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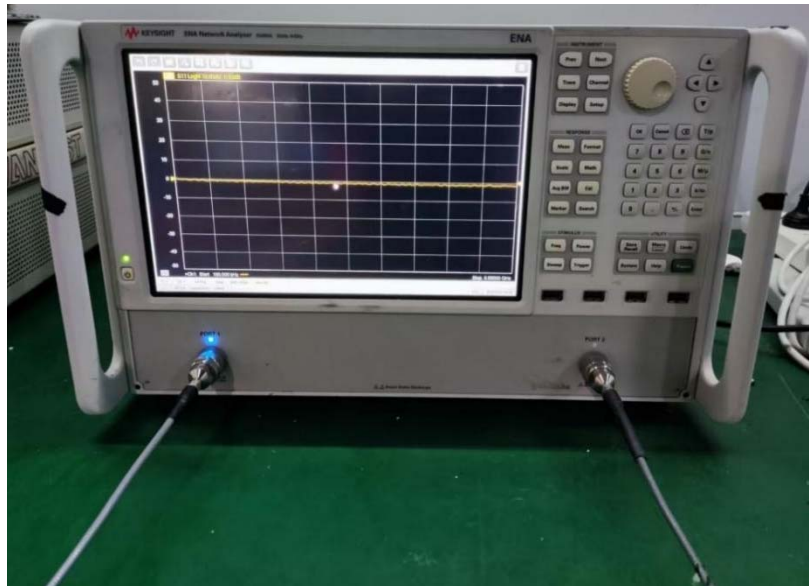
## Antenna SPEC

|                              |                |
|------------------------------|----------------|
| Customer Name/客户名称:          | Realme         |
| Project Name /项目名称:          | C11-Marble     |
| Antenna Name/天线名称:           | Marble-L-V04   |
| Material Category/天线类型:      | Monopole       |
| Antenna material/天线材质:       | FPC            |
| Antenna specifications/天线规格: | 22.39mm*5.67mm |
| Antenna Frequency/使用频率:      | 2.4GHz-2.48GHz |
| Antenna Version/天线版本:        | V04            |
| Material Code/物料编号:          | 290000-019629  |
| Compilation Date/编撰日期:       | 2025-03-10     |

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## 1、Debugging and testing equipment /调试测试设备

