

# 承 认 书

| 客户确认 CUSTOMER APPROVED BY |               |                |
|---------------------------|---------------|----------------|
| 批准 Approved by            | 审核 Checked by | 制表 Prepared by |
|                           |               |                |
| 供方确认 SUPPLIER APPROVED BY |               |                |
| 批准 Approved by            | 审核 Checked by | 制表 Prepared by |
|                           |               |                |

**供应商名称：** 欧智通科技股份有限公司

Supplier Name: Ouzhitong Technology Co., Ltd

**供应商地址：** 深圳市宝安区西乡街道共乐社区铁仔路50号凤凰智谷B座14层

Supplier Address: 14th Floor, Block B, Fenghuang Zhigu, No. 50 Tiezi Road, Gongle Community, Xixiang Street, Bao'an District, Shenzhen

**供应商工厂：** 湖南省长沙市浏阳经济开发区利通路8号

Supplier Factory: No. 8 Litong Road, Liuyang Economic Development Zone, Changsha City, Hunan Province

**供应商电话：** 86-755-2955-8186

Supplier's phone number: 86-755-2955-8186

**供应商网址：** [www.fn-link.com](http://www.fn-link.com)

Supplier website: [www.fn link.com](http://www.fn-link.com)

# 天线测试报告

## antenna testing

|                                |               |
|--------------------------------|---------------|
| 客 户<br>Customer                |               |
| 项目名称<br>Project Name           |               |
| 客 户 料 号<br>Customer NO.        |               |
| 规 格<br>specification           | 2400-2500MHz  |
| 供 方 料 号<br>Supplier NO.        | 4A8-1100-3100 |
| 规 格 书 编 号<br>Specification NO. |               |
| 编写人<br>Write by                |               |
| 版本<br>REV.                     | Ver. 1        |
| 日 期<br>Date                    | 2025-02-11    |
| 备 注<br>Note                    |               |

| 版本变更记录              |                        |               |                      |                    |
|---------------------|------------------------|---------------|----------------------|--------------------|
| 变更日期<br>Change date | 变更内容<br>Change content | 版本<br>version | 变更人<br>Change person | 批准人<br>Approved by |
| 2024.02.11          | 首版发行                   | V1.0          |                      |                    |
|                     |                        |               |                      |                    |
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## 1. 承认书项目表 (Index)

