



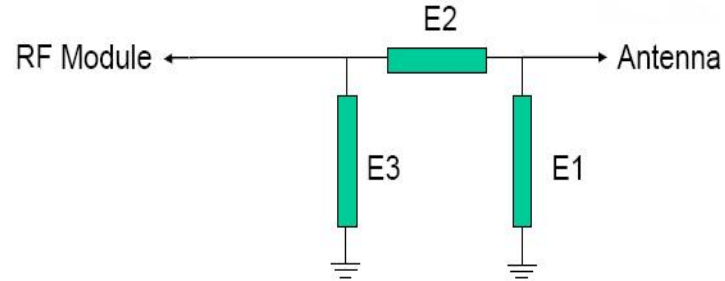
# Antenna Test Report

|                             |                      |
|-----------------------------|----------------------|
| Customer Name               | MEFERI               |
| Entry name                  | ME10                 |
| Debugging<br>frequency band | WIFI 、 BT 、 NFC      |
| Sub antenna                 |                      |
| VERSION                     | V3.0 (VC)            |
| RF Engineering              | Peng wei 18565640925 |

## 1.The Equipment of Active Test

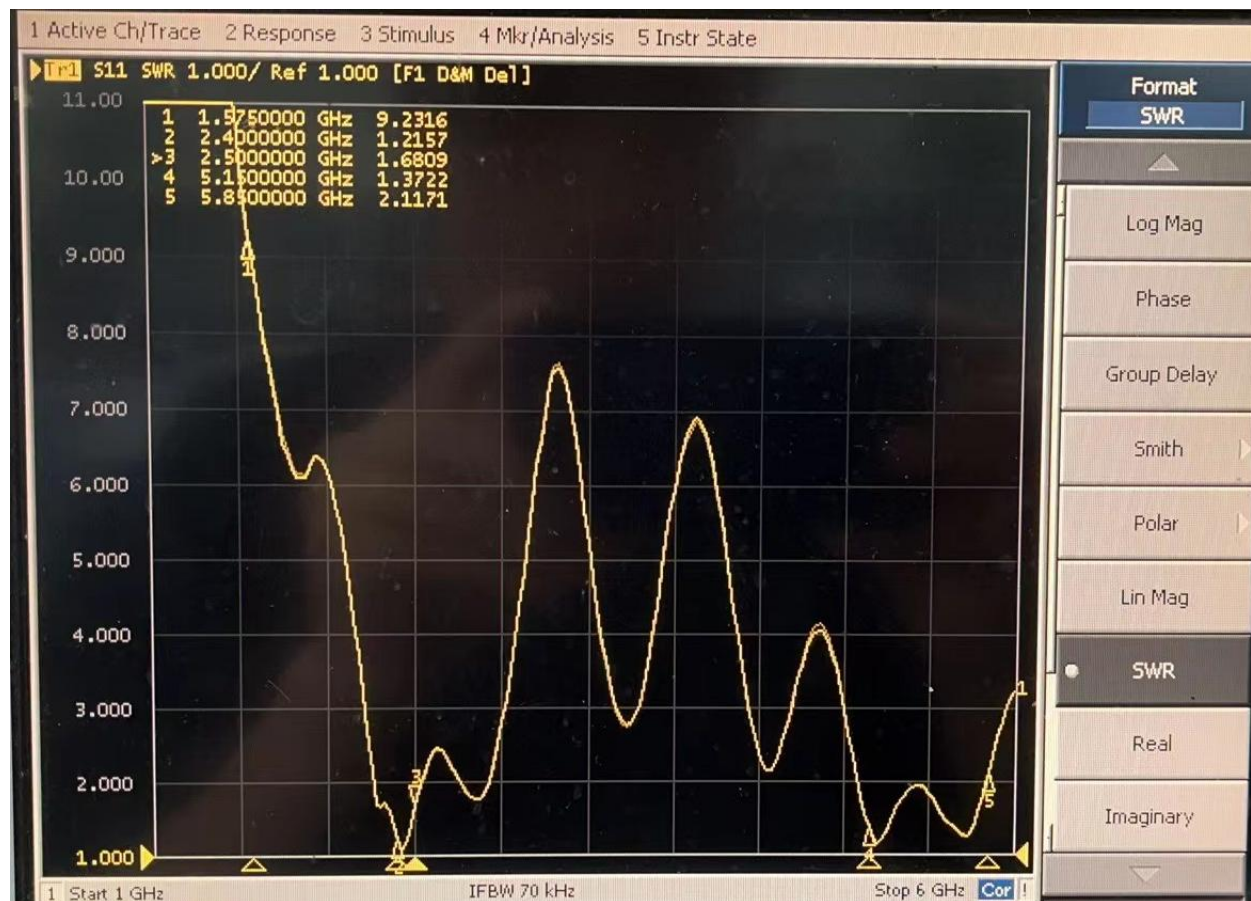
1. ETS Chamber 7×4×3(m)/3\*3\*3 (m) (3D Laboratory);
2. Vector network analyzer(Passive tester);
3. Network analyzer-5071E/B/Comprehensive measuring instrument-8960/LTE-RS-CMW500/MT8820C support2G、3G、4G/BT、WIFI、NB ;

