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# NetLinx® NX Integrated Controller

NX-3200 (FG2106-03)



## Overview

**The NX-3200 / NetLinx® NX Integrated Controller is a programmable network appliance specifically designed to control AV and building technology using multiple analog and digital formats. The NX-3200 provides a scalable platform for the future by combining high performance, backward compatibility and extensive network security features. The NX-3200 adds more ports to the NX-2200, giving it the ability to integrate a larger number of devices. The NX-3200 controls a wide variety of components including audio/video conferencing, projectors, DVD and Blu-ray players, lights, thermostats and other electronic equipment found in larger spaces. With these technology-driven environments, the NX-3200 also provides solutions for future expansion and enables the addition of more devices and control capabilities.**

### Common Applications
• The NX-3200 is ideally suited to the requirements of large lecture halls, board rooms, media rooms, and integrated homes with advanced control and automation features.
• With a large local port complement and enhanced security features like Dual NIC, the NX-3200 can handle greater challenges of a large AV system, conferencing, HVAC, lights, security, power management, and many similar specialized applications requiring extensive control with maximum physical ports.

### Features
• **Larger Port Configuration** - 8/8/8/8 (Serial, Relay, IR, Digital I/O), versus 4/4/4/4 for the NX-2200
• **Dual NIC** – The LAN port is used to connect the master to an external network, and the ICSLAN ports connect to AMX or third-party A/V equipment isolated from the primary network, providing rock-solid security
• **IPv6 and wired 802.1x** – Supports modern networking standards for internet protocol IPv6 and port-based Network Access Control utilizing X.509 certificates for access to protected networks
• **High Performance Architecture, Flexible Programming Platform (RPM, NetLinx and Java)** – Easily scalable to support a wide range of applications for today and tomorrow
• **Full Line Compatible (Backwards and Cross-Compatibility)** – Standardized port numbers and new configuration import/export tools mean fewer coding changes
• **Enhanced Diagnostics On Serial and IR Ports** – Provides real time error feedback when Serial and IR ports are disconnected or improperly wired
• **File Import / Export From USB Drive** – Backup and restore configuration data, program files, and update firmware from a standard USB flash drive

- **Hardware / Software Built for 24/7/365 Operation** – Provides outstanding reliability and improved diagnostics
- **Ultra-Fast 1600 MIPS processor**
- **512 MB Onboard RAM**
- **1 M Non-Volatile Memory**
- **8 GB SDHC FLASH Memory**
- **1 RU**
- **2 AXLink Interface**
- **1 10/100 LAN Interface**
- **1 10/100 ICSLan Interface**
- **8 Digital I/O Ports**
- **2 RS232/422/485 Ports**
- **6 RS232-Only Ports**
- **8 IR/Serial Output Ports**
- **8 Relay Ports**

## Specifications

| GENERAL | |
|---|---|
| Enclosure | Metal with black matte finish |
| Dimensions (HWD) | 1 3/4" x 17" x 9 1/8" (44.85 mm x 431.80 mm x 231.64 mm) |
| Weight | 6.08 lb. (2.758 Kg) |
| Certifications | FCC CFR Title 47 Part 15<br>CE EN 55022<br>CE EN 55024<br>CE EN 60950-1<br>IEC 60950-1<br>UL 60950-1<br>C-Tick CISPR 22<br>IC CISPR 22<br>VCCI CISPR 22<br>RoHS / WEEE Compliant |
| Included Accessories | •2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-0002-SA)<br>•4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047)<br>•(2) 10-pin 3.5mm mini-Phoenix female RS-232/422/485 connectors (41-5107)<br>•(6) 5-pin 3.5mm mini-Phoenix female RS-232 connectors (41-0336)<br>•(2) 6-pin 3.5 mm mini-Phoenix female I/O connectors (41-5063)<br>•(2) 8-pin 3.5 mm mini-Phoenix female Relay connectors (41-5083)<br>•(2) CC-NIRC IR Emitters<br>•Removable rack ears |
| Optional Accessories | •PSN6.5, 6.5 A Power Supply (FG423-41)<br>•PSR4.4, 13.5 VDC, 4.4 A Power Supply with 3.5 mm Phoenix Connector with Retention Screws (FG423-46)<br>•PSN4.4, 13.5 VDC, 4.4 A Power Supply with 3.5 mm Phoenix Connector (FG423-45)<br>•CC-USB-NI, USB Programming Cable (FG10-2105)<br>•CC-NIRC, IR Cables (FG10-000-11)<br>•CC-NET, Cat5 Ethernet Cable (FG10-051-10)<br>•CBL-ETH-FL, Ethernet Cat5e Flat Cable (FG10-2182-16) |

