

**Manufacturer: Shenzhen Maya communication equipment Co., LTD**  
**Address: Building 1, AI Digital Valley, Tao Yuan Community,**  
**Dalang Subdistrict, Longhua District, Shenzhen City**



# DK 111- Antenna Test Report

**Date: 2025.7.30**

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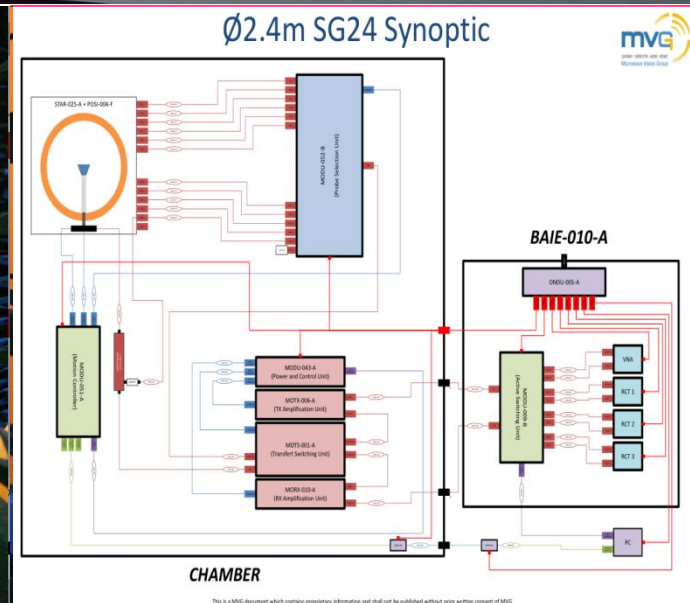
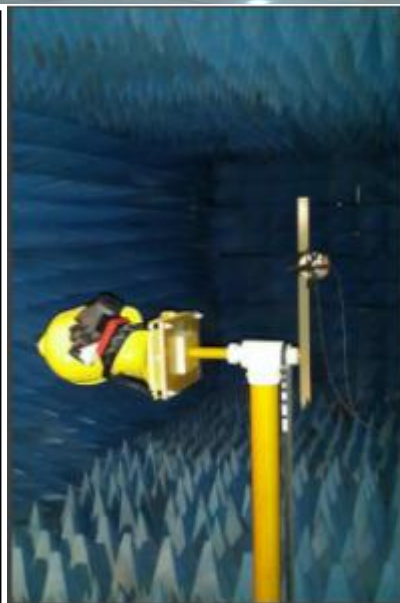
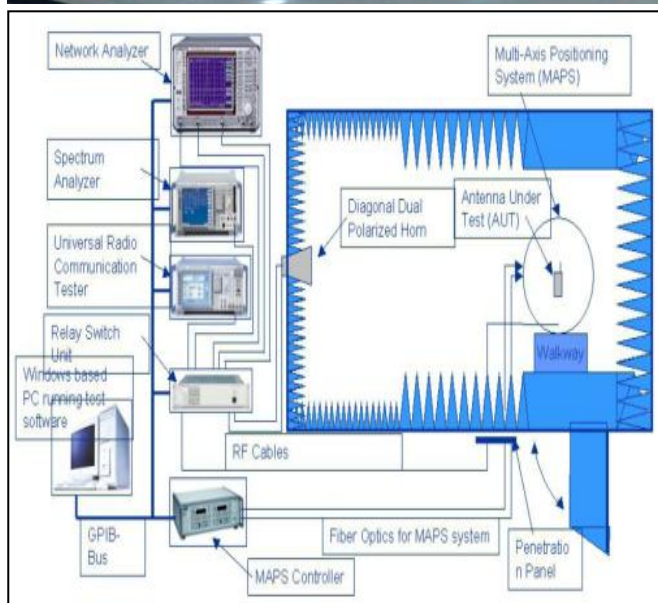
Conclusion





|                          |               |                |           |                     |
|--------------------------|---------------|----------------|-----------|---------------------|
| Antenna design spectrum: | WIFI 2.4/5.8G | Repor version: | Date      | Content             |
| Type of antenna:         | F P C         | V1.0           | 2025.7.30 | Antenna test report |