## 2.Matching Circuit Main (Matching no changed)

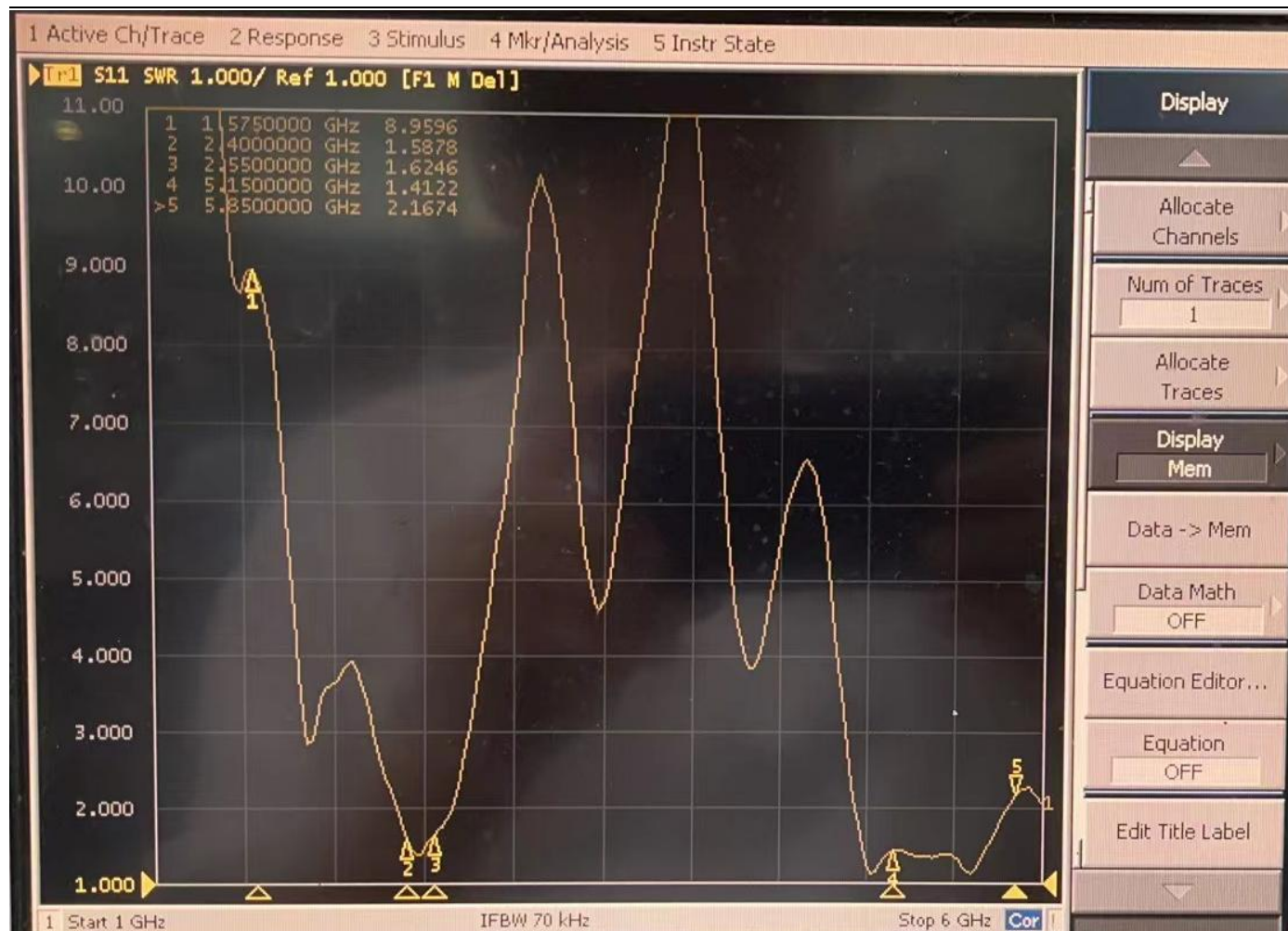


| Element | Matching Value |
|---------|----------------|
| E1      |                |
| E2      |                |
| E3      |                |

