

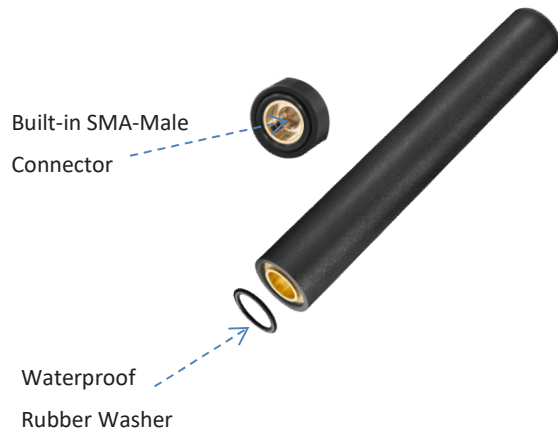
# WiFi 7 Dipole Waterproof Whip Antenna

## FEATURES & BENEFITS

- Omnidirectional & Dipole Performance
- Ground Plane Independent Design
- Connector-Mounted, Whip Straight Antenna
- Weatherproof for Outdoor or Indoor Use
- 4.02 dBi Peak Gain

## APPLICATIONS

- IoT Devices
- Remote Monitoring Systems
- Cellular Gateways and Routers
- Vehicle Telematics
- Smart Grid and Utility Monitoring
- Industrial Automation Systems



## ORDER INFORMATION

|                      |                                       |
|----------------------|---------------------------------------|
| Product Name         | WiFi 7 Dipole Waterproof Whip Antenna |
| Part Number          | M02-0200400R0A                        |
| Dimensions           | ∅20 x 122mm                           |
| Weight               | 28 g                                  |
| Color                | Black                                 |
| Outer Shell Material | ABS                                   |

## REFERENCE GUIDE

|                               |                |           |
|-------------------------------|----------------|-----------|
| Technical Features (MHz)      | 2400-2500      | 5100-7200 |
| Max VSWR                      | 2.2:1          | 4.8:1     |
| Max Efficiency                | 86.36%         |           |
| Peak Gain                     | 4.02dBi        |           |
| Radiation Pattern             | Directional    |           |
| Polarization                  | Linear         |           |
| Input Impedance               | 50 Ω           |           |
| IP Rating                     | IP68           |           |
| Operating Temperature         | -40°C to +85°C |           |
| Storage Temperature           | -40°C to +85°C |           |
| Relative Humidity             | 10 to 70%      |           |
| Material Substance Compliance | RoHS Compliant |           |

|  |             |
|--|-------------|
| Dimensions<br>(L x W x H)  | Ø20x 122 mm |
| All data were measured with a RF cable. Application data might vary. |             |

