

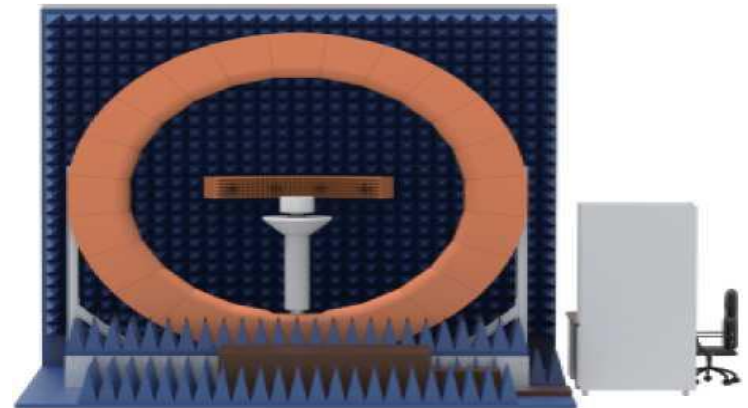
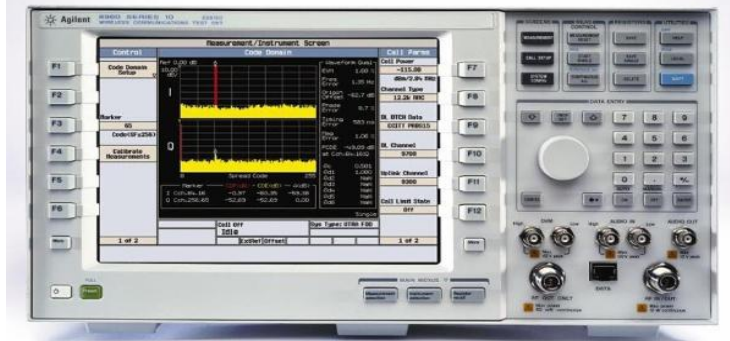


|                  |              |
|------------------|--------------|
| Customer         |              |
| Project          | H670         |
| Antenna Revision | A0           |
| Prepared by      | 18814303605  |
| Checked by       |              |
| Date :           | 2025. 07. 08 |

Shenzhen Helixun Technology Co., Ltd

## 2. Test 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       |



## ***Purpose***

This report is to measure the performance of antenna for **H670** The antenna operating frequency at 2400MHz-2500MHz 。 All test data are showed as below.

