

Bioidentidad® BioCard30

Multifunctional identity terminal

Bioidentidad® BioCard30 is a multifunction device that combines the most reliable identity technologies, meeting the current and future requirements of the most demanding identification projects.

It integrates multi-technology readers for fingerprints, smart cards (contact and contactless), barcodes, and machine-readable documents, including passports and identity documents in physical, electronic, and digital formats.

Its fingerprint biometric capture quality is optimal, exceeding FBI PIV (Personal Identity Verification) and FAP 30 certifications, making it ideal for both automated applications and forensic fingerprint analysis.

It can interact with identity documents, passports, visas, smartphones, tags, and more, including contact smartcards, contactless microchips (RFID 13.56 MHz, NFC, ICAO 9303, etc.), barcodes (QR, PDF417, etc.), and machine-readable zones (MRZ, ICAO 9303), in compliance with international and national technical standards, providing maximum functionality and security for the most modern and innovative applications. It is also ideal for projects that use MoC (Match-On-Card) biometric cards.

Endless possibilities with just one device.

GENERAL FEATURES

Bioidentidad® BioCard30 is optimized for digital identity applications (eID), national identity cards, electronic national identity cards, identity cards (ID cards), passports, travel documents, visas, immigration, elections, banking, credit, insurance, social security, pensions, notary services, driver's licenses, transportation, telecommunications, education, digital signatures, public key infrastructure (PKI), network security, access control, law enforcement, fingerprinting, Automated Biometric Identification System (AFIS, ABIS), know your customer (KYC), frictionless onboarding, and any identity application requiring reliable fingerprint recognition and the use of smart cards, barcodes, NFC, credentials, identity documents, or passports.

Its high quality, multifunctionality, interoperability, security, and design enable it to meet current and future identity needs. It employs an advanced, high-precision biometric system that exceeds the strict standards required by the FBI, along with a wide range of state-of-the-art technologies for smart cards, barcodes, and optical character recognition.

It is compatible with the most popular software platforms on the market, including Windows, Android, and Linux. It also connects via USB to computers, PCs, laptops, notebooks, netbooks, PDAs, tablets, or smartphones, which simplifies the setup and usage process by requiring only a single cable and occupying a single USB port.

MULTIFUNCTIONALITY

BioCard30 supports a wide variety of technologies, complying with the relevant technical standards, including:

- **Fingerprint** (FBI FAP30, FBI PIV, ISO 19794, ANSI 378, ...)
- **Contactless smartcard** (NFC, ISO 14443, ISO 18092, ICAO 9303, ...)
- **Contact smartcard** (ISO 7816, EMV, PC/SC, ...)
- **Machine-readable zone - MRZ** (ICAO 9303, ISO 7501, ...)
- **Two-dimensional barcodes** (QR Code, PDF417, Data Matrix, Aztec, ...)
- **One-dimensional barcodes** (Code 39, Code 128, ITF-14, EAN, ...)

It also includes drivers, libraries, an application programming interface (API), and a software development kit (SDK) to enable rapid and efficient development and integration.



BioCard30 combines the most advanced identity technologies in a practical and elegant design.

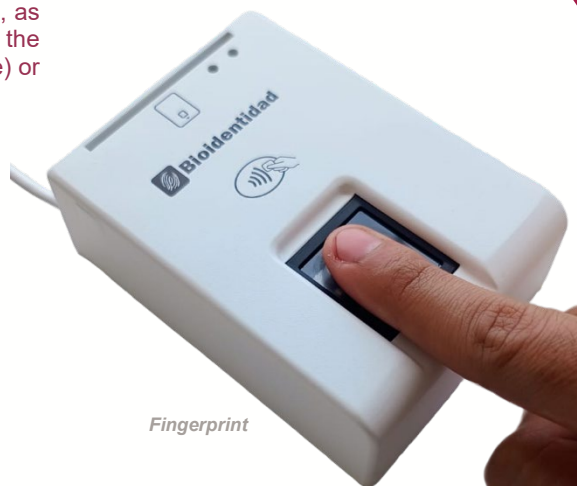


BioCard30 is the ideal component for versatile, functional, and practical high-security solutions that require the use of biometrics, smart cards, and optical codes.

