



# FIVE-O

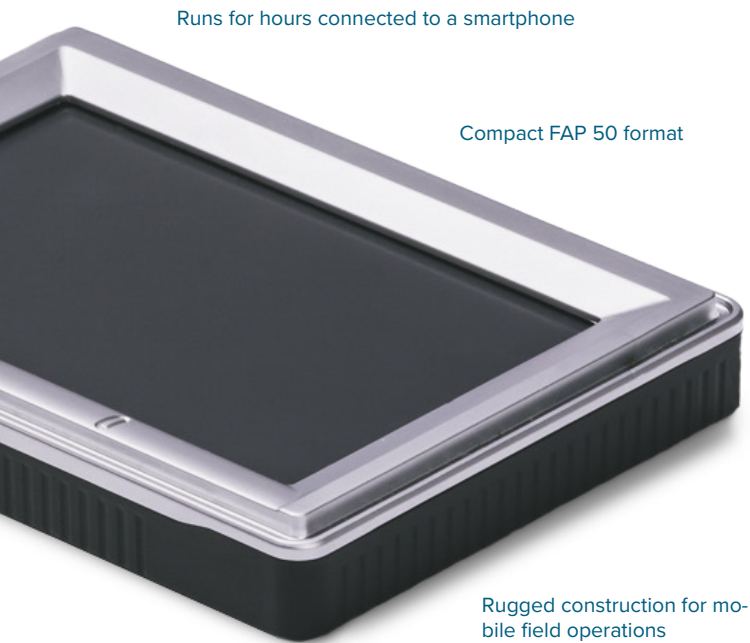
**FBI Certified FAP 50  
Mobile 10-Print Scanner**

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- Automatic Spoof Rejection
- Software-Based Autodetect



# FIVE-0



Runs for hours connected to a smartphone

Compact FAP 50 format

Rugged construction for mobile field operations

Enables mobile FBI certified Appendix F 10-finger enrollment and verification

Integrated Biometrics' revolutionary FIVE-0 is the first FBI certified fingerprint scanner that delivers fast FAP 50 enrollment and verification in a package small enough to fit in a shirt pocket.

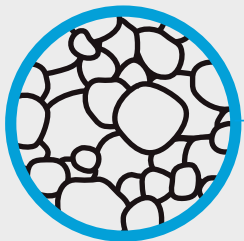
Built for law enforcement, military, border control and national ID programs, FIVE-0 sets the standard for truly mobile identity management operations.

FIVE-0's compact, lightweight design provides exceptional performance and reliability for field operations. It resists latent fingerprints, dirt, cold, heat, bright lights, and direct sunlight. There are no silicone membranes or light sources to replace. Each unit can operate for hours using power provided by a smartphone or other mobile device.

Available in embedded and standalone versions.

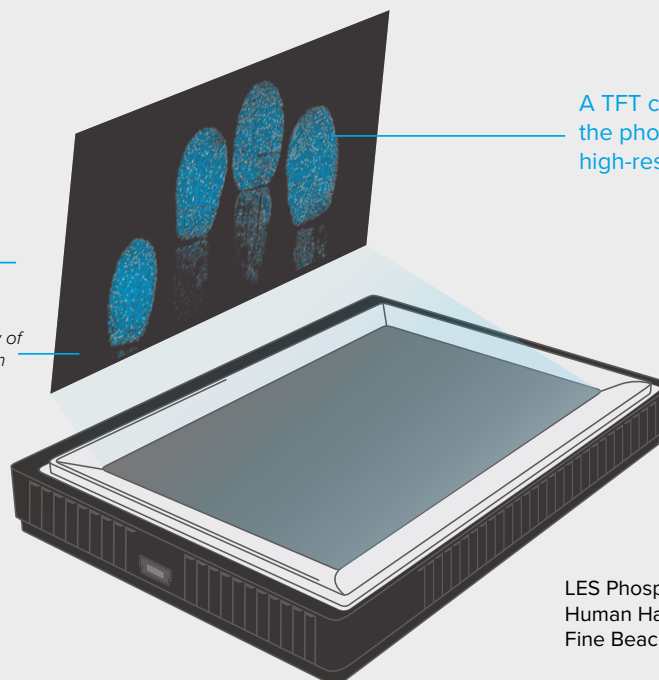
## LES Light Emitting Sensor Technology

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.



