



# 天线承认书

## Parts Approval Sheet

|                          |       |         |              |
|--------------------------|-------|---------|--------------|
| Customer                 | 星易美   | Project | STM930-JK-K6 |
| Band                     | WIFI  | Color   | BLACK        |
| PN                       | X3083 | Version | V1           |
| Customer material number |       |         |              |

DATE: 2024/11/26

|                  |            |              |            |
|------------------|------------|--------------|------------|
| R&D              |            |              | QC         |
| Issued by        | Checked by | Confirmed by | Checked by |
| 伍海沅              | 钟一铭        | 梁毅           | 蔡枝         |
| Customer Confirm |            |              |            |

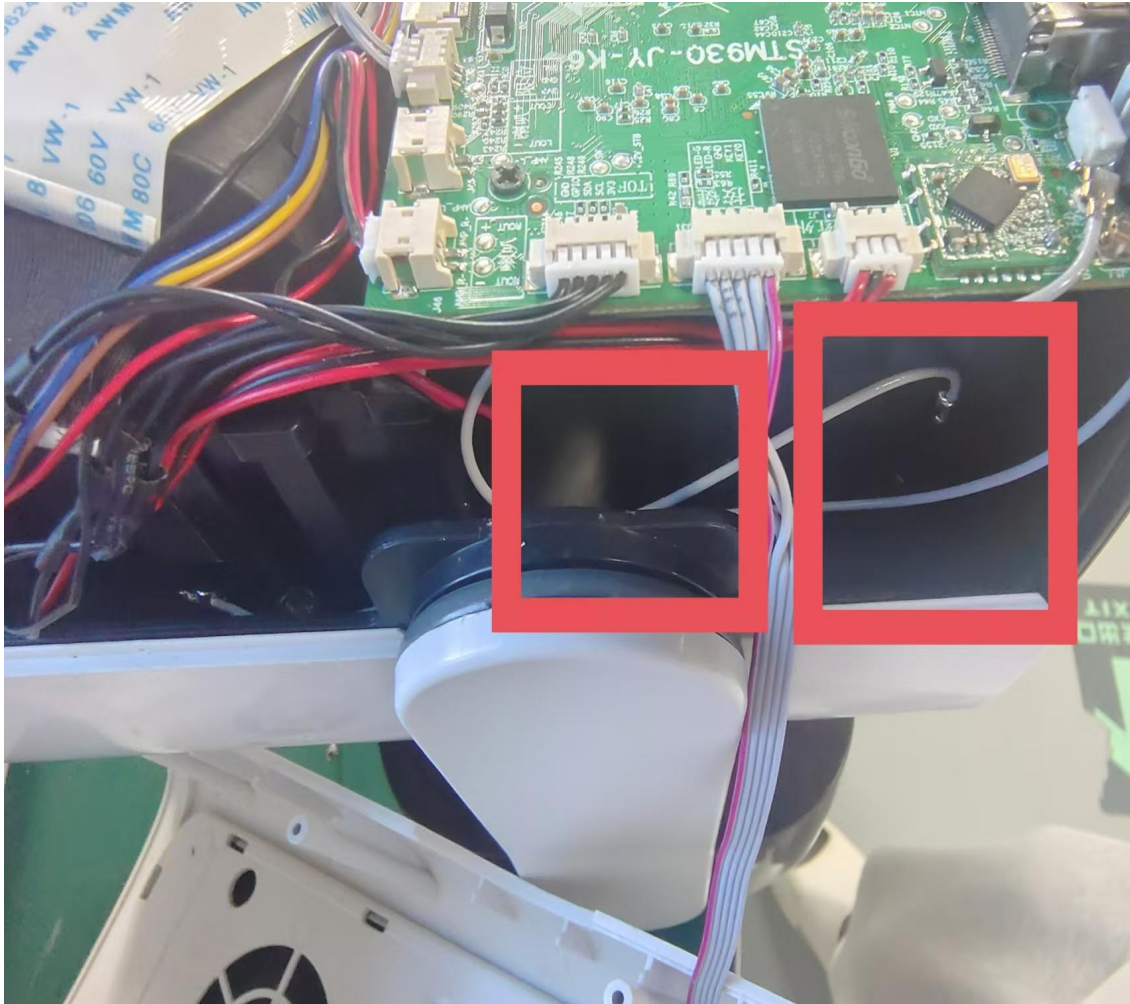
Environmental requirements: ☒ ROHS ☐ REACH ☐ 无

