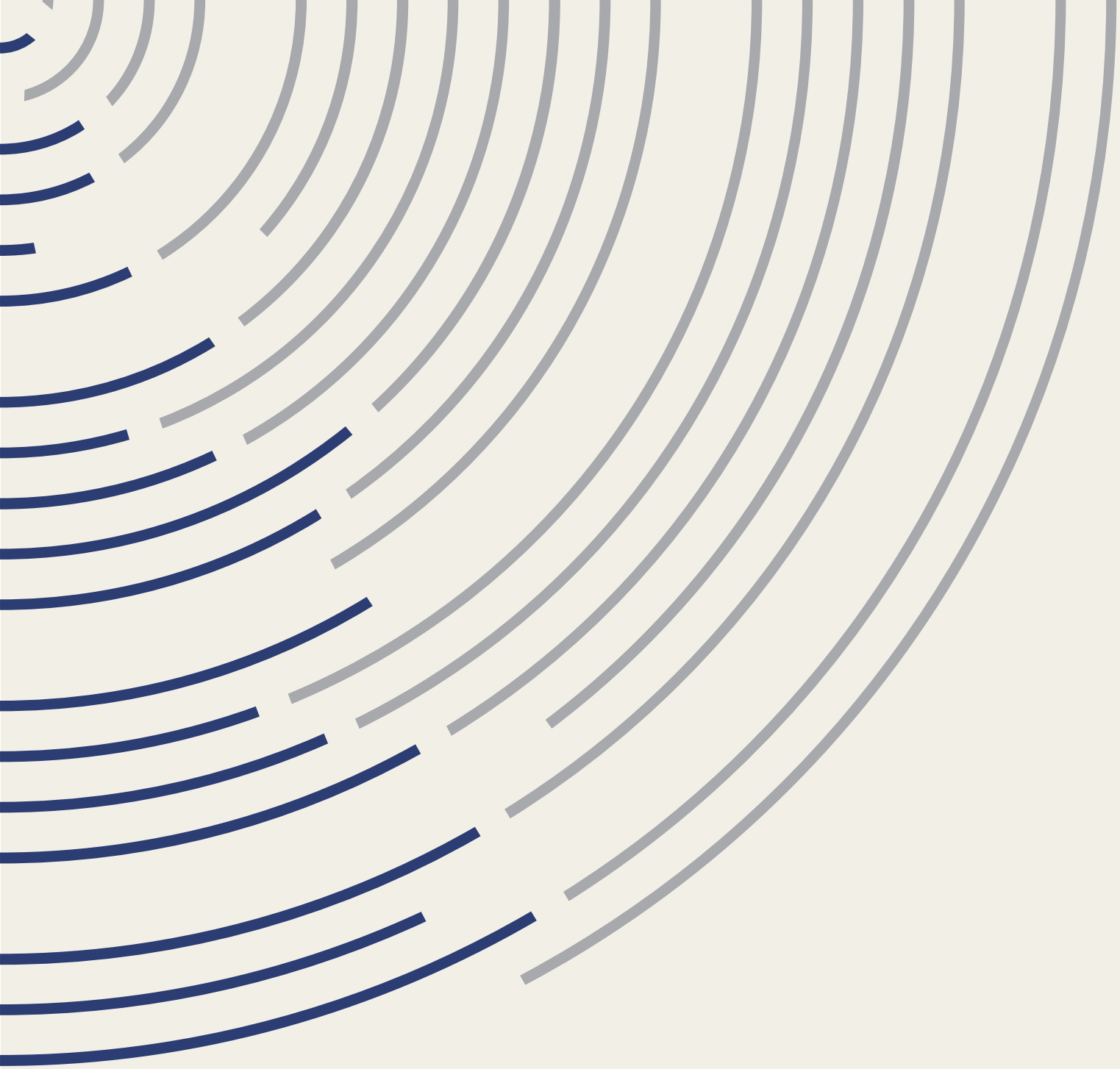
xperix

Digital ID Solution

BROCHURE | SOLUTION OVERVIEW
REV07





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Proven leader in biometric digital identity

Xperix traces its origins to 2009, when biometric identity solutions were first developed under Suprema Inc. Following a strategic spin-off, the company was incorporated as Suprema ID in 2017 and listed on KOSDAQ in 2019. In 2023, the company rebranded as Xperix Inc.—a name that reflects a renewed strategic direction and an expanded commitment to delivering enterprise-grade digital identity solutions across global markets.

For over fifteen years, Xperix has advanced the development of digital identity technologies engineered to operate without geographical or physical constraints. Our mission is to deliver solutions that are not only technically superior but operationally reliable—enabling organizations worldwide to authenticate, verify, and protect identities with confidence.

Xperix's biometric and OCR (optical character recognition) solutions are actively deployed across 133 countries, underpinned by a technology foundation refined through decades of real-world application.
This global reach, combined with deep domain expertise, positions Xperix as the definitive standard-setter for digital identity in both B2G and B2B markets.

Our journey

2009 — Biometric identity solutions business under Suprema Inc.

2011

India
National ID Project

2017 — Established **Suprema ID**

2019 — Listed on **KOSDAQ** (317770)

Tanzania
National ID Project

Brazil, Indonesia
Driver's license Issuance Project

2021

Mongolia
Border Control Project

France
ePassport Issuance Project

2022

Ethiopia
eKYC RoadShow

USA
USPS Access Control Project

Core values

Trusted Partners	Countries of Scanner Client	Government Projects	Intellectual Property Rights
1000+	133+	75+	60+

AI-driven Algorithm

Artificial Intelligence (AI) engines built into all products and algorithmic technologies help solve problems faster and deliver high performance.

