IP Access Control
& Biometrics

suprema

suprema
Biometrics & ID Solutions

Contents

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 Mobile | Smart phone applications

BioStar Mobile brings office access control to your hands. With various applications available in smart phones, you can immediately login to your system to manage users and access control settings at any time and any place.

Advantages of IP Access Control System

Centralized Access Control Topology

Distributed IP Access Control Topology
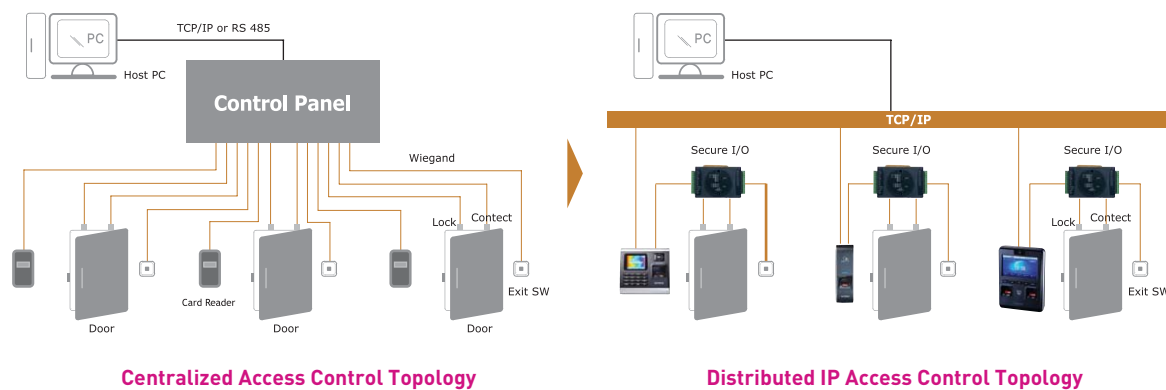
Key Benefits

Lower per-door-cost
Elimination of control panels

Scalability
No wasted capacity of control panels

Leverage
Utilizing existing network infrastructure

Lower installation cost
Less wiring

Stability
No single point of failure affecting whole systems

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

System Configuration
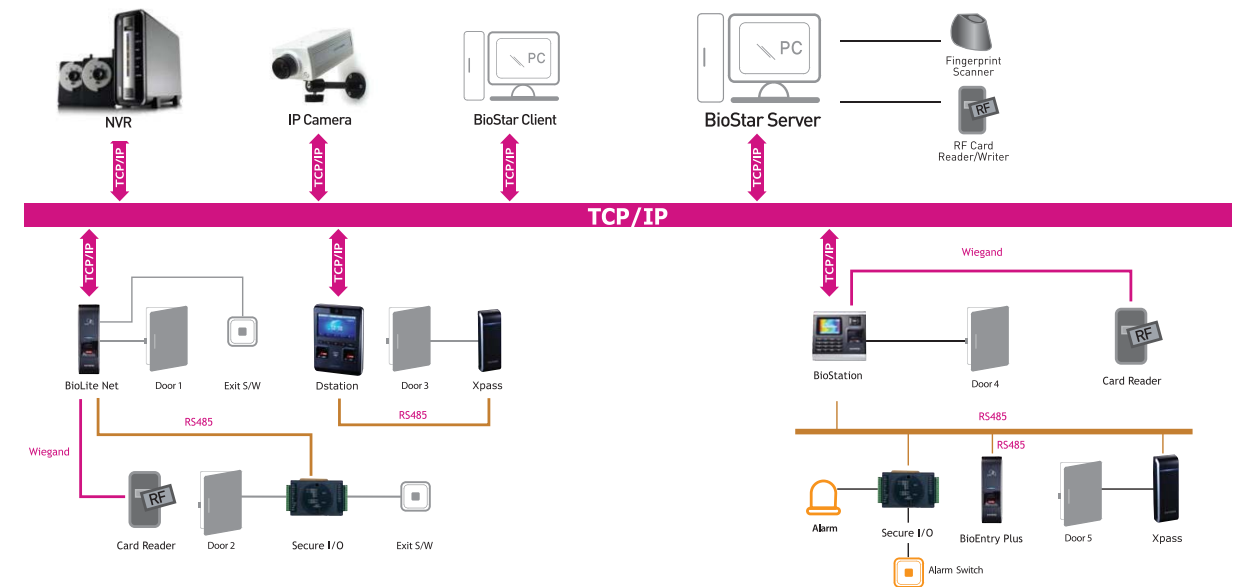
Specification

		BioStar Lite (Embedded Web)	BioStar BE (Basic Edition)	BioStar SE (Standard Edition)
System	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
Access Control	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
Time Attendance	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.
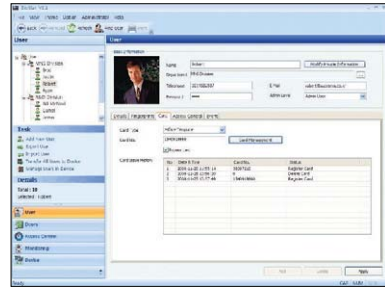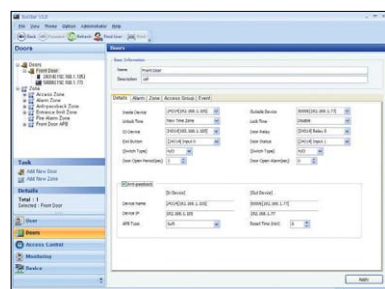
User Management

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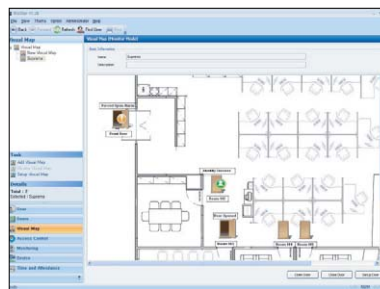· Records user card issuance log

Access Control

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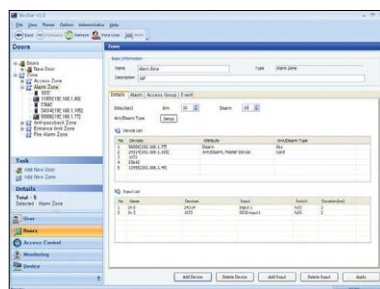· 32 holidays configurable

Door Management

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

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
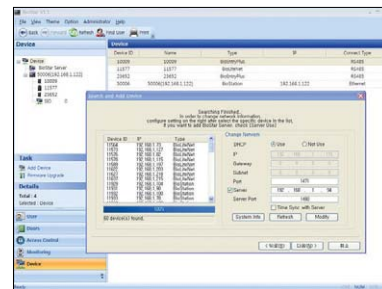
Device Management