## 1. Recognition Letter Project Table (Index)

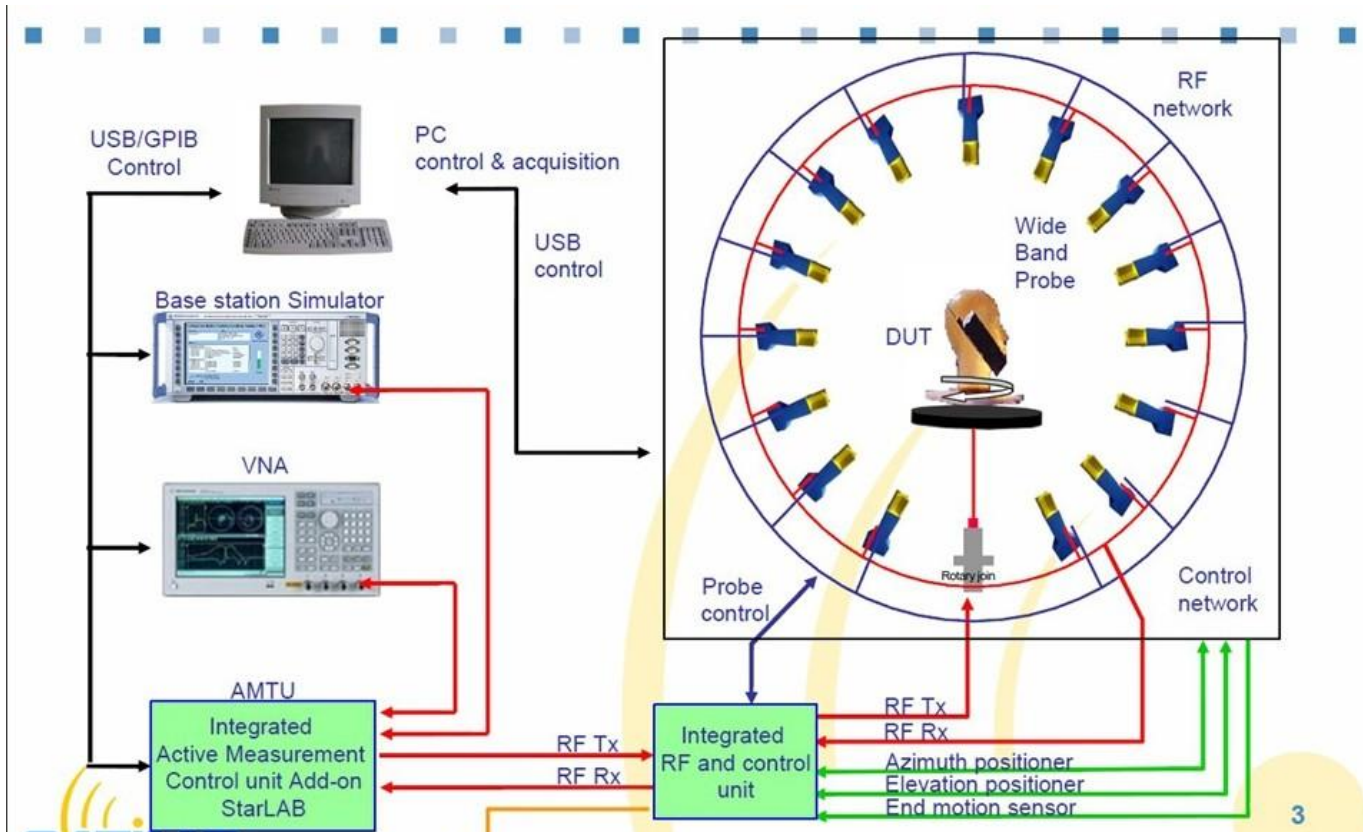
| 序号<br>Number | 内容<br>content                                | 页码<br>Page number      |
|--------------|----------------------------------------------|------------------------|
| –            | 承认书封面<br>Acknowledgment Letter Cover         | 1<br>one               |
| –            | 天线测试报告<br>Antenna test report                | 2<br>two               |
| –            | 版本变更记录<br>Version change record              | 3<br>three             |
| 1<br>one     | 承认书项目表<br>Confirmation Letter Project Table  | 4<br>four              |
| 2<br>two     | 试验设备和条件<br>Test equipment and conditions     | 5<br>five              |
| 3<br>three   | 样机结构说明件<br>Prototype structure specification | 6<br>six               |
| 4<br>four    | 天线成品图<br>Finished antenna diagram            | 7<br>seven             |
| 5<br>five    | 有源数据/S11驻波图                                  | 8<br>eight             |
| 6<br>six     | 增益/效率/3D图<br>Gain/Efficiency/3D Graph        | 9<br>nine-<br>fourteen |
| 7<br>seven   | 包装<br>packing                                | 10<br>fifteen          |
|              |                                              |                        |

## 2. 试验设备和条件(Test Equipment & Conditions)

1.1 . Network Analyzers : KEYSIGHT P5002A  
1.2 . Communications Test Set: R&S CMW 500

1.3 . 3D Chamber Test System: 24探头测试系统 (24 probe testing system)

