



# KOJAK

USER MANUAL

# CONTENTS

---

Welcome	3
Unpacking	4
Connecting	5
Cleaning	6
Resources	7
Support/Software Development	
SDK Download Link	
Scanning	8
Finger Conditions	
Hand Orientation	9
Correct Placement - Top View	
Finger Contact	10
Correct Placement - Side View	
Flat Scanning	11
Finger Placement	
Thumb Capture	
Roll Scanning	13
Finger Placement	
Rolling Examples	
One-Finger Scanners	15
Columbo	
Curve	
Two-Finger Scanners	16
Sherlock	
Watson Mini	
Kojak Dimensions	17
Specifications	18
Compliance	19

# WELCOME!

---

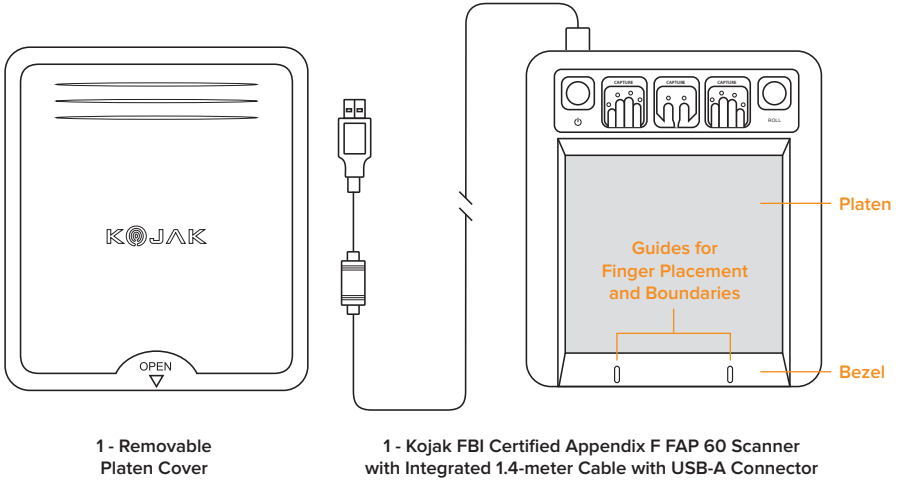
Thank you for purchasing Kojak, Integrated Biometrics' newest addition to our patented Light Emitting Sensor (LES) fingerprint scanning solutions. Kojak is the most durable, highest performance FAP 60 FBI Appendix F-certified ten-print live scanning solution.

Please read this manual thoroughly before using your Kojak to review proper steps for unit operation and capture processes. Your Integrated Biometrics reseller and the IB team are ready to answer any questions you may have!



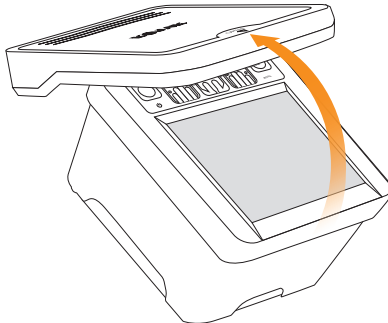
# UNPACKING

## CONTENTS



Kojak is provided in a securely packaged case. Please notify your Integrated Biometrics reseller in the event of damage during shipment. The product packaging contains all Kojak hardware components. The latest Software Development Kit (SDK) may be downloaded from Integrated Biometrics. Consult page 6 of this manual for details about the software download.

