

UNION
COMMUNITY

UBio

Your Bio All the Way



UNION
COMMUNITY



**TOTAL
BIOMETRIC
SOLUTIONS**



Global Leading Biometric Solution Provider



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01.

Global Leading Biometric Total Solution Provider

UNIONCOMMUNITY is a biometric company with core competencies in technologies such as fake fingerprint detection, face recognition, fake face detection, and iris recognition. As a global leader of multi-modal contactless biometrics field, we are currently collaborating with partners in over 100 countries and providing multi-modal contactless biometric products and integrated security solutions to market worldwide.



UNION COMMUNITY



Year of Establishment

2000



KOSDAQ Listing

2016



Global Network

100+ (Countries)



Official Partner

150+



Installed Devices

350+ (Million)



IP Rights

180+

UBio | Your Bio All the Way
We Connect
Your Valuable Moment

UBio
Your Bio All the Way





UBio | Your Bio All the Way

“Every space is through you” is a brand new slogan for UBio

The customer themselves become the key that connects all experiences and spaces. Our commitment is to ensure the safety and assets of the customer from beginning to the end.

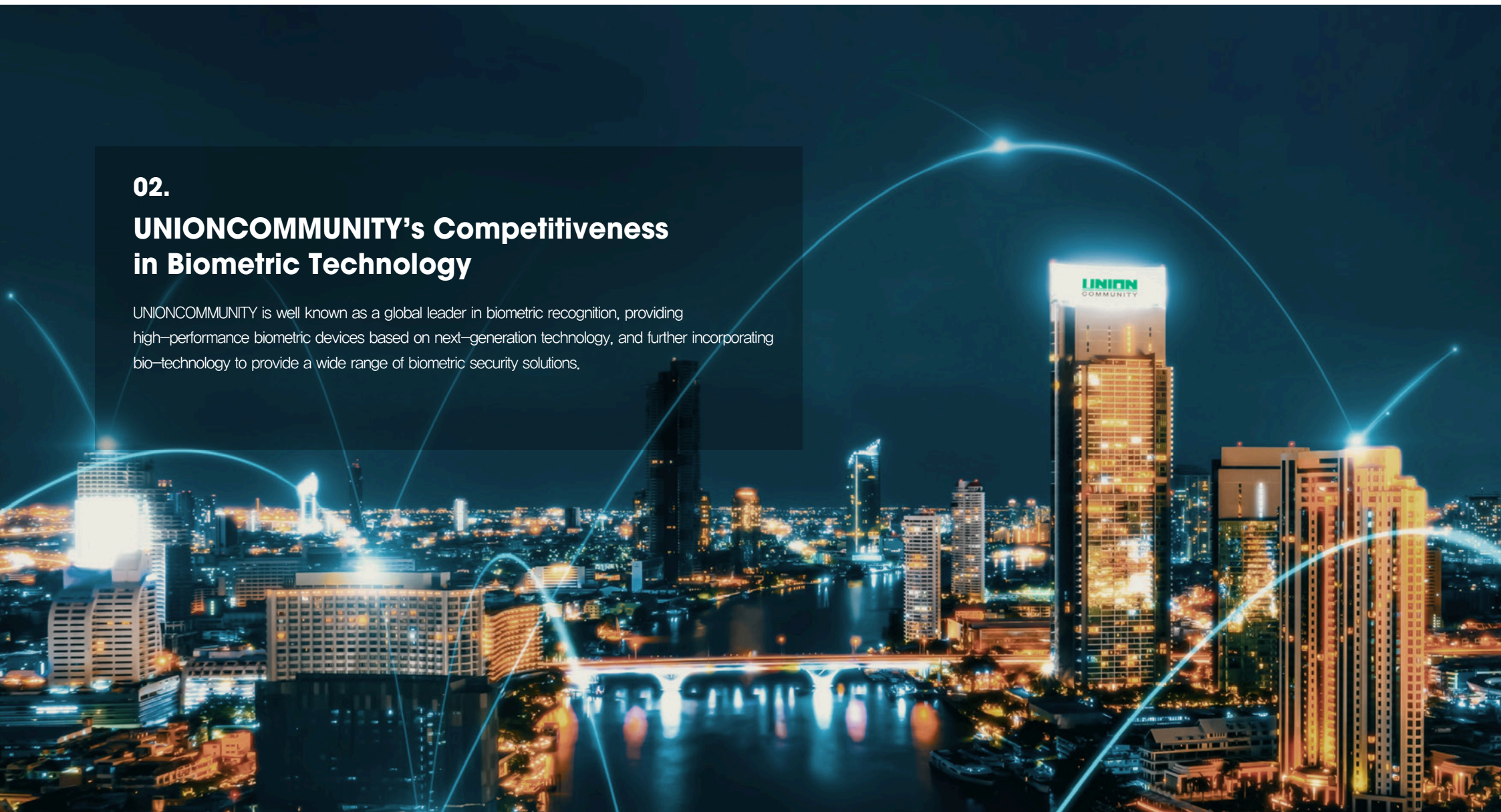
UBio, the premium integrated biometric security brand, sincerely considers what matters most to our customers and aims to provide ultimate digital experience.

As experts in biometric security technology with extensive experience and cutting-edge capabilities, we promise our customers trust that goes beyond security itself. We will continue to provide our customers with a sustainable premium experience through the new services and innovative technologies.

02.

UNIONCOMMUNITY's Competitiveness in Biometric Technology

UNIONCOMMUNITY is well known as a global leader in biometric recognition, providing high-performance biometric devices based on next-generation technology, and further incorporating bio-technology to provide a wide range of biometric security solutions.



Fingerprint Recognition

UNIONCOMMUNITY has obtained various international certifications, such as MINEX and FBI based on its core fingerprint recognition technology. By incorporating a high-speed matching algorithm (Nsearch algorithm), it boasts a matching speed of 200,000 templates per second (Match time). With an extremely low false acceptance rate of 0.0001%, it offers significantly faster fingerprint authentication and enrollment speeds.

UNIONCOMMUNITY holds 15 patents related to fake fingerprint detection, utilizing methods such as capacitance detection, optimal characteristic detection, Algorithm selection, IR sensor characteristic detection. These methods effectively mitigate the risk of fake fingerprints made from materials including silicone, rubber, film, paper, and gelatin. With its core technology, UNIONCOMMUNITY has supplied access control terminals to various facilities that require a high level of security, successfully protecting company assets and personal information.



Fingerprint Recognition Devices



U3io-X Slim



AC-5100



AC-5000 IK



AC-2200



AC-2100 PLUS



AC-2100

UNIONCOMMUNITY's fingerprint recognition terminals provide high level of security and stability with its core fingerprint technology

- Utilizes a high-capacity, high-speed matching algorithm for faster and more accurate fingerprint recognition and enrollment speeds(1<200,000)
- Effectively prevents fake fingerprint with 15 patented fake fingerprint protection methods
- Equipped with a slim fingerprint recognition module (13.4mm optical sensor) for an exceptional digital experience
- Capable of installation and operation in various external environments (with IP65 and IP65 certifications)

Face Recognition

UNIONCOMMUNITY's face recognition technology can precisely recognize user's face from the furthest distance. With a maximum authentication range of 4 meters and a remarkable user recognition time of 0.2 seconds, it demonstrates our technical expertise.

Furthermore, through innovative face recognition technology, we accurately recognize faces in various environments. By combining our proprietary AI-based face recognition algorithm with various exceptional algorithms, we are able to reduce false recognition rates, providing a highly accurate and optimal biometric authentication experience.

UNIONCOMMUNITY holds industrial-leading fake face detection technology. Through liveness detection and anti-spoofing features, during face recognition, our system rapidly differentiates between genuine and fake faces. With these measures, we prevent any attempts at counterfeit face recognition, including the use of photos, videos, and 3D masks, thereby delivering a high level of security to our users.



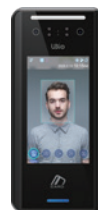
Face Recognition Devices



U3io-X Face Premium



U3io-X Face Pro



U3io-X Face



U3io-X Pro2



U3io-X Pro/Pro Lite

UNIONCOMMUNITY's face recognition terminal ensure robust security and user convenience by providing industrial-leading facial recognition accuracy and fast matching speed

- In crowded public areas or large events with high mobility, our system allows for seamless access with a 4-meter authentication range and the ability to authenticate up to 4 individual simultaneously
- Equipped with liveness detection and anti-spoofing features to prevent unauthorized access through fake face recognition
- Equipped with a mask identification feature, our face recognition technology maintains exceptional accuracy and matching speed in the post-COVID era

Iris Recognition

UNIONCOMMUNITY sustainably delivers iris recognition terminals and solutions with high-level security and convenience by incorporating the latest, cutting-edge technology and algorithms. With a high-performance iris recognition algorithm, it operates at an exceptional speed, capable of authenticating 40,000 templates in one second, allowing users to efficiently complete the authentication process.

Moreover, UNIONCOMMUNITY's iris recognition technology rapidly detects meticulously crafted prosthetics, photos, and video, effectively preventing access with unauthorized fake iris.

