

# 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 |
|----------------|---------------|----------------|
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**供应商名称:** 欧智通科技股份有限公司

**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

**供应商工厂:** 湖南省长沙市浏阳经济开发区利通路8号

**供应商电话:** 86-755-2955-8186

**供应商网址:** www.fn-link.com

# WIFI&蓝牙天线测试报告

## antenna testing

|                            |                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------|
| 客 户<br>Customer            | 科沃斯                                                                                            |
| 项目名称<br>Project Name       | MR2337青耕                                                                                       |
| 客 户 料 号<br>Customer NO.    |                                                                                                |
| 规 格<br>specification       | PCBWiFi2.4G天线 AKWSOPW0-2337-V01绿油白字(背胶):单面板FR4:尺寸30.4x35.5mm板厚1.0;线长205mm线径1.13黑色:带1代IPEX;ROHS |
| 供 方 料 号<br>Supplier NO.    | 1AAKWS0PW0-2337-00                                                                             |
| 规格书编号<br>Specification NO. |                                                                                                |
| 编写人<br>Write by            | 潘益林                                                                                            |
| 版本<br>REV.                 | Ver.1                                                                                          |
| 日 期<br>Date                | 2024-11-27                                                                                     |
| 备 注<br>Note                |                                                                                                |

| 版本变更记录 |      |    |     |     |
|--------|------|----|-----|-----|
| 变更 期   | 变更内容 | 版本 | 变更人 | 批准人 |
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## 1. 承认书项目表 (Index)

| 序号 | 内容        | 页码 |
|----|-----------|----|
| -  | 承认书封面     | 1  |
| -  | 版本变更记录    | 2  |
| 1  | 承认书项目表    | 3  |
| 2  | 试验设备和条件   | 4  |
| 3  | 样机结构说明件   | 5  |
| 4  | 天线成品图     | 6  |
| 5  | S11       | 7  |
| 6  | 增益/效率/3D图 | 8  |
| 7  | 包装        | 9  |
|    |           |    |

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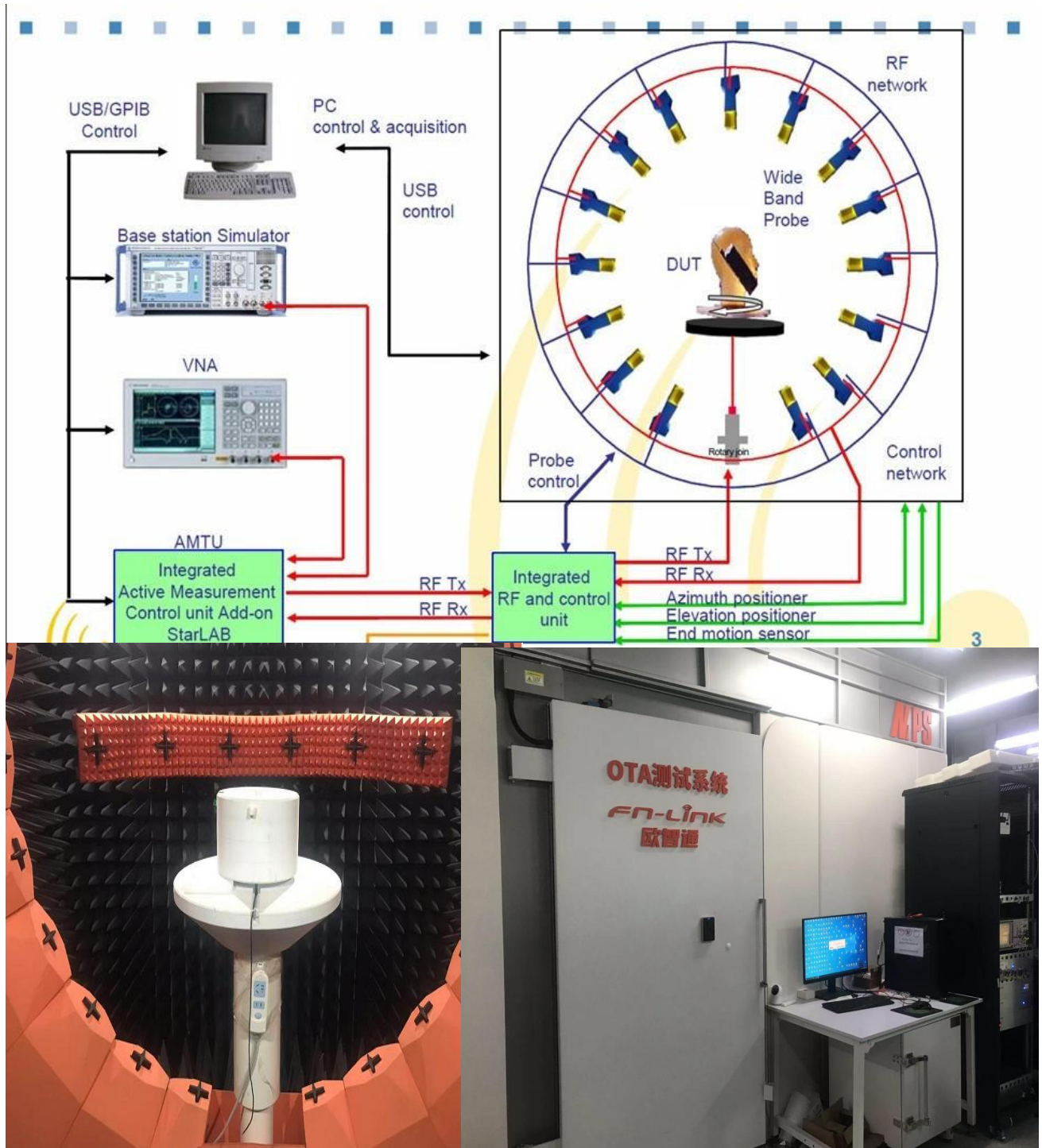
# 1. 试验设备和条件(Test Equipment & Conditions)

