

# Antenna

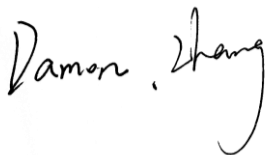
# FCM242D Datasheet

## Antenna Services

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# About the Document

## Revision History

Version	Date	Author	Note
-	2023-09-04	Damon Zhang	Creation of the document
1.0	2023-09-04	Damon Zhang	First official release

## Contents

About the Document.....	3
Contents.....	4
1 Product Description.....	5
2 Product Features .....	5
3 Product Specifications .....	6
4 Overall Performance.....	7
4.1. Test Environment .....	7
4.2. VSWR.....	8
4.3. Efficiency .....	9
4.4. Gain.....	10
4.5. Radiation Pattern .....	11

## 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

- BT
- High efficiency
- Excellent performance

### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	2400–2500 MHz
Input Impedance	50 $\Omega$
VSWR	$\leq 3$
Gain	$\leq 1.4$ dBi
Polarization Type	Linear
Antenna type	PCB Antenna

#### Mechanical Specifications

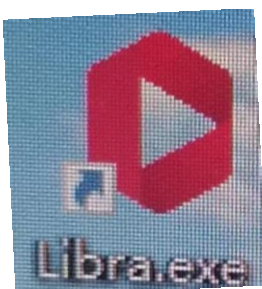
Antenna Size(mm)	15.4 × 5.9
Material	FR4
Color	Green
Working Temperature	-40 °C to +105 °C

## 4 Overall Performance

### 4.1. Test Environment

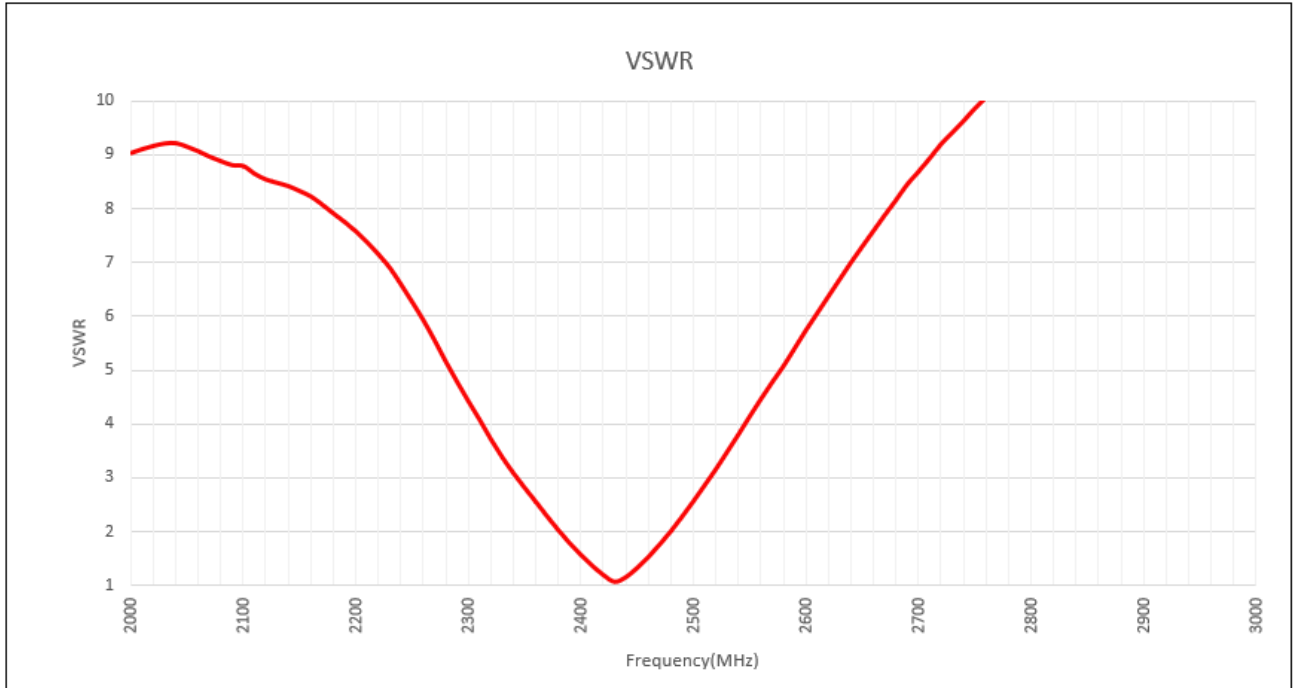
- KEYSIGHT ENA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 600 MHz – 8.5 GHz
- Calibration date 2023/5/30
- Due date 2024/5/30

