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## Antenna Performance Description

Applicant: Xiaomi Communications Co., Ltd

Product description: Mobile Phone

Model Name: 25010PN30G

FCC ID: 2AFZZPN30G

Test date: 2024/10/15



## 1. Antenna information

| Antenna | Model Name | Pattern     | Antenna Type | Manufacturer                     | Test party of Antenna gain                                          |
|---------|------------|-------------|--------------|----------------------------------|---------------------------------------------------------------------|
| ANT7    | O1         | Metal Frame | PIFA Antenna | Huizhou BYD Electronic Co., Ltd. | Xiaomi Campus, No.33 Xi erqi Middle Road, Haidian District, Beijing |
| ANT15   | O1         | Metal Frame | PIFA Antenna | Huizhou BYD Electronic Co., Ltd. | Xiaomi Campus, No.33 Xi erqi Middle Road, Haidian District, Beijing |
| ANT16   | O1         | Metal Frame | PIFA Antenna | Huizhou BYD Electronic Co., Ltd. | Xiaomi Campus, No.33 Xi erqi Middle Road, Haidian District, Beijing |
| ANT17   | O1         | Metal Frame | PIFA Antenna | Huizhou BYD Electronic Co., Ltd. | Xiaomi Campus, No.33 Xi erqi Middle Road, Haidian District, Beijing |
| NFC1    | O1         | single form | FPC Antenna  | Shenzhen Haidemen Electronic     | /                                                                   |



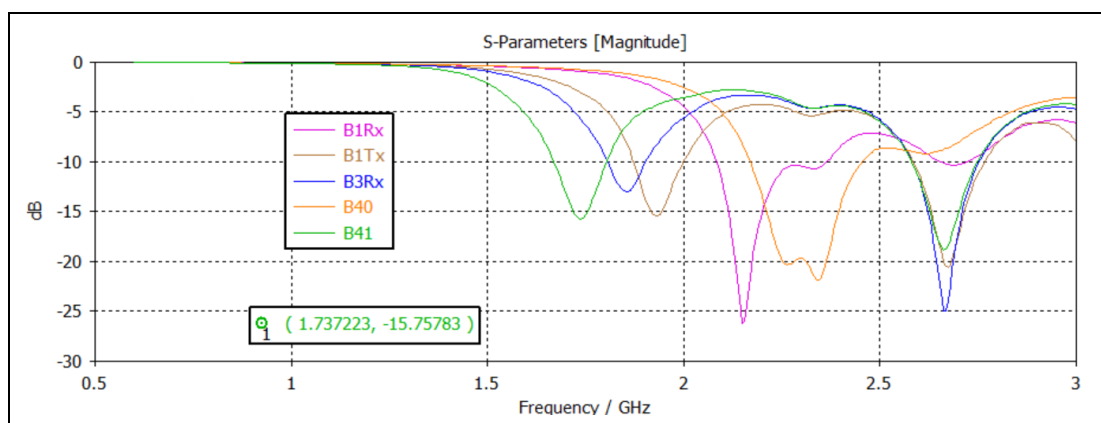
|      |    |              |             |                                                                       |   |
|------|----|--------------|-------------|-----------------------------------------------------------------------|---|
| NFC2 | O1 | loop antenna | FPC Antenna | Shenzhen Haidemen Electronic                                          | / |
| WPT  | O1 | Planar Coil  | Wire Coil   | Shanghai Demen Electronics Technology Co./Lixun Precision Industry Co | / |



