

# Antenna

# YDX001AA Datasheet

## Antenna Services

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Status: Released



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# About the Document

## Revision History

Version	Date	Author	Note
1.0	2020-09-10	Kenny YIN	Initial
1.1	2020-12-11	Kenny YIN	Updated the antenna image in Chapter 2.
1.2	2021-01-27	Kenny YIN	Added IP rating description.

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## 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	824–2700 MHz
Input Impedance	50 $\Omega$
VSWR	$\leq 2.0$
Gain	$\leq 5$ dBi
Polarization Type	Linear

#### Mechanical Specifications

Antenna Size	208 mm $\times$ $\Phi$ 12 mm
Casing	PC + ABS
Connector Type	SMA Male (center pin)
Working Temperature	-20 $^{\circ}$ C to +80 $^{\circ}$ C
Radome Color	Black
IP rating	IP55

## 4 Overall Performance

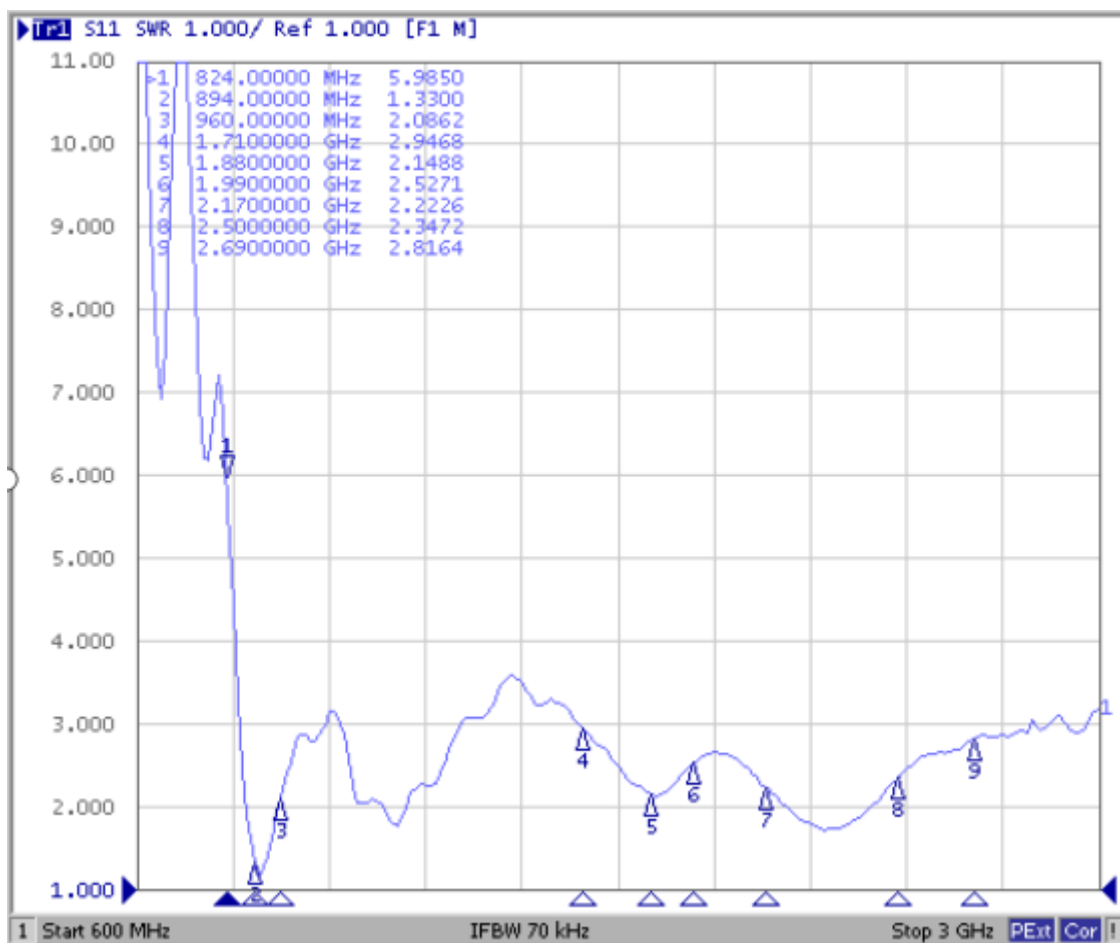
### 4.1. Test Environment

- KEYSIGHT VNA Network Analyzer E5063A 100 kHz – 6.5 GHz.
- RayZone®2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 6.0 GHz.



