



PalmFaith Product Series

AI Revolution - Innovation for Solutions

Xian FaithWorks AI Technology LTD.

AI Revolution - Innovation for Solutions

Web: www.faithworks.ai

Email: info@faithworks.cn

Address: Room #1303, LingYi Square, Xian Software Park, Keji Road #2, Xi'an

• Xian FaithWorks AI Technology LTD •

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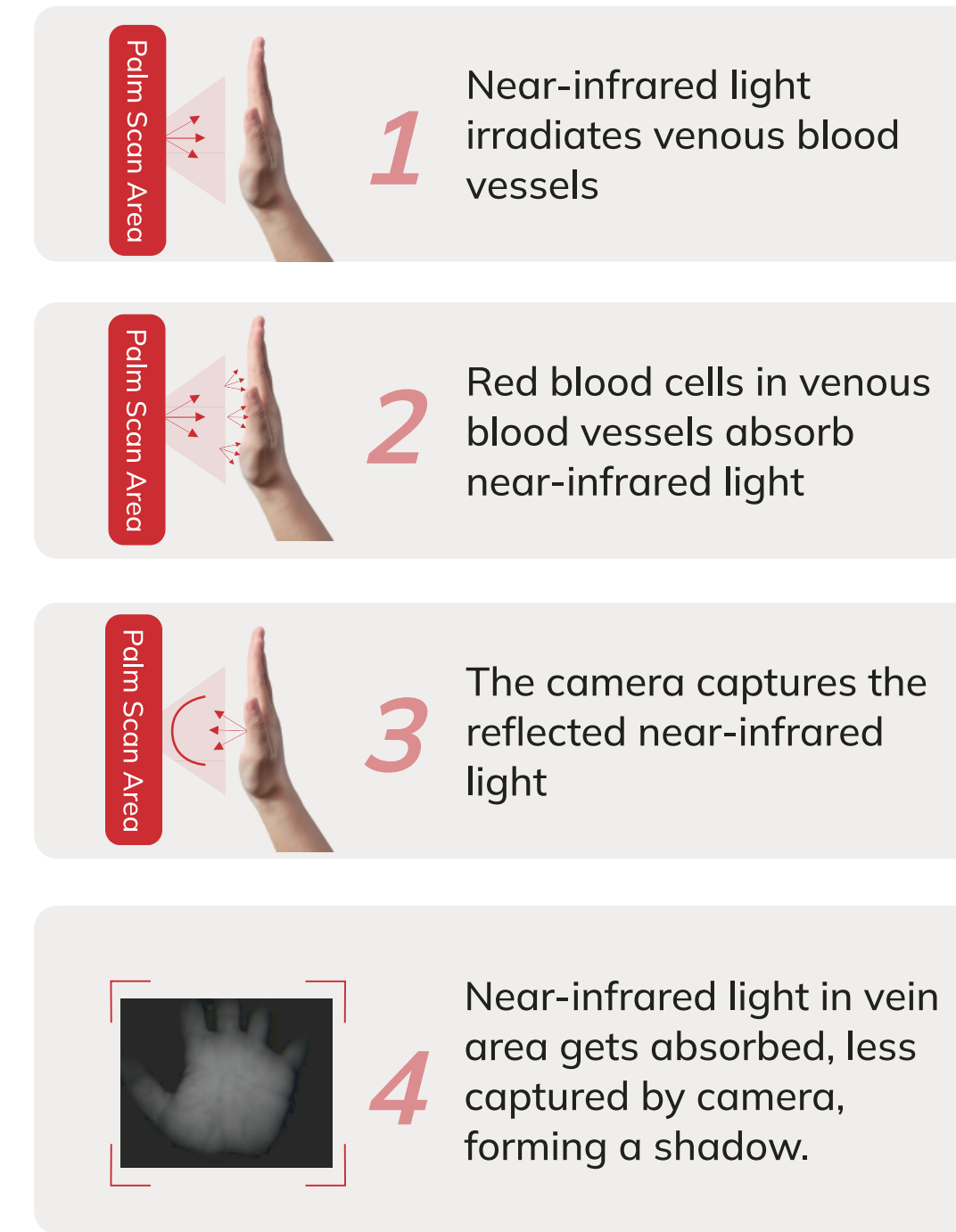
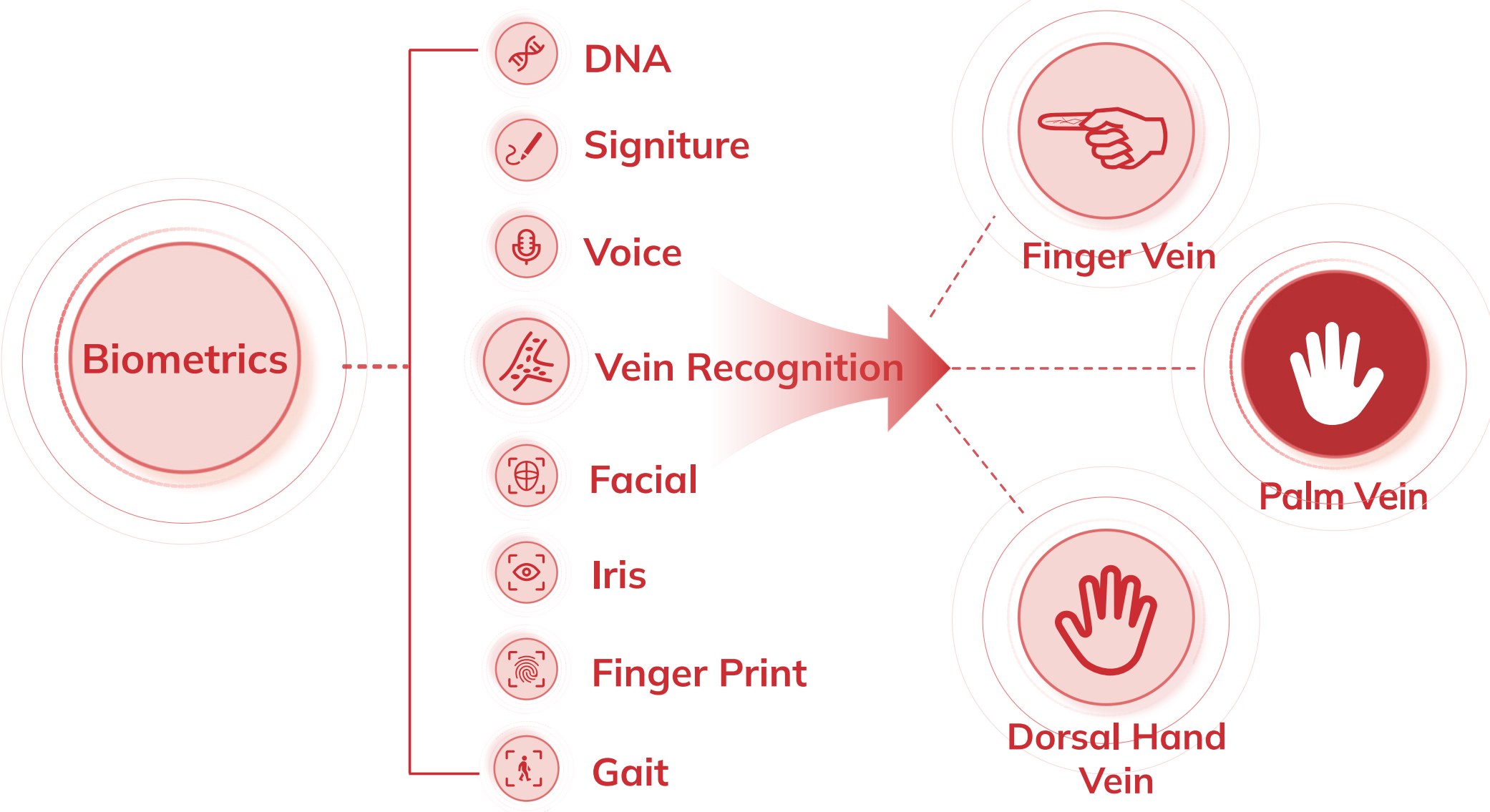
05/ PalmFaith Product Introduction



