Fujitsu Fingerprint Sensors Selected by Shimon Systems for Verification Reference Design Based on TI's DSP Technology


The Fujitsu MBF200 single touch sensor and MBF310 Sweep Sensor™ have been selected for a new fingerprint-verification reference design module developed by Shimon Systems and based on DSP technology from Texas Instruments Incorporated, it was announced today. (See the March 1, 2005 press release from TI and Shimon).

Shimon Systems and Texas Instruments announced the new Fingerscan BIO-EM™, a cost-effective, fingerprint-recognition module that authenticates users by capturing, converting, storing and matching their fingerprint images. This complete standalone system enables OEMs to build highly accurate authentication systems for automobiles, point-of-sale terminals, automatic teller machines, physical access devices and safety deposit boxes. The module provides increased accuracy and efficiency so end products can accurately identify users, reduce total recognition time, and support battery-operation. BIO-EM stores a large number of fingerprint templates, so a single system can authenticate many users.

Developers of biometric systems that require customization and a fast time-to-market will benefit from the BIO-EM's flexible design and the DSP's real-time processing capabilities. The module, which is easily customized, can be designed to operate in standalone mode with an interface using the USB port of a PC.

The BIO-EM consists of two boards, including a motherboard with TI's TMS320VC5507 DSP, memory, DC-DC power-supply circuits, USB connector and LEDs. A daughterboard incorporates the Fujitsu biometric sensors.

The Fujitsu MBF200 is a single-touch fingerprint sensor with an image area of 0.5" x 0.6" that produces a clear 500-dpi 8-bit greyscale image. The Fujitsu MBF310 Sweep Sensor also provides a clear 500-dpi, 8-bit greyscale image but is smaller in size, reducing system cost. The Fujitsu fingerprint sensors provide low power consumption, making them ideal for battery-operated applications such as key fobs, home door locks and other standalone applications.

The TI C55x™ generation DSP is appropriate for low-power, portable devices, such as those used for biometrics. The TI C55 preserves battery life and has the precision necessary to enable image enhancement of the fingerprint, leading to greater accuracy and improved matching speed.

"Our fingerprint sensors are ideal for this TI DSP reference design platform because of their small footprint, low power and high reliability. They have been widely applied in a broad range of different products because of their reliability, image quality and low power," said Mike Chaudoin, senior manager for FMA's Biometric Solutions Group. "Shimon's reference design reduces system costs and speeds time to deployment, expanding the total market for biometric fingerprint sensor deployments."

About Fujitsu Microelectronics America, Inc.

Fujitsu Microelectronics America, Inc. (FMA) leads the industry in innovation. FMA provides high-quality, reliable semiconductor products and services for the networking, communications, automotive, security and other markets throughout North and South America. For product information, visit the company web site at http://us.fujitsu.com/micro/biometricsensors.
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