

# Antenna

# **YE0021CA** Datasheet

## **Antenna Services**

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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
-	2021-08-13	Kenny YIN/ Riona HAN	Creation of the document
1.0	2021-08-13	Kenny YIN/ Riona HAN	First official release

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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

- 4G sucker antenna
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	690–960 MHz, 1710–2690 MHz
Input Impedence	50 $\Omega$
VSWR	$\leq 6.43$
Gain	$\leq 2.94$ dBi
Polarization Type	Vertical

#### 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.)	4.01	-	-	6.43	3.96	3.84	-	-
Average Efficiency (%)	60	-	-	52	41	43	-	-
Max. Peak Gain (dBi)	1.25	-	-	2.94	2.6	-2.0	-	-

#### Mechanical Specifications

Antenna Size	112 mm x 29.8 mm RG174 Cable Length = 2000 mm
Casing	ABS
Connector Type	SMA Male (Center Pin)
Working Temperature	-20 °C to +60 °C
Radome Color	Black
Mounting Type	Magnet
IP Rating	IP65

## 4 Overall Performance

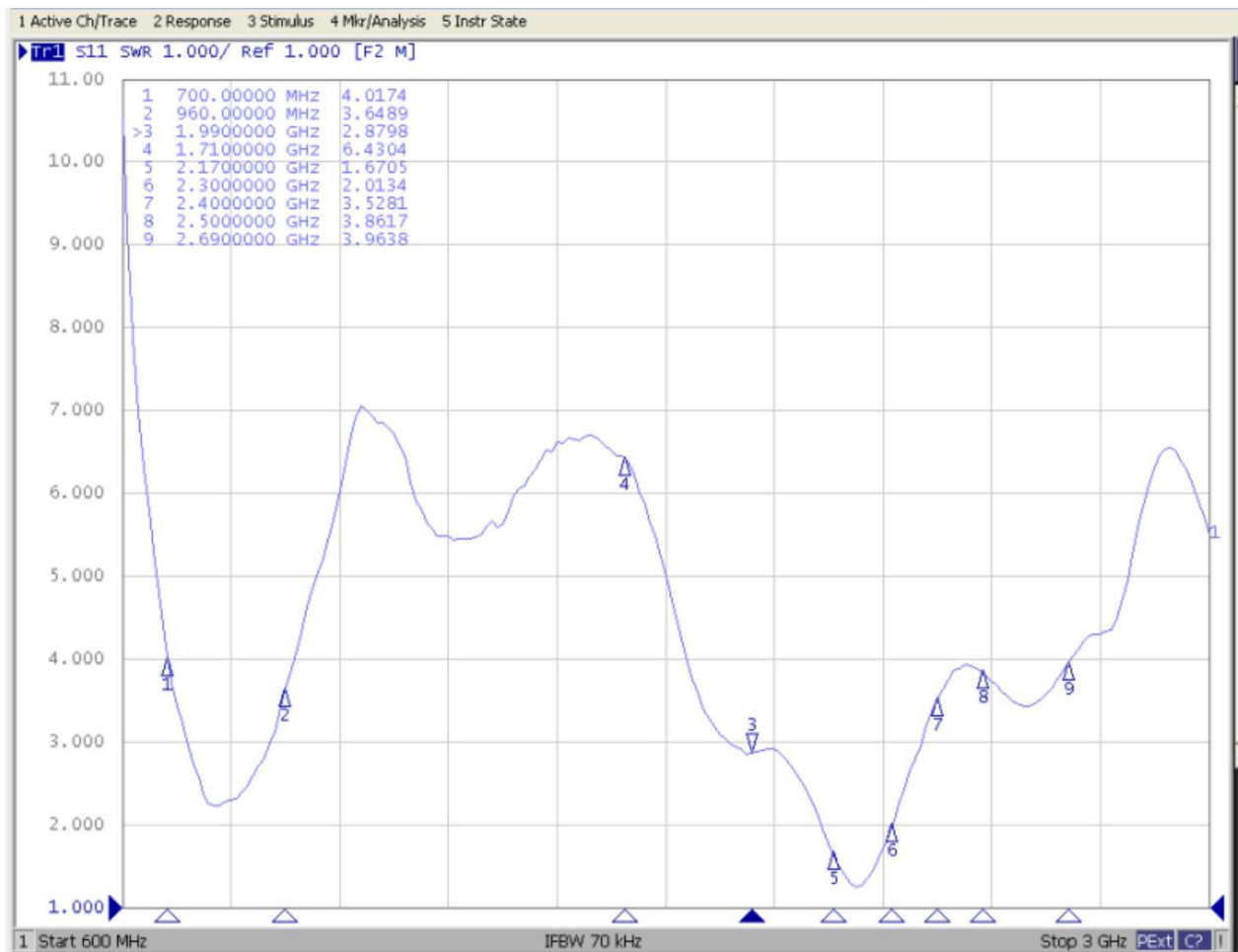
### 4.1. Test Environment

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



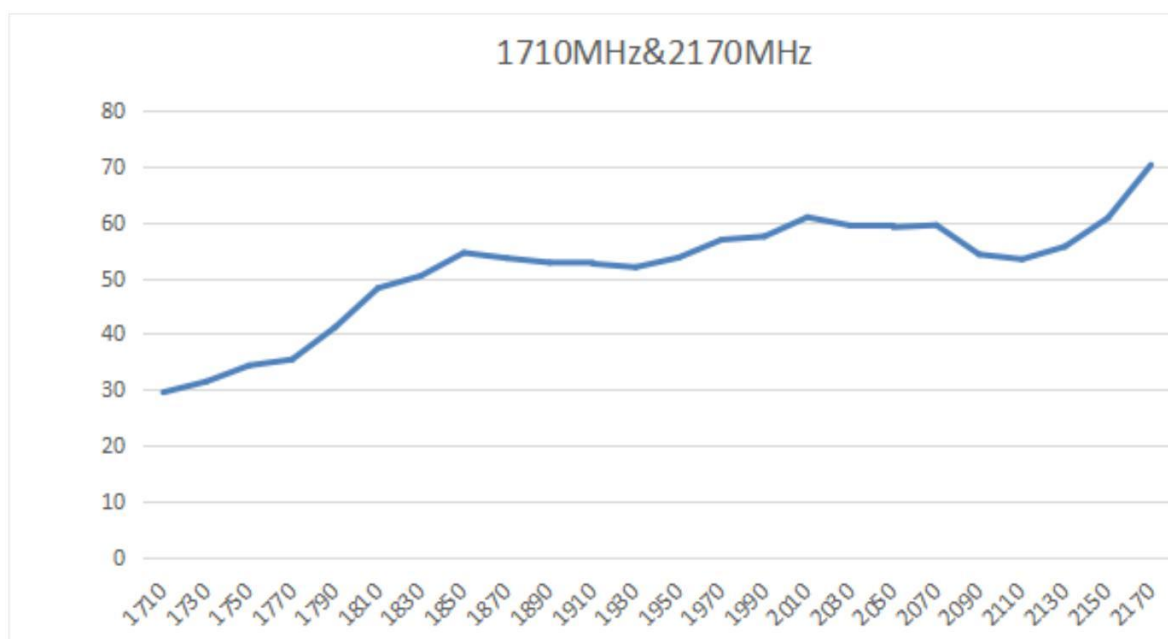
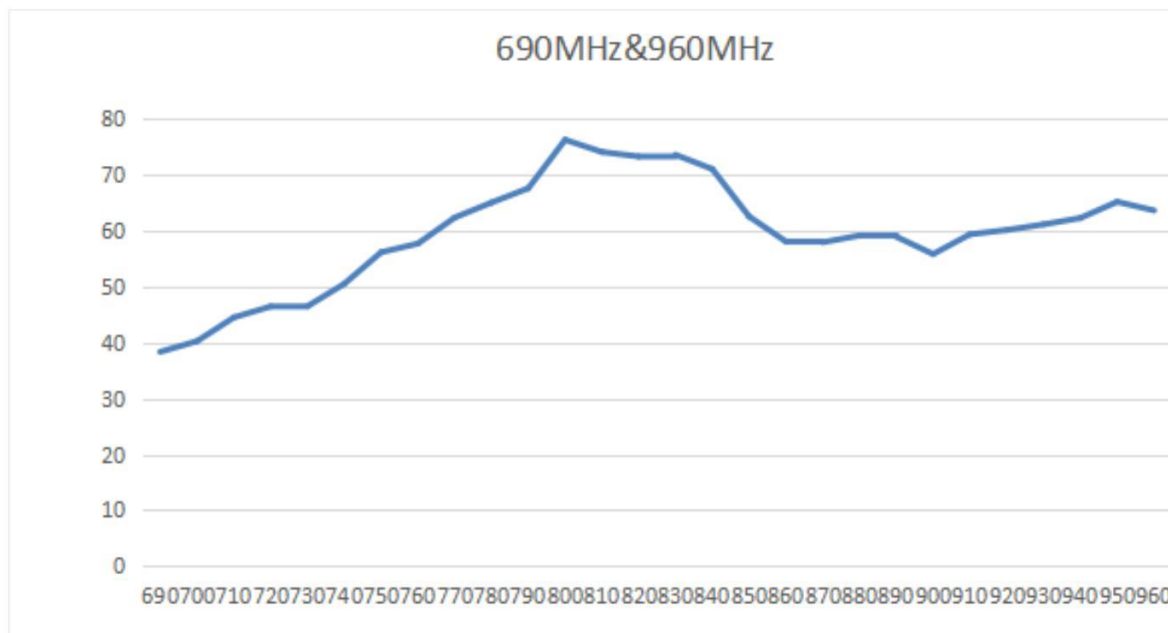