PalmFaith leveraging AI and computer vision for palm vein recognition, offers secure, convenient identity authentication. Its advanced technology ensures accurate results, suitable for access control, financial transactions, etc. Embrace the future with PalmFaith.

Next-gen ID authentication technologies and products

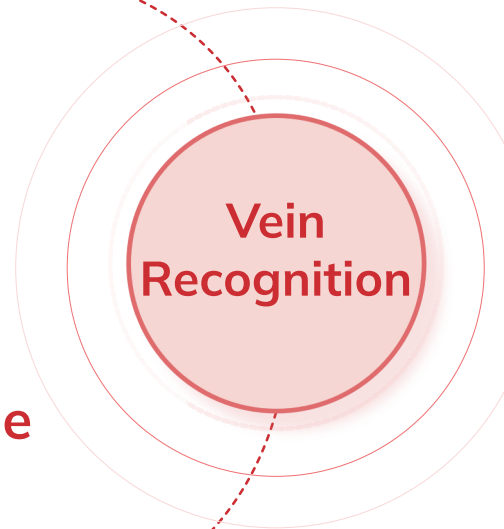
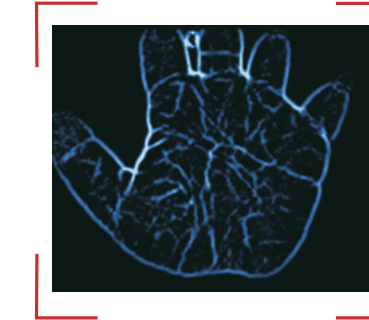
-Principle of Palm Vein Image Acquisition

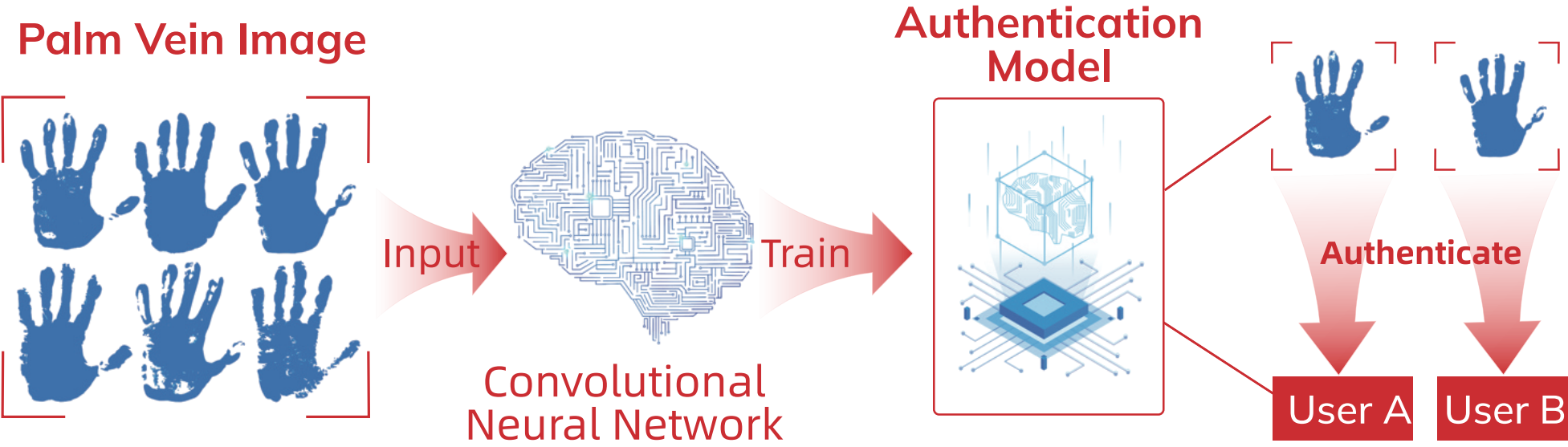


Captured Image



Processed Image





- 01. AI algorithms extract unique features from pre-processed images.
- 02. Train AI model with multiple images.
- 03. Capture and extract features when user presents palm.
- 04. Compare with trained model to determine access.

Palm Vein VS Other Biometrics

Biometrics	Forge	Secure	Privacy	Experience	Accuracy
Palm Vein	Nearly unforgable	Secure	Convenient & hygienic	Smooth	High
Fingerprint	Prone to forgery	Reasonably	Privacy-critical	Delicate	Precise
Facial	Mask-fooled	Risky	Problematic	Variable	Fluctuates
Iris	Highly unfakeable	Secure	Worrisome	Synchronized	Very high
Voice	Noise-prone	Vulnerable	Risky	Adaptable	Variable

*False Rejection Rate FRR:0.01% (Probability of correctly denying access to an unauthorized user)

*False Accept Rate FAR:0.00001% (Probability of incorrectly granting access to a legitimate user)

	Palm Vein	Fingerprint	Facial	Iris	Voice
FRR	0.01%	0.1%	1%	0.01%	3.0%
FAR	0.00001%	0.001%	0.01%	0.0001%	3.0%



Palm Vein Recognition Characteristics



High Security

Veins inside body, unforgeable.



