

# Antenna

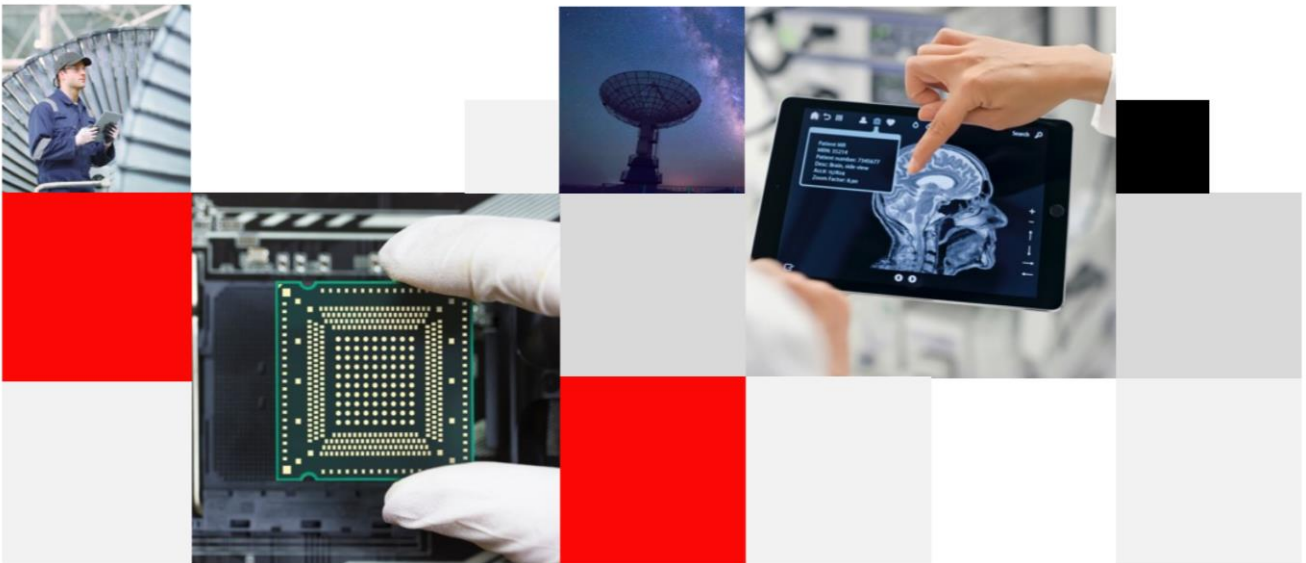
# YG0005AA Datasheet

## Antenna Services

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Build a Smarter World

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# About the Document

## Revision History

Version	Date	Author	Note
-	2020-08-04	Kenny YIN	Creation of the document
1.0	2020-08-04	Kenny YIN	First official release
1.1	2021-01-05	Kenny YIN	Updated the antenna image and size description.
1.2	2021-02-26	Kenny YIN	<ol style="list-style-type: none"><li>1. Updated the pictures (Chapter 2&amp;4.4);</li><li>2. Updated the product size information (Chapter 5);</li><li>3. Added the packaging information (Chapter 6).</li></ol>

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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 L1
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	1600.4 ±3 MHz 1575.42 ±3 MHz	By Test Ground Plane In Customer's Model
Input Impedence	50 Ω	
Return Loss	≤ -20dB	By Test Ground Plane
Gain	-	
Efficiency	-	
Polarization Type	RHCP	

#### Mechanical Specifications

Antenna Size	18.4 mm × 18.4 mm × 4 mm
Casing	Ceramics
Connector Type	-
Working Temperature	-40 °C to +85 °C
Radome Color	-