## REMOVE COVER

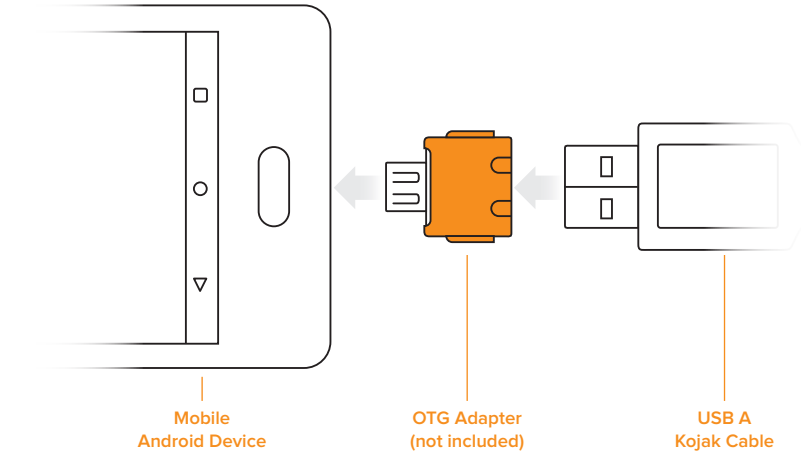


Pull UP and BACK to remove protective cover.

# CONNECTING

---

## CONNECT USB TO DEVICE



Connecting Kojak is easy!

1. Download and install the latest IBScanUltimate SDK
2. Connect Kojak to the system via USB (USB 2.0 or later)  
Note: An adapter may be required and is not provided
3. Integrated Biometrics provides a variety of test applications for demonstration. IBScanUltimate SDK includes demonstration applications for supported platforms and source code for ease of deployment.

# CLEANING

---

## BEST PRACTICES

Cleaning the Kojak scanner is a simple process.

- Kojak should be cleaned approximately every 1000 scans or as needed.
- Use IB Cleaning Kit part number IBHCK-01.
- Wipe clean using microfiber cloth (included with cleaning kit).

## WARNINGS AND CONSIDERATIONS



- Alcohol and alcohol-based cleaning solutions may stain if allowed to remain on the platen.
- Wipe alcohol products from Kojak's platen and clean using a water-based solution.
- Care should be taken to clean and remove chemicals immediately following a spill.
- Remove chemical solutions immediately using a water-moistened rag.
- Common chemicals that require immediate attention include:
  - Acetone and polish removers
  - Paint
  - Paint thinners
  - Stain removers
  - Gasoline or petroleum products
  - Pesticides and herbicides
  - DEET or DEET infused products
  - Cleaning cloths, rags, or devices impregnated with any of the above examples

# RESOURCES

---

## SUPPORT / SOFTWARE DEVELOPMENT

The IBScanUltimate Software Development Kit (SDK) is a set of robust tools that empower solution providers with the ability to deploy compelling LES biometric acquisition applications. The SDK includes support for a variety of operating systems and exceeds the needs of the most challenging environments.

The SDK includes Application Programming Interface (API) documentation, IB software components, demonstration applications and source code for each platform. Demonstration source code is a simple reference for integrators to rapidly develop solutions using Integrated Biometrics' LES technologies. We encourage you to review the included materials and explore the limits of creativity when designing custom biometric solutions.

If you have any questions, please contact your Integrated Biometrics reseller or the IB team. We'll be glad to provide assistance during solution development.

### DOWNLOAD SDK

[www.integratedbiometrics.com/sdk-downloads](http://www.integratedbiometrics.com/sdk-downloads)

Download Software Development Kit (SDK)  
Technical Documentation and Product Support

# SCANNING

## FINGER CONDITIONS

---

### VERY MOIST FINGERS

- Result: Images too dark, poorly defined. Indicates too much moisture on the fingers.
- Solution: Dry the fingers with a towel or cloth before fingerprint capture.
- The resultant images will be lighter and the NFIQ quality scores will improve.

### VERY DRY FINGERS

- Result: Images take several seconds to appear or contrast appears lighter than desired.
- Solution: Rub a small amount of moisturizer on the fingertips. (Do not slather.)
- The resultant images will be darker and the NFIQ quality scores will improve.
- Gentle or light contact with the plate is recommended in scanning. Placing extra pressure on the hand is not recommended.
- Avoid using hand sanitizers, alcohol based lotions, and baby wipes prior to scanning.

