

# Antenna

# YF0007BA Datasheet

**Antenna Services**

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Status: Released



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# About the Document

## Revision History

Version	Date	Author	Note
-	2020-11-27	Kenny YIN	Creation of the document
1.0	2020-11-27	Kenny YIN	First official release
1.1	2021-05-27	Kenny YIN	<ol style="list-style-type: none"><li>1. Updated working temperature in Chapter 3;</li><li>2. Updated antenna picture in Chapter 2;</li><li>3. Updated antenna drawing in Chapter 5.</li></ol>

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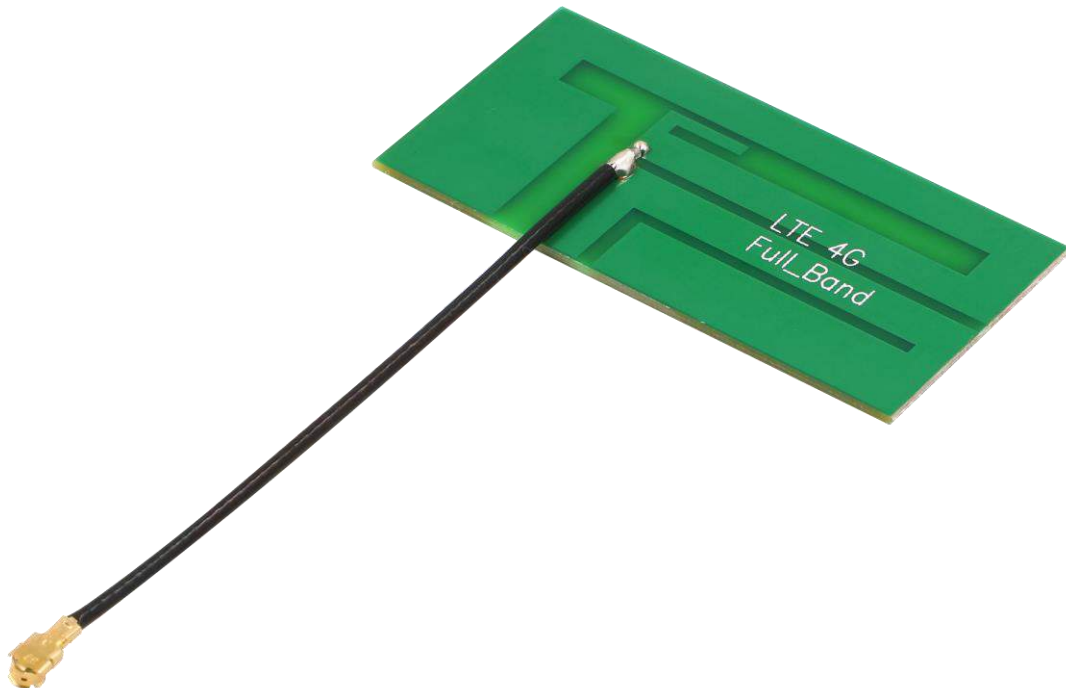
## 1 Product Description

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

- LTE antenna
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	600–960 MHz; 1427.9–1495.9 MHz; 1710–2170 MHz; 2300–2700 MHz
Input Impedence	50 $\Omega$
VSWR	$\leq 5.0$
Gain	$\leq 4.7$ dBi
Polarization Type	Linear

#### Mechanical Specifications

Antenna Size	50 mm $\times$ 25 mm $\times$ 0.85 mm
Connector Type	RF Generation 1
Working Temperature	-40 $^{\circ}$ C to +85 $^{\circ}$ C
Radome Color	Green