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

Underside view of LES Sensor Film



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

LES Phosphor Particle	•	13-32 $\mu\text{m}$
Human Hair	•	50-70 $\mu\text{m}$
Fine Beach Sand	•	90 $\mu\text{m}$

# 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

## 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 the IB's software development kit (SDK).

FIVE-0 contains protection against tampering through a unique calibration file installed in each serialized unit during production. Attempts to defeat FIVE-0's security through disassembly or hardware damage alters the device's calibration, rendering that device's imagery unacceptable.

# IB SCAN ULTIMATE CAPTURE SDK

IBScan Ultimate Capture SDK is provided with every Five-0. The SDK contains comprehensive API functions necessary for 10-Print enrollment tasks. Among the API functions supported are:

- Automatic capture and calibration of four finger slaps
- Automatic four-finger segmentation
- Easy Roll print capture with automatic smear detection
- Individual finger NFIQ scoring of segmented slaps and individual rolled images
- Sequence checking for wrong finger or wrong hand detection
- Superior capture of damaged or dry fingers without requiring a silicon pad through our "Touch On Film" technology
- Captured images can be provided to the application in WSK, RAW, BMP, JPEG2000, and PNG formats

## AVAILABLE VERSIONS

### Product

- Five-0
- Five-0 OEM

### Part Number

- FV11100-000
- FV11000-000

### Description

- Desktop Low-Profile Ten-Print & Roll Scanner (no cable)
- Embedded Low-Profile Ten-Print & Roll Scanner (no cable)

## OS Support & System Requirements . . . . .

### OS Support

Windows 7 or later (32/64 bit), Linux Kernel 2.6 or later (32-bit, 64-bit, ARMv7-A, and ARMv8-A), Android 4.0 or later (32-bit, 64-bit, ARMv7-A, and ARMv8-A)

### CPU

x86 and x64 | 2.0GHz or higher  
ARM | 1.0 GHz or higher

### Memory

512MB or higher

## Images & Capture . . . . .

### Sensor Type

LES

### Camera

TFT

### Resolution

500 PPI

### Grayscale

256 grayscale dynamic range

### Image Size

1600 x 1000 pixels

### Supported Image Formats

RAW, JPEG2000, BMP, PNG, WSQ ([FBI-approved](#))

### Encryption

N/A

### FBI / Image Certifications

FBI Appendix F-certified, Mobile ID IQS FAP50, PIV, GSA FIPS201

### Speed

Min frame rate slaps > 7.7FPS  
Min frame rate rolls >10FPS

### API Interface

Capture single-finger/four-finger direct, single-finger rolls, multidevice / multi-thread support

### Quality Scoring

NFIQ v1 supported on all OSes and NFIQ2 for Windows

## Weight & Dimensions . . . . .

### Product Weight

< 191.64 grams / 0.4 lbs (not including cable)

### Platen Size

85.85 mm x 53.97 mm / 3.38" x 2.12"

### Sensing Area

81.28 mm x 50.80 mm / 3.20" x 2.00"

### Scanner Assembly Dimensions

113.4 mm x 82.9 mm x 17.2 mm / 4.46" x 3.26" x 0.68"

## Power & Connectors . . . . .

### Interface

USB 2.0

### Power Source

USB Host

### USB Voltage Level

4.40V to 5.25V

### Sleep\*

< 2mA

\*Feature not available on all models. Ask technical support for further information.

## Conformance & Certifications . . . . .

### USB Certification

USB-IF [USB.ORG](#)

### FCC/CE Conformance

FCC Part15 (per ANSI C62.4:2003) Class A, CSA ICES-003 Class A, CE Emissions: EN55022:2006 Class A, CE Immunity EN 55024:1998/A1:2001/A2:2003, IEC61000-4-2

### Air Discharge / Contact Discharge

In compliance with IEC 61000-4-2

### Equipment Safety

IEC 60950-1

### Hazardous Material

RoHS directive 2002/95/EC

### Vibration Test

IEC 60068-2-64

## Temperatures & 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

## Surfaces & Systems . . . . .

### Ingress Protection / Water / Dust

IP65 (sealed bezel to scanning surface for IP65 on embedded version)

### Surface Durability

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

### Cleaning & Sanitization

For proper cleaning and disinfection of IB products, visit [integratedbiometrics.com/cleaning](https://integratedbiometrics.com/cleaning)

### Mean-Time Between Failures (MTBF)

Based on 200 full 10-print flats enrollments per day, the Five-0 MTBF is 22.2 years.

## Warranty . . . . .

All products have a 12-month warranty starting from the date of delivery. Additional years warranties available. Inquire with your salesperson.

View the warranty here: [integratedbiometrics.com/warranty](https://integratedbiometrics.com/warranty)