### BEST PRACTICES

- Never put a wet hand on the scanner i.e., just washed and not thoroughly dried, holding a bottle of liquid that leaves condensation on your hand. Hands should be wiped dry.
- Never use two hands on the scanner at the same time (see image on next page).



Normal Fingerprints



Wet Fingerprints

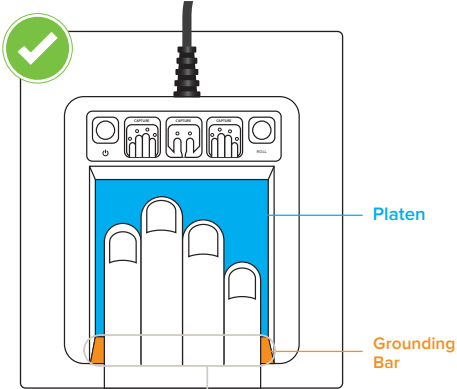


Dry Fingerprints

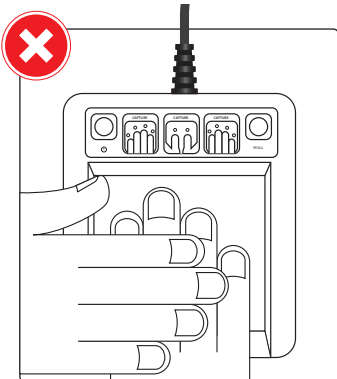
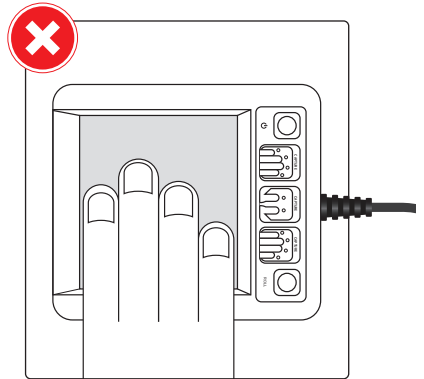
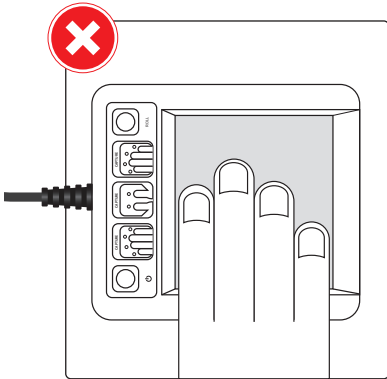
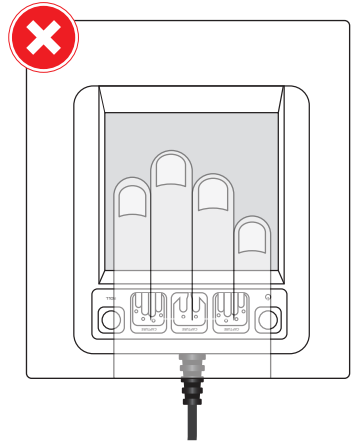


# HAND ORIENTATION

## CORRECT PLACEMENT - TOP VIEW



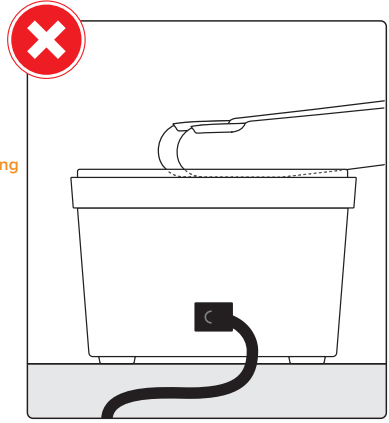
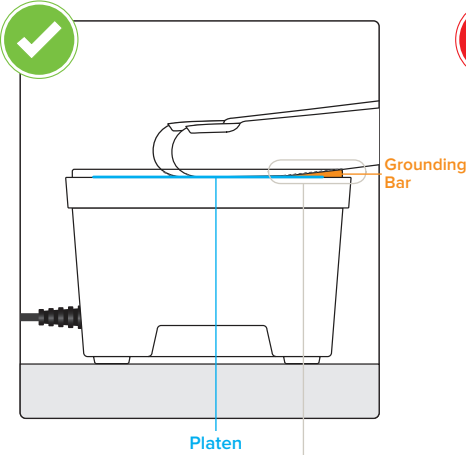
Fingers should be pointing at cord and grounded firmly against the **platen** and **grounding bar**.



