

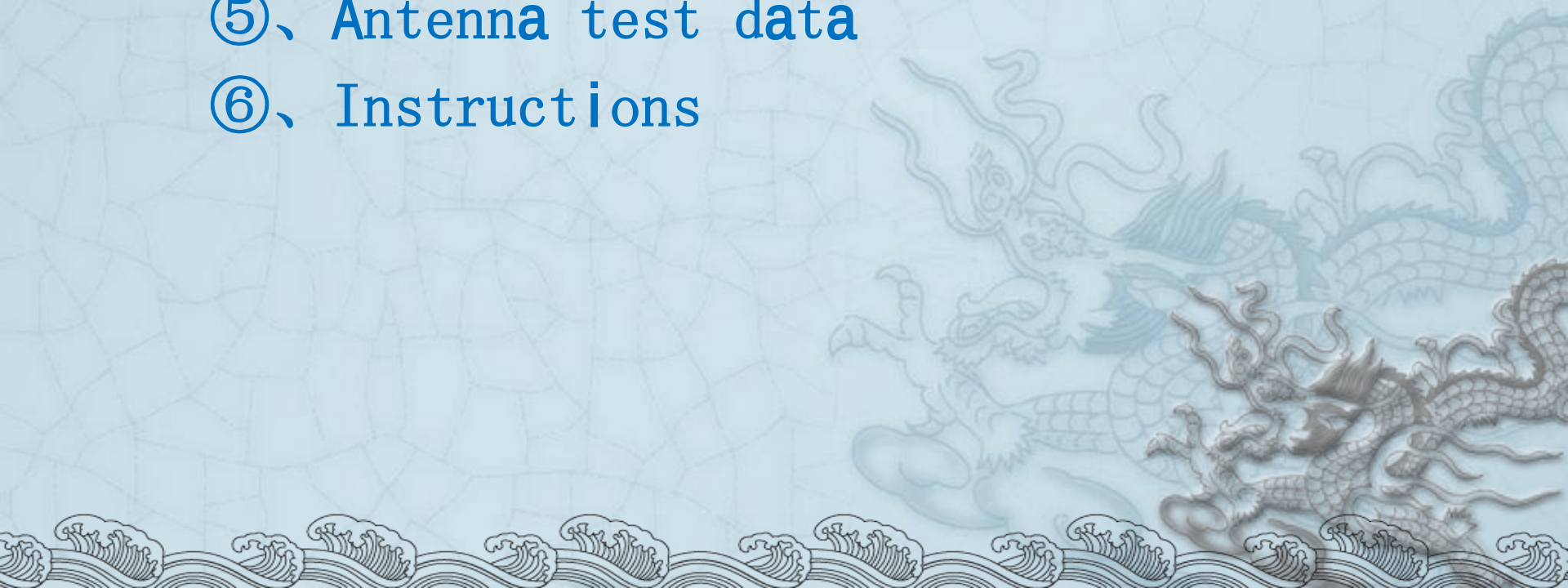


深圳市天达通信有限公司

# Antenna Test Report

# Item

- ①、Testing equipment
- ②、Project description
- ③、Debug version record
- ④、Matching circuit
- ⑤、Antenna test data
- ⑥、Instructions

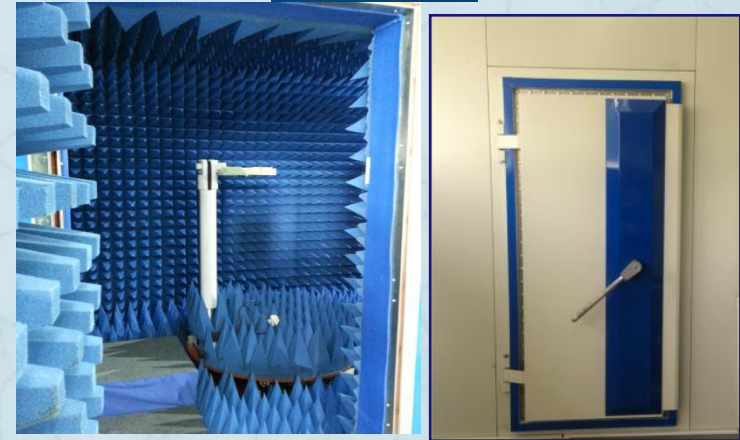


# test equipment

SATIMO—24



广屏—ETS



Amway MT8820C



Agilent 8960



Agilent E5071C

| test system | testing environment                                         | Active testing   | Passive testing |
|-------------|-------------------------------------------------------------|------------------|-----------------|
| ETS         | temperature<br>: $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$ | support 2G/3G/4G | 600MHZ——6G      |

:  $50\% \pm 15\%$

# project overview

| name    |    | item name    | m o d e l   | Antenna imple-<br>mentation method | size |
|---------|----|--------------|-------------|------------------------------------|------|
|         |    | watch        | smart watch | Bluetooth cable                    | /    |
| 频 段     |    |              |             |                                    |      |
| antenna |    |              |             |                                    |      |
|         | BT | 2400~2500MHz |             |                                    |      |
|         |    |              |             |                                    |      |
|         |    |              |             |                                    |      |
|         |    |              |             |                                    |      |

| 版本  | 日期 | 内容概述 |
|-----|----|------|
| V1  |    |      |
| V2  |    |      |
| V3  |    |      |
| V5  |    |      |
| V6  |    |      |
| V7  |    |      |
| V5  |    |      |
| V9  |    |      |
| V10 |    |      |