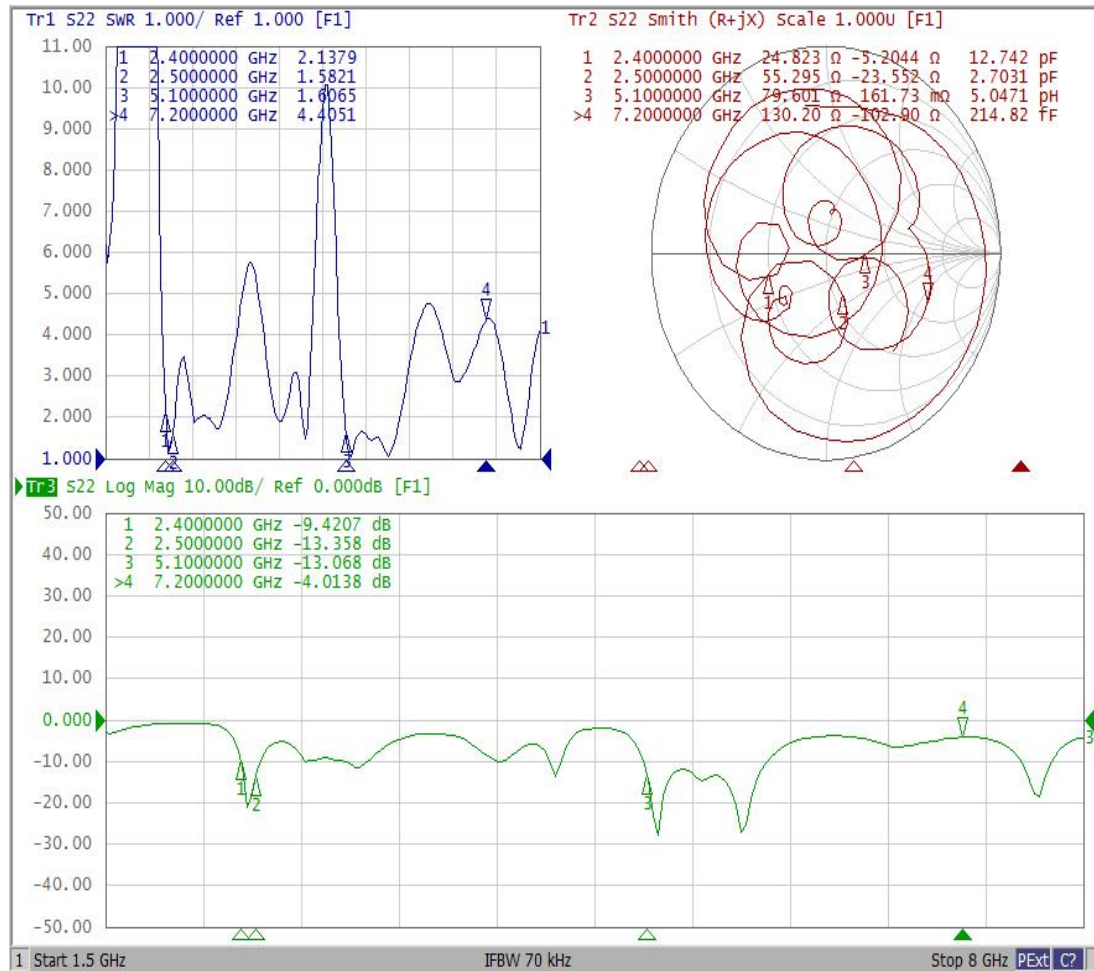
## ELECTRICAL PERFORMANCE

- Note

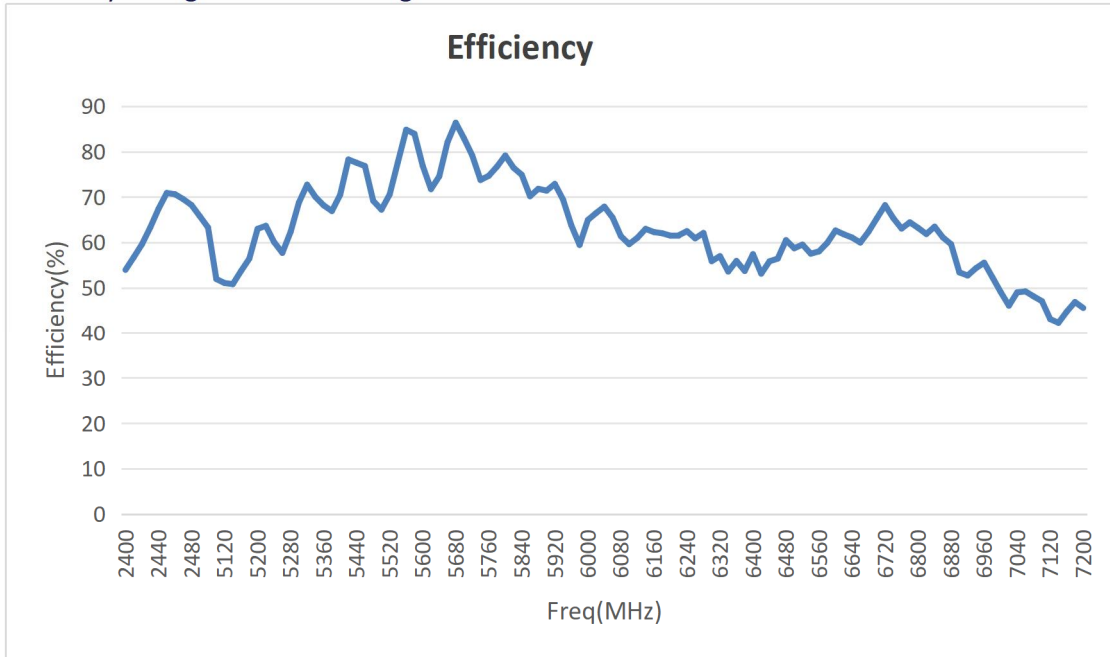
All the data shown in "Electrical Performance" were tested by directly connecting the antenna to the network analyzer.

## ELECTRICAL DATA

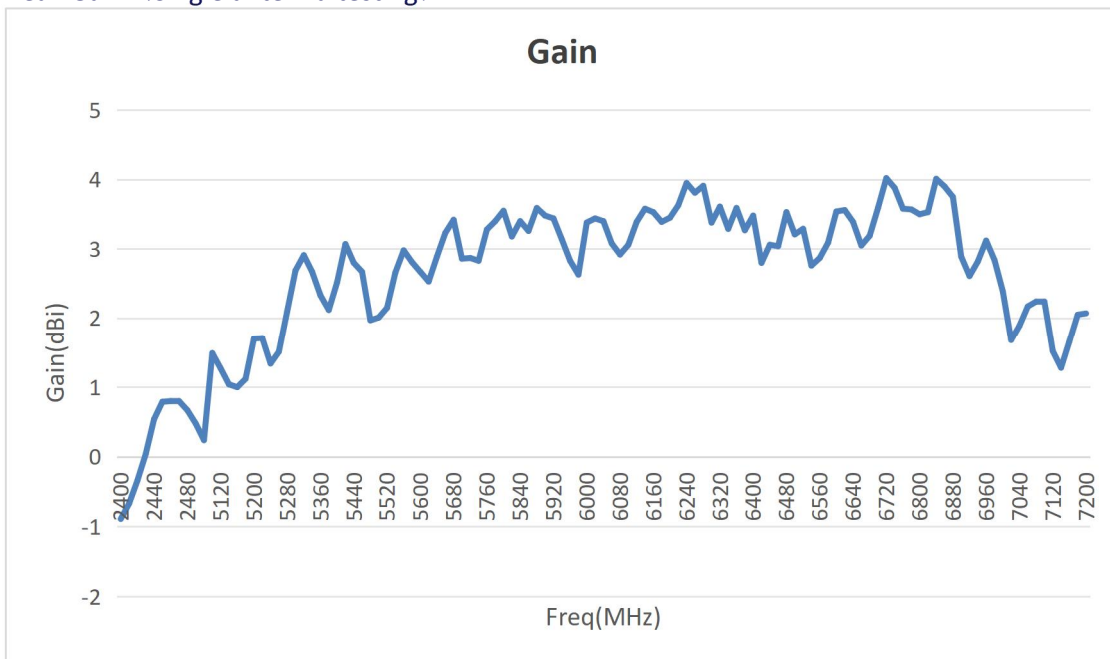
### Return Loss



Efficiency (Single antenna testing)

