

# EntréPad® AES2502

Fingerprint Sensor  
For Serial Interface  
Applications



## Introducing...

The new EntréPad AES2502 slide sensor is AuthenTec's latest and lowest cost fingerprint sensor. AuthenTec has adapted its patented, award winning TruePrint® technology to read fingerprints while the finger is pulled across the AES2502's rectangular surface. In this manner, the full fingerprint is acquired while the sensor is substantially reduced in size.

The AES2502 combines silicon-based image capture with proprietary sensor control and matching algorithms to provide the best quality lowest cost biometric authentication solution available.

## TruePrint Is...

AuthenTec's unique, patented imaging technology adapted for sliding finger motion. All of AuthenTec's EntréPad and FingerLoc® sensors utilize TruePrint technology, enabling 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.

A powerful component of TruePrint is Dynamic Optimization which allows the AES2502 to deliver multiple images of the fingerprint (called image slices) as the finger is pulled across the sensor. Each image slice is analyzed with up to 15 parameters adjusted to optimize image quality, or surface contamination.

## High Performance...

- ▶ TruePrint for sliding fingers
- ▶ >15cm/sec finger slide speed
- ▶ Unequaled "Ability to Acquire"
- ▶ Industry's best FAR/FRR
- ▶ Security Features
- ▶ 5-way Navigation

## Ultra-Small Form Factor...

- ▶ 48 Ball Grid Array (BGA)
- ▶ 13.8mm x 5mm x 1.3mm

## Robust Packaging...

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

## Detection Matrix...

- ▶ 192 x 16 pixels
- ▶ 9.75mm x 0.81mm
- ▶ 500 ppi high-resolution images

## Serial Interface...

- ▶ 3 - 6Mbps Synchronous Serial
- ▶ Normal and Inverted modes

## Mobile Handset Voltage Range...

- ▶ 2.4V - 3.6V

## Wide Temperature Range...

- ▶ -20°C through +70°C

## Current Consumption @ 2.5V...

- ▶ Advanced power management
- ▶ <35mA peak imaging
- ▶ <3mA navigation mode

## High-Rate Image Capture...

- ▶ Up to 162 frames/second

## ESD Resistance...

- ▶ IEC 61000-4-2 Level 4 (±15KV)

## Supported Operating Systems...

- ▶ Symbian®
- ▶ Windows Mobile®



## Superior Image Quality...

TruePrint high-quality fingerprint imaging technology makes possible the most reliable authentication. High quality imaging ensures that we can capture everyone's fingerprint, every time under virtually all conditions.

## Target Applications...

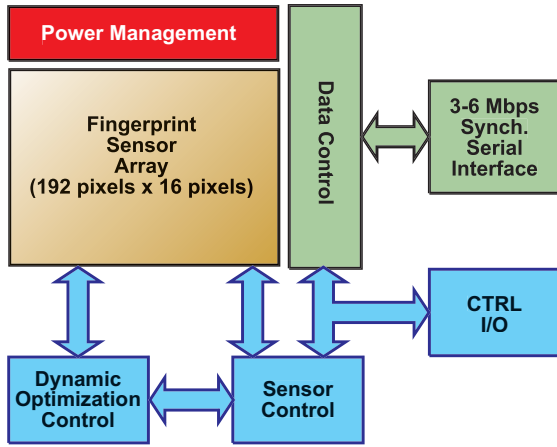
The EntréPad AES2502 is specifically designed and optimized for use in mobile devices such as cellular handsets, PDA's, and other embedded mobile applications where serial connectivity is required. Its extremely low price, ultra small size, and low voltage/power requirements make the AES2502 ideal for these applications.

## Convenient Security...

The EntréPad AES2502 fingerprint sensor features hardware finger detection capability and specialized security features for system integrity. With the new 5 way navigation functions on-chip, the AES2502 facilitates seamless menu navigation and scrolling with no additional hardware required.

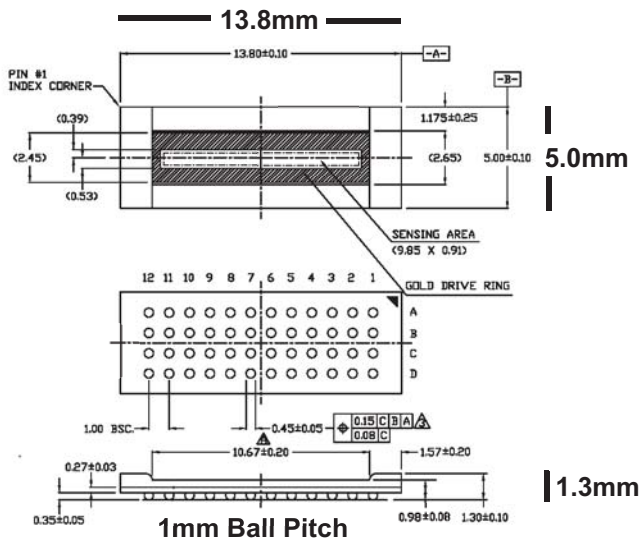
## Authentication Solution Cost...

The AES2502 is AuthenTec's answer authentication requirements where minimizing cost is paramount. AuthenTec remains committed to providing the lowest overall cost of authentication in any configuration with the widest range of fingerprint sensors.



The EntréPad AES2502 sensor has been optimized for Wireless applications using the Synchronous Serial Interface. For applications requiring Universal Serial Bus, please refer to the AES2501 datasheet.

The AES2502 allows for convenient operation with either a Crystal, a low cost resonator, or with externally supplied clock input.



The form factor of the EntréPad AES2502 is 48 BGA

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, fingerprint matching algorithms, and device driver supporting Windows Mobile, Symbian 6/7/8. Support is also provided 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 quickly provide dedicated software drivers in support of unique customer hardware platforms. The major work in preparing the necessary drivers has already been completed. Contact AuthenTec directly for more information regarding this support.

For more information contact AuthenTec or your local AuthenTec representative.

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