# ATOM QR-CODE Kit

#### SKU:K041



## Description

**ATOM QR-CODE** is an M5Atom compatible module for reading Barcode/QR-codes. The product includes two parts: an M5Atom Lite unit and code scanning module. It supports 6 kinds of 2D codes and 19 kinds of 1D codes. It has built-in lighting LED, which can easily identify codes even in a dark environment. The green LED is convenient for focusing and aiming. The effective recognition accuracy of high-resolution CMOS imaging reaches 5mil. In addition, it has a variety of reading modes, which can be adjusted to automatic continuous trigger or manual trigger as required. The module has its own buzzer, which has different prompt sound effects in different states. The module also supports adding custom prefix/suffix to the data, defining multi-national keyboard, data editing and many other functions, it uses TTL-232 for communication, and can easily use serial port for data transmission. It can be easily used in Arduino or UIFlow programming, You can send the scanned data to the receiver for processing via wired or wireless connection through M5Atom Lite.

### Product Features

- Compatible with Atom Matrix/Atom Lite
- Built in lighting and focus LED
- Support Bluetooth and WiFi Based on esp32
- Support Arduino、 Micropython、 UIFlow
- UART/TTL communication
- Manual and automatic scanning mode
- Light and sound reminders
- Multiple output formats
- Data can be pre-edited and hidden
- Rich custom instructions
- Support RAW / GBK / Unicode
- 2D: QR Code, Mrico QR, Data Matrix, PDF417, Mrico PDF417, Aztec
- 1D: EAN,UPC,Code 39,Code 93,Code 128,UCC/EAN 128, Codabar,Interleaved 2 of 5, ITF-6,ITF-14,ISBN,ISSN, MSI-Plessey,GS1 Databar,Code 11,Industrial 25,Standard 25,Plessey, Matrix 2 of 5

### Inclued

- 1x ATOM QR-CODE
- 1x M5Atom Lite
- 1x Hex Key
- 1x M2\*8 Hexagon socket cup head machine screw
- 1x TYPE-C USB Cable (20cm)

### Application

- Cash register scanning
- Barcode/QR-code input device
- Warehouse inventory

## Specification

| Specific Specific ation | Parameter Parameter  |  |  |  |  |
|-------------------------|--|--|--|--|--|
| Sensor                  | 640x480 CMOS   |  |  |  |  |
| Illumina                | White LED  |  |  |  |  |
| tion                    |  |  |  |  |  |
| Focus                   | GreenLED   |  |  |  |  |
| Read                    |  |  |  |  |  |
| QR code                 | QR Code, Micro QR, Data Matrix, PDF417, Micro PDF417, Aztec              |  |  |  |  |
| type                    |  |  |  |  |  |
| Read                    | EAN,UPC,Code 39,Code 93,Code 128,UCC/EAN 128,                            |  |  |  |  |
| Barcode                 | Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, ISSN, MSI-Plessey, GS1 |  |  |  |  |
| type                    | Databar, Code 11, Industrial 25, Standard 25, Plessey, Matrix 2 of 5     |  |  |  |  |
| Recogni                 |  |  |  |  |  |
| tion                    | ≥5mil  |  |  |  |  |
| reading                 | 231111   |  |  |  |  |
| accuracy                |  |  |  |  |  |
| Reading                 | EAN-13: 50-200mm(13mil), Code39: 40-90mm(5mil 10bytes), QR               |  |  |  |  |
| range                   | Code: 25-240mm(20mil 16bytes), Data Matrix: 50-90mm(10mil                |  |  |  |  |
| 141190                  | 20bytes), PDF 417: 30-130mm(6.67mil 7bytes)                              |  |  |  |  |
| Contrast                | ≥25%   |  |  |  |  |
| ratio                   |  |  |  |  |  |

| Scannin g angle | Rotate 360°, Pitch ±55°, Yaw ±55° |  |  |  |  |
|-----------------|-----------------------------------|--|--|--|--|
| FOV             | Horizontal 34°, Vertical 28°      |  |  |  |  |
| Commu           |                                   |  |  |  |  |
| nication        | UART/TTL                          |  |  |  |  |
| interfac        |                                   |  |  |  |  |
| e               |                                   |  |  |  |  |
| Voltage         |                                   |  |  |  |  |
| and             | DC 3.3V/170mA,Standby 10mA        |  |  |  |  |
| Current         |                                   |  |  |  |  |
| Net             | 17g                               |  |  |  |  |
| weight          | 179                               |  |  |  |  |
| Gross           | 37g                               |  |  |  |  |
| weight          |                                   |  |  |  |  |
| Product         | 48*24*18mm                        |  |  |  |  |
| size            |                                   |  |  |  |  |
| Package         | 55*55*20mm                        |  |  |  |  |
| size            |                                   |  |  |  |  |
| Case            | Plastic ( PC )                    |  |  |  |  |
| material        |                                   |  |  |  |  |

# USAGE

program. You need to burn the following example program for use. If you need to change the configuration, please refer to the user manual to scan the QR code for configuration.

