NetLinx **NX-Series Controllers**

FEATURE	NX-1200	NX-2200	NX-3200	NX-4200
AxLink Interface	1	1	2	2
10/100 LAN	Yes	Yes	Yes	Yes
10/100 ICSLan	No	1	1	4 PoE
Digital I/O Ports	4	4	8	8
RS232/422/485 Ports	1	1	2	2
RS232-only Ports	1	3	6	6
IR-Serial Output Ports	2	4	8	8
Relay Ports	0	4	8	8
IR Receiver Port	1	0	0	0
Processor Speed	1600 MIPS	1600 MIPS	1600 MIPS	1600 MIPS
On-Board RAM	512 MB	512 MB	512 MB	1 GB
Non-Volatile Memory	1 M	1 M	1 M	1 M
FLASH Memory	4 GB SDHC	8 GB SDHC	8 GB SDHC	8 GB SDHC
Rack Space	1 RU x 1/3	1 RU	1 RU	1 RU

NetLinx® NX Integrated Controller

NX-1200 (FG2106-01)

Overview

The NX-1200 / 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-1200 provides a scalable platform for the future by combining high performance, backward compatibility and extensive network security features. The NX-1200 is designed to control and automate a variety of devices in single rooms or multiple small rooms and is capable of supporting devices with a variety of communication formats.

Common Applications

- NX Master Security firmware is ideal for enterprise, education, and government policies requiring secure communication over a computer network in line with security standards expected by the IT industry of any equipment running on an enterprise.
- The NX-1200 is perfect for small classrooms, huddle spaces, small conference rooms, learning spaces and multi-zone systems with a small number of wired devices.
- The NX-1200 is designed to provide secure control and monitoring for a small AV system, HVAC, lights, security, power management, and many similar specialized applications requiring a space-saving physical control device with versatile mounting.

Features

- **IPv6** – Supports Internet Protocol version 6 (IPv6), the communications protocol that provides an identification and location system for computers on networks and routes traffic across the Internet
- **IEEE 802.1X** – Supports IEEE Standard for Port-based Network Access Control with the ability to grant or deny network access to devices wishing to attach to a LAN based on credentials tied to the device rather than to a user
- **X.509 Certificate Services** – NX supports customer-provided certificates for access to protected networks.
- **Full LDAP Integration –** Supports multiple user-defined login groups for accessing the master, as well as provides an AMX programmer the capability to require network login to access certain areas of the touch panel
- **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
- **TLS / SSH Client –** Provides NetLinx programmers the ability to manage secure port TLS and SSH communications with a remote device or server
- **Cryptographic Support –** In accordance with FIPS 140-2, a U.S. government computer security standard used to accredit cryptographic modules for the protection of sensitive or valuable data
- **Network Syslog –** The Central Controller generates an audit record of events using syslog, a standard for message logging
- **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 diagnostic

Additional Features
- **Ultra-Fast 1600 MIPS processor**
- **512 MB Onboard RAM**
- **1 M Non-Volatile Memory**
- **4 GB SDHC FLASH Memory**
- **1 RU x 1/3 Rack Space**
- **1 AXLink Interface**
- **1 10/100 LAN Interface**
- **4 Digital I/O Ports**
- **1 RS232/422/485 Port**
- **1 RS232-Only Port**
- **2 IR/Serial Output Ports**
- **1 IR Receive Port**

Specifications

GENERAL	
Enclosure	Metal with black matte finish
Dimensions (HWD)	1 11/16" x 5 13/16" x 5 1/8" (42.16 mm x 147.32 mm x 130.81 mm)
Weight	1.6 lb. (.726 Kg)
Regulatory Compliance	• FCC CFR Title 47 Part 15 • CE EN 55022 • CE EN 55024 • CE EN 60950-1 • IEC 60950-1 • UL 60950-1 • C-Tick CISPR 22 • IC CISPR 22 • VCCI CISPR 22 • RoHS • WEEE
Included Accessories	• 2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-0002-SA) • 4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047) • 10-pin 3.5mm mini-Phoenix female RS232/422/485 connectors (41-5107) • 5-pin 3.5mm mini-Phoenix female RS232 connectors (41-0336)

	• 6-pin 3.5 mm mini-Phoenix female I/O connector (41-5063) • (2) CC-NIRC IR Emitters
Optional Accessories	• AVB-VSTYLE-RMK, V Style Module Rack Mounting Tray, 1/4" Depth (FG1010-720) • AVB-VSTYLE-SURFACE-MNT, V Style Single Module Surface Mount Brackets (FG1010-722) • PSN6.5, 6.5 A Power Supply (FG423-41) • PSR5.4, 12 VDC, 5.4 A Power Supply with 3.5 mm Phoenix Connector with Retention Screws (FG423-48) • PSN4.4, Power Supply, 4.5 A, 3.5 mm Phoenix, 13.5 VDC (Discontinued) (FG423-45) • CC-USB-NI, USB Programming Cable (FG10-2105) • CC-NIRC, IR Cables (FG10-000-11) • CBL-ETH-FL2, Cat6 Ethernet Cable (FG10-2194-16) • CBL-ETH-FL, Ethernet Cat5e Flat Cable (FG10-2182-16) • EXB-IRS4, ICSLan IR/S Interface, 4 IR/S and 4 Inputs (FG2100-23) • EXB-COM2, ICSLan Serial Interface, 2 Ports (FG2100-22) • EXB-REL8, ICSLan Relay Interface, 8 Channels (FG2100-20) • EXB-I/O8, ICSLan Input/Output Interface, 8 Channels (FG2100-21) • 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	200 mA @ 12 VDC
Voltage DC Range	9 - 18 VDC
Power Connector	3.5mm Phoenix with retaining screws

POWER CONSUMPTION	
Active Power Consumption	3 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)	10.2 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	(1) USB Standard A, USB Host port supports Solid State drive for upgrading firmware, loading code files, copying configuration data and remote storage

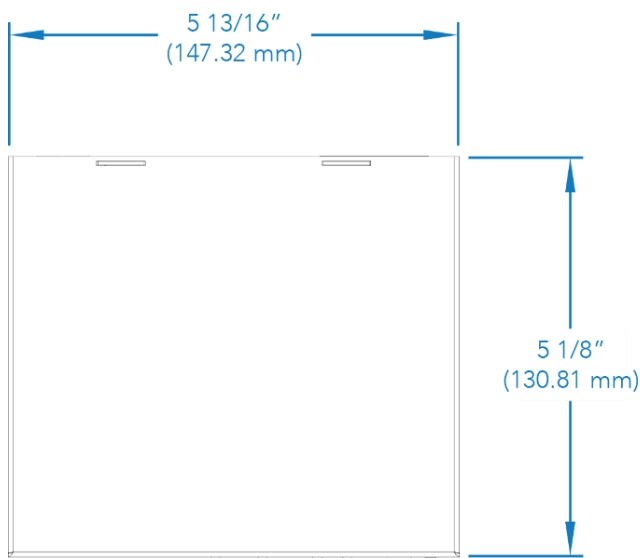| MEMORY	
NVRAM	1 MB
Memory Card	4 GB SD
DDRAM	512 MB
Note	Supports external USB Solid State Drives

