AKUSENSE

Intelligent Code Reader

RCD-AI100-X Series

User Manual

V1.0

Catalogue

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Chapter 1: Product Introduction

1.1 product description

This manual is applicable to the Meiji intelligent code reader RCD-AI100-X series, which can be applied to 3C, pharmaceutical food, electronic semiconductor, auto parts and other industries.The device uses sensors and optical

1.2 Main features

- Built-in deep learning algorithm, which can quickly locate the bar code and decoding
- Mechanical zoom lens, support remote and wide field reading
- Provide red / white two-color light sources, 4 groups of independent control light sources, and support polarized light sources to cope with complex scenes
- Support for ultra-small code reading, to meet the reading requirements of different distances
- Provide a rich IO interface to access multiple input and output signals
- IP67 protection, fearless of harsh industrial application environment

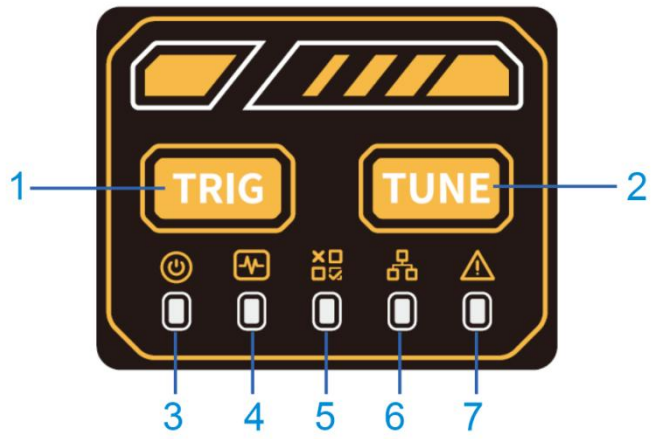
1.3 Appearance

A .Appearance instructions

NO.	Name	Description
1	Imaging sensor	For collect images
2	Light source	Built-in red / white light source
3	Positioning lamp	Indicates image center position
4	Screw holes	Code reader mounting holes
5	TRIG key	Trigger the button
6	TUNE key	Automatic reference button
7	Status indicator	Indicator light panel
8	12 Pin interface	M12-12 Pin interface

9	8 Pin interface	M12-8 Pin interface

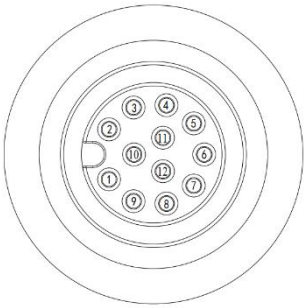
B Status indicator light description

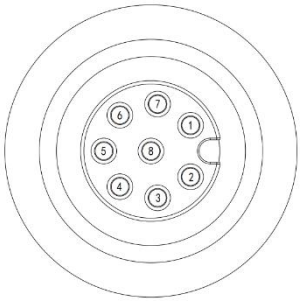


NO.	Name	Description
1	TRIG key	Trigger the button
2	TUNE key	Trigger the button
3	Power light	The green light is on for normal operation
4	Configuration indicator	The trigger button successfully triggers the green light
5	OK/NG indicator	Read code success green light, read code failure red light
6	Network indicator	Normal green light, data transmission strobe light
7	Error indicator	By default, the device is not on

1.4 Interface & bulk line definition

The equipment interface is M12-12 PIN and M12-8 PIN connector, and the specific pin signal definition is shown in the following figure.When wiring the equipment, please connect according to the pin number in the table and the color on the cable label.

M12-12 PIN pin 	1	yellow	OUT2
	2	Green belt yellow edge	RS232_TxD
	3	brown	RS232_RxD
	4	pink	RS232_GND
	5	purple	IN1
	6	white	IN_COM
	7	red	VIN_24V
	8	black	DGND
	9	green	OUT_COM
	10	orange	IN0
	11	blue	OUT0
	12	gray	OUT1

M12-8PIN pin 	1	Orange white
	2	Orange
	3	Green white
	4	Green
	5	Blue and white
	6	Blue
	7	Brown white
	8	Brown

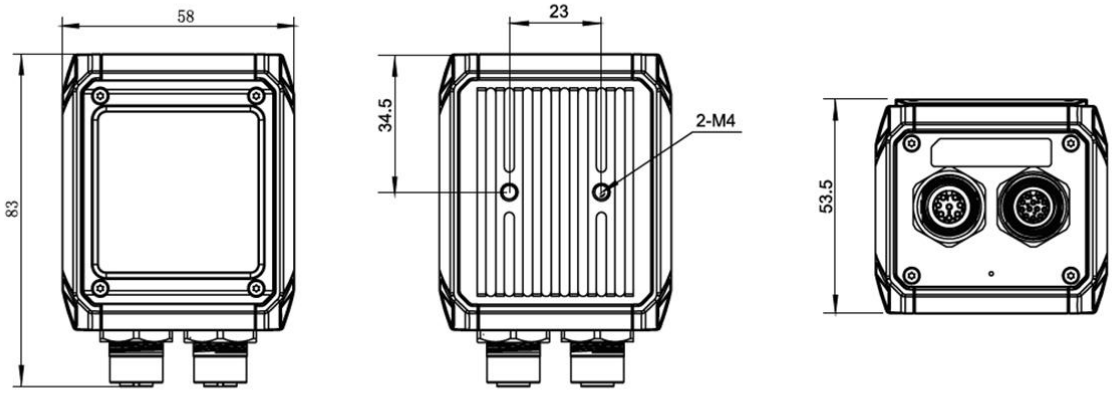
1.5 Accessories and dimensions

A list

For the normal use of the equipment, please prepare the supporting items shown in the following table before installation.

Name	Description	picture
M12-12 PIN Interface line	M12 male head, RS232 communication interface, power interface, IO port, 3 m	
M12-8 PIN Interface line	M12 head, RJ45 network cable, 3 m	
source	The 24V power supply adapter	
Install accessories	L-shaped mounting bracket + screws	

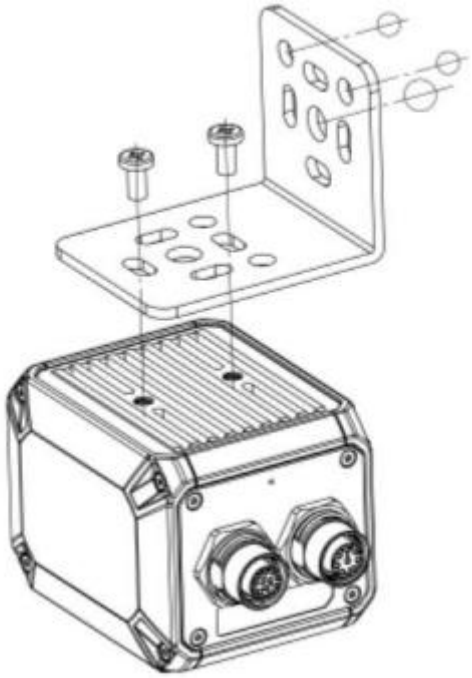
B Appearance



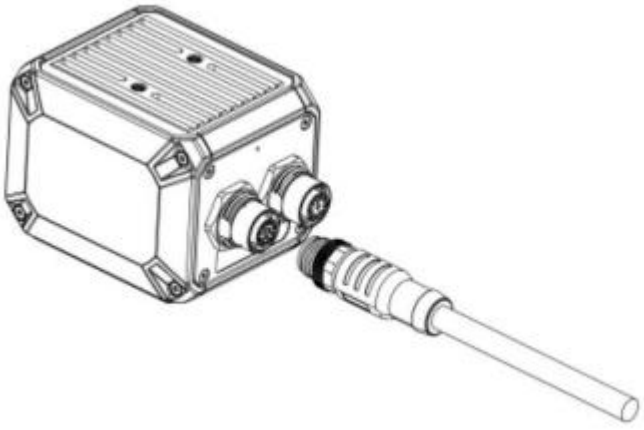
Chapter 2 Equipment Installation and Operation

2.1 Equipment installation

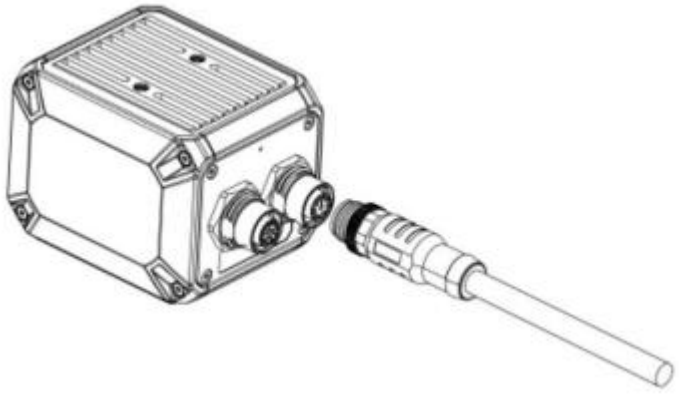
1. Install the equipment to the fixing bracket and then to other mechanism parts through the fixing bracket.



2. Connect the M12-12 PIN interface line, please access and lock the screw in the correct way.

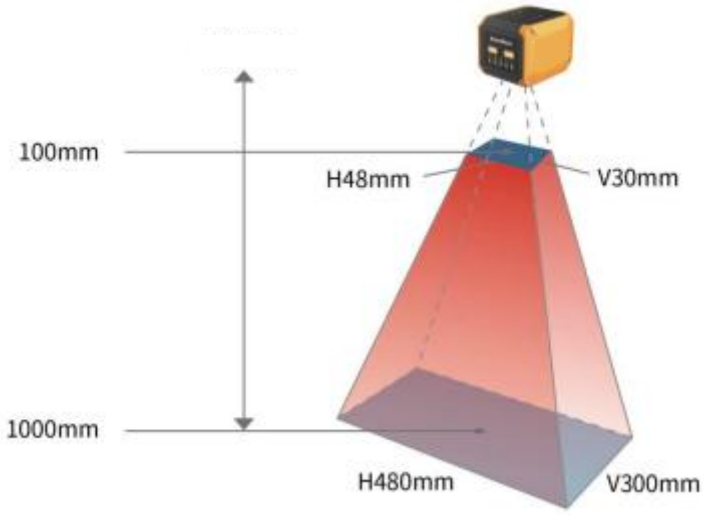


3. Connect the M12-8 PIN interface line, please access and lock the screw in the correct way.

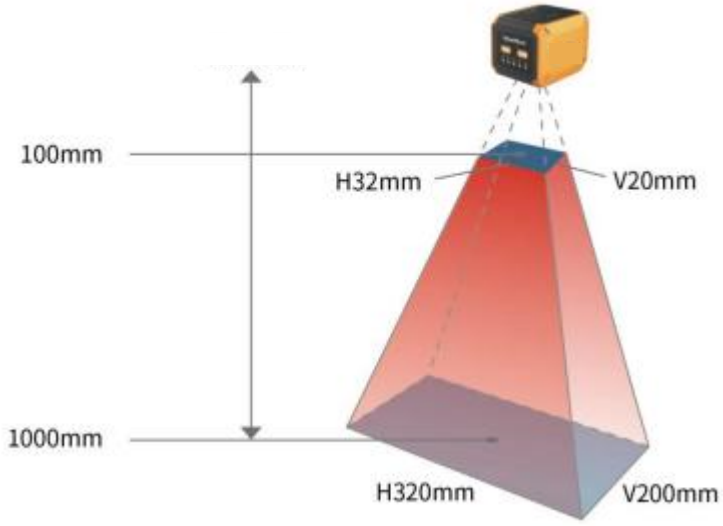


4. Installation height range: 100mm-1000mm, installation tilt 10-15 degrees, to avoid light spots and reflection.

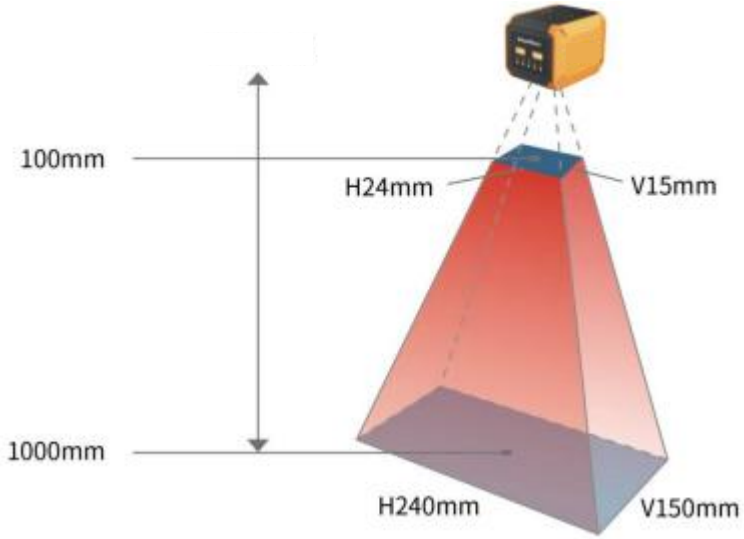
The focal length was 8mm



The focal length was 12mm



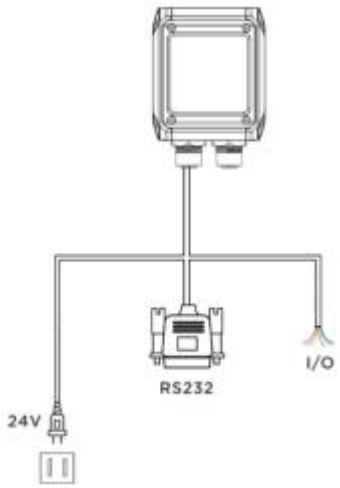
The focal length was 16mm



2.2 Power supply connection

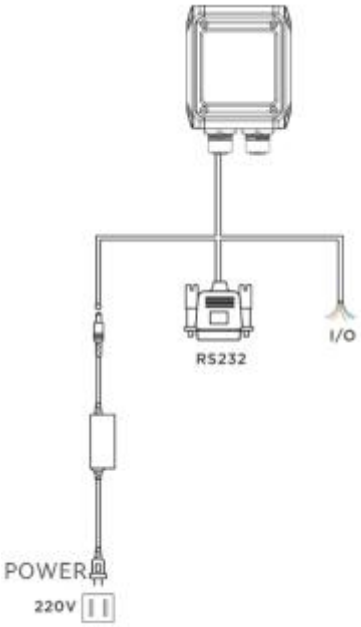
There are two power supply methods: support 24VDC direct connection or 220VAC with adapter connection, maximum 3A.

A for an external direct supply of 24V



B External direct supply of 220V

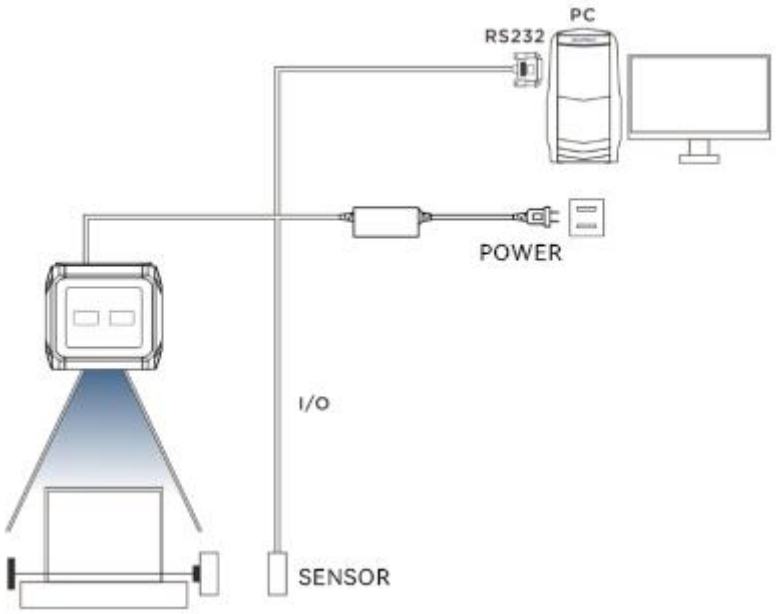
Power power with an adapter.



2.3 Communication connection

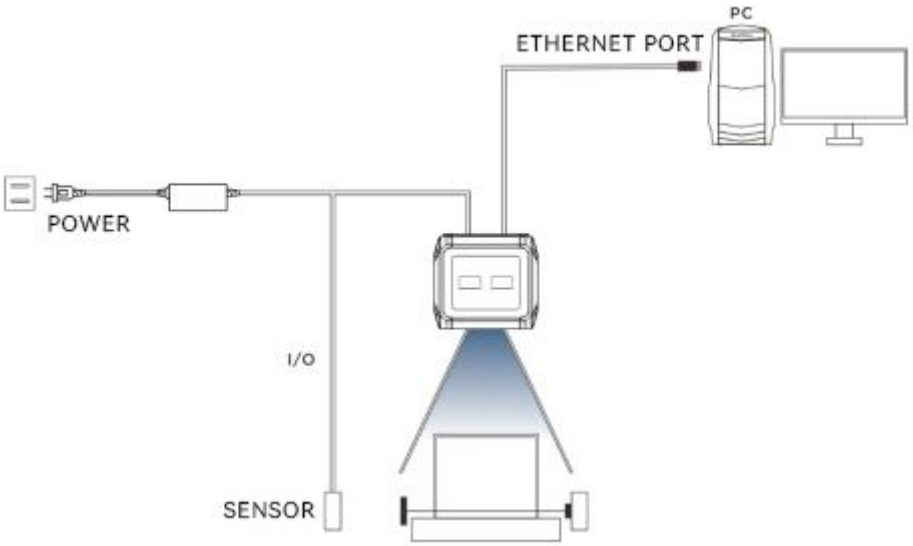
A RS232 Serial port

The default port rate is 9600, check bit: NULL, data bit: 8, stop bit: 1, can be changed according to the actual situation.



B Ethernet

The default IP address is 192.168.0.100 and the received data port is 15000 and can be changed according to the actual situation.



Chapter 3 IO Electrical Characteristics and Wiring

3.1 I / O electrical characteristics

The Line In 0 / 1 in the device I / O signal is the optical coupling isolation input, and the Line Out 0 / 1 / 2 is the optical coupling isolation output.

3.1.1 Input electrical characteristics

The parameter name	Parameter symbol	parameter values
Enter the logic to the low level	VOL	8V
Enter the logic high level	VOH	12V
Input drops along the delay	TDF	1.3μs
Input rise edge delay	TDR	35μs

*Description *: The input logic is low or logic high, which is the threshold of the voltage representing the input. Input up or down delay is the representative performance.*

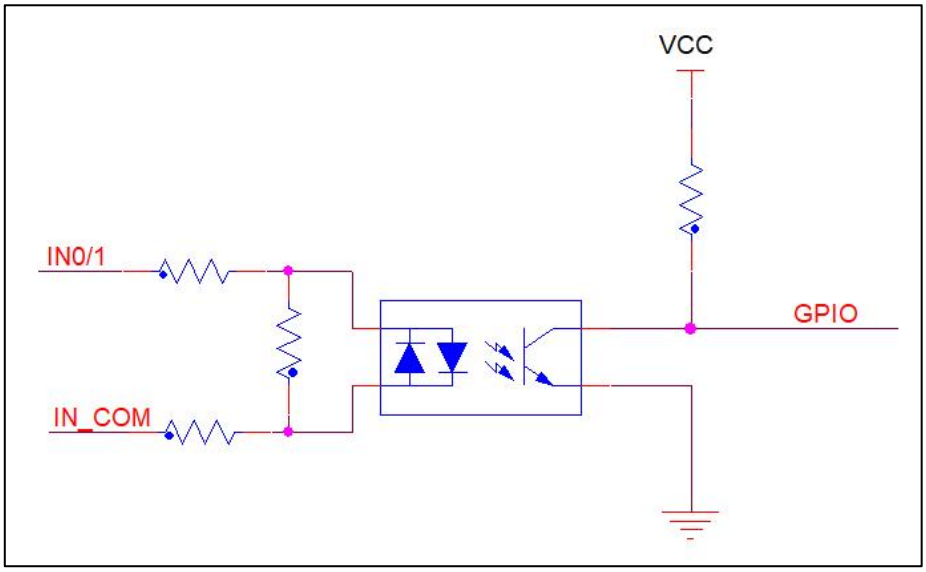
3.1.2 Output electrical characteristics

The parameter name	Parameter symbol	parameter values
Output logic is at a low level	VOL	0.7V
Output logic is at a high level	VOH	23.9V
Output drops along the delay	TDF	7.5μs
Output rises along the delay	TDR	141μs
Output drop time	TF	12.6μs
Output up time	TR	157.8μs

3.1.3 Input the internal wiring diagram

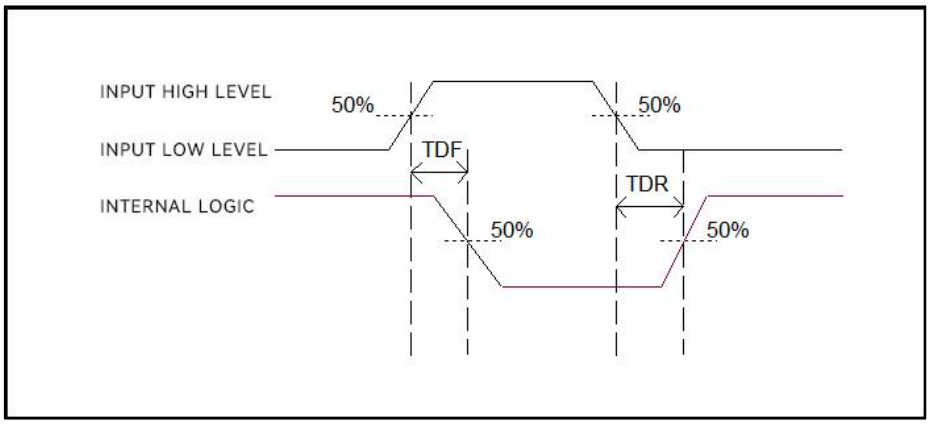
- incoming signal

In 0 / 1 in the device I / O signal is a photo coupled isolated input with an input voltage ranging from 8 to 24 VDC.