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## 1.Summary

This report summarizes the electrical results of the our antenna to support the project STM930-JK-K6.The test fixture is made for further testing, which is show below:



## 2.General Description

### 2.1Antenna Components/Part revisions

The antenna part number is T: A

### 2.2Definitions

VSWR: Voltage Standing Wave Rate

TRP: total radiated power

TIS: total isotropic sensitivity

### 3.Electrical Performance

#### 3.1 Matching Circuit Description

### 匹配电路

匹配是否有改动

无

| 天线        |       |
|-----------|-------|
| Element   | Value |
| E1 (0201) |       |
| E2 (0201) |       |
| E3 (0201) |       |

RF Module ← ———→ Antenna

E2

E3

E1

### 3.2 Antenna TRP&TIS test results

| OTA 数据 (B 模) |       |        |
|--------------|-------|--------|
| Channel      | TRP   | TIS    |
| 1            | 16.45 | -77.20 |
| 7            | 16.79 | -76.66 |
| 13           | 17.36 | -76.97 |

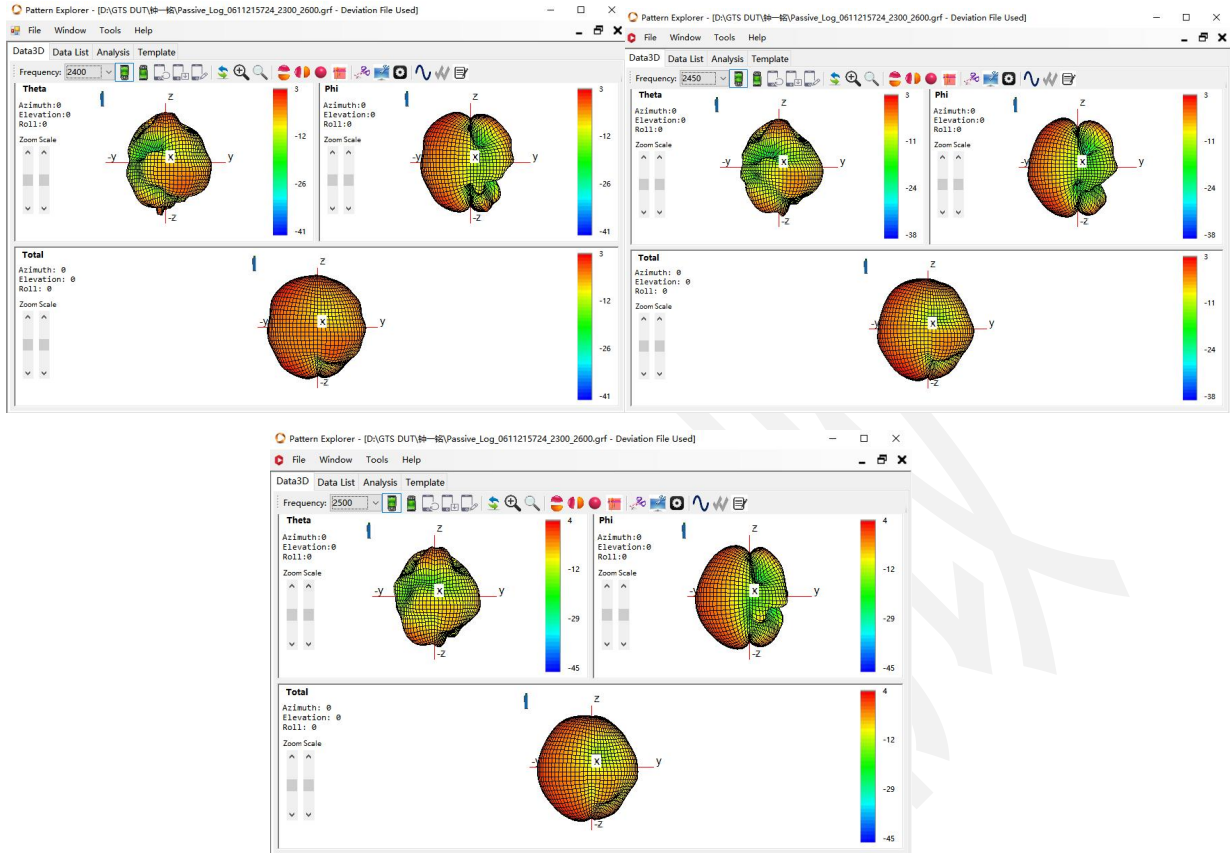
| OTA 数据 (a 模) |       |        |
|--------------|-------|--------|
| Channel      | TRP   | TIS    |
| 36           | 14.56 | -71.02 |
| 149          | 14.69 | -70.32 |
| 165          | 15.22 | -70.99 |