Additionally, it consistently delivers high performance in various environmental conditions, guaranteeing fast and accurate iris recognition even in weather changes and lighting circumstances, thereby providing users with a consistent biometric authentication experience.



Iris Recognition Device



U3io-X Iris

UNIONCOMMUNITY's iris recognition terminals continuously apply the latest technology to effectively extract user's iris templates, ensuring reliable recognition results

- Equipped with the latest iris recognition algorithm, it allows user iris recognition at distances of up to 50cm
- During authentication, it accurately and rapidly recognizes the user's iris even with various accessories such as glasses, surgical masks, respirators, or hijabs
- Utilizes fake iris detection technology to prevent counterfeit attempts

Multi-modal

UNIONCOMMUNITY's premium brand 'UBio' provides advanced multi-modal biometric authentication system that simultaneously activates high-performance fingerprint and face recognition algorithms within a single device, offering two or more biometric authentication methods. The fingerprint sensor and face recognition camera on a single device capture and analyze the user's face and fingerprint more accurately.

Furthermore, through the 'And & Or' feature, it offers flexibility to users by allowing them to utilize multiple biometric authentication methods based on their preferences or choose single biometric method. For public institution requiring a high level of security, the 'And' function can be utilized to establish a robust security system through multiple biometric authentication steps.



Multi-modal Recognition Devices



U3io-X Face Premium



U3io-X FacePro



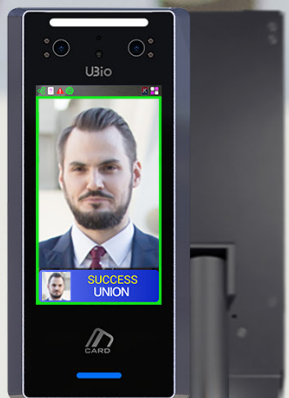
U3io-X Pro2



U3io-X Pro/Pro Lite

UNIONCOMMUNITY's multi-modal terminals offer both high security and user convenience by leveraging two or more biometric authentication technologies.

- By attaching XScan-FQ/XScan-FP and XScan-FQ5/Xscan-FP5, it offers two or more biometric authentication methods within a single device
- Through the 'And & Or' authentication method, it enhances user flexibility and strengthens physical security



Iris Recognition



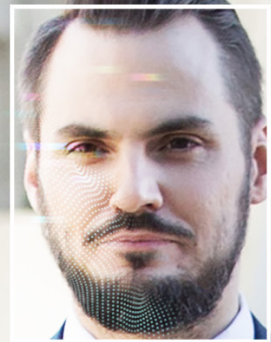
Detection & Spoofing Powered by AI

Access Control

Iris Recognition



Iris Recognition



Access Control

Face Recognition

Anti-Spoofing Against Photos, 3D Mask and Video

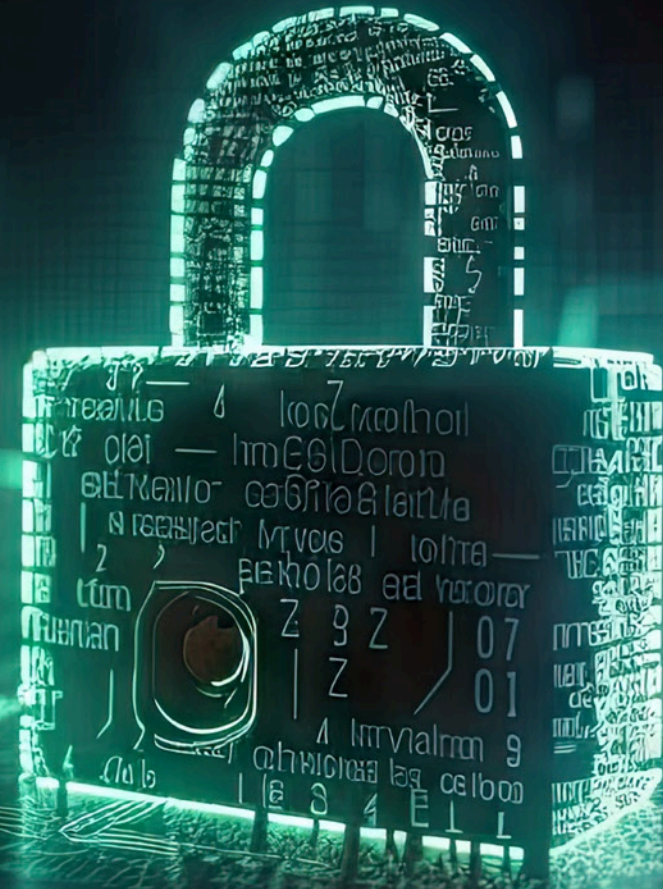
Using Camera of Phone Pictures

Enroll Face easily

03.

UNIONCOMMUNITY's Data Privacy Protection

UNIONCOMMUNITY complies with GDPR (European data protection regulations) and has strengthened security measures for user data through ISO certification, an international standard organization. It also adheres to the AES256 encryption standard adopted by the U.S. National Institute of Standard and Technology(NIST), ensuring strong data encryption measures.



Personal Data Encryption

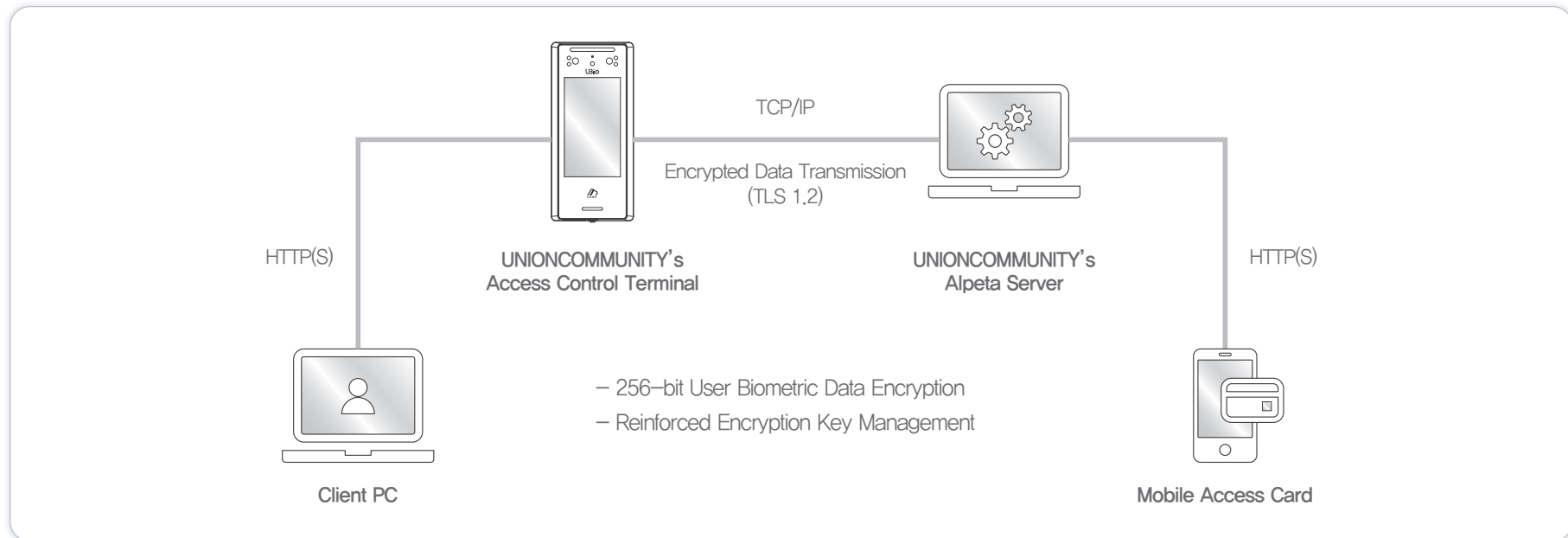
UNIONCOMMUNITY complies with the European General Data Protection Regulation(GDPR) and has reinforced data security measures for all devices and servers to meet international standards through ISO certifications: ISO-27001 for international Security Management Systems(ISMS) and ISO-27701 for Privacy Information Management System (PIMS).

Furthermore, to maintain a high level of data security, UNIONCOMMUNITY complies with the NIST-certified AES256 encryption standard. User biometric data stored on all devices and servers is safeguarded against physical data intrusion attempts through robust encryption and decryption processes.

By applying personal data protection laws and international encryption standards, UNIONCOMMUNITY is committed to providing a secure environment for customers to use our services with confidence.



Application of AES 256 Encryption Algorithm





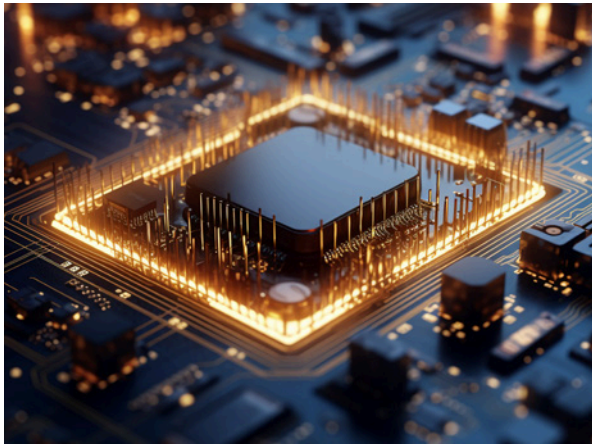
04. **UNIONCOMMUNITY's Core Values**

Based on its core biometric technology, UNIONCOMMUNITY is committed to expanding its scope from innovative product releases to comprehensive solutions, all with the aim of providing customers with the best digital experience.

