

Antenna

YE0019AA Datasheet

Antenna Services

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Status: Released



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Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China

Tel: +86 21 5108 6236

Email: info@quectel.com

Or our local office. For more information, please visit:

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About the Document

Revision History

Version	Date	Author	Note
1.0	2020-08-13	Kenny YIN	Initial
1.1	2020-12-15	Kenny YIN	Updated the antenna image in Chapter 2.
1.2	2021-01-27	Kenny YIN	Added IP rating description

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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

- 450–470 MHz
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	450–470 MHz
Input Impedance	50 Ω
VSWR	≤ 2.3
Gain	≤ -2.5 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	109 mm x 10 mm
Casing	ABS
Connector Type	SMA Male (with center pin)
Working Temperature	-40 °C to +85 °C
Radome Color	Black
IP rating	IP55

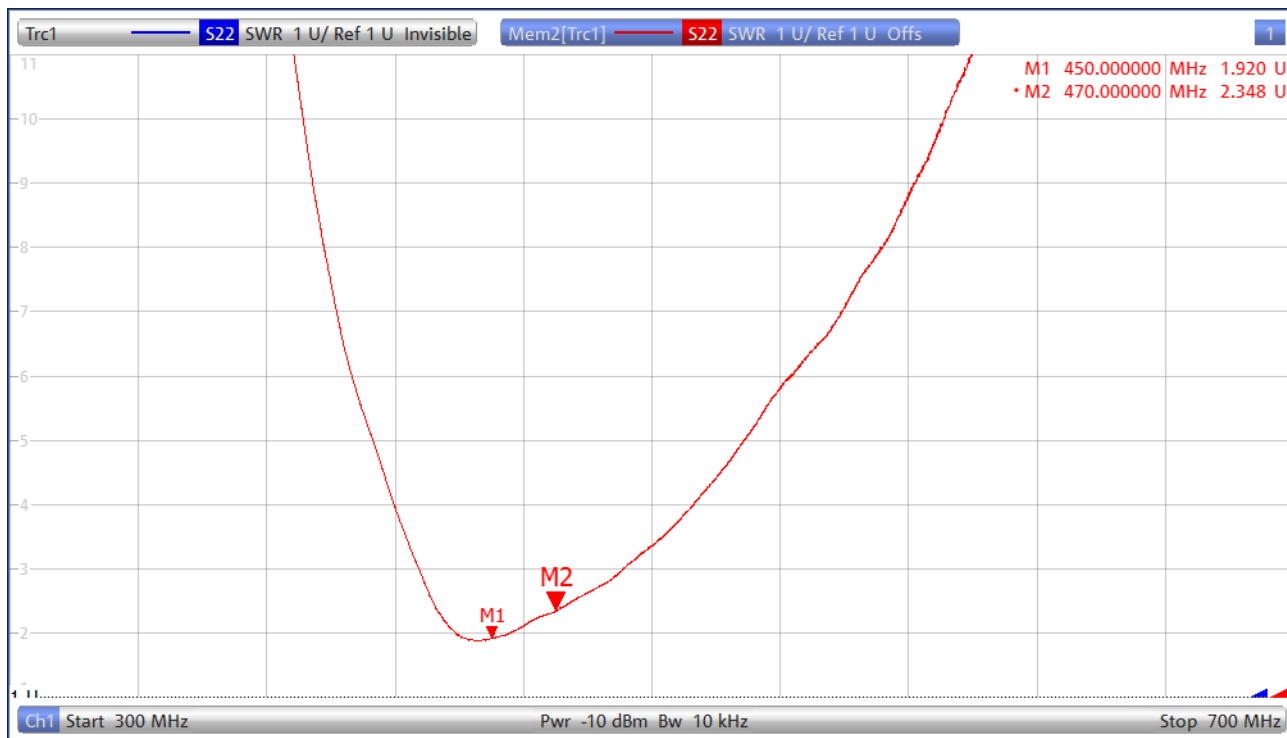
4 Overall Performance

4.1. Test Environment

- KEYSIGHT VNA Network Analyzer E5063A 100 KHz – 6.5 GHz.
- RayZone®2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 6.0 GHz.



