

Antenna

YEWN001AA Datasheet

Antenna Services

Version: 1.2

Date: 2021-11-30

Status: Released



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About the Document

Revision History

Version	Date	Author	Note
-	2021-05-11	Kenny YIN/ Aria CHU	Creation of the document
1.0	2021-05-11	Kenny YIN/ Aria CHU	First official release
1.1	2021-07-25	Kenny YIN/ Aria CHU	Updated working temperature (Chapter 3).
1.2	2021-11-30	Kenny YIN/ Aria CHU	Updated the product description in Chapter 1.

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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.

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

- Wi-Fi 6 2.4/5.8 GHz
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	2400–2500 MHz, 5150–5850 MHz
Input Impedance	50 Ω
VSWR	≤ 2.0
Gain	≤ 5.0 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	Φ 13 mm x 200 mm
Casing	TPEE
Connector Type	RP-SMA Male (Center Receptacle)
Working Temperature	-40 °C to +85 °C
Radome Color	Black
IP Rating	IP55

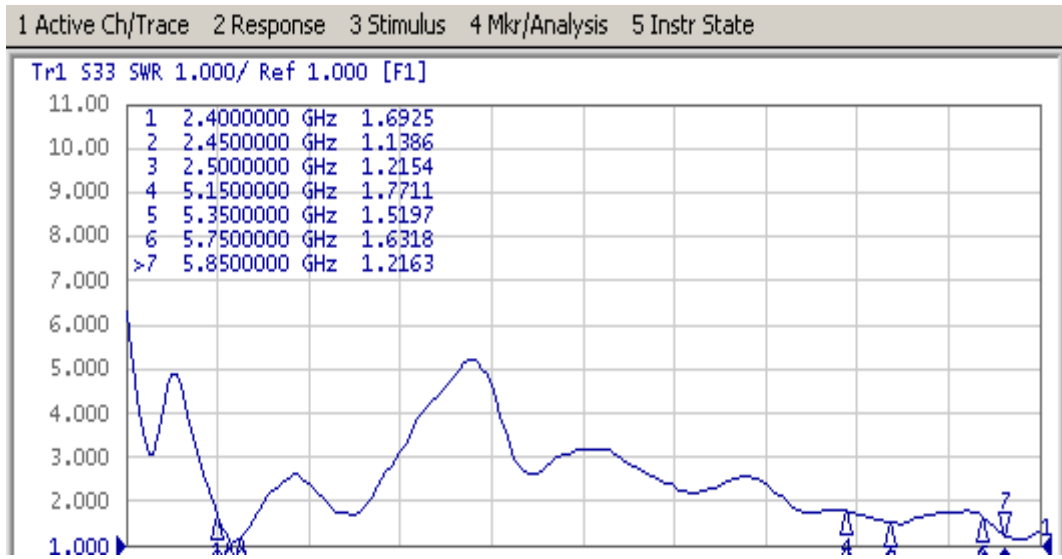
4 Overall Performance

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

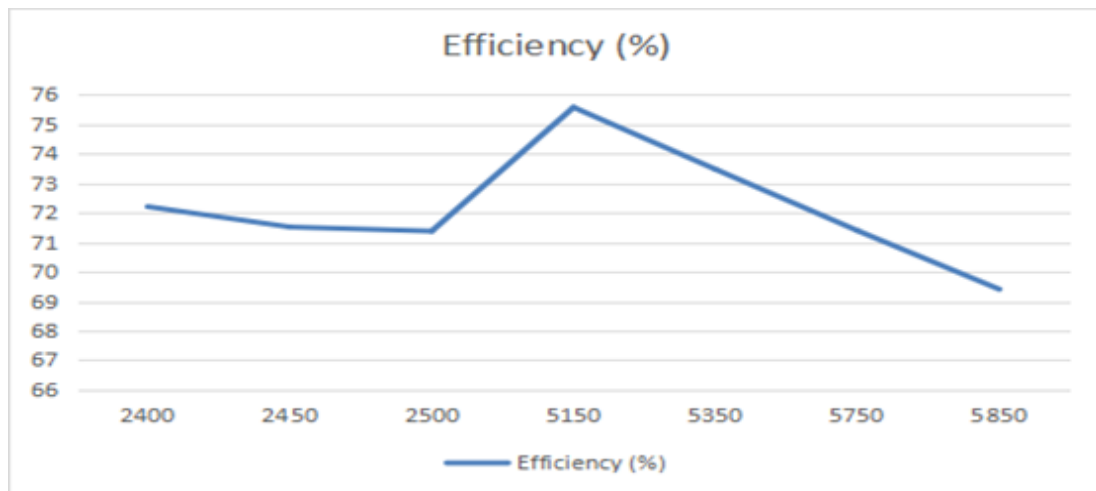


4.2. VSWR



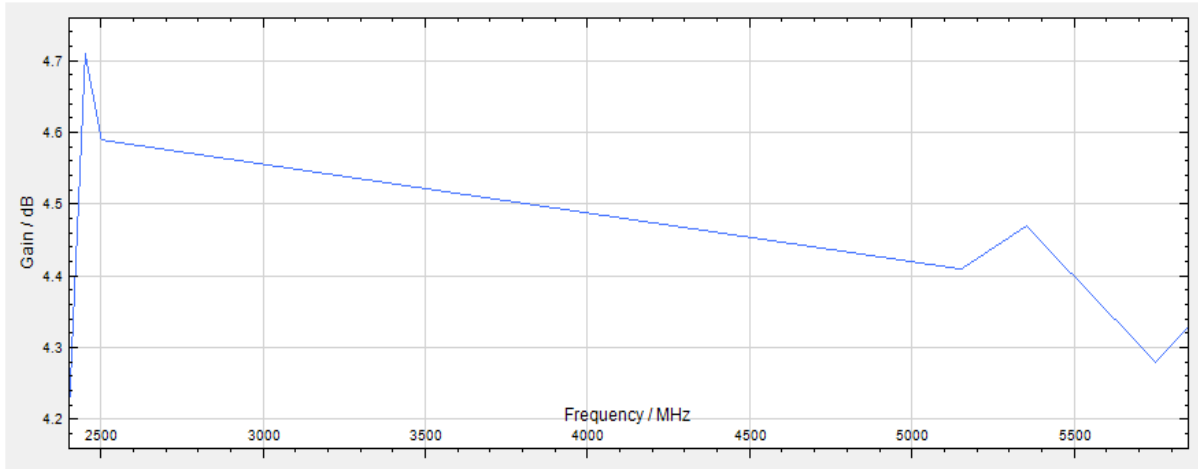
Frequency (MHz)	2400	2450	2500	5150	5350	5750	5850
VSWR	1.69	1.13	1.21	1.77	1.51	1.63	1.21

4.3. Efficiency



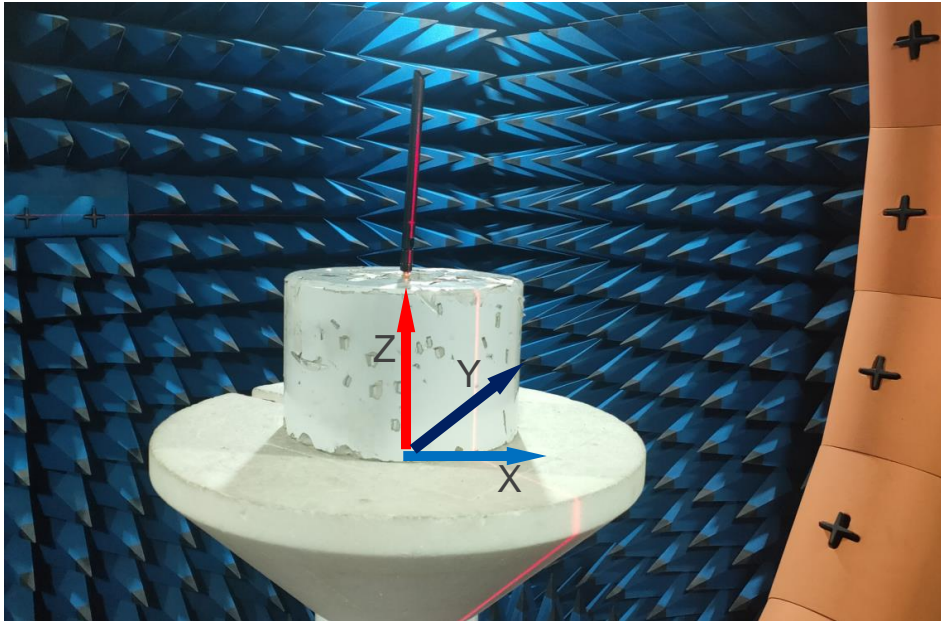
Frequency (MHz)	2400	2450	2500	5150	5350	5750	5850
Efficiency (%)	72.21	71.52	71.38	75.58	73.48	71.4	69.41

