IDTECK
Your Security Partner

iMDC-MAIN / iMDC-RIM
ACCESS CONTROL PANEL (Up to 32 Doors)

iMDC is a Multi-Door Access Control Panel has the ability to control up to 32 Doors for one iMDC Set. iMDC-MAIN is the Main Board to handle the data transactions and settings for the iMDC-RIM Boards. Each iMDC-MAIN has the ability to monitor and control up to 16 iMDC-RIMs. Each iMDC-RIM consists of 2 Reader Ports, 8 Supervised Inputs, and 8 Outputs, which is expandable to a total of 32 Readers, 128 Supervised Inputs, and 128 Outputs per iMDC-MAIN Series.

The iMDC is ideal for non-centralized installation design. For example, the iMDC-Main may be located in the Server Room, while the iMDC-RIM could be installed closest to each door to save cabling cost. iMDC was designed to be suitable for Large to Enterprise Installations, however, it may used for Small to Large Installations due its scalability feature.

Two iMDC-MAIN Panels can be installed for the purpose of hardware redundancy. First iMDC-MAIN will function as the Active Control Panel, while the second iMDC-MAIN will function as a Backup Control Panel, for in the case, the first iMDC-MAIN Panel fails, the second iMDC-MAIN Panel will take over the first iMDC-MAIN's operations.

When there is a loss of communication between iMDC-MAIN and iMDC-RIM, the iMDC-RIM will continue normal operations for all the IDs that were presented before loss of communication, this feature is called LEARNING MODE.

iMDC, by default, is able to accept five(5) different Wiegand Data Structures (26Bit, 32Bit, 34Bit, 35Bit, and 37Bit), but has the ability to program up to a total of 27 different Wiegand Data Structures (up to 53Bits). iMDC has an expansive memory buffer to be able to store up to 200,000 User IDs and up to 400,000 Event Data.

Key Features

iMDC - MAIN

❖ Dependable Redundant System to provide Stable Performance to prevent Total System Failure

- Automatic switching of Secondary iMDC-MAIN as Backup, for in the case, Primary iMDC-MAIN fails

- User Configurable Relay Ouput during Communication loss between iMDC-MAIN and iMDC-RIM

- System Reset Function by Self-Diagnosis (Watchdog Function)

❖ Data Transmission using Encrypted Algorithm (AES 256bit) between iMDC-MAIN and Communication Server

❖ Wiegand Data Structure (up to 53Bits) can be set accordingly to the client's demand

- iMDC can process simultaneously up to 27 different Wiegand Data Structure

- Default Wiegand Formats: 26Bit, 32Bit, 34Bit, 35Bit, and 37Bit Wiegand Formats

❖ Linux Operating System Applied for Higher System Performance and Stability

❖ Up to 32 Door Access Control Panel

(Connect up to 16 iMDC-RIM per iMDC-MAIN)

- Up to 32 Readers, 128 Supervised Inputs, 128 Outputs

❖ Storage Capacity: Up to 200,000 Cardholders Storage Capacity: Up to 400,000 Events

❖ Advanced Security Time Schedule Configuration

❖ Anti-Passback (Global / Area / Zone / Timed / Soft / Hard)

❖ Duress Mode, 2-Men Operation, Arm/Disarm Function, Guard Tour

❖ Alerts when Door Held Open Time exceeds and Forced Door Open

❖ On-Board Ethernet / RS485 Communication

❖ Compatible Software:
IDTECK ENTERPRISE
IDTECK ENTERPRISE PLUS - M/G
IDTECK ENTERPRISE GLOBAL
IDTECK ENTERPRISE BASIC

iMDC - RIM

❖ 8 On-Board Supervised Input Ports / 8 On-Board Output Ports / Additional (1) Tamper Switch Port per iMDC-RIM (Can expand to 128 Supervised Inputs / 128 Outputs / 32 Reader Ports / 16 iMDC-RIM)

❖ Communication Loss to iMDC-MAIN enables iMDC-RIM to enter into LEARNING MODE, which allows Entry and Exit for recent presented cardholders prior to loss of Communication

