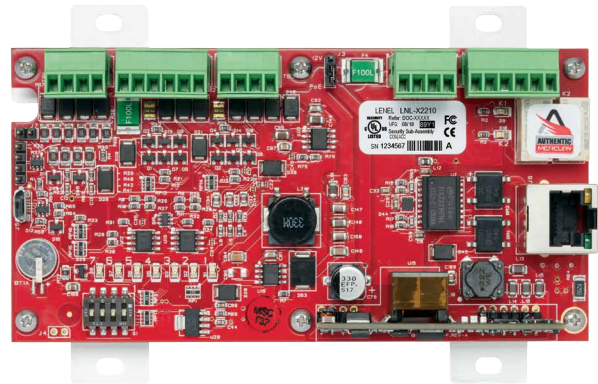


# LNL-X2210

## Intelligent Single Door Controller



### Overview

The LNL-X2210 Intelligent Single Door Controller (ISDC) is an edge device that provides a solution for interfacing one or two readers to a single door within an OnGuard® system. Offering innovation at an economical price point, the LNL-X2210 controller is a high-performance, Ethernet-ready card reader panel that controls a single opening with 802.3af/802.3at compliant Power over Ethernet (PoE). Built on a proven platform, the LNL-X2210 controller seamlessly interfaces to a larger system for flexible, reliable expansion. Easy installation with PoE makes this the logical choice for single door control.

Once configured, the LNL-X2210 controller functions independently of the host and is capable of sophisticated processes while controlling access for a single opening. Without host intervention, the LNL-X2210 controller can relate selected system devices and their activity to other onboard devices, consistently allowing those activities and actions to transpire independently.

The LNL-X2210 controller is capable of interfacing with a wide array of reader technologies for single opening control. Reader ports support separate in/out readers and technologies that include Wiegand, clock and data, RS-485, OSDP™, keypads, LCD and biometrics — resulting in the flexibility, versatility and reliability needed for success.

An alternative configuration is available with OnGuard version 6.6 and higher for the LNL-X2210 controller. The first physical reader port can be configured to support RS-485 communication bus to LNL Door Interfaces (LNL-1300/LNL-1320) or IO devices (LNL-1100/LNL-1200). Up to eight RS-485 addressed devices can be supported on this communication bus. These additional devices must have a local power supply. In this configuration, the second physical reader port on the LNL-X2210 controller is still available for standard single reader interface; it is not available as an OSDP Reader.

### Features & Functionality

#### Controller Functionality

- 6 MB of available on-board, non-volatile flash memory
- Firmware stored in flash memory, background download of firmware updates supported
- Optional secondary communications available through a USB to Ethernet connection
- RNDIS support enables USB connection to display controller web configuration pages

#### Access Control

- 240,000 cardholders, 50,000 event transaction buffer
- Up to 128 access levels per cardholder
- Programmable card activation and deactivation times and dates
- Individual extended held open and strike times (ADA required)

#### Card Formats

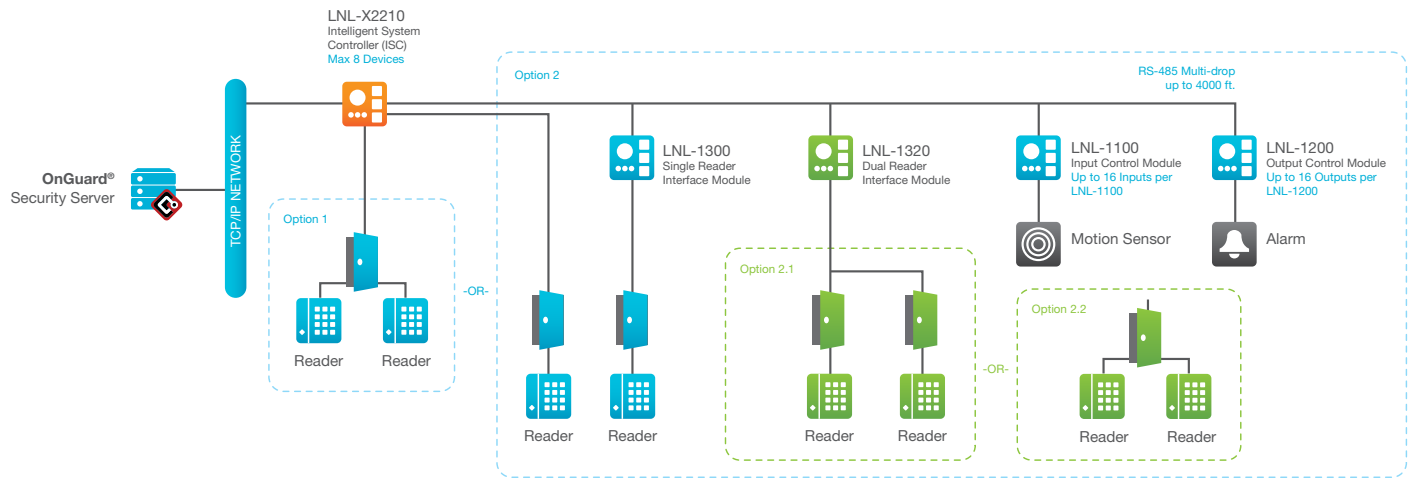
- Up to sixteen active card formats per LNL-X2210
- PIV, CAC, and TWIC card compatible
- Magnetic stripe, proximity, iClass®, multiClass, MIFARE®, DESFIRE®, biometric template support