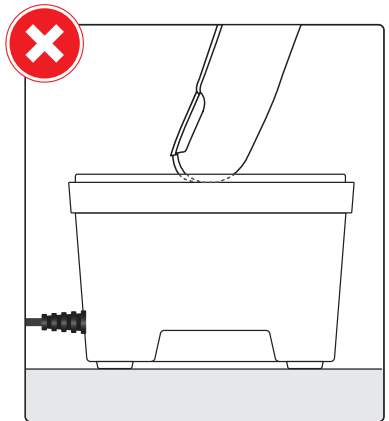
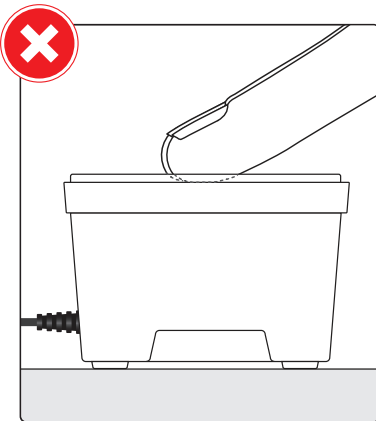
Never use two hands on the scanner at the same time.

# FINGER CONTACT

## CORRECT PLACEMENT - SIDE VIEW



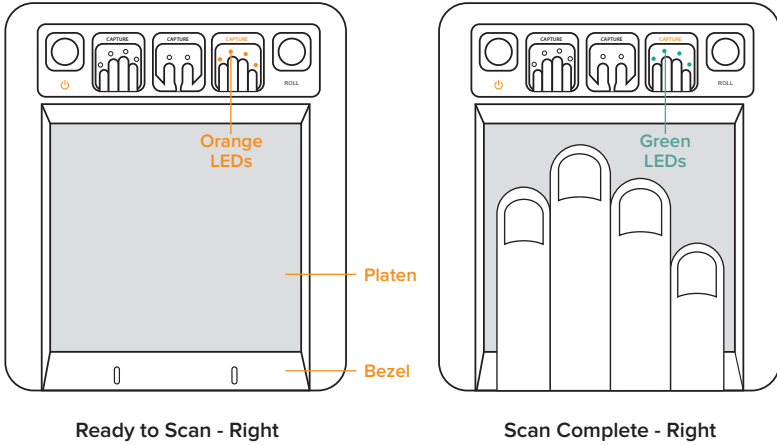
Fingers should be pointing at cord and grounded firmly against the **platen** and **grounding bar**. Gentle or light contact with the plate is recommended in scanning. Placing extra pressure on the hand is not recommended.



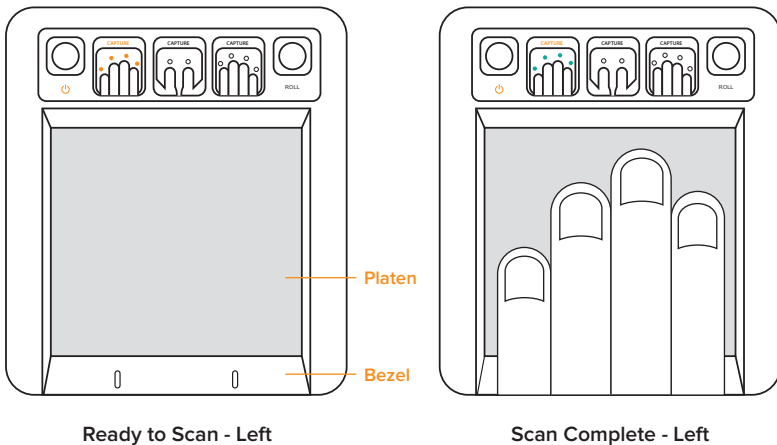
# FLAT SCANNING

## FINGER PLACEMENT

Place hand firmly against the bezel to ensure proper contact.



