

## DS-K2700 Series

### Main and Distributed Access Controller

The Hikvision Main and Distributed Access Controller is composed of a main access controller and three distributed access controllers. The main access controller supports TCP/IP communication (with dual network interfaces) and RS-485 communication with the client software. It supports 4 RS-485 loops when communicating with distributor access controllers. AES encryption ensures the data security in the communication among devices. The distributed access controllers support the SPOF (Single-Point of Failure) and the redundancy processing of the card reader, so as to ensure the system stability. The main and distributed access controller is available for the industries of subways, airports, banks, and enterprises, etc..



#### AVAILABLE MODELS

DS-K2700	Main Access Controller
DS-K27M01	Single-Door Distributed Access Controller
DS-K27M02	Two-Door Distributed Access Controller
DS-K27M04	Four-Door Distributed Access Controller

#### MAIN FEATURES

##### Main Features of Main Access Controller

- Equipped with 2 TCP/IP interfaces and 1 RS-485 interface for the uplink communication with the client software. The TCP/IP communication and RS-485 communication can be the redundant backup for each other. 10M/100M/1000M adaptive network interfaces are supported, and up to 256 links can access.
- Equipped with 1 10M/100M TCP/IP network interface and 8 RS-485 interfaces for the downlink communication with distributed access controllers. The TCP/IP communication and RS-485 communication can be applied at the same time. The controller can adopt one kind of communication mode when another one breaks down. 8 RS-485 interfaces can form 4 RS-485 loops. Up to 16 distributed access controller can be mounted on each RS-485 loop.

- With the distributed access controller, the main access controller can control doors. For each main access controller, up to 64 distributed access controllers can be connected to. That is, up to 128 doors can be controlled.
- Supports storing up 20,000 legal card records and 60,000 events permanently. Automatic cyclic coverage can be configured.
- Supports the duration permission management. Permissions of 255 week plans, 8 time periods per day, 1024 holiday schedules, and 255 holiday groups can be configured.
- Supports multiple authentications for opening the door: Card, Card + Password, Card/Password, Fingerprint, Fingerprint + Password, Fingerprint/Card, Fingerprint + Card, Fingerprint + Card + Password.
- Supports opening the door by only entering the password for 1000 times. In emergencies, it supports opening the door by entering the card No. instead of swiping the card.
- Supports the anti-passing back function, the multi-door interlocking function, opening door with multiple cards, opening door with first card, opening door with super password, and opening door with duress code.
- For the multi-door interlocking, up to 4 interlocking groups can be set, and up to 8 door can be supported for each group.
- For opening door with multiple cards, up to 64 card groups can be set, and up to 128 cards can be authenticated.
- For opening door with first card, two modes of the first card are supported: Normally Open, and Normally Closed.
- Supports multiple card types: normal card, card for disabled person, blocklist card, patrol card, duress card, super card, and visitor card.
- Supports storing and uploading event records, such as card swiping records, alarm events, remote operation events, and so on. All events will be uploaded in realtime when the device works. When the device is offline or power-off, the data will be saved permanently and will be uploaded automatically when the network is recovered.
- The main access controller has 16 zones for the alarm input, supporting the zone short circuited alarm and the zone disconnected alarm. Multiple zone types are supported: Instant Zone, 24 Hour Zone, Shield Zone, Exit Button Zone, and so on. The main access controller can support extended zones by connecting to distributed access controllers. Up to 400 extended zones for the alarm input can be allowed.
- The main access controller has 8 zones for the alarm output, and it can support extended zones by connecting to the distributed controllers. Up to 392 extended zones for the alarm output can be allowed.
- Supports event/card No. linkage with the maximum 500 pieces of linkage.
- Supports the fire-fighting linkage.
- Supports backup batteries, watchdog, and tamper-proof functions.
- Equipped with a built-in RTC, and supports NTP synchronization and remote synchronization.
- Supports the standby storage battery, and supports the low battery alarm.
- Supports the USB port to upgrade the controller, import/export the configuration parameters or card permission parameters, and export the card swiping records.
- Supports the online upgrade. If upgrading failed, the controller still can work by the original program, and the controller will auto re-upgrade when it is restarted.

