

LYNwave Technology

Antenna & Thermal solution provider

Antenna Field Test Report

Project Name: PAX3600

Model Name:

Application: AP Router

Mounting Type: Ceiling Mount / Wall Mount

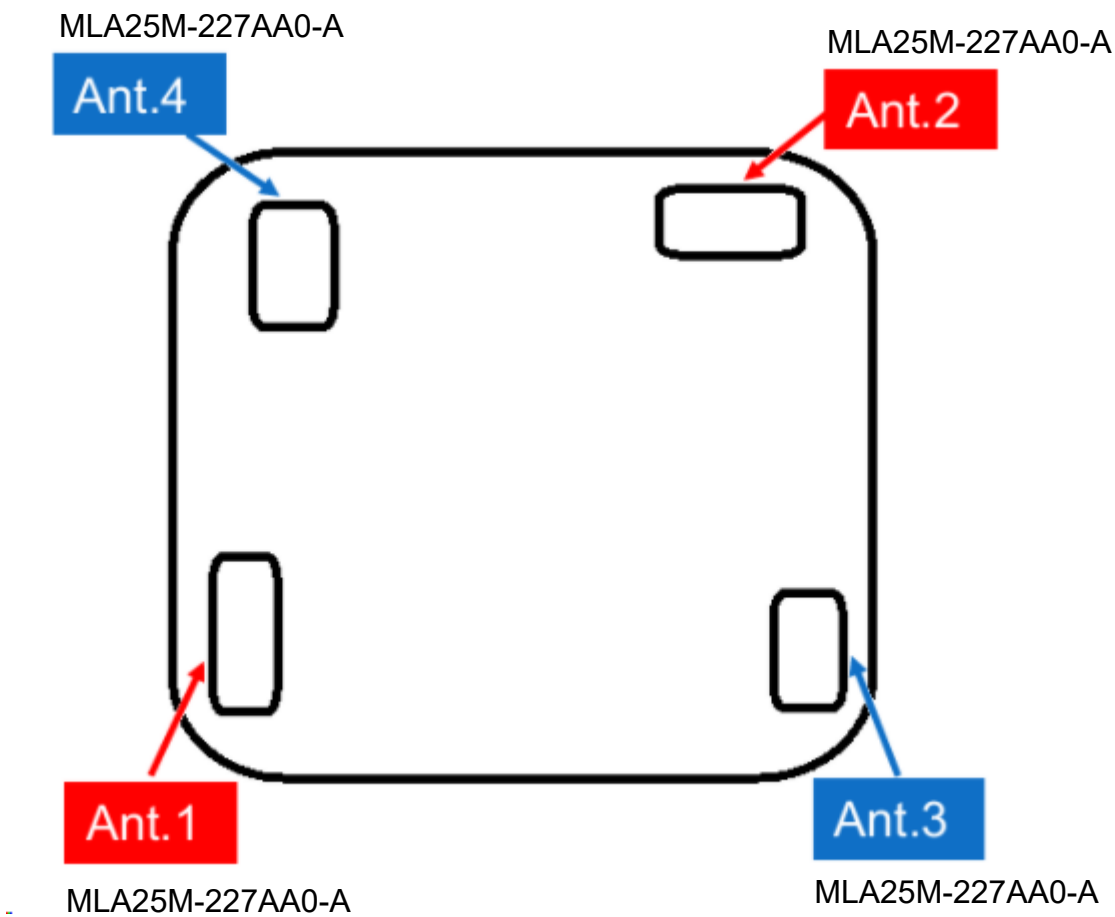
Date	Owner	Check	Revision	History
2025/11/06	Jason	Michael	v0.1	1. Antenna sample measurement
2025/11/17	Jason	Michael	v0.2	1. Antenna sample measurement
2025/11/27	Jason	Michael	v0.3	1. Antenna sample measurement
2026/02/03	Jason	Michael	v0.4	1. Antenna sample measurement