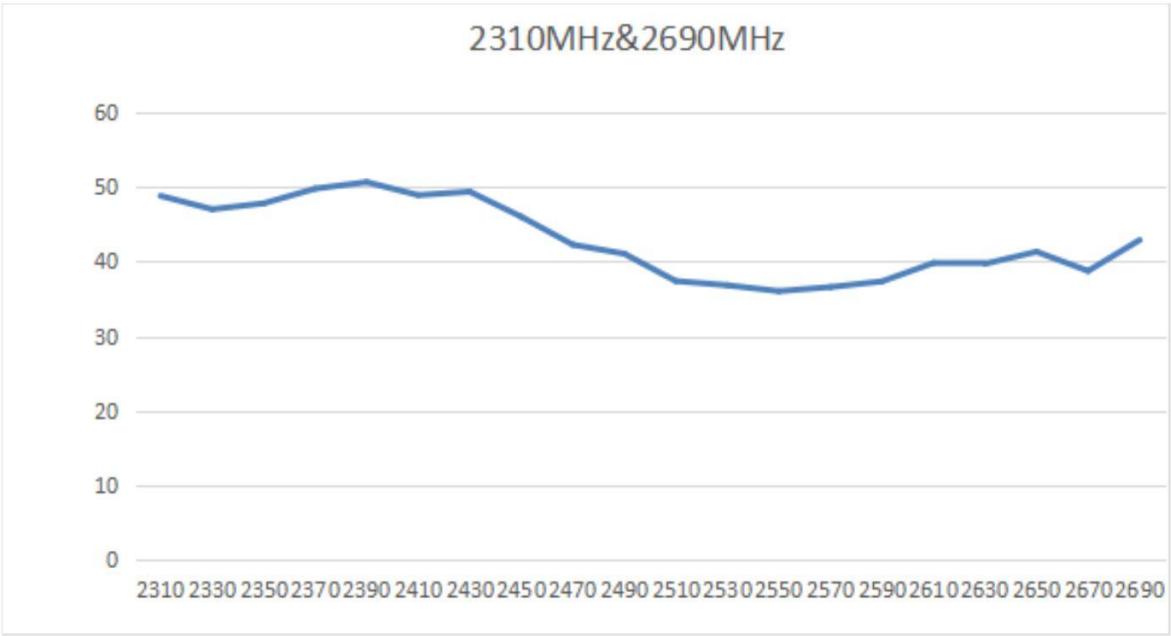
## 4.2. VSWR



Frequency (MHz)	700	960	1710	1990	2170	2300	2400	2690
VSWR	4.01	3.65	6.43	2.88	1.67	2.01	3.53	3.96

