

LYNwave Technology

Antenna & Thermal solution provider

Antenna Test Report

Project: EW-7822UBE
Model Name: Ant.1 ALX23M-122AA1
Ant.2 ALX23M-122AA2
Type: PIFA
Equipment: Dongle
Polarization: H+V

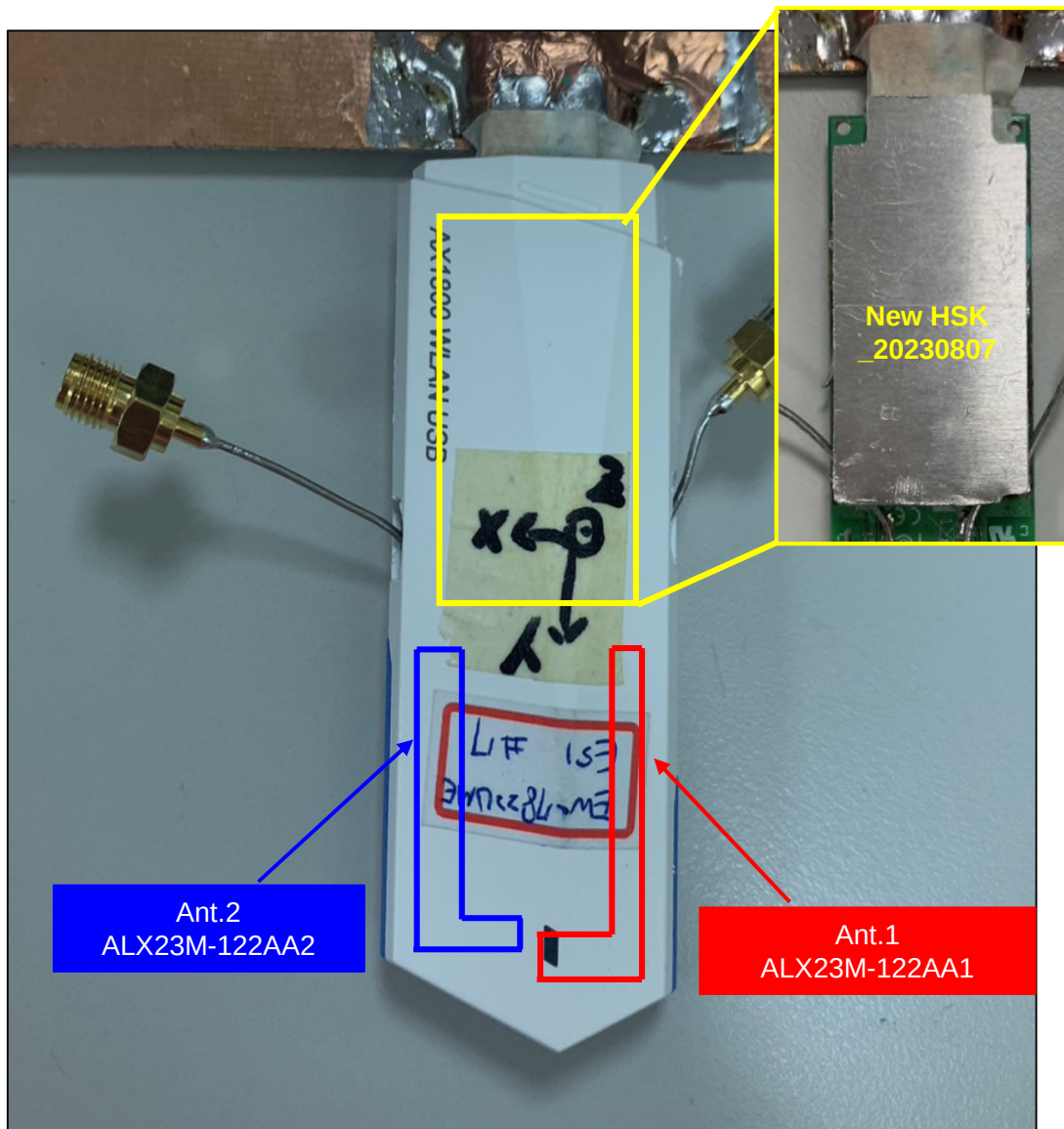
Date	Owner	Revision
2023/08/08	Peter	1. EVT antenna measurement

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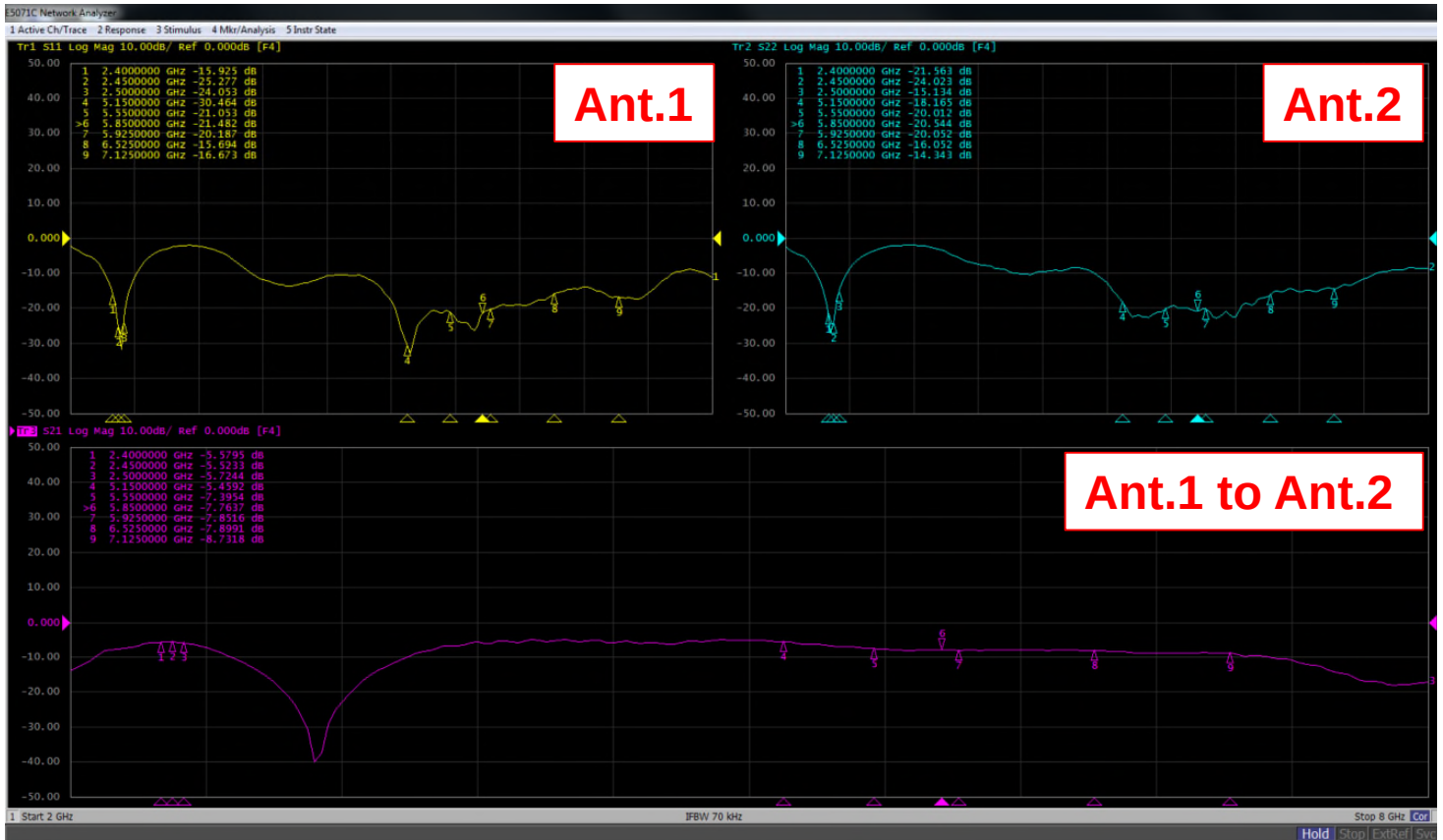
Antenna Placement

