Antenna datasheet

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LYNwave Technology

Antenna & Thermal solution provider

2022

www.lynwave.com

Antenna Simulation Report

Model Name: H660GX ,HX-H660GX-NA , HX-H660GX-EU ,HX-H660GX-UK , HX-H660GX-00

Feature: 2.4G+5G

Application: AP

Date	Owner	Revision
2022/03/02	Alon	1. S-Parameter Measurement 2. Antenna Passive Measurement
2022/03/07	Alon	1. Add Cable Length
2022/06/06	Alon	1. Add Device Description
2022/06/07	Xavi/Danny	1. Approval

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Antenna Placement

Antenna	Description	Frequency
Ant.1	ALX21P-221AAC-00	2412~2484 MHz ; 5150 ~ 5825 MHz
Ant.2	ALX21P-222AA6-00	2412~2484 MHz ; 5150 ~ 5825 MHz

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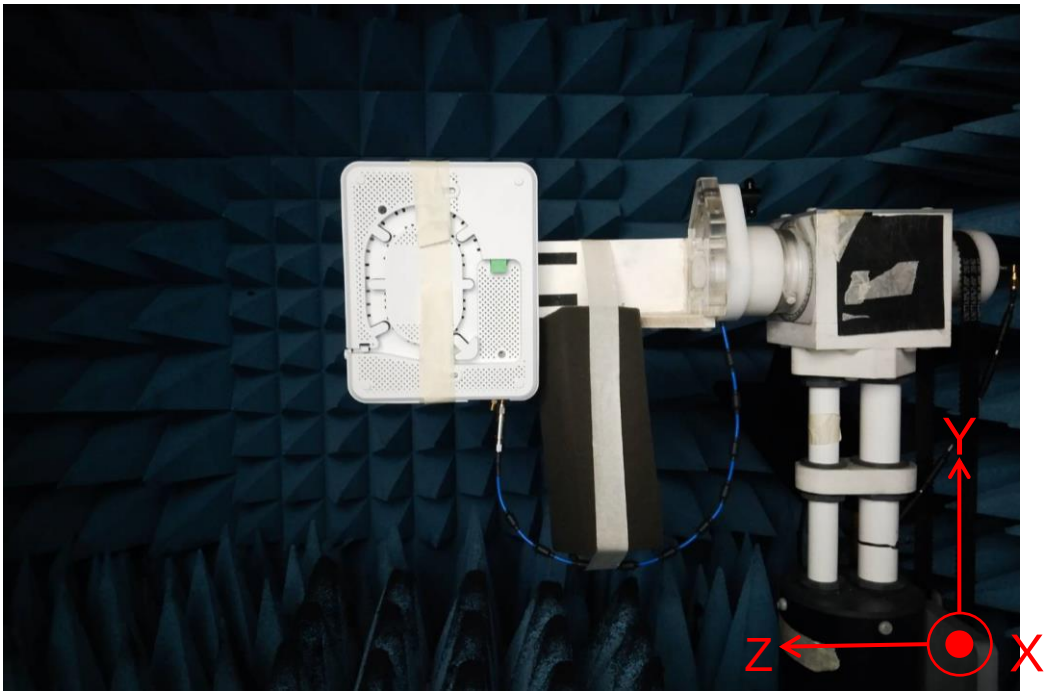
Equipment List :

Antenna Chamber	MFC-2531(1.4x1.4x2.8m)
Test software	Passive 2D/3D川升
Network analyzer	Agilent E5071B
Controller	MF7802
Calibration time	2022/04/30

