

## 物料报关参数表

四川博安通通信技术有限公司

Sichuan B&amp;T Technology Co., Ltd.

## SPECIFICATION FOR CUSTOMS

|                                          |                                                                                                                                                                  |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 供应商名称:<br>SUPPLIER:                      | 四川博安通通信技术有限公司<br>Sichuan Boantong Communication Technology Co., Ltd.                                                                                             |
| 制造商名称:<br>MANUFACTURER:                  | 四川博安通通信技术有限公司<br>Sichuan Boantong Communication Technology Co., Ltd.                                                                                             |
| 部品品牌:<br>PART LOGO:                      |                                                                                 |
| 部品名称:<br>PART NAME:                      | 内置天线-2.4 / 5G-黑色 1.37 锡锡线-1 代端子-L=65mm-PCB-28×17×0.6mm<br>Built-in antenna - 2.4/5G - black 1.37 tin wire - 1st generation terminal - L=65mm - PCB - 28×17×0.6mm |
| 厂家型号:<br>SPEC. TYPE:                     | 74300247                                                                                                                                                         |
| 单体净重(g):<br>MONOMER NET WEIGHT(g):       | 约 1.1 g About 1.1 g                                                                                                                                              |
| 外包装方式:<br>PACKAGE:                       | 袋装 Bagged                                                                                                                                                        |
| 最小包装数量 (Pcs) :<br>MIN. PACKAGE QTY(Pcs): | 50PCS/袋/bag                                                                                                                                                      |
| 生产产地:<br>MANUFACTURING ORIGIN:           | 中国 china                                                                                                                                                         |
| 制表日期:<br>DATE:                           | 2024.10.29                                                                                                                                                       |

## 承制方

## MANUFACTURER

| 拟制<br>DRAFTER      | 审核<br>CHECK   | 批准<br>APPROVER  |
|--------------------|---------------|-----------------|
| 邱翠萍<br>Qiu Cuiping | 胡冲<br>Huchong | 刘立华<br>Liulihua |

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开发案号 Project: Y240905986

日期 Date.: 2024.10.29

版本 Ver: A0-1029

## 承 认 书

# Antenna SPEC

客户名称 Customer name: 创维 Skyworth

调试项目 Customer project: HP4CE

客户料号 Customer P/N: \_\_\_\_\_

博安通料号 B&T P/N: 74300247

规格描述 Spec: 内置天线-2.4 / 5G-黑色 1.37 锡锡线-1 代端子

-L=65mm-PCB-28×17×0.6mm

Spec. : Built-in antenna - 2.4/5G - black 1.37 tin wire - first generation

terminal - L=65mm - PCB - 28×17×0.6mm

出厂签章 Sealed by corporation:

|                    |               |                 |
|--------------------|---------------|-----------------|
| 编 写<br>compilation | 审 核<br>verify | 批 准<br>approval |
| 邱翠萍<br>Qiu Cuiping | 胡冲<br>Huchong | 刘立华<br>Liulihua |

客户承认签章 Sealed by customer:

|              |               |                 |
|--------------|---------------|-----------------|
| 检 查<br>check | 审 核<br>verify | 批 准<br>approval |
|              |               |                 |

博安通联系方式 Contact information of B&T

|                                                        |                    |                                |
|--------------------------------------------------------|--------------------|--------------------------------|
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| 品质联系人: 谭杰鑫<br>Contact person for Quality:<br>Tanjiexin | 手机 MB: 18181766292 | 邮箱 E-mail: tanjx@tech-now.com  |

