

# Antenna

# YE0008AA Datasheet

## Antenna Services

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# About the Document

## Revision History

Version	Date	Author	Note
1.0	2020-06-03	Kenny YIN	Initial
1.1	2021-01-12	Kenny YIN	Updated the antenna image in Chapter 2.
1.2	2021-01-27	Kenny YIN	Added IP rating description in Chapter 3.
1.3	2021-06-04	Kenny YIN	Updated working temperature in Chapter 3.
1.4	2021-06-25	Aria CHU	Added the darkroom test environment picture in Chapter 4.5.

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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

- 3G Stubby Antenna
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	824–960 MHz; 1710–2170 MHz
Input Impedance	50 $\Omega$
VSWR	$\leq 3.5$
Gain	$\leq 3$ dBi
Polarization Type	Linear

#### Mechanical Specifications

Antenna Size	52 mm $\times$ $\Phi$ 10 mm
Casing	ABS
Connector Type	SMA Male (center pin)
Working Temperature	-40 $^{\circ}$ C to +85 $^{\circ}$ C
Radome Color	Black
IP Rating	IP65

## 4 Overall Performance

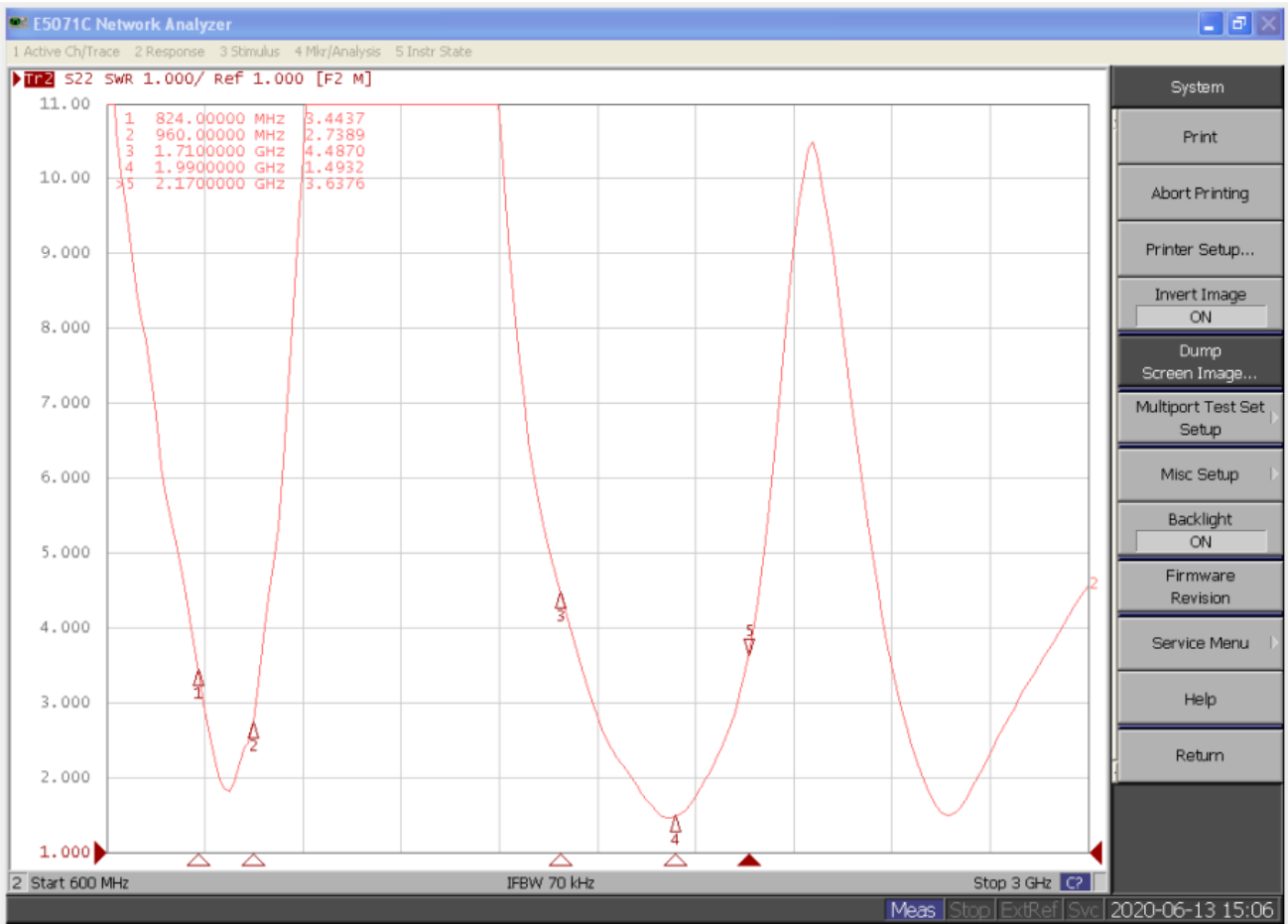
### 4.1. Test Environment

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



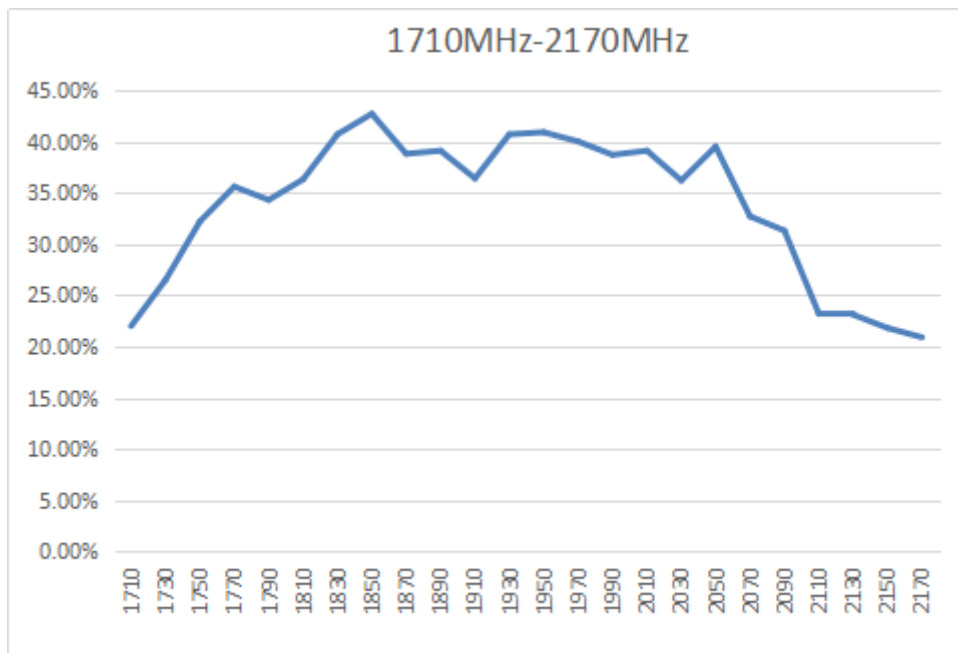
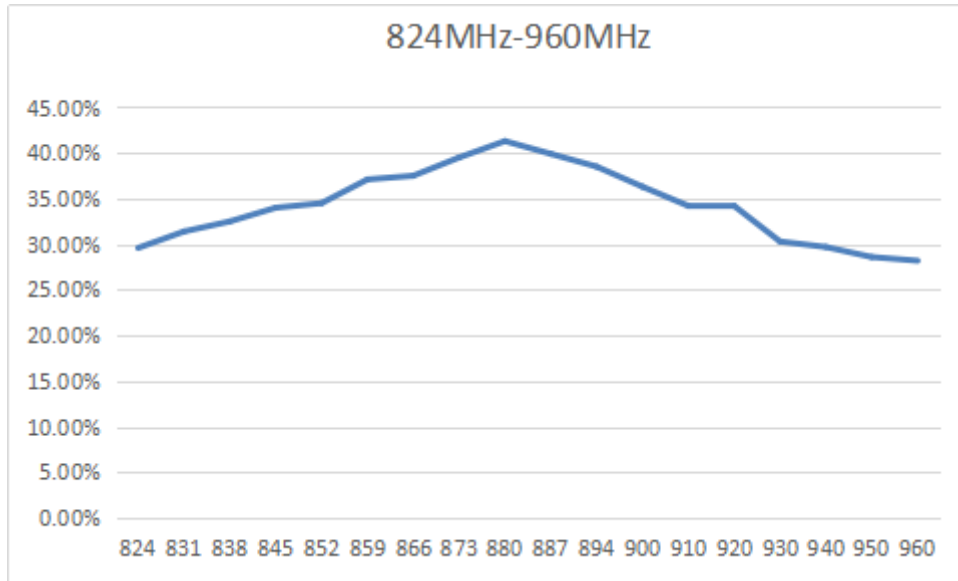