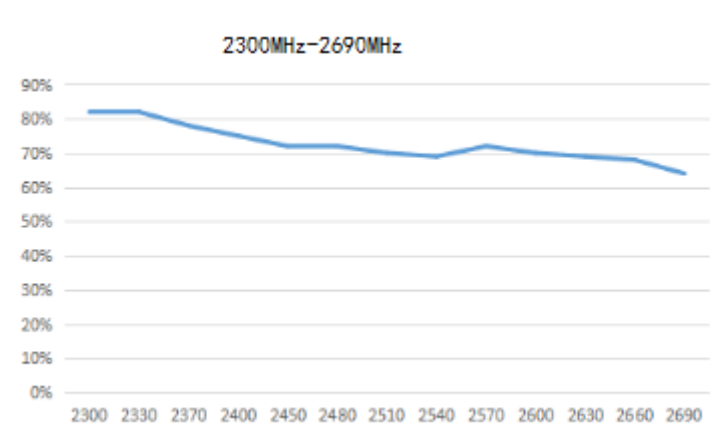
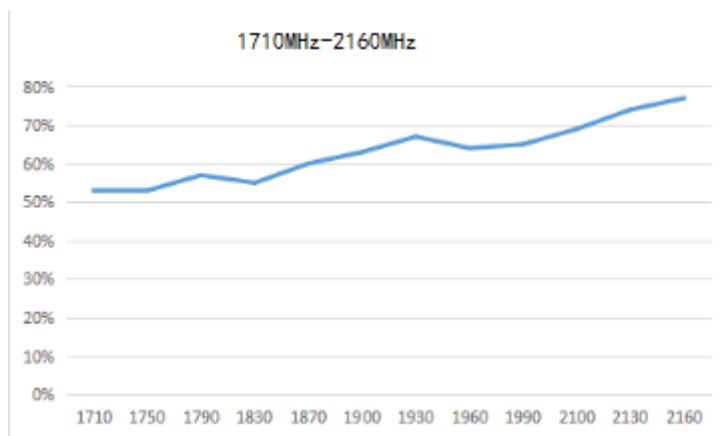
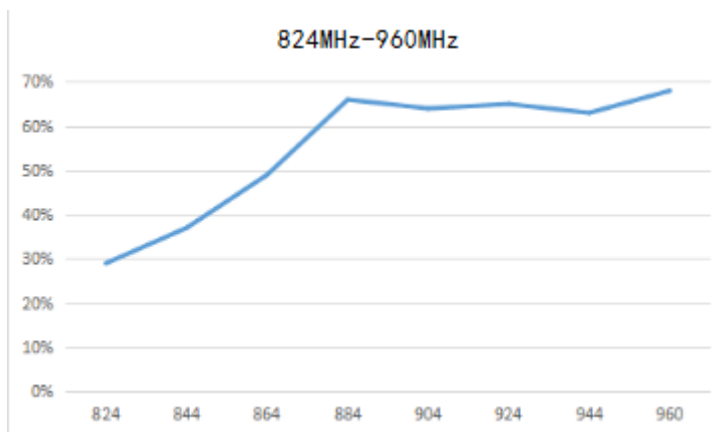


## 4.2. VSWR



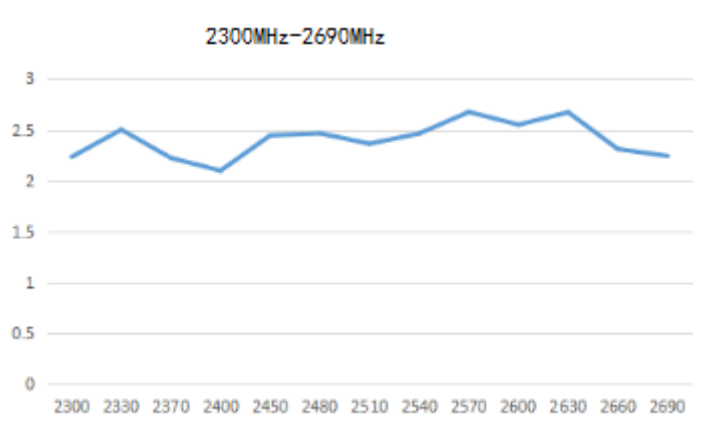
