

# Antenna Test Report

Date: Jun.03.2024  
rev.01

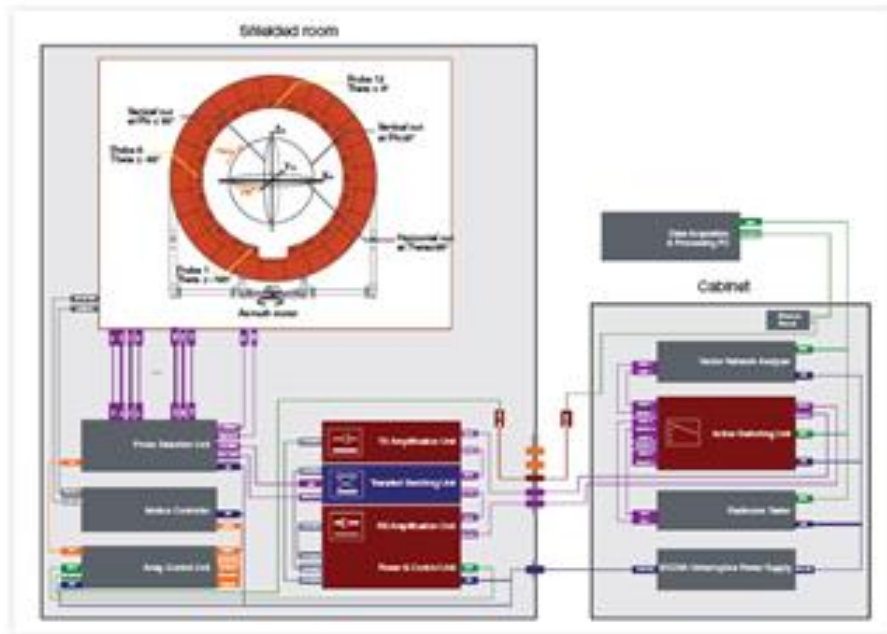
Address: 20 Park Avenue II (or Yuanchiu 2nd Rd.), Hsinchu Science Park, Hsinchu 300, Taiwan

# Contents

- Chamber Info.
- Name and address of the antenna manufacture
- Antenna Specification
- Peak Gain
- Radiation Pattern

# Chamber Info.

- Antenna Vendor : WNC
- Test Date : 20240530
- Test Engineer : Joe
- Measurement System : SATIMO SG24
- Software Name : Wave Studio
- Software Version : 22.5.6





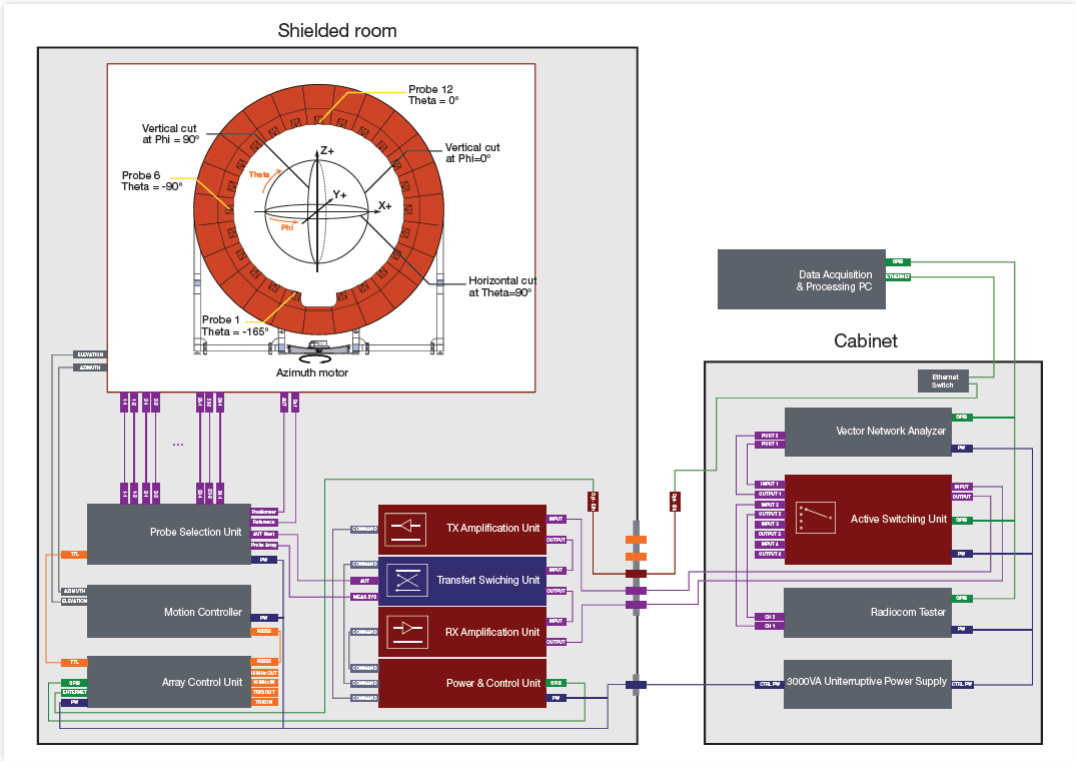
# Chamber Info.