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

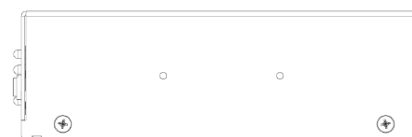| CONTROL PORTS & INDICATORS	
AxLink Port	(1) 4-position 3.5mm Screw Terminal, provides data and power to external AxLink control devices
AxLink Indicator	(1) AxLink LED (green) indicates the state of the AxLink port
RS-232/422/485 Port	(1) 10-position 3.5mm Screw Terminal NetLinx Port 1 XON/XOFF (transmit on / transmit off) CTS/RTS (clear to send/ready to send) 300 - 115,200 baud
RS-232 Port	(1) 5-position 3.5mm Screw Terminal NetLinx Port 2 XON/XOFF (transmit on / transmit off) CTS/RTS (clear to send/ready to send) 300 - 115,200 baud
Serial Indicator	(2) sets of LEDs (red/yellow) indicate when serial Ports 1 and 2 are transmitting and receiving data
IR/Serial	(2) 2-position 3.5mm Screw Terminal 2 IR Transmit / 1-way Serial ports NetLinx Ports 11-12 Support high-frequency carriers up to 1.142 MHz 2 IR/Serial data signals can be generated simultaneously
IR/Serial Indicators	(2) LEDs (red) indicate when each of the IR/Serial ports (11-12) are transmitting control data
I/O Channels	(4) One 6-position 3.5mm Screw Terminal 4-channel binary I/O port for contact closure with each input being capable of voltage sensing NetLinx Port 22 Channels 1-4
I/O Indicator	(4) LEDs (yellow) indicate each of the I/O

	channels (1-4) are active
IR/RX Ports	(1) 1/8" mini-jack
IR/RX Indicator	(1) IR RX LED (red) LED lights when IR data is being received via the IR/RX port

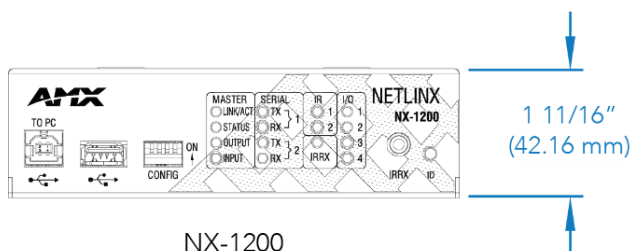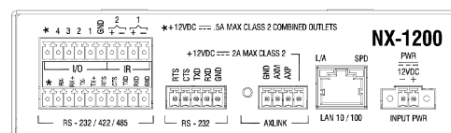For a more detailed pictorial drawing please visit: http://www.amx.com/products/NX-1200.asp

5 13/16"
(147.32 mm)

5 1/8"
(130.81 mm)

NX-1200
(Top View)

NX-1200
(Left View)

NETLINX
NX-1200

1 11/16"
(42.16 mm)

NX-1200
(Front View)

NX-1200
(Back View)

NetLinx® NX Integrated Controller

NX-2200 (FG2106-02)

Overview

The NX-2200 / 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-2200 provides a scalable platform for the future by combining high performance, backward compatibility and extensive network security features. The NX-2200 is ideal for control and automation of medium-sized rooms and multi-room applications, as it includes more ports and security capabilities than the NX-1200.

Common Applications

- NX Master Security firmware is ideal for enterprise, education, and government policies requiring secure communication over a computer network in line with security standards expected by the IT industry of any equipment running on an enterprise.
- The NX-2200 is a good fit for medium-sized conference rooms or classrooms, lecture halls, home theaters, hotel rooms and building environmental systems.
- With enhanced security features like Dual NIC, the NX-2200 provides secure control and monitoring for a medium-sized AV system, HVAC, lights, security, power management, and many similar specialized applications requiring economical control with limited physical ports.

Features

- **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** – Supports Internet Protocol version 6 (IPv6), the communications protocol that provides an identification and location system for computers on networks and routes traffic across the Internet
- **IEEE 802.1X** – Supports IEEE Standard for Port-based Network Access Control with the ability to grant or deny network access to devices wishing to attach to a LAN based on credentials tied to the device rather than to a user
- **X.509 Certificate Services** – NX supports customer-provided certificates for access to protected networks.
- **Full LDAP Integration** – Supports multiple user-defined login groups for accessing the master, as well as provides an AMX programmer the capability to require network login to access certain areas of the touch panel
- **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
- **TLS / SSH Client** – Provides NetLinx programmers the ability to manage secure port TLS and SSH communications with a remote device or server
- **Cryptographic Support** – In accordance with FIPS 140-2, a U.S. government computer security standard used to accredit cryptographic modules for the protection of sensitive or valuable data
- **Network Syslog –** The Central Controller generates an audit record of events using syslog, a standard for message logging
- **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 and program data and update firmware from a standard USB flash drive
- **Hardware / Software Built for 24/7/365 Operation** – Provides outstanding reliability and improved diagnostics

Additional Features
- **Ultra-Fast 1600 MIPS processor**
- **512 MB Onboard RAM**
- **1 M Non-Volatile Memory**
- **8 GB SDHC FLASH Memory**
- **1 RU Rack Space**
- **1 AXLink Interface**
- **1 10/100 LAN Interface**
- **1 10/100 ICSLan Interface**
- **4 Digital I/O Ports**
- **1 RS-232/422/485 Port**
- **3 RS-232-Only Ports**
- **4 IR/Serial Output Ports**
- **4 Relay Ports**

Specifications

GENERAL	
Enclosure	Metal with black matte finish
Dimensions (HWD)	1 4/5” x 17” x 9 1/8” (45.15 mm x 431.80 mm x 231.64 mm
Weight	6.08 lb. (2.758 Kg)
Regulatory Compliance	FCC CFR Title 47 Part 15 CE EN 55022 CE EN 55024 CE EN 60950-1 IEC 60950-1 UL 60950-1 C-Tick CISPR 22 IC CISPR 22 VCCI CISPR 22 RoHS WEEE
Included Accessories	• 2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-0002-SA) • 4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047) • 10-pin 3.5mm mini-Phoenix female RS-232/422/485 connectors (41-5107) • (3) 5-pin 3.5mm mini-Phoenix female RS-232 connectors (41-0336)