Equipment input circuit diagram

- The input logic level is:

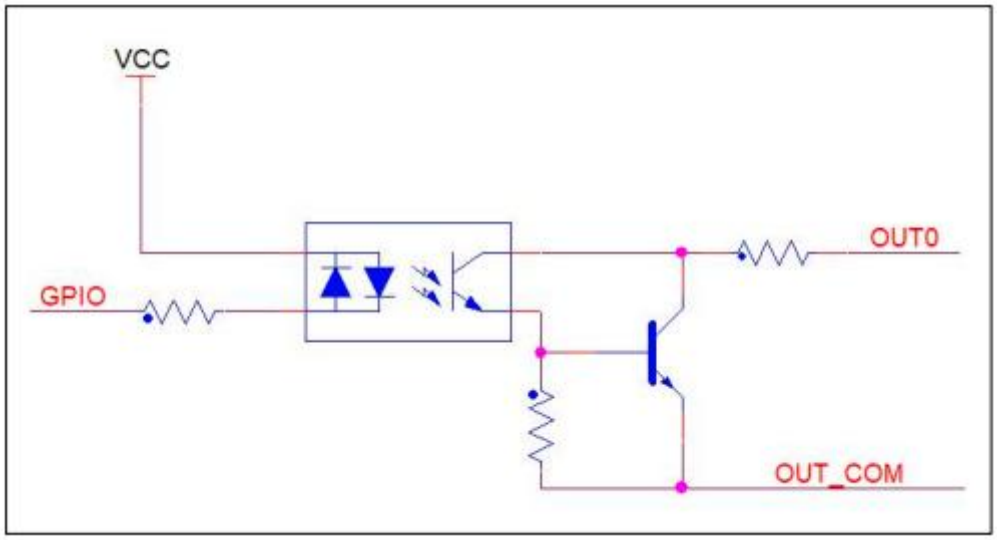


Enter a logical level diagram

3.1.4 Input the internal wiring diagram

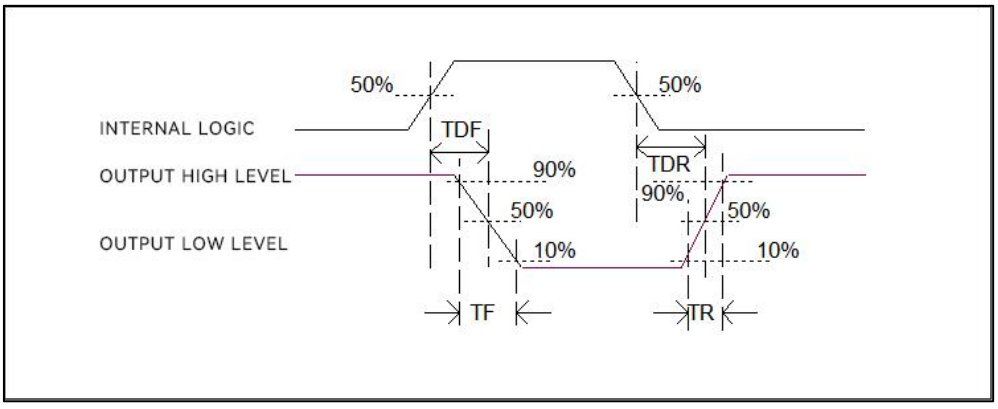
- output signal

The Lineout0 / 1 / 2 in the device I / O signal is the optical coupling isolation output. The output voltage range is from 5 to 40 V.



Equipment output circuit diagram

- The output logic level is:



Output logic level diagram

3.2 IO external wiring

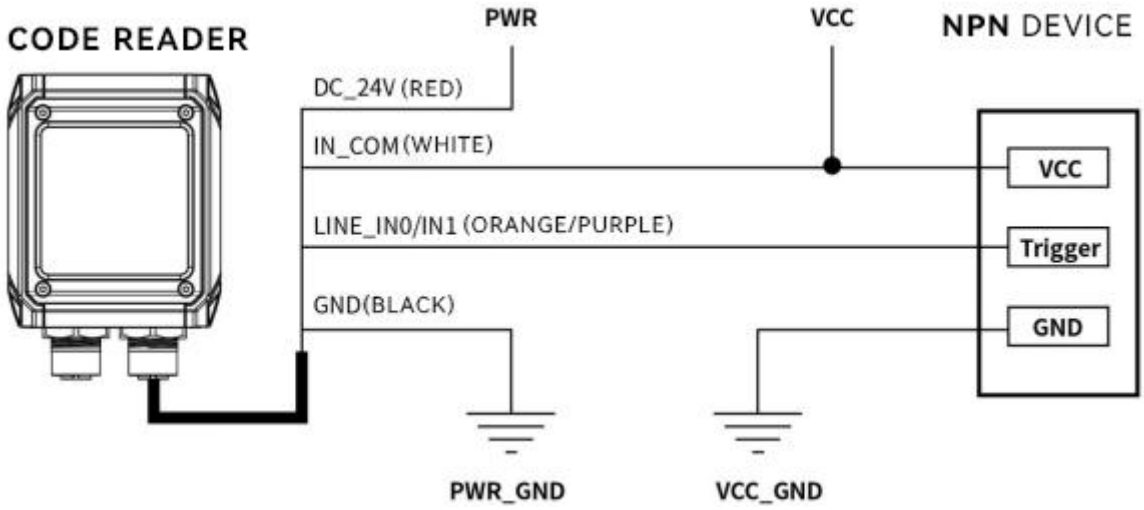
The device may receive the external input signal or the output signal to the external device through the I / O interface. This section mainly introduces how to connect the I / O part. The signal input in the wiring diagram takes LineIn 0 as an example, and the signal output

takes LineOut 0 as an example. Other interfaces can be similar according to the cable definition in the wiring diagram and combined with the interface introduction.

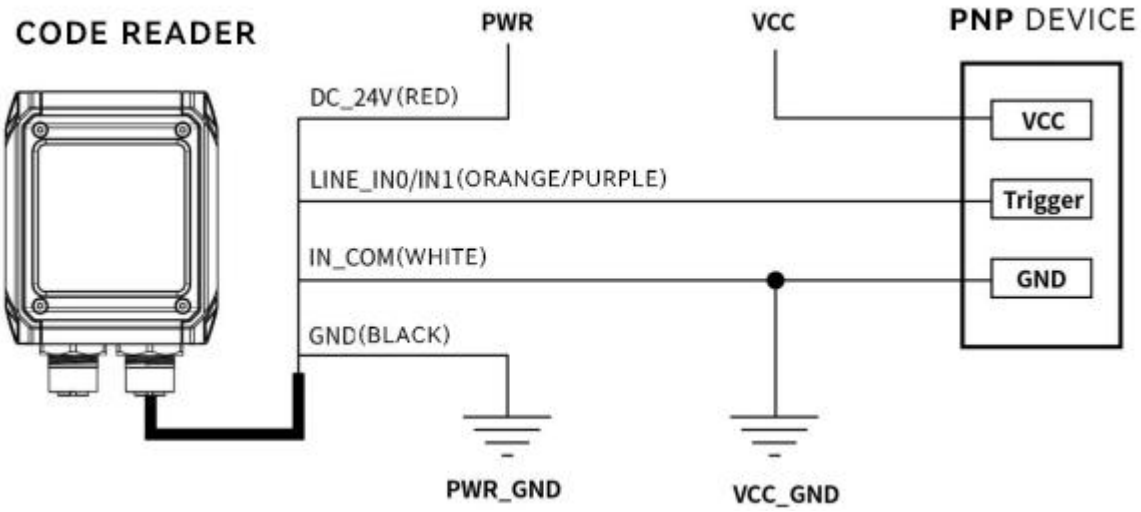
3.2.1 Input the external wiring diagram

Different types of equipment, equipment input wiring is different.

- The input signal is the NPN



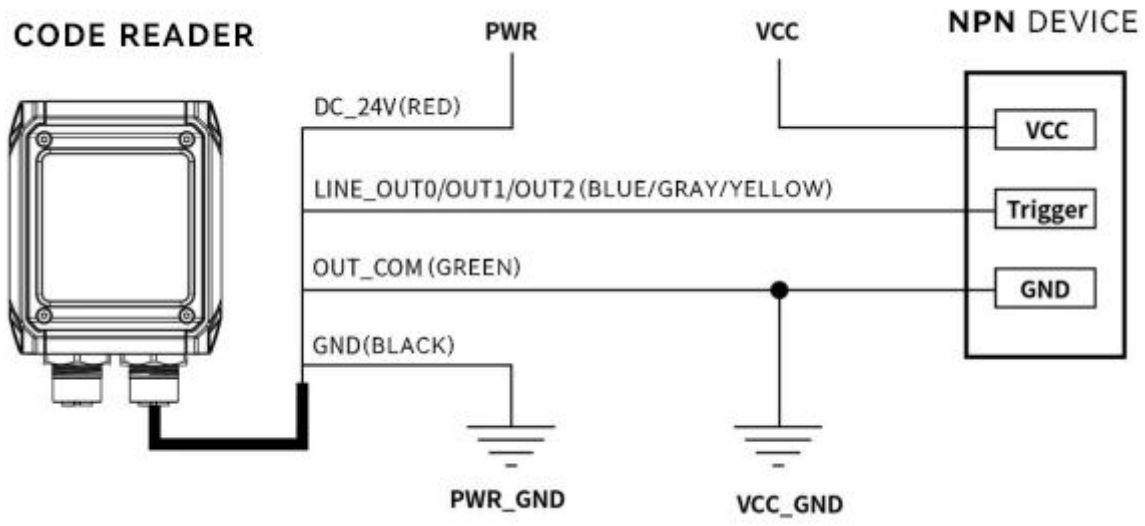
- The input signal is the PNP



3.2.2 Output the external wiring diagram

Different types of equipment have different output wiring of the equipment.

- External equipment is NPN, type equipment



*explain *:*

1) The voltage value of the VCC of the equipment shall not be higher than the voltage value of the reader PWR, otherwise the output signal of the equipment will be abnormal.

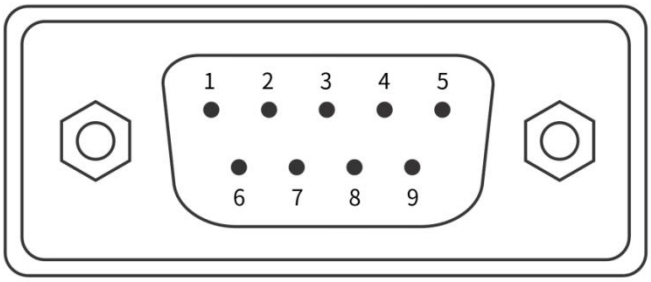
2) *The output load current shall meet the product specifications (serial flow resistance if necessary).*

3.3 RS-232 serial port

The device supports the RS-232 serial port output.

3.3.1 RS-232 serial port

The common oral definition of the 9-pin header 232 serial port connector string is shown in the figure below.



9-The pin male header connector

PIN NO.	IMPLICATIONS	FUNCTIONAL DESCRIPTION
2	RX	RECEIVE DATA
3	TX	SEND DATA
5	GND	SIGNAL GROUND

9-pin header 232 serial port definition

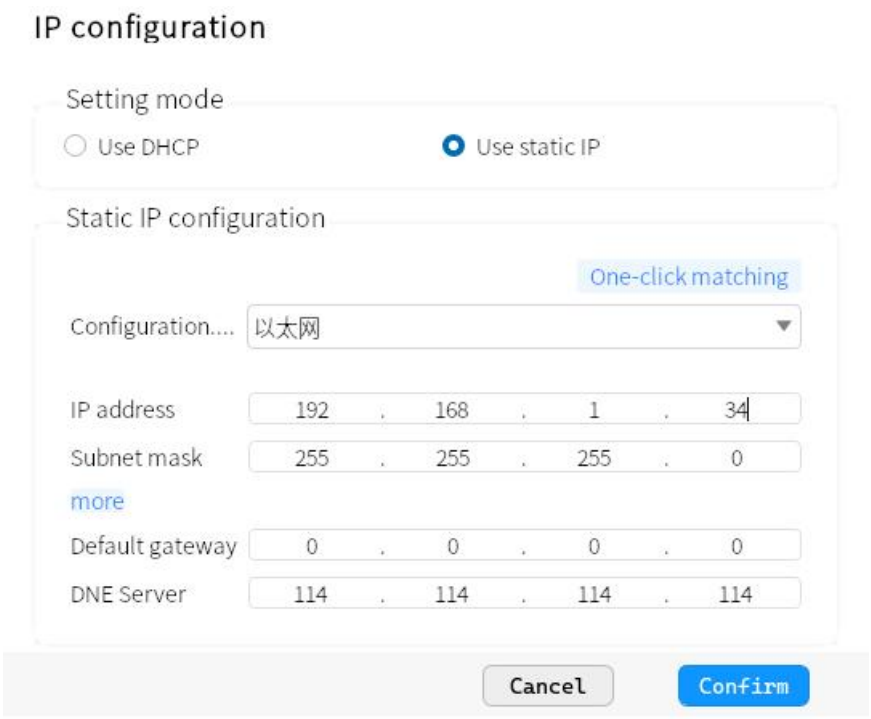
*Note *: The voltage value of VCC shall not be higher than that of PWR, otherwise the output signal of the equipment will be abnormal.*

Chapter 4 Client operation

4.1 Software Connection

- Double-click on the icon to open the software;

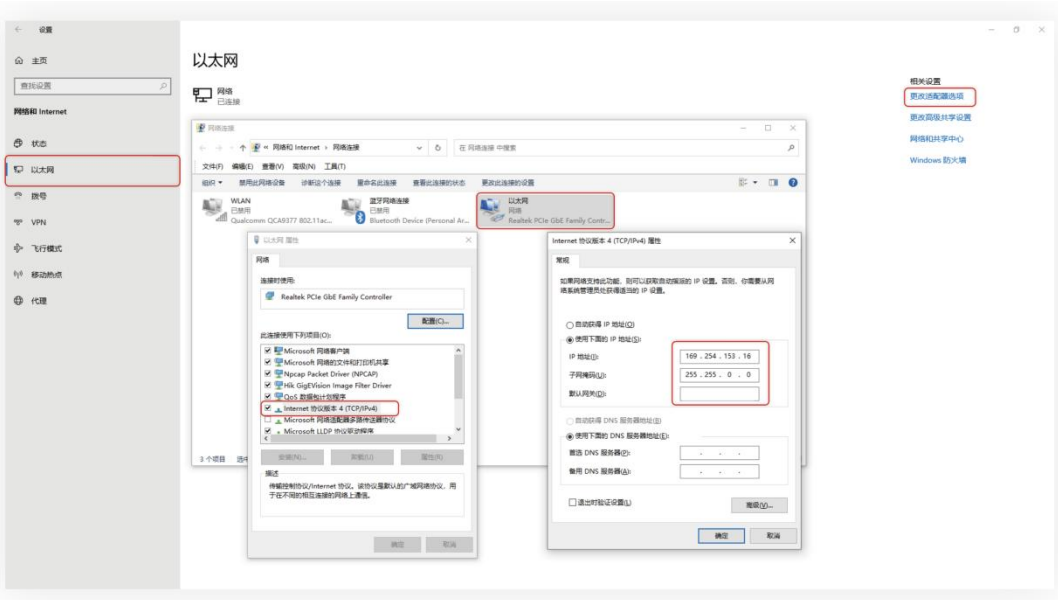
- The intelligent code reader and the PC of the configuration software need to be connected in the same network segment;
- Default IP address: 169.254.153.0; Gateway 255.255.0.0;
- You can use the DHCP and use the static IP address form to make the connection successful.



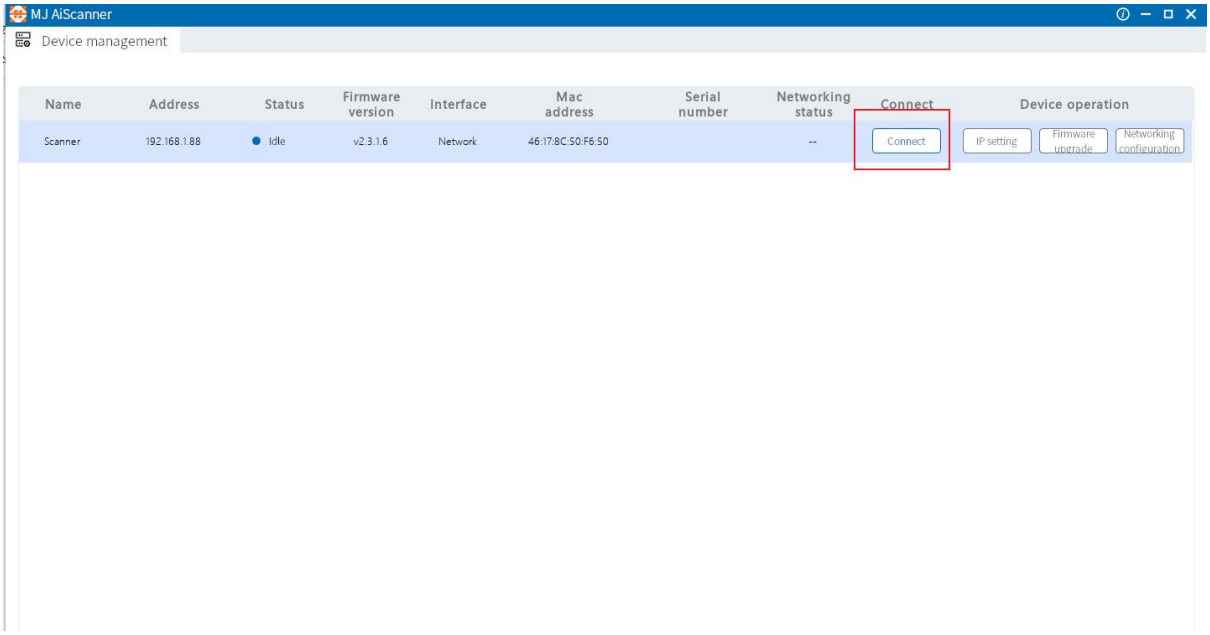
4.2 PC network configuration

4.2.1 Change the IP address of the PC

The operation steps are as follows: 1) Take Windows10 as an example, open "Start menu"> "Settings"> "Network and Internet"> "Ethernet"> "More Adapter option"> "Ethernet 3"> Right click "Properties"> "Network"> " Internet Protocol v 4 (TCP / IPv4); the IP address of the corresponding PC card is 169.254.153.16; Subnet mask: 255.255.0.0.



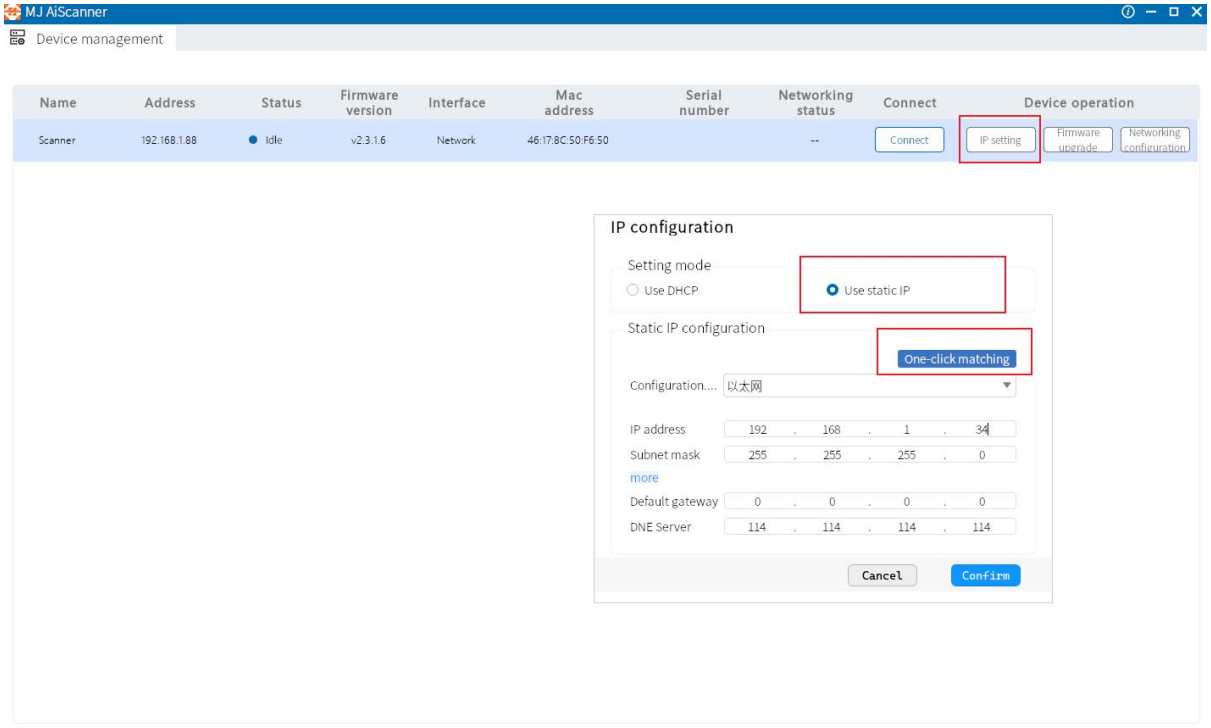
2) Open the configuration software, select the corresponding product and click the connection to complete.



4.2.2 Change the IP address of the reader

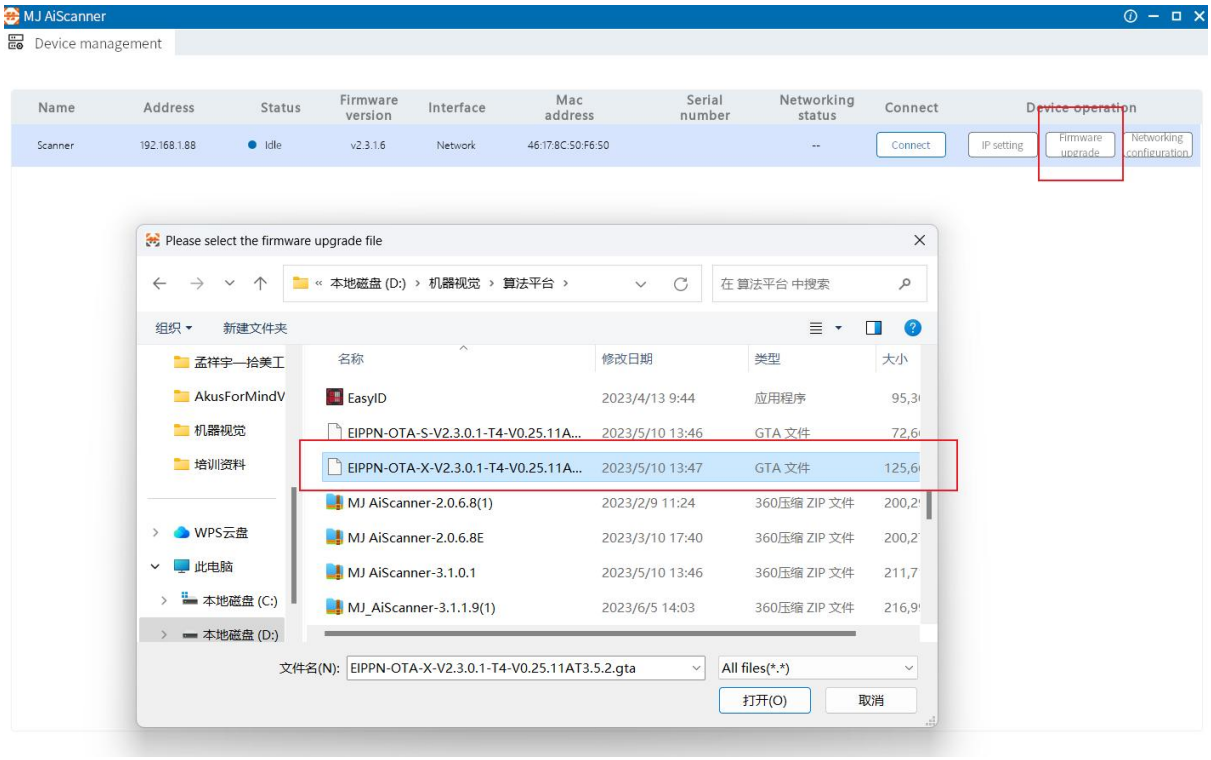
The operation steps are as follows: open the configuration software, select the corresponding PC network card, display to the code reader, click IP Settings> Use static IP> One-key Match> confirmation, change the IP address to the same network segment IP

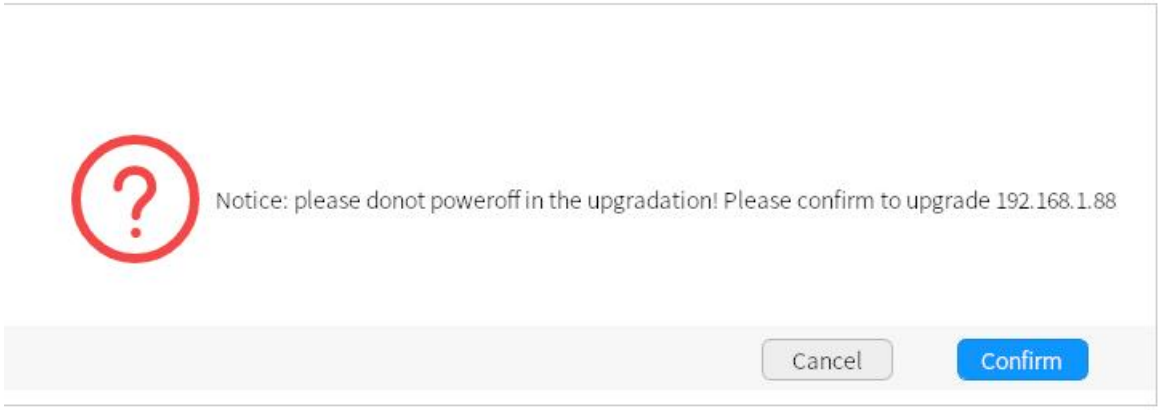
as the PC.