Antenna	Description	Frequency(MHz)
Ant.1	2.4GHz	2400~2500
	5GHz	5150~5850
	6GHz	5925~7125
Ant.2	2.4GHz	2400~2500
	5GHz	5150~5850
	6GHz	5925~7125



Top View

2G&5G S-parameters



Gain Table

	Frequency(MHz)	2400	2450	2500	5150	5550	5850	5925	6525	7125
Ant.1	Peak Gain(dBi)	3.2	3.0	2.7	1.9	2.7	3.0	3.3	3.5	3.7
	Efficiency(%)	50	53	52	50	57	55	56	55	54
Ant.2	Peak Gain(dBi)	1.5	2.0	1.9	2.0	3.5	3.6	3.9	4.0	3.6
	Efficiency(%)	50	52	53	50	59	58	58	59	56

Equipment : Satimo

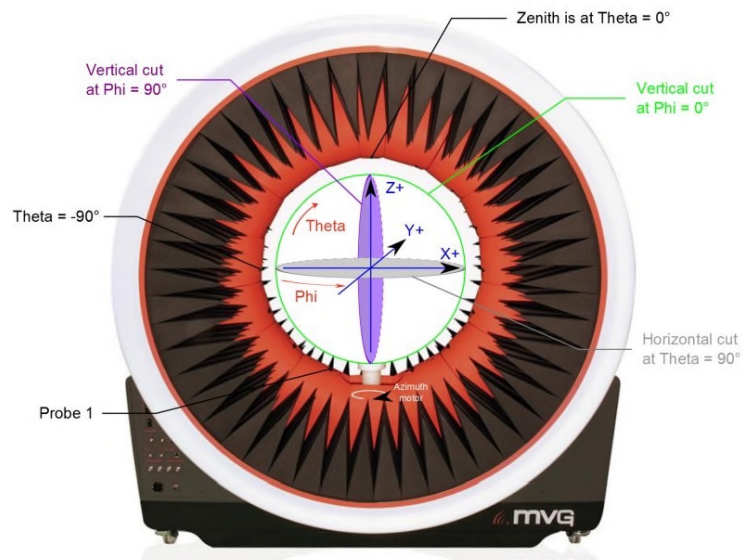
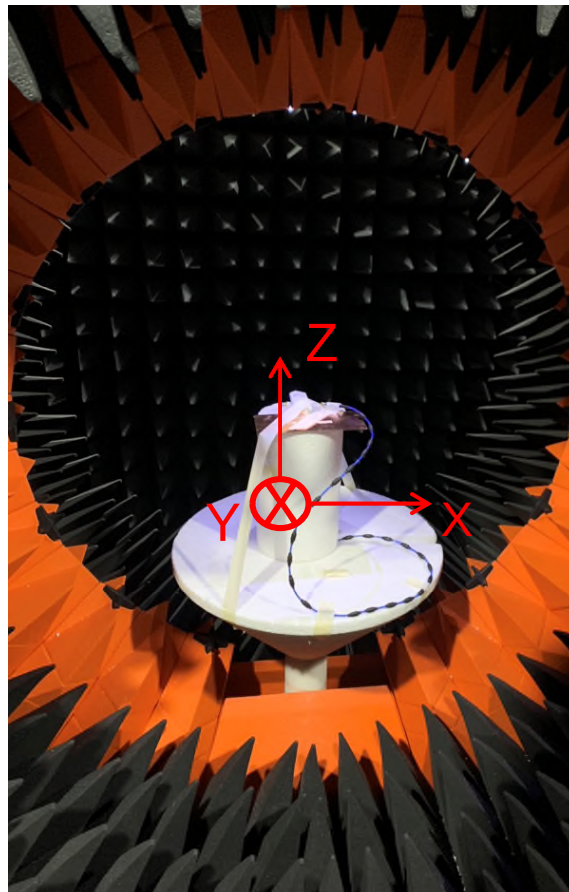


Figure 3.12: StarLab spherical coordinate system



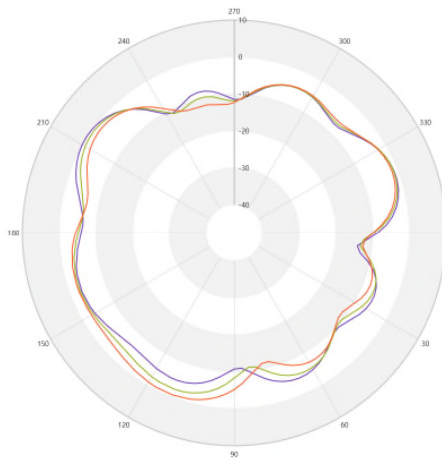
***Measurement is based on the antenna center is aligned with center of Satimo chamber**

