

IE750 RF Radiated data

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2025.06.23.

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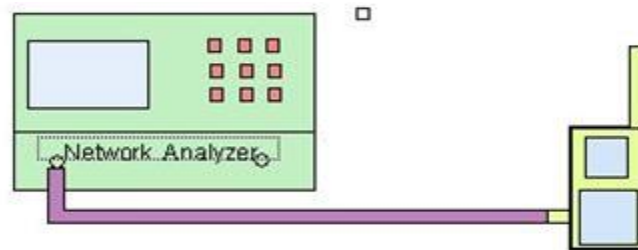
1. Frequency Band

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

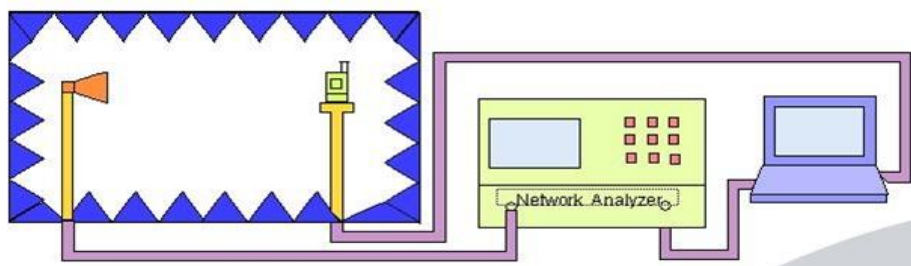
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1-1. Measurement Engineer

- 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



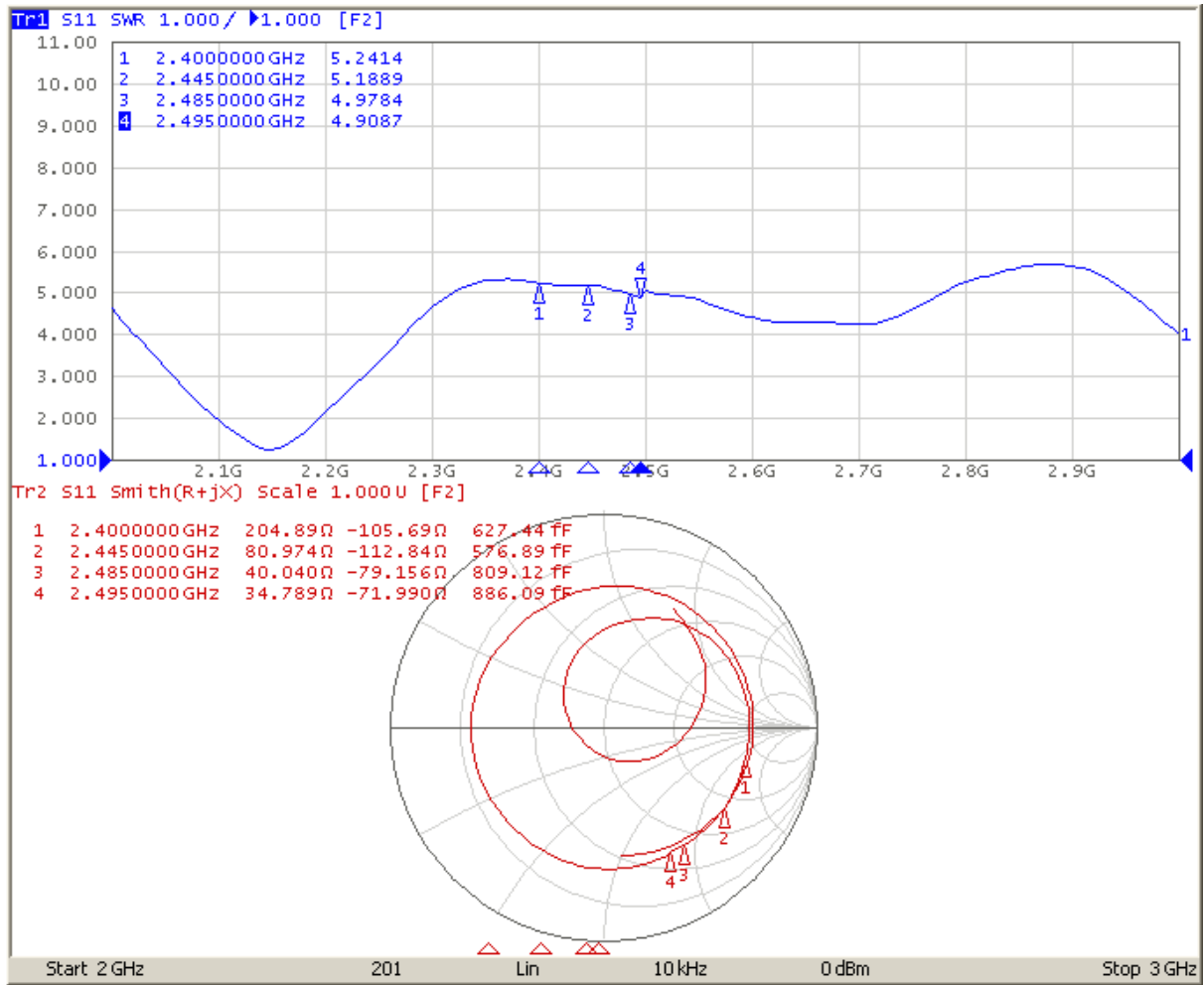
- Co-Polarization, Cross-Polarization Meaning
- Co-Polarization : When Radiated Vertical and Horizontal Polarization in Source Ant.

