

## IP Access Control & Biometrics



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# 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 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

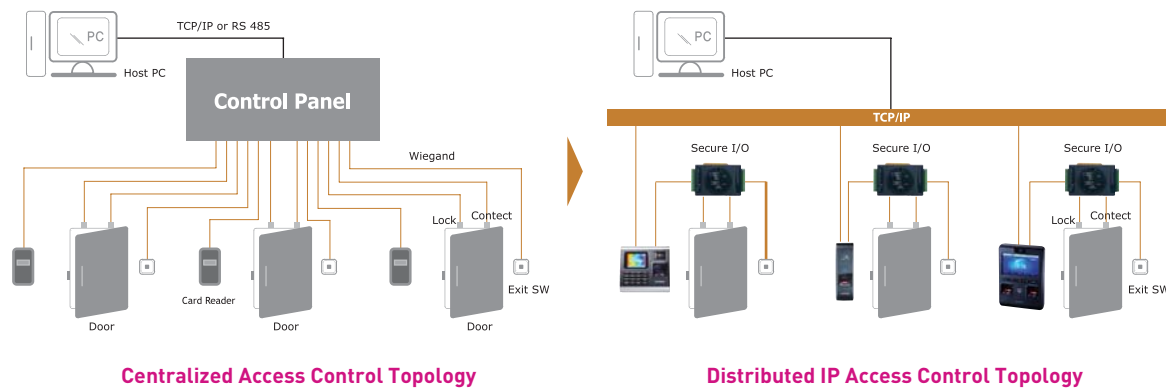
BioStar Lite is an entry level, web-based access control management software supporting up to 10 devices with one door anti-pass back. Simple user interface and synchronization with sub-devices makes system operation easier than ever.



## 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.

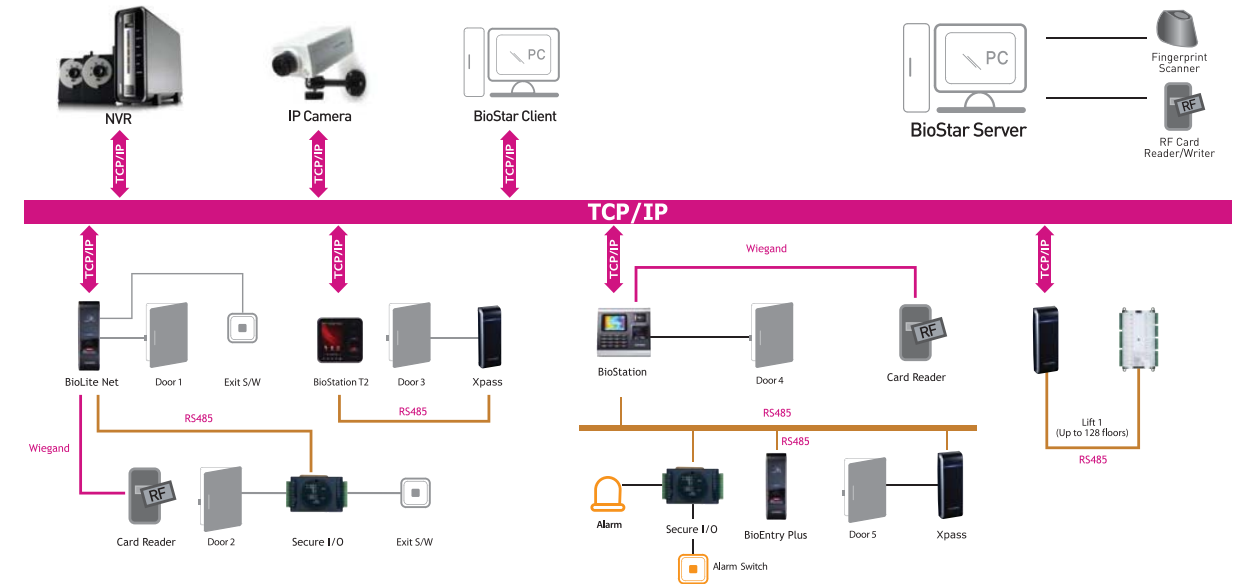
## Advantages of IP Access Control System



### Key Benefits

- |   |   |  |
|---|---|--|
| <p><b>Lower per-door-cost</b><br/>Elimination of control panels</p> <p><b>Lower installation cost</b><br/>Less wiring</p> | <p><b>Scalability</b><br/>No wasted capacity of control panels</p> <p><b>Stability</b><br/>No single point of failure affecting whole systems</p> | <p><b>Leverage</b><br/>Utilizing existing network infrastructure</p> <p><b>Power over Ethernet (PoE)</b><br/>Extra efficiency in powering locks and minor devices.</p> |
|---|---|--|

