

# Antenna

# **YG0032AA** Datasheet

## Antenna Services

Version: 1.1

Date: 2021-01-19

Status: Released



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# About the Document

## Revision History

Version	Date	Author	Note
1.0	2020-10-10	Kenny YIN	Initial
1.1	2021-01-19	Kenny YIN	Updated the antenna image in Chapter 2.

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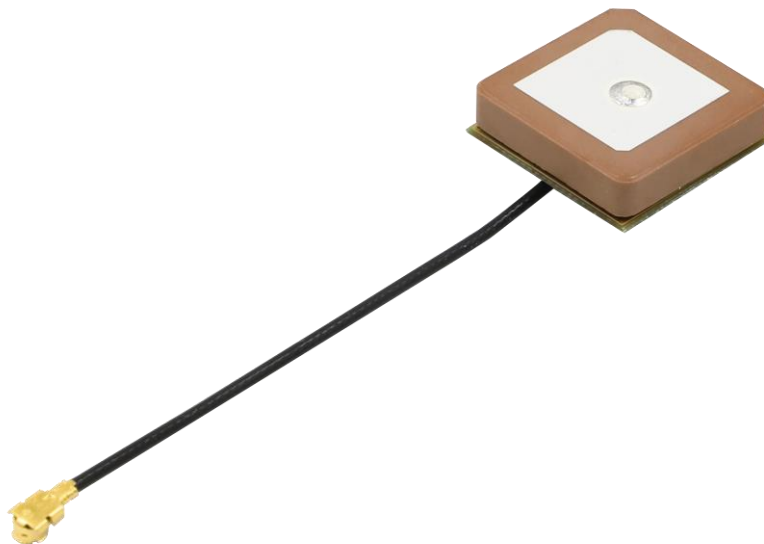
## 1 Product Description

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

- GPS + BD
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	Beidou: 1561 ±5 MHz; GPS: 1575 ±5 MHz;
Input Impedence	50 Ω
VSWR	≤ 1.5
Gain	2.0 dBi
Polarization Type	R.H.C.P

#### LNA Electrical Properties

Center Frequency	1568 MHz
Gain	28 ±3 dBi
Noise Figure	Typ. 1.5 dB (25 ±5°C)
Output VSWR	< 2.0
Input VSWR	< 2.0
Voltage	DC 2.7–3.6 V
Current	15-20 mA (Measuring voltage: 3.3 V)
Impedance	50 Ω

#### Mechanical Specifications

Antenna Size	18 mm × 18 mm × 6.6 mm, Cable = 55 mm
Casing	-
Radiator	Silver
Connector Type	IPEX I
Working Temperature	-20°C to +80°C
Radome Color	-

