Biometric Interface Board

User Guide

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Contents

Overview

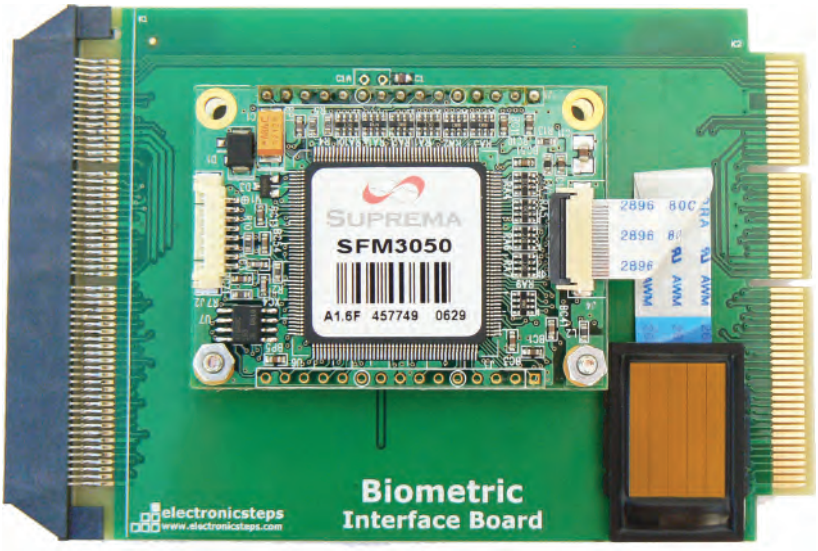
The Biometric Interface Board is a demonstration board for evaluating SFM3050 fingerprint module. Its an expansion board compatible with Microchip Explorer 16 development board. Fingerprint modules are designed to provide biometric security solution to developers and manufacturers for integration with several application, as access control, time attendance, mobile device, safes and so on.

Features

High-end standalone fingerprint module equipped with RS232 interface.
EER < 0.1%
Enrollment time 700 msec
1:1 Verification time 700 msec
1:1000 Identification time * 830 msec
Template size 384 Bytes (reducible to 256 bytes)
Template standard IS019794-2, ANSI-378

Getting Started

To get started, an Explorer 16 Development Board is required. The Biometric Interface Board can be attached to the Explorer 16 Development Board through the K1 connector and it was specifically designed to be used with PIC24FJ256GB110 PIM.



1 What You Need to Get Started

- Biometric Interface Board
- Microchip Explorer 16 Development Board
- PIC24FJ256GB110 PIM
- Demo firmware
- PIC Programer to burn the demo firmware into the PIC24F256GB110 PIM

2 Setting Up the system

We provide a simple firmware to demonstrate how to Enroll, Verify and Delete a fingerprint into the SFM 3050 module.

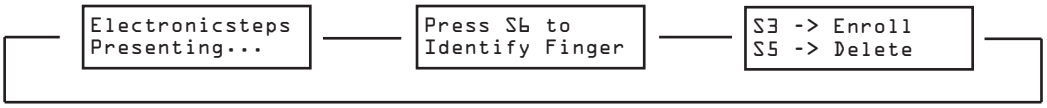
After you program the demo firmware to PIC24F256GB110 PIM, and atached the Explorer 16 board to the Biometric Interface Board, power up the Explorer 16, and you will see a quick presentation running on the LCD. Please wait until the presentation ends because the module is also initializing during this time.

STEP1

After power up the board, wait until the presentation ends, or wait 30 seconds for the system to initialize before pressing S4.

STEP2

Press S4 to switch from the apresentation to the menu.



STEP3

If its your first time to run the aplication, then you have to start to Enroll a finger first. Please go to the chapter "Enroll a Fingerprint". If you have already done the enrollment you can start to identify the same finger, by pressing S6.

3 Enroll a Fingerprint

STEP1

Press S4 until the LCD shows a menu with S3 and S5 options.

STEP2

Press S3 to Enroll a fingerprint.

STEP3

Insert your fingerprint by pressing the sensor module with your finger.

STEP4

If the LCD shows the message "Finger Enrolled Success" your fingerprint was correctly enrolled in the module.

Troubleshooting

If the LCD shows a Error Message, it can be due to a timeout or to a error reading the fingerprint. Go to Step 1 and try again.