4.4. Gain

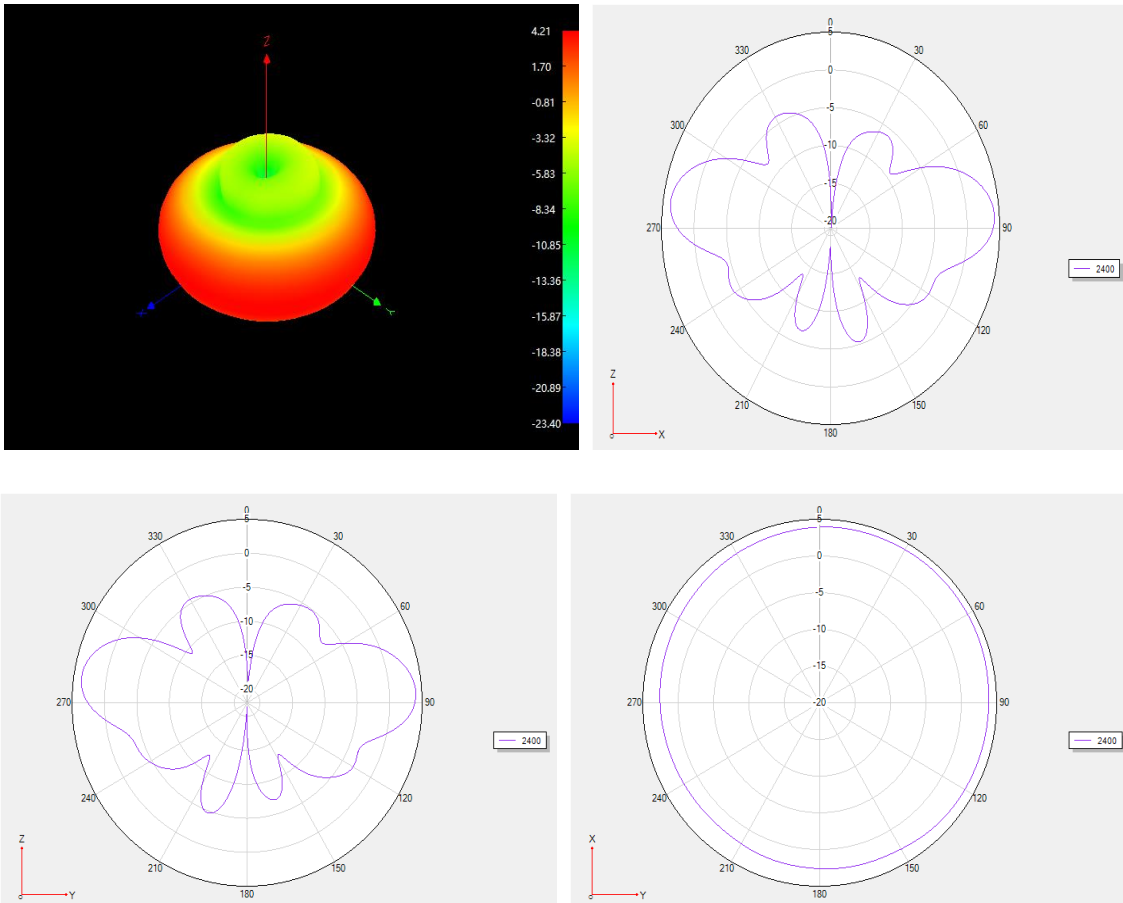


Frequency (MHz)	2400	2450	2500	5150	5350	5750	5850
Gain (dBi)	4.21	4.71	4.59	4.41	4.47	4.28	4.33