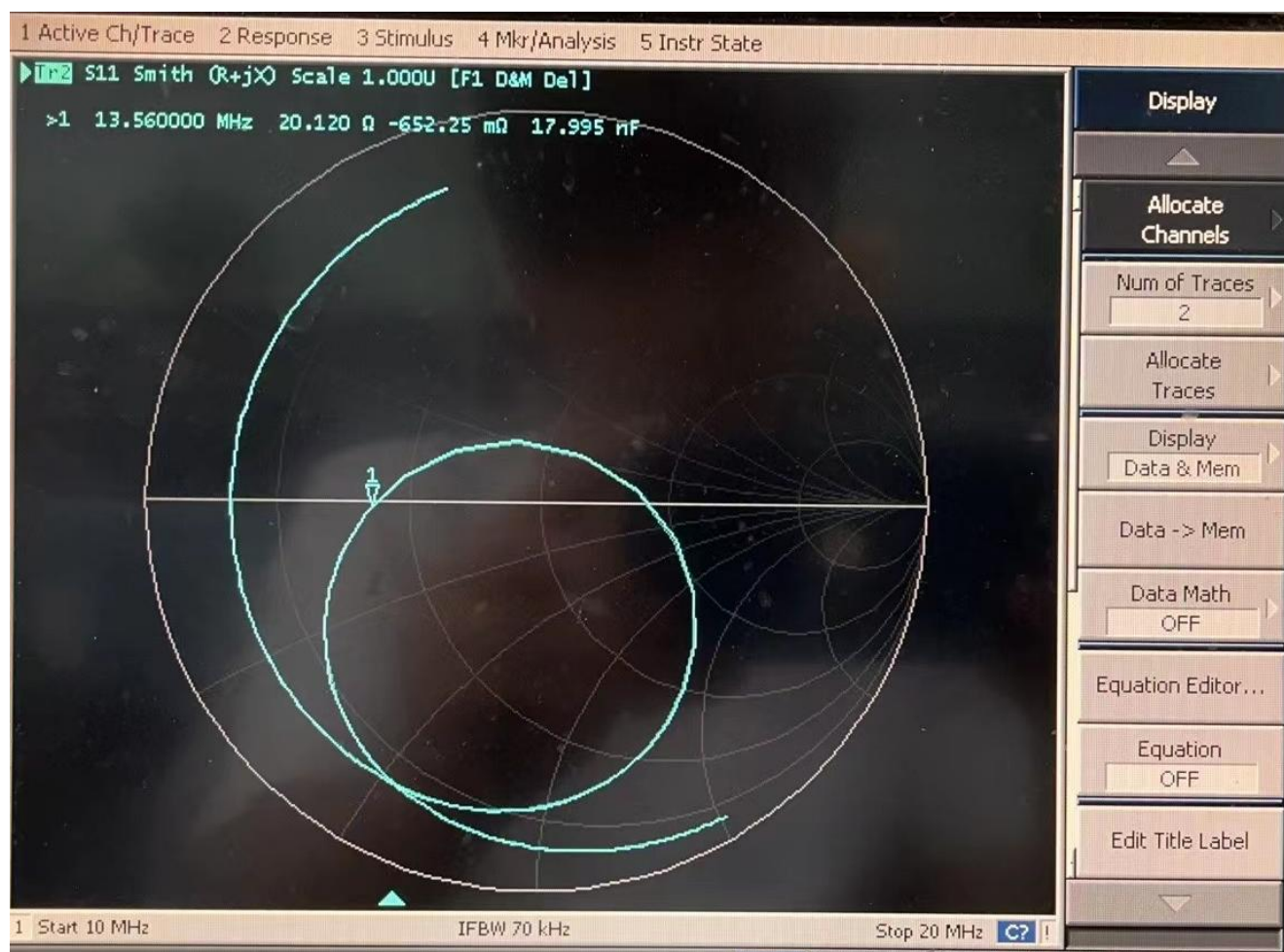
### 3: Antenna SWR Test



WIFI 0



WIFI 1



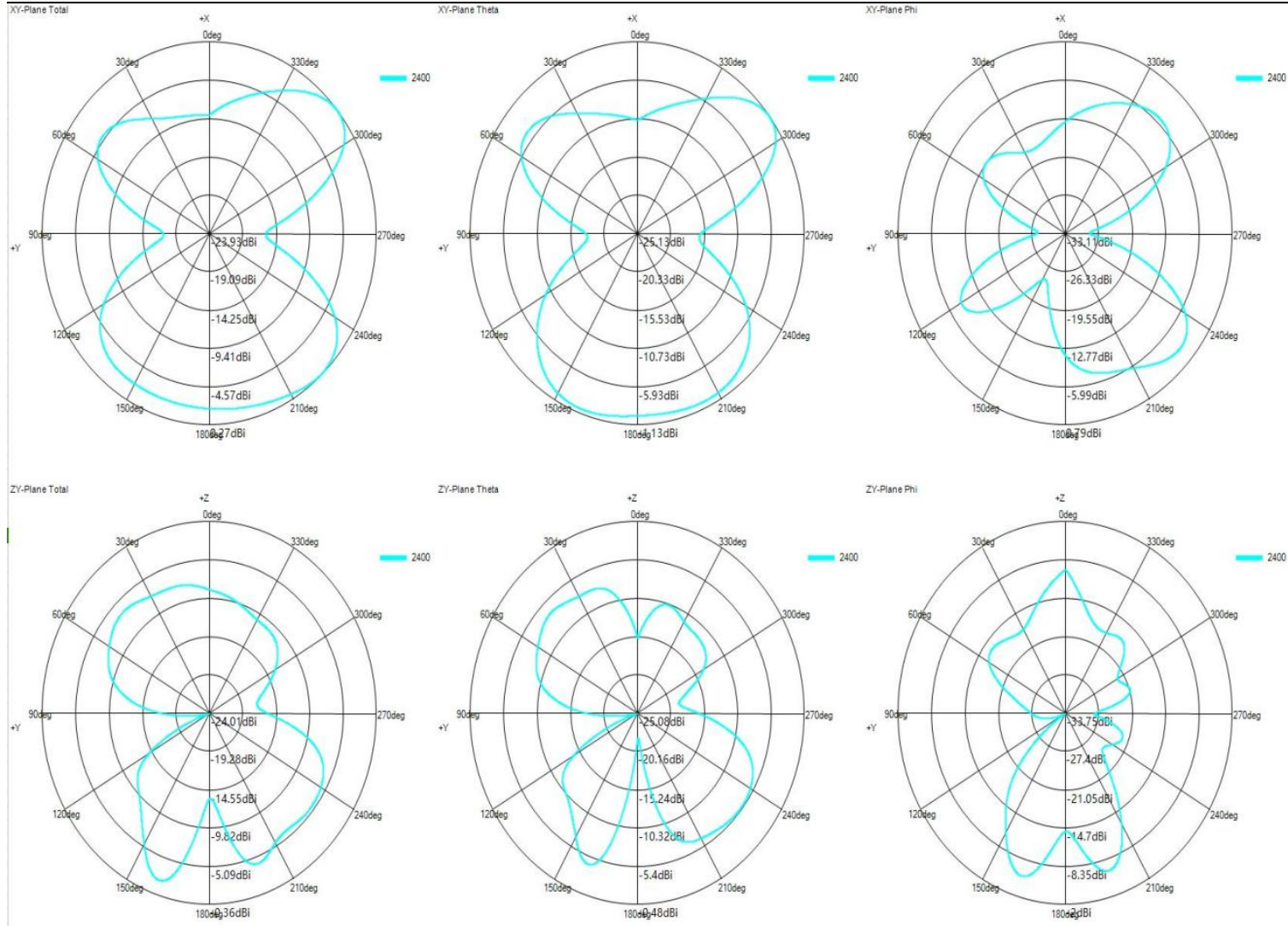