❖ On-Board Ethernet / RS485 Communication

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Specifications

MODEL	iMDC - MAIN
CPU	32 Bit (ARM Cortex A8) Microprocessor
Operating System	Embedded Linux
Memory	512 MB Flash
	256 MB DDR2 SDRAM
User / Event Capacity	200,000 Users / 400,000 Events
Power / Current	12V DC / Max. 500mA
Tamper Switch Input Port	1 EA
Communication	Ethernet (RIM board and host communication), RS485 (RIM board communication)
Communication Speed	Ethernet: 10/100Mbps
RIM Board Interface	16 iMDC-RIM via Ethernet or RS485 / 2 Readers, 8 Inputs, 8 Outputs per Device (Connect Up to 32 Readers, 128 Inputs, 128 Outputs to the Board)
LED Indicator	22 LED Indicators
Buzzer	Piezo Buzzer
Operating Temperature	0° C to +65° C
Operating Humidity	10% to 90% Relative Humidity, Non-Condensing
Dimension (W x H x T)	137mm x 137mm x 18mm
Weight	135g
Certification	UL, FCC, CE, KC, RoHS
MODEL	iMDC - RIM
Product Version	**v3.00 or later**
CPU	32 Bit Microprocessor
Power / Current	DC 12V / Max. 350mA
Reader Port	2 EA - Default: 26 / 32 / 34 / 35 / 37 Bit Wiegand, 4/8 Bit Burst for PIN - Adjustable to suit Customer Request up to 53 Bit
LED / Buzzer Control	2 EA
Input Port	8 Supervised, 4-State Input (NO/NC Input Type Selectable)
Output Port	8 EA: 2 FORM-C Relay Output (COM, NO, NC) / DC 12V~18V, Rating Max 2A
Communication	Ethernet (Default) (Ethernet, Serial Selectable)
Communication Speed	Ethernet: 10/100 Mbps (iMDC and Host Communication)
	Serial: 38,400 bps (iMDC Communication)
LED Indicator	33 LED Indicators
Operating Temperature	0° C to +65° C
Operating Humidity	10% to 90% Relative Humidity, Non-Condensing
Dimension (W x H x T)	157mm x 185mm x 18mm
Weight	Ethernet: 222.5g
Weight	Serial: 210g
Certification	UL, FCC, CE, KC, RoHS

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iMDC Packages
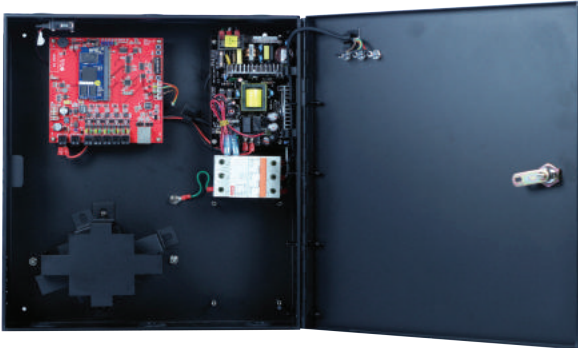
| iMDC - MAIN Package	
iMDC - MAIN Board	1EA
NEMA Case	1EA
Power Supply (ID40WA)	1EA
NFB Switch	1EA

* Dimension (W x H x T) : 350 x 399 x 100mm / Thickness : 1.4mm
* Color : Black *Fireproofed Surface / Air Vents : 4 EA_ Right 2 / Left 2
* LED Indicator : PWR[1 EA_Red], RX[1 EA_Yellow], TX[1 EA_Green]
* *Embedded LED Indicator for Power located on the External Side of the Nema Case.*

iMDC - RIM Package	
iMDC - RIM Board	1EA
NEMA Case	1EA
Power Supply (ID40WA)	1EA
NFB Switch	1EA

* Dimension (W x H x T) : 350 x 399 x 100mm / Thickness : 1.4mm
* Color : Black *Fireproofed Surface / Air Vents : 4 EA_ Right 2 / Left 2
* LED Indicator : PWR[1 EA_Red], RX[1 EA_Yellow], TX[1 EA_Green]
* *Embedded LED Indicator for Power located on the External Side of the Nema Case.*

