

Z Series QR Code Scanning Module User Manual

Beijing Microlight Internet Technology Co., Ltd.

June, 2017

Table of Contents

1 Overview.....	2
2 Appearance.....	2
3 Functions.....	2
4 Features.....	3
5 Technical Parameters.....	4
5.1 Size Parameters.....	4
5.2 Reading Parameters.....	4
6 Wiring Instructions.....	5
6.1 USB Output Wiring.....	5
6.2 Serial Port Output Wiring.....	5
7 Drive Installation Method.....	6
8 Parameters Configuration.....	10
9 Common Faults and Troubleshooting Methods.....	11
10 Precautions.....	12
11 Contact Information.....	13

1 Overview

The popularization and application of smart phones and tablets has promoted the development and use of two-dimensional codes. Under the mobile internet business model, people have a wider range of business activities, therefore more timely information need to be exchanged and shared. With the popularity of smart phones and tablets in the 3G/4G mobile network environment, two-dimensional code applications are no longer limited by time and space and hardware devices.

The C100 QR code scanner is the first generation device of our company, The appearance is beautiful, scanning speed is fast, the recognition rate is very high, and various hardware compatibility is good. Various scenarios can be applied.

2 Appearance



Embedded products

3 Functions

The Z series QR code scanner is the first generation that developed by Beijing Microlight Internet Technology Co., Ltd. The equipment adopts the overall design of aluminum alloy, the appearance of high-end atmosphere, scanning speed, high recognition rate, and various Good hardware compatibility, adapt to various application scenarios. Currently widely used in self-service ticket machines, self-service ticket machines, gates, access control, smart buses, smart cities, securities

finance, administrative halls, WeChat and Alipay QR code payment, etc., apply to all industries to improve the efficiency of the application.

The C100 is simple and convenient to operate. It supports two-dimensional codes such as mobile phone two-dimensional code, paper two-dimensional code, metal two-dimensional code, etc., and Alipay two-dimensional code and WeChat two. It is compatible with various mainstream two-dimensional code systems such as dimension codes, and has a wide range of products.

The product supports Windows XP/7/8/10, Android, Linux, Mac and other operating systems. It can provide installation-free embedded modules to facilitate the embedded use of various devices.

4 Features

(1) Strong reading ability

It can recognize the QR code and one-dimensional code on the screen of the mobile phone, support the enhanced engine mode, and can scan and read the code when the screen of the mobile phone is dark.

(2) Paper code reading ability

The main QR codes and various one-dimensional codes printed on the paper can also be read.

(3) High speed reading

Different mobile phone LCD screens generally have different contrast, color, and degree of reflection, which can be read as long as the code system is within the reading window.

(4) Easy to use

Scanners can be configured using configuration tools to achieve optimal operation.

5 Technical parameters

5.1 Size parameters

Parameters	Description	
Appearance size	Boxed device C100-H	97*75*72mm
	Embedded device C100-Q	102*80*63mm

5.2 Reading parameters

Z100 series technical parameters			
Identification code	QR code, DM code, bar code	Interface support	USB or RS232 (DB9 interface), TTL, WIFI, Bluetooth
Depth of field	0mm-100m	Decoding support	All prints such as mobile phones, screens, and paper
Reading accuracy	$\geq 5\text{mil}$	Reading rate	15times/sec
Reading direction	360-degree	Light source performance	LED light source
Image Sensor	300,000-pixel CMOS sensor chip	Figure features	Automatic control, buzzer tips
Power input	5V	Reading speed	100ms (average), supports continuous reading
Working current	220mA(average) 300mA(maximum)	maximum resolution	640*480
Working power	0.75W		
Material	Cover End Cover: Imported PC Body: Imported PC Recognition Window: Tempered Glass		
Application Environment	Temperature range -30~60 degrees, relative humidity 5%~95%		
Operating System	Windows (xp.7.8.10), Linux, Android, Mac, etc.		

6 Wiring instructions

6.1 USB output wiring

If USB output mode is selected, the product will be connected with USB data cable. The usage steps are as follows:

1. First connect the RJ45 plug on the data line with the scanner;
2. Connect the USB port on the other end of the data cable to the PC (or control board).



USB wiring

6.2 Serial port output wiring

If the serial port output mode is selected, the product will be used with the RS232 data cable. The usage steps are as follows:

1. first connect the 6PIN plug on the data line with the scanner;
2. Connect the RS232 interface on the data cable to the PC (or control board).
3. then the data line USB port access 5V power supply, it can be the computer's USB port, it can also be other USB ports that can provide 5V power supply;
4. After the power is turned on, the auxiliary lighting of the product will be turned on. After hearing the “buzz” sound, the scanner will enter the working state.