## System Configuration

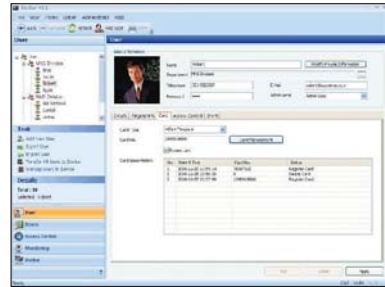


## Specification

	BioStar Lite (Embedded Web)	BioStar BE (Basic Edition)	BioStar SE (Standard Edition)
License	Free	Free	USB dongle
System Architecture	Embedded Web	Server/Client	Server/Client
DB	N/A	MSDE, MSSQL, MySQL, Oracle	MSDE, MSSQL, MySQL, Oracle
Server Matching	N/A	N/A	Yes
Max.Device	10	20	512
Concurrent Client PC	2	2	32
Time Schedule	128	128	128
Access Groups	128	128	128
Anti-pass Back	Yes (One Door)	N/A	Yes
Zone	N/A	N/A	APB, entrance limit, alarm access, fire alarm, muster zone
Email Notification	N/A	N/A	Yes
Roll Call	N/A	N/A	Yes
Visual Map	N/A	N/A	Yes
Event Monitoring	Yes	Yes	Yes
IP Camera	N/A	N/A	Yes
NVR Integration	N/A	N/A	Yes
Lift Management	N/A	N/A	Yes (Up to 120 floors)
Work time Calculation	N/A	Yes	Yes
Shift Management	N/A	Weekly	Daily/Weekly
Holiday/Leave Management	N/A	Yes	Yes
Report	N/A	Yes	Yes
In/Out board	N/A	N/A	Yes

# 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.



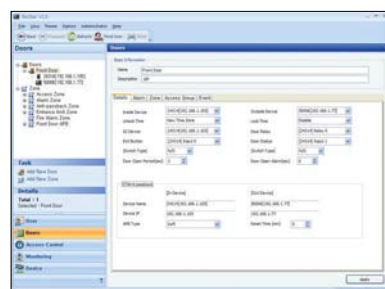
## User Management

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



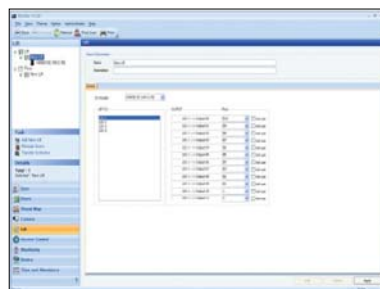
## Access Control

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



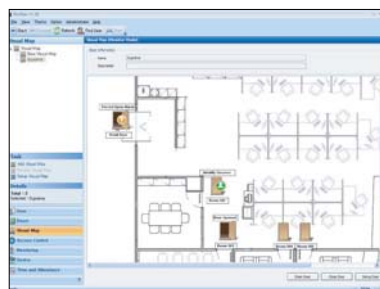
## Door Management

- 4-Level door groups
- Controls up to 512 doors
- Set alarm feature by selected doors



