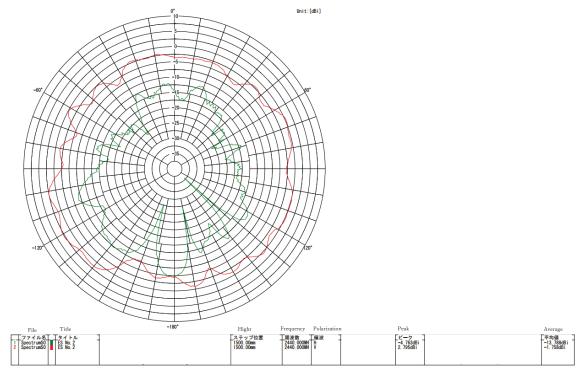
# ATW-T1401 Antenna Report

| Specification   |                                     |  |  |
|-----------------|-------------------------------------|--|--|
| Model           | ATW-T1401                           |  |  |
| Antenna Type    | Antenna1: λ/4 Monopole PCB Antenna  |  |  |
|                 | Antenna2: λ/4 Monopole Wire Antenna |  |  |
| Impedance       | $50\Omega$                          |  |  |
| Frequency Range | 2402 – 2480MHz                      |  |  |
| Gain            | Antenna1: 2.79dBi (Peak)            |  |  |
|                 | Antenna2: -0.06dBi (Peak)           |  |  |
| Manufacturer    | Audio-Technica                      |  |  |

| Antenna 1 (PCB Antenna)  |                               |
|--------------------------|-------------------------------|
|                          | Reference to Test Setup Photo |
| Antenna 2 (Wire Antenna) |                               |
|                          | Reference to Test Setup Photo |
|                          | Reference to Test Setup Photo |

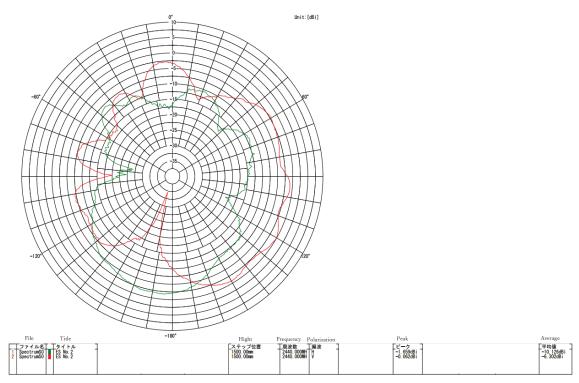
### Antenna 1 Radiation Pattern

2023/03/08 17:35:39



Antenna 2 Radiation Pattern

2023/03/08 17:27:2



### **Test Configuration**

### **Test Facility**

| Test Site     | Audio-Technica Fukui Inc.   |  |
|---------------|-----------------------------|--|
| Test Software | TY2100AM (TOYO Corporation) |  |
| Date          | 8/3/2023                    |  |
| Measurer      | Hiroki Takeichi             |  |

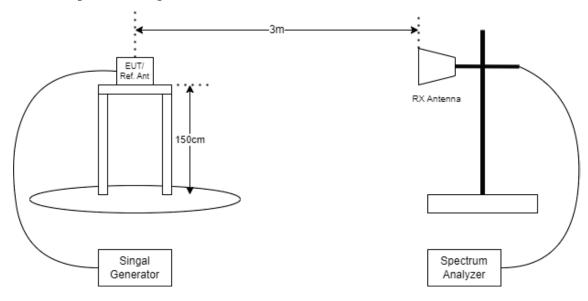
#### Test Equipment

| Equipment         | Manufacturer  | Model     | Cal. Date | Cal. Due  |
|-------------------|---------------|-----------|-----------|-----------|
| Signal Generator  | ROHDE&SCHWARZ | SMB 100A  | 25/4/2022 | 25/4/2025 |
| Test Receiver     | ROHDE&SCHWARZ | ESU       | 27/4/2022 | 27/4/2023 |
| Antenna           | SCHWARZBECK   | BBHA9120E | N/A       | N/A       |
| Reference Antenna | SCHWARZBECK   | BBHA9120B | 3/5/2022  | 3/5/2023  |

#### Test Procedure

- 1. The reference antenna with known antenna gain was placed on the top of the turntable 1.5 meter above ground and connected to the Signal Generator.
- 2. The receiving antenna was placed 3 meters far away from the center of the turntable and connected to the Spectrum analyzer.
- 3. Turn on the Signal analyzer output. The turntable was rotated by 360 degrees and the spectrum analyzer record the input level for each degree.
- 4. The maximum reading is the antenna gain of the reference antenna.
- 5. Replace the reference antenna with EUT.
- 6. Turn on the Signal analyzer output. The turntable was rotated by 360 degrees and the spectrum analyzer record the input level for each degree.
- 7. Subtract the maximum reading of the reference antenna and the measured reading of the EUT to obtain the radiation pattern of the antenna.
- 8. The peak reading is the antenna gain of EUT.

# Test Set-up (Block Diagram of Antenna Radiation Test)



# Test Set-up Photo

Reference to Test Setup Photo Reference to Test Setup Photo