



# Antenna

# **YRM00A2BA Datasheet**

**Antenna Services**

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# About the Document

## Revision History

Version	Date	Author	Note
-	2022-07-27	Qinming Peng/ Jason Long	Creation of the document
1.0	2022-07-27	Qinming Peng/ Jason Long	First official release

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## 1 Product Description

This Quectel embedded 4G FPC antenna covers main 4G LTE bands and is compatible with 3G/2G/LPWA bands. Featuring high efficiency and gain, it is an ideal antenna for a smooth and stable connection with high-efficiency data transmission even under the influence of the device's internal structure. Ground plane independent, it's designed to be mounted directly to the underside of either a plastic or non-metallic enclosure. Ease of integration with a cable and connector which can be customized to meet your product design and RF module.

## 2 Product Features

- Cellular 4G DIV
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	700MHz-900MHz; 1710MHz-2200 MHz
Input Impedance	50 Ω
VSWR	≤ 8.0
Gain	≤ 2 dBi
Polarization Type	Linear

#### Detailed Passive Electrical Specifications

Frequency Range (MHz)	700-900	1710–2200
VSWR (Max.)	7.71	2.58
Average Efficiency (%)	43	40.95
Max. Peak Gain (dBi)	0.89	1.48

#### Mechanical Specifications

Antenna Size(mm)	53.48×34.27
Material	FPC
Working Temperature	-40 °C to +85 °C
Weight	Typical 0.28g
Color	Black
Mounting Type	Adhesive

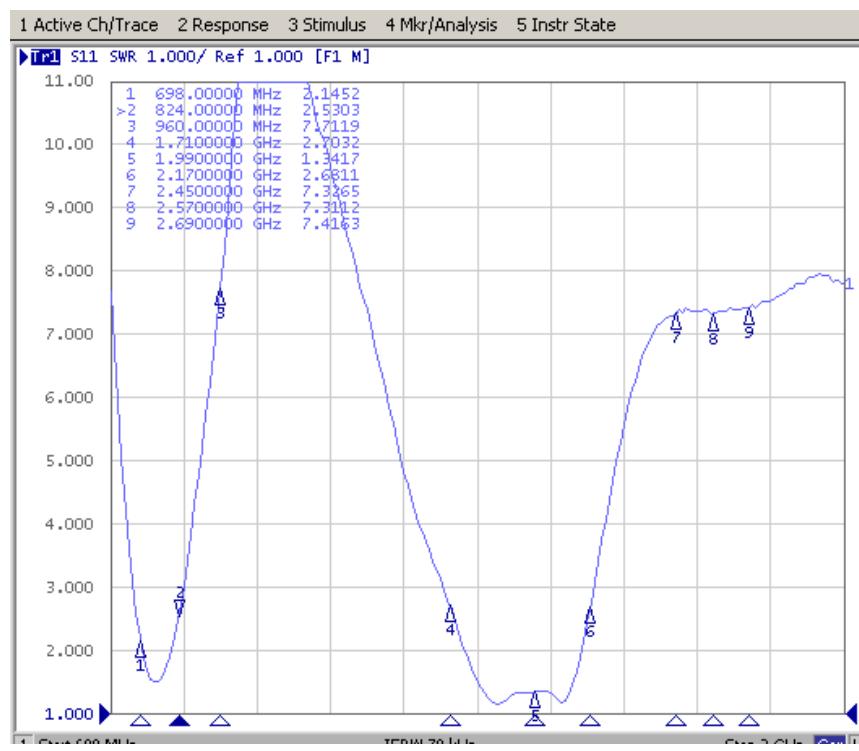
## 4 Overall Performance

### 4.1. Test Environment

- KEYSIGHT ENA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 600 MHz – 8.5 GHz

