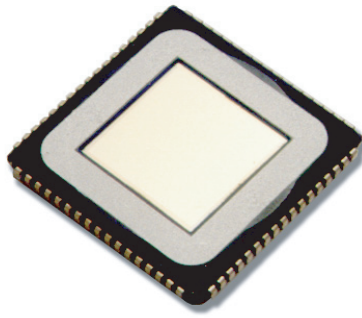# FingerLoc® AF-S2

Fingerprint Sensor

AuthenTec, Inc.

Personal Security for the Real World™

Introducing…

The FingerLoc AF-S2 is AuthenTec's workhorse fingerprint identification sensor IC, using familiar and reliable 0.6μ CMOS technology. This product combines silicon-based image capture with proprietary sensor control and matching algorithms.

AuthenTec sensors with TruePrint® Technology look past the easily obscured outer surface of the skin to the living layer below where the unique ridge and valley patterns of the fingerprint originate.

AuthenTec devices are the first and only fingerprint-based biometric authentication solutions that can work for everyone, everywhere, under the most demanding real-world conditions.

TruePrint Is…

AuthenTec's unique, patented imaging technology. During imaging, a small signal is generated between the IC and the finger's live layer. More than 16,000 individual elements in the sensor matrix form a planar antenna array that receives this signal, creating a digital pattern that mimics very accurately the fingerprint's underlying structure.

A powerful component of TruePrint is called Dynamic Optimization. This tool analyzes each frame, controlling up to 15 parameters to optimize the fingerprint image, regardless of unusual skin conditions or surface contamination.

High Performance…
- ▶ Unequaled "Ability to Acquire"
- ▶ Patented TruePrint Technology
- ▶ Industry's best FAR/FRR

Small Form Factor…
- ▶ 68-pin PLCC package
- ▶ 24 x 24 x 3.5 mm

Robust Packaging…
- ▶ Scratch and impact resistant (stress-tested to >40,000 psi)
- ▶ Rub-resistant to >1M rubs
- ▶ Impervious to contamination

Detection Matrix…
- ▶ 128 x 128 pixels
- ▶ 13 mm x 13 mm
- ▶ 250 ppi resolution images

System Interface…
- ▶ Asynchronous serial interface

Operating Voltage Range
- ▶ 5.0V

Extended Temperature Range
- ▶ -20°C through +70°C

Power Dissipation @ 5.0V…
- ▶ 30 mW imaging (avg.)
- ▶ 100 μW standby mode

High-Rate Image Capture…
- ▶ 15 frames/second

ESD Resistance…
- ▶ IEC 61000-4-2 Level 3 (±8KV)

Supported Operating systems…
- ▶ Microsoft® Windows 98®, ME®, 2000®, and NT® v4.0.
- ▶ Intel PIII, P4

Superior Image Quality…

The result is a high-quality image that creates reliable authentication. These images ensure that we capture everyone, every time under virtually all conditions.

Target Applications…

The FingerLoc AF-S2 sensor is optimized for use in time and attendance, access control, and security applications, and in large form-factor PCs and peripherals.
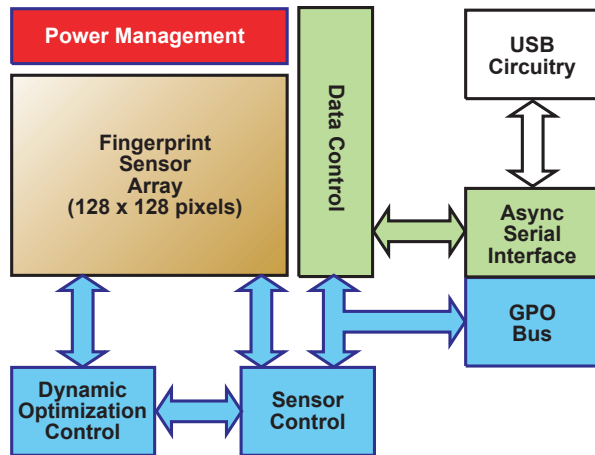
Convenient Security…

The FingerLoc AF-S2 fingerprint sensor is specifically designed for the demands of the PC market and access control markets. Its small size and high repeatability make it ideally secure, reliable, and convenient for such applications.
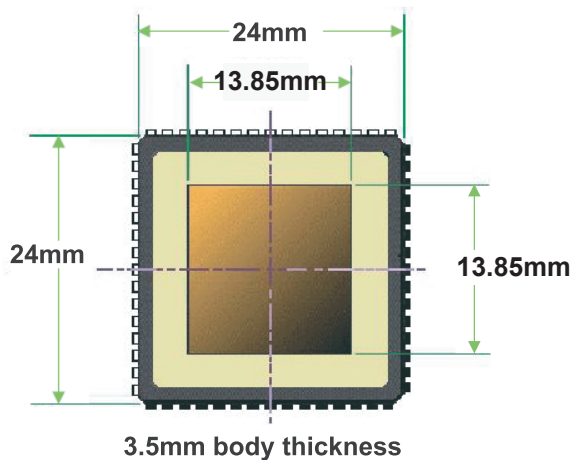
Building On Success…

FingerLoc is AuthenTec's original fingerprint sensor family, which compliments the EntréPad® line for the portable PC and mobile product markets.

Both product families build on AuthenTec's well-proven TruePrint Technology to produce the best images in the industry.

The FingerLoc AF-S2 sensor offers…

► Outstanding imaging repeatability
► Superior recognition of "hard-to-get" fingers
► Backward compatibility with existing designs
► Unique power-management system
► High data throughput rates
► Low-cost serial interface
► Easy interface to the Universal Serial Bus (USB)

3.5mm body thickness

The form factor of the AF-S2 is 68-pin JEDEC-standard Plastic Leadless Chip Carrier (PLCC).

In addition to the AuthenTec sensors, let us introduce you to the AuthenTec family of kits…

AuthenTec provides a full range of hardware, software, design services, and support, including advanced sensor control and fingerprint matching algorithms, device driver support for Windows 98, 2000, ME, XP and NT v4.0, and support for the industry-standard biometric Applications Programming Interfaces (APIs). All these features are conveniently bundled into kits:

► Technology Evaluation Kits (TEKs) enable quick and easy investigation of our technology. The kit contains a sensor module, matching algorithm, and demonstration software.

► Software Developer's Kits (SDKs) are available for Independent Software Developers who wish to develop products that interface with AuthenTec sensors.

► Reference Design Kits (RDKs) enable manufacturers of PCs/PC peripherals, mobile and wireless/handheld systems to quickly integrate AuthenTec fingerprint sensors into their products by providing a complete hardware and software reference solution.

► Embedded Design Kits (EDKs) enable manufacturers of embedded systems such as door locks, access control systems and time & attendance boxes, to quickly integrate FingerLoc into their products by providing an easy to use modular design.

For more information contact AuthenTec or your local AuthenTec representative.

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