Biometrics

By providing facial recognition, fingerprint, and palm print recognition with high convenience and security are applied to various industries.

Liveness Detection

Our FBI-certified devices effectively prevent spoofing of fake fingerprints made of film, adhesive, rubber, clay, silicone, etc.
In addition, AI technology can easily prevent authentication using a mask made with a 3D printer or a face made with silicon.

Document Reading

It provides high-performance ID recognition technology with OCR, QR code, 1D & 2D barcode recognition technology used for eID, ePassport, driver's license, visa issuance, and boarding ticket checks.

2023

Brand Transition
xperix

- **Mozambique**
  National ID Project
- **Brazil**
  Border Control Project

2024

- **Spain**
  Police Project
- **Uganda**
  National ID Project
- **Singapore**
  Immigration & ePassport Project

2025

Selected as **Global Hidden Champions 1000+** for 4 years in a row

- **Azerbaijan**
  National ID Project
- **Singapore, Kuwait, Tanzania, India, Rwanda, Chile**
  Immigration Project

2026

- **Spain**
  Entry/Exit System (EES) Project
- **Brazil**
  Police Project
- **South Africa, Tanzania**
  National ID Project
- **Pakistan**
  Telecommunication & Banking Project
- **Colombia**
  RUNT (Registro Único Nacional de Tránsito) Project

2030

Empowering Digital Identity for People

Comprehensive technology application portfolio











Leader by market share

Xperix's products are used globally for automated border control, VISA and ePassport issuance, digital ID issuance, voter registration, SIM card issuance, criminal identification, self-service kiosk, and more.

APAC

South Korea
Automated Border Control, Consular Services, Forensic Science, National ID, Anti-abduction, Fingerprint Registration, Digital Seal

Mongolia
Border Control

Japan
Police

Philippines
Voter Registration Verification

India
Digital ID Issuance
Police

Singapore
Border Control
ePassport Issuance

EMEA

France
ePassport Issuance
*Exclusive supply

Azerbaijan
National ID

Algeria
Police

Kuwait
Border Control

Tanzania
Immigration

Spain
National ID
Entry/Exit System (EES)

South Africa
Notarial Authentication of Documents

AMERICAS

USA
Federal Public Servant ID
*The only selected non-USA manufacturer

Colombia
SIM Card Issuance

Peru
SIM Card Issuance

Brazil
Immigration

Products line-up

FBI Appendix F & Mobile ID FAP 60
Tenprint scanners & modules

- RealScan SG10
- RealScan S60
- RealScan-G10
- RealScan S60M (Embedded module)



FBI Appendix P & Appendix F
Palmprint & Tenprint scanners

- RealScan-FC



ICAO Doc 9303 Standard
Multi-functional Document readers

- RealPass-N



FBI PIV-071006 & Mobile ID FAP 30

Single fingerprint scanners & modules

- BioMini Slim 3
- BM-Slim3 (Embedded module)





FBI PIV-071006 & Mobile ID FAP 20

Single fingerprint scanners & modules

- BioMini Slim 2S
- BioMini Slim 2
- BioMini Combo 2
- BM-Slim2S (Embedded module)
- BM-Slim2 (Embedded module)







RealScan SG10

Ultra-compact FAP 60 Live Scanner

RealScan SG10 is an FBI Appendix F certified, FAP 60, Ultra-compact optical live scanner that has been completely redesigned from a legacy optical live scanner.

With its new interface, USB 3.2 Gen 1 enables superior capture speeds and supports plug-and-play functionality. Xperix's AI-based algorithms and optical technology ensure high-quality fingerprint image acquisition and advanced liveness detection that comply with PAD Level 1 & 2 standards.

With its reliability and durability, RealScan SG10 is a perfect live scanner for mobile enrollment kits, kiosks, and eGate, providing a significant advantage for customers to maximize the benefit from their product and solution.



Key features

AI-based Liveness Detection (Compliant with ISO/IEC 30107-3 **PAD Level 1 & 2** Standard)

BixeLab
ISO 30107-3 Compliant

FBI Appendix F & Mobile ID **FAP 60** certified

MOSIP Compliant (PC & Android)

MOSIP COMPLIANT

Plug & Play

Ultra-compact size (only **80 mm** height)
The world's lowest optical live scanner

Flat (Four, Two, Single) and Rolled (Single) fingerprints capturing

SuperSpeed with **USB 3.2 Gen 1, USB-C**

Ingress Protection **IP65**

More details

- Portability with ultra-compact design
- Faster data transfer with USB 3.2 Gen 1
- Flexibility in hardware design
- Optimized for easy integration
- Support complex and data-intensive applications
- Kensington lock support
- Simplified development with SDK
- Windows, Linux, and Android support

RealScan S60

World's First FAP 60 Live Scanner has obtained PAD Level 1 & 2 Standards

RealScan S60 is the FBI Appendix F certified, FAP 60, Ultra-Slim, and Lightweight fingerprint live scanner. RealScan S60 provides advanced artificial intelligence-based live finger detection technology compliant with ISO/IEC 30107-3 PAD Level 1 & 2 Standard.
Applying LFD technology, RealScan S60 distinguishes fake fingerprints made from various materials, including clay, rubber, silicon, glue, paper, film, and more.