2nd

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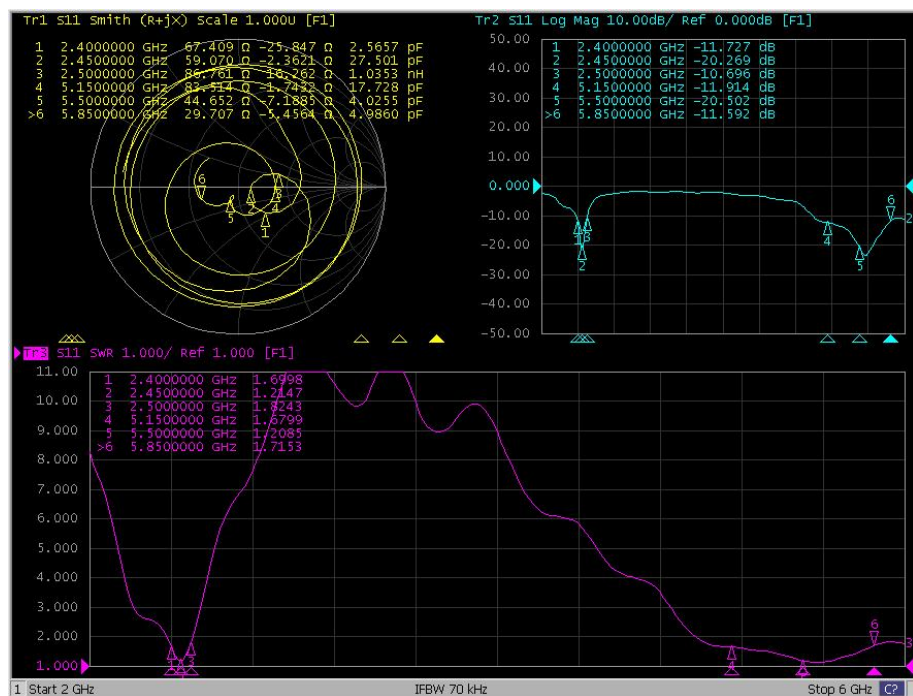


#### 4、性能参数 Properties & parameter

| 电气参数 Electrical parameter        |                                     |
|----------------------------------|-------------------------------------|
| 频率范围<br>Freq Range               | 2400~2500/5150~5850MHz              |
| 输入阻抗<br>Characteristic Impedance | 50 $\Omega$                         |
| 驻波比<br>VSWR                      | 对照工程封样<br>Project Sample Comparison |
| 功率容量<br>The Max input power      | <10w                                |
| 极化方式<br>Polarization mode        | 线极化<br>Linear polarization          |
| 辐射方向<br>Radiation direction      | 全向<br>omnidirectional               |
| 接头型号<br>Connector model          | 端子<br>Terminal                      |
| 机械参数 Mechanical parameters       |                                     |
| 线长<br>Line length                | 65 $\pm$ 3mm                        |
| 端子维持力<br>Terminal holding force  | $\geq$ 1Kgf                         |
| 同轴电缆<br>Coaxial cable            | 黑色 1.37 锡锡线<br>Black 1.37 tin wire  |
| 盐雾测试<br>Salt spray test          | 24H                                 |
| 环境参数 Environment parameter       |                                     |
| 工作温度<br>Operating Temp           | -30 $^{\circ}$ C~65 $^{\circ}$ C    |

## 5、电气性能测试报告 Electrical test report(整机测试 Whole machine testing)

S11



### 驻波比数据 Standing wave ratio data

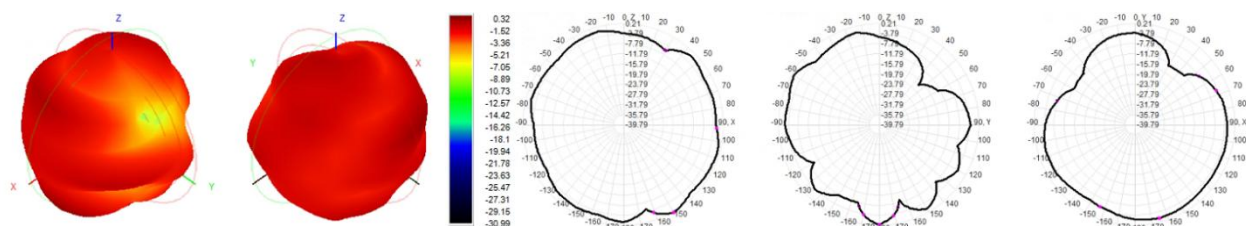
|          |      |      |      |      |      |      |
|----------|------|------|------|------|------|------|
| Freq/MHz | 2400 | 2450 | 2500 | 5150 | 5500 | 5850 |
| VSWR     | 1.69 | 1.21 | 1.82 | 1.67 | 1.20 | 1.71 |

