Antenna

YECT002AA Datasheet

Antenna Services

Version: 1.1

Date: 2021-07-25

Status: Released

Our aim is to provide customers with timely and comprehensive service. For any assistance, please contact our company headquarters:

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About the Document

Revision History

Version	Date	Author	Note
-	2021-06-29	Kenny YIN/ Aria CHU	Creation of the document
1.0	2021-06-29	Kenny YIN/ Aria CHU	First official release
1.1	2021-07-25	Kenny YIN/ Aria CHU	1. Updated working temperature (Chapter 3). 2. Added detailed passive electrical specifications (Chapter 3).

Contents

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 LTE
- High efficiency
- Excellent performance

3 Product Specifications

Passive Electrical Specifications	
Frequency Range	700–960 MHz, 1710–2690 MHz
Input Impendence	50 Ω
VSWR	≤ 5.0
Gain	≤ 3 dBi
Polarization Type	Linear

Detailed Passive Electrical Specifications

Frequency Range (MHz)	698–960	1176–1280	1400–1610	1710–2170	2170–2690	3300–4000	4000–5000	5000–6000
VSWR (Max.)	2.56	-	-	2.3	2.06	-	-	-
Average Efficiency (%)	27	-	-	46	50	-	-	-
Max. Peak Gain (dBi)	-	-	-	-	-	-	-	-

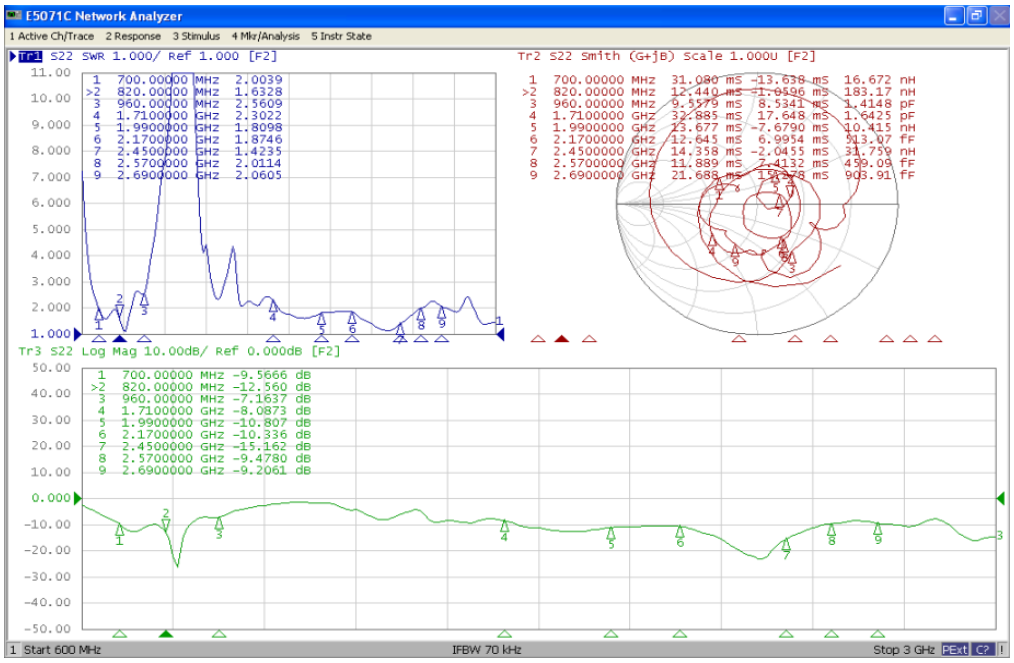
Mechanical Specifications	
Antenna Size	196.2 mm × 16 mm × 13 mm
Casing	ABS
Connector Type	SMA Male (Center Pin)
Working Temperature	-40 °C to +85 °C
Radome Color	Black
IP Rating	IP55

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.

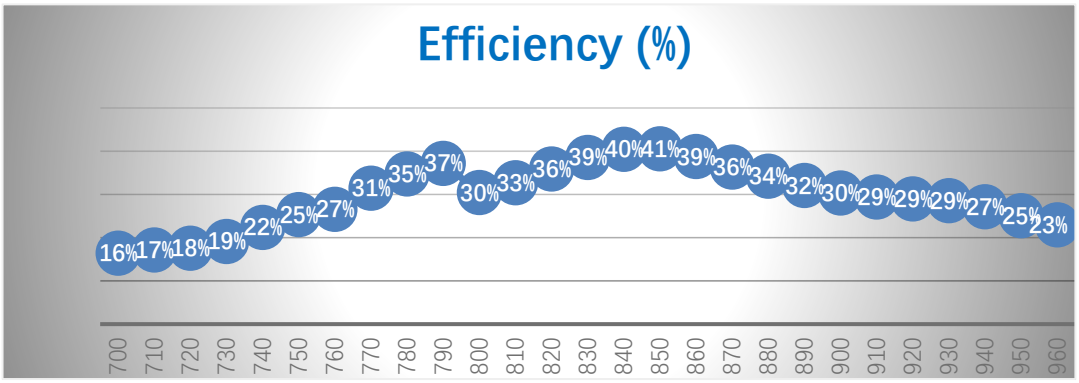
4.2. VSWR



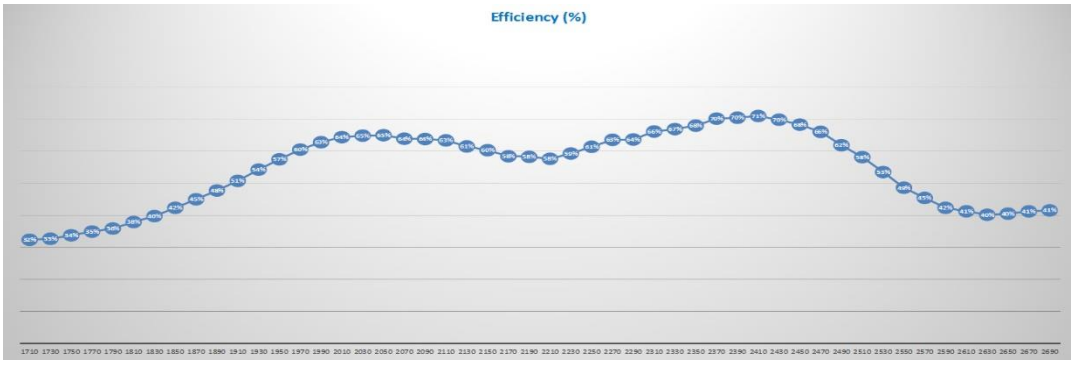
Frequency (MHz)	700	820	960	1710	1990	2170	2450	2570	2690
VSWR	2.0	1.63	2.56	2.3	1.8	1.87	1.42	2.01	2.06