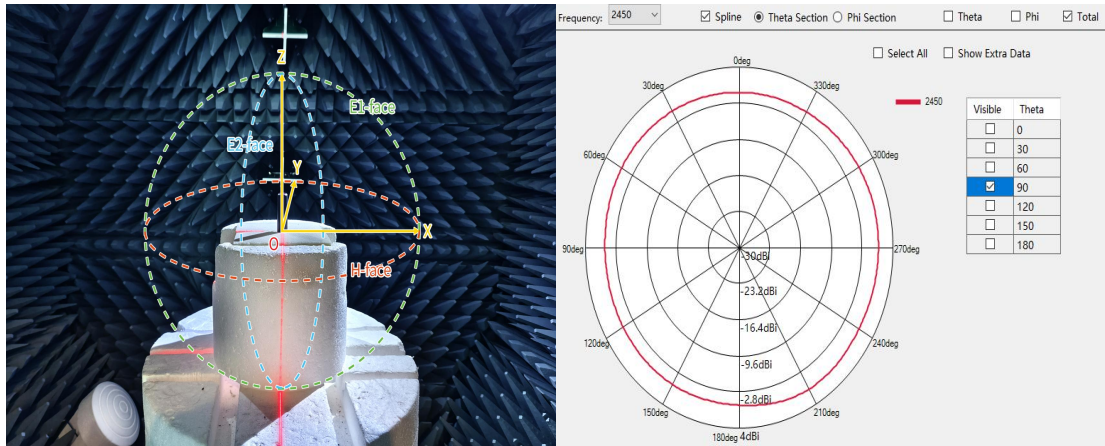


Peak Gain (Single antenna testing)



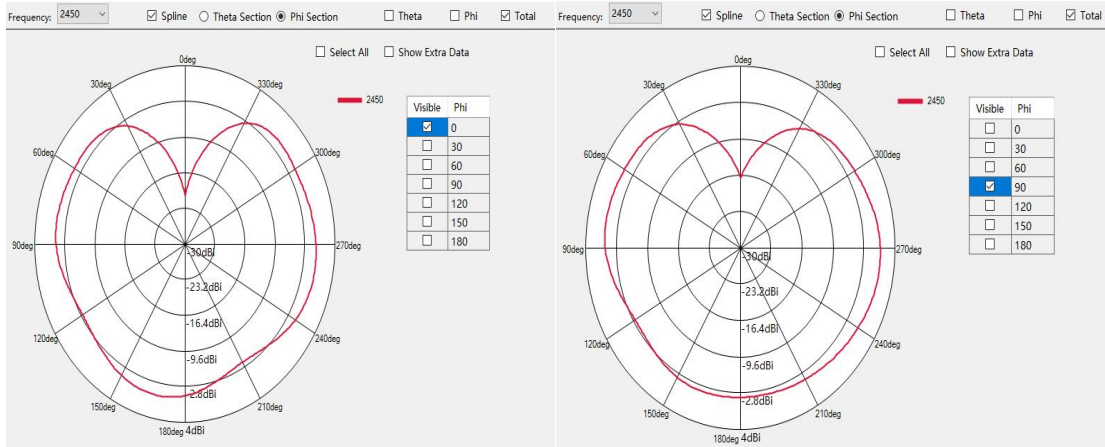
| Freq(MHz) | Gain(dBi) | Efficiency(%) | Freq(MHz) | Gain(dBi) | Efficiency(%) | Freq(MHz) | Gain(dBi) | Efficiency(%) |
|-----------|-----------|---------------|-----------|-----------|---------------|-----------|-----------|---------------|
| 2400      | -0.89     | 53.98         | 5660      | 3.23      | 82.06         | 6440      | 3.06      | 55.86         |
| 2410      | -0.67     | 56.75         | 5680      | 3.42      | 86.36         | 6460      | 3.04      | 56.46         |
| 2420      | -0.34     | 59.63         | 5700      | 2.86      | 82.92         | 6480      | 3.53      | 60.52         |
| 2430      | 0.04      | 63.31         | 5720      | 2.87      | 79.15         | 6500      | 3.21      | 58.74         |
| 2440      | 0.54      | 67.41         | 5740      | 2.83      | 73.76         | 6520      | 3.29      | 59.54         |
| 2450      | 0.79      | 70.90         | 5760      | 3.28      | 74.68         | 6540      | 2.76      | 57.54         |
| 2460      | 0.80      | 70.62         | 5780      | 3.40      | 76.71         | 6560      | 2.87      | 58.05         |
| 2470      | 0.80      | 69.54         | 5800      | 3.55      | 79.14         | 6580      | 3.09      | 59.93         |
| 2480      | 0.67      | 68.23         | 5820      | 3.18      | 76.45         | 6600      | 3.54      | 62.65         |
| 2490      | 0.48      | 65.79         | 5840      | 3.40      | 74.89         | 6620      | 3.56      | 61.81         |
| 2500      | 0.24      | 63.30         | 5860      | 3.26      | 70.19         | 6640      | 3.39      | 61.09         |
| 5100      | 1.49      | 51.97         | 5880      | 3.59      | 71.82         | 6660      | 3.05      | 59.99         |
| 5120      | 1.27      | 51.08         | 5900      | 3.48      | 71.41         | 6680      | 3.19      | 62.39         |
| 5140      | 1.04      | 50.85         | 5920      | 3.44      | 72.89         | 6700      | 3.59      | 65.32         |
| 5160      | 1.00      | 53.74         | 5940      | 3.14      | 69.44         | 6720      | 4.02      | 68.21         |
| 5180      | 1.12      | 56.46         | 5960      | 2.83      | 63.78         | 6740      | 3.88      | 65.35         |
| 5200      | 1.70      | 63.01         | 5980      | 2.63      | 59.47         | 6760      | 3.58      | 63.07         |
| 5220      | 1.71      | 63.67         | 6000      | 3.38      | 64.96         | 6780      | 3.57      | 64.45         |
| 5240      | 1.34      | 60.09         | 6020      | 3.44      | 66.49         | 6800      | 3.50      | 63.22         |
| 5260      | 1.51      | 57.72         | 6040      | 3.40      | 67.89         | 6820      | 3.53      | 61.87         |
| 5280      | 2.10      | 62.35         | 6060      | 3.08      | 65.48         | 6840      | 4.01      | 63.49         |
| 5300      | 2.69      | 68.78         | 6080      | 2.92      | 61.40         | 6860      | 3.90      | 61.12         |
| 5320      | 2.91      | 72.72         | 6100      | 3.06      | 59.64         | 6880      | 3.75      | 59.62         |
| 5340      | 2.67      | 70.03         | 6120      | 3.39      | 61.04         | 6900      | 2.89      | 53.42         |
| 5360      | 2.33      | 68.18         | 6140      | 3.58      | 63.00         | 6920      | 2.61      | 52.74         |
| 5380      | 2.12      | 66.93         | 6160      | 3.53      | 62.30         | 6940      | 2.82      | 54.34         |
| 5400      | 2.52      | 70.49         | 6180      | 3.39      | 62.04         | 6960      | 3.12      | 55.56         |
| 5420      | 3.07      | 78.26         | 6200      | 3.45      | 61.51         | 6980      | 2.84      | 52.35         |
| 5440      | 2.80      | 77.54         | 6220      | 3.63      | 61.58         | 7000      | 2.39      | 49.11         |
| 5460      | 2.67      | 76.83         | 6240      | 3.95      | 62.50         | 7020      | 1.68      | 46.10         |
| 5480      | 1.97      | 69.19         | 6260      | 3.81      | 60.92         | 7040      | 1.89      | 49.03         |
| 5500      | 2.01      | 67.24         | 6280      | 3.91      | 62.10         | 7060      | 2.17      | 49.24         |
| 5520      | 2.15      | 70.59         | 6300      | 3.38      | 55.90         | 7080      | 2.24      | 48.14         |
| 5540      | 2.66      | 77.74         | 6320      | 3.61      | 57.00         | 7100      | 2.24      | 47.09         |
| 5560      | 2.98      | 84.82         | 6340      | 3.29      | 53.61         | 7120      | 1.52      | 43.14         |
| 5580      | 2.81      | 83.92         | 6360      | 3.59      | 55.94         | 7140      | 1.28      | 42.33         |
| 5600      | 2.67      | 76.87         | 6380      | 3.27      | 53.74         | 7160      | 1.66      | 44.78         |
| 5620      | 2.53      | 71.75         | 6400      | 3.48      | 57.43         | 7180      | 2.05      | 46.90         |
| 5640      | 2.89      | 74.56         | 6420      | 2.80      | 53.15         | 7200      | 2.07      | 45.59         |

