



The Frontex Identity Challenge:

Meeting the need for mobile 10-print biometrics

Enrollment | Identification | Verification

11 May 2018

Enrollment

Without VISA

- Mandatory enrollment at Schengen border
- Two ways to enroll – 4 finger / face
 - self-service kiosk
 - manually at border control officer

With VISA

- Ten-print / face

Verification (1:1)

- face matching or four fingers match

Identification (1:N)

- 4 fingers match

Important:

- if facial verification fails - fingerprint identification is mandatory
- identification requires fingerprint capture and match











True Mobility

**Light Emitting Sensor
LES
Technology**

Underside View
of LES Sensor Film



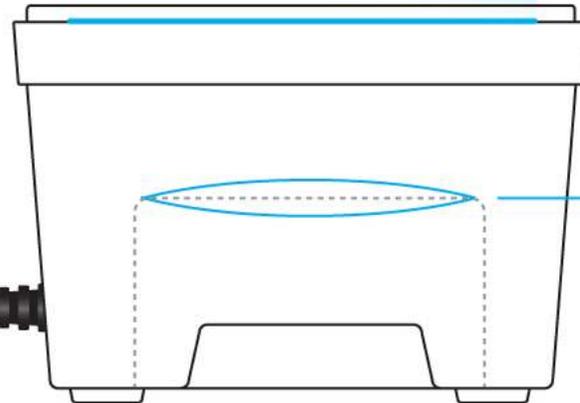
LES film contains
microscopic layers
of phosphor
luminescent particles

Diameters in microns

- ┆ LES Phosphor Particle 13-37 μm
- ┆ Human Hair 50-70 μm
- ┆ Fine Beach Sand 90 μm



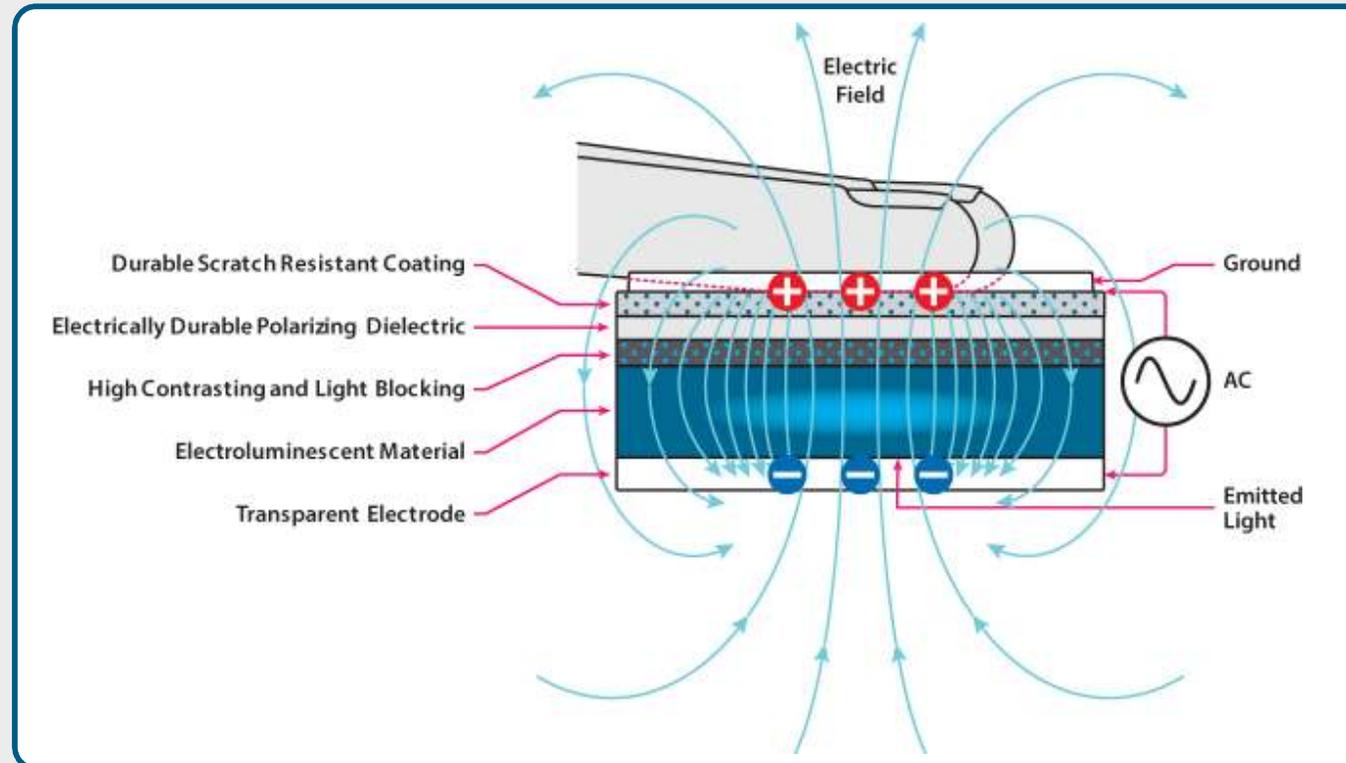
A human finger placed
on LES film causes the
contact areas to glow
a bright blue showing
fingerprint ridge surfaces
in extreme detail



