



微光互联  
二维码扫描专家



# M08

## User manual

Please read it carefully and  
keep it properly



- ✓ Fast recognition
- ✓ Various output interface
- ✓ Suitable for access control scenario

## Disclaimer

Before using the product, please read all the contents in this product manual carefully to ensure the safe and effective use of the product. Do not disassemble the product or tear up the seal on the device by yourself, or Beijing Vguang Internet Technology Co., Ltd. will not be responsible for the warranty or replacement of the product.

The pictures in this manual are for reference only. If any individual pictures do not match the actual product, the actual product shall prevail. For the upgrade and update of this product, Beijing Vguang Internet Technology Co., Ltd. reserves the right to modify the document at any time without notice.

Use of this product is at the user's own risk. To the maximum extent permitted by applicable law, damages and risks arising from the use or inability to use this product, including but not limited to direct or indirect personal damage, loss of commercial profits, Beijing vguang Internet Technology Co., Ltd. will not bear any responsibility for trade interruption, loss of business information or any other economic loss.

All rights of interpretation and modification of this manual belong to Beijing Vguang Internet Technology Co.,Ltd.

## Edit history

Change date	Version	Description	Responsible
2022. 3. 1	V1.0	Initial version	

## Catalog

Disclaimer.....	2
1. Preface.....	5
1.1. Product introduction.....	5
1.2. Product features.....	5
2. Product appearance.....	6
2.1. Appearance diagram.....	6
2.2. Product size chart.....	7
3. Product parameters.....	8
3.1. General parameters.....	8
3.2. Recognition parameters.....	8
3.3. Electric parameters.....	10
3.4. Working environment parameters.....	10
4. Interface definition.....	11
4.1. 485 Version.....	11
4.2. Ethernet Version.....	12
5. Device configuration.....	13
6. Mounting method.....	16
7. Attention.....	17
8. Contact info.....	18

# 1. Preface

Thanks for using the M08 QR code reader. Reading this manual carefully can help you understand the function and features of this device, and quickly master the use and installation of the device.

## 1.1. Product introduction

M08 QR code reader is specially designed for access control scenario, which has various output interface, including Wiegand, RS485, Ethernet and relay, suitable for gate, access control and other scenes.

