

佳博科技 GAINSCHA GROUP

*Focus on computer Internet terminal equipment industry for more than 20 years
Thermal Printer Industry Leader*

珠海柏印自动化设备有限公司 Gainscha Auto ID Co., Ltd

RFID Printer Overview

RFID Tag Introduction

RFID Printer Operation

F&Q

RFID GA-2408T

High Adaptability, Ease of Use, High Stability



Key Features:

- Support to Read, Write and Print on **UHF RFID labels**, ideal for high-value assets management
- Thermal transfer and direct thermal print technology, work with various print media, maximize customer's investment
- 203dpi, 300dpi print resolution models available for option to meet printing requirements (GA-2408T for 203dpi, GA-3406T for 300dpi)
- USB, USB+Bluetooth+WiFi interface for customer option
- Pre-installed multiple printing emulation for easy system integration
- Driver, SDK and Printer utility available

Top View

The printer status is observed by 4 indicators

Three operations can be performed by FEED button

1.FEED: In normal status, press the button to feed the paper as per following modes:

- Continuous paper, feed the length as per setting
- Gap paper, feed the length as per gap
- Black mark paper, feed the length as per BM height

2.PAUSE: Press this button to pause printing while the printer is working. Press once again to continue printing

3.ERROR CANCEL: When the printer reports the error status, if it is confirmed that the error has been handled, the normal state can be restored after pressing the button.



Online
Error
Ribbon
Comm

- 1.Power indicator (ONLINE)
- 2.Error indicator (ERROR)
- 3.Ribbon indicator(RIBBON)
- 4.Ethernet connection indicator(Comm.)
- 5.Feed / Pause / Error cancel button

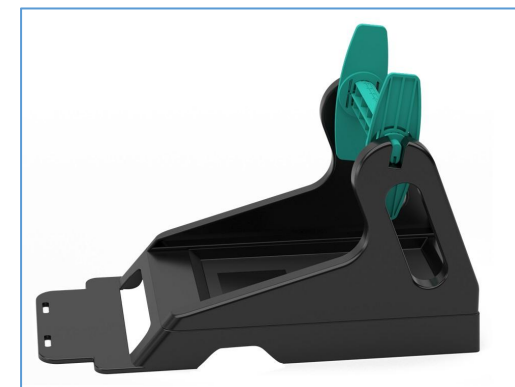
Back View

USB: Available to connect the PC to install the driver and setting by Printer Utility
Bluetooth/WIFI is option

External Channel: For large rolls of paper, it can be delivered from the outside (external bracket is required, please put it flat with the printer when using, do not put it crooked)



