

Antenna

YECN009BA Datasheet

Antenna Services

Version: 1.0

Date: 2021-11-01

Status: Released



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About the Document

Revision History

Version	Date	Author	Note
-	2021-11-01	Winfred WU/ Toby WANG	Creation of the document
1.0	2021-11-01	Winfred WU/ Toby WANG	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.....	9
4.5. Radiation Pattern.....	10
4.5.1. 600 MHz	11
4.5.2. 960MHz	12
4.5.3. 1710 MHz	13
4.5.4. 2170 MHz	14
4.5.5. 2300 MHz	15
4.5.6. 2690 MHz	16
4.5.7. 3300 MHz	17
4.5.8. 5000 MHz	18
4.5.9. 6000 MHz	19
5 Product Size	20
6 Packaging	21

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

- Cellular 600–6000 MHz
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	600-6000 MHz RG178 Cable
Input Impedence	50 Ω
VSWR	≤ 4.0
Gain	≤ 4.5 dBi
Polarization Type	Linear

Detailed Passive Electrical Specifications

Frequency Range (MHz)	600-960	1176-1280	1400-1610	1710-2170	2170-2690	3300-4000	4000-5000	5000-6000
VSWR (Max.)	2.92	-	-	1.84	3.07	3.07	3.01	2.79
Average Efficiency (%)	55.79	-	-	64.42	49.31	40	39	43.25
Max. Peak Gain (dBi)	1.06	-	-	4.41	2.13	2.1	2.9	3.6

Mechanical Specifications

Antenna Size	200 mm x 21 mm
Casing	PC
Connector Type	RP-SMA Male (center receptacle)
Working Temperature	-40 °C to +85 °C
Radome Color	Black
IP Rating	IP55

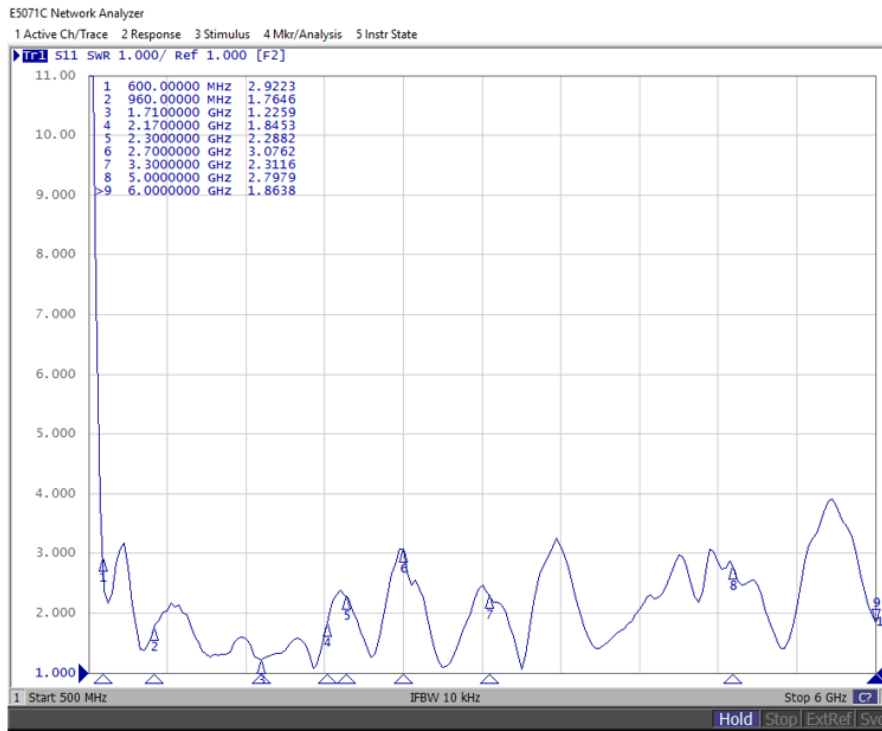
4 Overall Performance

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

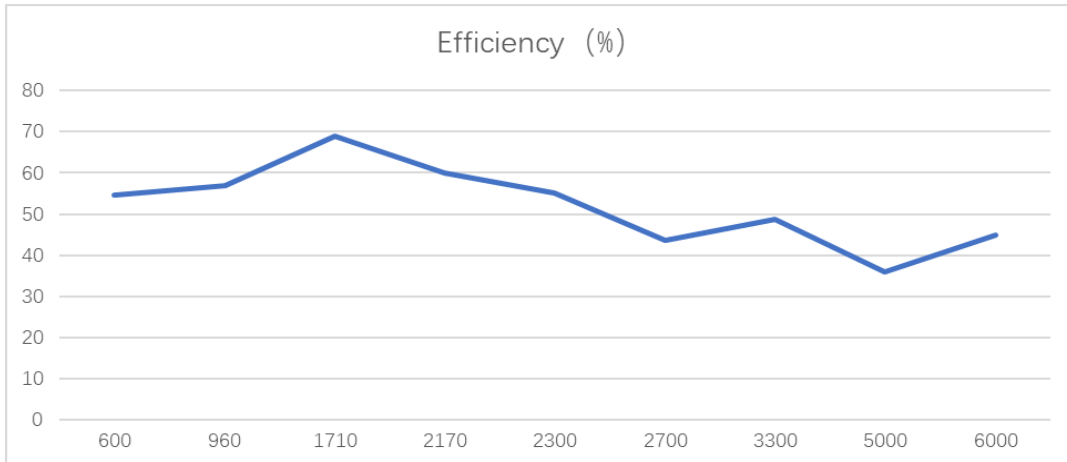


4.2. VSWR



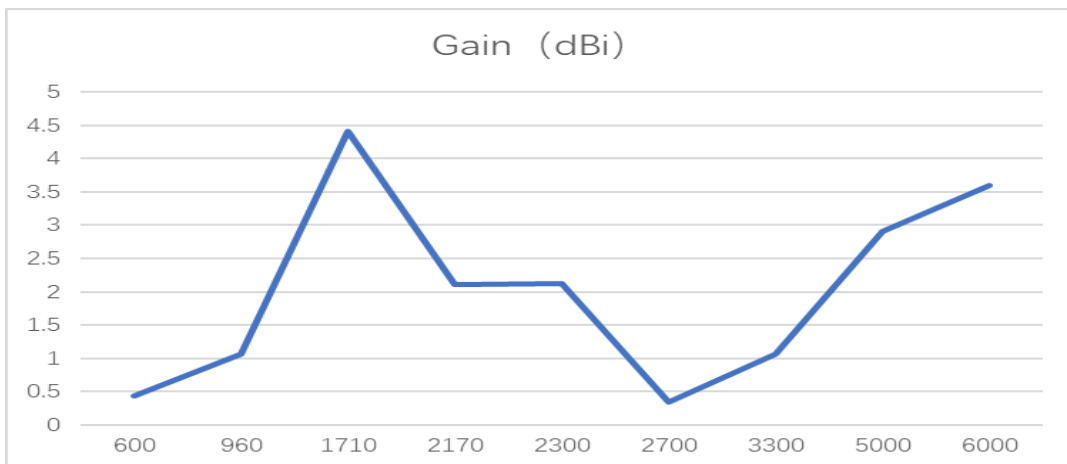
Frequency (MHz)	600	960	1710	2170	2300	2700	3300	5000	6000
VSWR	2.92	1.76	1.22	1.84	2.28	3.07	2.31	2.79	1.86