4.3. Efficiency

4.3.1. 700–960 MHz



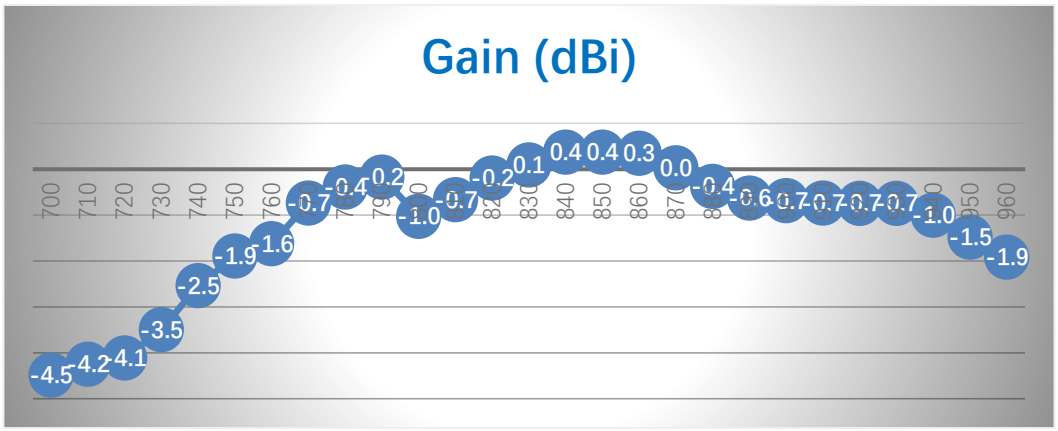
4.3.2. 1710–2690 MHz



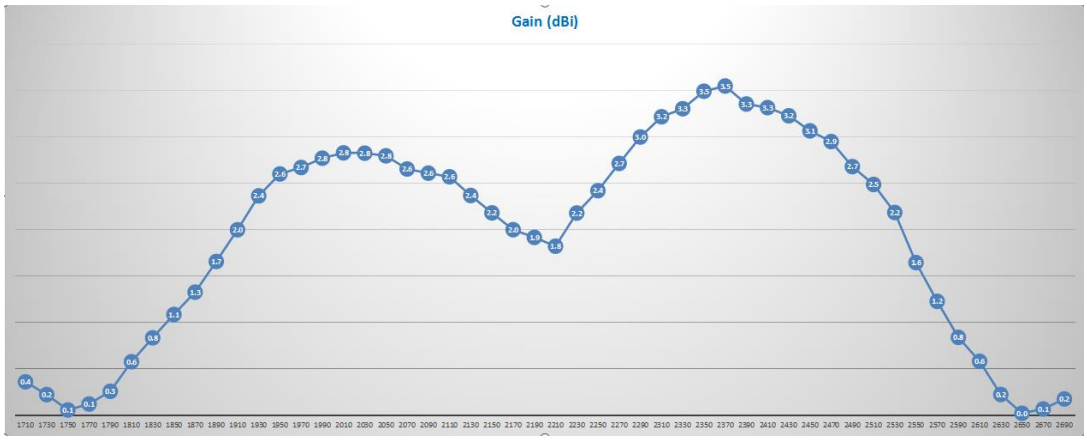
Frequency (MHz)	700	820	960	1710	1990	2170	2450	2570	2690
Efficiency	16	36	23	32	63	58	68	45	41