## 天线暗室测试数据 Antenna darkroom test data

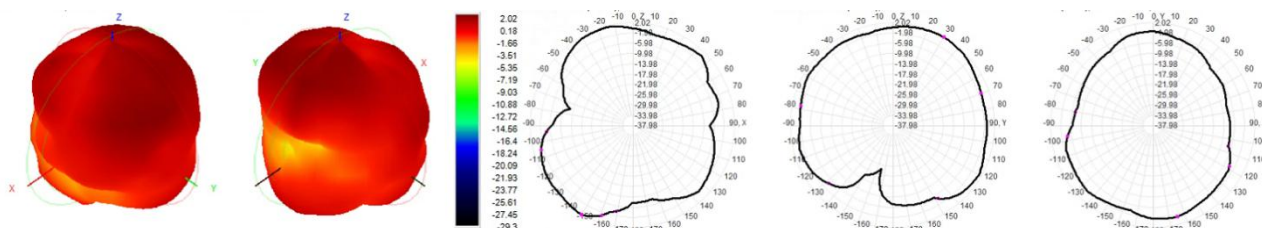
| Frequency (MHz) | 天线 2       |                |
|-----------------|------------|----------------|
|                 | Gain (dBi) | Efficiency (%) |
| 2400.0          | 1.48       | 43.75          |
| 2410.0          | 1.43       | 45.73          |
| 2420.0          | 1.50       | 45.68          |
| 2430.0          | 1.43       | 46.93          |
| 2440.0          | 1.37       | 46.80          |
| 2450.0          | 1.32       | 46.56          |
| 2460.0          | 1.23       | 45.99          |
| 2470.0          | 1.37       | 45.95          |
| 2480.0          | 1.38       | 45.71          |
| 2490.0          | 1.49       | 44.49          |
| 2500.0          | 1.41       | 44.92          |
| 5150.0          | 2.70       | 53.81          |
| 5250.0          | 2.48       | 64.88          |
| 5350.0          | 2.50       | 59.50          |
| 5450.0          | 2.40       | 61.88          |
| 5550.0          | 2.02       | 60.75          |
| 5650.0          | 2.50       | 59.61          |
| 5750.0          | 2.50       | 58.36          |
| 5850.0          | 2.44       | 54.63          |

## 天线方向图 Antenna direction diagram

天线 2-2450MHz



天线 2-5550MHz



## 6、RoHS2.0 及 REACH 符合性自我声明表 RoHS 2.0 and REACH Compliance Self-Declaration Form

四川博安通通信技术有限公司 RoHS2.0 及 REACH 符合性自我声明表  
Sichuan B&T Technology Co., Ltd RoHS2.0 and REACH statement of conformity  
产品型号: 74300247 74300248

