

# Antenna

# YE0027AA Datasheet

**Antenna Services**

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Status: Released



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**Quectel Wireless Solutions Co., Ltd.**

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China

Tel: +86 21 5108 6236

Email: [info@quectel.com](mailto:info@quectel.com)

**Or our local office. For more information, please visit:**

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# About the Document

## Revision History

Version	Date	Author	Note
-	2020-10-14	Kenny YIN	Creation of the document
1.0	2020-10-14	Kenny YIN	First official release
1.1	2020-12-15	Kenny YIN	Updated the antenna image in Chapter 2.
1.2	2021-01-27	Kenny YIN	Added IP rating description and installation method in Chapter 3.
2.0	2021-03-29	Kenny YIN	Updated the test data in the datasheets.

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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 5G
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	699–5000 MHz
Input Impedance	50 $\Omega$
VSWR	$\leq 5.0$
Gain	$\leq 2$ dBi
Polarization Type	Linear

#### Mechanical Specifications

Antenna Size	221 mm $\times$ $\Phi$ 61 mm, RG58 Length = 3000 mm
Casing	ABS
Connector Type	SMA Male (center pin)
Working Temperature	-20 $^{\circ}$ C to +85 $^{\circ}$ C
Radome Color	Black
IP Rating	IP55
Installation Method	Magnet

