


1. Specification

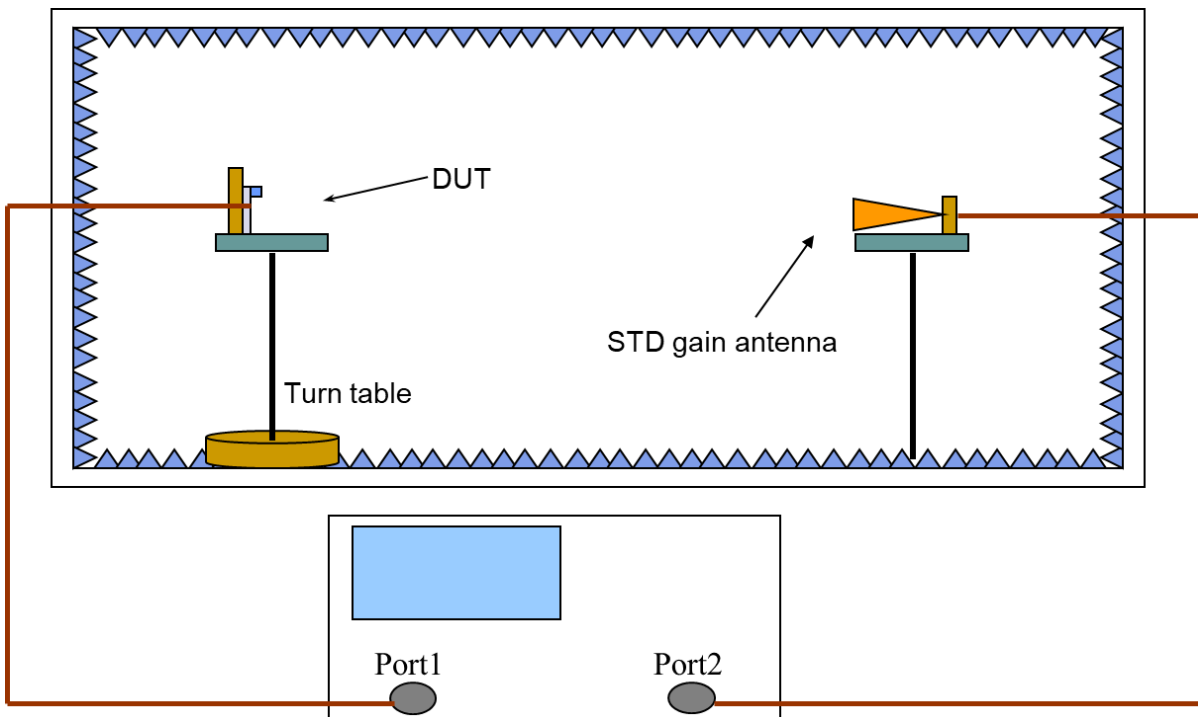
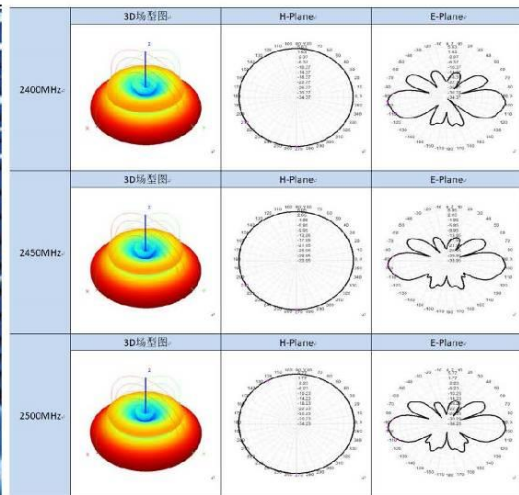
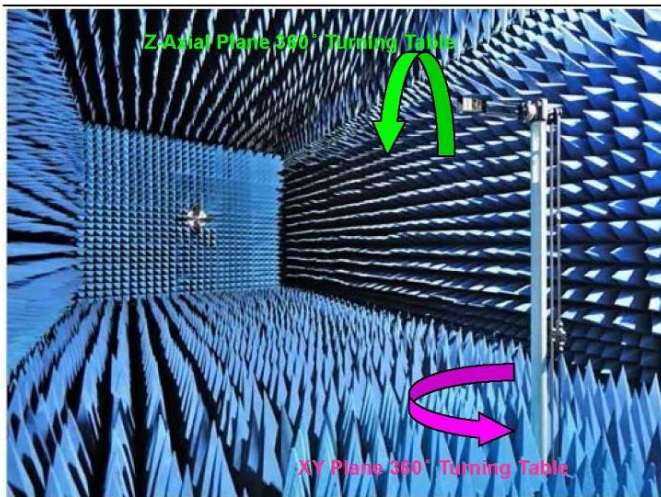
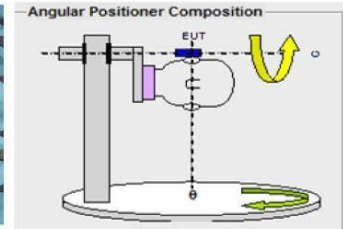
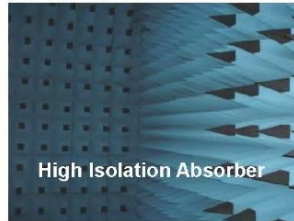
| Sample Photo | |
|--|-------------------|
|  | |
| A. Electrical Characteristics | |
| Frequency | 433MHz |
| Impedance | 50 Ohm |
| S.W.R. | <2.0 |
| Gain | -1.5dBi |
| Efficiency | ≈30% |
| Polarization | Linear |
| Horizontal Beamwidth | 360° |
| Vertical Beamwidth | 45-48° |
| Max Power | 50W |
| B. Material & Mechanical Characteristics | |
| Connector Type | SMA connector |
| Cable Type | RG174 Cable |
| Dimension | Φ 30*170mm |
| Weight | 0.045Kg |
| Antenna material | Carbon Steel |
| C. Environmental | |
| Operation Temperature | - 40 °C ~ + 80 °C |
| Storage Temperature | - 40 °C ~ + 80 °C |