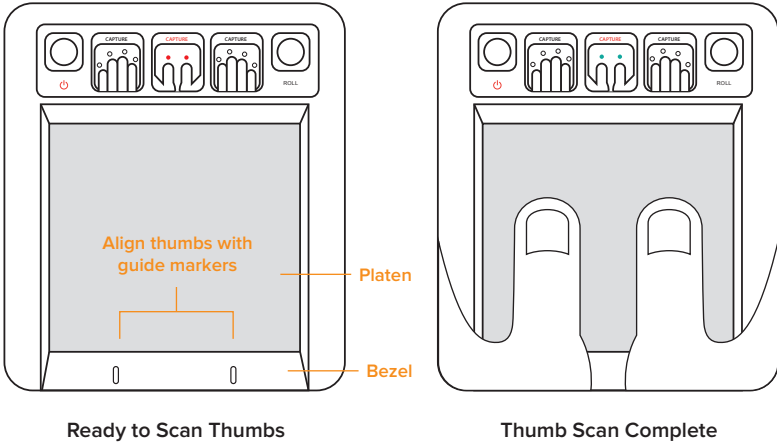
- Kojak LEDs glow orange
- Place right hand firmly against the bezel to ensure proper contact
- Kojak LEDs glow green when capture is complete
- Repeat process for left hand



# FLAT SCANNING

## THUMB CAPTURE

Place bottom of thumbs firmly against the bezel to ensure proper contact.

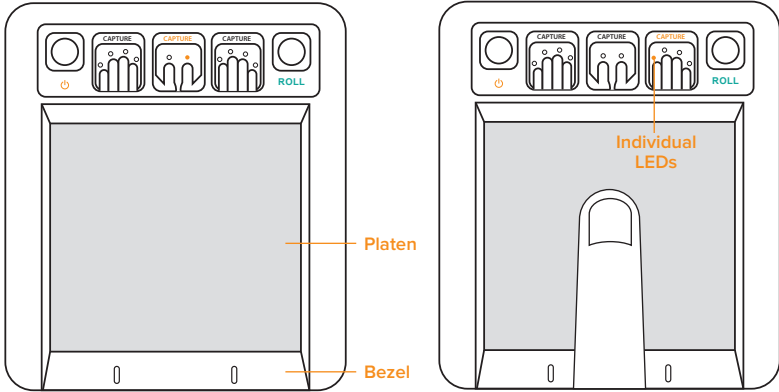


- Kojak LEDs glow orange
- Grasp the unit with index fingers pointed towards the LED notification panel at the top of Kojak
- Place thumbs flat against the platen
- Kojak LEDs glow green when capture is complete

# ROLL SCANNING

## FINGER PLACEMENT

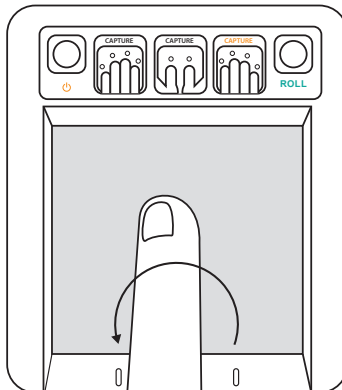
When performing rolls, place indicated finger firmly against the bezel and platen to ensure proper contact.



