

Antenna

YE0038AA Datasheet

Antenna Services

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About the Document

Revision History

Version	Date	Author	Note
-	2020-11-24	Kenny YIN	Creation of the document
1.0	2020-11-24	Kenny YIN	First official release
1.1	2021-01-27	Kenny YIN	Added IP rating description.
2.0	2021-04-28	Aria CHU	Updated all test data in the datasheets.
2.1	2021-07-25	Aria CHU	Updated working temperature (Chapter 3).
2.2	2021-11-16	Aria CHU	Updated the information of product features (Chapter 3).
2.3	2021-11-30	Aria CHU	Updated the product description in Chapter 1.

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
4.5.1. 2400 MHz	12
4.5.2. 2500 MHz	13
4.5.3. 5150 MHz	14
4.5.4. 5850 MHz	15
5 Product Size	16

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.

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

- Cellular Wi-Fi
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	2.4–2.5 MHz, 5.15–5.85 MHz
Input Impedence	50 Ω
VSWR	≤ 2.0
Gain	≤ 1.0 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	195 mm x Φ 13 mm
Casing	ABS
Connector Type	SMA Male (Center Pin)
Working Temperature	-40 °C to +85 °C
Radome Color	Black
IP Rating	IP55

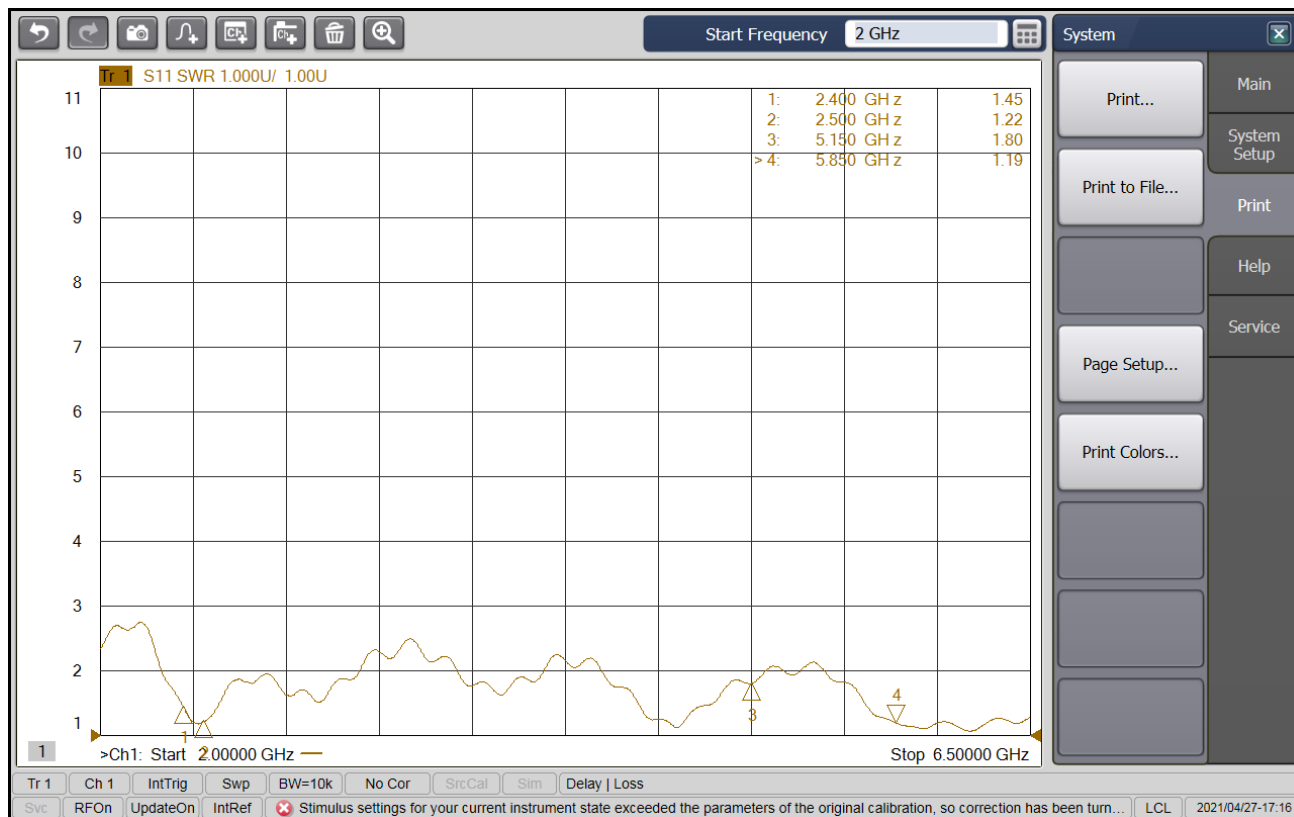
4 Overall Performance

4.1. Test Environment

- KEYSIGHT VNA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 8.0 GHz

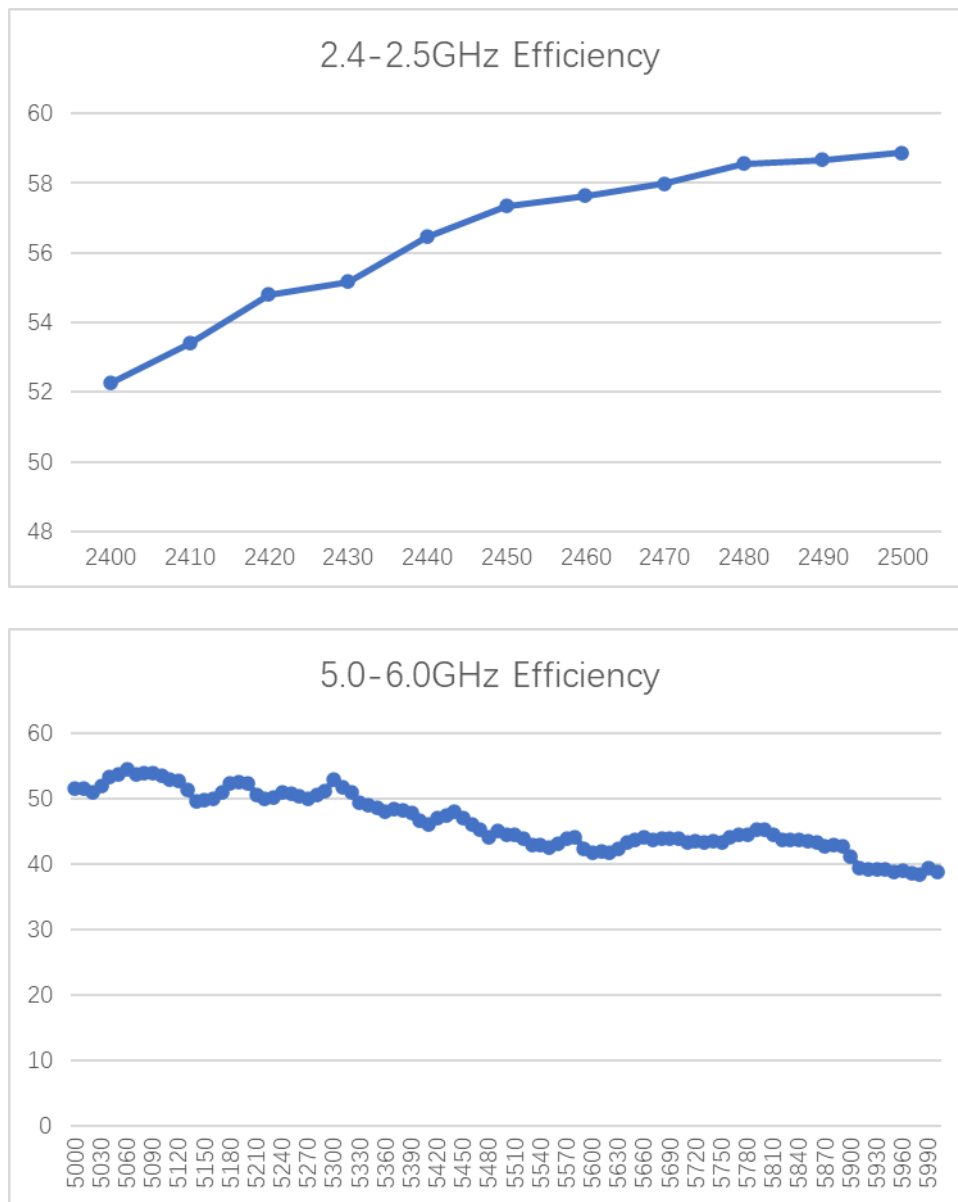


4.2. VSWR



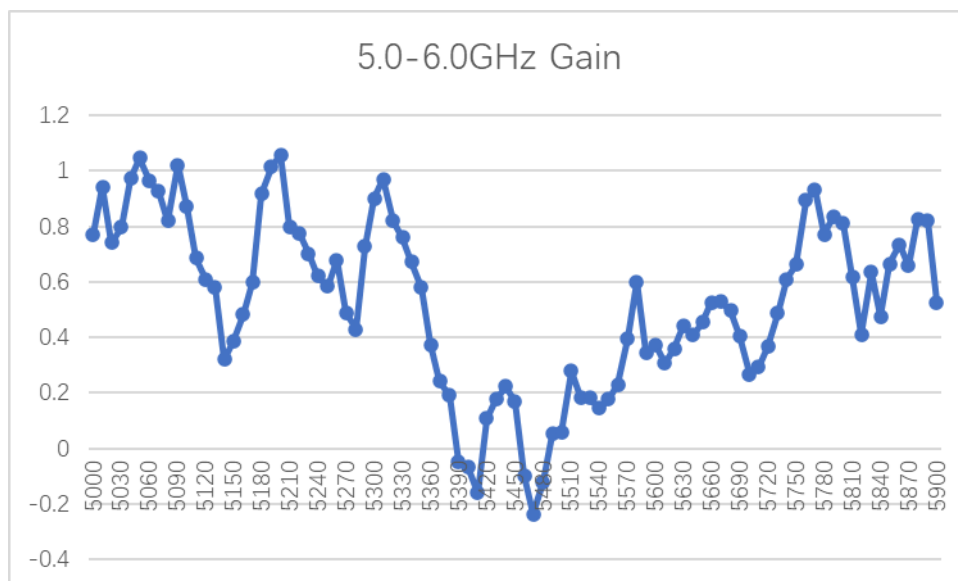
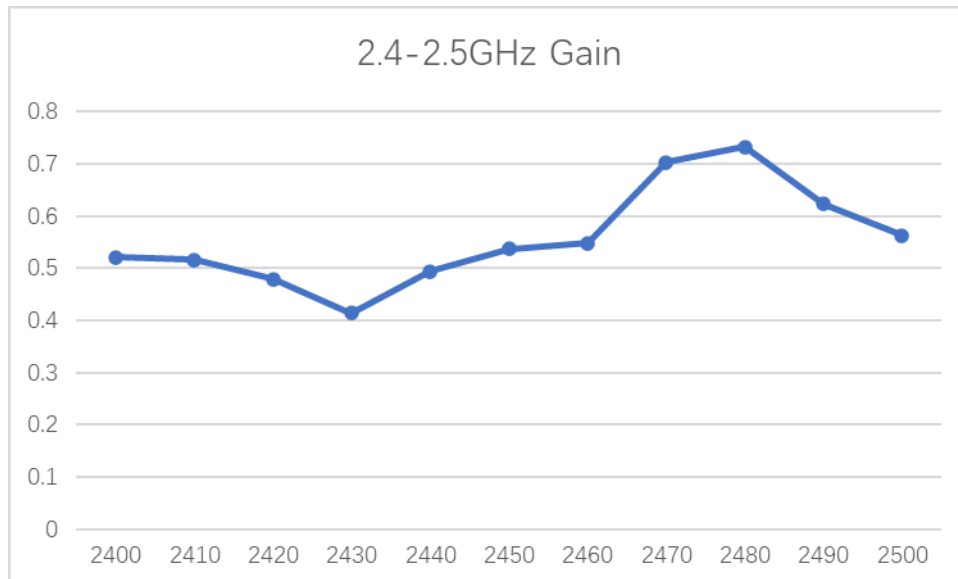
Frequency (MHz)	2400	2500	5150	5850
VSWR	1.45	1.22	1.80	1.19

