

Antenna

HCM320Z Datasheet

Antenna Services

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Status: Preliminary

Damon Zhang



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About the Document

Revision History

Version	Date	Author	Note
-	2025-07-17	Damon Zhang	Creation of the document
1.0	2025-07-17	Damon Zhang	First official release

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1 Product Description

The antenna is designed for superior performance, and can be widely used for wireless applications.

We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

2 Product Features

- BLE/BR/EDR
- High efficiency
- Excellent performance

3 Product Specifications

Passive Electrical Specifications

Frequency Range	2400–2500 MHz
Input Impedance	50 Ω
VSWR	≤ 3.1
Gain	≤ -0.24 dBi
Polarization Type	Linear
Antenna type	PCB Antenna

Mechanical Specifications

Antenna Size(mm)	10.9 × 4.2
Material	FR4
Color	Green
Working Temperature	-40 °C to +85 °C

4 Overall Performance

4.1. Test Environment

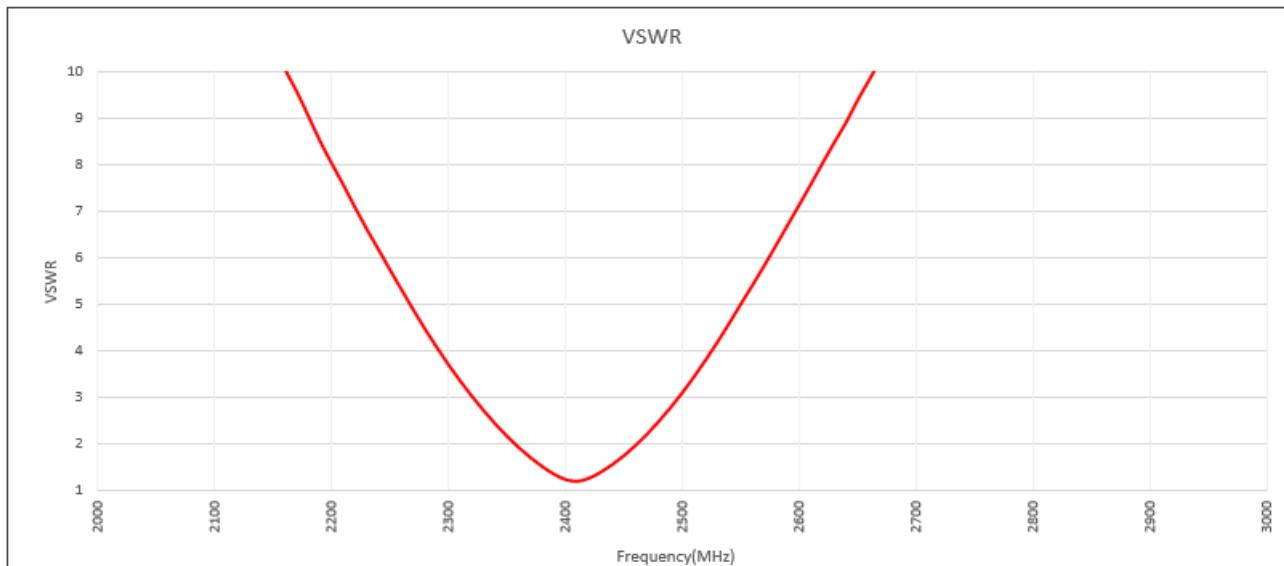
- KEYSIGHT ENA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 600 MHz – 8.5 GHz
- Calibration date 2025/03/08
- Due date 2026/03/08