With Xperix's proprietary fingerprint algorithm and an advanced TFT(Thin Film Transistor)-optical technology, RealScan S60 enables capture of the highest fingerprint image quality flat and rolled fingers with little effect from various fingerprint conditions. Due to the small and thin form factor, it is optimized for desktop solutions and easy integration into portable devices, providing a significant advantage for customers to maximize the benefit from their product and solution.



Key features

AI-based Liveness Detection (Compliant with ISO/IEC 30107-3 **PAD Level 1 & 2** Standard)

BixeLab
ISO 30107-3 Compliant

FBI Appendix F & Mobile ID **FAP 60** certified

MOSIP Compliant (PC & Android)

MOSIP COMPLIANT

TFT-optical Technology

Ultra-slim and compact form factor with a **19.3 mm sensor module**

Flat (Four, Two, Single) and Rolled (Single) fingerprints capturing

Advanced **Rolled Image Construction** Technology

Ingress Protection **IP65**

More details

- Four finger 1600 x 1500 pixels
- Only 220g weight
- Simplified development with SDK
- Flexibility in hardware design
- Optimized for desktop solutions and easy integration into portable devices
- Advanced TFT(Thin Film Transistor)-optical technology
- Windows, Linux, and Android support

RealScan-G10

Iconic FAP 60 Live Scanner

RealScan-G10 is the FBI Appendix F certified, FAP 60, and the iconic live scanner for enrollment. Xperix's advanced optical technology guarantees high-speed image capturing and seamless image processing without being affected by the dry or sweaty finger or any environment.

With its proven fingerprint algorithm, RealScan-G10 distinguishes fake fingerprints and captures the highest fingerprint image quality flat and rolled fingers. RealScan-G10 is the perfect live scanner for citizen ID and various applications.



Key features

AI-based Liveness Detection (Compliant with ISO/IEC 30107-3 **PAD Level 1 & 2** Standard)

BixeLab
ISO 30107-3 Compliant

FBI Appendix F & Mobile ID **FAP 60** certified

MOSIP Compliant (PC & Android)

MOSIP COMPLIANT

Ingress Protection **IP54**

Voice Instruction

Flat (Four, Two, Single) and Rolled (Single) fingerprints capturing

Advanced **Rolled Image Construction** Technology

More details

- Four finger 1600 x 1500 pixels
- Optimized for easy integration
- Built-in speakers
- Kensington lock support
- Simplified development with SDK
- Windows, Linux, and Android support

RealScan-FC

Palmprint & Tenprint Live Scanner

RealScan-FC is an all-in-one palmprint live scanner for capturing various types of fingerprints and palmprints, including slaps, flats, rolls, palms, and writer's palms. Featuring Xperix's cutting-edge optical & biometric technologies, it is capable of capturing the highest quality images regardless of the physical condition of hands.

RealScan-FC also supports user convenient features like 4.3" resistive touch screen, AI-based voice command, foot switch and mobile power supply. With proven reliability of FBI certification, RealScan-FC is designed to provide perfect live scanning solution for various criminal ID applications.



Key features

FBI Appendix P & **Appendix F** certified

AI-based **voice command**

Faster data transfer with **USB 3.2 Gen 1**

AI-based **Liveness Detection**

Capturing various types of fingerprints & palmprints

Flats (Four, Two, Single), Rolls (Single), Slaps, Palms (Full, Upper & Lower) and Writer's palms

Built-in heater for capturing high-quality images

4.3 inch LCD with resistive touch screen

Ingress Protection **IP64**

More details

- Built-in speaker for sound & voice instruction
- Palmprint 2500 x 2500 pixels
- Four finger 1600 x 1500 pixels
- Simplified development with SDK
- Windows, Linux, and Android support
- Foot switch (Optional)

BioMini Slim 3

Ultra-slim FAP 30
Single Fingerprint Scanner

BioMini Slim 3 is the ultra-slim FAP 30 single fingerprint scanner. Along with its 15 mm slim optical sensor, it features Xperix's proprietary Multi-dynamic Range (MDR) technology, MINEX III compliance, and Android device support. BioMini Slim 3 also provides developers with more physical flexibility with its reduced form factor, and the ultra-slim optical sensor ensures robust operation over time.

With Xperix's proprietary fingerprint algorithm, BioMini Slim 3 distinguishes fake fingerprints made from various materials, including clay, rubber, silicone, glue, paper, film, and more. It reliably operates under direct sunlight and captures high-quality fingerprint images when the finger is dry or sweaty.



Key features

FBI PIV-071006 &
Mobile ID **FAP 30** certified

AI-based
Liveness Detection

Plug & Play
(HID protocol)

Standalone
operation

Capturing **high-quality fingerprint images**
when the finger Is dry or sweaty

Enhanced security
(**On-device encryption**)

MDR Technology for exceptional images
even under direct sunlight (**up to 100 000 LUX**)

Ultra-slim size
at only **20mm** height

Ingress
Protection
IP65

More details

- Single finger 400 x 500 pixels
- Optimized for easy integration
- Simplified development with SDK
- Windows, Linux, and Android support

BioMini Slim 2S

Ultra-slim FAP 20 Standalone Single Fingerprint Scanner

BioMini Slim 2S is an ultra-slim, standalone FAP 20 single fingerprint scanner. Featuring a 13.5 mm slim optical sensor, it incorporates Xperix's proprietary Multi-dynamic Range (MDR) technology, MINEX III compliance, Android device support, and on-device encryption. Its stand-alone operation enables flexible deployment across various environments while maintaining a compact form factor.