Among other applications, it is perfect for national identity projects, as it allows for the use of passports, and identification cards based on the ICAO 9303 standard, containing an MRZ (Machine Readable Zone) or CAN (Card Access Number).



Smartcard



Fingerprint



Smartcard and
fingerprint



Contactless



Contactless and
fingerprint



BioCard30 captures high-fidelity fingerprints without cropping, maximizing information, security, convenience, and speed of use. For this reason, it features the largest possible single-finger capture area, in accordance with FBI standards (FAP 30). Additionally, its sensor—made of specialized, highly durable glass—facilitates cleaning and disinfection.

The fingerprints obtained are not only optimal for automated biometric processes but are also ideal for human-conducted audits and judicial and criminal investigations, making them perfectly suitable for use by forensic fingerprint experts.

BioCard30 can read a wide variety of optical codes, including the following symbologies:

- Machine-Readable Zone (MRZ) on identity documents, passports, and visas (ICAO 9303 Machine-Readable Travel Documents – MRTD), using optical character recognition (OCR).
- Two-dimensional (2D) barcodes, including QR Code, Micro QR Code, Data Matrix, Aztec, and PDF417.
- One-dimensional (1D) barcodes.

It can read these codes on printed documents and electronic screens.



Machine-Readable Zone (MRZ) of identity documents and passports.

(Contains: document type, issuing country, document number, date of birth, gender, expiration date, nationality).



Barcodes on smartphone screens, tablets, computers, smartwatches, etc.



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El pago de la presente no implica el pago de los vencimientos anteriores.

Printed barcodes.

Identity recognition with maximum security, speed, convenience, and versatility

TRUSTED IDENTITY VERIFICATION

BioIdentidad® BioCard30 is optimized for critical identity applications, whether in automated validation processes or for forensic audits, as it has all the features necessary to provide maximum reliability, security, convenience, and speed. It captures and processes fingerprints with optimal accuracy, thanks to BioIdentidad®'s specialized, high-performance biometric hardware and algorithms.

COMPREHENSIVE AND POWERFUL BIOMETRIC FEATURES

BioCard30 includes drivers, libraries, Application Programming Interfaces (APIs), and a Software Development Kit (SDK) for the management, capture, processing, and matching of fingerprints, including:

- Fingerprint capture with FBI PIV and FBI FAP30-certified image quality.
- Live finger detection and rejection of fake fingerprints (PAD, BSSLFD, and BAILFD).
- Quality control (NFIQ, NFIQ2).
- Fingerprint images in optimized formats (WSQ, JPG2000).
- Generation of standard and interoperable biometric templates (ISO 19794-2, ANSI 378), including for Match-on-Card (MoC) and Template-on-Card (ToC) smart cards (ISO 19794-2 Compact Size Finger Minutiae Card format).
- Comparison of biometric templates (ISO 19794-2, ANSI 378).
- Biometric comparison against images (RAW, BMP, WSQ, etc.).
- Data encryption and secure communication.

Additionally, depending on the need, additional features can be included, such as biometric enrollment, database interaction, very high-speed 1:N identification, and compliance with any international biometric standard, including: ANSI/INCITS 381 (Finger Image-Based Data Interchange Format), ISO/IEC 19794-4 (Biometric Data Interchange Formats), ISO/IEC 19785 (Common Biometric Exchange Formats Framework), ANSI/NIST-ITL 1 (Data Format for the Interchange of Fingerprint, Facial, and Other Biometric Information), INTERPOL INT-1 (INTERPOL Implementation), NIST MINEX III (Minutiae Interoperability Exchange), etc.

In addition, depending on the project, customized, ready-to-use BioIdentidad® software can be provided.

ADVANCED LIVE FINGERPRINT DETECTION AND ENCRYPTION

Its exclusive advanced live-finger detection technology, which combines skin sensing (BSSLFD) and artificial intelligence (BAILFD), rejects fake fingerprints made of silicone, gelatin, and other materials, and is safe for everyone—including those with pacemakers—since it emits no electrical shocks or electromagnetic interference to the body.

Furthermore, BioCard30 protects the integrity and security of the biometric process through advanced cryptographic mechanisms.