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

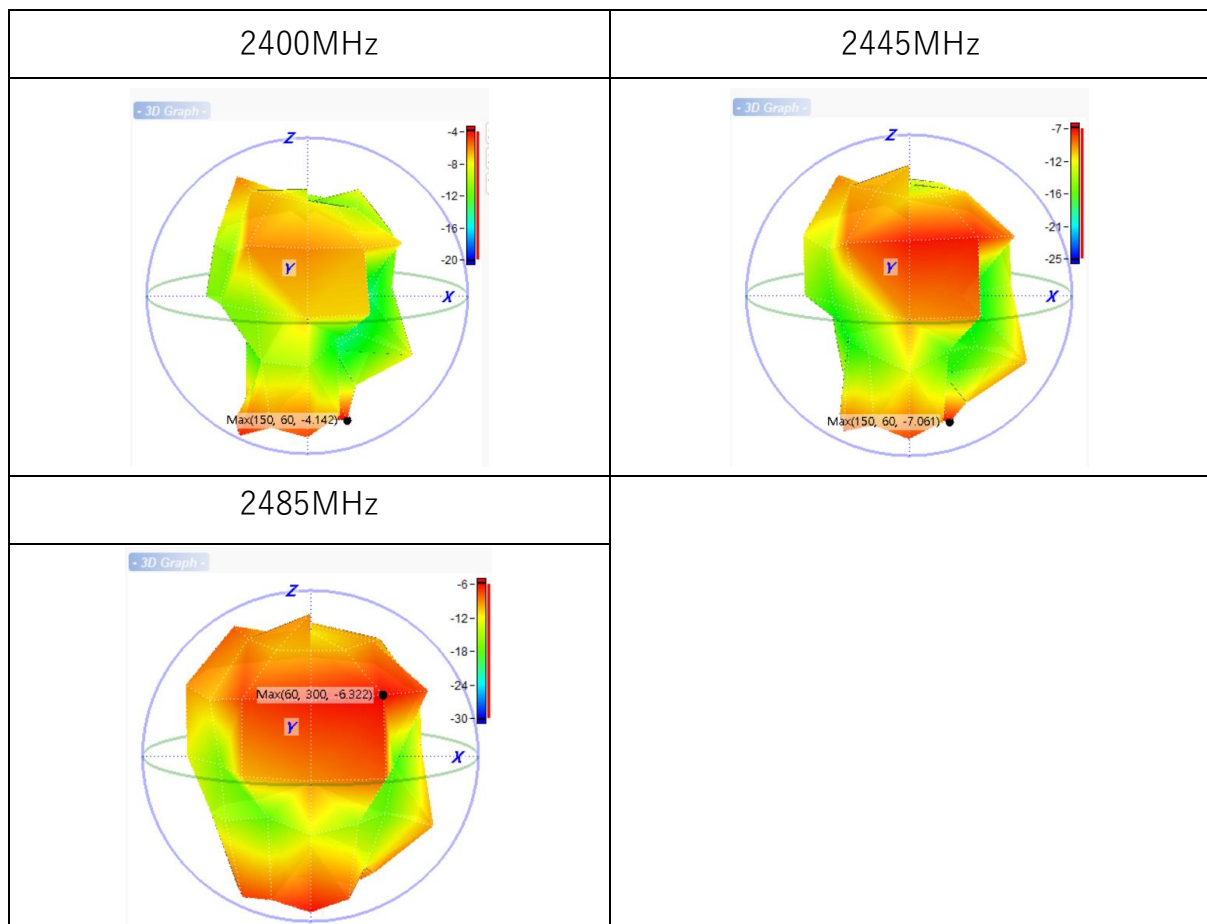
1-2. VSWR



1-3. Efficiency & Gain

Frequency	Max Gain			Min Gain			Average Gain	Efficiency
[MHz]	θ[Deg]	Φ[Deg]	Gain[dBi]	θ[Deg]	Φ[Deg]	Gain[dBi]	Gain[dBi]	[%]
2,400.00	150	60	-4.142	180	330	-20.209	-8.798	13.19
2,415.00	150	60	-3.26	180	330	-19.372	-7.731	16.863
2,430.00	150	60	-6.588	180	30	-23.216	-11.135	7.7
2,445.00	150	60	-7.061	180	30	-25.212	-11.399	7.247
2,460.00	60	300	-5.133	180	30	-25.025	-9.301	11.747
