

# 深圳市亿圣邦科技有限公司

## Shenzhen Yishengbang Technology Co., Ltd Antenna Test Report

Customer: 同创依诺

Project: M8002

Product: 4G WIFI +GPS Antenna

Report date: 2024.11.20

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Checked by : 黄震

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# ***Purpose***

This report is to measure the performance of SLK for Master Antenna on同创依诺. All measure data are showed below.

## ***Content***

### 1.Product Overview

### 2.Test Result （WiFi/GPS）

2.1 WIFI+GPS Antenna VSWR/S11

2.2 WIFI+GPS Antenna Gain/Efficiency/3D DATE

2.3 WIFI Antenna TIS/TRP

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### 3.Test Result(LTE)

3.1 LTE MAIN/AUX Antenna VSWR/S11

3.1 LTE Antenna Gain/Efficiency/3D DATE

3.1 LTE Antenna TIS/TRP

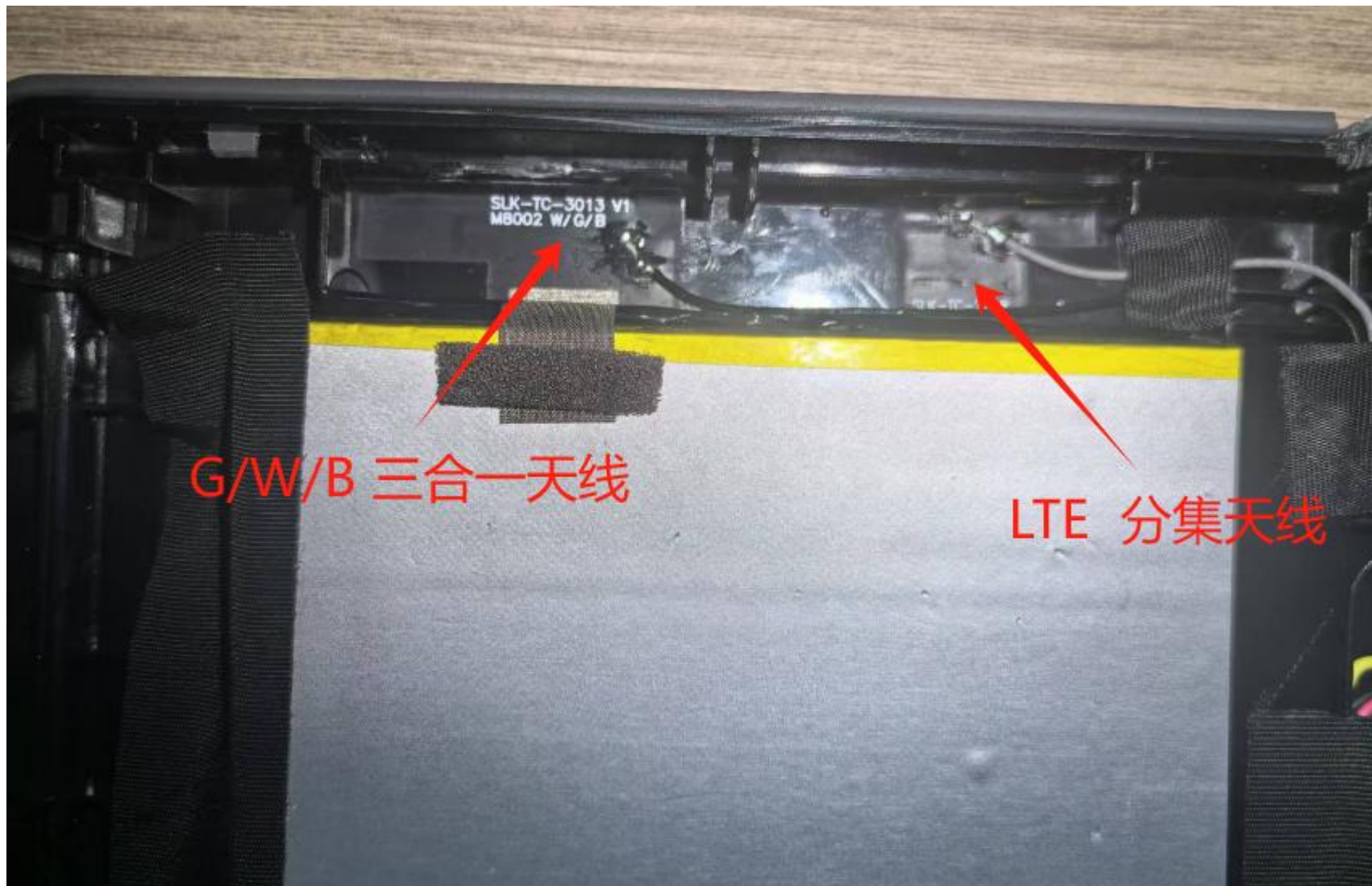
### 4.Conclusions

# 1. Product Overview & Dimension



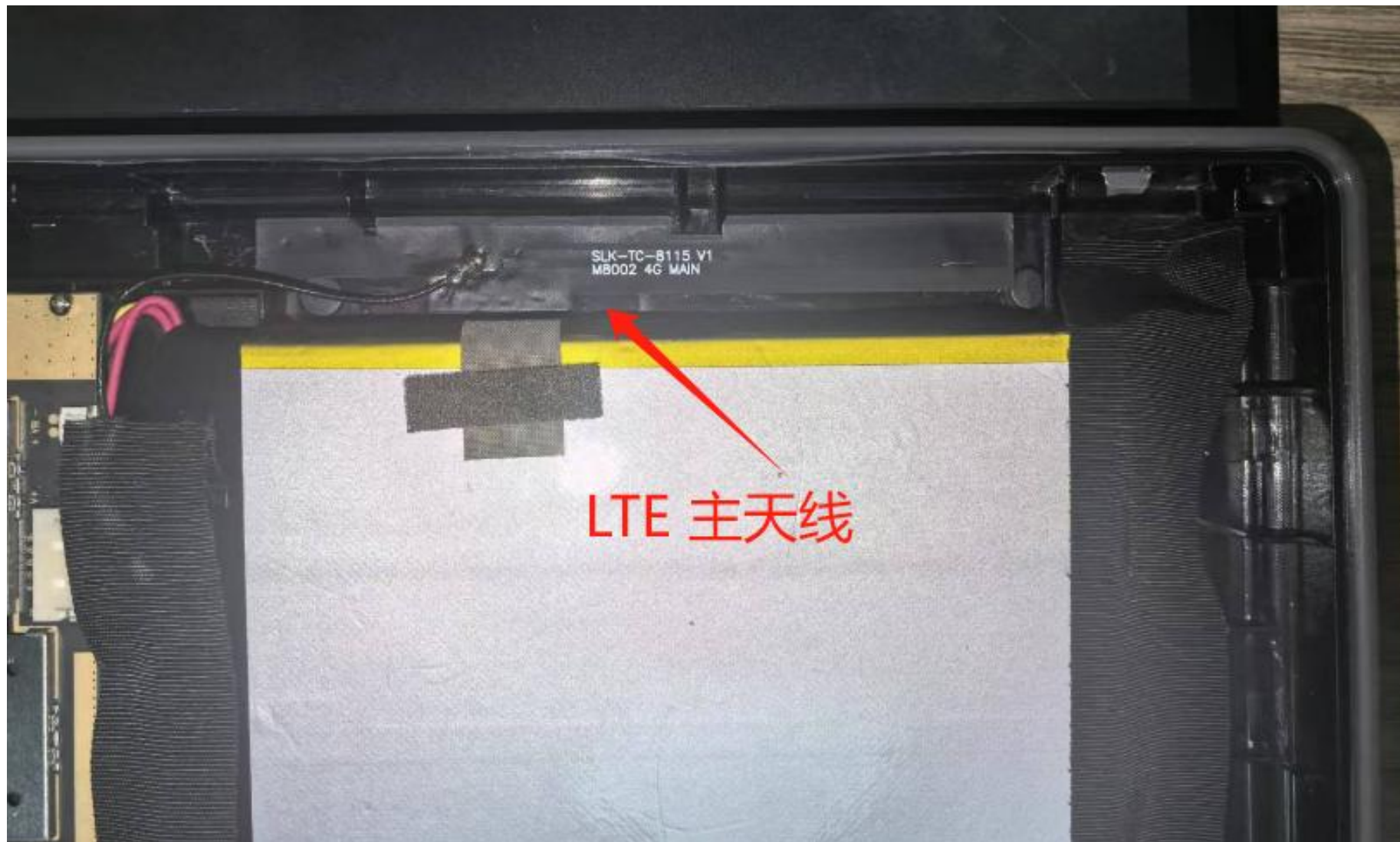
# 1. Product Overview & Dimension

天线贴放位置和机器环境处理照片



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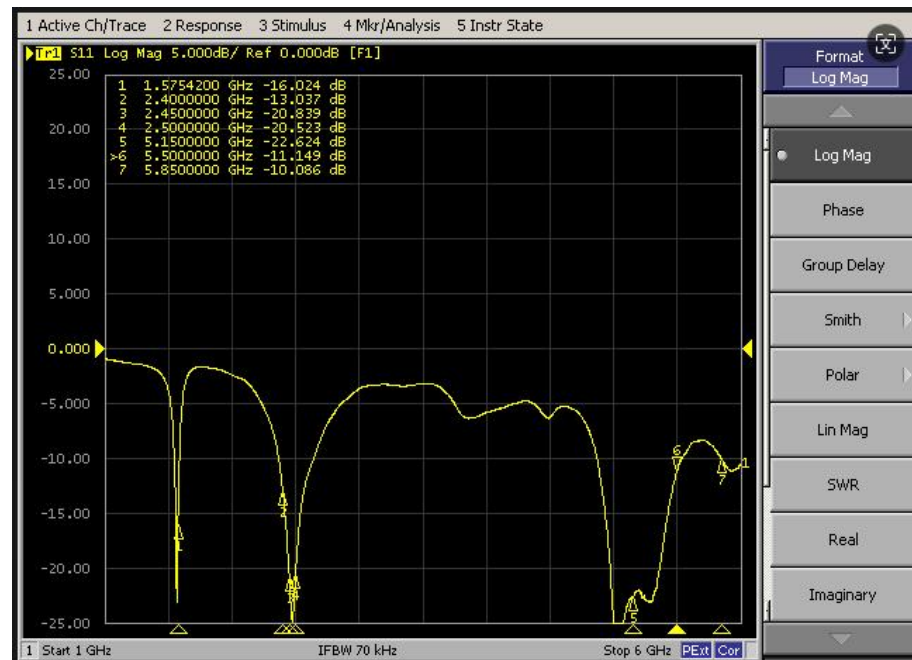
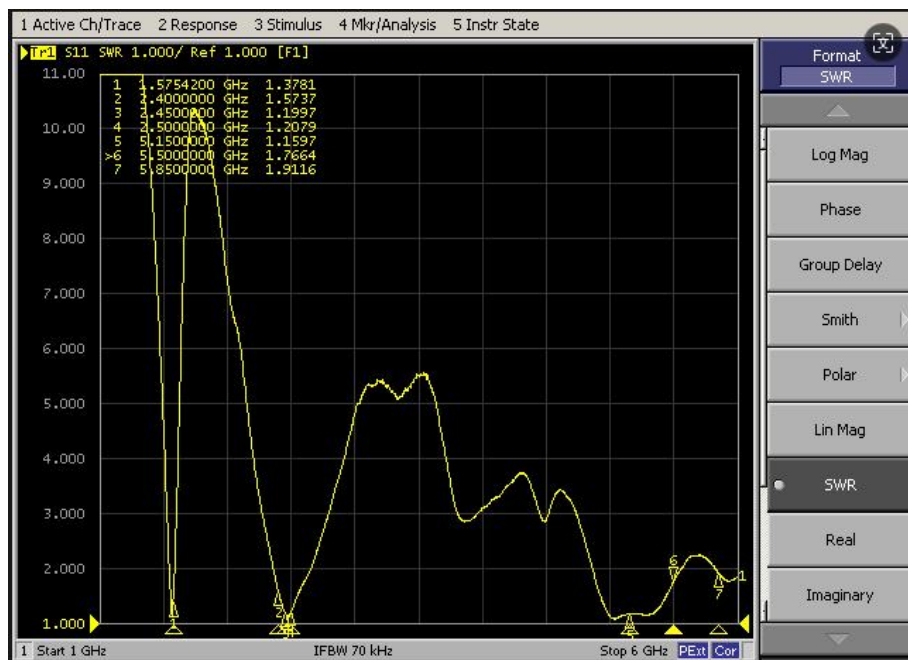
# 1. Product Overview & Dimension

