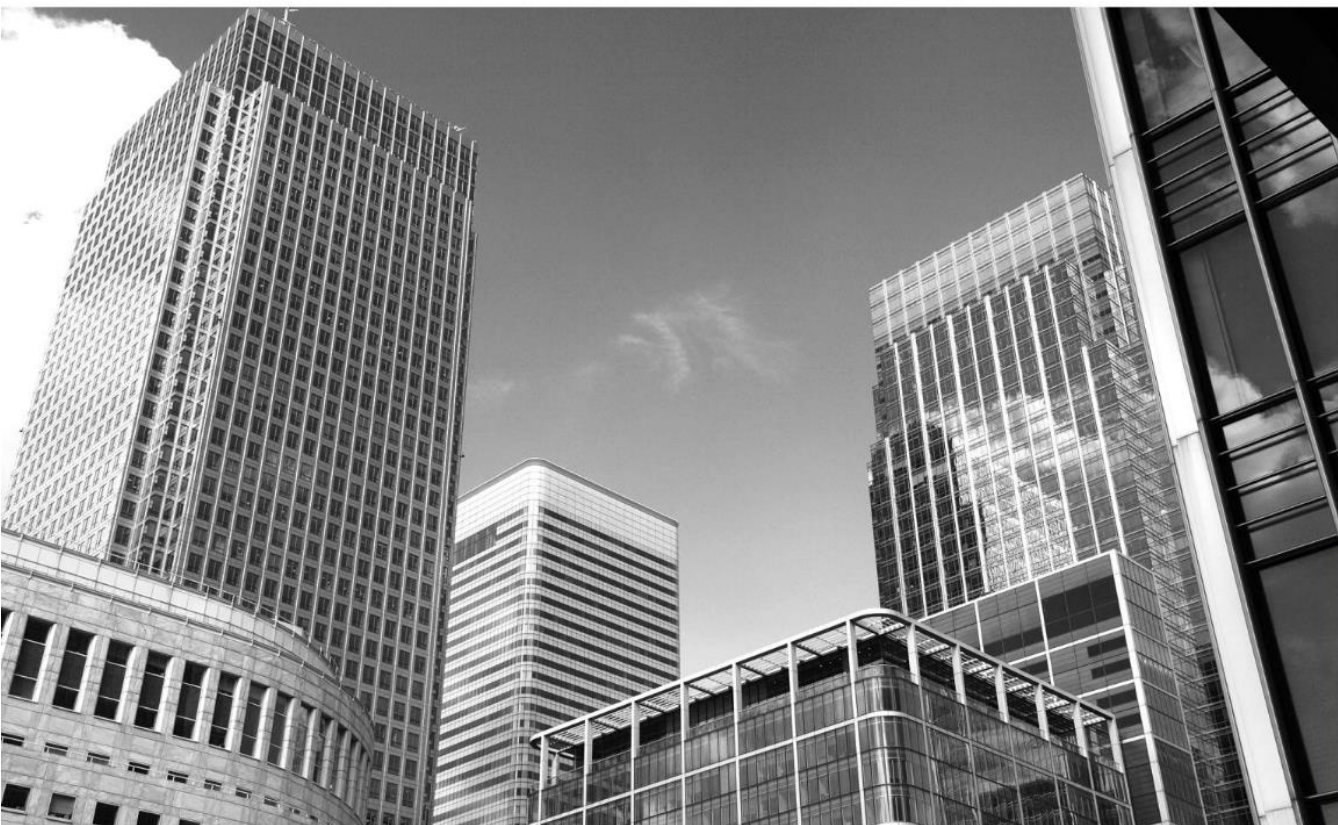




微光互联  
二维码扫描专家



# QT660

## User manual

Please read it carefully and  
keep it properly

- ✓ Fast recognition
- ✓ Compact size
- ✓ Various output interface



## 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
2018. 1. 2	V1. 0	Initial version	
2018. 6. 8	V1. 1	Update function	
2020. 6. 6	V2. 0	Update related content	

## Catalog

1. Introduction.....	5
1.1. Product introduction.....	5
1.2. Product features.....	5
1.3. Attention.....	7
2. Product size.....	8
3. Product parameters.....	9
3.1. General parameters.....	9
3.2. Recognition parameters.....	10
3.3. Electric parameters.....	11
3.4. Working environment parameters.....	11
4. Interface definition.....	12
5. Operating instructions.....	13
5.1. Wiring Diagram.....	13
5.1.1. Data cable included in each version.....	13
5.1.2. Connection schematic diagram.....	15
5.2. Device configuration.....	16
5.3. Configuration Example.....	17
6. Installation and disassembly methods.....	21
7. Common problems.....	23

# 1. Preface

Thanks for using the QT660 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.