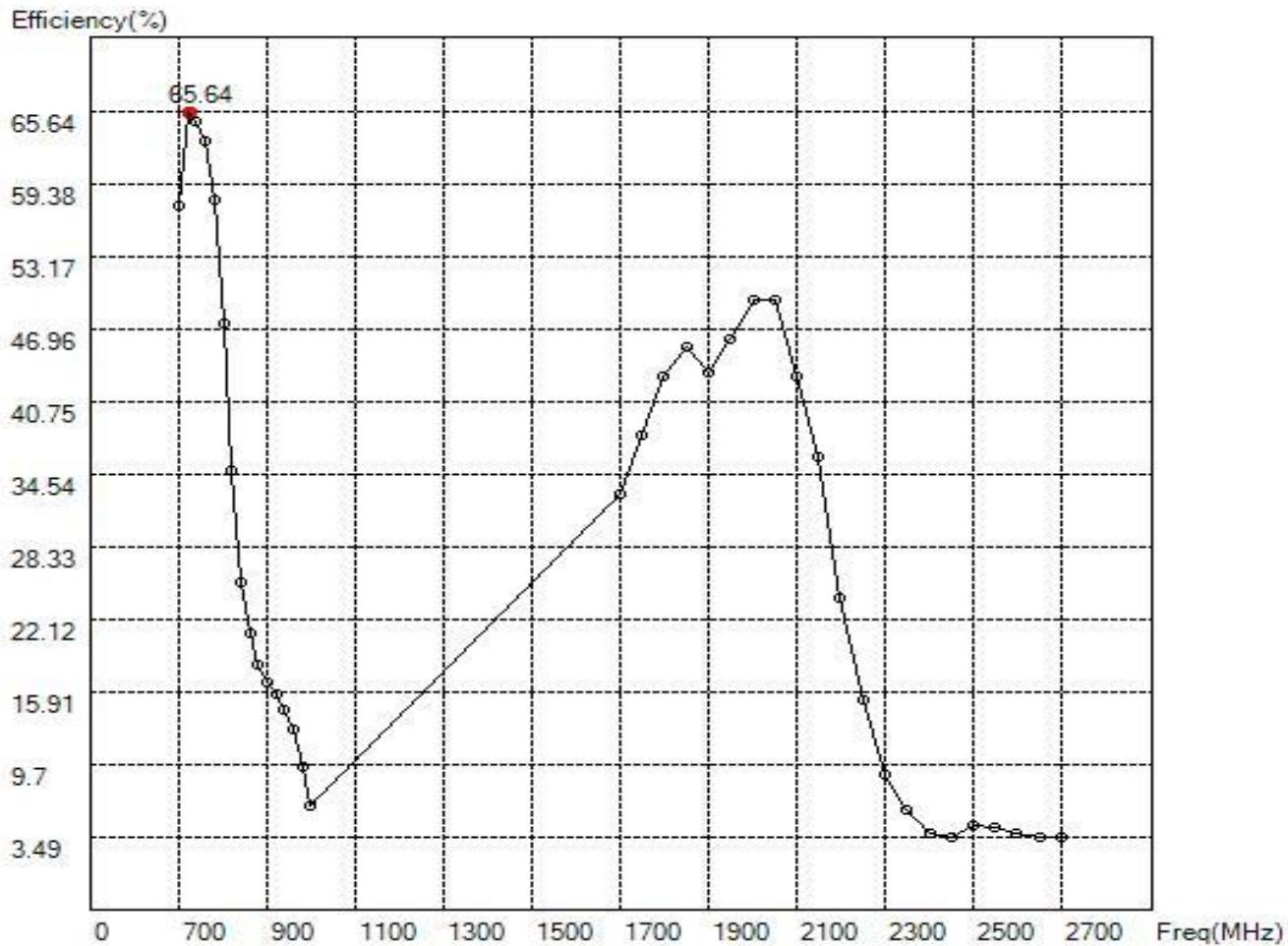


## 4.2. VSWR



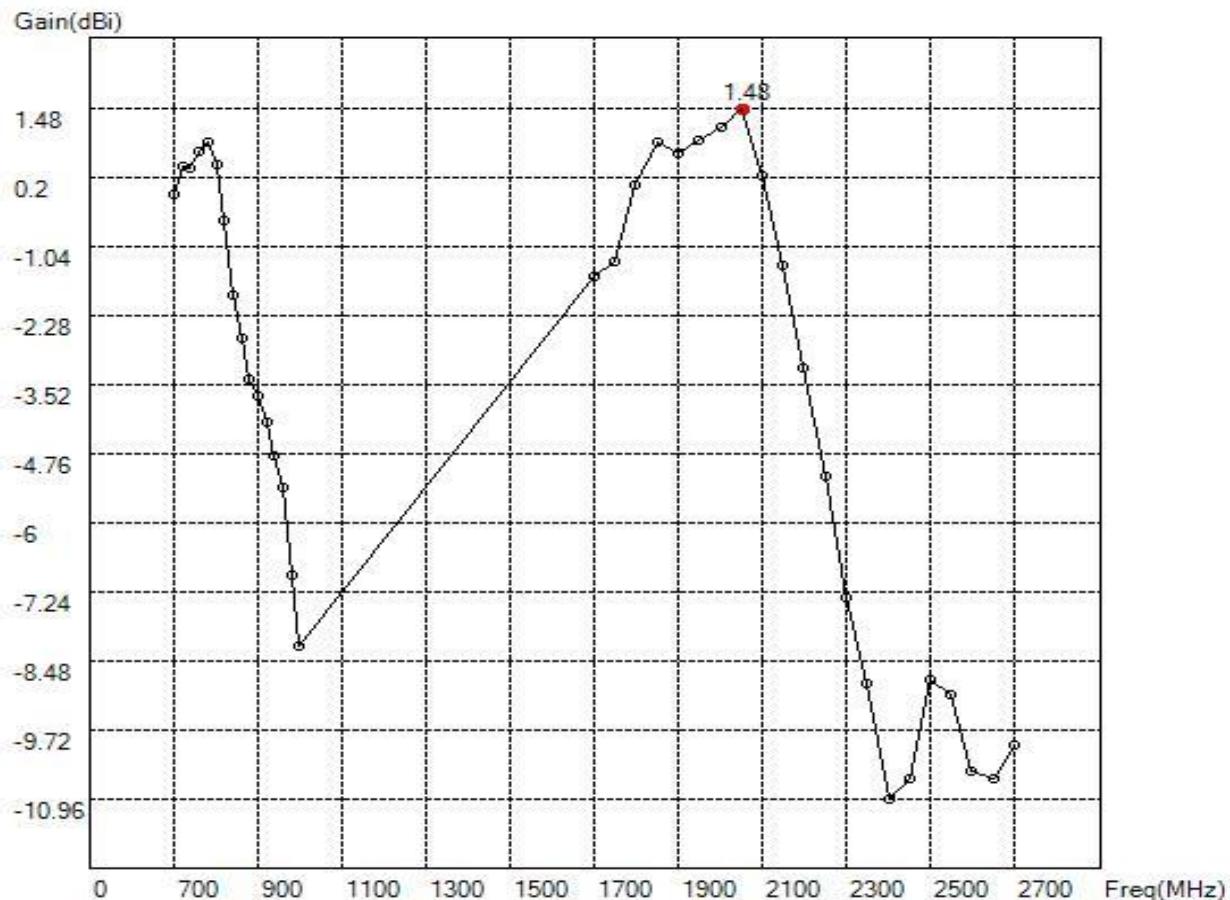
Frequency (MHz)	698	824	960	1710	1990	2170	2450	2570	2690
VSWR	2.14	2.53	7.71	2.7	1.34	2.58	7.32	7.31	7.41

### 4.3. Efficiency



Frequency (MHz)	700	840	960	1700	1950	2150	2200
Efficiency (%)	57.59	25.33	12.71	32.91	46.10	36.03	23.94

