

Breathing Technologies • Living Intelligence



QA-iAC-70xx Series

Security Access System



QA-iAC-70xx Series RS-485 / IP Network



Networking Connection

- Support TCP/IP Protocol for LAN/WAN Connectivity or RS485 Network Communication

Supports Multiple Reader Technologies

- Support Standard Industry Wiegand Format or RS485 Interface for Proximity, Biometric and
- Contactless Smart card (Mifare®) readers (CEPAS, PS21, SS529 and NFC)
- Scalable capacity from Standalone Door Controllers to Large Scale Networks of 2048 Card Access Controllers
- Multiple Site Codes, Multiple Card Formats
- 64 Weekly Schedules, and 50 Holidays
- Greater than 100,000 Events and 20,000 Card Holders
- User Friendly, Powerful Windows Based Graphical User Interface (GUI) Central Software

Hardware & In-Built Protection

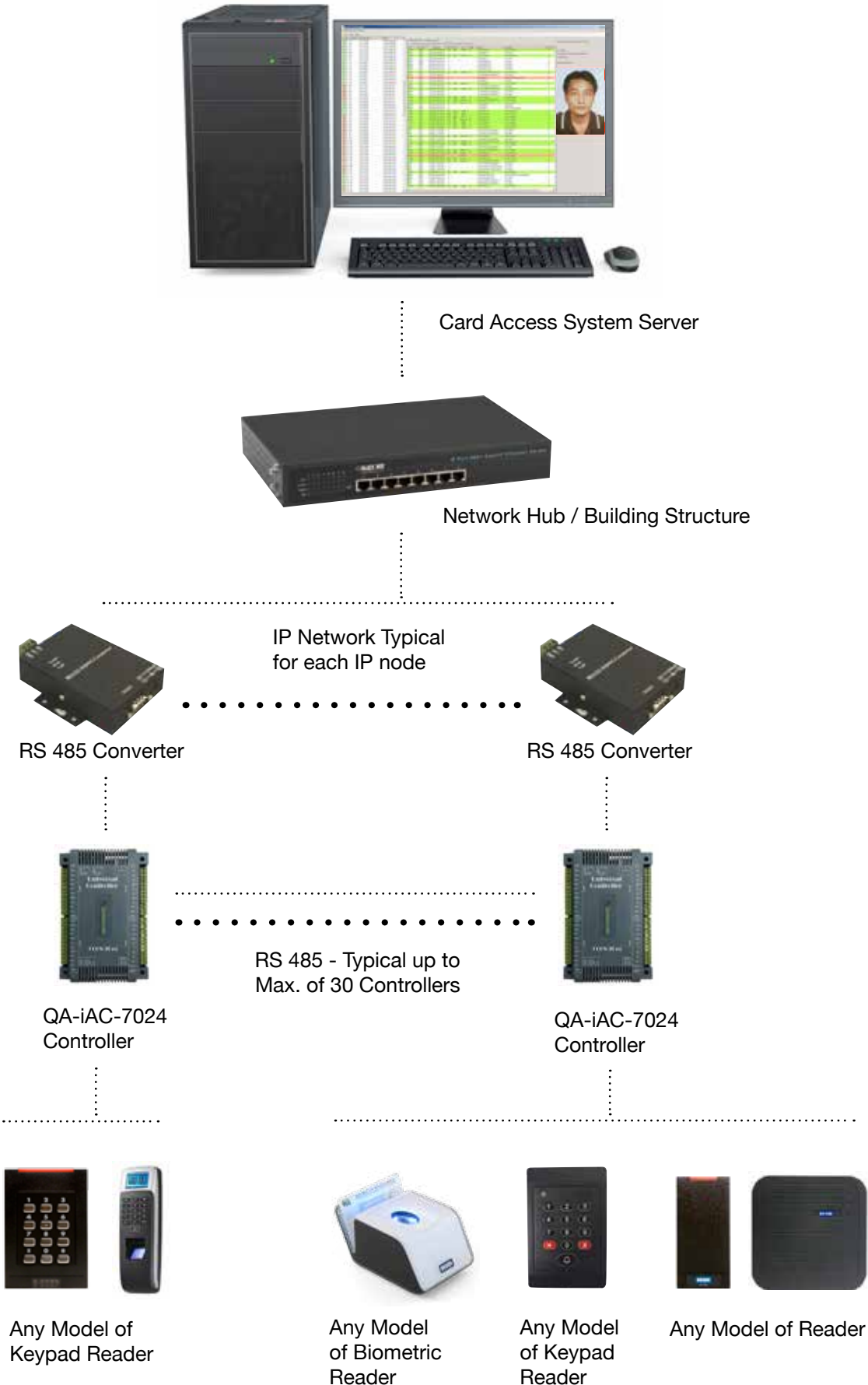
- In-Built Lightning, Surge Protection and Electronic Fuse Protection
- Encryption of card 13.56 Mhz, 125Khz
- Panel Tamper Protection with Mechanical Switch
- Card Controllers are complete with plug-able
- Automatic Detection of each additional modules without modification to firmware/software at central
- Plug-able connectors for easy termination and servicing
- Diagnosis on input line fault conditions with On-board LEDs
- Supervised Input Loops

