TFT Fingerprint and Palm Scanner

Mannix

The World's First TFT Fingerprint Palm Scanner

- Automatic Spoof Rejection
- Software-Based Autodetect

Leveraging the strengths of existing LES technology, Mannix is the only compact, mobile palm scanner available on the market. Developed as a half-palm scanner, Mannix has an active scanning area of 5"x5". FBI Application has been made for Appendix F certification and Appendix P compliance.

The IB SDK provides the core functions to enable capture of Upper Palm, Lower Palm, Writer's Palm (hypothenar), and Rolled Prints.

Features & Benefits

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

Mannix uses IB's new ZTX film technology. This Zero Bezel technology allows print capture while providing the flexibility to use the device more intuitively and naturally.

Designed with forensic, law enforcement, and special operations in mind, Mannix is available in embedded module and standalone mobile form factors. Mannix can be driven using the IB SDK on Android and Windows devices to provide a unique mobile palm print solution. This rugged, yet highly mobile scanner, is available in embedded and stand-alone versions.
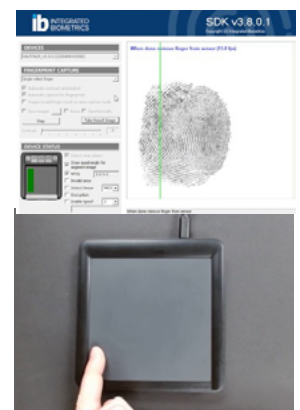
Upper Palm

Lower Palm

Writer's Palm

Roll Capture

OS Support & System Requirements

OS Support
- Windows Desktop Editions 10, 11
- Linux Kernel 4.0 or newer (64bit, ARMv8)
  - Ubuntu 18.04LTS or newer
  - Debian 10, 11, or newer
- Android 10, 11, 12 or higher

CPU
- x64 | 2.0 GHz or higher ARM | 2.0 GHz or higher

Memory
- 1GB or higher

Image & Capture

Sensor Type
- LES ZTX

Camera
- TFT

Resolution
- 500 ppi

Grayscale
- 256 grayscale dynamic range

Image Size
- 2500 x 2500 pixels

Supported Image Formats
- RAW, JPEG2000, BMP, PNG, WSQ (FBI-approved)

FBI / Image Certifications
- Appendix F-Certified and Appendix P-Compliant, FAP 60

Speed
- Min frame rate for flat capture > 6 fps
- Min frame rate for roll capture > 10 fps

API Interface
- Capture with one finger or with multiple fingers or palm; Capture of rolled fingerprints; Multi-device / multiprocessor support

Quality Scoring
- NFIQ v1 supported on all OSes and NFIQ2 for Windows

Weight & Dimensions

Product Weight
- 600 grams / 1.3 lbs (not including cable)

Platen Size
- 127.8 mm x 127.8 mm / 5.0" x 5.0"

Sensing Area
- 127.0 mm x 127.0 mm / 5.0" x 5.0"

Scanner Assembly Dimensions
- 161.0 mm x 160.9 mm x 20.3 mm / 6.3" x 6.3" x 0.8"

Power & Connectors

Interface
- USB 3.0

Connector Type
- USB-C Port

Power Source
- USB Host

USB Voltage Level
- 4.4v to 5.25v; full scanning < 500mA, typical > 475mA **Security**

Functionality
- Kensington Security Slot

Conformance & Certifications

USB Certification
- USB-IF compatibility

FCC/CE/UKCA Conformance
- FCC Part 15 (per ANSI C63.4:2014) Class B, CE Emissions: EN 55032:2015 /A1:2020 Class B, EN, 55035:2017 /A11:2020

Air Discharge / Contact Discharge
- In compliance with IEC 61000-4-2

Equipment Safety
- IEC 62368-1

Hazardous Material
- RoHS Directive 2011/65/EU with amendment 2017/2102

  Vibration Test
- IEC 60068-2-64

Certifications
- Fingerprint Template Output Formats
  – ISO_19794_2_2005/2011, ISO_19794_4_2005/2011
  – ANSI_INCITS_378_2004/ANSI_INCITS_381_2004
- 500 PPI fingerprint capture supporting rolls and flats
- ISO 9001:2015
- MOSIP Compliant

Temperature & Humidity

Operating Temperature
- -10°C ~ +55°C / 14°F ~ 131°F

Humidity
- 30~85% RH < 40°C / 104°F (Non-condensing)

Storage Temperature
- -40°C ~ +80°C / -40°F ~ 176°F

Surface & Systems

Ingress Protection / Water / Dust
- IP65 Sealed bezel to scanning surface

  Surface Durability
- MIL-C-675c 4.5010, MIL-STD-810F

Surface Protection
- NBD Nano high-durability, anti-microbial coating

Cleaning & Sanitization
- For proper cleaning and disinfection of IB products contact your local representative

Mean-Time Between Failures (MTBF)
- Based on 200 enrollments per day:
  – 10-print slaps (4-1-4-1), the Mannix MTBF is 16 years.
  – 10-print slaps + rolls, the Mannix MTBF is 5 years.

In the post-Covid world, the ability to clean and sanitize a shared human contact point is essential. That's why we introduced NDB Nano coating technology to provide anti-microbial performance while maintaining surface durability. Mannix can be cleaned and sanitized with common off the shelf products such as isopropyl alcohol.

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.

Hardware-based Automatic Spoof Rejection

IB's patented LES film technology cannot be activated using common types of manufactured, fake fingerprints. Leveraging the electrical properties of human skin, LES film does not luminesce in the presence of fingerprints based on silicone, glues, rubbers, and other non-conductive materials.

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 IB's software development kit (SDK).

AVAILABLE VERSIONS	PART NUMBER	DESCRIPTION
Mannix Half Palm Scanner	MN11000-000	USB Type C 3.1

INTEGRATED BIOMETRICS

ABOUT INTEGRATED BIOMETRICS

Integrated Biometrics (IB), a pioneer in biometrics technology, designs and manufactures advanced, high-resolution touchless identification SDK software and the world's most mobile, durable and reliable FBI-certified fingerprint sensors. Law enforcement, military, homeland security, national identity, election validation, financial and social services organizations around the world rely on Integrated Biometrics' products for fast, accurate enrollment, identification and verification, even in remote locations under extreme conditions.