

Module13.2 QRCode

SKU:M145





Description

Module13.2 QRCode is a 1D/2D barcode scanning module from the M5Stack stacking module series. It integrates a CMOS barcode capture engine with a resolution of 640 x 480, supporting 3 mainstream 2D code types and 14 1D code types on the market, enabling fast and accurate recognition of barcodes printed on media such as paper and labels. A toggle switch allows switching between USB and UART communication interfaces for the QR module to communicate with external devices. The USB interface can be configured in three modes: USB virtual serial port, USB HID keyboard, and USB HID-POS. The module features a built-in buzzer for audio prompts, illumination and aiming LEDs, provides rich secondary development interfaces, and supports multiple scanning trigger modes (e.g., auto mode, continuous mode, motion sensing mode, pulse mode) for customized functionality and integrated development. It integrates a DC power input interface supporting DC 9 ~ 24V. Through the internal DC-DC step-down circuit it powers the entire device, making it suitable for logistics and warehousing, retail checkout, ticketing systems, production traceability, medical information collection, self-service terminals, and many other scenarios.

Features

- Supports 3 types of 2D codes and 14 types of 1D codes
- Built-in USB and UART interface switching switch
- Built-in buzzer sound prompt
- Built-in illumination LED
- High-resolution imaging
- Focusing and aiming function
- Multiple scanning trigger modes, such as auto and continuous modes
- DC power supply interface, wide voltage input: DC 9 ~ 24V

- Development Platform:
 - Arduino
 - UiFlow2

| Includes

- 1 x Module13.2 QRCode

| Applications

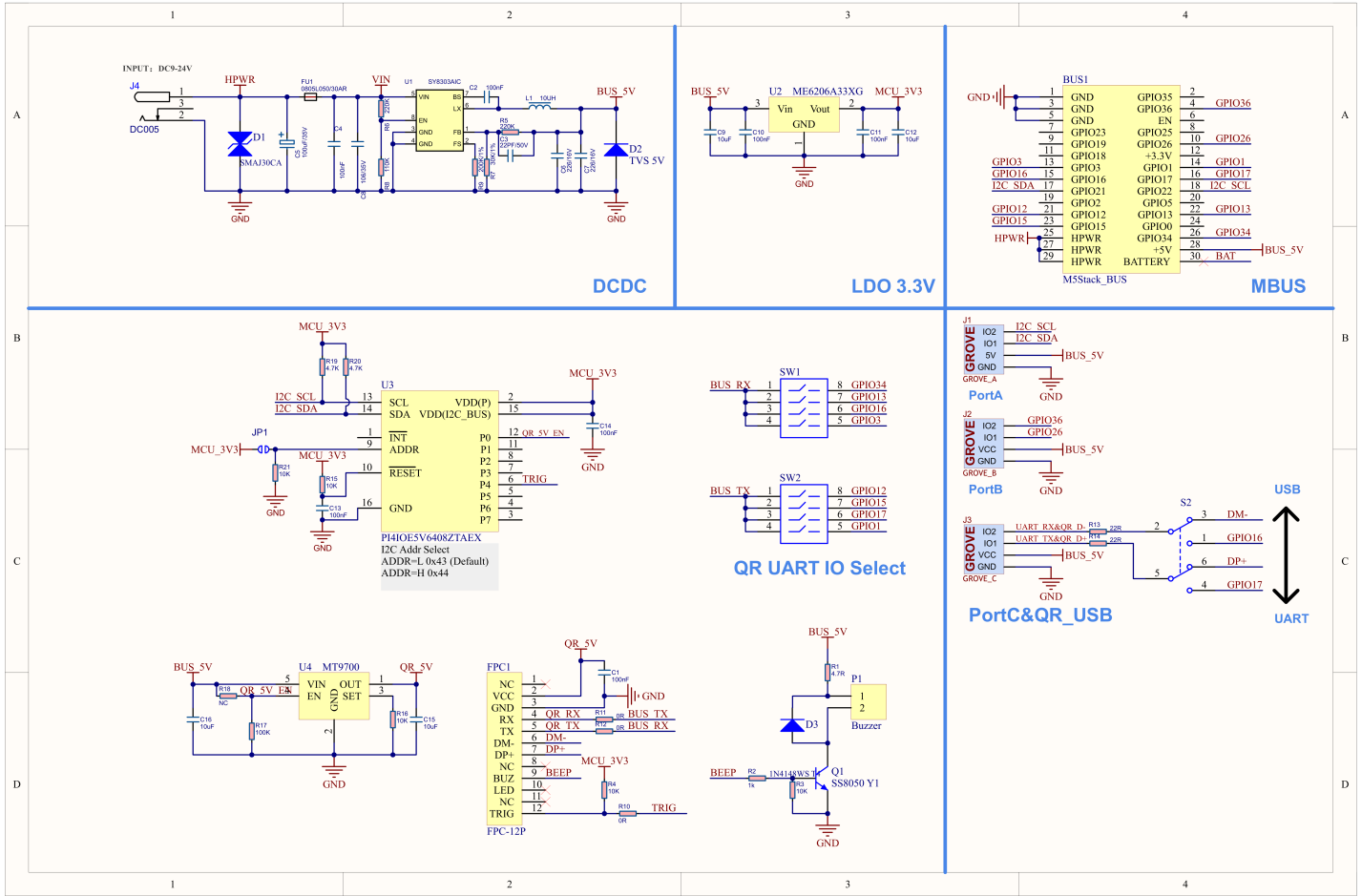
- Logistics and warehousing
- Retail checkout
- Ticketing systems
- Production traceability
- Medical information collection
- Self-service terminals