	• 6-pin 3.5 mm mini-Phoenix female I/O connector (41-5063) • 8-pin 3.5 mm mini-Phoenix female Relay connector (41-5083) • (2) CC-NIRC IR Emitters • (2) Removable rack ears
Optional Accessories	• PSN6.5, 6.5 A Power Supply (FG423-41) • PSR5.4, 12 VDC, 5.4 A Power Supply with 3.5 mm Phoenix Connector with Retention Screws (FG423-48) • PSN4.4, Power Supply, 4.5 A, 3.5 mm Phoenix, 13.5 VDC (Discontinued) (FG423-45) • CC-USB-NI, USB Programming Cable (FG10-2105) • CC-NIRC, IR Cables (FG10-000-11) • CBL-ETH-FL2, Cat6 Ethernet Cable (FG10-2194-16) • CBL-ETH-FL, Ethernet Cat5e Flat Cable (FG10-2182-16) • EXB-IRS4, ICSLan IR/S Interface, 4 IR/S and 4 Inputs (FG2100-23) • EXB-COM2, ICSLan Serial Interface, 2 Ports (FG2100-22) • EXB-REL8, ICSLan Relay Interface, 8 Channels (FG2100-20) • EXB-I/O8, ICSLan Input/Output Interface, 8 Channels (FG2100-21) • 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	250 mA @ 12 VDC
Voltage DC Range	9 - 18 VDC
Power Connector	3.5mm Phoenix with retaining screws

POWER CONSUMPTION	
Active Power Consumption	4.2 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)	14.3 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

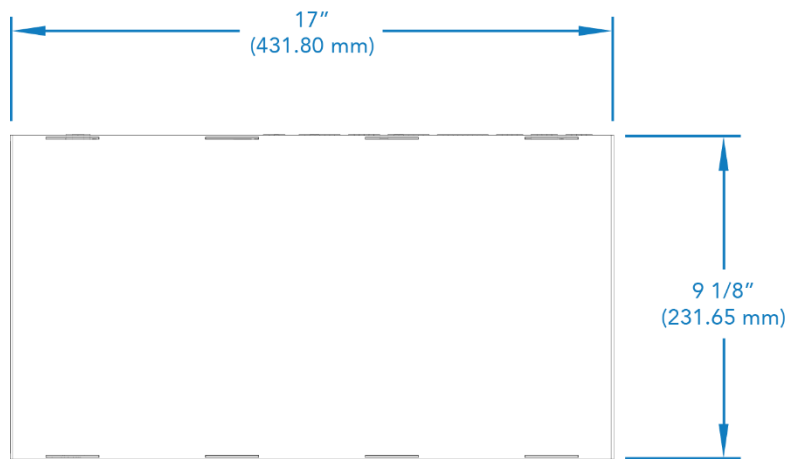| ETHERNET	
Connection	(1) RJ-45
Description	10/100 Port RJ-45 connector provides TCP/IP communication. Auto MDI/MDI-X enabled. Supports IPv4 and IPv6 networks. Supports HTTP, HTTPS, Telnet, FTP
Link/Act Indicator	Link/Activity LED (green) blinks when receiving Ethernet data packets, one on Ethernet 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

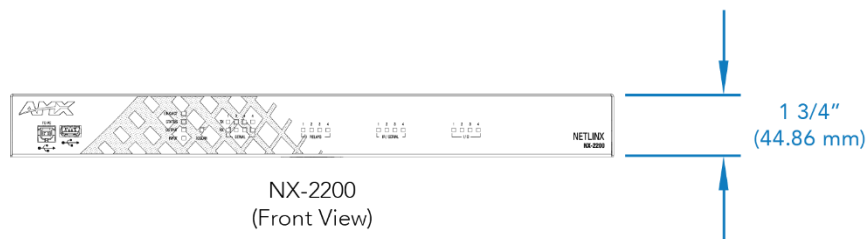| CONTROL PORTS & INDICATORS	
AxLink Port	(1) 4-position 3.5mm Screw Terminal, provides data and power to external AxLink control devices
AxLink Indicator	(1) AxLink LED (green) indicates the state of the AxLink port
RS-232/422/485 Port	(1) 10-position 3.5mm Screw Terminal NetLinx Port 1 XON/XOFF (transmit on / transmit off) CTS/RTS (clear to send/ready to send) 300 - 115,200 baud
RS-232 Port	(3) 2-position 3.5mm Screw Terminal NetLinx Port 2-4 XON/XOFF (transmit on / transmit off) CTS/RTS (clear to send/ready to send) 300 - 115,200 baud
Serial Indicator	(4) sets of LEDs (red/yellow) indicate when serial Ports 1-4 are transmitting and receiving data

IR/Serial	(4) 2-position 3.5mm Screw Terminal 4 IR Transmit / 1-way Serial ports NetLinx Ports 11-14 Support high-frequency carriers up to 1.142 MHz 4 IR/Serial data signals can be generated simultaneously
IR/Serial Indicators	(2) LEDs (red) indicate when each of the IR/Serial ports (11-14) are transmitting control data
I/O Channels	(4) One 6-position 3.5mm Screw Terminal 4-channel binary I/O port for contact closure with each input being capable of voltage sensing NetLinx Port 22 Channels 1-4
I/O Indicator	(4) LEDs (yellow) indicate each of the I/O channels (1-4) are active
Relays	(4) One 8-position 3.5 mm Screw Terminal, (4) single-pole, single-throw relays NetLinx Port 21 Channels 1-4 Each relay can switch up to 24 VDC or 28 VAC @ 1 A Each relay is independently controlled
Relay Indicators	(4) LEDs (red) indicate when each of the relay channels (1-4) are active (closed)

For a more detailed pictorial drawing please visit: http://www.amx.com/products/NX-2200.asp

17"
(431.80 mm)

9 1/8"
(231.65 mm)

NX-2200
(Top View)

1 3/4"
(44.86 mm)

NX-2200
(Front View)

NX-2200
(Back View)

NX-2200
(Right View)

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

- NX Master Security firmware is ideal for enterprise, education, and government policies requiring secure communication over a computer network in line with security standards expected by the IT industry of any equipment running on an enterprise.
- 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** – Supports Internet Protocol version 6 (IPv6), the communications protocol that provides an identification and location system for computers on networks and routes traffic across the Internet
- **IEEE 802.1X** – Supports IEEE Standard for Port-based Network Access Control with the ability to grant or deny network access to devices wishing to attach to a LAN based on credentials tied to the device rather than to a user
- **X.509 Certificate Services** – NX supports customer-provided certificates for access to protected networks.

