

**Fingerprint Imaging Sensor
Product Data Sheet
*FIS- 3001***

Overview

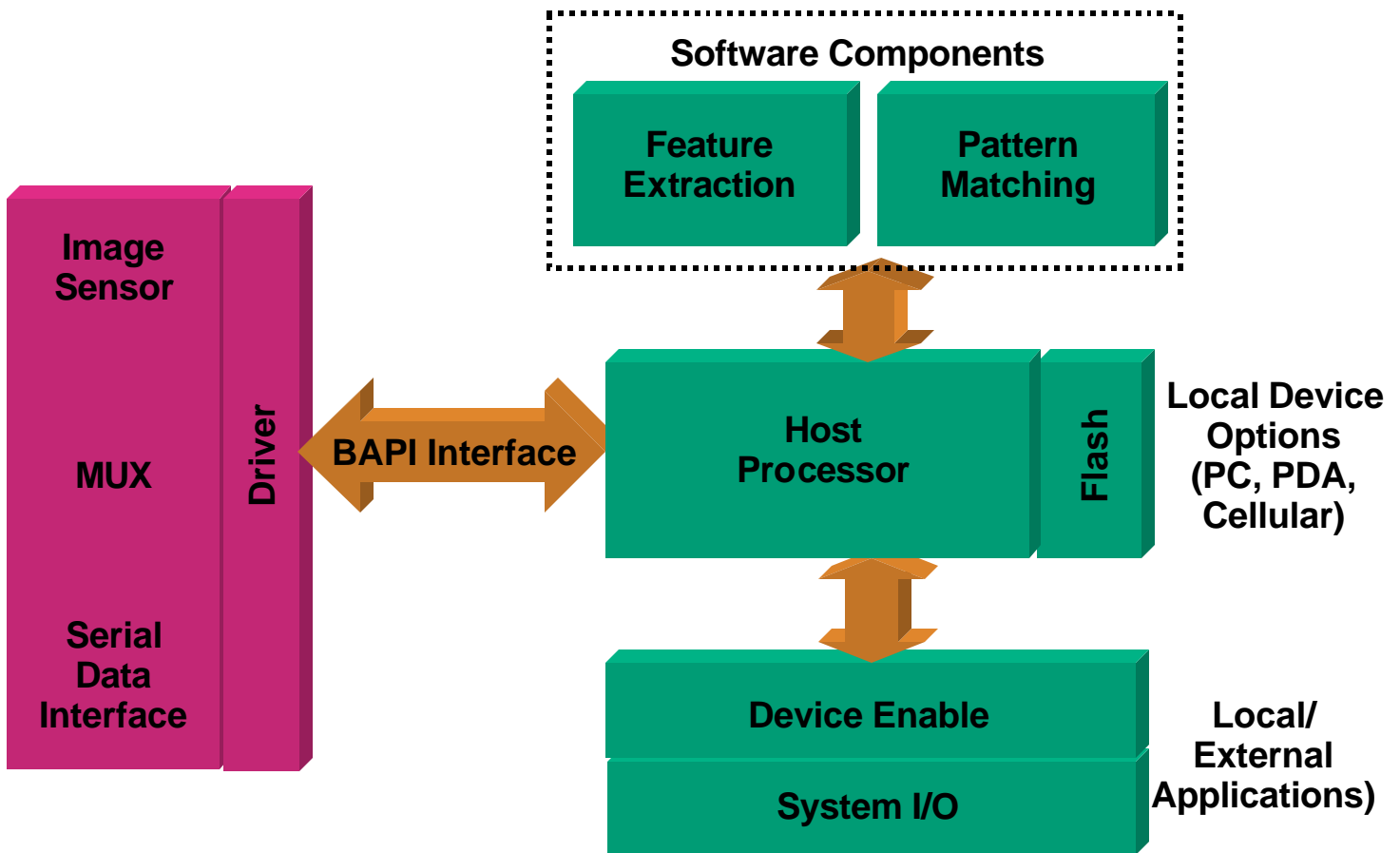
Features

Specifications

Applications

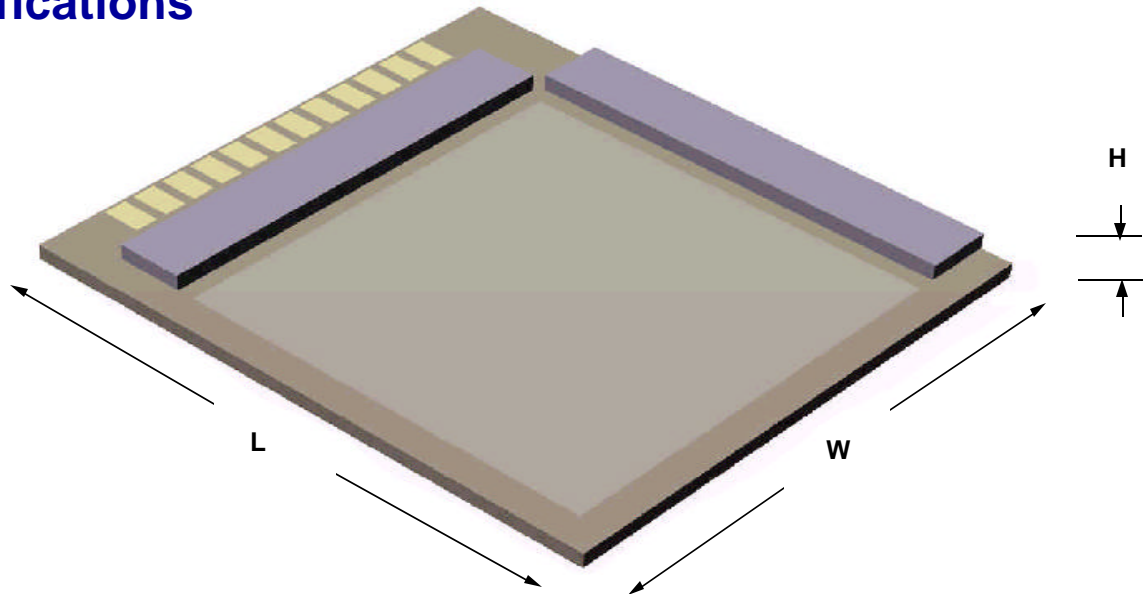
Overview

Fidelica develops and markets leading edge micro-pressure sensor technology. The first commercial application is designed to support fingerprint image capturing and comparison applications. The Fidelica Model FIS– 3001 (Fidelica Image Sensor model 3001) is designed to be embedded into microprocessor based devices. When integrated with applicable host components, this sensor enables users to perform a variety of local, remote, mobile and online electronic authentication security functions.



Schematic of a typical fingerprint recognition system

Specifications



Mechanical

Size overall

- 16.2mm W x 18.2mm L x 1.05mm H (.63 in. x .71 in. x .039 in.)

Sensor/image size

- 12.8mm x 12.8mm (0.5 in. x 0.5 in.) imaging area

Weight

- 2g

Sensor image resolution

- 508 dpi

Specifications

Reliability

Temperature

- Operating
 - Minimum: 0°C (32°F)
 - Maximum: 60°C (140°F)
- Storage and shipping temperature
 - Minimum: -40°C (-40°F)
 - Maximum: 65°C (149°F)

Humidity

- 5% to 95% non-condensing

Altitude

- Operating: 10,000 ft.

Shock

- Operating: 10g, 6ms, half sine wave
- Non-operating: 10g, 6ms, half sine wave

Vibration

- Operating: 11.69g (50-2000 Hz)
- Non-operating: 11.69g (50-2000 Hz)

Lifetime MTTF

- Touch surface life: 1,000,000+ touches (estimated life in excess of 5yrs)

Performance¹

- Scan time <1 second
- False Accept Rate (FAR) <.001%
- False Reject Rate (FRR) <.1%
- Bad cells in array <2%
- Bad rows and columns in array <2%, non adjacent

Interface

- Serial data output/USB compatible

Notes:

1. FAR and FRR performance for this sensor release is <2% FRR at .001% FAR. Results were obtained from a randomly acquired image without considering angular position of the finger and the population (background, gender, occupation or age).

Applications



Wireless



Workstations



Game Consoles



Law Enforcement

Personal Computing



PDA



Physical Access



Features

- Lowest power consumption in the industry
- Smaller than a postage stamp
- Pure binary image output
- Sensor array is not based on CMOS
- No image calibration necessary
- 508 dpi resolution
- Passive pressure sensing array

Benefits

- Ideal for wireless applications
- Embeds into any mobile device
- Low software overhead
- ESD resistant
- Faster image acquisition time
- Conforms to FBI standard
- Durable user interface

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