## 4 Overall Performance

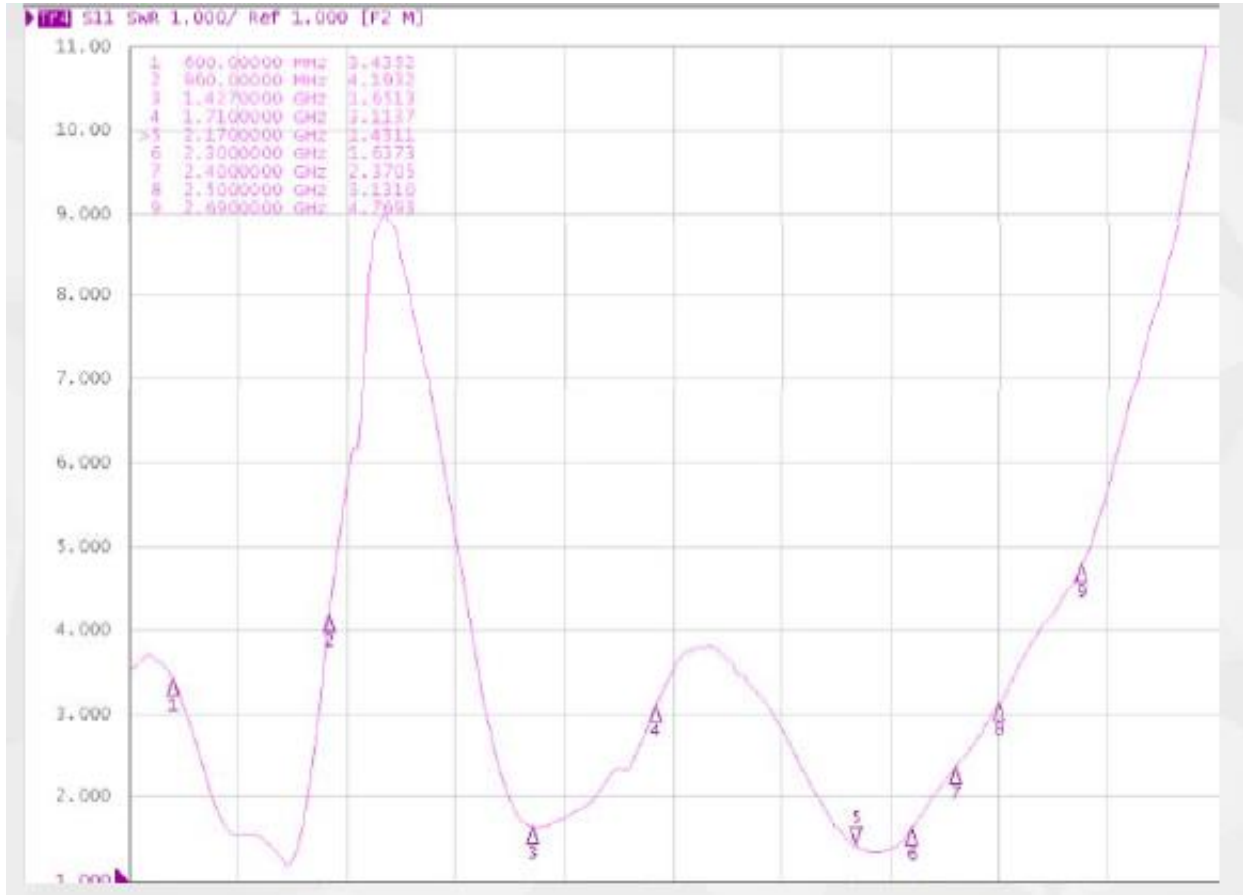
### 4.1. Test Environment

- KEYSIGHT VNA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone®2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 8.0 GHz



