VIRDI
Security & Convenience

UBIO ALPETA new
Web-based Integrated Security Solution

◎ Features

Standard WEB API
- Internal business system and other security solutions provide standardized WEB API

Supports connection with VMS, BMS and other security systems

Innovative System Operating Speed
- 1,000,000 templates can be authenticated in less than 0.4 second

Attendance Management Service
- Flexible work schedule, commute record, work rule setting and more applications

UNIS 4.5
Integrated Security Management Software

◎ Features

Terminal Management
- Manages terminal registration, administrator designation and terminal configuration.
- Remote terminal/entry control

Log Management
- Provides access history, modified history and event history on the terminal

User Management
- Manages employees and visitors
- Can assign user and admin based on authority level

E-Map
- Display real-time location icon and terminal error icon

Made In Korea

Fake Fingerprint Free

UBIO-X FACE `new` with thermal module `optional`
Face Recognition Terminal

Features

Improved Security & Accuracy
- Liveness detection
- Anti-spoofing attacks against photos, videos & 3D masks

Face Recognition
- Face authentication at a distance up to 3 metre

Easy Face Enrolment
- Use device camera or mobile phone
- Upload existing picture

Integration with Thermal Module
- Fever detection sensor (Thermopile) type
- Measuring temperature range 30 ℃ ~ 45 ℃
- Measure user's body temperature
- Deny access for high temperature and the log data is recorded in the server

Mask Detection
- Can detect and alert user not wearing mask
- Face authentication WITHOUT mask on

UBIO-X PRO2 `new` with thermal camera `optional`
Multi Biometric Face & Fingerprint Recognition Terminal

Features

Improved Security & Accuracy
- Liveness detection
- Anti-spoofing attacks against photos, videos & 3D masks

Face Recognition
- Face authentication at a distance up to 3 metre

Easy Face Enrolment
- Use device camera or mobile phone
- Upload existing picture

5" Color Touch LCD

Integration with Thermal Camera
- Micro-Bolometer (uncooled) detector type
- Measuring temperature range 30 ℃ ~ 45 ℃
- Measure user's body temperature
- Deny access for high temperature and the log data is recorded in the server

UBIO-X SLIM `new`
Premium Card & Fingerprint Recognition Terminal

Features

Patented Live & Fake Finger Detection
- Optical sensor and algorithm detect fake fingers (paper, film, silicone, rubber and gelatin)

5" Color Touch LCD

Large Memory Capacity
- 500,000 users
- 10,000,000 logs
- 50,000 picture storage

Embedded Card Reader
- Smart/RF Card option

UBIO TABLET5 `new`
5" Portable Fingerprint Terminal

Features

Portable Time Attendance and Customer Management Solution

Built-in Camera
- 5MP (Rear), 2MP (Front)

5" Color Touch LCD

UBIO-X FACE Premium
Walk-Through method 8" Premium Face Recognition Terminal

Features

Walk-Through
method Face Recognition at a distance up to 3M

Mask Detection Function (3step)

Integration with Fingerprint and QR Sensor UBio-X FQR (optional)

A wide range of authentication options including face, mobile access, fingerprint, QR code and more

Anti-Spoofing attacks against photos, videos & 3D mask

Easy Face Enrollment, Using Camera or Phone Picture

Integration with Thermal Sensor (optional)

Biometric Terminals

AC-2100 PLUS
IP65 Dust/Water Resistance/Fingerprint and Card Terminal

Features

Patented Live & Fake Finger Detection
- Optical sensor and algorithm detect fake fingers (paper, film, silicone, rubber and gelatin)

RS485 OSDP Support

IP65 Dust / Water Resistance
- Outdoor installation

Portable Unit and Easy Installation

AC-2000
IP65 Fingerprint Terminal with Camera & Bluetooth Mobile Key

Features

Patented Live & Fake Finger Detection
- Optical sensor and algorithm detect fake fingers (paper, film, silicone, rubber and gelatin)