天线贴放位置和机器环境处理照片



## 2. Test Result(WIFI/GPS)

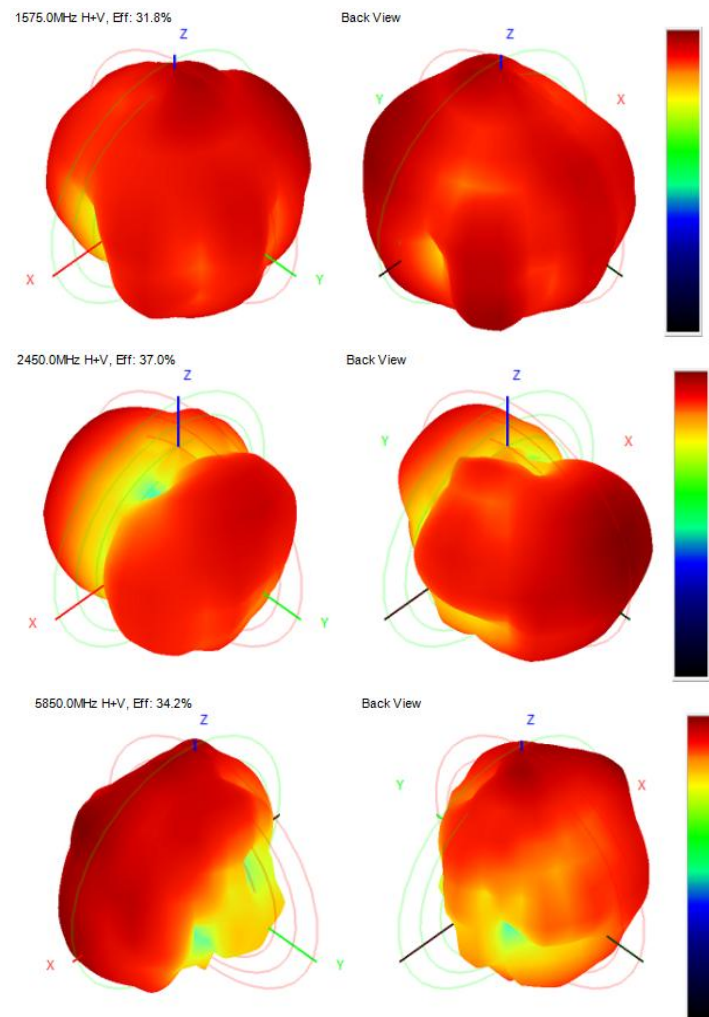
### 2.1 WIFI+GPS Antenna VSWR/S11



## 2. Test Result(WIFI/GPS)

### 2.2 WIFI+GPS Antenna Gain/Efficiency/3D DATE

| Frequency (MHz) | Efficiency (dBi) | Gain (dBi) | Efficiency (%) |
|-----------------|------------------|------------|----------------|
| 1570.0          | -4.88            | 1.81       | 32.52          |
| 1575.0          | -4.97            | 1.83       | 31.84          |
| 1580.0          | -5.21            | 1.85       | 30.14          |
| 2400.0          | -4.60            | 1.16       | 34.64          |
| 2410.0          | -4.51            | 1.28       | 35.38          |
| 2420.0          | -4.46            | 1.18       | 35.81          |
| 2430.0          | -4.38            | 1.13       | 36.44          |
| 2440.0          | -4.34            | 1.25       | 36.82          |
| 2450.0          | -4.32            | 1.52       | 37.02          |
| 2460.0          | -4.47            | 1.55       | 35.75          |
| 2470.0          | -4.40            | 1.61       | 36.28          |
| 2480.0          | -4.34            | 1.52       | 36.80          |
| 2490.0          | -4.34            | 1.63       | 36.80          |
| 2500.0          | -4.45            | 1.58       | 35.88          |
| 5150.0          | -5.15            | 2.33       | 30.54          |
| 5350.0          | -5.07            | 1.52       | 31.11          |
| 5550.0          | -5.15            | 2.09       | 30.57          |
| 5750.0          | -4.69            | 2.11       | 34.00          |
| 5850.0          | -4.66            | 2.04       | 34.22          |



## 2 Test Result(WIFI)

### 2.3 WIFI Antenna TIS/TRP

| WIFI有源测试     |        |        |        |
|--------------|--------|--------|--------|
| 频段           | 1      | 6      | 11     |
| B-TRP-11Mbps | 10.74  | 10.99  | 10.51  |
| B-TIS-11Mbps | -80.95 | -81.49 | -81.80 |
| G-TRP-54Mbps | 10.29  | 10.46  | 10.03  |
| G-TIS-54Mbps | -70.63 | -70.49 | -70.08 |
| N-TRP-MCS7   | 10.88  | 10.00  | 10.12  |
| N-TIS-MCS7   | -65.41 | -65.77 | -65.19 |
| 频段           | 36     | 149    | 165    |
| A-TRP-54Mbps | 10.05  | 10.73  | 10.51  |
| A-TIS-54Mbps | -70.98 | -70.56 | -70.66 |

