

## Thales Cogent CS500f

10 FINGERS (4-4-2) FINGERPRINT SCANNER

**The Thales brand new slap scanner**



## CS500f at a glance



The Thales Cogent CS500f is the brand new compact Ten-print live scanner offering a superior fast acquisition speed and USB 3.0 technology.

It supports collection of all 10 fingerprints in 4-4-2 format (right four fingers, left four fingers, and two thumbs) while producing high quality fingerprint images with exceptional capture speed.

- FBI IAFIS IQS Appendix F certified
- USB 3.0
- Anti fake detection (SW based)
- Multiplatform Compatibility (Win, Linux, Android)
- Flat and Rolled fingerprints
- Provided with MultiScan\_SDK and fully integrated into Gemalto LiveScan Solution

# Applications

Designed with a small footprint, it can be used in a desktop setting or integrated into other systems like kiosks

It is provided with a useful handle to improve the scanner handling in case of mobile installations

## TARGET APPLICATIONS

- e-ID Documents, e-Passports and Visa
- Border Control
- Criminal Background Check
- Civil Identification



# Main technical specifications



<b>GENERAL</b>	FAP	<b>FAP60</b>
	Fingerprint Types	<b>Four Finger Slaps Two Thumbs Single Flats/Rolls</b>
<b>SCANNING AREA</b>	Platen Scanning Windows	<b>3.8' x 3.1' (96mm x 79mm)</b>
	Flat Fingers Scanning Area	<b>3.2' x 3.0' (81mm x 76mm)</b>
	Rolled Fingers Scanning Area	<b>1.6' x 1.6' (40mm x 40mm)</b>
<b>SPEED</b>	Image certification	<b>FBI IAFIS IQS App. F</b>
	Resolution & Grey Scale	<b>500 dpi - 256 gray</b>
	Image compression	<b>WSQ, JPEG</b>
	Acquisition speed	<b>Up to 27 fps for slap (preview mode) Up to 25 fps for rolled</b>
<b>HARDWARE</b>	Dimensions (W x D x H)	<b>151mm x 148mm x 102mm</b>
	Weight	<b>1.5 Kg</b>
	Interface	<b>USB 3.0</b>
	Operating Temperature	<b>0° to 50°c</b>
	Operating Humidity	<b>10 -90% non-condensing</b>
	IP	<b>IP54</b>
	User Interface	<b>LED</b>
	Certifications	<b>CE, FCC, RoHS</b>
	Mounting	<b>Ready to be installed on a counter top</b>
	Buzzer	<b>On board programmable Buzzer</b>
<b>SOFTWARE</b>	Kensington Lock	<b>YES</b>
	Cable	<b>Sealed Strain Relief USB</b>
	Windows	<b>Windows 7,8.1, 10 (32/64bit)</b>
	Linux	<b>Ubuntu 14.04 (32/64 bit)</b>
	Android	<b>Android 4.4</b>
<b>SPECIAL</b>	Additional Software	<b>DactyMatch SDK</b>
	Antispoofing LFD	<b>YES</b>
	Silicon Membrane	<b>YES (Optional)</b>

# Fixing & Security features

The CS500f has a couple of very useful features:

- **A strain relief cable:** engineered in order to avoid the breakup of the USB cable connected to the scanner
- **Fixing holes:** designed to fix the scanner to fixed structures such border control officer station, enrollment kiosks and so on
- **Kensington Lock:** to secure the scanner in case of offices/desktop installations



# Acquisition Views

4 fingers - SLAP



Single Rolled



2 Thumbs



Thumb Rolled



# SDK Overview – MultiScan\_SDK 4.3

**MultiScan\_SDK** is always included in the product price and is divided in two distinct parts:

- **BASIC SDK:** for device management/drivers and basic image acquisition
- **FULL ENHANCED SDK:** provides a graphical user interface (with source code for a fast customization) and a full library for **image processing:** segmentation, image enhancement, matching score calculation for the sequence check, quality evaluation, image compression, etc.; **file formatting** compliant with ANSI/NIST ITL 1-2007 standard and **BioAPI 2.0 compatible** through a Biometric Service Provider (BSP) which is provided with the SDK

**Multi-language support:** all libraries are ready to be used with the all languages supported by the framework (C#, C++, Visual Basic). Wrappers for .NET (2.0) framework and Java are also available in the SDK. MultiScan\_SDK is available for **Windows** platform at 32/64 bit, **Linux** Fedora/Ubuntu at 32/64 bit and **Android**.



# SDK Features – MultiScan\_SDK 4.3

<b>Acquisition</b>	<i>Automatic Acquisition Start and Stop</i>
<b>Rolled Fingerprint Capturing</b>	<i>Display in real-time, self-adaptive to rolling speed and directions</i>
<b>Adaptive Rolled Acquisition</b>	<i>Rolled acquisition on all the front prism area (only for MultiScan527 - patented feature)</i>
<b>Segmentation</b>	<i>Automatic splitting of four-slap and two thumbs fingerprint images in single flat images</i>
<b>Automatic Sequence Checking</b>	<i>Eliminates incorrect fingerprint sequence scanning: hands and fingers swapping or incorrect input</i>
<b>Dry Finger Image Enhancement</b>	<i>Low contrasted images due to dry skin conditions are automatically improved</i>
<b>Image Quality Checking</b>	<i>As per NISTIR 7151 (NFIQ and NFIQ2) and Green Bit proprietary algorithm</i>
<b>Sliding Detection for Flat Prints</b>	<i>Detects deformations of fingerprints due to sliding during acquisition</i>
<b>Artifacts Control</b>	<i>Detects artifacts created during improper rolled print acquisition</i>
<b>Latent prints</b>	<i>Elimination of latent fingerprints &amp; halo</i>
<b>Multi OS compatibility</b>	<i>Windows, Linux, Android</i>
<b>WEB-API</b>	<i>Web application for the development of browser-based applications</i>

# SDK Features – GB\_FFD Anti fake detection

## CS500f can be updated with a **SW Fake-Finger-Detection (GB\_FFD)**

The **GB\_FFD** solution is “software based” and does not require any physical upgrade or HW modification of the current models or installed base.

- Easy to use and very fast processing
- Fully Integrated in our MultiScan\_SDK
- Intuitive user interface

-**GB\_FFD** algorithms are capable to “learn” during use, thus improving efficiency over time

