



深圳自由行通信技术有限公司
Shenzhen Free Walk Communication Technology Co. LTD

ADD: 深圳市宝安西乡鹤洲西区工业园 2 栋 3 楼
3rd Floor, Building 2, Hezhou West Industrial Park,
Xixiang, Baoan, Shenzhen

Email: zyx_sz@yeah.net

TEL: 86-0755-29955983 FAX: 86-0755-29955983

承认书

APPROVAL SHEET

客户 (Customer) :

惠州迈腾伟业科技发展有限公司
Huizhou Maiteng Weiye Technology Development Co., LTD

产品 (Product) :

5G 外置天线 (L=81mm)

5G external antenna (L=81mm)

型号 (Model) :

MT-WR3006

客户料号 (Customer
Part Number) :

12.N3.5004Y81BW

料号 (Part Number) :

Z02-50446-R01

制作人 (Written By) :

胡 涛 Mr Hu

签发时间 (Issued Date) :

2024-07-02

客户 CUSTOMER

| 工程部 ENGINEER R&D DEPT | 品质部 QUALITY DEPT | 批准 APPROVED |
|--------------------------|---------------------|----------------|
| | | |

Free Walk

| | | |
|----------------|--------------------------|----------------|
| 射频 R&D DEPT | 工程部 ENGINEER R&D DEPT | 批准 APPROVED |
| 胡 涛 | 卿创辉 | 邓凯 |



深圳自由行通信技术有限公司
Shenzhen Free Walk Communication Technology Co. LTD

文件变更履历表

Document change history

表单编号:QR-ZYX-084 版本: A0

Form number: QR-ZYX-084 Version: A0

目 录

Index

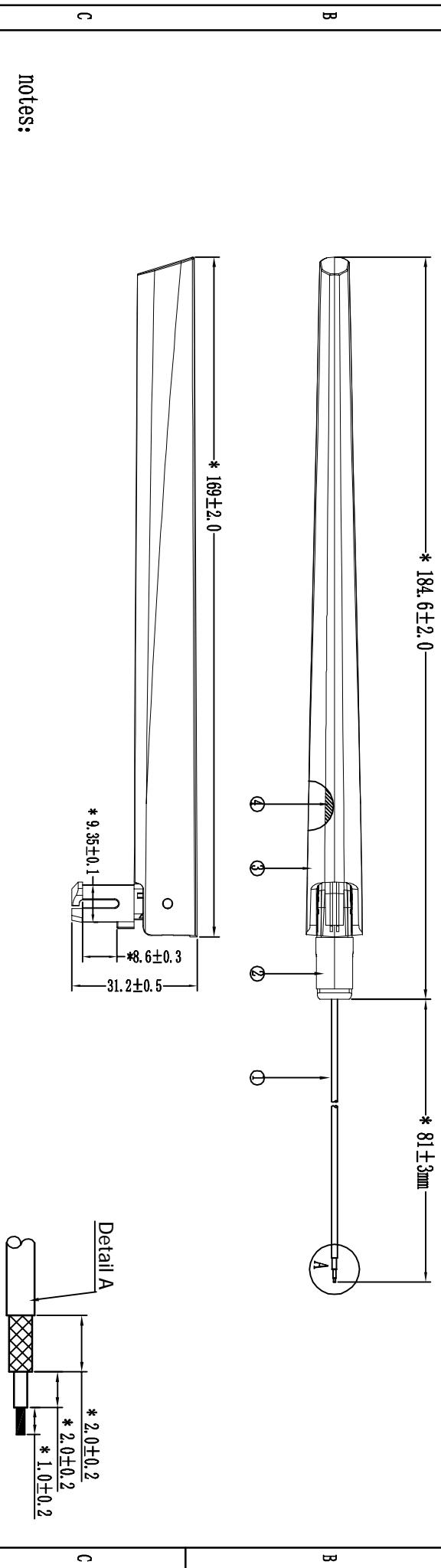
| | |
|---|------|
| 一、 封面 (Cover) | 1 |
| 二、 文件变更履历表 (Document Change Resume) | 2 |
| 三、 目录 (Index) | 3 |
| 四、 基本参数 (The basic parameters) | 4 |
| 五、 工程图纸 (Product Drawing) | 5 |
| 六、 测试设备 (Test Equipment & Conditions) | 6 |
| 七、 性能测试报告 (Test Report) | 7-10 |
| 八、 天线图片 (Antenna Picture) | 11 |
| 九、 RoHS 报告清单 (RoHS report list) | 12 |
| 十、 包装方式 (TEE PACKING WAY) | 13 |