- 1.DC Jack
- 2.USB port
- 3.Power switch
- 4.External Channel for media



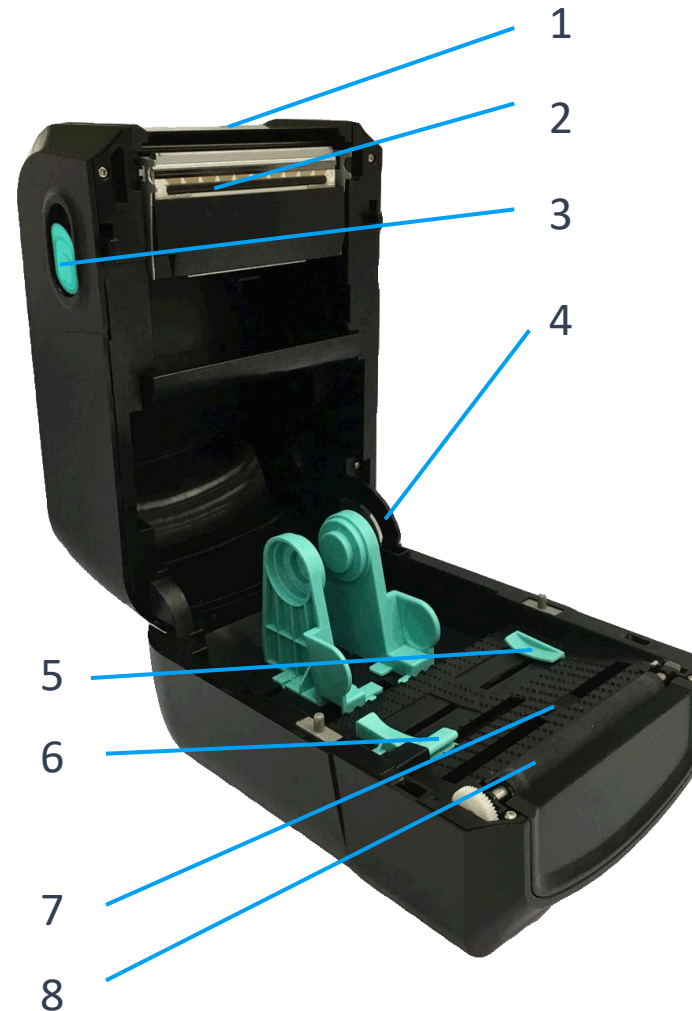
Inside View

Ribbon Placement: Ribbon supply shaft, this is the place where the unprinted ribbon is placed, the waste ribbon placement is visible by opening the cover of the No. 1 .

Paper Cilp: need to clamp the paper, so that the paper does not move left and right, otherwise there will be left and right offset or paper out of the sensor position resulting in a lack of paper

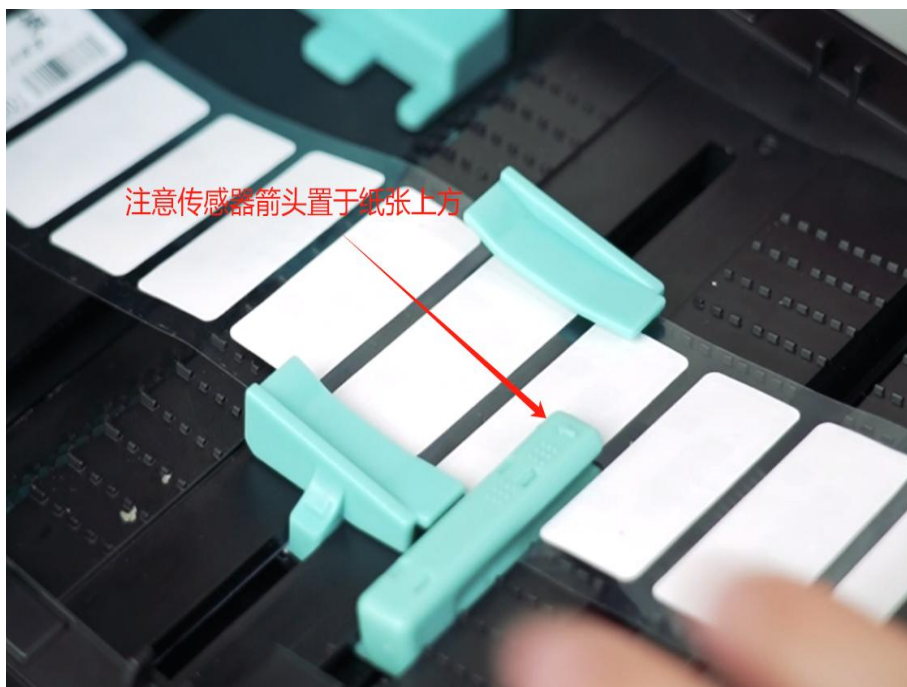
Transmission paper sensor: This sensor is used to detect whether the gap and paper exist, please confirm that the paper is placed under the sensor, such as the paper is not placed under the sensor, there will be a lack of paper and other errors.

Reflective paper sensor :This sensor is used to detect the function of black label. If the black label mode is used, the sensor should be positioned to the place with black label (please minimize moving to the position with rich colors, which is easy to cause false detection of the sensor, and avoid moving to the position with perforation, such as wristband).