## 4.2. VSWR



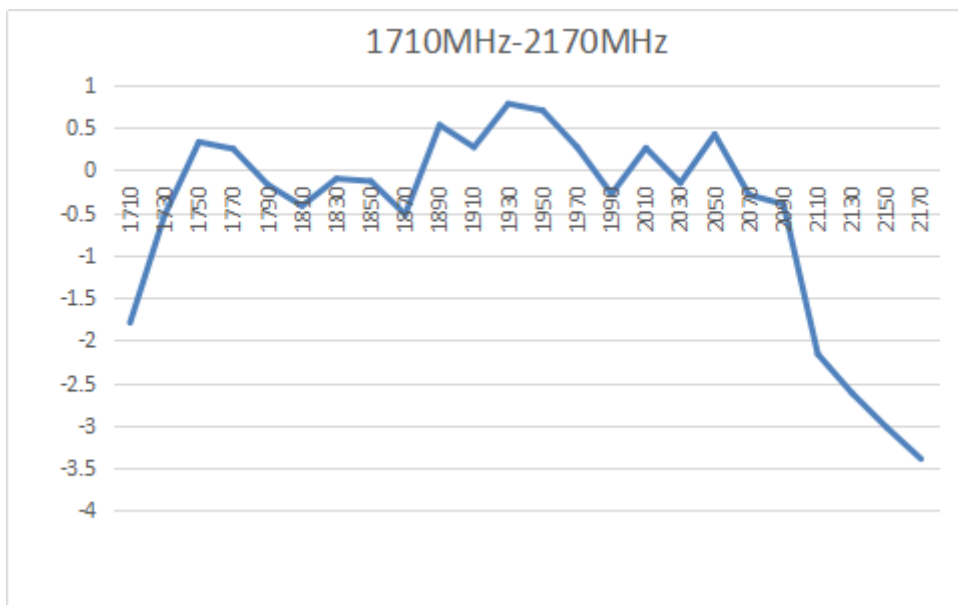
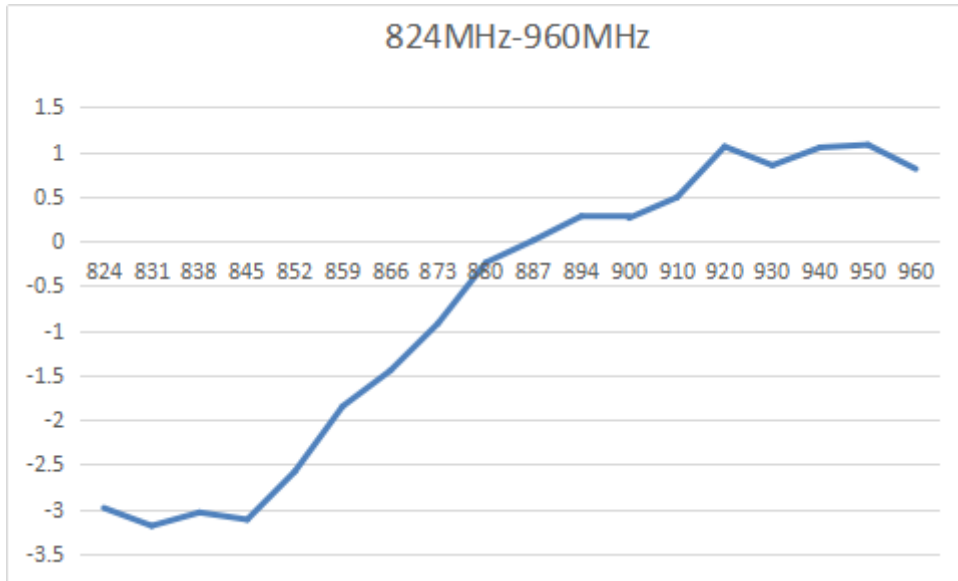
<b>Frequency (MHz)</b>	824	960	1710	1990	2170
<b>VSWR</b>	3.44	2.73	4.48	1.50	3.64

### 4.3. Efficiency



<b>Frequency (MHz)</b>	824	960	1710	1990	2170
<b>Efficiency (%)</b>	29.6	28.2	22	38.7	20.9

