Temperature	-40 $^{\circ}$ C to +85 $^{\circ}$ C
Weight	0.06g
Color	Black
Mounting Type	Adhesive

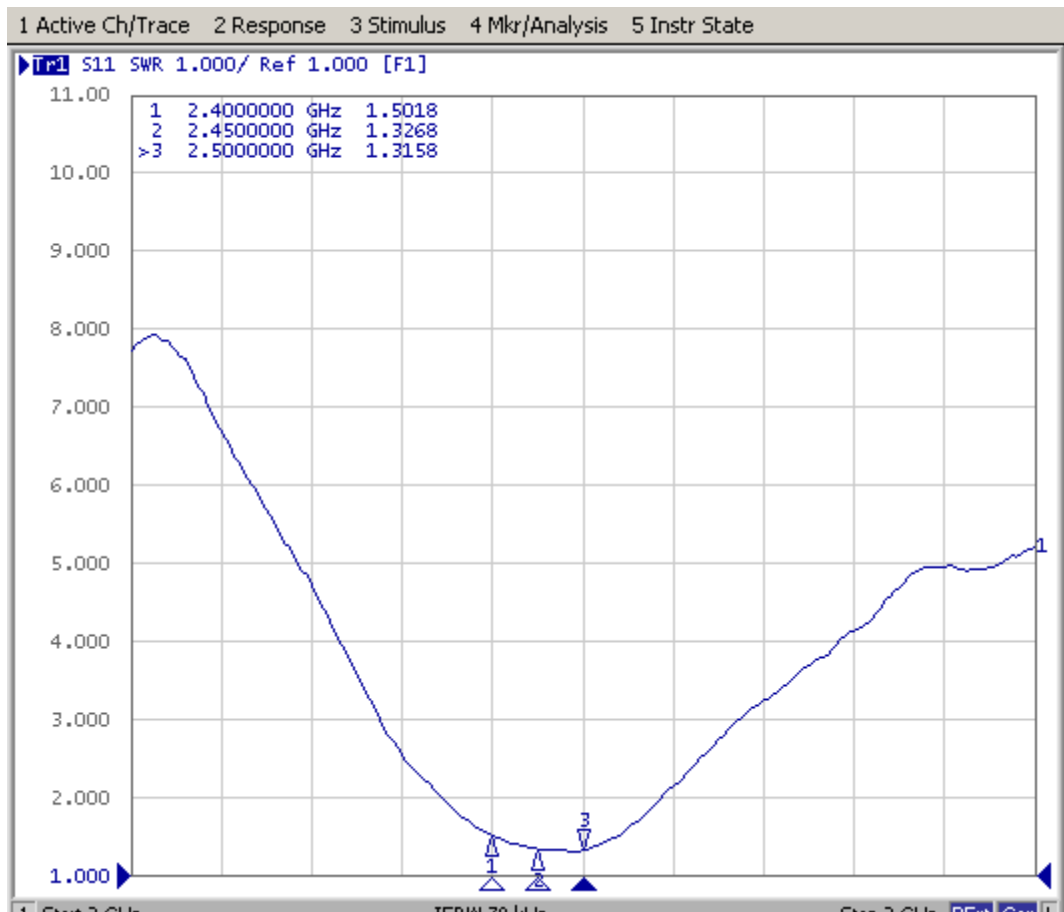
4 Overall Performance

4.1. Test Environment

- KEYSIGHT ENA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 600 MHz – 8.5 GHz

