



MSO1350 V3-X

upgrade with direct attached, 1.8M cable



Smartcard Reader



Fingerprint Scanner



USB Type A



Android OS 4.0



Windows XP/7/8/10

The MSO1350 V3-X is a range of compact biometric USB devices. They use Morpho's patented optical technology and fingerprint algorithms, both acknowledged worldwide for their high levels of performance and their exceptional robustness. Morpho fingerprint technology is ranked #1 by NIST for accuracy. The MSO1350 V3-X offers a reliable, ergonomic and cost-effective solution for enrollment, identity verification and user identification. Their match-on-device or match-on-card functions guarantee the faultless protection of information and the security of desktop applications.

High quality fingerprint acquisition

Optical technology offers superior image quality

- High performance sensor: 500 dpi, 256 grey levels
- Available output formats include RAW, ISO 19794-4 or WSQ-compressed (under license) images

Lessons learnt from real world deployments put into practice

- Mechanical/visual guides ensure intuitive finger placement
- Interfaces display key information to help users: live image, messages (position, pressure etc.) and fingerprint quality score

Large acquisition surface for optimized capture and repeatable placement

MSO 1300 Series 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



MSO 1300 Series capture



Placement variations on smaller sensors

MSO1350 V3-X SPECIFICATION

| | | |
|--|---|-----|
| Dimensions (L x W x H) | 82 x 71 x 41 mm (3.23 x 2.8 x 1.61 inches) | |
| Weight | 140g (4.94 oz) | |
| Smartcard reader | Yes | |
| Database capacity (users) | 500, 3000 ⁽¹⁾ , 5000 ⁽²⁾ or 10 000 ⁽³⁾ | |
| Database capacity (templates or fingers) | 1000, 6000 ⁽¹⁾ , 10 000 ⁽²⁾ or 20 000 ⁽³⁾ | |
| Match-on-Device capability (1:N) | 1:500, 1:3000 ⁽¹⁾ , 1:5000 ⁽²⁾ or 1:10 000 ⁽³⁾ | |
| Matching speed | 0.6s in 1:1 mode / 0.7s in 1:500 mode | |
| Match-on-Card capability | Yes | |
| Fake Finger Detection | — | |
| Security Layer | Optional | |
| Certifications | FBI PIV IQS / ISO 19794-4: 2011 (Annex. B) | — |
| | MINEX & FIPS 201 compliant algorithms | Yes |
| | STQC | — |
| | CE, CB, FCC, UL | Yes |
| | RoHS, REACH, WEEE | Yes |
| | WHQL drivers | Yes |

⁽¹⁾ With MSO IDENTLITE License loaded in the device
⁽²⁾ With MSO IDENTPLUS License loaded in the device
⁽³⁾ With MSO IDENT10K License loaded in the device





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MSO1350 V3-X TECHNICAL SPECIFICATION

Smart Card Reader Characteristics

- Card Slot : 1 x ID-1
- ISO 7816 1-2-3
- PC/SC protocol
- CCID (over USB) protocol
- Support CPU-based cards with T=0 and/or T=1 protocol
- ISO 7816 Class A, B and C smartcards (5V, 3V and 1.8V)
- Minimum 200,000 Card Insertion Cycle
- Smart Card Read /Write Speed: 9, 600 - 234,000 bps
- Short Circuit Protection design
- ISO 7816 Class A, B and C smartcards (5V, 3V and 1.8V)

Power Supply

- DC Power supply : 5 Volts +/- 5% (as shown on the product label: 5V)
- Standby mode : 500 μ A (Typical)
- System Idle : 50 mA (Typical)
- Full operating sensor on : 500 mA maximum
- Boot time : 1.2 second

USB Connection (Type A)

- USB 2.0 high speed compliant (480 Mb/s)
- Cable length: 1.8M
- Compatible with Host Systems and Hubs that complies with USB 2.0 or USB 3.0 standards

Compatibility with Host System

- Windows™ platforms using the MSO SDK or ILV Protocol for Windows™: Windows XP, Vista, 7, 8, 10 with latest windows service packs
- Linux platforms using the dedicated MSO SDK or ILV protocol for Linux
- Android Operating System 4 and above

Temperature Operating Range

- | | |
|-------------------------|--|
| • Operating Temperature | : 0°C to 50°C |
| • Operating Humidity | : 10% ~ 85% Relative Humidity (non condensing) |
| • Storage Temperature | : -20°C to 70°C |
| • Storage Humidity | : 5% ~ 95% Relative Humidity (non condensing) |