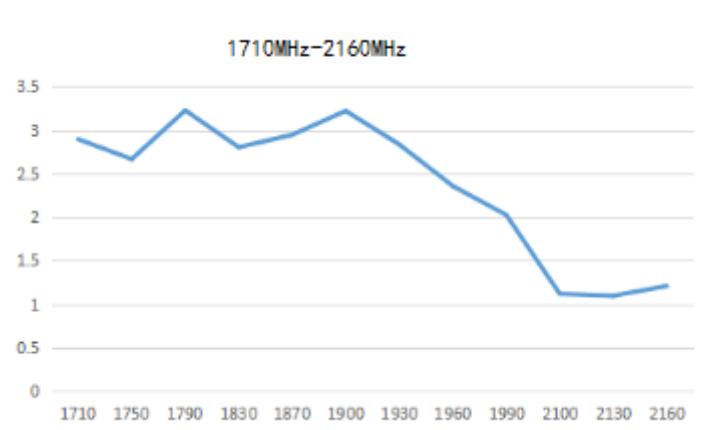
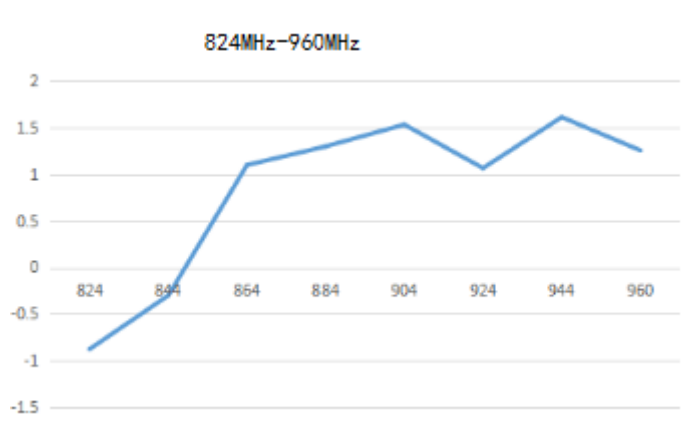
Frequency (MHz)	824	894	960	1710	1880	2170	2500	2690
VSWR	5.9	1.3	2.0	2.9	2.1	2.2	2.3	2.8