Bluetooth Support
- Bluetooth-enabled mobile key solution
- UNIS-B PLUS : App for administrators
- V-CARD : App for mobile key users

Open Supervised Device Protocol (OSDP)
- Communication protocol support that allows peripheral devices to interface with control panels or other security mgmt. systems

IP65 Dust / Water Resistance
- Outdoor installation

AC-2200/2200H
IP65 Fingerprint Terminal with Camera & Bluetooth Mobile Key

[Intuitive GUI]

Features

Patented Live & Fake Finger Detection
- Optical sensor and algorithm detect fake fingers (paper, film, silicone, rubber and gelatin)

Bluetooth Support
- Bluetooth-enabled mobile key solution
- UNIS-B PLUS : App for administrators
- V-CARD : App for mobile key users

Embedded Digital Camera

Open Supervised Device Protocol (OSDP)
- Communication protocol support that allows peripheral devices to interface with control panels or other security mgmt. systems

IP65 Dust / Water Resistance
- Outdoor installation

AC-5000 IK
IP65 Fingerprint / Card Terminal

AC-5100
Fingerprint / Card Terminal with Camera & Bluetooth Mobile Key

Features

Patented Live & Fake Finger Detection
- Optical sensor and algorithm detect fake fingers (paper, film, silicone, rubber and gelatin)

IP65 Dust / Water Resistance
- Outdoor installation

IK09 Vandal-proof Structure

Support Multi Card Support
- 125KHz-EM, HID Prox, HID iClass, 13.56MHz Smart card

Open Supervised Device Protocol (OSDP)
- Communication protocol support that allows peripheral devices to interface with control panels or other security mgmt. systems

Bluetooth Support (AC5100)
- Bluetooth-enabled mobile key solution
- UNIS-B PLUS : App for administrators
- V-CARD : App for mobile key users

Built-in Camera (AC5100)
- Capture images based event log data

FOH02
Fingerprint Identification / USB Fingerprint / Card Reader

Features

Patented Live & Fake Finger Detection
- Optical sensor and algorithm detect fake fingers (paper, film, silicone, rubber and gelatin)

International Standard Image Format and Interface
- ISO/IEC 19794-2:2005, ISO/IEC 19794-4:2005
- ANSI INCITS 378-2004
- WSQ Fingerprint Image Compression
- NFIQ(NITS Fingerprint Image Quality)

Rapid and Accurate Authentication

Compatible with Access Control S/W UNIS
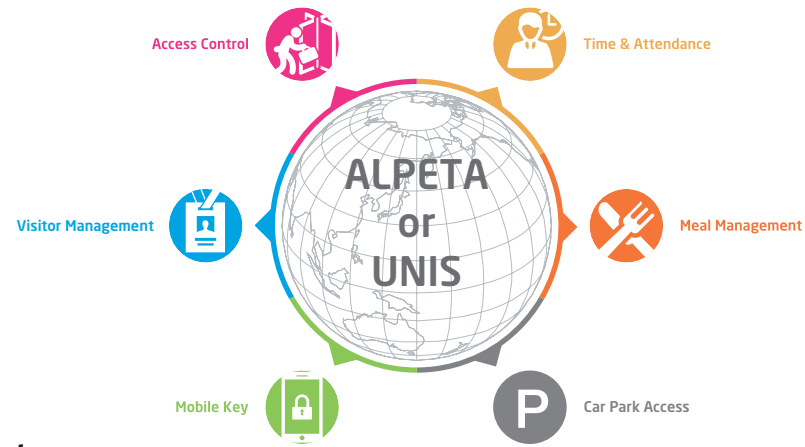- Fingerprint or card can be added / deleted from the Software

Fingerprint or Card Authentication
- FOH02 : Fingerprint
- FOH02RF : Fingerprint & 125KHz proximity card
- FOH02SC : Fingerprint & 13.56 MHz smart card

