

Antenna

YE0039BA Datasheet

Antenna Services

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Status: Released



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About the Document

Revision History

| Version | Date | Author | Note |
|---------|------------|-----------|--------------------------|
| - | 2020-12-28 | Kenny YIN | Creation of the document |
| 1.0 | 2020-12-28 | Kenny YIN | First official release |

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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

- 430–470 MHz & 790–960 MHz
- High efficiency
- Excellent performance



3 Product Specifications

Passive Electrical Specifications

| | |
|-------------------|--------------------------|
| Frequency Range | 430–470 MHz; 790–960 MHz |
| Input Impedance | 50 Ω |
| VSWR | ≤ 3.0 |
| Gain | ≤ 4 dBi |
| Polarization Type | Linear |

Mechanical Specifications

| | |
|---------------------|--|
| Antenna Size | 117 mm \times 21.81 mm \times 5.47 mm; RG178 Length = 75 mm |
| Casing | ABS |
| Connector Type | SMA Male (center pin) |
| Working Temperature | -20°C to +85°C |
| Protection Grade | IP66 |
| Radome Color | Black |
| Installation Method | Adhesive |

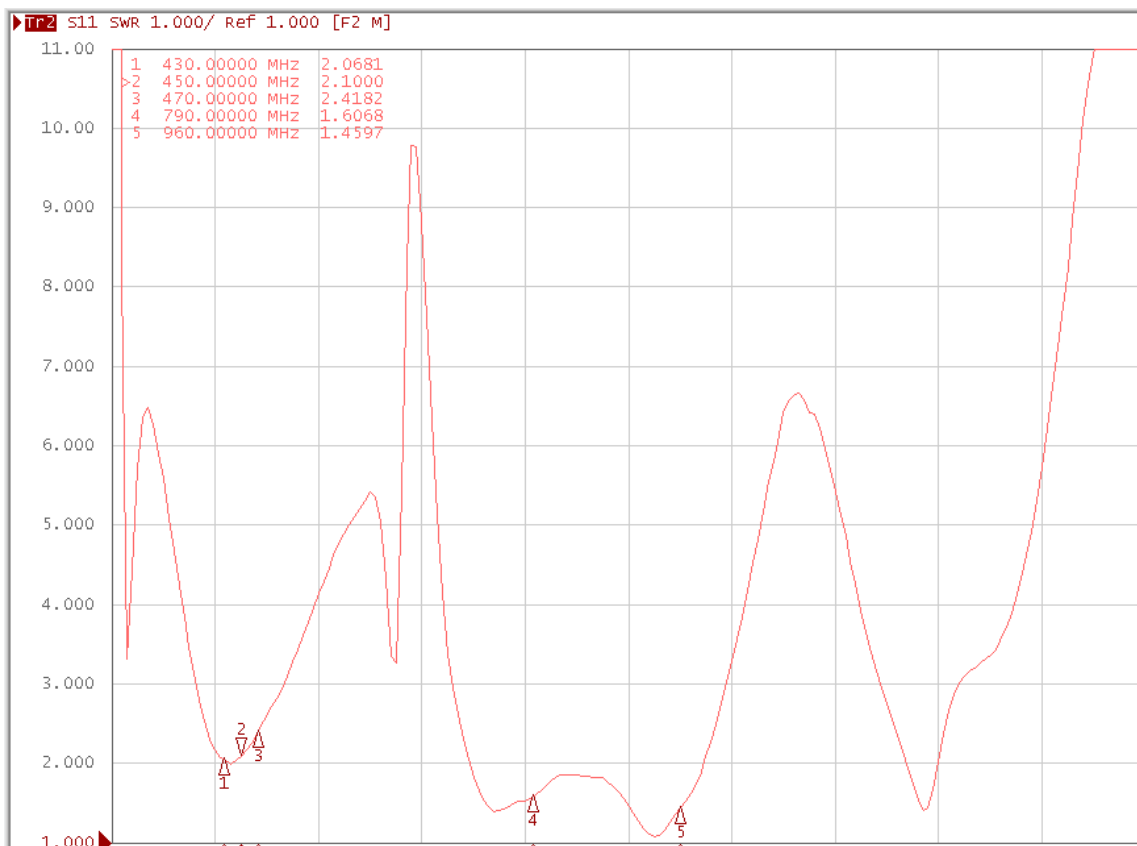
4 Overall Performance

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

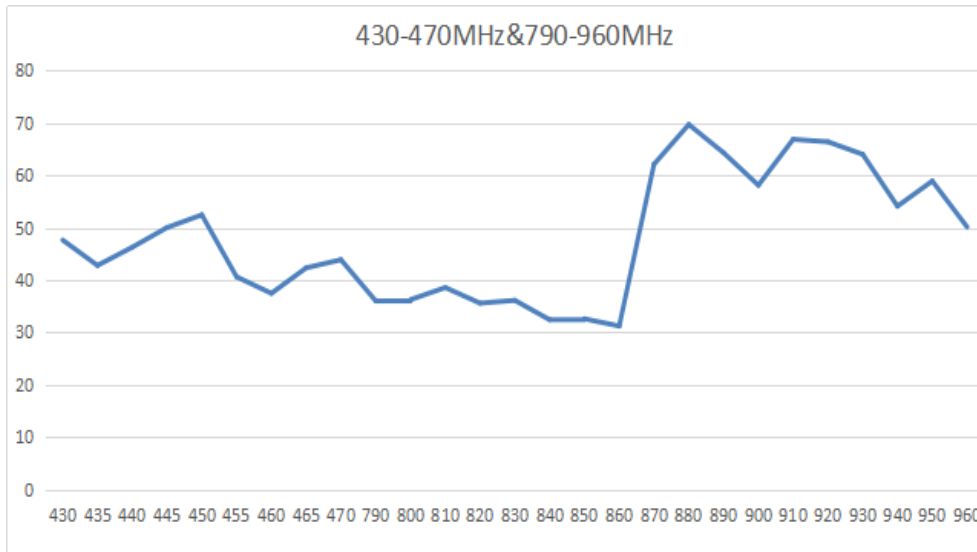


4.2. VSWR



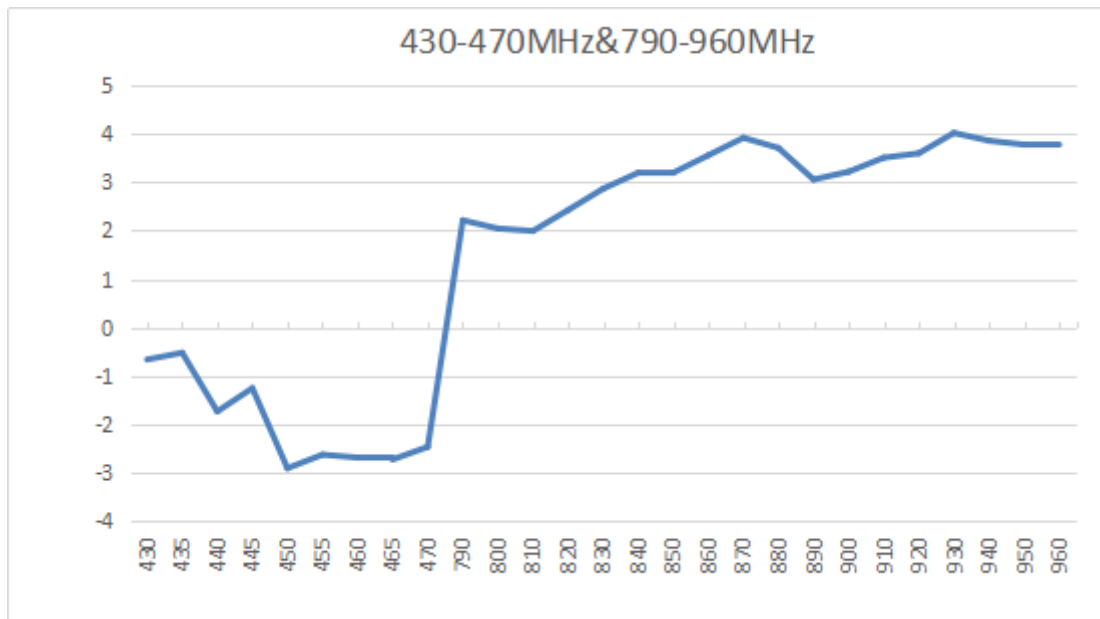
| Frequency (MHz) | 430 | 450 | 470 | 790 | 960 |
|-----------------|------|------|------|------|------|
| VSWR | 2.07 | 2.10 | 2.42 | 1.61 | 1.46 |