Antenna Chamber



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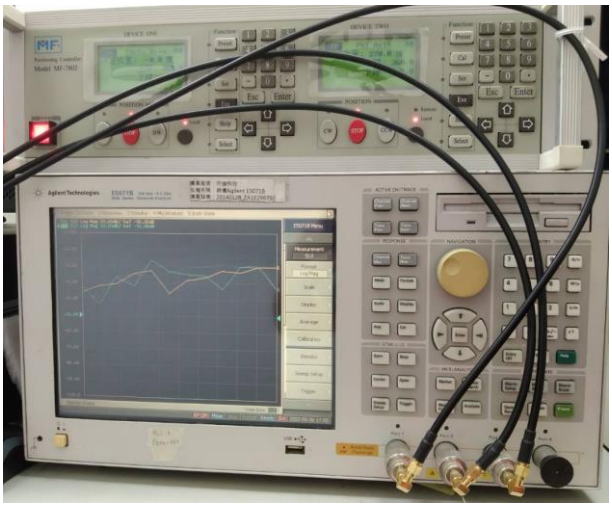

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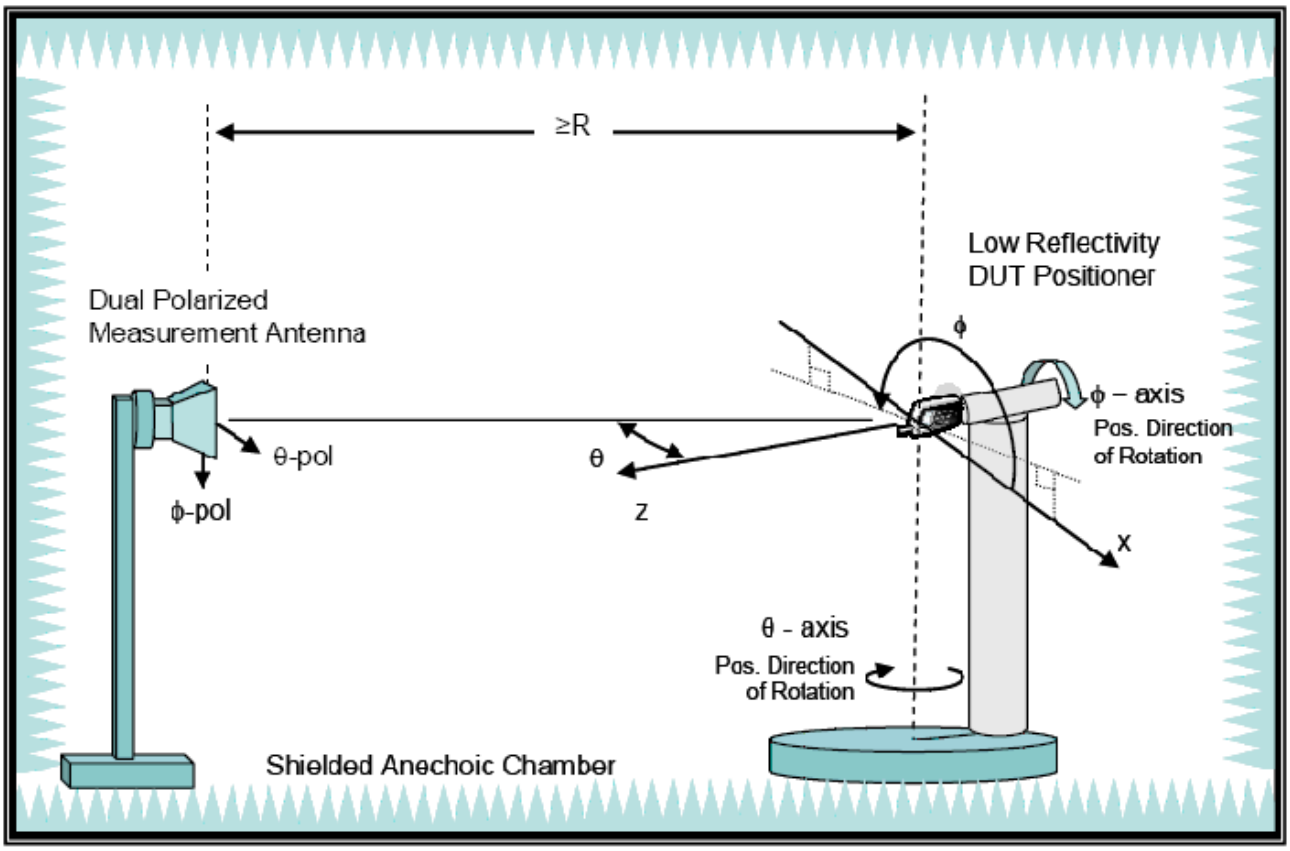
Test architecture :



