

DATASHEET

Choose a Highly Secure and Convenient Biometric Solution

Hitachi Finger Vein Scanner

As needs for user authentication, time and attendance tracking, and payment solutions proliferate, finger vein scanning provides a convenient and secure option that is nearly impossible to forge. The Hitachi Finger Vein Scanner is an advanced solution that is proven in the field to meet the needs of the market and surpass the capabilities of alternative options that exist today.



A Superior Biometric Solution

Replication difficulty and biometric data acquisition vary for conventional options, such as fingerprint, facial recognition, iris scans, voice scans, and so forth. Although images can be used to replicate some technologies, finger vein patterns are extremely difficult to forge or replicate since finger veins are protected inside the body.

The higher accuracy of finger vein scanning also reduces risk and the costs of mitigation or response services when traditional methods are spoofed.

Why Finger Vein?

Traditional biometric solutions are becoming less secure as technology enables better imitations, spoofs, and hacking. Hitachi Finger Vein Scanner provides a leap forward in biometrics technology, delivering higher accuracy, security, and convenience.

Hitachi Finger Vein Scanner provides:

- Scan of inner finger vein structure, making it one of the most secure biometric readers on the market.
- Low false acceptance rate: 0.0001%
- Low false rejection rate: 0.01%
- Super quick authentication: within seconds
- Convenient user experience, not requiring a phone, credit card, or identification
- Fundamentally resistant to deepfake, image, and audio manipulation that can spoof some facial, voice, and iris recognition authentication
- An unintrusive, convenient design that requires minimal customer training
- Non-invasive biometrics that reduce privacy risk concerns that dissuade customer adoption of facial recognition

Maximizing Convenience for Customers and Employees

The loss of a wallet, ID card, or phone is common and makes authentication inconvenient and difficult to verify remotely, especially for a new person or for someone who has been hacked, had their ID stolen, and so forth. Due to highly secure finger vein scanner technology, which negates the need for additional ID, users can be identified using finger vein which they carry with them at all times. The device's operation makes it extremely convenient. Customers and employees can authenticate on multiple systems and never need to remember an identifying device or card, thus retaining their peace of mind, security, and safety.

Enhance the Security of your Biometric Data and Ensure Maximum Privacy

Have you ever been concerned about scanning your fingerprint or utilizing your facial features for any authentication purposes? Cyber criminals can use these forms of data and private information in numerous capacities, including data and network hacking, rapidly evolving fraud capabilities, biometric enrollment security, spoofed sensors, and sensor inaccuracy. The Hitachi Finger Vein Scanner scans the finger, the finger vein pattern is converted into a binary biometric template which is encrypted using the AES256 algorithm. No biometric image is stored in the system so there is no chance of biometric reuse or theft of the user's biometric.

Key Use Cases



Enforce Internal Controls

- Prevent fraud incidents from happening during the transaction approval process, making sure only the correct person can approve the transaction by using biometric identification.
- Implement elevated authentication and privileged access management using biometrics to achieve enhanced security to access privileged resources and information.



Application Authentication

- Implement biometric authentication to access business applications; replacing passwords to improve security and reduce support costs.



Windows Login

- Implement biometric authentication to access your windows desktops. This reduces the challenges related to password entry, password management protocols and improves user-experience.



Identity Management—Single Sign On

- This enables organizations to implement cost-effective identity management, giving users simple access to various systems and applications without the need for multiple passwords and without compromising security.



Time and Attendance

- An easy-to-use, fast, and accurate system to record employees' work hours and increase site security. This technology is suitable for organizations employing just a few people, up to large scale businesses with thousands of employees. The Hitachi Finger Vein Scanner manages all time, attendance, security, and software requirements in one integrated security management system.

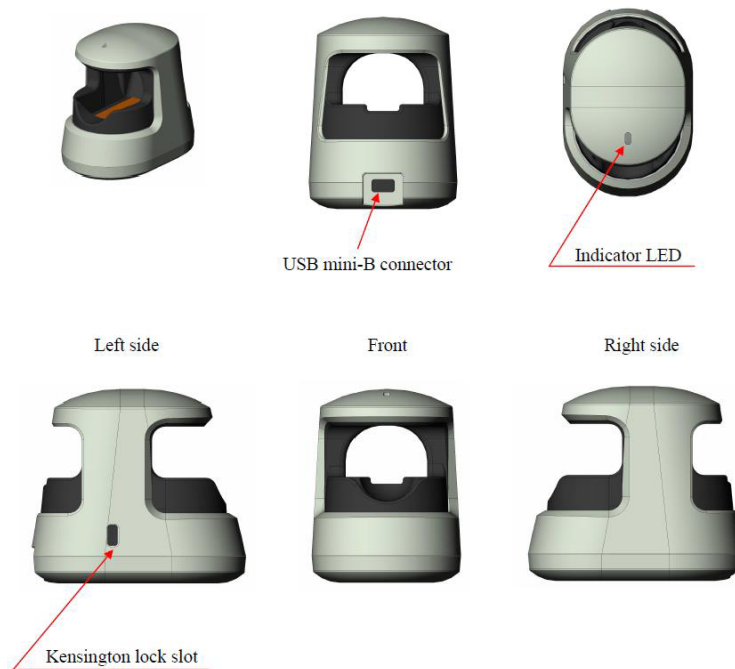


Physical Access Control

- Adding biometric identification to the company's access solution proves the identity of the person accessing the asset.

Technical Specification

Category	Description
Capture System	Near Infrared LED with CMOS sensor
Interface	USB 2.0
Dimensions	59 (W) x 82 (D) x 74 (H) mm
Weight	96g
Environmental Conditions Ambient Temperature Humidity	5 – 35 deg. C 20 – 80% (No Condensation)
Power	DC5V +/-5% <500mA (Power from USB bus)
USB Cable	1.8m
Certifications	FCC Part15 Class B, IC ICES 003, CE EN55032 Class B, CE EN55024 Class B, UKCA EN55032 Class B, UKCA EN55024 Class B, RCM AS/NZS CISPR 22:2006 , KC Class B , RoHS2 , Reach, WEEE
OEM	Hitachi, Ltd.



Client Requirements

Category	Description
H-1 Reader Hardware Device	<ul style="list-style-type: none"> • Scan the fingers for finger vein biometric sample • All image processing and template creation takes place on the client host device • Secure communication between H-1 and host device
Drivers and Client Software (Windows)	<ul style="list-style-type: none"> • All control of the scanner, image processing and template generation • Provides Enrollment, Authentication, and device management function
BioAPISDK (Windows)	<ul style="list-style-type: none"> • Industry standard API • Can be used for client and server development



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Hitachi Vantara



Corporate Headquarters
 2535 Augustine Drive
 Santa Clara, CA 95054 USA
hitachivantara.com | community.hitachivantara.com

Contact Information
 USA: 1-800-446-0744
 Global: 1-858-547-4526
hitachivantara.com/contact

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