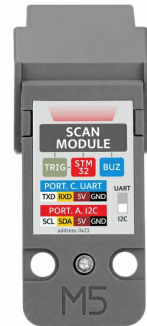


Unit QRCode

SKU:U173



Description

Unit QRCode is an all-in-one 1D / 2D code scanning unit, integrating a 640x480 resolution CMOS QR code capture engine and a bus conversion MCU (STM32F030). By toggling the side switch on the device, users can switch between I2C and UART communication interfaces. The capture engine supports 3 mainstream types of QR codes and 14 types of 1D codes on the market, and reserves an interface

for firmware upgrading. The unit features a scan trigger button, built-in buzzer and fill-light LED, providing audio prompts in different states. A red LED is used for auxiliary focusing and aiming. Through program settings, it can be configured for automatic continuous triggering or manual triggering mode. Suitable for logistics, retail, manufacturing, and other fields.

Features

- STM32F030F4P6@32-bit ARM Cortex-M0 processor
- Supports 3 types of QR codes and 14 types of 1D codes
- Upgradable firmware
- Built-in I2C and UART communication interface switch
- Built-in buzzer for audio prompts
- Built-in LED illumination
- High-resolution imaging
- Focusing and aiming function

Includes

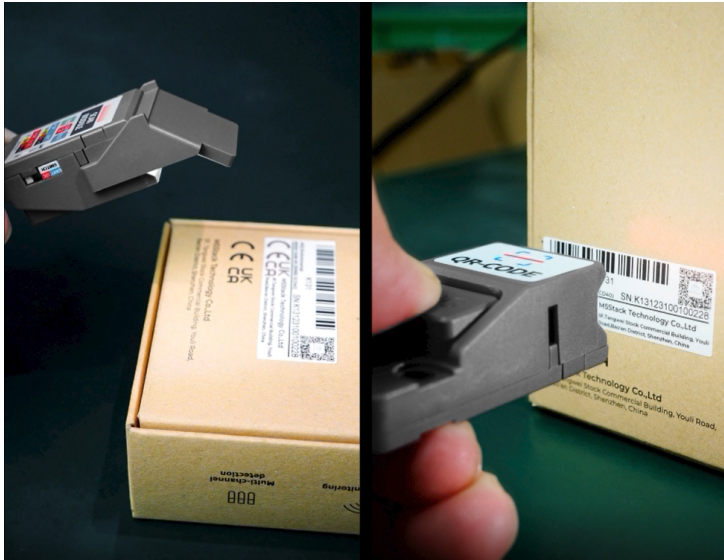
- 1 x Unit QRCode
- 1 x HY2.0-4P Grove Cable (20cm)