### 4.3. Efficiency



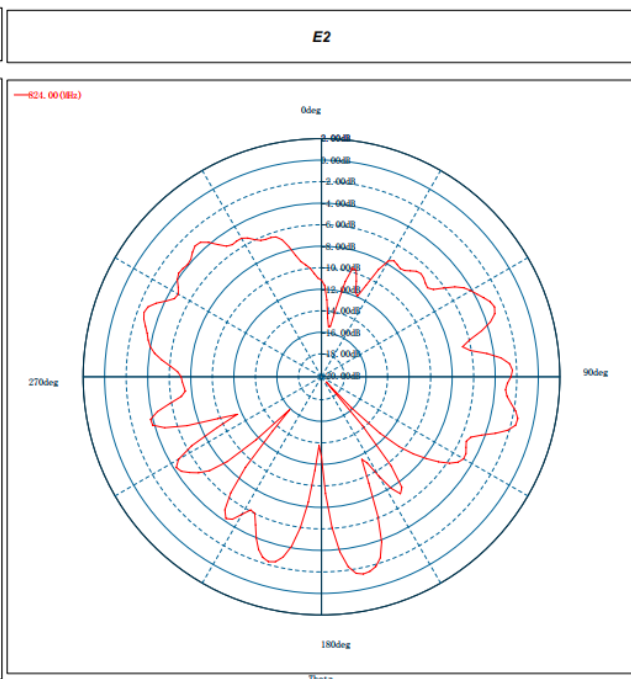
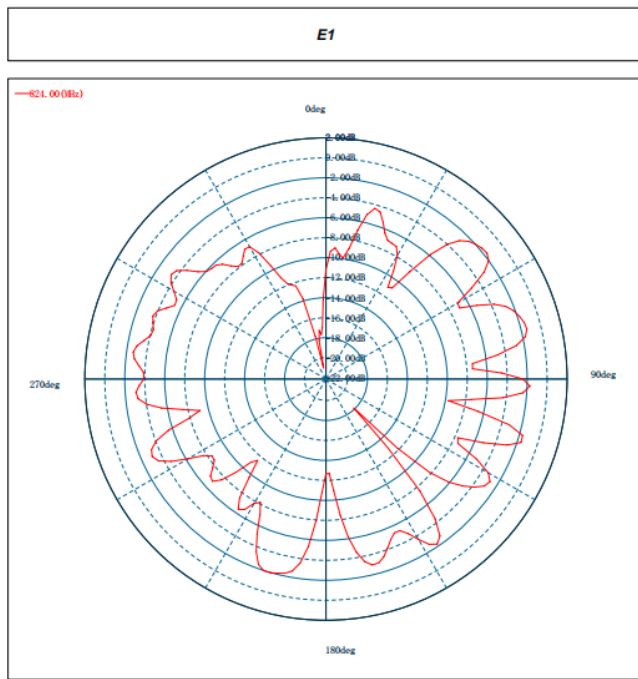
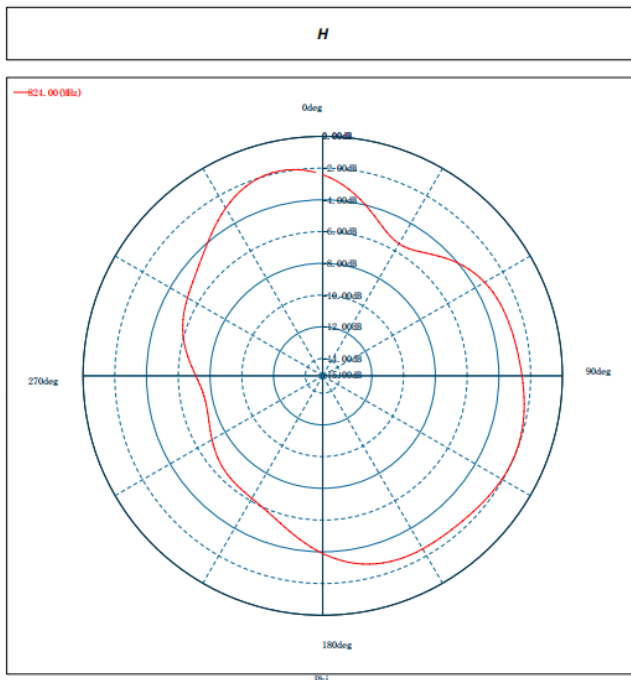
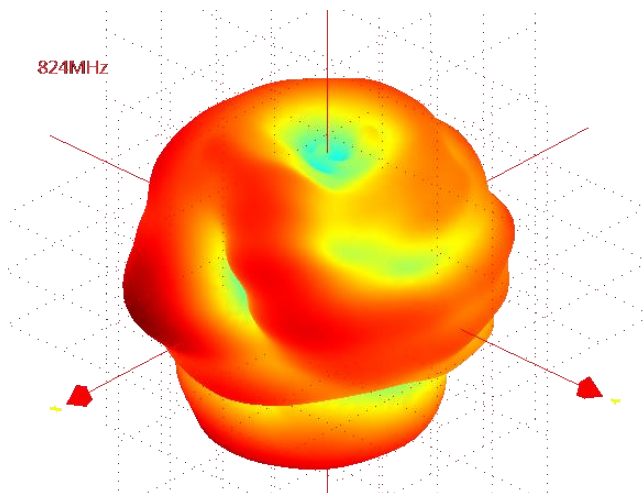
Frequency (MHz)	824	894	960	1710	1880	2170	2500	2690
Efficiency (%)	29	64	68	53	60	77	70	64