❖ POWER PACKAGE
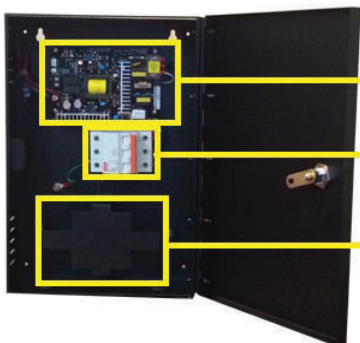
ID40WA
• 90 ~ 240V AC [50/60Hz] Input
• 12V DC, 3.0A Output
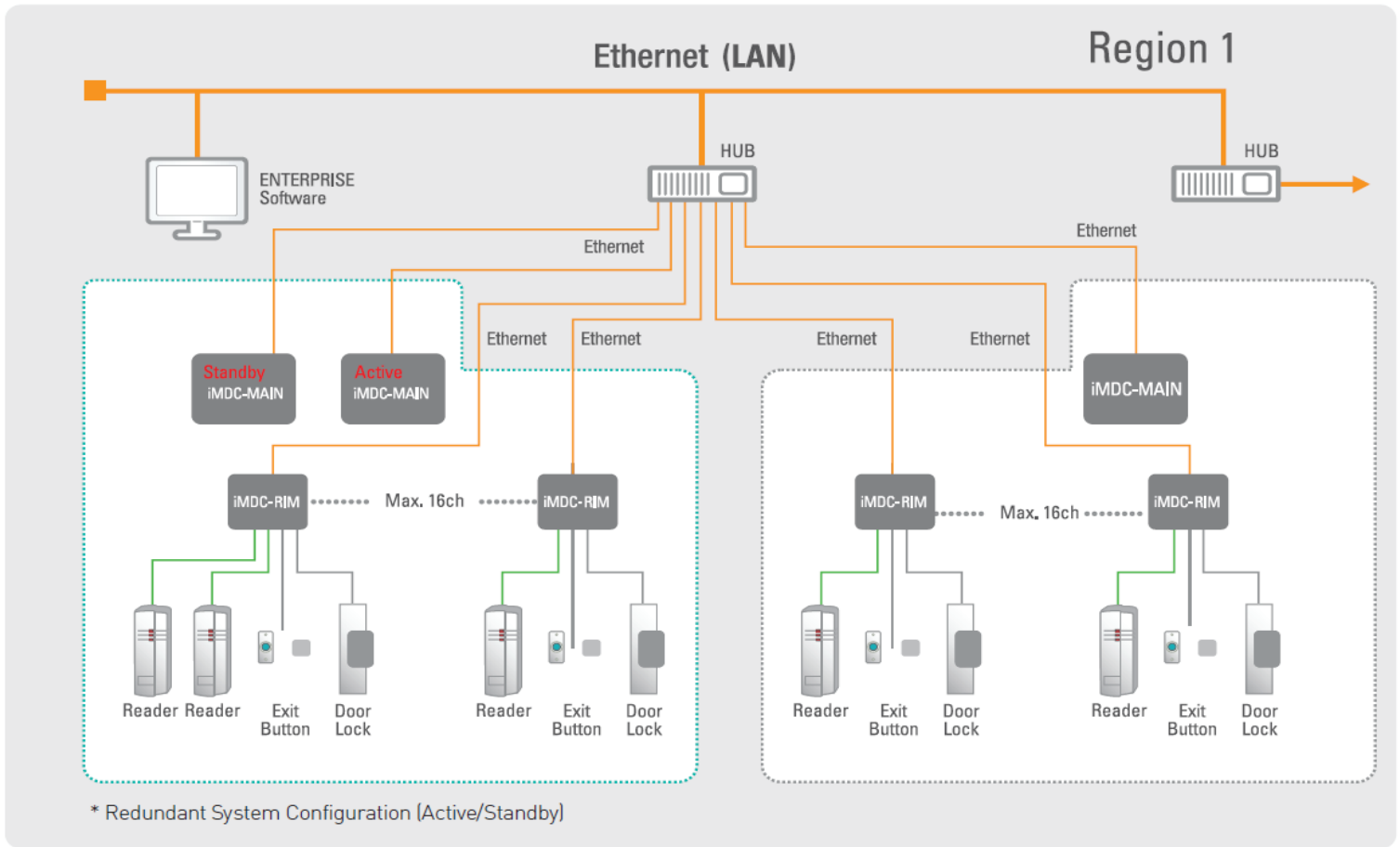• FCC Class B