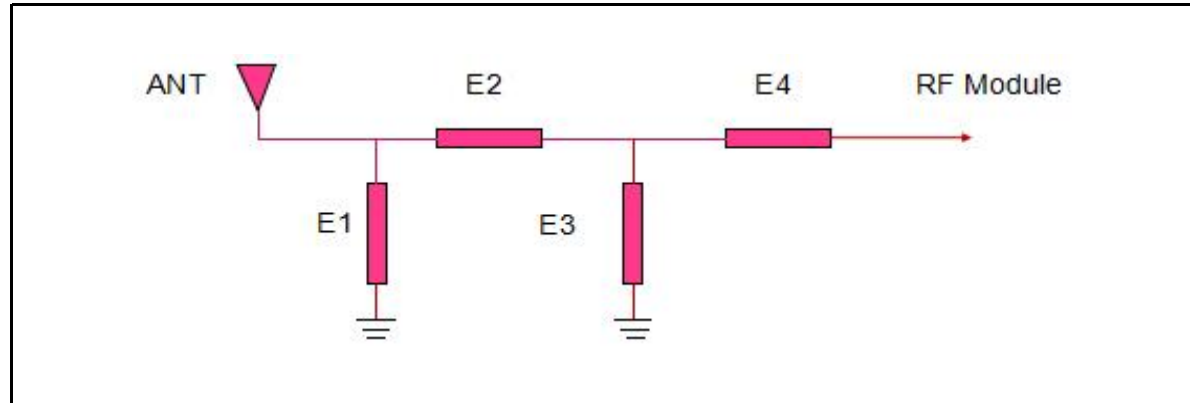
# Test Environment



Darkroom system : MVG SG24LT (Satmio)

# Matching Circuit

| main antenna design |       |
|---------------------|-------|
| Element             | Value |
| E1(0201):           | /     |
| E2(0201):           | /     |
| E3(0201):           | /     |



Note: The matching circuit has not changed.

Figure: The red box is grounded with conductive cloth.