## 4 Overall Performance

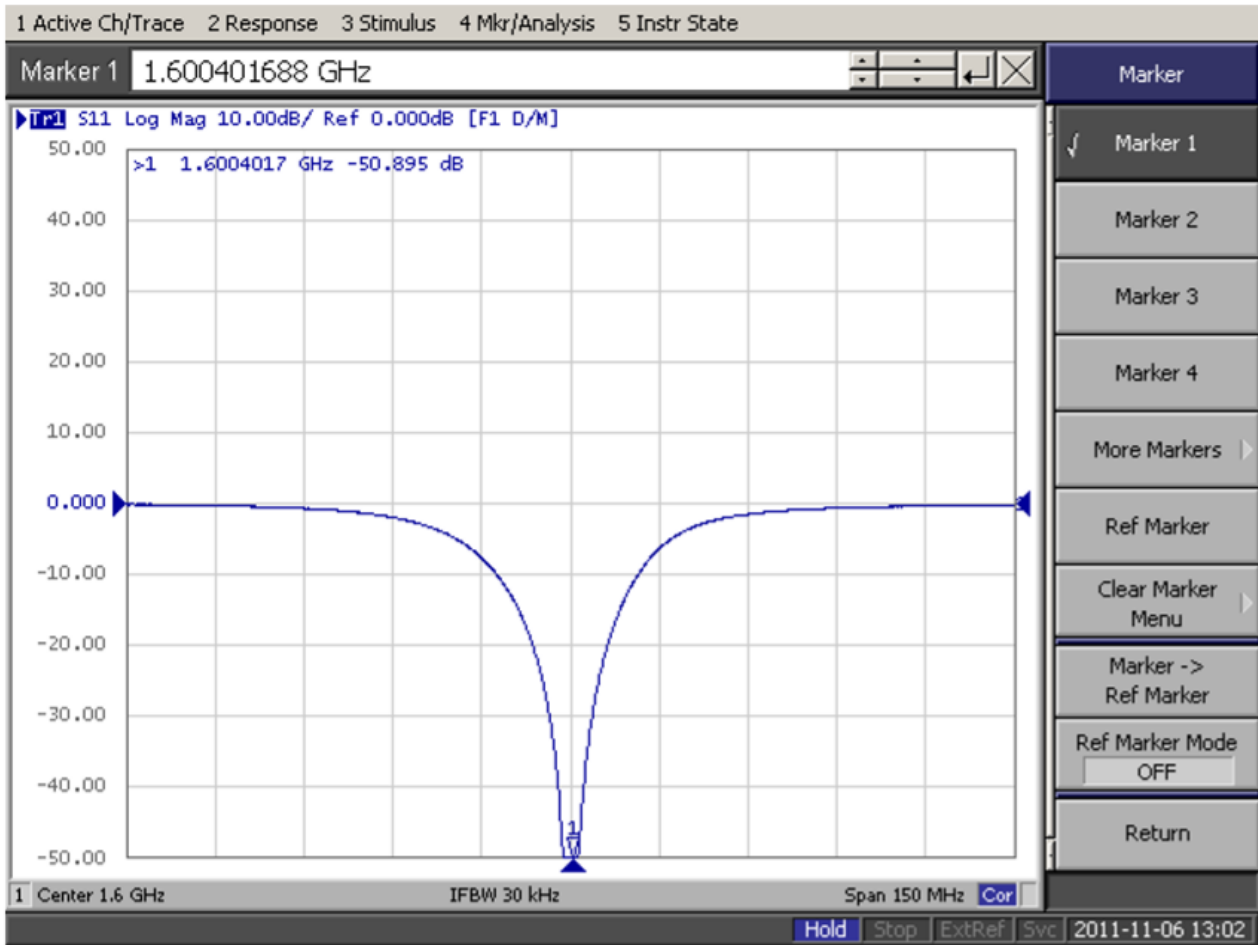
### 4.1. Test Environment

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