Ant.1_2.4GHz 2D Radiation Pattern

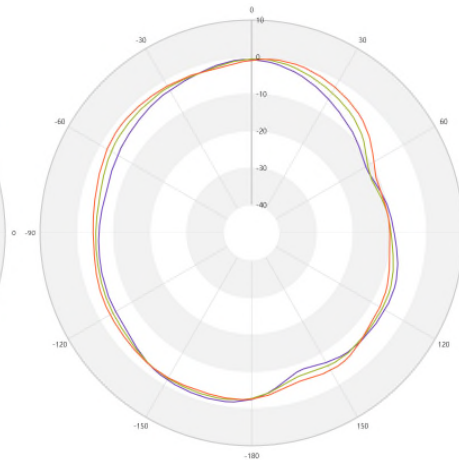
Frequency(MHz) : 2400~2500

Radiation Pattern :

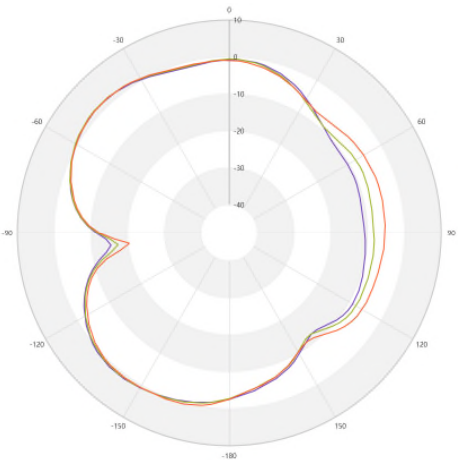
Azimuth Plane
theta = 90



Elevation Plane
phi = 0

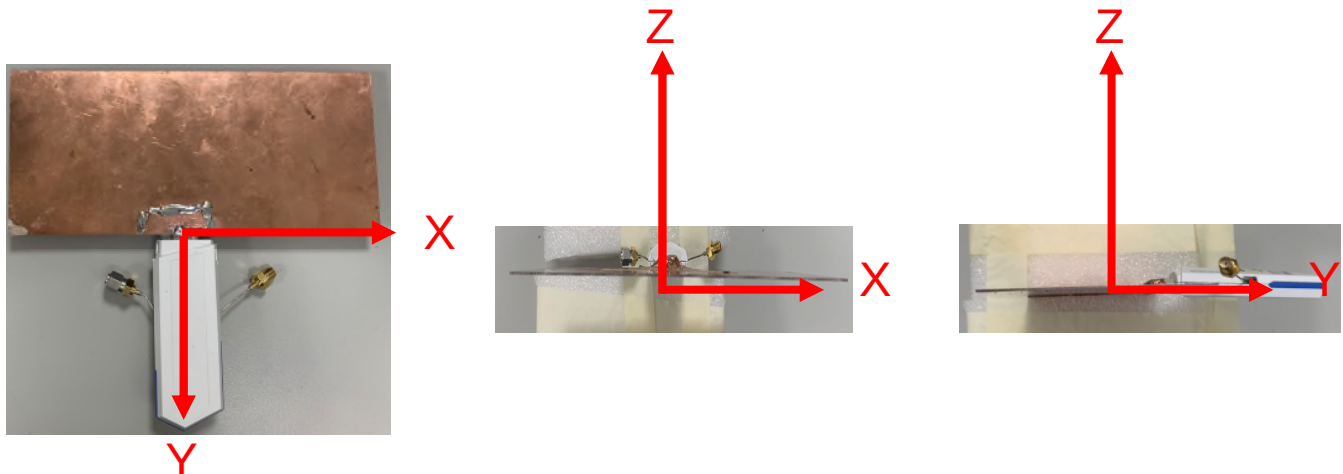


Elevation Plane
phi = 90



— 2400.00 MHz
— 2450.00 MHz
— 2500.00 MHz

Setup :

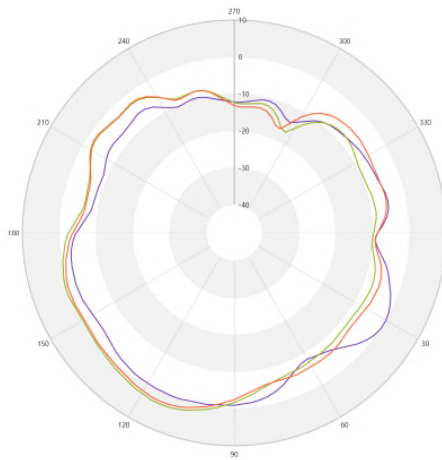


Ant.1_5GHz 2D Radiation Pattern

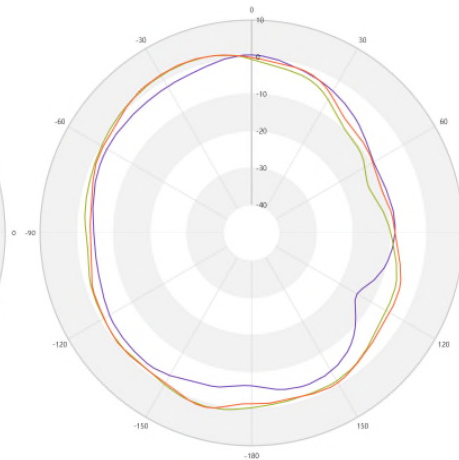
Frequency(MHz) : 5150~5850

Radiation Pattern :