NFC

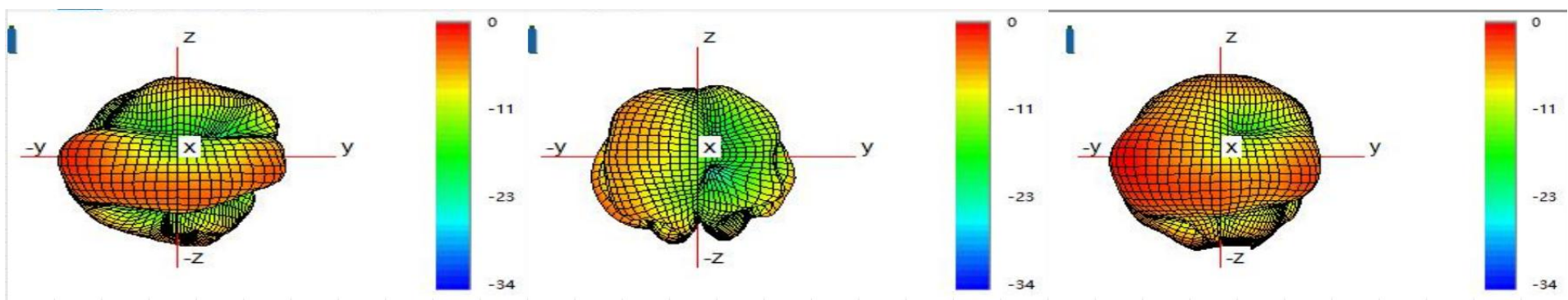
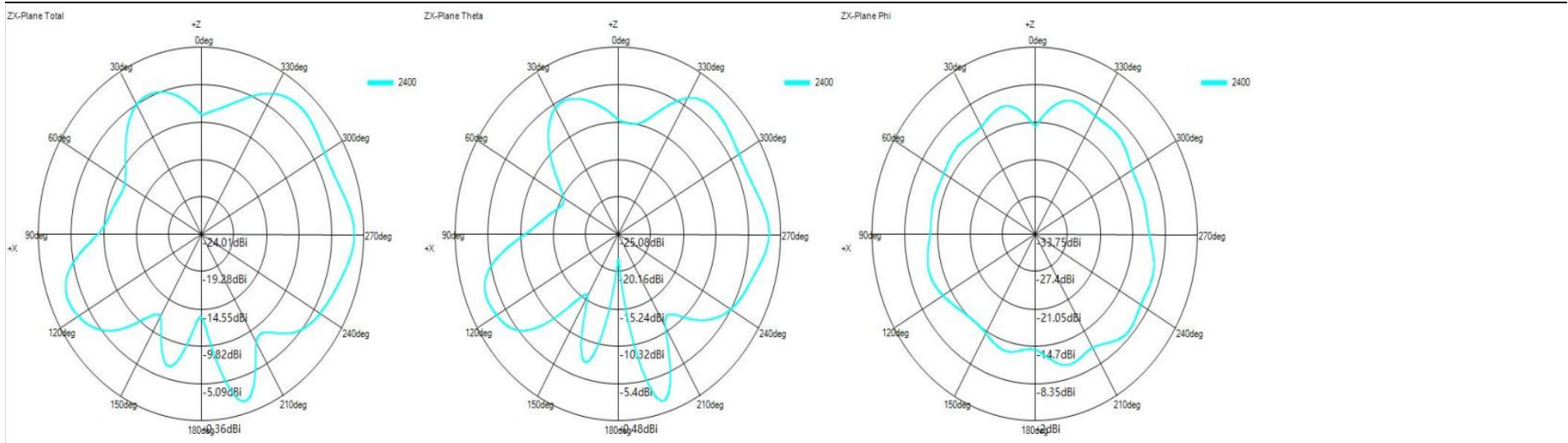