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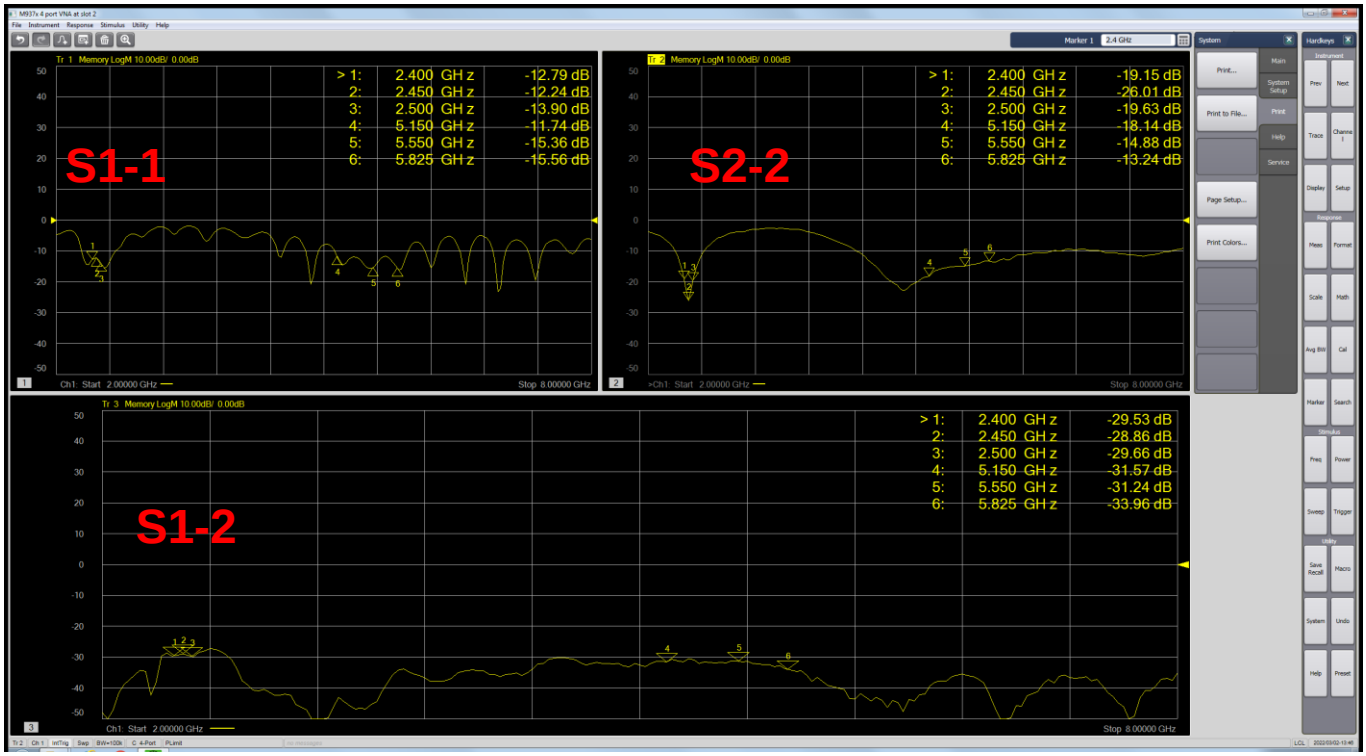
S-Parameters