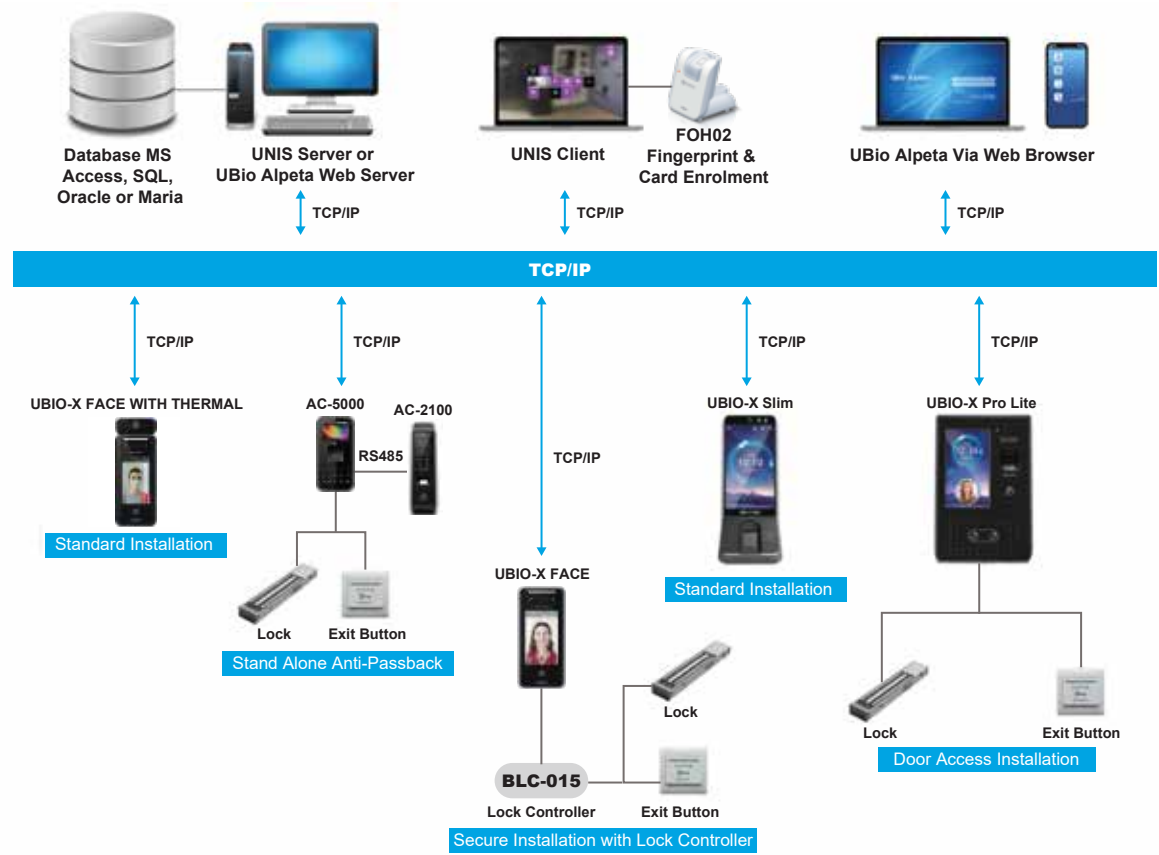**Fingerprint Data Storage on Smart Card**

Integrated Security Software

Features

Access Control

Time & Attendance

ALPETA or UNIS

Visitor Management

Meal Management

Mobile Key

Car Park Access

GUI Powerful GUI for both Access control and Time & Attendance	**Superior Fingerprint Algorithm**	**Multi-Terminal Management from the Server**
F/W Firmware Upgrade	**ERP** Interoperable with ERP and Groupware Systems	**Easy DB Compatibility via ODBC-MDB, MS-SQL, Oracle**
Mobile App	**MDB** MDB Backup	Editable Program Text (Excel file)