### 1. 微波暗室的测试原理图 (Testing principle diagram of microwave anechoic chamber)

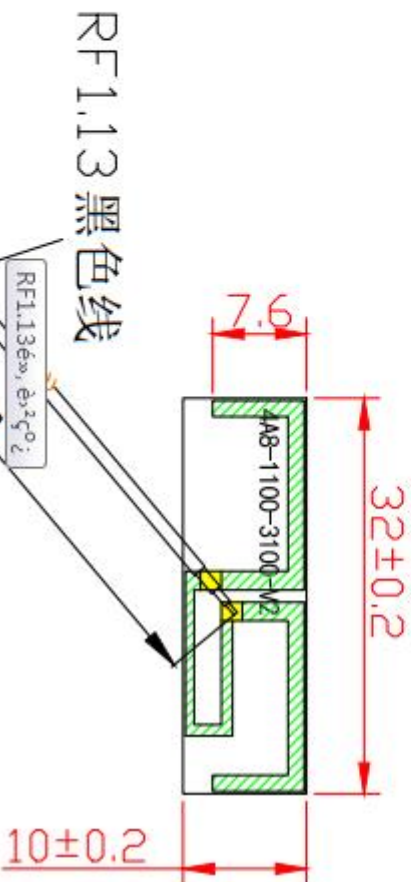


## 2. 说明。

这份报告总结了该项目天线的电气性能结果，包括天线的S11 参数,Gain和Efficiency. 2. Explanation.

This report summarizes the electrical performance results of the antenna for the project, including the S11 parameters, Gain, and Efficiency of the antenna

表面铺黑油，丝印白色，  
一对半基材，金手指OSP



IPEX-1代  
端子口朝上焊接

- NOTES:
- 绿色为铜材质部分；无色为基材；黄色部分为镀金区；蓝色为背胶区域；
  - 刀模不可伤到线路，镀金区要与线路导通；
  - 表面不可以有污物，擦伤、黑点、镀金后断裂及脱落等不良现象；
  - 材料：FPC为PI(电鍍铜)基材+胶(3M9471 0.05mm)+表面油墨(司藤/优力/力拓达/力固) (>0.01mm)；
  - 反面背胶3M 9471 300L SE (粘性需过高温实验)，试验条件：-30℃ (60min) ~ (转换时间30min) ~ +70℃ (60min) ~ (转换时间30min) ~ -30℃ (60min) ... 如此共五个循环后常温放置8H无脱落、起翘、掉墨、起包鼓；
  - 金手指表面不可有氧化现象(需过盐雾实验)；
  - 标\*为重点尺寸。