- Measurement System: SATIMO SG24 Chamber

## Measurement setup:

- pattern & gain measurement
  - 1.satimo chamber (SG24)
  - 2.satimo program (wave studio)
  - 3.system overview :
- test item
  - 1.antenna passive test 400MHz~9GHz

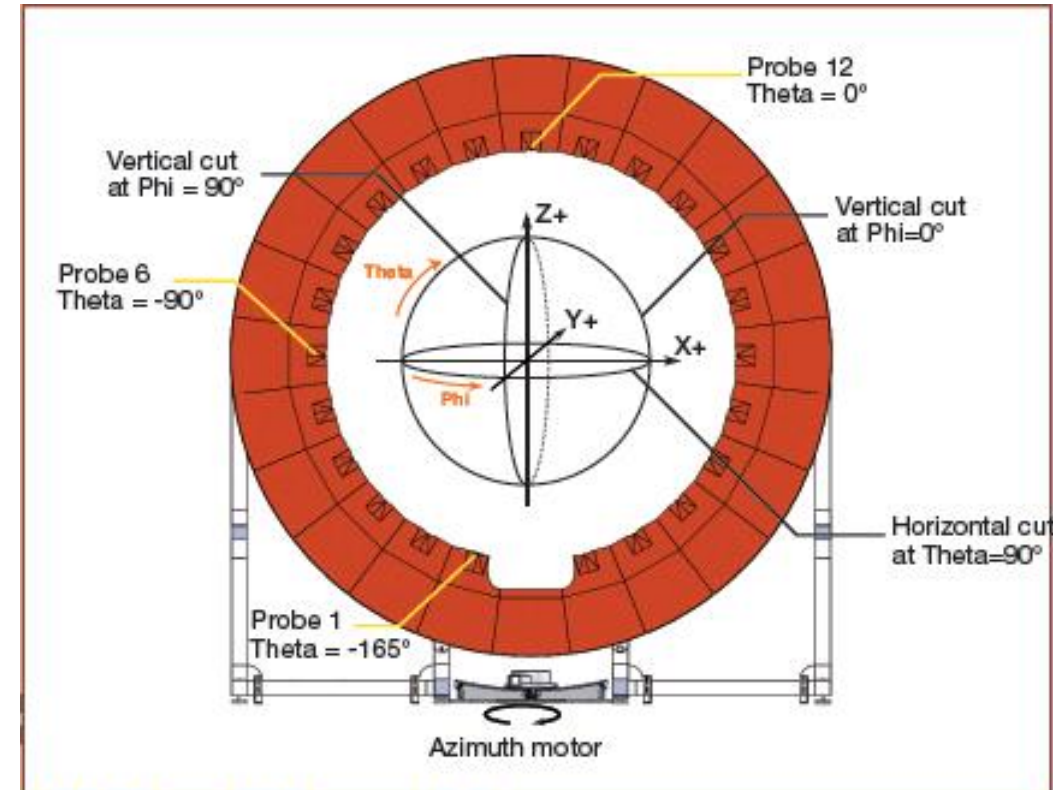
- Calibration Information



| Device                     | Type / Model    | Serial #   | Manufacture | Cal. Date  | Cal. Until |
|----------------------------|-----------------|------------|-------------|------------|------------|
| Antenna Measurement System | SG24-L          | HKG1669S   | MVG-SATIMO  | 2023-06-03 | 2024-06-03 |
| Network Analyzer           | Keysight E5080B | MY59203136 | Keysight    | 2023-06-03 | 2024-06-03 |

# Chamber Info.

1. Place the device to be tested on the fixture and align it with the center of the chamber.
2. Connect the antenna cable to the RF connector of the chamber.
3. Use the SW to configure parameters (antenna name, frequency points, measurement angles, antenna dimension), and then run the test SW (wave studio).
4. By phi from  $0^{\circ}$  to  $360^{\circ}$  and theta from  $0^{\circ}$  to  $180^{\circ}$  with a step size of 2 degrees, get the 3D data, including efficiency, peak gain, 2D and 3D radiation patterns.
5. This is far field test for antenna verification.
6. This is passive measurement, which means the device is off and not in any operating mode.



# Name and address of the antenna manufacture



## ***NEWEB VIETNAM CO., LTD.***

- *Land Lot CN01, Dong Van III Industrial Zone, Dong Van Ward, Duy Tien Town, Ha Nam Province, Vietnam*
- [+84-226-358-8899](tel:+84-226-358-8899)
- [+84-226-358-7799](tel:+84-226-358-7799)

# Antenna Specification

Test date: 2024/05/30  
Test personnel : Joe Huang

| 90XYBH15.GAN   |                                              |
|----------------|----------------------------------------------|
| Frequency      | 2400~2500MHz, 5150~5895MHz                   |
| Antenna type   | Dipole                                       |
