Raviraj Technologies

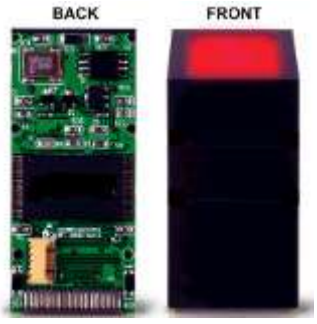
FSM 5000

:: Applications	:: Module Sub-systems	:: Basic tasks
• Time Attendance recorders • Fingerprint door locks • Access control devices • Lockers, safes • Car locks • Secure control and activation systems • Smart cards • POS/ATMs.	• Optical fingerprint sensor • Embedded dsp/arm/risc based image • processing/fingerprint matching engine • Memory to store fingerprint templates • Communication interface for external embedded system • Datasheet	• Fingerprint scanning • Fingerprint image processing • Fingerprint storage • Fingerprint registration • Fingerprint matching • Other functions...

:: Product Development Process

- Purchase Standalone Fingerprint module with datasheet or associated development kit
- Design and develop your own control board (also called microcontroller boards, single board computer, SBC), this board is responsible for controlling the standalone fingerprint module through communication interface, giving power supply to it and support other features of your product.
- Program your system
- Design and develop housing for your product
- Assemble your products

FSM 5000 is a low-end , low cost Standalone optical fingerprint module with very compact size. FSM-5000 is a one unit with Fingerprint optical scanner in the front and matching board in the back. FSM-5000 has ability to store only 150 fingerprints in its memory. It offers Serial Asynchronous (TTL, CMOS) interface to communicate with external control board.



Technical Specifications FSM 5000

Resolution	500 Dpi
Sensing area	12mm x 15mm
Dimensions	25mm x 28mm x 55mm
Encrypted Template Size	256 Bytes
Verification time	~1 second
Weight	20gm
Ambient Temperature	0-60 deg C
Scanner type	Optical
Communication Interface	TTL (CMOS) Serial, Baud rate 9600+
FAR	0.1%
FRR	0.00001%
In-built Storage	Up to 140 fingerprints
In-built Fingerprint matching	Yes
Raw Image output	No
Complete Datasheet and Documentation	Yes
Sample firmware and applications	Yes
Multiple Fingers per user	Yes
Power	3.3vdc, max.150mA
Datasheet	Included
Matching	1:1, 1:N

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Single Board Computers/Control board

Standalone Fingerprint Modules does not directly provide standard input/output interfaces like LCD, Keypad, Digital I/Os and needs to be controlled by and external device like Single Board Computer. It has its own processor and memory but this is only for fingerprint related operations. Hence for complete standalone operation it should be supported by external SBC (single board computer or microcontroller board).

Microcontroller based SBCs with industry standard interfaces for LCD, Keypad, Relays, card readers, RS232, RS485, TCP/IP LAN etc. can be developed. We can assist you in developing them and provide you with reference designs. Complete functioning and application of the product depend on the Firmware developed and loaded into the SBC.

ADP5000

ADP5000 is a interface adapter that allow your to connect Standalone Fingerprint Module to your PC for simulation and testing, before integrating it with your SBC.
ADP5000 provide power supply and converter for direct communication with PC. ADP5000 can help you in rapid development of your product and help you test and diagnose response of Standalone Fingerprint module for various commands.

Why optical scanner?

Optical fingerprint scanners provide robust fingerprint scanning, scratch resistance, long life and no effect of electrostatic current. They are suitable for large scale use and support thousands of scans per day. support for chip based sensors is also available if required.