



www.supremainc.com

16F Parkview Tower, 6 Jeongja, Seongnam, Gyeonggi, 463-863 Korea

T +82 31 783 4502 **F** +82 31 783 4503 **E** sales@supremainc.com

©2014 Suprema, Inc. Suprema and identifying product names and numbers herein are registered trademarks of Suprema, Inc.
All non-Suprema brands and product names are trademarks or registered trademarks of their respective companies.
Product appearance, build status and/or specifications are subject to change without notice.

IP Access Control & Biometrics





Contents

BioStar	IP Access Control Management System	04		BioStar Lite	Embedded Web Server	08		
BioStar VideoPhone	Interphone Application	09		FaceStation	State-of-the-Art Face Recognition IP Terminal	10		
BioStation T2	High Performance Fingerprint IP Terminal	12		D-Station	Dual-fingerprint IP Terminal	14		
BioStation	Full-featured Fingerprint IP Terminal	16		BioLite	Outdoor Fingerprint IP Terminal	18		
BioEntry	Fingerprint IP Reader/Controller	20		X-Station	Smart IP Terminal	22		
Xpass	Smart IP Reader/Controller	24		Starter Kits & Accessories	26		Hardware Specifications	28
About Suprema		32						

BioStar | IP Access Control Management System

BioStar is a comprehensive access control management software featuring efficient TCP/IP based system architecture with intelligent IP readers. It supports a wide choice of third-party devices and integration with other business systems which makes it the best solution in cost-reduction and flexibility in design.



BioStar Standard | Integrated IP Access Control Management Software

BioStar SE offers powerful and comprehensive access control functionalities for large-sized organizations. SE version controls up to 512 access control device with IP camera/NVR integration, anti-passback, muster zone, e-mail notification and visual map features.



BioStar Basic | Essential IP Access Control Management Software for SME

BioStar Basic is ideal for small to medium sized enterprises. The system covers up to 20 devices and supports integration with various database systems, event monitoring, T&A management and reporting features.



BioStar Lite | Embedded Web Server

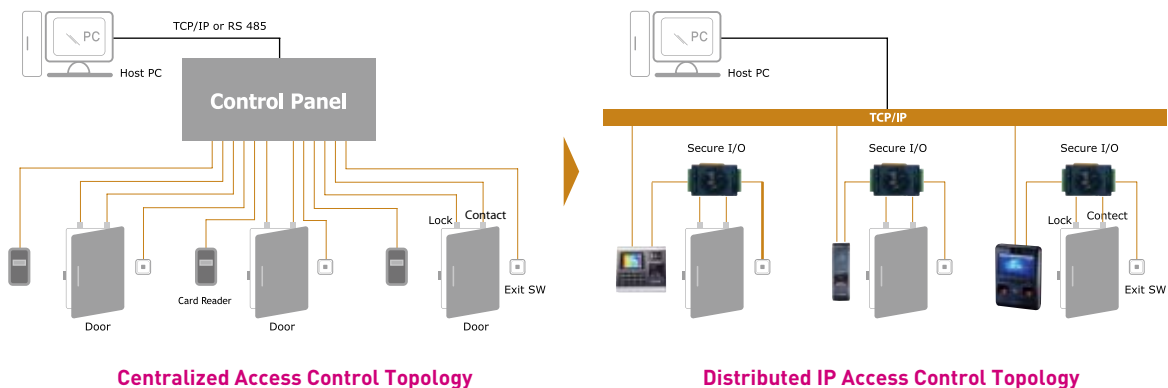
BioStar Lite is an entry level, web-based access control management application supporting up to 10 devices with one door anti-pass back. Simple user interface and synchronization with sub-devices makes system operation easier than ever.



BioStar VideoPhone | Video Intercom Software

BioStar VideoPhone is an IP based video intercom software replacing an analogue video phone. Incorporating with Suprema readers such as D-Station and BioStation T2, the application will allow the operator to see who is at the door and grant access, if approved.

Advantages of IP Access Control System



Key Benefits

Lower per-door-cost
Elimination of control panels

Lower installation cost
Less wiring

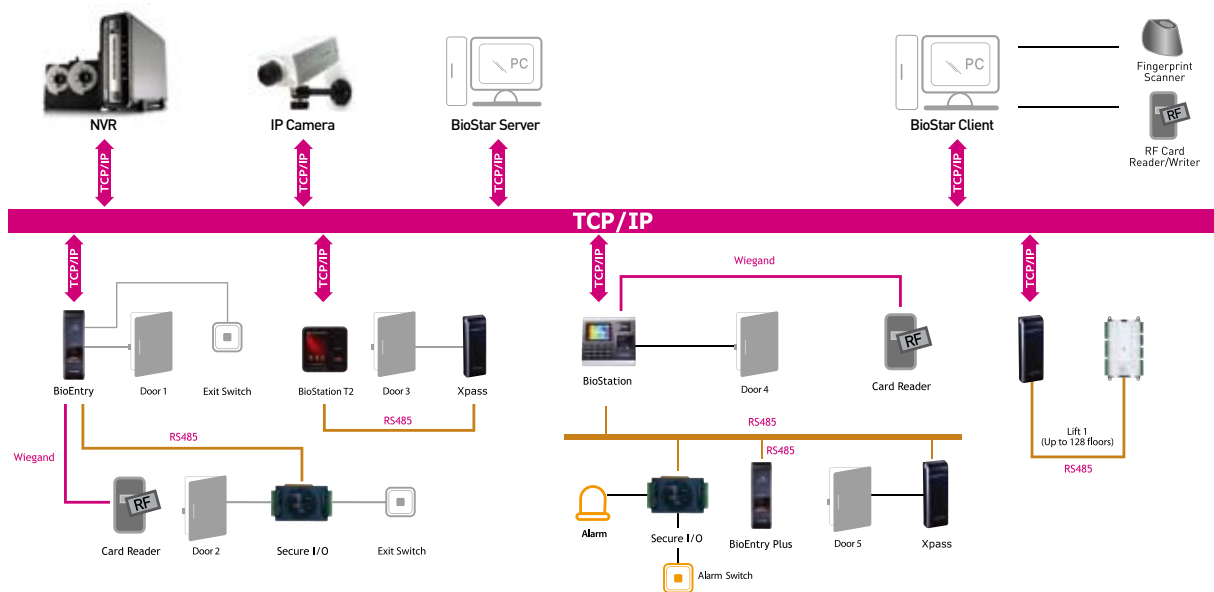
Scalability
No wasted capacity of control panels

Stability
No single point of failure affecting whole systems

Leverage
Utilizing existing network infrastructure

Power over Ethernet (PoE)
Extra efficiency in powering minor devices

System Configuration



Specification

	BioStar Lite (Embedded Web)	BioStar BE (Basic Edition)	BioStar SE (Standard Edition)
	License	Free	USB dongle
	System Architecture	Embedded Web	Server/Client
System	DB	N/A	MSDE, MSSQL, MySQL, Oracle
	Server Matching	N/A	N/A
	Max. Device	10	20
	Concurrent Client PC	2	2
	Time Schedule	128	128
	Access Groups	128	128
	Anti-passback	Yes (One Door)	N/A
	Zone	N/A	N/A
Access Control	Email Notification	N/A	APB, entrance limit, alarm access, fire alarm, muster zone
	Roll Call	N/A	N/A
	Visual Map	N/A	N/A
	Event Monitoring	Yes	Yes
	IP Camera	N/A	N/A
	NVR Integration	N/A	N/A
	Lift Management	N/A	N/A
Time Attendance	Work Time Calculation	N/A	Yes
	Shift Management	N/A	Weekly
	Holiday/Leave Management	N/A	Yes
	Report	N/A	Yes
	In/Out board	N/A	N/A

IP-based Distributed Access Control

The BioStar system goes a step beyond conventional access control systems, by combining unique biometric identification with configurable access card capabilities. With its intuitive easy-to-use GUI and wizard type settings, BioStar provides comprehensive access control security for enterprise-level systems to small-to-medium sized systems.