### 3.3 Gain&Efficiency

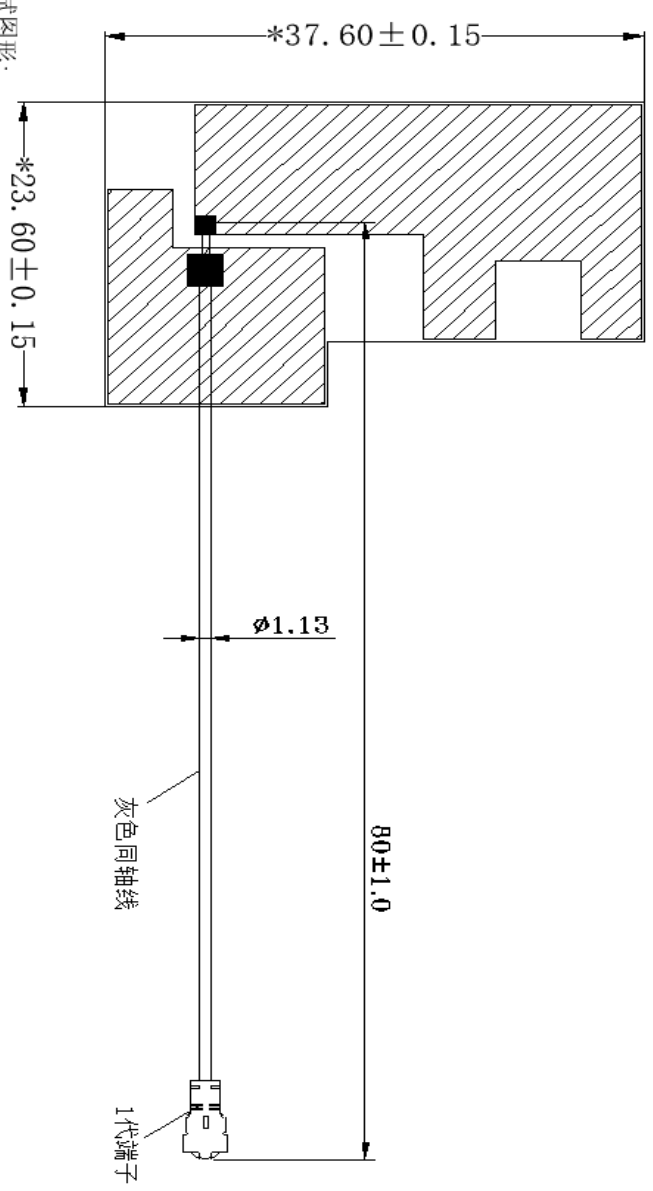
| 2. 4G 无源测试数据 |             |        |
|--------------|-------------|--------|
| 频率<br>(MHZ)  | 增益<br>(DBI) | 效率 (%) |
| 2400         | 2.56        | 59.94  |
| 2410         | 2.72        | 58.92  |
| 2420         | 2.18        | 57.37  |
| 2430         | 2.24        | 57.23  |
| 2440         | 2.38        | 55.32  |
| 2450         | 2.85        | 57.22  |
| 2460         | 2.68        | 56.42  |
| 2470         | 3.17        | 58.04  |
| 2480         | 2.99        | 58.58  |
| 2490         | 3.4         | 59.72  |
| 2500         | 3.36        | 57.48  |