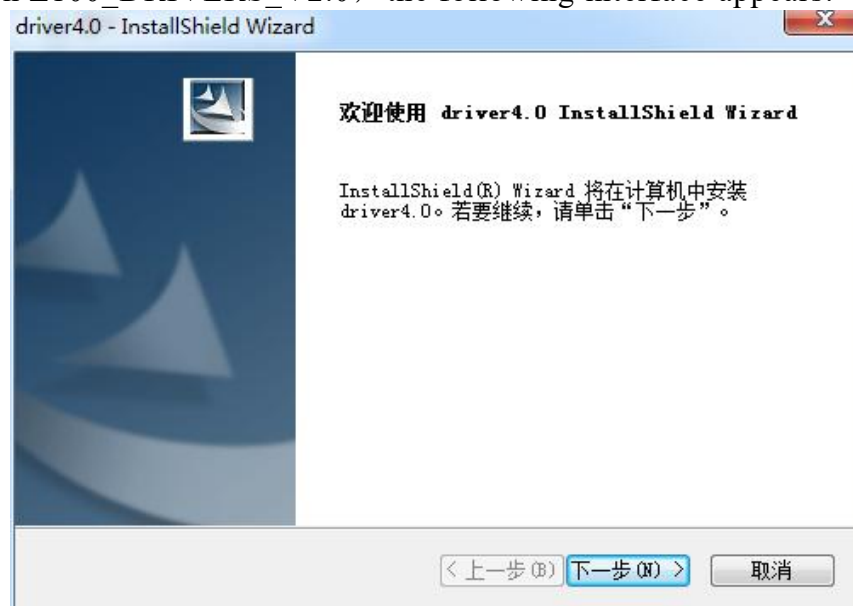
RS232 wiring

7 Drive Installation Method

First download our driver on the official website. After decompression, the content is as follows:

readme	2017/6/13 13:24	文本文档	1 KB
Vguangsetup	2017/6/15 17:34	应用程序	22,036 KB
Z100_DRIVES_v2.0	2017/4/21 9:55	应用程序	2,489 KB

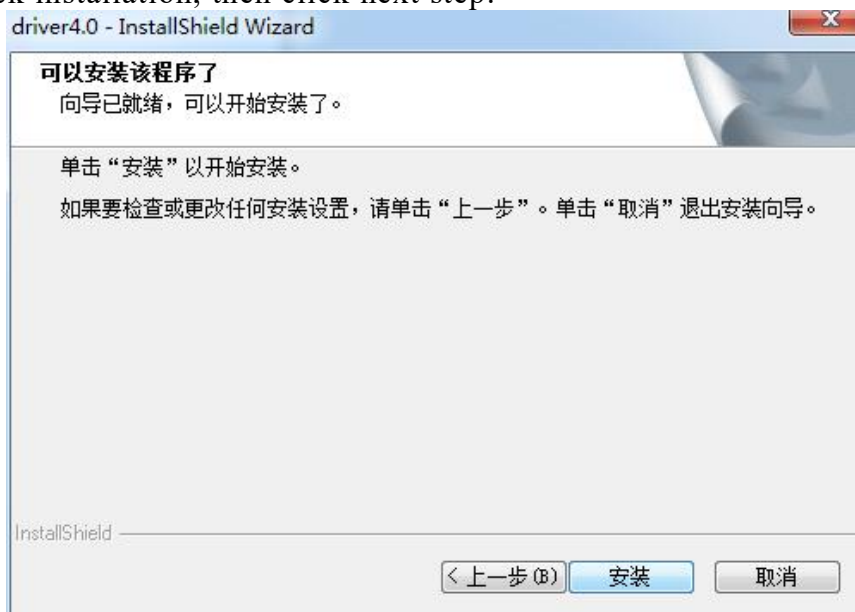
Open Z100_DRIVERS_V2.0, the following interface appears:



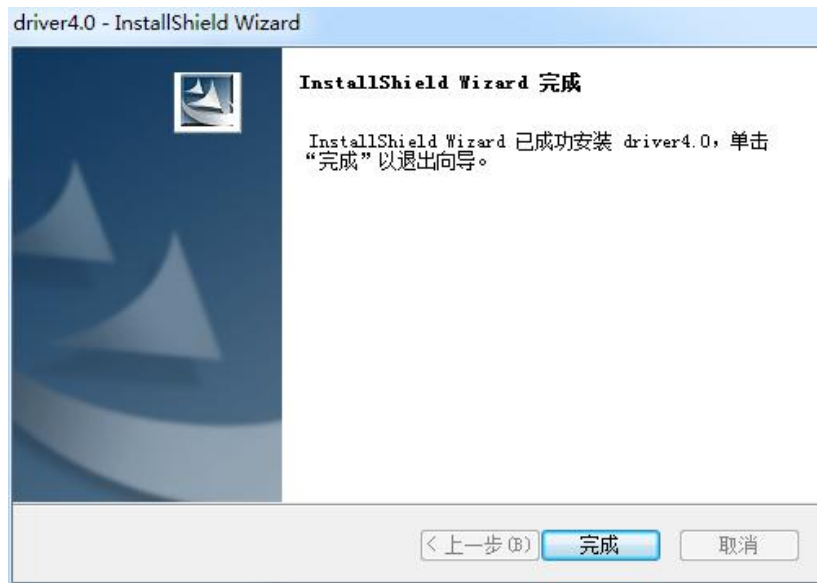
Click Next step:



Click installation, then click next step:



Click Install to start installing the driver. After the installation is complete, the following interface appears. Click Finish to complete the driver installation:



After installing the driver, click vguangsetup to begin the installation of the software solution.





