

Antenna

YEGT002BA Datasheet

Antenna Services

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About the Document

Revision History

| Version | Date | Author | Note |
|---------|------------|--------------------------|--------------------------|
| - | 2022-06-22 | Ezail TAN/ Jason LONG | Creation of the document |
| 1.0 | 2022-06-22 | Ezail TAN/ Jason LONG | 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 GNSS
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

| | |
|-------------------|---------------------------------------|
| Frequency Range | 1561 ±5 MHz; 1575 ±5 MHz; 1602 ±5 MHz |
| Input Impedence | 50 Ω |
| VSWR | ≤ 2.0 |
| Gain | ≤ 2 dBi |
| Polarization Type | Linear |

Mechanical Specifications

| | |
|---------------------|--|
| Antenna Size (mm) | Φ 10.5 × 52 |
| Casing | ABS + PC |
| Connector Type | SMA Male (Internal screw internal pin) |
| Working Temperature | -40 °C to +85 °C |
| Weight | Typ. 4.3 g |
| Radome Color | Black |
| Mounting Type | Screw |
| IP Rating | IP65 |

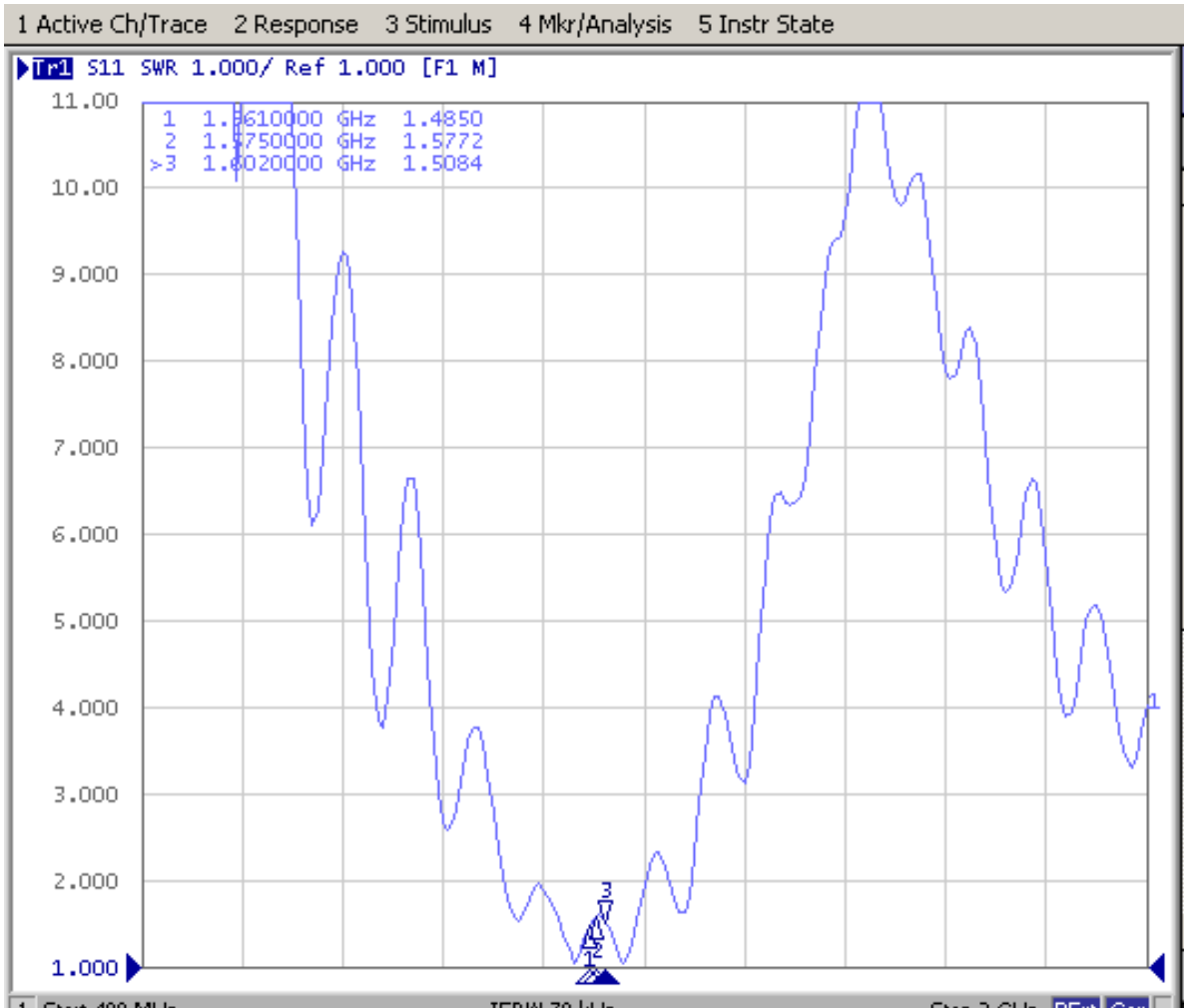
4 Overall Performance

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

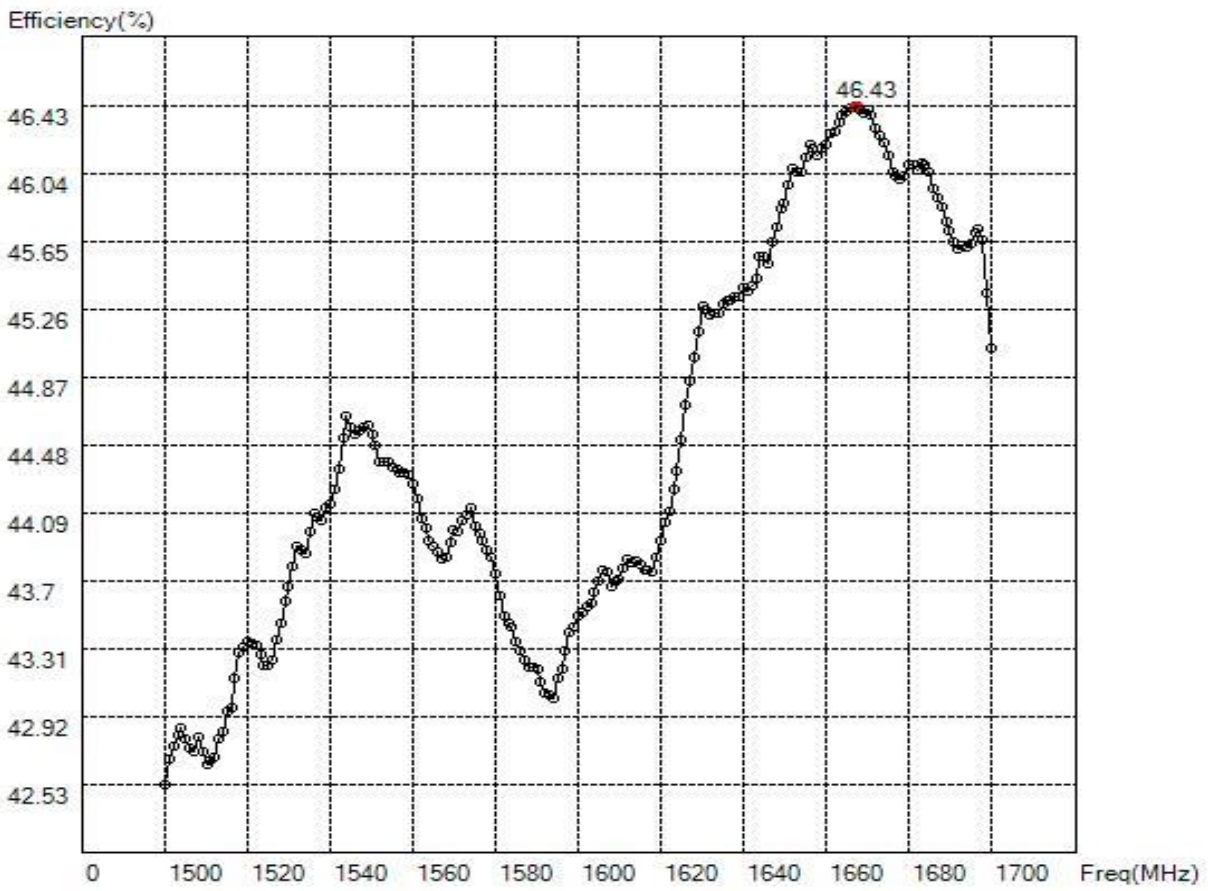


4.2. VSWR



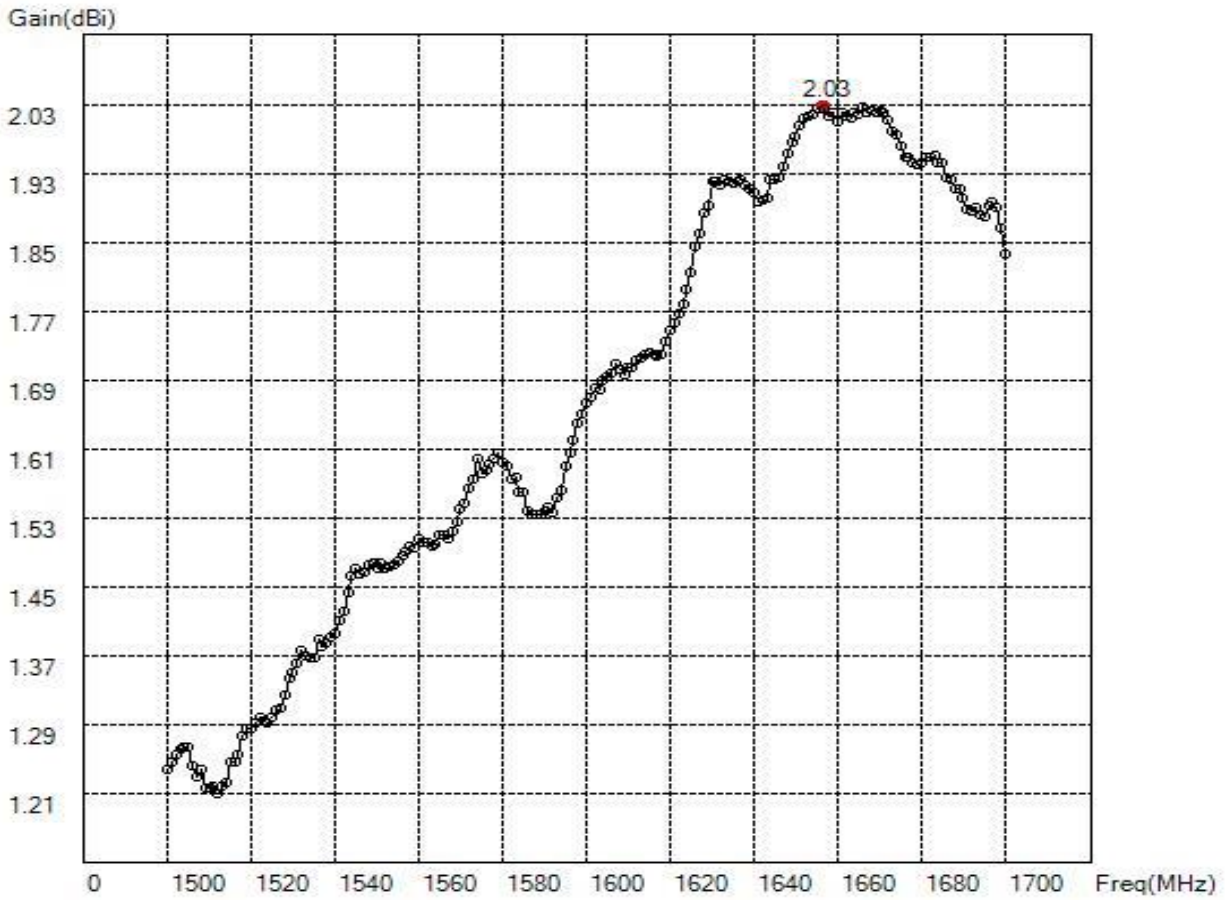
| | | | |
|-----------------|------|------|------|
| Frequency (MHz) | 1561 | 1575 | 1602 |
| VSWR | 1.48 | 1.57 | 1.5 |