4.3. Efficiency



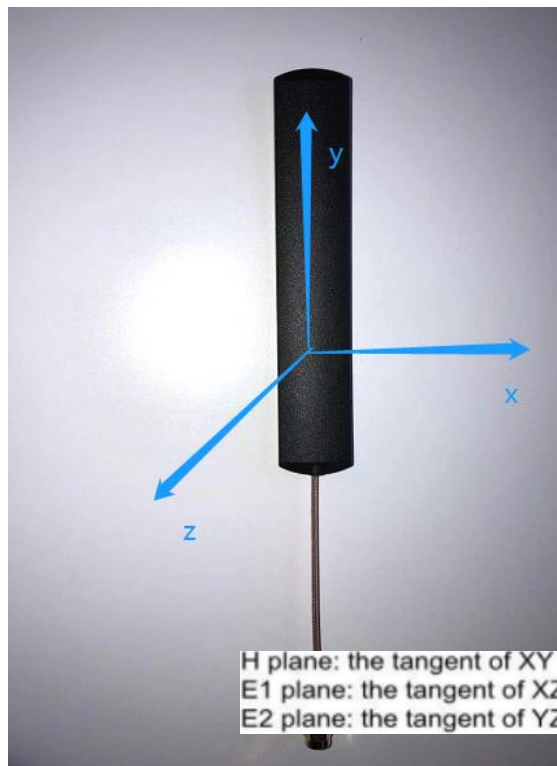
| | | | | | |
|------------------------|------|------|------|-----|------|
| Frequency (MHz) | 430 | 450 | 470 | 790 | 960 |
| Efficiency (%) | 44.5 | 33.6 | 40.8 | 62 | 55.7 |

4.4. Gain

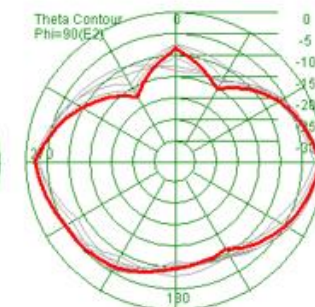
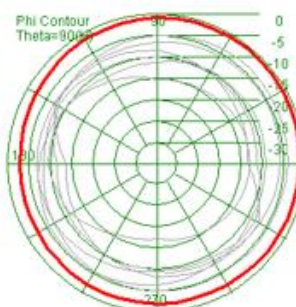
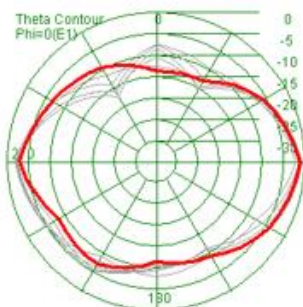
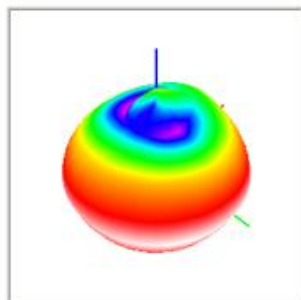


| | | | | | |
|-----------------|-------|-------|-------|------|------|
| Frequency (MHz) | 430 | 450 | 470 | 790 | 960 |
| Gain (dBi) | -0.66 | -2.90 | -2.46 | 2.21 | 3.78 |

