




Product Number: BGS-AN2458-200300W
Product Name: 2.4/5.8GHz Omnidirectional Antenna

1. Specification

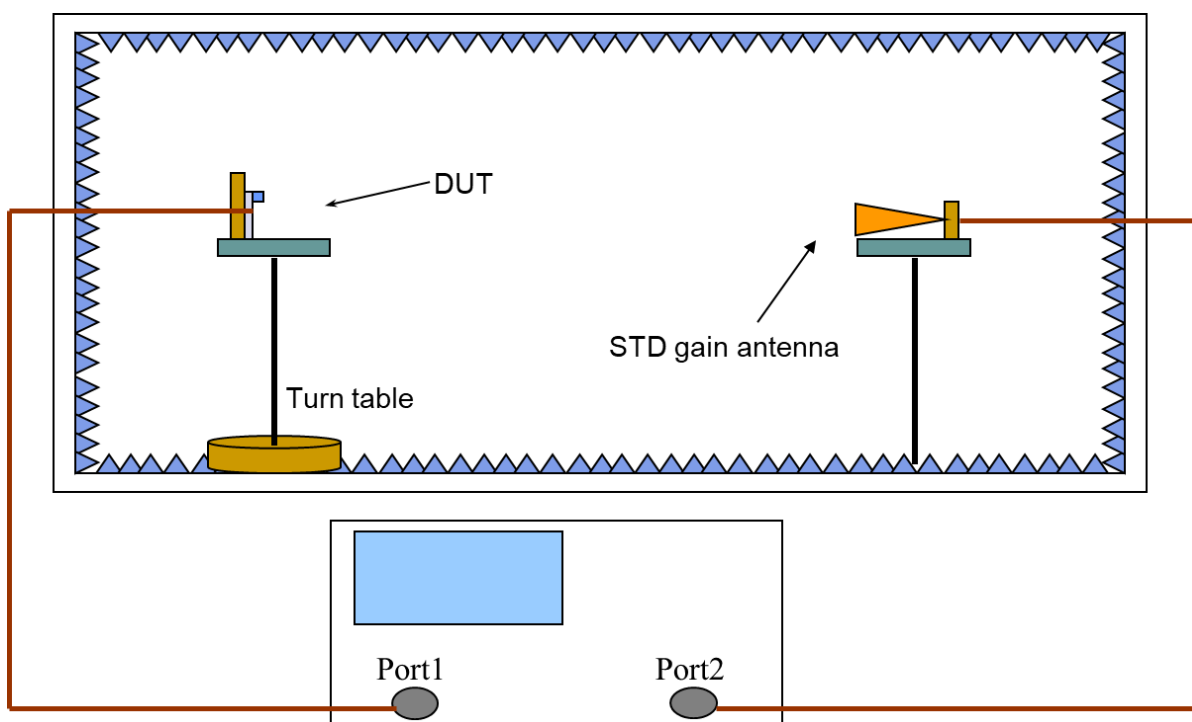
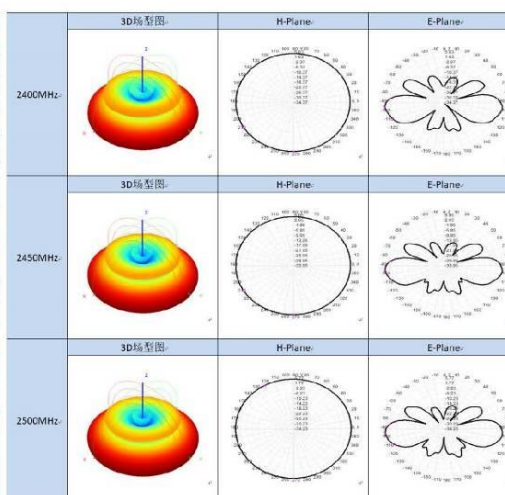
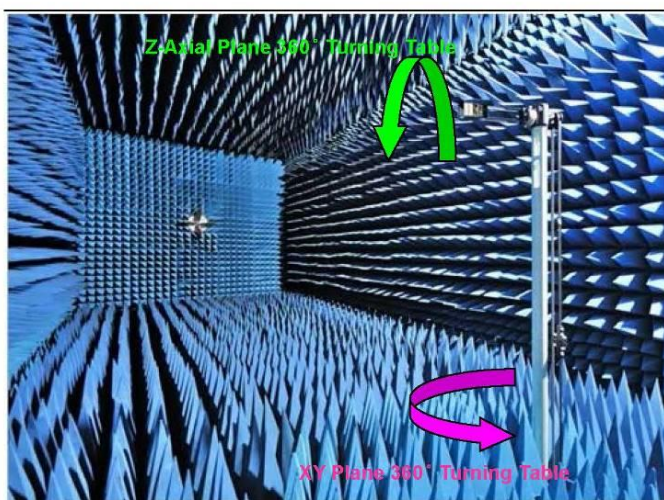
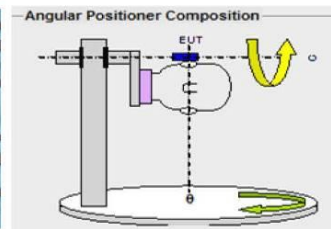
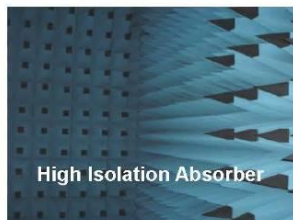
| Sample Photo | | | | |
|--|-------------------|--------------|--------------|--------------|
|  | | | | |
| A. Electrical Characteristics | | | | |
| Port | Port1 | Port2 | Port3 | Port4 |
| Frequency | 2400-2500MHz | 2400-2500MHz | 5150-5850MHz | 5150-5850MHz |
| S.W.R. | <2.0 | <2.0 | <2.0 | <2.0 |
| Antenna Gain | 9dBi | 9dBi | 10dBi | 10dBi |
| Polarization | Linear | Linear | Linear | Linear |
| Horizontal Beamwidth | 360° | 360° | 360° | 360° |
| Vertical Beamwidth | 23-26° | 23-25° | 11-16° | 10-14° |
| Impedance | 50 Ohm | 50 Ohm | 50 Ohm | 50 Ohm |
| Max Power | 50W | 50W | 50W | 50W |
| B. Material & Mechanical Characteristics | | | | |
| Connector Type | N connector | | | |
| Dimension | Φ 200*300mm | | | |
| Weight | 1.8Kg | | | |
| Radome material | ABS | | | |
| C. Environmental | | | | |
| Operation Temperature | - 40 °C ~ + 80 °C | | | |
| Storage Temperature | - 40 °C ~ + 80 °C | | | |
| Rated Wind Velocity | 36.9m/s | | | |
| Lighting Protection | DC Ground | | | |