## 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



## 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.



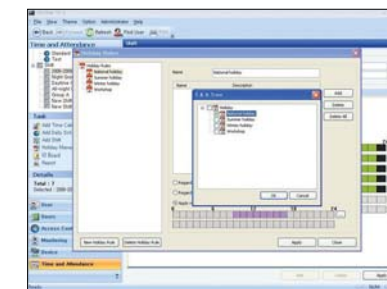
## Holiday and leave Management

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



## In/Out Board

- Real-time monitoring by T&A event



## Shift Management

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



## Work Hour Calculation

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

## Reporting

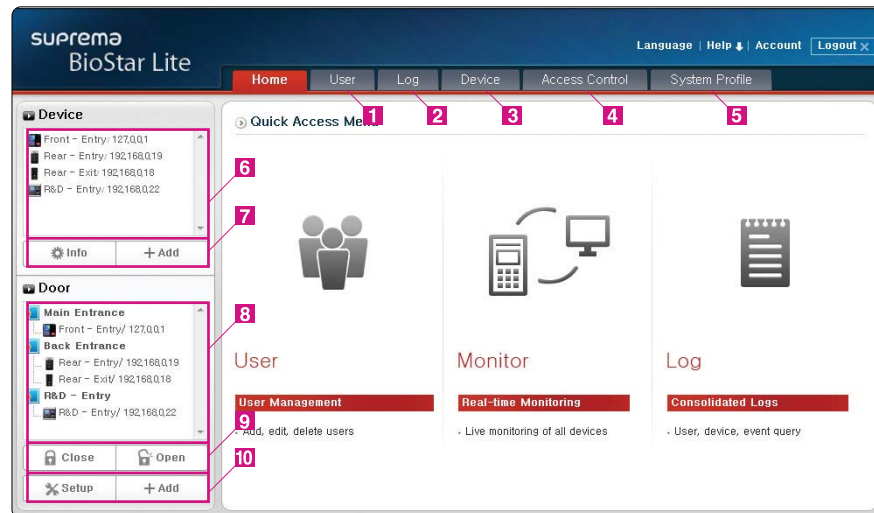
- Daily / Individual summary and report
- Report by TA result (such as absence or late)
- Work hour displayed by time category
- Export in CSV and PDF

# 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 a IP network. The software provides many convenient features including device configuration, user management, door/zone settings and live monitoring.

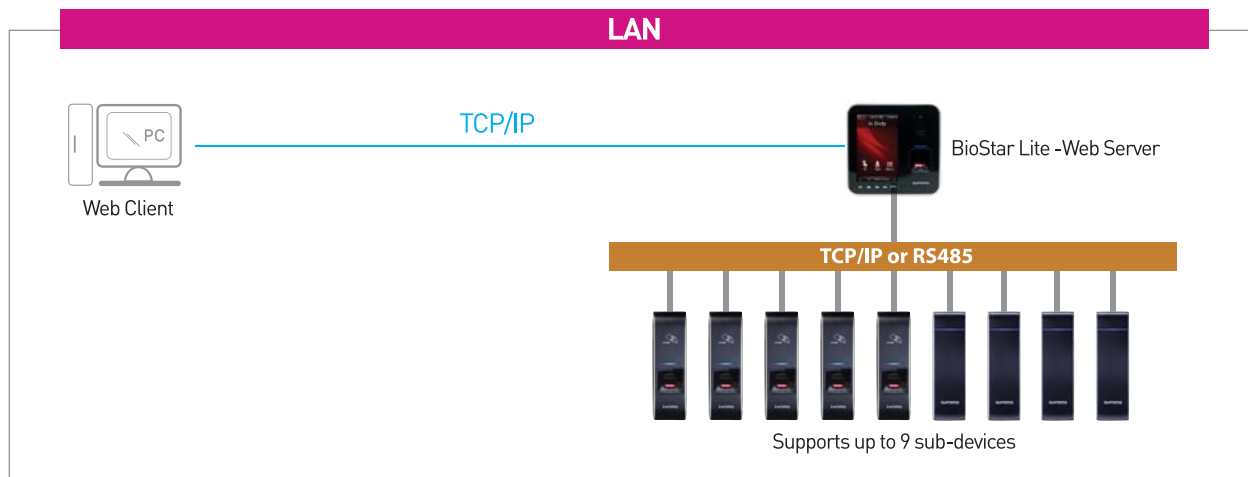
- Features**
- Convenient management of the system within a web-based application.
  - Supports the network control of up to 10 devices. (1 Main, 9 Sub-devices)
  - No additional software installation required.
  - Remote door control of each device.
  - Easy anti-passback system configurations.
  - 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 connect 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 the linked device.
  - Access control of the linked device.

## User Interface

### Login



- User/administrator login
- Login with extension/IP

### Operator Mode



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

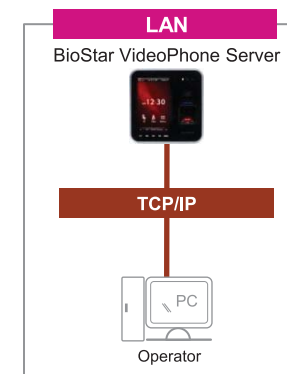
### Configuration



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

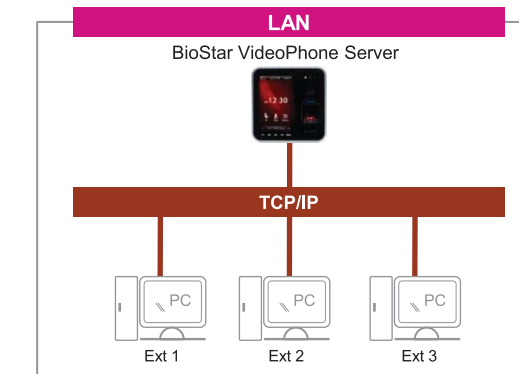
## Configuration

### 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 algorithms 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.