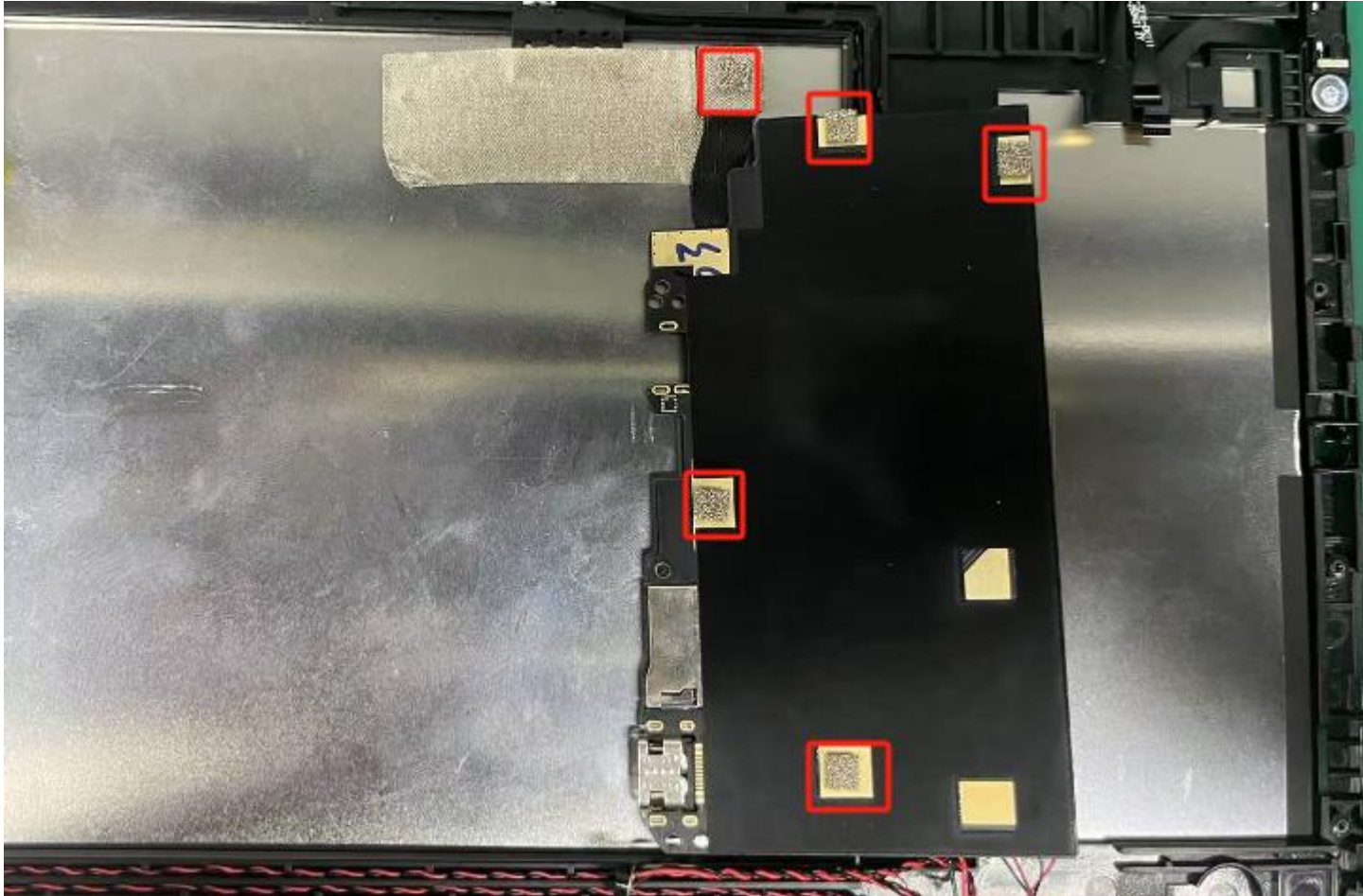
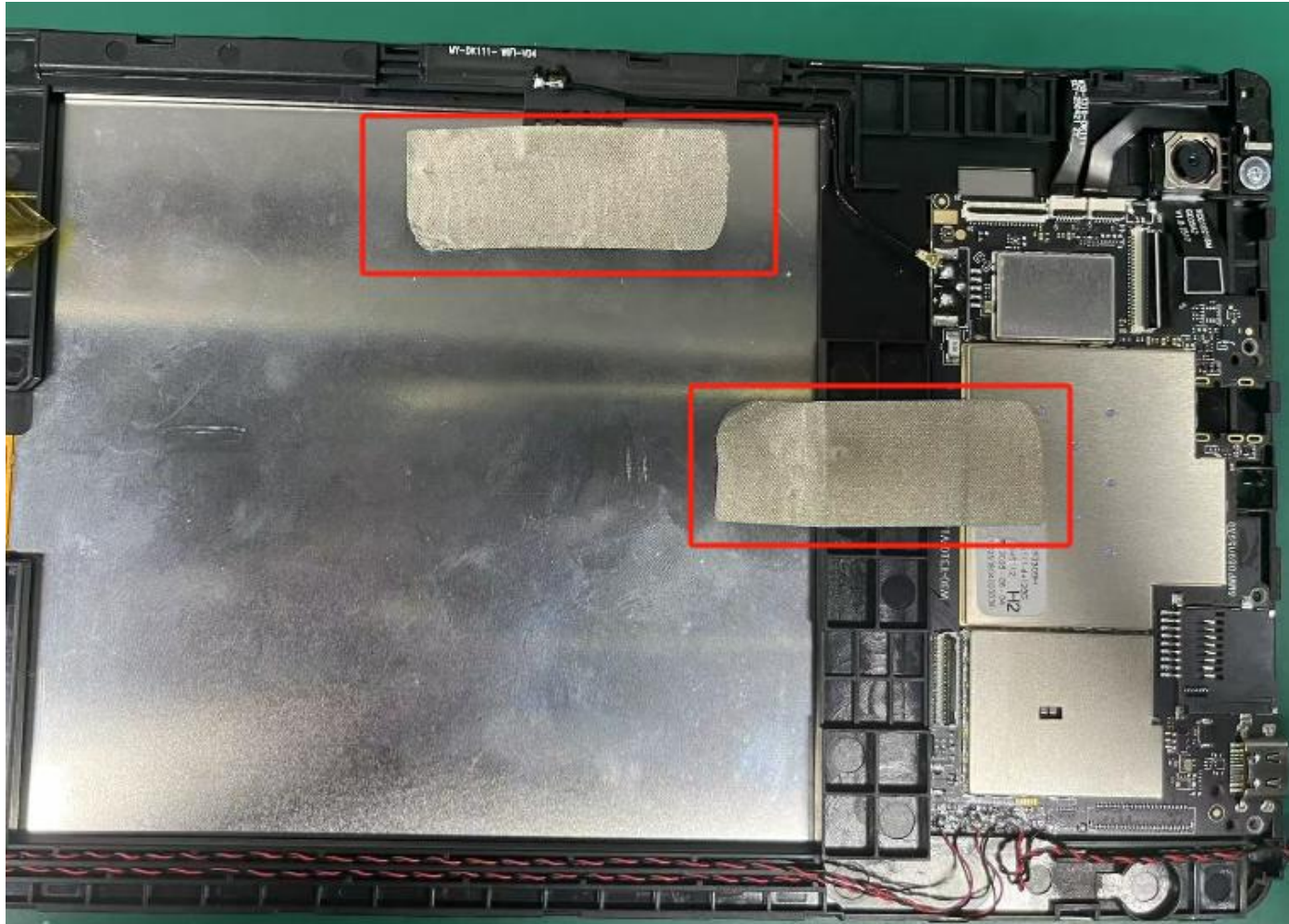


Figure: The red box is grounded with conductive cloth.