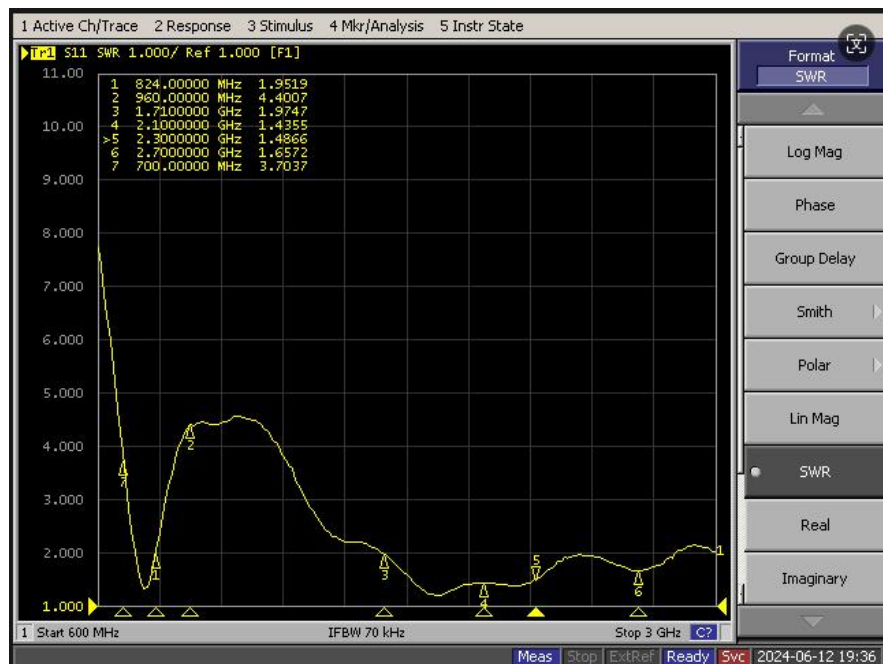
## 2. Test Result(GPS)