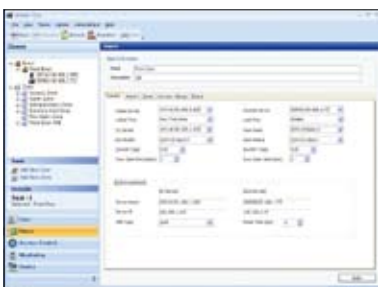
User Management

- 4 levels of departments
- User search interface
- Multi-level administrator settings
- Customized authentication mode by user
- Records user card issuance log



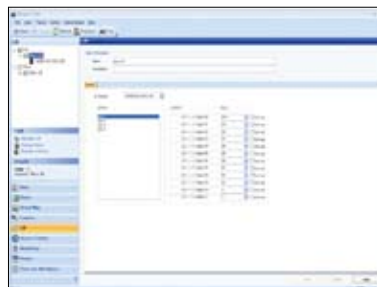
Access Control

- Controls up to 128 access groups
- Controls up to 128 time schedules
- 32 holidays configurable



Door Management

- 4 levels of door groups
- Controls up to 512 doors
- Set alarm feature per door



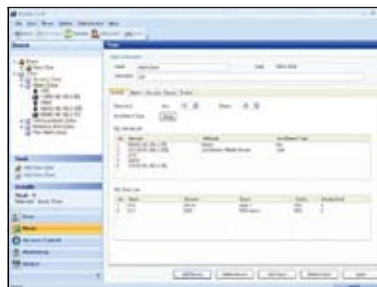
Lift Management

- Up to 120 floors control
- Configuration by each floor and user
- Dedicated Lift I/O module support



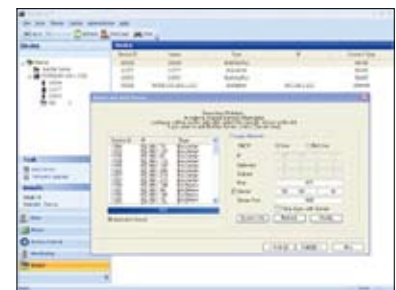
Visual Map Interface

- Graphical presentation of system
- Change device/door settings from the map
- Real-time monitoring on the map
- Event notifications in graphic icons
- Monitoring interface for doors and zones



Zone Management

- Fire alarm, alarm, anti-passback, entrance limit and access zone
- Controls up to 32-device zones
- Alarm setting for selected zones
- View event log for selected zones
- Interlock zone, muster zone



Device Management

- Configure access control devices & Secure I/O
- RS485 supports up to 8 devices & 4 Secure I/O's
- Server matching
- Real-time monitoring of device connection
- Wizard-type device search interface
- Easy firmware upgrade and reset



IP Camera & NVR Integration

- Real-time video monitoring
- Still image capturing upon preset events
- Supports event configuration with nominated access terminals
- Control of PTZ cameras
- Video log searching through NVR

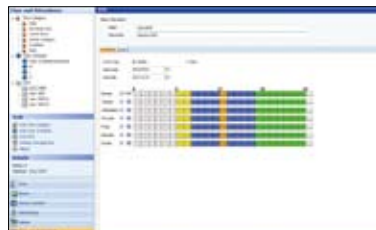
Enterprise-level Time Attendance

BioStar includes time and attendance (T&A) features to allow administrators to define time categories, shifts, daily schedules, and holiday settings. The T&A capabilities of BioStar can be used to enforce compliance with check-in and check-out procedures, restrict access to off-duty personnel, and report attendance data. BioStar allows administrators to customize T&A functions and generate various kinds of attendance reports.



Work Hour Calculation

- User-defined time category configuration
- Daily working schedule configuration
- Overtime calculation
- Rounding
- Grace



Shift Management

- Daily and Weekly cycle scheduling
- Multiple shift rules by a user



Reporting

- Daily / Individual summary and report
- Report by TA result (such as absence or late)
- Work hour displayed by time category
- Export in CSV



Holiday & Leave Management

- Holiday schedule configurable by group
- Leave schedule configurable by user



In/Out Board

- Real-time monitoring by T&A event

BioStar Lite | Embedded Web Server

BioStar Lite is an embedded web server software that is pre-loaded in select Suprema IP access control devices. BioStar Lite allows the administrator to manage users and devices using a web browser from any PC connected to an IP network. The software provides many convenient features including device configuration, user management, door/zone settings and live monitoring.

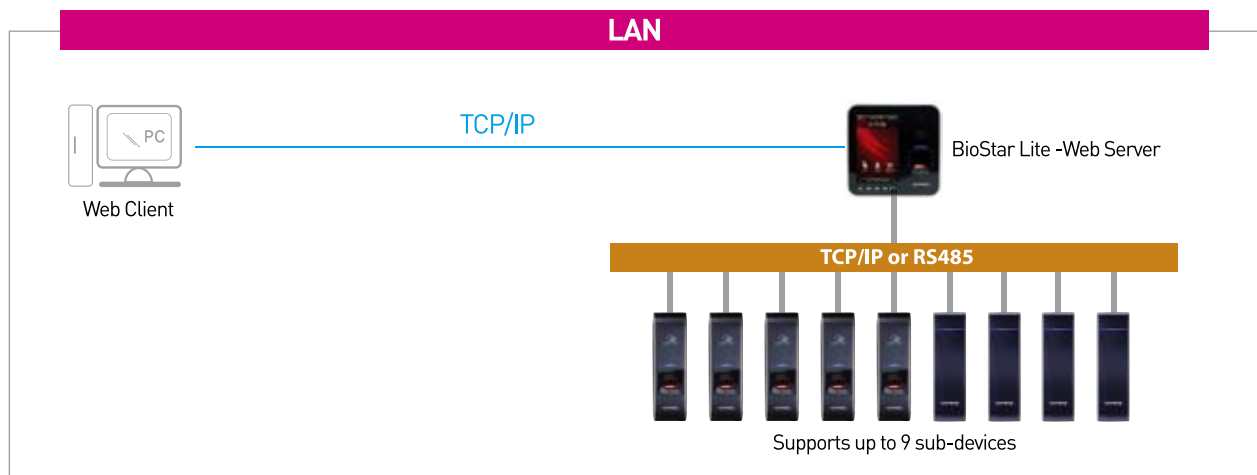
Features	<ul style="list-style-type: none"> Convenient management of the system within a web-based application. Supports the network control of up to 10 devices. (1 Main, 9 Sub-devices) No additional software installation required. Remote door control of each device. Easy anti-passback system configurations. Synchronized configurations.
-----------------	---