The company does not assume the responsibility for property loss or personal injury caused by the user's abnormal operation. Please develop the product according to the technical specifications and reference design in the manual. At the same time, pay attention to the general safety matters that should be concerned about when using mobile products. Before the announcement, the company has the right to modify the content of this manual according to the needs of technological development.

## 1.1. Product introduction

The QT660 QR code reader is a multi-function, multi-interface, compact, multi-scenario application comprehensive device. The device can support USB, RS232, TTL multiple output modes.

## 1.2. Product feature

### 1, Strong Reading Capability:

Capable of recognizing both 2D and 1D codes displayed on mobile phone screens. It supports enhanced engine mode, enabling scanning and reading even in low-light conditions on the phone screen.

### 2, Paper Code Reading Ability:

Capable of reading mainstream 2D codes and various 1D codes printed on paper.

### 3, High Speed Reading:

With respect to different liquid crystal screens on mobile phones, it can efficiently read codes with varying contrasts, colors, and reflection levels. As long as the code is within the reading window, it can be recognized.

#### 4, User Friendly:

The scanner can be easily configured using the configuration tool to achieve optimal operational settings.

## 1.3. Attention

- 1, Disassembly and Modification: Please do not dismantle or modify the hardware of the equipment without authorization. If such actions result in damage to the device, the company is not responsible for repair.
- 2, Abnormal Conditions: Keep away from open flames. In the event of unusual odors, overheating, or smoke, immediately turn off the power switch. Unplug the power plug from the AC outlet and contact the dealer where you purchased the product or the company's customer service center.
- 3, Damage from Falls: If the equipment is damaged due to being dropped, immediately turn off the power and contact the dealer where you purchased the product or the company's customer service center.
- 4, Placement: Do not place the equipment on unstable or uneven surfaces to prevent it from falling and causing damage. Avoid placing the equipment in areas with high humidity or dust to prevent electric shock or fire.
- 5, Placement: Do not place the equipment on unstable or uneven surfaces to prevent it from falling and causing damage. Avoid placing the equipment in areas with high humidity or dust to prevent electric shock or fire.

## 2. Product size

Figure 1 and Figure 2 are the main dimensions of the equipment, and all dimensioned units in the figure are millimeters (mm).

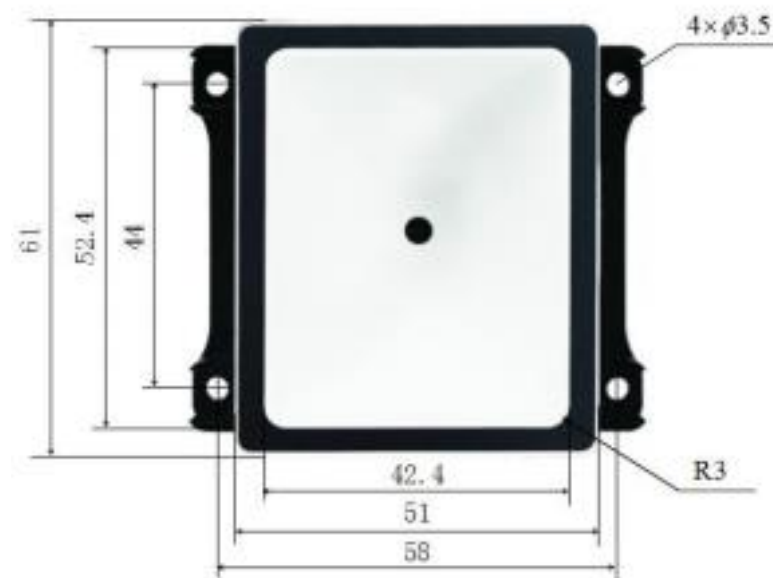


Figure 1



Figure 2



## 3. Product parameters

### 3.1. General parameters

General parameters	
Output interface	USB、RS232、TTL
Indicating method	white light indicator
Imaging sensor	300,000 pixel CMOS sensor
Max resolution	640*480
Operating system	Windows (xp.7.8.10) , Linux, Android, Mac, etc.
Mounting method	Embedded mounting
Recognition window size	52.4mm*42.4mm
Product material	PC/ABS+PC
Photosource	LED diffuse lighting: white light fill
Data cable	8-pin to USB cable \ 8-pin to DB9 serial cable \ 8-pin ribbon cable