Table of Contents

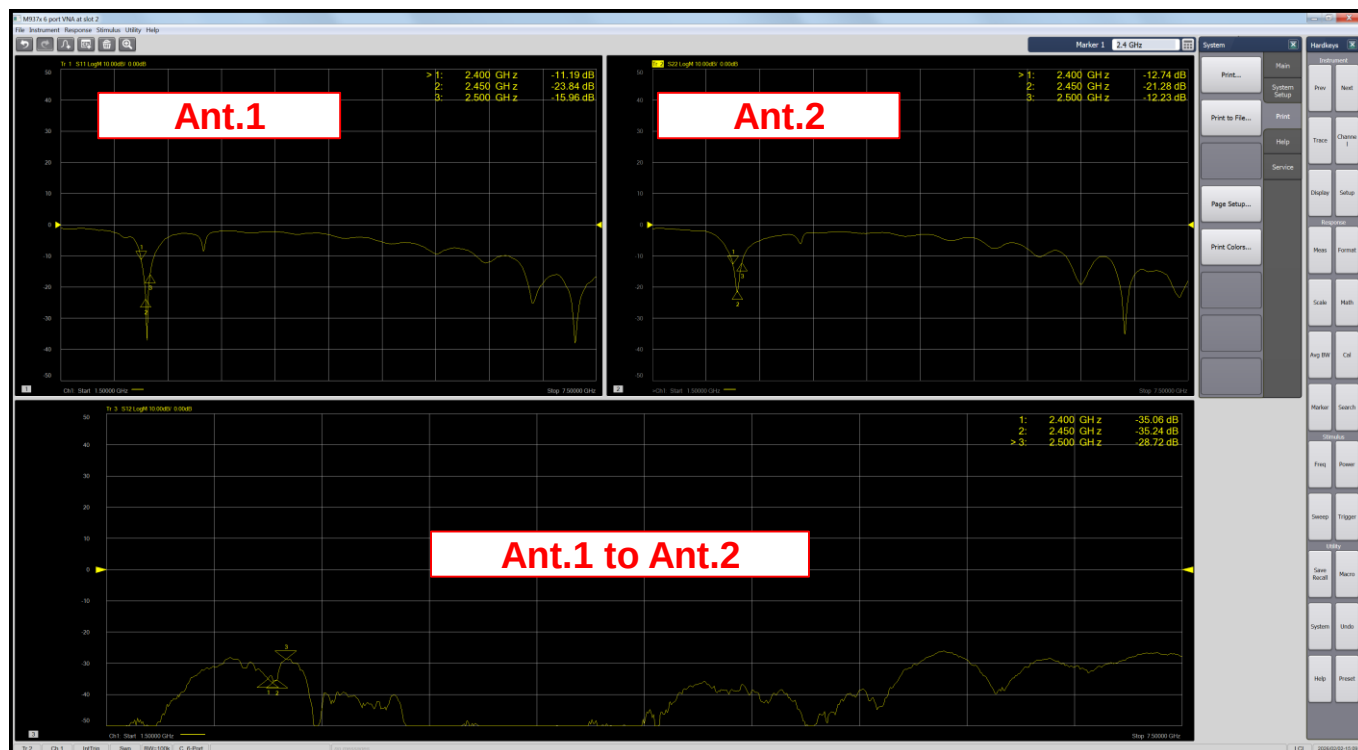
- A. Antenna RF Characteristics
 - 1. Antenna Placement
 - 2. S-Parameters
 - 3. Coordinate Definition
 - 4. Gain Table
 - 5. Isolation Table
 - 6. Radiation Patterns
 - 7. Summary