- **Full LDAP Integration –** Supports multiple user-defined login groups for accessing the master, as well as provides an AMX programmer the capability to require network login to access certain areas of the touch panel
- **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
- **TLS / SSH Client –** Provides NetLinx programmers the ability to manage secure port TLS and SSH communications with a remote device or server
- **Cryptographic Support –** In accordance with FIPS 140-2, a U.S. government computer security standard used to accredit cryptographic modules for the protection of sensitive or valuable data
- **Network Syslog –** The Central Controller generates an audit record of events using syslog, a standard for message logging
- **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 and program data and update firmware from a standard USB flash drive
- **Hardware / Software Built for 24/7/365 Operation** – Provides outstanding reliability and improved diagnostics

Additional Features
- **Ultra-Fast 1600 MIPS processor**
- **512 MB Onboard RAM**
- **1 M Non-Volatile Memory**
- **8 GB SDHC FLASH Memory**
- **1 RU Rack Space**
- **2 AXLink Interfaces**
- **1 10/100 LAN Interface**
- **1 10/100 ICSLan Interface**
- **8 Digital I/O Ports**
- **2 RS-232/422/485 Ports**
- **6 RS-232-only Ports**
- **8 IR/Serial Output Ports**
- **8 Relay Ports**

Specifications

GENERAL	
Enclosure	Metal with black matte finish
Dimensions (HWD)	1 4/5" x 17" x 9 1/8" (45.15 mm x 431.80 mm x 231.64 mm)
Weight	6.08 lb. (2.758 Kg)
Regulatory Compliance	FCC CFR Title 47 Part 15 CE EN 55022 CE EN 55024 CE EN 60950-1 IEC 60950-1 UL 60950-1 C-Tick CISPR 22 IC CISPR 22 VCCI CISPR 22 RoHS WEEE
Included Accessories	• 2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-0002-SA)

	• 4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047) • (2) 10-pin 3.5mm mini-Phoenix female RS232/422/485 connectors (41-5107) • (6) 5-pin 3.5mm mini-Phoenix female RS232 connectors (41-0336) • (2) 6-pin 3.5 mm mini-Phoenix female I/O connector (41-5063) • (2) 8-pin 3.5 mm mini-Phoenix female Relay connector (41-5083) • (2) CC-NIRC IR Emitters • Removable rack ears
Optional Accessories	•PSN6.5, 6.5 A Power Supply (FG423-41) • PSR5.4, 12 VDC, 5.4 A Power Supply with 3.5 mm Phoenix Connector with Retention Screws (FG423-48) • PSN4.4, Power Supply, 4.5 A, 3.5 mm Phoenix, 13.5 VDC (Discontinued) (FG423-45) •CC-USB-NI, USB Programming Cable (FG10-2105) •CC-NIRC, IR Cables (FG10-000-11) •CBL-ETH-FL2, Cat6 Ethernet Cable (FG10-2194-16) •CBL-ETH-FL, Ethernet Cat5e Flat Cable (FG10-2182-16) •EXB-IRS4, ICSLan IR/S Interface, 4 IR/S and 4 Inputs (FG2100-23) •EXB-COM2, ICSLan Serial Interface, 2 Ports (FG2100-22) •EXB-REL8, ICSLan Relay Interface, 8 Channels (FG2100-20) •EXB-I/O8, ICSLan Input/Output Interface, 8 Channels (FG2100-21) •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

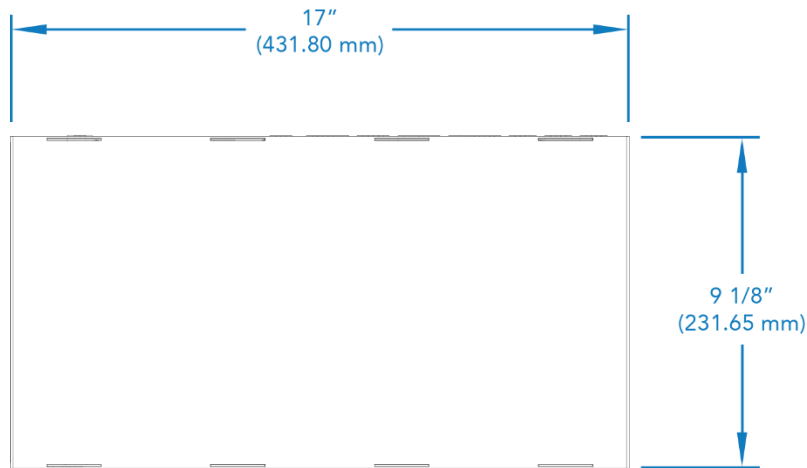| ETHERNET	
Connection	(1) RJ-45
Description	10/100 Port RJ-45 connector provides TCP/IP communication. Auto MDI/MDI-X enabled. Supports IPv4 and IPv6 networks. Supports HTTP, HTTPS, Telnet, FTP
Link/Act Indicator	Link/Activity LED (green) blinks when receiving Ethernet data packets, one on Ethernet 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

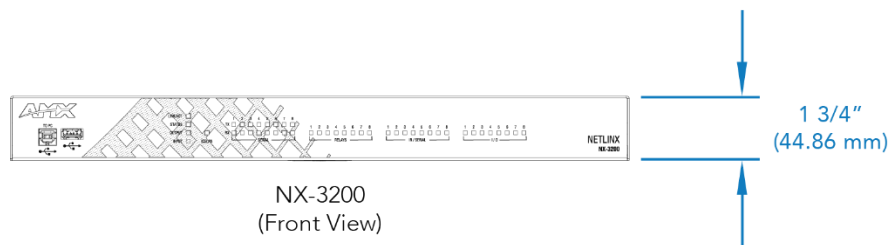| CONTROL PORTS & INDICATORS	
AxLink Port	(2) 4-position 3.5mm Screw Terminal, provides data and power to external AxLink control devices
AxLink Indicator	(2) AxLink LED (green) indicates the state of the AxLink port
RS-232/422/485 Port	(2) 10-position 3.5mm Screw Terminal NetLinx Ports 1 and 5 XON/XOFF (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)

NETLINX
NX-3200

NX-3200
(Front View)

NX-3200

NX-3200
(Back View)

NX-3200
(Right View)

NetLinx® NX Integrated Controller

NX-4200 (FG2106-04)

Overview

The NX-4200 / 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-4200 provides a scalable platform for the future by combining high performance, backward compatibility and extensive network security features. With its front panel display, built-in Ethernet switch and PoE capability, the NX-4200 is the ideal solution for demanding, technology-rich environments. The NX-4200's all-in-one architecture also delivers the lowest Total Cost of Ownership in the industry, thanks to ease of support, maintenance and configuration, as well as reduced hardware and cabling costs.