## 3.2. Recognition parameters

Recognition parameters	
Symbologies	QR Code、EAN-8、EAN-13、ISBN-10、ISBN-13、CODE39、CODE93、CODE128、UPC、ITF、etc.
Supported decoding	Mobile QR code and paper code
DOF	0mm-100mm
Reading accuracy	$\geq 10\text{mil}$
Reading speed	30msms per time(average), support reading continuously
Reading direction	360°
FOV	Horizontal angle: 76° Vertical angle: 50°

## 3.3. Electric parameters

Power input is not allowed until the device is connected. If you plug or remove the device (with an electric plug or switch) when the cable is live, the electronic components of the device will be damaged. Ensure that the power supply is cut off before inserting or removing the cable. The device cannot work stably due to poor power connections, short intervals of power off and on operations, or large voltage drop pulses. Therefore, keep the power input stable. After the power input is turned off, the power input can be turned on again at an interval of more than 2 seconds.

Electric parameters	
Working voltage	DC 4.7V-5.5V
Working current	116.3mA (Typical value 5V power supply)
Power consumption	581.5mW (Typical value 5V power supply)

## 3.4. Working environment parameters

Working environment parameters	
ESD protection	Contact discharge 4KV (Interface section)
Working temp	-20° C-70° C
Storage temp	-40° C-80° C
Relative humidity	5%-95% (No condensation) (environment temperature 30°C)
Ambient light	0-80000Lux (Non direct sunlight)

## 4. Interface definition



PIN#	Signal Name	I/O	Description
1	TTL_RX	Input	Serial logic level input
2	TTL_TX	Output	Serial logic level output
3	GND	-	Power ground
4	VCC	-	Power input
5	RS232_RX	Input	Serial RS232 level input
6	RS232_TX	Output	Serial RS232 level output
7	Data-	-	USB data-
8	Data+	-	USB data+

