



**VeinID SCANNER**  
Hitachi's Finger Vein Solution

Hitachi's FVID Scanner provides a number of options for developers and system integrators who are looking to build biometric authentication into their applications. Existing systems can be upgraded and new applications can be built to take advantage of Hitachi's privacy compliant VeinID authentication technology using either a BioAPI<sup>1</sup> SDK or a server authentication engine for high speed one-to-many matching.

<sup>1</sup> BioAPI subset of ISO/IEC 19784-1 with proprietary extensions.

## Benefits

- A straightforward and cost-effective option for the integration of VeinID technology into PC client and networked applications. It provides increased levels of safety and security around user access control, identity management and transaction verification.
- Integration using the FVAE<sup>2</sup> provides excellent capability for processing transactions at high speed with a "finger only" authentication option.
- The process of scanning a finger is a near contact-less operation meaning that the solution is very hygienic and simple to use.
- Users form their opinions quickly when presented with new technology and the simple and fast registration process, taking less than 2 seconds per finger scan, means that the all important first impressions can be very positive.
- No need for specialised environmental conditions for normal operation. Authentication time is typically less than 2 seconds meaning that VeinID can be easily incorporated into many business processes or operations. Users quickly see the simplicity and benefits.

<sup>2</sup> FVAE = Finger Vein Authentication Engine.

## Technical Data

ITEM	FVID SCANNER
Model Number	SH-H4368-S0255
Use Case	Desktop
Connectivity	USB 2.0
Data Transfer Speed	High Speed Mode: 480 Mbps Full Speed Mode: 12 Mbps
Lighting Conditions	Avoid direct sunlight (under 4,000 Lx)
Image Capture/Processing	Near infrared LED with CMOS sensor
PKI Support and Biometric Matching	No PKI, matching in PC or Server
Verification Time (Approx) <sup>3</sup>	Less than 2 seconds <sup>3</sup>
Operating Conditions: Temperature	5 - 35 °C
Operating Conditions: Humidity	20-80% (non condensing)
Power	DC 5.0V +/- 5% <500 mA (via USB)
Cable	1.8m USB Type A/mini-B
Size (mm) H x W x D	59 x 82 x 74
Weight (g)	96g
User Interface Features	Coloured LED, Buzzer
Standards	FCC Part 15B, ICES, CE, RoHS, REACH
Physical Security	Kensington Slot
Interoperability	BioAPI (subset)

## Server Deployment using FVAE

The following diagram shows the setup when the matching process takes place on the server.

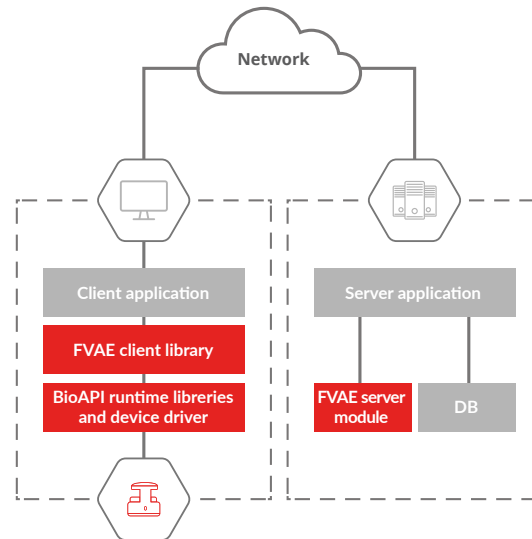
**Note:** Client application can also be developed using BioAPI SDK since templates are compatible.

**Key:** Hitachi Component is red; Other Component is grey.

## Client O/S support

SUPPORT OS		SP/UPDATE
32-bit	Microsoft Windows®7 Starter/Home Premium/Professional/Ultimate/Enterprise	SP1
	Microsoft Windows®8.1/8.1 Pro/8.1 Enterprise	Update
	Microsoft Windows®10/Home/Pro/Enterprise	Anniversary Update (Ver.1607)
64-bit	Microsoft Windows®7/Home Premium/Professional/Ultimate/Enterprise	SP1
	Microsoft Windows®8.1/8.1 Pro/8.1 Enterprise	Update
	Microsoft Windows®10/Home/Pro/Enterprise	Anniversary Update (Ver.1607)

<sup>3</sup> For one to one verification.



## Stand-alone Implementation

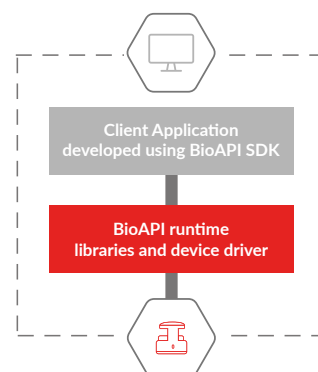
The following diagram shows the setup when the matching process takes place on the client machine.

**Software options:**

BioAPI SDK;

FVAE server side fast matching library with: 10,000 matches/core/sec.; Thread safe processing; Multiple enrolment sets with up to 100k templates per set.

**Key:** Hitachi Component is red; Other Component is grey.



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