

# YONG CHENG INTERNATIONAL(OTA)

## 新锐芯-YX测试报告

Antenna Test Report



| Test item |                                                                       |
|-----------|-----------------------------------------------------------------------|
| 1         | Matching parameter                                                    |
| 2         | Network debugging antenna S parameters                                |
| 3         | Microwave darkroom test OTA active data                               |
| 4         | Measurement of antenna efficiency field pattern in microwave darkroom |
| 5         | measuring distance                                                    |
| 6         | Assembly item                                                         |
| 7         | summary of commissioning test                                         |



|          |     |              |    |
|----------|-----|--------------|----|
| Customer | XRX | Project name | S8 |
|----------|-----|--------------|----|

frequency  
band

2400MHZ-2500MHZ

engineer:

CK

Date

2024/08/02

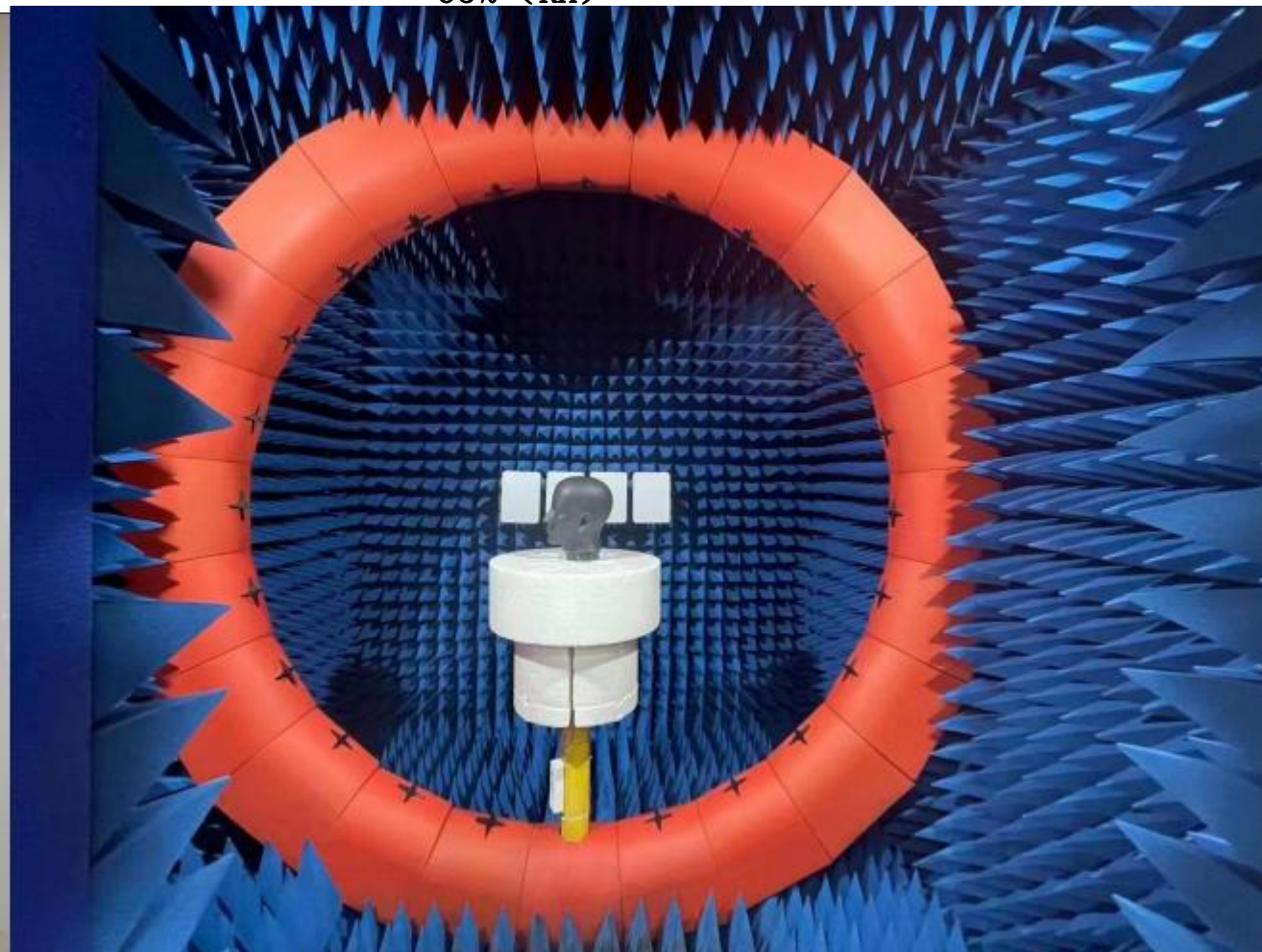
phone:

