ATW-T1406, T1407 Antenna Report

| Specification | | | |
|-----------------|--|--|--|
| Model | ATW-T1406, T1407 | | |
| | *Both models have same PCB and Antenna | | |
| Antenna Type | PIFA Antenna | | |
| Impedance | 50Ω | | |
| Frequency Range | 2402 – 2480MHz | | |
| Gain | 0.12dBi (Peak) | | |
| Manufacturer | Audio-Technica | | |

PIFA Antenna

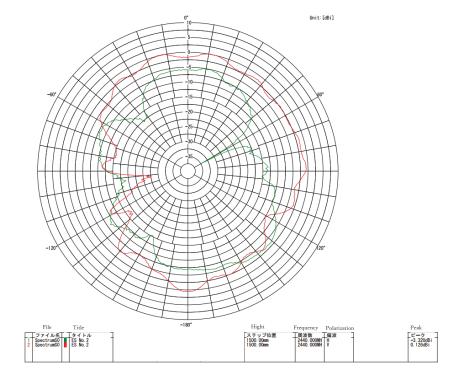
Reference to Test Setup Photo

Reference to Test Setup Photo

Antenna 1

Reference to Test Setup Photo

Antenna Radiation Pattern



Test Configuration

Test Facility

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

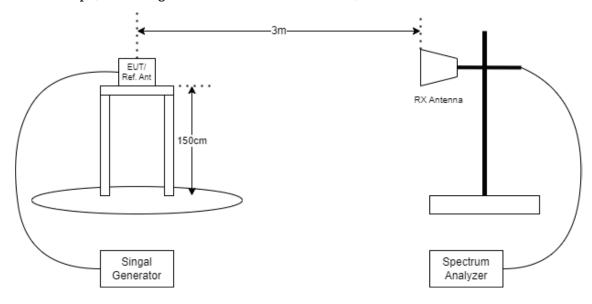
Test Equipment

| 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