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BioMini Combo

Contact/Contactless Smart Card Reader with USB Fingerprint Scanner

Contact/Contactless Smart Card Reader for Stronger Authentication
Reliable Capturing Performance Under Direct Sunlight Up To 100,000 Lux
Advanced Live Finger Detection (LFD) Technology
FBI PIV and Mobile ID FAP20 Certified Image Quality
Ergonomic and Stable Design

│ BioMini Combo │ BioMini Combo has specially been designed to provide a high level dual-authentication security solution for PC based identity access management solutions. Housing with contact/contactless smart card reader, BioMini Combo provides the latest 500dpi slim optical sensor, which boasts a large platen size for easy and reliable fingerprints capturing as well as Suprema's LFD (Live Finger Detection) technology.

BioMini Combo maintains the highest standards and has both FBI-PIV and mobile ID FAP20 certifications which enable users to capture any type of fingerprints even under direct sunlight. Combining with its comprehensive SDK solution, BioMini Combo offers superior hardware and software compatibilities which makes it an ideal platform for developers.

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BioMini Combo Features

- NIST certified interoperable image & template format standards (ANSI-378 / ISO 19794-2, ISO 19794-4)
- Image Compression Standard (WSQ)
- FBI PIV/FIPS 201 and FBI Mobile ID FAP20 certificates

- Live Finger Detection (LFD) Technology
  - Distinguishes fake fingerprints made from various materials including clay, rubber, silicon, glue, paper, film and more

- World's best performing fingerprint algorithm
  : Top results in NIST MINEX tests and FVC
- Template extractor and matcher
- Fast matching speed : 100,000 match / second (with Intel Core 2 Duo)

- USB 2.0 High speed interface
- Supports multiple device handling
- Automatic finger placement detection
- Ergonomic indication LED

- 500 dpi optical fingerprint sensor
- Large Platen Size : 0.71" X 1.0"(18.0mm x 25.4mm) (FAP20 standard: 0.6" x 0.8")

- Contact Smartcard
  - Compliant with ISO 7816 and EMV 2000 version 4.1
  - Transmission rate : 2 Kbps to 500 kbps
  - Supports 5V (55mA), 3V (50mA), 1.8V (20mA) Smart Card
- Contactless Smartcard
  - Compliant with ISO/IEC 14443 A&B Mifare, Felicea, NFC, EMV2000
  - Frequency: 13.56MHz +/- 7KHz
  - Distance transaction: Up to 10cm
  - Baud: 106/212/424/848 kbit/s
- Supports SAM Slot (Optional)

- BioMini SDK for easy application software development
- Supports MS Windows / Linux
- Supports multiple programming languages : VC++, VB, C#, VB.NET, Java
- Multi-threaded code design fully utilizing multi-core CPU power

- Multi-Dynamic Range (MDR) Technology
  - Works under direct sunlight

BioMini Combo Specifications

Fingerprint Sensor	Optical
Resolution	500 dpi / 256 gray
Platen Size	18.0mm x 25.4mm (0.71" x 1.0")
Sensing Area	17.0 x 25.0 mm (0.67" x 0.99")
Image Size	320 x 480 pixels
Interface	USB 2.0 High Speed
Operating System	Microsoft Windows / Linux
Operating Temp.	-10 ~ 50°C
Humidity	90% or less RH, noncondensing
Certification	CE, FCC, KC, UL, WHQL
Smart Card	**Contact** Supports ISO 7816-1,2,3,4:Integrated circuit cards. Supports EMV Level 1: EMV2000 specifications version 4.2 **Contactless** Supports ISO 14443 Part 4 Type A and B cards (up to 848 kbps). Supports MIFARE encryption (up to 106 kbps) Supports PCD mode for FeliCa protocol (up to 24 kbps)
Size (W x L x H)	95.7 mm x 114.8 mm x 52.6 mm

BioMini Combo SDK Specifications

Template Size	1024 Bytes (Configurable)
Enrollment Time	< 0.1 second
Verification Time	< 0.1 second
Identification Time	100,000 matches / second (with Intel Core 2 Duo)
Programming Languages	VC, VB, C#, VB.NET, JAVA
Database	Microsoft Access (Sample)
Encryption	256 bit AES
Operating System	Windows XP, Vista, 7, 8, 8.1, 10 32/64bit Linux (Ubuntu, Debian, Fedora, OpenSUSE, Cent OS 32/64bit) (Selected version only)

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