The basic parameters

| A. Electrical Characteristics | |
|--|--------------------------|
| Frequency | 5150 MHz ~5850MHz |
| VSWR | ≤2 |
| Efficiency | >60% |
| Impedance | 50 Ohm |
| Polarization | Linear |
| Gain | 5dBi±1 |
| B. Material & Mechanical Characteristics | |
| Material of Radiator | |
| Cable Type | Φ 1.37mm Black |
| Connector Type | 焊接 |
| Dimension | |
| C. Environmental | |
| Operation Temperature | - 20 °C ~ + 60 °C |
| Storage Temperature | - 40 °C ~ + 80 °C |

Freewall

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|------------|-------------------|--------------|--------------|--------------|---|---|
| 序号 No | 品名 Name | 材料/规格 Material | 颜色 Colour | 数量 Amount | 备注 Remark | | |
| ① | RF line | ø1.37 line | black | 1 | | | |
| ② | Shikugu | PC | black | 1 | | | |
| ③ | Sleeve rod | ABS | black | 1 | | | |
| ④ | PCB | FR-4 | black | 1 | | | |
| ⑤ | | | | | | | |
| ⑥ | | | | | | | |
| ⑦ | | | | | | | |



notes:

1. Standard * is the key dimension, Dimensions not marked with tolerance shall be tested according to ± 0.15
2. Refer to drawing without dimension; Other dimensions are subject to actual matching;

2. Refer to drawing without dimension; Other dimensions are subject to actual matching;
3. Refer to drawing without dimension; Other dimensions are subject to actual matching;

4. accord with ROHS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

Test Equipment & Conditions

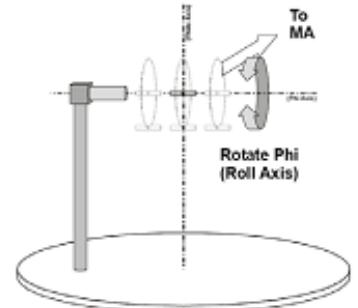
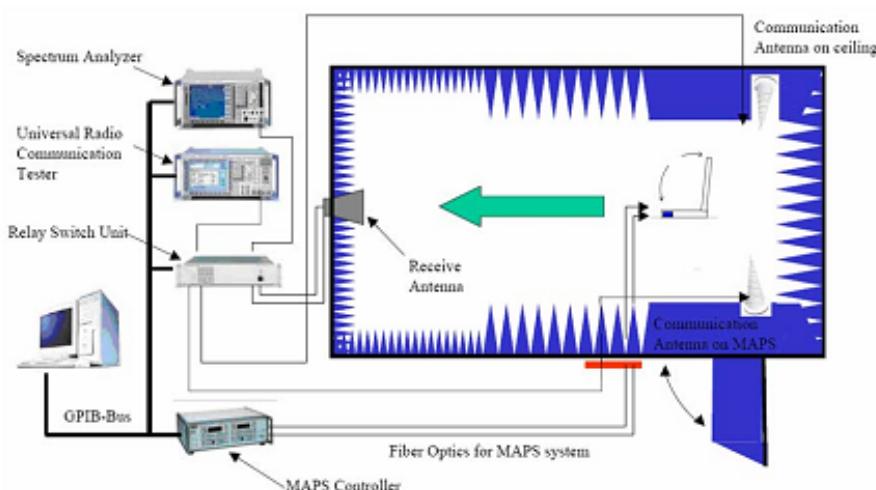
1. Network Analyzers :

Agilent 8753D 5071C

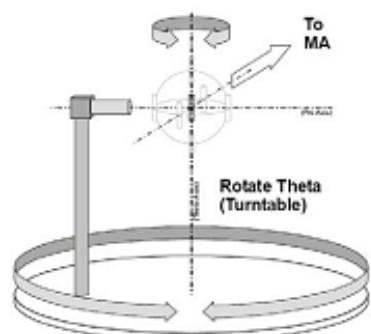
2. Communications Test Set:

Agilent 8960 CMW500

3. 3D Chamber Test System



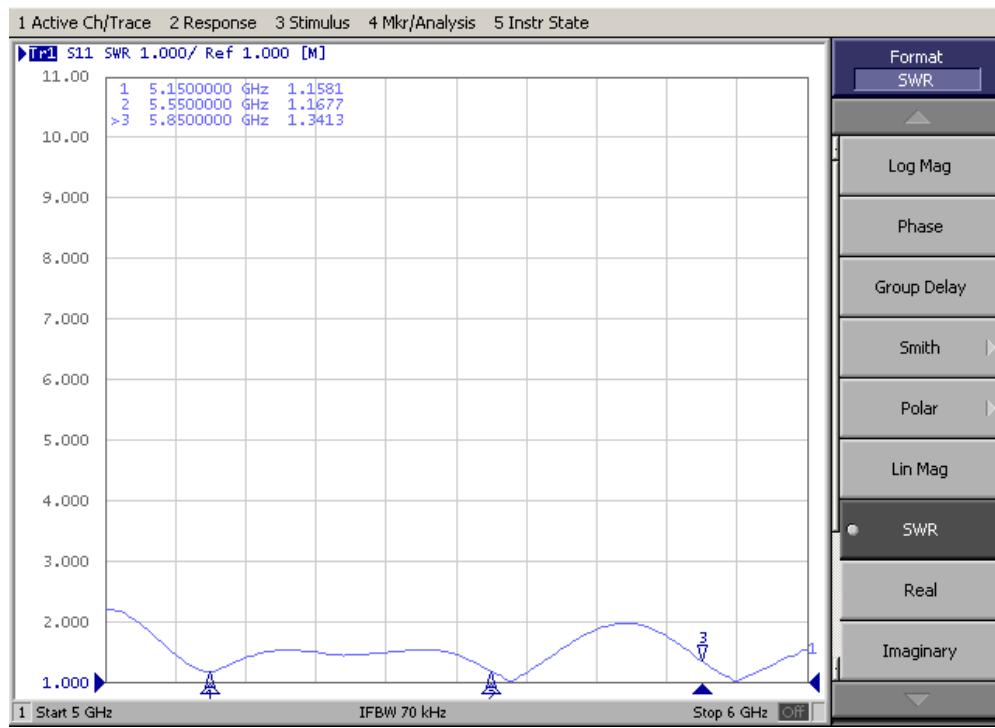
Phi axis test



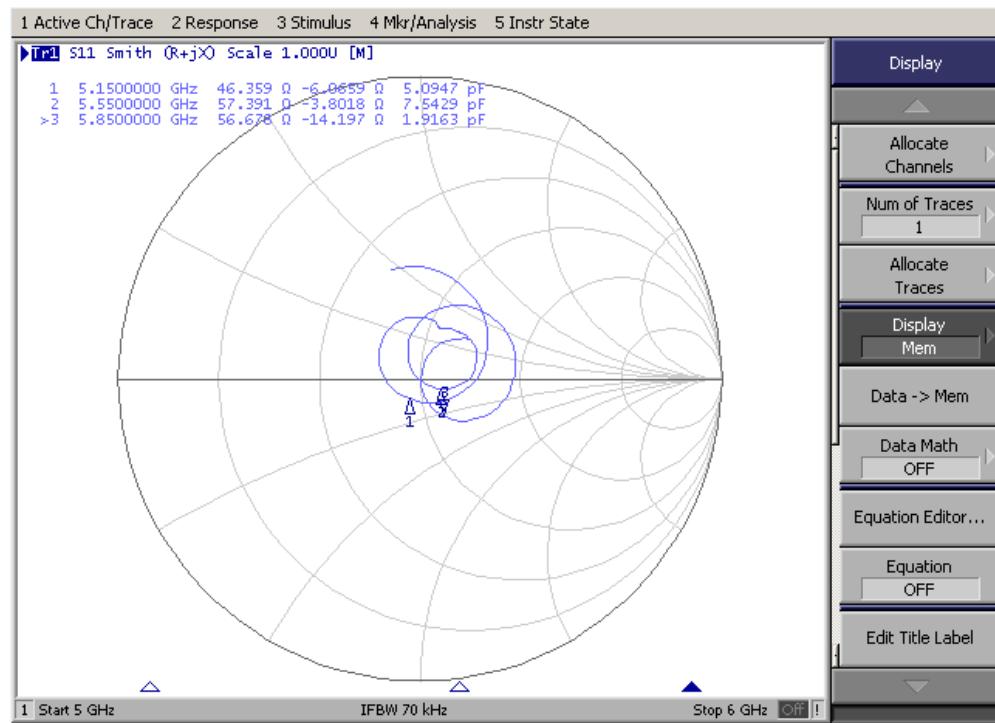
Theta axis test

测试数据

SWR



Smith

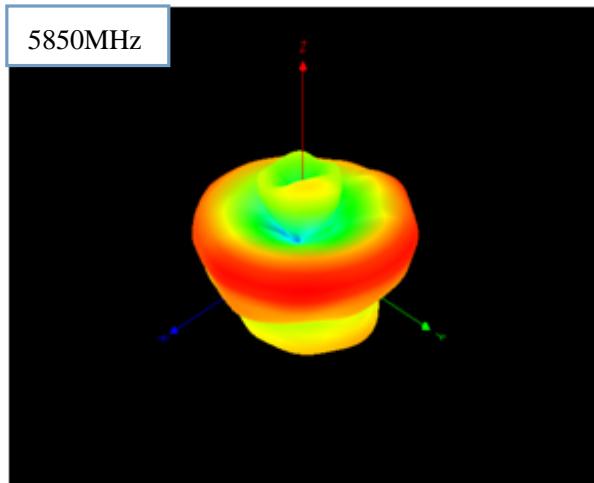
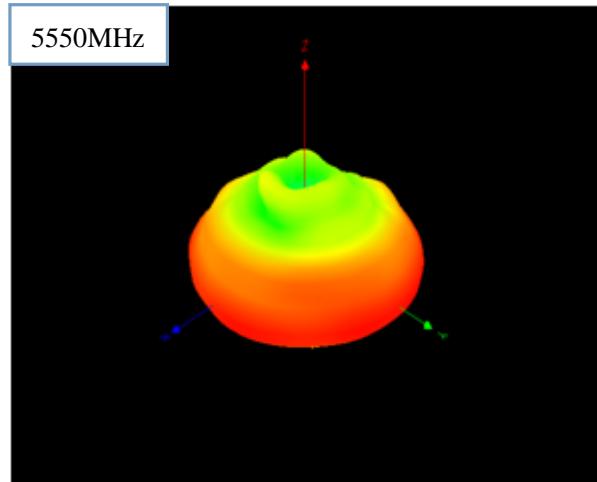
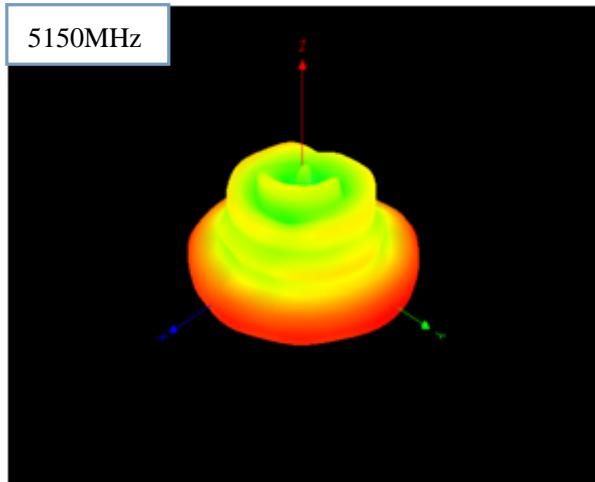


效率&增益:**Efficiency&Gain**

| Freq (MHz) | Effi (%) | Gain (dBi) |
|------------|----------|------------|
| 5150 | 66.53 | 5.20 |
| 5200 | 67.61 | 5.27 |
| 5250 | 63.53 | 5.19 |
| 5300 | 72.11 | 5.31 |
| 5350 | 71.45 | 5.20 |
| 5400 | 76.91 | 5.18 |
| 5450 | 79.62 | 5.38 |
| 5500 | 69.82 | 4.92 |
| 5550 | 68.71 | 4.69 |
| 5600 | 73.79 | 4.81 |
| 5650 | 70.47 | 4.78 |
| 5700 | 66.53 | 4.87 |
| 5750 | 65.31 | 4.66 |
| 5800 | 65.08 | 4.77 |
| 5850 | 66.24 | 4.68 |

方向图(3D图)