System Configuration

Database MS Access, SQL, Oracle or Maria

UNIS Server or UBio Alpeta Web Server — TCP/IP

UNIS Client — TCP/IP

FOH02 Fingerprint & Card Enrolment

UBio Alpeta Via Web Browser — TCP/IP

TCP/IP

- UBIO-X FACE WITH THERMAL — TCP/IP — Standard Installation
- AC-5000 / AC-2100 — TCP/IP — RS485 — Lock / Exit Button — Stand Alone Anti-Passback
- UBIO-X FACE — TCP/IP — BLC-015 Lock Controller — Exit Button — Lock — Secure Installation with Lock Controller
- UBIO-X Slim — TCP/IP — Standard Installation
- UBIO-X Pro Lite — TCP/IP — Lock / Exit Button — Door Access Installation

Terminal Specifications

Model		UBIO-X FACE	UBIO-X FACE PREMIUM	UBIO-X PRO 2	UBIO-X SLIM	UBIO-TABLET 5	AC-5000 IK	AC-5100	AC-2000	AC-2100 PLUS	AC-2200
Product image											
Authentication Method		Biometric	Biometric	Biometric	Biometric	Biometric	Biometric	Biometric	Biometric	Biometric	Biometric
Dust / Water Resistance		IP65	IP55	X	X	IP65	IP65	X	IP65	IP65	IP65
Memory	Max Users	500,000 (Card) 20,000 (Face)	500,000 (Finger) 100,000 (Face)	500,000 (Finger) 20,000 (Face)	500,000	1,500	20,000	20,000	1,500	1,500	1,000 / 5,000
	Fingerprints (Templates)	X	X	500,000	200,000	1,500	20,000	20,000	1,500	1,500	1,000 / 5,000
	Logs	10,000,000	10,000,000	10,000,000	10,000,000	51,000	64,000	64,000	51,000	100,000	100,000
	Images	20,000	20,000	20,000	50,000	X	X	17,000	X	X	10,000
Communication	with Server	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP
	Other	USB	USB	SD Card	USB	Bluetooth	X	Bluetooth	Bluetooth	USB	Bluetooth / USB
	Wireless LAN (Wi-Fi)	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	X	X	X	OPTIONAL	X	X
	Wiegand OUT	O	O	O	O	O	O	O	O	O	O
	RS232	O	O	O	X	O	O	X	X	X	X
	RS485	O	O	O	OSDP	OSDP	OSDP	OSDP	OSDP	OSDP	OSDP
	Wiegand IN	O	O	O	O	O	O	O	O	O	O
Display	LCD	5" Color Touch	8" Color Touch	5" Color Touch	5" Color Touch	X	2.8" Color	2.8" Color	X	1.77" Color LCD	1.77" Color LCD
	Backlight	O	O	O	O	X	O	O	X	O	O
Embedded Camera		O	O	O	O	X	X	O	X	O	O
Card	125kHz-EM	O	O	O	O	O	O	O	O	O	O
	HID Prox	O	O	O	O	O	O	O	O	O	O
	HID iClass	X	X	X	X	O	O	O	O	O	O
	13.56MHz Smart Card	O	O	O	O	O	O	O	O	O	O
Keypad		Touch Screen	Touch Screen	Touch Screen	Touch Screen	X	O	O	X	X	X
Function Keys		SOFT	SOFT	SOFT	SOFT	X	10	10	X	4	4
Door Phone		O	O (VoIP)	O (VoIP)	O (VoIP)	X	X	X	X	X	X
Platen Area		O	X	X	16.4 x 19.4 mm	16.6 x 21.6 mm	15 x 17 mm	15 x 17 mm	14.8 x 17.9 mm	14.8 x 17.9 mm	14.8 x 17.9 mm
Resolution		O	X	X	500 dpi	500 dpi	500 dpi	500 dpi	500 dpi	500 dpi	500 dpi
Authentication Speed	1 : 1	< 0.2 sec	X	< 0.2 sec	< 0.5 sec	< 0.2 sec	< 0.5 sec	< 0.5 sec	< 0.2 sec	< 0.2 sec	< 0.5 sec
	1 : N (1,000)	< 1 sec	< 1 sec	< 1 sec	< 1 sec	< 1 sec	< 1 sec	< 1 sec	< 1 sec	< 1 sec	< 1 sec
Dimension	(W) x (H) x (D) mm	96 x 211 x 35.3	143.3 X 289.5 X 23.8	149.7 x 208 x 56.4	80 x 195.6 x 23.5	88.5 x 197.5 x 26.6	88 x 175 x 43.5	88 x 175 x 43.5	58 x 187.9 x 51.6	58 x 187.9 x 51.6	58 x 187.9 x 51.6
FRR / FAR		0.1% / 0.0001%	N/A	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%	0.1% / 0.0001%
Operating Temperature		-20 ~ 60°C									