· 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.
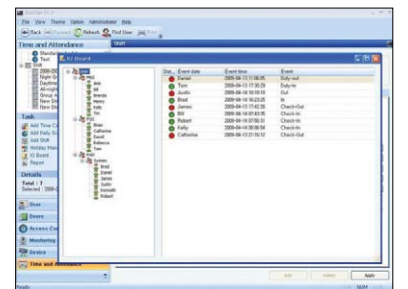
Holiday and leave Management

· Holiday schedule configurable by group
· Leave schedule configurable by user
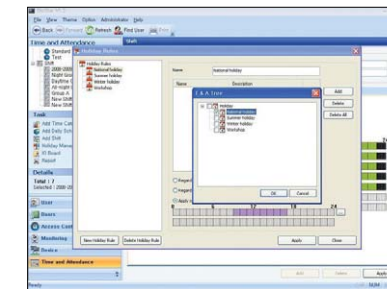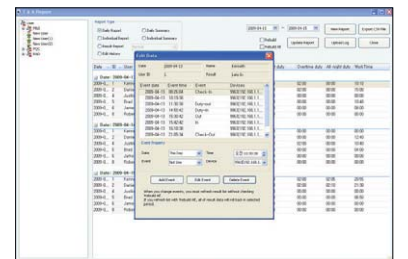
Shift Management

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

In/Out Board

· Real-time monitoring by T&A event
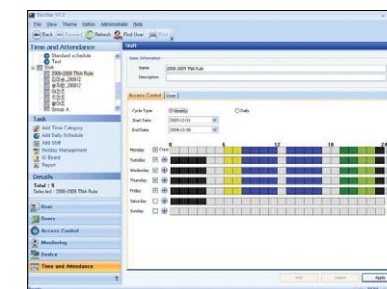
Work Hour Calculation

· 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 software pre-loaded in Suprema IP access control devices. BioStar Lite allows administrators to manage users and devices with a web browser in any PC. BioStar Lite Provides loads of convenient features including device configuration, user management, door/zone settings and monitoring. Unlike most of other embedded web server systems, BioStar Lite supports networked access control systems up to 10 devices.

Features	Convenient management of system in web-based application
	Not requiring installation of software and database to PC
	Supports network access control systems up to 10 devices
	Remote door control and anti-pass back

User Interface
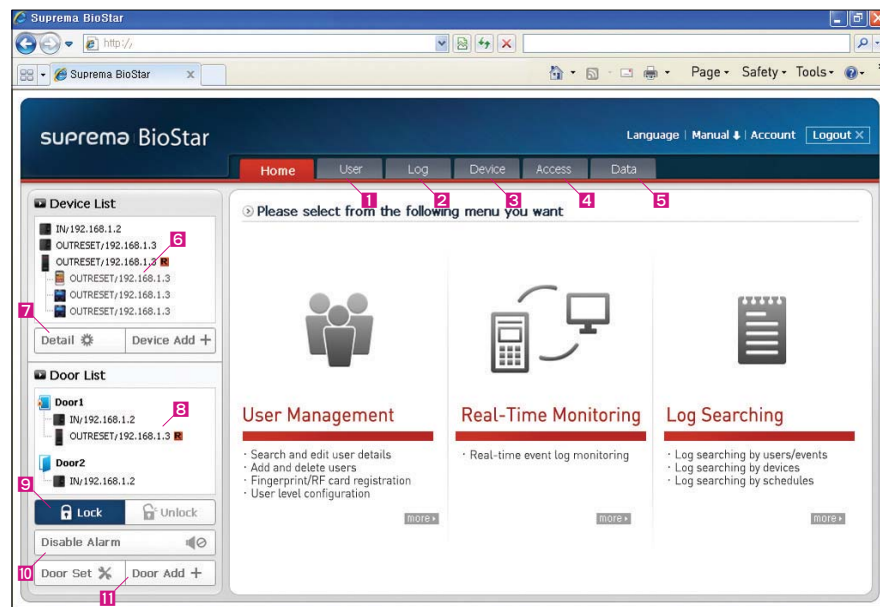
01. **User Tab** View and edit user details
02. **Log Tab** View and monitor logs and events
03. **Device Tab** Edit/Configure device settings
04. **Access Tab** Controls access group and schedule
05. **Data Tab** Back up user data and configurations
06. **Device List**
    Shows device name, status and IP address
07. **Device Control**
    View/edit device configuration or add new device
08. **Door List**
    Shows device list and status per registered doors
09. **Lock Control** Controls selected door (open/close)
10. **Alarm Control** Arm/disarm alarm
11. **Door Control** Configure door settings or add new door

Configuration
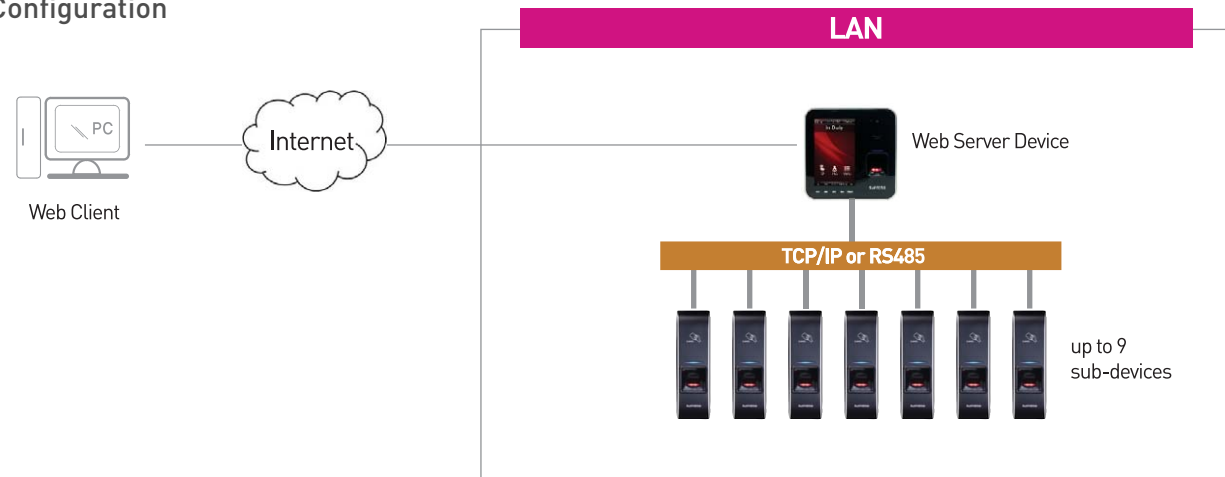
BioStar Mobile | Smart Phone Apps

BioStar Mobile is a set of mobile applications which allows administrators to manage various operations of BioStar software from smart phones. The software consists of separate mobile applications including device configuration, user management and door setting. It supports 'Direct Access' from a smart phone to access control devices with 3G/WiFi network as well as 'Public Gating Access' through BioStar Gate Server with public IP.

