PD8634 User Product Manual

Version1.0, May 2023

Statement

Please read all the contents of this manual carefully before using the products described in this manual to ensure safe and effective use of the products. Please keep this manual for future reference.

The pictures in this manual are for reference only. The actual product prevails. The Company has the right to update and improve the product without prior notice.

Note：

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna and transmitter.

Warning：

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Version Record

Version	date	Modified Content
V1.0	20 2 3 . 0 5	First draft

Directory

Part I Product Description

Chapter 1 Module Features

☞PD8634 is an embedded access control card reader with high integration and excellent performance.

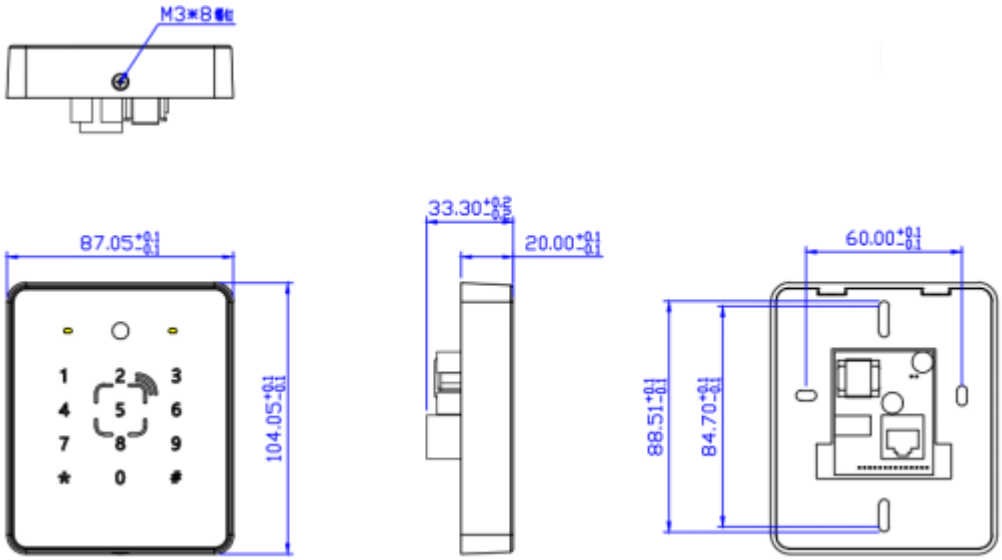
☞ PD8634 Support M1 card swiping application.

Chapter 2 Module Parameters

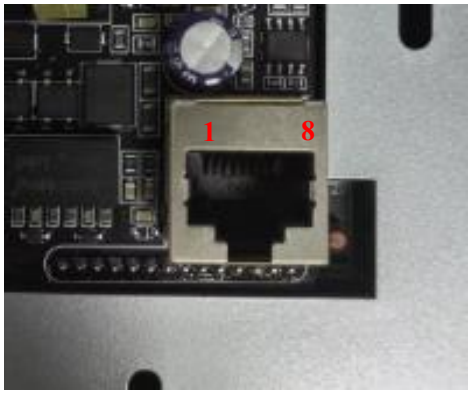
model	PD8634
Dimensions	87.05mm*104.05mm*33.3mm
Material	PC + Armored Glass
Weight	135g
Voltage	DC 48V (42V-57V) supplied through PoE+
Current	<50mA 48vdc power supply
Communication Port	The minimum power required by the switch POE port cannot be higher than 1.4W
Image Sensor	640 x 480 CMOS, 30fps
Perspective	Horizontal 63’, Vertical 51’
Reading Angle	Roll: 360’, Pitch: ± 60’, Skew: ± 50’
Barcode System	Uses QR code in the scanning code system for setting IP, and other systems codes
Reading Accuracy	2D: ≥ 10mil
Symbol Contrast	≥ 25%
Recognition Pattern	Continuous Mode
Feedback	Beeping and LED
Card Swipe Support	ISO14443A / B, NFC mobile phone card, Mifare card
Operating Temperature	-20°C ~ 60°C
Operating Humidity	5%RH~95%RH (Non-Condensing)
Storage Temperature	-40°C ~ 80°C
Ambient Lighting	0-80000Lux

