

Antenna

YEIN002AA Datasheet

Antenna Services

Version: 1.1

Date: 2024-02-22

Status: Released



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About the Document

Revision History

Version	Date	Author	Note
-	2021-12-20	Kenny YIN/ Jan GAO	Creation of the document
1.0	2022-01-14	Kenny YIN/ Jan GAO	First official release
1.1.	2024-02-22	Aria CHU	<ol style="list-style-type: none">1. Updated the gain value, deleted the table about “Storage” and added the storage temperature (Chapter 3).2. Updated the coordinate axis (Chapter 4.5).

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1 Product Description

This Quectel external LPWA antenna covers main LPWA bands and is compatible with 3G/2G bands as well. The external antenna is barely influenced by the internal environment of devices, giving a better performance in efficiency, radiation, gain whilst providing an optimized solution for a customer product. Quectel also offers flexible installation with custom cable length and connector options.

2 Product Features

- Cellular 863–928 MHz
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	863–928 MHz
Input Impedance	50 Ω
VSWR	≤ 2.0
Gain	≤ 2.5 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	\varnothing 13 mm \times 195 mm
Casing	TPEE
Connector Type	SMA Male (Center Pin)
Working Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
Radome Color	Black

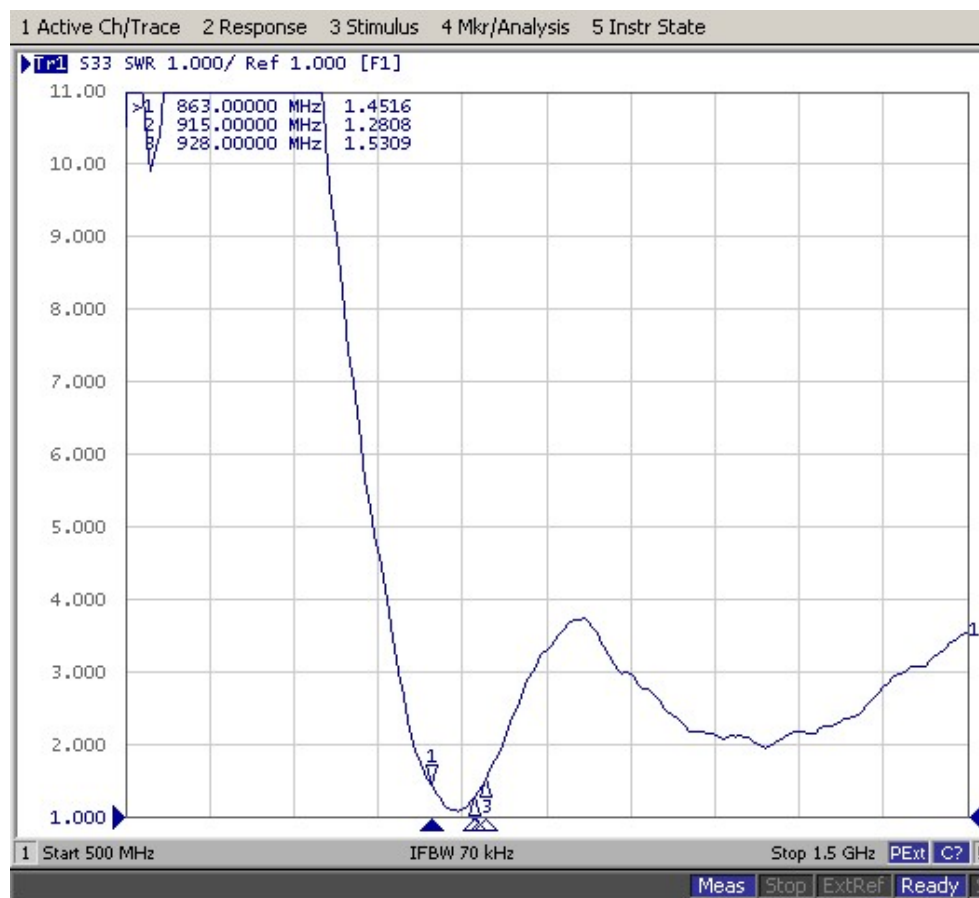
4 Overall Performance

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

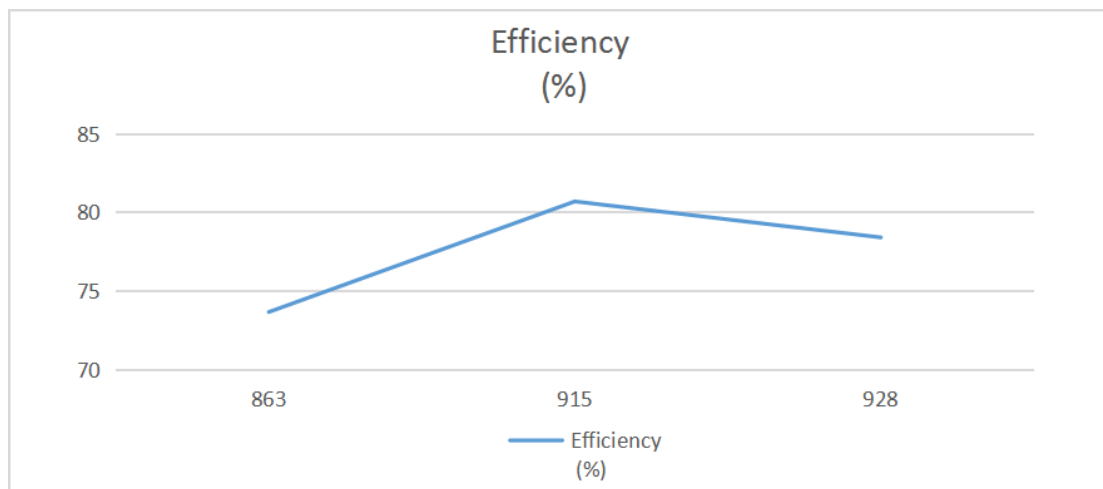


4.2. VSWR



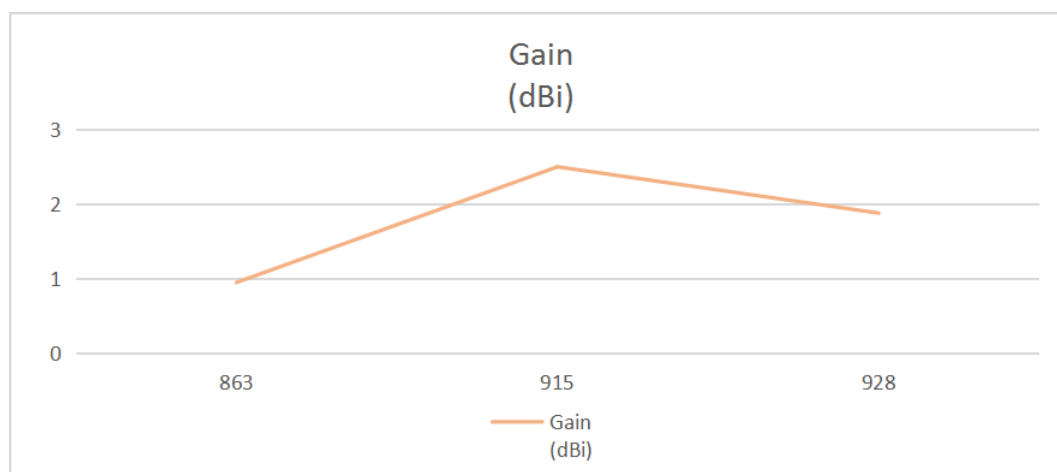
Frequency (MHz)	863	915	928
VSWR	1.45	1.28	1.53