| Connector type | IPEX                                         |
| Antenna Gain   | 1.61dBi@2400~2500MHz<br>3.72dBi@5150~5895MHz |

| 90XYBH15.GAO   |                                              |
|----------------|----------------------------------------------|
| Frequency      | 2400~2500MHz, 5150~5895MHz                   |
| Antenna type   | Dipole                                       |
| Connector type | IPEX                                         |
| Antenna Gain   | 1.70dBi@2400~2500MHz<br>3.07dBi@5150~5895MHz |

| 90XYBH15.GAP   |                      |
|----------------|----------------------|
| Frequency      | 5150~5895MHz         |
| Antenna type   | Dipole               |
| Connector type | IPEX                 |
| Antenna Gain   | 3.76dBi@5150~5895MHz |

| 90XYBH15.GAQ   |                      |
|----------------|----------------------|
| Frequency      | 5150~5895MHz         |
| Antenna type   | Dipole               |
| Connector type | IPEX                 |
| Antenna Gain   | 2.76dBi@5150~5895MHz |

| 90XYBH15.GAR   |                      |
|----------------|----------------------|
| Frequency      | 5925~7125MHz         |
| Antenna type   | Dipole               |
| Connector type | IPEX                 |
| Antenna Gain   | 2.62dBi@5925~7125MHz |

| 90XYBH15.GAS   |                      |
|----------------|----------------------|
| Frequency      | 5925~7125MHz         |
| Antenna type   | Dipole               |
| Connector type | IPEX                 |
| Antenna Gain   | 3.78dBi@5925~7125MHz |

| 90XYBH15.GAT   |                      |
|----------------|----------------------|
| Frequency      | 5925~7125MHz         |
| Antenna type   | Dipole               |
| Connector type | IPEX                 |
| Antenna Gain   | 2.46dBi@5925~7125MHz |

| 90XYBH15.GAU   |                      |
|----------------|----------------------|
| Frequency      | 5925~7125MHz         |
| Antenna type   | Dipole               |
| Connector type | IPEX                 |
| Antenna Gain   | 2.66dBi@5925~7125MHz |