Antenna Placement

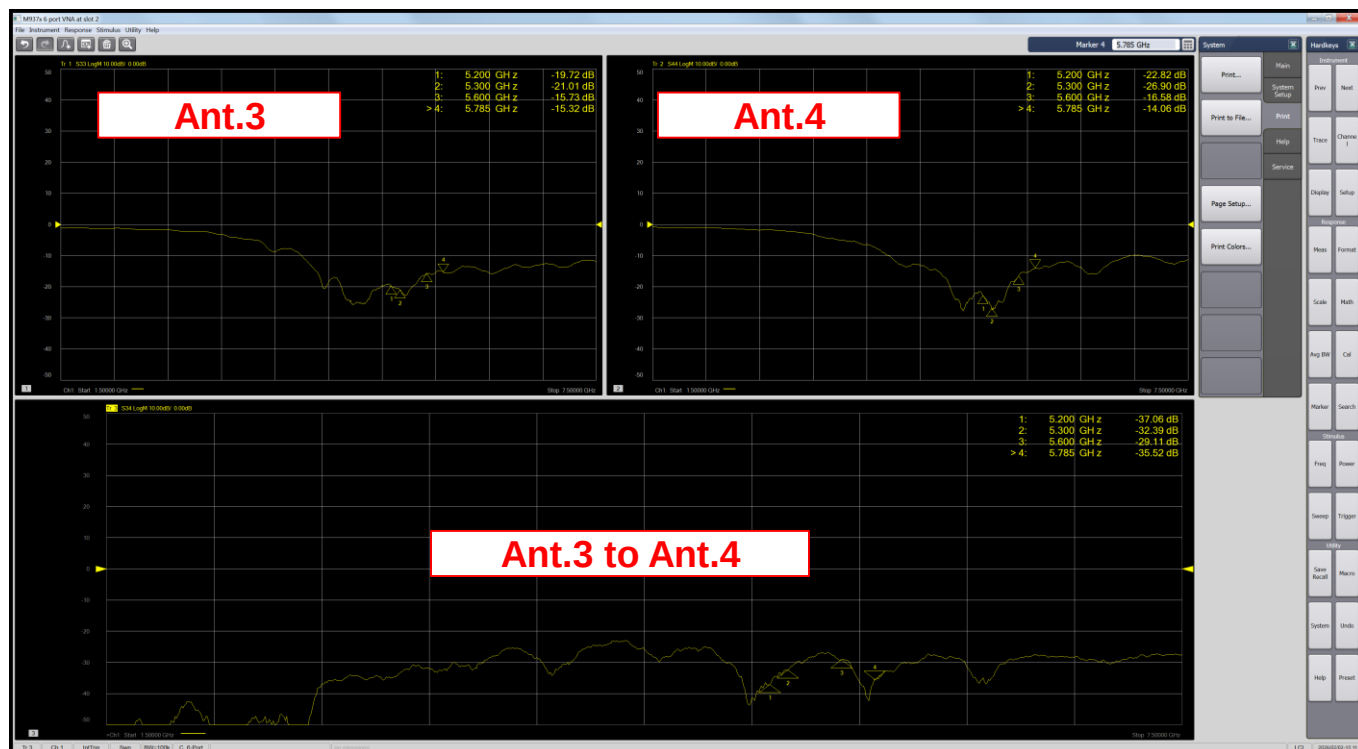
No.	Function	Material	Dimension(mm)	Frequency(MHz)	Remark
Ant.1	Wi-Fi 2.4GHz Band	Metal	44.7x13x6.7	2400 – 2500	
Ant.2	Wi-Fi 2.4GHz Band	Metal	43.7x13x6.7	2400 – 2500	
Ant.3	Wi-Fi 5GHz Band	Metal	28x14.1x6.7	5150 – 5850	
Ant.4	Wi-Fi 5GHz Band	Metal	28x14.1x6.7	5150 – 5850	