## 5. Operating instructions

### 5.1. Wiring Diagram

#### 5.1.1. Data cable included in each version

##### 5.1.1.1. Data cable included in each version



Figure 5.1 USB cable

## 5.1.1.2. RS232 output mode wiring

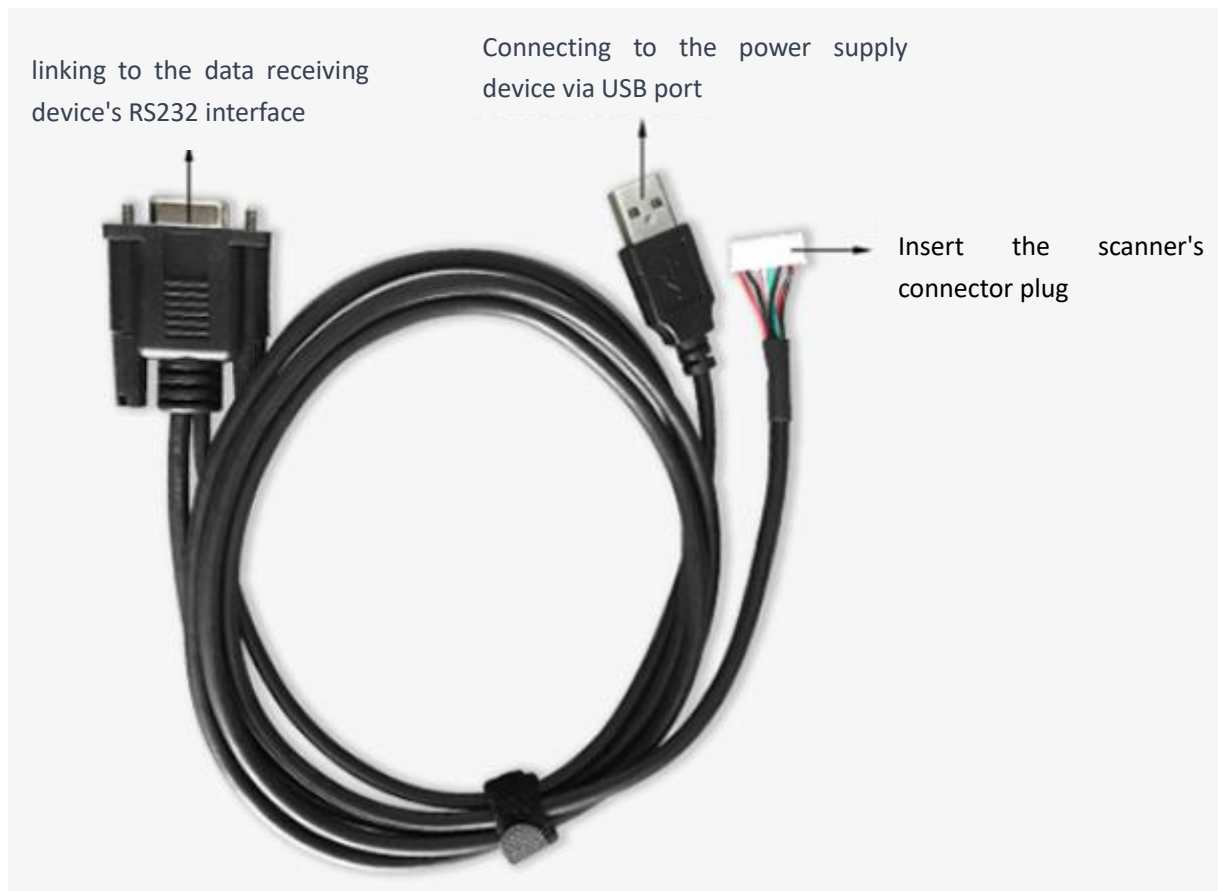


Figure 5.2 RS232 cable

## 5.1.1.3. Wiring for TTL Output Mode



Figure 5.3 TTL cable

## 5.1.2. Connection schematic diagram

### 5.1.2.1. USB output mode connection diagram

Connect one end of the USB cable to the scanner and the other end to the USB port on the computer.