- Test the software: Libra



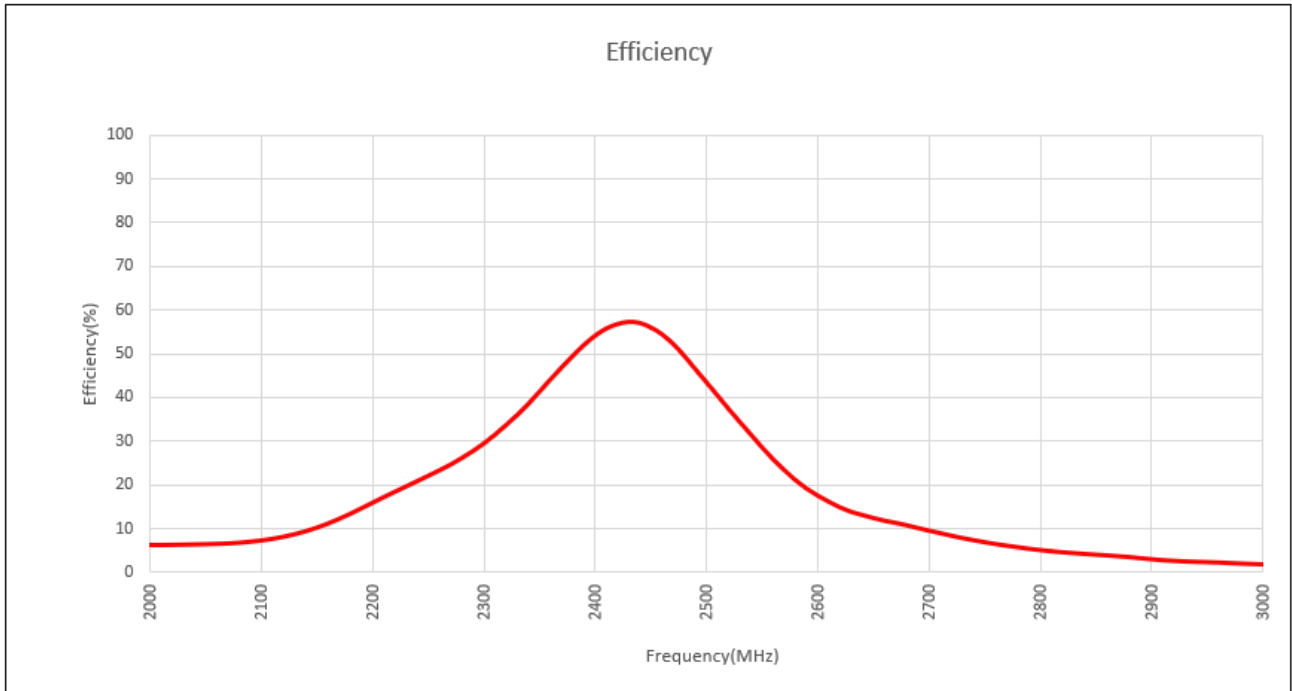


## 4.2. VSWR



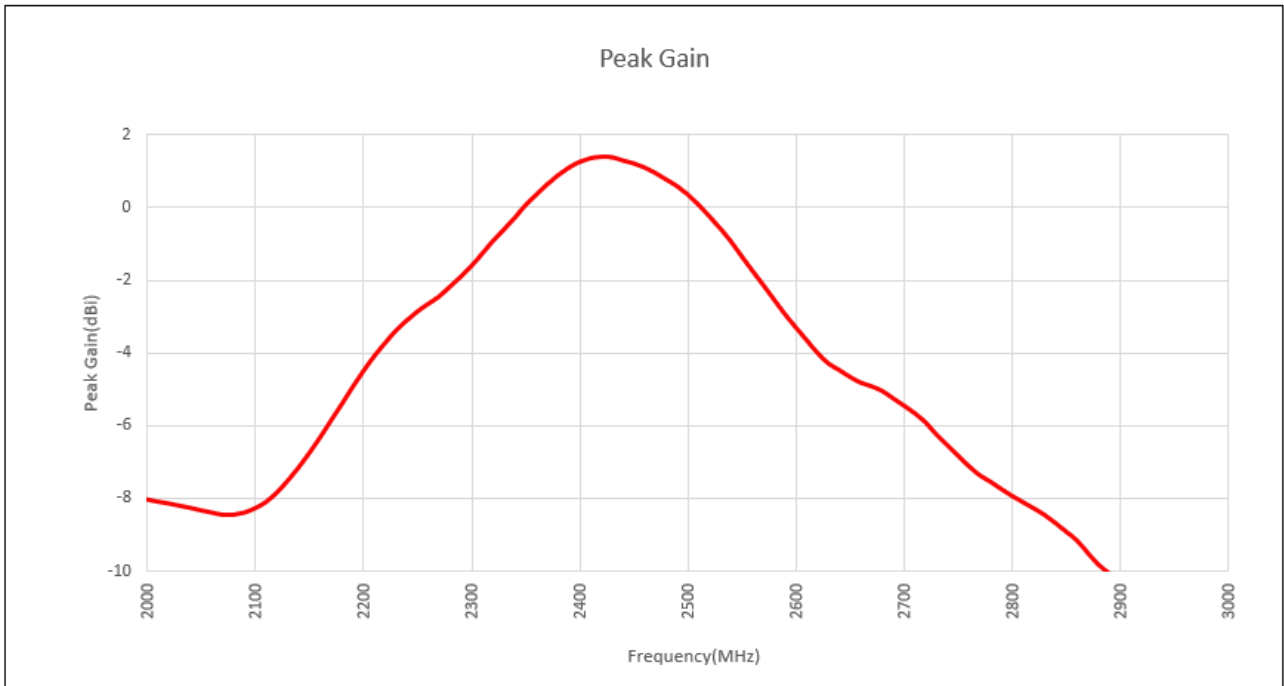
<b>Frequency (MHz)</b>	2400	2450	2500
<b>VSWR</b>	1.6	1.1	2.6