4.3. Efficiency



| | | | |
|-----------------|-------|-------|-------|
| Frequency (MHz) | 1561 | 1575 | 1602 |
| Efficiency (%) | 44.17 | 44.01 | 43.55 |

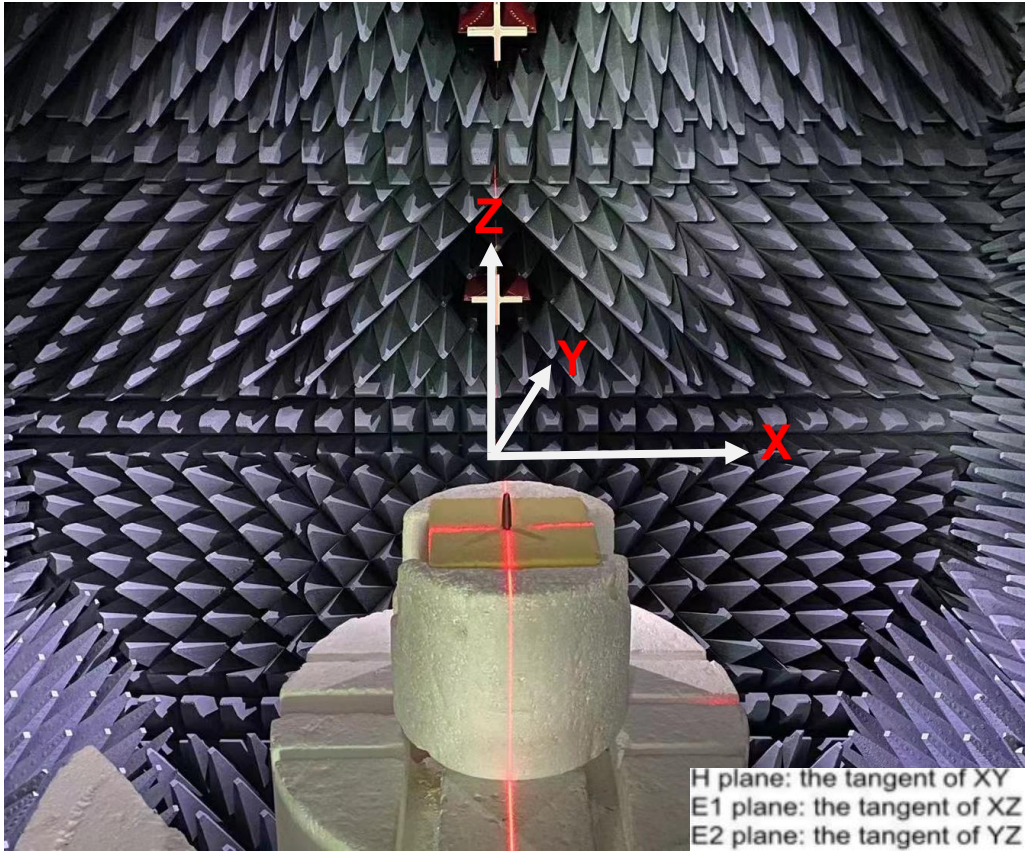
