

Antenna

YEIM001AA Datasheet

Antenna Services

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About the Document

Revision History

Version	Date	Author	Note
-	2021-06-21	Aria CHU	Creation of the document
1.0	2021-06-21	Aria CHU	First official release
1.1	2021-12-03	Aria CHU	Updated the product description in Chapter 1.

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1 Product Description

Quectel provides a range of antenna products that support the ISM radio band. These antennas are mounted outside the device to minimize the interference of the devices' internal environment. With the antenna performance and This ensures a better efficiency, gain and omni-directional radiation, offering a superior user experience. Quectel also offers flexible installation with custom cable length and connector options.

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 465–475 MHz
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	465–475 MHz
Input Impedence	50 Ω
VSWR	≤ 2.0
Gain	≤ 0 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	Φ 30 mm \times 131 mm RG174 Cable Length = 2000 mm
Casing	ABS
Connector Type	SMA Male (Center Pin)
Working Temperature	-20 $^{\circ}$ C to +90 $^{\circ}$ C
Radome Color	Black
Mounting Type	Magnet

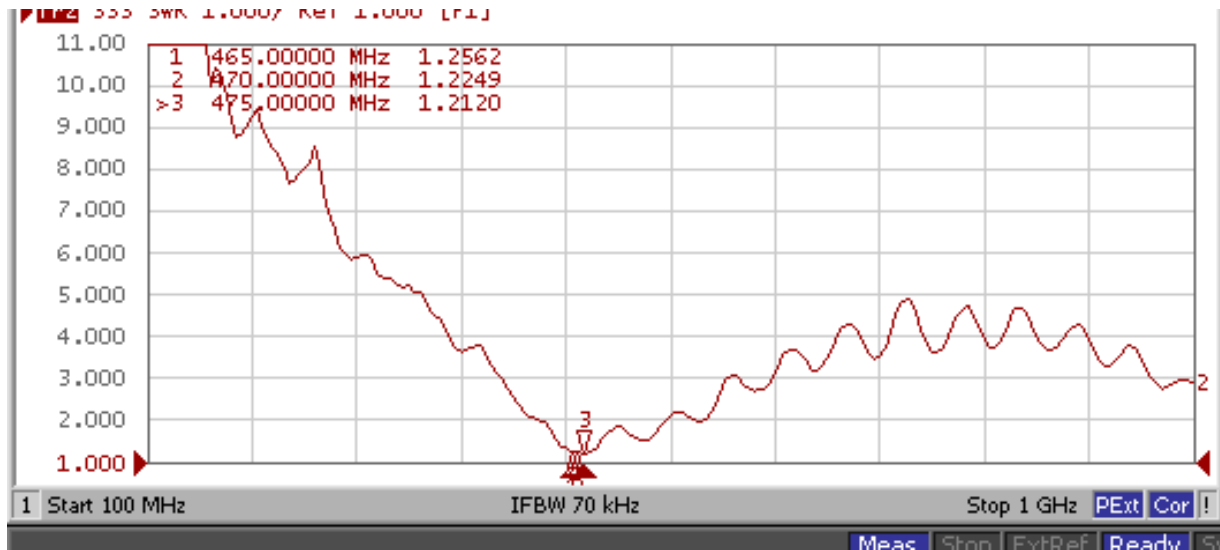
4 Overall Performance

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

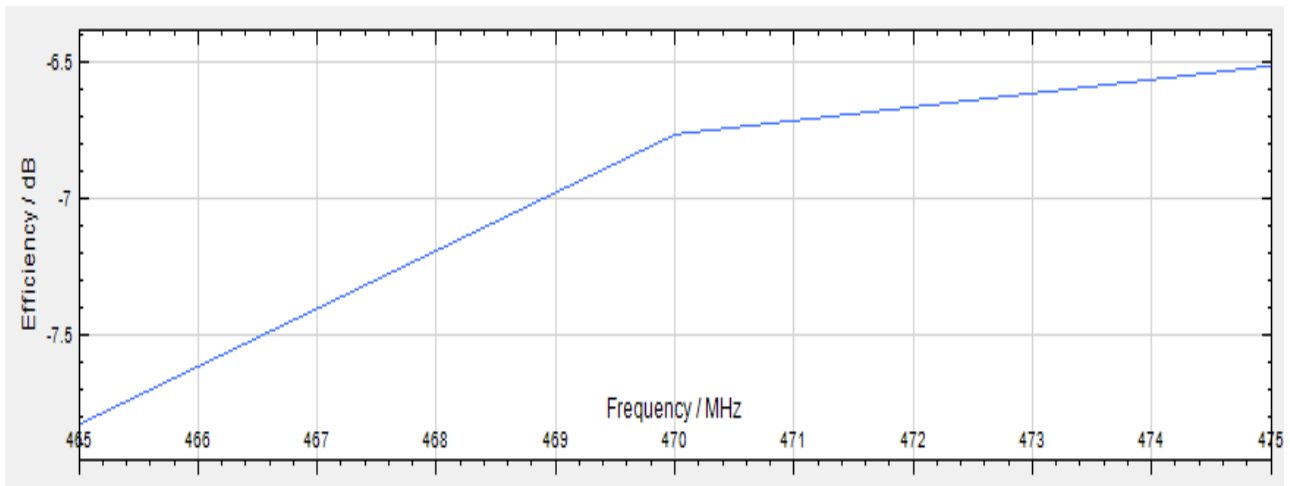


4.2. VSWR



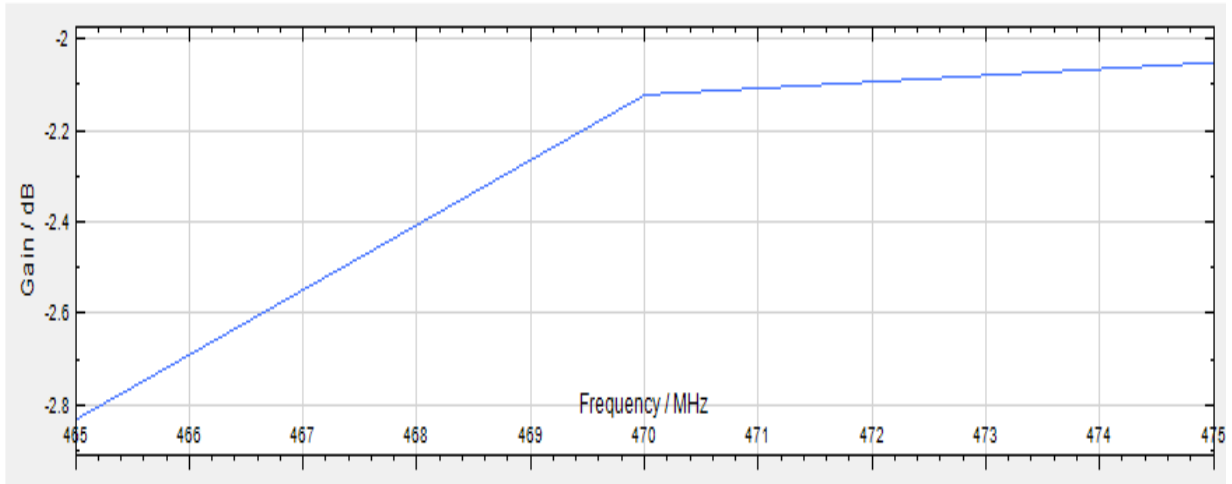
Frequency (MHz)	465	470	475
VSWR	1.25	1.22	1.21