User Interface



- 1 User Tab** View and edit user information
- 2 Log Tab** View and monitor logs and events
- 3 Device Tab** Edit/Configure device Settings
- 4 Access Tab** Edit/Configure access groups & schedules
- 5 Data Tab** Back-up user data and configurations
- 6 Device List** View connected devices and their status
- 7 Device Management** Add/Control Devices
- 8 Door List** View doors and linked devices
- 9 Lock Control** Open/Close the selected door
- 10 Door Management** Add/Edit/Configure door settings

LAN Configuration



BioStar VideoPhone | Interphone Application

BioStar VideoPhone is a PC application which allows the operator to use the PC and the linked device as an interphone system. The application not only allows the operator to see who is at the entry point, but also provides the ability to open the door. The BioStar VideoPhone can support up to 8 different extensions with in the "multi-operator" mode.

Features Intuitive system management for a quick and easy configuration.
Simple user-friendly user interface for any style of user.
Two-way communication with a linked device.
Access control of a linked device.
Available with FaceStation, BioStation T2 and X-Station.

User Interface

Login

- User/administrator login
- Login with extension/IP

Operator Mode



- Remote door control [open]
- Mic/speaker volume control

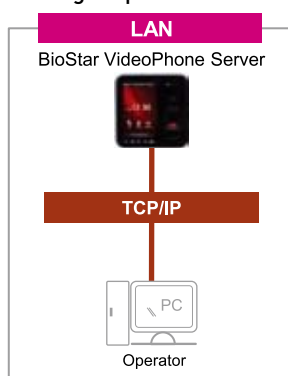
Configuration

IP Address	Extension	Password
192.168.0.1	523	1111
192.168.0.1	456	2222

- Add/delete/edit devices
- Extensions and password settings

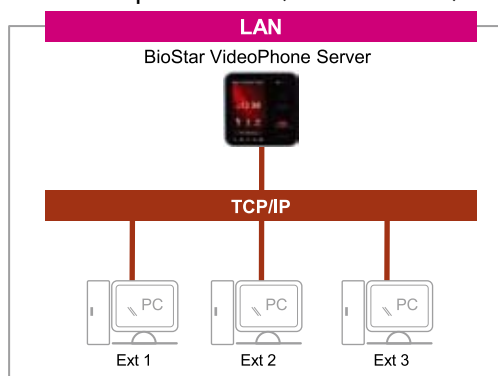
Configuration

Single Operator Mode



Intercom Process
Press [Call] on the device

Multi Operator Mode (Extension Mode)



Intercom Process
Press [Call] on the device → Enter an extension → Press [OK]

FaceStation | Smart Face Recognition Terminal

Next Generation Face Recognition Technology

The new FaceStation is a dedicated face recognition terminal. It is a perfect combination of beauty and performance. Using Suprema's proprietary algorithm combined with state-of-the-art hardware, FaceStation provides near real-time template matching results. FaceStation comes with a wide array of features & functions, which can be accessed through an intuitive user friendly GUI. It can be used in both standalone or network environments and is the ultimate in facial recognition technology.



1,000 matches in 1 second (1:N)
 User capacity : 1000 (1:N), 10,000 (1:1)
 Log Capacity : 1,000,000 (events), 10,000 (images)
 CPU : 1.1GHz DSP, 667MHz RISC
 LCD : 4.3" WVGA Touchscreen
 Memory : 4GB Flash + 512MB RAM
 RF Options : 13.56MHz Mifare
 Interfaces : TCP/IP, RS485 (2ch), RS232, USB, Wiegand, Wi-Fi (Optional)
 Power : 12VDC, PoE (Optional)



World's Fastest Matching Speed

FaceStation provides high performance face recognition by combining Suprema's proprietary algorithm with its powerful dual-CPU matching engine. It delivers extremely fast matching speed up to 1:1,000 matches per second with exceptional low error rate.

Adaptive IR Illumination Technology

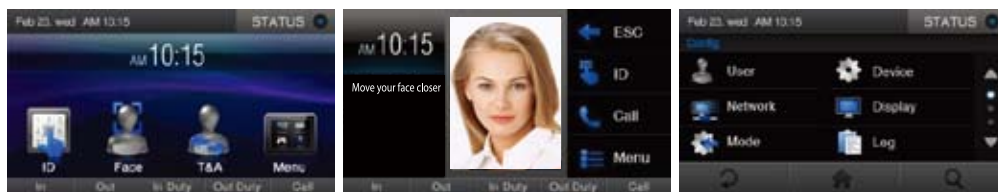
Incorporating NIR (near-infrared) light control and advanced image analysis, FaceStation's patented 'Adaptive IR Illumination' technology prevents unexpected image distortion such as saturation.

Live Face Detection Technology

FaceStation's 'Live Face Detection' technology prevents possible fraud attempts by imitated face images. The technology is based on advanced analysis algorithm to distinguish unique characteristics in texture from human faces to various forms of counterfeit face images.

4.3" Touchscreen LCD & Intuitive GUI

The ultra wide 4.3" WVGA touchscreen LCD provides the FaceStation with a robust heavy-duty user interface designed not only for extreme usage, but also for the precision and accuracy required in biometric access control and high-traffic time and attendance systems. The user friendly and intuitive GUI provides users with a quick and easy access to all the features and functions available within the unit.



Distributed IP Access Control System

FaceStation provides both reader and controller functionalities in one device. One device can scan ID data, manage users and control access from the edge of a system. This will not only allow for a simple localized setup, but it will also improve system stability by eliminating a single point of failure that can affect the entire system. As FaceStation also has networking capabilities, it can become part of a larger network via one of its various interfaces.

Video Phone Interface

FaceStation's built-in camera, microphone, and speaker enable the device to be integrated with conventional analogue-based videophones or IP based videophones to create a simple interphone system. The BioStar VideoPhone software can be used with the device to create a very useful single/multi-operator interphone system.

Versatile Interfaces - Extra Flexibility

FaceStation comes not only with the IP interfaces (TCP/IP, WiFi), but also with the more traditional interfaces (RS485, RS232, Wiegand, USB) to provide higher flexibility and multiple installation options for different environments. FaceStation also comes with 4 internal inputs and 2 internal relay outputs to control peripheral devices. The I/O ports can also be extended using the Secure I/O accessory device.

PoE (Power over Ethernet)

FaceStation is equipped with a PoE module allowing the device to be powered and controlled through just one Ethernet cable. PoE system allows very quick and easy installation.