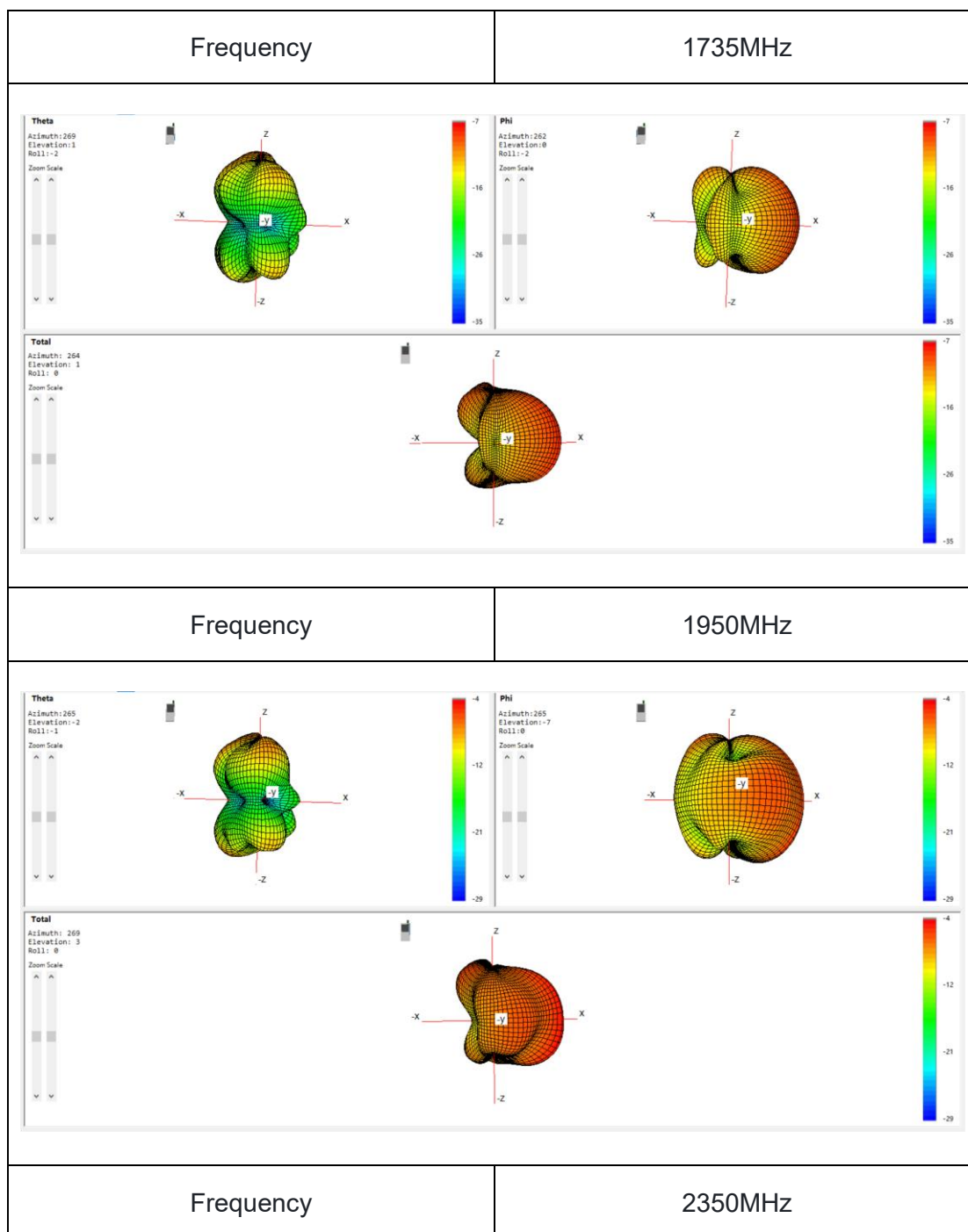
## 2. Test data

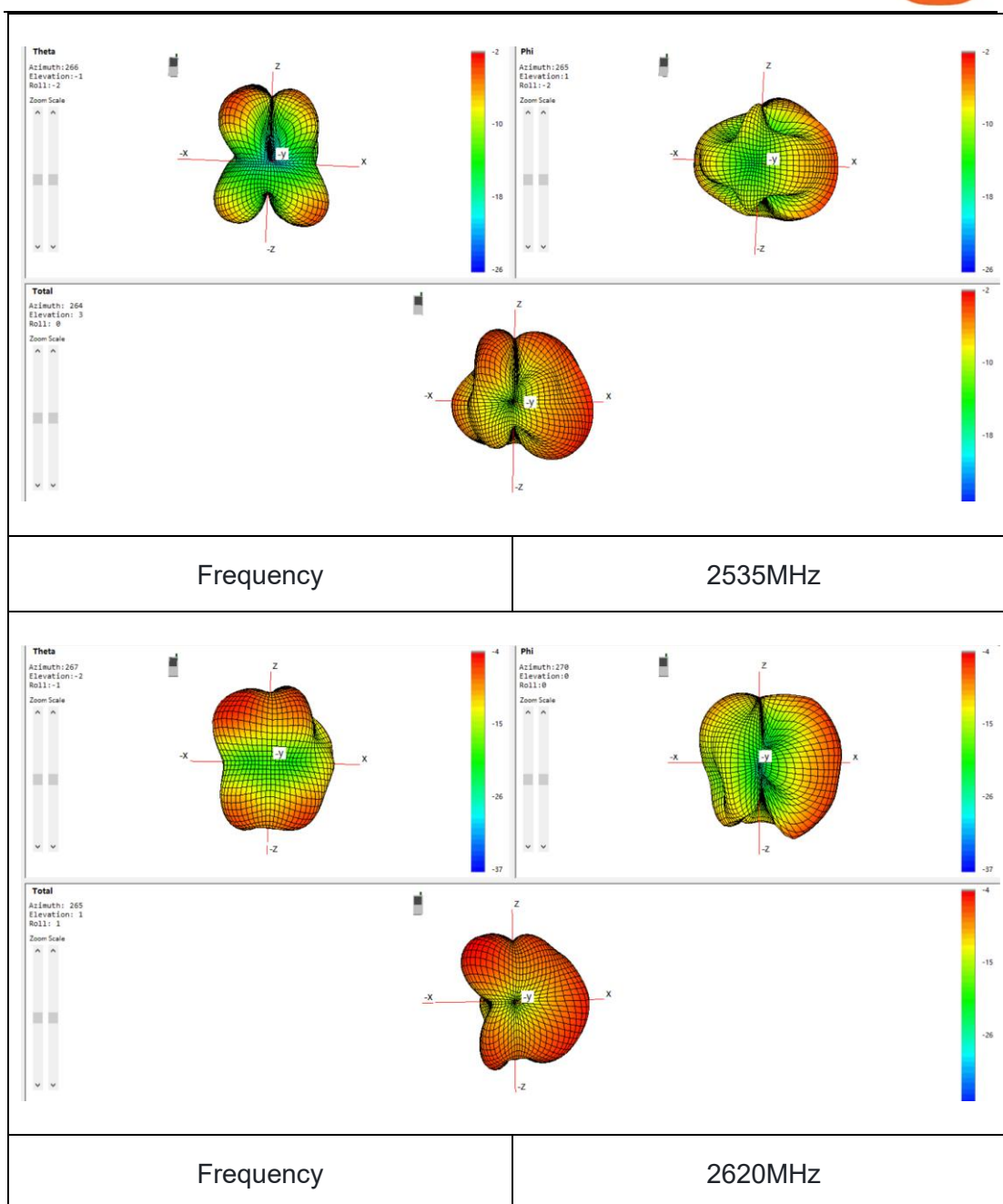
| Band for Antenna 7 | MHB+WIFI2.4G ANT |                |
|--------------------|------------------|----------------|
|                    | Avg.Effi.(dB)    | Peak gain(dBi) |
| 2.4G(2400~2485MHz) | -7.3             | -2.3           |
| Bluetooth          | -7.3             | -2.3           |