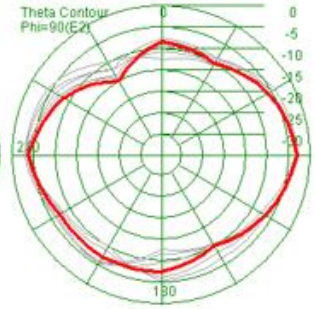
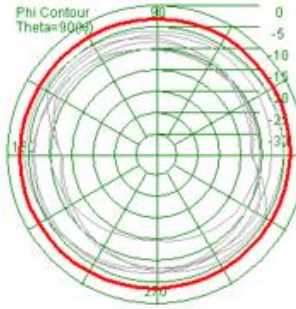
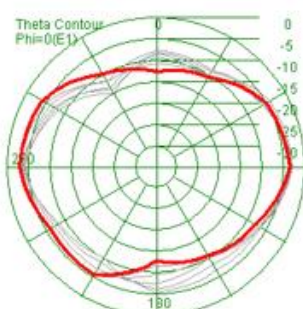
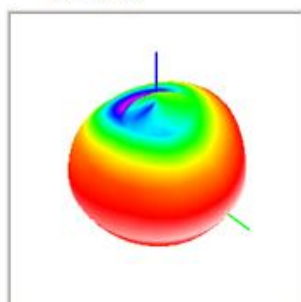
4.5. Radiation Patterns



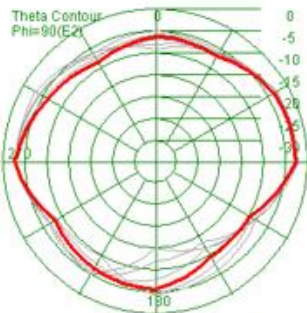
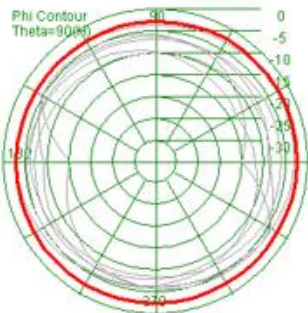
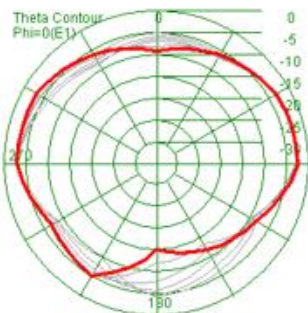
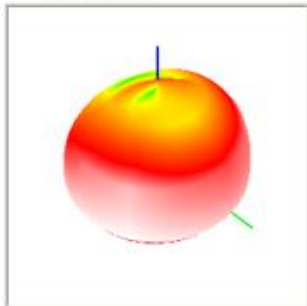
430MHz



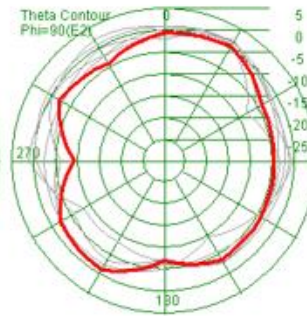
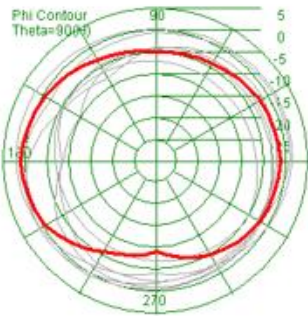
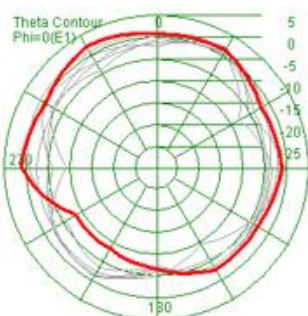
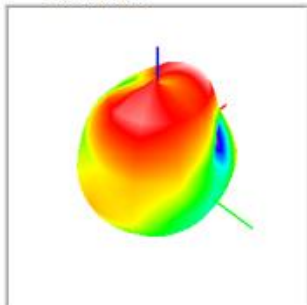
450MHz