Our Core Values

UNIONCOMMUNITY has consistently strived to provide sustainable services updates for its customers. However, the existing access terminals were composed of varying hardware configurations and specifications, marking it challenging to perform full-scale firmware updates for new services. Through innovation, we've standardized the hardware structure by incorporating high-performance modules across all devices. This has become a fundamental cornerstone for UNIONCOMMUNITY to sustainably offer new services to its customers. Furthermore, we extend our capabilities beyond hardware manufacturing and also develop solutions based on UNIONCOMMUNITY's competitive biometric technology, to support customers in establishing more efficient and robust security system.

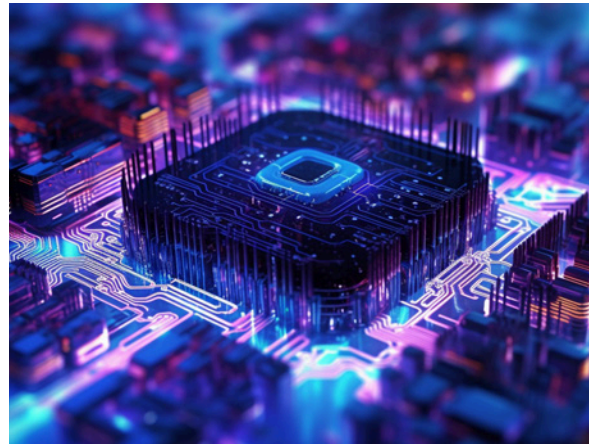
Leap to Innovation



Hardware Innovation » UBio Hardware Platform

Hardware Unification

Incorporating high-performance and essential hardware modules for high-quality data collection and on-device data analysis



Firmware Innovation » UBio-Core

Sustainable, New Services

Providing integrated core firmware for fast and convenient updates, enabling seamless upgrading of existing devices to multi-performance devices to continually offer diverse services



Software Innovation » UBio-ezPass

Expansion of the security area

Adapting to evolving business trends, we offer biometric solutions for effective data and asset protection



HARDWARE INNOVATION

Hardware Unification with UBio Hardware Platform

Through UBio Hardware Platform, UNIONCOMMUNITY has established the foundation for offering customers new experiences and services. The device itself is now capable of collecting and analyzing data with a high-performance module.

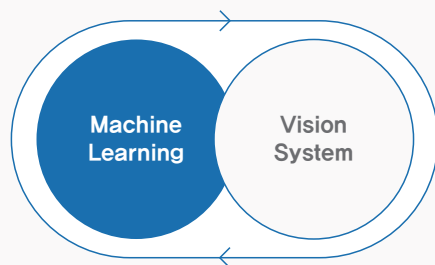
UNIONCOMMUNITY's access control terminals which support UBio Hardware Platform, now offer innovative user experiences, extending beyond the limitations of traditional access control terminals.

Hardware Innovation: UBio Hardware Platform

Through the UBio hardware Platform, UNIONCOMMUNITY has established a hardware unification based on high-performance module. With the uniform hardware structure, it allows the device itself to collect high-quality data and analyze it. We have equipped it with a CPU that is 2.4 times more powerful, and we also incorporated an NPU for faster and more accurate biometric data collection and analysis. Furthermore, the high-performance multimedia system and high-speed interfaces have created a more intuitive user interface and user-friendly network environment for our customers.

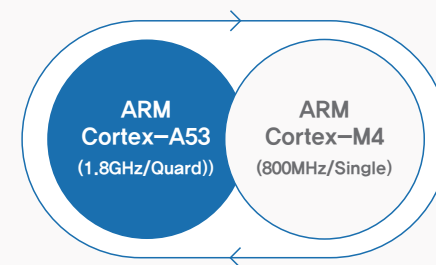
EDGE Computing & Intelligence

- Dual Camera ISP (HDR)
- Neural Processing Unit (NPU) up to 2.3 TOPS



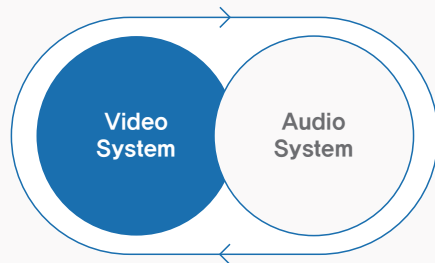
High Real-Time Processing CPU

- **[X2.4]** Up to 21,600 DMIPS (UBio-X Face: 8,000 DMIPS)
- **[+1]** Cortex Complex Off-Loading
- **[X2]** 14nm (UBio-X Face: 28nm)



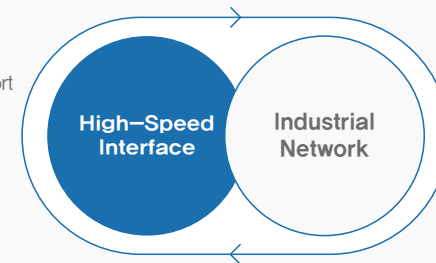
Multimedia Systems on the EDGE

- 2D/3D Graphics Engine Built-in
- 1080p60 Video Encoding/Decoding (H.265, H.264)



Fast Connections & Data Transfer

- MIPI-DSI 1080p60 Display Support
- Gbit Ethernet & USB3.0





FIRMWARE INNOVATION

Sustainable, New Services through UBio-Core

Through UBio hardware Platform, UNIONCOMMUNITY has established the foundation for Sustainably offering customers new experiences and services. The device itself is now capable of collecting and analyzing data with a high-performance module.

UNIONCOMMUNITY's access control terminals which support UBio hardware Platform, now offer innovative user experiences, extending beyond the limitations of traditional access control terminals.

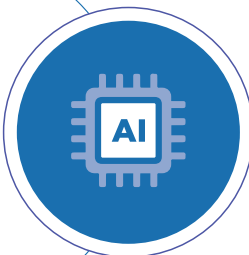
Firmware Innovation: UBio-Core Key Services

UNIONCOMMUNITY's firmware brand, UBio-Core, is an innovation for sustainable services. Through core firmware updates, we bring a broader range of experiences to our customers. UBio-Core not only provides fundamental access control, attendance management, and meal management services, but also offers advanced features.

In version 1.0, it supports Multi-View and UBio-AI, while version 2.0 further enriches the experience with VIP Surveillance and Digital Signage.

UBio-AI

In UBio-Core version 1.0, it offers a service that leverages biometric algorithms to autonomously analyze and learn from data results. This minimizes variables arising by environmental factors and the unique characteristics of actual users, thereby enhancing face recognition accuracy. UBio-AI ensures precise face recognition under numerous unexpected external factors.



Multi-View

In UBio-Core version 1.0, the service provides comprehensive monitoring from various angles, much like CCTV. It promptly sends alerts to administrators in case of intrusion attempts or abnormal behavior, offering users a vigilant security solution. Additionally, a video intercom feature has been added, allowing two-way communication between users and administrators.



VIP Surveillance

In UBio-Core version 2.0, the service provides monitoring and tracking of specific individuals. It guarantees the safety of VIPs, by real-time tracking of their movements and locations. Also, when pre-registered terrorist is detected, it proactively prevents the access of terrorists from a distance of 4 meters.



Digital Signage

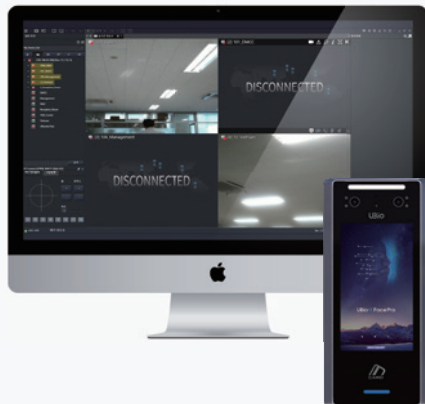
In UBio-Core version 2.0, the service allows users to effectively upload advertisements or announcements using templates. Access control devices receive and display these templates in real-time, delivering the information to the third-party.



UBio-Core: Multi-View Function

Multi-View is a feature available in UBio-Core version 1.0. This feature extends beyond access control devices, allowing video collection and management. It comprises three primary functions: Live View, Event View, and Video Intercom. Live View supports real-time monitoring of the device's surroundings, while Event View gathers all video data, including authentication and specific events. Additionally, video intercom function creates communication channel between users and administrators. Through the three key functions of Multi-View, users can build a security system in their facilities that is both more convenient and resilient.

