Compact, Lightweight, FBI Certified FAP 45 2-Print Scanner

- Automatic Spoof Rejection
- Software-Based Autodetect
- Multiple Encryption Levels
Watson Mini encrypts communications between the scanner and external devices or applications using 256-bit AES keys and RSA algorithms. This closed-loop approach protects biometric data at the point of acquisition, across field wiring, and into the host application. By combining onboard security chipsets, private/public key structures, and industry best practices, Watson Mini ensures that sensitive personal information receives the highest level of scanner encryption currently available. For details, see encryption specification on the next page.

Watson Mini also contains protection against tampering through a unique calibration file installed in each serialized unit during production. Attempts to defeat Watson Mini’s security through disassembly or hardware damage alters the device’s calibration, rendering that device’s imagery unacceptable.

LES Light Emitting Sensor Technology

Integrated Biometrics’ scanners use our patented light-emitting sensor (LES) technology to deliver fixed and mobile FBI certified fingerprint imaging in an exceptionally durable, lightweight scanner.

A TFT camera captures the glow from the phosphor particles, producing a high-resolution fingerprint image.

LES Phosphor Particle
- 13-25 µm
- 50-70 µm
- 90 µm

LES film contains luminescent phosphor microparticles that respond only to human fingers when they touch the film.

Underside view of LES Sensor Film

LES Light Emitting Sensor Technology

Encrypted communications between scanner and host application

Intuitive, ergonomic, lightweight

Built for mobile and desktop applications

Compact 2-finger scanner for 1-, 2-, and 10-finger enrollment and verification

256 AES ENCRYPTION

A TFT camera captures the glow from the phosphor particles, producing a high-resolution fingerprint image.
Faster
- Rapid dry finger capture
- No need to clean latent prints in high-volume situations
- Easy integration via single SDK for all Integrated Biometrics FBI-certified products

Better
- Unaffected by extreme temperatures, direct sunlight, or bright artificial lights
- Compact, lightweight, and rugged
- Rejects common spoofing attacks
- Emits no bright lights during scans
- Meets or exceeds US military durability specifications

Smarter
- Competitive pricing
- Extremely low power consumption
- Eliminates consumables (silicone membranes or cleaning tape)
- Lower maintenance costs

Hardware-based Automatic Spoof Rejection
IB's LES film recognizes real versus manufactured fingerprints. LES-based scanners automatically reject fingerprints based on silicone, glue, rubber, and other common spoofing materials.

Two options available for PKCS (Public Key Cryptology standard)
PKCS – Elliptical Curve NIST P-521 or RSA 2048; AES-256, TRNG - NIST SP-800-90 A, B, C; Optional SHA-256, HMAC, MAC

Software-based Autodetect
IB’s LES technology automatically detects the finger capture that generates the highest quality image without user intervention. Application developers enable this feature through the IB’s software development kit (SDK).

AVAILABLE VERSIONS

<table>
<thead>
<tr>
<th>Product</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watson Mini</td>
<td>WM110CA-E00</td>
<td>58” Cable, USB 2.0</td>
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<tr>
<td></td>
<td>WM1109B-E00</td>
<td>24” Cable, Micro USB</td>
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<tr>
<td></td>
<td>WM1109C-E00</td>
<td>24” Cable, USB C</td>
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<tr>
<td></td>
<td>WM1108B-E00</td>
<td>8” Cable, Micro USB</td>
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<td>WM1118C-E00</td>
<td>8” Cable, USB C</td>
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<td>WM110FA-E00</td>
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<td></td>
<td>WM1108M-E00</td>
<td>8” No Choke Molex, No Feet</td>
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<td>WM110DA-E00</td>
<td>1.8 Meter Cable, USB 2.0</td>
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<td>WM1125M-E00</td>
<td>80mm Molex, Wings</td>
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<td></td>
<td>WM1114M-E00</td>
<td>70mm Molex, Pigtail Cable</td>
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<tr>
<td></td>
<td>WM2A03M-E00</td>
<td>80mm Molex cable (FIPS-140-2 Encryption)</td>
</tr>
</tbody>
</table>
Images & Capture

Usage
Indoor/outdoor rated, direct sunlight operation

Sensor Type
Electroluminescent - Light-emitting sensor (LES) TFT camera

Memory
256 MB non-volatile, 1 MB write once, 128 MB volatile RAM

Resolution
500 PPI

Gray Scale
256 grayscale dynamic range (8-bit grayscale)

Image Size
800 W x 750 H pixels at 500 PPI (WSQ available in SDK)

Supported Image Formats
RAW, JPEG2000, BMP, PNG, WSQ

FBI Certification / Image Certifications
PIV 071006, FIPS 201, FAP 40/Appendix F FAP45, certified to Mobile ID Requirements

Encryption
X.509 certificate as EDDSA; PKCS - NIST P-521 elliptical curve or RSA 2048; AES-256, TRNG - NIST SP-800-90 A, B, C; Optional SHA-256, HMAC, MAC

Speed
10 FPS for Galaxy Nexus 1.2 GHz dual-core ARM Cortex-A9 or equivalent; 17 FPS for Intel 2.8GHz processor or equivalent

Capture Types
Single-finger flat, two-finger flat, single-finger rolls

API Interface
Capture single-finger, two flat fingers, rolls direct, multi-device/multi-thread support

Weight & Dimensions

Product Weight
85 grams / 3 oz

Sensing Area
40.6 mm x 38.1 mm / 1.6 x 1.5"

Scanner Assembly Dimensions
62 mm x 60 mm x 33 mm / 2.44" x 2.36" x 1.30

Power & Connectors

Interface
USB 2.0

Power Source
USB Host

USB Power Requirement / Consumption
Full scanning < 300mA, standby <40 mA