# Peak Gain

Test date: 2024/05/30  
Test personnel : Joe Huang

| Dual Band    | Freq. (MHz)    | 2400 | 2450 | 2500 | 5150 | 5350 | 5550 | 5750 | 5850 | 5895 |
|--------------|----------------|------|------|------|------|------|------|------|------|------|
| 90XYBH15.GAN | Peak Gain(dBi) | 1.38 | 1.61 | 1.52 | 3.08 | 3.38 | 3.25 | 3.72 | 3.68 | 3.46 |
| 90XYBH15.GAO | Peak Gain(dBi) | 1.37 | 1.63 | 1.70 | 2.53 | 2.85 | 2.95 | 3.07 | 2.79 | 2.65 |

| 5G           | Freq. (MHz)    | 5150 | 5350 | 5550 | 5750 | 5850 | 5895 |
|--------------|----------------|------|------|------|------|------|------|
| 90XYBH15.GAP | Peak Gain(dBi) | 2.67 | 3.67 | 3.76 | 3.47 | 3.35 | 3.23 |
| 90XYBH15.GAQ | Peak Gain(dBi) | 1.62 | 2.21 | 2.70 | 2.76 | 2.56 | 2.37 |

| 6G           | Freq. (MHz)    | 5925 | 6105 | 6250 | 6400 | 6550 | 6700 | 6850 | 7000 | 7125 |
|--------------|----------------|------|------|------|------|------|------|------|------|------|
| 90XYBH15.GAR | Peak Gain(dBi) | 1.94 | 2.24 | 2.35 | 2.62 | 2.35 | 2.20 | 2.02 | 2.35 | 2.46 |
| 90XYBH15.GAS | Peak Gain(dBi) | 2.82 | 2.63 | 2.54 | 2.36 | 2.23 | 2.33 | 2.88 | 3.28 | 3.78 |
| 90XYBH15.GAT | Peak Gain(dBi) | 1.58 | 1.72 | 1.58 | 1.45 | 1.55 | 1.92 | 2.01 | 2.46 | 2.39 |
| 90XYBH15.GAU | Peak Gain(dBi) | 2.32 | 2.66 | 2.41 | 2.04 | 1.78 | 2.05 | 1.90 | 2.27 | 2.38 |