Powered by Xperix's proprietary fingerprint algorithm, BioMini Slim 2S features AI-based live finger detection (LFD) technology to distinguish fake fingerprints made from various materials, including clay, rubber, silicone, glue, paper, and film. It delivers reliable performance under direct sunlight and captures high-quality finger-print images from both dry and sweaty fingers.



Key features

FBI PIV-071006 &
Mobile ID **FAP 20** certified

Enhanced security
(**On-device encryption**)

Standalone operation

AI-based Liveness Detection

MDR Technology
for exceptional images
even under direct sunlight
(**up to 100 000 LUX**)

Plug & Play

Ultra-slim size
at only **18mm** height

Ingress
Protection
IP65

More details

- Single finger 300 x 400 pixels
- Optimized for easy integration
- Simplified development with SDK
- Windows, Linux, and Android support

BioMini Slim 2

Ultra-slim FAP 20
Single Fingerprint Scanner

BioMini Slim 2 is an ultra-slim FAP 20 single fingerprint scanner. Featuring a 13.5 mm slim optical sensor, it incorporates Xperix's proprietary Multi-dynamic Range (MDR) technology, MINEX III compliance, and Android device support. Its compact form factor provides developers with greater flexibility for system integration, while the ultra-slim optical sensor ensures reliable operation over time.

Powered by Xperix's proprietary fingerprint algorithm, BioMini Slim 2 features AI-based live finger detection (LFD) technology compliant with ISO/IEC 30107-3 PAD Level 1 & 2. The LFD technology distinguishes fake fingerprints made from various materials, including clay, rubber, silicone, glue, paper, and film. BioMini Slim 2 delivers reliable performance under direct sunlight and captures high-quality fingerprint images from both dry and sweaty fingers.



Key features

FBI PIV-071006 &
Mobile ID **FAP 20** certified

Ultra-slim size
at only **18mm** height

Ingress
Protection
IP65

AI-based Liveness Detection
(Compliant with ISO/IEC 30107-3
PAD Level 1 & 2 Standard)

BixeLab
ISO 30107-3 Compliant

MDR Technology for exceptional images
even under direct sunlight (**up to 100 000 LUX**)

Plug & Play

More details

- Single finger 300 x 400 pixels
- Presentation Attack Detection (PAD) Level 1 & 2 Standards
- Optimized for easy integration
- Simplified development with SDK
- Windows, Linux, and Android support

BioMini Combo 2

FAP 20 Single Fingerprint & Smartcard Scanner

BioMini Combo 2 is the FBI FAP 20 and PIV certified two-factor authentication scanner with machine learning based Live Finger Detection (LFD) technology.
This innovative product offers unmatched protection using advanced anti-spoofing techniques to prevent fake fingers from clay, rubber, silicone, glue, paper, film, and more. Furthermore, it provides an additional layer of security with SAM (Secure Access Module) slot.

Designed for indoor and outdoor use, the BioMini Combo 2 captures fingerprints under 100,000 Lux direct sunlight and with water and dust proof IP65 protection. Compatible with Windows and Linux operating systems, the BioMini Combo 2 offers versatility and flexibility for various applications.



Key features

FBI PIV-071006 &
Mobile ID **FAP 20** certified

Plug & Play

SAM slot
(Max 1 slot)

MDR Technology
for exceptional images
even under direct sunlight
(**up to 100 000 LUX**)

Two-factor authentication scanner
with LFD technology
(Embedded BM-Slim2 Module)

Enhanced security
(**On-device encryption**)

Ingress
Protection
IP65

More details

- Single finger 300 x 400 pixels
- Optimized for easy integration
- Simplified development with SDK
- SAM slot support (Optional, max 1 slot)
- Windows and Linux support

RealPass-N

Multi-functional & Full-page Document Reader

RealPass-N is a multi-functional and full-page document reader for one-step reading of multiple document types, including ICAO standard documents such as ePassport, eVisa, ID cards, and 1D & 2D barcodes.

It is designed to capture or extract data from visual data pages and RFID chips of electronic documents quickly and reliably in a variety of public and commercial sectors.



Key features

ICAO Doc 9303 Standard compliant

ICAO

ICAO Doc 9303 Compliant

Automatic detection of document placement

Easy integration with eGates, kiosks, counters and other self-service solutions

Ingress Protection **IP54**

One-step reading of **visual data page** and **RFID chip of eDocuments**

Reads **ISO 14443 Type A/B contactless chip, 1D/2D Barcodes**

OCR data capture of the **Machine-Readable Zone (MRZ)**

More details

- Full size 2560 x 1772 pixels
- Dual RFID support
- Durable tempered glass (Scratch free)
- Optimized for easy integration
- No moving parts, robust, minimal maintenance cost
- Simplified development with SDK
- Windows and Linux support

Build Something Great.

Xperix's SDK development framework allows control of Xperix's products and developers to integrate the core functionality of biometric devices with others seamlessly. With its SDKs, you can make your applications sustainable and clear for various applications such as national ID, border control, voter registration/verification, criminal identification, SIM card registration, banking, and more.

