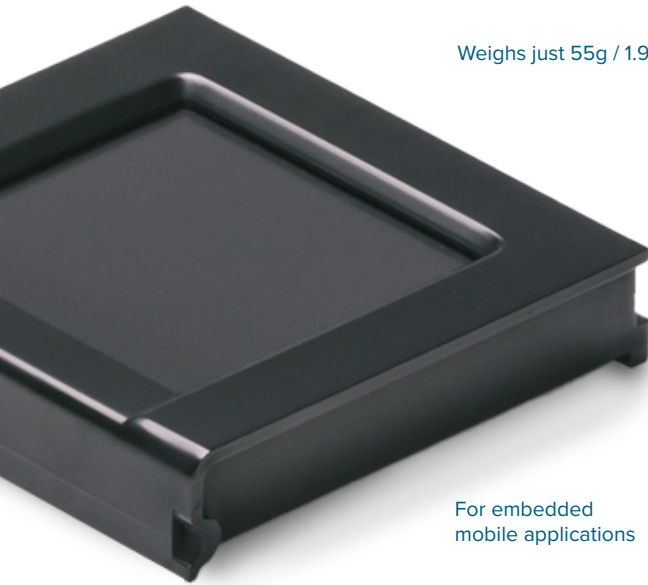**ib**

INTEGRATED
BIOMETRICS

SHERLOCK

Thin, Compact and Lightweight
FBI Certified FAP 45 2-Print Scanner

· Automatic Spoof Rejection

· Software-Based Autodetect

SHERLOCK

Runs for hours connected to a smartphone

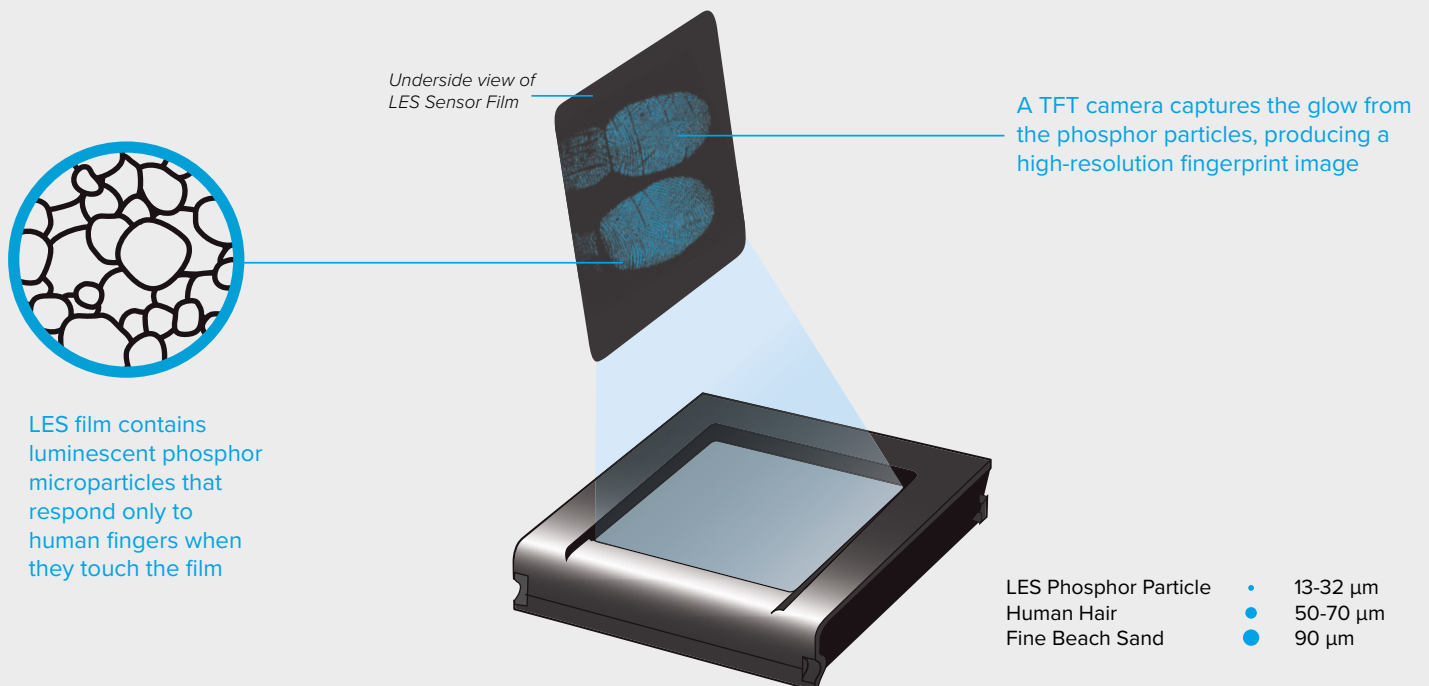Weighs just 55g / 1.94oz

For embedded
mobile applications

Supports 1-, 2-, and 10-finger
enrollment and verification

Size matters. So does weight. So do mobility and reliability. Integrated Biometrics' Sherlock 2-finger FAP 45 scanner delivers FBI Certified Appendix F fingerprint images in an amazingly thin, lightweight format.

Sherlock enables 1-, 2-, and 10-finger enrollment and verification from a device that weighs just 55g / 1.94oz. Designed for both embedded and standalone applications, Sherlock combines performance and durability with the compact size and low power consumption that mobile identity management applications demand.

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*

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

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

LES Phosphor Particle	•	13-32 μm
Human Hair	●	50-70 μm
Fine Beach Sand	●	90 μm

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 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).
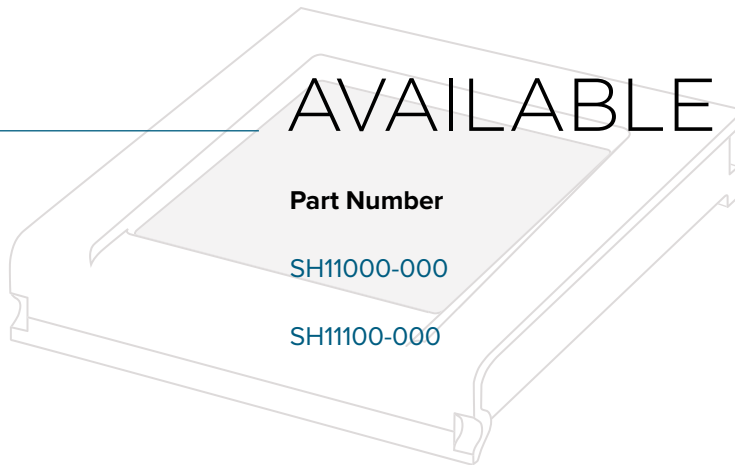
AVAILABLE VERSIONS

Product	Part Number	Description
· Sherlock	SH11000-000	6 Pin Pogo
· Sherlock	SH11100-000	Female Molex connector

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
800 x 750 pixels

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

FBI / Image Certifications
Mobile ID IQS FAP45, PIV, GSA FIPS 201, FBI Appendix F Certified

Speed
Minimum frame rate > 10 FPS

API Interface
Capture single finger direct/rolls, multi-device/muti-thread support

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

Weight & Dimensions. . . . .

Product Weight
< 55 grams / 0.12 lbs

Platen Size
42 mm x 39 mm / 1.65" x 1.53"

Sensing Area
40 mm x 38 mm / 1.6" x 1.5"

Scanner Assembly Dimensions
65.2 mm x 59.5 mm x 14.2 mm / 2.57" x 2.34" x 0.56"

Power & Connectors . . . .

Interface
USB 2.0

Power Source
USB Host

USB Voltage Level
4.75V 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 62368-1

Hazardous Material
RoHS directive 2002/95/EC

Vibration Test
Per Mil-STD-810F (Method 514.5), Category 24, Flg.514.5C-17

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

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 two-finger enrollments per day, the Sherlock MTBF is 33 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

ib
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