4.4. Gain

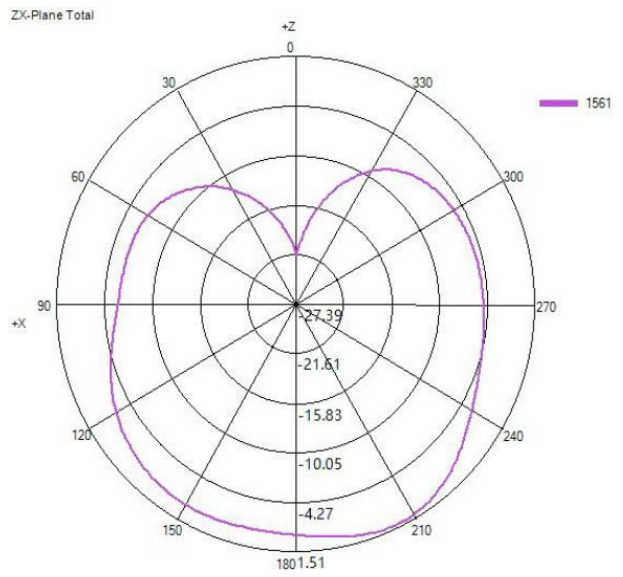
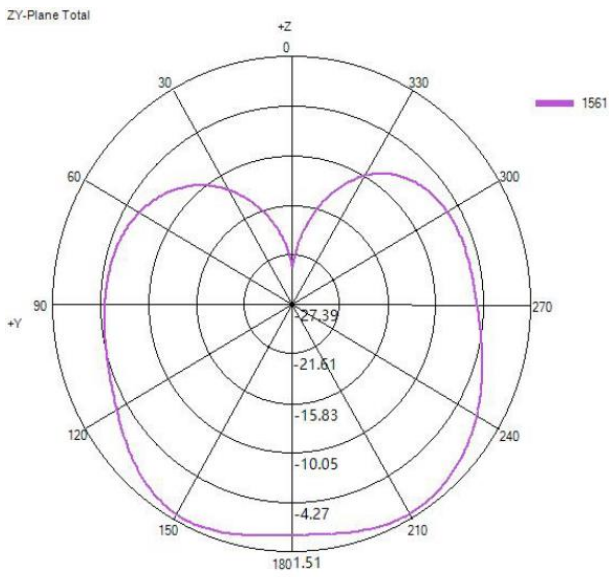
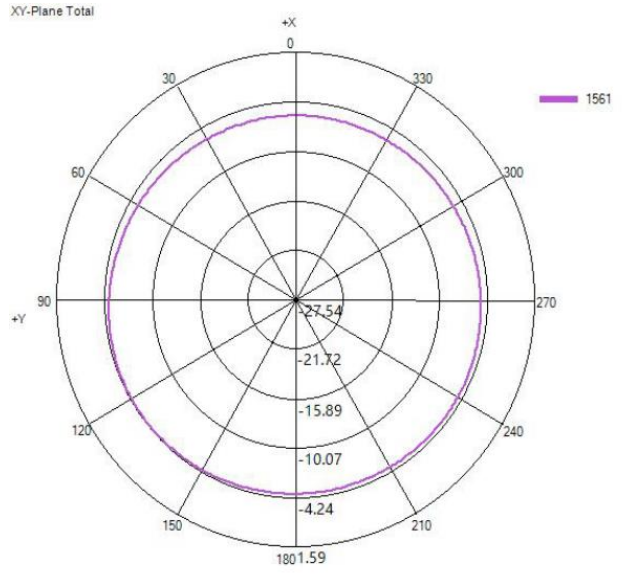
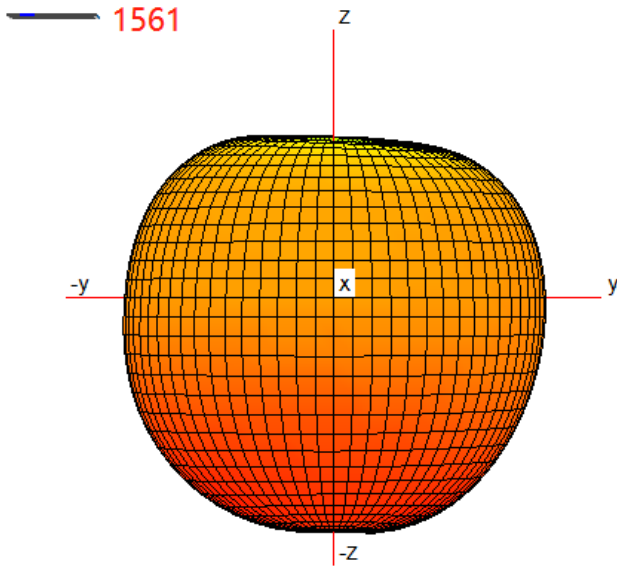