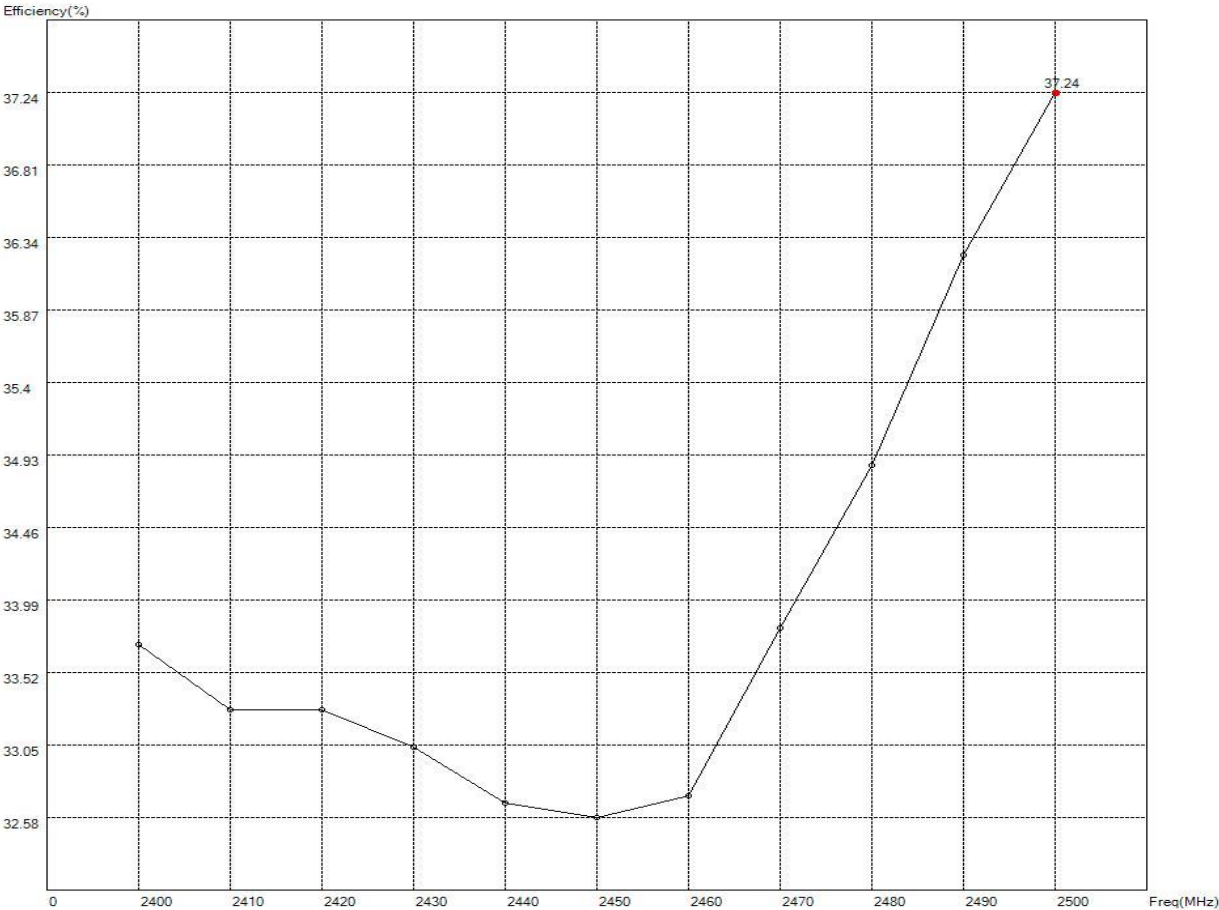


4.2. VSWR