## 1.2. Product feature

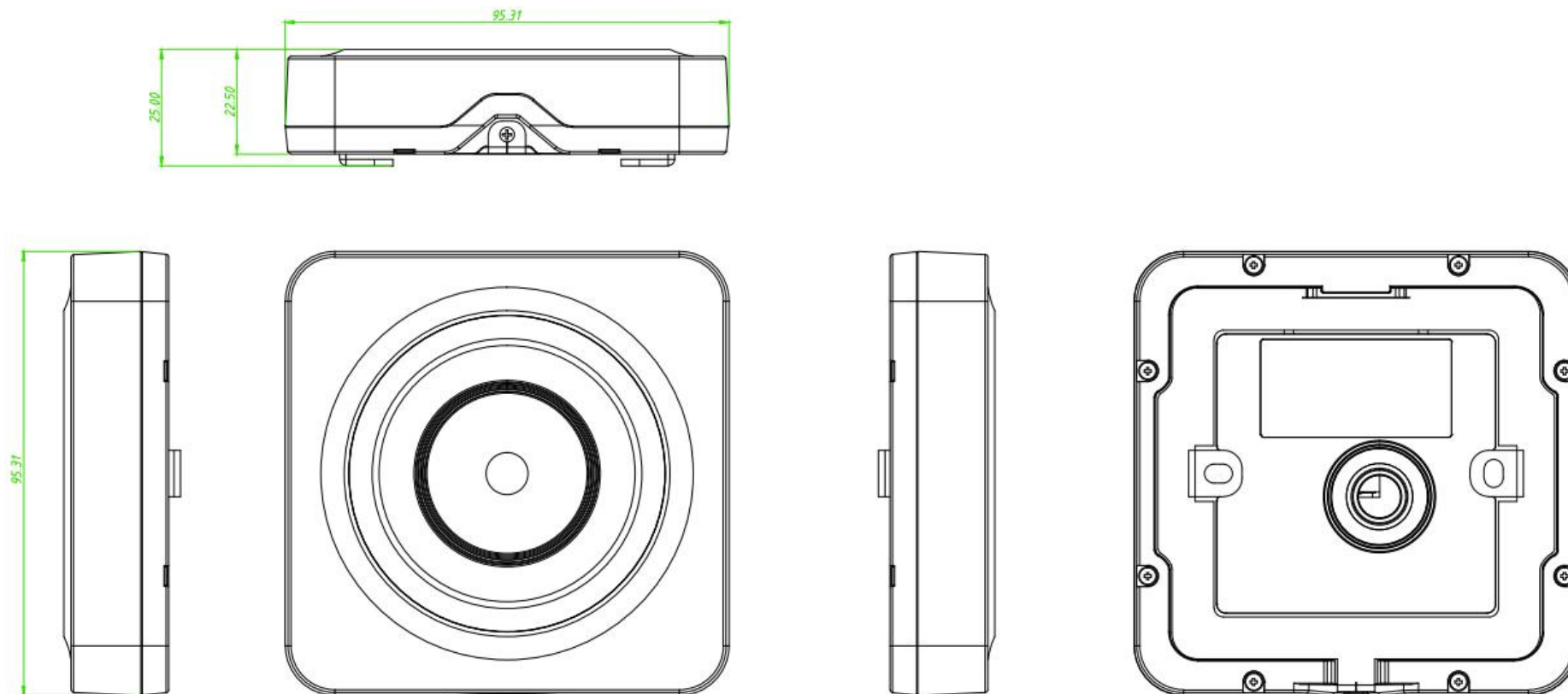
- 1, M08 device supports code scanning and card swiping.
- 2, Fast recognition speed, high accuracy, 0.1 second the fastest.
- 3, Easy to operate, humanized configuration tool, more convenient to config the reader.

## 2. Product appearance

### 2.1. Appearance diagram



## 2.2. Product size chart



## 3. Product parameters

### 3.1. General parameters

General parameters	
Output interface	RS485, Wiegand, Ethernet
Indicating method	Red, green, white light indicator, blue light indicator Buzzer
Imaging sensor	300,000 pixel CMOS sensor
Max resolution	640*480
Mounting method	Embedded mounting
Product size	95.31mm*95.31mm*25.00mm

### 3.2. Recognition parameters

Recognition parameters	
Symbologies	QR, PDF417, CODE39, CODE93, CODE128, ISBN10, ITF, EAN13, aztec etc.
Supported decoding	Mobile QR code and paper code
DOF	Mobile phone screen: 21.01mm-88.61mm(QRCODE 15mil)



	Paper: 23.03mm-48.26mm (QR CODE 15mil)
Reading accuracy	≥8mil
Contrast ratio	≥20%
Reading speed	100ms per time(average), support reading continuously
Reading direction	Tilt±46.2° Rotation±360° Deflection±52.7° (15milQR)
FOV	Horizontal angle: 49.2° Vertical angle: 34.6° Field of view angle: 58° (15milQR)
<b>RFID reading parameters</b>	
Identification card type	ISO 14443A protocol card, ISO 14443B protocol card
Operation card method	Read UID/Read and write M1 card sector
RF operating frequency	13.56MHz
Reading effective distance	< 5cm (The actual distance is related to the card specifications and installation environment)

## 3.3. Electric parameters

The power input can be provided only when the device is connected properly. If the device is plugged or unplugged while the cable is live (hot plugging), its electronic components will be damaged. Make sure that the power is turned off when plugging and unplugging the cable.