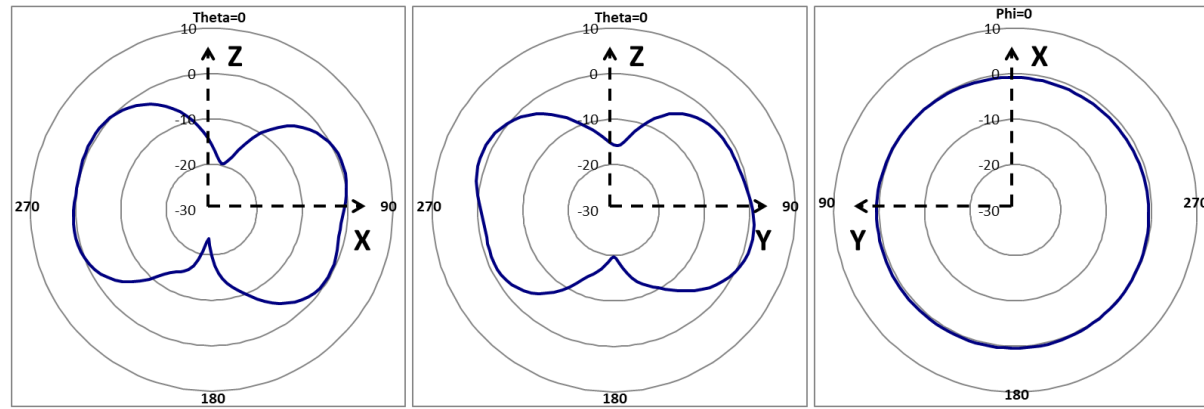
# Radiation Pattern for Dual Band

Test date: 2024/05/30  
Test personnel : Joe Huang

90XYBH15.GAN

Dual Band 2G  
Radiation Pattern

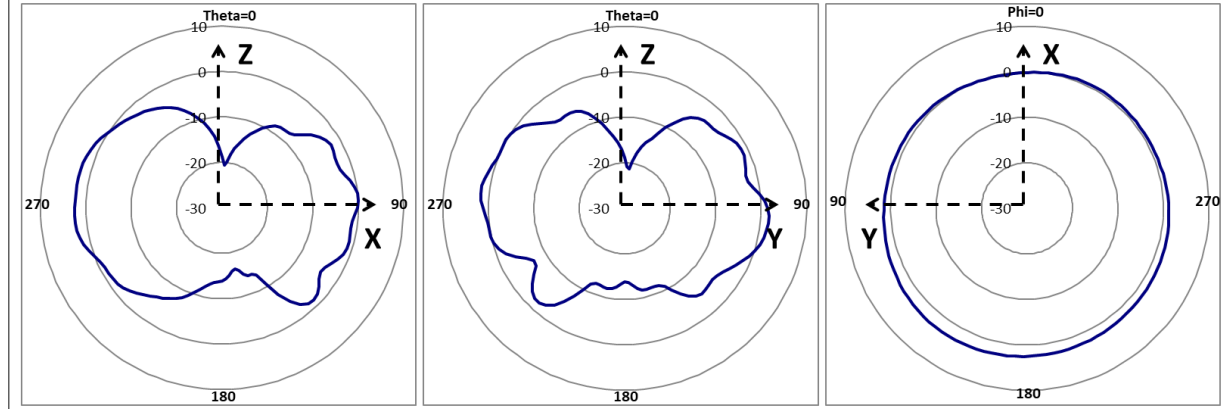
90XYBH15.GAN



90XYBH15.GAN

Dual Band 5G  
Radiation Pattern

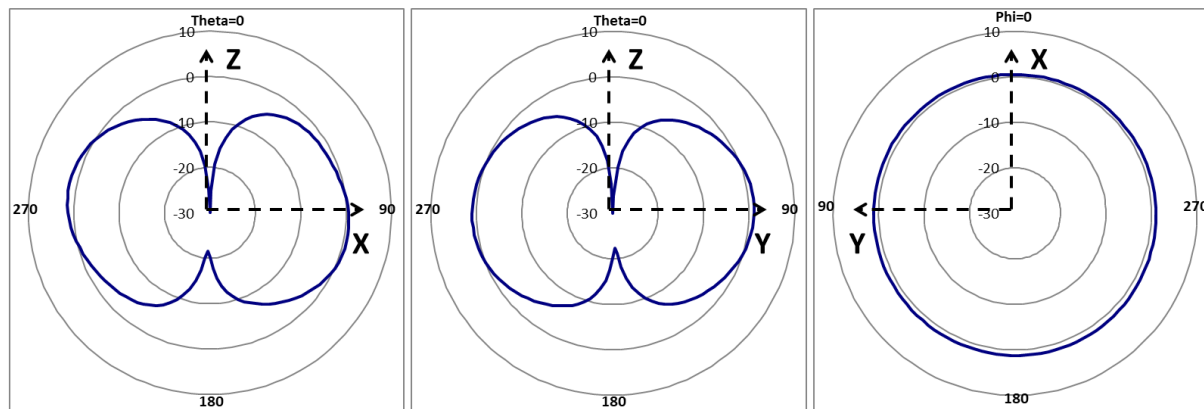