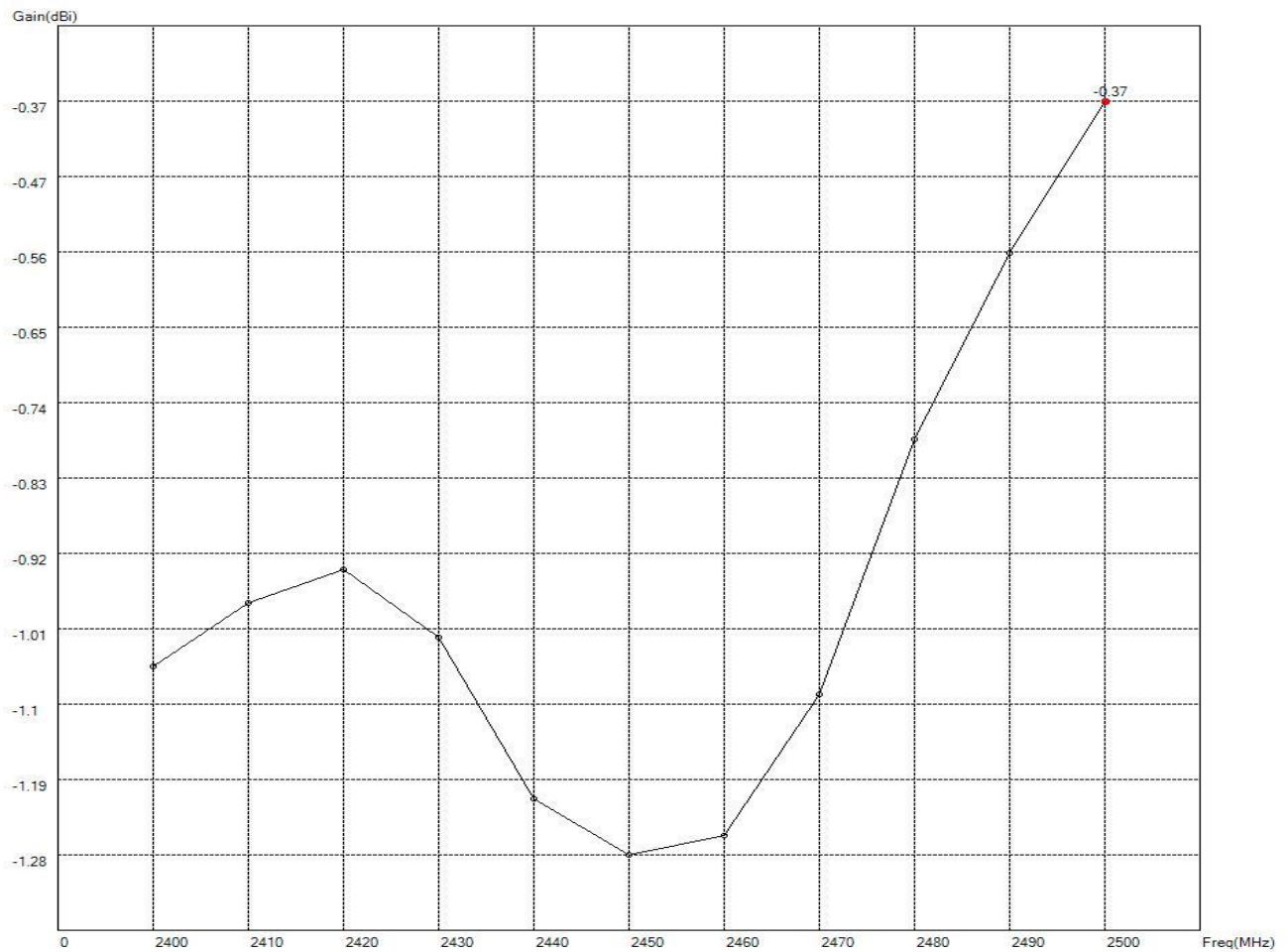
Frequency (MHz)	2400	2450	2500
VSWR	1.5	1.32	1.31