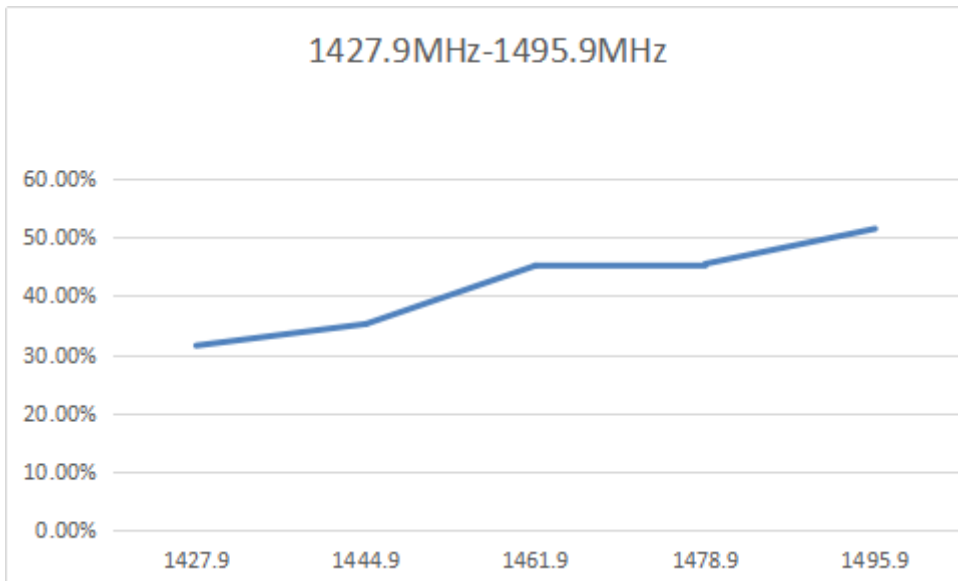
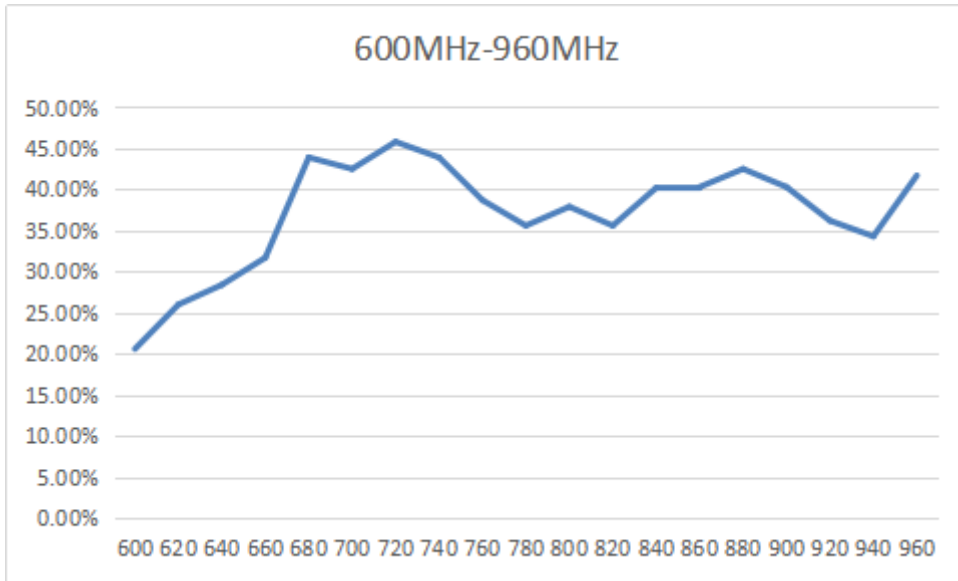


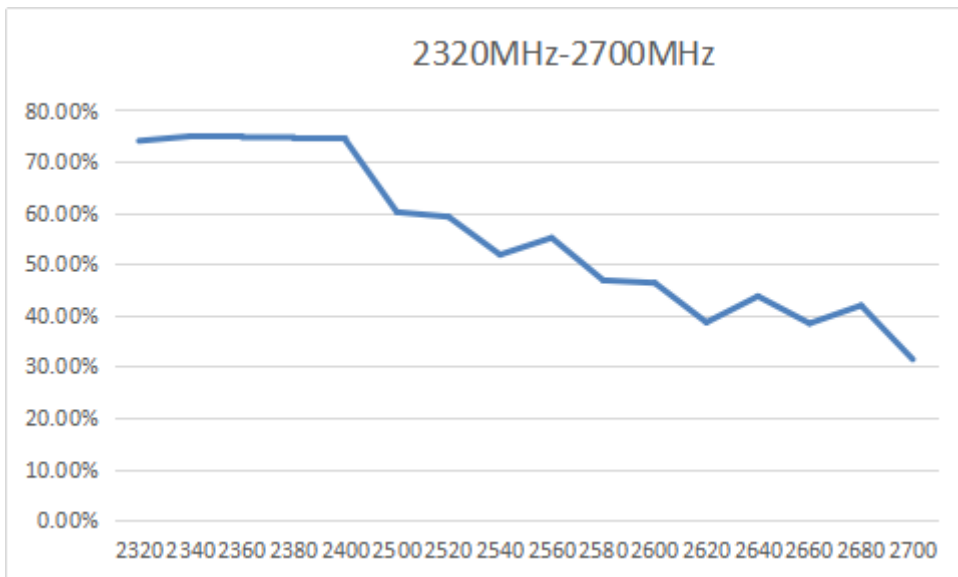
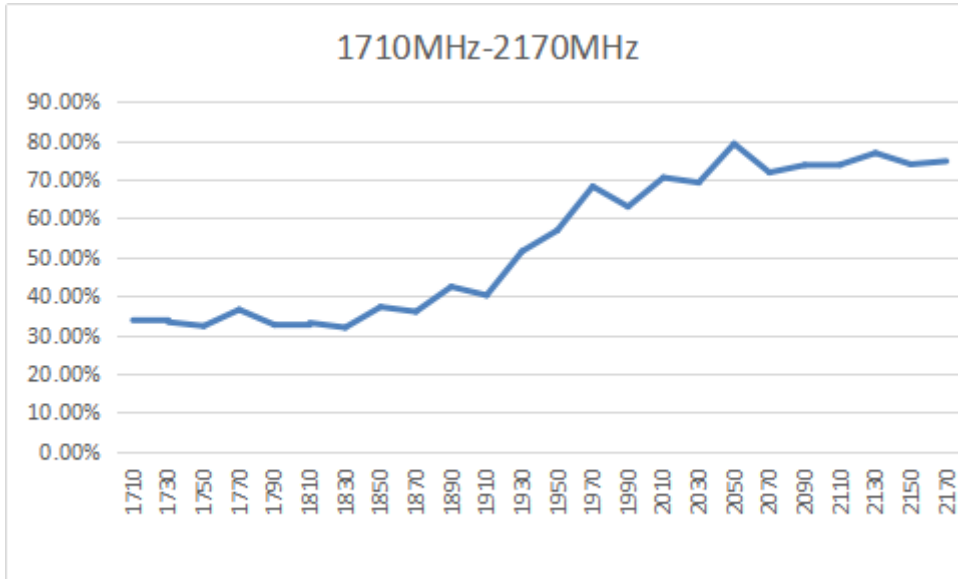
## 4.2. VSWR