Ready to Scan - First Finger

Finger Placement

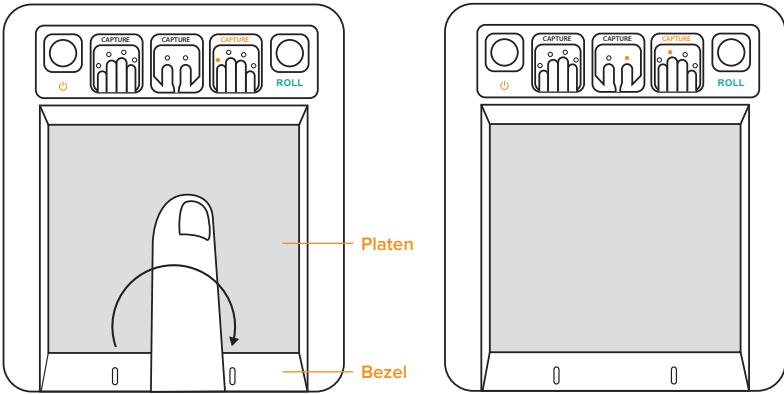
- Roll scan LED illuminates
- Individual LEDs indicate specific finger to scan
- Place finger flat on platen between bezel guide markers extending slightly past the first knuckle
- While maintaining good contact with both platen and bezel, roll finger 45 degrees to the left



Roll Left Complete

**NOTE:** Optimal scanning requires stopping at +/- 45 degrees from flat.

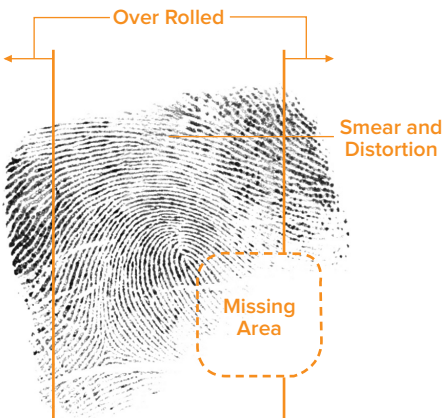
# ROLL SCANNING



Ready to Scan Next Finger

- While maintaining good contact with both platen and bezel, roll finger 45 degrees to the right
- On-screen operator visualization and LED / audio notification from Kojak notify scan complete
- Kojak finger placement LED indicates the next finger in sequence

## ROLLING EXAMPLES



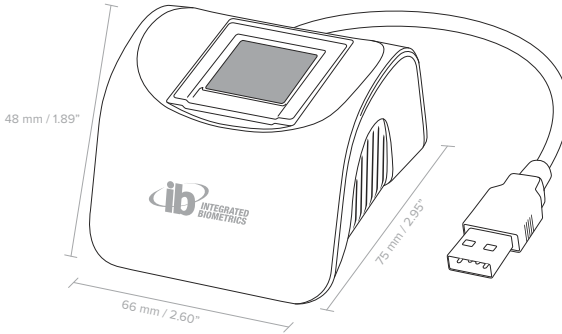
Improperly Rolled



Proper Print

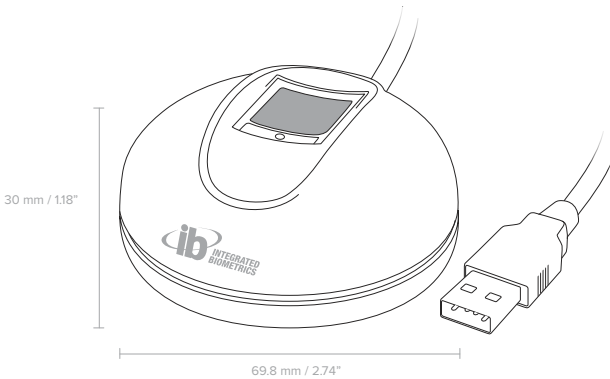
# ONE-FINGER SCANNERS

## COLUMBO



Columbo (embedded version) and Columbo Desktop (pictured) are the world's smallest and lightest FBI PIV-certified FAP 30 single-fingerprint scanners. The incredibly accurate scanners provide a new alternative for unattended verification applications.