4.3. Efficiency



Frequency (MHz)	600	960	1710	2170	2300	2700	3300	5000	6000
Efficiency (%)	54.58	56.99	68.82	60.02	55.05	43.56	48.65	36.08	45.03

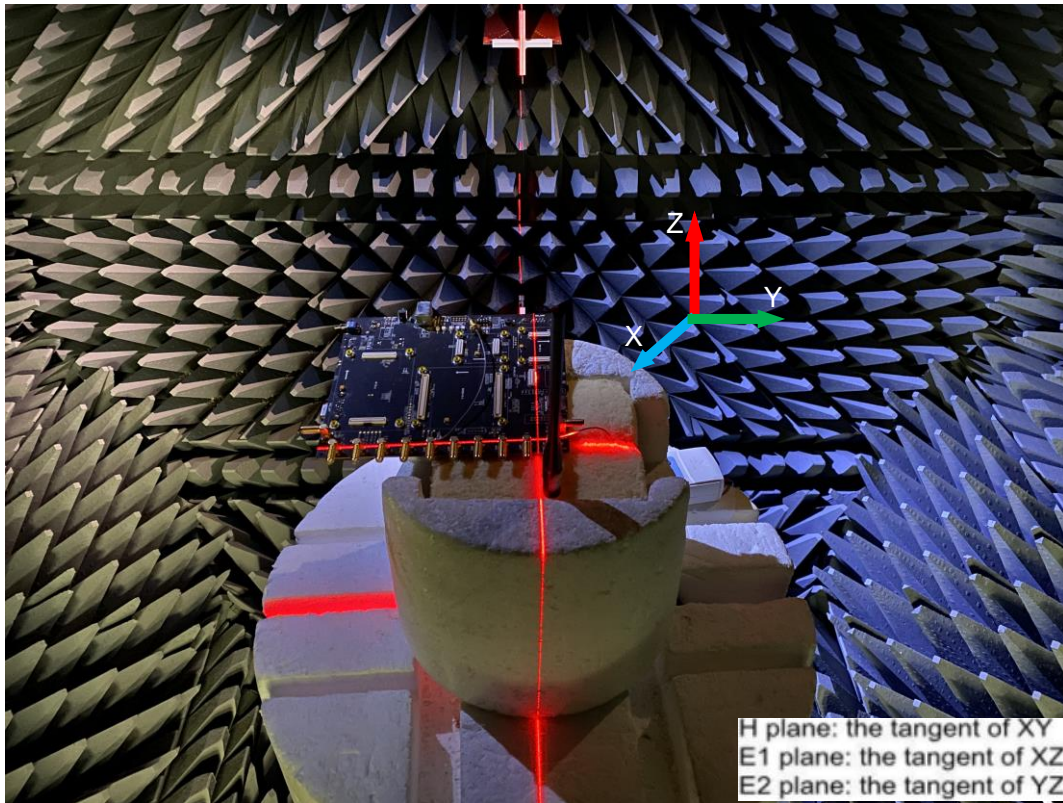
4.4. Gain



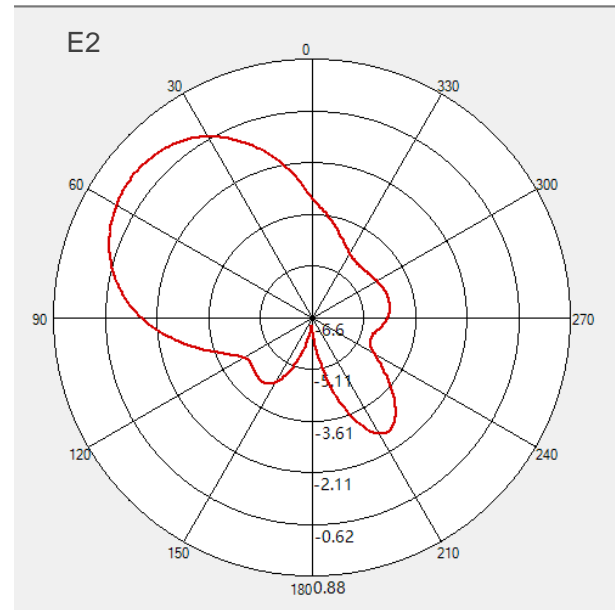
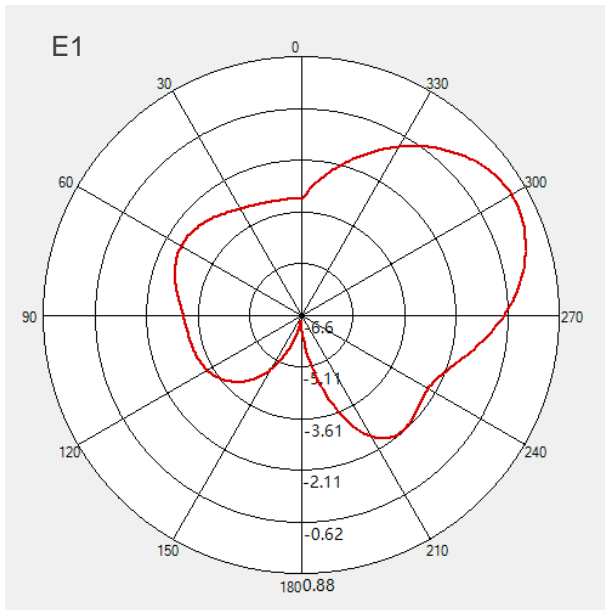
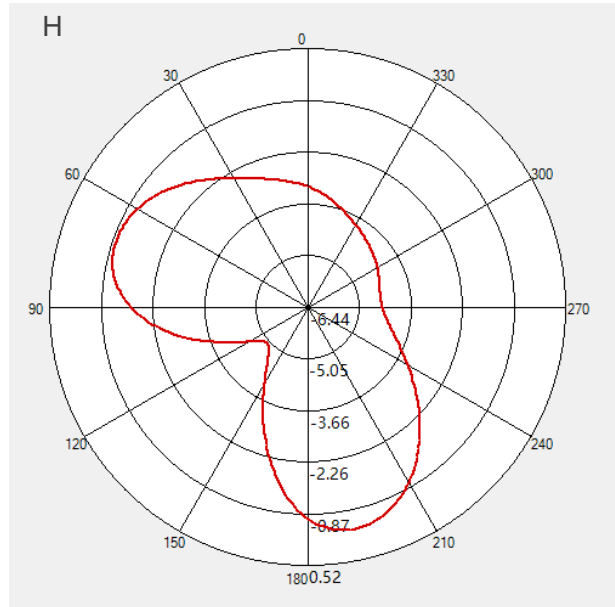
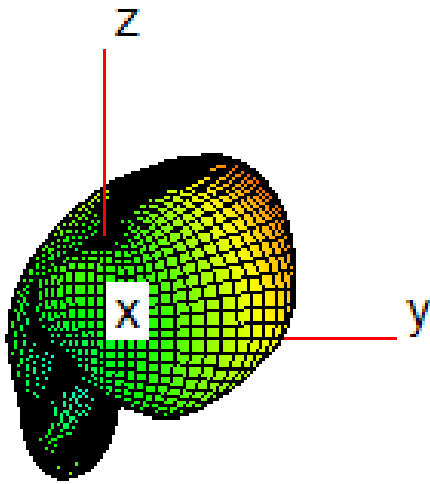
Frequency (MHz)	600	960	1710	2170	2300	2700	3300	5000	6000
Gain (dBi)	0.43	1.06	4.41	2.11	2.13	0.35	1.07	2.91	3.60