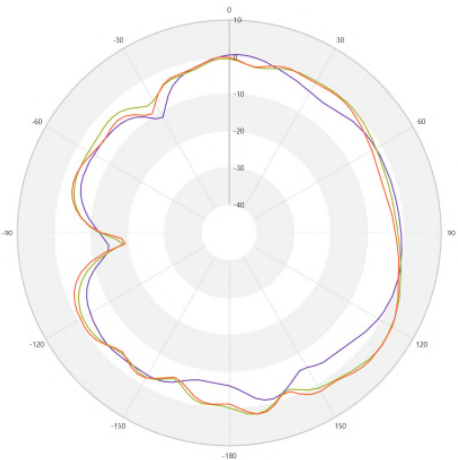
Azimuth Plane
theta = 90



Elevation Plane
phi = 0

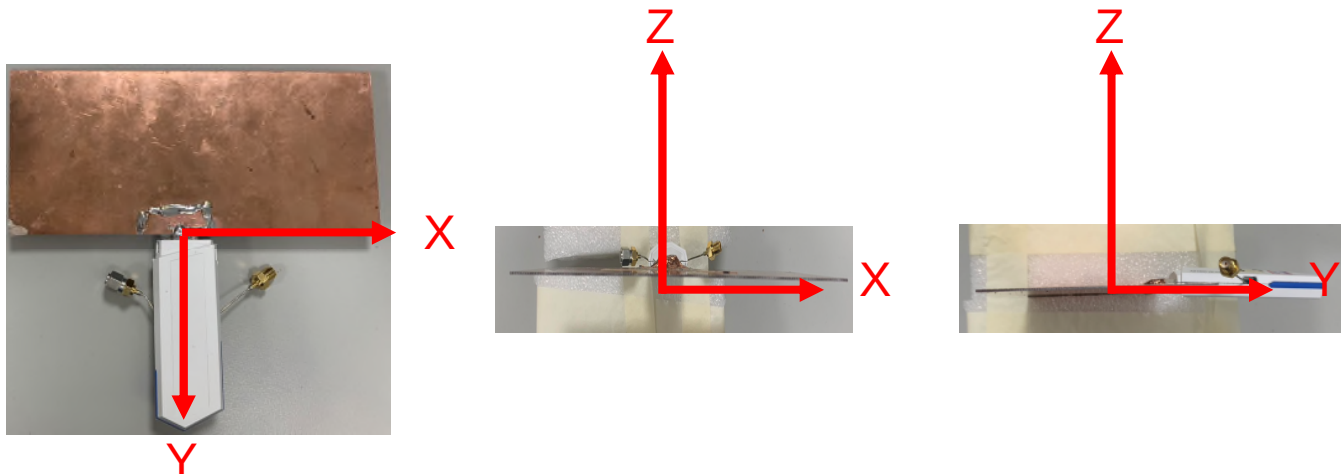


Elevation Plane
phi = 90



— 5150.00 MHz
— 5550.00 MHz
— 5850.00 MHz

Setup :

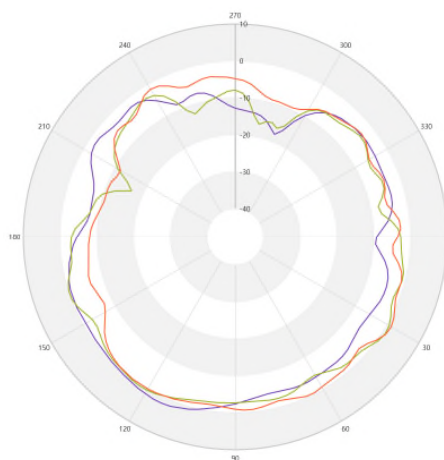


Ant.1_6GHz 2D Radiation Pattern

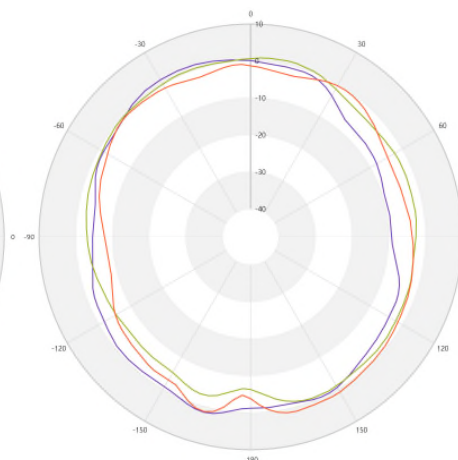
Frequency(MHz) : 5925~7125

Radiation Pattern :

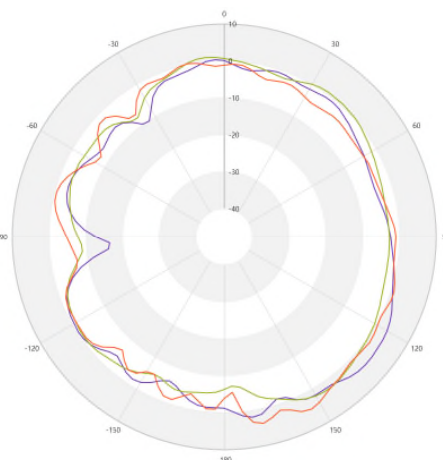
Azimuth Plane
theta = 90



Elevation Plane
phi = 0

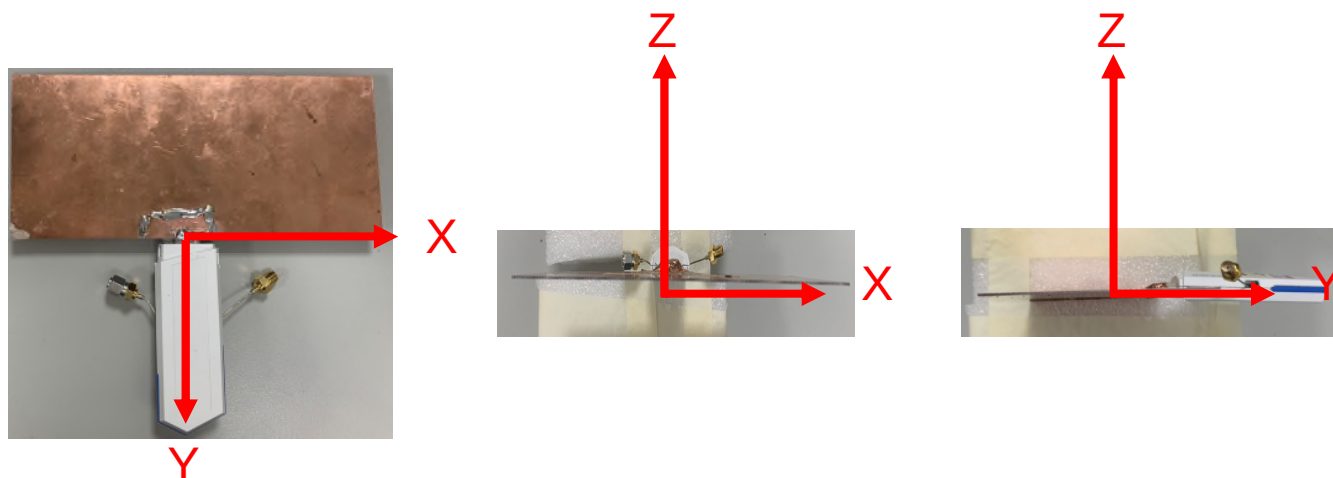


Elevation Plane
phi = 90



— 5925.00 MHz
— 6525.00 MHz
— 7125.00 MHz

Setup :