## 2D and 3D Radiation Patterns (Single antenna testing)



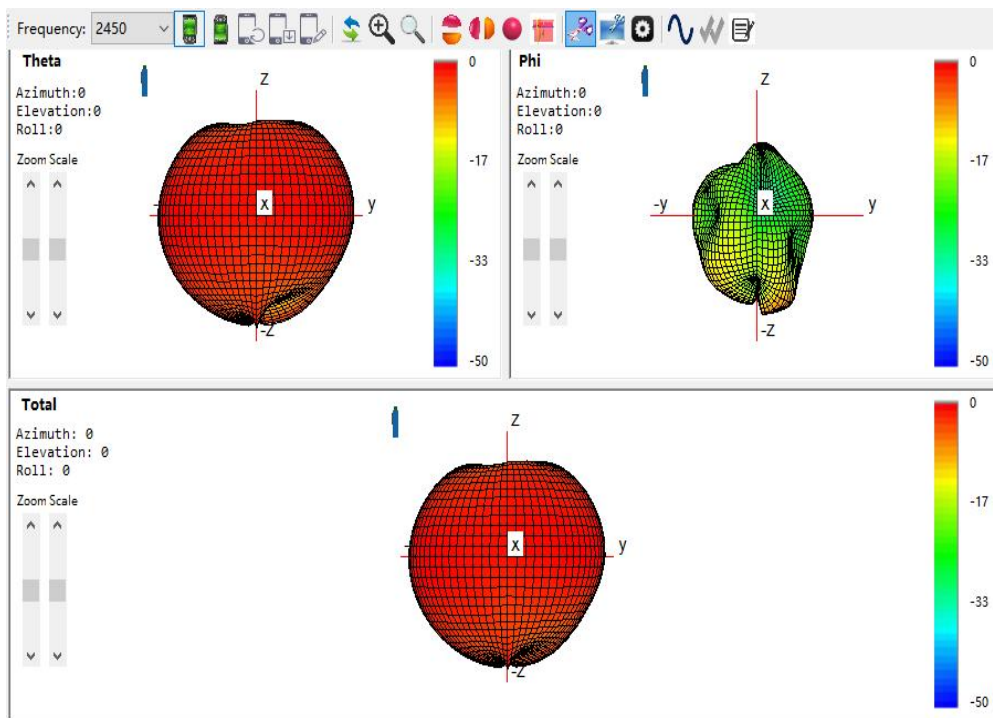
The Antenna in MyAntenna's Anechoic Chamber