Privacy Protection

Privacy-assured collect-recognition kit.



High Accuracy

Offers highly accurate and swift recognition.



Contactless

Clean and hygienic, reducing cross-contamination risk.



Difficult to Forge

Venous blood features and vessel structures hard to mimic.



Strong Stability

Less affected by external conditions.

AI Revolution - Innovation for Solutions

- Artificial intelligence drives a significant change.
- In healthcare, it aids in accurate disease diagnosis.
- In transportation, it optimizes traffic flow.
- In business, it enhances customer service.
- We should utilize AI to tackle problems.



-Application Scenarios of Palm Vein Recognition

01. Access Control System

Uses palm vein recognition for precise access in buildings, factories, homes.

Advantages:

- High security: Palm veins hard to duplicate.
- Convenience: Quick access with palm gesture.
- Efficient management: Centralized for simplicity.



02. Payment System

Integrated in store payment terminals, uses palm vein recognition.

Advantages:

- Secure: Vein traits ensure safety.
- Fast: Cuts wait time.
- Cashless: Lowers loss/theft risks.



03. Membership Management

Organizations/clubs. Restricts access, verifies members.

Advantages:

- Convenient: ID-free, quick check.
- Secure: High-accuracy, non-contact.
- Integrated: Unifies info for services.



04. Hospital Patient ID

Adopts palm vein recognition for precise patient ID.

Advantages:

- Accurate match: Stop medical.
- Safer: Protect information.
- Faster: Save staff time.
- Integrated: Unifies info for services.



Abnormal body temperature alarm!

05. Employee Attendance

Use palm-vein recognition to replace traditional attendance methods.

Advantages:

- Accurate: No proxy/fingerprint problems.
- Efficient: Auto-gen reports
- Flexible: Retains card/pass options.

06. Intelligent Locker

Integrates palm-vein recognition technology for secure storage.

Advantages:

- User-friendly: Key/phone-free, no password risk.
- Efficient: Reduces idling & mis-openings.
- Versatile: Fits gyms, airports, etc.



08. Car Access & Ignition

Convenient & accurate: No need for keys or remote control, enhancing user experience.

Advantages:

- Convenient: Key-free, better experience.
- Smart: Log usage for management.
- Secure: Deter theft/illegal use.

09. Campus Management

Applied to student/staff access, cafeteria payment and campus security in schools.

Advantages:

- Integrated: Combines key functions.
- Secure: Guards campus.
- Convenient: Simplifies student life.

