



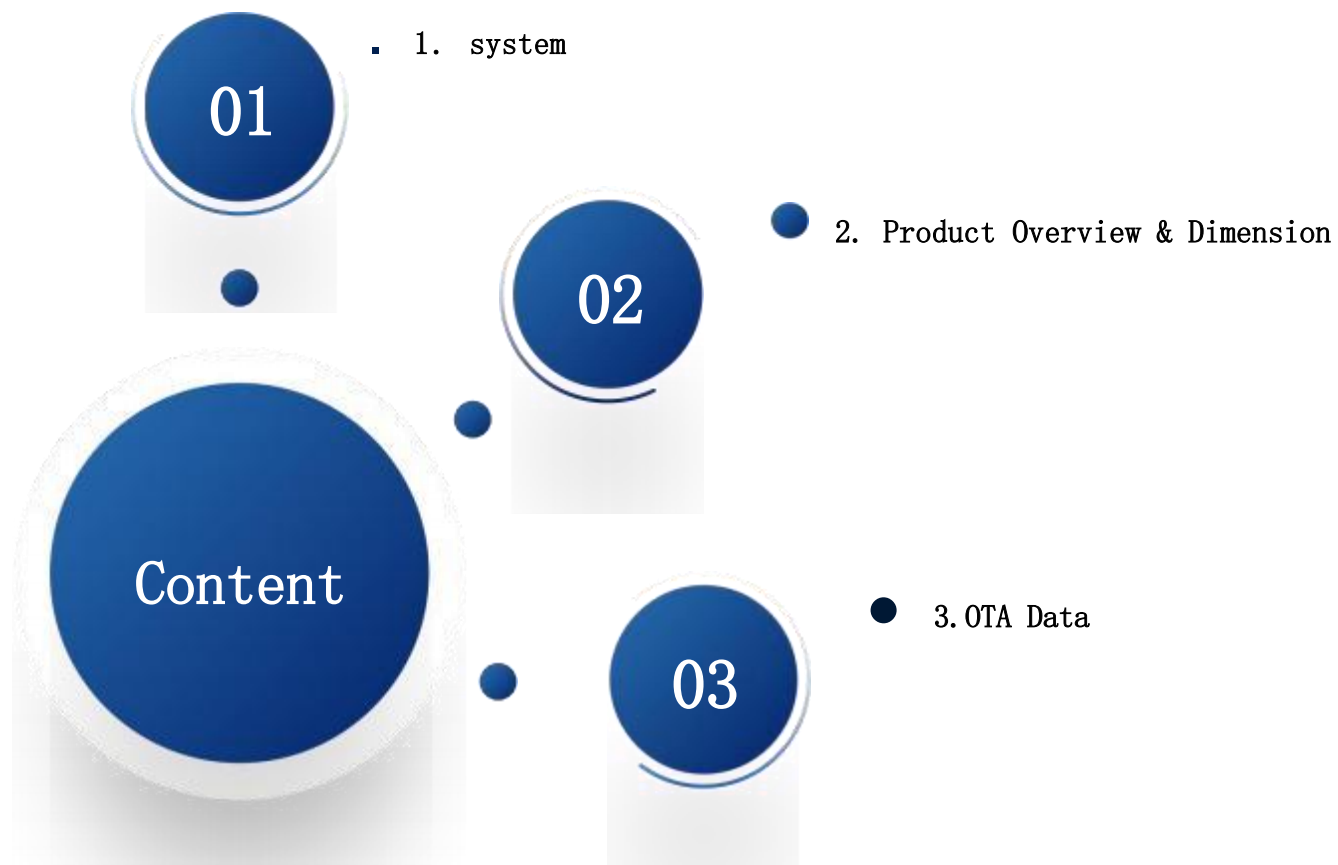
深圳合翊讯科技有限公司  
Shenzhen Heyixun Technology Co., Ltd.

HEYIXUN  
合翊讯

|                  |              |
|------------------|--------------|
| Customer         | Hailingwei   |
| Project          | HQ31         |
| Antenna Revision | A1           |
| Prepared by      | 15993920520  |
| Checked by       | 17279710721  |
| Date             | 2024. 09. 18 |

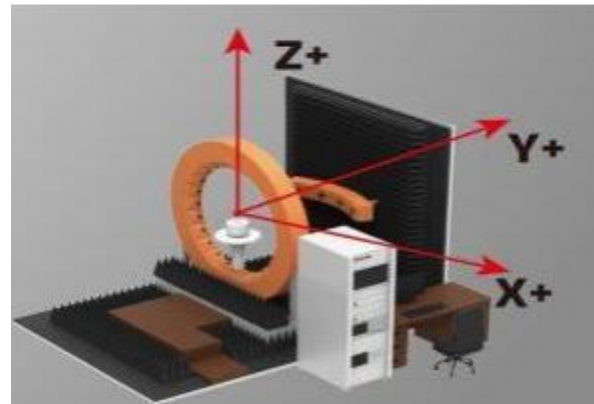
## Purpose

This is the antenna specification sheet for HQ31, The antenna operating frequency at 2400-2500MHz .



# 1. System

| Sequence Number   | Test Item         | equipment                     |
|-------------------|-------------------|-------------------------------|
| S parameter       | VSWR              | Agilent 5071C & Agilent 5071B |
| OTA Test          | TRP& TIS          | Agilent 8960 & CMW500 STIMO   |
| Gain & Efficiency | Gain & Efficiency | SATIMO<br>Agilent 5071C       |