## 4 Overall Performance

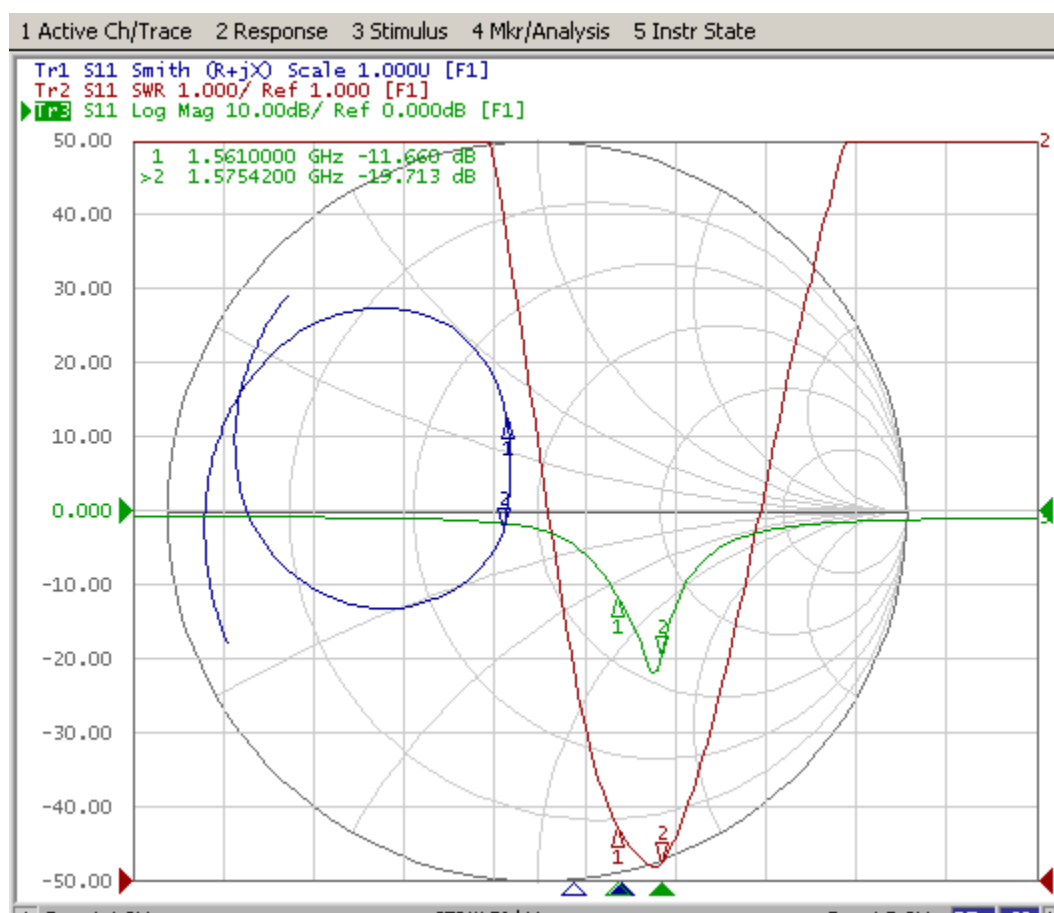
### 4.1. Test Environment

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



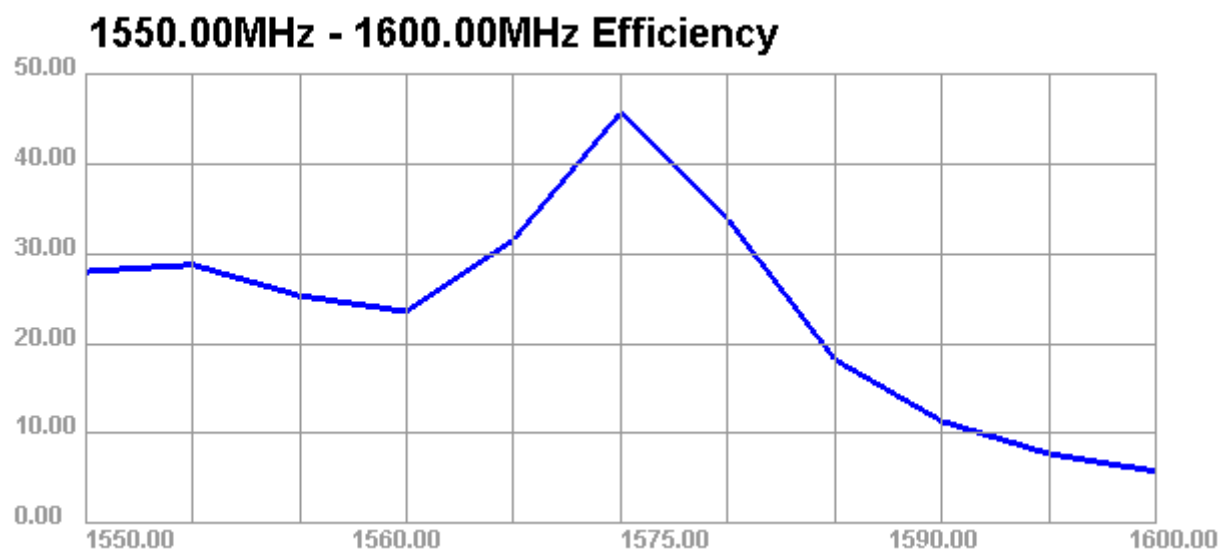


## 4.2. Return loss



Frequency (MHz)	1561	1575
Return loss	-11.66	-19.71

### 4.3. Efficiency



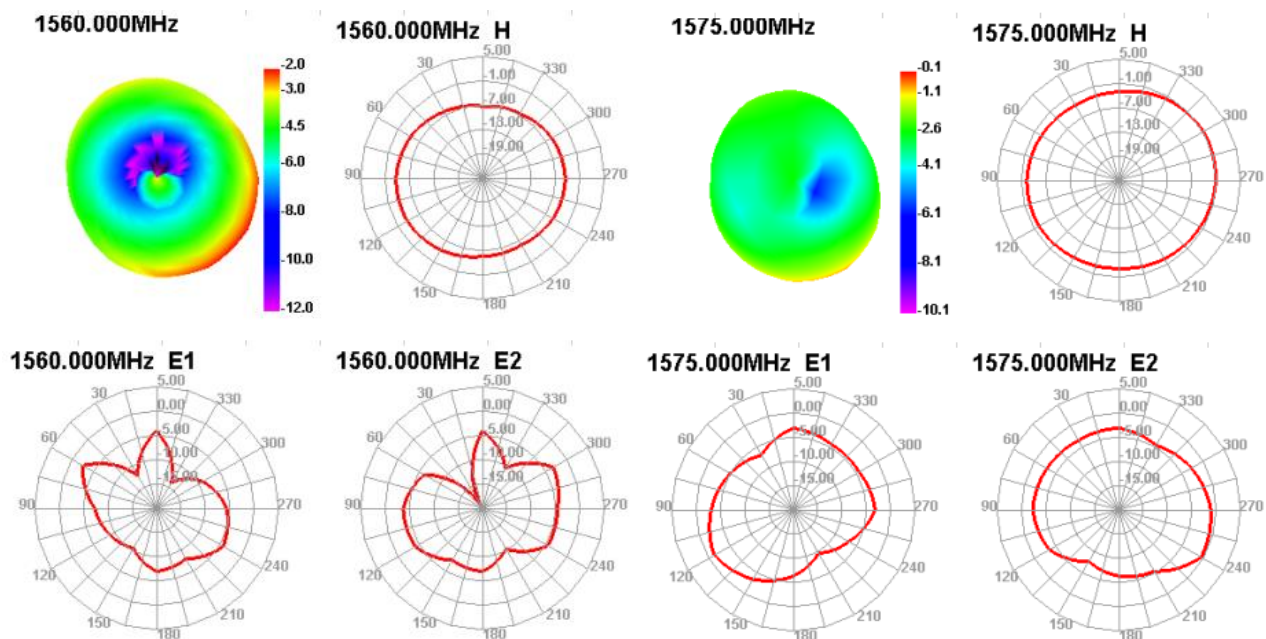
