

PalmSecure™

Contactless Palm Vein Pattern Authentication Technology



Contactless detection of hand vein patterns



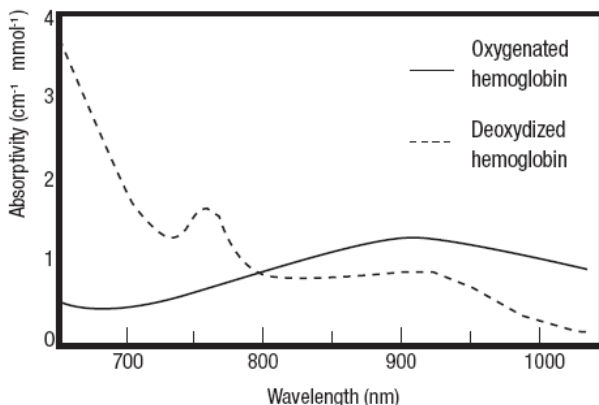
Generating near-infrared image



Conversion of image data for encrypted database archiving

Access Control, Visitor Verification, Cashless Payments, Time & Attendance, many more...

ABSORBING SPECTRUM OF HEMOGLOBIN



Source: "Organism Information Visualization Technology" (1997) Edition of Organism Information Visualization Technology Editing Committee, Corona Publishing Co.

Special Features :

- ❖ **Smaller footprint:** 35 × 35 × 27mm
- ❖ **Faster authentication**
- ❖ **Wider operable temperature range:** Upto 60° C, thus expanding the range of possible outdoor applications.
- ❖ **Greater connectivity:** USB Connectivity or embedded directly into the keyboards of desktop PCs.
- ❖ **Enhanced worldwide technical support:** A dedicated PalmSecure support website

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THE POSSIBILITIES ARE INFINITE

PalmSecure™

A biometric technology that authenticates users on the basis of vein pattern recognition rather than iris scans or fingerprint readers.

Why Palm ?

Fujitsu researched the best physical position for vein authentication, and came to the conclusion that palm is the most suitable place.

The Edge

The device, a contactless, hygienic solution, captures a vein pattern only if hemoglobin is actively flowing through a user's veins. Additionally, research indicates that no two individuals have vein patterns that are exactly alike. These factors give the PalmSecure an edge over competing biometric identification products

The Technology

PalmSecure emits near-infrared rays that are absorbed by deoxidized hemoglobin present in blood flowing through a user's palm veins. This causes an image of the palm to be captured as a vein pattern, which is then verified against the user's pre-registered pattern to grant (or deny) access to a physical location or computer network.



Comparison of FRR/FAR among Biometrics (Based upon Fujitsu Research)

	Palm Vein (PalmSecure)	Iris	Back Hand Vein	Finger print	Hand Geometry	Facial Recognition	Signature	Voice
FRR (False Rejection Rate)	0.01%	0.01%	0.1%	0.1%	0.8%	2.6%	1.0%	3.0%
FAR (False Acceptance Rate)	0.00008%	0.0001%	0.0001%	0.001%	0.07%	1.3%	1.0%	3.0%

Suggested Applications

Amusement Facilities	Healthcare	Government
Hotel Rooms Facilities	Corporate	Data Centers
Airport Check-in	Lockers	e-School Student Info.

PalmSecure Sensor Device Specifications

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)
Acoustic noise	None
Operating temperature	0° to 60° C
Storage Temperature	-20° 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

PalmSecure

Biometric Authentication System

Access Control, Visitor Verification, Cashless Payments, Time & Attendance, many more...

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