

Antenna

YEGT002AA Datasheet

Antenna Services

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About the Document

Revision History

Version	Date	Author	Note
-	2021-05-28	Kenny YIN/ Aria CHU	Creation of the document
1.0	2021-05-28	Kenny YIN/ Aria CHU	First official release
1.1	2021-12-06	Aria CHU	Updated the product description in Chapter 1.
1.2	2022-10-17	Aria CHU	Updated the IP rating.

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1 Product Description

This Quectel GNSS antenna adopts a diversity of forms to guarantee the most suitable polarization type. Quectel's positioning products support single-band or multi-band operation modes to meet various high-precision positioning requirements of customers' products. Quectel also provides both passive and active antennas to satisfy the customer demand for high gain. Such antenna supports different installation or connection methods such as pin mount, surface mount, magnetic mount, internal cable, and external SMA. Customized connector type and cable length are provided according to requirements.

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

- GNSS antenna
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	1555–1605 MHz
Input Impedance	50 Ω
VSWR	≤ 3.0
Gain	≤ 1.75 dBi
Polarization Type	Linear

Mechanical Specifications

Antenna Size	52 mm \times Φ 10 mm
Casing	ABS
Connector Type	SMA Male (Center Pin)
Working Temperature	-40 $^{\circ}$ C to +85 $^{\circ}$ C
Radome Color	Black
IP Rating	IP53