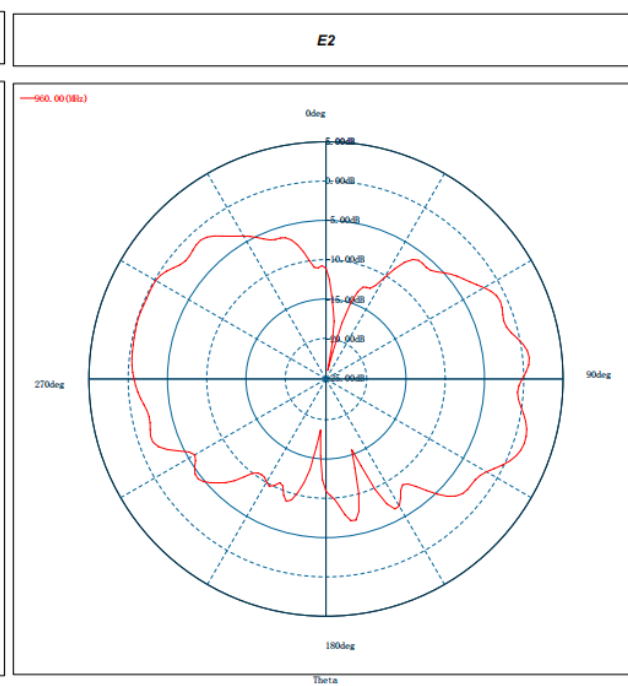
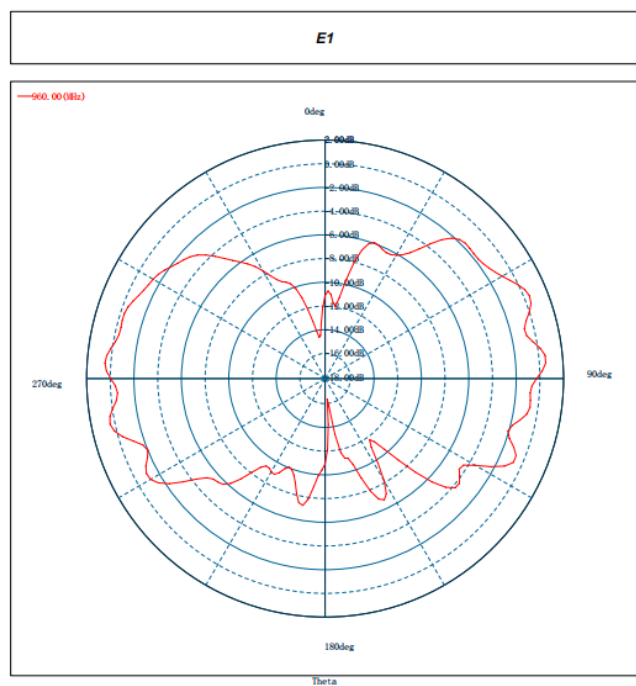
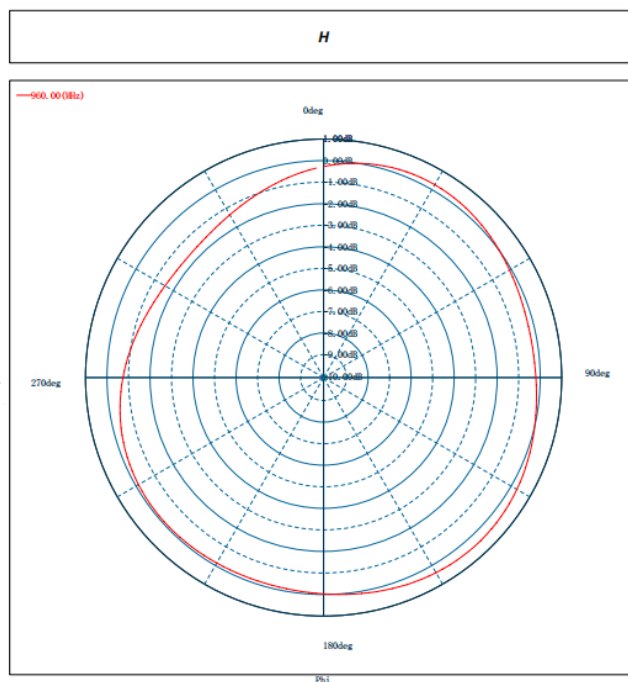
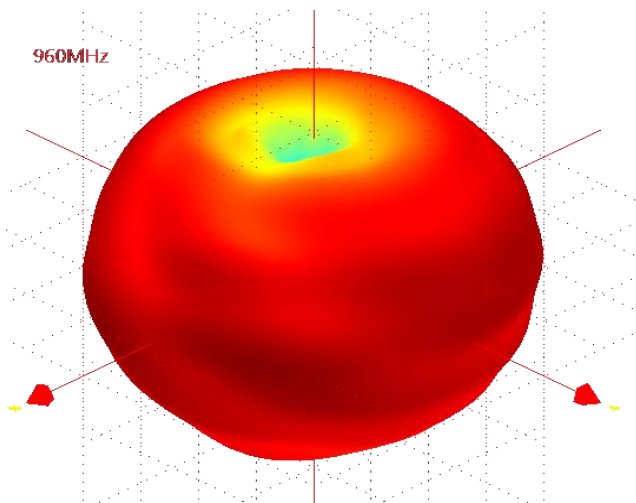
## 4.4. Gain