4.3 Firmware upgrade

The steps are as follows: Device Management> Device Operation> Firmware upgrade, select the firmware file, and then click OK for the firmware update. Wait for the restart to complete.





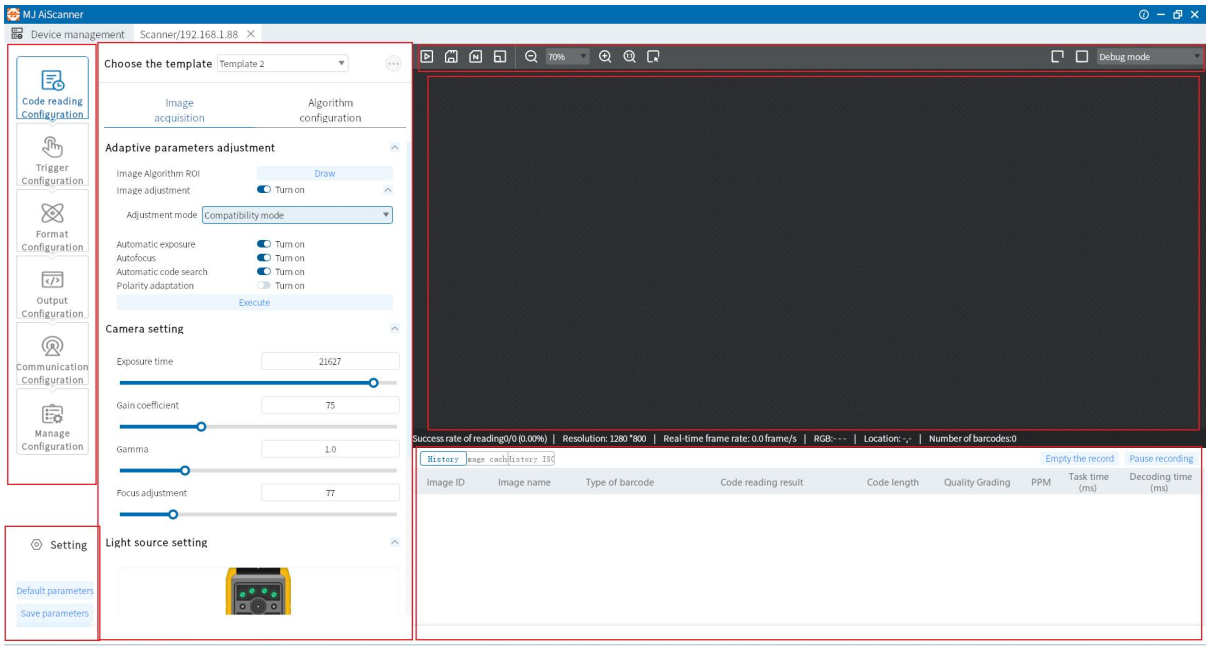
Chapter 5 function Introduction

5.1 Introduction of the interface

The device can operate through the client, specifically as follows:

1) Ensure that the device is accessible, and click the "Connect" of the client.

2) After connecting the device, the main interface of the client is shown in the following figure. See the table for the introduction of each functional module.



order number	name	Brief description of function
1	menu bar	Set up the client base functions.
2	Configuration of the reader	Menu bar secondary menu, set the parameters of the corresponding module, including template selection, parameter setting, algorithm setting, etc.
3	Tool bar	You can start / stop image acquisition for the device, but also can grasp the map saving, cancel ROI, zoom in and out of preview map, software trigger and other shortcut operations.
4	Preview window	It can preview the currently collected images of the device, the algorithm to read, and draw the effect of the ROI window.
5	history	Display the barcode information currently read by the client in real time.

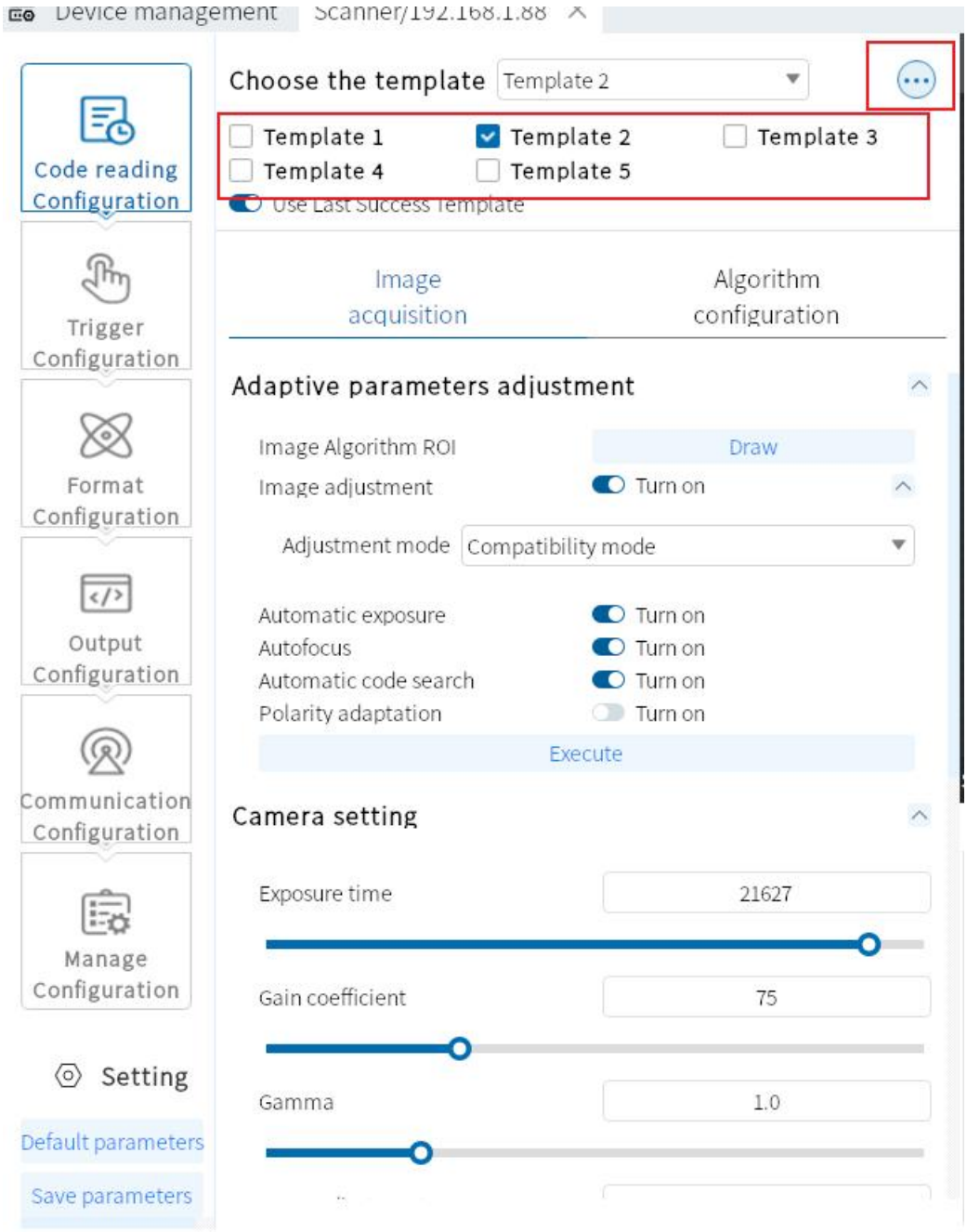
6	Basic Settings	You can change the device name, buzzer setting, button setting, and you can also count the device reading information, firmware upgrade, view the device log information, etc.

5.2 Read code configuration

5.2.1 Template selection

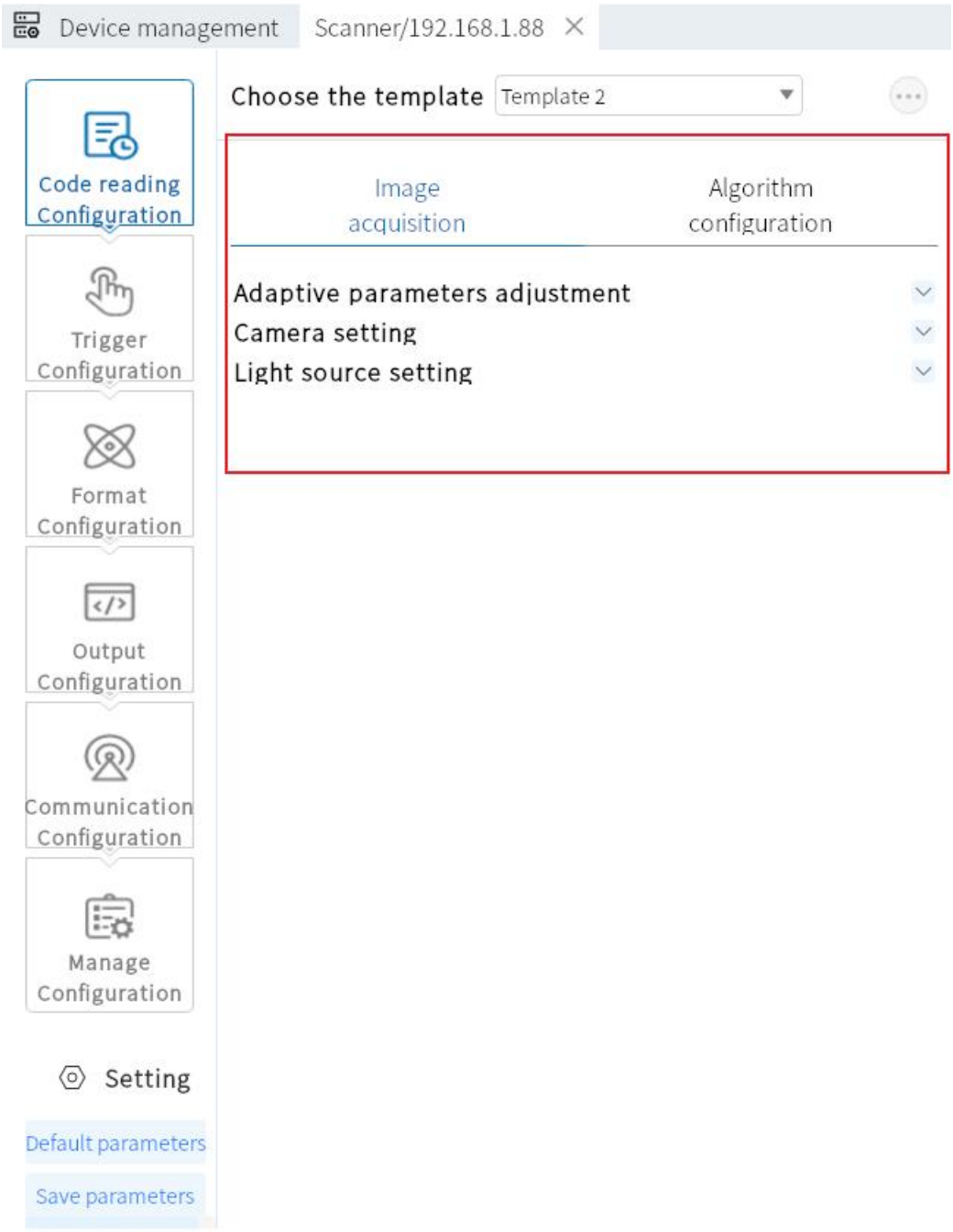
Template type support "Template 1" to "Template 5", a total of 5 templates, as shown in the figure below.

Through the upper left corner pull-down of the "reader configuration" area of the device, the operation mode can be saved as "template".


Device management
Scanner/192.168.1.88
Code reading Configuration
Trigger Configuration
Format Configuration
Output Configuration
Communication Configuration
Manage Configuration
Setting
Default parameters
Save parameters
Choose the template
Template 2
Template 1
Template 2
Template 3
Template 4
Template 5
Use Last Success Template
Image acquisition
Algorithm configuration
Adaptive parameters adjustment
Image Algorithm ROI
Draw
Image adjustment
Turn on
Adjustment mode
Compatibility mode
Automatic exposure
Turn on
Autofocus
Turn on
Automatic code search
Turn on
Polarity adaptation
Turn on
Execute
Camera setting
Exposure time
21627
Gain coefficient
75
Gamma
1.0

5.2.2 Image acquisition

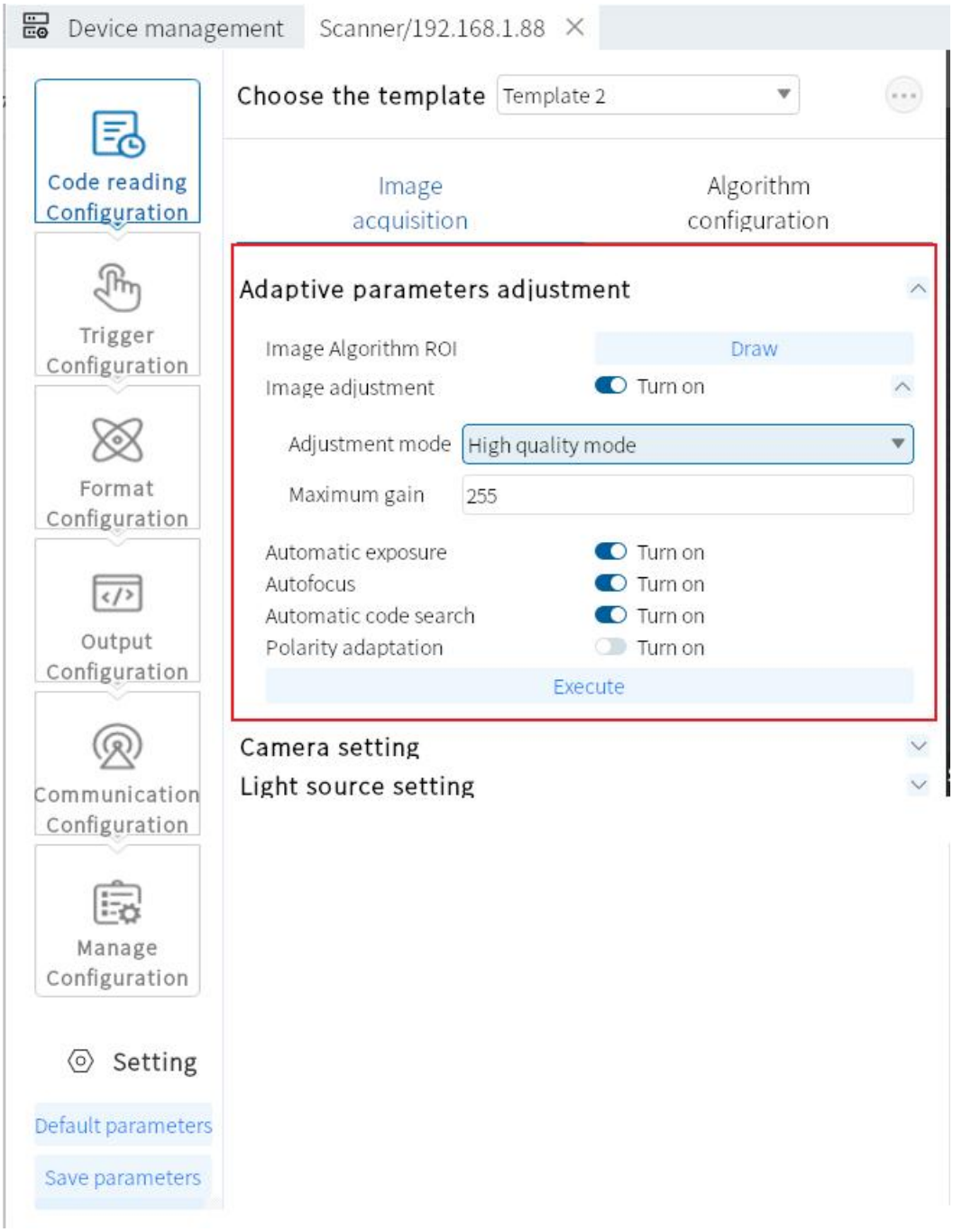
If the recognition effect is not good, you can adjust the parameters of "image acquisition" in "read code configuration", including manually adjusting the camera setting and light source setting, such as exposure time, gain, focus, light source parameters; or adaptive adjustment, and intelligently adjust the camera setting and light source setting through the device itself



5.2.2.1, adaptive parameter adjustment

Adaptive parameter adjustment content includes: image algorithm ROI, image adjustment, light source adaptation, automatic code system search. The user selects the

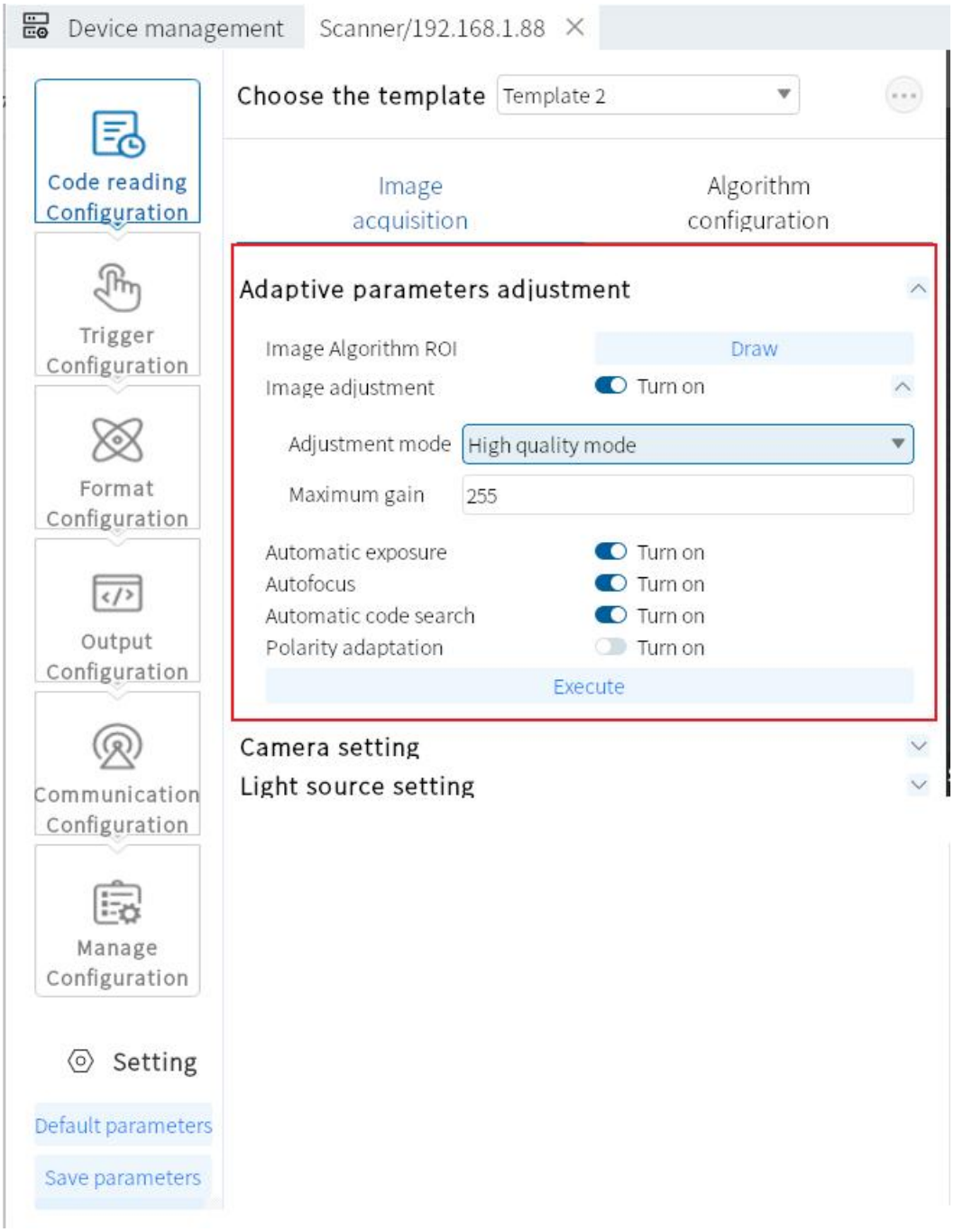
required adjustment parameters (image quality adaptive, light source, automatic focus, automatic code system search) and clicks to execute the automatic adjustment of exposure, gain, light source, code system and other parameters to achieve the best decoding effect, and the adjustment parameters will automatically set each parameter item.



5.2.2.2, Camera settings

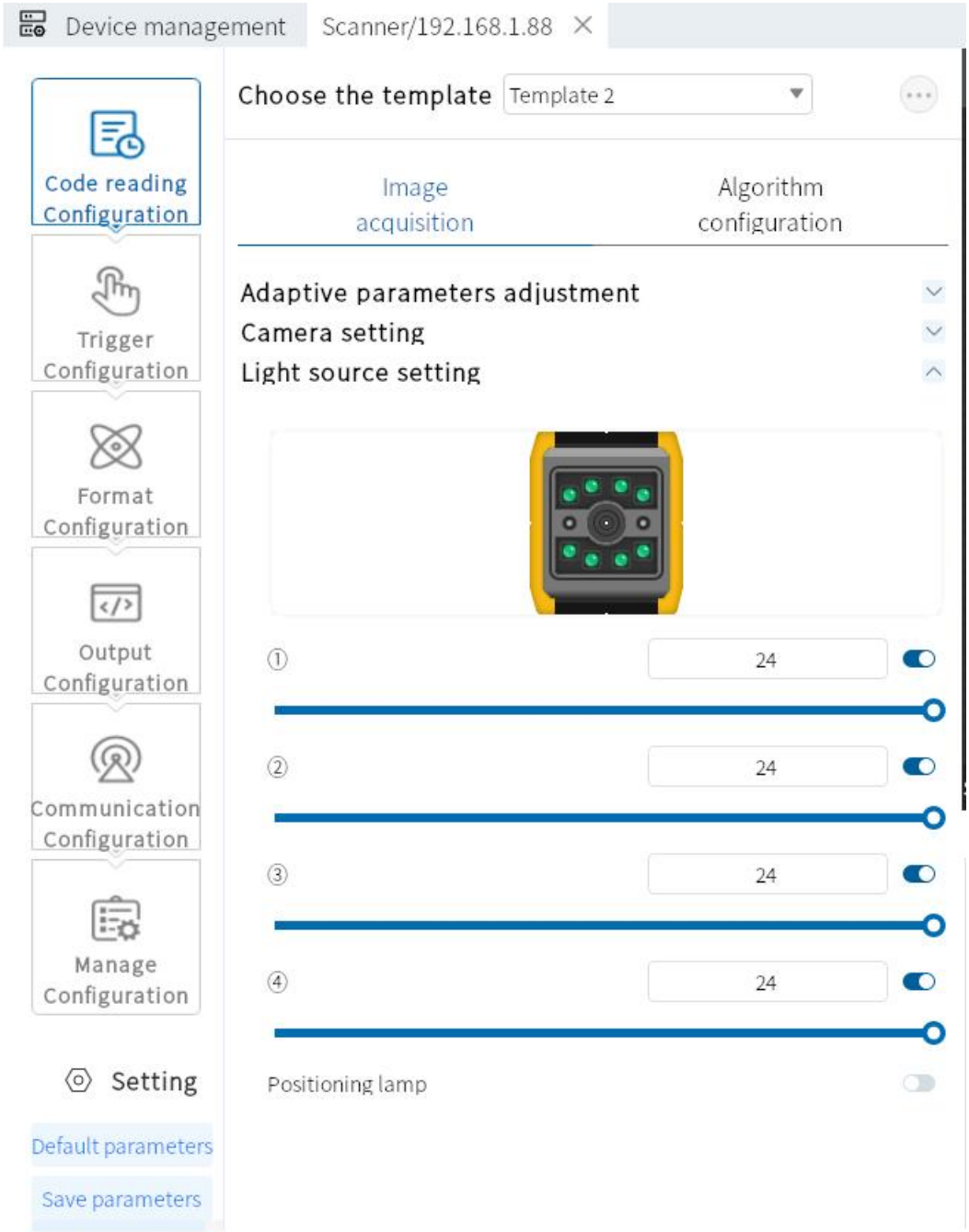
- Exposure time: control the opening time of the reader shutter and control the brightness of the image. The longer the exposure time, the brighter the image collected. Can be adjusted by sliding or filling in the numbers;

- Gain index: control the image gain size, control the image brightness, can be adjusted by sliding or filling in the number;
- Tip: the greater the exposure time, the smaller the motion speed supporting reading; the greater the gain index, the more image noise;



5.2.2.3, Light source setting

Control all fill lights to control the opening and closing of four sets of fill lights, adjust the brightness of each group (1-24), 24 is the maximum brightness; select the corresponding lights, fill in the corresponding number in the light intensity setting, and click Save setting.