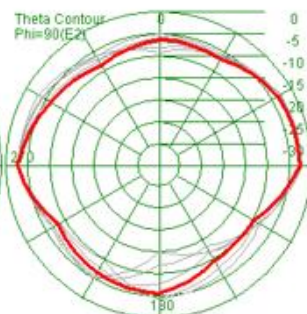
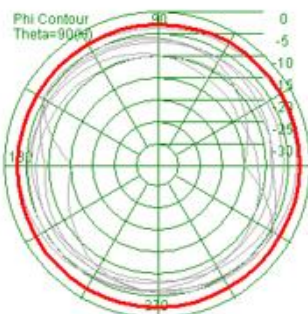
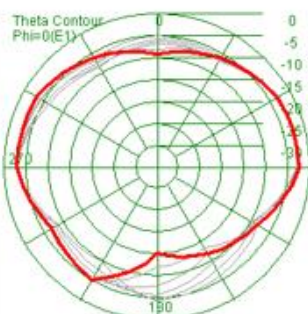
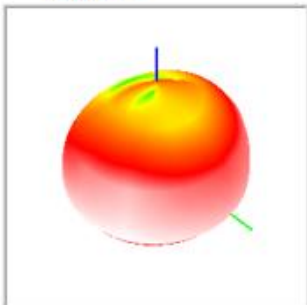
470MHz



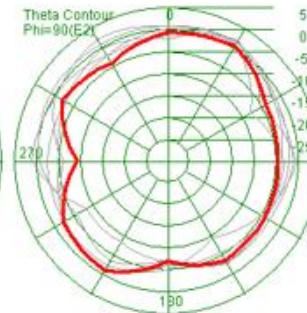
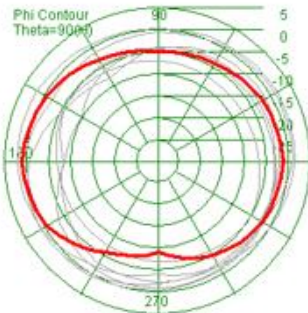
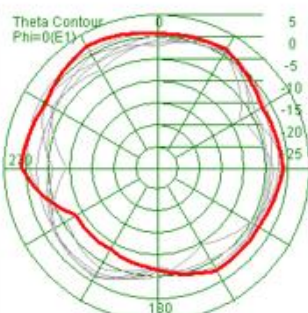
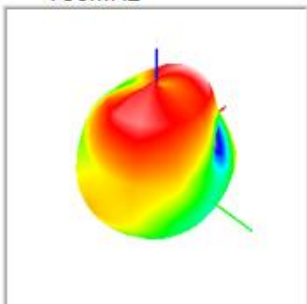
790MHz



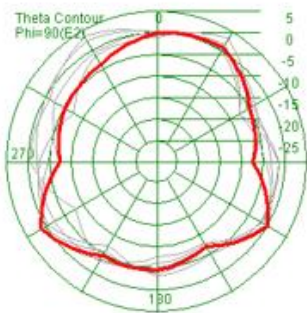
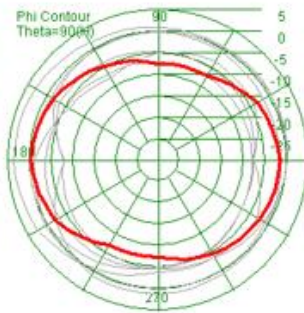
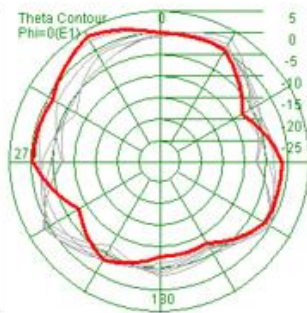
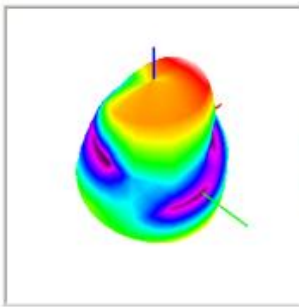
470MHz



