

# suprema D-Station Fusion Biometric IP Access Control

**Multi-Biometric Fusion Technology** with dual-finger & face recognition

## 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.



Fusion face recognition

Dual-fingerprint sensor technology

1:10,000 match in 1 Second

0.001% EER with Face + finger fusion

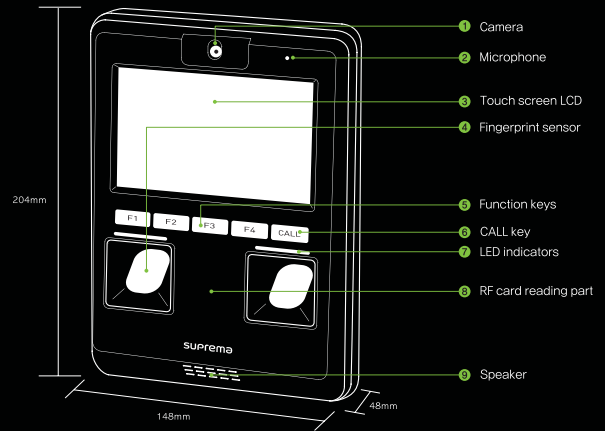
Ultra-wide touchscreen LCD

## Specifications

Application	Time Attendance Access Control	
Sensor	Optical x 2 Face recognition camera	
Matching Speed (1:N)	1:10,000 < 1 sec	
Card Options	13.56MHz ISO14443 A/B	
Capacity	Template Capacity* Finger : 400,000(1:1) Face : 20,000(1:N) Face : 30,000*	
	Max. User	200,000
	Log Capacity	1,000,000
Interfaces	Communication Interfaces	TCP/IP, WiFi 2ch RS485, RS232 USB(Slave)
	Wiegand	In & Out
	TTL I/O	4 Input
	Built-in Relay	2
Hardware	Memory Slot	USB Host, SD card
	CPU	667MHz RISC x 1 400MHz DSP x 2
	Memory	1GB flash + 128MB RAM (with SD card slot)
	LCD Display	5.0" WVGA touch screen
	LED Indicator	Multi-color x 2
	Sound Indication	16-bit Hi-Fi sound
	Voice Instruction	16-bit Hi-Fi sound
	Operating Temperature	-20°C ~ 50°C
	Tamper	Accelerometer, switch
	Operating Voltage	12VDC
Dimensions (W x H x D, mm)	148 x 204 x 48	
Certificates	CE, FCC, KCC	

Template Capacity:  
2 fingerprint templates per user and 3 face templates per user.

## Parts and Controls



## 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
- ▶ Host Communication : RS-485
- ▶ Input : 4-Ch
- ▶ Display : 10 Status LED
- ▶ Output : Form C Relay 2-Ch
- ▶ Power : 12 Vdc @ 300mA

## Accessories



Plastic Stand

AccessPoint  
(for WiFi models)

Interphone

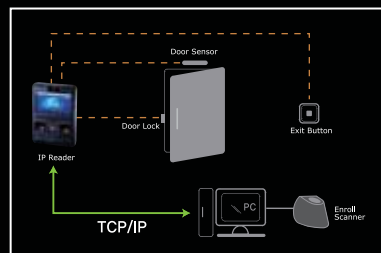
Power Adapter  
(12V, 2.5A)

RF Cards

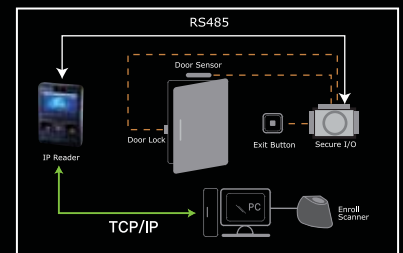
USB Mifare  
Reader/Writer

Fingerprint  
Enroll Scanner

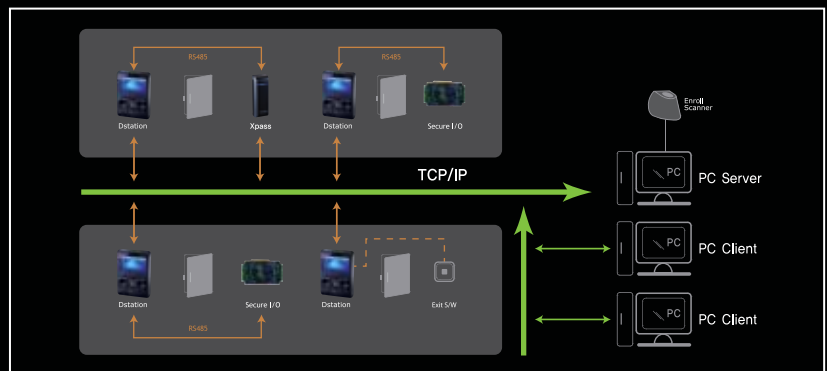
## System Configurations



Standalone



Secure



Network

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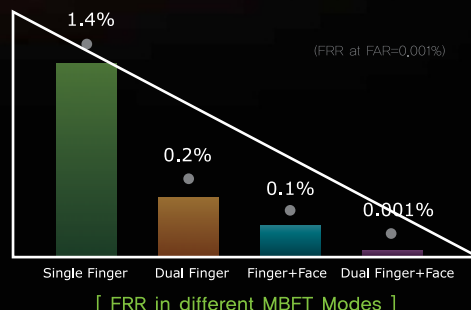
# Multi-Biometric Fusion Technology™