Electrostatic Protection	Contact discharge ± 6KV and air discharge ± 12KV
IP Protection	Front IP54

Module Dimensions (Unit: mm)



Chapter 3 Interface Description



The product adopts RJ45 port and supports POE IEE802.3AT/AF standard. The cable sequence is defined as follows:

Pin	Definition	Illustrate
1	1RX+	Signal
2	1RX-	Signal
3	1TX+	Signal
4	2RX-	Power supply 48V+
5	2RX+	Power supply 48V+
6	1TX-	Signal
7	2TX+	Power supply 48V-
8	2TX-	Power supply 48V-

Chapter 4 Requirements for Use

Static Protection

Pay attention to anti-static measures during unpacking and use, such as using a grounding wrist strap and grounding the work area.

Thermal considerations

PD8634 will emit heat during operation, and the heat will accumulate to a certain extent under the condition of continuous operation at full speed for a long time. Although PD8634 can adapt to work in a high temperature environment, in a high temperature environment, it will increase image noise, reduce image quality, and reduce reading performance. Consider the actual use environment to judge whether the heat dissipation design is appropriate.

☞When designing, it should be considered to reserve a space for PD8634 that can form natural convection or forced convection.

☞Avoid wrapping PD8634 with heat insulating materials such as rubber.

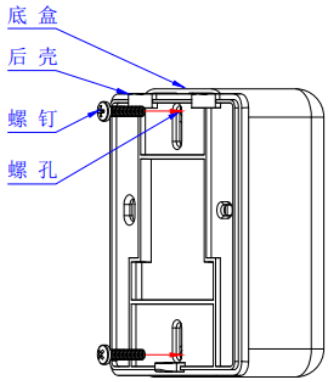
Chapter 5 Installation instructions

Step 1. When there is a US J-BOX on the wall, pass the cable inside the box through the hole in the back shell.

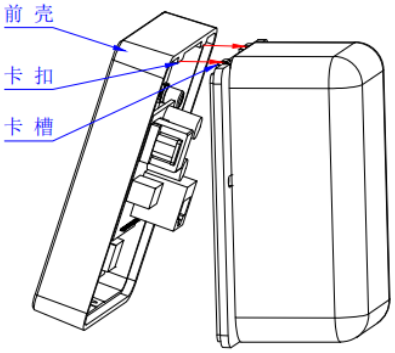
Step 2. Fix the rear case with 2 screws (screws are included in the accessories).

Step 3. Insert the passed wires into the corresponding holes on the motherboard, and pass the excess wires back to the US J-BOX.

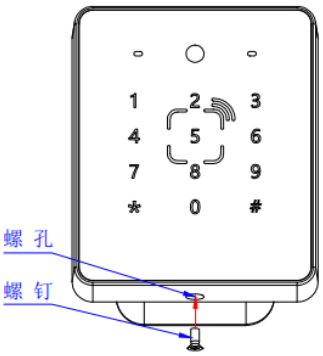
Step 4. The front shell is inserted into the rear shell at an Angle, and the rear shell is locked by a screw under the front shell.



后壳安装



前壳安装



锁紧安装

Part II Setting Code Configuration Instructions

Chapter 1 Operation Settings

PD8634 can meet the needs of users for direct use in most cases. You can also set parameters through the setting code according to actual needs.

1.1 Setup Code

☞Note: The option marked with (**) in the setting code indicates the default function or parameter.

Factory Data Reset

After reading this setting code, the current parameter setting will be lost, and the factory default value will be restored.

Restore factory default

☞Note: Please use the “Restore Factory Default” function with caution.

1. 2 User Default Settings

In addition to restoring factory settings, users can save frequently used settings as user defaults. By reading " Save the current setting as the user's default setting " , the current device configuration can be saved as the user's default information for quick setting when needed.

By reading " restore user default settings " , the default settings saved by the user can be restored.

Save current settings as user defaults

Revert to user defaults

1.3 Soft Restart

If you need to restart during use, you can read the "soft restart" setting code.