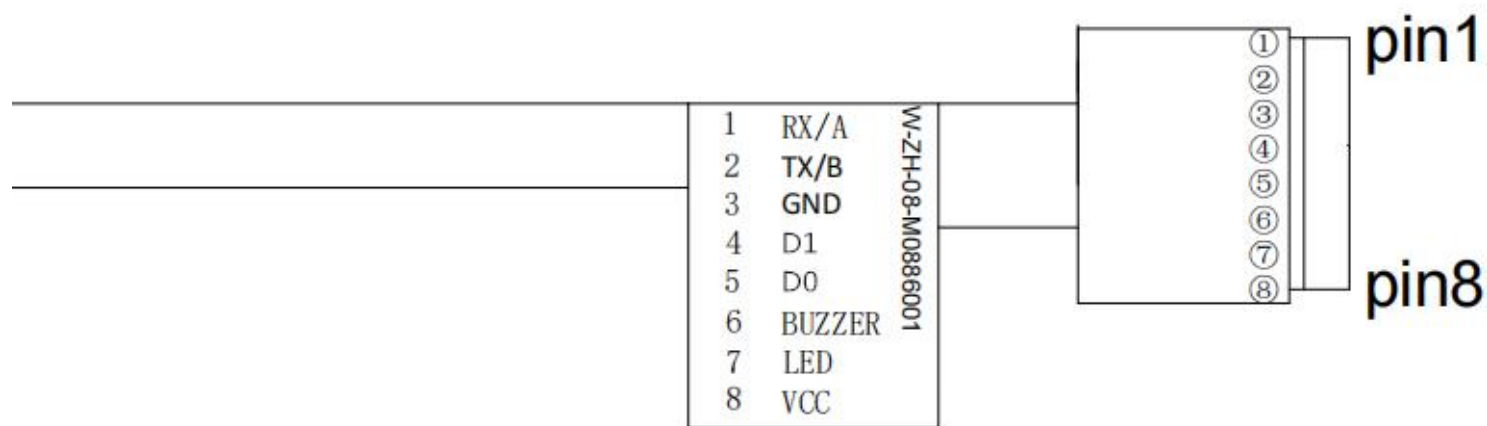
Electric parameters	
Working voltage	DC 12-24V
Working current	101mA (Typical 12V power supply)
Power consumption	1223mW (Typical 12V power supply)

## 3.4. Working environment parameters

Working environment parameters	
ESD protection	$\pm 15\text{kV}$ (Air discharge) , $\pm 6\text{kV}$ (Contact discharge)
Working temp	$-20^{\circ}\text{C}$ - $70^{\circ}\text{C}$
Storage temp	$-40^{\circ}\text{C}$ - $80^{\circ}\text{C}$
Relative humidity	5%-95% (No condensation) (environment temperature $30^{\circ}\text{C}$ )
Ambient light	0-80000Lux(Non direct sunlight)