## The quest for new technology

Since the introduction of BioStation, Suprema has helped refine its biometric technology while representing innovative features that maximize user experience in practice. The D-Station, Suprema's new flagship, symbolizes the evolution of biometric technology, defying preconceived limitations while responding to the ever-changing demands from security industry. The D-Station opens new era of biometrics, represents unprecedented performance and usability.

## Multi-Biometric Fusion Technology™

Multi-Biometric Fusion Technology™ (MBFT) is Suprema's patented breakthrough technology offering exceptional performance that far outperforms today's biometric technologies. MBFT synthesizes and processes minutiae gathered from multiple biometric sensors, delivers superior result over current single-mode biometric technologies. The new D-Station, using MBFT, provides incredible biometric recognition performance by incorporating fingerprint & face recognition technology. The D-Station, equipped with two high-precision fingerprint sensors and a camera for face recognition, offers various recognition modes to accommodate individual user's requirements.



## Evolution in technology, revolution in performance

The Multi-Biometric Fusion Technology™ in Dstation is derived from Suprema's unique multi biometric sensor fusion technique. Suprema has developed world-leading technology in both fingerprint and face recognition biometrics and the MBFT has been developed by exquisitely blending both technologies to formulate optimal fusion biometric technology. This optimized score-level fusion technique is based on joint distribution of matching scores to develop unique 'adaptive fusion mechanism', that effectively reduces error rate. The improvement achieved by this unique fusion technique is exceptional. At FAR=0,001%, the 'dual finger fusion' achieves 0,2%, 'single finger and face fusion' achieves 0,1%, and 'dual finger & face fusion' achieves incredible 0,001% of FRR.

## Superior operability, uncompromised quality

In practice, biometric IP readers continuously interact with users in many ways, and Suprema always considered practical usability and clear communication interface crucial for our device design. Equipped with ultra-wide touchpad LCD, LED indicator, sound instruction and a camera, D-Station provides seamless operability and clear interaction with users. On the security side, D-Station provides striking features on every aspects. Powered by tri-CPU mechanism, it performs unrivalled identification speed and accuracy which no other biometric product in the market can imagine. With D-Station, Suprema has redefined biometric security.

## Authentication Modes of D-Station

D-Station offers 3 distinct authentication modes which provide a balance between level of security and processing speed. D-Station manages to adjust biometric authentication methods and provides optimal performance according to the user's requirements of accuracy, speed and high traffic processing.



### Fusion Mode – extreme accuracy

The fusion mode features Suprema's unique Multi-Biometric Fusion Technology incorporating face and dual-fingerprint recognition technology. This mode is recommended to minimize authentication failure rate and enhance user convenience.



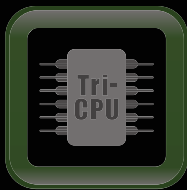
### Fast Mode – ultra speed

The fast mode provides unprecedented speed in single fingerprint authentication. Combining Suprema's renowned fingerprint algorithm with D-Station's powerful Tri-CPU parallel processing, it provides exceptional performance like no other biometric device you've experienced.



### Twin Mode – enhanced usability

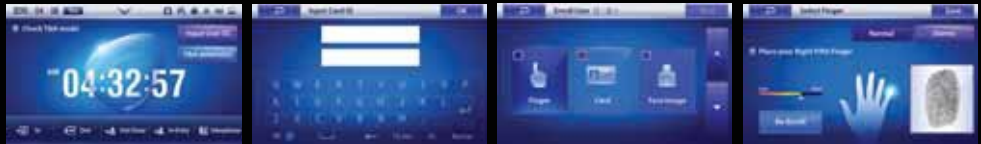
For fast processing of high traffic attendance check in the morning or shift changing time, twin mode offers speedy check-in by simultaneously processing two independent fingerprint inputs in a single device. Two line of users can use one sensor for each line likewise they are using two separate devices.



## 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.



## Built-in Camera for Image and Video Interface



With a built-in megapixel camera, D-Station offers comprehensive, fully customizable biometric time attendance features. The device can record and match biometric & non-biometric inputs from users with its face recognition camera, fingerprint sensors, on-screen keypad (PIN) and/or RF card reader. With its extremely easy-to-use interface, D-Station allow users to easily learn necessary controls & functions with minimal training & guidance. In addition, D-Station can be used as a video door phone and displays customized messages to the users.



## 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.



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