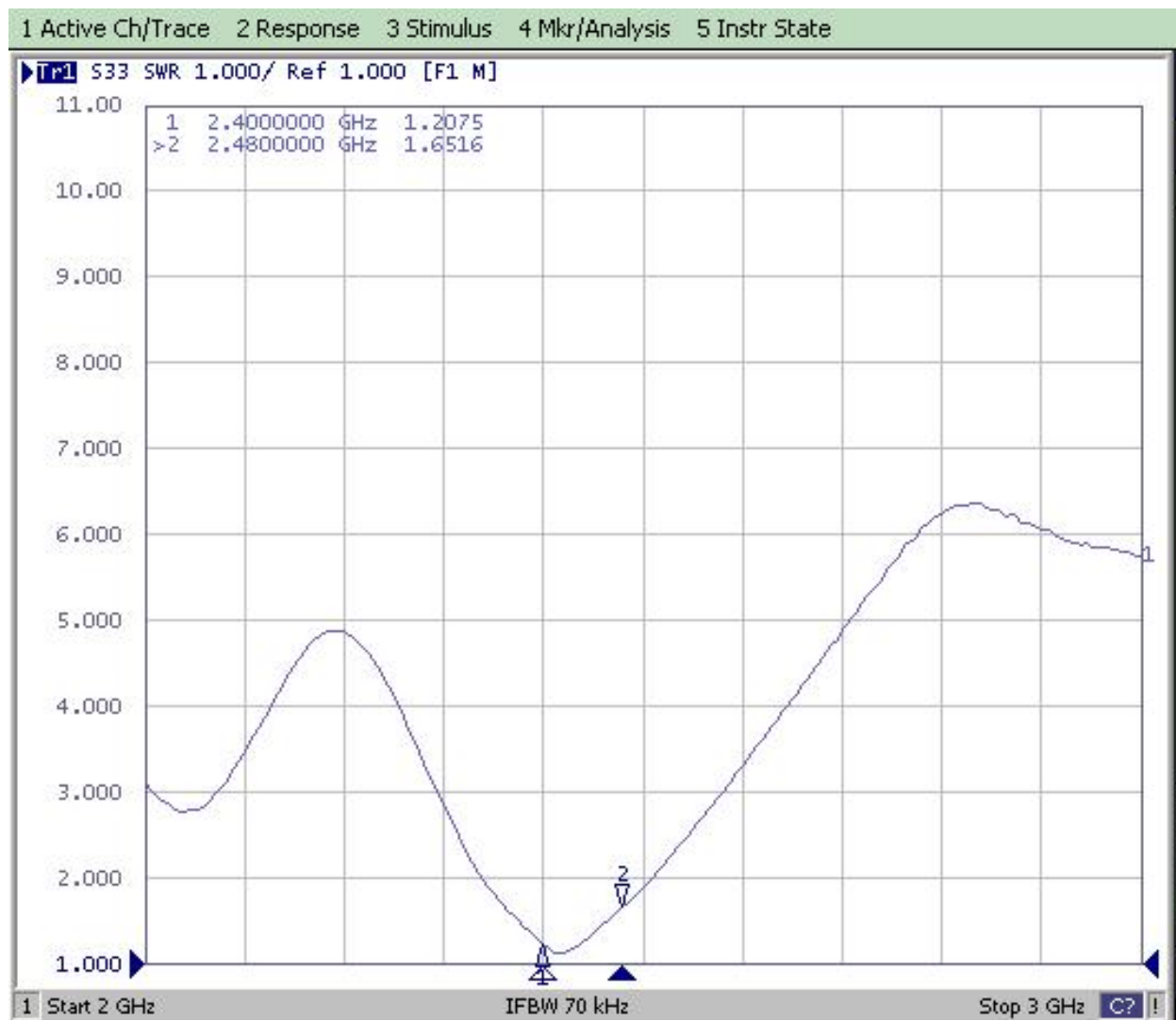
| 1  | 2 | 3 | 4 | 5 | 6     | 7  | 8  |
|----|---|---|---|---|-------|----|----|
| 序号 | 修 | 改 | 内 | 容 | 确认/日期 | 版本 | 备注 |
|    |   |   |   |   |       |    |    |
|    |   |   |   |   |       |    |    |

## 欧智通科技股份有限公司

| 第三角法  |            |            |      | 机种    | SS             | 日期 | 2025.02.17 |
|-------|------------|------------|------|-------|----------------|----|------------|
| 0~10  | $\pm 0.10$ | $\bigcirc$ | 0.02 | 品名    | WiFi 2.4G-V2.0 | 设计 |            |
| 10~20 | $\pm 0.12$ | $\odot$    | 0.03 | 料号    | 4A8-1100-3100  | 审核 | 结构 CEN     |
| 20~40 | $\pm 0.15$ | $\perp$    | 0.02 | 材质    | PI             |    | 射频 RAO     |
| 40~   | $\pm 0.20$ | $\nabla$   | 0.04 | 模面处理  |                |    |            |
| 位置    | 共1页 第1页    | 外观处理       |      | 单位 mm | 比例 1:1         | 版本 | A.0        |