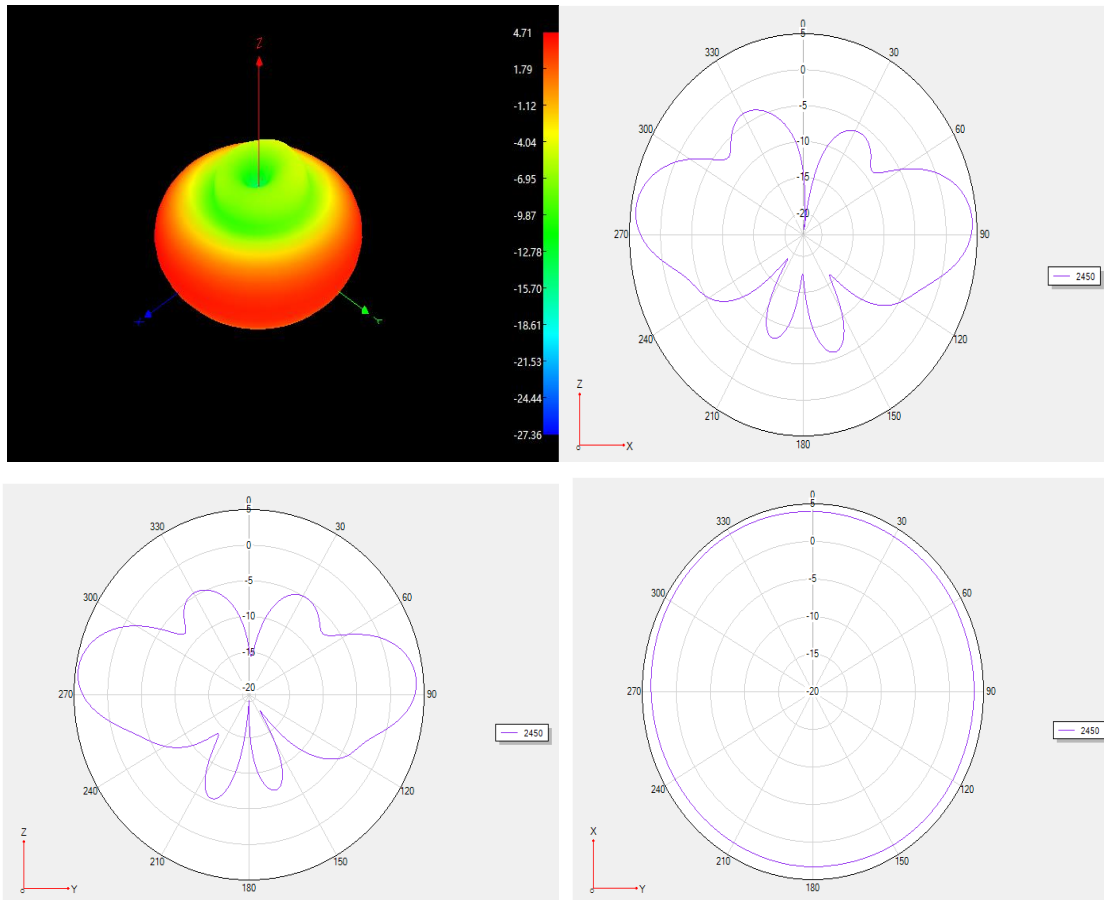
4.5. Radiation Pattern



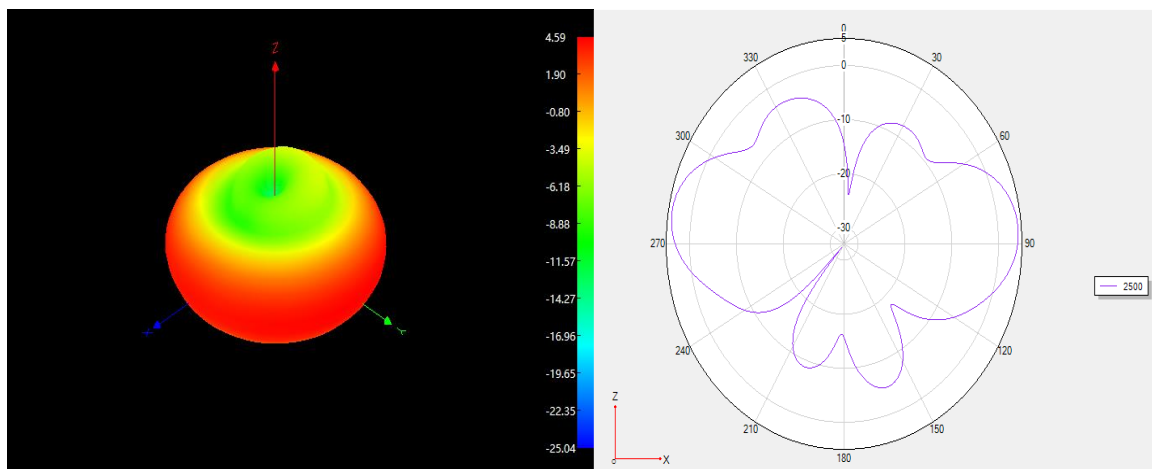
4.5.1. 2400 MHz

