

TouchChip® USB Development Kit

■ Growing fingerprint market

The market for USB fingerprint devices is growing rapidly. Examples include authenticating doctors viewing medical files, bankers moving money, school children getting lunch, or government workers accessing classified data. Market analysts estimate growth for fingerprint solutions at over 50% per year and becoming a multi-billion dollar industry.

■ UPEK TouchChip fingerprint sensors: Proven

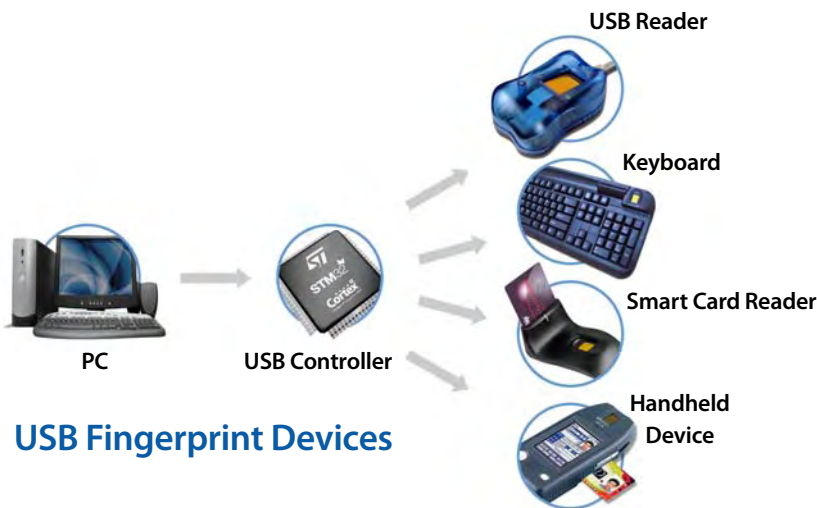
When developing USB fingerprint solutions, you want a partner with proven success. UPEK has developed high-quality silicon fingerprint sensors and solutions for 10 years. UPEK's quality is proven with millions of devices, and UPEK has the only silicon sensor to meet the US Government FIPS-201 standard.

UPEK fingerprint sensors are used in millions of devices including: notebook PCs, mobile phones, mice, keyboards, card readers, door locks, POS terminals, hand-held devices & more.

UPEK TouchChip sensors are the leading silicon area sensors and help solve today's demanding user authentication needs.

■ Fast Time-to-Market

To simplify the integration of UPEK's TouchChip fingerprint sensors into USB devices, UPEK provides all the tools you need. The TouchChip USB Development kit provides reference schematics, software, technical documents, and support to get your product to market quickly and with excellent quality.



USB Fingerprint Devices





TCS1C



TCS2C



TCEFX1



TCS1S

12.8 x 18mm
image area



TCS2S

10.4 x 14.4mm
image area

Supported TouchChip sensors and modules

Flexible Image Capture Options

For today's USB fingerprint products, UPEK offers three image capture modes including the new Enhanced Image Mode (EIM) which delivers excellent image quality, including FIPS 201.

- **Standard:** In broad use today. The original TouchChip capture method. Simple and effective.
- **EIM-Lite:** (new) Improves dry finger capture and image quality. Uses bezel and same memory as Standard.
- **EIM:** (new) Meets FIPS 201 image quality with the TCS1. Uses conductive bezel and advanced sensor calibration. [Requires EIM license agreement.]

TouchChip Ordering Information

To help customers design TouchChip USB products, UPEK offers development kits, evaluation kits and fingerprint sensors. Contact UPEK sales for details.

Product	Part Number
• TouchChip USB Development Kit (PerfectPrint 9.1 SW & TouchChip HW design tools)	TCKDU07
• TouchChip FIPS 201 Evaluation Kit (working TCEFB1 module with TouchChip demo SW)	TCKEU07
• TCS1C Fingerprint Sensor (FIPS 201)	TCS1CM6A0
• TCS2C Fingerprint Sensor	TCS2CN6A0
• TCS1S Fingerprint Sensor + SteelCoat	TCS1SM6A0
• TCS2S Fingerprint Sensor + SteelCoat	TCS2SN6A0
• TCEFB1 USB - only module (FIPS 201)	TCEFB1FF011
• TCEFC1 USB + on-board match (FIPS 201)	TCEFC1FF011

TouchChip USB Development Kit Contents

Hardware

	TCS1	TCS2	TCEFX1
Standard Coating (gold)	TCS1C x 2	TCS2C x 2	TCEFB1 x 2 TCEFC1 x 2
Steel Coat (black)	TCS1S x 2	TCS2S x 2	

Software

PerfectPrint 9 SDK (via UPEK partner portal)	STM32, CY764215, TC92163*
Loadable firmware file	STM32, CY764215
Reader Calibration & Reader Diagnostic tools	STM32, CY764215, TC92163*
Operating System Support	Windows 2000, XP, Vista, W7 (legacy) 32/64 bit WinCE 4&5 (ARM, SH4, x86) Pocket PC 2003/ARM
USB Driver Support	STM32, CY764215, TC92163*
USB data encryption: sensor to host	STM32 only
Project Files and Sample Code	Included

*TC92163 is EOL Dec 2008

Documentation

TouchChip USB Developer Guide	Developer guide
Datasheets	TCS1, TCS2 & TCEFB1 (FIPS 201 module)
USB reference design schematics	STM32 & CY764215 (Standard, EIM-Lite, EIM)
Application Notes	Mechanical integration, design guidelines, sensor handling & more

Support

1 year membership in UPEK Partner Program	Online tools & documents
HW & SW support	Included via Partner Program membership

UPEK, Inc.
5900 Christie Ave
Emeryville, CA 94608 U.S.A.
Tel: +1-510-420-2600
Fax: +1-510-420-2699

UPEK PTE LTD
55 UBI Avenue 3
#03-00 Mintwell Building
Singapore 408864
Tel: +65-6746-6323

Beijing
+86-10-59231229
Prague
+420-296-390-200
Taipei
+866-223-460-866
Tokyo
+81-3-3373-4381

www.upek.com
sales@upek.com