4.5. Radiation Pattern

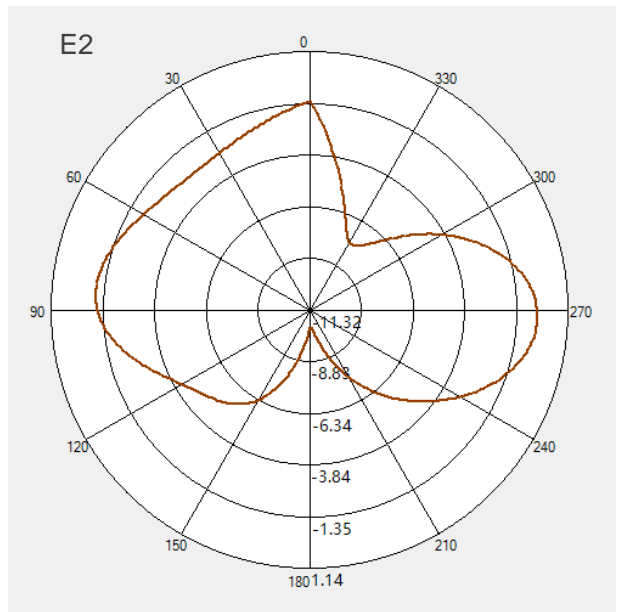
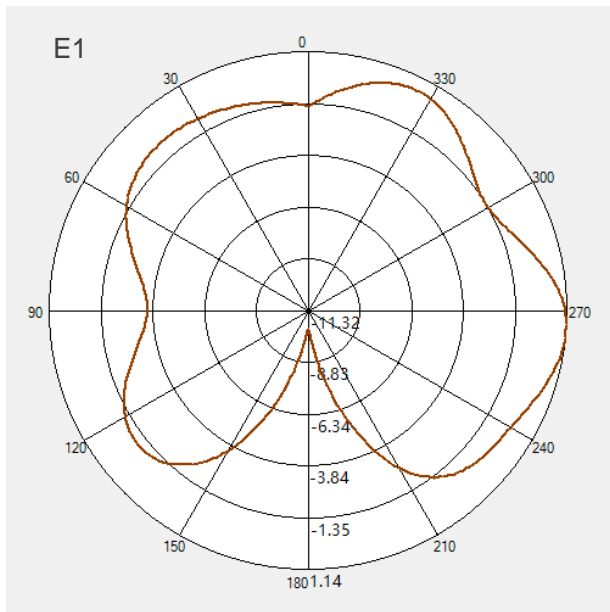
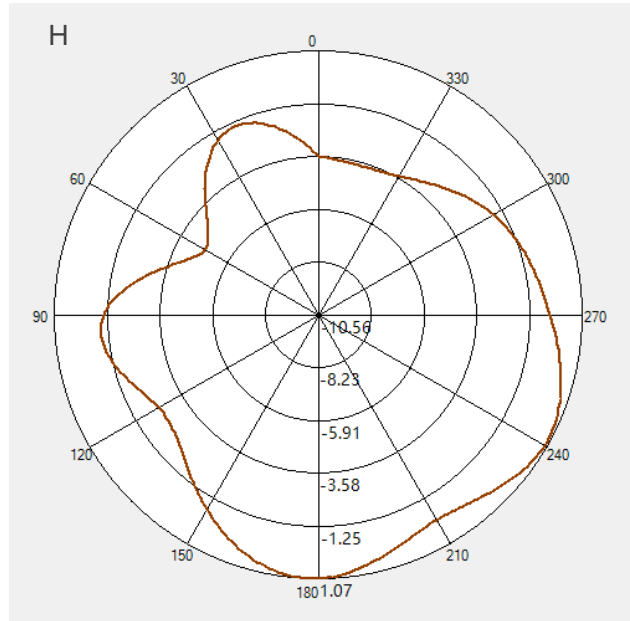
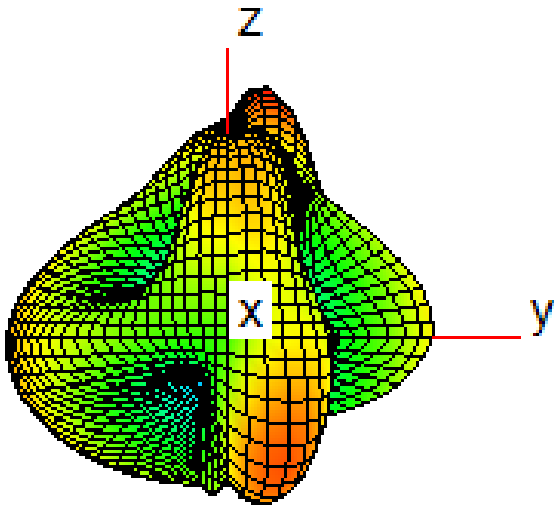
- Test condition: with ground plane (190 mm × 160 mm).