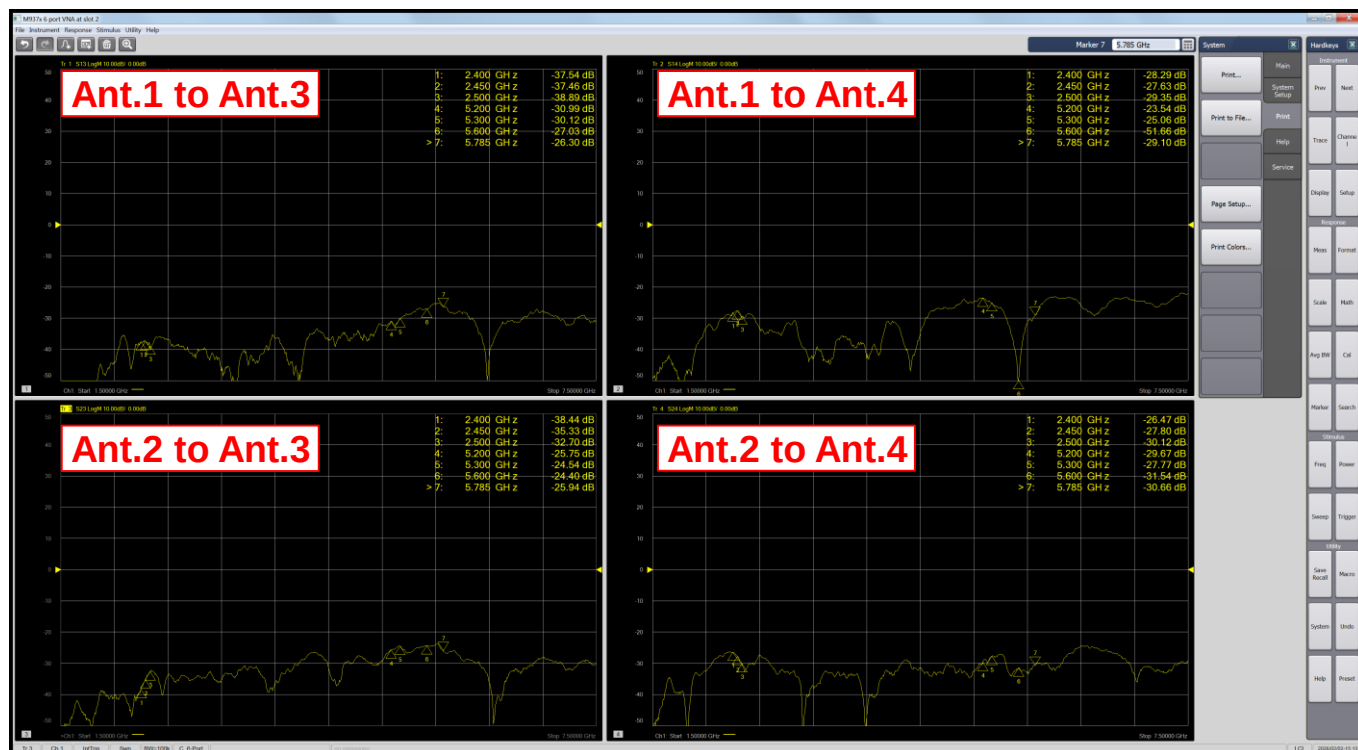
S-Parameters – Ant.1 / Ant.2 (Wi-Fi 2.4GHz-Band)



S-Parameters – Ant.3 / Ant.4 (Wi-Fi 5GHz-Band)



Cross Isolation – Ant.1~Ant.4 (Wi-Fi 2.4GHz-Band to 5GHz-Band)