Applications

- Logistics
- Retail
- Manufacturing

Specifications

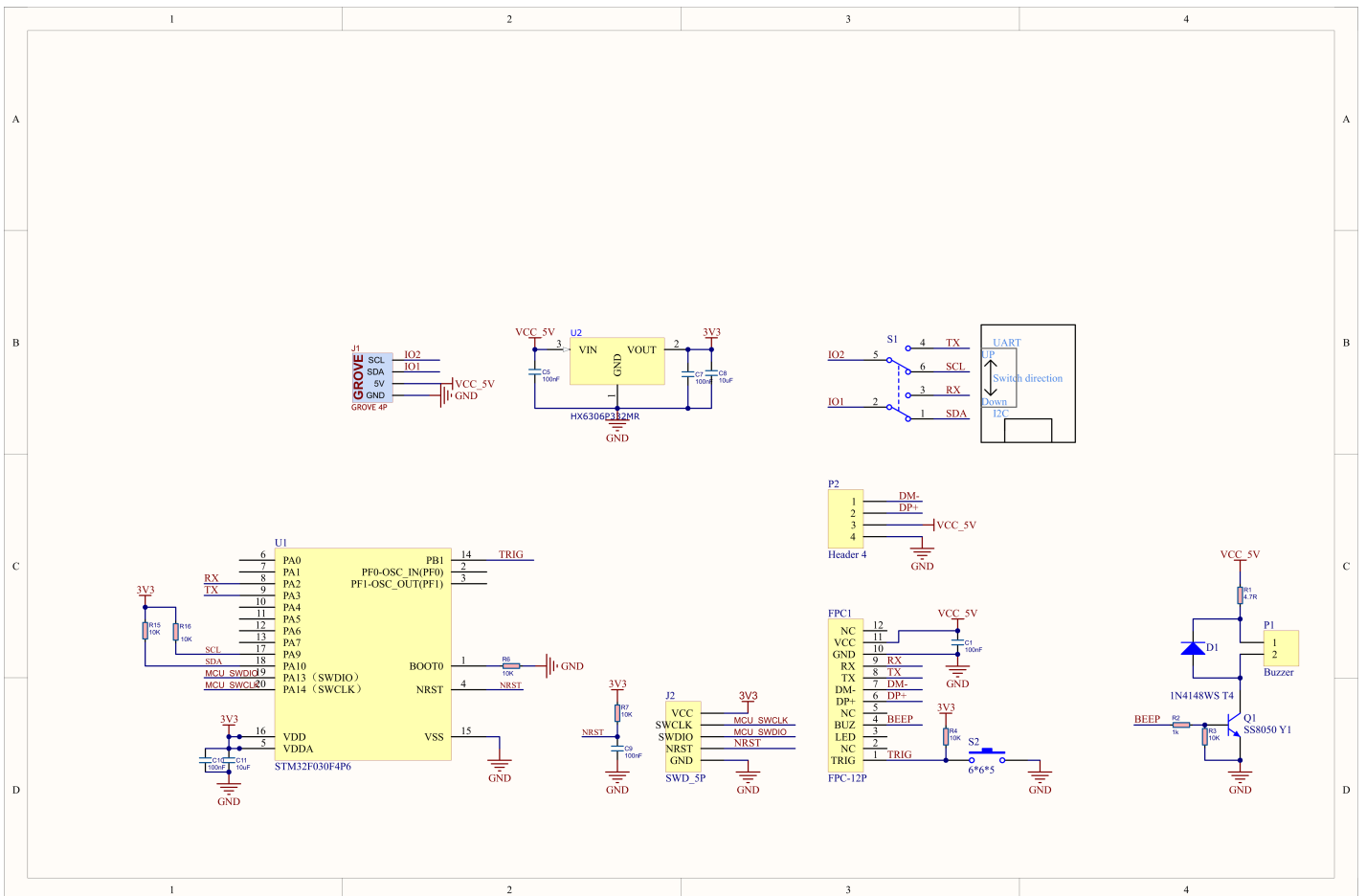
Specification	Parameter
MCU	STM32F030F4P6@32-bit ARM Cortex-M0 processor
Sensor	640x480 CMOS@M14 module
Illumination	White LED
Focus & Aim	Red LED
QR Code Types	PDF417, QR Code, Data Matrix
1D Code Types	Code11, Code39, Code93, Code128, EAN-13, EAN-8, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5, MSI, GS1
Decode Resolution	≥5mil
Print Contrast	≥ 20%
Scan Angle	Pitch ±55°, Skew ±55° (with refraction lens attached, the scan angle can be changed)
Communication Interface	I2C Communication @0x21
Shell Material	Plastic (PC)
Product Size	65.8 x 27.2 x 18.4mm
Product Weight	14.0g
Package Size	138.0 x 93.0 x 19.4mm
Gross Weight	19.4g



Installing the refraction scan head can change the scan angle, as shown above.