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



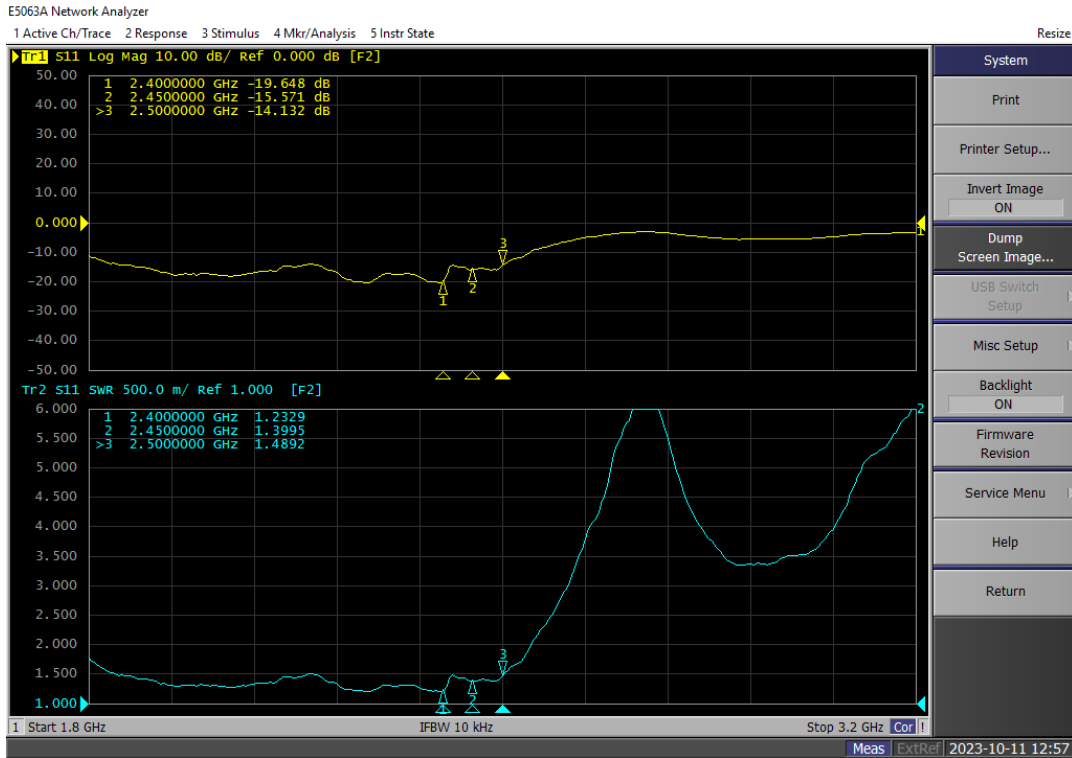


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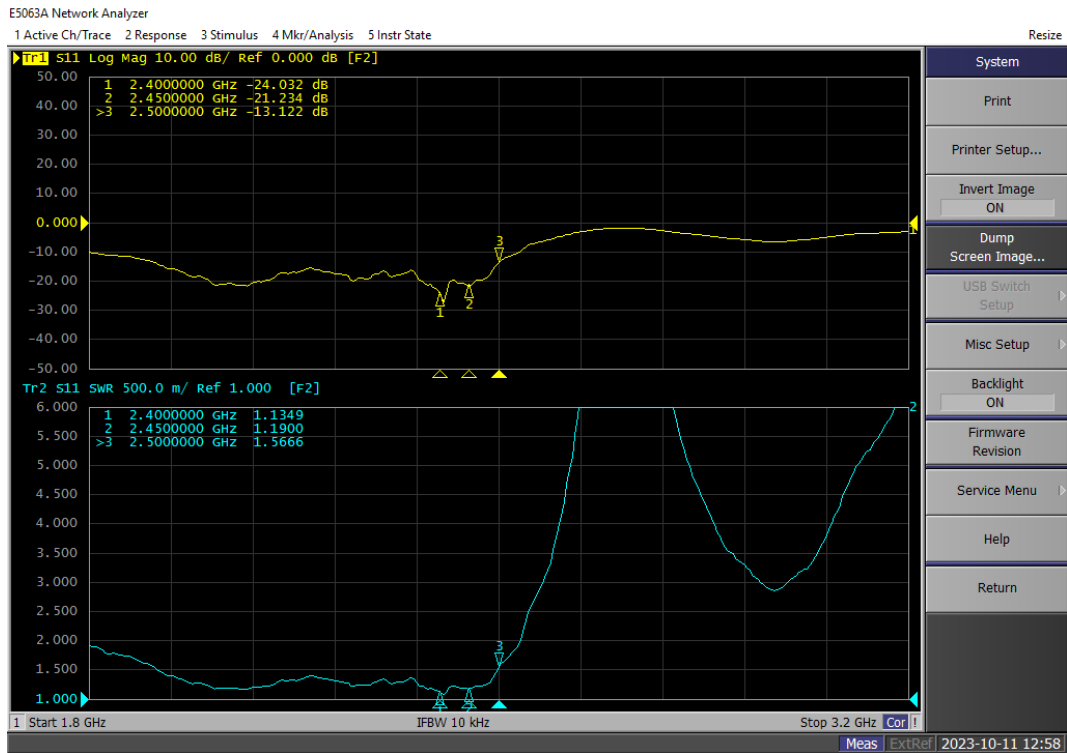
2. Antenna - S Parameter Test Data

