

Antenna

YQU008AA Datasheet

Antenna Services

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About the Document

Revision History

Version	Date	Author	Note
-	2022-06-23		Creation of the document
1.0	2022-06-23		First official release

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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 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.

2 Product Features

- Cellular GPS
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

Frequency Range	1176-1575 MHz
Input Impedence	50 Ω
VSWR	≤ 3.0
Gain	≤ 2.0 dBi
Polarization Type	Circular

Mechanical Specifications

Antenna Size(mm)	37 × 9.8 × 9.15
Material	ABS
Working Temperature	-20 °C to +85 °C
Weight	Typical 1.73g
Antenna Color	Black
Mounting Type	Adhesive

4 Overall Performance

4.1. Test Environment

- KEYSIGHT ENA Network Analyzer E5063A 100 kHz – 8.5 GHz
- RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 600 MHz – 8.5 GHz

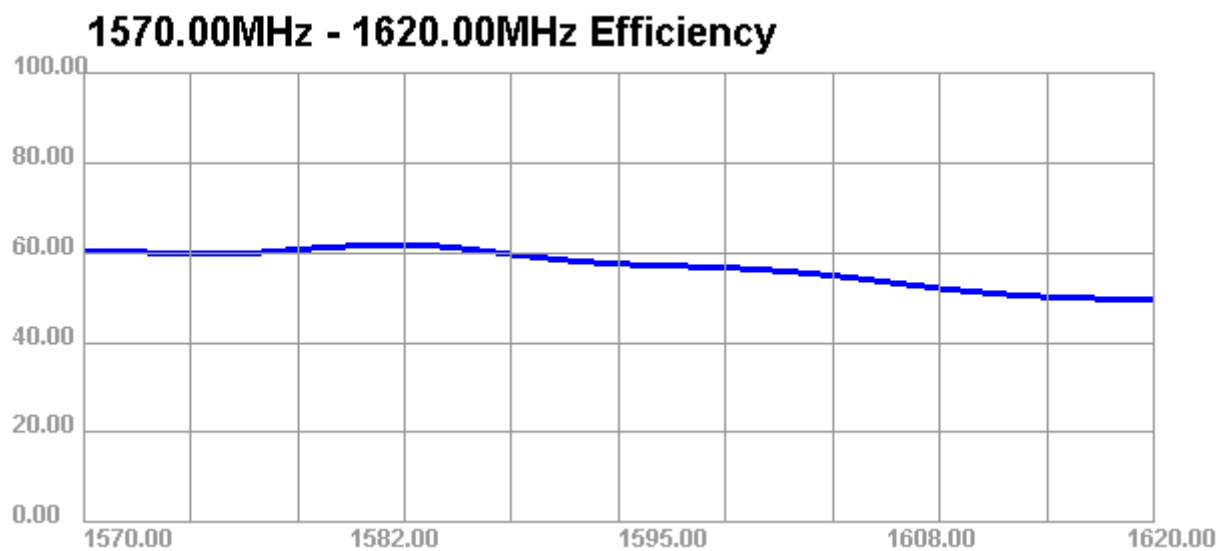
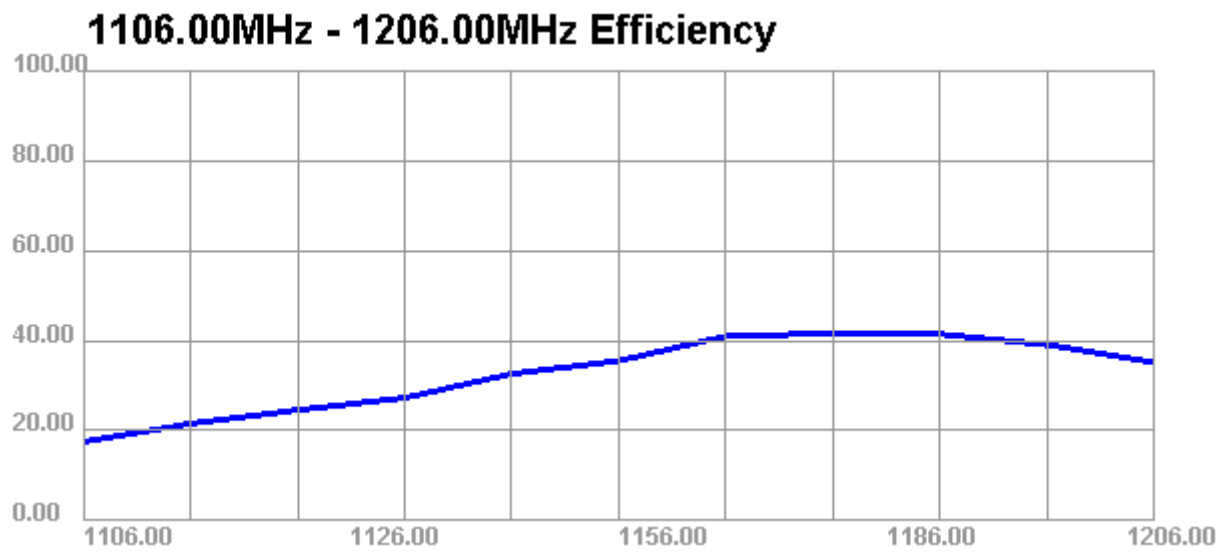