Frequency (MHz)	600	960	1427	1710	2170	2300	2400	2500	2690
VSWR	3.44	4.19	1.65	3.11	1.43	1.64	2.37	3.14	4.77

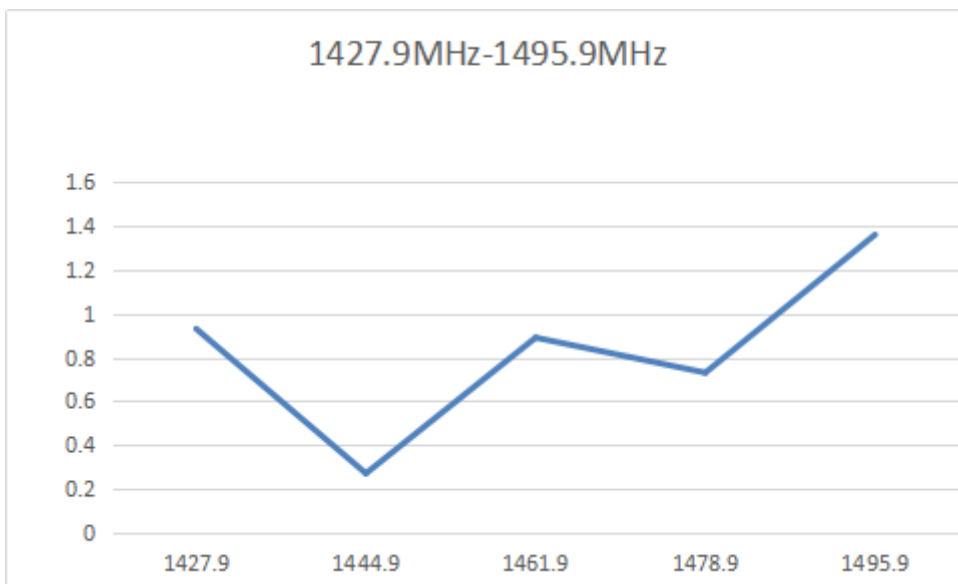
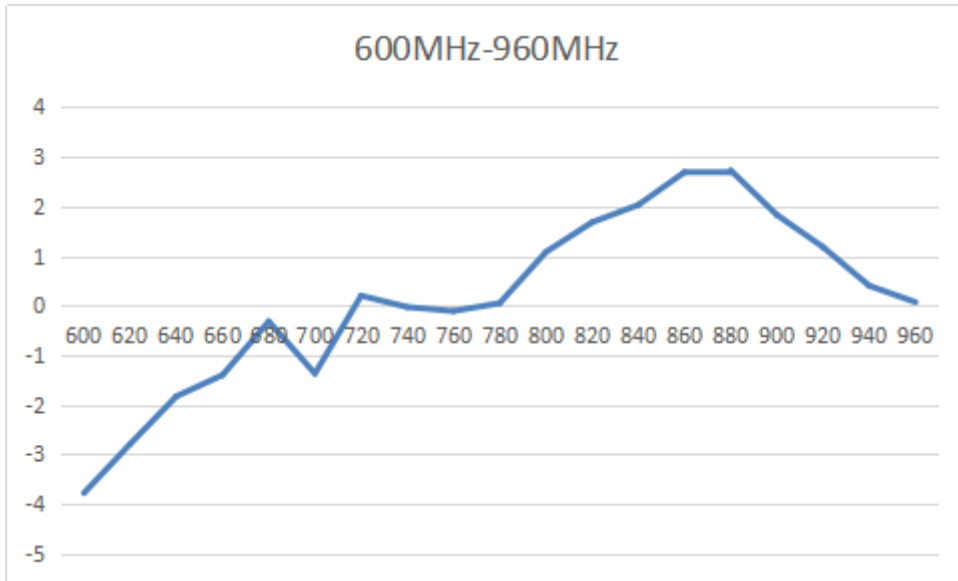
### 4.3. Efficiency