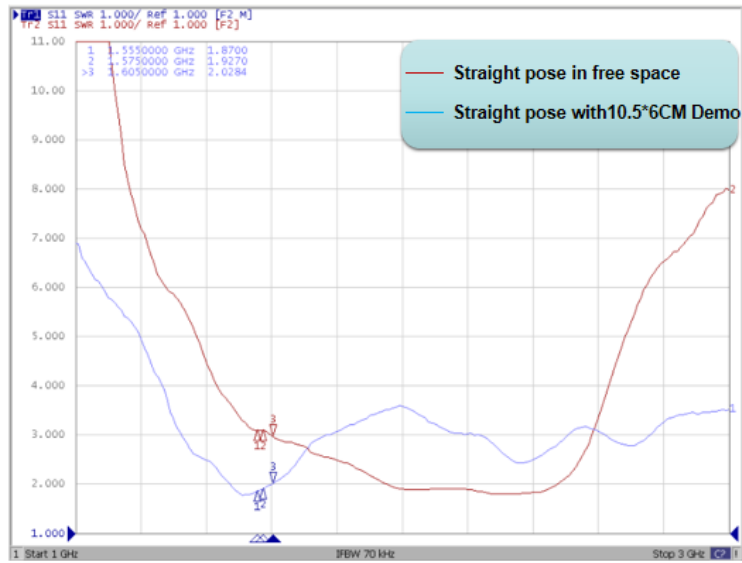
4 Overall Performance

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

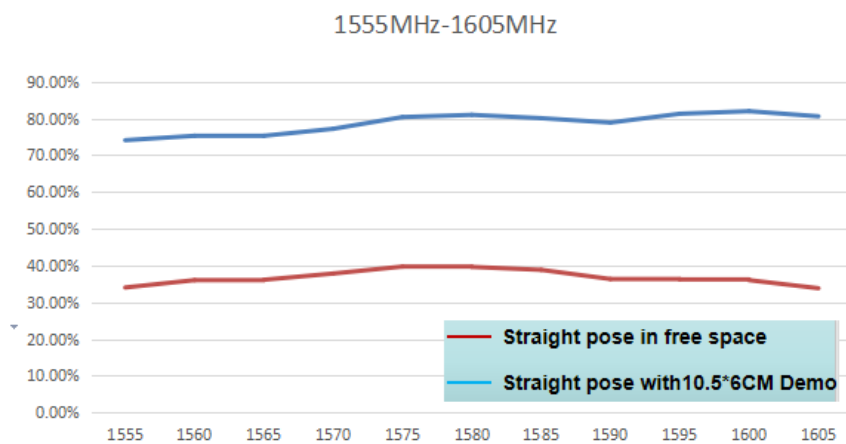


4.2. VSWR



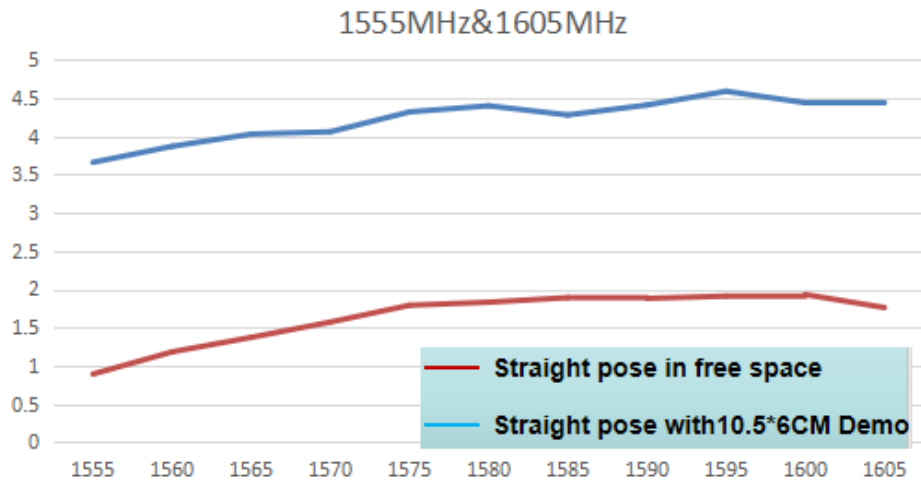
Frequency (MHz)	1555	1575	1605
VSWR (With Demo)	1.87	1.93	2.03

4.3. Efficiency



Frequency (MHz)	1555	1575	1605
Efficiency (%) (With Demo)	74.1	80.4	80.6
Efficiency (%) (Free)	34	39.7	33.8

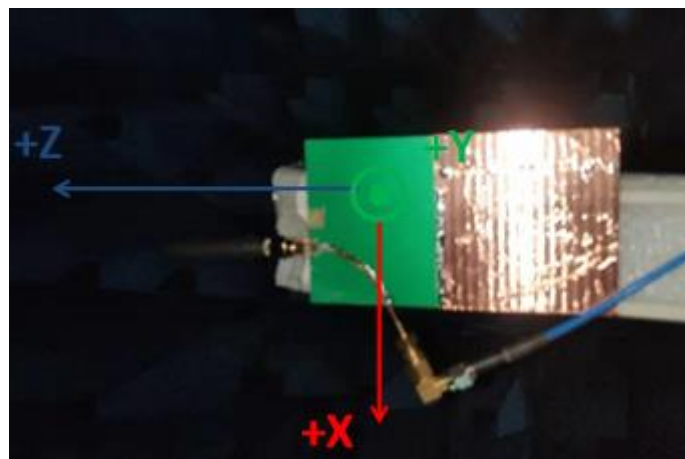
4.4. Gain



Frequency (MHz)	1555	1575	1605
Gain (dBi) (With Demo)	3.66	4.32	4.43
Gain (dBi) (Free)	0.89	1.79	1.76

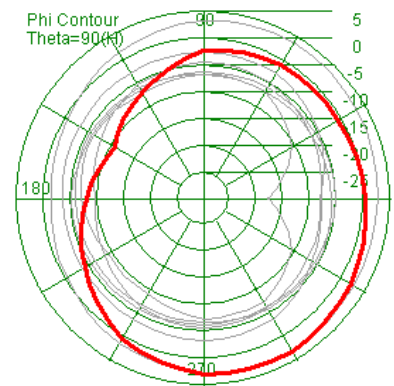
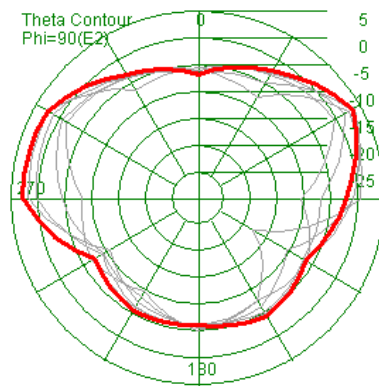
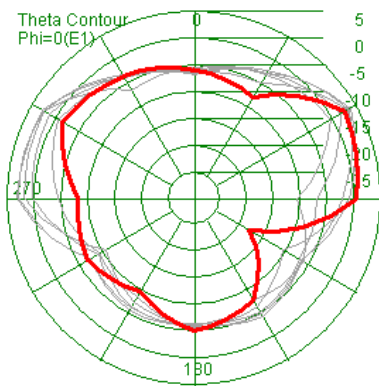
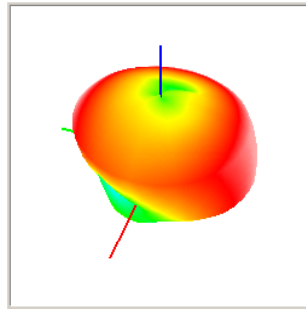
4.5. Radiation Pattern