BioStation T2 | High Performance Fingerprint IP Terminal

Smarter Technology, Ultra Performance

The new BioStation T2 blends loads of innovative features with Suprema's sophisticated fingerprint recognition technology. Its powerful dual-CPU engine ensures seamless operations and internal camera captures face image logs (snap shots) for extra level of security. Sealed in a flat-panel front glass and refined dimensions, it provides intuitive and aesthetic GUI on easy-to-use touchscreen LCD. In addition to its extensive communication interfaces, BioStation T2 also supports embedded web server which provides convenience system management over its IP-based access control system.



10,000 matches in 1 second (1:N)
 User capacity : 10,000 (1:N), 200,000 (1:1)
 Log Capacity : 1,000,000 (events), 5,000 (images)
 Face detection technology
 5.0" touch screen LCD
 Built-in camera
 Power over Ethernet
 Video phone interface
 TCP/IP, RS485 (2ch), RS232, USB, Wiegand, Wi-Fi (Optional)

CE FC RoHS Compliant

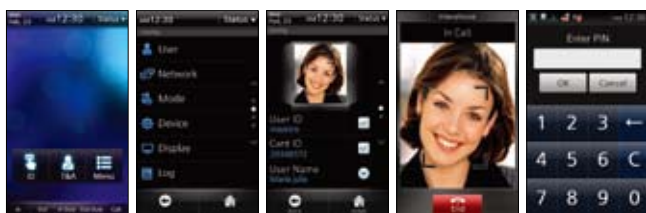


Powerful Dual-CPU Architecture

Its powerful dual-CPU architecture gives BioStation T2 the ability to deliver extremely fast matching speeds and near live responses while still providing an exceptionally low error rate. A powerful 533MHz DSP is dedicated to handling fingerprint operations and a 667MHz RISC processor ensures uninterrupted device operation.

5.0" Touchscreen LCD & Intuitive GUI

The ultra wide 5.0" WVGA touchscreen LCD provides BioStation T2 with a robust heavy-duty user interface designed not only for extreme usage, but also for the precision and accuracy required in biometric access control and high-traffic time and attendance systems. The user friendly and intuitive GUI provides users with a quick and easy access to all the features and functions available within the unit.



Face Detection Technology

BioStation T2 contains a special "Face Detection Technology" for an added sense of security. It uses its megapixel camera to first detect if a face is present and then stores the image as a facial log for verification. Proximity sensors and IR LED are used to ensure the image quality of the faces.

Distributed IP Access Control System

BioStation T2 provides both reader and controller functionalities in one device. One device can scan ID data, manage users and control access from the edge of a system. This will not only allow for a simple localized setup, but it will also improve system stability by eliminating a single point of failure that can affect the entire system. As BioStation T2 also has networking capabilities, it can become part of a larger network via one of its various interfaces.

Embedded Web Server

BioStation T2 is preloaded with the BioStar Lite web server program. BioStar Lite is a simple & convenient tool used to configure, monitor and control up to 10 Suprema IP access control products, without the need to install any software on a PC. It is the perfect tool for small to medium sized applications.

Video Phone Interface

D-Station's built-in camera, microphone, and speaker enable the device to be integrated with conventional analog-based videophones to create a simple interphone system. BioStar VideoPhone software is to be used for single/multi-operator interphone system.

Versatile Interfaces - Extra Flexibility (WiFi Option)

BioStation T2 comes with not only the IP interfaces (TCP/IP, WiFi), but also the more traditional interfaces (RS485, RS232, Wiegand, USB) to provide higher flexibility and multiple installation options for different environments. BioStation T2 also comes with 4 internal inputs and 2 relay outputs to control peripheral devices. The I/O ports can also be extended using the Secure I/O accessory device.

Suprema Algorithm

Suprema's world renowned fingerprint algorithm lies in the heart of BioStation T2. The highly sophisticated algorithm has been recognized by both FVC and NIST MINEX and was proven to be one of the fastest and most accurate algorithm in the world.



D-Station | Dual-fingerprint IP Access Terminal

Evolution of Biometrics

The Suprema D-Station represents a great leap forward in biometric technology. Dual-finger technology based on sophisticated 'Fusion Biometrics' algorithm provides incredible accuracy and speed that no other biometric devices have ever achieved. Its powerful Tri-CPU engine ensures seamless operation of loads innovative features, and the ultra-wide touchscreen LCD with intuitive GUI makes it extremely easy-to-use for both system administrators and everyday users. D-Station is not just the best of the breed, it's a whole new generation of biometric security.



10,000 matches in 1 second (1:N)
 User capacity : 10,000 (1:N), 200,000 (1:1)
 Log Capacity : 1,000,000 (events), 5,000 (images)
 Face detection technology
 5.0" touch screen LCD
 1.3M pixel camera
 Power over Ethernet
 Video phone interface
 TCP/IP, RS485 (2ch), RS232, USB, Wiegand,
 Wi-Fi (Optional)



Dual-finger Technology

Suprema's dual-finger Technology takes the data gathered from multiple biometric sensors and applies adaptive fusion algorithm to provide a level of performance and scalability that goes well beyond conventional fingerprint identification methods.

Powerful Tri-CPU Parallel Processing Architecture

Its unique Tri-CPU parallel processing architecture makes D-Station one of the most powerful biometric terminals in the market today. Two powerful 533MHz DSPs and 667MHz RISC ensure uninterrupted device operations and unmatched biometric operational performance.

5.0" Touchscreen LCD & Intuitive GUI

The ultra wide 5.0" WVGA touchscreen LCD provides D-Station with a robust heavy-duty user interface designed for extreme usage and the precision and accuracy required in biometric access control and high-traffic time and attendance systems. Its intuitive and user friendly GUI provides a quick and easy access to all features and functions.



Distributed IP Access Control System

D-Station provides both reader and controller functionalities in one device. One device can scan ID data, manage users and control access from the edge of a system. This will allow a simple localized setup and improve system stability by eliminating a single point of failure that can affect the entire system.

Video Phone Interface

D-Station's built-in camera, microphone, and speaker enable the device to be integrated with conventional analog-based videophones or IP based videophones to create a simple interphone system. BioStar VideoPhone software is to support single/multi-operator interphone system.

Versatile Interfaces - Extra Flexibility (Wi-Fi Option)

D-Station comes with IP interfaces (TCP/IP, WiFi, PoE) and conventional interfaces (RS485, RS232, Wiegand, USB) to provide higher flexibility and multiple installation options for different environments. D-Station also comes with 4 internal inputs and 2 internal relay outputs to control peripheral devices.

Unique Features and Extra Functions

- Accelerometer : Used to detect shock caused by tampering or vandalism
- ISO14443 Type A & Type B Support : Provides greater versatility
- SAM (SIM) Card Support : Used for enhanced security applications
- SD Memory Card Slot : Used to extend the memory capacity of the device
- RS232 Interface : Used for GPRS/GSM based mobile connections and serial printers



BioStation | Full-featured Fingerprint IP Terminal

The World's Best Selling Fingerprint Terminal

BioStation is a full-featured high-end fingerprint terminal that combines the advantages of a TCP/IP network with Suprema's renowned biometric technology to provide the optimal solution for both access control and time attendance. BioStation comes with a massive 1GB memory that provides the storage of up to 200,000 users and a staggering 1 million event logs. Its powerful processing engine and algorithm provide uncompromising high-level biometric security with flexibility and ease of use.



