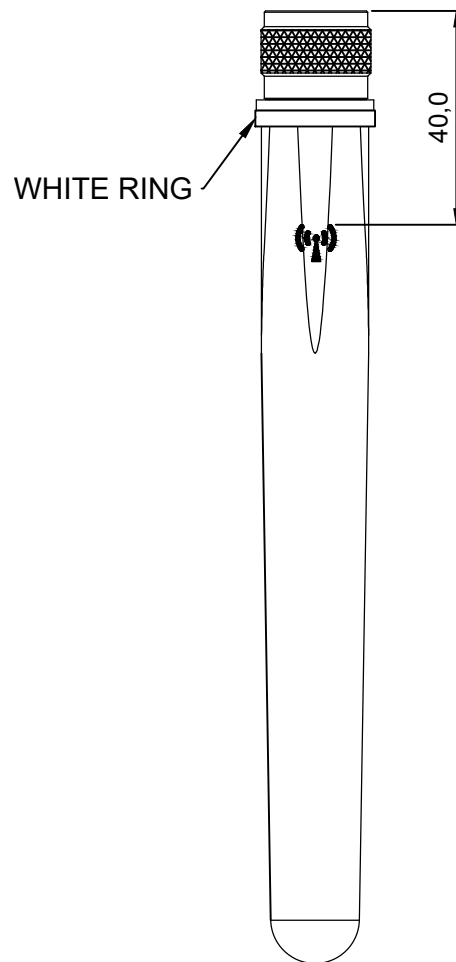
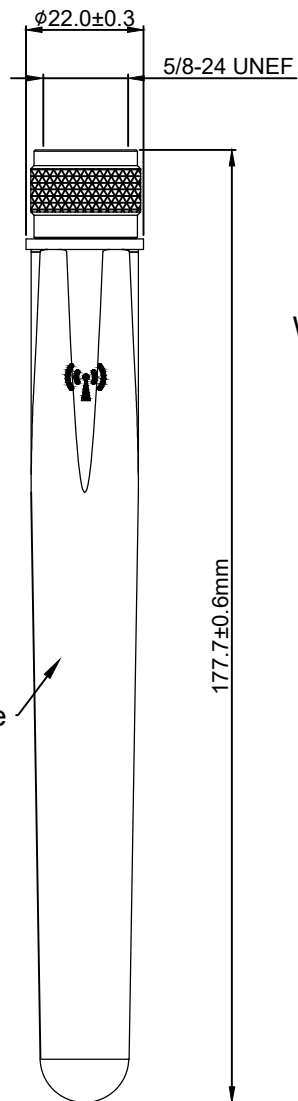


# Parts Specification Cover

|              |                              |
|--------------|------------------------------|
| Customer     | Wistron Neweb Corporation    |
| WNC P/N      | 08.21036.005                 |
| Supplier     | Grand-Tek Technology CO. LTD |
| Brand        |                              |
| Supplier P/N | 1036G00001160                |
| Revision     | X1                           |

|                       |                                                                                      |             |
|-----------------------|--------------------------------------------------------------------------------------|-------------|
| MFG                   | ADDRESS                                                                              | TEL         |
| Site 1 : Factory Name | 8F, No 233-2, Bao Ciao Rd., Sin Dian Dist,<br>New Taipei City,23145, Taiwan (R.O.C.) | 02-29177353 |
| Site 2 : Factory Name |                                                                                      |             |
| Site 3 : Factory Name |                                                                                      |             |

|          |          |          |
|----------|----------|----------|
| approval | reviewer | prepared |
| Mark     | Jason    | Gene     |



| Electrical Specification |                  |                   |                   |
|--------------------------|------------------|-------------------|-------------------|
| Frequency Range          | 617MHz~960MHz    | 1710MHz - 2170MHz | 2300MHz - 2690MHz |
| Polarization             | Linear, Vertical |                   |                   |
| HPBW-Horizontal          | 360°             |                   |                   |
| HPBW-Vertical            | 90°              |                   |                   |
| Peak Gain                | 1.8 dBi Max.     | 3.2 dBi Max.      | 2.2 dBi Max.      |
| Efficiency               | 21% Min.         | 49% Min.          | 46% Min.          |
| VSWR                     | 4.0 Max.:1       |                   |                   |
| Impedance                | 50 Ohms          |                   |                   |
| Connector                | N plug           |                   |                   |