- Straight pose with 10.5 cm x 6 cm Demo

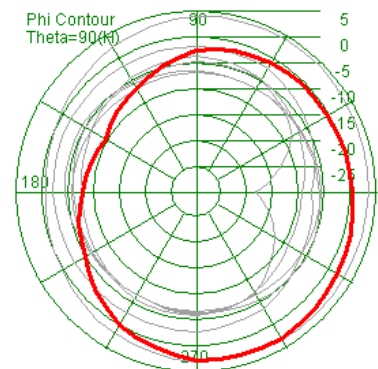
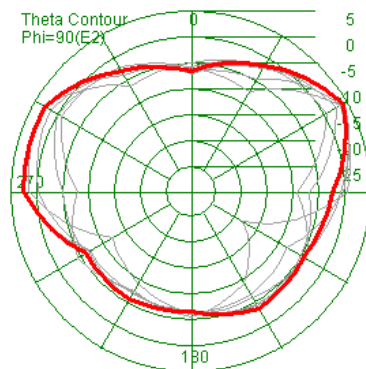
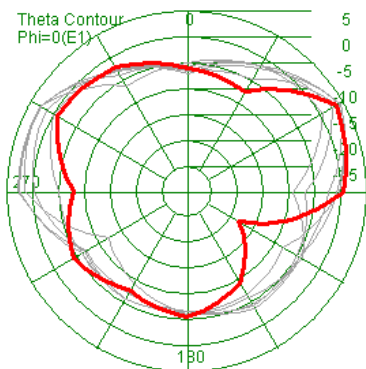
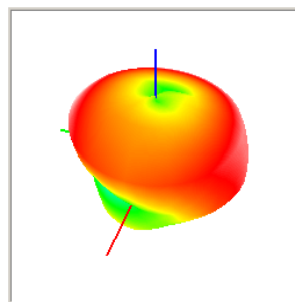


H plane: the tangent of XY
E1 plane: the tangent of XZ
E2 plane: the tangent of YZ

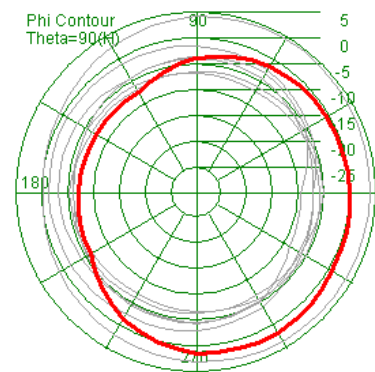
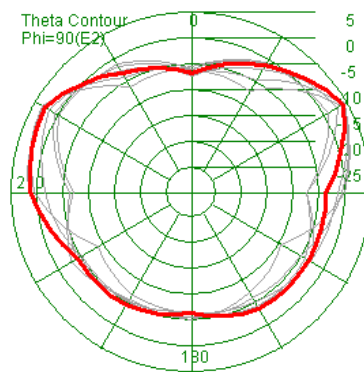
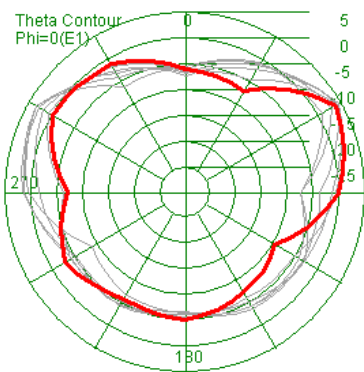
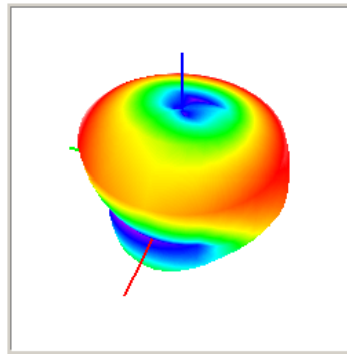
4.5.1. 1555 MHz



4.5.2. 1575 MHz



4.5.3. 1605 MHz



5 Product Size