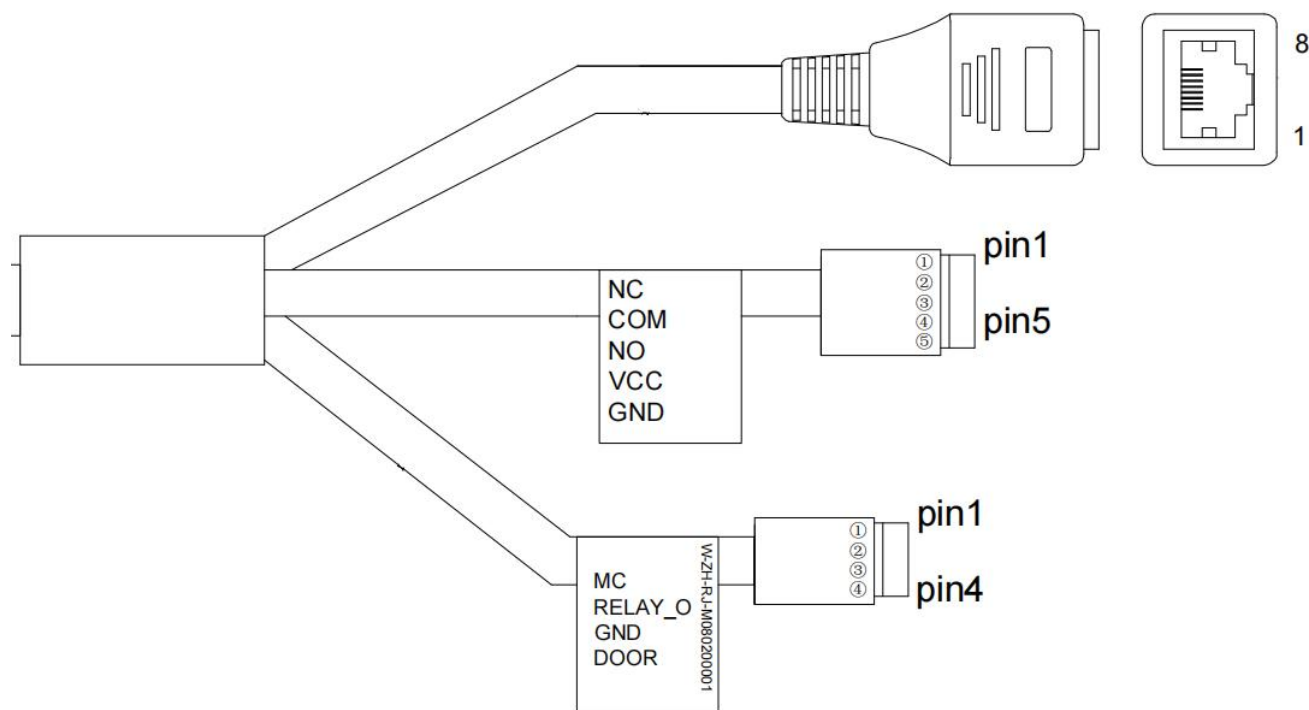
## 4. Interface definition

### 4.1. 485 Version



Serial number	Definition	Description
PIN1	RX/A	485A cable
PIN2	RX/B	485B cable
PIN3	GND	Power supply ground
PIN4	D1	Wiegand 1
PIN5	D0	Wiegand 0
PIN6	BUZZER	Buzzer control interface (reserved)
PIN7	LED	LED light control interface (reserved)
PIN8	VCC	Positive power supply

## 4.2. Ethernet Version



Port	Serial number	Definition	Description
RJ45	-	Network cable port	Connect network cable
5PIN port	PIN1	NC	Relay normally closed end
	PIN2	COM	Relay common terminal
	PIN3	NO	Relay normally open end
	PIN4	VCC	Positive power supply
	PIN5	GND	Negative power supply
4PIN port	PIN1-PIN4	Undefined	Reserved