| Environmental & Mechanical Characteristics |                |
|--------------------------------------------|----------------|
| Temperature                                | -40°C to 70°C  |
| Humidity                                   | 95% @ 55°C     |
| Radome color                               | White          |
| Radome material                            | ASA            |
| Weight                                     | 60gw           |
| Dimensions                                 | Φ 22 x 177.7mm |

**REACH**  
**RoHS**

|                                                                         |           |                                          |  |                                                                                                                                                          |                                                             |                       |             |
|-------------------------------------------------------------------------|-----------|------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------|-------------|
| UNLESS OTHERWISE SPECIFIED<br>TOLERANCE :<br><br>X.X ±0.3<br>X.XX ±0.15 |           | ANGLES : ±2°<br><br>DO NOT SCALE DRAWING |  | <div><div>榮昌科技股份有限公司<br/>GRAND-TEK TECHNOLOGY CO., LTD.</div></div> |                                                             |                       |             |
| Designed BY                                                             | Jason_Hsu |                                          |  | TITLE                                                                                                                                                    | Antenna,LTE,Omni Directional,B71,<br>N Plug,With White Ring | G00140                |             |
| DRAWN BY                                                                | Gene      |                                          |  |                                                                                                                                                          |                                                             |                       |             |
| CHECKED BY                                                              | Eric      |                                          |  |                                                                                                                                                          |                                                             |                       |             |
| APPROVED BY                                                             | Mark      |                                          |  | SIZE A3                                                                                                                                                  | UNIT mm                                                     | PART NO. 08.21036.005 | REV. X1     |
| Type No. -                                                              |           |                                          |  | SCALE 1:1                                                                                                                                                | THIRD ANGLE PROJECTION                                      |                       | PAGE 1 OF 4 |
|                                                                         |           |                                          |  | ITEM NO. 1036G00001160                                                                                                                                   |                                                             | DATE 2023-06-06       |             |

# Outdoor IP-67 OMNI Antenna For B71+LTE Wide Band

617~960 / 1710~2170 / 2300~2690 MHz

**GTT P/N: 1036G00001160**

Final



## ✓ RF Specification

- Frequency Range: 617~960 / 1710~2170 / 2300~2690 MHz
- Polarization: Linear, Vertical
- HPBW / Horizontal: 360°
- HPBW / Vertical: 90 °
- Peak Gain: 1.8 dBi Max. / 3.2 dBi Max. / 2.2 dBi Max.
- Efficiency: 21% / 49% / 46% Min.
- VSWR: 4.0 Max.:1
- Power Handling: 2W(cw)
- Impedance: 50 Ohms
- Connector: N Plug

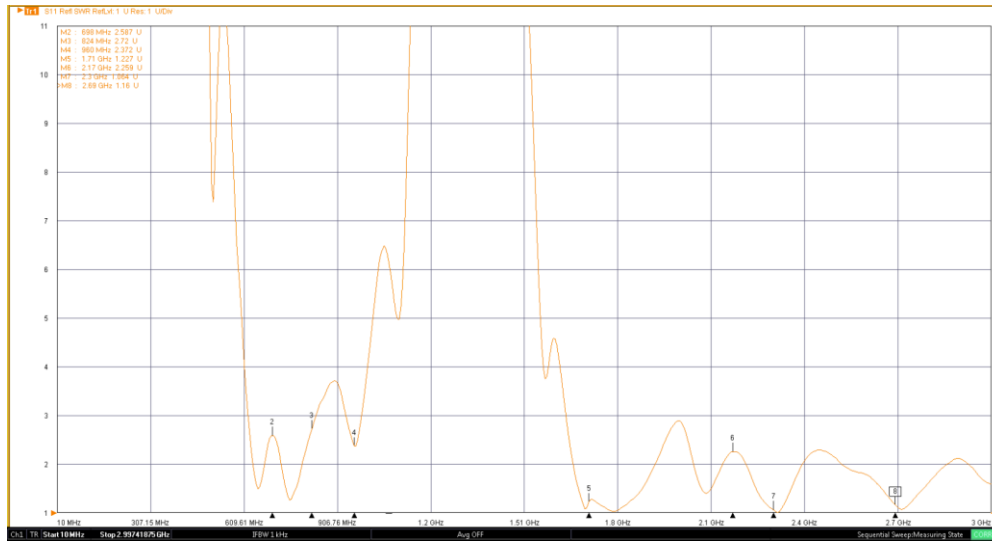
## ✓ Environmental & Mechanical Characteristics