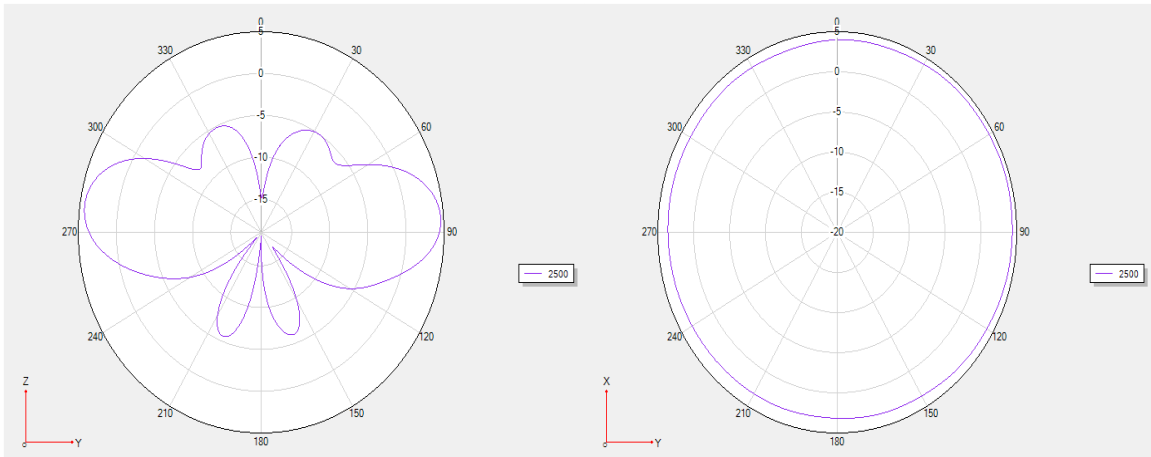


4.5.2. 2450 MHz

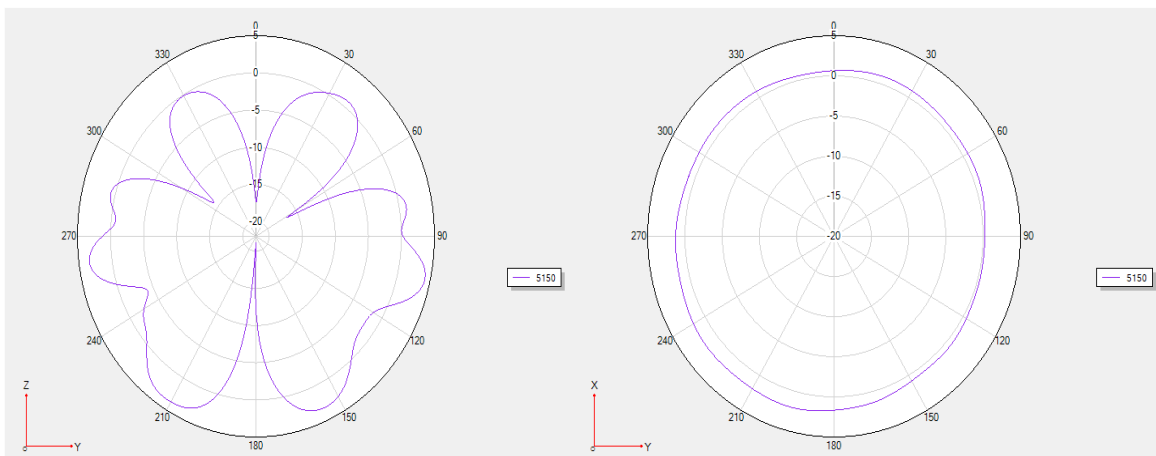
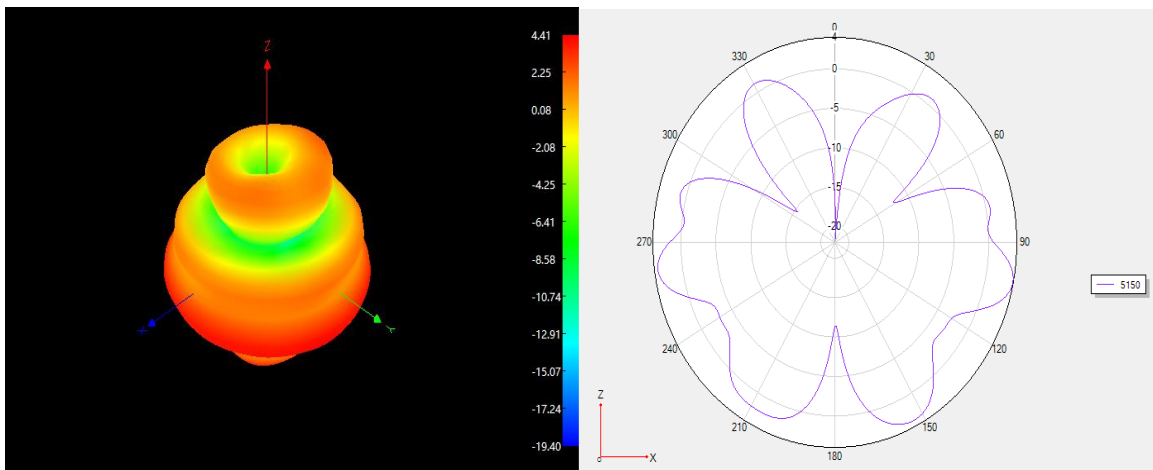


