

# LNL-2220

## Intelligent Dual Reader Controller



### Overview

The LNL-2220 Intelligent Dual Reader Controller (IDRC) by Lenel provides a single board solution for interfacing one or two doors to an OnGuard® system. In addition, other I/O and reader interface modules can be added on the controller's downstream port to expand its capabilities. The LNL-2220 controller revolutionizes access control system architecture by allowing Ethernet connection directly from an entry location to the OnGuard server, while still providing the security, functionality, and modularity of Lenel's proven hardware platform. The LNL-2220 controller is scalable for any access control application, from the most basic to the most sophisticated. In the event of communication loss, the LNL-2220 controller allows nearly all local functionality to continue unimpaired until the server connection is restored.

Utilizing its native Ethernet communications and an advanced 32-bit processor, the LNL-2220 controller can communicate upstream to the host computer through its Ethernet port (with a throughput up to eight times greater than the fastest serial connections), or at up to 115.2 Kbps using RS-232 communication directly or through an external dial-up modem. The controller can store up to 250,000 cardholders in non-volatile flash memory, and supports selective download for larger cardholder databases. The downstream RS-485 two-wire port can be used to connect up to 32 devices (maximum 64 doors).

Two on-board reader ports support Data1/Data0, Clock/Data, Supervised and Unsupervised F2F, Biometric readers and the bidirectional RS-485 Open Supervised Device Protocol (OSDP) communications. Each LNL-2220 controller supports up to eight different card formats. The LNL-2220 controller includes eight inputs that support normally open, normally closed, supervised, and unsupervised circuits. In addition, four output relays support fail-safe or fail-secure operation.

### Features & Functionality

#### Controller Functionality

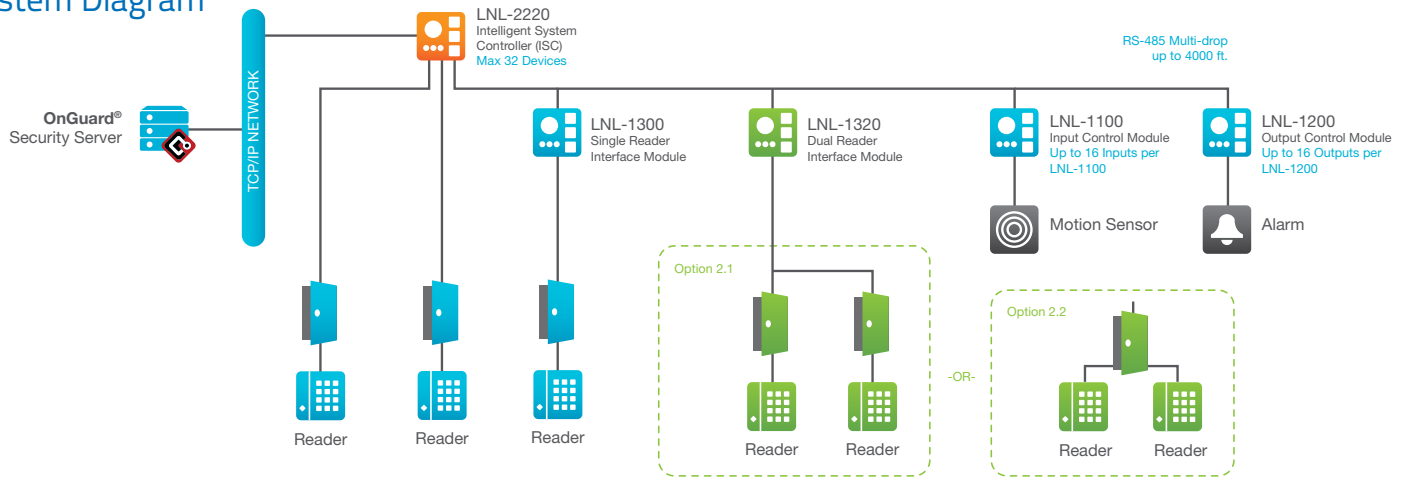
- DNS device naming through DHCP extended commands
- 6 MB of available on-board, non-volatile flash memory
- Battery-backed, non-volatile storage of 50,000 events
- Firmware stored in flash memory, background download of firmware updates supported
- Supports up to 16 different formats
- Biometric template storage support for OSDP™ Biometric and legacy Bioscrypt® readers
- Enhanced anti-passback capabilities
- Up to 32,000 access level permissions
- Elevator control support for up to 128 floors
- Individual extended held open and strike times
- 2 dedicated inputs for tamper and power failure status
- Advanced Encryption Standard (AES) 128-bit algorithm for communications to reader and I/O modules
- AES128 or TLS1.1 (with AES256 support) communication to OnGuard

#### Reader Interface Functionality

- Supports Data 1/Data0, Clock/Data, Supervised and Unsupervised F2F and OSDP-compatible RS-485 readers and keypads
- Support for OSDP Biometric template transfer and Secure Channel Encryption
- Door contact supervision (open/closed) and REX push-button monitor for each door
- Strike control and auxiliary output for each door
- Bicolor reader status LED support plus beeper control, or 2-wire LED support
- On-board regulator allows 12 VDC reader power from 24 VDC power source

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## System Diagram



## Specifications

<b>Primary Power (DC or AC)</b>	*The LNL-2220 is for use in low voltage, power-limited, class 2 circuits only
DC input	12 or 24 VDC ± 15%. 500 mA maximum
AC input	12 VAC ± 15%. 400 mA RMS
Memory and Clock Backup	3 V lithium, type BR2325, BR2330, CR2330
<b>Communication Ports</b>	
Primary (Ethernet) Port	10/100Base-T Ethernet high-speed port
Alternate Upstream Port 1	RS-232 9600 to 115.2 Kbps async
Downstream Port 2	RS-485 (2-wire) 9600 to 38.4 Kbps async
<b>Inputs</b>	
Tamper and Power Fail Monitors	Unsupervised, dedicated
Door position, REX and AUX	8, each programmable as normally open or normally closed, supervised or unsupervised circuits
<b>Outputs</b>	
Relay Outputs	4 Form-C 5 A @ 30 VDC relay outputs: 2 strike, 2 auxiliary
<b>Reader Power</b>	
DC output	12 VDC, 125 mA regulated when 24 VDC powered, or 12 to 12 VDC 125 mA current limited
Reader Port Compatibility	Wiegand Data1/Data0, Magnetic Clock/Data, Supervised and Unsupervised F2F, Legacy Bioscrypt® RS-485 OSDP™ (Open Supervised Device Protocol RS-485), including Biometric template transfer and Secure Channel Encryption
<b>Environmental</b>	
Operating Temperature	32° to 158° F (0° to +70° C)
Storage Temperature	-67° to +185° F (-55° to +85° C)
Humidity	0 to 95% RHNC
<b>Mechanical</b>	
Dimensions	6" x 5" x 1" in. (152 x 127 x 25 mm)
Weight	8 oz. (230 g) nominal
Approvals	UL294, UL 1076, CE-market, RoHS compliant FCC Part 15, CE, RoHS, UL 294, UL 1076, ULC CSA-C22.2, CAN/ULC-S319-05, cUL/ORD-C1076

## Controller Features

Part No.	Description
LNL-2220	6 MB On-board flash memory available for cardholder & asset database, 50,000 event battery backed RAM for event log
<b>Dial-Up Modem</b>	
LNL-DC336K	12 VDC-powered/33.6 K external modem



[lenel.com/access-hardware](http://lenel.com/access-hardware)

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