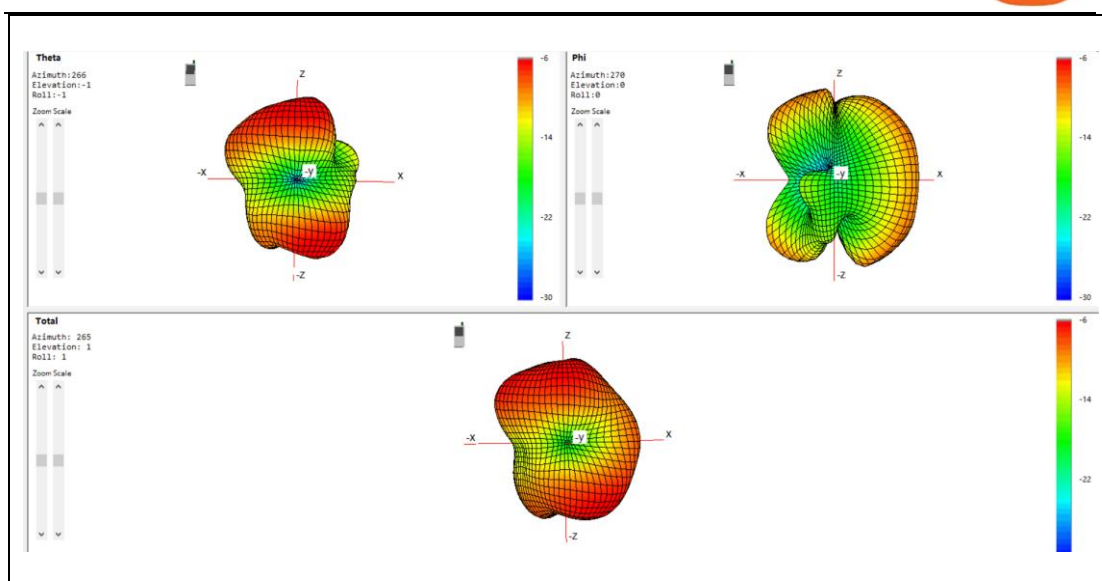
### S 参数



## 方向图



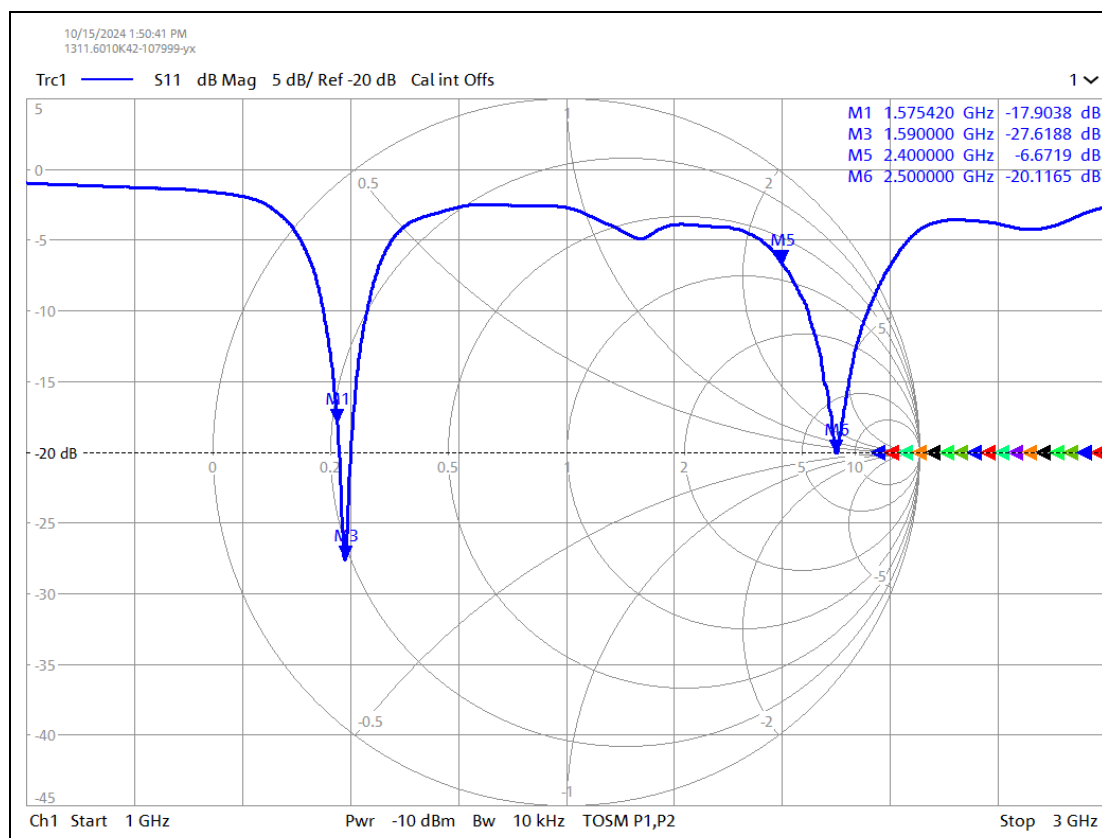






| Bands for Antenna<br>15 | WIFI2.4G+BT ANT |                |
|-------------------------|-----------------|----------------|
|                         | Avg.Effi.(dB)   | Peak gain(dBi) |
| 2.4G(2400~2485MHz)      | -6.2            | -1.2           |
| Bluetooth               | -6.2            | -1.2           |