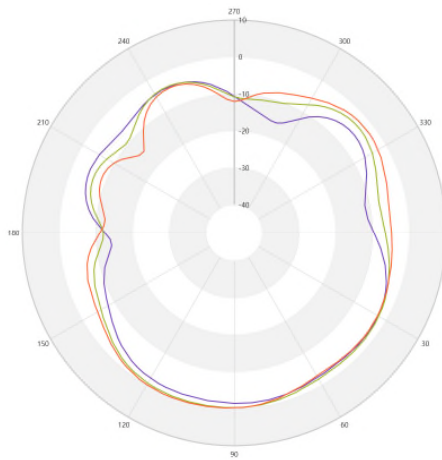


Ant.2_2.4GHz 2D Radiation Pattern

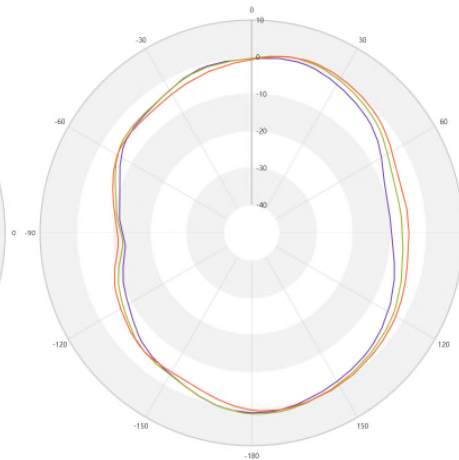
Frequency(MHz) : 2400~2500

Radiation Pattern :

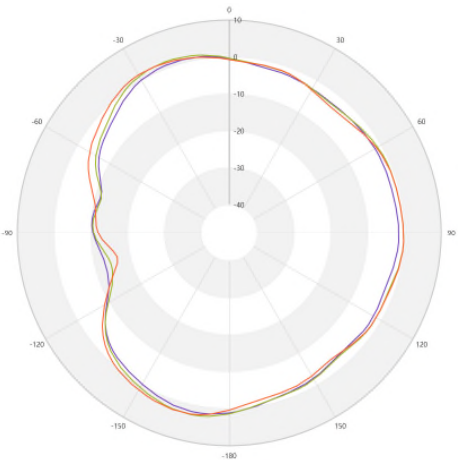
Azimuth Plane
theta = 90



Elevation Plane
phi = 0

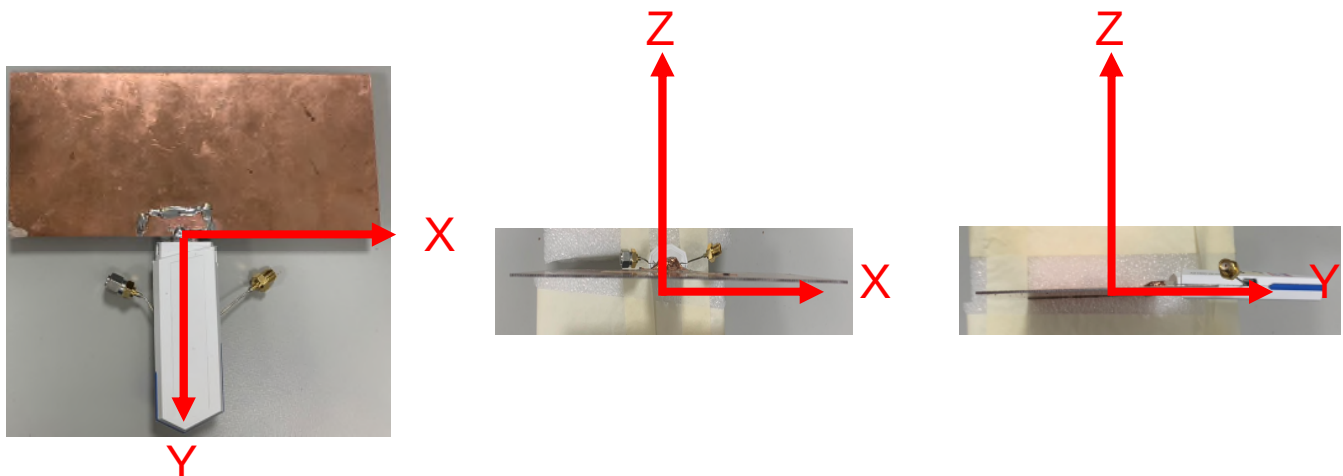


Elevation Plane
phi = 90



— 2400.00 MHz
— 2450.00 MHz
— 2500.00 MHz

Setup :

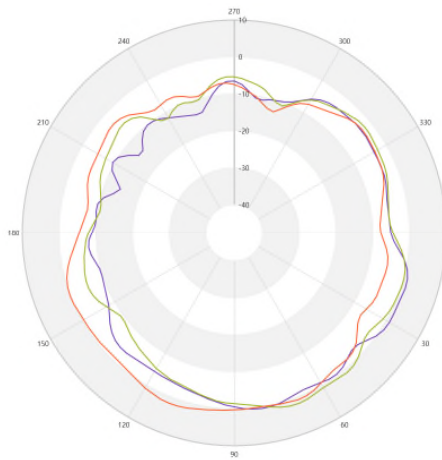


Ant.2_5GHz 2D Radiation Pattern

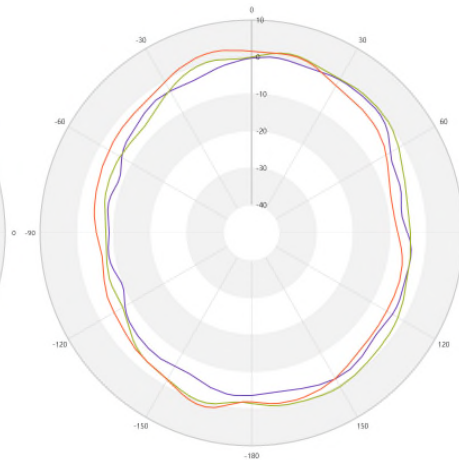
Frequency(MHz) : 5150~5850

Radiation Pattern :