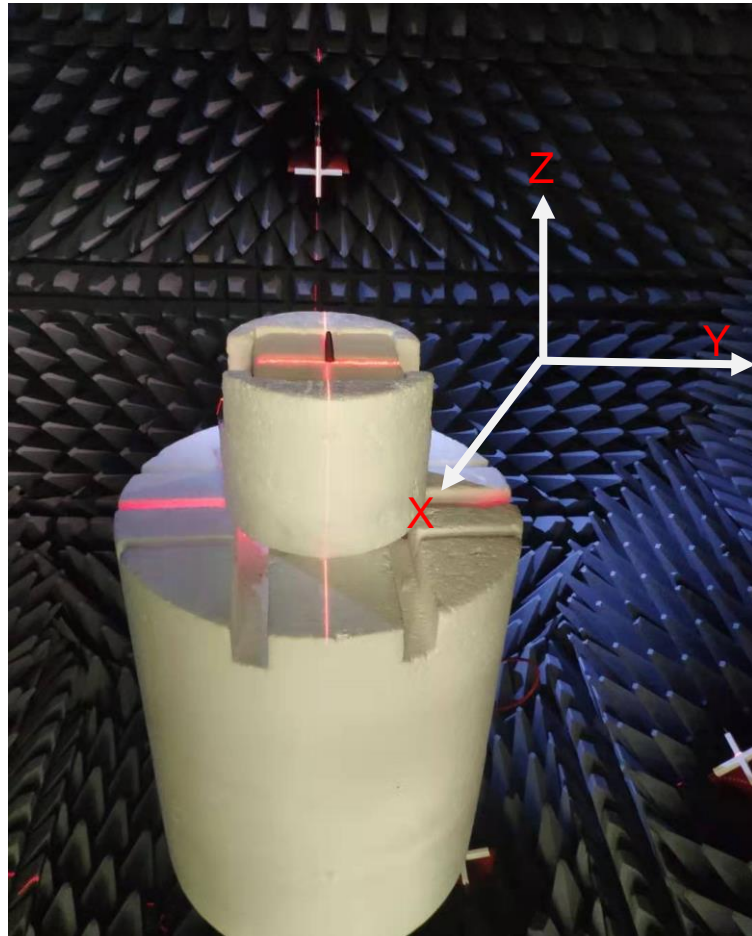
### 4.4. Gain



Frequency (MHz)	824	960	1710	1990	2170
Gain (dBi)	-2.99	0.81	-1.79	-0.28	-3.39

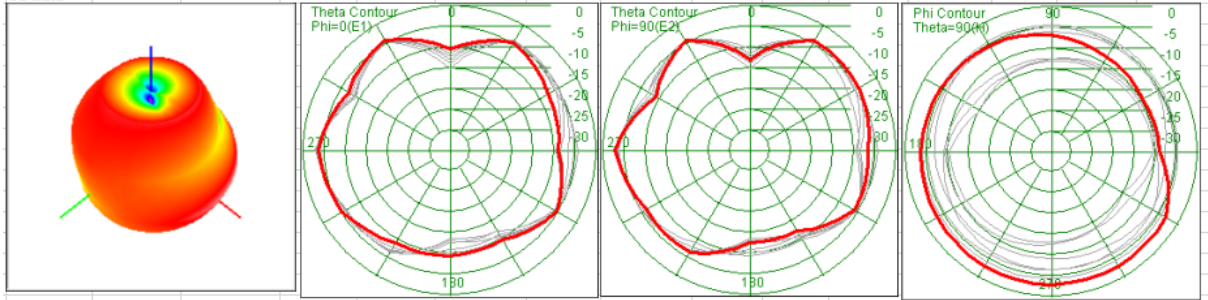
## 4.5. Radiation Pattern

- Test condition: free space state.

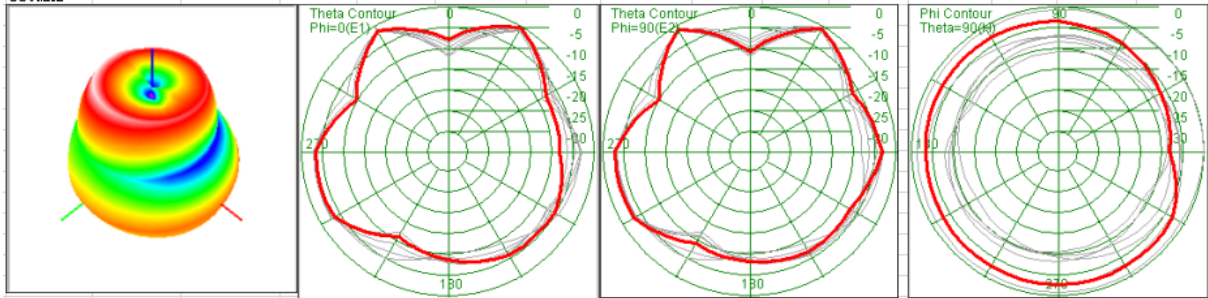


H plane: the tangent of XY  
E1 plane: the tangent of XZ  
E2 plane: the tangent of YZ