Features	Convenient management of system with simple smart phone applications
	Mobile configuration and settings of devices without display and keypad
	Separate applications to support device configuration, user management and door setting
	Strong security with triple authentications (User ID-Gate password-BioStar admin password)

User Interface

BioStar Device App

· View registered user data on device
· Set device network configuration
· View log on devices
· Configure authentication modes

BioStar User App

· Add/delete/edit user
· Capture & store users' face image
· Dial to selected user's phone

BioStar Door App
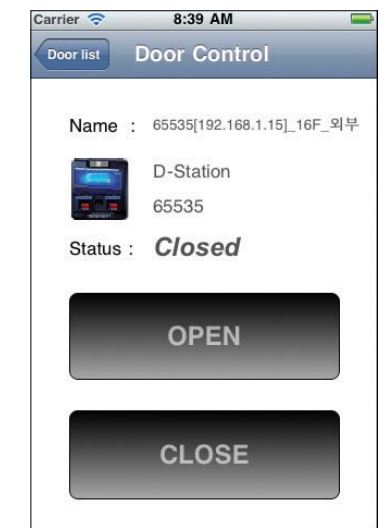
· Door status monitoring
· Remote door control (open/close)
· Notification on alarm

Configuration

Direct Access(P2P) Configuration
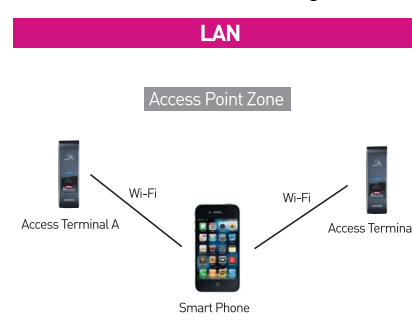
Authentication Process
User ID → Gate Password → Activation Code

Public Gating Access Configuration
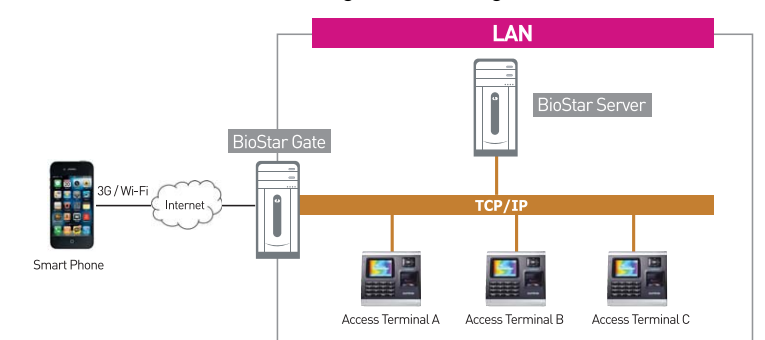
Authentication Process
User ID → Gate Password → BioStar Admin Password

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.

Max user: 200,000
Log capacity: 1,000,000
Face log capacity: 5,000
CPU: 667 MHz RISC, 533MHZ DSP
LCD: 5" WVGA touchscreen
Memory: 1GB flash + 256MB RAM
RF options: 13.56 MHz Mifare, 125KHz EM
TCP/IP, WiFi, RS482, RS232, Wiegand
Power over Ethernet
Certifications: CE, FCC

5-inch Touch Screen LCD with Intuitive GUI

Its ultra wide 5.0-inch WVGA LCD features heavy-duty resistive touch screen technology with wide viewing angle. The display panel has been designed to provide extreme usability and precision for secure biometric access control to high-traffic time attendance applications. Its intuitive GUI allows users to easily learn necessary controls and functions with minimal training and instruction. The GUI also supports customizable wallpaper and notice board.

Powerful Dual-CPU System

With its sophisticated dual-CPU architecture, BioStation T2 offers super fast matching performance, rapid response and exceptionally low error rate. A powerful 533MHz DSP is dedicated to fingerprint matching process for optimal performance, and a 667MHz RISC ensures uninterrupted device operation and instant face detection.

IP Access Control with PoE & WiFi

BioStation T2's TCP/IP connectivity offers extra flexibility in designing your security system while reducing cost on installation and maintenance. Compare to conventional access control system, IP access control system provides lower cost per door with less wiring and utilization of existing network infrastructure. BioStation T2 also offers PoE(Power over Ethernet) and WiFi to further enhance its extensibility. The PoE feature enables simpler wiring and lower installation cost. On the other hand, users can also choose to connect BioStation T2 with WiFi interface to enjoy benefits of faster installation with significant cost reduction.

Face Detection Technology

BioStation T2 features Face Detection Technology by capturing face image logs on each entry. With its megapixel built-in camera, the device automatically captures face image from each users to prevent buddy punching and unauthorized entries.

Embedded Web Server

BioStation T2 is preloaded with BioStar Lite embedded web server software. The BioStar Lite allows administrators to control up to 10 Suprema IP access control devices with a web browser without installing any software on PC. The application provides comprehensive user/device controls, door configurations, access grouping, scheduling and real-time monitoring of whole system.

Suprema Algorithm

At the core of BioStation T2, the world's most powerful fingerprint algorithm assures unrivalled speed and accuracy. Recognized by FVC and NIST MINEX Tests, Suprema Algorithm has been proven to be one of the most sophisticated and advanced technology in biometric industry.

Video Phone Interface

BioStation T2 supports videophone feature with its built-in camera, microphone and speaker. Videophone feature can be integrated with conventional analog based video phones as well as IP based video and audio interface.