4.2. VSWR



Frequency (MHz)	450	470
VSWR	1.92	2.34

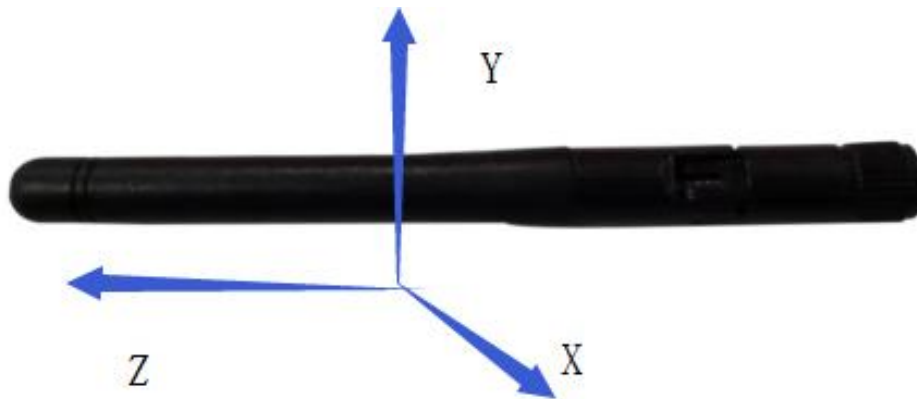
4.3. Efficiency

Frequency (MHz)	450	470
Efficiency(%)	23.3	22.8

4.4. Gain

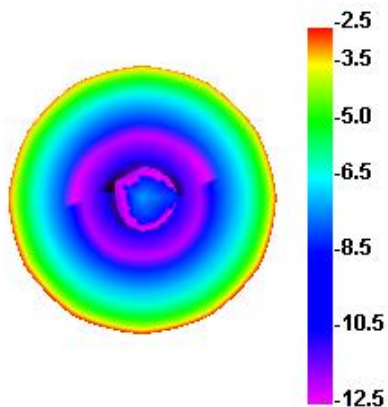
Frequency (MHz)	450	470
Gain	-2.45	-2.39