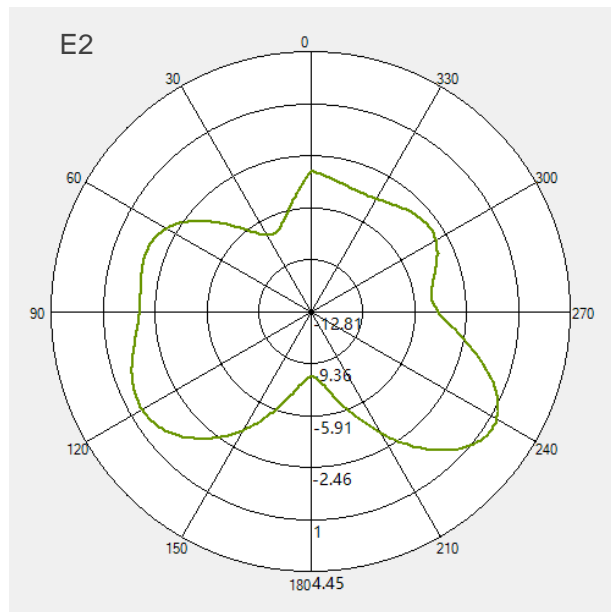
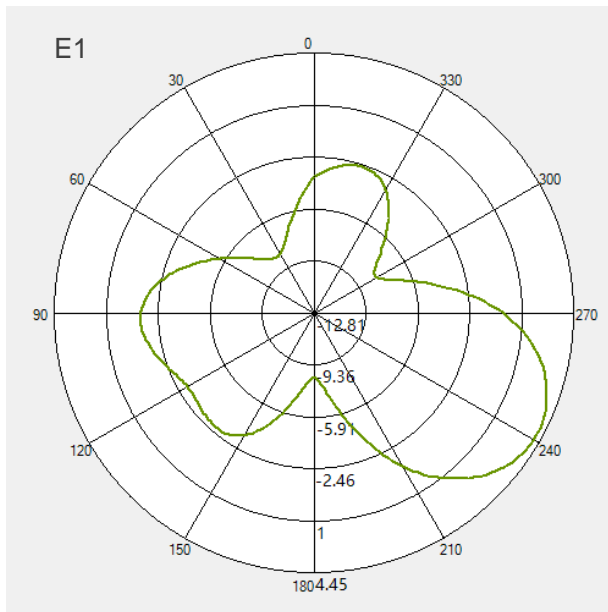
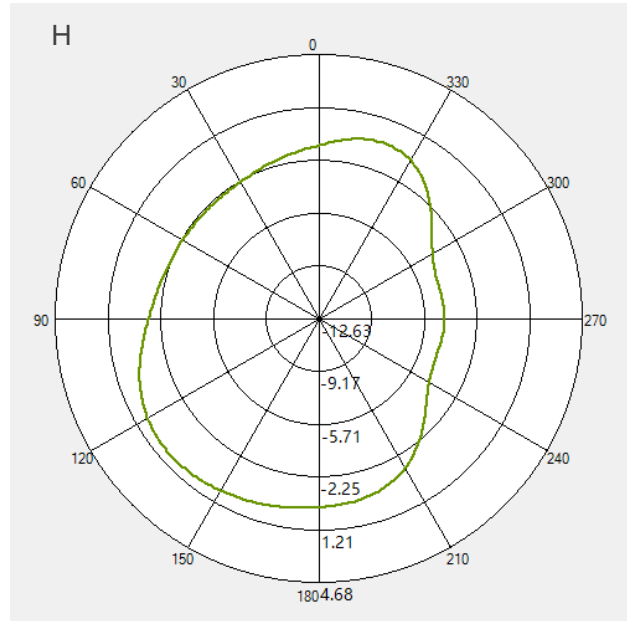
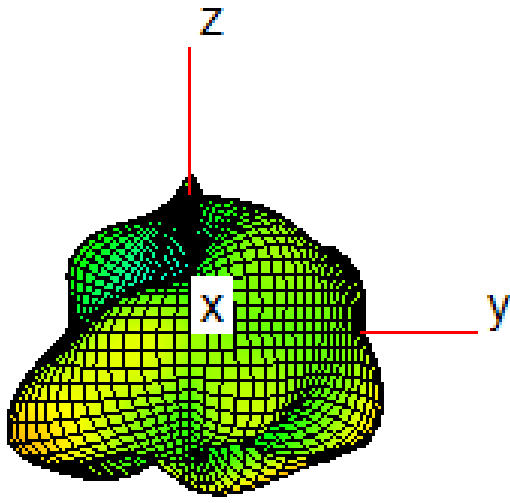
4.5.1. 600 MHz



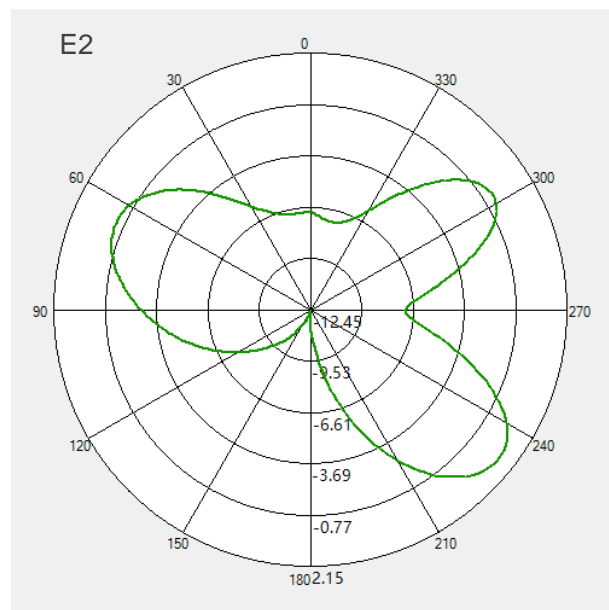
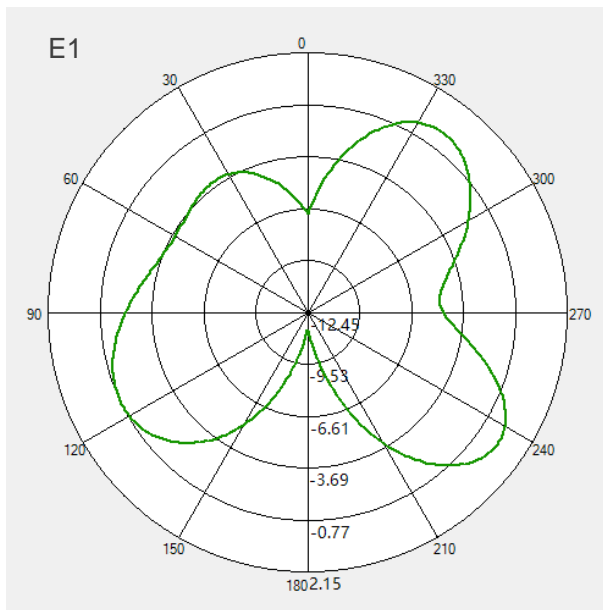
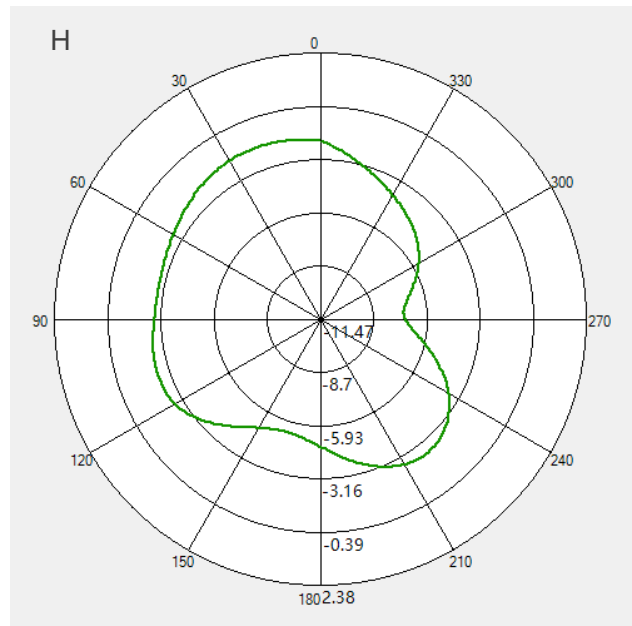
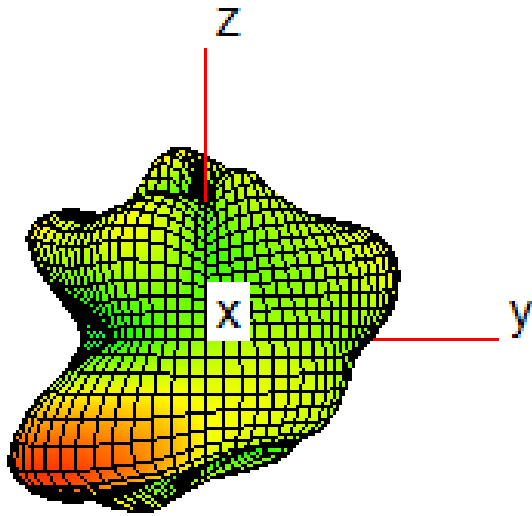
4.5.2. 960MHz