BioStation T2 Video
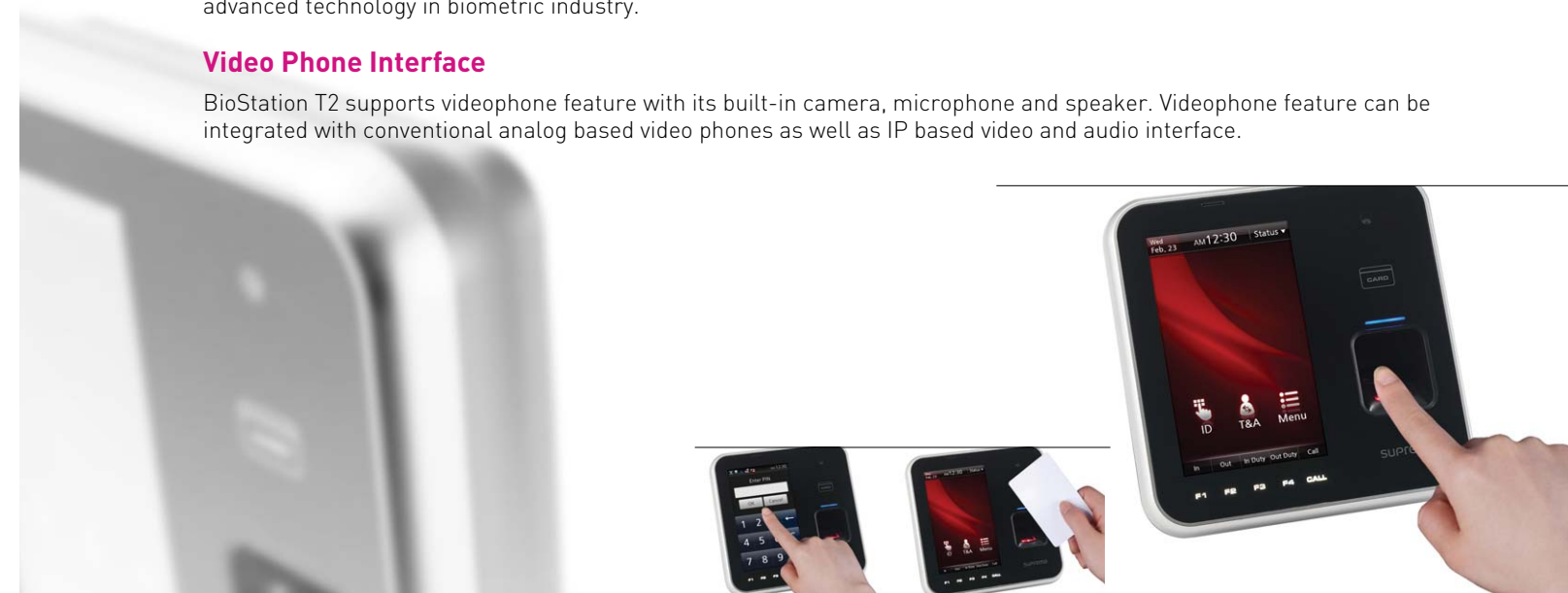
D-Station | Fusion Biometric IP Access Terminal

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.

DETEKTOR
INTERNATIONAL
AWARD
Best Product 2010
ACCESS CONTROL

10,000 matches in 1 second (1:N)
User Capacity: 200,000
Log Capacity: 1,000,000(event), 10,000(image)
Tri-CPU (667MHz + 400 MHz + 400 MHz)
Dual-finger technology
Fusion face recognition
5.0" touch screen LCD
1.3M pixel camera
Power over Ethernet
Video phone
USB/SD memory slot
TCP/IP, WiFi
Wiegand, RS485(2ch), RS232
Accelerometer for tamper detection
SAM(SIM) card slot

Multi-Biometric Fusion Technology

Multi-Biometric Fusion Technology is Suprema's patented technology offering exceptional performance which far outperforms conventional fingerprint identification methods. The technology synthesizes and processes minutiae gathered from multiple biometrics sensors including its dual-fingerprint sensors and face image capturing camera. The optimized score-level fusion technology is based on joint distribution of matching scores to develop unique adaptive fusion mechanism that effectively reduces error rates.

Powerful Tri-CPU Parallel Processing System

All the sensational features of D-Station are powered by its unique Tri-CPU system. This Tri-CPU system features parallel processing which allows D-Station to boost the speed of matching large-scale biometric data. In parallel processing the powerful 667MHz and two 400MHz CPU's make up massive 1.4GHz of computing power, which allows D-Station to deliver exceptional performance in biometric computation as well as seamless operation for its sophisticated functionalities.

Ultra-wide Touch Screen LCD with Intuitive GUI

The 5.0" WVGA touch screen LCD has 384,000 dots, a viewing angle of 140˚ with resistive touch screen technology. The display panel has been designed to provide extreme usability and precision for secure biometric access control to high-traffic time attendance systems. With aesthetically designed graphic user interface, D-Station offers decent user experience unlike anything you've seen on a security device and makes it perfect solution for various environments. The GUI also features videophone interface, customizable wallpaper, video player, notice board and personalized messaging.

IP Access Control with PoE & WiFi

D-Station's IP access control system offers extra flexibility in designing your security system while reducing cost on installation & maintenance. Compare to conventional access control system, IP access control provides lower cost per door with less wiring and utilization of existing network infrastructure. D-Station also offers PoE & WiFi to further enhance its extensibility. The PoE feature also ensures simpler wiring & lower installation cost. Otherwise, users can choose to hook up D-Station with WiFi interface to enjoy benefits of faster installation with significant labor reduction.

Embedded Web Server

D-Station is preloaded with BioStar Lite embedded web server software. The BioStar Lite allows administrators to control up to 10 Suprema IP access control devices with a web browser without installing any software on PC. The application provides comprehensive user/device controls, door configurations, access grouping, scheduling and real-time monitoring of whole system.

Unique Features and Extra Functions

D-Station provides loads of unique features and functions to enhance level of security and user convenience. Accelerometer (high precision motion detection sensor) is integrated to detect shock by tamper or vandalism. The internal RF card reader can read both ISO14443 Type A and Type B cards. In addition, D-Station supports SAM(SIM) card slot for enhanced security applications. This feature opens a way to the integration of access control using the same card used for national ID, transportations, etc. To extend its memory capacity, D-Station supports a SD memory card slot. It also provides RS232 interface for the support of GPRS/GSM based mobile connection and serial printers for printing of attendance records.

BioStation | Full-featured Fingerprint IP Terminal

The Best Just Got Better

BioStation is a full-spec, high-end fingerprint terminal offers the advantages of TCP/IP network and Supremas's renowned biometric technology for access control and time attendance. The new BioStation V2 comes with massive 1GB memory which now stores 200,000 users and 1 million event logs. Loaded with the world's best fingerprint algorithm and powerful processing engine, BioStation provides uncompromised high-level biometric security with flexibility in integration and ease of everyday use.

Dual CPU System-Fast, Accurate, Precise

Powered by sophisticated Dual CPU System, the BioStation delivers fast matching speed, rapid response and exceptionally low error rate. The powerful 400MHz DSP is dedicated to fingerprint matching process for fast and accurate performance, and the 200MHz RISC processor ensures uninterrupted device operation.

TCP/IP Connectivity with WiFi

Featuring IP-based system topology and WiFi, BioStation's IP access control system offers extra flexibility in designing your security system while reducing cost on installation & maintenance. Compare to conventional access control system, IP access control provides lower cost per door with less wiring and utilization of existing network infrastructure. The concept also simplifies installation of systems with multiple sites since it only requires basic internet link to remote locations.

2.5"Color LCD with Intuitive GUI

With its 2.5" QVGA color LCD, BioStation's intuitive graphic user interface has been designed to offer clear communication with users in access control and time attendance applications. When in operation, it also provides voice and sound instruction with built-in speaker, and on-device navigation keys makes even easier device control for both users and administrators.
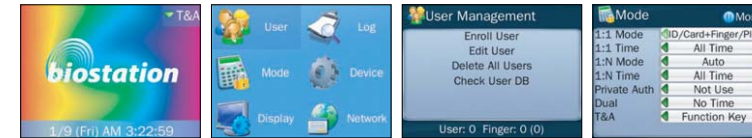
Suprema Algorithm

At the core of every Suprema access control device, the world's most powerful fingerprint algorithm assures unrivaled speed and accuracy. Recognized by FVC[1] and NIST MINEX Test[2], Suprema Algorithm has been proven to be one of the most sophisticated technology in biometrics industry.