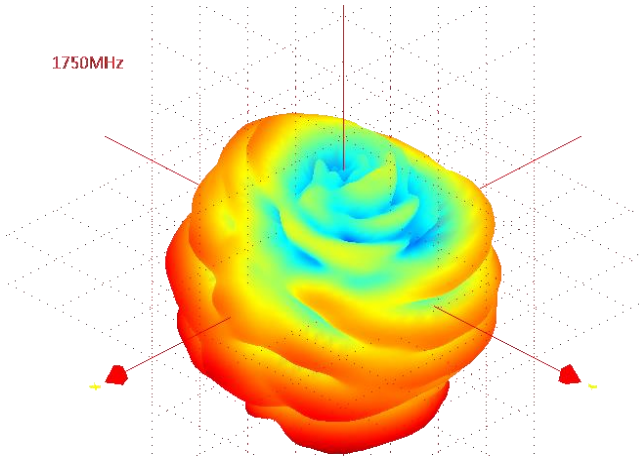


<b>Frequency (MHz)</b>	824	894	960	1710	1880	2170	2500	2690
<b>Gain (dBi)</b>	-0.8	1.3	1.2	2.8	2.9	1.2	2.3	2.2

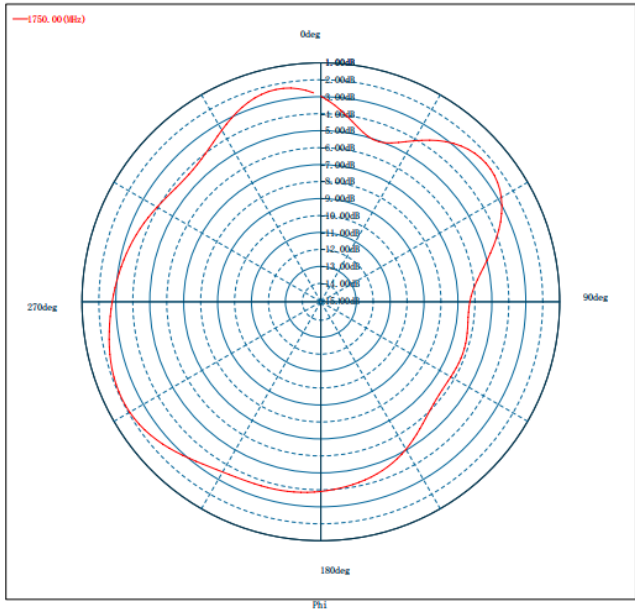
### 4.5. Radiation Patterns



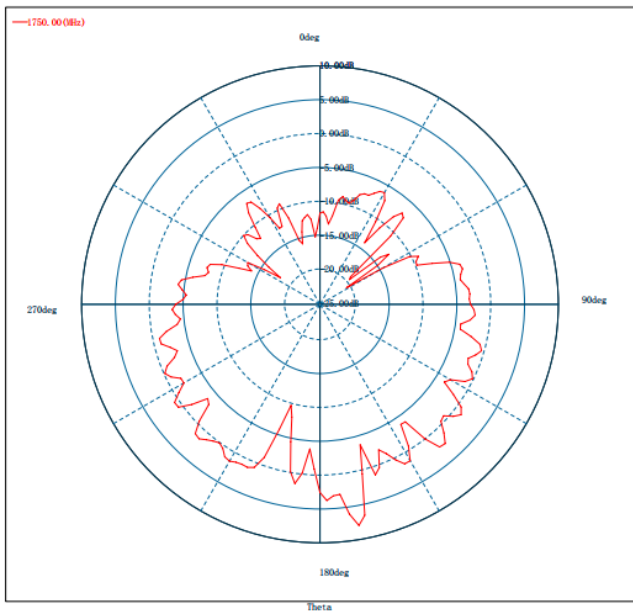