3,000 matches in 1 second (1:N)
 User Capacity : 10,000 (1:N), 200,000 (1:1)
 Log capacity : 1,000,000
 Dual CPU : 533DSP + 200MHz RISC
 Fast ID Matching™ technology
 2.5" QVGA LCD
 WiFi LAN, TCP/IP, RS485, RS232, Wiegand
 USB device & host interfaces
 EM, HID Prox., Mifare options

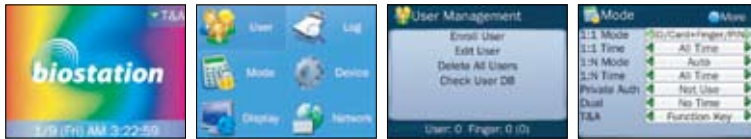


Enhanced Dual-CPU Architecture

BioStation is the first of the Suprema's product lines to use a dual-CPU architecture. Its dual-CPU gives BioStation the ability to deliver fast matching speeds and rapid responses while providing an exceptional low error rate. A powerful 533MHz DSP is dedicated to handling fingerprint operations and a 200MHz RISC processor ensures uninterrupted device operations.

2.5" Color LCD & Intuitive GUI

The 2.5" QVGA color LCD gives BioStation an user friendly and intuitive GUI that provides users with a quick and easy access to all the features and functions available within the unit.



Distributed IP Access Control System

BioStation provides both reader and controller functionalities in one device. One device can scan ID data, manage users and control access from the edge of a system. This will not only allow for a simple localized setup, but it will also improve system stability by eliminating a single point of failure that can affect the entire system. As BioStation also has networking capabilities, it can become part of a larger network via one of its various interfaces.

Versatile Interfaces - Extra Flexibility (WiFi Option)

BioStation comes not only with the IP interfaces (TCP/IP, WiFi), but also with the more traditional interfaces (RS485, RS232, Wiegand, USB) to provide higher flexibility and multiple installation options for different environments. BioStation also comes with 4 internal inputs and 1 internal relay output to control peripheral devices. The I/O ports can also be extended using the Secure I/O accessory device.

Suprema Algorithm

Suprema's world renowned fingerprint algorithm lies in the heart of every BioStation. The highly sophisticated algorithm has been recognized by both FVC and NIST MINEX and was proven to be one of the fastest and most accurate algorithm in the world.



BioLite | Outdoor Fingerprint IP Terminal

Durable Structure, All-round Excellence

Suprema BioLite series are the World's smallest IP fingerprint terminal with access control & time attendance features. With its rugged IP65-rated waterproof structure, BioLite offers exceptional durability in extreme conditions and is ideal for both indoor and outdoor environment. BioLite also packs renowned Suprema's biometric technology with simplicity and exceptional value for your budget. All the advanced features reside in a compact and slim design and its user-friendly interfaces allow ease of use and maintenance.



2,000 matches in 1 second (1:N)
 User capacity : 5,000 (Net), 200 (Solo)
 Log capacity : 50,000 (Net), 5,000 (Solo)
 533MHz DSP
 IP65 waterproof
 Graphic LCD with backlight
 Operating Temp. : -20°C - 50°C
 TCP/IP, RS485, Wiegand
 EM, Mifare options



BioLite Net Video



RoHS
Compliant



Powerful 533MHz DSP

Its powerful 533MHz DSP gives BioLite Net/Solo the ability to deliver fast matching speeds and rapid responses while providing an exceptional low error rate. This powerful processor is capable of handling the large amounts of data required for fast and accurate fingerprint matching as well as ensuring uninterrupted device operations.

Distributed IP Access Control System

BioLite Net/Solo provides both reader and controller functionalities in one device. One device can scan ID data, manage users and control access from the edge of a system. This will not only allow for a simple localized setup, but it will also improve system stability by eliminating a single point of failure that can affect the entire system. As BioLite Net/Solo also have networking capabilities, they can become part of a larger network via one of its various interfaces.

IP65-rated Waterproof Structure



BioLite Net/Solo has been completely sealed against invasive moisture, dust and even liquids. Featuring its superb IP65-rated protection, meticulous sealing, combined with extra protective engineering, it ensures faultless operation under any outdoor installation.

Versatile Interfaces - Extra Flexibility

BioLite Net comes not only with a TCP/IP interface, also with the more traditional interfaces (RS485, Wiegand) to provide higher flexibility and multiple installation options for different environments. BioLite Net/Solo also comes with 2 internal inputs and 1 internal relay output to control peripheral devices. The I/O ports can also be extended using the Secure I/O accessory device.

Suprema Algorithm

Suprema's world renowned fingerprint algorithm lies in the heart of every BioLite Net/Solo. The highly sophisticated algorithm has been recognized by both FVC and NIST MINEX and was proven to be one of the fastest and most accurate algorithm in the world.



BioEntry | Fingerprint IP Reader/Controller

Designed for Simplicity, Superb Engineering

The BioEntry Plus/W exquisitely blends the benefits of a next generation distributed IP system with the high level security provided by biometrics. Engineered by the World's leading biometric experts, BioEntry Series offers unrivaled quality with exceptional engineering. BioEntry W takes the series one step further by encasing a world renowned product into an IP65 vandal resistance housing and adding PoE (Power over Ethernet) capabilities. It is truly the ultimate for outdoor biometric access control systems.

BioEntry Plus



BioEntry W



2,000 Matches per Second (1:N)
 User Capacity : 5,000
 Log Capacity : 50,000
 CPU : 533MHz DSP
 Indicators : Multi-color LED & Sound
 RF Options : EM, HID Prox Mifare/DesFire, iClass, iCLASS SE | Felica (BioEntry W Only)
 Interfaces : TCP/IP, RS485, Wiegand
 Power : 12VDC | PoE (BioEntry W Only)



BioEntry Plus Video



Powerful 533MHz DSP

Its powerful 533MHz DSP gives BioEntry Plus/W the ability to deliver fast matching speeds and rapid responses while providing an exceptional low error rate. This powerful processor is capable of handling the large amounts of data required for fast and accurate fingerprint matching as well as ensuring uninterrupted device operations.

Distributed IP Access Control System

BioEntry Plus/W provide both reader and controller functionalities in one device. One device can scan ID data, manage users and control access from the edge of a system. This will not only allow for a simple localized setup, but it will also improve system stability by eliminating a single point of failure that can affect the entire system. As BioEntry Plus/W also have networking capabilities, they can become part of a larger network via one of its various interfaces.

Versatile Interfaces - Extra Flexibility

BioEntry Plus/W come with not only a TCP/IP interface, but also the more traditional interfaces (RS485, Wiegand) to provide higher flexibility and multiple installation options for different environments. BioEntry Plus/W also come with 2 internal inputs and 1 internal relay output to control peripheral devices. The I/O ports can also be extended using the Secure I/O accessory device.