#### Advanced Functionality

- Advanced Encryption Standard (AES) 256-bit algorithm for communications to Series 3 reader and I/O modules; AES 128-bit encryption to Series 2 reader and I/O modules
- AES128 or TLS 1.2 (with AES256 support) communication to OnGuard
- Enhanced anti-passback capabilities: nested global hard or soft anti-passback, timed anti-passback, two person control, designated one or two person control, tail gate control and occupancy limit
- Configurable option for Data at Rest encryption
- Standard or custom end of line resistance

# LNL-X2210

## System Diagram



## Specifications

The interface is for use in low voltage, Class 2 Circuits only.  
The installation of this device must comply with all local fire and electrical codes.

Primary Power	PoE (12.95 W), compliant to IEEE 802.3af or PoE+ (25 W), compliant to IEEE 802.3at or 12 VDC $\pm$ 10%, 1.8 A maximum
Power Output	PoE: 12 VDC @ 625 mA including reader and Auxiliary Power output PoE+ or external 12 VDC: 12 VDC @ 1.25 A including reader and Auxiliary Power output
Primary Host Communication	Ethernet: 10-BaseT/100Base-TX
Secondary Host Communication	USB port (2.0) with optional adapter: pluggable model USB2-OTGE100
Inputs	Two unsupervised / supervised, standard EOL: 1k/1k ohm, 1% 1/4 watt One unsupervised dedicated for cabinet tamper
Outputs	Two relays: Form-C contacts: 2 A @ 30 VDC resistive

### Reader Interface

Power	12 VDC $\pm$ 10% regulated, PoE, PoE+ or local power, 300 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 levels, 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

### Cable Requirements

Power	One twisted pair, 18 AWG (when using local 12 VDC power supply)
Ethernet	CAT-5, minimum
Reader Data (TTL)	6-conductor, 18 AWG, 500 ft. (152m) maximum
Reader Data (F/2F)	4-conductor, 18 AWG, 500 ft. (152m) maximum
Reader Data (RS-485)	One twisted pair, shielded. 24 AWG, 120 ohm impedance, 2,000 ft. (610m) maximum
Alarm Input	One twisted pair, 30 ohms maximum, typically 22 AWG @ 1,000 ft. (304.8m)
Outputs	As required for the load

### Mechanical

Dimensions	5.5 W x 2.75 L x 0.96 H in. (140 x 70 x 24mm) without bracket 5.5 W x 3.63 L x 1.33 H in. (140 x 92 x 34mm) with bracket
Weight	3.6 oz. (103g) without bracket 4.43 oz. (125.5g) with bracket

### Environmental

Temperature	-55° to +85° C, storage 0° to +70° C, operating
Humidity	5 to 95% RHNC
Heat Output (BTUs)	at 12 VDC, 13.3 BTU/hr
Approvals	FCC Part 15, CE, RoHS, UL 294, UL 1076, CAN/ULC 60839-11-1:2016, CSA C22.2 No. 205-1983, cUL/ORD-C1076

## Parts and Spare Parts

Part No.	Description
LNL-X2210	6 MB on-board flash memory available for cardholder database; 50,000 event backed RAM for event log.
USB2-OTGE100	USB to Ethernet converter, for LNL-X Series Controllers only. Provides optional Secondary NIC connection. Second NIC should be on different subnet than primary NIC.
LNL-1300-TAMPER	Tamper cable for LNL-2210, LNL-X2210, LNL-1300, LNL-1330-S3, LNL-1300E.
LNL-RPL-MTG-3G	Replacement mounting plate for LNL-2210, LNL-X2210, LNL-1300E with 4-40 screws.



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Specifications subject to change without notice.

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