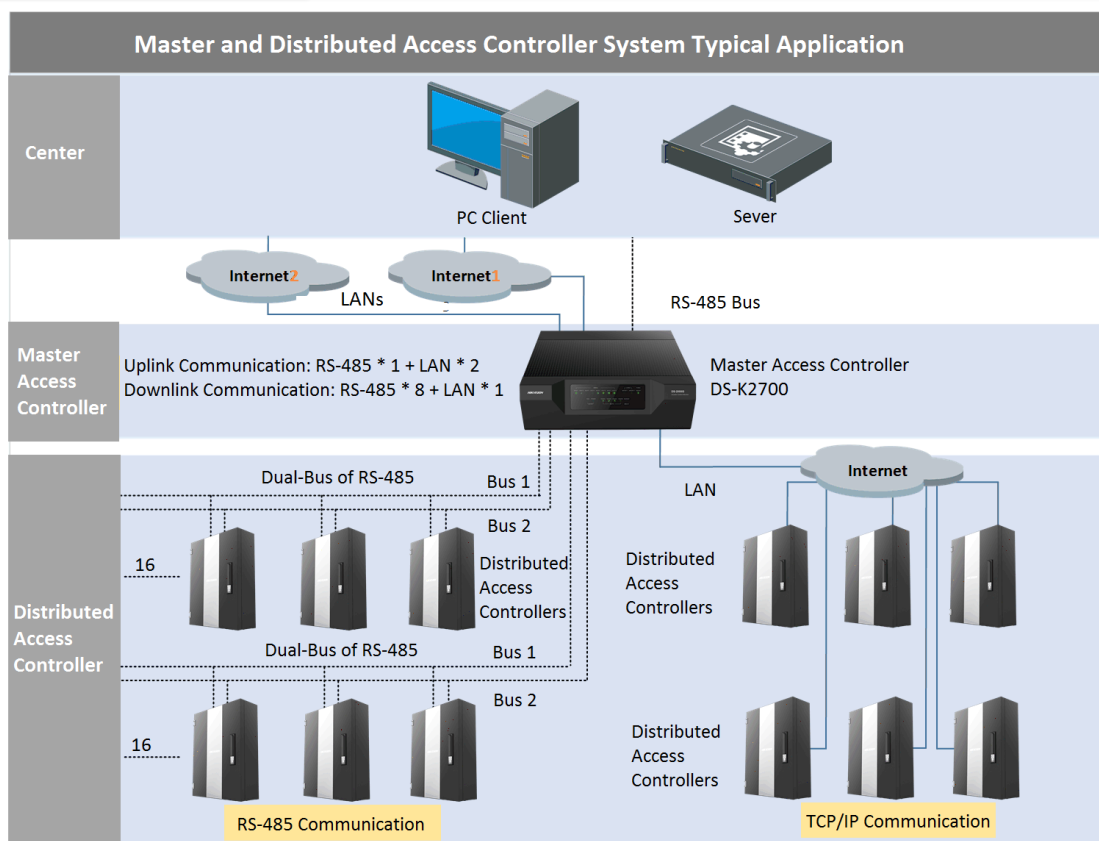
- Designed with independent power switch, communication indicator, running indicator, and abnormal indicator.
- Designed with 19-inch 3U chassis, which can be put into the cabinet or applies to the wall mounting.
- Supports IP 54.

#### Main Features of the Distributed Controller

- Designed with 3 types of distributed access controller: single-door distributed access controller, two-door distributed access controller, and four-door distributed access controller.
- Adopts the modular design for the convenient maintenance.
- Equipped with 2 RS-485 interfaces for the uplink communication (RS-485 communication) with the main access controller. 2 RS-485 interfaces forms 1 RS-485 loop.
- Equipped with 1 TCP/IP 10M/100M self-adaptive network interface for the uplink communication (TCP/IP communication) with the main access controller.
- Supports being connected to the card reader via RS-485 interface or Wiegand interface.
- Supports RS-485 loop, formed by 2 RS-485 interfaces, for the RS-485 communication with the card reader, and supports loop power fault detection and redundant function.
- Supports W26 and W34 for the Wiegand communication with the third-party card readers.
- Supports online working mode and offline working mode. In the online mode, it supports the permissions of the main access controller for the access control. In the offline mode, it supports the offline permissions of the main access controller for the access control. The offline permissions are downloaded to the distributed access controller via the memory.
- Supports storing 20,000 legal cards and 60,000 pieces of offline event records.
- Supports offline card parameters configuration and offline templates configuration. Permissions of 255 week plans, 8 periods per day, 1024 holiday schedules, and 255 holiday groups can be configured.
- Supports the zone short circuited alarm and the zone disconnected alarm.
- Designed with two batteries, providing separated power supply for the electric lock and the control panel.
- Supports the fire-fighting linkage.
- Supports backup batteries, watchdog, and tamper-proof functions.
- Equipped with a built-in RTC, and supports NTP synchronization and remote synchronization.
- Supports the standby storage battery, and supports the low battery alarm.
- Supports the USB port to upgrade the controller, import/export the configuration parameters or card permission parameters, and export the card swiping records.
- Supports the online upgrade. If upgrading failed, the controller still can work by the original program, and the controller will auto re-upgrade when it is restarted.
- Designed with independent power switch, communication indicator, running indicator, and abnormal indicator.
- Designed with 19-inch 3U chassis, which can be put into the cabinet or applies to the wall mounting.
- Supports IP 54.