## ***Content***

1. Product Overview & Dimension
2. Test system
3. Test Result

### ***3.1 S11 Parameter***

### ***3.2 Gain & Efficiency***

### ***3.3 2D Pattern***

4. OTA

### ***4.1 Test Result***

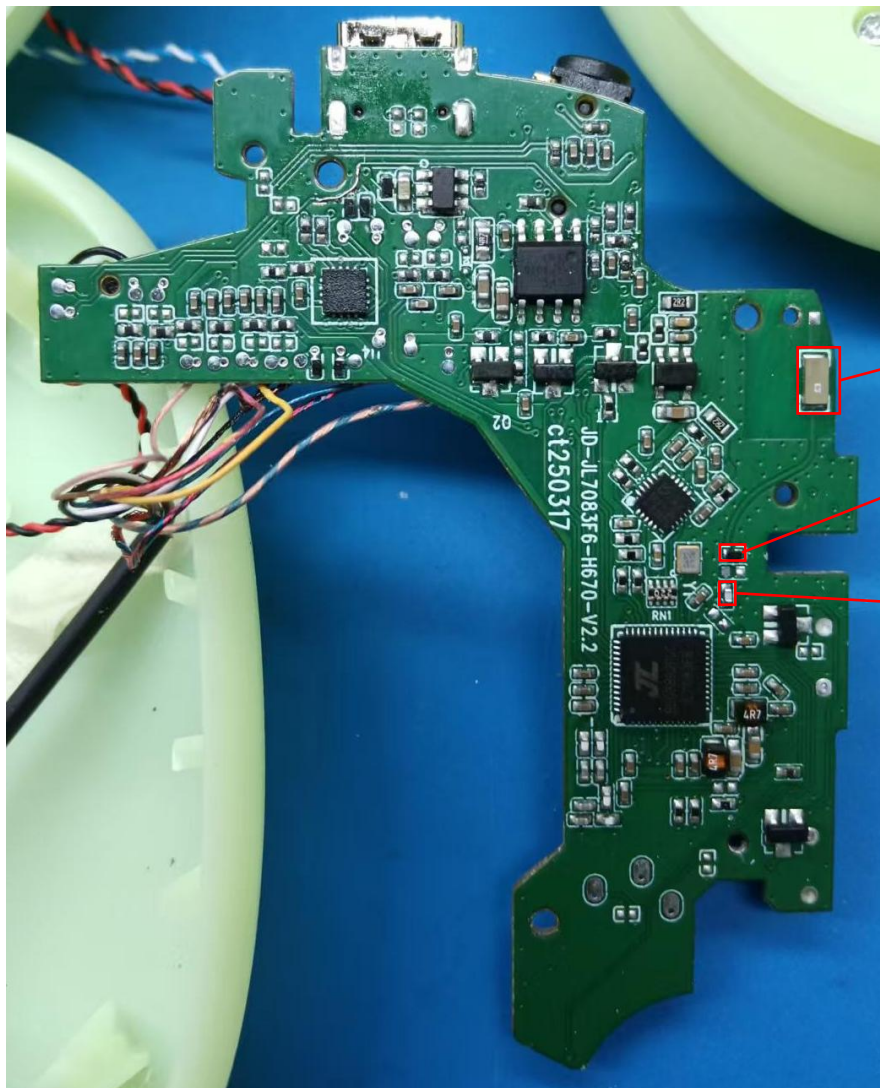
### ***4.2 2D Pattern***



H670



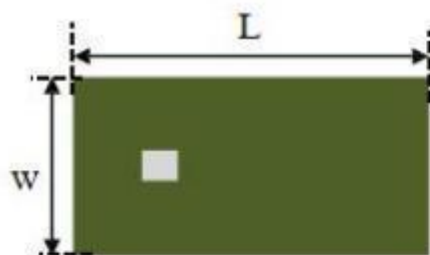
匹配图



A01

HT0521P1

2.7P



( Top View )



( Bottom View )



( Side View )

| Number | Terminal Name |
|--------|---------------|
| ①      | INPUT         |
| ②      | NC            |



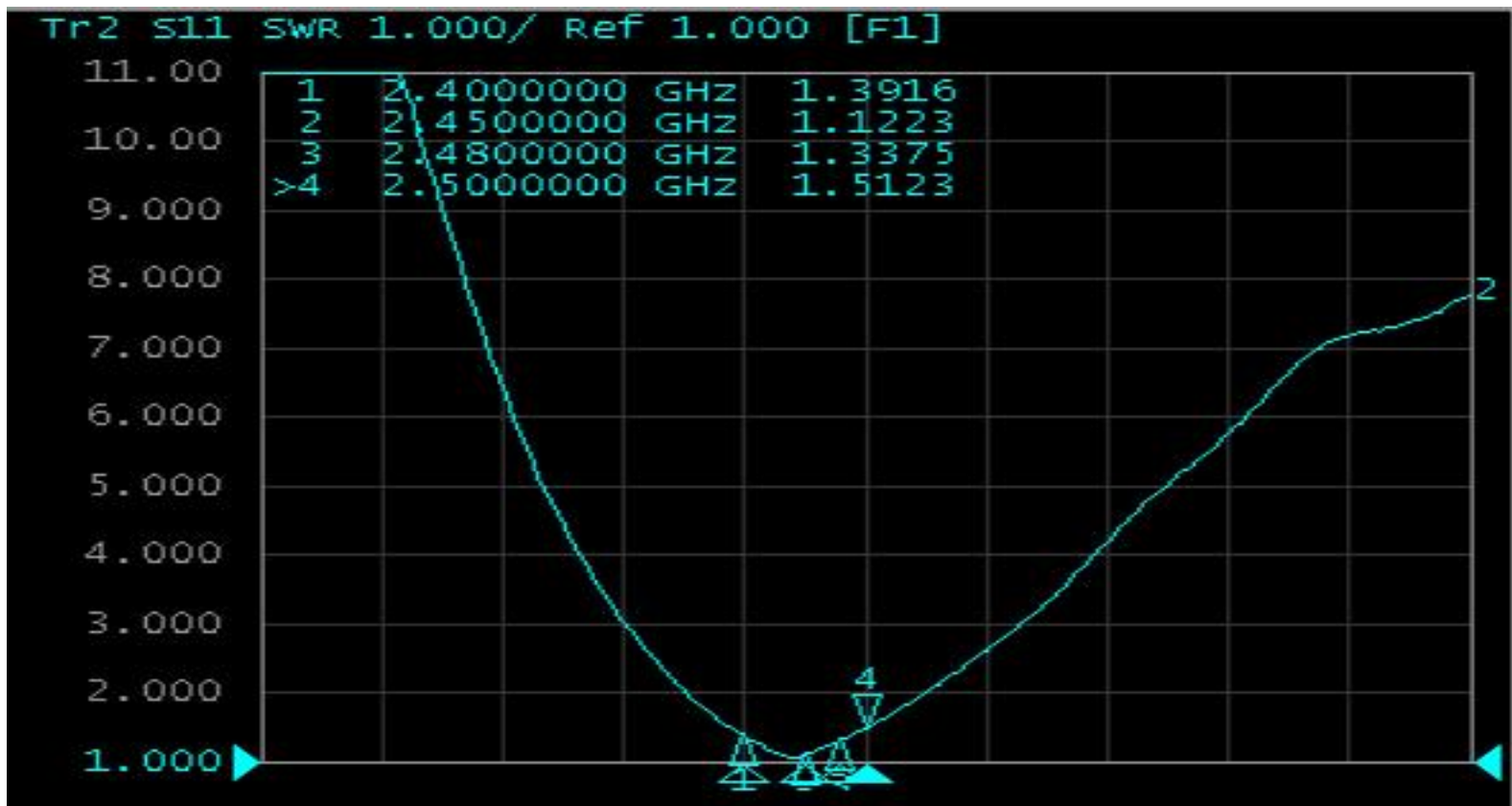
( Side View )

| Symbols    | L         | W         | T         | A         |
|------------|-----------|-----------|-----------|-----------|
| Dimensions | 3.2+/-0.2 | 1.6+/-0.2 | 0.6+/-0.1 | 0.5+/-0.1 |