## 5. Device configuration

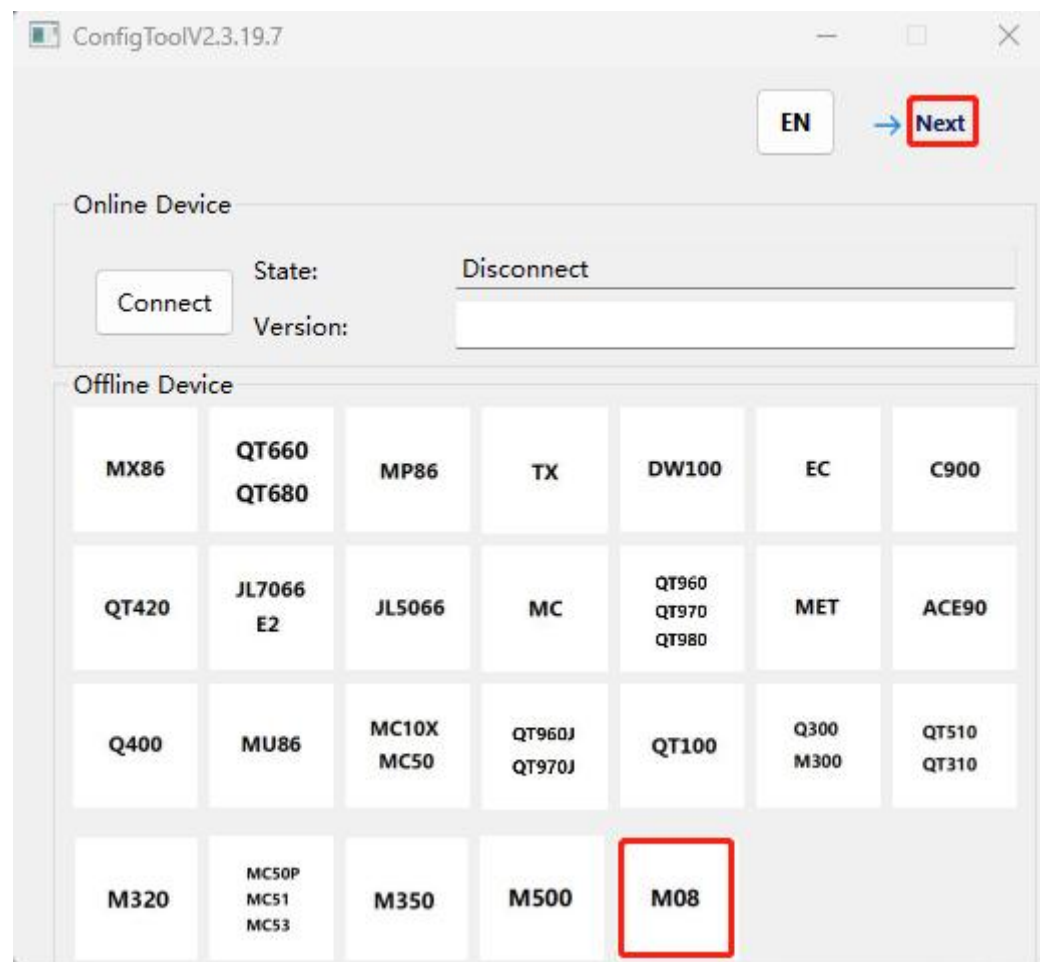
Use the Vguang config tool to configure the device. Open the following configuration tool (available from the download center on the official website).