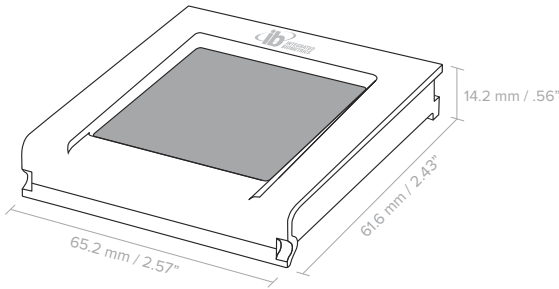
## CURVE



Curve (pictured) and eCurve (embedded version) succeed in demanding real-world conditions common to commercial applications. Curve scanners are globally-deployed as an accurate, cost-effective solution for biometric identification.

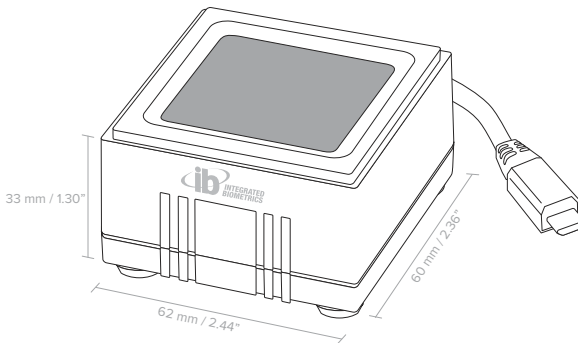
# TWO-FINGER SCANNERS

## SHERLOCK



Sherlock is the world's smallest, lightest FBI Appendix F-certified, FAP 45 fingerprint scanner for embedded applications. Sherlock is ideal for hand-held devices requiring flat-print and single finger roll scans.

## WATSON MINI

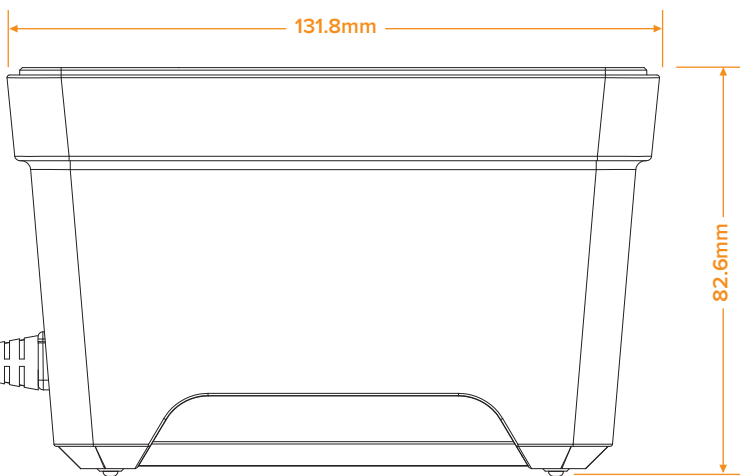
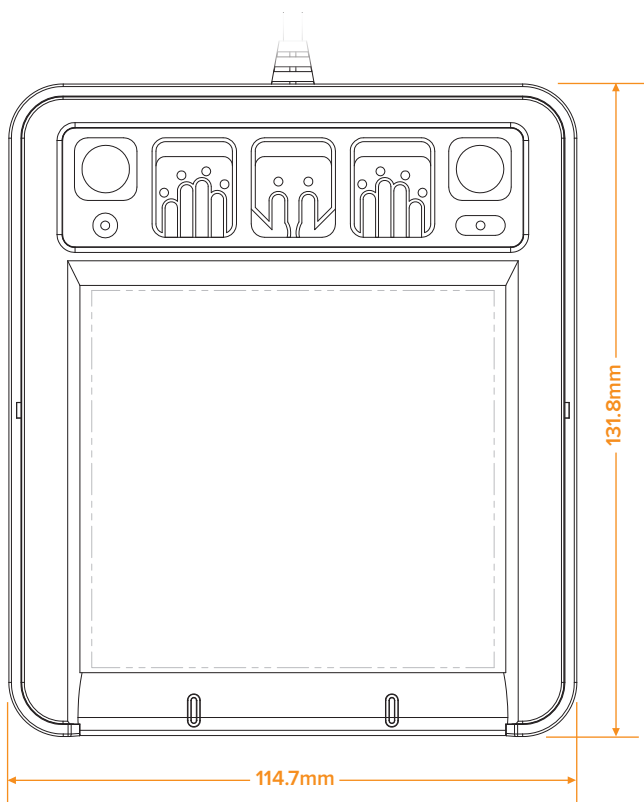