- Test the software: Libra

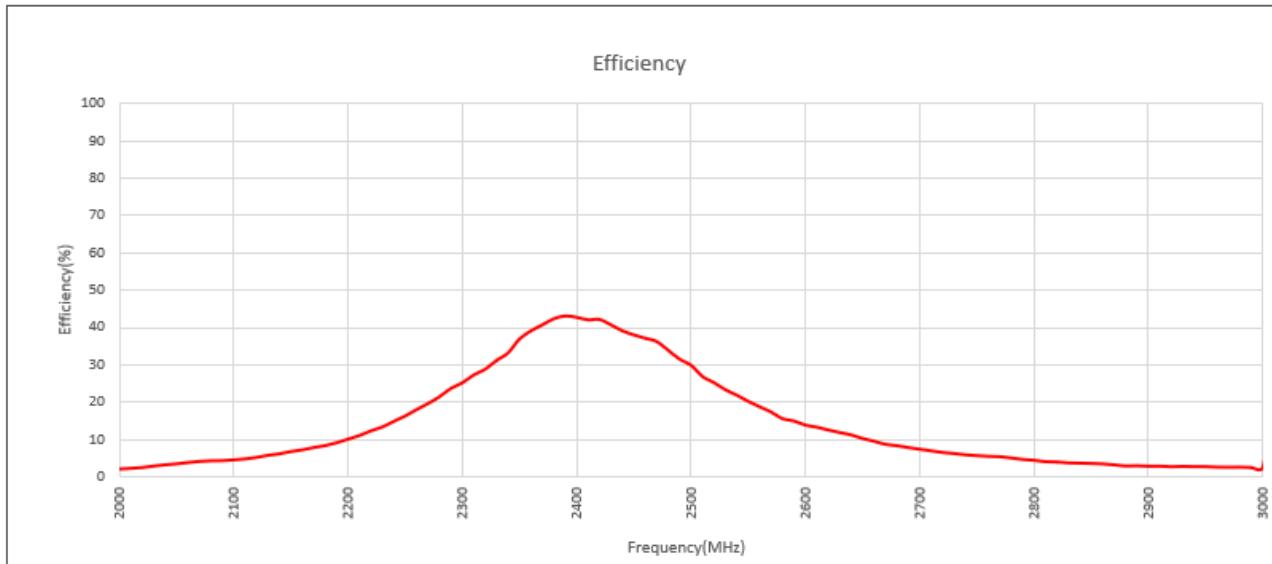


4.2. VSWR



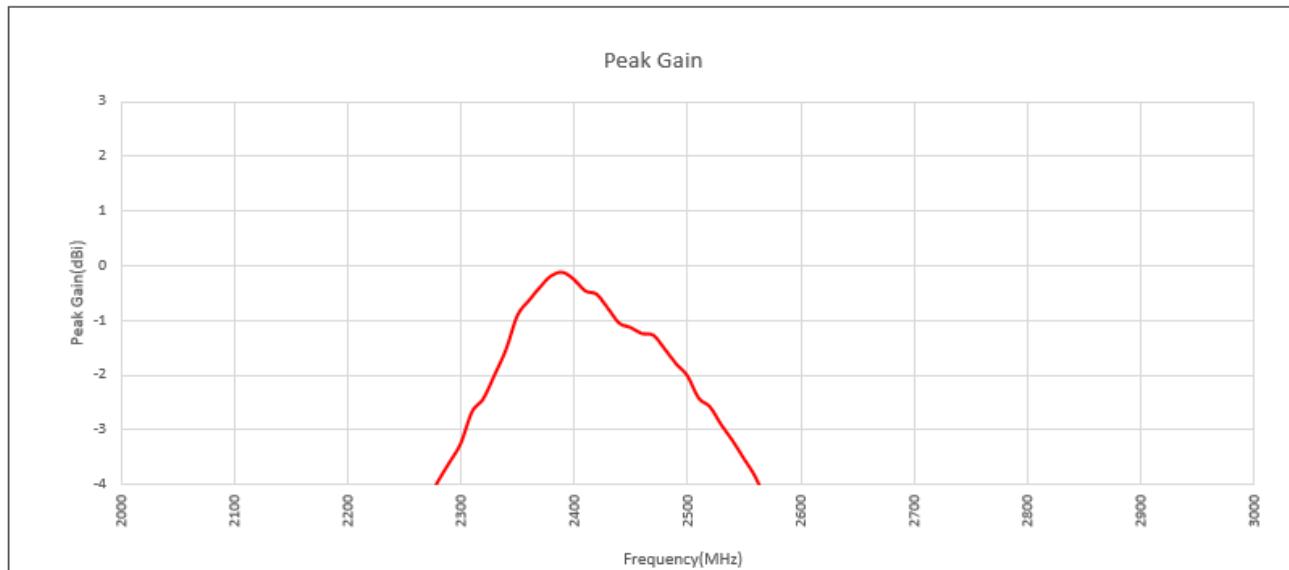
Frequency (MHz)	2400	2450	2500
VSWR	1.2	1.7	3.1