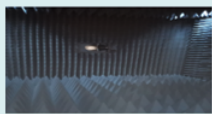
### 1.1 Debugging equipment/调试设备



Keysight E5080A

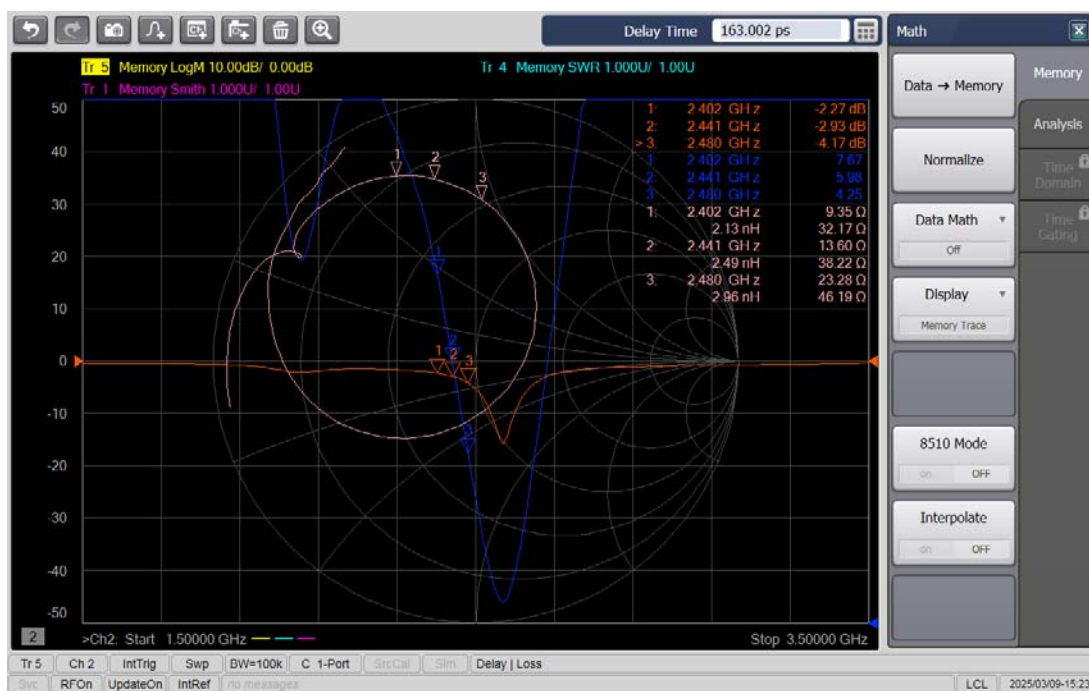
### 1.2 Passive testing equipment/测试设备

## Main Test Equipment

| NO. | Model Name                             | Picture                                                                           | NO. | Model Name                                                                  | Picture                                                                             |
|-----|----------------------------------------|-----------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1   | OTA Anechoic Chamber Size: 7m*4m*4m    |  | 6   | Turntable Controller                                                        |  |
| 2   | Test Turntable                         |  | 7   | Radio Frequency Controller                                                  |  |
| 3   | Network Analyzer E5071C: 100KHz-6.5GHz |  | 8   | Dipole Antenna                                                              |  |
| 4   | OTA Test Head Model                    |  | 9   | CMW270 Wireless Connectivity Tester : BT / BLE test and WIFI test (2.4G\5G) |  |
| 5   | OTA Test Artificial Arm                |  |     |                                                                             |                                                                                     |

## 2、Passive test data/无源测试数据

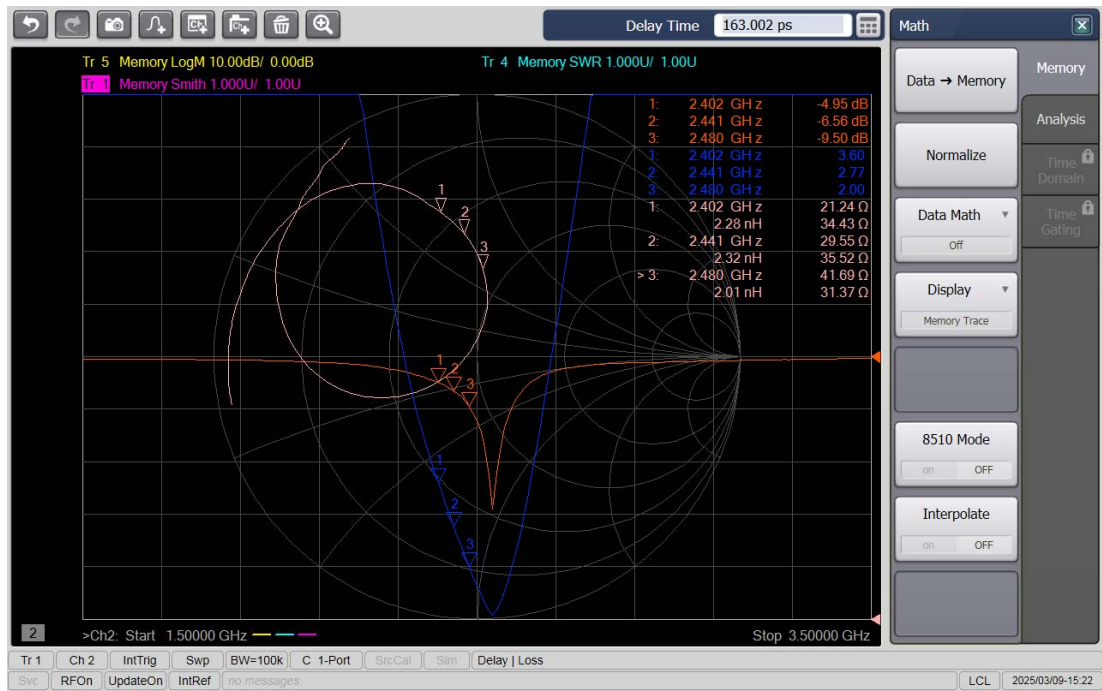
### 2.1 S11-Left Ear Free Space/S11-左耳自由空间