Frequency (MHz)	1561	1575
Efficiency (%)	25.33	45.67

## 4.4. LNA Gain

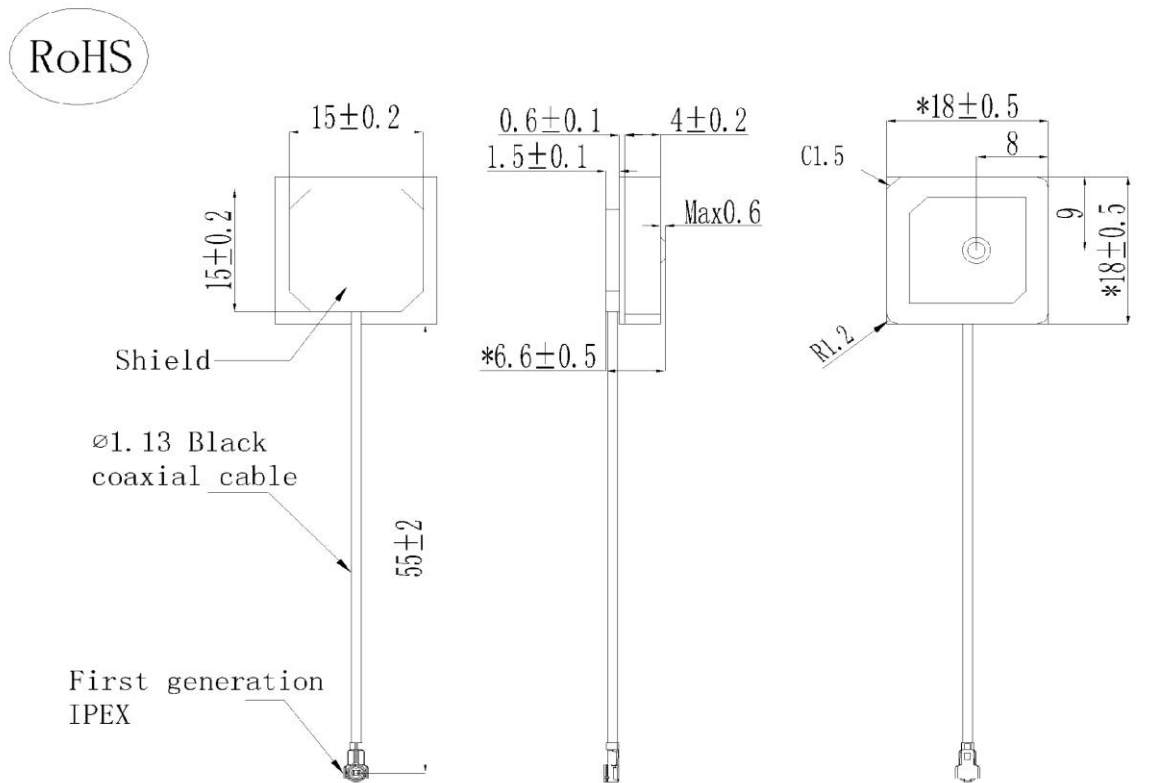


Frequency (MHz)	1561	1575	1602	1606
Gain (dBi)	28.83	28.34	27.74	27.69

## 4.5. Radiation Patterns



## 5 Product Size



Unit:mm

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