Gain Table_Coppertube

Ant.1						
Frequency (MHz)	2400	2450	2500	5150	5550	5825
Efficiency(%)	60	63	62	61	61	60
Peak Gain(dBi)	2.2	2.4	2.2	3.3	3.1	3.7
Ant.2						
Frequency (MHz)	2400	2450	2500	5150	5550	5825
Efficiency(%)	62	68	64	62	74	65
Peak Gain(dBi)	3.0	3.1	2.5	5.6	5.1	5.2

The antenna characteristics

- Gain
  - Dual band 2.4GHz : 2.2~3.1dBi
  - Dual band 5GHz : 3.1~5.6dBi
- Efficiency
  - 2.4GHz Band > 60%
  - 5GHz Band > 60%
- Isolation
  - 2.4GHz Band > 25dB
  - 5GHz Band > 25dB
- Return loss <-11dB in operating band
- Change Cable Length
  - Ant.1: 250mm
  - Ant.2: 45mm

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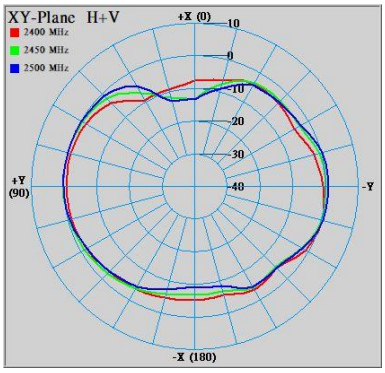
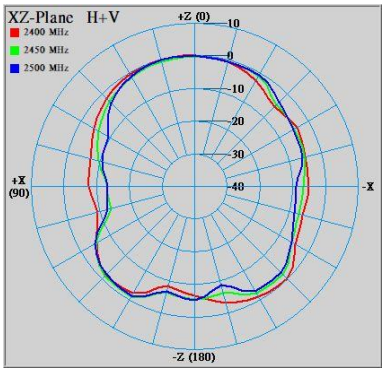
Ant.1_2.4GHz 2D.3D Radiation Pattern
Frequency(MHz) : 2D. 2400~2500
3D. 2450

Radiation Pattern :