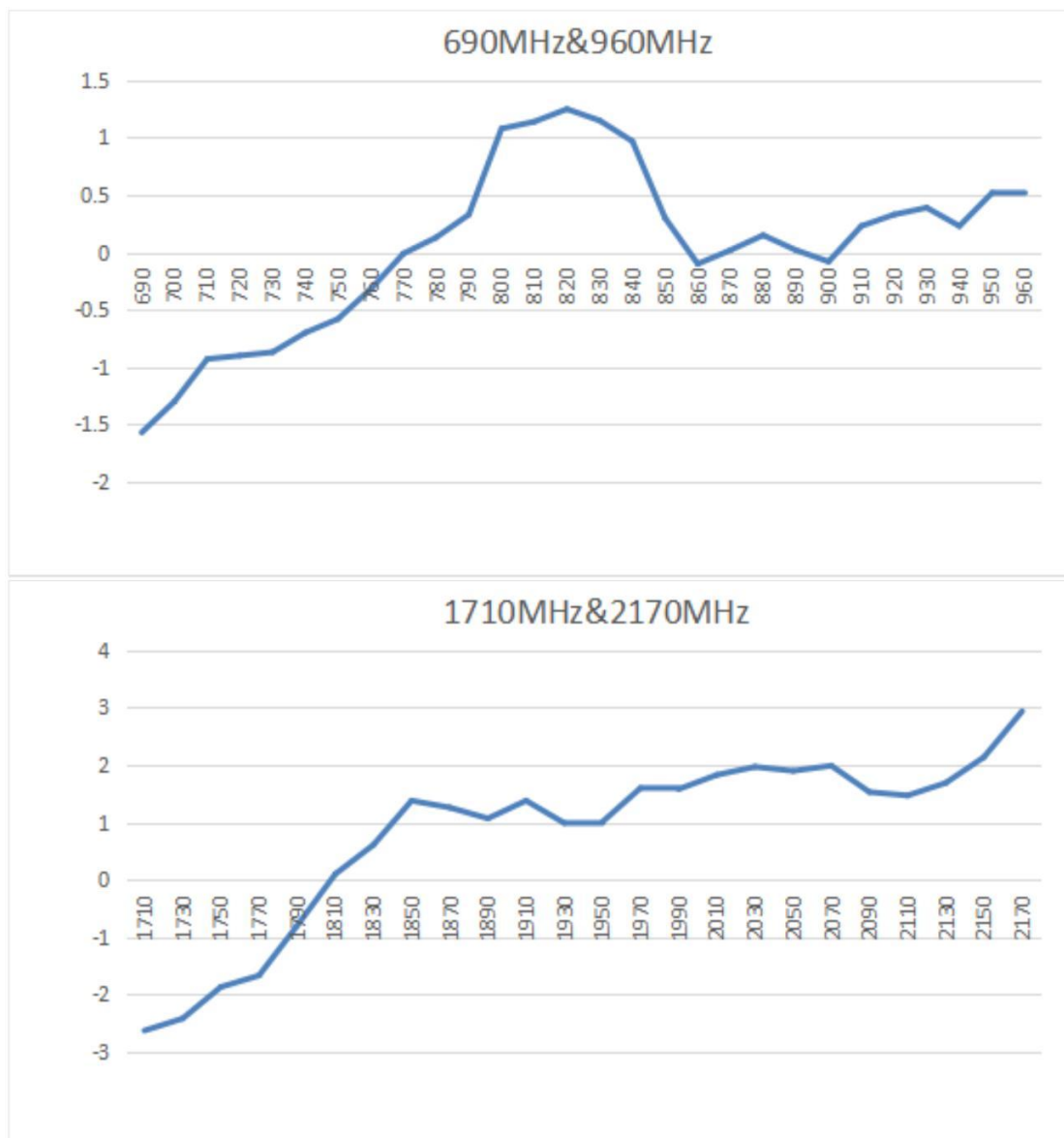
### 4.3. Efficiency

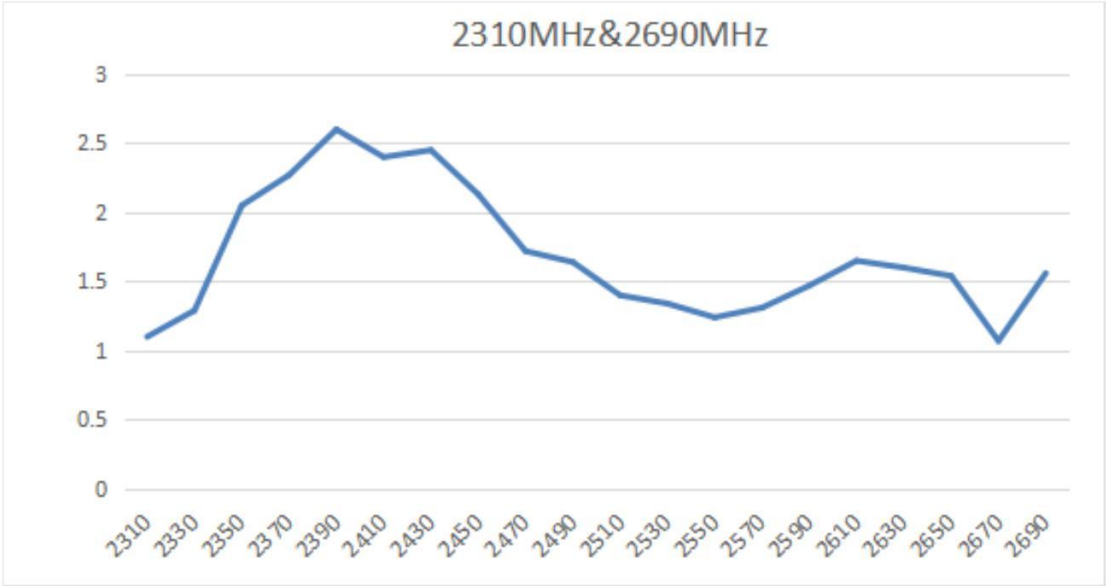




Frequency (MHz)	690	790	820	960	1710	2170	2310	2410	2690
Efficiency (%)	68.31	67.54	73.22	63.58	29.57	70.21	48.83	48.93	42.91