Manufacturer: Boyongkai Electronic Technology Co., Ltd

Address: Fenghuangshan Industrial Zone, Shajiao, Humen, Dongguan City

2.2 S11-worn on left ear head model/S11-左耳头模佩戴



2.3 Efficiency & Gain Data-Left Ear Free Space Data/效率&增益数据-左耳自由空间数据

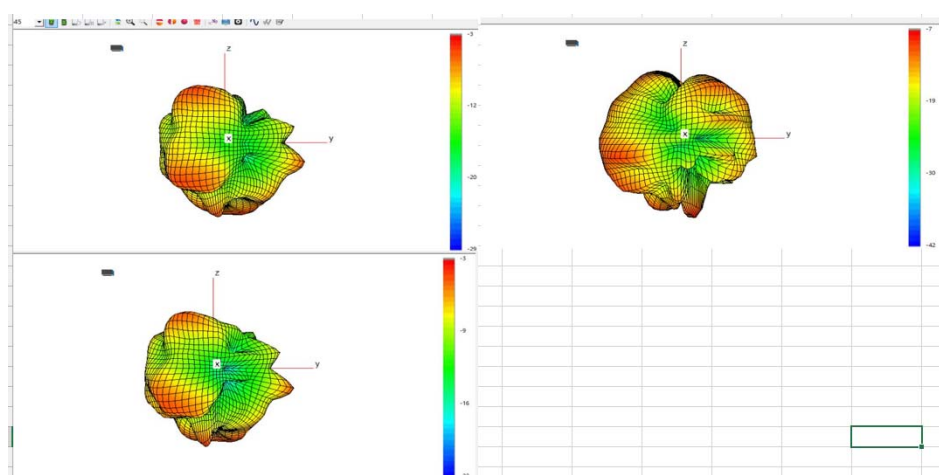
| Free space data/自由空间数据 |                |               |          |
|------------------------|----------------|---------------|----------|
| Frequency(GHz)         | Efficiency(dB) | Efficiency(%) | Gain(dB) |
| 2.400                  | -9.83          | 10.39         | -4.65    |
| 2.410                  | -9.83          | 10.39         | -4.63    |
| 2.420                  | -9.49          | 11.24         | -4.35    |
| 2.430                  | -9.05          | 12.45         | -3.9     |
| 2.440                  | -8.65          | 13.66         | -3.55    |
| 2.450                  | -8.30          | 14.78         | -3.31    |
| 2.460                  | -7.94          | 16.09         | -2.89    |
| 2.470                  | -7.60          | 17.40         | -2.45    |