Max Users : 10,000  
 Log Capacity : 1,000,000  
 Image Log Capacity : 10,000  
 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, WiFi  
 Power : 12VDC, PoE (Power over Ethernet)



## 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 exceptionally 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 provides the device the ability 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 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. FaceStation also comes with 4 internal inputs and 2 internal relay output 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 for a 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 operation 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 : 200,000  
 Log Capacity : 1,000,000(event), 5,000(image)  
 Dual-finger technology  
 Fusion face recognition  
 5.0" touch screen LCD  
 1.3M pixel camera  
 Power over Ethernet  
 Video phone  
 WiFi LAN, TCP/IP, RS485(2ch), RS232, Wiegand



## 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 operations.

## 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, all 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 provides the device the ability to be integrated with conventional analogue 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 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 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 algorithms in the world.



# D-Station | Fusion Biometric IP Access Terminal

## Evolution of Biometrics

The Suprema D-Station represents a great leap forward in biometric technology. The perfect blend of face recognition with 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 touch screen 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 : 200,000
- Log Capacity : 1,000,000(event), 5,000(image)
- Dual-finger technology
- Fusion face recognition
- 5.0" touch screen LCD
- 1.3M pixel camera
- Power over Ethernet
- Video phone
- WiFi LAN, TCP/IP, RS485(2ch), RS232, Wiegand



## Multi-Biometric Fusion Technology

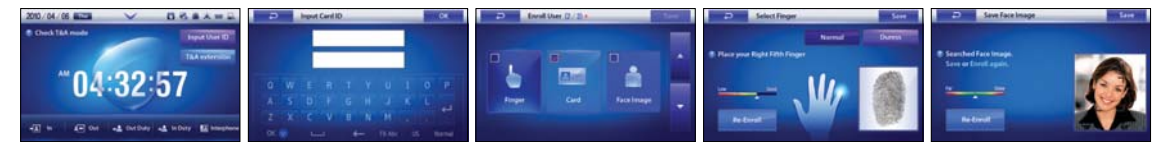
Suprema's patented "Multi-Biometric Fusion Technology" takes the data gathered from multiple biometrics sensors and applies adaptive fusion algorithms to provide a level of performance and scalability that goes well beyond conventional fingerprint identification methods.

## 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 a 667MHz RISC ensures uninterrupted device operations and unmatched biometric operational performance.

## 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 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 for 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 provides the device the ability to be integrated with conventional analogue 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 (WiFi 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 output 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 algorithms provide uncompromising high-level biometric security with flexibility and ease of use.



- 3,000 matches in 1 second (1:N)
- User capacity : 200,000
- 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

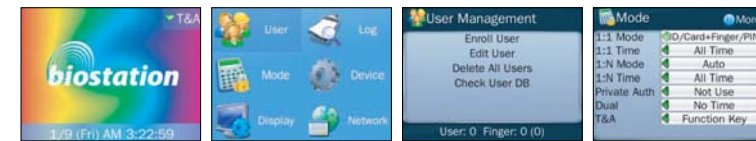


## Enhanced Dual-CPU Architecture

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 exceptionally 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 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 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 algorithms 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 resides 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



## Powerful 533MHz DSP

Its powerful 533MHz DSP gives BioLite Net/Solo the ability to deliver fast matching speeds and rapid responses while providing an exceptionally 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 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 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 have been completely sealed against invasive moisture, dust and even liquids. Featuring their superb IP65-rated protection, meticulous sealing, combined with extra protective engineering, they ensure faultless operation under any outdoor installation.

## Versatile Interfaces - Extra Flexibility

BioLite Net 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. BioLite Net/Solo 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 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 algorithms 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, Felica  
 Interfaces : TCP/IP, RS485, Wiegand  
 Power : 12VDC | PoE [BioEntry W]



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 exceptionally 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 AVS 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	13.56MHz Mifare/DesFire	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



X-Station Video

## 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 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 with not only 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.



# 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.



Max Users : 40,000  
 Log Capacity : 50,000  
 RF Options : EM, HID Prox., Mifare [Xpass] | Multi smart cards [Xpass Slim]  
 Interfaces : TCP/IP, RS485, Wiegand  
 Power : 12VDC | PoE (Power over Ethernet) [Xpass]  
 Ingress Protection : IP65



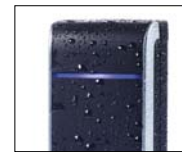
### Powerful 533MHz DSP

Its powerful 533MHz DSP gives Xpass/Xpass Slim the ability to deliver fast matching speeds and rapid responses while providing an exceptionally 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 part of a larger network via one of its various interfaces.