[1] FVC : International competition focused on fingerprint verification software assessment.
[2] MINEX Test : Minutiae Interoperability Exchange Test by US Government's NIST.

Intelligence at Doors

With powerful internal CPU and comprehensive communication interfaces, BioStation provides both reader and controller functionalities at the door. In addition, it can also control door locks with its built-in door relay or through external relay unit. This concept not only reduces your cost for the entire system by removing costly access control panels, but also improves system stability by eliminating single point of failure that affect whole system.

Versatile Interfaces-extra flexibility

BioStation allows flexible system design and cost advantage with extensive communication interfaces and relays such as TCP/IP, RS485 and Wiegand. In addition, it provides USB2.0 interfaces(device & host), and multiple in/out relays to offer extra flexibility. For further expansion, optional external relay unit is also available.

DETEKTOR
INTERNATIONAL
AWARD
Innovative Achievement
ACCESS CONTROL

3,000 matches in 1 second (1:N)
User capacity: 200,000
Log capacity: 1,000,000
Dual CPU -400MHz DSP + 200MHz RISC
Fast ID Matching™. technology
2.5" QVGA LCD
WiFi LAN, TCP/IP
RS485, RS232, Wiegand
USB device & host interfaces
USB memory slot
EM, HID Prox., Mifare options
CE, FCC certifications

BioStation Video

BioLite Net/Solo | 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)
400MHz DSP
IP65 waterproof
Graphic LCD with backlight
Operating Temp.: -20°C ~ -50°C
TCP/IP, RS485, Wiegand
EM, Mifare options
CE, FCC certifications

IFSEC2009
SECURITY INDUSTRY AWARDS
FINALIST

DETEKTOR
INTERNATIONAL
AWARD
Best Product 2009
ACCESS CONTROL

BioLite Net Video

Powerful 400MHz DSP

Powered by 400MHz DSP, the BioLite delivers fast matching speed, rapid response and exceptionally low error rate. This powerful processor is capable of handling fast and accurate fingerprint matching process, and ensures uninterrupted device operation.

IP-to-the-door Concept - Flexible & Cost-saving Solution

Featuring IP-based system topology, BioLite Net's IP access control system offers extra flexibility in designing your security system while reducing cost on installation & maintenance. Compare to conventional access control system, IP access control provides lower cost per door with less wiring and utilization of existing network infrastructure. For use in single and remote location without network, BioLite Solo offers excellent biometric security for your budget.

Intelligence at Doors

With powerful internal CPU and comprehensive communication interfaces, BioLite Net provides both reader and controller functionalities at the door. In addition, it can also control door locks with its built-in door relay or through external relay unit. This concept not only reduces your cost for the entire system by removing costly access control panels, but also improves system stability by eliminating single point of failure that affect whole system.

IP65-rated Waterproof Structure

BioLite's body structure has been comprehensively sealed against invasive moisture, dust and liquid. Featuring superb IP65-rated protection, its meticulous sealing, combined with extra protective engineering, ensures faultless operation under outdoor installation. BioLite also features illuminated keypads, LCD back light and LED indicator for excellent visibility in harsh conditions.

Suprema Algorithm

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Versatile Interfaces - extra flexibility

BioLite allows flexible system design and cost advantage with comprehensive communication interfaces and relays such as TCP/IP, RS485 and Wiegand. In addition, it provides multiple in/out relays to offer extra flexibility. For further expansion, optional external relay unit is also available.
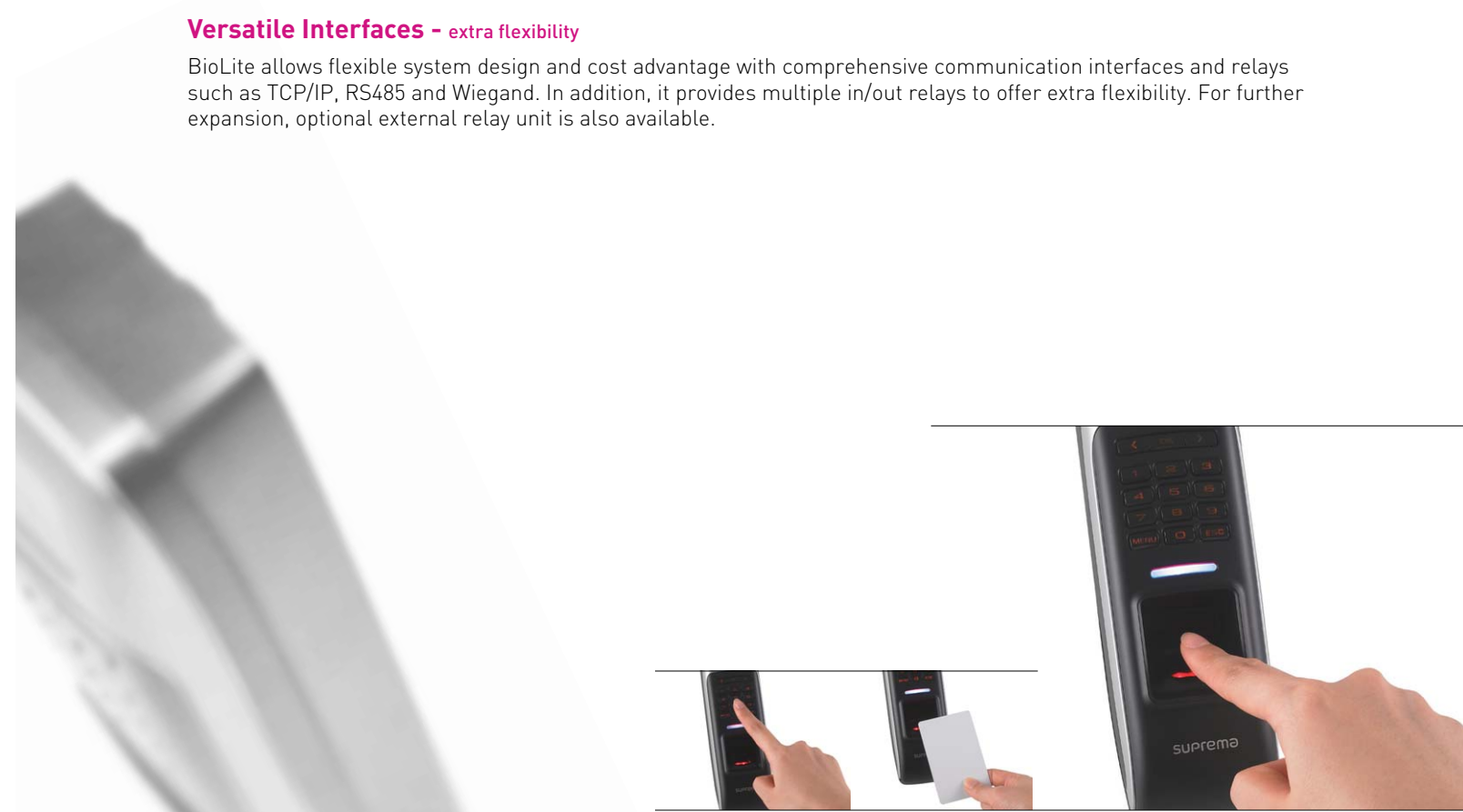
BioEntry Plus | Fingerprint IP Reader/Controller

