



# KOJAK MODULE

All the rugged, compact, FBI-certified FAP 60 performance you've come to expect from Kojak, in an embeddable 10-print scanner

- Automatic Spoof Rejection
- Software-Based Autodetect



# KOJAK

Encrypted communications between scanner and host application



Supports FBI Certified Appendix F 10-finger enrollment and verification

LED graphical user interface

Designed for fixed and mobile applications

Lowest power consumption of any comparable FAP 60 scanner

Optional private labeling

Kojak ends the myth that 4-4-2 FAP 60 fingerprint scanners must be big, heavy, and power hungry. This compact, lightweight unit delivers fast FBI Certified Appendix F performance for 10-print enrollment and verification in a compact form factor that uses less power than any other FAP 60 scanner currently available.

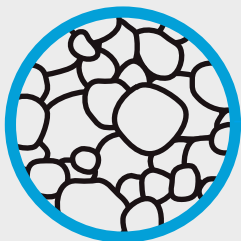
Kojak comes with an intuitive LED-based graphical interface that makes it fast and easy to register accurate scans. A private label version carries custom branding for OEMs and identity management solutions providers.

Available in embedded and standalone versions.

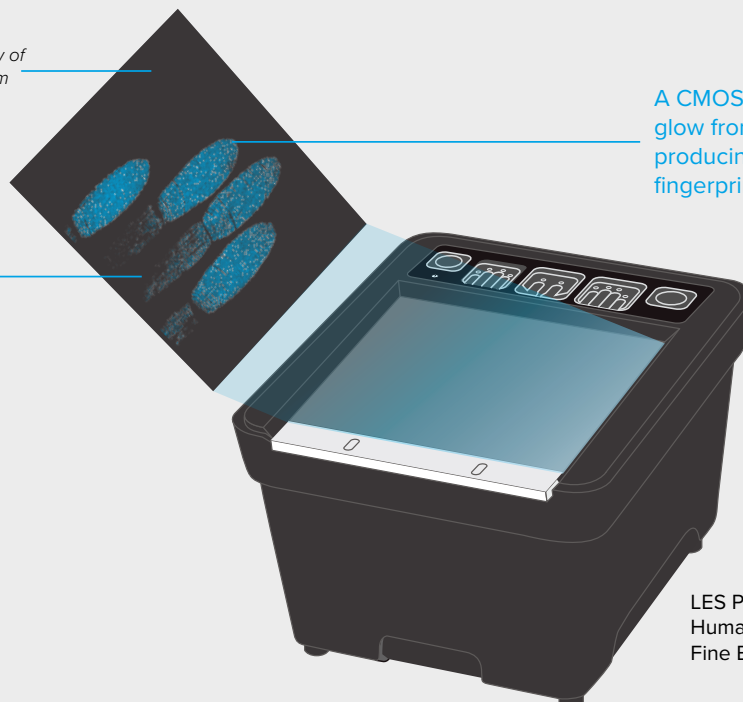
## LES Light Emitting Sensor Technology

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.

Underside view of LES Sensor Film



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



A CMOS 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



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 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).

# IB ULTIMATE CAPTURE SDK

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

- Dynamic auto capture of four finger slaps
- Four finger segmentation
- Easy Roll print capture with 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 WSQ, RAW, BMP, JPEG2000, and PNG formats

# AVAILABLE VERSIONS

## Product

- Kojak 3.0 Ten Print & Roll Scanner - OEM Module
- Kojak 3.0 Ten Print & Roll Scanner - AIC Kit Module

## Part Number

- KJ2115M-E00
- KJ211DA-E00

## Description

- Molex 8/3
- USB A 183/72

## 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

CMOS

### Resolution

500 PPI

### Grayscale

256 grayscale dynamic range

### Image Size

1600 x 1500 pixels

### Supported Image Formats

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

### Encryption

256-bit AES keys and RSA algorithms

### FBI / Image Certifications

FBI Appendix F, PIV, FAP 60

### Speed

Minimum frame rate > 8 FPS

### API Interface

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

### Quality Scoring

NFIQ v1 supported on all OSes and NFIQ2 for Windows

## Weight & Dimensions . . . . .

### Product Weight

725 grams / 1.6 lbs (not including cable)

### Platen Size

88.90 mm x 80.01 mm / 3.50" x 3.15"

### Sensing Area

81.28 mm x 76.30 mm / 3.20" x 3.00"

### Scanner Assembly Dimensions

114.7 mm x 131.8 mm x 82 mm / 4.52" x 5.19" x .3.23"

## Power & Connectors . . . . .

### Interface

USB 2.0

### Power Source

USB Host

### USB Voltage Level

4.50V to 5.25V; full scanning < 320mA, typical < 275mA, standby < 40mA

### Sleep\*

< 2.5mA

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

## Conformance & Certifications . . . . .

### USB Certification

USB-IF [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 62368-1

### Hazardous Material

RoHS directive 2002/95/EC

TSCA

Proposition 65

Canada Prohibition

### Vibration Test

IEC 60068-2-64

## Temperatures & Humidity . . . . .

### Operating Temperature

-10°C ~ +55°C / 14°F ~ 131°F

### Humidity

10~95% RH < 40°C / 104°F (non-condensing)

### Storage Temperature

-30°C ~ +60°C / -22°F ~ 140°F

## Surfaces & Systems . . . . .

### Ingress Protection / Water / Dust

IP65 Sealed bezel to scanning surface

### Surface Durability

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

### Cleaning & Sanitization

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

### Mean-Time Between Failures (MTBF)

Based on 200 full 10-print flats enrollments per day, the Kojak 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](#)