4.3. Efficiency



Frequency (MHz)	863	915	928
Efficiency (%)	73.66	80.7	78.41

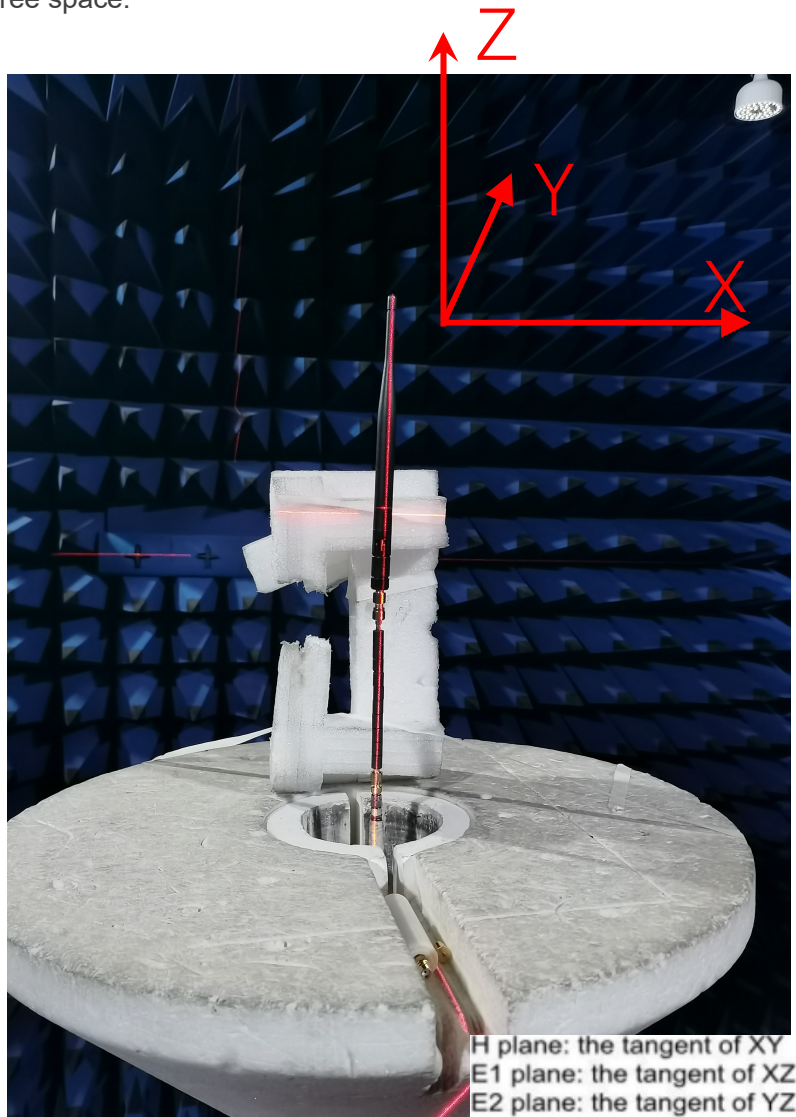
4.4. Gain



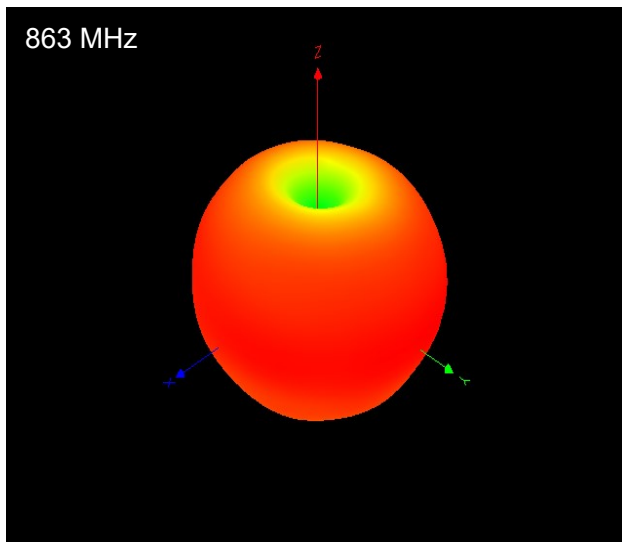
Frequency (MHz)	863	915	928
Gain (dBi)	0.95	2.5	1.88

