

IE579WF RF Radiated data

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1. Frequency Band

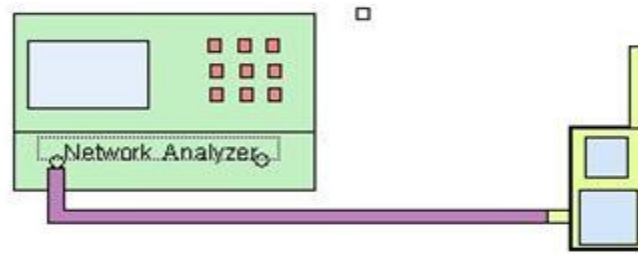
Mode	Frequency Band (MHz)
Zigbee	2,400 ~ 2,500

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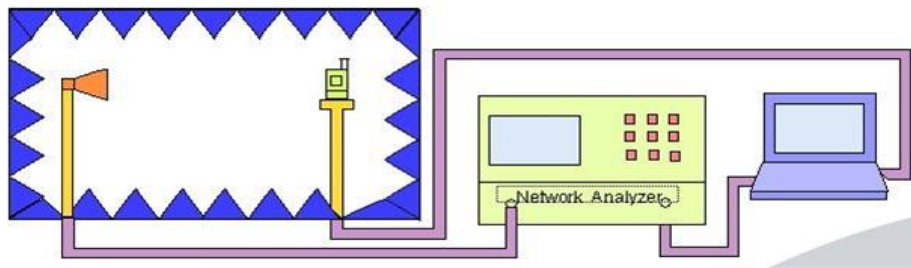
1-1. Measurement Engineer

- Connect the device under test and required test equipment (Network analyzer). Measuring VSWR and frequency. Measurements include the magnitude and phase of both the vertical and horizontal components of the 3-D antenna pattern of actual hardware in an anechoic chamber (Partron). all measurements are made with antennas installed.

- Frequency, VSWR measurement



- Gain measurement



- Co-Polarization, Cross-Polarization Meaning

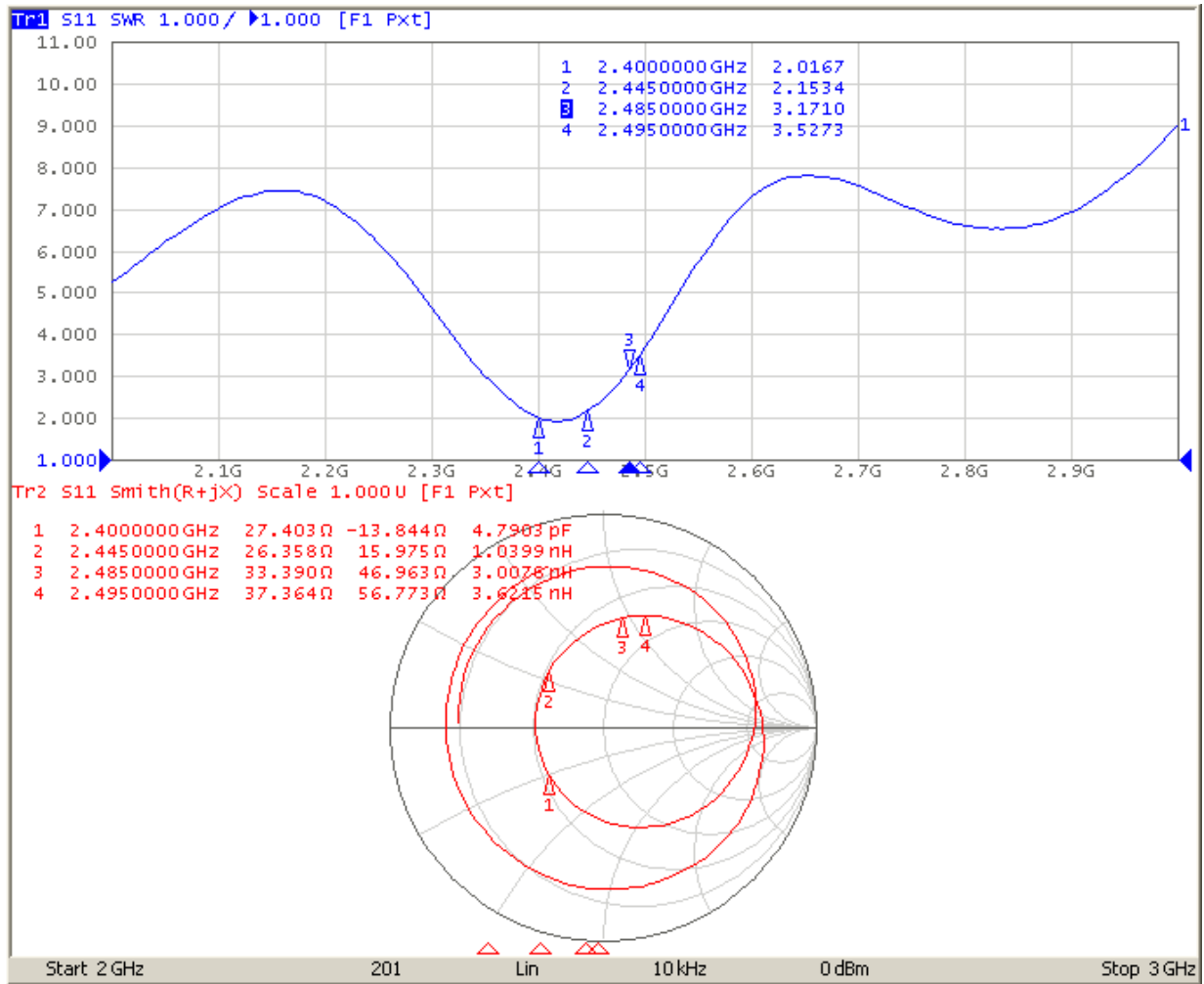
- Co-Polarization : When Radiated Vertical and Horizontal Polarization in Source Ant.