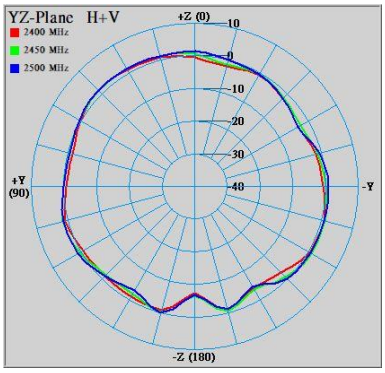
Azimuth Plane

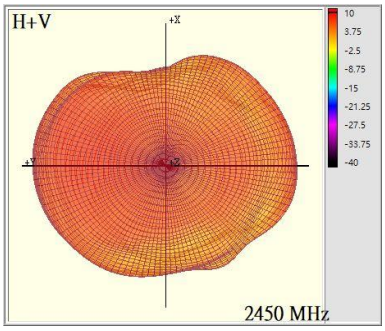


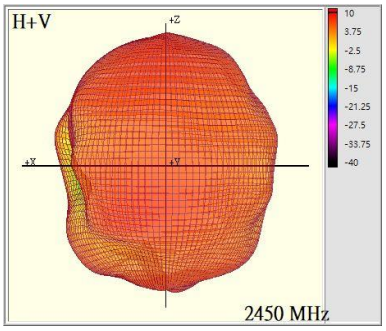
Elevation Plane phi = 0

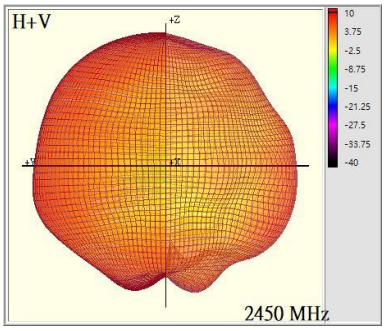


Elevation Plane phi = 90









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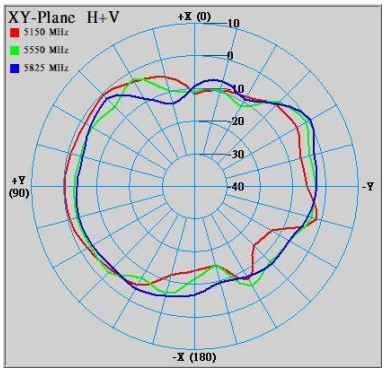
Ant.1_5GHz 2D.3D Radiation Pattern
Frequency(MHz) : 2D. 5150~5825
3D. 5550

Radiation Pattern :

Azimuth Plane



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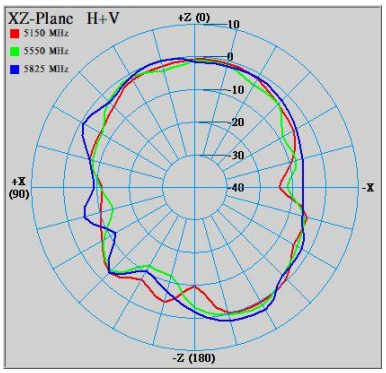
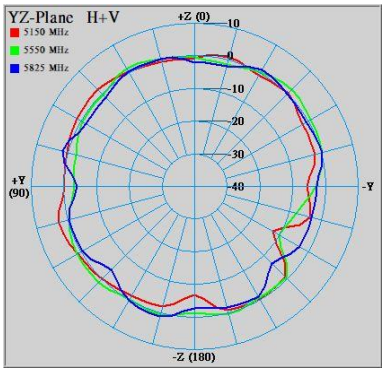
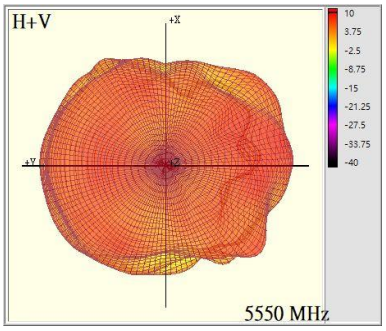
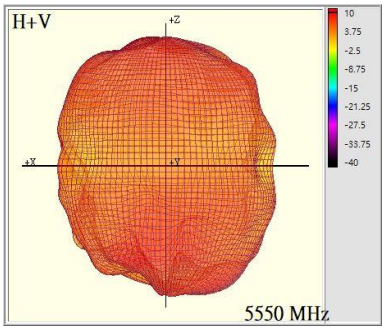
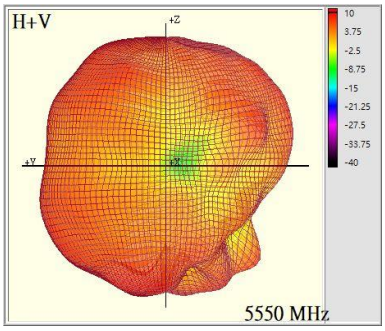


Elevation Plane phi = 90









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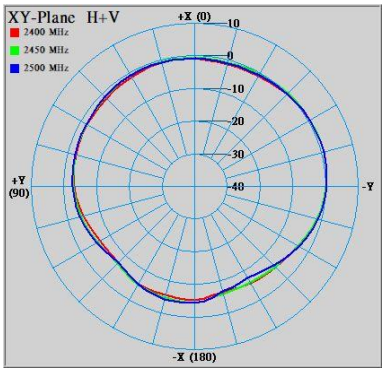
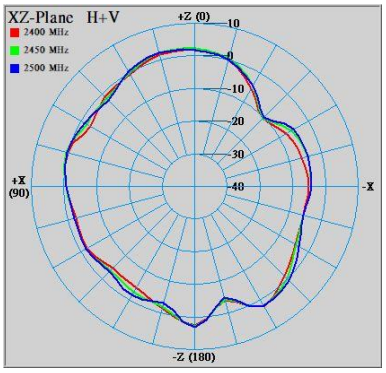
Ant.2_2.4GHz 2D.3D Radiation Pattern
Frequency(MHz) : 2D. 2400~2500
3D. 2450