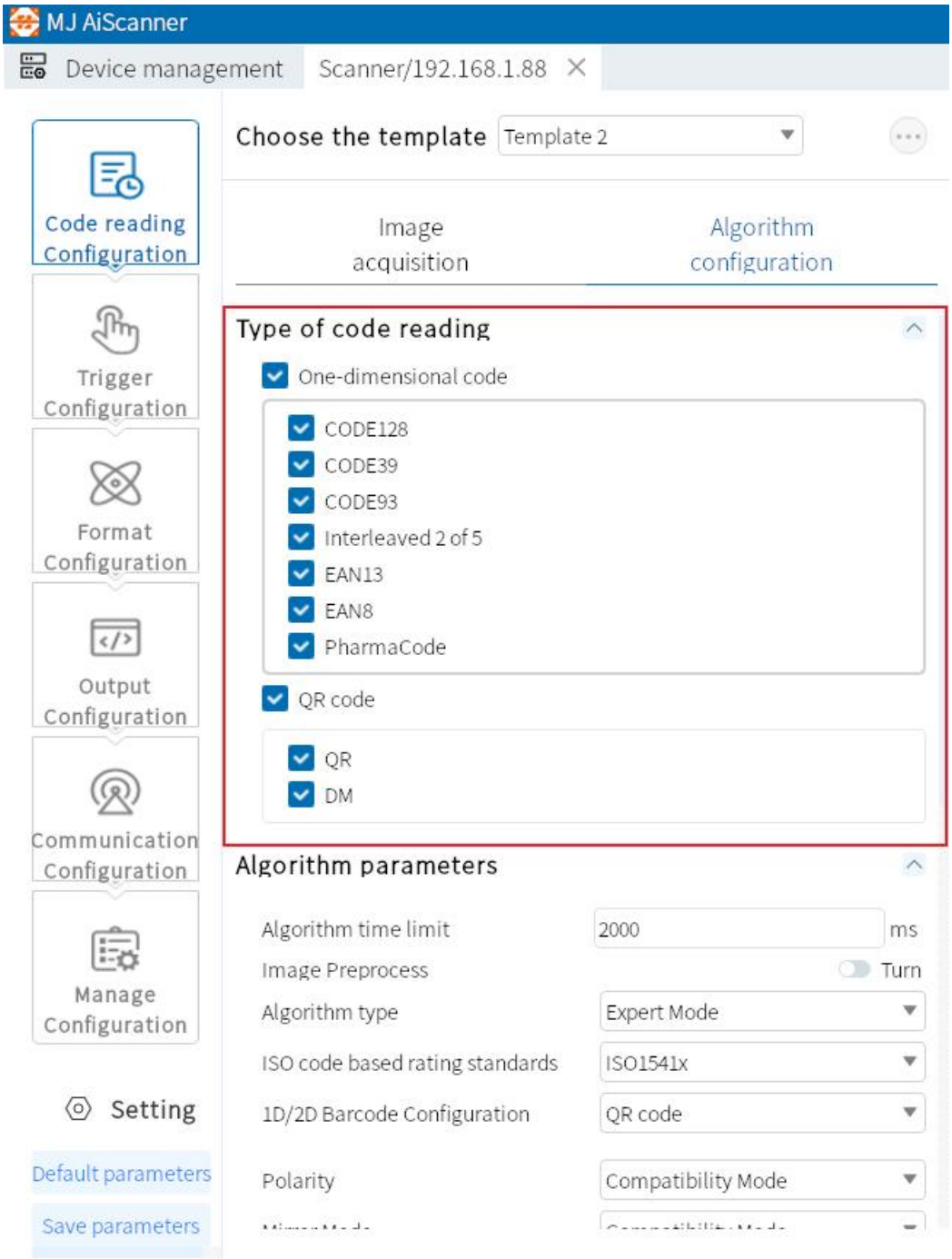
5.3 The algorithm configuration

The device can set the relevant parameters of the reading algorithm through the "Algorithm configuration" module.

5.3.1 Read code type

At present, the code reading equipment supports two types of one-dimensional code and QR code. Check the code system of the bar code, which can be selected.

As shown in the figure below, then the algorithm configuration interface displays the selected code system. The more code system is selected, the time it takes for the algorithm to process each picture will increase. It is suggested to choose the corresponding code system according to the actual requirements to achieve the best effect.



5.3.2 Algorithm parameters

Set the decoding parameters of one-dimensional QR code.

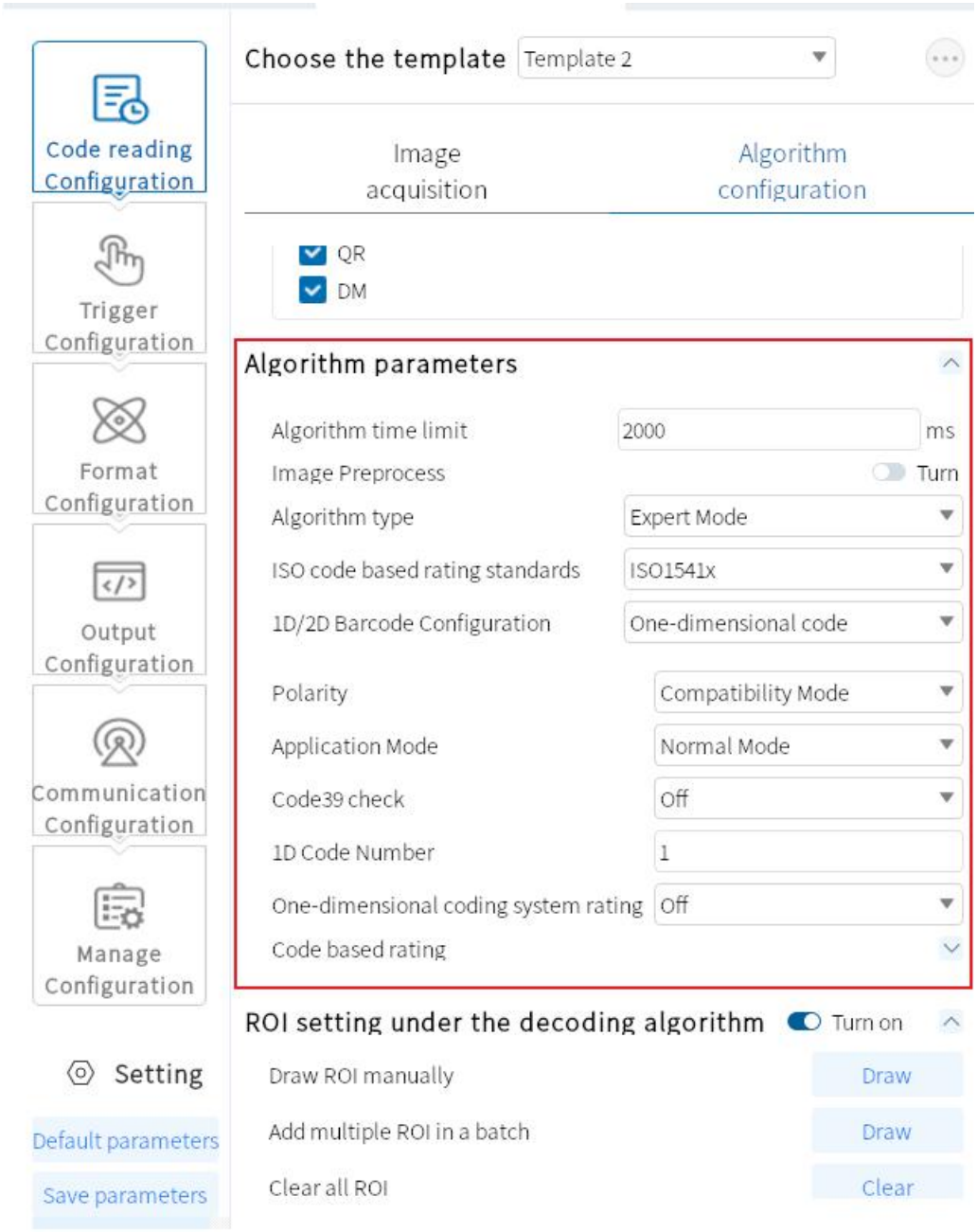
- Polarity: used to represent the bar code and background color, the parameters

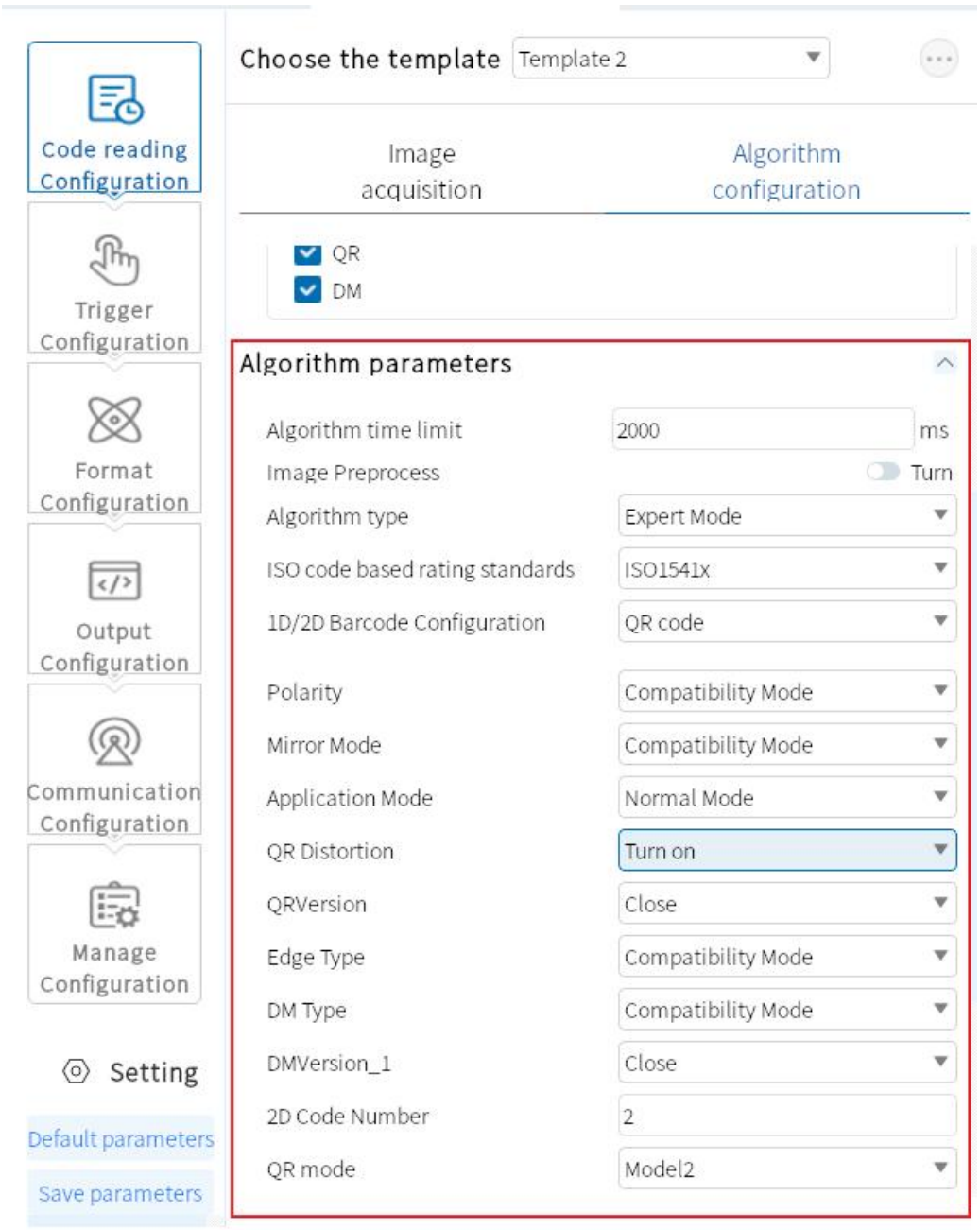
can be set to be white background black code and black background white code and compatible mode.

- Edge type: the parameter can be set as continuous code, discrete code and compatible mode.

Note: the continuous or discrete code to see whether the minimum cell of the code is connected together, connected together is the continuous code, separated for the discrete code.

- Mirror mode: used to distinguish whether the code is a mirror state, can set the parameters as mirror, non-mirror and compatible mode.
- QR distortion: used to determine whether the QR code has a distortion phenomenon, the parameters can be set as distortion, non-distortion and compatibility mode.
- DM code type: used to distinguish the DM code type, the parameters can be set as square, rectangle and compatible mode.
- Operation mode: select the mode for decoding, different modes have different time consumption and results, parameters can be set as top speed mode, ordinary mode and expert mode.
- Number of one-dimensional codes: the maximum number of output one-dimensional codes.
- Number of QR codes: the maximum number of QR codes used to output the QR codes.

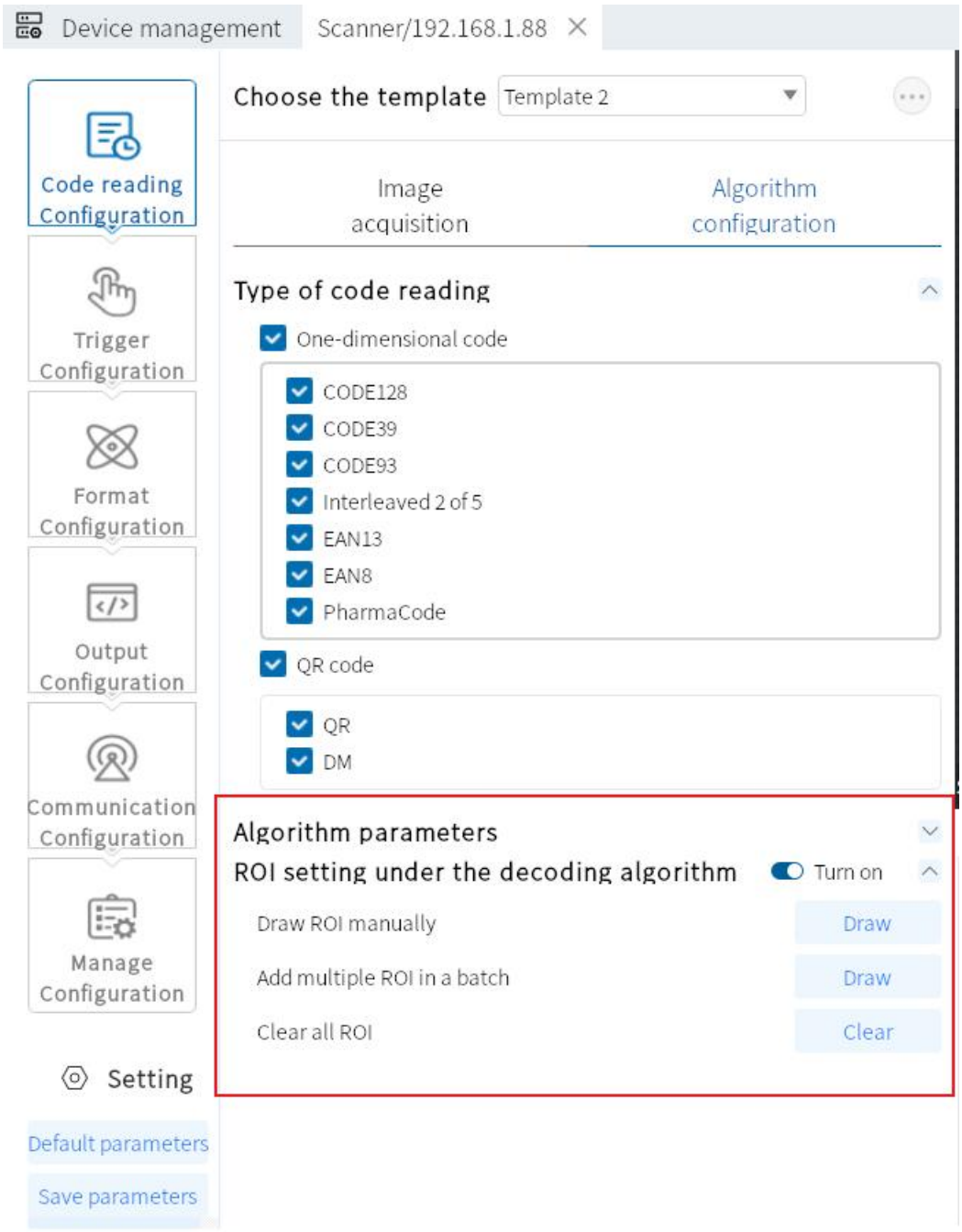

Code reading Configuration
Trigger Configuration
Format Configuration
Output Configuration
Communication Configuration
Manage Configuration
Setting
Default parameters
Save parameters
Choose the template
Template 2
Image acquisition
Algorithm configuration
QR
DM
Algorithm parameters
Algorithm time limit
2000
ms
Image Preprocess
Turn
Algorithm type
Expert Mode
ISO code based rating standards
ISO1541x
1D/2D Barcode Configuration
One-dimensional code
Polarity
Compatibility Mode
Application Mode
Normal Mode
Code39 check
Off
1D Code Number
1
One-dimensional coding system rating
Off
Code based rating
ROI setting under the decoding algorithm
Turn on
Draw ROI manually
Draw
Add multiple ROI in a batch
Draw
Clear all ROI
Clear



5.3.3 The ROI setting of the decoding algorithm

The algorithm ROI can only identify the selected regions of interest of the device, and other areas do not do algorithm processing to improve the reading efficiency. The device may set up a number of algorithm ROI areas and output the barcode results from small to large order according to the number of the algorithm ROI

regions where the barcode is located. The output rules are as follows: 1, bar code 2, bar code 3, bar code 4, barcode. If the barcode is not identified in the ROI area of an algorithm, the barcode information in the corresponding area is changed to the set noread character. Currently, it supports manual and batch addition of 2 algorithm ROI drawing methods, and supports all ROI.



5.3.4 Manual draw of the ROI

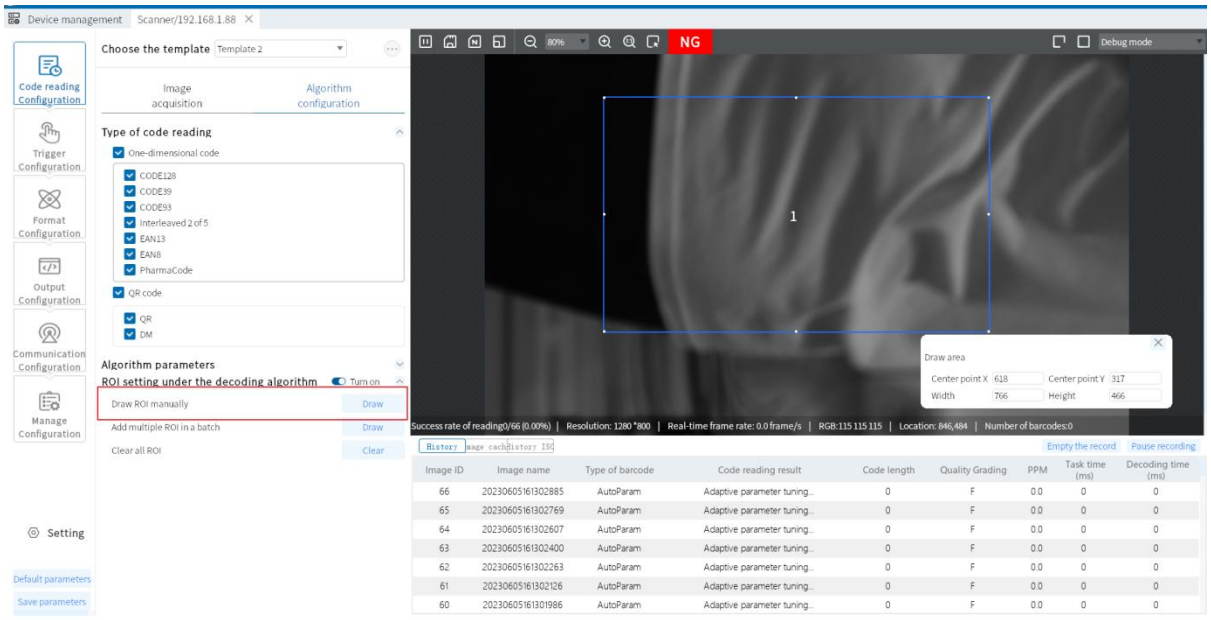
Click Set to enter the manual set ROI mode, you can drag to set the ROI size according to the requirements (the ROI size can be set through the center point X / Y, width and height fine), the box selection area is the area of interest of the algorithm.

① Center X: Center point X coordinate of the ROI box.

② Center Y: Center point Y coordinate of the ROI box.

③ Width: the number of pixels in the ROI horizontal direction.

④ Height: the number of pixels in the ROI vertical direction.



5.3.5 Batch-added ROI (checkerboard)

Used to batch-plot the ROI.