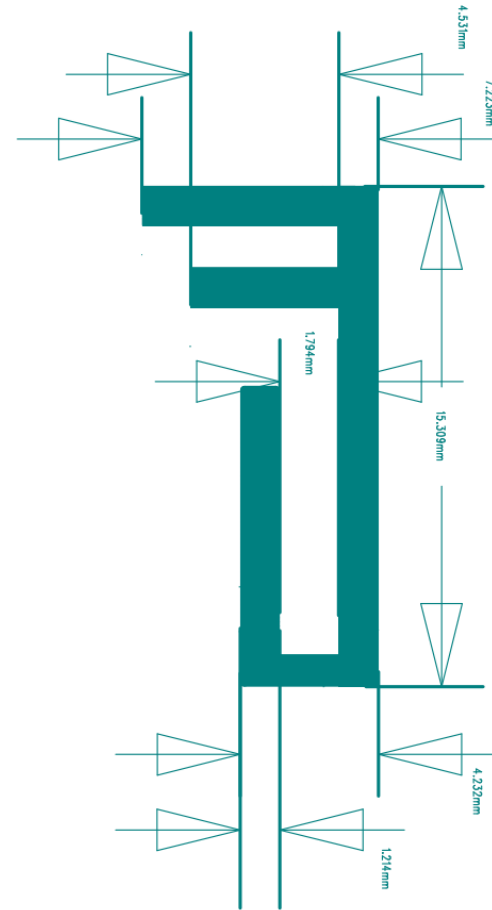
## 2.Product Overview & Dimension

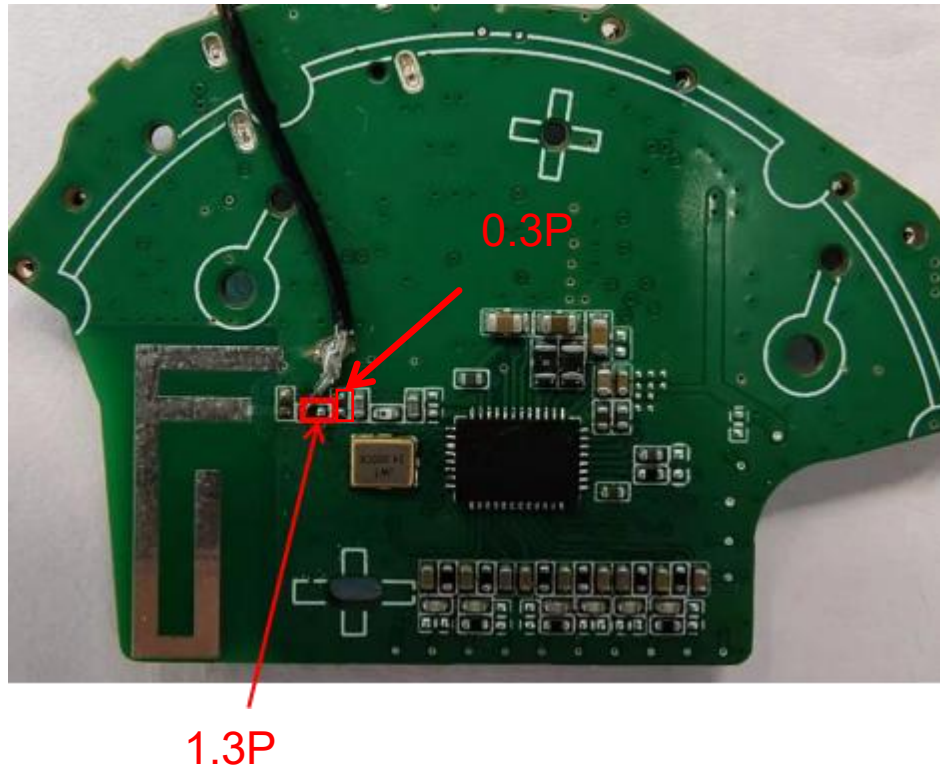
Antenna Type: PCB Antenna  
Antenna Model: HQ31

Max. Gain: 2.05dBi

manufacturer: Shenzhen Hailingwei Electronics Co., Ltd.

address: 3rd Floor, Building 9, Longwangmiao Industrial Zone, Baishixia Community, Fuyong Street, Bao'an District, Shenzhen City





## 2.Test Result VSWR&Log Mag&Smith( $\Omega$ )



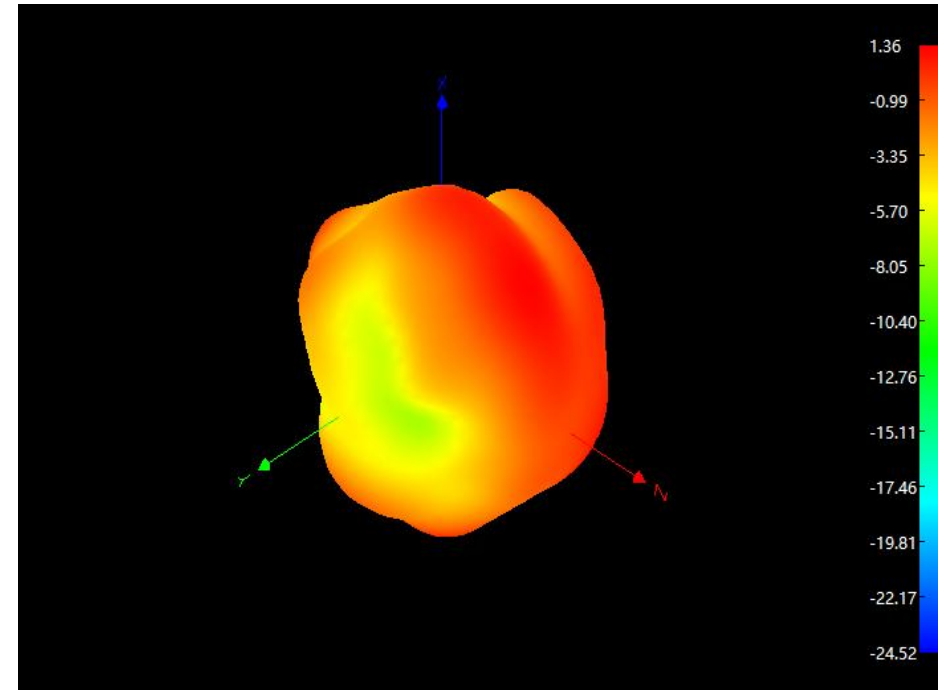
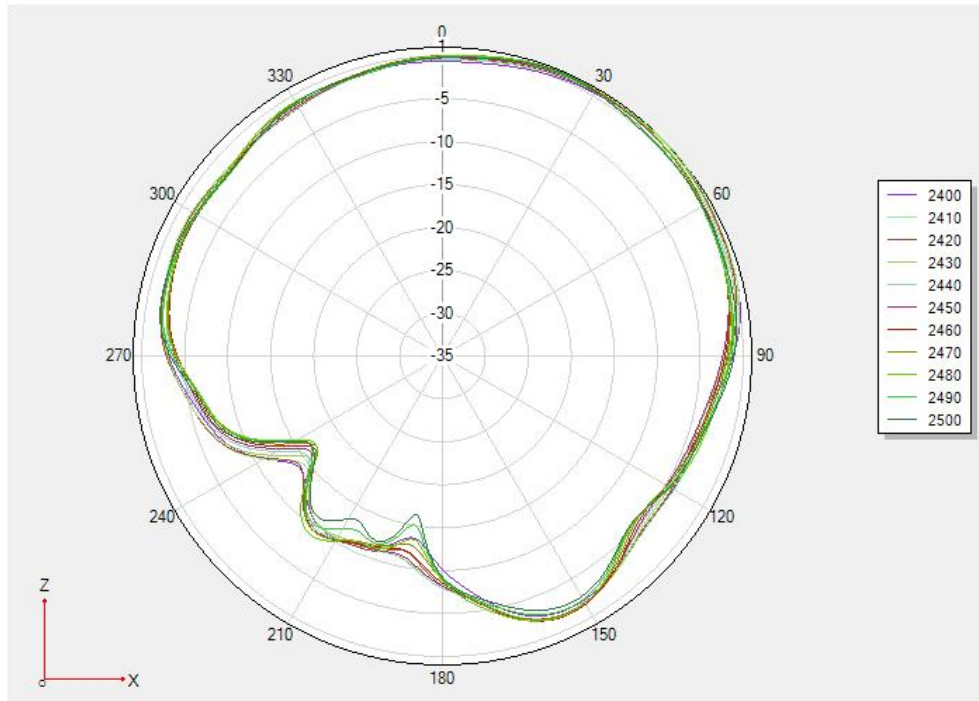
| Frequency (MHz)   | 2400   | 2450   | 2480   | 2500   |
|-------------------|--------|--------|--------|--------|
| Log Mag           | -12.29 | -19.14 | -18.17 | -15.30 |
| VSWR              | 1.64   | 1.25   | 1.28   | 1.41   |
| Smith( $\Omega$ ) | 79.38  | 48.74  | 39.51  | 35.44  |