### 3.4 3D Radiation Pattern

#### WIFI 2 2.4G 苹果图



## 4. Antenna Engineer drawing

| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2     | 3                     | 4    | 5 | 6 |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------|------|---|---|--------------|--|--|--|--------|----|----|------|------------|----|-----------------------|----|-------------|----|------|----|-------------|-------|-------|----|-------------|------|------|----|-----------|-------|-------|----|--|--|--|-----|
| <div style="float: right; text-align: right;">             环保要求: <input checked="" type="checkbox"/> ROHS <input type="checkbox"/> REACH 无           </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |                       |      |   |   |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |                       |      |   |   |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |
| <div style="float: left; width: 30%;"> <p><b>技术要求</b></p> <p>1: “*” 重要尺寸标注</p> <p>2: 天线电压驻波比对照测试图形;</p> <p>3: 天线焊接部位牢固, 线缆尺寸准确;</p> <p>4: 丝印字体清晰不易脱落;</p> <p>5: 背面为背胶面; 离心纸面切一刀为撕手位</p> <p>6: 产品必须符合欧盟RoHS要求。</p> <p>7: 切口不可有漏铜现象。</p> </div> <div style="float: right; width: 65%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="4" style="text-align: center;">深圳市和鸣微科技有限公司</th> </tr> <tr> <td style="width: 15%;">未注公差标准</td> <td style="width: 15%;">机种</td> <td style="width: 15%;">品名</td> <td style="width: 15%;">WIFI</td> </tr> <tr> <td>0-10 ±0.05</td> <td>料号</td> <td>X3083-STW30J-KK0-WIFI</td> <td>日期</td> </tr> <tr> <td>10-18 ±0.06</td> <td>材料</td> <td>特殊工艺</td> <td>MD</td> </tr> <tr> <td>18-30 ±0.08</td> <td>共 1 页</td> <td>第 1 页</td> <td>RF</td> </tr> <tr> <td>30-40 ±0.09</td> <td>第一视角</td> <td>第一视角</td> <td>审核</td> </tr> <tr> <td>40- ±0.10</td> <td>Angle</td> <td>±0.5°</td> <td>版本</td> </tr> <tr> <td></td> <td></td> <td></td> <td>V00</td> </tr> </table> </div> |       |                       |      |   |   | 深圳市和鸣微科技有限公司 |  |  |  | 未注公差标准 | 机种 | 品名 | WIFI | 0-10 ±0.05 | 料号 | X3083-STW30J-KK0-WIFI | 日期 | 10-18 ±0.06 | 材料 | 特殊工艺 | MD | 18-30 ±0.08 | 共 1 页 | 第 1 页 | RF | 30-40 ±0.09 | 第一视角 | 第一视角 | 审核 | 40- ±0.10 | Angle | ±0.5° | 版本 |  |  |  | V00 |
| 深圳市和鸣微科技有限公司                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |                       |      |   |   |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |
| 未注公差标准                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 机种    | 品名                    | WIFI |   |   |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |
| 0-10 ±0.05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 料号    | X3083-STW30J-KK0-WIFI | 日期   |   |   |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |
| 10-18 ±0.06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 材料    | 特殊工艺                  | MD   |   |   |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |
| 18-30 ±0.08                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 共 1 页 | 第 1 页                 | RF   |   |   |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |
| 30-40 ±0.09                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 第一视角  | 第一视角                  | 审核   |   |   |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |
| 40- ±0.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Angle | ±0.5°                 | 版本   |   |   |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                       | V00  |   |   |              |  |  |  |        |    |    |      |            |    |                       |    |             |    |      |    |             |       |       |    |             |      |      |    |           |       |       |    |  |  |  |     |

## 5. Reliability Testing Report

|                          |                                                                                                                                                                                                                                       |             |               |                                                                                        |            |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|----------------------------------------------------------------------------------------|------------|
| customer                 | 星易美                                                                                                                                                                                                                                   | part number | FPC           | Work Date                                                                              | 2024.11.26 |
| Test item                | Test requirement                                                                                                                                                                                                                      |             |               | Test result                                                                            | Evaluation |
| neutral<br>Salt-Fog test | Hydrochloric fog through neutral testing:<br>In the time of 24 hours, no rust corrosion, color fading or solder peel off to the antenna fpc sop in Nacl 5% ± 1% PH value 6.5-7.2, above 85% humidity. and 35℃ ± 2℃ Seals environment. |             |               | Norust corrosion, color fading or solder peel off on the antenna surface after testing | pass       |
| tester: 伍海沅              |                                                                                                                                                                                                                                       |             | approval: 伍海沅 |                                                                                        |            |