ATW-T1401 Antenna Report

Specification	
Model	ATW-T1401
Antenna Type	Antenna1: λ/4 Monopole PCB Antenna Antenna2: λ/4 Monopole Wire Antenna
Impedance	50Ω
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

Antenna 1 Radiation Pattern

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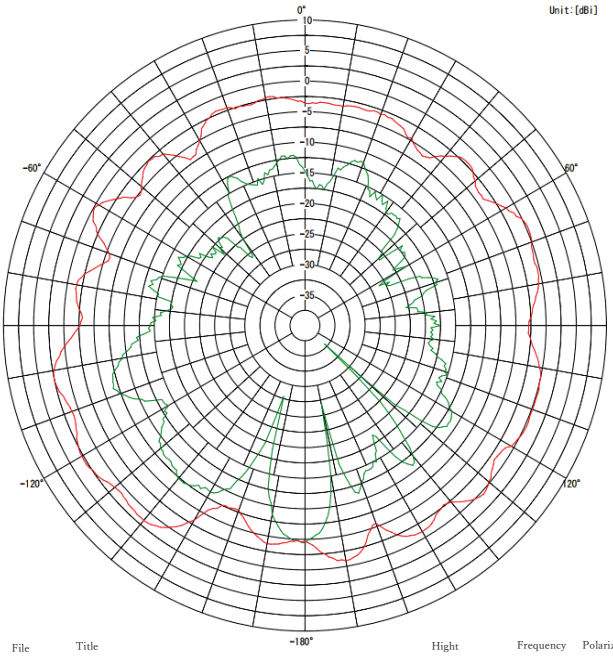

File	Title	Hight	Frequency	Polarization	Peak	Average
ファイル名	タイトル	ステップ位置	周波数	偏波	ピーク	平均値
1 SpectrumS0	ES No.2	1500.00mm	2440.000MH	H	-4.763dBi	-13.788dBi
2 SpectrumS0	ES No.2	1500.00mm	2440.000MH	V	2.795dBi	-1.758dBi

Antenna 2 Radiation Pattern

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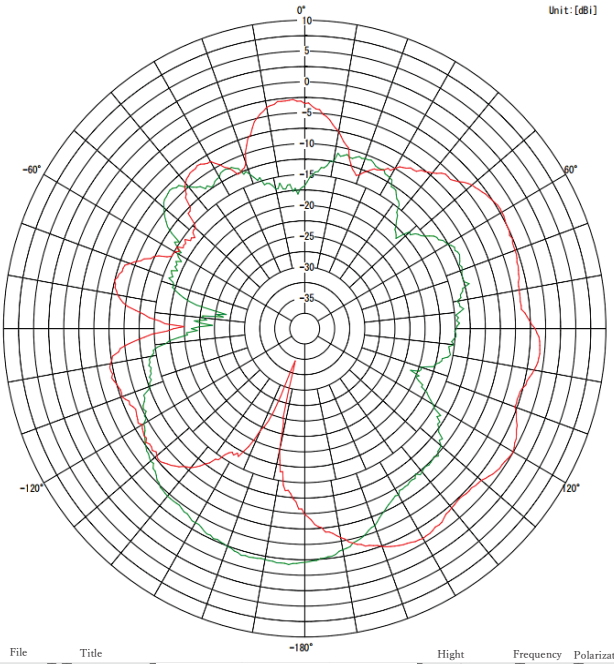


File	Title	Hight	Frequency	Polarization	Peak	Average
ファイル名	タイトル	ステップ位置	周波数	偏波	ピーク	平均値
1 SpectrumS0	ES No.2	1500.00mm	2440.000MH	H	-1.659dBi	-10.126dBi
2 SpectrumS0	ES No.2	1500.00mm	2440.000MH	V	-0.062dBi	-6.302dBi

Test Configuration

Test Facility

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

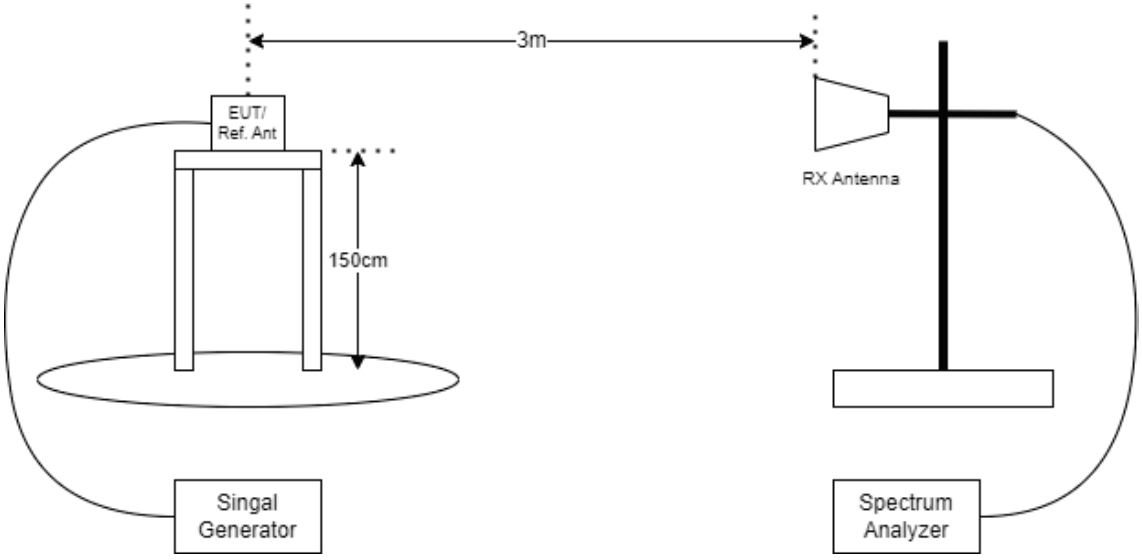
Test Equipment

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