90XYBH15.GAN



90XYBH15.GAO

Dual Band 2G  
Radiation Pattern

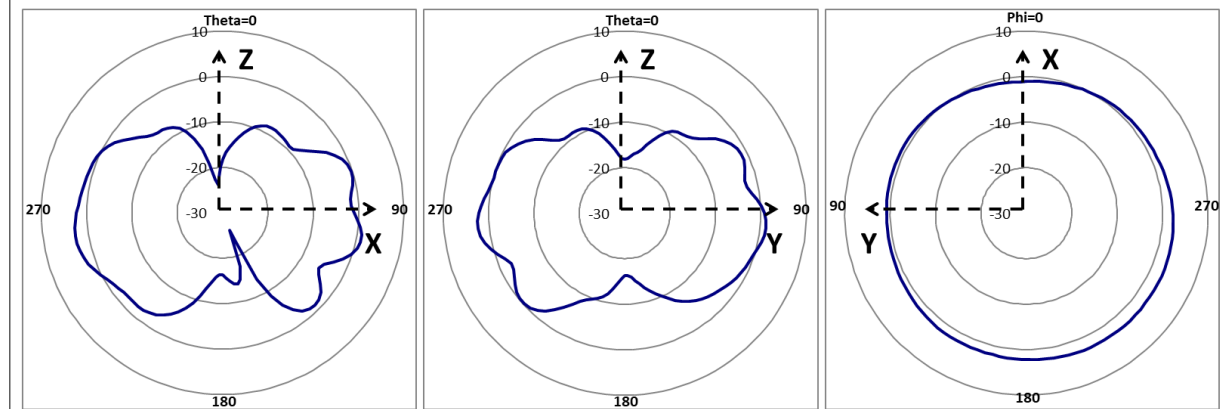
90XYBH15.GAO



90XYBH15.GAO

Dual Band 5G  
Radiation Pattern

90XYBH15.GAO



# Radiation Pattern for 5GF

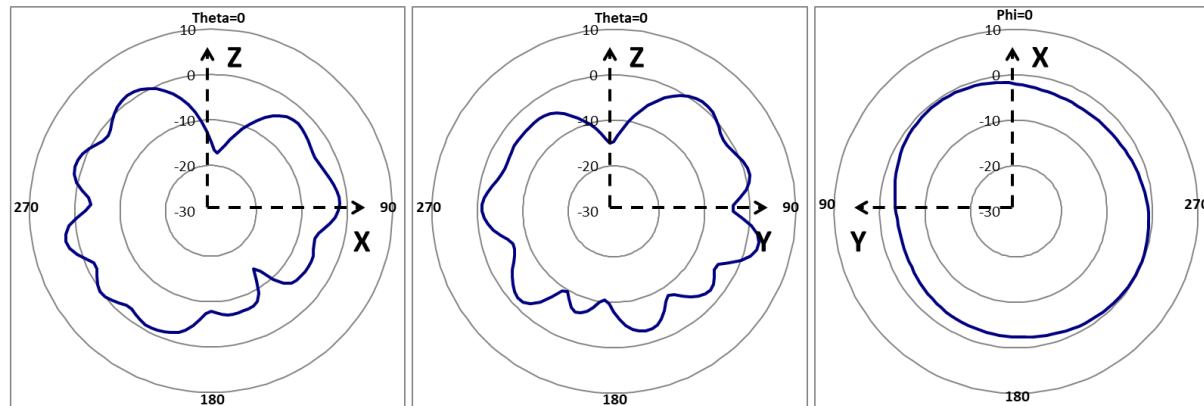
Test date: 2024/05/30  
Test personnel : Joe Huang