4.5. Radiation Patterns

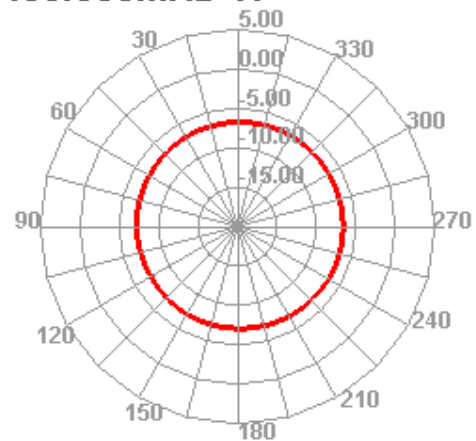


H Plane: XY
E1 Plane: XZ
E2 Plane: YZ

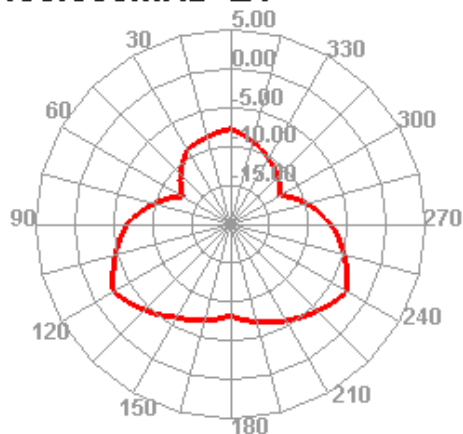
450.000MHz



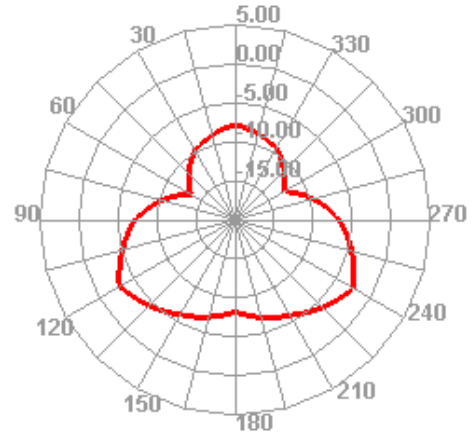
450.000MHz H



450.000MHz E1

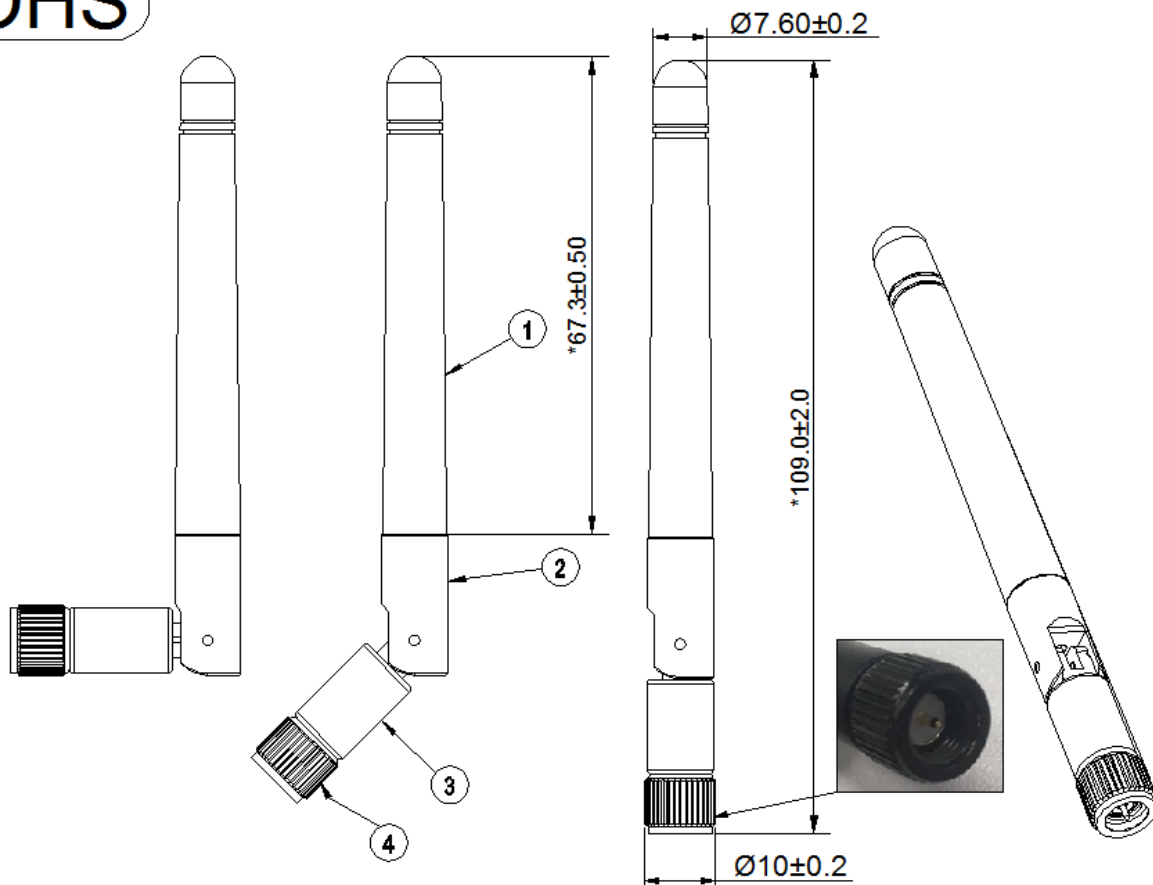


450.000MHz E2



5 Product Size

ROHS



4	SMA	SMA-J	black	1
3	Lower Firmware	ABS	black	1
2	Upper firmware	ABS	black	1
1	noumenon	ABS	black	1
Series	Component name	Specification	Color	Quantity