## 4: Passive efficiency parameters

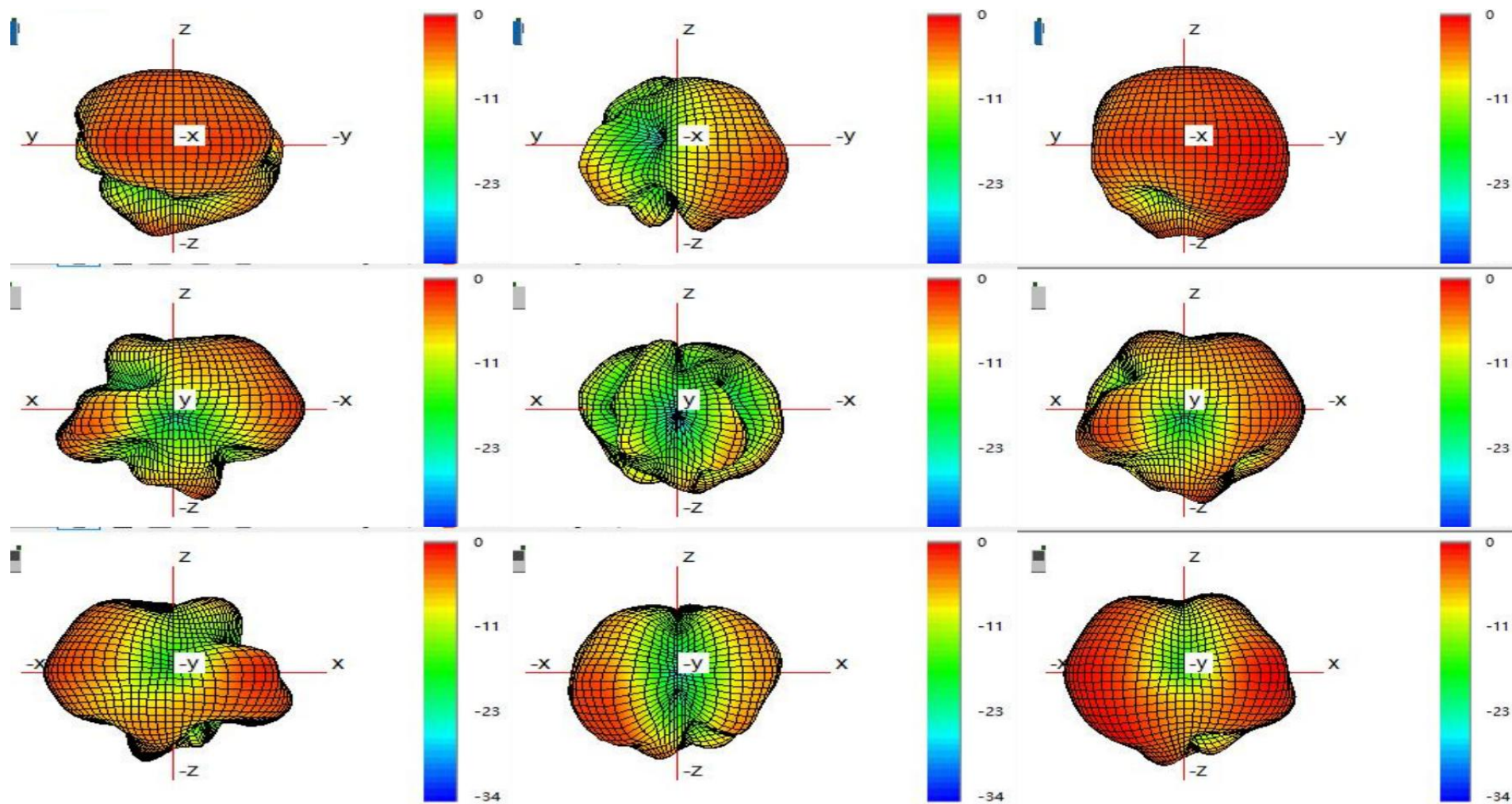
### WIFI 1

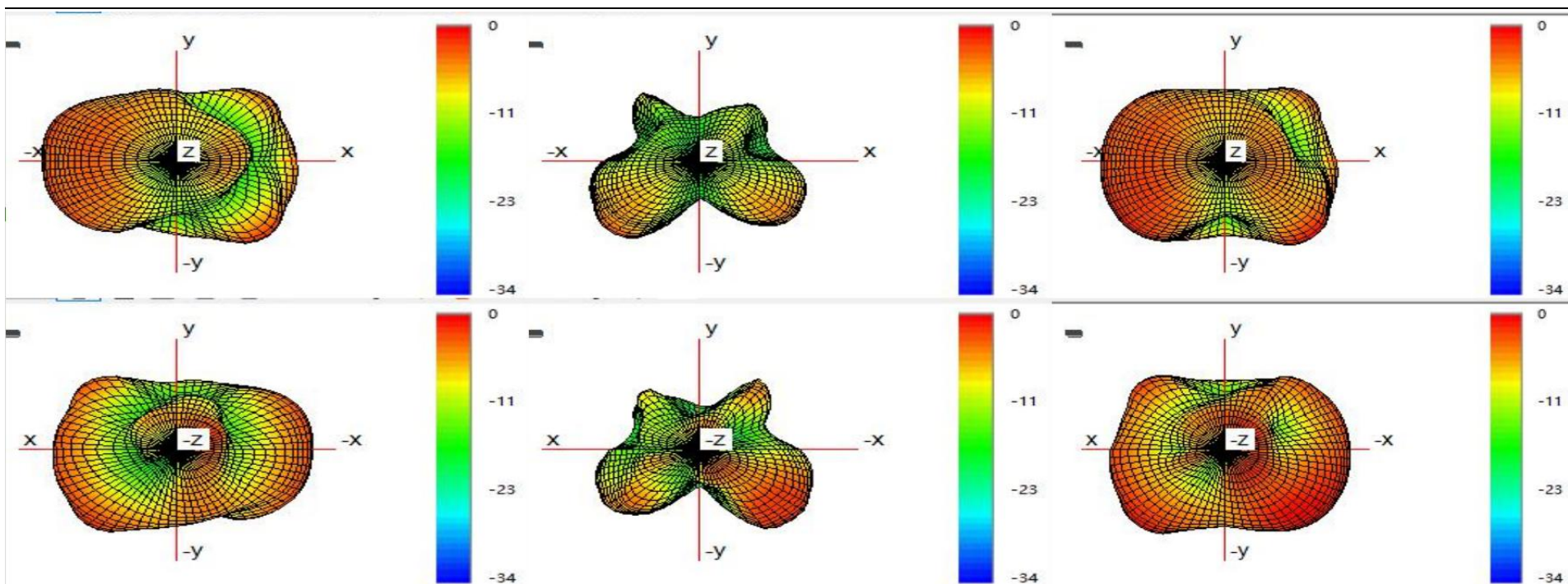
| Passive Test For 2.4G |            |           |          | Passive Test For 5G |            |           |          |
|-----------------------|------------|-----------|----------|---------------------|------------|-----------|----------|
| Freq (MHz)            | Gain (dBi) | Effi (dB) | Effi (%) | Freq (MHz)          | Gain (dBi) | Effi (dB) | Effi (%) |
| 2400                  | 0.54       | -3.79     | 43.17    | 5150                | 1.19       | -3.73     | 42.39    |
| 2410                  | 0.68       | -3.67     | 44.16    | 5200                | 0.89       | -3.81     | 41.59    |
| 2420                  | 0.88       | -3.37     | 46.54    | 5250                | 0.39       | -3.98     | 40.00    |
| 2430                  | 0.80       | -3.36     | 46.64    | 5300                | 0.30       | -4.18     | 38.21    |
| 2440                  | 0.70       | -3.50     | 45.48    | 5350                | 0.02       | -4.50     | 35.50    |
| 2450                  | 0.83       | -3.31     | 47.05    | 5400                | 0.41       | -4.78     | 33.28    |
| 2460                  | 0.97       | -3.26     | 47.49    | 5450                | 0.81       | -4.43     | 36.09    |
| 2470                  | 1.02       | -3.17     | 48.27    | 5500                | 0.94       | -4.29     | 37.27    |
| 2480                  | 1.10       | -3.18     | 48.18    | 5550                | 1.19       | -4.06     | 39.28    |
| 2490                  | 0.98       | -3.31     | 47.11    | 5600                | 1.25       | -3.93     | 40.47    |
| 2500                  | 1.10       | -3.26     | 47.50    | 5650                | 1.21       | -3.91     | 40.68    |
|                       |            |           |          | 5700                | 1.17       | -3.86     | 41.11    |
|                       |            |           |          | 5750                | 1.26       | -3.77     | 41.93    |
|                       |            |           |          | 5800                | 1.83       | -3.33     | 46.47    |
|                       |            |           |          | 5850                | 2.40       | -2.99     | 50.23    |