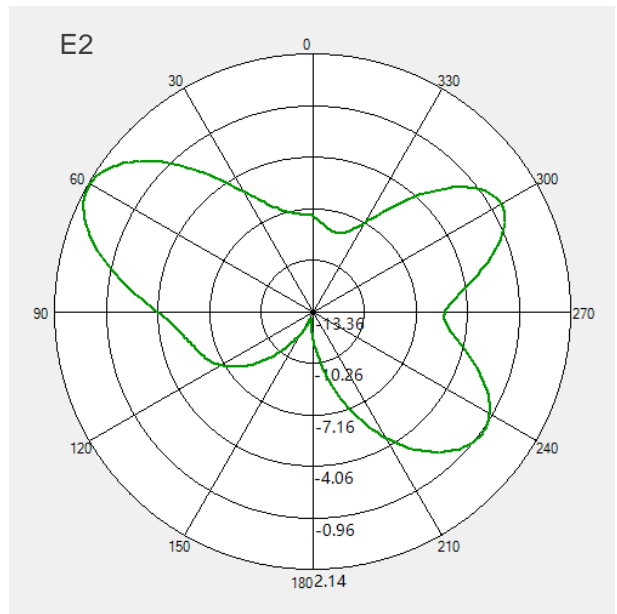
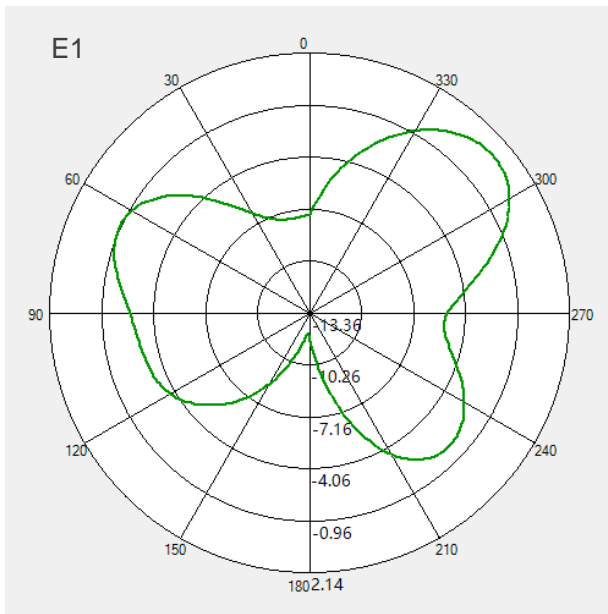
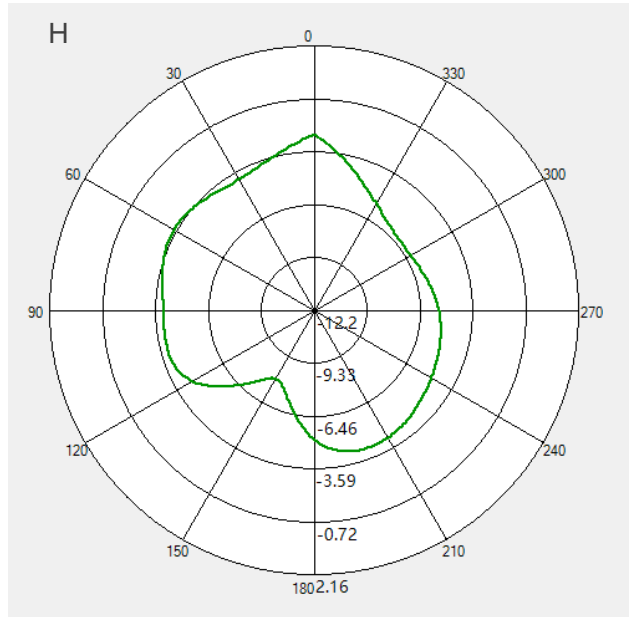
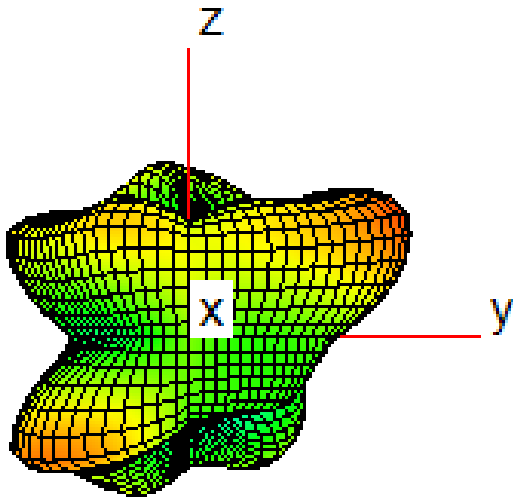
4.5.3. 1710 MHz