## 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.

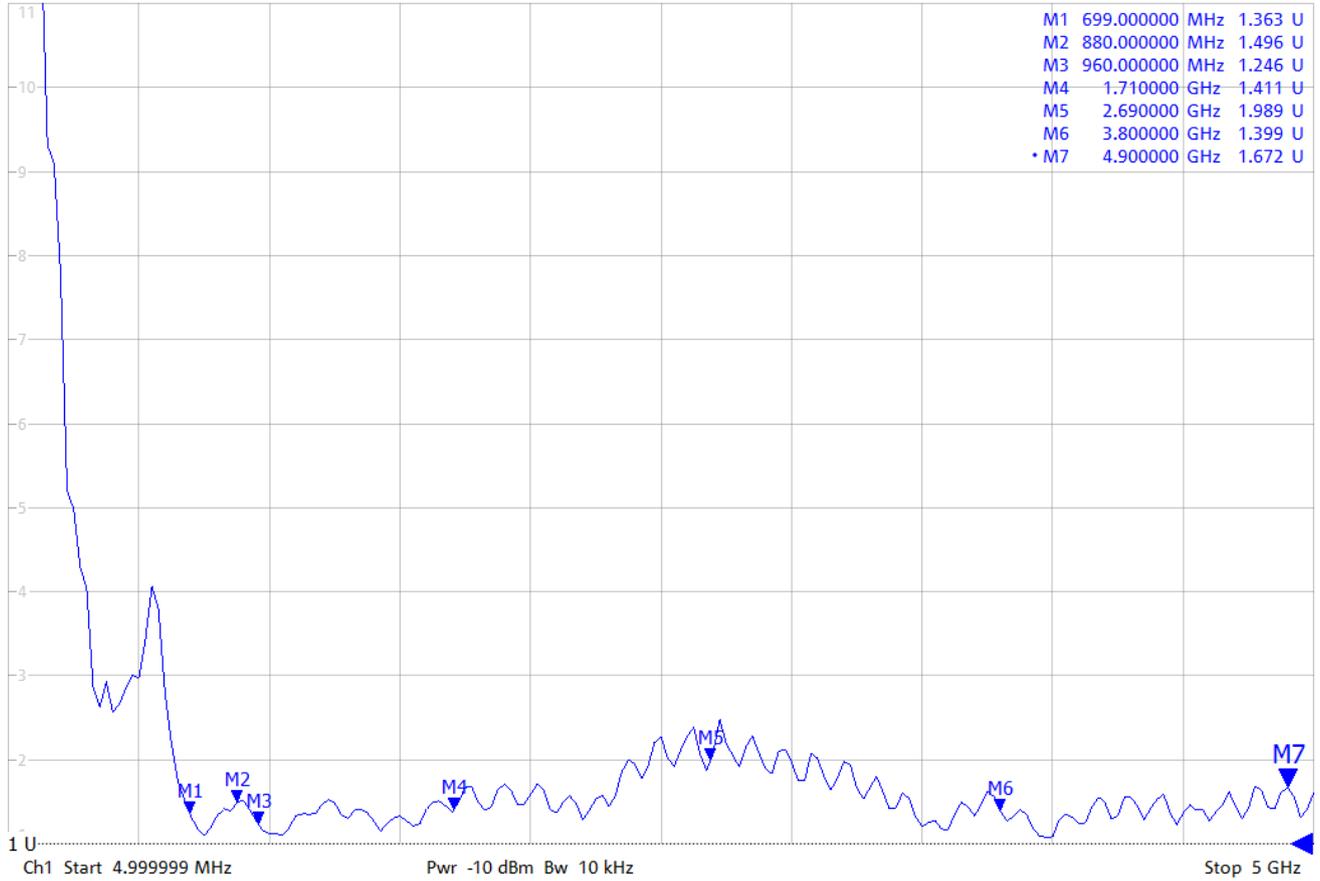


## 4.2. VSWR

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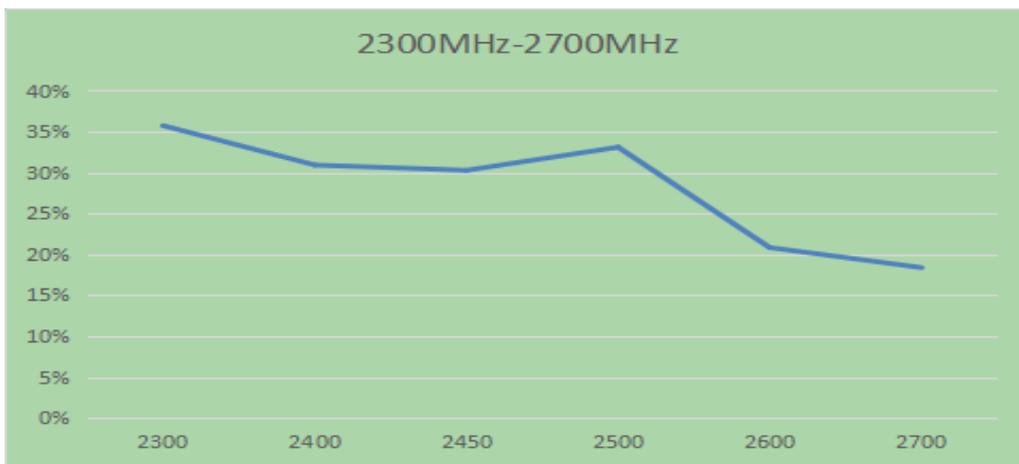
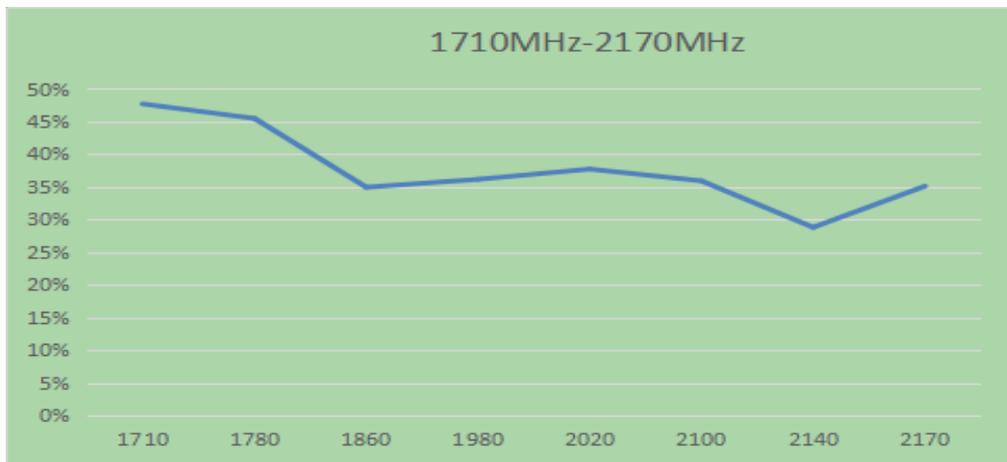
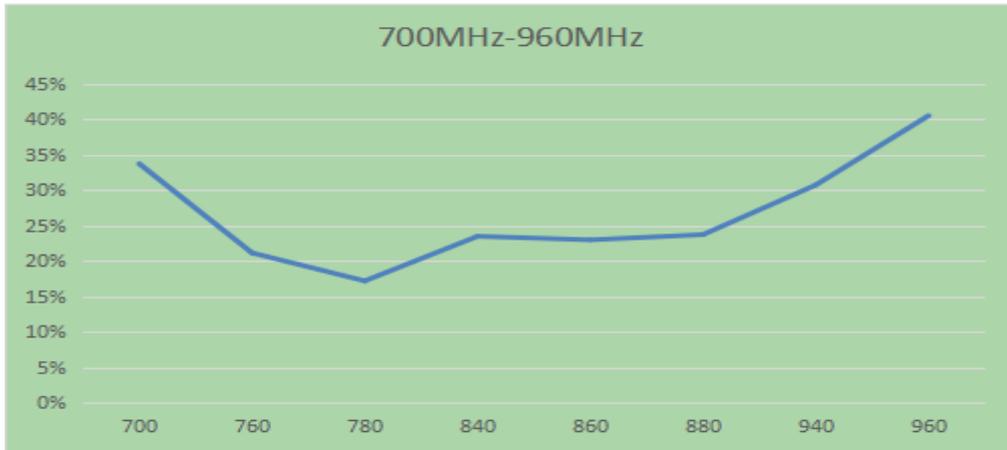
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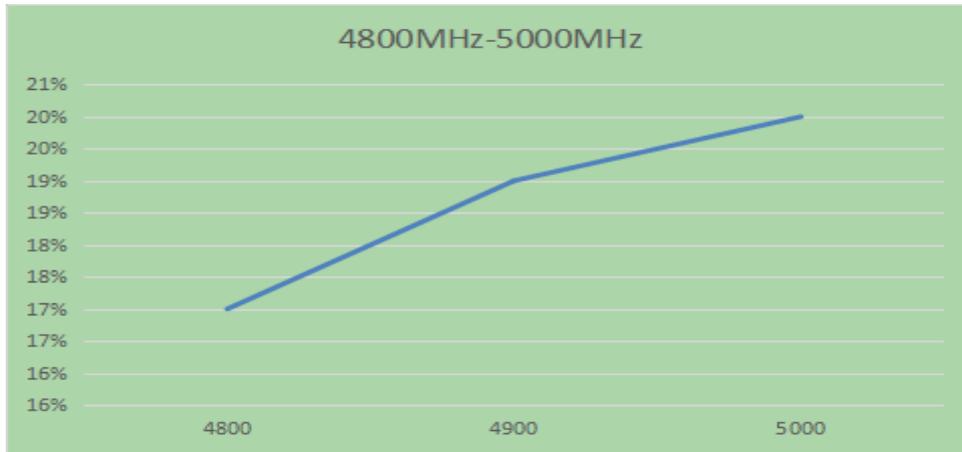
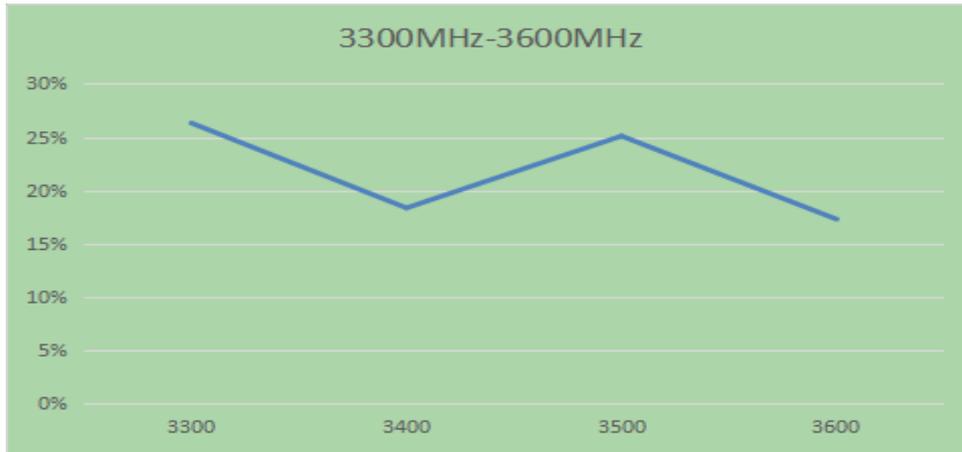
1