### 2.4 GPS practical Test



# 3. Test Result(LTE)

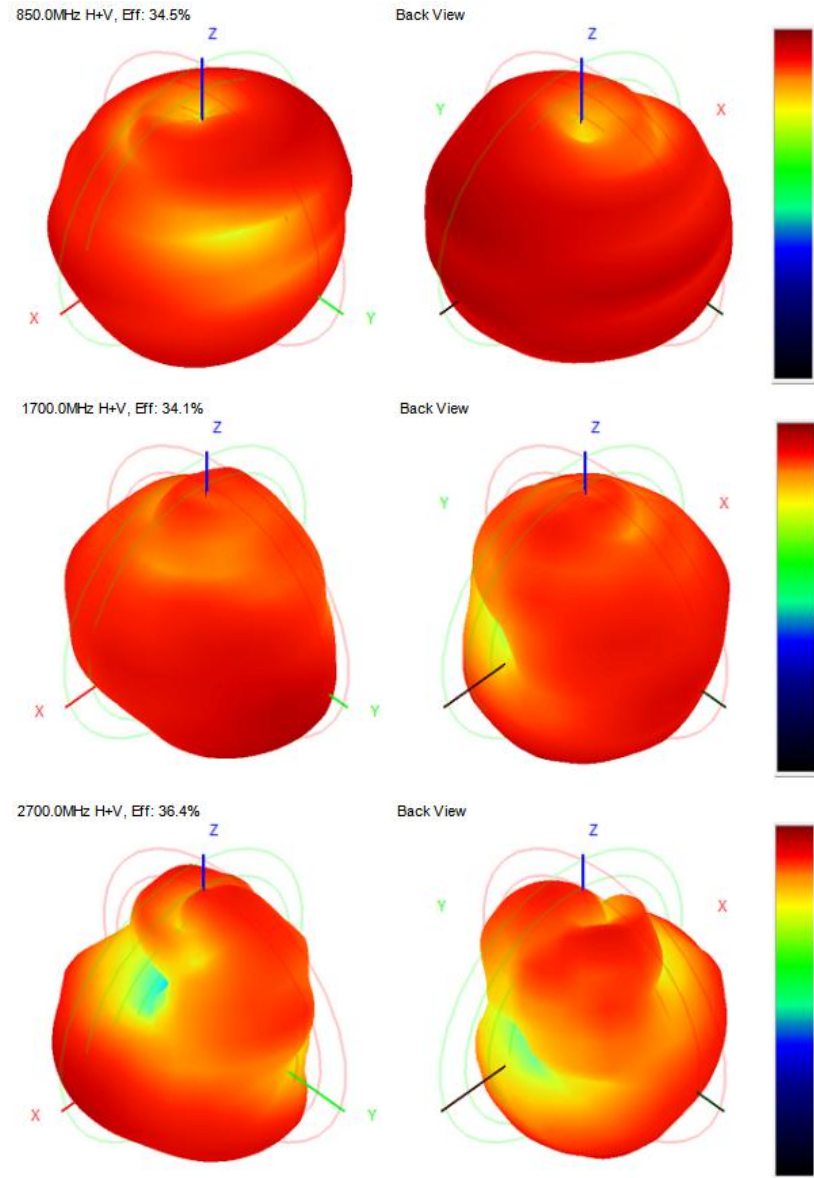
## 3.1 LTE MAIN/AUX Antenna VSWR/S11



# 3. Test Result(LTE)

## 3.2 LTE MAIN Antenna Gain/Efficiency/3D DATE

| Frequency (MHz) | Efficiency (dBi) | Gain (dBi) | Efficiency (%) |
|-----------------|------------------|------------|----------------|
| 700.0           | -5.52            | 2.19       | 28.04          |
| 750.0           | -5.19            | 2.23       | 30.27          |
| 800.0           | -4.50            | 0.32       | 35.48          |
| 850.0           | -4.62            | 0.31       | 34.49          |
| 900.0           | -4.69            | 0.56       | 34.00          |
| 950.0           | -4.40            | 1.33       | 36.33          |
| 1700.0          | -4.68            | 1.22       | 34.08          |
| 1750.0          | -4.13            | 0.99       | 38.66          |
| 1800.0          | -4.50            | 0.93       | 35.50          |
| 1850.0          | -4.21            | 1.55       | 37.95          |
| 1900.0          | -4.35            | 1.41       | 36.71          |
| 1950.0          | -4.20            | 1.21       | 37.98          |
| 2000.0          | -4.14            | 1.59       | 38.58          |
| 2050.0          | -4.40            | 0.81       | 36.32          |
| 2100.0          | -4.50            | 1.05       | 35.51          |
| 2150.0          | -4.46            | 1.48       | 35.81          |
| 2200.0          | -4.41            | 1.54       | 36.19          |
| 2250.0          | -4.37            | 1.55       | 36.59          |
| 2300.0          | -4.63            | 0.95       | 34.44          |
| 2350.0          | -4.49            | 1.66       | 35.55          |
| 2400.0          | -4.65            | 1.82       | 34.26          |
| 2450.0          | -4.49            | 1.60       | 35.56          |
| 2500.0          | -4.24            | 1.62       | 37.66          |
| 2550.0          | -4.36            | 1.57       | 36.68          |
| 2600.0          | -4.28            | 1.34       | 37.34          |
| 2650.0          | -4.48            | 1.57       | 35.86          |
| 2700.0          | -4.39            | 1.27       | 36.37          |



# 3 Test Result(LTE)

## 3.3 LTE Antenna TIS/TRP

| 2G频段     | LTE-L | LTE-M | LTE-R | TIS     |
|----------|-------|-------|-------|---------|
| GSM850   | 25.65 | 25.41 | 25.22 | -101.36 |
| GSM900   | 24.28 | 14.53 | 24.85 | -102.28 |
| GSM1800  | 26.37 | 26.18 | 26.05 | -103.08 |
| GSM1900  | 26.09 | 26.02 | 25.56 | -103.38 |
| 3G频段     | LTE-L | LTE-M | LTE-R | TIS     |
| WCDMA-B2 | 18.61 | 18.47 | 18.22 | -103.06 |
| WCDMA-B4 | 17.18 | 17.69 | 17.09 | -102.96 |
| WCDMA-B5 | 17.43 | 17.51 | 17.27 | -101.01 |
| 4G频段     | LTE-L | LTE-M | LTE-R | TIS     |
| LTE-2    | 18.47 | 18.04 | 19.81 | -88.65  |
| LTE-4    | 17.20 | 17.44 | 17.46 | -89.29  |
| LTE-5    | 17.62 | 17.70 | 17.47 | -88.78  |
| LTE-12   | 15.94 | 16.50 | 16.18 | -87.81  |
| LTE-66   | 16.76 | 15.71 | 16.46 | -88.111 |
| LTE-71   | 15.13 | 15.38 | 15.47 | -86.11  |

## 4. Conclusions

谢谢！