4.5.3. 2500 MHz

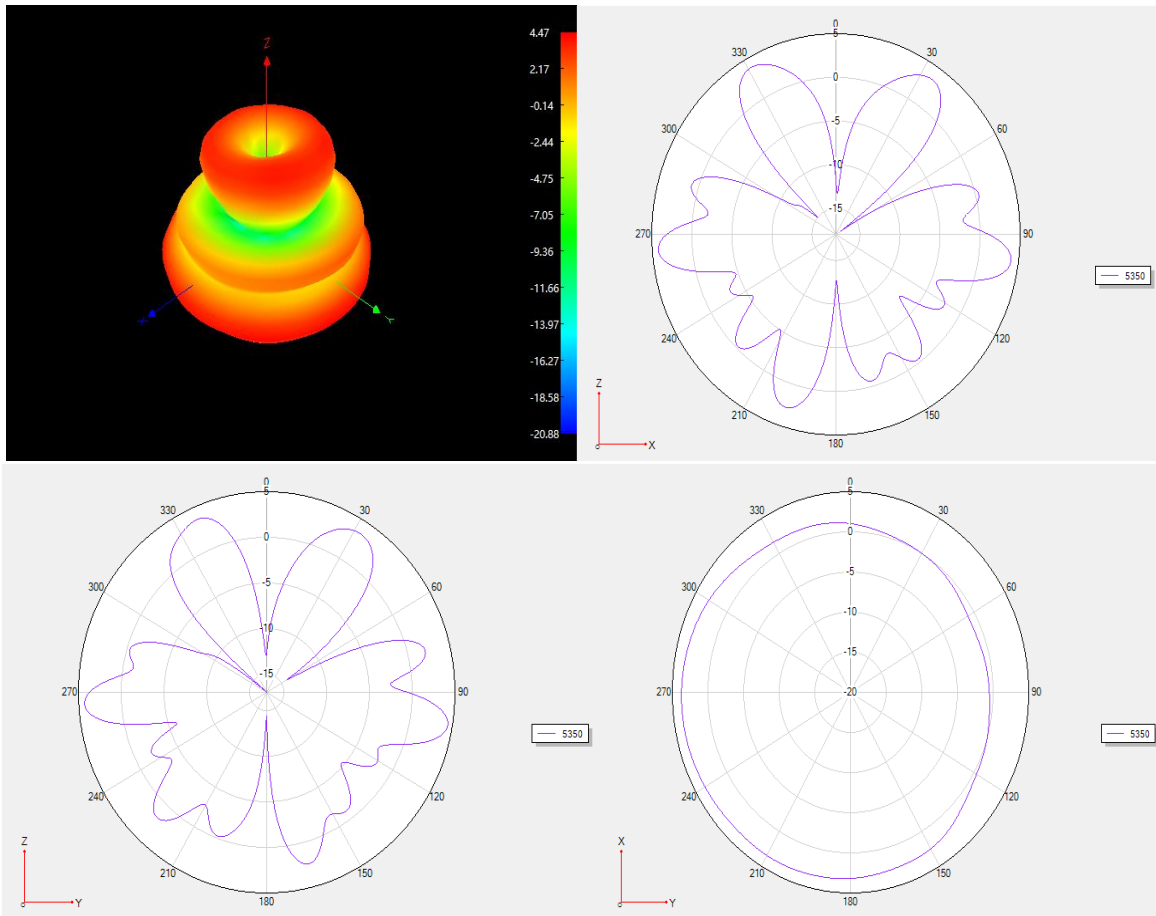




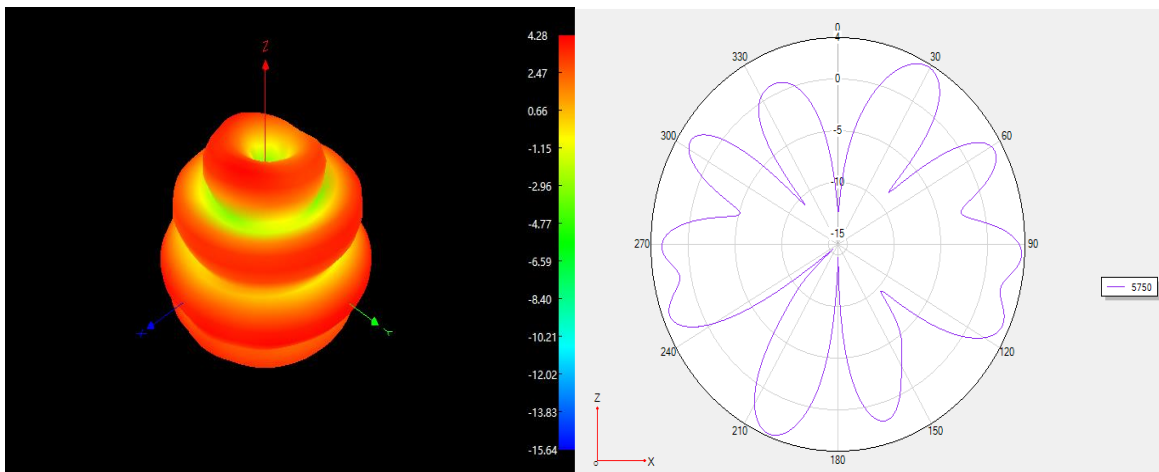