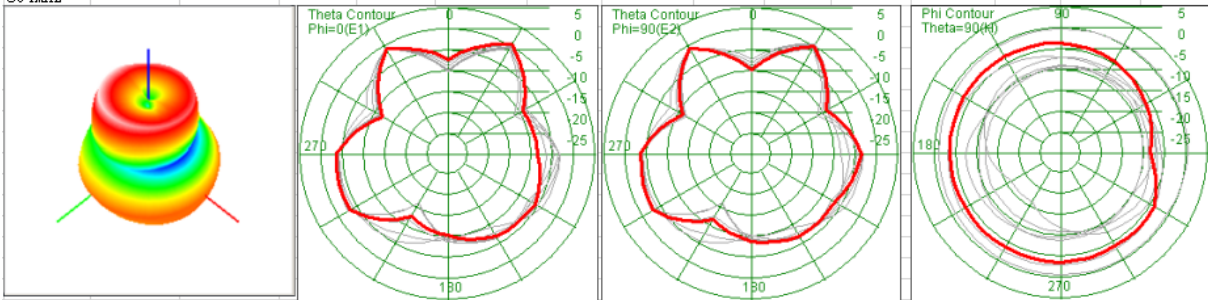
824MHz



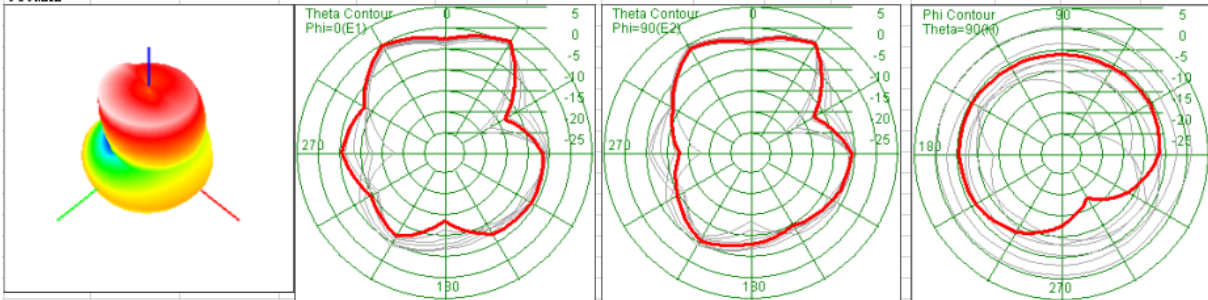
880MHz

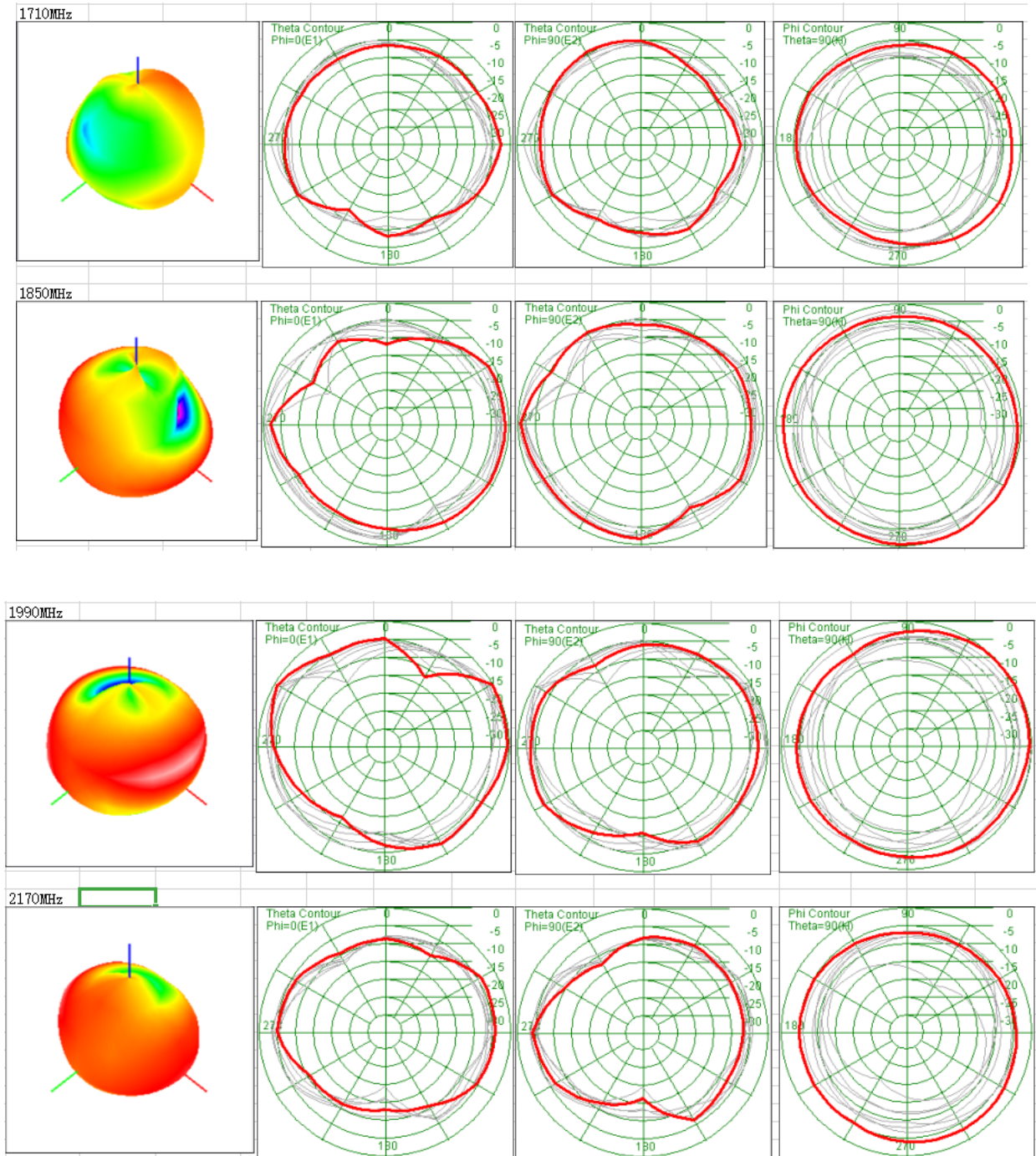