4.3. Efficiency



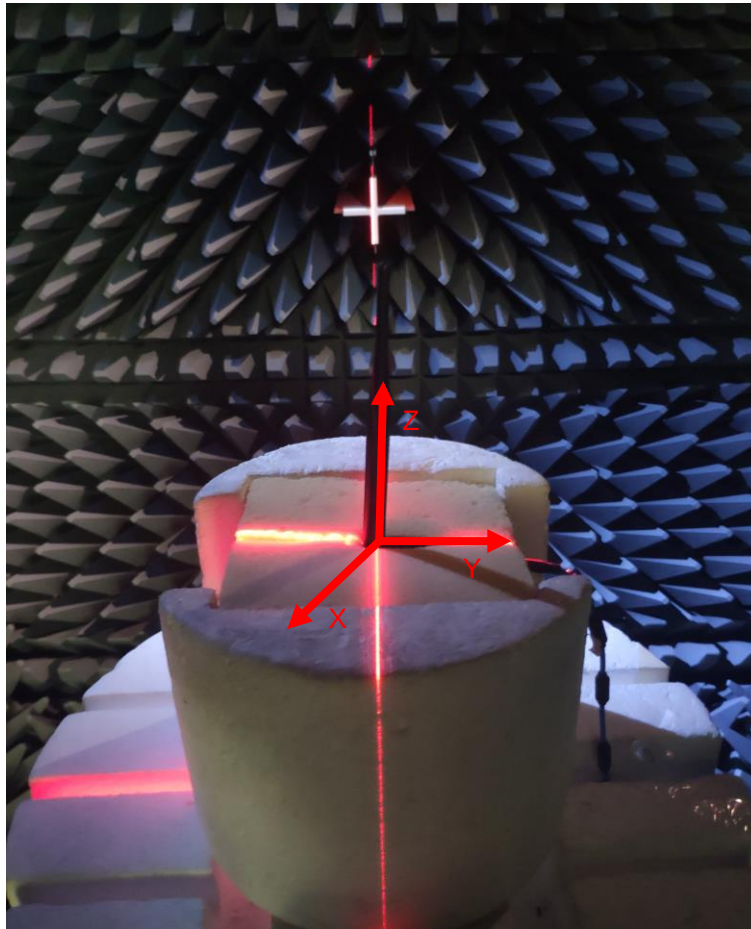
Frequency (MHz)	2400	2500	5150	5850
Efficiency (%)	52.26	59.64	49.76	43.45

4.4. Gain



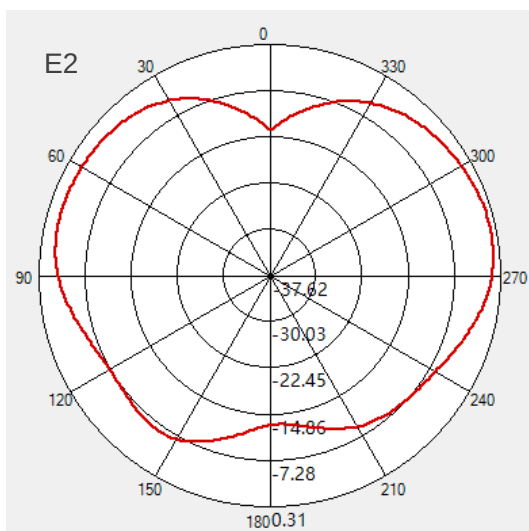
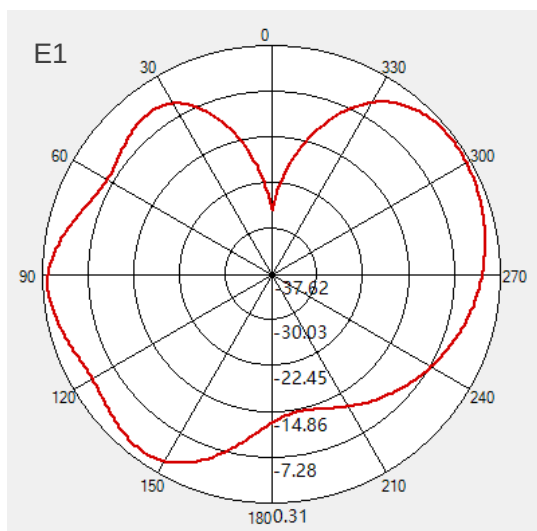
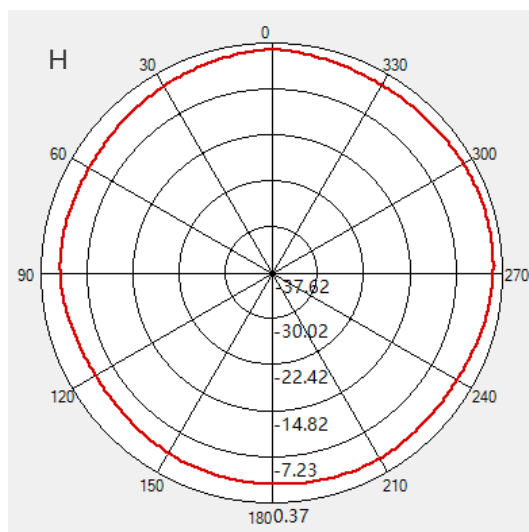
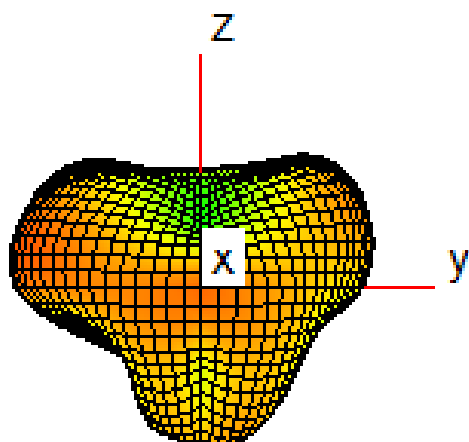
Frequency (MHz)	2400	2500	5150	5850
Gain (dBi)	0.52	0.50	0.38	0.66