Room 1004, Jinhuan Building, No. 56 Tiezai Road, Xixiang Street,  
Bao'an District, Shenzhen City, Guangdong Province

## 3.1 Test Result

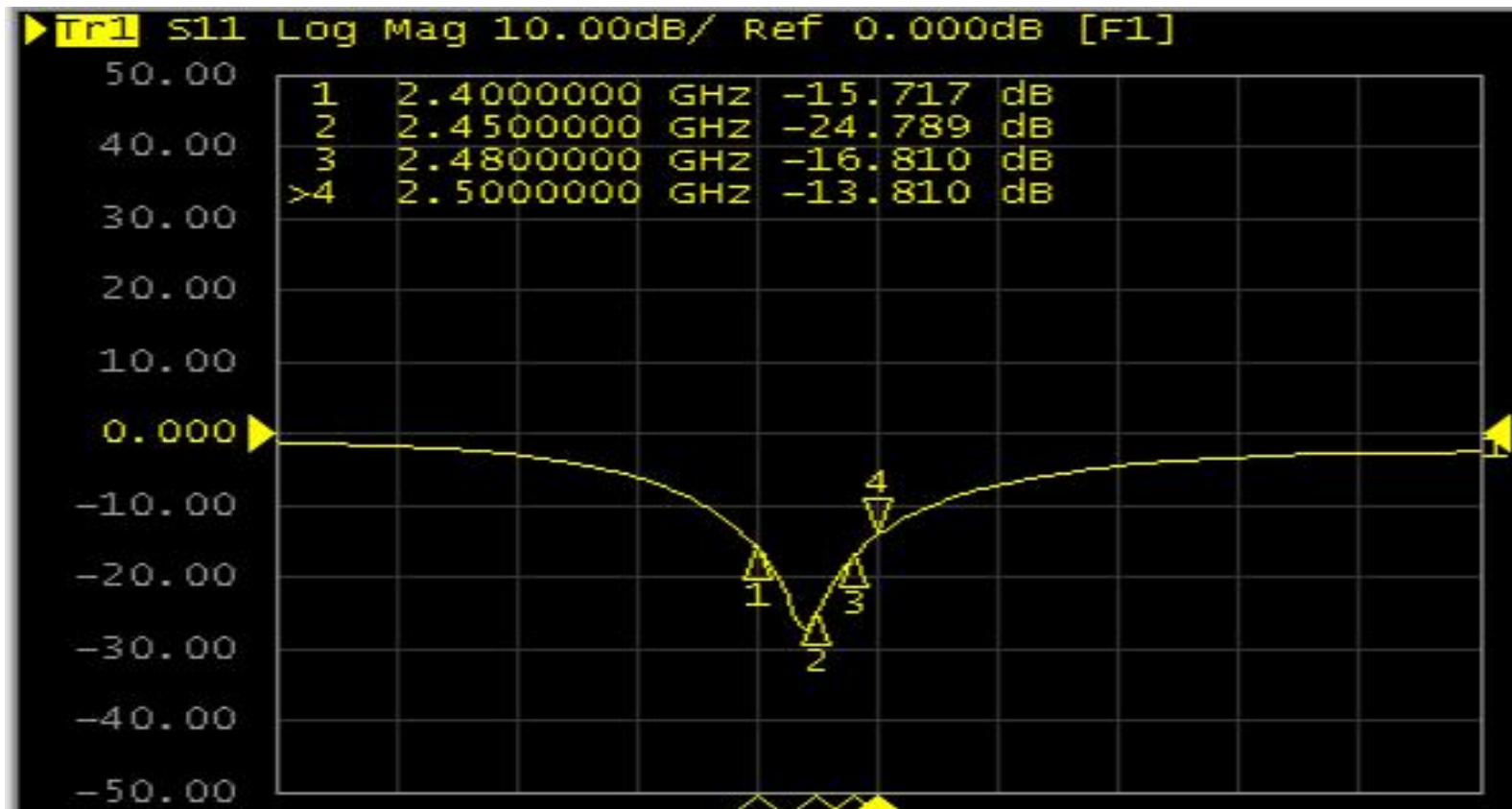
### 1 .S11 Parameter-VSWR



| Frequency (MHz) | 2400 | 2450 | 2480 | 2500 |
|-----------------|------|------|------|------|
| VSWR            | 1.39 | 1.12 | 1.33 | 1.51 |