Frequency (MHz)	699	880	960	1710	2690	3800	4900
VSWR	1.3	1.4	1.2	1.4	1.9	1.3	1.6

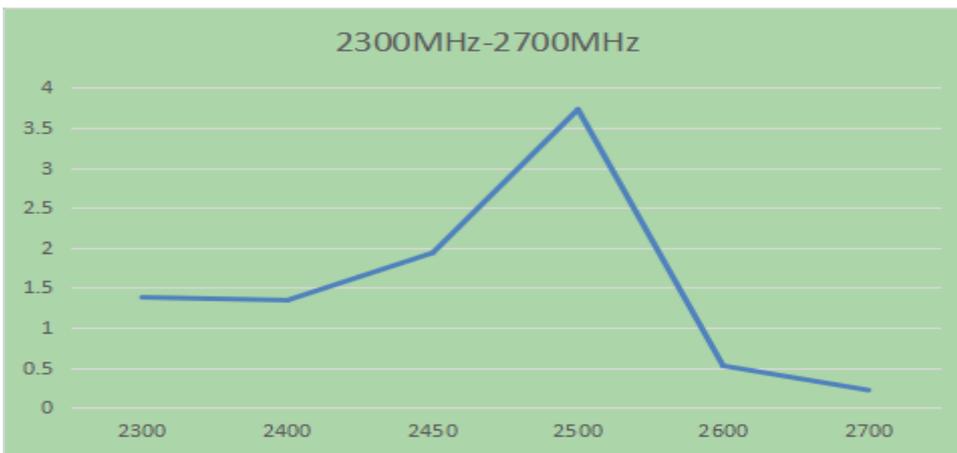
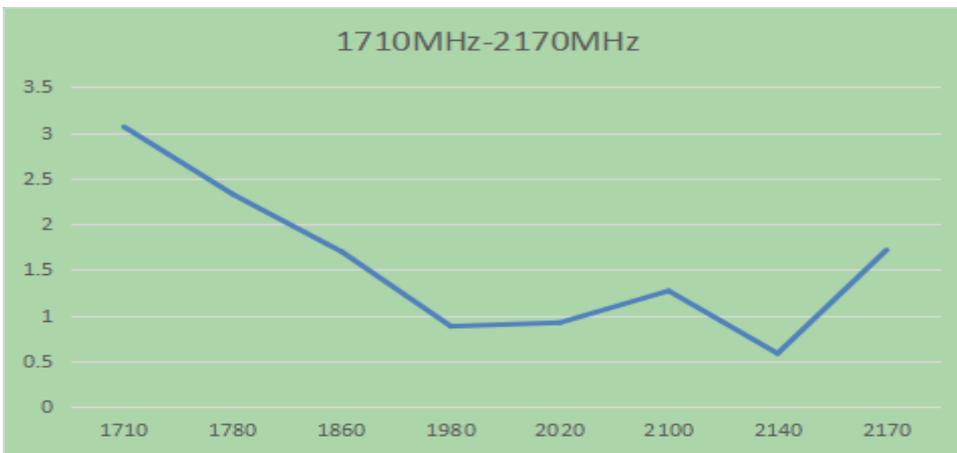
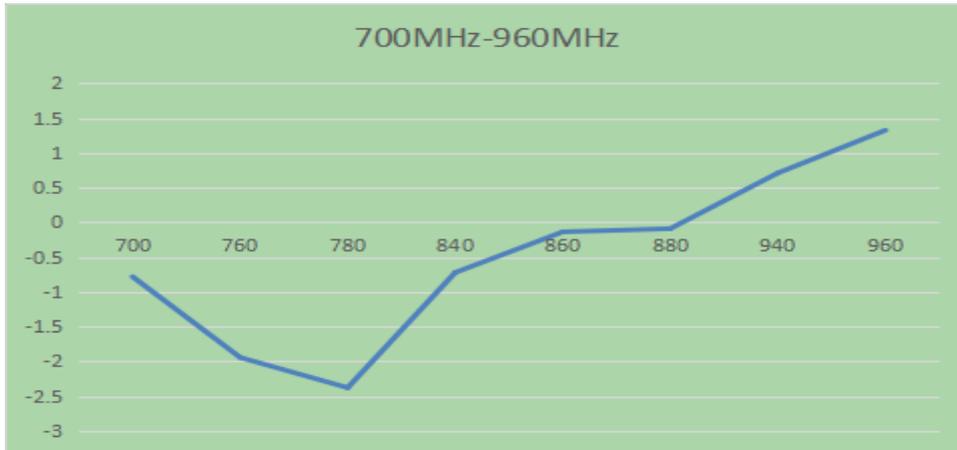
### 4.3. Efficiency