- Temperature: -40°C to +70°C
- Humidity: 95% @55°C
- Antenna Housing Color: White
- Antenna Ring : White
- Antenna Housing Material: ASA
- Weight : 60.5 g
- Dimensions: 178.0(L)x22.0(OD)mm

# Performance Summary

## VSWR

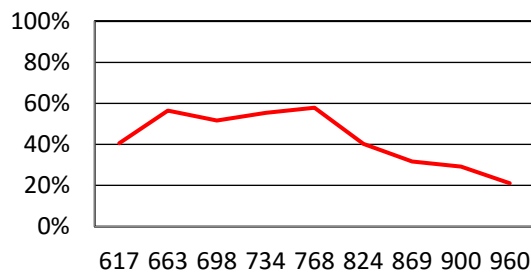
| Frequency(MHz) | 617~960      | 1710~2170 | 2300~2690 |
|----------------|--------------|-----------|-----------|
| VSWR           | 4.0 Max. : 1 |           |           |



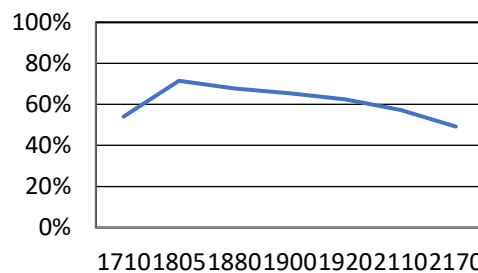
## Gain Table

### EFFICIENCY

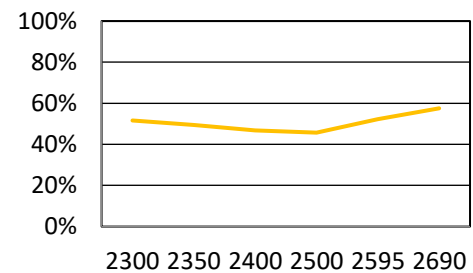
#### 617MHz~960MHz



#### 1710MHz~2170MHz

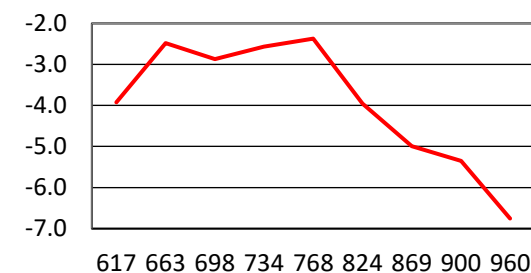


#### 2300MHz~2690MHz

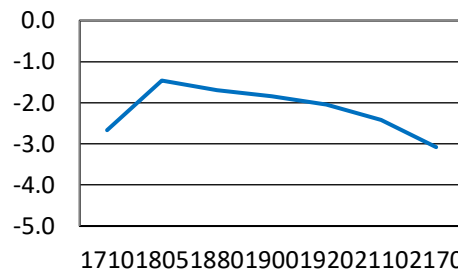


### Average Gain

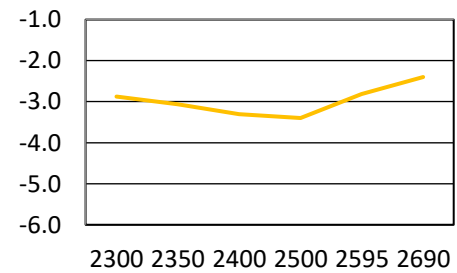
#### 617MHz~960MHz



#### 1710MHz~2170MHz

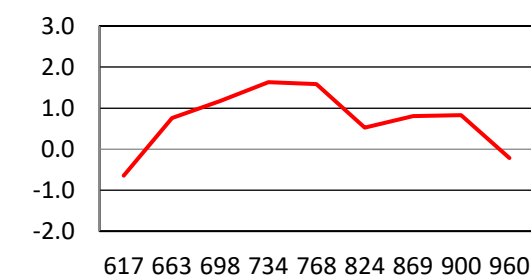


#### 2300MHz~2690MHz

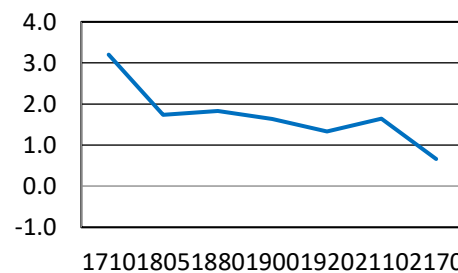


### Peak Gain

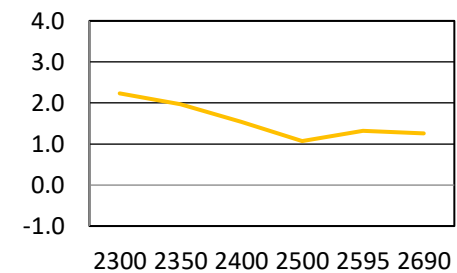
#### 617MHz~960MHz



#### 1710MHz~2170MHz



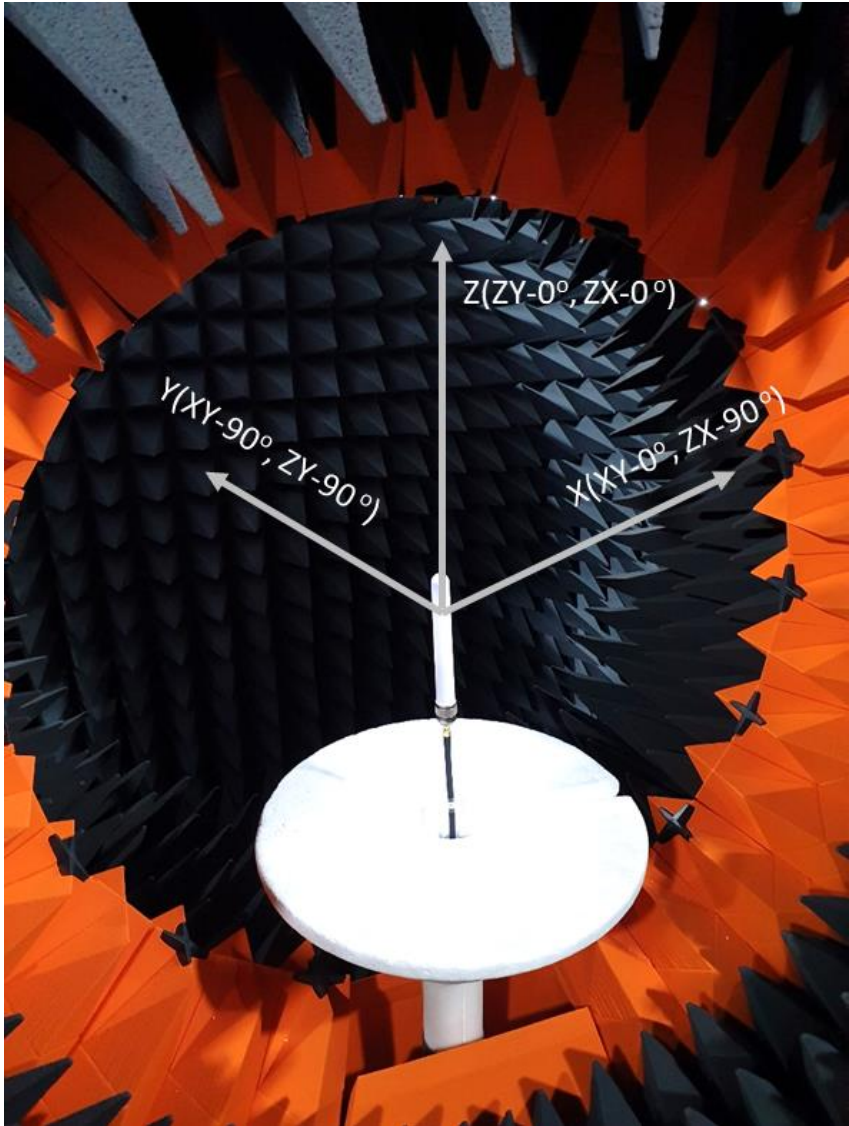