894MHz

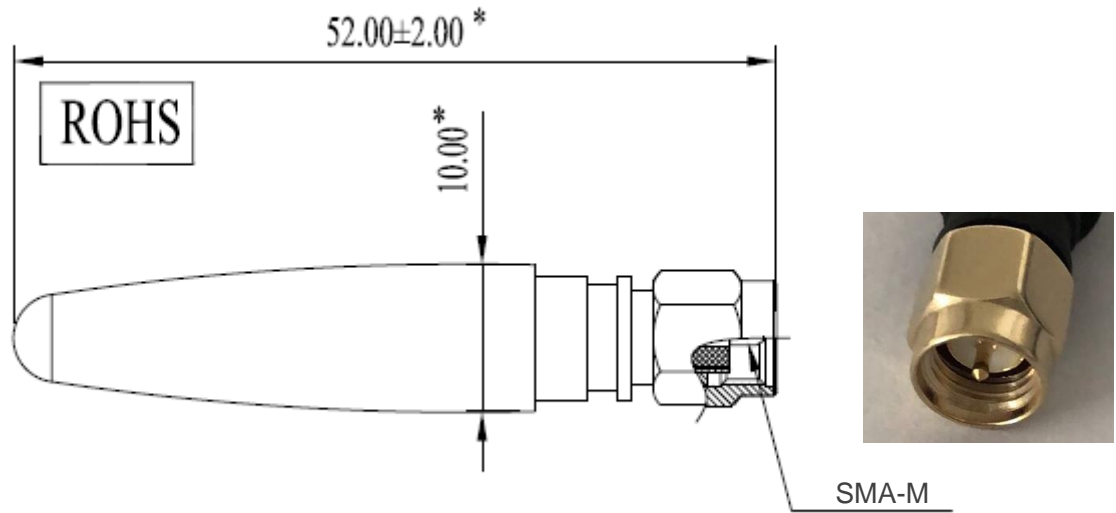


960MHz





## 5 Product Size





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