|  | •EXB-IRS4, ICSLan IR/S Interface, 4 IR/S and 4 Inputs (FG2100-23)<br>•EXB-COM2, ICSLan Serial Interface, 2 Ports (FG2100-22)<br>•EXB-REL8, ICSLan Relay Interface, 8 Channels (FG2100-20)<br>•EXB-I/O8, ICSLan Input/Output Interface, 8 Channels (FG2100-21)<br>•EXB-MP1, ICSLan Multi-Port, 1 COM, 1 IR/S, 2 I/O, 1 IR RX (FG2100-26) |
|---|---|

| ACTIVE POWER REQUIREMENTS | |
|---|---|
| Voltage, DC (typical) | 12 VDC |
| DC Current Draw | 400 mA @ 12 VDC |
| Voltage DC Range | 9 - 18 VDC |
| Power Connector | 3.5 mm Phoenix with retaining screws |

| POWER CONSUMPTION | |
|---|---|
| Active Power Consumption | 6.6 W |

| ENVIRONMENTAL | |
|---|---|
| Temperature (Operating) | 32° F to 122° F (0° C to 50° C) |
| Temperature (Storage) | 14° F to 140° F (-10° C to 60°C) |
| Humidity (Operating) | 5% to 85% RH |
| Heat Dissipation (Typical) | 22.5 BTU/hr |

| ONBOARD MASTER | |
|---|---|
| Processor | 1600 MIPS |
| Program Port | (1) USB Standard B |
| Configuration Dip Switch | 4-position |
| Status Indicator | Status LED (green) blinks to indicate that the system is programmed and communicating properly |
| Input Indicator | Input LED (yellow) blinks to indicate that the Controller is receiving data |
| Output Indicator | Output LED (red) blinks to indicate that the Controller is transmitting data |
| ID Pushbutton | Black ID pushbutton for setting IP mode and reverting to default configuration and firmware |
| USB Host Port | (2) USB Standard A, one on front and one on back, USB Host port supports Solid State drive for upgrading firmware, loading code files, copying configuration data and remote storage |

| MEMORY | |
|---|---|
| NVRAM | 1 MB |
| Memory Card | 8 GB SD |
| DDRAM | 512 MB |
| Note | Supports external USB Solid State Drives |

| ETHERNET | |
|---|---|
| Connection | (1) RJ-45 |
| Description | 10/100 Port RJ-45 connector provides TCP/IP communication. Auto MDI/MDI-X enabled. Supports |

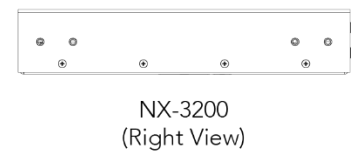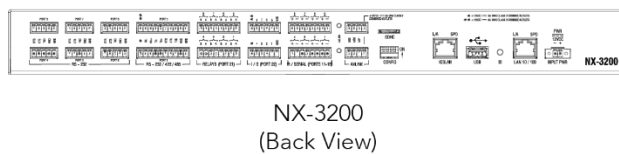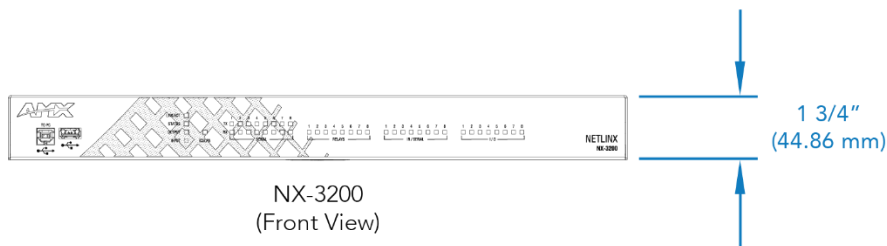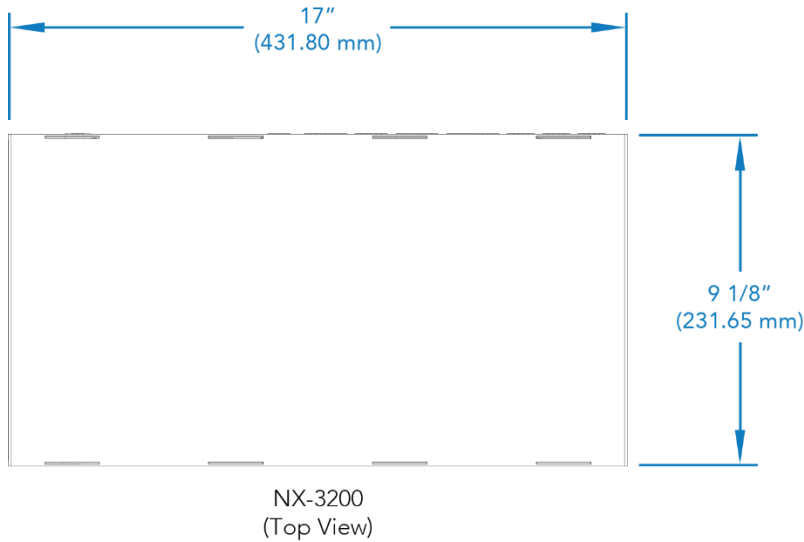| | IPv4 and IPv6 networks. Supports HTTP, HTTPS, Telnet, FTP |
|---|---|
| Link/Act Indicator | Link/Activity LED (green) blinks when receiving Ethernet data packets, one on Ethernet RJ-45 connector and one on the front panel |
| Speed Indicator | Speed LED (yellow) lights On when the connection speed is 100 Mbps Ethernet connection and turns OFF when the speed is 10 Mbps |
| **ICSLan** | |
| ICSLan Connection | (1) RJ-45, 10/100 Port RJ-45 connector. Auto MDI/MDI-X enabled. Supports IPv4 and IPv6 networks. Supports HTTP, HTTPS, Telnet, FTP |
| ICSLan Link/Active Indicator | ICSLan LED (green) blinks when receiving Ethernet data packets, one on Ethernet RJ-45 connector and one on the front panel |
| ICSLan Speed Indicator | Speed LED (yellow) lights On when the connection speed is 100 Mbps Ethernet connection and turns OFF when the speed is 10 Mbps |

