

# 样品承认书

## Confirmation of products

|                           |                                       |                      |                 |            |            |
|---------------------------|---------------------------------------|----------------------|-----------------|------------|------------|
| 客户名称<br>Customer          | Shenzhen Reolink Technology Co., Ltd. |                      |                 |            |            |
| 项目名称<br>Project Name      | SD8-N                                 | 版本<br>Version        | A. 2            | 日期<br>Date | 2023-11-24 |
| 项目料号<br>Project NO.       | SD8-N                                 | 客户料号<br>Customer NO. | 54.07.001.0111A |            |            |
| 频段<br>Frequency Range     | 2400~2500MHz<br>5100~5800MHz          | 备注<br>Notes          | WIFI-2          |            |            |
| 设计<br>Designed By         |                                       |                      |                 |            |            |
| 审核<br>Approved By         |                                       |                      |                 |            |            |
| 客户确认<br>Clients' Approval |                                       |                      |                 |            |            |

公司名称：深圳市林荣科技有限公司

Designer: SHENZHEN LINRONG TECHNOLOGY CO., LTD

地址：深圳市龙华区大浪街道华荣路联建工业园 1 栋 3 楼

ADD: Floor 3, building 1, LianJian Industrial Park, Huarong Road, Dalang street, Longhua District, Shenzhen

## Index

|                                               |          |
|-----------------------------------------------|----------|
| <b>1. Specifications</b>                      | <b>3</b> |
| <b>2. VSWR Testing</b>                        | <b>3</b> |
| <b>2-1 Testing connection</b>                 | <b>3</b> |
| <b>2-2 VSWR</b>                               | <b>4</b> |
| <b>2-3 Testing data</b>                       | <b>4</b> |
| <b>3.Power、 Sensitivity Testing</b>           | <b>4</b> |
| <b>3-1 Testing field</b>                      | <b>4</b> |
| <b>3-2 Testing results</b>                    | <b>5</b> |
| <b>3.3 Active testing</b>                     | <b>6</b> |
| <b>4、 Environmental treatment</b>             | <b>6</b> |
| <b>5. Mechanical Dimension Drawing</b>        | <b>7</b> |
| <b>6. Mechanical Dimension Testing report</b> | <b>8</b> |
| <b>7、 Packaging standard</b>                  | <b>9</b> |

## 1、Specification

This report mainly provides the testing conditions of various electric and structural performance parameters for cell phone antenna ----SD8-N Picture 1 shows the antenna designed by LR.



## 2、 VSWR Testing

### 2.1 Testing connection

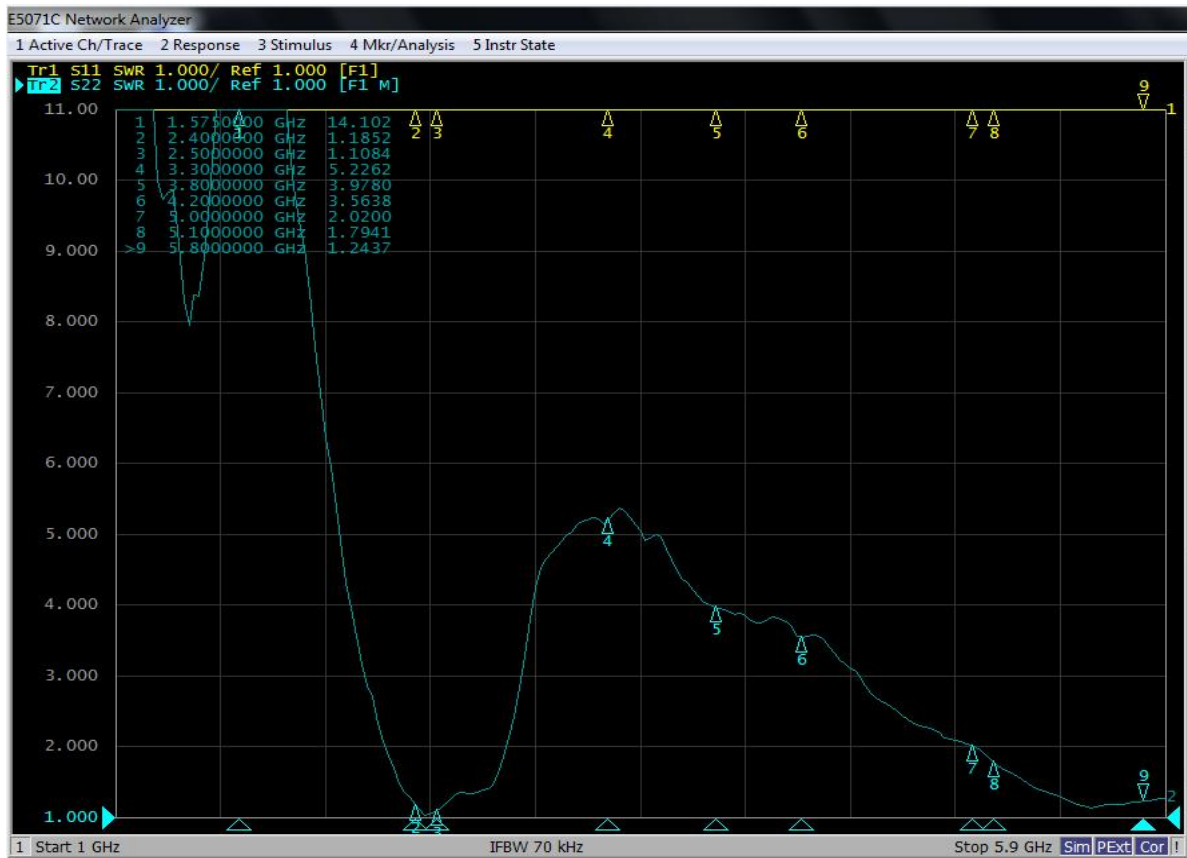
The **Return Loss** testing devices are connected in sequence: Agilent5071C Network Analyzer →Testing Cable → Customer-providing Devices.