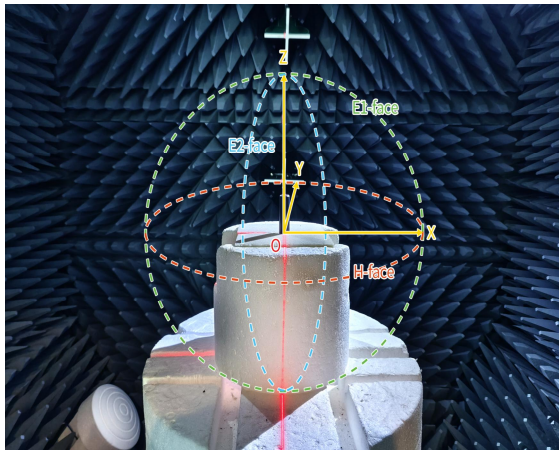
2D  $\theta = 90^\circ$  Plane XY at 2450MHz



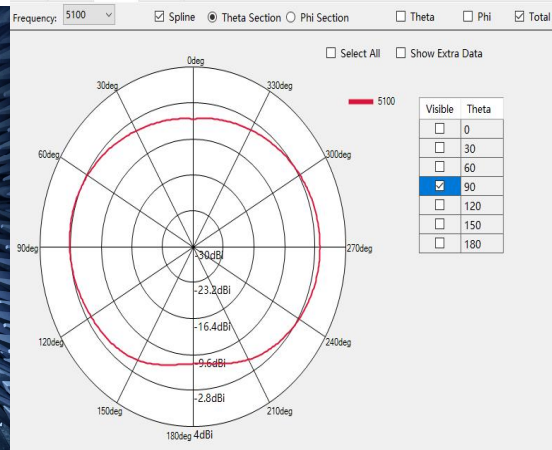
2D  $\theta = 0^\circ$  Plane XZ at 2450MHz

2D  $\theta = 90^\circ$  Plane YZ at 2450MHz

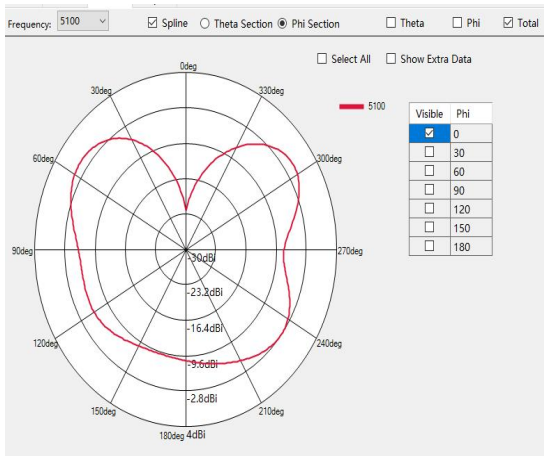




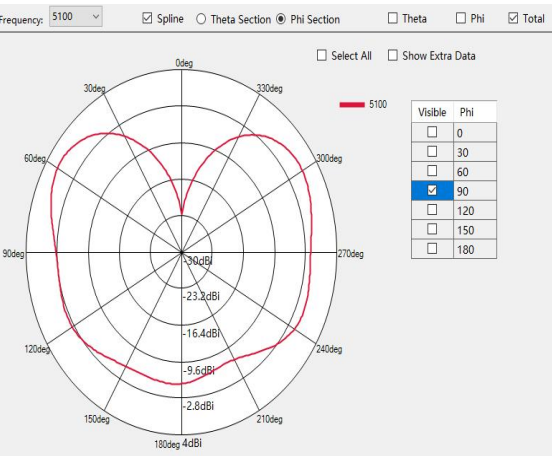
The Antenna in MyAntenna's Anechoic Chamber



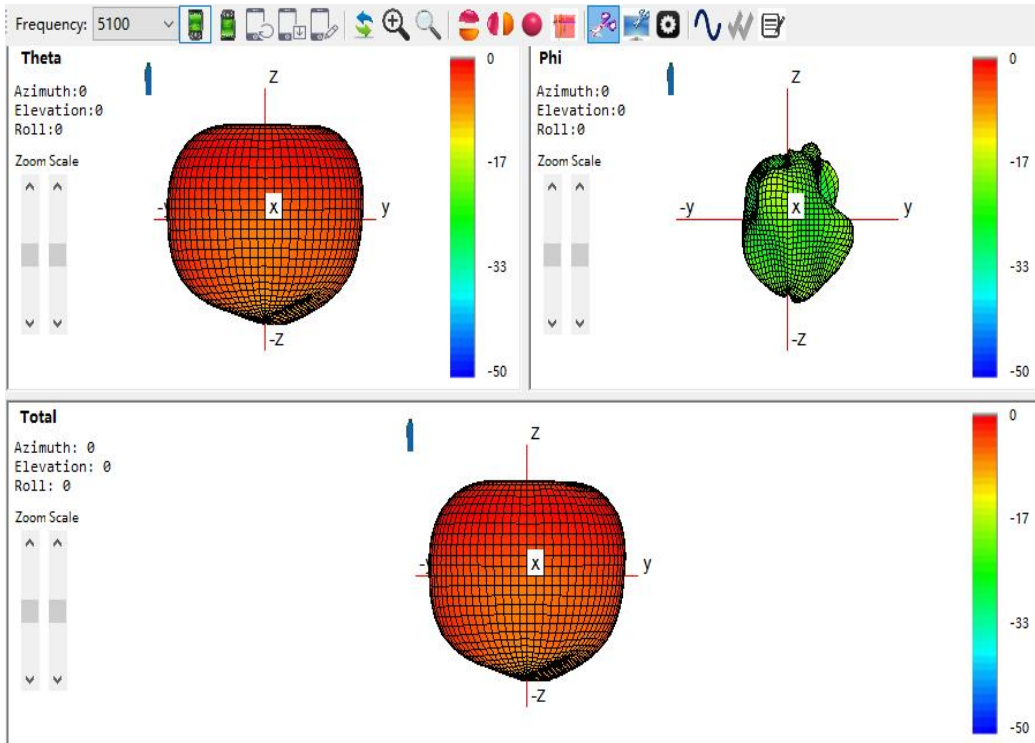
$2D \theta = 90^\circ$  Plane XY at 5100MHz