13530576606



# 1.测试工具

|             |                                          |
|-------------|------------------------------------------|
| 矢量网络分析仪&综测仪 | Agilent Technologies E5071B & R&S CMW500 |
| 暗室          | Atenlab M3                               |
| 测试工程师       | CK                                       |
| 温度          | 25℃                                      |
| 湿度          | 65% (RH)                                 |

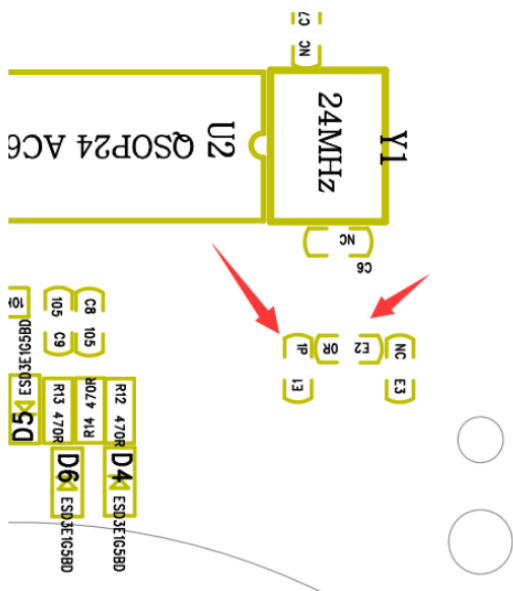




## Antenna Placement

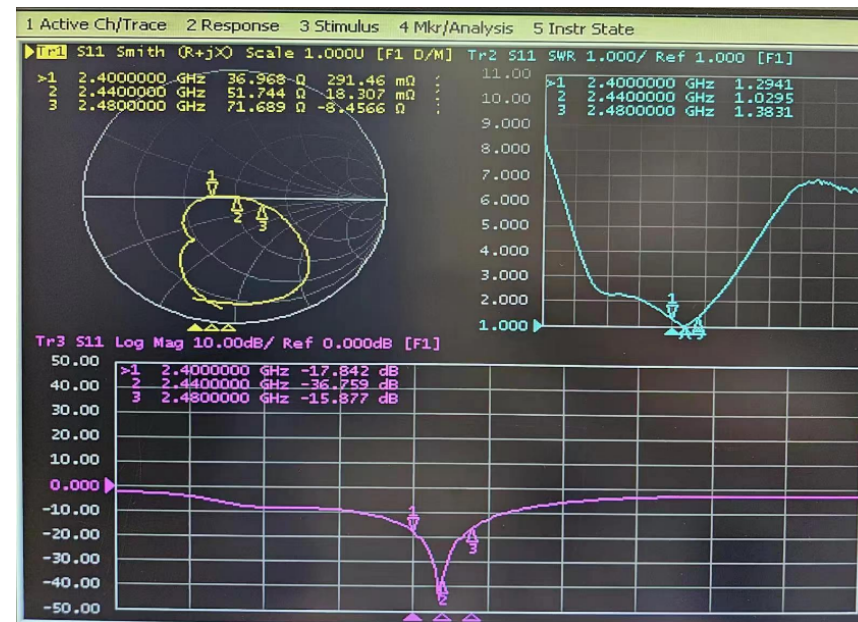
ANT:

Matching Circuit: 参数





S11、SWR、smith chart:





# Antenna active test data

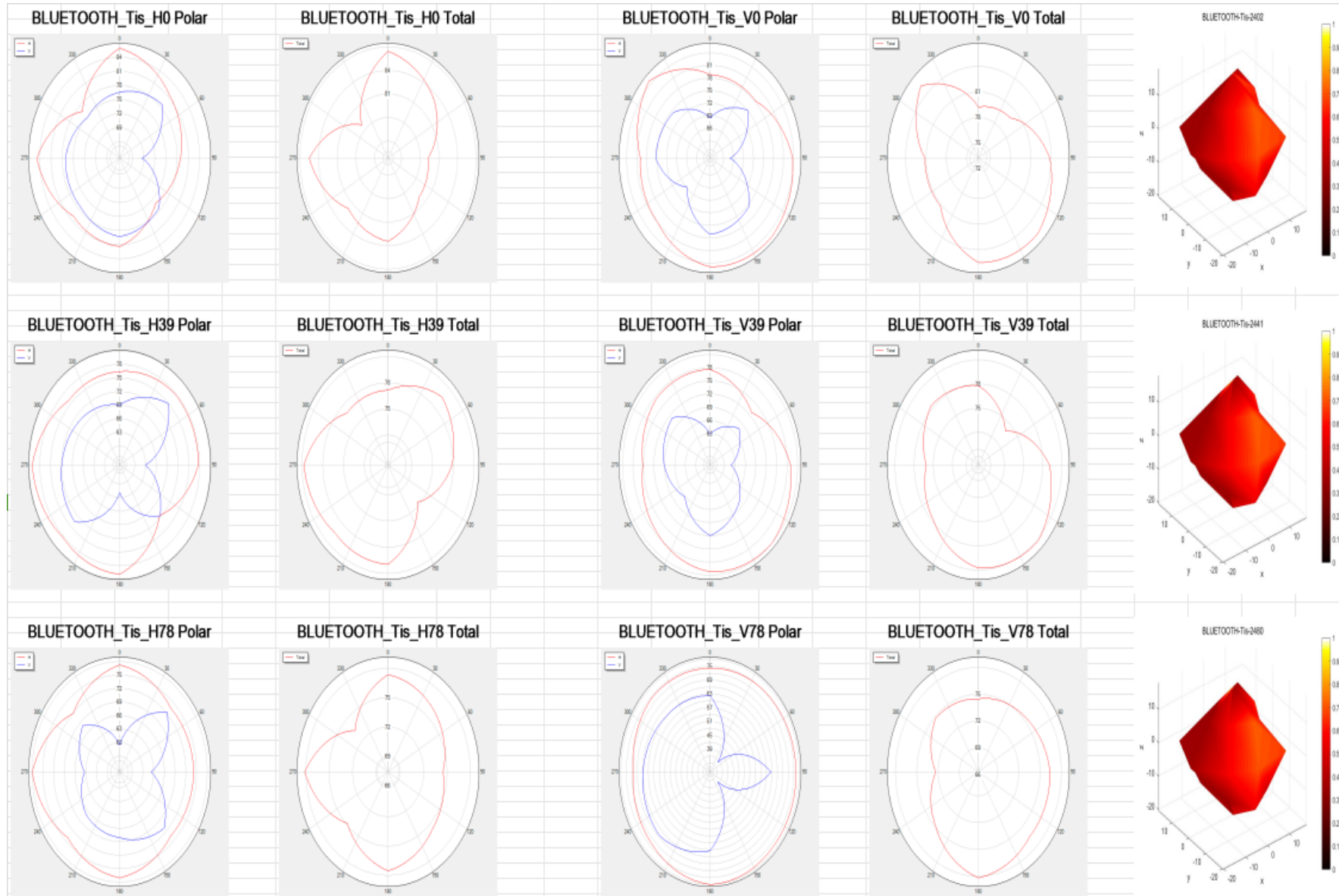
ANT EIRP&EIS parameter Summary (free field)

| Standard | Chan | Freq | Type     | TRP/TIS |
|----------|------|------|----------|---------|
| BT       | 0    | 2402 | Trp      | 0.09    |
| BT       | 39   | 2441 | Trp      | -0.37   |
| BT       | 78   | 2480 | Trp      | -1.91   |
| BT       | 0    | 2402 | Tis_Rssi | -75.78  |
| BT       | 39   | 2441 | Tis_Rssi | -79.45  |
| BT       | 78   | 2480 | Tis_Rssi | -76.01  |