Additional Enhancements


- Additional Digital Inputs which can be used for general purpose.
- Capable of expanding the IO remotely .
- Can be programmed as a router from RS485 to TCP/IP.
- Expandable Storage Memory from 4MB to 8MB.
- Improved communication to achieve faster response time.
- Flexible I/O mappings that can be used for general purpose monitoring.
- Engaging UDP-IP engine for simultaneous event reporting.

QA-iAC-70xx Series

Access Central System Using RS 485 Connection



Technical Specification **RS-485**

Specification	Multi Door (2) Control Panel	Multi Door (4) Control Panel
Model #	QA-iAC-7024	QA-iAC-7044
Communication	RS485, 9600 - 38,000bps	RS485, 9600 - 38,000bps
Description	Control 2 doors, get in and out door by presenting card and get out door by button	Control 4 doors, get in and out door by presenting card and get out door by button
Size of PCB board	160mm x 106mm	218mm x 106mm
Size of Case	273mm x 228mm x 65mm	
Power Supply	12VDC 4-7A	
Power Consumption of Circuit Board	Less than 100mA	
Input Format of Readers	Wiegand 26, 34 - 128 bits (All card reader with compatible protocol, such as Motorola HID EM Mifare one, CEPAS  , PS21, SS529 and NFC)	
Quantity of Reader	2 pairs	4 pcs
Door Controlled	2 pairs	4 pcs
Door opening time extending setting	1 - 600 seconds (adjustable)	
Max Qty of controller	N*30 Nos. Remarks: N denotes qty of computer serial port or qty of 485hub port	
Operation Temperature	-20°C to 60°C	
Operation Humidity	10-90 RH, No condensation	
Number of users	Greater than 20,000 users	
Qty of Event Buffers	100,000 event buffers in controllers	
Power interruption protection measure	High Speed Memory	
Max distance from reader to controller	150m (suggested distance 100m)	
Max distance between controllers	RS485: bus line max length 1200m, suggested length 1000m or less, if expansion device added, the distance could be 3000m	
Alarm for long time door open, illegal break in	Yes (Local & global anti-pass back)	
Fire and alarm linkage	Provision allowed	
Compulsive open & close door @ long time	Yes	
Open door in remote distance	Yes	
Anti pass back and tail	Yes	
Multi-card open door	Yes	
Open long time at specified time	Yes	
Electronic map (Hyperactive)	Yes	
Door Monitoring	Supervised input loop	
Urgency locking	Yes	
First card unlocking	Yes	
Unlock based on internal and external validation	Yes	
Keypad (card+password, super password)	Yes	