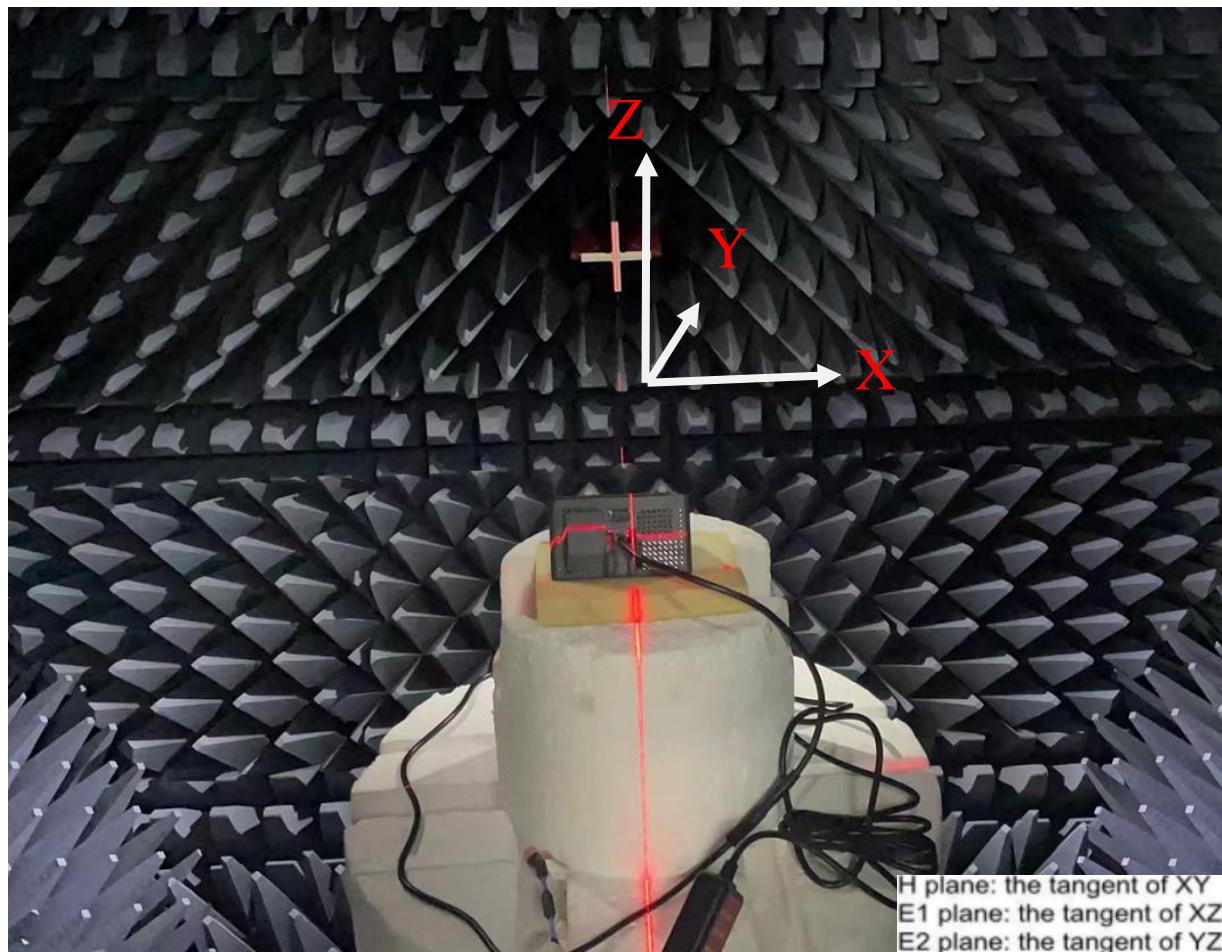
#### 4.4. Gain

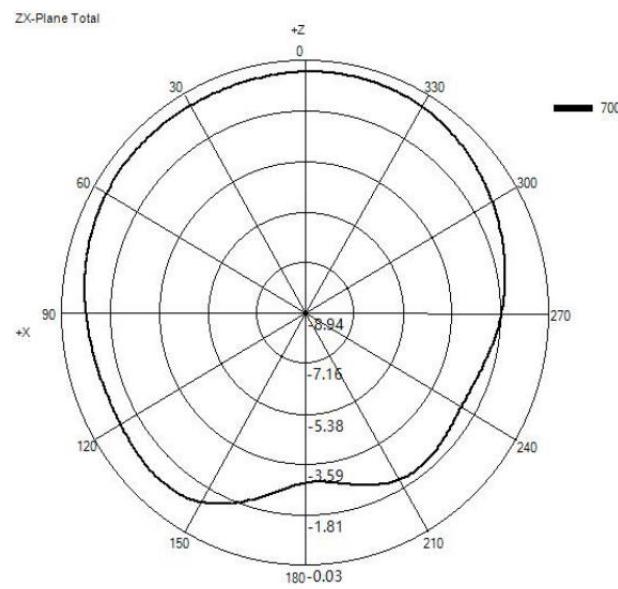
