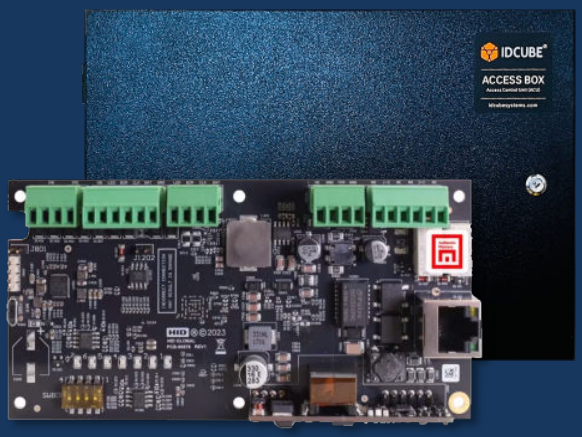
IDCUBE

MP Series Controller

Next-Generation

Access Control Panel

ICM-MP1501



Reference image only*

IDCUBE's ICM-MP Series Access Control Panel is a future-ready, open-architecture platform built on embedded Linux and natively integrated with IDCUBE's Access360 software suite. At its core, the platform leverages the Authentic Mercury MP Series Intelligent Controller (MP1501), offering robust performance, scalable architecture, and enhanced security.

HIGHLIGHTS

High-Security Architecture: Features an embedded crypto memory chip for secure encryption and protection of sensitive onboard data.

Compact and Scalable: The ICM-MP1501 controller is designed for edge applications, supporting up to 8 serial I/O modules and 16 MR62e network door controllers, effectively managing up to 17 openings.

Powerful Performance: Equipped with an upgraded processor and increased memory to support high-throughput access control operations.

Efficient Installation: Supports Power-over-Ethernet Plus (PoE+), reducing installation time and cost, especially suitable for single-door control.

Optional Accessories: Available with UL-certified power supply, intelligent charging circuit, battery backup, and tamper switch for enhanced physical security.

FEATURES

- Supports PoE+ power, for easy installation
- OSDP Protocol securing channel communication for reader connectivity
- 240,000 cardholder capacity, 500,000 transaction buffer
- Supports PSIA area control, SNMPv3/v2c, OSDP SC
- Host communications protected by TLS 1.2/1.3 or AES-256/128; Generate and load custom peer certificates for TLS
- Controller/IO Expansion connection protected by AES (Series 3 SIO)
- Port based network access control using 802.1X
- Anti-passback support (Area, reader and time based); Programmable keypad user commands; threat level and operating modes
- FIPS 140-3 user of OpenSSL
- Supports multiple card formats, paired and alternate readers, elevator, turnstile, biometric devices, fire alarm and intrusion detection

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TECHNICAL SPECIFICATIONS

Intelligent Controller	
Card Holders Capacity	240,000 cardholder capacity 500,000 transaction buffer
Door Control	Natively supports up to 2 readers and 1 opening and can support up to 8 additional RS-485 expansion modules for a maximum of 17 readers and openings
Power Input	PoE (12.95 W), compliant to IEEE 802.3af or PoE+ (25 W), compliant to IEEE 802.3at or 12 VDC +/- 10 %, 1.8 A maximum
Power Output	PoE: 12 VDC @ 625 mA including reader and AUX output * PoE+ or external 12 VDC: 12 VDC @ 1.25 A including reader and AUX output * * Excluding micro USB port
Micro USB Port	5 VDC maximum (deduct 270 mA from reader and Auxiliary Power output)
Battery	Memory/Clock Backup: Super Capacitor (10 hours)
Host Communication	Ethernet: 10-BaseT/100Base-TX
Inputs	Two unsupervised/supervised, Programmable End-of-Line resistors, 1k/1k ohm, 1 %, ¼ watt standard. One unsupervised input dedicated for cabinet tamper
Output Relays	Two relays: Form-C contacts: 2 A @ 30 VDC, resistive

Cable Requirements	
Header	I/O Devices RS-485
Data	1 twisted pair, shield. 120-ohm impedance, 24 AWG, 4,000 ft. (1,219 m) maximum
Power and Relays	1 twisted pair, 18 AWG (when using local 12 VDC power supply)
Ethernet	CAT-5, minimum
Reader TTL	6-conductor, 18 AWG, 500 ft. (152 m) maximum
Reader F/2F	4-conductor, 18 AWG, 500 ft. (152 m) maximum
Reader RS-485	1 twisted pair, shielded. 24 AWG, 120-ohm impedance, 2000 ft. (610 m) maximum
Alarm Input	1 twisted pair per input, 30 ohms maximum
Alarm Output	As required for the load

Environmental	
Temperature	Storage: -55° to 85° C Operating: 0° to 70° C
Humidity	5 to 95% RHNC

Reader Interface	
Reader Power	12 VDC ± 10 %: PoE, PoE+ or local power supply, 600 mA maximum
Data Inputs	Reader port 1: TTL compatible, F/2F or 2-wire RS-485 Reader port 2: TTL compatible or F/2F
LED Output	TTL compatible, high > 3 V, low < 0.5 V, 5 mA source/sink maximum
Buzzer Output	Open collector, 12 VDC open circuit maximum, 40 mA sink maximum

Mechanical	
Dimensions(Board)	5.5 in. (140 mm) W x 2.75 in. (70 mm) L x 0.96 in. (24 mm) H without bracket 5.5 in. (140 mm) W x 3.63 in. (92 mm) L x 1.33 in. (34 mm) H with bracket
Weight	3.6 oz. (103 g) without bracket 4.43 oz. (125.5 g) with bracket
Product Compliance	UL 294 Recognized[1], FCC Part 15 Class A, CE Compliant, RoHS (2011/65/EU & 2015/863), EU REACH (1907/2006), California Proposition 65, NIST Certified Encryption (in process)
Part Code	ICM-MP1501-EXXXXXX[2] (Mercury Controller Part number: MP1501)

[1] For UL, the Power Sourcing Equipment (PSE) , such as a PoE or PoE+ enabled network switch and/or PoE or PoE+ power injectors, must be UL Listed under UL294B

[2] EXXXXXX refers to enclosure type along with accessories such as power supply, charging circuit, battery, and tamper switch; Please refer to the enclosure datasheet for details

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