LIVE VIEW



- 1. Real time monitoring**
 - Monitoring of live streaming data from the device's perspective in real-time
- 2. Authentication Log**
 - Real-time tracking of authentication status, including success, failure, and errors
- 3. Event List Log**
 - Real-time monitoring of abnormal logs, such as temperature alerts and device connectivity issues

EVENT VIEW



- 1. Precise Situation Diagnosis via Video**
 - Capturing video data for 5 seconds starting from the moment of authentication attempts for accurate assessment
- 2. Intuitive Situation Diagnosis with Three Distinctive Colors**
 - Recorded videos are highlighted with three different colors for an effective event assessment

VIDEO INTERCOM



- 1. Two-way Communication Channel**
 - For external visitors, there's a button on the device for easy and fast communication with administrators
- 2. Admin Convenience**
 - When a visitor tries to connect from the device, a pop-up appears on the administrator's PC for quick confirmation and communication

UBio-Core Support Model

UNIONCOMMUNITY's access control terminals, which support the latest services provided by UBio-Core



UBio-X Face Premium

- Multi-modal Biometrics Terminal
- 8-Inch LCD
- Supports 6 Authentication Methods (Face, Fingerprint, RF Card, Mobile Card, QR Code, Password)
- Simultaneous Authentication for 4 Person (Walk-through) / 4m Authentication Distance
- Stores 50,000 Templates
- 5MP Camera
- IP55



UBio-X Face Pro

- Multi-modal Biometrics Terminal
- 5-Inch LCD
- Supports 6 Authentication Methods (Face, Fingerprint, RF Card, Mobile Card, QR Code, Password)
- 2m Authentication Distance
- 2MP Camera
- IP55
- Gallery Face





SOFTWARE INNOVATION

Expansion of Security Area through UBio-ezPass

Through hardware and firmware innovations, UNIONCOMMUNITY has been able to provide sustainable services by leveraging a high-performance module as the cornerstone for core firmware updates.

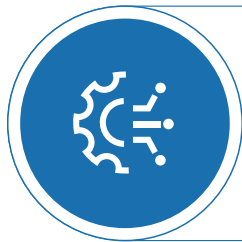
UNIONCOMMUNITY extend our capabilities beyond mere hardware manufacturing. Moreover, we strive to develop solutions grounded in our core biometric technology to support our customers in building more efficient and powerful security systems.

UBio ezPass is UNIONCOMMUNITY's software innovation. It is a server-based biometric solution that offers an extended security realm, dedicated to protect both employee's personal information and company data assets in rapidly evolving work environments.

Software Innovation: UBio–ezPass

UBio–ezPass represents UNIONCOMMUNITY’s software innovation, a solution grounded in our competitive biometric technology. With UBio ezPass, we aim to establish a robust security system under evolving working trends. In the Past, most workspaces were confined to limited physical areas, making physical security systems sufficient to protect employees’s personal information and company assets. However, due to various external factors, workspaces are consistently expanding.

Protecting data and assets solely through physical security systems certainly has reached its limitations. UBio–ezPass is a server–based biometric solution that incorporates face recognition for PC login, preventing unauthorized access and providing dual access authentication by integrating with existing access control devices. Through the various features offered by UBio–ezPass, it prevents data leakages and creates a robust security system.



Software Solution

Simplifies user and laptop registration for easy use



Face Recognition Biometric Solution

Prevents data and personal information leaks by eliminating the need for passwords through face authentication



Attendance Dashboard

Provides a dashboard for intuitive and easy tracking of attendance status, divided into total users, working hours, and location



Dual Access Authentication

Provides an enhanced attendance management system through integration with existing access control terminals and dual authentication settings



Decentralized Biometric Data Storage

Stores user biometric data with automatic encryption algorithm updates for enhancing data security



Unauthorized Access Prevention

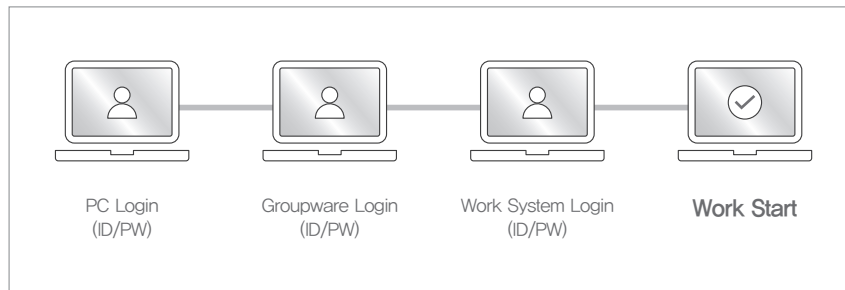
Real-time face analysis and automatic PC lock on unauthorized detection to prevent data exposure



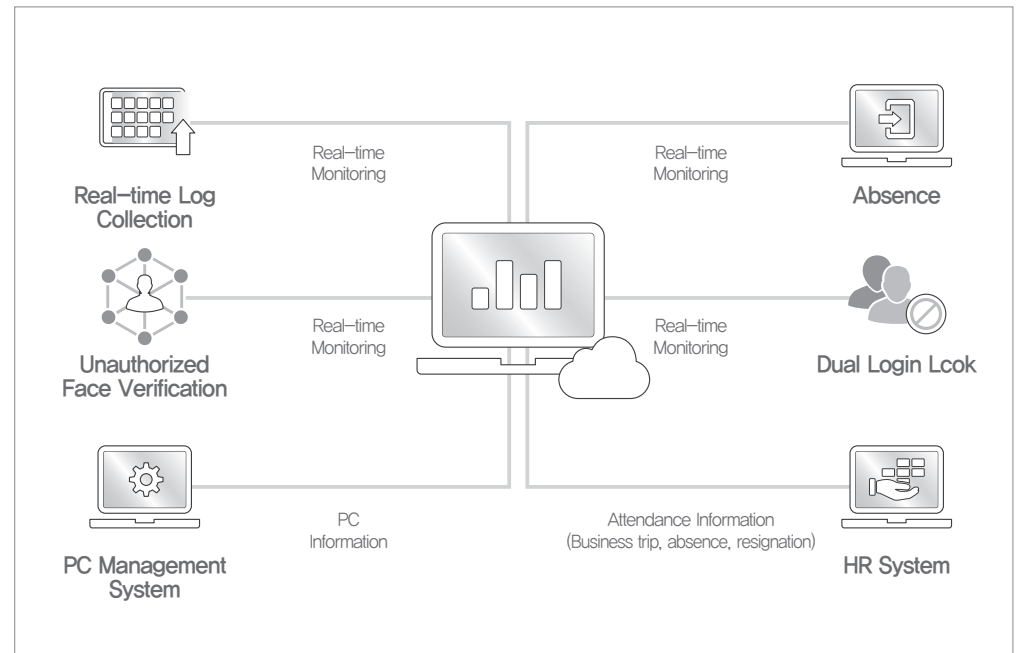
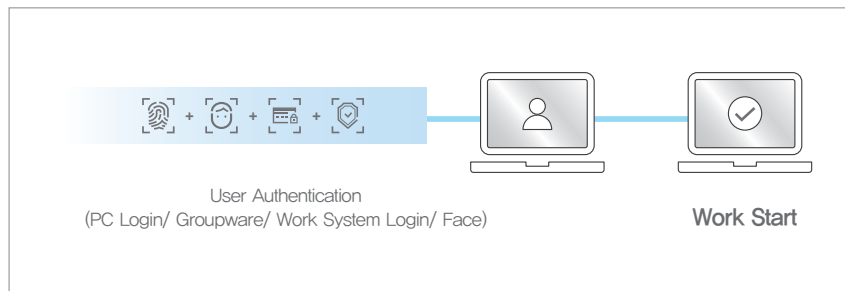
UBio-ezPass: Faster, Easier, and Safer than Ever

By simplifying the existing three step authentication process into a single biometric authentication, we have not only enhanced security but also maximized user convenience.