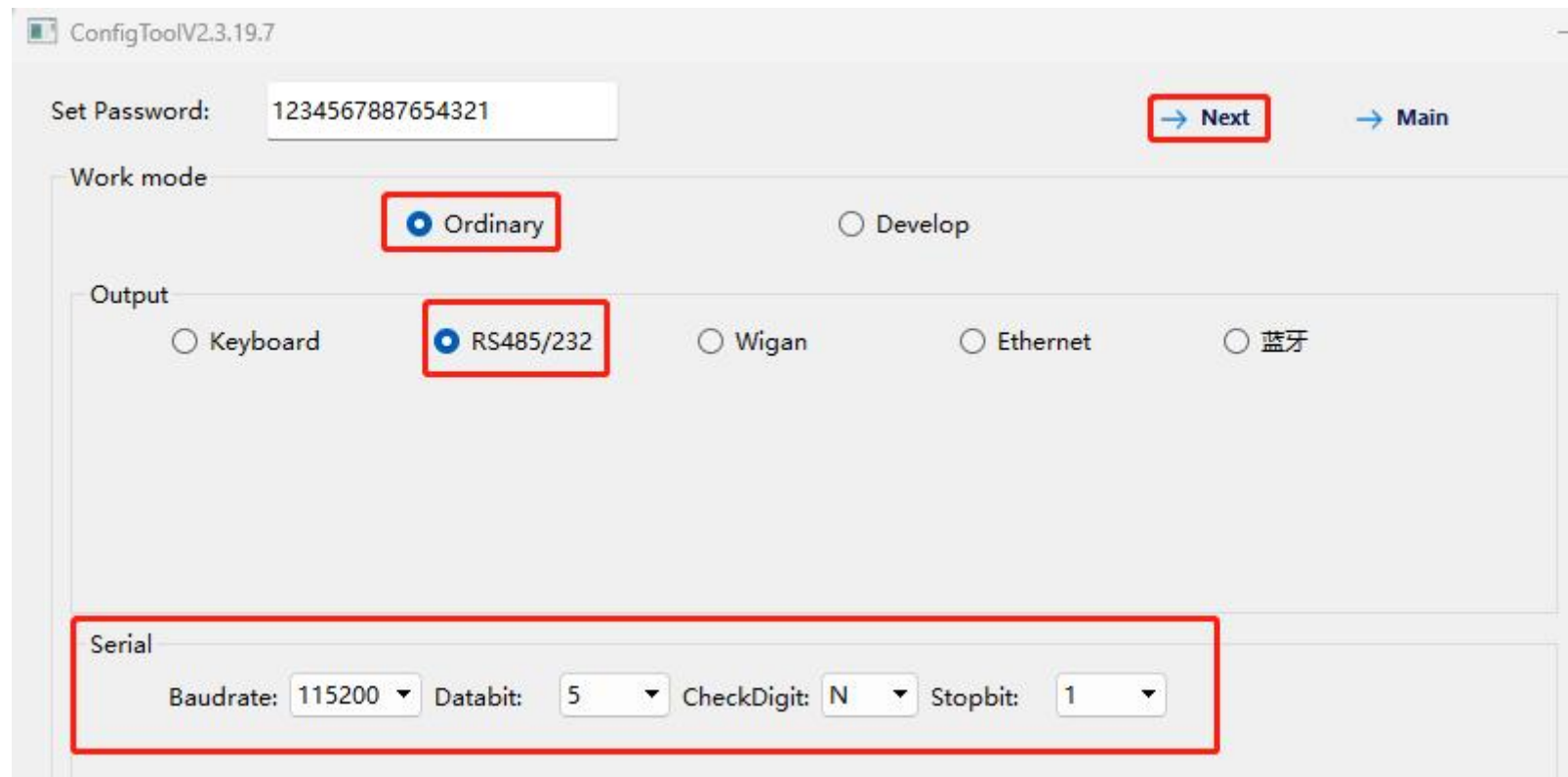
5.1 Configuration Tool

Config the device as the step shows, the example are showing 485 version reader.

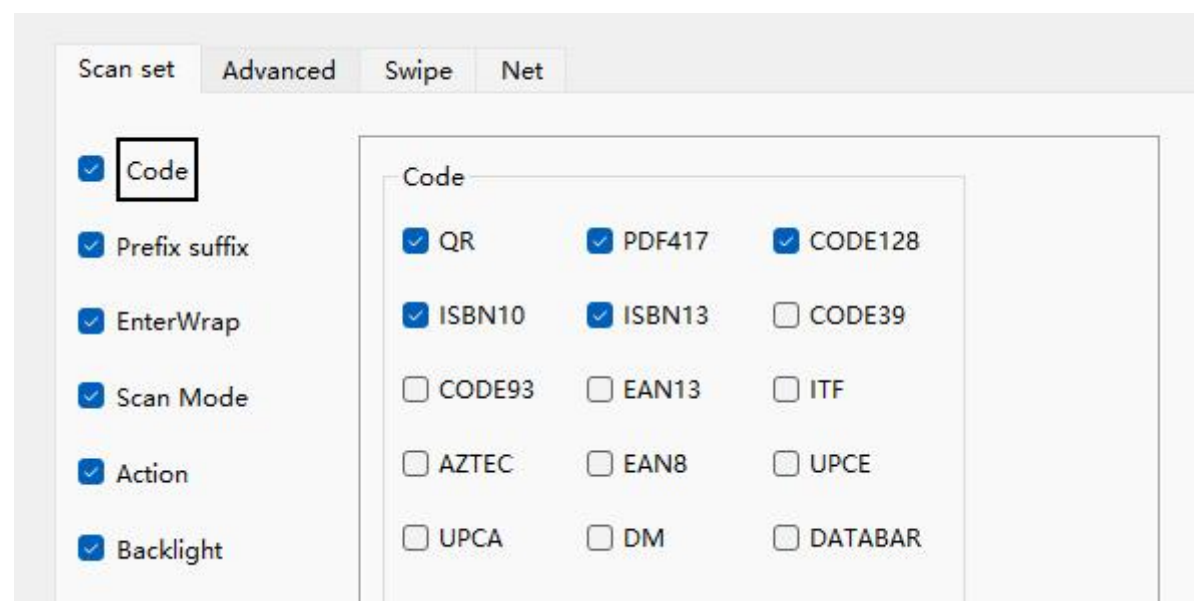
Step 1 Select the model M08.