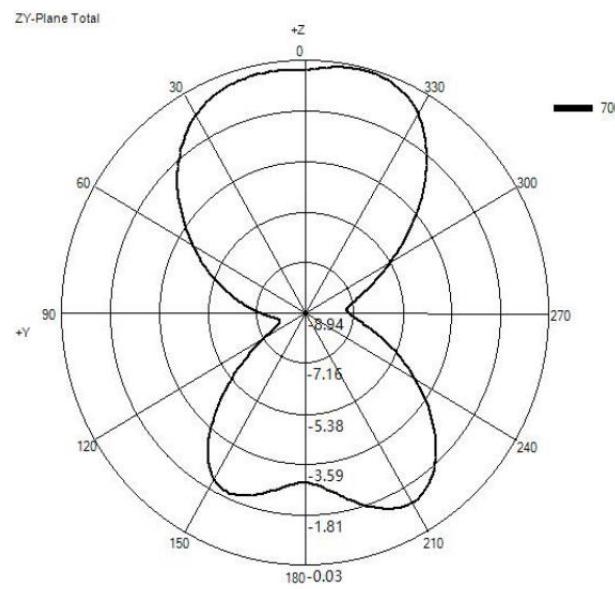
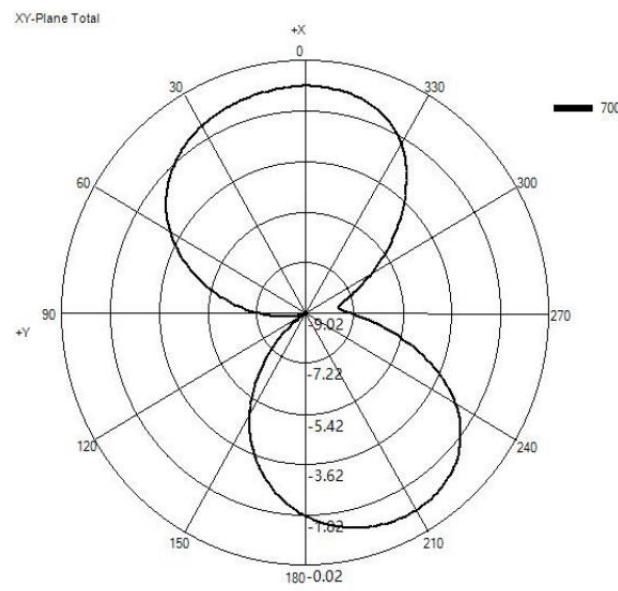
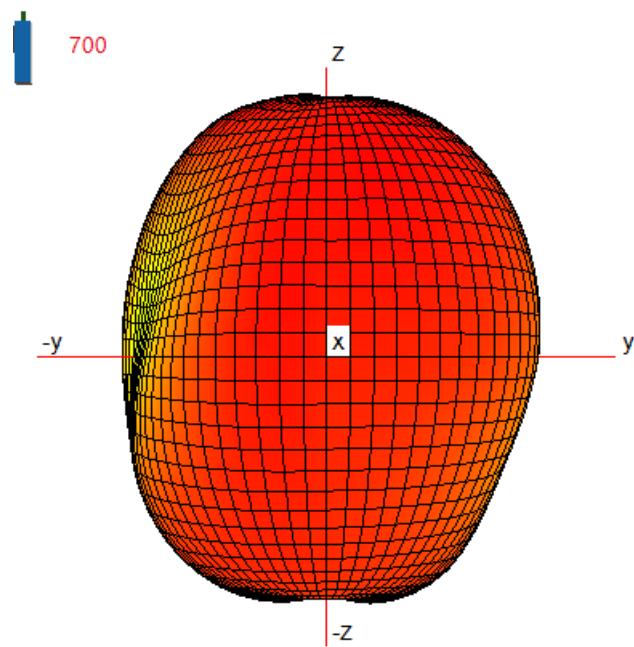