90XYBH15.GAP

5GF

Radiation Pattern

90XYBH15.GAP

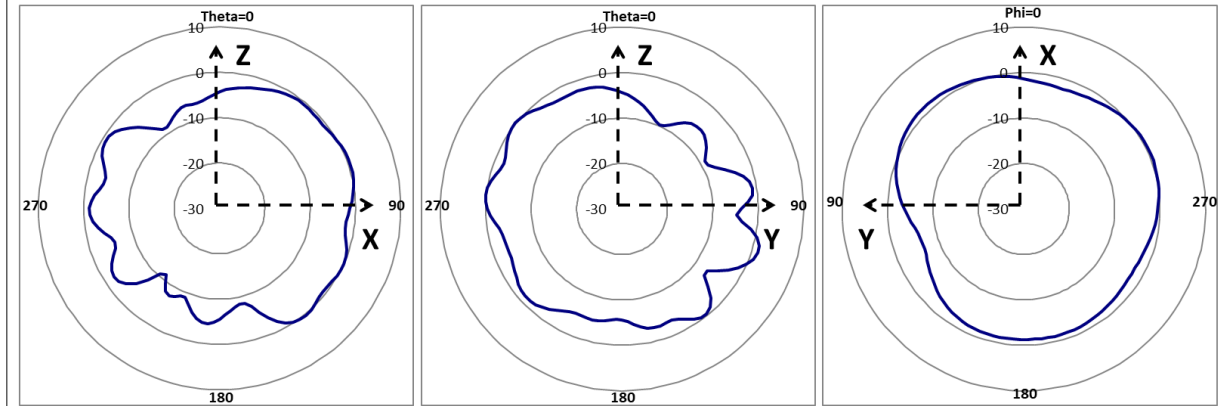


90XYBH15.GAQ

5GF

Radiation Pattern

90XYBH15.GAQ



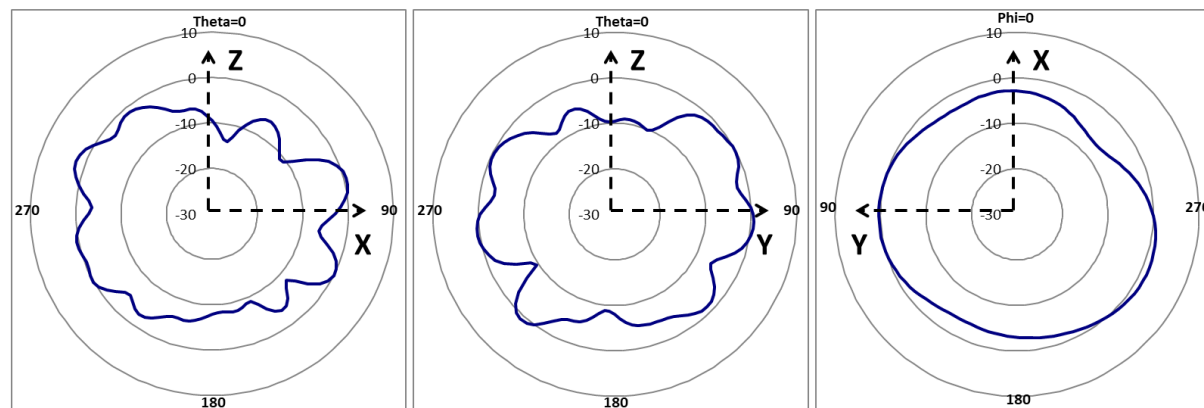
# Radiation Pattern for 6GF

Test date: 2024/05/30  
Test personnel : Joe Huang

90XYBH15.GAR

6GF  
Radiation Pattern