NFB Switch
• 120 ~ 240V AC, 5A

Backup Battery
• Provides Additional 2~6 Hour Operation after the primary supply fails. [12V DC / 7A Battery]
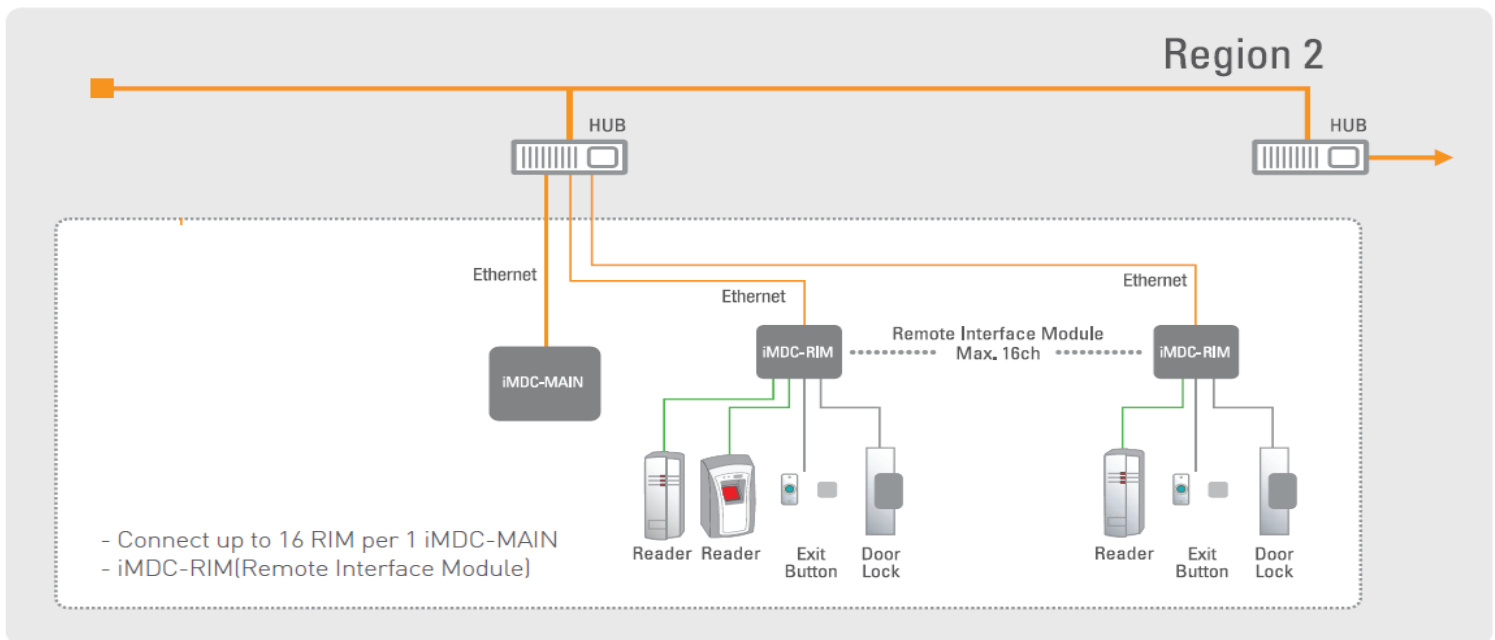• Backup Batter is not Included