Designed for Simplicity, Superb Engineering

BioEntry Plus exquisitely blended pros of IP technology with biometrics. With its award-winning, sleek and slim design, it allows full benefits of next generation distributed IP system structure as well as high level security features of biometrics. Crafted and engineered by the World's leading biometric experts, BioEntry Plus offers unrivaled quality with exceptional engineering.

2,000 matches in 1 second (1:N)
User capacity: 5,000
Log capacity: 50,000
400MHz DSP
Multi-color LED & sound instruction
TCP/IP, RS485, Wiegand
EM, HID Prox., iClass & Mifare
CE, FCC, UL294 certifications
Good Design Mark

BioEntry Plus Video

Powerful 400MHz DSP

Powered by 400MHz DSP, the BioEntry Plus delivers fast matching speed, rapid response and exceptionally low error rate. This powerful processor is capable of handling fast and accurate fingerprint matching process, and ensures uninterrupted device operation.

IP-to-the-door Concept – Flexible & Cost-saving Solution

Featuring IP-based system topology, BioEntry Plus's IP access control system offers extra flexibility in designing your security system while reducing cost on installation & maintenance. Compare to conventional access control system, IP access control provides lower cost per door with less wiring and utilization of existing network infrastructure. The concept also simplifies installation of systems with multiple sites since it only requires basic internet link to remote locations.

Intelligence at Doors

With powerful internal CPU and comprehensive communication interfaces, BioEntry Plus provides both reader and controller functionalities at the door. In addition, it can also control door locks with its built-in door relay or through external relay unit. This concept not only reduces your cost for the entire system by removing costly access control panels, but also improves system stability by eliminating single point of failure that affect whole system.

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Versatile Interfaces – extra flexibility

BioEntry Plus allows flexible system design and cost advantage with comprehensive communication interfaces and relays such as TCP/IP, RS485 and Wiegand. In addition, it provides multiple in/out relays to offer extra flexibility. For further expansion, optional external relay unit is also available.

X-Station | Smart IP Access 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
Log capacity: 1,000,000
Face log capacity: 5,000
CPU: 667 MHz RISC
LCD: 3.5" touchscreen
Memory: 1GB flash + 128MB
RF options: 13.56 MHz Mifare, 125KHz EM
Network: TCP/IP
Interfaces: 2CH RS485, Wiegand I/O
Certifications: CE, FCC

X-Station Video

Face Detection Technology

X-Station features Face Detection Technology by capturing face image logs on each entry. With its megapixel built-in camera, the device automatically captures face image from each users to prevent buddy punching and unauthorized entries. The camera operation is supported by proximity sensor and IR flash lights to ensure image quality of captured face logs.

3.5-inch Touch Screen LCD with Intuitive GUI

Its ultra wide 3.5-inch QVGA LCD features heavy-duty resistive touch screen technology with wide viewing angle. The display panel has been designed to provide extreme usability and precision for secure access control to high-traffic time attendance applications. Its intuitive GUI allows users to easily learn necessary controls and functions with minimal training and instruction. The GUI also supports customizable wallpaper and notice board.

Powerful 667MHz Processor

X-Station is powered by 667 MHz RISC processor which allows seamless operation and uninterrupted sub-device control. The processor is more than capable of running X-Station's own operations and is sufficient to support as a controller to locking devices and dummy readers.

IP Access Control with PoE & WiFi

X-Station's TCP/IP connectivity offers extra flexibility in designing your security system while reducing cost on installation and maintenance. Compare to conventional access control system, IP access control system provides lower cost per door with less wiring and utilization of existing network infrastructure. This concept also improves system stability by eliminating single point of failure which affects the whole system.

Embedded Web Server

X-Station is preloaded with BioStar Lite embedded web server software. The BioStar Lite allows administrators to control up to 10 Suprema IP access control devices with a web browser without installing any software on PC. The application provides comprehensive user/device controls, door configurations, access grouping, scheduling and real-time monitoring of whole system.

Versatile Interfaces

X-Station allows flexible system design and cost advantage with various communication interfaces such dual channel RS485, Wiegand, TCP/IP, TTL inputs and a door relay. For further expansion, optional external relay unit is available.

Xpass | Smart IP Reader/Controller

Progressive Technology, Exceptional Value

Xpass provides all the leading-edge features of top range IP access controller packed in a ultra compact device. Featuring next-generation IP access control system, it offers uncompromising quality with simplicity and exceptional value for your budget. Besides, Xpass offers Power over Ethernet (PoE) for further reduction of installation cost, and IP65-rated waterproof structure for extra durability. All the leading-edge technology packed with versatile interfaces that makes incredibly simple to adapt with minimum cost and labor.

Max. 40,000 users, 50,000 logs
32-bit microprocessor
8MB flash +16MB RAM
EM/HID Prox./Mifare options
IP65 waterproof
TCP/IP, RS485, Wiegand
Power over Ethernet
CE, FCC certifications

Xpass Video

Powerful 32-bit Microprocessor

Xpass is powered by 32-bit microprocessor which allows seamless operation and uninterrupted sub-device control. The processor is well capable of running Xpass's own operations and is sufficient to support Xpass as a controller to dummy readers and locks.

IP Access Control with PoE

Featuring IP-based system topology and PoE, Xpass's IP access control system offers extra flexibility in designing your security system while reducing cost on installation & maintenance. Compare to conventional access control system, IP access control provides lower cost per door with less wiring and utilization of existing network infrastructure. The concept also simplifies installation of systems with multiple sites since it only requires basic internet link to remote locations.

Intelligence at Doors

With powerful internal CPU and comprehensive communication interfaces, Xpass provides both reader and controller functionalities at the door. In addition, it can also control door locks with its built-in door relay or through external relay unit. This concept not only reduces your cost for the entire system by removing costly access control panels, but also improves system stability by eliminating single point of failure that affects whole system.