Test Equipment & Conditions

1. Network Analyzer: Keysight E5071C

2. 3D Chamber Test System

- .Chamber Size: 9 x 5 x 4 m³
- .Freq. Range: 0.4 ~ 18.0 GHz
- .Double Ridge Horn Antenna
- .VNA: Agilent E5071C
- .3D Turning Table and Positioner
- .ADT Solution 3D Testing Software

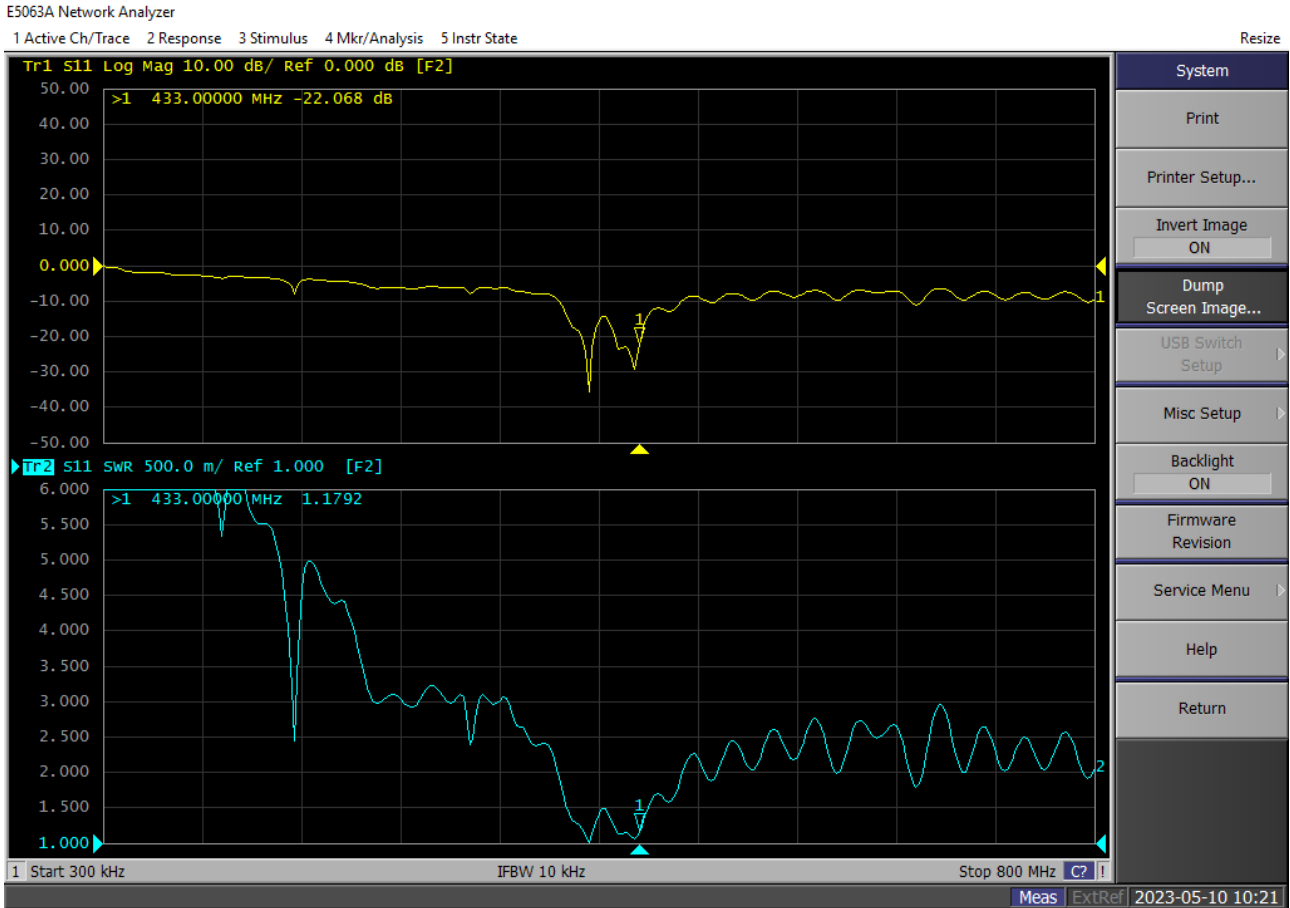




Product Number: BGS-AN0433-30170B
Product Name: Magnetic Antenna 433MHz

2. Antenna - S Parameter Test Data