## 5. S11Main antennaS11

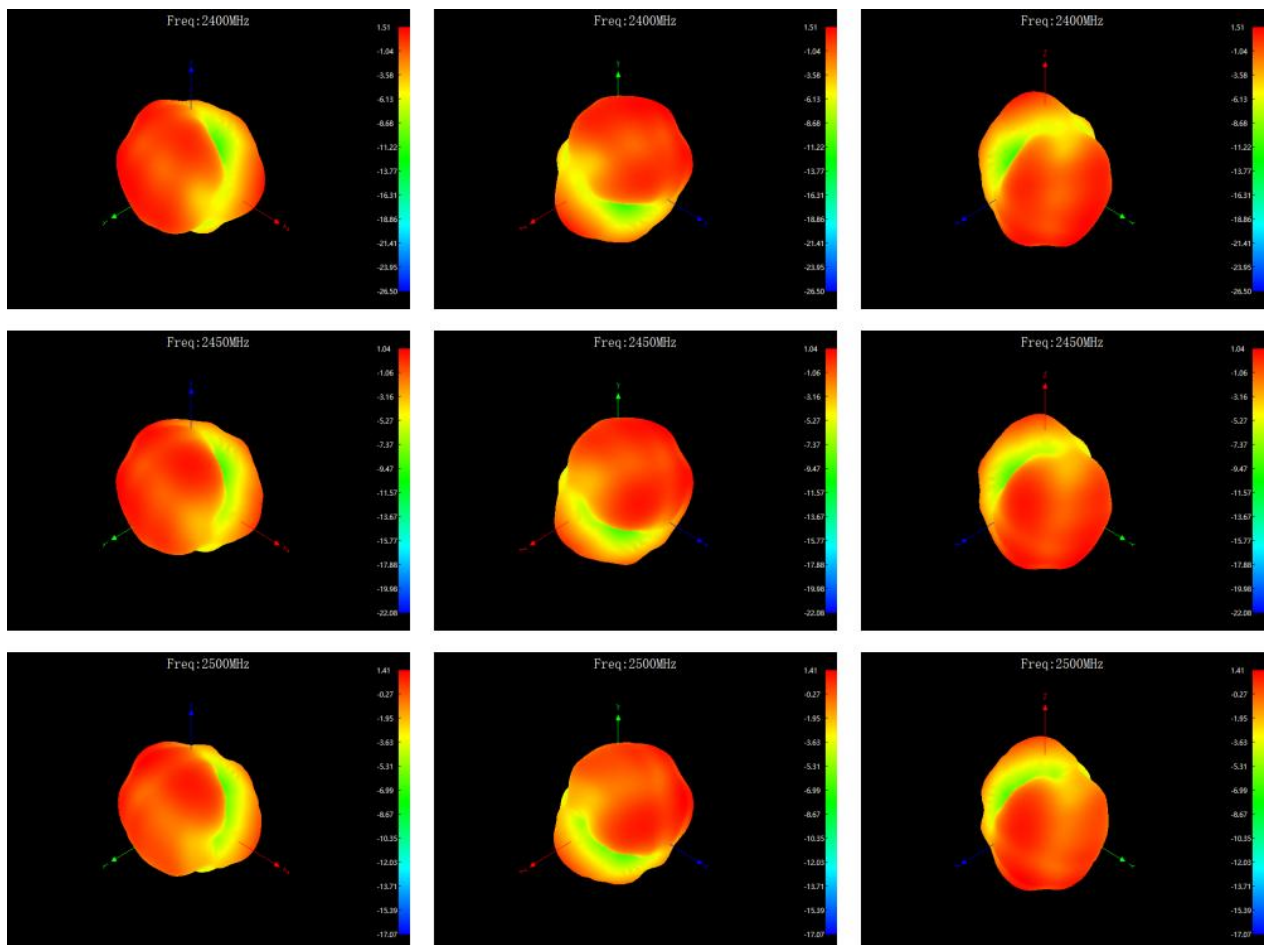
天线驻波图：



## 6. 增益/效率/3D图

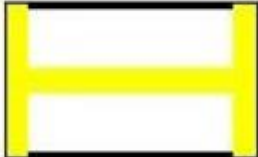
### Gain/Efficiency/3D Graph

| Frequency/Mhz | Efficiency / % | MaxGain/dBi |
|---------------|----------------|-------------|
| 2400          | 65.77          | 1.51        |
| 2410          | 66.99          | 1.82        |
| 2420          | 68.08          | 1.51        |
| 2430          | 68.08          | 1.94        |
| 2440          | 68.55          | 2.09        |
| 2450          | 67.45          | 1.04        |
| 2460          | 69.02          | 2.82        |
| 2470          | 69.18          | 2.14        |
| 2480          | 69.18          | 2.48        |
| 2490          | 69.66          | 1.76        |
| 2500          | 68.12          | 1.41        |