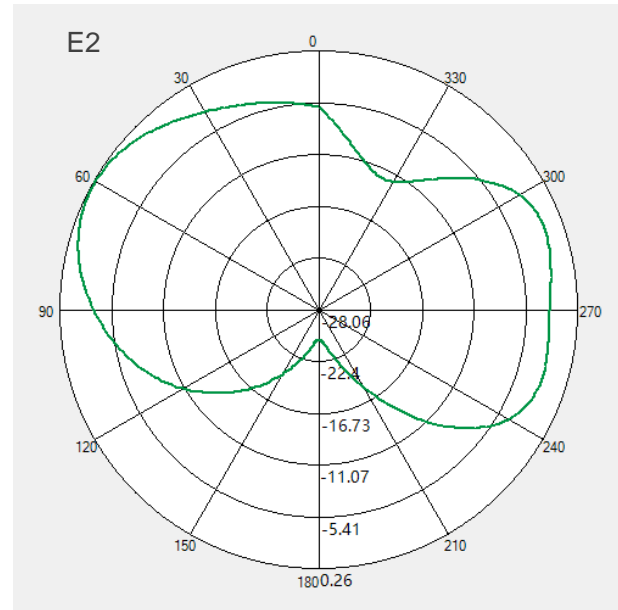
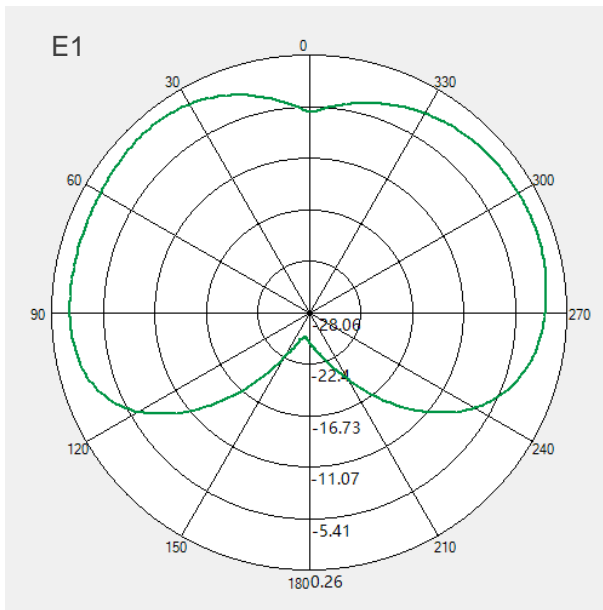
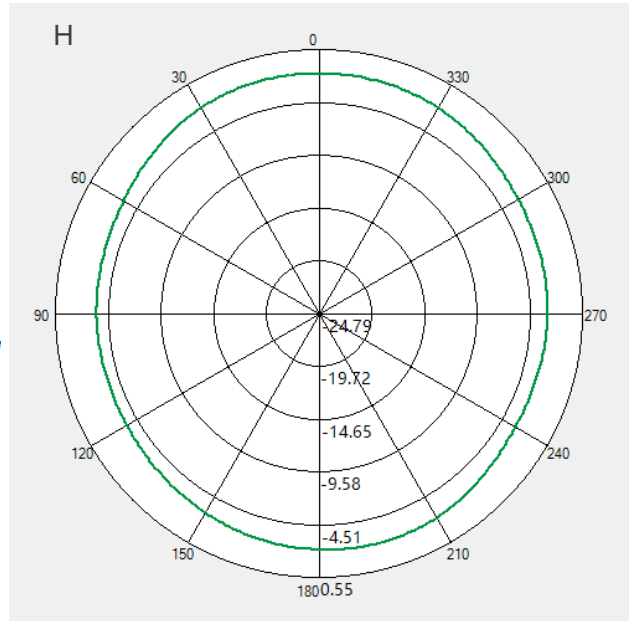
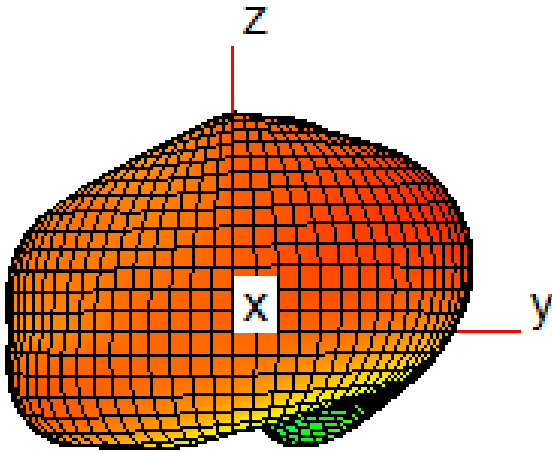
4.5.4. 2170 MHz