2.1. VSWR

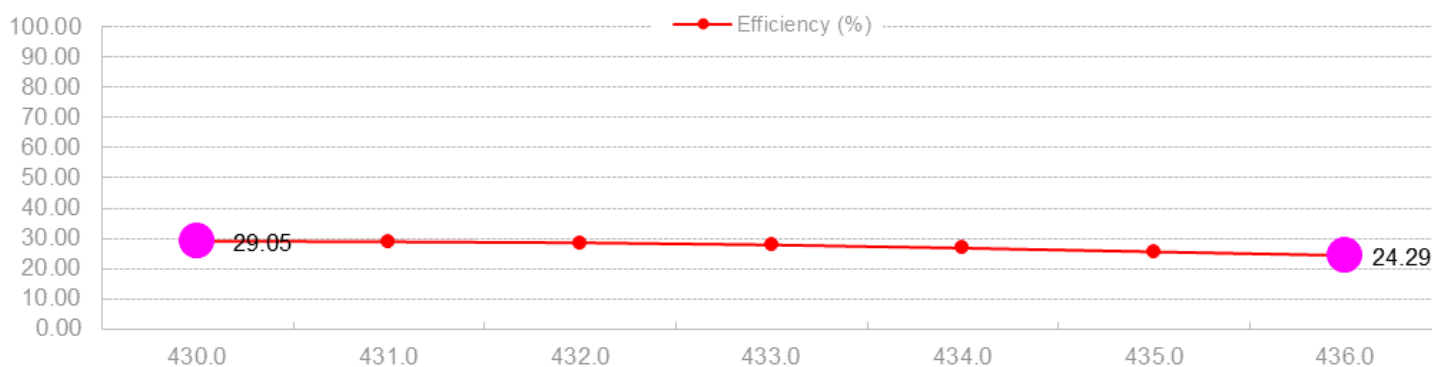




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2.2 Total Efficiency & Gain:

| Frequency(MHz) | 430.0 | 431.0 | 432.0 | 433.0 | 434.0 | 435.0 | 436.0 |
|----------------|-------|-------|-------|-------|-------|-------|-------|
| Gain (dBi) | -1.78 | -1.77 | -1.78 | -1.85 | -1.97 | -2.12 | -2.28 |
| Efficiency (%) | 29.05 | 28.86 | 28.51 | 27.80 | 26.73 | 25.52 | 24.29 |