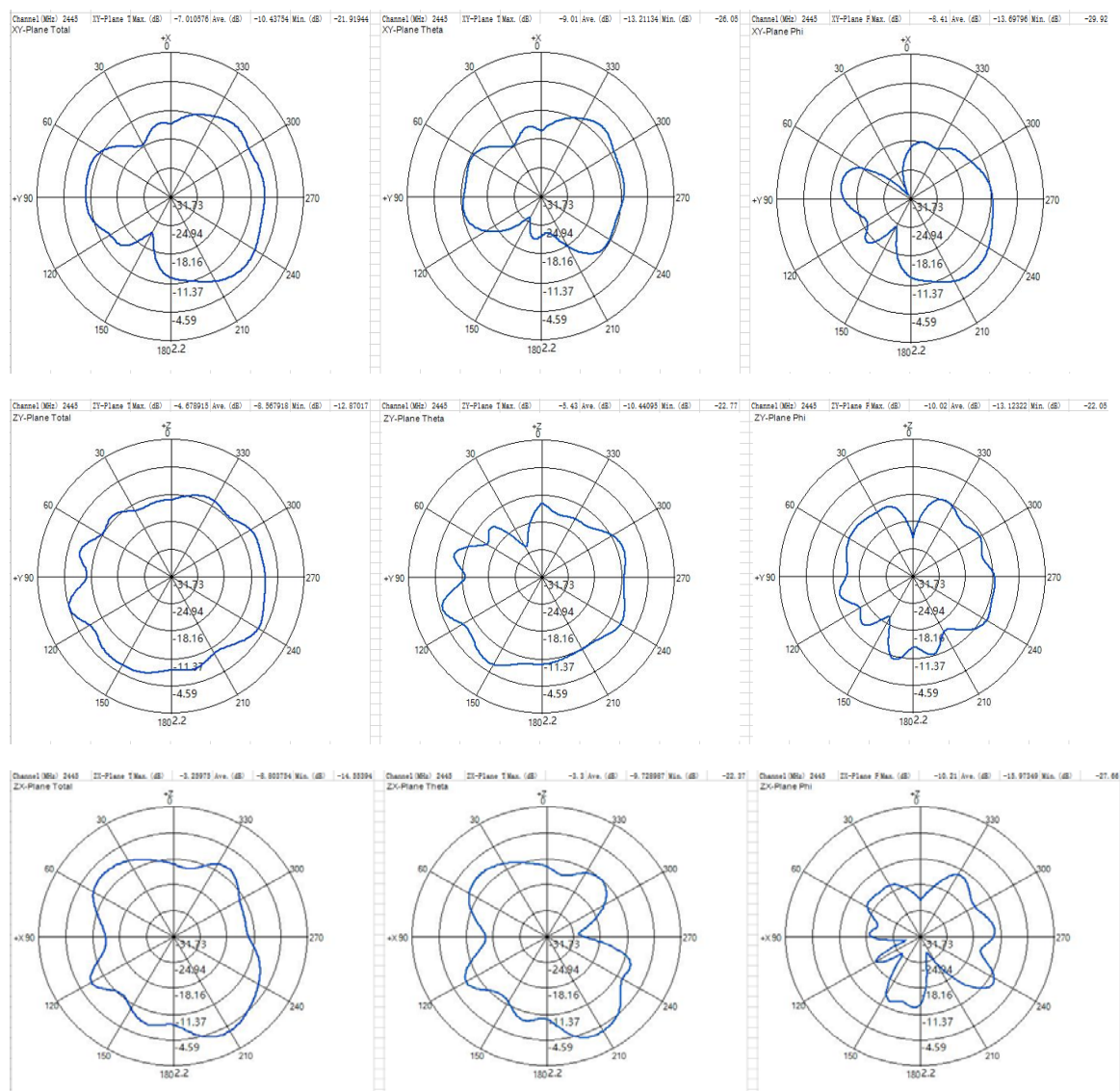
|       |       |       |       |
|-------|-------|-------|-------|
| 2.480 | -7.32 | 18.52 | -2.05 |
|-------|-------|-------|-------|