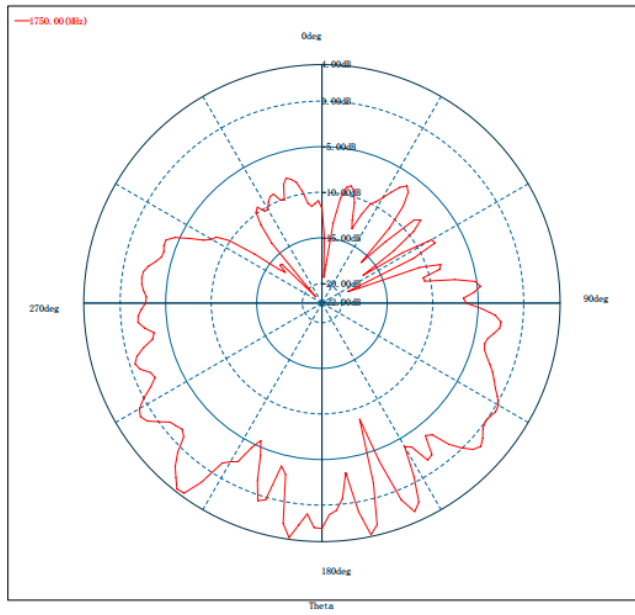
**H**

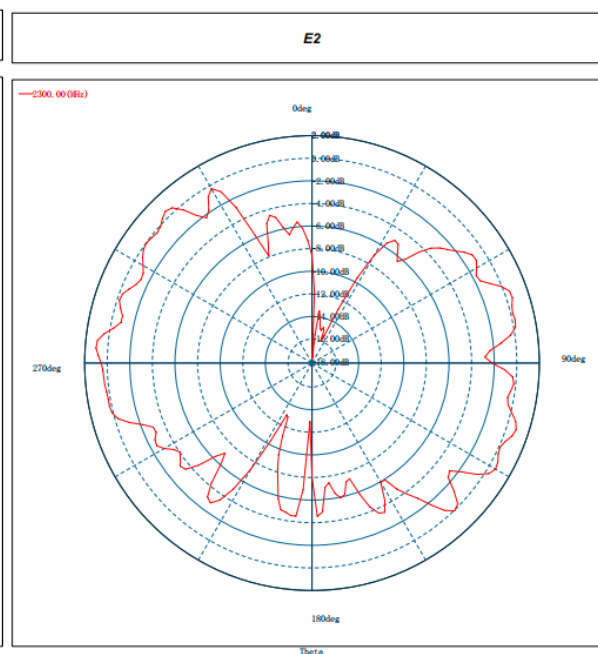
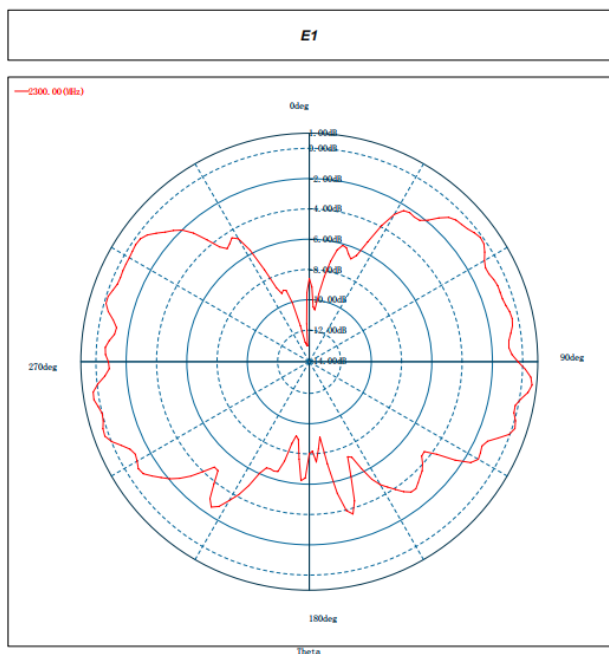
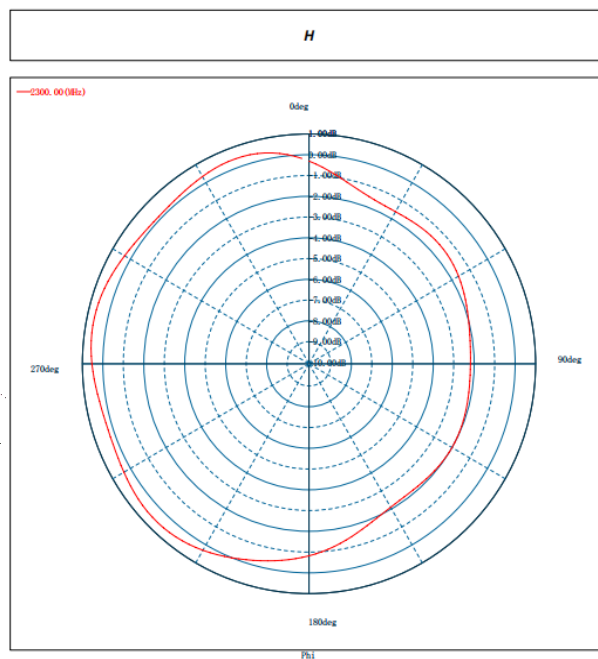
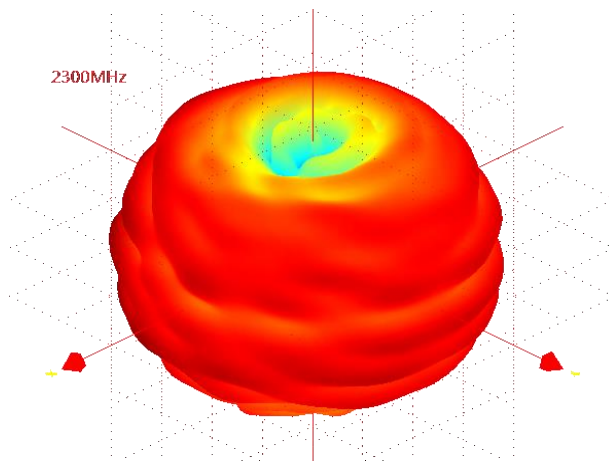