## 3.1 Test Result

### 2. S11 Parameter-Log Mag

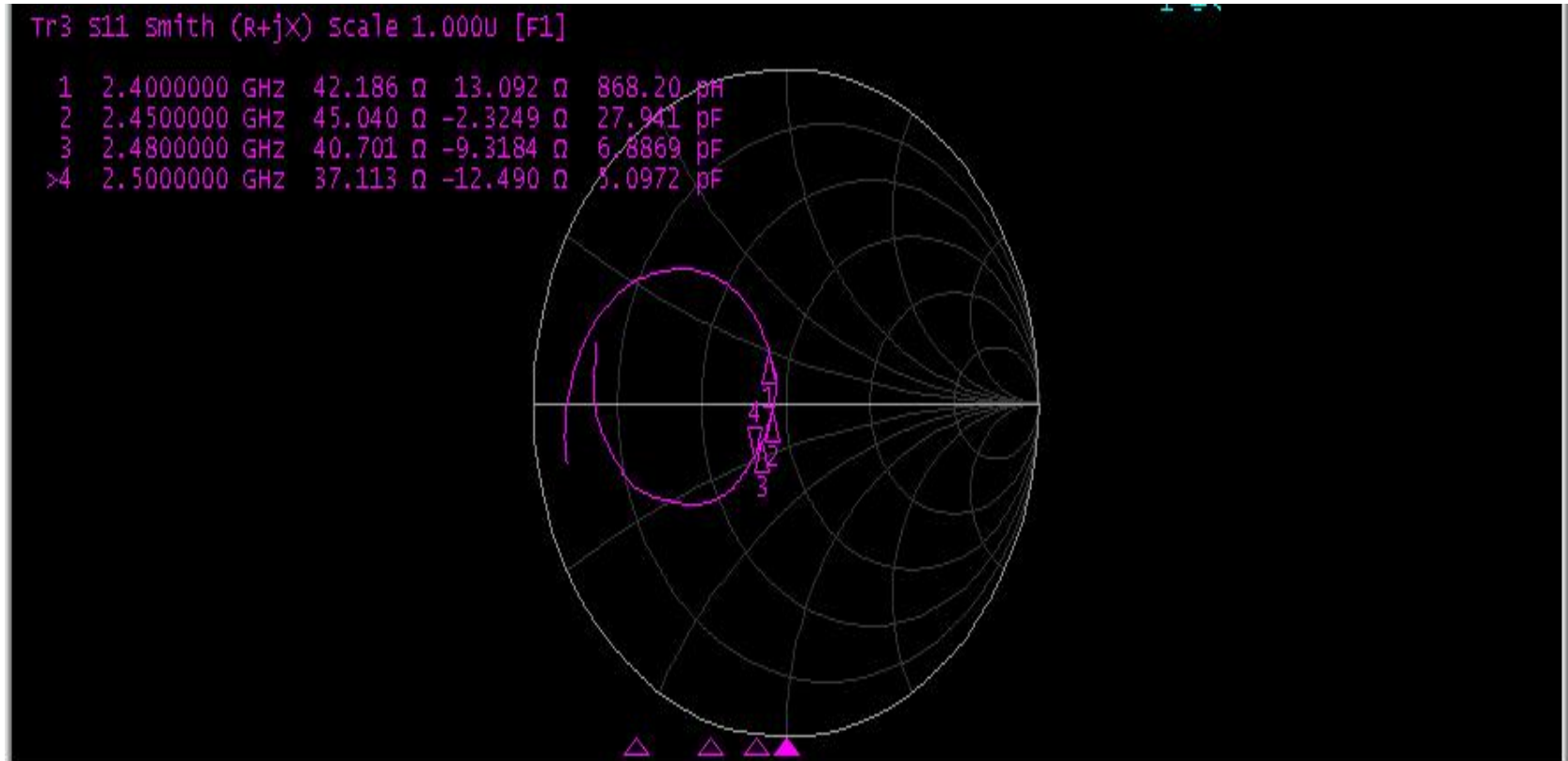


| Frequency (MHz) | 2400   | 2450   | 2480   | 2500   |
|-----------------|--------|--------|--------|--------|
| Log Mag         | -15.71 | -24.78 | -16.81 | -13.81 |



## 3.1 Test Result

### 3.S11 Parameter-Smith



| Frequency (MHz) | 2400  | 2450  | 2480  | 2500  |
|-----------------|-------|-------|-------|-------|
| Smi th(Ω)       | 42.18 | 45.04 | 40.70 | 37.11 |

## 3.2 Test Result

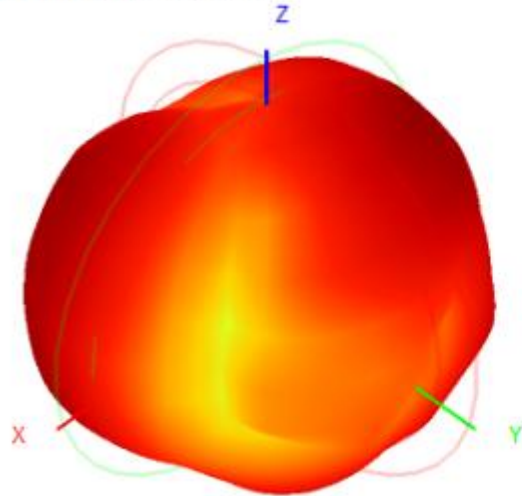
### 1 Gain & Efficiency—**ANT**

| Frequency (MHz) | Efficiency (%) | Peak GAIN (dBi) |
|-----------------|----------------|-----------------|
| 2400            | 37.38          | 0.30            |
| 2410            | 38.09          | 0.17            |
| 2420            | 38.89          | -0.02           |
| 2430            | 39.87          | 0.31            |
| 2440            | 40.73          | 0.77            |
| 2450            | 41.51          | 1.19            |
| 2460            | 42.43          | 1.34            |
| 2470            | 42.96          | 1.15            |
| 2480            | 43.31          | 0.80            |