### 3. Test Result

| Frequency (MHz) | Efficiency (%) | Max GAIN (dBi) |
|-----------------|----------------|----------------|
| 2400            | 43.15          | 1.36           |
| 2410            | 44.87          | 1.52           |
| 2420            | 45.39          | 1.66           |
| 2430            | 45.92          | 1.61           |
| 2440            | 45.6           | 1.6            |
| 2450            | 45.19          | 1.59           |
| 2460            | 45.71          | 1.7            |
| 2470            | 46.13          | 1.83           |
| 2480            | 45.92          | 2.05           |
| 2490            | 44.67          | 2.01           |
| 2500            | 43.95          | 1.98           |

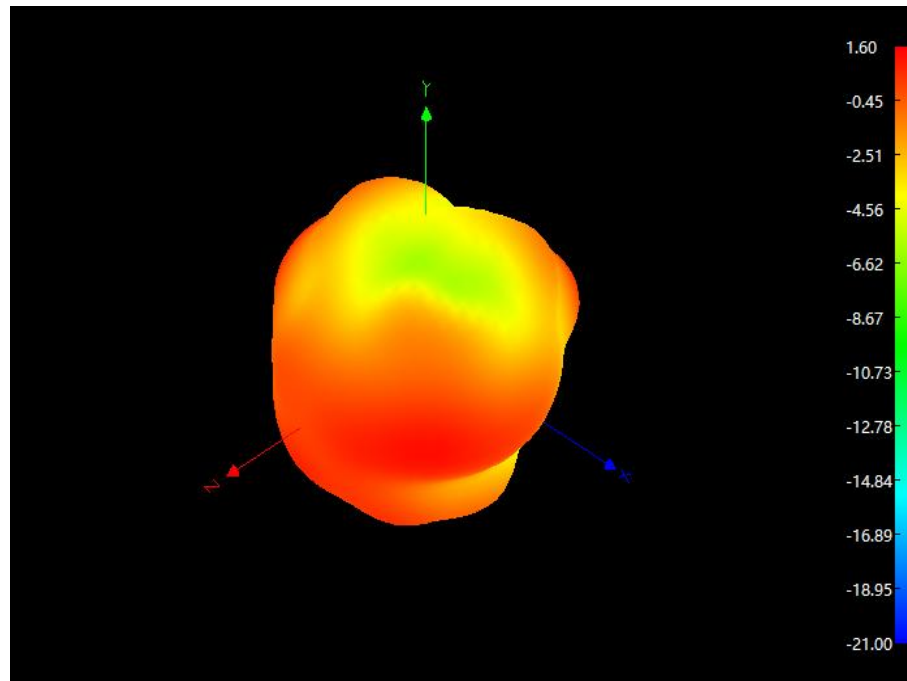
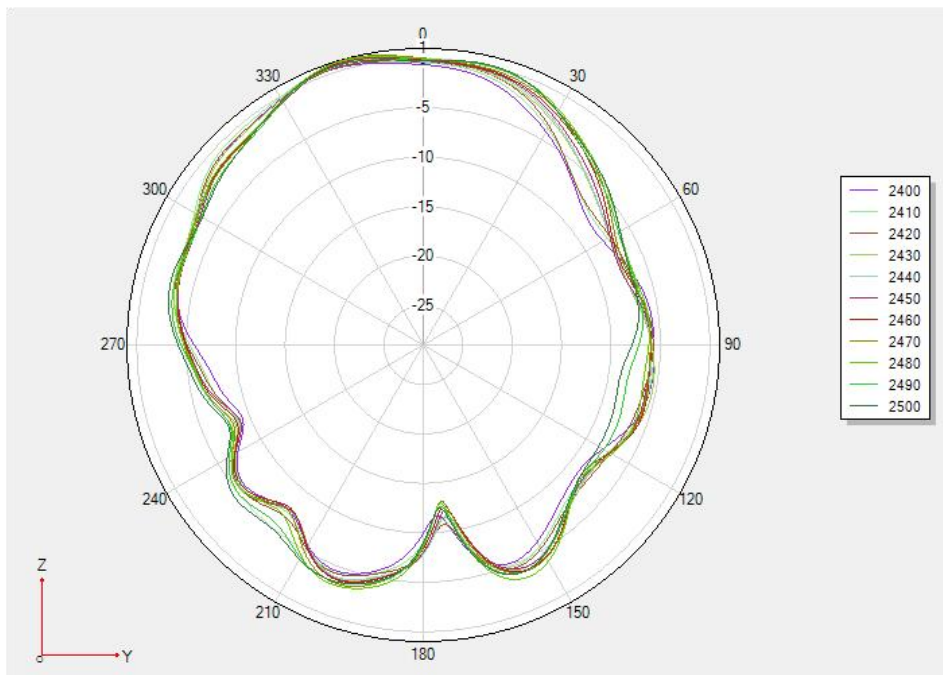
### 3. Test Result