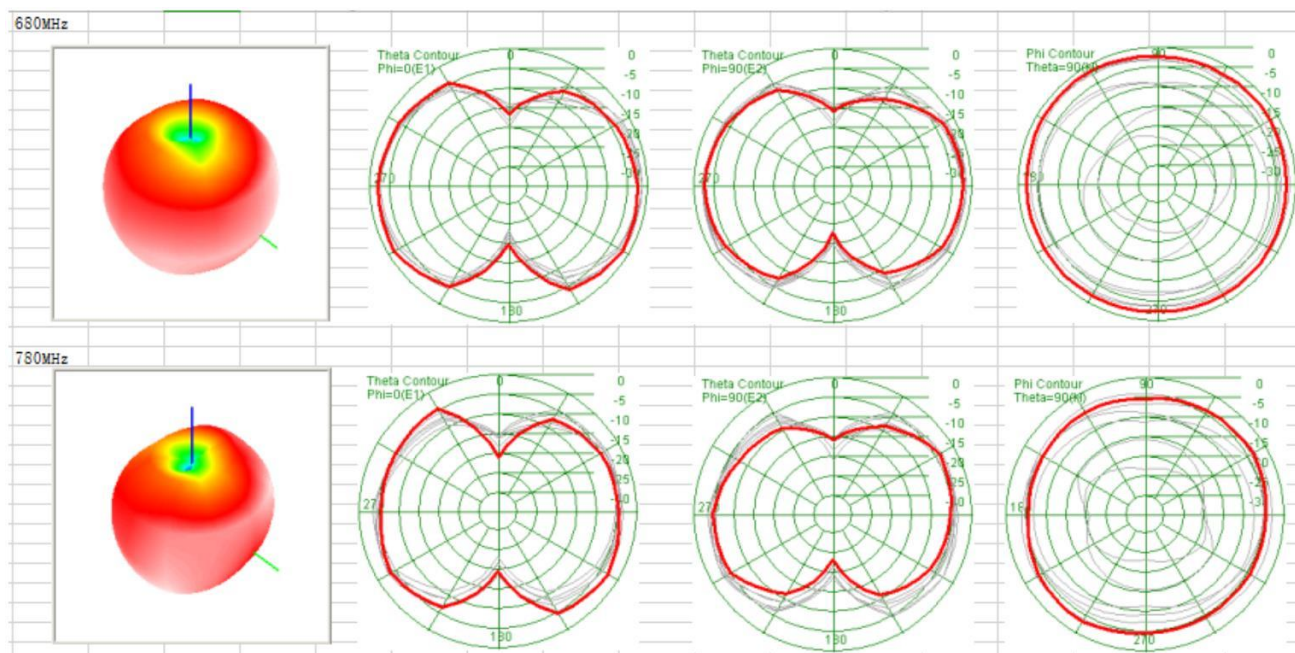
## 4.4. Gain





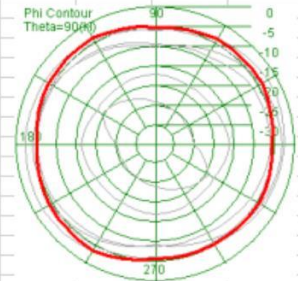
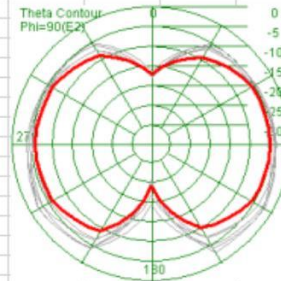
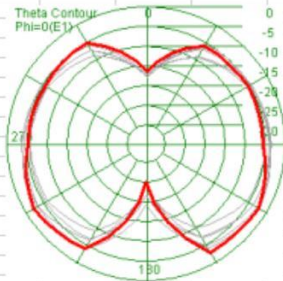
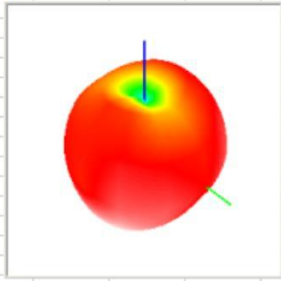
Frequency (MHz)	690	790	820	960	1710	2170	2310	2410	2690
Gain (dBi)	-1.57	0.33	1.25	0.52	-2.63	2.94	1.1	2.4	1.56

## 4.5. Radiation Pattern

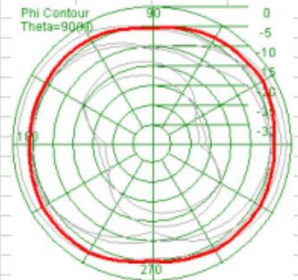
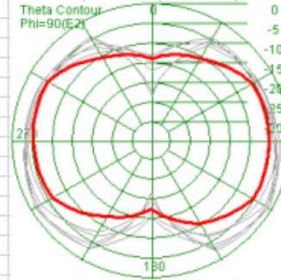