Schematics

- Unit QRCode Schematics PDF



PinMap

Unit QRCode I2C Mode

HY2.0-4P	Black	Red	Yellow	White
PORT.A	GND	5V	SDA	SCL

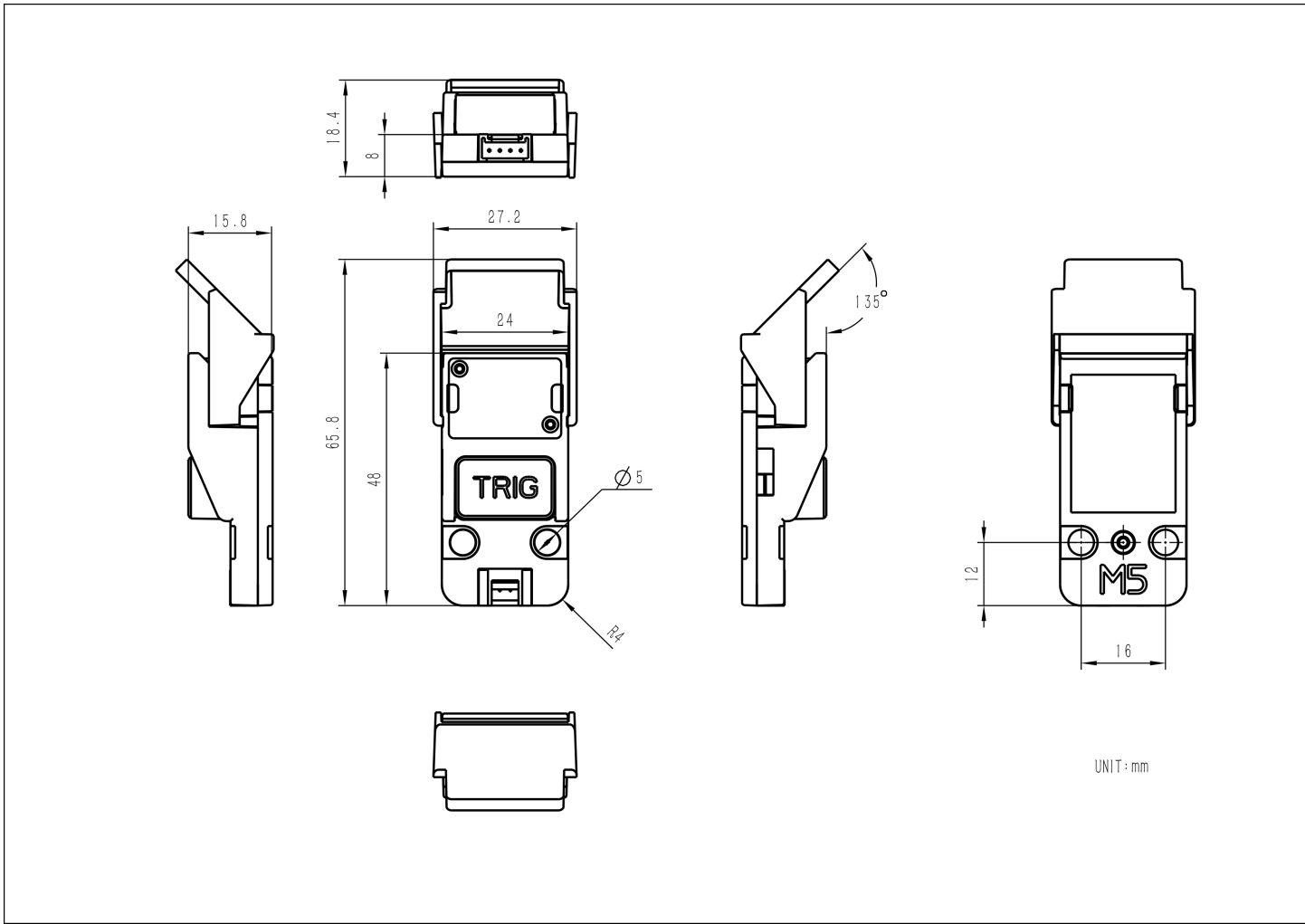
Unit QRCode UART Mode

HY2.0-4P	Black	Red	Yellow	White
PORT.C	GND	5V	UART_RX	UART_TX

STM32 Trig Button

STM32	PB1
BUTTON	TRIG

Model Size



Structure

◦ [Unit QRCode Structure Files](#)

| Datasheets

- [QRCode Module Datasheet](#)

| Softwares

Arduino

- [Unit QRCode I2C Mode Test Program](#)
- [Unit QRCode UART Mode Test Program](#)

UiFlow1

- [Unit QRCode UiFlow1 Docs](#)

UiFlow2

- [Unit QRCode UiFlow2 Docs](#)

Internal Firmware

- [Unit QRCode Internal Firmware](#)

Protocol

- [Unit QRCode Control Instruction](#)
- [Unit QRCode Reading Module User Guide](#)
- [Unit QRCode I2C Protocol](#)

M5Stack Unit QRCode I2C Protocol																		V3 (FW Version)	
																		2024/1/2	
REG MAP (Addr:0x21)		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	note	
QRCode Trigger (Only effective in manual trigger mode)	0x0000 W	Trigger																Trigger: 0: Stop continuously decode 1: Start continuously decode	
QRCode Data Status	0x0010 R/W	Status																Status(reset after read qrcode data or write 0): 0: not ready 1: data good 2: need to read again	
QRCode Length	0x0020 R	Length-L	Length-H															QRCode Length: Length = (Length-L + Length-H * 256)	
Trigger Mode	0x0030 W/R	Trigger Mode																Trigger Mode: 0: Auto Trigger Mode(default) 1: Manual Trigger Mode	
Trig Button Status	0x0040 R	Trig Button Status																Trig Button Status: 0: press; 1: not press	
Firmware Version	0x00F0 R															Version		Version: firmware version number	
I2C Address	0x00F0 W/R															Address	Address: I2C Address		
QRCode Data	0x1000 R	0x1000-0x11FF																	

Video

- Unit QRCode Function Introduction

U173 Unit-QRCode 视频.mp4

- UiFlow2 Unit QRCode