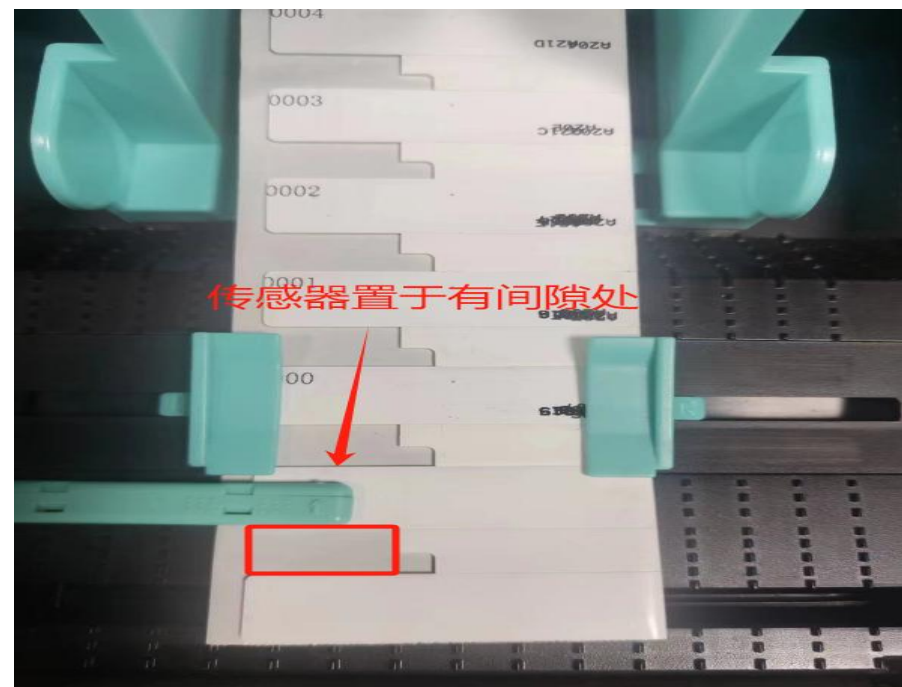
- 1.RFID Antenne
- 2.Thermal printhead
- 3.Top-cover open button
- 4.Cover holder
- 5.Paper clip
- 6.Transmission paper sensor
(gap/punch use)
- 7.Reflective paper sensor
(black label/marking use)
- 8.Platen roller