4.2. VSWR



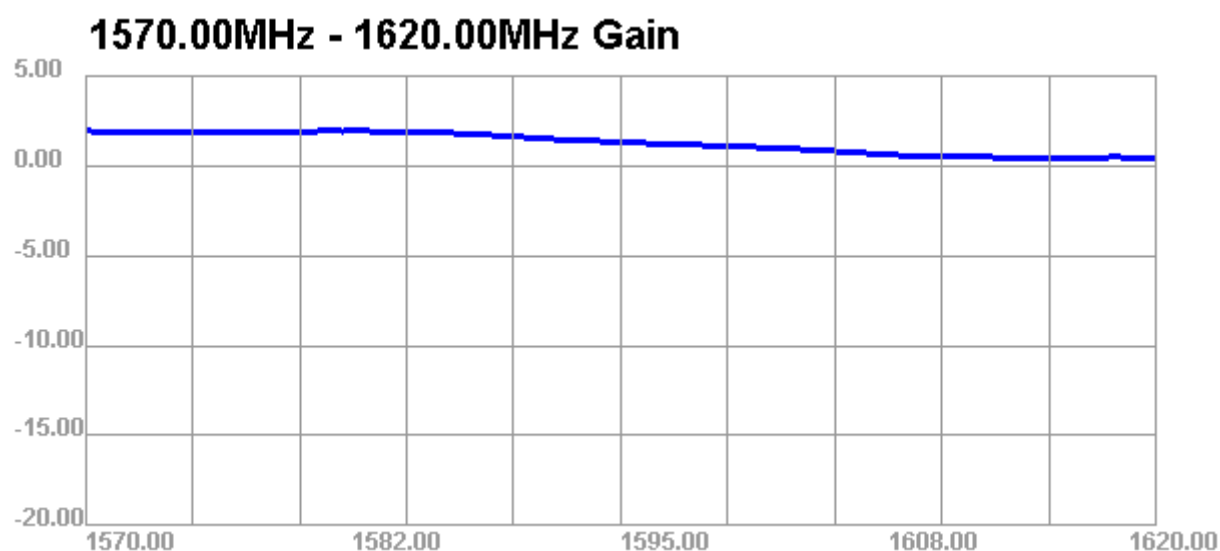
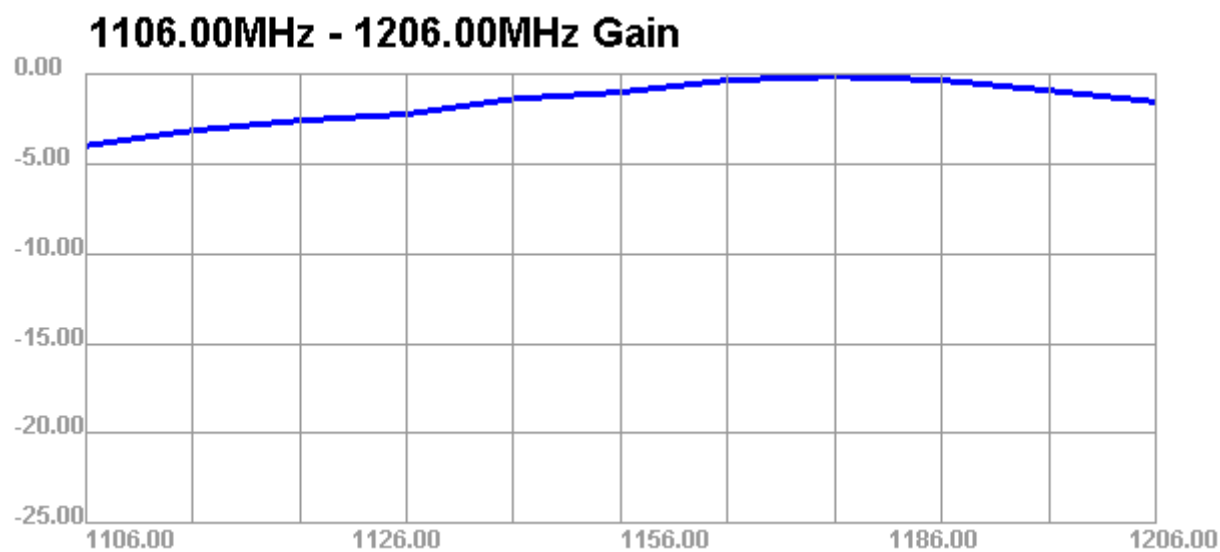
Frequency (MHz)	1176	1575
VSWR	2.57	1.91