BioMini SDK

Supported Product

- BioMini Slim 3
- BioMini Slim 2
- BioMini Slim 2S
- BioMini Combo 2
- BM-Slim3
- BM-Slim2
- BM-Slim 2S

OS & Languages

- Windows
  C# / C++ / Java
- Linux
  C++ / Java
- Android
  Java

Features

- Various capture modes
- Minutiae extraction from images
- Image quality check
- Data encryption and decryption for image and template Fingerprint matching (1:1, 1:N)
- Internation standard image compressions formats, and interfaces
- AI-based liveness detection (ISO/IEC 30107-3)

RealScan SDK

Supported Product

- RealScan SG10
- RealScan S60
- RealScan-G10
- RealScan-FC
- RealScan S60M

OS & Languages

- Windows
  C# / C++ / Java
- Linux
  C++ / Java
- Android
  Java

Features

- Auto-capture by sensing finger placement
- Slippage and blurred detection
- Halo and latent fingerprint image elimination
- Image quality check
- Automatic segmentation
- Sequence check-in rolls and slaps acquisition
- Internation standard image compressions, formats, and interfaces
- AI-based liveness detection (ISO/IEC 30107-3)

RealPass SDK

Supported Product

- RealPass-N

OS & Languages

- Windows
  C# / C++ / Java
- Linux
  C++ / Java

Features

- Security protocols and PKI: BAC, BAP, AA, PACE, PACE-CAM, CA, TA, TCC, SAC
- 1D, 2D, Postal, All Stacked codes reading
- MRZ reading & inspection
- Flexible OCR engine to read various document types
- Control the illuminations (White, IR, UV)

Image SDK

Supported Product

- BioMini Slim 3
- BioMini Slim 2
- BioMini Slim 2S
- BioMini Combo 2
- BM-Slim3
- BM-Slim2
- BM-Slim2S

OS & Languages

- Windows
  C# / C++ / Java
- Linux
  C++ / Java

Features

- Minutiae extraction from images
- Image format conversion from RAW to JPEG, BMP, ISO/IEC 19794-4, or JPEG 2000
- Fingerprint matching (1:1, 1:N)
- Internation standard image compressions, formats, and interfaces

Specifications

	RealScan SG10	RealScan-G10
Capture	Flat(Four/Two/Single) and Rolled(Single) fingers	Flat(Four/Two/Single) and Rolled(Single) fingers
Sensor Type	Optical	Optical
Resolution	500 ppi	500 ppi
Grayscale	8-bit, 256 levels	8-bit, 256 levels
Image Size (WxL)	Four finger slap: 1600 x 1500 pixels Two finger flat: 900 x 900 pixels Single flat / Roll: 800 x 750 pixels	Four finger slap: 1600 x 1500 pixels Single flat / Roll: 800 x 750 pixels
Template Format	Xperix, ISO 19794-2, ANSI 378 by Image SDK	Xperix, ISO 19794-2, ANSI 378 by Image SDK
Supported Image Formats	RAW, BMP, WSQ, JPEG2000, ISO 19794-4	RAW, BMP, WSQ, JPEG2000, ISO 19794-4
Encryption	AES-256 by Image SDK	AES-256 by Image SDK
FBI / Image Certifications	Identification Flats (Appendix F), Live-Scan(Tenprint) System (Appendix F), Mobile ID FAP60 (Appendix F)	Identification Flats (Appendix F), Live-Scan(Tenprint) System (Appendix F), Mobile ID FAP60 (Appendix F)
OS Support	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher
Weight	1.35 kg	1.8 kg
Platen Size (WxL)	89 mm x 80 mm	89 mm x 80 mm
Sensing Area (WxL)	81.3 mm x 76.2 mm	81.3 mm x 76.2 mm
Dimensions (WxLxH)	129.5 mm x 137.5 mm x 80.0 mm	152 mm x 152 mm x 127 mm
Surface Protection	Optic Glass (Scratch free)	Optic Glass (Scratch free)
Ingress Protection	IP65 (Sealed between bezel and sensor surface)	IP54 (Sealed between bezel and sensor surface)
Operating Temperature	From -10 °C to 55 °C	From -10 °C to 55 °C
Operating Humidity	10% - 90%, non-condensing	10% - 90%, non-condensing
Storage Temperature	From -20 °C to 80 °C	From -20 °C to 70 °C
Interface	USB 3.2 Gen 1, USB-C	USB 2.0 High Speed
Power Source	USB Host	USB Host
USB Voltage Level	5.0 V ±10%	5.0 V ±10%
Live Finger Detection (LFD)	Supported (by AI-based, ISO/IEC 30107-3 Compliant)	Supported (by AI-based, ISO/IEC 30107-3 Compliant)
Sound	Speaker	Speaker
LED Indicator	Supported	Supported
Kensington Lock	Supported	Supported
Smart Sleep Mode	Not Supported	Not Supported
Certification	FBI, CE, FCC, KC, RoHS, USB-IF, WEEE, UL, REACH, WHQL, IEC 62471, PAD Level 1 & 2 by BixeLab	FBI, CE, FCC, KC, RoHS, USB-IF, UL, WHQL, BIS, IEC62471, STQC, WEEE, REACH, PAD Level 1 & 2 by BixeLab