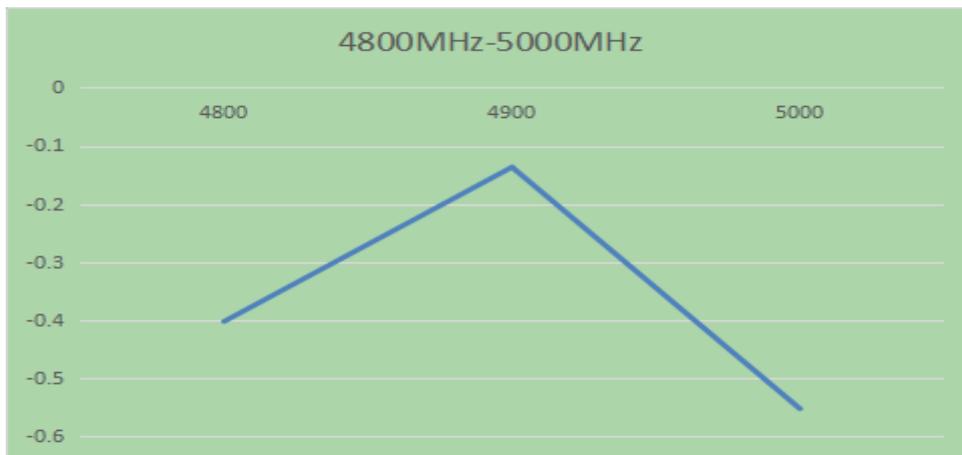
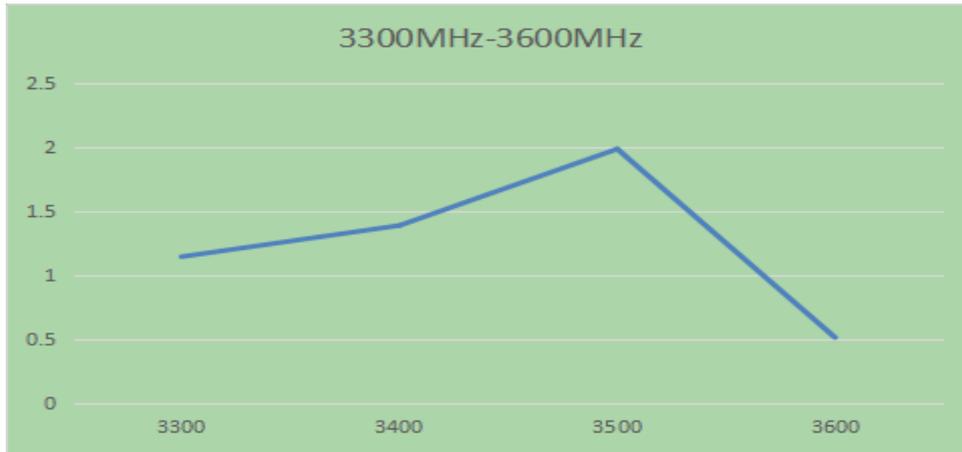




<b>Frequency (MHz)</b>	700	824	960	1710	2690	3300	4800	5000
<b>Efficiency (%)</b>	34	23	40	48	18	26	17	20