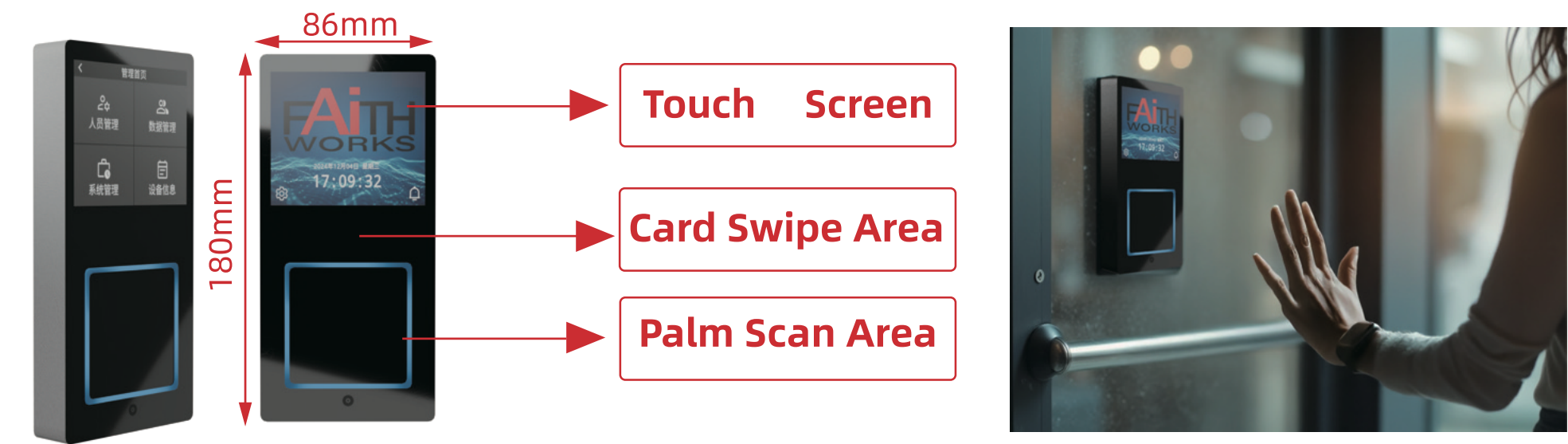


-PalmFaith Product Introduction

01. Features

This product uses PalmFaith Vein Recognition for ID verification, suits access & attendance. It has a 3.5-inch touchscreen, supports single/network modes, USB data transfer, built-in management, password, NFC, voice prompts, and an open API.

02. Appearance



03. Characteristics

Palm Scan Area

15cm—35cm

Palm Distance:
15 - 35cm

Rotation Angle:
360°C

Recognition Accuracy:

FRR≤0.1%
FAR≤0.0001%
Note: Detection method refer to ISO-IEC-19795-1-2021

Maximum Storage (stand-alone mode):

Personnel information: : *1,000,000 people*

Palm Vein Data: *2,000,000 hands*

Palm Scan Area

10°

Tilt Angle:
within 10°C

Recognition Speed:

1:1 auth.: About 500 ms (from collection to unlocking command)
1:N auth.: about 5,000 hands per second (standalone mode),
about *1,000,000* hands per second (network mode)

Card Data: *1,000,000 pieces*

04. Parameters and Specifications

Component	Specification	Notes	Component	Specification	Notes	Component	Specification	Notes
Product Name	PalmFaith Sentinel		Memory	2G LPDDR4		Location Info	GPS (UART)	Optional
Dimensions	86mm(W) x 180mm(D) x 20mm(H)	*1	Storage	16G/32G eMMC		Authenticate Methods	Palm Vein	
Weight	750g aprox.	*1	OS	Android/Linux			Password	
Exterior Material	Front:Plexiglass Back:Metal	*1	Main Interface	USB Device 1 Port Type-A (USB2.0)			QR Code	Optional *3
Display Screen	3.5inch color TFT-LCD Resolution 640x480		Wireless	802.11a/b/g/n/AC+ Bluetooth 5.2	TELEC Certified *2		Cards (IC, M1, Mifare, NFC, etc.)	
Input Method	Touch Screen		4G	Physical SIM cards	Optional	Other Sensors	Infrared Temperature Sensor	Optional
Input Power	DC12V 2A		Lan	100/1000M LAN 1 Port	Optional		Laser Distance Sensor	Optional
Power Consumption	Max 20W		Status Indicator	Square color LED lights		Electric Lock Type	Dry Contact Signal	
CPU	64bit Cortex-A55 8 Core		Audio Output	One 2W Speaker			Temperature 0-40°C, Humidity 20-80%RH	
							Indoor Use, Avoid Rain	
							Avoid direct sunlight	
							Water & Dust Resistant IP43	

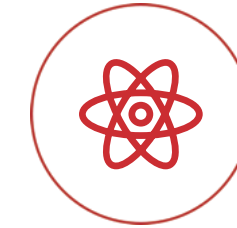
*1 Parameter subject to change with version & function upgrades. See latest product manual.

*2 The product's wireless chip is TELEC-certified.

*3 When online, users scan the product's display QR code via phone camera to access the website (no app). Complete authentication and receive results over the Internet, convenient for visitors and temporary staff.

Look forward to working with you!

Our corporate culture



Innovation-Driven

In the fast-evolving tech realm, we deem innovation the core of enterprise growth. We urge employees to take risks, explore new tech and methods, driving continuous product and service upgrades to lead the industry.



Customer-Oriented

Putting user needs first, we're dedicated to top-notch products and services. By understanding their demands deeply and optimizing experiences, we earn trust and support for sustainable enterprise development.



Future Outlook

We'll adhere to the "AI Revolution - Innovation for Solutions" culture, fueling innovation. We anticipate partnering with like-minded peers to explore tech prospects and challenges, aiming to empower society and progress. Also, we'll boost our innovation and competitiveness to create user value and pioneer in tech.