4.3. Efficiency



Frequency (MHz)	465	470	475
Efficiency (%)	16.52	21.09	22.34

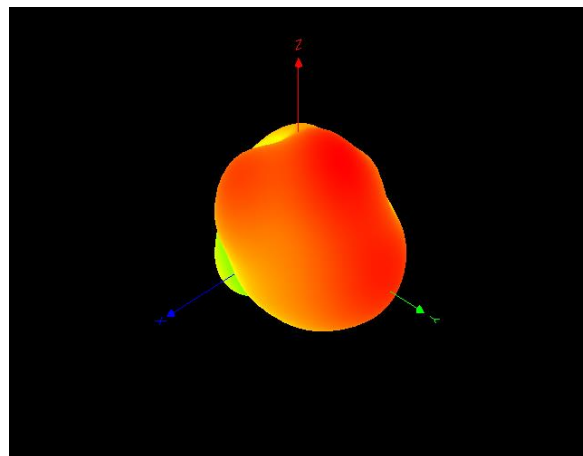
4.4. Gain

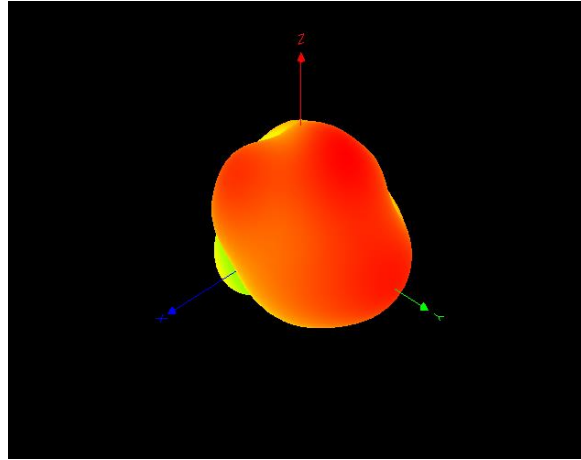
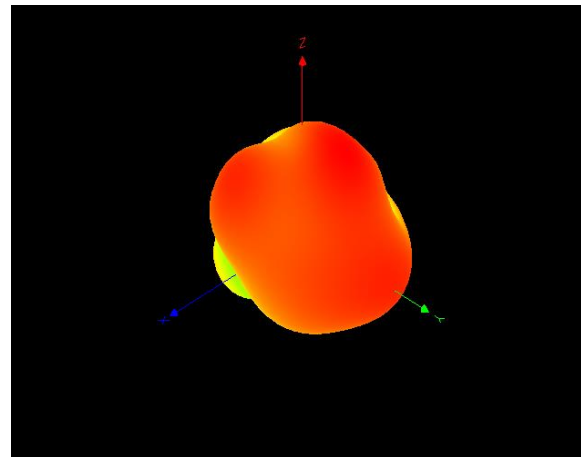