Suprema Algorithm

Suprema's world renowned fingerprint algorithm lies in the heart of every BioEntry Plus/W. The highly sophisticated algorithm has been recognized by both FVC and NIST MINEX and was proven to be one of the fastest and most accurate algorithms in the world.

IP65-rated Waterproof Structure [BioEntry W]



BioEntry W has been completely sealed against invasive moisture, dust and even liquids. Featuring its superb IP65-rated protection, meticulous sealing, combined with extra protective engineering, it ensures faultless operation under any outdoor installation.

Vandal Resistant Housing [BioEntry W]

The BioEntry W is the first of Suprema's product line to come with a robust vandal resistant housing. Using a special ABS plastics the BioEntry W is able to withstand a high level of impact making it the ideal for outdoor applications.

PoE (Power over Ethernet) [BioEntry W]

BioEntry W is equipped with a PoE module allowing the device to be powered and controlled through just one Ethernet cable. A PoE system allows for a very quick and easy installation.

Comparison

	BioEntry W	BioEntry Plus
Sensor	Optical	Optical / Capacitive
PoE	Yes	No
IP Rate	IP65 (Outdoor)	No
Vandal Resistant	Yes	No
Dimension	50 x 172 x 42 mm (W/H/D)	50 x 160 x 37 mm (W/H/D)
RF Card Option	125kHz HID Prox, 13.56MHz Mifare/DesFire, 13.56MHz iClass SE/Felica	125kHz EM, HID Prox. 13.56MHz Mifare/DesFire 13.56MHz iClass/Felica



X-Station | Smart IP Access & Attendance Terminal

A Card Reader to Change the Way

The new X-Station from Suprema is the world's first IP access control terminal with touchscreen LCD and face detection technology. Its 3.5 inch touchscreen LCD and intuitive GUI provide comprehensive access control and time attendance functions. Featuring face detection technology with a megapixel camera, X-Station can record up to 5,000 face image logs for extra level of security and attendance records. The built-in camera detects and captures face images of each entry to prevent unauthorized access and payroll fraud. Suprema X-Station is set to change the way we use access reader.



Max user : 200,000
 Image Log capacity : 1,000,000
 Face log capacity : 5,000
 CPU: 667 MHz RISC
 LCD: 3.5" touch screen
 Memory : 1GB flash + 128MB
 RF Options : 13.56 MHz Mifare, 125kHz EM
 Interfaces : TCP/IP, 2ch RS485, Wiegand I/O

CE FC RoHS
 Compliant



Powerful 677MHz RISC Processor

Its powerful 667MHz RISC processor gives X-Station the ability to deliver fast matching speeds and rapid responses while ensuring uninterrupted device operations.

3.5" Touchscreen LCD & Intuitive GUI

The ultra wide 3.5" QVGA touchscreen LCD provides the X-Station with a robust heavy-duty user interface designed not only for extreme usage, but also for the precision and accuracy required in access control and high-traffic time and attendance systems. The user-friendly and intuitive GUI provides users with a quick and easy access to all the features and functions available within the unit.



Face Detection Technology

X-Station provides both reader and controller functionalities in one device. One device can scan ID data, manage users and control access from the edge of a system. This will not only allow for a simple localized setup, but it will also improve system stability by eliminating a single point of failure that can affect the entire system. As X-Station also has networking capabilities, it can become a part of a larger network via one of its various interfaces.

Video Phone Interface

X-Station has built-in camera and speaker and it can be used with BioStar Videophone software to create a very useful single/multi-operator interphone system.

Versatile Interfaces

X-Station comes not only with the TCP/IP interface, but also the more traditional interfaces (RS485, Wiegand) to provide higher flexibility and multiple installation options for different environments. X-Station also comes with 2 internal inputs and 1 internal relay output to control peripheral devices. The I/O ports can also be extended using the Secure I/O accessory device.

Embedded Web Server

X-station is preloaded with the BioStar Lite web server program. BioStar Lite is a simple & convenient tool used to configure, monitor and control up to 10 Suprema IP access control products, without the need to install any software on a PC. It is the perfect tool for small to medium sized applications.



Xpass | Smart IP Reader/Controller

Progressive Technology, Exceptional Value

The Xpass/Xpass Slim provides all the leading-edge features of high-end IP access control products packed into an ultra compact design. These sleek devices are encased in an IP65 waterproof structure and offer PoE (Power over Ethernet) capabilities making it the ideal for outdoor IP RF ID access control solutions.

The Xpass Slim, designed to fit gang boxes, takes the series to the next level by incorporating a multi-smart card reading technology with gang box mounting options.



Powerful 533MHz DSP

Its powerful 533MHz DSP gives Xpass/Xpass Slim the ability to deliver fast matching speeds and rapid responses while providing an exceptional low error rate. This powerful processor is capable of handling the large amounts of data required for fast and accurate fingerprint matching as well as ensuring uninterrupted device operations.

Distributed IP Access Control System

Xpass/Xpass Slim provide both reader and controller functionalities in one device. One device can scan ID data, manage users and control access from the edge of a system. This will not only allow for a simple localized setup, but it will also improve system stability by eliminating a single point of failure that can affect the entire system. As Xpass/Xpass Slim also have networking capabilities, they can become a part of a larger network via one of its various interfaces.

IP65-rated Waterproof Structure



Xpass/Xpass Slim has been completely sealed against invasive moisture, dust and even liquids. Featuring their superb IP65-rated protection, meticulous sealing, combined with extra protective engineering, it ensures faultless operation under any outdoor installation.

Versatile Interfaces - Extra Flexibility

Xpass/Xpass Slim comes not only with the TCP/IP interface, but also the more traditional interfaces (RS485, Wiegand) to provide higher flexibility and multiple installation options for different environments. Xpass/Xpass Slim also comes with 2 internal inputs and 1 internal relay output to control peripheral devices. The I/O ports can also be extended using the Secure I/O accessory device.

Power of Ethernet (PoE)

Xpass/Xpass Slim is equipped with a PoE module allowing each device to be powered and controlled through just one Ethernet cable. A PoE system allows for a very quick and easy installation.

Multi-Smartcard Reader (Xpass Slim)

The Xpass Slim is the first of Suprema's product lines to boast a multi-card type reader. With this new technology a single reader is able to read Mifare CSN, inside CSN, Felica IDM, ISO14443A/B CSN, or ISO15693 CSN information.

Comparison

	Xpass Slim	Xpass
Mount Type	US/EU/Asia gang box, flush box or any flat surface	Mullion or any flat surface
Environment	Outdoor (IP65)	Outdoor (IP65)
PoE	N/A	Yes
Dimension	80 x 120 x 11.4 mm (W/H/D)	130 x 45 x 27 mm (W/H/D)
RF Card	13.56MHz Mifare CSN, Inside CSN, Felica IDM, ISO14443A/B CSN, ISO15693 CSN	125kHz E, HID Prox 13.56Mhz Mifare/DesFire data & CSN



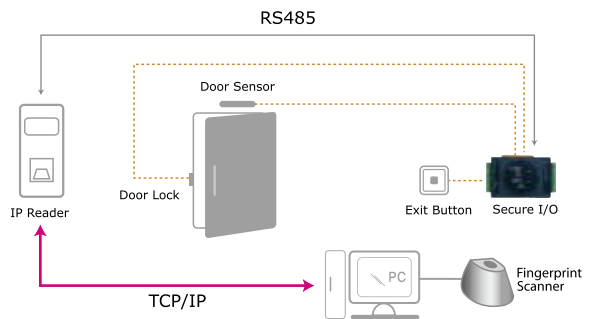
Secure I/O



Secure I/O is a separate controller for door control and I/O expansion. With encrypted communication, it provides secure and cost effective access control system.