## S 参数

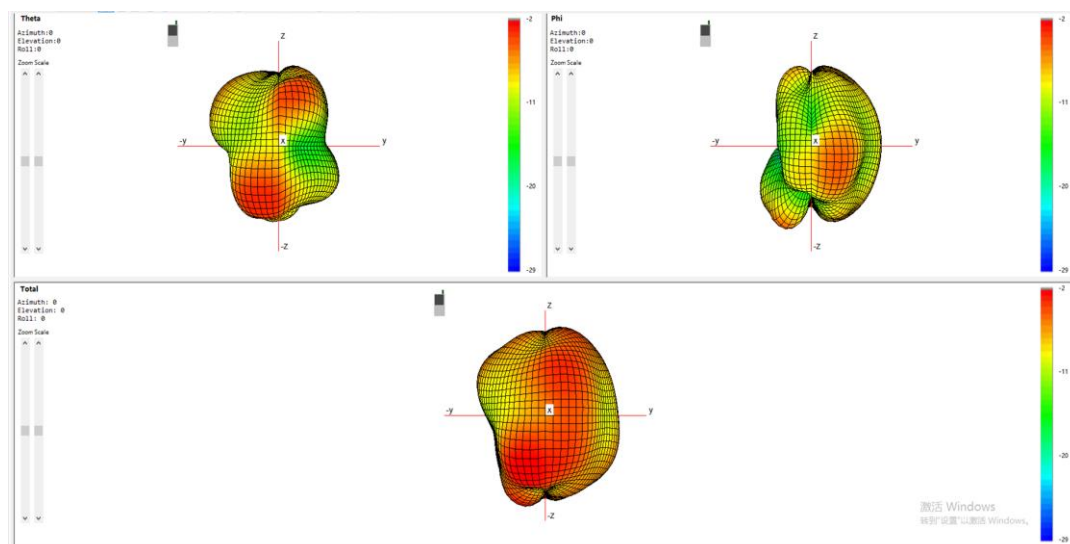




## 方向图

Frequency

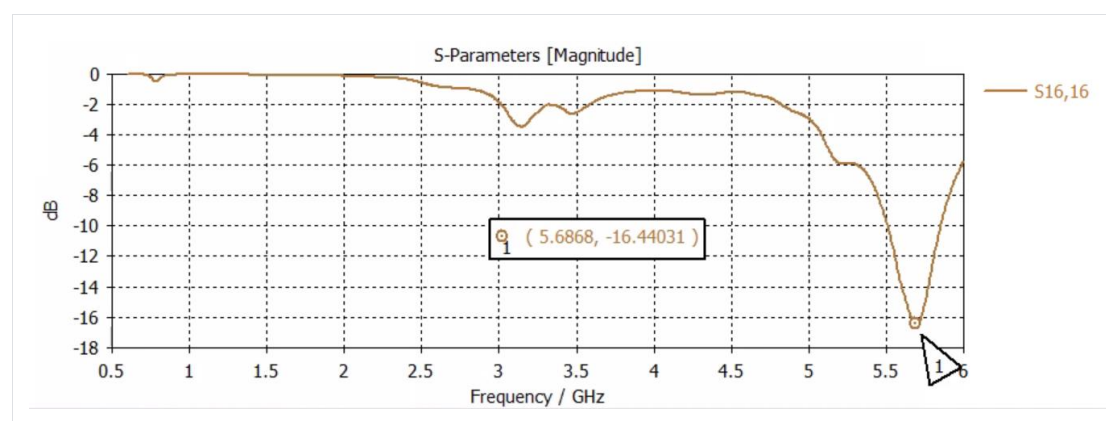
2450MHz



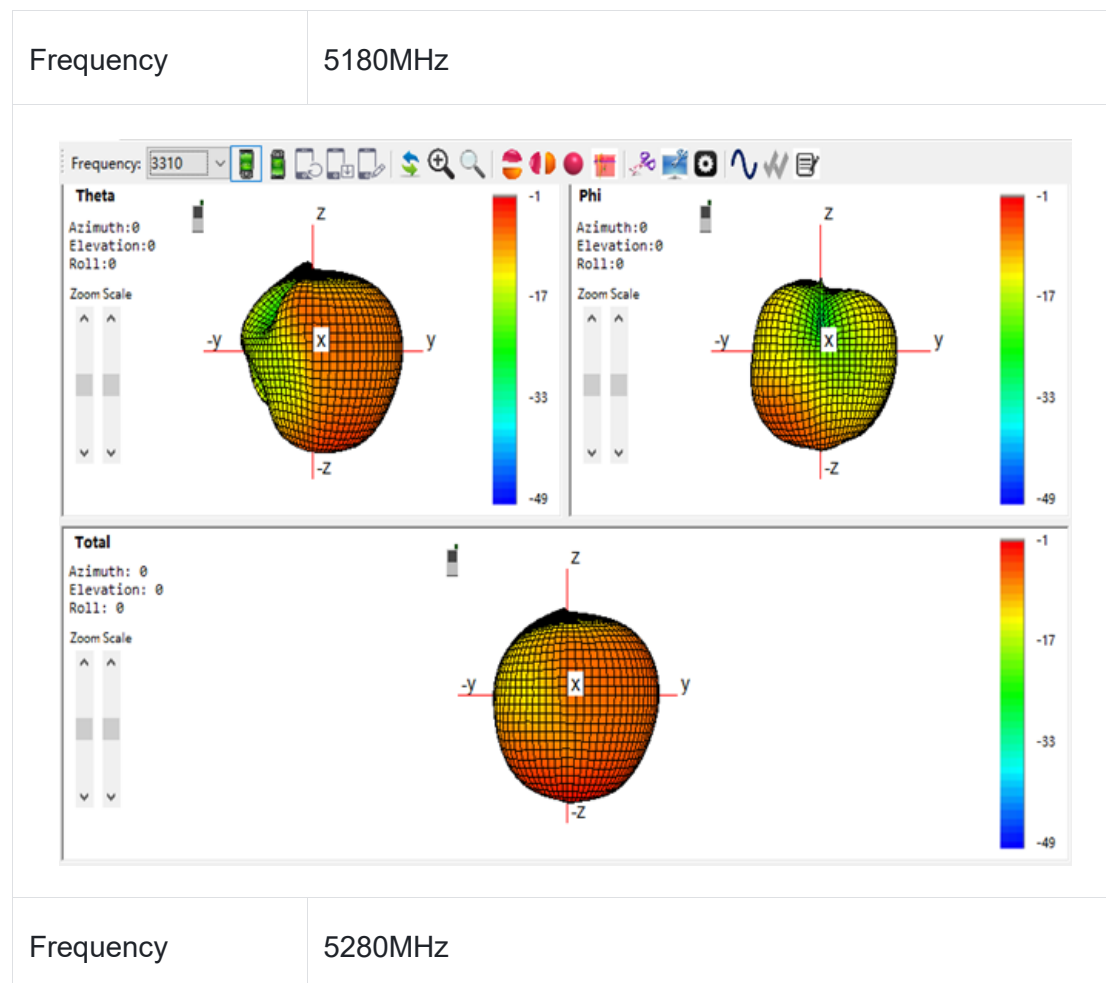


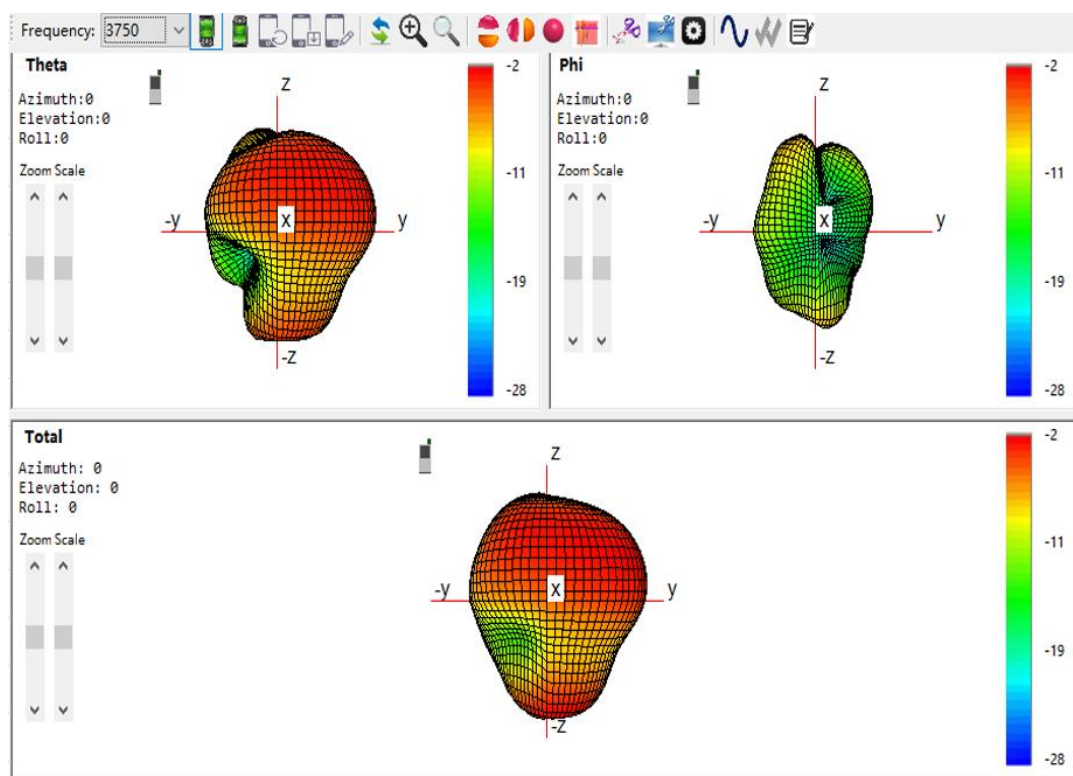
| Bands for Antenna<br>16 | WIFI5G/6E ANT |                |
|-------------------------|---------------|----------------|
|                         | Avg.Effi.(dB) | Peak gain(dBi) |
| 5G (5150~5250MHz)       | -9.7          | -3.8           |
| 5G (5250~5350MHz)       | -8.3          | -2.5           |
| 5G (5470~5725MHz)       | -7.1          | -3.1           |
| 5G (5470~5850MHz)       | -7.0          | -2.3           |
| 6G (5925-6425GHz)       | -8.0          | -2.4           |
| 6G (6425-6525GHz)       | -8.9          | -4.8           |
| 6G (6525-6875GHz)       | -9.0          | -2.9           |
| 6G (6875-7125GHz)       | -8.6          | -2.0           |

