



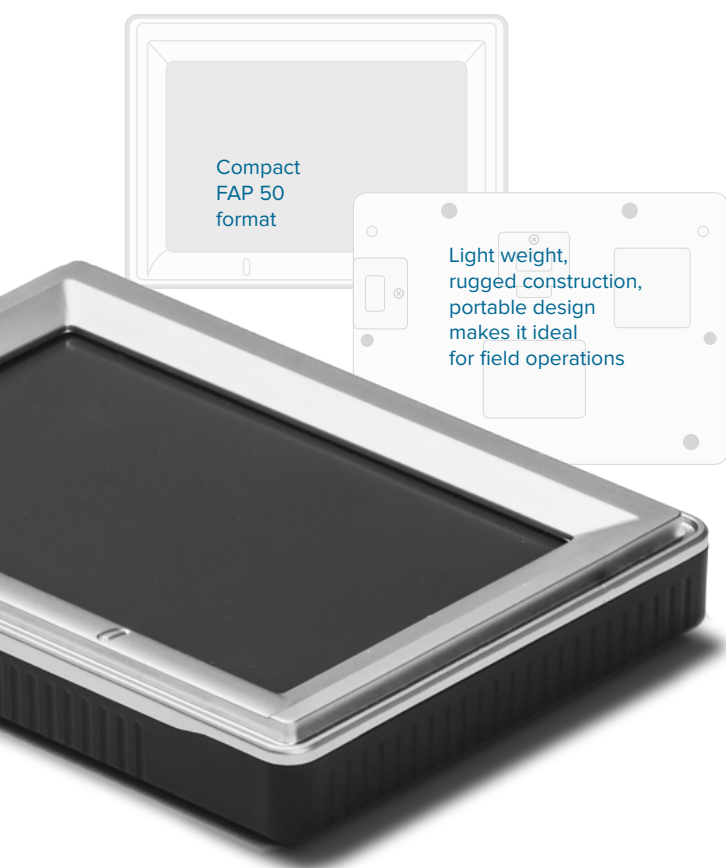
# FIVE-O OEM

## FBI Certified FAP 50 Mobile 10-Print Scanner

- Automatic Spoof Rejection
- Software-Based Autodetect



# FIVE-0 OEM



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.

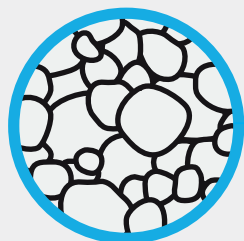
Built for law enforcement, military, border control and national ID programs, FIVE-0 sets the standard for truly mobile identity management operations.

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. Standalone units can operate for hours using power provided by a smartphone or other mobile device.

FIVE-0 is available as an embeddable sensor for OEM multimodal solutions. It ships with a full-featured software development kit (SDK) to simplify the integration of FAP50 images into a wide range of third-party security applications.

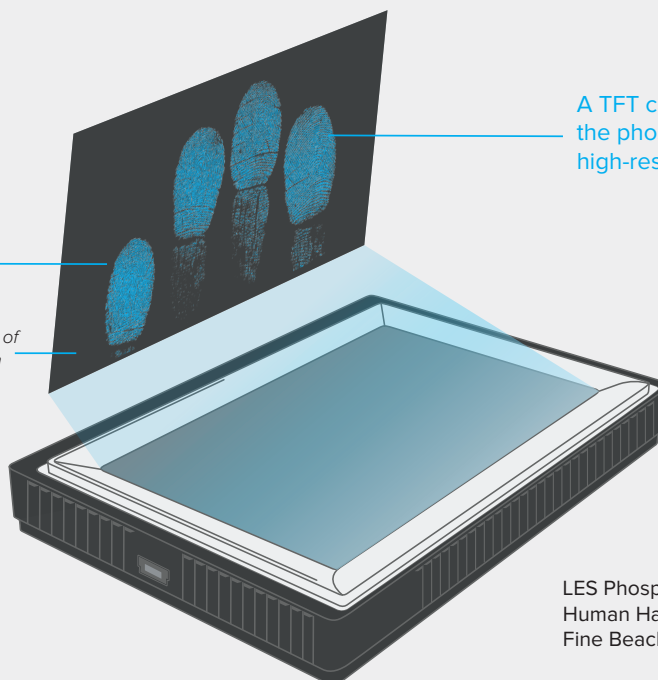
## LES Light Emitting Sensor Technology

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	•	13-37 $\mu\text{m}$
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



Kojak 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, Kojak ensures that sensitive personal information receives the highest level of scanner encryption currently available.

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

## 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.

## 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

Product	Part Number	Connector	Description
· Five-0 OEM	FV11000-000	Female USB C	Five-0 Embedded Low Profile Ten Print & Roll Scanner

## Images & Capture

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### Sensor Type

Light-emitting sensor (LES) TFT camera

### Resolution

500 PPI

### Gray Scale

256 grayscale dynamic range

### Image Size

1600 W x 1000 H pixels

### Supported Image Formats

RAW, JPEG2000, BMP, PNG, WSQ

### FBI Certification / Image Certifications

FBI Appendix F-certified, Mobile ID

IQS FAP50, PIV, GSA FIPS201

### Speed

Min frame rate slaps > 7.7 FPS

Min frame rate rolls >10 FPS

### Capture Types

Four-finger flat, two-finger flat, single-finger flat, single-finger rolled

### API Interface

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

## Weight & Dimensions

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### Product Weight

191.64 grams / 6.76 oz (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

113.8 mm x 83.0 mm x 19.0 mm / 4.48" x 3.27" x .75"

## Power & Connectors

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### Interface

USB 2.0

### Power Source

USB Host

### USB Power Requirement / Consumption

4.40V to 5.25V, full scanning TFT <300mA

typical <250mA, sleep mode <2mA

## Conformance & Certifications

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### USB Certification

USB-IF [USB.ORG](http://USB.ORG)

### FCC/CE Conformance

FCC Part 15 (per ANSI C62.4:2003) Class A; CSA ICES-003

Class A; CE Emissions: EN 55022:2006 Class A;

CE Immunity: EN 55024:1998/A1:2001/A2:2003, IEC 61000-4-2

### Air Discharge / Contact Discharge

In compliance with IEC 61000-4-2

### Equipment Safety

IEC 60950-1

### Hazardous Material RoHS Certified

RoHS directive 2002/95/EC

### Vibration Test

IEC 60068-2-64

## Temperatures & Humidity

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### Operating Temperature

-10°C ~ +55°C / 14°F ~ 131°F

### Humidity

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

### Storage Temperature

-40°C ~ +80°C / -40°F ~ 176°F

## Surfaces & Systems

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### Ingress Protection / Water / Dust

Direct water spray, no dust or dirt ingress, IP65 entire enclosure

### Surface Durability

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

### Surface Resistance / Allowable Cleaning Chemicals

Ammonia, IPA, methanol, soaps, detergents, salt water

### OS Support

Windows Desktop 32/64 bit (7, 8, 10), Windows Server,

Linux, Android 4.0+, Java

## Warranty

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1 year hardware warranty

(extended warranty available upon request)

