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.
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)

**Performance**
- 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

Personal Computing

Workstations

PDA

Game Consoles

Physical Access

Law Enforcement

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
Contact

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