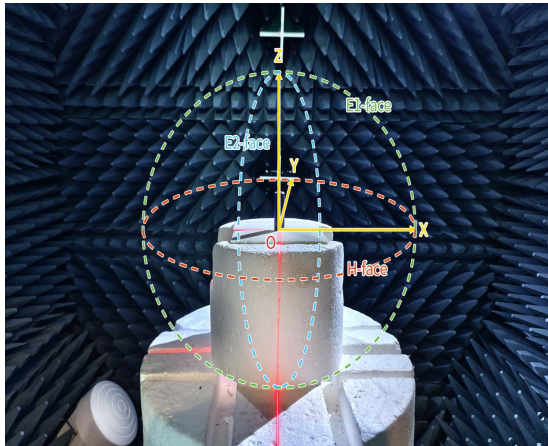


$2D \Phi = 0^\circ$  Plane XZ at 5100MHz

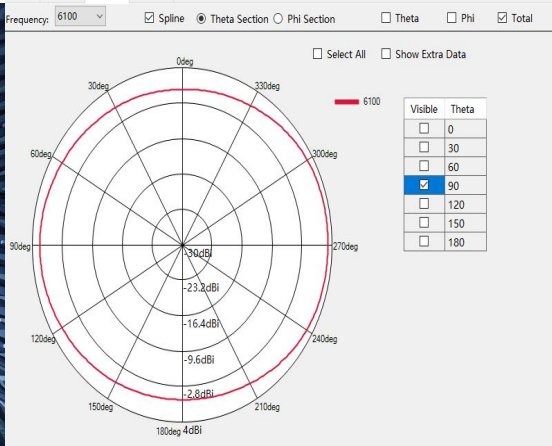


$2D \Phi = 90^\circ$  Plane YZ at 5100MHz

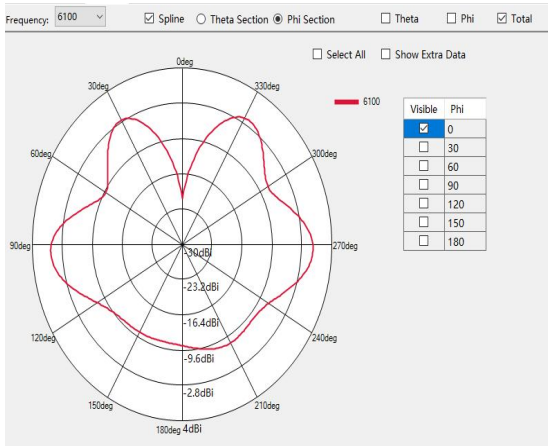




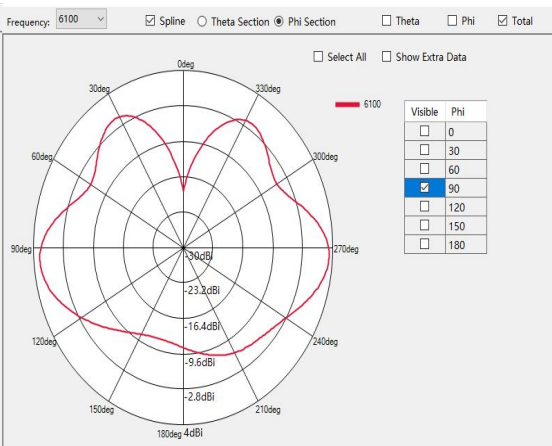
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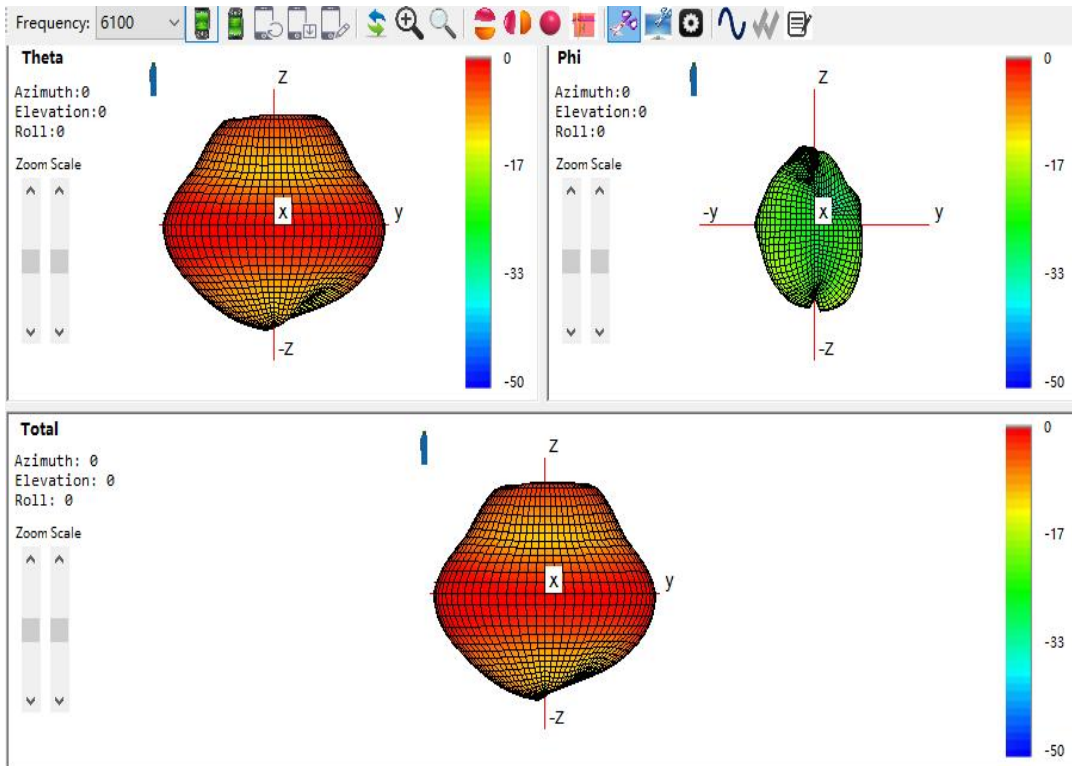
2D  $\theta = 90^\circ$  Plane XY at 6100MHz