#### 3.1 2D Pattern—BTANT



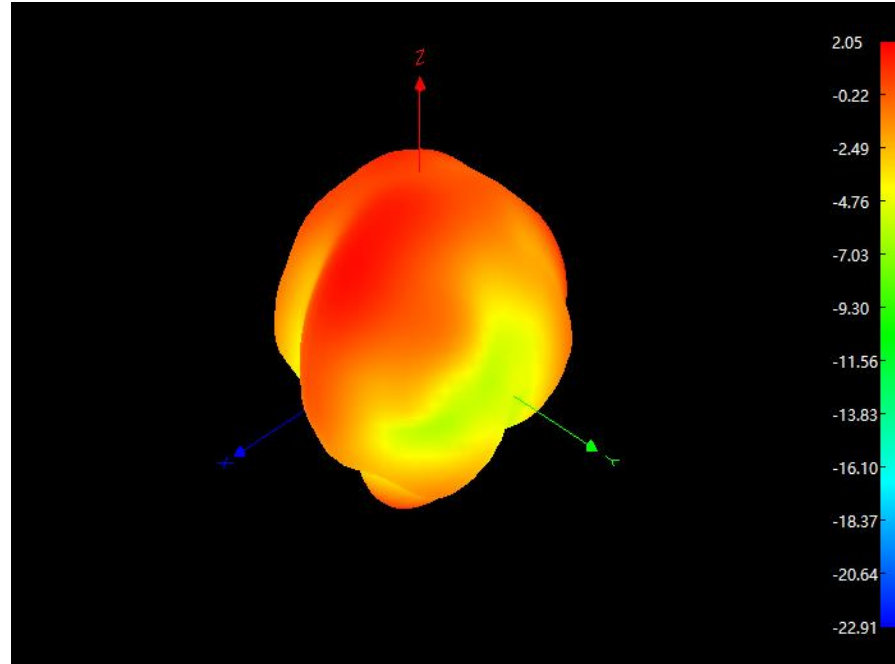
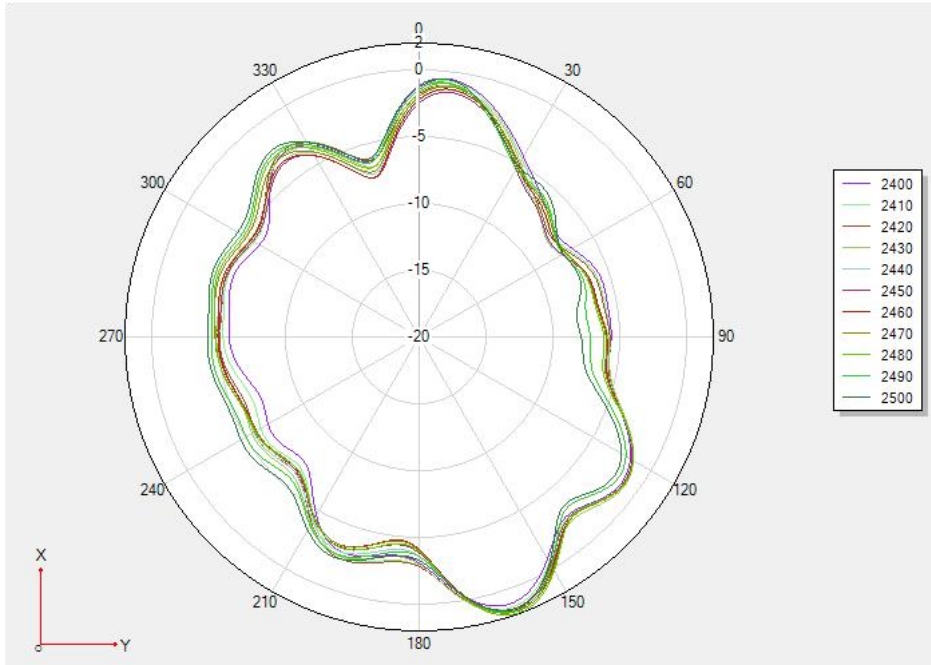
### 3. Test Result