## 2.4 Efficiency & Gain Data-Left Ear Head Model Data/效率&增益数据-左耳头模数据

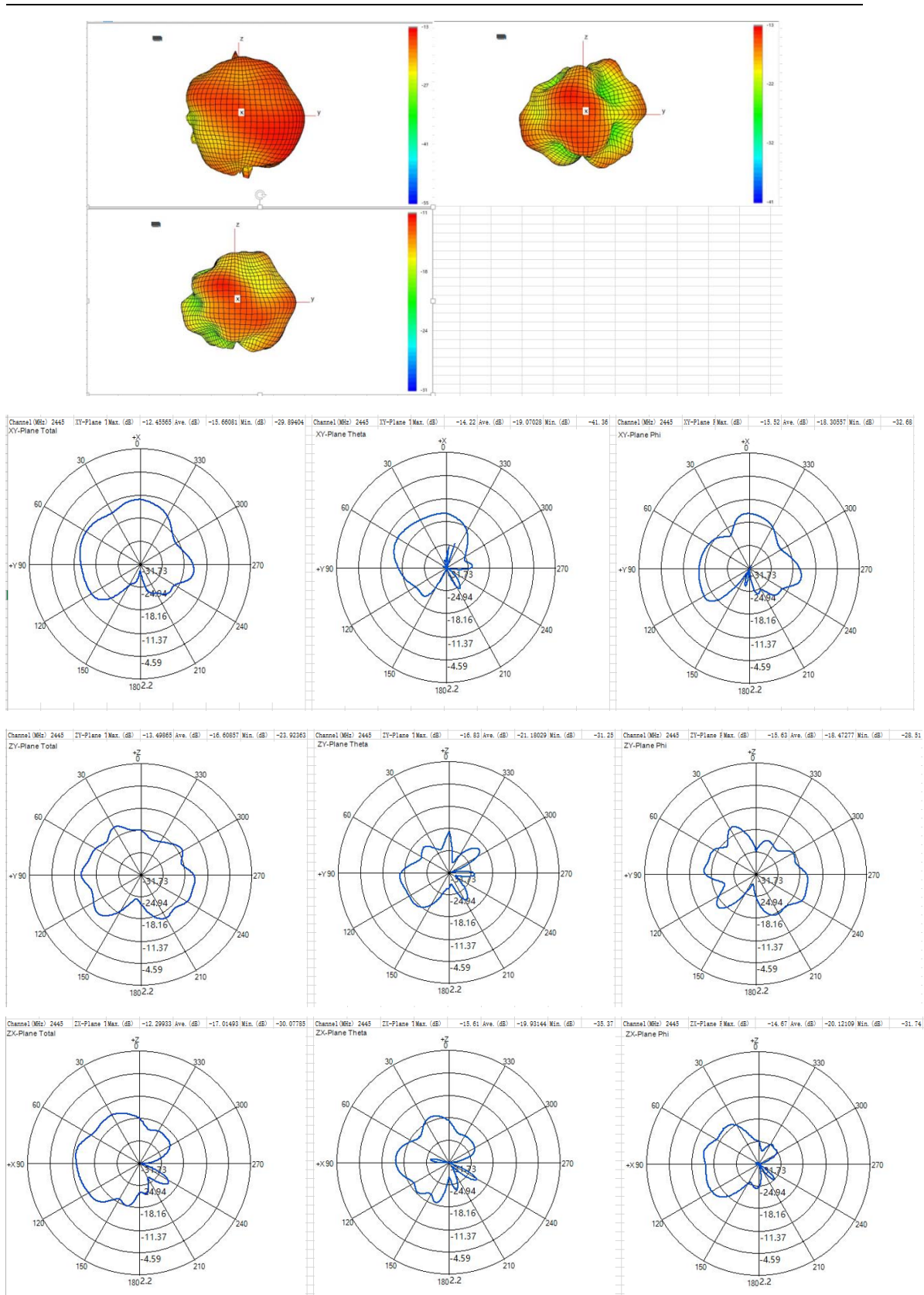
| Head model data/头模数据 |                |               |          |
|----------------------|----------------|---------------|----------|
| Frequency(GHz)       | Efficiency(dB) | Efficiency(%) | Gain(dB) |
| 2.400                | -18.86         | 1.30          | -13.65   |
| 2.410                | -18.74         | 1.34          | -13.60   |
| 2.420                | -18.20         | 1.51          | -12.98   |
| 2.430                | -17.52         | 1.77          | -12.41   |
| 2.440                | -16.91         | 2.04          | -11.78   |
| 2.450                | -16.35         | 2.32          | -11.29   |
| 2.460                | -15.77         | 2.65          | -10.77   |
| 2.470                | -15.22         | 3.01          | -10.16   |
| 2.480                | -14.84         | 3.28          | -9.93    |