Ver2.0

| 材料名称<br>Material name | 有毒有害物质或元素 toxic and hazardous substances or elements |        |        |              |            |              |                |                  |                        |                  | 备注<br>Remarks |
|-----------------------|------------------------------------------------------|--------|--------|--------------|------------|--------------|----------------|------------------|------------------------|------------------|---------------|
|                       | 铅 (Pb)                                               | 汞 (Hg) | 镉 (Cd) | 六价铬 (Cr(VI)) | 多溴联苯 (PBB) | 多溴二苯醚 (PBDE) | 邻苯二甲酸二丁酯 (DBP) | 邻苯二甲酸甲苯基丁酯 (BBP) | 邻苯二甲酸二(2-乙基己基)酯 (DEHP) | 邻苯二甲酸二异丁酯 (DIBP) |               |
| 锡-锡锡铜板                | ○                                                    | ○      | ○      | ○            | ○          | ○            | ○              | ○                | ○                      | ○                |               |
| 纸-FEP                 | ○                                                    | ○      | ○      | ○            | ○          | ○            | ○              | ○                | ○                      | ○                |               |
| 端子-磷青铜                | ○                                                    | ○      | ○      | ○            | ○          | ○            | ○              | ○                | ○                      | ○                |               |
| 端子-FBT                | ○                                                    | ○      | ○      | ○            | ○          | ○            | ○              | ○                | ○                      | ○                |               |
| PCB-FR-4.0            | ○                                                    | ○      | ○      | ○            | ○          | ○            | ○              | ○                | ○                      | ○                |               |
| PCB-GSP               | ○                                                    | ○      | ○      | ○            | ○          | ○            | ○              | ○                | ○                      | ○                |               |
| 双面胶-背胶                | ○                                                    | ○      | ○      | ○            | ○          | ○            | ○              | ○                | ○                      | ○                |               |
| 拆分部件 n<br>Part n      |                                                      |        |        |              |            |              |                |                  |                        |                  |               |

○: 表示该有害物质在该部件所有均质材料中的含量均在 2011/65/EU 规定的限量要求以下。  
○: It indicates that the content of hazardous substance in all homogeneous materials of the component is below the limit requirement of 2011/65 / EU.  
×: 表示该有害物质至少在该部件的某一均质材料中的含量超出 2011/65/EU 规定的限量要求。  
×: It indicates that the hazardous substances are in excess of the limits requirement of 2011/65 / EU in at least one homogeneous material of the part.  
(供应商应将其原材料按要求进行拆分, 并依照此表格进行详细标注, 对不能满足标准要求的零部件进行具体的原因描述)  
(The supplier shall separate its raw materials according to the requirements and mark it in detail in accordance with this form, and describe the specific reasons for the parts that can not meet the standard requirements)

品质部

| 整体零件<br>Integral part            | 是否符合 (EC) No 1907/2006 标准要求<br>Compliance with (EC) No 1907/2006 standard requirements or not |        |
|----------------------------------|-----------------------------------------------------------------------------------------------|--------|
|                                  | 高关注物质 (SVHC)<br>Prohibited and Restricted Substances "Annex 17"                               | 是<br>是 |
| 原材料零件<br>Raw material components | 是否符合 (EC) No 1907/2006 标准要求<br>Compliance with (EC) No 1907/2006 standard requirements or not |        |
|                                  | 高关注物质 (SVHC)<br>Prohibited and Restricted Substances "Annex 17"                               | 是<br>是 |
| 锡-锡锡铜板                           | 高关注物质 (SVHC)<br>Prohibited and Restricted Substances "Annex 17"                               | 是      |
|                                  | 禁止和限制物质 "附件 17" Prohibited and Restricted Substances "Annex 17"                               | 是      |
| 纸-FEP                            | 高关注物质 (SVHC)<br>Prohibited and Restricted Substances "Annex 17"                               | 是      |
|                                  | 禁止和限制物质 "附件 17" Prohibited and Restricted Substances "Annex 17"                               | 是      |
| 端子-磷青铜                           | 高关注物质 (SVHC)<br>Prohibited and Restricted Substances "Annex 17"                               | 是      |
|                                  | 禁止和限制物质 "附件 17" Prohibited and Restricted Substances "Annex 17"                               | 是      |
| 端子 FBT                           | 高关注物质 (SVHC)<br>Prohibited and Restricted Substances "Annex 17"                               | 是      |
|                                  | 禁止和限制物质 "附件 17" Prohibited and Restricted Substances "Annex 17"                               | 是      |
| PCB-FR-4.0                       | 高关注物质 (SVHC)<br>Prohibited and Restricted Substances "Annex 17"                               | 是      |
|                                  | 禁止和限制物质 "附件 17" Prohibited and Restricted Substances "Annex 17"                               | 是      |
| PCB-GSP                          | 高关注物质 (SVHC)<br>Prohibited and Restricted Substances "Annex 17"                               | 是      |
|                                  | 禁止和限制物质 "附件 17" Prohibited and Restricted Substances "Annex 17"                               | 是      |
| 双面胶-背胶                           | 高关注物质 (SVHC)<br>Prohibited and Restricted Substances "Annex 17"                               | 是      |
|                                  | 禁止和限制物质 "附件 17" Prohibited and Restricted Substances "Annex 17"                               | 是      |