After selecting the installation path, click Next:



Click Next again to start the installation. After the installation is complete, click Finish. After the microlight internet QR code scanner driver is started, the product icon will be displayed in the system tray at the lower right corner of the windows: As shown in the figure, during operation, the yellowish standard must be kept in the running state:



8 Parameters Configuration

After the QR code scanner driver is started, the product icon will be displayed in the system tray in the lower right corner of the window. Right-click on the product icon, the configuration menu appears as shown in the figure:



Click on the main page to open the configuration Page



Basic Settings:

- Backlight: Turn on the backlight after checking, and turn off the backlight after unchecking.

- Buzzer: Check the coder buzzer sounds, the code buzzer has no sound after unchecking.

- Enter: After checking, add a carriage return after adding the data.

Working Mode:

- Normal mode: Continuous output all of scanned codes.
- One-shot mode: scan the same code and only one message output.
- Interval mode: The scanned QR code can only be output one time by the scan code within a certain time interval.

Code system:

According to the use requirements, set the code system to be scanned, including QR code, DM code, barcode, PDF417 code, anti-code, mirror code and so on.

- Prefix: The information in the box will be displayed before each output message;

- Suffix: The information in the box will be displayed after each output of information;

9 Common Faults and Troubleshooting Methods

1. Why can't the QR code be read on the reading window?

The QR code scanner needs to be installed to drive it. Please follow the installation instructions to properly install the driver and then make sure the product is properly connected to the computer. When the product is connected correctly, the two-dimensional code scanner will have a beep sound, the product lighting will open, and the product logo in the bottom right corner of the windows will indicate that the product is connected. At this time, the product can be used correctly.

At the same time, there are many formats for QR codes. At present, the Z-Series QR code scanner supports QR codes, DM codes, and bar codes. Check whether the corresponding code system is checked in the program menu. Only the selected format can be correctly identified.

2. What kind of two-dimensional code can be read by the QR code scanner and if it can read the bar code?

The QR code scanner currently supports two mainstream QR codes: QR codes (common QR codes are QR codes, QR codes on various advertisements, mobile QR codes, and

WeChat 2D Code), DM code (two-dimensional code for automotive, pharmaceutical, and electronics industries, mainly used for product assembly and quality traceability).

Barcode currently supports the code system: EAN-13 (product barcode), CODE39, CODE128 (Express barcode, etc.).

3. Why can't my QR code be read by the scanner?

QR code scanning (recognition) is an image recognition technology. An important part of the QR code is the quiet zone (white edge around the two-dimensional code). The quiet zone has a great influence on the scanner's identification of two-dimensional codes. Please note that you need to add a quiet zone when generating a QR code.

4. Why does the scan QR code have only sound but no content output?

The default output mode of the Z-series QR code scanner is cursor output. That is, the two-dimensional code recognition is successful. The content will be output at the position where the windows cursor is located. For example, if the word is opened, the QR code scanner will be at the cursor of the word. Position output content, the format of the output content is consistent with the format of the cursor position. Similarly, if the cursor stays on the input box of the browser or webpage, it will also be output at the corresponding position.

10 Precautions

Disassembly and installation

- Dismantling and modification: Please do not disassemble or modify the hardware of the equipment. If the equipment is damaged, the company will not be responsible for the warranty.
- Abnormal condition: Keep away from fire, if you find unusual odor, overheat or smoke, please immediately turn off the power switch, and unplug the plug from the AC outlet, and contact the dealer who purchased the product or our company customer service. Contact center.
- Drop damage: If the device is damaged due to falling on the ground, turn off the power immediately and contact the dealer you purchased the product or our customer service center.
- Location: Please do not place the device in an unstable or uneven place to avoid

damage due to falling of the device; do not place the device in a place where there is a lot of moisture or dust so as to avoid electric leakage or fire.

Use caution

- Please keep the glass lens of the lighting mouth clean. When wiping, please use soft cotton or lens paper to wipe it. Do not use detergent or dissolving liquid to scrub the window glass.
- Do not touch the window glass with abrasive substances, as this will cause the window glass to wear and affect the reading effect.

11 Contact Information

Company Name: Beijing Microlight Internet Technology Co., Ltd.

Company Address: Room 4509~4522, China

Meteorological Science and Technology Park, No.2,

Zhenxing Road, Changping District, Beijing

After-sales service: 010-56215600

Business Contact: South China+ Hong Kong, Macau, Taiwan+ Overseas Area:
18910502626

East China + Central China + Southwest China: 18911587949

North China + Northeast China+ Northwest China: 13301399166