4.5. Radiation Pattern

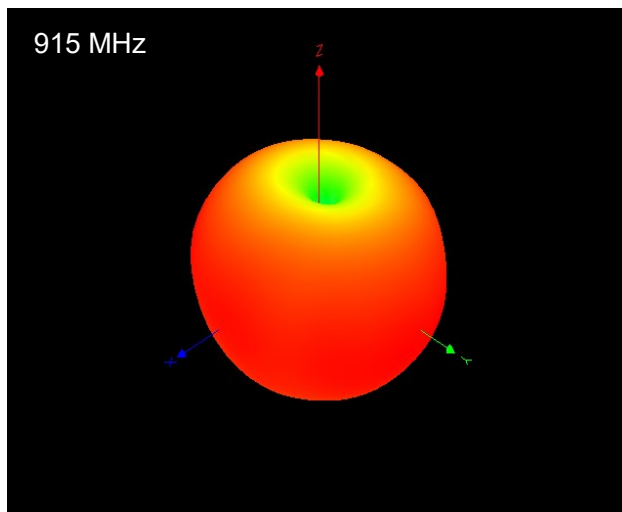
- Test condition: free space.



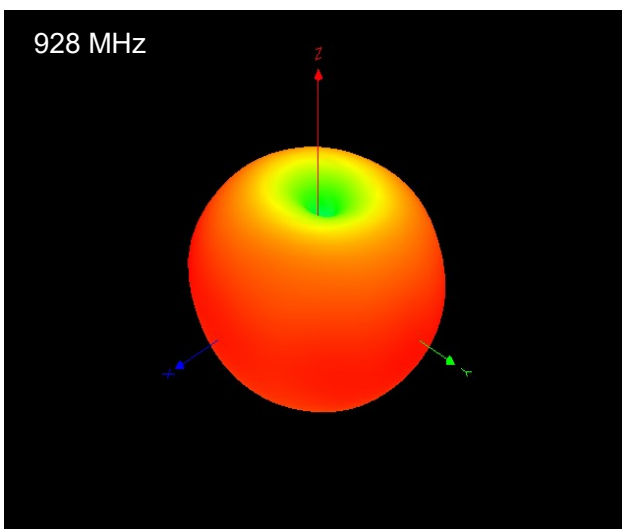
863 MHz

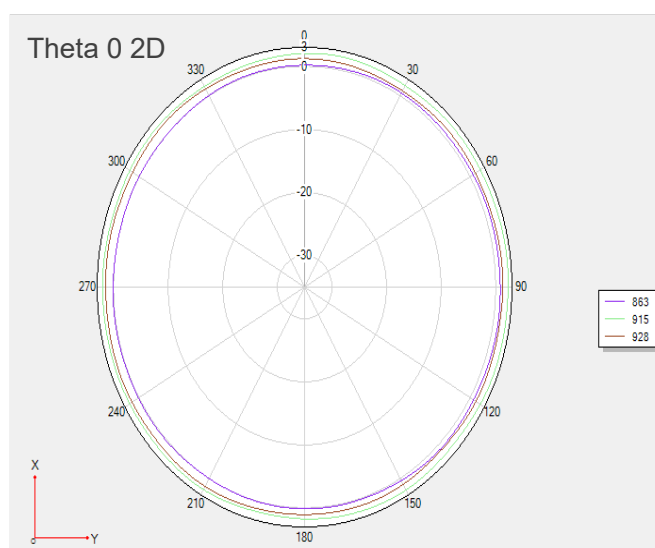
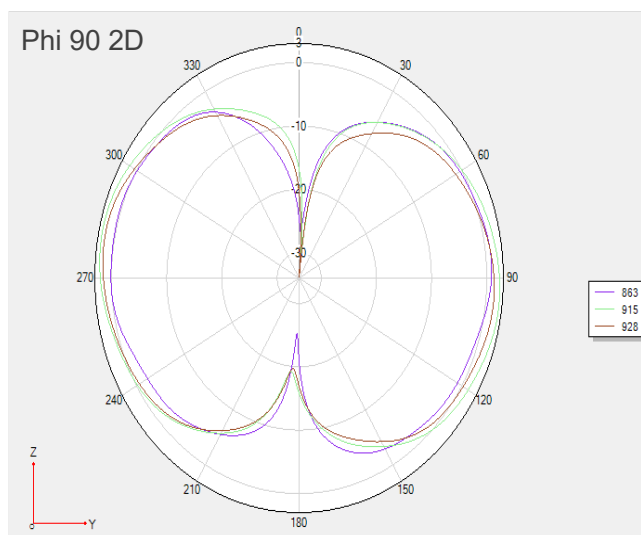