RealScan S60	RealScan S60M	RealScan-FC
Flat(Four/Two/Single) and Rolled(Single) fingers	Flat(Four/Two/Single) and Rolled(Single) fingers	Upper & Lower Palms, Writer's palms, Flat(Four/Two/Single) and Rolled(Single) fingers
Optical TFT	Optical TFT	Optical
500 ppi	500 ppi	500 ppi
8-bit, 256 levels	8-bit, 256 levels	8-bit, 256 levels
Four finger slap: 1600 x 1500 pixels Two finger flat: 900 x 900 pixels Single flat / Roll: 800 x 750 pixels	Four finger slap: 1600 x 1500 pixels Two finger flat: 900 x 900 pixels Single flat / Roll: 800 x 750 pixels	Palm print: 2500 x 2500 pixels Four finger slap: 1600 x 1500 pixels Single flat / Roll: 800 x 750 pixels
Xperix, ISO 19794-2, ANSI 378 by Image SDK	Xperix, ISO 19794-2, ANSI 378 by Image SDK	Xperix, ISO 19794-2, ANSI 378 by Image SDK
RAW, BMP, WSQ, JPEG2000, ISO 19794-4	RAW, BMP, WSQ, JPEG2000, ISO 19794-4	RAW, BMP, WSQ, JPEG2000, ISO 19794-4
AES-256 by Image SDK	AES-256 by Image SDK	AES-256 by Image SDK
Identification Flats (Appendix F), Live-Scan(Tenprint) System (Appendix F), Mobile ID FAP60 (Appendix F)	Identification Flats (Appendix F), Live-Scan(Tenprint) System (Appendix F), Mobile ID FAP60 (Appendix F)	Identification Flats (Appendix F & Appendix P), Live-Scan(Tenprint) System (Appendix F), Live-Scan(Palm) System (Appendix P)
Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher
220 g	189 g	5.35 kg
83.3 mm x 78.2 mm	83.3 mm x 78.2 mm	131.2 mm x 130.2 mm
81.3 mm x 76.2 mm	81.3 mm x 76.2 mm	127 mm x 127 mm
118 mm x 120 mm x 19.7 mm	102.4 mm x 112 mm x 15.9 mm	193 mm x 315 mm x 150 mm
Optic Glass + AR coating (Pencil 6H)	Optic Glass + AR coating (Pencil 6H)	Optic Glass (Scratch free)
IP65 (Sealed between bezel and sensor surface)	IP65 (Sealed between bezel and sensor surface)	IP64
From -10 °C to 55 °C	From -10 °C to 55 °C	From -10 °C to 55 °C
10% - 90%, non-condensing	10% - 90%, non-condensing	10% - 90%, non-condensing
From -20 °C to 80 °C	From -20 °C to 80 °C	From -20 °C to 70 °C
USB 2.0 High Speed, USB-C	USB 2.0 High Speed, USB-C	USB 3.2 Gen 1, USB-C
USB Host	USB Host	USB-C Type host / Adapter
5.0 V ±10%	5.0 V ±10%	5.0 V ±10% / 12 VDC ±10%
Supported (by AI-based, ISO/IEC 30107-3 Compliant)	Supported (by AI-based, ISO/IEC 30107-3 Compliant)	Supported (by AI-based)
Buzzer	Not Supported	Speaker
Supported	Not Supported	Not Supported
Not Supported	Not Supported	Not Supported
Supported	Supported	Not Supported
FBI, CE, FCC, KC, RoHS, USB-IF, WEEE, UL, REACH, WHQL, IEC 62471, PAD Level 1 & 2 by BixeLab	FBI, CE, FCC, KC, RoHS, USB-IF, WEEE, UL, REACH, WHQL, IEC 62471, PAD Level 1 & 2 by BixeLab	FBI, CE, FCC, KC, RoHS, WEEE, REACH, WHQL, UL

Specifications

	BioMini Slim 3	BioMini Slim 2S	BioMini Slim 2
Capture	Flat(Single) fingers	Flat(Single) fingers	Flat(Single) fingers
Sensor Type	Optical	Optical	Optical
Resolution	500 ppi	500 ppi	500 ppi
Grayscale	8-bit, 256 levels	8-bit, 256 levels	8-bit, 256 levels
Image Size (WxL)	400 x 500 pixels	300 x 400 pixels	300 x 400 pixels
Template Format	Xperix, ISO 19794-2, ANSI 378	Xperix, ISO 19794-2, ANSI 378	Xperix, ISO 19794-2, ANSI 378
Supported Image Formats	RAW, BMP, ISO 19794-4, WSQ (FBI certified)	RAW, BMP, ISO 19794-4, WSQ (FBI certified)	RAW, BMP, ISO 19794-4, WSQ (FBI certified)
Encryption	Device: AES-256, RSA 1024bit, ECC 521bit SDK: AES-256	Device: AES-256, RSA 1024bit, ECC 521bit SDK: AES-256	Device: AES-256, RSA 1024bit, ECC 521bit SDK: AES-256
FBI / Image Certifications	Mobile ID FAP 30 (PIV-071006), PIV Single Finger (PIV-071006), FIPS	Mobile ID FAP 20 (PIV-071006), PIV Single Finger (PIV-071006), FIPS	Mobile ID FAP 20 (PIV-071006), PIV Single Finger (PIV-071006)
OS Support	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher (USB Host), OS/Platform Independent, Stand-alone Operation	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher (USB Host), OS/Platform Independent, Stand-alone Operation	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher (USB Host)
Weight	111 g	91 g	91 g
Platen Size (WxL)	21.5 mm x 26.5 mm	16.5 mm x 21 mm	16.5 mm x 21 mm
Sensing Area (WxL)	20.3 mm x 25.4 mm	15.2 mm x 20.3 mm	15.2 mm x 20.3 mm
Dimensions (WxLxH)	83 mm x 45.9 mm x 20 mm	72.8 mm x 40.7 mm x 18.5 mm	72.8 mm x 40.7 mm x 18.5 mm
Surface Protection	Optic Glass (Scratch free)	Optic Glass (Scratch free)	Optic Glass (Scratch free)
Ingress Protection	IP65 (Sealed between bezel and sensor surface)	IP65 (Sealed between bezel and sensor surface)	IP65 (Sealed between bezel and sensor surface)
Operating Temperature	From -10 °C to 55 °C	From -10 °C to 55 °C	From -10 °C to 55 °C
Operating Humidity Storage Temperature	0% - 90%, non-condensing From -20 °C to 70 °C	0% - 90%, non-condensing From -20 °C to 70 °C	0% - 90%, non-condensing From -20 °C to 70 °C
Interface	USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed
Power Source	USB Host	USB Host	USB Host
USB Voltage Level	5.0 V ±10%	5.0 V ±10%	5.0 V ±10%
Live Finger Detection (LFD)	Supported (by AI-based)	Supported (by AI-based)	Supported (by AI-based, ISO/IEC 30107-3 Compliant)
Plug & Play	Supported (by HID Protocol)	Supported (by HID Protocol)	Supported
Standalone Mode	Supported	Supported	Not Supported
Multi Dynamic Range (MDR)	Supported	Supported	Supported
Smart Sleep Mode	Supported	Supported	Supported
Certification	FBI, CE, FCC, KC, RoHS, USB-IF, CB, IEC 62471, WEEE, REACH, BIS, WHQL	FBI, CE, FCC, KC, RoHS, CB, IEC 62471, WEEE, REACH, WHQL, BIS, USB-IF	FBI, CE, FCC, KC, RoHS, CB, IEC 62471, WEEE, REACH, WHQL, BIS, USB-IF, PAD Level 1 & 2 by BixeLab