Common Applications

- NX Master Security firmware is ideal for enterprise, education, and government policies requiring secure communication over a computer network in line with security standards expected by the IT industry of any equipment running on an enterprise.
- The NX-4200 is geared to meet the high-end control and automation requirements of the most sophisticated and complex business, educational and residential installations. With its generous number of ports, security features and Ethernet switching options, the NX-4200 is ideal for any large installation requiring stringent security measures.
- With redundant power, built in Ethernet switch and enhanced security features like Dual NIC with POE, the NX-4200 provides versatility with the ability to integrate the largest number of devices in the NX Series of Integrated Controllers, including projectors, lighting, DVD and Blu-ray players, thermostats and other electronic equipment.

Features

- **Front Panel Display –** Features an LCD display on the front panel, making it easy to view status information, network settings, IP addresses & ICSLan Port status, among others
- **Redundant Power Source –** The NX-4200 can be powered either with a connection to mains AC power (110/220VAC) or from an external 12V DC power supply. If the AC input power is lost or if the internal power supply fails, the NX-4200 will immediately switch to the 12V DC power input without interruption except to PoE devices on the ICSLan
- **Dual NIC with Power –** Enables two discrete network interfaces for unrivaled security and includes a 4 Port switch with PoE allowing you to power PoE devices over a secure, isolated network. 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
- **IPv6 –** Supports Internet Protocol version 6 (IPv6), the communications protocol that provides an identification and location system for computers on networks and routes traffic across the Internet

- **IEEE 802.1X** – Supports IEEE Standard for Port-based Network Access Control with the ability to grant or deny network access to devices wishing to attach to a LAN based on credentials tied to the device rather than to a user
- **X.509 Certificate Services** – NX supports customer-provided certificates for access to protected networks.
- **Full LDAP Integration** – Supports multiple user-defined login groups for accessing the master, as well as provides an AMX programmer the capability to require network login to access certain areas of the touch panel
- **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
- **TLS / SSH Client** – Provides NetLinx programmers the ability to manage secure port TLS and SSH communications with a remote device or server
- **Cryptographic Support** – In accordance with FIPS 140-2, a U.S. government computer security standard used to accredit cryptographic modules for the protection of sensitive or valuable data
- **Network Syslog –** The Central Controller generates an audit record of events using syslog, a standard for message logging
- **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

Additional Features
- **Ultra-Fast 1600 MIPS processor**
- **1 GB Onboard RAM**
- **1 M Non-Volatile Memory**
- **8 GB SDHC FLASH Memory**
- **1 RU Rack Space**
- **2 AXLink Interfaces**
- **1 10/100 LAN Interface**
- **4 10/100 ISCLan interfaces with PoE**
- **4 PoE Interfaces**
- **8 Digital I/O Ports**
- **2 RS-232/422/485 Ports**
- **6 RS-232-Only Ports**
- **8 IR/Serial Output Ports**
- **8 Relay Ports**

Specifications

GENERAL	
Enclosure	Metal with black matte finish
Dimensions (HWD)	1 4/5" x 17" x 9 1/8" (45.15 mm x 431.80 mm x 231.64 mm)
Weight	7.6 lb. (3.447 Kg)
Regulatory Compliance	FCC CFR Title 47 Part 15 CE EN 55022 CE EN 55024 CE EN 60950-1 IEC 60950-1 UL 60950-1 C-Tick CISPR 22 IC CISPR 22 VCCI CISPR 22 RoHS WEEE

Included Accessories	• 2-pin 3.5 mm mini-Phoenix (female) PWR connector (41-0002-SA) • 4-pin 3.5 mm mini-Phoenix (female) AxLink connector (41-5047) • (2) 10-pin 3.5mm mini-Phoenix female RS-232/422/485 connectors (41-5107) • (6) 5-pin 3.5mm mini-Phoenix female RS-232 connectors (41-0336) • (2) 6-pin 3.5 mm mini-Phoenix female I/O connectors (41-5063) • (2) 8-pin 3.5 mm mini-Phoenix female Relay connectors (41-5083) • (2) CC-NIRC IR Emitters • Removable rack ears
Optional Accessories	• PSN6.5, 6.5 A Power Supply (FG423-41) • PSR5.4, 12 VDC, 5.4 A Power Supply with 3.5 mm Phoenix Connector with Retention Screws (FG423-48) • PSN4.4, Power Supply, 4.5 A, 3.5 mm Phoenix, 13.5 VDC (Discontinued) (FG423-45) • CC-USB-NI, USB Programming Cable (FG10-2105) • CC-NIRC, IR Cables (FG10-000-11) • CBL-ETH-FL2, Cat6 Ethernet Cable (FG10-2194-16) • CBL-ETH-FL, Ethernet Cat5e Flat Cable (FG10-2182-16) • EXB-IRS4, ICSLan IR/S Interface, 4 IR/S and 4 Inputs (FG2100-23) • EXB-COM2, ICSLan Serial Interface, 2 Ports (FG2100-22) • EXB-REL8, ICSLan Relay Interface, 8 Channels (FG2100-20) • EXB-I/O8, ICSLan Input/Output Interface, 8 Channels (FG2100-21) • EXB-MP1, ICSLan Multi-Port, 1 COM, 1 IR/S, 2 I/O, 1 IR RX (FG2100-26)

ACTIVE POWER REQUIREMENTS	
Voltage, AC (Typical)	100-240 VAC 50/60 Hz
Voltage, DC (Typical)	12 VDC
DC Current Draw	450 mA @ 12 VDC
Voltage DC Range	9 - 18 VDC
Power Connector	IEC Power Cord Connector 100-240 VAC 3.5mm Phoenix with retaining screws

POWER CONSUMPTION	
Active Power Consumption	8.4 W

PoE	
Output Voltage	55 VDC
Maximum Output Power	Per port, 33 W Total for all ports, 70 W
Note	Supports four IEEE 802.3af PoE devices simultaneously Supports a maximum of two IEEE 802.3at PoE plus devices simultaneously

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)	28.7 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
Power Button	Front panel power button turns off the Controller when pushed and held for more than two seconds

MEMORY	
NVRAM	1
Memory Card	8 GB SD
DDRAM	1 GB
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	(4) RJ-45, 10/100 Port RJ-45 connectors with PoE. 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 Port 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 front and back product photos please visit: http://www.amx.com/products/NX-4200.asp

MT-1002 (FG5969-47) Tabletop Touch Panel

Overview

The MT-1002 / 10.1" Modero G5 Tabletop Touch Panel is a premium user interface that includes the G5 graphics engine and delivers superior performance. Designed specifically for dedicated room control, this elegantly-styled touch panel provides fast and smooth animations and transitions, along with a quad-core processor that provides more than enough processing power to run the most demanding applications today and in the future. The MT-1002 also includes a built-in web browser and document viewers, enabling users to access real-time information during meetings or lectures.