Ready to work alongside other technologies

BioCard30 is designed to integrate easily with other identity technologies, including facial recognition cameras, iris scanners, signature pads, ABIS, MOSIP platforms, and more.



The fingerprint image obtained with BioCard30 is of such high quality that ridges and minutiae can be seen with forensic precision, making it ideal for both automated biometric processing and analysis by fingerprint experts.



PROVEN QUALITY

BioCard30 is backed by international and national technical standards, as well as numerous success stories across all types of regions and among all types of populations.



HIGH PERFORMANCE

The BioCard30 will exceed your expectations. Readings are fast and accurate. You can even view the fingerprint in real time.



FREE OF MAINTENANCE AND SUBSCRIPTIONS

BioCard30 is designed to operate optimally without requiring maintenance or subscription fees. In addition, BioIdentidad® provides free updates, ensuring that the technology remains up to date.



Facial recognition camera



Signature pad

BioCard30 can be used in a wide variety of applications.
Below are some typical examples of its use.

MATCH-ON-CARD: IDENTITY VERIFICATION USING BIOMETRICS STORED ON THE CARD

The system verifies that the fingerprint captured with BioCard30 matches the biometric data stored on the card's chip.



IDENTITY VERIFICATION AGAINST EXISTING BIOMETRIC DATA

The system verifies that the fingerprint captured with BioCard30 matches the biometric information on record.



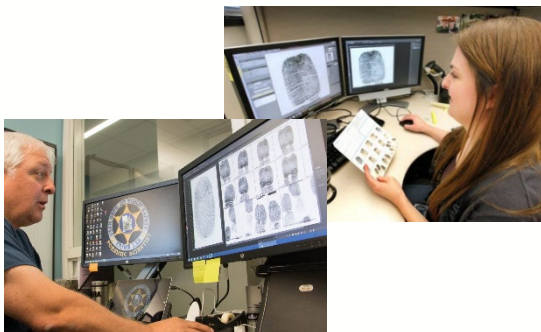
IDENTITY VERIFICATION AGAINST AN EXISTING FINGERPRINT IMAGE

The system verifies that the fingerprint captured with BioCard30 matches the stored fingerprint image.



DACTYLOSCOPIC EXPERT ANALYSIS

The fingerprint obtained with BioCard30 is an ideal dactylogram for expert analysis, as the papillary ridges and characteristic points of the dermatoglyph are captured with precision. This allows it to be used as a method for papilloscopic identification in expert assessments, investigations, audits, and a variety of criminal, forensic, judicial, and penal proceedings, facilitating the preparation of expert opinions and reports.



CONTACTLESS READING OF ICAO 9303 INFORMATION

The data stored on the contactless chip of an identity card or passport is read (ICAO 9303 Data Groups - DG).



READING INFORMATION FROM THE CONTACT CHIP

The data stored on the card's contact chip is read.



DIGITAL SIGNATURE / BIOMETRIC DIGITAL SIGNATURE

The smart card is used to create a digital signature or, in combination with a fingerprint, a biometric digital signature.



READING CREDENTIALS AND WALLETS

Contactless reading of cards, tokens, tickets, and tags (NFC, Mifare, Calypso, FeliCa, etc.).



Scanning barcodes on apps, tickets, passes, ID cards, passports, etc.



Bioidentidad® can provide libraries, application programming interfaces (APIs), software development kits (SDKs), or turnkey systems depending on your project's needs, for Windows, Android, or Linux, in a variety of programming languages (Java, .NET, C#, C++, VB.NET, Visual Basic, HTML—Web, etc.). Contact us for personalized advice.

Bioidentidad® provides high-performance solutions for access control and personal identification. With more than two decades of experience in research, development, manufacturing, consulting, implementation, distribution, and support, it is the choice of experts.



- Uncompromising quality • No subscriptions
- Quick return on investment
- Ready for current and future needs

Bioidentidad® is the choice when identity matters.