915 MHz



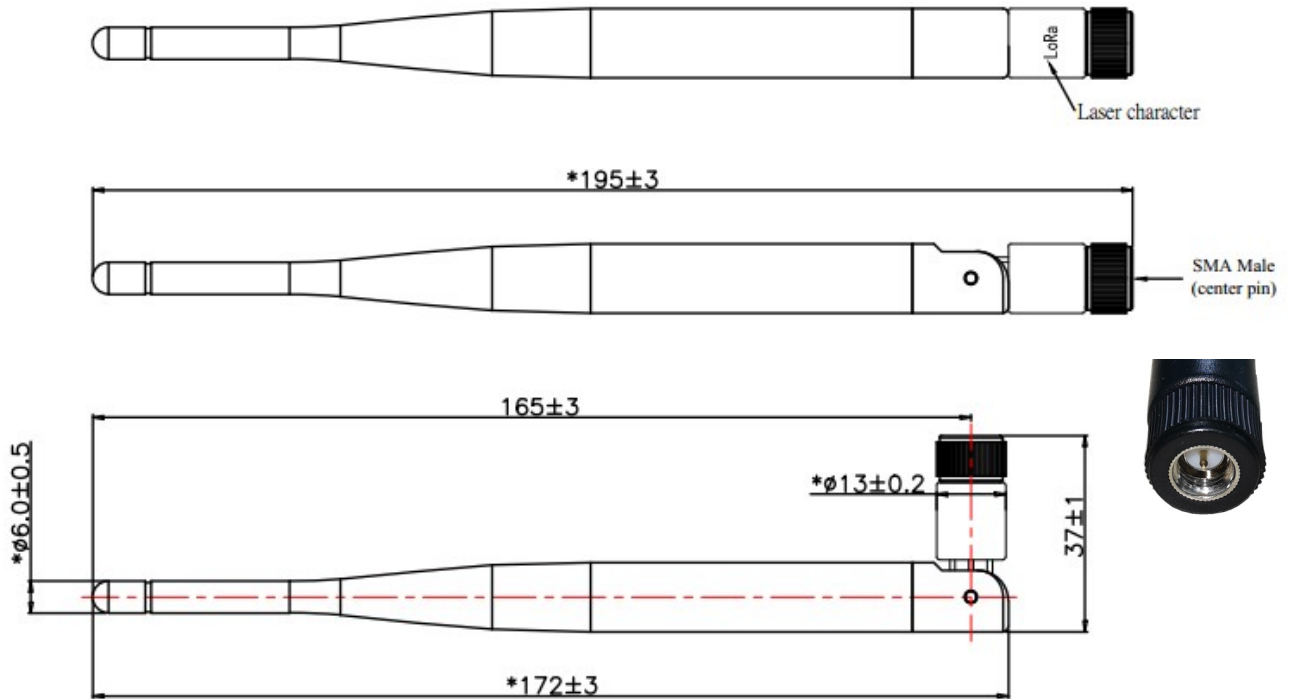
928 MHz





5 Product Size

RoHS



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