#### 3.1 2D Pattern—BTANT



## 3. Test Result

### 3.1 2D Pattern—BTANT



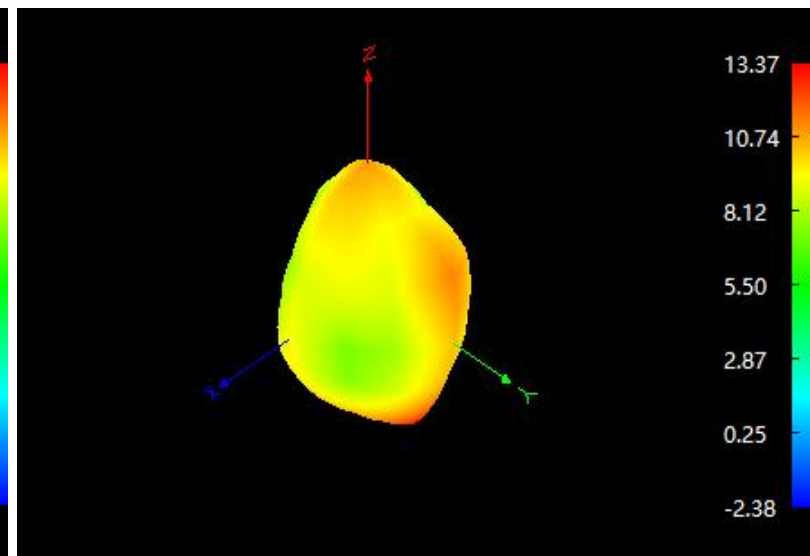
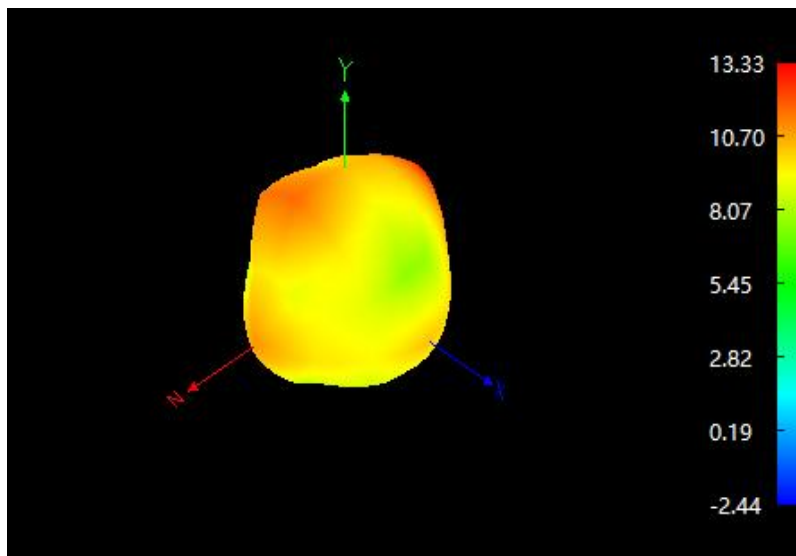
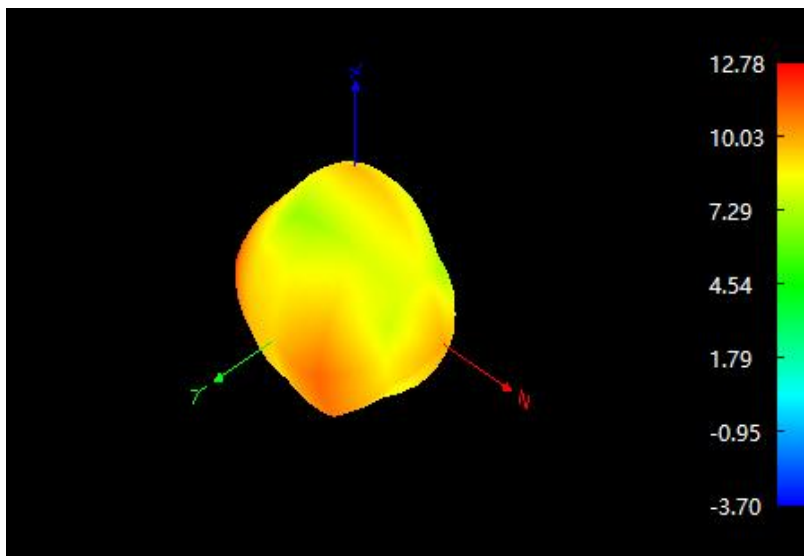
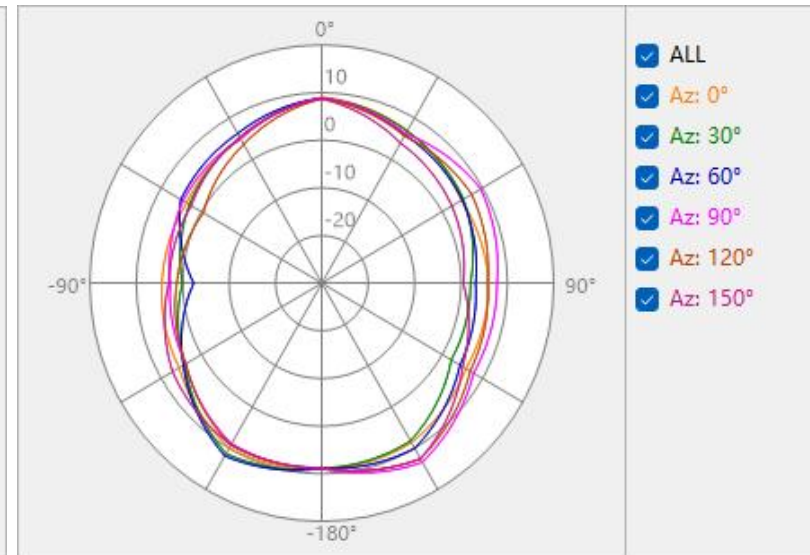
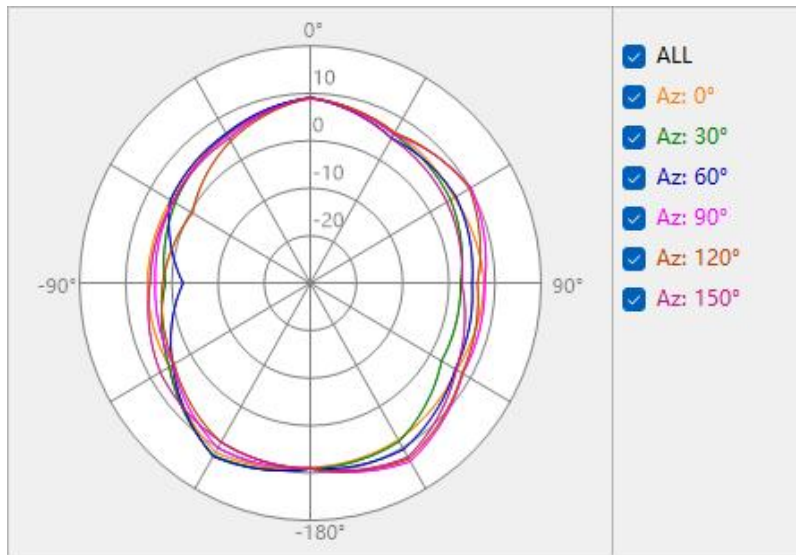
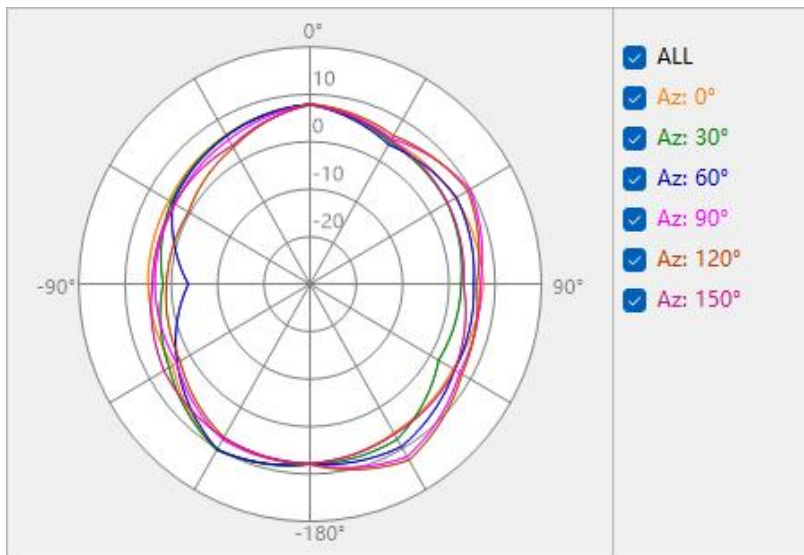
## 4.OTA Data

## Free field test data

|                 |            |          |          |
|-----------------|------------|----------|----------|
| Test Equipment: | R&S CMW500 |          |          |
| Test Condition: | 3D chamber |          |          |
| Band            | Channel    | TRP(dBm) | TIS(dBm) |
| BT              | 0          | 6.78     | -92.18   |
|                 | 39         | 7.57     | -94.1    |
|                 | 78         | 6.99     | -92.81   |