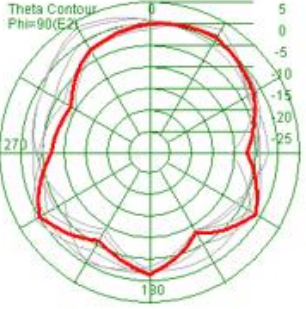
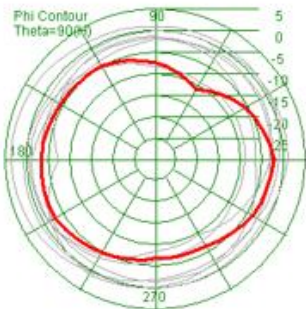
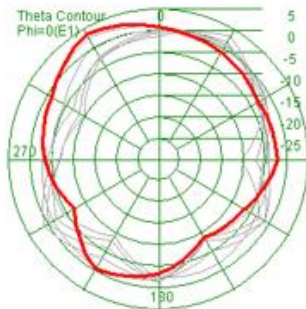
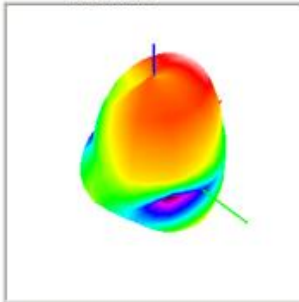
790MHz



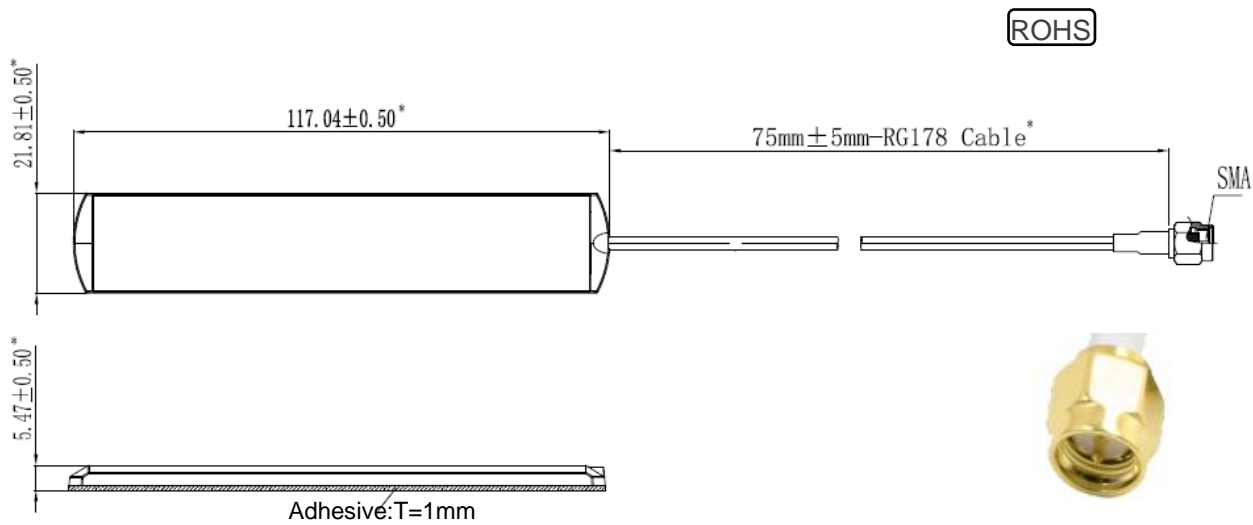
880MHz



960MHz



5 Product Size



Mouser Electronics

Authorized Distributor

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