# Antenna

# YG0016AA Datasheet

**Antenna Services**

Version: 1.1

Date: 2021-11-02

Status: Released

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# About the Document

## Revision History

| Version | Date | Author | Note |
|---|---|---|---|
| 1.0 | 2020-09-02 | Kenny YIN | Initial |
| 1.1 | 2021-11-02 | Kenny YIN | Updated the drawing (Chapter 5). |

# Contents

# 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

- GNSS
- High efficiency
- Excellent performance

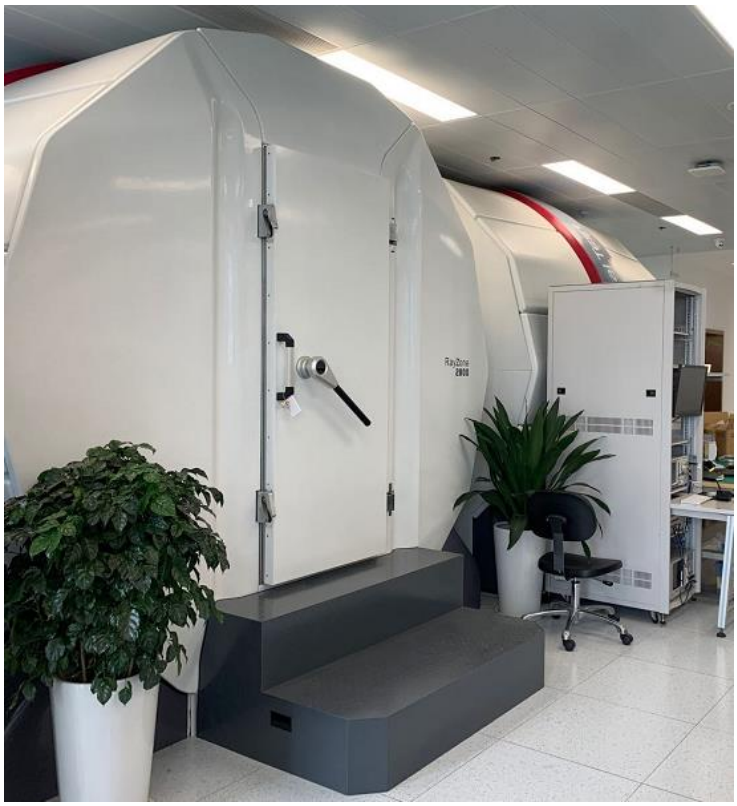
# 3 Product Specifications

| | | |
|---|---|---|
| **Passive Electrical Specifications** | | |
| Frequency Range | 1561 MHz, 1575 MHz, 1602 MHz, 1606 MHz | |
| Input Impendence | 50 Ω | |
| Return Loss | < -10 | |
| Gain | 1561 MHz<br>1575 MHz<br>1602 MHz<br>1606 MHz | 4.7 dBic Typ.<br>4.8 dBic Typ.<br>4.65 dBic Typ.<br>4.54 dBic Typ. |
| Polarization Type | RHCP | |
| **LNA Electrical Properties** | | |
| Frequency Range | 1561 MHz,1575 MHz, 1602 MHz, 1606 MHz | |
| Gain<br>(3.3 ±0.1 V) | 1561 MHz<br>1575 MHz<br>1602 MHz<br>1606 MHz | 25±3 dB<br>27±3 dB<br>27±3 dB<br>27±3 dB |
| Noise Figure | 2.0 dB Typ. | |
| Output VSWR | 2.0 Max. | |
| Filter Out-of-band Attenuation<br>(3.0 ±0.1 V) | 32 dB Typ.<br>45 dB Typ. | fo ±50 MHz<br>fo ±100 MHz |
| Voltage | 3.3 ±0.6 V | |
| Current<br>(3.3 ±0.1 V) | 10 ±3 mA | |
| Impedance | 50 Ω | |
| **Mechanical Specifications** | | |
| Antenna Size | 36.1 mm × 36.1 mm × 9.76 mm<br>RG174 Cable Length = 130 mm | |
| Casing | Ceramics | |
| Connector Type | SMA Male (Center Pin) | |
| Working Temperature | -40 °C to +85 °C | |
| Radom Color | - | |

# 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.



# 5 Product Size