Radiation Pattern :

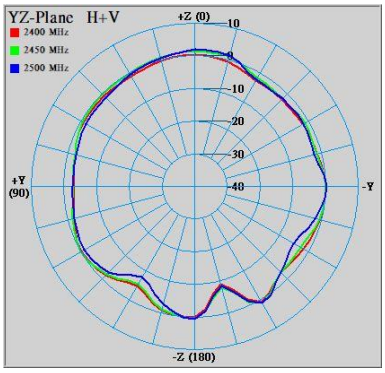
Azimuth Plane

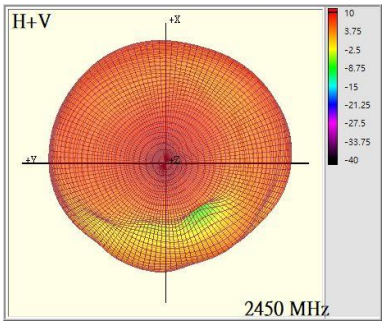


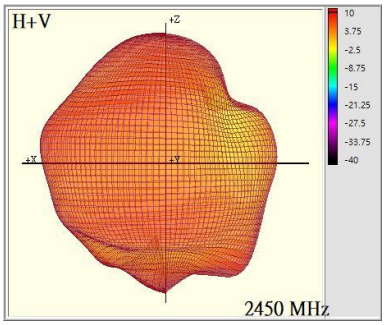
Elevation Plane phi = 0

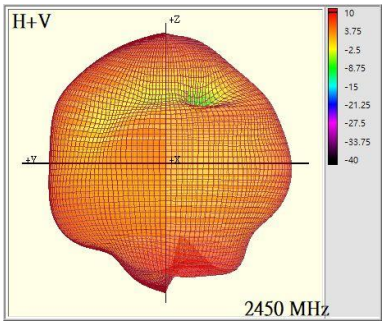


Elevation Plane phi = 90









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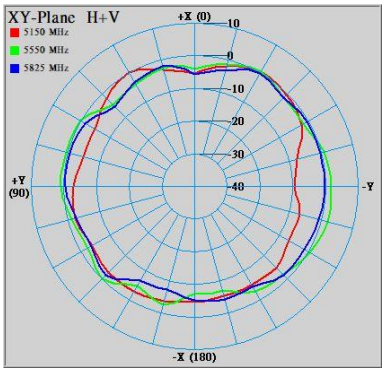
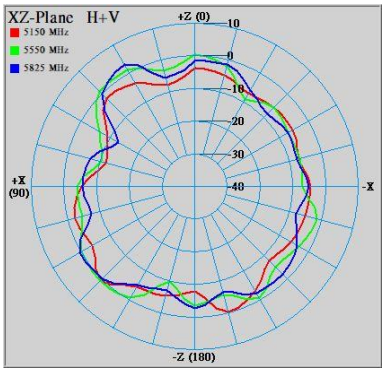
Ant.2_5GHz 2D.3D Radiation Pattern
Frequency(MHz) : 2D. 5150~5825
3D. 5550

Radiation Pattern :