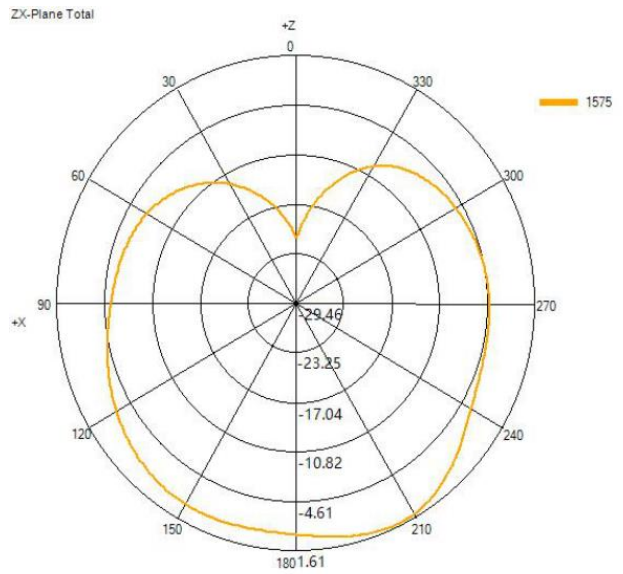
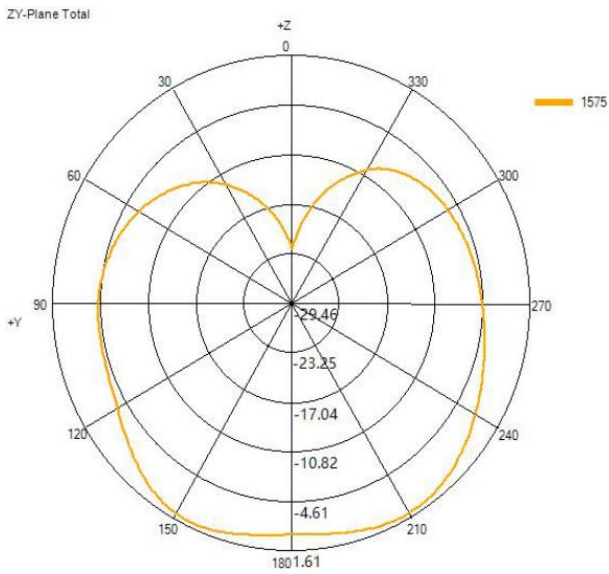
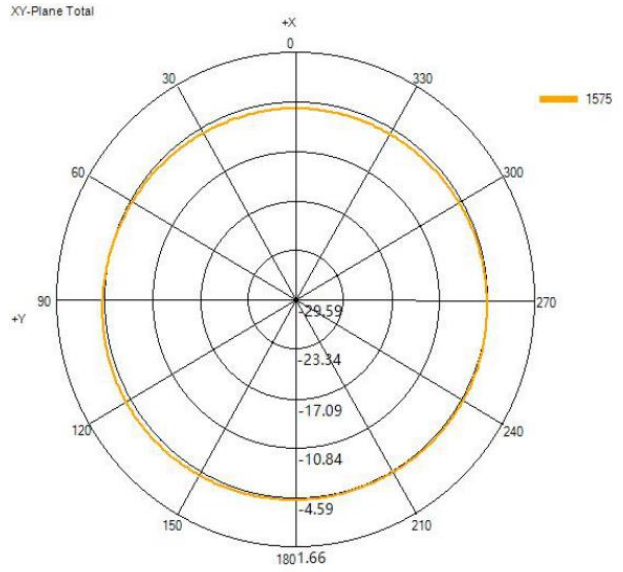
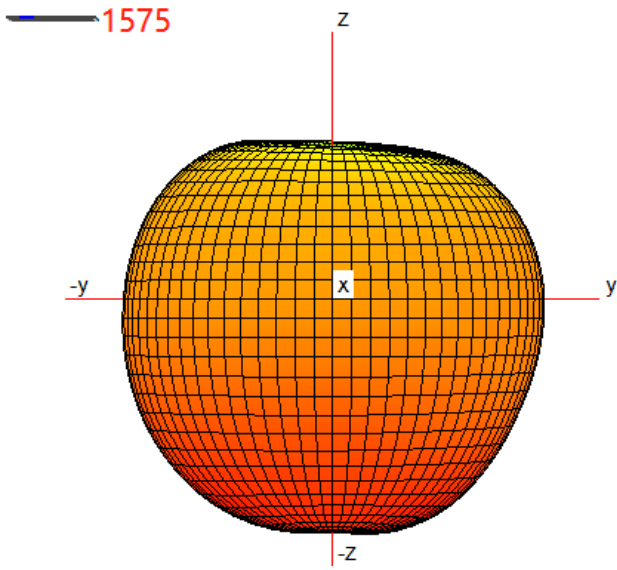
| | | | |
|-----------------|------|------|------|
| Frequency (MHz) | 1561 | 1575 | 1602 |
| Gain (dBi) | 1.51 | 1.59 | 1.69 |