4.3. Efficiency



Frequency (MHz)	1176	1575
Efficiency (%)	41.65	59.67

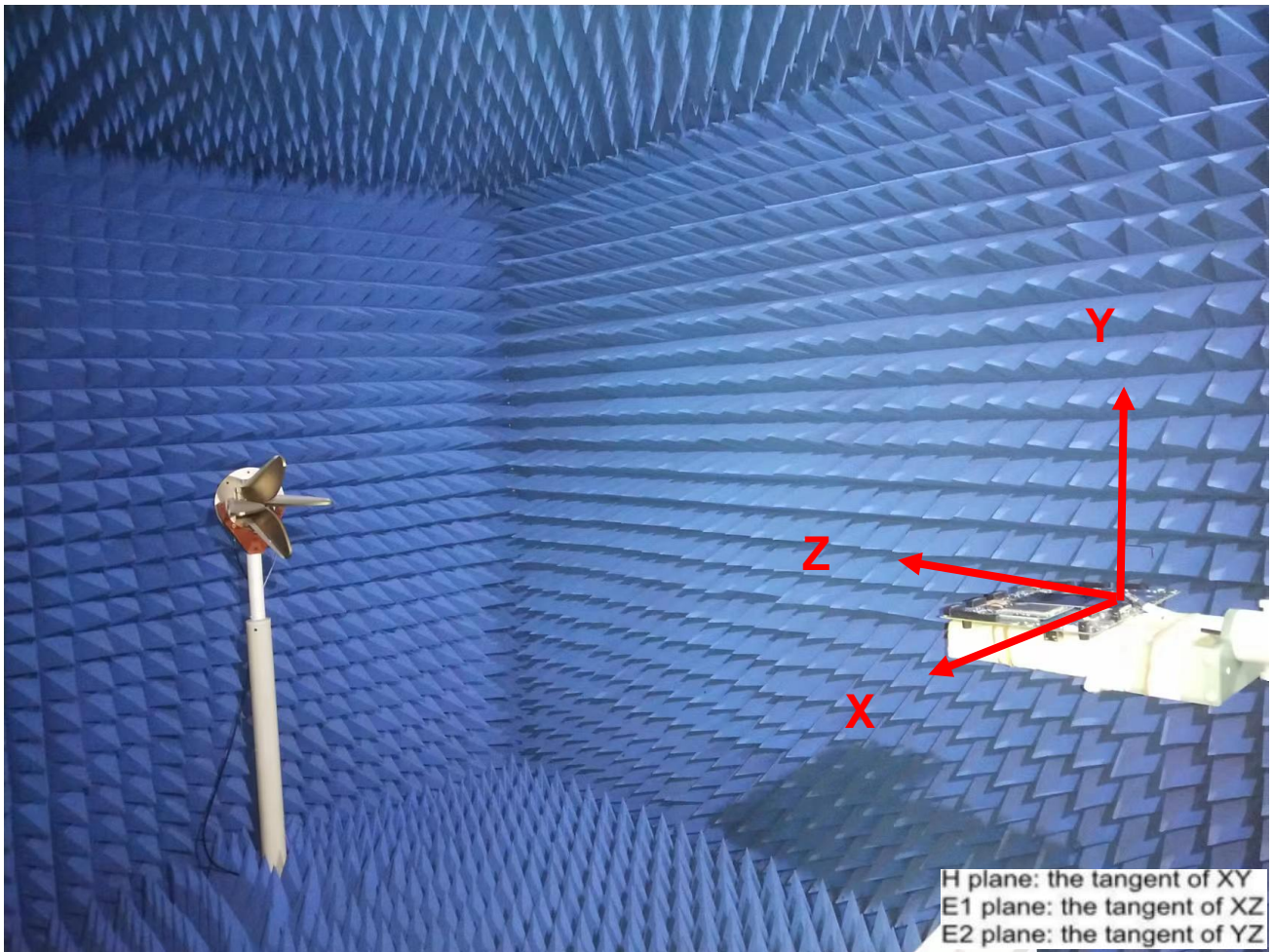
4.4. Gain



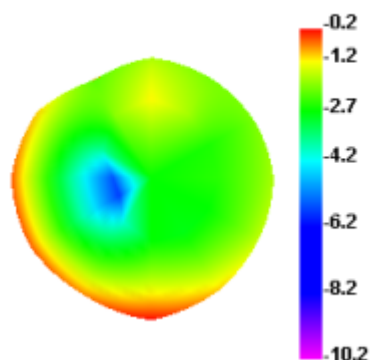
Frequency (MHz)	1176	1575
Gain (dBi)	-0.16	1.86

