

UART Fingerprint Reader



Overview

UART Fingerprint Reader is a fingerprinting module designed for secondary development, high-speed for identification, high stability. It is an intelligent module that provides functionalities like fingerprint recording, image processing, feature extraction, template generation, template storage, fingerprint matching and searching, etc.

Features

- Onboard high-speed processor STM32F205
- Commercial fingerprinting algorithm, faster identification
- High-accuracy optical sensor, standard 16-pin interface, allows users to choose optical/semiconductor sensors
- Divided structure: fingerprint sensor + processing circuit + algorithm platform
- Easy for developing, controlled via UART, supports any MCU with UART
- Open protocol, it's available to freely input/output fingerprint images, fingerprint feature file and other fingerprinting actions

Applications

- Fingerprint lock
- Fingerprint safe deposit box
- Access control system
- Person identification
- Authority management

Specifications

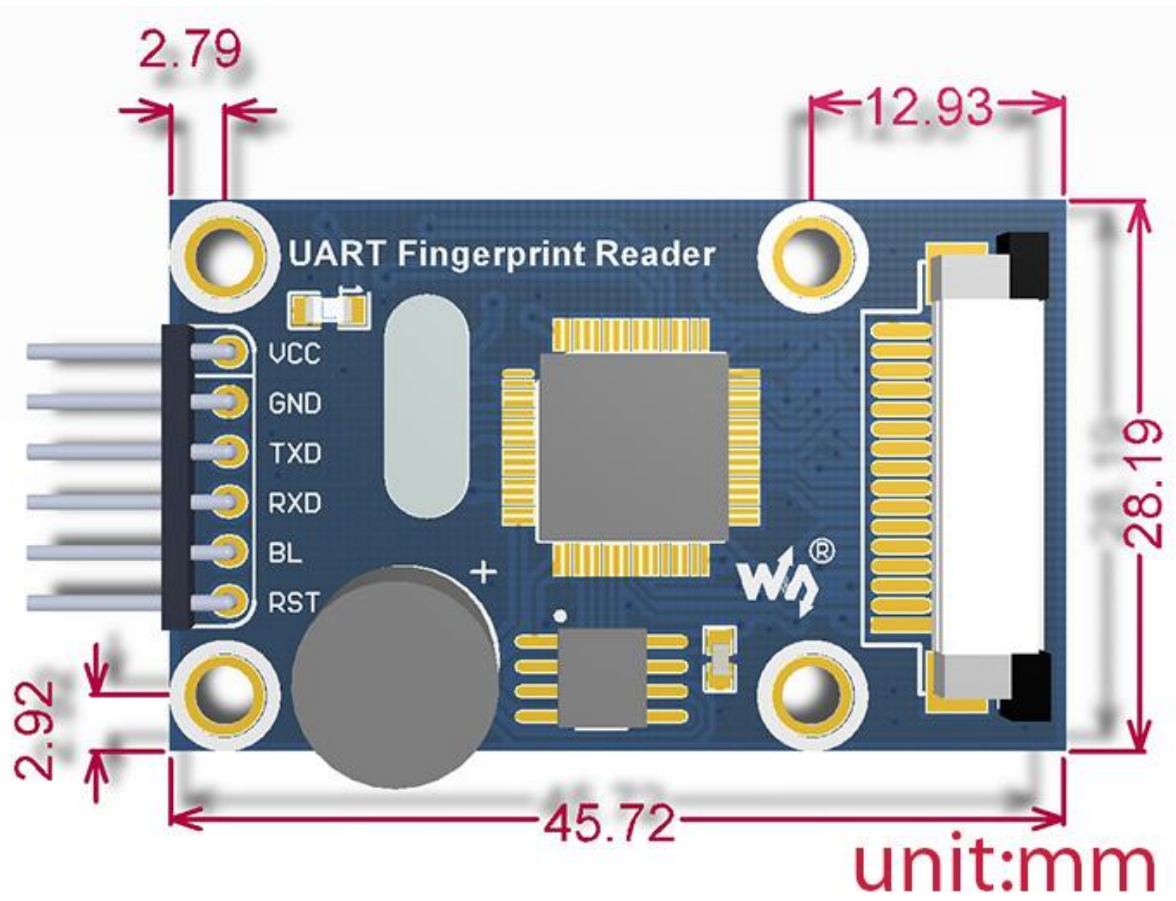
Parameter	Specification
Processor (CPU)	STM32F205
Sensor	HD optical
Memory	Built-in (extensible)
Anti-wearing	1 million times

Anti-electrostatic	150KV
Fingerprint capacity	1000
False acceptance rate	<0.001% (on security level 5)
False rejection rate	<0.1% (on security level 5)
Current	<50ma
Input time	<0.5s
Matching time	<0.5s
Matching mode	1 : 1 1 : N
Security level	1-10 (supports customization)
Output formats	User ID, Image, Feature
Feature size	196 Byte
Feature template size	512 Byte
Template rule standard	ISO19794-2
Communication interface	UART
Communication baud rate	9600-57600bps
Power supply	UART, external power
Voltage level	3.3-7.5V
Operating temp.	-20°C to 60°C
Relative humidity	40%RH to 85%RH (without condensation)

Photos



Dimension



Downloads

Development resources: demo codes, schematic, datasheets, etc.

Wiki: www.waveshare.com/wiki/UART_Fingerprint_Reader