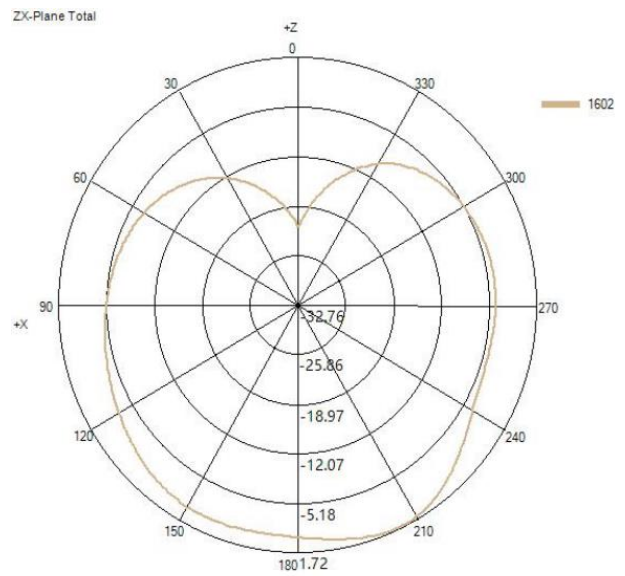
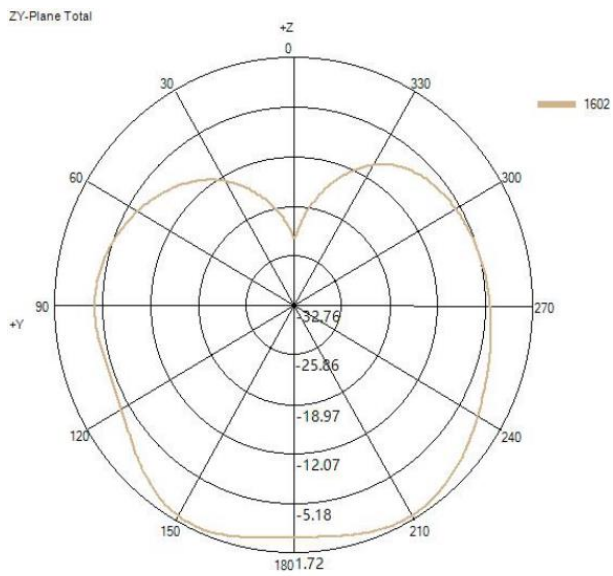
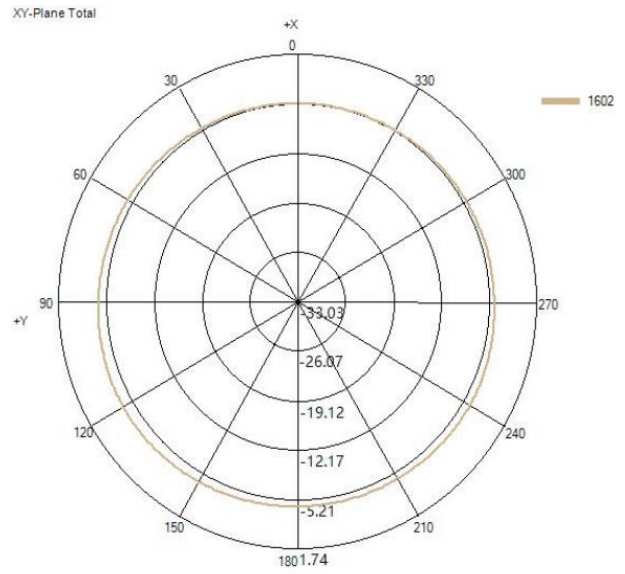
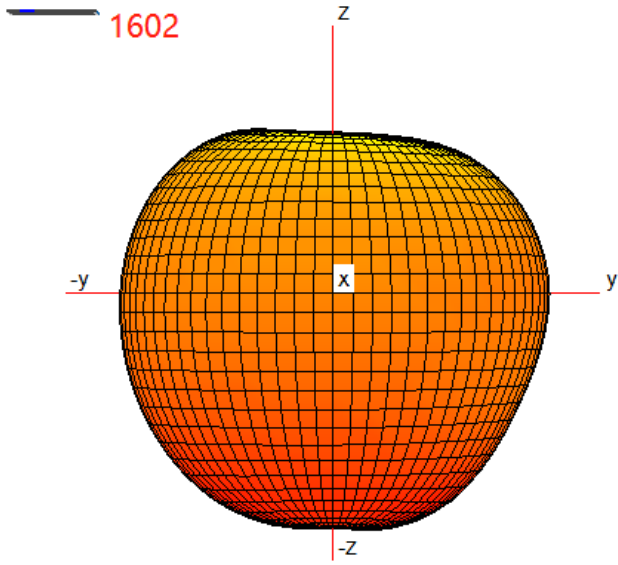
4.5. Radiation Pattern