If you restore the factory settings, please scan to confirm that you are in TTL communication mode, and the baud rate setting is correct. The reading of some 1D code

or 2D code needs to be enabled by scanning qr-code of user manual to configure.

# EasyLoader

EasyLoader is a concise and fast program writer, which has a built-in case program related to the product. It can be burned to the main control by simple steps to perform a series of function verification.

Download Windows Version Easyloader Easyloader

Download MacOS Version

#### Description:

Press the button to scan, and the scanning results will be displayed through the serial port

### PinMap

| M5Atom         | GPIO23 | GPIO33 | 3.3V | GND |
|----------------|--------|--------|------|-----|
| QR-CODE READER | TRIG   | DLED   | 3.3V | GND |

### Scan value - Character

| Scan Value Key Value Scan Value Key Value Scan | alue Key Value |
|--|----------------|
|--|----------------|

| 1000 | Null           | 1043 | + | 1086 | V |
|------|----------------|------|---|------|---|
| 1001 | Keypad Enter   | 1044 | , | 1087 | W |
| 1002 | Caps lock      | 1045 | - | 1088 | Х |
| 1003 | Right Arrow    | 1046 |   | 1089 | Υ |
| 1004 | Up Arrow       | 1047 | 1 | 1090 | Z |
| 1005 | Null           | 1048 | 0 | 1091 | ] |
| 1006 | Null           | 1049 | 1 | 1092 | 1 |
| 1007 | Enter          | 1050 | 2 | 1093 | ] |
| 1008 | Left Arrow     | 1051 | 3 | 1094 | ۸ |
| 1009 | Horizontal Tab | 1052 | 4 | 1095 | _ |
| 1010 | Down Arrow     | 1053 | 5 | 1096 | £ |
| 1011 | Vertical Tab   | 1054 | 6 | 1097 | а |
| 1012 | Delete         | 1055 | 7 | 1098 | b |
| 1013 | Enter          | 1056 | 8 | 1099 | С |
| 1014 | Insert         | 1057 | 9 | 1100 | d |
| 1015 | Esc            | 1058 | : | 1101 | е |
| 1016 | F11            | 1059 | ; | 1102 | f |
| 1017 | Home           | 1060 | < | 1103 | g |
| 1018 | Print Screen   | 1061 | = | 1104 | h |
| 1019 | Backspace      | 1062 | > | 1105 | i |
| 1020 | tab+shift      | 1063 | ? | 1106 | j |
| 1021 | F12            | 1064 | @ | 1107 | k |
| 1022 | F1             | 1065 | Α | 1108 | _ |
| 1023 | F2             | 1066 | В | 1109 | E |
| 1024 | F3             | 1067 | С | 1110 | n |
| 1025 | F4             | 1068 | D | 1111 | 0 |
| 1026 | F5             | 1069 | E | 1112 | р |
| 1027 | F6             | 1070 | F | 1113 | q |
| 1028 | F7             | 1071 | G | 1114 | r |
| 1029 | F8             | 1072 | Н | 1115 | s |
| 1030 | F9             | 1073 | 1 | 1116 | t |
| 1031 | F10            | 1074 | J | 1117 | u |
| 1032 | Space          | 1075 | K | 1118 | V |
| 1033 | !              | 1076 | L | 1119 | W |
| 1034 | и              | 1077 | М | 1120 | х |
| 1035 | #              | 1078 | N | 1121 | у |
| 1036 | \$             | 1079 | 0 | 1122 | Z |
| 1037 | %              | 1080 | Р | 1123 | { |
| 1038 | &              | 1081 | Q | 1124 | I |
| 1039 |                | 1082 | R | 1125 | } |
| 1040 | (              | 1083 | S | 1126 | ~ |
| 1041 | )              | 1084 | Т |      |   |
| 1042 | *              | 1085 | U |      |   |

## Learn



#### Wireless Barcode Scanner

M5StickV and M5StickC with HID Bluetooth Wireless or Atomic QR-Code reader

# Example

#### Arduino

#### UIFlow

Click here to download the UIFlow example

```
Init pin0 → Pin 23 mode OUT → Pull PULL_UP →
Init pin1 → Pin 33 mode IN → Pull PULL_DOWN →
set pin0 → HIGH

Loop

if A → is pressed →
do set pin0 → LOW
else set pin0 → HIGH

if Get pin1 → Value = ✓ I →
do if uart1 → remain cache
do print decode uart1 → read all
```

### Related Link

User manual of QR code command

Video