

Datasheet

Patient Identification Module (PIM)

Main features

High security

- Uses complex vein patterns in the open palm
- Advanced authentication algorithm based on 5 million reference points
- Difficult to forge, requires active blood flow
- Unique identification (even in case of twins)
- Traits do not change for entire lifetime
- Template is stored as an (128 bit) encrypted key in database, biometric data kept inside sensor

Speed, accuracy and applicability

- Fast and easy enrolment : under 1 minute
- Fast, easy and secure verification under 1 second
- Vein patterns are very stable biometric characteristics and are safe from outside injury
- FAR (False Accept Rate) : 0.00008%
- FRR (False Reject Rate) : 0.01%

PIM is available in 3 modules

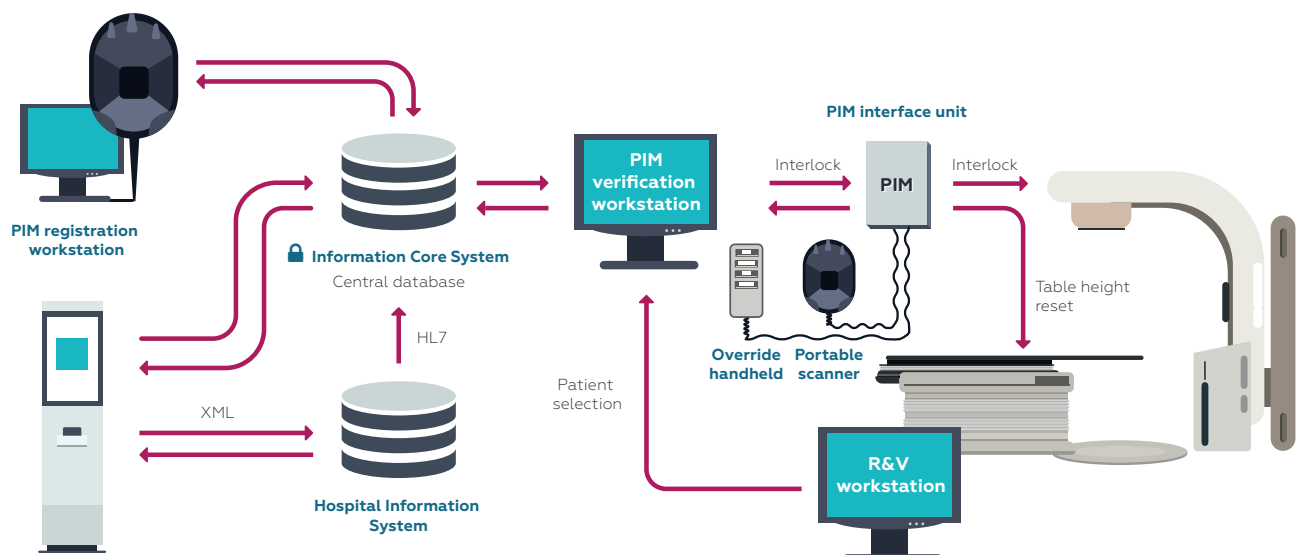
- Registration module
- Verification module
- Waiting room module

Certified

- CE - class IIb medical device
- Product safety standards
- Usability standards



PIM architecture



GENERAL SPECIFICATIONS

Reading system	Reading by near-infrared light	
Scope of capture	Entire Palm (excluding fingers)	
Material of the Surface of sensor unit	Glass	
Encryption Scheme	ES (Length of cryptography key more than 128 bit)	
Authentication Rate		
FAR	0.00008%	
FRR	0.01%	
Authentication time	Verification (1:1)	Identification (1:N) (1000 hands)
Hand detection	0.2 sec.	0.2 sec.
Capture	0.4 sec.	0.4 sec.
Verify	0.2 sec.	2.4 sec.
	(Total 0.8 seconds)	(Total 3.0 seconds)

COMPLIANCE WITH STANDARDS

Sensor	
Electromagnetic wave standard	VCCI ClassB, FCC ClassB, EN ClassB
Safety standard	UL60950-1, CSA C22.2 No.950-1, EN60950-1, CE, TUV, EN60825-1:1994+A1:2002+A2:2001 Class1
Environmental regulation	Conforms to RoHS and WEEE
Patient Identification Module	
Safety and performance:	EN-IEC 60601-1:2006 + A1:2013 + AC:2010 + AC:2016
Usability	EN-IEC 60601-1-6:2010 + A1:2015 and EN-IEC 62366-1 :2015
CE certified	Class IIb Medical Device

INSTALLATION SPECIFICATIONS

	Registration	Verification	Kiosk
Dimensions (W, D, H)	35x35x27 mm (sensor) 139x167x107 mm (unit)	160x186x178mm (incl. wall mount)	460x600x1743mm
Voltage of Power supply	4.4 to 5.4V	12V	90 VAC - 264 VAC
Current consumption	500mA (Max)	0.5A (Max)	1.7 A / 1.0 A
Power consumption	2.5W (Max)	17W (Max)	65W
Power source	Provided by the USB Interface cable	Provided by the interface unit (Power over Ethernet injector)	Wall outlet
Host interface	USB2.0 (only Hi speed) is recommended.	Gigabit Ethernet	Ethernet
Interface connector	Series "mini-B" plug (with 5 pins)	CAT5 connector	CAT5 connector
Interface cable	A cable with a length of 1 m is included with this product. Maximum operable length of USB cable is 4 meter.	A coiled cable with a length of 1,25 -5m is included in this product. With the PoE injector maximum distance is 30 meter.	A network cable with a length of 1 m is included with this product.
Supported operating systems	Windows 7 (64 bit)/ Windows 10 (64 bit)		
Installation environment			
Temperature	0 to 60 degrees Celsius		
Humidity	10 to 90% RH (Non-condensing)		
Lighting environment			
	Authentication	Enrollment	
Natural light (sunlight)	Below 3000 lux	Below 2000 lux	
Fluorescent light	Below 3000 lux	Below 2000 lux	
Incandescent / Halogen lamps	Below 700 lux	Below 500 lux	
Note	Avoid direct sunlight. Avoid direct light on the Surface of sensor unit from incandescent or halogen lamps.		