| Specifications

Specification	Parameter
IO Expansion Chip	PI4IOE5V6408 I2C@0x43 (default)/0x44
Sensor	640 x 480 CMOS
Illumination	White LED
Aiming	Red LED
Supported 2D Codes	PDF417, QR Code, Data Matrix
Supported 1D Codes	Code11, Code39, Code93, Code128, EAN-13, EAN-8, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5, MSI, GS1 Databar
Depth of Field	50 ~ 160 mm
Reading Accuracy	≥ 5 mil
Print Contrast	≥ 20 %
Scan Angle	Pitch ±55°, Skew ±55°
Communication Interface	USB or UART communication; the USB interface can be connected to a PC via a Grove to USB-C accessory
Expansion Interface	3 Grove ports: PORT.A, PORT.B, PORT.C
DC Power Input Interface	Input voltage: DC 9 ~ 24V, spec: 5.5 x 2.1 mm, polarity: center positive, outer negative
Operating Current (with Core2)	DC 5V module off 5.04V@74.42 mA, on 5.09V@255.84 mA DC 9V module off 9.09V@98.93 mA, on 9.10V@153.44 mA DC 12V module off 10.49V@79.96 mA, on 10.38V@124.54 mA
Product Size	54.0 x 54.0 x 19.7 mm
Product Weight	22.9 g
Package Size	138.0 x 93.5 x 22.5 mm
Gross Weight	38.8 g

Schematics

- [Module13.2 QRCode Schematics PDF](#)



PinMap

IO Expansion Chip

PI4IOE5V6408	P0	P4
QR Module	QR_5V_EN	TRIG

M5-Bus

Switch

Pins marked **SW** in the M5-Bus below can be switched via DIP switches to adapt to different host devices; switching to **NC** disconnects that pin.