### IP65-rated Waterproof Structure



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

### Versatile Interfaces - Extra Flexibility

Xpass/Xpass Slim come with not only 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 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.

### Power of Ethernet (PoE)

Xpass/Xpass Slim are 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



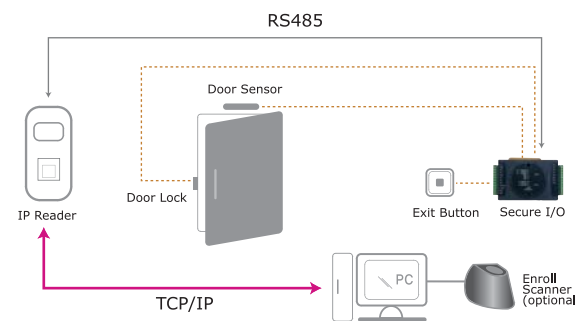
# Secure I/O



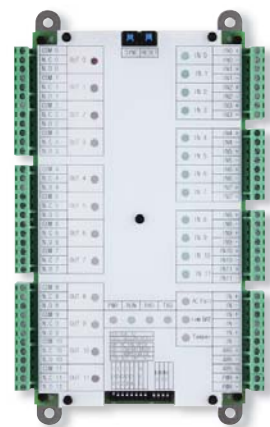
Secure I/O is a separate controller for door control and I/O expansion. With encrypted communication, it provides secure and cost effective access control system.

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

### Configuration



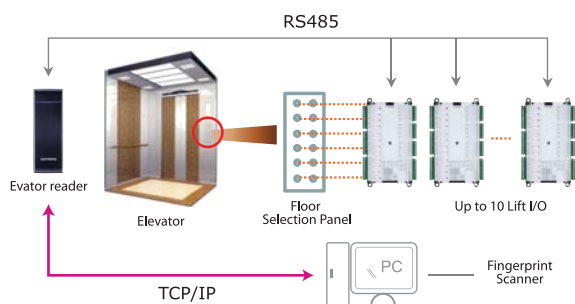
# Lift I/O



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 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, 8bit 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



# 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 packs essential components for dealers/distributors to effectively demonstrate and evaluate Suprema IP access control system.