4.4. Gain

4.4.1. 700–960 MHz

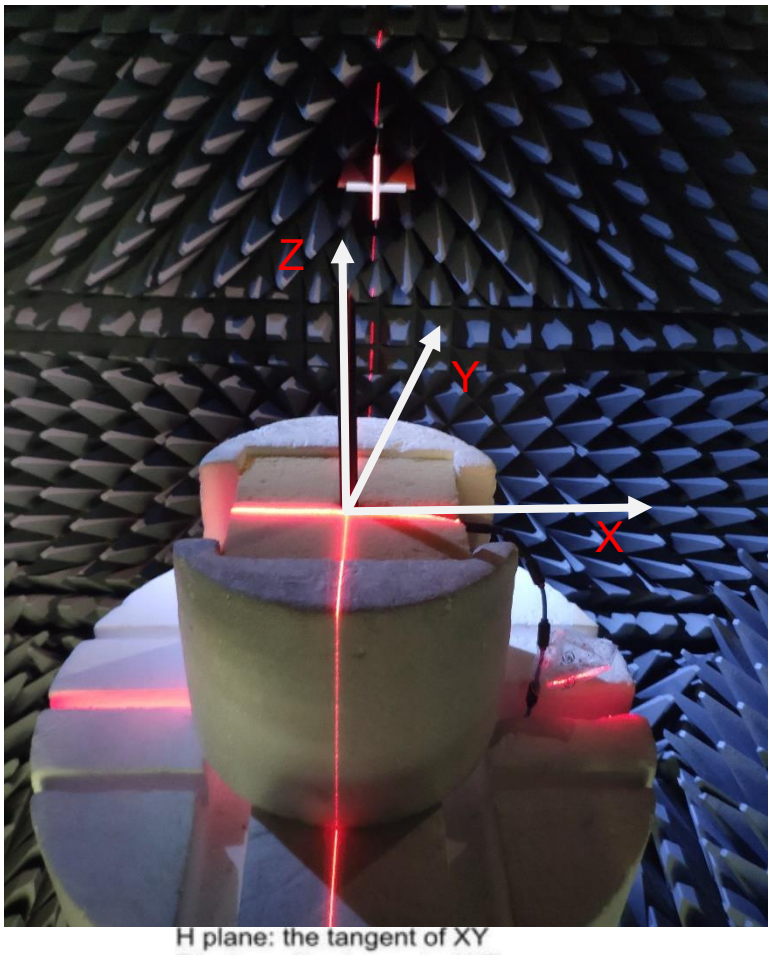


4.4.2. 1710–2690 MHz



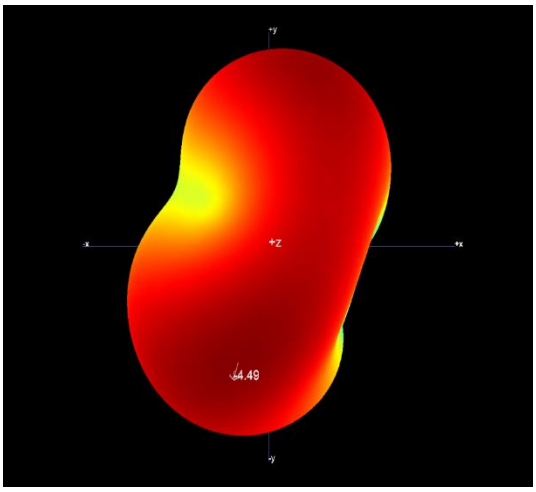
Frequency (MHz)	700	820	960	1710	1990	2170	2450	2570	2690
Gain (dB)	-4.5	-0.2	-1.9	0.4	2.8	2.0	3.1	1.2	0.2

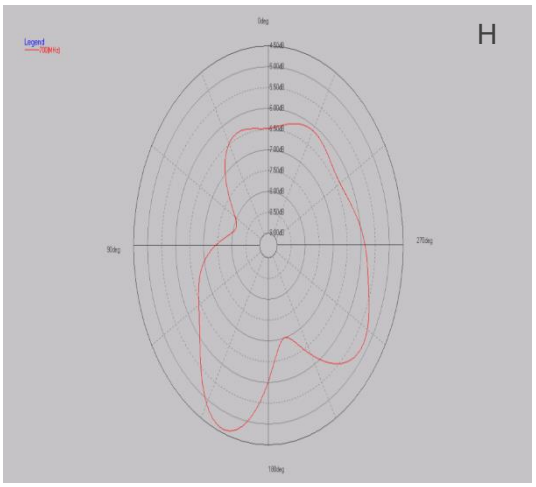
4.5. Radiation Pattern

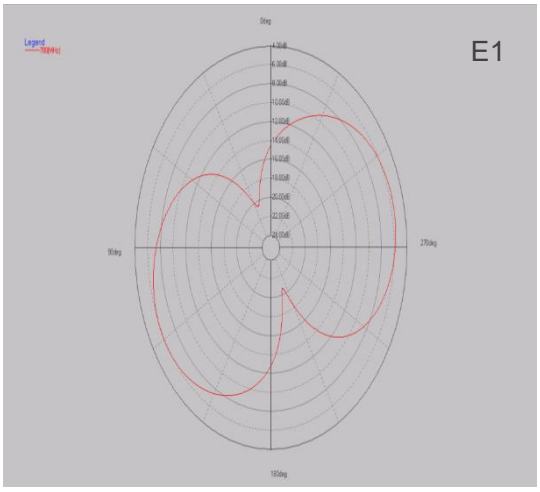


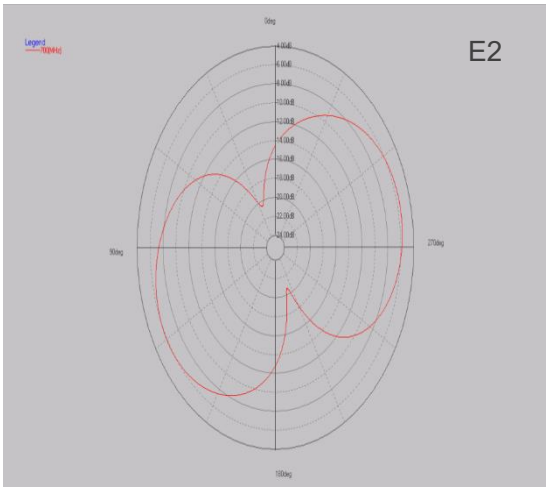
H plane: the tangent of XY
E1 plane: the tangent of XZ
E2 plane: the tangent of YZ