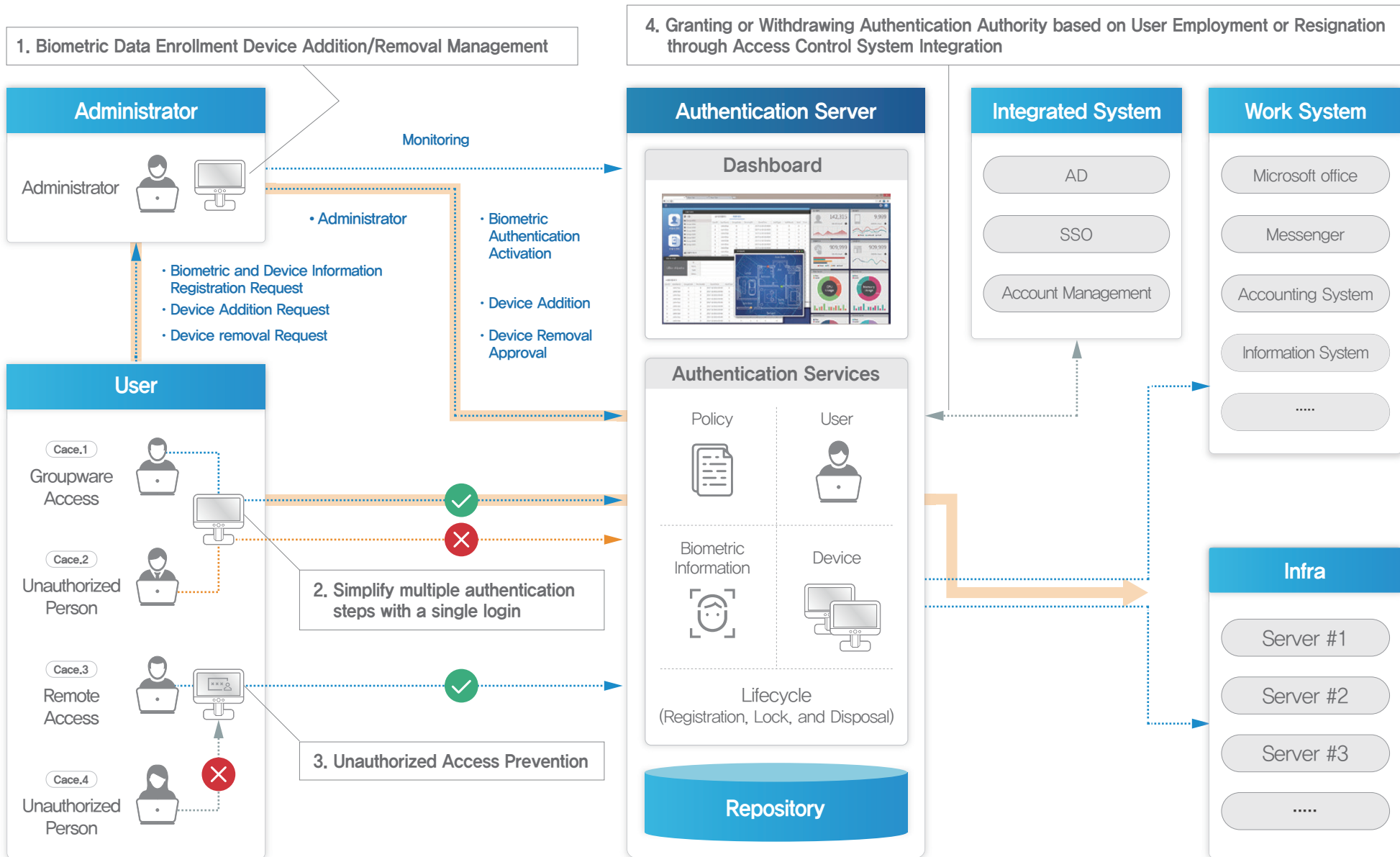
As-Is



To-Be



UBio-ezPass System Configuration



05.









Total Security Solution, UBio Alpeta

By integrating with the access control device, UBio Alpeta offers access control, attendance management, and meal management services, providing a unified, comprehensive biometric solution. Furthermore, UBio Alpeta can be integrated with third-party security system using standard Web APIs, providing advanced features and value-added security solutions.

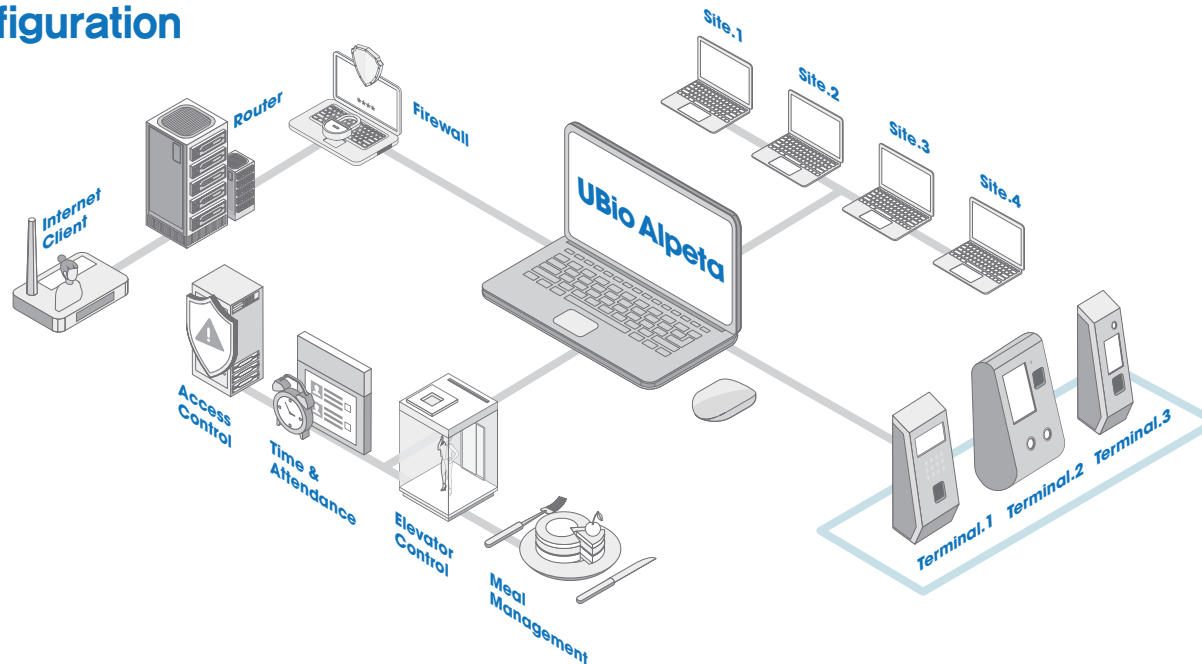


Key Features of UBio Alpeta

UBio Alpeta seamlessly integrates with third-party security systems via standard Web APIs and offers a wide range of features. With a user-oriented UI, customizing tool, and mobile user registration, users can experience a convenient and effective security system.

 <p>Standard Web API for Easy Integration with Other Security Systems</p>	 <p>User-oriented UI and Module Structure</p>	 <p>User Registration and System Management through Mobile Access</p>	 <p>UBio Alpeta eXbuilder (User Customization Tool)</p>
 <p>Access Control, Video Surveillance, Visitor and Event Management, and more</p>	 <p>Powerful Network – Simultaneous Access Terminals (Up to 2,000 Devices / 200,000 Users)</p>	 <p>Compatible with All Browsers (Chrome, Safari, Edge, Firefox, Opera,)</p>	 <p>Innovative System Operating Speed: 1,000,000 < 0.4</p>

System Configuration





ACCESS
CONTROL

Key Functions of UBio Alpeta

UBio Alpeta offers a comprehensive security solution that includes access control, attendance management, meal management, contactless visitor management. Furthermore, it supports various features such as elevator control and video surveillance. Through integration with third-party security systems, it allows for the control and management of elevator access and enables real-time video monitoring and recording for effective security management.



Access Control



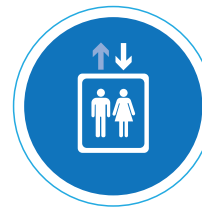
Contactless Visitor
Management



T&A
Management



Meal
Management



Elevator Control



Parking
Management



Video
Surveillance



Contactless Visitor and Event Management

The contactless visitor and event management feature allows visitors to apply for entry in advance using their mobile devices. Administrators can then approve these requests, facilitating convenient access.

- Remote Visitor Application: Enable visitors to request entry remotely using their mobile devices
- Mobile Registration: Visitors can use their mobile devices to provide basic information and choose their preferred biometric authentication methods
- Seamless Integration: Seamlessly integrate with existing access control system
- Visitor Access Record: Ensure convenient and precise visitor access record keeping

Elevator Control

UBio Alpeta seamlessly integrates with third-party security systems to provide floor-level access permissions to specific users based on biometric recognition.

- Biometric Recognition: Grant floor and group access permissions to specific users through biometric recognition
- Convenient Entry: Removing the necessity for issuing physical keys or cards
- Enhanced Security: High level of security through biometric authentication methods



Video Surveillance

By integrating with third-party security systems, UBio Alpeta provides real-time video monitoring and access authentication record retrieval

- Real-time Video Recording, Monitoring, and Management
- Video Motion Detection
- View Specific Event Recording
- Tracking the Movement Path of Specific Users
- Video Retrieval Functionality Provided

06.


Mobile Solution, UBio-XKey

UBio-XKey is a mobile solution that provides fast and convenient access support, without the necessity of carrying a separate card.



Key Features of UBio-XKey

UBio XKey is a smartphone-based solution that provides convenient access management. This solution eliminates the need for physical access cards, offering not only cost and time savings in card issuance but also reducing the risk with card loss. Users can effortlessly get contactless mobile cards via SMS, making the process both convenient and secure

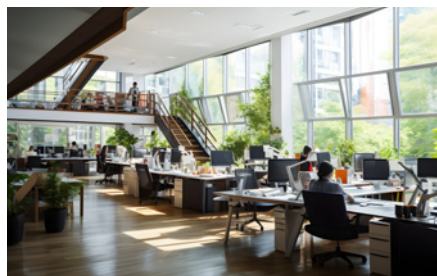
 <p>Contactless Mobile Solution</p>	 <p>Contactless Tagging Method</p>	 <p>Reduced Time and Cost for Card Issuance</p>	 <p>Up to 10cm Authentication Distance</p>
 <p>Supports Android and iOS</p>	 <p>Convenient App Installation and User Registration</p>	 <p>Access History Retrieval through the App</p>	 <p>Contactless Card Issuance and retrieval</p>

Field Application of UBio-XKey

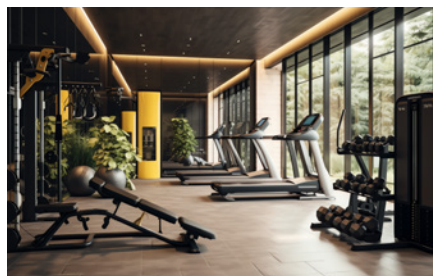
UBio-XKey is suitable for a variety of locations, including enterprises requiring strict access control and enhanced information security, as well as places where convenient access is needed, such as libraries, classrooms, study cafes, shared offices, and more.



