Securing the Information Age

TCS2AF
Silicon
Fingerprint
Sensor

Key features

High performance silicon sensor

Compact size and low profile optimized for portable devices

Targeted at high volume, price-sensitive consumer applications

Low power consumption ideal for portable and/or battery-powered systems

Active Capacitive-Sensing Technology ensures highest quality images

The TCS2A fingerprint sensor is the newest addition to ST's highly successful TouchChip range of silicon fingerprint sensors – a family of products providing secure and convenient solutions for authenticating the true identity of a person. Since fingerprints cannot be lost, duplicated, stolen or forgotten, the TouchChip product range is widely regarded as providing more reliable results than traditional security devices.

High volume, portable consumer applications

As the smallest product in the family, the TCS2A fingerprint sensor has been designed for integration into portable devices such as PDA's, laptops, tokens and cellular phones, and is specifically targeted at high volume, price-sensitive consumer applications. As a proven solution for biometrics, TouchChip supports applications as diverse as e-business, m-commerce, network access, asset protection and government security.

Extremely flexible

Fully compatible with all products in the TouchChip range, the TCS2A can be easily interchanged with other TouchChip finger print sensors to create new biometric products offering additional features and superior levels of security.

Such a versatile family concept ensures customers can build their own product families very quickly, responding rapidly to changes in the marketplace.

Optimal performance at all times

Like all fingerprint sensors in the TouchChip family, the TCS2A is based on ST's highly successful Active Capacitive-Sensing Technology. Shown to create better quality images than other silicon solutions, this state-of-the-art technology enables TouchChip customers to build the highest levels of security into their biometric subsystems. With PerfectPrint image optimization and PerfectMatch fingerprint matching, customers can be sure of achieving the highest performance possible, for all skin types under all operating conditions.

Rapid integration

Using a simple Application Programming Interface, it is extremely easy for designers to add fingerprint authentication features into their products. With just a few simple functions provided to interface the TouchChip subsystem with their own software, a system can be developed very quickly without an in-depth knowledge of biometrics.

STMicroelectronics

More Intelligent Solutions

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Product Specifications

CMOS active capacitive pixel-sensing technology	
Ultra-hard protective coating	
Active sensor size	10.4 x 14.4 mm
Array size	208 x 288 pixels
Array pitch	50 microns
Image resolution	508 DPI
Capture rate	23 fps
ESD tolerant	±15kV
Power consumption	Nominal 16mA Stand-by 7mA Sleep <1mA
Package dimensions	27 x 20.4 x 3.5mm
Connector	20-pin flex connector
I/O Interface	8-bit RAM interface
Environmental specifications	Operating Temperature 0°C to 40°C Storage Temperature -40°C to 85°C Operating Humidity 5% to 95% RH @ 30°C

Software

PerfectPrint Image optimization software included
PerfectMatch extraction and matching algorithm included

Ordering information

Please contact your local STMicroelectronics sales representative for pricing, availability and partnership arrangements.

For selected STMicroelectronics sales offices fax:
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Full product information at www.st.com