MobiGo 2
Fingerprint Sensor

Transform your MobiGo 2 into a mobile fingerprint reader in a minute.

MobiGo 2 Fingerprint Sensor is a biometric add-on designed around a CBM-E3 fingerprint module from IDEMIA, the world leader in biometry technologies.

The CBM (Compact Biometric Module) Series is a range of compact fingerprint modules. They use IDEMIA's patented optical technology and biometric algorithms, both acknowledged worldwide for their high levels of accuracy and performance and their exceptional robustness.

Large acquisition surface for optimized capture and repeatable placement

The CBM's capture surface (14x22mm) ensures that the richest area on fingerprints is systematically captured time after time. Acquisition surface contributes significantly to the overall biometric performance.

It determines the amount of minutiae data that can be captured
Other, smaller sensors, allow different areas of the same finger to be presented with each placement, leading to poor data acquisition, narrow areas of overlap and matching errors

Richest area | CBM capture | Placement variations on smaller sensors

Enhanced image quality

The CBM-E3's extremely fine-tuned design produces a fingerprint image certified PIV IQS by the FBI.

The reference standard in terms of single fingerprint image quality (equivalent to ISO 19794-4:2011 Annexure B) was defined to ensure in particular interoperability between multiple solutions.

IDEMIA
ON BOARD

Fingerprint   Certification

Security   Add-on

About MobiIoT

MobiIoT SAS, subsidiary of the MobiWire group, is a French company specialized in industrial IoT and M2M devices.

We imagine, design, manufacture and maintain long life products (own brand, OEM / ODM) to help our customers to leverage their business, simply and quickly, through the use of reliable and proven technologies.

MobiWire Group has more than 2,500 employees, including 500 people in R&D and more than 200 people dedicated to quality.

Aware of the importance of respecting the rules of Ethics, and its role in reducing the impact of industrial activities on the environment, Mobiwire Group is committed to carry out a policy of banning inappropriate human behaviour, direct or indirect use of products deemed harmful or potentially dangerous, and reducing its greenhouse gas emissions.

In 2020, MobiWire and its subsidiaries were once again awarded by Ecovadis, Gold Medal for their CSR performance.

Intelligent modules

Image Compression using WSQ algorithm from FBI/NIST
Biometric Feature Extraction to generate templates
  -Feature Extractor is MINEX/FIPS 201 compliant
  -Proprietary, ISO 19794-2 or ANSI 378 template formats available
  -Templates can be stored in CBM's internal database

Biometric Matching
  -Matcher is MINEX/FIPS 201 compliant
  -1:1 authentication or 1:N identification
  -High accuracy: the False Acceptance Rate (FAR) is configurable down to 10^{-8} (depending on the security requirements) and maintained regardless of number of users in database

CBM is capable of addressing juvenile fingers

CBM implements an anti-latency feature that detects fingerprint traces reactivated under certain lighting conditions.

Embedded security features

Multiple security principles available
Image and Template Encryption
Template Signature (X9.84 standard)
The communication channel between CBM and Host/Distant System can be protected

Fake Finger Detection

CBM-E3 detects a large panel of counterfeit fingerprints, including but not limited to those made with latex, paper, plasticine...

Optical technology with superior image quality

High performance sensor: dpi, 256 grey levels

Available output formats include RAW, ISO 19794-4 or WSC compressed (under license)

	Optical	Capacitive	Swipe
Acquisition surface/ resolution	● ● ● ●	● ● ○ ○	● ○ ○ ○
Ergonomics	● ● ● ●	● ● ○ ○	● ○ ○ ○
Robustness	● ● ● ●	● ○ ○ ○	● ○ ○ ○
Fast Processing time	● ● ● ●	● ● ● ●	● ○ ○ ○
Performance/ accuracy	● ● ● ●	● ● ○ ○	● ○ ○ ○

CBM-E3 capacity and certifications

Database capacity	
Users	500
Template	1 000
Matching specs	
Capability (1:N)	1:500
Speed mode 1:1	0.6s
Speed mode 1:500	0.7s
Fake Finger Detection	Yes
FBI PIV IQS / ISO 19794-4: 2011 (Annex. B)	Yes
MINEX & FIPS 201 compliant algorithms	Yes
STQC	Yes
CE, CB, FCC, UL	Yes
IP65 rated capture surface	Yes
RoHS, REACH, WEEE	Yes
WHQL drivers	Yes