## WIFI passive Efficiency, Gain

| Frequency | Efficiency | Efficiency.dB | Gain.dB     | Frequency | Efficiency | Efficiency.dB | Gain.dB     |
|-----------|------------|---------------|-------------|-----------|------------|---------------|-------------|
| 2400      | 33.57%     | -4.740390754  | 0.017301268 | 5150      | 37.30%     | -4.283303446  | 1.426002043 |
| 2410      | 35.19%     | -4.535950783  | 0.063131043 | 5200      | 38.47%     | -4.148473676  | 1.282449704 |
| 2420      | 36.99%     | -4.319471604  | 0.385415726 | 5250      | 39.04%     | -4.08529447   | 1.180977867 |
| 2430      | 37.78%     | -4.227865439  | 0.581938198 | 5300      | 40.53%     | -3.922480362  | 1.713778692 |
| 2440      | 39.30%     | -4.056258219  | 0.804316347 | 5350      | 41.36%     | -3.834630618  | 2.090974995 |
| 2450      | 40.89%     | -3.883755051  | 1.027162585 | 5400      | 40.87%     | -3.886138752  | 2.050481523 |
| 2460      | 42.41%     | -3.724808117  | 1.229380786 | 5450      | 39.73%     | -4.008458017  | 2.206161063 |
| 2470      | 43.28%     | -3.637551486  | 1.354143932 | 5500      | 39.19%     | -4.06815094   | 2.501104161 |
| 2480      | 44.75%     | -3.492052246  | 1.525311786 | 5550      | 37.30%     | -4.283303446  | 1.426002043 |
| 2490      | 45.88%     | -3.383471838  | 1.6197107   | 5600      | 38.47%     | -4.148473676  | 1.282449704 |
| 2500      | 46.88%     | -3.290453522  | 1.706247717 | 5650      | 39.04%     | -4.08529447   | 1.180977867 |
|           |            |               |             | 5700      | 36.21%     | -4.412120804  | 2.139794123 |
|           |            |               |             | 5750      | 35.25%     | -4.528355156  | 1.869187411 |
|           |            |               |             | 5800      | 33.82%     | -4.707896188  | 1.762996881 |
|           |            |               |             | 5850      | 32.62%     | -4.864881444  | 1.564720072 |

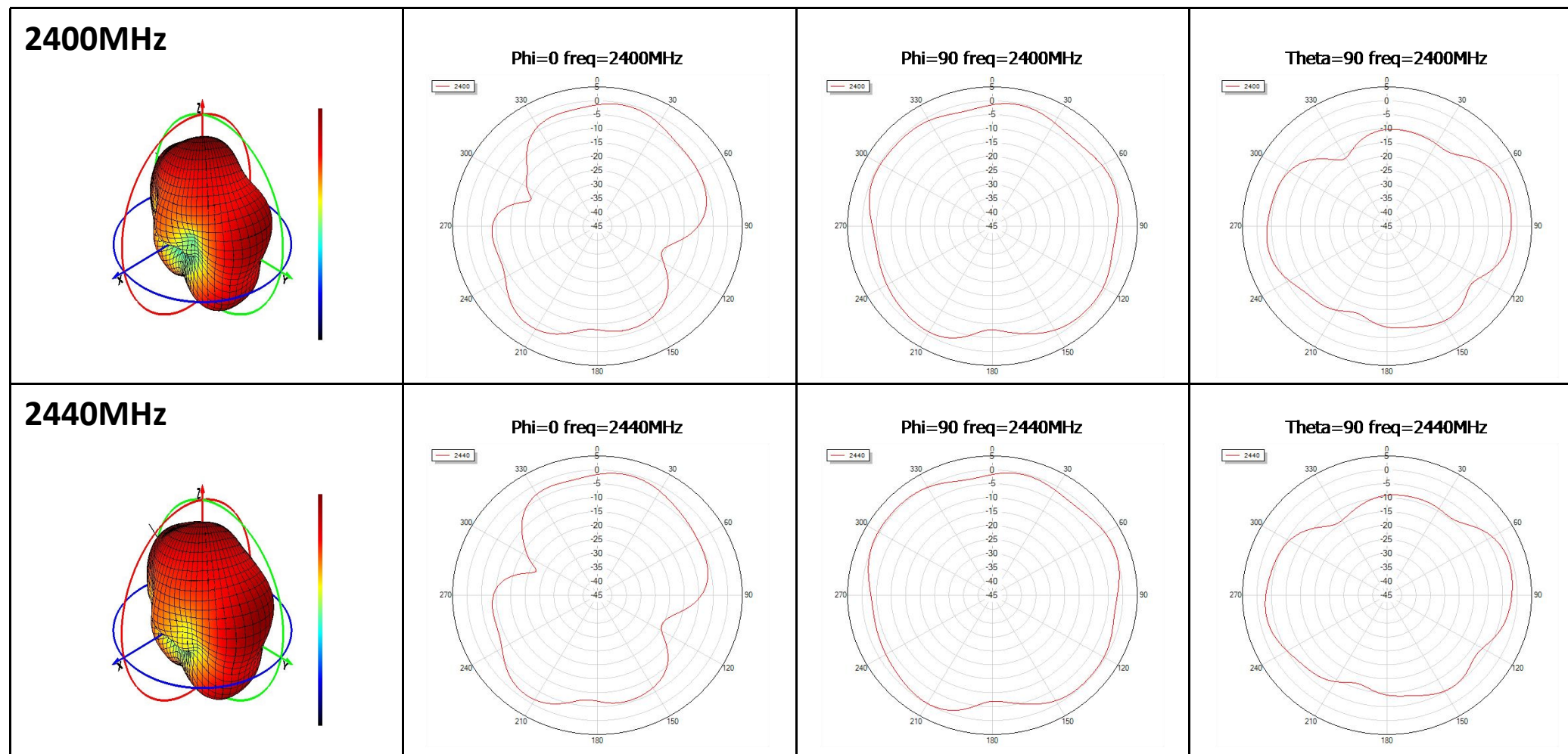
Measuring instrument : Agilent Technologies E5071B 300kHz-8.5GHz ENA Series Network Analyzer Darkroom system : MVG SG24LT (Satmio)



