

Unit Finger

SKU:U008



Description

Unit Finger is a fingerprint recognition sensor. It integrates the FPC1020A capacitive fingerprint recognition module, featuring multi-fingerprint entry, image processing, feature extraction, fingerprint comparison, and search functions.

It uses the UART communication protocol, has a compact design, and low power consumption, providing reliable security levels for projects while offering optimal user convenience. If you want to add biometric fingerprint recognition to your project with stable and reliable addition, verification, and management mechanisms, **Unit Finger** is a great solution.

When using, please connect this Unit to PORT C, it will communicate with M5Core via the UART protocol

UART parameter settings:

- Baud rate (**default: 19200bps**)
- Start bit (1 bit)
- Stop bit (1 bit)
- Parity bit (none)

Features

- Uses a capacitive area-type semiconductor fingerprint sensor
- Each sensor pixel has 256 levels of grayscale pixel quality
- 1:N recognition and 1:1 verification functions
- Supports 360-degree fingerprint rotation recognition
- Fingerprint comparison and search functions

Includes

- 1 x Unit Finger
- 1 x HY2.0-4P Grove connection cable (20cm)

Applications

- Fingerprint attendance machines
- Fingerprint lockers

Specifications

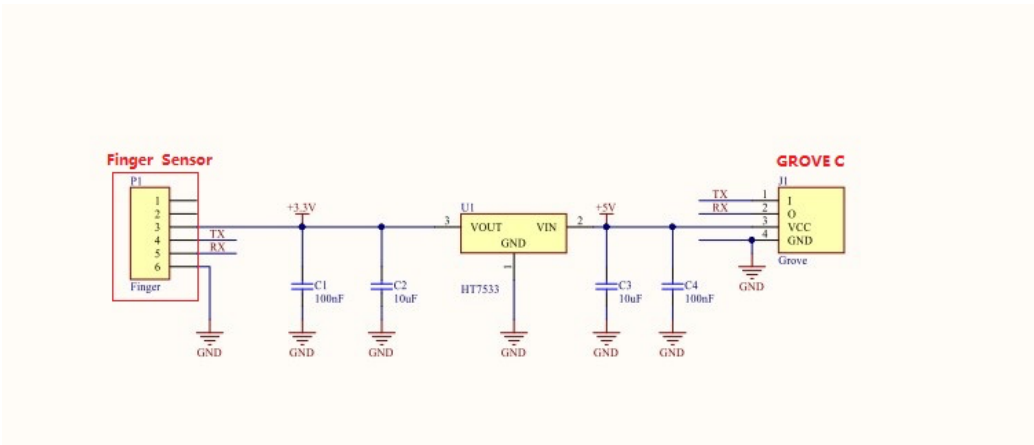
Specification	Parameter
Fingerprint capacity	150
Security level	0-9, default 5
Output format	Username, image, feature value
Feature size	193Byte
Communication method	UART (9600-115200)
Operating temperature	-10°C ~ 60°C
Relative humidity	20%-80%
Product Size	48.0 x 24.0 x 8.0mm
Product Weight	7.7g
Package Size	138.0 x 93.0 x 9.0mm
Gross Weight	12.9g