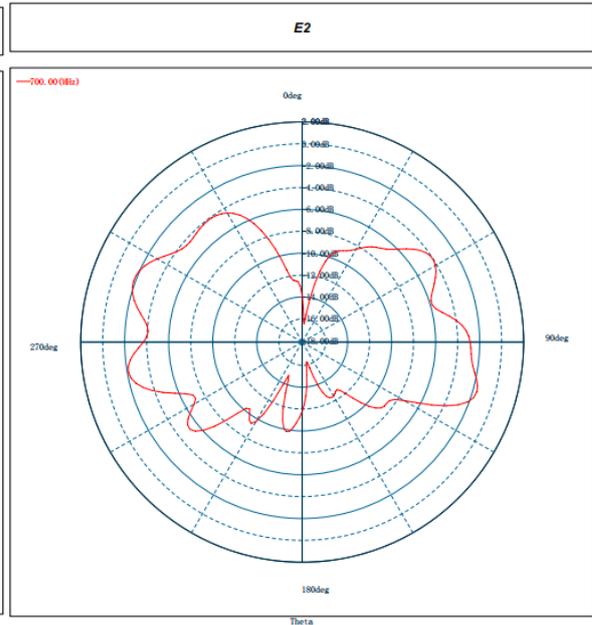
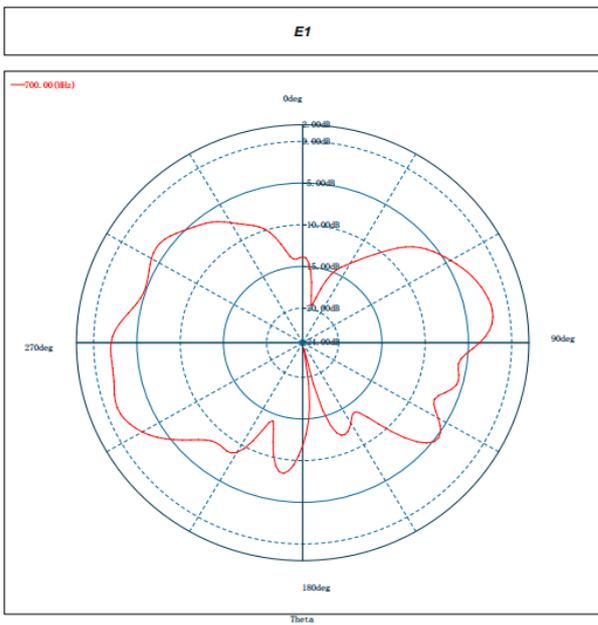
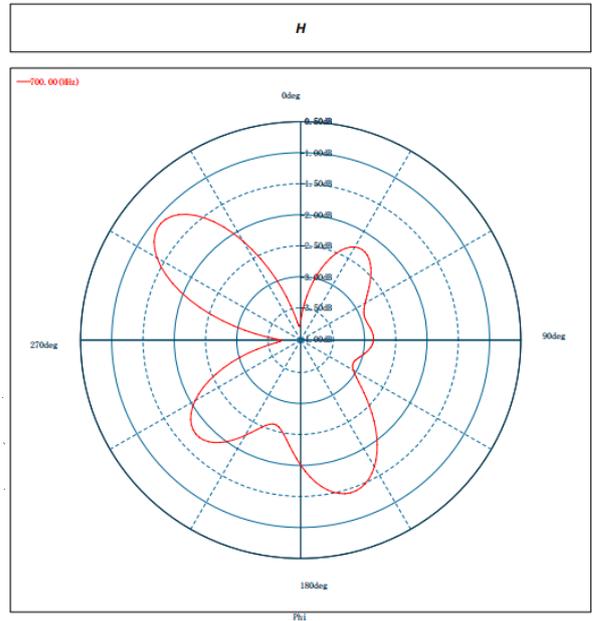
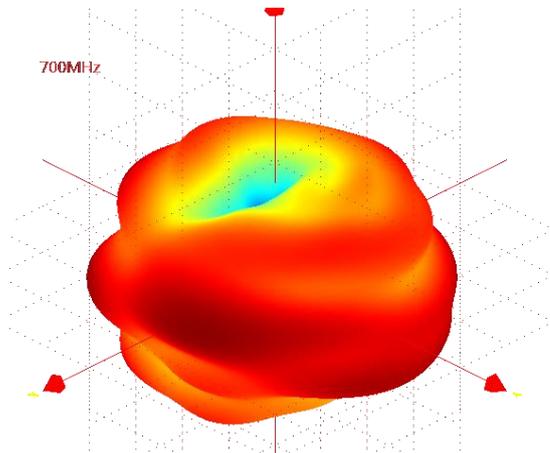
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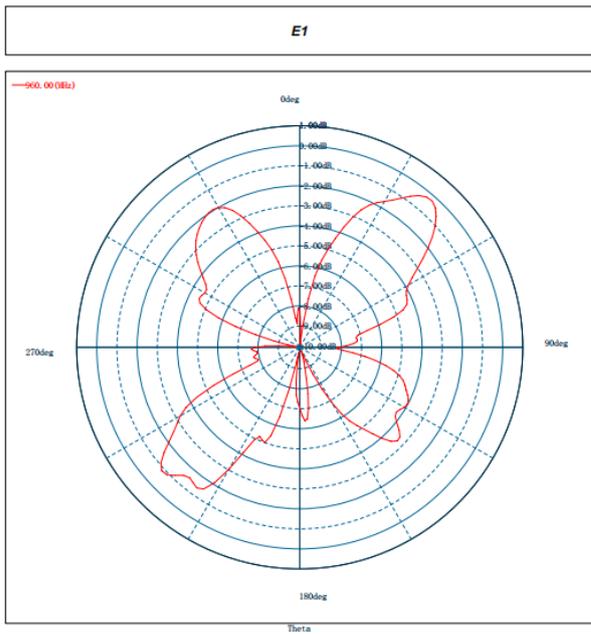
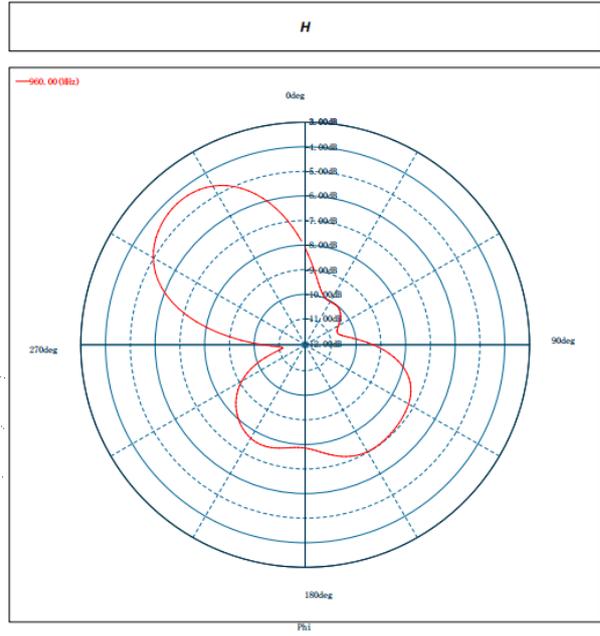
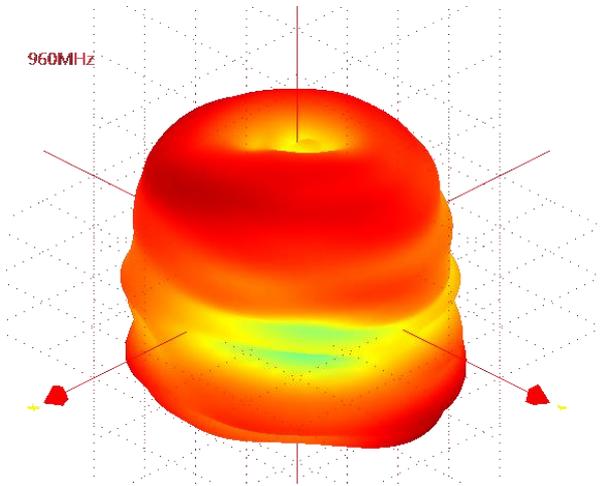