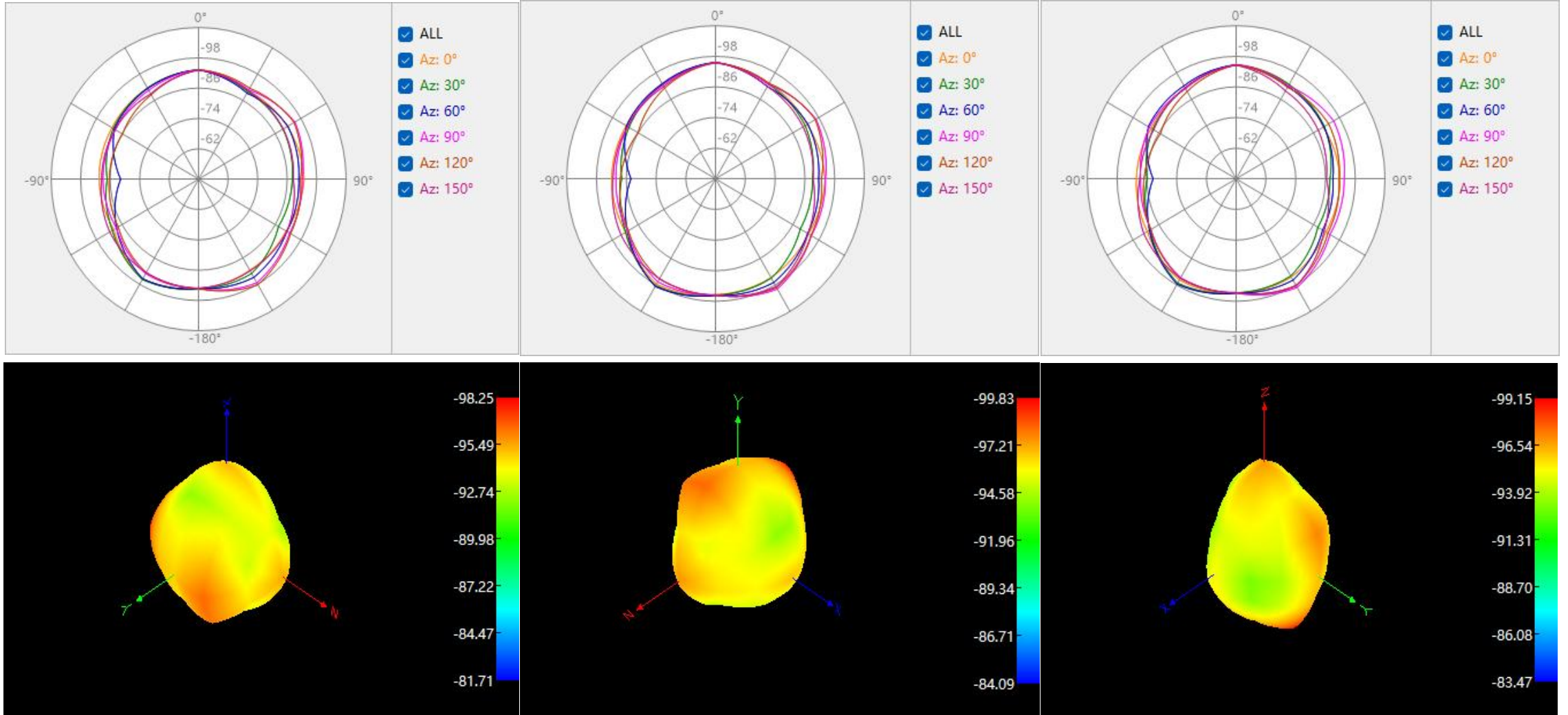
## 4. Test Result

## TRP



## 4. Test Result

TIS



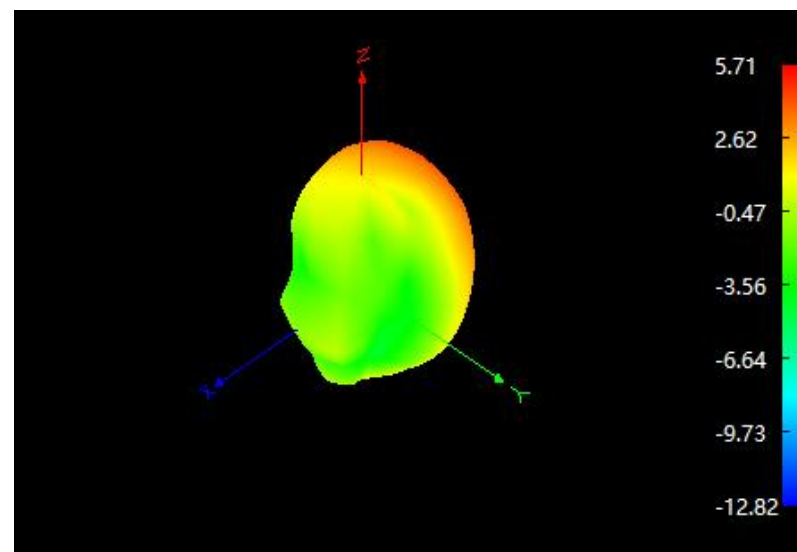
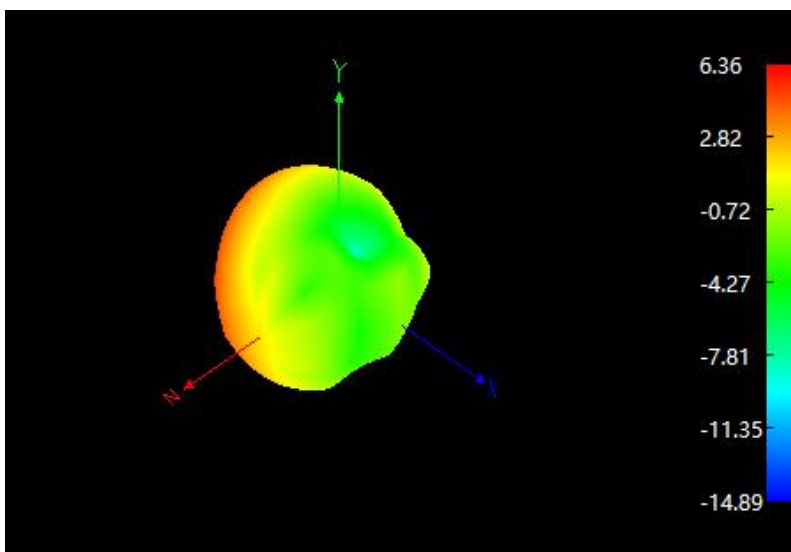
