

Securing the Information Age

TCS1AD TouchChip® Fingerprint Sensor



Key features

Largest active area in the fingerprint sensor market ensures best possible biometric performance

Targeted at high security applications

Low power consumption

Compact size and low profile

Active Capacitive-Sensing Technology ensures highest quality images

PerfectMatch™ API for easy integration

Evaluation Kit and Software Development Kit speed design tasks

The TCS1AD TouchChip sensor is the highest performance sensor from the successful TouchChip range of silicon fingerprint sensors – a family of products providing secure and convenient solutions for authenticating the true identity of a person. The TouchChip product range is widely regarded as providing more reliable results than traditional security devices.

High security in demanding applications

The TCS1AD has the largest active area in the market for fingerprint sensors and therefore provides the best possible biometric performance.

It has been designed for integration in a wide range of products such as handheld devices, automotive products, PC peripherals and locks, and is ideal for applications demanding the maximum level of security such as physical access control, network access, e-business, asset protection and government security.

Rapid integration

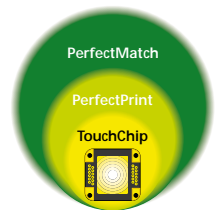
Using a simple Application Programming Interface, it is extremely easy for designers to add fingerprint authentication features into their products. With just a few simple functions provided to interface the TouchChip subsystem with their own software, a system can be developed very quickly without an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

Secure and convenient

By using Fingerprint ID technology, the TouchChip range of products provides the most secure and convenient means of authenticating the true identity of a person. Since fingerprints cannot be lost, duplicated or stolen, and because users do not have to carry or remember anything, the TCS1AD enables you to build significantly more reliable and easier to use applications than traditional security devices.

Optimal performance at all times

Like all fingerprint sensors in the TouchChip family, the TCS1AD 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.



TCS1AD TouchChip® Fingerprint Sensor

Product Specifications

CMOS active capacitive pixel-sensing technology

Ultra-hard protective coating

Active sensor size 12.8 x 18.0 mm

Array size 256 x 360 pixels

Array pitch 50 microns

Image resolution 508 DPI

Capture rate 15 fps

ESD tolerant ±15kV

Power consumption Imaging 20mA

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.



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Full product information at www.st.com