Excellent fingerprint image quality: large capture surface, FBI PIV IQS certification

Enrollment, 1:1 verification and 1:N identification capabilities

High accuracy: embedded FIPS 201 and MINEX compliant algorithms

Large internal database capacity: up to 5000 users (2 templates each)

Options: fake finger detection, smartcard reader, security features
The MorphoSmart™ 300 Series - or MSO 300 Series - is a family of high-end optical sensors, based on Morpho’s unrivalled experience in the fields of electro-optics and forensic quality fingerprint processing algorithms. The MSO 300 Series covers a wide range of applications: enrollment, authentication and identification in industrial/commercial and governmental environments.

- **A versatile device that carries out both enrollment and comparison** (1:1 authentication and 1:N identification)
- **Excellent fingerprint capture and processing performance** with the largest single fingerprint optical sensor on the market (23x23mm, 500 dpi, 256 grey levels)
  - Authentication < 0.7 sec\(^{(1)}\)
  - Identification < 0.9 sec in 1:1000 mode\(^{(1)}\)
  - Top grade solution to register young or elderly people, manual laborers (mining, textile, etc.)
- **Overall performance certified at the highest levels:**
  - FBI PIV IQS (image quality)
  - MINEX compliant algorithms
  - FIPS 201
  - STQC
  - Common Criteria for fingerprint spoof detection (certified by BSI\(^{(2)}\))
- **Accurate:** 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
- **Guides the user and automatically controls the image quality during fingerprint capture**
- **Large internal database:** standard capacity of 500 users (2 fingerprints each), extendable to 3000 (with MSO IDENTLITE license) or 5000 (with MSO IDENTPLUS license)
- **Multiple template & image formats:**
  - ISO 19794-2, ANSI/INCITS 378, Morpho Proprietary
  - ISO 19794-4, WSQ compressed image
- **Options:**
  - Smartcard reader
  - Fake finger detection (Common Criteria certified)
  - Security features to protect the communication channel between host and device (integrity check, data encryption)

**Software packages**
- The **MorphoSmart™ SDK** is available to integrate easily the MSO 300 Series into various applications and use its embedded capabilities:
  - Available for Windows, Linux and Android Platforms
  - Includes a BioAPI interface
  - NB: Low level protocol (ILV) is also available
- The MSO 300 Series can also be used with **MorphoKit™**, advanced SDK for the capture and processing of fingerprint images, authentication and identification

<table>
<thead>
<tr>
<th>Interface</th>
<th>MSO 200</th>
<th>MSO 300</th>
<th>MSO 301</th>
<th>MSO 350</th>
<th>MSO 351</th>
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<tr>
<td>Internal database</td>
<td>From 500 to 5000 users (with licenses)</td>
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<tr>
<td>Fake finger detection</td>
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<td>Smartcard reader</td>
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<td>FBI PIV IQS</td>
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<td>STQC</td>
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</table>

\(^{(1)}\) Includes detection, encoding and matching  
\(^{(2)}\) BSI = Bundesamt für Sicherheit in der Informationstechnik (German Federal Agency for the Security of Information Technologies)