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

1.微波暗室的测试原理图



## 2.说明。

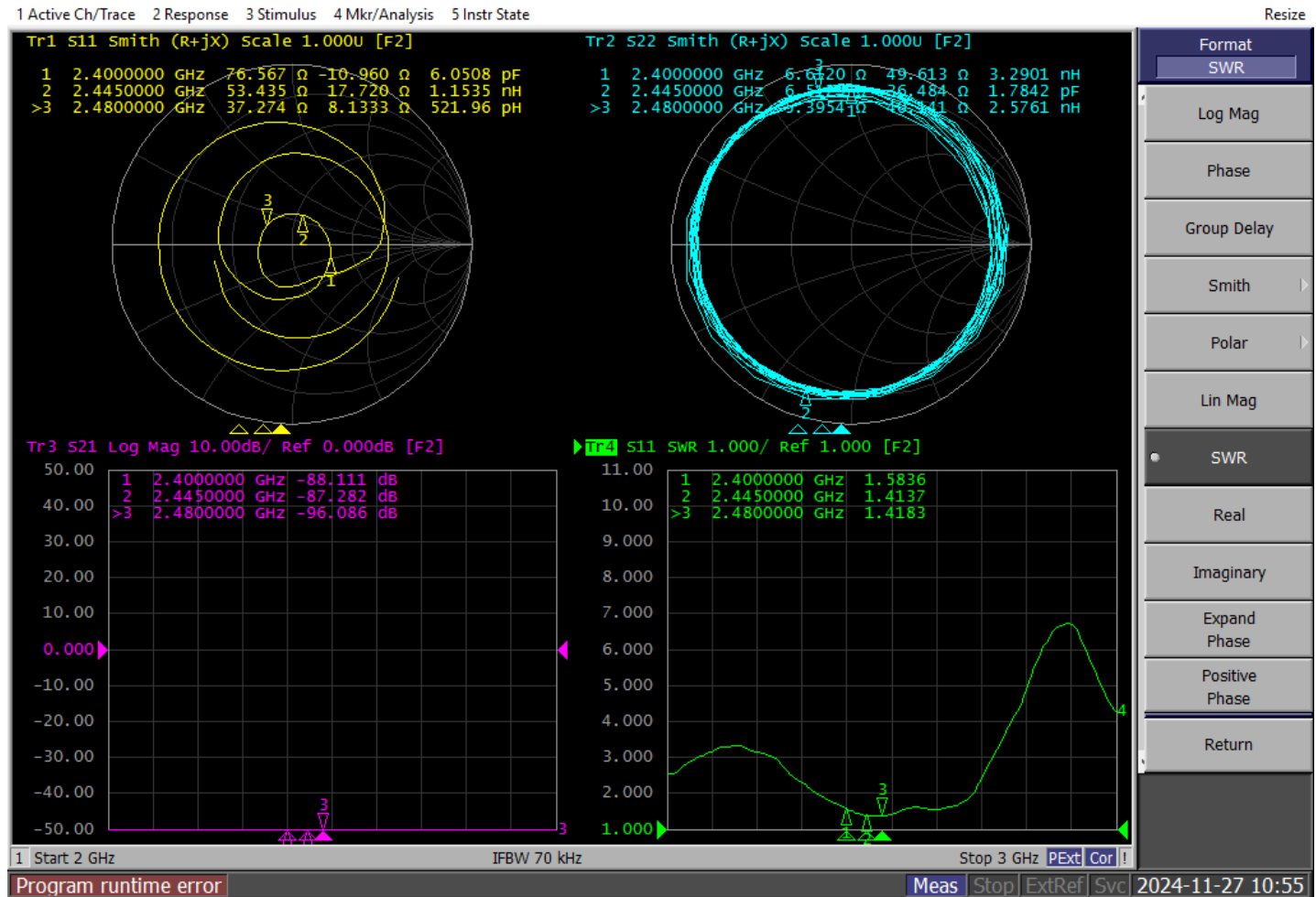
这份报告总结了该项目天线的电气性能结果，包括天线的S11 参数,Gain和Efficiency.