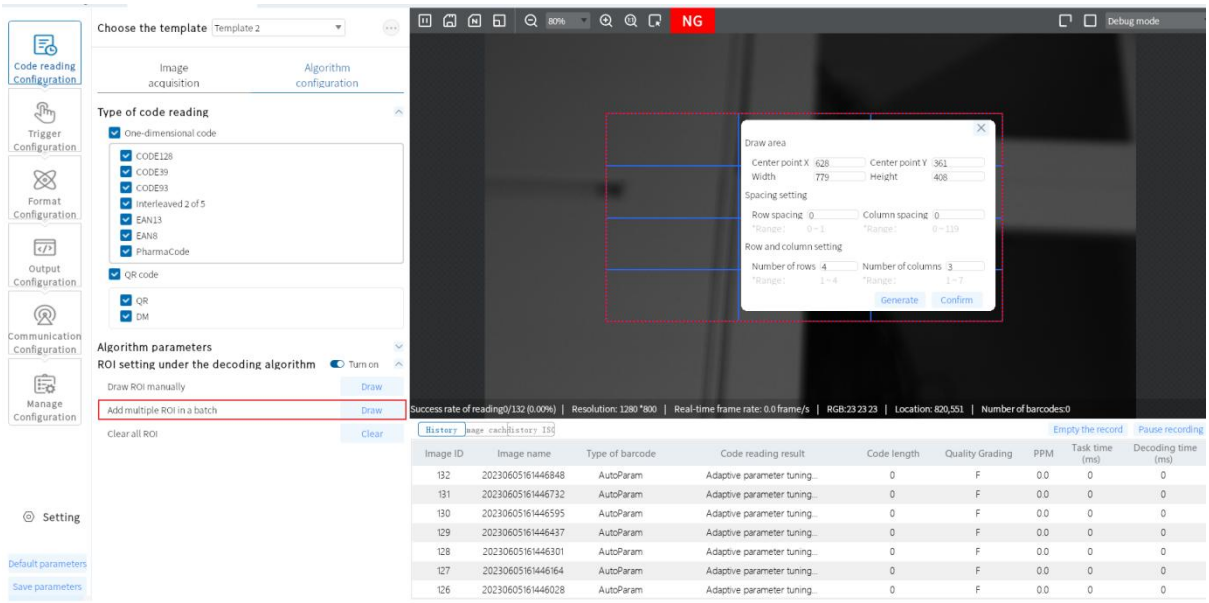
① Drawing area: center X: batch setting of area center point X coordinate, center Y: batch setting of area center point Y coordinate, height: the number of pixels in the vertical

direction of the batch set area, width: the number of pixels in the horizontal direction of the batch set area (default is the maximum number of pixels).

② Spacing setting: ROI spacing between rows and rows; column spacing: spacing between ROU columns.

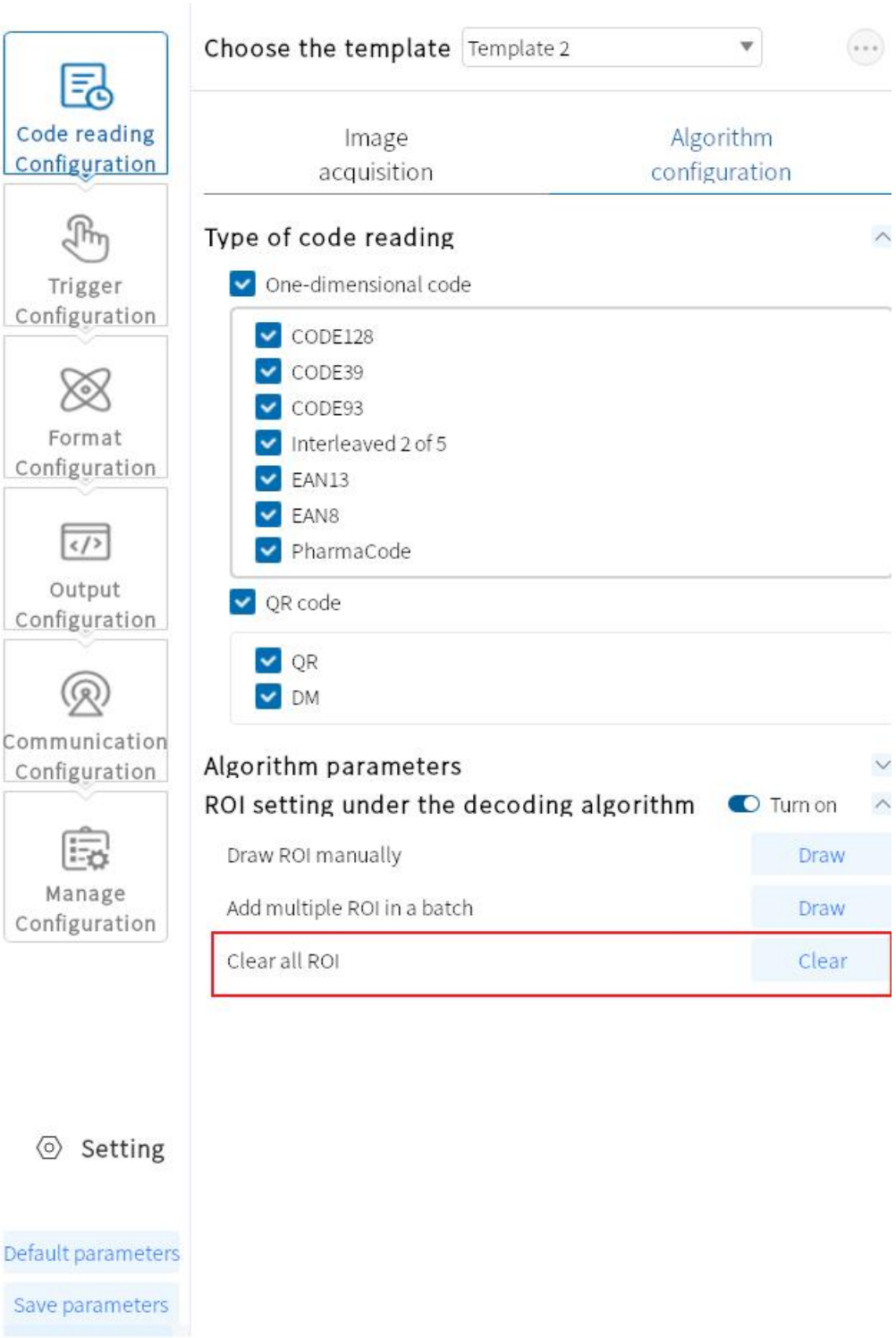
③ ROI number (row * column): Batch sets the number of rows and columns of the ROI (the maximum value is dynamically adjusted according to the drawing local size and row / column spacing size).

④ Generation: Determine the above settings.



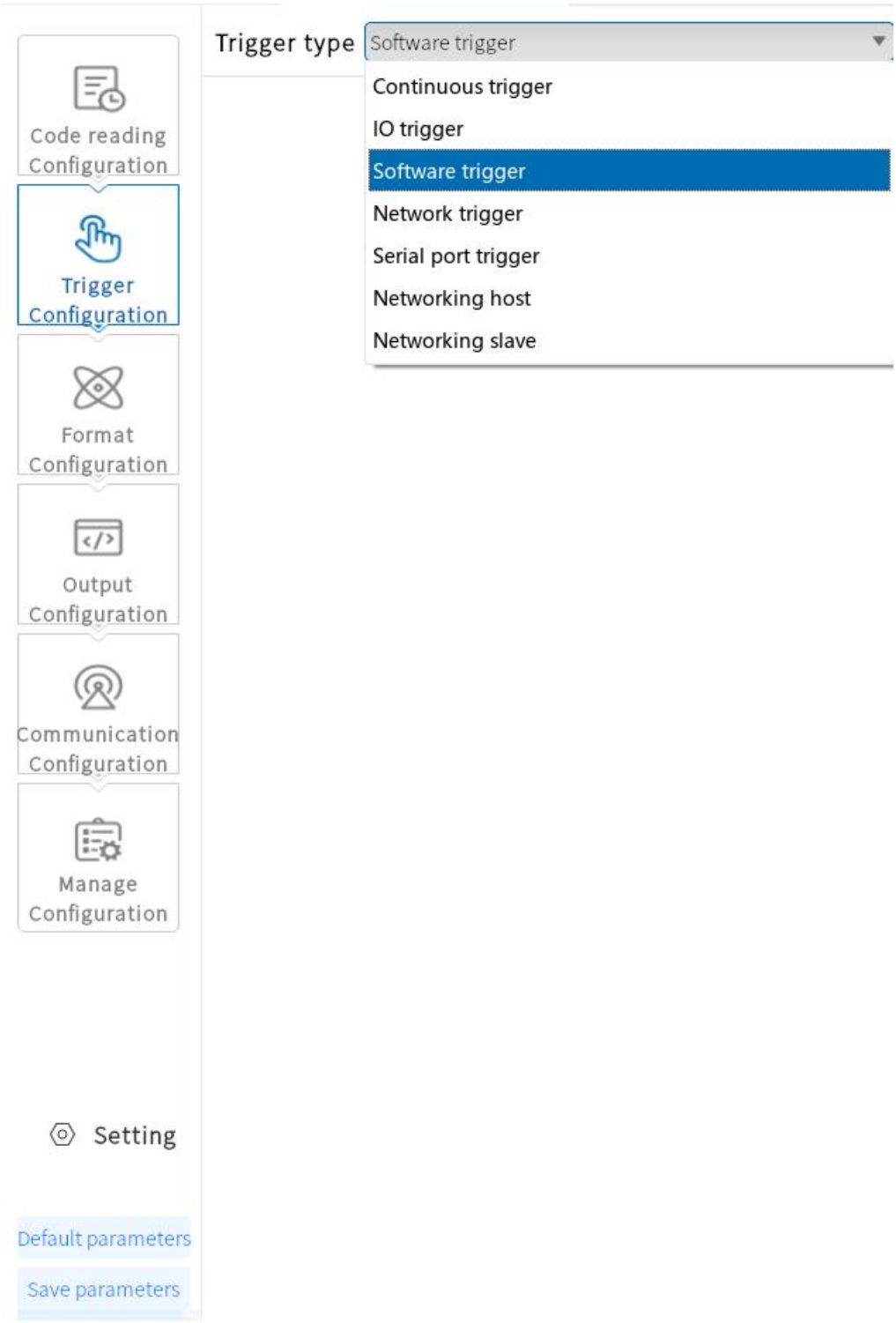
5.3.6 Clear all of the ROI

Used to clear all of the current ROIs.


Code reading Configuration
Trigger Configuration
Format Configuration
Output Configuration
Communication Configuration
Manage Configuration
Setting
Default parameters
Save parameters
Choose the template
Template 2
Image acquisition
Algorithm configuration
Type of code reading
One-dimensional code
CODE128
CODE39
CODE93
Interleaved 2 of 5
EAN13
EAN8
PharmaCode
QR code
QR
DM
Algorithm parameters
ROI setting under the decoding algorithm
Turn on
Draw ROI manually
Draw
Add multiple ROI in a batch
Draw
Clear all ROI
Clear

5.4 Trigger the configuration

The trigger types include Continuous Trigger, IO Trigger, Software Trigger, Network Trigger, and Serial Port Trigger.



The trigger type is as follows

5.4.1 Continuous trigger

The continuous trigger indicates that the reader continuously triggers the pictures.

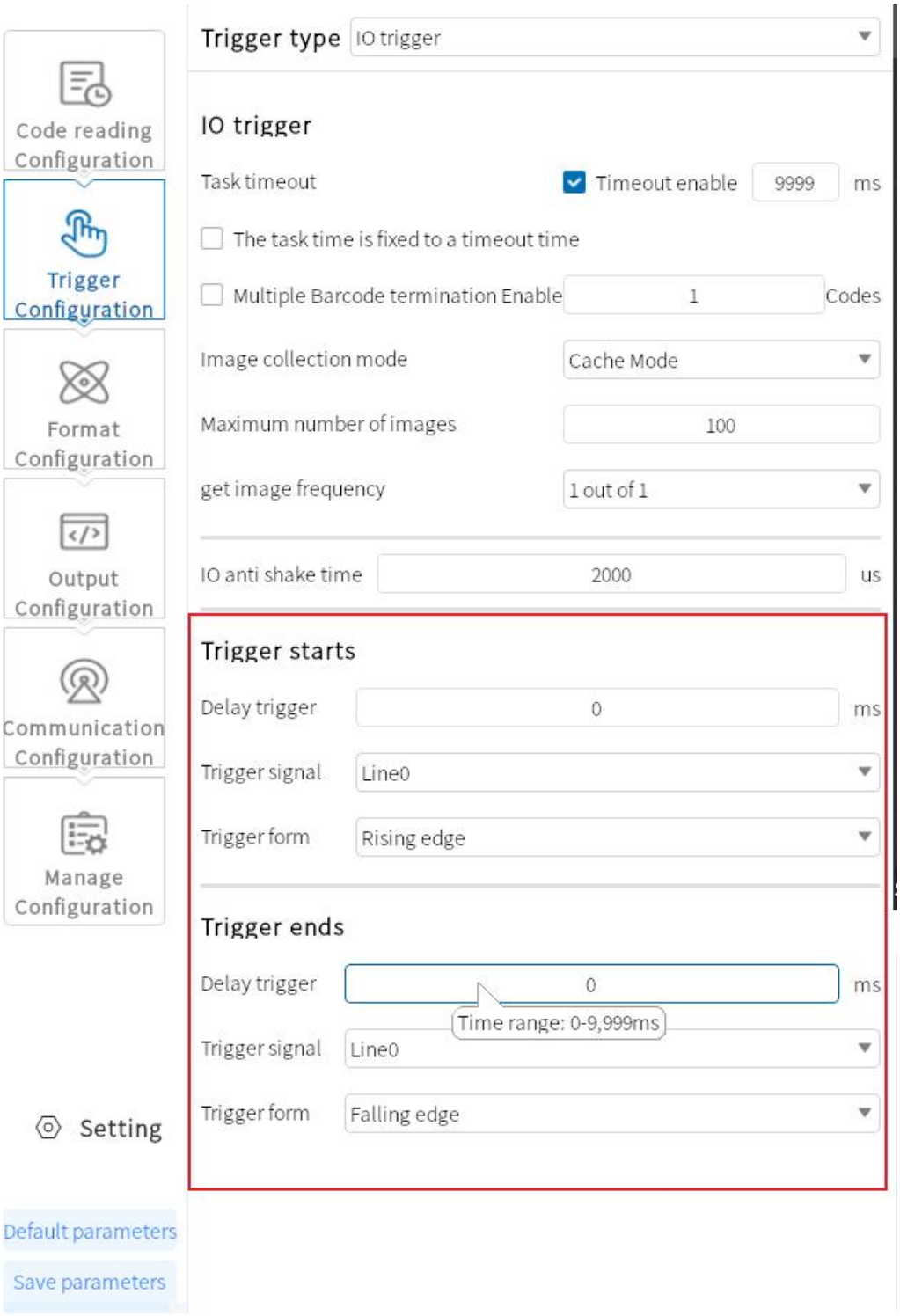
5.4.2 IO Trigger

The IO trigger indicates that the reader takes the trigger photo after receiving the signal. This trigger mode requires set after selecting Single (External) mode.

Task timeout: Set the maximum task time for a single trigger. When the trigger is turned on, and the timeout time is not closed, the forced closure is performed. Default 9999, setting range of 10-9999.

5.4.2.1 Start to trigger

Open and close the start-triggered selection page.



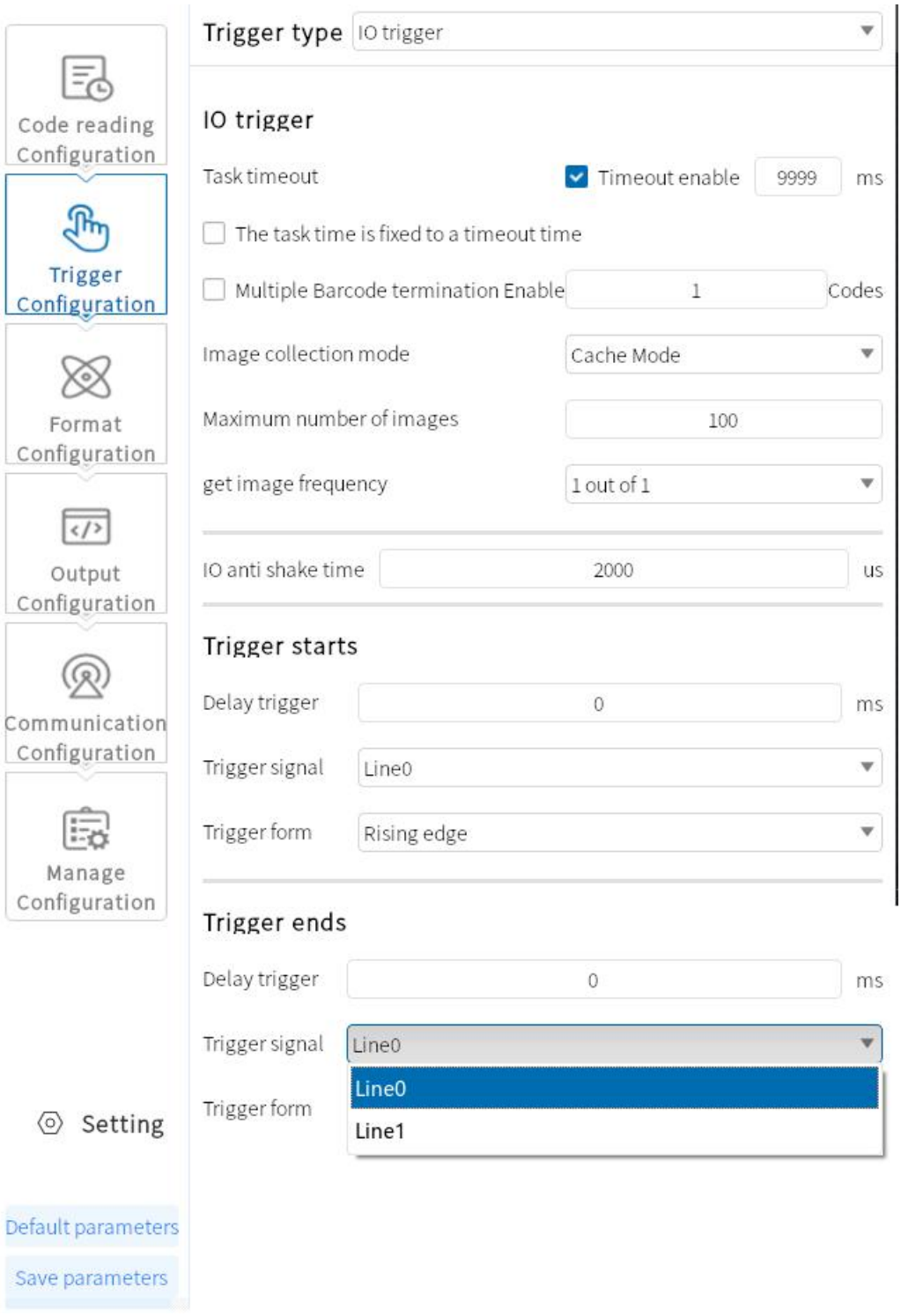
5.4.2.2. End of the trigger

Open and close the termination trigger selection page.

- Delay trigger: the time set by the trigger delay on the start trigger page indicates the trigger signal. The reading is stopped at the time set when the

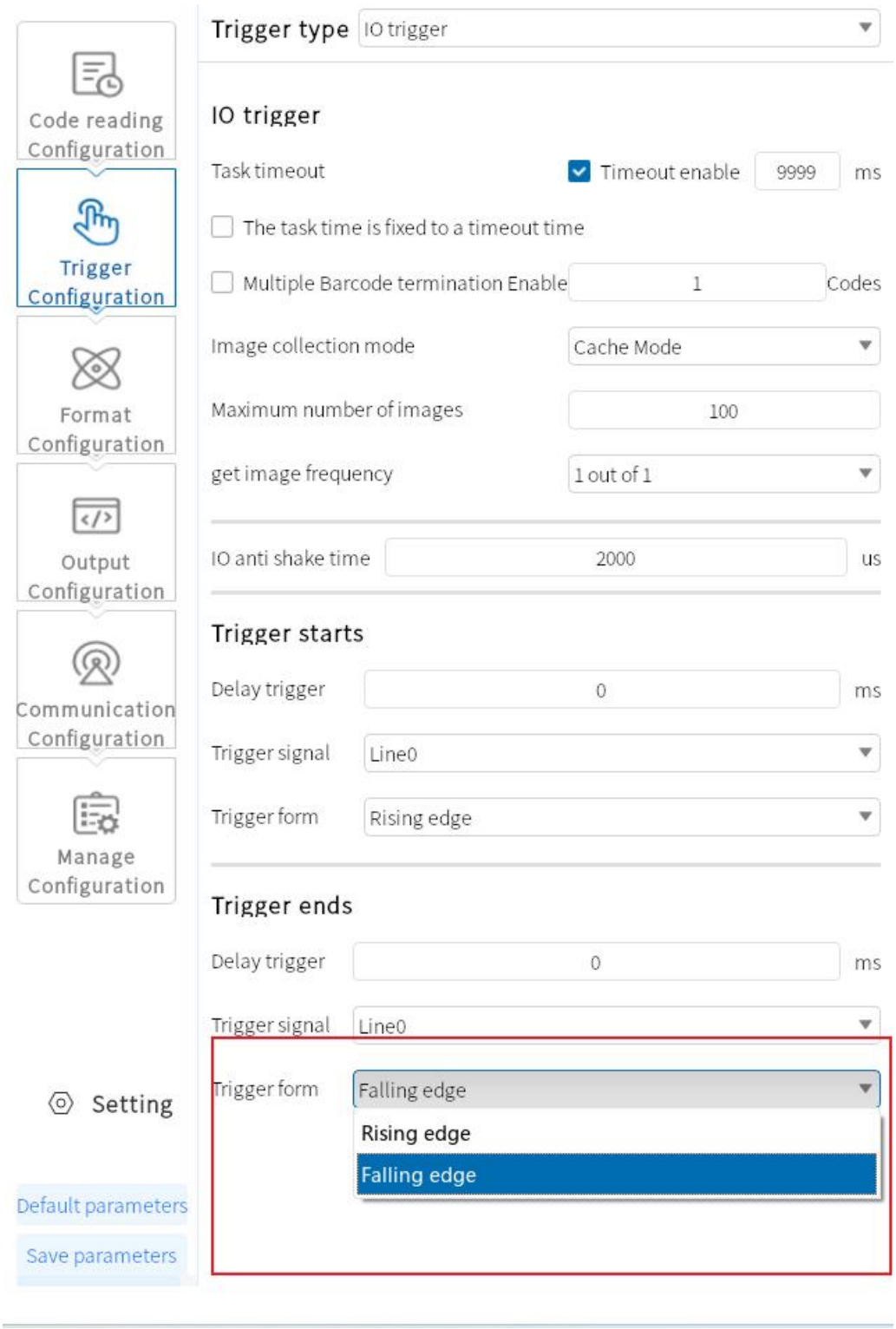
trigger delay on the termination trigger page indicates the termination trigger signal. The default is to 0ms. Set the range of 0ms-9999ms.

- Trigger signal: the trigger signals under the start trigger page are divided into "Line0" and "Line1", corresponding to the hardware trigger inputs IN 0 and IN 1 respectively; the trigger signals under the termination trigger page are divided into "Lin0" and "Line1", and the trigger inputs of the hardware are IN 0 and IN 1 respectively.



- Trigger form: The trigger form under the start trigger page is divided into

"rising edge" and "falling edge". The up edge indicates when the reader receives the up signal and starts reading; the down edge starts reading when the reader receives the down signal. The trigger form under the termination trigger page is divided into "rising edge" and "falling edge". The up edge means that the reader receives the up edge signal and the reader receives the down edge signal.