4.3. Efficiency



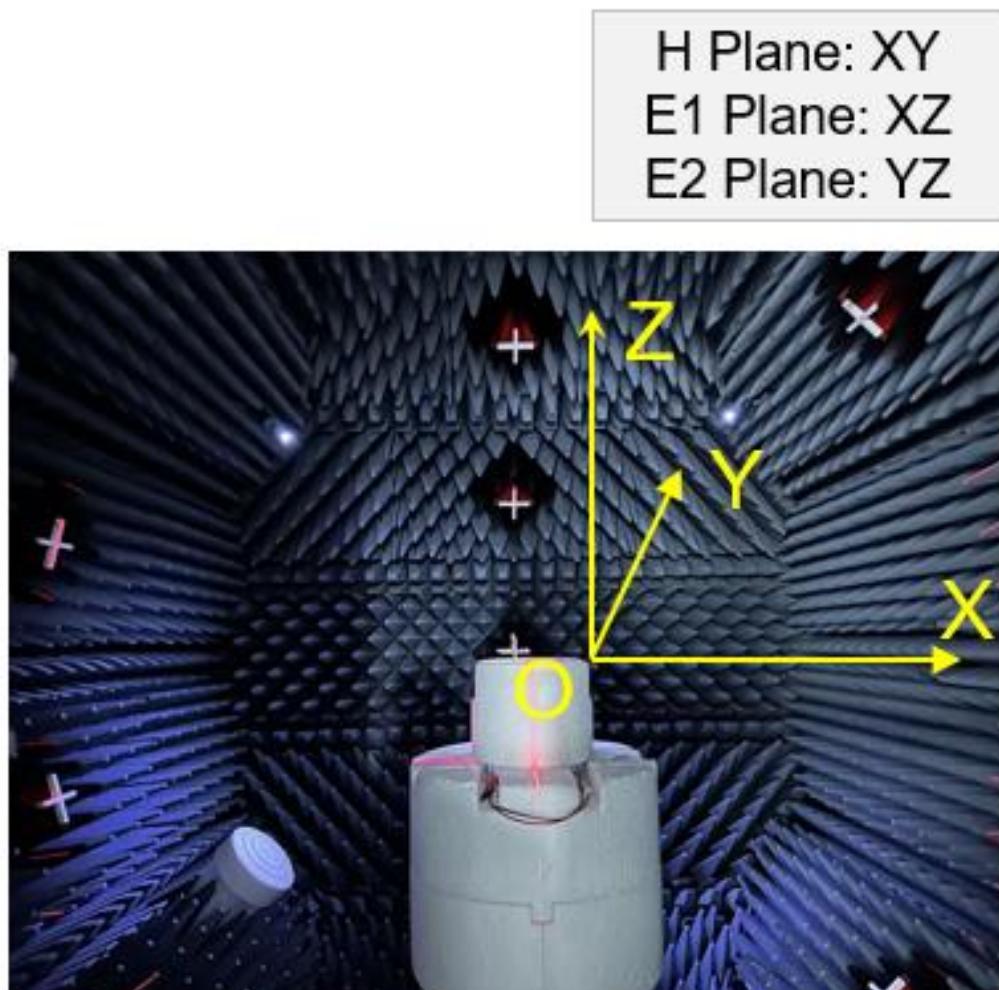
Frequency (MHz)	2400	2450	2500
Efficiency (%)	43	38	30

4.4. Gain

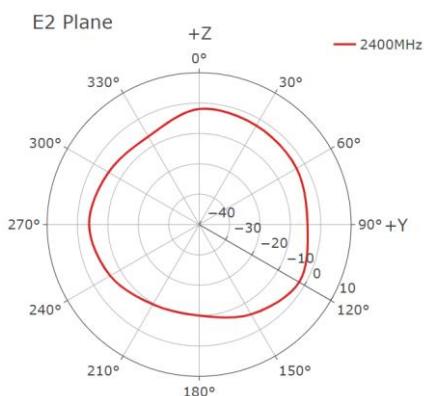
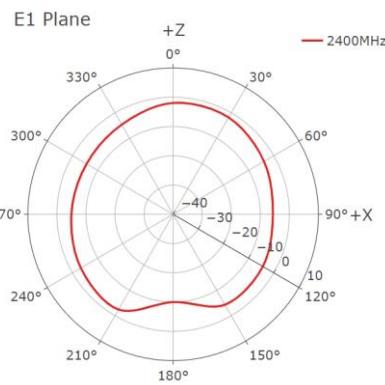
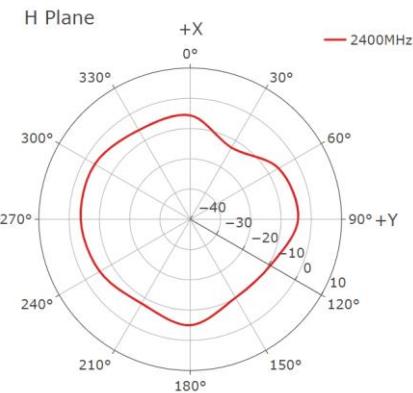
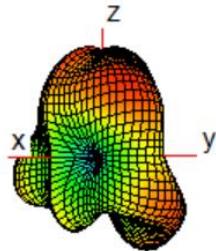