- CPU : 16 MHz, 8-bit Microprocessor
- Input : 4-Ch
- Output : Form C Relay 2-Ch
- Host Communication : RS-485
- Display : 10 Status LED
- Power : 12 Vdc @ 300mA

Configuration



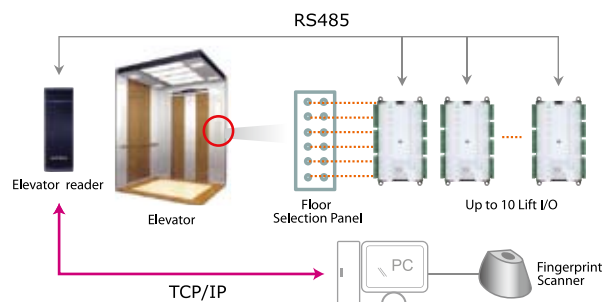
Lift I/O



The Lift I/O is an input/output module tailored to control the floor access within an elevator. It uses the RS-485 port to provide a secure communication with Suprema's readers and can control access of up to 12 floors. Each reader can connect with up to 10 Lift I/Os, which allows for the potential control of a staggering 120 floors.

- CPU : 16MHz, 8-bit Microprocessor
- Input : 12-Ch
- Output : Form C Relay 12-Ch
- Host Communication : RS-485
- Display : 31 Status LEDs
- Power : 12VDC @500mA
- Scalability : Up to 10 per Host device

Configuration



Accessories



Video Door Phone



AccessPoint (for WiFi models)



USB Fingerprint Scanner



USB Mifare Reader/Writer



Power Adapter



Plastic Stand



RF Cards (EM, Mifare, HID Prox.)

Demonstration Kits

Demonstration Kits are for use in showrooms, training and supporting field sales. The kit demonstrates simple secure connection of IP access control system and it consists of an IP reader/controller unit, an external relay unit (Secure I/O), a lock and an exit switch. It also provides TCP/IP port connecting to the host PC or network with other demo-kits. Demonstration Kits come with a solid aluminum carrying case.



Components

- 12VDC power adapter
- Aluminum carrying case
- Deadbolt lock
- RTE switch
- Secure I/O (external relay unit)
- Power/network ports

* Demonstration Kits are available for all models of Suprema IP access control range.

Starter Kits

Starter Kits pack essential components for dealers/distributors to effectively demonstrate and evaluate Suprema IP access control system.







Components




- IP access reader/controller unit
- Power adapter
- BioStar Basic
- Technical Documents
- Secure I/O (selected models only)
- Plastic Stand
- BioStar SDK
- Command cards (selected models only)

* Starter Kits are available for all models of Suprema IP access control range.

Hardware Specifications

	FaceStation	BioStation T2	D-Station	BioStation	
Product					
Application	Time Attendance Access Control	Time Attendance Access Control	Time Attendance Access Control	Time Attendance Access Control	
Authentication Mode	Face/Card/PIN	Finger/Card/PIN	Finger/Card/PIN	Finger/Card/PIN	
Face Detection Camera	Yes	Yes	Yes	-	
Card Option	13.56MHz Mifare/DesFire	125KHz EM 13.56MHz Mifare/DesFire	13.56MHz Mifare/DesFire	125KHz EM, 125KHz HID Prox, 13.56MHz Mifare/DesFire	
Capacity	Template Capacity	10,000 (1:1) 1,000 (1:N)	400,000 (1:1) 20,000 (1:N)	400,000 (1:1) 20,000 (1:N)	
	Max. User	10,000	200,000	200,000	
	Log Capacity	1,000,000 (10,000 Image logs)	1,000,000 (5,000 image logs)	1,000,000 (5,000 Image logs)	1,000,000
Interface	Wireless LAN	Yes [Optional]	Yes (Optional)	Yes (Optional)	
	TCP/IP	Yes	Yes	Yes	
	RS485	2 channels	2 channels	2 channels	1 channel
	RS232	Yes	Yes	Yes	Yes
	Wiegand	In or Out (Switchable)	In or Out (Switchable)	In or Out (Switchable)	In & Out
	TTL I/O	4 Inputs	4 Inputs	4 Inputs	4 I/O
	Built-in Relay	2	2	2	1
	USB	Host, Slave	Host, Slave	Host, Slave	Host, Slave
	SD Card Slot	-	Yes	Yes	-
	Hardware	CPU	667MHz RISC x 1 1.1GHz DSP x 1	667MHz RISC x 1 533MHz DSP x 1	667MHz RISC x 1 533MHz DSP x 2
Memory		4GB Flash + 512MB	1GB flash + 256MB RAM	1GB Flash + 256MB	1GB Flash + 34MB
LCD Display		4.3" WVGA touch screen	5.0" WVGA touch screen	5.0" WVGA touch screen	2.5" QVGA
LED Indicator		Multi-color LED	Multi-color LED	Multi-color LED	Multi-color LED
Sound Indication		16-bit Hi-Fi sound	16-bit Hi-Fi sound	16-bit Hi-Fi sound	16-bit Hi-Fi sound
Voice Instruction		16-bit Hi-Fi sound	16-bit Hi-Fi sound	16-bit Hi-Fi sound	16-bit Hi-Fi sound
Ingress Protection		-	-	-	-
Operating Temperature		-20°C – 50°C	-20°C – 50°C	-20°C – 50°C	-20°C – 50°C
Tamper		Switch	Switch	Switch	Switch
PoE		Yes (Optional)	Yes	Yes	-
Operating Voltage		12VDC	12VDC	12VDC	12VDC
Dimensions (W x H x D, mm)		132 x 165 x 60	155 x 155 x 40	148 x 204 x 48	135 x 128 x 50