Soft restart

Chapter 2 Communication Interface

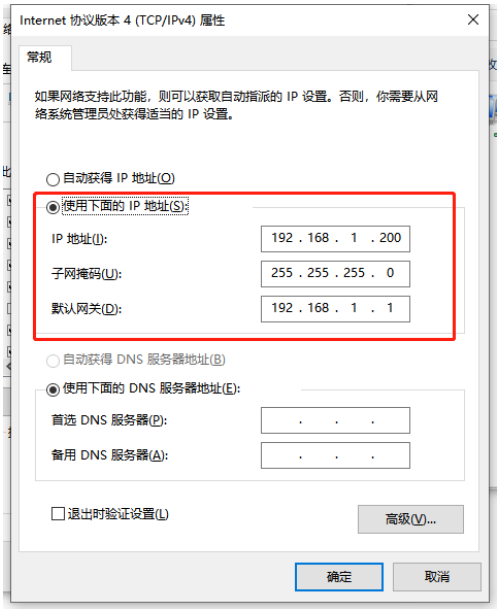
PD8634 provides an Ethernet port to communicate with the host computer. Through the communication interface, the reading data can be received.

2.1 Wired network TCP mode setting

The factory default parameters of the device are as follows:

project	parameter
Server (host) IP	192.168.1.200
Port	1000
Subnet mask	255.255.255.0
Gateway	192.168.1.1
Device IP	192.168.1.16

During TCP communication, the parameters of the Ethernet adapter of the server (host) and the parameters of the device (server IP, subnet mask and gateway) need to be consistent, as shown in the figure below.



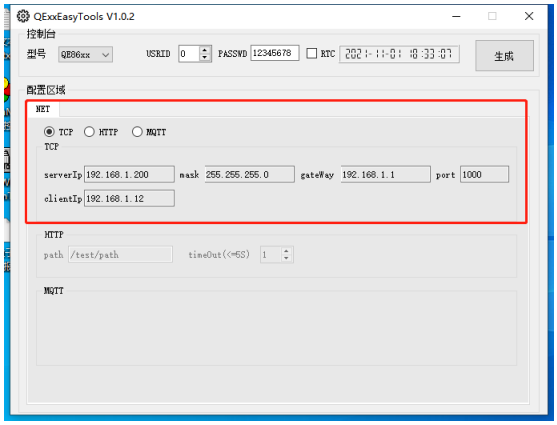
If the TCP parameters of the device need to be modified, you can use the parameter modification tool "QExxETools.exe", see 2.2 for the specific operation method .

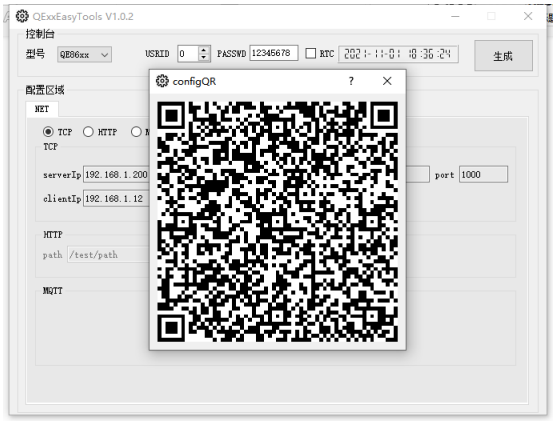
Note: After modifying the TCP parameters of the device, the device needs to be restarted to take effect.

2.2 Instructions for using QExxETools.exe

Select TCP, fill in the parameters to be configured, click "Generate", scan the generated QR code with the

device, and restart the device to complete the configuration.





Chapter 3 General Settings

3.1 Passive buzzer frequency

Read the following setting code to set the driving frequency of the passive buzzer.

Low frequency

** Medium frequency

High frequency

3.2 Boot prompt buzzer

When the device is successfully powered on, the buzzer prompt can be turned on or off according to the setting requirements.

**Power-on reminder buzzer-on

Power-on prompt beep -off

3.3 Read device ID

The user can read the device ID by reading the following setting codes.

Read device ID

3.4 Fill Light Settings

There is a group of LEDs on the device that are specially equipped for shooting and reading, providing auxiliary supplementary light, irradiating the light beam on the reading target, improving the reading performance and the adaptability to weak ambient light. You can set according to actual usage conditions:

Fill light - on when taking pictures: the fill light is on when shooting, and off at other times.

Fill light - always on: The fill light will continue to glow after the reading module is turned on.

Fill light - always off: the fill light will not be on under any circumstances.