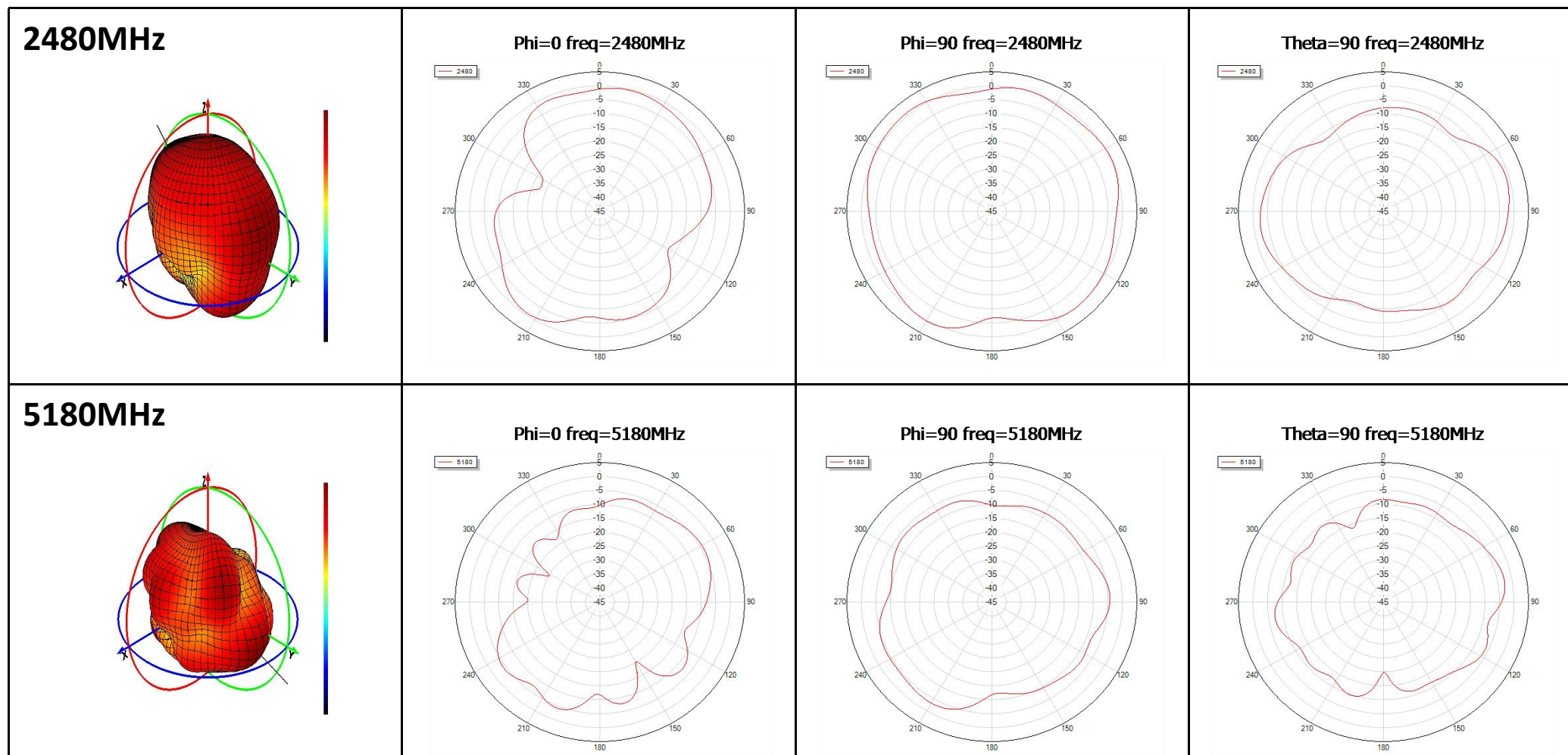
OTA

| 标准   | BAND    | WiFi_B(11M)   |       |        | WiFi_G(54M) |       |        |
|------|---------|---------------|-------|--------|-------------|-------|--------|
| 自由空间 | CHANNEL | L             | M     | H      | L           | M     | H      |
|      | TRP     | 14.53         | 14.0  | 14.23  | 11.58       | 11.29 | 11.72  |
|      | TIS     |               |       | -83.05 |             |       | -70.37 |
|      | BAND    | WiFi_N(MCS7)  |       |        | WiFi_A(54M) |       |        |
|      | CHANNEL | L             | M     | H      | L           | M     | H      |
|      | TRP     | 12.84         | 12.14 | 12.88  | 13.24       | 13.52 | 13.1   |
|      | TIS     |               |       | -65.36 |             |       | -70.76 |
|      | BAND    | WiFi_AC(MCS8) |       |        |             |       |        |
|      | CHANNEL | L             | M     | H      |             |       |        |
|      | TRP     | 13.03         | 13.73 | 13.28  |             |       |        |
|      | TIS     |               |       | -65.32 |             |       |        |