注: 1 根据 (EC) No 1907/2006 标准要求对管控 SVHC (高关注物质) 及禁止和限制物质, 如果在标准值以内填写是, 反之则填写否。  
1. Control SVHC (high concern substances) and prohibited and restricted substances according to (EC) No 1907/2006 standards, fill in Yes if it's in the standard, otherwise fill in No.  
2. 请在页面加盖公章。  
2. Please stamp the company seal on the page.

品质部

## 产品包装规范

### PACKING CRITERION

产品料号 P/N: 74300247

产品规格: 内置天线-2.4 / 5G-黑色 1.37 锡锡线-1 代端子-L=65mm-PCB-28×17×0.6mm

Spec: Built-in antenna - 2.4/5G - black 1.37 tin wire - first generation terminal - L=65mm - PCB - 28×17×0.6mm

一、标签要求 (根据客户名称参考对应的成品标签制作要求, 无要求即按普通标签要求)  
contents of label(according to the customer's name, refer to the corresponding finished product label production requirements. If there is no requirement, it will follow the ordinary label requirements.)

内外标签 长 10cm 宽 6cm 左右

The inner and outer labels are about 10cm long and 6cm wide

|                            |                                                   |                        |          |
|----------------------------|---------------------------------------------------|------------------------|----------|
| 需方<br>buyer                | *****                                             |                        |          |
| 供方<br>vender               | 四川博安通通信技术有限公司<br>Sichuan B&T Technology Co., Ltd. |                        |          |
| 物料编码<br>Purchase No        | *****                                             |                        |          |
| 生产单号<br>Material No.       | *****                                             |                        |          |
| 品名规格<br>Name specification | *****                                             | 检验员<br>QC              | **       |
| 数量/单位<br>Q'ty/Unit         | *****                                             | 日期<br>Manufacture date | ****.*** |
| 追溯码<br>Trace code          | *****                                             | 流水号<br>Serial number   | **       |

二、装箱要求 Packing requirement

作业说明 Operating description:

1. 内包装 inner packing:

产品 50 PCS/小袋/small bag

200 PCS/大袋/big bag

2. 外包装 outer packing:

根据实际包装定数量 Quantity according to actual packing/箱 carton

注意事项 Notice:

- 是否要增设隔板、珍珠棉 Whether to add partitions, pearl cotton;
- 标签的贴附, 如 ROHS 等 Labeling, such as ROHS;