### 4.3. Efficiency



<b>Frequency (MHz)</b>	2400	2450	2500
<b>Efficiency (%)</b>	54	56	43

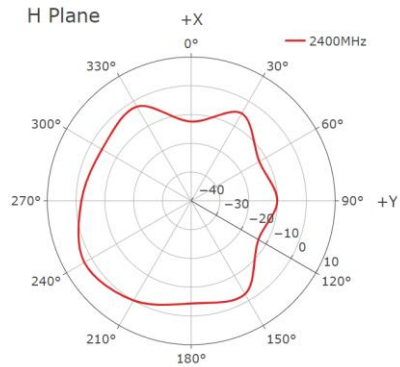
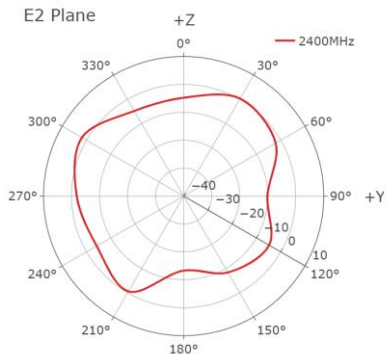
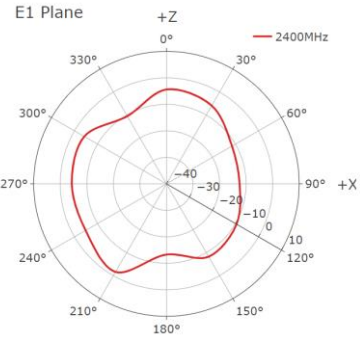
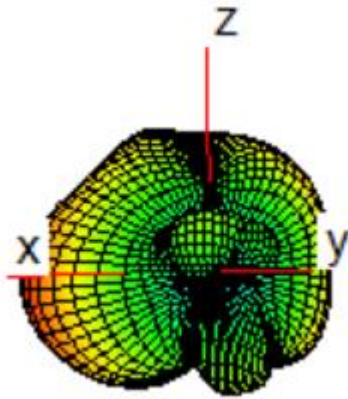
### 4.4. Gain



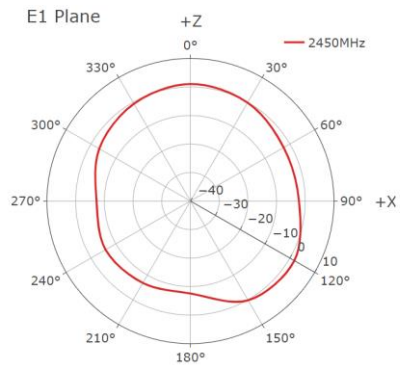
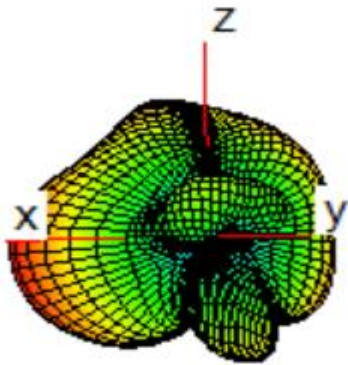
<b>Frequency (MHz)</b>	2400	2450	2500
<b>Gain (dBi)</b>	1.2	1.4	0.3

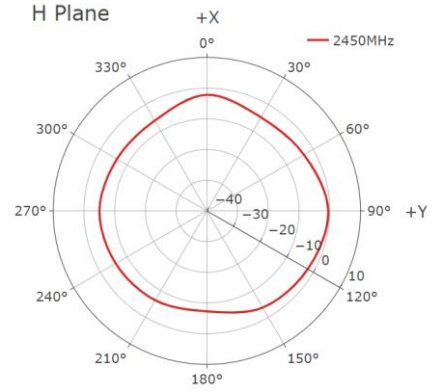
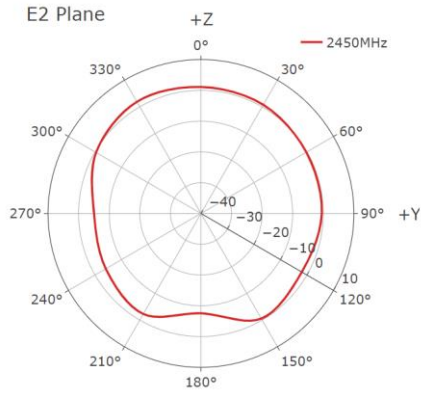
## 4.5. Radiation Pattern

2400MHz



2450MHz





2500MHz

