



IXM MERGE CR

Internal User Guide

Rev. 0.5

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1. Introduction

IXM MERGE CR, M/N IXM006 is ISO/IEC14443A RFID module.

It is designed and manufactured by Invixium Access Inc., to provide not only the RFID reader, but also with added LCD and fingerprint sensor, fully fledged fingerprint biometric reader (IXM MERGE FP22, M/N IXM026).

Any other use of the IXM MERGE CR makes all certifications involved null and void, and is strictly prohibited. IXM MERGE CR is intended for products manufactured by Invixium Access Inc. and it is not available to third parties.

This User Guide is Internal, targeting crew in Production, QA, and Technical Support of the Invixium Access Inc.

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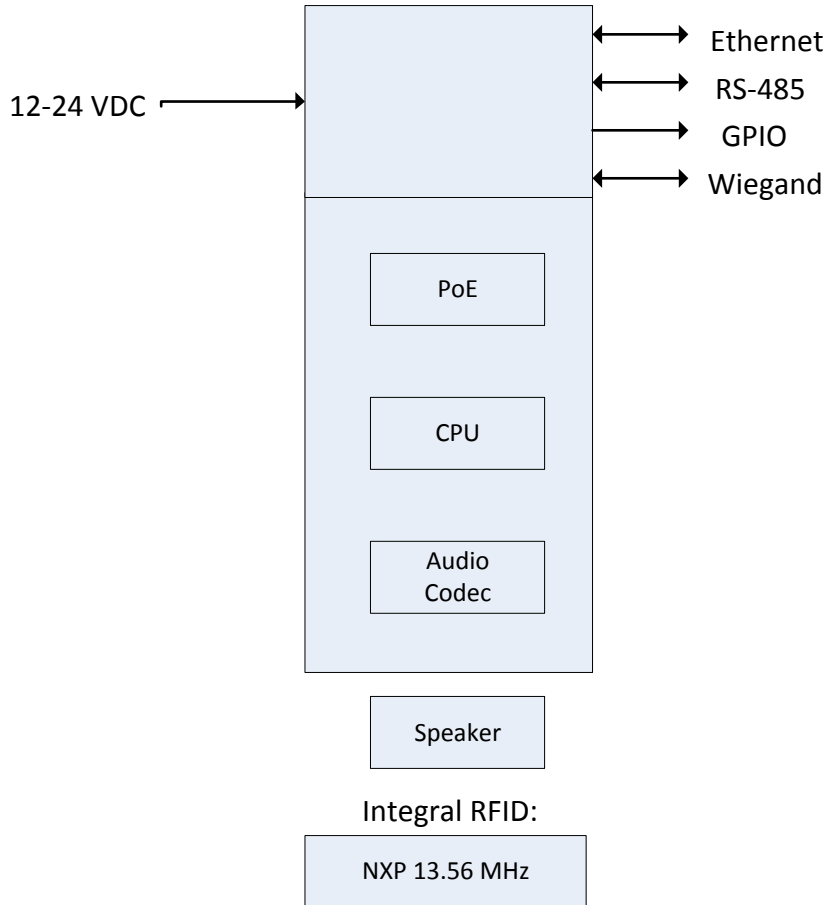
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Block Diagram of IXM MERGE CR



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2. Basic Operation

IXM MERGE CR is ISO/IEC14443A RFID Card reader that can send card reading results to an Access Control Panel via Wiegand interface, to a Time & Attendance application via Ethernet, or can control the door entry by itself if so configured and wired.

In Time and Attendance (T&A) application, device either sends the result to the application via Ethernet, or stores it into transaction log locally, and T&A application fetches it from the log.

If configured and wired as per the Installation Guide, as a Single Door Controller, device can control door as an Access Control Panel would do.

The module is configured using Invixium's Web-based application IXM WEB. IXM WEB communicates with the module through Ethernet, RS-485, or through internal USB service port.

For the testing in Production, the IXM Tester tool, configures and tests IXM MERGE CR module automatically.

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3. Pin out and Signal Description

Pin Number	Signal Name in Installation Guide	Description
1	VIN+	Vin+
2	RS485-(A)	RS485 D-
3	VIN-	Vin-
4	RS485+(B)	RS485 D+
5	EGND	Earth GND
6	DAC_OUT	Single door controller output
7	DGND	DGND
8	SPO_1	General Purpose Output
9	WDATA_OUT1	Wiegand Output 1
10	WDATA_OUT0	Wiegand Output 0
11	DAC_IN2	Single door controller input 2
12	DAC_IN1	Single Door controller input 1
13	DAC_iN3	Single door control input 3
14	WDATA_IN0	Wiegand Input 0
15	TAMPER	Tamper Alarm output
16	WDATA_IN1	Wiegand Input 1
17	RLY_NO	Relay, Normally Open Contact
18	RLY_COM	Relay, Common Contact
19	SGND	RS-485 GND
20	RLY_NC	Relay, Normally Closed Contact

Devices also have RJ-45 Ethernet connector, as well as DC input bullet connector.

The temperature range of IXM MERGE CR:

-20 to 60⁰ C for MERGE CR

Power Requirements:

12 to 24 VDC, <4W

PoE (alternative A or B)

PoE +

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4 FCC & IC Information for Users

4.1. FCC ID: S38-MRGCR

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

This device and its antenna must not be co-located with any other transmitters except in accordance with FCC multi-transmitter product certification procedures.

Changes or modifications made to this equipment not expressly approved by Invixium Access Inc. could void the user's authority to operate the equipment.

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4.2. IC: 10981A-MRGCR

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) l'appareil ne doit pas produire de brouillage;
- 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This device and its antenna must not be co-located with any other transmitters except in accordance with IC multi-transmitter product certification procedures.

Cet appareil et son antenne (s) ne doit pas être co-localisés ou fonctionner en association avec une autre antenne ou transmetteur.

5. Labeling Requirements

The device label will be affixed on the back of the LED portion of the PCBA.

The label content:

IXM MERGE CR
FCC ID: S38-MRGCR
IC: 10981A-MRGCR
HVIN M1_N22

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6. OEM Labeling Requirements

WARNING: The Original Equipment Manufacturer (OEM) must ensure that FCC labeling requirements are met. This includes a clearly visible label on the outside of the final product enclosure that displays the contents shown in the figure below.

Required FCC Label for OEM products containing this Module, including the packaging:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interferences that may cause undesired operation.

Contains FCC ID: S38-MRGCR

Contains IC: 10891A-MRGCR

IMPORTANT: OEMs must test final product to comply with unintentional radiators (FCC section 15.107 & 15.109) before declaring compliance of their final product to Part 15 of the FCC Rules.

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