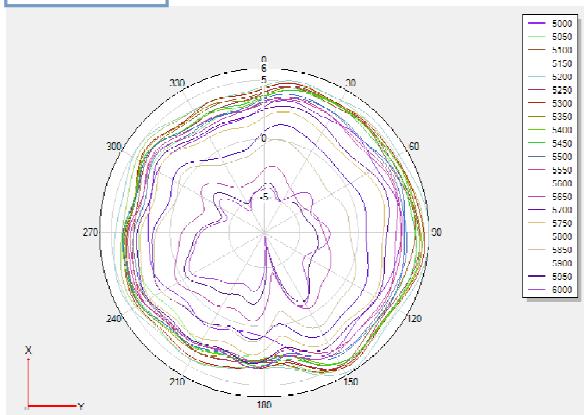
Patten



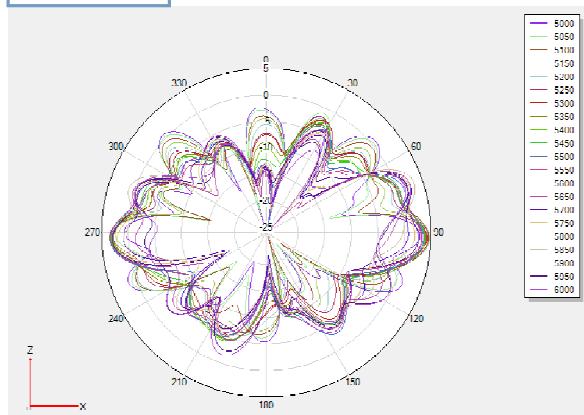
方向图(2D图)

Patten

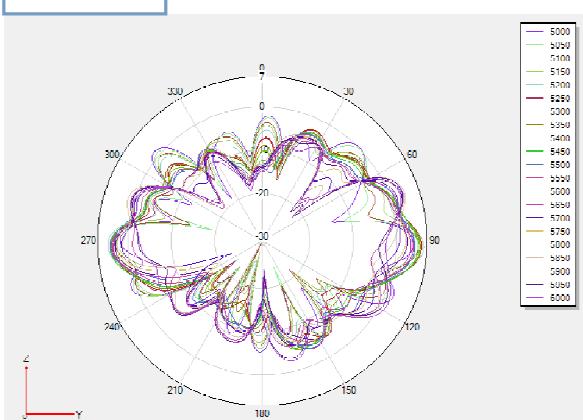
XOY 面



ZOX 面



ZOY 面



天线图片



深圳自由行通信技术有限公司 WIFI天线 物料部件ROHS报告清单

| 序号 | 原材料名称 | 原材料供应商(生产厂家) | 测试机构 | 报告编号 | 检测日期 | 检测到期日期 |
|----|------------|--------------|------|------------------|------------|------------|
| 1 | 锡线 | 深圳泰源 | SGS | CANEC2302684508 | 2024.03.10 | 2025.03.10 |
| 2 | 弹簧/碳素钢 | 通杰 | SGS | SZXF2203022517 | 2023.09.14 | 2024.09.14 |
| 3 | 端子/CU | 通华实业 | SGS | SZXF2104021523 | 2023.09.01 | 2024.09.01 |
| 4 | PCB FR-4.0 | 金安国纪 | SGS | CANEC2221844528 | 2023.10.24 | 2024.10.24 |
| 5 | 套杆/TPE | 宇邦 | SGS | CANEC2222870715 | 2023.10.31 | 2024.10.31 |
| 6 | 线材 | 天迈 | SGS | SZXF2202766625 | 2023.08.18 | 2024.08.18 |
| 7 | 上下/固ABS | 乐金 | SGS | CANPC23001082435 | 2024.03.10 | 2025.03.10 |
| 8 | 铆钉/POM | 台塑工业 | SGS | EKR22B00859M01 | 2023.9.14 | 2024.09.14 |

要求:

1. 说送元器件材料报告必须是按照欧盟落实要求拆分到不可拆分护理方法和名字材料的检测报告，其他的环保法规定，其他的要求测试
2. 所送元器件材料，若是检测报告，必须包括构成原计件，所有材料按部门所有包装材料，社交金属等材质不接受任何形式的控制报告，幽默接受三种以内含三种混测报告，超过三中不接受
3. 本公司认可如下九家检测机构提供的报告，SGS, CTI, ITS, 赛宝, 荷尼, CCIC, bv, STS, set
4. 所有若是检测报告首页需盖章本公司公章侧面加盖骑缝章是各一份报告，不得涂改伪造提供价报告，供货商提供报告，必须先自行审核，确保所送报告有效正确完整，内容清晰可辨

