

Bioidentidad® BioDacty-M

Precise, compact, and durable OEM fingerprint module

Bioidentidad® BioDacty-M is an OEM fingerprint module with a wide capture window that is accurate, compact, and durable, making it ideal for embedded identity solutions.

Its accuracy is certified by the FBI, exceeding the FBI Mobile ID FAP 30 and FBI PIV (Personal Identity Verification) fingerprint standards for both fixed and mobile environments.

Its very wide capture window captures detailed fingerprint images measuring 25.40 mm (height) x 20.32 mm (width). It features a special scratch-resistant glass that is protected against the ingress of liquids and particles (IP65), ensuring its use in harsh environments. It performs exceptionally well with various skin types and under a wide range of environmental conditions.

Reliable identity recognition. Robust and compact technology.

GENERAL FEATURES

BioDacty-M is a single-finger fingerprint scanner with optimal technical performance, compact dimensions, and high durability, making it ideal for integration into ATMs, POS systems, interactive kiosks, access control and attendance terminals, alarm panels, tablets, handheld devices, and any application requiring a reliable fingerprint scan.

It employs an advanced optoelectronic system with optimal biometric precision that exceeds the rigorous fingerprint image quality requirements set by the FBI, featuring a very large active capture area and high durability.

SUITABLE FOR INTEGRATION WITH ALL TYPES OF PLATFORMS

It is compatible with a wide variety of platforms, as it allows tasks to be performed either embedded within its own hardware (On-Module) or on a computer (On-Host):

- On-Module: Embedded processing, controlled from any hardware with UART or USB communication via command messages, including microcontrollers without an operating system (Arduino, AVR, ESP, LPC, MSP, PIC, STM, etc.).
- On-Host: Processing from any computer running Windows, Android, or Linux, using libraries, application programming interfaces (APIs), software development kits (SDKs), and USB communication.

POWERFUL EMBEDDED PROCESSING (ON-MODULE)

The powerful embedded processing capability of Bioidentidad® BioDacty-M allows for the capture of optimal-quality fingerprints (FBI PIV and FBI FAP30 certified image quality), the acquisition of fingerprint images (RAW, WSQ), the generation and comparison of biometric templates (ISO 19794-2, ANSI 378), and data encryption. Its internal memory allows for the storage and processing of 1,000 biometric templates.

POWERFUL COMPUTER-BASED (ON-HOST) PROCESSING

Bioidentidad® BioDacty-M includes the drivers, libraries, application programming interface (API), and software development kit (SDK) for managing, processing, and matching fingerprints, including fingerprint capture (FBI PIV and FBI FAP30 certified image quality), advanced live finger detection and fake fingerprint rejection (PAD and LFD), quality control (NFIQ and NFIQ2), fingerprint image formats (RAW, BMP, WSQ, JPG2000), generation/comparison of biometric templates (ISO 19794-2, ANSI 378), and data encryption.

Additionally, depending on the need, features such as ultra-high-speed 1:N identification, database integration, and compliance with any international biometric standard can be added, including: ANSI/INCITS 381, ISO/IEC 19794-4, ISO/IEC 19785, NIST MINEX III, etc.



BioDacty-M is an OEM fingerprint module recognized worldwide for its optimal quality and compact design.



BioDacty-M can be installed in various ways. Shown here is a typical example of BioDacty-M mounted in an enclosure.

Its capture window is protected against the ingress of liquids and dust with an IP65 rating, safeguarding it against adverse environmental conditions while also allowing for easy cleaning and disinfection.



PROVEN QUALITY

The high quality of the BioDacty-M module is guided by prestigious, internationally recognized organizations in the fields of technical standards and safety, such as the FBI, NIST, ANSI, and ISO, among others.



HIGH PERFORMANCE

BioDacty-M will amaze you. Fingerprint capture is very fast, and the fingerprint can be viewed in real time—all with optimal size and precision.



MAINTENANCE-FREE

Featuring state-of-the-art electronic technology and no moving parts, it is designed to operate continuously for many years without the need for intervention or maintenance.

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 experts' choice.



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

Bioidentidad® is the choice when identity matters.

COMPATIBLE PLATFORMS

We offer compatibility with the widest variety of platforms on the market, including:

In On-Host mode:

- Windows 11, 10, 8, 7, 2025, 2022, 2019, 2012, 2008 o superior de 32bits y 64bits. Windows 11, 10, 8, 7, 2025, 2022, 2019, 2012, 2008, or later (32-bit and 64-bit).
- Linux with kernel 4.15 or higher (x86 and ARM9 architectures).
- Android 4.1 or higher (with OTG or Host port).

In On-Module mode:

- Any system capable of sending commands via UART or USB.

POWERFUL INTEGRATION

Due to its premium-quality fingerprint capture, superior security, great durability, and excellent compatibility, the BioDacty-M is recommended by numerous software companies.

Depending on your project's needs, Bioidentidad® can provide libraries, application programming interfaces (APIs), software development kits (SDKs), sample programs with source code, or turnkey systems 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 consultation.

TECHNICAL SPECIFICATIONS

- Sensor type: Optical CMOS with a highly durable glass prism.
- Live finger detection: Advanced Live Finger Detection (LFD), Presentation Attack Detection (PAD).
- Image resolution: 500 dpi, 256 levels of gray. 400 x 500 pixels.
- Active scanning area: 20.32 x 25.40 mm; 0.8" x 1.0" (FBI FAP 30).
- Image quality: Certified by the FBI in accordance with the FBI CJIS Division's Next Generation Identification System Image Quality Specifications (IQS):
 - EBTS Appendix F Mobile ID FAP 30
 - Personal Identity Verification (PIV) Single Finger Capture Device Specifications
- Protection against liquid and dust ingress in the capture window: IP65.
- Visual indicators: Red/green LED.
- USB interface:
 - Communication: USB 2.0, plug & play.
 - Power supply: USB port.
- UART interface:
 - Communication: UART with configurable baud rate (9600, 19200, 38400, 57600, 115200, 230400, 460800, 921600 bps).
 - Power supply: DC 5V / 3.3V TTL.
- Connector: 7-pin.
- Power consumption: Under 200 mA.
- Electrostatic discharge resistance: 8 kV contact, 15 kV air.
- Operating temperature: -10°C to 50°C.
- Relative humidity: 20% to 90%.
- Dimensions: 68 x 36 x 15 cm.
- Technical standards:
 - FBI PIV, FBI FAP 30
 - PAD
 - NFIQ
 - RAW, BMP, WSQ (IAFIS-IC-0110), JPEG2000
 - ISO/IEC 19794-2, ANSI/INCITS 378
 - NIST MINEX III
 - ISO/IEC 19794-4, ANSI/INCITS 381
 - IP65
 - FCC, CE, RoHS

INTEROPERABLE TECHNOLOGY

Because Bioidentidad® BioDacty-M complies with international biometric standards, fingerprints captured using this system can be used in a variety of systems, platforms, and AFIS/ABIS, regardless of the manufacturer.



EASY INTEGRATION

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



PERMANENT TECHNICAL SUPPORT

Bioidentidad provides specialized technical support, backed by a warranty and expert advice in biometrics.



The fingerprint image obtained with BioDacty-M is of such high quality that even the pores on the ridges can be seen.



**EASY
CLEANING &
DESINFECTING**



**Certification issued by the FBI for
Bioidentidad® BioDacty-M**



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