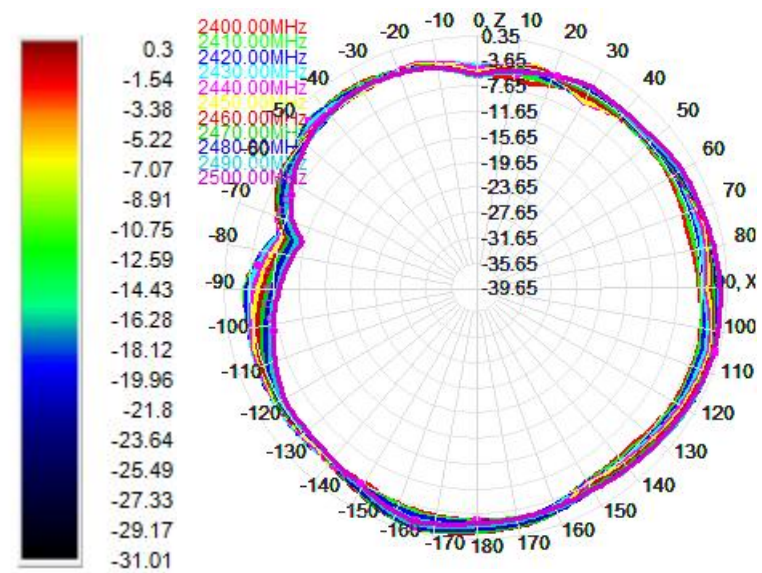
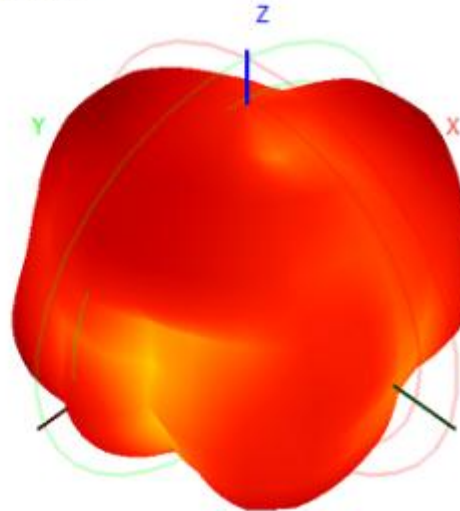
# 3.3 Test Result

## 1 2D Pattern——BTANT

2400.0MHz Total, Eff: 37.4%



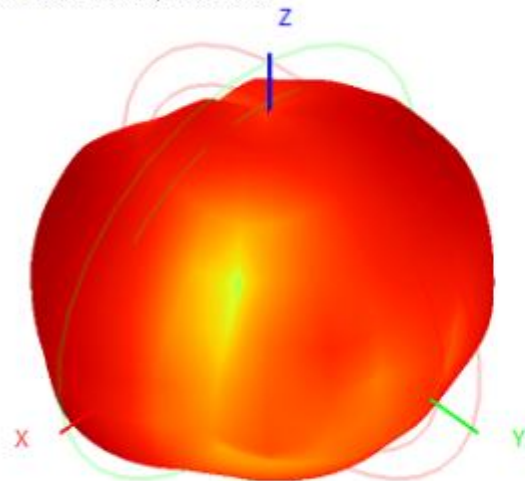
Back View



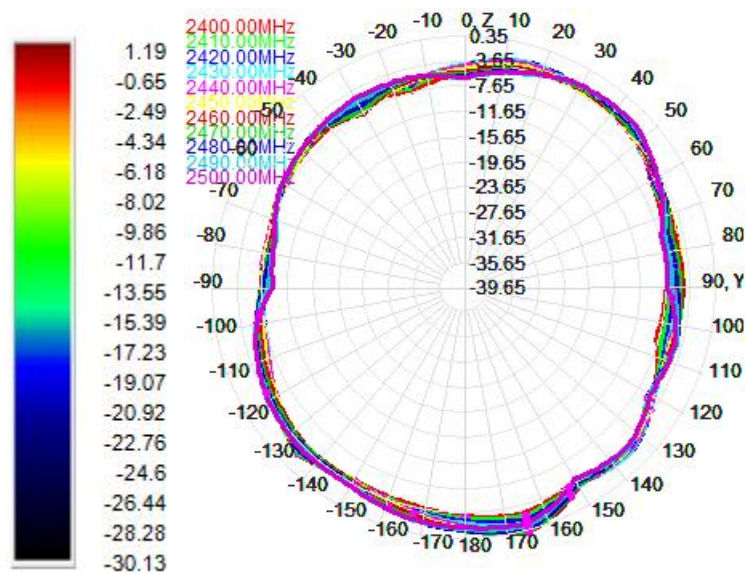
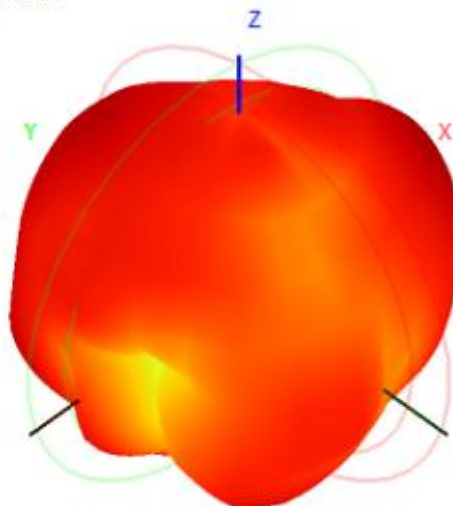
# 4.3 Test Result