4.5.1. 700 MHz

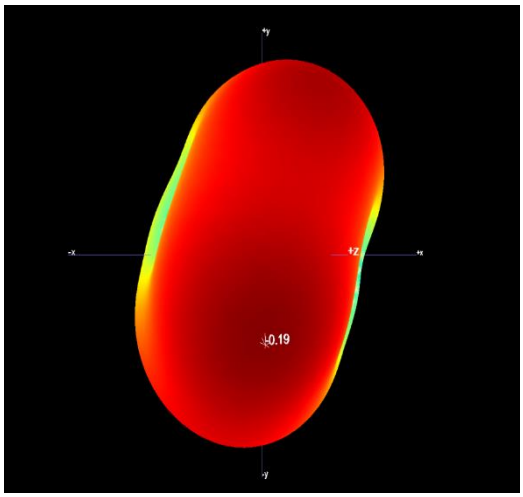


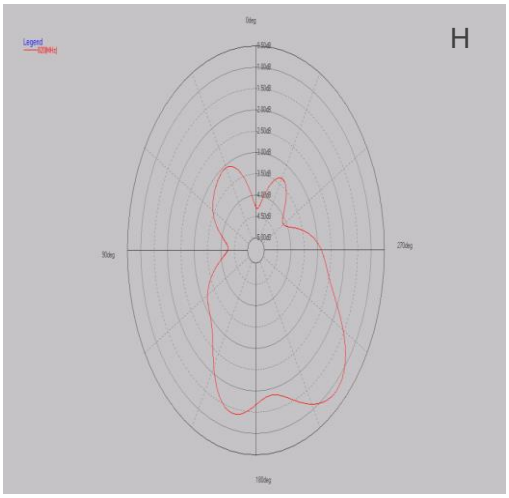


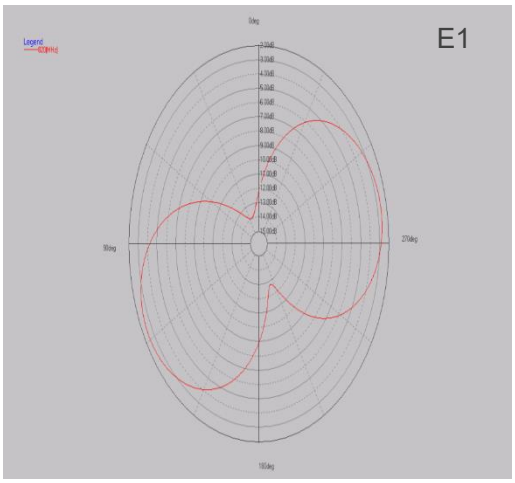


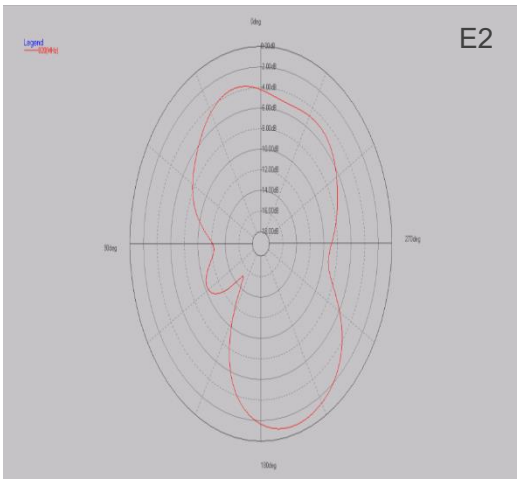


4.5.2. 820 MHz

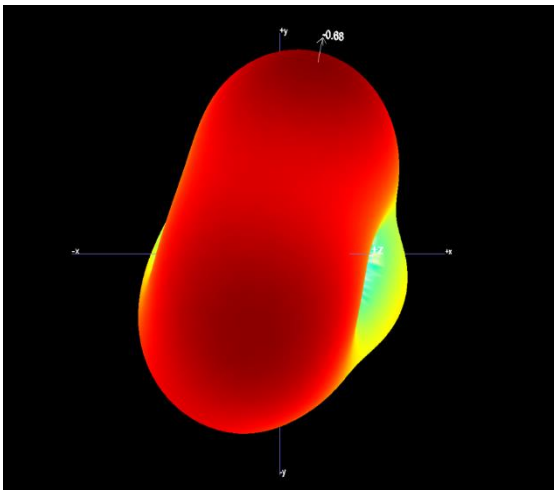


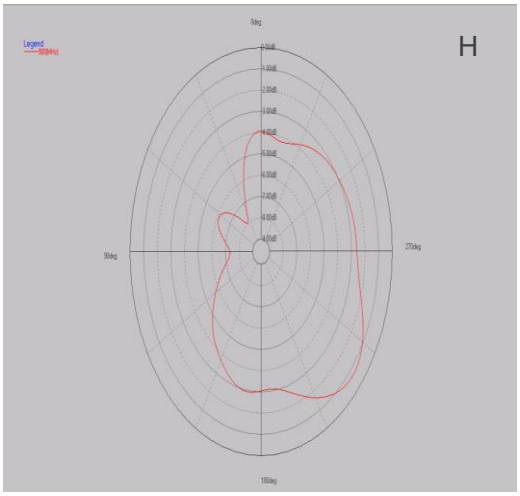


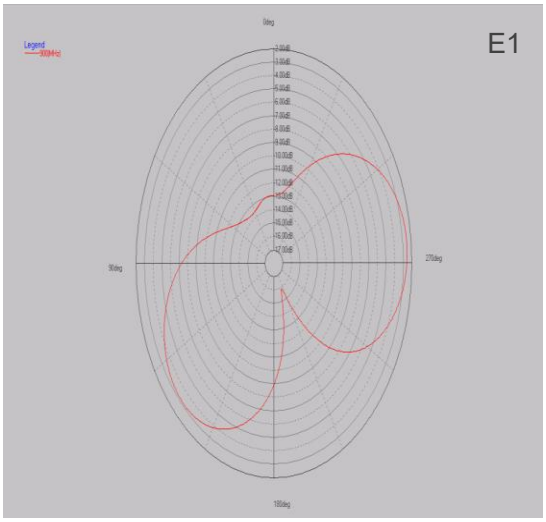