### Components




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

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

# Hardware Specifications

	FaceStation	BioStation T2	D-Station	BioStation	
<b>Product</b>					
<b>Application</b>	Time Attendance Access Control	Time Attendance Access Control	Time Attendance Access Control	Time Attendance Access Control	
<b>Authentication Modes</b>	Face/Card/PIN	Finger/Card/PIN	Finger/Face/Card/PIN	Finger/Card/PIN	
<b>Fingerprint Sensor</b>	-	Optical	Optical x 2	Optical, Capacitive	
<b>Face Detection Camera</b>	Yes	Yes	Yes	-	
<b>Card Options</b>	Mifare/DesFire	125kHz EM 13.56MHz Mifare/DesFire	13.56MHz Mifare/DesFire	125kHz EM, HID Prox. 13.56MHz Mifare/DesFire	
<b>Capacity</b>	<b>Template Capacity</b>	10,000[1:1] 1,000[1:N]	400,000[1:1] 20,000[1:N]	400,000[1:1] 20,000[1:N]	
	<b>Max. User</b>	10,000	200,000	200,000	
	<b>Log Capacity</b>	1,000,000 (10,000 Image logs)	1,000,000 (5,000 image logs)	1,000,000 (5,000 Image logs)	1,000,000
<b>Interfaces</b>	<b>Wireless LAN</b>	Yes [Optional]	Yes [optional]	Yes [Optional]	
	<b>TCP/IP</b>	Yes	Yes	Yes	
	<b>RS485</b>	2 channels	2 channels	2 channels	1 channel
	<b>RS232</b>	Yes	Yes	Yes	Yes
	<b>Wiegand</b>	In or Out [Switchable]	In or Out [Switchable]	In or Out [Switchable]	In & Out
	<b>TTL I/O</b>	4 inputs	4 inputs	4 inputs	4 I/O
	<b>Built-in Relay</b>	2	2	2	1
	<b>USB</b>	Host, Slave	Host, Slave	Host, Slave	Host, Slave
	<b>SD Card Slot</b>	-	Yes	Yes	-
	<b>CPU</b>	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	200MHz RISC x 1 533MHz DSP x 1
<b>Memory</b>	4GB Flash + 512MB	1GB flash + 256MB RAM	1GB Flash + 256MB	1GB Flash + 34MB	
<b>LCD Display</b>	4.3" WVGA touch screen	5.0" WVGA touch screen	5.0" WVGA touch screen	2.5" QVGA	
<b>LED Indicator</b>	Multi-color LED	Multi-color LED	Multi-color LED	Multi-color LED	
<b>Sound Indication</b>	16-bit Hi-Fi sound	16-bit Hi-Fi sound	16-bit Hi-Fi sound	16-bit Hi-Fi sound	
<b>Voice Instruction</b>	16-bit Hi-Fi sound	16-bit Hi-Fi sound	16-bit Hi-Fi sound	16-bit Hi-Fi sound	
<b>Ingress Protection</b>	-	-	-	-	
<b>Operating Temperature</b>	-20°C ~ 50°C	-20°C ~ 50°C	-20°C ~ 50°C	-20°C ~ 50°C	
<b>Tamper</b>	Switch	Switch	switch	switch	
<b>PoE</b>	Yes	Yes	Yes	-	
<b>Operating Voltage</b>	12vDC	12vDC	12vDC	12vDC	
<b>Dimensions (W x H x D, mm)</b>	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	
<b>Product</b>					
<b>Application</b>	Access Control	Access Control	Time Attendance Access Control	Access Control [Standalone]	
<b>Authentication Modes</b>	Finger/Card	Finger/Card	Finger/Card/PIN	Finger/PIN	
<b>Fingerprint Sensor</b>	Optical	Optical, Capacitive	Optical	Optical	
<b>Face Detection Camera</b>	-	-	-	-	
<b>Card Options</b>	13.56MHz Mifare/DesFire	125kHz EM, HID Prox. 13.56MHz Mifare/DesFire, iClass, Felica	125kHz EM 13.56MHz Mifare/DesFire	-	
<b>Capacity</b>	<b>Template Capacity</b>	10,000 (1:N)	10,000 (1:N)	10,000 (1:N)	
	<b>Max. User</b>	5,000	5,000	5,000	
	<b>Log Capacity</b>	50,000	50,000	50,000	5,000