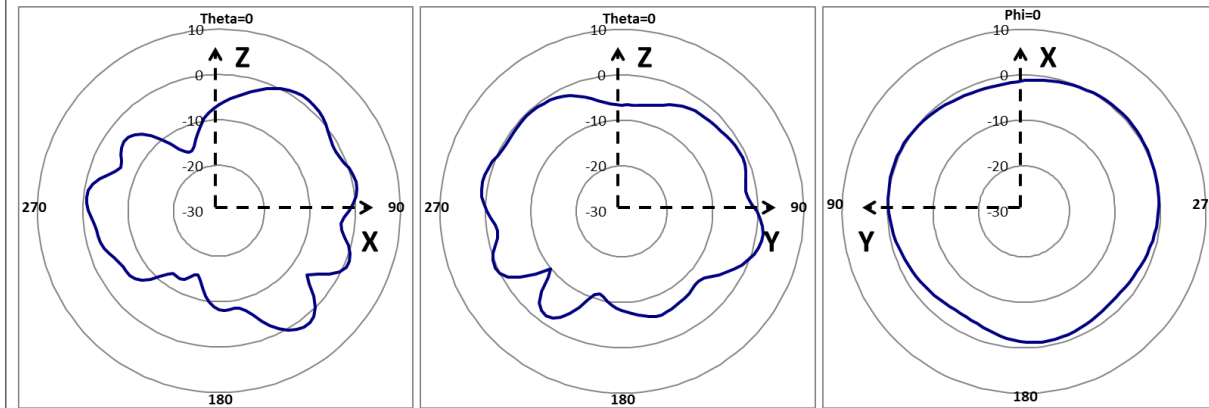
90XYBH15.GAR



90XYBH15.GAS

6GF  
Radiation Pattern

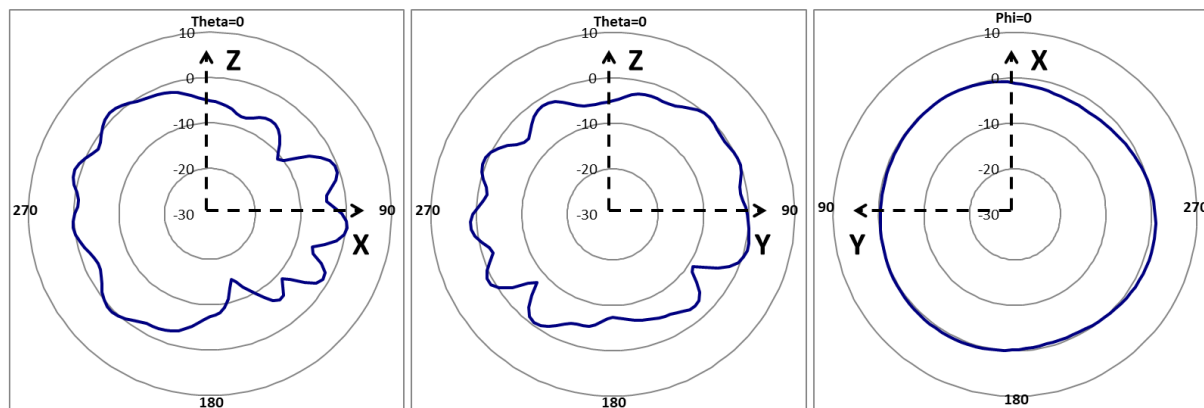
90XYBH15.GAS



90XYBH15.GAT

6GF  
Radiation Pattern

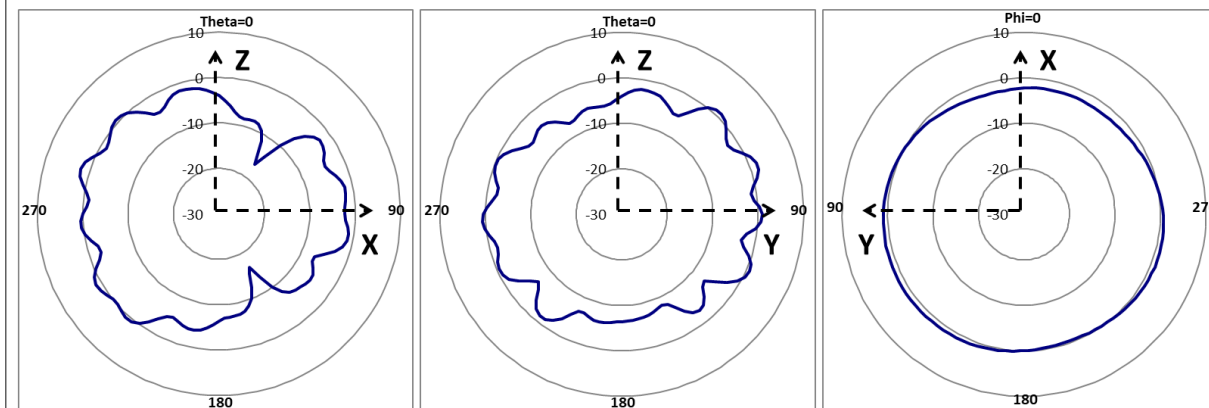
90XYBH15.GAT



90XYBH15.GAU

6GF  
Radiation Pattern

90XYBH15.GAU





# ***WNC***

***Wistron NeWeb Corp.***