2.1. VSWR

Port1



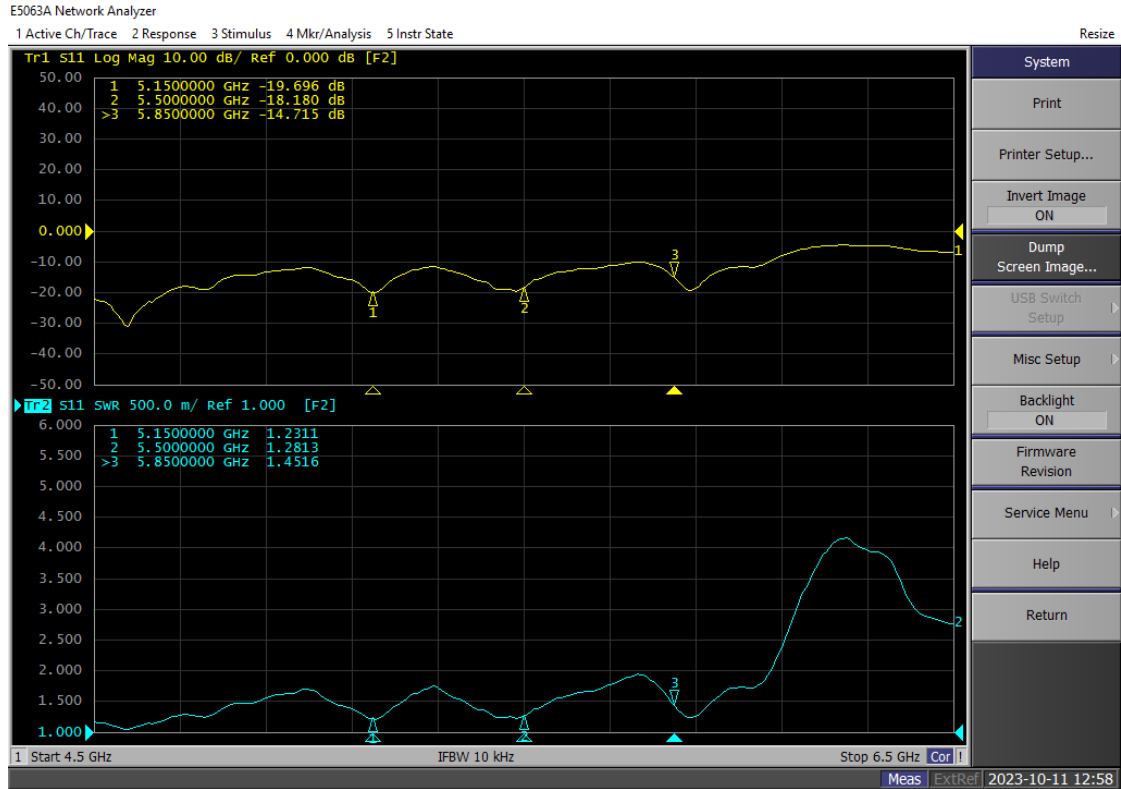
Port2



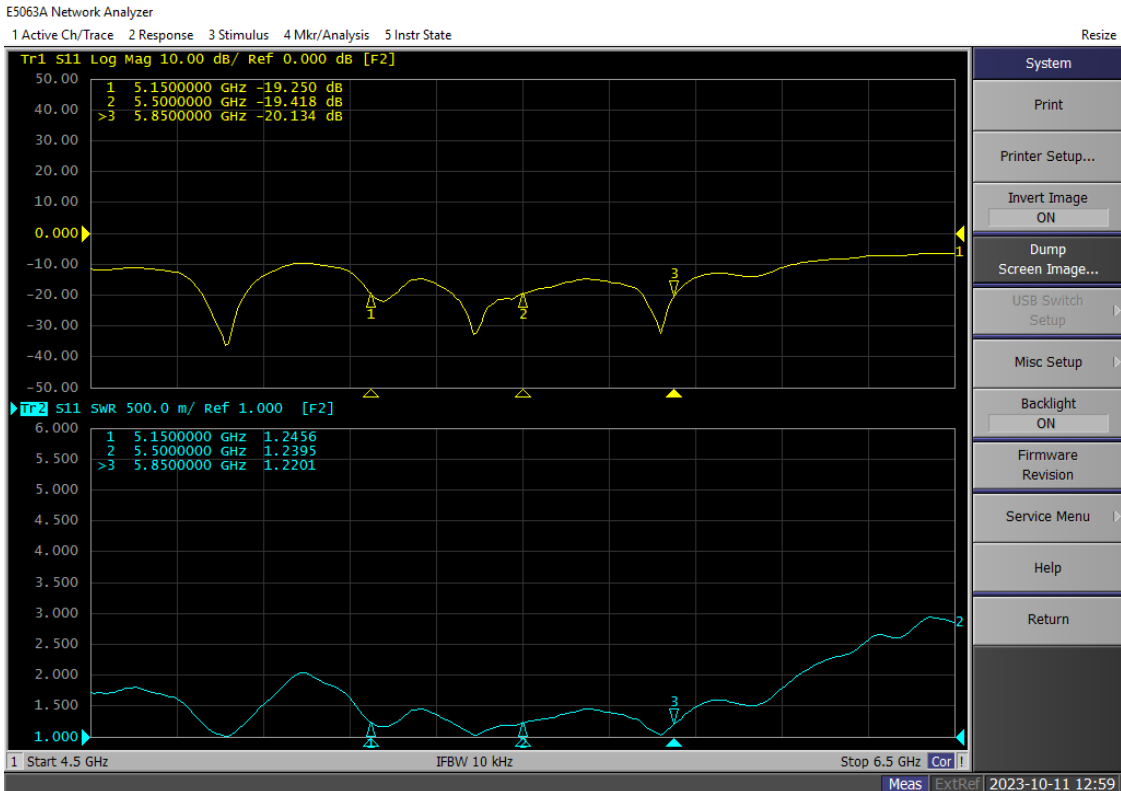


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Port3



Port4





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2.2. Total Efficiency & Gain:

| Port 1 | | | Port 2 | | |
|-----------------|------------|----------------|-----------------|------------|----------------|
| Frequency(MHz) | Gain(dBi) | Efficiency(%) | Frequency(MHz) | Gain(dBi) | Efficiency(%) |
| 2400 | 8.3 | 89.5 | 2400 | 7.8 | 84.8 |
| 2410 | 7.5 | 81.5 | 2410 | 7.1 | 78.3 |
| 2420 | 8.1 | 87.0 | 2420 | 7.7 | 83.3 |
| 2430 | 8.4 | 90.8 | 2430 | 8.1 | 89.1 |
| 2440 | 8.5 | 91.1 | 2440 | 8.1 | 87.9 |
| 2450 | 8.7 | 93.0 | 2450 | 8.1 | 88.6 |
| 2460 | 8.7 | 94.9 | 2460 | 8.2 | 91.1 |
| 2470 | 8.8 | 96.1 | 2470 | 8.6 | 94.7 |
| 2480 | 9.0 | 94.8 | 2480 | 8.7 | 93.8 |
| 2490 | 8.9 | 91.2 | 2490 | 8.7 | 90.0 |
| 2500 | 9.0 | 92.4 | 2500 | 8.7 | 89.7 |
| Port 3 | | | Port 4 | | |
| Frequency(MHz) | Gain(dBi) | Efficiency(%) | Frequency(MHz) | Gain(dBi) | Efficiency(%) |