Coordinate Definition

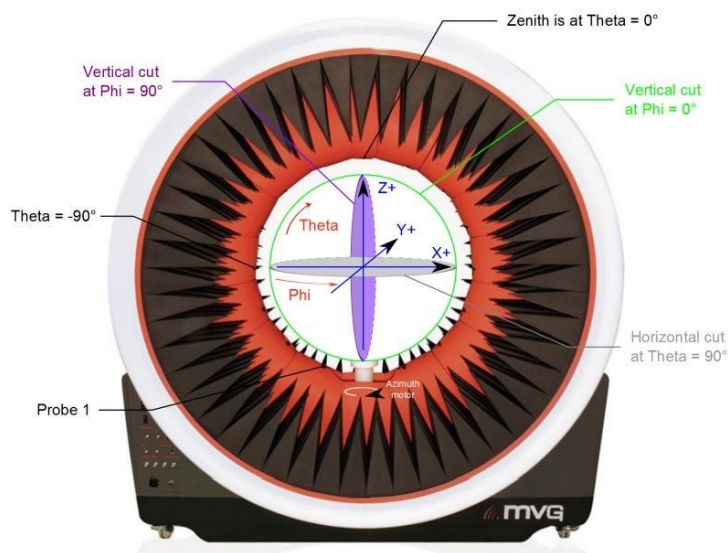
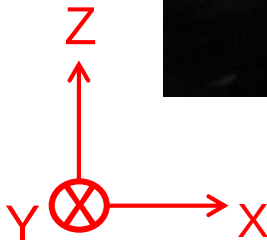
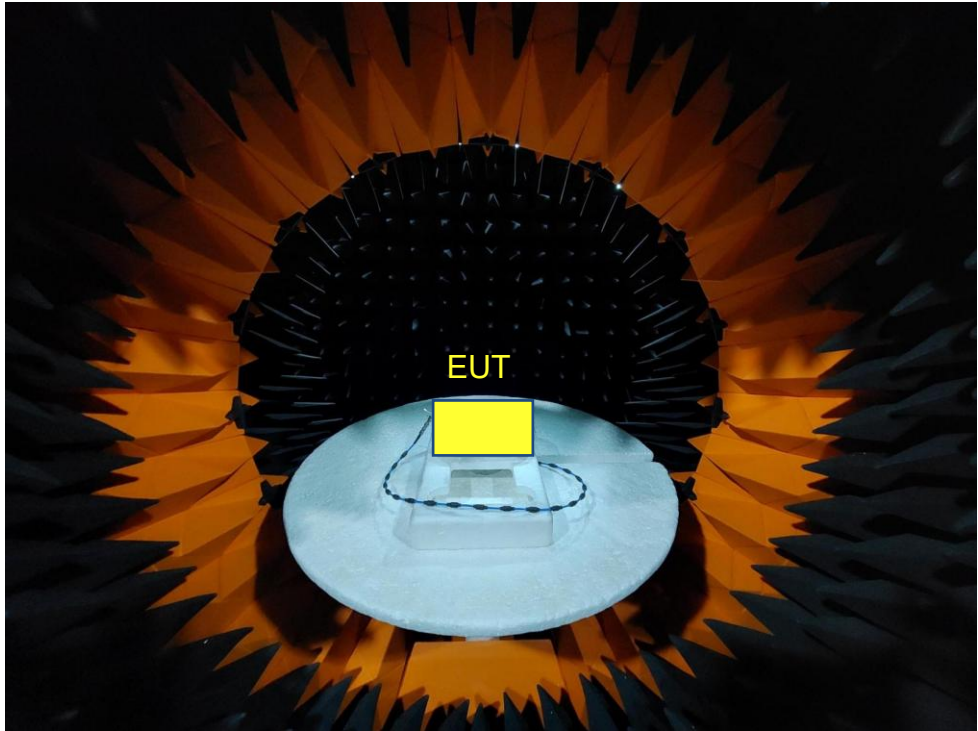


Figure 3.12: StarLab spherical coordinate system



Gain Table

No.	Frequency(MHz)	2400	2450	2500	
Ant.1	Peak Gain(dBi)	3.5	4.1	4.6	
	2D Peak Gain X-YPlane(dBi)	-2.3	-2.0	-2.5	
	2D Peak Gain Z-XPlane(dBi)	2.0	3.3	3.6	
	2D Peak Gain Z-YPlane(dBi)	3.2	3.9	4.6	
	Efficiency(%)	60	64	63	
Ant.2	Peak Gain(dBi)	4.4	4.9	4.9	
	2D Peak Gain X-YPlane(dBi)	-1.2	-1.5	-1.8	
	2D Peak Gain Z-XPlane(dBi)	1.6	2.0	2.0	
	2D Peak Gain Z-YPlane(dBi)	4.4	4.6	4.7	
	Efficiency(%)	64	66	62	
No.	Frequency(MHz)	5200	5300	5600	5785
Ant.3	Peak Gain(dBi)	4.6	5.0	4.6	5.7
	2D Peak Gain X-YPlane(dBi)	0.8	1.0	0.8	1.1
	2D Peak Gain Z-XPlane(dBi)	1.3	1.6	2.7	1.3
	2D Peak Gain Z-YPlane(dBi)	3.0	2.9	4.0	3.0
	Efficiency(%)	66	64	66	62
Ant.4	Peak Gain(dBi)	5.9	5.9	5.3	5.5
	2D Peak Gain X-YPlane(dBi)	3.5	3.7	4.4	4.8
	2D Peak Gain Z-XPlane(dBi)	2.5	3.5	4.5	4.1
	2D Peak Gain Z-YPlane(dBi)	3.3	3.5	4.7	4.1
	Efficiency(%)	66	67	67	65