## 2 2D Pattern—BTANT

2450.0MHz Total, Eff: 41.5%



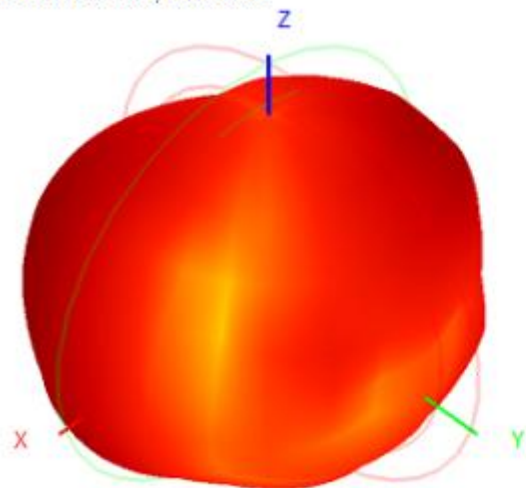
Back View



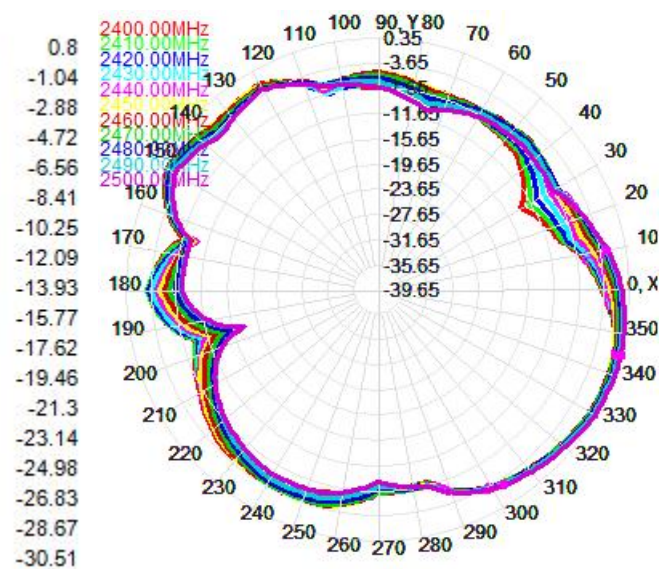
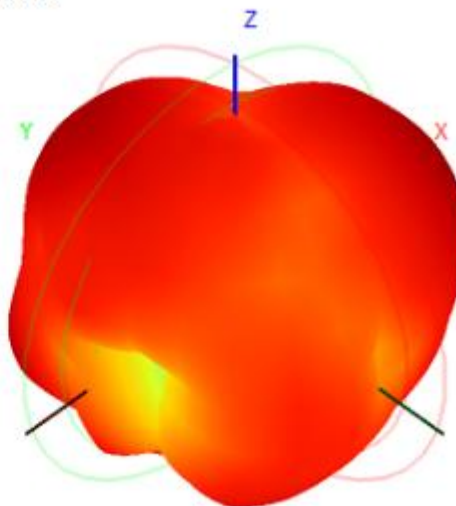
## 4.3 Test Result

