

### **Specification-general**

- USB 2.0 compatible interface, plug and play device
- With a 2 meter standard USB cable
- Size, 50 x 73 x 35 mm
- Weight, 200 gram
- Operation temperature: -10 to +55 Degree Celsius

### **Specification-Fingerprint matcher**

- Fingerprint scanning window size is 16x24mm
- Image resolution is 480x320 pixel, 500 DPI
- Raw fingerprint image file size is 150K byte
- With Live Finger Detection (LFD) feature
- Can store a maximum of 100 fingerprint

### **Specification-Mifare card reader/writer**

- Compliant with ISO14443A
- Carrier frequency: 13.56MHz
- Support standard Mifare key encryption
- Support both 1K and 4K Mifare smart card
- Card sensing range: 15mm
- Card read/write time: <0.5sec(also depends on the data size)
- Two colors LED for Mifare card reader/writer status indication

### **System requirements**

- MS Windows 2000 and Windows XP
- 200MHz or higher Pentium processor
- 128MB RAM minimum
- USB port and CDROM drive

### **Applications :**

- Remote locations access with Fingerprint template card
- Physical assets tagging
- Physical ID Card match finger with card owner
- Prepaid Card with physical authentication
- High Security/High Value Inventory control verify authorized user and immediate stock status update



### **Major features and benefit:**

FS25 can be used as standalone fingerprint matcher. Under the control of PC via USB interface, it can capture an fingerprint image, extract the minutiae(fingerprint characteristics) and then store to its internal memory. The stored fingerprint can be used to match with a freshly captured fingerprint and only the matching result will be sent to PC. So FS25 can do "Match On Device". Its internal memory can store up 100 fingerprints.

FS25 can handle ISO14443A compatible Mifare smart card and has all the necessary card function such as format card, issue card, read card, write card, copy card, erase card, etc. So it can be used as a standalone USB Mifare card Reader/Writer.

With a combination of fingerprint "Match On Device" and ISO14443A Mifare card Reader/Writer, FS25 is perfect for true two-factor authentication(what you own and what you carry). Enrolled fingerprint can be stored to Mifare card. At the time of authentication:

1. User shows the Mifare card and FS25 read the fingerprint in card.
2. Then puts finger and FS25 captures the fingerprint image.
3. FS25 matches the freshly captured fingerprint with the fingerprint read from the Mifare card.
4. The matching result is sent to PC

It is not necessary for both PC and FS25 to store the fingerprint for the authentication. This eliminates privacy issue arose from using fingerprint for authentication. Futronic provides full SDK to customers to make such two-factor authentication application.