- Test condition: free space.





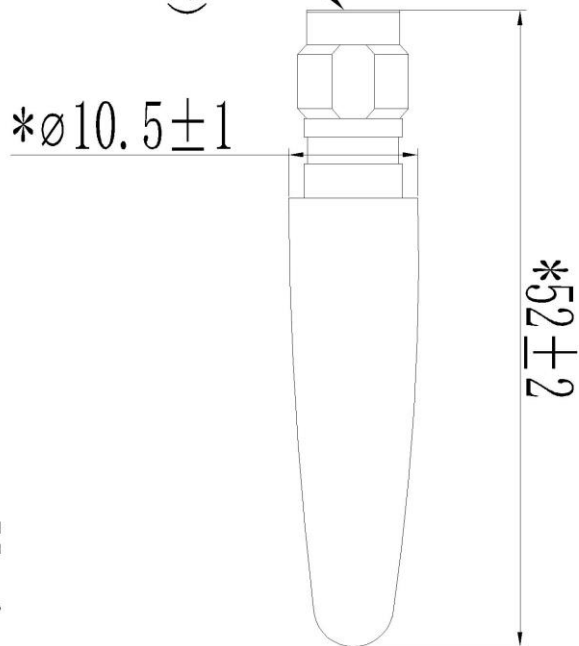




5 Product Size

RoHS

SMA Male connector
(Internal screw internal pin)
(Gold plating 48 hours salt spray)



Unit: mm