## 8、可靠性试验报告 Reliability Test Report

| 序号<br>Serial<br>Number | 可靠性试验名称<br>Reliability Test Name                            | 试验条件<br>Experimental conditions                                                                                                                                                        | 判定标准<br>Judgment criteria                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                      | 恒温恒湿试验<br>Constant temperature<br>and humidity test         | 高温:70℃, 湿度:80%RH 24H; 低温<br>-40℃ 24H;共持续 48H;<br>High temperature: 70 ℃, humidity: 80%<br>RH for 24 hours; Low temperature -40 ℃<br>for 24 hours; continuous for 48 hours in<br>total; | 试验前后外观要求: 金属表面<br>镀层应无剥落, 裂痕起皱, 分<br>离等。非金属部分不应变色,<br>发生开裂, 变形, 脱胶等不良;<br>电气性能测试符合标准要求;<br>Appearance requirements before<br>and after the experiment: The<br>metal surface coating should be<br>free of peeling, cracks, wrinkles,<br>separation, etc. Non metallic<br>parts should not discolor, crack,<br>deform, or peel off; The<br>electrical performance test<br>meets the standard<br>requirements; |
| 2                      | 高低温冷热冲击试验<br>High and low temperature<br>thermal shock test | 70℃持续 2H、 -40℃持续 2H, 6 次循环,<br>共 24 小时;<br>70 ℃ for 2 hours, -40 ℃ for 2 hours, 6<br>cycles, for a total of 24 hours;                                                                  | 试验前后外观要求: 金属表面<br>镀层应无剥落, 裂痕起皱, 分<br>离等。非金属部分不应变色,<br>发生开裂, 变形, 脱胶等不良;<br>电气性能测试符合标准要求;<br>Appearance requirements before<br>and after the experiment: The<br>metal surface coating should be<br>free of peeling, cracks, wrinkles,<br>separation, etc. Non metallic<br>parts should not discolor, crack,<br>deform, or peel off; The<br>electrical performance test<br>meets the standard<br>requirements; |

|   |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                         |
|---|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | 盐雾试验<br>Salt spray test                                 | <p>配制浓度 <math>(5 \pm 1)\%</math> NaCl 溶液，确保盐溶液的 pH 值为中性 <math>(6.5 \sim 7.2)</math>；压力桶温度 <math>47 \pm 1^\circ\text{C}</math>，喷雾压力保持在 <math>1.00 \pm 0.1\text{kgf/cm}^2</math>，喷雾量 <math>1.0 \sim 2.0\text{ml}/80\text{cm}^2/\text{h}</math>；试验时间 24H；</p> <p>Prepare a <math>(5 \pm 1)\%</math> NaCl solution to ensure that the pH value of the salt solution is neutral <math>(6.5-7.2)</math>; The pressure barrel temperature is <math>47 \pm 1^\circ\text{C}</math>, the spray pressure is kept at <math>1.00 \pm 0.1\text{kgf/cm}^2</math>, and the spray volume is <math>1.0 \sim 2.0\text{ml}/80\text{cm}^2/\text{h}</math>; The experiment lasted for 24 hours;</p> | <p>产品表面外露区域不可有氧化、锈蚀现象；其它区域盐雾试验后的氧化/生锈面积 <math>&lt; 1.0\%</math></p> <p>The exposed area of the product surface must not have oxidation or rust; Oxidation/rusting area after salt spray test in other areas <math>&lt; 1.0\%</math></p> |
| 4 | 端子维持力试验<br>Terminal holding force test                  | <p>常温常湿；试验维持力要求： <math>\geq 1.0\text{kgf}</math>；</p> <p>Normal temperature and humidity; Test maintenance force requirement: <math>\geq 1.0\text{kgf}</math>;</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>端子与线缆无脱落、松动等；测试后电气性能测试符合标准要求； The terminals and cables are not loose or detached; The electrical performance test after testing meets the standard requirements;</p>                                                                 |
| 5 | 端子插拔力试验<br>Terminal insertion and extraction force test | <p>常温常湿；端子与座子正常连接，插入力/拔出力 <math>\geq 1.0\text{kgf}</math>；</p> <p>Normal temperature and humidity; The terminal and seat are connected normally, with an insertion/extraction force of <math>\geq 1.0\text{kgf}</math>;</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>端子插入力/拔出力符合要求，且端子无脱落、损伤等不良； The insertion/extraction force of the terminal meets the requirements, and the terminal has no defects such as detachment or damage;</p>                                                                 |
| 6 | 焊点维持力<br>Solder joint retention force                   | <p>常温常湿，水平和竖直方向 <math>\geq 1.0\text{kgf}</math></p> <p>At normal temperature and humidity, <math>\geq 1.0\text{kgf}</math> in both horizontal and vertical directions</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>测试后焊点不会出现脱落，线材无损伤; After testing, the solder joints will not fall off and the wires will not be damaged;</p>                                                                                                                         |