#### 2300MHz~2690MHz



## Gain table

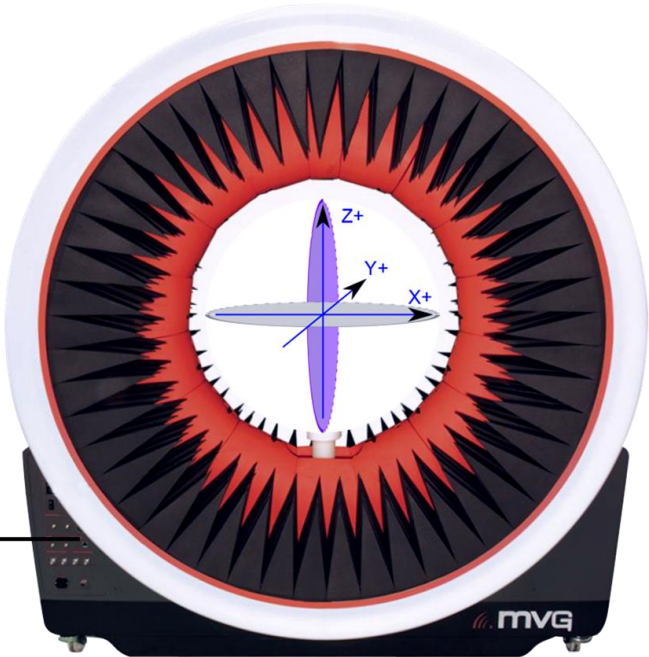
| Frequency<br>(MHz) | 3D         |           |           |
|--------------------|------------|-----------|-----------|
|                    | Efficiency | Avg. Gain | Peak Gain |
| 617                | 41%        | -3.9      | -0.6      |
| 652                | 55%        | -2.6      | 0.6       |
| 663                | 57%        | -2.5      | 0.8       |
| 698                | 52%        | -2.9      | 1.2       |
| 710                | 52%        | -2.9      | 1.4       |
| 734                | 55%        | -2.6      | 1.6       |
| 751                | 59%        | -2.3      | 1.8       |
| 768                | 58%        | -2.4      | 1.6       |
| 798                | 49%        | -3.1      | 1.1       |
| 824                | 40%        | -4.0      | 0.5       |
| 849                | 35%        | -4.6      | 0.6       |
| 869                | 32%        | -5.0      | 0.8       |
| 894                | 30%        | -5.3      | 0.9       |
| 900                | 29%        | -5.3      | 0.8       |
| 925                | 25%        | -5.9      | 0.4       |
| 960                | 21%        | -6.8      | -0.2      |
| 1710               | 54%        | -2.7      | 3.2       |
| 1805               | 71%        | -1.5      | 1.7       |
| 1880               | 68%        | -1.7      | 1.8       |
| 1900               | 65%        | -1.8      | 1.6       |
| 1920               | 62%        | -2.0      | 1.3       |
| 2110               | 57%        | -2.4      | 1.6       |
| 2170               | 49%        | -3.1      | 0.7       |
| 2300               | 52%        | -2.9      | 2.2       |
| 2350               | 49%        | -3.1      | 2.0       |
| 2400               | 47%        | -3.3      | 1.5       |
| 2500               | 46%        | -3.4      | 1.1       |
| 2595               | 52%        | -2.8      | 1.3       |
| 2690               | 58%        | -2.4      | 1.3       |