### 2.2 VSWR

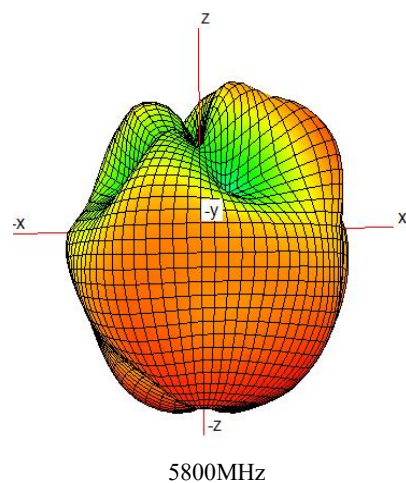
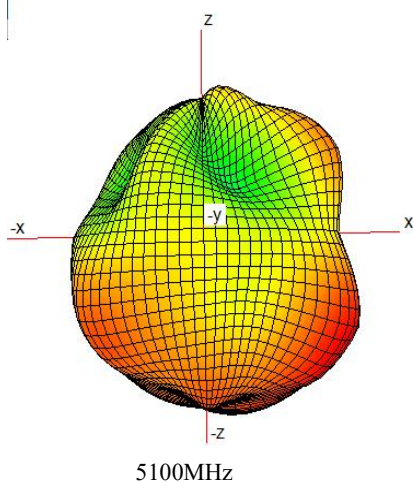
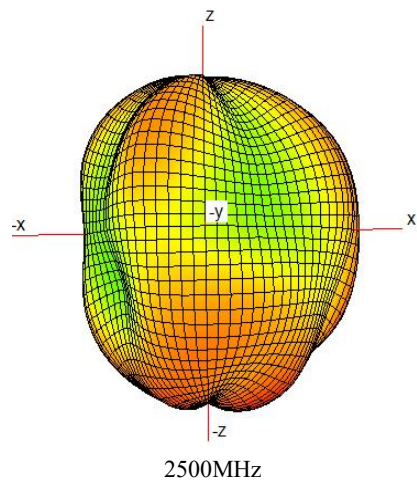
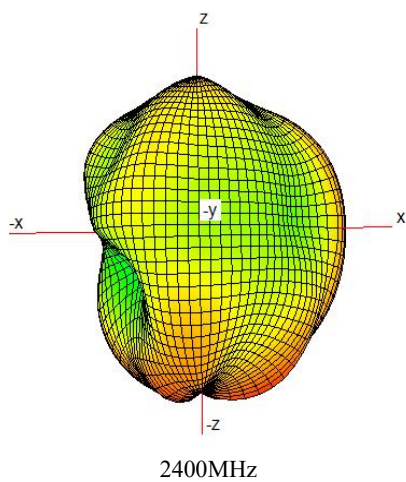
The following table expresses the vswr value of antenna's two edges of its frequency range. With regard to the relevant diagram of VSWR

| SD8-N WIFI VSWR |      |      |      |      |
|-----------------|------|------|------|------|
| Frequency (MHz) | 2400 | 2500 | 5100 | 5800 |
| VSWR            | 1.18 | 1.10 | 1.79 | 1.24 |

