

Development Project Number:Y2601061601

day Expect:2026.01.15

version Book:A0

## Acknowledgment

Client Name: \_\_\_\_\_

Debugging Projects:LBSJ-001 \_\_\_\_\_

Customer part number: \_\_\_\_\_

Boantong part number:74070016 \_\_\_\_\_

Specifications:Built-in antenna -868/915MHz-grey1.13Tin wire -1Substitute terminal- L=100mm-FPC-63×9.3mm

Factory stamp:

|             |                |           |
|-------------|----------------|-----------|
| write       | Review         | approve   |
| Xu Zhangjin | Zhang Guangwei | Liu Lihua |

Customer acknowledges signature:

|         |        |         |
|---------|--------|---------|
| examine | Review | approve |
|         |        |         |

Boan Tong Contact Information

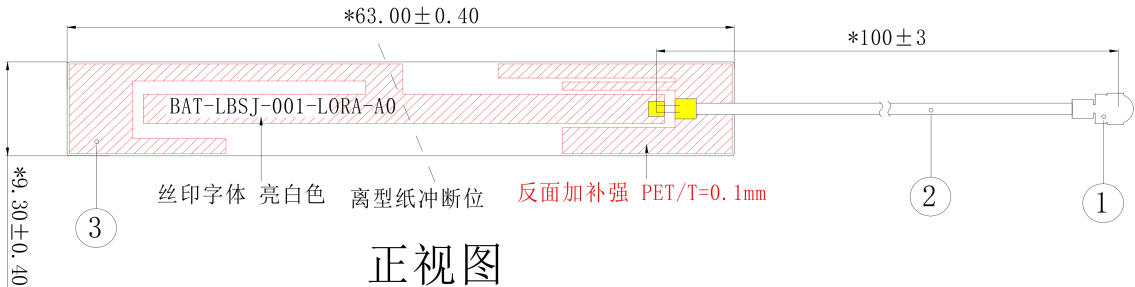
|                                      |                           |                             |
|--------------------------------------|---------------------------|-----------------------------|
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Form Number: B&T-QR-EN-002      Version: B3

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| 版次 | 修改日期    | 修订内容 |
|----|---------|------|
| A0 | 26-1-13 |      |
|    |         |      |



技术要求

- 1:天线焊接部位牢固, 线缆尺寸准确(端子维持力 $\geq 0.8\text{Kgf}$ ).
- 2:丝印颜色为亮白色, 字体清晰不易脱落.
- 3:“\*”为IQC重点检验尺寸.
- 4:包装以及品质标准分别参考博安通包装规范和博安通品质标准.
- 5:材料符合ROHS2.0要求.
- 6:端子杯口不对 朝向.

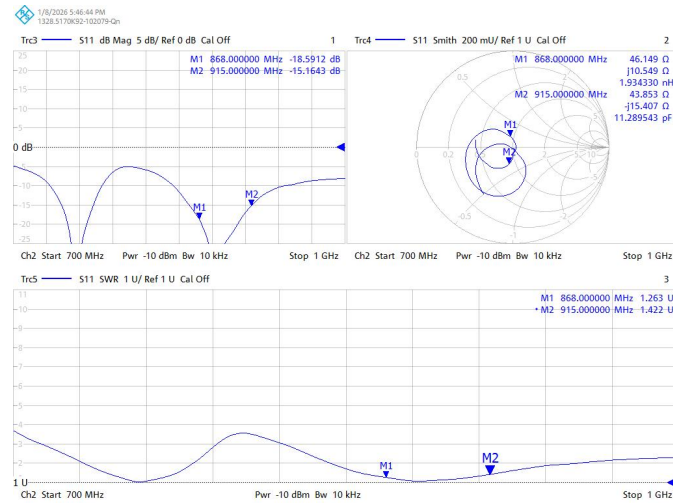
|    |        |     |          |       |                                                                                       |    |    |    |     |                                                     |
|----|--------|-----|----------|-------|---------------------------------------------------------------------------------------|----|----|----|-----|-----------------------------------------------------|
| 序号 | 零件名称   | 备 注 | 设 计      | 韦宁宇   |  |    |    |    | 名 称 | 内置天线-868/915MHz-灰色1.13锡锡线-1代端子-L=100mm-FPC-63×9.3mm |
| ①  | 1代RF端子 |     | 审 核      |       | 重量                                                                                    | 数量 | 比例 | 单位 | 项目号 | Y2601061601                                         |
| ②  | 同轴线    |     |          |       |                                                                                       |    |    |    |     |                                                     |
| ③  | FPC    |     | 批 准      | 李开勇   | 第 1 张    共 1 张                                                                        |    |    |    |     |                                                     |
|    |        |     | 1 >X     | ±0.05 |                                                                                       |    |    |    |     |                                                     |
|    |        |     | 1~9.99   | ±0.10 |                                                                                       |    |    |    |     |                                                     |
|    |        |     | 10~19.99 | ±0.15 |                                                                                       |    |    |    |     |                                                     |
|    |        |     | 20~39.99 | ±0.20 |                                                                                       |    |    |    |     |                                                     |
|    |        |     | 40~      | ±0.30 | 博安通                                                                                   |    |    |    |     |                                                     |