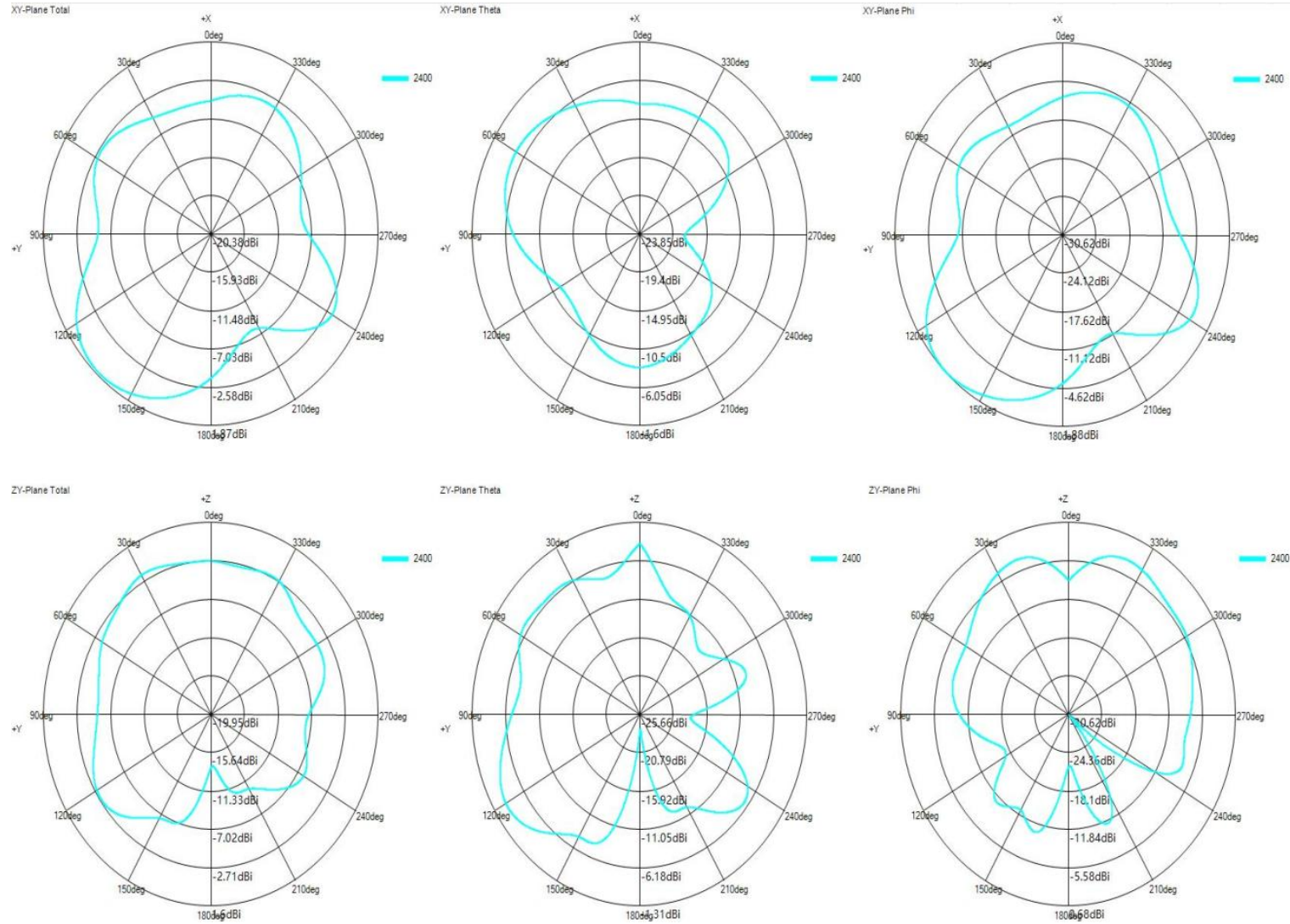


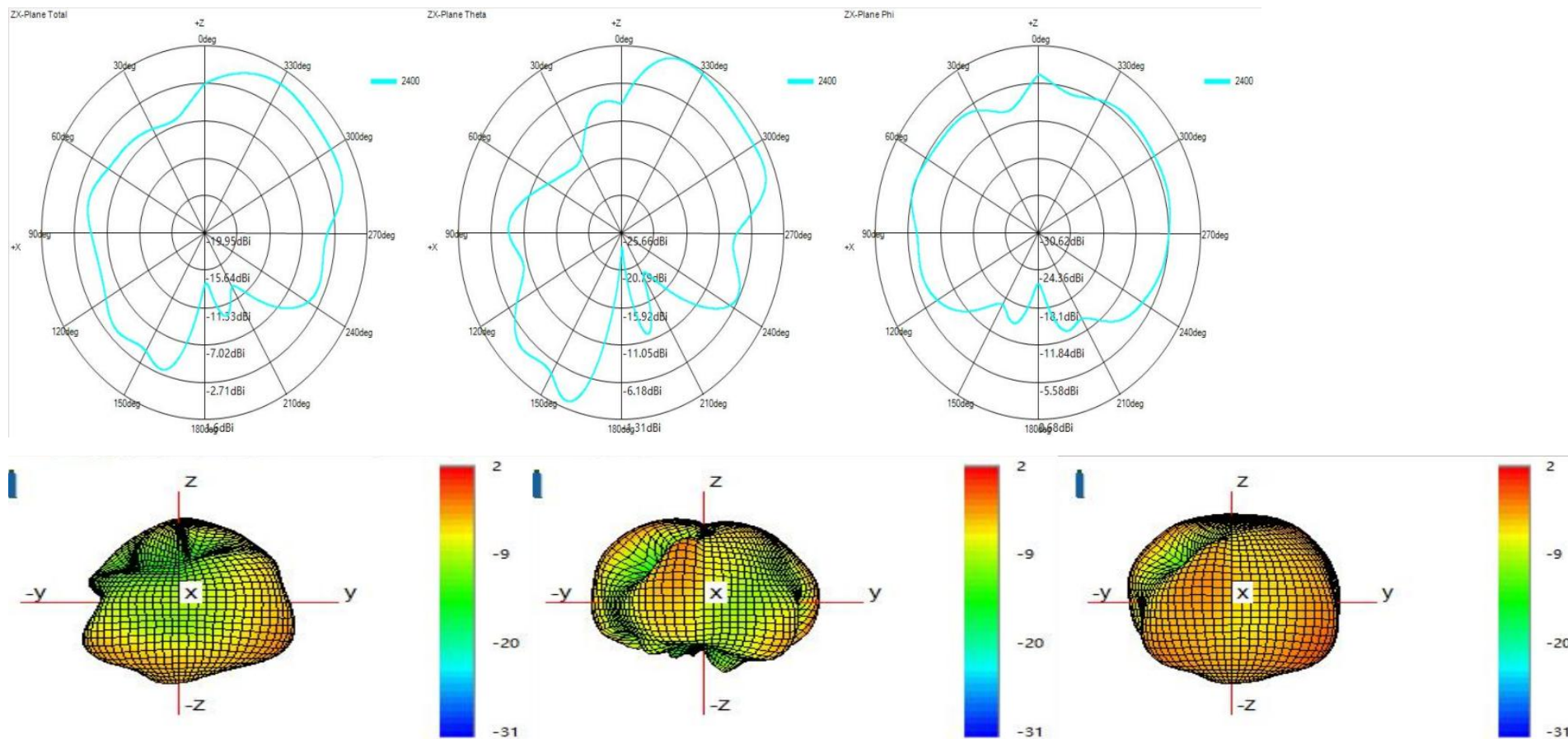


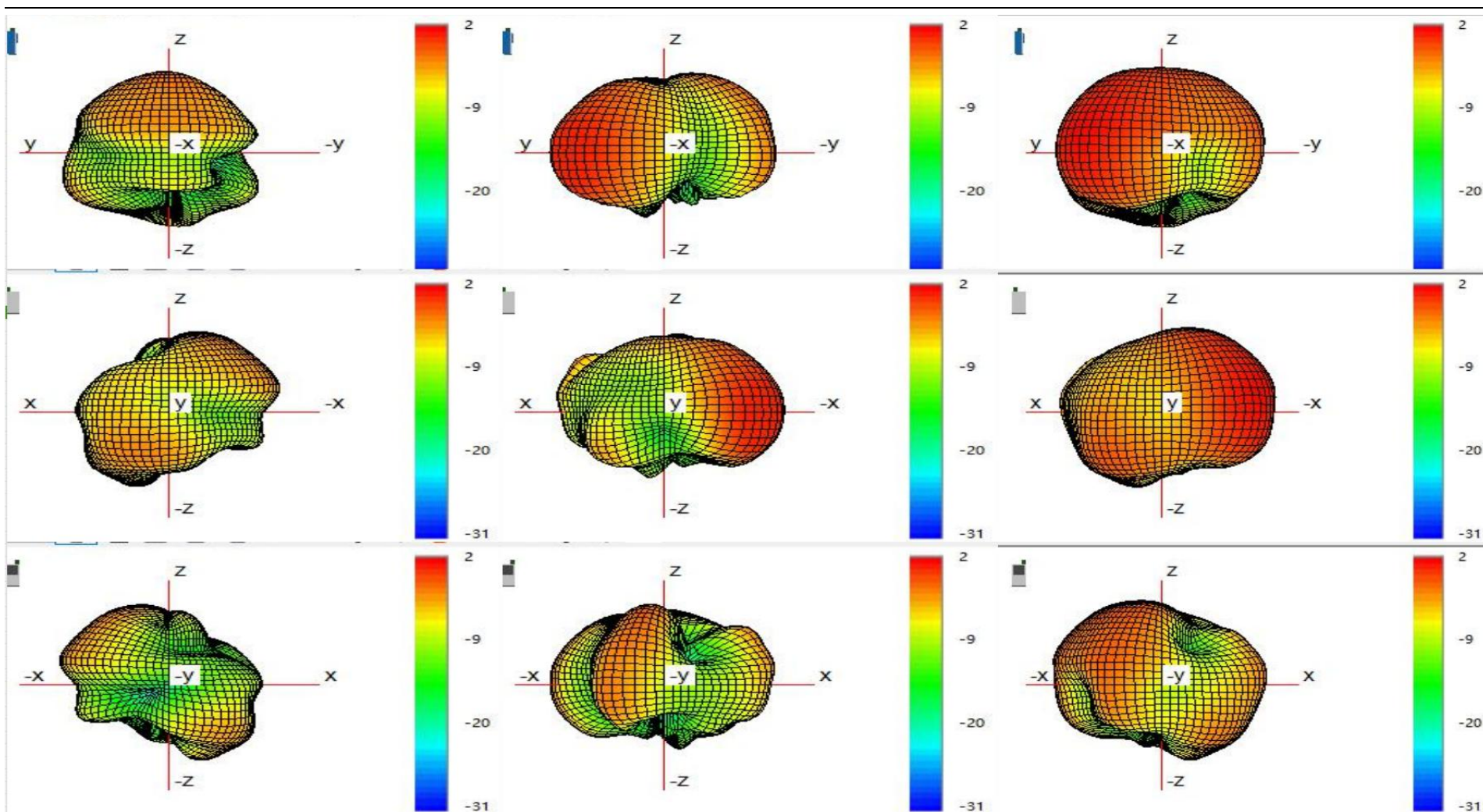


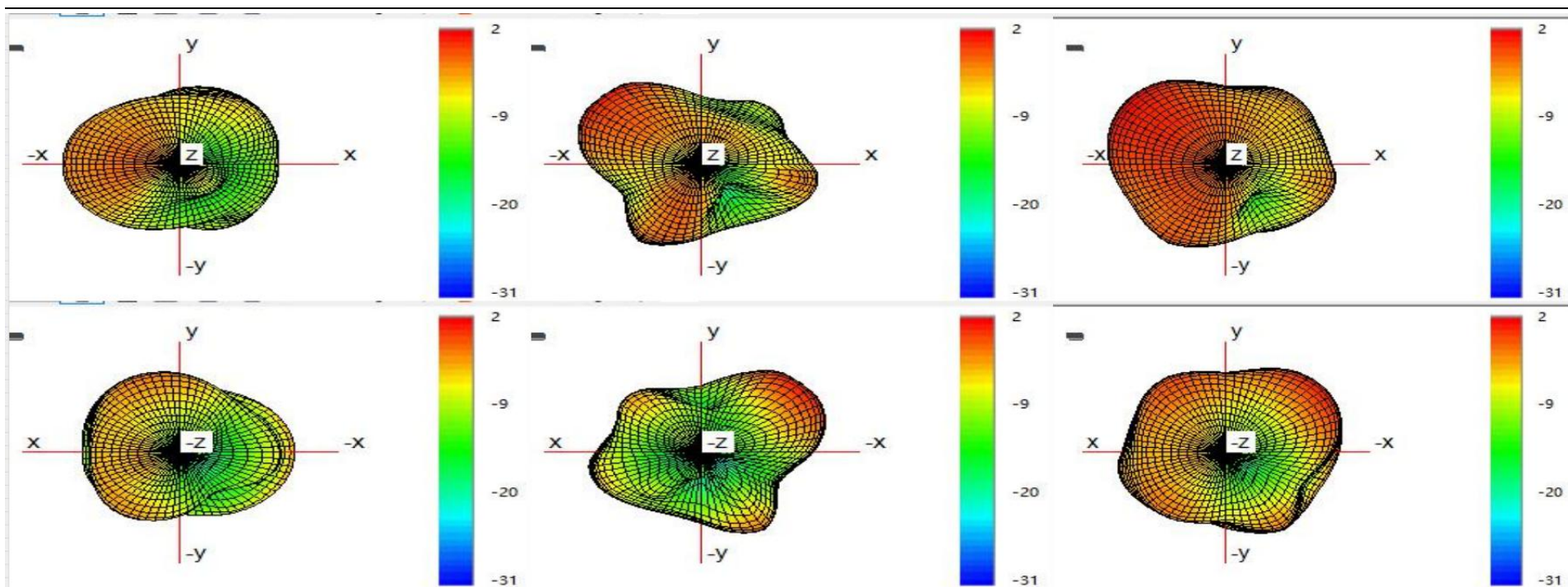
## WIFI 0

| Passive Test For 2.4G |            |           |          | Passive Test For 5G |            |           |          |
|-----------------------|------------|-----------|----------|---------------------|------------|-----------|----------|
| Freq (MHz)            | Gain (dBi) | Effi (dB) | Effi (%) | Freq (MHz)          | Gain (dBi) | Effi (dB) | Effi (%) |
| 2400                  | 2.33       | -2.64     | 54.41    | 5150                | 0.92       | -4.47     | 35.77    |
| 2410                  | 2.50       | -2.60     | 54.93    | 5200                | 0.75       | -4.70     | 33.85    |
| 2420                  | 2.68       | -2.47     | 56.68    | 5250                | 0.64       | -4.68     | 34.07    |
| 2430                  | 2.48       | -2.66     | 54.26    | 5300                | 1.04       | -4.51     | 35.42    |
| 2440                  | 2.33       | -2.84     | 51.98    | 5350                | 1.39       | -4.16     | 38.35    |
| 2450                  | 2.36       | -2.87     | 51.68    | 5400                | 1.70       | -3.98     | 40.01    |
| 2460                  | 2.29       | -2.93     | 50.96    | 5450                | 2.39       | -3.27     | 47.12    |
| 2470                  | 2.32       | -2.94     | 50.78    | 5500                | 2.51       | -3.22     | 47.70    |
| 2480                  | 2.13       | -3.11     | 48.82    | 5550                | 2.47       | -3.19     | 48.01    |