	BioEntry W	BioEntry Plus	BioLite Net	BioLite Solo	
Product					
Feature					
Application	Access Control	Access Control	Time Attendance Access Control	Access Control (Standalone)	
Authentication Mode	Finger/Card	Finger/Card	Finger/Card/PIN	Finger/PIN	
Face Detection Camera	-	-	-	-	
Card Option	125KHz HID Prox, 13.56MHz Mifare/DesFire, 13.56MHz iCLASS SE/Felica	125KHz EM, 125KHz HID Prox, 13.56MHz Mifare/DesFire, 13.56MHz HID iCLASS	125KHz EM 13.56MHz Mifare/DesFire	-	
Capacity	Template Capacity	10,000 (1:N)	10,000 (1:N)	800 (1:N)	
	Max. User	5,000	5,000	200	
	Log Capacity	50,000	50,000	50,000	5,000
Interface	Wireless LAN	-	-	-	
	TCP/IP	Yes	Yes	Yes	-
	RS485	1 channel	1 channel	1 channel	1 channel
	RS232	-	-	-	-
	Wiegand	In or Out (Switchable)	In or Out (Switchable)	In or Out (Switchable)	-
	TTL I/O	2 Inputs	2 Inputs	2 Inputs	2 Inputs
	Built-in Relay	1	1	1	1
	USB	-	-	-	-
	SD Card Slot	-	-	-	-
Hardware	CPU	533MHz DSP	533MHz DSP	533MHz DSP	533MHz DSP
	Memory	8MB flash + 8MB RAM	8MB flash + 8MB RAM	8MB flash + 16MB RAM	8MB flash + 8MB RAM
	LCD Display	-	-	128 x 64 graphic LCD	128 x 64 graphic LCD
	LED Indicator	Multi-color LED	Multi-color LED	Multi-color LED	Multi-color LED
	Sound Indication	Multi-tone buzzer	Multi-tone buzzer	Multi-tone buzzer	Multi-tone buzzer
	Voice Instruction	-	-	-	-
	Ingress Protection	IP65 (Outdoor)	-	IP65 (Outdoor)	IP65 (Outdoor)
	Operating Temperature	-20°C – 50°C	-20°C – 50°C	-20°C – 50°C	-20°C – 50°C
	Tamper	Switch	Switch	Switch	Switch
	PoE	Yes	-	-	-
	Operating Voltage	12VDC	12VDC	12VDC	12VDC
	Dimensions (W x H x D, mm)	50 x 172 x 42	50 x 160 x 37	60 x 185 x 40	60 x 185 x 40

	X-Station	Xpass	Xpass Slim	
Product				
Application	Time Attendance Access Control	Access Control	Access Control	
Authentication Modes	Card/PIN	Card	Card	
Face Detection Camera	Yes	-	-	
Card Options	125KHz EM, 13.56MHz Mifare/DesFire	125KHz EM, 125KHz HID Prox, 13.56MHz Mifare/DesFire	[Multi-Smartcard Reading] Mifare/DesFire CSN, Felica IDM, Inside CSN, ISO14443A/B CSN, ISO15693 CSN	
Capacity	Max. User	200,000	40,000	
	Log Capacity	1,000,000 (5,000 Image logs)	50,000	50,000
Interface	TCP/IP	Yes	Yes	Yes
	RS485	2 channels	Yes	Yes
	RS232	-	-	-
	Wiegand	In or Out (Switchable)	In or Out (Switchable)	In or Out (Switchable)
	TTL I/O	1 Input	1 Input	1 Input
	Built-in Relay	1	1	1
	USB	-	-	-
	SD Card Slot	-	-	-
	CPU	667MHz RISC	533MHz DSP	533MHz DSP
	Memory	1GB flash + 128MB RAM	8MB flash + 16MB RAM	8MB flash + 16MB RAM
Hardware	LCD Display	3.5" QVGA touch screen	-	-
	LED Indicator	-	Multi-color LED	Multi-color LED
	Sound Indication	16-bit Hi-Fi sound	Multi-tone buzzer	Multi-tone buzzer
	Voice Instruction	16-bit Hi-Fi sound	-	-
	Ingress Protection	-	IP65 (Outdoor)	IP65 (Outdoor)
	Operating Temperature	-20°C – 50°C	-20°C – 50°C	-20°C – 50°C
	Tamper	Switch	Switch	Switch
	PoE	-	Yes	-
	Operating Voltage	12VDC	12VDC	12VDC
	Mount type	US/EU/Asia gang box, flush box or any flat surface	Mullion or any flat surface	US/EU/Asia gang box, flush box or any flat surface
Certificates	CE, FCC, KCC, RoHS	CE, FCC, KCC, RoHS, IP65	CE, FCC, KCC, RoHS, IP65	
Dimensions (W x H x D, mm)	79 x 135 x 21	45 x 130 x 27	80 x 120 x 11.4	

About SUPREMA

Leader in Biometrics & IP Access Control

Smarter technology that exceeds customers' expectation
Quality and design that lead the industry trend
It's what's behind every Suprema products

At Suprema
Our devoted employees bring together diverse ideas with a simple goal
Delivering greater value to customers business

With Suprema, the technology becomes your success

BUSINESS HIGHLIGHTS

Company at a Glance

Headquarter	South Korea
Foundation	May 4, 2000
Business Area	Biometric and RFID access control system Fingerprint security solution Live scanning system Electronic passport solution
Global Business	125 Countries worldwide over 950 customers (2013)
Revenue	KRW 51.9 billion (USD 47 million as of 2012)
Market Capital	KRW 364 billion (USD 364.7 million as of 2013)
Growth	CAGR of 47% (2006-2013)
Financial Status	Listed company in South Korea's stock exchange (KOSDAQ)



Key Solutions & Technologies



IP Access Control



Biometric Time Attendance



Live Scanner



ePassport Reader



Face



Fingerprint



RFID



Business Growth



CAGR of **47%** (2006-2013)



Sales Network in **125** Countries



950 Customers Worldwide



\$364,693,000 (Oct.2013) Market Capital



Awards & Certifications



World's **Top 50 Security Company** in 2011, 2012, 2013 by A&S



Frost & Sullivan's **Biometrics Company of the Year**



Deloitte's **Technology Fast 500**



Detektor International Awards in 2009, 2010, & 2012



Forbes Asia's **200 Best Under a Billion**



Ranked 1st in Fingerprint Verification Competitions



Top Result in NIST MINEX Tests in 2008



Best Innovation Products at **MIPS** Awards



Project References

Government

Ministry of Justice, Kuwait
 Ministry of Education, Mexico
 Ministry of Finance, Georgia
 Ministry of Education, Saudi Arabia

Police & Law Enforcement

Policía Nacional de Colombia, Colombia
 National Police, Iran
 Supreme Prosecutors' Office, South Korea
 The Juvenile Protection Education Institution, South Korea

Commercial

Caixa BI-Banco de Investimento, Portugal (Banking)
 Groupa Kolporter, Poland (Media)
 Toshiba Information Equipment, Philippines (IT)
 British American Tobacco, Turkey (Manufacturing)
 Cuatrecasa Goncalves Pereira, Spain (Law Firm)

Hospitality & Tourism

Burger King, Turkey
 Pamplona Hotel, Spain
 Kangwonland Casino, South Korea

Others

UNICEF, Denmark (NGO)
 Karachi International Airport, Pakistan (Transport)
 De Hoop ggz, Netherlands (Healthcare)



Our Advantages

Technology

World's best performing fingerprint algorithm
 Industry-leading international awards and certifications

Quality

Manufactured by high quality IT production facilities in South Korea
 Made from best quality components and materials

Partnership

Global partner programs for training, technical supports & upgrades
 Clear offering through authorized distribution channel



SUPrema

Biometrics & ID Solutions