## 2.5 Passive antenna pattern-Left ear free space pattern/天线无源方向图-左耳自由空间方向图





## 2.6 Passive antenna pattern-left ear head pattern/天线无源方向图-左耳头模方向图



### 3、Active test data/有源测试数据

Manufacturer: Boyongkai Electronic Technology Co., Ltd

Address: Fenghuangshan Industrial Zone, Shajiao, Humen, Dongguan City

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### 3.1 Conducting test data/传导测试数据

| 传导数据     | L        |             | R        |             |
|----------|----------|-------------|----------|-------------|
| Channels | Tx power | Sensitivity | Tx power | Sensitivity |
| 0        | 10.23    | -94.50      | 10.12    | -94.50      |
| 39       | 9.93     | -95.00      | 10.16    | -95.00      |
| 78       | 10.00    | -94.50      | 10.43    | -95.00      |

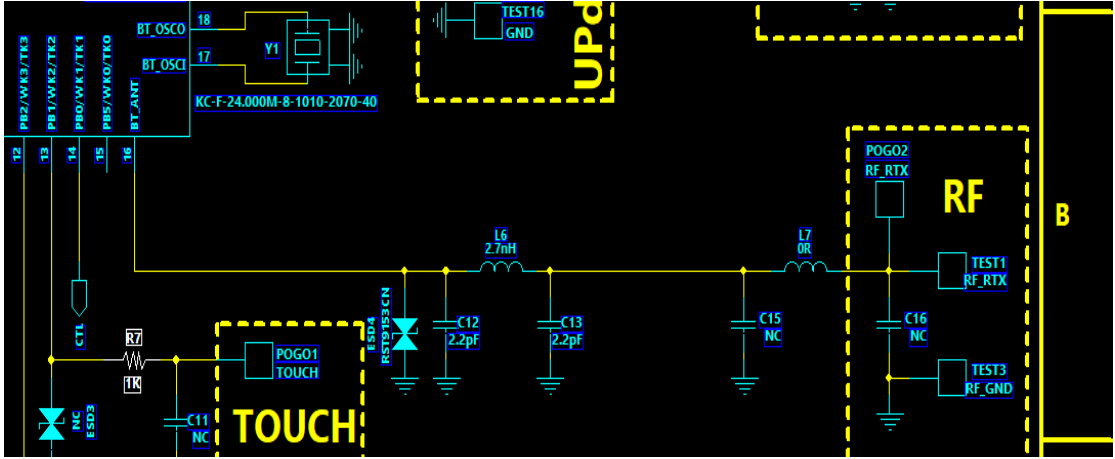
### 3.2 Active testing data in darkroom/暗室有源测试数据

| 6#样机     | L-头模  |        | R-头模  |        |
|----------|-------|--------|-------|--------|
| Channels | TRP   | TIS    | TRP   | TIS    |
| 0        | -3.33 | -83.94 | -3.23 | -83.35 |
| 39       | 0.53  | -83.09 | 0.66  | -83.73 |
| 78       | -0.13 | -84.22 | -1.45 | -83.9  |

| 2#样机     | L-头模  |        | R-头模  |        |
|----------|-------|--------|-------|--------|
| Channels | TRP   | TIS    | TRP   | TIS    |
| 0        | -3.22 | -82.85 | -3.34 | -84.09 |
| 39       | 0.7   | -82.98 | 0.39  | -83.59 |
| 78       | 0.03  | -83.58 | -2.22 | -84.04 |

#### 4、Antenner Matching circuit/天线匹配电路

##### 4.1 Principle diagram of left ear antenna matching/左耳天线匹配原理图



##### 4.2 Material List for Matching Left Ear Antenna/左耳天线匹配物料表

| Tag number<br>位号 | Value of the left ear material<br>左耳料值 |
|------------------|----------------------------------------|
| C15              | NC                                     |
| L7               | 0 $\Omega$                             |
| C16              | 2.6pf                                  |