## 天线装配图

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# WIFI&蓝牙天线S11(Black antenna S11)

E5071C Network Analyzer



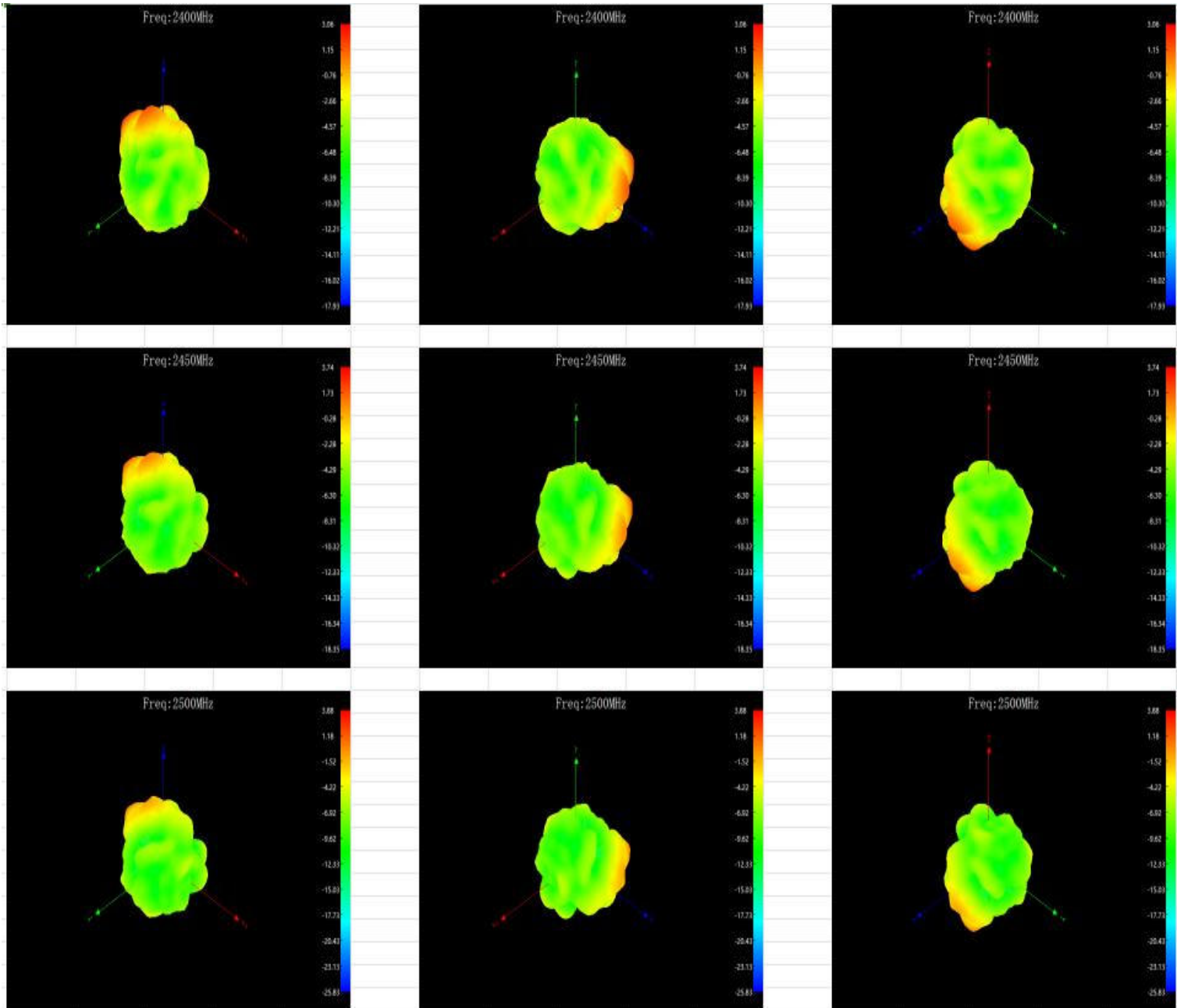
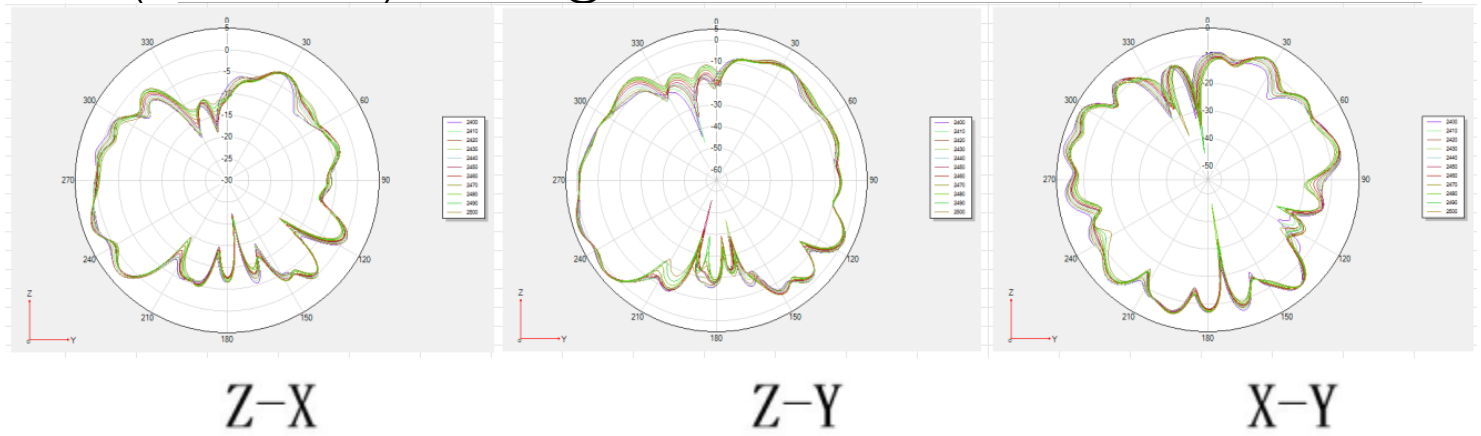
|          |      |      |      |
|----------|------|------|------|
| Freq/GHz | 2400 | 2450 | 2500 |
| VSWR     | 1.6  | 1.4  | 1.4  |

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WIFI&蓝牙天线2.4G数据

| Frequency/Mhz | MaxGain/dBi | Efficiency / % |
|---------------|-------------|----------------|
| 2400          | 3.35        | 57.08          |
| 2410          | 3.31        | 58.57          |
| 2420          | 3.23        | 60.16          |
| 2430          | 3.84        | 65.46          |
| 2440          | 4.56        | 66.21          |
| 2450          | 3.69        | 64.78          |
| 2460          | 3.57        | 63.46          |
| 2470          | 3.42        | 62.51          |
| 2480          | 3.69        | 62.34          |
| 2490          | 3.83        | 61.76          |
| 2500          | 3.72        | 60.46          |

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WIFI&蓝牙 2.4G天线苹果图方向图  
(Black antenna)3DPattern@2400-2500MHz