4 How to Identify a Fingerprint

STEP1

Press S4 until the LCD shows a menu with S6 option.

STEP2

Press S6 to Identify finger.

STEP3

Insert your fingerprint by pressing the sensor module with your finger.

STEP4

If the LCD shows the message "Finger Match Success" your fingerprint was correctly identified by the module.

Troubleshooting

In case you received a "No match" message, it can be due to a timeout , error reading the fingerprint or the finger is diferent from the one you previously Enrolled.
Go to Step 1 and try again, or if the finger is diferent you must Enroll first.

5 Delete a Fingerprint

STEP1

Press S4 until the LCD shows a menu with S5 option.

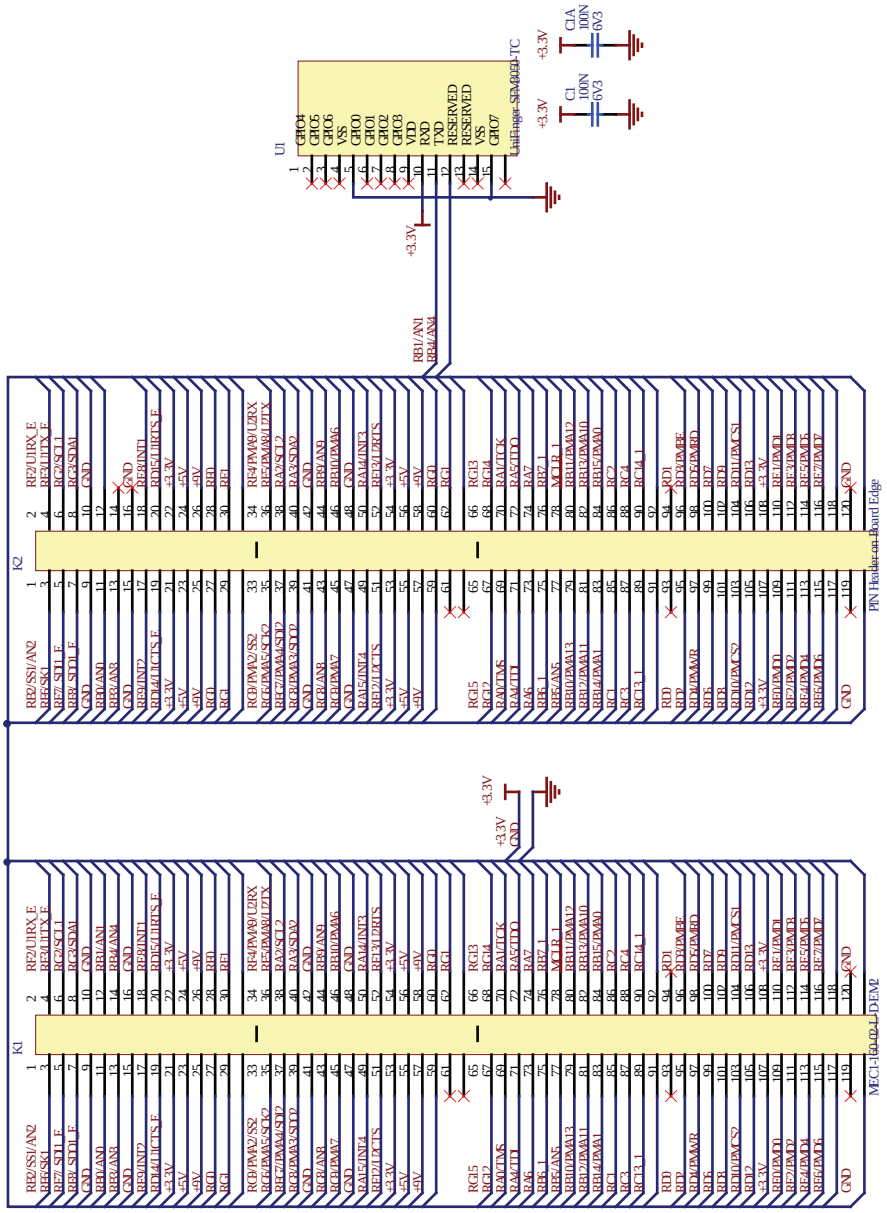
STEP2

Press S5 to Delete fingerprint.

STEP3

If the LCD shows the message "Done Deleting" your fingerprint was correctly deleted by the module.

6 Board Schematic



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