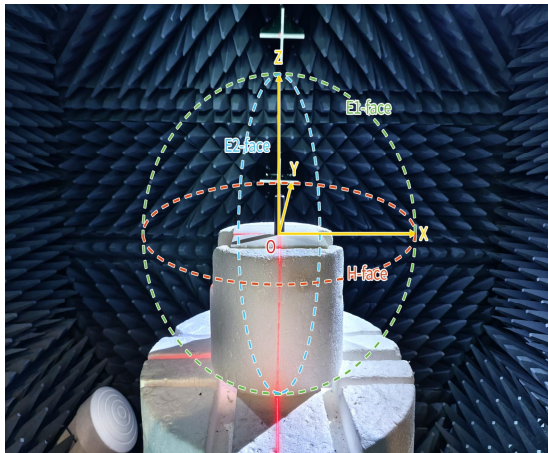


2D  $\phi = 0^\circ$  Plane XZ at 6100MHz

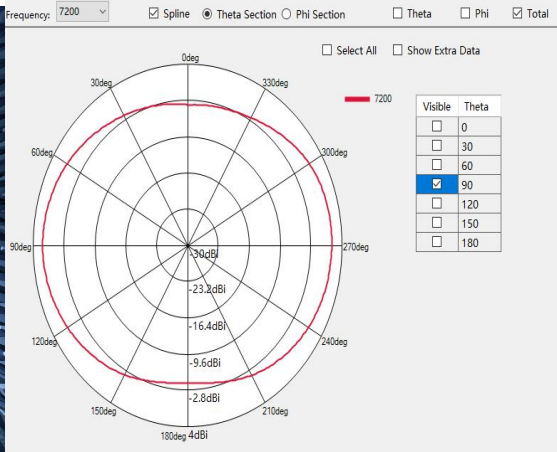


2D  $\phi = 90^\circ$  Plane YZ at 6100MHz

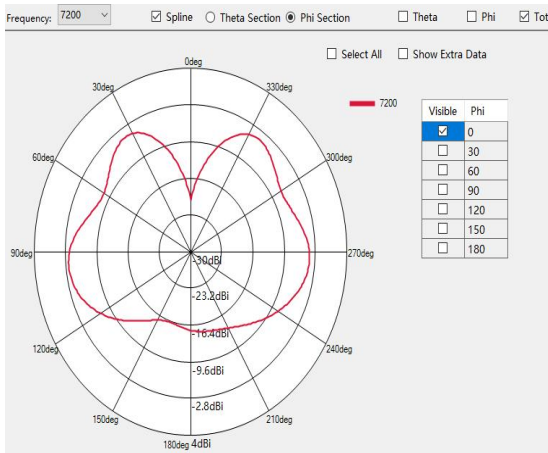




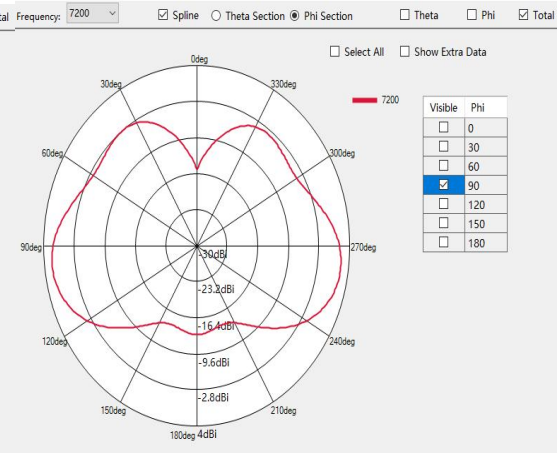
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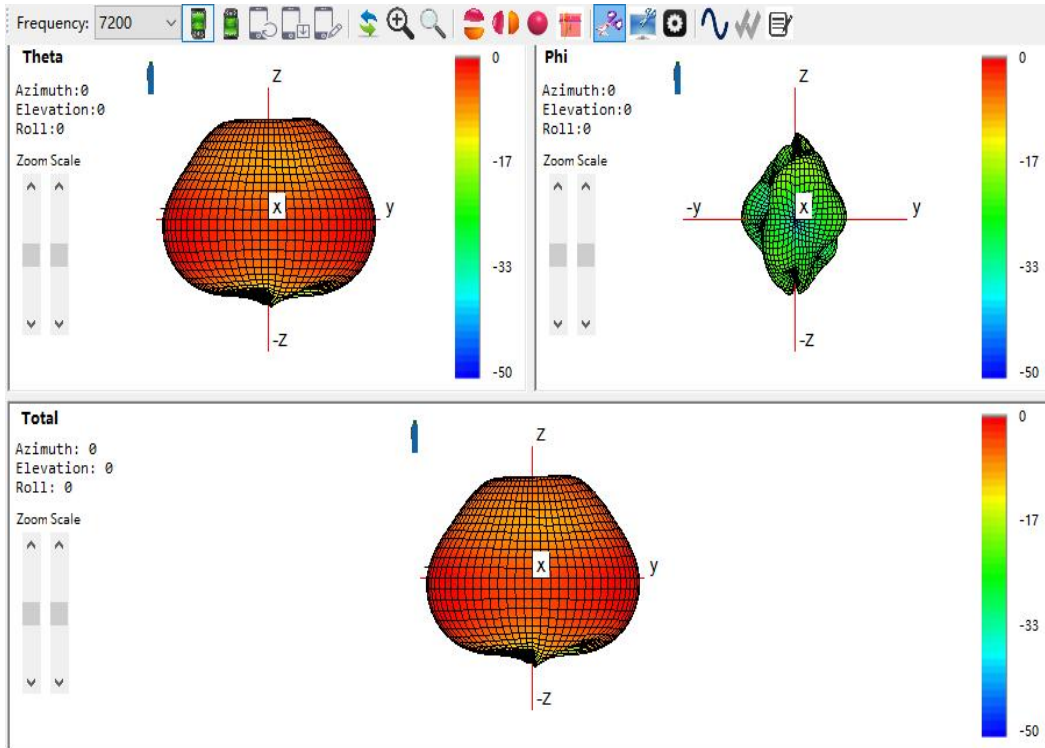
2D  $\theta = 90^\circ$  Plane XY at 7200MHz