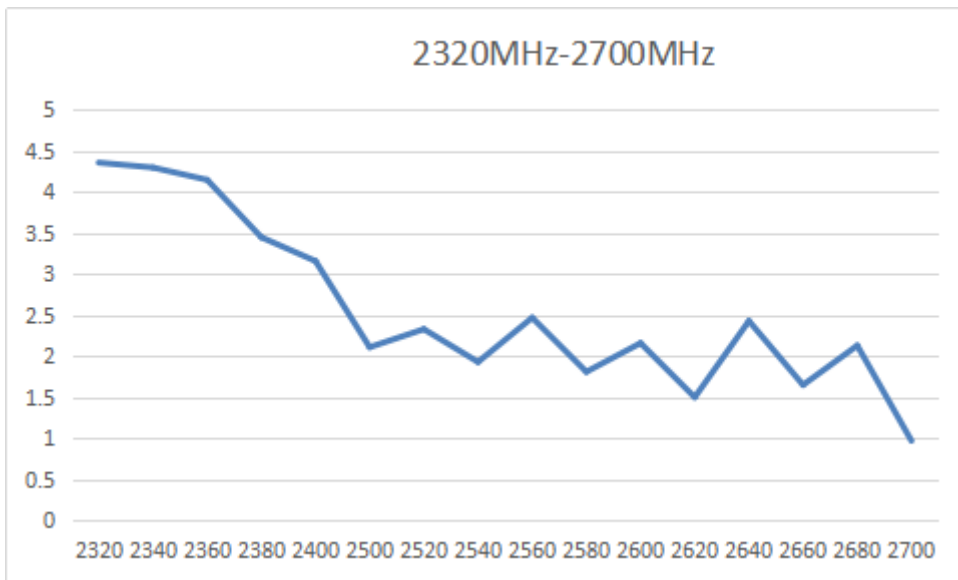
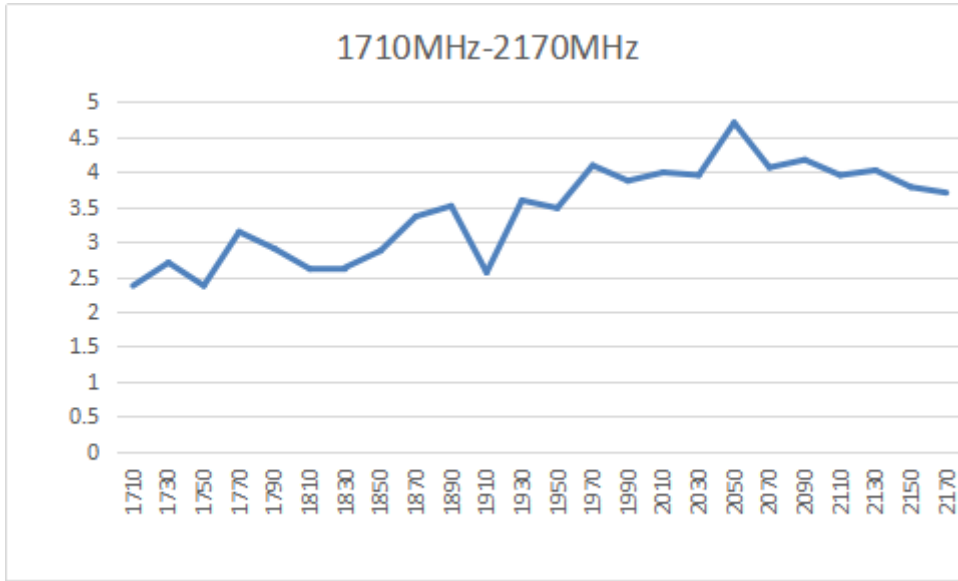