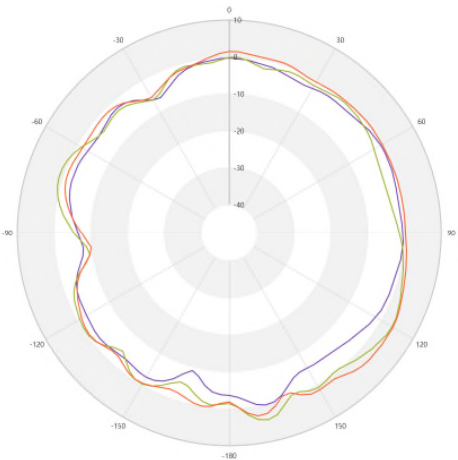
Azimuth Plane
theta = 90



Elevation Plane
phi = 0

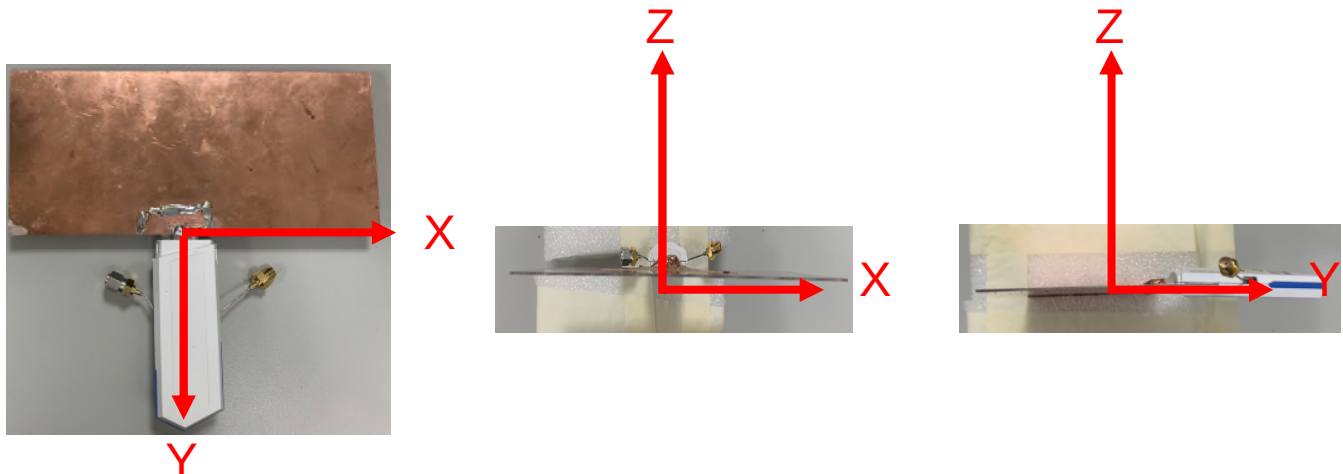


Elevation Plane
phi = 90



— 5150.00 MHz
— 5550.00 MHz
— 5850.00 MHz

Setup :

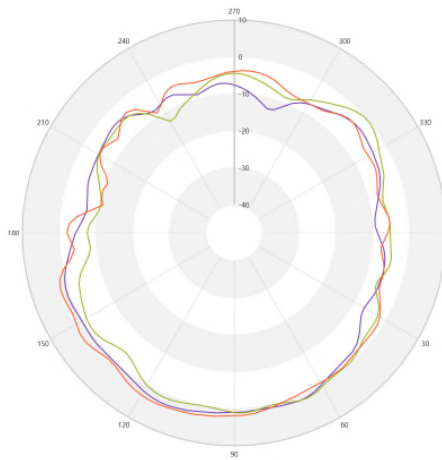


Ant.2_6GHz 2D Radiation Pattern

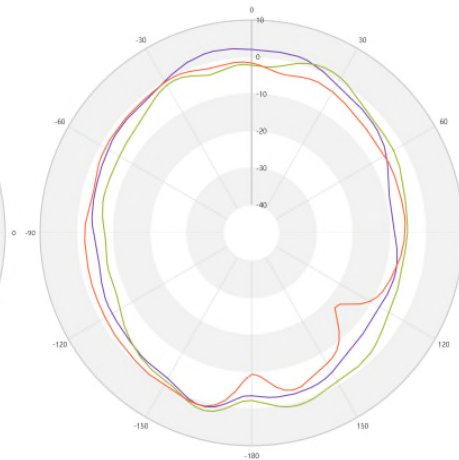
Frequency(MHz) : 5925~7125

Radiation Pattern :