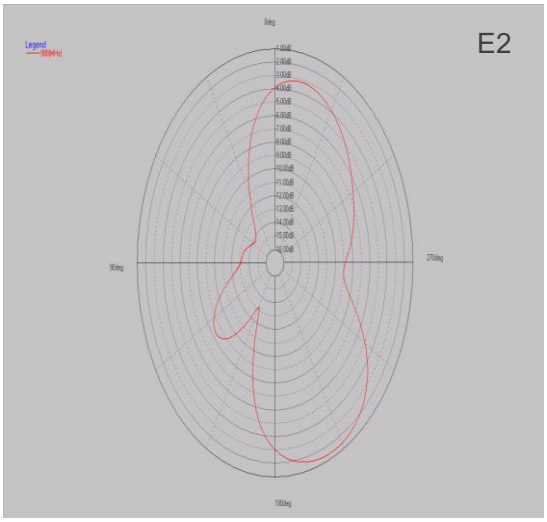


4.5.3. 960 MHz

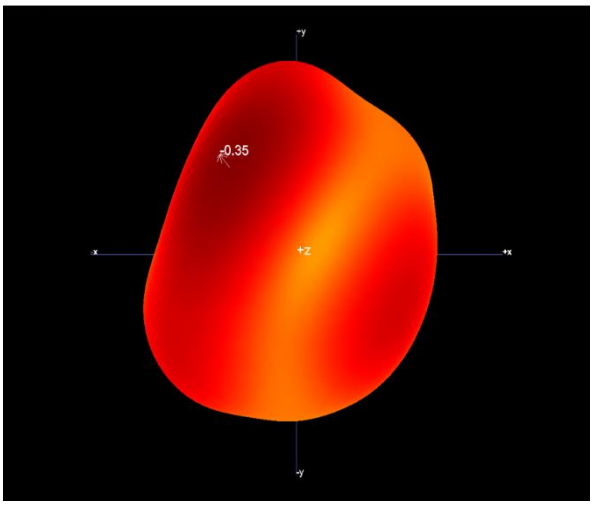


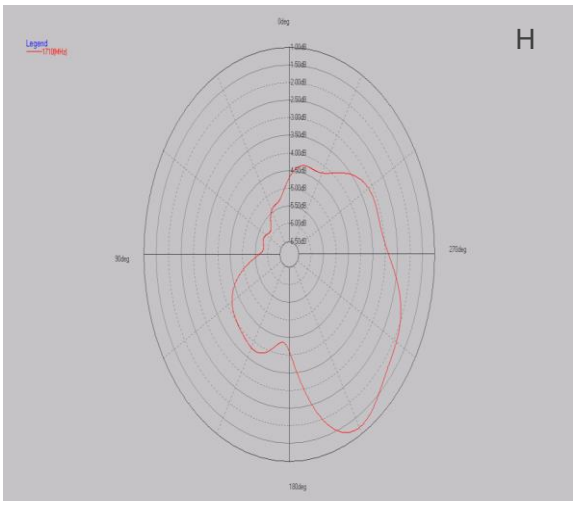


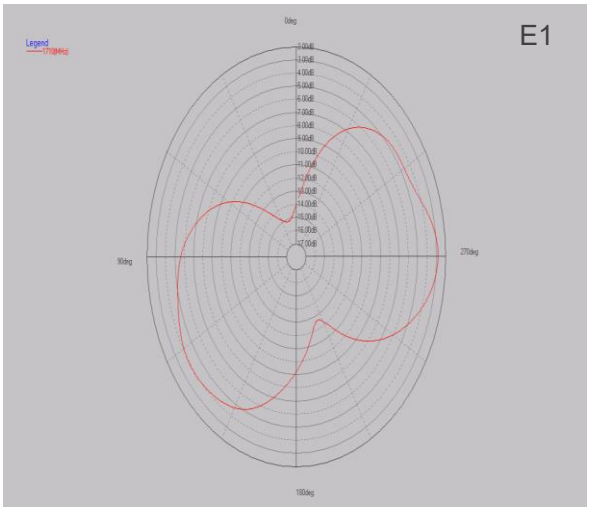


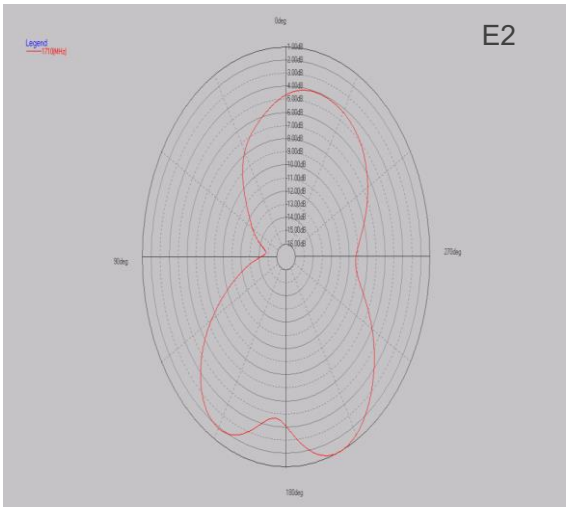


4.5.4. 1710 MHz

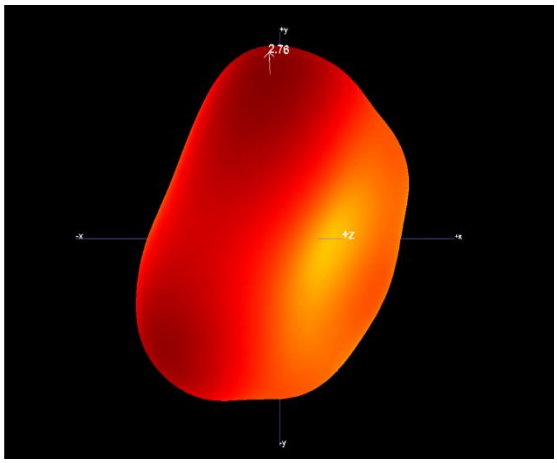