Code reading Configuration
Trigger Configuration
Format Configuration
Output Configuration
Communication Configuration
Manage Configuration
Setting
Default parameters
Save parameters
Trigger type
IO trigger
IO trigger
Task timeout
Timeout enable
9999
ms
The task time is fixed to a timeout time
Multiple Barcode termination Enable
1
Codes
Image collection mode
Cache Mode
Maximum number of images
100
get image frequency
1 out of 1
IO anti shake time
2000
us
Trigger starts
Delay trigger
0
ms
Trigger signal
Line0
Trigger form
Rising edge
Trigger ends
Delay trigger
0
ms
Trigger signal
Line0
Trigger form
Falling edge
Rising edge
Falling edge

5.4.3 Software trigger

By clicking the "software trigger" content, the reader can trigger photos.

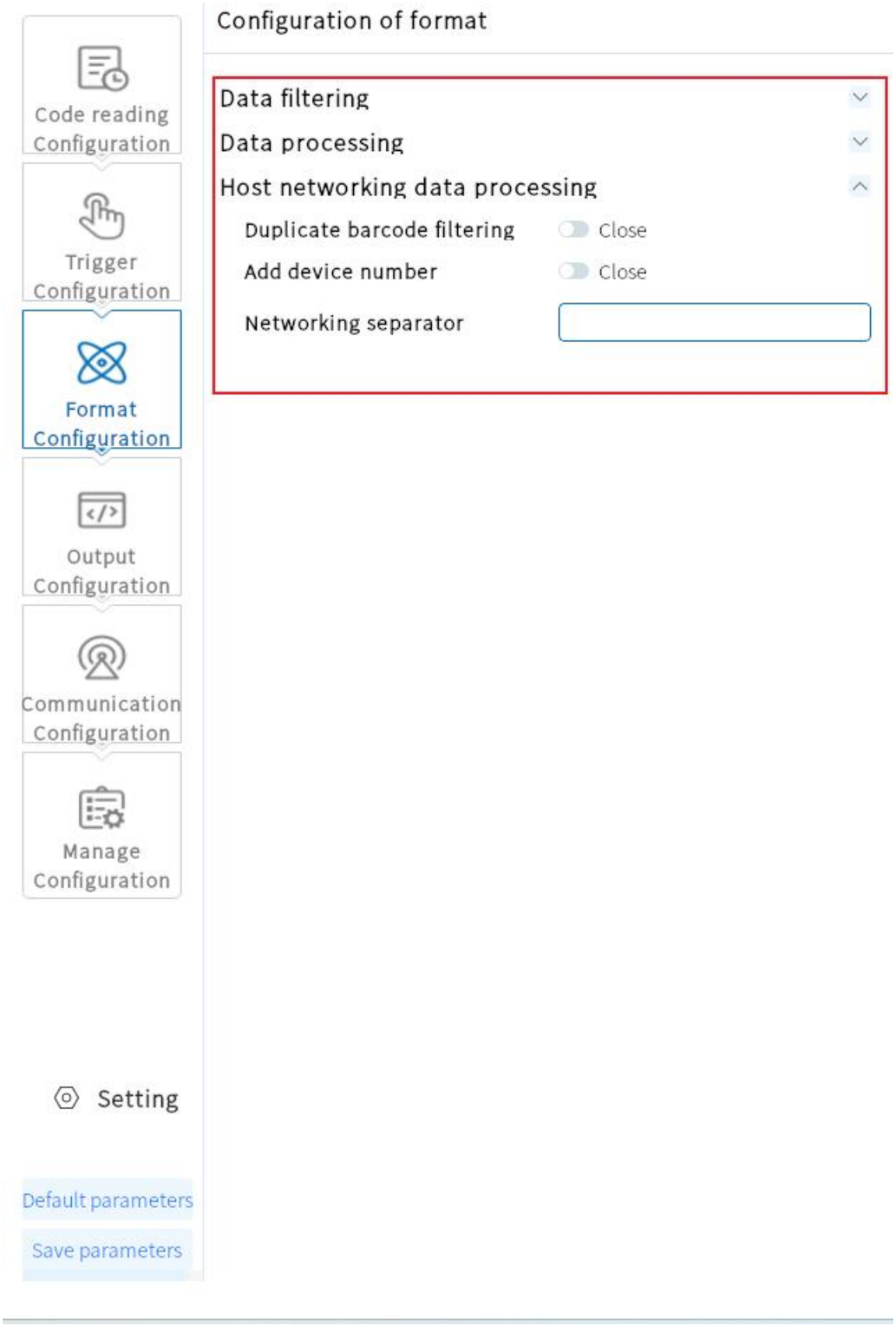
5.4.4 Network Trigger

Set the maximum task time for a single trigger.

When the trigger is turned on, and the timeout time is not closed, the forced closure is performed. Set range 10-9999; maximum number of pictures range from 1-100.

5.5 Format configuration

The format configuration contains two plates: "Data Filter" and "Data Processing", which can set the filter rules and output data of the device.


Code reading Configuration
Trigger Configuration
Format Configuration
Output Configuration
Communication Configuration
Manage Configuration
Setting
Default parameters
Save parameters
Configuration of format
Data filtering
Data processing
Host networking data processing
Duplicate barcode filtering
Close
Add device number
Close
Networking separator

5.5.1 Data Filtering

Data filtering can be read by the device according to the set rules.

- Duplicate time filtering: when this function is enabled, the repeat code is not output during the set time; (30-30000)

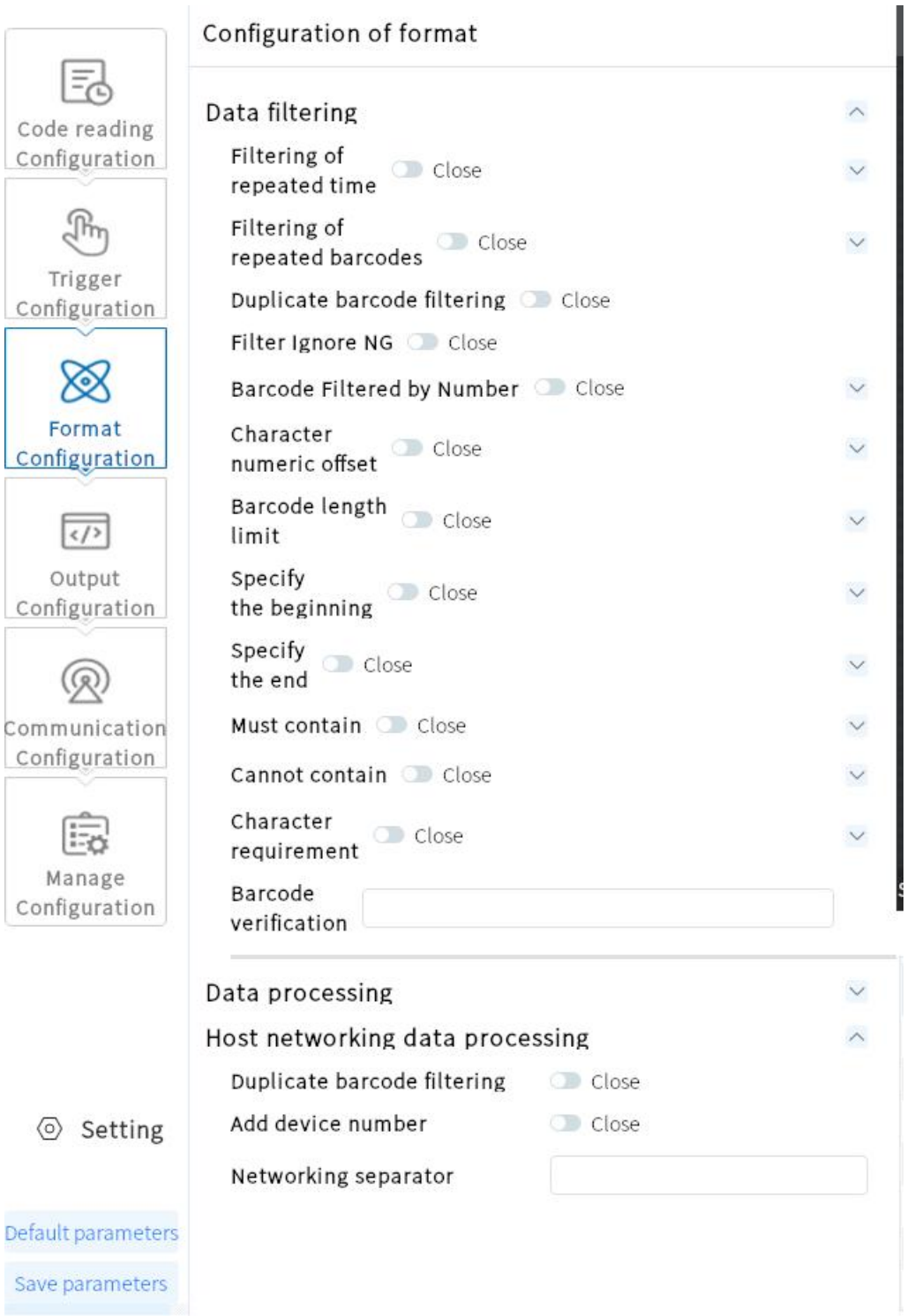
Ex: When set to within 500ms, the code content is 123452. If it runs for many times within 500ms, the result value is output once;

- Read quantity filtering: when this function is enabled, if the same reading number exceeds the set value, it is not output; (1-100)

Ex: when set to 3, when the code content is 123452, the output number of 123452 can not exceed 3 times;

- Barcode length limit: when this function is enabled, only the code within the limit range is output;
- Specify the beginning: When the function is enabled, only the specified beginning code (can have multiple beginning);
- Specify the end: When this function is enabled, only the code with the specified end (can have multiple endings);
- Must include: when this function is enabled, the output meets the code that contains the set content (there can be multiple contents);
- Can not include: When this function is enabled, the output meets the code that does not contain the set content (can have multiple not included);
- Character digit offset: output from setting the bit (ex, code: 1232334, set to 3, code output information 2334);
- Output character requirements: full numbers: output numbers, letters: output letters, numbers or letters;

- Bar code verification: input the target character information to verify whether the above filtering conditions are met. Do not display without input, OK / NG, OK when the filtering conditions are met, and NG if it is not satisfied.



5.5.2 Data processing

The data processing section can set the barcode results output by the device. With different communication protocols selected, the specific parameters are different.

- Sort method: sort the code system output results, support multiple sorting rules:

① Bar code length ascending order: according to the barcode content length from small to large sorting.

② Bar code length in descending order: according to the content length of the bar code from large to small sorting.

③ Bar code type ascending sequence: one-dimensional code: code39,93,128, ITF 25, EAN; QR code: QR / DM.

④ Bar code type in descending order: QR code: DM / QR, 1 D code: EAN, ITF 2 / 5, code128,93,39.

Note: The subsequent new code system is arranged in sequential order according to the above combination.

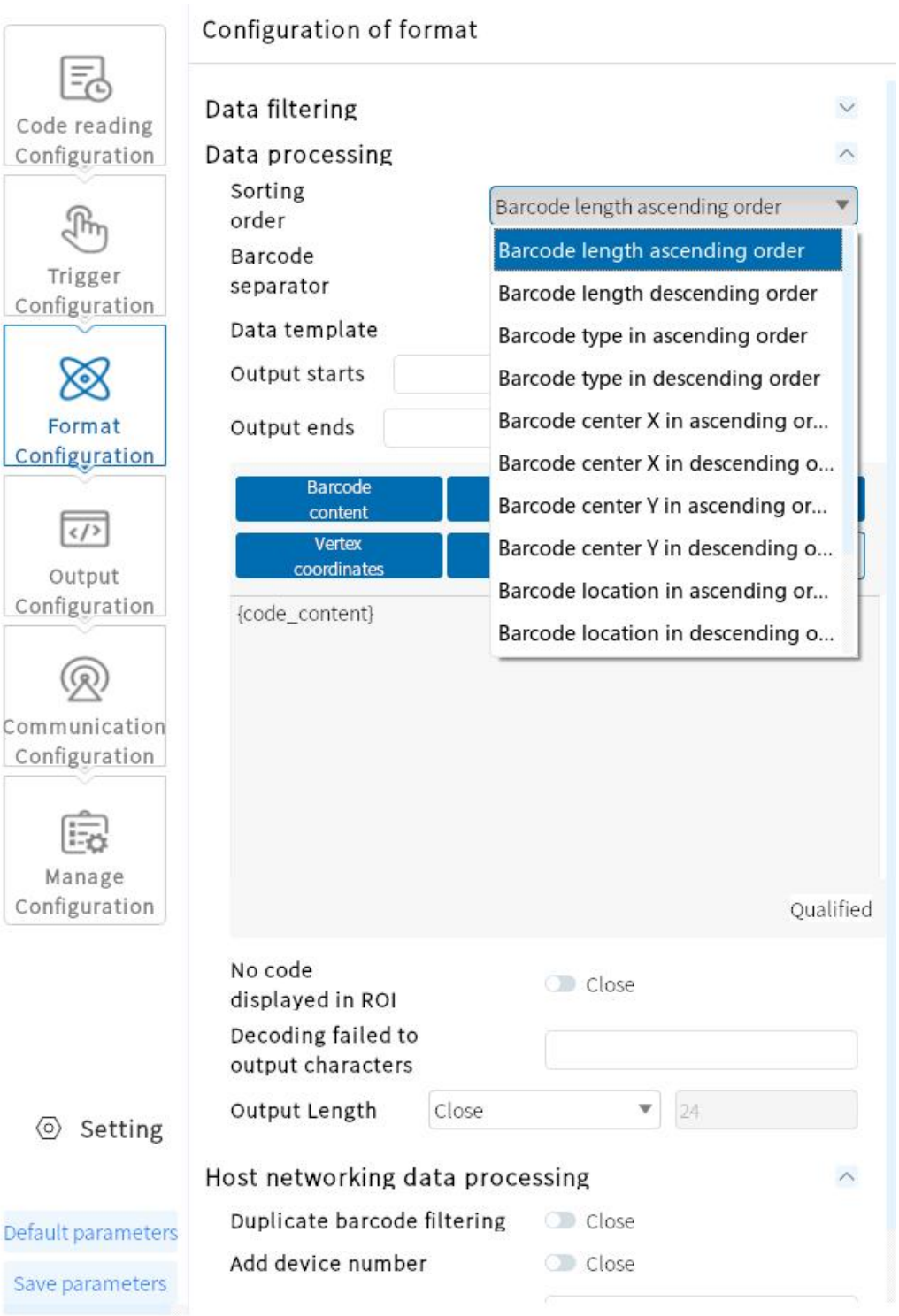
⑤ ROI ascending sequence: according to the set ROI number from small to large sorting.

⑥ ROI descending order: according to the set ROI number.

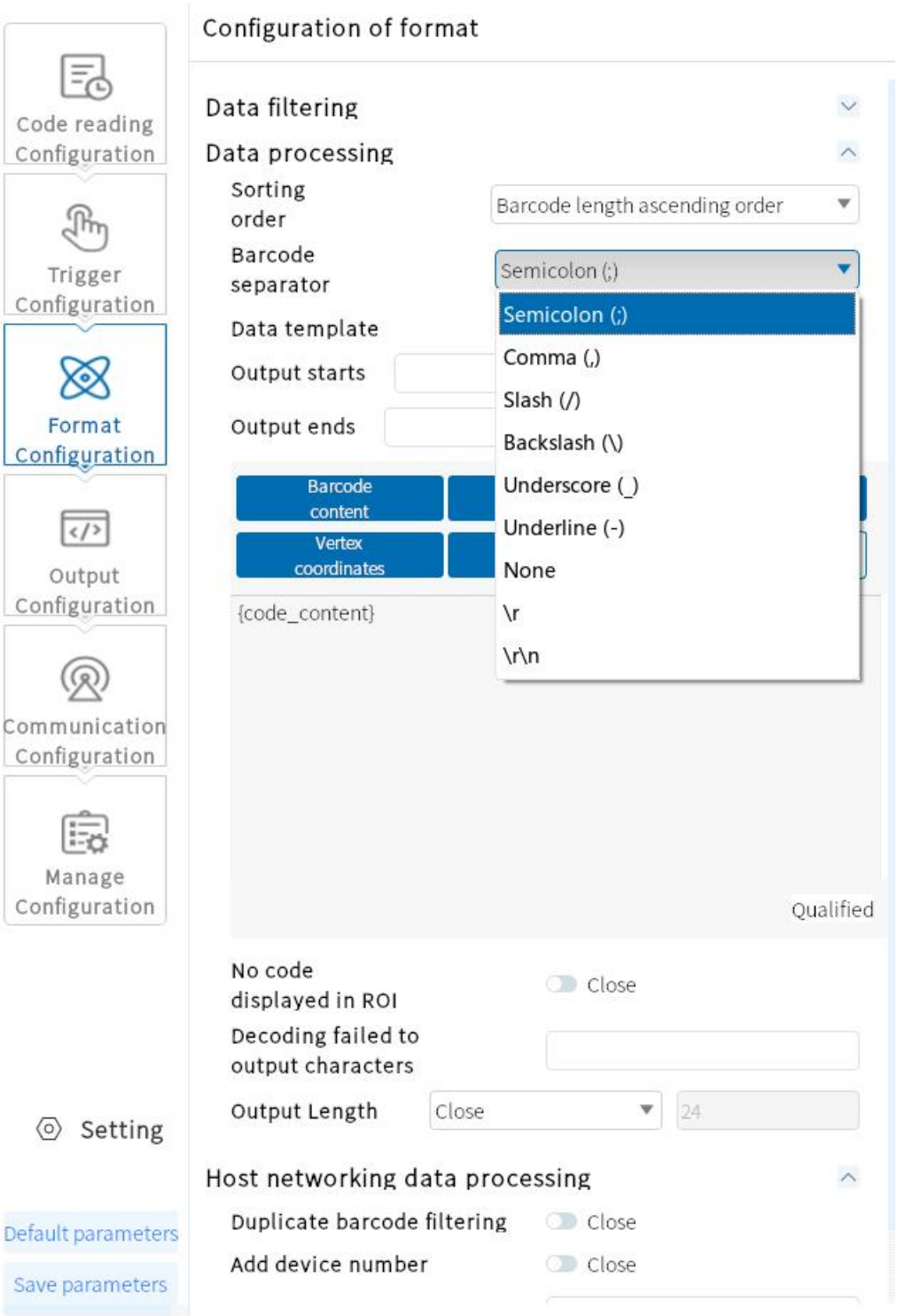
⑦ Bar code center X liter / descending order: according to the code center X position from small to large sorting (descending order and vice versa).

⑧ Bar code center Y ascending / descending order: according to the code center Y position from small to large sorting (descending order and vice versa).

⑨ Bar code position ascending / descending order: according to X from small to large, Y from small to large order (descending order and vice versa).



- Bar code divider, semicolon (;), comma (,), slash (/), backslash (\), underline (_), middash (-).

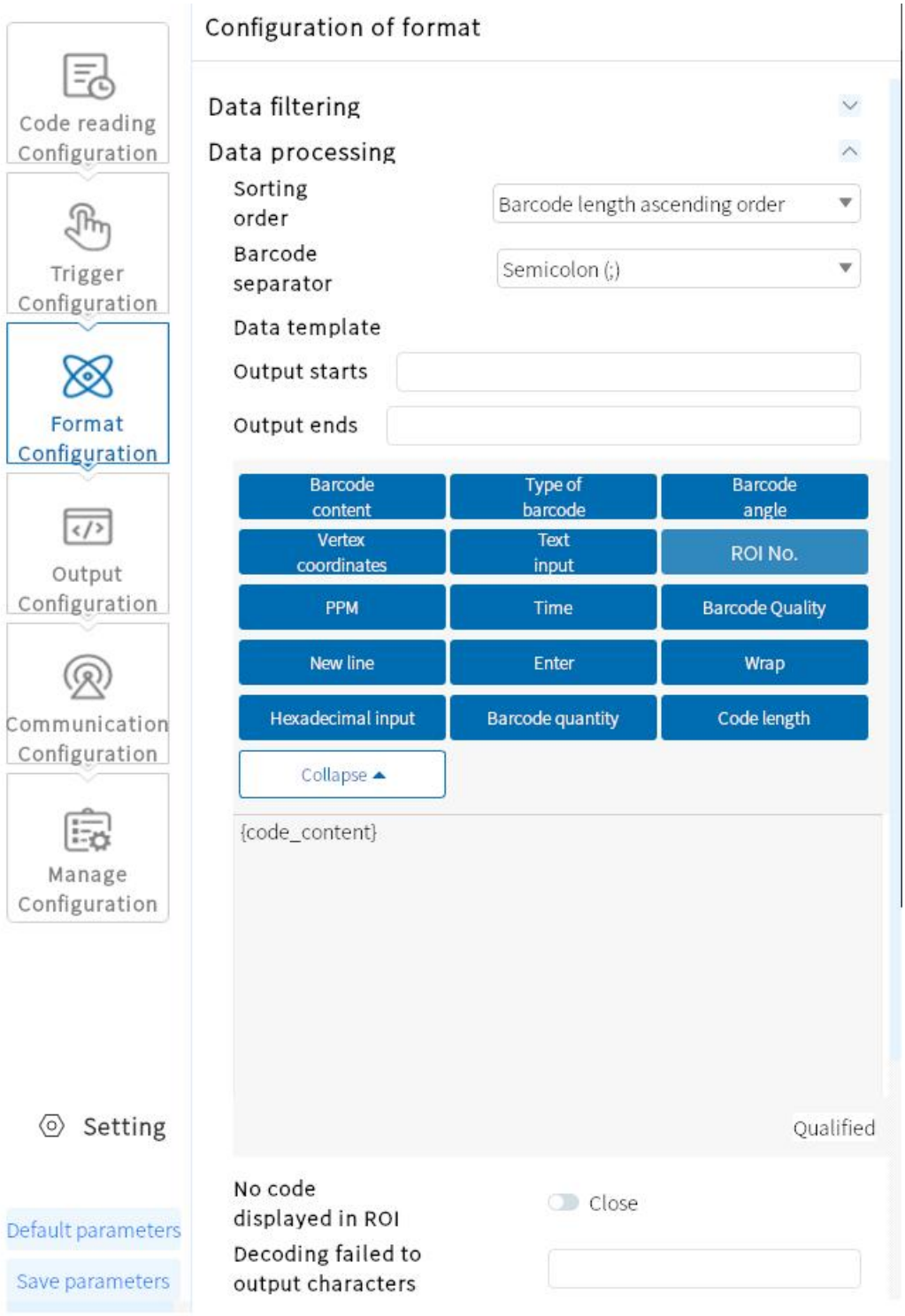


- Data template

  Used to process and edit the data.

- Output starts

It includes bar code content, bar code type, bar code Angle, vertex coordinates, quality level, ROI serial number, PPM, time, and return change.



- Output end

Contains text input, output begins, and output ends.

① Text input: an input for custom characters.

② Output Start / End: custom settings for start and end.

③ Preview content: Preview of editing content.

- ROI without read completion

No recognition code in the ROI area, and the output read code failed to associate characters.

- Output failed character

Used to define read failure characters.

5.6 Output configuration

The continuous output time is 0~9999ms, divided into 3 output.