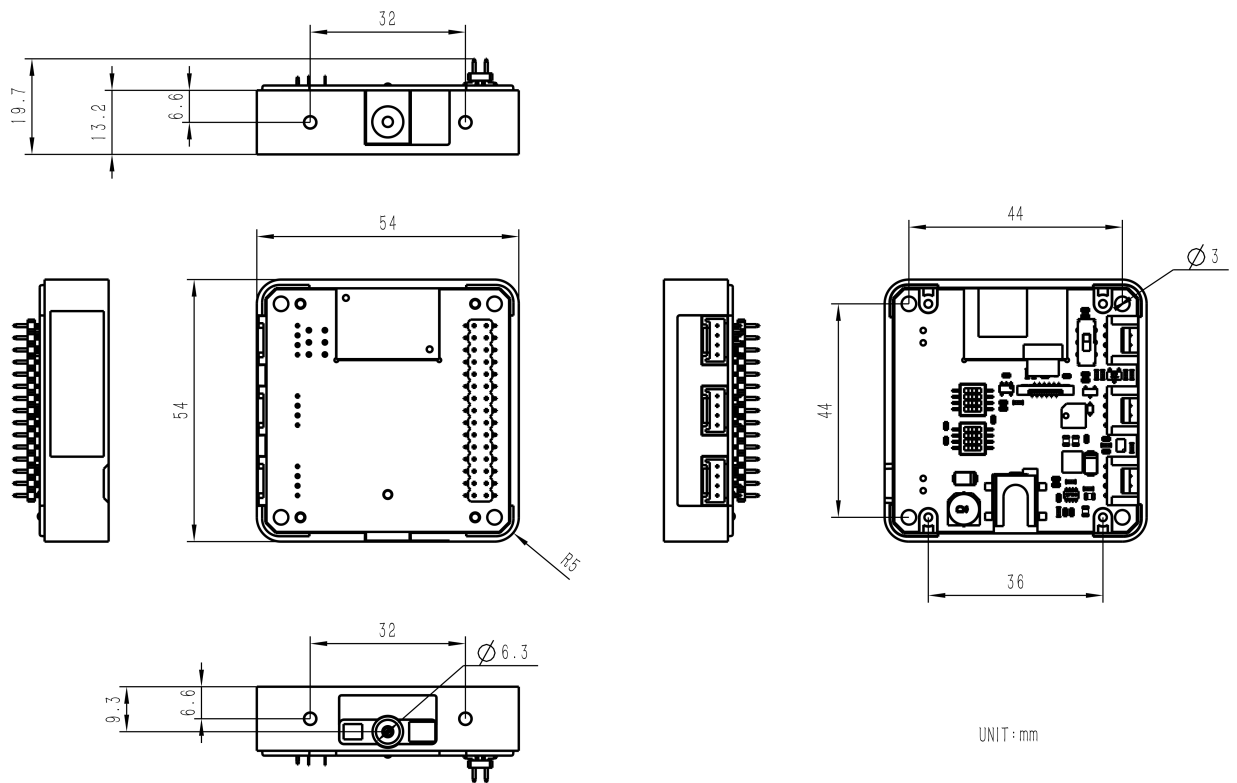
PIN	LEFT	RIGHT	PIN
GND	1	2	
GND	3	4	PORT.B
GND	5	6	
	7	8	
	9	10	PORT.B
	11	12	
QR_TX / NC (SW)	13	14	QR_RX / NC (SW)
QR_TX / PORT.C_UART_RX (SW)	15	16	QR_RX / PORT.C_UART_TX (SW)
I2C_SDA	17	18	I2C_SCL
	19	20	
QR_RX / NC (SW)	21	22	QR_TX / NC (SW)
QR_RX / NC (SW)	23	24	
HPWR	25	26	QR_TX / NC (SW)
HPWR	27	28	5V
HPWR	29	30	

HY2.0-4P

HY2.0-4P	Black	Red	Yellow	White
PORT.A	GND	5V	I2C_SDA	I2C_SCL
PORT.B	GND	5V	OUT	IN
PORT.C	GND	5V	UART_TX/QR_USB_DP+ (SW)	UART_RX/QR_USB_DM- (SW)

Model Size

- Module13.2 QRCode Model Size PDF



Datasheets

- [QRCode Module Datasheet](#)

Softwares

Arduino

- [Module13.2 QRCode Arduino Quick Start](#)
- [Module13.2 QRCode Arduino Test Program](#)

UiFlow2

- [Module13.2 QRCode UiFlow2 Docs](#)

Protocol

- [Module13.2 QRCode Control Commands](#)
- [Module13.2 QRCode Scanner User Manual](#)
- [USB HID-POS Upper Computer](#)

Configuration Tool

- [CodeBarConfigTool-5.8.5](#)

| Video

- Module13.2 QRCode product introduction and demo

[M145_Module13.2_QRCode_video.mp4](#)