4.3. Efficiency



Frequency (MHz)	2400	2450	2500
Efficiency (%)	33.69	32.58	37.24

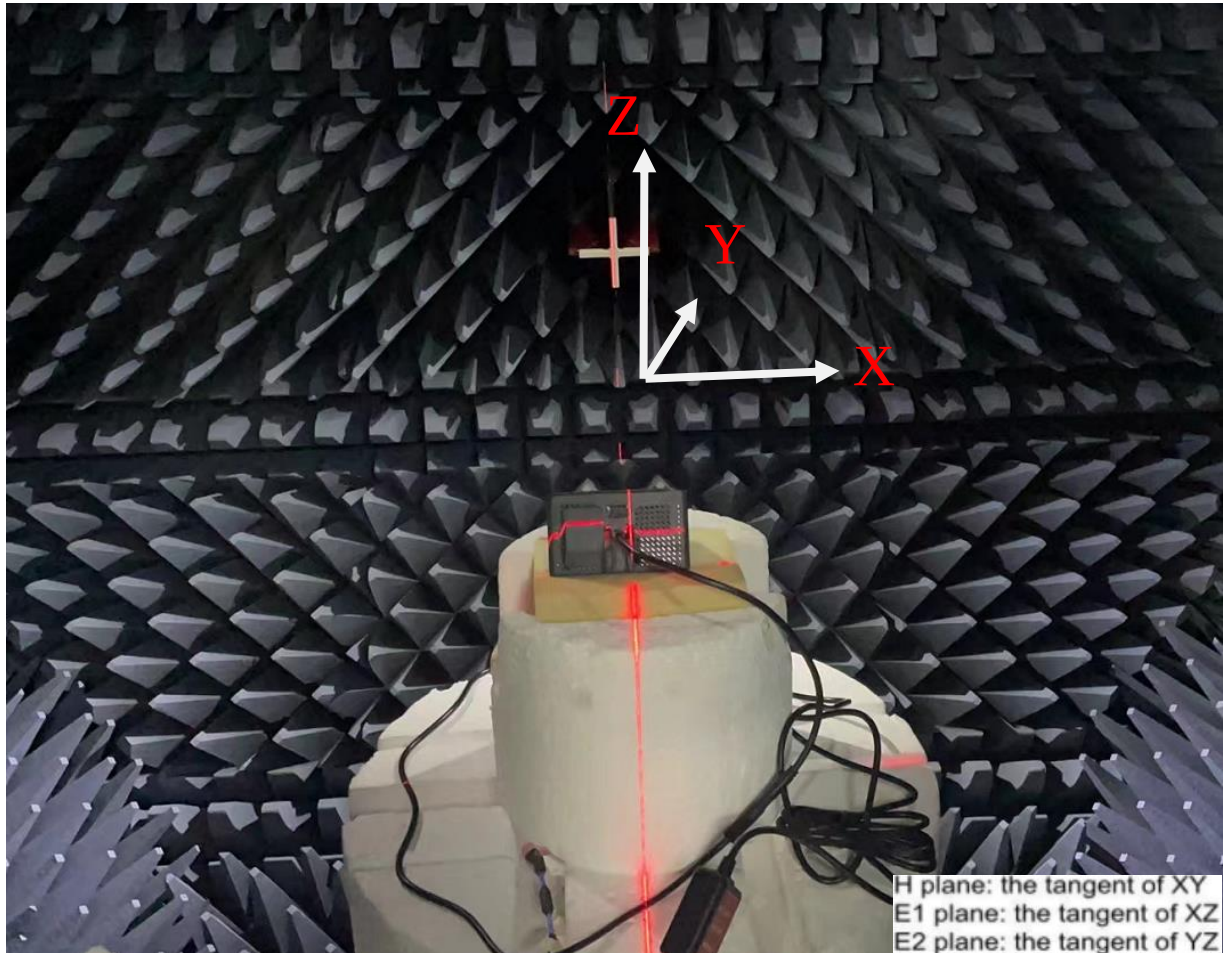
4.4. Gain