<b>Frequency (MHz)</b>	600	820	960	1710	1990	2170	2320	2580	2680
<b>Efficiency (%)</b>	43.9	35.6	41.7	33.8	63	74.7	74	46.8	41.9

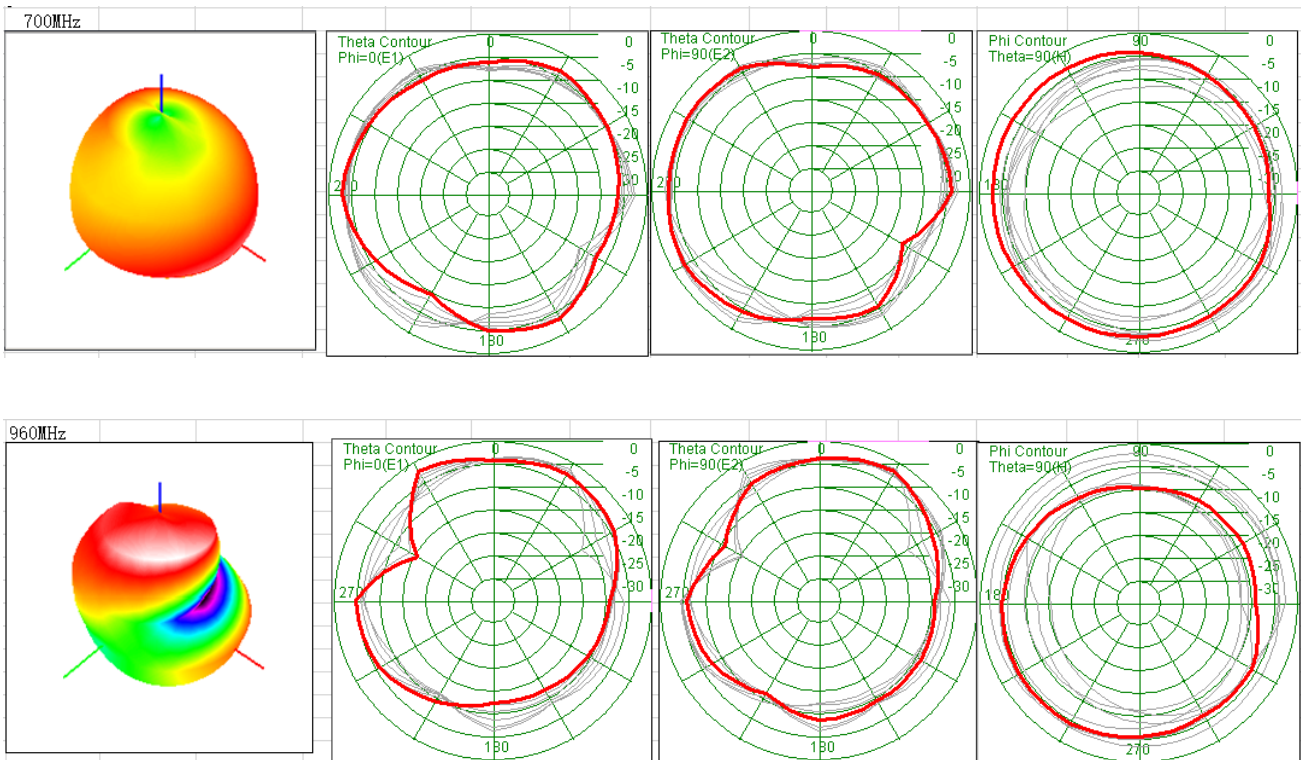
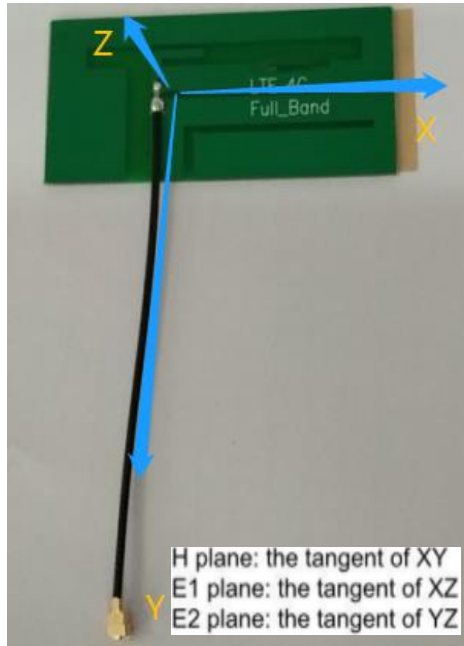
### 4.4. Gain