4.5. Radiation Pattern

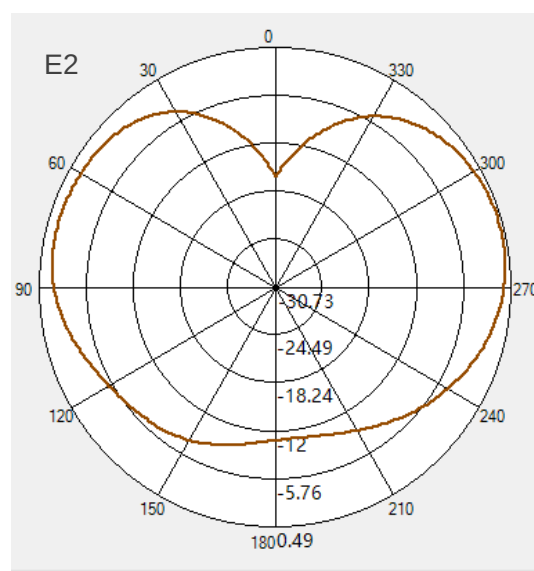
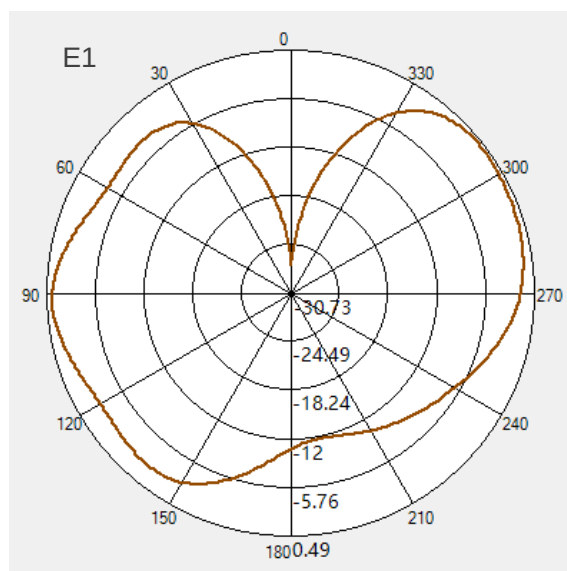
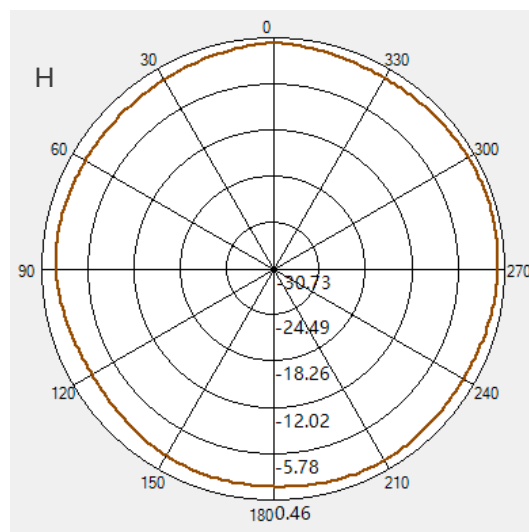
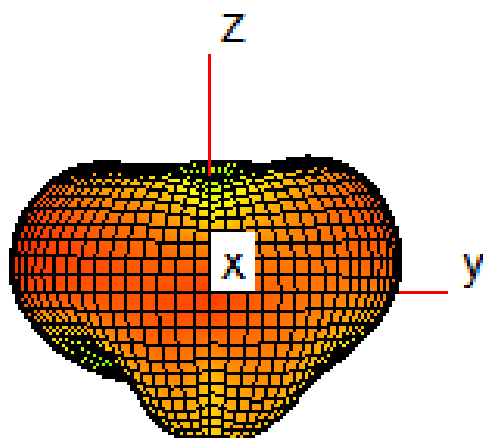