# Antenna Testing Setup and Orientation

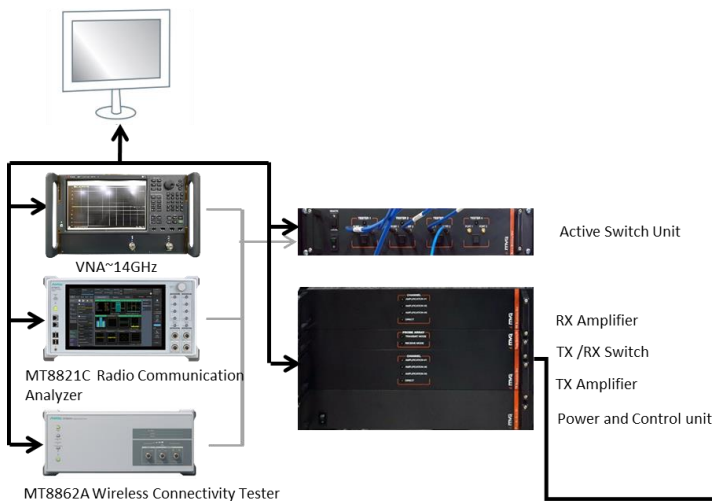


## 3D OTA Chamber-SATIMO Starlab® 2019

Polarization diagram

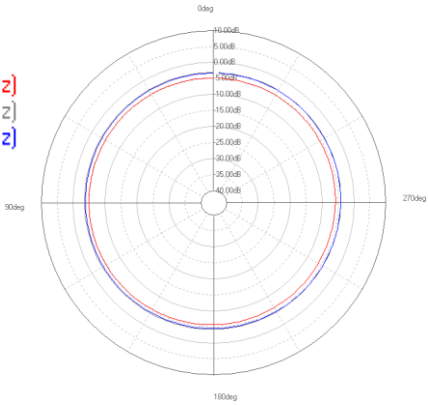


Satimo StarLab System

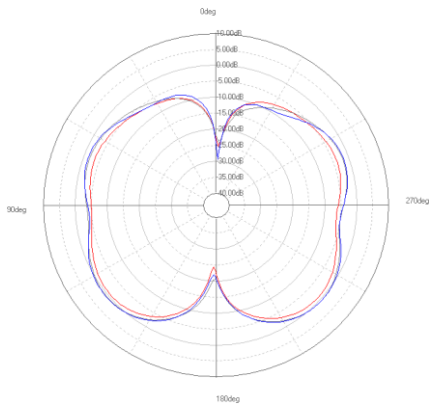


# Radiation Pattern

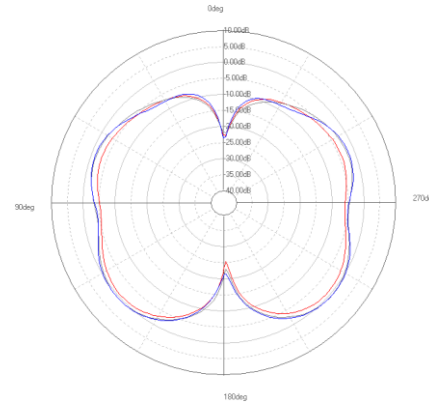
XY-plane



YZ-plane

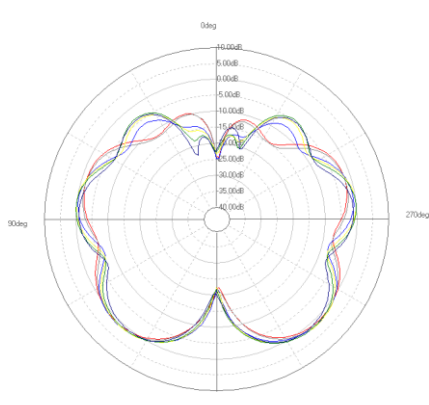
