

AFS8500

FingerLoc™

Fingerprint Sensor



Introducing...

The all-new FingerLoc AFS8500 is AuthenTec's latest, low-power, small form factor fingerprint identification sensor IC. The FingerLoc AFS8500 uses familiar and reliable 0.6 μ CMOS technology. This product combines silicon-based image capture with proprietary sensor control and matching algorithms.

AuthenTec's 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 sensors are the first and only fingerprint-based biometric authentication solutions that works 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 9,000 individual elements in the sensor matrix form a planar antenna array that receives this signal, creating a digital pattern that very accurately mimics the fingerprint's underlying structure.

A powerful complementary utility within TruePrint is Dynamic Optimization™. This tool analyzes each image, controlling up to 15 parameters to optimize the fingerprint image, without regard to unusual skin condition or surface contamination.

High performance...

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

Ultra-small form factor...

- ▶ 144-pin LQFP package
- ▶ 20 x 20 x 1.4 mm (.79 x .79 x .055 in)

Robust packaging...

- ▶ Scratch and impact resistant (stress-tested to >40,000 psi)
- ▶ Impervious to contamination

ESD resistance...

- ▶ IEC 61000-4-2 Lvl 4 (15KV)

SelectaBus™...

- ▶ RS-232 serial interface
- ▶ 8-bit parallel interface

Industrial Operating Range

- ▶ -20°C through +85°C

Dual Voltage choices...

- ▶ 3.3V or 5V

Power dissipation @ 3.3Vdc...

- ▶ 11 mW (Imaging mode)
- ▶ 60 μ W (Standby mode)

Detection matrix...

- ▶ 96 x 96 pixels
- ▶ 9.75 x 9.75 mm

High-rate frame capture...

- ▶ Parallel - 52 frames/second
- ▶ Serial - 10 frames/second
- ▶ 250 dpi image density

Supported Microprocessors...

- ▶ Intel StrongArm® SA-1110
- ▶ TI TMS320VC5509
- ▶ 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 AFS8500 is well suited for use in time and attendance, access control, and security applications, such as door locks, POS terminals and other low cost security applications

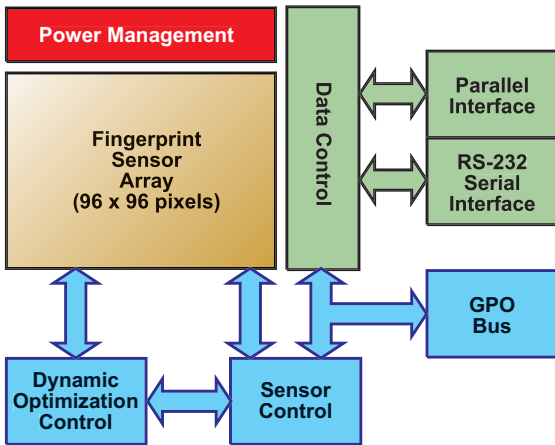
Convenient security...

The FingerLoc AFS8500 is the first fingerprint sensor specifically designed for the demands of small form factor access control products. Its extremely small size and low power requirements make it ideal for applications requiring the security of biometrics with the convenience of one touch access.

Building on success...

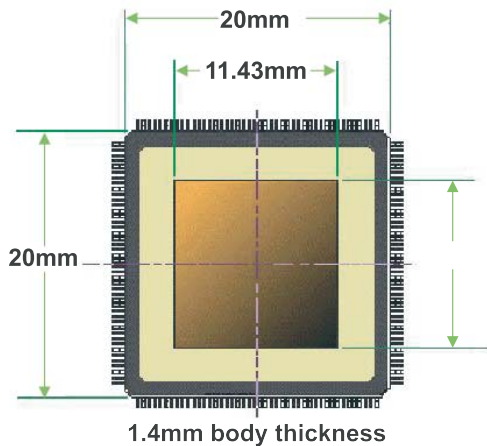
FingerLoc is AuthenTec's original fingerprint sensor family, which compliments the EntréPad line for the portable PC and mobile product markets.

Both product families are built upon AuthenTec's well-proven TruePrint Technology to produce the best images in the industry.



The FingerLoc AFS8500 sensor incorporates flexible SelectaBus architecture, allowing the developer to deploy designs that use either the familiar RS-232 serial interface or an 8-bit parallel interface implementation.

- ▶ Bus choice is pin-selectable
- ▶ Optimized for embedded platforms
- ▶ Unique power management system
- ▶ High data throughput rates



The form factor of the FingerLoc AFS8500 is
144-pin JEDEC-standard
Low-profile Quad Flat Package (LQFP)

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, 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 TruePrint Technology. The kit contains a sensor module, matching algorithm, and demonstration software. TEKs
- ▶ 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 Developer's 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 Sales Representative.

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