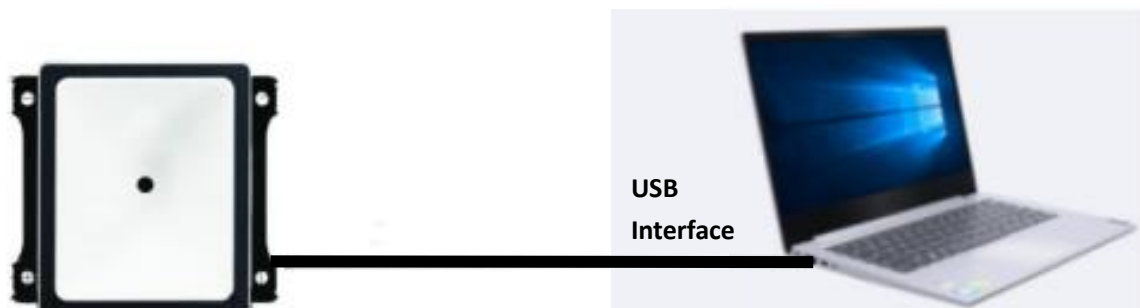


Figure 5.4 USB output mode connection diagram

### 5.1.2.2. RS232 output mode connection diagram

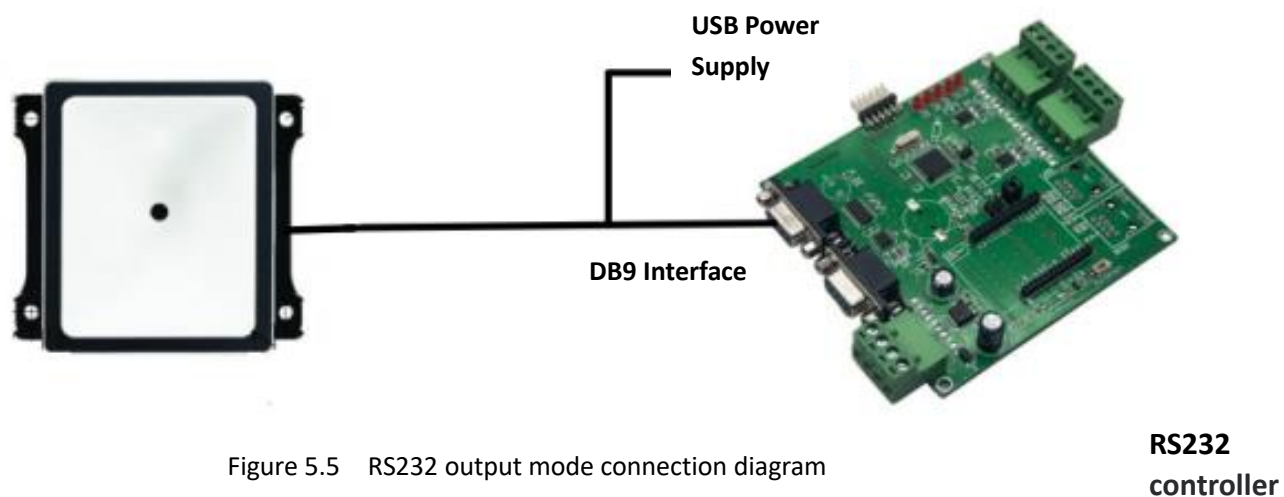


Figure 5.5 RS232 output mode connection diagram

### 5.1.2.3. TTL output mode connection diagram

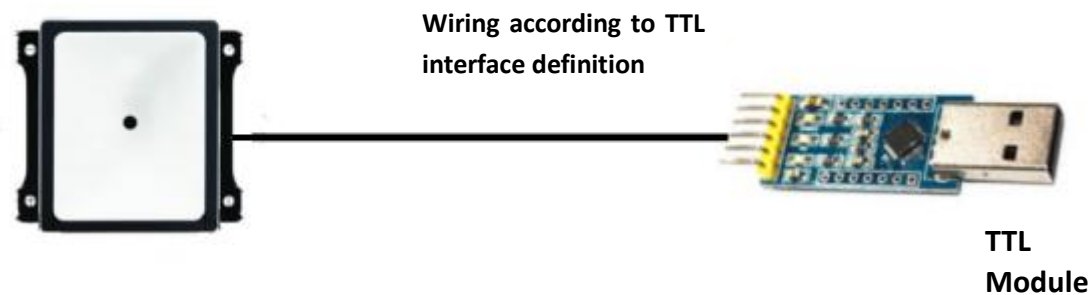


Figure 5.6 TTL output mode connection diagram

## 5.2. 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).



Figure 5.9 configuration tool

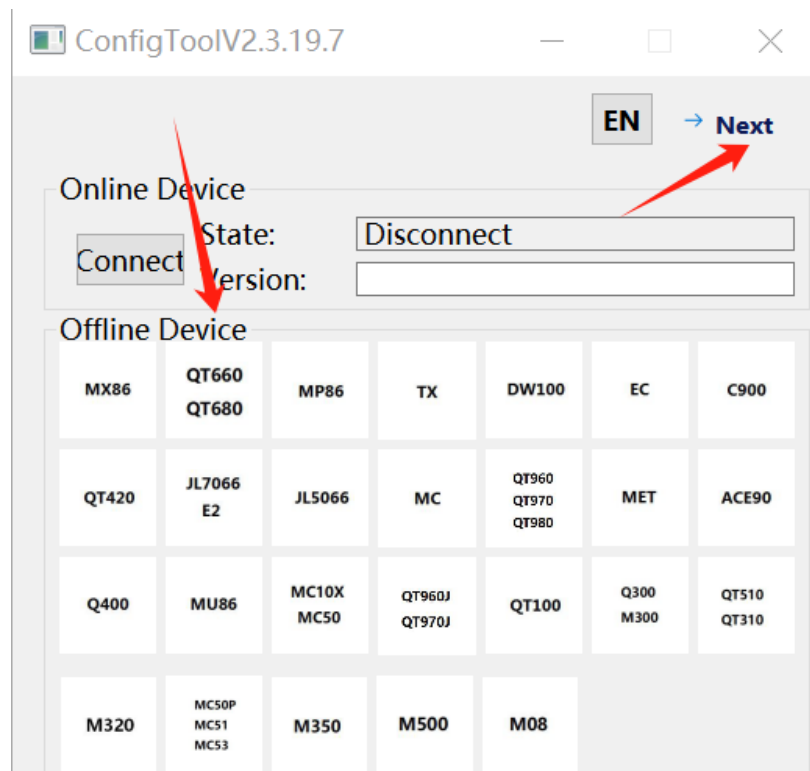
For details about how to use the configuration tool, see the user manual of the configuration tool VguangConfig.