4.5.4. 5150 MHz

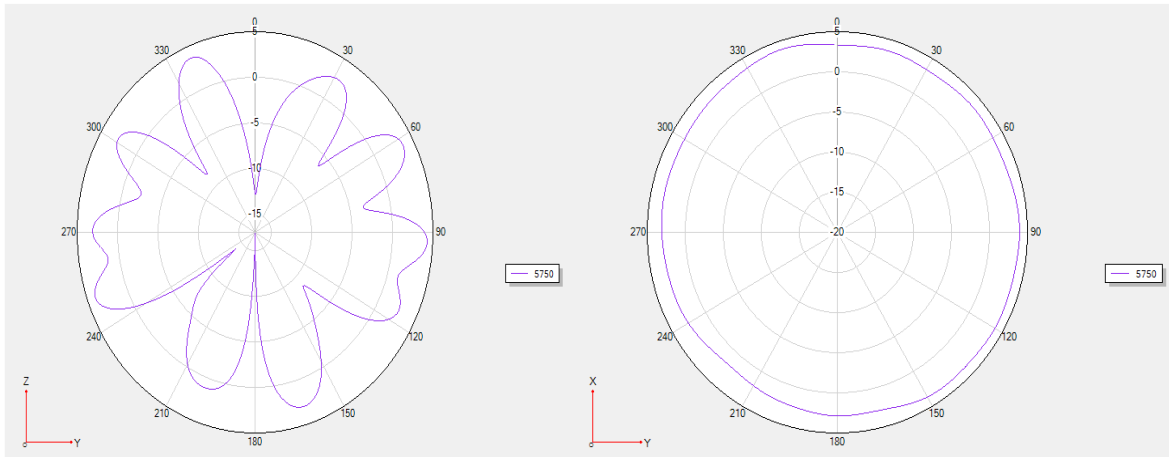


4.5.5. 5350 MHz