## S 参数



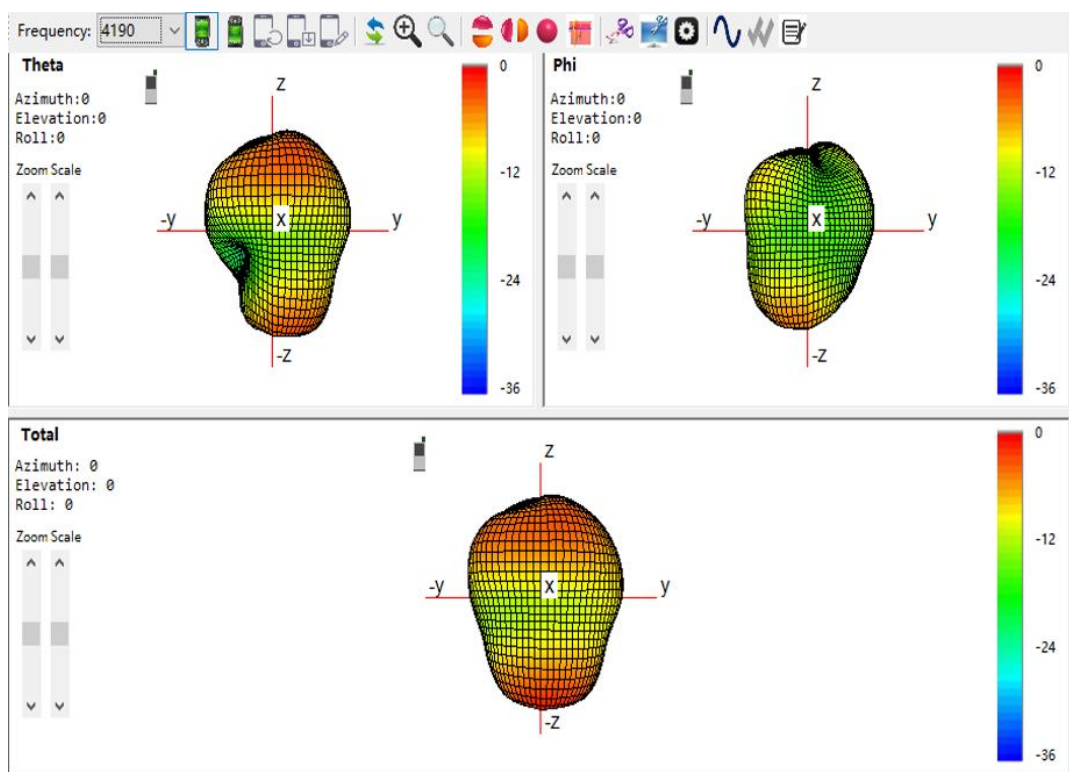
## 方向图





Frequency

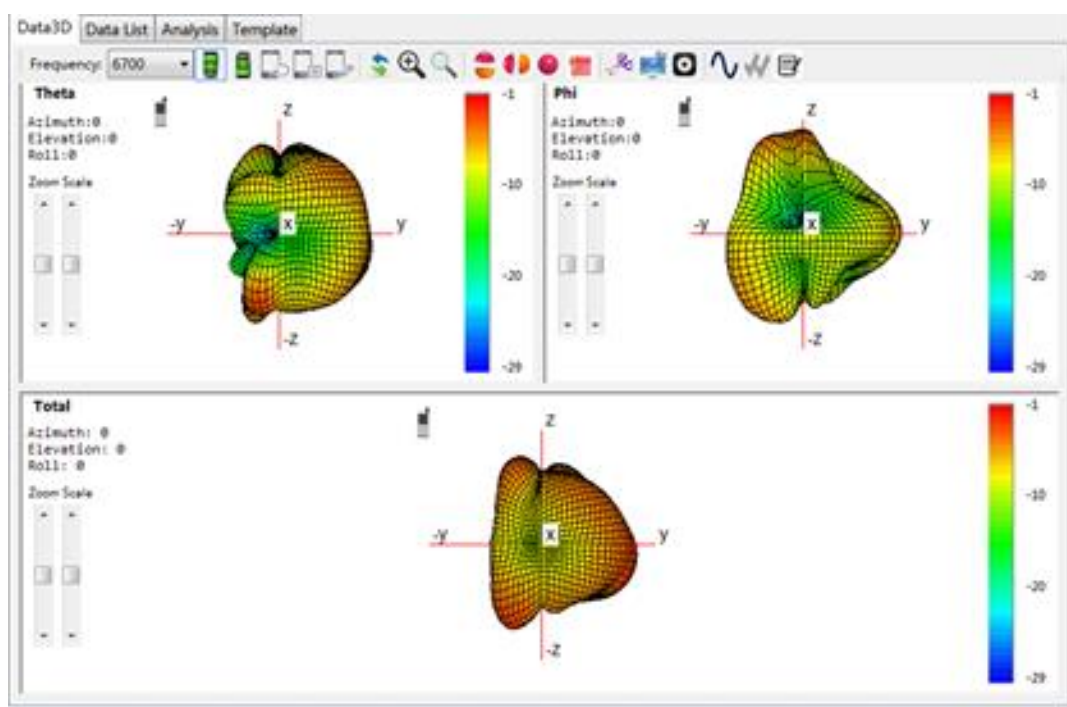
5500MHz





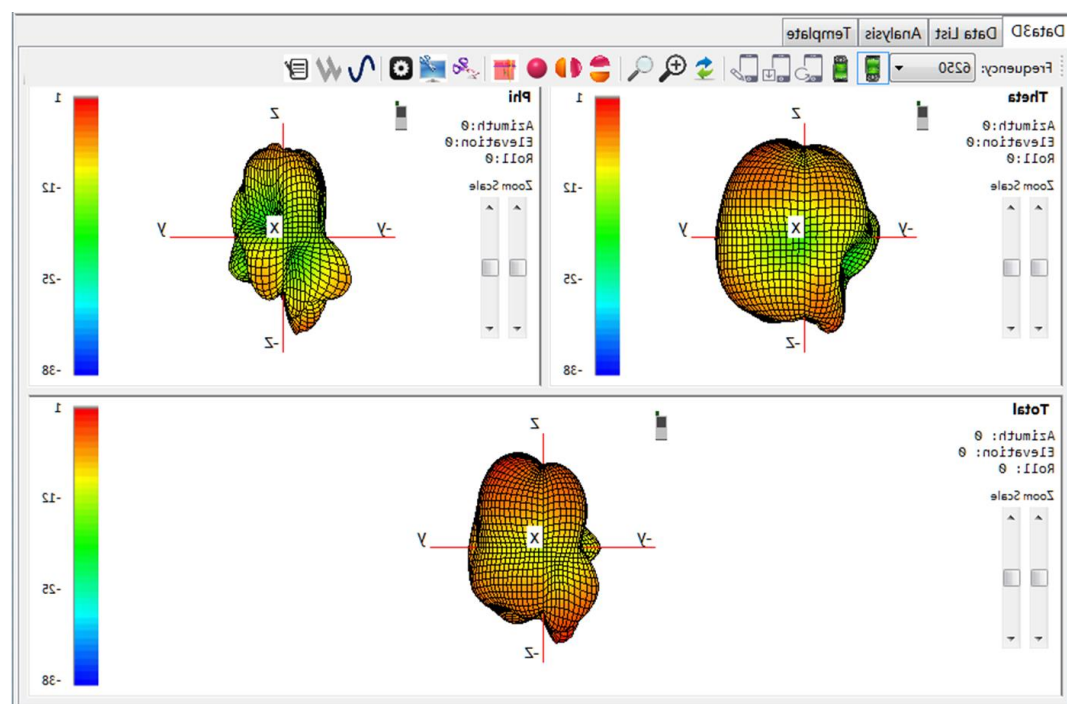
Frequency

5785MHz



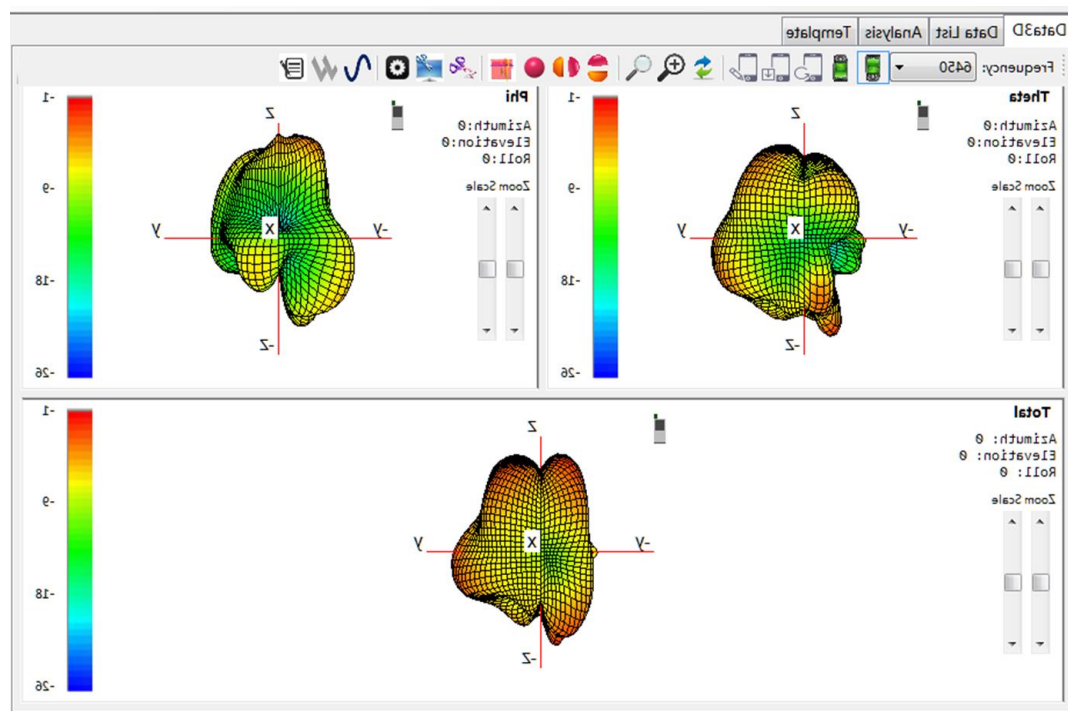
Frequency

6250MHz



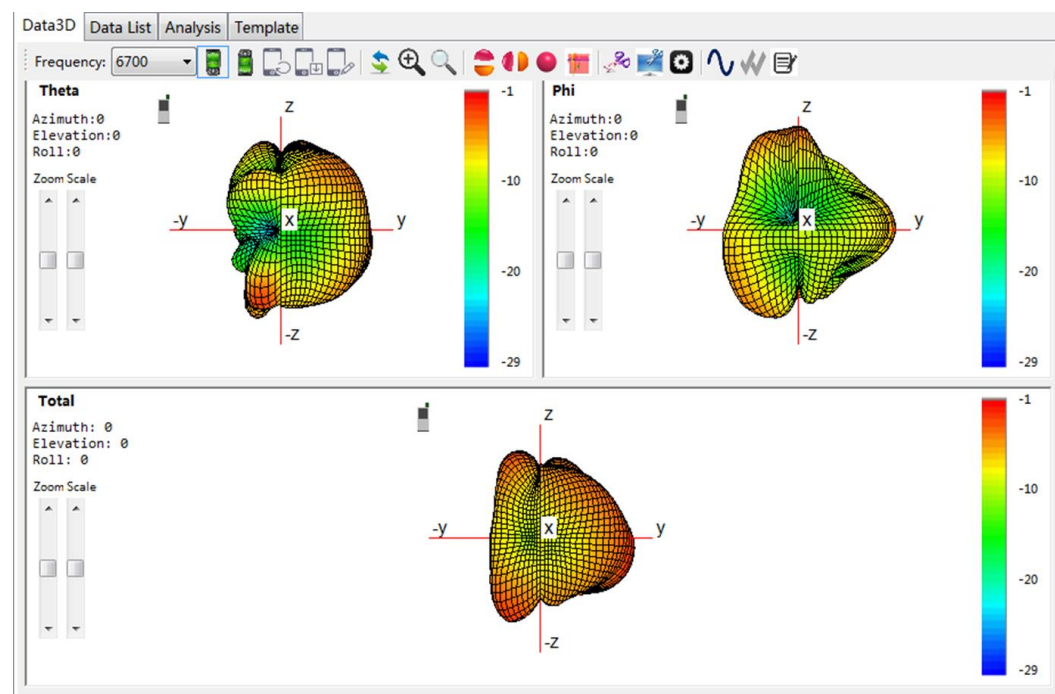
Frequency

6450MHz



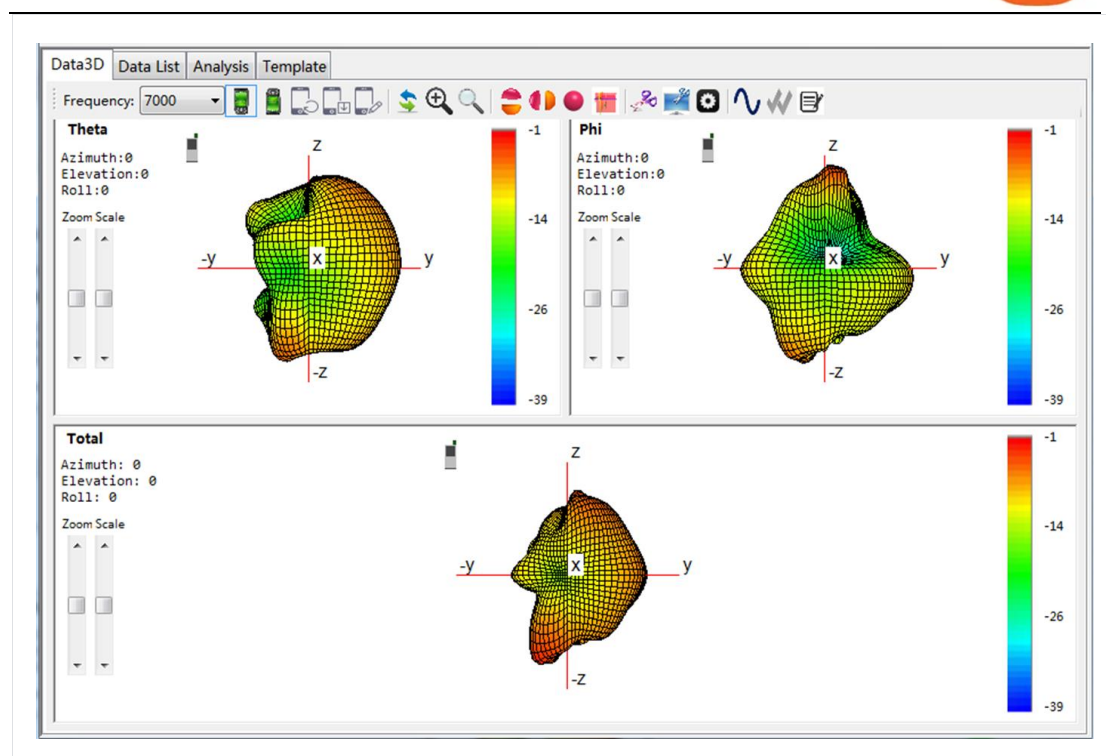
Frequency

6700MHz



Frequency