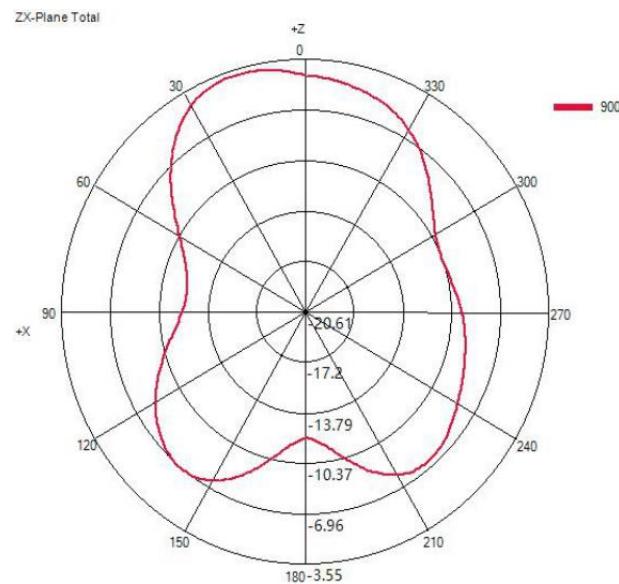
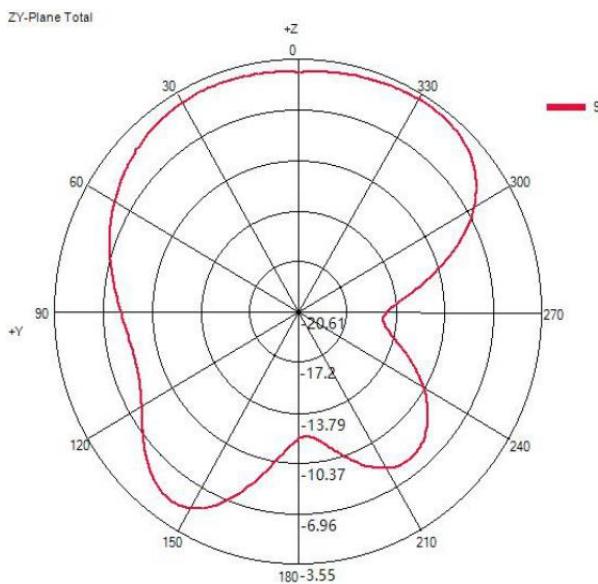
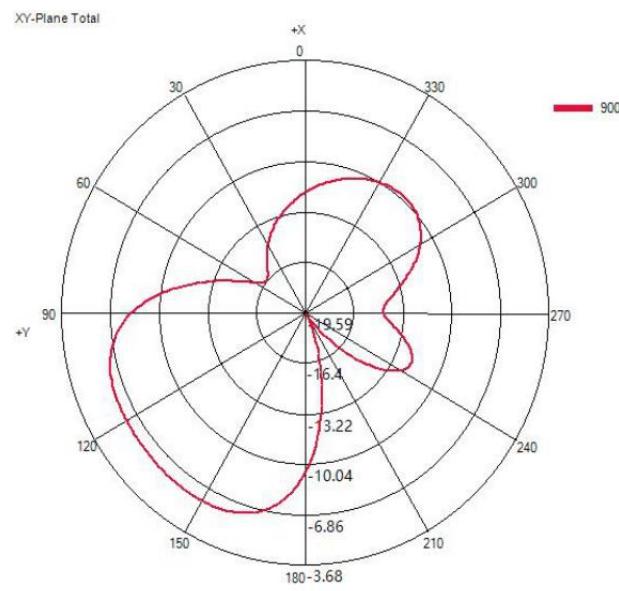
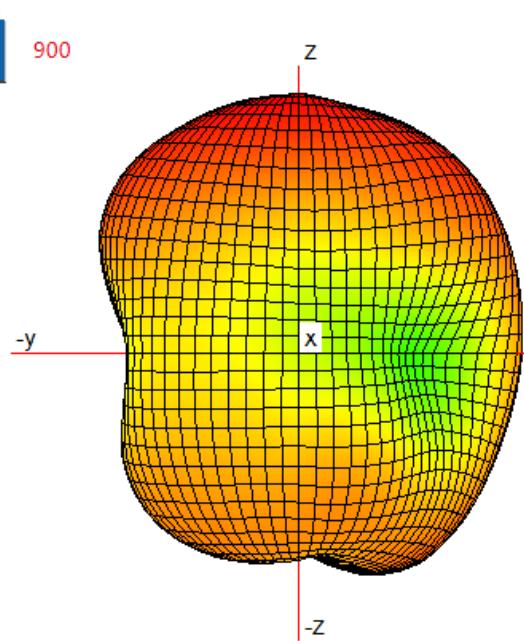
Frequency (MHz)	700	840	960	1700	1950	2150	2200
Gain (dBi)	-0.05	-1.89	-5.34	-1.56	0.93	-1.33	-3.18