提供报告要求电子档，报告可以清单一起扫描；也可以分开扫描，但要对应编号，以便查询



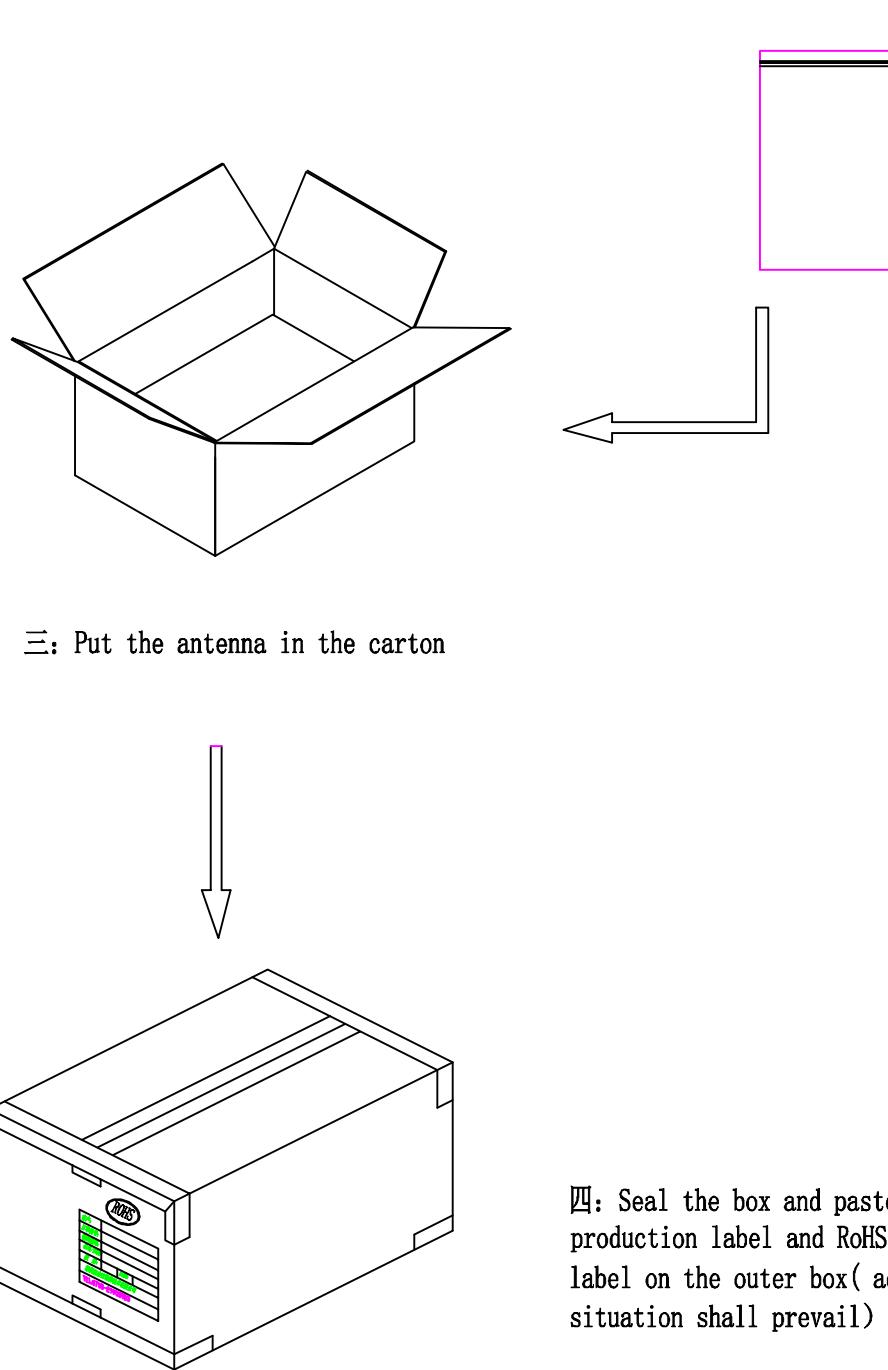
Product packaging specification

page: 1 of 1

| | |
|-----------------------|-------------------|
| Product Name: antenna | Rea : A00 |
| | Except for others |

一: Antenna

二: Put them in PE bags, quantity is packed in (50 100pcs)
Subject to the actual situation



三: Put the antenna in the carton

四: Seal the box and paste the production label and RoHS label on the outer box(actual situation shall prevail)