VIRDI
Security & Convenience

Contactless Solution for a New Era with Liveness Face Detection and Anti-Spoofing Function.

UBio-X Face meets the needs of user liveness detection even wearing a mask, and prevents attempts with fake faces such as 3D face mask, face photo, and face printed paper.

Patented Live & Fake Fingerprint Detection Technology

◎ **Typical Fake Fingerprints**

Silicone	Rubber	Film	Paper	Gelatin

◎ **What is a Fake Fingerprint**

It is an artificial fingerprint made from silicone, rubber, paper, gel, or film which is used to defeat common biometric readers.

◎ **Alternative Fingerprint, Terminal Manufactures**

Most biometric sensors can be defeated using a variety of commonly known methods. This renders most biometric technology useless as the level of security does not protect businesses from the financial loss through fraudulent clockings, nor does it provide the level of security required by government airport military and commercial organizations.

◎ **VIRDI Fingerprint Sensors**

UNIONCOMMUNITY's patented optical fingerprint sensor incorporates both LIVE and FAKE finger detection using a combination of human capacitance sensor, infrared light and algorithm.

Why VIRDI
VIRDI COMPETITIVE ADVANTAGE

Improved Security & Accuracy
- Liveness detection
- Anti-spoofing attacks against photos, videos & 3D masks

Easy Face Enrolment
- Use device camera or mobile phone
- Upload existing picture

Integration with Thermal Camera
- Micro-Bolometer (uncooled) detector type
- Measuring temperature range 30 ℃ ~ 45 ℃
- Deny access for high temperature and the log data is recorded in the server

Mask Detection
- Can detect and alert user not wearing mask
- Face authentication WITHOUT mask on

Walk-Through
- Face Recognition at a distance up to 3M

Transaction Methods set by User:
- Each user can have their transaction methods individually assigned, i.e. Finger only, Pin + Finger, Card or Finger etc. There are 10 combinations.

Live and Fake Fingerprint Detection Technology:
- Four separate technologies and methods are employed to ensure the terminals do not scan and identify fake fingerprints made of paper, plastic, rubber, silicone, gelatin etc.

Optical Sensor (Patented):
- Patented sensor with a very low level of distortion and a hardened surface, ideal for harsh environments.

Templates Stored in Terminal Memory and/or on the Server:
- Improve performance and reduce housekeeping by identifying local users on the terminal and verify visitors and global users on the server.

Push Technology:
- In order to minimize network traffic and provide a "real-time" update of transactions, the devices will "Push" their transactions to the server as they occur. While templates are being sent to the Virdi devices, users can continue to transact.

IP65 Dust / Water Resistance
- Outdoor installation

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Log Management
- Provides access history, modified history and event history on the terminal

Innovative System Operating Speed
- 1,000,000 templates can be authenticated in less than 0.4 second

OSDP Support :
- Open Supervised Device Protocol is a communications protocol developed by the Security Industry Association (SIA) that allows peripheral devices such as card readers and biometric readers to interface with control panels or other security management systems.