U.are.U® 2000 Fingerprint Sensor

Features

- High quality image
- Single, optimum image transmitted
- Rotation invariant
- Self-calibrating
- Challenge-response link to prevent play-back attacks
- Encrypted image data
- Cancels latent fingerprints
- Works well with dry, moist, or rough fingerprints
- Proprietary optics (patent pending)
- Small footprint
- Rugged
- ESD resistant
- Low cost, compact design
- Custom OEM logo version available (subject to minimum order)
- No external interface cord or power supply required
- High speed USB interface
- Plug-and-Play
- Compatible with Windows 2000, NT 4.0, Me, 98, and 95 OSR 2.1 (USB)

The U.are.U 2000 Fingerprint Sensor is a self-contained device for capturing a fingerprint and communicating the digital image to a host processor via a USB interface. This small sensor is ideal for laptop computers, desktop PCs, and other PC equipment where fingerprint authentication is needed.

Our low-cost, compact fingerprint Sensor incorporates precision optics, an LED light source, and a CMOS imager. The on-board electronics automatically capture fingerprints at the right moment for optimal identification, and control self-calibration and the Plug-and-Play USB interface. Fingerprint images are automatically encrypted within the Sensor before being sent to a local or remote server. A challenge-response link is used in this process for additional security.

The robust, easy-to-integrate U.are.U system has an unmatched ability to quickly recognize even the hardest to read fingerprints, and accurately reads fingerprints placed at any angle. Unlike capacitive-based sensors, our rugged, optical-based Sensor cannot be damaged by electrostatic discharge. In addition, it is less subject to malfunctions due to scratches and produces better image quality, especially for dry fingers. The scanning area of our Sensor encompasses the entire fingerprint for the greatest accuracy at a lower cost than a capacitive sensor with the same area.

The U.are.U 2000 Fingerprint Sensor seamlessly integrates with our recognition algorithm, applications, and Universal Authentication Manager (UAM) for fast authentication and ease of use. Software Development Kits are available for adding fingerprint recognition capability to your custom applications.

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Key Specifications	**Applications**
• Pixel resolution: 440 dpi (avg. x and y over image area) • Size 54mm(w) x 65mm(l) x 27mm(h) (maximum) • Image capture area ≈ 12mm x 17mm • ≤.01% False Accept Rate for 1.4% False Reject Rate (using U.are.U recognition software) • USB Interface • Compatible with Windows 2000, NT 4.0, Me, 98, and 95 OSR 2.1 (USB)	• Laptop computers • Desktop PCs • PC equipment requiring user authentication • Physical access control • Point-Of-Sale (POS) terminals

Ratings

Supply Voltage	5V +/- .25V (supplied by USB interface)
Supply Current	• 100mA (typ.) while scanning fingerprint • 60 mA (typ.) Idle mode • 2.5mA (max.) Suspend mode
ESD Susceptibility	>8KV
Temperature, Operating	5° - 35° C
Humidity, Operating	20% - 80% non-condensing
Temperature, Storage	-10° - 60° C
Humidity, Storage	20% - 90% non-condensing
USB Specifications	USB 1.1 compliant: Full-speed, high power, bus-powered, bulk transfer
Cable	USB, 0.8m (31")
Standards Compliance	FCC Class B, CE, VCCI