Isolation Table – Ant.1 & Ant.2 (Wi-Fi 2.4GHz Band)

Item	Worst mutual isolation (dB) 2.4GHz Band	
Antenna	Ant.1	Ant.2
Ant.1		-28.7
Ant.2		

Isolation Table – Ant.3 & Ant.4 (Wi-Fi 5GHz Band)

Item	Worst mutual isolation (dB) 5GHz Band	
Antenna	Ant.4	Ant.5
Ant.4		-29.1
Ant.5		

Cross Isolation Table – Ant.1 & Ant.2 to Ant.3 & Ant.4

Item	Worst mutual cross isolation (dB) 2.4GHz Band		Worst mutual cross isolation (dB) 5GHz Band	
Antenna	Ant.1	Ant.2	Ant.1	Ant.2
Ant.3	-37.4	-32.7	-26.3	-24.4
Ant.4	-27.6	-26.7	-23.5	-27.7

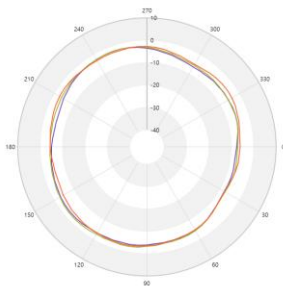
2D Radiation Pattern

Ant.1 (Wi-Fi 2.4GHz-Band)

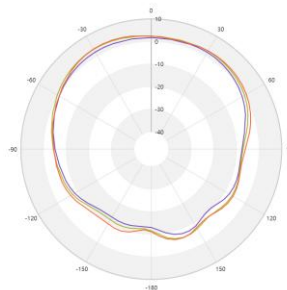
Frequency(MHz) : 2400-2500

Radiation Pattern :

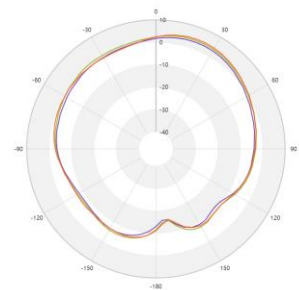
Azimuth Plane
Theta = 90



Elevation Plane
phi = 0

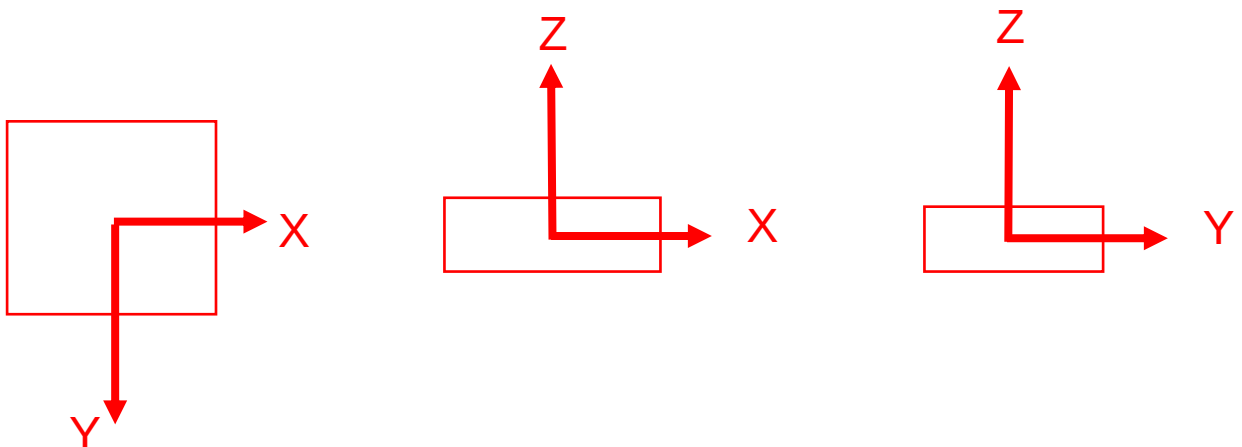


Elevation Plane
phi = 90



— 2400.00 MHz
— 2450.00 MHz
— 2500.00 MHz

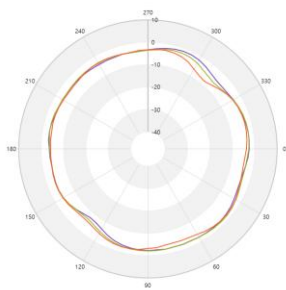
Setup :