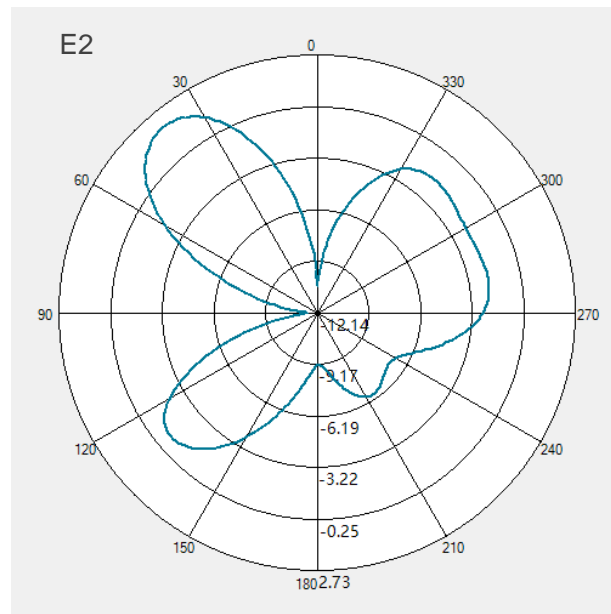
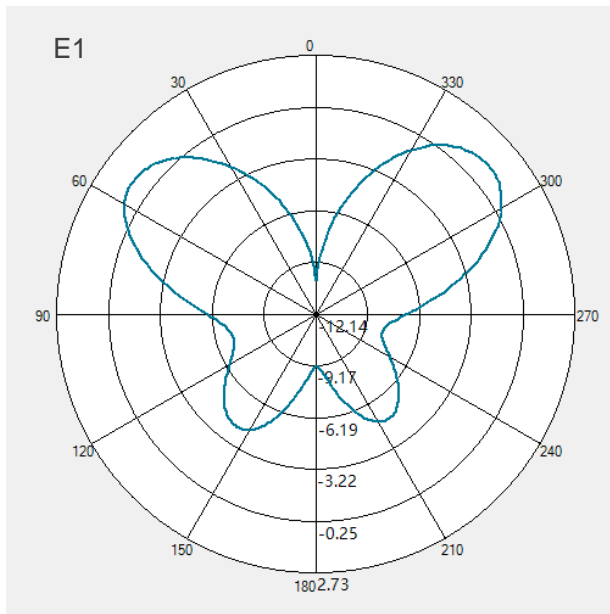
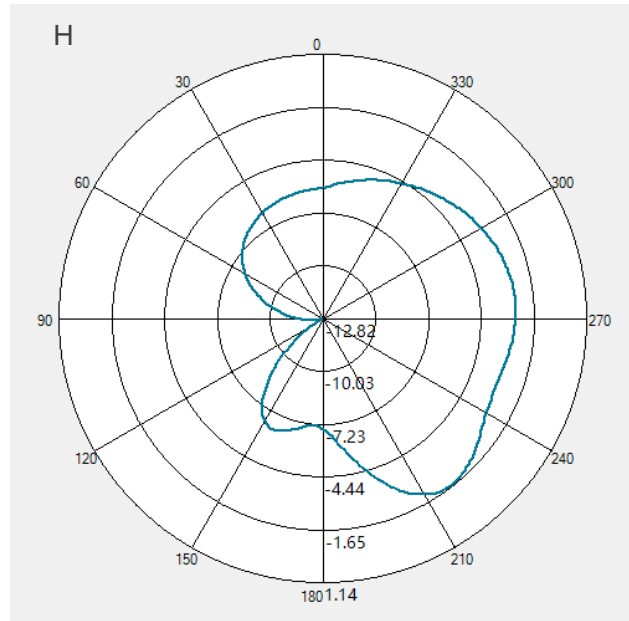
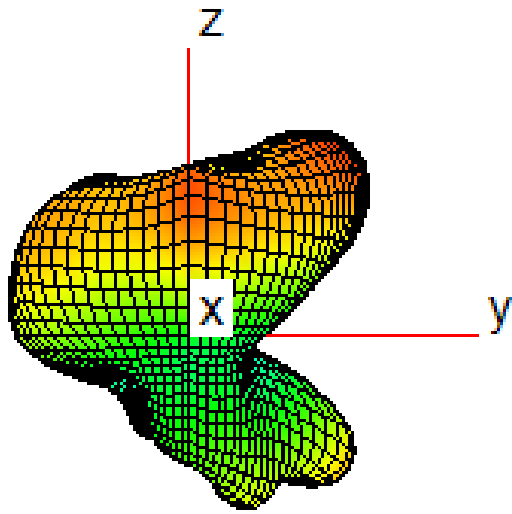
4.5.5. 2300 MHz



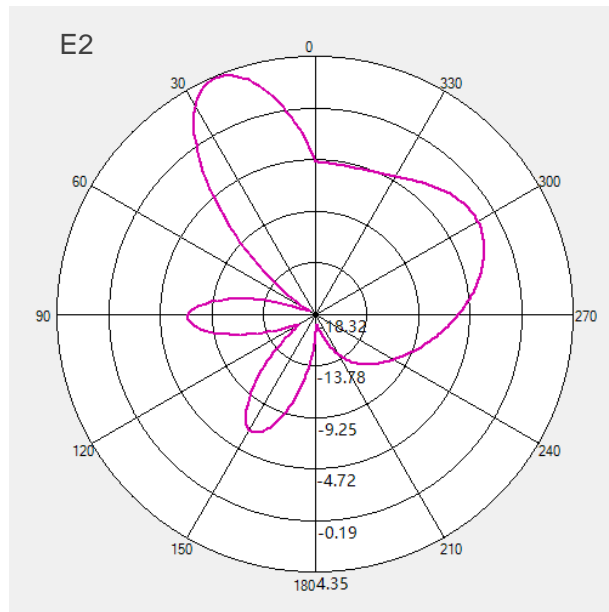
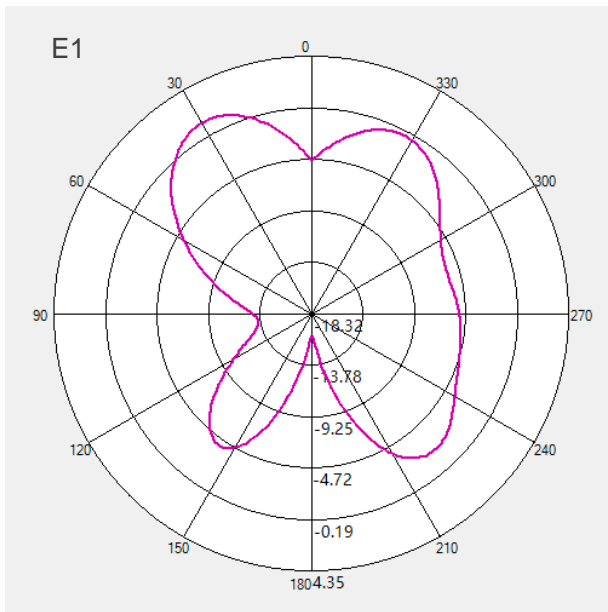
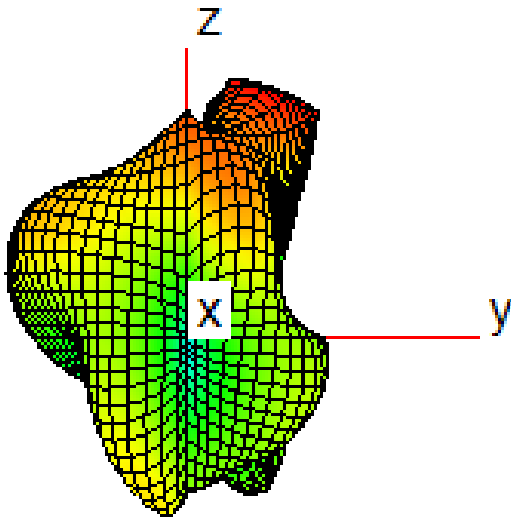
4.5.6. 2690 MHz



