

MBF320 Solid-State Fingerprint Sweep Sensor™



► Features

- Capacitive solid-state device
- 500-dpi resolution (50µm pitch)
- 11.16mm x 2.02mm sensing area
- 256 x 8 sensor array
- 3.0V to 3.6V operating range
- Hard protective coating
- USB 2.0 full-speed compliant (12Mbps)
- Auto-finger detection, virtual touch
- Standard CMOS technology
- Low power, less than 45mW when operating at 3.3V
- High-performance 15KV ESD tolerant
- No need for an external USB microcontroller
- Lead-free and RoHS compliant

► Description

The Fujitsu MBF320 solid-state fingerprint Sweep Sensor is a direct-contact, fingerprint-acquisition device. This high-performance, low-power capacitive sensor is composed of a two-dimensional array of metal electrodes in the sensing array. Each metal electrode acts as one plate of a capacitor and the contacting finger acts as the second plate. A passivation layer on the device surface forms the dielectric between these two plates. Ridges and valleys on the finger yield varying capacitor values across the array, and the resulting varying discharge voltages are read to form an image of the fingerprint.

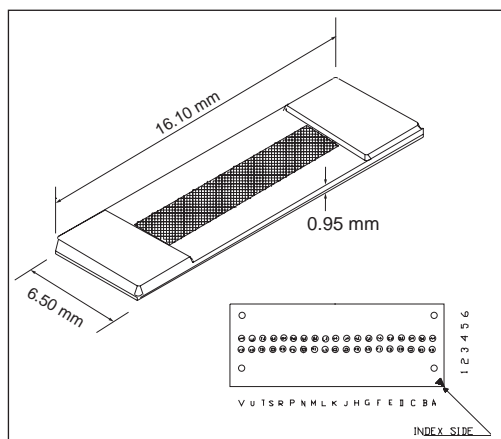
When combined with the Sweep Sensor image-capture software, the MBF320 sensor captures multiple fingerprint image frames and constructs fingerprint images when a finger slides over the sensor surface. The cost-effective MBF320 is manufactured in standard CMOS technology. The 256 x 8 sensor array has a 50µm pitch and yields a 500-dpi image. The sensor surface is protected by a patented, ultra-hard abrasion- and chemical-resistant coating, and patented package.

The MBF320 integrates Phoenix TrustedCore BIOS and fingerprint algorithms from Cogent Systems, with the PBA biometric agent. This combination provides a convenient, easy pre-boot authentication module - the complete turn-key solution.

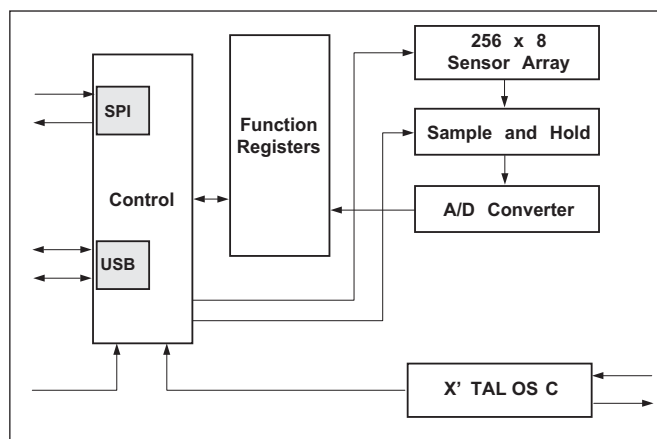
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▶ Applications

- PC / laptop security
- BIOS level PBA (PreBoot Authentication)
 - Provides endpoint security at PC boot time
 - Provides secure logon to Windows, enterprise network domains, corporate applications and websites
 - When used in conjunction with BioTrustID, addresses identity theft, file encryption and unauthorized access
- O/S level authentication
- Secure access for databases, networks, local storage
- USB Flash drives and ID tokens
- Portable fingerprint acquisition
- Embedded device and peripherals
- USB mobile device
- Access control and monitoring (home, auto, office)



Device Package Outline



Device Functional Block Diagram



RoHS Compliant

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 Printed in the U.S.A. BMS-FS-21183-8/2006