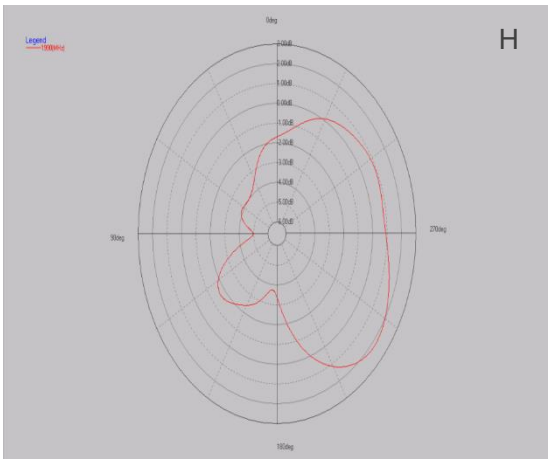


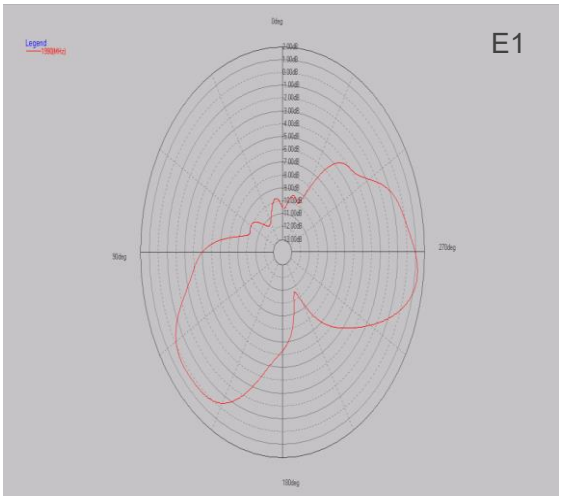


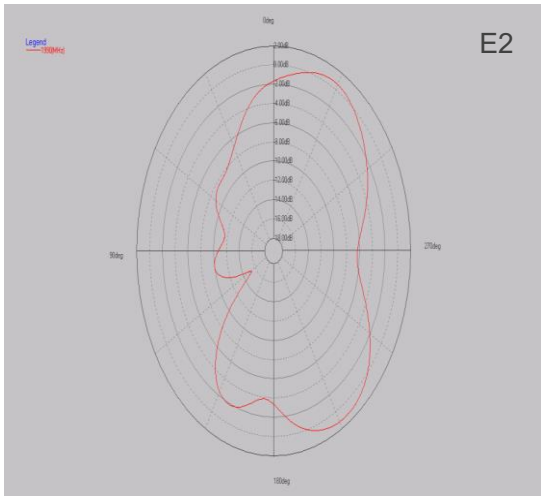


4.5.5. 1990 MHz

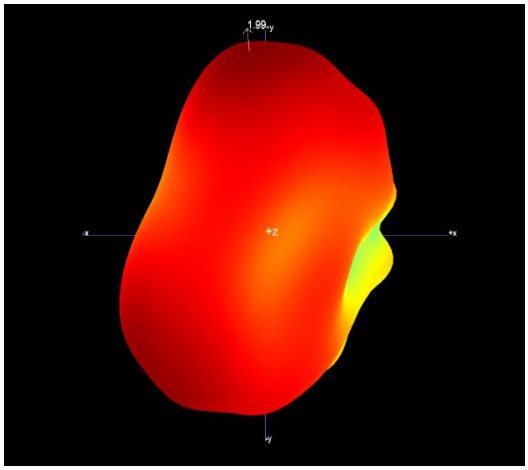


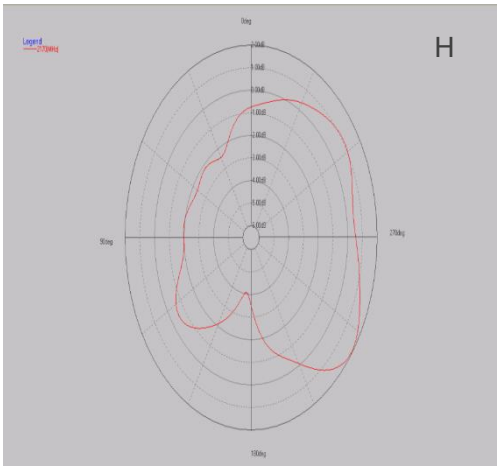


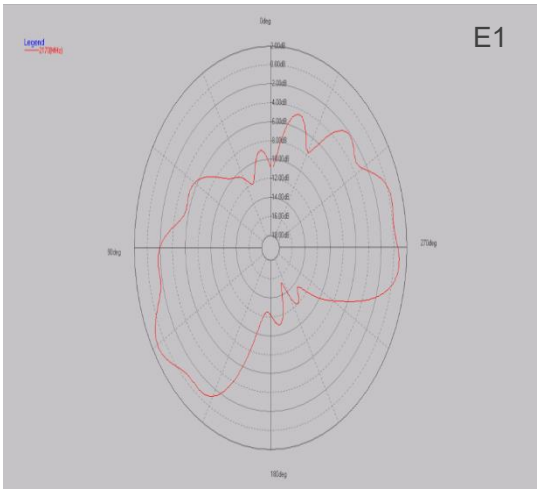


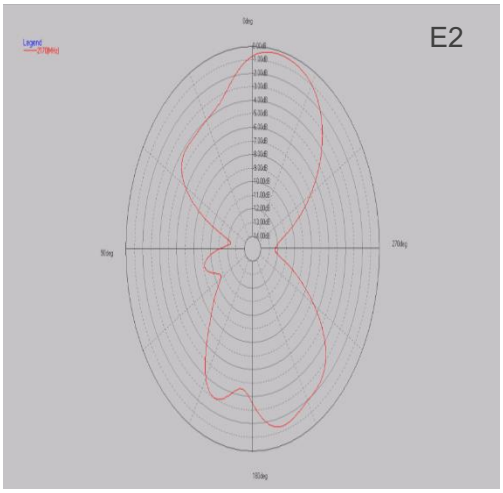


4.5.6. 2170 MHz