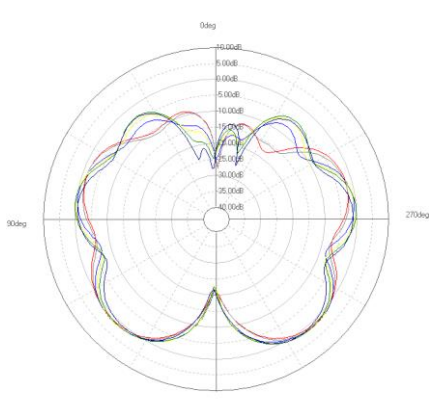
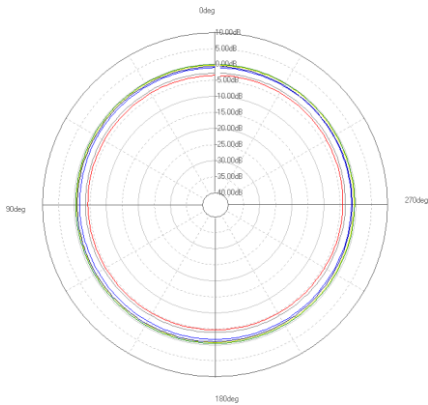


ZX-plane

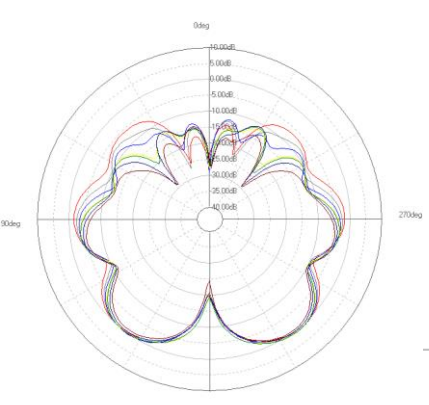
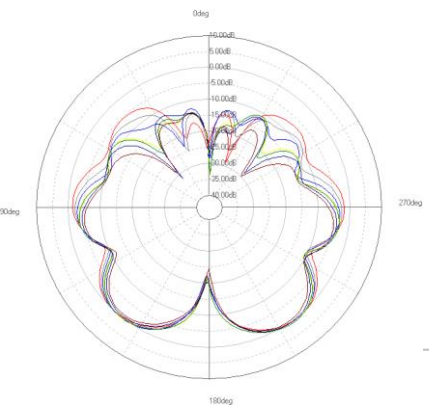
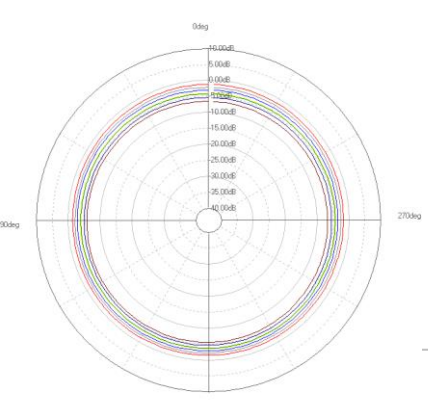


- Legend
- 617.00(MHz)
  - 652.00(MHz)
  - 663.00(MHz)

- Legend
- 698.00(MHz)
  - 710.00(MHz)
  - 734.00(MHz)
  - 751.00(MHz)
  - 768.00(MHz)
  - 798.00(MHz)