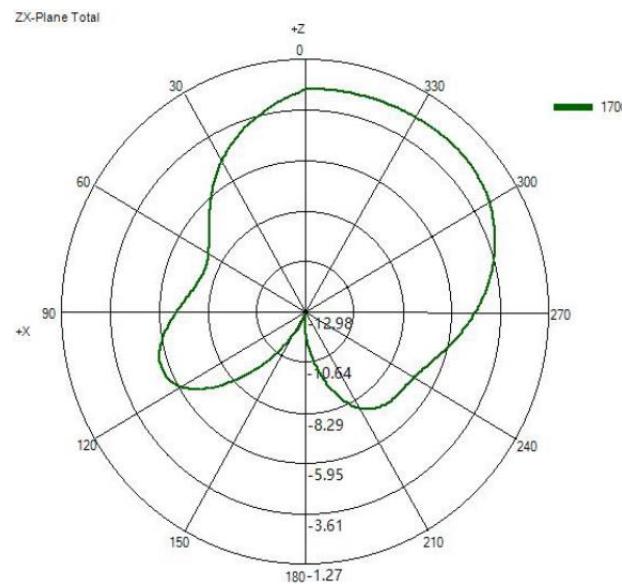
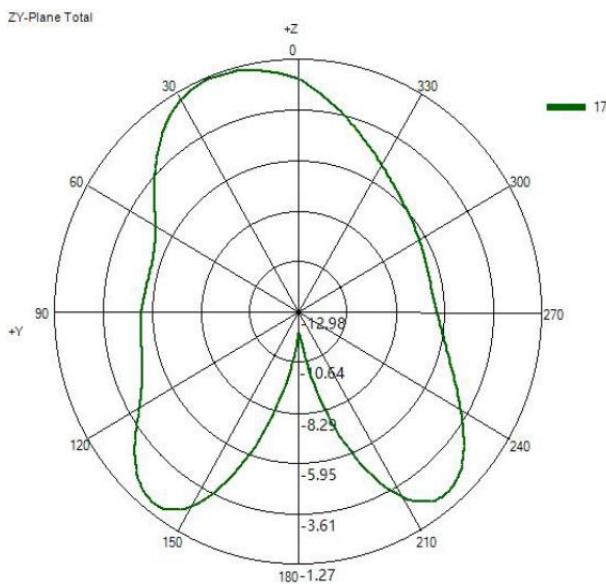
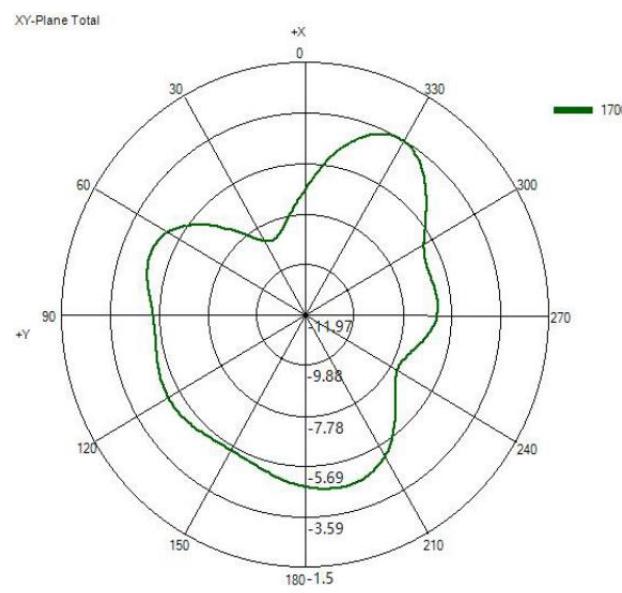
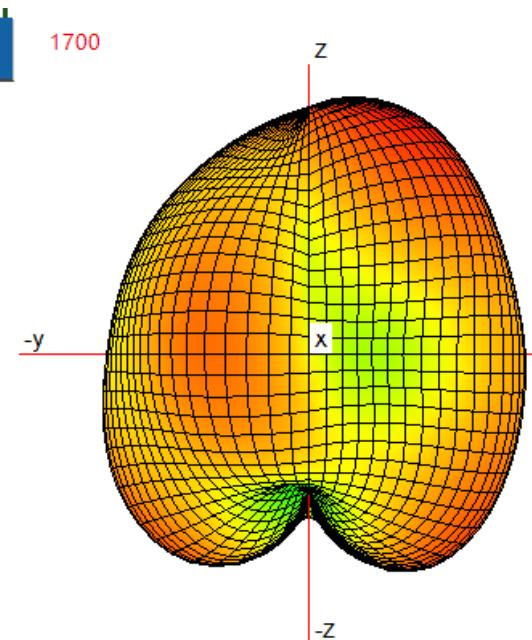
## 4.5. Radiation Pattern