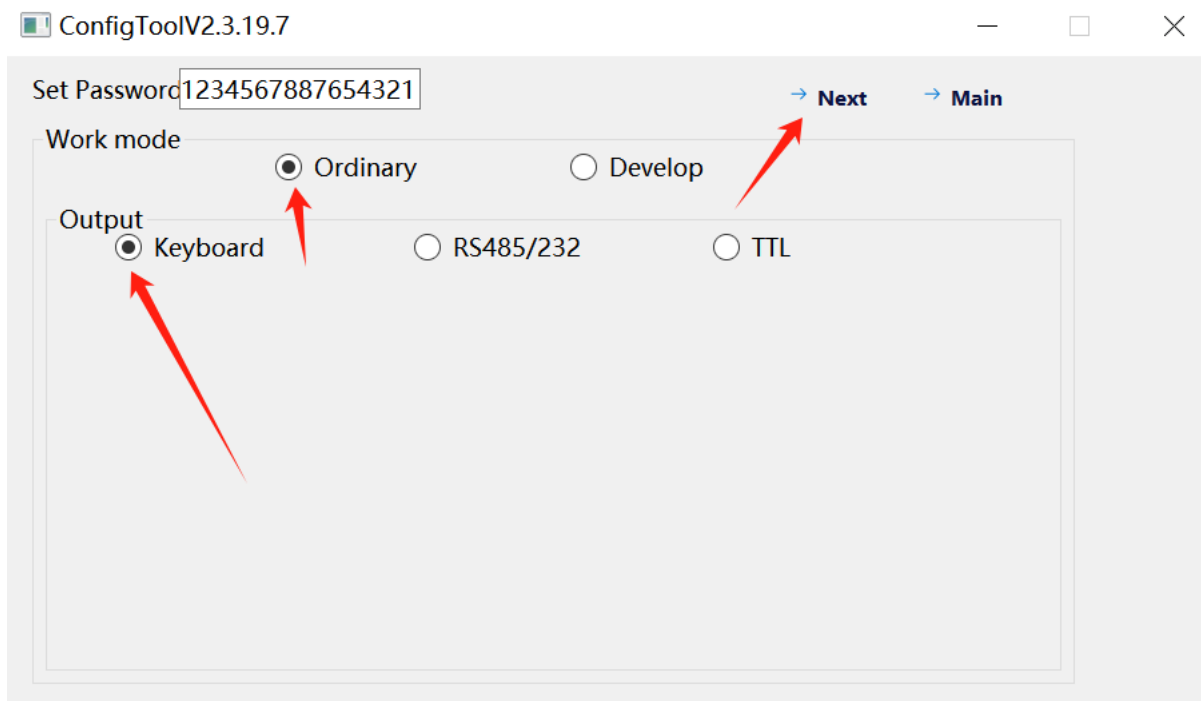
## 5.3. Configuration example

Take USB common mode as an example

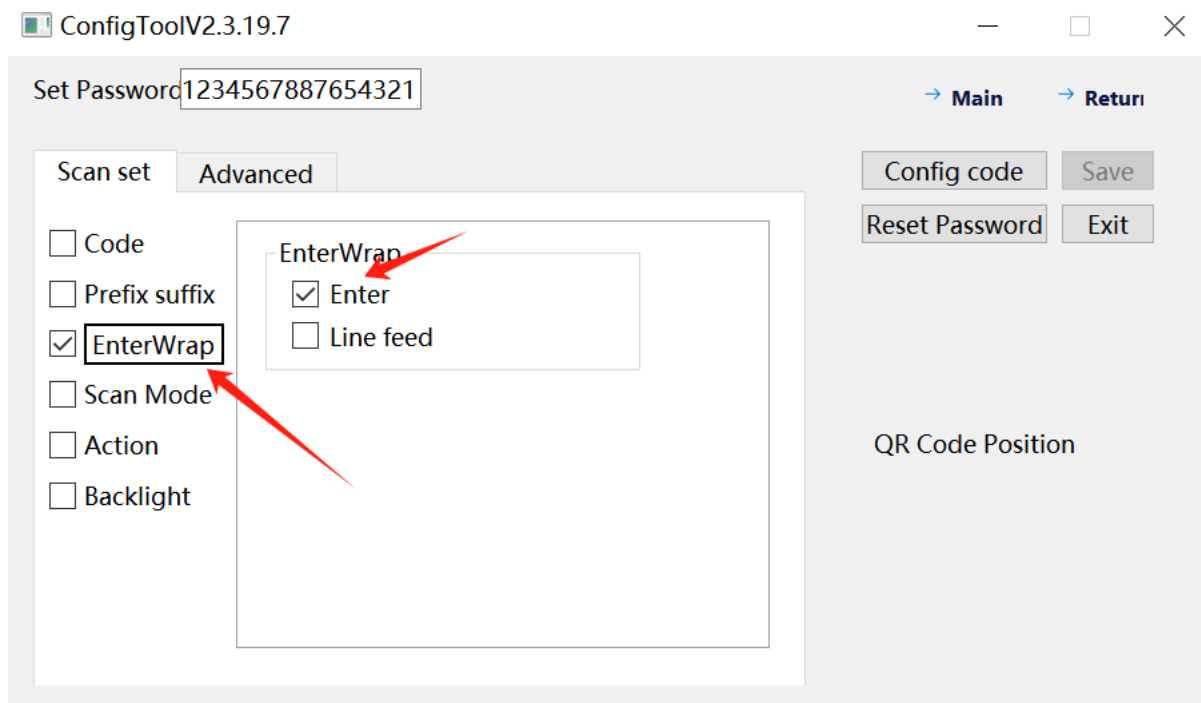
A Double-click to open the configuration