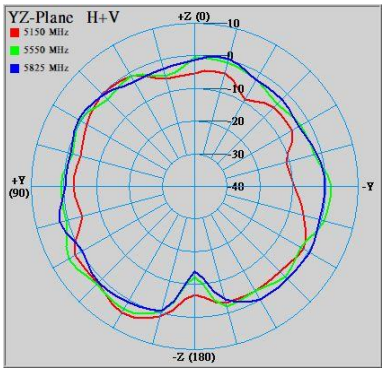
Azimuth Plane

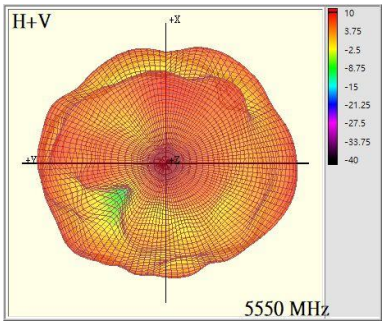


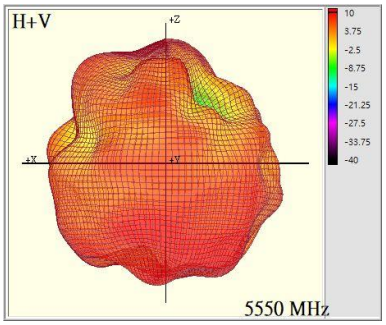
Elevation Plane phi = 0

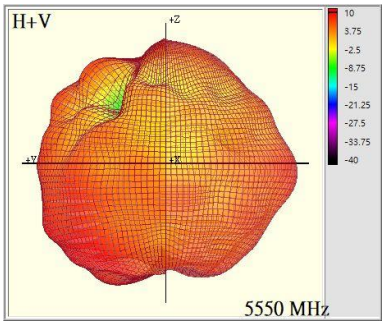


Elevation Plane phi = 90









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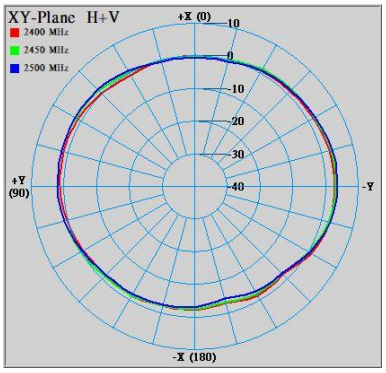
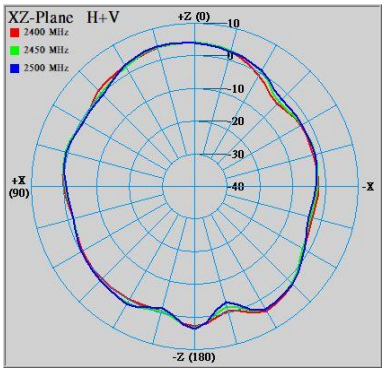
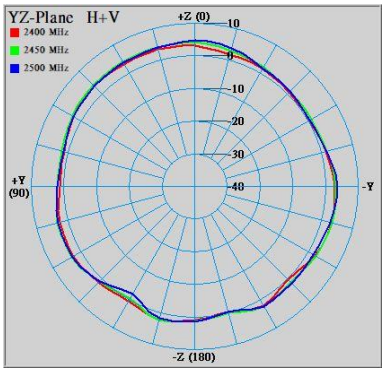
Combine_2D.3D Radiation Pattern
Frequency(MHz) : 2D. 2400~2500
3D. 2450

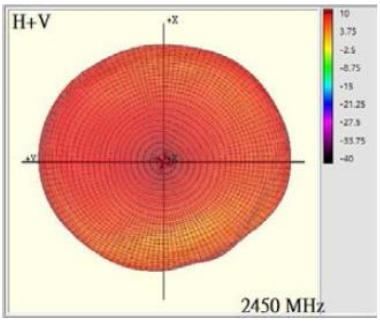
Radiation Pattern :

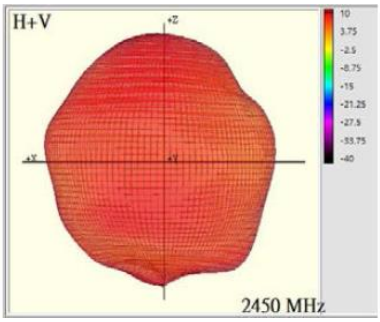
Azimuth Plane	Elevation Plane phi = 0	Elevation Plane phi = 90