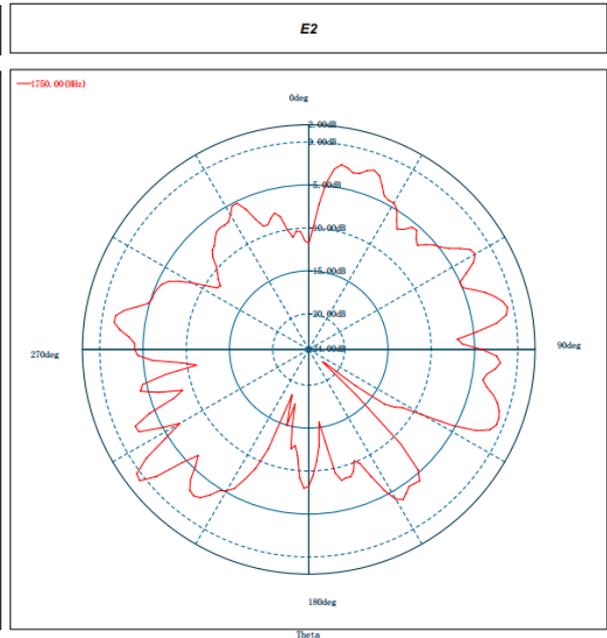
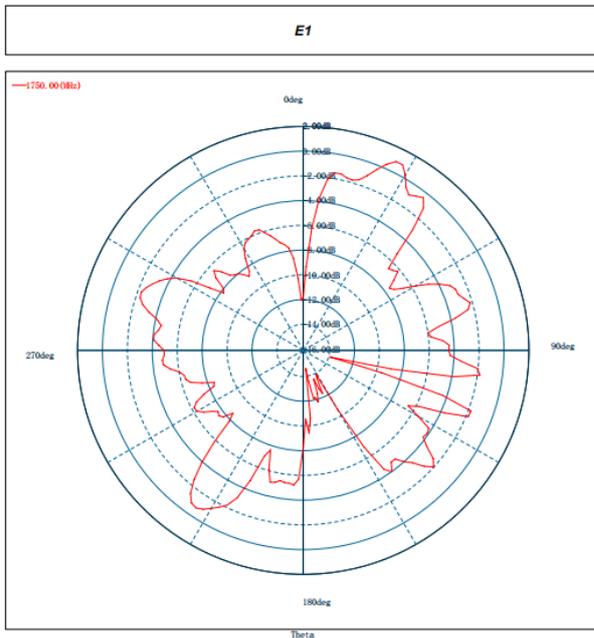
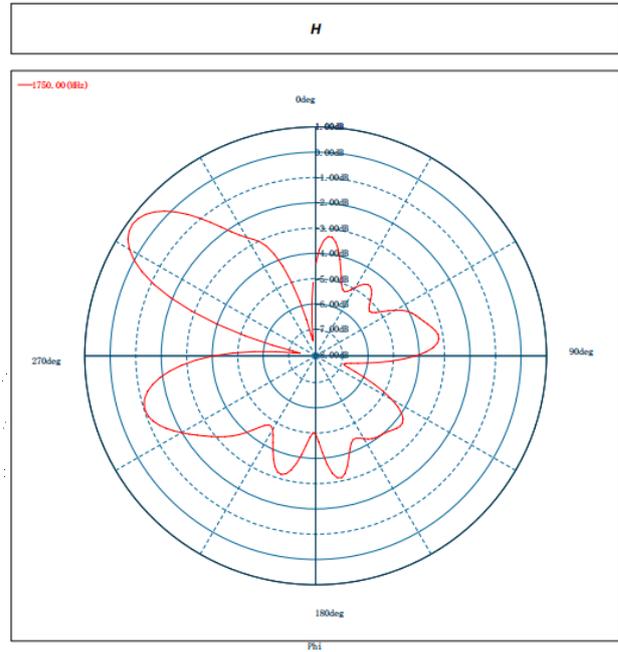
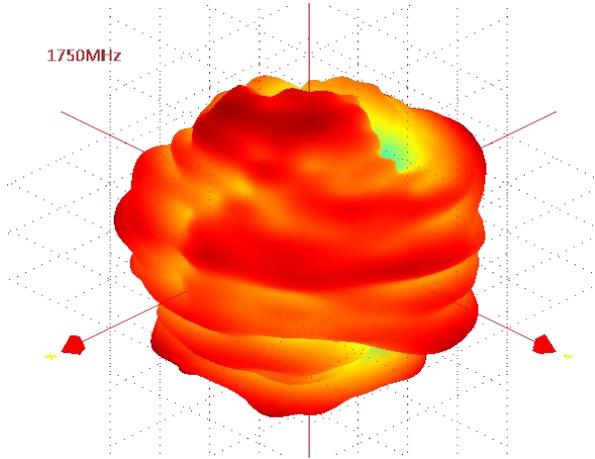