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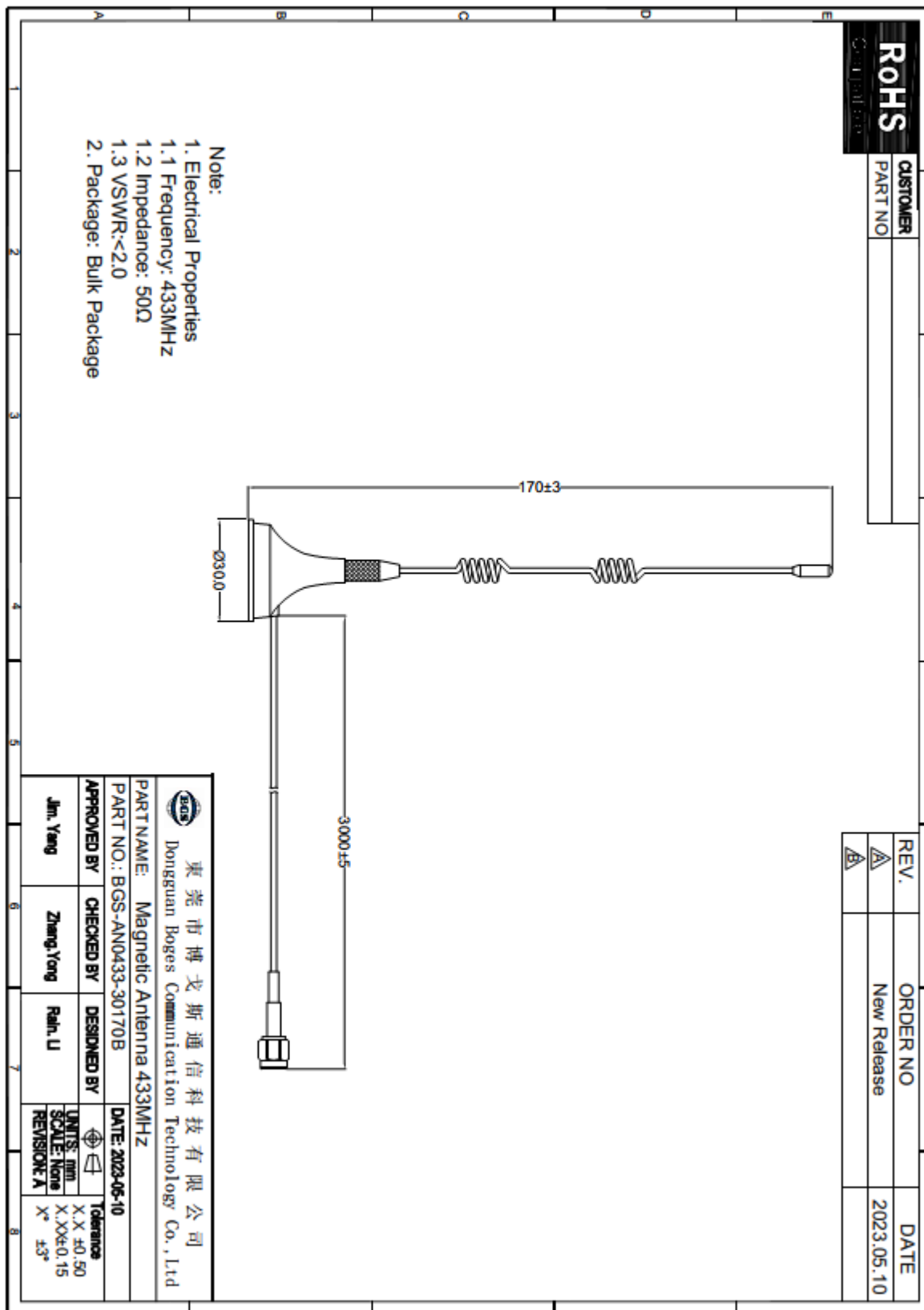
2.3 Radiation Pattern

| | 3D | 2D-Horizontal | 2D-Vertical |
|--------|----|---------------|-------------|
| 430MHz | | | |
| 433MHz | | | |
| 436MHz | | | |



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1. Mechanical Drawing



RoHS
 Compliant

CUSTOMER
 PART NO

| REV. | ORDER NO | DATE |
|------|-------------|------------|
| A | New Release | 2023.05.10 |
| B | | |

| | |
|--|------------------------|
| 东莞市博戈斯通信科技有限公司 Dongguan Boges Communication Technology Co., Ltd | |
| PART NAME: Magnetic Antenna 433MHz | |
| PART NO.: BGS-AN0433-30170B | |
| DATE: 2023-05-10 | Tolerance |
| UNITS: mm | X.X ±0.50 |
| SCALE: None | X.XX ±0.15 |
| REVISION: A | X° ±3° |
| APPROVED BY: Jin Yang | CHECKED BY: Zheng Yong |
| DESIGNED BY: Rui Li | |