PinMap

Unit Finger

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

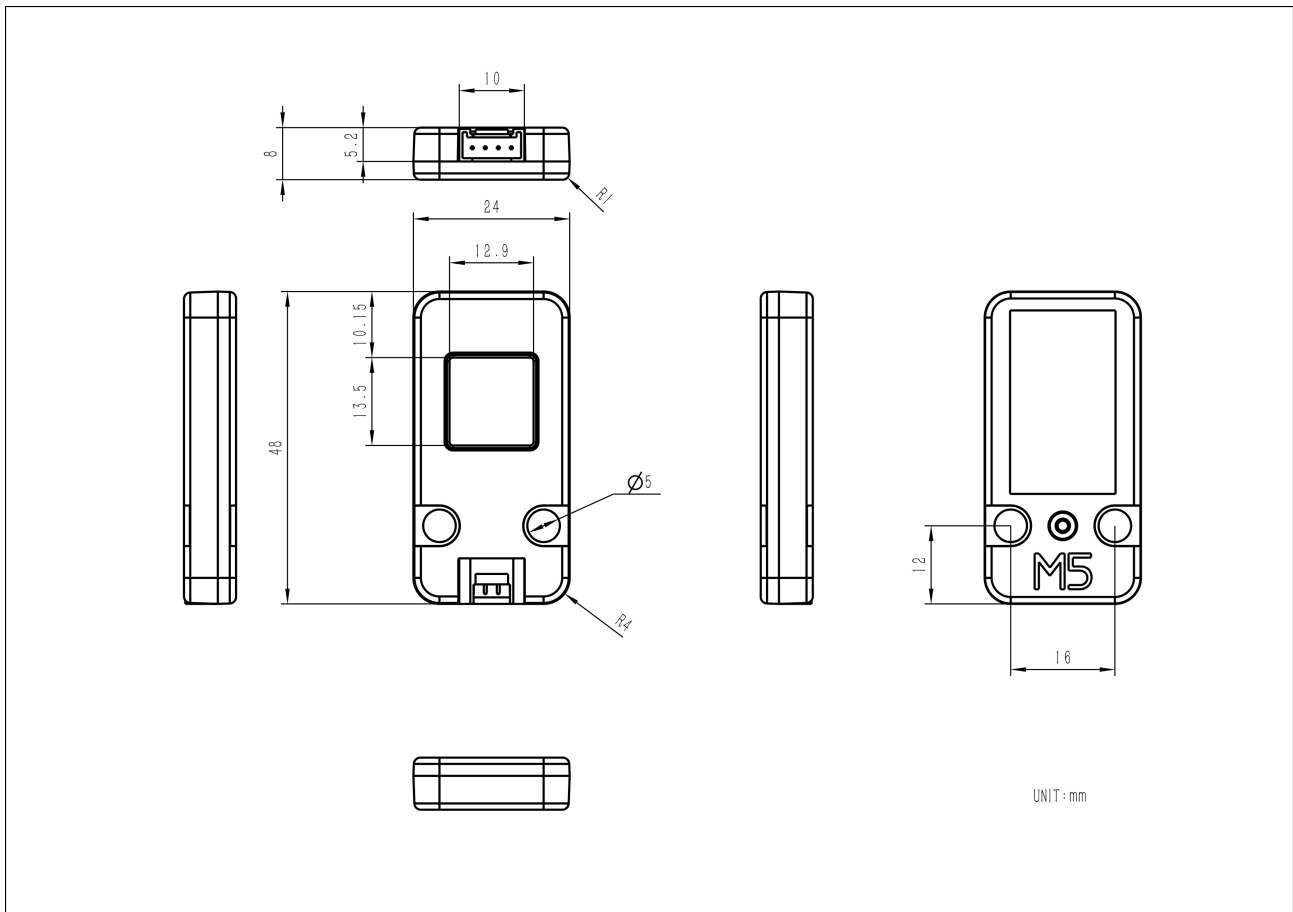
Schematics



Datasheets

- Communication Protocol [FINGER Serial Communication Protocol](#)
- Datasheet [FPC1020A](#)

Model Size



Softwares

Arduino

- [Unit Finger Example with M5Atom](#)
- [Unit Finger Example with M5Core](#)
- [Unit Finger Example with M5Core2](#)
- [Unit Finger Example with M5StickC](#)
- [Unit Finger Example with M5StickCPlus](#)

UiFlow1

- [Unit Finger UiFlow1 Docs](#)

UiFlow2

- [Unit Finger UiFlow2 Docs](#)

EasyLoader

Easyloader	Download Link	Note
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| Video

- Unit Finger usage case: Press the left button to enter fingerprint entry mode. Press the middle button to enter fingerprint recognition mode.

[Finger_UNIT.mp4](#)

- **FINGER Demonstration**

[Fingerprint Unit.mp4](#)

- **UIflow Use**

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