The glowing phosphor
particles are captured
via CMOS or TFT
camera producing high
resolution fingerprints

Unique, Patented Light Emitting Sensor (LES) Film

Electroluminescence Film Technology



An electric field is formed between the object to be imaged and the bottom electrode layer. The luminescence layer between emits the object image.

Faster

- Rapid dry finger capture
- No need to clean latent prints between scans
- Rejects common spoofing attacks
- Scans dry or dirty fingers without expensive silicone membranes

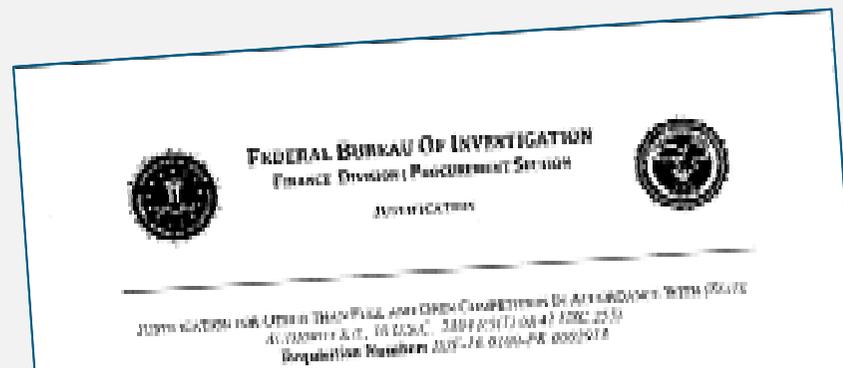
Better

- Unaffected by extreme temperatures, direct sunlight, or bright artificial lights
- Extremely low power consumption
- Compact, lightweight, and rugged – built for field operations
- Meets or exceeds US military durability specification