4.5. Radiation Pattern

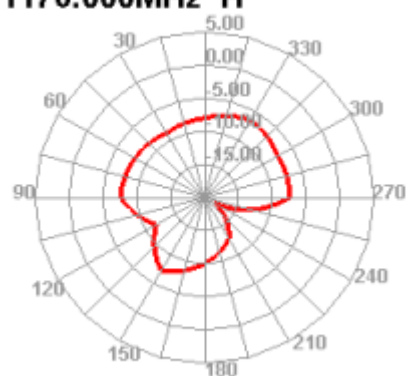
- Test condition: whole machine test



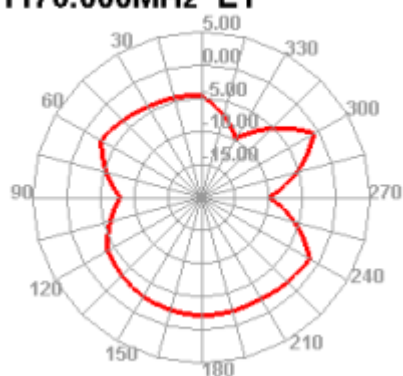
1176.000MHz



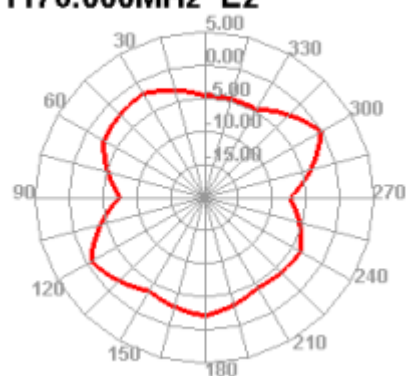
1176.000MHz H



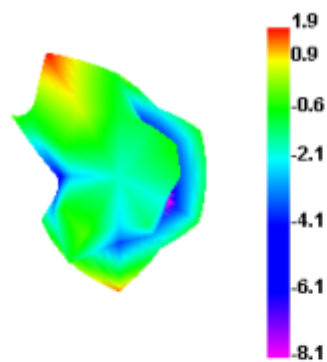
1176.000MHz E1



