FDA01

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FDA01 (Standalone with built in CPU) is the fingerprint recognition module compromised of optical sensor and processing board. With high speed CPU and accurate performance algorithm, it supports high and faster recognition speed and applicable to various products through simple but robust hardware design technology. In addition, since it contains CPU and memory in the processing board, user enrollment and authentication for fingerprint recognition are available without separate PC.

:: Features ::

- Built in fingerprint authentication function.
- Uploading/Downloading user's fingerprint data.
- Storage function for authentication log (8000 logs).
- System settings (sensor, authentication level, communication speed and etc.)
- 1:1 matching, group matching

:: Applications ::

- Access controller
- Door lock
- Safes
- ATM, POS
- Personal computer/workstation security
- Network/enterprise security
- Internet content security
- E-commerce
- B2B transactions
- Electronic transactions
- Bank and financial systems
- Medical information systems
- Any password-based application

:: Fingerprint Recognition Sensor ::

- High-performance, maintenance-free optical fingerprint sensor
- Resistance to scratches, impact, vibration and electrostatic shock
- Fast and accurate verification
- Latent print image removal (does not accept prints left behind)
- Encryption of fingerprint templates (cannot be used to reconstruct fingerprint images)
- One year warranty

:: **Technical Specifications** ::

Features	Details
CPU Board spec.	32 bit RISC CPU, 1M RAM, 1M Flash
No. of users	720/2000/4000 users (depending on flash memory)
Size	43 x 93 (mm)
Communication	RS232
Input/Output port	Input x 2, Output x 2 (Wiegand output multiplexed)
Fingerprint Sensor	Optical sensor (OPP01)
Verification Time	Shorter than 1 second
Error rate	FRR: 1/1000, FAR: 1/100000
Operating Temperature	0 - 40 (°C)
Current consumption	Normal : 260 mA	Max : 320 mA
Voltage	5 ± 0.2 (V)

:: **Sensors Developer's Kit** ::

FDA01 Developer's kit consists of FDA01, Manuals, CD for technical document, demo controller, all of which are required to develop applications.

FDA01: Sensor and processing board
Demo Controller: Controller with keypad and LCD unit.
AC DC 5V adaptor
Main controller technical document: Circuit diagram and source code.

Sample Program and users guide(Windows 95/98) - Sample matching program
:: Sample editor program
:: Sample screensaver program

Runtime DLL's (Windows 95/98/NT) - Device control module
:: Image capturing module
:: Minutiae extraction module

Source code - Fingerprint capture program
:: Matching test program

Developer's Manual - Protocol definition
:: Others

:: **Frequently asked questions** ::

Q. Does it supports 1:N matching (is that what is mean by group matching ?) If yes, what is the time requirement for verification and what is the value of 'N'.(is it <1 sec ?)

None of the Standalone modules have specialized 1:N matching algorithms. They have 1:1 algorithms which can be used for 1:N mathcing for smaller number of users. e.g. most standalone modules will offer 1:N matching speeds of approx. 10 fingerprint per seconds.

Q. What is the flash requirement for 720/2000/4000 users ? what is the standard configruation and capacity ? what is the ordering information for this?

We are at present normally keeping modules supporting 2000 users though others are also available. in case required. Modules ahve inbuilt flash and ram as per requirements, you are not required to provide any external flash unless you want to store data for your own needs. For ordering jsut specify the no. of users you want in module.

Q. What is the cost of development kit ?

We are at present not promoting any development kit for the modules, Though development kits are available but they are costly USD500 to 1000. Instead we are providing datasheets along with the modules which are sufficient to do development for experts in embedded electronics. Else you can ask for supporting packages from us which include 5 Hrs training and further development support for Rs.8,000/-

Q. Did you give any training on your products?

Yes, available in support package.

Q. What is the template size resolution ?

approx. 400 bytes different in different modules. Resolution is approx. 500 DPI

Q. Storage function for authentication log (8000 logs), Is this onboard and what is the provision for extra log?

You can store extra logs on memory provided in your own embedded board

Q. Does you are having any standard enclosures for fda 01 for an access control product?

No.