| **CONTROL PORTS & INDICATORS** | |
|---|---|
| AxLink Port | (2) 4-position 3.5mm Screw Terminal, provides data and power to external AxLink control devices |
| AxLink Indicator | (2) AxLink LED (green) indicates the state of the AxLink port |
| RS-232/422/485 Port | (2) 10-position 3.5mm Screw Terminal NetLinx Ports 1 and 5 XON/XOFF (transmit on / transmit off) CTS/RTS (clear to send/ready to send) 300 - 115,200 baud |
| RS-232 Port | (6) 5-position 3.5mm Screw Terminal NetLinx Port 2-4 and 6-8 XON/XOFF (transmit on / transmit off) CTS/RTS (clear to send/ready to send) 300 - 115,200 baud |
| Serial Indicator | (8) sets of LEDs (red/yellow) indicate when serial Ports 1-8 are transmitting and receiving data |
| IR/Serial | (8) 2-position 3.5mm Screw Terminal 8 IR Transmit / 1-way Serial ports NetLinx Ports 11-18 Support high-frequency carriers up to 1.142 MHz 8 IR/Serial data signals can be generated simultaneously |
| IR/Serial Indicators | (2) LEDs (red) indicate when each of the IR/Serial ports (11-18) are transmitting control data |
| I/O Channels | (8) One 10-position 3.5mm Screw Terminal 8-channel binary I/O port for contact closure with each input being capable of voltage sensing NetLinx Port 22 Channels 1-8 |
| I/O Indicator | (8) LEDs (yellow) indicate each of the I/O channels (1-8) are active |
| Relays | (8) Two 8-position 3.5 mm Screw Terminal, (8) single-pole, single-throw relays NetLinx Port 21 Channels 1-8 Each relay can switch up to 24 VDC or 28 VAC @ 1 A |

| | Each relay is independently controlled |
|---|---|
| Relay Indicators | (8) LEDs (red) indicate when each of the relay channels (1-8) are active (closed) |

For a more detailed pictorial drawing please visit: http://www.amx.com/products/NX-3200.asp

17"
(431.80 mm)

9 1/8"
(231.65 mm)

NX-3200
(Top View)

1 3/4"
(44.86 mm)

NX-3200
(Front View)

NX-3200
(Back View)

NX-3200
(Right View)

**About AMX by HARMAN**
**Founded in 1982 and acquired by HARMAN in 2014, AMX® is dedicated to providing AV solutions for an IT World. AMX solves the complexity of managing technology with reliable, consistent and scalable systems comprising control, video switching and distribution, digital signage and technology management. AMX systems are deployed worldwide in conference rooms, classrooms, network operation/command centers, homes, hotels, entertainment venues and broadcast facilities, among others. AMX is part of the HARMAN Professional Group, the only total audio, video, lighting, and control vendor in the professional AV market. HARMAN designs, manufactures and markets premier audio, video, infotainment and integrated control solutions for the automotive, consumer and professional markets. Revised 11.12.14. ©2014 Harman. All rights reserved. Specifications subject to change.**

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