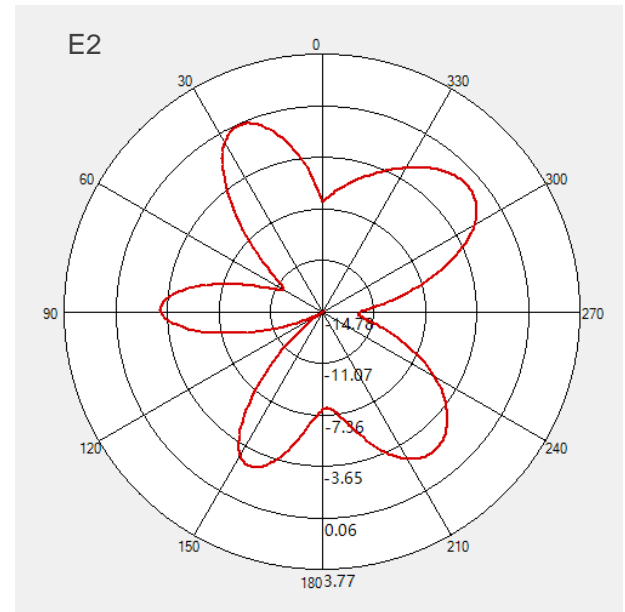
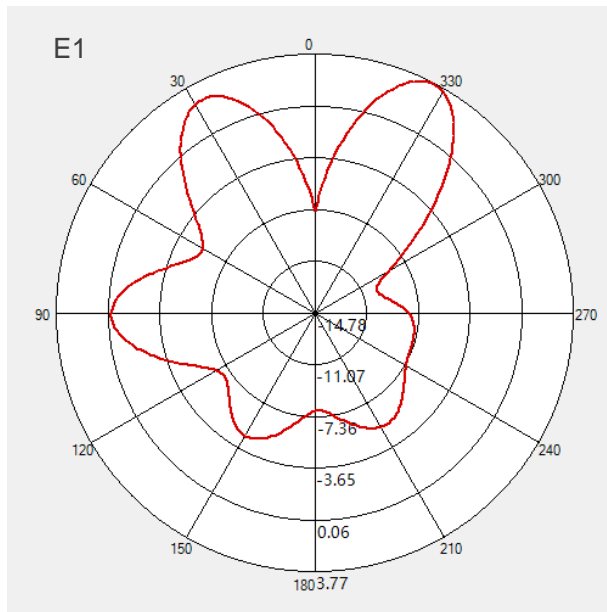
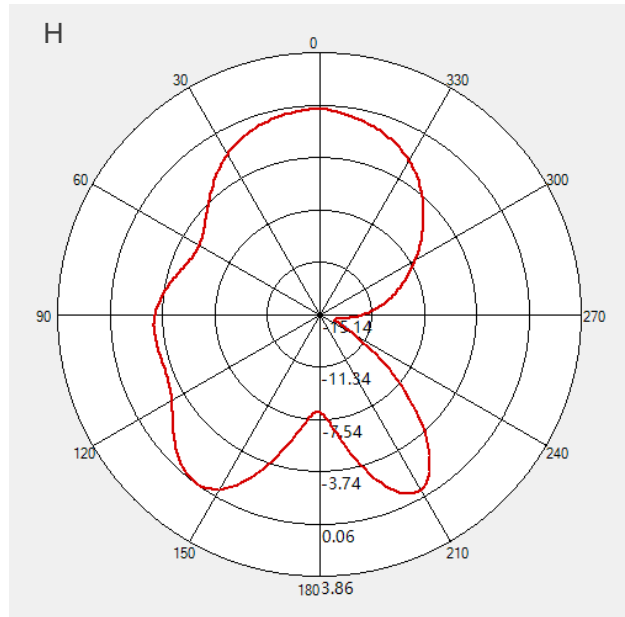
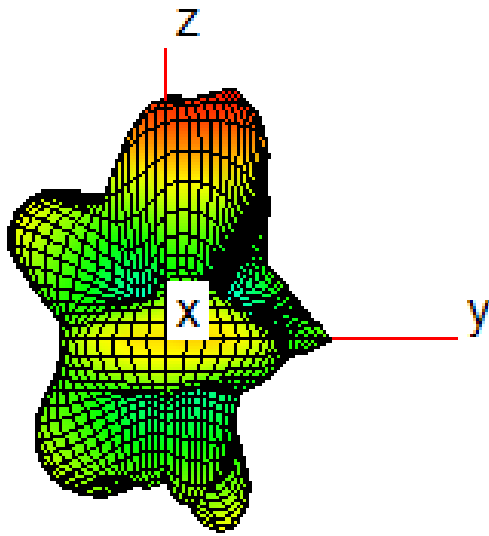
4.5.7. 3300 MHz



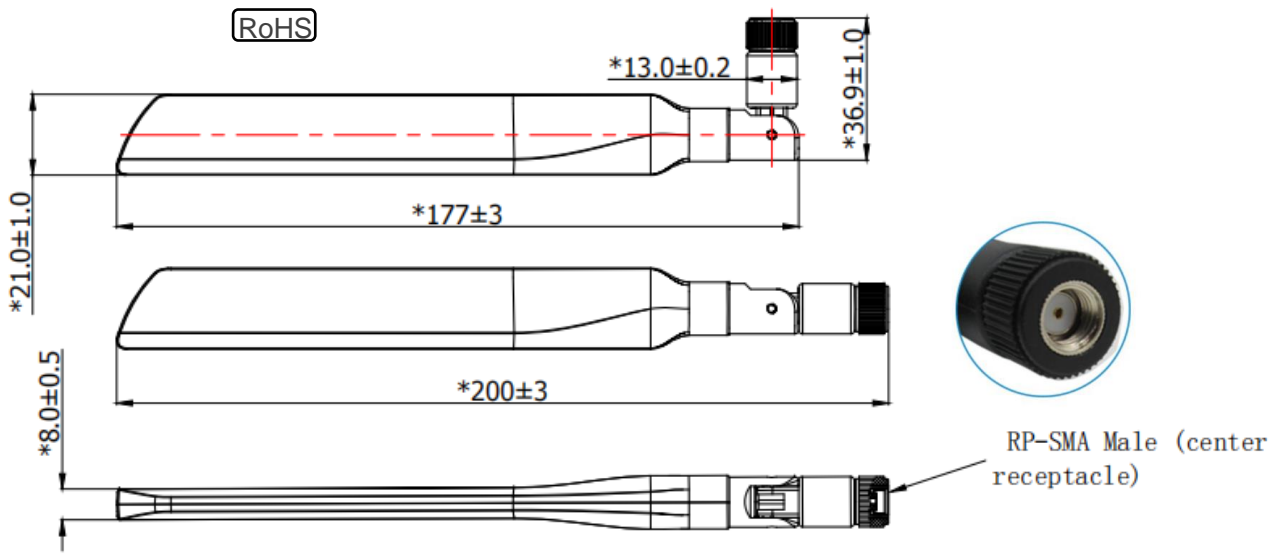
4.5.8. 5000 MHz



4.5.9. 6000 MHz



5 Product Size



6 Packaging