Co-Polarization is Higher Polarization that is Ave. Gain Value

- Cross-Polarization : When Radiated Vertical and Horizontal Polarization in Source Ant.

Co-Polarization is Lower Polarization that is Ave. Gain Value

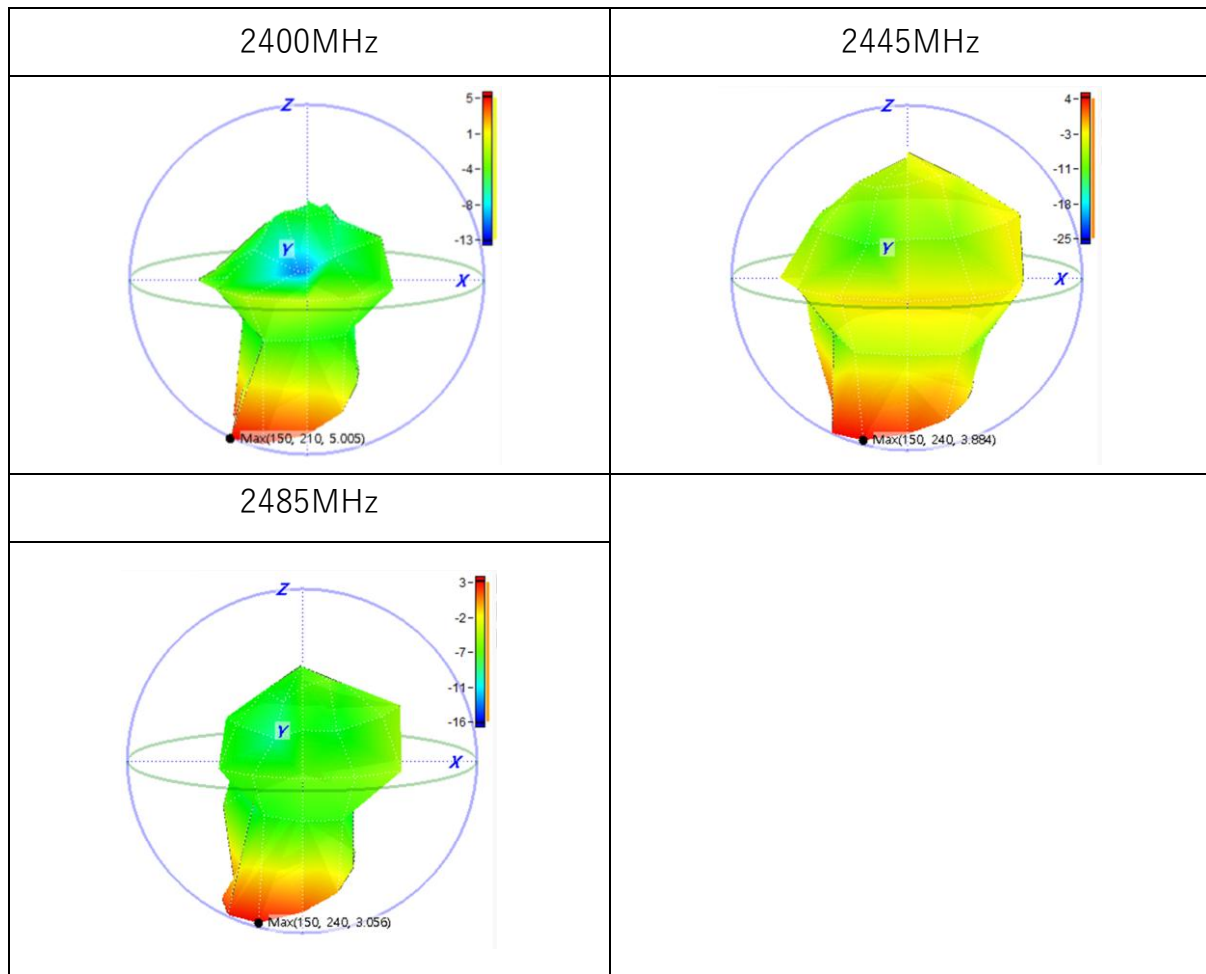
1-2. VSWR



1-3. Efficiency & Gain

Frequency	Peak Value		Minimum Value		Avg. Gain	Efficiency
[MHz]	Value[dBi]	Degree	Value[dBi]	Degree	[dBi]	[%]
2400.000	5.004559	150 / 210	-12.958258	120 / 180	-2.765688	52.897025
2415.000	4.405274	150 / 240	-13.832318	120 / 180	-3.401792	45.689958
2430.000	3.687523	150 / 240	-14.645463	120 / 180	-4.120230	38.723713
2445.000	3.883870	150 / 240	-25.001893	120 / 180	-3.890383	40.828339
2460.000	3.550215	150 / 240	-24.844161	120 / 180	-4.217004	37.870372