H plane: the tangent of XY
E1 plane: the tangent of XZ
E2 plane: the tangent of YZ

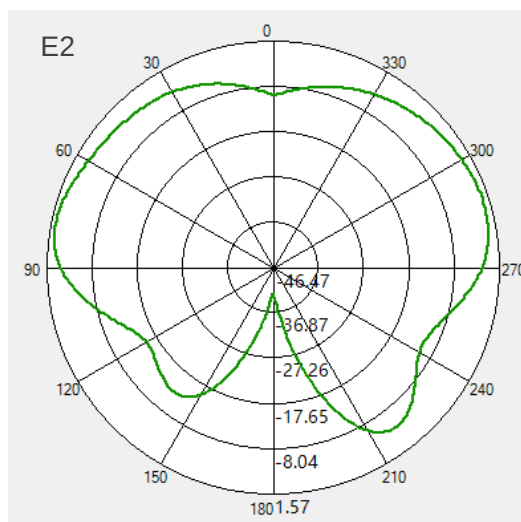
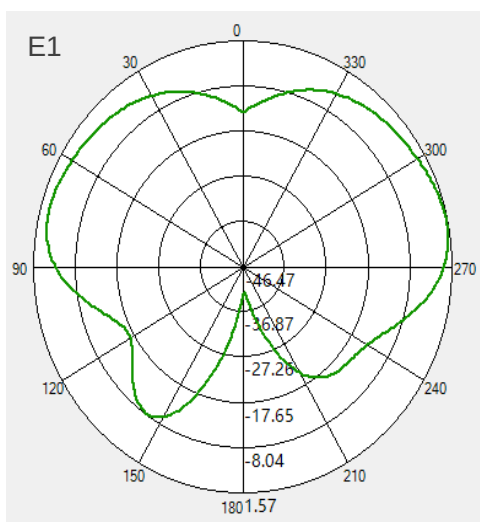
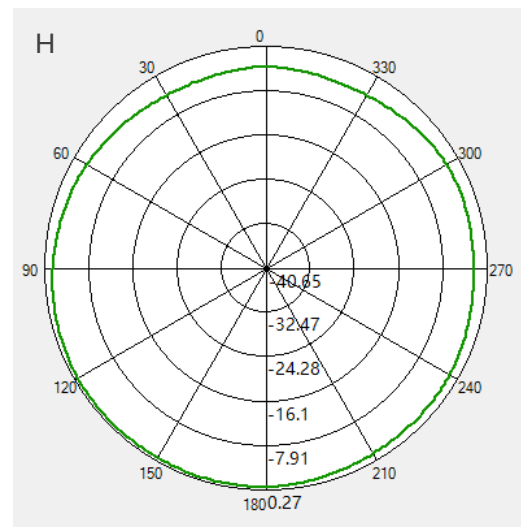
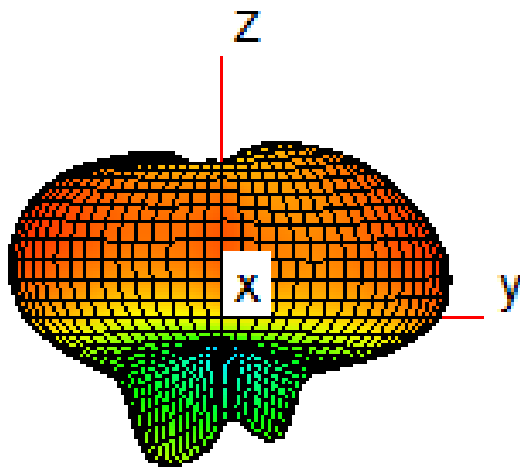
4.5.1. 2400 MHz