TECHNICAL SPECIFICATIONS

Fingerprint:

- Sensor type: Optical CMOS with a highly durable glass prism.
- Live finger detection: Bioidentidad® Artificial Intelligence Live Finger Detection (BAILFD), Bioidentidad® Skin Sense Live Finger Detection (BSSLFD), Presentation Attack Detection (PAD).
- Image resolution: 500 dpi, 256 shades of gray.
- Image size: 400 x 500 pixels (FBI FAP 30).
- Scanner active area: 20.32mm x 25.40mm, 0.8" x 1.0" (FBI FAP 30).
- Image accuracy: Certified by the FBI according to FBI Next Generation Identification System Image Quality Specifications (IQS):
 - EBTS Appendix F Mobile ID FAP 30.
 - Personal Identity Verification (PIV) Single Finger Capture Device Specifications.
- Image quality control: NFIQ, NFIQ 2.
- Image format: BMP, WSQ (IAFIS-IC-0110), JPG2000, ISO/IEC 19794-4, ANSI/INCITS 381, etc.
- Fingerprint template extraction and matching: ANSI/INCITS 378, ISO/IEC 19794-2 (Finger Minutiae Record Format, Normal Size Card Format, Compact Size Card Format).
- Communication encryption: AES.

Contact Cards:

- Standards: ISO/IEC 7816, EMV, PC/SC, CT-API.
- Card size: ISO 7810 ID-1.
- Card voltage: 5V, 3V, and 1.8V (ISO 7816 Class A, B, C), automatic detection.
- Card pins: 8-pin management (supports C4/C8).
- Protocols: ISO 7816 T=0, T=1.
- Communication speed: Up to 600,000 bps.
- Supported insertions: Over 500,000 insertions.

Contactless Cards:

- Standards: ISO/IEC 14443 A/B, ISO/IEC 18092, NFC, Mifare (Classic, Plus, Ultralight, DESFire), Calypso, Felica, ICAO 9303 (PACE, BAC), CT-API, PC/SC.
- Communication speed: Read/write up to 848 kbps (106/212/424/848 kbit/s).
- Protocols: T=CL.
- Reading distance: Up to 3 cm.

Optical Codes:

- One-dimensional (1D) barcodes: AIM 128, Code 11, Code 39, Code 93, Code 128, Codabar, EAN-8, EAN-13, UCC/EAN-128, GS1-128, GS1 Databar, Industrial 2 of 5, Interleaved 2 of 5, ISBN, ISSN, ITF-6, ITF-14, Plessey, Matrix 2 of 5, MSI-Plessey, Standard 2 of 5, UPC-A, UPC-E, etc.
- Two-dimensional (2D) barcodes: Aztec, Data Matrix, Grid Matrix, PDF417, QR Code, Micro QR Code.
- Machine-Readable Zone (MRZ) of the International Civil Aviation Organization (ICAO): Machine-readable travel documents in any format (ICAO 9303 Machine-Readable Travel Document - MRTD), including Type 1 (TD1), Type 2 (TD2), and Type 3 (TD3), such as passports, national identity cards, ID cards, visas, residence permits, etc.



Certification issued by the FBI for Bioidentidad® BioCard30



INTEROPERABLE TECHNOLOGY

Because the Bioidentidad BioCard30 complies with international technical standards, it can be used in a variety of systems regardless of the country or technology provider.



EASY INTEGRATION

The drivers, libraries, APIs, and SDKs are user-friendly and available for a wide variety of systems.



PERMANENT TECHNICAL SUPPORT

Bioidentidad® provides specialized technical support, backed by experienced advice and a warranty.

General Features:

- Communication interface: USB 2.0 or higher.
- Operating systems:
 - Windows 11, 10, 8, 7, or higher (32-bit and 64-bit).
 - Linux with kernel 2.6 or higher (x86 and ARM9 architectures).
 - Android 4.0 or higher (with OTG or Host port).
- Power supply: via USB port.
- Power consumption: Less than 620 mA (with all readers operating simultaneously; excluding smart card power consumption).
- Visual indicator: Two-color LEDs.
- Operating range: 0°C to 50°C.
- Dimensions: 11 x 8 x 3 cm.
- Cable type: Standard version with a 1.5-meter USB-A cable. Also available with a USB-C cable, as well as other connection types and lengths.
- Regulatory compliance: CE, RoHS, FCC, WHQL, CCID.

Product model	Included readers	Fingerprint	Contact Cards	Contactless Cards	Optical Codes
BC30.CT.CL.OP	✓	✓	✓	✓	✓
BC30.CT.CL	✓	✓	✓	✓	✓

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