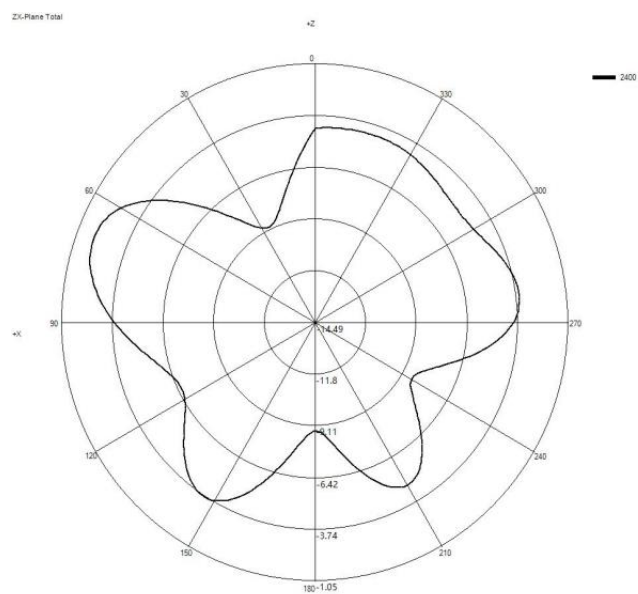
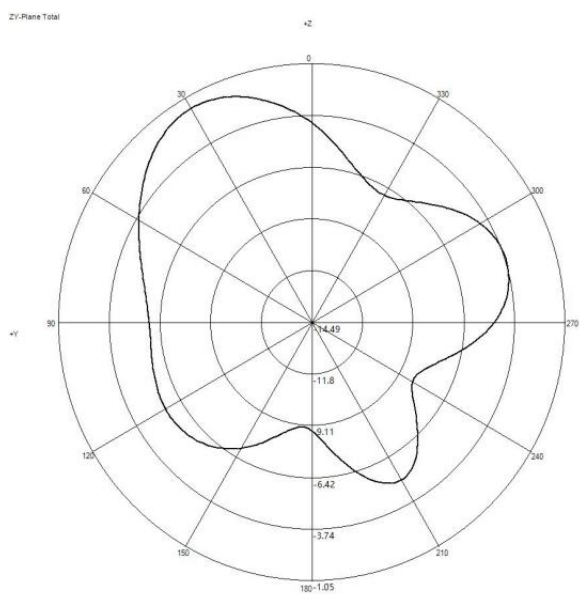
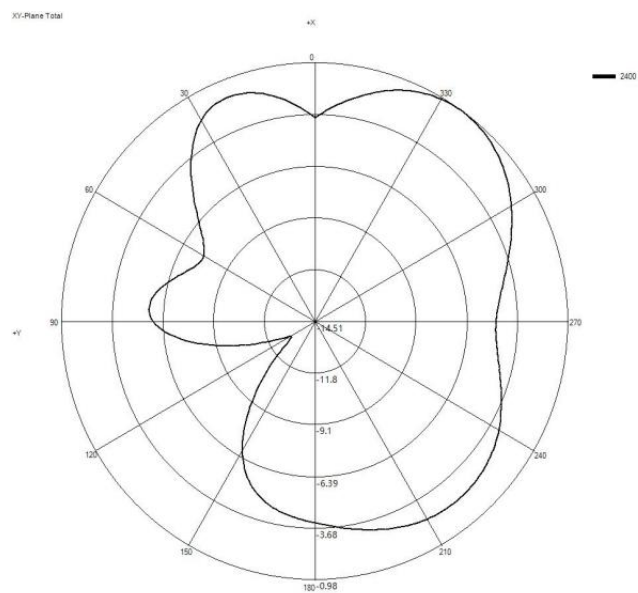
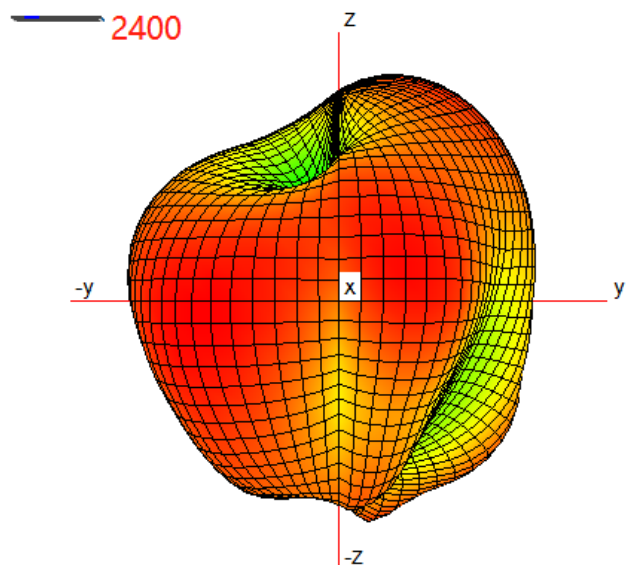