Enterprise



Shared Office



Fitness Center



Library



UBio-XKey Support Model

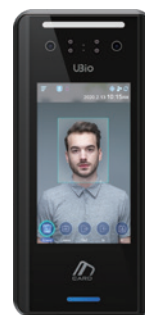
UNIONCOMMUNITY's access control terminals that support the mobile solution, UBio-XKey



UBio-X Face Premium



UBio-X Face Pro



UBio-X Face



UBio-X Pro2



UBio-X Pro/Pro Lite



UBio-X Iris



UBio-X Slim



AC-1200

07.

Visitor Management Solution, UBio Alpeta Kiosk

UBio Alpeta Kiosk is a visitor management solution that allows visitors to quickly and conveniently register their biometric information through a kiosk, granting them access to the designated areas.

UBio Alpeta Kiosk
Visitor access control service

*** Enter your cell phone number

Enter your password

Visit Inquiry

Key Features of UBio Alpeta Kiosk

UBio Alpeta Kiosk is a visitor management solution that allows visitors to register their biometric information through a kiosk and easily access the premises. Integrated with access control terminals, UBio Alpeta Kiosk allows visitors to access designated areas with a single biometric registration.



Biometric Contactless Visitor Management Solution

Utilizing biometric recognition, visitors can effectively register their biometric information in a contactless manner. Furthermore, by using their unique biometric data, it enables faster identity verification while maintaining a high level of security.



Resource Management and Cost Reduction

UBio Alpeta Kiosk offers a self-registration for visitors to provide their own biometric information, which minimizes the for administrator involvement, leading to cost savings in terms of resources and labor



Waiting Time Reduction

UBio Alpeta Kiosk's automated system reduces visitor waiting times and enhances customer satisfaction. Additionally, it seamlessly integrates with access control terminals, allowing fast and convenient access to designated areas with a single kiosk registration

UBio Alpeta Kiosk Support Model

UNIONCOMMUNITY's access control terminals that support the visitor management solution, UBio Alpeta Kiosk



UBio-X Face Premium



UBio-X Face Pro



UBio-X Face



UBio-X Pro2



08.

UBio Solution Partners

Through official partnerships, UBio Solution Partners strive to activate integrated biometric technology solutions, establish new business models, and provide value-added, advanced digital experiences for users



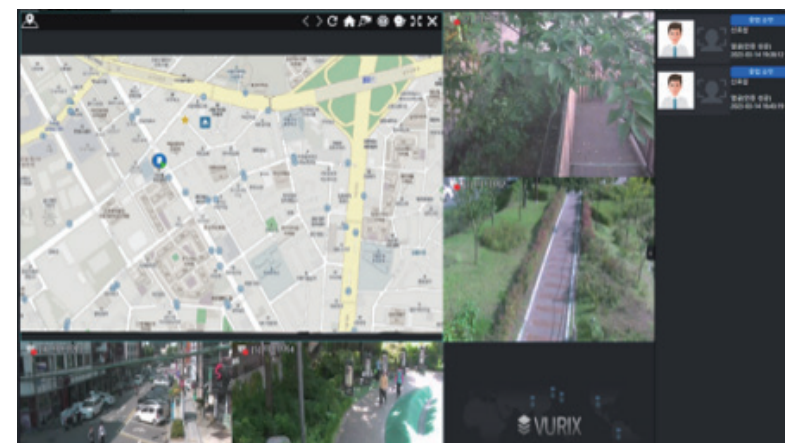
3D Integrated Monitoring

The integration of UNIONCOMMUNITY’s access control services with WeMB’s Renobit 3D facility security platform enhances operational efficiency, facility management, and maintenance monitoring. The integrated service offer a user–friendly GUI for the 3D visualization and management of the entire facility.



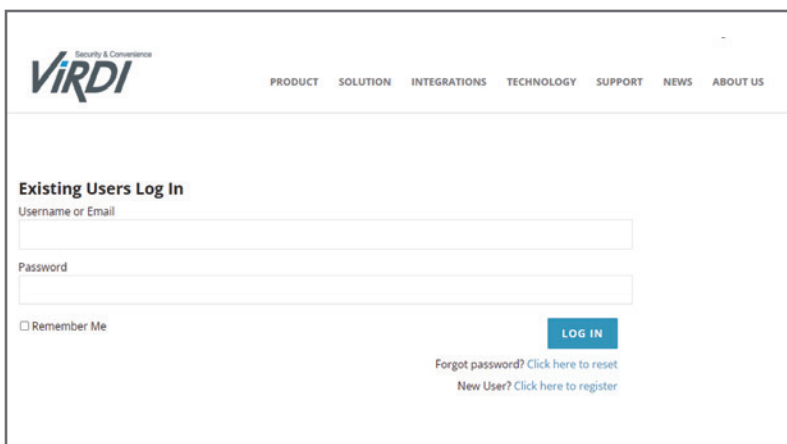
VMS Integrated Monitoring

UNIONCOMMUNITY’s integration of access control terminals with Innodep’s video management solution, VURIX, provides users with a value–added security solution. It extends beyond the capabilities of our existing software, UBio Alpetra, enabling real–time CCTV monitoring and access control management for more powerful and efficient facility management.



Biometric SSO Portal Login Service

UNIONCOMMUNITY’s server–based biometric solution, Tomato System’s SSO portal solution, and Time Soft’s high–capacity distributed processing platform are seamlessly integrated to offer a unified login service. Through the integrated solution, users can easily and securely login using biometric authentication.



A group of four business professionals are seated around a wooden conference table in a meeting room. They are engaged in a discussion, with laptops open in front of them. The room has a dark, textured wall and a whiteboard is visible in the background. The lighting is warm and focused on the participants.

09.

Global Integration Partners

Through global partner integration solutions, UNIONCOMMUNITY has established partnerships with numerous security companies across the world, with the aim of consistently developing competitive solutions in the global market. Ultimately, the goal is to expand business in collaboration with partners and provide value-added services to global customers.

Global Integration Partners Reference



UNIONCOMMUNITY Integration

UNIONCOMMUNITY establishes integration strategies to promote efficient collaboration with global partners and supports them in selecting the most suitable integration methods that align with their environments and requirements.



UBio-Device SDK

UBio-Device SDK allows third parties to directly control the device's hardware resources, biometric algorithms, and network interfaces to develop an access control program and offer an OEM product lineup.



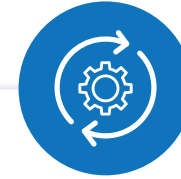
UCS-SDK

UCS-SDK supports flexible control and management of devices, users, and access control services, allowing third parties to effectively modify and enhance access control systems.



Alpeta Web API

Alpeta Web-API provide user and device management, as well as the latest services offered by UBio-Core based on understanding the diverse needs of the users



UBio-Sync

UBio-Sync is a middleware for the integration of devices, servers, and services, providing all the necessary protocols for seamless integration with third-party security solutions and our devices

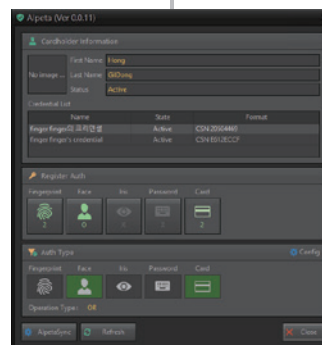
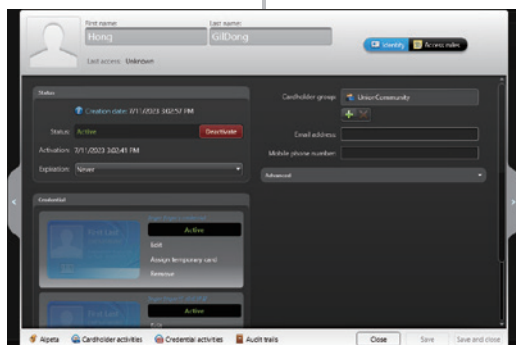
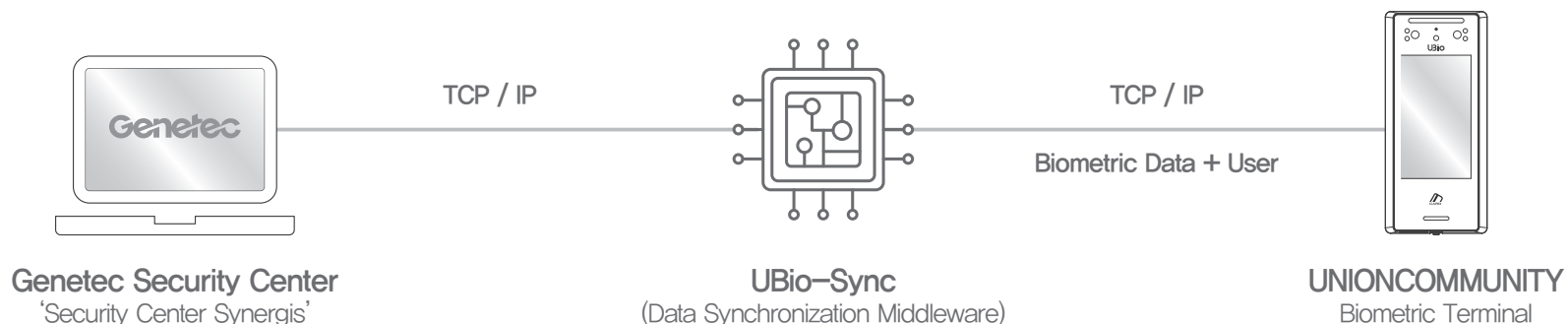


Key Features of UNIONCOMMUNITY Integration

UNIONCOMMUNITY generates innovative value through integration with global partners. By leveraging UNIONCOMMUNITY's core biometric technology, we aim to establish a robust security system and offer integrated solutions to maximize convenience for our customers.