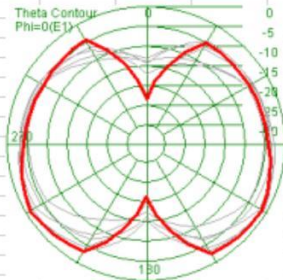
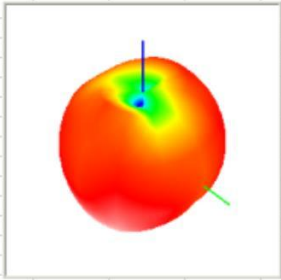




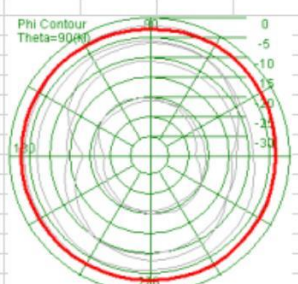
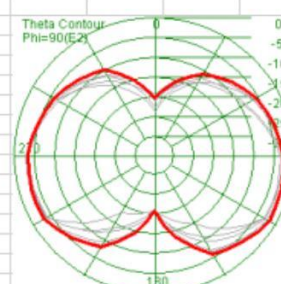
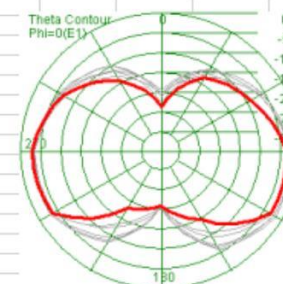
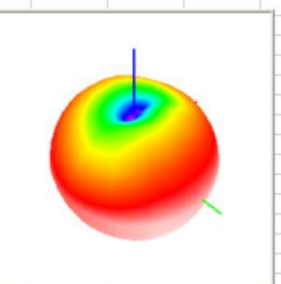
880MHz



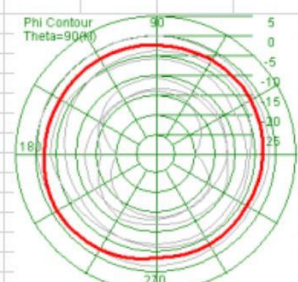
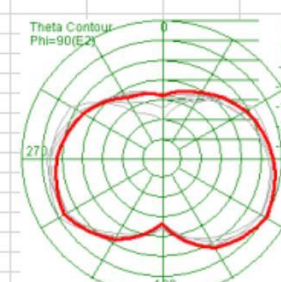
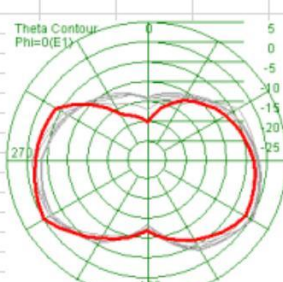
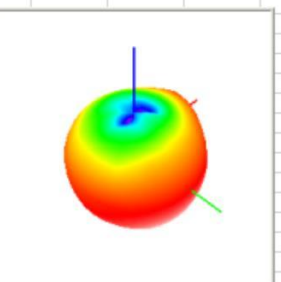
960MHz