Frequency (MHz)	465	470	475
Gain (dBi)	-2.83	-2.12	-2.05

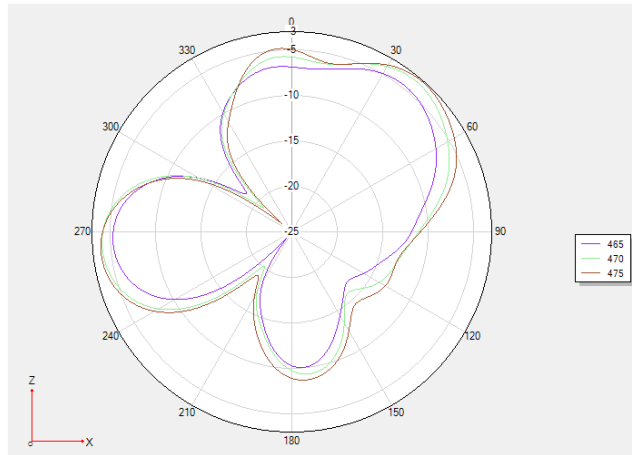
4.5. Radiation Pattern

4.5.1. 465 MHz

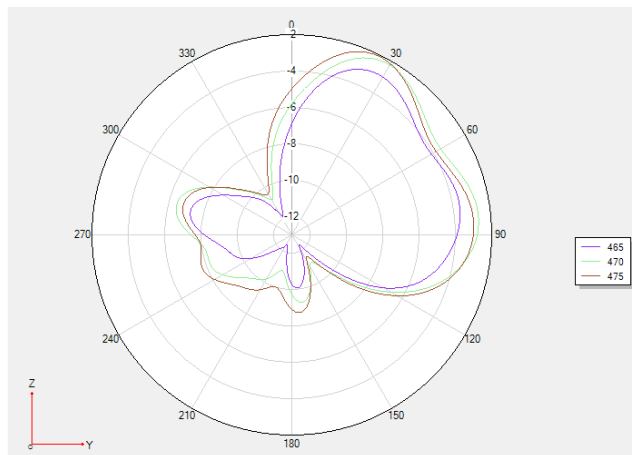


4.5.2. 470 MHz**4.5.3. 475 MHz**