Global Integration Partner UNIONCOMMUNITY-Genetec



UBio-Sync Manager

UNIONCOMMUNITY's UBio-Sync is middleware that facilitates the easy and fast registration and synchronization of user biometric data to seamlessly integrate with Genetec. Additionally, it allows for the retrieval of authentication and access logs.



10.

Noseprint Recognition Solution, UBio PetID

The UBio PetID solution utilizes advanced technology to capture pets' noseprints. UNIONCOMMUNITY provides a mobile application for both pet owners and general users to efficiently collect and register these noseprints, offering a convenient method for pet identification. In the case of a lost pet, the stored noseprint in the database can be compared for a match, allowing for the rapid identification of the pet.

Key Features of UBio PetID

UBio PetID solution extracts and registers the unique noseprint characteristics of dogs. It compares and analyzes the registered noseprints in the database for matching, thereby enabling the fast identification of the lost dog's owner and facilitating quick contact with their family.



Patented Technology



World's First Noseprint Recognition



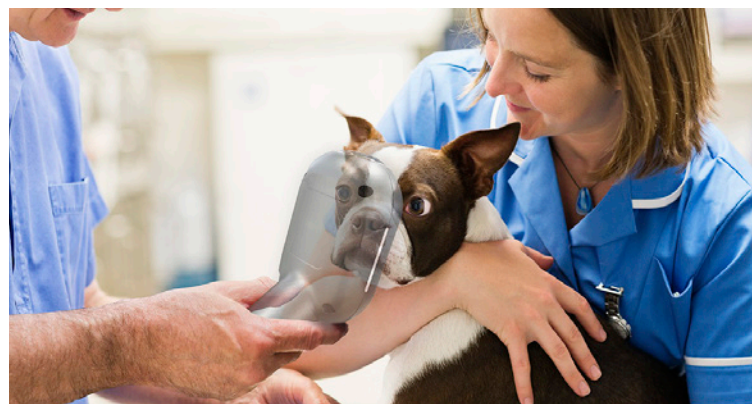
Extraction, Matching Algorithm



High Accuracy, Uniform Capture



Accommodating Moist Noseprints

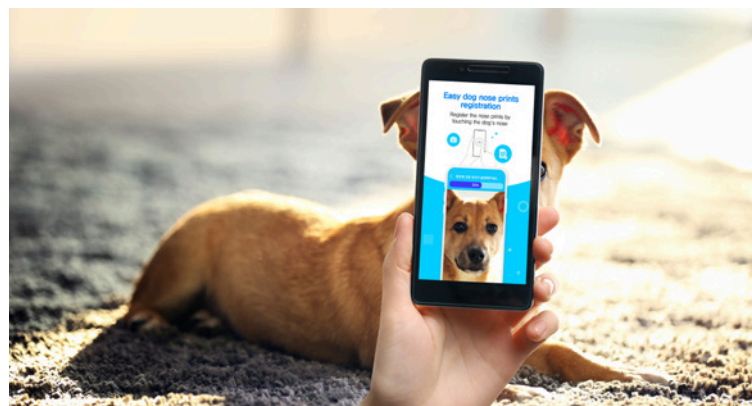


Contact-based noseprint recognition

– Developed by UNIONCOMMUNITY, it is the world's first contact-based digital noseprint recognition device, which can be implemented in various environments using a software development kit (SDK).










CPU	DSP / Up to 400MHz	Capture Type	Optical
RAM	DDR2 64MB	Resolution	500 DPI
Serial Flash	4MB	Supply Voltage	DC 5V
CMOS Image Sensor	Sensor 1/2.7 inch / 2M	Interface	USB 2.0 High Speed
Image Size	1168 x 480 pixel	Dimension	80 x 198.58 x 141.46 (mm)



Contactless noseprint recognition

- Through the mobile application offered by UNIONCOMMUNITY, pet owners and general users can conveniently capture noseprints
- With registration and lost pet identification features, users can register their pet's noseprints or rapidly identify registered stray pets


Access & Time Management

Model		UBio-X Face Pro	UBio-X Face Premium	UBio-X Face	UBio-X Iris	UBio-X Pro2	UBio-X Pro / Pro Lite	UBio-X Slim		
Product Image										
Authentication Method		Biometric	Biometric	Biometric	Biometric	Biometric	Biometric	Biometric		
Dust/Water Resistance		IP55	IP55	IP55	X	X	IP55	IP55		
Memory	Max Users	Card	(1:1)/(1:N)	500,000	500,000	500,000	200,000	500,000	500,000	
		Fingerprint (Base on one finger enrollment per user)	1:1	500,000	500,000	X	200,000	500,000	500,000	100,000
			1:N	50,000	50,000	X	50,000	100,000	100,000	100,000
		Face (Base on live face enrollment per user)	1:1	100,000	100,000	20,000	X	20,000	100,000	X
	1:N		50,000	50,000	20,000	X	20,000	30,000 / 7,000	X	
	Templates	Iris (Base on 2 eyes (L/R) enrollment per user)	1:1	X	X	X	200,000	X	X	X
			1:N	X	X	X	20,000	X	X	X
		Fingerprint	1:1	1,000,000	1,000,000	X	400,000	1,000,000	1,000,000	200,000
			1:N	100,000	100,000	X	100,000	200,000	200,000	200,000
			MAX Templates per Finger	2	2	X	2	2	2	2
			MAX Finger per User	10	10	X	10	10	10	10
		Face	1:1	100,000	100,000	20,000	X	20,000	1,000,000 / 500,000	X
			1:N	30,000	30,000	20,000	X	20,000	150,000 / 35,000	X
			MAX Templates per User	1	1	1	X	1	10	X
		Iris	1:1	X	X	X	400,000	X	X	X
			1:N	X	X	X	40,000	X	X	X
			MAX Templates per User	X	X	X	2	X	X	X
		MAX Templates per User	X	X	X	4	X	X	X	
		Logs	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	
		Images	20,000	10,000,000	20,000	20,000	20,000	20,000	50,000	
Communication	with server	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP		
	other	USB	USB	USB	USB	SD CARD	SD CARD	USB		
	Wireless LAN(Wi-Fi)	0	X	X	Optional	Optional	0	Optional		
	Wiegand OUT	0	0	0	0	0	0	0		
	RS232	0	0	0	0	0	0	0		
	RS485	0	0	0	0	0	0	0		
	Wiegand IN	0	0	0	0	0	0	0		
Display	LCD	5"Color Touch	8"Color Touch	5"Color Touch	5"Color Touch	5"Color Touch	5"Color Touch	5"Color Touch		
	Backlight	0	0	0	0	0	0	0		
	Embedded Camera	Dual	Dual	Dual	Dual	Dual	Dual	0		
Card	125kHz-EM(KHz-EM)	0	0	0	0	0	0	0		
	HID Prox	0	0	0	0	0	0	0		
	HID iclass(IC)	0	0	0	0	0	0	0		
	13.56MHz Smart Card	0	0	0	0	0	0	0		
	Keypad	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen	Touch Screen		
	Function keys	SOFT	SOFT	SOFT	SOFT	SOFT	SOFT	SOFT		
	Door Phone	0	0	X	X	X	0	X		
	FP Sensor (Platen Area) mm	Optional	Optional	X	Nscan-FM : 16.6 x 21.6	15.5 x 19	15.5 x 19	16.4 x 19.4		
	Resolution	500dpi	500dpi	X	500dpi	500dpi	500dpi	500dpi		
	Dimension (W) x (H) x (D) mm	92 x 200 x 22.1	143.3 x 289.5 x 23.8	96 x 211 x 35.3	160.6 x 214 x 45.4	149.7 x 208 x 56.4	149.7 x 208 x 89.7	80 x 195.6 x 23.5(Upper) / 54.67(Lower)		
	FRR / FAR	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%	0.1% / 0.0001%		
	Operating Illuminance (lux)	30,000	30,000	25,000	X	25,000	30,000	X		
	Operating Temperature	-20 ~ 60 °C	-20 ~ 60 °C	-20 ~ 60 °C	-20 ~ 60 °C	-20 ~ 55 °C	-20 ~ 55 °C	-20 ~ 60 °C		