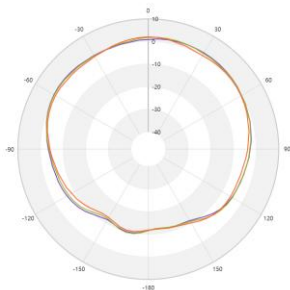
2D Radiation Pattern
Ant.2 (Wi-Fi 2.4GHz-Band)
Frequency(MHz) : 2400-2500

Radiation Pattern :

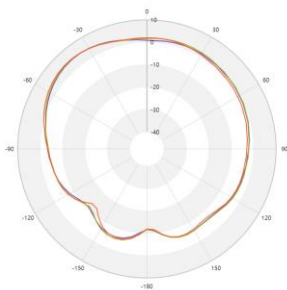
Azimuth Plane
Theta = 90



Elevation Plane
phi = 0



Elevation Plane
phi = 90



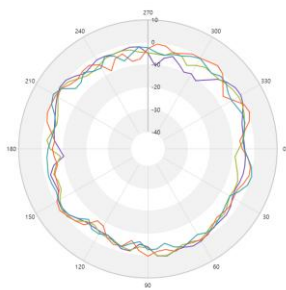
- 2400.00 MHz
- 2450.00 MHz
- 2500.00 MHz

Setup :

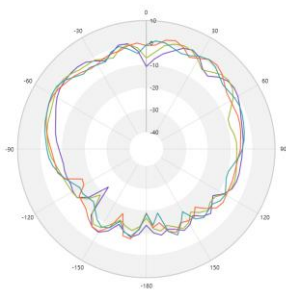
2D Radiation Pattern
Ant.3 (Wi-Fi 5GHz-Band)
Frequency(MHz) : 5200-5785

Radiation Pattern :

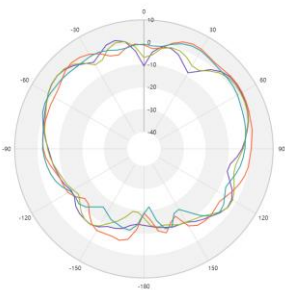
Azimuth Plane
Theta = 90



Elevation Plane
phi = 0



Elevation Plane
phi = 90



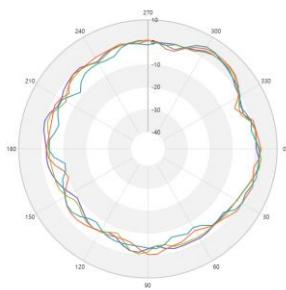
- 5200.00 MHz
- 5300.00 MHz
- 5600.00 MHz
- 5785.00 MHz

Setup :

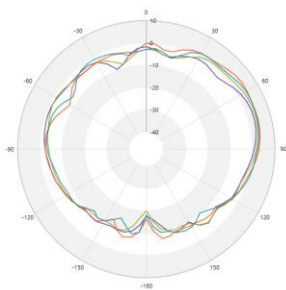
2D Radiation Pattern
Ant.4 (Wi-Fi 5GHz-Band)
Frequency(MHz) : 5200-5785

Radiation Pattern :

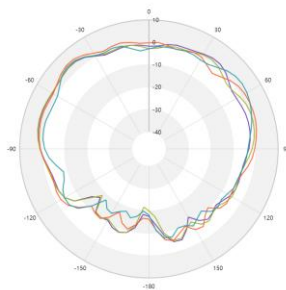
Azimuth Plane
Theta = 90



Elevation Plane
phi = 0



Elevation Plane
phi = 90



- 5200.00 MHz
- 5300.00 MHz
- 5600.00 MHz
- 5785.00 MHz

Setup :

www.lynwave.com



<https://www.facebook.com/LYNwaveTechnology/>



<https://www.linkedin.com/company/lynwave-technology-ltd./>



<https://lynwave.en.alibaba.com/>