BM-Slim3	BM-Slim2S	BM-Slim2
Flat(Single) fingers	Flat(Single) fingers	Flat(Single) fingers
Optical	Optical	Optical
500 ppi	500 ppi	500 ppi
8-bit, 256 levels	8-bit, 256 levels	8-bit, 256 levels
400 x 500 pixels	300 x 400 pixels	300 x 400 pixels
Xperix, ISO 19794-2, ANSI 378	Xperix, ISO 19794-2, ANSI 378	Xperix, ISO 19794-2, ANSI 378
RAW, BMP, ISO 19794-4, WSQ (FBI certified)	RAW, BMP, ISO 19794-4, WSQ (FBI certified)	RAW, BMP, ISO 19794-4, WSQ (FBI certified)
Device: AES-256, RSA 1024bit, ECC 521bit SDK: AES-256	Device: AES-256, RSA 1024bit, ECC 521bit SDK: AES-256	Device: AES-256, RSA 1024bit, ECC 521bit SDK: AES-256
Mobile ID FAP 30 (PIV-071006), PIV Single Finger (PIV-071006), FIPS	Mobile ID FAP 20 (PIV-071006), PIV Single Finger (PIV-071006), FIPS	Mobile ID FAP 20 (PIV-071006), PIV Single Finger (PIV-071006)
Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher (USB Host), OS/Platform Independent, Stand-alone Operation	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher (USB Host), OS/Platform Independent Stand-alone Operation	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit, Android 5.0 or higher
48.6 g	30 g	30 g
21.5 mm x 26.5 mm	16.5 mm x 21 mm	16.5 mm x 21 mm
20.3 mm x 25.4 mm	15.2 mm x 20.3 mm	15.2 mm x 20.3 mm
67.5 mm x 36 mm x 15 mm	59 mm x 32 mm x 13.5 mm	59 mm x 32 mm x 13.5 mm
Optic Glass (Scratch free)	Optic Glass (Scratch free)	Optic Glass (Scratch free)
IP65 (Sealed between bezel and sensor surface)	IP65 (Sealed between bezel and sensor surface)	IP65 (Sealed between bezel and sensor surface)
From -10 °C to 55 °C	From -10 °C to 55 °C	From -10 °C to 55 °C
0% - 90%, non-condensing	0% - 90%, non-condensing	0% - 90%, non-condensing
From -20 °C to 70 °C	From -20 °C to 70 °C	From -20 °C to 70 °C
USB 2.0 High Speed	USB 2.0 High Speed	USB 2.0 High Speed
USB Host 5.0 V ±10%	USB Host 5.0 V ±10%	USB Host 5.0 V ±10%
Supported (by AI-based)	Supported (by AI-based)	Supported (by AI-based, ISO/IEC 30107-3 Compliant)
Supported (by HID Protocol)	Supported (by HID Protocol)	Not Supported
Supported	Supported	Not Supported
Supported	Supported	Supported
Supported	Supported	Supported
FBI, CE, FCC, KC, RoHS, USB-IF, CB, IEC 62471, WEEE, REACH, BIS, WHQL	FBI, CE, FCC, KC, RoHS, CB, IEC 62471, WEEE, REACH, BIS, USB-IF, WHQL	FBI, CE, FCC, KC, RoHS, CB, IEC 62471, WEEE, REACH, BIS, USB-IF, WHQL, PAD Level 1 & 2 by BixeLab