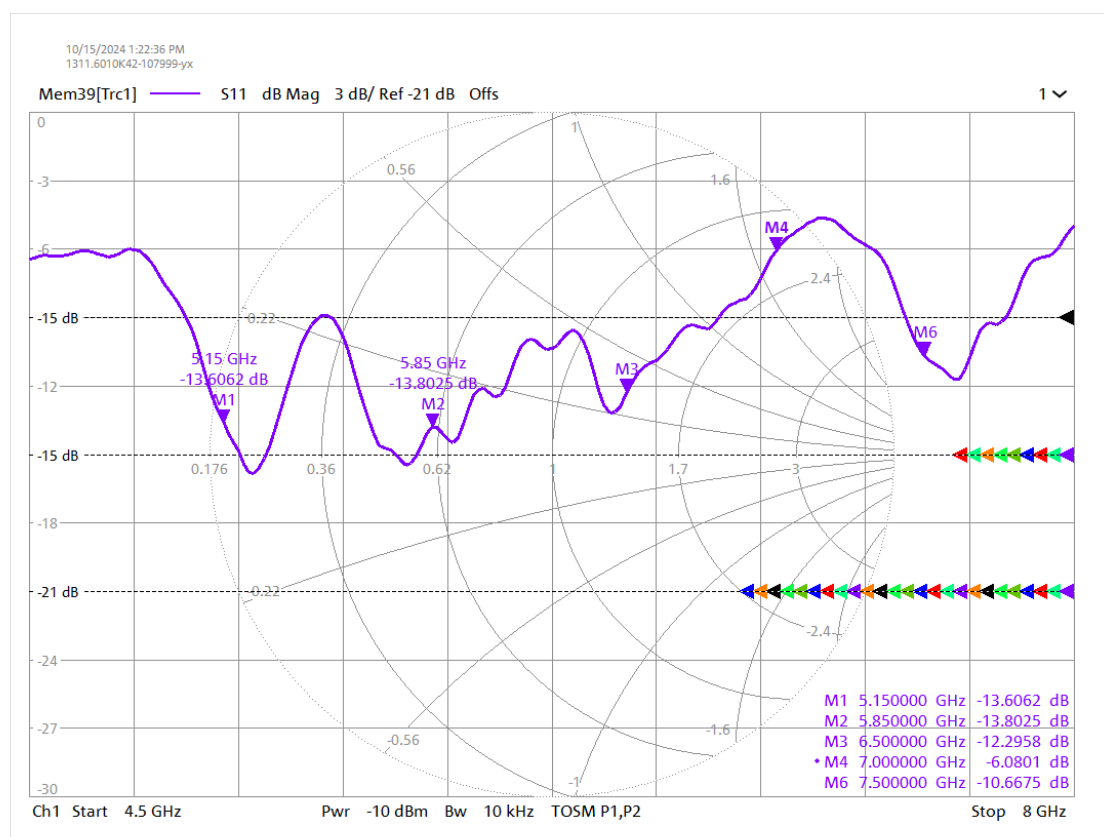
7000MHz



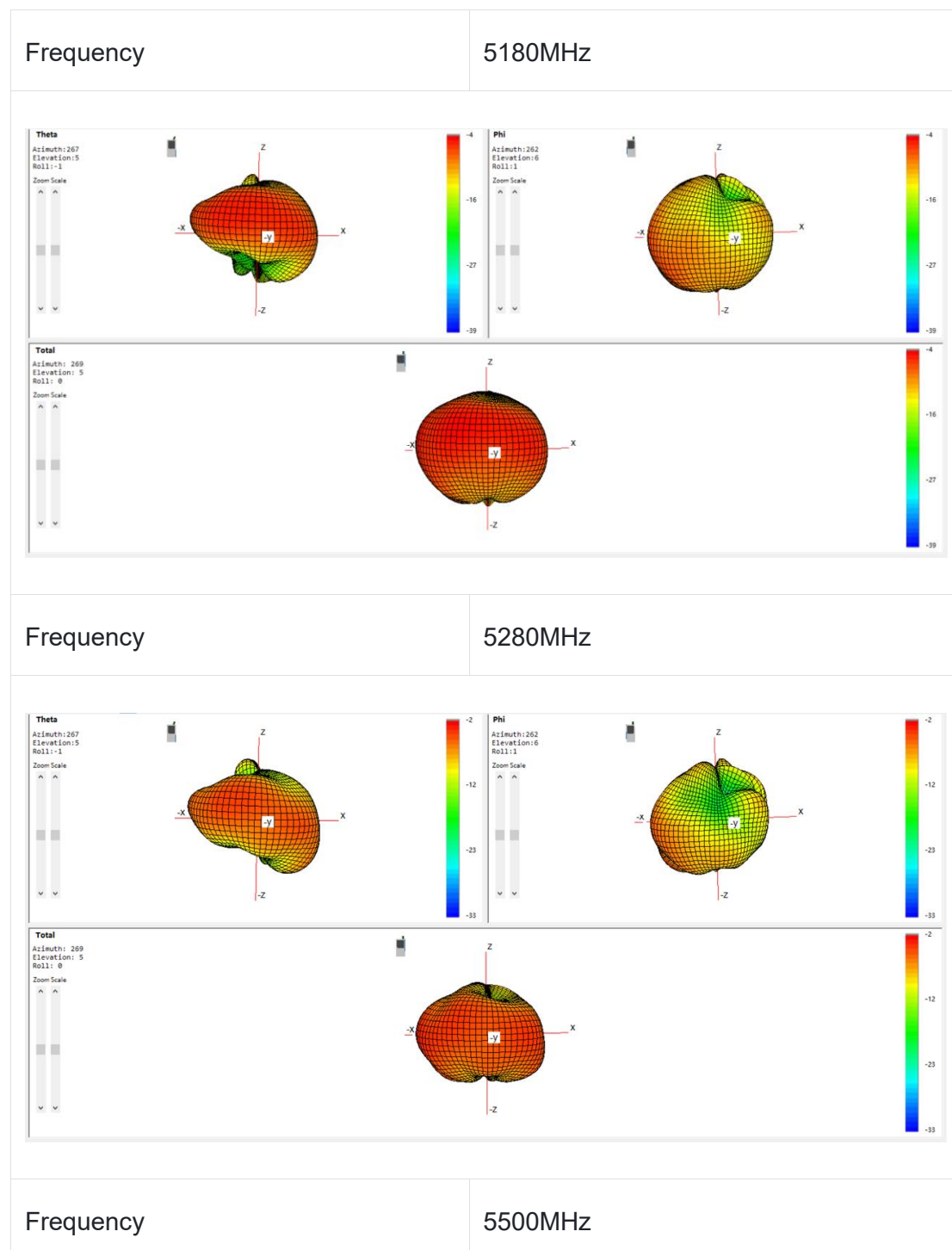


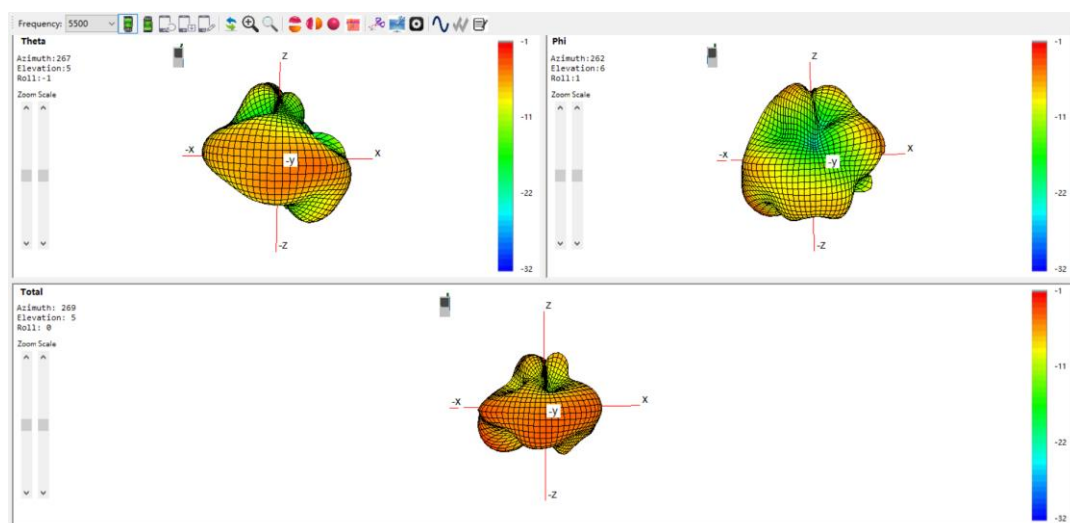
| Bands for Antenna<br>17 | WIFI5G/6E ANT |                |
|-------------------------|---------------|----------------|
|                         | Avg.Effi.(dB) | Peak gain(dBi) |
| 5G (5150~5250MHz)       | -6.3          | -3.7           |
| 5G (5250~5350MHz)       | -6.2          | -2.7           |
| 5G (5470~5725MHz)       | -6.2          | -3.2           |
| 5G (5470~5850MHz)       | -6.3          | -2.9           |
| 6G (5925-6425GHz)       | -7.1          | -2.8           |
| 6G (6425-6525GHz)       | -7.0          | -1.8           |
| 6G (6525-6875GHz)       | -8.9          | -1.2           |
| 6G (6875-7125GHz)       | -10.0         | -4.2           |