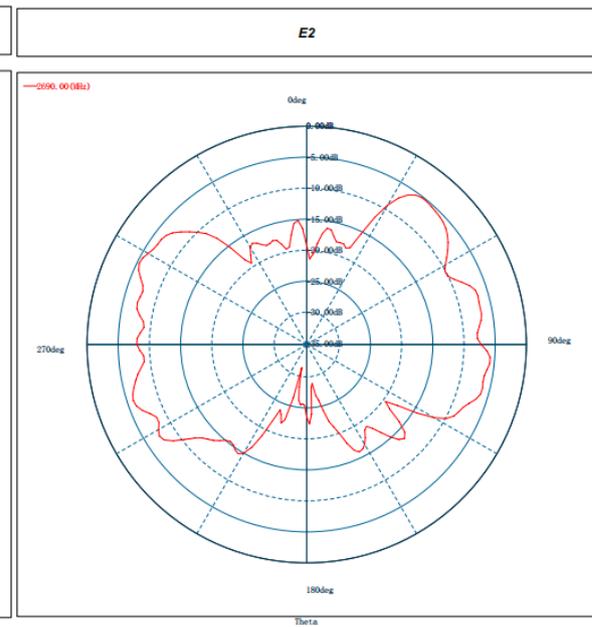
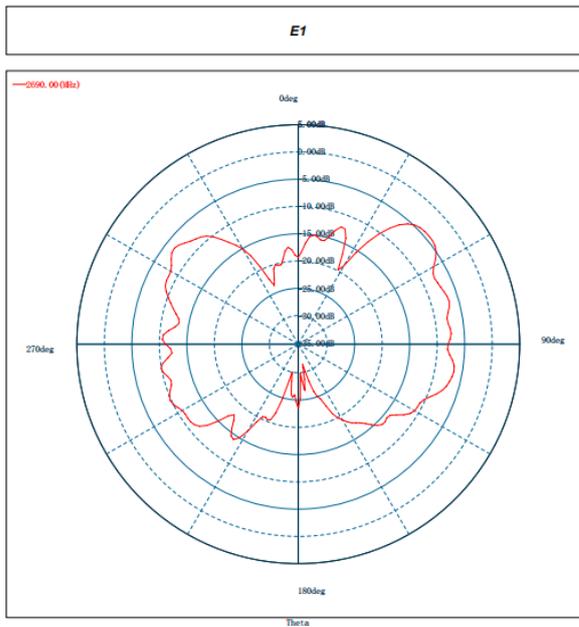
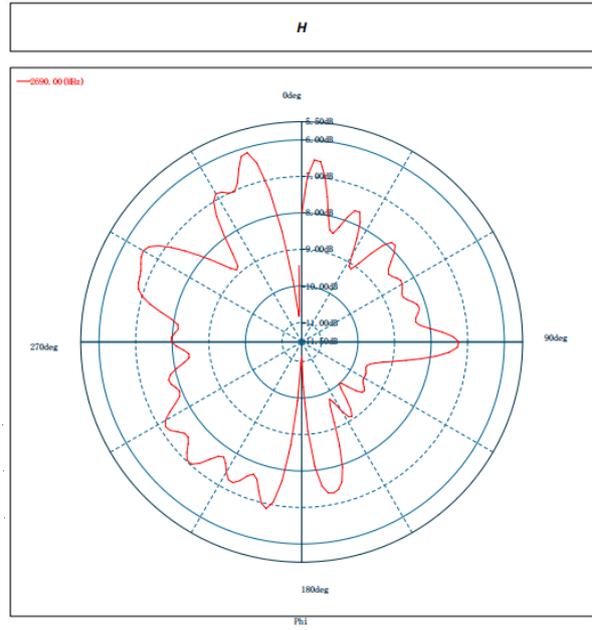
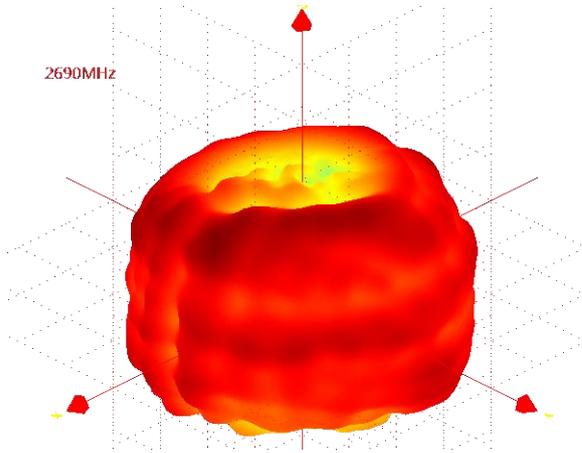
Frequency (MHz)	700	824	960	1710	2690	3300	4800	5000
Gain (dBi)	-0.7	-0.07	1.3	3.0	-0.2	1.1	-0.4	-0.5

