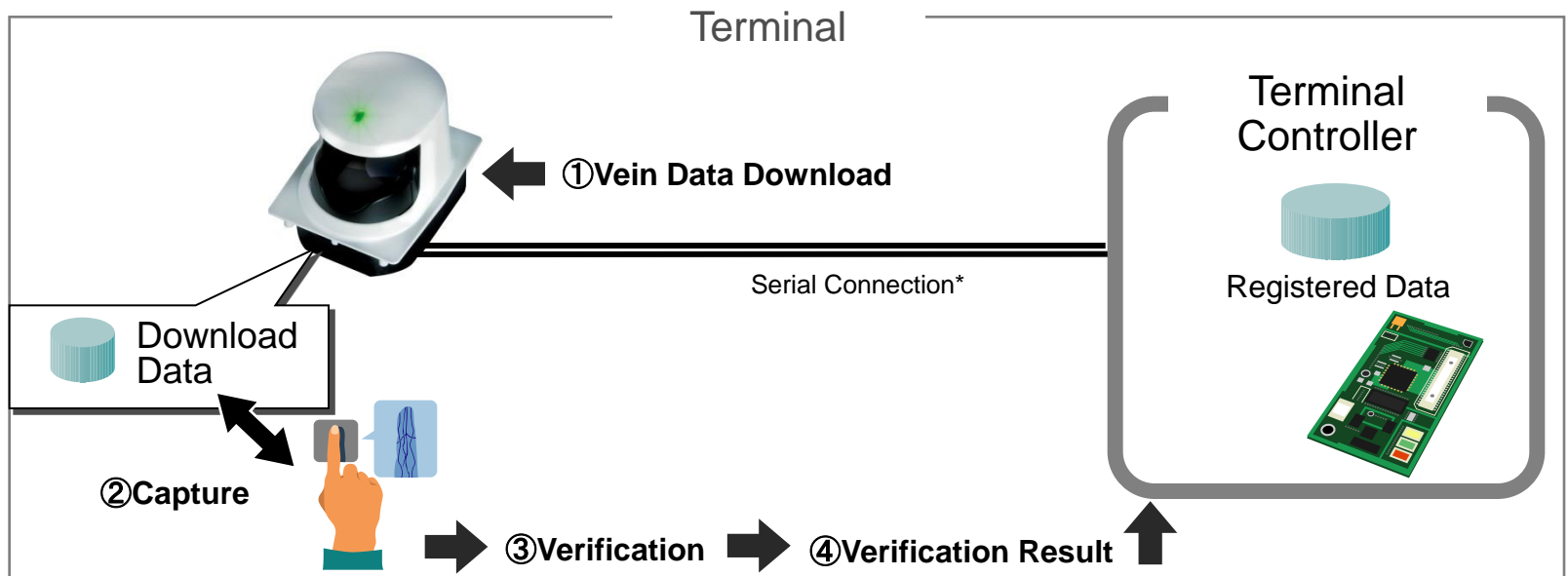


# Hitachi Finger Vein Authentication Device

This finger vein authentication device can be easily embedded into various terminals, with multiple processes from capturing to reporting of the verification result. Higher security system can be obtained with Finger Vein Authentication.



## Authentication Process and Main Features



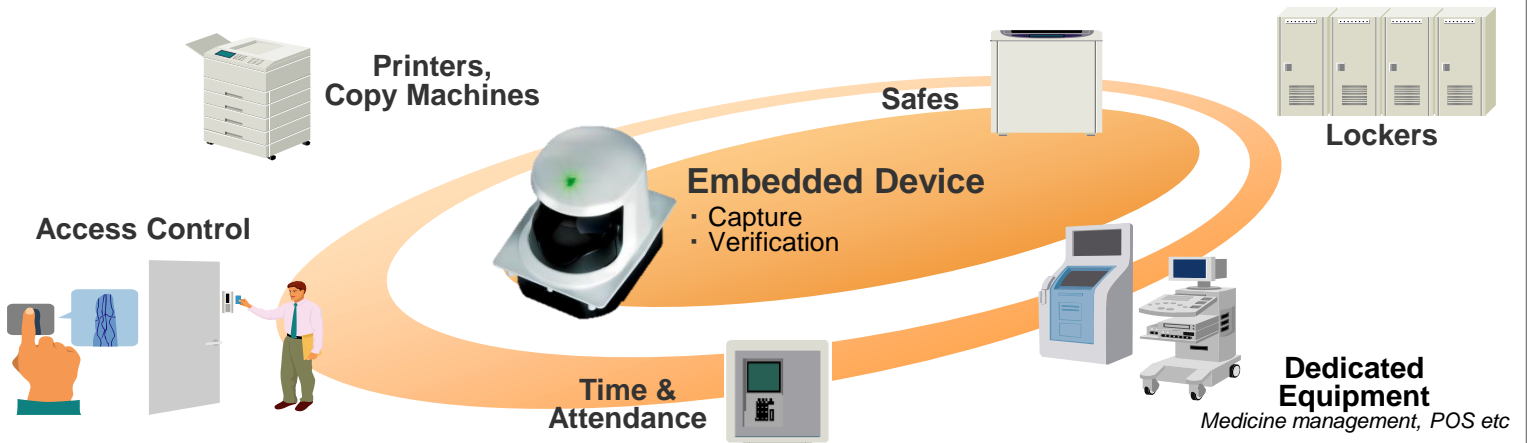
Suitable for using vein data with a number of authentication devices