## S 参数



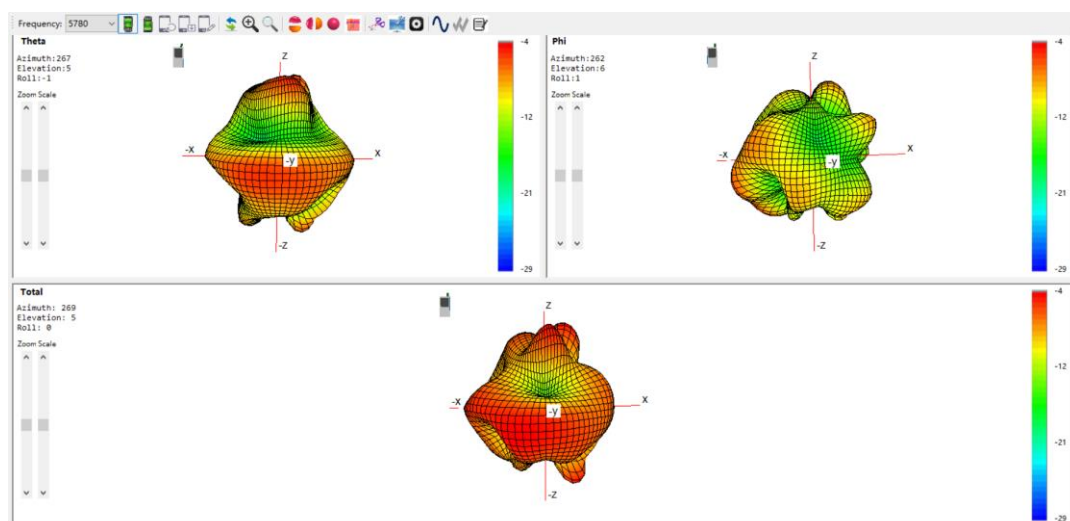
## 方向图





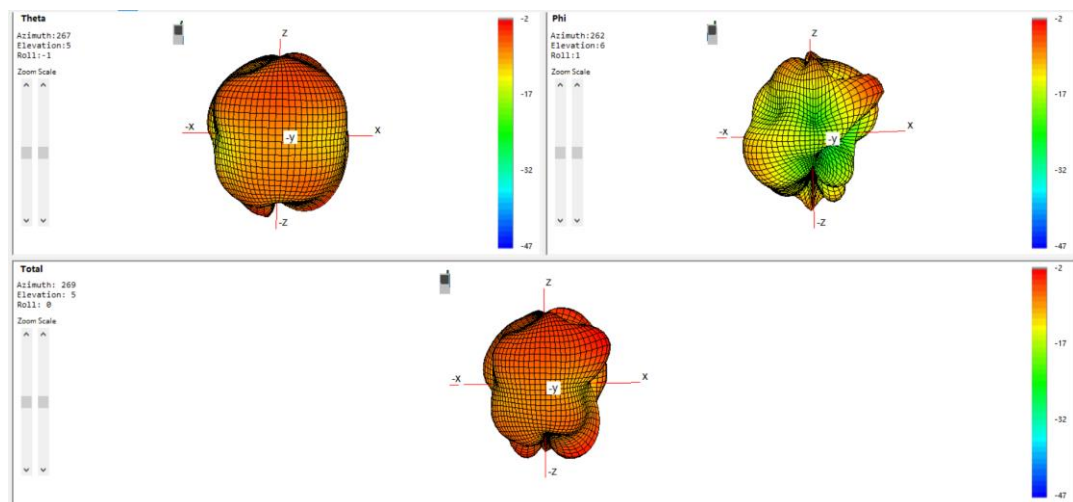
Frequency

5785MHz



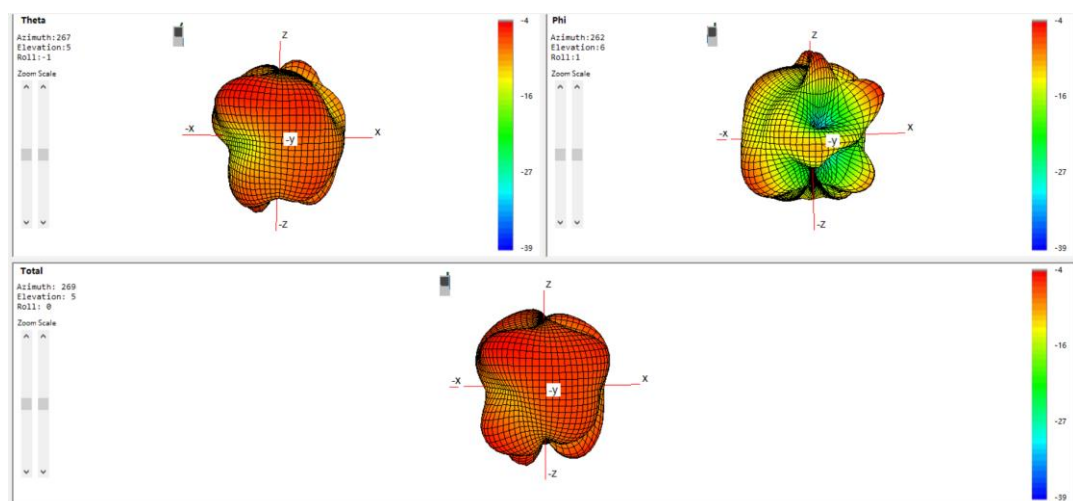
Frequency

6250MHz



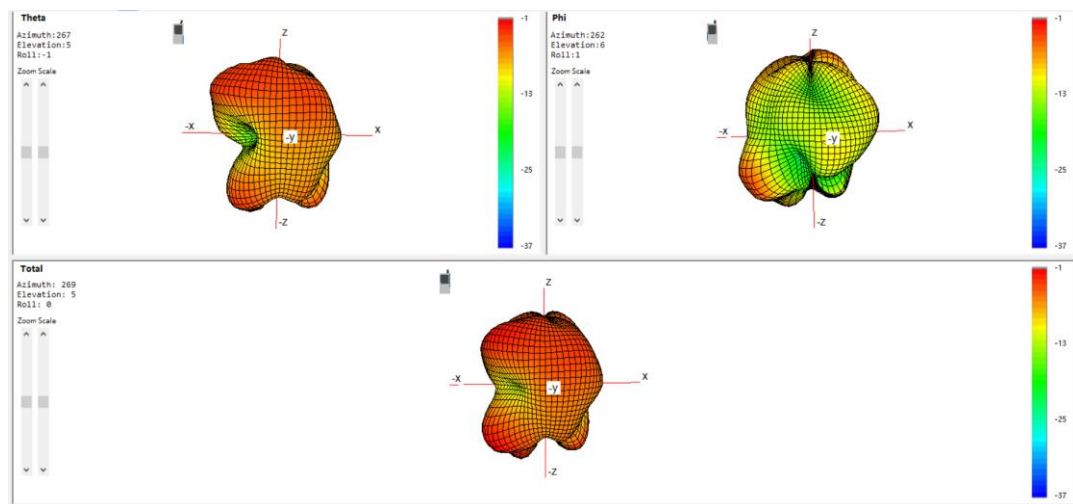
Frequency

6450MHz



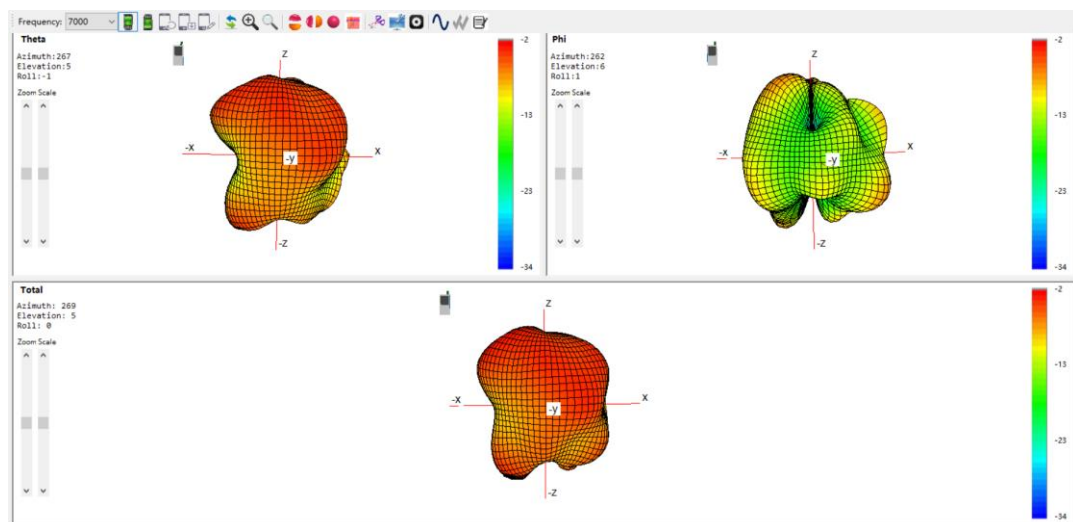
Frequency

6700MHz



Frequency

7000MHz





### 3. Main Test Instruments

| Name                           | Manufacturer            | Model name              | Serial Number               | Cal., Date      | Exp., Date      |
|--------------------------------|-------------------------|-------------------------|-----------------------------|-----------------|-----------------|
| <b>OTA<br/>TEST<br/>SYSTEM</b> | <b>GENERAL<br/>TEST</b> | <b>RayZone<br/>2800</b> | <b>CT1012048<br/>0B5054</b> | <b>2024/4/6</b> | <b>2025/4/6</b> |
| <b>E5071C</b>                  | <b>KEYSIGHT</b>         | <b>E5071C</b>           | <b>EQ80224</b>              | <b>2024-4-6</b> | <b>2025-4-6</b> |

### 4. The name of the test software

GTS MaxSign- RayZone2800D\_Z



Cheng Yibo , antenna engineer

End of Test Report