#### 4Performance parameters

| Overall electrical parameters |                     |
|-------------------------------|---------------------|
| Frequency range               | 868~915MHz          |
| Input impedance               | 50Ω                 |
| Standing Bobby                | <2                  |
| Gain                          | 0.24dBi             |
| Power capacity                | <10w                |
| polarization mode             | linear polarization |
| Radiation direction           | Omnidirectional     |
| Connector model               | terminal            |
| Mechanical parameters         |                     |
| Line length                   | 100±3mm             |
| Terminal holding force        | ≥0.8Kgf             |
| coaxial cable                 | grey1.13Tin wire    |
| Salt spray test               | 24H                 |
| Environmental parameters      |                     |
| Operating temperature         | - 30°C~65°C         |

## 5Electrical performance test report (whole unit)

antennaS11Parameter diagram



Standing Wavelength Data

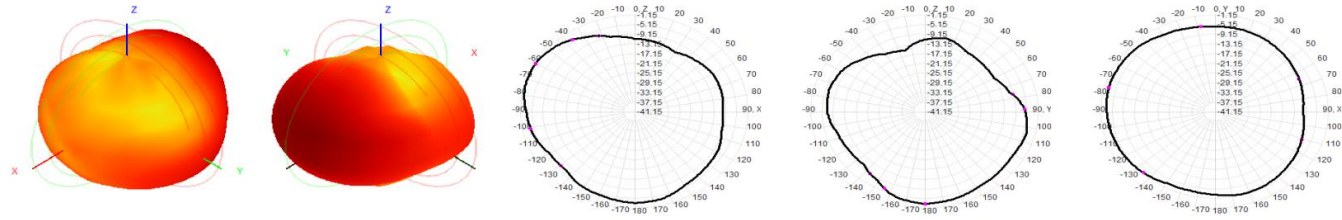
|          |      |      |
|----------|------|------|
| Freq/MHz | 868  | 915  |
| VSWR     | 1.26 | 1.42 |