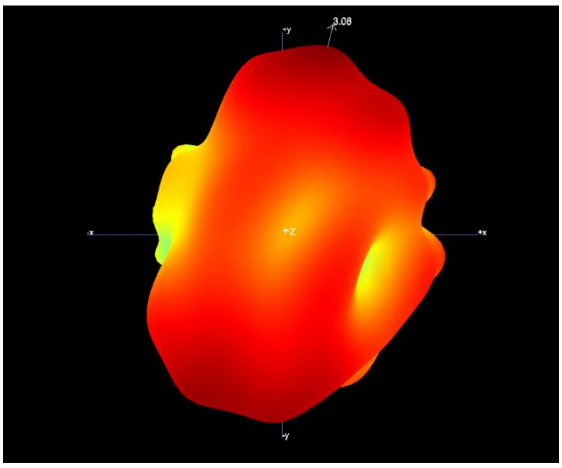


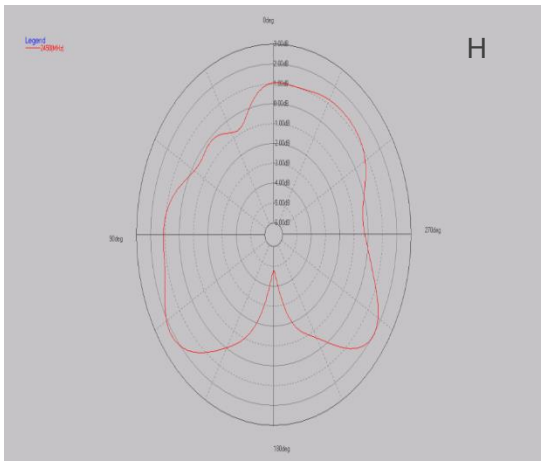


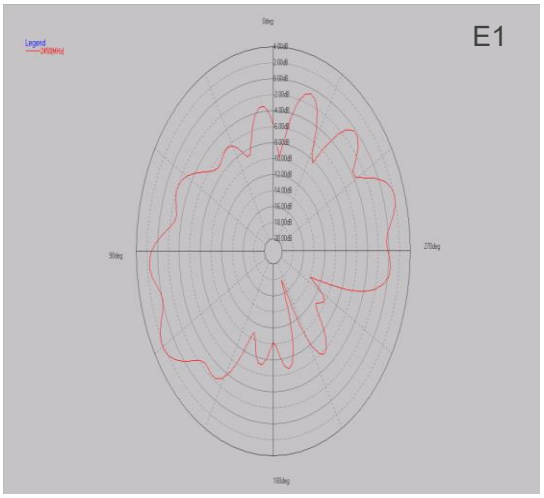


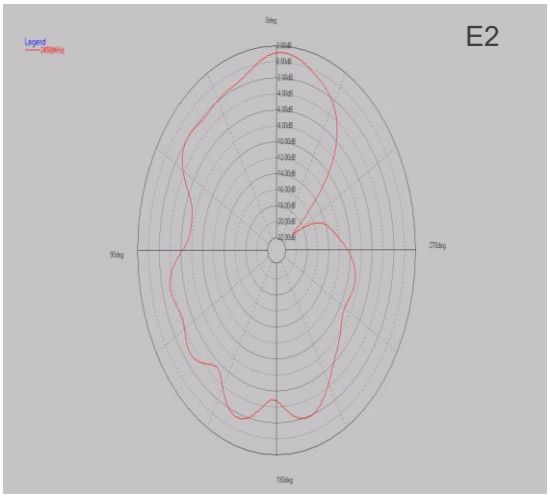


4.5.7. 2450 MHz

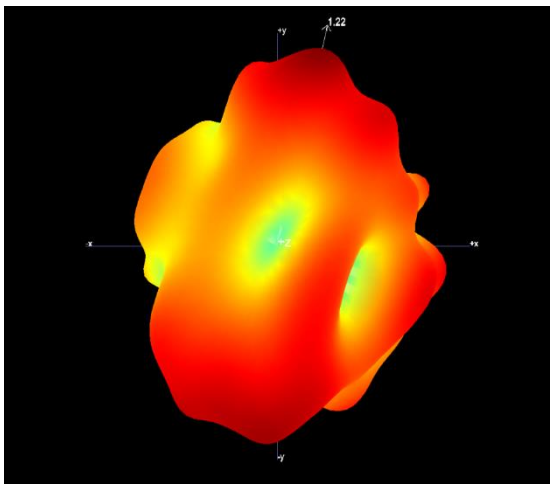


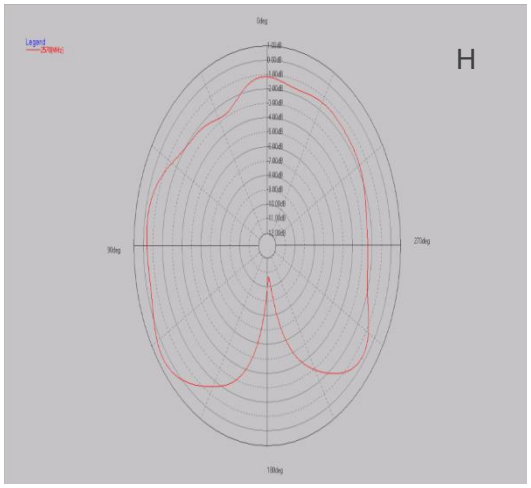


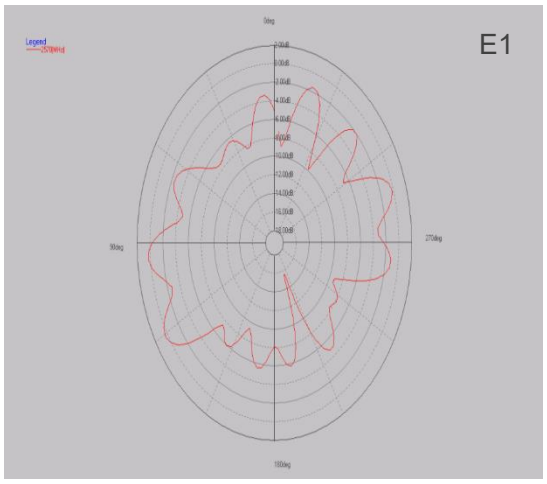