QA-iAC-70xx Series

Access Control System Using IP Connection



Card Access System Server



Network Hub / Building Structure Cabling

IP Network Typical for each IP node

QA-iAC-7024.
IP Controller



HID Controller



Any Model of Keypad Reader



Finger Print Reader



Any Model of Biometric Reader




Any Model of Keypad Reader



Any Model of Reader

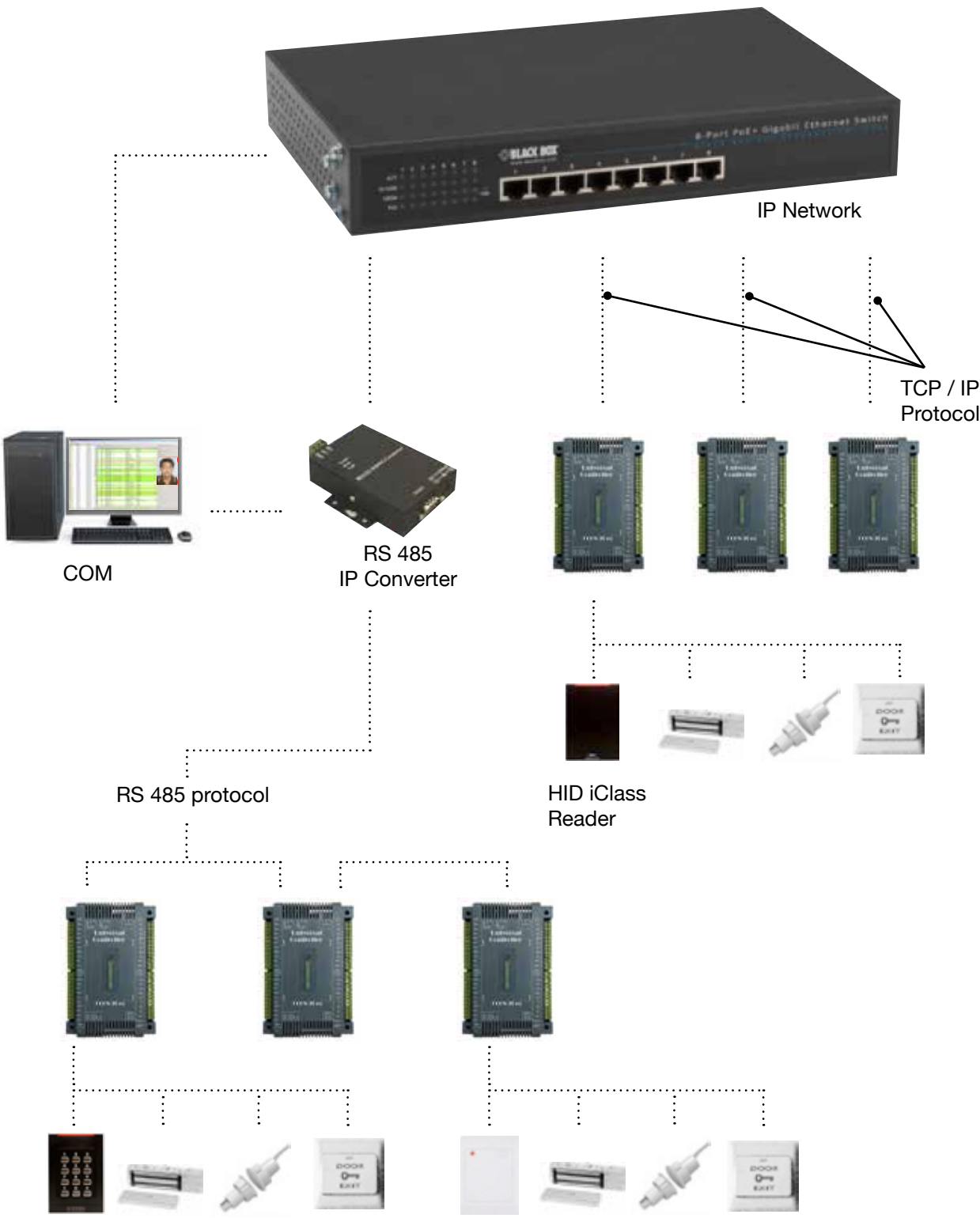


Technical Specification **IP Network**

Specification	Multi Door (2) Control Panel	Multi Door (4) Control Panel
Model #	QA-iAC-7024.IP	QA-iAC-7044.IP
Communication	TCP/IP 10/100 Mbps adaptive	TCP/IP 10/100 Mbps adaptive
Description	Control 2 doors, get in and out door by presenting card and get out door by button	Control 4 doors, get in and out door by presenting card and get out door by button
Size of PCB board	160mm x 106mm	218mm x 106mm
Size of Case	273mm x 228mm x 65mm	
Power Supply	12VDC 4-7A	
Power Consumption of Circuit Board	Less than 100mA	
Input Format of Readers	Wiegand 26, 34 - 128 bits (All card reader with compatible protocol, such as Motorola HID EM Mifare one, CEPAS  , PS21, SS529 and NFC)	
Quantity of Reader	2 pairs	4 pcs
Door Controlled	2 pairs	4 pcs
Door opening time extending setting	1 - 600 seconds (adjustable)	
Max Qty of controller	No Limit	
Operation Temperature	-20°C to 60°C	
Operation Humidity	10-90% RH, No condensation	
Number of users	Greater than 20,000 users	
Qty of Event Buffers	100,000 event buffers	
Power interruption protection measure	High Speed Memory	
Max distance from reader to controller	150m (suggested distance 100m)	
Max distance between controllers	TCP/IP: Depends on net coverage area	
Alarm for long time door open, illegal break in	Yes (Local & global anti-pass back)	
Fire and alarm linkage	Provision allowed	
Compulsive open & close door @ long time	Yes	
Open door in remote distance	Yes	
Anti pass back and tail	Yes	
Multi-card open door	Yes	
Open long time at specified time	Yes	
Electronic map (Hyperactive)	Yes	
Door Monitoring	Supervised input loop	
Urgency locking	Yes	
First card unlocking	Yes	
Unlock on internal and external validation	Yes	
Keypad (card+password, super password)	Yes	