tool, select the corresponding device, and click the next page.



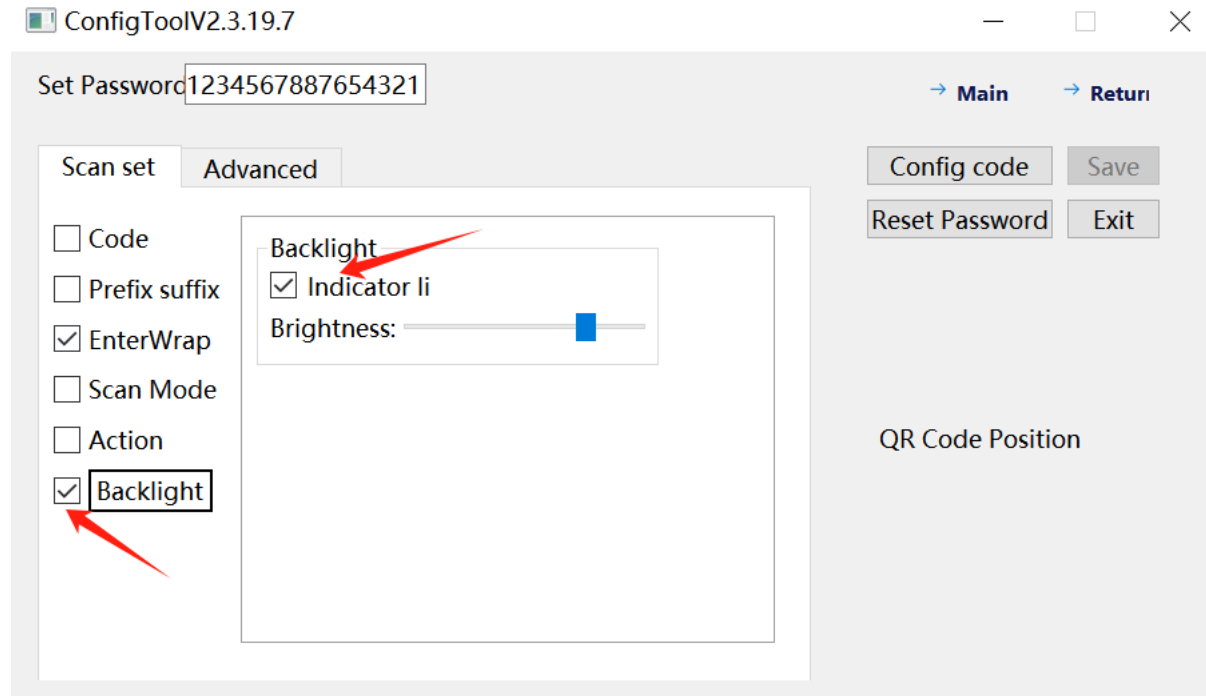
B Working mode Select "Common", output mode select "USB keyboard", click the next page.