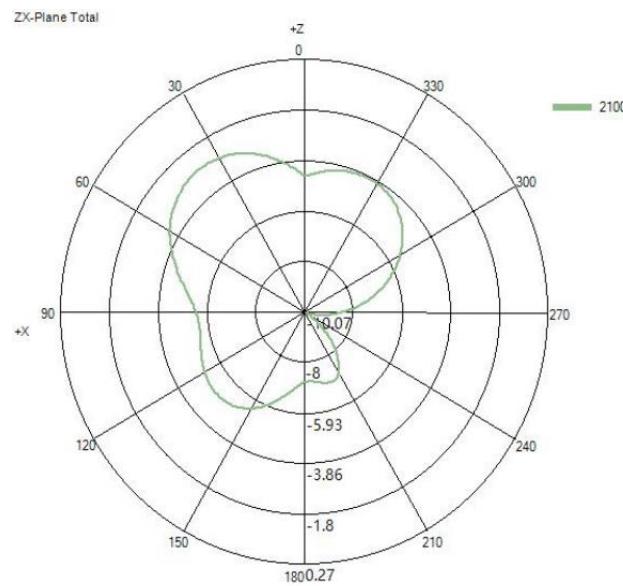
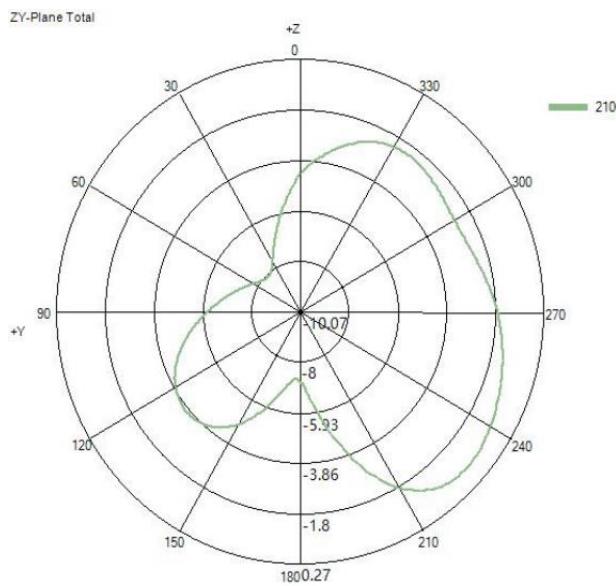
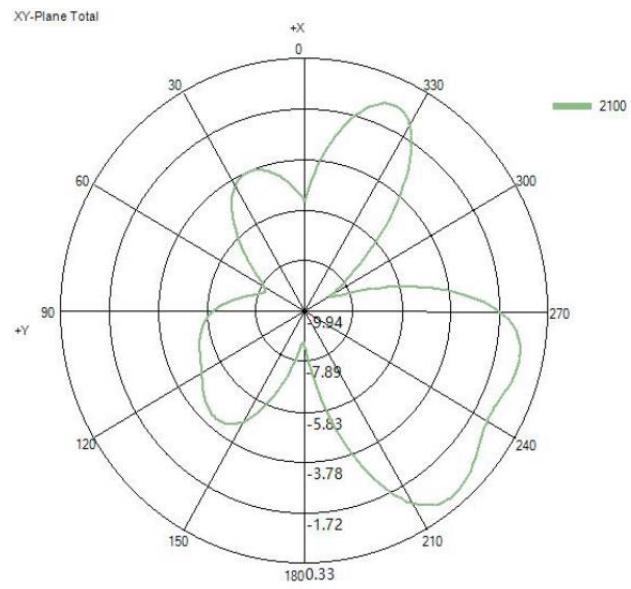
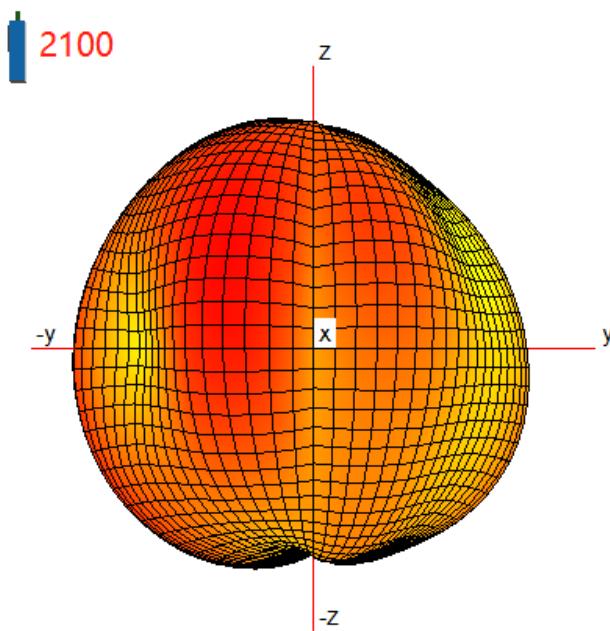
- Test condition: free space











## 5 Product Size

