

# LES is more

Light Emitting Sensor

# Columbo

## Single-Finger Scanner

### FBI PIV Certified

## IB's LES technology provides a more durable, more mobile, and more reliable FBI Certified sensor

Mobile ID IQS FAP 30, PIV

Columbo is the world's smallest, lightest, and fastest FBI PIV FAP 30 Certified single-fingerprint scanner. Utilizing LES technology, Columbo produces the highest quality fingerprint images in a small and lightweight form factor.

The Columbo is provided with a full featured SDK to enable effective integration into applications requiring Certified quality images. This product meets the needs for both enrollment and verification applications common in international standards based programs. The Columbo is particularly suited to the many mobile applications where minimal size and weight have significant value.

- > **Durable:** able to withstand the toughest operating environments with minimal maintenance
- > **Accurate:** provides accurate high-resolution fingerprint scans in virtually any environment: indirect or direct sunlight, a factory, etc. LES fingerprint sensor is not easily confused by foreign matter
- > **Efficient:** Full Scanning – 130mA; Sleep Mode – <2mA; Stand By <40mA

### Benefits

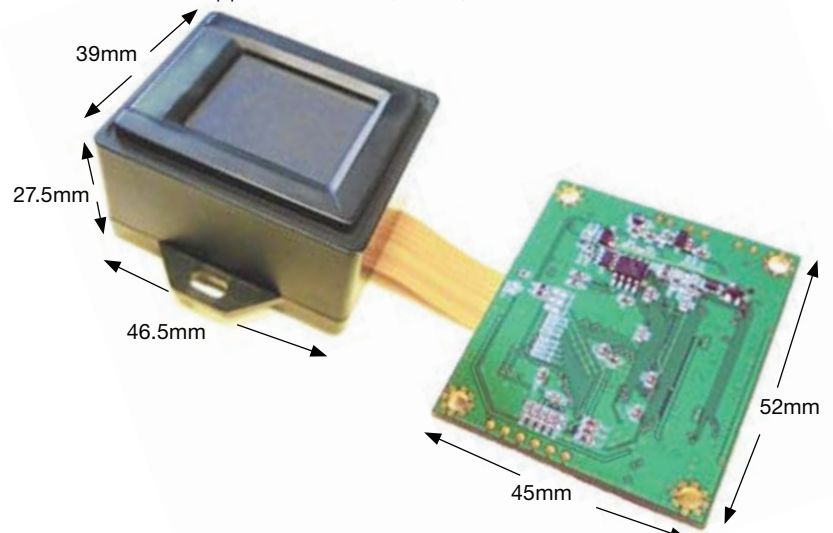
- > Enables fingerprint capture in standalone applications and in combination with commercial smart phones and tablets
- > Light weight (<70 grams)
- > Single finger scan
- > No membranes to replace
- > Ideal for use with mobile computers or hand-held devices
- > Easy to integrate
- > Requires no cleaning for latent fingerprints
- > Excellent with dry and dirty fingers
- > Durable and shock resistant
- > Live finger detection
- > Operates in direct sunlight

### Applications

- > Embedded module for mobile applications

### Specifications (\*Pending)

- > Resolution: 500 PPI
- > Sensing Area: 0.8" x 1.0"
- > Image Size: 400 x 500 pixels
- > \*CE - IEC International Equipment Safety Standards 60950:2005/ EN 60950-1:2006/A11:2009
- > \*USB Certification Spec: USB-IF USB.ORG
- > USB 2.0
- > 7 FPS
- > USB Level: 4.40V – 5.25V
- > USB Circuit Board is external
- > Product Weight: <70 grams
- > \*Air / Contact Discharge: in compliance with IEC 61000-4-2
- > \*Operating Temperature: -10°C ~ +55°C
- > \*Humidity: 30~85% RH < 40°C (Non-condensing)
- > \*RoHS Compliant
- > \*IP54 Compatible (film to case only)
- > API Interface: Single Finger Image. Mult-device / Multi-thread support
- > OS Support: Windows7, Linux, Android 4.0



## Columbo Specifications (\*Pending)

Resolution	500 PPI
Sensing Area	0.8" x 1.0"
Image Size	400 x 500 pixels
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 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
Speed	7 FPS
Product Options	TBD
Product Weight	<70g
Scanner Assembly Dimensions	46.5mm x 39mm x 27.5mm
Circuit Board	52mm (2.05") x 45mm (1.77")
*Air Discharge / Contact Discharge	In compliance with IEC 61000-4-2
*Operating Temperature	-10°C ~ +55°C
*Humidity	30~85% RH < 40°C (Non-condensing)
*RoHS Compliant	RoHS Directive 2002/95/EC
*IP54 Compatible (film to case only)	Yes
API Interface	Single-finger Image. Multi-device / Multi-thread support
OS Support	Windows7, Linux, Android 4.0
*Surface Durability	MIL-C-675c 4.5010, MIL-STD-810F
Surface Resistance	Ammonia, IPA, Methanol, Soaps/detergents, Salt Water
*Vibration Test	per MIL-STD-810F (Method 514.5), Category 24, Fig. 514.5C-17
FBI Certification	PIV 071006 FAP 30 / Certified to Mobile ID Requirements
Warranty	1 year hardware warranty (extended warranty available upon request)