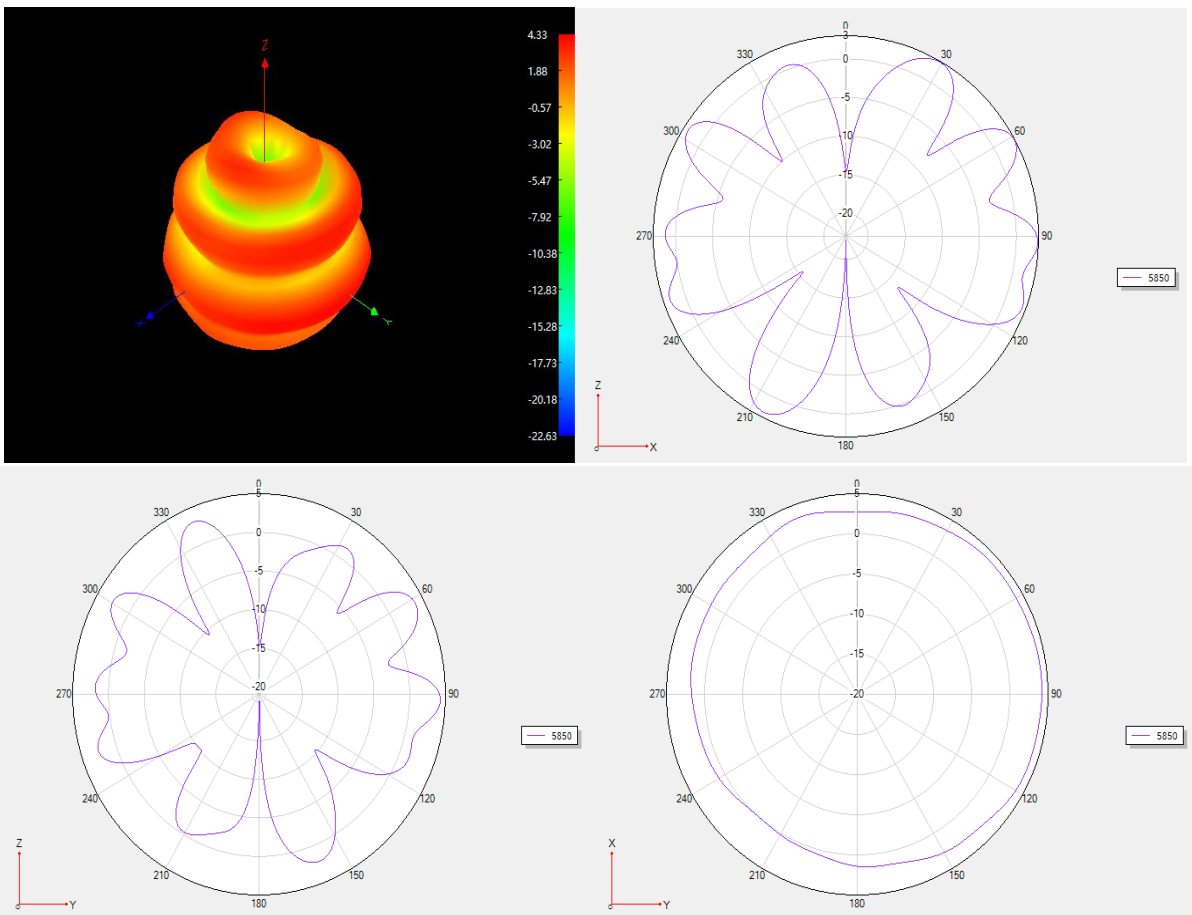


4.5.6. 5750 MHz





4.5.7. 5850 MHz



5 Product Size

