

Fingerprint scanner, TTL, GT-521F52

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Product number SEN-14585

Weight 0.005kg



Product description

Fingerprint scanners are ingenious! Why use a key when you have one right at the tip of your finger? Unfortunately, they are often unreliable or difficult to implement. Not anymore! This awesome GT-521F52 fingerprint module from ADH-Tech communicates via TTL Serial so you can easily incorporate it into your next project. The module itself handles the entire task of reading and identifying fingerprints with an integrated optical sensor and a 32-bit ARM Cortex M3 processor.

To get started, simply register each fingerprint you want to save by sending the appropriate command and pressing your finger against the reader three times. The fingerprint scanner can store different fingerprints, and the database of prints can even be downloaded from the device and distributed to other modules. In addition to the fingerprint "template", the analysed version of the print, you can retrieve the image of a fingerprint and even pull raw images from the optical sensor!

This module is the upgraded version of the GT-521F32 and can store up to an amazing 3,000 different fingerprints! It is able to recognise 360° fingerprints and download/upload templates via the serial interface. In addition, the GT-521Fxx series offers a resolution of 450dpi, with a false acceptance rate of <0.001% and a false rejection rate of <0.1%, while taking only <1.5 seconds to identify a unique fingerprint!

The module is small and easy to mount, with four mounting holes surrounding the sensor. The onboard JST-SH connector has four signals: Vcc, GND, Tx and Rx. A compatible JST-SH pigtail can be found in the "Hookup Accessories" section below.

Note: Please note that while this fingerprint scanner is equipped with the same connector we use on all of our Qwiic boards, it is **NOT** Qwiic or I2C compatible. This means all our Qwiic cables, such as our 100mm version, *will* work for this board.

Features:

- Simple UART & USB communication protocol
- Complies with USB 2.0 full-speed specification
- Ultra flat optical sensor
- 450 dpi resolution
- Capable of 360° recognition
- Memory for 3,000 unique fingerprints
- Wake up with finger function
- Works well with dry, wet or rough fingerprints
- Anti-scratch with high surface hardness ? 5H
- 1:1 verification, 1:N identification
- High precision and high speed fingerprint identification technology
- 4x mounting holes
- 2x JST SH connectors

Documents:

- [Instructions for the fingerprint scanner \(GT-521Fxx\)](#)
- [Connection instructions](#)
- [Data sheet](#)
- [Programming instructions](#)
- [SDK Demo Software](#)

Product properties

Gross Weight (kg)	0.005
Zolltarifnummer	84716070
Country of Origin	USA
Brand	SparkFun
Product ID	SEN-14585
Manufacturer ID	SEN-14585
EAN	4060137078279

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