2465.000	3.387846	150 / 240	-21.046281	120 / 180	-4.424750	36.101478
2480.000	3.529605	150 / 240	-19.277335	120 / 180	-4.444557	35.937204
2485.000	3.056255	150 / 240	-16.267481	120 / 180	-4.945533	32.021872
2490.000	5.004559	150 / 210	-12.958258	120 / 180	-2.765688	52.897025
2500.000	4.405274	150 / 240	-13.832318	120 / 180	-3.401792	45.689958

1-4. 3D Radiated Pattern



2. TEST METHOD

2-1. Measurement information

Description	Manufacturer	Model
Network Analyzer	Anritsu	ME7848A

2-2. 3D Chamber

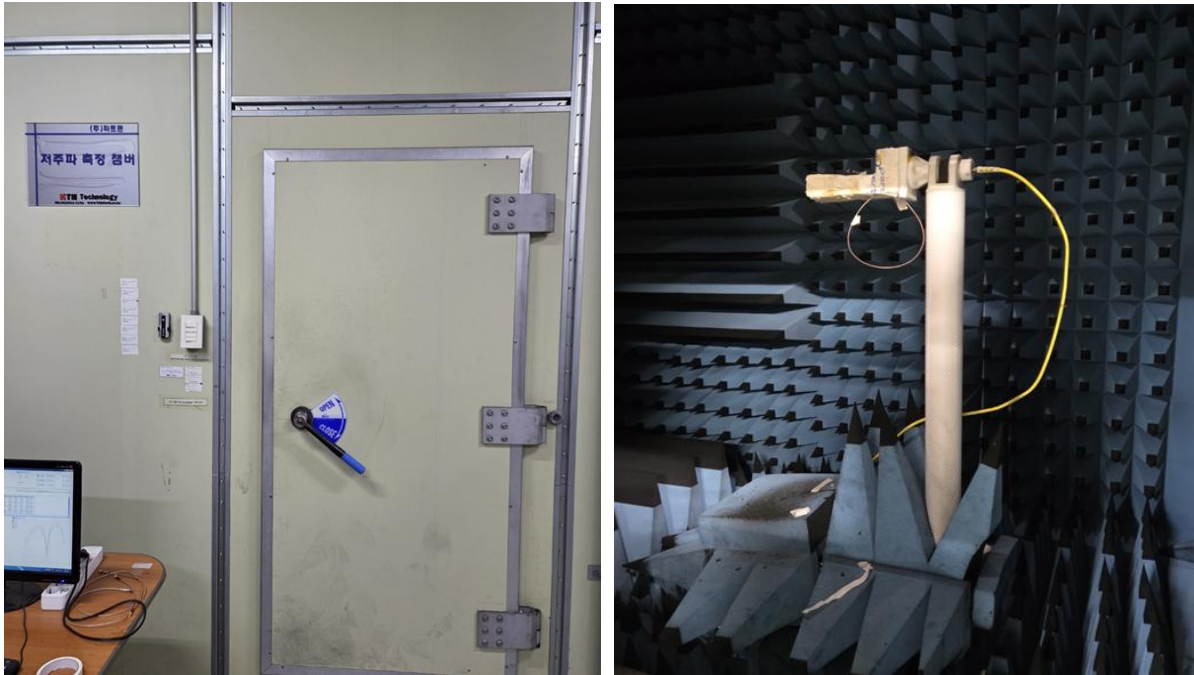
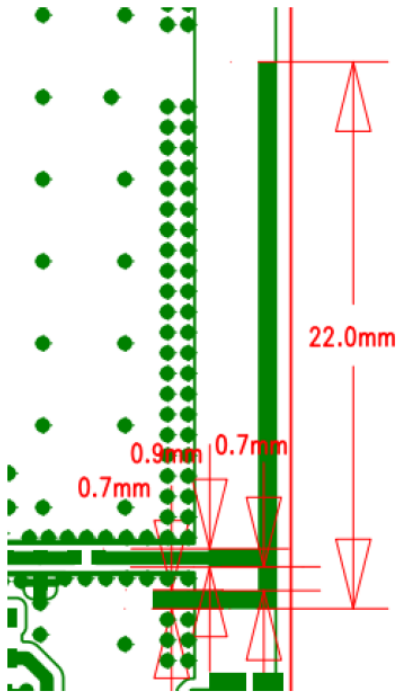


Figure 1: Testing with RF Chamber

Measurement facility: Partron ESL, 3D Chamber

3. Antenna Dimension



Manufacturer : Partron ESL

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