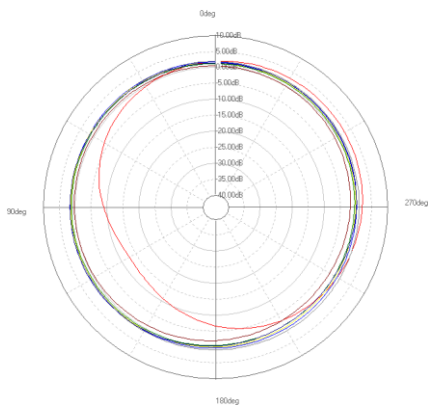


- Legend
- 824.00(MHz)
  - 849.00(MHz)
  - 869.00(MHz)
  - 894.00(MHz)
  - 925.00(MHz)
  - 960.00(MHz)

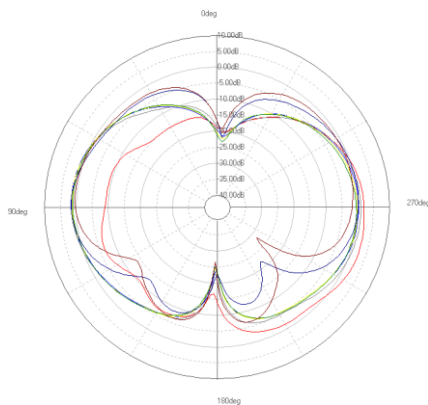


# Radiation Pattern

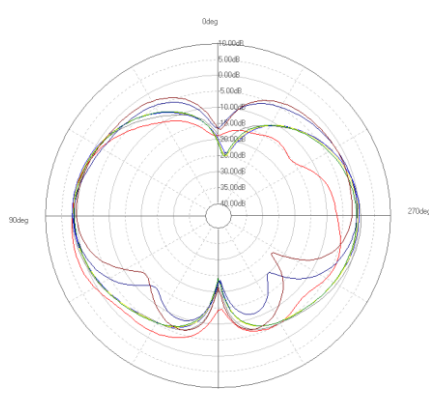
XY-plane



YZ-plane

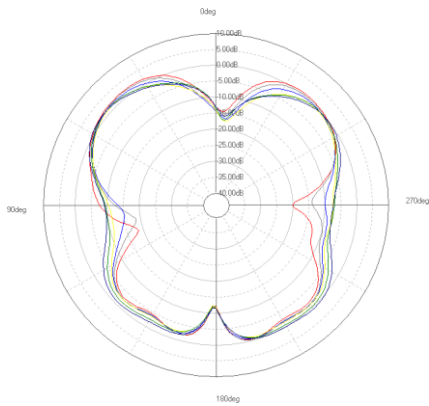
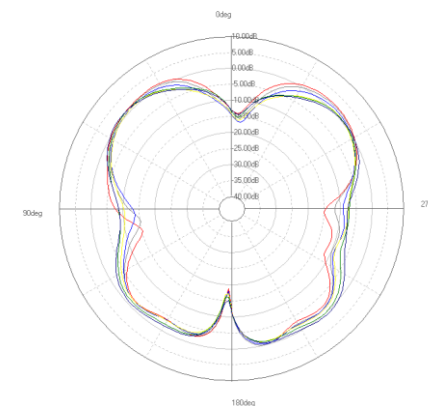
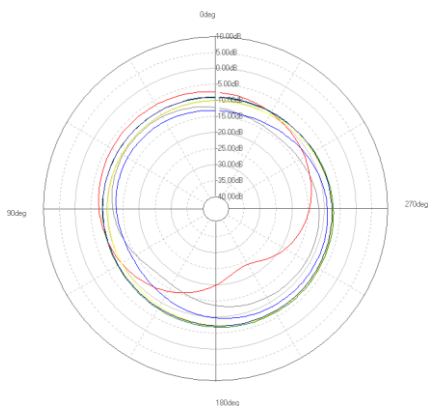


ZX-plane



Legend

- 1710.00(MHz)
- 1805.00(MHz)
- 1880.00(MHz)
- 1920.00(MHz)
- 2110.00(MHz)
- 2170.00(MHz)



Legend

- 2300.00(MHz)
- 2350.00(MHz)
- 2400.00(MHz)
- 2500.00(MHz)
- 2595.00(MHz)
- 2690.00(MHz)

Dimension(unit: mm)