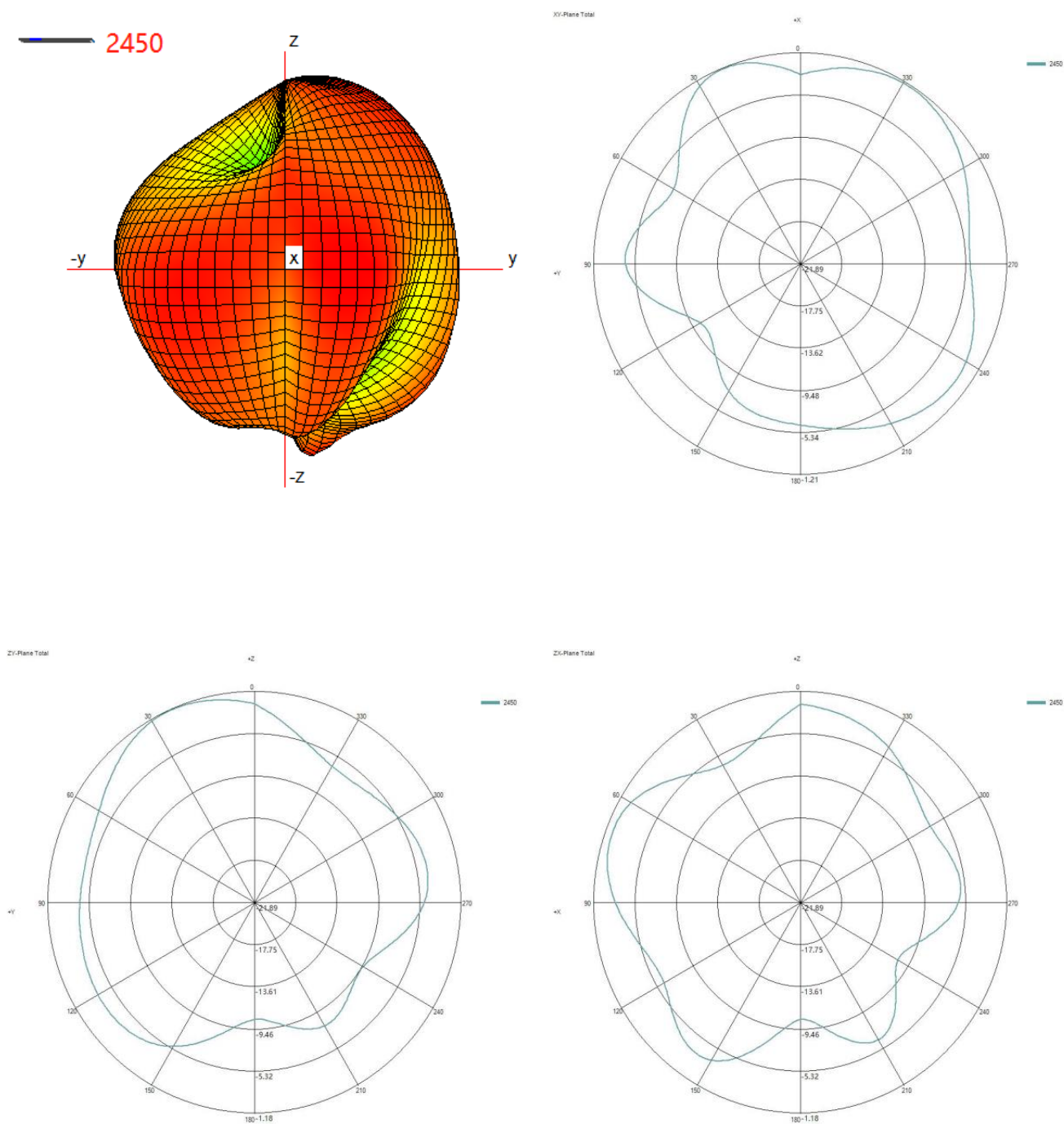
Frequency (MHz)	2400	2450	2500
Gain (dBi)	-1.05	-1.28	-0.37