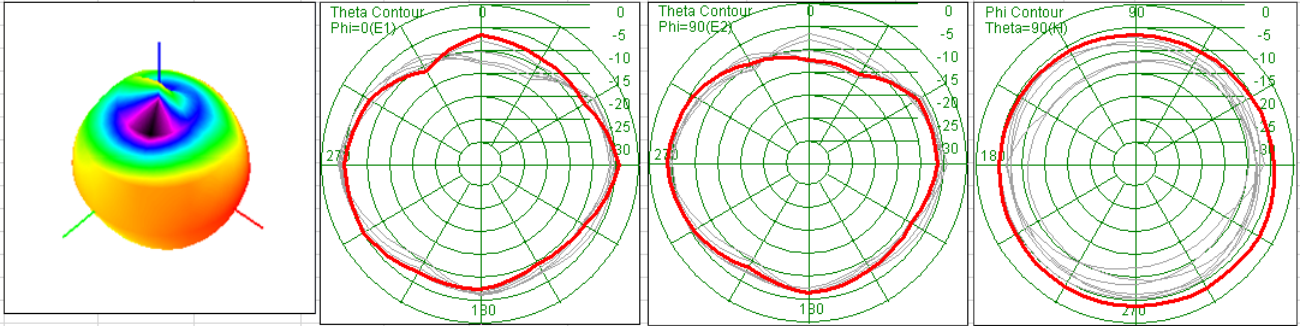


<b>Frequency (MHz)</b>	600	960	1427	1710	2170	2320	2400	2500	2680
<b>Gain (dBi)</b>	-3.78	0.07	0.93	2.37	3.7	4.36	3.16	2.11	2.13

