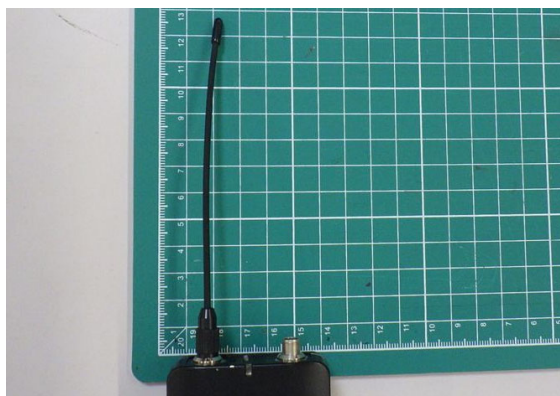


## ATW-DT3201 Antenna Report

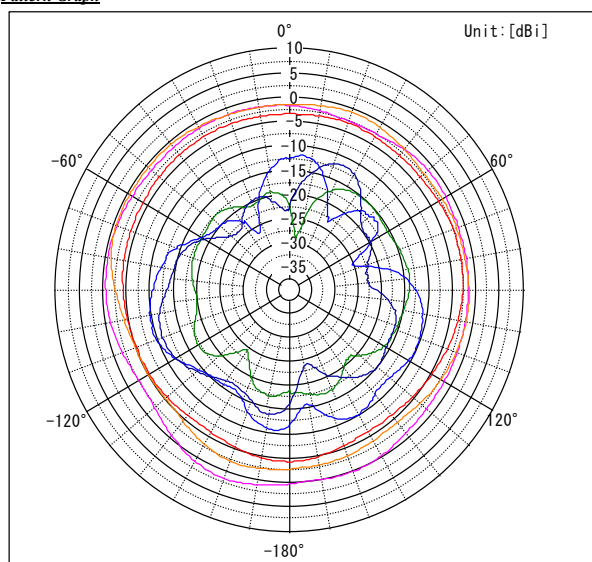
|                 |                                    |
|-----------------|------------------------------------|
| Specification   |                                    |
| Model           | ATW-DT3201                         |
| Antenna Type    | Antenna1: $\lambda/4$ Whip Antenna |
| Impedance       | 50 $\Omega$                        |
| Frequency Range | 470.125MHz – 607.875MHz            |
| Gain            | 1.39dBi (Peak)                     |
| Manufacturer    | YING HAO METAL INDUSTRY.,LTD.      |

### Antenna



### Antenna 1 Radiation Pattern

**Pattern Graph**



**Pattern Graph Legend**

| ファイル名                | 周波数        | 偏波 | ピーク                    | 最大値                    | 最小値                   | 最大値-最小値    |
|----------------------|------------|----|------------------------|------------------------|-----------------------|------------|
| SpectrumS000F00H.saa | 470.125MHz | H  | 85.0000°,-14.143[dB]   | 85.0000°,-14.143[dB]   | 8.0000°,-28.980[dB]   | 14.837[dB] |
| SpectrumS000F00V.saa | 470.125MHz | V  | 77.0000°,-2.726[dB]    | 77.0000°,-2.726[dB]    | 148.0000°,-6.283[dB]  | 3.557[dB]  |
| SpectrumS000F00H.saa | 530.000MHz | H  | -105.0000°,-9.468[dB]  | -105.0000°,-9.468[dB]  | -29.0000°,-26.442[dB] | 16.974[dB] |
| SpectrumS000F00V.saa | 530.000MHz | V  | -160.0000°,-1.393[dB]  | -160.0000°,-1.393[dB]  | 25.0000°,-2.815[dB]   | 4.208[dB]  |
| SpectrumS000F00H.saa | 607.875MHz | H  | -110.0000°,-11.049[dB] | -110.0000°,-11.049[dB] | 166.0000°,-24.207[dB] | 13.158[dB] |
| SpectrumS000F00V.saa | 607.875MHz | V  | -63.0000°,-0.387[dB]   | -63.0000°,-0.387[dB]   | -131.0000°,-5.179[dB] | 4.792[dB]  |

### Test Facility

|               |                             |
|---------------|-----------------------------|
| Test Site     | Audio-Technica Fukui Inc.   |
| Test Software | TY2100AM (TOYO Corporation) |
| Date          | 14/7/2025                   |
| Measurer      | Takashi Yagyu               |

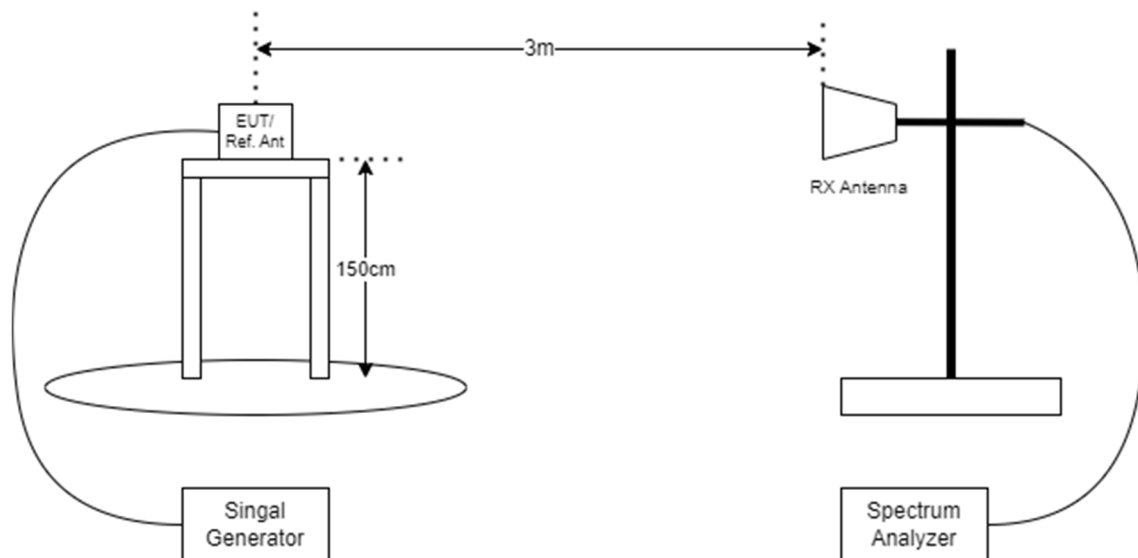
### Test Equipment

| Equipment         | Manufacturer  | Model       | Cal. Date | Cal. Due  |
|-------------------|---------------|-------------|-----------|-----------|
| Signal Generator  | ROHDE&SCHWARZ | SMB 100A    | 09/6/2025 | 09/6/2028 |
| Test Receiver     | KEYSIGHT      | N9038N      | 04/6/2025 | 04/6/2026 |
| Antenna           | SCHWARZBECK   | VULB9168    | 30/5/2025 | 30/5/2026 |
| Reference Antenna | SCHWARZBECK   | UHALP9108-A | 30/5/2025 | 30/5/2028 |

### 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