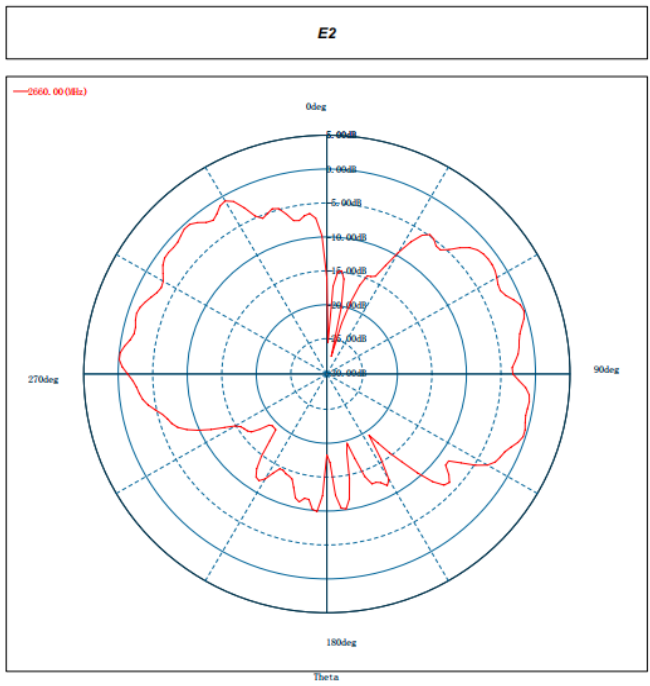
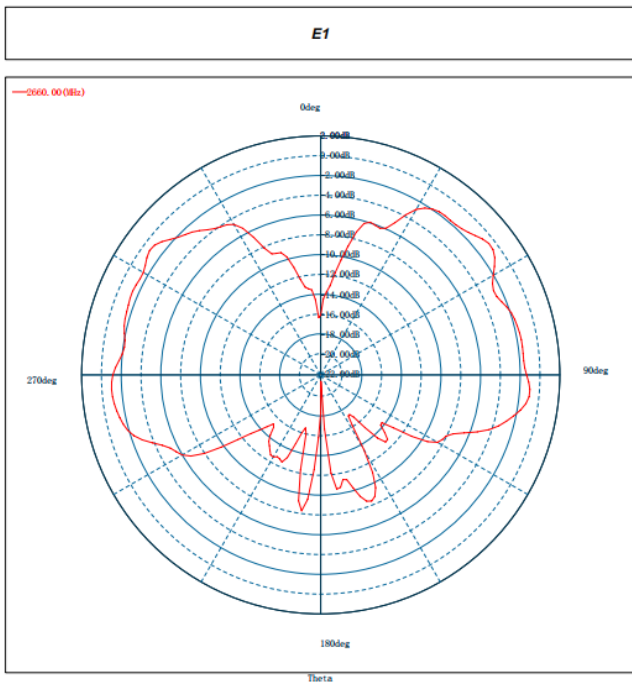
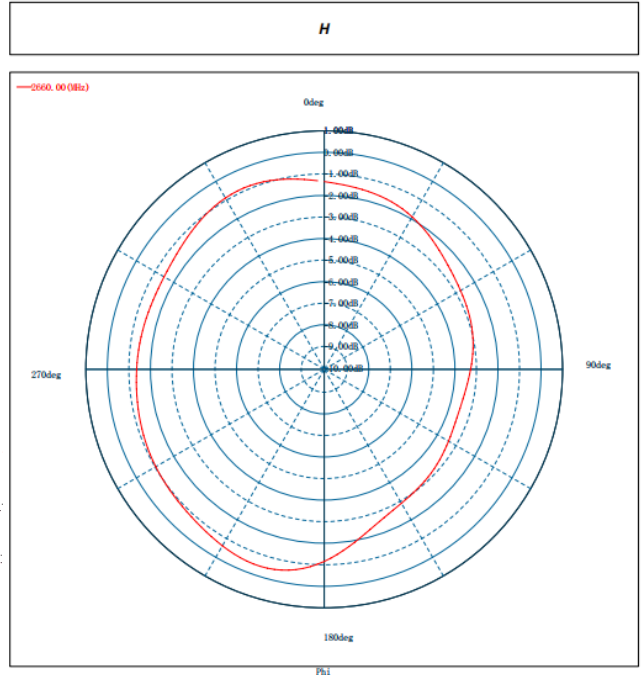
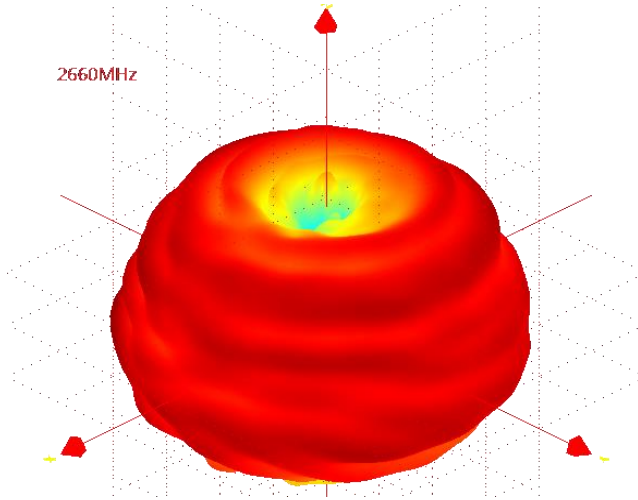
**E1**



**E2**









## 5 Product Size