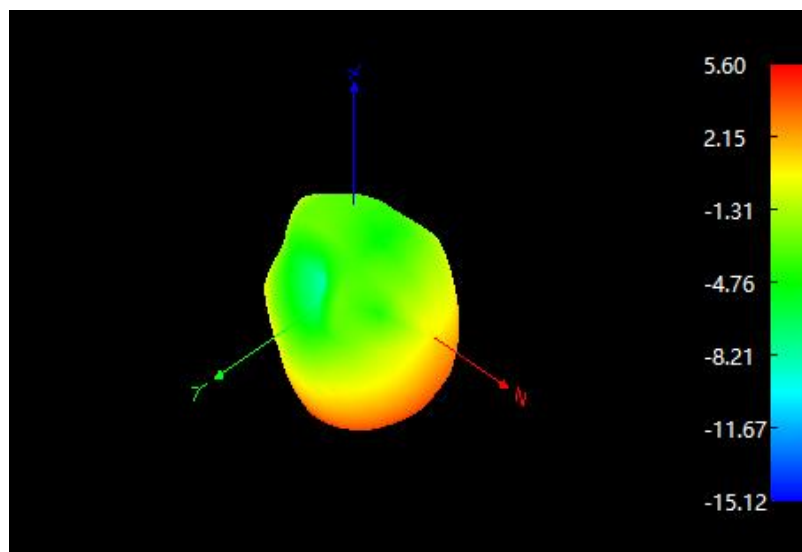
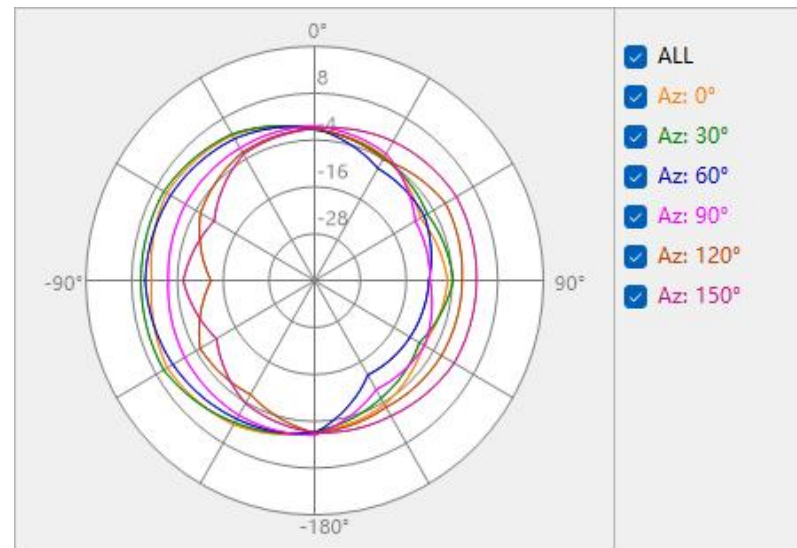
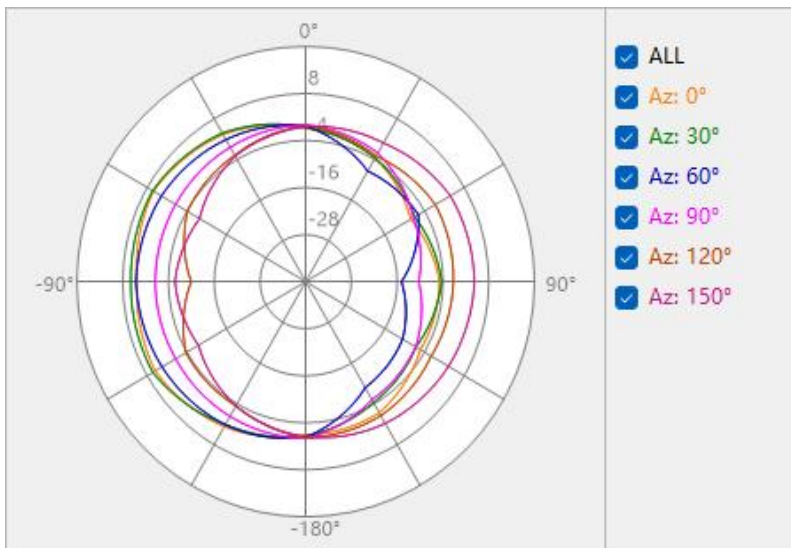
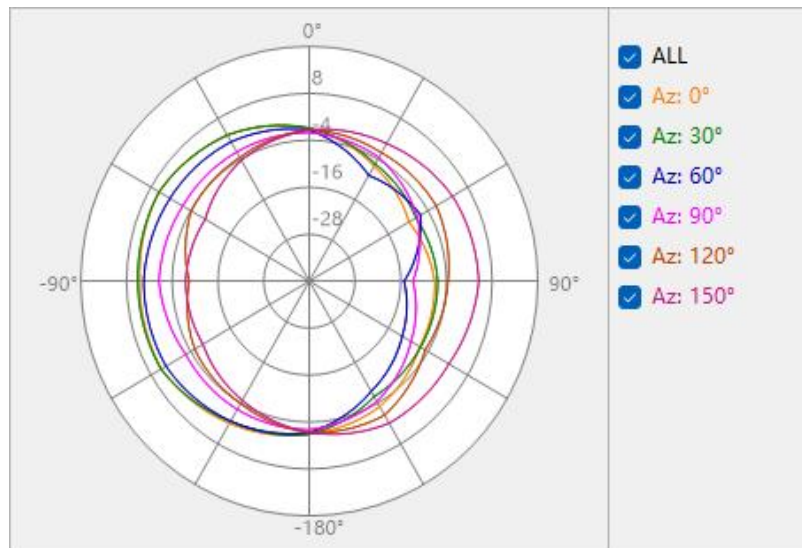
## 4.OTA Data