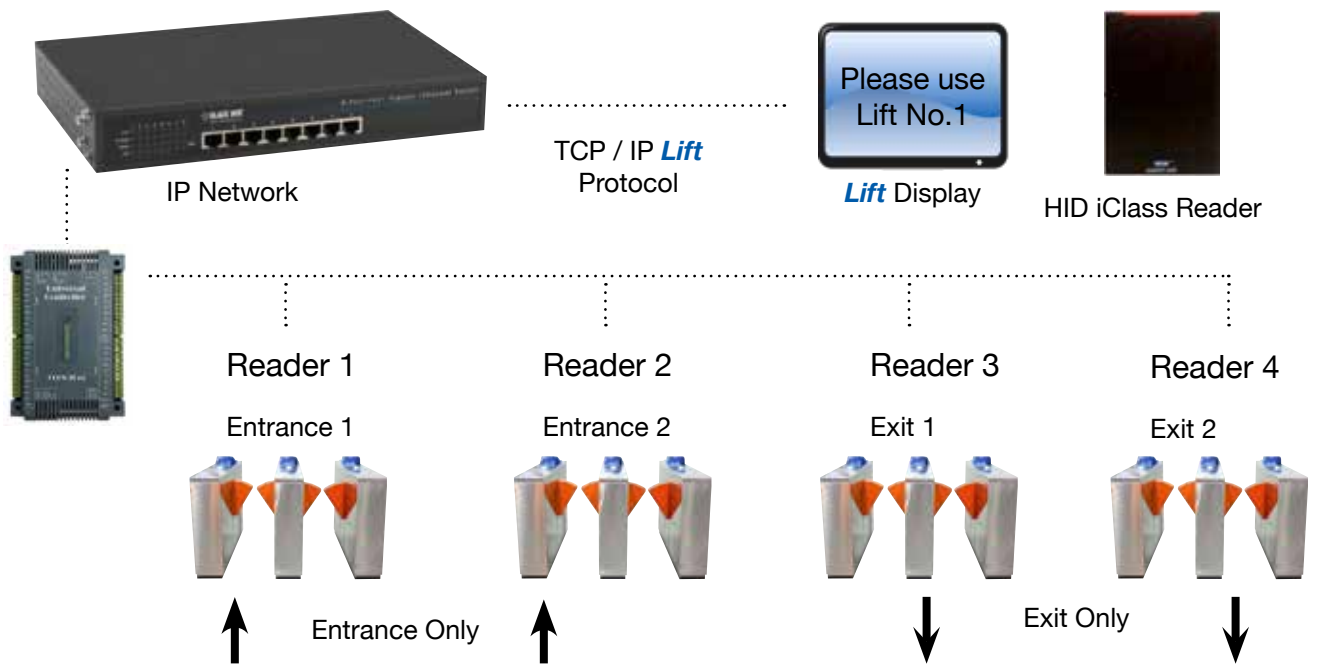
QA-iAC-70xx Series

Access Control System - Door Access Diagram

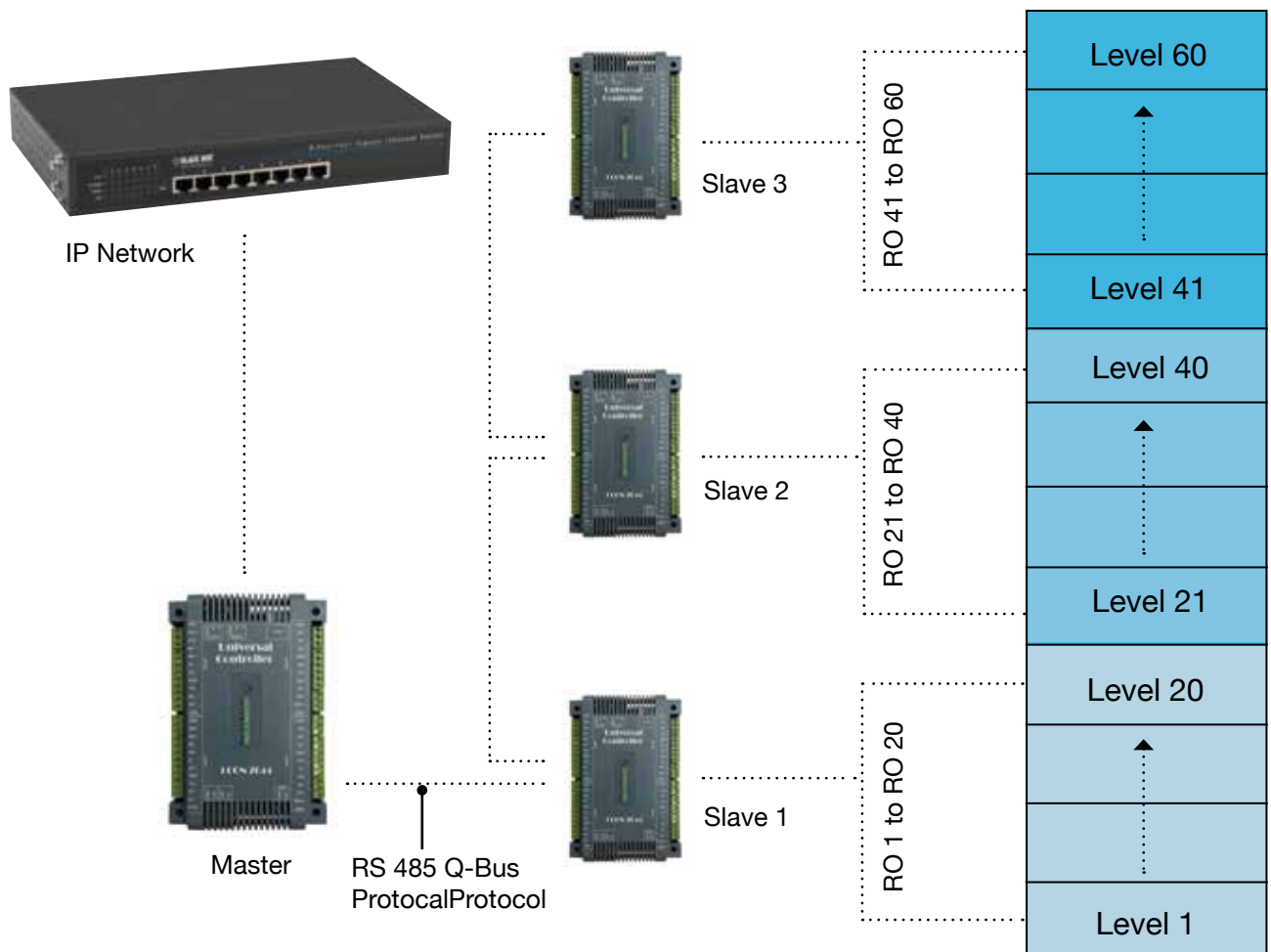


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Access Control System - Turnstile Diagram



Access Control System - Lift Control Interface



QA-iAC-7044 Output to the Lift System is Pulse Signal from close contact to open contact, pulse width can be from 1 to 30 seconds. Maximum of 64 Lift Contact.

Project References



Botannia Condominium



Simsville



Hundred Trees Condominium



Metropolis



Fusionopolis



CapitaGreen @ Market Street

Security Central Manager

The Security Central Manager (SCM) is software for viewing transactions in the Card Access System. From this application, you can see the status of the controllers, logs of all events in the card access system, remotely control a door, and generate historical reports.