Cheaper

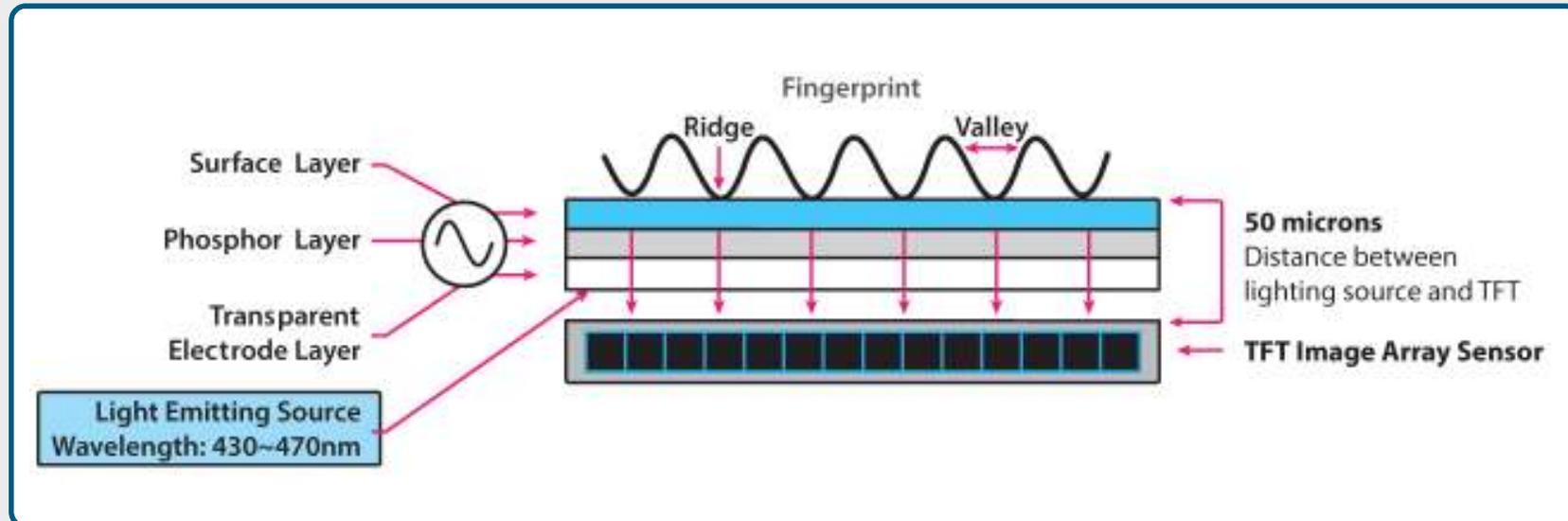
- Competitive pricing
- Longer standard warranty
- Lower maintenance costs

FBI Sole Source Justification

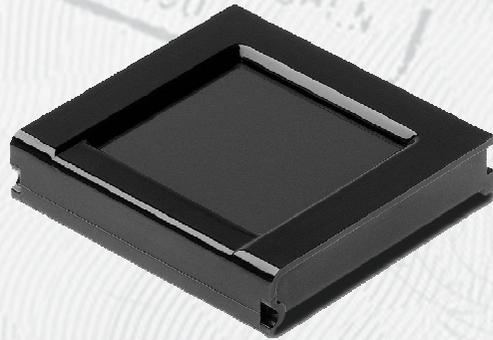


reduce the foot print of each kit. The Kojak scanner will mark the greatest reduction in weight and size to date, making the kits much more mobile for field operators. No other fingerprint scanners were found capable of meeting the weight, size, power requirements, as well as meet the requirement of being FBI certified.

TFT – Thin Film Transistor Technology | Sherlock and Five-0



In the presence of a small electric field, the electroluminescent film creates a high-resolution, direct image of the fingerprint patterns and minutiae. The image is captured by a TFT image array sensor.