#

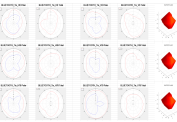
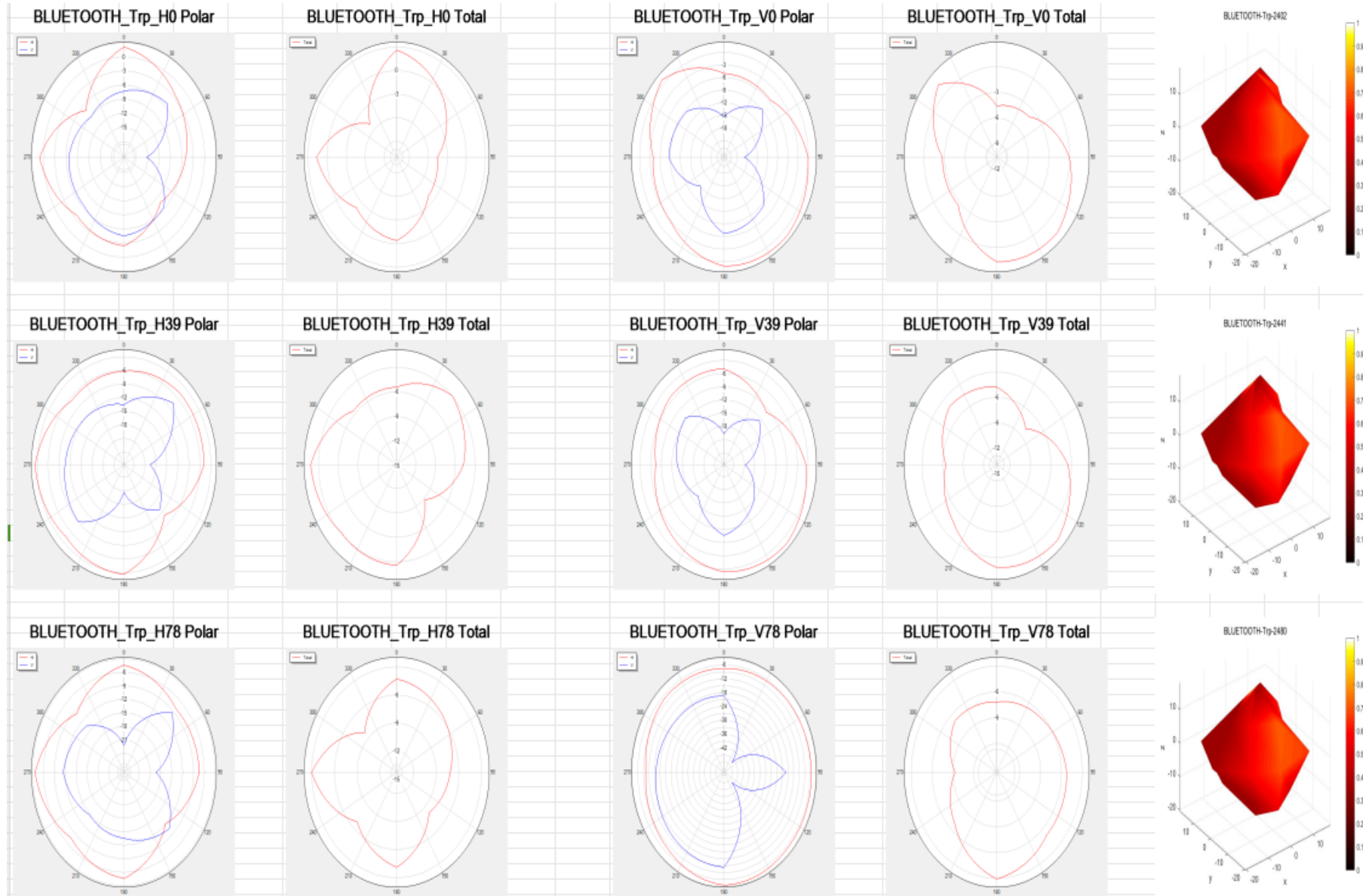
# -TIS The antenna pattern of the free field