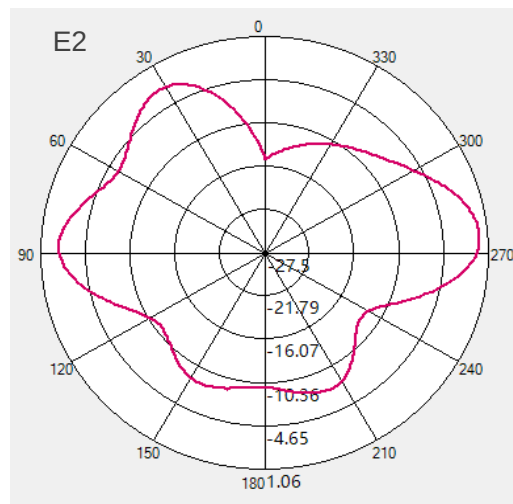
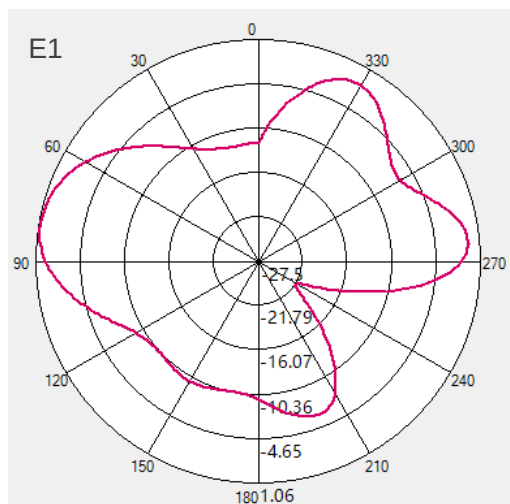
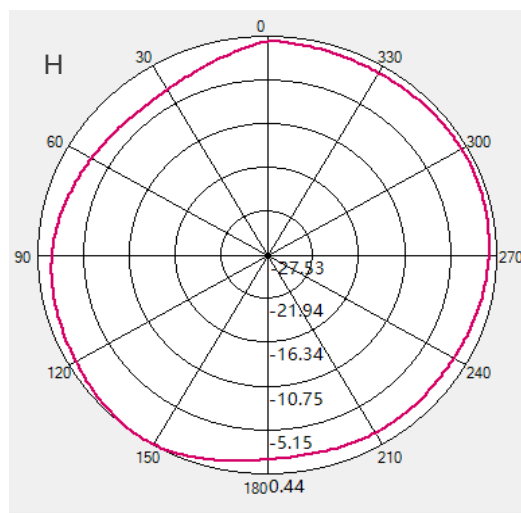
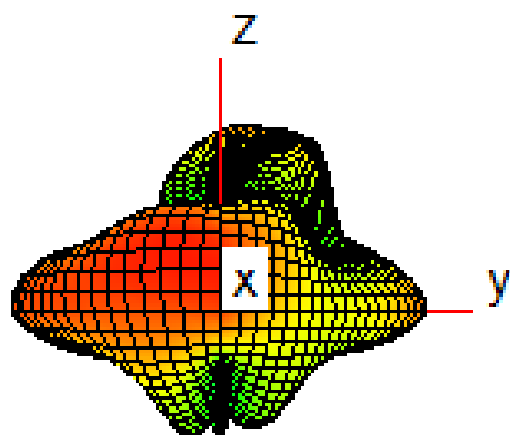
4.5.2. 2500 MHz



4.5.3. 5150 MHz



4.5.4. 5850 MHz



5 Product Size