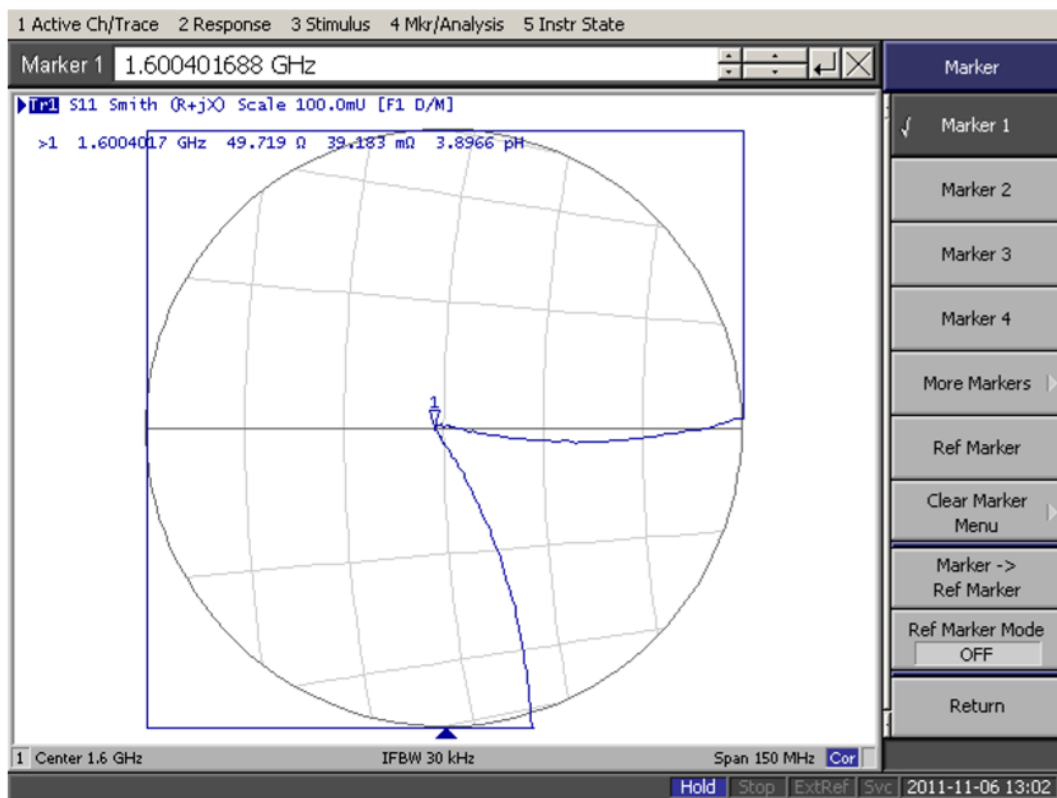
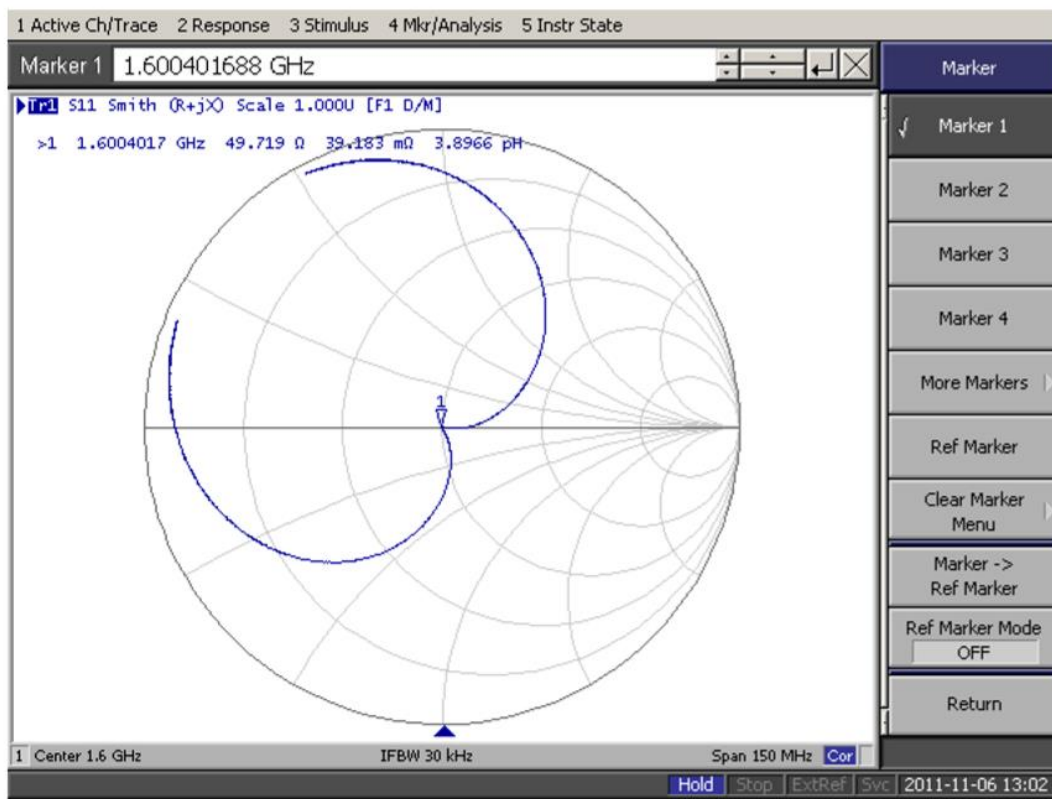




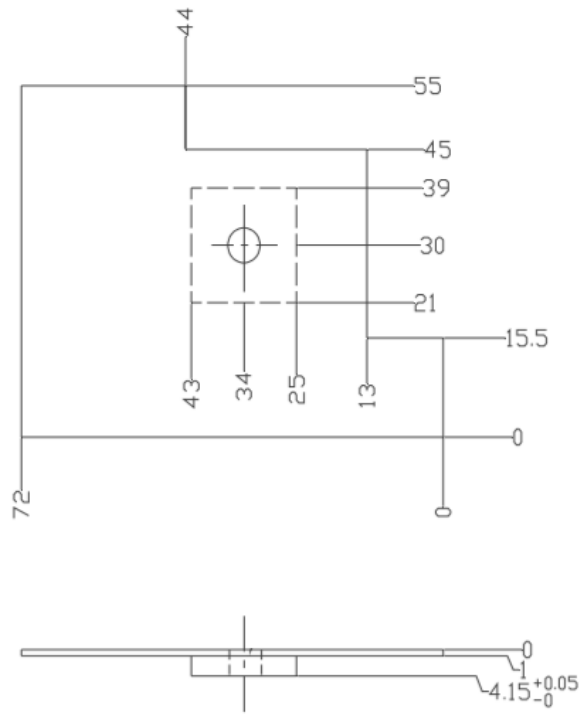
## 4.2. Return Loss (By Test Ground Plane)