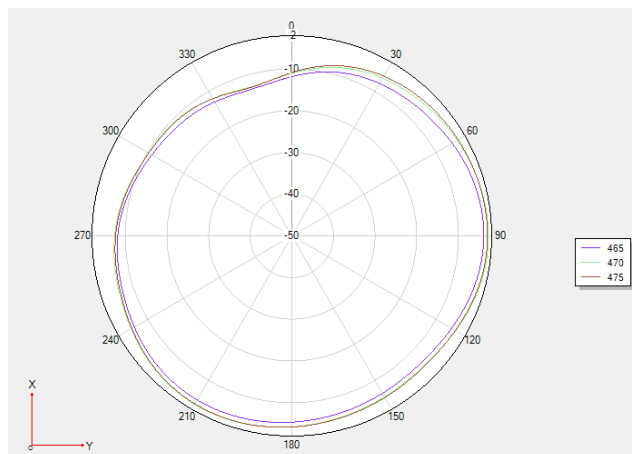
4.5.4. Phi 0 2D



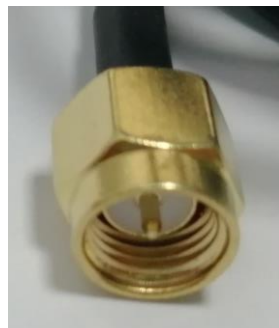
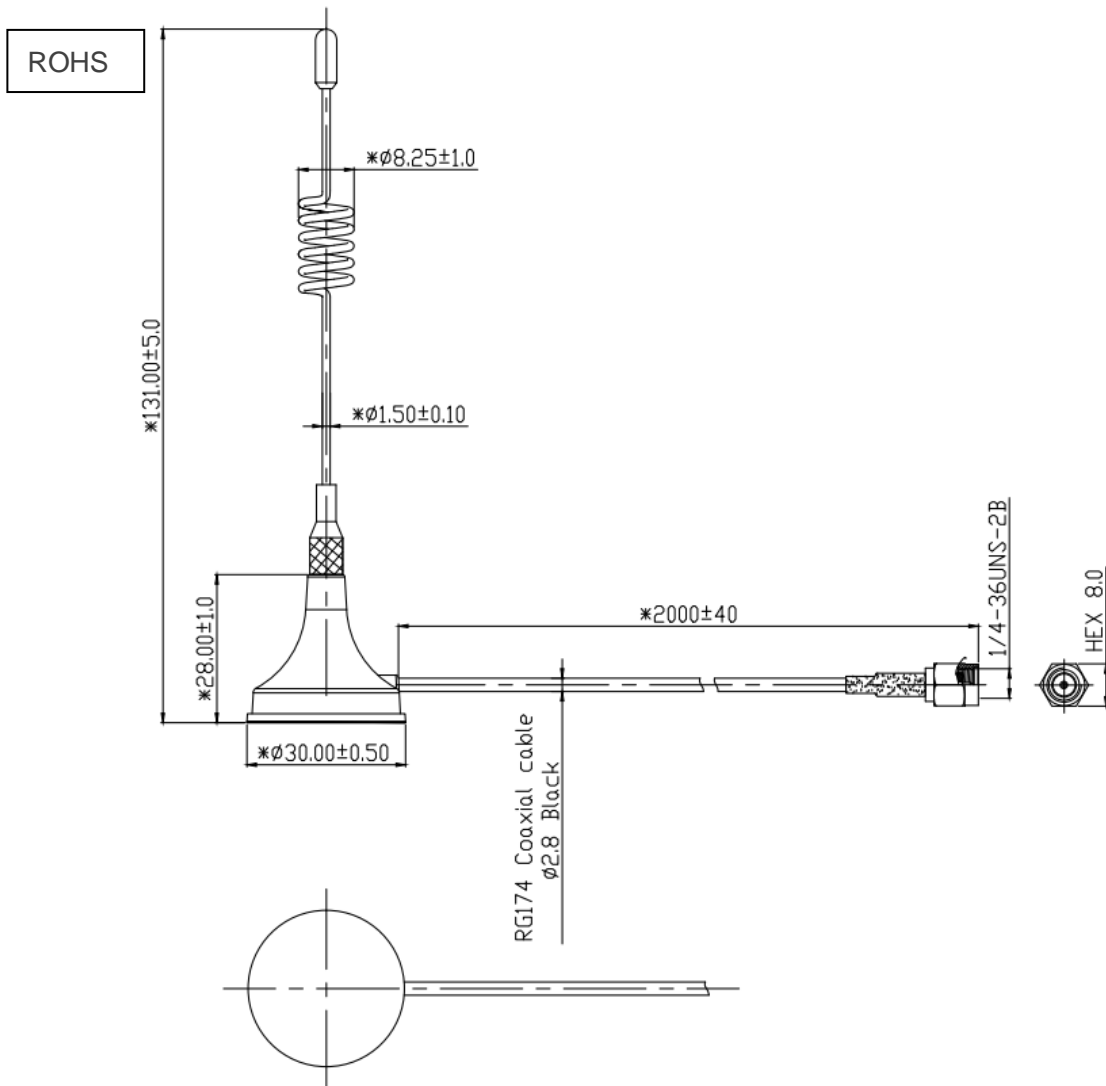
4.5.5. Phi 90 2D



4.5.6. Theta 2D



5 Product Size



SMA Male (center pin)