| 2490                  | 2.01       | -3.24     | 47.39    | 5600                | 2.49       | -3.18     | 48.05    |
| 2500                  | 2.03       | -3.25     | 47.30    | 5650                | 2.51       | -3.07     | 49.36    |
|                       |            |           |          | 5700                | 2.51       | -3.04     | 49.62    |
|                       |            |           |          | 5750                | 2.38       | -3.16     | 48.35    |
|                       |            |           |          | 5800                | 2.40       | -3.06     | 49.45    |
|                       |            |           |          | 5850                | 2.53       | -2.93     | 50.97    |











## 5:Antenna OTA parameters

| Channel | 2.4G-11AX (MCS11) |        |        | 2.4G-11b(11M) |        |        | 2.4G-11g(54M)  |        |        | 2.4G-11n(MCS7) |        |        |
|---------|-------------------|--------|--------|---------------|--------|--------|----------------|--------|--------|----------------|--------|--------|
|         | CH1               | CH7    | CH13   | CH1           | CH7    | CH13   | CH1            | CH7    | CH13   | CH1            | CH7    | CH13   |
| TRP     | 14.74             | 13.34  | 14.03  | 14.31         | 14.47  | 14.82  | 13.95          | 13.95  | 13.83  | 13.37          | 13.84  | 13.42  |
| TIS     | -63.82            | -63.89 | -63.24 | -86.48        | -86.42 | -86.43 | -73.87         | -73.72 | -74.05 | -69.44         | -69.41 | -69.37 |