## 7. 包装 packing

### 产品包装规范Code for product packaging

| 产品名称/规格                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |       |  |      |       |      |       |      |       |       |       |    |       |       |  |      |       |      |       |      |       |       |       |    |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|--|------|-------|------|-------|------|-------|-------|-------|----|-------|-------|--|------|-------|------|-------|------|-------|-------|-------|----|-------|
| <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>一、标签要求</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 20px;"> <thead> <tr> <th colspan="2" style="text-align: center; padding: 5px;">*****</th> </tr> </thead> <tbody> <tr> <td style="width: 20%; padding: 2px;">采购单号</td> <td style="padding: 2px;">*****</td> </tr> <tr> <td style="padding: 2px;">物料编码</td> <td style="padding: 2px;">*****</td> </tr> <tr> <td style="padding: 2px;">品名规格</td> <td style="padding: 2px;">*****</td> </tr> <tr> <td style="padding: 2px;">数量/单位</td> <td style="padding: 2px;">*****</td> </tr> <tr> <td style="padding: 2px;">备注</td> <td style="padding: 2px;">*****</td> </tr> </tbody> </table> </div> <div style="width: 45%;"> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 20px;"> <thead> <tr> <th colspan="2" style="text-align: center; padding: 5px;">*****</th> </tr> </thead> <tbody> <tr> <td style="width: 20%; padding: 2px;">采购单号</td> <td style="padding: 2px;">*****</td> </tr> <tr> <td style="padding: 2px;">物料编码</td> <td style="padding: 2px;">*****</td> </tr> <tr> <td style="padding: 2px;">品名规格</td> <td style="padding: 2px;">*****</td> </tr> <tr> <td style="padding: 2px;">数量/单位</td> <td style="padding: 2px;">*****</td> </tr> <tr> <td style="padding: 2px;">备注</td> <td style="padding: 2px;">*****</td> </tr> </tbody> </table> </div> </div> <div style="margin-top: 20px;"> <p>二、装箱要求</p> <p>作业说明：</p> <p>1. 内包装：</p> <p>产品____PCS 一小袋</p> <div style="text-align: center; margin-top: 20px;">  <p>PE袋</p> </div> <p>2. 外包装：</p> <p><u>根据实际数量定数量/箱</u></p> <div style="text-align: center; margin-top: 20px;">  <p>纸箱</p> <div style="text-align: center; margin-top: 20px;">  </div> </div> </div> <div style="margin-top: 20px;"> <p>注意事项：</p> <p>1. 是否要增设隔板、珍珠棉；</p> <p>2. 标签的贴附，如 ROHS 等；</p> </div> |       | ***** |  | 采购单号 | ***** | 物料编码 | ***** | 品名规格 | ***** | 数量/单位 | ***** | 备注 | ***** | ***** |  | 采购单号 | ***** | 物料编码 | ***** | 品名规格 | ***** | 数量/单位 | ***** | 备注 | ***** |
| *****                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |       |  |      |       |      |       |      |       |       |       |    |       |       |  |      |       |      |       |      |       |       |       |    |       |
| 采购单号                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ***** |       |  |      |       |      |       |      |       |       |       |    |       |       |  |      |       |      |       |      |       |       |       |    |       |
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| 备注                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ***** |       |  |      |       |      |       |      |       |       |       |    |       |       |  |      |       |      |       |      |       |       |       |    |       |
| *****                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |       |  |      |       |      |       |      |       |       |       |    |       |       |  |      |       |      |       |      |       |       |       |    |       |
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