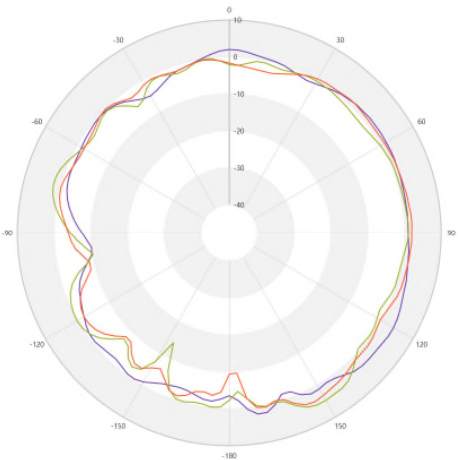
Azimuth Plane
theta = 90



Elevation Plane
phi = 0

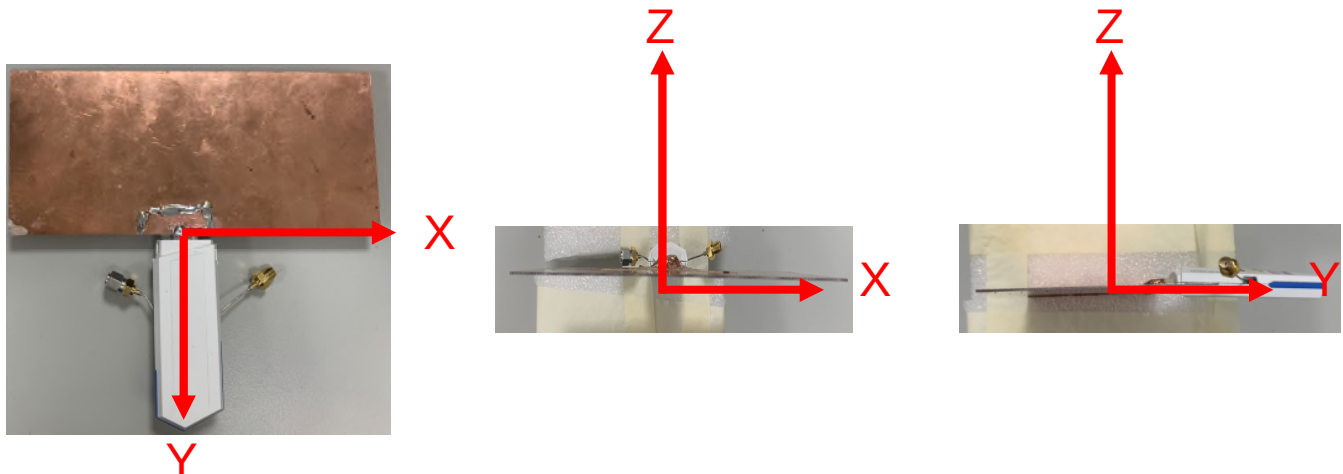


Elevation Plane
phi = 90



— 5925.00 MHz
— 6525.00 MHz
— 7125.00 MHz

Setup :

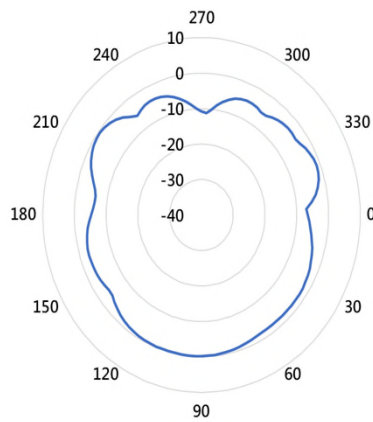


Wi-Fi Tri-Band Radiation Pattern – Total Coverage

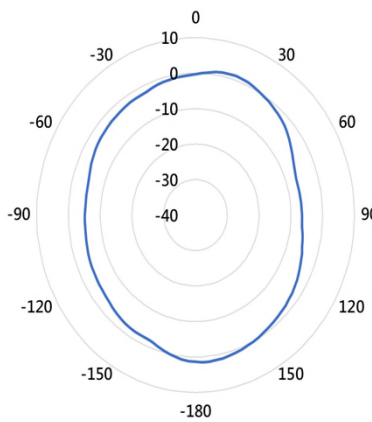
Frequency(MHz) : 2450

Radiation Pattern :

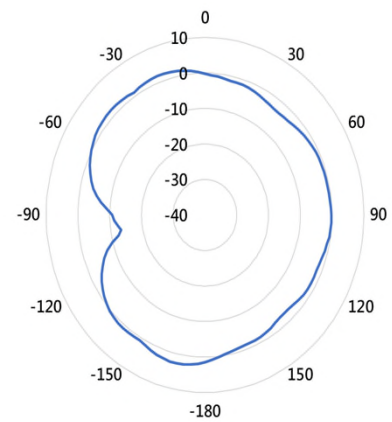
Azimuth Plane
Theta = 90



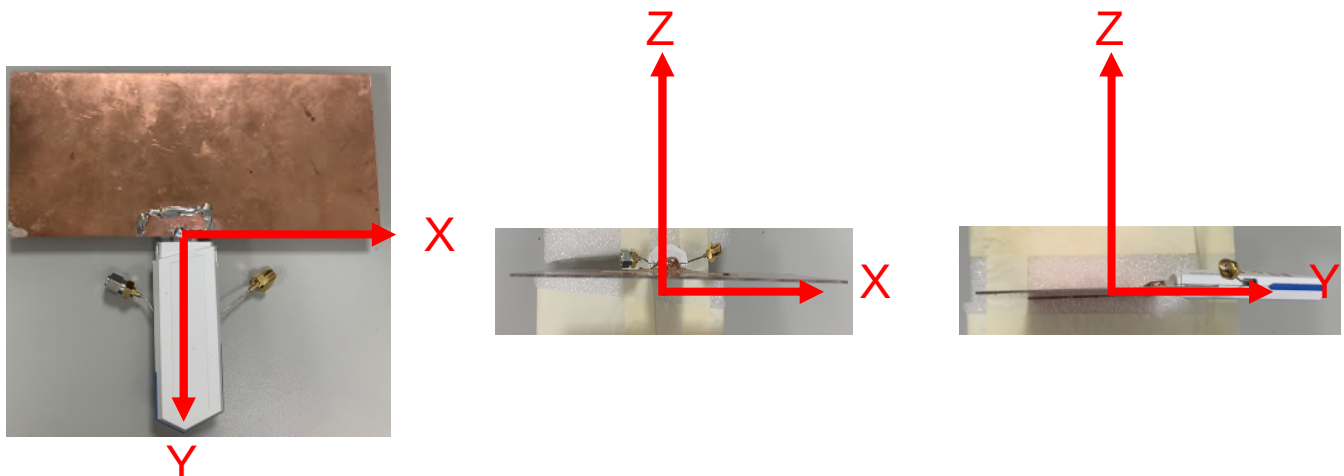
Elevation Plane
phi = 0



Elevation Plane
phi = 90



Setup :

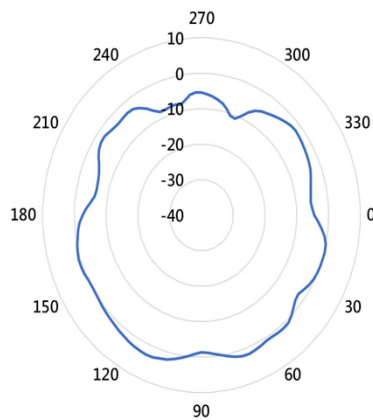


Wi-Fi Tri-Band Radiation Pattern – Total Coverage

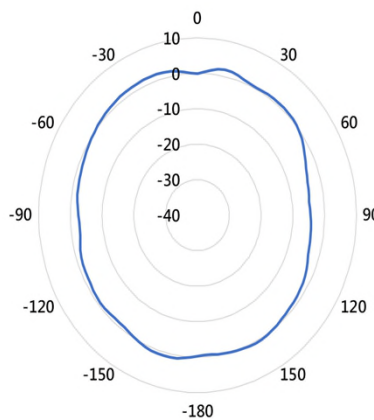
Frequency(MHz) : 5550

Radiation Pattern :