Transparent Backing Label *Anti-liquid RFID label for healthcare*



Sensor place on the label gap

Flexible on-metal RFID label



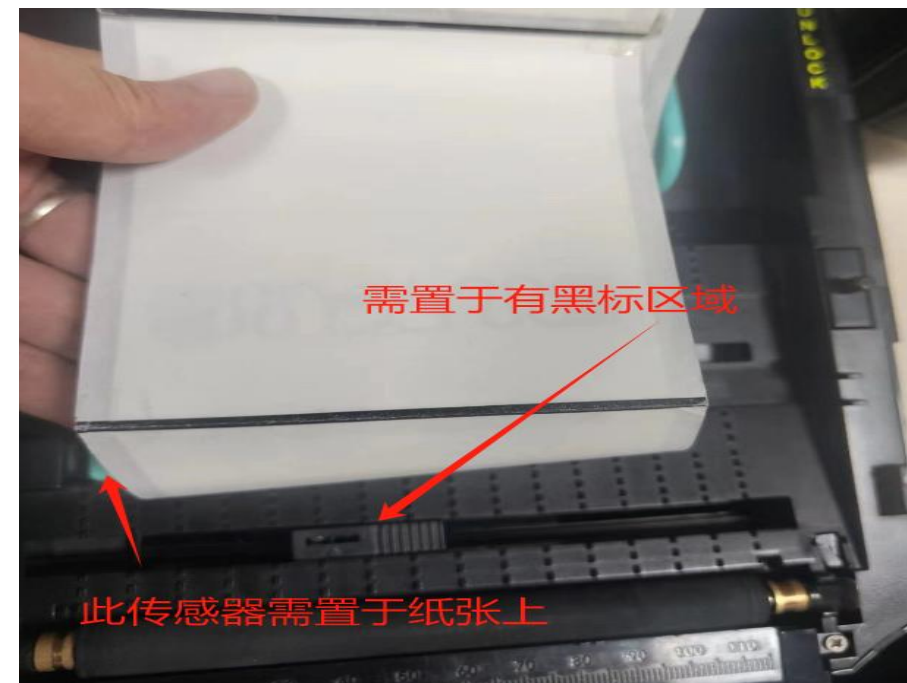
Sensor place on the label gap

Normal Label



Sensor place on the label gap

Black Mark label

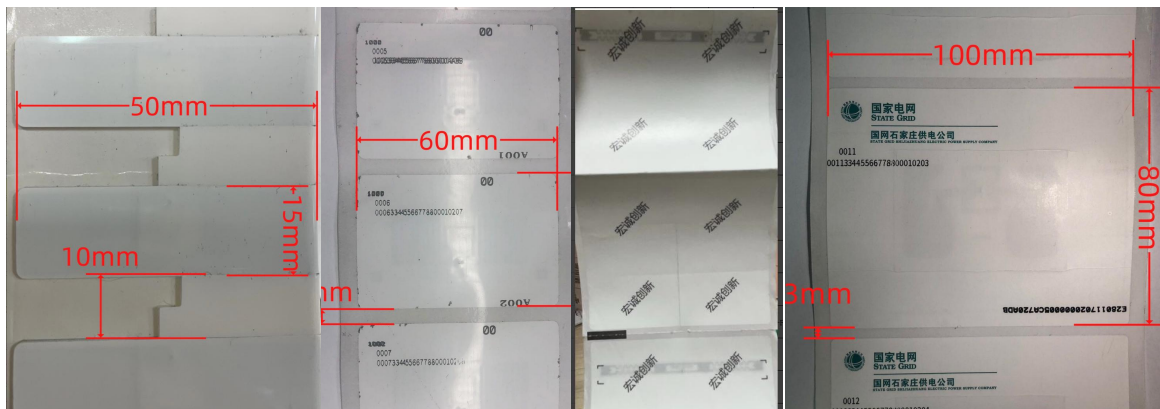


- * Transmission sensor places on paper surface
- * Reflective sensor places on back of paper & black mark area

RFID Label Introduction



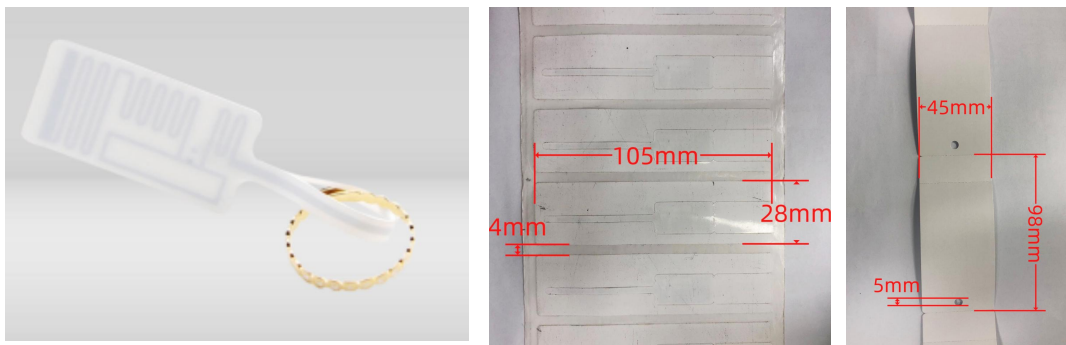
Assets Management Label



Logistics/Airport/healthcare Label



Jewelry & Tag label



Label Spec

- Maximum thickness: 1.3mm
- Minimum height: 15mm

Customer Experience

- Detailed Calibration of RFID labels
- Great RFID label printing stability
- Work with jewellery RFID labels
- Reliable calibration and printing performance for small labels



RFID LABEL TEST

- Auto-calibrate
- Read and write correctly
- ✓ **Great performance**

Logistic_U9_80x42x3.5
Jewelry_30x45x2
Jewelry_104x28x4
AntiLiquid_NXP_U8_43x18x3
NXP_U8_74x25x2
M730_30x13x12
Higgs-EC_104x9x7
R6-P_100x6x12
U9_74x12x4
OnMetal_R6-P_65x35x5
OnMetal_H9_70x30x10
OnMetal_M730_70x30x10
OnMetal_U8_50x15x10

UHF RFID PRINTER OPERATION

Operation Routine

Routine

Install Print Media

- Install RFID tag
- Install ribbon

Calibrate RFID Tag

- Open Gainscha PrinterUtility
- Input RFID label size (width, height)
- Calibrate your RFID tag