**The fill light is on when taking pictures

The fill light is always on

Fill light always off

Chapter 4 Version Number Query

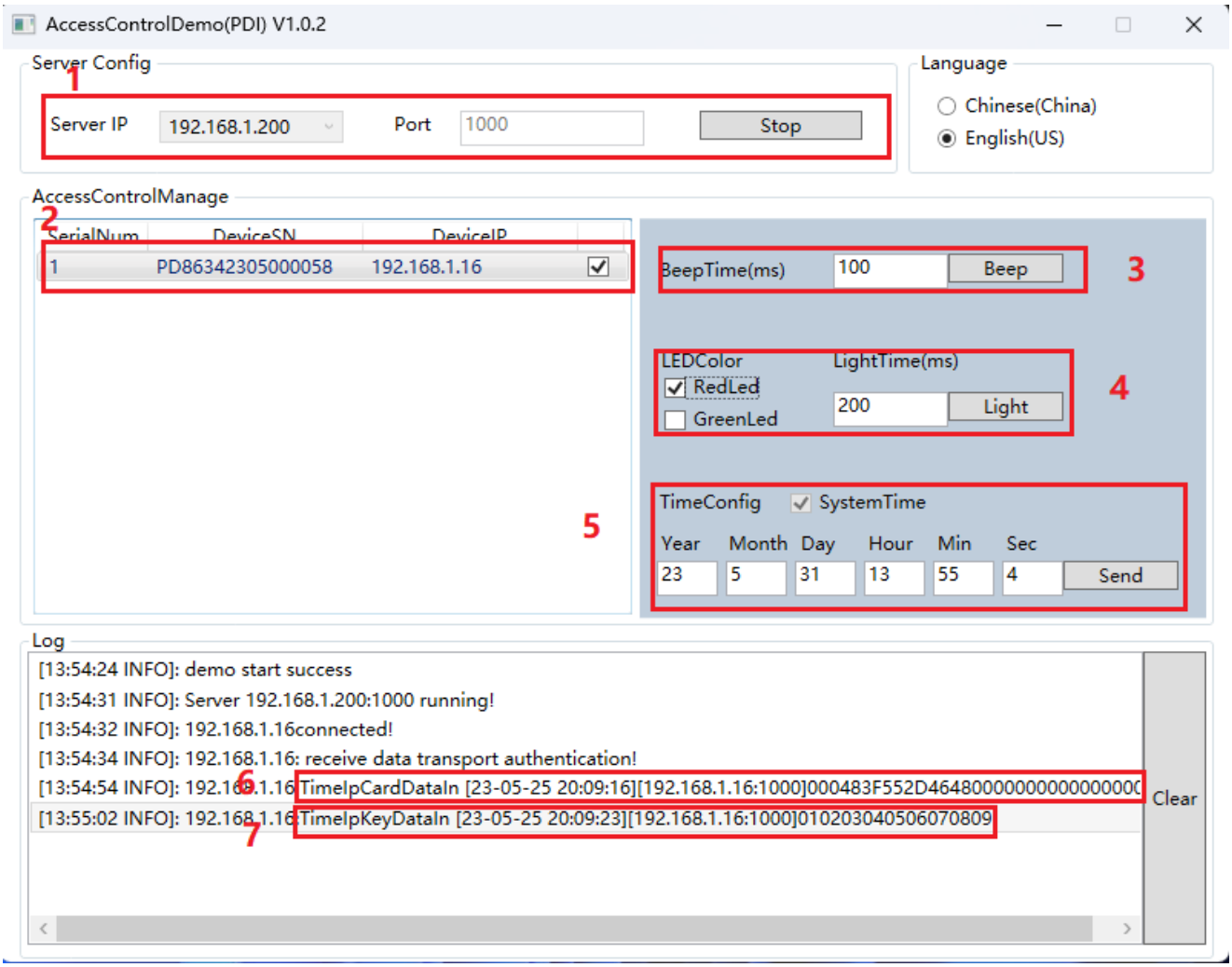
Users can quickly obtain all information about the current device version by reading the following setting codes .

Read all device version information

Chapter 5 Instructions for Use

5.1 Use of test tools

You can use the testing tool AccessControlDemo for experience testing.



