

# 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, Mico QR, Data Matrix, PDF417, Mico 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

## Included

- 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

Specification	Parameter
Sensor	640x480 CMOS
Illumination	White LED
Focus	GreenLED
Read QR code type	QR Code, Micro QR, Data Matrix, PDF417, Micro PDF417, Aztec
Read Barcode type	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
Recognition reading accuracy	≥5mil
Reading range	EAN-13: 50-200mm(13mil), Code39: 40-90mm(5mil 10bytes), QR Code: 25-240mm(20mil 16bytes), Data Matrix: 50-90mm(10mil 20bytes), PDF 417: 30-130mm(6.67mil 7bytes)
Contrast ratio	≥25%
Scanning angle	Rotate 360°, Pitch ±55°, Yaw ±55°
FOV	Horizontal 34°, Vertical 28°
Communication interface	UART/TTL
Voltage and Current	DC 3.3V/170mA, Standby 10mA
Net weight	17g
Gross weight	37g
Product size	48*24*18mm
Package size	55*55*20mm

Specification	Parameter
Case material	Plastic ( PC )

## USAGE

The scan module has been configured at the factory. M5Atom Lite has no pre-burn preset 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](#)

[Download MacOS Version Easyloader](#)

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**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 Value	Key Value
1000	Null	1043	+	1086	V
1001	Keypad Enter	1044	,	1087	W
1002	Caps lock	1045	-	1088	X
1003	Right Arrow	1046	.	1089	Y
1004	Up Arrow	1047	/	1090	Z
1005	Null	1048	0	1091	[
1006	Null	1049	1	1092	\
1007	Enter	1050	2	1093	]
1008	Left Arrow	1051	3	1094	^
1009	Horizontal Tab	1052	4	1095	_
1010	Down Arrow	1053	5	1096	'
1011	Vertical Tab	1054	6	1097	a
1012	Delete	1055	7	1098	b
1013	Enter	1056	8	1099	c
1014	Insert	1057	9	1100	d
1015	Esc	1058	:	1101	e
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	A	1108	l
1023	F2	1066	B	1109	m
1024	F3	1067	C	1110	n
1025	F4	1068	D	1111	o
1026	F5	1069	E	1112	p
1027	F6	1070	F	1113	q
1028	F7	1071	G	1114	r

1029	F8	1072	H	1115	s
1030	F9	1073	I	1116	t
1031	F10	1074	J	1117	u
1032	Space	1075	K	1118	v
1033	!	1076	L	1119	w
1034	"	1077	M	1120	x
1035	#	1078	N	1121	y
1036	\$	1079	O	1122	z
1037	%	1080	P	1123	{
1038	&	1081	Q	1124	
1039	'	1082	R	1125	}
1040	(	1083	S	1126	~
1041	)	1084	T		
1042	*	1085	U		

## Learn

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### Wireless Barcode Scanner

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

## Example

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### Arduino

- [Click here to download the Arduino example](#) to download Arduino example

### UIFlow

- [Click here to download the UIFlow example](#)

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Setup
uart1 set tx 19 rx 22 baud 9600 use uart 1
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 == 真
do if uart1 remain cache
do print decode uart1 read all

```

## Related Link

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- [User manual of QR code command](#)

## Video

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