Head model data

|                 |            |          |          |
|-----------------|------------|----------|----------|
| Test Equipment: | R&S CMW500 |          |          |
| Test Condition: | 3D chamber |          |          |
| Band            | Channel    | TRP(dBm) | TIS(dBm) |
| BT              | 0          | 3.21     | -88.62   |
|                 | 39         | 4.09     | -90.18   |
|                 | 78         | 3.61     | -88.94   |

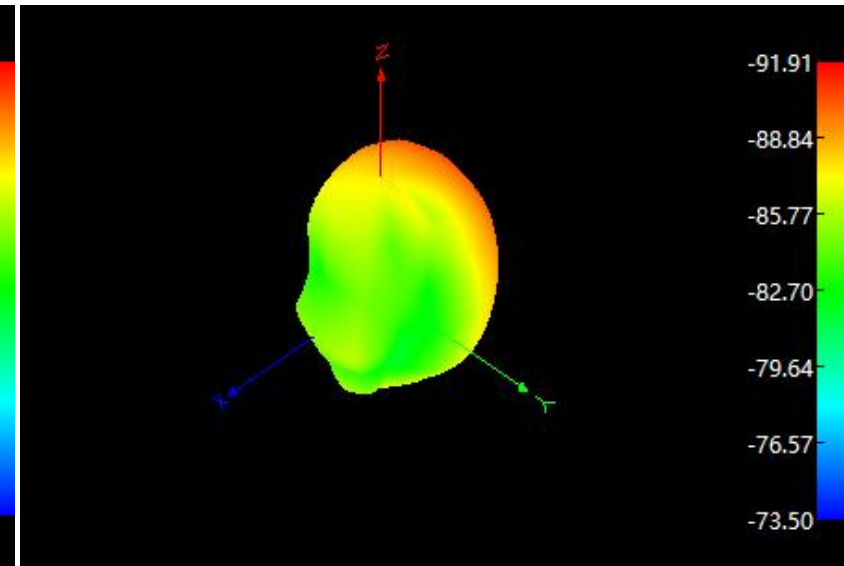
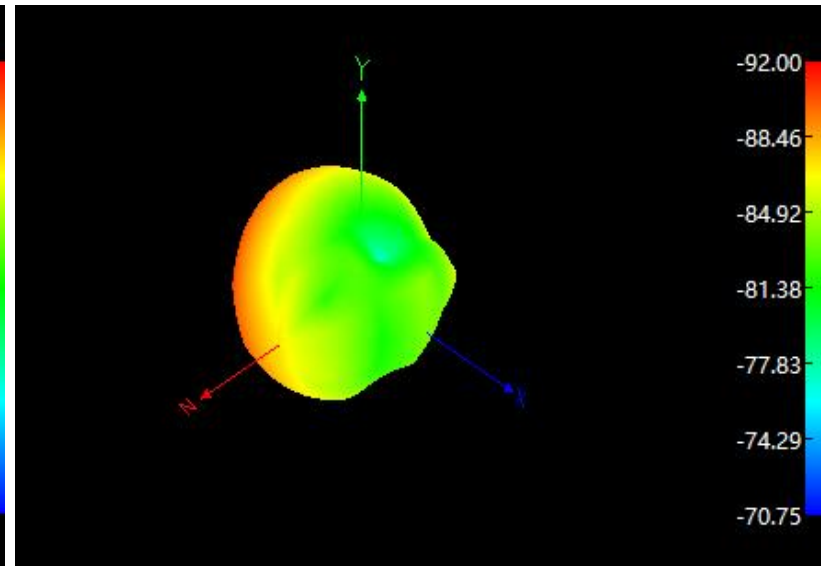
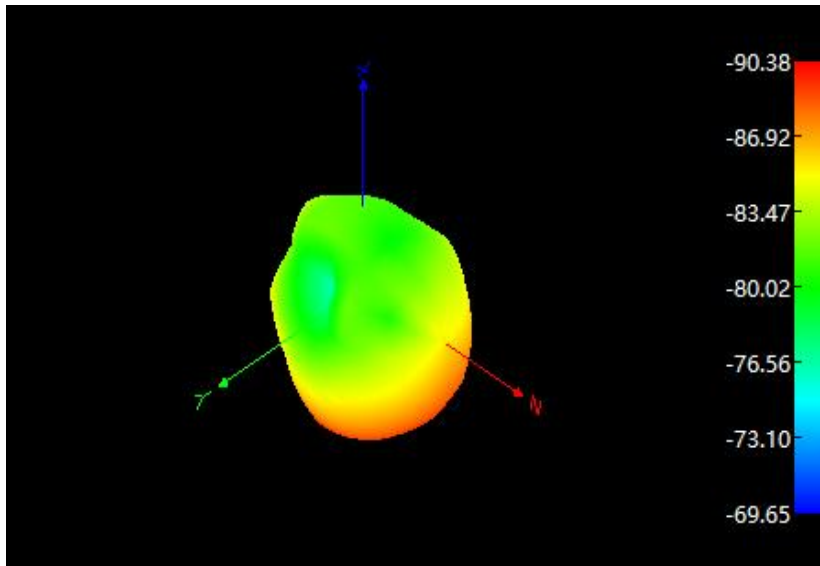
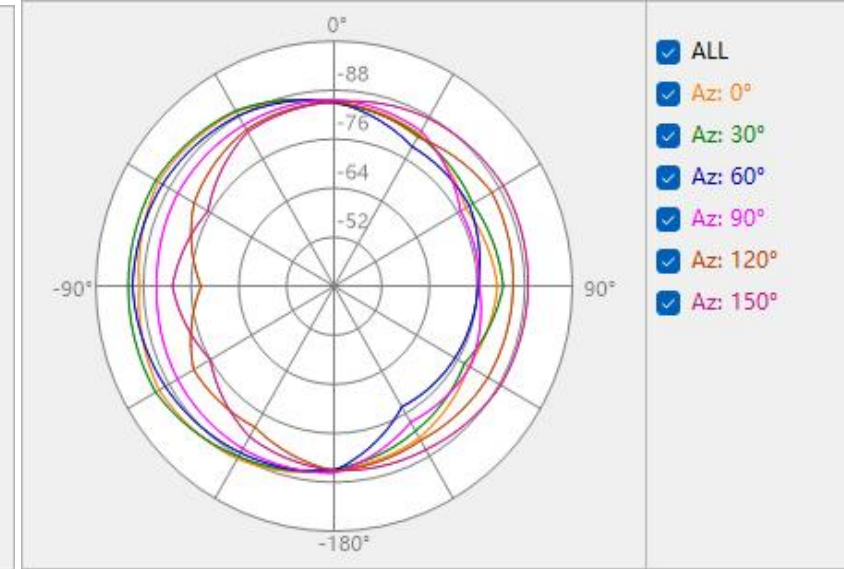
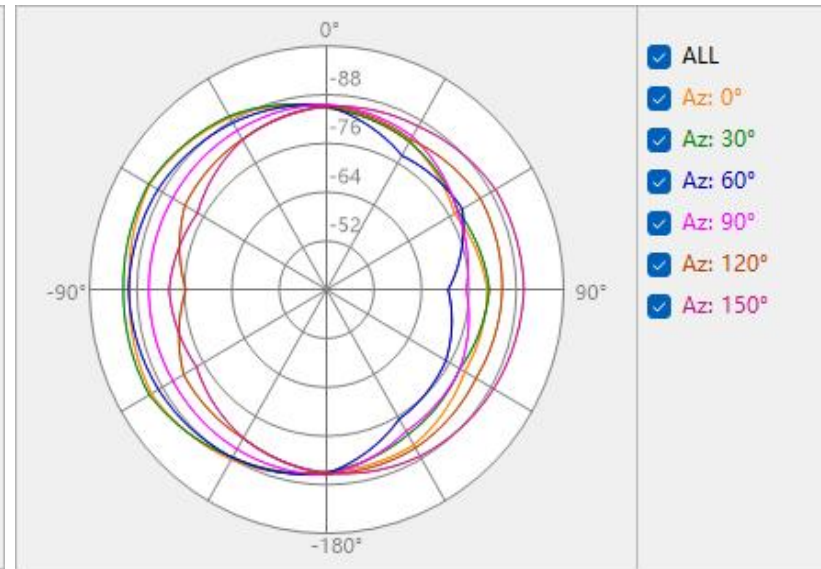
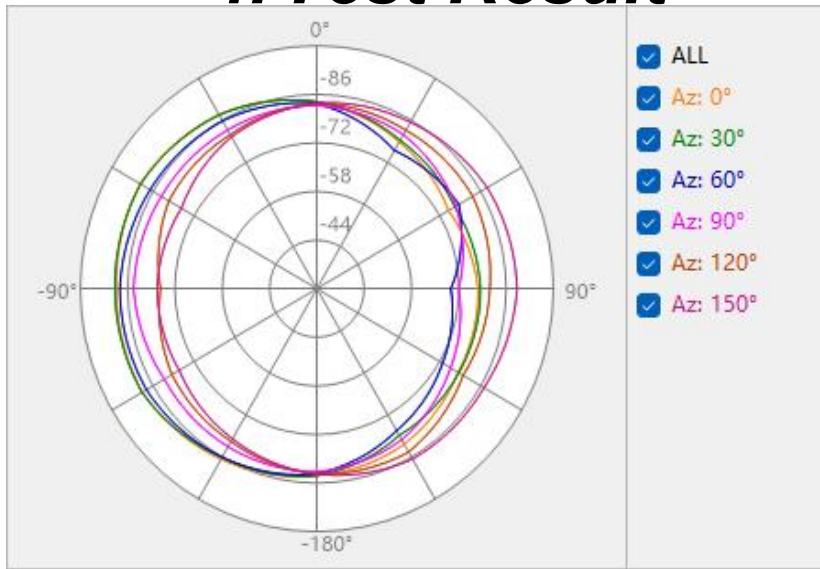
## 4. Test Result

TRP



## 4. Test Result

TIS



WORK REPORT

谢谢观看