1710MHz

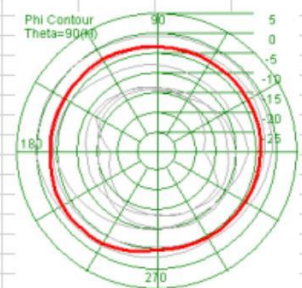
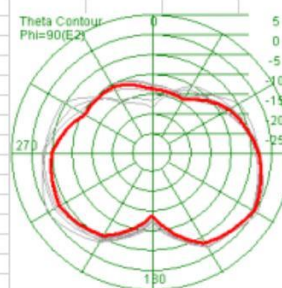
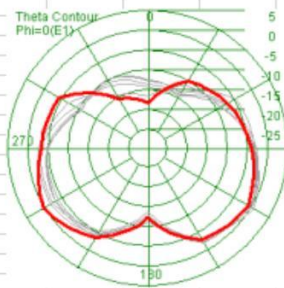
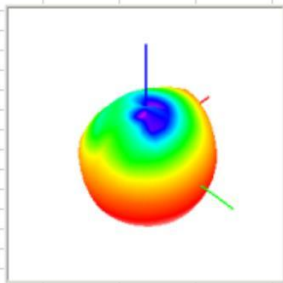


1890MHz

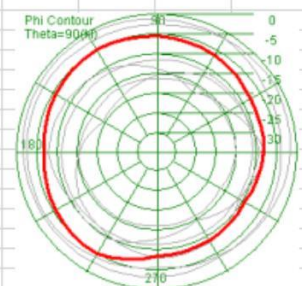
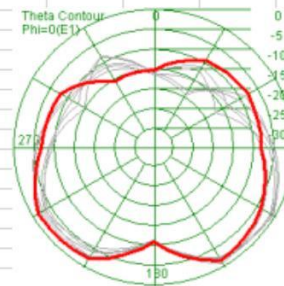
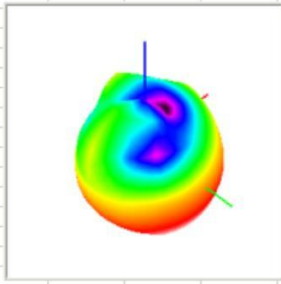


1920MHz

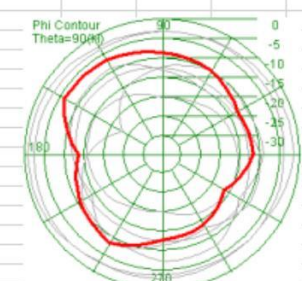
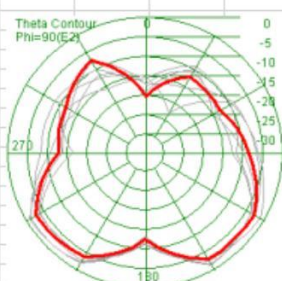
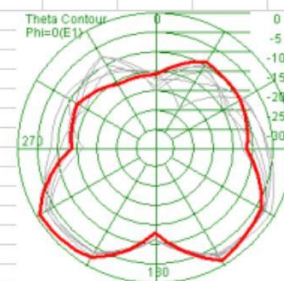
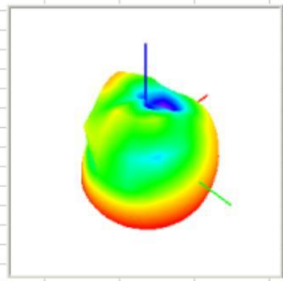
1990MHz