#

# -TRP The antenna pattern of the free field





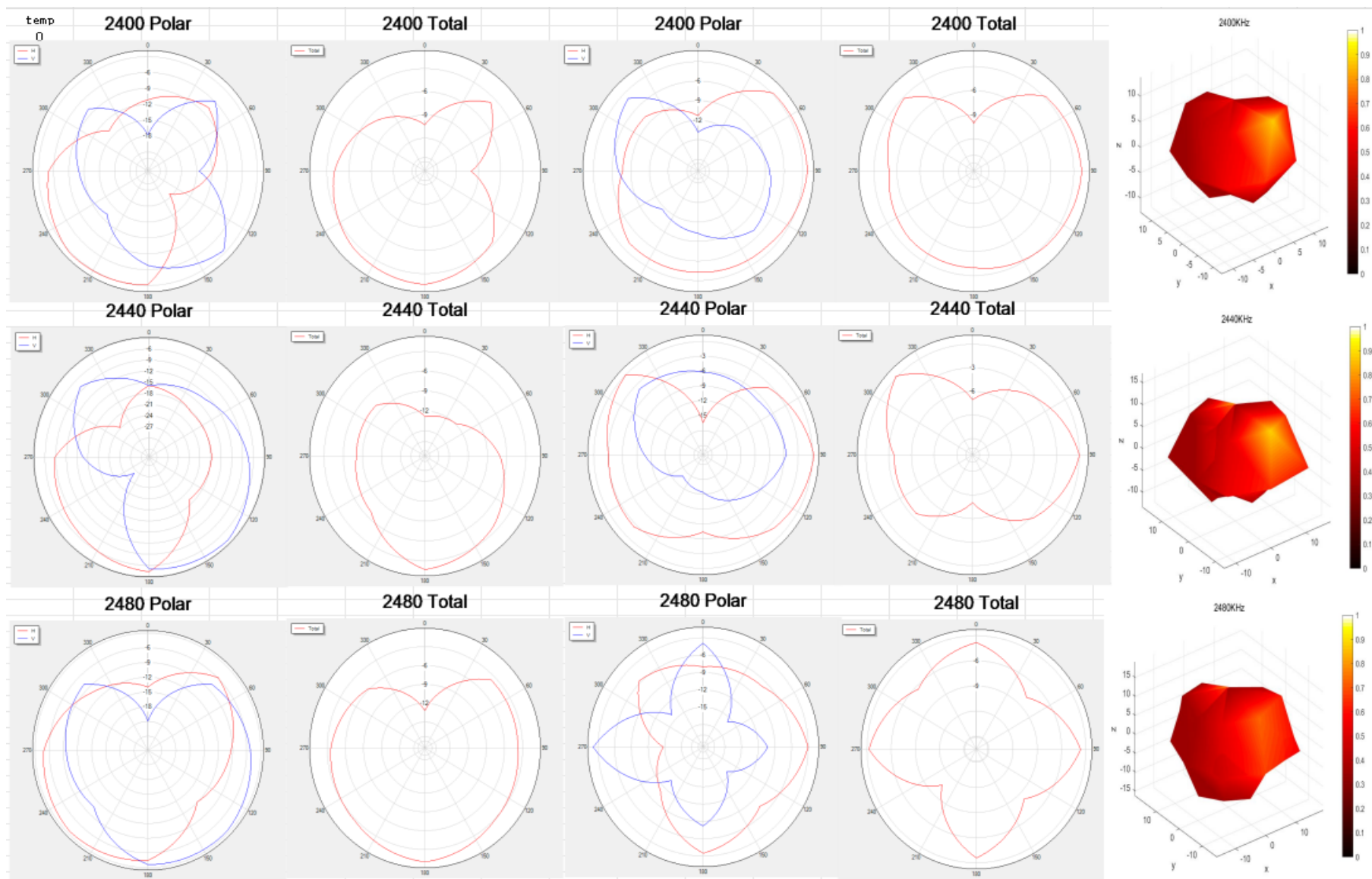
# Antenna efficiency gain

## 天线效率与增益图



| Frequency | Effic | Percen | Gain  |
|-----------|-------|--------|-------|
| 2400      | -5.64 | 27.27% | -1.05 |
| 2410      | -5.31 | 29.45% | -0.94 |
| 2420      | -4.76 | 33.45% | -0.6  |
| 2430      | -4.79 | 33.2%  | -0.56 |
| 2440      | -5.43 | 28.62% | -0.73 |
| 2450      | -5.33 | 29.34% | -0.43 |
| 2460      | -5.72 | 26.81% | -0.19 |
| 2470      | -5.87 | 25.91% | 0     |
| 2480      | -5.57 | 27.73% | 0.46  |

► Antenna radiation pattern 2400.00MHz/2440.00MHz/2480.00MHz



# measuring distance

## a. Environme

| test project | Trying hard not to hear |  | Pocket test requirement |    | descr                                            |
|--------------|-------------------------|--|-------------------------|----|--------------------------------------------------|
| S8           |                         |  | right front             | OK | The iPhone5 was tested over 12meters in the park |
|              | OK                      |  | front-left              | OK |                                                  |
|              |                         |  | right rear              | OK |                                                  |
|              |                         |  | left rear               | OK |                                                  |

## b. summarize

S8 machine actual test, OTA data test, basically distance matching, our park grass test effect is excellent

assembly method

# Thank you for watching

Wish you enjoy your life

2023-5-12