5.6.1 OUT settings

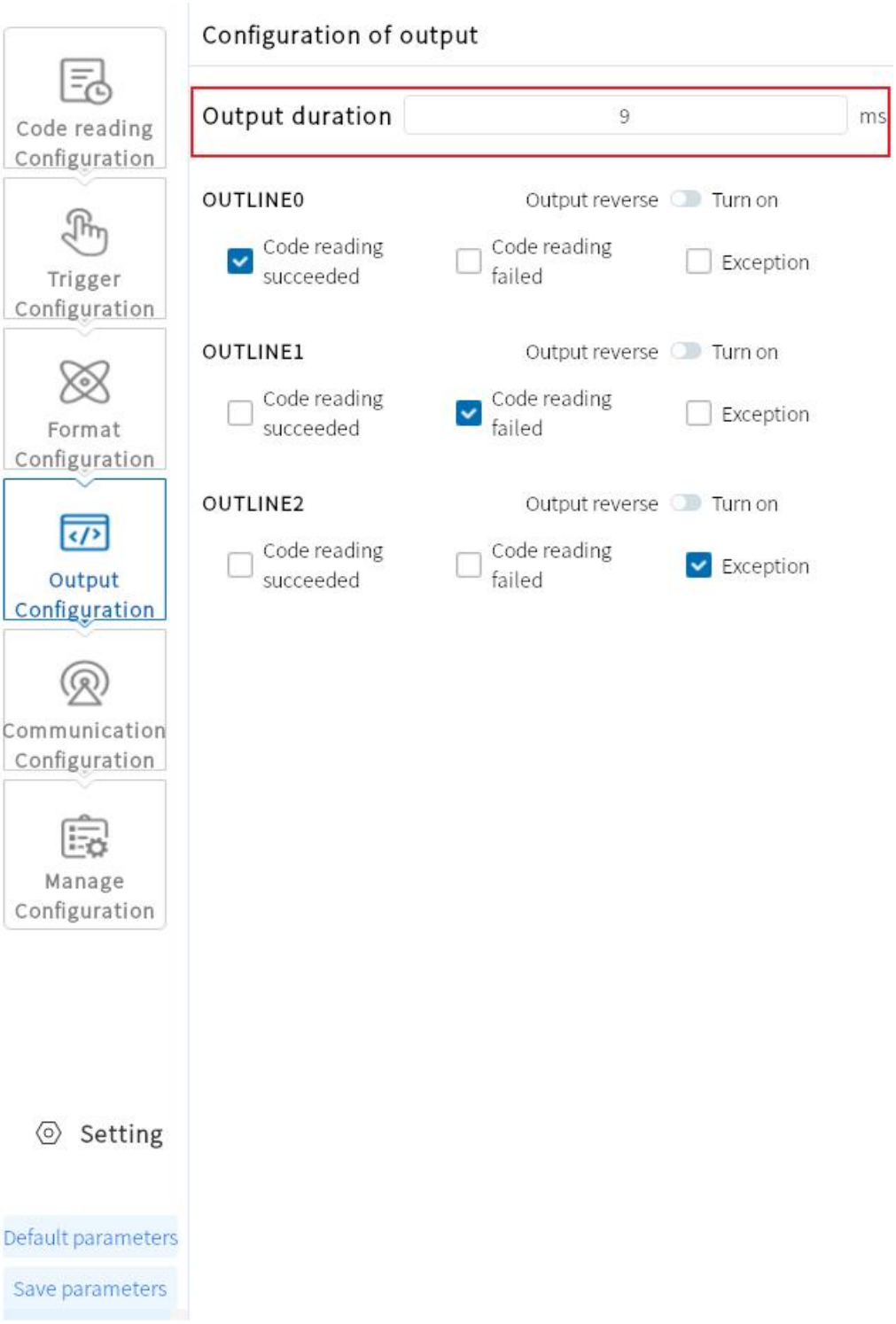
The OUT setting can control three sets of different output control, divided into "OUTLINE1", "OUTLINE2" and "OUTLINE3" corresponding to the hardware trigger output "OUT 0", "OUT 1" and "OUT 2" respectively.

①OUTLINE1: You can select "OK", "Read code failure", "abnormal" three states."OK" indicates the read success output signal; "read failure" means the read failure output signal; "abnormal" indicates the device self-test abnormal condition output signal.

②OUTLINE2: You can select "OK", "Read code failure", "abnormal" three states."OK" indicates the read success output signal; "read failure" means the read failure output signal; "abnormal" indicates the device self-test abnormal condition output signal.

③OUTLINE3: You can select "OK", "Read code failure", "abnormal" three states."OK" indicates the read success output signal; "read failure" means the read failure output signal; "abnormal" indicates the device self-test abnormal condition output signal.

④ Output duration: the duration of the output signal, the default is 9ms, range 0-9999ms.



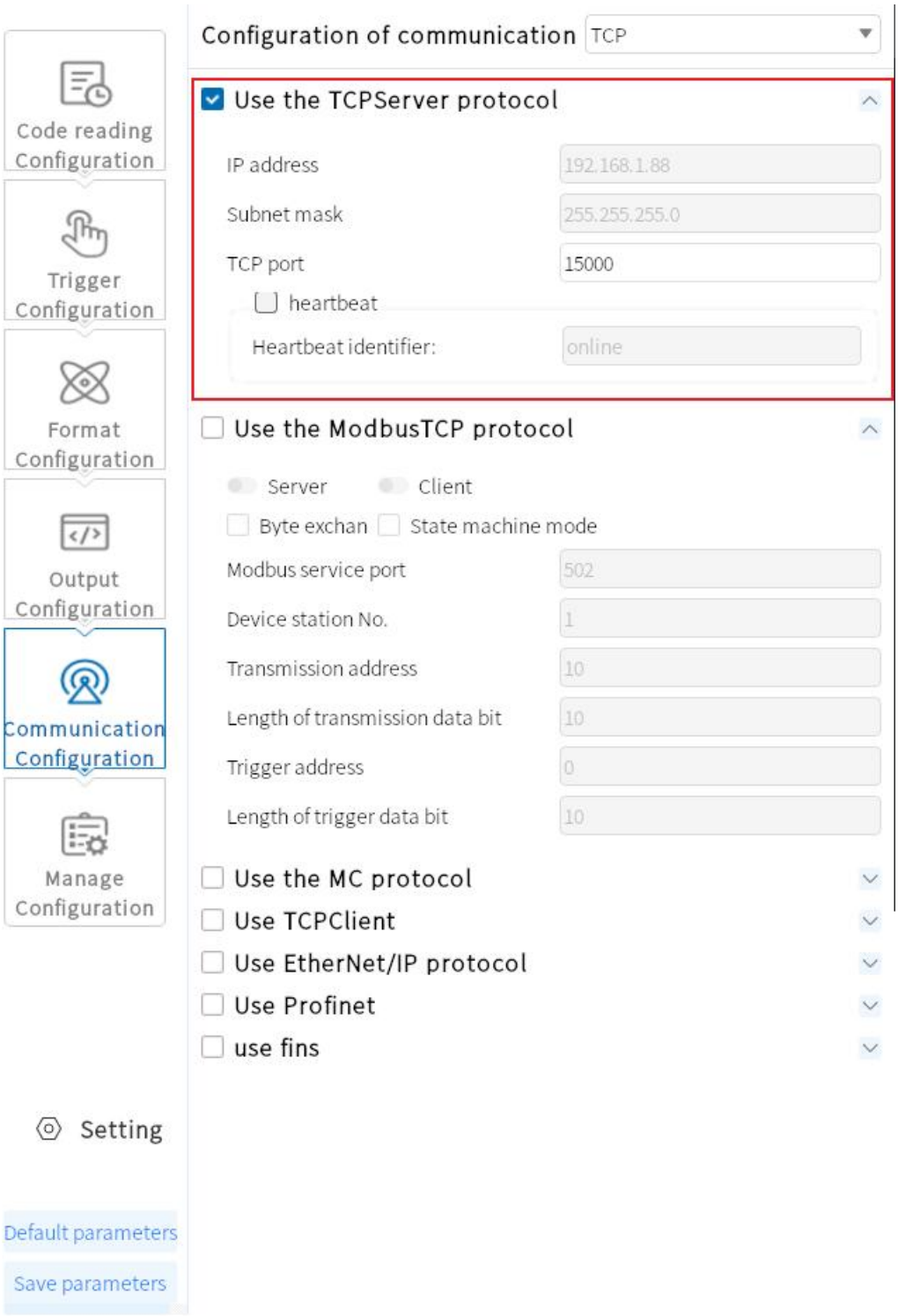
5.7 Communication configuration

The "Communication Configuration" section includes TCP and serial port to set the

communication protocol required for selecting the data transmission, which is related to the operation mode of the device.

5.7.1 Using the TCP Server protocol

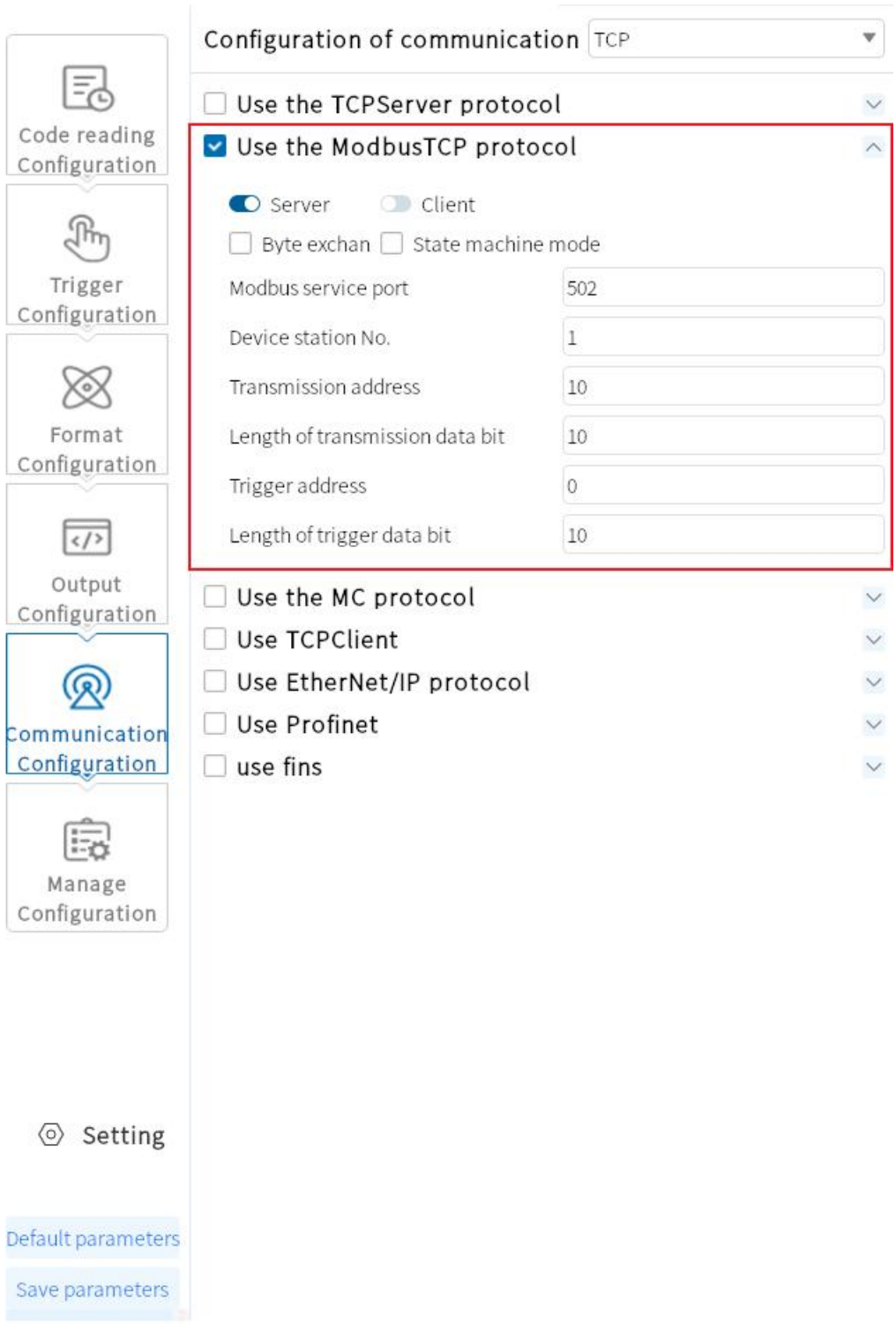
Generally is the common TCP protocol communication, code scanner as Server end.



5.7.2 Using the ModbusTcp protocol

In addition to the TCPServer, you can also choose the ModbusTcp protocol, which needs to configure the Modbus service IP and the Modbus service port respectively.

- Service IP: Connect to the IP address of the corresponding device.
- Service port: to connect to the port number of the corresponding device.
- Equipment station number: the station number connecting the corresponding equipment.
- Transfer address: the address where the PLC transfer data.
- Transfer data bit length: the length of the data bytes.
- Trigger address: the PLC address required to trigger the camera.
- Trigger data bit length: the length of the required data bit to trigger.

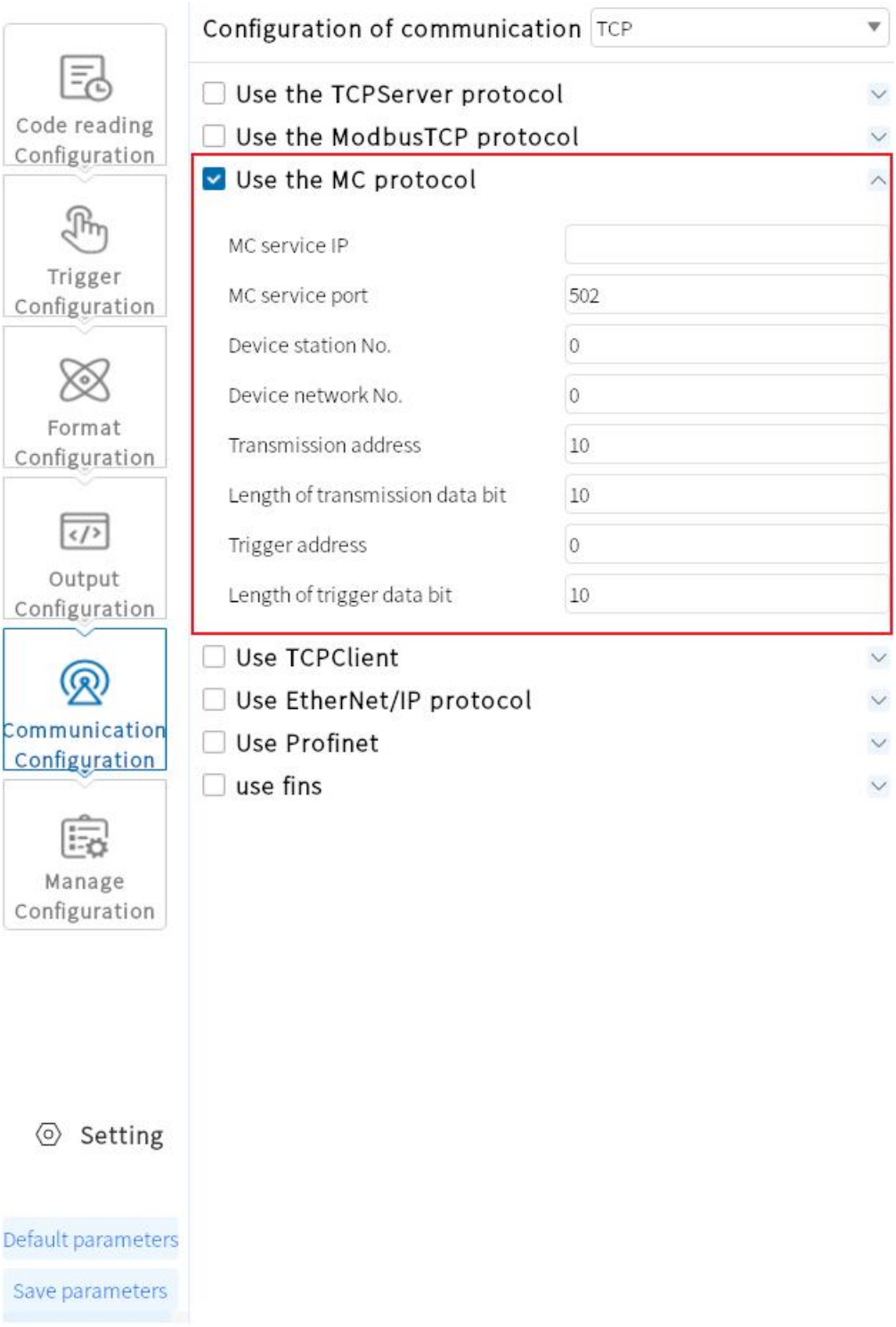


5.7.3 Using the MC protocol

The MC protocol requires a separate configuration of the MC service IP, the MC

service port, etc.

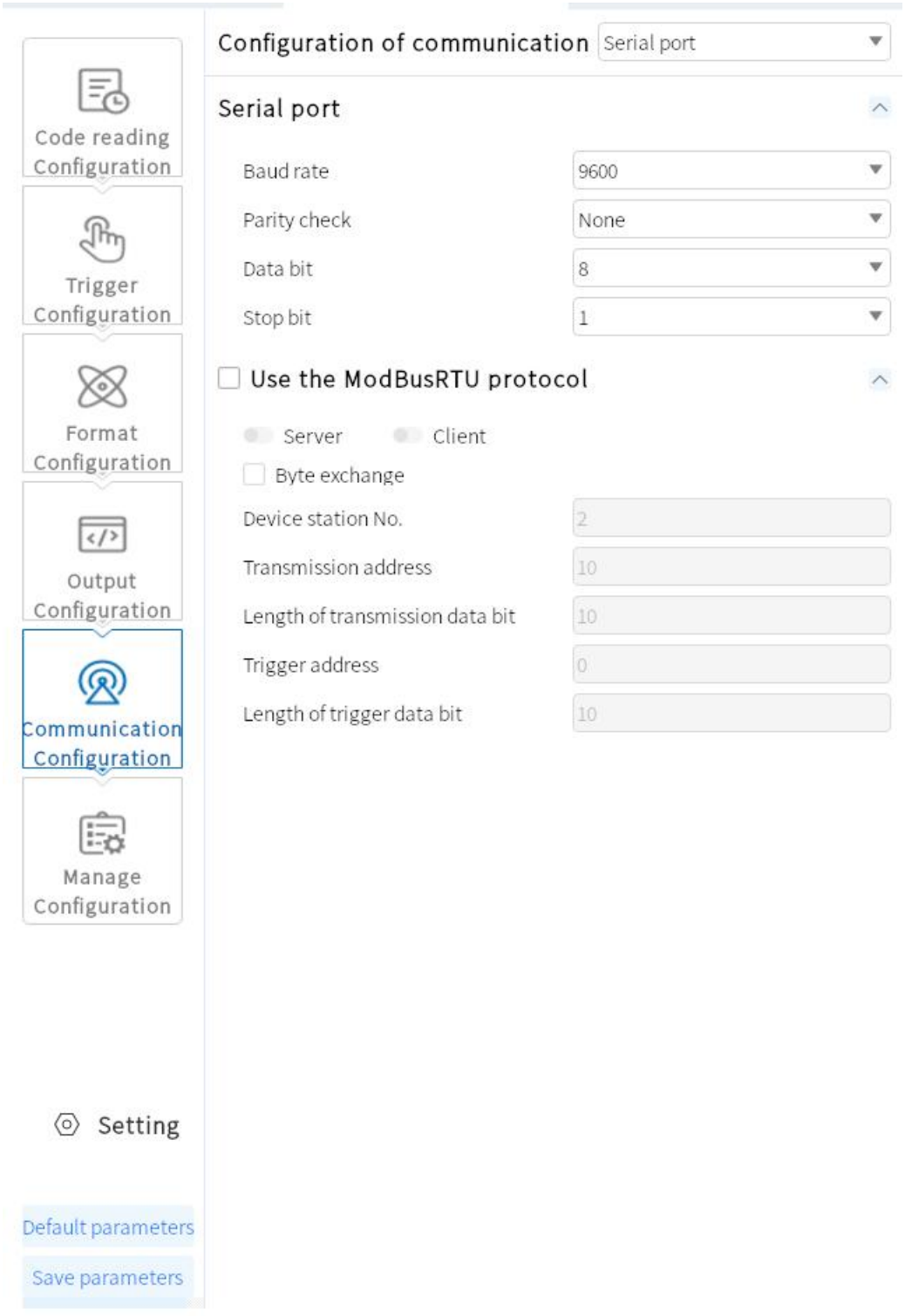
- Service IP: Connect to the IP address of the corresponding device.
- Service port: to connect to the port number of the corresponding device.
- Equipment station number: the station number connecting the corresponding equipment.
- Device network number: the network number connected to the corresponding device.
- Transfer address: the address where the PLC transfer data.
- Transfer data bit length: the length of the data bytes.



5.7.4 Serial port

When the communication protocol selects Serial, you can set the following parameters:

- Serial port rate: Set the serial port port rate at the receiving end.
- Serial port parity check: set the serial port check bit of the receiving end.
- Serial data bit: Set the serial data bit of the receiving end.
- Serial end bit: Set the serial stop bit of the receiver.

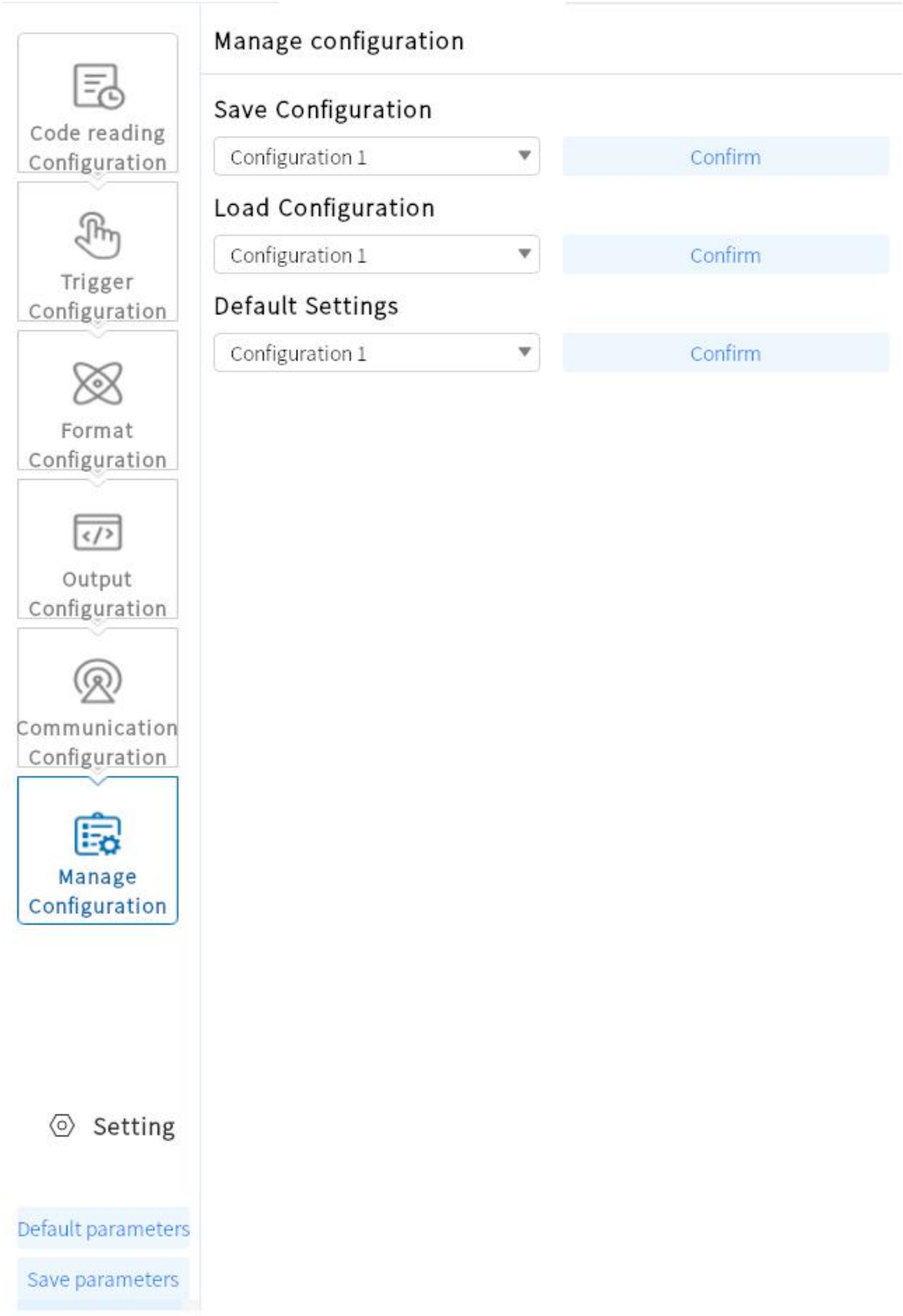

Code reading Configuration
Trigger Configuration
Format Configuration
Output Configuration
Communication Configuration
Manage Configuration
Setting
Default parameters
Save parameters
Configuration of communication
Serial port
Serial port
Baud rate
9600
Parity check
None
Data bit
8
Stop bit
1
Use the ModBusRTU protocol
Server
Client
Byte exchange
Device station No.
2
Transmission address
10
Length of transmission data bit
10
Trigger address
0
Length of trigger data bit
10

5.7.5 Using the ModBusRTU protocol

- Equipment station number: the station number connecting the corresponding equipment.
- Transfer address: the address where the PLC transfer data.
- Transfer data bit length: the length of the data bytes.
- Trigger address: the PLC address required to trigger the camera.
- Trigger data bit length: the length of the required data bit to trigger.