Write/Read/Print your RFID Label

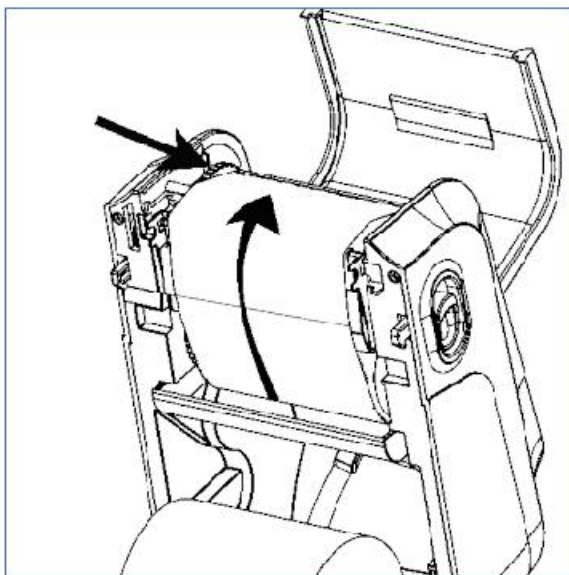
- Open Gainscha PrinterUtility to test your RFID label
- To write/encode the data
- To print the RFID data



Install Media

Ribbon

Wax, Resin, Wax/Resin



Label

Gap, black mark, transparent etc



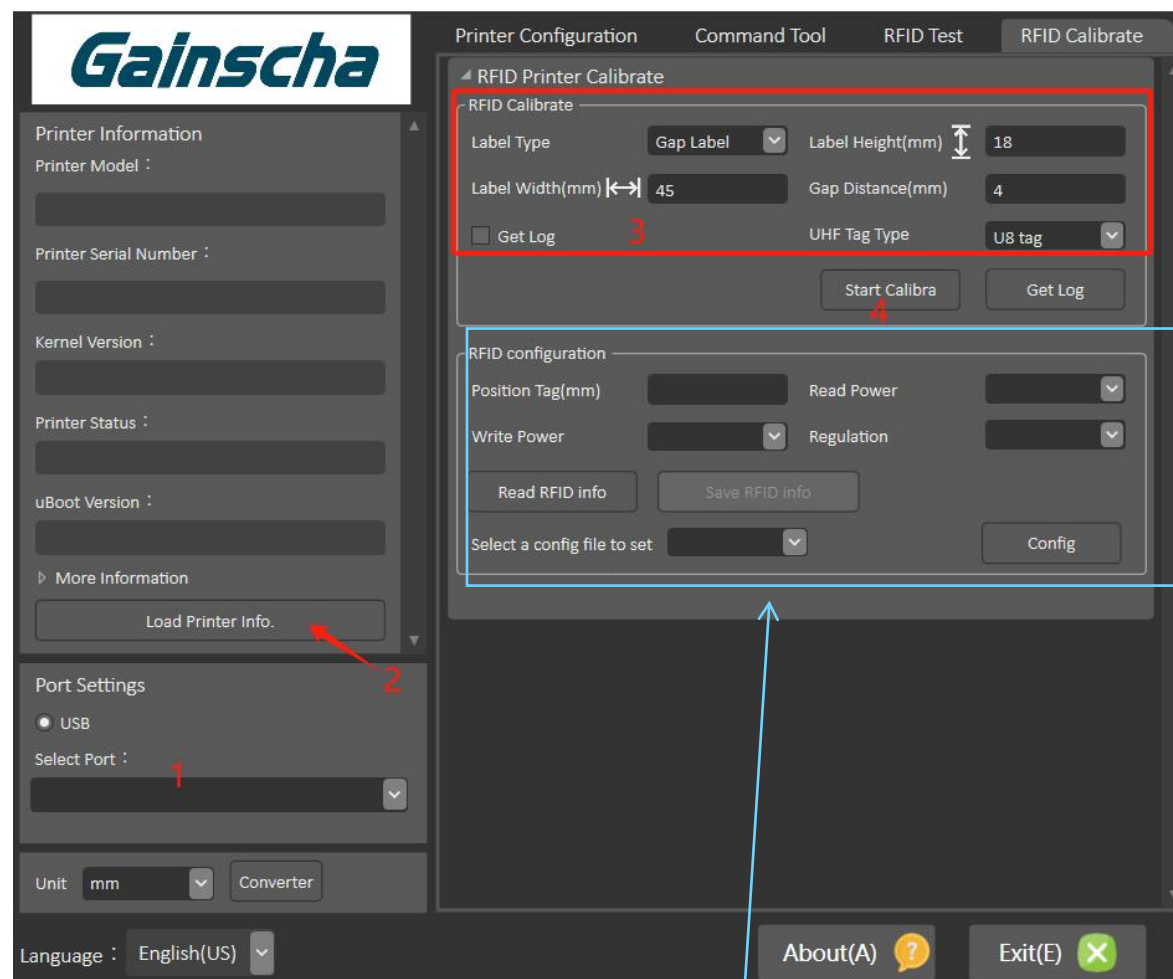
Calibrate RFID Tag

Printer Connection

Connect printer by USB,
then load printer information by printer utility

RFID Tag Calibration

- * Enter the actual size of the label
(including width height clearance height)
- * Select paper type and UHF type
(Ordinary label can be selected directly)
- * Start the calibration



Calibrate your RFID label roll when it's first time to load it into printer.
After calibration done, you can use Gainscha PrinterUtility to save the label spec data for your GA-2408T.
When you change label roll with the same spec, then **No need to re-calibrate.**

RFID Tag Testing

Write/Read/Print your RFID Label

RFIT Test

Write data

Read data

Read-Only Tag - Read data

Read / Write Test

RFID Tag Calibration

Enter the actual size of the label
(including width height clearance height)

Tips: The unique ID number TID of RFID
can be read out in [Read Data]

Gainscha

Printer Information

Printer Model :

Printer Serial Number :

Kernel Version :

Printer Status :

uBoot Version :

More Information

Load Printer Info.

Port Settings

☒ USB

Select Port :

Unit mm

Language : English(US)

Printer Configuration Command Tool **RFID Test** RFID Calibrate

Read Data

☐ Print Read Data X 10 Font 2

Y 25 Rotation 0

Test Results

Read/Write Test

Memory Bank EPC Starting Pos. 2

Test Times 5 PRINT: 1 ☒

Write Data 00010005 ☒ Print before R/W.

☐ Write Protocol Control(PC Data) ☐ R/W before print.