SHERLOCK

Thin, Compact, Lightweight
FBI Certified FAP 45
2-Finger Scanner



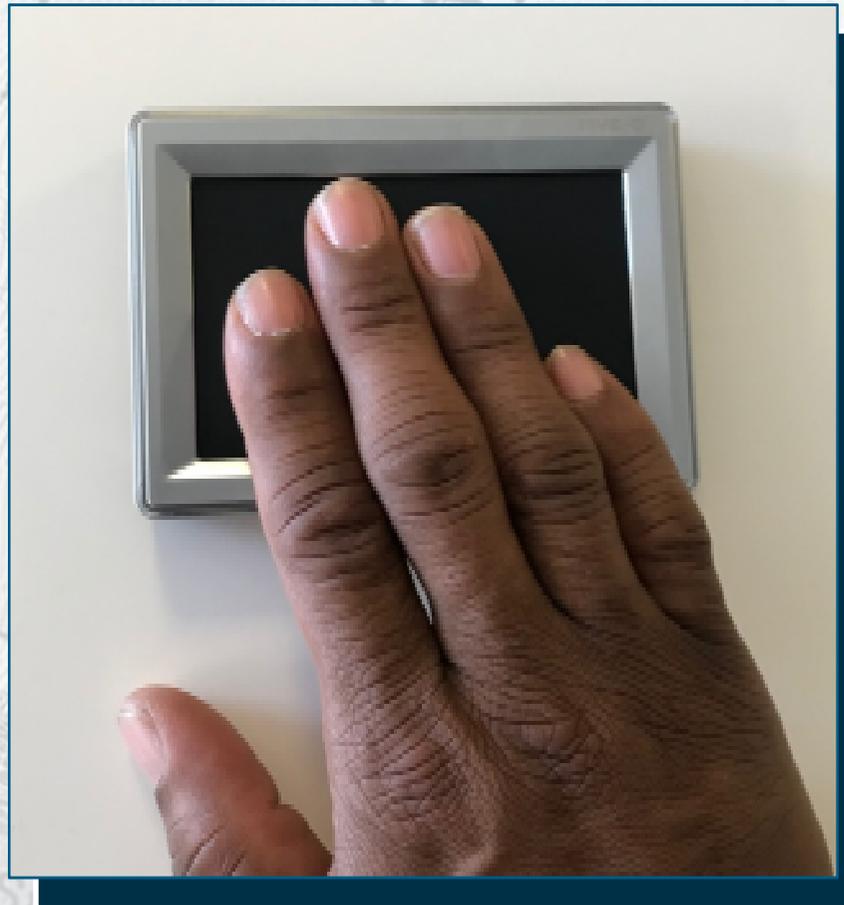
FIVE-O

FBI Certified FAP 50 Mobile
10-Finger Scanner that
Fits in a Shirt Pocket

10-Print Capture 2 : 2 : 2 : 2 : 2



10-Print Capture 4 : 4 : 2



10-Print Capture 2 : 2 : 2 : 2 : 2



10-Print Capture 4 : 4 : 2





Ares



BioSled



Viber



Vampire



Corvus



Grabba



NeoScan



SIC Biometric Solutions



Tascent M6



Tascent MX



Credence



VERSAT

IB TFT with Light Emitting Sensor Technology

- Proven in the global market place since 2013 where rugged, mobile, fingerprint capture performance is required
 - Federal Bureau of Investigation (FBI)
 - Immigration & Customs Enforcement (ICE)
 - US Department of Homeland Security (DHS)
 - Special Operations Command (SOCOM)
- Over 10,000 IB TFT sensors are in the field operating today



US ICE



US CBP



FBI



U.S. SOCOM



US Navy



US Intelligence

Customers | International



Estonia



UK Immigration Bureau



West Yorkshire Police



Lithuania



**EU Latvia
State Border Guard**



**EU Latvia
State Police**



**EU Latvia
Military Police**



**EU Latvia
Security Police**



**Indonesia
Police**



**Brazil
Electorate**



**Uruguay
Government**



**Mexican
Army**



**Philippines
Social Services**



Portable

- Weight – reduces transportation costs
- Size – requires less space to store
- Durability – will not fail in the field
- Power requirements – reduces need for additional batteries

Outdoor Use

- Direct sunlight – no affect on image quality
- Dusty or damp conditions

Skin Condition

- Complexion – no effect on capture speed
- Aged or worn fingers



FIVE-O

FBI Certified FAP 50 Mobile
10-Finger Scanner that Fits
in a Shirt Pocket





KOJAK

Rugged, Compact, and
Exceptionally Low Power FBI
Certified FAP 60 10-Finger Scanner





WATSON_{MINI}

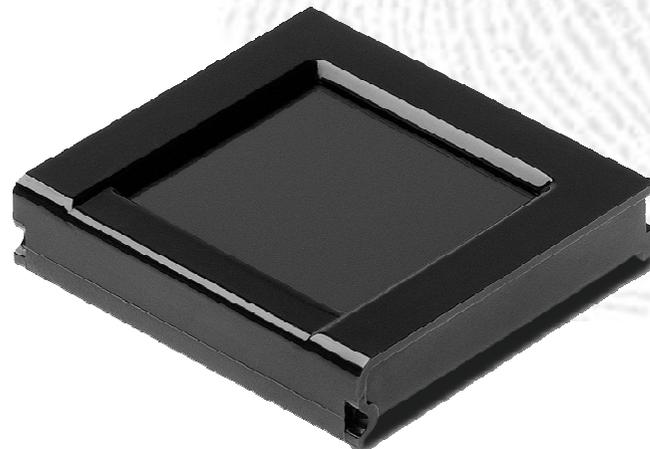
Compact, Lightweight FBI Certified
FAP 45 2-Finger Scanner





SHERLOCK

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





COLUMBO

Compact, Durable FBI Certified
FAP 30 Single-Finger Scanner



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