Events Log

The screenshot displays the Security Central Manager interface. On the left, there is a sidebar with a tree view showing 'Security Central Manager' and 'Events Log'. The main area is dominated by a large table with columns for 'User ID', 'Time', 'Access Point', 'Card ID', 'Status', 'User', 'Access', and 'Address'. The table contains numerous rows of event data, with some rows highlighted in green and others in red. To the right of the table, there is a 'User Profile' section showing a photograph of a man and some text details.

CCTV Integration & Camera Video Automatic Streaming

The screenshot shows the CCTV Integration software interface. On the left, there is a 'Plan Lists' section with a table of camera channels. The main area is split into two parts: a 'Live Video' window showing a real-time camera feed of a hallway, and a 'Floor Plan' window showing a detailed architectural drawing of a building floor. The floor plan is overlaid with various camera icons and labels, such as 'T1 TENTANT TX 2 RM', 'T1 CHILLER TX 1 CSR', and 'T2-B1 MDF ROOM'. A legend at the bottom left explains the symbols used in the floor plan.

Security Central Manager Graphics

The Security Central Manager Graphics (SCM Graphics) is a graphical layout of a floor plan. Users can view the animated and coloration changes of the actual status of doors, readers, camera and controllers in particular area.

Powerful Graphical Central Manager Depicts Hyperactive Floor Plan

The screenshot displays the 'Tower 1 Level 1 - Edit Mode' interface. On the left, there is a 'Plan List' table and a 'Legend' table. The main area shows a detailed floor plan with various rooms and corridors, each containing small icons representing security devices like doors, readers, and cameras. The status of these devices is indicated by different colors and symbols.

No.	Description
2	Tower 1 - Level 1
5	Tower 1 - Basement 1
7	Tower 1 - Level 3
8	Tower 1 - Basement 2
9	Tower 1 - Basement 3
10	Tower 1 - Level 4
12	Tower 1 - Level 5
13	Tower 1 - Level 6
14	Tower 1 - Level 7
15	Tower 1 - Level 8
16	Tower 1 - Level 9
17	Tower 1 - Level 10
18	Tower 1 - Level 11
19	Tower 1 - Level 12
20	Tower 1 - Level 13
21	Tower 1 - Level 14
22	Tower 1 - Level 15
23	Tower 1 - Level 16
24	Tower 1 - Level 17

Type	Status
1	ACU Offline
2	ACU Online
3	INPUT Fire Alarm
4	ACU Tamper Alarm
5	Door Normal Open
6	Door Normal Close
7	Door Door Open
8	Door Door Close
9	Door DOTS
10	Door Permanently Unlocked
11	Door Permanently Locked
12	Door Armed
13	INPUT Door Closed
14	INPUT Door Open
15	READER Access Denied
16	READER Access Granted
17	RF ID Card Permanently Locked

Animated or Coloration Changing on change of status

Graphical & Text Base Central

This screenshot is similar to the one above but includes a data table at the bottom of the floor plan view, providing a text-based summary of security events.

Card ID	Index Table	Read Date	Card ID	Wch	Uses	Deposit	Address	Description	Door ID	Flt
429	32690	10/23/2013 9:45:50 AM	1474	CRCC	ANA 26	26	T1 L01-639 Door 3	Access Granted	2	
440	32690	10/23/2013 9:45:29 AM	0				T1 82-648 FFL 1	Door Closed	1	
429	32697	10/23/2013 9:45:55 AM	1474	CRCC	ANA 26	26	T1 L01-639 Door 3	Access Granted	2	
440	32696	10/23/2013 9:45:23 AM	0				T1 82-648 FFL 1	Door Open	1	
440	32695	10/23/2013 9:45:23 AM	0				T1 82-648 FFL FFL 1	Door Open	1	
440	32695	10/23/2013 9:45:23 AM	0				T1 82-648 FFL FFL 1	Door Open	0	
440	32694	10/23/2013 9:45:23 AM	0				T1 82-648 FFL FFL 1	Door Closed	0	
440	32694	10/23/2013 9:45:23 AM	0				T1 82-648 FFL FFL 1	Door Closed	0	
441	32692	10/23/2013 9:45:22 AM	45	AAAS	V10029	25	T1 H2AC-941 TURNSTILE ID#1	Access Granted	1	

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