Watson Mini is an FBI Appendix F-certified, FAP 45 fingerprint scanner for both embedded and standalone applications. It supports flat print and single finger roll scans and can be a cost effective platform for ten-print enrollments.



# KOJAK DIMENSIONS

---



# SPECIFICATIONS

---

Kojak exceeds the needs for enrollment and verification applications in demanding international programs. It is particularly suited for mobile applications where minimal size, weight and power consumption have significant value. Kojak is the cost-effective solution for ten-print live scanning requirements.

Kojak is provided with a full featured SDK to enable effective integration into applications requiring certified FAP 60 quality images.

FBI Certification	FBI Appendix F, PIV, FIPS 201, FAP 60
Resolution	500 PPI
Platen Size	3.5" (W) x 3.15" (H) / 88.9 mm (W) x 80.01 mm (H)
Sensing Area	3.2" (W) x 3.0" (H) / 81.28 mm (W) x 76.3 mm (H)
Gray Scale	256 grayscale dynamic range
Image Size	1600 (W) x 1500 (H) pixels
Supported Image Formats	RAW, JPEG2000, BMP, PNG, WSQ
Scanner Physical Size	4.5" x 5.2" x 3.3" 114.3 mm x 132.08 mm x 83.83 mm
Interface	USB 2.0
USB Certification Spec	USB-IF USB.ORG
USB Level	4.40V – 5.25V
FCC/CE Conformance	FCC Part 15 (per ANSI C63.4:2014) Class B CSA ICES-003 Class B CE Emissions: EN 55022:2010 Class B CE Immunity EN 55024:2010/A1:2001/A2:2003 IEC 61000-4-2
Equipment Safety	IEC 60950-1
Product Weight	725 grams / 1.6 lbs (not including cable)
Power Consumption	<300mA during full scanning mode
Air Discharge/Contact Discharge	In compliance with IEC 61000-4-2
Operating Temperature	-10°C ~ +55°C / 14°F ~ 131°F
Humidity	30~85% RH < 40°C / 104°F (Non-condensing)
Storage Temperature	-30°C ~ +60°C / -22°F ~ 140°F
RoHS Certified	RoHS Directive 2002/95/EC
Ingress Protection	Direct water spray, no dust or dirt ingress, IP65 bezel to film
OS Support	Windows Desktop 32/64 bit (7, 8, 10), Windows Server, Linux, Android 4.0+, Java
Surface Durability	MIL-C-675c 4.5010, MIL-STD-810F

# COMPLIANCE

---

## FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Caution:** Any changes or modifications not expressly approved by Integrated Biometrics could void the user's authority to operate this equipment legally under FCC regulations.



# WORLD-CLASS TECHNOLOGY

LES technology empowers energy-efficient, compact, and durable biometric scanning solutions unique to the market. Ready to deploy in any environment under any conditions, Integrated Biometrics' scanners are the choice for high performance applications.

## KOJAK

Integrated Biometrics, Inc.

+1 (888) 840-8034 · [technical@integratedbiometrics.com](mailto:technical@integratedbiometrics.com)

[www.integratedbiometrics.com](http://www.integratedbiometrics.com)