| Channel | 5G-11A            |        |        | 5G-11AC       |        |        | 5G-11AX(MCS11) |        |        | 5G-11N         |        |        |
|         | CH36              | CH60   | CH165  | CH36          | CH60   | CH165  | CH36           | CH60   | CH165  | CH36           | CH60   | CH165  |
| TRP     | 14.46             | 14.40  | 14.51  | 14.27         | 14.19  | 14.09  | 14.71          | 14.45  | 14.37  | 14.71          | 14.72  | 14.73  |
| TIS     | -74.35            | -74.60 | -74.59 | -69.57        | -69.84 | -69.65 | -63.34         | -63.31 | -62.82 | -70.96         | -71.22 | -70.18 |
| Channel | BT                |        |        |               |        |        |                |        |        |                |        |        |
|         | CH0               | CH39   | CH78   |               |        |        |                |        |        |                |        |        |
| TRP     | 3.09              | 3.20   | 0.43   |               |        |        |                |        |        |                |        |        |
| TIS     | -90.41            | -90.68 | -88.91 |               |        |        |                |        |        |                |        |        |





## 6: NFC Antenna

Measured data:

| Test Card Category | Actual distance(mm) |
|--------------------|---------------------|
| Type 1             | $\geq 40$           |
| Type 2             | $\geq 40$           |
| Type 3             | $\geq 40$           |
| Type 4             | $\geq 10-15$        |
| Type 5             | $\geq 50$           |

## 7:Motherboard change identification