IP65-rated Waterproof Structure
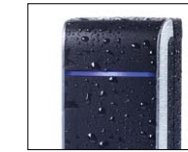
Xpass's body structure has been comprehensively sealed against invasive moisture, dust and liquid. Featuring superb IP65-rated protection, its meticulous sealing, combined with extra protective engineering, ensures faultless operation under outdoor installation.

Versatile Interfaces – extra flexibility

Xpass allows flexible system design and cost advantage with comprehensive communication interfaces and relays such as TCP/IP, RS485 and Wiegand. In addition, it provides multiple in/out relays to offer extra flexibility. For further expansion, optional external relay unit is also available.

Power over Ethernet (PoE)

PoE feature in Xpass allows simpler wiring & lower installation cost by leveraging existing IT infrastructure. It also supplies up to 700mA, 12vDC of electricity to its slave devices such as deadbolt, RTE and dummy readers.

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

RS485

Door Sensor

IP Reader
Door Lock
Exit Button   Secure I/O

TCP/IP   PC   Enroll Scanner (optional)

External Interfaces

- Relay Output0 Normal Open .... N.O 0
- Relay Output0 Common COM0
- Relay Output0 Normal Close .... N.C 0
- Relay Output1 Normal Open .... N.O 1
- Relay Output1 Common COM1
- Relay Output1 Normal Open .... TRX+
- RS-485 TRX+ .... TRX−
- RS-485 TRX− .... TRX GND
- RS-485 Ground .... F-GND
- Frame Ground .... PWR+
- Power Input+ .... PWR−
- Power Input−

RLY 0   IN 0
RLY 1   IN 1
         IN 2   RESET
         IN 3
RX   PWR
TX   RUN   SYNC

- External Input 0 +
- External Input 0 −
- External Input 1 +
- External Input 1 −
- External Input 2 +
- External Input 2 −
- External Input 3 +
- External Input 3 −

IN 0 +
IN 0 −
IN 1 +
IN 1 +
IN 2 +
IN 2 −
IN 3 +
IN 3 −

Accessories

| Plastic Stand | AccessPoint (for WiFi models) | Interphone | Power Adapter (12V, 2.5A) | RF Cards | USB Mifare Reader/Writer | Fingerprint Enroll Scanner |

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 is 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
- RTE switch
- Aluminum carrying case
- Secure I/O (external relay unit)
- Deadbolt lock
- 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
- Power adapter
- BioStar BE
- 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

Feature \ Product	BioStation T2	D-Station	BioStation	BioEntry Plus
Application	Time Attendance Access Control	Time Attendance Access Control	Time Attendance Access Control	Access Control
Authentication Modes	Finger/Card/PIN	Finger/Face/Card/PIN	Finger/Card/PIN	Finger/Card
Fingeprint Sensor	Optical	Optical x 2	Optical, Capacitive	Optical, Capacitive
Face Detection Camera	Yes	Yes	N/A	N/A
Card Options	125KHz EM 13.56MHz Mifare/DesFire	125KHz EM 13.56MHz Mifare/DesFire	125KHz EM 125KHz HID Prox 13.56MHz Mifare/DesFire	125KHz EM 125KHz HID Prox 13.56MHz Mifare/DesFire 13.56MHz iCLASS 13.56MHz Felica

Capacity

	BioStation T2	D-Station	BioStation	BioEntry Plus
Template Capacity	400,000 (1:1) 20,000 (1:N)	400,000 (1:1) 20,000 (1:N)	400,000 (1:1) 20,000 (1:N)	10,000 (1:N)
Max. User	200,000	200,000	200,000	5,000
Log Capacity	1,000,000 (5,000 image logs)	1,000,000 (5,000 image logs)	1,000,000	50,000

Interfaces

	BioStation T2	D-Station	BioStation	BioEntry Plus
Wireless LAN	Yes (optional)	Yes (optional)	Yes (optional)	-
TCP/IP	Yes	Yes	Yes	Yes
RS485	2 channels	2 channels	1 channel	1 channel
RS232	Yes	Yes	Yes	-
Wiegand	In & Out (switchable)	In & Out (switchable)	In & Out	In & Out (Switchable)
TTL I/O	4 Input	4 Input	4 I/O	2 Input
Built-in Relay	2	2	1	1
USB	Host, Slave	Host, Slave	Host, Slave	
SD Card Slot	Yes	Yes	-	-

Hardware

	BioStation T2	D-Station	BioStation	BioEntry Plus
CPU	667MHz RISC x 1 533MHz DSP x 1	667MHz RISC x 1 400MHz DSP x 2	400MHz DSP 200MHz RISC	400MHz DSP
Memory	1GB flash + 256MB RAM	1GB flash + 256MB RAM	1GB flash + 34MB RAM	8MB flash + 16MB RAM
LCD Display	5.0" WVGA touch screen	5.0" WVGA touch screen	2.5" QVGA	-
LED Indicator	Multi-color x 1	Multi-color x 2	Multi-color	Multi-color
Sound Indication	16-bit Hi-Fi sound	16-bit Hi-Fi sound	16-bit Hi-Fi sound	Multi-tone buzzer
Voice Instruction	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	Accelerometer, switch	switch	switch
PoE	Yes	Yes	-	-
Operating Voltage	12vDC	12vDC	12vDC	12vDC
Dimensions (W x H X D, mm)	155 x 155 x 40	148 x 204 x 48	135 x 128 x 50	50 x 160 x 37

Feature \ Product	BioLite Net	BioLite Solo	X-Station	Xpass
Application	Time Attendance Access Control	Access Control (Standalone)	Time Attendance Access Control	Access Control
Authentication Modes	Finger/Card/PIN	Finger/PIN	Card/PIN	Card
Fingeprint Sensor	Optical	Optical	N/A	-
Face Detection Camera	N/A	N/A	Yes	N/A
Card Options	125KHz EM 13.56MHz Mifare/DesFire	-	125KHz EM 13.56MHz Mifare/DesFire	125KHz EM 125KHz HID Prox 13.56MHz Mifare/DesFire

Capacity

	BioLite Net	BioLite Solo	X-Station	Xpass
Template Capacity	10,000 (1:N)	800 (1:N) (200 user)	-	-
Max. User	5,000	200	200,000	40,000
Log Capacity	50,000	5,000	1,000,000 (5,000 image logs)	50,000

Interfaces

	BioLite Net	BioLite Solo	X-Station	Xpass
Wireless LAN	-	-	-	-
TCP/IP	Yes		Yes	Yes
RS485	1 channel	1 channel	2 channels	1 channel
RS232	-	-	-	-
Wiegand	In & Out (Switchable)	N/A	In & Out (Switchable)	In & Out (Switchable)
TTL I/O	2 Input	N/A	2 Input	2 Input
Built-in Relay	1	1	1	1
USB	-	-	-	-
SD Card Slot	-	-	-	-