\* Asynchronous communication  
@3.3V CMOS level

- **Wide Operation Temperature**  
Between -20°C~50°C
- **High Accuracy**  
FAR 0.0000067%  
(FAR: False Acceptance Rate)
- **High Speed Verification**  
2,000 fingers in approx. 1.5secs
- **Large Capacity**  
Device storage of up to 12,000 fingers
- **Template Quality and Matching Level Evaluation**  
Can output evaluation grade when registering and verifying finger vein  
Helps users choose a finger to register and check verification is done
- **Security Level Setting**  
Choose verification security level depending on application and purpose

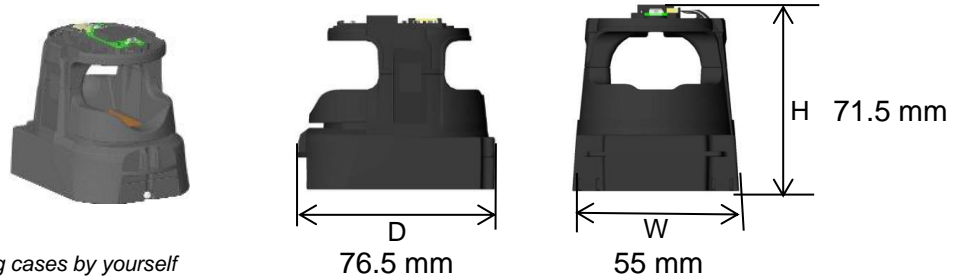
# Applications

Higher security system can be obtained with finger vein by embedding it into various terminals.



# Dimensions

## Only Embedded Device (w/o Case)



- Please contact us if you need the housing case
- SAMPLE 3D-CAD will be provided when designing housing cases by yourself

# Specifications

Item	PCT-KCAX010 (H1EAX)
1 Dimension	W 55 × D 76.5 × H 71.5 mm (without case)
2 Weight	Approx. 81g
3 Supply Voltage, Consumption Current	5.0V ± 5%, Max 500mA
4 Communication Interface	Asynchronous communication @ 3.3V CMOS level
5 User Interface	2 colours LED, buzzer incorporated, possible to control by serial command
6 Memory	SDRAM (volatile memory)/ FlashROM (involatile memory) 12,000 templates
7 Template Data Storage	Within Terminal Controller/ Finger Vein Device
8 Authentication Method	1:1 ~ 1:12,000 (Sequential fusion authentication function)
9 False Rejection Rate (FRR) *1	0.01%
10 False Acceptance Rate (FAR) *1	0.0000067%
11 Failure To Enroll Rate (FTER)	0.03% Max
12 Verification Time	1:1 Approx. 1.0 sec., 1:2,000 Approx. 1.5 sec.
13 Operation Temperature	-20°C - 50°C
13 Operation Humidity	20-80% (non condensing)
14 Template Quality/ Matching Evaluation	Registration: 5 grades, verification: 3 grades
15 Security Level Setting	5 grades

\*1 Value based on 1:1 authentication and standard ISO/IEC 19795-1. Specification details are disclosed after making NDA

# Contact

**Hideki Hayashi**  
Hitachi Europe Ltd.  
DMG Security Product Group  
**Hideki.Hayashi@Hitachi-eu.com**  
**+44 1628 585 082**  
**+44 7825 676 207**

SAFETY PRECAUTIONS Please read the operation manual before using the product

**Hitachi Digital Media**  
**Hitachi Europe Ltd, Whitebrook Park, Lower Cookham Road,**  
**Maidenhead, Berkshire SL6 8YA United Kingdom**

**Note**

- The contents and specifications are subject to change without notice. (As of Mar/2013.)
- When exporting this product, Confirmations to Foreign Exchange and Foreign Trade Control Law, Export Control Related Legislation of America shall be required.
- If you have any questions, please feel free to contact us.