Specifications

	BioMini Combo 2
Capture	Flat(Single) fingers
Sensor Type	Optical
Resolution	500 ppi
Grayscale	8-bit, 256 levels
Image Size (WxL)	300 x 400 pixels
Template Format	Xperix, ISO 19794-2, ANSI 378
Supported Image Formats	RAW, BMP, ISO 19794-4, WSQ (FBI certified)
Encryption	SDK: AES-256
FBI / Image Certifications	Mobile ID FAP 20 (PIV-071006), PIV Single Finger (PIV-071006)
OS Support	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit
Weight	280 g
Platen Size (WxL)	16.5 mm x 21 mm
Sensing Area (WxL)	15.2 mm x 20.3 mm
Dimensions (WxLxH)	95.7 mm x 114.8 mm x 52.6 mm
Surface Protection	Optic Glass (Scratch free)
Ingress Protection	IP65 (Sealed between bezel and sensor surface)
Operating Temperature	From -10 °C to 55 °C
Operating Humidity	0% - 90%, non-condensing
Storage Temperature	From -20 °C to 70 °C
Interface	USB 2.0 High Speed, CCID, PC/SC driver
Power Source	USB Host
USB Voltage Level	5.0 V ±10%
Live Finger Detection (LFD)	Supported (Embedded BM-Slim2 module)
Plug & Play	Not Supported
Standalone Mode	Not Supported
Multi Dynamic Range (MDR)	Supported
Smart Sleep Mode	Not Supported
Certification	FBI, CE, FCC, KC, RoHS, USB-IF, WHQL, UL
SAM Slot	Supported (Optional, Max. 1 slot)
Contact Card	ISO 7816 Class A/B/C (5V, 3.0V, 1.8V) T=0 and T=1, EMV2000 contact smart card with SAM Slot (Optional, Max. 1 slot)

	RealPass-N	
Model Name	RPN-B	RPN-F
Capture	Passport, ID Card, Driver license, QR code, Barcode	ePassport, ID Card, Driver license, QR code, Barcode
Sensor Type	Optical	Optical
Resolution	500 ppi	500 ppi
Image Color Depth	24-bit / pixels	24-bit / pixels
Image Size (WxL)	Full size: 2560 x 1772	Full size: 2560 x 1772
Illuminations	White, IR(880 nm), UV(365 nm)	White, IR(880 nm), UV(365 nm)
Supported Image Formats	BMP, JPG, PNG, JPEG2000, TIFF	BMP, JPG, PNG, JPEG2000, TIFF
OCR	ICAO DOC 9303(ISO-7510) compliant travel documents (2 & 3-line MRZ) ISO-18013 driving licenses (1-line MRZ) Korean ID Card (National ID Card, Driver license)	ICAO DOC 9303(ISO-7510) compliant travel documents (2 & 3-line MRZ) ISO-18013 driving licenses (1-line MRZ) Korean ID Card (National ID Card, Driver license)
Barcode 1D	BC412, Codabar, Code 11, Code 32, Code 39, Code 93, Code 128 GS1 DataBar(RSS), Hong Kong 2 of 5, IATA 2 of 5, Interleaved 2 of 5, Plessey Matrix 2 of 5, MSI Plessey, NEC 2 of 5, Straight 2 of 5, Telepen Trioptic, UPC/EAN/JAN	BC412, Codabar, Code 11, Code 32, Code 39, Code 93, Code 128 GS1 DataBar(RSS), Hong Kong 2 of 5, IATA 2 of 5, Interleaved 2 of 5, Plessey Matrix 2 of 5, MSI Plessey, NEC 2 of 5, Straight 2 of 5, Telepen, Trioptic, UPC/EAN/JAN
Barcode 2D	PDF 417, QR Code, QR Code Model 1, Micro QR Code, Aztec, DataMatrix, Grid Matrix, Dot Code, Han Xin, Maxicode	PDF 417, QR Code, QR Code Model 1, MicroQR Code, Aztec, DataMatrix, Grid Matrix, Dot Code, Han Xin, Maxicode
RFID	Not Supported	ISO 14443 A/B Type(up to 848Kbps) including BAC, PA, AA, EAC, PACE and SAC, PC/SC support
OS Support	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit	Windows 10 or higher 32/64bit, Linux Ubuntu, Debian, Fedora, OpenSUSE, CentOS 32/64bit
Weight	1 kg	1 kg
Platen Size (WxL)	130 mm x 90 mm	130 mm x 90 mm
Sensing Area (WxL)	130 mm x 90 mm	130 mm x 90 mm
Dimensions (WxLxH)	155 mm x 190 mm x 99.8 mm (device) / 103.8 mm (with guide)	155 mm x 190 mm x 99.8 mm (device) / 103.8 mm (with guide)
Surface Protection	Tempered Glass (Scratch free)	Tempered Glass (Scratch free)
Ingress Protection	IP54 (Sealed between bezel and sensor surface)	IP54 (Sealed between bezel and sensor surface)
Operating Temperature	From -10 °C to 55 °C	From -10 °C to 55 °C
Operating Humidity	10% - 90%, non-condensing	10% - 90%, non-condensing
Storage Temperature	From -20 °C to 80 °C	From -20 °C to 80 °C
Interface	USB 2.0 High Speed, Integrated USB 3.0 Hub 2 ports	USB 2.0 High Speed
Power Source	USB Host / Adapter	USB Host / Adapter
USB Voltage Level	5.0 V ±10% / 12 VDC ±10%	5.0 V ±10% / 12 VDC ±10%
Sound	Buzzer	Buzzer
LED Indicator	Supported	Supported
Kensington Lock	Supported	Supported
Certification	CB, CE, FCC, KC, RoHS, IEC 62471, WEEE, REACH, WHQL	CB, CE, FCC, KC, RoHS, IEC 62471, WEEE, REACH, WHQL