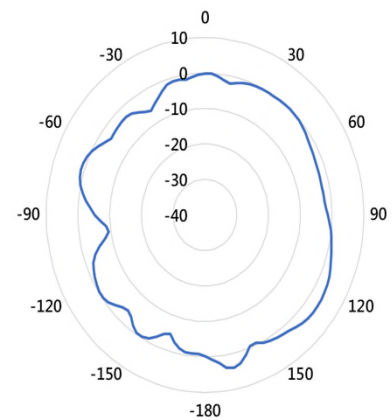
Azimuth Plane
Theta = 90



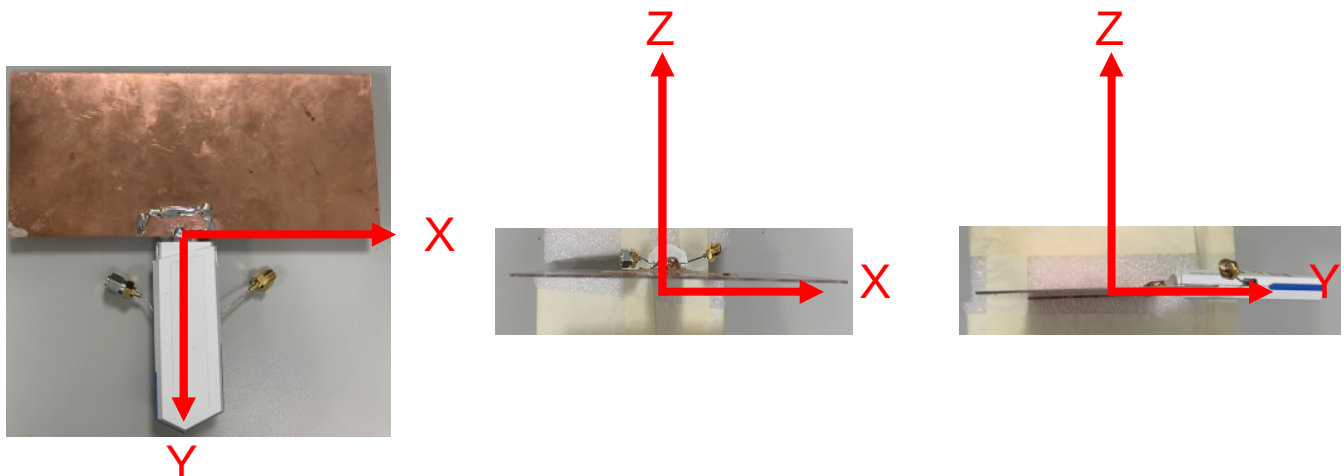
Elevation Plane
phi = 0



Elevation Plane
phi = 90



Setup :

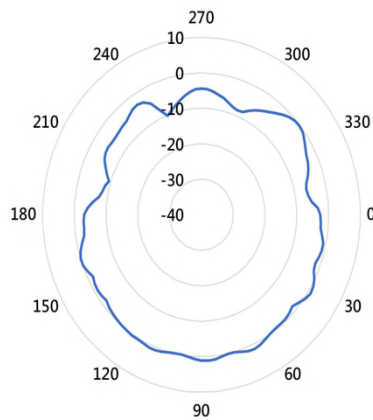


Wi-Fi Tri-Band Radiation Pattern – Total Coverage

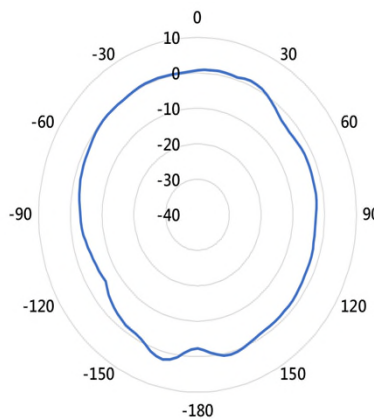
Frequency(MHz) : 6525

Radiation Pattern :

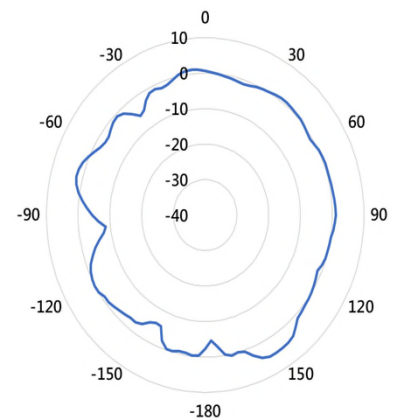
Azimuth Plane
Theta = 90



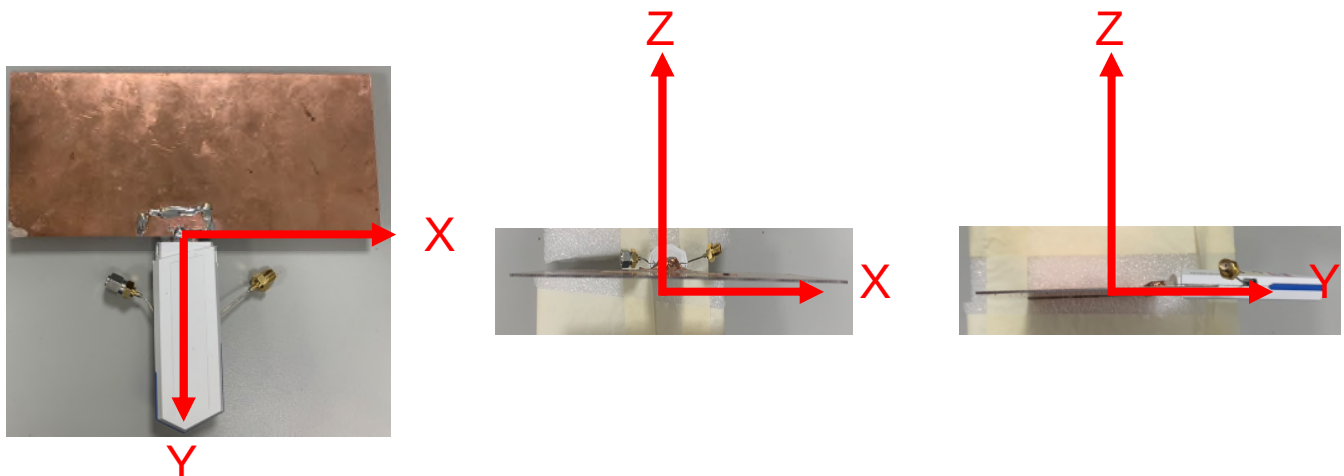
Elevation Plane
phi = 0



Elevation Plane
phi = 90



Setup :



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