

Leading-edge biometric authentication technology for high-security applications

# PalmSecure™

## Palm Vein Authentication System

Award-winning authentication system verifies an individual's identity by recognizing the pattern of blood veins in the palm.

- ▶ Next generation of PalmSecure features a smaller form factor and a significant improvement in authentication speed
- ▶ Vein patterns are unique to individuals and contain detailed characteristics for formulation of algorithm template<sup>1</sup>
- ▶ Contactless authentication is hygienic and non-invasive, thus promoting high-level of user acceptance
- ▶ Advanced authentication algorithm produces high level of accuracy<sup>2</sup> and application versatility
- ▶ Extremely difficult to forge, thereby enabling a high level of security



<sup>1</sup> Based on research to date by Fujitsu.

<sup>2</sup> Internal research by Fujitsu resulted in a false acceptance rate of less than 0.00007% and a false rejection rate of only 0.00004%. False acceptance rate is a rate at which someone other than the actual person is falsely recognized. False rejection rate is a rate at which the actual person is not recognized accurately.



THE POSSIBILITIES ARE INFINITE

# PalmSecure

## Palm Vein Authentication System

The Fujitsu PalmSecure is a palm-vein based authentication system that utilizes the latest in biometric security technology. Answering a worldwide need from governments to the private sector, this contactless device offers an easy-to-use, hygienic solution for verifying identity.

With the introduction of its next generation product, the Fujitsu PalmSecure now boasts a dramatically faster authentication rate, with verification time reduced to about half the time of the original model. In addition, the new sensor features a more compact form factor at roughly one-fourth the size of its predecessor, which will provide greater flexibility and ease of implementation in a variety of applications.

The Fujitsu PalmSecure works by capturing a person's vein pattern image while radiating it with near-infrared rays. The deoxidized hemoglobin in the palm vein absorbs these rays, thereby reducing the reflection rate and causing the veins to appear as a black pattern. This vein pattern is then verified against a pre-registered pattern to authenticate the individual.

As veins are internal in the body and have a wealth of differentiating features, attempts to forge an identity are extremely difficult, thereby enabling a high level of security. Additionally, the sensor of the palm vein device can only recognize the pattern if the deoxidized hemoglobin is actively flowing within the individual's veins.

The opportunities to implement PalmSecure span a wide range of vertical markets, including security, financial/banking, healthcare, commercial enterprises and educational facilities. Applications for the device include physical admission into secured areas; log-in to PCs or server systems; access to POS, ATMs or kiosks; positive ID control; and other industry-specific applications.

With the Fujitsu PalmSecure and with considerable experience in image processing and recognition technology, Fujitsu expects to be a leader in providing solutions for the biometric security industry.

### About Fujitsu Computer Products of America, Inc.

Fujitsu Computer Products of America, Inc. is a subsidiary of Fujitsu Limited, a leading provider of customer-focused IT and communications solutions for the global marketplace. FCPA provides innovative solutions for the U.S. marketplace. Current product and service offerings include high performance hard disk drives, Magneto-Optical drives, scanners and scanner maintenance, palm vein recognition technology, 10Gb Ethernet switches and degaussers.

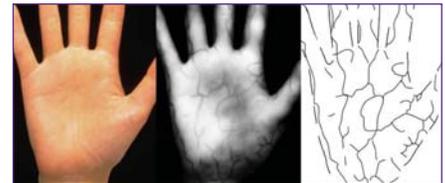
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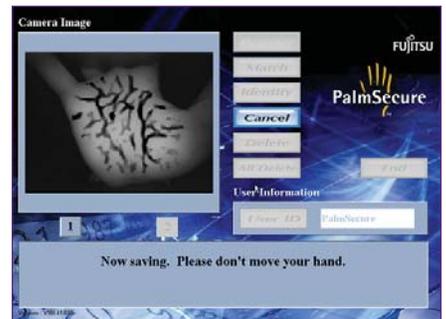
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### PalmSecure Specifications

Description	
Supply voltage (from US bus power)	4.4 to 5.4V (Input current: up to 500mA)
Power consumption	2.5W or less
Interface	USB 2.0 / 1.1 (Hi speed or full speed)
Photography distance (from filter surface)	50mm (+/- 10mm)
Filter material	Glass
Acoustic noise	None
Operating temperature	0°C to 60°C
Storage temperature	-20°C to 70°C
Outer dimensions	35mm x 35mm x 27mm
Weight	50g (approx.)
Supported OS	Client: Windows® 2000 Pro, XP Pro, Redhat Linux Ver. 3 & 4 Server: Windows Server 2003, Redhat Linux Ver. 3 & 4



Near-infrared image



User interface example



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