<b>Interfaces</b>	<b>Wireless LAN</b>	-	-	-	
	<b>TCP/IP</b>	Yes	Yes	Yes	
	<b>RS485</b>	1 channel	1 channel	1 channel	1 channel
	<b>RS232</b>	-	-	-	-
	<b>Wiegand</b>	In or Out [Switchable]	In or Out [Switchable]	In or Out [Switchable]	-
	<b>TTL I/O</b>	2 Inputs	2 Inputs	2 Inputs	2 Inputs
	<b>Built-in Relay</b>	1	1	1	1
	<b>USB</b>	-	-	-	-
	<b>SD Card Slot</b>	-	-	-	-
	<b>CPU</b>	533MHz DSP	533MHz DSP	533MHz DSP	533MHz DSP
<b>Memory</b>	8MB flash + 8MB RAM	8MB flash + 8MB RAM	8MB flash + 16MB RAM	8MB flash + 8MB RAM	
<b>LCD Display</b>	-	-	128 x 64 graphic LCD	128 x 64 graphic LCD	
<b>LED Indicator</b>	Multi-color LED	Multi-color LED	Multi-color LED	Multi-color LED	
<b>Sound Indication</b>	Multi-tone buzzer	Multi-tone buzzer	Multi-tone buzzer	Multi-tone buzzer	
<b>Voice Instruction</b>	-	-	-	-	
<b>Ingress Protection</b>	IP65 [Outdoor]	-	IP65 [Outdoor]	IP65 [Outdoor]	
<b>Operating Temperature</b>	-20°C ~ 50°C	-20°C ~ 50°C	-20°C ~ 50°C	-20°C ~ 50°C	
<b>Tamper</b>	Switch	Switch	switch	switch	
<b>PoE</b>	Yes	-	-	-	
<b>Operating Voltage</b>	12vDC	12vDC	12vDC	12vDC	
<b>Dimensions (W x H x D, mm)</b>	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	
<b>Product</b>				
<b>Application</b>	Time Attendance Access Control	Access Control	Access Control	
<b>Authentication Modes</b>	Card/PIN	Card	Card	
<b>Face Detection Camera</b>	Yes	-	-	
<b>Card Options</b>	125kHz EM13.56MHz Mifare/DesFire	125kHz EM, HID Prox. 13.56MHz Mifare/DesFire	[Multi-Smartcard Reading]Mifare/DesFire CSN, Felica IDM,Inside CSN, ISO14443A/B CSN,ISO15693 CSN	
<b>Capacity</b>	<b>Max.User</b>	200,000	40,000	
	<b>Log Capacity</b>	1,000,000 (5,000 Image logs)	50,000	50,000
	<b>TCP/IP</b>	Yes	Yes	Yes
<b>Interfaces</b>	<b>RS485</b>	2 channels	Yes	Yes
	<b>RS232</b>	-	-	-
	<b>Wiegand</b>	In or Out [Switchable]	In or Out [Switchable]	In or Out [Switchable]
	<b>TTL I/O</b>	2 inputs	2 inputs	2 inputs
	<b>Built-in Relay</b>	1	1	1
	<b>USB</b>	-	-	-
	<b>SD Card Slot</b>	-	-	-
	<b>CPU</b>	667MHz RISC	533MHz DSP	533MHz DSP
	<b>Memory</b>	1GB flash + 128MB RAM	8MB flash + 16MB RAM	8MB flash + 16MB RAM
	<b>LCD Display</b>	3.5" QVGA touch screen	-	-
<b>Hardware</b>	<b>LED Indicator</b>	-	Multi-color LED	Multi-color LED
	<b>Sound Indication</b>	16-bit Hi-Fi sound	Multi-tone buzzer	Multi-tone buzzer
	<b>Voice Instruction</b>	16-bit Hi-Fi sound	-	-
	<b>Ingress Protection</b>	-	IP65[Outdoor]	IP65[Outdoor]
	<b>Operating Temperature</b>	-20°C ~ 50°C	-20°C ~ 50°C	-20°C ~ 50°C
	<b>Tamper</b>	Switch	Switch	Switch
	<b>PoE</b>	-	Yes	-
	<b>Operating Voltage</b>	12vDC	12vDC	12vDC
	<b>Mount type</b>	US/EU/Asia gang box, flush box or any plat surface	Mullion or any plat surface	US/EU/Asia gang box, flush box or any plat surface
	<b>Certificates</b>	CE, FCC, KCC, RoHS	CE, FCC, KCC, RoHS, IP65	CE, FCC, KCC, RoHS, IP65
<b>Dimensions (W x H X D, mm)</b>	79 x 135 x 21	130 x 45 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 leads the industry trend  
It's what's behind every Suprema products