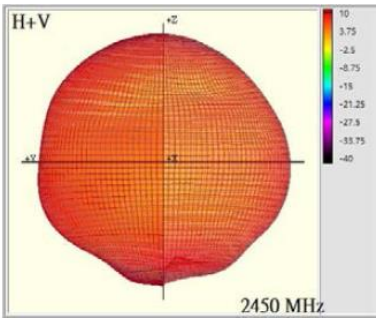












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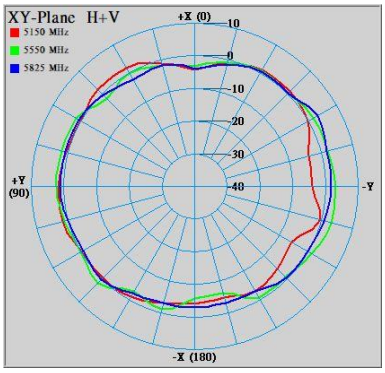
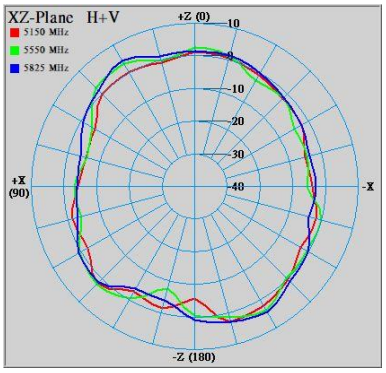
Combine_2D.3D Radiation Pattern
Frequency(MHz) : 2D. 5150~5825
3D. 5550

Radiation Pattern :

Azimuth Plane



Elevation Plane phi = 0



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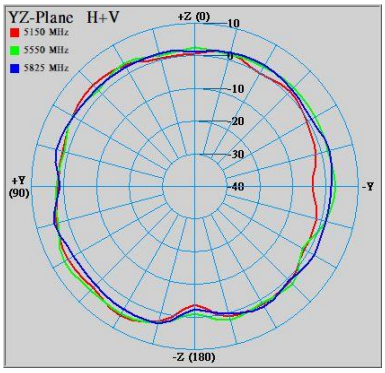

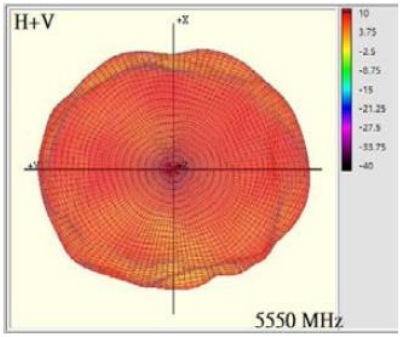

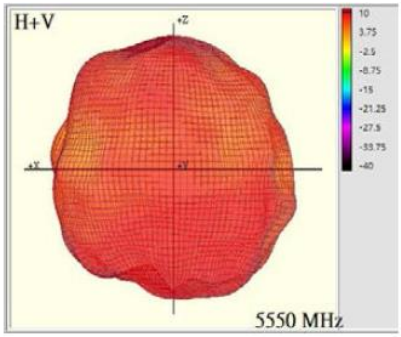

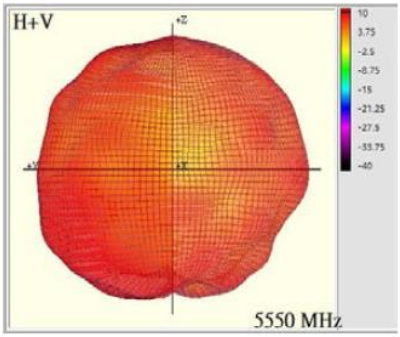

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Summary

- Antenna meet the specification .

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