## TYPICAL APPLICATION



## SPECIFICATION

### Specification for Main Access Controller

Model	Main Access Controller
Door Amount	Max. 64 Distributed Access Controller, Max. 128 Doors
Capacity for Card/Offline Events	Card: 200,000 Event: 600,000
Ingress Protection Level	Indoor: IP 54
Working Temperature	-20°C to +70°C (-4°F to 158°F)
Holiday Schedule	1024
Holiday Group	255
Week Plan	255
Template	255

Model	Main Access Controller
Battery	Supported
Uplink Communication	TCP/IP Communication (Dual Network Interfaces) RS-485 Communication (RS-485 Interfaces)
Downlink Communication	RS-485 Communication (4 RS-485 Loops) TCP/IP Communication (1 10M/100M Network Interfaces)
Fire-Fighting Linkage	1 Interface for Fire-Fighting Detection
Special Function	Anti-passing back, Multiple Authentication, Multi-Door Interlocking
Response Time	≤ 1s
Alarm Input	16
Zone Disconnected Alarm	Supported
Zone Short Circuited Alarm	Supported
Tamper-Proof Alarm	Supported
Alarm Output	8
USB Interface	1 USB Interface for the Device Upgrade and Date Importing/Exporting
Structure	Wall Mounting with 19-in 3U Standard Cabinet

#### Specifications for Distributed Access Controller

Model	Distributed Access Controller		
	Single-Door	Two-Door	Four-Door
Door Amount	1	2	4
Capacity for Card/Offline Events	Card: 20,000 Event: 60,000	Card: 20,000 Event: 60,000	Card: 20,000 Event: 60,000
Ingress Protection Level	Indoor: IP 54	Indoor: IP 54	Indoor: IP 54
Working Temperature	-20°C to +70°C (-4°F to 158°F)	-20°C to +70°C (-4°F to 158°F)	-20°C to +70°C (-4°F to 158°F)
Holiday Schedule	128	128	128
Holiday Group	64	64	64
Time Period per Day	8	8	8

Model	Distributed Access Controller		
	Single-Door	Two-Door	Four-Door
Week Plan	128	128	128
Template	128	128	128
Battery	Supported	Supported	Supported
Uplink Communication	2 RS-485 Interfaces, 1 Network Interfaces	2 RS-485 Interfaces, 1 Network Interfaces	2 RS-485 Interfaces, 1 Network Interfaces
Downlink Communication	RS-485 loop, 2 Wiegand Interfaces	RS-485 loop, 2 Wiegand Interfaces	RS-485 loop, 2 Wiegand Interfaces
Fire-Fighting Linkage	1 Interface for Fire-Fighting Detection	1 Interface for Fire-Fighting Detection	1 Interface for Fire-Fighting Detection
Zone Disconnected Alarm	Supported	Supported	Supported
Zone Short Circuited Alarm	Supported	Supported	Supported
Tamper-Proof Alarm	Supported	Supported	Supported
Alarm Input	6	6	6
Alarm Output	6	6	6
Additional Interfaces	1 Electric Lock, 1 Door Magnetic, 1 Exit Button	2 Electric Lock, 2 Door Magnetic, 2 Exit Button	4 Electric Lock, 4 Door Magnetic, 4 Exit Button
DIP Switch	Legal Addresses: 1-128	Legal Addresses: 129-192 (The Dial-up switch 8 should be ON)	Legal Addresses: 193-224 (The Dial-up switch 7 and 8 should be ON)
Breakpoint Prompt (RS-485)	Supported	Supported	Supported
Card Reader	Card Reader supporting Mifare Card, ID Card, CPU Card, , and Fingerprint	Card Reader supporting Mifare Card, ID Card, CPU Card, , and Fingerprint	Card Reader supporting Mifare Card, ID Card, CPU Card, , and Fingerprint
Installation	Wall Mounting	Wall Mounting	Wall Mounting