2,465.00	60	300	-4.537	180	30	-26.028	-8.949	12.738
2,480.00	60	300	-6.322	180	30	-29.801	-10.545	8.82
2,485.00	60	300	-6.032	180	30	-30.635	-10.186	9.581
2,490.00	150	270	-5.894	180	30	-32.325	-10.287	9.36
2,500.00	150	270	-5.861	180	30	-35.388	-10.168	9.621

1-4. 3D Radiated Pattern



2. TEST METHOD

2-1. Measurement information

Description	Manufacturer	Model
Network Analyzer	Anritsu	ME7848A

2-2. 3D Chamber

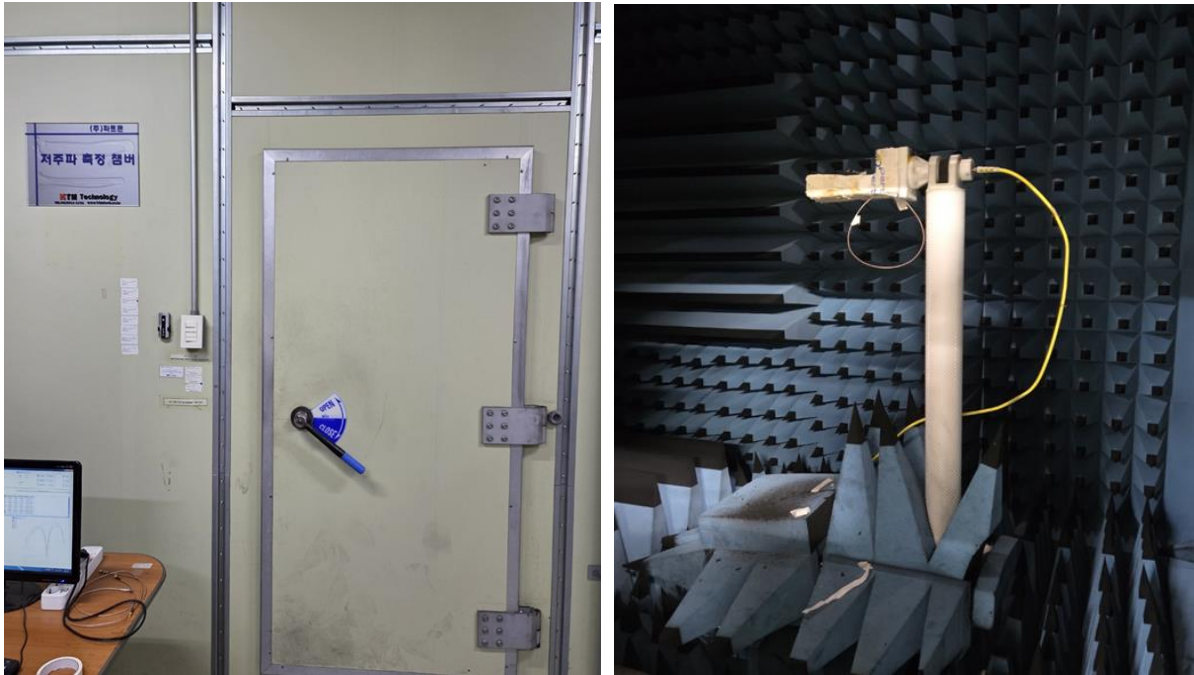


Figure 1: Testing with RF Chamber

Measurement facility: Partron ESL, 3D Chamber

3. Antenna Dimension