5.8 Configuration management

Configuration management includes Restore All Default Configuration and Save All Configuration.


Code reading Configuration
Trigger Configuration
Format Configuration
Output Configuration
Communication Configuration
Manage Configuration
Setting
Default parameters
Save parameters
Manage configuration
Save Configuration
Configuration 1
Confirm
Load Configuration
Configuration 1
Confirm
Default Settings
Configuration 1
Confirm

5.9 Settings

5.9.1 Equipment Settings

- device name

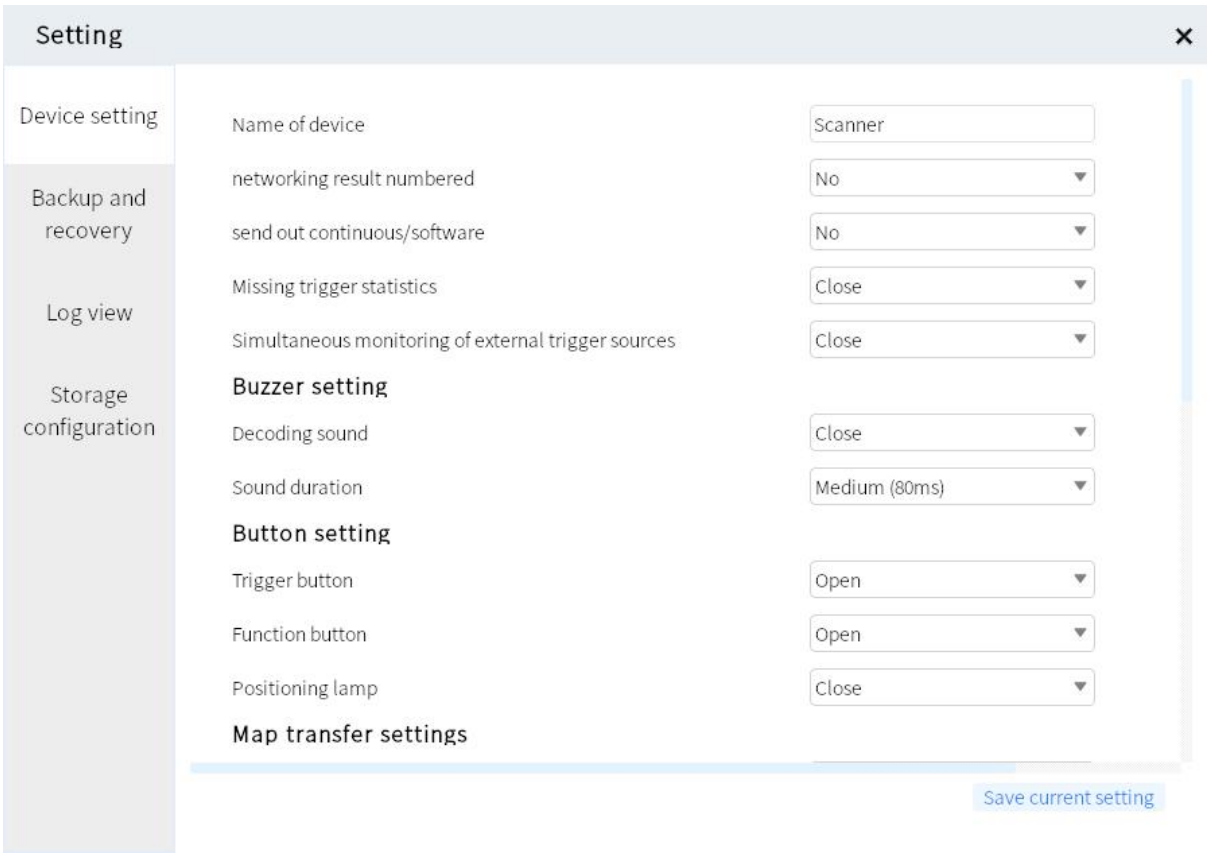
You can modify the reader device name. Support for Chinese, English, letters, characters, numbers, etc.

- The buzzer setting

The decoding can be opened after success / failure, and the sound can be set for 40ms, 80ms, and 120ms.

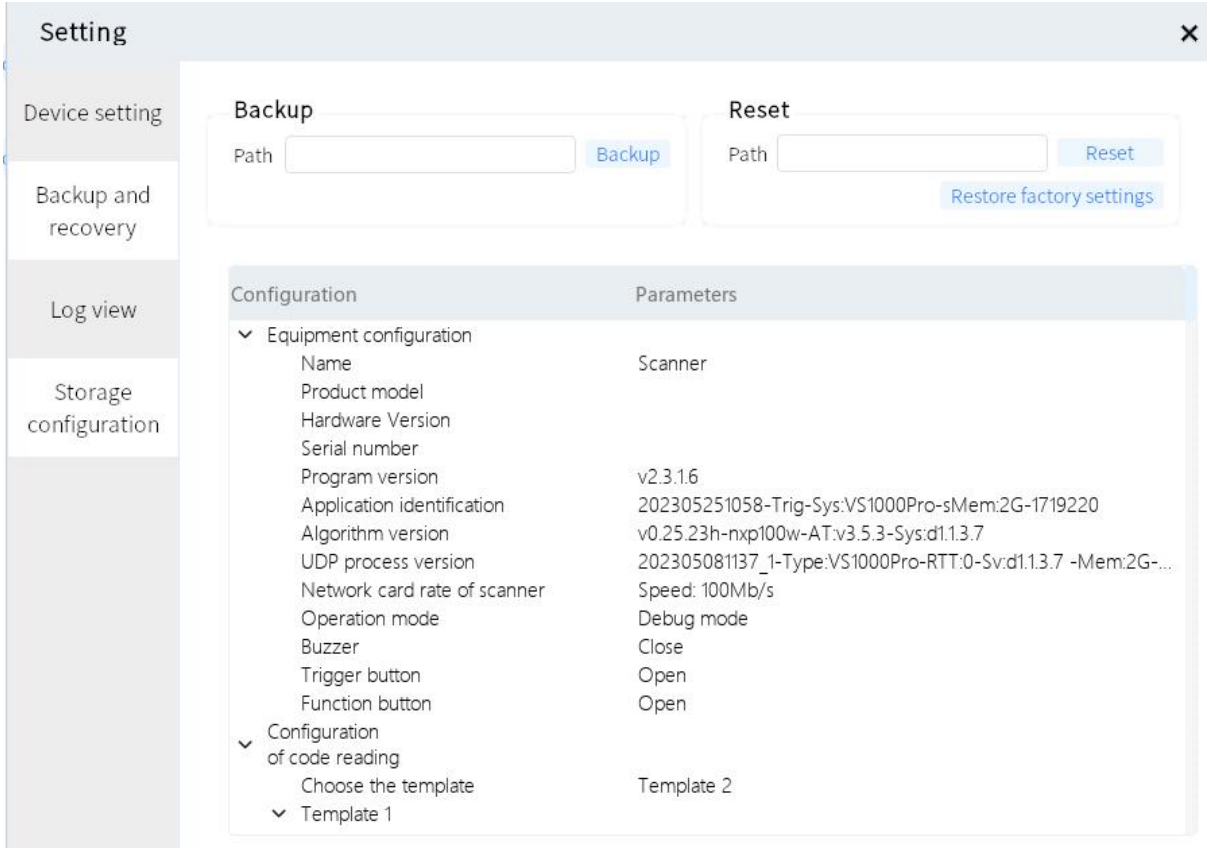
- Key Settings

Trigger the key, turn on / off. Function button, on / off. Position the light, turn it on / off.



5.9.3 Backup and Restore

The reader can back up information such as Settings to the PC, or restore Settings and restore factory Settings.



5.9.4 Log viewing

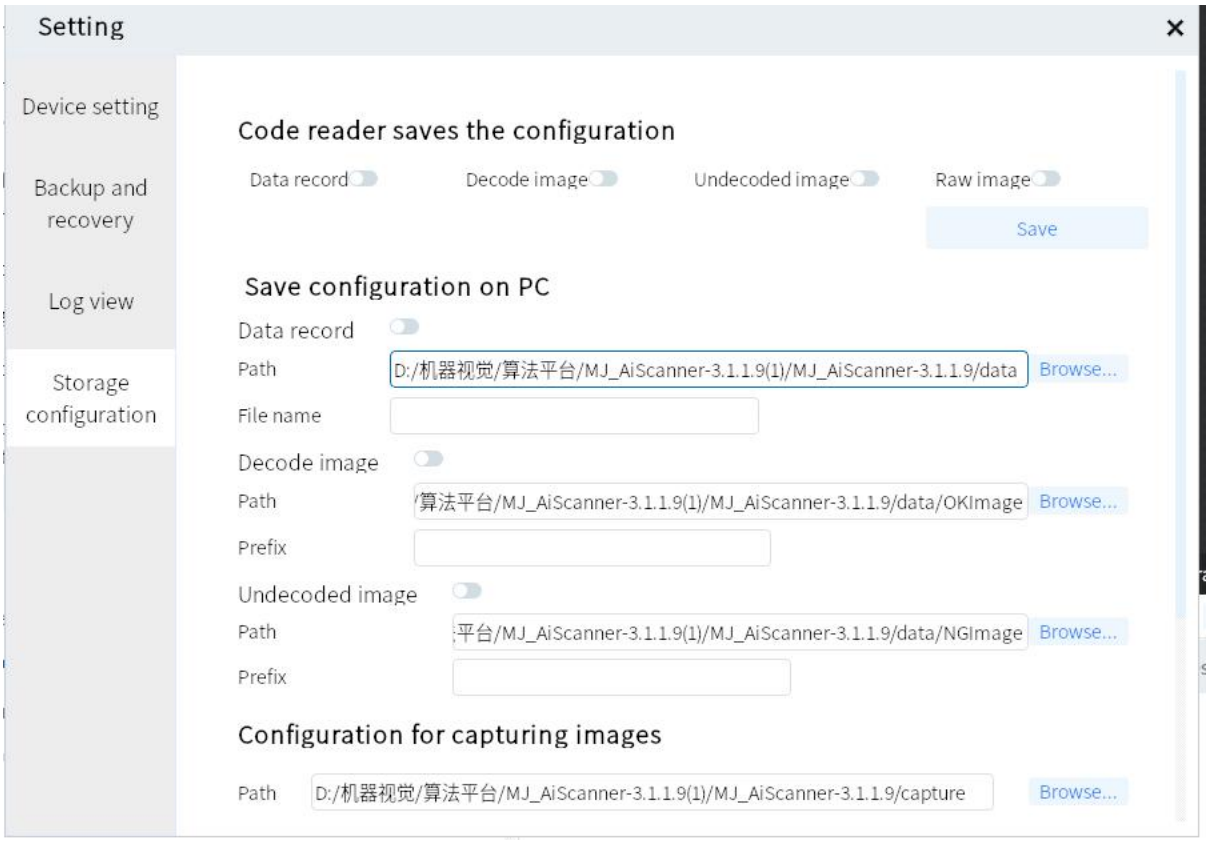
You can view the log level "ERROR", "WARN", "INFO", "DEBUG" and other content;

You can Refresh Log, Clear Log, and Export Log.

5.9.5 Storage configuration

- The reader will save the configuration. The Data Record, Decoded Image, Undecoded Map, and Original Map can be turned on / off.
- The PC will save the configuration. You can freely choose the saved path.
- Capture diagram configuration. You can save the scratch path.
- Grasping time: 1s~60min.

- Grab quantity: 2 ~ 10,000 pieces.



Chapter 6 Frequently Asked Questions

6.1 Client software identified the device but showed "inaccessible"

- **probable cause:**

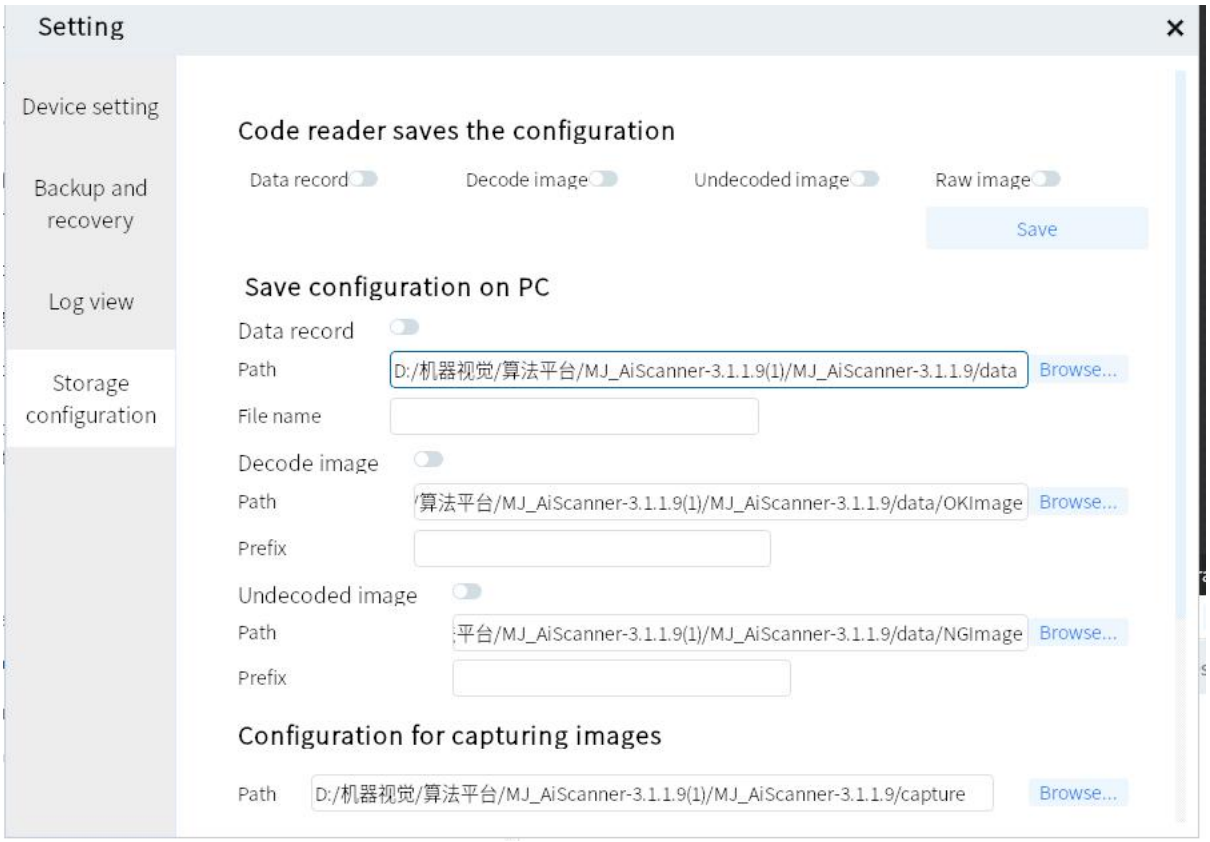
1) The IP of the device and the network card connected to the device are not in the

same network segment.

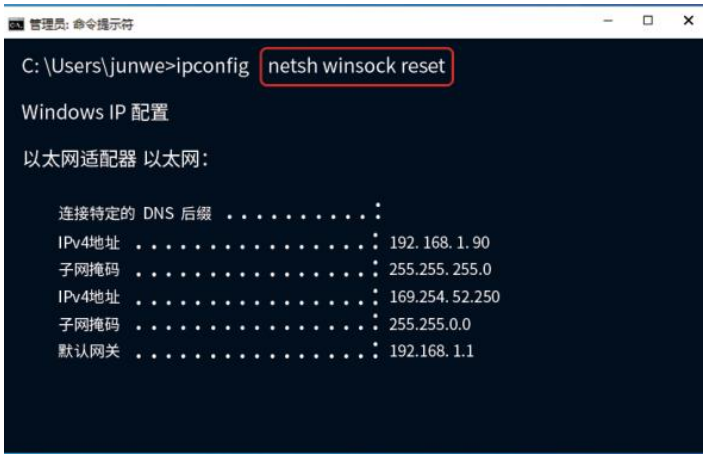
2) The network card has acquired the IP of two different segments.

- **resolvent:**

1) By modifying the device IP mode, make the computer and the device in the same network segment.

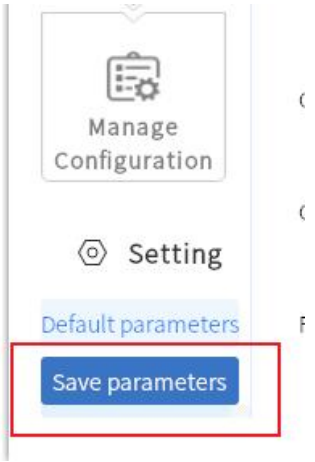


3) Click the computer "Start" -search box enter "cmd" -right click administrator permission to run-input: netsh winsock reset, reset the network card information, restart the computer.



6.2 After Setting the debugging mode, the client is not saved

- Possible reason: The system has temporarily stored the setting parameters and needs to save all the settings manually after the setting is complete.
- Solution: Click Configuration Management-Save All Configuration.
- **The specific operations are performed as follows:**

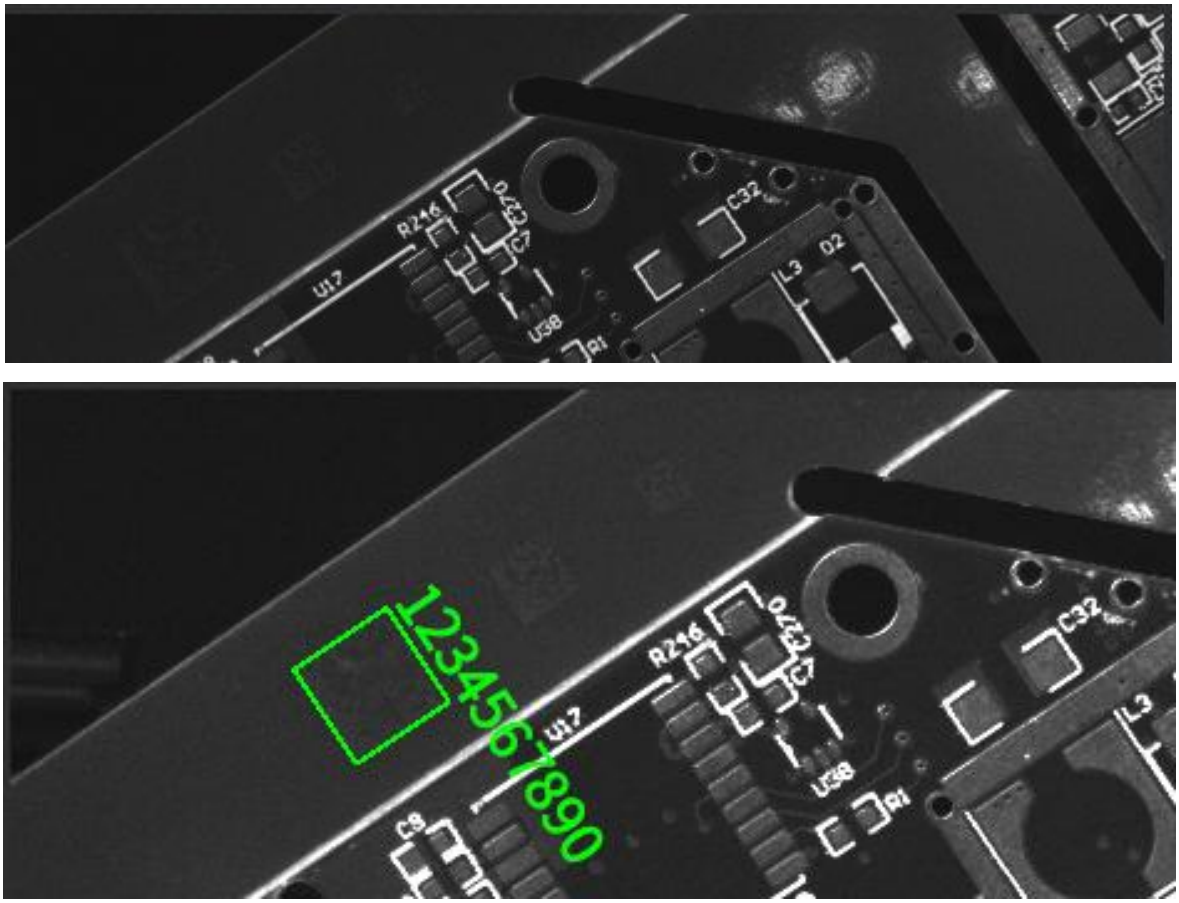


6.3 The barcode material is metal / PCB, with clear focus but unrecognition

- **probable cause:**

1) The identified material is black bottom, and the brightness of the reading area is too low.

2) The identified material is seriously reflective.



- **resolvent:**

1) Increase the Light Source value, or the Gain value to increase the brightness of the reading area.

2) Adjust the reader angle / material angle to avoid the direct light source and adjust the exposure and gain.

6.4 The smaller bar codes cannot be identified

- Possible reasons: the bar code in the field of vision is less, the accuracy of the bar code is not enough, resulting in the inability to identify.(One-dimensional code stable reading needs PPM 2, QR code stable reading PPM 3.)

* PPM: it is the minimum number of pixels occupied by the bar code module.

- **resolvent:**

  1）Zoom: reduce the distance.

6.5 How to use the various trigger modes of the client software

- **resolvent:**

  1） Network trigger: use third-party software to verify, the software set the reader for the network trigger, set the same port, the same trigger command, the same network IP segment (some routes may open IP isolation, need to be closed).

  2） IO trigger: IO trigger signal line needs to be connected, the software sets the reader as IO trigger, the wiring should be the same as LINE 0 / 1, and the trigger command is the same [there will be two connections of NPN and PNP. General connection: IN 0 / IN 1 contact generator OUT line, IN _ COM line positive (npn) or negative (ppp)].

  3） Serial port trigger: need to connect DB9 terminal, software set correct COM port, same port rate, data bit, stop bit, check bit. Same as for the trigger command.

  4）Software trigger: requires the client software and the code reader to connect to the same network segment.

6.6 Network trigger was unsuccessful

- Possible reason: Only client mode is currently supported on the device side.
- Solution: Adjust the PLC device network trigger mode.