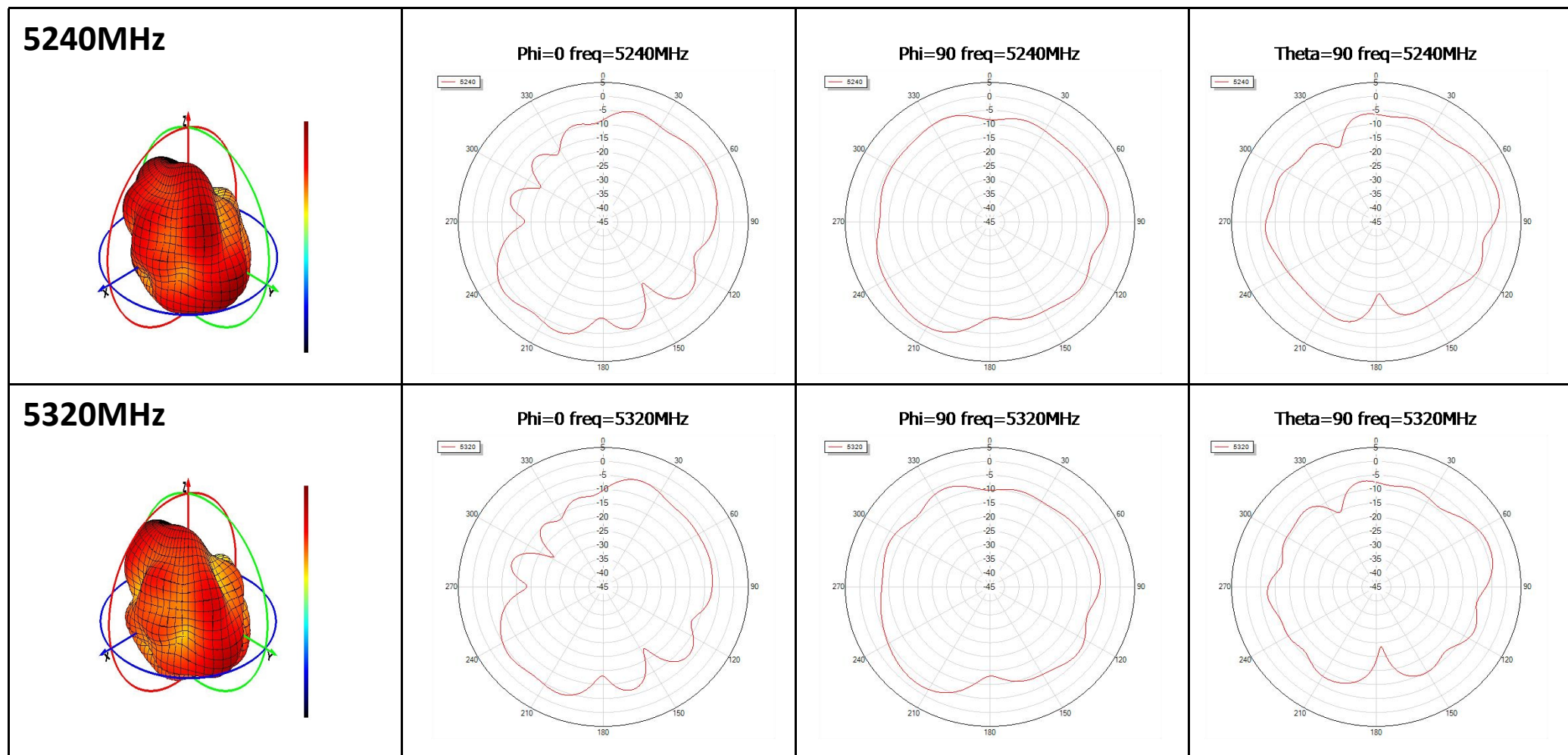
- Radiation Pattern



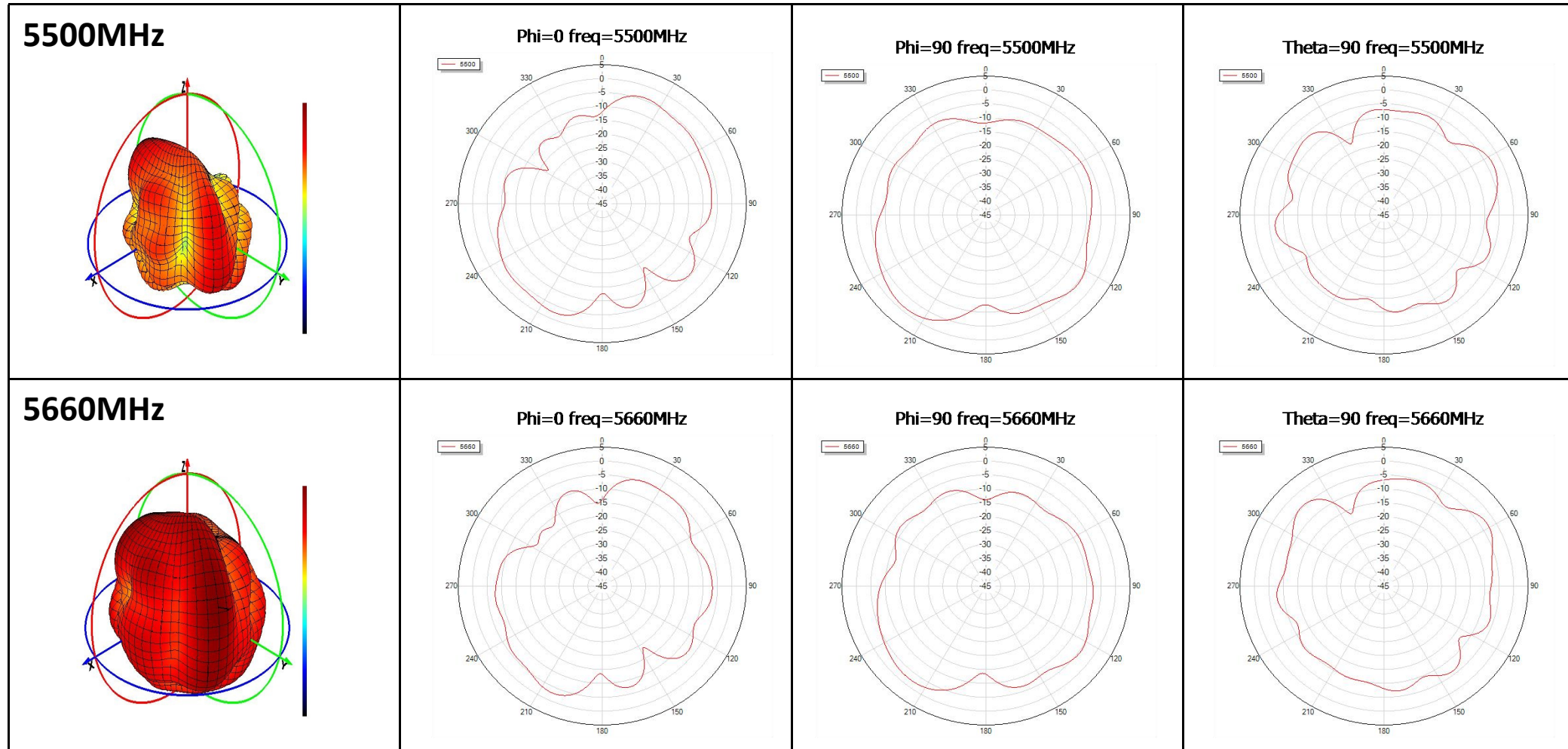
- Radiation Pattern



- Radiation Pattern

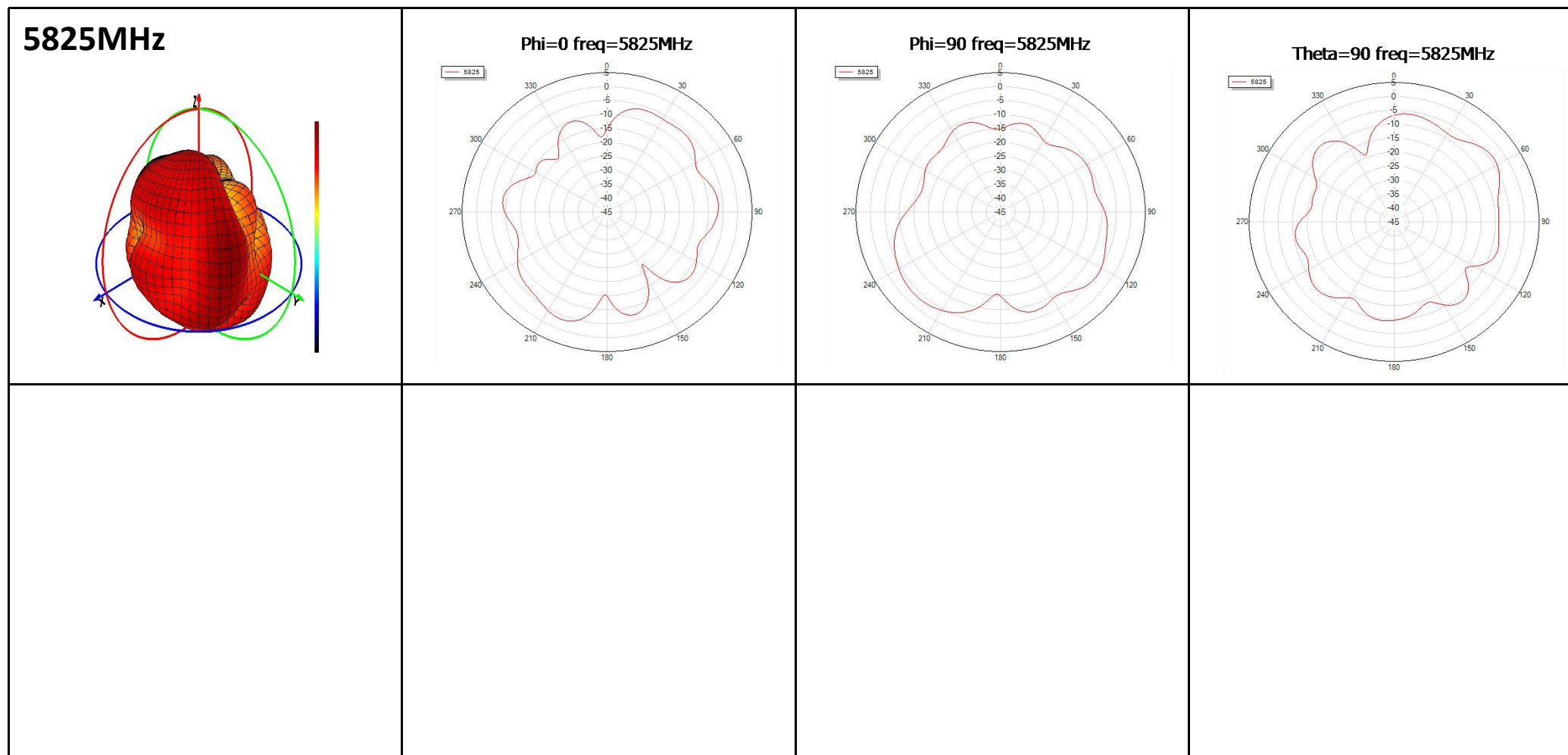


- Radiation Pattern





- Radiation Pattern





## Conclusion

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1. This report is the sample antenna test results .
2. If you have any questions, please call.

# THANK YOU



If you have any questions, please contact us  
Daily service hours : Monday to Saturday 9:00-18:00  
Switchboard Hotline : 0755-36615535    Fax: 0755-82916227  
 website : [www.mayaant.com](http://www.mayaant.com)

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