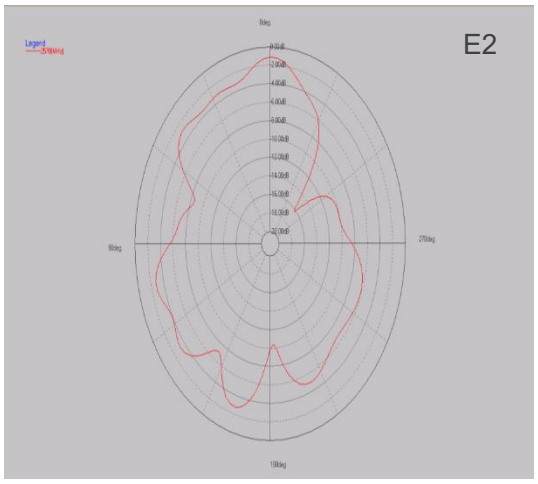


4.5.8. 2570 MHz

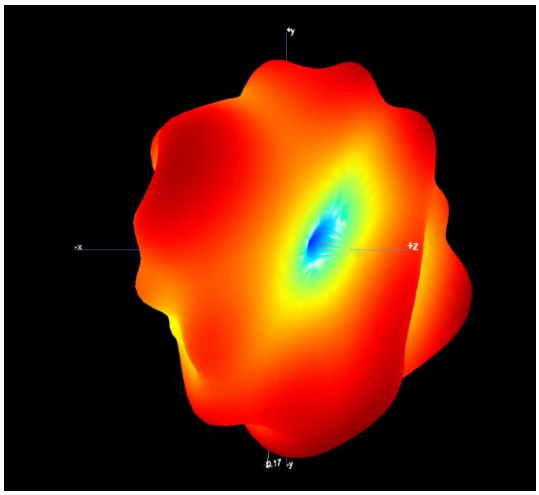


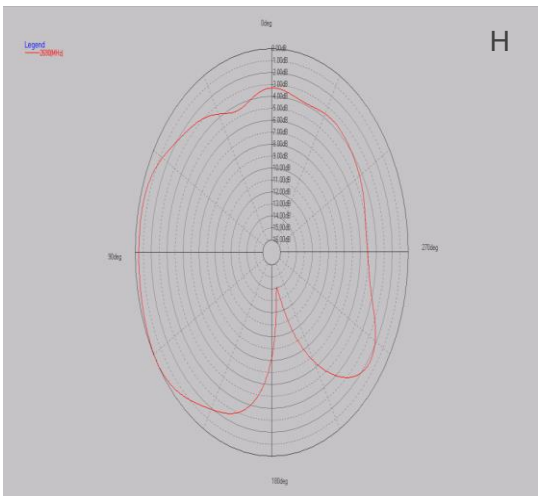


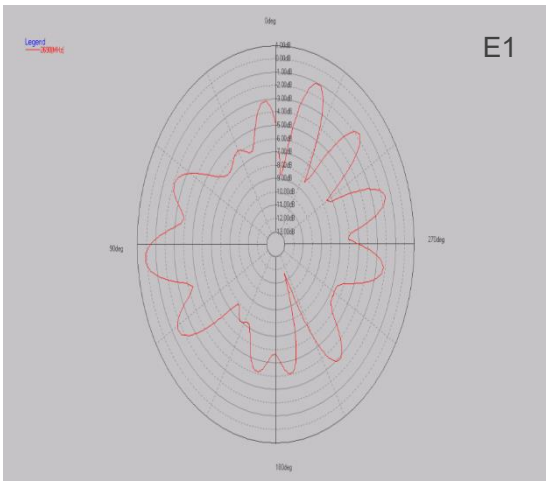


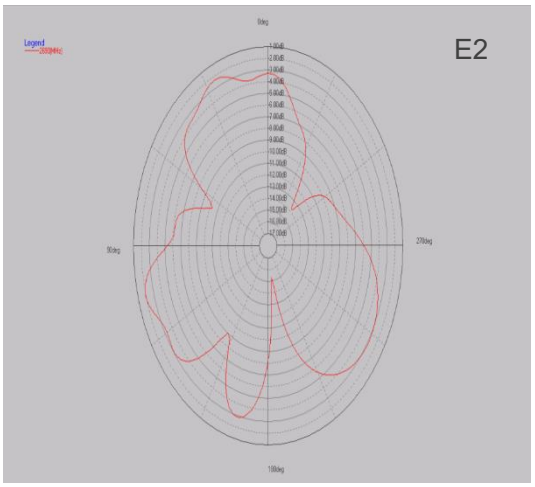


4.5.9. 2690 MHz

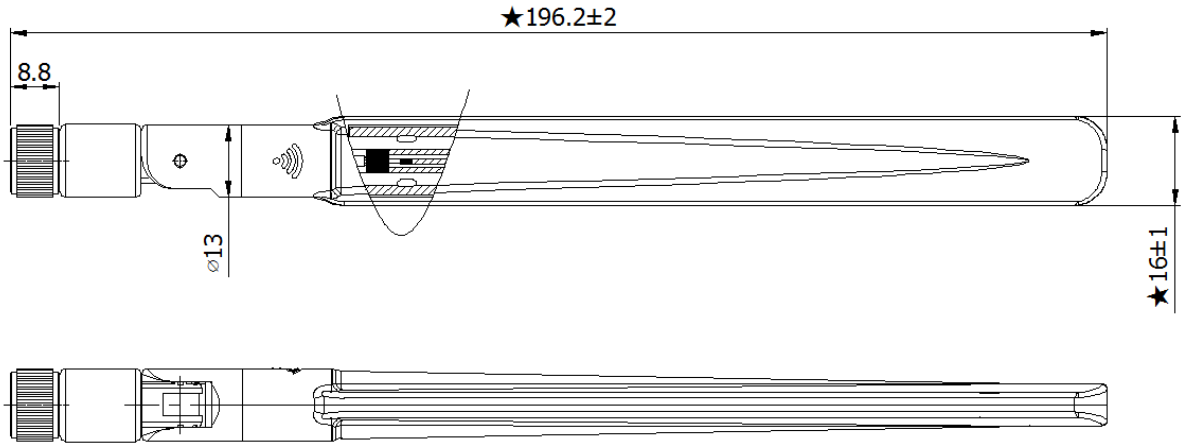








5 Product Size



ROHS