The MT-1002 is built for usability, offering edge-to-edge capacitive touch glass with multi-touch capabilities. The distinctive, low-profile design is engineered to sit perfectly on a table without obstructing views, and comes with a variety of mounting options for added security and convenience.

Common Applications

- The MT-1002 is ideal for boardrooms, conference rooms or auditoriums where a premium control surface is needed to provide access to multiple functions simultaneously while remaining elegantly unobtrusive.

- In Higher Education, the MT-1002 is ideal for lecture halls, auditoriums, performing arts theaters and boardrooms that require extensive control capabilities.

- In residences, it is perfect for main living areas such as kitchens, living rooms, home theaters or home offices where the control surface can be used to manage systems throughout the home.

Features

- **G5 Graphics Engine and Quad Core Processing** – The most powerful processing in the industry delivers smooth gesturing, swiping, dynamic reordering, enhanced animation with transitions all at higher speeds for an experience any user will enjoy.

- **Simplified Enterprise Touch Panel and Firmware Updates** – Deploy and update touch panel files and firmware files from a network URL for simplified company-wide updates.

- **Built-in Web Browser and Content Viewers** – Conveniently simplifies accessing and presenting real-time content and documents during meetings. Simply preview files accessed via the native web browser, USB, or cloud storage apps. Easily update or disable apps using the onboard G5 App Update Manager.

- **Adjustable Security Modes** – With the ability to select from high security or custom modes, administrators can customize the panel's security levels for access, networking and communication.
- **Enhanced User Experience** – Modero Series features intuitive UI functionality including: gesturing, swiping, dynamic reordering and enhanced animation capabilities.
- **View and Select Dynamic Data with Listview Buttons** – Display a listing of entries generated by a dynamic data source (e.g. phonebook contacts, call logs, RSS feed or other real time data sources) enabling the user to scroll or search to make a selection. Demos are available in the UI Resource Center.

Specifications

TOUCH SCREEN DISPLAY	
Display Type	TFT Active Matrix Color LCD
Display Size (WH)	9.9" x 6.7" (252 mm x 170 mm), 12.0" (304 mm) diagonal
Viewable Area (WH)	8.5" x 5.3" (217mm x 136mm), 10.1" (257mm) diagonal
Resolution (WH)	1280x800
Aspect Ratio (WH)	16:9
Brightness	400 cd/m2
Contrast Ratio	700:1
Color Depth	16.7M colors
Illumination	LED
Touch Overlay	Projected capacitive, multi-touch support, 3 simultaneous max
Viewing Angle	Vertical ± 89°, Horizontal ± 89°

MEMORY	
SDRAM	2 GB
Flash	16 GB
Maximum Project Size	12 GB flash, available for apps and touch panel files

COMMUNICATIONS	
Ethernet	10/100 Auto MDI-X port, RJ-45 connector. Supported IP and IP-Based Protocols: UCP, TCP, ICMP, ICSP, IGMP, DHCP, SSH, FTP, DNS, RFB (for VNC), HTTP
USB	USB host 2.0, Type A ports (1 with limited physical access requiring right angle connection): Firmware upgrade, touch panel file transfer, document and image viewing, HID peripherals
Bluetooth	Mouse/Keyboard: HID Profile v1.1 (requires external USB-BT adapter)

VIDEO	
Supported Video Codecs	MPEG-2-TS: MPEG-2 Main Profile @High Level up to 720p at 25 fps (decode only) MPEG-2-TS: H.264 High Profile @Layer 4, AAC-LC up to 720p at 25 fps (encode/decode) MJPEG up to 720p at 25 fps (decode only)
Supported Video Transport Streams	MPEG-TS for MPEG-2 and H.264; HTTP for MJPEG
Max Number of Active Video Streams	Two decode plus one encode

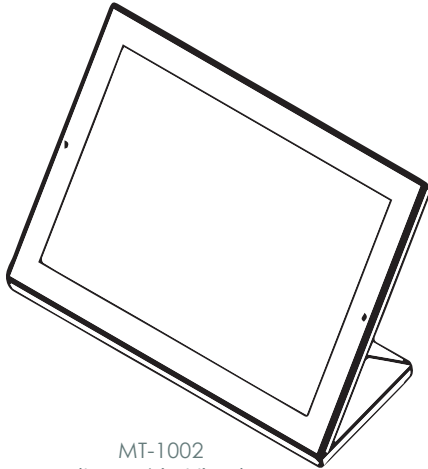| AUDIO	
Speakers	4 ohm, 2 Watt, 300 Hz cutoff frequency
Supported Audio Codecs	MP2 Layer I and II, MP3 (8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz) AAC-LC (8 kHz, 96 kHz) G.711 with µLaw (VoIP encode/decode at 8kHz)
File Formats	WAV, MP3 (as part of touch panel file only - no USB storage)

GRAPHICS ENGINE	
AMX G5	G5 enhanced feature set supporting multi-touch and gestures, scrolling, transitions, applications - See TPD5 Operations Guide for more information

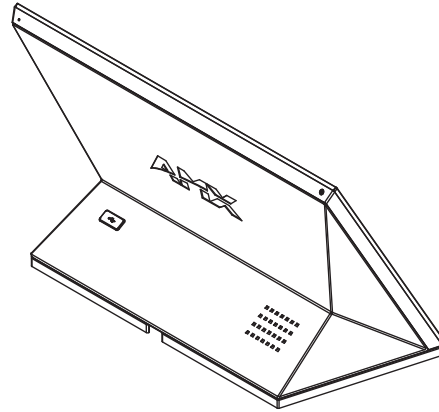| EMBEDDED APPLICATIONS	
Viewer Applications	PDF, JPEG, BMP, PNG, TIFF, GIF, PowerPoint, .doc, .docx, .xls, .xlsx, .ppt, .pptx
Remote Management	VNC Server
Video Conferencing	Skype

CONNECTIONS	
Ethernet	10/100 Auto MDI-X port, RJ-45 connector through cable extension
USB	(1) USB host 2.0, Type A ports
Power	PoE (Power over Ethernet), 802.3af, class 3