| 5150 | 6.9 | 47.9 | 5150 | 4.6 | 33.1 |
| 5200 | 7.6 | 51.8 | 5200 | 6.7 | 41.7 |
| 5250 | 8.5 | 55.3 | 5250 | 7.9 | 50.6 |
| 5300 | 9.3 | 63.3 | 5300 | 9.1 | 62.5 |
| 5350 | 9.9 | 73.0 | 5350 | 9.5 | 68.7 |
| 5400 | 10.0 | 73.3 | 5400 | 9.6 | 68.2 |
| 5450 | 10.3 | 78.5 | 5450 | 9.9 | 72.9 |
| 5500 | 10.1 | 83.1 | 5500 | 10.1 | 79.2 |
| 5550 | 9.3 | 85.7 | 5550 | 9.6 | 83.1 |
| 5600 | 8.4 | 83.4 | 5600 | 9.0 | 83.4 |
| 5650 | 7.5 | 79.3 | 5650 | 8.9 | 81.4 |
| 5700 | 7.2 | 74.2 | 5700 | 9.4 | 78.4 |
| 5750 | 8.5 | 78.7 | 5750 | 9.7 | 79.1 |
| 5800 | 8.7 | 74.4 | 5800 | 9.8 | 80.3 |
| 5850 | 8.4 | 71.5 | 5850 | 9.2 | 71.2 |



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2.3 Radiation Pattern

| Port1 | 3D | 2D-Horizontal | 2D-Vertical |
|----------|----|---------------|-------------|
| 2400M Hz | | | |
| 2450M Hz | | | |
| 2500M Hz | | | |



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| Port2 | 3D | 2D-Horizontal | 2D-Vertical |
|----------|----|---------------|-------------|
| 2400M Hz | | | |
| 2450M Hz | | | |
| 2500M Hz | | | |