1. First select the server IP and port to be connected to the access control device (refer to Chapter 2.1 to set the server ID), and click the "Start" button after the setting is completed to start the server. After the server starts successfully, the Log area will display Server running.

2. Access control device connection: When a new access control device is connected to the server, the list column on the left will display the IP and other information of the connected access control device. Select the device to enable the access control device control interface and further control the access control device.

3. Buzzer control: Set the buzzer buzzing time, click the "Beep" button, the access control device buzzer will sound.

4. LED control: Select the color of the LED light, set the lighting time, click the "Light" button, and the LED light of the access control device will light up.

5. Set the access control device time: Click the "Send" button, and the access control device will update the time. This time is used for uploading card swiping and key device usage.

6. Card swiping data upload: The figure shows the data uploaded by the access control device with the card swiping operation, the format is time+IP+8-byte card number and 8-byte card password.

7. Key data upload: The figure shows the data uploaded by the access control equipment with key operation, and the format is time + IP + key data.

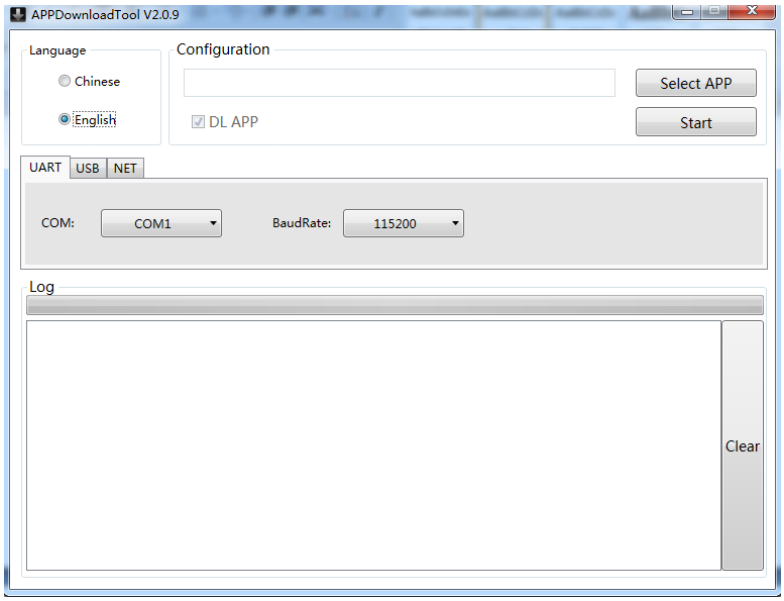
5.2 Button Operation Instructions

The data is valid only after the button "#" is pressed, otherwise it is invalid. The data will be reported by pressing "#" in the networked state. The valid time of the data is 10S. Please complete the operation within 10S after the last press. If there is no operation data within 10S, the data will be cleared. The maximum length of the data is 32, and the data exceeding this length will be cleared.

Chapter 6 Product Firmware Upgrade

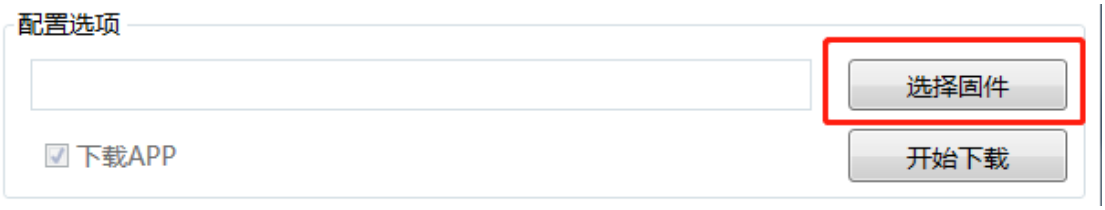
This software tool is used to upgrade the APP firmware program on the client side.

6.1 Software interface



6.2 Select the APP firmware to download

Click the "Select Firmware" button and select the firmware to download.



6.3 Select the download mode, and set the module to the corresponding download interface

NET connection download mode:

1) Make sure that the module has the function of downloading from the network, and the IP address of the module is known.

2) Click the "NET Connection" button in the download tool, select the network download mode, set the local IP and port, and fill in the IP address of the module in the "Destination IP" column, and set the "Port" to 2000. As shown below:

6.4 Click the "Start" button and wait for the download to complete.