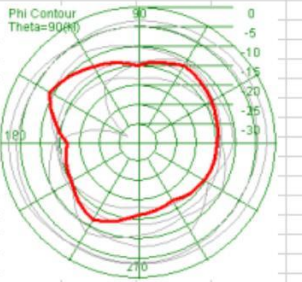
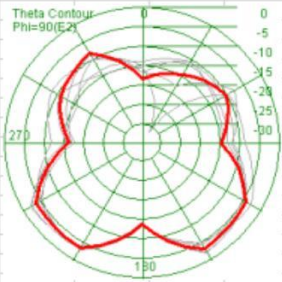
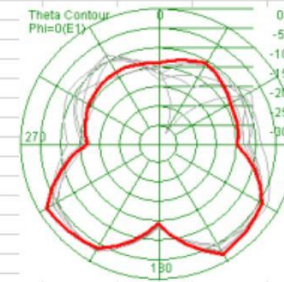
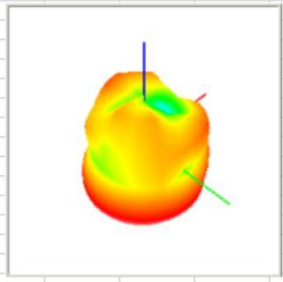
2170MHz



2300MHz

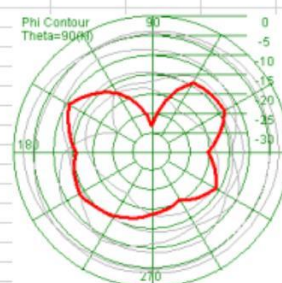
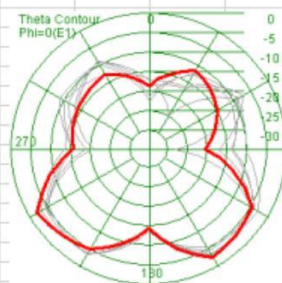
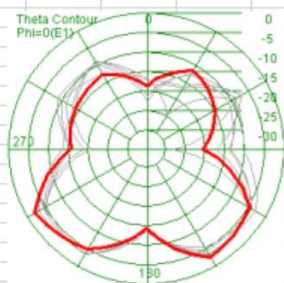
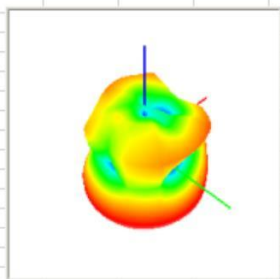


2400MHz

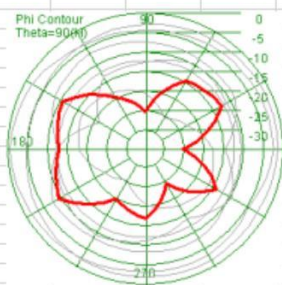
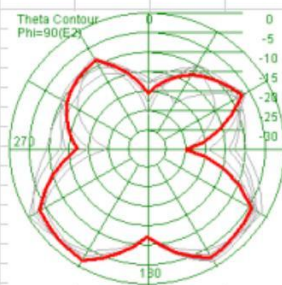
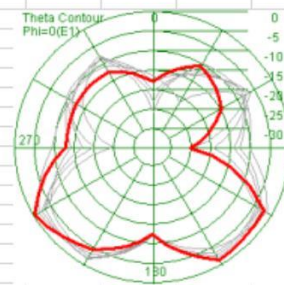
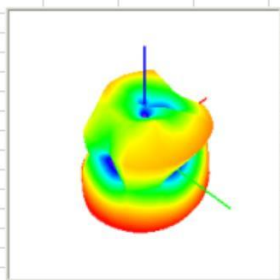




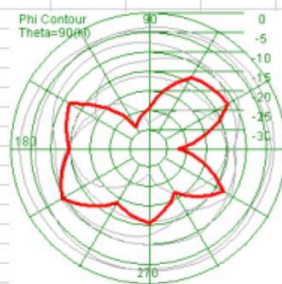
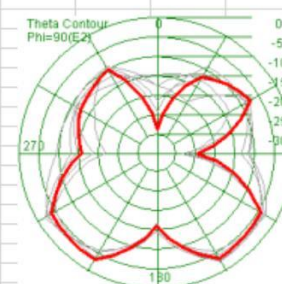
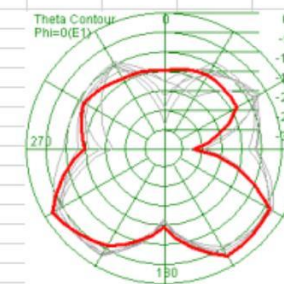
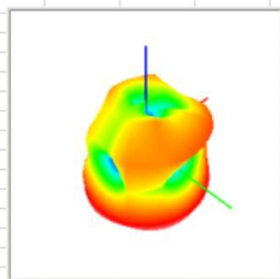
2500MHz



2600MHz



2700MHz



## 5 Product Size