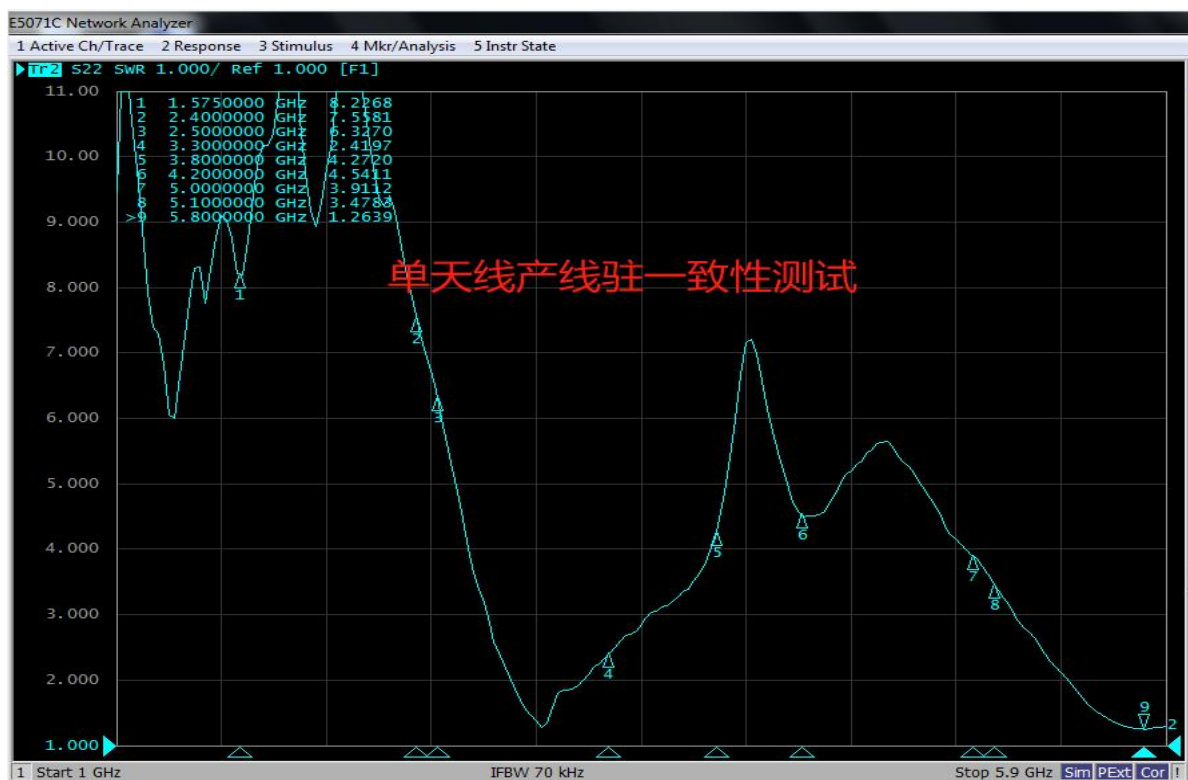
### 2.3 Testing data



2.4+5.8G WIFI antenna VSWR



## 2.4 Single antenna test VSWR



## 3、 Power、 Sensitivity Testing

### 3.1 Testing field

LR Microwave Anechoic Chamber : testing frequency ranges from 400MHz to 6GHz and the 40cm diameter spherical quiet zone, the chamber provides less than -90dB reflectivity from 400MHz—6GHz.

### 3.2 Testing results

The following table indicates the testing results related to Power and Sensitivity in Microwave Anechoic Chamber, concerning the relative diagram.

### 3.3 Active testing.

#### SD8-N Antenna efficiency

| Freq (MHz) | Gain | Efficiency (%) | Freq (MHz) | Gain | Efficiency (%) |
|------------|------|----------------|------------|------|----------------|
| 2400       | 3.7  | 63.44          | 5360       | 4.0  | 61.23          |
| 2410       | 3.7  | 62.40          | 5380       | 3.3  | 59.23          |
| 2420       | 3.6  | 61.91          | 5400       | 3.5  | 60.05          |
| 2430       | 3.7  | 62.35          | 5420       | 3.1  | 59.54          |
| 2440       | 3.8  | 61.73          | 5440       | 2.8  | 60.66          |
| 2450       | 3.9  | 63.94          | 5460       | 2.8  | 60.16          |
| 2460       | 3.9  | 63.88          | 5480       | 2.6  | 59.25          |
| 2470       | 3.9  | 63.43          | 5500       | 2.6  | 56.65          |
| 2480       | 3.8  | 63.14          | 5520       | 2.4  | 54.12          |
| 2490       | 3.8  | 64.01          | 5540       | 2.5  | 56.58          |
| 2500       | 3.7  | 62.91          | 5560       | 2.7  | 58.01          |
| 5100       | 2.8  | 50.95          | 5580       | 2.5  | 56.77          |