# BT passive test data



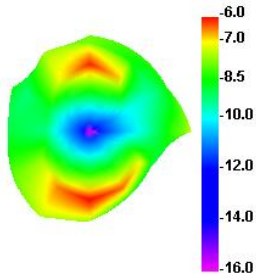
天线S11

# BT passive test data

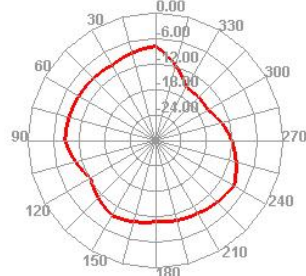
| Passive Test For WiFi Antenna(2.4G) |             |              |               |
|-------------------------------------|-------------|--------------|---------------|
| Freq<br>(MHz)                       | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) |
| 2400                                | 8.74        | -10.59       | -6.02         |
| 2410                                | 7.86        | -11.05       | -6.4          |
| 2420                                | 7.8         | -11.08       | -6.42         |
| 2430                                | 7.43        | -11.29       | -6.49         |
| 2440                                | 7.48        | -11.26       | -6.53         |
| 2450                                | 7.82        | -11.07       | -6.27         |
| 2460                                | 7.13        | -11.47       | -6.47         |
| 2470                                | 6.69        | -11.75       | -6.94         |
| 2480                                | 6.83        | -11.65       | -6.73         |
| 2490                                | 6.65        | -11.77       | -6.6          |
| 2500                                | 6.35        | -11.98       | -6.77         |

# antenna pattern

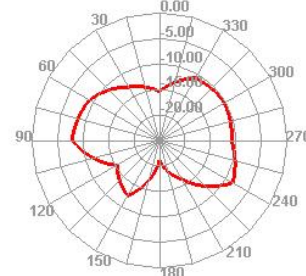
2400.000MHz



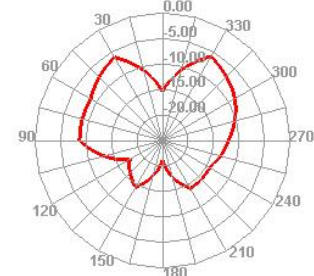
2400.000MHz H



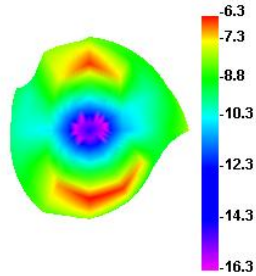
2400.000MHz E1



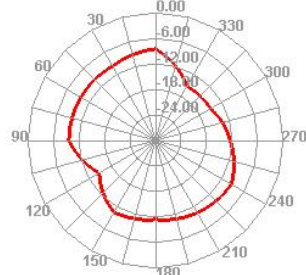
2400.000MHz E2



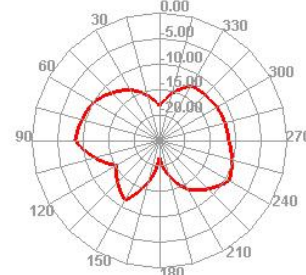
2450.000MHz



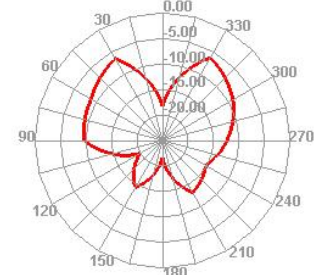
2450.000MHz H



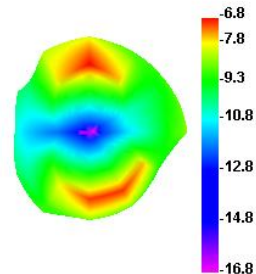
2450.000MHz E1



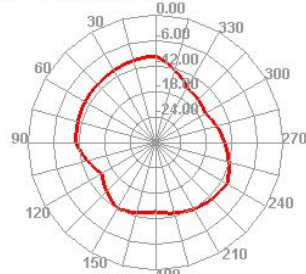
2450.000MHz E2



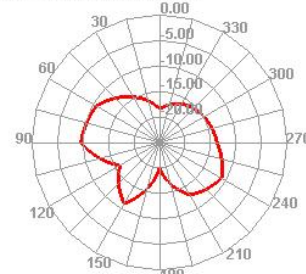
2500.000MHz



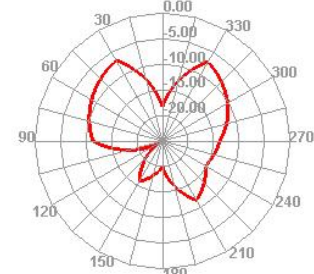
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



# Active test data

| 1#              |           |        |       |
|-----------------|-----------|--------|-------|
| Test            | Bluetooth |        |       |
| Result          | 0         | 39     | 78    |
| Frequency (MHz) | 2402      | 2441   | 2480  |
| TRP (dBm)       | -0.36     | -0.73  | -1.23 |
| TIS (dBm)       | -82.68    | -81.35 | -77.8 |

| 2#              |           |        |        |
|-----------------|-----------|--------|--------|
| Test            | Bluetooth |        |        |
| Result          | 0         | 39     | 78     |
| Frequency (MHz) | 2402      | 2441   | 2480   |
| TRP (dBm)       | -2.5      | -2.61  | -2.52  |
| TIS (dBm)       | -86.34    | -85.35 | -85.42 |