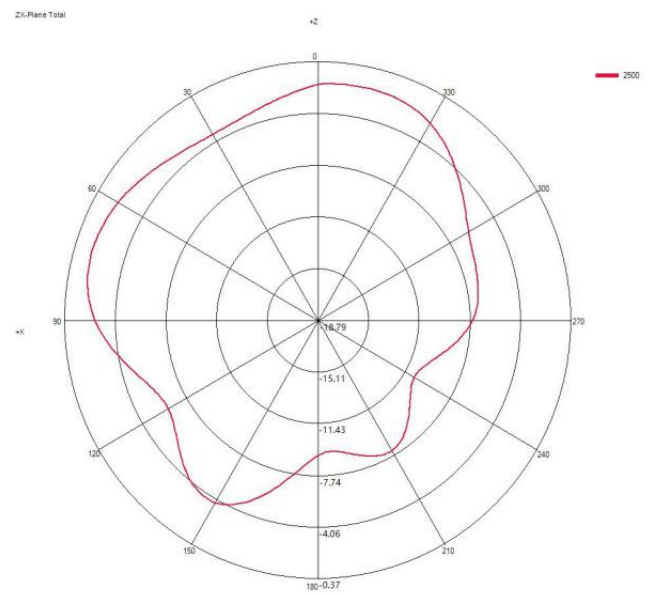
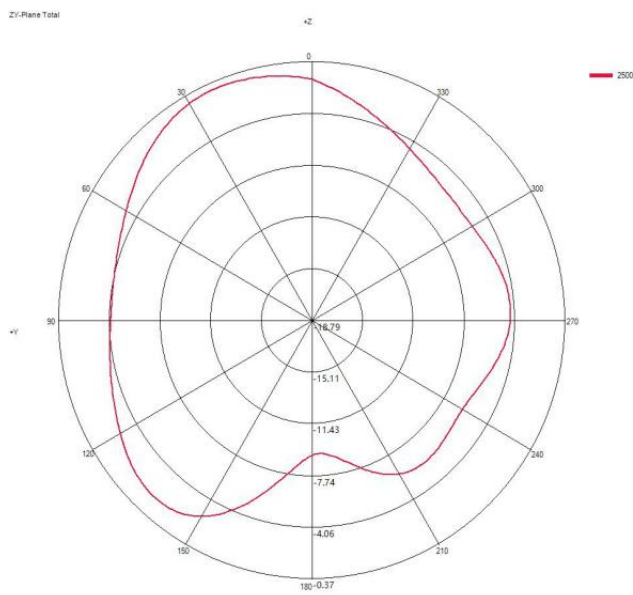
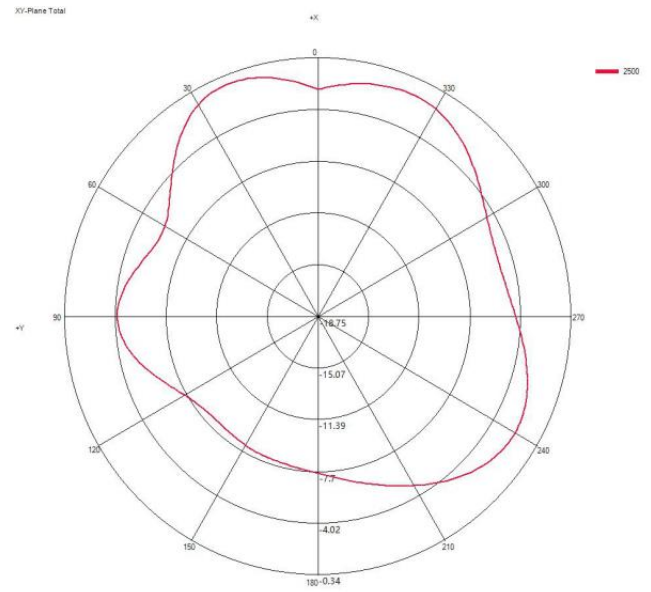
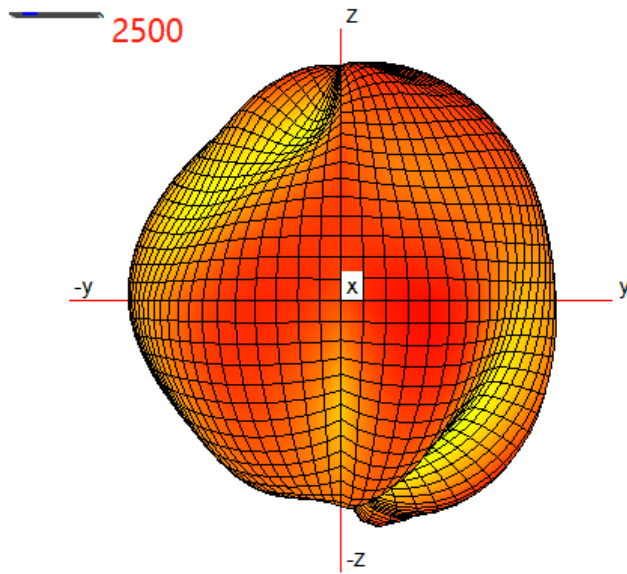
4.5. Radiation Pattern