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

With Suprema, the technology becomes your success



## Company at a Glance

<b>Headquarter</b>	Gyeonggi-do, South Korea
<b>Foundation</b>	May 4, 2000
<b>Business Area</b>	Biometric/RFID access control system Fingerprint security solution Live scanning system Electronic passport solution
<b>Global Business</b>	Global Business 110 countries worldwide over 910 customers
<b>Revenue</b>	KRW 41.6 billion (USD 37 million (2011))
<b>Market Cap.</b>	KRW 212 billion (USD 188 million (2012))
<b>Growth</b>	Average Growth Rate of 52% (2006 ~ 2011)
<b>Financial Status</b>	Listed company in South Korea's stock exchange (KOSDAQ)

# BUSINESS HIGHLIGHTS

## Project References

### Government

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

### Police & Law Enforcement

Policia 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  
Kangwon Land Casino, South Korea

### Others

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

## Business Growth

Revenue growth rate (CAGR) of 52% during 2006 ~ 2011  
Launched the first biometric IPO in Korea (Jul 2008)  
57% market share in the domestic market  
Named to Deloitte's Technology Fast 500 Asia Pacific in 2008 & 2009  
Shipped over 1,000,000 fingerprint products worldwide

## Awards & Certifications

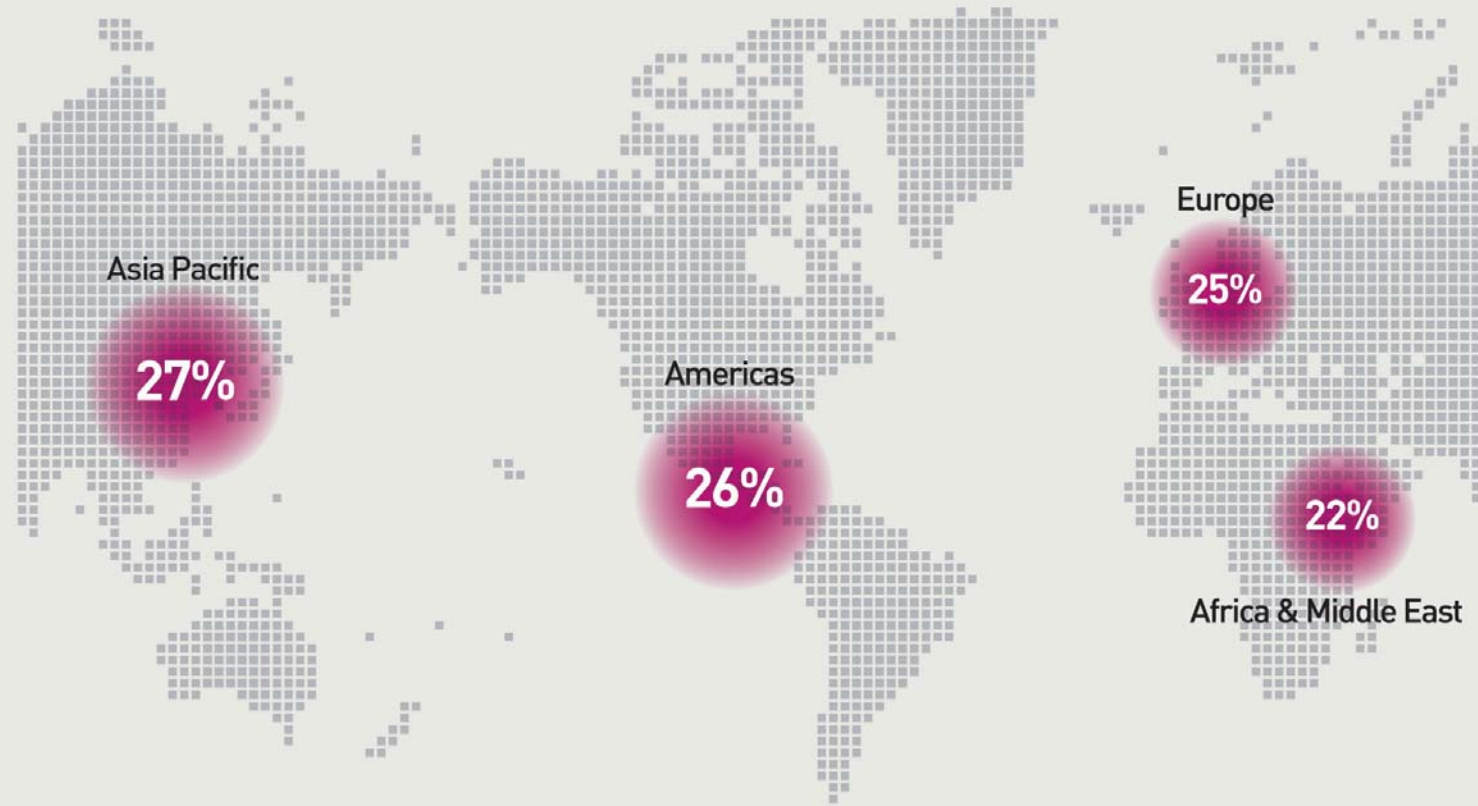
A&S 'World's Top 50 Security Company' in 2012  
Frost & Sullivan's Biometrics Company of the Year 2009  
Top Prize at Detektor International Award 2009 and 2010  
Top result in NIST MINEX tests (2008)  
FBI certification for live-scanners  
UL294 certification for access control product  
ISO 9001/14001 Qualification  
Ranked top in Fingerprint Verification Competition in 2004, 2006 and on Going(2010)

## Our Advantages

<b>Technology</b>	World's best performing fingerprint algorithm Industry-leading international awards and certifications
<b>Quality</b>	Manufactured by high quality IT production facilities in South Korea Made from best quality components and materials
<b>Partnership</b>	Global partner programs for training, technical supports & upgrades Clear offering through authorized distribution channel

## Global Sales

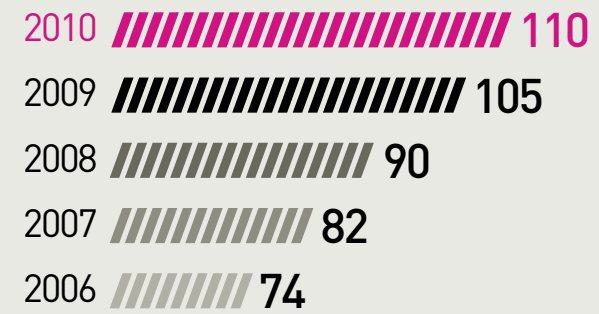
Suprema has over 910 respected customers from 110 countries around the world.



**SUPrema**  
Biometrics & ID Solutions

### Market Penetration

(Number of Countries)



### Number of Customers