KEY FEATURES
• Designed to provide Complete Power Supply Configuration for Access Control System
• Power Source Changes / Recovers Automatically AC to DC or DC to AC during power failure
• Over Voltage and Current Protection
• Alarm Signal for AC Power Failure
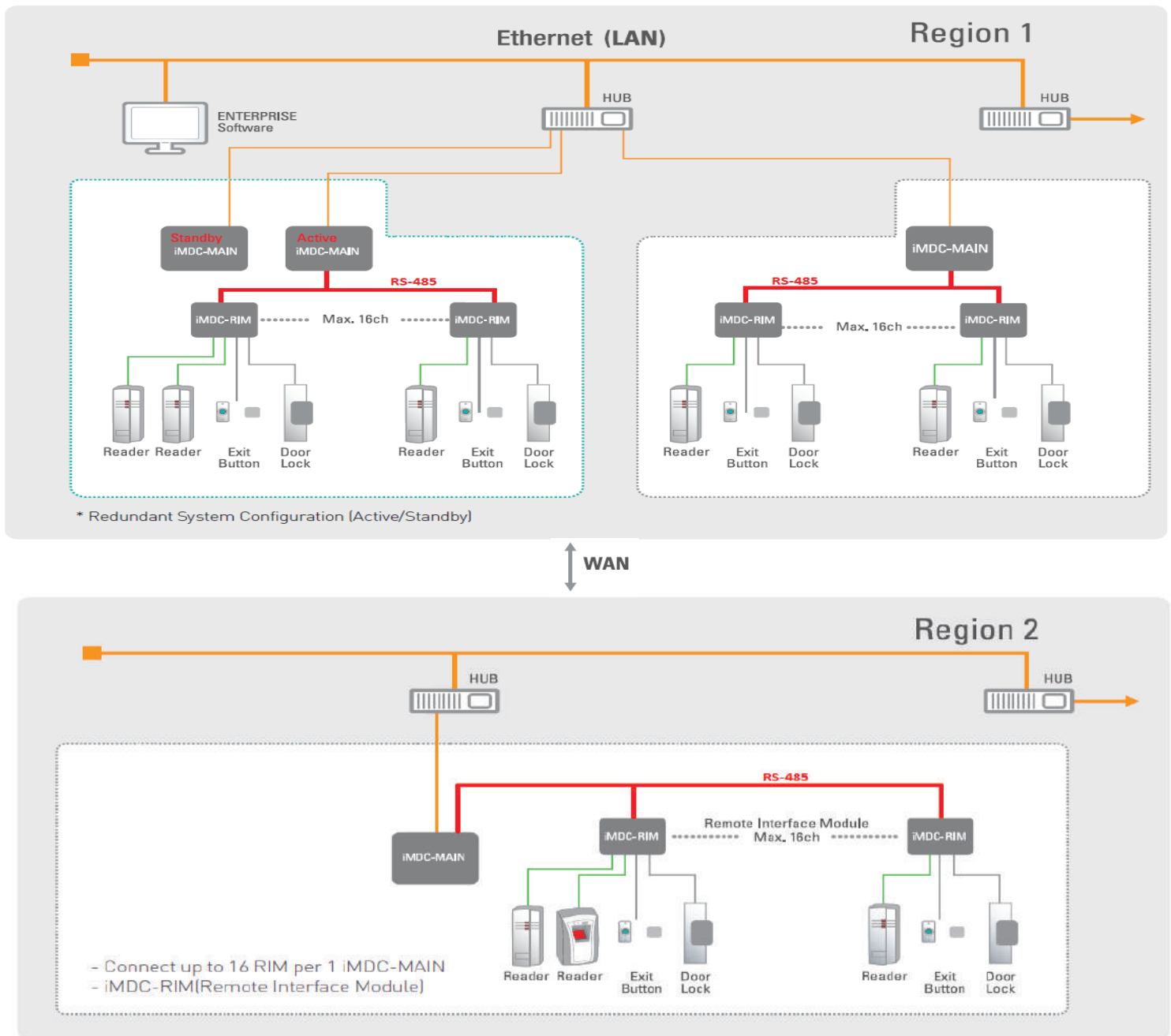• Built-in Battery Recharge Circuit

iMDC Configuration (ETHERNET)

* Redundant System Configuration (Active/Standby)

WAN

- Connect up to 16 RIM per 1 iMDC-MAIN
- iMDC-RIM(Remote Interface Module)

iMDC Configuration (RS485 / SERIAL)

Region 1

Ethernet (LAN)

ENTERPRISE Software
HUB
HUB

Standby iMDC-MAIN
Active iMDC-MAIN
RS-485

iMDC-RIM -------- Max. 16ch -------- iMDC-RIM

Reader Reader Exit Button Door Lock
Reader Exit Button Door Lock

iMDC-MAIN
RS-485
iMDC-RIM -------- Max. 16ch -------- iMDC-RIM

Reader Exit Button Door Lock
Reader Exit Button Door Lock

* Redundant System Configuration (Active/Standby)

WAN

Region 2

HUB
HUB

iMDC-MAIN
RS-485
iMDC-RIM .... Remote Interface Module Max. 16ch .... iMDC-RIM

Reader Reader Exit Button Door Lock
Reader Exit Button Door Lock

- Connect up to 16 RIM per 1 iMDC-MAIN
- iMDC-RIM(Remote Interface Module)