### 4.5. Radiation Patterns

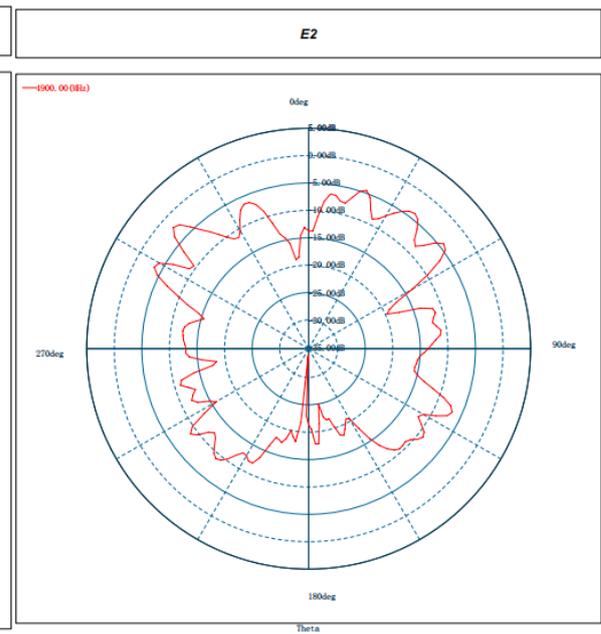
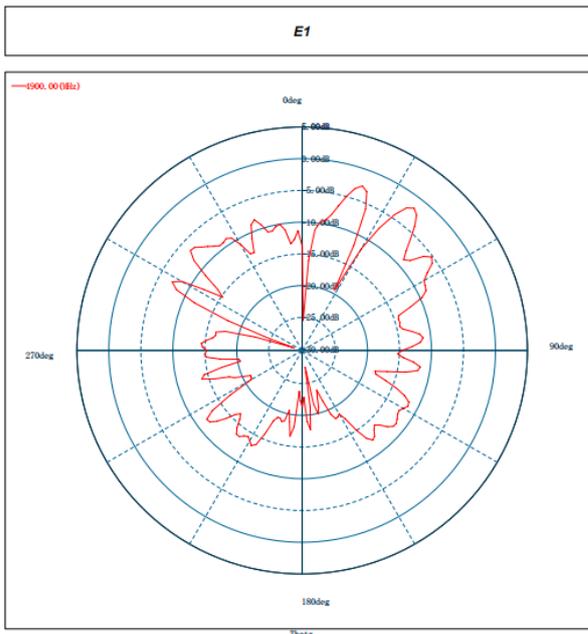
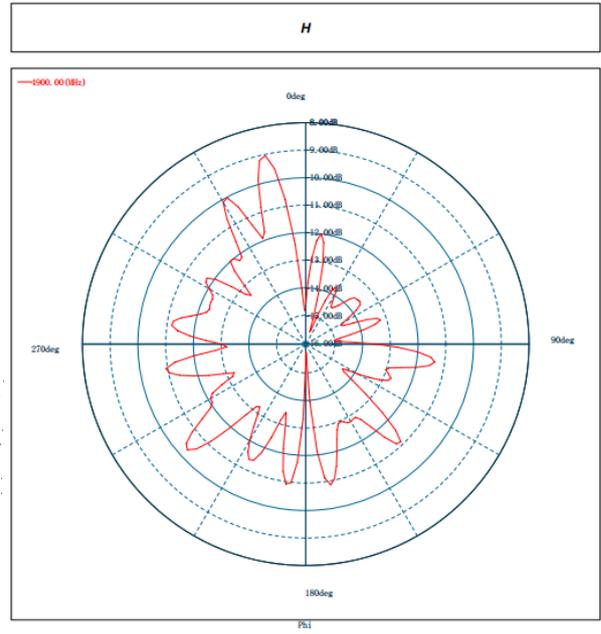
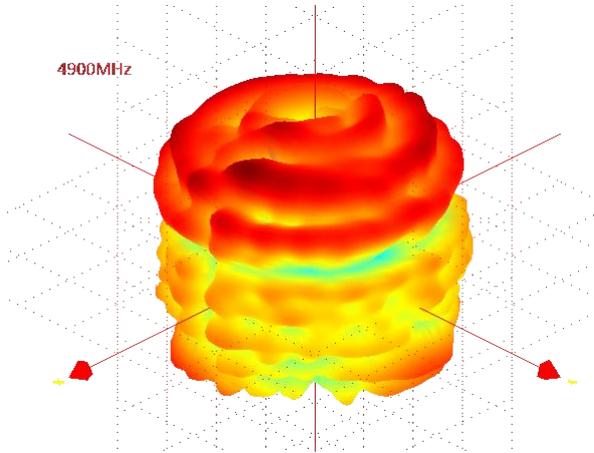












## 5 Product Size