Read Data 00010005

☐ Print Read Data X 50 Font 3

Y 50 Rotation 0

Test Results

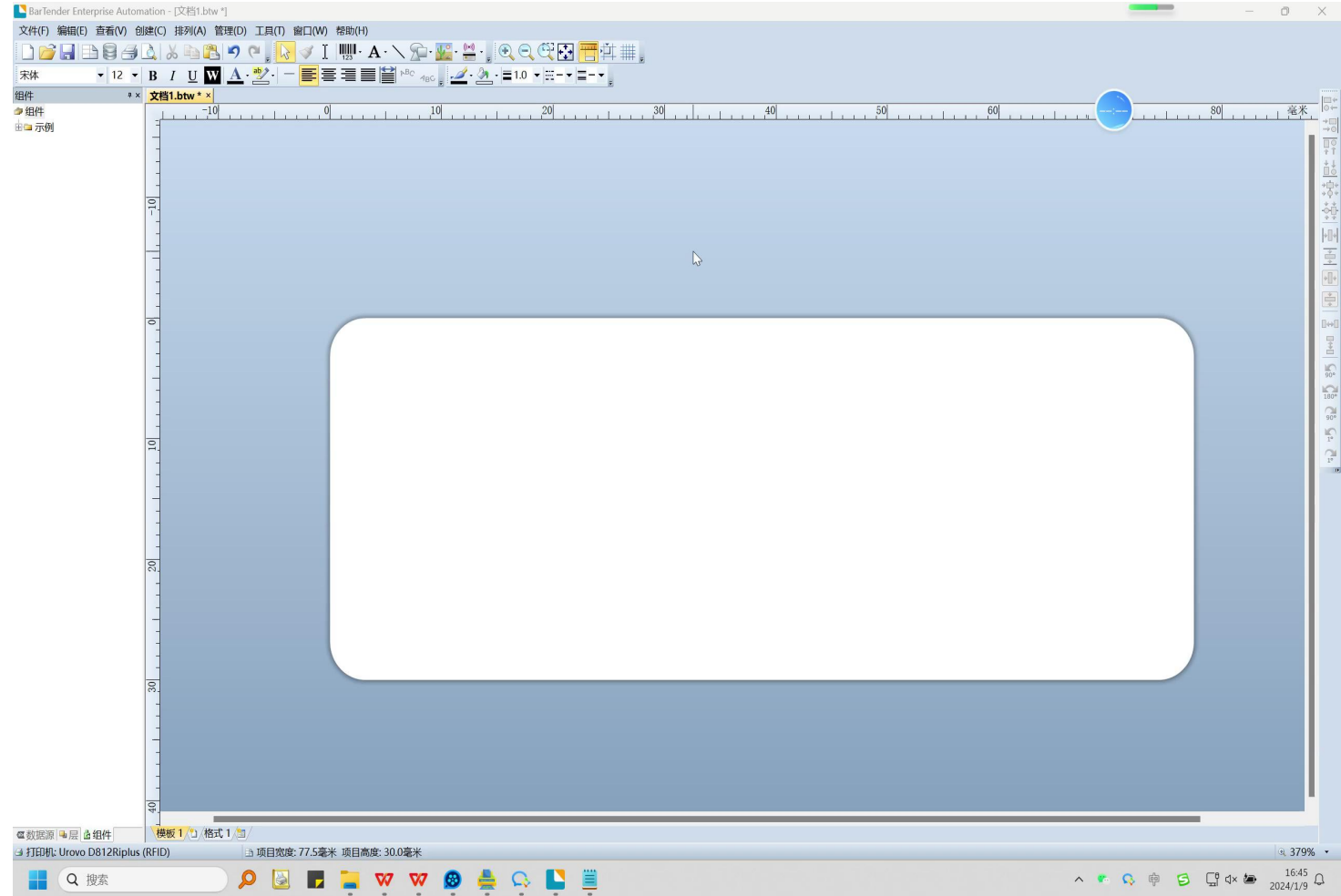
Test 5 times, 5 successes, 0 failures

RFID Tag Editing and Printing - Bartender

Write/Read/Print your RFID Label

1. Select RFPD-EPC
2. The data source is hexadecimal and a multiple of 4
3. Available for serialization tests
4. Enter text or bar code
5. Start printing