- Test condition: free space

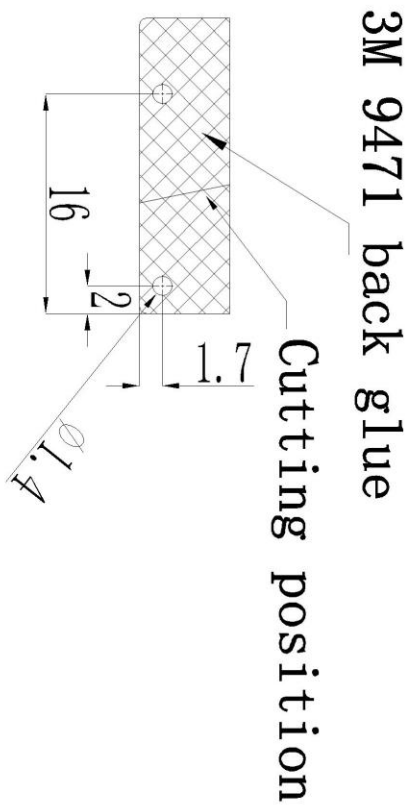
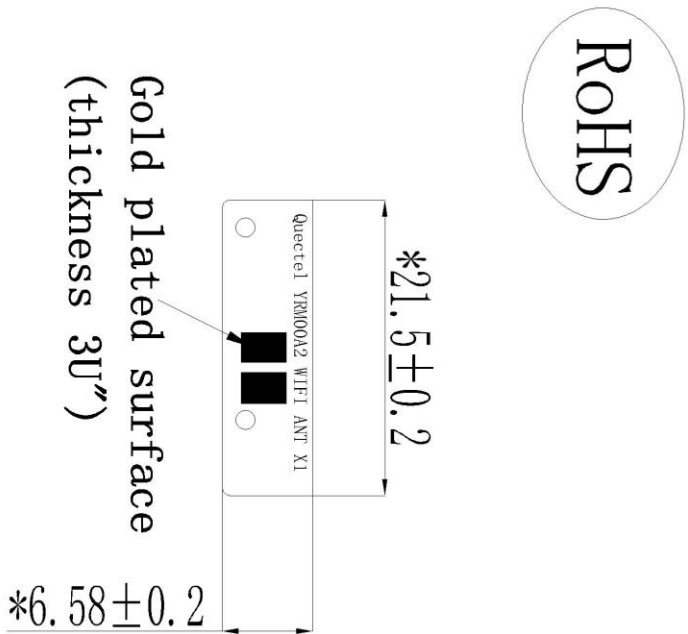








5 Product Size



Unit : mm