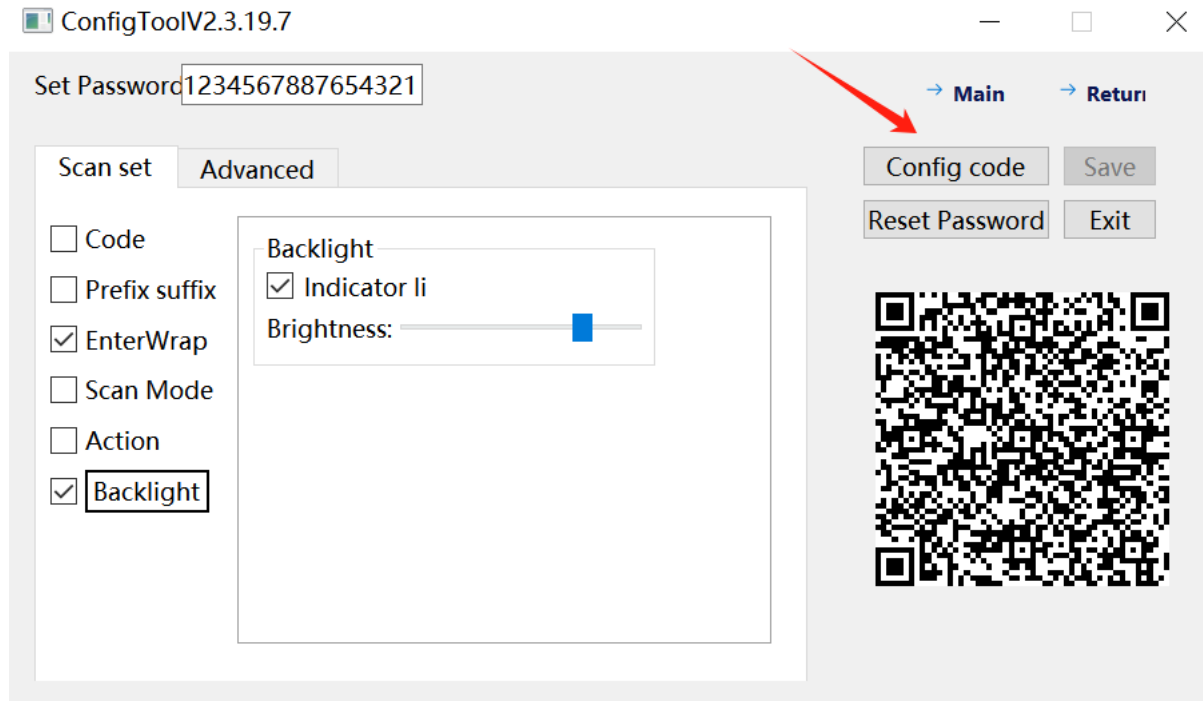
C Select the option to be configured. Add the Carriage return character as an example. Check "Return line feed" and then select the "Return" option.



D Then configure the code scanning behavior, (because the QT600 does not have a buzzer, you need to configure the code scanning flash to observe the code scanning behavior).



E Click Generate configuration code, send the screenshot of the generated configuration code to the mobile phone, and then scan the code scanner. When the scanner scans the configuration code, it indicates that the configuration is successful. After power off and restart, the configuration takes effect.



## 6. Installation and disassembly methods

Tool: M3×3mm Tapping screws and screwdrivers



### Installation

Place the device on the reserved four screw pillars, and secure it with four M3×3mm screws.



## Disassembly

Unscrew the four screws.

## Usage Guidelines

Avoid exposing the device to water in operational conditions and try to refrain from using it in situations involving severe vibration or strong impacts.

## 7. Common problems

- (1) Unable to connect to the configuration tool. When configuring the scanner, use the scanning configuration method, i.e., generate a configuration code using the configuration tool and scan the configuration code for configuration.
- (2) No response when scanning with the device. The QT660 does not have a buzzer. If there is no response when scanning, it is recommended to select "Turn off the white light" as the action after scanning.
- (3) After running the demo in the SDK on the USB version device, click "Connect Device" to connect the device. The scanner needs to be configured in developer mode: "Developer" -> "USB Keyboard" -> "Low-light communication protocol."
- (4) How to develop for serial port devices? For the serial port version of the scanner, control is achieved using a protocol. Listen to the serial port directly through the program, perform serial port data reception, and send commands.

## 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