|      |     |       |      |     |       |
|------|-----|-------|------|-----|-------|
| 5120 | 3.6 | 56.55 | 5600 | 2.8 | 56.96 |
| 5140 | 3.1 | 53.50 | 5620 | 2.6 | 56.04 |
| 5160 | 4.0 | 59.44 | 5640 | 2.8 | 56.96 |
| 5180 | 4.2 | 57.69 | 5660 | 2.0 | 53.41 |
| 5200 | 4.2 | 57.93 | 5680 | 2.8 | 57.91 |
| 5220 | 4.3 | 60.09 | 5700 | 2.2 | 55.41 |
| 5240 | 5.0 | 64.17 | 5720 | 2.8 | 58.69 |
| 5260 | 3.8 | 58.06 | 5740 | 2.5 | 52.60 |
| 5280 | 4.3 | 61.68 | 5760 | 2.9 | 56.49 |
| 5300 | 4.1 | 60.78 | 5780 | 3.0 | 57.46 |
| 5320 | 3.5 | 55.99 | 5800 | 2.9 | 57.57 |
| 5340 | 3.6 | 60.69 |      |     |       |

#### SD8 Active data

| WIFI 1+WIFI 2 |      |       |        |
|---------------|------|-------|--------|
|               | chNO | TRP   | TIS    |
| 11B-11M       | 1    | 18.62 |        |
|               | 6    | 19.05 |        |
|               | 11   | 20.1  | -82.01 |
| 11A-54M       | 36   | 18.35 |        |
|               | 56   | 18.2  |        |
|               | 165  | 18.4  | -73.05 |
| 11g-54M       | 1    | 17.52 |        |
|               | 6    | 17.64 |        |
|               | 11   | 17.78 | -68.57 |