Hardware

	BioLite Net	BioLite Solo	X-Station	Xpass
CPU	400MHz DSP	400MHz DSP	667MHz RISC x 1	32-bit Microprocessor
Memory	8MB flash + 16MB RAM	4MB flash + 8MB RAM	1GB flash + 128MB RAM (with SD card slot)	8MB flash + 16MB RAM
LCD Display	-	-	3.5" QVGA touch screen	-
LED Indicator	Multi-color	Multi-color	-	Multi-color
Sound Indication	Multi-tone buzzer	Multi-tone buzzer	16-bit Hi-Fi sound	Multi-tone buzzer
Voice Instruction	-	-	16-bit Hi-Fi sound	-
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)	60 x 185 x 40	60 x 185 x 40	79 x 135 x 21	130 x 45 x 27

Company at a Glance

Global Business	Sales network in over 110 countries worldwide with 910 customers
Founded	May 2000
Headquarter	South Korea
Growth	Average growth rate of 45% per year (CAGR, 2007 ~ 2010)
Business Area	Biometric/RFID IP Access Control
	Fingerprint Embedded Module
	Biometric PC Security Solution
	AFIS and Live Scanning Solution
	ePassport Reader & ID Solution
Financial Status	Listed company on stock market in Korea (KOSDAQ 094840)
	Launched Korea's 1st biometric IPO
Technology	Ranked top in Fingerprint Verification Competition in 2004, 2006 and onGoing(2010)
	Best results at NIST MINEX tests for "extractor" and matcher category (2008)

Business Growth

Revenue growth rate (CAGR) of 45% during 2007 ~ 2010
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

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)

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
HIGHLIGHTS

Our Advantages

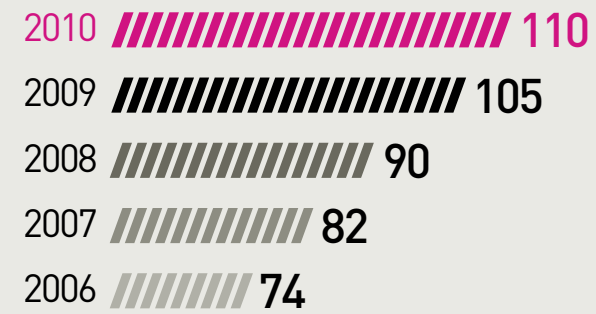|	
Technology	World's best performing fingerprint algorithm
	Industry-leading international awards and certifications
Quality	Manufactured by high quality IT production facilities in South Korea
	Made from best quality components and materials
Partnership	Global partner programs for training, technical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

Global Sales

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

Europe
25%

Asia Pacific
27%

Americas
26%

22%
Africa & Middle East
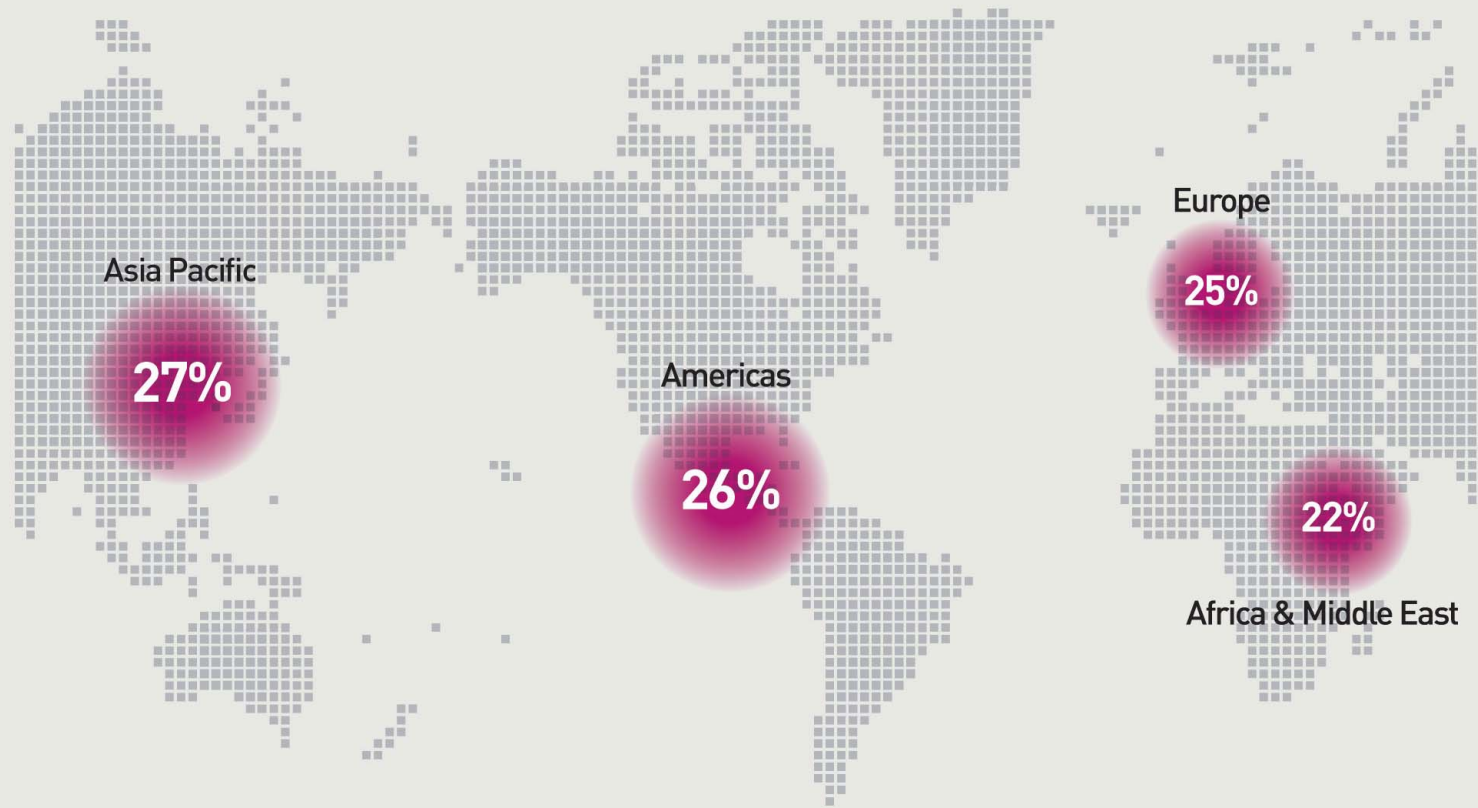
suprema
Biometrics & ID Solutions

Market Penetration
(Number of Countries)

2010 ///////////////////////// 110
2009 /////////////////////// 105
2008 ////////////////// 90
2007 /////////////// 82
2006 /////////// 74

Number of Customers

2010 ///////////////////////////////// 910
2009 //////////////////////////////// 850
2008 ///////////////////// 620
2007 ////////////////// 543
2006 /////////// 456