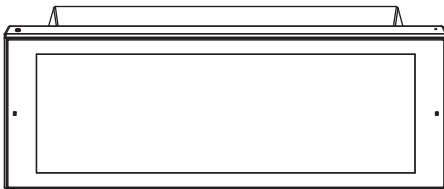| ENVIRONMENTAL	
Temperature (Operating)	32° F to 104° F (0° C to 40° C)
Temperature (Storage)	4° F to 140° F (-20° C to 60° C)
Humidity (Operating)	20% to 85% RH
Humidity (Storage)	5% to 85% RH
Power ("Heat") Dissipation	On: 44.2 BTU/hr Standby: 19.8 BTU/hr

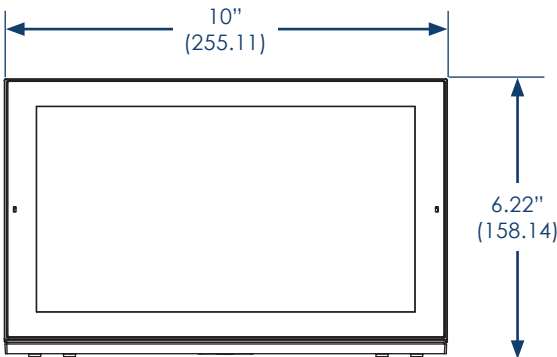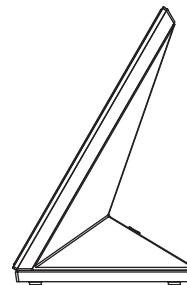| GENERAL	
Dimensions (HWD)	6.3" x 10" x 3.81" (160mm x 255mm x 97mm)
Weight	3.1 lbs (1.41 Kg)
Power Consumption	Full-On: 12.95 W maximum Standby: 5.8 W Shutdown: 1 W
Start-Up Inrush Current	Not applicable due to PoE standard
External Power Supply Required	Optimal performance requires use of one of the following AMX PoE power supplies (not included): • PS-POE-AF-TC, PoE Injector, 802.3AF Compliant (FG423-83) • NXA-ENET8-POE+, Gigabit PoE Ethernet Switch (FG2178-64)
Regulatory Compliance	UL 60950-1 FCC Part 15 Class B C-Tick CISPR 22 Class B CE EN 55022 Class B and EN 55024 CB Scheme IEC 60950-1 IC IEC/EN-60950 RoHS/WEEE compliant
Included Accessories	• MXA-USB-C, USB Port Cover Kit, Modero X/S Series Touch Panel (FG5968-18) • HPG-10, 3/4" Mini-Grommet (FG570-01) • MXA-CLK, Modero X/S Series Cleaning Kit (FG5968-16)
Optional Accessories	MOUNT • MSA-STMK-10, Secure Table Mount Kit, for Modero 10" Tabletop Touch Panel (FG2265-16) VIDEO • MXA-MPL, Modero X/S Series Multi Preview Live (FG5968-10)

For more detailed pictorial drawings please visit: https://www.amx.com/en-US/products/mt-1002

MT-1002
(Isometric View)

MT-1002
(Isometric View)

MT-1002
(Top View)

10"
(255.11)

6.22"
(158.14)

MT-1002
(Front View)

MT-1002
(Right View)

4.11" (104.38)

TEXT
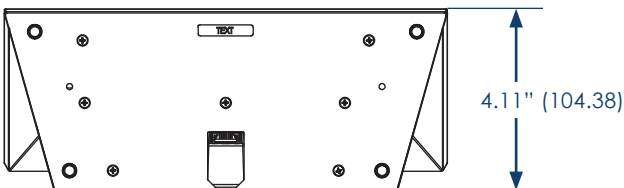
MT-1002
(Bottom View)

MT-2002 (FG5969-35) Panoramic Tabletop Touch Panel

Overview

The MT-2002 / 20.3" Modero G5 Tabletop Touch Panel is a premium user interface that includes the G5 graphics engine and delivers superior performance. Designed specifically for dedicated room control, this elegantly-styled touch panel provides fast and smooth animations and transitions, along with a quad-core processor that provides more than enough processing power to run the most demanding applications today and in the future. The MT-2002 also includes a built-in web browser and document viewers, enabling users to access real-time information during meetings or lectures.

The Modero G5 Touch Panels provide several industry firsts including a beautiful, panoramic capacitive multi-touch screen that provides users access to multiple applications with minimal navigation. The distinctive, low-profile design is engineered to sit perfectly on a table without obstructing views, and comes with a variety of mounting options for added security and convenience.

Common Applications

- The MT-2002 is ideal for boardrooms, conference rooms or auditoriums where a panoramic control surface is needed to provide access to multiple functions simultaneously while remaining elegantly unobtrusive.

- In Higher Education, the MT-2002 is ideal for lecture halls, auditoriums, performing arts theaters and boardrooms that require extensive control capabilities.

- In residences, it is perfect for main living areas such as kitchens, living rooms, home theaters or home offices where the control surface can be used to manage systems throughout the home.

Features

- **G5 Graphics Engine and Quad Core Processing** – The most powerful processing in the industry delivers smooth gesturing, swiping, dynamic reordering, and enhanced animation with transitions all at higher speeds for an experience any user will enjoy.

- **Simplified Enterprise Touch Panel and Firmware Updates** – Deploy and update touch panel files and firmware files from a network URL for simplified company-wide updates.

- **Built-in Web Browser and Content Viewers** – Conveniently simplifies accessing and presenting real-time content and documents during meetings. Simply preview files accessed via the native web browser, USB, or cloud storage apps. Easily update or disable apps using the onboard G5 App Update Manager.

- **Multitasking with the Panoramic Control Surface** – The panoramic aspect ratio of the Modero X G5 touch panels provides dedicated space to perform multiple activities at once.
- **Adjustable Security Modes** – With the ability to select from high security or custom modes, administrators can customize the panel's security levels for access, networking and communication.
- **View and Select Dynamic Data with Listview Buttons** – Display a listing of entries generated by a dynamic data source (e.g. phonebook contacts, call logs, RSS feed or other real time data sources) enabling the user to scroll or search to make a selection. Demos are available in the UI Resource Center.