Tips: New RFID tags need to be calibrated



Demonstration



首先

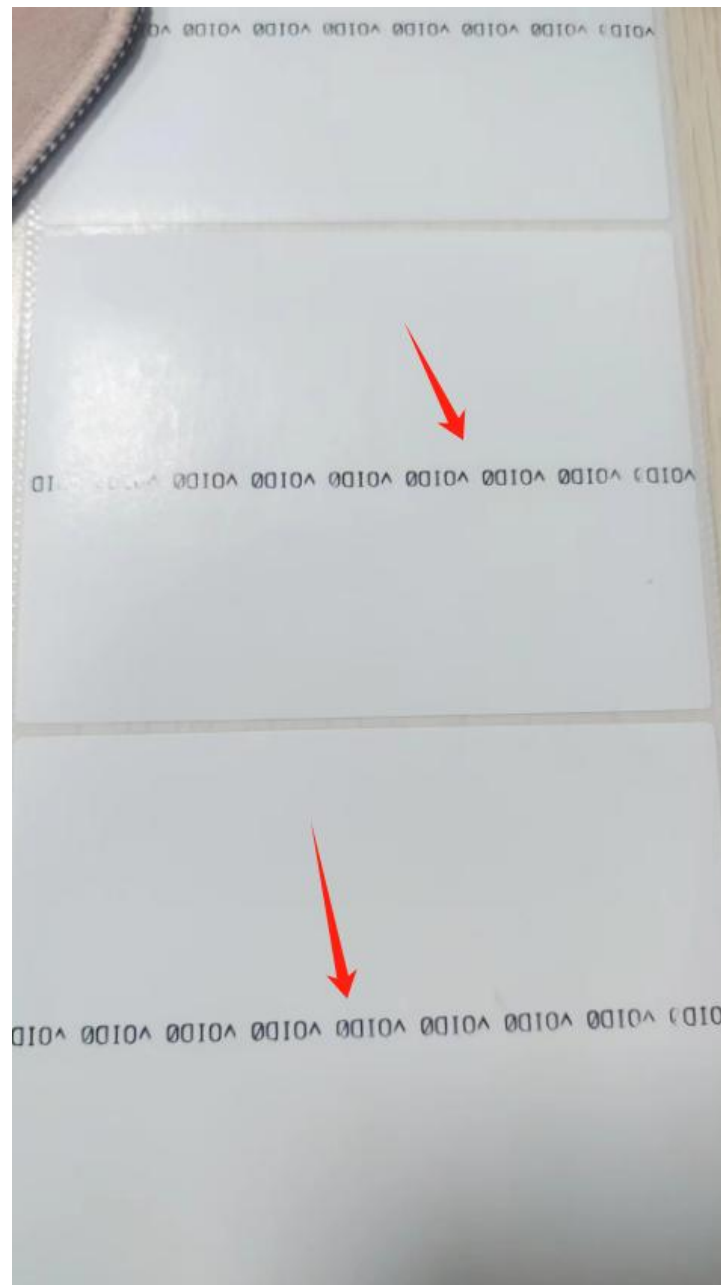
F & Q

Read/Write failure

If the RFID data writing or reading fails,
the contents of the figure will be printed at the label

Solutions

If the above situation occurs,
please recalibrate or contact Gainscha's engineer to solve



Save RFID Configuration

The calibration information can be saved after the calibration is complete

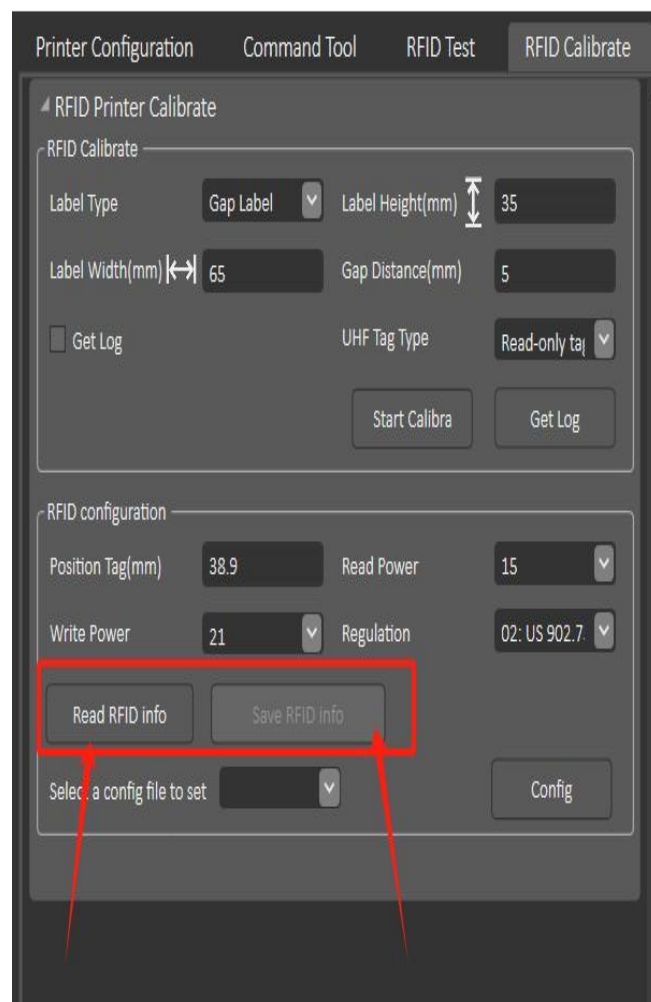
Click [Read RFID Info] > Click [Save RFID Info]

The path for saving the file is the utility path

Invoke the configuration

Select the file and click [Config]

Tips: The saved RFID Tag parameters can be used only for the same RFID Tag and size



校准完成后，可保存校准参数，适用于同样参数的标签
保存的配置信息在工具的目录下