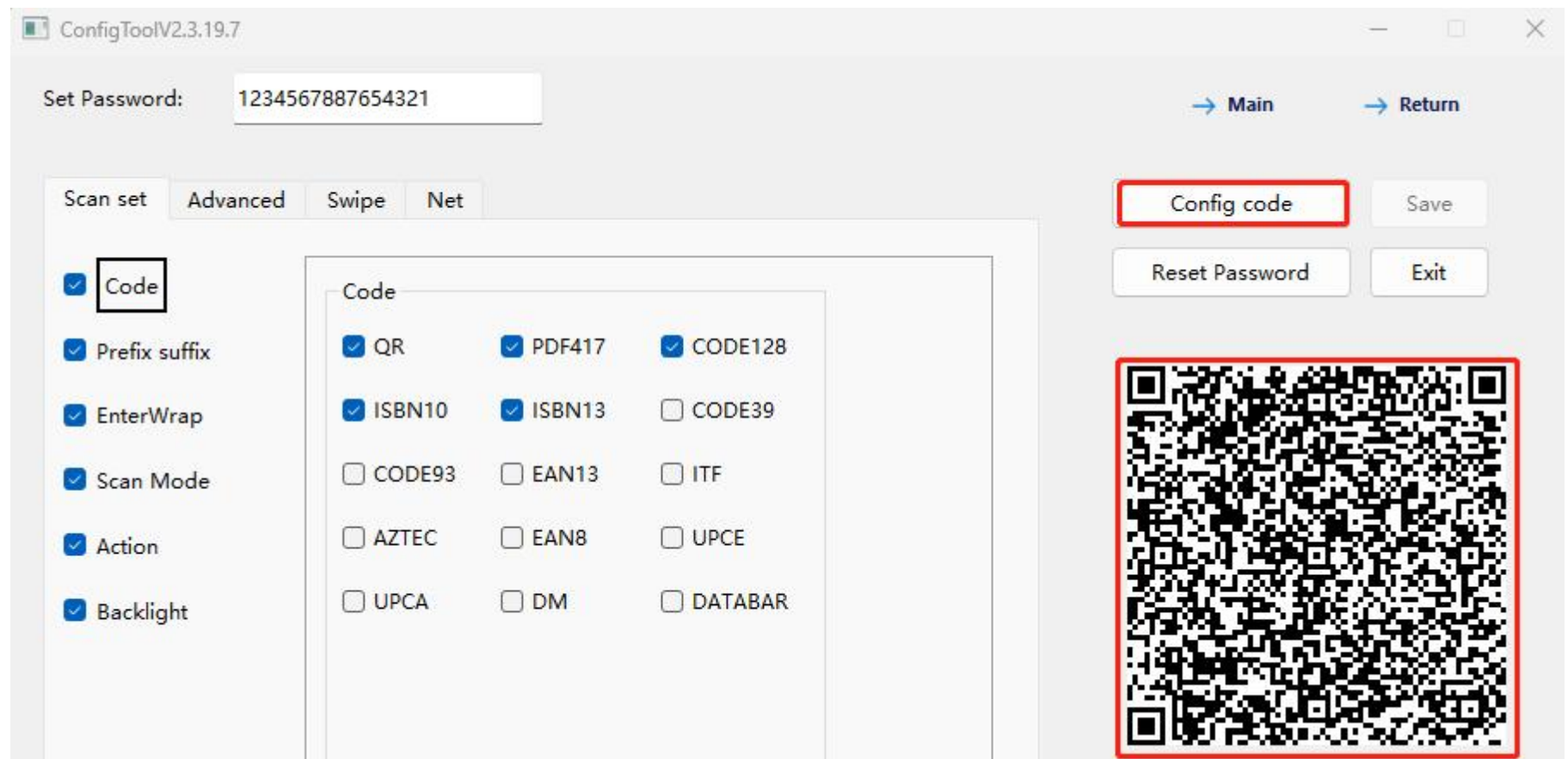
Step 2 Select the output interface, and config the corresponding serial parameters.