### 4.3. Measured Input Impedance on a Smith Chart (By Test Ground Plane)

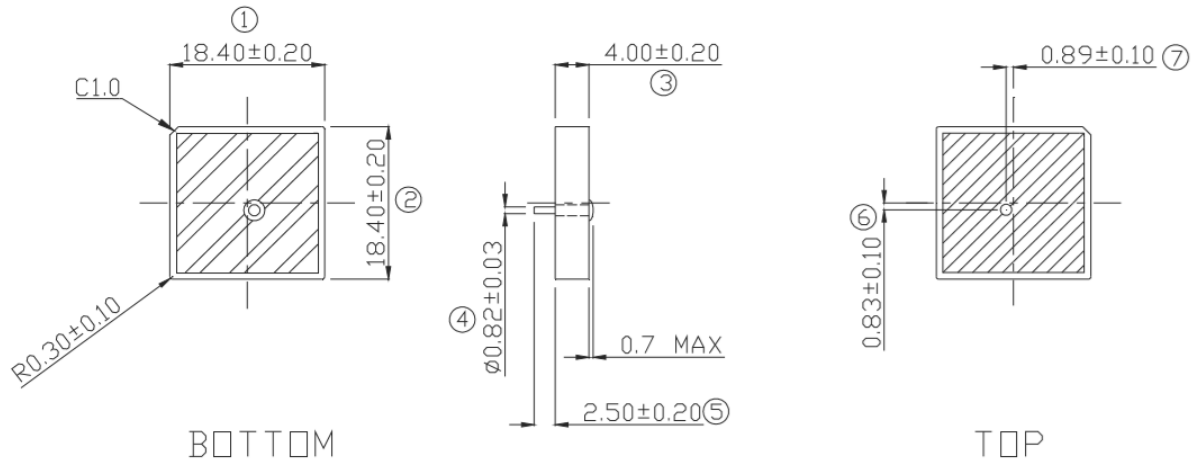


### 4.4. Test Condition Ground Plane (Unit: mm)



### 5. Product Size

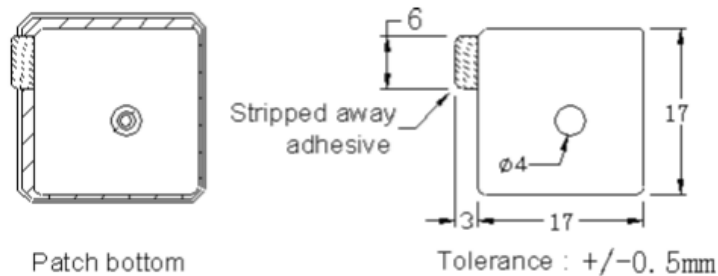
RoHS



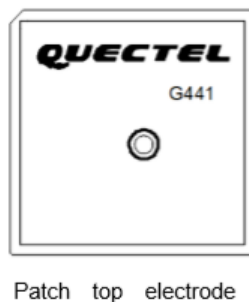
Note: These 1-7 balloons are important dimension

#### Adhesive Tape:

- TAPE: Nitto 5000NS 17 m x 17 m x 0.16 m
- Thickness :  $0.16 \pm 5\%$  mm



#### Marking:



## 6. Packaging

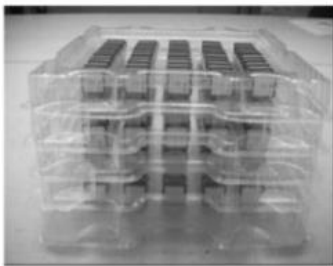
- 50pcs patch/Tray, 250pcs patch/Small box, 1000pcs patch/Carton.
- The packaging steps are as follows:



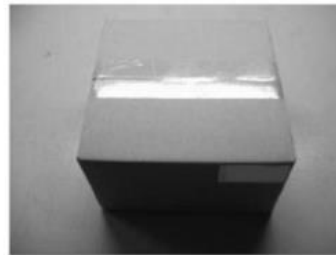
Step1:  
50pcs patch/Tray,  
Place 1pcs in each cell.  
Tray size:  
208\*208\*24mm



Step4:  
Vacuum sealing.



Step2:  
Five trays are staggered.



Step5:  
Put the inner box into the partition, and  
then put the sealed 250pcs patch into the  
small box.  
Small box size: 215\*215\*123mm



Step3:  
Place 1 piece of foam on  
the top layer, then pack  
and fix it.



Step6:  
Put four small boxes into the Carton,  
1000pcs patch/Carton.  
Carton size: 450\*240\*290mm