THEMAL & MODULES

Model	TE-Q2 (UBio-X Face / UBio-X Pro2)	Thermal-i	Thermal-i2	THM-910F
Product Image				
Type	Micro-Bolometer (uncooled)	Fever Detection Sensor	Fever Detection Sensor	Fever Detection Sensor
Thermal Sensitivity	$\leq 50\text{mK}@f/1.0$	$\leq 140\text{mK}$	$\leq 140\text{mK}$	$\leq 140\text{mK}$
Frame Rate	9fps	4fps	4fps	4fps
Array Format	384 x 288	32 x 32	32 x 32	32 x 32
Temperature Accuracy	$\pm 0.5^\circ\text{C}$	$\pm 0.3^\circ\text{C}$	$\pm 0.3^\circ\text{C}$	$\pm 0.3^\circ\text{C}$
Temperature Distance	Adjustable, 0.3 ~ 2M	Adjustable, 0.3 ~ 2M	Adjustable, 0.3 ~ 2M	Adjustable, 0.3 ~ 2M
Dimension (mm)	85 x 68.7 x 31.4 mm	83.8 x 39.6 x 35.6mm	96 x 42.7 x 35mm	96 x 42.7 x 35mm
Control	USB 2.0	USB	USB	USB
FOV(H x V)	45.1 x 34.2 - 54.7	33 x 33	33 x 33	33 x 33
Operating Temperature	0°C ~ 40°C	10°C ~ 40°C	10°C ~ 40°C	10°C ~ 40°C
Scene Range Temperature	25°C ~ 40°C	25°C ~ 45°C	25°C ~ 45°C	34°C ~ 42°C
Focal Length	5.7mm	5mm	5mm	5mm
Power supply	DC5V	DC5V	DC5V	DC5V
Power Consumption	$\leq 1\text{W}$	$< 50\text{mA}$	$< 50\text{mA}$	$< 50\text{mA}$


PORTABLE DEVICE

Model	UBio Tablet5(NScan-FM)
Product Image	
Fingerprint Type	Optical
Resolution	500dpi
Gray Scale	256 gray
Platen Size(W X L)	16.6 X 21.6 mm
Sensing Area(W X L)	15.24 x 20.32 mm
Auto Sensing	○
Speed	10 frames Per second(fps)
Interface	USB 2.0(High Speed)
Operating Temperature	-20℃ ~ +60℃
Operating Humidity	10 ~ 90%, non-condensing
Dimension(W x H x D)	62.4 x 32.6 x 13.4 mm
Certifications	KC,CE,FCC,ROHS,IP65(Sensor Surface), FBI PIV+FAP20
Image Format	ISO 19794-4, WSQ, RAW, BMP
Template Type	VIRDI, ISO 19794-2, ANSI 378
LFD	○
Operating System	Android
Card Type	NFC

LIVE SCANNERS

Model	NScan-T
Product Image	
Fingerprint Type	Single Finger/Roll Dual-Finger Four-Finger, Two Thumbs
Resolution	500dpi
Platen Size ((W X L))	96 x 85.8 mm
Image Size (W X L)	81.28 x 76.2 mm
Rolling mood Speed	24 frames/s(Merging)
Image Quality Standards	XFBI IQS Appendix-F
Operating Temperature	0℃ ~ +50℃
Ingress Protection	IP54
Operating Humidity	10 ~ 90%, non-condensing
Dimension (W x H x D)	162 x 156.8 x 200 mm
Weight (Kg)	2.3 (without heater)
Certifications	WHQL, EAC, CE, FCC, KC
Interface	USB 2.0(High Speed)
Heater	Optional
Operating System	Windows, Android, Linux, java

STAMP SCNNER

Model	VScan-S30MA	VScan-S40S
Product Image		
MCU(CPU)	CY7C68013A (Infineon 社) + MAX10 FPGA (Intel 社)	X1000E (Ingenic 社)
Fingerprint Type	Oval Stamp / Seal	Oval Stamp / Seal
Resolution	500dpi	500dpi
Platen Size ((W X L))	31 x 31 mm	32 x 32 mm
Image Size (W X L)	30 x 30 mm	30 x 30 mm
Rolling mood Speed	15 frames/s(Merging)	7.5 frames/s(Merging)
Image Quality Standards	X	X
Operating Temperature	0℃ ~ +50℃	0℃ ~ +50℃
Ingress Protection	X	X
Operating Humidity	10 ~ 90%, non-condensing	20 ~ 90%, non-condensing
Dimension (W x H x D)	72 x 58.3 x 120.4 mm	150 x 82.5 x 22 mm
Weight (Kg)	0.7	0.32
Certifications	WHQL, KC	WHQL, KC
Interface	USB 2.0(High Speed)	USB 2.0(High Speed)
Heater	N/A	N/A
Operating System	Windows, Android	Windows 10(32/64bit) / Android

ENROLLMENT SCANNERS

Model	NScan-FMH	FOH02	Fingkey Hamster DX	Fingkey Hamster III DX
Product Image				
Fingerprint Type	Optical	Optical	Optical	Optical
Resolution	500dpi	500dpi	500dpi	500dpi
Gray Scale	256 gray	256 gray	256 gray	256 gray
Platen Size(W X L)	16.6 X 21.6 mm	16 X 18 mm	14.8 X 17.9mm	14.8 X 17.9mm
Sensing Area(W X L)	15.24 x 20.32 mm	15 x 17 mm	12.6 X14.8 mm	12.6 X14.8 mm
Auto Sensing	○	○	○	○
Speed	10 frames Per second(fps)	10 frames Per second(fps)	3 frames per second (fps)	3 frames per second (fps)
Interface	USB 2.0(High Speed)	USB 2.0(High Speed)	USB 2.0(High Speed)	USB 2.0(High Speed)
Operating Temperature	-20℃ ~ +60℃	-20℃ ~ +60℃	-20℃ ~ +60℃	-20℃ ~ +60℃
Operating Humidity	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing
Dimension(W x H x D)	75 x 39.4 x 17.2 mm	74 x 92 x 84 mm	54 X 74 X 82.6 mm (with Stand) 27.4 X 40.5 X 73.7 mm (without Stand)	68 X 68 X 81 mm (with Stand) 30 X 48.5 X 70 mm (without Stand)
Certifications	KC,CE,FCC,ROHS, FBI PIV+FAP20	KC, CE, FCC, ROHS, WHQL	KC,CE,FCC,UL,RoHS,WHQL	KC,CE,FCC,UL,RoHS,WHQL
Image Format	ISO 19794-4, WSQ, RAW, BMP	WSQ, RAW, BMP	ISO 19794-4, WSQ, RAW, BMP	ISO 19794-4, WSQ, RAW, BMP
Template Type	VIRDI, ISO 19794-2, ANSI 378	VIRDI, ISO 19794-2, ANSI 378	ISO 19794-2, ANSI 378	ISO 19794-2, ANSI 378
LFD	○	○	X	○
Operating System	Windows, Android	RF: 125KHz proximity card SC: 13.56 MHz smart card	Windows, Android , Linux	Windows, Android , Linux
Card Type	X	X	X	X
Operatating Software (Server solution)	-	UNIS, ACServer	AccessManager Pro	AccessManager Pro

OEM MODULES

Model	NScan-FM	NScan-SM	NSCAN-SDL
Product Image			
Fingerprint Type	Optical	Optical	Optical
Resolution	500dpi	500dpi	500dpi
Gray Scale	256 gray	256 gray	256 gray
Template Capacity	1,000 Templates	X	X1,000 Templates
Log Capacity	X	X	X
Enrollment Time	< 1 sec	X	< 1 sec
Verification Time	< 1 sec	X	< 1 sec
Host Communication	USB 2.0(High Speed)	USB 2.0(High Speed)	UART(TTL)
Power Consumption (mA)	MAX 270 mA	MAX 90 mA	Standby: Max 110mA Operation: Max 130mA
Supply Voltage	DC 5 ± 5% [V] (USB Power)	DC 5 ± 5% [V] (USB Power)	DC 3.3V ± 0.2V
Encryption	Seed 128	Seed 128	Seed 128
Operating Temperature	-20℃ ~ +60℃	0℃ ~ +60℃	-20℃ ~ 60℃
Operating Humidity	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing	10 ~ 90%, non-condensing
Dimension(W x H x D)	62.4 x 32.6 x 13.4 mm	53.6 x 32.6 x 13.4 mm	53.6 x 32.6 x 13.4 mm
FRR (False Rejection Rate)	<0.1%	<0.1%	<0.1%
FRA (False Acceptance Rate)	<0.0001%	<0.0001%	<0.0001%
LFD	○	○	○

UBio | Your Bio All the Way

UNION
COMMUNITY

UNIONCOMMUNITY Co.,Ltd

12F, Daemyung Valeon bldg., 127, Beobwon-ro, Songpa-gu, Seoul, 05836, Republic of Korea | www.unioncomm.co.kr

Domestic Sales Inquiry: 02 6488 3042/3048

Overseas Sales Inquiry: 02 6488 3202/3050

Email: sales@unioncomm.co.kr