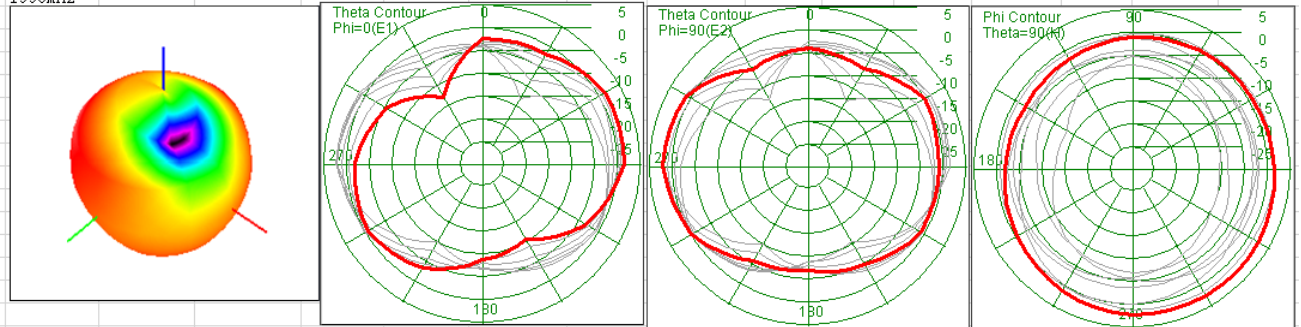
### 4.5. Radiation Patterns



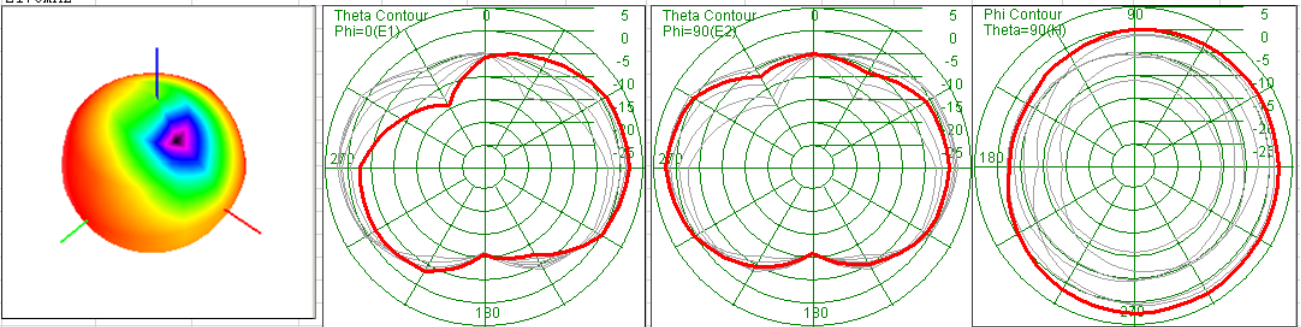
1710MHz



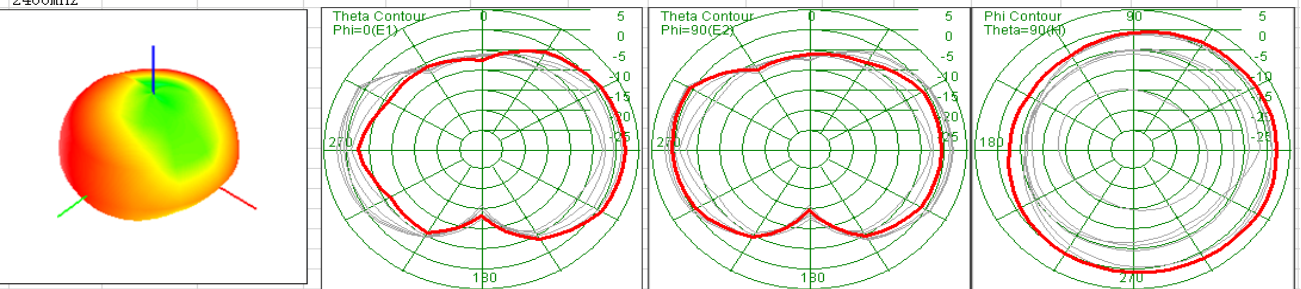
1990MHz



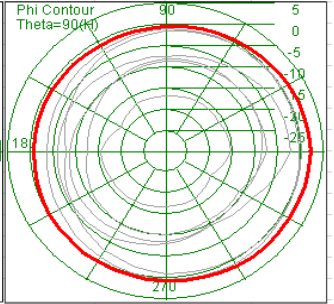
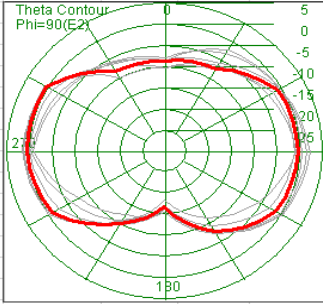
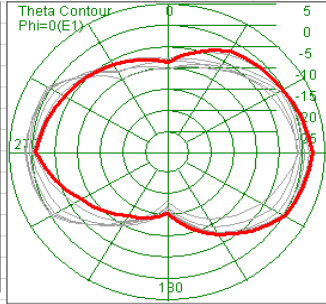
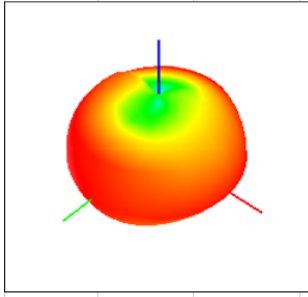
2170MHz



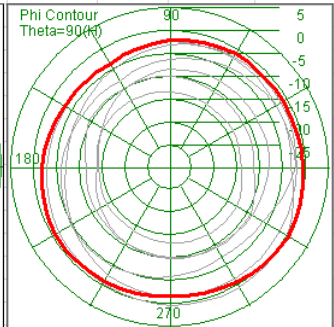
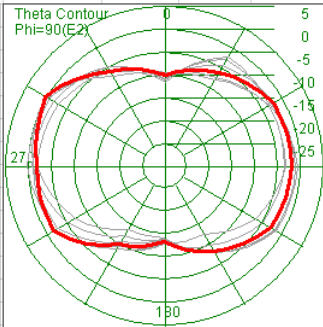
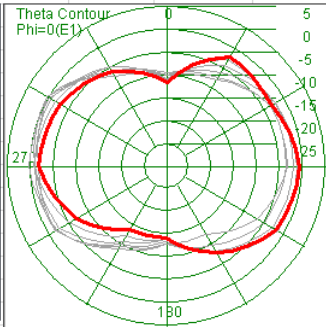
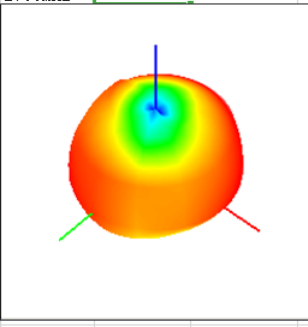
2400MHz



2500MHz



2700MHz





## 5 Product Size

