

AES3500 EntréPad™ Fingerprint Sensor



AuthenTec, Inc.
Personal Security for the Real World™

Introducing...

The all-new EntréPad AES3500 is AuthenTec's latest, low-power, small form-factor fingerprint identification sensor IC. The EntréPad AES3500 uses industry standard 0.35u CMOS technology. This product combines silicon-based image capture with proprietary sensor control and matching algorithms.

AuthenTec's EntréPad utilizes TruePrint™ Technology allowing the sensor to 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 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 16000 individual elements in the sensor matrix form a planar antenna array that receives this signal, creating a digital pattern that accurately reproduces the fingerprint's underlying structure.

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

High performance...

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

Ultra-small form factor...

- ▶ 100-pin LQFP package
- ▶ 14mm x 14mm x 1.4mm

Robust packaging...

- ▶ Scratch and impact resistant (greater than 40000 psi)
- ▶ Rub-resistant to > 1M rubs
- ▶ Impervious to contamination

Detection matrix...

- ▶ 6.5mm x 6.5mm
- ▶ 128 pixels x 128 pixels
- ▶ Advanced Finger Detection

SelectaBus™...

- ▶ Universal Serial Bus (USB)
- ▶ 8-bit Parallel interface
- ▶ Asynchronous Serial interface

Operating Voltage range...

- ▶ 2.7V - 3.6V

Operating temperature range...

- ▶ 0°C through +70°C

Average power dissipation...

- ▶ Advanced Power Management
- ▶ 6 mW Imaging
- ▶ 250 µW Finger Detection
- ▶ 60 µW Standby
- ▶ 200 mA/ month Power Switch

High-rate frame capture...

- ▶ 8 - 32 Frames per second
- ▶ 500 dpi

ESD resistance...

- ▶ IEC 61000-4-2 Lvl 3

Supported operating systems...

- ▶ Microsoft® Windows 98®, ME®, NT® v4.0, 2000®, XP®
- ▶ Symbian®
- ▶ Planned: Palm OS®, CE 3.0®

Superior image quality...

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

Target applications...

The EntréPad AES3500 is optimized for use in Personal Electronic Devices including mobile PCs, PDAs, cell phones, wireless products, and internet appliances.

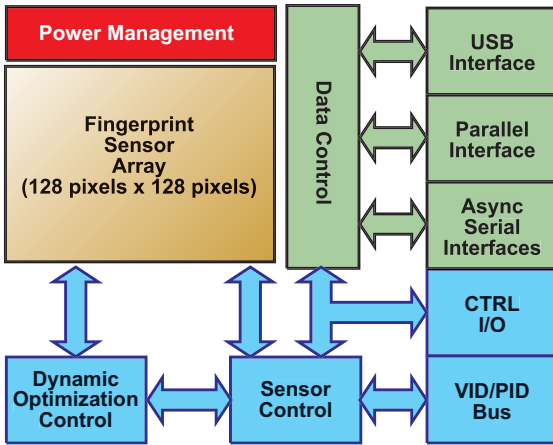
Convenient security...

The EntréPad AES3500 is the first fingerprint sensor specifically designed for the demands of the wireless hand-held market. Its extremely small size and low power requirements make it ideal for secure and convenient access to such equipment. The on-chip finger detection capability allows the AES3500 to act as a power switch and eliminates system overhead for finger detection.

Building on success...

The AES3500 is AuthenTec's third fingerprint sensor and the second product in the EntréPad family.

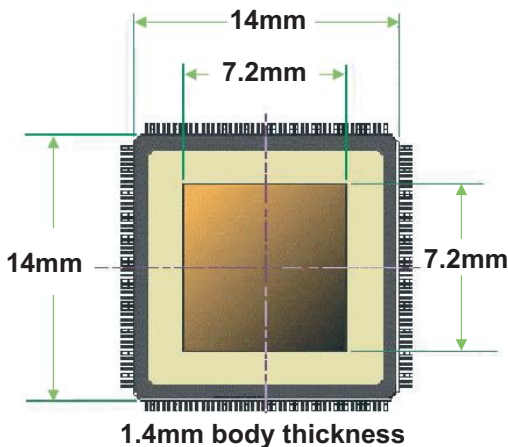
The AES3500 continues to take advantage of AuthenTec's field proven TruePrint Technology to provide the best Ability to Enroll and Ability to Acquire in the industry.



The EntréPad AES3500 sensor incorporates flexible Select-a-Bus™ architecture. This feature allows the developer to deploy designs that use not only the popular Universal Serial Bus, but also asynchronous serial interfaces and an 8 bit parallel interface implementation.

- ▶ USB Low Power Version 2.0 low + full speed
- ▶ Bus choice is pin-selectable
- ▶ Advanced biometric power management system
- ▶ High data throughput rates

With SelectaBus, several solutions can be served by a single SKU, simplifying procurement and inventory management.



The form factor of the EntréPad AES3500 is
100-pin JEDEC-standard
Low-profile Quad Flat Package (LQFP)

In addition to AuthenTec's latest sensor, let us introduce you to the AuthenTec family of kits...

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

- ▶ Technology Evaluation Kits (TEKs) are low cost introductory tools that come complete with a sensor module, matching algorithms, and demonstration software. TEKs enable quick and easy investigation of our technology.
- ▶ Software Developer's Kits (SDKs) are available for Independent Software Vendors (ISVs) who wish to develop products that interface with AuthenTec sensors.
- ▶ Reference Design Kits (RDks) enable manufacturers of PCs, peripherals, PDA's, and wireless devices to quickly integrate AuthenTec sensors into their products.
- ▶ "OS Ready" Operating System Support enables AuthenTec to provide dedicated software drivers in support of unique customer hardware platforms in a relatively short time. Our current list of supported "OS-Ready" operating systems include Symbian, Windows CE3.0 and Palm OS. Contact AuthenTec directly for more information regarding this support.

For more information contact AuthenTec or your AuthenTec representative.

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