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| Port3 | 3D | 2D-Horizontal | 2D-Vertical |
|----------|----|---------------|-------------|
| 5150M Hz | | | |
| 5500M Hz | | | |
| 5850M Hz | | | |



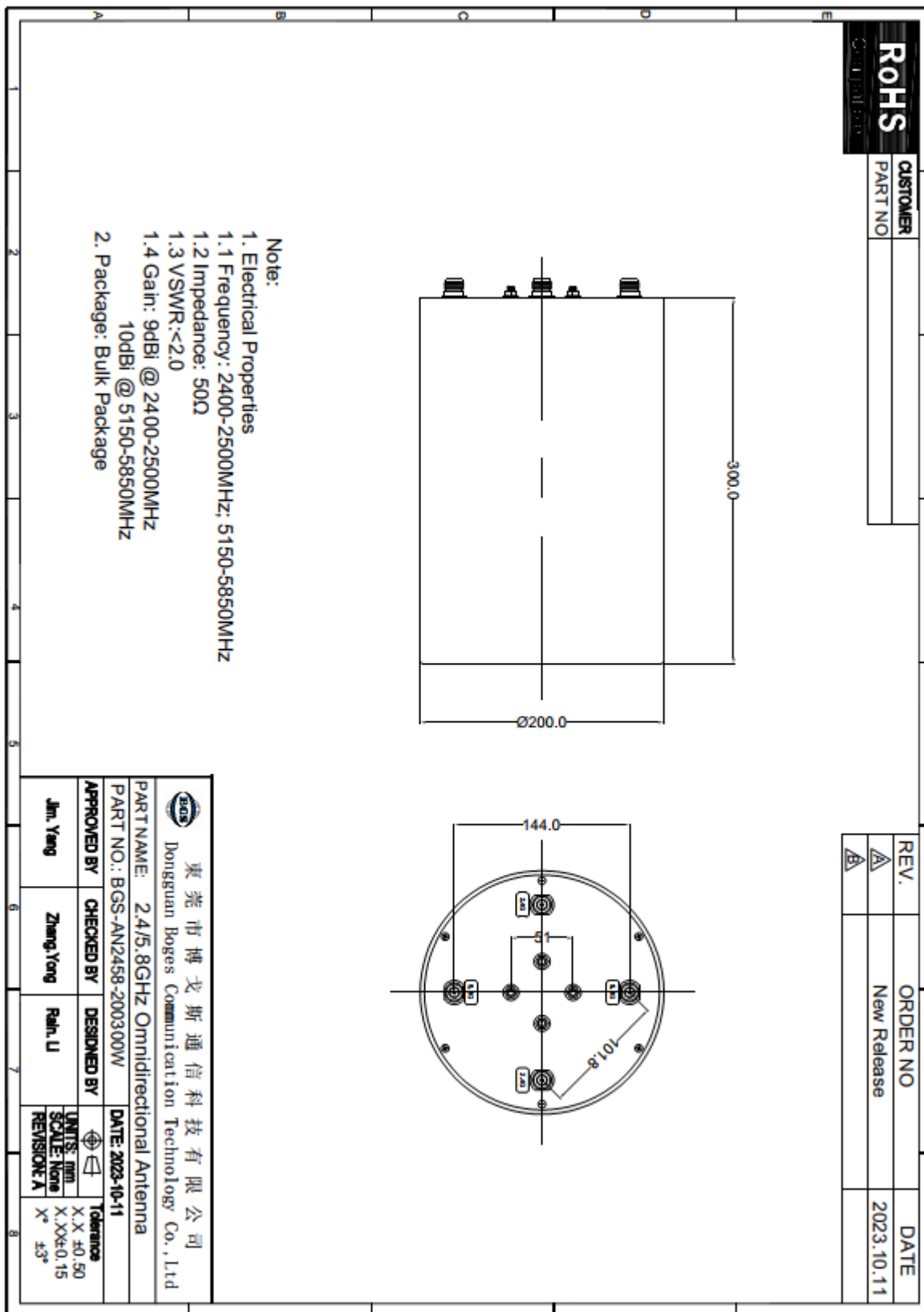
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| Port4 | 3D | 2D-Horizontal | 2D-Vertical |
|-------------|----|---------------|-------------|
| 5150M Hz | | | |
| 5500M Hz | | | |
| 5850M Hz | | | |



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3. Mechanical Drawing





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