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OTA有源数据

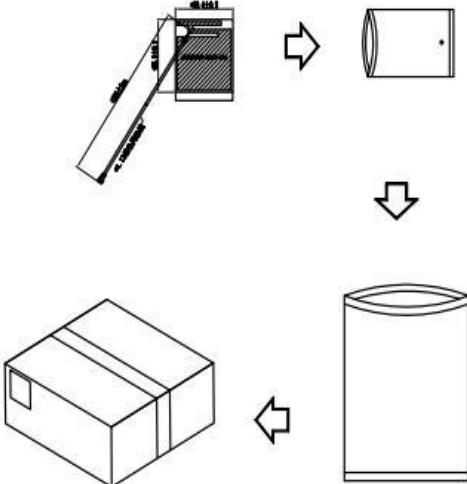
| Item | Measurement | Azimuths | Elevations | Standard  | Band          | Chanr | Frequen | Max    | Min    | Total  |
|------|-------------|----------|------------|-----------|---------------|-------|---------|--------|--------|--------|
| 1    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)  | 1     | 2412    | 13.06  | -6.9   | 9.73   |
| 2    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)  | 6     | 2437    | 13.21  | -3.75  | 10.03  |
| 3    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)  | 11    | 2462    | 12.65  | -1.19  | 9.65   |
| 4    | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)  | 1     | 2412    | -59.45 | -84.45 | -77.78 |
| 5    | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)  | 6     | 2437    | -62.6  | -84.39 | -78.78 |
| 6    | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_B (11M)  | 11    | 2462    | -66.96 | -84.64 | -77.21 |
| 7    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)  | 1     | 2412    | 14.05  | -7.13  | 9.33   |
| 8    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)  | 6     | 2437    | 13.61  | -3.22  | 9.76   |
| 9    | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)  | 11    | 2462    | 13.69  | 0.01   | 9.45   |
| 10   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)  | 1     | 2412    | -49.41 | -74.55 | -70.84 |
| 11   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)  | 6     | 2437    | -51.52 | -73.34 | -71.23 |
| 12   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_G (54M)  | 11    | 2462    | -54.22 | -74.91 | -69.49 |
| 13   | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (6 | 1     | 2412    | 13.99  | -7.09  | 9.3    |
| 14   | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (6 | 6     | 2437    | 13.5   | -3.32  | 9.49   |
| 15   | TRP         | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (6 | 11    | 2462    | 13.68  | 0.07   | 9.23   |
| 16   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (6 | 1     | 2412    | -45.65 | -68.85 | -62.15 |
| 17   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (6 | 6     | 2437    | -49.48 | -69.24 | -62.66 |
| 18   | TIS(EIRP)   | Every30  | Every30    | WIFI (AP) | WIFI_N_ISM (6 | 11    | 2462    | -54.76 | -68.43 | -62.1  |

包装图



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包装规范

| 版本                                                                                 | 修订内容                                                                                           |       | 修订日期                                  | 修订人    |               |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------|---------------------------------------|--------|---------------|
|                                                                                    |                                                                                                |       |                                       |        |               |
|  | 作业方法(自检该工序作业合格后，方能流入下一道工序)                                                                     |       | 物料名称                                  |        |               |
|                                                                                    | 1. 每个PE小袋子里放置100PCS产品，再放置于一个PE大袋子里，每大包装1000PCS（大包装需贴标签，标识数量型号），每箱装3000pcs,尾数再另起一个PE袋。          |       | 1. 注意标签有无贴错、漏贴、箱子有无破损；<br>2. 附出货检验报告。 |        |               |
|                                                                                    | 2. 将包装好的产品装箱，用双坑（双层瓦楞）纸箱外包装（总数量按实际情况而定），外箱封箱后在右上角贴好标签（料号、数量、型号、规格、日期）。（如有特殊情况，按照客户要求数量对产品进行放置） |       |                                       |        |               |
|                                                                                    | 图示仅供参考,具体以实物为准                                                                                 |       | 物料名称                                  | 用量     | 规格            |
|                                                                                    |                                                                                                |       | PE开口袋                                 | 1/100  | 200*150mm     |
|                                                                                    |                                                                                                |       | PE开口袋                                 | 1/1000 | 330*230mm     |
|                                                                                    |                                                                                                |       | 纸箱                                    | 1/3000 | 290*210*100mm |
|                                                                                    |                                                                                                |       | 标签                                    |        |               |
|                                                                                    |                                                                                                |       |                                       |        |               |
|                                                                                    |                                                                                                |       |                                       |        |               |
| 产品名称                                                                               |                                                                                                | 产品型号  | 日期                                    | 制定     |               |
| AKWSOPW0-2337-V01                                                                  |                                                                                                | PCB天线 | 2024.05.23                            | 李燕     |               |

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