### 3 2D Pattern—BTANT

2480.0MHz Total, Eff: 43.3%



Back View





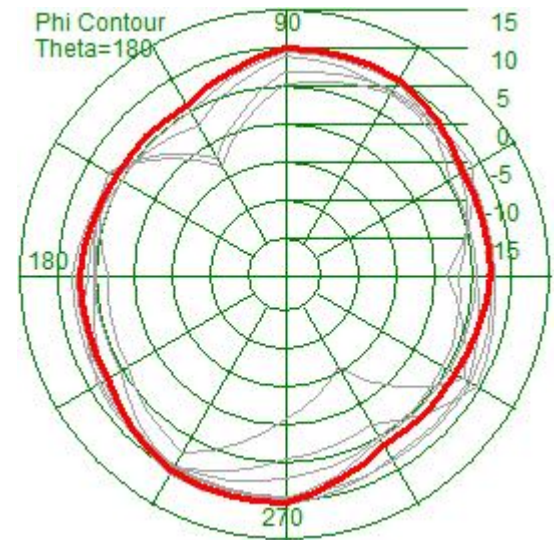
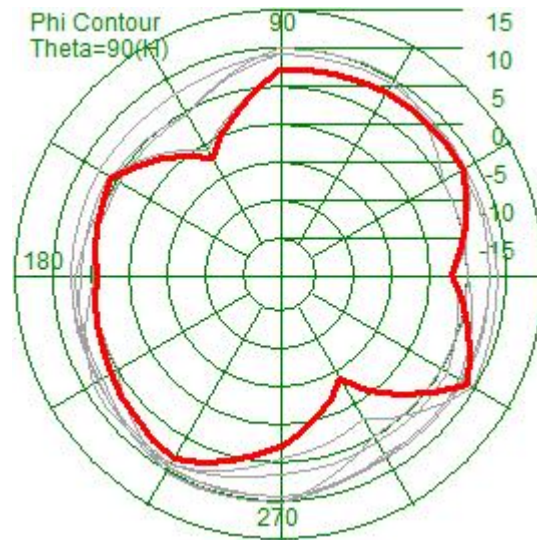
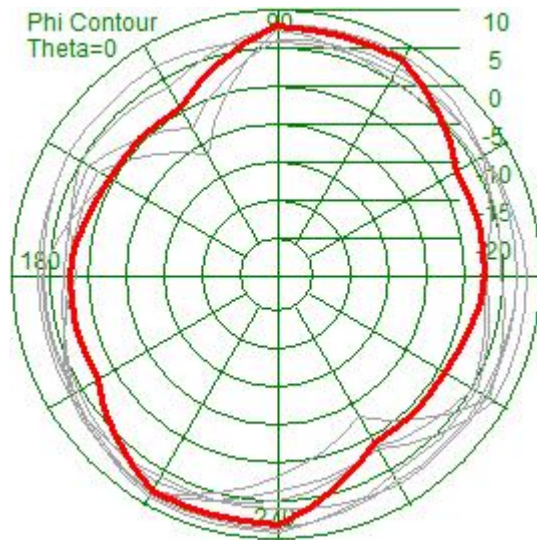
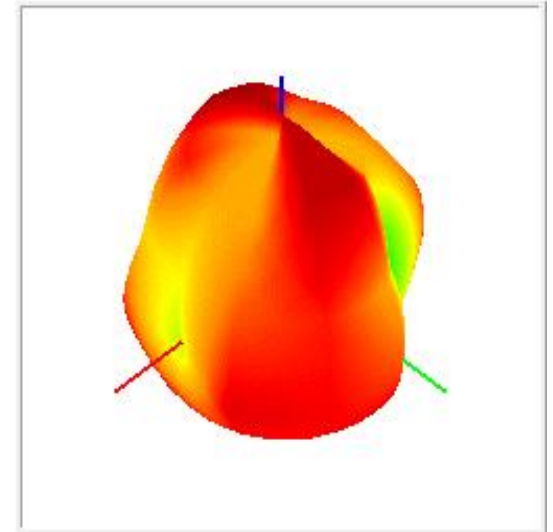
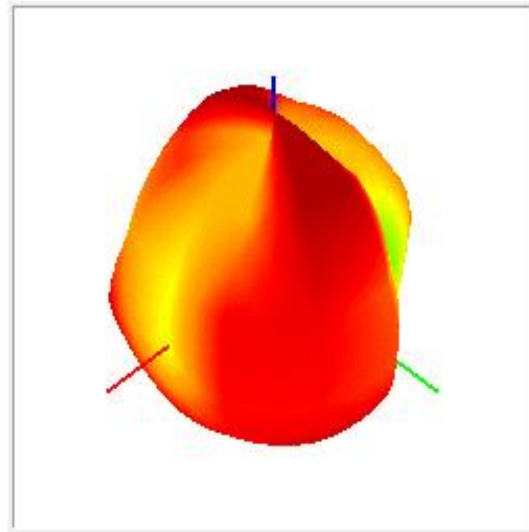
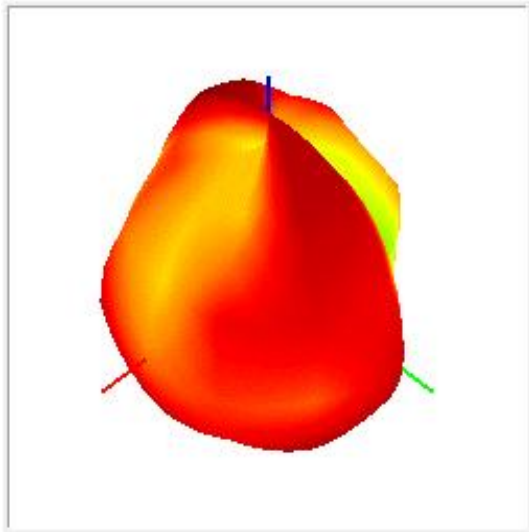
## 4.1 OTA Data

|                 |             |          |          |
|-----------------|-------------|----------|----------|
| Test Equipment: | R&S CMW500  |          |          |
| Test Condition: | 2 D chamber |          |          |
| Band            | Channel     | TRP(dBm) | TIS(dBm) |
| BT              | 0           | 5.50     | -92.55   |
|                 | 39          | 6.95     | -93.27   |
|                 | 78          | 6.72     | -91.98   |