Specifications

TOUCH SCREEN DISPLAY	
Display Type	TFT Active Matrix Color LCD
Display Size (WH)	19.52" x 9.52" (496mm x 217mm), 21.29" (541 mm) diagonal
Viewable Area (WH)	18.7" x 7.8" (475 mm x 198 mm), 20.3" (514 mm) diagonal
Resolution (WH)	1920x800
Aspect Ratio (WH)	12:5
Brightness	250 cd/m2
Contrast Ratio	1000:1
Color Depth	16.7M colors
Illumination	LED
Touch Overlay	Projected capacitive, multi-touch support, 3 simultaneous max
Viewing Angle	Vertical ± 89°, Horizontal ± 89°

MEMORY	
SDRAM	2 GB
Flash	16 GB
Maximum Project Size	12 GB flash, available for apps and touch panel files

COMMUNICATIONS	
Ethernet	10/100 Auto MDI-X port, RJ-45 connector. Supported IP and IP-based protocols: UCP, TCP, ICMP, ICSP, IGMP, DHCP, SSH, FTP, DNS, RFB (for VNC), HTTP
USB	(3) USB host 2.0, Type A ports: Firmware upgrade, touch panel file transfer, document and image viewing, HID peripherals
Bluetooth	Mouse/Keyboard: HID Profile v1.1 (requires external USB-BT adapter)

VIDEO	
Supported Video Codecs	MPEG-2-TS: MPEG-2 Main Profile @High Level up to 720p at 25 fps (decode only) MPEG-2-TS: H.264 High Profile @Layer 4, AAC-LC up to 720p at 25 fps (encode/decode) MJPEG up to 720p at 25 fps (decode only)
Supported Video Transport Streams	MPEG-TS for MPEG-2 and H.264; HTTP for MJPEG
Max Number of Active Video Streams	Two decode plus one encode

AUDIO	
Speakers	4 ohm, 2 Watt, 300Hz cutoff frequency
Supported Audio Codecs	MP2 Layer I and II, MP3 (8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz) AAC-LC (8 kHz, 96 kHz) G.711 with µLaw (VoIP encode/decode at 8 kHz)
File Formats	WAV, MP3 (as part of touch panel file only - no USB storage)

GRAPHICS ENGINE	
AMX G5	G5 enhanced feature set supporting multi-touch and gestures, scrolling, transitions, applications - See TPD5 Operations Guide for more information

EMBEDDED APPLICATIONS	
Viewer Applications	PDF, JPEG, BMP, PNG, TIFF, GIF, PowerPoint, .doc, .docx, .xls, .xlsx, .ppt, .pptx
Remote Management	VNC Server

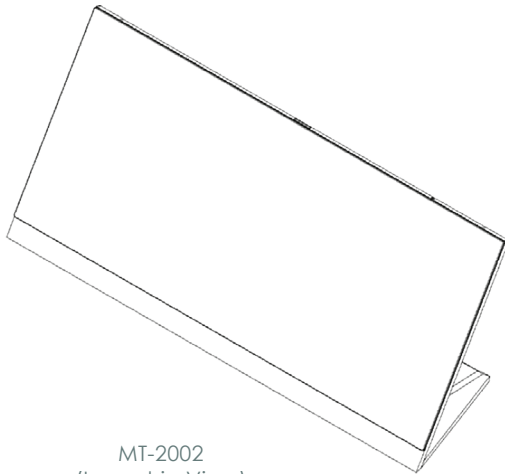| FRONT PANEL COMPONENTS	
Light Sensor	Photosensitive light detector for automatic adjustment of the panel brightness
Proximity Detector	Max range = ~3', typ range = ~1', FOV = ~10 degrees
Sleep Button	Sleep button to activate sleep mode and power-ing off. Also provides access to setup pages (can be disabled)

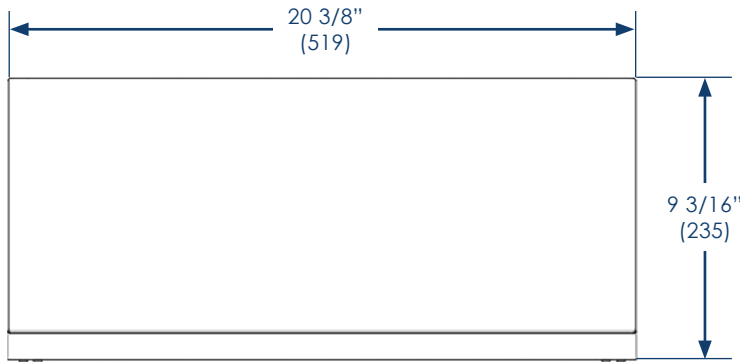| CONNECTIONS	
Ethernet	10/100 Auto MDI-X port, RJ-45 connector
USB	(3) USB host 2.0, Type A ports (1) Micro-USB device port (currently not in use)
Power	2-pin, locking 3.5mm Phoenix connector

ENVIRONMENTAL	
Temperature (Operating)	32° F to 104° F (0° C to 40° C)
Temperature (Storage)	4° F to 140° F (-20° C to 60° C)
Humidity (Operating)	20% to 85% RH
Humidity (Storage)	5% to 85% RH
Power ("Heat") Dissipation	On: 119.4 BTU/hr Standby: 23.9 BTU/hr

GENERAL

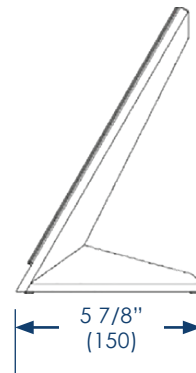|	
Dimensions (HWD)	9 3/16" x 20 3/8" x 5 7/8" (235 mm x 519 mm x 150 mm)
Weight	12.3 lbs (5.58 Kg)
Power Consumption	Full-On: 35 W (13.5 VDC, 2.9 A) Standby: 7 W (13.5 VDC, 0.6 A)
Start-Up Inrush Current	Not applicable due to PoE standard
External Power Supply Required	Requires one of these AMX power sources (not included): • PSR5.4, 12 VDC, 5.4 A Power Supply with 3.5 mm Phoenix Connector with Retention Screws (FG423-48) • MXA-MPL Modero X/S Series Multi Preview Live (FG5968-10)
Regulatory Compliance	FCC Part 15 Class B C-Tick CISPR 22 Class B CE EN 55022 Class B and EN 55024 CB Scheme IEC 60950-1 IC IEC/EN-60950 UL 60950-1 RoHS/WEEE compliant
Included Accessories	• Locking 2-pin Phoenix mate (41-0002-SA) • MXA-USB-C, USB Port Cover Kit, Modero X/S Series Touch Panel (FG5968-18) • HPG-10, 3/4" Mini-Grommet (FG570-01) • MXA-CLK, Modero X/S Series Cleaning Kit (FG5968-16)
Optional Accessories	MOUNT • MXA-STMK-20, Secure Table Mount Kit, for Modero 20" Tabletop Touch Panel (FG5968-64) VIDEO • MXA-MPL, Modero X/S Series Multi Preview Live (FG5968-10)

MT-2002
(Isometric View)

20 3/8"
(519)

9 3/16"
(235)

MT-2002
(Front View)

5 7/8"
(150)

MT-2002
(Right View)