2D  $\phi = 0^\circ$  Plane XZ at 7200MHz

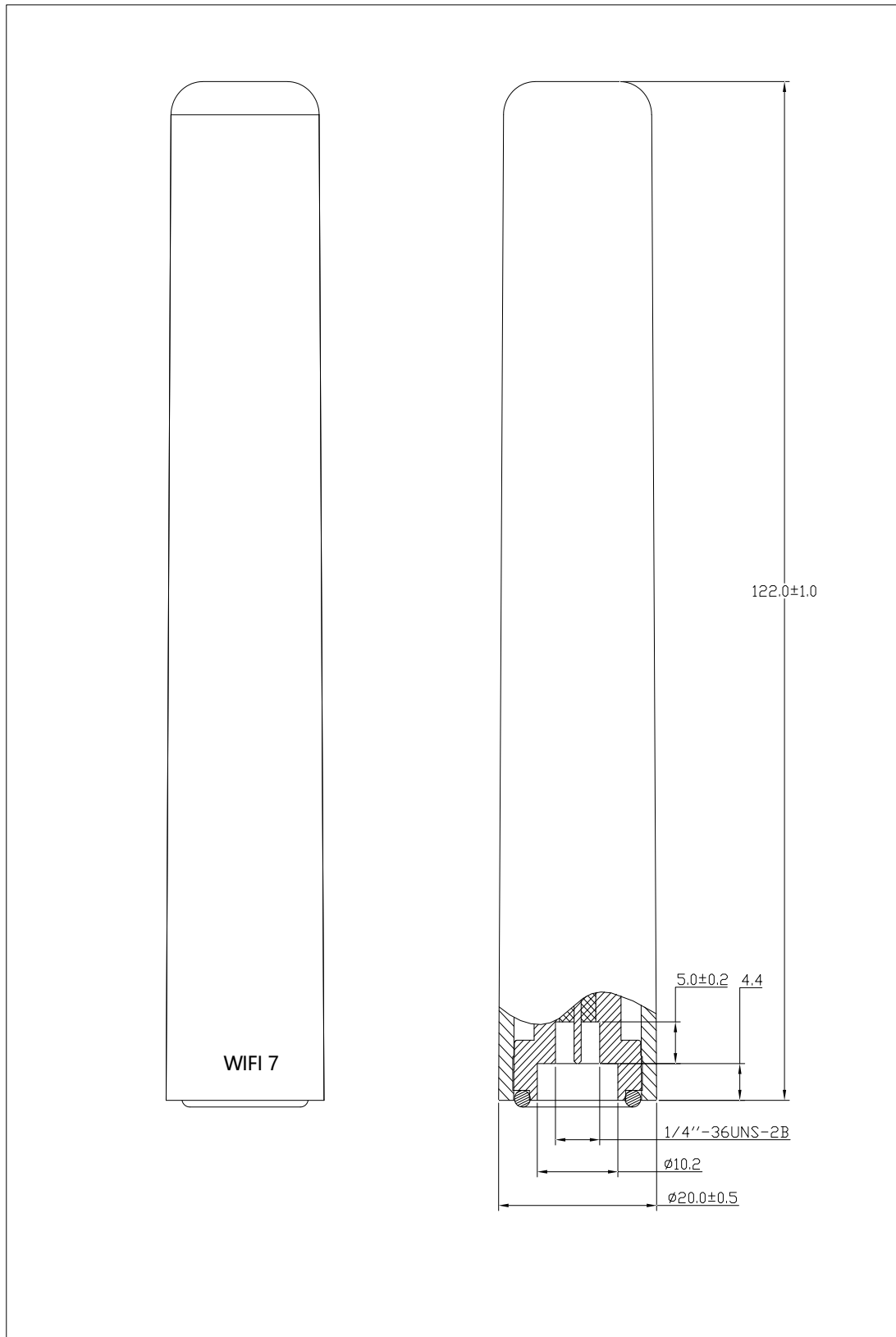


2D  $\phi = 90^\circ$  Plane YZ at 7200MHz





## HOUSING CONFIGURATIONS



Aboosty™ is owned by Shenzhen MyAntenna RF Technology Co., Ltd. (often abbreviated as MyAntenna).