Frequency (MHz)	2400	2450	2500
Gain (dBi)	-0.24	-1.12	-2

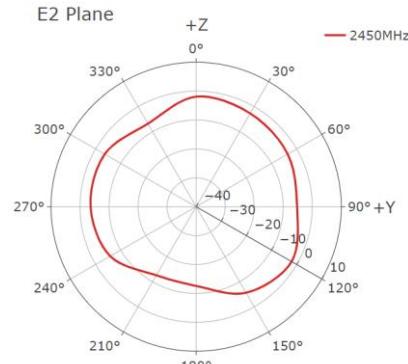
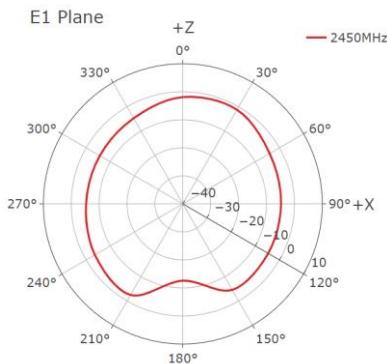
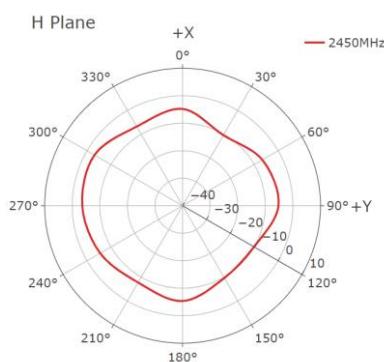
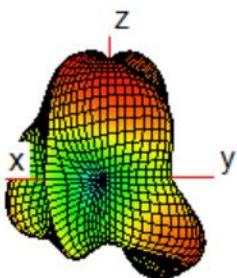
4.5. Radiation Pattern



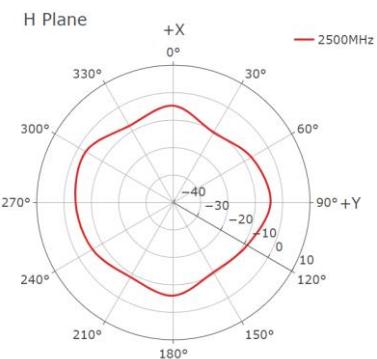
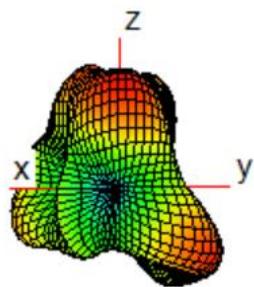
2400MHz



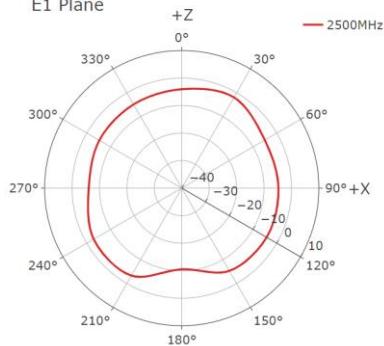
2450MHz



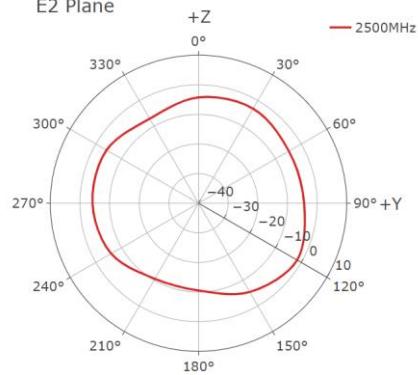
2500MHz



E1 Plane



E2 Plane



5 Product Size (mm)