Antenna anechoic chamber test data

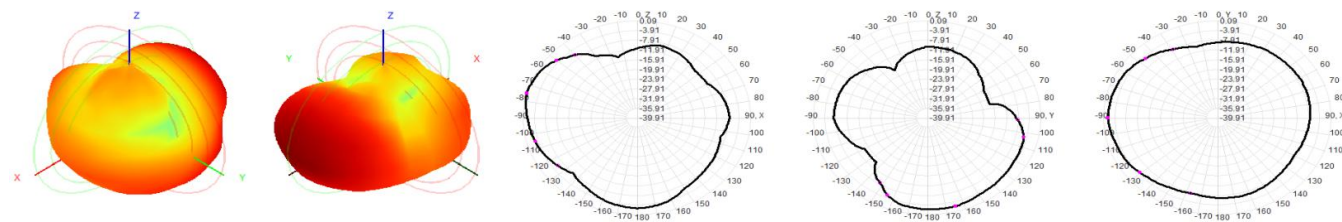
| Frequency<br>(MHz) |            |                |
|--------------------|------------|----------------|
|                    | Gain (dBi) | Efficiency (%) |
| 855                | - 1.21     | 22.27          |
| 860                | - 1.03     | 22.72          |
| 865                | - 0.98     | 23.04          |
| 870                | - 0.98     | 23.09          |
| 875                | - 0.96     | 23.13          |
| 880                | - 0.53     | 23.48          |
| 885                | - 0.31     | 23.17          |
| 890                | - 0.35     | 23.24          |
| 895                | 0.01       | 23.05          |
| 900                | - 0.23     | 22.95          |
| 905                | - 0.13     | 22.84          |
| 910                | - 0.05     | 22.68          |
| 915                | 0.09       | 22.41          |
| 920                | 0.14       | 22.19          |
| 925                | 0.24       | 22.08          |
| 930                | 0.04       | 21.53          |

## Antenna pattern

### 865MHz



### 915MHz



## 6Material composition and list of hazardous substances

| item | Specification | Material           | RoHS test results (PPM) |    |    |      |     |      | ICP test number    | Detection time |
|------|---------------|--------------------|-------------------------|----|----|------|-----|------|--------------------|----------------|
|      |               |                    | Cd                      | Pb | Hg | Cr+6 | PBB | PBDE |                    |                |
| 1    | 1.13 line     | FEP                | ND                      | ND | ND | ND   | ND  | ND   | NGBPC24007471211-2 | 2025/7/9       |
|      |               | Tinned copper wire | ND                      | ND | ND | ND   | ND  | ND   | A2250416468101001  | 2025/6/20      |
| 2    | terminal      | PBT                | ND                      | ND | ND | ND   | ND  | ND   | A2250134628103008E | 2025/3/12      |
|      |               | Phosphor bronze    | ND                      | 4  | ND | ND   | ND  | ND   | CANEC25027363005   | 2025/11/13     |
| 3    | FPC           | PI                 | ND                      | ND | ND | ND   | ND  | ND   | SHAEC25031840901   | 2025/12/8      |
|      |               | Adhesive backing   | ND                      | ND | ND | ND   | ND  | ND   | SZXEC25003068038   | 2025/8/28      |

## Product Packaging Specifications

### Packing Criterion

Product part number: 74070016

Product Specifications: Built-in antenna - 868/915MHz - Gray 1.13mm solder wire - Generation 1 terminal - L=100mm - FPC - 63×9.3mm

I. Labeling Requirements (Refer to the corresponding finished label production requirements based on the customer's name; otherwise, use the standard label requirements)

| Inner label length10cm Width6cmabout |                                                     |
|--------------------------------------|-----------------------------------------------------|
| Buyer                                | *****                                               |
| Supplier                             | Sichuan Boantong Communication Technology Co., Ltd. |
| Material Code                        | *****                                               |
| Production order number              | *****                                               |
| Product Name and Specifications      | ***** Inspector **                                  |
| Quantity/Unit                        | ***** date ****, **, *                              |
| Traceability code                    | ***** serial number **                              |

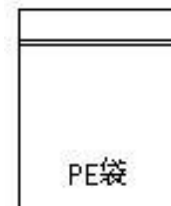
| outer label length10cm Width6cmabout |                                                     |
|--------------------------------------|-----------------------------------------------------|
| Buyer                                | *****                                               |
| Supplier                             | Sichuan Boantong Communication Technology Co., Ltd. |
| Material Code                        | *****                                               |
| Production order number              | *****                                               |
| Product Name and Specifications      | ***** Inspector **                                  |
| Quantity/Unit                        | ***** date ****, **, *                              |
| Traceability code                    | ***** serial number **                              |

II. Packing Requirements

Homework Instructions:

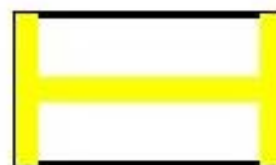
1. Inner packaging:

product 100 PCS/small bag  
200 PCS/Large Bag

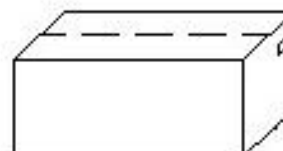


2. Outer packaging:

Quantity determined based on actual packaging /box



纸箱

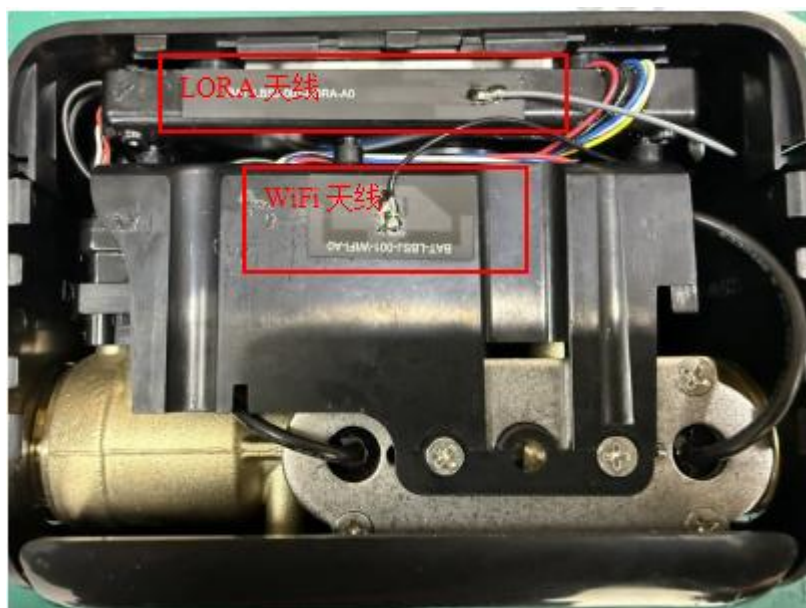


Precautions:

1. Should additional partitions or pearl cotton be installed?

2. Labeling, such as RoHS;

## 8Antenna assembly diagram



## 9Reliability testing requirements

| Serial Number | Reliability test name                       | Test conditions                                                                                                                                                                                                                         | Judgment criteria                                                                                                                                                                                                                                                                                                                                                          |
|---------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1             | Constant temperature and humidity test      | high temperature:70°C, Humidity:80%RH 24H;Low temperature -40°C<br>24H;Continued48H;                                                                                                                                                    | Appearance requirements before and after the test: metal surface plating<br><br>The layers should be free from peeling, cracks, wrinkles, separation, etc.<br><br>Non-metallic parts should not change color or undergo opening.<br><br>Defects such as cracking, deformation, and delamination; electrical properties<br><br>Able to test and meet standard requirements; |
| 2             | High and low temperature thermal shock test | 70°C continued2H-40°C continued2H,6The next loop.<br>common twenty four Hour;                                                                                                                                                           | Appearance requirements before and after the test: metal surface plating<br><br>The layers should be free from peeling, cracks, wrinkles, separation, etc.<br><br>Non-metallic parts should not change color or undergo opening.<br><br>Defects such as cracking, deformation, and delamination; electrical properties<br><br>Able to test and meet standard requirements; |
| 3             | Salt spray test                             | Preparation concentration (5±1)%NaCLSolution, ensuring the salt solutionpHThe value is neutral (6.5~7.2Pressure tank temperature Spend47±1°C, spray pressure maintained1.00±0.1 kgf/cm2spray volume1.0~2.0ml;/80cm2/h;<br>Test time24H; | The exposed areas of the product surface must be free of oxidation.<br><br>Corrosion phenomena; after salt spray testing in other areas<br><br>Oxidation/rust area<1.0%                                                                                                                                                                                                    |