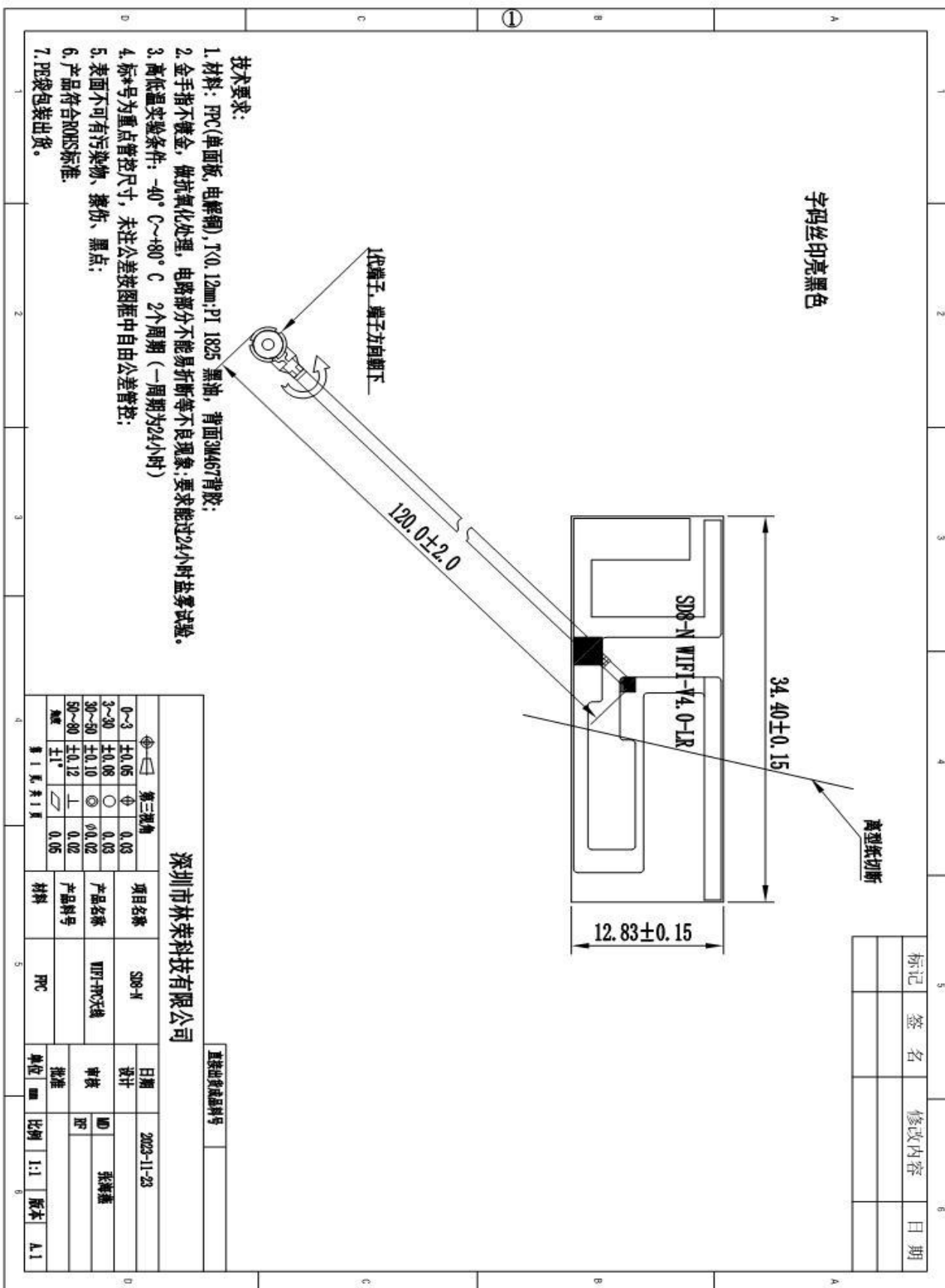
| WIFI 2  |      |       |        |
|---------|------|-------|--------|
|         | chNO | TRP   | TIS    |
| 11B-11M | 1    | 17.52 |        |
|         | 6    | 17.43 |        |
|         | 11   | 17.85 | -81.15 |
| 11A-54M | 36   | 17.46 |        |
|         | 56   | 16.78 |        |
|         | 165  | 17.82 | -75.74 |
| 11g-54M | 1    | 16.43 |        |
|         | 6    | 16.65 |        |
|         | 11   | 17.83 | -68.12 |