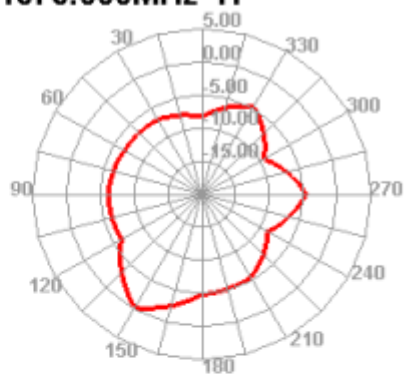
1176.000MHz E2



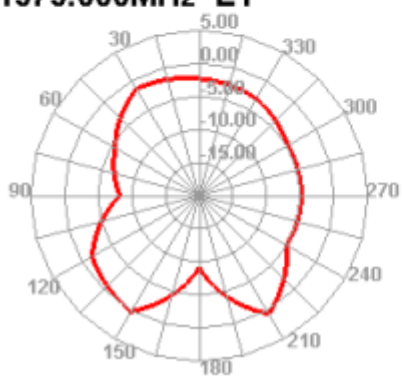
1575.000MHz



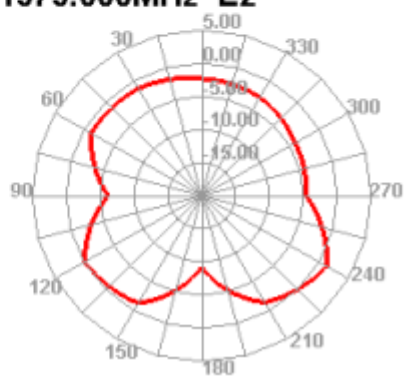
1575.000MHz H



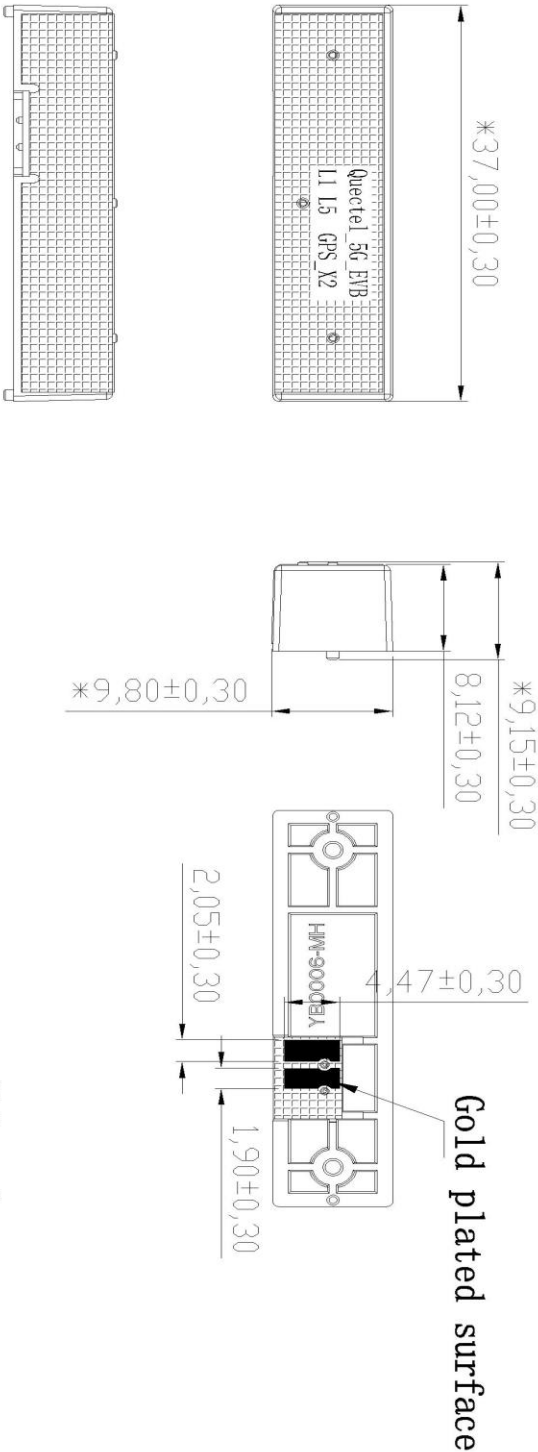
1575.000MHz E1



1575.000MHz E2



5 Product Size



Unit: mm