## 4.2 Test Result

1 2D Pattern——**BTANT**

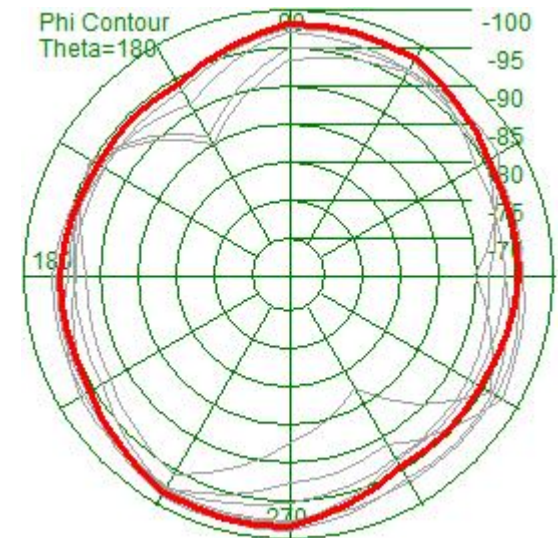
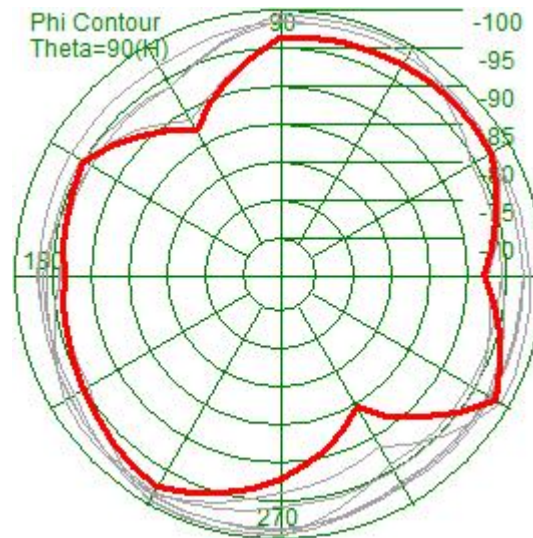
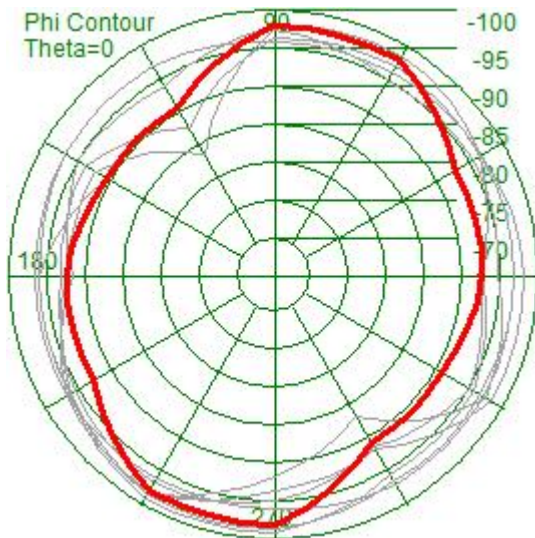
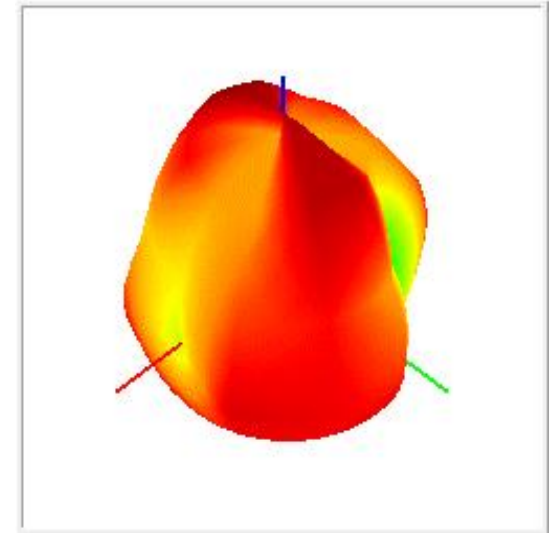
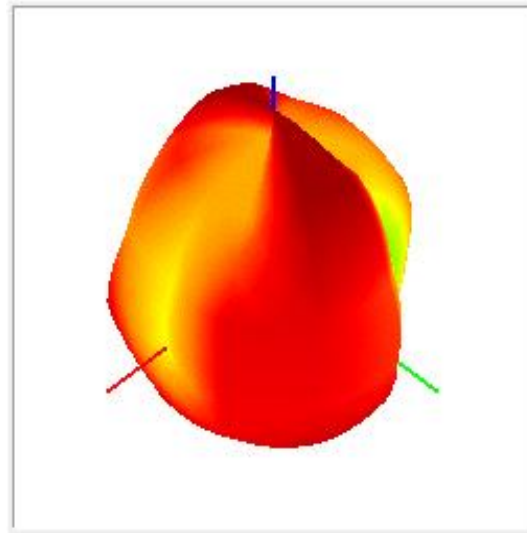
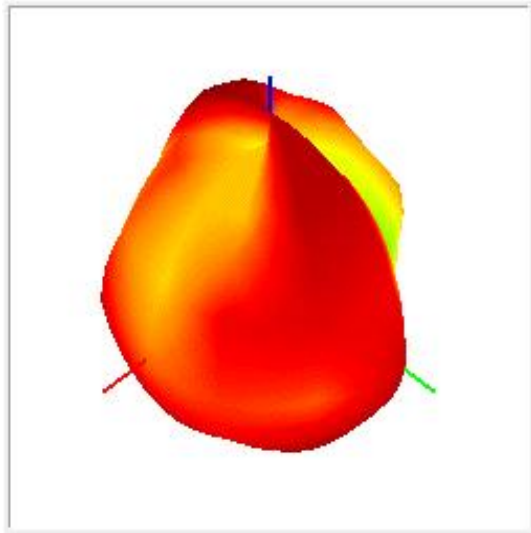
TRP



## 4.2 Test Result

2 2D Pattern——**BTANT**

TIS



*Thank you!*