## 4、Environmental treatment

### Antenna mounting diagram

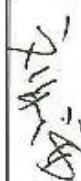


## 5、Mechanical Dimension Drawing



## 6. Mechanical Dimension Testing report

### 全尺寸测量报告

|             |           |              |       |                          |      |                               |          |              |          |                     |       |                 |        |          |         |                                             |       |                                                                                       |        |          |                      |           |        |        |
|-------------|-----------|--------------|-------|--------------------------|------|-------------------------------|----------|--------------|----------|---------------------|-------|-----------------|--------|----------|---------|---------------------------------------------|-------|---------------------------------------------------------------------------------------|--------|----------|----------------------|-----------|--------|--------|
| Vendor(供应商) |           | 材质名称         |       | PFC                      |      | Part NO(料号)                   |          | 03.05.01.006 |          | Tool Number<br>(模号) |       | Cav. Number(穴数) |        | Unit(单位) |         | Quality(品质签字)                               |       |                                                                                       |        |          |                      |           |        |        |
| 林荣科技        |           | 材质牌号         |       | /                        |      | (零件名称)                        |          | WIFI天线       |          | /                   |       | Rev(版本)         |        | A.1      |         | MILLIMETERS <input type="checkbox"/> INCHES |       |  |        |          |                      |           |        |        |
| 日期          |           | 2023-11-24   |       | MEASURED DIMENSION(实测尺寸) |      | % TOLERANCE USED<br>(公差使用百分比) |          | DISPOSITION  |          | ACCEPTABLE VARIANCE |       |                 |        |          |         |                                             |       |                                                                                       |        |          |                      |           |        |        |
| #           | DIMENSION | DRAWING ZONE | +TOL. | -TOL.                    | NOTE | SAMPLE 1                      | SAMPLE 2 | SAMPLE 3     | SAMPLE 4 | SAMPLE 5            | UPPER | LOWER           | 0%-25% | 25%-50%  | 50%-75% | 75%-100%                                    | 100%+ | Re-Measure                                                                            | Accept | Fix Tool | Accept With Variance | DIMENSION | +TOL.  | -TOL.  |
| 1           | 120.00    |              | 2.00  | (2.00)                   |      | 121.00                        | 120.00   | 119.00       | 121.00   | 120.00              | 50%   | -50%            | X      |          |         | X                                           |       |                                                                                       |        |          |                      | 120.00    | 121.00 | 119.00 |
| 2           | 34.40     |              | 0.15  | (0.15)                   |      | 34.47                         | 34.45    | 34.40        | 34.42    | 34.44               | 47%   | 0%              | X      | X        |         |                                             |       |                                                                                       |        |          |                      | 34.40     | 34.47  | 34.40  |
| 3           | 12.83     |              | 0.15  | (0.15)                   |      | 12.86                         | 12.90    | 12.87        | 12.85    | 12.83               | 47%   | 0%              | X      | X        |         |                                             |       |                                                                                       |        |          |                      | 12.83     | 12.90  | 12.83  |
| 4           | 1.13      |              | 0.05  | (0.05)                   |      | 1.12                          | 1.12     | 1.13         | 1.12     | 1.13                | 0%    | -20%            | X      |          |         |                                             |       |                                                                                       |        |          |                      | 1.13      | 1.13   | 1.12   |
| 6           | 以下空白      |              |       |                          |      |                               |          |              |          |                     |       |                 |        |          |         |                                             |       |                                                                                       |        |          |                      |           |        |        |
| 7           |           |              |       |                          |      |                               |          |              |          |                     |       |                 |        |          |         |                                             |       |                                                                                       |        |          |                      |           |        |        |
| 8           |           |              |       |                          |      |                               |          |              |          |                     |       |                 |        |          |         |                                             |       |                                                                                       |        |          |                      |           |        |        |
| 9           |           |              |       |                          |      |                               |          |              |          |                     |       |                 |        |          |         |                                             |       |                                                                                       |        |          |                      |           |        |        |
| 10          |           |              |       |                          |      |                               |          |              |          |                     |       |                 |        |          |         |                                             |       |                                                                                       |        |          |                      |           |        |        |
| 11          |           |              |       |                          |      |                               |          |              |          |                     |       |                 |        |          |         |                                             |       |                                                                                       |        |          |                      |           |        |        |
| 12          |           |              |       |                          |      |                               |          |              |          |                     |       |                 |        |          |         |                                             |       |                                                                                       |        |          |                      |           |        |        |
| 13          |           |              |       |                          |      |                               |          |              |          |                     |       |                 |        |          |         |                                             |       |                                                                                       |        |          |                      |           |        |        |

备注：除了上述标注的填写内容外，须输入的内容：  
 1. DIMENSION, +TOL, -TOL, SAMPLE1, SAMPLE2, SAMPLE3  
 2. 注意1中描述的内容输入时，请：  
 a. 在TOLERANCES(公差使用百分比)中无论是UPPER还是LOWER>100%，须：  
 (1) 检查输入数据是否输入错误；(2) 测量数据是否操作有误或是仪器测量不准确；(3) 测量时间是否不适宜；(4) 排除了(1)(2)(3)外，仍然>100%，请设计师对每个尺寸的后面作出选择即从“Re-measure, Accept, Re Tool, Accept Variance”中选一，若是选Accept with variance，必须完成后面的Dimension, +TOL, -TOL；  
 b. DIMENSION中的即尺寸前一些中的DIM.#必须与图面上的一致，同时注意，在作Q/C的尺寸的编号与F/A全尺寸测量报告中的尺寸的编号必须是相同的，且Q/C尺寸必须使用符号标注，此标注号必须表示的意思是该尺寸为重点管控尺寸，要做Cpk！  
 c. 测量工具代号Measure No.: A=Callipers(0.00) B=Micrometer(0.000) C=Pin Gauge(0.000) D=High Gauge(0.000) E=CMM(0.000) F=Plug Gauge(0.000) G=R Gauge(0.0) I=Deep Gauge(0.000)

## 7. Packaging standard

包装说明：具体包装数量以实物为准，图片只显示包装的方式，并非此项目实物。

Packaging Description: the specific packaging quantity is subject to the physical object. The picture only shows the way of packaging, not the physical object of the project



天线用 PE 袋包装

The top cover board, with PE film packaging



防潮防水 PET 袋封装，放于纸箱或胶筐内

Moistureproof waterproof PET bag packaging,  
Put in the cartons



纸箱用胶带封口

Carton sealing with duct tape



包装箱整箱外观 ( )

Cases appearance