Step 3 Select the required configuration. For configuration options, please refer to the user manual of Vguangconfig configuration tool on the official website.



Step4, After configuring as your needs, click “Config code”.



Step 5 Use the reader to scan the generated configuration code. Then power off and restart the reader to complete the configuration.

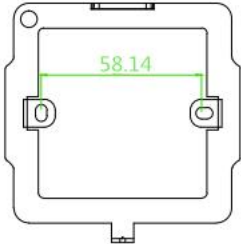
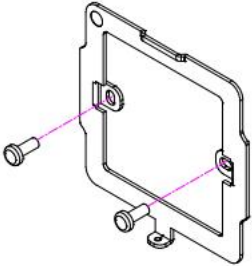
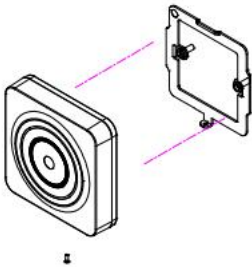
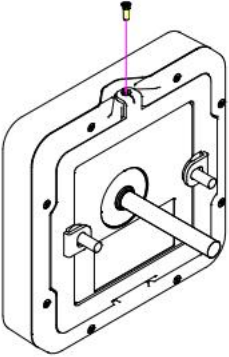
For more details about the configuration tool, please refer to the “Vguang configuration tool user manual”.

## 6. Mounting method

The product adopts CMOS image sensors, and the installation should avoid the reading window facing the sun, high-power lighting fixtures, and other strong light sources. Strong light sources can cause excessive contrast between the QR code in the image and the background, making it difficult to decode. Long term exposure can also damage the image sensor and cause device malfunction.

The reading window is made of tempered glass, which has good transparency and compressive and impact resistance. However, it is still necessary to avoid objects with higher hardness scratching tempered glass, which can reduce the recognition performance of the reader.

The RF card reading antenna is located below the reading window. During installation, metal and magnetic substances should be avoided within 10cm, otherwise it will seriously reduce card swiping performance.

			
<p>Step 1: Drill holes on the installation surface and insert M4 expansion pipes.</p>	<p>Step 2: Fix the metal bracket on the installation surface with M4 screws.</p>	<p>Step 3: Install the product on the bracket.</p>	<p>Step 4: Use M2 screws to secure the device to the bracket.</p>



## 7. Attention

- 1, The device standard is 12-24V power supply, which can be powered from the access control power supply or separately. Excessive voltage may cause device to malfunction or even damage the device.
- 2, Do not disassemble the device without permission, otherwise it may damage the device.
- 3, The installation position of the access control code reader should try to avoid direct sunlight as much as possible. Otherwise, it may affect the scanning effect. The reading panel of the reader should be kept clean and tidy, otherwise it may affect the normal image retrieval of the reader. The metal around the reader may interfere with the NFC magnetic field and affect card swiping.
- 4, The wiring of the access control code reader device should be firm and reliable. Before connecting the wires, ensure insulation to prevent short circuits from burning out the device.

## 8. Contact info

Company name: Beijing Vguang Internet Technology Co., Ltd.,

Address: China Meteorological Science and Technology Park, No.2, Zhenxing Road, Changping  
District, Beijing, China.

Hot line: 400-810-2019